

Door Height	Section Quantity	Strut Quantity	Track Brackets Per Side	Angle Clips Per Side
7'-0" to 8'-0"	4	8	4	4
8'-9" to 10'-0"	5	10	5	5
10'-6" to 12'-0"	6	12	6	6
12'-3" to 14'-0"	7	14	7	7
14'-3" to 16'-0"	8	16	8	8
16'-3" to 18'-0"	9	18	9	9
18'-3" to 20'-0"	10	20	10	10
20'-3" to 22'-0"	11	22	11	11
22'-3" to 24'-0"	12	24	12	12

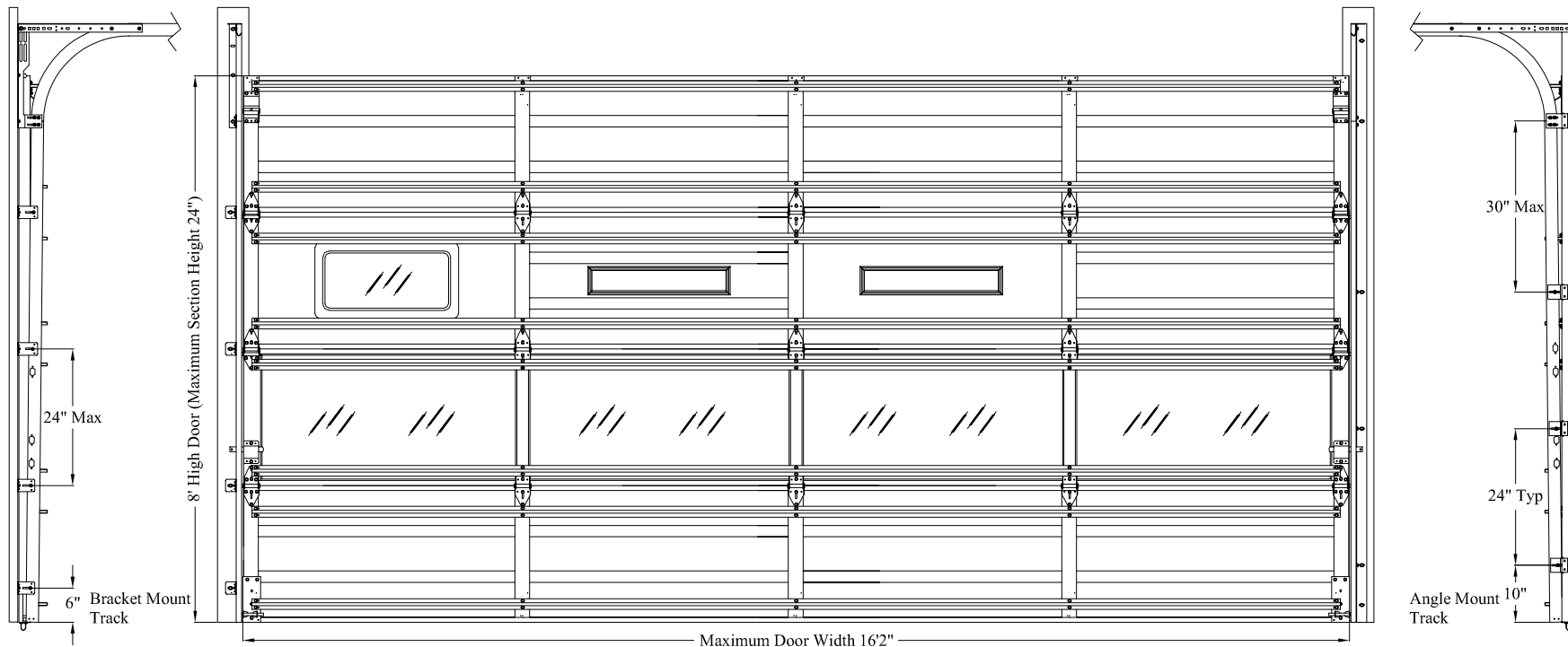
Note: Maximum door height is 24'. Detail views shown on Sheets 2-3. Consult Sheet 4 for Strut and Section Location Chart.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED


John E. Scates, PE
 2560 King Arthur Blvd. Ste 124-54
 Lewisville, TX 75056
 FL PE 51737
 TX PE 56308 / F-2203

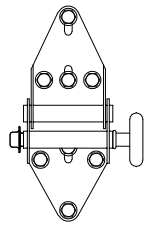
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Model Numbers Available
4500 Series
4400 Series



- NOTE:**
1. This product has been evaluated per ANSI/DASMA 108 and ASTM E330.
 2. This product complies with the requirements of the 2018 IBC/IRC.
 3. Doors with glazing not qualified for use in windborne debris regions.
 4. This drawing provides windload assembly details for the claimed size and pressures.

Max Size: 16'2" x 24' Design Pressure: +18.7/-20.4	 5700 NW 39th Street Riverside, MO 64150	DESCRIPTION: Wind Load Rated Commercial Pan Sectional Garage Door 16'2" Wide 4500 and 4400 Series Doors	
		DRAWING NUMBER: CO16A_18.7_20.4	REV: 00
DRAWN BY: DMK	DATE DRAWN: 7/11/22	REV DATE: 7/11/22	
SIZE: ANSI A	SCALE: NTS	SHEET: 1 of 4	

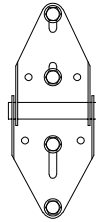


End Hinge

14 gauge galvanized steel end hinges attached with four 1/4" x 3/4" screws and four 1/4" x 5/8" self tapping screws each.

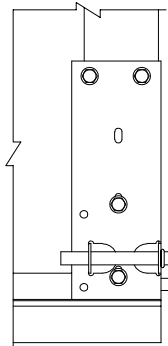
Roller

Minimum nylon roller or 10 ball steel roller with 4" stem and push nuts on all hinge rollers.



Center Hinge

14 gauge galvanized steel wide body hinge attached with four 1/4" x 3/4" screws.



End and Center Stiles

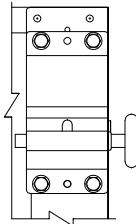
18 gauge galvanized steel stiles attached to section with two rivets on each end.

Bottom Bracket

13 gauge galvanized steel bottom bracket attached with four 1/4" x 5/8" self-tapping screws (push nut not required on roller).

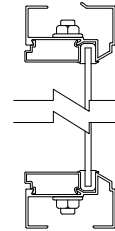
Bottom Weatherstrip

Aluminum extrusion with vinyl insert.



Top Fixture

12 gauge galvanized steel top fixtures attached to door with four 1/4" x 5/8" self-tapping screws each (push nut not required on roller).

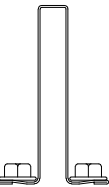


Full Vision Section (optional)

Section made up of .050" min wall extruded aluminum rails and .062" wall extruded aluminum stiles and assembled with 5/16" all-thread.

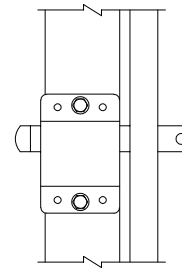
1/8" DSB annealed glass, 1/8" DSB tempered Glass, 1/4" annealed glass, 1/4" tempered glass, or 1/2" insulated glass comprised of (2) annealed DSB glass or (2) tempered DSB glass is held in place on all four sides with gasket and snap in aluminum clip.

Section shall be reinforced similar to the standard sections per location within the door with the strut(s) located over the hinges for strength and concealment.



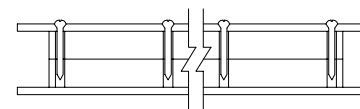
Struts

3" x 1 7/8" 20 gauge 80 ksi hat strut attached with two 1/4" x 5/8" self-tapping screws per stile (minimum length is door width minus 3").



Locking Mechanism


Door requires (2) locking device(s) installed (inside slide lock shown, other lock types permitted) that engage both vertical tracks.

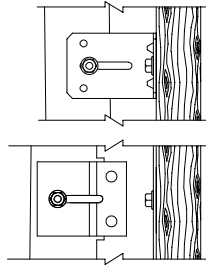


Windows (optional)

Windows available in sizes listed below. Frames are molded plastic.

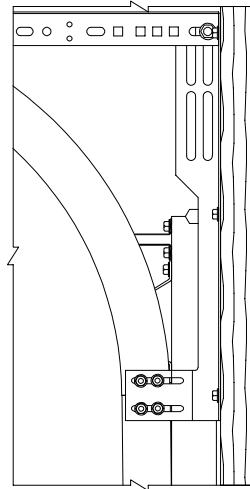
Frame	Max Daylight Opening	Fastener Pattern	Glazing Types
24x6	23-1/2" x 3-1/2"	#8-3/4" (10) total, (3) along each horizontal edge & (2) along each vertical edge	0.100" Polycarbonate
24x12	21-3/4" x 9-3/4"	#8-2" (16) total, (5) along each horizontal edge & (3) along each vertical edge	1/2" IG Consisting of (2) Pieces of 1/8" DSB Annealed or Tempered Glass With 1/4" Spacer

<p>Max Size: 16'2" x 24'</p> <p>Design Pressure: +18.7/-20.4</p>	 <p>5700 NW 39th Street Riverside, MO 64150</p>	<p>DESCRIPTION: Wind Load Rated Commercial Pan Sectional Garage Door 16'2" Wide 4500 and 4400 Series Doors</p>			
		<p>DRAWING NUMBER: CO16A_18.7_20.4</p>		<p>REV: 00</p>	
		<p>DRAWN BY: DMK</p>	<p>DATE DRAWN: 7/11/22</p>	<p>REV DATE: 7/11/22</p>	
		<p>SIZE: ANSI A</p>	<p>SCALE: NTS</p>	<p>SHEET: 2 of 4</p>	



Track Clips and Brackets

2 1/4" wide x 12 gauge galvanized steel track bracket attached to vertical track with one 1/4" x 3/4" track bolt and nut. 2 1/2" x 12 gauge galvanized steel track clip riveted to vertical angle and attached to vertical track with one 1/4" x 3/4" track bolt and nut.



Bracket Mount Track

Flag Bracket

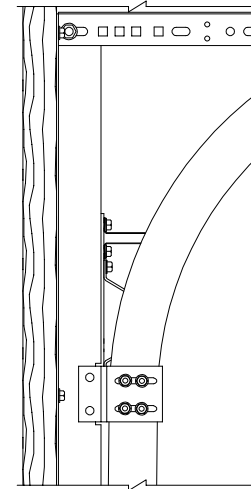
12 gauge galvanized steel flag bracket attached to jamb with three appropriate fasteners according to the jamb material and to the horizontal and vertical tracks with two 1/4" x 3/4" track bolts and nuts each.

Horizontal Track and Angle

Horizontal track and angle to suit with suitable back hang. Standard lift is shown, vertical lift and high lift are acceptable.

Vertical Track

2" galvanized steel track with a minimum thickness of .056" or 3" galvanized steel track with a minimum thickness of .096".



Angle Mount Track

Vertical Angle

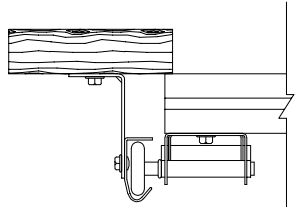
12 gauge galvanized steel angle attached to jamb with appropriate fasteners according to the jamb material at each track clip location as well as one 3" down from the top of the angle and one 3" up from the floor.

Horizontal Track and Angle

Horizontal track and angle to suit with suitable back hang. Standard lift is shown, vertical lift and high lift are acceptable.

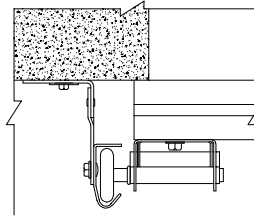
Vertical Track

2" galvanized steel track with a minimum thickness of .056" or 3" galvanized steel track with a minimum thickness of .096".



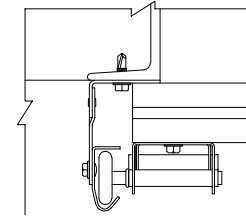
Wood Jams

Vertical jams are to be 2x6 Southern Yellow Pine (SYP) or better. Bracket or angle mounted track attached to jamb with 5/16" x 1 5/8" wood lag screws. Minimum jamb overlap is 1/2".



Concrete Jams


Vertical jams are to be 2500 psi minimum concrete with bracket or angle mounted track secured to jamb with minimum 1/4" diameter Tapcon+ (PLUS) fasteners and 1" O.D. washers and minimum embedment of 2". The minimum edge distance required is 2 1/2" and the minimum jamb overlap is 1/2".



Steel Jams

Vertical jams are to be 3/16" minimum steel (may be back-filled with concrete but not required) with angle mounted track secured to jamb with minimum 5/16" Tek Self-Drilling screws. Minimum jamb overlap is 1/2".

Note: Preparation of jams by others. Supporting structural elements must be capable of withstanding the rated windload. Refer to DASMA TDS 161 or a licensed design professional for additional jamb configurations.

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		<p>DRAWING NUMBER: CO16A_18.7_20.4</p>	<p>REV: 00</p>	
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<p>SIZE: ANSI A</p>		<p>SCALE: NTS</p>	<p>SHEET: 3 of 4</p>	

Strut and Sections Location Chart

Door Height	Section Heights	Strut Locations														Track Bkts/Clips										
7 - 0	21 21 21 21	3	16.5	25.5	37.5	46.5	58.5	67.5	82							4/3										
7 - 3	24 21 21 21	3	19.5	28.5	40.5	49.5	61.5	70.5	85							4/3										
7 - 6	24 24 21 21	3	19.5	28.5	43.5	52.5	64.5	73.5	88							4/3										
7 - 9	24 24 24 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91							4/3										
8 - 0	24 24 24 24	3	19.5	28.5	43.5	52.5	67.5	76.5	94							4/3										
8 - 9	21 21 21 21 21	3	16.5	25.5	37.5	46.5	58.5	67.5	79.5	88.5	103				5/4											
9 - 0	24 21 21 21 21	3	19.5	28.5	40.5	49.5	61.5	70.5	82.5	91.5	106				5/4											
9 - 3	24 24 21 21 21	3	19.5	28.5	43.5	52.5	64.5	73.5	85.5	94.5	109				5/4											
9 - 6	24 24 24 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	88.5	97.5	112				5/4											
9 - 9	24 24 24 24 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115				5/4											
10 - 0	24 24 24 24 24	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	118				5/4											
10 - 6	21 21 21 21 21 21	3	16.5	25.5	37.5	46.5	58.5	67.5	79.5	88.5	100.5	109.5	124		6/5											
10 - 9	24 21 21 21 21 21	3	19.5	28.5	40.5	49.5	61.5	70.5	82.5	91.5	103.5	112.5	127		6/5											
11 - 0	24 24 21 21 21 21	3	19.5	28.5	43.5	52.5	64.5	73.5	85.5	94.5	106.5	115.5	130		6/5											
11 - 3	24 24 24 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	88.5	97.5	109.5	118.5	133		6/5											
11 - 6	24 24 24 24 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	112.5	121.5	136		6/5											
11 - 9	24 24 24 24 24 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139		6/5											
12 - 0	24 24 24 24 24 24	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	142		6/5											
12 - 3	21 21 21 21 21 21 21	3	16.5	25.5	37.5	46.5	58.5	67.5	79.5	88.5	100.5	109.5	121.5	130.5	145	7/6										
12 - 6	24 21 21 21 21 21 21	3	19.5	28.5	40.5	49.5	61.5	70.5	82.5	91.5	103.5	112.5	124.5	133.5	148	7/6										
12 - 9	24 24 21 21 21 21 21	3	19.5	28.5	43.5	52.5	64.5	73.5	85.5	94.5	106.5	115.5	127.5	136.5	151	7/6										
13 - 0	24 24 24 21 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	88.5	97.5	109.5	118.5	130.5	139.5	154	7/6										
13 - 3	24 24 24 24 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	112.5	121.5	133.5	142.5	157	7/6										
13 - 6	24 24 24 24 24 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	136.5	145.5	160	7/6										
13 - 9	24 24 24 24 24 24 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	163	7/6										
14 - 0	24 24 24 24 24 24 24	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	166	7/6										
14 - 3	24 21 21 21 21 21 21 21	3	19.5	28.5	40.5	49.5	61.5	70.5	82.5	91.5	103.5	112.5	124.5	133.5	145.5	154.5	169	8/7								
14 - 6	24 24 21 21 21 21 21 21	3	19.5	28.5	43.5	52.5	64.5	73.5	85.5	94.5	106.5	115.5	127.5	136.5	148.5	157.5	172	8/7								
14 - 9	24 24 24 21 21 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	88.5	97.5	109.5	118.5	130.5	139.5	151.5	160.5	175	8/7								
15 - 0	24 24 24 24 21 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	112.5	121.5	133.5	142.5	154.5	163.5	178	8/7								
15 - 3	24 24 24 24 24 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	136.5	145.5	157.5	166.5	181	8/7								
15 - 6	24 24 24 24 24 24 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	160.5	169.5	184	8/7								
15 - 9	24 24 24 24 24 24 24 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	163.5	172.5	187	8/7								
16 - 0	24 24 24 24 24 24 24 24	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	163.5	172.5	190	8/7								
16 - 3	24 24 21 21 21 21 21 21 21	3	19.5	28.5	43.5	52.5	64.5	73.5	85.5	94.5	106.5	115.5	127.5	136.5	148.5	157.5	169.5	178.5	193	9/8						
16 - 6	24 24 24 21 21 21 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	88.5	97.5	109.5	118.5	130.5	139.5	151.5	160.5	172.5	181.5	196	9/8						
16 - 9	24 24 24 24 21 21 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	112.5	121.5	133.5	142.5	154.5	163.5	175.5	184.5	199	9/8						
17 - 0	24 24 24 24 24 21 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	136.5	145.5	157.5	166.5	178.5	187.5	202	9/8						
17 - 3	24 24 24 24 24 24 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	160.5	169.5	181.5	190.5	205	9/8						
17 - 6	24 24 24 24 24 24 24 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	163.5	172.5	184.5	193.5	208	9/8						
17 - 9	24 24 24 24 24 24 24 24 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	163.5	172.5	187.5	196.5	211	9/8						
18 - 0	24 24 24 24 24 24 24 24 24	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	163.5	172.5	187.5	196.5	214	9/8						
18 - 3	24 24 24 21 21 21 21 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	88.5	97.5	109.5	118.5	130.5	139.5	151.5	160.5	172.5	181.5	193.5	202.5	219	10/9				
18 - 6	24 24 24 24 21 21 21 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	112.5	121.5	133.5	142.5	154.5	163.5	175.5	184.5	196.5	205.5	222	10/9				
18 - 9	24 24 24 24 24 21 21 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	136.5	145.5	157.5	166.5	178.5	187.5	199.5	208.5	225	10/9				
19 - 0	24 24 24 24 24 24 21 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	160.5	169.5	181.5	190.5	202.5	211.5	228	10/9				
19 - 3	24 24 24 24 24 24 24 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	163.5	172.5	184.5	193.5	205.5	214.5	231	10/9				
19 - 6	24 24 24 24 24 24 24 24 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	163.5	172.5	187.5	196.5	208.5	217.5	234	10/9				
19 - 9	24 24 24 24 24 24 24 24 24 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	163.5	172.5	187.5	196.5	211.5	220.5	237	10/9				
20 - 0	24 24 24 24 24 24 24 24 24 24	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	163.5	172.5	187.5	196.5	211.5	220.5	240	10/9				
20 - 3	24 24 24 24 21 21 21 21 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	112.5	121.5	133.5	142.5	154.5	163.5	175.5	184.5	196.5	205.5	217.5	226.5	241	11/10		
20 - 6	24 24 24 24 24 21 21 21 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	136.5	145.5	157.5	166.5	178.5	187.5	199.5	208.5	220.5	229.5	244	11/10		
20 - 9	24 24 24 24 24 24 21 21 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	160.5	169.5	181.5	190.5	202.5	211.5	223.5	232.5	247	11/10		
21 - 0	24 24 24 24 24 24 24 21 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	163.5	172.5	184.5	193.5	205.5	214.5	226.5	235.5	250	11/10		
21 - 3	24 24 24 24 24 24 24 24 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	163.5	172.5	187.5	196.5	208.5	217.5	229.5	238.5	253	11/10		
21 - 6	24 24 24 24 24 24 24 24 24 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	163.5	172.5	187.5	196.5	211.5	220.5	232.5	241.5	256	11/10		
21 - 9	24 24 24 24 24 24 24 24 24 24 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	163.5	172.5	187.5	196.5	211.5	220.5	235.5	244.5	259	11/10		
22 - 0	24 24 24 24 24 24 24 24 24 24 24	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	163.5	172.5	187.5	196.5	211.5	220.5	235.5	244.5	262	11/10		
22 - 3	24 24 24 24 24 21 21 21 21 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	136.5	145.5	157.5	166.5	178.5	187.5	199.5	208.5	220.5	229.5	241.5	250.5	265	12/11
22 - 6	24 24 24 24 24 24 21 21 21 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	160.5	169.5	181.5	190.5	202.5	211.5	223.5	232.5	244.5	253.5	268	12/11
22 - 9	24 24 24 24 24 24 24 21 21 21 21 21	3	19.5	28.5	43.5	52.5	67.5	76.5	91.5	100.5	115.5	124.5	139.5	148.5	163.5	172.5	184.5	193.5	205.5	214.5	226.5	235.5	247.5	256.5	271	12/11
23 - 0	24 24 24 24 24 2																									