

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

SECTION G32.138.3
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AT&TCo Standard

DROP AND BLOCK WIRING

MULTIPLE DROP WIRE

STRINGING SAGS

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1. GENERAL

1.01 This section replaces Issue 1. It covers stringing sags in the heavy, medium and light loading areas for Multiple Drop Wire. ←

1.02 Table 1 gives **Normal Stringing Sags** to which multiple drop wire should be strung in all cases where ground clearances can be met. These sags are the same as the normal stringing sag for individual drop wires.

1.03 Table 2 gives **Minimum Stringing Sags** to which multiple drop wire may be strung to obtain necessary ground clearance not possible with the normal stringing sags of Table 1.

1.04 The high tensions corresponding to both normal minimum stringing sags require the use of the **Multiple Drop Wire Puller** when placing the wire in spans. This puller also provides a means for snubbing the wire preparatory to placing the drop wire clamp.

1.05 Tables 1 and 2 indicate the approximate final unloaded sag which Multiple Drop Wire will develop after being subjected to ice and wind storms. Allow for these sag increases at the time of wire placing in order to avoid possible resagging of the wire subsequent to storm loading. ←

1.06 Multiple drop wire should preferably be distributed from a pole but it may be distributed from a span clamp provided the cable suspension strand is not pulled out of line noticeably.

2. NORMAL STRINGING SAGS FOR MULTIPLE DROP WIRE

2.01 String multiple drop wire to the sags in Table 1 on pole-to-pole and pole-to-house spans except in those cases where adequate ground clearances can only be obtained with the minimum sags of Table 2, Paragraph 3.01. **Your supervisor will advise the storm loading to be assumed for the area concerned.**

TABLE 1
NORMAL STRINGING SAGS FOR MULTIPLE DROP WIRE

Span Length	Stringing		Final Unloaded Sag Following Storm Loading	Sag Increase from Stringing to Final Condition
	Sag	Tension		
Heavy Loading Area				
100 ft.	1' 9"	110 lbs.	2' 0"	3"
125	2' 10"	"	3' 4"	6"
150	4' 0"	"	4' 6"	6"
175	5' 6"	"	6' 1"	7"
200	7' 0"	"	7' 7"	7"
225	9' 0"	"	9' 8"	8"
250	11' 2"	"	11' 11"	9"
Over 250 Ft.—Use minimum sags shown in Table 2.				
Medium Loading Area				
100 ft.	1' 9"	110 lbs.	1' 9"	—
125	2' 10"	"	3' 0"	2"
150	4' 0"	"	4' 2"	2"
175	5' 6"	"	5' 9"	3"
200	7' 0"	"	7' 3"	3"
225	9' 0"	"	9' 4"	4"
250	11' 2"	"	11' 6"	4"
Over 250 Ft.—Use minimum sags shown in Table 2.				
Light Loading Area				
100 ft.	1' 9"	110 lbs.	Same as Stringing Sags	No Increases
125	2' 10"	"		
150	4' 0"	"		
175	5' 6"	"		
200	7' 0"	"		
225	9' 0"	"		
250	11' 2"	"		
Over 250 Ft.—Use minimum sags shown in Table 2.				

3. MINIMUM STRINGING SAGS FOR MULTIPLE DROP WIRE ←

3.01 Use the minimum sags of Table 2 in cases where these reduced sags provide the only means of obtaining ground clearances under the wire in spans.

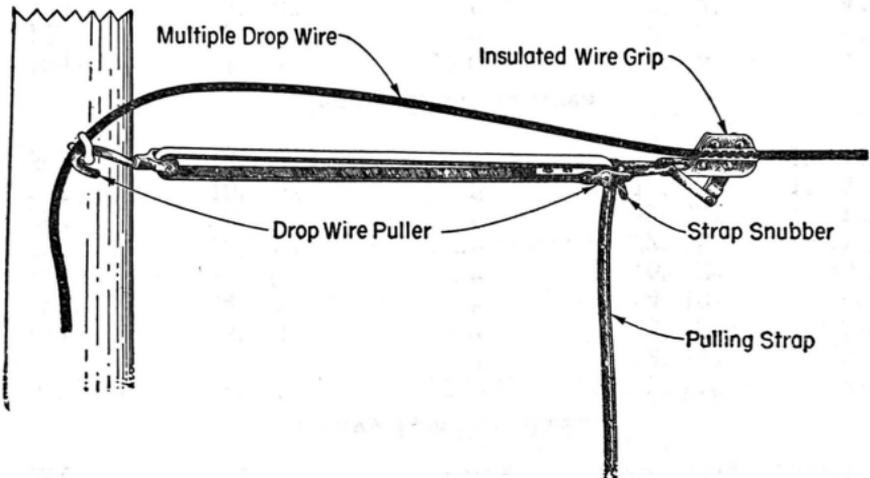
TABLE 2
MINIMUM STRINGING SAGS FOR MULTIPLE DROP WIRE ←

Span Length	Stringing		Final Unloaded Sag Following Storm Loading	Sag Increase from Stringing to Final Condition
	Sag	Tension		
Heavy Loading Area				
100 ft.	1' 4"	150 lbs.	1' 11"	7"
125	2' 1"	"	2' 9"	8"
150	3' 0"	"	3' 8"	8"
175	4' 1"	"	4' 10"	9"
200	5' 4"	"	6' 2"	10"
225	6' 9"	"	7' 8"	11"
250	8' 4"	"	9' 5"	1' 1"
275	10' 0"	"	11' 3"	1' 3"
300	12' 0"	"	13' 3"	1' 3"
Medium Loading Area				
100 ft.	1' 4"	150 lbs.	1' 8"	4"
125	2' 1"	"	2' 5"	4"
150	3' 0"	"	3' 4"	4"
175	4' 1"	"	4' 6"	5"
200	5' 4"	"	5' 9"	5"
225	6' 9"	"	7' 2"	5"
250	8' 4"	"	8' 10"	6"
275	10' 0"	"	10' 6"	6"
300	12' 0"	"	12' 6"	6"
Light Loading Area				
100 ft.	1' 4"	150 lbs.	Same as Stringing Sags	No Increases
125	2' 1"	"		
150	3' 0"	"		
175	4' 1"	"		
200	5' 4"	"		
225	6' 9"	"		
250	8' 4"	"		
275	10' 0"	"		
300	12' 0"	"		

4. STRINGING MULTIPLE DROP WIRE IN SPANS ←

- 4.01 Pay out multiple wire in pole-to-pole and pole-to-house spans in the manner prescribed for drop wire.
- 4.02 Pull multiple wire to required sag at poles using the Multiple Drop Wire Puller for tensioning and snubbing of the wire. Proceed as follows:
- (1) Suspend the hook of the wire puller on the drive hook placed in the pole. Pull the wire hand-tight and then reach out and place the wire grip of the puller on the multiple wire at arm's length.
 - (2) Pull the wire up to the required sag and hold by tripping the strap snubber on the puller.

TENSIONING MULTIPLE DROP WIRE



- (3) Place the D Drop Wire Clamp loosely on the slack section of wire between the wire grip and the pole. Take up on the slack wire and tighten the clamp with its tail wire about 1/2 inch short of the wire hook.
 - (4) Pull up on the wire by means of the puller to permit hanging the clamp on the drive hook.
 - (5) Remove the Multiple Drop Wire Puller.
- 4.03 The sag given to multiple drop wire may be estimated by sighting between wire supports.