DROP AND BLOCK WIRE STRINGING SAGS AND SPAN LIMITS INSTALLATION

1. GENERAL

1.01 This practice prescribes the recommended span length limits for drop wires and also the minimum sags at which drop wire shall be placed.

1.02 For the following reasons, it is important that the proper sag be provided in drop wiring:

a. Drop wires which are too taut will sometimes vibrate at buildings and cause undesirable noises.

b. Insufficient sag and stretching the wire will shorten its life or will place excessive strain on the drop wire supports.

1.03 Whenever practical, run the drop wire under rather than over obstacles to avoid contacts due to stretching the wire.

1.04 Where it is impractical to obtain the minimum desirable sag because of clearance requirements or obstacles, provide as much sag as conditions allow.

2. SPAN LENGTH LIMITS

2.01 Pole-to-pole spans of drop wire shall not exceed 200 feet.

2.02 Where a cable lead or an extended messenger is available for intermediate support, pole-to-pole drop wire spans may exceed 200 feet.

2.03 Where pole-to-pole span lengths without cable or extended messenger exceed 200 feet, consult your supervisor before placing intermediate supports.

2.04 Span lengths to privately owned poles shall not exceed 160 feet and they shall be limited to one drop wire. For span lengths longer than 160 feet consult your supervisor.

2.05 The length of pole-to-building drop wire spans shall not exceed 160 feet unless specific approval is obtained. Intermediate attachments between pole and building shall be used where span lengths exceed this limit or where proper sag for normal span lengths cannot be obtained.

2.06 In span clamp-to-building spans, the tension in the span shall not be great enough to pull the cable or messenger out of line. Intermediate attachments between the span clamp and the building shall be made to obtain the required ground clearance if enough ground clearance cannot be maintained without pulling cable out of alignment.

3. SAGS FOR DROP WIRE

3.01 The minimum sags for drop wire are shown in Table 1. Since these sags are minimum, they shall be increased up to 20% wherever possible, depending upon field conditions. The sag values shall never be decreased without prior approval of the supervisor.

3.02 To determine the sag in the drop wire, sight between the attachments at both ends of the drop wire and determine the distance between the drop wire at its lowest point and the straight line between attachments. See Figure 1.

TABLE 1

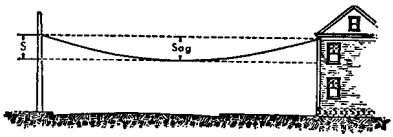
Parallel Drop Wire Sag

(18 AWG Coppersteel Conductors)

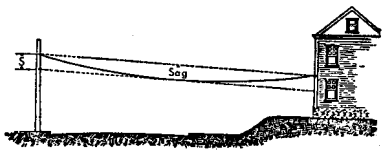
	Pole to Building Spans		Pole to Pole or Span Clamp Spans		
SPAN LENGTHS	STORM LOADING AREA LIGHT AND MEDIMUM	HEAVY	STORM LOADING AREA LIGHT AND MEDIMUM	HEAVY	NO. OF INTERMEDIATE ATTACHMENTS
50′ or less	6″	6″	6″	6″	NONE
51′ to 75′	1′	1′	1′	1′	NONE
76′ to 100′	2′	2′	1-1/2′	1-1/2′	NONE
101′ to 125′	3′	4′	1-1/2′	2′	NONE
126′ to 160′	4′	6′	2-1/2′	3′	NONE
161′ to 200′*	--	--	2-1/2′	2-1/2′	1
201′ to 249′	--	--	4-1/2′	4-1/2′	1
250′ to 300′	--	--	7′	7′	2
Over 300′	--	--	See Note #2		

* NOTE 1: For span lengths from 160 feet and up, minimum sags are computed before intermediate attachments are made. The attachments are to be evenly spaced and placed to provide proper ground clearance.

NOTE 2: For spans over 300 feet in length, intermediate attachments shall be approximately 80 feet to 100 feet apart.



Attachments on Same Level



Attachments on Different Levels

Figure 1. Sighting Drop Wire Sag