

Recommended Tools:

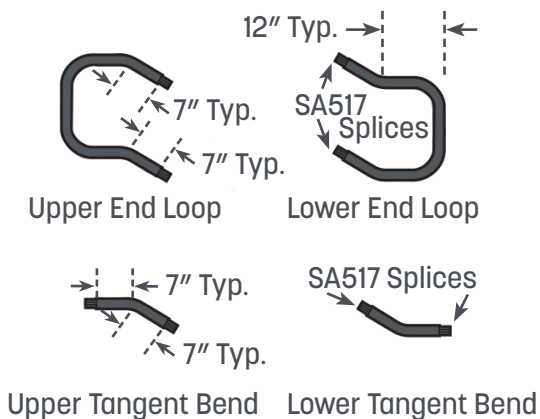
- Tape Measure
- Chalk Line
- Level
- 3/16" Allen Wrench
- 3/8" Ratchet
- Drill with #3 and 3/8" Drill Bits
- Clear Plastic/Urethane Hammer

This component system, easily assembled on-site, meet all ADA guidelines for structural strength and usability. An ADA #85 bracket can be rotated to any angle for stairs or ramps. Smooth, continuous top rail with required grip diameter has no sharp edges or projections. Stainless steel and anodized aluminum provides long term low maintenance. Wagner's ADA systems can be easily updated or renovated.

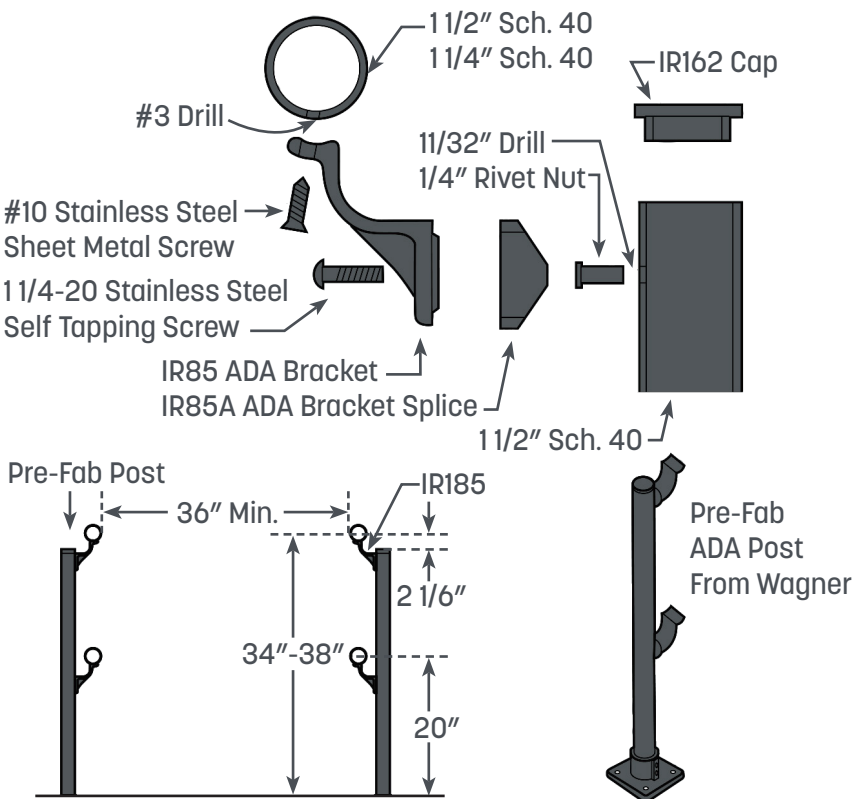
Getting Familiar with Wagner's ADA Railing Systems

Getting familiar with the parts that you will be working with is very important. It will help you understand how each piece works together to become a standard section of ADA handrail. ADA posts purchased from Wagner will come preassembled, so less assembly is required. Shown here are the pieces that make up a standard ADA post.

Wagner ADA Railing



Parts for ADA Post



ADA Railing Systems

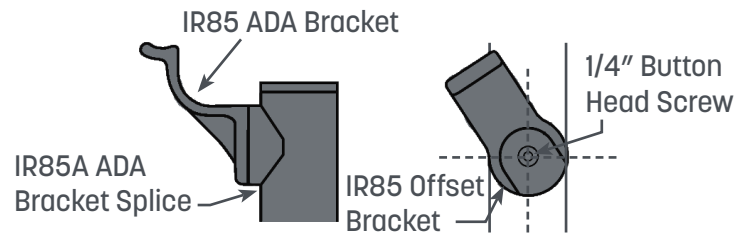
Installation Instructions Cont.

How to Layout ADA Railing

- Review any project drawings noting the locations of railing ends and corners as well as any other critical post locations. Unless noted to the contrary, the dimensions on the drawings are to the centerline of the rail and posts.
- Snap chalk line as needed to determine the centerline of the railing.
- Locate and mark center of an end post or corner post to mark the start of the railing installation.

How to Install ADA Railing

1. Place each pre-assembled ADA post into position and secure into place.
2. To determine each of the angles of your ramps and/or your walking surfaces, refer to the Handrail Angle Chart below.
3. Adjust the IR85 ADA Brackets that are attached to the posts, to the degree that was found in the Handrail Angle Chart.
4. Tighten the IR85 ADA Brackets to the correct degree



Handrail Angle Chart

Rise in Inches	Run in Inches																		
	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
1.0	9.5°	8.7°	8.1°	7.6°	7.1°	6.7°	6.3°	6.0°	5.7°	5.4°	5.2°	5.0°	4.8°	4.6°	4.4°	4.2°	4.1°	3.9°	3.8°
1.5	14.0°	13.0°	12.1°	11.3°	10.6°	10.0°	9.5°	9.0°	8.5°	8.1°	7.8°	7.4°	7.1°	6.8°	6.6°	6.3°	6.1°	5.9°	5.7°
2.0	18.4°	17.1°	15.9°	14.9°	14.0°	13.2°	12.5°	11.9°	11.3°	10.8°	10.3°	9.9°	9.5°	9.1°	8.7°	8.4°	8.1°	7.9°	7.6°
2.5	22.6°	21.0°	19.7°	18.4°	17.4°	16.4°	15.5°	14.7°	14.0°	13.4°	12.8°	12.6°	11.8°	11.3°	10.9°	10.5°	10.1°	9.8°	9.5°
3.0	26.6°	24.8°	23.2°	21.8°	20.6°	19.4°	18.4°	17.5°	16.7°	15.9°	15.3°	14.6°	14.0°	13.5°	13.0°	12.5°	12.1°	11.7°	11.3°
3.5	30.3°	28.3°	26.6°	25.0°	23.6°	22.4°	21.3°	20.2°	19.3°	18.4°	17.7°	16.9°	16.3°	15.6°	15.1°	14.5°	14.0°	13.6°	13.1°
4.0	33.7°	31.6°	29.7°	28.1°	26.6°	25.2°	24.0°	22.8°	21.8°	20.9°	20.0°	19.2°	18.4°	17.7°	17.1°	16.5°	15.9°	15.4°	14.9°
4.5	36.9°	34.7°	32.7°	31.0°	29.4°	27.9°	26.6°	25.3°	24.2°	23.2°	22.2°	21.4°	20.6°	19.8°	19.1°	18.4°	17.8°	17.2°	16.7°
5.0	39.8°	37.6°	35.5°	33.7°	32.0°	30.5°	29.1°	27.8°	26.6°	25.5°	24.4°	23.5°	22.6°	21.7°	21.0°	20.3°	19.7°	19.0°	18.8°
5.5	42.5°	40.2°	38.1°	36.3°	34.5°	31.9°	31.4°	30.1°	28.8°	27.6°	26.6°	25.6°	24.6°	23.7°	22.9°	22.2°	21.4°	20.8°	20.1°
6.0	45.0°	42.7°	40.6°	38.7°	36.9°	35.2°	33.7°	32.3°	31.0°	29.7°	28.6°	27.6°	26.6°	25.6°	24.8°	24.1°	23.2°	22.5°	21.8°
6.5	47.3°	45.0°	42.9°	40.9°	39.1°	37.4°	35.8°	34.4°	33.0°	31.8°	30.6°	29.5°	28.4°	27.5°	26.6°	25.7°	24.9°	24.1°	23.4°
7.0	49.4°	47.1°	45.0°	43.0°	41.2°	39.5°	37.9°	36.4°	35.0°	33.7°	32.5°	31.3°	30.3°	29.2°	28.3°	27.4°	26.6°	25.8°	25.0°
7.5	51.3°	49.1°	47.0°	45.0°	43.2°	41.4°	39.8°	38.3°	36.9°	35.5°	34.3°	33.1°	32.0°	31.0°	30.0°	29.1°	28.2°	27.3°	26.6°
8.0	53.1°	50.9°	48.8°	46.8°	45.0°	43.3°	41.6°	40.1°	38.7°	37.3°	36.0°	34.8°	33.7°	32.6°	31.6°	30.7°	29.7°	28.9°	28.1°
8.5	54.8°	52.6°	50.5°	48.6°	46.7°	45.0°	43.4°	41.8°	40.4°	39.0°	37.7°	36.5°	35.3°	34.2°	33.2°	32.2°	31.3°	30.4°	29.5°
9.0	56.3°	54.2°	52.1°	50.2°	48.4°	43.6°	45.0°	43.5°	42.0°	40.6°	39.3°	38.0°	36.9°	35.8°	34.7°	33.7°	32.7°	31.8°	31.0°
9.5	57.7°	55.6°	53.6°	51.7°	49.9°	48.2°	46.5°	45.0°	43.5°	42.1°	40.8°	39.6°	38.4°	37.2°	36.2°	35.1°	34.2°	33.2°	32.3°
10.0	59.0°	57.0°	55.0°	53.1°	51.3°	49.6°	48.0°	46.5°	45.0°	43.6°	42.3°	41.0°	39.8°	38.7°	37.6°	36.5°	35.5°	34.6°	33.7°

ANGLE CALCULATED IN DEGREES

ADA Railing Systems

Installation Instructions Cont.

How to Install ADA Railing Cont.

5. Begin measuring your handrail cuts at a common corner.
 6. To cut the handrailing to the appropriate lengths, dimensions from each section of the ramp need to be determined. Follow the equations below to determine cut lengths. Note: both the top rail and midrail will be cut to the same lengths. Continue to cut hand railing for each individual area, by measuring each surface area section
- Note: Handrail may need to be modied in the field for any minor adjustments to cut lengths.*

A = Linear dimension of the selected area.

B = Edge of concrete to the centerline of the post.

C = Centerline of the post to the centerline of the handrail.

D = Centerline of the handrail to the end of the fitting.

E = 7" Cutback for tangent bends
(standard, unless specified).

F = Cut length for this section.

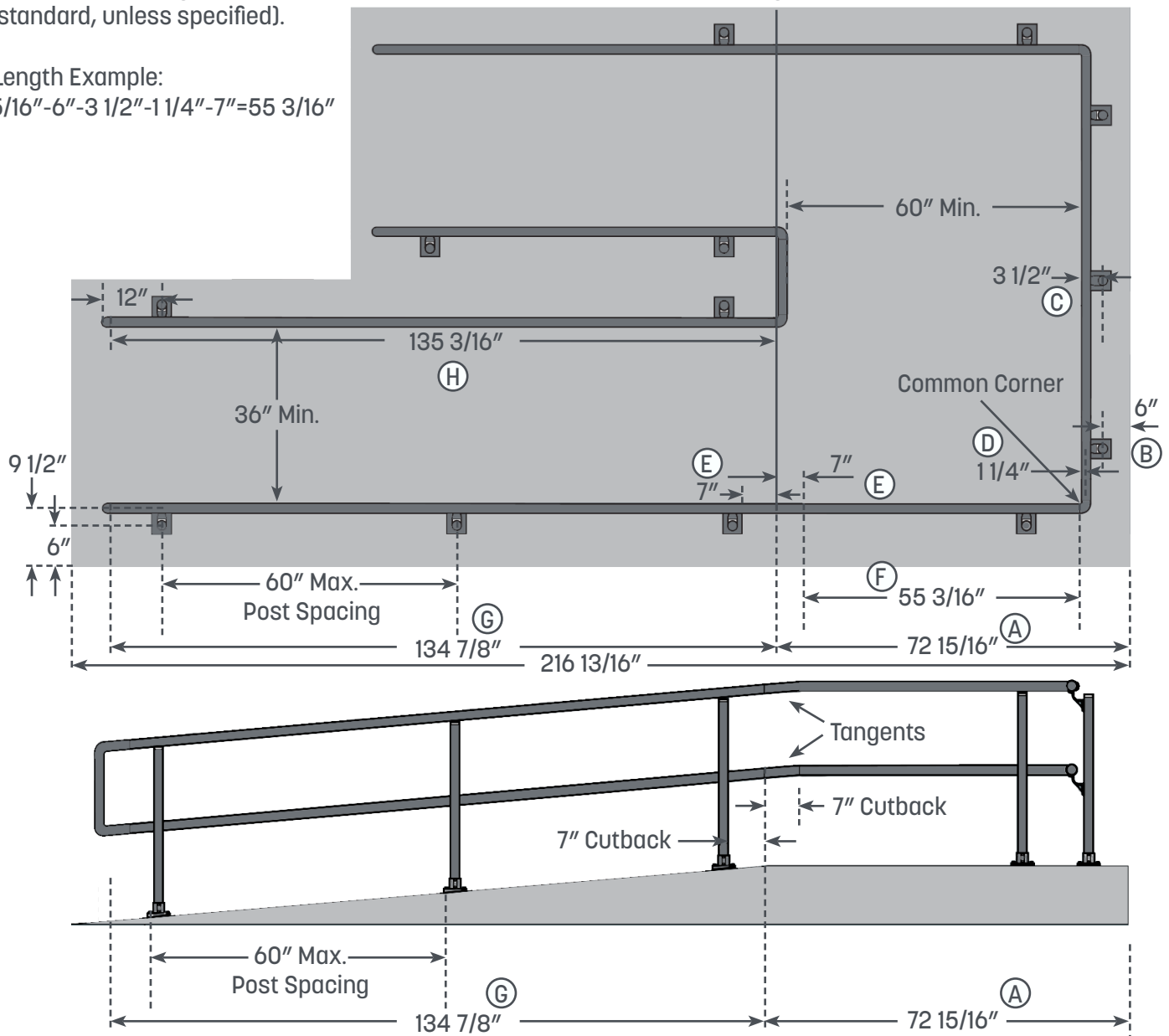
Cut length: $A - B - C - D - E = F$

G = Measure from the top of the ramp to the end of the fitting.

H = End of the fitting to the end of the cutback at endloop.

Cut Length Example:

$$72\ 15/16'' - 6'' - 3\ 1/2'' - 1\ 1/4'' - 7'' = 55\ 3/16''$$



ADA Railing Systems

Installation Instructions Cont.

How to Install ADA Railing Cont.

7. Test each handrail section and connect any fittings at the corners and ends.
8. Secure the handrail to the IR85 brackets by placing a mark on the underside of the handrail through each of the brackets, to indicate where the holes need to be drilled.
9. Drill a #3 hole into each of the marked areas on the handrailing.
10. Secure the handrail to each of the IR85 brackets with the 1/4" self-tapping screws (see illustration below).

Note: Each end post will be located 12" from the centerline of the fitting/end loop at the end of the railing section

