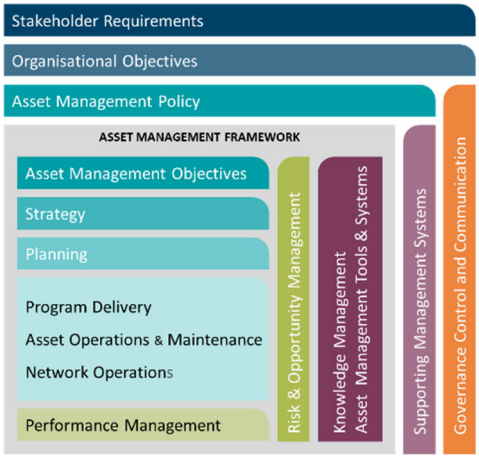
Western Power's
Asset Management System



Distribution Construction Standard Handbook Conductor Tensioning Table Part 10 (CT)

Original Issue: June 2014

Content Owner/Custodian: Distribution Design and Standards

This Revision: August 2026

Date for Next Review: August 2029

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Document control

Endorsement approvals

	Name	Title	Signature and Date
Compiled by	Nory Cerrado	Distribution Draftsperson	Signature on file
Checked by	Chris Omodei	Principal Engineer	Signature on file
Endorsed by	Ken Tiong	Team Leader	Signature on file
Approved by	Pep Ngwenya	Distribution Design & Standards Manager	Signature on file

Record of revisions

Revision No.	Date	Version	Compiled by	Description
1	30/04/2025	Volt 5	Nory Cerrado	First Revision with new Format and 3 yearly review
2	31/08/2026	Volt 7	Nory Cerrado	• Addition of notes • Addition of Information Section and including all not in use stringing tables to Information Section • Inclusion of new stringing tables for matching Running earth • Changing span limits for LVABC • Addition of span lengths 40 – 100m for 3/2.75 SCAC and 3/2.75 SCGZ. • Revised Archery stringing tables

This document gives direction to and influences the following documents.

Doc	Title of document
ALL CHAPTERS	DDC - DISTRIBUTION DESIGN CATALOGUE
ALL CHAPTERS	DCSH - DISTRIBUTION CONSTRUCTION STANDARD HANDBOOK
ALL CHAPTERS	DSPM - DISTRIBUTION SUBSTATION PLANT MANUAL

Stakeholders (people that were consulted when document was updated)

Business Unit / Function
Asset Management - Asset Performance
Asset Management – Safety Environment Quality and Training
Asset Management - Grid Transformation
Asset Operations – Network Operations
Asset Operations – Operational Services
Asset Operations – Customer Connection Services
Business and Customer Service – Customer Service

Notification list (people to be notified when document is updated)

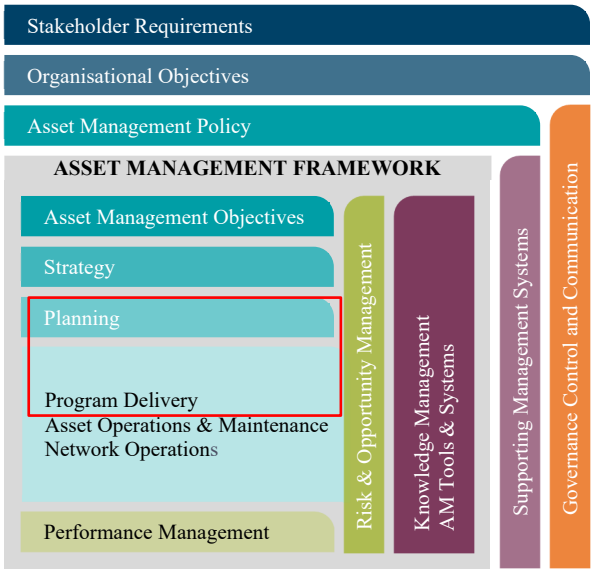
Business Unit / Function
Asset Management - Asset Performance
Asset Management – Safety Environment Quality and Training
Asset Management - Grid Transformation
Asset Operations – Network Operations
Asset Operations – Operational Services
Asset Operations – Customer Connection Services
Business and Customer Service – Customer Service

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Document classification and hierarchy

A key requirement of the Western Power Asset Management Policy (AMP) is to develop and maintain an Asset Management System (AMS). This Distribution Substation Plant Manual is defined as a technical document within the AMS document classification and structure and sits within the planning and Program Delivery components of the AMS.

The AMS and the interrelationships between the collection of documents, tools and systems that are used for asset management are described in the AMS document Volt ID=ID05-1673269260-183275



General Notes

The following requirements form part of the technical standard governing the application of tension, sag, and beat tables for the construction of new overhead distribution lines and the re-regulation of existing assets during maintenance.

1. The Standard section contains the current approved stringing tables for all distribution conductors. These tables must be used for all new line designs and for the re-tensioning of existing lines.
2. The Information section includes legacy stringing tables retained solely for reference to historical designs. These tables must not be used for retentioning, reconductoring, or new construction.
3. Maximum bay lengths must be limited according to the mechanical strength of the selected conductor and the applicable load factor. Designers must verify compliance with mechanical strength of conductors before finalising spans.
4. The Fe 7/1.60 conductor type must not be used in new designs of existing lines upgrades.
5. Bespoke or non-standard conductor tensions are not permitted. All tension values must align with approved standard stringing tables.
6. Where dissimilar phase or RE conductors exist, they should be replaced with conductors of similar material (e.g., 4×AAAC). Replacement conductors must be tensioned in accordance with DCSH Chapter 10 – Standard Stringing Tension Tables.

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Standard Section

Drawing Register

Number	Revision	Description
CT-0001	D	URBAN (20 – 40m) 95mm 4C LV ABC 5%
CT-0002	D	URBAN (20 – 40m) 150mm 4C LV ABC 5%
CT-0003	D	URBAN (40 – 70m) 95mm 4C L V ABC 7%
CT-0004	D	URBAN (40 – 70m) 150mm 4C LV ABC 7%
CT-0011	A	URBAN (20m – 70m) 7/2.50 10% AAC AND 7% AAAC
CT-0014	A	URBAN (20m – 70m) 7/3.0 AAC LIBRA 10%
CT-0017	A	URBAN (20m – 70m) 7/3.75 AAC MARS 10%
CT-0020	A	URBAN (20m – 70m) 7/4.50 AAC MERCURY 10%
CT-0023	A	URBAN (20m – 70m) 7/4.75 10% AAC AND 7% AAAC
CT-0027	A	URBAN (20m – 70m) 19/3.25 10% AAC AND 7% AAAC
CT-0030	A	URBAN (20m – 70m) 37/3.75 AAC TRITON 10%
CT-0031	A	URBAN (20m – 70m) 7/4.75 AAC 8% & AAAC 5% Underslung earthwire to match AAC 10% & AAAC 7%
CT-0032	A	URBAN (20m – 70m) 19./3.25 AAC 8% & AAAC 5% Underslung earthwire to match AAC 10% & AAAC 7%
CT-0040	B	URBAN (20m – 70m) 7/0.064 [7/16] HDBC 10%
CT-0041	B	URBAN (20m – 70m) 7/0.080 [7/14] HDBC 10%
CT-0042	B	URBAN (20m – 70m) 7/0.104 [7/12] HDBC 10%
CT-0043	B	URBAN (20m – 70m) 7/0.136 HDBC 10%
CT-0044	B	URBAN (20m – 70m) 19/0.064 [19/16] HDBC 10%
CT-0045	B	URBAN (20m – 70m) 19/0.083 [19/14] HDBC 10%
CT-0046	B	URBAN (20m – 70m) 19/0.101 [19/12] HDBC 10%
CT-0047	A	URBAN (20m – 70m) 6/1/3.00 AACSR/AC ARCHERY 10%
CT-0048	A	URBAN (20m – 70m) 6/1/3.00 AACSR/AC UNDERSLUNG ARCHERY 8%
CT-0050	A	OUTER URBAN (60m – 105m) 7/2.50 AAC LEO 18%
CT-0051	A	OUTER URBAN (60m – 105m) 7/3.0 AAC LIBRA 18%
CT-0052	A	OUTER URBAN (60m – 105m) 7/3.75 AAC MARS 18%
CT-0053	A	OUTER URBAN (60m – 105m) 7/4.50 AAC MERCURY 18%
CT-0054	A	OUTER URBAN (60m – 105m) 7/4.75 AAC MOON 18%
CT-0055	A	OUTER URBAN (60m – 105m) 19/3.25 AAC NEPTUNE 18%
CT-0056	A	OUTER URBAN (60m – 105m) 37/3.75 AAC TRITON 18%
CT-0058	A	OUTER URBAN (60m – 105m) 7/4.75 AAC 16% Underslung earthwire to match AAC 18%

Number	Revision	Description
CT-0059	A	OUTER URBAN (60m – 105m) 19/3.25 AAC 16% Underslung earthwire to match AAC 18%
CT-0060	A	RURAL (60m – 135m) 7/2.50 AAAC CHLORINE 18%
CT-0061	B	RURAL (60m – 135m) 7/2.50 AAAC 16% Underslung earthwire to match AAAC 18%
CT-0062	A	RURAL (60m – 135m) 7/4.75 AAAC IODINE 18%
CT-0063	B	RURAL (60m – 135m) 7/4.75 AAAC 16% Underslung earthwire to match AAAC 18%
CT-0070	A	RURAL (60m – 135m) 19/3.25 AAAC KRYPTON 18%
CT-0071	A	RURAL (140m – 215m) 19/3.25 AAAC KRYPTON 18%
CT-0072	A	RURAL (220m – 295m) 19/3.25 AAAC KRYPTON 18%
CT-0073	A	RURAL (300m – 370m) 19/3.25 AAAC KRYPTON 18%
CT-0074	A	RURAL (375m – 450m) 19/3.25 AAAC KRYPTON 18%
CT-0075	A	RURAL (455m – 500m) 19/3.25 AAAC KRYPTON 18%
CT-0080	B	RURAL (60m – 135m) 19/3.25 AAAC 16% Underslung earthwire to match AAAC 18%
CT-0081	B	RURAL (140m – 215m) 19/3.25 AAAC 16% Underslung earthwire to match AAAC 18%
CT-0082	B	RURAL (220m – 295m) 19/3.25 AAAC 16% Underslung earthwire to match AAAC 18%
CT-0083	B	RURAL (300m – 370m) 19/3.25 AAAC 16% Underslung earthwire to match AAAC 18%
CT-0084	B	RURAL (375m – 450m) 19/3.25 AAAC 16% Underslung earthwire to match AAAC 18%
CT-0085	B	RURAL (455m – 500m) 19/3.25 AAAC 16% Underslung earthwire to match AAAC 18%
CT-0086	B	RURAL (60m – 135m) 3/2.75 SC/AC 16% Underslung earthwire to match AAAC 18%
CT-0090	A	RURAL (60m – 135m) 7/0.064 HDBC 23%
CT-0091	A	RURAL (60m – 135m) 7/0.080 HDBC 23%
CT-0092	A	RURAL (60m – 135m) 7/0.104 HDBC 23%
CT-0093	A	RURAL (60m – 135m) 19/0.064 HDBC 23%
CT-0094	A	RURAL (60m – 135m) 7/0.136 HDBC 23%
CT-0095	A	RURAL (60m – 135m) 19/0.083 HDBC 23%
CT-0096	A	RURAL (60m – 135m) 19/0.101 HDBC 23%
CT-0101	A	RURAL (60m – 135m) 6/1/2.50 ACSR/AZ BARLEY 18%
CT-0102	A	RURAL (60m – 135m) 6/1/3.00 ACSR/AZ BEAN 18%
CT-0103	A	RURAL (60m – 135m) 6/1/3.75 ACSR/AZ CABBAGE 18%
CT-0104	A	RURAL (60m – 135m) 6/4.75 – 7/1.60 ACSR/AZ CARROT 18%
CT-0105	A	RURAL (60m – 135m) 6/1/2.50 ACSR/GZ ALMOND 18%
CT-0106	A	RURAL (60m – 135m) 6/1/3.00 ACSR/GZ APPLE 18%
CT-0107	A	RURAL (60m – 135m) 6/1/3.75 ACSR/GZ BANANA 18%
CT-0108	A	RURAL (60m – 135m) 6/4.75 – 7/1.60 ACSR/GZ CHERRY 18%

Number	Revision	Description
CT-0109	A	RURAL (140m – 215m) 6/1/4.75 – 7/1.60 ACSR/GZ CHERRY 18%
CT-0110	A	RURAL (220m – 260m) 6/1/4.75 – 7/1.60 ACSR/GZ CHERRY 18%
CT-0114	B	RURAL (60m - 135m) 6/1/3.00 AACSR/AC ARCHERY 18%
CT-0115	B	RURAL (60m - 135m) 6/1/3.00 AACSR/AC ARCHERY 16% UNDERSLUNG EARTH WIRE TO MATCH 6/1/3.00 AACSR/AC 18%
CT-0116	B	RURAL AACSR (140m - 260m) 6/1/3.00 AACSR/AC 22%
CT-0117	B	RURAL AACSR (140m - 260m) 6/1/3.00 AACSR/AC 20%
CT-0120	A	STEEL CONDUCTORS RURAL 3/2.75 SC/GZ 25% Table 1 (100m – 165m)
CT-0121	A	STEEL CONDUCTORS RURAL 3/2.75 SC/GZ 25% Table 2 (170m – 235m)
CT-0122	A	STEEL CONDUCTORS RURAL 3/2.75 SC/GZ 25% Table 3 (240m – 300m)
CT-0123	A	STEEL CONDUCTORS OUTER URBAN 3/2.75 SC/GZ 15% (40m – 100m)
CT-0160	A	STEEL CONDUCTORS RURAL 3/2.75 SC/AC 25% Table 1 (100m – 165m)
CT-0161	A	STEEL CONDUCTORS RURAL 3/2.75 SC/AC 25% Table 2 (170m – 235m)
CT-0162	A	STEEL CONDUCTORS RURAL 3/2.75 SC/AC 25% Table 3 (240m –300m)
CT-0163	A	STEEL CONDUCTORS OUTER URBAN 3/2.75 SC/AC 15% (40m – 100m)
CT-0170	A	22kV HENDRIX INITIAL MESSENGER TENSIONS - 052AWA MESSENGER WIRE (20%CBL)
CT-0171	A	22kV HENDRIX FINAL MESSENGER TENSIONS - 052AWA MESSENGER WIRE (20%CBL)
CT-0172	A	RIVER CROSSING - 22kV HENDRIX FINAL MESSENGER TENSIONS - 19/2.75 SC/GZ MESSENGER WIRE (25%CBL)
CT-0173	A	RIVER CROSSING - 22kV HENDRIX FINAL MESSENGER TENSIONS - 19/3.25 SC/GZ MESSENGER WIRE (25%CBL)
CT-0190	A	RURAL (60m – 135m) 6/1/3.00 ACSR 16% Underslung earthwire to match ACSR 18%
CT-0191	A	RURAL (140m – 215m) 6/1/3.00 ACSR 16% Underslung earthwire to match ACSR 18%
CT-0192	A	RURAL (220m – 260m) 6/1/3.00 ACSR 16% Underslung earthwire to match ACSR 18%

URBAN (20m - 40m) 95mm 4 Core LV ABC 5%																	
New Conductor (Initial) (deg. C.)	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg. C.)	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Existing Conductor (Final) (deg. C.)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
20 TENSION (Kg)	326	311	297	283	271	260	250	240	231	223	215	208	202	196	191	186	180
SAG (m)	0.21	0.217	0.228	0.238	0.249	0.260	0.271	0.281	0.292	0.303	0.313	0.324	0.334	0.345	0.355	0.365	0.375
25 TENSION (Kg)	311	301	290	280	271	263	255	248	241	235	228	222	217	212	207	203	199
SAG (m)	0.34	0.351	0.364	0.376	0.389	0.401	0.414	0.426	0.438	0.450	0.462	0.474	0.486	0.497	0.509	0.520	0.531
30 TENSION (Kg)	301	293	286	278	271	265	259	253	248	238	238	232	228	224	220	216	213
SAG (m)	0.50	0.518	0.533	0.546	0.560	0.574	0.587	0.600	0.613	0.627	0.640	0.652	0.665	0.678	0.690	0.702	0.714
35 TENSION (Kg)	294	288	282	276	271	266	261	257	253	248	244	241	234	234	229	226	223
SAG (m)	0.70	0.718	0.733	0.748	0.762	0.777	0.791	0.805	0.819	0.833	0.846	0.860	0.874	0.887	0.900	0.913	0.926
40 TENSION (Kg)	289	285	279	275	271	267	263	260	256	253	249	246	243	240	237	235	231
SAG (m)	0.93	0.950	0.965	0.981	0.996	1.011	1.026	1.040	1.055	1.069	1.083	1.098	1.112	1.125	1.139	1.153	1.167

Creep allowance @15°C: New 5°C shift & Next day 5°C shift

REV.	DATE	DESCRIPTION	ORGD.	CHK'D.	APRD.
D	27.08.26	TABLE UPDATED	SJ	MM	LT
C	08.09.20	NOTES ADDED	NN		GS
B	21.07.14	TABLE REVISED	REE	REE	GS
A	30.05.14	ORIGINAL ISSUE			

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE URBAN (20m-40m) 95mm 4C LV ABC 5%

DISTRIBUTION CONSTRN. STANDARD

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DRAWN: JRR | DATE: 30-05-2014 | ORG. No. CT-0001

ORIGINATED: | SCALE: NTS

CHECKED: REE

APPROVED: GRANT STACY | REV. D | SHT. 1/1

URBAN (20-40m) 150mm 4 Core LV ABC 5%																	
New Conductor (Initial) (deg C)	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg. C.)	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Existing Conductor (Final) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
20 TENSION (Kg)	522	496	471	449	428	409	392	375	361	348	334	323	313	303	294	286	277
SAG (m)	0.19	0.2	0.21	0.22	0.24	0.25	0.26	0.27	0.28	0.29	0.3	0.31	0.32	0.33	0.34	0.35	0.36
25 TENSION (Kg)	498	478	460	444	428	414	401	389	376	366	356	347	338	329	321	314	307
SAG (m)	0.32	0.33	0.34	0.36	0.37	0.38	0.39	0.41	0.42	0.43	0.44	0.45	0.47	0.48	0.49	0.5	0.51
30 TENSION (Kg)	480	466	453	439	428	417	407	397	387	379	371	363	356	349	342	335	329
SAG (m)	0.47	0.49	0.5	0.52	0.53	0.54	0.56	0.57	0.59	0.6	0.61	0.63	0.64	0.65	0.66	0.68	0.69
35 TENSION (Kg)	468	457	447	437	428	419	411	404	396	389	382	375	369	363	358	352	347
SAG (m)	0.66	0.68	0.69	0.71	0.72	0.74	0.75	0.77	0.78	0.8	0.81	0.82	0.84	0.85	0.86	0.88	0.89
40 TENSION (Kg)	459	451	444	435	428	421	415	408	402	397	391	385	379	374	370	365	360
SAG (m)	0.88	0.9	0.91	0.93	0.94	0.96	0.97	0.99	1	1.02	1.03	1.05	1.07	1.08	1.09	1.11	1.12

Creep allowance @15°C: New 5°C shift & Next day 5°C shift

REV	DATE	DESCRIPTION	ORGD	CHKD	APRD
D	27 08 26	TABLE UPDATED	SJ	MM	LT
C	08 09 20	NOTES ADDED	NN		GS
B	21 07 14	TABLE REVISED	REE	REE	GS
A	30 05 14	ORIGINAL ISSUE			

STRUCTURE

TITLE
CONDUCTOR TENSIONING TABLE
URBAN (20m-40m) 150mm
4C LV ABC 5%

DISTRIBUTION CONSTRN STANDARD

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DRAWN JRR	DATE 30-05-2014	DRG No
ORIGINATED	SCALE NTS	CT-0002
CHECKED REE		
APPROVED GRANT STACY		REV D SHT 1/1

URBAN (40 - 70m) 95mm 4 Core LV ABC 7%																	
New Conductor (Initial) (deg. C.)	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg. C.)	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Existing Conductor (Final) (deg. C.)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
40 TENSION (Kg)	420	410	399	390	380	371	362	354	347	340	333	326	319	313	308	302	297
SAG (m)	0.64	0.66	0.68	0.69	0.71	0.73	0.75	0.76	0.78	0.79	0.81	0.83	0.85	0.86	0.88	0.89	0.91
45 TENSION (Kg)	414	405	396	388	380	372	365	358	352	346	340	334	328	322	317	312	308
SAG (m)	0.83	0.84	0.86	0.88	0.9	0.92	0.94	0.95	0.97	0.99	1.01	1.02	1.04	1.06	1.08	1.1	1.11
50 TENSION (Kg)	408	401	394	387	380	373	367	361	356	350	345	340	335	331	326	321	317
SAG (m)	1.03	1.05	1.07	1.09	1.11	1.13	1.15	1.17	1.19	1.21	1.22	1.24	1.26	1.27	1.29	1.31	1.33
55 TENSION (Kg)	404	398	392	385	379	374	369	364	359	354	350	345	341	337	332	328	324
SAG (m)	1.26	1.28	1.3	1.33	1.35	1.36	1.38	1.4	1.42	1.44	1.46	1.48	1.5	1.51	1.54	1.56	1.58
60 TENSION (Kg)	401	395	390	384	379	375	370	366	361	357	353	349	346	342	338	334	331
SAG (m)	1.51	1.54	1.56	1.58	1.6	1.62	1.64	1.66	1.68	1.7	1.72	1.74	1.76	1.78	1.8	1.82	1.84
65 TENSION (Kg)	398	393	389	384	379	375	371	367	364	360	356	353	350	346	343	340	337
SAG (m)	1.79	1.81	1.83	1.86	1.88	1.9	1.92	1.94	1.96	1.98	2	2.02	2.04	2.06	2.08	2.1	2.12
70 TENSION (Kg)	396	392	387	383	379	376	372	369	365	362	359	356	353	350	347	344	341
SAG (m)	2.09	2.11	2.14	2.16	2.18	2.2	2.22	2.24	2.27	2.28	2.3	2.32	2.34	2.36	2.38	2.4	2.42

Creep allowance @15 deg celceius: New 5°C shift & Next day 5°C shift

REV	DATE	DESCRIPTION	ORGD	CHKD	APRD
D	27 08 26	TABLE UPDATED	SJ	MM	LT
C	08 09 20	NOTES ADDED	NN		GS
B	21 07 14	TABLE REVISED	REE	REE	GS
A	30 05 14	ORIGINAL ISSUE			

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE URBAN (40-70m) 95mm 4C LV ABC 7%

DISTRIBUTION CONSTRN STANDARD

westernpower

DRAWN: JRR | DATE: 30-05-2014 | DRG No: CT-0003

ORIGINATED: | SCALE: NTS

CHECKED: REE

APPROVED: GRANT STACY | REV: D | SHT: 1/1

URBAN (40 – 70m) 150mm 4 Core LV ABC 7%																	
New Conductor (Initial) (deg. C.)	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg. C.)	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Existing Conductor (Final) (deg. C.)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
40 TENSION (Kg)	669	651	633	616	600	585	570	557	544	532	519	508	498	488	479	469	460
SAG (m)	0.6	0.62	0.64	0.66	0.67	0.69	0.71	0.73	0.74	0.76	0.78	0.8	0.81	0.83	0.84	0.86	0.88
45 TENSION (Kg)	658	643	628	613	600	587	574	563	552	541	531	521	512	503	495	487	479
SAG (m)	0.78	0.8	0.81	0.83	0.85	0.87	0.89	0.91	0.93	0.95	0.96	0.98	1	1.02	1.03	1.05	1.07
50 TENSION (Kg)	649	636	623	611	600	589	579	568	558	549	541	532	523	515	508	500	494
SAG (m)	0.97	0.99	1.01	1.03	1.05	1.07	1.09	1.11	1.13	1.15	1.17	1.19	1.21	1.23	1.24	1.26	1.28
55 TENSION (Kg)	641	630	620	610	600	590	581	572	564	556	548	540	532	525	519	512	506
SAG (m)	1.19	1.21	1.23	1.25	1.27	1.29	1.31	1.34	1.35	1.37	1.39	1.41	1.44	1.45	1.47	1.49	1.51
60 TENSION (Kg)	635	626	617	608	600	591	583	576	568	561	554	548	540	534	528	522	516
SAG (m)	1.43	1.45	1.47	1.5	1.52	1.54	1.56	1.58	1.6	1.62	1.64	1.66	1.68	1.7	1.72	1.74	1.76
65 TENSION (Kg)	631	623	615	607	600	592	585	578	572	566	559	554	548	541	536	530	525
SAG (m)	1.69	1.71	1.73	1.76	1.78	1.8	1.82	1.85	1.87	1.88	1.91	1.93	1.95	1.97	1.99	2.01	2.03
70 TENSION (Kg)	627	620	613	606	600	593	587	581	575	569	564	559	553	548	542	538	533
SAG (m)	1.97	2	2.02	2.04	2.06	2.09	2.11	2.13	2.15	2.17	2.19	2.21	2.24	2.26	2.28	2.3	2.32

Creep allowance @ 15°C: New 5°C shift & Next day 5°C shift

REV	DATE	DESCRIPTION	ORGD	CHKD	APRD
D	27 08 26	TABLE UPDATED	SJ	MM	LT
C	08 09 20	NOTES ADDED	NN		GS
B	21 07 14	TABLE REVISED	REE	REE	GS
A	30 05 14	ORIGINAL ISSUE			

STRUCTURE

TITLE
CONDUCTOR TENSIONING TABLE
URBAN (40-70m) 150mm
4C LV ABC 7%

DISTRIBUTION CONSTRN STANDARD

westernpower

DRAWN JRR | DATE 30-05-2014 | DRG No CT-0004
ORIGINATED | SCALE NTS
CHECKED REE
APPROVED GRANT STACY | REV D | SHT 1/1

URBAN (20m – 70m) 7/2.50 10% AAC AND 7% AAAC

New Conductor (Initial) (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (Kg)	101	90	80	68	59	51	43	37	33	29	25	23	21	20	18	17	16
	TIME (s)	1.9	2.1	2.2	2.4	2.5	2.8	3.0	3.2	3.5	3.7	3.9	4.1	4.2	4.4	4.5	4.7	4.8
	SAG (m)	0.05	0.05	0.06	0.07	0.08	0.09	0.11	0.13	0.15	0.17	0.19	0.20	0.22	0.24	0.25	0.27	0.28
25	TENSION (Kg)	98	88	77	67	59	52	45	40	36	33	30	28	25	23	22	21	20
	TIME (s)	2.5	2.6	2.8	3.0	3.2	3.4	3.6	3.9	4.1	4.3	4.5	4.7	4.9	5.0	5.2	5.3	5.4
	SAG (m)	0.07	0.08	0.10	0.11	0.12	0.14	0.16	0.19	0.21	0.23	0.25	0.27	0.29	0.31	0.33	0.35	0.37
30	TENSION (Kg)	95	85	75	67	59	53	47	42	39	36	33	31	29	27	25	24	23
	TIME (s)	3.0	3.2	3.4	3.6	3.8	4.0	4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.7	5.8	5.9	6.1
	SAG (m)	0.11	0.12	0.14	0.16	0.18	0.20	0.23	0.25	0.28	0.30	0.33	0.35	0.37	0.39	0.41	0.44	0.45
35	TENSION (Kg)	91	82	73	66	59	53	49	44	41	38	36	34	32	30	29	28	27
	TIME (s)	3.6	3.8	4.0	4.2	4.4	4.7	4.9	5.1	5.4	5.6	5.8	5.9	6.1	6.3	6.4	6.6	6.8
	SAG (m)	0.16	0.18	0.20	0.22	0.24	0.27	0.30	0.33	0.35	0.38	0.41	0.43	0.46	0.48	0.51	0.53	0.57
40	TENSION (Kg)	88	80	71	65	59	54	50	46	43	40	38	36	34	33	32	30	29
	TIME (s)	4.2	4.4	4.6	4.9	5.1	5.3	5.6	5.8	6.0	6.2	6.4	6.5	6.7	6.9	7.1	7.2	7.4
	SAG (m)	0.22	0.24	0.26	0.29	0.32	0.35	0.38	0.41	0.44	0.47	0.50	0.52	0.55	0.58	0.62	0.64	0.67
45	TENSION (Kg)	85	76	70	64	59	55	51	48	45	42	40	38	37	35	34	33	32
	TIME (s)	4.8	5.0	5.3	5.5	5.7	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.5	7.7	7.8	7.9
	SAG (m)	0.28	0.31	0.34	0.37	0.40	0.44	0.47	0.51	0.54	0.57	0.61	0.64	0.67	0.70	0.72	0.75	0.78
50	TENSION (Kg)	82	74	68	63	59	55	52	49	46	44	42	40	39	37	36	35	34
	TIME (s)	5.4	5.7	5.9	6.1	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	7.9	8.1	8.2	8.4	8.5
	SAG (m)	0.36	0.40	0.43	0.46	0.50	0.53	0.57	0.61	0.64	0.68	0.71	0.74	0.78	0.81	0.84	0.86	0.89
55	TENSION (Kg)	78	72	67	63	59	56	53	50	48	46	44	42	41	39	38	37	36
	TIME (s)	6.1	6.3	6.5	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.5	8.7	8.8	9.0	9.1
	SAG (m)	0.46	0.49	0.53	0.57	0.60	0.64	0.68	0.72	0.75	0.79	0.82	0.86	0.89	0.92	0.96	0.99	1.02
60	TENSION (Kg)	78	72	67	63	59	56	53	50	48	46	44	42	41	39	38	37	36
	TIME (s)	6.7	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8	8.9	9.1	9.2	9.4	9.5	9.7
	SAG (m)	0.56	0.60	0.64	0.68	0.72	0.76	0.80	0.83	0.87	0.91	0.95	0.98	1.02	1.05	1.09	1.12	1.15
65	TENSION (Kg)	73	69	65	62	59	56	54	52	50	48	46	45	44	42	41	40	39
	TIME (s)	7.4	7.6	7.9	8.1	8.3	8.5	8.7	8.9	9.0	9.2	9.4	9.5	9.7	9.8	10.0	10.1	10.2
	SAG (m)	0.67	0.72	0.76	0.80	0.84	0.88	0.92	0.96	1.00	1.04	1.08	1.12	1.15	1.19	1.22	1.26	1.29
70	TENSION (Kg)	72	68	65	62	59	57	54	52	51	49	48	46	45	44	43	42	41
	TIME (s)	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.6	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.8
	SAG (m)	0.80	0.85	0.89	0.93	0.98	1.02	1.06	1.10	1.14	1.18	1.22	1.26	1.30	1.33	1.37	1.40	1.44

This table results in AAC at 10% UTS nominal tension and AAAC at approximately 7%

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 5°C shift & Next day 5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	30.05.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE URBAN (20-70m) 7/2.50 10% AAC AND 7% AAAC

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR DATE: 30-05-2014

CHECKED: REE SCALE: NTS

APPROVED: GRANT STACY DATE: 30-05-2014

DRG. No. CT-0011

REV. A SHT.

URBAN (20m – 70m) 7/3.0 AAC LIBRA 10%

New Conductor (Initial) (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg C)		7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (Kg)	140	123	108	94	81	68	59	51	44	40	36	33	30	28	27	24	23
	TIME (s)	2.0	2.1	2.3	2.4	2.6	2.8	3.1	3.3	3.5	3.8	3.9	4.1	4.3	4.4	4.6	4.7	4.8
	SAG (m)	0.05	0.05	0.06	0.07	0.08	0.10	0.12	0.13	0.15	0.17	0.19	0.21	0.23	0.24	0.26	0.27	0.29
25	TENSION (Kg)	135	120	106	93	81	70	62	55	49	45	41	38	36	34	32	30	29
	TIME (s)	2.5	2.7	2.8	3.1	3.3	3.5	3.7	4.0	4.2	4.4	4.6	4.8	4.9	5.1	5.2	5.4	5.5
	SAG (m)	0.08	0.09	0.10	0.11	0.13	0.15	0.17	0.19	0.22	0.24	0.26	0.28	0.30	0.32	0.34	0.35	0.37
30	TENSION (Kg)	129	115	103	91	81	71	64	58	53	49	46	43	40	38	36	35	33
	TIME (s)	3.1	3.3	3.5	3.7	3.9	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.7	5.9	6.0	6.1
	SAG (m)	0.12	0.13	0.15	0.17	0.19	0.21	0.24	0.26	0.29	0.31	0.34	0.36	0.38	0.40	0.42	0.44	0.46
35	TENSION (Kg)	124	111	100	90	81	72	66	61	56	53	49	47	44	42	40	39	37
	TIME (s)	3.7	3.9	4.1	4.3	4.6	4.8	5.0	5.3	5.5	5.7	5.8	6.0	6.2	6.3	6.5	6.6	6.8
	SAG (m)	0.17	0.19	0.21	0.23	0.26	0.29	0.31	0.34	0.37	0.39	0.42	0.45	0.47	0.49	0.52	0.54	0.56
40	TENSION (Kg)	119	107	97	89	81	73	68	63	59	56	53	50	48	46	44	42	41
	TIME (s)	4.3	4.5	4.8	5.0	5.2	5.5	5.7	5.9	6.1	6.3	6.5	6.6	6.8	6.9	7.1	7.3	7.4
	SAG (m)	0.23	0.25	0.28	0.31	0.34	0.37	0.40	0.43	0.46	0.49	0.51	0.54	0.57	0.59	0.62	0.66	0.68
45	TENSION (Kg)	114	104	95	88	81	74	69	65	62	58	56	53	51	49	47	45	44
	TIME (s)	5.0	5.2	5.4	5.7	5.9	6.1	6.3	6.5	6.8	6.9	7.1	7.3	7.5	7.6	7.8	7.9	8.0
	SAG (m)	0.30	0.33	0.36	0.39	0.42	0.46	0.49	0.53	0.56	0.59	0.62	0.65	0.68	0.71	0.74	0.77	0.79
50	TENSION (Kg)	109	101	93	87	81	75	71	67	64	61	58	56	54	52	50	48	47
	TIME (s)	5.6	5.8	6.1	6.3	6.5	6.7	7.0	7.2	7.4	7.5	7.7	7.9	8.0	8.2	8.3	8.5	8.6
	SAG (m)	0.39	0.42	0.45	0.49	0.52	0.56	0.60	0.63	0.67	0.70	0.73	0.77	0.80	0.83	0.86	0.88	0.91
55	TENSION (Kg)	105	98	92	86	81	76	72	68	65	63	60	58	56	54	53	51	50
	TIME (s)	6.3	6.5	6.7	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2
	SAG (m)	0.49	0.52	0.56	0.60	0.63	0.67	0.71	0.75	0.78	0.82	0.85	0.89	0.92	0.95	0.98	1.01	1.04
60	TENSION (Kg)	105	98	92	86	81	76	72	68	65	63	60	58	56	54	53	51	50
	TIME (s)	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8	8.9	9.1	9.2	9.4	9.5	9.7	9.8
	SAG (m)	0.60	0.64	0.68	0.72	0.76	0.79	0.83	0.87	0.91	0.95	0.98	1.02	1.05	1.08	1.12	1.15	1.18
65	TENSION (Kg)	99	94	89	85	81	77	74	71	68	66	64	62	60	58	57	56	54
	TIME (s)	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.0	9.2	9.4	9.5	9.7	9.8	10.0	10.1	10.3	10.4
	SAG (m)	0.72	0.77	0.81	0.85	0.89	0.93	0.97	1.01	1.04	1.08	1.12	1.16	1.19	1.23	1.26	1.29	1.32
70	TENSION (Kg)	97	92	88	84	81	77	74	72	69	67	65	64	62	60	59	57	56
	TIME (s)	8.3	8.6	8.8	9.0	9.1	9.3	9.5	9.7	9.8	10.0	10.2	10.3	10.4	10.6	10.7	10.8	11.0
	SAG (m)	0.86	0.91	0.95	0.99	1.03	1.07	1.11	1.15	1.19	1.23	1.27	1.31	1.34	1.38	1.41	1.45	1.48

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 5°C shift & Next day 2.5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	30.05.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE URBAN (20-70m) 7/3.0 AAC LIBRA 10%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR | DATE: 30-05-2014

CHECKED: REE | SCALE: NTS

APPROVED: GRANT STACY DATE: 30-05-2014

DRG. No. CT-0014

REV. A | SHT.

URBAN (20m – 70m) 7/3.75 AAC MARS 10%

New Conductor (Initial) (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg C)		7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (Kg)	212	188	164	142	121	103	89	76	67	60	54	50	46	43	41	39	37
	TIME (s)	2.0	2.1	2.3	2.5	2.7	2.9	3.1	3.4	3.6	3.8	4.0	4.2	4.3	4.5	4.6	4.7	4.9
	SAG (m)	0.05	0.06	0.06	0.08	0.09	0.10	0.12	0.14	0.16	0.18	0.20	0.21	0.23	0.25	0.26	0.28	0.29
25	TENSION (Kg)	204	181	159	140	121	106	94	83	74	68	62	58	54	51	49	46	44
	TIME (s)	2.6	2.7	2.9	3.1	3.3	3.6	3.8	4.0	4.3	4.5	4.6	4.8	5.0	5.1	5.3	5.4	5.5
	SAG (m)	0.08	0.09	0.10	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.27	0.29	0.31	0.32	0.34	0.36	0.38
30	TENSION (Kg)	196	174	154	137	121	108	97	89	81	74	69	65	61	58	55	53	51
	TIME (s)	3.1	3.3	3.5	3.8	4.0	4.2	4.5	4.7	4.9	5.1	5.3	5.5	5.6	5.8	5.9	6.1	6.2
	SAG (m)	0.12	0.14	0.15	0.17	0.20	0.22	0.25	0.27	0.30	0.32	0.34	0.37	0.39	0.41	0.43	0.45	0.47
35	TENSION (Kg)	187	167	150	135	121	110	101	93	86	81	75	71	67	64	62	59	57
	TIME (s)	3.8	4.0	4.2	4.4	4.7	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.2	6.4	6.5	6.7	6.8
	SAG (m)	0.17	0.19	0.22	0.24	0.27	0.30	0.32	0.35	0.38	0.40	0.43	0.46	0.48	0.50	0.53	0.55	0.57
40	TENSION (Kg)	177	161	146	133	121	112	103	97	91	86	81	76	73	70	67	65	62
	TIME (s)	4.4	4.6	4.9	5.1	5.3	5.6	5.8	6.0	6.2	6.4	6.5	6.7	6.9	7.0	7.2	7.3	7.4
	SAG (m)	0.24	0.26	0.29	0.32	0.35	0.38	0.41	0.44	0.47	0.50	0.53	0.55	0.58	0.61	0.63	0.66	0.68
45	TENSION (Kg)	169	155	142	130	121	113	106	100	94	90	85	82	78	75	72	70	67
	TIME (s)	5.1	5.3	5.5	5.8	6.0	6.2	6.4	6.7	6.8	7.0	7.2	7.3	7.5	7.6	7.8	8.0	8.1
	SAG (m)	0.32	0.35	0.38	0.41	0.44	0.48	0.51	0.54	0.57	0.60	0.63	0.66	0.69	0.72	0.74	0.78	0.80
50	TENSION (Kg)	162	150	140	129	121	114	108	102	97	93	89	86	83	80	76	74	72
	TIME (s)	5.8	6.0	6.2	6.5	6.7	6.9	7.1	7.3	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7
	SAG (m)	0.41	0.44	0.48	0.51	0.55	0.58	0.62	0.65	0.69	0.72	0.75	0.78	0.81	0.84	0.87	0.90	0.93
55	TENSION (Kg)	157	146	137	128	121	115	109	104	100	96	92	89	86	84	81	78	76
	TIME (s)	6.5	6.7	6.9	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.4	8.6	8.7	8.9	9.0	9.2	9.3
	SAG (m)	0.51	0.55	0.59	0.63	0.66	0.70	0.74	0.77	0.81	0.84	0.88	0.91	0.94	0.97	1.00	1.03	1.06
60	TENSION (Kg)	152	143	135	127	121	116	111	106	102	99	95	92	90	87	85	82	80
	TIME (s)	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.7	8.9	9.1	9.2	9.4	9.5	9.6	9.8	9.9
	SAG (m)	0.63	0.67	0.71	0.75	0.79	0.83	0.86	0.90	0.94	0.97	1.01	1.04	1.08	1.11	1.14	1.17	1.20
65	TENSION (Kg)	148	140	133	126	121	116	112	108	104	101	98	95	92	90	88	86	84
	TIME (s)	7.9	8.1	8.3	8.5	8.7	8.9	9.0	9.2	9.4	9.5	9.7	9.8	10.0	10.1	10.2	10.4	10.5
	SAG (m)	0.76	0.80	0.85	0.88	0.92	0.96	1.00	1.04	1.08	1.12	1.15	1.19	1.22	1.26	1.29	1.32	1.35
70	TENSION (Kg)	144	138	131	126	121	117	113	109	106	103	100	97	95	93	91	89	87
	TIME (s)	8.6	8.8	9.0	9.2	9.3	9.5	9.7	9.8	10.0	10.2	10.3	10.4	10.6	10.7	10.8	11.0	11.1
	SAG (m)	0.90	0.95	0.99	1.03	1.07	1.11	1.15	1.19	1.23	1.27	1.31	1.34	1.38	1.41	1.45	1.48	1.51

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 5°C shift & Next day 2.5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	30.05.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE URBAN (20-70m) 7/3.75 AAC MARS 10%

DISTRIBUTION CONSTRUCTION STANDARDS

DRAWN: JRR DATE: 30-05-2014

CHECKED: REE SCALE: NTS

APPROVED: GRANT STACY DATE: 30-05-2014

DRG. No. CT-0017

REV. A SHT.

URBAN (20m – 70m) 7/4.50 AAC MERCURY 10%

New Conductor (Initial) (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg C)		7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (Kg)	302	266	232	200	171	146	125	108	96	86	77	71	66	62	58	55	52
	TIME (s)	2.0	2.2	2.3	2.5	2.7	2.9	3.2	3.4	3.6	3.8	4.0	4.2	4.3	4.5	4.6	4.8	4.9
	SAG (m)	0.05	0.06	0.07	0.08	0.09	0.10	0.12	0.14	0.16	0.18	0.20	0.22	0.23	0.25	0.26	0.28	0.29
25	TENSION (Kg)	290	256	225	197	171	150	133	117	106	97	90	83	77	73	69	66	63
	TIME (s)	2.6	2.8	2.9	3.1	3.4	3.6	3.8	4.1	4.3	4.5	4.7	4.8	5.0	5.2	5.3	5.4	5.5
	SAG (m)	0.08	0.09	0.11	0.12	0.14	0.16	0.18	0.20	0.23	0.25	0.27	0.29	0.31	0.33	0.34	0.36	0.38
30	TENSION (Kg)	276	246	218	193	171	153	138	125	115	106	99	93	88	84	80	75	72
	TIME (s)	3.2	3.4	3.6	3.8	4.0	4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.6	5.8	5.9	6.1	6.2
	SAG (m)	0.12	0.14	0.16	0.18	0.20	0.22	0.25	0.27	0.30	0.32	0.35	0.37	0.39	0.41	0.43	0.45	0.47
35	TENSION (Kg)	263	235	211	190	171	156	143	131	122	114	107	102	97	92	89	85	82
	TIME (s)	3.8	4.0	4.2	4.5	4.7	4.9	5.2	5.4	5.6	5.8	5.9	6.1	6.3	6.4	6.6	6.7	6.8
	SAG (m)	0.18	0.20	0.22	0.25	0.27	0.30	0.33	0.36	0.38	0.41	0.44	0.46	0.48	0.51	0.53	0.55	0.57
40	TENSION (Kg)	250	226	205	187	171	158	147	137	128	121	115	109	104	100	96	93	90
	TIME (s)	4.5	4.7	4.9	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.7	6.9	7.1	7.2	7.3	7.5
	SAG (m)	0.24	0.27	0.30	0.33	0.36	0.39	0.42	0.45	0.48	0.50	0.53	0.56	0.59	0.61	0.64	0.66	0.68
45	TENSION (Kg)	239	218	200	185	171	160	150	141	134	126	121	116	111	107	103	100	97
	TIME (s)	5.1	5.4	5.6	5.8	6.1	6.3	6.5	6.7	6.9	7.0	7.2	7.4	7.5	7.7	7.8	7.9	8.1
	SAG (m)	0.32	0.35	0.39	0.42	0.45	0.48	0.52	0.55	0.58	0.61	0.64	0.67	0.70	0.72	0.75	0.78	0.80
50	TENSION (Kg)	228	211	196	182	171	161	153	145	138	131	126	121	117	113	109	106	103
	TIME (s)	5.8	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.5	7.7	7.8	8.0	8.1	8.3	8.5	8.6	8.7
	SAG (m)	0.42	0.45	0.49	0.52	0.56	0.59	0.63	0.66	0.70	0.73	0.76	0.79	0.82	0.85	0.88	0.91	0.94
55	TENSION (Kg)	220	205	193	181	171	162	155	148	142	136	131	126	122	118	115	112	109
	TIME (s)	6.5	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.3
	SAG (m)	0.53	0.56	0.60	0.64	0.67	0.71	0.75	0.78	0.82	0.85	0.89	0.92	0.95	0.98	1.01	1.04	1.07
60	TENSION (Kg)	213	201	190	179	171	163	157	151	145	140	136	130	127	123	120	117	114
	TIME (s)	7.2	7.5	7.7	7.9	8.1	8.3	8.5	8.6	8.8	9.0	9.1	9.3	9.4	9.5	9.7	9.8	9.9
	SAG (m)	0.65	0.69	0.73	0.76	0.80	0.84	0.88	0.92	0.95	0.99	1.02	1.06	1.09	1.12	1.15	1.18	1.21
65	TENSION (Kg)	207	197	188	178	171	164	158	153	148	143	139	135	130	127	124	121	118
	TIME (s)	8.0	8.2	8.4	8.6	8.8	8.9	9.1	9.3	9.4	9.6	9.7	9.9	10.0	10.2	10.3	10.4	10.5
	SAG (m)	0.78	0.82	0.86	0.90	0.94	0.98	1.02	1.06	1.10	1.13	1.17	1.20	1.24	1.27	1.30	1.34	1.37
70	TENSION (Kg)	202	194	186	177	171	165	160	155	150	146	142	138	135	131	128	125	123
	TIME (s)	8.7	8.9	9.1	9.3	9.4	9.6	9.8	9.9	10.1	10.2	10.4	10.5	10.7	10.8	10.9	11.0	11.2
	SAG (m)	0.93	0.97	1.01	1.05	1.09	1.13	1.17	1.21	1.25	1.29	1.32	1.36	1.40	1.43	1.46	1.50	1.53

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 5°C shift & Next day 2.5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	30.05.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE URBAN (20-70m) 7/4.5 AAC MERCURY 10%

DISTRIBUTION CONSTRUCTION STANDARDS

DRAWN: JRR DATE: 30-05-2014

CHECKED: REE SCALE: NTS

APPROVED: GRANT STACY DATE: 30-05-2014

DRG. No. CT-0020

REV. A SHT.

URBAN (20m – 70m) 7/4.75 10% AAC AND 7% AAAC

New Conductor (Initial) (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg C)		7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (Kg)	336	298	260	224	192	163	140	121	107	96	87	80	73	69	65	61	58
	TIME (s)	2.0	2.2	2.3	2.5	2.7	2.9	3.1	3.4	3.6	3.8	4.0	4.2	4.3	4.5	4.6	4.7	4.9
	SAG (m)	0.05	0.06	0.07	0.08	0.09	0.10	0.12	0.14	0.16	0.18	0.20	0.21	0.23	0.25	0.26	0.28	0.29
25	TENSION (Kg)	323	286	252	220	192	167	148	131	118	108	100	93	87	82	77	73	70
	TIME (s)	2.6	2.7	2.9	3.1	3.4	3.6	3.8	4.1	4.3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.5
	SAG (m)	0.08	0.09	0.11	0.12	0.14	0.16	0.18	0.20	0.22	0.25	0.27	0.29	0.31	0.33	0.34	0.36	0.38
30	TENSION (Kg)	309	275	244	216	192	171	154	140	128	119	111	104	98	93	89	85	82
	TIME (s)	3.2	3.4	3.6	3.8	4.0	4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.6	5.8	5.9	6.1	6.2
	SAG (m)	0.12	0.14	0.16	0.18	0.20	0.22	0.25	0.27	0.30	0.32	0.35	0.37	0.39	0.41	0.43	0.45	0.47
35	TENSION (Kg)	295	264	236	212	192	174	159	147	137	127	120	113	108	103	99	95	91
	TIME (s)	3.8	4.0	4.2	4.5	4.7	4.9	5.2	5.4	5.6	5.8	5.9	6.1	6.3	6.4	6.6	6.7	6.8
	SAG (m)	0.18	0.20	0.22	0.25	0.27	0.30	0.33	0.35	0.38	0.41	0.43	0.46	0.48	0.51	0.53	0.55	0.57
40	TENSION (Kg)	280	253	229	209	192	176	164	153	144	136	128	122	116	112	107	103	100
	TIME (s)	4.4	4.7	4.9	5.1	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.7	6.9	7.0	7.2	7.3	7.5
	SAG (m)	0.24	0.27	0.30	0.33	0.36	0.39	0.42	0.45	0.47	0.50	0.53	0.56	0.58	0.61	0.64	0.66	0.68
45	TENSION (Kg)	267	244	224	207	192	178	167	158	149	142	136	129	124	119	115	111	108
	TIME (s)	5.1	5.4	5.6	5.8	6.0	6.3	6.5	6.7	6.9	7.0	7.2	7.4	7.5	7.7	7.8	7.9	8.1
	SAG (m)	0.32	0.35	0.38	0.42	0.45	0.48	0.52	0.55	0.58	0.61	0.64	0.67	0.69	0.72	0.75	0.78	0.80
50	TENSION (Kg)	256	236	219	205	192	180	170	162	154	148	142	136	130	126	122	118	115
	TIME (s)	5.8	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7
	SAG (m)	0.42	0.45	0.48	0.52	0.56	0.59	0.63	0.66	0.69	0.72	0.75	0.78	0.81	0.84	0.87	0.90	0.93
55	TENSION (Kg)	246	229	215	203	192	181	173	165	158	152	147	142	137	133	128	124	121
	TIME (s)	6.5	6.7	7.0	7.2	7.4	7.6	7.8	8.0	8.1	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.3
	SAG (m)	0.52	0.56	0.60	0.64	0.67	0.71	0.75	0.78	0.82	0.85	0.88	0.92	0.95	0.98	1.01	1.04	1.07
60	TENSION (Kg)	239	224	212	201	192	183	175	168	162	156	151	146	142	138	134	130	127
	TIME (s)	7.2	7.4	7.7	7.9	8.1	8.3	8.4	8.6	8.8	8.9	9.1	9.3	9.4	9.5	9.7	9.8	9.9
	SAG (m)	0.64	0.68	0.72	0.76	0.80	0.84	0.88	0.91	0.95	0.98	1.02	1.05	1.09	1.12	1.15	1.18	1.21
65	TENSION (Kg)	231	220	210	200	192	185	177	171	165	160	155	151	147	143	139	136	133
	TIME (s)	7.9	8.2	8.4	8.6	8.7	8.9	9.1	9.3	9.4	9.6	9.7	9.9	10.0	10.2	10.3	10.4	10.5
	SAG (m)	0.78	0.82	0.86	0.90	0.94	0.98	1.02	1.05	1.09	1.13	1.16	1.20	1.23	1.27	1.30	1.33	1.36
70	TENSION (Kg)	226	216	207	199	192	185	178	173	168	163	158	154	151	147	144	141	138
	TIME (s)	8.7	8.9	9.1	9.2	9.4	9.6	9.7	9.9	10.1	10.2	10.4	10.5	10.6	10.8	10.9	11.0	11.1
	SAG (m)	0.92	0.97	1.01	1.05	1.09	1.13	1.17	1.21	1.25	1.28	1.32	1.36	1.39	1.43	1.46	1.49	1.53

This table results in AAC at 10% UTS nominal tension and AAAC at approximately 7%

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 5°C shift & Next day 2.5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE URBAN (20-70m) 7/4.75 10% AAC AND 7% AAAC

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR | DATE: 03-06-2014 | DRG. No. CT-0023

CHECKED: REE | SCALE: NTS

APPROVED: GRANT STACY DATE: 03-06-2014

REV. A | SHT.

URBAN (20m – 70m) 19/3.25 10% AAC AND 7% AAAC

New Conductor (Initial) (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg C)		7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (Kg)	429	382	335	293	252	216	186	161	142	126	114	104	97	90	85	80	75
	TIME (s)	2.0	2.1	2.3	2.5	2.6	2.9	3.1	3.3	3.5	3.7	3.9	4.1	4.3	4.4	4.6	4.7	4.8
	SAG (m)	0.05	0.06	0.06	0.07	0.09	0.10	0.12	0.13	0.15	0.17	0.19	0.21	0.23	0.24	0.26	0.27	0.29
25	TENSION (Kg)	415	370	327	287	252	221	195	173	156	142	130	121	113	106	101	96	92
	TIME (s)	2.6	2.7	2.9	3.1	3.3	3.5	3.8	4.0	4.2	4.4	4.6	4.8	4.9	5.1	5.2	5.4	5.5
	SAG (m)	0.08	0.09	0.10	0.12	0.13	0.15	0.17	0.20	0.22	0.24	0.26	0.28	0.30	0.32	0.34	0.36	0.37
30	TENSION (Kg)	399	357	318	282	252	225	203	183	168	156	145	136	127	121	115	110	105
	TIME (s)	3.2	3.3	3.5	3.7	4.0	4.2	4.4	4.6	4.9	5.1	5.2	5.4	5.6	5.7	5.9	6.0	6.1
	SAG (m)	0.12	0.14	0.15	0.17	0.19	0.22	0.24	0.27	0.29	0.31	0.34	0.36	0.38	0.40	0.42	0.45	0.46
35	TENSION (Kg)	382	344	309	278	252	228	209	193	178	167	157	148	141	134	127	122	118
	TIME (s)	3.8	4.0	4.2	4.4	4.6	4.9	5.1	5.3	5.5	5.7	5.9	6.0	6.2	6.4	6.5	6.6	6.8
	SAG (m)	0.17	0.19	0.21	0.24	0.26	0.29	0.32	0.34	0.37	0.40	0.42	0.45	0.47	0.50	0.52	0.54	0.56
40	TENSION (Kg)	365	331	302	275	252	231	215	200	188	176	167	159	152	145	140	134	129
	TIME (s)	4.4	4.6	4.8	5.1	5.3	5.5	5.7	5.9	6.1	6.3	6.5	6.7	6.8	7.0	7.1	7.3	7.4
	SAG (m)	0.24	0.26	0.29	0.32	0.34	0.37	0.40	0.43	0.46	0.49	0.52	0.55	0.57	0.60	0.62	0.65	0.67
45	TENSION (Kg)	350	321	295	272	252	234	219	207	195	186	176	168	161	155	150	145	140
	TIME (s)	5.1	5.3	5.5	5.7	6.0	6.2	6.4	6.6	6.8	6.9	7.1	7.3	7.4	7.6	7.7	7.9	8.0
	SAG (m)	0.31	0.34	0.37	0.40	0.44	0.47	0.50	0.53	0.56	0.59	0.62	0.65	0.68	0.71	0.74	0.76	0.79
50	TENSION (Kg)	336	311	288	269	252	236	223	212	202	193	185	176	170	164	159	154	149
	TIME (s)	5.7	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.7	7.9	8.1	8.2	8.3	8.5	8.6
	SAG (m)	0.4	0.44	0.47	0.50	0.54	0.57	0.61	0.64	0.67	0.71	0.74	0.77	0.80	0.83	0.86	0.88	0.91
55	TENSION (Kg)	324	303	283	267	252	239	226	216	207	199	191	185	177	172	167	162	157
	TIME (s)	6.4	6.6	6.9	7.1	7.3	7.5	7.7	7.9	8.0	8.2	8.4	8.5	8.7	8.8	8.9	9.1	9.2
	SAG (m)	0.5	0.54	0.58	0.62	0.65	0.69	0.72	0.76	0.79	0.83	0.86	0.89	0.92	0.95	0.98	1.01	1.04
60	TENSION (Kg)	315	296	279	265	252	241	229	220	212	204	197	191	185	179	174	169	165
	TIME (s)	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.8
	SAG (m)	0.62	0.66	0.70	0.74	0.78	0.81	0.85	0.89	0.93	0.96	1.00	1.03	1.06	1.09	1.12	1.15	1.18
65	TENSION (Kg)	306	291	276	263	252	242	232	223	216	209	202	196	191	186	180	176	172
	TIME (s)	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.1	9.3	9.5	9.6	9.8	9.9	10.0	10.2	10.3	10.4
	SAG (m)	0.75	0.79	0.83	0.87	0.91	0.95	0.99	1.03	1.06	1.10	1.14	1.17	1.21	1.24	1.28	1.31	1.34
70	TENSION (Kg)	300	285	273	262	252	243	234	226	219	213	207	201	196	191	187	182	178
	TIME (s)	8.5	8.7	8.9	9.1	9.3	9.4	9.6	9.8	9.9	10.1	10.2	10.4	10.5	10.7	10.8	10.9	11.0
	SAG (m)	0.89	0.93	0.97	1.01	1.06	1.10	1.14	1.18	1.21	1.25	1.29	1.33	1.36	1.40	1.43	1.47	1.50

This table results in AAC at 10% UTS nominal tension and AAAC at approximately 7%

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 5°C shift & Next day 2.5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE URBAN (20-70m) 19/3.25 10% AAC AND 7% AAAC

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR | DATE: 03-06-2014

CHECKED: REE | SCALE: NTS

APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0027

REV. A | SHT.

URBAN (20m – 70m) 37/3.75 AAC TRITON 10%

New Conductor (Initial) (deg C)		12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
New Conductor (Initial) Next Day (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (Kg)	1016	909	810	721	642	575	518	471	432	400	372	349	329	312	297	283	272
	TIME (s)	2.6	2.7	2.9	3.1	3.3	3.5	3.6	3.8	4.0	4.2	4.3	4.4	4.6	4.7	4.8	4.9	5.0
	SAG (m)	0.08	0.09	0.10	0.12	0.13	0.15	0.16	0.18	0.20	0.21	0.23	0.24	0.26	0.27	0.29	0.30	0.31
25	TENSION (Kg)	950	859	777	704	642	588	542	504	470	441	417	396	376	360	345	331	319
	TIME (s)	3.4	3.5	3.7	3.9	4.1	4.3	4.4	4.6	4.8	4.9	5.1	5.2	5.3	5.5	5.6	5.7	5.8
	SAG (m)	0.14	0.15	0.17	0.19	0.21	0.22	0.24	0.26	0.28	0.30	0.32	0.33	0.35	0.37	0.38	0.40	0.41
30	TENSION (Kg)	889	814	749	692	642	599	562	529	501	475	453	433	416	400	385	372	360
	TIME (s)	4.2	4.4	4.5	4.7	4.9	5.1	5.3	5.4	5.6	5.7	5.8	6.0	6.1	6.2	6.3	6.5	6.6
	SAG (m)	0.21	0.23	0.25	0.27	0.30	0.32	0.34	0.36	0.38	0.40	0.42	0.44	0.46	0.48	0.49	0.51	0.53
35	TENSION (Kg)	838	779	728	682	642	607	576	548	524	502	482	464	448	433	419	407	396
	TIME (s)	5.0	5.2	5.4	5.6	5.7	5.9	6.0	6.2	6.3	6.5	6.6	6.7	6.9	7.0	7.1	7.2	7.3
	SAG (m)	0.31	0.33	0.36	0.38	0.40	0.43	0.45	0.47	0.50	0.52	0.54	0.56	0.58	0.60	0.62	0.64	0.66
40	TENSION (Kg)	798	752	712	675	642	614	587	564	542	523	506	489	474	461	448	436	425
	TIME (s)	5.9	6.0	6.2	6.4	6.5	6.7	6.9	7.0	7.1	7.3	7.4	7.5	7.6	7.7	7.8	8.0	8.1
	SAG (m)	0.42	0.45	0.48	0.50	0.53	0.55	0.58	0.60	0.62	0.65	0.67	0.69	0.71	0.74	0.76	0.78	0.80
45	TENSION (Kg)	768	731	698	669	642	618	596	576	558	540	524	510	496	484	472	461	451
	TIME (s)	6.7	6.9	7.1	7.2	7.4	7.5	7.7	7.8	7.9	8.0	8.2	8.3	8.4	8.5	8.6	8.7	8.8
	SAG (m)	0.56	0.59	0.61	0.64	0.67	0.69	0.72	0.75	0.77	0.79	0.82	0.84	0.86	0.89	0.91	0.93	0.95
50	TENSION (Kg)	744	716	689	665	642	622	602	585	569	555	540	527	515	504	492	482	473
	TIME (s)	7.6	7.8	7.9	8.0	8.2	8.3	8.5	8.6	8.7	8.8	8.9	9.0	9.2	9.3	9.4	9.5	9.6
	SAG (m)	0.71	0.74	0.77	0.80	0.82	0.85	0.88	0.91	0.93	0.96	0.98	1.01	1.03	1.05	1.08	1.10	1.12
55	TENSION (Kg)	727	703	681	661	642	625	609	593	579	566	554	541	530	520	510	501	491
	TIME (s)	8.5	8.6	8.7	8.9	9.0	9.1	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3
	SAG (m)	0.88	0.91	0.94	0.97	1.00	1.03	1.05	1.08	1.11	1.13	1.16	1.19	1.21	1.24	1.26	1.28	1.31
60	TENSION (Kg)	714	694	676	659	642	627	613	599	587	575	564	554	543	534	525	516	508
	TIME (s)	9.3	9.5	9.6	9.7	9.8	9.9	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1
	SAG (m)	1.07	1.10	1.13	1.16	1.19	1.22	1.25	1.27	1.30	1.33	1.35	1.38	1.41	1.43	1.46	1.48	1.51
65	TENSION (Kg)	703	686	671	656	642	629	617	606	594	583	573	564	555	546	537	530	522
	TIME (s)	10.2	10.3	10.4	10.5	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.7	11.8
	SAG (m)	1.27	1.31	1.34	1.37	1.40	1.43	1.45	1.48	1.51	1.54	1.57	1.59	1.62	1.65	1.67	1.70	1.72
70	TENSION (Kg)	694	680	667	654	642	631	620	610	599	590	581	573	564	557	548	541	534
	TIME (s)	11.0	11.1	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.3	12.4	12.5	12.6
	SAG (m)	1.50	1.53	1.56	1.59	1.62	1.65	1.68	1.71	1.74	1.76	1.79	1.82	1.85	1.87	1.90	1.93	1.95

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 7.5°C shift & Next day 5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE URBAN (20-70m) 37/3.75 AAC TRITON 10%

DISTRIBUTION CONSTRUCTION STANDARDS

DRAWN: JRR DATE: 03-06-2014

CHECKED: REE SCALE: NTS

APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0030

REV. A SHT.

URBAN (20m – 70m) 7/4.75 AAC 8% & AAAC 5% UNDERSLUNG EARTHWIRE TO MATCH AAC 10% & AAAC 7%

New Conductor (Initial) (deg. C.)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg. C.)		7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5
Existing Conductor (Final) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (Kg)	257	221	189	161	138	120	106	95	86	79	73	68	64	61	58	55	53
	TIME (s)	1.4	1.5	1.6	1.8	1.9	2.0	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.9	3.0	3.1
	SAG (m)	0.07	0.08	0.09	0.11	0.12	0.14	0.16	0.18	0.20	0.22	0.23	0.25	0.26	0.28	0.29	0.31	0.32
25	TENSION (Kg)	234	204	178	156	138	124	112	103	95	89	84	79	75	72	68	66	63
	TIME (s)	1.8	2.0	2.1	2.2	2.4	2.5	2.7	2.8	2.9	3.0	3.1	3.2	3.2	3.3	3.4	3.4	3.5
	SAG (m)	0.11	0.13	0.15	0.17	0.19	0.21	0.24	0.26	0.28	0.30	0.32	0.34	0.35	0.37	0.39	0.40	0.42
30	TENSION (Kg)	212	189	169	152	138	127	117	109	103	97	92	88	84	80	77	75	72
	TIME (s)	2.3	2.4	2.6	2.7	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.7	3.8	3.9	3.9
	SAG (m)	0.18	0.20	0.23	0.25	0.28	0.30	0.33	0.35	0.37	0.39	0.41	0.44	0.45	0.47	0.49	0.51	0.53
35	TENSION (Kg)	195	177	162	149	138	129	121	114	109	103	99	95	91	88	85	82	80
	TIME (s)	2.8	2.9	3.1	3.2	3.3	3.4	3.6	3.7	3.8	3.8	3.9	4.0	4.1	4.2	4.2	4.3	4.4
	SAG (m)	0.27	0.29	0.32	0.35	0.38	0.40	0.43	0.45	0.48	0.50	0.52	0.55	0.57	0.59	0.61	0.63	0.65
40	TENSION (Kg)	182	169	157	147	138	131	124	118	113	109	105	101	97	94	92	89	87
	TIME (s)	3.3	3.4	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.4	4.5	4.6	4.7	4.7	4.8
	SAG (m)	0.37	0.40	0.43	0.46	0.49	0.52	0.55	0.57	0.60	0.62	0.65	0.67	0.70	0.72	0.74	0.76	0.78
45	TENSION (Kg)	173	162	153	145	138	132	126	121	117	113	109	106	103	100	97	95	92
	TIME (s)	3.8	3.9	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.7	4.8	4.9	5.0	5.0	5.1	5.2	5.2
	SAG (m)	0.50	0.53	0.56	0.59	0.62	0.65	0.68	0.71	0.73	0.76	0.79	0.81	0.84	0.86	0.88	0.91	0.93
50	TENSION (Kg)	166	158	150	144	138	133	128	124	120	116	113	110	107	104	102	100	97
	TIME (s)	4.3	4.4	4.6	4.7	4.8	4.8	4.9	5.0	5.1	5.2	5.3	5.3	5.4	5.5	5.5	5.6	5.7
	SAG (m)	0.64	0.67	0.70	0.74	0.77	0.80	0.83	0.86	0.88	0.91	0.94	0.96	0.99	1.02	1.04	1.06	1.09
55	TENSION (Kg)	161	154	148	143	138	134	130	126	122	119	116	113	111	108	106	104	102
	TIME (s)	4.8	4.9	5.1	5.1	5.2	5.3	5.4	5.5	5.6	5.6	5.7	5.8	5.8	5.9	6.0	6.0	6.1
	SAG (m)	0.80	0.83	0.86	0.90	0.93	0.96	0.99	1.02	1.05	1.08	1.10	1.13	1.16	1.18	1.21	1.24	1.26
60	TENSION (Kg)	157	152	147	142	138	134	131	127	124	121	119	116	114	112	109	107	105
	TIME (s)	5.4	5.4	5.5	5.6	5.7	5.8	5.9	5.9	6.0	6.1	6.2	6.2	6.3	6.3	6.4	6.5	6.5
	SAG (m)	0.97	1.01	1.04	1.07	1.10	1.14	1.17	1.20	1.23	1.26	1.28	1.31	1.34	1.37	1.39	1.42	1.45
65	TENSION (Kg)	154	150	146	142	138	135	132	129	126	123	121	119	116	114	112	111	109
	TIME (s)	5.9	5.9	6.0	6.1	6.2	6.2	6.3	6.4	6.5	6.5	6.6	6.7	6.7	6.8	6.9	6.9	7.0
	SAG (m)	1.16	1.20	1.23	1.26	1.30	1.33	1.36	1.39	1.42	1.45	1.48	1.51	1.54	1.56	1.59	1.62	1.65
70	TENSION (Kg)	152	148	145	141	138	135	132	130	127	125	123	121	119	117	115	113	112
	TIME (s)	6.3	6.4	6.5	6.6	6.7	6.7	6.8	6.9	6.9	7.0	7.1	7.1	7.2	7.2	7.3	7.4	7.4
	SAG (m)	1.37	1.40	1.44	1.47	1.50	1.54	1.57	1.60	1.63	1.66	1.69	1.72	1.75	1.78	1.81	1.83	1.86

Creep allowance @ 15°C: New 5°C shift & Next day 2.5°C shift
Beat values are in seconds for five wave returns.

REV	DATE	DESCRIPTION	ORGD	CHKD	APRD
A	27 08 26	ORIGINAL ISSUE	SJ	MM	LT

STRUCTURE

TITLE: URBAN (20m-70m) 7/4.75 AAC 8% & AAAC 5% UNDERSLUNG EARTHWIRE TO MATCH AAC 10% & AAAC 7%

DISTRIBUTION CONSTRN STANDARD

westernpower

DRAWN: NC	DATE: 10-08-2026	DRG No: CT-0031	
ORIGINATED: SJ	SCALE: NTS		
CHECKED: MM			
APPROVED: LANKA THABREW		REV: A	SHT: 1/1

URBAN (20m – 70m) 19/3.25 AAC 8% & AAAC 5% UNDERSLUNG EARTHWIRE TO MATCH AAC 10% & AAAC 7%

New Conductor (Initial) (deg. C.)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg. C.)		7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5
Existing Conductor (Final) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (Kg)	344	300	259	222	191	165	145	128	116	106	98	91	85	81	76	67	65
	TIME (s)	1.3	1.4	1.5	1.7	1.8	2.0	2.1	2.2	2.4	2.4	2.5	2.7	2.7	2.8	2.9	3.0	3.0
	SAG (m)	0.06	0.07	0.08	0.10	0.11	0.13	0.15	0.17	0.19	0.20	0.22	0.24	0.25	0.27	0.28	0.32	0.34
25	TENSION (Kg)	320	281	246	216	191	170	153	140	129	119	112	105	100	95	90	80	77
	TIME (s)	1.7	1.9	2.0	2.2	2.3	2.4	2.5	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.3	3.4	3.5
	SAG (m)	0.11	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.30	0.32	0.34	0.36	0.37	0.42	0.44
30	TENSION (Kg)	296	263	235	211	191	174	160	148	139	130	123	117	112	107	102	92	89
	TIME (s)	2.2	2.3	2.5	2.6	2.7	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.7	3.8	3.9
	SAG (m)	0.16	0.19	0.21	0.23	0.26	0.28	0.30	0.33	0.35	0.37	0.40	0.42	0.44	0.46	0.48	0.53	0.55
35	TENSION (Kg)	275	249	226	207	191	177	165	155	147	139	133	127	122	117	113	102	100
	TIME (s)	2.7	2.8	2.9	3.1	3.2	3.3	3.4	3.6	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.2	4.3
	SAG (m)	0.24	0.27	0.29	0.32	0.35	0.37	0.40	0.43	0.45	0.48	0.50	0.52	0.55	0.57	0.59	0.65	0.67
40	TENSION (Kg)	258	237	219	204	191	179	170	161	153	147	141	135	130	126	122	112	109
	TIME (s)	3.1	3.3	3.4	3.5	3.6	3.8	3.9	4.0	4.1	4.2	4.2	4.3	4.4	4.5	4.6	4.6	4.7
	SAG (m)	0.34	0.37	0.40	0.42	0.45	0.48	0.51	0.54	0.57	0.59	0.62	0.64	0.67	0.69	0.71	0.78	0.80
45	TENSION (Kg)	244	228	214	202	191	181	173	165	159	153	147	142	138	133	130	120	117
	TIME (s)	3.6	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.8	4.9	5.0	5.1	5.1
	SAG (m)	0.45	0.48	0.51	0.54	0.57	0.61	0.63	0.66	0.69	0.72	0.75	0.77	0.80	0.82	0.85	0.92	0.94
50	TENSION (Kg)	234	221	210	200	191	183	175	169	163	157	153	148	144	140	136	127	124
	TIME (s)	4.1	4.2	4.3	4.4	4.5	4.7	4.8	4.8	4.9	5.0	5.1	5.2	5.3	5.3	5.4	5.4	5.5
	SAG (m)	0.58	0.61	0.64	0.68	0.71	0.74	0.77	0.80	0.83	0.86	0.89	0.91	0.94	0.97	0.99	1.07	1.09
55	TENSION (Kg)	227	216	207	198	191	184	177	172	166	162	157	153	149	145	142	133	130
	TIME (s)	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.4	5.5	5.6	5.7	5.7	5.8	5.9	5.9
	SAG (m)	0.72	0.76	0.79	0.83	0.86	0.89	0.92	0.95	0.98	1.01	1.04	1.07	1.10	1.13	1.15	1.23	1.26
60	TENSION (Kg)	221	212	204	197	191	185	179	174	169	165	161	157	154	150	147	139	136
	TIME (s)	5.1	5.2	5.3	5.4	5.4	5.6	5.6	5.7	5.8	5.9	6.0	6.0	6.1	6.2	6.2	6.3	6.3
	SAG (m)	0.88	0.92	0.95	0.99	1.02	1.06	1.09	1.12	1.15	1.18	1.21	1.24	1.27	1.30	1.33	1.41	1.43
65	TENSION (Kg)	216	209	202	196	191	185	181	176	172	168	164	161	158	154	152	144	141
	TIME (s)	5.6	5.7	5.7	5.8	5.9	6.0	6.1	6.2	6.2	6.3	6.4	6.5	6.5	6.6	6.6	6.7	6.8
	SAG (m)	1.06	1.09	1.13	1.17	1.20	1.23	1.27	1.30	1.33	1.36	1.39	1.42	1.45	1.48	1.51	1.59	1.62
70	TENSION (Kg)	213	206	201	196	191	186	182	178	174	170	167	164	161	158	155	148	146
	TIME (s)	6.0	6.1	6.2	6.3	6.4	6.5	6.5	6.6	6.7	6.7	6.8	6.9	6.9	7.0	7.1	7.1	7.2
	SAG (m)	1.25	1.28	1.32	1.36	1.39	1.43	1.46	1.49	1.52	1.56	1.59	1.62	1.65	1.68	1.71	1.79	1.82

Creep allowance @ 15°C: New 5°C shift & Next day 2.5°C shift
Beat values are in seconds for five wave returns.

REV	DATE	DESCRIPTION	ORGD	CHKD	APRD
A	27 08 26	ORIGINAL ISSUE	SJ	MM	LT

STRUCTURE

TITLE: URBAN (20m-70m) 19/3.25 AAC 8% & AAAC 5% UNDERSLUNG EARTHWIRE TO MATCH AAC 10% & AAAC 7%

DISTRIBUTION CONSTRN STANDARD

westernpower

DRAWN: NC	DATE: 10-08-2026	DRG No: CT-0032	
ORIGINATED: SJ	SCALE: NTS		
CHECKED: MM			
APPROVED: LANKA THABREW		REV: A	SHT: 1/1

URBAN (20m - 70m) 7/0.064 [7/16] HDBC 10%																		
		Temperature																
Existing Conductor (Final) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (kg)	87	81	73	68	62	57	52	48	44	41	38	36	34	32	30	29	27
	TIME (s)	2.6	2.6	2.7	2.9	2.9	3.0	3.1	3.4	3.5	3.6	3.7	3.8	3.9	4.1	4.2	4.3	4.4
	SAG (m)	0.08	0.08	0.09	0.10	0.10	0.11	0.12	0.14	0.15	0.16	0.17	0.18	0.19	0.21	0.22	0.23	0.24
25	TENSION (kg)	84	77	72	67	62	58	54	50	47	44	42	39	38	36	34	33	32
	TIME (s)	3.1	3.3	3.4	3.5	3.6	3.8	3.9	4.0	4.2	4.3	4.5	4.6	4.7	4.9	4.9	5.0	5.2
	SAG (m)	0.12	0.13	0.14	0.15	0.16	0.18	0.19	0.20	0.22	0.23	0.25	0.26	0.27	0.29	0.30	0.31	0.33
30	TENSION (kg)	81	75	70	66	62	58	55	52	49	47	45	43	41	39	38	36	35
	TIME (s)	3.8	3.9	4.1	4.2	4.3	4.5	4.7	4.8	4.9	5.0	5.2	5.3	5.4	5.6	5.6	5.8	5.9
	SAG (m)	0.18	0.19	0.21	0.22	0.23	0.25	0.27	0.28	0.30	0.31	0.33	0.34	0.36	0.38	0.39	0.41	0.42
35	TENSION (kg)	79	73	69	65	62	59	56	53	51	49	47	45	44	42	41	39	38
	TIME (s)	4.5	4.7	4.9	4.9	5.1	5.3	5.4	5.5	5.6	5.8	5.9	6.0	6.1	6.3	6.3	6.4	6.6
	SAG (m)	0.25	0.27	0.29	0.30	0.32	0.34	0.36	0.37	0.39	0.41	0.43	0.44	0.46	0.48	0.49	0.51	0.53
40	TENSION (kg)	75	72	68	65	62	59	57	55	52	51	49	47	46	44	43	42	41
	TIME (s)	5.3	5.4	5.6	5.7	5.9	6.0	6.1	6.3	6.4	6.4	6.6	6.7	6.8	6.9	7.1	7.1	7.2
	SAG (m)	0.34	0.36	0.38	0.40	0.42	0.44	0.46	0.48	0.50	0.51	0.53	0.55	0.57	0.59	0.61	0.62	0.64
45	TENSION (kg)	73	70	67	65	62	60	58	56	54	52	51	49	48	47	45	44	43
	TIME (s)	6.1	6.2	6.3	6.4	6.6	6.7	6.8	6.9	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9
	SAG (m)	0.45	0.47	0.49	0.51	0.53	0.55	0.57	0.59	0.61	0.63	0.65	0.67	0.69	0.71	0.73	0.75	0.77
50	TENSION (kg)	72	69	67	64	62	60	58	56	55	53	52	51	49	48	47	46	45
	TIME (s)	6.8	6.9	7.1	7.2	7.3	7.4	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6
	SAG (m)	0.56	0.59	0.61	0.63	0.65	0.68	0.70	0.72	0.74	0.76	0.78	0.81	0.82	0.85	0.87	0.88	0.90
55	TENSION (kg)	70	68	66	64	62	60	59	57	56	54	53	52	51	50	49	48	47
	TIME (s)	7.6	7.7	7.8	7.9	8.0	8.1	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3
	SAG (m)	0.70	0.72	0.75	0.77	0.79	0.81	0.84	0.86	0.88	0.90	0.93	0.95	0.97	0.99	1.01	1.03	1.05
60	TENSION (kg)	69	67	65	64	62	61	59	58	56	55	54	53	52	51	50	49	48
	TIME (s)	8.3	8.4	8.5	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0
	SAG (m)	0.84	0.87	0.89	0.92	0.94	0.97	0.99	1.01	1.04	1.06	1.08	1.11	1.13	1.15	1.17	1.19	1.22
65	TENSION (kg)	68	66	65	63	62	61	59	58	57	56	55	54	53	52	51	50	50
	TIME (s)	9.0	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.6
	SAG (m)	1.00	1.03	1.06	1.08	1.11	1.13	1.15	1.18	1.21	1.23	1.25	1.27	1.30	1.32	1.34	1.37	1.38
70	TENSION (kg)	67	66	65	63	62	61	60	59	58	57	56	55	54	53	52	51	51
	TIME (s)	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.1	11.2	11.3
	SAG (m)	1.18	1.21	1.23	1.26	1.28	1.31	1.33	1.36	1.38	1.41	1.43	1.45	1.48	1.50	1.52	1.55	1.57

NOTES:-
1. BEAT VALUES ARE IN SECONDS FOR FIVE WAVE RETURNS.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	12.03.20	TABLE REVISED	NN	NMc	GS
A	03.06.14	ORIGINAL ISSUE	REE	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE URBAN (20m-70m) 7/0.064 HDBC 10%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 03-06-2014 | DRG. No. CT-0040

ORIGINATED: | SCALE: NTS

CHECKED: REE

APPROVED: GRANT STACY

REV. B | SHT.

URBAN (20m - 70m) 7/0.080 [7/14] HDBC 10%

Existing Conductor (Final) (deg. C.)		Temperature																
		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (kg)	135	124	114	105	96	89	81	74	68	63	59	55	52	49	46	44	42
	TIME (s)	2.6	2.6	2.7	2.9	3.0	3.1	3.3	3.4	3.5	3.6	3.7	3.8	4.0	4.1	4.2	4.3	4.4
	SAG (m)	0.08	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.20	0.21	0.22	0.23	0.24
25	TENSION (kg)	130	120	112	104	96	90	84	77	72	68	64	61	58	55	53	51	49
	TIME (s)	3.1	3.3	3.4	3.5	3.7	3.8	3.9	4.0	4.2	4.3	4.5	4.6	4.8	4.9	4.9	5.0	5.2
	SAG (m)	0.12	0.13	0.14	0.15	0.17	0.18	0.19	0.20	0.22	0.23	0.25	0.26	0.28	0.29	0.30	0.31	0.33
30	TENSION (kg)	125	117	110	103	96	91	86	81	76	72	69	66	63	60	58	56	54
	TIME (s)	3.8	3.9	4.1	4.2	4.4	4.5	4.7	4.8	4.9	5.1	5.2	5.3	5.4	5.6	5.6	5.8	5.9
	SAG (m)	0.18	0.19	0.21	0.22	0.24	0.25	0.27	0.28	0.30	0.32	0.33	0.35	0.36	0.38	0.39	0.41	0.42
35	TENSION (kg)	121	114	108	102	96	92	87	83	80	75	72	70	67	65	63	61	59
	TIME (s)	4.6	4.7	4.9	5.0	5.1	5.3	5.4	5.6	5.6	5.8	5.9	6.1	6.1	6.3	6.4	6.4	6.6
	SAG (m)	0.26	0.27	0.29	0.31	0.32	0.34	0.36	0.38	0.39	0.41	0.43	0.45	0.46	0.48	0.50	0.51	0.53
40	TENSION (kg)	117	111	106	101	96	93	89	85	82	79	75	73	71	69	66	65	63
	TIME (s)	5.3	5.5	5.6	5.7	5.9	6.0	6.1	6.3	6.4	6.5	6.6	6.8	6.8	6.9	7.1	7.2	7.2
	SAG (m)	0.35	0.37	0.38	0.40	0.42	0.44	0.46	0.48	0.50	0.52	0.54	0.56	0.57	0.59	0.61	0.63	0.64
45	TENSION (kg)	114	109	104	101	96	93	90	87	84	81	79	76	74	72	70	68	66
	TIME (s)	6.1	6.2	6.3	6.4	6.6	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.6	7.7	7.7	7.8	7.9
	SAG (m)	0.45	0.47	0.49	0.51	0.54	0.56	0.58	0.60	0.62	0.64	0.66	0.68	0.70	0.72	0.73	0.75	0.77
50	TENSION (kg)	111	107	103	100	96	93	91	88	85	83	81	79	76	74	73	71	70
	TIME (s)	6.8	6.9	7.1	7.2	7.3	7.4	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6
	SAG (m)	0.57	0.59	0.62	0.64	0.66	0.68	0.70	0.73	0.75	0.77	0.79	0.81	0.83	0.85	0.87	0.89	0.91
55	TENSION (kg)	109	106	102	99	96	94	91	89	87	85	83	81	79	77	75	74	72
	TIME (s)	7.6	7.7	7.8	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3
	SAG (m)	0.70	0.73	0.75	0.78	0.80	0.82	0.84	0.87	0.89	0.91	0.93	0.96	0.98	1.00	1.02	1.04	1.06
60	TENSION (kg)	107	104	102	99	96	94	92	90	88	86	84	83	81	80	77	76	75
	TIME (s)	8.3	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0
	SAG (m)	0.85	0.88	0.90	0.93	0.95	0.97	1.00	1.02	1.04	1.07	1.09	1.11	1.14	1.16	1.18	1.20	1.22
65	TENSION (kg)	106	103	101	99	96	95	92	91	89	87	86	84	83	81	80	79	77
	TIME (s)	9.1	9.2	9.3	9.4	9.6	9.6	9.7	9.9	9.9	10.1	10.1	10.2	10.3	10.4	10.5	10.6	10.6
	SAG (m)	1.01	1.04	1.07	1.09	1.12	1.14	1.16	1.19	1.21	1.24	1.26	1.28	1.31	1.33	1.35	1.37	1.39
70	TENSION (kg)	105	102	100	98	96	95	93	91	90	88	87	85	84	83	82	81	79
	TIME (s)	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.6	10.8	10.8	10.9	11.0	11.1	11.2	11.3	11.4
	SAG (m)	1.19	1.22	1.24	1.27	1.29	1.32	1.34	1.37	1.39	1.42	1.44	1.47	1.49	1.51	1.54	1.56	1.58

NOTES:-
1. BEAT VALUES ARE IN SECONDS FOR FIVE WAVE RETURNS.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	12.03.20	TABLE REVISED	NN	NMc	GS
A	03.06.14	ORIGINAL ISSUE	REE	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE URBAN (20m-70m) 7/0.080 HDBC 10%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 03-06-2014 | DRG. No. CT-0041

ORIGINATED: | SCALE: NTS

CHECKED: REE

APPROVED: GRANT STACY | REV. B | SHT.

URBAN (20m - 70m) 7/0.104 [7/12] HDBC 10%

Existing Conductor (Final) (deg. C.)		Temperature																
		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (kg)	224	207	191	175	161	147	135	124	114	106	98	92	87	82	77	73	70
	TIME (s)	2.6	2.6	2.7	2.9	3.0	3.1	3.3	3.4	3.5	3.6	3.7	3.9	4.0	4.1	4.2	4.3	4.5
	SAG (m)	0.08	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.19	0.20	0.21	0.22	0.23	0.25
25	TENSION (kg)	216	201	187	173	161	149	139	130	121	114	108	102	97	93	89	85	82
	TIME (s)	3.1	3.3	3.4	3.6	3.7	3.8	3.9	4.1	4.2	4.3	4.5	4.6	4.8	4.9	4.9	5.1	5.2
	SAG (m)	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.21	0.22	0.23	0.25	0.26	0.28	0.29	0.30	0.32	0.33
30	TENSION (kg)	209	195	183	171	161	151	143	135	127	121	115	110	106	101	98	94	91
	TIME (s)	3.9	4.0	4.1	4.3	4.4	4.6	4.7	4.9	4.9	5.1	5.3	5.3	5.5	5.6	5.7	5.8	5.9
	SAG (m)	0.19	0.20	0.21	0.23	0.24	0.26	0.27	0.29	0.30	0.32	0.34	0.35	0.37	0.38	0.40	0.41	0.43
35	TENSION (kg)	202	190	179	169	161	153	145	139	133	126	121	117	113	109	105	102	99
	TIME (s)	4.6	4.8	4.9	5.0	5.2	5.3	5.4	5.6	5.7	5.9	5.9	6.1	6.2	6.3	6.4	6.5	6.6
	SAG (m)	0.26	0.28	0.29	0.31	0.33	0.34	0.36	0.38	0.40	0.42	0.43	0.45	0.47	0.48	0.50	0.52	0.53
40	TENSION (kg)	195	186	176	168	161	154	148	142	137	132	126	122	118	115	112	109	106
	TIME (s)	5.3	5.5	5.6	5.8	5.9	6.1	6.2	6.3	6.4	6.5	6.6	6.8	6.9	7.0	7.1	7.2	7.3
	SAG (m)	0.35	0.37	0.39	0.41	0.43	0.45	0.47	0.49	0.50	0.52	0.54	0.56	0.58	0.60	0.62	0.63	0.65
45	TENSION (kg)	190	182	174	167	160	155	149	144	140	136	132	127	124	120	117	114	112
	TIME (s)	6.1	6.3	6.4	6.5	6.6	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.6	7.7	7.8	7.9	8.0
	SAG (m)	0.46	0.48	0.50	0.52	0.54	0.56	0.58	0.60	0.62	0.64	0.66	0.68	0.70	0.72	0.74	0.76	0.78
50	TENSION (kg)	185	178	172	166	161	155	151	146	142	139	135	132	128	125	122	119	117
	TIME (s)	6.9	7.0	7.1	7.3	7.4	7.5	7.6	7.7	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7
	SAG (m)	0.58	0.60	0.62	0.65	0.67	0.69	0.71	0.73	0.76	0.78	0.80	0.82	0.84	0.86	0.88	0.90	0.92
55	TENSION (kg)	182	175	170	165	161	156	152	148	145	141	138	135	132	130	126	124	121
	TIME (s)	7.7	7.8	7.9	8.0	8.1	8.2	8.4	8.5	8.6	8.7	8.8	8.8	9.0	9.1	9.2	9.3	9.3
	SAG (m)	0.72	0.74	0.76	0.79	0.81	0.83	0.86	0.88	0.90	0.92	0.94	0.96	0.99	1.01	1.03	1.05	1.07
60	TENSION (kg)	178	173	169	165	161	157	153	150	146	143	141	138	135	133	130	127	125
	TIME (s)	8.4	8.5	8.7	8.8	8.8	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	9.9	10.0
	SAG (m)	0.87	0.89	0.92	0.94	0.96	0.99	1.01	1.03	1.06	1.08	1.10	1.12	1.15	1.17	1.19	1.21	1.23
65	TENSION (kg)	176	172	168	164	161	157	154	151	148	145	143	140	138	136	133	131	128
	TIME (s)	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.6	10.7
	SAG (m)	1.03	1.06	1.08	1.11	1.13	1.15	1.18	1.20	1.23	1.25	1.27	1.30	1.32	1.34	1.37	1.39	1.41
70	TENSION (kg)	174	170	167	164	161	157	155	152	149	147	145	142	140	138	136	134	132
	TIME (s)	9.9	10.1	10.1	10.3	10.3	10.5	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.2	11.4	11.4
	SAG (m)	1.21	1.24	1.26	1.29	1.31	1.34	1.36	1.39	1.41	1.43	1.46	1.48	1.51	1.53	1.55	1.58	1.60

NOTES:-
1. BEAT VALUES ARE IN SECONDS FOR FIVE WAVE RETURNS.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	12.03.20	TABLE REVISED	NN	NMc	GS
A	03.06.14	ORIGINAL ISSUE	REE	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE URBAN (20m-70m) 7/0.104 HDBC 10%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 03-06-2014 | DRG. No. CT-0042
ORIGINATED: | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. B | SHT.

URBAN (20m - 70m) 7/0.136 HDBC 10%

		Temperature																
Existing Conductor (Final) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (kg)	372	344	316	291	266	245	224	207	191	177	165	155	146	138	131	124	119
	TIME (s)	2.6	2.7	2.7	2.9	3.0	3.1	3.3	3.4	3.6	3.7	3.8	3.9	4.0	4.2	4.3	4.4	4.5
	SAG (m)	0.08	0.09	0.09	0.10	0.11	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20	0.22	0.23	0.24	0.25
25	TENSION (kg)	358	332	309	287	266	248	231	216	203	192	180	171	163	156	149	143	138
	TIME (s)	3.3	3.4	3.5	3.6	3.7	3.9	4.0	4.1	4.3	4.4	4.6	4.7	4.8	4.9	5.0	5.1	5.3
	SAG (m)	0.13	0.14	0.15	0.16	0.17	0.19	0.20	0.21	0.23	0.24	0.26	0.27	0.28	0.30	0.31	0.32	0.34
30	TENSION (kg)	345	322	302	283	266	251	237	224	213	203	194	186	177	170	164	159	153
	TIME (s)	3.9	4.1	4.2	4.3	4.5	4.6	4.8	4.9	5.0	5.2	5.3	5.4	5.6	5.6	5.8	5.9	5.9
	SAG (m)	0.19	0.21	0.22	0.23	0.25	0.26	0.28	0.30	0.31	0.33	0.34	0.36	0.38	0.39	0.41	0.42	0.43
35	TENSION (kg)	332	313	297	280	266	254	242	230	221	212	204	196	190	184	177	172	167
	TIME (s)	4.7	4.9	5.0	5.1	5.3	5.4	5.5	5.6	5.8	5.9	6.0	6.1	6.3	6.3	6.4	6.6	6.6
	SAG (m)	0.27	0.29	0.31	0.32	0.34	0.36	0.37	0.39	0.41	0.43	0.44	0.46	0.48	0.49	0.51	0.53	0.54
40	TENSION (kg)	321	306	292	278	266	255	245	236	227	219	212	206	200	194	189	184	178
	TIME (s)	5.5	5.6	5.8	5.9	6.0	6.1	6.3	6.4	6.5	6.6	6.8	6.8	6.9	7.1	7.2	7.2	7.3
	SAG (m)	0.37	0.39	0.41	0.42	0.44	0.46	0.48	0.50	0.52	0.54	0.56	0.57	0.59	0.61	0.63	0.64	0.66
45	TENSION (kg)	312	300	289	276	266	257	248	241	232	225	219	213	208	203	198	193	189
	TIME (s)	6.3	6.4	6.5	6.6	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.6	7.7	7.8	7.9	8.0	8.0
	SAG (m)	0.48	0.50	0.52	0.54	0.56	0.58	0.60	0.62	0.64	0.66	0.68	0.70	0.72	0.74	0.76	0.78	0.79
50	TENSION (kg)	306	295	285	275	266	258	251	244	238	231	225	219	215	210	205	201	197
	TIME (s)	7.0	7.2	7.3	7.4	7.5	7.6	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8
	SAG (m)	0.60	0.63	0.65	0.67	0.69	0.71	0.74	0.76	0.78	0.80	0.82	0.84	0.86	0.88	0.90	0.92	0.94
55	TENSION (kg)	300	291	281	273	266	259	253	247	241	236	230	225	220	216	212	208	204
	TIME (s)	7.8	7.9	8.0	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5
	SAG (m)	0.75	0.77	0.79	0.82	0.84	0.86	0.88	0.91	0.93	0.95	0.97	0.99	1.01	1.03	1.05	1.08	1.10
60	TENSION (kg)	295	287	279	272	266	260	255	249	244	239	235	230	225	221	218	214	211
	TIME (s)	8.6	8.7	8.8	8.9	9.0	9.1	9.3	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.1
	SAG (m)	0.90	0.93	0.95	0.98	1.00	1.02	1.05	1.07	1.09	1.11	1.14	1.16	1.18	1.20	1.22	1.24	1.26
65	TENSION (kg)	291	285	278	272	266	261	256	251	247	242	238	234	230	226	222	219	216
	TIME (s)	9.3	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.3	10.5	10.5	10.6	10.7	10.8	10.9
	SAG (m)	1.07	1.10	1.12	1.15	1.17	1.20	1.22	1.24	1.27	1.29	1.31	1.34	1.36	1.38	1.40	1.42	1.45
70	TENSION (kg)	288	282	276	271	266	262	257	253	249	245	241	238	234	230	227	224	221
	TIME (s)	10.1	10.2	10.3	10.5	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.2	11.3	11.4	11.5	11.6
	SAG (m)	1.26	1.28	1.31	1.34	1.36	1.38	1.41	1.43	1.46	1.48	1.50	1.53	1.55	1.57	1.60	1.62	1.64

NOTES:-
1. BEAT VALUES ARE IN SECONDS FOR FIVE WAVE RETURNS.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	12.03.20	TABLE REVISED	NN	NMc	GS
A	03.06.14	ORIGINAL ISSUE	REE	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE URBAN (20m-70m) 7/0.136 HDBC 10%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 03-06-2014 | DRG. No. CT-0043
ORIGINATED: | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. B | SHT.

URBAN (20m - 70m) 19/0.064 [19/16] HDBC 10%

Existing Conductor (Final) (deg. C.)		Temperature																
		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (kg)	230	213	196	180	165	152	139	127	118	109	102	96	90	85	81	76	72
	TIME (s)	2.6	2.6	2.7	2.9	3.0	3.1	3.3	3.4	3.5	3.6	3.7	3.9	4.0	4.1	4.2	4.3	4.5
	SAG (m)	0.08	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.19	0.20	0.21	0.22	0.23	0.25
25	TENSION (kg)	222	206	192	177	165	154	143	134	125	117	111	105	100	96	92	88	85
	TIME (s)	3.1	3.4	3.4	3.6	3.7	3.8	3.9	4.1	4.2	4.4	4.5	4.6	4.8	4.9	5.0	5.1	5.2
	SAG (m)	0.12	0.14	0.14	0.16	0.17	0.18	0.19	0.21	0.22	0.24	0.25	0.26	0.28	0.29	0.31	0.32	0.33
30	TENSION (kg)	214	201	188	176	165	155	147	139	132	125	119	114	109	105	101	97	94
	TIME (s)	3.9	4.0	4.1	4.3	4.4	4.6	4.7	4.9	5.0	5.1	5.3	5.3	5.5	5.6	5.7	5.8	5.9
	SAG (m)	0.19	0.20	0.21	0.23	0.24	0.26	0.27	0.29	0.31	0.32	0.34	0.35	0.37	0.38	0.40	0.41	0.43
35	TENSION (kg)	207	195	185	174	165	157	150	143	137	131	125	120	116	112	109	105	102
	TIME (s)	4.6	4.8	4.9	5.0	5.2	5.3	5.5	5.6	5.7	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6
	SAG (m)	0.26	0.28	0.30	0.31	0.33	0.35	0.37	0.38	0.40	0.42	0.44	0.45	0.47	0.49	0.50	0.52	0.53
40	TENSION (kg)	200	191	182	173	165	158	152	146	141	136	131	126	122	119	115	112	109
	TIME (s)	5.4	5.5	5.6	5.8	5.9	6.1	6.2	6.3	6.4	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3
	SAG (m)	0.36	0.37	0.39	0.41	0.43	0.45	0.47	0.49	0.51	0.53	0.55	0.56	0.58	0.60	0.62	0.63	0.65
45	TENSION (kg)	195	187	179	172	165	159	154	149	144	140	136	132	127	124	121	118	115
	TIME (s)	6.1	6.3	6.4	6.5	6.7	6.8	6.9	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0
	SAG (m)	0.46	0.48	0.50	0.52	0.55	0.57	0.59	0.61	0.63	0.65	0.67	0.69	0.71	0.73	0.74	0.76	0.78
50	TENSION (kg)	191	183	176	170	165	160	155	151	147	143	139	136	133	130	126	123	121
	TIME (s)	6.9	7.1	7.2	7.3	7.4	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7
	SAG (m)	0.58	0.61	0.63	0.65	0.67	0.70	0.72	0.74	0.76	0.78	0.80	0.82	0.84	0.86	0.88	0.90	0.92
55	TENSION (kg)	187	180	175	170	165	161	156	153	149	145	142	139	136	133	131	127	125
	TIME (s)	7.7	7.8	7.9	8.0	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.3
	SAG (m)	0.72	0.75	0.77	0.79	0.82	0.84	0.86	0.88	0.91	0.93	0.95	0.97	0.99	1.01	1.03	1.05	1.07
60	TENSION (kg)	184	178	174	169	165	161	157	154	151	148	145	142	139	137	135	132	130
	TIME (s)	8.4	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1
	SAG (m)	0.87	0.90	0.92	0.95	0.97	1.00	1.02	1.04	1.06	1.09	1.11	1.13	1.15	1.17	1.20	1.22	1.24
65	TENSION (kg)	182	176	172	169	165	162	158	155	152	150	147	144	142	140	138	135	133
	TIME (s)	9.2	9.3	9.4	9.5	9.6	9.7	9.9	9.9	10.1	10.1	10.2	10.3	10.4	10.5	10.6	10.6	10.8
	SAG (m)	1.04	1.06	1.09	1.11	1.14	1.16	1.19	1.21	1.24	1.26	1.28	1.30	1.33	1.35	1.37	1.39	1.42
70	TENSION (kg)	179	175	171	168	165	162	159	156	154	151	149	147	144	142	140	138	136
	TIME (s)	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.6	10.8	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5
	SAG (m)	1.22	1.24	1.27	1.30	1.32	1.35	1.37	1.39	1.42	1.44	1.47	1.49	1.51	1.54	1.56	1.58	1.61

NOTES:-
1. BEAT VALUES ARE IN SECONDS FOR FIVE WAVE RETURNS.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	12.03.20	TABLE REVISED	NN	NMc	GS
A	03.06.14	ORIGINAL ISSUE	REE	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE URBAN (20m-70m) 19/0.064 HDBC 10%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 03-06-2014 | DRG. No. CT-0044
ORIGINATED: | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. B | SHT.

URBAN (20m - 70m) 19/0.083 [19/14] HDBC 10%

		Temperature																
Existing Conductor (Final) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (kg)	383	354	325	299	274	252	231	213	197	183	169	159	150	141	134	127	121
	TIME (s)	2.6	2.7	2.7	2.9	3.0	3.1	3.3	3.4	3.5	3.6	3.8	3.9	4.0	4.1	4.2	4.3	4.5
	SAG (m)	0.08	0.09	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.18	0.19	0.20	0.21	0.22	0.23	0.25
25	TENSION (kg)	369	343	318	296	274	255	239	222	209	196	186	176	167	159	153	146	141
	TIME (s)	3.3	3.4	3.5	3.6	3.7	3.8	4.0	4.1	4.2	4.4	4.5	4.7	4.8	4.9	5.0	5.1	5.2
	SAG (m)	0.13	0.14	0.15	0.16	0.17	0.18	0.20	0.21	0.22	0.24	0.25	0.27	0.28	0.29	0.31	0.32	0.33
30	TENSION (kg)	355	332	312	293	274	258	244	230	219	208	199	190	182	174	168	162	157
	TIME (s)	3.9	4.0	4.2	4.3	4.5	4.6	4.8	4.9	5.0	5.1	5.3	5.3	5.5	5.6	5.7	5.8	5.9
	SAG (m)	0.19	0.20	0.22	0.23	0.25	0.26	0.28	0.29	0.31	0.32	0.34	0.35	0.37	0.39	0.40	0.41	0.43
35	TENSION (kg)	343	323	306	290	274	261	249	238	227	217	209	201	194	188	182	176	170
	TIME (s)	4.7	4.8	4.9	5.1	5.2	5.3	5.5	5.6	5.7	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6
	SAG (m)	0.27	0.28	0.30	0.32	0.33	0.35	0.37	0.39	0.40	0.42	0.44	0.46	0.47	0.49	0.50	0.52	0.54
40	TENSION (kg)	332	316	301	288	275	262	252	243	234	225	218	211	204	199	193	188	183
	TIME (s)	5.4	5.6	5.7	5.9	6.0	6.1	6.2	6.3	6.4	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3
	SAG (m)	0.36	0.38	0.40	0.42	0.44	0.46	0.47	0.49	0.51	0.53	0.55	0.57	0.59	0.60	0.62	0.64	0.66
45	TENSION (kg)	323	309	297	285	274	265	256	247	240	231	225	219	213	208	202	198	193
	TIME (s)	6.2	6.3	6.4	6.6	6.7	6.8	6.9	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0
	SAG (m)	0.47	0.49	0.51	0.53	0.55	0.57	0.59	0.61	0.63	0.65	0.67	0.69	0.71	0.73	0.75	0.77	0.79
50	TENSION (kg)	315	304	294	283	274	266	258	251	244	238	231	225	220	215	210	206	202
	TIME (s)	7.0	7.1	7.2	7.3	7.4	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7
	SAG (m)	0.60	0.62	0.64	0.66	0.68	0.70	0.73	0.75	0.77	0.79	0.81	0.83	0.85	0.87	0.89	0.91	0.93
55	TENSION (kg)	309	300	291	282	274	267	260	254	248	242	237	231	226	221	217	213	209
	TIME (s)	7.7	7.8	8.0	8.1	8.2	8.3	8.4	8.5	8.7	8.8	8.8	8.9	9.0	9.1	9.2	9.3	9.4
	SAG (m)	0.73	0.75	0.78	0.80	0.82	0.85	0.87	0.89	0.92	0.94	0.96	0.98	1.00	1.02	1.04	1.06	1.08
60	TENSION (kg)	305	297	289	281	274	268	262	256	251	246	241	237	231	227	223	219	216
	TIME (s)	8.5	8.6	8.7	8.8	8.9	9.1	9.2	9.3	9.4	9.5	9.6	9.6	9.7	9.8	9.9	10.0	10.1
	SAG (m)	0.88	0.91	0.93	0.96	0.98	1.01	1.03	1.05	1.08	1.10	1.12	1.14	1.16	1.18	1.21	1.23	1.25
65	TENSION (kg)	301	294	287	280	274	269	263	258	254	249	245	241	237	232	228	225	221
	TIME (s)	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.5	10.6	10.7	10.8
	SAG (m)	1.05	1.08	1.10	1.13	1.15	1.18	1.20	1.22	1.25	1.27	1.29	1.32	1.34	1.36	1.38	1.40	1.43
70	TENSION (kg)	297	291	286	279	274	269	265	260	256	252	248	244	241	237	234	230	226
	TIME (s)	10.1	10.1	10.3	10.3	10.5	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.2	11.3	11.4	11.5
	SAG (m)	1.24	1.26	1.29	1.31	1.34	1.36	1.39	1.41	1.43	1.46	1.48	1.50	1.53	1.55	1.57	1.60	1.62

NOTES:-
1. BEAT VALUES ARE IN SECONDS FOR FIVE WAVE RETURNS.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	12.03.20	TABLE REVISED	NN	NMc	GS
A	03.06.14	ORIGINAL ISSUE	REE	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE URBAN (20m-70m) 19/0.083 HDBC 10%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 03-06-2014 | DRG. No. CT-0045

ORIGINATED: | SCALE: NTS

CHECKED: REE

APPROVED: GRANT STACY

REV. B | SHT.

URBAN (20m - 70m) 19/0.101 [19/12]HDBC 10%

		Temperature																
Existing Conductor (Final) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (kg)	563	520	478	439	403	370	340	313	289	268	249	234	220	208	197	188	179
	TIME (s)	2.6	2.7	2.7	2.9	3.0	3.1	3.3	3.4	3.5	3.7	3.8	3.9	4.0	4.1	4.2	4.4	4.5
	SAG (m)	0.08	0.09	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.17	0.18	0.19	0.20	0.21	0.22	0.24	0.25
25	TENSION (kg)	542	504	468	434	403	375	350	327	307	290	273	259	246	235	224	216	207
	TIME (s)	3.3	3.4	3.5	3.6	3.7	3.9	4.0	4.1	4.3	4.4	4.5	4.7	4.8	4.9	5.0	5.1	5.2
	SAG (m)	0.13	0.14	0.15	0.16	0.17	0.19	0.20	0.21	0.23	0.24	0.25	0.27	0.28	0.29	0.31	0.32	0.33
30	TENSION (kg)	522	488	458	429	403	379	359	339	322	306	293	279	268	258	248	240	231
	TIME (s)	3.9	4.0	4.2	4.3	4.5	4.6	4.8	4.9	5.0	5.2	5.3	5.4	5.5	5.6	5.7	5.9	5.9
	SAG (m)	0.19	0.20	0.22	0.23	0.25	0.26	0.28	0.29	0.31	0.33	0.34	0.36	0.37	0.39	0.40	0.42	0.43
35	TENSION (kg)	504	475	449	425	403	383	365	349	333	320	308	297	286	276	267	259	252
	TIME (s)	4.7	4.9	4.9	5.1	5.3	5.3	5.5	5.6	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6
	SAG (m)	0.27	0.29	0.30	0.32	0.34	0.35	0.37	0.39	0.41	0.42	0.44	0.46	0.47	0.49	0.51	0.52	0.54
40	TENSION (kg)	487	464	442	422	404	386	371	357	344	331	320	310	301	293	285	276	269
	TIME (s)	5.4	5.6	5.7	5.9	6.0	6.1	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.1	7.1	7.2	7.3
	SAG (m)	0.36	0.38	0.40	0.42	0.44	0.46	0.48	0.50	0.52	0.54	0.55	0.57	0.59	0.61	0.62	0.64	0.66
45	TENSION (kg)	474	454	436	419	403	389	375	363	352	342	331	322	314	306	298	291	285
	TIME (s)	6.2	6.4	6.4	6.6	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.6	7.7	7.8	7.8	7.9	8.0
	SAG (m)	0.47	0.50	0.51	0.54	0.56	0.58	0.60	0.62	0.64	0.66	0.68	0.70	0.72	0.74	0.75	0.77	0.79
50	TENSION (kg)	464	445	431	417	403	391	379	369	359	349	341	332	324	317	310	304	297
	TIME (s)	7.0	7.1	7.2	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.4	8.4	8.5	8.6	8.7
	SAG (m)	0.60	0.62	0.64	0.67	0.69	0.71	0.73	0.75	0.77	0.79	0.81	0.83	0.86	0.87	0.89	0.91	0.93
55	TENSION (kg)	454	441	427	415	403	393	382	373	364	356	348	341	333	326	320	314	308
	TIME (s)	7.8	7.9	8.0	8.1	8.2	8.3	8.5	8.6	8.7	8.8	8.8	9.0	9.1	9.2	9.3	9.3	9.4
	SAG (m)	0.74	0.76	0.79	0.81	0.83	0.85	0.88	0.90	0.92	0.94	0.96	0.99	1.01	1.03	1.05	1.07	1.09
60	TENSION (kg)	447	434	424	413	403	394	385	376	369	361	354	348	341	334	329	323	318
	TIME (s)	8.5	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	9.9	10.0	10.1
	SAG (m)	0.89	0.92	0.94	0.97	0.99	1.01	1.04	1.06	1.08	1.11	1.13	1.15	1.17	1.19	1.21	1.23	1.25
65	TENSION (kg)	441	430	421	412	403	395	387	379	373	366	360	354	348	342	337	331	326
	TIME (s)	9.3	9.4	9.5	9.6	9.7	9.9	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.6	10.7	10.8
	SAG (m)	1.06	1.09	1.11	1.14	1.16	1.19	1.21	1.23	1.26	1.28	1.30	1.33	1.35	1.37	1.39	1.41	1.43
70	TENSION (kg)	436	427	419	411	403	396	390	382	376	370	364	359	353	348	344	339	333
	TIME (s)	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.5
	SAG (m)	1.25	1.27	1.30	1.32	1.35	1.37	1.40	1.42	1.45	1.47	1.49	1.51	1.54	1.56	1.58	1.61	1.63

NOTES:-
1. BEAT VALUES ARE IN SECONDS FOR FIVE WAVE RETURNS.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	12.03.20	TABLE REVISED	NN	NMc	GS
A	03.06.14	ORIGINAL ISSUE	REE	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE URBAN (20m-70m) 19/0.101 HDBC 10%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 03-06-2014 | DRG. No. CT-0046
ORIGINATED: | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY
REV. B | SHT.

URBAN (20m - 70m) 6/1/3.00 AAC SR/AC ARCHERY 10%

Temperature

New Conductor (Initial) (deg. C.)	0	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65	67.5
New Conductor (Initial) Next Day (deg. C.)	-2.5	0	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65
Existing Conductor (Final) (deg. C.)	-13	-10	-7.5	-5	-2.5	0	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
Ruling Span																												
20	TENSION (Kg)	404	384	364	344	324	305	285	265	246	226	207	188	169	150	133	116	100	86	74	65	57	51	46	42	39	36	34	32
20	TIME (s)	1.3	1.3	1.3	1.3	1.6	1.6	1.6	1.6	1.6	1.8	1.8	1.8	2	2.2	2.4	2.6	2.7	3	3.3	3.4	3.6	3.8	3.8	3.9	4.1	4.2	4.4	4.5
20	SAG (m)	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.07	0.08	0.09	0.11	0.13	0.14	0.16	0.18	0.19	0.21	0.22	0.24	0.25
25	TENSION (Kg)	402	382	362	342	323	303	283	264	244	225	206	188	169	152	135	119	105	92	81	72	65	59	54	50	47	44	41	39
25	TIME (s)	1.6	1.6	1.8	1.8	1.8	1.8	1.8	2	2.2	2.2	2.4	2.6	2.7	3	3.1	3.4	3.6	3.8	4	4.2	4.4	4.5	4.7	4.7	4.9	5	5	5.2
25	SAG (m)	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06	0.06	0.07	0.08	0.08	0.09	0.11	0.12	0.14	0.16	18	0.2	0.22	0.24	0.25	0.27	0.29	0.31	0.33
30	TENSION (Kg)	399	379	360	340	320	302	281	262	243	224	206	188	170	153	137	123	109	98	88	79	72	66	61	57	54	51	48	46
30	TIME (s)	2	2	2	2.24	2.2	2.4	2.4	2.6	2.7	2.9	3	3.1	3.3	3.5	3.7	3.9	4.1	4.3	4.5	4.8	4.9	5.1	5.3	5.4	5.6	5.6	5.6	5.7
30	SAG (m)	0.05	0.05	0.05	0.05	0.06	0.07	0.07	0.08	0.08	0.09	0.1	0.11	0.12	0.13	0.15	0.17	0.19	0.21	0.23	0.25	0.28	0.3	0.32	0.34	0.36	0.38	0.4	0.4
35	TENSION (Kg)	396	376	357	337	318	298	279	260	242	223	205	188	171	156	140	114	103	94	86	79	73	68	64	60	57	54	51	52
35	TIME (s)	2.2	2.4	2.4	2.4	2.6	2.6	2.7	2.9	2.9	3	3.1	3.3	3.5	3.6	3.8	4.51	4.2	4.4	4.7	4.9	5.1	5.3	5.5	5.6	5.8	6	6.4	6.3
35	SAG (m)	0.06	0.07	0.07	0.07	0.08	0.08	0.09	0.1	0.1	0.11	0.12	0.13	0.15	0.16	0.18	0.25	0.22	0.24	0.27	0.29	0.32	0.34	0.37	0.39	0.41	0.44	0.46	0.48
40	TENSION (Kg)	392	373	353	334	315	296	277	258	240	222	204	188	171	156	142	129	118	108	99	92	85	79	74	70	67	63	60	58
40	TIME (s)	2.6	2.7	2.7	2.9	2.9	3	3.1	3.3	3.4	3.5	3.6	3.7	3.9	4.1	4.3	4.5	4.8	4.9	5.2	5.4	5.6	5.8	6	6.1	6.3	6.5	6.6	6.8
40	SAG (m)	0.08	0.09	0.09	0.1	0.1	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.19	0.21	0.23	0.25	0.28	0.3	0.33	0.36	0.38	0.41	0.44	0.46	0.49	0.52	0.54	0.56
45	TENSION (Kg)	388	369	350	331	312	293	274	256	238	221	204	188	172	158	145	133	122	113	104	97	91	85	80	76	72	69	66	63
45	TIME (s)	3	3	3.1	3.1	3.3	3.4	3.5	3.6	3.7	3.9	4	4.2	4.4	4.6	4.9	5	5.3	5.5	5.7	5.9	6.1	6.3	6.4	6.6	6.8	7	7.1	7.3
45	SAG (m)	0.11	0.11	0.12	0.12	0.13	0.14	0.15	0.16	0.17	0.19	0.2	0.22	0.24	0.25	0.29	0.31	0.34	0.37	0.4	0.43	0.46	0.48	0.52	0.54	0.57	0.6	0.62	0.65
50	TENSION (Kg)	384	365	346	327	308	290	271	253	236	219	203	188	173	160	147	136	126	117	109	102	96	91	86	82	78	75	72	69
50	TIME (s)	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4	4.2	4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.7	6	6.2	6.4	6.6	6.8	6.9	7.1	7.3	7.4	7.6	7.8
50	SAG (m)	0.13	0.14	0.15	0.16	0.17	0.18	0.19	0.2	0.22	0.23	0.25	0.27	0.29	0.32	0.35	0.37	0.4	0.44	0.47	0.5	0.53	0.56	0.59	0.62	0.65	0.68	0.71	0.74
55	TENSION (Kg)	379	360	341	323	304	286	268	251	234	218	202	188	174	161	149	139	129	121	113	107	101	96	91	87	83	80	77	74
55	TIME (s)	3.6	3.7	3.8	3.9	4	4.2	4.3	4.5	4.6	4.8	4.9	5.2	5.3	5.6	5.8	6	6.3	6.4	6.6	6.9	7.1	7.3	7.4	7.6	7.8	7.9	8.1	8.2
55	SAG (m)	1.6	0.17	0.18	0.19	0.2	0.22	0.23	0.25	0.26	0.28	0.3	0.33	0.35	0.38	0.41	0.44	0.48	0.51	0.54	0.58	0.61	0.65	0.68	0.71	0.74	0.77	0.8	0.83
60	TENSION (Kg)	374	355	337	318	300	282	265	248	232	216	202	188	175	163	152	142	133	125	117	111	105	100	96	92	88	84	81	79
60	TIME (s)	4	4.1	4.2	4.3	4.4	4.6	4.8	4.9	5.1	5.3	5.4	5.6	5.9	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.6	7.7	7.9	8.1	8.2	8.4	8.6	8.7
60	SAG (m)	0.2	0.21	0.22	0.23	0.24	0.26	0.28	0.3	0.32	0.34	0.36	0.39	0.42	0.45	0.48	0.52	0.55	0.59	0.62	0.66	0.7	0.73	0.77	0.8	0.83	0.87	0.9	0.93
65	TENSION (Kg)	369	350	332	314	296	279	262	246	230	215	201	188	175	164	154	144	136	128	121	115	110	105	100	96	92	89	86	83
65	TIME (s)	4.3	4.5	4.6	4.7	4.9	5	5.2	5.3	5.5	5.7	5.9	6.1	6.3	6.6	6.8	7	7.2	7.4	7.6	7.8	8	8.2	8.4	8.6	8.7	8.9	9	9.2
65	SAG (m)	0.23	0.25	0.26	0.27	0.29	0.31	0.33	0.35	0.37	0.4	0.43	0.46	0.49	0.53	0.56	0.6	0.63	0.67	0.71	0.75	0.79	0.82	0.86	0.9	0.93	0.97	1	1.03
70	TENSION (Kg)	363	345	327	309	292	275	259	243	228	214	200	188	176	165	155	147	139	131	125	119	114	109	104	100	97	93	90	88
70	TIME (s)	4.8	4.9	5	5.1	5.3	5.4	5.6	5.8	6	6.2	6.4	6.6	6.8	7	7.2	7.4	7.7	7.9	8.1	8.3	8.5	8.7	8.8	9	9.2	9.3	9.5	9.6
70	SAG (m)	0.28	0.29	0.31	0.32	0.34	0.36	0.39	0.41	0.44	0.47	0.5	0.53	0.57	0.6	0.64	0.68	0.72	0.76	0.8	0.84	0.88	0.92	0.96	0.99	1.03	1.07	1.1	1.14

Temperature Shift Same Day: 12.5 deg.C.
Temperature Shift Next Day : 10 deg. C.

NOTES -
1. BEAT VALUES ARE IN SECONDS FOR FIVE WAVE RETURNS.

REV	DATE	DESCRIPTION	SH ORGD	GS CHKD	GS APRD
A	03 10 21	ORIGINAL ISSUE			

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE URBAN (20m-70m) 6/1/3.00 AACSR/AC ARCHERY 10%

DISTRIBUTION CONSTRN STANDARD

westernpower

DRAWN: JRR | DATE: 04-10-2021 | DRG No.: CT-0047
ORIGINATED: SIDH | SCALE: NTS
CHECKED: GS
APPROVED: GRANT STACY | REV: A | SHT:

URBAN (20m - 70m) 6/1/3.00 AACSR/AC UNDERSLUNG ARCHERY 8%

		Temperature																											
New Conductor (Initial) (deg. C.)		0	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65	67.5
New Conductor (Initial) Next Day (deg. C.)		-2.5	0	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65	
Existing Conductor (Final) (deg. C.)		-12.5	-10	-7.5	-5	-2.5	0	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	
Ruling Span																													
20	TENSION (Kg)	364	344	324	305	284	265	246	226	207	188	168	150	133	115	100	86	74	64	57	51	46	42	39	37	34	33	31	30
20	TIME (s)	1.35	1.39	1.43	1.48	1.53	1.58	1.64	1.71	1.79	1.88	1.99	2.11	2.24	2.4	2.58	2.79	2.99	3.22	3.41	3.61	3.81	3.99	4.14	4.26	4.44	4.51	4.66	4.74
20	SAG (m)	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11	0.13	0.14	0.16	0.18	0.2	0.21	0.22	0.24	0.25	0.27	0.28
25	TENSION (Kg)	360	340	321	301	281	262	243	223	205	186	167	150	134	117	104	91	81	71	64	58	54	50	46	44	41	39	37	36
25	TIME (s)	1.7	1.75	1.8	1.86	1.92	1.99	2.07	2.16	2.25	2.37	2.49	2.63	2.79	2.98	3.16	3.38	3.59	3.81	4.02	4.23	4.38	4.56	4.76	4.87	5.05	5.18	5.32	5.3
25	SAG (m)	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.06	0.07	0.08	0.08	0.1	0.11	0.12	0.14	0.16	0.18	0.2	0.22	0.24	0.25	0.28	0.29	0.31	0.33	0.35	0.36
30	TENSION (Kg)	356	336	317	298	277	259	240	220	202	185	167	150	135	120	107	96	86	77	71	65	60	56	53	50	48	45	44	42
30	TIME (s)	2.05	2.11	2.17	2.24	2.32	2.4	2.5	2.61	2.72	2.85	2.99	3.16	3.33	3.53	3.74	3.95	4.18	4.39	4.58	4.79	4.99	5.16	5.31	5.47	5.59	5.77	5.84	5.98
30	SAG (m)	0.05	0.05	0.06	0.06	0.07	0.07	0.08	0.08	0.09	0.1	0.11	0.12	0.14	0.15	0.17	0.19	0.21	0.24	0.26	0.28	0.3	0.33	0.35	0.37	0.38	0.41	0.42	0.44
35	TENSION (Kg)	351	331	312	293	273	255	235	217	200	182	166	150	136	122	110	100	91	84	77	71	67	63	59	56	54	51	49	47
35	TIME (s)	2.41	2.48	2.55	2.64	2.73	2.83	2.94	3.06	3.19	3.34	3.5	3.69	3.87	4.08	4.3	4.51	4.74	4.93	5.13	5.34	5.5	5.68	5.87	6.03	6.14	6.32	6.45	6.59
35	SAG (m)	0.07	0.08	0.08	0.09	0.09	0.1	0.11	0.11	0.12	0.14	0.15	0.17	0.18	0.2	0.23	0.25	0.28	0.3	0.32	0.35	0.37	0.39	0.42	0.45	0.46	0.49	0.51	0.53
40	TENSION (Kg)	392	325	307	287	269	250	232	214	197	180	165	150	137	124	113	104	96	89	83	77	72	68	65	62	59	57	55	53
40	TIME (s)	2.6	2.86	2.94	3.04	3.14	3.26	3.38	3.52	3.68	3.84	4.01	4.21	4.41	4.62	4.85	5.06	5.27	5.48	5.67	5.86	6.06	6.24	6.38	6.54	6.71	6.82	6.95	7.08
40	SAG (m)	0.08	0.1	0.11	0.11	0.12	0.13	0.14	0.15	0.17	0.18	0.2	0.22	0.24	0.26	0.29	0.31	0.34	0.37	0.39	0.42	0.45	0.48	0.5	0.52	0.55	0.57	0.59	0.62
45	TENSION (Kg)	338	319	301	282	263	246	227	211	194	178	164	150	1138	126	116	107	100	93	88	83	77	73	70	67	64	62	60	58
45	TIME (s)	3.15	3.25	3.34	3.45	3.58	3.7	3.85	3.99	4.17	4.34	4.53	4.74	4.94	5.16	5.38	5.61	5.8	6.02	6.2	6.38	6.59	6.77	6.92	7.07	7.24	7.36	7.48	7.61
45	SAG (m)	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.2	0.21	0.23	0.25	0.28	0.3	0.33	0.36	0.39	0.41	0.44	0.47	0.5	0.53	0.56	0.59	0.61	0.64	0.66	0.69	0.71
50	TENSION (Kg)	331	313	294	276	258	241	223	207	192	176	163	150	139	128	119	111	104	97	92	87	83	78	75	72	69	67	64	62
50	TIME (s)	3.54	3.64	3.76	3.88	4.01	4.16	4.31	4.48	4.66	4.85	5.05	5.27	5.47	5.69	5.9	6.11	6.32	6.55	6.73	6.92	7.09	7.27	7.42	7.58	7.74	7.86	8.04	8.17
50	SAG (m)	0.15	0.16	0.17	0.18	0.2	0.21	0.23	0.25	0.27	0.29	0.31	0.34	0.37	0.4	0.43	0.46	0.49	0.53	0.56	0.59	0.62	0.65	0.68	0.7	0.73	0.76	0.79	0.82
55	TENSION (Kg)	324	306	287	269	252	235	219	203	189	174	162	150	140	129	121	114	107	101	96	91	87	84	80	76	74	71	69	67
55	TIME (s)	3.94	4.05	4.18	4.32	4.47	4.62	4.79	4.98	5.16	5.37	5.57	5.79	0.44	6.23	6.44	6.64	6.85	7.06	7.24	7.44	7.62	7.75	7.95	8.11	8.22	8.39	8.52	8.64
55	SAG (m)	0.19	0.2	0.21	0.23	0.24	0.26	0.28	0.3	0.33	0.35	0.38	0.41	6	0.48	0.51	0.54	0.58	0.61	0.64	0.68	0.71	0.74	0.78	0.81	0.83	0.86	0.89	0.92
60	TENSION (Kg)	316	298	280	263	246	229	214	200	186	172	161	150	141	131	123	116	110	105	100	95	91	88	84	81	78	75	73	71
60	TIME (s)	4.35	4.48	4.62	4.77	4.93	5.11	5.29	5.47	5.68	5.89	6.09	6.32	6.52	6.74	6.96	7.17	7.37	7.55	7.74	7.94	8.12	8.26	8.46	8.62	8.73	8.9	9.03	9.16
60	SAG (m)	0.23	0.25	0.26	0.28	0.3	0.32	0.34	0.37	0.4	0.43	0.46	0.49	0.52	0.56	0.59	0.63	0.67	0.7	0.73	0.77	0.81	0.84	0.88	0.91	0.93	0.97	1	1.03
65	TENSION (Kg)	307	290	272	256	240	224	210	196	183	171	160	150	141	133	125	119	113	108	103	99	95	91	88	85	83	80	77	75
65	TIME (s)	4.78	4.92	5.08	5.24	5.41	5.59	5.78	5.99	6.19	6.4	6.62	6.84	7.06	7.28	7.48	7.67	7.88	8.06	8.26	8.43	8.61	8.8	8.95	9.11	9.22	9.4	9.52	9.65
65	SAG (m)	0.28	0.3	0.32	0.34	0.36	0.38	0.41	0.44	0.47	0.5	0.54	0.57	0.61	0.65	0.69	0.72	0.76	0.8	0.84	0.87	0.91	0.95	0.98	1.02	1.04	1.08	1.11	1.14
70	TENSION (Kg)	299	281	265	249	233	219	206	193	180	169	159	150	142	135	127	121	115	110	106	102	98	95	92	89	86	84	82	80
70	TIME (s)	5.22	5.38	5.54	5.72	5.91	6.09	6.29	6.5	6.72	6.94	7.16	7.37	7.58	7.78	7.99	8.19	8.41	8.6	8.76	8.94	9.12	9.27	9.42	9.58	9.75	9.87	9.99	10.12
70	SAG (m)	0.33	0.35	0.38	0.4	0.43	0.46	0.48	0.52	0.55	0.59	0.63	0.67	0.7	0.74	0.78	0.82	0.87	0.91	0.94	0.98	1.02	1.05	1.09	1.13	1.17	1.19	1.22	1.26

Temperature Shift Same Day: 12.5 deg.C.
Temperature Shift Next Day : 10 deg. C.

NOTES –
1. BEAT VALUES ARE IN SECONDS FOR FIVE WAVE RETURNS.

REV	DATE	DESCRIPTION	ORGD	CHKD	APPD
A	03.10.21	ORIGINAL ISSUE	SH	GS	GS

TITLE: STRUCTURE
CONDUCTOR TENSIONING TABLE
URBAN (20m–70m) 6/1/3.00 AACSR/AC UNDERSLUNG ARCHERY 8%

DISTRIBUTION CONSTRN STANDARD

DRAWN JRR | DATE 04-10-2021 | DRG No. CT-0048
ORIGINATED SDH | SCALE NTS
CHECKED GS
APPROVED GRANT STACY | REV A | SHT

OUTER URBAN (60m -105m) 7/2.50 AAC LEO 18%

New Conductor (Initial) (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
New Conductor (Initial) Next Day (deg C)		12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	143	134	123	115	106	99	92	85	78	73	69	64	61	58	55	52	50
	TIME (s)	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.4	6.6	6.9	7.1	7.3	7.5	7.7	7.9	8.1	8.3
	SAG (m)	0.30	0.32	0.34	0.37	0.40	0.43	0.46	0.50	0.54	0.58	0.62	0.66	0.70	0.74	0.78	0.82	0.85
65	TENSION (Kg)	142	133	123	114	106	99	92	86	81	75	71	67	63	60	57	55	52
	TIME (s)	5.4	5.5	5.7	5.9	6.2	6.4	6.6	6.9	7.1	7.3	7.6	7.8	8.0	8.2	8.4	8.6	8.8
	SAG (m)	0.35	0.38	0.40	0.43	0.47	0.50	0.54	0.58	0.62	0.66	0.70	0.75	0.79	0.83	0.87	0.91	0.95
70	TENSION (Kg)	140	130	122	114	106	99	93	87	82	77	72	69	65	62	60	57	55
	TIME (s)	5.8	6.0	6.2	6.4	6.6	6.9	7.1	7.3	7.6	7.8	8.0	8.3	8.5	8.7	8.9	9.1	9.3
	SAG (m)	0.41	0.44	0.47	0.51	0.54	0.58	0.62	0.66	0.71	0.75	0.79	0.84	0.88	0.93	0.97	1.01	1.05
75	TENSION (Kg)	139	129	121	113	106	100	94	88	84	78	74	71	67	64	62	59	57
	TIME (s)	6.2	6.4	6.7	6.9	7.1	7.4	7.6	7.8	8.0	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.7
	SAG (m)	0.48	0.51	0.55	0.58	0.62	0.67	0.71	0.75	0.80	0.84	0.89	0.94	0.98	1.03	1.07	1.12	1.16
80	TENSION (Kg)	137	128	120	113	106	100	95	89	85	81	76	72	69	66	64	61	59
	TIME (s)	6.7	6.9	7.1	7.3	7.6	7.8	8.1	8.3	8.5	8.7	9.0	9.2	9.4	9.6	9.8	10.0	10.2
	SAG (m)	0.55	0.59	0.62	0.66	0.71	0.76	0.80	0.84	0.89	0.94	0.99	1.04	1.09	1.13	1.18	1.23	1.27
85	TENSION (Kg)	136	127	120	113	106	101	95	90	86	82	77	74	71	68	66	63	61
	TIME (s)	7.1	7.4	7.6	7.8	8.1	8.3	8.5	8.8	9.0	9.2	9.4	9.6	9.9	10.1	10.2	10.4	10.6
	SAG (m)	0.63	0.67	0.71	0.75	0.80	0.85	0.89	0.94	0.99	1.04	1.09	1.14	1.19	1.24	1.29	1.34	1.39
90	TENSION (Kg)	134	126	119	112	106	101	96	91	87	83	80	76	73	70	67	65	63
	TIME (s)	7.6	7.8	8.1	8.3	8.5	8.8	9.0	9.2	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1
	SAG (m)	0.71	0.76	0.80	0.85	0.90	0.95	1.00	1.05	1.10	1.15	1.20	1.26	1.31	1.36	1.41	1.46	1.51
95	TENSION (Kg)	133	125	118	112	106	101	96	92	88	84	81	77	74	72	69	67	65
	TIME (s)	8.1	8.3	8.5	8.8	9.0	9.3	9.5	9.7	9.9	10.1	10.4	10.6	10.8	11.0	11.2	11.3	11.5
	SAG (m)	0.80	0.85	0.90	0.95	1.00	1.05	1.11	1.16	1.21	1.27	1.32	1.37	1.43	1.48	1.53	1.58	1.63
100	TENSION (Kg)	131	124	118	112	106	101	97	93	89	85	82	78	76	73	71	69	67
	TIME (s)	8.5	8.8	9.0	9.3	9.5	9.7	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.8	12.0
	SAG (m)	0.90	0.95	1.00	1.05	1.11	1.16	1.22	1.27	1.33	1.38	1.44	1.49	1.55	1.60	1.66	1.71	1.76
105	TENSION (Kg)	129	123	117	111	106	102	97	93	90	87	83	81	77	75	72	70	68
	TIME (s)	9.0	9.3	9.5	9.7	10.0	10.2	10.4	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.2	12.4
	SAG (m)	1.00	1.05	1.11	1.17	1.22	1.28	1.34	1.40	1.45	1.51	1.56	1.62	1.68	1.73	1.79	1.84	1.89

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 10°C shift & Next day 7.5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE OUTER URBAN (60m-105m) 7/2.50 AAC LEO 18%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR | DATE: 03-06-2014 | DRG. No. CT-0050

CHECKED: REE | SCALE: NTS

APPROVED: GRANT STACY DATE: 03-06-2014

REV. A | SHT.

OUTER URBAN (60m – 105m) 7/3.0 AAC LIBRA 18%

New Conductor (Initial) (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
New Conductor (Initial) Next Day (deg C)		12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	196	182	169	157	145	135	124	116	108	101	95	89	85	80	76	72	69
	TIME (s)	5.0	5.2	5.4	5.6	5.8	6.1	6.3	6.5	6.8	7.0	7.2	7.5	7.7	7.9	8.1	8.3	8.4
	SAG (m)	0.31	0.33	0.36	0.39	0.42	0.45	0.49	0.53	0.57	0.61	0.65	0.69	0.73	0.76	0.80	0.84	0.88
65	TENSION (Kg)	194	180	167	156	145	135	125	117	110	103	98	92	88	84	80	76	73
	TIME (s)	5.5	5.7	5.9	6.1	6.3	6.6	6.8	7.0	7.3	7.5	7.7	7.9	8.2	8.4	8.6	8.7	8.9
	SAG (m)	0.37	0.40	0.43	0.46	0.49	0.53	0.57	0.61	0.65	0.69	0.73	0.78	0.82	0.86	0.90	0.94	0.98
70	TENSION (Kg)	191	178	166	155	145	136	126	119	112	106	100	95	91	87	83	80	76
	TIME (s)	5.9	6.1	6.4	6.6	6.8	7.0	7.3	7.5	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.4
	SAG (m)	0.43	0.46	0.50	0.53	0.57	0.61	0.65	0.70	0.74	0.78	0.83	0.87	0.92	0.96	1.00	1.04	1.08
75	TENSION (Kg)	189	176	165	155	145	136	128	120	114	108	103	98	94	90	86	83	80
	TIME (s)	6.4	6.6	6.8	7.1	7.3	7.6	7.8	8.0	8.2	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9
	SAG (m)	0.50	0.54	0.58	0.61	0.66	0.70	0.74	0.79	0.83	0.88	0.93	0.97	1.02	1.06	1.11	1.15	1.19
80	TENSION (Kg)	187	174	164	154	145	137	128	122	116	110	105	100	96	93	89	86	83
	TIME (s)	6.9	7.1	7.3	7.6	7.8	8.0	8.3	8.5	8.7	8.9	9.2	9.4	9.6	9.8	10.0	10.1	10.3
	SAG (m)	0.58	0.62	0.66	0.70	0.75	0.79	0.84	0.89	0.93	0.98	1.03	1.08	1.13	1.17	1.22	1.26	1.31
85	TENSION (Kg)	183	173	163	154	145	137	129	123	117	112	107	103	99	95	92	89	86
	TIME (s)	7.3	7.6	7.8	8.0	8.3	8.5	8.7	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8
	SAG (m)	0.66	0.71	0.75	0.79	0.84	0.89	0.94	0.99	1.04	1.09	1.14	1.19	1.24	1.29	1.34	1.38	1.43
90	TENSION (Kg)	181	171	162	153	145	138	130	124	119	114	109	105	101	98	94	91	89
	TIME (s)	7.8	8.1	8.3	8.5	8.8	9.0	9.2	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.2
	SAG (m)	0.75	0.80	0.85	0.90	0.94	1.00	1.05	1.10	1.15	1.20	1.25	1.31	1.36	1.41	1.46	1.51	1.55
95	TENSION (Kg)	179	170	161	153	145	138	131	125	120	115	111	107	103	100	97	94	91
	TIME (s)	8.3	8.5	8.8	9.0	9.2	9.5	9.7	9.9	10.2	10.4	10.6	10.8	11.0	11.2	11.3	11.5	11.7
	SAG (m)	0.85	0.90	0.95	1.00	1.05	1.11	1.17	1.21	1.27	1.32	1.37	1.43	1.48	1.53	1.58	1.63	1.68
100	TENSION (Kg)	177	168	160	152	145	139	133	126	121	117	113	109	105	102	99	96	93
	TIME (s)	8.8	9.0	9.3	9.5	9.7	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.8	12.0	12.2
	SAG (m)	0.96	1.00	1.06	1.11	1.17	1.22	1.28	1.33	1.39	1.44	1.50	1.55	1.61	1.66	1.71	1.77	1.82
105	TENSION (Kg)	175	167	159	152	145	139	134	127	123	118	114	111	107	104	101	98	96
	TIME (s)	9.3	9.5	9.8	10.0	10.2	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3	12.4	12.6
	SAG (m)	1.06	1.12	1.17	1.23	1.29	1.34	1.41	1.47	1.52	1.57	1.63	1.69	1.74	1.80	1.85	1.90	1.95

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 10°C shift & Next day 7.5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
OUTER URBAN (60m-105m) 7/3.0 AAC
LIBRA 18%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR | DATE: 03-06-2014
CHECKED: REE | SCALE: NTS
APPROVED: GRANT STACY
DATE: 03-06-2014

DRG. No. CT-0051
REV. A | SHT.

OUTER URBAN (60m – 105m) 7/3.75 AAC MARS 18%

New Conductor (Initial) (deg C)		12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
New Conductor (Initial) Next Day (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	296	274	255	235	218	203	188	175	163	153	144	136	128	122	116	111	107
	TIME (s)	5.1	5.3	5.5	5.7	6.0	6.2	6.4	6.7	6.9	7.1	7.4	7.6	7.8	8.0	8.2	8.4	8.5
	SAG (m)	0.32	0.35	0.38	0.40	0.44	0.47	0.51	0.55	0.59	0.63	0.67	0.71	0.75	0.78	0.82	0.86	0.90
65	TENSION (Kg)	292	271	253	234	218	204	190	177	167	157	148	141	134	127	122	117	112
	TIME (s)	5.6	5.8	6.0	6.2	6.5	6.7	6.9	7.2	7.4	7.6	7.8	8.1	8.3	8.5	8.7	8.8	9.0
	SAG (m)	0.38	0.41	0.44	0.48	0.51	0.55	0.59	0.63	0.67	0.72	0.76	0.80	0.84	0.88	0.92	0.96	1.00
70	TENSION (Kg)	287	268	251	233	218	204	192	180	170	161	153	145	139	133	127	122	117
	TIME (s)	6.1	6.3	6.5	6.7	7.0	7.2	7.4	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5
	SAG (m)	0.45	0.48	0.52	0.56	0.60	0.64	0.68	0.72	0.77	0.81	0.85	0.90	0.94	0.98	1.03	1.07	1.11
75	TENSION (Kg)	283	265	249	232	218	205	194	182	173	164	156	149	143	137	131	126	122
	TIME (s)	6.5	6.8	7.0	7.2	7.5	7.7	7.9	8.2	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0
	SAG (m)	0.53	0.56	0.60	0.64	0.68	0.73	0.77	0.82	0.86	0.91	0.96	1.00	1.05	1.09	1.14	1.18	1.22
80	TENSION (Kg)	279	262	247	231	218	206	195	185	175	167	160	153	147	142	136	131	127
	TIME (s)	7.0	7.3	7.5	7.7	8.0	8.2	8.4	8.6	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.3	10.4
	SAG (m)	0.61	0.65	0.69	0.73	0.78	0.83	0.87	0.92	0.97	1.02	1.06	1.11	1.16	1.20	1.25	1.29	1.34
85	TENSION (Kg)	276	260	245	231	218	207	197	187	178	170	163	157	151	145	141	136	131
	TIME (s)	7.5	7.8	8.0	8.2	8.4	8.7	8.9	9.1	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.7	10.9
	SAG (m)	0.69	0.74	0.78	0.83	0.88	0.93	0.98	1.03	1.08	1.13	1.18	1.23	1.27	1.32	1.37	1.42	1.46
90	TENSION (Kg)	272	257	243	230	218	208	198	189	180	173	166	160	154	149	144	140	136
	TIME (s)	8.0	8.2	8.5	8.7	8.9	9.2	9.4	9.6	9.8	10.1	10.3	10.5	10.7	10.8	11.0	11.2	11.4
	SAG (m)	0.79	0.84	0.88	0.94	0.98	1.04	1.09	1.14	1.19	1.24	1.29	1.35	1.40	1.45	1.49	1.54	1.59
95	TENSION (Kg)	269	255	242	229	218	208	199	191	182	175	169	163	157	153	148	144	140
	TIME (s)	8.5	8.7	9.0	9.2	9.4	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.8
	SAG (m)	0.89	0.94	0.99	1.05	1.10	1.15	1.20	1.26	1.31	1.37	1.42	1.47	1.52	1.57	1.62	1.67	1.72
100	TENSION (Kg)	253	241	229	219	209	201	193	186	178	172	166	161	156	151	147	143	140
	TIME (s)	9.0	9.2	9.5	9.7	9.9	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.8	12.0	12.1	12.3
	SAG (m)	1.05	1.10	1.16	1.21	1.27	1.32	1.38	1.43	1.49	1.54	1.60	1.65	1.70	1.76	1.81	1.86	1.91
105	TENSION (Kg)	232	222	213	205	197	190	182	176	171	166	161	156	152	148	145	141	138
	TIME (s)	9.5	9.7	10.0	10.2	10.4	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3	12.4	12.6	12.8
	SAG (m)	1.26	1.31	1.38	1.43	1.49	1.54	1.60	1.66	1.72	1.77	1.83	1.87	1.93	1.98	2.03	2.08	2.13

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 7.5°C shift & Next day 5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE OUTER URBAN (60m–105m) 7/3.75 AAC MARS 18%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR | DATE: 03-06-2014 | DRG. No. CT-0052

CHECKED: REE | SCALE: NTS

APPROVED: GRANT STACY DATE: 03-06-2014

REV. A | SHT.

OUTER URBAN (60m – 105m) 7/4.50 AAC MERCURY 18%

New Conductor (Initial) (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	418	387	359	332	308	285	265	248	231	217	204	193	182	173	166	159	152
	TIME (s)	5.2	5.4	5.6	5.8	6	6.3	6.5	6.7	7	7.2	7.4	7.6	7.8	8	8.2	8.4	8.6
	SAG (m)	0.33	0.35	0.38	0.41	0.45	0.48	0.52	0.56	0.60	0.64	0.68	0.72	0.75	0.79	0.83	0.87	0.91
65	TENSION (Kg)	412	383	356	331	308	287	268	251	236	222	210	200	190	181	173	166	160
	TIME (s)	5.6	5.8	6.1	6.3	6.5	6.8	7	7.2	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1
	SAG (m)	0.39	0.42	0.45	0.49	0.52	0.56	0.60	0.64	0.68	0.73	0.77	0.81	0.85	0.89	0.93	0.97	1.01
70	TENSION (Kg)	406	378	354	330	308	288	271	255	241	227	216	206	197	189	180	173	167
	TIME (s)	6.1	6.3	6.6	6.8	7	7.3	7.5	7.7	8	8.2	8.4	8.6	8.8	9	9.2	9.4	9.5
	SAG (m)	0.46	0.49	0.53	0.57	0.61	0.65	0.69	0.73	0.78	0.82	0.87	0.91	0.95	1.00	1.04	1.08	1.12
75	TENSION (Kg)	400	374	351	328	308	290	273	258	245	232	221	212	203	195	188	180	174
	TIME (s)	6.6	6.8	7.1	7.3	7.5	7.8	8	8.2	8.4	8.7	8.9	9.1	9.3	9.5	9.7	9.8	10
	SAG (m)	0.54	0.57	0.61	0.65	0.70	0.74	0.79	0.83	0.88	0.92	0.97	1.02	1.06	1.10	1.15	1.19	1.23
80	TENSION (Kg)	394	370	348	327	308	292	275	261	249	238	226	217	209	201	194	187	181
	TIME (s)	7.1	7.3	7.6	7.8	8	8.3	8.5	8.7	8.9	9.2	9.4	9.6	9.8	10	10.1	10.3	10.5
	SAG (m)	0.62	0.66	0.70	0.75	0.79	0.84	0.89	0.93	0.98	1.03	1.08	1.13	1.17	1.22	1.26	1.31	1.35
85	TENSION (Kg)	388	366	346	326	308	293	277	264	252	242	231	222	214	206	200	193	188
	TIME (s)	7.6	7.8	8.1	8.3	8.5	8.8	9	9.2	9.4	9.6	9.9	10.1	10.2	10.4	10.6	10.8	11
	SAG (m)	0.71	0.75	0.80	0.85	0.89	0.95	0.99	1.04	1.09	1.14	1.19	1.24	1.29	1.34	1.39	1.43	1.48
90	TENSION (Kg)	383	362	343	325	308	294	279	267	256	245	235	227	219	212	205	199	193
	TIME (s)	8.1	8.3	8.6	8.8	9	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.4
	SAG (m)	0.81	0.85	0.90	0.95	1.00	1.06	1.11	1.16	1.21	1.26	1.31	1.36	1.41	1.46	1.51	1.56	1.61
95	TENSION (Kg)	379	359	340	324	308	295	281	269	259	249	240	231	223	216	210	204	199
	TIME (s)	8.6	8.8	9.1	9.3	9.5	9.8	10	10.2	10.4	10.6	10.8	11	11.2	11.4	11.6	11.7	11.9
	SAG (m)	0.91	0.96	1.01	1.07	1.12	1.17	1.23	1.28	1.33	1.39	1.44	1.49	1.54	1.59	1.64	1.69	1.74
100	TENSION (Kg)	374	356	338	323	308	295	282	272	261	252	244	235	228	221	215	209	204
	TIME (s)	9.1	9.3	9.6	9.8	10	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12	12.2	12.4
	SAG (m)	1.02	1.07	1.13	1.18	1.24	1.30	1.35	1.41	1.46	1.52	1.57	1.62	1.68	1.73	1.78	1.83	1.88
105	TENSION (Kg)	370	353	336	322	308	296	284	274	264	255	247	240	232	225	219	214	208
	TIME (s)	9.6	9.9	10.1	10.3	10.5	10.8	11	11.2	11.4	11.6	11.8	12	12.2	12.3	12.5	12.7	12.8
	SAG (m)	1.14	1.19	1.25	1.31	1.37	1.42	1.48	1.54	1.60	1.65	1.71	1.76	1.82	1.87	1.92	1.97	2.03

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 5°C shift & Next day 5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE OUTER URBAN (60m-105m) 7/4.50 AAC MERCURY 18%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR | DATE: 03-06-2014 | DRG. No. CT-0053

CHECKED: REE | SCALE: NTS

APPROVED: GRANT STACY DATE: 03-06-2014

REV. A | SHT.

OUTER URBAN (60m – 105m) 7/4.75 AAC MOON 18%

New Conductor (Initial) (deg C)		12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
New Conductor (Initial) Next Day (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	467	433	402	372	345	320	297	276	259	243	228	215	204	195	186	177	170
	TIME (s)	5.2	5.4	5.6	5.8	6.0	6.2	6.5	6.7	6.9	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6
	SAG (m)	0.33	0.35	0.38	0.41	0.44	0.48	0.52	0.55	0.59	0.63	0.67	0.71	0.75	0.79	0.83	0.87	0.90
65	TENSION (Kg)	461	428	399	371	345	321	300	281	264	249	235	223	212	203	194	186	178
	TIME (s)	5.6	5.8	6.1	6.3	6.5	6.7	7.0	7.2	7.4	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1
	SAG (m)	0.39	0.42	0.45	0.48	0.52	0.56	0.60	0.64	0.68	0.72	0.77	0.81	0.85	0.89	0.93	0.97	1.01
70	TENSION (Kg)	454	424	396	369	345	323	303	285	269	255	242	230	220	210	202	194	188
	TIME (s)	6.1	6.3	6.6	6.8	7.0	7.2	7.5	7.7	7.9	8.2	8.4	8.6	8.8	9.0	9.2	9.4	9.5
	SAG (m)	0.46	0.49	0.53	0.56	0.60	0.65	0.69	0.73	0.78	0.82	0.86	0.91	0.95	0.99	1.04	1.08	1.12
75	TENSION (Kg)	448	419	392	368	345	324	306	288	274	260	248	236	226	217	209	202	195
	TIME (s)	6.6	6.8	7.0	7.3	7.5	7.7	8.0	8.2	8.4	8.7	8.9	9.1	9.3	9.5	9.7	9.8	10.0
	SAG (m)	0.54	0.57	0.61	0.65	0.69	0.74	0.78	0.83	0.87	0.92	0.97	1.01	1.06	1.10	1.15	1.19	1.23
80	TENSION (Kg)	441	414	389	366	345	326	308	293	278	265	254	243	233	224	216	209	202
	TIME (s)	7.1	7.3	7.5	7.8	8.0	8.2	8.5	8.7	8.9	9.1	9.4	9.6	9.8	9.9	10.1	10.3	10.5
	SAG (m)	0.62	0.66	0.70	0.74	0.79	0.84	0.88	0.93	0.98	1.03	1.08	1.12	1.17	1.22	1.26	1.31	1.35
85	TENSION (Kg)	435	410	386	365	345	327	311	296	282	270	259	249	240	230	223	216	209
	TIME (s)	7.6	7.8	8.0	8.3	8.5	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8	10.9
	SAG (m)	0.71	0.75	0.80	0.84	0.89	0.94	0.99	1.04	1.09	1.14	1.19	1.24	1.29	1.34	1.38	1.43	1.47
90	TENSION (Kg)	429	406	383	364	345	328	313	299	285	274	263	254	245	236	229	222	215
	TIME (s)	8.1	8.3	8.5	8.8	9.0	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.2	11.4
	SAG (m)	0.80	0.85	0.90	0.95	1.00	1.05	1.10	1.15	1.21	1.26	1.31	1.36	1.41	1.46	1.51	1.56	1.60
95	TENSION (Kg)	424	402	381	362	345	329	315	302	290	278	268	259	250	242	234	228	221
	TIME (s)	8.6	8.8	9.0	9.3	9.5	9.7	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.5	11.7	11.9
	SAG (m)	0.91	0.96	1.01	1.06	1.11	1.17	1.22	1.28	1.33	1.38	1.43	1.49	1.54	1.59	1.64	1.69	1.74
100	TENSION (Kg)	419	399	379	361	345	330	316	304	293	281	272	263	255	247	241	233	227
	TIME (s)	9.1	9.3	9.6	9.8	10.0	10.2	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.8	12.0	12.2	12.4
	SAG (m)	1.02	1.07	1.12	1.18	1.23	1.29	1.35	1.40	1.46	1.51	1.57	1.62	1.67	1.72	1.78	1.83	1.88
105	TENSION (Kg)	414	394	377	360	345	331	318	306	296	285	276	267	260	252	245	239	232
	TIME (s)	9.6	9.8	10.1	10.3	10.5	10.7	11.0	11.2	11.4	11.6	11.8	12.0	12.1	12.3	12.5	12.7	12.8
	SAG (m)	1.13	1.19	1.25	1.30	1.36	1.42	1.48	1.53	1.59	1.65	1.70	1.76	1.81	1.86	1.92	1.97	2.02

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 7.5°C shift & Next day 5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE OUTER URBAN (60m-105m) 7/4.75 AAC MOON 18%

DISTRIBUTION CONSTRUCTION STANDARDS

DRAWN: JRR DATE: 03-06-2014

CHECKED: REE SCALE: NTS

APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0054

REV. A SHT.

OUTER URBAN (60m – 105m) 19/3.25 AAC NEPTUNE 18%

New Conductor (Initial) (deg C)		12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
New Conductor (Initial) Next Day (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	606	565	525	488	454	421	391	365	340	319	301	283	268	255	243	232	222
	TIME (s)	5.1	5.3	5.5	5.7	5.9	6.1	6.4	6.6	6.8	7.0	7.3	7.5	7.7	7.9	8.1	8.3	8.5
	SAG (m)	0.32	0.35	0.37	0.40	0.43	0.46	0.50	0.53	0.57	0.61	0.65	0.69	0.73	0.77	0.80	0.84	0.88
65	TENSION (Kg)	598	559	521	486	454	423	396	370	348	327	309	293	278	265	254	244	233
	TIME (s)	5.6	5.8	6.0	6.2	6.4	6.6	6.9	7.1	7.3	7.5	7.8	8.0	8.2	8.4	8.6	8.8	8.9
	SAG (m)	0.38	0.41	0.44	0.47	0.50	0.54	0.58	0.62	0.66	0.70	0.74	0.78	0.82	0.87	0.91	0.94	0.98
70	TENSION (Kg)	591	554	518	484	454	425	399	375	354	334	317	302	288	275	264	254	245
	TIME (s)	6.0	6.2	6.5	6.7	6.9	7.1	7.4	7.6	7.8	8.0	8.3	8.5	8.7	8.9	9.1	9.2	9.4
	SAG (m)	0.45	0.48	0.51	0.55	0.59	0.62	0.67	0.71	0.75	0.79	0.84	0.88	0.92	0.97	1.01	1.05	1.09
75	TENSION (Kg)	583	547	514	482	454	426	402	380	360	341	325	310	297	284	273	263	254
	TIME (s)	6.5	6.7	6.9	7.2	7.4	7.6	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9
	SAG (m)	0.52	0.56	0.59	0.63	0.67	0.71	0.76	0.80	0.85	0.89	0.94	0.98	1.03	1.07	1.12	1.16	1.20
80	TENSION (Kg)	576	542	511	480	454	428	405	384	365	348	332	318	305	294	282	272	264
	TIME (s)	7.0	7.2	7.4	7.7	7.9	8.1	8.3	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4
	SAG (m)	0.60	0.64	0.68	0.72	0.76	0.81	0.86	0.90	0.95	1.00	1.04	1.09	1.14	1.18	1.23	1.27	1.32
85	TENSION (Kg)	569	537	507	479	454	429	408	388	370	354	338	325	313	302	291	281	272
	TIME (s)	7.5	7.7	7.9	8.2	8.4	8.6	8.8	9.1	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.6	10.8
	SAG (m)	0.69	0.73	0.77	0.82	0.86	0.91	0.96	1.01	1.06	1.11	1.16	1.21	1.25	1.30	1.35	1.39	1.44
90	TENSION (Kg)	563	532	504	477	454	431	411	391	375	359	345	332	320	309	299	290	280
	TIME (s)	8.0	8.2	8.4	8.6	8.9	9.1	9.3	9.5	9.8	10.0	10.2	10.4	10.6	10.8	10.9	11.1	11.3
	SAG (m)	0.78	0.82	0.87	0.92	0.97	1.02	1.07	1.12	1.17	1.22	1.27	1.32	1.37	1.42	1.47	1.52	1.57
95	TENSION (Kg)	557	527	501	476	454	432	413	396	379	364	351	338	326	316	306	297	288
	TIME (s)	8.5	8.7	8.9	9.1	9.4	9.6	9.8	10.0	10.2	10.5	10.7	10.8	11.0	11.2	11.4	11.6	11.7
	SAG (m)	0.88	0.93	0.98	1.03	1.08	1.13	1.18	1.24	1.29	1.34	1.40	1.45	1.50	1.55	1.60	1.65	1.70
100	TENSION (Kg)	549	523	497	475	454	433	415	399	383	369	356	345	333	323	313	305	296
	TIME (s)	8.9	9.2	9.4	9.6	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.0	12.2
	SAG (m)	0.99	1.04	1.09	1.14	1.20	1.25	1.31	1.36	1.41	1.47	1.52	1.58	1.63	1.68	1.73	1.78	1.83
105	TENSION (Kg)	544	519	495	473	454	434	418	402	387	374	361	350	338	329	320	311	303
	TIME (s)	9.5	9.7	9.9	10.1	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.8	12.0	12.2	12.3	12.5	12.7
	SAG (m)	1.10	1.15	1.21	1.26	1.32	1.38	1.43	1.49	1.54	1.60	1.66	1.71	1.77	1.82	1.87	1.92	1.98

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 7.5°C shift & Next day 5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE OUTER URBAN (60m–105m) 19/3.25 AAC NEPTUNE 18%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR DATE: 03-06-2014

CHECKED: REE SCALE: NTS

APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0055

REV. A SHT.

OUTER URBAN (60m – 105m) 37/3.75 AAC TRITON 18%

New Conductor (Initial) (deg C)		12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
New Conductor (Initial) Next Day (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	1431	1355	1283	1217	1156	1100	1049	1002	959	920	884	851	822	793	768	744	723
	TIME (s)	6.6	6.8	6.9	7.1	7.3	7.5	7.7	7.9	8.0	8.2	8.4	8.5	8.7	8.8	9.0	9.1	9.3
	SAG (m)	0.53	0.56	0.59	0.63	0.66	0.69	0.73	0.76	0.79	0.83	0.86	0.90	0.93	0.96	0.99	1.03	1.06
65	TENSION (Kg)	1407	1336	1271	1211	1156	1105	1058	1015	976	940	906	875	847	821	796	773	752
	TIME (s)	7.2	7.4	7.6	7.7	7.9	8.1	8.3	8.5	8.6	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.8
	SAG (m)	0.64	0.67	0.70	0.74	0.77	0.81	0.84	0.88	0.92	0.95	0.99	1.02	1.06	1.09	1.12	1.16	1.19
70	TENSION (Kg)	1383	1320	1261	1206	1156	1109	1066	1027	991	957	926	896	870	845	822	799	779
	TIME (s)	7.8	8.0	8.2	8.4	8.5	8.7	8.9	9.1	9.2	9.4	9.5	9.7	9.9	10.0	10.1	10.3	10.4
	SAG (m)	0.75	0.79	0.82	0.86	0.90	0.93	0.97	1.01	1.05	1.08	1.12	1.16	1.19	1.23	1.26	1.30	1.33
75	TENSION (Kg)	1363	1305	1252	1202	1156	1113	1074	1038	1004	972	943	915	891	866	844	824	804
	TIME (s)	8.4	8.6	8.8	9.0	9.1	9.3	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.8	11.0
	SAG (m)	0.87	0.91	0.95	0.99	1.03	1.07	1.11	1.15	1.19	1.23	1.26	1.30	1.34	1.38	1.41	1.45	1.48
80	TENSION (Kg)	1345	1292	1244	1198	1156	1117	1081	1047	1015	987	959	934	909	887	865	846	827
	TIME (s)	9.1	9.2	9.4	9.6	9.8	9.9	10.1	10.3	10.4	10.6	10.7	10.9	11.0	11.2	11.3	11.4	11.6
	SAG (m)	1.01	1.05	1.09	1.13	1.17	1.21	1.25	1.29	1.33	1.37	1.41	1.45	1.49	1.53	1.57	1.60	1.64
85	TENSION (Kg)	1327	1280	1235	1195	1156	1120	1087	1055	1027	999	973	949	927	905	885	866	848
	TIME (s)	9.7	9.9	10.0	10.2	10.4	10.5	10.7	10.9	11.0	11.2	11.3	11.5	11.6	11.7	11.9	12.0	12.1
	SAG (m)	1.15	1.19	1.24	1.28	1.32	1.37	1.41	1.45	1.49	1.53	1.57	1.61	1.65	1.69	1.73	1.77	1.81
90	TENSION (Kg)	1312	1269	1229	1192	1156	1123	1092	1063	1036	1010	987	963	942	922	903	885	867
	TIME (s)	10.3	10.5	10.7	10.8	11.0	11.1	11.3	11.5	11.6	11.8	11.9	12.0	12.2	12.3	12.4	12.6	12.7
	SAG (m)	1.31	1.35	1.40	1.44	1.48	1.53	1.57	1.61	1.66	1.70	1.74	1.78	1.82	1.86	1.90	1.94	1.98
95	TENSION (Kg)	1299	1260	1223	1189	1156	1125	1097	1070	1045	1020	998	977	956	938	919	902	886
	TIME (s)	10.9	11.1	11.3	11.4	11.6	11.8	11.9	12.1	12.2	12.3	12.5	12.6	12.8	12.9	13.0	13.1	13.3
	SAG (m)	1.47	1.52	1.56	1.61	1.65	1.70	1.74	1.79	1.83	1.87	1.92	1.96	2.00	2.04	2.08	2.12	2.16
100	TENSION (Kg)	1287	1251	1217	1186	1156	1127	1101	1076	1053	1031	1009	989	969	951	934	917	902
	TIME (s)	11.6	11.7	11.9	12.1	12.2	12.4	12.5	12.7	12.8	12.9	13.1	13.2	13.3	13.5	13.6	13.7	13.8
	SAG (m)	1.65	1.69	1.74	1.79	1.83	1.88	1.93	1.97	2.01	2.06	2.10	2.15	2.19	2.23	2.27	2.31	2.35
105	TENSION (Kg)	1276	1244	1213	1183	1156	1129	1105	1082	1060	1039	1018	1000	982	964	948	932	917
	TIME (s)	12.2	12.4	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.5	13.7	13.8	13.9	14.0	14.2	14.3	14.4
	SAG (m)	1.83	1.88	1.93	1.97	2.02	2.07	2.12	2.16	2.21	2.25	2.30	2.34	2.38	2.43	2.47	2.51	2.55

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 7.5°C shift & Next day 5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE OUTER URBAN (60m-105m) 37/3.75 AAC TRITON 18%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR | DATE: 03-06-2014 | DRG. No. CT-0056

CHECKED: REE | SCALE: NTS

APPROVED: GRANT STACY DATE: 03-06-2014

REV. A | SHT.

OUTER URBAN (60m – 105m) 7/4.75 AAC 16% UNDERSLUNG EARTHWIRE TO MATCH AAC 18%

New Conductor (Initial) (deg. C.)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg. C.)		7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5
Existing Conductor (Final) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	418	387	359	332	308	287	267	250	235	221	209	199	189	181	173	166	160
	TIME (s)	3.30	3.40	3.60	3.70	3.80	4.00	4.10	4.30	4.40	4.50	4.60	4.80	4.90	5.00	5.10	5.20	5.30
	SAG (m)	0.36	0.39	0.43	0.46	0.49	0.53	0.57	0.61	0.65	0.69	0.73	0.77	0.81	0.84	0.88	0.92	0.95
65	TENSION (Kg)	411	382	355	331	308	288	270	254	240	227	216	206	197	188	181	174	168
	TIME (s)	3.60	3.70	3.90	4.00	4.10	4.30	4.40	4.60	4.70	4.80	4.90	5.10	5.20	5.30	5.40	5.50	5.60
	SAG (m)	0.44	0.47	0.50	0.54	0.58	0.62	0.66	0.70	0.75	0.79	0.83	0.87	0.91	0.95	0.99	1.03	1.06
70	TENSION (Kg)	403	376	352	329	308	290	273	258	245	233	222	212	204	196	188	182	176
	TIME (s)	3.90	4.10	4.20	4.30	4.50	4.60	4.80	4.90	5.00	5.10	5.30	5.40	5.50	5.60	5.70	5.80	5.90
	SAG (m)	0.51	0.55	0.59	0.63	0.67	0.72	0.76	0.80	0.85	0.89	0.94	0.98	1.02	1.06	1.10	1.14	1.18
75	TENSION (Kg)	396	371	348	327	308	291	276	262	249	238	228	218	210	202	195	189	183
	TIME (s)	4.20	4.40	4.50	4.70	4.80	4.90	5.10	5.20	5.30	5.40	5.60	5.70	5.80	5.90	6.00	6.10	6.20
	SAG (m)	0.60	0.64	0.68	0.73	0.77	0.82	0.86	0.91	0.96	1.00	1.05	1.09	1.14	1.18	1.22	1.26	1.30
80	TENSION (Kg)	390	367	345	326	308	292	278	265	253	242	233	224	216	208	202	195	190
	TIME (s)	4.50	4.70	4.80	5.00	5.10	5.30	5.40	5.50	5.60	5.80	5.90	6.00	6.10	6.20	6.30	6.40	6.50
	SAG (m)	0.70	0.74	0.79	0.83	0.88	0.93	0.98	1.02	1.07	1.12	1.17	1.21	1.26	1.30	1.35	1.39	1.43
85	TENSION (Kg)	384	362	343	325	308	294	280	268	257	247	237	229	221	214	208	201	196
	TIME (s)	4.90	5.00	5.10	5.30	5.40	5.60	5.70	5.80	5.90	6.10	6.20	6.30	6.40	6.50	6.60	6.70	6.80
	SAG (m)	0.80	0.85	0.89	0.94	0.99	1.04	1.09	1.14	1.19	1.24	1.29	1.34	1.38	1.43	1.48	1.52	1.56
90	TENSION (Kg)	378	358	340	323	308	295	282	271	260	251	242	234	226	219	213	207	202
	TIME (s)	5.20	5.30	5.50	5.60	5.70	5.90	6.00	6.10	6.20	6.40	6.50	6.60	6.70	6.80	6.90	7.00	7.10
	SAG (m)	0.91	0.96	1.01	1.06	1.11	1.17	1.22	1.27	1.32	1.37	1.42	1.47	1.52	1.56	1.61	1.66	1.70
95	TENSION (Kg)	373	354	338	322	308	296	284	273	263	254	246	238	231	224	218	212	207
	TIME (s)	5.50	5.70	5.80	5.90	6.10	6.20	6.30	6.40	6.50	6.70	6.80	6.90	7.00	7.10	7.20	7.30	7.40
	SAG (m)	1.03	1.08	1.13	1.19	1.24	1.29	1.35	1.40	1.45	1.51	1.56	1.61	1.66	1.71	1.75	1.80	1.85
100	TENSION (Kg)	368	351	336	321	308	296	285	275	266	257	249	242	235	229	223	217	212
	TIME (s)	5.80	6.00	6.10	6.20	6.40	6.50	6.60	6.70	6.90	7.00	7.10	7.20	7.30	7.40	7.50	7.60	7.70
	SAG (m)	1.15	1.21	1.26	1.32	1.37	1.43	1.49	1.54	1.59	1.65	1.70	1.75	1.80	1.85	1.90	1.95	2.00
105	TENSION (Kg)	364	348	334	320	308	297	287	277	269	260	253	246	239	233	227	222	217
	TIME (s)	6.20	6.30	6.40	6.60	6.70	6.80	6.90	7.10	7.20	7.30	7.40	7.50	7.60	7.70	7.80	7.90	8.00
	SAG (m)	1.29	1.34	1.40	1.46	1.52	1.57	1.63	1.68	1.74	1.79	1.85	1.90	1.95	2.00	2.06	2.11	2.15

Creep allowance @ 15°C: New 5°C shift & Next day 2.5°C shift
Beat values are in seconds for five wave returns.

REV	DATE	DESCRIPTION	ORGD	CHKD	APRD
A	27 08 26	ORIGINAL ISSUE	SJ	MM	LT

STRUCTURE

TITLE: OUTER URBAN (60m-105m) 7/4.75 AAC 16% UNDERSLUNG EARTHWIRE TO MATCH AAC 18%

DISTRIBUTION CONSTRN STANDARD

westernpower

DRAWN: NC | DATE: 10-08-2026 | DRG No: CT-0058
ORIGINATED: SJ | SCALE: NTS
CHECKED: MM
APPROVED: LANKA THABREW
REV: A | SHT: 1/1

OUTER URBAN (60m – 105m) 19/3.25 AAC 16% UNDERSLUNG EARTHWIRE TO MATCH AAC 18%

New Conductor (Initial) (deg. C.)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg. C.)		7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5
Existing Conductor (Final) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	541	503	467	434	403	375	350	328	308	290	274	260	247	236	226	217	208
	TIME (s)	3.30	3.30	3.50	3.60	3.80	3.90	4.00	4.20	4.30	4.40	4.60	4.70	4.80	4.90	5.00	5.10	5.20
	SAG (m)	0.36	0.39	0.42	0.45	0.48	0.52	0.56	0.59	0.63	0.67	0.71	0.75	0.79	0.83	0.86	0.90	0.93
65	TENSION (Kg)	532	496	463	431	403	377	354	333	314	297	282	269	257	246	236	227	219
	TIME (s)	3.60	3.70	3.80	3.90	4.10	4.20	4.30	4.50	4.60	4.80	4.90	5.00	5.10	5.20	5.30	5.40	5.50
	SAG (m)	0.43	0.46	0.49	0.53	0.57	0.61	0.65	0.69	0.73	0.77	0.81	0.85	0.89	0.93	0.97	1.01	1.05
70	TENSION (Kg)	524	490	458	429	403	379	357	338	320	304	290	277	265	255	245	237	229
	TIME (s)	3.80	4.00	4.10	4.20	4.40	4.50	4.70	4.80	4.90	5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80
	SAG (m)	0.51	0.54	0.58	0.62	0.66	0.70	0.74	0.79	0.83	0.87	0.91	0.96	1.00	1.04	1.08	1.12	1.16
75	TENSION (Kg)	516	484	454	428	403	381	360	342	326	311	297	285	274	263	254	246	238
	TIME (s)	4.20	4.30	4.40	4.60	4.70	4.80	5.00	5.10	5.20	5.40	5.50	5.60	5.70	5.80	5.90	6.00	6.10
	SAG (m)	0.59	0.63	0.67	0.71	0.76	0.80	0.85	0.89	0.94	0.98	1.02	1.07	1.11	1.16	1.20	1.24	1.28
80	TENSION (Kg)	508	478	451	426	403	382	363	346	331	316	304	292	281	271	262	254	246
	TIME (s)	4.50	4.60	4.70	4.90	5.00	5.10	5.30	5.40	5.50	5.70	5.80	5.90	6.00	6.10	6.20	6.30	6.40
	SAG (m)	0.68	0.72	0.77	0.81	0.86	0.91	0.95	1.00	1.05	1.09	1.14	1.19	1.23	1.28	1.32	1.36	1.41
85	TENSION (Kg)	500	473	447	424	403	384	366	350	335	322	310	298	288	279	270	262	254
	TIME (s)	4.80	4.90	5.10	5.20	5.30	5.40	5.60	5.70	5.80	6.00	6.10	6.20	6.30	6.40	6.50	6.60	6.70
	SAG (m)	0.78	0.83	0.87	0.92	0.97	1.02	1.07	1.12	1.17	1.22	1.26	1.31	1.36	1.40	1.45	1.49	1.54
90	TENSION (Kg)	493	468	444	423	403	385	368	353	339	327	315	304	295	286	277	269	262
	TIME (s)	5.10	5.20	5.40	5.50	5.60	5.80	5.90	6.00	6.10	6.30	6.40	6.50	6.60	6.70	6.80	6.90	7.00
	SAG (m)	0.89	0.94	0.99	1.04	1.09	1.14	1.19	1.24	1.29	1.34	1.39	1.44	1.49	1.54	1.58	1.63	1.67
95	TENSION (Kg)	487	463	441	421	403	386	371	356	343	331	320	310	301	292	284	276	269
	TIME (s)	5.40	5.60	5.70	5.80	5.90	6.10	6.20	6.30	6.40	6.60	6.70	6.80	6.90	7.00	7.10	7.20	7.30
	SAG (m)	1.00	1.05	1.11	1.16	1.21	1.27	1.32	1.37	1.42	1.47	1.53	1.58	1.63	1.67	1.72	1.77	1.82
100	TENSION (Kg)	481	459	439	420	403	387	373	359	347	336	325	315	306	298	290	282	276
	TIME (s)	5.70	5.90	6.00	6.10	6.30	6.40	6.50	6.60	6.70	6.90	7.00	7.10	7.20	7.30	7.40	7.50	7.60
	SAG (m)	1.13	1.18	1.23	1.29	1.34	1.40	1.45	1.51	1.56	1.61	1.67	1.72	1.77	1.82	1.87	1.92	1.96
105	TENSION (Kg)	476	455	436	419	403	388	375	362	350	339	329	320	311	303	296	288	282
	TIME (s)	6.00	6.20	6.30	6.40	6.60	6.70	6.80	6.90	7.00	7.20	7.30	7.40	7.50	7.60	7.70	7.80	7.90
	SAG (m)	1.26	1.31	1.37	1.42	1.48	1.54	1.59	1.65	1.70	1.76	1.81	1.86	1.92	1.97	2.02	2.07	2.12

Creep allowance @ 15°C: New 5°C shift & Next day 2.5°C shift
Beat values are in seconds for five wave returns.

REV	DATE	DESCRIPTION	ORGD	CHKD	APRD
A	27 08 26	ORIGINAL ISSUE	SJ	MM	LT

STRUCTURE

TITLE: OUTER URBAN (60m-105m) 19/3.25 AAC 16% UNDERSLUNG EARTHWIRE TO MATCH AAC 18%

DISTRIBUTION CONSTRN STANDARD

westernpower

DRAWN: NC | DATE: 10-08-2026 | DRG No: CT-0059
ORIGINATED: SJ | SCALE: NTS
CHECKED: MM
APPROVED: LANKA THABREW
REV: A | SHT: 1/1

RURAL (60m-135m) 7/2.50AAAC CHLORINE 18%

New Conductor (Initial) (deg C)		17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5
New Conductor (Initial) Next Day (deg C)		15	17.5	20	22.5	26	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	194	182	171	161	151	141	130	121	112	104	97	90	83	77	72	67	63
	TIME (s)	4.2	4.3	4.5	4.6	4.8	5.0	5.1	5.3	5.5	5.7	6.0	6.2	6.4	6.7	6.9	7.1	7.4
	SAG (m)	0.22	0.23	0.25	0.26	0.28	0.30	0.32	0.35	0.38	0.41	0.44	0.47	0.51	0.55	0.59	0.63	0.67
65	TENSION (Kg)	193	181	171	161	151	141	131	122	113	106	98	92	86	80	74	70	66
	TIME (s)	4.6	4.7	4.9	5.0	5.2	5.4	5.6	5.7	6.0	6.2	6.4	6.6	6.9	7.1	7.3	7.6	7.8
	SAG (m)	0.26	0.27	0.29	0.31	0.33	0.35	0.38	0.41	0.44	0.47	0.51	0.54	0.58	0.62	0.66	0.71	0.75
70	TENSION (Kg)	192	181	170	160	151	141	131	123	115	107	100	94	88	83	77	73	69
	TIME (s)	4.9	5.1	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.1	7.3	7.5	7.8	8.0	8.2
	SAG (m)	0.30	0.32	0.34	0.36	0.38	0.41	0.44	0.47	0.50	0.54	0.58	0.62	0.66	0.70	0.74	0.79	0.83
75	TENSION (Kg)	191	180	170	160	151	141	133	123	116	108	102	96	90	85	80	75	72
	TIME (s)	5.3	5.5	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.3	7.5	7.7	8.0	8.2	8.4	8.7
	SAG (m)	0.35	0.37	0.39	0.41	0.44	0.47	0.50	0.54	0.57	0.61	0.65	0.69	0.74	0.78	0.83	0.87	0.92
80	TENSION (Kg)	190	179	169	160	151	142	133	124	117	110	103	97	92	87	83	78	74
	TIME (s)	5.7	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.3	7.5	7.7	7.9	8.2	8.4	8.6	8.9	9.1
	SAG (m)	0.40	0.42	0.44	0.47	0.50	0.53	0.57	0.61	0.65	0.68	0.73	0.77	0.82	0.87	0.92	0.96	1.01
85	TENSION (Kg)	189	179	169	160	151	142	134	125	118	111	105	99	94	89	85	81	76
	TIME (s)	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.7	7.9	8.1	8.4	8.6	8.8	9.0	9.3	9.5
	SAG (m)	0.45	0.47	0.50	0.53	0.56	0.60	0.64	0.68	0.72	0.77	0.81	0.86	0.91	0.96	1.01	1.06	1.11
90	TENSION (Kg)	189	178	168	159	151	142	134	126	119	112	106	101	96	91	87	83	80
	TIME (s)	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.1	8.3	8.6	8.8	9.0	9.2	9.5	9.7	9.9
	SAG (m)	0.51	0.53	0.56	0.60	0.63	0.67	0.71	0.76	0.80	0.85	0.90	0.95	1.00	1.05	1.10	1.15	1.22
95	TENSION (Kg)	188	177	168	159	151	143	135	127	120	114	108	103	98	93	89	85	82
	TIME (s)	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.5	8.7	9.0	9.2	9.4	9.7	9.9	10.1	10.3
	SAG (m)	0.57	0.60	0.63	0.67	0.71	0.75	0.79	0.84	0.89	0.94	0.99	1.04	1.10	1.15	1.21	1.26	1.31
100	TENSION (Kg)	187	176	167	159	151	143	135	127	121	115	109	104	99	95	91	87	84
	TIME (s)	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.7	8.9	9.1	9.4	9.6	9.8	10.1	10.3	10.5	10.7
	SAG (m)	0.63	0.66	0.70	0.74	0.78	0.83	0.87	0.92	0.97	1.03	1.08	1.14	1.19	1.25	1.31	1.36	1.42
105	TENSION (Kg)	186	176	167	159	151	143	136	128	122	116	111	106	101	97	93	89	86
	TIME (s)	7.5	7.7	7.9	8.2	8.4	8.6	8.8	9.1	9.3	9.5	9.8	10.0	10.2	10.5	10.7	10.9	11.1
	SAG (m)	0.70	0.74	0.78	0.82	0.86	0.91	0.96	1.01	1.06	1.12	1.18	1.23	1.29	1.35	1.41	1.47	1.52
110	TENSION (Kg)	185	175	167	158	151	143	136	129	123	117	112	107	103	98	95	91	88
	TIME (s)	7.9	8.1	8.3	8.5	8.8	9.0	9.2	9.5	9.7	9.9	10.2	10.4	10.6	10.9	11.1	11.3	11.5
	SAG (m)	0.77	0.81	0.85	0.90	0.95	1.00	1.05	1.10	1.16	1.22	1.27	1.33	1.39	1.45	1.51	1.57	1.63
115	TENSION (Kg)	183	174	166	158	151	143	137	130	124	118	113	108	104	100	96	93	90
	TIME (s)	8.3	8.5	8.7	8.9	9.2	9.4	9.6	9.9	10.1	10.3	10.6	10.8	11.0	11.3	11.5	11.7	11.9
	SAG (m)	0.85	0.89	0.94	0.98	1.03	1.09	1.14	1.20	1.26	1.32	1.38	1.44	1.50	1.56	1.62	1.68	1.75
120	TENSION (Kg)	182	174	166	158	151	144	137	130	125	119	114	110	106	102	98	95	92
	TIME (s)	8.7	8.9	9.1	9.3	9.6	9.8	10.0	10.3	10.5	10.7	11.0	11.2	11.4	11.7	11.9	12.1	12.3
	SAG (m)	0.93	0.97	1.02	1.07	1.13	1.19	1.24	1.30	1.36	1.42	1.48	1.55	1.61	1.67	1.74	1.80	1.86
125	TENSION (Kg)	181	173	165	158	151	144	138	131	125	120	115	111	107	103	100	96	93
	TIME (s)	9.1	9.3	9.5	9.7	10.0	10.2	10.4	10.7	10.9	11.1	11.4	11.6	11.8	12.1	12.3	12.5	12.7
	SAG (m)	1.01	1.06	1.11	1.17	1.22	1.28	1.34	1.40	1.46	1.53	1.59	1.66	1.72	1.79	1.85	1.92	1.98
130	TENSION (Kg)	180	172	165	157	151	144	138	131	126	121	117	112	108	105	101	98	95
	TIME (s)	9.5	9.7	9.9	10.1	10.4	10.6	10.8	11.1	11.3	11.5	11.8	12.0	12.2	12.4	12.7	12.9	13.1
	SAG (m)	1.10	1.15	1.21	1.26	1.32	1.39	1.44	1.51	1.57	1.64	1.70	1.77	1.84	1.91	1.97	2.04	2.10
135	TENSION (Kg)	179	172	164	157	151	144	139	133	127	122	118	113	110	106	103	99	97
	TIME (s)	9.8	10.1	10.3	10.6	10.8	11.0	11.2	11.5	11.7	11.9	12.2	12.4	12.6	12.8	13.1	13.3	13.5
	SAG (m)	1.19	1.25	1.30	1.37	1.42	1.49	1.55	1.62	1.68	1.75	1.82	1.89	1.96	2.03	2.09	2.16	2.23

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 12.5°C shift & Next day 10°c shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE RURAL (60m-135m) 7/2.50 AAAC CHLORINE 18%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR DATE: 03-06-2014 DRG. No. CT-0060

CHECKED: REE SCALE: NTS

APPROVED: GRANT STACY DATE: 03-06-2014

REV. A SHT.

RURAL (60m – 135m) 7/2.50 AAAC 16% Underslung earthwire to match AAAC 18%

New Conductor (Initial) (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
New Conductor (Initial) Next Day (deg C)		12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	175	164	154	144	134	124	115	107	99	92	85	80	73	69	65	61	58
	TIME (s)	4.4	4.6	4.7	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.4	6.6	6.8	7.1	7.3	7.5	7.7
	SAG (m)	0.24	0.26	0.28	0.29	0.32	0.34	0.37	0.40	0.43	0.46	0.50	0.54	0.57	0.61	0.65	0.69	0.73
65	TENSION (Kg)	174	163	153	144	134	124	116	108	100	94	87	82	76	71	67	64	61
	TIME (s)	4.8	5.0	5.1	5.3	5.5	5.7	5.9	6.1	6.3	6.6	6.8	7.0	7.3	7.5	7.7	8.0	8.2
	SAG (m)	0.29	0.3	0.32	0.35	0.37	0.4	0.43	0.46	0.5	0.53	0.57	0.61	0.65	0.69	0.74	0.78	0.82
70	TENSION (Kg)	173	163	153	143	134	125	116	109	102	95	89	84	78	74	70	66	63
	TIME (s)	5.2	5.4	5.5	5.7	5.9	6.1	6.3	6.6	6.8	7.0	7.3	7.5	7.7	8.0	8.2	8.4	8.7
	SAG (m)	0.33	0.35	0.38	0.40	0.43	0.46	0.49	0.53	0.57	0.61	0.65	0.69	0.73	0.78	0.82	0.87	0.92
75	TENSION (Kg)	172	162	152	143	134	125	117	110	103	97	91	86	81	76	72	69	66
	TIME (s)	5.6	5.8	5.9	6.1	6.3	6.6	6.8	7.0	7.2	7.5	7.7	8.0	8.2	8.4	8.7	8.9	9.1
	SAG (m)	0.38	0.41	0.43	0.46	0.49	0.53	0.56	0.60	0.65	0.69	0.74	0.78	0.83	0.88	0.92	0.97	1.01
80	TENSION (Kg)	170	161	152	143	134	125	118	111	104	98	93	88	83	78	74	71	68
	TIME (s)	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.7	7.9	8.2	8.4	8.6	8.9	9.1	9.3	9.5
	SAG (m)	0.44	0.47	0.50	0.53	0.56	0.60	0.64	0.68	0.73	0.77	0.82	0.87	0.92	0.97	1.01	1.06	1.11
85	TENSION (Kg)	169	160	151	142	134	125	118	111	105	99	94	89	85	81	77	73	70
	TIME (s)	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.9	8.1	8.4	8.6	8.8	9.1	9.3	9.5	9.7	9.9
	SAG (m)	0.50	0.53	0.56	0.60	0.64	0.68	0.72	0.76	0.81	0.86	0.91	0.96	1.01	1.06	1.11	1.16	1.21
90	TENSION (Kg)	168	159	150	142	134	126	119	112	106	101	96	91	87	83	80	75	73
	TIME (s)	6.8	7.0	7.2	7.4	7.6	7.8	8.1	8.3	8.5	8.8	9.0	9.3	9.5	9.7	9.9	10.1	10.3
	SAG (m)	0.57	0.60	0.64	0.67	0.71	0.76	0.80	0.85	0.90	0.95	1.00	1.05	1.11	1.16	1.21	1.26	1.31
95	TENSION (Kg)	167	158	150	142	134	126	119	113	107	102	97	93	89	85	82	77	75
	TIME (s)	7.2	7.4	7.6	7.8	8.0	8.3	8.5	8.7	9.0	9.2	9.4	9.7	9.9	10.1	10.3	10.5	10.7
	SAG (m)	0.63	0.67	0.71	0.75	0.79	0.84	0.89	0.94	0.99	1.04	1.10	1.15	1.21	1.26	1.31	1.37	1.42
100	TENSION (Kg)	166	158	149	142	134	126	120	114	108	103	99	94	90	87	83	80	77
	TIME (s)	7.6	7.8	8.0	8.2	8.5	8.7	8.9	9.2	9.4	9.6	9.9	10.1	10.3	10.5	10.7	11.0	11.2
	SAG (m)	0.71	0.75	0.79	0.83	0.88	0.93	0.98	1.03	1.09	1.14	1.20	1.25	1.31	1.37	1.42	1.48	1.53
105	TENSION (Kg)	165	157	149	141	134	127	120	115	109	104	100	96	92	88	85	82	80
	TIME (s)	8.0	8.2	8.4	8.6	8.9	9.1	9.3	9.6	9.8	10.1	10.3	10.5	10.7	11.0	11.2	11.4	11.6
	SAG (m)	0.79	0.83	0.87	0.92	0.97	1.03	1.07	1.13	1.19	1.24	1.30	1.36	1.42	1.48	1.53	1.59	1.65
110	TENSION (Kg)	164	156	148	141	134	127	121	115	110	106	101	97	94	90	87	84	81
	TIME (s)	8.4	8.6	8.8	9.1	9.3	9.6	9.8	10.0	10.2	10.5	10.7	10.9	11.1	11.4	11.6	11.8	12.0
	SAG (m)	0.87	0.92	0.96	1.01	1.06	1.12	1.17	1.23	1.29	1.35	1.41	1.47	1.53	1.59	1.65	1.71	1.76
115	TENSION (Kg)	163	155	148	141	134	127	121	116	111	107	102	99	95	92	89	86	83
	TIME (s)	8.8	9.0	9.3	9.5	9.7	10.0	10.2	10.4	10.7	10.9	11.1	11.3	11.6	11.8	12.0	12.2	12.4
	SAG (m)	0.95	1.01	1.05	1.11	1.16	1.22	1.28	1.34	1.40	1.46	1.52	1.58	1.64	1.71	1.77	1.83	1.89
120	TENSION (Kg)	162	154	147	140	134	127	122	117	112	108	104	100	96	93	90	87	85
	TIME (s)	9.2	9.5	9.7	9.9	10.1	10.4	10.6	10.9	11.1	11.3	11.5	11.8	12.0	12.2	12.4	12.6	12.8
	SAG (m)	1.05	1.10	1.15	1.21	1.27	1.33	1.39	1.45	1.51	1.57	1.64	1.70	1.76	1.83	1.89	1.95	2.01
125	TENSION (Kg)	161	153	147	140	134	128	122	117	113	109	105	101	98	95	92	89	86
	TIME (s)	9.6	9.9	10.1	10.4	10.6	10.8	11.0	11.3	11.5	11.7	12.0	12.2	12.4	12.6	12.8	13.0	13.2
	SAG (m)	1.14	1.20	1.26	1.32	1.37	1.44	1.50	1.56	1.63	1.69	1.76	1.82	1.89	1.95	2.02	2.08	2.14
130	TENSION (Kg)	160	153	146	140	134	128	123	118	114	110	106	102	99	96	93	90	88
	TIME (s)	10.1	10.3	10.5	10.8	11.0	11.2	11.5	11.7	11.9	12.1	12.4	12.6	12.8	13.0	13.2	13.4	13.6
	SAG (m)	1.25	1.30	1.36	1.43	1.49	1.55	1.63	1.68	1.75	1.82	1.88	1.95	2.01	2.08	2.15	2.21	2.28
135	TENSION (Kg)	159	152	146	140	134	128	123	119	114	110	107	103	100	97	94	92	89
	TIME (s)	10.5	10.7	10.9	11.2	11.4	11.7	11.9	12.1	12.3	12.6	12.8	13.0	13.2	13.4	13.6	13.8	14.0
	SAG (m)	1.35	1.41	1.47	1.54	1.60	1.67	1.75	1.80	1.87	1.94	2.01	2.08	2.15	2.21	2.28	2.35	2.41

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 12.5°C shift & Next day 10°C shift

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	20.08.15	TITLE REVISED	JC	REE	GS
A	03.06.14	ORIGINAL ISSUE	REE	REE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
RURAL (60m-135m) 7/2.50 AAAC 16%
UNDERSLUNG EARTHWIRE TO MATCH AAAC 18%

DISTRIBUTION CONSTRN. STANDARD

DRAWN: JRR | DATE: 03.06.2014 | DRG. No. CT0061
ORIGINATED: JC | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. B | SHT.

RURAL (60m-135m) 7/4.75AAAC IODINE 18%

New Conductor (Initial) (deg C)		12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
New Conductor (Initial) Next Day (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	647	609	571	533	497	463	429	398	368	341	316	294	274	256	240	226	213
	TIME (s)	4.4	4.5	4.7	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.3	6.5	6.7	7.0	7.2	7.4	7.6
	SAG (m)	0.24	0.25	0.27	0.29	0.31	0.33	0.36	0.38	0.41	0.45	0.48	0.52	0.56	0.60	0.64	0.68	0.72
65	TENSION (Kg)	644	606	569	532	497	464	431	402	373	348	323	302	282	265	250	236	224
	TIME (s)	4.8	4.9	5.1	5.2	5.4	5.6	5.8	6.0	6.2	6.5	6.7	6.9	7.2	7.4	7.6	7.9	8.1
	SAG (m)	0.28	0.30	0.31	0.34	0.36	0.39	0.42	0.45	0.48	0.52	0.55	0.59	0.63	0.68	0.72	0.76	0.80
70	TENSION (Kg)	640	603	567	531	497	465	434	405	378	353	330	310	291	274	259	246	233
	TIME (s)	5.1	5.3	5.5	5.6	5.8	6.0	6.2	6.5	6.7	6.9	7.2	7.4	7.6	7.9	8.1	8.3	8.5
	SAG (m)	0.32	0.34	0.37	0.39	0.42	0.45	0.48	0.51	0.55	0.59	0.63	0.67	0.71	0.76	0.80	0.85	0.89
75	TENSION (Kg)	637	600	565	530	497	466	436	408	382	358	336	317	299	282	268	255	243
	TIME (s)	5.5	5.7	5.9	6.0	6.2	6.5	6.7	6.9	7.1	7.4	7.6	7.8	8.1	8.3	8.5	8.7	8.9
	SAG (m)	0.37	0.40	0.42	0.45	0.48	0.51	0.55	0.58	0.62	0.67	0.71	0.75	0.80	0.85	0.89	0.94	0.98
80	TENSION (Kg)	633	597	563	529	497	467	438	412	386	364	343	323	306	291	276	263	252
	TIME (s)	5.9	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.6	7.8	8.0	8.3	8.5	8.7	8.9	9.2	9.4
	SAG (m)	0.43	0.45	0.48	0.51	0.55	0.58	0.62	0.66	0.70	0.75	0.79	0.84	0.89	0.94	0.98	1.03	1.08
85	TENSION (Kg)	630	594	561	528	497	468	440	415	390	369	349	330	313	298	284	272	260
	TIME (s)	6.3	6.5	6.7	6.9	7.1	7.3	7.5	7.8	8.0	8.2	8.5	8.7	8.9	9.1	9.4	9.6	9.8
	SAG (m)	0.49	0.52	0.55	0.58	0.62	0.65	0.70	0.74	0.78	0.83	0.88	0.93	0.98	1.03	1.08	1.13	1.18
90	TENSION (Kg)	626	591	559	527	497	469	442	418	394	373	354	336	320	306	292	279	268
	TIME (s)	6.7	6.9	7.1	7.3	7.5	7.7	7.9	8.2	8.4	8.6	8.9	9.1	9.3	9.6	9.8	10.0	10.2
	SAG (m)	0.55	0.58	0.61	0.65	0.69	0.73	0.78	0.82	0.87	0.92	0.97	1.02	1.07	1.13	1.18	1.23	1.28
95	TENSION (Kg)	622	588	557	526	497	470	444	421	399	378	360	343	326	312	299	287	276
	TIME (s)	7.1	7.3	7.5	7.7	7.9	8.1	8.4	8.6	8.8	9.1	9.3	9.5	9.8	10.0	10.2	10.4	10.6
	SAG (m)	0.62	0.65	0.69	0.73	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.12	1.17	1.23	1.28	1.33	1.39
100	TENSION (Kg)	618	585	555	525	497	471	446	423	403	382	365	348	333	319	306	295	283
	TIME (s)	7.5	7.7	7.9	8.1	8.3	8.6	8.8	9.0	9.3	9.5	9.7	10.0	10.2	10.4	10.6	10.8	11.0
	SAG (m)	0.69	0.72	0.77	0.81	0.85	0.90	0.95	1.00	1.06	1.11	1.17	1.22	1.28	1.33	1.39	1.44	1.50
105	TENSION (Kg)	614	582	552	524	497	472	449	426	406	387	370	354	338	325	313	302	291
	TIME (s)	7.9	8.1	8.3	8.5	8.7	9.0	9.2	9.4	9.7	9.9	10.2	10.4	10.6	10.8	11.0	11.3	11.5
	SAG (m)	0.76	0.80	0.85	0.89	0.94	0.99	1.04	1.10	1.15	1.21	1.27	1.33	1.38	1.44	1.50	1.56	1.61
110	TENSION (Kg)	610	580	550	523	497	473	451	429	409	391	374	359	345	331	319	308	298
	TIME (s)	8.3	8.5	8.7	8.9	9.2	9.4	9.6	9.9	10.1	10.3	10.6	10.8	11.0	11.2	11.5	11.7	11.9
	SAG (m)	0.84	0.89	0.93	0.98	1.03	1.09	1.14	1.20	1.26	1.31	1.37	1.43	1.49	1.55	1.61	1.67	1.73
115	TENSION (Kg)	607	577	548	522	497	474	452	431	413	394	379	364	350	337	325	314	304
	TIME (s)	8.7	8.9	9.1	9.3	9.6	9.8	10.0	10.3	10.5	10.8	11.0	11.2	11.4	11.6	11.9	12.1	12.3
	SAG (m)	0.93	0.97	1.02	1.07	1.13	1.18	1.24	1.30	1.36	1.42	1.48	1.54	1.61	1.67	1.73	1.79	1.85
120	TENSION (Kg)	602	574	546	521	497	475	454	434	416	399	383	369	355	343	331	320	311
	TIME (s)	9.1	9.3	9.5	9.8	10.0	10.2	10.5	10.7	10.9	11.2	11.4	11.6	11.8	12.1	12.3	12.5	12.7
	SAG (m)	1.01	1.06	1.12	1.17	1.23	1.29	1.35	1.41	1.47	1.53	1.60	1.66	1.72	1.79	1.85	1.91	1.97
125	TENSION (Kg)	598	571	545	521	497	475	456	436	419	403	387	373	360	348	336	326	316
	TIME (s)	9.5	9.7	9.9	10.2	10.4	10.6	10.9	11.1	11.3	11.6	11.8	12.0	12.2	12.5	12.7	12.9	13.1
	SAG (m)	1.11	1.16	1.22	1.27	1.33	1.39	1.46	1.52	1.58	1.65	1.71	1.78	1.84	1.91	1.97	2.04	2.10
130	TENSION (Kg)	595	569	543	520	497	476	457	438	422	406	391	377	365	353	343	331	322
	TIME (s)	9.9	10.1	10.4	10.6	10.8	11.1	11.3	11.5	11.8	12.0	12.2	12.4	12.7	12.9	13.1	13.3	13.5
	SAG (m)	1.20	1.26	1.32	1.38	1.44	1.51	1.57	1.64	1.70	1.77	1.83	1.90	1.97	2.03	2.10	2.17	2.23
135	TENSION (Kg)	591	566	541	519	497	477	459	440	424	409	394	381	369	358	348	337	328
	TIME (s)	10.3	10.5	10.8	11.0	11.2	11.5	11.7	11.9	12.2	12.4	12.6	12.8	13.1	13.3	13.5	13.7	13.9
	SAG (m)	1.31	1.37	1.43	1.49	1.56	1.62	1.69	1.76	1.82	1.89	1.96	2.03	2.10	2.16	2.23	2.30	2.36

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 7.5°C shift & Next day 5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
RURAL (60m-135m) 7/4.75 AAAC
IODINE 18%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR | DATE: 03-06-2014
CHECKED: REE | SCALE: NTS
APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0062
REV. A | SHT.

RURAL (60m-135m) 7/4.75AAAC 16% Underslung earthwire to match AAAC 18%

New Conductor (Initial) (deg C)		12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
New Conductor (Initial) Next Day (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	585	547	511	476	442	410	379	352	326	303	281	263	246	231	218	207	197
	TIME(s)	4.6	4.8	4.9	5.1	5.3	5.5	5.7	5.9	6.2	6.4	6.6	6.9	7.1	7.3	7.5	7.8	8.0
	SAG(m)	0.26	0.28	0.30	0.32	0.35	0.37	0.40	0.43	0.47	0.50	0.54	0.58	0.62	0.66	0.70	0.74	0.78
65	TENSION (Kg)	581	544	509	475	442	411	382	356	331	309	288	271	255	241	227	216	206
	TIME(s)	5.0	5.2	5.3	5.5	5.7	6.0	6.2	6.4	6.6	6.9	7.1	7.3	7.6	7.8	8.0	8.2	8.4
	SAG(m)	0.31	0.33	0.35	0.38	0.41	0.44	0.47	0.50	0.54	0.58	0.62	0.66	0.70	0.75	0.79	0.83	0.87
70	TENSION (Kg)	577	541	507	473	442	413	385	360	336	315	296	278	263	249	236	225	215
	TIME(s)	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.9	7.1	7.3	7.6	7.8	8.0	8.2	8.5	8.7	8.9
	SAG(m)	0.36	0.38	0.41	0.44	0.47	0.50	0.54	0.58	0.62	0.66	0.70	0.75	0.79	0.83	0.88	0.92	0.96
75	TENSION (Kg)	572	537	504	472	442	414	387	363	340	320	302	285	271	257	246	234	224
	TIME(s)	5.8	6.0	6.2	6.4	6.6	6.8	7.1	7.3	7.5	7.8	8.0	8.2	8.5	8.7	8.9	9.1	9.3
	SAG(m)	0.42	0.44	0.47	0.51	0.54	0.58	0.62	0.66	0.70	0.74	0.79	0.84	0.88	0.93	0.97	1.02	1.06
80	TENSION (Kg)	568	534	502	471	442	415	389	367	346	326	309	293	278	265	254	243	233
	TIME(s)	6.2	6.4	6.6	6.8	7.1	7.3	7.5	7.8	8.0	8.2	8.5	8.7	8.9	9.1	9.3	9.5	9.7
	SAG(m)	0.48	0.51	0.54	0.58	0.61	0.65	0.70	0.74	0.79	0.83	0.88	0.93	0.98	1.02	1.07	1.12	1.17
85	TENSION (Kg)	563	530	499	470	442	416	392	370	350	331	314	299	285	272	261	251	241
	TIME(s)	6.7	6.9	7.1	7.3	7.5	7.7	8.0	8.2	8.4	8.7	8.9	9.1	9.4	9.6	9.8	10.0	10.2
	SAG(m)	0.54	0.58	0.61	0.65	0.69	0.74	0.78	0.83	0.88	0.93	0.98	1.03	1.08	1.13	1.18	1.23	1.28
90	TENSION (Kg)	559	527	496	469	442	417	394	373	354	336	320	305	292	279	268	258	249
	TIME(s)	7.1	7.3	7.5	7.7	7.9	8.2	8.4	8.7	8.9	9.1	9.4	9.6	9.8	10.0	10.2	10.4	10.6
	SAG(m)	0.62	0.65	0.69	0.73	0.78	0.82	0.87	0.92	0.97	1.02	1.08	1.13	1.18	1.23	1.28	1.34	1.39
95	TENSION (Kg)	554	523	494	468	442	418	397	376	358	340	325	311	298	286	275	265	256
	TIME(s)	7.5	7.7	7.9	8.2	8.4	8.6	8.9	9.1	9.3	9.6	9.8	10.0	10.2	10.4	10.6	10.8	11.0
	SAG(m)	0.69	0.73	0.77	0.82	0.87	0.91	0.97	1.02	1.07	1.12	1.18	1.23	1.29	1.34	1.40	1.45	1.50
100	TENSION (Kg)	549	520	492	466	442	419	399	379	362	346	330	316	304	293	281	272	263
	TIME(s)	7.9	8.1	8.4	8.6	8.8	9.1	9.3	9.5	9.8	10.0	10.2	10.4	10.7	10.9	11.1	11.3	11.5
	SAG(m)	0.77	0.82	0.86	0.91	0.96	1.01	1.06	1.12	1.17	1.23	1.29	1.34	1.40	1.45	1.51	1.56	1.62
105	TENSION (Kg)	544	517	490	465	442	420	401	382	365	350	335	322	310	299	288	278	270
	TIME(s)	8.4	8.6	8.8	9.0	9.3	9.5	9.7	10.0	10.2	10.4	10.7	10.9	11.1	11.3	11.5	11.7	11.9
	SAG(m)	0.86	0.91	0.95	1.01	1.06	1.11	1.17	1.22	1.28	1.34	1.40	1.46	1.51	1.57	1.63	1.68	1.74
110	TENSION (Kg)	540	514	488	464	442	421	403	384	368	354	339	326	315	304	294	284	276
	TIME(s)	8.8	9.0	9.2	9.5	9.7	10.0	10.2	10.4	10.6	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3
	SAG(m)	0.95	1.00	1.05	1.11	1.16	1.22	1.28	1.34	1.39	1.45	1.51	1.57	1.63	1.69	1.75	1.81	1.86
115	TENSION (Kg)	536	510	486	463	442	422	404	387	371	357	344	331	320	309	300	291	282
	TIME(s)	9.2	9.5	9.7	9.9	10.2	10.4	10.6	10.9	11.1	11.3	11.5	11.7	11.9	12.2	12.4	12.5	12.7
	SAG(m)	1.05	1.10	1.15	1.21	1.27	1.33	1.39	1.45	1.51	1.57	1.63	1.70	1.76	1.82	1.88	1.94	1.99
120	TENSION (Kg)	532	507	484	462	442	423	406	389	374	361	348	335	325	315	305	296	287
	TIME(s)	9.7	9.9	10.1	10.4	10.6	10.8	11.1	11.3	11.5	11.7	12.0	12.2	12.4	12.6	12.8	13.0	13.2
	SAG(m)	1.15	1.21	1.26	1.32	1.38	1.45	1.51	1.57	1.63	1.70	1.76	1.82	1.88	1.95	2.01	2.07	2.13
125	TENSION (Kg)	528	505	482	462	442	424	408	391	377	364	352	340	329	319	310	302	294
	TIME(s)	10.1	10.3	10.6	10.8	11.0	11.3	11.5	11.7	12.0	12.2	12.4	12.6	12.8	13.0	13.2	13.4	13.6
	SAG(m)	1.26	1.32	1.38	1.44	1.50	1.57	1.63	1.69	1.76	1.82	1.89	1.95	2.02	2.08	2.14	2.20	2.27
130	TENSION (Kg)	524	502	480	461	442	425	409	393	380	367	355	345	333	324	315	307	299
	TIME(s)	10.5	10.8	11.0	11.3	11.5	11.7	11.9	12.2	12.4	12.6	12.8	13.0	13.2	13.4	13.6	13.8	14.0
	SAG(m)	1.37	1.43	1.49	1.56	1.62	1.69	1.75	1.82	1.89	1.95	2.02	2.09	2.15	2.22	2.28	2.34	2.41
135	TENSION (Kg)	520	498	478	460	442	425	410	396	382	370	359	348	337	328	320	311	304
	TIME(s)	11.0	11.2	11.5	11.7	11.9	12.2	12.4	12.6	12.8	13.0	13.2	13.5	13.7	13.8	14.0	14.2	14.4
	SAG (m)	1.49	1.55	1.62	1.69	1.75	1.82	1.89	1.95	2.02	2.09	2.16	2.23	2.29	2.36	2.42	2.49	2.55

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 7.5°C shift & Next day 5°C shift

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	20.08.15	TITLE REVISED	JC	REE	GS
A	03.06.14	ORIGINAL ISSUE	REE	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE
RURAL (60m-135m) 7/4.75 AAAC 16%
UNDERSLUNG EARTHWIRE TO MATCH AAAC 18%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 03.06.2014 | DRG. No. CT0063
ORIGINATED: JC | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. B | SHT.

RURAL (60m -135m) 19/3.25 AAAC KRYPTON 18%

New Conductor (Initial) (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
New Conductor (Initial) Next Day (deg C)		12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	874	826	779	732	687	642	600	559	520	483	449	417	387	362	337	317	298
	TIME (s)	4.3	4.4	4.5	4.7	4.8	5.0	5.1	5.3	5.5	5.7	5.9	6.2	6.4	6.6	6.9	7.1	7.3
	SAG (m)	0.22	0.24	0.25	0.27	0.28	0.30	0.32	0.35	0.37	0.40	0.43	0.47	0.50	0.54	0.58	0.62	0.66
65	TENSION (Kg)	870	823	777	731	687	644	602	563	525	489	457	426	398	372	350	329	311
	TIME (s)	4.6	4.8	4.9	5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.1	7.3	7.5	7.7
	SAG (m)	0.26	0.28	0.29	0.31	0.33	0.36	0.38	0.41	0.44	0.47	0.50	0.54	0.58	0.61	0.65	0.70	0.74
70	TENSION (Kg)	866	821	775	730	687	645	604	566	530	495	464	434	408	383	361	341	323
	TIME (s)	5.0	5.1	5.3	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.3	7.5	7.7	8.0	8.2
	SAG (m)	0.31	0.32	0.34	0.36	0.39	0.41	0.44	0.47	0.50	0.54	0.57	0.61	0.65	0.69	0.74	0.78	0.82
75	TENSION (Kg)	863	818	773	729	687	646	607	570	534	502	471	442	417	393	372	353	335
	TIME (s)	5.4	5.5	5.7	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.3	7.5	7.7	7.9	8.2	8.4	8.6
	SAG (m)	0.35	0.37	0.39	0.42	0.44	0.47	0.50	0.53	0.57	0.61	0.65	0.69	0.73	0.77	0.82	0.86	0.91
80	TENSION (Kg)	859	814	771	728	687	647	610	573	539	508	478	451	426	403	382	364	347
	TIME (s)	5.7	5.9	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.5	7.7	7.9	8.1	8.4	8.6	8.8	9.0
	SAG (m)	0.40	0.43	0.45	0.48	0.50	0.54	0.57	0.60	0.64	0.68	0.73	0.77	0.81	0.86	0.91	0.95	1.00
85	TENSION (Kg)	855	811	769	727	687	648	612	577	544	514	485	459	434	413	392	374	357
	TIME (s)	6.1	6.3	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.9	8.1	8.3	8.6	8.8	9.0	9.2	9.4
	SAG (m)	0.46	0.48	0.51	0.54	0.57	0.60	0.64	0.68	0.72	0.76	0.81	0.85	0.90	0.95	1.00	1.05	1.10
90	TENSION (Kg)	851	808	767	726	687	649	614	580	548	519	491	466	443	422	402	384	368
	TIME (s)	6.5	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.1	8.3	8.5	8.7	9.0	9.2	9.4	9.6	9.9
	SAG (m)	0.52	0.54	0.57	0.60	0.64	0.68	0.72	0.76	0.80	0.85	0.89	0.94	0.99	1.04	1.09	1.14	1.19
95	TENSION (Kg)	847	805	765	725	687	650	616	583	552	525	498	474	451	430	411	393	377
	TIME (s)	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.3	8.5	8.7	8.9	9.2	9.4	9.6	9.8	10.1	10.3
	SAG (m)	0.58	0.61	0.64	0.67	0.71	0.75	0.79	0.84	0.88	0.93	0.98	1.03	1.08	1.14	1.19	1.24	1.30
100	TENSION (Kg)	843	802	762	724	687	651	619	587	558	530	505	480	459	438	420	403	387
	TIME (s)	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.7	8.9	9.1	9.3	9.6	9.8	10.0	10.2	10.5	10.7
	SAG (m)	0.64	0.68	0.71	0.75	0.79	0.83	0.88	0.92	0.97	1.02	1.07	1.13	1.18	1.24	1.29	1.35	1.40
105	TENSION (Kg)	839	799	760	723	687	652	621	590	562	535	511	487	466	446	428	412	397
	TIME (s)	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.1	9.3	9.5	9.8	10.0	10.2	10.4	10.6	10.9	11.1
	SAG (m)	0.71	0.75	0.79	0.83	0.87	0.91	0.96	1.01	1.07	1.12	1.17	1.23	1.28	1.34	1.40	1.45	1.51
110	TENSION (Kg)	835	796	758	722	687	653	623	593	566	540	516	493	473	455	436	420	406
	TIME (s)	8.0	8.2	8.4	8.6	8.8	9.0	9.3	9.5	9.7	9.9	10.2	10.4	10.6	10.8	11.1	11.3	11.5
	SAG (m)	0.78	0.82	0.87	0.91	0.95	1.00	1.05	1.11	1.16	1.21	1.27	1.33	1.39	1.44	1.50	1.56	1.62
115	TENSION (Kg)	831	793	755	721	687	654	625	596	570	544	522	501	480	462	444	428	414
	TIME (s)	8.4	8.6	8.8	9.0	9.2	9.4	9.7	9.9	10.1	10.3	10.6	10.8	11.0	11.2	11.5	11.7	11.9
	SAG (m)	0.86	0.90	0.95	0.99	1.04	1.09	1.15	1.20	1.26	1.32	1.37	1.43	1.49	1.55	1.61	1.67	1.73
120	TENSION (Kg)	827	790	753	720	687	655	627	599	574	549	527	506	486	469	452	436	422
	TIME (s)	8.8	9.0	9.2	9.4	9.6	9.8	10.1	10.3	10.5	10.8	11.0	11.2	11.4	11.6	11.9	12.1	12.3
	SAG (m)	0.94	0.99	1.04	1.08	1.14	1.19	1.25	1.30	1.36	1.42	1.48	1.54	1.60	1.67	1.73	1.79	1.85
125	TENSION (Kg)	823	787	751	719	687	656	629	602	577	554	532	512	493	475	459	444	430
	TIME (s)	9.1	9.4	9.6	9.8	10.0	10.2	10.5	10.7	10.9	11.2	11.4	11.6	11.8	12.0	12.2	12.5	12.7
	SAG (m)	1.03	1.08	1.13	1.18	1.23	1.29	1.35	1.41	1.47	1.53	1.59	1.66	1.72	1.78	1.85	1.91	1.97
130	TENSION (Kg)	819	784	749	718	687	657	631	604	581	559	537	518	499	482	466	452	437
	TIME (s)	9.5	9.7	10.0	10.2	10.4	10.6	10.9	11.1	11.3	11.6	11.8	12.0	12.2	12.4	12.7	12.9	13.1
	SAG (m)	1.12	1.17	1.22	1.28	1.33	1.39	1.45	1.51	1.58	1.64	1.71	1.77	1.84	1.90	1.97	2.04	2.10
135	TENSION (Kg)	814	781	747	717	687	659	632	608	584	563	542	523	505	488	473	459	444
	TIME (s)	9.9	10.1	10.4	10.6	10.8	11.0	11.3	11.5	11.7	12.0	12.2	12.4	12.6	12.8	13.0	13.3	13.5
	SAG (m)	1.21	1.26	1.32	1.38	1.44	1.50	1.56	1.63	1.69	1.76	1.82	1.89	1.96	2.03	2.09	2.16	2.23

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 10°C shift & Next day 7.5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE RURAL (60m-135m) 19/3.25 AAAC KRYPTON 18%

DISTRIBUTION CONSTRUCTION STANDARDS

DRAWN: JRR DATE: 03-06-2014

CHECKED: REE SCALE: NTS

APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0070

REV. A SHT.

RURAL (140m-215m) 19/3.25 AAAC KRYPTON 18%

New Conductor (Initial) (deg C)	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
New Conductor (Initial) Next Day (deg C)	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
Existing Conductor (Final) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
140 TENSION (Kg)	810	778	746	716	687	660	634	610	587	567	546	528	511	494	479	465	452
TIME (s)	10.3	10.5	10.8	11.0	11.2	11.4	11.7	11.9	12.1	12.4	12.6	12.8	13.0	13.2	13.4	13.6	13.8
SAG (m)	1.31	1.37	1.42	1.48	1.55	1.61	1.68	1.74	1.81	1.88	1.95	2.01	2.08	2.15	2.22	2.29	2.36
145 TENSION (Kg)	807	775	744	715	687	661	636	613	590	570	550	533	516	501	485	472	459
TIME (s)	10.7	10.9	11.2	11.4	11.6	11.8	12.1	12.3	12.5	12.8	13.0	13.2	13.4	13.6	13.8	14.0	14.2
SAG (m)	1.41	1.47	1.53	1.59	1.66	1.73	1.79	1.86	1.93	2.00	2.07	2.14	2.21	2.28	2.35	2.42	2.49
150 TENSION (Kg)	803	772	742	714	687	662	637	615	593	574	556	537	521	506	491	478	465
TIME (s)	11.1	11.3	11.6	11.8	12.0	12.2	12.5	12.7	12.9	13.1	13.4	13.6	13.8	14.0	14.2	14.4	14.6
SAG (m)	1.52	1.58	1.64	1.71	1.78	1.84	1.91	1.98	2.05	2.13	2.20	2.27	2.34	2.41	2.49	2.56	2.63
155 TENSION (Kg)	799	769	740	713	687	663	639	618	596	577	560	542	526	512	497	484	471
TIME (s)	11.5	11.7	12.0	12.2	12.4	12.6	12.9	13.1	13.3	13.5	13.8	14.0	14.2	14.4	14.6	14.8	15.0
SAG (m)	1.63	1.69	1.76	1.83	1.90	1.97	2.04	2.11	2.18	2.26	2.33	2.40	2.48	2.55	2.62	2.70	2.77
160 TENSION (Kg)	796	767	738	712	687	663	640	620	599	581	564	546	531	517	503	489	477
TIME (s)	11.9	12.1	12.4	12.6	12.8	13.0	13.3	13.5	13.7	13.9	14.2	14.4	14.6	14.8	15.0	15.2	15.4
SAG (m)	1.74	1.81	1.88	1.95	2.02	2.09	2.17	2.24	2.32	2.39	2.47	2.54	2.62	2.69	2.77	2.84	2.91
165 TENSION (Kg)	792	764	737	712	687	664	642	622	602	584	567	551	536	522	508	495	483
TIME (s)	12.3	12.5	12.8	13.0	13.2	13.5	13.7	13.9	14.1	14.3	14.6	14.8	15.0	15.2	15.4	15.6	15.8
SAG (m)	1.86	1.93	2.00	2.08	2.15	2.23	2.30	2.38	2.45	2.53	2.60	2.68	2.76	2.83	2.91	2.99	3.06
170 TENSION (Kg)	789	761	735	710	687	665	643	624	606	587	571	556	540	526	513	501	489
TIME (s)	12.7	12.9	13.2	13.4	13.6	13.9	14.1	14.3	14.5	14.7	14.9	15.2	15.4	15.6	15.8	16.0	16.2
SAG (m)	1.99	2.06	2.13	2.21	2.28	2.36	2.44	2.51	2.59	2.67	2.75	2.83	2.90	2.98	3.06	3.13	3.21
175 TENSION (Kg)	786	758	734	709	687	666	645	626	608	590	574	559	544	531	518	506	494
TIME (s)	13.1	13.3	13.6	13.8	14.0	14.3	14.5	14.7	14.9	15.1	15.3	15.5	15.8	16.0	16.2	16.3	16.5
SAG (m)	2.11	2.19	2.26	2.34	2.42	2.50	2.58	2.65	2.73	2.81	2.89	2.97	3.05	3.13	3.21	3.29	3.37
180 TENSION (Kg)	782	756	732	708	687	666	646	628	610	593	578	563	548	535	523	511	499
TIME (s)	13.5	13.7	14.0	14.2	14.4	14.7	14.9	15.1	15.3	15.5	15.7	15.9	16.1	16.3	16.5	16.7	16.9
SAG (m)	2.25	2.32	2.40	2.48	2.56	2.64	2.72	2.80	2.88	2.96	3.04	3.12	3.21	3.29	3.37	3.44	3.52
185 TENSION (Kg)	779	754	731	708	687	667	647	630	613	596	581	567	552	540	527	516	505
TIME (s)	13.9	14.1	14.4	14.6	14.8	15.1	15.3	15.5	15.7	15.9	16.1	16.3	16.5	16.7	16.9	17.1	17.3
SAG (m)	2.38	2.46	2.54	2.62	2.70	2.79	2.87	2.95	3.03	3.12	3.20	3.28	3.36	3.44	3.52	3.60	3.68
190 TENSION (Kg)	776	752	729	707	687	668	648	631	615	599	584	570	557	544	532	521	510
TIME (s)	14.3	14.5	14.8	15.0	15.2	15.5	15.7	15.9	16.1	16.3	16.5	16.7	16.9	17.1	17.3	17.5	17.7
SAG (m)	2.52	2.60	2.68	2.77	2.85	2.94	3.02	3.10	3.19	3.27	3.36	3.44	3.52	3.60	3.69	3.77	3.85
195 TENSION (Kg)	774	750	728	706	687	668	650	633	617	601	587	573	561	548	536	525	515
TIME (s)	14.7	15.0	15.2	15.4	15.6	15.9	16.1	16.3	16.5	16.7	16.9	17.1	17.3	17.5	17.7	17.9	18.1
SAG (m)	2.67	2.75	2.83	2.92	3.00	3.09	3.17	3.26	3.35	3.43	3.52	3.60	3.69	3.77	3.85	3.94	4.02
200 TENSION (Kg)	771	748	727	706	687	669	651	635	619	604	590	577	564	551	540	529	519
TIME (s)	15.1	15.4	15.6	15.8	16.0	16.3	16.5	16.7	16.9	17.1	17.3	17.5	17.7	17.9	18.1	18.3	18.5
SAG (m)	2.82	2.90	2.99	3.07	3.16	3.25	3.33	3.42	3.51	3.59	3.68	3.77	3.85	3.94	4.02	4.11	4.19
205 TENSION (Kg)	768	746	725	705	687	669	652	636	621	607	593	580	568	556	544	533	523
TIME (s)	15.5	15.8	16.0	16.2	16.4	16.6	16.9	17.1	17.3	17.5	17.7	17.9	18.1	18.3	18.5	18.7	18.8
SAG (m)	2.97	3.06	3.14	3.23	3.32	3.41	3.50	3.59	3.67	3.76	3.85	3.94	4.02	4.11	4.20	4.28	4.36
210 TENSION (Kg)	766	744	724	705	687	670	653	638	623	609	595	583	571	560	548	537	528
TIME (s)	15.9	16.2	16.4	16.6	16.8	17.0	17.3	17.5	17.7	17.9	18.1	18.3	18.5	18.7	18.9	19.0	19.2
SAG (m)	3.13	3.22	3.30	3.40	3.48	3.58	3.67	3.75	3.84	3.93	4.02	4.11	4.20	4.29	4.37	4.46	4.54
215 TENSION (Kg)	762	742	723	704	687	670	654	639	625	612	598	586	574	563	551	541	532
TIME (s)	16.4	16.6	16.8	17.0	17.2	17.4	17.7	17.9	18.1	18.3	18.5	18.7	18.9	19.1	19.2	19.4	19.6
SAG (m)	3.29	3.38	3.47	3.56	3.65	3.75	3.84	3.93	4.02	4.11	4.20	4.29	4.38	4.46	4.55	4.64	4.73

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 10°C shift & Next day 7.5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE RURAL (140m-215m) 19/3.25 AAAC KRYPTON 18%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR DATE: 03-06-2014 DRG. No. CT-0071

CHECKED: REE SCALE: NTS

APPROVED: GRANT STACY DATE: 03-06-2014

REV. A SHT.

RURAL (220m-295m) 19/3.25 AAAC KRYPTON 18%

New Conductor (Initial) (deg C)	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
New Conductor (Initial) Next Day (deg C)	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
Existing Conductor (Final) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
220 TENSION (Kg)	760	740	722	703	687	671	655	640	627	614	600	588	577	566	556	545	536
TIME (s)	16.8	17.0	17.2	17.4	17.6	17.8	18.1	18.3	18.5	18.7	18.9	19.1	19.3	19.4	19.6	19.8	20.0
SAG (m)	3.45	3.55	3.64	3.73	3.83	3.92	4.01	4.10	4.19	4.29	4.38	4.47	4.56	4.65	4.74	4.82	4.91
225 TENSION (Kg)	757	739	721	703	687	671	656	642	628	616	603	591	580	569	559	549	539
TIME (s)	17.2	17.4	17.6	17.8	18.0	18.2	18.5	18.7	18.9	19.1	19.3	19.4	19.6	19.8	20.0	20.2	20.4
SAG (m)	3.62	3.72	3.81	3.91	4.00	4.10	4.19	4.28	4.38	4.47	4.56	4.65	4.74	4.83	4.92	5.01	5.10
230 TENSION (Kg)	755	737	720	702	687	672	657	643	630	618	606	594	583	573	563	552	543
TIME (s)	17.6	17.8	18.0	18.2	18.4	18.6	18.9	19.1	19.3	19.5	19.6	19.8	20.0	20.2	20.4	20.6	20.7
SAG (m)	3.80	3.90	3.99	4.09	4.18	4.28	4.37	4.47	4.56	4.66	4.75	4.84	4.93	5.02	5.12	5.21	5.30
235 TENSION (Kg)	753	736	719	702	687	672	657	644	632	620	608	596	586	575	566	557	547
TIME (s)	18.0	18.2	18.4	18.6	18.8	19.0	19.3	19.5	19.7	19.8	20.0	20.2	20.4	20.6	20.8	21.0	21.1
SAG (m)	3.98	4.08	4.18	4.27	4.37	4.46	4.56	4.66	4.75	4.85	4.94	5.03	5.13	5.22	5.31	5.40	5.49
240 TENSION (Kg)	751	734	718	701	687	673	659	645	633	621	610	598	588	578	569	560	550
TIME (s)	18.4	18.6	18.8	19.0	19.2	19.4	19.7	19.9	20.0	20.2	20.4	20.6	20.8	21.0	21.2	21.3	21.5
SAG (m)	4.16	4.26	4.36	4.46	4.55	4.65	4.75	4.85	4.94	5.04	5.13	5.23	5.32	5.42	5.51	5.60	5.69
245 TENSION (Kg)	749	733	717	701	687	673	660	647	635	623	612	601	591	581	572	563	554
TIME (s)	18.8	19.0	19.2	19.4	19.6	19.9	20.1	20.3	20.4	20.6	20.8	21.0	21.2	21.4	21.5	21.7	21.9
SAG (m)	4.35	4.45	4.55	4.65	4.75	4.85	4.95	5.05	5.14	5.24	5.33	5.43	5.52	5.62	5.71	5.80	5.90
250 TENSION (Kg)	747	731	716	701	687	673	661	648	636	625	614	603	593	584	575	566	558
TIME (s)	19.2	19.4	19.6	19.8	20.0	20.3	20.5	20.7	20.8	21.0	21.2	21.4	21.6	21.8	21.9	22.1	22.3
SAG (m)	4.54	4.64	4.75	4.84	4.94	5.04	5.14	5.25	5.35	5.44	5.54	5.63	5.73	5.82	5.92	6.01	6.10
255 TENSION (Kg)	745	730	715	700	687	674	662	649	637	627	616	606	596	586	578	569	561
TIME (s)	19.6	19.8	20.0	20.2	20.5	20.7	20.9	21.0	21.2	21.4	21.6	21.8	22.0	22.1	22.3	22.5	22.7
SAG (m)	4.74	4.84	4.94	5.04	5.14	5.25	5.35	5.45	5.55	5.64	5.74	5.84	5.94	6.03	6.13	6.22	6.32
260 TENSION (Kg)	744	729	714	700	687	674	662	650	639	628	618	608	598	589	580	572	564
TIME (s)	20.0	20.2	20.5	20.7	20.9	21.1	21.2	21.4	21.6	21.8	22.0	22.2	22.4	22.5	22.7	22.9	23.0
SAG (m)	4.94	5.04	5.15	5.25	5.35	5.45	5.55	5.66	5.76	5.85	5.95	6.05	6.15	6.24	6.34	6.44	6.53
265 TENSION (Kg)	742	727	714	699	687	675	663	651	640	630	620	610	600	591	583	575	567
TIME (s)	20.4	20.7	20.9	21.1	21.3	21.5	21.6	21.8	22.0	22.2	22.4	22.6	22.7	22.9	23.1	23.3	23.4
SAG (m)	5.14	5.25	5.35	5.45	5.56	5.66	5.76	5.87	5.97	6.07	6.17	6.26	6.36	6.46	6.56	6.65	6.75
270 TENSION (Kg)	740	726	713	699	687	675	664	652	641	631	622	612	602	594	585	577	570
TIME (s)	20.9	21.1	21.3	21.5	21.7	21.9	22.0	22.2	22.4	22.6	22.8	23.0	23.1	23.3	23.5	23.6	23.8
SAG (m)	5.35	5.46	5.56	5.67	5.77	5.87	5.98	6.08	6.19	6.29	6.38	6.48	6.58	6.68	6.78	6.88	6.97
275 TENSION (Kg)	739	725	712	699	687	675	664	653	642	633	623	614	604	596	588	580	572
TIME (s)	21.3	21.5	21.7	21.9	22.1	22.3	22.4	22.6	22.8	23.0	23.2	23.3	23.5	23.7	23.9	24.0	24.2
SAG (m)	5.56	5.67	5.78	5.88	5.99	6.09	6.20	6.30	6.41	6.51	6.61	6.71	6.81	6.91	7.00	7.10	7.20
280 TENSION (Kg)	737	724	710	698	687	676	665	654	644	634	625	616	607	598	590	582	575
TIME (s)	21.7	21.9	22.1	22.3	22.5	22.7	22.8	23.0	23.2	23.4	23.6	23.7	23.9	24.1	24.3	24.4	24.6
SAG (m)	5.78	5.89	6.00	6.10	6.21	6.31	6.42	6.52	6.63	6.73	6.84	6.93	7.03	7.13	7.23	7.33	7.43
285 TENSION (Kg)	736	723	710	698	687	676	665	654	645	635	626	618	609	600	592	585	578
TIME (s)	22.1	22.3	22.5	22.7	22.9	23.1	23.2	23.4	23.6	23.8	24.0	24.1	24.3	24.5	24.6	24.8	25.0
SAG (m)	6.00	6.11	6.22	6.32	6.43	6.54	6.65	6.75	6.86	6.96	7.07	7.17	7.26	7.37	7.47	7.57	7.66
290 TENSION (Kg)	734	722	709	698	687	676	666	655	646	637	628	619	611	602	595	587	580
TIME (s)	22.5	22.7	22.9	23.1	23.3	23.5	23.6	23.8	24.0	24.2	24.4	24.5	24.7	24.9	25.0	25.2	25.3
SAG (m)	6.23	6.34	6.45	6.55	6.66	6.77	6.88	6.98	7.09	7.20	7.30	7.41	7.50	7.60	7.70	7.80	7.90
295 TENSION (Kg)	733	721	709	697	687	676	667	656	647	638	629	621	613	604	597	589	582
TIME (s)	22.9	23.1	23.3	23.5	23.7	23.9	24.0	24.2	24.4	24.6	24.8	24.9	25.1	25.2	25.4	25.6	25.7
SAG (m)	6.46	6.57	6.68	6.78	6.89	7.00	7.11	7.22	7.32	7.43	7.54	7.64	7.75	7.84	7.94	8.04	8.14

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 10°C shift & Next day 7.5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE RURAL (220m-295m) 19/3.25 AAAC KRYPTON 18%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR DATE: 03-06-2014 DRG. No. CT-0072

CHECKED: REE SCALE: NTS

APPROVED: GRANT STACY DATE: 03-06-2014

REV. A SHT.

RURAL (300m-370m) 19/3.25 AAAC KRYPTON 18%

New Conductor (Initial) (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
New Conductor (Initial) Next Day (deg C)		12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
300	TENSION (Kg)	732	720	708	697	687	677	667	657	648	639	631	623	615	607	599	592	585
	TIME(s)	23.3	23.5	23.7	23.9	24.1	24.3	24.4	24.6	24.8	25.0	25.1	25.3	25.5	25.7	25.8	26.0	26.1
	SAG(m)	6.69	6.80	6.91	7.02	7.13	7.24	7.35	7.46	7.56	7.67	7.78	7.88	7.99	8.09	8.19	8.29	8.39
305	TENSION (Kg)	731	719	707	697	687	677	668	657	649	640	632	624	616	609	601	594	587
	TIME(s)	23.7	23.9	24.1	24.3	24.5	24.7	24.8	25.0	25.2	25.4	25.5	25.7	25.9	26.0	26.2	26.3	26.5
	SAG(m)	6.93	7.04	7.15	7.26	7.37	7.48	7.59	7.70	7.81	7.92	8.02	8.13	8.24	8.34	8.45	8.54	8.64
310	TENSION (Kg)	729	718	707	697	687	677	668	659	650	641	633	626	618	611	603	596	589
	TIME(s)	24.2	24.3	24.5	24.7	24.9	25.1	25.2	25.4	25.6	25.8	25.9	26.1	26.3	26.4	26.6	26.7	26.9
	SAG(m)	7.17	7.28	7.39	7.51	7.62	7.73	7.84	7.95	8.06	8.16	8.27	8.38	8.49	8.59	8.70	8.79	8.89
315	TENSION (Kg)	728	718	706	696	687	677	669	660	651	642	635	627	620	613	606	598	591
	TIME(s)	24.6	24.7	24.9	25.1	25.3	25.5	25.6	25.8	26.0	26.2	26.3	26.5	26.7	26.8	27.0	27.1	27.3
	SAG(m)	7.42	7.53	7.64	7.75	7.87	7.98	8.09	8.20	8.31	8.42	8.52	8.63	8.74	8.85	8.95	9.06	9.15
320	TENSION (Kg)	727	717	706	696	687	678	669	661	651	644	636	628	621	614	607	600	594
	TIME(s)	25.0	25.2	25.3	25.5	25.7	25.9	26.0	26.2	26.4	26.6	26.7	26.9	27.0	27.2	27.4	27.5	27.7
	SAG(m)	7.67	7.78	7.89	8.01	8.12	8.23	8.34	8.45	8.56	8.67	8.78	8.89	9.00	9.10	9.21	9.32	9.42
325	TENSION (Kg)	726	716	705	696	687	678	669	661	652	645	637	630	623	616	609	602	596
	TIME(s)	25.4	25.6	25.7	25.9	26.1	26.3	26.4	26.6	26.8	26.9	27.1	27.3	27.4	27.6	27.8	27.9	28.1
	SAG(m)	7.92	8.04	8.15	8.26	8.38	8.49	8.60	8.71	8.82	8.93	9.04	9.15	9.26	9.37	9.47	9.58	9.69
330	TENSION (Kg)	725	715	705	696	687	678	670	662	653	646	638	631	624	617	611	604	598
	TIME(s)	25.8	26.0	26.1	26.3	26.5	26.7	26.8	27.0	27.2	27.3	27.5	27.7	27.8	28.0	28.1	28.3	28.4
	SAG(m)	8.18	8.30	8.41	8.52	8.64	8.75	8.86	8.97	9.09	9.20	9.31	9.42	9.52	9.63	9.74	9.85	9.95
335	TENSION (Kg)	724	714	704	695	687	678	670	662	654	646	639	632	626	619	613	606	599
	TIME(s)	26.2	26.4	26.6	26.7	26.9	27.1	27.2	27.4	27.6	27.7	27.9	28.1	28.2	28.4	28.5	28.7	28.8
	SAG(m)	8.45	8.56	8.67	8.79	8.90	9.02	9.13	9.24	9.35	9.46	9.58	9.69	9.79	9.90	10.01	10.12	10.22
340	TENSION (Kg)	723	714	704	695	687	679	671	663	655	647	640	634	627	621	614	608	601
	TIME(s)	26.6	26.8	27.0	27.1	27.3	27.5	27.6	27.8	28.0	28.1	28.3	28.5	28.6	28.8	28.9	29.1	29.2
	SAG(m)	8.71	8.83	8.94	9.06	9.17	9.29	9.40	9.51	9.62	9.74	9.85	9.96	10.07	10.18	10.29	10.39	10.50
345	TENSION (Kg)	722	713	703	695	687	679	671	664	655	648	641	635	628	622	616	610	603
	TIME(s)	27.0	27.2	27.4	27.5	27.7	27.9	28.0	28.2	28.4	28.5	28.7	28.8	29.0	29.2	29.3	29.5	29.6
	SAG(m)	8.98	9.10	9.22	9.33	9.45	9.56	9.67	9.79	9.90	10.01	10.12	10.24	10.35	10.46	10.56	10.67	10.78
350	TENSION (Kg)	721	712	703	695	687	679	671	664	656	649	642	636	630	623	617	612	606
	TIME(s)	27.4	27.6	27.8	27.9	28.1	28.3	28.4	28.6	28.8	28.9	29.1	29.2	29.4	29.5	29.7	29.8	30.0
	SAG(m)	9.26	9.38	9.49	9.61	9.72	9.84	9.95	10.07	10.18	10.29	10.41	10.52	10.63	10.74	10.85	10.96	11.06
355	TENSION (Kg)	720	712	703	695	687	679	672	665	657	650	643	637	631	625	619	613	608
	TIME(s)	27.8	28.0	28.2	28.4	28.5	28.7	28.8	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4
	SAG(m)	9.54	9.66	9.77	9.89	10.01	10.12	10.24	10.35	10.46	10.58	10.69	10.80	10.91	11.02	11.13	11.24	11.35
360	TENSION (Kg)	720	710	702	694	687	679	672	665	657	651	644	638	632	626	620	615	609
	TIME(s)	28.3	28.4	28.6	28.8	28.9	29.1	29.2	29.4	29.6	29.7	29.9	30.0	30.2	30.3	30.5	30.6	30.8
	SAG(m)	9.82	9.94	10.06	10.17	10.29	10.41	10.52	10.64	10.75	10.87	10.98	11.09	11.20	11.31	11.42	11.53	11.64
365	TENSION (Kg)	719	710	702	694	687	680	673	666	659	652	645	639	633	627	622	616	611
	TIME(s)	28.7	28.8	29.0	29.2	29.3	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	31.0	31.2
	SAG(m)	10.11	10.23	10.35	10.46	10.58	10.70	10.81	10.93	11.04	11.16	11.27	11.38	11.50	11.61	11.72	11.83	11.94
370	TENSION (Kg)	718	709	701	694	687	680	673	666	660	652	646	640	634	629	623	618	612
	TIME(s)	29.1	29.2	29.4	29.6	29.7	29.9	30.1	30.2	30.4	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.5
	SAG(m)	10.40	10.52	10.64	10.76	10.88	10.99	11.11	11.22	11.34	11.45	11.57	11.68	11.79	11.91	12.02	12.13	12.24

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 10°C shift & Next day 7.5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE RURAL (300m-370m) 19/3.25 AAAC KRYPTON 18%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR DATE: 03-06-2014

CHECKED: REE SCALE: NTS

APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0073

REV. A SHT.

RURAL (375m-450m) 19/3.25 AAAC KRYPTON 18%

New Conductor (Initial) (deg C)		17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5
New Conductor (Initial) Next Day (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
375	TENSION (Kg)	717	709	701	694	687	680	673	667	660	653	647	641	635	630	624	619	614
	TIME(s)	29.5	29.7	29.8	30.0	30.1	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	31.5	31.6	31.8	31.9
	SAG(m)	10.70	10.82	10.94	11.06	11.17	11.29	11.41	11.52	11.64	11.76	11.87	11.98	12.10	12.21	12.32	12.43	12.54
380	TENSION (Kg)	717	708	701	694	687	680	673	667	661	654	648	642	637	631	626	620	615
	TIME(s)	29.9	30.1	30.2	30.4	30.5	30.7	30.9	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.0	32.2	32.3
	SAG(m)	11.00	11.12	11.24	11.36	11.48	11.59	11.71	11.83	11.94	12.06	12.17	12.29	12.40	12.52	12.63	12.74	12.85
385	TENSION (Kg)	716	708	700	693	687	680	674	668	661	655	649	643	638	632	627	622	617
	TIME(s)	30.3	30.5	30.6	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	32.0	32.1	32.3	32.4	32.6	32.7
	SAG(m)	11.31	11.43	11.55	11.66	11.78	11.90	12.02	12.14	12.25	12.37	12.48	12.60	12.71	12.83	12.94	13.05	13.16
390	TENSION (Kg)	715	707	700	693	687	680	674	668	662	655	650	644	639	633	628	623	618
	TIME(s)	30.7	30.9	31.0	31.2	31.4	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.5	32.7	32.8	33.0	33.1
	SAG(m)	11.61	11.74	11.86	11.98	12.09	12.21	12.33	12.45	12.57	12.68	12.80	12.91	13.03	13.14	13.25	13.37	13.48
395	TENSION (Kg)	715	707	700	693	687	680	674	668	663	656	650	645	640	634	629	624	620
	TIME(s)	31.1	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	32.5	32.7	32.8	32.9	33.1	33.2	33.4	33.5
	SAG(m)	11.93	12.05	12.17	12.29	12.41	12.53	12.65	12.76	12.88	13.00	13.11	13.23	13.34	13.46	13.57	13.68	13.80
400	TENSION (Kg)	714	706	699	693	687	681	675	669	663	656	651	646	641	635	630	626	621
	TIME(s)	31.6	31.7	31.9	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.3	33.5	33.6	33.7	33.9
	SAG(m)	12.25	12.37	12.49	12.61	12.73	12.85	12.97	13.08	13.20	13.32	13.44	13.55	13.67	13.78	13.89	14.01	14.12
405	TENSION (Kg)	713	706	699	693	687	681	675	669	664	657	652	647	641	636	632	627	622
	TIME(s)	32.0	32.1	32.3	32.4	32.6	32.7	32.9	33.0	33.2	33.3	33.4	33.6	33.7	33.9	34.0	34.1	34.3
	SAG(m)	12.57	12.69	12.81	12.93	13.05	13.17	13.29	13.41	13.53	13.64	13.76	13.88	13.99	14.11	14.22	14.34	14.45
410	TENSION (Kg)	713	705	699	693	687	681	675	670	664	659	652	647	642	637	633	628	623
	TIME(s)	32.4	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.8	34.0	34.1	34.3	34.4	34.5	34.7
	SAG(m)	12.89	13.02	13.14	13.26	13.38	13.50	13.62	13.74	13.86	13.97	14.09	14.21	14.32	14.44	14.55	14.67	14.78
415	TENSION (Kg)	712	705	699	693	687	681	675	670	665	659	653	648	643	638	634	629	625
	TIME(s)	32.8	32.9	33.1	33.2	33.4	33.5	33.7	33.8	34.0	34.1	34.2	34.4	34.5	34.7	34.8	34.9	35.1
	SAG(m)	13.22	13.35	13.47	13.59	13.71	13.83	13.95	14.07	14.19	14.31	14.42	14.54	14.66	14.77	14.89	15.00	15.12
420	TENSION (Kg)	712	704	698	692	687	681	676	670	665	660	654	649	644	639	635	630	626
	TIME(s)	33.2	33.4	33.5	33.6	33.8	33.9	34.1	34.2	34.4	34.5	34.6	34.8	34.9	35.1	35.2	35.3	35.4
	SAG(m)	13.56	13.68	13.80	13.93	14.05	14.17	14.29	14.41	14.53	14.64	14.76	14.88	15.00	15.11	15.23	15.34	15.46
425	TENSION (Kg)	710	704	698	692	687	681	676	671	665	660	654	650	645	640	636	631	627
	TIME(s)	33.6	33.8	33.9	34.1	34.2	34.3	34.5	34.6	34.8	34.9	35.0	35.2	35.3	35.4	35.6	35.7	35.8
	SAG(m)	13.90	14.02	14.14	14.27	14.39	14.51	14.63	14.75	14.87	14.99	15.10	15.22	15.34	15.45	15.57	15.69	15.80
430	TENSION (Kg)	710	704	698	692	687	681	676	671	666	661	655	650	646	641	637	632	628
	TIME(s)	34.0	34.2	34.3	34.4	34.6	34.7	34.9	35.0	35.2	35.3	35.4	35.6	35.7	35.8	36.0	36.1	36.2
	SAG(m)	14.24	14.36	14.49	14.59	14.73	14.85	14.97	15.09	15.21	15.33	15.45	15.57	15.69	15.80	15.92	16.03	16.15
435	TENSION (Kg)	709	703	698	692	687	681	676	671	666	661	656	651	647	642	638	633	629
	TIME(s)	34.4	34.6	34.7	34.9	35.0	35.2	35.3	35.4	35.6	35.7	35.8	36.0	36.1	36.2	36.4	36.5	36.6
	SAG(m)	14.59	14.71	14.83	14.94	15.08	15.20	15.32	15.44	15.56	15.68	15.80	15.92	16.04	16.15	16.27	16.39	16.50
440	TENSION (Kg)	709	703	697	692	687	682	677	672	667	662	656	652	647	643	639	634	630
	TIME(s)	34.9	35.0	35.1	35.3	35.4	35.6	35.7	35.8	36.0	36.1	36.2	36.4	36.5	36.6	36.8	36.9	37.0
	SAG(m)	14.94	15.06	15.19	15.30	15.43	15.55	15.68	15.80	15.92	16.04	16.16	16.27	16.39	16.51	16.63	16.74	16.86
445	TENSION (Kg)	708	703	697	692	687	682	677	672	667	662	657	652	648	644	640	635	631
	TIME(s)	35.3	35.4	35.5	35.7	35.8	36.0	36.1	36.2	36.4	36.5	36.6	36.8	36.9	37.0	37.2	37.3	37.4
	SAG(m)	15.29	15.42	15.54	15.65	15.79	15.91	16.03	16.15	16.27	16.39	16.51	16.63	16.75	16.87	16.99	17.10	17.22
450	TENSION (Kg)	708	702	697	692	687	682	677	672	668	663	657	653	649	645	640	636	632
	TIME(s)	35.7	35.8	36.0	36.1	36.2	36.4	36.5	36.6	36.8	36.9	37.0	37.2	37.3	37.4	37.6	37.7	37.8
	SAG(m)	15.65	15.78	15.90	16.02	16.15	16.27	16.40	16.52	16.64	16.76	16.88	17.00	17.11	17.23	17.35	17.47	17.58

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 12.5°C shift & Next day 10°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE RURAL (375m-450m) 19/3.25 AAAC KRYPTON 18%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR DATE: 03-06-2014

CHECKED: REE SCALE: NTS

APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0074

REV. A SHT.

RURAL (455m – 500m) 19/3.25 AAAC KRYPTON 18%

New Conductor (Initial) (deg C)		17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5
New Conductor (Initial) Next Day (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
455	TENSION (Kg)	707	702	697	692	687	682	677	672	668	663	659	654	649	645	641	637	633
	TIME (s)	36.1	36.2	36.4	36.5	36.6	36.8	36.9	37.0	37.2	37.3	37.4	37.6	37.7	37.8	38.0	38.1	38.2
	SAG (m)	16.02	16.14	16.27	16.38	16.52	16.64	16.76	16.88	17.00	17.12	17.24	17.36	17.48	17.60	17.72	17.83	17.95
460	TENSION (Kg)	707	702	697	692	687	682	677	673	668	664	660	654	650	646	642	638	634
	TIME (s)	36.5	36.6	36.8	36.9	37.1	37.2	37.3	37.5	37.6	37.7	37.8	38.0	38.1	38.2	38.4	38.5	38.6
	SAG (m)	16.39	16.51	16.64	16.75	16.89	17.01	17.13	17.25	17.37	17.50	17.62	17.73	17.85	17.97	18.09	18.21	18.32
465	TENSION (Kg)	706	701	696	691	687	682	678	673	669	664	660	655	651	647	643	639	635
	TIME (s)	36.9	37.1	37.2	37.3	37.5	37.6	37.7	37.9	38.0	38.1	38.2	38.4	38.5	38.6	38.7	38.9	39.0
	SAG (m)	16.76	16.89	17.01	17.13	17.26	17.38	17.51	17.63	17.75	17.87	17.99	18.11	18.23	18.35	18.47	18.58	18.70
470	TENSION (Kg)	706	701	696	691	687	682	678	673	669	665	661	656	652	648	644	640	636
	TIME (s)	37.3	37.5	37.6	37.7	37.9	38.0	38.1	38.3	38.4	38.5	38.6	38.8	38.9	39.0	39.1	39.3	39.4
	SAG (m)	17.14	17.26	17.39	17.51	17.64	17.76	17.88	18.01	18.13	18.25	18.37	18.49	18.61	18.73	18.85	18.97	19.08
475	TENSION (Kg)	706	701	696	691	687	682	678	674	669	665	661	656	652	648	644	641	637
	TIME (s)	37.7	37.9	38.0	38.1	38.3	38.4	38.5	38.7	38.8	38.9	39.0	39.2	39.3	39.4	39.5	39.7	39.8
	SAG (m)	17.52	17.65	17.77	17.89	18.02	18.14	18.27	18.39	18.51	18.63	18.75	18.87	18.99	19.11	19.23	19.35	19.47
480	TENSION (Kg)	705	700	696	691	687	682	678	674	670	666	662	657	653	649	645	642	638
	TIME (s)	38.2	38.3	38.4	38.5	38.7	38.8	38.9	39.1	39.2	39.3	39.4	39.6	39.7	39.8	39.9	40.1	40.2
	SAG (m)	17.90	18.03	18.16	18.28	18.41	18.53	18.65	18.78	18.90	19.02	19.14	19.26	19.38	19.50	19.62	19.74	19.86
485	TENSION (Kg)	705	700	696	691	687	682	678	674	670	666	662	657	653	650	646	642	639
	TIME (s)	38.6	38.7	38.8	39.0	39.1	39.2	39.3	39.5	39.6	39.7	39.9	40.0	40.1	40.2	40.3	40.5	40.6
	SAG (m)	18.29	18.42	18.55	18.67	18.80	18.92	19.05	19.17	19.29	19.41	19.53	19.66	19.78	19.90	20.02	20.13	20.25
490	TENSION (Kg)	704	700	695	691	687	683	678	674	670	666	663	659	654	650	647	643	640
	TIME (s)	39.0	39.1	39.2	39.4	39.5	39.6	39.8	39.9	40.0	40.1	40.3	40.4	40.5	40.6	40.7	40.9	41.0
	SAG (m)	18.69	18.82	18.94	19.07	19.19	19.32	19.44	19.56	19.69	19.81	19.93	20.05	20.17	20.29	20.41	20.53	20.65
495	TENSION (Kg)	704	700	695	691	687	683	679	675	671	667	663	659	655	651	647	644	640
	TIME (s)	39.4	39.5	39.6	39.8	39.9	40.0	40.2	40.3	40.4	40.5	40.7	40.8	40.9	41.0	41.1	41.3	41.4
	SAG (m)	19.09	19.21	19.32	19.47	19.59	19.72	19.84	19.96	20.09	20.21	20.33	20.45	20.57	20.69	20.81	20.93	21.05
500	TENSION (Kg)	704	699	695	691	687	683	679	675	671	667	663	660	655	652	648	645	641
	TIME (s)	39.8	39.9	40.0	40.2	40.3	40.4	40.6	40.7	40.8	40.9	41.1	41.2	41.3	41.4	41.5	41.7	41.8
	SAG (m)	19.49	19.62	19.72	19.87	20.00	20.12	20.25	20.37	20.49	20.62	20.74	20.86	20.98	21.10	21.22	21.34	21.46

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 12.5°C shift & Next day 10°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE RURAL (455m-500m) 19/3.25 AAAC KRYPTON 18%

DISTRIBUTION CONSTRUCTION STANDARDS

DRAWN: JRR DATE: 03-06-2014
CHECKED: REE SCALE: NTS
APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0075
REV. A SHT.

RURAL (60m -135m) 19/3.25 AAAC 16% Underslung earthwire to match AAAC 18%

New Conductor (Initial) (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55.0
New Conductor (Initial) Next Day (deg C)		12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	790	743	698	653	611	569	529	492	457	424	394	368	344	322	303	285	270
	TIME (s)	4.5	4.6	4.8	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.3	6.6	6.8	7.0	7.2	7.5	7.7
	SAG (m)	0.25	0.26	0.28	0.30	0.32	0.34	0.37	0.40	0.43	0.46	0.49	0.53	0.57	0.61	0.65	0.68	0.72
65	TENSION (Kg)	786	740	695	652	611	571	532	496	463	431	404	377	354	333	314	298	282
	TIME (s)	4.9	5.0	5.2	5.3	5.5	5.7	5.9	6.1	6.3	6.6	6.8	7.0	7.2	7.5	7.7	7.9	8.1
	SAG (m)	0.29	0.31	0.33	0.35	0.37	0.40	0.43	0.46	0.49	0.53	0.57	0.61	0.65	0.69	0.73	0.77	0.81
70	TENSION (Kg)	782	737	693	651	611	572	535	501	468	438	412	386	364	345	326	310	295
	TIME (s)	5.3	5.4	5.6	5.8	5.9	6.1	6.4	6.6	6.8	7.0	7.2	7.5	7.7	7.9	8.1	8.4	8.6
	SAG (m)	0.34	0.36	0.38	0.41	0.43	0.46	0.50	0.53	0.57	0.61	0.65	0.69	0.73	0.77	0.82	0.86	0.90
75	TENSION (Kg)	777	733	691	649	611	573	538	505	474	445	419	396	374	355	336	321	306
	TIME (s)	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.5	7.7	7.9	8.1	8.4	8.6	8.8	9.0
	SAG (m)	0.39	0.42	0.44	0.47	0.50	0.53	0.57	0.60	0.64	0.68	0.73	0.77	0.82	0.86	0.91	0.95	1.00
80	TENSION (Kg)	772	730	688	648	611	575	540	509	479	452	427	404	383	364	347	331	317
	TIME (s)	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.7	7.9	8.1	8.4	8.6	8.8	9.0	9.2	9.4
	SAG (m)	0.45	0.48	0.50	0.53	0.57	0.60	0.64	0.68	0.72	0.77	0.81	0.86	0.91	0.95	1.00	1.05	1.09
85	TENSION (Kg)	768	726	686	647	611	576	543	513	484	458	434	412	391	373	357	341	328
	TIME (s)	6.4	6.6	6.8	7.0	7.2	7.4	7.7	7.9	8.1	8.3	8.6	8.8	9.0	9.2	9.4	9.7	9.9
	SAG (m)	0.51	0.54	0.57	0.60	0.64	0.68	0.72	0.76	0.81	0.85	0.90	0.95	1.00	1.05	1.10	1.15	1.20
90	TENSION (Kg)	762	722	683	646	611	577	545	516	489	464	440	420	401	382	366	352	337
	TIME (s)	6.8	7.0	7.2	7.4	7.6	7.9	8.1	8.3	8.5	8.8	9.0	9.2	9.4	9.7	9.9	10.1	10.3
	SAG (m)	0.58	0.61	0.64	0.68	0.72	0.76	0.80	0.85	0.90	0.95	1.00	1.05	1.10	1.15	1.20	1.25	1.30
95	TENSION (Kg)	757	719	681	644	611	578	548	520	493	470	448	427	408	390	375	361	348
	TIME (s)	7.2	7.4	7.6	7.9	8.1	8.3	8.5	8.7	9.0	9.2	9.4	9.7	9.9	10.1	10.3	10.5	10.7
	SAG (m)	0.65	0.68	0.72	0.76	0.80	0.85	0.89	0.94	0.99	1.04	1.09	1.15	1.20	1.25	1.30	1.36	1.41
100	TENSION (Kg)	752	715	678	643	611	579	550	523	498	475	454	434	416	399	383	369	357
	TIME (s)	7.6	7.8	8.1	8.3	8.5	8.7	8.9	9.2	9.4	9.6	9.9	10.1	10.3	10.5	10.7	10.9	11.1
	SAG (m)	0.72	0.76	0.80	0.84	0.89	0.93	0.98	1.04	1.09	1.14	1.20	1.25	1.30	1.36	1.41	1.47	1.52
105	TENSION (Kg)	748	710	676	642	611	581	552	527	503	480	460	440	423	407	391	378	365
	TIME (s)	8.1	8.3	8.5	8.7	8.9	9.1	9.4	9.6	9.8	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5
	SAG (m)	0.80	0.84	0.88	0.93	0.98	1.03	1.08	1.13	1.19	1.25	1.30	1.36	1.42	1.47	1.53	1.58	1.64
110	TENSION (Kg)	743	707	673	641	611	582	556	530	507	485	466	446	430	414	400	386	373
	TIME (s)	8.5	8.7	8.9	9.1	9.3	9.6	9.8	10.0	10.3	10.5	10.7	10.9	11.1	11.4	11.6	11.8	12.0
	SAG (m)	0.88	0.93	0.97	1.02	1.07	1.13	1.18	1.24	1.29	1.35	1.41	1.47	1.53	1.59	1.65	1.70	1.76
115	TENSION (Kg)	738	703	671	640	611	583	558	533	511	490	471	453	436	421	407	393	381
	TIME (s)	8.9	9.1	9.3	9.5	9.8	10.0	10.2	10.5	10.7	10.9	11.1	11.3	11.6	11.8	12.0	12.2	12.4
	SAG (m)	0.97	1.02	1.07	1.12	1.17	1.23	1.29	1.34	1.40	1.46	1.52	1.58	1.64	1.71	1.77	1.82	1.88
120	TENSION (Kg)	734	700	669	639	611	584	560	536	515	494	476	459	442	428	414	402	389
	TIME (s)	9.3	9.5	9.7	10.0	10.2	10.4	10.7	10.9	11.1	11.3	11.6	11.8	12.0	12.2	12.4	12.6	12.8
	SAG (m)	1.06	1.11	1.17	1.22	1.28	1.34	1.40	1.46	1.52	1.58	1.64	1.70	1.77	1.83	1.89	1.95	2.01
125	TENSION (Kg)	729	697	667	637	611	585	562	539	518	499	481	464	449	434	421	408	397
	TIME (s)	9.7	9.9	10.2	10.4	10.6	10.8	11.1	11.3	11.5	11.8	12.0	12.2	12.4	12.6	12.8	13.0	13.2
	SAG (m)	1.16	1.22	1.27	1.33	1.39	1.45	1.51	1.57	1.63	1.70	1.76	1.83	1.89	1.95	2.02	2.08	2.14
130	TENSION (Kg)	725	693	665	636	611	586	563	541	522	504	486	470	455	440	427	415	404
	TIME (s)	10.1	10.4	10.6	10.8	11.0	11.3	11.5	11.7	11.9	12.2	12.4	12.6	12.8	13.0	13.2	13.4	13.6
	SAG (m)	1.26	1.32	1.38	1.44	1.50	1.56	1.63	1.69	1.76	1.82	1.89	1.95	2.02	2.08	2.15	2.21	2.27
135	TENSION (Kg)	721	690	663	635	611	587	565	544	525	507	490	475	460	446	433	422	410
	TIME (s)	10.6	10.8	11.0	11.2	11.5	11.7	11.9	12.1	12.4	12.6	12.8	13.0	13.2	13.4	13.6	13.8	14.0
	SAG (m)	1.37	1.43	1.49	1.55	1.62	1.68	1.75	1.82	1.88	1.95	2.02	2.08	2.15	2.22	2.28	2.35	2.41

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 10°C shift & Next day 7.5°C shift

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	20.08.15	TITLE REVISED	JC	REE	GS
A	03.06.14	ORIGINAL ISSUE	REE	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE
RURAL (60m-135m) 19/3.25 AAAC 16%
UNDERSLUNG EARTHWIRE TO MATCH AAAC 18%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 03.06.2014 | DRG. No. CT0080
ORIGINATED: JC | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. B | SHT.

RURAL (140m-215m) 19/3.25 AAAC 16% Underslung earthwire to match AAAC 18%

New Conductor (Initial) (deg C)	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55.0
New Conductor (Initial) Next Day (deg C)	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
Existing Conductor (Final) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
140 TENSION (Kg)	716	687	661	634	611	588	567	546	528	511	494	479	465	452	439	428	417
TIME (s)	11.0	11.2	11.4	11.7	11.9	12.1	12.3	12.6	12.8	13.0	13.2	13.4	13.6	13.8	14.0	14.2	14.4
SAG (m)	1.48	1.55	1.61	1.67	1.74	1.81	1.88	1.94	2.01	2.08	2.15	2.22	2.29	2.35	2.42	2.49	2.55
145 TENSION (Kg)	712	684	659	634	611	589	569	549	531	515	498	484	470	458	445	433	423
TIME (s)	11.4	11.6	11.9	12.1	12.3	12.6	12.8	13.0	13.2	13.4	13.6	13.8	14.0	14.2	14.4	14.6	14.8
SAG (m)	1.60	1.67	1.73	1.80	1.87	1.94	2.01	2.08	2.15	2.22	2.29	2.36	2.43	2.50	2.56	2.63	2.70
150 TENSION (Kg)	708	681	656	633	611	589	570	551	534	518	503	488	475	463	451	439	429
TIME (s)	11.8	12.1	12.3	12.5	12.7	13.0	13.2	13.4	13.6	13.8	14.1	14.3	14.5	14.7	14.8	15.0	15.2
SAG (m)	1.72	1.79	1.86	1.93	2.00	2.07	2.14	2.21	2.28	2.36	2.43	2.50	2.57	2.64	2.71	2.78	2.85
155 TENSION (Kg)	704	679	654	632	611	590	572	554	537	521	507	492	480	468	456	444	434
TIME (s)	12.3	12.5	12.7	13.0	13.2	13.4	13.6	13.8	14.0	14.3	14.5	14.7	14.9	15.1	15.3	15.4	15.6
SAG (m)	1.85	1.92	1.99	2.06	2.13	2.21	2.28	2.35	2.43	2.50	2.57	2.65	2.72	2.79	2.86	2.93	3.00
160 TENSION (Kg)	700	676	652	631	611	591	573	556	539	525	511	496	484	472	461	451	440
TIME (s)	12.7	12.9	13.1	13.4	13.6	13.8	14.0	14.3	14.5	14.7	14.9	15.1	15.3	15.5	15.7	15.8	16.0
SAG (m)	1.98	2.05	2.13	2.20	2.27	2.35	2.42	2.50	2.57	2.65	2.72	2.80	2.87	2.94	3.02	3.09	3.16
165 TENSION (Kg)	697	674	651	630	611	592	574	558	542	527	514	501	488	477	466	456	445
TIME (s)	13.1	13.3	13.6	13.8	14.0	14.2	14.5	14.7	14.9	15.1	15.3	15.5	15.7	15.9	16.1	16.3	16.4
SAG (m)	2.12	2.19	2.27	2.34	2.42	2.50	2.57	2.65	2.72	2.80	2.88	2.95	3.03	3.10	3.18	3.25	3.32
170 TENSION (Kg)	693	671	649	630	611	592	576	560	544	530	517	505	492	481	470	460	451
TIME (s)	13.6	13.8	14.0	14.2	14.4	14.7	14.9	15.1	15.3	15.5	15.7	15.9	16.1	16.3	16.5	16.7	16.8
SAG (m)	2.26	2.34	2.41	2.49	2.57	2.65	2.72	2.80	2.88	2.96	3.03	3.11	3.19	3.26	3.34	3.41	3.49
175 TENSION (Kg)	690	669	648	629	611	593	577	562	547	533	520	508	496	485	475	465	456
TIME (s)	14.0	14.2	14.4	14.7	14.9	15.1	15.3	15.5	15.7	15.9	16.1	16.3	16.5	16.7	16.9	17.1	17.2
SAG (m)	2.41	2.48	2.56	2.64	2.72	2.80	2.88	2.96	3.04	3.12	3.20	3.27	3.35	3.43	3.50	3.58	3.66
180 TENSION (Kg)	687	667	646	628	611	594	578	563	549	536	523	512	499	489	479	469	460
TIME (s)	14.4	14.6	14.9	15.1	15.3	15.5	15.7	15.9	16.1	16.3	16.5	16.7	16.9	17.1	17.3	17.5	17.6
SAG (m)	2.56	2.64	2.72	2.80	2.88	2.96	3.05	3.12	3.20	3.28	3.36	3.44	3.52	3.60	3.68	3.75	3.83
185 TENSION (Kg)	684	665	645	628	611	594	579	565	551	538	526	515	504	493	483	474	465
TIME (s)	14.8	15.1	15.3	15.5	15.7	15.9	16.2	16.4	16.6	16.8	16.9	17.1	17.3	17.5	17.7	17.9	18.0
SAG (m)	2.71	2.79	2.88	2.96	3.04	3.13	3.21	3.29	3.37	3.45	3.53	3.61	3.69	3.77	3.85	3.93	4.01
190 TENSION (Kg)	682	663	644	627	611	595	580	567	554	540	529	518	507	496	487	478	469
TIME (s)	15.3	15.5	15.7	15.9	16.2	16.4	16.6	16.8	17.0	17.2	17.4	17.6	17.7	17.9	18.1	18.3	18.4
SAG (m)	2.87	2.96	3.04	3.13	3.21	3.29	3.38	3.46	3.54	3.63	3.71	3.79	3.87	3.95	4.03	4.11	4.19
195 TENSION (Kg)	679	661	643	626	611	595	581	568	556	543	531	521	510	501	490	482	473
TIME (s)	15.7	15.9	16.2	16.4	16.6	16.8	17.0	17.2	17.4	17.6	17.8	18.0	18.1	18.3	18.5	18.7	18.9
SAG (m)	3.04	3.12	3.21	3.30	3.38	3.47	3.55	3.64	3.72	3.80	3.89	3.97	4.05	4.13	4.21	4.29	4.37
200 TENSION (Kg)	676	659	641	626	611	596	582	570	557	545	534	523	514	504	494	485	477
TIME (s)	16.2	16.4	16.6	16.8	17.0	17.2	17.4	17.6	17.8	18.0	18.2	18.4	18.6	18.7	18.9	19.1	19.3
SAG (m)	3.21	3.30	3.39	3.47	3.56	3.64	3.73	3.82	3.90	3.99	4.07	4.15	4.24	4.32	4.40	4.48	4.56
205 TENSION (Kg)	674	656	640	625	611	596	583	571	559	547	536	526	516	507	497	489	481
TIME (s)	16.6	16.8	17.0	17.2	17.4	17.6	17.8	18.0	18.2	18.4	18.6	18.8	19.0	19.1	19.3	19.5	19.7
SAG (m)	3.38	3.47	3.56	3.65	3.74	3.83	3.91	4.00	4.09	4.17	4.26	4.34	4.42	4.51	4.59	4.67	4.75
210 TENSION (Kg)	672	655	639	625	611	597	584	572	561	549	539	529	519	510	502	492	484
TIME (s)	17.0	17.2	17.5	17.7	17.9	18.1	18.3	18.5	18.7	18.8	19.0	19.2	19.4	19.6	19.7	19.9	20.1
SAG (m)	3.56	3.65	3.75	3.83	3.92	4.01	4.10	4.19	4.28	4.36	4.45	4.53	4.62	4.70	4.79	4.87	4.95
215 TENSION (Kg)	670	653	638	624	611	597	585	573	562	551	541	531	522	513	505	496	488
TIME (s)	17.5	17.7	17.9	18.1	18.3	18.5	18.7	18.9	19.1	19.2	19.4	19.6	19.8	20.0	20.1	20.3	20.5
SAG (m)	3.75	3.84	3.93	4.02	4.11	4.20	4.29	4.38	4.47	4.56	4.64	4.73	4.82	4.90	4.99	5.07	5.15

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 10°C shift & Next day 7.5°C shift

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	20.08.15	TITLE REVISED	JC	REE	GS
A	03.06.14	ORIGINAL ISSUE	REE	REE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
RURAL (140m-215m) 19/3.25 AAAC 16%
UNDERSLUNG EARTHWIRE TO MATCH AAAC 18%

DISTRIBUTION CONSTRN. STANDARD

DRAWN: JRR | DATE: 03.06.2014 | DRG. No. CT-0081
ORIGINATED: JC | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. B | SHT.

RURAL (220m-295m) 19/3.25 AAAC 16% Underslung earthwire to match AAAC 18%

New Conductor (Initial) (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55.0
New Conductor (Initial) Next Day (deg C)		12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
220	TENSION (Kg)	667	652	637	624	611	598	586	575	564	554	543	534	525	516	508	499	491
	TIME (s)	17.9	18.1	18.3	18.5	18.7	18.9	19.1	19.3	19.5	19.7	19.8	20.0	20.2	20.4	20.5	20.7	20.9
	SAG (m)	3.94	4.03	4.13	4.22	4.31	4.40	4.49	4.58	4.67	4.76	4.84	4.93	5.02	5.10	5.19	5.27	5.36
225	TENSION (Kg)	666	650	636	623	611	598	587	576	565	555	545	536	527	519	511	503	495
	TIME (s)	18.3	18.5	18.7	18.9	19.1	19.3	19.5	19.7	19.9	20.1	20.3	20.4	20.6	20.8	20.9	21.1	21.3
	SAG (m)	4.13	4.23	4.32	4.41	4.51	4.60	4.69	4.78	4.87	4.97	5.05	5.14	5.22	5.31	5.40	5.48	5.57
230	TENSION (Kg)	664	649	636	623	611	598	587	577	567	557	547	538	530	521	514	506	498
	TIME (s)	18.8	19.0	19.2	19.4	19.6	19.8	19.9	20.1	20.3	20.5	20.7	20.8	21.0	21.2	21.4	21.5	21.7
	SAG (m)	4.33	4.43	4.52	4.62	4.71	4.80	4.90	4.99	5.08	5.17	5.26	5.35	5.43	5.52	5.61	5.69	5.78
235	TENSION (Kg)	662	647	635	623	611	599	588	578	568	559	549	540	532	524	516	509	502
	TIME (s)	19.2	19.4	19.6	19.8	20.0	20.2	20.4	20.6	20.7	20.9	21.1	21.3	21.4	21.6	21.8	21.9	22.1
	SAG (m)	4.54	4.64	4.73	4.82	4.92	5.01	5.10	5.20	5.29	5.38	5.48	5.56	5.65	5.74	5.83	5.91	6.00
240	TENSION (Kg)	660	646	634	622	611	599	589	579	569	560	551	542	534	526	519	512	505
	TIME (s)	19.6	19.8	20.0	20.2	20.4	20.6	20.8	21.0	21.2	21.3	21.5	21.7	21.8	22.0	22.2	22.3	22.5
	SAG (m)	4.74	4.84	4.94	5.03	5.13	5.22	5.32	5.41	5.51	5.60	5.69	5.79	5.87	5.96	6.05	6.13	6.22
245	TENSION (Kg)	657	645	633	622	611	599	589	580	571	562	552	544	536	529	521	514	508
	TIME (s)	20.1	20.3	20.5	20.7	20.8	21.0	21.2	21.4	21.6	21.8	21.9	22.1	22.3	22.4	22.6	22.7	22.9
	SAG (m)	4.96	5.06	5.15	5.25	5.35	5.44	5.54	5.63	5.73	5.82	5.91	6.01	6.10	6.18	6.27	6.36	6.45
250	TENSION (Kg)	656	644	632	621	611	600	590	581	572	563	555	546	538	531	524	517	510
	TIME (s)	20.5	20.7	20.9	21.1	21.3	21.5	21.6	21.8	22.0	22.2	22.3	22.5	22.7	22.8	23.0	23.1	23.3
	SAG (m)	5.18	5.28	5.37	5.47	5.57	5.66	5.76	5.86	5.95	6.05	6.14	6.23	6.33	6.41	6.50	6.59	6.68
255	TENSION (Kg)	654	643	632	621	611	600	591	582	573	565	557	548	540	533	526	519	513
	TIME (s)	21.0	21.1	21.3	21.5	21.7	21.9	22.1	22.2	22.4	22.6	22.8	22.9	23.1	23.3	23.4	23.6	23.7
	SAG (m)	5.40	5.50	5.60	5.70	5.79	5.89	5.99	6.08	6.18	6.28	6.37	6.46	6.56	6.65	6.73	6.82	6.91
260	TENSION (Kg)	653	642	631	621	611	600	591	583	574	566	558	550	542	535	528	522	515
	TIME (s)	21.4	21.6	21.8	21.9	22.1	22.3	22.5	22.7	22.8	23.0	23.2	23.3	23.5	23.7	23.8	24.0	24.1
	SAG (m)	5.63	5.73	5.83	5.93	6.02	6.12	6.22	6.32	6.41	6.51	6.61	6.70	6.79	6.89	6.98	7.06	7.15
265	TENSION (Kg)	651	641	630	620	611	601	592	583	575	567	560	551	544	537	531	524	518
	TIME (s)	21.8	22.0	22.2	22.4	22.6	22.7	22.9	23.1	23.3	23.4	23.6	23.8	23.9	24.1	24.2	24.4	24.5
	SAG (m)	5.86	5.96	6.06	6.16	6.26	6.36	6.46	6.55	6.65	6.75	6.84	6.94	7.03	7.13	7.22	7.31	7.41
270	TENSION (Kg)	650	640	630	620	611	601	592	584	576	568	561	554	546	539	533	526	520
	TIME (s)	22.3	22.4	22.6	22.8	23.0	23.2	23.3	23.5	23.7	23.8	24.0	24.2	24.3	24.5	24.6	24.8	24.9
	SAG (m)	6.10	6.20	6.30	6.40	6.50	6.60	6.70	6.80	6.89	6.99	7.09	7.18	7.28	7.37	7.47	7.56	7.65
275	TENSION (Kg)	649	639	629	620	611	601	593	585	577	570	562	555	548	541	535	529	523
	TIME (s)	22.7	22.9	23.1	23.2	23.4	23.6	23.8	23.9	24.1	24.3	24.4	24.6	24.7	24.9	25.0	25.2	25.4
	SAG (m)	6.34	6.44	6.54	6.64	6.74	6.84	6.94	7.04	7.14	7.24	7.34	7.43	7.53	7.62	7.72	7.81	7.90
280	TENSION (Kg)	648	638	629	620	611	601	593	586	578	571	564	557	549	543	537	531	525
	TIME (s)	23.1	23.3	23.5	23.7	23.8	24.0	24.2	24.3	24.5	24.7	24.8	25.0	25.2	25.3	25.5	25.6	25.8
	SAG (m)	6.59	6.69	6.79	6.89	6.99	7.09	7.19	7.29	7.39	7.49	7.59	7.68	7.78	7.88	7.97	8.07	8.16
285	TENSION (Kg)	647	637	628	619	611	602	594	586	579	572	565	558	551	545	538	533	527
	TIME (s)	23.6	23.8	23.9	24.1	24.3	24.4	24.6	24.8	24.9	25.1	25.3	25.4	25.6	25.7	25.9	26.0	26.2
	SAG (m)	6.84	6.94	7.04	7.14	7.24	7.35	7.45	7.55	7.65	7.75	7.84	7.94	8.04	8.14	8.23	8.33	8.42
290	TENSION (Kg)	645	636	628	619	611	602	594	587	580	573	566	560	552	546	540	535	529
	TIME (s)	24.0	24.2	24.4	24.5	24.7	24.9	25.0	25.2	25.4	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6
	SAG (m)	7.09	7.19	7.30	7.40	7.50	7.60	7.71	7.81	7.91	8.01	8.11	8.20	8.30	8.40	8.49	8.59	8.68
295	TENSION (Kg)	644	636	627	619	611	602	595	588	581	574	567	561	555	548	542	536	531
	TIME (s)	24.4	24.6	24.8	25.0	25.1	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	26.5	26.7	26.8	27.0
	SAG (m)	7.35	7.46	7.56	7.66	7.77	7.87	7.97	8.07	8.17	8.27	8.37	8.47	8.57	8.67	8.76	8.86	8.95

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 10°C shift & Next day 7.5°C shift

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	20.08.15	TITLE REVISED	JC	REE	GS
A	03.06.14	ORIGINAL ISSUE	REE	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE
RURAL (220m-295m) 19/3.25 AAAC 16%
UNDERSLUNG EARTHWIRE TO MATCH AAAC 18%

DISTRIBUTION CONSTRN. STANDARD

DRAWN: JRR | DATE: 03.06.2014 | DRG. No. CT-0082
ORIGINATED: JC | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. B | SHT.

RURAL (300m-370m) 19/3.25 AAAC 16% Underslung earthwire to match AAAC 18%

New Conductor (Initial) (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55.0
New Conductor (Initial) Next Day (deg C)		12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
300	TENSION (Kg)	643	635	627	619	611	602	595	588	581	575	568	562	556	549	544	538	533
	TIME (s)	24.9	25.1	25.2	25.4	25.6	25.7	25.9	26.0	26.2	26.4	26.5	26.7	26.8	27.0	27.1	27.2	27.4
	SAG (m)	7.62	7.72	7.83	7.93	8.03	8.14	8.24	8.34	8.44	8.54	8.64	8.74	8.84	8.94	9.03	9.13	9.23
305	TENSION (Kg)	642	634	626	618	611	603	596	589	582	576	570	564	558	551	545	540	535
	TIME (s)	25.3	25.5	25.7	25.8	26.0	26.1	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	27.5	27.7	27.8
	SAG (m)	7.89	7.99	8.10	8.20	8.30	8.41	8.51	8.61	8.71	8.82	8.92	9.02	9.11	9.21	9.31	9.41	9.50
310	TENSION (Kg)	641	633	626	618	611	603	596	589	583	577	571	565	559	552	547	542	537
	TIME (s)	25.8	25.9	26.1	26.3	26.4	26.6	26.7	26.9	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2
	SAG (m)	8.16	8.27	8.37	8.48	8.58	8.69	8.79	8.89	8.99	9.09	9.20	9.30	9.40	9.49	9.59	9.69	9.79
315	TENSION (Kg)	641	633	625	618	611	603	596	590	584	578	572	566	560	555	549	543	538
	TIME (s)	26.2	26.4	26.5	26.7	26.8	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.3	28.5	28.6
	SAG (m)	8.44	8.55	8.65	8.76	8.86	8.97	9.07	9.17	9.28	9.38	9.48	9.58	9.68	9.78	9.88	9.98	10.07
320	TENSION (Kg)	640	632	625	618	611	603	597	590	584	578	573	567	561	556	550	545	540
	TIME (s)	26.6	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.0
	SAG (m)	8.72	8.83	8.94	9.04	9.15	9.25	9.36	9.46	9.56	9.67	9.77	9.87	9.97	10.07	10.17	10.27	10.36
325	TENSION (Kg)	639	632	624	618	611	603	597	591	585	579	574	568	563	557	551	546	542
	TIME (s)	27.1	27.2	27.4	27.5	27.7	27.9	28.0	28.2	28.3	28.5	28.6	28.7	28.9	29.0	29.2	29.3	29.4
	SAG (m)	9.01	9.12	9.23	9.33	9.44	9.54	9.65	9.75	9.86	9.96	10.06	10.16	10.26	10.36	10.46	10.56	10.66
330	TENSION (Kg)	638	631	624	617	611	604	597	591	586	580	574	569	564	559	554	548	543
	TIME (s)	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	29.0	29.2	29.3	29.4	29.6	29.7	29.9
	SAG (m)	9.31	9.41	9.52	9.63	9.73	9.84	9.94	10.05	10.15	10.26	10.36	10.46	10.56	10.66	10.76	10.86	10.96
335	TENSION (Kg)	637	630	624	617	611	604	598	592	586	581	575	570	565	560	555	549	545
	TIME (s)	27.9	28.1	28.3	28.4	28.6	28.7	28.9	29.0	29.2	29.3	29.4	29.6	29.7	29.9	30.0	30.1	30.3
	SAG (m)	9.60	9.71	9.82	9.93	10.03	10.14	10.24	10.35	10.45	10.56	10.66	10.76	10.86	10.97	11.07	11.17	11.26
340	TENSION (Kg)	637	630	623	617	611	604	598	592	587	581	576	571	566	561	556	551	546
	TIME (s)	28.4	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	30.0	30.1	30.3	30.4	30.5	30.7
	SAG (m)	9.91	10.01	10.12	10.23	10.34	10.44	10.55	10.65	10.76	10.86	10.97	11.07	11.17	11.27	11.37	11.47	11.57
345	TENSION (Kg)	636	629	623	617	611	604	598	593	587	582	577	572	567	562	558	552	548
	TIME (s)	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	30.0	30.1	30.3	30.4	30.6	30.7	30.8	31.0	31.1
	SAG (m)	10.21	10.32	10.43	10.54	10.65	10.75	10.86	10.97	11.07	11.17	11.28	11.38	11.48	11.59	11.69	11.79	11.89
350	TENSION (Kg)	635	629	623	617	611	604	599	593	588	583	578	573	568	563	559	554	549
	TIME (s)	29.3	29.4	29.6	29.7	29.9	30.0	30.1	30.3	30.4	30.6	30.7	30.8	31.0	31.1	31.2	31.4	31.5
	SAG (m)	10.53	10.64	10.74	10.85	10.96	11.07	11.17	11.28	11.39	11.49	11.59	11.70	11.80	11.90	12.00	12.11	12.21
355	TENSION (Kg)	635	628	622	617	611	604	599	594	589	583	579	574	569	565	560	556	550
	TIME (s)	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.8	31.0	31.1	31.3	31.4	31.5	31.7	31.8	31.9
	SAG (m)	10.84	10.95	11.06	11.17	11.28	11.39	11.49	11.60	11.71	11.81	11.91	12.02	12.12	12.22	12.33	12.43	12.53
360	TENSION (Kg)	634	628	622	616	611	604	599	594	589	584	579	575	570	566	561	557	552
	TIME (s)	30.1	30.3	30.4	30.6	30.7	30.9	31.0	31.1	31.3	31.4	31.5	31.7	31.8	31.9	32.1	32.2	32.3
	SAG (m)	11.16	11.27	11.38	11.49	11.60	11.71	11.82	11.92	12.03	12.13	12.24	12.34	12.45	12.55	12.65	12.75	12.86
365	TENSION (Kg)	633	627	622	616	611	606	599	594	590	585	580	575	571	567	562	558	554
	TIME (s)	30.6	30.7	30.9	31.0	31.1	31.3	31.4	31.6	31.7	31.8	32.0	32.1	32.2	32.4	32.5	32.6	32.7
	SAG (m)	11.49	11.60	11.71	11.82	11.93	12.04	12.15	12.25	12.36	12.46	12.57	12.67	12.78	12.88	12.98	13.09	13.19
370	TENSION (Kg)	633	627	622	616	611	606	600	595	590	585	581	576	572	568	563	559	555
	TIME (s)	31.0	31.1	31.3	31.4	31.6	31.7	31.9	32.0	32.1	32.3	32.4	32.5	32.7	32.8	32.9	33.0	33.2
	SAG (m)	11.82	11.93	12.04	12.14	12.26	12.37	12.48	12.59	12.69	12.80	12.90	13.01	13.11	13.22	13.32	13.42	13.52

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 10°C shift & Next day 7.5°C shift

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	20.08.15	TITLE REVISED	JC	REE	GS
A	03.06.14	ORIGINAL ISSUE	REE	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE
RURAL (300m-370m) 19/3.25 AAAC 16%
UNDERSLUNG EARTHWIRE TO MATCH AAAC 18%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 03.06.2014 | DRG. No.
ORIGINATED: JC | SCALE: NTS | CT-0083
CHECKED: REE
APPROVED: GRANT STACY | REV. B | SHT.

RURAL (375m-450m) 19/3.25 AAAC 16% Underslung earthwire to match AAAC 18%

New Conductor (Initial) (deg C)		17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5
New Conductor (Initial) Next Day (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55.0
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
375	TENSION (Kg)	632	627	621	616	611	606	600	595	590	586	581	577	573	569	564	560	556
	TIME (s)	31.4	31.6	31.7	31.8	32.0	32.1	32.3	32.4	32.5	32.7	32.8	32.9	33.1	33.2	33.3	33.5	33.6
	SAG(m)	12.16	12.27	12.38	12.48	12.60	12.71	12.82	12.92	13.03	13.14	13.24	13.35	13.45	13.56	13.66	13.76	13.87
380	TENSION (Kg)	632	626	621	616	611	606	600	596	591	586	582	578	574	569	565	562	558
	TIME (s)	31.9	32.0	32.2	32.3	32.4	32.6	32.7	32.8	33.0	33.1	33.2	33.4	33.5	33.6	33.7	33.9	34.0
	SAG(m)	12.50	12.61	12.72	12.82	12.94	13.05	13.16	13.27	13.37	13.48	13.59	13.69	13.80	13.90	14.01	14.11	14.21
385	TENSION (Kg)	631	626	621	616	611	606	600	596	591	587	583	579	574	570	566	563	559
	TIME (s)	32.3	32.5	32.6	32.7	32.9	33.0	33.1	33.3	33.4	33.5	33.7	33.8	33.9	34.0	34.2	34.3	34.4
	SAG(m)	12.84	12.96	13.07	13.17	13.29	13.40	13.51	13.61	13.72	13.83	13.93	14.04	14.15	14.25	14.35	14.46	14.56
390	TENSION (Kg)	631	626	621	616	611	606	601	596	592	588	583	579	575	571	567	564	560
	TIME (s)	32.8	32.9	33.0	33.2	33.3	33.4	33.6	33.7	33.8	34.0	34.1	34.2	34.3	34.5	34.6	34.7	34.8
	SAG(m)	13.19	13.31	13.42	13.52	13.64	13.75	13.86	13.97	14.07	14.18	14.29	14.39	14.50	14.60	14.71	14.81	14.92
395	TENSION (Kg)	630	625	620	616	611	606	601	597	592	588	584	580	576	572	568	565	561
	TIME (s)	33.2	33.3	33.5	33.6	33.7	33.9	34.0	34.1	34.3	34.4	34.5	34.6	34.8	34.9	35.0	35.1	35.2
	SAG(m)	13.55	13.66	13.77	13.88	14.00	14.11	14.21	14.32	14.43	14.54	14.65	14.75	14.86	14.96	15.07	15.17	15.28
400	TENSION (Kg)	630	625	620	615	611	606	601	597	593	589	585	581	577	573	569	566	562
	TIME (s)	33.6	33.8	33.9	34.0	34.2	34.3	34.4	34.6	34.7	34.8	34.9	35.1	35.2	35.3	35.4	35.5	35.7
	SAG (m)	13.91	14.02	14.13	14.24	14.36	14.47	14.58	14.68	14.79	14.90	15.01	15.11	15.22	15.33	15.43	15.54	15.64
405	TENSION (Kg)	629	624	620	615	611	607	601	597	593	589	585	581	577	574	570	567	563
	TIME (s)	34.1	34.2	34.3	34.5	34.6	34.7	34.9	35.0	35.1	35.2	35.4	35.5	35.6	35.7	35.8	36.0	36.1
	SAG (m)	14.27	14.39	14.50	14.60	14.72	14.83	14.94	15.05	15.16	15.27	15.38	15.48	15.59	15.69	15.80	15.91	16.01
410	TENSION (Kg)	629	624	620	615	611	607	601	597	593	589	586	582	578	575	571	567	564
	TIME (s)	34.5	34.6	34.8	34.9	35.0	35.2	35.3	35.4	35.5	35.7	35.8	35.9	36.0	36.1	36.3	36.4	36.5
	SAG (m)	14.64	14.76	14.87	14.98	15.09	15.20	15.31	15.42	15.53	15.64	15.75	15.85	15.96	16.07	16.17	16.28	16.38
415	TENSION (Kg)	628	624	619	615	611	607	602	598	594	590	586	582	579	575	572	568	565
	TIME (s)	34.9	35.1	35.2	35.3	35.5	35.6	35.7	35.8	36.0	36.1	36.2	36.3	36.4	36.6	36.7	36.8	36.9
	SAG(m)	15.02	15.13	15.24	15.35	15.47	15.58	15.69	15.80	15.91	16.02	16.12	16.23	16.34	16.45	16.55	16.66	16.76
420	TENSION (Kg)	628	624	619	615	611	607	602	598	594	590	587	583	579	576	573	569	566
	TIME (s)	35.4	35.5	35.6	35.8	35.9	36.0	36.1	36.3	36.4	36.5	36.6	36.8	36.9	37.0	37.1	37.2	37.3
	SAG(m)	15.40	15.51	15.62	15.73	15.85	15.96	16.07	16.18	16.29	16.40	16.51	16.61	16.72	16.83	16.93	17.04	17.14
425	TENSION (Kg)	628	623	619	615	611	607	602	598	594	591	587	584	580	577	573	570	567
	TIME (s)	35.8	35.9	36.1	36.2	36.3	36.5	36.6	36.7	36.8	36.9	37.1	37.2	37.3	37.4	37.5	37.6	37.8
	SAG(m)	15.78	15.90	16.01	16.12	16.23	16.34	16.45	16.56	16.67	16.78	16.89	17.00	17.11	17.21	17.32	17.43	17.53
430	TENSION (Kg)	627	623	619	615	611	607	602	598	595	591	588	584	581	577	574	571	568
	TIME (s)	36.3	36.4	36.5	36.6	36.8	36.9	37.0	37.1	37.2	37.4	37.5	37.6	37.7	37.8	37.9	38.1	38.2
	SAG(m)	16.17	16.28	16.38	16.51	16.62	16.73	16.84	16.95	17.06	17.17	17.28	17.39	17.50	17.61	17.71	17.82	17.92
435	TENSION (Kg)	627	623	619	615	611	607	602	599	595	592	588	585	581	578	575	572	568
	TIME (s)	36.7	36.8	36.9	37.1	37.2	37.3	37.4	37.6	37.7	37.8	37.9	38.0	38.1	38.3	38.4	38.5	38.6
	SAG(m)	16.56	16.68	16.77	16.91	17.02	17.13	17.24	17.35	17.46	17.57	17.68	17.79	17.89	18.00	18.11	18.22	18.32
440	TENSION (Kg)	626	622	618	615	611	607	603	599	595	592	589	585	582	579	576	572	569
	TIME (s)	37.1	37.3	37.4	37.5	37.6	37.7	37.9	38.0	38.1	38.2	38.3	38.5	38.6	38.7	38.8	38.9	39.0
	SAG(m)	16.96	17.08	17.17	17.31	17.42	17.53	17.64	17.75	17.86	17.97	18.08	18.19	18.30	18.40	18.51	18.62	18.72
445	TENSION (Kg)	626	622	618	615	611	607	603	599	596	592	589	586	583	579	576	573	570
	TIME (s)	37.6	37.7	37.8	37.9	38.1	38.2	38.3	38.4	38.5	38.7	38.8	38.9	39.0	39.1	39.2	39.3	39.4
	SAG(m)	17.37	17.48	17.58	17.71	17.82	17.93	18.04	18.15	18.26	18.37	18.48	18.59	18.70	18.81	18.92	19.02	19.13
450	TENSION (Kg)	626	622	618	614	611	607	603	599	596	593	589	586	583	580	577	574	571
	TIME (s)	38.0	38.1	38.2	38.4	38.5	38.6	38.7	38.8	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.8	39.9
	SAG(m)	17.77	17.89	17.99	18.12	18.23	18.34	18.45	18.56	18.67	18.78	18.89	19.00	19.11	19.22	19.33	19.44	19.54

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 12.5°C shift & Next day 10°C shift

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	20.08.15	TITLE REVISED	JC	REE	GS
A	03.06.14	ORIGINAL ISSUE	REE	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE
RURAL (375m-450m) 19/3.25 AAAC 16%
UNDERSLUNG EARTHWIRE TO MATCH AAAC 18%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 03.06.2014 | DRG. No. CT-0084
ORIGINATED: JC | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. B | SHT.

RURAL (455m – 500m) 19/3.25 AAAC 16% Underslung earthwire to match AAAC 18%

New Conductor (Initial) (deg C)		17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5
New Conductor (Initial) Next Day (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55.0
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
455	TENSION (Kg)	625	622	618	614	611	607	603	600	596	593	590	587	584	581	578	575	572
	TIME (s)	38.5	38.6	38.7	38.8	38.9	39.0	39.2	39.3	39.4	39.5	39.6	39.7	39.8	40.0	40.1	40.2	40.3
	SAG (m)	18.19	18.30	18.41	18.54	18.64	18.75	18.87	18.98	19.09	19.20	19.31	19.42	19.53	19.64	19.74	19.85	19.96
460	TENSION (Kg)	625	621	618	614	611	607	603	600	597	593	590	587	584	581	578	575	572
	TIME (s)	38.9	39.0	39.1	39.3	39.4	39.5	39.6	39.7	39.8	39.9	40.0	40.2	40.3	40.4	40.5	40.6	40.7
	SAG (m)	18.61	18.72	18.83	18.96	19.06	19.17	19.29	19.40	19.51	19.62	19.73	19.84	19.95	20.06	20.16	20.27	20.38
465	TENSION (Kg)	625	621	618	614	611	608	603	600	597	594	591	588	585	582	579	576	573
	TIME (s)	39.3	39.4	39.6	39.7	39.8	39.9	40.0	40.1	40.3	40.4	40.5	40.6	40.7	40.8	40.9	41.0	41.1
	SAG (m)	19.03	19.12	19.25	19.38	19.48	19.60	19.71	19.82	19.93	20.04	20.15	20.26	20.37	20.48	20.59	20.70	20.81
470	TENSION (Kg)	624	621	618	614	611	608	603	600	597	594	591	588	585	582	579	577	574
	TIME (s)	39.8	39.9	40.0	40.1	40.2	40.3	40.5	40.6	40.7	40.8	40.9	41.0	41.1	41.2	41.3	41.4	41.6
	SAG (m)	19.46	19.55	19.68	19.81	19.91	20.03	20.14	20.25	20.36	20.47	20.58	20.69	20.80	20.91	21.02	21.13	21.24
475	TENSION (Kg)	624	621	617	614	611	608	604	600	597	594	591	589	586	583	580	577	575
	TIME (s)	40.2	40.3	40.4	40.6	40.7	40.8	40.9	41.0	41.1	41.2	41.3	41.4	41.6	41.7	41.8	41.9	42.0
	SAG (m)	19.89	19.98	20.12	20.25	20.35	20.46	20.57	20.68	20.80	20.91	21.02	21.13	21.24	21.35	21.46	21.56	21.67
480	TENSION (Kg)	624	621	617	614	611	608	604	601	598	595	592	589	586	583	581	578	575
	TIME (s)	40.7	40.7	40.9	41.0	41.1	41.2	41.3	41.4	41.5	41.7	41.8	41.9	42.0	42.1	42.2	42.3	42.4
	SAG (m)	20.33	20.42	20.56	20.69	20.78	20.90	21.01	21.12	21.23	21.35	21.46	21.57	21.68	21.79	21.90	22.00	22.11
485	TENSION (Kg)	624	620	617	614	611	608	604	601	598	595	592	589	587	584	581	578	576
	TIME (s)	41.1	41.2	41.3	41.4	41.5	41.7	41.8	41.9	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8
	SAG (m)	20.77	20.87	21.00	21.13	21.23	21.34	21.45	21.57	21.68	21.79	21.90	22.01	22.12	22.23	22.34	22.45	22.56
490	TENSION (Kg)	623	620	617	614	611	608	604	601	598	595	592	590	587	584	582	579	577
	TIME (s)	41.5	41.6	41.8	41.9	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	43.0	43.1	43.2
	SAG (m)	21.22	21.32	21.45	21.58	21.68	21.79	21.90	22.01	22.13	22.24	22.35	22.46	22.57	22.68	22.79	22.90	23.01
495	TENSION (Kg)	623	620	617	614	611	608	604	601	598	596	593	590	587	585	582	580	577
	TIME (s)	41.9	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7
	SAG (m)	21.64	21.77	21.91	22.04	22.13	22.24	22.36	22.47	22.58	22.69	22.80	22.91	23.02	23.14	23.24	23.35	23.46
500	TENSION (Kg)	623	620	617	614	611	608	604	601	599	596	593	591	588	585	583	580	578
	TIME (s)	42.4	42.5	42.6	42.8	42.9	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	44.0	44.1
	SAG (m)	22.10	22.23	22.37	22.49	22.59	22.70	22.81	22.93	23.04	23.15	23.26	23.37	23.48	23.59	23.70	23.81	23.92

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 12.5°C shift & Next day 10°C shift

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	20.08.15	TITLE REVISED	JC	REE	GS
A	03.06.14	ORIGINAL ISSUE	REE	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE
RURAL (455m-500m) 19/3.25 AAAC 16%
UNDERSLUNG EARTHWIRE TO MATCH AAAC 18%

DISTRIBUTION CONSTRN. STANDARD

DRAWN: JRR | DATE: 03.06.2014 | DRG. No. CT-0085
ORIGINATED: JC | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. B | SHT.

RURAL (60m -135m) 3/2.75 SC/AC 16% Underslung earthwire to match AAAC 18%

New Conductor (Initial) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	167	160	152	146	139	133	126	120	115	110	105	101	97	93	90	86	83
	TIME (s)	5.1	5.2	5.3	5.4	5.6	5.7	5.8	6	6.1	6.3	6.4	6.6	6.7	6.8	7	7.1	7.2
	SAG (m)	0.32	0.33	0.35	0.37	0.38	0.4	0.42	0.44	0.46	0.48	0.51	0.53	0.55	0.58	0.6	0.62	0.65
65	TENSION (Kg)	166	159	152	145	139	133	127	121	116	112	107	103	99	96	92	89	86
	TIME (s)	5.5	5.7	5.8	5.9	6	6.2	6.3	6.5	6.6	6.7	6.9	7	7.2	7.3	7.4	7.6	7.7
	SAG (m)	0.38	0.39	0.41	0.43	0.45	0.47	0.49	0.51	0.54	0.56	0.58	0.61	0.63	0.66	0.68	0.71	0.73
70	TENSION (Kg)	164	158	151	145	139	134	127	122	118	113	109	105	101	98	95	92	89
	TIME (s)	6	6.1	6.2	6.4	6.5	6.7	6.8	6.9	7.1	7.2	7.3	7.5	7.6	7.8	7.9	8	8.2
	SAG (m)	0.44	0.46	0.48	0.5	0.52	0.55	0.57	0.59	0.61	0.64	0.66	0.69	0.72	0.74	0.77	0.79	0.82
75	TENSION (Kg)	163	157	151	145	139	134	128	123	119	114	111	107	103	100	97	94	91
	TIME (s)	6.4	6.6	6.7	6.9	7	7.1	7.3	7.4	7.5	7.7	7.8	8	8.1	8.2	8.4	8.5	8.6
	SAG (m)	0.51	0.53	0.55	0.58	0.6	0.62	0.65	0.67	0.7	0.72	0.75	0.78	0.81	0.83	0.86	0.89	0.91
80	TENSION (Kg)	162	156	150	144	139	134	128	124	120	116	112	108	105	102	99	96	94
	TIME (s)	6.9	7	7.2	7.3	7.4	7.6	7.7	7.9	8	8.1	8.3	8.4	8.6	8.7	8.8	8.9	9.1
	SAG (m)	0.59	0.61	0.63	0.66	0.68	0.71	0.73	0.76	0.79	0.81	0.84	0.87	0.9	0.93	0.96	0.98	1.01
85	TENSION (Kg)	161	155	149	144	139	134	129	125	121	117	113	110	107	104	101	98	96
	TIME (s)	7.4	7.5	7.6	7.8	7.9	8.1	8.2	8.3	8.5	8.6	8.7	8.9	9	9.1	9.3	9.4	9.5
	SAG (m)	0.67	0.69	0.71	0.74	0.77	0.8	0.83	0.85	0.88	0.91	0.94	0.97	1	1.03	1.06	1.09	1.12
90	TENSION (Kg)	159	154	149	144	139	135	130	126	122	118	115	112	109	106	103	100	98
	TIME (s)	7.8	7.9	8.1	8.2	8.4	8.5	8.7	8.8	8.9	9.1	9.2	9.3	9.5	9.6	9.7	9.8	10
	SAG (m)	0.75	0.78	0.8	0.83	0.86	0.89	0.92	0.95	0.98	1.01	1.04	1.07	1.1	1.13	1.16	1.19	1.22
95	TENSION (Kg)	158	153	148	144	139	135	130	126	123	119	116	113	110	107	105	102	100
	TIME (s)	8.3	8.4	8.6	8.7	8.8	9	9.1	9.3	9.4	9.5	9.7	9.8	9.9	10	10.2	10.3	10.4
	SAG (m)	0.84	0.87	0.9	0.93	0.96	0.99	1.02	1.06	1.08	1.12	1.15	1.18	1.21	1.24	1.27	1.3	1.34
100	TENSION (Kg)	157	152	148	143	139	135	130	127	123	120	117	114	111	109	106	104	102
	TIME (s)	8.7	8.9	9	9.2	9.3	9.4	9.6	9.7	9.8	10	10.1	10.2	10.4	10.5	10.6	10.7	10.9
	SAG (m)	0.94	0.97	1.01	1.03	1.06	1.1	1.13	1.17	1.19	1.23	1.26	1.29	1.32	1.36	1.39	1.42	1.45
105	TENSION (Kg)	156	152	147	143	139	135	131	127	124	121	118	115	113	110	108	106	104
	TIME (s)	9.2	9.3	9.5	9.6	9.8	9.9	10	10.2	10.3	10.4	10.6	10.7	10.8	11	11.1	11.2	11.3
	SAG (m)	1.04	1.07	1.11	1.14	1.17	1.21	1.24	1.28	1.31	1.34	1.37	1.41	1.44	1.48	1.51	1.54	1.57
110	TENSION (Kg)	155	151	147	143	139	136	131	128	125	122	119	117	114	112	109	107	105
	TIME (s)	9.7	9.8	10	10.1	10.2	10.4	10.5	10.7	10.8	10.9	11	11.2	11.3	11.4	11.5	11.6	11.8
	SAG (m)	1.15	1.18	1.22	1.25	1.29	1.32	1.36	1.4	1.43	1.47	1.5	1.53	1.57	1.6	1.63	1.67	1.7
115	TENSION (Kg)	154	150	146	143	139	136	133	129	126	123	120	118	115	113	111	109	107
	TIME (s)	10.1	10.3	10.4	10.6	10.7	10.8	11	11.1	11.2	11.4	11.5	11.6	11.7	11.9	12	12.1	12.2
	SAG (m)	1.27	1.3	1.34	1.37	1.41	1.44	1.48	1.52	1.56	1.59	1.63	1.66	1.69	1.73	1.76	1.8	1.83
120	TENSION (Kg)	154	150	146	143	139	136	133	129	126	124	121	119	116	114	112	110	108
	TIME (s)	10.6	10.8	10.9	11	11.2	11.3	11.4	11.6	11.7	11.8	12	12.1	12.2	12.3	12.4	12.5	12.7
	SAG (m)	1.39	1.43	1.46	1.5	1.53	1.57	1.61	1.65	1.68	1.72	1.76	1.8	1.83	1.86	1.9	1.93	1.97
125	TENSION (Kg)	153	149	146	142	139	136	133	130	127	124	122	120	117	115	113	111	109
	TIME (s)	11.1	11.2	11.4	11.5	11.6	11.8	11.9	12	12.2	12.3	12.4	12.5	12.7	12.8	12.9	13	13.1
	SAG (m)	1.51	1.55	1.59	1.63	1.66	1.7	1.74	1.78	1.82	1.86	1.9	1.94	1.98	2.01	2.04	2.07	2.11
130	TENSION (Kg)	152	149	145	142	139	136	134	130	127	125	123	121	118	116	114	113	111
	TIME (s)	11.6	11.7	11.8	12	12.1	12.2	12.4	12.5	12.6	12.7	12.9	13	13.1	13.2	13.4	13.5	13.6
	SAG (m)	1.64	1.69	1.72	1.76	1.8	1.84	1.88	1.92	1.96	2	2.04	2.08	2.12	2.16	2.2	2.23	2.27
135	TENSION (Kg)	151	148	145	142	139	136	134	130	128	126	123	121	119	117	115	114	112
	TIME (s)	12.1	12.2	12.3	12.4	12.6	12.7	12.8	12.9	13.1	13.2	13.3	13.4	13.6	13.7	13.8	13.9	14
	SAG (m)	1.79	1.82	1.86	1.9	1.94	1.98	2.02	2.06	2.1	2.14	2.18	2.22	2.26	2.3	2.34	2.38	2.42

Beat values are in seconds for five wave returns.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	20.08.15	TITLE REVISED	JC	REE	GS
A	03.06.14	ORIGINAL ISSUE	REE	REE	GS

STRUCTURE

TITLE
CONDUCTOR TENSIONING TABLE
RURAL (60m-135m) 3/2.75 SC/AC 16%
UNDERSLUNG EARTHWIRE TO MATCH AAAC 18%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 03.06.2014 | DRG. No.
ORIGINATED: JC | SCALE: NTS | CT-0086
CHECKED: REE
APPROVED: GRANT STACY | REV. B | SHT.

RURAL (60m-135m) 7/0.080 HDBC 23%

New Conductor (Initial) (deg C)		20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60
New Conductor (Initial) Next Day (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	260	250	241	230	221	213	204	196	188	179	172	165	159	153	147	142	137
	TIME (s)	5.4	5.5	5.6	5.7	5.8	5.9	6.1	6.2	6.3	6.5	6.6	6.7	6.9	7.0	7.1	7.3	7.4
	SAG (m)	0.35	0.37	0.38	0.40	0.41	0.43	0.45	0.47	0.49	0.51	0.53	0.55	0.58	0.60	0.63	0.65	0.67
65	TENSION (Kg)	259	249	240	230	221	213	205	197	189	181	174	168	162	156	151	145	141
	TIME (s)	5.8	5.9	6.0	6.2	6.3	6.4	6.5	6.7	6.8	7.0	7.1	7.2	7.4	7.5	7.6	7.8	7.9
	SAG (m)	0.42	0.43	0.45	0.47	0.49	0.51	0.53	0.55	0.57	0.59	0.62	0.64	0.67	0.69	0.72	0.74	0.77
70	TENSION (Kg)	257	248	239	230	221	213	206	198	191	183	177	170	165	159	154	149	144
	TIME (s)	6.3	6.4	6.5	6.6	6.8	6.9	7.0	7.2	7.3	7.4	7.6	7.7	7.9	8.0	8.2	8.3	8.4
	SAG (m)	0.49	0.51	0.52	0.54	0.56	0.59	0.61	0.63	0.66	0.68	0.71	0.73	0.76	0.79	0.82	0.85	0.87
75	TENSION (Kg)	256	247	239	229	221	214	206	199	192	186	179	173	167	162	157	152	148
	TIME (s)	6.8	6.9	7.0	7.1	7.3	7.4	7.5	7.7	7.8	7.9	8.1	8.2	8.4	8.5	8.6	8.8	8.9
	SAG (m)	0.56	0.58	0.60	0.62	0.65	0.67	0.70	0.72	0.75	0.78	0.80	0.83	0.86	0.89	0.92	0.95	0.98
80	TENSION (Kg)	255	246	238	229	221	214	207	200	194	188	181	175	170	165	160	155	151
	TIME (s)	7.2	7.4	7.5	7.6	7.7	7.9	8.0	8.2	8.3	8.4	8.6	8.7	8.8	9.0	9.1	9.3	9.4
	SAG (m)	0.64	0.67	0.69	0.71	0.74	0.77	0.79	0.82	0.85	0.87	0.90	0.93	0.96	0.99	1.02	1.05	1.09
85	TENSION (Kg)	253	245	236	229	221	214	208	201	195	189	183	177	172	167	163	158	154
	TIME (s)	7.7	7.8	8.0	8.1	8.2	8.4	8.5	8.6	8.8	8.9	9.1	9.2	9.3	9.5	9.6	9.7	9.9
	SAG (m)	0.73	0.75	0.78	0.81	0.83	0.86	0.89	0.92	0.95	0.98	1.01	1.04	1.07	1.10	1.14	1.17	1.20
90	TENSION (Kg)	252	244	236	228	221	215	208	202	196	191	185	179	174	170	165	161	157
	TIME (s)	8.2	8.3	8.4	8.6	8.7	8.9	9.0	9.1	9.3	9.4	9.5	9.7	9.8	10.0	10.1	10.2	10.4
	SAG (m)	0.82	0.85	0.88	0.91	0.93	0.96	0.99	1.02	1.06	1.09	1.12	1.15	1.19	1.22	1.25	1.29	1.32
95	TENSION (Kg)	250	243	235	228	221	215	209	203	197	192	187	181	176	172	168	164	160
	TIME (s)	8.7	8.8	8.9	9.1	9.2	9.3	9.5	9.6	9.7	9.9	10.0	10.2	10.3	10.4	10.6	10.7	10.8
	SAG (m)	0.92	0.95	0.98	1.01	1.04	1.07	1.10	1.14	1.17	1.20	1.24	1.27	1.30	1.34	1.37	1.41	1.44
100	TENSION (Kg)	249	242	234	228	221	215	209	204	199	193	189	183	178	174	170	166	163
	TIME (s)	9.1	9.3	9.4	9.5	9.7	9.8	10.0	10.1	10.2	10.4	10.5	10.6	10.8	10.9	11.0	11.2	11.3
	SAG (m)	1.03	1.06	1.09	1.12	1.15	1.19	1.22	1.25	1.29	1.32	1.36	1.39	1.43	1.46	1.50	1.54	1.57
105	TENSION (Kg)	248	241	234	227	221	216	210	205	200	195	190	186	180	176	172	169	165
	TIME (s)	9.6	9.7	9.9	10.0	10.2	10.3	10.5	10.6	10.7	10.9	11.0	11.1	11.3	11.4	11.5	11.6	11.8
	SAG (m)	1.14	1.17	1.20	1.24	1.27	1.31	1.35	1.38	1.41	1.45	1.49	1.52	1.56	1.60	1.63	1.67	1.71
110	TENSION (Kg)	247	240	233	227	221	216	211	205	201	196	191	187	182	178	175	171	168
	TIME (s)	10.1	10.2	10.4	10.5	10.6	10.8	10.9	11.1	11.2	11.3	11.5	11.6	11.7	11.9	12.0	12.1	12.2
	SAG (m)	1.25	1.29	1.32	1.36	1.39	1.43	1.47	1.51	1.54	1.58	1.62	1.66	1.69	1.73	1.77	1.81	1.85
115	TENSION (Kg)	246	239	233	227	221	216	211	206	202	197	193	189	185	180	177	173	170
	TIME (s)	10.6	10.7	10.9	11.0	11.1	11.3	11.4	11.5	11.7	11.8	11.9	12.1	12.2	12.3	12.5	12.6	12.7
	SAG (m)	1.38	1.41	1.45	1.49	1.52	1.56	1.60	1.64	1.68	1.72	1.76	1.79	1.83	1.87	1.91	1.95	1.99
120	TENSION (Kg)	245	239	232	227	221	216	212	207	202	198	194	190	186	182	178	175	172
	TIME (s)	11.1	11.2	11.4	11.5	11.6	11.8	11.9	12.0	12.2	12.3	12.4	12.6	12.7	12.8	12.9	13.1	13.2
	SAG (m)	1.51	1.54	1.59	1.62	1.66	1.70	1.74	1.79	1.82	1.86	1.90	1.94	1.98	2.02	2.06	2.10	2.14
125	TENSION (Kg)	244	238	232	226	221	217	212	208	203	199	195	192	188	185	180	177	174
	TIME (s)	11.6	11.7	11.8	12.0	12.1	12.2	12.4	12.5	12.6	12.8	12.9	13.0	13.2	13.3	13.4	13.5	13.7
	SAG (m)	1.64	1.68	1.72	1.76	1.80	1.84	1.89	1.93	1.97	2.01	2.05	2.09	2.13	2.17	2.21	2.25	2.29
130	TENSION (Kg)	243	236	231	226	221	217	212	208	204	200	196	193	189	186	182	179	176
	TIME (s)	12.0	12.2	12.3	12.5	12.6	12.7	12.9	13.0	13.1	13.3	13.4	13.5	13.6	13.8	13.9	14.0	14.1
	SAG (m)	1.78	1.82	1.87	1.91	1.95	1.99	2.04	2.08	2.13	2.16	2.20	2.24	2.29	2.33	2.37	2.41	2.45
135	TENSION (Kg)	242	235	231	226	221	217	213	209	205	201	198	194	191	188	183	181	178
	TIME (s)	12.5	12.7	12.8	12.9	13.1	13.2	13.3	13.5	13.6	13.8	13.9	14.0	14.1	14.2	14.4	14.5	14.6
	SAG (m)	1.93	1.97	2.02	2.06	2.10	2.15	2.19	2.24	2.28	2.33	2.36	2.41	2.45	2.49	2.53	2.58	2.62

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 15°C shift & Next day 10°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE

CONDUCTOR TENSIONING TABLE
RURAL (60-135m) 7/0.080 HDBC 23%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR | DATE: 03-06-2014
CHECKED: REE | SCALE: NTS
APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0091
REV. A | SHT.

RURAL (60m-135m) 7/0.104 HDBC 23%

New Conductor (Initial) (deg C)		17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5
New Conductor (Initial) Next Day (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	433	417	401	384	369	355	339	326	313	300	287	276	265	255	245	235	227
	TIME (s)	5.4	5.5	5.6	5.7	5.8	6.0	6.1	6.2	6.4	6.5	6.6	6.8	6.9	7.0	7.2	7.3	7.4
	SAG (m)	0.36	0.37	0.39	0.40	0.42	0.44	0.46	0.48	0.50	0.52	0.54	0.56	0.58	0.61	0.63	0.66	0.68
65	TENSION (Kg)	431	415	400	384	369	355	341	328	315	303	292	280	270	260	251	243	234
	TIME (s)	5.9	6.0	6.1	6.2	6.3	6.5	6.6	6.7	6.9	7.0	7.1	7.3	7.4	7.5	7.7	7.8	7.9
	SAG (m)	0.42	0.44	0.46	0.47	0.49	0.51	0.53	0.55	0.58	0.60	0.63	0.65	0.67	0.70	0.72	0.75	0.78
70	TENSION (Kg)	429	413	399	383	369	356	343	329	318	306	295	284	275	265	257	249	241
	TIME (s)	6.3	6.4	6.6	6.7	6.8	6.9	7.1	7.2	7.3	7.5	7.6	7.8	7.9	8.0	8.2	8.3	8.4
	SAG (m)	0.49	0.51	0.53	0.55	0.57	0.59	0.62	0.64	0.66	0.69	0.72	0.74	0.77	0.79	0.82	0.85	0.88
75	TENSION (Kg)	426	412	397	383	369	356	344	331	320	309	299	288	279	270	262	254	247
	TIME (s)	6.8	6.9	7.0	7.2	7.3	7.4	7.6	7.7	7.8	8.0	8.1	8.3	8.4	8.5	8.7	8.8	8.9
	SAG (m)	0.57	0.59	0.61	0.63	0.66	0.68	0.70	0.73	0.76	0.78	0.81	0.84	0.87	0.90	0.93	0.95	0.98
80	TENSION (Kg)	424	410	396	382	369	357	345	333	322	312	302	293	283	275	267	259	252
	TIME (s)	7.3	7.4	7.5	7.7	7.8	7.9	8.1	8.2	8.3	8.5	8.6	8.8	8.9	9.0	9.2	9.3	9.4
	SAG (m)	0.65	0.67	0.70	0.72	0.75	0.77	0.80	0.83	0.85	0.88	0.91	0.94	0.97	1.00	1.03	1.07	1.10
85	TENSION (Kg)	422	408	394	381	369	358	346	335	324	315	305	297	287	279	272	264	258
	TIME (s)	7.7	7.9	8.0	8.1	8.3	8.4	8.5	8.7	8.8	9.0	9.1	9.2	9.4	9.5	9.7	9.8	9.9
	SAG (m)	0.74	0.76	0.79	0.81	0.84	0.87	0.90	0.93	0.96	0.99	1.02	1.05	1.08	1.11	1.15	1.18	1.21
90	TENSION (Kg)	419	406	393	381	369	358	347	336	327	317	308	300	292	283	276	269	263
	TIME (s)	8.2	8.4	8.5	8.6	8.8	8.9	9.0	9.2	9.3	9.5	9.6	9.7	9.9	10.0	10.1	10.3	10.4
	SAG (m)	0.83	0.86	0.89	0.91	0.94	0.98	1.00	1.04	1.07	1.10	1.13	1.16	1.20	1.23	1.26	1.30	1.33
95	TENSION (Kg)	417	405	392	380	369	359	349	338	329	320	311	303	296	287	280	274	267
	TIME (s)	8.7	8.8	9.0	9.1	9.2	9.4	9.5	9.7	9.8	9.9	10.1	10.2	10.4	10.5	10.6	10.7	10.9
	SAG (m)	0.93	0.96	0.99	1.02	1.05	1.09	1.12	1.15	1.18	1.22	1.25	1.28	1.32	1.35	1.39	1.42	1.46
100	TENSION (Kg)	415	403	391	380	369	359	350	339	330	322	314	306	299	292	284	278	272
	TIME (s)	9.2	9.3	9.5	9.6	9.7	9.9	10.0	10.2	10.3	10.4	10.6	10.7	10.8	11.0	11.1	11.2	11.4
	SAG (m)	1.04	1.07	1.10	1.13	1.17	1.20	1.23	1.27	1.30	1.34	1.37	1.41	1.44	1.48	1.51	1.55	1.59
105	TENSION (Kg)	413	402	390	379	369	360	350	341	332	324	316	309	302	295	288	282	276
	TIME (s)	9.7	9.8	9.9	10.1	10.2	10.4	10.5	10.6	10.8	10.9	11.0	11.2	11.3	11.4	11.6	11.7	11.8
	SAG (m)	1.15	1.18	1.22	1.25	1.29	1.32	1.36	1.39	1.43	1.46	1.50	1.54	1.57	1.61	1.65	1.68	1.72
110	TENSION (Kg)	411	400	389	379	369	360	351	343	334	326	319	312	305	299	292	286	280
	TIME (s)	10.2	10.3	10.4	10.6	10.7	10.9	11.0	11.1	11.3	11.4	11.5	11.7	11.8	11.9	12.1	12.2	12.3
	SAG (m)	1.27	1.30	1.34	1.38	1.41	1.45	1.48	1.52	1.56	1.60	1.64	1.67	1.71	1.75	1.79	1.82	1.86
115	TENSION (Kg)	409	399	388	378	369	361	352	344	335	328	321	314	308	302	296	290	284
	TIME (s)	10.6	10.8	10.9	11.1	11.2	11.3	11.5	11.6	11.7	11.9	12.0	12.1	12.3	12.4	12.5	12.7	12.8
	SAG (m)	1.39	1.43	1.47	1.51	1.54	1.58	1.62	1.66	1.70	1.74	1.77	1.81	1.85	1.89	1.93	1.97	2.01
120	TENSION (Kg)	407	397	387	378	369	361	353	345	337	330	323	317	311	305	299	293	287
	TIME (s)	11.1	11.3	11.4	11.6	11.7	11.8	12.0	12.1	12.2	12.4	12.5	12.6	12.8	12.9	13.0	13.1	13.2
	SAG (m)	1.52	1.56	1.60	1.64	1.68	1.72	1.76	1.80	1.84	1.88	1.92	1.96	2.00	2.04	2.08	2.12	2.16
125	TENSION (Kg)	405	396	386	377	369	361	354	346	338	332	325	319	313	307	302	297	292
	TIME (s)	11.6	11.8	11.9	12.0	12.2	12.3	12.5	12.6	12.7	12.8	13.0	13.1	13.2	13.4	13.5	13.6	13.7
	SAG (m)	1.66	1.70	1.74	1.78	1.82	1.86	1.91	1.95	1.99	2.03	2.07	2.11	2.15	2.19	2.23	2.27	2.32
130	TENSION (Kg)	404	394	385	377	369	362	354	347	340	333	327	321	316	310	305	300	295
	TIME (s)	12.1	12.3	12.4	12.5	12.7	12.8	12.9	13.1	13.2	13.3	13.5	13.6	13.7	13.8	14.0	14.1	14.2
	SAG (m)	1.81	1.85	1.89	1.93	1.97	2.01	2.06	2.10	2.14	2.18	2.23	2.27	2.31	2.35	2.39	2.44	2.48
135	TENSION (Kg)	402	393	385	377	369	362	355	348	341	335	329	323	318	312	307	303	298
	TIME (s)	12.6	12.7	12.9	13.0	13.2	13.3	13.4	13.6	13.7	13.8	13.9	14.1	14.2	14.3	14.4	14.5	14.7
	SAG (m)	1.96	2.00	2.04	2.08	2.13	2.17	2.22	2.26	2.30	2.34	2.39	2.43	2.47	2.52	2.56	2.60	2.64

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 12.5°C shift & Next day 10°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE
RURAL (60-135m) 7/0.104 HDBC 23%

DISTRIBUTION CONSTRUCTION STANDARDS

DRAWN: JRR | DATE: 03-06-2014
CHECKED: REE | SCALE: NTS
APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0092
REV. A | SHT.

RURAL (60m-135m) 19/0.064 HDBC 23%

New Conductor (Initial) (deg C)		17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5
New Conductor (Initial) Next Day (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	445	428	412	396	380	365	350	335	322	309	297	284	273	263	253	244	235
	TIME (s)	5.4	5.5	5.6	5.8	5.9	6.0	6.1	6.3	6.4	6.5	6.6	6.8	6.9	7.1	7.2	7.3	7.5
	SAG (m)	0.36	0.38	0.39	0.41	0.42	0.44	0.46	0.48	0.50	0.52	0.54	0.57	0.59	0.61	0.64	0.66	0.69
65	TENSION (Kg)	442	426	411	394	380	365	351	337	325	312	301	290	279	269	259	251	243
	TIME (s)	5.9	6.0	6.1	6.2	6.4	6.5	6.6	6.8	6.9	7.0	7.2	7.3	7.4	7.6	7.7	7.8	8.0
	SAG (m)	0.43	0.44	0.46	0.48	0.50	0.52	0.54	0.56	0.58	0.61	0.63	0.65	0.68	0.70	0.73	0.76	0.78
70	TENSION (Kg)	440	424	409	394	380	366	353	339	327	316	305	294	283	274	265	257	249
	TIME (s)	6.4	6.5	6.6	6.7	6.9	7.0	7.1	7.2	7.4	7.5	7.7	7.8	7.9	8.1	8.2	8.3	8.5
	SAG (m)	0.50	0.52	0.54	0.56	0.58	0.60	0.62	0.65	0.67	0.70	0.72	0.75	0.77	0.80	0.83	0.86	0.88
75	TENSION (Kg)	438	423	408	393	380	367	354	341	330	319	308	298	288	279	271	263	255
	TIME (s)	6.8	7.0	7.1	7.2	7.3	7.5	7.6	7.7	7.9	8.0	8.2	8.3	8.4	8.6	8.7	8.8	9.0
	SAG (m)	0.58	0.60	0.62	0.64	0.66	0.69	0.71	0.74	0.76	0.79	0.82	0.85	0.88	0.90	0.93	0.96	0.99
80	TENSION (Kg)	435	421	407	393	380	367	355	344	332	321	312	302	293	284	276	268	261
	TIME (s)	7.3	7.4	7.6	7.7	7.8	8.0	8.1	8.2	8.4	8.5	8.7	8.8	8.9	9.1	9.2	9.3	9.5
	SAG (m)	0.66	0.68	0.70	0.73	0.75	0.78	0.81	0.84	0.86	0.89	0.92	0.95	0.98	1.01	1.04	1.07	1.10
85	TENSION (Kg)	433	419	406	392	380	368	356	346	334	324	315	306	297	288	280	273	266
	TIME (s)	7.8	7.9	8.1	8.2	8.3	8.5	8.6	8.7	8.9	9.0	9.1	9.3	9.4	9.6	9.7	9.8	10.0
	SAG (m)	0.75	0.77	0.80	0.82	0.85	0.88	0.91	0.94	0.97	1.00	1.03	1.06	1.09	1.12	1.16	1.19	1.22
90	TENSION (Kg)	430	417	405	391	380	368	358	347	336	327	318	309	301	293	285	278	271
	TIME (s)	8.3	8.4	8.5	8.7	8.8	9.0	9.1	9.2	9.4	9.5	9.6	9.8	9.9	10.0	10.2	10.3	10.4
	SAG (m)	0.84	0.87	0.90	0.93	0.96	0.99	1.02	1.05	1.08	1.11	1.14	1.17	1.21	1.24	1.27	1.31	1.34
95	TENSION (Kg)	428	415	403	391	380	369	359	349	338	329	321	313	305	297	290	282	276
	TIME (s)	8.8	8.9	9.0	9.2	9.3	9.4	9.6	9.7	9.9	10.0	10.1	10.3	10.4	10.5	10.7	10.8	10.9
	SAG (m)	0.94	0.97	1.00	1.04	1.06	1.10	1.13	1.16	1.19	1.23	1.26	1.30	1.33	1.36	1.40	1.43	1.47
100	TENSION (Kg)	426	414	402	390	380	369	360	350	340	332	323	316	308	301	294	287	281
	TIME (s)	9.2	9.4	9.5	9.7	9.8	9.9	10.1	10.2	10.3	10.5	10.6	10.7	10.9	11.0	11.1	11.3	11.4
	SAG (m)	1.05	1.08	1.11	1.15	1.18	1.21	1.25	1.28	1.32	1.35	1.39	1.42	1.46	1.49	1.53	1.56	1.60
105	TENSION (Kg)	424	412	401	390	380	370	361	352	343	334	326	319	311	305	298	292	285
	TIME (s)	9.7	9.9	10.0	10.2	10.3	10.4	10.6	10.7	10.8	11.0	11.1	11.2	11.4	11.5	11.6	11.7	11.9
	SAG (m)	1.17	1.20	1.23	1.27	1.30	1.34	1.37	1.41	1.44	1.48	1.52	1.55	1.59	1.62	1.66	1.70	1.73
110	TENSION (Kg)	422	411	400	389	380	370	361	353	345	336	329	321	315	308	302	296	290
	TIME (s)	10.2	10.4	10.5	10.6	10.8	10.9	11.0	11.2	11.3	11.5	11.6	11.7	11.8	12.0	12.1	12.2	12.4
	SAG (m)	1.29	1.32	1.36	1.39	1.43	1.47	1.50	1.54	1.58	1.61	1.65	1.69	1.73	1.76	1.80	1.84	1.88
115	TENSION (Kg)	420	409	399	389	380	371	362	354	346	338	331	324	317	311	305	299	294
	TIME (s)	10.7	10.9	11.0	11.1	11.3	11.4	11.5	11.7	11.8	11.9	12.1	12.2	12.3	12.5	12.6	12.7	12.8
	SAG (m)	1.41	1.45	1.49	1.52	1.56	1.60	1.64	1.68	1.71	1.75	1.79	1.83	1.87	1.91	1.95	1.99	2.02
120	TENSION (Kg)	418	408	398	388	380	371	363	355	348	340	333	326	320	314	308	303	297
	TIME (s)	11.2	11.3	11.5	11.6	11.8	11.9	12.0	12.2	12.3	12.4	12.6	12.7	12.8	12.9	13.1	13.2	13.3
	SAG (m)	1.55	1.58	1.62	1.66	1.70	1.74	1.78	1.82	1.86	1.90	1.94	1.98	2.02	2.06	2.10	2.14	2.18
125	TENSION (Kg)	416	407	398	388	380	372	364	357	349	343	335	329	323	317	311	306	301
	TIME (s)	11.7	11.8	12.0	12.1	12.2	12.4	12.5	12.6	12.8	12.9	13.0	13.2	13.3	13.4	13.5	13.7	13.8
	SAG (m)	1.68	1.72	1.77	1.80	1.84	1.89	1.93	1.97	2.01	2.05	2.09	2.13	2.17	2.21	2.25	2.29	2.33
130	TENSION (Kg)	414	405	397	388	380	372	365	358	351	344	337	331	325	320	314	309	304
	TIME (s)	12.2	12.3	12.5	12.6	12.7	12.9	13.0	13.1	13.3	13.4	13.5	13.6	13.8	13.9	14.0	14.1	14.2
	SAG (m)	1.83	1.87	1.92	1.95	2.00	2.04	2.08	2.13	2.16	2.21	2.25	2.29	2.33	2.37	2.41	2.46	2.50
135	TENSION (Kg)	413	404	396	387	380	372	365	359	352	346	339	333	327	322	317	312	307
	TIME (s)	12.7	12.8	13.0	13.1	13.2	13.4	13.5	13.6	13.7	13.9	14.0	14.1	14.2	14.4	14.5	14.6	14.7
	SAG (m)	1.98	2.02	2.07	2.11	2.15	2.20	2.24	2.29	2.32	2.37	2.41	2.45	2.50	2.54	2.58	2.62	2.67

Beat values are in seconds for five wave returns. Creep allowance@15°C: New 10°C shift & Next day 7.5°C shift

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE RURAL (60-135m) 19/0.064 HDBC 23%

DISTRIBUTION CONSTRUCTION STANDARDS

DRAWN: JRR | DATE: 03-06-2014

CHECKED: REE | SCALE: NTS

APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0093

REV. A | SHT.

RURAL (60m – 135m) 7/0.136 HDBC 23%

New Conductor (Initial) (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
New Conductor (Initial) Next Day (deg C)		12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	720	692	665	638	613	587	564	540	519	497	478	459	441	424	409	393	379
	TIME (s)	5.5	5.6	5.7	5.8	5.9	6.1	6.2	6.3	6.5	6.6	6.7	6.9	7.0	7.1	7.3	7.4	7.6
	SAG (m)	0.37	0.38	0.40	0.42	0.43	0.45	0.47	0.49	0.51	0.53	0.56	0.58	0.60	0.63	0.65	0.68	0.70
65	TENSION (Kg)	716	688	663	637	613	589	566	544	523	504	484	467	450	433	419	405	391
	TIME (s)	6.0	6.1	6.2	6.3	6.4	6.6	6.7	6.8	7.0	7.1	7.2	7.4	7.5	7.7	7.8	7.9	8.1
	SAG (m)	0.44	0.45	0.47	0.49	0.51	0.53	0.55	0.57	0.60	0.62	0.64	0.67	0.69	0.72	0.75	0.77	0.80
70	TENSION (Kg)	712	685	661	636	613	590	568	547	528	509	491	474	458	442	428	415	402
	TIME (s)	6.4	6.6	6.7	6.8	6.9	7.1	7.2	7.3	7.5	7.6	7.8	7.9	8.0	8.2	8.3	8.4	8.6
	SAG (m)	0.51	0.53	0.55	0.57	0.59	0.61	0.64	0.66	0.69	0.71	0.74	0.76	0.79	0.82	0.85	0.87	0.90
75	TENSION (Kg)	706	682	657	635	613	591	570	550	532	514	497	481	466	451	437	424	412
	TIME (s)	6.9	7.0	7.2	7.3	7.4	7.6	7.7	7.8	8.0	8.1	8.3	8.4	8.5	8.7	8.8	8.9	9.1
	SAG (m)	0.59	0.61	0.63	0.66	0.68	0.70	0.73	0.76	0.78	0.81	0.84	0.87	0.90	0.92	0.95	0.98	1.01
80	TENSION (Kg)	702	679	655	634	613	592	573	554	536	519	503	487	473	459	445	433	422
	TIME (s)	7.4	7.5	7.7	7.8	7.9	8.1	8.2	8.3	8.5	8.6	8.8	8.9	9.0	9.2	9.3	9.4	9.6
	SAG (m)	0.67	0.70	0.72	0.75	0.77	0.80	0.83	0.85	0.88	0.91	0.94	0.97	1.00	1.03	1.06	1.09	1.12
85	TENSION (Kg)	698	676	653	633	613	593	574	557	539	524	509	493	480	467	454	442	431
	TIME (s)	7.9	8.0	8.2	8.3	8.4	8.6	8.7	8.8	9.0	9.1	9.2	9.4	9.5	9.7	9.8	9.9	10.1
	SAG (m)	0.77	0.79	0.82	0.84	0.87	0.90	0.93	0.96	0.99	1.02	1.05	1.08	1.12	1.15	1.18	1.21	1.24
90	TENSION (Kg)	694	673	651	632	613	594	576	560	543	528	514	499	486	474	462	451	439
	TIME (s)	8.4	8.5	8.6	8.8	8.9	9.1	9.2	9.3	9.5	9.6	9.7	9.9	10.0	10.1	10.3	10.4	10.5
	SAG (m)	0.86	0.89	0.92	0.95	0.98	1.01	1.04	1.07	1.10	1.14	1.17	1.20	1.23	1.27	1.30	1.33	1.37
95	TENSION (Kg)	690	670	649	631	613	595	578	562	546	532	518	505	492	480	469	458	448
	TIME (s)	8.9	9.0	9.1	9.3	9.4	9.6	9.7	9.8	10.0	10.1	10.2	10.4	10.5	10.6	10.8	10.9	11.0
	SAG (m)	0.97	1.00	1.03	1.06	1.09	1.12	1.15	1.19	1.22	1.26	1.29	1.32	1.36	1.39	1.43	1.46	1.49
100	TENSION (Kg)	686	667	648	630	613	595	580	565	550	536	523	510	498	486	475	465	455
	TIME (s)	9.4	9.5	9.6	9.8	9.9	10.1	10.2	10.3	10.5	10.6	10.7	10.9	11.0	11.1	11.3	11.4	11.5
	SAG (m)	1.08	1.11	1.14	1.18	1.21	1.24	1.28	1.31	1.35	1.38	1.42	1.45	1.49	1.52	1.56	1.59	1.63
105	TENSION (Kg)	683	664	646	629	613	596	581	567	554	540	527	515	504	492	482	472	462
	TIME (s)	9.9	10.0	10.1	10.3	10.4	10.5	10.7	10.8	11.0	11.1	11.2	11.4	11.5	11.6	11.7	11.9	12.0
	SAG (m)	1.19	1.23	1.26	1.30	1.33	1.37	1.40	1.44	1.48	1.51	1.55	1.58	1.62	1.66	1.69	1.73	1.77
110	TENSION (Kg)	679	662	644	628	613	597	583	569	556	543	531	520	509	498	488	478	469
	TIME (s)	10.4	10.5	10.6	10.8	10.9	11.0	11.2	11.3	11.4	11.6	11.7	11.8	12.0	12.1	12.2	12.3	12.5
	SAG (m)	1.32	1.35	1.39	1.43	1.46	1.50	1.54	1.57	1.61	1.65	1.69	1.72	1.76	1.80	1.84	1.87	1.91
115	TENSION (Kg)	676	659	643	627	613	598	584	571	559	546	535	524	514	504	493	484	475
	TIME (s)	10.8	11.0	11.1	11.3	11.4	11.5	11.7	11.8	11.9	12.1	12.2	12.3	12.5	12.6	12.7	12.8	12.9
	SAG (m)	1.45	1.48	1.52	1.56	1.60	1.64	1.68	1.71	1.75	1.79	1.83	1.87	1.91	1.95	1.99	2.02	2.06
120	TENSION (Kg)	673	656	641	627	613	598	586	573	562	549	538	528	518	509	498	490	481
	TIME (s)	11.3	11.5	11.6	11.8	11.9	12.0	12.2	12.3	12.4	12.6	12.7	12.8	12.9	13.1	13.2	13.3	13.4
	SAG (m)	1.58	1.62	1.66	1.70	1.74	1.78	1.82	1.86	1.90	1.94	1.98	2.02	2.06	2.10	2.14	2.18	2.22
125	TENSION (Kg)	670	654	640	626	613	599	587	575	564	552	542	532	522	513	504	495	487
	TIME (s)	11.8	12.0	12.1	12.3	12.4	12.5	12.7	12.8	12.9	13.0	13.2	13.3	13.4	13.5	13.7	13.8	13.9
	SAG (m)	1.73	1.77	1.81	1.85	1.89	1.93	1.97	2.01	2.05	2.09	2.14	2.18	2.22	2.26	2.30	2.34	2.38
130	TENSION (Kg)	667	652	638	625	613	600	588	577	566	556	545	535	526	517	509	501	492
	TIME (s)	12.4	12.5	12.6	12.8	12.9	13.0	13.2	13.3	13.4	13.5	13.7	13.8	13.9	14.0	14.2	14.3	14.4
	SAG (m)	1.88	1.92	1.96	2.00	2.04	2.09	2.13	2.17	2.21	2.25	2.30	2.34	2.38	2.42	2.46	2.50	2.55
135	TENSION (Kg)	664	650	637	625	613	600	589	579	568	558	548	539	530	522	513	505	497
	TIME (s)	12.9	13.0	13.1	13.3	13.4	13.5	13.7	13.8	13.9	14.0	14.2	14.3	14.4	14.5	14.6	14.7	14.9
	SAG (m)	2.03	2.07	2.12	2.16	2.20	2.25	2.29	2.34	2.38	2.42	2.46	2.51	2.55	2.59	2.63	2.68	2.72

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE

CONDUCTOR TENSIONING TABLE
RURAL (60-135m) 7/0.136 HDBC 23%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR | DATE: 03-06-2014
CHECKED: REE | SCALE: NTS
APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0094
REV. A | SHT.

RURAL (60m-135m) 19/0.083 HDBC 23%

New Conductor (Initial) (deg C)		17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5
New Conductor (Initial) Next Day (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	741	713	685	657	631	606	581	558	535	513	492	473	455	437	421	405	390
	TIME (s)	5.4	5.5	5.7	5.8	5.9	6.0	6.1	6.3	6.4	6.5	6.7	6.8	6.9	7.1	7.2	7.4	7.5
	SAG (m)	0.36	0.38	0.39	0.41	0.43	0.45	0.46	0.48	0.51	0.53	0.55	0.57	0.59	0.62	0.64	0.67	0.69
65	TENSION (Kg)	737	709	682	656	631	607	583	561	539	519	499	481	463	446	431	416	403
	TIME (s)	5.9	6.0	6.1	6.3	6.4	6.5	6.6	6.8	6.9	7.0	7.2	7.3	7.5	7.6	7.7	7.9	8.0
	SAG (m)	0.43	0.45	0.46	0.48	0.50	0.52	0.54	0.56	0.59	0.61	0.63	0.66	0.68	0.71	0.74	0.76	0.79
70	TENSION (Kg)	732	705	680	655	631	608	585	564	543	524	506	488	471	456	440	426	413
	TIME (s)	6.4	6.5	6.6	6.7	6.9	7.0	7.1	7.3	7.4	7.6	7.7	7.8	8.0	8.1	8.2	8.4	8.5
	SAG (m)	0.50	0.52	0.54	0.56	0.58	0.60	0.63	0.65	0.68	0.70	0.73	0.75	0.78	0.81	0.83	0.86	0.89
75	TENSION (Kg)	728	702	678	654	631	609	588	568	548	529	512	495	479	464	450	436	424
	TIME (s)	6.9	7.0	7.1	7.2	7.4	7.5	7.6	7.8	7.9	8.0	8.2	8.3	8.5	8.6	8.7	8.9	9.0
	SAG (m)	0.58	0.60	0.62	0.64	0.67	0.69	0.72	0.74	0.77	0.80	0.82	0.85	0.88	0.91	0.94	0.97	1.00
80	TENSION (Kg)	724	699	676	653	631	610	590	571	552	534	518	502	486	472	459	445	433
	TIME (s)	7.3	7.5	7.6	7.7	7.9	8.0	8.1	8.3	8.4	8.5	8.7	8.8	9.0	9.1	9.2	9.4	9.5
	SAG (m)	0.66	0.69	0.71	0.73	0.76	0.79	0.81	0.84	0.87	0.90	0.93	0.96	0.99	1.02	1.05	1.08	1.11
85	TENSION (Kg)	720	696	674	652	631	611	592	574	556	539	523	508	493	480	467	455	442
	TIME (s)	7.8	8.0	8.1	8.2	8.4	8.5	8.6	8.8	8.9	9.0	9.2	9.3	9.5	9.6	9.7	9.9	10.0
	SAG (m)	0.75	0.78	0.80	0.83	0.86	0.89	0.92	0.94	0.97	1.01	1.04	1.07	1.10	1.13	1.16	1.19	1.23
90	TENSION (Kg)	716	693	672	651	631	612	593	576	560	543	528	514	501	487	474	463	452
	TIME (s)	8.3	8.4	8.6	8.7	8.8	9.0	9.1	9.3	9.4	9.5	9.7	9.8	9.9	10.1	10.2	10.3	10.5
	SAG (m)	0.85	0.88	0.90	0.93	0.96	0.99	1.02	1.05	1.09	1.12	1.15	1.18	1.22	1.25	1.28	1.31	1.35
95	TENSION (Kg)	712	690	670	650	631	613	595	579	563	547	533	520	507	493	482	470	460
	TIME (s)	8.8	8.9	9.1	9.2	9.3	9.5	9.6	9.7	9.9	10.0	10.2	10.3	10.4	10.6	10.7	10.8	11.0
	SAG (m)	0.95	0.98	1.01	1.04	1.07	1.11	1.14	1.17	1.20	1.24	1.27	1.30	1.34	1.37	1.41	1.44	1.47
100	TENSION (Kg)	707	687	668	649	631	614	597	581	567	551	538	525	512	501	488	478	467
	TIME (s)	9.3	9.4	9.6	9.7	9.8	10.0	10.1	10.2	10.4	10.5	10.6	10.8	10.9	11.0	11.2	11.3	11.4
	SAG (m)	1.06	1.09	1.12	1.15	1.19	1.22	1.26	1.29	1.32	1.36	1.39	1.43	1.47	1.50	1.54	1.57	1.61
105	TENSION (Kg)	704	685	667	648	631	615	599	584	570	556	542	530	518	507	495	484	475
	TIME (s)	9.8	9.9	10.0	10.2	10.3	10.5	10.6	10.7	10.9	11.0	11.1	11.3	11.4	11.5	11.7	11.8	11.9
	SAG (m)	1.17	1.21	1.24	1.28	1.31	1.35	1.38	1.42	1.45	1.49	1.53	1.56	1.60	1.63	1.67	1.71	1.74
110	TENSION (Kg)	700	682	665	647	631	616	600	586	572	560	546	534	523	512	502	491	481
	TIME (s)	10.3	10.4	10.5	10.7	10.8	11.0	11.1	11.2	11.4	11.5	11.6	11.8	11.9	12.0	12.1	12.3	12.4
	SAG (m)	1.30	1.33	1.37	1.40	1.44	1.48	1.51	1.55	1.59	1.62	1.66	1.70	1.74	1.77	1.81	1.85	1.89
115	TENSION (Kg)	697	680	663	646	631	617	602	588	575	563	550	539	528	517	507	497	488
	TIME (s)	10.8	10.9	11.0	11.2	11.3	11.4	11.6	11.7	11.8	12.0	12.1	12.2	12.4	12.5	12.6	12.7	12.9
	SAG (m)	1.42	1.46	1.50	1.53	1.57	1.61	1.65	1.69	1.73	1.76	1.80	1.84	1.88	1.92	1.96	2.00	2.04
120	TENSION (Kg)	694	677	662	646	631	617	603	590	578	566	555	543	532	522	513	504	494
	TIME (s)	11.2	11.4	11.5	11.7	11.8	11.9	12.1	12.2	12.3	12.5	12.6	12.7	12.8	13.0	13.1	13.2	13.3
	SAG (m)	1.56	1.59	1.63	1.67	1.71	1.75	1.79	1.83	1.87	1.91	1.95	1.99	2.03	2.07	2.11	2.15	2.19
125	TENSION (Kg)	691	675	660	645	631	618	604	592	580	569	558	547	537	527	518	509	501
	TIME (s)	11.7	11.9	12.0	12.2	12.3	12.4	12.6	12.7	12.8	12.9	13.1	13.2	13.3	13.5	13.6	13.7	13.8
	SAG (m)	1.70	1.74	1.78	1.82	1.86	1.90	1.94	1.98	2.02	2.06	2.10	2.14	2.19	2.23	2.27	2.31	2.35
130	TENSION (Kg)	688	673	659	644	631	619	606	594	583	572	561	550	541	532	523	514	506
	TIME (s)	12.2	12.4	12.5	12.6	12.8	12.9	13.1	13.2	13.3	13.4	13.6	13.7	13.8	13.9	14.1	14.2	14.3
	SAG (m)	1.84	1.88	1.93	1.97	2.01	2.05	2.10	2.14	2.18	2.22	2.26	2.30	2.35	2.39	2.43	2.47	2.51
135	TENSION (Kg)	685	671	657	644	631	619	608	595	585	574	564	555	545	536	527	519	511
	TIME (s)	12.7	12.9	13.0	13.1	13.3	13.4	13.5	13.7	13.8	13.9	14.0	14.2	14.3	14.4	14.5	14.6	14.8
	SAG (m)	2.00	2.04	2.08	2.12	2.17	2.21	2.26	2.30	2.34	2.38	2.43	2.47	2.51	2.55	2.60	2.64	2.68

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE

CONDUCTOR TENSIONING TABLE
RURAL (60-135m) 19/0.083 HDBC 23%

DISTRIBUTION CONSTRUCTION STANDARDS

DRAWN: JRR | DATE: 03-06-2014
CHECKED: REE | SCALE: NTS
APPROVED: GRANT STACY
DATE: 03-06-2014

DRG. No. CT-0095
REV. A | SHT.

RURAL (60m-135m) 19/0.101 HDBC 23%

New Conductor (Initial) (deg C)		17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5
New Conductor (Initial) Next Day (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	1089	1047	1006	966	928	890	853	819	786	753	724	695	668	642	618	595	574
	TIME (s)	5.5	5.6	5.7	5.8	5.9	6.0	6.2	6.3	6.4	6.6	6.7	6.8	7.0	7.1	7.2	7.4	7.5
	SAG(m)	0.37	0.38	0.40	0.41	0.43	0.45	0.47	0.49	0.51	0.53	0.55	0.57	0.60	0.62	0.65	0.67	0.70
65	TENSION (Kg)	1083	1042	1003	964	928	892	857	824	792	762	734	706	681	656	633	612	591
	TIME (s)	5.9	6.0	6.2	6.3	6.4	6.5	6.7	6.8	6.9	7.1	7.2	7.3	7.5	7.6	7.8	7.9	8.0
	SAG(m)	0.43	0.45	0.47	0.49	0.51	0.53	0.55	0.57	0.59	0.62	0.64	0.66	0.69	0.71	0.74	0.77	0.79
70	TENSION (Kg)	1076	1038	999	962	928	893	860	829	799	771	743	718	693	670	648	627	608
	TIME (s)	6.4	6.5	6.7	6.8	6.9	7.0	7.2	7.3	7.4	7.6	7.7	7.9	8.0	8.1	8.3	8.4	8.5
	SAG(m)	0.51	0.52	0.54	0.56	0.59	0.61	0.63	0.66	0.68	0.71	0.73	0.76	0.79	0.81	0.84	0.87	0.90
75	TENSION (Kg)	1069	1033	996	961	928	895	863	834	805	778	752	728	704	682	662	642	623
	TIME (s)	6.9	7.0	7.1	7.3	7.4	7.5	7.7	7.8	7.9	8.1	8.2	8.4	8.5	8.6	8.8	8.9	9.0
	SAG(m)	0.58	0.60	0.63	0.65	0.67	0.70	0.72	0.75	0.78	0.80	0.83	0.86	0.89	0.92	0.94	0.97	1.00
80	TENSION (Kg)	1063	1028	993	959	928	896	866	838	811	785	760	737	716	694	675	655	638
	TIME (s)	7.4	7.5	7.6	7.8	7.9	8.0	8.2	8.3	8.4	8.6	8.7	8.9	9.0	9.1	9.3	9.4	9.5
	SAG(m)	0.67	0.69	0.72	0.74	0.77	0.79	0.82	0.85	0.88	0.90	0.93	0.96	0.99	1.02	1.05	1.08	1.11
85	TENSION (Kg)	1057	1022	990	958	928	898	870	843	817	792	769	747	726	705	687	669	651
	TIME (s)	7.9	8.0	8.1	8.2	8.4	8.5	8.7	8.8	8.9	9.1	9.2	9.3	9.5	9.6	9.8	9.9	10.0
	SAG(m)	0.76	0.78	0.81	0.84	0.86	0.89	0.92	0.95	0.98	1.01	1.04	1.07	1.11	1.14	1.17	1.20	1.23
90	TENSION (Kg)	1051	1018	987	956	928	899	873	847	823	799	777	755	735	717	698	681	665
	TIME (s)	8.3	8.5	8.6	8.7	8.9	9.0	9.2	9.3	9.4	9.6	9.7	9.8	10.0	10.1	10.2	10.4	10.5
	SAG(m)	0.86	0.88	0.91	0.94	0.97	1.00	1.03	1.06	1.09	1.13	1.16	1.19	1.22	1.26	1.29	1.32	1.36
95	TENSION (Kg)	1045	1014	984	955	928	901	876	851	828	805	784	764	744	726	708	692	676
	TIME (s)	8.8	9.0	9.1	9.2	9.4	9.5	9.6	9.8	9.9	10.1	10.2	10.3	10.5	10.6	10.7	10.9	11.0
	SAG(m)	0.96	0.99	1.02	1.05	1.08	1.11	1.14	1.18	1.21	1.24	1.28	1.31	1.35	1.38	1.42	1.45	1.48
100	TENSION (Kg)	1040	1010	982	954	928	902	878	854	833	811	791	772	753	736	719	703	688
	TIME (s)	9.3	9.5	9.6	9.7	9.9	10.0	10.1	10.3	10.4	10.6	10.7	10.8	11.0	11.1	11.2	11.3	11.5
	SAG(m)	1.07	1.10	1.13	1.16	1.20	1.23	1.27	1.30	1.33	1.37	1.40	1.44	1.48	1.51	1.55	1.58	1.62
105	TENSION (Kg)	1034	1006	979	952	928	903	880	858	837	817	797	779	761	744	729	714	698
	TIME (s)	9.8	9.9	10.1	10.2	10.4	10.5	10.6	10.8	10.9	11.0	11.2	11.3	11.4	11.6	11.7	11.8	11.9
	SAG(m)	1.18	1.22	1.25	1.29	1.32	1.36	1.39	1.43	1.46	1.50	1.54	1.57	1.61	1.65	1.68	1.72	1.76
110	TENSION (Kg)	1029	1002	976	951	928	904	883	861	841	822	803	786	770	753	738	723	708
	TIME (s)	10.3	10.4	10.6	10.7	10.9	11.0	11.1	11.3	11.4	11.5	11.7	11.8	11.9	12.1	12.2	12.3	12.4
	SAG(m)	1.31	1.34	1.38	1.41	1.45	1.49	1.52	1.56	1.60	1.64	1.67	1.71	1.75	1.79	1.82	1.86	1.90
115	TENSION (Kg)	1023	998	973	950	928	905	885	864	845	827	809	793	777	760	746	732	719
	TIME (s)	10.8	10.9	11.1	11.2	11.3	11.5	11.6	11.8	11.9	12.0	12.2	12.3	12.4	12.5	12.7	12.8	12.9
	SAG(m)	1.43	1.47	1.51	1.55	1.58	1.62	1.66	1.70	1.74	1.78	1.82	1.85	1.89	1.93	1.97	2.01	2.05
120	TENSION (Kg)	1019	995	971	949	928	906	887	867	849	832	814	799	783	769	754	740	727
	TIME (s)	11.3	11.4	11.6	11.7	11.8	12.0	12.1	12.2	12.4	12.5	12.6	12.8	12.9	13.0	13.1	13.3	13.4
	SAG(m)	1.57	1.61	1.65	1.69	1.73	1.77	1.80	1.84	1.88	1.92	1.96	2.00	2.04	2.08	2.12	2.16	2.20
125	TENSION (Kg)	1014	992	969	948	928	907	889	871	853	836	820	804	790	776	761	748	736
	TIME (s)	11.8	11.9	12.1	12.2	12.3	12.5	12.6	12.7	12.9	13.0	13.1	13.2	13.4	13.5	13.6	13.7	13.9
	SAG(m)	1.71	1.75	1.79	1.83	1.87	1.91	1.95	2.00	2.04	2.08	2.12	2.16	2.20	2.24	2.28	2.32	2.36
130	TENSION (Kg)	1010	988	967	947	928	908	891	873	856	840	825	810	796	782	769	756	744
	TIME (s)	12.3	12.4	12.6	12.7	12.8	13.0	13.1	13.2	13.4	13.5	13.6	13.7	13.9	14.0	14.1	14.2	14.3
	SAG(m)	1.86	1.90	1.94	1.98	2.03	2.07	2.11	2.15	2.19	2.24	2.28	2.32	2.36	2.40	2.44	2.49	2.53
135	TENSION (Kg)	1006	986	965	946	928	909	892	876	859	844	830	815	801	788	776	764	751
	TIME (s)	12.8	12.9	13.1	13.2	13.3	13.5	13.6	13.7	13.8	14.0	14.1	14.2	14.3	14.5	14.6	14.7	14.8
	SAG(m)	2.01	2.06	2.10	2.14	2.18	2.23	2.27	2.31	2.36	2.40	2.44	2.49	2.53	2.57	2.61	2.66	2.70

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE

CONDUCTOR TENSIONING TABLE
RURAL (60-135m) 19/0.101 HDBC 23%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR DATE: 03-06-2014
CHECKED: REE SCALE: NTS
APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0096
REV. A SHT.

RURAL (60m – 135m) 6/1/2.50 ACSR/AZ BARLEY 18%

New Conductor (Initial) (deg C)	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65
New Conductor (Initial) Next Day (deg C)	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65
Existing Conductor (Final) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
60 TENSION (Kg)	241	227	214	202	189	177	165	154	144	134	125	116	109	102	96	90	86
TIME (s)	4.3	4.4	4.5	4.7	4.8	5.0	5.1	5.3	5.5	5.7	5.9	6.1	6.3	6.5	6.7	7.0	7.2
SAG (m)	0.22	0.24	0.25	0.27	0.28	0.30	0.32	0.35	0.37	0.40	0.43	0.46	0.49	0.53	0.56	0.60	0.63
65 TENSION (Kg)	240	226	213	201	189	177	166	155	146	136	127	119	112	105	99	94	89
TIME (s)	4.6	4.8	4.9	5.0	5.2	5.4	5.6	5.7	5.9	6.1	6.3	6.6	6.8	7.0	7.2	7.4	7.6
SAG (m)	0.26	0.28	0.29	0.31	0.33	0.35	0.38	0.41	0.43	0.46	0.49	0.53	0.56	0.60	0.63	0.67	0.71
70 TENSION (Kg)	239	225	213	201	189	177	167	157	147	138	129	121	114	108	102	97	93
TIME (s)	5.0	5.1	5.3	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0
SAG (m)	0.31	0.32	0.34	0.36	0.39	0.41	0.44	0.47	0.50	0.53	0.56	0.60	0.64	0.67	0.71	0.75	0.79
75 TENSION (Kg)	236	224	212	201	189	178	167	158	149	140	131	124	117	111	106	101	96
TIME (s)	5.4	5.5	5.7	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4
SAG (m)	0.35	0.37	0.39	0.42	0.44	0.47	0.50	0.53	0.57	0.60	0.64	0.67	0.71	0.75	0.79	0.83	0.87
80 TENSION (Kg)	235	223	212	200	189	178	168	159	150	142	134	126	120	114	108	104	99
TIME (s)	5.7	5.9	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.7	8.8
SAG (m)	0.40	0.43	0.45	0.48	0.50	0.53	0.57	0.60	0.64	0.68	0.71	0.75	0.79	0.84	0.88	0.92	0.96
85 TENSION (Kg)	234	222	211	200	189	178	169	160	151	143	136	128	122	116	111	107	102
TIME (s)	6.1	6.3	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.1	8.2	8.5	8.7	8.9	9.1	9.3
SAG (m)	0.46	0.48	0.51	0.54	0.57	0.60	0.64	0.67	0.71	0.75	0.80	0.84	0.88	0.92	0.97	1.01	1.05
90 TENSION (Kg)	233	221	210	200	189	179	169	161	153	145	138	130	125	119	114	109	105
TIME (s)	6.5	6.7	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.5	8.7	8.9	9.1	9.3	9.5	9.7
SAG (m)	0.52	0.54	0.57	0.60	0.64	0.67	0.71	0.75	0.79	0.84	0.88	0.93	0.97	1.02	1.06	1.11	1.16
95 TENSION (Kg)	232	220	210	199	189	179	170	162	154	147	140	134	127	121	117	112	108
TIME (s)	6.9	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.9	9.1	9.3	9.5	9.7	9.9	10.1
SAG (m)	0.58	0.61	0.64	0.67	0.71	0.75	0.79	0.83	0.87	0.92	0.97	1.01	1.06	1.11	1.16	1.21	1.25
100 TENSION (Kg)	230	219	209	199	189	179	171	163	155	148	142	136	129	124	119	115	110
TIME (s)	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.1	9.3	9.5	9.7	9.9	10.1	10.3	10.5
SAG (m)	0.64	0.68	0.71	0.75	0.79	0.83	0.87	0.92	0.96	1.01	1.06	1.11	1.16	1.20	1.25	1.30	1.35
105 TENSION (Kg)	229	219	208	199	189	180	171	164	156	150	143	137	131	126	121	117	113
TIME (s)	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9
SAG (m)	0.72	0.75	0.79	0.83	0.87	0.91	0.96	1.00	1.05	1.10	1.15	1.20	1.25	1.30	1.35	1.41	1.46
110 TENSION (Kg)	228	218	208	198	189	180	172	164	157	151	145	139	134	128	124	119	115
TIME (s)	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3
SAG (m)	0.79	0.83	0.87	0.91	0.95	1.00	1.05	1.09	1.14	1.20	1.25	1.30	1.35	1.41	1.46	1.51	1.56
115 TENSION (Kg)	227	217	207	198	189	180	173	165	159	152	146	141	136	130	126	122	118
TIME (s)	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7
SAG (m)	0.87	0.91	0.95	1.00	1.04	1.09	1.14	1.19	1.24	1.30	1.35	1.40	1.46	1.51	1.57	1.62	1.67
120 TENSION (Kg)	225	216	207	198	189	181	173	166	160	154	148	143	138	133	128	124	120
TIME (s)	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.1
SAG (m)	0.95	1.00	1.04	1.09	1.13	1.19	1.24	1.29	1.34	1.40	1.45	1.51	1.57	1.62	1.68	1.73	1.79
125 TENSION (Kg)	224	215	206	197	189	181	174	167	161	155	149	144	139	135	130	126	122
TIME (s)	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3	12.4
SAG (m)	1.04	1.08	1.13	1.18	1.23	1.29	1.34	1.39	1.45	1.50	1.56	1.62	1.68	1.73	1.79	1.85	1.90
130 TENSION (Kg)	223	214	205	197	189	181	174	168	162	156	151	146	141	137	133	128	124
TIME (s)	9.6	9.8	10.0	10.2	10.4	10.6	10.8	11.0	11.3	11.5	11.7	11.9	12.1	12.3	12.5	12.6	12.8
SAG (m)	1.13	1.18	1.23	1.28	1.33	1.39	1.44	1.50	1.56	1.61	1.67	1.73	1.79	1.85	1.91	1.97	2.02
135 TENSION (Kg)	222	213	205	197	189	181	175	168	163	157	152	147	143	138	134	130	126
TIME (s)	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.9	12.1	12.3	12.5	12.7	12.8	13.0	13.2
SAG (m)	1.23	1.27	1.33	1.38	1.44	1.50	1.55	1.61	1.67	1.73	1.79	1.85	1.91	1.97	2.03	2.09	2.15

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
RURAL (60-135m) 6/1/2.50 ACSR/AZ
BARLEY 18%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR DATE: 03-06-2014
CHECKED: REE SCALE: NTS
APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0101
REV. A SHT.

RURAL (60m – 135m) 6/1/3.00 ACSR/AZ BEAN 18%

New Conductor (Initial) (deg C)		25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65
New Conductor (Initial) Next Day (deg C)		20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	339	320	302	283	266	249	232	217	202	189	175	164	153	144	135	127	120
	TIME (s)	4.3	4.4	4.6	4.7	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.2
	SAG (m)	0.23	0.24	0.25	0.27	0.29	0.31	0.33	0.35	0.38	0.41	0.44	0.47	0.50	0.54	0.57	0.61	0.64
65	TENSION (Kg)	337	319	301	283	266	250	233	218	204	191	178	167	157	148	140	133	125
	TIME (s)	4.7	4.8	4.9	5.1	5.3	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.3	7.5	7.7
	SAG (m)	0.27	0.28	0.30	0.32	0.34	0.36	0.39	0.41	0.44	0.47	0.51	0.54	0.57	0.61	0.65	0.68	0.72
70	TENSION (Kg)	336	318	300	282	266	250	234	220	207	194	182	171	161	153	145	138	130
	TIME (s)	5.0	5.2	5.3	5.5	5.7	5.8	6.0	6.2	6.4	6.6	6.8	7.1	7.3	7.5	7.7	7.9	8.1
	SAG (m)	0.31	0.33	0.35	0.37	0.39	0.42	0.45	0.48	0.51	0.54	0.58	0.61	0.65	0.69	0.73	0.76	0.80
75	TENSION (Kg)	334	316	299	282	266	251	235	222	209	197	186	175	165	157	149	142	136
	TIME (s)	5.4	5.6	5.7	5.9	6.1	6.2	6.4	6.6	6.8	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.5
	SAG (m)	0.36	0.38	0.40	0.43	0.45	0.48	0.51	0.54	0.58	0.61	0.65	0.69	0.73	0.77	0.81	0.85	0.89
80	TENSION (Kg)	332	315	298	281	266	251	236	223	211	199	189	178	169	161	153	147	140
	TIME (s)	5.8	5.9	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9
	SAG (m)	0.41	0.43	0.46	0.49	0.51	0.55	0.58	0.61	0.65	0.69	0.73	0.77	0.81	0.85	0.89	0.94	0.98
85	TENSION (Kg)	330	314	298	281	266	252	238	225	213	202	192	181	173	165	157	151	145
	TIME (s)	6.2	6.3	6.5	6.7	6.9	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3
	SAG (m)	0.47	0.49	0.52	0.55	0.58	0.61	0.65	0.69	0.73	0.77	0.81	0.85	0.89	0.94	0.98	1.03	1.07
90	TENSION (Kg)	329	312	297	280	266	252	239	226	215	204	194	185	176	168	161	155	149
	TIME (s)	6.5	6.7	6.9	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.7
	SAG (m)	0.53	0.55	0.59	0.62	0.65	0.69	0.73	0.77	0.81	0.85	0.90	0.94	0.98	1.03	1.08	1.12	1.17
95	TENSION (Kg)	327	311	296	280	266	253	240	228	217	206	197	188	179	172	165	159	153
	TIME (s)	6.9	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.2	9.4	9.6	9.8	10.0	10.2
	SAG (m)	0.59	0.62	0.65	0.69	0.73	0.76	0.81	0.85	0.89	0.94	0.98	1.03	1.08	1.13	1.18	1.22	1.27
100	TENSION (Kg)	325	309	295	279	266	253	241	229	218	209	199	191	182	175	168	162	157
	TIME (s)	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.4	9.6	9.8	10.0	10.2	10.4	10.6
	SAG (m)	0.66	0.69	0.73	0.76	0.80	0.85	0.89	0.93	0.98	1.03	1.08	1.13	1.18	1.22	1.27	1.32	1.37
105	TENSION (Kg)	323	308	294	279	266	254	242	230	220	211	202	194	186	178	172	166	160
	TIME (s)	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.8	10.0	10.2	10.4	10.6	10.8	11.0
	SAG (m)	0.73	0.77	0.80	0.84	0.89	0.93	0.98	1.02	1.07	1.12	1.17	1.22	1.27	1.33	1.38	1.43	1.48
110	TENSION (Kg)	321	307	293	279	266	254	243	232	222	213	204	196	189	181	175	169	164
	TIME (s)	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.7	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4
	SAG (m)	0.81	0.84	0.89	0.93	0.97	1.02	1.07	1.12	1.17	1.22	1.27	1.32	1.38	1.43	1.48	1.53	1.59
115	TENSION (Kg)	319	305	292	278	266	255	244	233	223	215	206	199	192	185	178	172	167
	TIME (s)	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.7
	SAG (m)	0.89	0.93	0.97	1.02	1.06	1.11	1.16	1.21	1.27	1.32	1.37	1.43	1.48	1.54	1.59	1.64	1.70
120	TENSION (Kg)	318	304	291	278	266	255	245	234	225	216	208	201	194	188	181	175	170
	TIME (s)	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.3	10.6	10.8	11.0	11.2	11.4	11.6	11.8	12.0	12.1
	SAG (m)	0.97	1.02	1.06	1.11	1.16	1.21	1.26	1.31	1.37	1.42	1.48	1.54	1.59	1.65	1.70	1.76	1.81
125	TENSION (Kg)	316	303	290	277	266	255	245	235	226	218	211	203	197	190	185	178	173
	TIME (s)	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7	11.0	11.2	11.4	11.6	11.8	12.0	12.2	12.3	12.5
	SAG (m)	1.06	1.11	1.15	1.20	1.26	1.31	1.36	1.42	1.48	1.53	1.59	1.65	1.70	1.76	1.82	1.88	1.93
130	TENSION (Kg)	314	301	288	277	266	256	246	236	228	220	212	206	199	193	187	181	176
	TIME (s)	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.4	11.6	11.8	12.0	12.2	12.4	12.6	12.7	12.9
	SAG (m)	1.15	1.20	1.25	1.30	1.36	1.42	1.47	1.53	1.59	1.64	1.70	1.76	1.82	1.88	1.94	2.00	2.05
135	TENSION (Kg)	312	300	287	276	266	256	247	238	229	221	214	208	201	195	190	185	179
	TIME (s)	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.6	11.8	12.0	12.2	12.4	12.6	12.8	12.9	13.1	13.3
	SAG (m)	1.25	1.30	1.35	1.41	1.47	1.53	1.58	1.64	1.70	1.76	1.82	1.88	1.94	2.00	2.06	2.12	2.18

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
RURAL (60-135m) 6/1/3.00 ACSR/AZ
BEAN 18%

DISTRIBUTION CONSTRUCTION STANDARDS

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DRAWN: JRR DATE: 03-06-2014
CHECKED: REE SCALE: NTS
APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0102
REV. A SHT.

RURAL (60m – 135m) 6/1/3.75 ACSR/AZ CABBAGE 18%

New Conductor (Initial) (deg C)		25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65
New Conductor (Initial) Next Day (deg C)		20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	507	478	450	421	394	369	344	320	299	278	260	243	227	214	201	191	180
	TIME (s)	4.4	4.5	4.7	4.8	5.0	5.2	5.3	5.5	5.7	5.9	6.1	6.4	6.6	6.8	7.0	7.2	7.4
	SAG (m)	0.24	0.25	0.27	0.29	0.31	0.33	0.35	0.38	0.40	0.43	0.46	0.50	0.53	0.57	0.60	0.64	0.67
65	TENSION (Kg)	504	475	448	421	394	369	346	323	303	283	265	249	234	221	209	198	189
	TIME (s)	4.8	4.9	5.1	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8
	SAG (m)	0.28	0.30	0.32	0.34	0.36	0.38	0.41	0.44	0.47	0.50	0.53	0.57	0.60	0.64	0.68	0.71	0.75
70	TENSION (Kg)	501	473	446	420	394	370	348	326	306	287	270	255	241	228	216	206	197
	TIME (s)	5.2	5.3	5.5	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.7	7.9	8.1	8.2
	SAG (m)	0.33	0.35	0.37	0.39	0.42	0.44	0.47	0.50	0.54	0.57	0.61	0.64	0.68	0.72	0.76	0.80	0.84
75	TENSION (Kg)	497	471	444	419	394	371	350	328	310	292	275	261	247	234	223	213	204
	TIME (s)	5.5	5.7	5.9	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.5	7.7	7.9	8.1	8.3	8.5	8.7
	SAG (m)	0.38	0.40	0.42	0.45	0.48	0.51	0.54	0.57	0.61	0.65	0.68	0.72	0.76	0.80	0.84	0.89	0.93
80	TENSION (Kg)	494	468	442	418	394	372	351	331	313	296	280	266	253	241	230	220	211
	TIME (s)	5.9	6.1	6.3	6.5	6.6	6.8	7.0	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1
	SAG (m)	0.43	0.46	0.48	0.51	0.54	0.58	0.61	0.65	0.69	0.73	0.77	0.81	0.85	0.89	0.93	0.98	1.02
85	TENSION (Kg)	491	466	441	417	394	373	353	333	316	300	284	271	259	247	236	226	218
	TIME (s)	6.3	6.5	6.7	6.9	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5
	SAG (m)	0.49	0.52	0.55	0.58	0.61	0.65	0.69	0.73	0.77	0.81	0.85	0.89	0.94	0.98	1.03	1.07	1.11
90	TENSION (Kg)	488	464	439	416	394	374	355	336	319	304	290	276	264	253	243	232	224
	TIME (s)	6.7	6.9	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.2	9.4	9.5	9.7	9.9
	SAG (m)	0.56	0.59	0.62	0.65	0.69	0.73	0.77	0.81	0.85	0.90	0.94	0.98	1.03	1.08	1.12	1.17	1.21
95	TENSION (Kg)	485	461	437	416	394	375	356	338	322	308	294	280	269	258	248	239	230
	TIME (s)	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4
	SAG (m)	0.62	0.66	0.69	0.73	0.77	0.81	0.85	0.89	0.94	0.99	1.03	1.08	1.13	1.18	1.22	1.27	1.32
100	TENSION (Kg)	482	459	436	415	394	375	358	340	325	311	298	285	274	263	254	245	236
	TIME (s)	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8
	SAG (m)	0.70	0.73	0.77	0.81	0.85	0.89	0.94	0.98	1.03	1.08	1.13	1.18	1.23	1.28	1.33	1.38	1.42
105	TENSION (Kg)	479	457	434	414	394	376	359	343	328	314	302	290	278	268	259	250	242
	TIME (s)	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8	11.0	11.2
	SAG (m)	0.77	0.81	0.85	0.89	0.94	0.98	1.03	1.08	1.13	1.18	1.23	1.28	1.33	1.38	1.43	1.48	1.53
110	TENSION (Kg)	476	454	433	413	394	377	361	345	330	317	305	294	282	273	264	255	248
	TIME (s)	8.3	8.5	8.7	8.9	9.1	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.6
	SAG (m)	0.85	0.89	0.94	0.98	1.03	1.08	1.13	1.18	1.23	1.28	1.33	1.38	1.44	1.49	1.54	1.59	1.65
115	TENSION (Kg)	473	452	431	413	394	377	362	347	333	320	309	298	287	277	268	260	253
	TIME (s)	8.7	8.9	9.1	9.3	9.6	9.8	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.8	12.0
	SAG (m)	0.94	0.98	1.03	1.08	1.12	1.17	1.23	1.28	1.33	1.39	1.44	1.49	1.55	1.60	1.66	1.71	1.76
120	TENSION (Kg)	470	450	430	412	394	378	363	349	335	323	312	301	291	281	273	265	257
	TIME (s)	9.1	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.8	12.0	12.2	12.4
	SAG (m)	1.03	1.08	1.12	1.17	1.22	1.28	1.33	1.38	1.44	1.49	1.55	1.61	1.66	1.72	1.77	1.83	1.88
125	TENSION (Kg)	467	448	428	411	394	379	364	351	338	326	315	305	295	285	277	269	262
	TIME (s)	9.6	9.8	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.8	12.0	12.2	12.4	12.6	12.8
	SAG (m)	1.12	1.17	1.22	1.27	1.33	1.39	1.44	1.49	1.55	1.61	1.67	1.72	1.78	1.84	1.89	1.95	2.00
130	TENSION (Kg)	464	445	427	411	394	379	366	353	340	328	318	308	299	290	281	273	266
	TIME (s)	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.8	12.0	12.2	12.4	12.6	12.8	13.0	13.2
	SAG (m)	1.22	1.27	1.33	1.38	1.44	1.50	1.55	1.61	1.67	1.73	1.78	1.84	1.90	1.96	2.02	2.07	2.13
135	TENSION (Kg)	461	443	426	410	394	380	367	354	343	331	321	311	302	294	285	278	271
	TIME (s)	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.8	12.1	12.3	12.5	12.6	12.8	13.0	13.2	13.4	13.6
	SAG (m)	1.33	1.38	1.43	1.49	1.55	1.61	1.67	1.73	1.79	1.85	1.91	1.97	2.03	2.09	2.15	2.20	2.26

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
RURAL (60-135m) 6/1/3.75 ACSR/AZ
CABBAGE 18%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR DATE: 03-06-2014
CHECKED: REE SCALE: NTS
APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0103
REV. A SHT.

RURAL (60m-135m) 6/4.75-7/1.60ACSR/AZ CARROT 18%

New Conductor (Initial) (deg C)		20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60
New Conductor (Initial) Next Day (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	779	734	690	647	606	566	527	490	457	425	396	369	345	323	304	287	272
	TIME (s)	4.4	4.5	4.6	4.8	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.3	6.5	6.8	7.0	7.2	7.4
	SAG (m)	0.23	0.25	0.26	0.28	0.30	0.32	0.35	0.37	0.40	0.43	0.46	0.49	0.53	0.56	0.60	0.63	0.67
65	TENSION (Kg)	775	731	688	646	606	567	530	494	462	431	404	378	356	334	316	300	284
	TIME (s)	4.7	4.9	5.0	5.2	5.4	5.5	5.7	5.9	6.1	6.3	6.6	6.8	7.0	7.2	7.4	7.6	7.8
	SAG (m)	0.28	0.29	0.31	0.33	0.35	0.38	0.40	0.43	0.46	0.49	0.53	0.56	0.60	0.64	0.68	0.71	0.75
70	TENSION (Kg)	771	728	685	645	606	568	532	498	468	438	412	387	365	346	327	311	297
	TIME (s)	5.1	5.3	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2
	SAG (m)	0.32	0.34	0.36	0.38	0.41	0.44	0.47	0.50	0.53	0.56	0.60	0.64	0.68	0.72	0.76	0.80	0.84
75	TENSION (Kg)	767	724	683	643	606	569	535	503	473	444	419	396	375	356	337	322	308
	TIME (s)	5.5	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.9	8.1	8.3	8.5	8.7
	SAG (m)	0.37	0.39	0.42	0.44	0.47	0.50	0.53	0.57	0.60	0.64	0.68	0.72	0.76	0.80	0.84	0.88	0.92
80	TENSION (Kg)	761	721	681	642	606	571	537	507	478	452	427	404	383	365	348	332	318
	TIME (s)	5.9	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.9	8.1	8.3	8.5	8.7	8.9	9.1
	SAG (m)	0.42	0.45	0.47	0.50	0.53	0.57	0.60	0.64	0.68	0.72	0.76	0.80	0.84	0.89	0.93	0.97	1.02
85	TENSION (Kg)	757	717	678	641	606	572	540	511	483	457	433	412	392	374	358	343	328
	TIME (s)	6.3	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5
	SAG (m)	0.48	0.51	0.54	0.57	0.60	0.64	0.68	0.72	0.76	0.80	0.84	0.89	0.93	0.98	1.02	1.07	1.11
90	TENSION (Kg)	752	714	676	640	606	573	542	514	487	463	440	419	401	383	367	352	338
	TIME (s)	6.7	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9
	SAG (m)	0.54	0.57	0.61	0.64	0.68	0.71	0.75	0.80	0.84	0.88	0.93	0.98	1.02	1.07	1.12	1.16	1.21
95	TENSION (Kg)	747	709	674	638	606	574	545	518	492	469	446	426	408	391	375	361	348
	TIME (s)	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.3
	SAG (m)	0.61	0.64	0.68	0.71	0.75	0.79	0.84	0.88	0.93	0.98	1.02	1.07	1.12	1.17	1.22	1.26	1.31
100	TENSION (Kg)	743	706	671	637	606	576	547	521	496	474	453	433	416	399	384	370	357
	TIME (s)	7.4	7.6	7.8	8.0	8.2	8.4	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.2	10.4	10.5	10.7
	SAG (m)	0.68	0.72	0.75	0.79	0.83	0.88	0.92	0.97	1.02	1.07	1.12	1.17	1.22	1.27	1.32	1.37	1.42
105	TENSION (Kg)	738	702	669	636	606	577	549	524	501	479	459	440	423	407	391	378	366
	TIME (s)	7.8	8.0	8.2	8.4	8.6	8.9	9.1	9.3	9.5	9.7	9.9	10.2	10.4	10.6	10.8	11.0	11.1
	SAG (m)	0.75	0.79	0.83	0.88	0.92	0.97	1.01	1.06	1.11	1.17	1.22	1.27	1.32	1.37	1.42	1.48	1.53
110	TENSION (Kg)	734	699	667	635	606	578	551	527	505	484	464	446	429	414	400	386	374
	TIME (s)	8.2	8.4	8.6	8.8	9.1	9.3	9.5	9.7	9.9	10.1	10.4	10.6	10.8	11.0	11.2	11.4	11.6
	SAG (m)	0.83	0.87	0.92	0.96	1.01	1.06	1.11	1.16	1.21	1.27	1.32	1.37	1.43	1.48	1.54	1.59	1.64
115	TENSION (Kg)	729	695	664	634	606	579	554	530	509	488	470	452	436	421	407	393	381
	TIME (s)	8.6	8.8	9.0	9.3	9.5	9.7	9.9	10.1	10.3	10.6	10.8	11.0	11.2	11.4	11.6	11.8	12.0
	SAG (m)	0.92	0.96	1.01	1.05	1.10	1.15	1.21	1.26	1.32	1.37	1.43	1.48	1.54	1.59	1.65	1.70	1.76
120	TENSION (Kg)	725	692	662	633	606	580	556	533	513	492	475	458	442	427	414	401	389
	TIME (s)	9.0	9.2	9.5	9.7	9.9	10.1	10.3	10.5	10.8	11.0	11.2	11.4	11.6	11.8	12.0	12.2	12.3
	SAG (m)	1.00	1.05	1.10	1.15	1.20	1.26	1.31	1.37	1.42	1.48	1.54	1.59	1.65	1.71	1.76	1.82	1.88
125	TENSION (Kg)	720	689	660	632	606	581	558	536	516	497	479	463	448	433	420	408	397
	TIME (s)	9.4	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.2	11.4	11.6	11.8	12.0	12.2	12.4	12.6	12.7
	SAG (m)	1.10	1.15	1.20	1.25	1.30	1.36	1.42	1.47	1.53	1.59	1.65	1.71	1.77	1.82	1.88	1.94	2.00
130	TENSION (Kg)	716	686	657	631	606	582	560	538	519	502	484	468	454	439	427	415	404
	TIME (s)	9.8	10.1	10.3	10.5	10.7	10.9	11.1	11.4	11.6	11.8	12.0	12.2	12.4	12.6	12.8	13.0	13.1
	SAG (m)	1.19	1.25	1.30	1.35	1.41	1.47	1.53	1.59	1.65	1.71	1.77	1.83	1.89	1.95	2.01	2.06	2.12
135	TENSION (Kg)	712	683	655	630	606	583	562	541	523	505	488	473	459	445	433	421	410
	TIME (s)	10.3	10.5	10.7	10.9	11.1	11.3	11.6	11.8	12.0	12.2	12.4	12.6	12.8	13.0	13.2	13.4	13.5
	SAG (m)	1.29	1.35	1.41	1.46	1.52	1.58	1.64	1.70	1.76	1.83	1.89	1.95	2.01	2.07	2.13	2.19	2.25

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
RURAL (60-135m) 6/4.75 - 7/1.60
ACSR/AZ CARROT 18%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR | DATE: 03-06-2014 | DRG. No. CT-0104
CHECKED: REE | SCALE: NTS
APPROVED: GRANT STACY DATE: 03-06-2014
REV. A | SHT.

RURAL (60m – 135m) 6/1/2.50 ACSR/GZ ALMOND 18%

New Conductor (Initial) (deg C)		30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65	67.5	70
New Conductor (Initial) Next Day (deg C)		25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	241	228	216	204	193	181	170	160	150	140	131	122	115	108	101	95	90
	TIME (s)	4.3	4.4	4.5	4.6	4.8	4.9	5.1	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0
	SAG (m)	0.22	0.23	0.25	0.26	0.28	0.30	0.31	0.34	0.36	0.38	0.41	0.44	0.47	0.50	0.53	0.56	0.60
65	TENSION (Kg)	240	227	216	204	193	181	171	161	151	142	133	125	117	110	104	99	94
	TIME (s)	4.6	4.7	4.9	5.0	5.2	5.3	5.5	5.7	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4
	SAG (m)	0.26	0.28	0.29	0.31	0.33	0.35	0.37	0.39	0.42	0.44	0.47	0.50	0.54	0.57	0.60	0.64	0.67
70	TENSION (Kg)	239	226	215	204	193	181	171	162	152	144	135	127	120	113	107	102	97
	TIME (s)	5.0	5.1	5.3	5.4	5.5	5.7	5.9	6.1	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8
	SAG (m)	0.31	0.32	0.34	0.36	0.38	0.40	0.43	0.45	0.48	0.51	0.54	0.57	0.61	0.64	0.68	0.72	0.76
75	TENSION (Kg)	238	226	214	204	193	182	172	163	154	145	137	129	122	116	110	105	100
	TIME (s)	5.4	5.5	5.6	5.8	5.9	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.5	7.7	7.9	8.1	8.3
	SAG (m)	0.35	0.37	0.39	0.41	0.43	0.46	0.49	0.52	0.55	0.58	0.61	0.65	0.68	0.72	0.76	0.80	0.84
80	TENSION (Kg)	236	225	214	203	193	182	173	163	155	147	139	131	124	118	113	108	103
	TIME (s)	5.7	5.9	6.0	6.2	6.3	6.5	6.7	6.9	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7
	SAG (m)	0.40	0.42	0.44	0.47	0.49	0.52	0.55	0.58	0.62	0.65	0.69	0.72	0.76	0.80	0.84	0.88	0.93
85	TENSION (Kg)	235	224	213	203	193	182	173	164	156	148	141	134	127	121	115	111	106
	TIME (s)	6.1	6.2	6.4	6.6	6.7	6.9	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1
	SAG (m)	0.46	0.48	0.51	0.53	0.56	0.59	0.62	0.65	0.69	0.73	0.77	0.81	0.85	0.89	0.93	0.97	1.02
90	TENSION (Kg)	234	223	213	203	193	183	174	165	157	150	143	136	129	123	118	113	109
	TIME (s)	6.5	6.6	6.8	7.0	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5
	SAG (m)	0.51	0.54	0.57	0.60	0.63	0.66	0.69	0.73	0.77	0.81	0.85	0.89	0.93	0.98	1.02	1.06	1.11
95	TENSION (Kg)	233	222	212	202	193	183	174	166	158	151	144	138	131	126	120	116	111
	TIME (s)	6.8	7.0	7.2	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9
	SAG (m)	0.58	0.60	0.63	0.66	0.70	0.73	0.77	0.81	0.85	0.89	0.94	0.98	1.03	1.07	1.11	1.16	1.21
100	TENSION (Kg)	232	222	212	202	193	183	175	167	159	152	146	140	134	128	123	118	114
	TIME (s)	7.2	7.4	7.6	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.3
	SAG (m)	0.64	0.67	0.70	0.74	0.77	0.81	0.85	0.89	0.93	0.98	1.03	1.07	1.12	1.17	1.22	1.27	1.31
105	TENSION (Kg)	231	221	211	202	193	185	175	168	161	154	147	141	136	130	125	121	116
	TIME (s)	7.6	7.8	8.0	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7
	SAG (m)	0.71	0.74	0.78	0.81	0.85	0.89	0.93	0.98	1.02	1.07	1.12	1.17	1.22	1.27	1.32	1.37	1.42
110	TENSION (Kg)	230	220	211	202	193	185	176	169	162	155	149	143	138	133	127	123	119
	TIME (s)	8.0	8.2	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1
	SAG (m)	0.78	0.82	0.86	0.89	0.93	0.98	1.02	1.07	1.12	1.16	1.21	1.26	1.31	1.37	1.42	1.47	1.52
115	TENSION (Kg)	229	219	210	201	193	185	176	169	163	156	150	145	140	135	129	125	121
	TIME (s)	8.4	8.6	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5
	SAG (m)	0.86	0.90	0.94	0.98	1.02	1.07	1.11	1.16	1.21	1.26	1.31	1.37	1.42	1.47	1.52	1.58	1.63
120	TENSION (Kg)	228	218	210	201	193	185	177	170	164	157	152	146	141	137	131	127	123
	TIME (s)	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9
	SAG (m)	0.94	0.98	1.02	1.07	1.11	1.16	1.21	1.26	1.31	1.36	1.42	1.47	1.52	1.58	1.63	1.69	1.74
125	TENSION (Kg)	227	218	209	201	193	186	178	171	165	159	153	148	143	138	134	129	125
	TIME (s)	9.1	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3
	SAG (m)	1.03	1.07	1.11	1.16	1.21	1.26	1.31	1.36	1.41	1.47	1.52	1.58	1.63	1.69	1.75	1.80	1.86
130	TENSION (Kg)	225	217	209	201	193	186	178	172	165	160	154	149	145	140	136	131	127
	TIME (s)	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3	12.5	12.7
	SAG (m)	1.11	1.16	1.21	1.26	1.31	1.36	1.41	1.46	1.52	1.58	1.63	1.69	1.75	1.80	1.86	1.92	1.98
135	TENSION (Kg)	224	216	208	200	193	186	178	172	166	161	156	151	146	142	138	134	129
	TIME (s)	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3	12.5	12.7	12.9	13.1
	SAG (m)	1.21	1.26	1.30	1.36	1.41	1.47	1.52	1.57	1.63	1.69	1.75	1.80	1.86	1.92	1.98	2.04	2.10

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
RURAL (60-135m) 6/1/2.50 ACSR/GZ
ALMOND 18%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR | DATE: 03-06-2014
CHECKED: REE | SCALE: NTS
APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0105
REV. A | SHT.

RURAL (60m – 135m) 6/1/3.00 ACSR/GZ APPLE 18%

New Conductor (Initial) (deg C)		25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65
New Conductor (Initial) Next Day (deg C)		20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	341	324	307	291	273	257	242	226	212	199	186	173	162	152	143	135	127
	TIME (s)	4.3	4.4	4.5	4.6	4.8	4.9	5.1	5.3	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0
	SAG (m)	0.23	0.24	0.25	0.27	0.28	0.30	0.32	0.34	0.36	0.39	0.42	0.44	0.47	0.51	0.54	0.57	0.61
65	TENSION (Kg)	340	323	306	290	273	258	243	227	214	201	189	177	166	157	148	140	133
	TIME (s)	4.6	4.8	4.9	5.0	5.2	5.3	5.5	5.7	5.9	6.0	6.2	6.4	6.6	6.9	7.1	7.3	7.5
	SAG (m)	0.27	0.28	0.29	0.31	0.33	0.35	0.37	0.40	0.42	0.45	0.48	0.51	0.54	0.58	0.61	0.65	0.68
70	TENSION (Kg)	339	322	306	290	273	258	244	229	216	203	192	180	170	161	152	145	138
	TIME (s)	5.0	5.1	5.3	5.4	5.6	5.7	5.9	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.5	7.7	7.9
	SAG (m)	0.31	0.33	0.34	0.36	0.38	0.41	0.43	0.46	0.49	0.52	0.55	0.58	0.62	0.65	0.69	0.73	0.76
75	TENSION (Kg)	337	321	305	288	273	259	245	230	218	206	194	183	173	165	156	149	142
	TIME (s)	5.4	5.5	5.7	5.8	6.0	6.2	6.3	6.5	6.7	6.9	7.1	7.3	7.5	7.7	7.9	8.1	8.3
	SAG (m)	0.36	0.37	0.39	0.42	0.44	0.47	0.49	0.52	0.55	0.59	0.62	0.66	0.69	0.73	0.77	0.81	0.85
80	TENSION (Kg)	336	320	304	288	273	259	245	232	219	208	197	187	177	168	160	153	147
	TIME (s)	5.8	5.9	6.1	6.2	6.4	6.6	6.7	6.9	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7
	SAG (m)	0.41	0.43	0.45	0.47	0.50	0.53	0.56	0.59	0.62	0.66	0.70	0.73	0.77	0.81	0.85	0.89	0.94
85	TENSION (Kg)	334	319	303	288	273	259	246	233	221	210	200	190	180	172	164	157	151
	TIME (s)	6.1	6.3	6.4	6.6	6.8	7.0	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1
	SAG (m)	0.46	0.49	0.51	0.54	0.57	0.60	0.63	0.66	0.70	0.74	0.78	0.82	0.86	0.90	0.94	0.98	1.03
90	TENSION (Kg)	333	317	303	287	273	260	247	234	223	212	202	193	183	175	168	161	155
	TIME (s)	6.5	6.7	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.4	9.5
	SAG (m)	0.52	0.55	0.57	0.60	0.63	0.67	0.70	0.74	0.78	0.82	0.86	0.90	0.94	0.99	1.03	1.08	1.12
95	TENSION (Kg)	331	316	302	287	273	260	248	235	224	214	205	196	187	179	171	165	159
	TIME (s)	6.9	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0
	SAG (m)	0.58	0.61	0.64	0.67	0.71	0.74	0.78	0.82	0.86	0.90	0.95	0.99	1.03	1.08	1.13	1.17	1.22
100	TENSION (Kg)	330	315	301	286	273	261	249	238	226	216	207	198	190	182	175	168	162
	TIME (s)	7.3	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4
	SAG (m)	0.65	0.68	0.71	0.75	0.78	0.82	0.86	0.90	0.95	0.99	1.04	1.08	1.13	1.18	1.22	1.27	1.32
105	TENSION (Kg)	328	314	300	286	273	261	250	239	228	218	209	201	193	186	178	172	166
	TIME (s)	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8
	SAG (m)	0.72	0.75	0.79	0.82	0.86	0.90	0.95	0.99	1.04	1.08	1.13	1.18	1.23	1.28	1.33	1.38	1.43
110	TENSION (Kg)	326	313	299	285	273	262	250	240	229	220	211	203	196	189	181	175	169
	TIME (s)	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8	11.0	11.2
	SAG (m)	0.79	0.83	0.87	0.91	0.95	0.99	1.03	1.08	1.13	1.18	1.23	1.28	1.33	1.38	1.43	1.48	1.53
115	TENSION (Kg)	325	311	298	285	273	262	251	241	231	222	213	205	198	191	185	178	172
	TIME (s)	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.6
	SAG (m)	0.87	0.91	0.95	0.99	1.03	1.08	1.13	1.18	1.23	1.28	1.33	1.38	1.43	1.49	1.54	1.59	1.64
120	TENSION (Kg)	323	310	298	285	273	262	252	242	232	223	215	208	201	194	188	181	176
	TIME (s)	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.8	12.0
	SAG (m)	0.95	0.99	1.04	1.08	1.13	1.17	1.22	1.27	1.33	1.38	1.43	1.49	1.54	1.59	1.65	1.70	1.76
125	TENSION (Kg)	322	309	297	284	273	263	253	243	233	225	217	210	203	197	190	185	179
	TIME (s)	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.8	12.0	12.2	12.3
	SAG (m)	1.04	1.08	1.13	1.17	1.22	1.28	1.32	1.38	1.43	1.48	1.54	1.60	1.65	1.71	1.76	1.82	1.87
130	TENSION (Kg)	320	308	296	284	273	263	253	244	235	227	219	212	205	199	193	188	181
	TIME (s)	9.6	9.8	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.8	12.0	12.2	12.4	12.5	12.7
	SAG (m)	1.13	1.18	1.22	1.27	1.32	1.38	1.43	1.48	1.54	1.59	1.65	1.71	1.77	1.82	1.88	1.94	1.99
135	TENSION (Kg)	319	307	295	284	273	263	254	245	236	228	221	214	207	201	196	190	185
	TIME (s)	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.8	12.0	12.2	12.4	12.6	12.8	12.9	13.1
	SAG (m)	1.22	1.27	1.32	1.37	1.43	1.48	1.54	1.59	1.65	1.71	1.77	1.82	1.88	1.94	2.00	2.06	2.12

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
RURAL (60-135m) 6/1/3.00 ACSR/GZ
APPLE 18%

DISTRIBUTION CONSTRUCTION STANDARDS

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DRAWN: JRR | DATE: 03-06-2014
CHECKED: REE | SCALE: NTS
APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0106
REV. A | SHT.

RURAL (60m – 135m) 6/1/3.75 ACSR/GZ BANANA 18%

New Conductor (Initial) (deg C)		25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65
New Conductor (Initial) Next Day (deg C)		20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	525	497	470	444	418	393	369	346	324	303	283	265	249	233	219	207	196
	TIME (s)	4.3	4.4	4.6	4.7	4.8	5.0	5.2	5.3	5.5	5.7	5.9	6.1	6.3	6.5	6.7	6.9	7.1
	SAG (m)	0.23	0.24	0.26	0.27	0.29	0.31	0.33	0.35	0.37	0.40	0.43	0.46	0.49	0.52	0.55	0.58	0.62
65	TENSION (Kg)	522	495	469	443	418	394	371	349	327	307	288	271	255	240	226	214	204
	TIME (s)	4.7	4.8	5.0	5.1	5.2	5.4	5.6	5.7	5.9	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.5
	SAG (m)	0.27	0.29	0.30	0.32	0.34	0.36	0.38	0.41	0.43	0.46	0.49	0.52	0.56	0.59	0.63	0.66	0.70
70	TENSION (Kg)	520	493	468	442	418	394	372	351	330	311	293	276	261	247	233	222	211
	TIME (s)	5.1	5.2	5.3	5.5	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0
	SAG (m)	0.32	0.33	0.35	0.37	0.39	0.42	0.44	0.47	0.50	0.53	0.56	0.60	0.63	0.67	0.70	0.74	0.78
75	TENSION (Kg)	518	492	467	442	418	396	373	353	333	314	297	281	266	253	241	228	218
	TIME (s)	5.4	5.6	5.7	5.9	6.1	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4
	SAG (m)	0.36	0.38	0.40	0.43	0.45	0.48	0.51	0.54	0.57	0.60	0.63	0.67	0.71	0.75	0.79	0.82	0.86
80	TENSION (Kg)	515	490	465	441	418	397	375	355	335	318	302	286	272	259	247	235	225
	TIME (s)	5.8	6.0	6.1	6.3	6.5	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8
	SAG (m)	0.42	0.44	0.46	0.49	0.51	0.54	0.57	0.61	0.64	0.67	0.71	0.75	0.79	0.83	0.87	0.91	0.95
85	TENSION (Kg)	513	488	464	440	418	397	376	357	338	321	306	291	277	264	253	242	231
	TIME (s)	6.2	6.4	6.5	6.7	6.9	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.2
	SAG (m)	0.47	0.50	0.52	0.55	0.58	0.61	0.64	0.68	0.72	0.75	0.79	0.83	0.87	0.92	0.96	1.00	1.05
90	TENSION (Kg)	511	486	463	440	418	398	378	359	341	325	310	296	282	270	258	248	239
	TIME (s)	6.6	6.7	6.9	7.1	7.3	7.5	7.6	7.8	8.0	8.2	8.4	8.6	8.9	9.1	9.2	9.4	9.6
	SAG (m)	0.53	0.56	0.59	0.62	0.65	0.68	0.72	0.76	0.80	0.84	0.88	0.92	0.96	1.01	1.05	1.10	1.14
95	TENSION (Kg)	508	484	462	439	418	399	379	361	345	328	313	300	286	275	264	254	245
	TIME (s)	7.0	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.0
	SAG (m)	0.60	0.62	0.66	0.69	0.72	0.76	0.80	0.84	0.88	0.92	0.97	1.01	1.06	1.10	1.15	1.19	1.24
100	TENSION (Kg)	505	482	460	438	418	399	380	363	347	331	317	304	292	280	269	259	250
	TIME (s)	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.3	10.4
	SAG (m)	0.66	0.70	0.73	0.76	0.80	0.84	0.88	0.92	0.97	1.01	1.06	1.10	1.15	1.20	1.25	1.29	1.34
105	TENSION (Kg)	503	480	459	438	418	400	382	365	350	334	321	308	296	284	274	265	256
	TIME (s)	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.8
	SAG (m)	0.74	0.77	0.81	0.84	0.88	0.92	0.97	1.01	1.06	1.11	1.15	1.20	1.25	1.30	1.35	1.40	1.45
110	TENSION (Kg)	499	478	458	437	418	401	383	367	352	337	324	312	300	290	279	270	261
	TIME (s)	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3
	SAG (m)	0.81	0.85	0.89	0.93	0.97	1.01	1.06	1.11	1.15	1.20	1.25	1.30	1.36	1.41	1.46	1.51	1.56
115	TENSION (Kg)	497	476	456	436	418	401	384	369	354	340	327	315	304	294	283	274	266
	TIME (s)	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7
	SAG (m)	0.89	0.93	0.97	1.02	1.06	1.11	1.15	1.20	1.25	1.30	1.36	1.41	1.46	1.51	1.57	1.62	1.67
120	TENSION (Kg)	494	474	455	436	418	402	385	370	357	344	330	319	308	298	288	279	271
	TIME (s)	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.1
	SAG (m)	0.98	1.02	1.06	1.11	1.15	1.20	1.25	1.30	1.36	1.41	1.46	1.52	1.57	1.62	1.68	1.73	1.79
125	TENSION (Kg)	492	472	454	435	418	402	386	372	359	346	333	322	312	302	293	283	275
	TIME (s)	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3	12.4
	SAG (m)	1.06	1.11	1.16	1.20	1.25	1.30	1.36	1.41	1.46	1.52	1.57	1.63	1.68	1.74	1.79	1.85	1.91
130	TENSION (Kg)	489	471	453	435	418	403	387	374	361	349	336	325	315	306	297	288	280
	TIME (s)	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3	12.5	12.7	12.8
	SAG (m)	1.16	1.20	1.25	1.30	1.35	1.41	1.46	1.52	1.57	1.63	1.69	1.74	1.80	1.86	1.91	1.97	2.03
135	TENSION (Kg)	487	469	452	434	418	404	389	375	363	351	339	329	319	310	301	293	284
	TIME (s)	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3	12.5	12.7	12.9	13.0	13.2
	SAG (m)	1.25	1.30	1.35	1.41	1.46	1.52	1.57	1.63	1.69	1.74	1.80	1.86	1.92	1.98	2.04	2.09	2.15

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
RURAL (60-135m) 6/1/3.75 ACSR/GZ
BANANA 18%

DISTRIBUTION CONSTRUCTION STANDARDS

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DRAWN: JRR | DATE: 03-06-2014
CHECKED: REE | SCALE: NTS
APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0107
REV. A | SHT.

RURAL (60m -135m) 6/4.75-7/1.60 ACSR/GZ CHERRY 18%

New Conductor (Initial) (deg C)		20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60
New Conductor (Initial) Next Day (deg C)		15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	772	730	689	648	610	571	535	499	467	436	407	380	357	334	315	297	281
	TIME (s)	4.4	4.5	4.6	4.8	4.9	5.1	5.3	5.4	5.6	5.8	6.0	6.2	6.4	6.7	6.9	7.1	7.3
	SAG (m)	0.24	0.25	0.26	0.28	0.30	0.32	0.34	0.36	0.39	0.42	0.45	0.48	0.51	0.54	0.58	0.61	0.65
65	TENSION (Kg)	768	727	687	647	610	572	537	504	472	442	415	389	366	345	326	309	293
	TIME (s)	4.8	4.9	5.0	5.2	5.3	5.5	5.7	5.9	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.5	7.7
	SAG (m)	0.28	0.29	0.31	0.33	0.35	0.37	0.40	0.42	0.45	0.48	0.51	0.55	0.58	0.62	0.66	0.69	0.73
70	TENSION (Kg)	765	724	685	646	610	574	539	507	477	449	422	398	375	355	336	320	305
	TIME (s)	5.1	5.3	5.4	5.6	5.7	5.9	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.5	7.7	7.9	8.1
	SAG (m)	0.32	0.34	0.36	0.38	0.41	0.43	0.46	0.49	0.52	0.55	0.59	0.62	0.66	0.70	0.74	0.78	0.81
75	TENSION (Kg)	760	721	682	645	610	575	542	511	481	455	429	406	384	365	347	330	316
	TIME (s)	5.5	5.7	5.8	6.0	6.2	6.3	6.5	6.7	6.9	7.1	7.3	7.6	7.8	8.0	8.2	8.4	8.6
	SAG (m)	0.37	0.39	0.42	0.44	0.47	0.49	0.52	0.56	0.59	0.63	0.66	0.70	0.74	0.78	0.82	0.86	0.90
80	TENSION (Kg)	756	718	680	644	610	576	544	514	486	460	435	413	392	373	356	340	326
	TIME (s)	5.9	6.1	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0
	SAG (m)	0.43	0.45	0.48	0.50	0.53	0.56	0.59	0.63	0.67	0.70	0.74	0.78	0.82	0.87	0.91	0.95	0.99
85	TENSION (Kg)	752	715	678	643	610	577	546	518	490	466	442	420	401	382	366	350	336
	TIME (s)	6.3	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.4
	SAG (m)	0.49	0.51	0.54	0.57	0.60	0.63	0.67	0.71	0.74	0.78	0.83	0.87	0.91	0.96	1.00	1.04	1.09
90	TENSION (Kg)	748	712	676	642	610	578	548	521	495	471	449	427	409	390	374	359	346
	TIME (s)	6.7	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8
	SAG (m)	0.55	0.58	0.61	0.64	0.67	0.71	0.75	0.79	0.83	0.87	0.91	0.96	1.00	1.05	1.09	1.14	1.19
95	TENSION (Kg)	744	708	674	641	610	579	550	524	499	476	455	434	416	399	382	368	355
	TIME (s)	7.1	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.2
	SAG (m)	0.61	0.64	0.68	0.71	0.75	0.79	0.83	0.87	0.91	0.96	1.00	1.05	1.10	1.15	1.19	1.24	1.29
100	TENSION (Kg)	740	705	672	639	610	580	552	527	504	481	460	440	423	406	390	376	363
	TIME (s)	7.5	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.6
	SAG (m)	0.68	0.72	0.75	0.79	0.83	0.87	0.91	0.96	1.01	1.05	1.10	1.15	1.20	1.25	1.29	1.34	1.39
105	TENSION (Kg)	736	701	670	638	610	581	555	530	508	485	466	446	429	413	399	384	372
	TIME (s)	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.0
	SAG (m)	0.76	0.79	0.83	0.87	0.91	0.96	1.00	1.05	1.10	1.15	1.20	1.25	1.30	1.35	1.40	1.45	1.50
110	TENSION (Kg)	731	698	668	637	610	582	557	533	511	490	471	453	436	420	406	392	379
	TIME (s)	8.2	8.4	8.6	8.8	9.0	9.2	9.4	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5
	SAG (m)	0.84	0.88	0.92	0.96	1.00	1.05	1.10	1.15	1.20	1.25	1.30	1.35	1.41	1.46	1.51	1.56	1.61
115	TENSION (Kg)	727	695	666	636	610	583	559	536	515	494	476	459	442	427	413	400	387
	TIME (s)	8.6	8.8	9.0	9.2	9.4	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9
	SAG (m)	0.92	0.96	1.00	1.05	1.10	1.15	1.20	1.25	1.30	1.35	1.41	1.46	1.52	1.57	1.62	1.68	1.73
120	TENSION (Kg)	723	692	664	635	610	584	561	539	518	498	481	464	448	433	420	407	394
	TIME (s)	9.0	9.2	9.4	9.6	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3
	SAG (m)	1.01	1.05	1.10	1.15	1.19	1.25	1.30	1.35	1.41	1.46	1.52	1.57	1.63	1.68	1.74	1.79	1.85
125	TENSION (Kg)	719	689	662	635	610	585	563	541	522	503	485	469	454	439	426	414	402
	TIME (s)	9.4	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3	12.5	12.7
	SAG (m)	1.10	1.15	1.19	1.24	1.30	1.35	1.40	1.46	1.52	1.57	1.63	1.69	1.74	1.80	1.86	1.91	1.97
130	TENSION (Kg)	716	687	660	634	610	586	565	544	525	507	489	474	459	445	432	420	409
	TIME (s)	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3	12.5	12.7	12.9	13.1
	SAG (m)	1.19	1.24	1.30	1.35	1.40	1.46	1.51	1.57	1.63	1.69	1.75	1.81	1.86	1.92	1.98	2.04	2.10
135	TENSION (Kg)	712	684	657	633	610	587	566	546	528	511	494	479	464	451	438	426	415
	TIME (s)	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3	12.5	12.7	12.9	13.1	13.3	13.5
	SAG (m)	1.29	1.35	1.40	1.46	1.51	1.57	1.63	1.69	1.75	1.81	1.87	1.93	1.99	2.05	2.11	2.17	2.23

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
RURAL (60-135m) 6/4.75 - 7/1.60
ACSR/GZ CHERRY 18%

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR | DATE: 03-06-2014 | DRG. No. CT-0108
CHECKED: REE | SCALE: NTS
APPROVED: GRANT STACY DATE: 03-06-2014
REV. A | SHT.

RURAL (140m-215m) 6/1/4.75-7/1.60 ACSR/GZ CHERRY 18%

Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
140	TENSION (Kg)	708	682	656	633	610	589	568	549	532	514	499	484	469	457	444	433	421
	TIME (s)	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3	12.5	12.7	12.9	13.1	13.3	13.5	13.7	13.8
	SAG (m)	1.40	1.46	1.51	1.57	1.63	1.69	1.75	1.81	1.87	1.93	1.99	2.05	2.11	2.18	2.24	2.30	2.36
145	TENSION (Kg)	705	679	655	632	610	589	569	551	534	517	502	488	474	462	450	439	428
	TIME (s)	11.1	11.3	11.5	11.7	11.9	12.1	12.3	12.5	12.7	12.9	13.1	13.3	13.5	13.7	13.9	14.1	14.2
	SAG (m)	1.51	1.57	1.63	1.68	1.75	1.81	1.87	1.93	1.99	2.06	2.12	2.18	2.25	2.31	2.37	2.43	2.49
150	TENSION (Kg)	701	677	653	631	610	590	571	553	537	521	506	492	479	466	455	444	434
	TIME (s)	11.5	11.7	11.9	12.1	12.3	12.5	12.7	13.0	13.1	13.3	13.5	13.7	13.9	14.1	14.3	14.5	14.6
	SAG (m)	1.63	1.68	1.74	1.81	1.87	1.93	1.99	2.06	2.12	2.19	2.25	2.32	2.38	2.44	2.51	2.57	2.63
155	TENSION (Kg)	698	674	651	630	610	591	572	555	540	524	510	496	484	471	460	449	439
	TIME (s)	11.9	12.1	12.3	12.5	12.7	12.9	13.2	13.4	13.5	13.7	13.9	14.1	14.3	14.5	14.7	14.9	15.0
	SAG (m)	1.74	1.80	1.87	1.93	1.99	2.06	2.12	2.19	2.26	2.32	2.39	2.45	2.52	2.58	2.65	2.71	2.78
160	TENSION (Kg)	695	671	650	630	610	592	573	557	542	528	513	500	488	476	464	454	444
	TIME (s)	12.3	12.5	12.7	12.9	13.2	13.4	13.6	13.8	14.0	14.1	14.3	14.5	14.7	14.9	15.1	15.2	15.4
	SAG (m)	1.87	1.93	1.99	2.06	2.13	2.19	2.26	2.33	2.39	2.46	2.53	2.59	2.66	2.73	2.79	2.86	2.92
165	TENSION (Kg)	692	669	648	629	610	592	576	559	544	530	516	504	492	481	469	459	449
	TIME (s)	12.7	12.9	13.2	13.4	13.6	13.8	14.0	14.2	14.4	14.6	14.7	14.9	15.1	15.3	15.5	15.6	15.8
	SAG (m)	1.99	2.06	2.13	2.19	2.26	2.33	2.40	2.47	2.53	2.60	2.67	2.74	2.81	2.87	2.94	3.01	3.07
170	TENSION (Kg)	689	667	647	628	610	593	577	561	547	533	519	507	496	485	473	463	454
	TIME (s)	13.2	13.4	13.6	13.8	14.0	14.2	14.4	14.6	14.8	15.0	15.1	15.3	15.5	15.7	15.9	16.0	16.2
	SAG (m)	2.13	2.19	2.26	2.33	2.40	2.47	2.54	2.61	2.68	2.75	2.82	2.89	2.96	3.03	3.09	3.16	3.23
175	TENSION (Kg)	686	665	646	628	610	593	578	562	549	536	522	510	499	488	478	468	459
	TIME (s)	13.6	13.8	14.0	14.2	14.4	14.6	14.8	15.0	15.2	15.4	15.5	15.7	15.9	16.1	16.3	16.4	16.6
	SAG (m)	2.26	2.33	2.40	2.47	2.54	2.62	2.69	2.76	2.83	2.90	2.97	3.04	3.11	3.18	3.25	3.32	3.39
180	TENSION (Kg)	683	663	644	627	610	594	579	564	551	538	526	513	503	492	482	472	463
	TIME (s)	14.0	14.2	14.4	14.6	14.8	15.0	15.2	15.4	15.6	15.8	15.9	16.1	16.3	16.5	16.7	16.8	17.0
	SAG (m)	2.40	2.47	2.55	2.62	2.69	2.77	2.84	2.91	2.98	3.05	3.13	3.20	3.27	3.34	3.41	3.48	3.55
185	TENSION (Kg)	680	661	643	626	610	595	580	566	553	540	529	516	506	496	486	477	467
	TIME (s)	14.4	14.6	14.8	15.0	15.2	15.4	15.6	15.8	16.0	16.2	16.3	16.5	16.7	16.9	17.0	17.2	17.4
	SAG (m)	2.55	2.62	2.70	2.77	2.84	2.92	2.99	3.07	3.14	3.21	3.29	3.36	3.43	3.50	3.57	3.64	3.71
190	TENSION (Kg)	678	659	642	626	610	595	581	567	554	543	531	519	509	499	490	481	471
	TIME (s)	14.8	15.0	15.2	15.4	15.6	15.8	16.0	16.2	16.4	16.6	16.7	16.9	17.1	17.3	17.4	17.6	17.8
	SAG (m)	2.70	2.77	2.85	2.93	3.00	3.08	3.15	3.23	3.30	3.37	3.45	3.52	3.60	3.67	3.74	3.81	3.88
195	TENSION (Kg)	674	657	641	624	610	596	582	568	556	545	534	522	512	503	493	485	476
	TIME (s)	15.2	15.4	15.6	15.8	16.0	16.2	16.4	16.6	16.8	17.0	17.1	17.3	17.5	17.7	17.8	18.0	18.2
	SAG (m)	2.85	2.93	3.01	3.08	3.16	3.24	3.32	3.39	3.47	3.54	3.62	3.69	3.76	3.84	3.91	3.98	4.06
200	TENSION (Kg)	672	656	640	624	610	596	583	570	558	547	536	526	515	506	497	488	480
	TIME (s)	15.7	15.9	16.1	16.2	16.4	16.6	16.8	17.0	17.2	17.4	17.5	17.7	17.9	18.1	18.2	18.4	18.5
	SAG (m)	3.01	3.09	3.17	3.25	3.32	3.40	3.48	3.56	3.63	3.71	3.79	3.86	3.94	4.01	4.09	4.16	4.23
205	TENSION (Kg)	670	654	639	623	610	596	584	571	560	549	538	528	518	509	500	492	484
	TIME (s)	16.1	16.3	16.5	16.7	16.8	17.1	17.2	17.4	17.6	17.8	17.9	18.1	18.3	18.4	18.6	18.8	18.9
	SAG (m)	3.18	3.26	3.34	3.41	3.49	3.57	3.65	3.73	3.81	3.88	3.96	4.04	4.11	4.19	4.27	4.34	4.41
210	TENSION (Kg)	668	652	638	623	610	597	585	572	561	551	540	531	521	512	503	495	487
	TIME (s)	16.5	16.7	16.9	17.1	17.3	17.5	17.6	17.8	18.0	18.2	18.4	18.5	18.7	18.8	19.0	19.2	19.3
	SAG (m)	3.34	3.42	3.51	3.59	3.67	3.75	3.83	3.91	3.98	4.06	4.14	4.22	4.30	4.37	4.45	4.52	4.60
215	TENSION (Kg)	666	651	637	622	610	597	586	573	563	552	543	533	523	515	506	498	491
	TIME (s)	16.9	17.1	17.3	17.5	17.7	17.9	18.0	18.2	18.4	18.6	18.7	18.9	19.1	19.2	19.4	19.6	19.7
	SAG (m)	3.52	3.60	3.68	3.76	3.84	3.93	4.01	4.09	4.17	4.25	4.32	4.40	4.48	4.56	4.63	4.71	4.79

Beat values are in seconds for five wave returns.

R. No.	DATE	DESCRIPTION	ORGD.	CHED.	APRD.
A	04.03.15	ORIGINAL ISSUE	JC	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE RURAL (140-215m) 6/1/4.75 - 7/1.60 ACSR/GZ CHERRY 18%

DISTRIBUTION CONSTRN. STANDARD

DRAWN: JRR | DATE: 10-03-2014 | DRG. No. CT-0109

ORIGINATED: | SCALE: NTS

CHECKED: REE

APPROVED: GRANT STACY | REV. A | SHT.

RURAL (220m-260m) 6/1/4.75-7/1.60 ACSR/GZ CHERRY 18%

Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
220	TENSION (Kg)	664	650	636	622	610	598	586	576	564	554	545	535	527	517	509	501	494
	TIME (s)	17.3	17.5	17.7	17.9	18.1	18.3	18.5	18.6	18.8	19.0	19.1	19.3	19.5	19.6	19.8	20.0	20.1
	SAG (m)	3.69	3.78	3.86	3.94	4.02	4.11	4.19	4.27	4.36	4.43	4.51	4.59	4.67	4.75	4.83	4.90	4.98
225	TENSION (Kg)	662	648	635	622	610	598	587	577	565	556	547	538	529	520	512	504	497
	TIME (s)	17.8	17.9	18.1	18.3	18.5	18.7	18.9	19.0	19.2	19.4	19.5	19.7	19.9	20.0	20.2	20.3	20.5
	SAG (m)	3.88	3.96	4.05	4.13	4.21	4.29	4.38	4.46	4.55	4.62	4.70	4.78	4.86	4.94	5.02	5.10	5.17
230	TENSION (Kg)	660	647	634	621	610	598	588	578	567	557	548	540	531	522	515	507	500
	TIME (s)	18.2	18.4	18.6	18.7	18.9	19.1	19.3	19.4	19.6	19.8	19.9	20.1	20.3	20.4	20.6	20.7	20.9
	SAG (m)	4.06	4.15	4.23	4.32	4.40	4.48	4.57	4.65	4.74	4.82	4.90	4.98	5.06	5.14	5.22	5.30	5.37
235	TENSION (Kg)	659	646	634	621	610	599	589	579	568	559	550	542	534	526	517	510	503
	TIME (s)	18.6	18.8	19.0	19.1	19.3	19.5	19.7	19.8	20.0	20.2	20.3	20.5	20.7	20.8	21.0	21.1	21.3
	SAG (m)	4.25	4.34	4.43	4.51	4.59	4.68	4.77	4.85	4.94	5.02	5.10	5.18	5.26	5.34	5.42	5.50	5.58
240	TENSION (Kg)	657	645	633	620	610	599	589	580	569	560	552	544	536	528	520	513	506
	TIME (s)	19.0	19.2	19.4	19.6	19.7	19.9	20.1	20.2	20.4	20.6	20.7	20.9	21.1	21.2	21.4	21.5	21.7
	SAG (m)	4.45	4.54	4.62	4.71	4.79	4.88	4.96	5.05	5.14	5.22	5.31	5.38	5.46	5.55	5.63	5.71	5.79
245	TENSION (Kg)	655	643	632	620	610	599	590	580	570	562	554	546	538	530	522	515	509
	TIME (s)	19.4	19.6	19.8	20.0	20.1	20.3	20.5	20.7	20.8	21.0	21.1	21.3	21.5	21.6	21.8	21.9	22.0
	SAG (m)	4.64	4.74	4.82	4.91	5.00	5.08	5.17	5.26	5.34	5.43	5.51	5.60	5.67	5.76	5.84	5.92	6.00
250	TENSION (Kg)	654	642	631	620	610	600	590	581	572	563	555	547	540	533	526	518	511
	TIME (s)	19.8	20.0	20.2	20.4	20.5	20.7	20.9	21.1	21.2	21.4	21.5	21.7	21.8	22.0	22.1	22.3	22.4
	SAG (m)	4.85	4.94	5.03	5.11	5.20	5.29	5.38	5.46	5.55	5.64	5.72	5.81	5.89	5.97	6.05	6.13	6.21
255	TENSION (Kg)	652	641	631	619	610	600	591	582	573	565	557	549	542	535	528	520	514
	TIME (s)	20.3	20.5	20.6	20.8	21.0	21.1	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	22.5	22.7	22.8
	SAG (m)	5.06	5.15	5.24	5.32	5.41	5.50	5.59	5.68	5.77	5.85	5.94	6.03	6.11	6.19	6.27	6.35	6.43
260	TENSION (Kg)	651	640	630	619	610	600	592	583	574	566	558	551	544	537	530	522	516
	TIME (s)	20.7	20.9	21.1	21.2	21.4	21.6	21.7	21.9	22.1	22.2	22.4	22.5	22.7	22.8	23.0	23.1	23.3
	SAG (m)	5.27	5.36	5.45	5.54	5.63	5.72	5.81	5.90	5.98	6.07	6.16	6.25	6.33	6.42	6.49	6.57	6.66

Beat values are in seconds for five wave returns.

R. No.	DATE	DESCRIPTION	ORGD.	CHED.	APRD.
A	04.03.15	ORIGINAL ISSUE	JC	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE RURAL (220-260m) 6/1/4.75 - 7/1.60 ACSR/GZ CHERRY 18%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 10-03-2014 | DRG. No. CT-0110

ORIGINATED: | SCALE: NTS

CHECKED: REE

APPROVED: GRANT STACY | REV. A | SHT.

RURAL (60m – 135m) 6/1/3.00 AACSR/AC 18%

New Conductor (Initial) (deg. C.)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65	67.5	70
New Conductor (Initial) Next Day (deg. C.)		7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65	67.5
Existing Conductor (Final) (deg. C.)		-10	-7.5	-5	-2.5	0	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Ruling Span																										
60	TENSION (Kg)	464	445	426	406	387	368	350	331	313	295	277	260	243	227	212	197	183	171	159	148	139	130	122	115	109
	SAG (m)	0.16	0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.25	0.26	0.28	0.30	0.32	0.35	0.37	0.40	0.43	0.46	0.49	0.53	0.56	0.60	0.64	0.67
65	TENSION (Kg)	462	443	424	405	386	367	348	330	312	294	277	260	244	228	214	200	186	174	163	153	143	135	127	121	115
	SAG (m)	0.19	0.19	0.20	0.21	0.22	0.23	0.25	0.26	0.28	0.29	0.31	0.33	0.35	0.38	0.40	0.43	0.46	0.49	0.53	0.56	0.60	0.64	0.68	0.71	0.75
70	TENSION (Kg)	460	440	421	403	384	365	347	329	311	294	277	261	245	230	215	202	189	177	167	157	148	140	132	126	120
	SAG (m)	0.22	0.23	0.24	0.25	0.26	0.27	0.29	0.30	0.32	0.34	0.36	0.38	0.41	0.43	0.46	0.49	0.53	0.56	0.60	0.64	0.68	0.72	0.76	0.79	0.83
75	TENSION (Kg)	457	438	419	401	382	364	346	328	311	294	277	261	246	231	217	204	192	181	170	161	152	144	137	130	125
	SAG (m)	0.25	0.26	0.27	0.29	0.30	0.32	0.33	0.35	0.37	0.39	0.41	0.44	0.47	0.50	0.53	0.56	0.60	0.63	0.67	0.71	0.75	0.80	0.84	0.88	0.92
80	TENSION (Kg)	454	436	417	398	380	362	344	327	310	293	277	262	247	233	219	206	195	184	174	164	156	148	141	135	129
	SAG (m)	0.29	0.30	0.31	0.33	0.34	0.36	0.38	0.40	0.42	0.44	0.47	0.50	0.53	0.56	0.60	0.63	0.67	0.71	0.75	0.79	0.84	0.88	0.92	0.97	1.01
85	TENSION (Kg)	452	433	414	396	378	360	343	326	309	293	277	262	248	234	221	209	197	187	177	168	160	152	146	139	134
	SAG (m)	0.33	0.34	0.36	0.37	0.39	0.41	0.43	0.45	0.48	0.50	0.53	0.56	0.59	0.63	0.67	0.71	0.75	0.79	0.83	0.88	0.92	0.97	1.01	1.06	1.10
90	TENSION (Kg)	449	430	412	394	376	359	341	325	308	292	277	262	248	235	223	211	200	190	180	172	164	156	150	144	138
	SAG (m)	0.37	0.38	0.40	0.42	0.44	0.46	0.48	0.51	0.54	0.56	0.60	0.63	0.66	0.70	0.74	0.78	0.83	0.87	0.92	0.96	1.01	1.06	1.10	1.15	1.20
95	TENSION (Kg)	446	427	409	392	374	357	340	323	307	292	277	263	249	236	224	213	202	193	183	175	167	160	154	148	142
	SAG (m)	0.41	0.43	0.45	0.47	0.49	0.52	0.54	0.57	0.60	0.63	0.66	0.70	0.74	0.78	0.82	0.86	0.91	0.96	1.00	1.05	1.10	1.15	1.20	1.25	1.29
100	TENSION (Kg)	443	424	407	389	372	355	338	322	307	292	277	263	250	238	226	215	205	195	186	178	171	164	157	152	146
	SAG (m)	0.46	0.48	0.50	0.52	0.55	0.57	0.60	0.63	0.66	0.70	0.74	0.77	0.81	0.86	0.90	0.95	1.00	1.04	1.09	1.14	1.19	1.24	1.29	1.35	1.40
105	TENSION (Kg)	439	421	404	387	370	353	337	321	306	291	277	264	251	239	228	217	207	198	189	181	174	167	161	155	150
	SAG (m)	0.51	0.53	0.56	0.58	0.61	0.64	0.67	0.70	0.73	0.77	0.81	0.85	0.90	0.94	0.99	1.04	1.09	1.14	1.19	1.24	1.29	1.34	1.39	1.45	1.50
110	TENSION (Kg)	436	418	401	384	367	351	335	320	305	291	277	264	252	240	229	219	209	200	192	184	177	171	165	159	154
	SAG (m)	0.57	0.59	0.61	0.64	0.67	0.70	0.74	0.77	0.81	0.85	0.89	0.93	0.98	1.03	1.08	1.13	1.18	1.23	1.28	1.34	1.39	1.44	1.50	1.55	1.61
115	TENSION (Kg)	433	415	398	381	365	349	334	319	304	290	277	265	253	241	231	221	211	203	195	187	180	174	168	162	157
	SAG (m)	0.62	0.65	0.68	0.71	0.74	0.77	0.81	0.85	0.89	0.93	0.97	1.02	1.07	1.12	1.17	1.22	1.27	1.33	1.38	1.44	1.49	1.55	1.61	1.66	1.71
120	TENSION (Kg)	429	412	395	379	363	347	332	318	303	290	277	265	253	242	232	223	214	205	197	190	183	177	171	166	161
	SAG (m)	0.68	0.71	0.74	0.77	0.81	0.85	0.88	0.92	0.97	1.01	1.06	1.11	1.16	1.21	1.26	1.32	1.37	1.43	1.49	1.54	1.60	1.66	1.71	1.77	1.83
125	TENSION (Kg)	426	409	392	376	361	345	331	316	303	290	277	265	254	244	234	224	216	207	200	193	186	180	174	169	164
	SAG (m)	0.75	0.78	0.81	0.85	0.88	0.92	0.96	1.01	1.05	1.10	1.15	1.20	1.25	1.31	1.36	1.42	1.48	1.54	1.59	1.65	1.71	1.77	1.83	1.89	1.94
130	TENSION (Kg)	422	406	389	374	358	343	329	315	302	289	277	266	255	245	235	226	218	210	202	195	189	183	177	172	167
	SAG (m)	0.82	0.85	0.88	0.92	0.96	1.00	1.05	1.09	1.14	1.19	1.24	1.30	1.35	1.41	1.47	1.52	1.58	1.64	1.70	1.76	1.82	1.88	1.94	2.00	2.06
135	TENSION (Kg)	419	402	387	371	356	342	328	314	301	289	277	266	256	246	236	228	219	212	205	198	192	186	180	175	170
	SAG (m)	0.89	0.92	0.96	1.00	1.04	1.09	1.13	1.18	1.23	1.29	1.34	1.40	1.45	1.51	1.57	1.63	1.69	1.75	1.82	1.88	1.94	2.00	2.06	2.12	2.18

BEAT VALUES ARE IN SECONDS FOR FIVE WAVE RETURNS
CREEP ALLOWANCE @ 15ºC. NEW 20ºC SHIFT & NEXT DAY 17.5ºC

REV	DATE	DESCRIPTION	ORGD	CHKD	APRD
B	27 08 26	TABLE UPDATED	SJ	MM	LT
A	31 10 18	ORIGINAL ISSUE	NN	REE	GS

STRUCTURE

TITLE

CONDUCTOR TENSIONING TABLE
RURAL (60m-135m) 6/1/3.00
AACSR/AC 18%

DISTRIBUTION CONSTRN STANDARD

westernpower

DRAWN: JRR	DATE: 29-10-2018	DRG No.	CT-0114
ORIGINATED: NN	SCALE: NTS		
CHECKED: REE			
APPROVED: GRANT STACY		REV: B	SHT: 1/1

RURAL (60m – 135m) 6/1/3.00 AACSR/AC ARCHERY 16% UNDERSLUNG EARTH WIRE TO MATCH 6/1/3.00 AACSR/AC 18%

New Conductor (Initial) (deg. C.)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65	67.5	70
New Conductor (Initial) Next Day (deg. C.)		7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65	67.5
Existing Conductor (Final) (deg. C.)		-10	-7.5	-5	-2.5	0	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Ruling Span																										
60	TENSION (Kg)	429	410	391	372	353	335	316	298	280	263	246	230	215	200	186	173	161	150	140	132	124	117	110	105	100
	SAG (m)	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.25	0.26	0.28	0.30	0.32	0.34	0.37	0.39	0.42	0.46	0.49	0.52	0.56	0.59	0.63	0.66	0.70	0.74
65	TENSION (Kg)	426	407	388	370	351	333	315	297	280	263	246	231	216	201	188	176	164	154	145	136	128	122	115	110	105
	SAG (m)	0.20	0.21	0.22	0.23	0.25	0.26	0.27	0.29	0.31	0.33	0.35	0.37	0.40	0.43	0.46	0.49	0.52	0.56	0.60	0.63	0.67	0.71	0.75	0.78	0.82
70	TENSION (Kg)	423	404	386	367	349	331	313	296	279	262	246	231	217	203	190	178	168	158	149	140	133	126	120	115	110
	SAG (m)	0.24	0.25	0.26	0.27	0.29	0.30	0.32	0.34	0.36	0.38	0.41	0.43	0.46	0.49	0.52	0.56	0.60	0.63	0.67	0.71	0.75	0.79	0.83	0.87	0.91
75	TENSION (Kg)	420	401	383	364	346	329	311	294	278	262	246	232	218	205	192	181	171	161	152	144	137	131	125	119	114
	SAG (m)	0.27	0.29	0.30	0.31	0.33	0.35	0.37	0.39	0.41	0.44	0.47	0.49	0.53	0.56	0.60	0.63	0.67	0.71	0.75	0.79	0.84	0.88	0.92	0.96	1.00
80	TENSION (Kg)	416	398	380	362	344	326	309	293	277	261	246	232	219	206	194	184	174	164	156	148	141	135	129	124	119
	SAG (m)	0.31	0.33	0.34	0.36	0.38	0.40	0.42	0.45	0.47	0.50	0.53	0.56	0.60	0.63	0.67	0.71	0.75	0.79	0.84	0.88	0.92	0.97	1.01	1.05	1.10
85	TENSION (Kg)	413	395	377	359	341	324	308	291	276	261	246	233	220	208	196	186	176	167	159	152	145	139	133	128	123
	SAG (m)	0.36	0.37	0.39	0.41	0.43	0.45	0.48	0.51	0.53	0.56	0.60	0.63	0.67	0.71	0.75	0.79	0.84	0.88	0.92	0.97	1.02	1.06	1.11	1.15	1.19
90	TENSION (Kg)	409	391	373	356	339	322	306	290	275	260	246	233	221	209	198	188	179	170	163	155	149	143	137	132	127
	SAG (m)	0.40	0.42	0.44	0.46	0.49	0.51	0.54	0.57	0.60	0.63	0.67	0.71	0.75	0.79	0.83	0.88	0.92	0.97	1.02	1.06	1.11	1.16	1.20	1.25	1.30
95	TENSION (Kg)	405	388	370	353	336	320	304	289	274	260	246	234	222	211	200	190	181	173	166	159	152	146	141	136	131
	SAG (m)	0.45	0.47	0.50	0.52	0.55	0.58	0.61	0.64	0.67	0.71	0.75	0.79	0.83	0.87	0.92	0.97	1.01	1.06	1.11	1.16	1.21	1.26	1.31	1.35	1.40
100	TENSION (Kg)	401	384	367	350	334	318	302	287	273	259	246	234	223	212	202	193	184	176	169	162	156	150	145	140	135
	SAG (m)	0.51	0.53	0.56	0.58	0.61	0.64	0.67	0.71	0.75	0.79	0.83	0.87	0.92	0.96	1.01	1.06	1.11	1.16	1.21	1.26	1.31	1.36	1.41	1.46	1.51
105	TENSION (Kg)	397	380	363	347	331	315	300	286	272	259	246	235	224	213	204	195	186	179	171	165	159	153	148	143	139
	SAG (m)	0.57	0.59	0.62	0.65	0.68	0.71	0.75	0.79	0.83	0.87	0.91	0.96	1.01	1.05	1.10	1.15	1.21	1.26	1.31	1.36	1.41	1.47	1.52	1.57	1.62
110	TENSION (Kg)	393	376	360	344	328	313	298	284	271	258	246	235	224	214	205	197	189	181	174	168	162	156	151	147	142
	SAG (m)	0.63	0.66	0.69	0.72	0.75	0.79	0.83	0.87	0.91	0.95	1.00	1.05	1.10	1.15	1.20	1.25	1.31	1.36	1.42	1.47	1.52	1.58	1.63	1.68	1.73
115	TENSION (Kg)	389	373	356	341	325	311	297	283	270	258	246	235	225	216	207	198	191	183	177	171	165	159	155	150	146
	SAG (m)	0.69	0.72	0.76	0.79	0.83	0.87	0.91	0.95	1.00	1.05	1.09	1.14	1.20	1.25	1.30	1.36	1.41	1.47	1.52	1.58	1.64	1.69	1.74	1.80	1.85
120	TENSION (Kg)	385	369	353	338	323	309	295	282	269	258	246	236	226	217	208	200	193	186	179	173	168	162	158	153	149
	SAG (m)	0.76	0.80	0.83	0.87	0.91	0.95	1.00	1.04	1.09	1.14	1.19	1.24	1.30	1.35	1.41	1.47	1.52	1.58	1.64	1.69	1.75	1.81	1.86	1.92	1.97
125	TENSION (Kg)	381	365	349	335	320	306	293	280	268	257	246	236	227	218	210	202	195	188	182	176	170	165	160	156	152
	SAG (m)	0.84	0.87	0.91	0.95	0.99	1.04	1.09	1.14	1.19	1.24	1.29	1.35	1.40	1.46	1.52	1.58	1.64	1.69	1.75	1.81	1.87	1.93	1.99	2.04	2.10
130	TENSION (Kg)	376	361	346	332	318	304	291	279	268	257	246	237	228	219	211	203	197	190	184	178	173	168	163	159	155
	SAG (m)	0.92	0.95	1.00	1.04	1.08	1.13	1.18	1.23	1.29	1.34	1.40	1.46	1.51	1.57	1.63	1.69	1.75	1.81	1.87	1.93	1.99	2.05	2.11	2.17	2.23
135	TENSION (Kg)	372	357	343	329	315	302	290	278	267	256	246	237	228	220	212	205	198	192	186	180	175	170	166	162	158
	SAG (m)	1.00	1.04	1.08	1.13	1.18	1.23	1.28	1.34	1.39	1.45	1.51	1.57	1.63	1.69	1.75	1.81	1.87	1.94	2.00	2.06	2.12	2.18	2.24	2.30	2.36

BEAT VALUES ARE IN SECONDS FOR FIVE WAVE RETURNS
CREEP ALLOWANCE @ 15ºC. NEW 20ºC SHIFT & NEXT DAY 17.5ºC

REV	DATE	DESCRIPTION	ORGD	CHKD	APRD
B	27 08 26	TABLE UPDATED	SJ	MM	LT
A	31 08 18	ORIGINAL ISSUE	NN	REE	GS

STRUCTURE

TITLE: RURAL (60m-135m) 6/1/3.00 AACSR/AC ARCHERY 16% UNDERSLUNG EARTH WIRE TO MATCH 6/1/3.00 AACSR/AC 18%

DISTRIBUTION CONSTRN STANDARD

westernpower

DRAWN: JRR | DATE: 29-10-2018 | DRG No: CT-0115
ORIGINATED: NN | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV: B | SHT: 1/1

RURAL (140m – 260m) 6/1/3.00 AACSR/AC 22%

New Conductor (Initial) (deg. C.)		2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65	67.5	70	72.5	75
New Conductor (Initial) Next Day (deg. C.)		0	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65	67.5	70	72.5
Existing Conductor (Final) (deg. C.)		-22.5	-20	-17.5	-15	-12.5	-10	-7.5	-5	-2.5	0	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Ruling Span																															
140	TENSION (Kg)	589	570	552	534	516	499	481	464	447	430	414	398	383	367	353	339	325	312	300	288	276	266	256	246	237	229	221	213	206	200
	SAG (m)	0.68	0.70	0.72	0.75	0.77	0.80	0.83	0.86	0.89	0.93	0.96	1.00	1.04	1.09	1.13	1.18	1.23	1.28	1.33	1.39	1.45	1.50	1.56	1.62	1.69	1.75	1.81	1.87	1.94	2.00
145	TENSION (Kg)	585	567	549	531	513	496	479	462	445	429	413	397	382	367	353	339	325	313	301	289	278	267	258	248	239	231	223	216	209	203
	SAG (m)	0.73	0.76	0.78	0.81	0.83	0.86	0.90	0.93	0.96	1.00	1.04	1.08	1.12	1.17	1.22	1.27	1.32	1.37	1.43	1.48	1.54	1.60	1.66	1.73	1.79	1.85	1.92	1.98	2.05	2.11
150	TENSION (Kg)	582	564	546	528	511	493	476	459	443	427	411	396	381	366	352	339	326	313	301	290	279	269	259	250	242	234	226	219	212	206
	SAG (m)	0.79	0.81	0.84	0.87	0.90	0.93	0.96	1.00	1.04	1.07	1.12	1.16	1.20	1.25	1.30	1.35	1.41	1.46	1.52	1.58	1.64	1.70	1.77	1.83	1.90	1.96	2.03	2.09	2.16	2.23
155	TENSION (Kg)	579	561	543	525	508	491	474	457	441	425	410	395	380	366	352	339	326	314	302	291	281	271	261	252	244	236	229	222	215	209
	SAG (m)	0.85	0.87	0.90	0.93	0.96	1.00	1.03	1.07	1.11	1.15	1.20	1.24	1.29	1.34	1.39	1.45	1.50	1.56	1.62	1.68	1.74	1.81	1.87	1.94	2.01	2.07	2.14	2.21	2.28	2.34
160	TENSION (Kg)	575	557	540	522	505	488	471	455	439	423	408	393	379	365	352	339	326	314	303	292	282	272	263	254	246	239	231	224	218	212
	SAG (m)	0.91	0.94	0.97	1.00	1.03	1.07	1.11	1.15	1.19	1.23	1.28	1.33	1.38	1.43	1.48	1.54	1.60	1.66	1.72	1.78	1.85	1.92	1.98	2.05	2.12	2.19	2.26	2.33	2.39	2.46
165	TENSION (Kg)	571	554	536	519	502	485	469	453	437	422	407	392	378	365	351	339	327	315	304	293	283	274	265	256	248	241	234	227	221	215
	SAG (m)	0.97	1.00	1.03	1.07	1.11	1.14	1.18	1.23	1.27	1.32	1.36	1.41	1.47	1.52	1.58	1.64	1.70	1.76	1.83	1.89	1.96	2.03	2.09	2.16	2.23	2.30	2.37	2.44	2.52	2.59
170	TENSION (Kg)	568	550	533	516	499	483	466	451	435	420	405	391	377	364	351	339	327	316	305	295	285	275	267	258	251	243	236	229	223	217
	SAG (m)	1.04	1.07	1.11	1.14	1.18	1.22	1.26	1.31	1.35	1.40	1.45	1.51	1.56	1.62	1.68	1.74	1.80	1.87	1.93	2.00	2.07	2.14	2.21	2.28	2.35	2.42	2.50	2.57	2.64	2.71
175	TENSION (Kg)	564	547	530	513	496	480	464	448	433	418	404	390	376	363	351	339	327	316	306	296	286	277	268	260	253	245	238	232	226	220
	SAG (m)	1.11	1.14	1.18	1.22	1.26	1.30	1.35	1.39	1.44	1.49	1.55	1.60	1.66	1.72	1.78	1.84	1.91	1.97	2.04	2.11	2.18	2.25	2.33	2.40	2.47	2.54	2.62	2.69	2.76	2.84
180	TENSION (Kg)	560	543	526	510	493	477	462	446	431	417	403	389	376	363	351	339	327	317	306	297	287	278	270	262	255	247	241	234	228	223
	SAG (m)	1.18	1.22	1.26	1.30	1.34	1.38	1.43	1.48	1.53	1.58	1.64	1.70	1.76	1.82	1.88	1.95	2.02	2.09	2.16	2.23	2.30	2.37	2.45	2.52	2.59	2.67	2.74	2.82	2.89	2.97
185	TENSION (Kg)	556	539	523	506	490	474	459	444	429	415	401	388	375	362	350	339	328	317	307	298	288	280	272	264	256	249	243	237	231	225
	SAG (m)	1.25	1.29	1.33	1.38	1.42	1.47	1.52	1.57	1.62	1.68	1.74	1.80	1.86	1.93	1.99	2.06	2.13	2.20	2.27	2.34	2.42	2.49	2.57	2.64	2.72	2.80	2.87	2.95	3.02	3.10
190	TENSION (Kg)	553	536	519	503	487	472	457	442	427	413	400	387	374	362	350	339	328	318	308	299	290	281	273	266	258	251	245	239	233	227
	SAG (m)	1.33	1.37	1.42	1.46	1.51	1.56	1.61	1.67	1.72	1.78	1.84	1.90	1.97	2.03	2.10	2.17	2.24	2.32	2.39	2.46	2.54	2.62	2.69	2.77	2.85	2.93	3.00	3.08	3.16	3.23
195	TENSION (Kg)	549	532	516	500	484	469	454	440	425	412	398	386	373	361	350	339	328	318	309	299	291	283	275	267	260	253	247	241	235	230
	SAG (m)	1.41	1.46	1.50	1.55	1.60	1.65	1.71	1.76	1.82	1.88	1.95	2.01	2.08	2.15	2.22	2.29	2.36	2.44	2.51	2.59	2.67	2.74	2.82	2.90	2.98	3.06	3.14	3.22	3.29	3.37
200	TENSION (Kg)	545	529	512	497	481	466	452	437	424	410	397	384	372	361	349	339	328	319	309	300	292	284	276	269	262	255	249	243	238	232
	SAG (m)	1.50	1.54	1.59	1.64	1.69	1.75	1.80	1.86	1.93	1.99	2.05	2.12	2.19	2.26	2.33	2.41	2.48	2.56	2.64	2.71	2.79	2.87	2.95	3.03	3.11	3.19	3.27	3.35	3.43	3.51
205	TENSION (Kg)	541	525	509	494	478	464	449	435	422	408	396	383	372	360	349	339	329	319	310	301	293	285	278	270	264	257	251	245	240	234
	SAG (m)	1.58	1.63	1.68	1.74	1.79	1.85	1.91	1.97	2.03	2.10	2.16	2.23	2.31	2.38	2.45	2.53	2.61	2.68	2.76	2.84	2.92	3.00	3.09	3.17	3.25	3.33	3.41	3.49	3.57	3.65
210	TENSION (Kg)	537	521	506	490	476	461	447	433	420	407	394	382	371	360	349	339	329	320	311	302	294	286	279	272	265	259	253	247	242	237
	SAG (m)	1.67	1.72	1.78	1.83	1.89	1.95	2.01	2.08	2.14	2.21	2.28	2.35	2.42	2.50	2.58	2.65	2.73	2.81	2.89	2.97	3.06	3.14	3.22	3.30	3.39	3.47	3.55	3.64	3.72	3.80
215	TENSION (Kg)	533	518	502	487	473	458	444	431	418	405	393	381	370	359	349	339	329	320	311	303	295	288	280	273	267	261	255	249	244	239
	SAG (m)	1.77	1.82	1.88	1.93	1.99	2.06	2.12	2.19	2.25	2.32	2.40	2.47	2.55	2.62	2.70	2.78	2.86	2.94	3.03	3.11	3.19	3.28	3.36	3.44	3.53	3.61	3.70	3.78	3.86	3.95
220	TENSION (Kg)	529	514	499	484	470	456	442	429	416	404	392	380	369	359	348	339	329	320	312	304	296	289	282	275	269	262	257	251	246	241
	SAG (m)	1.86	1.92	1.98	2.04	2.10	2.16	2.23	2.30	2.37	2.44	2.52	2.59	2.67	2.75	2.83	2.91	2.99	3.08	3.16	3.25	3.33	3.42	3.50	3.59	3.67	3.76	3.84	3.93	4.01	4.10
225	TENSION (Kg)	525	510	495	481	467	453	440	427	414	402	391	379	369	358	348	339	330	321	313	305	297	290	283	276	270	264	258	253	248	243
	SAG (m)	1.96	2.02	2.08	2.15	2.21	2.28	2.35	2.42	2.49	2.57	2.64	2.72	2.80	2.88	2.96	3.05	3.13	3.22	3.30	3.39	3.47	3.56	3.65	3.73	3.82	3.91	3.99	4.08	4.17	4.25
230	TENSION (Kg)	522	507	492	478	464	451	437	425	413	401	389	378	368	358	348	339	330	321	313	305	298	291	284	278	272	266	260	255	250	245
	SAG (m)	2.07	2.13	2.19	2.26	2.32	2.39	2.46	2.54	2.61	2.69	2.77	2.85	2.93	3.01	3.10	3.18	3.27	3.36	3.44	3.53	3.62	3.71	3.79	3.88	3.97	4.06	4.15	4.23	4.32	4.41
235	TENSION (Kg)	518	503	489	475	461	448	435	423	411	399	388	377	367	357	348	339	330	322	314	306	299	292	285	279	273	267	262	256	251	247
	SAG (m)	2.17	2.24	2.30	2.37	2.44	2.51	2.59	2.66	2.74	2.82	2.90	2.98	3.07	3.15	3.24	3.32	3.41	3.50	3.59	3.68	3.77	3.85	3.94	4.03	4.12	4.21	4.30	4.39	4.48	4.56
240	TENSION (Kg)	514	499	485	472	458	446	433	421	409	398	387	377	367	357	348	339	330	322	314	307	300	293	287	280	274	269	263	258	253	248
	SAG (m)	2.28	2.35	2.42	2.49	2.56	2.63	2.71	2.79	2.87	2.95	3.03	3.12	3.20	3.29	3.38	3.47	3.55	3.64	3.73	3.82	3.92	4.01	4.10	4.19	4.28	4.37	4.46	4.55	4.64	4.72
245	TENSION (Kg)	510	496	482	469	456	443	431	419	408	397	386	376	366	356	347	339	330	323	315	308	301	294	288	282	276	270	265	260	255	250
	SAG (m)	2.40	2.47	2.54	2.61	2.68	2.76	2.84	2.92	3.00	3.09	3.17	3.26	3.34	3.43	3.52	3.61	3.70	3.79	3.88	3.98	4.07	4.16	4.25	4.34	4.44	4.53	4.62	4.71	4.80	4.89
250	TENSION (Kg)	506	492	479	466	453	441	429	417	406	395	385	375	365	356	347	339	331	323	315	308	302	295	289	283	277	272	266	261	257	252
	SAG (m)	2.52	2.59	2.66	2.73	2.81	2.89	2.97	3.05	3.14	3.22	3.31	3.40	3.49	3.58	3.67	3.76	3.85	3.95	4.04	4.13	4.22	4.32	4.41	4.50	4.60	4.69	4.78	4.87	4.96	5.05
255	TENSION (Kg)	503	489	476	463	450	438	427	415	404	394	384	374	365	356	347	339	331	323	316	309	302	296	290	284	278	273	268	263	258	254
	SAG (m)	2.64	2.71	2.79	2.86	2.94	3.02	3.11	3.19	3.28	3.37	3.45	3.54	3.63	3.73	3.82	3.91	4.01	4.10	4.19	4.29	4.38	4.48	4.57	4.67	4.76	4.85	4.95	5.04	5.13	5.22
260	TENSION (Kg)	499	486	473	460	448	436	425	413	403	393	383	373	364	355	347	339	331	324	316	310	303	297	291	285	280	274	269	265	260	255
	SAG (m)	2.76	2.84	2.92	2.99	3.08	3.16	3.25	3.33	3.42	3.51	3.60	3.69	3.79	3.88	3.97	4.07	4.16	4.26	4.35	4.45	4.54	4.64	4.74	4.83	4.93	5.02	5.11	5.21	5.30	5.39

BEAT VALUES ARE IN SECONDS FOR FIVE WAVE RETURNS
CREEP ALLOWANCE @ 15°C: NEW 25°C SHIFT & NEXT DAY 22.5°C

REV	DATE	DESCRIPTION	DRGD	CHKD	APRD
B	27 08 26	TABLE UPDATED	SJ	MM	LT
A	31 10 18	ORIGINAL ISSUE	NN	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE
RURAL (140m–260m)
6/1/3.00 AACSR/AC 22%

DISTRIBUTION CONSTRN STANDARD

westernpower

DRAWN JRR	DATE 30-10-2018	DRG No CT-0116
ORIGINATED NN	SCALE NTS	
CHECKED REE		
APPROVED GRANT STACY	REV B	SHT 1/1

RURAL (140m – 260m) 6/1/3.00 AACSR/AC 20%

New Conductor (Initial) (deg. C.)		2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65	67.5	70	72.5	75
New Conductor (Initial) Next Day (deg. C.)		0	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65	67.5	70	72.5	75
Existing Conductor (Final) (deg. C.)		-22.5	-20	-17.5	-15	-12.5	-10	-7.5	-5	-2.5	0	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Ruling Span																															
140	TENSION (Kg)	546	528	510	493	475	458	441	425	409	393	378	363	348	334	321	308	296	284	273	262	252	243	234	226	218	211	204	198	192	186
	SAG (m)	0.73	0.76	0.78	0.81	0.84	0.87	0.90	0.94	0.98	1.02	1.06	1.10	1.15	1.20	1.25	1.30	1.35	1.41	1.46	1.52	1.58	1.64	1.71	1.77	1.83	1.89	1.96	2.02	2.08	2.15
145	TENSION (Kg)	542	524	507	489	472	455	439	422	406	391	376	361	347	334	320	308	296	285	274	264	254	245	236	228	221	213	207	201	195	189
	SAG (m)	0.79	0.82	0.85	0.88	0.91	0.94	0.98	1.01	1.05	1.10	1.14	1.19	1.23	1.28	1.34	1.39	1.45	1.51	1.57	1.63	1.69	1.75	1.81	1.88	1.94	2.01	2.07	2.14	2.20	2.27
150	TENSION (Kg)	538	520	503	486	469	452	436	420	404	389	374	360	346	333	320	308	296	285	275	265	255	246	238	230	223	216	209	203	198	192
	SAG (m)	0.85	0.88	0.91	0.94	0.98	1.01	1.05	1.09	1.13	1.18	1.23	1.27	1.32	1.38	1.43	1.49	1.55	1.61	1.67	1.73	1.80	1.86	1.93	1.99	2.06	2.12	2.19	2.26	2.32	2.39
155	TENSION (Kg)	534	516	499	482	465	449	433	417	402	387	373	359	345	332	320	308	297	286	276	266	257	248	240	232	225	218	212	206	200	195
	SAG (m)	0.92	0.95	0.98	1.02	1.05	1.09	1.13	1.17	1.22	1.27	1.31	1.37	1.42	1.47	1.53	1.59	1.65	1.71	1.78	1.84	1.91	1.97	2.04	2.11	2.18	2.24	2.31	2.38	2.45	2.51
160	TENSION (Kg)	530	512	495	479	462	446	430	415	400	385	371	357	344	332	320	308	297	286	276	267	258	250	242	234	227	221	214	208	203	198
	SAG (m)	0.99	1.02	1.05	1.09	1.13	1.17	1.21	1.26	1.31	1.35	1.41	1.46	1.52	1.57	1.63	1.69	1.76	1.82	1.89	1.95	2.02	2.09	2.16	2.23	2.30	2.36	2.43	2.50	2.57	2.64
165	TENSION (Kg)	525	508	491	475	459	443	427	412	397	383	369	356	343	331	319	308	297	287	277	268	260	251	244	236	229	223	217	211	205	200
	SAG (m)	1.06	1.09	1.13	1.17	1.21	1.25	1.30	1.35	1.40	1.45	1.50	1.56	1.62	1.68	1.74	1.80	1.87	1.93	2.00	2.07	2.14	2.21	2.28	2.35	2.42	2.49	2.56	2.63	2.70	2.77
170	TENSION (Kg)	521	504	488	471	455	440	424	410	395	381	368	355	342	330	319	308	298	288	278	269	261	253	245	238	231	225	219	213	208	203
	SAG (m)	1.13	1.17	1.21	1.25	1.29	1.34	1.39	1.44	1.49	1.54	1.60	1.66	1.72	1.78	1.85	1.91	1.98	2.05	2.12	2.19	2.26	2.33	2.40	2.47	2.55	2.62	2.69	2.76	2.83	2.90
175	TENSION (Kg)	517	500	484	468	452	437	422	407	393	379	366	354	341	330	319	308	298	288	279	270	262	254	247	240	233	227	221	216	210	205
	SAG (m)	1.21	1.25	1.29	1.33	1.38	1.43	1.48	1.53	1.59	1.64	1.70	1.77	1.83	1.89	1.96	2.03	2.10	2.17	2.24	2.31	2.38	2.45	2.53	2.60	2.67	2.75	2.82	2.89	2.97	3.04
180	TENSION (Kg)	512	496	480	464	449	434	419	405	391	378	365	352	341	329	318	308	298	289	280	271	263	256	249	242	235	229	223	218	213	208
	SAG (m)	1.29	1.33	1.38	1.42	1.47	1.52	1.58	1.63	1.69	1.75	1.81	1.87	1.94	2.01	2.07	2.14	2.22	2.29	2.36	2.43	2.51	2.58	2.66	2.73	2.81	2.88	2.96	3.03	3.10	3.18
185	TENSION (Kg)	508	492	476	460	445	430	416	402	389	376	363	351	340	329	318	308	298	289	281	272	264	257	250	243	237	231	225	220	215	210
	SAG (m)	1.37	1.42	1.47	1.52	1.57	1.62	1.68	1.73	1.79	1.86	1.92	1.99	2.05	2.12	2.19	2.27	2.34	2.41	2.49	2.56	2.64	2.71	2.79	2.87	2.94	3.02	3.09	3.17	3.24	3.32
190	TENSION (Kg)	503	487	472	457	442	427	413	400	387	374	362	350	339	328	318	308	299	290	281	273	266	258	252	245	239	233	227	222	217	212
	SAG (m)	1.46	1.51	1.56	1.61	1.67	1.72	1.78	1.84	1.90	1.97	2.03	2.10	2.17	2.24	2.32	2.39	2.46	2.54	2.62	2.69	2.77	2.85	2.93	3.00	3.08	3.16	3.23	3.31	3.39	3.46
195	TENSION (Kg)	499	483	468	453	439	424	411	397	385	372	360	349	338	327	317	308	299	290	282	274	267	260	253	247	241	235	229	224	219	215
	SAG (m)	1.55	1.60	1.66	1.71	1.77	1.83	1.89	1.95	2.02	2.08	2.15	2.22	2.29	2.37	2.44	2.52	2.59	2.67	2.75	2.83	2.91	2.98	3.06	3.14	3.22	3.30	3.38	3.46	3.53	3.61
200	TENSION (Kg)	494	479	464	450	435	421	408	395	383	371	359	348	337	327	317	308	299	291	283	275	268	261	254	248	242	237	231	226	221	217
	SAG (m)	1.65	1.70	1.76	1.81	1.87	1.93	2.00	2.06	2.13	2.20	2.27	2.34	2.42	2.49	2.57	2.65	2.73	2.80	2.88	2.96	3.04	3.12	3.20	3.28	3.36	3.44	3.52	3.60	3.68	3.76
205	TENSION (Kg)	490	475	460	446	432	419	405	393	381	369	358	347	336	326	317	308	299	291	283	276	269	262	256	250	244	238	233	228	223	219
	SAG (m)	1.75	1.80	1.86	1.92	1.98	2.05	2.11	2.18	2.25	2.32	2.40	2.47	2.55	2.62	2.70	2.78	2.86	2.94	3.02	3.10	3.19	3.27	3.35	3.43	3.51	3.59	3.67	3.75	3.83	3.91
210	TENSION (Kg)	486	471	456	442	429	416	403	391	379	367	356	346	336	326	317	308	300	292	284	277	270	263	257	251	245	240	235	230	225	221
	SAG (m)	1.85	1.91	1.97	2.03	2.10	2.16	2.23	2.30	2.37	2.45	2.52	2.60	2.68	2.76	2.84	2.92	3.00	3.08	3.17	3.25	3.33	3.41	3.50	3.58	3.66	3.74	3.83	3.91	3.99	4.07
215	TENSION (Kg)	481	467	453	439	426	413	400	388	377	366	355	345	335	325	317	308	300	292	285	278	271	264	258	253	247	242	237	232	227	223
	SAG (m)	1.96	2.02	2.08	2.15	2.21	2.28	2.35	2.43	2.50	2.58	2.65	2.73	2.81	2.89	2.98	3.06	3.14	3.23	3.31	3.39	3.48	3.56	3.65	3.73	3.81	3.90	3.98	4.06	4.14	4.23
220	TENSION (Kg)	477	463	449	436	423	410	398	386	375	364	354	344	334	325	316	308	300	292	285	278	272	266	260	254	248	243	238	234	229	225
	SAG (m)	2.07	2.13	2.20	2.26	2.33	2.41	2.48	2.55	2.63	2.71	2.79	2.87	2.95	3.04	3.12	3.20	3.29	3.37	3.46	3.54	3.63	3.72	3.80	3.89	3.97	4.05	4.14	4.22	4.30	4.39
225	TENSION (Kg)	473	459	445	432	420	407	395	384	373	363	352	343	333	325	316	308	300	293	286	279	273	267	261	255	250	245	240	235	231	227
	SAG (m)	2.18	2.25	2.32	2.39	2.46	2.53	2.61	2.69	2.77	2.85	2.93	3.01	3.09	3.18	3.26	3.35	3.44	3.52	3.61	3.70	3.78	3.87	3.96	4.04	4.13	4.21	4.30	4.38	4.47	4.55
230	TENSION (Kg)	469	455	442	429	417	405	393	382	371	361	351	342	333	324	316	308	300	293	286	280	274	268	262	256	251	246	242	237	233	229
	SAG (m)	2.30	2.37	2.44	2.51	2.59	2.66	2.74	2.82	2.90	2.99	3.07	3.15	3.24	3.33	3.41	3.50	3.59	3.68	3.77	3.85	3.94	4.03	4.12	4.20	4.29	4.38	4.46	4.55	4.63	4.72
235	TENSION (Kg)	464	451	438	426	414	402	391	380	370	360	350	341	332	324	316	308	301	294	287	281	274	269	263	258	253	248	243	239	234	230
	SAG (m)	2.42	2.50	2.57	2.64	2.72	2.80	2.88	2.96	3.05	3.13	3.22	3.30	3.39	3.48	3.57	3.66	3.74	3.83	3.92	4.01	4.10	4.19	4.28	4.37	4.46	4.54	4.63	4.72	4.80	4.89
240	TENSION (Kg)	460	447	435	423	411	399	389	378	368	358	349	340	331	323	315	308	301	294	287	281	275	270	264	259	254	249	245	240	236	232
	SAG (m)	2.55	2.62	2.70	2.78	2.86	2.94	3.02	3.11	3.19	3.28	3.37	3.45	3.54	3.63	3.72	3.81	3.90	3.99	4.08	4.17	4.27	4.36	4.44	4.53	4.62	4.71	4.80	4.89	4.97	5.06
245	TENSION (Kg)	456	444	431	419	408	397	386	376	366	357	348	339	331	323	315	308	301	294	288	282	276	270	265	260	255	251	246	242	238	234
	SAG (m)	2.68	2.76	2.84	2.92	3.00	3.08	3.17	3.25	3.34	3.43	3.52	3.61	3.70	3.79	3.88	3.97	4.06	4.16	4.25	4.34	4.43	4.52	4.61	4.70	4.79	4.88	4.97	5.06	5.15	5.24
250	TENSION (Kg)	452	440	428	416	405	395	384	374	365	355	347	338	330	322	315	308	301	295	288	283	277	271	266	261	256	252	247	243	239	235
	SAG (m)	2.82	2.90	2.98	3.06	3.14	3.23	3.32	3.40	3.49	3.58	3.67	3.77	3.86	3.95	4.04	4.14	4.23	4.32	4.42	4.51	4.60	4.69	4.79	4.88	4.97	5.06	5.15	5.24	5.33	5.42
255	TENSION (Kg)	448	436	425	413	403	392	382	372	363	354	346	337	330	322	315	308	301	295	289	283	278	272	267	262	258	253	249	245	241	237
	SAG (m)	2.96	3.04	3.12	3.21	3.29	3.38	3.47	3.56	3.65	3.74	3.83	3.93	4.02	4.12	4.21	4.30	4.40	4.49	4.59	4.68	4.77	4.87	4.96	5.05	5.15	5.24	5.33	5.42	5.51	5.60
260	TENSION (Kg)	445	433	422	411	400	390	380	371	362	353	345	337	329	322	315	308	302	295	289	284	278	273	268	263	259	254	250	246	242	238
	SAG (m)	3.10	3.18	3.27	3.36	3.44	3.53	3.62	3.72	3.81	3.90	4.00	4.09	4.19	4.28	4.38	4.47	4.57	4.67	4.76	4.86	4.95	5.04	5.14	5.23	5.32	5.42	5.51	5.60	5.69	5.78

BEAT VALUES ARE IN SECONDS FOR FIVE WAVE RETURNS
CREEP ALLOWANCE @ 15°C: NEW 25°C SHIFT & NEXT DAY 22.5°C

REV	DATE	DESCRIPTION	DRGD	CHKD	APRD
B	27 08 26	TABLE UPDATED	SJ	MM	LT
A	31 10 18	ORIGINAL ISSUE	NN	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE RURAL (140m-260m) 6/1/3.00 AACSR/AC 20%

DISTRIBUTION CONSTRN STANDARD

westernpower

DRAWN: JRR | DATE: 30-10-2018 | DRG No: CT-0117

ORIGINATED: NN | SCALE: NTS

CHECKED: REE

APPROVED: GRANT STACY | REV: B | SHT: 1/1

STEEL CONDUCTORS RURAL 3/2.75 SC/GZ 25% Table 1 (100m - 165m)

		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) (deg C)																		
New Condr. (Initial) Next Day (deg. C)																		
Existing Conductor (Final) (deg. C)																		
Ruling Span																		
100	Tension (kg)	604	595	585	576	566	556	546	536	527	517	508	497	488	478	469	460	450
	TIME(s)	4.8	4.9	4.9	5.0	5.0	5.0	5.1	5.1	5.2	5.2	5.3	5.3	5.4	5.4	5.5	5.5	5.6
	SAG (m)	029	0.29	0.30	0.30	0.31	0.31	0.32	0.32	0.33	0.34	0.34	0.35	0.36	0.36	0.37	0.38	0.39
105	Tension (kg)	604	595	585	576	566	556	546	536	527	517	508	498	488	479	469	460	451
	TIME(s)	5.1	5.1	5.2	5.2	52	5.3	5.3	5.4	5.4	5.5	5.5	5.6	5.6	5.7	5.8	5.8	5.9
	SAG (m)	0.32	0.32	0.33	0.33	0.34	0.34	0.35	0.36	0.36	0.37	0.38	0.38	0.39	0.40	0.41	0.42	0.43
110	Tension (kg)	604	595	585	576	566	556	546	537	527	518	508	498	488	479	470	461	451
	TIME(s)	5.3	5.4	5.4	5.5	5.5	5.5	5.6	5.6	5.7	5.7	5.8	5.9	5.9	6.0	6.0	6.1	62
	SAG (m)	0.35	0.35	0.36	0.37	0.37	0.38	0.38	0.39	0.40	0.41	0.41	0.42	0.43	0.44	0.45	0.46	0.47
115	Tension (kg)	604	595	585	576	566	557	546	537	527	518	508	498	489	479	470	461	452
	TIME(s)	5.6	5.6	5.7	5.7	5.7	5.8	5.8	5.9	6.0	6.0	6.1	6.1	6.2	62	6.3	6.4	6.4
	SAG (m)	0.38	0.39	0.39	0.40	0.41	0.41	0.42	0.43	0.44	0.44	0.45	0.46	0.47	0.46	0.49	0.50	0.51
120	Tension (kg)	604	594	585	575	566	557	546	537	527	518	509	498	489	480	471	462	452
	TIME(s)	5.8	5.8	5.9	5.9	6.0	6.0	6.1	62	6.2	6.3	6.3	6.4	6.4	6.5	6.6	6.6	6.7
	SAG (m)	0.41	0.42	0.43	0.43	0.44	0.45	0.46	0.47	0.48	0.48	0.49	0.50	0.51	0.52	0.53	0.54	0.55
125	Tension (kg)	604	594	585	575	566	557	546	537	527	518	509	499	489	480	471	462	453
	TIME(s)	6.0	6.1	6.1	6.2	62	6.3	6.4	6.4	6.5	6.5	6.6	6.7	6.7	6.8	6.8	6.9	7.0
	SAG (m)	0.45	0.46	0.46	0.47	0.48	0.49	0.50	0.51	0.52	0.52	0.53	0.54	0.55	0.57	0.58	0.59	0.60
130	Tension (kg)	604	594	585	575	566	557	546	537	528	518	509	499	490	481	472	463	454
	TIME(s)	6.3	6.3	6.4	6.4	6.5	6.6	6.6	6.7	6.7	6.8	6.9	6.9	7.0	7.0	7.1	7.2	7.3
	SAG (m)	0.49	0.49	0.50	0.51	0.52	0.53	0.54	0.55	0.56	0.59	0.57	0.58	0.60	0.61	0.62	0.64	0.65
135	Tension (kg)	604	594	585	575	566	557	546	537	528	519	509	499	490	481	472	463	454
	TIME(s)	6.5	6.6	6.6	6.7	6.7	6.8	6.9	6.9	7.0	7.0	7.1	7.2	7.2	7.3	7.4	7.5	7.5
	SAG (m)	0.52	0.53	0.54	0.55	0.56	0.57	0.58	0.59	0.60	0.61	0.62	0.63	0.65	0.66	0.67	0.68	0.70
140	Tension (kg)	603	594	585	575	566	557	546	537	528	519	510	501	490	481	472	464	455
	TIME(s)	6.8	6.8	6.9	6.9	7.0	7.1	7.1	72	7.2	7.3	7.4	7.4	7.5	7.6	7.7	7.7	7.8
	SAG (m)	056	0.57	0.58	0.59	0.60	0.61	0.62	0.63	0.65	0.68	0.67	0.68	0.69	0.71	0.72	0.74	0.75
145	Tension (kg)	603	594	585	575	566	557	547	537	528	519	510	501	491	482	473	464	455
	TIME(s)	7.0	7.1	7.1	7.2	72	7.3	7.4	7.4	7.5	7.6	7.6	7.7	7.8	7.9	7.9	8.0	8.1
	SAG (m)	0.61	0.61	0.62	0.64	0.65	0.66	0.67	0.68	0.69	0.70	0.72	0.73	0.74	0.76	0.77	0.79	0.80
150	Tension (kg)	603	594	585	575	566	557	547	537	528	519	510	501	491	482	473	465	456
	TIME(s)	7.3	7.3	7.4	7.4	7.5	7.6	7.6	7.7	7.8	7.8	7.9	8.0	8.0	8.1	82	8.3	8.4
	SAG (m)	0.65	0.68	0.67	0.68	0.69	0.70	0.71	0.73	0.74	0.75	0.77	0.78	0.80	0.81	0.83	0.84	0.86
155	Tension (kg)	603	594	584	575	566	557	547	538	528	519	510	502	492	483	474	465	457
	TIME(s)	7.5	7.6	7.6	7.7	7.7	7.8	7.9	7.9	8.0	8.1	82	8.2	8.3	8.4	8.5	8.5	8.6
	SAG (m)	0.69	0.70	0.71	0.73	0.74	0.75	0.76	0.78	0.79	0.81	0.82	0.83	0.85	0.86	0.86	0.90	0.92
160	Tension (kg)	603	594	584	575	566	557	547	538	529	520	511	502	492	483	474	466	457
	TIME(s)	7.7	7.8	7.9	7.9	8.0	8.1	8.1	82	8.3	8.3	8.4	8.5	8.6	8.7	8.7	8.8	8.9
	SAG (m)	0.74	0.75	0.76	0.77	0.79	0.80	0.81	0.83	0.84	0.86	0.87	0.89	0.90	0.92	0.94	0.96	0.97
165	Tension (kg)	603	593	584	575	566	557	547	538	529	520	511	502	492	484	475	466	458
	TIME(s)	8.0	8.0	8.1	8.2	82	8.3	8.4	8.5	8.5	8.6	8.7	8.8	8.8	8.9	9.0	9.1	92
	SAG (m)	0.78	0.80	0.81	0.82	0.84	0.85	0.86	0.88	0.90	0.91	0.93	0.94	0.96	0.98	1.00	1.01	1.03

Beat values are 10 seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
A	11.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
STEEL CONDUCTORS RURAL 3/2.75
SC/GZ 25% TABLE 1 (100m-165m)

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR DATE: 11-06-2014
CHECKED: REE SCALE: ---------
APPROVED: GRANT STACY DATE: 11-06-2014

DRG. No. CT-0120
REV. A SHT.

STEEL CONDUCTORS RURAL 3/2.75 SC/GZ 25% Table 2 (170m-235m)

New Conductor (Initial) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
170 TENSION (Kg)	603	593	584	575	566	557	547	538	529	520	511	503	493	484	476	467	458
TIME(s)	8.2	8.3	8.4	8.4	8.5	8.6	8.6	8.7	8.8	8.9	8.9	9.0	9.1	9.2	9.3	9.4	9.4
SAG(m)	0.83	0.85	0.86	0.87	0.89	0.90	0.92	0.93	0.95	0.97	0.98	1.00	1.02	1.04	1.06	1.08	1.10
175 TENSION (Kg)	602	593	584	575	566	557	547	538	529	520	512	503	493	485	476	468	459
TIME(s)	8.5	8.5	8.6	8.7	8.7	8.8	8.9	9.0	9.0	9.1	9.2	9.3	9.4	9.4	9.5	9.6	9.7
SAG(m)	0.88	0.90	0.91	0.93	0.94	0.96	0.97	0.99	1.01	1.02	1.04	1.06	1.08	1.10	1.12	1.14	1.16
180 TENSION (Kg)	602	593	584	575	566	557	547	538	529	521	512	503	494	485	477	468	460
TIME(s)	8.7	8.8	8.9	8.9	9.0	9.1	9.1	9.2	9.3	9.4	9.5	9.5	9.6	9.7	9.8	9.9	10.0
SAG(m)	0.93	0.95	0.96	0.98	1.00	1.01	1.03	1.05	1.06	1.08	1.10	1.12	1.14	1.16	1.18	1.20	1.23
185 TENSION (Kg)	602	593	584	575	566	557	547	538	530	521	512	504	494	486	477	469	461
TIME(s)	9.0	9.0	9.1	9.2	9.2	9.3	9.4	9.5	9.6	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3
SAG(m)	0.99	1.00	1.02	1.03	1.05	1.07	1.09	1.10	1.12	1.14	1.16	1.18	1.20	1.22	1.25	1.27	1.29
190 TENSION (Kg)	602	593	584	575	566	557	547	539	530	521	513	504	495	486	478	469	461
TIME(s)	9.2	9.3	9.3	9.4	9.5	9.6	9.7	9.7	9.8	9.9	10.0	10.1	10.2	10.2	10.3	10.4	10.5
SAG(m)	1.04	1.06	1.07	1.09	1.11	1.13	1.15	1.16	1.18	1.21	1.23	1.25	1.27	1.29	1.31	1.34	1.36
195 TENSION (Kg)	602	593	584	575	566	557	547	539	530	521	513	504	495	487	478	470	462
TIME(s)	9.4	9.5	9.6	9.7	9.7	9.8	9.9	10.0	10.1	10.2	10.2	10.3	10.4	10.5	10.6	10.7	10.8
SAG(m)	1.10	1.12	1.13	1.15	1.17	1.19	1.21	1.23	1.25	1.27	1.29	1.31	1.33	1.36	1.38	1.41	1.43
200 TENSION (Kg)	602	593	584	575	566	557	548	539	530	522	513	505	495	487	479	471	463
TIME(s)	9.7	9.8	9.8	9.9	10.0	10.1	10.2	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1
SAG(m)	1.16	1.17	1.19	1.21	1.23	1.25	1.27	1.29	1.31	1.33	1.36	1.38	1.40	1.43	1.45	1.48	1.50
205 TENSION (Kg)	601	592	584	575	566	557	548	539	530	522	514	505	496	488	479	471	463
TIME(s)	9.9	10.0	10.1	10.2	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.8	10.9	11.0	11.1	11.2	11.3
SAG(m)	1.21	1.23	1.25	1.27	1.29	1.31	1.33	1.35	1.38	1.40	1.43	1.45	1.47	1.50	1.52	1.55	1.58
210 TENSION (Kg)	601	592	583	575	566	557	548	539	531	522	514	506	496	488	480	472	464
TIME(s)	10.2	10.3	10.3	10.4	10.5	10.6	10.7	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6
SAG(m)	1.28	1.29	1.31	1.33	1.35	1.38	1.40	1.42	1.44	1.47	1.49	1.52	1.54	1.57	1.60	1.62	1.65
215 TENSION (Kg)	601	592	583	575	566	557	548	539	531	522	514	506	497	489	481	473	465
TIME(s)	10.4	10.5	10.6	10.7	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9
SAG(m)	1.34	1.36	1.38	1.40	1.42	1.44	1.47	1.49	1.51	1.54	1.57	1.59	1.62	1.64	1.67	1.70	1.73
220 TENSION (Kg)	601	592	583	575	566	557	548	539	531	523	514	506	497	489	481	473	465
TIME(s)	10.7	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1
SAG(m)	1.40	1.42	1.44	1.46	1.49	1.51	1.53	1.56	1.58	1.61	1.64	1.67	1.69	1.72	1.75	1.78	1.81
225 TENSION (Kg)	601	592	583	575	566	557	548	540	531	523	515	507	498	490	482	474	466
TIME(s)	10.9	11.0	11.1	11.2	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4
SAG(m)	1.47	1.49	1.51	1.53	1.56	1.58	1.60	1.63	1.66	1.68	1.71	1.74	1.77	1.80	1.83	1.86	1.89
230 TENSION (Kg)	600	592	583	575	566	558	548	540	532	523	515	507	498	490	482	475	467
TIME(s)	11.2	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.2	12.3	12.4	12.6	12.7
SAG(m)	1.53	1.55	1.58	1.60	1.63	1.65	1.68	1.70	1.73	1.76	1.79	1.82	1.84	1.88	1.91	1.94	1.97
235 TENSION (Kg)	600	592	583	574	566	558	548	540	532	524	516	508	499	491	483	475	468
TIME(s)	11.4	11.5	11.6	11.7	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9
SAG(m)	1.60	1.62	1.65	1.67	1.70	1.72	1.75	1.78	1.81	1.83	1.86	1.90	1.92	1.96	1.99	2.02	2.05

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
STEEL CONDUCTORS RURAL 3/2.75
SC/GZ 25% TABLE 2 (170m-235m)

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR | DATE: 03-06-2014
CHECKED: REE | SCALE: NTS
APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0121
REV. A | SHT.

STEEL CONDUCTORS RURAL 3/2.75 SC/GZ 25% Table 3 (240m-300m)

New Conductor (Initial) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
240	TENSION (Kg)	600	591	583	574	566	558	548	540	532	524	516	508	499	491	484	476	468
	TIME(s)	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2
	SAG(m)	1.67	1.69	1.72	1.74	1.77	1.80	1.82	1.85	1.88	1.91	1.94	1.98	2.00	2.04	2.07	2.10	2.14
245	TENSION (Kg)	600	591	583	574	566	558	548	540	532	524	516	508	499	492	484	477	469
	TIME(s)	11.9	12.0	12.1	12.2	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.5
	SAG(m)	1.74	1.76	1.79	1.82	1.84	1.87	1.90	1.93	1.96	1.99	2.02	2.06	2.09	2.12	2.15	2.19	2.23
250	TENSION (Kg)	600	591	583	574	566	558	549	540	532	524	517	509	501	492	485	477	470
	TIME(s)	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7
	SAG(m)	1.81	1.84	1.86	1.89	1.92	1.95	1.98	2.01	2.04	2.07	2.11	2.14	2.17	2.21	2.24	2.28	2.31
255	TENSION (Kg)	599	591	583	574	566	558	549	541	533	525	517	509	501	493	485	478	471
	TIME(s)	12.4	12.5	12.6	12.7	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.6	13.7	13.8	13.9	14.0
	SAG(m)	1.89	1.91	1.94	1.97	2.00	2.03	2.06	2.09	2.12	2.16	2.19	2.22	2.26	2.29	2.33	2.37	2.40
260	TENSION (Kg)	599	591	582	574	566	558	549	541	533	525	517	510	502	493	486	479	471
	TIME(s)	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2
	SAG(m)	1.96	1.99	2.02	2.05	2.08	2.11	2.14	2.17	2.21	2.24	2.27	2.31	2.35	2.38	2.42	2.46	2.49
265	TENSION (Kg)	599	591	582	574	566	558	549	541	533	525	518	510	502	494	487	479	472
	TIME(s)	12.9	13.0	13.1	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.9	14.0	14.1	14.2	14.3	14.4	14.5
	SAG(m)	2.04	2.07	2.10	2.13	2.16	2.19	2.22	2.26	2.29	2.33	2.36	2.40	2.44	2.47	2.51	2.55	2.59
270	TENSION (Kg)	599	590	582	574	566	558	549	541	533	526	518	510	503	494	487	480	473
	TIME(s)	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.3	14.4	14.5	14.7	14.8
	SAG(m)	2.12	2.15	2.18	2.21	2.24	2.27	2.31	2.34	2.38	2.41	2.45	2.49	2.53	2.57	2.60	2.64	2.68
275	TENSION (Kg)	598	590	582	574	566	558	549	541	534	526	518	511	503	495	488	481	473
	TIME(s)	13.4	13.5	13.6	13.6	13.7	13.8	13.9	14.0	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	15.0
	SAG(m)	2.20	2.23	2.26	2.29	2.32	2.36	2.39	2.43	2.46	2.50	2.54	2.58	2.62	2.66	2.70	2.74	2.78
280	TENSION (Kg)	598	590	582	574	566	558	549	541	534	526	519	511	504	496	488	481	474
	TIME(s)	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	15.0	15.1	15.2	15.3
	SAG(m)	2.28	2.31	2.34	2.38	2.41	2.44	2.48	2.52	2.55	2.59	2.63	2.67	2.71	2.75	2.79	2.83	2.88
285	TENSION (Kg)	598	590	582	574	566	558	549	542	534	526	519	512	504	496	489	482	475
	TIME(s)	13.9	13.9	14.0	14.1	14.2	14.3	14.5	14.6	14.7	14.8	14.9	15.0	15.1	15.2	15.3	15.4	15.6
	SAG(m)	2.36	2.39	2.43	2.46	2.50	2.53	2.57	2.61	2.64	2.68	2.72	2.76	2.81	2.85	2.89	2.93	2.97
290	TENSION (Kg)	598	590	582	574	566	558	549	542	534	527	519	512	505	497	490	483	476
	TIME(s)	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	15.0	15.1	15.2	15.4	15.5	15.6	15.7	15.8
	SAG(m)	2.44	2.48	2.51	2.55	2.58	2.62	2.66	2.70	2.74	2.78	2.82	2.86	2.90	2.95	2.99	3.03	3.08
295	TENSION (Kg)	598	590	582	574	566	558	550	542	534	527	520	512	505	497	490	483	476
	TIME(s)	14.3	14.4	14.5	14.6	14.7	14.9	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.9	16.0	16.1
	SAG(m)	2.53	2.57	2.60	2.64	2.67	2.71	2.75	2.79	2.83	2.87	2.91	2.96	3.00	3.05	3.09	3.13	3.18
300	TENSION (Kg)	597	589	582	574	566	558	550	542	535	527	520	513	506	498	491	484	477
	TIME(s)	14.6	14.7	14.8	14.9	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.8	15.9	16.0	16.1	16.2	16.3
	SAG(m)	2.62	2.65	2.69	2.73	2.77	2.81	2.84	2.89	2.93	2.97	3.01	3.06	3.10	3.15	3.19	3.23	3.28

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
STEEL CONDUCTORS RURAL 3/2.75
SC/GZ 25% TABLE 3 (240m-300m)

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR | DATE: 03-06-2014
CHECKED: REE | SCALE: NTS
APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0122
REV. A | SHT.

STEEL CONDUCTORS OUTER URBAN 3/2.75 SC/GZ 15% (40m – 100m)

New Conductor (Initial) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
40	TENSION (Kg)	373	364	356	348	340	331	323	315	307	298	290	282	274	266	257	249	241
	TIME (s)	1.40	1.50	1.50	1.50	1.50	1.60	1.60	1.60	1.60	1.70	1.70	1.70	1.80	1.80	1.90	1.90	1.90
	SAG (m)	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.11	0.11	0.12
45	TENSION (Kg)	373	364	356	348	340	331	323	315	307	299	290	282	274	266	258	250	242
	TIME (s)	1.60	1.70	1.70	1.70	1.70	1.80	1.80	1.80	1.90	1.90	2.00	2.00	2.00	2.00	2.10	2.10	2.20
	SAG (m)	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.12	0.13	0.13	0.13	0.14	0.14	0.15
50	TENSION (Kg)	372	364	356	348	340	331	323	315	307	299	291	283	275	267	259	251	243
	TIME (s)	1.90	1.90	1.90	1.90	2.00	2.00	2.00	2.00	2.00	2.10	2.20	2.20	2.20	2.20	2.30	2.40	2.40
	SAG (m)	0.12	0.12	0.12	0.13	0.13	0.13	0.14	0.14	0.14	0.15	0.15	0.15	0.16	0.16	0.17	0.17	0.18
55	TENSION (Kg)	372	364	356	348	340	331	323	315	307	299	291	283	275	267	260	252	244
	TIME (s)	2.00	2.00	2.10	2.10	2.20	2.20	2.20	2.20	2.30	2.30	2.40	2.40	2.40	2.50	2.50	2.50	2.60
	SAG (m)	0.14	0.15	0.15	0.15	0.16	0.16	0.16	0.17	0.17	0.18	0.18	0.19	0.19	0.20	0.20	0.21	0.22
60	TENSION (Kg)	372	364	356	348	340	331	323	315	307	299	292	284	276	268	260	253	245
	TIME (s)	2.20	2.20	2.30	2.30	2.40	2.40	2.40	2.40	2.50	2.50	2.50	2.60	2.70	2.70	2.80	2.80	2.90
	SAG (m)	0.17	0.17	0.18	0.18	0.19	0.19	0.19	0.20	0.21	0.21	0.22	0.22	0.23	0.24	0.24	0.25	0.26
65	TENSION (Kg)	372	364	356	348	340	332	324	316	308	300	292	284	276	269	261	254	246
	TIME (s)	2.40	2.40	2.50	2.50	2.50	2.50	2.60	2.70	2.70	2.70	2.80	2.80	2.90	2.90	3.00	3.00	3.10
	SAG (m)	0.20	0.20	0.21	0.21	0.22	0.22	0.23	0.23	0.24	0.25	0.25	0.26	0.27	0.28	0.28	0.29	0.30
70	TENSION (Kg)	372	364	356	348	340	332	324	316	308	300	292	285	277	269	262	255	247
	TIME (s)	2.60	2.60	2.70	2.70	2.70	2.80	2.80	2.90	2.90	2.90	3.00	3.00	3.10	3.10	3.20	3.30	3.30
	SAG (m)	0.23	0.24	0.24	0.25	0.25	0.26	0.27	0.27	0.28	0.29	0.29	0.30	0.31	0.32	0.33	0.34	0.35
75	TENSION (Kg)	371	363	355	347	340	332	324	316	308	301	293	285	278	270	263	256	248
	TIME (s)	2.80	2.80	2.90	2.90	2.90	3.00	3.00	3.10	3.10	3.20	3.20	3.30	3.30	3.30	3.40	3.50	3.50
	SAG (m)	0.27	0.27	0.28	0.28	0.29	0.30	0.30	0.31	0.32	0.33	0.34	0.35	0.35	0.36	0.37	0.39	0.40
80	TENSION (Kg)	371	363	355	347	340	332	324	316	309	301	293	286	278	271	264	257	249
	TIME (s)	3.00	3.00	3.00	3.10	3.10	3.20	3.20	3.30	3.30	3.30	3.40	3.50	3.50	3.60	3.60	3.70	3.70
	SAG (m)	0.30	0.31	0.32	0.32	0.33	0.34	0.35	0.35	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.44	0.45
85	TENSION (Kg)	371	363	355	347	340	332	324	316	309	301	294	286	279	272	265	258	251
	TIME (s)	3.20	3.20	3.20	3.30	3.30	3.30	3.40	3.50	3.50	3.60	3.60	3.70	3.70	3.80	3.80	3.90	3.90
	SAG (m)	0.34	0.35	0.36	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.45	0.47	0.48	0.49	0.50
90	TENSION (Kg)	371	363	355	347	340	332	324	317	309	302	294	287	280	273	266	259	252
	TIME (s)	3.30	3.40	3.40	3.50	3.50	3.60	3.60	3.60	3.70	3.80	3.80	3.90	3.90	4.00	4.10	4.10	4.20
	SAG (m)	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.45	0.46	0.47	0.48	0.49	0.51	0.52	0.53	0.55	0.56
95	TENSION (Kg)	370	363	355	347	340	332	324	317	310	302	295	288	281	274	267	260	253
	TIME (s)	3.50	3.60	3.60	3.60	3.70	3.80	3.80	3.80	3.90	3.90	4.00	4.10	4.10	4.20	4.30	4.30	4.40
	SAG (m)	0.43	0.44	0.45	0.46	0.47	0.48	0.49	0.50	0.51	0.52	0.54	0.55	0.56	0.58	0.59	0.61	0.62
100	TENSION (Kg)	370	362	355	347	340	332	325	317	310	303	296	288	281	275	268	261	254
	TIME (s)	3.70	3.80	3.80	3.80	3.90	3.90	4.00	4.10	4.10	4.20	4.20	4.30	4.30	4.40	4.50	4.50	4.60
	SAG (m)	0.47	0.48	0.49	0.50	0.52	0.53	0.54	0.55	0.56	0.58	0.59	0.61	0.62	0.64	0.65	0.67	0.69

REV	DATE	DESCRIPTION	SJ ORGD	MM CHKD	LT APRD
A	27 08 26	ORIGINAL ISSUE	SJ	MM	LT

STRUCTURE

TITLE
STEEL CONDUCTORS
OUTER URBAN 3/2.75 SC/GZ 15%
(40m-100m)

DISTRIBUTION CONSTRN STANDARD

westernpower

DRAWN: NC | DATE: 10-08-2026 | DRG No: CT-0123
ORIGINATED: SJ | SCALE: NTS
CHECKED: MM
APPROVED: LANKA THABREW
REV: A | SHT: 1/1

STEEL CONDUCTORS RURAL 3/2.75 SC/AC 25% Table 1 (100m -165m)

New Conductor (Initial) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
100 TENSION (Kg)	616	607	597	588	579	569	560	550	541	532	523	514	505	495	485	476	467
TIME(s)	4.4	4.4	4.5	4.5	4.6	4.6	4.6	4.7	4.7	4.7	4.8	4.8	4.9	4.9	5.0	5.0	5.1
SAG(m)	0.24	0.24	0.25	0.25	0.25	0.26	0.26	0.27	0.27	0.28	0.28	0.29	0.29	0.30	0.30	0.31	0.32
105 TENSION (Kg)	616	607	597	588	579	569	560	550	541	532	523	514	505	495	486	477	468
TIME(s)	4.6	4.7	4.7	4.7	4.8	4.8	4.9	4.9	4.9	5.0	5.0	5.1	5.1	5.2	5.2	5.3	5.3
SAG(m)	0.26	0.27	0.27	0.28	0.28	0.29	0.29	0.30	0.30	0.31	0.31	0.32	0.32	0.33	0.33	0.34	0.35
110 TENSION (Kg)	616	607	597	588	579	569	560	550	541	532	523	514	505	495	486	477	468
TIME(s)	4.9	4.9	4.9	5.0	5.0	5.0	5.1	5.1	5.2	5.2	5.3	5.3	5.4	5.4	5.5	5.5	5.6
SAG(m)	0.29	0.29	0.30	0.30	0.31	0.31	0.32	0.32	0.33	0.34	0.34	0.35	0.35	0.36	0.37	0.37	0.38
115 TENSION (Kg)	616	607	597	588	579	569	560	550	541	532	523	514	505	495	486	477	468
TIME(s)	5.1	5.1	5.2	5.2	5.2	5.3	5.3	5.4	5.4	5.5	5.5	5.6	5.6	5.7	5.7	5.8	5.8
SAG(m)	0.32	0.32	0.33	0.33	0.34	0.34	0.35	0.35	0.36	0.37	0.37	0.38	0.39	0.39	0.40	0.41	0.42
120 TENSION (Kg)	616	607	597	588	579	569	560	550	541	532	523	514	505	495	486	477	469
TIME(s)	5.3	5.3	5.4	5.4	5.5	5.5	5.6	5.6	5.7	5.7	5.7	5.8	5.8	5.9	6.0	6.0	6.1
SAG(m)	0.35	0.35	0.36	0.36	0.37	0.37	0.38	0.39	0.39	0.40	0.41	0.41	0.42	0.43	0.44	0.44	0.45
125 TENSION (Kg)	616	607	597	588	579	569	560	550	541	532	523	514	505	496	487	478	469
TIME(s)	5.5	5.6	5.6	5.6	5.7	5.7	5.8	5.8	5.9	5.9	6.0	6.0	6.1	6.1	6.2	6.3	6.3
SAG(m)	0.37	0.38	0.39	0.39	0.40	0.40	0.41	0.42	0.43	0.43	0.44	0.45	0.46	0.46	0.47	0.48	0.49
130 TENSION (Kg)	616	607	597	588	579	569	560	550	541	532	524	515	506	496	487	478	469
TIME(s)	5.7	5.8	5.8	5.9	5.9	6.0	6.0	6.1	6.1	6.2	6.2	6.3	6.3	6.4	6.5	6.5	6.6
SAG(m)	0.41	0.41	0.42	0.42	0.43	0.44	0.45	0.45	0.46	0.47	0.48	0.48	0.49	0.50	0.51	0.52	0.53
135 TENSION (Kg)	616	607	597	588	579	569	560	551	542	533	524	515	506	496	487	478	470
TIME(s)	6.0	6.0	6.1	6.1	6.1	6.2	6.2	6.3	6.4	6.4	6.5	6.5	6.6	6.6	6.7	6.8	6.8
SAG(m)	0.44	0.44	0.45	0.46	0.46	0.47	0.48	0.49	0.50	0.50	0.51	0.52	0.53	0.54	0.55	0.56	0.57
140 TENSION (Kg)	616	607	597	588	579	570	561	551	542	533	524	515	506	496	487	479	470
TIME(s)	6.2	6.2	6.3	6.3	6.4	6.4	6.5	6.5	6.6	6.6	6.7	6.8	6.8	6.9	6.9	7.0	7.1
SAG(m)	0.47	0.48	0.48	0.49	0.50	0.51	0.52	0.52	0.53	0.54	0.55	0.56	0.57	0.58	0.59	0.60	0.62
145 TENSION (Kg)	616	606	596	587	579	570	561	551	542	533	524	515	506	496	488	479	470
TIME(s)	6.4	6.5	6.5	6.6	6.6	6.7	6.7	6.8	6.8	6.9	6.9	7.0	7.1	7.1	7.2	7.3	7.3
SAG(m)	0.50	0.51	0.52	0.53	0.54	0.54	0.55	0.56	0.57	0.58	0.59	0.60	0.61	0.62	0.64	0.65	0.66
150 TENSION (Kg)	614.7	605.5	596.3	587.2	579	569.8	560.7	551.5	542.3	533.1	524	514.8	505.6	497.5	488.3	479.1	470.9
TIME(s)	6.6	6.7	6.7	6.8	6.8	6.9	6.9	7	7.1	7.1	7.2	7.2	7.3	7.4	7.4	7.5	7.6
SAG(m)	0.54	0.55	0.56	0.56	0.57	0.58	0.59	0.6	0.61	0.62	0.63	0.64	0.66	0.67	0.68	0.69	0.71
155 TENSION (Kg)	614.7	605.5	596.3	587.2	579	569.8	560.7	551.5	542.3	533.1	524	514.8	506.6	497.5	488.3	480.1	470.9
TIME(s)	6.8	6.9	6.9	7	7.1	7.1	7.2	7.2	7.3	7.4	7.4	7.5	7.5	7.6	7.7	7.8	7.8
SAG(m)	0.58	0.58	0.59	0.6	0.61	0.62	0.63	0.64	0.65	0.66	0.68	0.69	0.7	0.71	0.73	0.74	0.75
160 TENSION (Kg)	614.7	605.5	596.3	587.2	579	569.8	560.7	551.5	542.3	533.1	524	515.8	506.6	497.5	489.3	480.1	470.9
TIME(s)	7.1	7.1	7.2	7.2	7.3	7.3	7.4	7.5	7.5	7.6	7.7	7.7	7.8	7.9	7.9	8	8.1
SAG(m)	0.61	0.62	0.63	0.64	0.65	0.66	0.67	0.69	0.7	0.71	0.72	0.73	0.75	0.76	0.77	0.79	0.8
165 TENSION (Kg)	614.7	605.5	596.3	587.2	579	569.8	560.7	551.5	542.3	533.1	525	515.8	506.6	497.5	489.3	480.1	472
TIME(s)	7.3	7.3	7.4	7.5	7.5	7.6	7.6	7.7	7.8	7.8	7.9	8	8	8.1	8.2	8.2	8.3
SAG(m)	0.65	0.66	0.67	0.68	0.69	0.71	0.72	0.73	0.74	0.75	0.77	0.78	0.79	0.81	0.82	0.84	0.85

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
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STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
STEEL CONDUCTORS RURAL 3/2.75
SC/GZ 25% TABLE 1 (100m-165m)

DISTRIBUTION CONSTRUCTION STANDARDS

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APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0160
REV. A SHT.

STEEL CONDUCTORS RURAL 3/2.75 SC/AC 25% Table 2 (170m-235m)

New Conductor (Initial) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
170 TENSION (Kg)	615	606	596	587	579	570	561	551	542	533	525	516	507	498	489	481	472
TIME(s)	7.5	7.6	7.6	7.7	7.7	7.8	7.9	7.9	8.0	8.1	8.1	8.2	8.3	8.3	8.4	8.5	8.6
SAG(m)	0.69	0.70	0.71	0.73	0.74	0.75	0.76	0.77	0.79	0.80	0.81	0.83	0.84	0.86	0.87	0.89	0.90
175 TENSION (Kg)	615	606	596	587	579	570	561	551	542	534	525	516	508	498	489	481	472
TIME(s)	7.7	7.8	7.8	7.9	8.0	8.0	8.1	8.2	8.2	8.3	8.4	8.4	8.5	8.6	8.7	8.7	8.8
SAG(m)	0.74	0.75	0.76	0.77	0.78	0.79	0.81	0.82	0.83	0.85	0.86	0.88	0.89	0.91	0.92	0.94	0.96
180 TENSION (Kg)	615	606	596	587	579	570	561	551	542	534	525	516	508	498	490	481	473
TIME(s)	8.0	8.0	8.1	8.1	8.2	8.3	8.3	8.4	8.5	8.5	8.6	8.7	8.8	8.8	8.9	9.0	9.1
SAG(m)	0.78	0.79	0.80	0.81	0.83	0.84	0.85	0.87	0.88	0.90	0.91	0.93	0.94	0.96	0.98	0.99	1.01
185 TENSION (Kg)	615	606	596	587	579	570	561	551	543	534	525	517	508	499	490	482	473
TIME(s)	8.2	8.2	8.3	8.4	8.4	8.5	8.6	8.6	8.7	8.8	8.8	8.9	9.0	9.1	9.1	9.2	9.3
SAG(m)	0.82	0.83	0.85	0.86	0.87	0.89	0.90	0.92	0.93	0.95	0.96	0.98	0.99	1.01	1.03	1.05	1.07
190 TENSION (Kg)	615	606	596	587	579	570	561	551	543	534	525	517	508	499	490	482	474
TIME(s)	8.4	8.5	8.5	8.6	8.7	8.7	8.8	8.9	8.9	9.0	9.1	9.2	9.2	9.3	9.4	9.5	9.6
SAG(m)	0.87	0.88	0.89	0.91	0.92	0.94	0.95	0.97	0.98	1.00	1.01	1.03	1.05	1.07	1.09	1.10	1.12
195 TENSION (Kg)	615	606	596	587	579	570	561	551	543	534	526	517	509	499	491	482	474
TIME(s)	8.6	8.7	8.7	8.8	8.9	8.9	9.0	9.1	9.2	9.2	9.3	9.4	9.5	9.6	9.6	9.7	9.8
SAG(m)	0.91	0.93	0.94	0.96	0.97	0.98	1.00	1.02	1.03	1.05	1.07	1.09	1.10	1.12	1.14	1.16	1.18
200 TENSION (Kg)	614	606	596	587	579	570	561	552	543	534	526	517	509	501	491	483	475
TIME(s)	8.8	8.9	9.0	9.0	9.1	9.2	9.2	9.3	9.4	9.5	9.6	9.6	9.7	9.8	9.9	10.0	10.1
SAG(m)	0.96	0.98	0.99	1.00	1.02	1.04	1.05	1.07	1.09	1.11	1.12	1.14	1.16	1.18	1.20	1.22	1.24
205 TENSION (Kg)	614	606	596	587	579	570	561	552	543	535	526	518	509	501	491	483	475
TIME(s)	9.1	9.1	9.2	9.3	9.3	9.4	9.5	9.6	9.6	9.7	9.8	9.9	10.0	10.0	10.1	10.2	10.3
SAG(m)	1.01	1.02	1.04	1.06	1.07	1.09	1.11	1.12	1.14	1.16	1.18	1.20	1.22	1.24	1.26	1.28	1.31
210 TENSION (Kg)	614	606	596	587	579	570	561	552	543	535	526	518	509	501	492	484	475
TIME(s)	9.3	9.4	9.4	9.5	9.6	9.6	9.7	9.8	9.9	10.0	10.0	10.1	10.2	10.3	10.4	10.5	10.5
SAG(m)	1.06	1.08	1.09	1.11	1.12	1.14	1.16	1.18	1.20	1.22	1.24	1.26	1.28	1.30	1.32	1.35	1.37
215 TENSION (Kg)	614	604	596	587	579	570	561	552	543	535	526	518	510	501	492	484	476
TIME(s)	9.5	9.6	9.6	9.7	9.8	9.9	9.9	10.0	10.1	10.2	10.3	10.3	10.4	10.5	10.6	10.7	10.8
SAG(m)	1.11	1.13	1.14	1.16	1.18	1.20	1.22	1.24	1.26	1.28	1.30	1.32	1.34	1.36	1.38	1.41	1.43
220 TENSION (Kg)	614	604	596	587	579	570	561	552	543	535	527	518	510	502	493	484	476
TIME(s)	9.7	9.8	9.9	9.9	10.0	10.1	10.2	10.3	10.3	10.4	10.5	10.6	10.7	10.8	10.9	10.9	11.0
SAG(m)	1.16	1.18	1.20	1.22	1.23	1.25	1.27	1.29	1.31	1.34	1.36	1.38	1.40	1.42	1.45	1.47	1.50
225 TENSION (Kg)	614	604	596	587	579	570	561	552	544	535	527	519	510	502	493	485	477
TIME(s)	9.9	10.0	10.1	10.2	10.2	10.3	10.4	10.5	10.6	10.7	10.7	10.8	10.9	11.0	11.1	11.2	11.3
SAG(m)	1.22	1.24	1.25	1.27	1.29	1.31	1.33	1.35	1.37	1.40	1.42	1.44	1.46	1.49	1.51	1.54	1.57
230 TENSION (Kg)	614	604	596	587	579	570	562	552	544	535	527	519	511	502	493	485	477
TIME(s)	10.2	10.2	10.3	10.4	10.5	10.6	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.2	11.3	11.4	11.5
SAG(m)	1.27	1.29	1.31	1.33	1.35	1.37	1.39	1.41	1.44	1.46	1.48	1.51	1.53	1.56	1.58	1.61	1.64
235 TENSION (Kg)	614	604	596	587	579	570	562	552	544	536	527	519	511	503	494	486	478
TIME (s)	10.4	10.5	10.5	10.6	10.7	10.8	10.9	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8
SAG(m)	1.33	1.35	1.37	1.39	1.41	1.43	1.45	1.47	1.50	1.52	1.55	1.57	1.60	1.62	1.65	1.68	1.71

Beat values are in seconds for five wave returns

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STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
STEEL CONDUCTORS RURAL 3/2.75
SC/GZ 25% TABLE 2 (170m-235m)

DISTRIBUTION CONSTRUCTION STANDARDS

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DRG. No. CT-0161
REV. A | SHT.

STEEL CONDUCTORS RURAL 3/2.75 SC/AC 25% Table 3 (240m -300m)

New Conductor (Initial) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
240 TENSION (Kg)	614	604	595	587	579	570	562	552	544	536	527	519	511	503	494	486	478
TIME(s)	10.6	10.7	10.8	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.5	11.6	11.7	11.8	11.9	12.0
SAG(m)	1.39	1.41	1.43	1.45	1.47	1.49	1.51	1.54	1.56	1.59	1.61	1.64	1.66	1.69	1.72	1.75	1.78
245 TENSION (Kg)	613	604	595	587	579	570	562	552	544	536	528	520	511	503	494	487	479
TIME(s)	10.8	10.9	11.0	11.1	11.2	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3
SAG(m)	1.44	1.47	1.49	1.51	1.53	1.55	1.58	1.60	1.63	1.65	1.68	1.71	1.73	1.76	1.79	1.82	1.85
250 TENSION (Kg)	613	604	595	587	579	570	562	554	544	536	528	520	512	504	495	487	479
TIME(s)	11.1	11.1	11.2	11.3	11.4	11.5	11.6	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5
SAG(m)	1.50	1.53	1.55	1.57	1.59	1.62	1.64	1.67	1.69	1.72	1.75	1.77	1.80	1.83	1.86	1.89	1.92
255 TENSION (Kg)	613	604	595	587	579	570	562	554	544	536	528	520	512	504	495	487	480
TIME(s)	11.3	11.4	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.2	12.3	12.4	12.5	12.6	12.8
SAG(m)	1.57	1.59	1.61	1.63	1.66	1.68	1.71	1.73	1.76	1.79	1.82	1.85	1.87	1.91	1.94	1.97	2.00
260 TENSION (Kg)	613	604	595	587	579	570	562	554	545	536	528	520	512	504	496	488	480
TIME(s)	11.5	11.6	11.7	11.8	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0
SAG(m)	1.63	1.65	1.68	1.70	1.72	1.75	1.78	1.80	1.83	1.86	1.89	1.92	1.95	1.98	2.01	2.04	2.08
265 TENSION (Kg)	613	604	595	587	579	570	562	554	545	537	529	521	513	505	496	488	481
TIME(s)	11.7	11.8	11.9	12.0	12.1	12.2	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2
SAG(m)	1.69	1.72	1.74	1.77	1.79	1.82	1.84	1.87	1.90	1.93	1.96	1.99	2.02	2.05	2.09	2.12	2.16
270 TENSION (Kg)	613	603	595	587	579	570	562	554	545	537	529	521	513	505	496	489	481
TIME(s)	12.0	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5
SAG(m)	1.76	1.78	1.81	1.83	1.86	1.89	1.92	1.94	1.97	2.00	2.04	2.07	2.10	2.13	2.17	2.20	2.24
275 TENSION (Kg)	613	603	595	587	579	570	562	554	545	537	529	521	513	506	497	489	482
TIME(s)	12.2	12.3	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7
SAG(m)	1.82	1.85	1.87	1.90	1.93	1.96	1.99	2.02	2.05	2.08	2.11	2.15	2.18	2.21	2.24	2.28	2.32
280 TENSION (Kg)	613	603	595	587	579	570	562	554	545	537	529	521	514	506	497	490	482
TIME(s)	12.4	12.5	12.6	12.7	12.8	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.9	14.0
SAG(m)	1.89	1.92	1.94	1.97	2.00	2.03	2.06	2.09	2.12	2.15	2.19	2.22	2.25	2.29	2.33	2.36	2.40
285 TENSION (Kg)	612	603	595	587	579	570	562	554	545	537	530	522	514	506	498	490	483
TIME(s)	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2
SAG(m)	1.96	1.99	2.01	2.04	2.07	2.10	2.13	2.16	2.20	2.23	2.27	2.30	2.33	2.37	2.41	2.44	2.48
290 TENSION (Kg)	612	603	595	587	579	570	562	554	545	538	530	522	514	507	498	491	483
TIME(s)	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.3	14.5
SAG(m)	2.03	2.06	2.09	2.12	2.15	2.18	2.21	2.24	2.27	2.31	2.34	2.38	2.41	2.45	2.49	2.53	2.57
295 TENSION (Kg)	612	603	595	587	579	570	562	555	546	538	530	522	515	507	498	491	484
TIME(s)	13.1	13.2	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.4	14.5	14.6	14.7
SAG(m)	2.10	2.13	2.16	2.19	2.22	2.25	2.28	2.32	2.35	2.39	2.42	2.46	2.50	2.54	2.57	2.61	2.66
300 TENSION (Kg)	612	603	595	587	579	570	563	555	546	538	530	523	515	507	499	491	484
TIME(s)	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9
SAG(m)	2.17	2.20	2.23	2.26	2.30	2.33	2.36	2.40	2.43	2.47	2.51	2.55	2.58	2.62	2.66	2.70	2.74

Beat values are in seconds for five wave returns

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TITLE CONDUCTOR TENSIONING TABLE
STEEL CONDUCTORS RURAL 3/2.75
SC/GZ 25% TABLE 3 (240m-300m)

DISTRIBUTION CONSTRUCTION STANDARDS

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DRG. No. CT-0162
REV. A | SHT.

STEEL CONDUCTORS OUTER URBAN 3/2.75 SC/AC 15% (40m – 100m)

New Conductor (Initial) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
40	TENSION (Kg)	392	381	369	358	347	336	325	314	303	292	281	270	259	249	238	227	216
	TIME (s)	1.30	1.30	1.40	1.40	1.40	1.40	1.40	1.50	1.50	1.50	1.50	1.60	1.60	1.60	1.60	1.70	1.70
	SAG (m)	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.10	0.10	0.11
45	TENSION (Kg)	391	380	369	358	347	336	325	314	303	292	281	271	260	249	239	228	217
	TIME (s)	1.50	1.50	1.50	1.60	1.60	1.60	1.60	1.60	1.70	1.70	1.70	1.80	1.80	1.80	1.90	1.90	2.00
	SAG (m)	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.11	0.11	0.12	0.13	0.13	0.14
50	TENSION (Kg)	391	380	369	358	347	336	325	314	303	293	282	271	260	250	239	229	219
	TIME (s)	1.70	1.70	1.70	1.70	1.80	1.80	1.80	1.90	1.90	1.90	2.00	2.00	2.00	2.00	2.10	2.10	2.20
	SAG (m)	0.09	0.10	0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.13	0.13	0.14	0.14	0.15	0.15	0.16	0.17
55	TENSION (Kg)	391	380	369	358	347	336	325	315	304	293	282	272	261	251	240	230	220
	TIME (s)	1.90	1.90	1.90	2.00	2.00	2.00	2.00	2.00	2.10	2.10	2.20	2.20	2.20	2.20	2.30	2.30	2.40
	SAG (m)	0.11	0.12	0.12	0.12	0.13	0.13	0.14	0.14	0.15	0.15	0.16	0.16	0.17	0.18	0.19	0.19	0.20
60	TENSION (Kg)	391	380	369	358	347	336	326	315	304	293	283	272	262	251	241	231	221
	TIME (s)	2.00	2.00	2.10	2.10	2.20	2.20	2.20	2.20	2.20	2.30	2.30	2.40	2.40	2.40	2.50	2.50	2.50
	SAG (m)	0.14	0.14	0.14	0.15	0.15	0.16	0.16	0.17	0.17	0.18	0.19	0.20	0.20	0.21	0.22	0.23	0.24
65	TENSION (Kg)	391	380	369	358	347	336	326	315	304	294	283	273	263	252	242	232	222
	TIME (s)	2.20	2.20	2.20	2.30	2.30	2.40	2.40	2.40	2.40	2.50	2.50	2.50	2.60	2.70	2.70	2.70	2.80
	SAG (m)	0.16	0.16	0.17	0.17	0.18	0.19	0.19	0.20	0.20	0.21	0.22	0.23	0.24	0.25	0.26	0.27	0.28
70	TENSION (Kg)	390	380	369	358	347	336	326	315	305	294	284	273	263	253	243	233	224
	TIME (s)	2.40	2.40	2.40	2.50	2.50	2.50	2.50	2.60	2.70	2.70	2.70	2.80	2.80	2.80	2.90	2.90	3.00
	SAG (m)	0.19	0.19	0.20	0.20	0.21	0.21	0.22	0.23	0.24	0.25	0.25	0.26	0.27	0.29	0.30	0.31	0.32
75	TENSION (Kg)	390	379	369	358	347	337	326	315	305	295	284	274	264	254	244	235	225
	TIME (s)	2.50	2.60	2.60	2.70	2.70	2.70	2.80	2.80	2.80	2.90	2.90	2.90	3.00	3.00	3.10	3.20	3.20
	SAG (m)	0.21	0.22	0.23	0.23	0.24	0.25	0.25	0.26	0.27	0.28	0.29	0.30	0.31	0.33	0.34	0.35	0.37
80	TENSION (Kg)	390	379	369	358	347	337	326	316	305	295	285	275	265	255	245	236	227
	TIME (s)	2.70	2.80	2.80	2.80	2.90	2.90	2.90	3.00	3.00	3.10	3.10	3.20	3.20	3.30	3.30	3.30	3.40
	SAG (m)	0.24	0.25	0.26	0.26	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.36	0.37	0.38	0.40	0.42
85	TENSION (Kg)	390	379	368	358	347	337	326	316	306	296	286	276	266	256	247	237	228
	TIME (s)	2.90	2.90	3.00	3.00	3.00	3.10	3.10	3.20	3.20	3.30	3.30	3.30	3.40	3.40	3.50	3.60	3.60
	SAG (m)	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.35	0.36	0.37	0.39	0.40	0.42	0.43	0.45	0.47
90	TENSION (Kg)	389	379	368	358	347	337	326	316	306	296	286	276	267	257	248	239	230
	TIME (s)	3.10	3.10	3.10	3.20	3.20	3.30	3.30	3.30	3.40	3.40	3.50	3.50	3.60	3.60	3.70	3.80	3.80
	SAG (m)	0.31	0.32	0.32	0.33	0.34	0.35	0.37	0.38	0.39	0.40	0.42	0.43	0.45	0.46	0.48	0.50	0.52
95	TENSION (Kg)	389	379	368	358	347	337	327	317	306	297	287	277	268	258	249	240	231
	TIME (s)	3.20	3.30	3.30	3.30	3.40	3.40	3.50	3.50	3.60	3.60	3.70	3.70	3.80	3.80	3.90	3.90	4.00
	SAG (m)	0.34	0.35	0.36	0.37	0.38	0.40	0.41	0.42	0.43	0.45	0.46	0.48	0.50	0.52	0.53	0.55	0.58
100	TENSION (Kg)	389	378	368	358	347	337	327	317	307	297	287	278	268	259	250	241	233
	TIME (s)	3.40	3.40	3.50	3.50	3.60	3.60	3.60	3.70	3.80	3.80	3.90	3.90	4.00	4.00	4.10	4.10	4.20
	SAG (m)	0.38	0.39	0.40	0.41	0.42	0.44	0.45	0.47	0.48	0.50	0.51	0.53	0.55	0.57	0.59	0.61	0.63

REV	DATE	DESCRIPTION	ORGD	CHKD	APRD
A	27 08 26	ORIGINAL ISSUE	SJ	MM	LT

STRUCTURE

TITLE: STEEL CONDUCTORS OUTER URBAN 3/2.75 SC/AC 15% (40m-100m)

DISTRIBUTION CONSTRN STANDARD

westernpower

DRAWN: NC | DATE: 10-08-2026 | DRG No: CT-0163

ORIGINATED: SJ | SCALE: NTS

CHECKED: MM

APPROVED: LANKA THABREW | REV: A | SHT: 1/1

22kV Hendrix Initial 3x150mm² Messenger Tensions (kg)

Note: Before 3x150mm² 22kV Hendrix Cables are Installed

052AWA Messenger Wire (20%CBL)

Temperature	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Ruling span (m)																			
20	1477	1433	1388	1344	1300	1255	1209	1164	1120	1075	1031	987	942	898	854	810	768	724	680
25	1418	1373	1329	1285	1240	1196	1152	1107	1063	1018	976	932	887	845	701	758	715	674	631
30	1346	1302	1258	1214	1169	1125	1083	1039	995	951	907	864	823	780	738	696	656	616	576
35	1262	1219	1175	1131	1088	1045	1001	958	915	873	831	790	749	707	669	630	591	555	520
40	1167	1123	1082	1039	995	954	910	871	829	788	747	708	670	633	596	562	529	497	467
45	1061	1020	979	937	895	855	815	775	736	699	663	628	593	561	529	498	471	445	421
50	949	909	869	830	791	754	718	681	646	614	582	550	522	494	470	446	425	405	385
55	833	796	758	724	689	656	623	593	565	537	511	486	465	443	424	405	388	373	359
60	721	688	656	625	596	570	543	519	495	475	455	437	419	403	388	375	362	350	339
65	620	594	568	544	521	501	480	461	444	428	413	399	386	373	363	352	343	332	324
70	538	518	499	480	464	448	432	418	406	392	382	371	362	352	344	334	326	320	312
75	476	462	446	433	420	408	398	387	377	367	359	351	343	335	328	321	315	309	304
80	431	420	410	400	389	380	372	364	356	349	341	335	329	323	317	311	306	301	297
85	399	389	381	374	366	359	352	346	339	333	328	323	318	313	308	304	300	295	291
90	374	367	361	355	349	343	337	332	327	322	318	313	309	305	301	297	294	290	286
95	356	350	345	339	334	330	326	321	317	313	309	306	302	299	295	292	288	285	282
100	340	336	332	328	324	320	316	313	309	306	303	299	297	294	291	287	284	281	279
105	329	326	322	319	315	312	309	306	303	300	297	294	292	288	286	283	281	279	276
110	320	317	314	311	308	306	303	300	298	295	293	290	287	285	282	280	278	276	274

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
A	07.03.17	ORIGINAL ISSUE	JC	REE	GS

STRUCTURE

CONDUCTOR TENSIONING TABLE

22kV HENDRIX INITIAL MESSENGER TENSIONS

052AWA MESSENGER WIRE (20%CBL)

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 01-03-2017 | DRG. No. CT-0170

ORIGINATED: JC | SCALE: NTS

CHECKED: REE

APPROVED: GRANT STACY

REV. A | SHT.

22kV Hendrix Final Messenger Tensions (kg)

Note: After 3x150mm² 22kV Hendrix Cables are Installed

052awa Messenger Wire (20%CBL)

Temperature	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Ruling span (m)																			
20	1583	1544	1506	1467	1429	1391	1354	1317	1281	1246	1211	1177	1144	1111	1080	1049	1019	990	961
25	1583	1546	1511	1475	1439	1405	1371	1337	1305	1272	1242	1211	1180	1152	1123	1096	1068	1043	1017
30	1583	1549	1516	1483	1451	1419	1388	1358	1328	1299	1270	1243	1216	1190	1164	1139	1115	1092	1068
35	1583	1552	1522	1491	1462	1433	1405	1377	1350	1323	1298	1273	1249	1224	1202	1179	1157	1136	1115
40	1583	1555	1527	1499	1472	1446	1420	1396	1371	1347	1323	1301	1278	1257	1235	1215	1196	1176	1157
45	1583	1558	1532	1507	1482	1459	1435	1412	1389	1368	1347	1326	1306	1286	1267	1248	1229	1212	1195
50	1583	1560	1536	1514	1491	1470	1449	1427	1407	1387	1368	1349	1330	1312	1295	1277	1261	1245	1228
55	1583	1562	1540	1520	1499	1480	1460	1441	1423	1405	1386	1369	1353	1336	1320	1304	1288	1273	1259
60	1583	1564	1544	1525	1507	1489	1471	1454	1436	1420	1404	1388	1372	1357	1343	1328	1314	1300	1286
65	1583	1566	1547	1531	1514	1497	1481	1465	1450	1434	1419	1405	1390	1376	1363	1350	1336	1323	1311
70	1583	1567	1551	1535	1520	1505	1489	1475	1461	1446	1433	1420	1407	1393	1381	1368	1356	1345	1332
75	1583	1569	1554	1539	1525	1511	1497	1484	1471	1458	1445	1433	1421	1409	1398	1385	1374	1363	1353
80	1583	1570	1557	1543	1530	1517	1505	1492	1480	1468	1457	1445	1434	1423	1412	1401	1390	1380	1370
85	1583	1571	1559	1546	1534	1523	1511	1499	1488	1477	1467	1456	1445	1435	1425	1415	1406	1396	1386
90	1583	1572	1561	1549	1538	1527	1517	1507	1495	1485	1476	1466	1456	1446	1437	1428	1419	1410	1401
95	1583	1573	1563	1551	1541	1532	1522	1512	1503	1493	1483	1474	1466	1457	1448	1439	1430	1422	1414
100	1583	1574	1564	1555	1545	1535	1526	1518	1509	1499	1491	1482	1474	1466	1458	1450	1441	1433	1426
105	1583	1574	1566	1557	1547	1539	1531	1522	1514	1506	1497	1489	1482	1474	1467	1459	1452	1444	1437
110	1583	1575	1567	1559	1550	1542	1534	1527	1519	1512	1504	1496	1489	1482	1474	1468	1461	1454	1446

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
A	07.03.17	ORIGINAL ISSUE	JC	REE	GS

STRUCTURE

TITLE
CONDUCTOR TENSIONING TABLE
22kV HENDRIX FINAL MESSENGER TENSIONS
052AWA MESSENGER WIRE (20%CBL)

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 01-03-2017 | DRG. No. CT-0171
ORIGINATED: JC | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. A | SHT.

River Crossing - 22kV Hendrix Final Messenger Tensions (kg)																			
Note: Messenger and Conductors are Installed Simultaneously																			
19/2.75 SC/SG Messenger Wire (25%CBL)																			
Temperature	**5**	**7.5**	**10**	**12.5**	**15**	**17.5**	**20**	**22.5**	**25**	**27.5**	**30**	**32.5**	**35**	**37.5**	**40**	**42.5**	**45**	**47.5**	**50**
Single span (m)																			
110	3680	3643	3608	3572	3537	3503	3468	3434	3401	3367	3334	3302	3270	3239	3207	3176	3146	3116	3087
115	3680	3644	3610	3575	3541	3508	3475	3441	3409	3377	3346	3314	3283	3253	3222	3193	3163	3135	3106
120	3680	3645	3612	3579	3545	3513	3481	3450	3418	3386	3556	3326	3296	3266	3238	3208	3179	3152	3124
125	3680	3646	3614	3582	3550	3519	3487	3457	3426	3397	3367	3337	3308	3279	3252	3223	3196	3169	3142
130	3680	3647	3616	3585	3555	3524	3493	3464	3434	3406	3376	3349	3320	3293	3265	3239	3212	3186	3159
135	3680	3648	3618	3588	3559	3529	3499	3471	3442	3414	3386	3359	3332	3305	3278	3253	3226	3202	3176
140	3680	3649	3620	3591	3562	3533	3506	3477	3450	3423	3396	3369	3344	3317	3292	3266	3242	3217	3193
145	3680	3650	3622	3593	3566	3538	3511	3484	3458	3431	3405	3379	3354	3329	3304	3279	3256	3231	3208
150	3680	3651	3624	3596	3570	3543	3517	3490	3465	3439	3414	3389	3365	3340	3316	3293	3269	3246	3223
155	3680	3652	3626	3599	3573	3547	3522	3496	3472	3446	3422	3399	3374	3351	3328	3305	3282	3260	3238
160	3680	3653	3628	3601	3577	3551	3527	3503	3478	3455	3431	3408	3384	3362	3339	3317	3295	3273	3252
165	3680	3654	3629	3604	3580	3556	3532	3508	3484	3462	3438	3416	3393	3372	3350	3328	3307	3286	3265
170	3680	3655	3631	3607	3583	3560	3536	3514	3491	3469	3446	3425	3403	3381	3361	3339	3319	3299	3278
175	3680	3655	3632	3610	3586	3564	3541	3519	3497	3475	3454	3432	3412	3391	3371	3351	3330	3311	3292
180	3680	3656	3634	3612	3589	3567	3545	3524	3503	3482	3461	3440	3420	3401	3380	3361	3341	3322	3303
185	3680	3657	3635	3614	3592	3571	3549	3529	3509	3488	3468	3449	3428	3409	3389	3371	3352	3333	3315
190	3680	3657	3637	3616	3595	3574	3554	3534	3514	3494	3475	3456	3436	3417	3399	3380	3362	3344	3326
195	3680	3659	3638	3618	3597	3578	3558	3538	3519	3499	3481	3462	3443	3425	3408	3389	3372	3354	3336
200	3680	3660	3639	3620	3600	3581	3562	3542	3524	3506	3487	3469	3451	3433	3416	3399	3381	3364	3348

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
A	07.03.17	ORIGINAL ISSUE	JC	REE	GS

STRUCTURE

CONDUCTOR TENSIONING TABLE

RIVER CROSSING - 22kV HENDRIX FINAL MESSENGER TENSIONS -19/2.75 SC/GZ MESSENGER WIRE (25%CBL)

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 01-03-2017 | DRG. No. CT-0172

ORIGINATED: JC | SCALE: NTS

CHECKED: REE

APPROVED: GRANT STACY | REV. A | SHT.

River Crossing - 22kV Hendrix Final Messenger Tensions (kg)

Note: Messenger and Conductors are Installed Simultaneously

19/3.25 SC/SG Messenger Wire (25%CBL)

Temperature	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Single span (m)																			
200	5095	5058	5021	4986	4950	4915	4881	4846	4812	4779	4746	4714	4681	4649	4618	4587	4557	4526	4495
205	5095	5059	5023	4989	4954	4920	4886	4853	4820	4787	4755	4724	4692	4661	4630	4599	4570	4540	4511
210	5095	5060	5025	4992	4958	4925	4892	4859	4827	4795	4764	4733	4702	4672	4642	4613	4583	4555	4526
215	5095	5061	5028	4994	4961	4929	4897	4865	4834	4803	4773	4742	4713	4683	4653	4625	4596	4568	4540
220	5095	5062	5030	4997	4964	4933	4902	4872	4841	4810	4781	4751	4722	4693	4665	4636	4609	4581	4554
225	5095	5062	5031	4999	4968	4938	4907	4877	4847	4818	4789	4759	4731	4703	4676	4648	4621	4594	4568
230	5095	5063	5033	5002	4971	4941	4911	4883	4853	4825	4796	4769	4740	4714	4686	4660	4633	4607	4581
235	5095	5064	5034	5004	4975	4945	4916	4888	4859	4832	4804	4777	4749	4723	4696	4670	4644	4619	4593
240	5095	5065	5036	5006	4978	4949	4920	4893	4865	4838	4811	4784	4758	4732	4706	4681	4655	4630	4606
245	5095	5066	5037	5008	4981	4953	4926	4898	4872	4844	4819	4792	4767	4741	4716	4691	4666	4641	4618
250	5095	5066	5039	5011	4984	4956	4930	4903	4877	4851	4825	4799	4775	4749	4725	4700	4677	4652	4629
255	5095	5067	5040	5013	4986	4960	4934	4907	4882	4856	4832	4807	4782	4758	4734	4710	4687	4664	4640
260	5095	5068	5042	5015	4989	4963	4938	4912	4887	4862	4838	4813	4790	4767	4743	4720	4696	4674	4651
265	5095	5068	5043	5017	4992	4966	4942	4916	4892	4869	4844	4821	4797	4775	4751	4729	4706	4684	4662
270	5095	5069	5044	5019	4994	4969	4945	4922	4897	4874	4850	4828	4804	4782	4759	4737	4716	4694	4672
275	5095	5070	5045	5020	4997	4972	4949	4926	4902	4879	4856	4834	4811	4789	4768	4746	4725	4703	4682
280	5095	5070	5047	5022	4999	4976	4952	4930	4907	4885	4862	4840	4819	4797	4776	4754	4733	4713	4692
285	5095	5071	5048	5024	5001	4979	4956	4934	4911	4890	4867	4846	4825	4804	4783	4762	4742	4722	4701
290	5095	5071	5049	5027	5003	4982	4959	4938	4915	4894	4874	4852	4832	4810	4790	4770	4750	4730	4710

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
A	07.03.17	ORIGINAL ISSUE	JC	REE	GS

STRUCTURE

CONDUCTOR TENSIONING TABLE

RIVER CROSSING - 22kV HENDRIX FINAL MESSENGER TENSIONS -19/3.25 SC/GZ MESSENGER WIRE (25%CBL)

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 01-03-2017 | DRG. No. CT-0173

ORIGINATED: JC | SCALE: NTS

CHECKED: REE

APPROVED: GRANT STACY | REV. A | SHT.

RURAL (60m – 135m) 6/1/3.00 ACSR BEAN 16% UNDERSLUNG EARTHWIRE TO MATCH ACSR 18%

New Conductor (Initial) (deg. C.)		25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65
New Conductor (Initial) Next Day (deg. C.)		20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60
Existing Conductor (Final) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	307	288	270	253	237	221	206	192	179	167	156	146	137	129	122	115	110
	TIME (s)	2.70	2.80	2.90	3.00	3.10	3.20	3.30	3.40	3.60	3.70	3.80	3.90	4.10	4.20	4.30	4.40	4.50
	SAG (m)	0.25	0.27	0.28	0.30	0.33	0.35	0.37	0.40	0.43	0.46	0.49	0.53	0.56	0.60	0.63	0.67	0.70
65	TENSION (Kg)	304	287	269	253	237	221	207	194	181	170	159	150	141	134	127	120	115
	TIME (s)	3.00	3.00	3.20	3.30	3.30	3.50	3.60	3.70	3.80	3.90	4.10	4.20	4.30	4.50	4.60	4.70	4.80
	SAG (m)	0.30	0.32	0.34	0.36	0.38	0.41	0.44	0.47	0.50	0.53	0.57	0.60	0.64	0.68	0.71	0.75	0.79
70	TENSION (Kg)	302	285	268	252	237	222	208	195	184	173	163	154	145	138	131	125	120
	TIME (s)	3.20	3.30	3.40	3.50	3.60	3.70	3.80	4.00	4.10	4.20	4.30	4.50	4.60	4.70	4.80	5.00	5.10
	SAG (m)	0.35	0.37	0.39	0.42	0.44	0.47	0.50	0.54	0.57	0.61	0.64	0.68	0.72	0.76	0.80	0.84	0.87
75	TENSION (Kg)	300	283	267	251	237	223	209	197	186	175	166	157	149	142	136	130	124
	TIME (s)	3.40	3.50	3.60	3.80	3.90	4.00	4.10	4.20	4.40	4.50	4.60	4.70	4.90	5.00	5.10	5.20	5.30
	SAG (m)	0.40	0.42	0.45	0.48	0.51	0.54	0.57	0.61	0.65	0.69	0.72	0.76	0.81	0.85	0.89	0.93	0.97
80	TENSION (Kg)	298	282	266	251	237	223	211	199	188	178	169	161	153	146	140	134	129
	TIME (s)	3.70	3.80	3.90	4.00	4.10	4.20	4.40	4.50	4.60	4.80	4.90	5.00	5.10	5.30	5.40	5.50	5.60
	SAG (m)	0.46	0.49	0.51	0.55	0.58	0.61	0.65	0.69	0.73	0.77	0.81	0.85	0.89	0.94	0.98	1.02	1.06
85	TENSION (Kg)	296	280	265	250	237	224	212	201	190	181	172	164	157	150	144	138	133
	TIME (s)	3.90	4.00	4.10	4.30	4.40	4.50	4.60	4.80	4.90	5.00	5.10	5.30	5.40	5.50	5.60	5.70	5.80
	SAG (m)	0.52	0.55	0.58	0.62	0.65	0.69	0.73	0.77	0.81	0.85	0.90	0.94	0.99	1.03	1.07	1.12	1.16
90	TENSION (Kg)	293	278	264	250	237	224	213	202	192	183	175	167	160	154	148	142	137
	TIME (s)	4.20	4.30	4.40	4.50	4.60	4.80	4.90	5.00	5.10	5.30	5.40	5.50	5.60	5.80	5.90	6.00	6.10
	SAG (m)	0.59	0.62	0.66	0.69	0.73	0.77	0.81	0.86	0.90	0.95	0.99	1.04	1.08	1.13	1.17	1.22	1.26
95	TENSION (Kg)	291	277	262	249	237	225	214	204	194	185	177	170	163	157	151	146	141
	TIME (s)	4.40	4.50	4.70	4.80	4.90	5.00	5.10	5.30	5.40	5.50	5.70	5.80	5.90	6.00	6.10	6.20	6.30
	SAG (m)	0.66	0.70	0.74	0.77	0.82	0.86	0.90	0.95	0.99	1.04	1.09	1.14	1.18	1.23	1.28	1.32	1.37
100	TENSION (Kg)	289	275	261	249	237	225	215	205	196	188	180	173	166	160	154	149	144
	TIME (s)	4.70	4.80	4.90	5.00	5.10	5.30	5.40	5.50	5.70	5.80	5.90	6.00	6.20	6.30	6.40	6.50	6.60
	SAG (m)	0.74	0.78	0.82	0.86	0.90	0.95	1.00	1.04	1.09	1.14	1.19	1.24	1.29	1.34	1.38	1.43	1.48
105	TENSION (Kg)	287	273	260	248	237	226	216	206	198	190	182	175	169	163	158	153	148
	TIME (s)	4.90	5.00	5.10	5.30	5.40	5.50	5.70	5.80	5.90	6.00	6.20	6.30	6.40	6.50	6.60	6.70	6.80
	SAG (m)	0.82	0.86	0.91	0.95	1.00	1.04	1.09	1.14	1.19	1.24	1.29	1.34	1.39	1.44	1.50	1.54	1.59
110	TENSION (Kg)	285	272	259	248	237	226	217	208	199	192	185	178	172	166	161	156	151
	TIME (s)	5.20	5.30	5.40	5.50	5.70	5.80	5.90	6.10	6.20	6.30	6.40	6.50	6.70	6.80	6.90	7.00	7.10
	SAG (m)	0.91	0.95	1.00	1.05	1.09	1.14	1.19	1.25	1.30	1.35	1.40	1.45	1.51	1.56	1.61	1.66	1.71
115	TENSION (Kg)	283	270	258	247	237	227	218	209	201	194	187	180	174	169	164	159	154
	TIME (s)	5.40	5.60	5.70	5.80	5.90	6.10	6.20	6.30	6.40	6.50	6.70	6.80	6.90	7.00	7.10	7.20	7.30
	SAG (m)	1.00	1.05	1.09	1.14	1.20	1.25	1.30	1.35	1.41	1.46	1.51	1.57	1.62	1.68	1.73	1.78	1.83
120	TENSION (Kg)	281	269	257	247	237	227	218	210	202	195	189	183	177	171	166	162	157
	TIME (s)	5.70	5.80	5.90	6.10	6.20	6.30	6.40	6.60	6.70	6.80	6.90	7.00	7.10	7.30	7.40	7.50	7.60
	SAG (m)	1.10	1.15	1.20	1.25	1.30	1.36	1.41	1.47	1.52	1.58	1.63	1.69	1.74	1.80	1.85	1.90	1.96
125	TENSION (Kg)	279	267	256	246	237	228	219	211	204	197	191	185	179	174	169	164	160
	TIME (s)	5.90	6.10	6.20	6.30	6.40	6.60	6.70	6.80	6.90	7.10	7.20	7.30	7.40	7.50	7.60	7.70	7.80
	SAG (m)	1.20	1.25	1.30	1.36	1.41	1.47	1.52	1.58	1.64	1.70	1.75	1.81	1.87	1.92	1.98	2.03	2.09
130	TENSION (Kg)	277	266	256	246	237	228	220	212	205	199	193	187	181	176	171	167	163
	TIME (s)	6.20	6.30	6.40	6.60	6.70	6.80	6.90	7.10	7.20	7.30	7.40	7.50	7.60	7.80	7.90	8.00	8.10
	SAG (m)	1.30	1.36	1.41	1.47	1.53	1.59	1.64	1.70	1.76	1.82	1.88	1.94	1.99	2.05	2.11	2.16	2.22
135	TENSION (Kg)	275	265	255	245	237	228	221	213	207	200	194	189	183	178	174	170	165
	TIME (s)	6.40	6.60	6.70	6.80	7.00	7.10	7.20	7.30	7.40	7.60	7.70	7.80	7.90	8.00	8.10	8.20	8.30
	SAG (m)	1.42	1.47	1.53	1.59	1.65	1.71	1.77	1.83	1.89	1.95	2.01	2.07	2.12	2.18	2.24	2.30	2.36

REV	DATE	DESCRIPTION	ORGD	CHKD	APRD
A	27 08 26	ORIGINAL ISSUE	SJ	MM	LT

STRUCTURE

TITLE: RURAL (60m-135m) 6/1/3.00 ACSR BEAN 16% UNDERSLUNG EARTHWIRE TO MATCH ACSR 18%

DISTRIBUTION CONSTRN STANDARD

westernpower

DRAWN: NC | DATE: 10-08-2026 | DRG No: CT-0190

ORIGINATED: SJ | SCALE: NTS

CHECKED: MM

APPROVED: LANKA THABREW

REV: A | SHT: 1/1

RURAL (140m – 215m) 6/1/3.00 ACSR 16% UNDERSLUNG EARTHWIRE TO MATCH ACSR 18%

New Conductor (Initial) (deg. C.)		25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65
New Conductor (Initial) Next Day (deg. C.)		20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60
Existing Conductor (Final) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
140	TENSION (Kg)	274	263	254	245	237	229	221	214	208	202	196	190	185	181	176	172	168
	TIME (s)	6.70	6.80	7.00	7.10	7.20	7.40	7.50	7.60	7.70	7.80	7.90	8.00	8.10	8.30	8.40	8.50	8.60
	SAG (m)	1.53	1.59	1.65	1.71	1.77	1.83	1.89	1.96	2.02	2.08	2.14	2.20	2.26	2.32	2.38	2.44	2.50
145	TENSION (Kg)	272	262	253	245	237	229	222	215	209	203	197	192	187	183	178	174	170
	TIME (s)	7.00	7.10	7.20	7.40	7.50	7.60	7.70	7.80	7.90	8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80
	SAG (m)	1.65	1.71	1.78	1.84	1.90	1.96	2.03	2.09	2.15	2.21	2.28	2.34	2.40	2.46	2.52	2.58	2.64
150	TENSION (Kg)	270	261	252	244	237	229	222	216	210	204	199	194	189	185	180	176	173
	TIME (s)	7.20	7.40	7.50	7.60	7.70	7.90	8.00	8.10	8.20	8.30	8.40	8.50	8.60	8.80	8.90	9.00	9.10
	SAG (m)	1.78	1.84	1.91	1.97	2.03	2.10	2.16	2.23	2.29	2.35	2.42	2.48	2.54	2.61	2.67	2.73	2.79
155	TENSION (Kg)	269	260	252	244	237	230	223	217	211	206	200	195	191	186	182	178	175
	TIME (s)	7.50	7.60	7.70	7.90	8.00	8.10	8.20	8.30	8.40	8.60	8.70	8.80	8.90	9.00	9.10	9.20	9.30
	SAG (m)	1.91	1.97	2.04	2.11	2.17	2.24	2.30	2.37	2.43	2.50	2.56	2.63	2.69	2.75	2.82	2.88	2.94
160	TENSION (Kg)	268	259	251	244	237	230	224	218	212	207	202	197	193	188	184	180	177
	TIME (s)	7.80	7.90	8.00	8.10	8.20	8.40	8.50	8.60	8.70	8.80	8.90	9.00	9.10	9.20	9.30	9.40	9.50
	SAG (m)	2.05	2.11	2.18	2.25	2.31	2.38	2.45	2.51	2.58	2.65	2.71	2.78	2.84	2.91	2.97	3.03	3.10
165	TENSION (Kg)	266	258	251	243	237	230	224	218	213	208	203	198	194	190	186	182	179
	TIME (s)	8.00	8.10	8.30	8.40	8.50	8.60	8.70	8.80	9.00	9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80
	SAG (m)	2.19	2.26	2.32	2.39	2.46	2.53	2.60	2.67	2.73	2.80	2.87	2.93	3.00	3.06	3.13	3.19	3.26
170	TENSION (Kg)	265	257	250	243	237	230	225	219	214	209	204	200	196	192	188	184	181
	TIME (s)	8.30	8.40	8.50	8.70	8.80	8.90	9.00	9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80	9.90	10.00
	SAG (m)	2.33	2.40	2.47	2.54	2.61	2.68	2.75	2.82	2.89	2.96	3.03	3.09	3.16	3.23	3.29	3.36	3.42
175	TENSION (Kg)	264	256	249	243	237	231	225	220	215	210	205	201	197	193	189	186	182
	TIME (s)	8.60	8.70	8.80	8.90	9.00	9.10	9.20	9.40	9.50	9.60	9.70	9.80	9.90	10.00	10.10	10.20	10.30
	SAG (m)	2.48	2.55	2.63	2.70	2.77	2.84	2.91	2.98	3.05	3.12	3.19	3.26	3.32	3.39	3.46	3.52	3.59
180	TENSION (Kg)	263	256	249	243	237	231	225	220	216	211	207	202	198	195	191	188	184
	TIME (s)	8.80	8.90	9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80	9.90	10.00	10.10	10.20	10.30	10.40	10.50
	SAG (m)	2.64	2.71	2.78	2.86	2.93	3.00	3.07	3.14	3.21	3.28	3.35	3.42	3.49	3.56	3.63	3.69	3.76
185	TENSION (Kg)	262	255	248	242	237	231	226	221	216	212	208	204	200	196	192	189	186
	TIME (s)	9.10	9.20	9.30	9.40	9.50	9.60	9.80	9.90	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80
	SAG (m)	2.80	2.87	2.95	3.02	3.09	3.17	3.24	3.31	3.38	3.45	3.53	3.60	3.66	3.73	3.80	3.87	3.94
190	TENSION (Kg)	260	254	248	242	237	231	226	222	217	213	209	205	201	197	194	191	187
	TIME (s)	9.30	9.40	9.60	9.70	9.80	9.90	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	11.00
	SAG (m)	2.96	3.04	3.11	3.19	3.26	3.34	3.41	3.48	3.56	3.63	3.70	3.77	3.84	3.91	3.98	4.05	4.12
195	TENSION (Kg)	260	253	247	242	237	232	227	222	218	214	210	206	202	199	195	192	189
	TIME (s)	9.60	9.70	9.80	9.90	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	11.00	11.10	11.20	11.20
	SAG (m)	3.13	3.21	3.29	3.36	3.44	3.51	3.59	3.66	3.73	3.81	3.88	3.95	4.02	4.09	4.16	4.23	4.30
200	TENSION (Kg)	259	253	247	242	237	232	227	223	218	214	210	207	203	200	197	193	190
	TIME (s)	9.90	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	11.00	11.10	11.20	11.30	11.40	11.50
	SAG (m)	3.31	3.38	3.46	3.54	3.61	3.69	3.77	3.84	3.92	3.99	4.06	4.14	4.21	4.28	4.35	4.42	4.49
205	TENSION (Kg)	258	252	247	241	237	232	227	223	219	215	211	208	204	201	198	195	192
	TIME (s)	10.10	10.20	10.30	10.50	10.60	10.70	10.80	10.90	11.00	11.10	11.20	11.30	11.40	11.50	11.50	11.60	11.70
	SAG (m)	3.49	3.57	3.64	3.72	3.80	3.88	3.95	4.03	4.10	4.18	4.25	4.32	4.40	4.47	4.54	4.61	4.68
210	TENSION (Kg)	257	251	246	241	237	232	228	224	220	216	212	209	205	202	199	196	193
	TIME (s)	10.40	10.50	10.60	10.70	10.80	10.90	11.00	11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	12.00
	SAG (m)	3.67	3.75	3.83	3.91	3.99	4.06	4.14	4.22	4.29	4.37	4.44	4.52	4.59	4.66	4.74	4.81	4.88
215	TENSION (Kg)	256	251	246	241	237	232	228	224	220	217	213	210	206	203	200	197	195
	TIME (s)	10.60	10.80	10.90	11.00	11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	11.90	12.00	12.10	12.20
	SAG (m)	3.86	3.94	4.02	4.10	4.18	4.26	4.33	4.41	4.49	4.56	4.64	4.72	4.79	4.86	4.94	5.01	5.08

REV	DATE	DESCRIPTION	ORGD	CHKD	APRD
A	27 08 26	ORIGINAL ISSUE	SJ	MM	LT

STRUCTURE

TITLE: RURAL (140m-215m) 6/1/3.00 ACSR 16% UNDERSLUNG EARTHWIRE TO MATCH ACSR 18%

DISTRIBUTION CONSTRN STANDARD

westernpower

DRAWN: NC | DATE: 10-08-2026 | DRG No: CT-0191

ORIGINATED: SJ | SCALE: NTS

CHECKED: MM

APPROVED: LANKA THABREW | REV: A | SHT: 1/1

RURAL (220m – 260m) 6/1/3.00 ACSR 16% UNDERSLUNG EARTHWIRE TO MATCH ACSR 18%

New Conductor (Initial) (deg. C.)		25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65
New Conductor (Initial) Next Day (deg. C.)		20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60
Existing Conductor (Final) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
220	TENSION (Kg)	255	250	246	241	237	232	228	225	221	217	214	210	207	204	201	199	196
	TIME (s)	10.90	11.00	11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	12.00	12.10	12.20	12.30	12.40	12.50
	SAG (m)	4.05	4.13	4.21	4.30	4.37	4.45	4.53	4.61	4.69	4.76	4.84	4.92	4.99	5.07	5.14	5.21	5.29
225	TENSION (Kg)	255	250	245	241	237	233	229	225	221	218	214	211	208	205	202	200	197
	TIME (s)	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	12.00	12.10	12.20	12.30	12.40	12.50	12.50	12.60	12.70
	SAG (m)	4.25	4.33	4.41	4.50	4.58	4.66	4.74	4.81	4.89	4.97	5.05	5.12	5.20	5.27	5.35	5.42	5.50
230	TENSION (Kg)	254	249	245	241	237	233	229	225	222	218	215	212	209	206	203	201	198
	TIME (s)	11.40	11.50	11.60	11.70	11.80	11.90	12.00	12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	12.90
	SAG (m)	4.45	4.54	4.62	4.70	4.78	4.86	4.94	5.02	5.10	5.18	5.26	5.33	5.41	5.49	5.56	5.63	5.71
235	TENSION (Kg)	253	249	245	241	237	233	229	226	222	219	216	213	210	207	204	202	199
	TIME (s)	11.70	11.80	11.90	12.00	12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	12.90	13.00	13.10	13.20
	SAG (m)	4.66	4.74	4.83	4.91	4.99	5.07	5.15	5.23	5.31	5.39	5.47	5.55	5.62	5.70	5.78	5.85	5.93
240	TENSION (Kg)	253	248	244	240	237	233	229	226	223	220	217	214	211	208	205	203	200
	TIME (s)	12.00	12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.70	12.80	12.90	13.00	13.10	13.20	13.30	13.40	13.40
	SAG (m)	4.87	4.96	5.04	5.12	5.21	5.29	5.37	5.45	5.53	5.61	5.69	5.77	5.84	5.92	6.00	6.07	6.15
245	TENSION (Kg)	252	248	244	240	237	233	230	226	223	220	217	214	212	209	206	204	201
	TIME (s)	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	13.00	13.10	13.20	13.30	13.40	13.40	13.50	13.60	13.70
	SAG (m)	5.09	5.17	5.26	5.34	5.43	5.51	5.59	5.67	5.75	5.83	5.91	5.99	6.07	6.15	6.22	6.30	6.37
250	TENSION (Kg)	252	248	244	240	237	233	230	227	224	221	218	215	212	210	207	205	202
	TIME (s)	12.50	12.60	12.70	12.80	12.90	13.00	13.10	13.20	13.30	13.30	13.40	13.50	13.60	13.70	13.80	13.80	13.90
	SAG (m)	5.31	5.40	5.48	5.57	5.65	5.73	5.81	5.90	5.98	6.06	6.14	6.22	6.30	6.37	6.45	6.53	6.61
255	TENSION (Kg)	251	247	244	240	237	233	230	227	224	221	218	216	213	210	208	206	203
	TIME (s)	12.80	12.80	12.90	13.00	13.10	13.20	13.30	13.40	13.50	13.60	13.70	13.80	13.80	13.90	14.00	14.10	14.20
	SAG (m)	5.54	5.62	5.71	5.79	5.88	5.96	6.04	6.13	6.21	6.29	6.37	6.45	6.53	6.61	6.69	6.76	6.84
260	TENSION (Kg)	251	247	243	240	237	233	230	227	224	222	219	216	214	211	209	206	204
	TIME (s)	13.00	13.10	13.20	13.30	13.40	13.50	13.60	13.70	13.80	13.80	13.90	14.00	14.10	14.20	14.30	14.30	14.40
	SAG (m)	5.77	5.85	5.94	6.03	6.11	6.19	6.28	6.36	6.44	6.52	6.61	6.69	6.77	6.85	6.92	7.00	7.08

REV	DATE	DESCRIPTION	ORGD	CHKD	APRD
A	27 08 26	ORIGINAL ISSUE	SJ	MM	LT

STRUCTURE

TITLE: RURAL (220m-260m) 6/1/3.00 ACSR 16% UNDERSLUNG EARTHWIRE TO MATCH ACSR 18%

DISTRIBUTION CONSTRN STANDARD

westernpower

DRAWN: NC | DATE: 10-08-2026 | DRG No: CT-0192

ORIGINATED: SJ | SCALE: NTS

CHECKED: MM

APPROVED: LANKA THABREW | REV: A | SHT: 1/1

Information Section

Number	Revision	Description
CT-0001	C	URBAN (20 – 50m) 95mm 4C LV ABC 5%
CT-0002	C	URBAN (20 – 50m) 150mm 4C LV ABC 5%
CT-0003	C	URBAN (20 – 80m) 95mm 4C L V ABC 7%
CT-0004	C	URBAN (20 – 80m) 150mm 4C LV ABC 7%
CT-0057	A	OUTER URBAN (60m – 105m) 7/16 Fe 7% Underslung earthwire to match AAC 18% (EXCEPT FOR 37/3.75 AAC)
CT-0086	B	RURAL (60m – 135m) 3/2.75 SC/AC 16% Underslung earthwire to match AAAC 18%
CT-0111	B	RURAL (60m – 135m) 7/16Fe 12% Underslung earth wire to match 6/1/4.75 – 7/1.60 ACSR/GZ CHERRY 18%
CT-0112	B	RURAL (140m – 215m) 7/16Fe 12% Underslung earth wire to match 6/1/4.75 – 7/1.60 ACSR/GZ CHERRY 18%
CT-0113	B	RURAL (220m – 260m) 7/16Fe 12% Underslung earth wire to match 6/1/4.75 – 7/1.60 ACSR/GZ CHERRY 18%
CT-0114	A	RURAL (60m - 135m) 6/1/3.00 AACSR/AC ARCHERY 22%
CT-0115	A	RURAL (60m - 135m) 6/1/3.00 AACSR/AC ARCHERY 20% UNDERSLUNG EARTH WIRE TO MATCH 6/1/3.00 AACSR/AC 22%
CT-0116	A	RURAL AACSR (140m - 220m) 6/1/3.00 AACSR/AC ARCHERY 22%
CT-0117	A	RURAL AACSR (140m - 220m) 6/1/3.00 AACSR/AC ARCHERY 20% UNDERSLUNG EARTH WIRE TO MATCH 6/1/3.00 AACSR/AC 22%
CT-0130	A	STEEL CONDUCTORS RURAL 7/1.60 SC/GZ 25% Table 1 (100m – 165m)
CT-0131	A	STEEL CONDUCTORS RURAL 7/1.60 SC/GZ 25% Table 2 (170m – 235m)
CT-0132	A	STEEL CONDUCTORS RURAL 7/1.60 SC/GZ 25% Table 3 (240m – 300m)
CT-0140	A	STEEL CONDUCTORS RURAL 7/2.00 SC/GZ 25% Table 1 (100m – 165m)
CT-0141	A	STEEL CONDUCTORS RURAL 7/2.00 SC/GZ 25% Table 2 (170m – 235m)
CT-0142	A	STEEL CONDUCTORS RURAL 7/2.00 SC/GZ 25% Table 3 (240m – 300m)
CT-0150	A	STEEL CONDUCTORS RURAL 7/2.75 SC/GZ 25% Table 1 (100m – 165m)
CT-0151	A	STEEL CONDUCTORS RURAL 7/2.75 SC/GZ 25% Table 2 (170m – 235m)
CT-0152	A	STEEL CONDUCTORS RURAL 7/2.75 SC/GZ 25% Table 3 (240m – 300m)

URBAN (20 – 50m) 95mm 4 Core LV ABC 5%

New Conductor (Initial) (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (Kg)	326	311	297	283	271	260	250	240	231	223	215	208	202	196	191	186	180
	SAG (m)	0.21	0.22	0.23	0.24	0.25	0.26	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.35	0.36	0.38
25	TENSION (Kg)	311	301	290	280	271	263	255	248	241	235	228	222	217	212	207	203	199
	SAG (m)	0.34	0.35	0.36	0.38	0.39	0.40	0.41	0.43	0.44	0.45	0.46	0.48	0.49	0.50	0.51	0.52	0.53
30	TENSION (Kg)	301	293	286	278	271	265	259	253	248	243	238	232	228	224	220	216	213
	SAG (m)	0.50	0.52	0.53	0.55	0.56	0.57	0.59	0.60	0.61	0.63	0.64	0.65	0.67	0.68	0.69	0.70	0.71
35	TENSION (Kg)	294	288	282	276	271	266	261	257	253	248	244	241	237	234	229	226	223
	SAG (m)	0.70	0.72	0.73	0.75	0.76	0.78	0.79	0.80	0.82	0.83	0.85	0.86	0.87	0.88	0.90	0.91	0.93
40	TENSION (Kg)	289	285	279	275	271	267	263	260	256	253	249	246	243	240	237	235	231
	SAG (m)	0.93	0.95	0.97	0.98	1.00	1.01	1.03	1.04	1.05	1.07	1.08	1.10	1.11	1.13	1.14	1.15	1.17
45	TENSION (Kg)	286	281	278	274	271	268	265	262	259	256	253	250	248	245	243	241	238
	SAG (m)	1.19	1.22	1.23	1.25	1.26	1.28	1.29	1.30	1.32	1.33	1.35	1.37	1.38	1.39	1.41	1.42	1.44
50	TENSION (Kg)	282	279	277	274	271	268	266	263	261	258	256	254	252	249	247	245	243
	SAG (m)	1.50	1.51	1.52	1.54	1.56	1.57	1.59	1.60	1.62	1.64	1.65	1.66	1.67	1.69	1.71	1.72	1.74

Creep allowance @ 15°C: New 5°C shift & Next day 5°C shift

NOTES:-
1. FOR STANDARD CONSTRUCTIONS, MAXIMUM SPAN LENGTH IS LIMITED TO 40m, DUE TO GROUND CLEARANCE.
2. LONGER SPAN LENGTH IS POSSIBLE FOR TALLER POLE AND WITH SUFFICIENT GROUND CLEARANCE.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
C	08.09.20	NOTES ADDED	NN		GS
B	21.07.14	TABLE REVISED	REE	REE	GS
A	30.05.14	ORIGINAL ISSUE			

STRUCTURE

TITLE
CONDUCTOR TENSIONING TABLE
URBAN (20-50m) 95mm 4C LVABC 5%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 30-05-2014
ORIGINATED: | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY

DRG. No. CT-0001
REV. C
SHT.

URBAN (20 – 50m) 150mm 4 Core LV ABC 5%

New Conductor (Initial) (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (Kg)	522	496	471	449	428	409	392	375	361	348	334	323	313	303	294	286	277
	SAG (m)	0.19	0.20	0.21	0.22	0.24	0.25	0.26	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.35	0.36
25	TENSION (Kg)	498	478	460	444	428	414	401	389	376	366	356	347	338	329	321	314	307
	SAG (m)	0.32	0.33	0.34	0.36	0.37	0.38	0.39	0.41	0.42	0.43	0.44	0.45	0.47	0.48	0.49	0.50	0.51
30	TENSION (Kg)	480	466	453	439	428	417	407	397	387	379	371	363	356	349	342	335	329
	SAG (m)	0.47	0.49	0.50	0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.61	0.63	0.64	0.65	0.66	0.68	0.69
35	TENSION (Kg)	468	457	447	437	428	419	411	404	396	389	382	375	369	363	358	352	347
	SAG (m)	0.66	0.68	0.69	0.71	0.72	0.74	0.75	0.77	0.78	0.80	0.81	0.82	0.84	0.85	0.86	0.88	0.89
40	TENSION (Kg)	459	451	444	435	428	421	415	408	402	397	391	385	379	374	370	365	360
	SAG (m)	0.88	0.90	0.91	0.93	0.94	0.96	0.97	0.99	1.00	1.02	1.03	1.05	1.07	1.08	1.09	1.11	1.12
45	TENSION (Kg)	453	447	441	434	428	422	417	412	407	402	397	393	387	383	379	375	371
	SAG (m)	1.13	1.14	1.16	1.18	1.19	1.21	1.23	1.24	1.26	1.27	1.29	1.30	1.32	1.34	1.35	1.36	1.38
50	TENSION (Kg)	449	444	438	433	428	423	419	414	410	406	402	398	394	391	386	383	379
	SAG (m)	1.41	1.42	1.44	1.46	1.47	1.49	1.51	1.52	1.54	1.55	1.57	1.59	1.60	1.61	1.64	1.65	1.67

Creep allowance @ 15°C: New 5°C shift & Next day 5°C shift

NOTES:-
1. FOR STANDARD CONSTRUCTIONS, MAXIMUM SPAN LENGTH IS LIMITED TO 40m, DUE TO GROUND CLEARANCE.
2. LONGER SPAN LENGTH IS POSSIBLE FOR TALLER POLE AND WITH SUFFICIENT GROUND CLEARANCE.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
C	08.09.20	NOTES ADDED	NN		GS
B	21.07.14	TABLE REVISED	REE	REE	GS
A	30.05.14	ORIGINAL ISSUE			

STRUCTURE

TITLE
CONDUCTOR TENSIONING TABLE
URBAN (20-50m) 150mm 4C LVABC 5%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 30-05-2014 | DRG. No. CT-0002
ORIGINATED: | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. C | SHT.

URBAN (20 – 80m) 95mm 4 Core LV ABC 7%

New Conductor (Initial) (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (Kg)	466	443	421	400	380	361	343	327	311	297	284	271	260	250	240	232	223
	SAG (m)	0.14	0.15	0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.24	0.25	0.26	0.27	0.28	0.29	0.30
25	TENSION (Kg)	452	433	414	397	380	364	350	336	323	311	300	290	281	271	263	255	248
	SAG (m)	0.23	0.24	0.25	0.27	0.28	0.29	0.30	0.31	0.33	0.34	0.35	0.36	0.38	0.39	0.40	0.41	0.43
30	TENSION (Kg)	440	423	408	394	380	367	355	344	333	322	313	304	296	289	281	274	267
	SAG (m)	0.35	0.36	0.37	0.39	0.40	0.41	0.43	0.44	0.46	0.47	0.49	0.50	0.51	0.53	0.54	0.55	0.57
35	TENSION (Kg)	430	416	403	391	380	369	359	350	341	332	324	316	309	302	296	290	284
	SAG (m)	0.48	0.50	0.51	0.53	0.54	0.56	0.58	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.71	0.73
40	TENSION (Kg)	420	410	399	390	380	371	362	354	347	340	333	326	319	313	308	302	297
	SAG (m)	0.64	0.66	0.68	0.69	0.71	0.73	0.75	0.76	0.78	0.79	0.81	0.83	0.85	0.86	0.88	0.89	0.91
45	TENSION (Kg)	414	405	396	388	380	372	365	358	352	346	340	334	328	322	317	312	308
	SAG (m)	0.83	0.84	0.86	0.88	0.90	0.92	0.94	0.95	0.97	0.99	1.01	1.02	1.04	1.06	1.08	1.10	1.11
50	TENSION (Kg)	408	401	394	387	380	373	367	361	356	350	345	340	335	331	326	321	317
	SAG (m)	1.03	1.05	1.07	1.09	1.11	1.13	1.15	1.17	1.19	1.21	1.22	1.24	1.26	1.27	1.29	1.31	1.33
55	TENSION (Kg)	404	398	392	385	379	374	369	364	359	354	350	345	341	337	332	328	324
	SAG (m)	1.26	1.28	1.30	1.33	1.35	1.36	1.38	1.40	1.42	1.44	1.46	1.48	1.50	1.51	1.54	1.56	1.58
60	TENSION (Kg)	401	395	390	384	379	375	370	366	361	357	353	349	346	342	338	334	331
	SAG (m)	1.51	1.54	1.56	1.58	1.60	1.62	1.64	1.66	1.68	1.70	1.72	1.74	1.76	1.78	1.80	1.82	1.84
65	TENSION (Kg)	398	393	389	384	379	375	371	367	364	360	356	353	350	346	343	340	337
	SAG (m)	1.79	1.81	1.83	1.86	1.88	1.90	1.92	1.94	1.96	1.98	2.00	2.02	2.04	2.06	2.08	2.10	2.12
70	TENSION (Kg)	396	392	387	383	379	376	372	369	365	362	359	356	353	350	347	344	341
	SAG (m)	2.09	2.11	2.14	2.16	2.18	2.20	2.22	2.24	2.27	2.28	2.30	2.32	2.34	2.36	2.38	2.40	2.42
75	TENSION (Kg)	394	390	386	383	379	376	373	370	367	364	361	358	356	353	350	348	345
	SAG (m)	2.41	2.43	2.46	2.48	2.50	2.52	2.54	2.57	2.59	2.61	2.63	2.65	2.67	2.69	2.71	2.73	2.75
80	TENSION (Kg)	392	389	385	382	379	377	374	371	368	366	363	361	358	356	353	351	349
	SAG (m)	2.76	2.78	2.81	2.83	2.85	2.86	2.89	2.91	2.93	2.95	2.98	2.99	3.02	3.03	3.06	3.08	3.09

Creep allowance @ 15°C: New 5°C shift & Next day 5°C shift

NOTES:-
1. FOR STANDARD CONSTRUCTIONS, MAXIMUM SPAN LENGTH IS LIMITED TO 40m, DUE TO GROUND CLEARANCE.
2. LONGER SPAN LENGTH IS POSSIBLE FOR TALLER POLE AND WITH SUFFICIENT GROUND CLEARANCE.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
C	08.09.20	NOTES ADDED	NN		GS
B	21.07.14	TABLE REVISED	REE	REE	GS
A	30.05.14	ORIGINAL ISSUE			

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE URBAN (20-80m) 95mm 4C LVABC 7%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 30-05-2014 | DRG. No. CT-0003
ORIGINATED: | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. C | SHT.

URBAN (20 – 80m) 150mm 4 Core LV ABC 7%

New Conductor (Initial) (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
New Conductor (Initial) Next Day (deg C)		10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
20	TENSION (Kg)	742	704	667	633	600	569	540	512	487	463	442	421	403	386	370	356	343
	SAG (m)	0.14	0.14	0.15	0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.24	0.25	0.26	0.27	0.28	0.29
25	TENSION (Kg)	720	688	657	628	600	574	550	528	506	486	467	451	435	420	406	394	382
	SAG (m)	0.22	0.23	0.24	0.25	0.26	0.27	0.29	0.30	0.31	0.32	0.34	0.35	0.36	0.38	0.39	0.40	0.41
30	TENSION (Kg)	700	673	647	622	600	579	558	539	521	504	489	474	460	447	436	423	413
	SAG (m)	0.32	0.34	0.35	0.37	0.38	0.39	0.41	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.54	0.55
35	TENSION (Kg)	684	661	640	619	600	582	565	549	534	519	506	493	482	469	459	449	439
	SAG (m)	0.45	0.47	0.48	0.50	0.52	0.53	0.55	0.56	0.58	0.60	0.61	0.63	0.64	0.66	0.67	0.69	0.70
40	TENSION (Kg)	669	651	633	616	600	585	570	557	544	532	519	508	498	488	479	469	460
	SAG (m)	0.60	0.62	0.64	0.66	0.67	0.69	0.71	0.73	0.74	0.76	0.78	0.80	0.81	0.83	0.84	0.86	0.88
45	TENSION (Kg)	658	643	628	613	600	587	574	563	552	541	531	521	512	503	495	487	479
	SAG (m)	0.78	0.80	0.81	0.83	0.85	0.87	0.89	0.91	0.93	0.95	0.96	0.98	1.00	1.02	1.03	1.05	1.07
50	TENSION (Kg)	649	636	623	611	600	589	579	568	558	549	541	532	523	515	508	500	494
	SAG (m)	0.97	0.99	1.01	1.03	1.05	1.07	1.09	1.11	1.13	1.15	1.17	1.19	1.21	1.23	1.24	1.26	1.28
55	TENSION (Kg)	641	630	620	610	600	590	581	572	564	556	548	540	532	525	519	512	506
	SAG (m)	1.19	1.21	1.23	1.25	1.27	1.29	1.31	1.34	1.35	1.37	1.39	1.41	1.44	1.45	1.47	1.49	1.51
60	TENSION (Kg)	635	626	617	608	600	591	583	576	568	561	554	548	540	534	528	522	516
	SAG (m)	1.43	1.45	1.47	1.50	1.52	1.54	1.56	1.58	1.60	1.62	1.64	1.66	1.68	1.70	1.72	1.74	1.76
65	TENSION (Kg)	631	623	615	607	600	592	585	578	572	566	559	554	548	541	536	530	525
	SAG (m)	1.69	1.71	1.73	1.76	1.78	1.80	1.82	1.85	1.87	1.88	1.91	1.93	1.95	1.97	1.99	2.01	2.03
70	TENSION (Kg)	627	620	613	606	600	593	587	581	575	569	564	559	553	548	542	538	533
	SAG (m)	1.97	2.00	2.02	2.04	2.06	2.09	2.11	2.13	2.15	2.17	2.19	2.21	2.24	2.26	2.28	2.30	2.32
75	TENSION (Kg)	624	618	612	606	600	593	588	583	578	573	568	563	558	554	549	545	539
	SAG (m)	2.28	2.30	2.32	2.34	2.37	2.40	2.42	2.44	2.46	2.48	2.50	2.52	2.55	2.56	2.59	2.61	2.64
80	TENSION (Kg)	621	616	610	605	600	594	589	584	580	575	571	567	562	558	554	550	546
	SAG (m)	2.60	2.62	2.65	2.67	2.69	2.72	2.74	2.77	2.79	2.81	2.83	2.85	2.88	2.90	2.92	2.94	2.96

Creep allowance @ 15°C: New 5°C shift & Next day 5°C shift

NOTES:-
1. FOR STANDARD CONSTRUCTIONS, MAXIMUM SPAN LENGTH IS LIMITED TO 40m, DUE TO GROUND CLEARANCE.
2. LONGER SPAN LENGTH IS POSSIBLE FOR TALLER POLE AND WITH SUFFICIENT GROUND CLEARANCE.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
C	08.09.20	NOTES ADDED	NN		GS
B	21.07.14	TABLE REVISED	REE	REE	GS
A	30.05.14	ORIGINAL ISSUE			

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE URBAN (20-80m) 150mm 4C LVABC 7%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 30-05-2014 | DRG. No. CT-0004

ORIGINATED: | SCALE: NTS

CHECKED: REE

APPROVED: GRANT STACY | REV. C | SHT.

OUTER URBAN (60m - 105m) 7/16 Fe 7% UNDERSLUNG EARTHWIRE TO MATCH AAC 18% (EXCEPT FOR 37/3.75 AAC TRITON)

Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	87	84	81	79	76	73	71	69	68	66	64	63	61	60	59	58	56
	TIME (s)	7.0	7.1	7.2	7.3	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.4	8.5	8.7
	SAG (m)	0.60	0.62	0.64	0.66	0.68	0.70	0.72	0.75	0.77	0.79	0.81	0.83	0.85	0.87	0.89	0.90	0.92
65	TENSION (Kg)	85	83	81	78	76	73	72	70	68	67	65	64	63	61	60	59	58
	TIME (s)	7.7	7.7	7.8	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.2
	SAG (m)	0.72	0.74	0.76	0.78	0.80	0.82	0.84	0.87	0.89	0.91	0.93	0.95	0.97	0.99	1.01	1.03	1.05
70	TENSION (Kg)	84	82	80	78	76	74	72	71	69	68	66	65	64	63	62	61	60
	TIME (s)	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.5	9.6	9.7	9.8
	SAG (m)	0.84	0.86	0.89	0.91	0.93	0.95	0.97	1.00	1.02	1.04	1.06	1.08	1.10	1.12	1.15	1.17	1.19
75	TENSION (Kg)	83	82	80	78	76	74	72	71	70	68	67	66	65	64	63	62	61
	TIME (s)	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.1	10.2	10.3	10.4
	SAG (m)	0.98	1.00	1.02	1.05	1.07	1.10	1.11	1.14	1.16	1.18	1.20	1.22	1.25	1.27	1.29	1.31	1.33
80	TENSION (Kg)	83	81	79	78	76	74	73	71	70	69	68	67	66	65	64	63	62
	TIME (s)	9.5	9.7	9.8	9.8	10.0	10.0	10.1	10.3	10.3	10.4	10.5	10.6	10.6	10.7	10.8	10.9	11.0
	SAG (m)	1.12	1.15	1.17	1.18	1.22	1.25	1.26	1.29	1.31	1.33	1.35	1.38	1.40	1.42	1.44	1.46	1.48
85	TENSION (Kg)	82	81	79	78	76	74	73	72	71	70	69	68	67	66	65	64	63
	TIME (s)	10.2	10.3	10.4	10.5	10.6	10.7	10.7	10.8	10.9	11.0	11.1	11.1	11.2	11.3	11.4	11.5	11.6
	SAG (m)	1.28	1.30	1.32	1.34	1.37	1.41	1.42	1.44	1.47	1.49	1.51	1.54	1.56	1.58	1.60	1.62	1.65
90	TENSION (Kg)	81	80	79	78	76	74	73	72	71	70	69	68	67	67	66	65	64
	TIME (s)	10.9	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.5	11.6	11.7	11.8	11.9	11.9	12.0	12.1	12.2
	SAG (m)	1.44	1.47	1.49	1.51	1.54	1.57	1.60	1.61	1.64	1.66	1.68	1.70	1.73	1.75	1.77	1.80	1.82
95	TENSION (Kg)	81	80	79	77	76	74	73	72	71	71	70	69	68	67	66	66	65
	TIME (s)	11.5	11.5	11.6	11.8	11.8	11.9	12.0	12.1	12.2	12.2	12.3	12.4	12.4	12.5	12.6	12.6	12.7
	SAG (m)	1.62	1.64	1.65	1.68	1.72	1.75	1.78	1.79	1.81	1.84	1.86	1.88	1.91	1.93	1.95	1.98	2.00
100	TENSION (Kg)	81	79	78	77	76	74	74	73	72	71	70	69	69	68	67	66	66
	TIME (s)	12.1	12.2	12.3	12.4	12.5	12.6	12.6	12.6	12.7	12.8	12.9	13.0	13.0	13.1	13.2	13.3	13.3
	SAG (m)	1.80	1.83	1.84	1.87	1.90	1.93	1.96	1.99	2.00	2.02	2.05	2.07	2.10	2.12	2.14	2.17	2.19
105	TENSION (Kg)	80	79	78	77	76	76	74	73	72	71	71	70	69	68	68	67	66
	TIME (s)	12.7	12.8	12.9	13.0	13.1	13.1	13.2	13.3	13.4	13.5	13.5	13.6	13.7	13.8	13.8	13.9	14.0
	SAG (m)	1.99	2.00	2.03	2.07	2.10	2.13	2.16	2.19	2.22	2.22	2.25	2.27	2.29	2.32	2.34	2.36	2.39

Beat values are in seconds for five wave returns.

R. No.	DATE	DESCRIPTION	ORGD.	CHED.	APRD.
A	04.03.15	ORIGINAL ISSUE	JC	REE	GS

STRUCTURE

TITLE: OUTER URBAN (60-105m)7/16 Fe 7% UNDERSLUNG EARTHWIRE TO MATCH AAC 18% (EXCEPT FOR 37/3.75 AAC)

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 04-03-2015 | DRG. No. CT-0057

ORIGINATED: JC | SCALE: NTS

CHECKED: REE

APPROVED: GRANT STACY | REV. A | SHT.

RURAL (60m -135m) 3/2.75 SC/AC 16% Underslung earthwire to match AAAC 18%

New Conductor (Initial) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	167	160	152	146	139	133	126	120	115	110	105	101	97	93	90	86	83
	TIME (s)	5.1	5.2	5.3	5.4	5.6	5.7	5.8	6	6.1	6.3	6.4	6.6	6.7	6.8	7	7.1	7.2
	SAG (m)	0.32	0.33	0.35	0.37	0.38	0.4	0.42	0.44	0.46	0.48	0.51	0.53	0.55	0.58	0.6	0.62	0.65
65	TENSION (Kg)	166	159	152	145	139	133	127	121	116	112	107	103	99	96	92	89	86
	TIME (s)	5.5	5.7	5.8	5.9	6	6.2	6.3	6.5	6.6	6.7	6.9	7	7.2	7.3	7.4	7.6	7.7
	SAG (m)	0.38	0.39	0.41	0.43	0.45	0.47	0.49	0.51	0.54	0.56	0.58	0.61	0.63	0.66	0.68	0.71	0.73
70	TENSION (Kg)	164	158	151	145	139	134	127	122	118	113	109	105	101	98	95	92	89
	TIME (s)	6	6.1	6.2	6.4	6.5	6.7	6.8	6.9	7.1	7.2	7.3	7.5	7.6	7.8	7.9	8	8.2
	SAG (m)	0.44	0.46	0.48	0.5	0.52	0.55	0.57	0.59	0.61	0.64	0.66	0.69	0.72	0.74	0.77	0.79	0.82
75	TENSION (Kg)	163	157	151	145	139	134	128	123	119	114	111	107	103	100	97	94	91
	TIME (s)	6.4	6.6	6.7	6.9	7	7.1	7.3	7.4	7.5	7.7	7.8	8	8.1	8.2	8.4	8.5	8.6
	SAG (m)	0.51	0.53	0.55	0.58	0.6	0.62	0.65	0.67	0.7	0.72	0.75	0.78	0.81	0.83	0.86	0.89	0.91
80	TENSION (Kg)	162	156	150	144	139	134	128	124	120	116	112	108	105	102	99	96	94
	TIME (s)	6.9	7	7.2	7.3	7.4	7.6	7.7	7.9	8	8.1	8.3	8.4	8.6	8.7	8.8	8.9	9.1
	SAG (m)	0.59	0.61	0.63	0.66	0.68	0.71	0.73	0.76	0.79	0.81	0.84	0.87	0.9	0.93	0.96	0.98	1.01
85	TENSION (Kg)	161	155	149	144	139	134	129	125	121	117	113	110	107	104	101	98	96
	TIME (s)	7.4	7.5	7.6	7.8	7.9	8.1	8.2	8.3	8.5	8.6	8.7	8.9	9	9.1	9.3	9.4	9.5
	SAG (m)	0.67	0.69	0.71	0.74	0.77	0.8	0.83	0.85	0.88	0.91	0.94	0.97	1	1.03	1.06	1.09	1.12
90	TENSION (Kg)	159	154	149	144	139	135	130	126	122	118	115	112	109	106	103	100	98
	TIME (s)	7.8	7.9	8.1	8.2	8.4	8.5	8.7	8.8	8.9	9.1	9.2	9.3	9.5	9.6	9.7	9.8	10
	SAG (m)	0.75	0.78	0.8	0.83	0.86	0.89	0.92	0.95	0.98	1.01	1.04	1.07	1.1	1.13	1.16	1.19	1.22
95	TENSION (Kg)	158	153	148	144	139	135	130	126	123	119	116	113	110	107	105	102	100
	TIME (s)	8.3	8.4	8.6	8.7	8.8	9	9.1	9.3	9.4	9.5	9.7	9.8	9.9	10	10.2	10.3	10.4
	SAG (m)	0.84	0.87	0.9	0.93	0.96	0.99	1.02	1.06	1.08	1.12	1.15	1.18	1.21	1.24	1.27	1.3	1.34
100	TENSION (Kg)	157	152	148	143	139	135	130	127	123	120	117	114	111	109	106	104	102
	TIME (s)	8.7	8.9	9	9.2	9.3	9.4	9.6	9.7	9.8	10	10.1	10.2	10.4	10.5	10.6	10.7	10.9
	SAG (m)	0.94	0.97	1.01	1.03	1.06	1.1	1.13	1.17	1.19	1.23	1.26	1.29	1.32	1.36	1.39	1.42	1.45
105	TENSION (Kg)	156	152	147	143	139	135	131	127	124	121	118	115	113	110	108	106	104
	TIME (s)	9.2	9.3	9.5	9.6	9.8	9.9	10	10.2	10.3	10.4	10.6	10.7	10.8	11	11.1	11.2	11.3
	SAG (m)	1.04	1.07	1.11	1.14	1.17	1.21	1.24	1.28	1.31	1.34	1.37	1.41	1.44	1.48	1.51	1.54	1.57
110	TENSION (Kg)	155	151	147	143	139	136	131	128	125	122	119	117	114	112	109	107	105
	TIME (s)	9.7	9.8	10	10.1	10.2	10.4	10.5	10.7	10.8	10.9	11	11.2	11.3	11.4	11.5	11.6	11.8
	SAG (m)	1.15	1.18	1.22	1.25	1.29	1.32	1.36	1.4	1.43	1.47	1.5	1.53	1.57	1.6	1.63	1.67	1.7
115	TENSION (Kg)	154	150	146	143	139	136	133	129	126	123	120	118	115	113	111	109	107
	TIME (s)	10.1	10.3	10.4	10.6	10.7	10.8	11	11.1	11.2	11.4	11.5	11.6	11.7	11.9	12	12.1	12.2
	SAG (m)	1.27	1.3	1.34	1.37	1.41	1.44	1.48	1.52	1.56	1.59	1.63	1.66	1.69	1.73	1.76	1.8	1.83
120	TENSION (Kg)	154	150	146	143	139	136	133	129	126	124	121	119	116	114	112	110	108
	TIME (s)	10.6	10.8	10.9	11	11.2	11.3	11.4	11.6	11.7	11.8	12	12.1	12.2	12.3	12.4	12.5	12.7
	SAG (m)	1.39	1.43	1.46	1.5	1.53	1.57	1.61	1.65	1.68	1.72	1.76	1.8	1.83	1.86	1.9	1.93	1.97
125	TENSION (Kg)	153	149	146	142	139	136	133	130	127	124	122	120	117	115	113	111	109
	TIME (s)	11.1	11.2	11.4	11.5	11.6	11.8	11.9	12	12.2	12.3	12.4	12.5	12.7	12.8	12.9	13	13.1
	SAG (m)	1.51	1.55	1.59	1.63	1.66	1.7	1.74	1.78	1.82	1.86	1.9	1.94	1.98	2.01	2.04	2.07	2.11
130	TENSION (Kg)	152	149	145	142	139	136	134	130	127	125	123	121	118	116	114	113	111
	TIME (s)	11.6	11.7	11.8	12	12.1	12.2	12.4	12.5	12.6	12.7	12.9	13	13.1	13.2	13.4	13.5	13.6
	SAG (m)	1.64	1.69	1.72	1.76	1.8	1.84	1.88	1.92	1.96	2	2.04	2.08	2.12	2.16	2.2	2.23	2.27
135	TENSION (Kg)	151	148	145	142	139	136	134	130	128	126	123	121	119	117	115	114	112
	TIME (s)	12.1	12.2	12.3	12.4	12.6	12.7	12.8	12.9	13.1	13.2	13.3	13.4	13.6	13.7	13.8	13.9	14
	SAG (m)	1.79	1.82	1.86	1.9	1.94	1.98	2.02	2.06	2.1	2.14	2.18	2.22	2.26	2.3	2.34	2.38	2.42

Beat values are in seconds for five wave returns.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	20.08.15	TITLE REVISED	JC	REE	GS
A	03.06.14	ORIGINAL ISSUE	REE	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE
RURAL (60m-135m) 3/2.75 SC/AC 16%
UNDERSLUNG EARTHWIRE TO MATCH AAAC 18%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 03.06.2014 | DRG. No.
ORIGINATED: JC | SCALE: NTS | CT-0086
CHECKED: REE
APPROVED: GRANT STACY | REV. B | SHT.

RURAL (60m-135m) 7/16 Fe 12% UNDERSLUNG EW TO MATCH 6/1/4.75-7/1.60 ACSR/GZ CHERRY 18%

Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
60	TENSION (Kg)	154	147	142	136	131	124	119	115	110	106	102	98	95	91	88	85	83
	TIME (s)	5.24	5.36	5.46	5.58	5.69	5.83	5.95	6.05	6.19	6.31	6.43	6.57	6.67	6.82	6.94	7.06	7.15
	SAG (m)	0.34	0.35	0.37	0.38	0.4	0.42	0.43	0.45	0.47	0.49	0.51	0.53	0.55	0.57	0.59	0.61	0.63
65	TENSION (Kg)	152	147	141	136	131	126	120	116	111	107	104	100	97	94	91	88	85
	TIME (s)	5.71	5.81	5.93	6.04	6.16	6.29	6.42	6.53	6.68	6.80	6.90	7.04	7.15	7.27	7.39	7.52	7.65
	SAG (m)	0.4	0.42	0.43	0.45	0.47	0.49	0.51	0.53	0.55	0.57	0.59	0.61	0.63	0.65	0.68	0.7	0.72
70	TENSION (Kg)	151	146	140	135	131	126	121	116	112	109	105	102	99	96	93	90	88
	TIME (s)	6.17	6.28	6.41	6.53	6.64	6.77	6.88	7.03	7.16	7.26	7.40	7.51	7.62	7.74	7.87	8.00	8.09
	SAG (m)	0.47	0.48	0.5	0.52	0.54	0.56	0.58	0.6	0.63	0.65	0.67	0.69	0.72	0.74	0.76	0.79	0.81
75	TENSION (Kg)	150	145	140	135	131	126	121	117	113	110	106	103	100	97	95	92	90
	TIME (s)	6.63	6.75	6.87	7.00	7.11	7.25	7.37	7.50	7.63	7.74	7.89	8.00	8.12	8.25	8.34	8.48	8.57
	SAG (m)	0.54	0.56	0.58	0.6	0.62	0.65	0.67	0.69	0.71	0.74	0.76	0.78	0.81	0.83	0.86	0.88	0.9
80	TENSION (Kg)	149	144	139	135	131	126	122	118	114	111	108	105	102	99	97	94	92
	TIME (s)	7.10	7.22	7.36	7.47	7.58	7.74	7.83	7.97	8.11	8.22	8.33	8.45	8.58	8.71	8.80	8.94	9.04
	SAG (m)	0.62	0.64	0.66	0.69	0.71	0.73	0.76	0.78	0.8	0.83	0.85	0.88	0.9	0.93	0.95	0.98	1
85	TENSION (Kg)	148	143	139	135	131	127	122	119	115	112	109	106	103	101	98	96	94
	TIME (s)	7.57	7.70	7.82	7.93	8.06	8.19	8.32	8.43	8.57	8.69	8.81	8.94	9.07	9.16	9.30	9.40	9.50
	SAG (m)	0.7	0.73	0.75	0.78	0.8	0.83	0.85	0.88	0.9	0.93	0.95	0.98	1.01	1.03	1.06	1.08	1.11
90	TENSION (Kg)	147	143	138	134	131	127	122	119	116	113	110	107	105	102	100	98	96
	TIME (s)	8.04	8.16	8.31	8.43	8.53	8.67	8.81	8.92	9.04	9.16	9.29	9.42	9.51	9.65	9.75	9.85	9.95
	SAG (m)	0.79	0.82	0.85	0.87	0.9	0.92	0.95	0.98	1	1.03	1.06	1.08	1.11	1.14	1.17	1.19	1.22
95	TENSION (Kg)	146	142	138	134	131	127	123	120	117	114	111	109	106	104	102	100	98
	TIME (s)	8.5	8.6	8.8	8.9	9.0	9.1	9.3	9.4	9.5	9.6	9.8	9.8	10.0	10.1	10.2	10.3	10.4
	SAG (m)	0.89	0.92	0.95	0.97	1	1.03	1.06	1.09	1.12	1.14	1.17	1.19	1.22	1.25	1.28	1.31	1.33
100	TENSION (Kg)	145	141	137	134	131	127	123	120	117	115	112	110	107	105	103	101	99
	TIME (s)	9.0	9.1	9.3	9.4	9.5	9.6	9.7	9.9	10.0	10.1	10.2	10.3	10.5	10.6	10.7	10.8	10.9
	SAG (m)	0.99	1.02	1.05	1.08	1.11	1.14	1.17	1.2	1.23	1.26	1.28	1.31	1.34	1.37	1.4	1.43	1.45
105	TENSION (Kg)	144	141	137	134	131	128	124	121	118	116	113	111	109	107	105	103	101
	TIME (s)	9.5	9.6	9.7	9.8	10.0	10.1	10.2	10.3	10.5	10.5	10.7	10.8	10.9	11.0	11.1	11.2	11.3
	SAG (m)	1.1	1.13	1.16	1.19	1.22	1.25	1.28	1.31	1.35	1.38	1.41	1.43	1.46	1.49	1.52	1.55	1.58
110	TENSION (Kg)	143	140	137	134	131	128	124	121	119	116	114	112	110	108	106	104	102
	TIME (s)	10.0	10.1	10.2	10.3	10.4	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.4	11.5	11.6	11.7	11.8
	SAG (m)	1.22	1.25	1.28	1.31	1.34	1.37	1.4	1.44	1.47	1.5	1.53	1.57	1.59	1.62	1.65	1.68	1.71
115	TENSION (Kg)	143	139	136	133	131	128	124	122	119	117	115	113	111	109	107	105	103
	TIME (s)	10.4	10.6	10.7	10.8	10.9	11.0	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.2	12.3
	SAG (m)	1.34	1.37	1.4	1.43	1.46	1.5	1.53	1.56	1.6	1.63	1.66	1.7	1.73	1.76	1.78	1.81	1.84
120	TENSION (Kg)	142	139	136	133	131	128	126	122	120	118	116	114	112	110	108	106	105
	TIME (s)	10.9	11.0	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.1	12.2	12.3	12.4	12.5	12.6	12.7
	SAG (m)	1.47	1.5	1.53	1.56	1.59	1.63	1.66	1.7	1.73	1.76	1.8	1.83	1.86	1.9	1.93	1.96	2
125	TENSION (Kg)	141	138	136	133	131	128	126	123	120	118	116	114	113	111	109	107	106
	TIME (s)	11.4	11.5	11.6	11.8	11.8	12.0	12.1	12.2	12.3	12.4	12.6	12.7	12.7	12.8	13.0	13.1	13.1
	SAG (m)	1.6	1.63	1.66	1.7	1.73	1.76	1.8	1.83	1.87	1.9	1.94	1.97	2.01	2.04	2.07	2.11	2.14
130	TENSION (Kg)	141	138	135	133	131	128	126	123	121	119	117	115	113	112	110	109	107
	TIME (s)	11.9	12.0	12.1	12.2	12.3	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6
	SAG (m)	1.74	1.77	1.8	1.84	1.87	1.91	1.94	1.98	2.01	2.05	2.08	2.12	2.15	2.19	2.22	2.25	2.29
135	TENSION (Kg)	140	138	135	133	131	128	126	123	121	119	118	116	114	113	111	109	108
	TIME (s)	12.4	12.5	12.6	12.7	12.8	12.9	13.1	13.2	13.3	13.4	13.4	13.6	13.7	13.7	13.9	14.0	14.1
	SAG (m)	1.88	1.92	1.95	1.98	2.02	2.05	2.09	2.13	2.16	2.2	2.23	2.27	2.3	2.34	2.37	2.41	2.44

Beat values are in seconds for five wave returns.

R No	DATE	DESCRIPTION	ORGD.	CHED.	APRD.
B	20.08.15	TITLE REVISED	JC	REE	GS
A	04.03.15	ORIGINAL ISSUE	JC	REE	GS

STRUCTURE

TITLE
CONDUCTOR TENSIONING TABLE
RURAL (60m-135m) 7/16 Fe 12% UNDERSLUNG
EW TO MATCH 6/1/4.75-7/1.60 ACSR/GZ CHERRY 18%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 10-03-2014 | DRG. No. CT-0111
ORIGINATED: JC | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. B | SHT.

RURAL (140m-215m) 7/16 Fe 12% UNDERSLUNG EW TO MATCH 6/1/4.75-7/1.60 ACSR/GZ CHERRY 18%

Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
140	TENSION (Kg)	140	137	135	133	131	128	127	124	122	120	118	117	115	113	112	110	109
	TIME (s)	12.8	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.3	14.3	14.4	14.5
	SAG (m)	2.03	2.07	2.10	2.14	2.17	2.21	2.24	2.28	2.32	2.35	2.39	2.42	2.46	2.50	2.53	2.57	2.60
145	TENSION (Kg)	139	137	135	133	131	129	127	124	122	120	119	117	116	114	113	111	110
	TIME (s)	13.3	13.4	13.5	13.6	13.7	13.9	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	15.0
	SAG (m)	2.19	2.22	2.26	2.29	2.33	2.37	2.40	2.44	2.48	2.51	2.55	2.59	2.62	2.66	2.69	2.73	2.77
150	TENSION (Kg)	139	137	134	132	131	129	127	124	122	121	119	118	116	115	113	112	111
	TIME (s)	13.8	13.9	14.1	14.2	14.2	14.3	14.4	14.6	14.7	14.7	14.9	14.9	15.1	15.1	15.3	15.3	15.4
	SAG (m)	2.35	2.38	2.42	2.46	2.49	2.53	2.57	2.61	2.64	2.68	2.72	2.75	2.79	2.83	2.86	2.90	2.93
155	TENSION (Kg)	138	136	134	132	131	129	127	124	123	121	120	118	117	115	114	113	112
	TIME (s)	14.3	14.4	14.5	14.6	14.7	14.8	14.9	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.8
	SAG (m)	2.51	2.55	2.59	2.63	2.66	2.70	2.74	2.78	2.81	2.85	2.89	2.93	2.96	3.00	3.04	3.07	3.11
160	TENSION (Kg)	138	136	134	132	131	129	127	126	123	122	120	119	117	116	115	114	112
	TIME (s)	14.8	14.9	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	16.0	16.1	16.1	16.2	16.4
	SAG (m)	2.69	2.72	2.76	2.80	2.84	2.88	2.92	2.95	2.99	3.03	3.07	3.10	3.14	3.18	3.22	3.25	3.29
165	TENSION (Kg)	138	136	134	132	131	129	127	126	123	122	121	119	118	117	115	114	113
	TIME (s)	15.2	15.3	15.5	15.6	15.6	15.8	15.9	16.0	16.1	16.2	16.2	16.4	16.4	16.5	16.6	16.7	16.8
	SAG (m)	2.86	2.90	2.94	2.98	3.02	3.06	3.10	3.14	3.17	3.21	3.25	3.29	3.33	3.36	3.40	3.44	3.48
170	TENSION (Kg)	137	135	134	132	131	129	128	126	124	122	121	120	118	117	116	115	114
	TIME (s)	15.7	15.9	15.9	16.1	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	17.0	17.1	17.1	17.2
	SAG (m)	3.05	3.09	3.13	3.15	3.21	3.26	3.28	3.32	3.36	3.40	3.44	3.48	3.52	3.55	3.59	3.63	3.67
175	TENSION (Kg)	137	135	134	132	131	129	128	126	124	123	121	120	119	118	117	116	114
	TIME (s)	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	17.0	17.1	17.2	17.3	17.3	17.4	17.5	17.6	17.7
	SAG (m)	3.24	3.28	3.32	3.34	3.40	3.46	3.48	3.52	3.56	3.59	3.63	3.67	3.71	3.75	3.79	3.83	3.86
180	TENSION (Kg)	137	135	133	132	131	129	128	126	124	123	122	121	119	118	117	116	115
	TIME (s)	16.7	16.8	16.9	17.0	17.1	17.2	17.3	17.4	17.5	17.5	17.6	17.7	17.8	17.9	18.0	18.1	18.2
	SAG (m)	3.43	3.47	3.51	3.54	3.60	3.65	3.68	3.72	3.75	3.79	3.83	3.87	3.91	3.95	3.99	4.03	4.07
185	TENSION (Kg)	136	135	133	132	131	129	128	127	124	123	122	121	120	119	118	117	116
	TIME (s)	17.2	17.3	17.4	17.5	17.5	17.7	17.7	17.8	18.0	18.0	18.1	18.2	18.3	18.3	18.4	18.5	18.6
	SAG (m)	3.64	3.68	3.72	3.74	3.80	3.86	3.88	3.92	3.96	4.00	4.04	4.08	4.12	4.16	4.20	4.23	4.27
190	TENSION (Kg)	136	135	133	132	131	129	128	127	126	123	122	121	120	119	118	117	116
	TIME (s)	17.7	17.7	17.9	17.9	18.0	18.2	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.8	18.9	19.0	19.1
	SAG (m)	3.84	3.88	3.93	3.95	4.01	4.06	4.09	4.13	4.17	4.21	4.25	4.29	4.33	4.37	4.41	4.45	4.49
195	TENSION (Kg)	136	134	133	132	131	129	128	127	126	124	123	122	121	120	119	118	117
	TIME (s)	18.1	18.3	18.3	18.4	18.5	18.6	18.7	18.8	18.9	18.9	19.0	19.1	19.2	19.3	19.3	19.4	19.5
	SAG (m)	4.06	4.10	4.14	4.17	4.22	4.28	4.30	4.35	4.39	4.43	4.47	4.51	4.55	4.59	4.63	4.67	4.70
200	TENSION (Kg)	136	134	133	132	131	129	128	127	126	124	123	122	121	120	119	118	117
	TIME (s)	18.6	18.7	18.8	18.9	19.0	19.1	19.2	19.3	19.3	19.4	19.5	19.6	19.7	19.7	19.8	19.9	20.0
	SAG (m)	4.28	4.32	4.36	4.39	4.44	4.50	4.55	4.57	4.61	4.65	4.69	4.73	4.77	4.81	4.85	4.89	4.93
205	TENSION (Kg)	135	134	133	132	131	129	128	127	126	124	123	122	121	120	119	119	118
	TIME (s)	19.1	19.2	19.3	19.4	19.4	19.6	19.7	19.7	19.8	19.9	20.0	20.1	20.2	20.2	20.3	20.3	20.4
	SAG (m)	4.50	4.54	4.56	4.61	4.67	4.73	4.78	4.79	4.83	4.88	4.92	4.96	5.00	5.04	5.08	5.12	5.16
210	TENSION (Kg)	135	134	133	132	131	129	128	127	126	124	123	123	122	121	120	119	118
	TIME (s)	19.6	19.7	19.8	19.8	19.9	20.1	20.1	20.2	20.3	20.4	20.5	20.5	20.6	20.6	20.7	20.8	20.9
	SAG (m)	4.73	4.77	4.79	4.85	4.90	4.96	5.01	5.03	5.07	5.11	5.15	5.19	5.23	5.27	5.31	5.35	5.39
215	TENSION (Kg)	135	134	133	132	131	130	129	128	127	126	124	123	122	121	120	119	119
	TIME (s)	20.1	20.1	20.2	20.3	20.4	20.5	20.5	20.6	20.7	20.8	20.9	21.0	21.0	21.1	21.2	21.3	21.3
	SAG (m)	4.97	5.01	5.03	5.08	5.14	5.19	5.25	5.26	5.31	5.35	5.39	5.43	5.47	5.51	5.55	5.59	5.63

Beat values are in seconds for five wave returns.

R No	DATE	DESCRIPTION	ORGD.	CHED.	APRD.
B	20.08.15	TITLE REVISED	JC	REE	GS
A	04.03.15	ORIGINAL ISSUE	JC	REE	GS

STRUCTURE

TITLE
CONDUCTOR TENSIONING TABLE
RURAL (140m-215m) 7/16 Fe 12% UNDERSLUNG
EW TO MATCH 6/1/4.75-7/1.60 ACSR/GZ CHERRY 18%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 10-03-2014 | DRG. No. CT-0112
ORIGINATED: JC | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. B | SHT.

RURAL (220m-260m) 7/16 Fe 12% UNDERSLUNG EW TO MATCH 6/1/4.75-7/1.60 ACSR/GZ CHERRY 18%

Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
220	TENSION (Kg)	135	134	133	132	131	130	129	128	127	126	124	123	122	121	121	120	119
	TIME (s)	20.5	20.6	20.7	20.8	20.9	20.9	21.0	21.1	21.2	21.3	21.4	21.4	21.5	21.6	21.6	21.7	21.8
	SAG (m)	5.21	5.25	5.27	5.33	5.38	5.44	5.49	5.51	5.55	5.59	5.63	5.67	5.72	5.76	5.80	5.84	5.88
225	TENSION (Kg)	135	134	133	132	131	130	129	128	127	126	124	123	122	122	121	120	119
	TIME (s)	21.0	21.1	21.2	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.8	21.9	22.0	22.0	22.1	22.2	22.3
	SAG (m)	5.46	5.50	5.52	5.58	5.63	5.69	5.74	5.79	5.80	5.84	5.88	5.93	5.97	6.01	6.05	6.09	6.13
230	TENSION (Kg)	134	133	132	131	131	130	129	128	127	126	124	124	123	122	121	120	120
	TIME (s)	21.5	21.6	21.7	21.8	21.8	21.9	22.0	22.1	22.1	22.2	22.3	22.3	22.4	22.5	22.6	22.7	22.7
	SAG (m)	5.71	5.72	5.78	5.83	5.88	5.94	5.99	6.05	6.05	6.10	6.14	6.18	6.22	6.26	6.31	6.35	6.39
235	TENSION (Kg)	134	133	132	131	131	130	129	128	127	126	126	124	123	122	121	121	120
	TIME (s)	22.0	22.1	22.2	22.3	22.3	22.4	22.5	22.5	22.6	22.7	22.7	22.8	22.9	23.0	23.1	23.1	23.2
	SAG (m)	5.97	5.98	6.04	6.09	6.14	6.20	6.25	6.31	6.32	6.36	6.40	6.44	6.48	6.53	6.57	6.61	6.65
240	TENSION (Kg)	134	133	132	131	131	130	129	128	127	126	126	124	123	122	122	121	120
	TIME (s)	22.5	22.6	22.7	22.7	22.7	22.8	22.9	23.0	23.1	23.2	23.2	23.3	23.4	23.5	23.5	23.6	23.7
	SAG (m)	6.23	6.25	6.30	6.36	6.41	6.47	6.52	6.57	6.63	6.63	6.67	6.71	6.75	6.79	6.84	6.88	6.92
245	TENSION (Kg)	134	133	132	131	131	130	129	128	127	127	126	124	123	123	122	121	121
	TIME (s)	23.0	23.0	23.1	23.2	23.2	23.3	23.4	23.5	23.6	23.6	23.7	23.8	23.9	23.9	24.0	24.1	24.1
	SAG (m)	6.47	6.52	6.58	6.63	6.68	6.74	6.79	6.84	6.90	6.90	6.94	6.98	7.03	7.07	7.11	7.15	7.19
250	TENSION (Kg)	134	133	132	131	131	130	129	128	127	127	126	124	124	123	122	122	121
	TIME (s)	23.4	23.5	23.6	23.7	23.7	23.8	23.9	24.0	24.1	24.1	24.2	24.3	24.3	24.4	24.5	24.5	24.6
	SAG (m)	6.75	6.80	6.86	6.91	6.96	7.02	7.07	7.12	7.17	7.18	7.22	7.26	7.30	7.35	7.39	7.43	7.47
255	TENSION (Kg)	134	133	132	131	131	130	129	128	128	127	126	126	124	123	123	122	121
	TIME (s)	23.9	24.0	24.1	24.2	24.2	24.3	24.4	24.5	24.5	24.6	24.7	24.7	24.8	24.9	24.9	25.0	25.1
	SAG (m)	7.03	7.09	7.14	7.19	7.24	7.30	7.35	7.41	7.46	7.51	7.50	7.55	7.59	7.63	7.67	7.72	7.76
260	TENSION (Kg)	134	133	132	131	131	130	129	128	128	127	126	126	124	123	123	122	121
	TIME (s)	24.4	24.5	24.5	24.6	24.6	24.7	24.8	24.9	24.9	25.0	25.1	25.1	25.2	25.3	25.3	25.5	25.6
	SAG (m)	7.32	7.38	7.43	7.48	7.53	7.59	7.64	7.69	7.75	7.80	7.79	7.84	7.88	7.92	7.97	8.01	8.05

Beat values are in seconds for five wave returns.

R No	DATE	DESCRIPTION	ORGD.	CHED.	APRD.
B	20.08.15	TITLE REVISED	JC	REE	GS
A	04.03.15	ORIGINAL ISSUE	JC	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE
RURAL (220m-260m) 7/16 Fe 12% UNDERSLUNG EW TO MATCH 6/1/4.75-7/1.60 ACSR/GZ CHERRY 18%

DISTRIBUTION CONSTRN. STANDARD

DRAWN: JRR | DATE: 10-03-2014
ORIGINATED: JC | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY

DRG. No. CT-0113
REV. B
SHT.

RURAL (60m - 135m) 6/1/3.00 AACSR/AC ARCHERY 22%

New Conductor (Initial) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg. C.)		2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5
Existing Conductor (Final) (deg. C.)		-17.5	-15	-12.5	-10	-7.5	-5	-2.5	0	2.5	5	7.5	10	12.5	15	17.5	20	22.5
Ruling Span																		
60	TENSION (Kg)	667	647	628	608	588	568	549	529	510	490	471	451	432	413	394	375	356
60	TIME (s)	3.0	3.0	3.1	3.1	3.1	3.3	3.3	3.4	3.4	3.5	3.6	3.6	3.7	3.8	3.9	4.0	4.1
60	SAG (m)	0.11	0.11	0.12	0.12	0.12	0.13	0.13	0.14	0.14	0.15	0.16	0.16	0.17	0.18	0.19	0.20	0.21
65	TENSION (Kg)	666	647	627	607	587	568	548	529	509	490	470	451	432	413	394	375	356
65	TIME (s)	3.3	3.3	3.4	3.4	3.5	3.5	3.6	3.6	3.7	3.8	3.8	3.9	4.0	4.1	4.2	4.3	4.4
65	SAG (m)	0.13	0.13	0.14	0.14	0.15	0.15	0.16	0.16	0.17	0.18	0.18	0.19	0.20	0.21	0.22	0.23	0.24
70	TENSION (Kg)	665	646	626	606	587	567	547	528	508	489	470	451	432	413	394	375	357
70	TIME (s)	3.5	3.5	3.6	3.6	3.7	3.8	3.8	3.9	4.0	4.0	4.1	4.2	4.3	4.4	4.5	4.7	4.8
70	SAG (m)	0.15	0.15	0.16	0.16	0.17	0.18	0.18	0.19	0.20	0.20	0.21	0.22	0.23	0.24	0.25	0.27	0.28
75	TENSION (Kg)	664	644	625	605	586	566	547	527	508	489	469	450	431	413	394	376	357
75	TIME (s)	3.7	3.8	3.8	3.9	4.0	4.0	4.1	4.2	4.3	4.3	4.4	4.5	4.7	4.8	4.9	5.0	5.1
75	SAG (m)	0.17	0.18	0.18	0.19	0.20	0.20	0.21	0.22	0.23	0.23	0.24	0.25	0.27	0.28	0.29	0.31	0.32
80	TENSION (Kg)	663	643	624	604	585	565	546	526	507	488	469	450	431	413	394	376	358
80	TIME (s)	4.0	4.0	4.1	4.2	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.9	5.1	5.2	5.3	5.4
80	SAG (m)	0.20	0.20	0.21	0.22	0.22	0.23	0.24	0.25	0.26	0.27	0.28	0.29	0.30	0.32	0.33	0.35	0.36
85	TENSION (Kg)	662	642	622	603	584	564	545	526	506	487	469	450	431	413	394	376	359
85	TIME (s)	4.2	4.3	4.4	4.4	4.5	4.6	4.7	4.8	4.9	4.9	5.0	5.2	5.3	5.4	5.5	5.6	5.8
85	SAG (m)	0.22	0.23	0.24	0.24	0.25	0.26	0.27	0.28	0.29	0.30	0.31	0.33	0.34	0.36	0.37	0.39	0.41
90	TENSION (Kg)	660	641	621	602	582	563	544	525	506	487	468	449	431	413	395	377	359
90	TIME (s)	4.5	4.6	4.7	4.7	4.8	4.9	4.9	5.0	5.2	5.3	5.3	5.5	5.6	5.7	5.9	6.0	6.1
90	SAG (m)	0.25	0.26	0.27	0.27	0.28	0.29	0.30	0.31	0.33	0.34	0.35	0.37	0.38	0.40	0.42	0.44	0.46
95	TENSION (Kg)	659	639	620	601	581	562	543	524	505	486	468	449	431	413	395	377	360
95	TIME (s)	4.8	4.9	4.9	5.0	5.1	5.2	5.3	5.3	5.4	5.6	5.6	5.8	5.9	6.1	6.2	6.3	6.4
95	SAG (m)	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.35	0.36	0.38	0.39	0.41	0.43	0.45	0.47	0.49	0.51
100	TENSION (Kg)	657	638	619	599	580	561	542	523	504	486	467	449	431	413	395	378	361
100	TIME (s)	5.0	5.1	5.2	5.3	5.3	5.4	5.6	5.6	5.7	5.9	6.0	6.1	6.2	6.3	6.5	6.6	6.8
100	SAG (m)	0.31	0.32	0.33	0.34	0.35	0.36	0.38	0.39	0.40	0.42	0.44	0.45	0.47	0.49	0.52	0.54	0.57
105	TENSION (Kg)	656	636	617	598	579	560	541	522	503	485	467	448	430	413	395	378	361
105	TIME (s)	5.3	5.3	5.4	5.6	5.6	5.7	5.9	5.9	6.1	6.1	6.3	6.4	6.5	6.6	6.8	6.9	7.1
105	SAG (m)	0.34	0.35	0.36	0.38	0.39	0.40	0.42	0.43	0.45	0.46	0.48	0.50	0.52	0.54	0.57	0.59	0.62
110	TENSION (Kg)	654	635	616	597	578	559	540	521	503	484	466	448	430	413	395	378	362
110	TIME (s)	5.6	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.6	6.7	6.8	7.0	7.1	7.3	7.4
110	SAG (m)	0.38	0.39	0.40	0.41	0.43	0.44	0.46	0.47	0.49	0.51	0.53	0.55	0.57	0.60	0.62	0.65	0.68
115	TENSION (Kg)	652	633	614	595	576	557	539	520	502	483	465	448	430	413	396	379	363
115	TIME (s)	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.8	6.9	7.0	7.2	7.3	7.4	7.6	7.8
115	SAG (m)	0.41	0.43	0.44	0.45	0.47	0.48	0.50	0.52	0.54	0.56	0.58	0.60	0.63	0.65	0.68	0.71	0.74
120	TENSION (Kg)	651	632	613	594	575	556	538	519	501	483	465	447	430	413	396	379	363
120	TIME (s)	6.1	6.1	6.3	6.3	6.4	6.6	6.7	6.8	6.9	7.1	7.2	7.3	7.4	7.6	7.8	7.9	8.1
120	SAG (m)	0.45	0.46	0.48	0.49	0.51	0.53	0.55	0.57	0.59	0.61	0.63	0.66	0.68	0.71	0.74	0.77	0.81
125	TENSION (Kg)	649	630	611	592	573	555	536	518	500	482	464	447	430	413	396	380	364
125	TIME (s)	6.3	6.4	6.5	6.6	6.8	6.8	6.9	7.1	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.3	8.4
125	SAG (m)	0.49	0.51	0.52	0.54	0.56	0.57	0.59	0.61	0.64	0.66	0.69	0.71	0.74	0.77	0.80	0.84	0.87
130	TENSION (Kg)	647	628	609	591	572	553	535	517	499	481	464	446	429	413	396	380	365
130	TIME (s)	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.4	7.5	7.7	7.8	7.9	8.1	8.2	8.4	8.6	8.8
130	SAG (m)	0.53	0.55	0.57	0.58	0.60	0.62	0.64	0.67	0.69	0.72	0.74	0.77	0.80	0.83	0.87	0.91	0.94
135	TENSION (Kg)	645	626	608	589	570	552	534	516	498	480	463	446	429	413	397	381	366
135	TIME (s)	6.9	6.9	7.1	7.2	7.3	7.4	7.6	7.7	7.8	7.9	8.1	8.2	8.4	8.6	8.8	8.9	9.1
135	SAG (m)	0.58	0.59	0.61	0.63	0.65	0.67	0.70	0.72	0.75	0.77	0.80	0.83	0.87	0.90	0.94	0.98	1.02

BEAT VALUES ARE IN SECONDS FOR FIVE WAVE RETURNS.
CREEP ALLOWANCE @ 15°C. NEW 37.5°C SHIFT & NEXT DAY 35°C SHIFT.

REV	DATE	DESCRIPTION	ORGD.	CHED.	APRD.
A	31.10.18	ORIGINAL ISSUE	NN	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE RURAL (60m - 135m) 6/1/3.00 AACSR/AC ARCHERY 22%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 29-10-2018 | DRG. No. CT-0114
ORIGINATED: NN | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. A | SHT.

RURAL (60m - 135m) 6/1/3.00 AACSR/AC ARCHERY 20% UNDERSLUNG EARTH WIRE TO MATCH 6/1/3.00 AACSR/AC 22%

New Conductor (Initial) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg. C.)		2.5	5.0	7.5	10.0	12.5	15.0	17.5	20.0	22.5	25	28	30	33	35	38	40	43
Existing Conductor (Final) (deg. C.)		-17.5	-15	-12.5	-10	-7.5	-5	-2.5	0	2.5	5	7.5	10	12.5	15	17.5	20	22.5
Ruling Span																		
60	TENSION (Kg)	628	609	589	569	549	530	510	490	471	452	432	413	394	375	357	337	319
60	TIME (s)	3.1	3.1	3.2	3.2	3.3	3.4	3.4	3.5	3.6	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3
60	SAG (m)	0.12	0.12	0.12	0.13	0.13	0.14	0.14	0.15	0.16	0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.23
65	TENSION (Kg)	627	608	587	568	548	529	510	490	471	452	432	413	393	375	357	338	320
65	TIME (s)	3.3	3.4	3.5	3.5	3.6	3.6	3.7	3.8	3.9	3.9	4.0	4.1	4.2	4.3	4.4	4.6	4.7
65	SAG (m)	0.14	0.14	0.15	0.15	0.16	0.16	0.17	0.18	0.18	0.19	0.20	0.21	0.22	0.23	0.24	0.25	0.27
70	TENSION (Kg)	626	607	586	567	547	528	509	489	470	451	431	413	393	375	357	338	321
70	TIME (s)	3.6	3.7	3.7	3.8	3.9	3.9	4.0	4.1	4.2	4.3	4.3	4.4	4.5	4.7	4.8	4.9	5.0
70	SAG (m)	0.16	0.16	0.17	0.18	0.18	0.19	0.20	0.20	0.21	0.22	0.23	0.24	0.25	0.27	0.28	0.30	0.31
75	TENSION (Kg)	624	604	585	566	546	527	508	488	469	450	431	412	393	375	357	339	321
75	TIME (s)	3.9	3.9	4.0	4.1	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.4
75	SAG (m)	0.18	0.19	0.20	0.20	0.21	0.22	0.23	0.23	0.24	0.25	0.27	0.28	0.29	0.31	0.32	0.34	0.36
80	TENSION (Kg)	623	603	584	565	544	526	507	487	468	450	430	412	393	375	357	339	322
80	TIME (s)	4.1	4.2	4.3	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.5	5.6	5.7
80	SAG (m)	0.21	0.22	0.22	0.23	0.24	0.25	0.26	0.27	0.28	0.29	0.30	0.32	0.33	0.35	0.37	0.38	0.40
85	TENSION (Kg)	621	601	582	563	543	524	506	486	467	449	430	412	393	375	358	340	323
85	TIME (s)	4.4	4.5	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.5	5.7	5.8	5.9	6.1
85	SAG (m)	0.24	0.24	0.25	0.26	0.27	0.28	0.29	0.30	0.32	0.33	0.34	0.36	0.37	0.39	0.41	0.43	0.46
90	TENSION (Kg)	620	600	581	562	542	523	504	485	466	448	429	411	392	375	358	340	324
90	TIME (s)	4.7	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.9	6.0	6.1	6.3	6.4
90	SAG (m)	0.27	0.27	0.28	0.29	0.30	0.32	0.33	0.34	0.35	0.37	0.38	0.40	0.42	0.44	0.46	0.48	0.51
95	TENSION (Kg)	618	598	579	560	540	522	503	484	466	446	428	411	392	375	358	341	324
95	TIME (s)	4.9	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.2	6.3	6.5	6.6	6.8
95	SAG (m)	0.30	0.31	0.32	0.33	0.34	0.35	0.37	0.38	0.39	0.41	0.43	0.45	0.47	0.49	0.51	0.54	0.57
100	TENSION (Kg)	616	596	577	559	539	520	502	483	465	446	428	410	392	375	358	341	325
100	TIME (s)	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.4	6.5	6.7	6.8	7.0	7.1
100	SAG (m)	0.33	0.34	0.35	0.36	0.38	0.39	0.41	0.42	0.44	0.46	0.48	0.50	0.52	0.54	0.57	0.60	0.63
105	TENSION (Kg)	614	594	576	557	537	519	501	482	464	445	427	410	392	375	359	343	326
105	TIME (s)	5.5	5.6	5.6	5.7	5.8	5.9	6.0	6.2	6.3	6.4	6.5	6.7	6.8	7.0	7.1	7.3	7.5
105	SAG (m)	0.37	0.38	0.39	0.40	0.42	0.43	0.45	0.47	0.48	0.50	0.53	0.55	0.57	0.60	0.63	0.66	0.69
110	TENSION (Kg)	612	592	574	555	536	518	498	480	463	444	427	409	392	375	359	343	327
110	TIME (s)	5.7	5.8	5.9	6.0	6.1	6.2	6.4	6.5	6.6	6.7	6.9	7.0	7.2	7.3	7.5	7.7	7.8
110	SAG (m)	0.40	0.42	0.43	0.44	0.46	0.48	0.49	0.51	0.53	0.55	0.58	0.60	0.63	0.66	0.69	0.72	0.75
115	TENSION (Kg)	610	591	572	554	534	516	497	479	461	443	426	409	391	375	359	344	328
115	TIME (s)	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.8	6.9	7.0	7.2	7.3	7.5	7.7	7.8	8.0	8.2
115	SAG (m)	0.44	0.46	0.47	0.49	0.50	0.52	0.54	0.56	0.58	0.61	0.63	0.66	0.69	0.72	0.75	0.78	0.82
120	TENSION (Kg)	608	588	570	551	533	514	496	478	460	442	425	408	391	375	359	344	328
120	TIME (s)	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.1	7.2	7.4	7.5	7.7	7.8	8.0	8.2	8.3	8.5
120	SAG (m)	0.48	0.50	0.51	0.53	0.55	0.57	0.59	0.61	0.64	0.66	0.69	0.72	0.75	0.78	0.82	0.85	0.89
125	TENSION (Kg)	606	586	568	549	531	513	494	477	459	441	424	408	391	375	360	345	329
125	TIME (s)	6.5	6.7	6.8	6.9	7.0	7.1	7.2	7.4	7.5	7.7	7.8	8.0	8.1	8.3	8.5	8.7	8.9
125	SAG (m)	0.53	0.54	0.56	0.58	0.60	0.62	0.64	0.67	0.69	0.72	0.75	0.78	0.81	0.85	0.88	0.92	0.97
130	TENSION (Kg)	603	584	566	547	529	511	493	475	458	440	424	407	391	375	360	345	330
130	TIME (s)	6.8	6.9	7.0	7.2	7.3	7.4	7.5	7.7	7.8	8.0	8.1	8.3	8.5	8.7	8.8	9.0	9.2
130	SAG (m)	0.57	0.59	0.61	0.63	0.65	0.67	0.70	0.72	0.75	0.78	0.81	0.85	0.88	0.92	0.96	1.00	1.04
135	TENSION (Kg)	600	582	564	545	527	510	491	474	457	439	423	407	390	375	360	346	331
135	TIME (s)	7.1	7.2	7.3	7.5	7.6	7.7	7.9	8.0	8.1	8.3	8.5	8.6	8.8	9.0	9.2	9.4	9.6
135	SAG (m)	0.62	0.64	0.66	0.68	0.70	0.73	0.76	0.78	0.81	0.85	0.88	0.91	0.95	0.99	1.03	1.07	1.12

BEAT VALUES ARE IN SECONDS FOR FIVE WAVE RETURNS.
CREEP ALLOWANCE @ 15°C. NEW 37.5°C SHIFT & NEXT DAY 35°C SHIFT.

REV	DATE	DESCRIPTION	ORGD.	CHED.	APRD.
A	31.10.18	ORIGINAL ISSUE	NN	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE
RURAL (60m - 135m) 6/1/3.00 AACSR/AC
ARCHERY 20% UNDERSLUNG EARTH WIRE TO
MATCH 6/1/3.00 AACSR/AC 22%

DISTRIBUTION CONSTRN. STANDARD

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DRAWN: JRR | DATE: 29-10-2018 | DRG. No. CT-0115
ORIGINATED: NN | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. A | SHT.

RURAL AACSR (140m - 220m) 6/1/3.00 AACSR/AC ARCHERY 22%

New Conductor (Initial) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg. C.)		2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5
Existing Conductor (Final) (deg. C.)		-22.5	-20	-17.5	-15	-12.5	-10	-7.5	-5	-2.5	0	2.5	5	7.5	10	12.5	15	17.5
Ruling Span																		
140	TENSION (Kg)	681	662	643	624	606	587	569	551	533	515	497	480	462	445	429	413	397
140	TIME (s)	6.9	7.0	7.1	7.2	7.3	7.4	7.6	7.7	7.8	8.0	8.1	8.2	8.4	8.6	8.7	8.9	9.1
140	SAG (m)	0.59	0.60	0.62	0.64	0.66	0.68	0.70	0.73	0.75	0.78	0.80	0.83	0.86	0.90	0.93	0.97	1.01
145	TENSION (Kg)	679	660	641	622	604	586	567	549	531	514	496	479	462	445	429	413	397
145	TIME (s)	7.2	7.3	7.4	7.5	7.6	7.7	7.9	8.0	8.1	8.2	8.4	8.5	8.7	8.8	9.0	9.2	9.4
145	SAG (m)	0.63	0.65	0.67	0.69	0.71	0.73	0.76	0.78	0.81	0.83	0.86	0.89	0.93	0.96	1.00	1.04	1.08
150	TENSION (Kg)	676	658	639	620	602	584	566	548	530	512	495	478	461	445	428	413	397
150	TIME (s)	7.4	7.6	7.7	7.8	7.9	8.0	8.1	8.3	8.4	8.5	8.7	8.8	9.0	9.2	9.3	9.5	9.7
150	SAG (m)	0.68	0.70	0.72	0.74	0.76	0.79	0.81	0.84	0.87	0.89	0.93	0.96	0.99	1.03	1.07	1.11	1.15
155	TENSION (Kg)	674	655	637	618	600	582	564	546	529	511	494	477	460	444	428	413	397
155	TIME (s)	7.7	7.8	7.9	8.0	8.2	8.3	8.4	8.6	8.7	8.8	9.0	9.2	9.3	9.5	9.6	9.9	10.0
155	SAG (m)	0.73	0.75	0.77	0.79	0.82	0.84	0.87	0.90	0.93	0.96	0.99	1.03	1.06	1.10	1.14	1.19	1.23
160	TENSION (Kg)	672	653	635	616	598	580	562	545	527	510	493	476	460	444	428	413	398
160	TIME (s)	8.0	8.1	8.2	8.3	8.4	8.6	8.7	8.8	9.0	9.1	9.3	9.5	9.6	9.8	10.0	10.1	10.3
160	SAG (m)	0.78	0.80	0.82	0.85	0.87	0.90	0.93	0.96	0.99	1.02	1.06	1.10	1.13	1.18	1.22	1.26	1.31
165	TENSION (Kg)	669	651	633	614	596	578	561	543	526	509	492	475	459	443	428	413	398
165	TIME (s)	8.2	8.3	8.5	8.6	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.8	9.9	10.1	10.3	10.5	10.6
165	SAG (m)	0.83	0.85	0.88	0.90	0.93	0.96	0.99	1.02	1.06	1.09	1.13	1.17	1.21	1.25	1.30	1.34	1.39
170	TENSION (Kg)	667	648	630	612	594	576	559	541	524	507	491	475	458	443	428	413	398
170	TIME (s)	8.5	8.6	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	10.1	10.2	10.4	10.6	10.8	11.0
170	SAG (m)	0.88	0.91	0.93	0.96	0.99	1.02	1.05	1.09	1.12	1.16	1.20	1.24	1.28	1.33	1.38	1.43	1.48
175	TENSION (Kg)	664	646	628	610	592	575	557	540	523	506	490	474	458	442	427	413	398
175	TIME (s)	8.8	8.9	9.0	9.1	9.3	9.4	9.6	9.7	9.9	10.0	10.2	10.4	10.5	10.7	10.9	11.1	11.3
175	SAG (m)	0.94	0.97	0.99	1.02	1.05	1.09	1.12	1.16	1.19	1.23	1.27	1.32	1.36	1.41	1.46	1.51	1.57
180	TENSION (Kg)	662	644	626	608	590	573	555	538	521	505	489	473	457	442	427	413	399
180	TIME (s)	9.0	9.2	9.3	9.4	9.6	9.7	9.9	10.0	10.2	10.3	10.5	10.7	10.8	11.0	11.2	11.4	11.6
180	SAG (m)	1.00	1.03	1.06	1.09	1.12	1.15	1.19	1.23	1.27	1.31	1.35	1.40	1.44	1.49	1.55	1.60	1.66
185	TENSION (Kg)	659	641	623	606	588	571	554	537	520	504	488	472	457	441	427	413	399
185	TIME (s)	9.3	9.4	9.6	9.7	9.9	10.0	10.1	10.3	10.5	10.6	10.8	11.0	11.2	11.4	11.5	11.7	11.9
185	SAG (m)	1.06	1.09	1.12	1.15	1.19	1.22	1.26	1.30	1.34	1.38	1.43	1.48	1.53	1.58	1.63	1.69	1.75
190	TENSION (Kg)	657	639	621	603	586	569	552	535	519	502	487	471	456	441	427	413	399
190	TIME (s)	9.6	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.8	10.9	11.1	11.3	11.5	11.7	11.8	12.0	12.2
190	SAG (m)	1.12	1.15	1.18	1.22	1.26	1.29	1.33	1.37	1.42	1.46	1.51	1.56	1.61	1.67	1.72	1.78	1.84
195	TENSION (Kg)	654	636	618	601	584	567	550	533	517	501	485	470	455	441	426	413	399
195	TIME (s)	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	11.1	11.2	11.4	11.6	11.8	12.0	12.2	12.4	12.6
195	SAG (m)	1.18	1.22	1.25	1.29	1.33	1.37	1.41	1.45	1.50	1.55	1.60	1.65	1.70	1.76	1.82	1.88	1.94
200	TENSION (Kg)	651	633	616	599	582	565	548	532	516	500	484	469	455	440	426	413	400
200	TIME (s)	10.1	10.3	10.4	10.5	10.7	10.8	11.0	11.2	11.4	11.5	11.7	11.9	12.1	12.3	12.5	12.7	12.9
200	SAG (m)	1.25	1.29	1.32	1.36	1.40	1.44	1.49	1.53	1.58	1.63	1.68	1.74	1.79	1.85	1.91	1.98	2.04
205	TENSION (Kg)	648	631	613	596	579	563	546	530	514	499	483	468	454	440	426	413	400
205	TIME (s)	10.4	10.5	10.7	10.8	11.0	11.1	11.3	11.5	11.7	11.8	12.0	12.2	12.4	12.6	12.8	13.0	13.2
205	SAG (m)	1.32	1.36	1.40	1.44	1.48	1.52	1.57	1.62	1.67	1.72	1.77	1.83	1.89	1.95	2.01	2.08	2.14
210	TENSION (Kg)	646	628	611	594	577	561	544	528	513	497	482	468	453	439	426	413	400
210	TIME (s)	10.6	10.8	10.9	11.1	11.3	11.4	11.6	11.8	11.9	12.1	12.3	12.5	12.7	12.9	13.1	13.3	13.5
210	SAG (m)	1.39	1.43	1.47	1.51	1.56	1.60	1.65	1.70	1.75	1.81	1.86	1.92	1.98	2.05	2.11	2.18	2.25
215	TENSION (Kg)	643	625	608	592	575	559	542	527	511	496	481	467	453	439	426	413	400
215	TIME (s)	10.9	11.1	11.2	11.4	11.6	11.7	11.9	12.1	12.2	12.4	12.6	12.8	13.0	13.2	13.4	13.6	13.8
215	SAG (m)	1.47	1.51	1.55	1.59	1.64	1.69	1.74	1.79	1.84	1.90	1.96	2.02	2.08	2.15	2.21	2.28	2.35
220	TENSION (Kg)	640	623	606	589	573	556	541	525	510	495	480	466	452	438	425	413	400
220	TIME (s)	11.2	11.4	11.5	11.7	11.8	12.0	12.2	12.4	12.5	12.7	12.9	13.1	13.3	13.5	13.8	14.0	14.2
220	SAG (m)	1.54	1.58	1.63	1.67	1.72	1.77	1.82	1.88	1.93	1.99	2.05	2.12	2.18	2.25	2.32	2.39	2.46

BEAT VALUES ARE IN SECONDS FOR FIVE WAVE RETURNS.
CREEP ALLOWANCE @ 15°C. NEW 42.5°C SHIFT & NEXT DAY 40°C SHIFT.

REV	DATE	DESCRIPTION	ORGD.	CHED.	APRD.
A	31.10.18	ORIGINAL ISSUE	NN	REE	GS

STRUCTURE

TITLE
CONDUCTOR TENSIONING TABLE
RURAL AACSR (140m - 220m) 6/1/3.00
AACSR/AC ARCHERY 22%

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 30-10-2018 | DRG. No.
ORIGINATED: NN | SCALE: NTS | CT-0116
CHECKED: REE
APPROVED: GRANT STACY | REV. A | SHT.

RURAL AACSR (140m - 220m) 6/1/3.00 AACSR/AC ARCHERY 20% UNDERSLUNG EARTH WIRE TO MATCH 6/1/3.00 AACSR/AC 22%

New Conductor (Initial) (deg. C.)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg. C.)		2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5
Existing Conductor (Final) (deg. C.)		-22.5	-20	-17.5	-15	-12.5	-10	-7.5	-5	-2.5	0	2.5	5	7.5	10	12.5	15	17.5
Ruling Span																		
140	TENSION (Kg)	635	617	598	580	562	543	525	508	490	473	456	438	422	406	390	375	360
140	TIME (s)	7.2	7.3	7.4	7.5	7.6	7.7	7.9	8.0	8.1	8.3	8.5	8.6	8.8	9.0	9.1	9.3	9.5
140	SAG (m)	0.63	0.65	0.67	0.69	0.71	0.74	0.76	0.79	0.81	0.84	0.88	0.91	0.95	0.98	1.02	1.06	1.11
145	TENSION (Kg)	633	615	595	577	560	541	523	506	488	471	455	437	421	406	390	375	361
145	TIME (s)	7.4	7.5	7.7	7.8	7.9	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.3	9.5	9.7	9.8
145	SAG (m)	0.68	0.70	0.72	0.74	0.77	0.79	0.82	0.85	0.88	0.91	0.94	0.98	1.02	1.06	1.10	1.14	1.19
150	TENSION (Kg)	630	612	593	575	557	539	521	504	486	470	453	436	421	405	390	375	361
150	TIME (s)	7.7	7.8	7.9	8.1	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.3	9.4	9.6	9.8	10.0	10.2
150	SAG (m)	0.73	0.75	0.77	0.80	0.82	0.85	0.88	0.91	0.94	0.98	1.01	1.05	1.09	1.13	1.17	1.22	1.27
155	TENSION (Kg)	627	609	590	573	555	537	520	503	485	468	452	435	420	405	389	375	361
155	TIME (s)	8.0	8.1	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	9.6	9.7	9.9	10.1	10.3	10.5
155	SAG (m)	0.78	0.80	0.83	0.85	0.88	0.91	0.94	0.97	1.01	1.05	1.08	1.12	1.17	1.21	1.26	1.30	1.36
160	TENSION (Kg)	624	607	588	570	552	535	518	501	483	467	451	434	419	404	389	375	361
160	TIME (s)	8.3	8.4	8.5	8.6	8.8	8.9	9.1	9.2	9.4	9.5	9.7	9.9	10.1	10.3	10.5	10.6	10.9
160	SAG (m)	0.84	0.86	0.89	0.92	0.94	0.97	1.01	1.04	1.08	1.12	1.16	1.20	1.24	1.29	1.34	1.39	1.45
165	TENSION (Kg)	622	603	585	568	549	532	515	498	482	466	450	433	419	404	389	375	362
165	TIME (s)	8.5	8.7	8.8	8.9	9.1	9.2	9.4	9.5	9.7	9.9	10.0	10.2	10.4	10.6	10.8	11.0	11.2
165	SAG (m)	0.89	0.92	0.95	0.98	1.01	1.04	1.08	1.11	1.15	1.19	1.23	1.28	1.32	1.37	1.42	1.48	1.53
170	TENSION (Kg)	619	600	582	565	547	530	513	496	480	464	449	433	418	403	388	375	362
170	TIME (s)	8.8	8.9	9.1	9.2	9.4	9.5	9.7	9.8	10.0	10.2	10.3	10.5	10.7	10.9	11.1	11.3	11.5
170	SAG (m)	0.95	0.98	1.01	1.04	1.08	1.11	1.15	1.19	1.23	1.27	1.31	1.36	1.41	1.46	1.52	1.57	1.63
175	TENSION (Kg)	616	597	580	563	545	528	511	494	478	463	446	432	417	403	388	375	362
175	TIME (s)	9.1	9.2	9.4	9.5	9.7	9.8	10.0	10.1	10.3	10.5	10.7	10.9	11.0	11.2	11.4	11.6	11.9
175	SAG (m)	1.01	1.04	1.08	1.11	1.14	1.18	1.22	1.26	1.31	1.35	1.40	1.44	1.50	1.55	1.61	1.66	1.72
180	TENSION (Kg)	613	594	577	560	542	526	509	492	477	461	445	431	416	402	388	375	362
180	TIME (s)	9.4	9.5	9.7	9.8	10.0	10.1	10.3	10.5	10.6	10.8	11.0	11.2	11.4	11.6	11.8	12.0	12.2
180	SAG (m)	1.08	1.11	1.14	1.18	1.22	1.26	1.30	1.34	1.38	1.43	1.48	1.53	1.59	1.64	1.70	1.76	1.82
185	TENSION (Kg)	609	591	574	557	540	523	507	490	475	460	444	430	416	402	388	375	363
185	TIME (s)	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.8	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3	12.5
185	SAG (m)	1.15	1.18	1.22	1.25	1.29	1.33	1.38	1.42	1.47	1.52	1.57	1.62	1.68	1.74	1.80	1.86	1.92
190	TENSION (Kg)	606	588	571	555	537	521	505	489	473	458	443	429	415	401	387	375	363
190	TIME (s)	10.0	10.1	10.3	10.4	10.6	10.7	10.9	11.1	11.3	11.4	11.6	11.8	12.0	12.2	12.4	12.6	12.9
190	SAG (m)	1.21	1.25	1.29	1.33	1.37	1.41	1.46	1.50	1.56	1.61	1.66	1.71	1.77	1.84	1.90	1.96	2.03
195	TENSION (Kg)	602	585	568	551	535	519	503	487	472	457	442	428	414	401	387	375	363
195	TIME (s)	10.2	10.4	10.5	10.7	10.9	11.0	11.2	11.4	11.6	11.8	12.0	12.1	12.4	12.6	12.8	13.0	13.2
195	SAG (m)	1.29	1.32	1.36	1.40	1.45	1.49	1.54	1.59	1.64	1.70	1.75	1.81	1.87	1.93	2.00	2.07	2.13
200	TENSION (Kg)	599	582	566	548	532	516	501	485	470	455	440	427	413	400	387	375	363
200	TIME (s)	10.5	10.7	10.8	11.0	11.2	11.4	11.5	11.7	11.9	12.1	12.3	12.5	12.7	12.9	13.1	13.3	13.5
200	SAG (m)	1.36	1.40	1.44	1.49	1.53	1.58	1.63	1.68	1.73	1.79	1.85	1.91	1.97	2.04	2.10	2.17	2.25
205	TENSION (Kg)	596	579	563	546	530	514	498	483	468	454	439	426	413	400	387	375	364
205	TIME (s)	10.8	11.0	11.1	11.3	11.5	11.7	11.8	12.0	12.2	12.4	12.6	12.8	13.0	13.2	13.4	13.6	13.9
205	SAG (m)	1.44	1.48	1.52	1.57	1.62	1.67	1.72	1.77	1.83	1.89	1.95	2.01	2.07	2.14	2.21	2.28	2.35
210	TENSION (Kg)	592	576	560	543	527	512	496	481	467	453	438	425	412	400	387	375	364
210	TIME (s)	11.1	11.3	11.4	11.6	11.8	12.0	12.1	12.3	12.5	12.7	12.9	13.1	13.3	13.5	13.8	14.0	14.2
210	SAG (m)	1.52	1.56	1.61	1.65	1.70	1.76	1.81	1.87	1.92	1.99	2.05	2.11	2.18	2.25	2.32	2.40	2.47
215	TENSION (Kg)	589	573	557	540	525	509	494	479	465	451	437	424	411	399	386	375	364
215	TIME (s)	11.4	11.6	11.7	11.9	12.1	12.3	12.5	12.7	12.9	13.1	13.3	13.5	13.7	13.9	14.1	14.3	14.5
215	SAG (m)	1.60	1.64	1.69	1.74	1.79	1.85	1.91	1.97	2.03	2.09	2.15	2.22	2.29	2.36	2.44	2.51	2.59
220	TENSION (Kg)	586	570	554	537	522	507	492	477	463	450	436	423	411	399	386	375	364
220	TIME (s)	11.7	11.9	12.1	12.2	12.4	12.6	12.8	13.0	13.2	13.4	13.6	13.8	14.0	14.2	14.4	14.6	14.9
220	SAG (m)	1.68	1.73	1.78	1.84	1.89	1.95	2.00	2.07	2.13	2.19	2.26	2.33	2.40	2.47	2.55	2.63	2.71

BEAT VALUES ARE IN SECONDS FOR FIVE WAVE RETURNS.
CREEP ALLOWANCE @ 15°C. NEW 42.5°C SHIFT & NEXT DAY 40°C SHIFT.

REV	DATE	DESCRIPTION	ORGD.	CHED.	APRD.
A	31.10.18	ORIGINAL ISSUE	NN	REE	GS

STRUCTURE

TITLE: CONDUCTOR TENSIONING TABLE
RURAL AACSR (140m - 220m) 6/1/3.00 AACSR/AC ARCHERY 20% UNDERSLUNG EARTH WIRE TO MATCH 6/1/3.00 AACSR/AC 22%

DISTRIBUTION CONSTRN. STANDARD

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DRAWN: JRR | DATE: 30-10-2018 | DRG. No. CT-0117
ORIGINATED: NN | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. A | SHT.

STEEL CONDUCTORS RURAL 7/1.60 SC/GZ 25% Table 1 (1OOm- 165m)

New Conductor (Initial) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
100	TENSION (Kg)	300	293	285	278	271	264	257	250	244	236	230	223	217	211	205	199	193
	TIME(s)	6.2	6.3	6.4	6.5	6.6	6.7	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.6	7.7	7.8
	SAG(m)	0.48	0.49	0.50	0.52	0.53	0.54	0.56	0.58	0.59	0.61	0.63	0.64	0.66	0.68	0.70	0.72	0.75
105	TENSION (Kg)	300	293	285	278	271	264	257	251	244	238	230	224	218	212	206	200	195
	TIME(s)	6.6	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1
	SAG(m)	0.53	0.54	0.56	0.57	0.59	0.60	0.62	0.63	0.65	0.67	0.69	0.71	0.73	0.75	0.77	0.79	0.82
110	TENSION (Kg)	299	292	284	278	271	264	257	251	244	238	231	225	219	213	207	202	196
	TIME(s)	6.9	7.0	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.2	8.3	8.4	8.5
	SAG(m)	0.58	0.60	0.61	0.63	0.64	0.66	0.68	0.69	0.71	0.73	0.75	0.77	0.79	0.82	0.84	0.86	0.89
115	TENSION (Kg)	299	292	284	277	271	264	258	251	245	239	232	226	220	214	208	203	198
	TIME(s)	7.2	7.3	7.4	7.5	7.6	7.7	7.7	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.9
	SAG(m)	0.64	0.65	0.67	0.68	0.70	0.72	0.74	0.76	0.78	0.80	0.82	0.84	0.87	0.89	0.91	0.94	0.96
120	TENSION (Kg)	299	292	284	277	271	264	258	251	245	239	232	226	221	215	210	204	199
	TIME(s)	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	9.0	9.1	9.2
	SAG(m)	0.70	0.71	0.73	0.75	0.76	0.78	0.80	0.82	0.85	0.87	0.89	0.92	0.94	0.96	0.99	1.02	1.04
125	TENSION (Kg)	298	292	284	277	271	264	258	252	246	240	233	227	221	216	211	205	200
	TIME(s)	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.9	9.0	9.1	9.2	9.3	9.4	9.6
	SAG(m)	0.75	0.77	0.79	0.81	0.83	0.85	0.87	0.89	0.92	0.94	0.97	0.99	1.01	1.04	1.07	1.09	1.12
130	TENSION (Kg)	298	291	284	277	271	264	258	252	246	240	234	228	222	217	212	207	202
	TIME(s)	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.7	9.8	9.9
	SAG(m)	0.82	0.84	0.86	0.88	0.90	0.92	0.94	0.97	0.99	1.01	1.04	1.07	1.10	1.12	1.15	1.18	1.21
135	TENSION (Kg)	298	291	283	277	271	265	258	252	247	241	234	229	223	218	213	208	203
	TIME(s)	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.7	9.8	9.9	10.0	10.1	10.2
	SAG(m)	0.88	0.90	0.92	0.95	0.97	0.99	1.01	1.04	1.06	1.09	1.12	1.15	1.18	1.20	1.23	1.26	1.29
140	TENSION (Kg)	297	291	283	277	271	265	259	253	247	241	235	229	224	219	214	209	204
	TIME(s)	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.8	9.9	10.0	10.1	10.2	10.3	10.5	10.6
	SAG(m)	0.95	0.97	0.99	1.02	1.04	1.07	1.09	1.12	1.14	1.17	1.20	1.23	1.26	1.29	1.32	1.35	1.38
145	TENSION (Kg)	297	290	283	277	271	265	259	253	247	242	235	230	225	220	215	210	206
	TIME(s)	9.1	9.2	9.3	9.4	9.5	9.7	9.7	9.9	10.0	10.1	10.2	10.3	10.5	10.6	10.7	10.8	10.9
	SAG(m)	1.02	1.04	1.07	1.09	1.12	1.15	1.17	1.20	1.22	1.25	1.28	1.31	1.35	1.38	1.41	1.44	1.47
150	TENSION (Kg)	296	290	283	277	271	265	259	253	248	242	236	231	226	221	216	211	207
	TIME(s)	9.4	9.5	9.6	9.7	9.9	10.0	10.1	10.2	10.3	10.4	10.6	10.7	10.8	10.9	11.0	11.2	11.3
	SAG(m)	1.09	1.12	1.14	1.17	1.19	1.23	1.25	1.28	1.31	1.34	1.37	1.40	1.43	1.47	1.50	1.54	1.57
155	TENSION (Kg)	296	290	283	277	271	265	259	254	248	243	238	232	227	222	217	213	208
	TIME(s)	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.8	10.9	11.0	11.1	11.3	11.4	11.5	11.6
	SAG(m)	1.17	1.20	1.22	1.25	1.28	1.31	1.33	1.36	1.39	1.43	1.46	1.49	1.52	1.56	1.59	1.63	1.67
160	TENSION (Kg)	296	288	282	277	271	265	260	254	249	243	238	232	228	223	218	214	209
	TIME(s)	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.9	11.0	11.1	11.2	11.3	11.5	11.6	11.7	11.9	12.0
	SAG(m)	1.25	1.27	1.30	1.33	1.36	1.39	1.42	1.45	1.48	1.52	1.55	1.58	1.62	1.65	1.69	1.73	1.77
165	TENSION (Kg)	295	288	282	276	271	265	260	254	249	244	239	233	228	224	219	215	211
	TIME(s)	10.4	10.5	10.6	10.7	10.8	11.0	11.1	11.2	11.3	11.4	11.6	11.7	11.8	11.9	12.1	12.2	12.3
	SAG(m)	1.33	1.36	1.39	1.42	1.45	1.48	1.51	1.54	1.57	1.61	1.64	1.68	1.71	1.75	1.79	1.83	1.87

Beat values are in seconds for five wave returns

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TITLE CONDUCTOR TENSIONING TABLE
STEEL CONDUCTORS RURAL 7/1.60
SC/GZ 25% TABLE 1 (100m-165m)

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DRG. No. CT-0130
REV. A | SHT.

STEEL CONDUCTORS RURAL 7/1.60 SC/GZ 25% Table 2 (170m-235m)

		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg C)		5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																		
170	TENSION (Kg)	295	288	282	276	271	265	260	255	250	245	240	234	229	225	220	216	212
	TIME(s)	10.7	10.8	10.9	11.1	11.2	11.3	11.4	11.5	11.6	11.8	11.9	12.0	12.1	12.3	12.4	12.5	12.6
	SAG(m)	1.41	1.44	1.47	1.51	1.53	1.57	1.60	1.63	1.67	1.70	1.74	1.78	1.81	1.85	1.89	1.93	1.97
175	TENSION (Kg)	294	288	282	276	271	265	260	255	250	245	240	235	230	226	221	217	213
	TIME(s)	11.0	11.2	11.3	11.4	11.5	11.6	11.7	11.9	12.0	12.1	12.2	12.4	12.5	12.6	12.7	12.9	13.0
	SAG(m)	1.50	1.53	1.56	1.60	1.63	1.66	1.69	1.73	1.76	1.80	1.84	1.88	1.91	1.95	1.99	2.03	2.07
180	TENSION (Kg)	294	287	282	276	271	265	260	255	250	246	241	235	231	226	222	218	214
	TIME(s)	11.4	11.5	11.6	11.7	11.8	12.0	12.1	12.2	12.3	12.4	12.6	12.7	12.8	12.9	13.1	13.2	13.3
	SAG(m)	1.59	1.62	1.65	1.69	1.72	1.76	1.79	1.83	1.86	1.90	1.94	1.98	2.02	2.06	2.10	2.14	2.18
185	TENSION (Kg)	293	287	281	276	271	266	261	256	251	246	241	236	232	227	223	219	215
	TIME(s)	11.7	11.8	11.9	12.0	12.2	12.3	12.4	12.5	12.6	12.8	12.9	13.0	13.1	13.3	13.4	13.5	13.6
	SAG(m)	1.68	1.71	1.75	1.79	1.82	1.86	1.89	1.93	1.97	2.00	2.04	2.08	2.12	2.17	2.21	2.25	2.29
190	TENSION (Kg)	293	287	281	276	271	266	261	256	251	247	242	238	232	228	224	220	216
	TIME(s)	12.0	12.1	12.2	12.4	12.5	12.6	12.7	12.9	13.0	13.1	13.2	13.3	13.5	13.6	13.7	13.9	14.0
	SAG(m)	1.78	1.81	1.84	1.88	1.92	1.96	1.99	2.03	2.07	2.11	2.15	2.19	2.23	2.28	2.32	2.36	2.40
195	TENSION (Kg)	293	286	281	276	271	266	261	256	252	247	243	238	233	229	225	221	217
	TIME(s)	12.3	12.5	12.6	12.7	12.8	12.9	13.1	13.2	13.3	13.4	13.6	13.7	13.8	13.9	14.1	14.2	14.3
	SAG(m)	1.87	1.91	1.94	1.98	2.02	2.06	2.10	2.14	2.18	2.22	2.26	2.30	2.35	2.39	2.43	2.48	2.52
200	TENSION (Kg)	292	286	281	276	271	266	261	256	252	247	243	239	234	230	226	222	218
	TIME(s)	12.7	12.8	12.9	13.0	13.1	13.3	13.4	13.5	13.6	13.8	13.9	14.0	14.1	14.3	14.4	14.5	14.6
	SAG(m)	1.97	2.01	2.05	2.09	2.12	2.17	2.20	2.25	2.29	2.33	2.37	2.42	2.46	2.50	2.55	2.59	2.64
205	TENSION (Kg)	292	286	281	276	271	266	261	257	252	248	244	240	235	231	227	223	219
	TIME(s)	13.0	13.1	13.2	13.4	13.5	13.6	13.7	13.8	14.0	14.1	14.2	14.3	14.5	14.6	14.7	14.8	15.0
	SAG(m)	2.07	2.11	2.15	2.19	2.23	2.28	2.32	2.36	2.40	2.44	2.49	2.53	2.58	2.62	2.67	2.71	2.76
210	TENSION (Kg)	292	285	280	276	271	266	261	257	253	248	244	240	235	231	228	224	220
	TIME(s)	13.3	13.4	13.6	13.7	13.8	13.9	14.1	14.2	14.3	14.4	14.5	14.7	14.8	14.9	15.1	15.2	15.3
	SAG(m)	2.18	2.22	2.26	2.30	2.34	2.39	2.43	2.47	2.51	2.56	2.60	2.65	2.69	2.74	2.79	2.83	2.88
215	TENSION (Kg)	291	285	280	275	271	266	262	257	253	249	245	241	236	232	228	225	221
	TIME(s)	13.6	13.8	13.9	14.0	14.1	14.3	14.4	14.5	14.6	14.8	14.9	15.0	15.1	15.3	15.4	15.5	15.6
	SAG(m)	2.29	2.33	2.37	2.42	2.46	2.50	2.55	2.59	2.63	2.68	2.72	2.77	2.82	2.86	2.91	2.96	3.01
220	TENSION (Kg)	291	285	280	275	271	266	262	258	253	249	245	241	238	233	229	226	222
	TIME(s)	14.0	14.1	14.2	14.3	14.5	14.6	14.7	14.8	15.0	15.1	15.2	15.3	15.5	15.6	15.7	15.8	16.0
	SAG(m)	2.40	2.44	2.48	2.53	2.57	2.62	2.67	2.71	2.75	2.80	2.85	2.89	2.94	2.99	3.04	3.08	3.13
225	TENSION (Kg)	290	285	280	275	271	266	262	258	254	250	246	242	238	234	230	227	223
	TIME(s)	14.3	14.4	14.6	14.7	14.8	14.9	15.1	15.2	15.3	15.4	15.5	15.7	15.8	15.9	16.0	16.2	16.3
	SAG(m)	2.51	2.56	2.61	2.65	2.69	2.74	2.79	2.83	2.88	2.92	2.97	3.02	3.07	3.12	3.16	3.21	3.26
230	TENSION (Kg)	290	284	280	275	271	266	262	258	254	250	246	243	239	234	231	227	224
	TIME(s)	14.6	14.7	14.9	15.0	15.1	15.2	15.4	15.5	15.6	15.7	15.9	16.0	16.1	16.2	16.4	16.5	16.6
	SAG(m)	2.63	2.67	2.73	2.77	2.81	2.86	2.91	2.95	3.00	3.05	3.10	3.15	3.20	3.25	3.30	3.35	3.40
235	TENSION (Kg)	290	284	280	275	271	267	262	258	254	251	247	243	239	235	232	228	225
	TIME(s)	14.9	15.1	15.2	15.3	15.4	15.6	15.7	15.8	15.9	16.1	16.2	16.3	16.4	16.6	16.7	16.8	16.9
	SAG(m)	2.75	2.79	2.85	2.89	2.93	2.98	3.04	3.08	3.13	3.18	3.23	3.28	3.33	3.38	3.43	3.48	3.53

Beat values are in seconds for five wave returns

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TITLE CONDUCTOR TENSIONING TABLE STEEL CONDUCTORS RURAL 7/1.60 SC/GZ 25% TABLE 2 (170m-235m)

DISTRIBUTION CONSTRUCTION STANDARDS

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REV. A SHT.

STEEL CONDUCTORS RURAL 7/1.60 SC/GZ 25% Table 3 (240m-300m)

New Conductor (Initial) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
240 TENSION (Kg)	288	284	279	275	271	267	263	259	255	251	247	244	240	236	232	229	226
TIME (s)	15.3	15.4	15.5	15.7	15.8	15.9	16.0	16.2	16.3	16.4	16.5	16.7	16.8	16.9	17.0	17.1	17.3
SAG(m)	2.87	2.92	2.97	3.01	3.06	3.11	3.16	3.22	3.26	3.31	3.36	3.41	3.46	3.51	3.56	3.62	3.67
245 TENSION (Kg)	288	284	279	275	271	267	263	259	255	251	248	244	241	236	233	230	227
TIME (s)	15.6	15.7	15.9	16.0	16.1	16.2	16.4	16.5	16.6	16.7	16.9	17.0	17.1	17.2	17.4	17.5	17.6
SAG(m)	3.00	3.04	3.10	3.14	3.19	3.24	3.29	3.35	3.39	3.44	3.49	3.55	3.60	3.65	3.70	3.76	3.81
250 TENSION (Kg)	288	283	279	275	271	267	263	259	255	252	248	245	241	238	234	231	228
TIME (s)	15.9	16.1	16.2	16.3	16.4	16.6	16.7	16.8	16.9	17.1	17.2	17.3	17.4	17.6	17.7	17.8	17.9
SAG(m)	3.12	3.17	3.23	3.27	3.32	3.37	3.43	3.48	3.53	3.58	3.63	3.68	3.74	3.79	3.84	3.90	3.95
255 TENSION (Kg)	287	283	279	275	271	267	263	259	256	252	249	245	242	239	235	231	228
TIME (s)	16.3	16.4	16.5	16.6	16.8	16.9	17.0	17.2	17.3	17.4	17.5	17.6	17.8	17.9	18.0	18.1	18.2
SAG(m)	3.25	3.30	3.36	3.41	3.46	3.51	3.56	3.62	3.67	3.72	3.77	3.83	3.88	3.93	3.99	4.04	4.10
260 TENSION (Kg)	287	283	279	275	271	267	263	260	256	252	249	246	242	239	235	232	229
TIME (s)	16.6	16.7	16.9	17.0	17.1	17.2	17.4	17.5	17.6	17.7	17.8	18.0	18.1	18.2	18.3	18.5	18.6
SAG(m)	3.39	3.44	3.49	3.54	3.59	3.65	3.70	3.76	3.81	3.86	3.91	3.97	4.02	4.08	4.13	4.19	4.24
265 TENSION (Kg)	287	283	279	275	271	267	263	260	256	253	249	246	243	240	236	233	230
TIME (s)	16.9	17.0	17.2	17.3	17.4	17.5	17.7	17.8	17.9	18.0	18.2	18.3	18.4	18.5	18.7	18.8	18.9
SAG(m)	3.52	3.57	3.63	3.68	3.73	3.79	3.84	3.90	3.96	4.01	4.06	4.12	4.17	4.23	4.28	4.34	4.39
270 TENSION (Kg)	286	282	278	275	271	267	263	260	257	253	250	247	244	240	238	234	231
TIME (s)	17.3	17.4	17.5	17.6	17.8	17.9	18.0	18.1	18.3	18.4	18.5	18.6	18.7	18.9	19.0	19.1	19.2
SAG(m)	3.66	3.72	3.77	3.82	3.88	3.93	3.99	4.05	4.11	4.15	4.21	4.26	4.32	4.38	4.43	4.49	4.55
275 TENSION (Kg)	286	282	278	274	271	267	264	260	257	253	250	247	244	241	238	234	232
TIME (s)	17.6	17.7	17.8	18.0	18.1	18.2	18.3	18.5	18.6	18.7	18.8	18.9	19.1	19.2	19.3	19.4	19.5
SAG(m)	3.80	3.87	3.91	3.97	4.02	4.08	4.14	4.20	4.26	4.30	4.36	4.42	4.47	4.53	4.59	4.64	4.70
280 TENSION (Kg)	286	282	278	274	271	267	264	260	257	254	251	248	245	242	239	235	232
TIME (s)	17.9	18.1	18.2	18.3	18.4	18.5	18.7	18.8	18.9	19.0	19.2	19.3	19.4	19.5	19.6	19.8	19.9
SAG(m)	3.95	4.01	4.06	4.11	4.17	4.23	4.29	4.35	4.41	4.45	4.51	4.57	4.63	4.68	4.74	4.80	4.86
285 TENSION (Kg)	285	282	278	274	271	267	264	261	257	254	251	248	245	242	239	236	233
TIME (s)	18.2	18.4	18.5	18.6	18.7	18.9	19.0	19.1	19.3	19.4	19.5	19.6	19.7	19.8	20.0	20.1	20.2
SAG(m)	4.09	4.16	4.21	4.26	4.32	4.38	4.44	4.50	4.56	4.62	4.67	4.73	4.78	4.84	4.90	4.96	5.02
290 TENSION (Kg)	285	281	278	274	271	267	264	261	258	254	251	248	246	243	240	236	234
TIME (s)	18.6	18.7	18.8	18.9	19.1	19.2	19.3	19.5	19.6	19.7	19.8	19.9	20.0	20.2	20.3	20.4	20.5
SAG(m)	4.24	4.31	4.36	4.42	4.47	4.53	4.59	4.65	4.72	4.78	4.82	4.88	4.94	5.00	5.06	5.12	5.18
295 TENSION (Kg)	285	281	278	274	271	267	264	261	258	255	252	249	246	243	241	238	234
TIME (s)	18.9	19.0	19.2	19.3	19.4	19.5	19.7	19.8	19.9	20.0	20.1	20.3	20.4	20.5	20.6	20.7	20.8
SAG(m)	4.39	4.46	4.51	4.57	4.63	4.69	4.75	4.81	4.87	4.94	4.99	5.05	5.11	5.17	5.23	5.29	5.35
300 TENSION (Kg)	285	281	278	274	271	267	264	261	258	255	252	249	247	244	241	239	235
TIME (s)	19.2	19.4	19.5	19.6	19.7	19.9	20.0	20.1	20.2	20.4	20.5	20.6	20.7	20.8	20.9	21.1	21.2
SAG(m)	4.55	4.62	4.67	4.73	4.79	4.85	4.91	4.97	5.04	5.10	5.16	5.21	5.27	5.33	5.39	5.45	5.51

Beat values are in seconds for five wave returns

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TITLE CONDUCTOR TENSIONING TABLE
STEEL CONDUCTORS RURAL 7/1.60
SC/GZ 25% TABLE 3 (240m-300m)

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REV. A | SHT.

STEEL CONDUCTORS RURAL 7/2.00 SC/GZ 25% Table 1 (100m -165m)

New Conductor (Initial) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
100 TENSION (Kg)	746	735	723	710	698	686	674	663	650	638	627	615	602	591	579	568	556
TIME(s)	4.9	4.9	5.0	5.0	5.1	5.1	5.2	5.2	5.3	5.3	5.4	5.4	5.5	5.5	5.6	5.6	5.7
SAG(m)	0.30	0.30	0.31	0.31	0.32	0.32	0.33	0.33	0.34	0.35	0.35	0.36	0.37	0.37	0.38	0.39	0.40
105 TENSION (Kg)	746	734	723	710	698	686	675	663	650	638	627	615	603	591	580	568	557
TIME(s)	5.2	5.2	5.2	5.3	5.3	5.4	5.4	5.5	5.5	5.6	5.6	5.7	5.7	5.8	5.8	5.9	6.0
SAG(m)	0.33	0.33	0.34	0.34	0.35	0.36	0.36	0.37	0.38	0.38	0.39	0.40	0.40	0.41	0.42	0.43	0.44
110 TENSION (Kg)	746	734	723	710	698	686	675	663	650	639	627	616	603	592	580	569	557
TIME(s)	5.4	5.4	5.5	5.5	5.6	5.6	5.7	5.7	5.8	5.8	5.9	5.9	6.0	6.1	6.1	6.2	6.3
SAG(m)	0.36	0.36	0.37	0.38	0.38	0.39	0.40	0.40	0.41	0.42	0.43	0.44	0.44	0.45	0.46	0.47	0.48
115 TENSION (Kg)	746	734	722	710	698	686	675	663	650	639	627	616	603	592	581	569	558
TIME(s)	5.6	5.7	5.7	5.8	5.8	5.9	5.9	6.0	6.0	6.1	6.2	6.2	6.3	6.3	6.4	6.5	6.5
SAG(m)	0.39	0.40	0.41	0.41	0.42	0.43	0.43	0.44	0.45	0.46	0.47	0.48	0.48	0.49	0.50	0.51	0.52
120 TENSION (Kg)	746	734	722	710	698	686	675	663	651	639	628	616	604	593	581	570	559
TIME(s)	5.9	5.9	6.0	6.0	6.1	6.1	6.2	6.3	6.3	6.4	6.4	6.5	6.5	6.6	6.7	6.7	6.8
SAG(m)	0.43	0.43	0.44	0.45	0.46	0.46	0.47	0.48	0.49	0.50	0.51	0.52	0.53	0.54	0.55	0.56	0.57
125 TENSION (Kg)	746	734	722	710	698	686	675	663	651	639	628	617	604	593	582	571	560
TIME(s)	6.1	6.2	6.2	6.3	6.3	6.4	6.5	6.5	6.6	6.6	6.7	6.8	6.8	6.9	7.0	7.0	7.1
SAG(m)	0.46	0.47	0.48	0.49	0.50	0.50	0.51	0.52	0.53	0.54	0.55	0.56	0.57	0.58	0.59	0.61	0.62
130 TENSION (Kg)	745	734	722	710	698	686	675	663	651	640	628	617	606	594	582	571	560
TIME(s)	6.4	6.4	6.5	6.5	6.6	6.7	6.7	6.8	6.8	6.9	7.0	7.0	7.1	7.2	7.2	7.3	7.4
SAG(m)	0.50	0.51	0.52	0.53	0.54	0.54	0.55	0.56	0.57	0.58	0.60	0.61	0.62	0.63	0.64	0.65	0.67
135 TENSION (Kg)	745	734	722	710	698	687	675	664	651	640	629	617	606	594	583	572	561
TIME(s)	6.6	6.7	6.7	6.8	6.9	6.9	7.0	7.0	7.1	7.2	7.2	7.3	7.4	7.4	7.5	7.6	7.6
SAG(m)	0.54	0.55	0.56	0.57	0.58	0.59	0.60	0.61	0.62	0.63	0.64	0.65	0.67	0.68	0.69	0.71	0.72
140 TENSION (Kg)	745	734	722	709	698	687	675	664	651	640	629	618	607	595	584	573	562
TIME(s)	6.9	6.9	7.0	7.0	7.1	7.2	7.2	7.3	7.4	7.4	7.5	7.6	7.6	7.7	7.8	7.8	7.9
SAG(m)	0.58	0.59	0.60	0.61	0.62	0.63	0.64	0.65	0.67	0.68	0.69	0.70	0.72	0.73	0.74	0.76	0.77
145 TENSION (Kg)	745	733	722	709	698	687	675	664	652	640	629	618	607	595	584	573	563
TIME(s)	7.1	7.2	7.2	7.3	7.4	7.4	7.5	7.6	7.6	7.7	7.8	7.8	7.9	8.0	8.0	8.1	8.2
SAG(m)	0.62	0.63	0.64	0.66	0.67	0.68	0.69	0.70	0.71	0.73	0.74	0.75	0.77	0.78	0.80	0.81	0.83
150 TENSION (Kg)	745	733	722	709	698	687	675	664	652	641	630	619	608	596	585	574	563
TIME(s)	7.4	7.4	7.5	7.6	7.6	7.7	7.7	7.8	7.9	7.9	8.0	8.1	8.2	8.2	8.3	8.4	8.5
SAG(m)	0.67	0.68	0.69	0.70	0.71	0.73	0.74	0.75	0.76	0.78	0.79	0.81	0.82	0.84	0.85	0.87	0.88
155 TENSION (Kg)	745	733	722	709	698	687	675	664	652	641	630	619	608	596	586	575	564
TIME(s)	7.6	7.7	7.7	7.8	7.9	7.9	8.0	8.1	8.1	8.2	8.3	8.4	8.4	8.5	8.6	8.7	8.8
SAG(m)	0.71	0.73	0.74	0.75	0.76	0.77	0.79	0.80	0.82	0.83	0.84	0.86	0.87	0.89	0.91	0.93	0.94
160 TENSION (Kg)	744	733	722	709	698	687	676	664	652	641	630	619	609	597	586	576	565
TIME(s)	7.9	7.9	8.0	8.1	8.1	8.2	8.3	8.3	8.4	8.5	8.5	8.6	8.7	8.8	8.9	8.9	9.0
SAG(m)	0.76	0.77	0.79	0.80	0.81	0.82	0.84	0.85	0.87	0.88	0.90	0.91	0.93	0.95	0.97	0.98	1.00
165 TENSION (Kg)	744	733	721	709	698	687	676	665	653	642	631	620	609	597	587	576	566
TIME(s)	8.1	8.2	8.2	8.3	8.4	8.4	8.5	8.6	8.7	8.7	8.8	8.9	9.0	9.1	9.1	9.2	9.3
SAG(m)	0.81	0.82	0.84	0.85	0.86	0.88	0.89	0.91	0.92	0.94	0.96	0.97	0.99	1.01	1.03	1.05	1.07

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
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STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
STEEL CONDUCTORS RURAL 7/2.00
SC/GZ 25% TABLE 1 (100m-165m)

DISTRIBUTION CONSTRUCTION STANDARDS

DRAWN: JRR | DATE: 03-06-2014
CHECKED: REE | SCALE: NTS
APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0140
REV. A | SHT.

STEEL CONDUCTORS RURAL 7/2.00 SC/GZ 25% Table 2 (170m-235m)

New Conductor (Initial) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
170 TENSION (Kg)	744	733	721	709	698	687	676	665	653	642	631	620	610	598	588	577	567
TIME(s)	8.4	8.4	8.5	8.6	8.6	8.7	8.8	8.8	8.9	9.0	9.1	9.2	9.2	9.3	9.4	9.5	9.6
SAG(m)	0.86	0.87	0.89	0.90	0.92	0.93	0.95	0.96	0.98	1.00	1.01	1.03	1.05	1.07	1.09	1.11	1.13
175 TENSION (Kg)	744	732	721	709	698	687	676	665	653	642	632	621	610	599	588	578	568
TIME(s)	8.6	8.7	8.7	8.8	8.9	9.0	9.0	9.1	9.2	9.3	9.3	9.4	9.5	9.6	9.7	9.8	9.9
SAG(m)	0.91	0.93	0.94	0.96	0.97	0.99	1.00	1.02	1.04	1.06	1.07	1.09	1.11	1.13	1.15	1.17	1.19
180 TENSION (Kg)	743	732	721	709	698	687	676	665	653	643	632	621	611	599	589	579	568
TIME(s)	8.9	8.9	9.0	9.1	9.1	9.2	9.3	9.4	9.4	9.5	9.6	9.7	9.8	9.9	9.9	10.0	10.1
SAG(m)	0.96	0.98	0.99	1.01	1.03	1.04	1.06	1.08	1.10	1.12	1.13	1.15	1.17	1.20	1.22	1.24	1.26
185 TENSION (Kg)	743	732	721	709	698	687	676	665	654	643	632	622	611	600	590	579	569
TIME(s)	9.1	9.2	9.2	9.3	9.4	9.5	9.5	9.6	9.7	9.8	9.9	10.0	10.0	10.1	10.2	10.3	10.4
SAG(m)	1.02	1.04	1.05	1.07	1.08	1.10	1.12	1.14	1.16	1.18	1.20	1.22	1.24	1.26	1.28	1.31	1.33
190 TENSION (Kg)	743	732	721	709	698	687	676	666	654	643	633	622	612	601	590	580	570
TIME(s)	9.4	9.4	9.5	9.6	9.6	9.7	9.8	9.9	10.0	10.1	10.1	10.2	10.3	10.4	10.5	10.6	10.7
SAG(m)	1.08	1.09	1.11	1.13	1.14	1.16	1.18	1.20	1.22	1.24	1.26	1.28	1.31	1.33	1.35	1.38	1.40
195 TENSION (Kg)	743	732	721	709	698	687	676	666	654	644	633	623	612	601	591	581	571
TIME(s)	9.6	9.7	9.7	9.8	9.9	10.0	10.1	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	10.9
SAG(m)	1.13	1.15	1.17	1.19	1.21	1.22	1.24	1.26	1.29	1.31	1.33	1.35	1.38	1.40	1.42	1.45	1.47
200 TENSION (Kg)	743	732	721	709	698	687	677	666	654	644	634	623	613	602	592	582	572
TIME(s)	9.8	9.9	10.0	10.1	10.2	10.2	10.3	10.4	10.5	10.6	10.7	10.7	10.8	10.9	11.0	11.1	11.2
SAG(m)	1.19	1.21	1.23	1.25	1.27	1.29	1.31	1.33	1.35	1.38	1.40	1.42	1.45	1.47	1.50	1.52	1.55
205 TENSION (Kg)	742	731	721	709	698	687	677	666	655	644	634	624	614	603	593	583	573
TIME(s)	10.1	10.2	10.2	10.3	10.4	10.5	10.6	10.7	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5
SAG(m)	1.25	1.27	1.29	1.31	1.33	1.35	1.37	1.40	1.42	1.44	1.47	1.49	1.52	1.54	1.57	1.60	1.62
210 TENSION (Kg)	742	731	720	709	698	687	677	666	655	645	634	624	614	603	593	583	574
TIME(s)	10.3	10.4	10.5	10.6	10.7	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8
SAG(m)	1.32	1.34	1.36	1.38	1.40	1.42	1.44	1.47	1.49	1.51	1.54	1.56	1.59	1.62	1.64	1.67	1.70
215 TENSION (Kg)	742	731	720	709	698	687	677	667	655	645	635	625	615	604	594	584	575
TIME(s)	10.6	10.7	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.5	11.6	11.7	11.8	11.9	12.0
SAG(m)	1.38	1.40	1.42	1.44	1.47	1.49	1.51	1.54	1.56	1.59	1.61	1.64	1.67	1.69	1.72	1.75	1.78
220 TENSION (Kg)	742	731	720	709	698	688	677	667	656	645	635	625	615	606	595	585	576
TIME(s)	10.8	10.9	11.0	11.1	11.2	11.3	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3
SAG(m)	1.45	1.47	1.49	1.51	1.53	1.56	1.58	1.61	1.63	1.66	1.69	1.71	1.74	1.77	1.80	1.83	1.86
225 TENSION (Kg)	741	731	720	708	698	688	677	667	656	646	636	626	616	606	596	586	577
TIME(s)	11.1	11.2	11.3	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6
SAG(m)	1.51	1.53	1.56	1.58	1.60	1.63	1.66	1.68	1.71	1.74	1.76	1.79	1.82	1.85	1.88	1.91	1.94
230 TENSION (Kg)	741	730	720	708	698	688	677	667	656	646	636	626	617	607	596	587	577
TIME(s)	11.3	11.4	11.5	11.6	11.7	11.8	11.9	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8
SAG(m)	1.58	1.60	1.63	1.65	1.68	1.70	1.73	1.76	1.78	1.81	1.84	1.87	1.90	1.93	1.96	2.00	2.03
235 TENSION (Kg)	741	730	720	708	698	688	678	667	656	646	637	627	617	608	597	588	578
TIME(s)	11.6	11.7	11.8	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1
SAG(m)	1.65	1.67	1.70	1.72	1.75	1.78	1.80	1.83	1.86	1.89	1.92	1.95	1.98	2.01	2.05	2.08	2.11

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
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TITLE CONDUCTOR TENSIONING TABLE
STEEL CONDUCTORS RURAL 7/2.00
SC/GZ 25% TABLE 2 (170m-235m)

DISTRIBUTION CONSTRUCTION STANDARDS

westernpower

DRAWN: JRR | DATE: 03-06-2014
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APPROVED: GRANT STACY DATE: 03-06-2014

DRG. No. CT-0141
REV. A | SHT.

STEEL CONDUCTORS RURAL 7/2.00 SC/GZ 25% Table 3 (240m-300m)

New Conductor (Initial) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
240 TENSION (Kg)	741	730	720	708	698	688	678	668	657	647	637	627	618	608	598	589	579
TIME(s)	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4
SAG(m)	1.72	1.75	1.77	1.80	1.83	1.85	1.88	1.91	1.94	1.97	2.00	2.04	2.07	2.10	2.13	2.17	2.20
245 TENSION (Kg)	740	730	719	708	698	688	678	668	657	647	637	628	618	609	599	589	580
TIME(s)	12.1	12.2	12.3	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6
SAG(m)	1.80	1.82	1.85	1.88	1.90	1.93	1.96	1.99	2.02	2.05	2.09	2.12	2.15	2.18	2.22	2.25	2.29
250 TENSION (Kg)	740	730	719	708	698	688	678	668	657	648	638	628	619	610	599	590	581
TIME(s)	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9
SAG(m)	1.87	1.90	1.92	1.95	1.98	2.01	2.04	2.07	2.10	2.14	2.17	2.20	2.24	2.27	2.31	2.34	2.38
255 TENSION (Kg)	740	729	719	708	698	688	678	668	659	648	638	629	620	610	600	591	582
TIME(s)	12.6	12.7	12.8	12.9	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.8	13.9	14.0	14.1	14.2
SAG(m)	1.95	1.97	2.00	2.03	2.06	2.09	2.12	2.16	2.19	2.22	2.26	2.29	2.33	2.36	2.40	2.44	2.47
260 TENSION (Kg)	739	729	719	708	698	688	678	668	659	648	639	629	620	611	601	592	583
TIME(s)	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.3	14.4
SAG(m)	2.02	2.05	2.08	2.11	2.14	2.17	2.21	2.24	2.27	2.31	2.34	2.38	2.42	2.45	2.49	2.53	2.57
265 TENSION (Kg)	739	729	719	708	698	688	678	669	659	649	639	630	621	612	602	593	584
TIME(s)	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7
SAG(m)	2.10	2.13	2.16	2.19	2.23	2.26	2.29	2.33	2.36	2.40	2.43	2.47	2.51	2.54	2.58	2.62	2.66
270 TENSION (Kg)	739	729	719	708	698	688	679	669	659	649	640	630	621	612	602	594	585
TIME (s)	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.8	14.9	15.0
SAG(m)	2.18	2.22	2.25	2.28	2.31	2.34	2.38	2.41	2.45	2.49	2.52	2.56	2.60	2.64	2.68	2.72	2.76
275 TENSION (Kg)	739	729	719	708	698	688	679	669	660	649	640	631	622	613	603	594	586
TIME(s)	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	15.0	15.1	15.2
SAG(m)	2.27	2.30	2.33	2.36	2.40	2.43	2.47	2.50	2.54	2.58	2.62	2.66	2.70	2.74	2.77	2.82	2.86
280 TENSION (Kg)	738	728	719	708	698	688	679	669	660	650	641	631	623	614	604	595	587
TIME (s)	13.8	13.9	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	15.0	15.1	15.2	15.3	15.4	15.5
SAG(m)	2.35	2.38	2.42	2.45	2.49	2.52	2.56	2.59	2.63	2.67	2.71	2.75	2.79	2.83	2.87	2.92	2.96
285 TENSION (Kg)	738	728	718	708	698	688	679	670	660	650	641	632	623	614	606	596	588
TIME(s)	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	15.0	15.1	15.2	15.3	15.4	15.5	15.7	15.8
SAG(m)	2.44	2.47	2.50	2.54	2.58	2.61	2.65	2.69	2.73	2.77	2.81	2.85	2.89	2.93	2.97	3.02	3.06
290 TENSION (Kg)	738	728	718	708	698	689	679	670	661	650	641	633	624	615	606	597	589
TIME (s)	14.3	14.4	14.5	14.6	14.7	14.8	14.9	15.0	15.1	15.3	15.4	15.5	15.6	15.7	15.8	15.9	16.0
SAG(m)	2.52	2.56	2.59	2.63	2.67	2.70	2.74	2.78	2.82	2.86	2.90	2.95	2.99	3.03	3.07	3.12	3.16
295 TENSION (Kg)	738	728	718	708	698	689	679	670	661	651	642	633	624	616	607	598	590
TIME(s)	14.6	14.7	14.8	14.9	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	16.0	16.1	16.2	16.3
SAG(m)	2.61	2.65	2.68	2.72	2.76	2.80	2.84	2.88	2.92	2.96	3.00	3.05	3.09	3.13	3.18	3.22	3.27
300 TENSION (Kg)	737	728	718	707	698	689	679	670	661	651	642	634	625	616	608	599	590
TIME (s)	14.8	14.9	15.0	15.1	15.2	15.3	15.4	15.6	15.7	15.8	15.9	16.0	16.1	16.2	16.3	16.4	16.6
SAG(m)	2.70	2.74	2.78	2.82	2.85	2.89	2.93	2.97	3.02	3.06	3.10	3.15	3.19	3.24	3.29	3.33	3.38

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
STEEL CONDUCTORS RURAL 7/2.00
SC/GZ 25% TABLE 3 (240m-300m)

DISTRIBUTION CONSTRUCTION STANDARDS

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DRG. No. CT-0142
REV. A | SHT.

STEEL CONDUCTORS RURAL 7/2.75 SC/GZ 25% Table 1 (100m -165m)

New Conductor (Initial) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
100 TENSION (Kg)	1412	1388	1366	1343	1320	1298	1274	1252	1229	1207	1185	1161	1139	1116	1095	1072	1050
TIME (s)	4.8	4.9	4.9	5.0	5.0	5.1	5.1	5.1	5.2	5.2	5.3	5.3	5.4	5.4	5.5	5.6	5.6
SAG(m)	0.29	0.29	0.30	0.30	0.31	0.31	0.32	0.33	0.33	0.34	0.34	0.35	0.36	0.36	0.37	0.38	0.39
105 TENSION (Kg)	1411	1388	1366	1343	1320	1298	1274	1252	1229	1207	1185	1162	1140	1117	1095	1073	1051
TIME (s)	5.1	5.1	5.2	5.2	5.3	5.3	5.4	5.4	5.5	5.5	5.6	5.6	5.7	5.7	5.8	5.8	5.9
SAG(m)	0.32	0.32	0.33	0.33	0.34	0.35	0.35	0.36	0.37	0.37	0.38	0.39	0.39	0.40	0.41	0.42	0.43
110 TENSION (Kg)	1411	1388	1366	1343	1320	1298	1275	1253	1229	1207	1186	1163	1141	1118	1096	1074	1052
TIME (s)	5.3	5.4	5.4	5.5	5.5	5.6	5.6	5.7	5.7	5.8	5.8	5.9	5.9	6.0	6.0	6.1	6.2
SAG(m)	0.35	0.36	0.36	0.37	0.37	0.38	0.39	0.39	0.40	0.41	0.42	0.42	0.43	0.44	0.45	0.46	0.47
115 TENSION (Kg)	1411	1388	1365	1343	1320	1298	1275	1253	1230	1208	1186	1163	1142	1119	1097	1075	1054
TIME (s)	5.6	5.6	5.7	5.7	5.8	5.8	5.9	5.9	6.0	6.0	6.1	6.1	6.2	6.3	6.3	6.4	6.4
SAG(m)	0.38	0.39	0.39	0.40	0.41	0.42	0.42	0.43	0.44	0.45	0.45	0.46	0.47	0.48	0.49	0.50	0.51
120 TENSION (Kg)	1411	1387	1365	1343	1320	1298	1275	1253	1230	1208	1187	1164	1142	1120	1098	1076	1055
TIME (s)	5.8	5.9	5.9	6.0	6.0	6.1	6.1	6.2	6.2	6.3	6.3	6.4	6.5	6.5	6.6	6.7	6.7
SAG(m)	0.42	0.42	0.43	0.44	0.44	0.45	0.46	0.47	0.48	0.49	0.49	0.50	0.51	0.52	0.53	0.55	0.56
125 TENSION (Kg)	1410	1387	1365	1343	1320	1298	1275	1253	1231	1209	1187	1165	1143	1121	1099	1077	1056
TIME (s)	6.1	6.1	6.2	6.2	6.3	6.3	6.4	6.4	6.5	6.5	6.6	6.7	6.7	6.8	6.9	6.9	7.0
SAG(m)	0.45	0.46	0.47	0.47	0.48	0.49	0.50	0.51	0.52	0.53	0.54	0.55	0.56	0.57	0.58	0.59	0.60
130 TENSION (Kg)	1410	1387	1365	1343	1320	1298	1275	1254	1231	1209	1188	1165	1144	1122	1100	1078	1057
TIME (s)	6.3	6.4	6.4	6.5	6.5	6.6	6.6	6.7	6.7	6.8	6.9	6.9	7.0	7.1	7.1	7.2	7.3
SAG(m)	0.49	0.50	0.50	0.51	0.52	0.53	0.54	0.55	0.56	0.57	0.58	0.59	0.60	0.61	0.63	0.64	0.65
135 TENSION (Kg)	1410	1387	1365	1343	1320	1298	1275	1254	1231	1210	1188	1166	1145	1123	1102	1081	1059
TIME (s)	6.5	6.6	6.7	6.7	6.8	6.8	6.9	6.9	7.0	7.1	7.1	7.2	7.3	7.3	7.4	7.5	7.6
SAG(m)	0.53	0.54	0.54	0.55	0.56	0.57	0.58	0.59	0.60	0.61	0.63	0.64	0.65	0.66	0.67	0.69	0.70
140 TENSION (Kg)	1409	1386	1365	1343	1320	1298	1276	1254	1232	1210	1189	1167	1146	1124	1103	1082	1060
TIME (s)	6.8	6.8	6.9	7.0	7.0	7.1	7.1	7.2	7.3	7.3	7.4	7.5	7.5	7.6	7.7	7.8	7.8
SAG(m)	0.57	0.58	0.59	0.60	0.61	0.62	0.63	0.64	0.65	0.66	0.67	0.68	0.70	0.71	0.72	0.74	0.75
145 TENSION (Kg)	1409	1386	1364	1343	1320	1298	1276	1254	1232	1211	1190	1167	1146	1125	1104	1083	1062
TIME (s)	7.0	7.1	7.1	7.2	7.3	7.3	7.4	7.5	7.5	7.6	7.7	7.7	7.8	7.9	7.9	8.0	8.1
SAG(m)	0.61	0.62	0.63	0.64	0.65	0.66	0.67	0.68	0.70	0.71	0.72	0.73	0.75	0.76	0.78	0.79	0.81
150 TENSION (Kg)	1409	1386	1364	1343	1320	1298	1276	1255	1232	1211	1190	1168	1147	1126	1105	1084	1063
TIME (s)	7.3	7.3	7.4	7.5	7.5	7.6	7.6	7.7	7.8	7.8	7.9	8	8.1	8.1	8.2	8.3	8.4
SAG(m)	0.65	0.66	0.67	0.68	0.69	0.71	0.72	0.73	0.74	0.76	0.77	0.78	0.8	0.81	0.83	0.85	0.86
155 TENSION (Kg)	1408	1386	1364	1341	1320	1299	1276	1255	1233	1212	1191	1169	1148	1127	1106	1086	1065
TIME (s)	7.5	7.6	7.6	7.7	7.8	7.8	7.9	8	8	8.1	8.2	8.3	8.3	8.4	8.5	8.6	8.6
SAG(m)	0.7	0.71	0.72	0.73	0.74	0.75	0.77	0.78	0.79	0.81	0.82	0.84	0.85	0.87	0.89	0.9	0.92
160 TENSION (Kg)	1408	1385	1364	1341	1320	1299	1276	1255	1233	1212	1192	1170	1149	1128	1107	1087	1066
TIME (s)	7.8	7.8	7.9	8	8	8.1	8.2	8.2	8.3	8.4	8.4	8.5	8.6	8.7	8.8	8.8	8.9
SAG(m)	0.74	0.75	0.77	0.78	0.79	0.8	0.82	0.83	0.85	0.86	0.88	0.89	0.91	0.93	0.94	0.96	0.98
165 TENSION (Kg)	1408	1385	1364	1341	1320	1299	1277	1256	1234	1213	1192	1171	1150	1129	1109	1088	1068
TIME (s)	8	8.1	8.1	8.2	8.3	8.3	8.4	8.5	8.6	8.6	8.7	8.8	8.9	8.9	9	9.1	9.2
SAG(m)	0.79	0.8	0.81	0.83	0.84	0.85	0.87	0.88	0.9	0.91	0.93	0.95	0.97	0.98	1	1.02	1.04

Beat values are in seconds for five wave returns

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STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
STEEL CONDUCTORS RURAL 7/2.75
SC/GZ 25% TABLE 1 (100m-165m)

DISTRIBUTION CONSTRUCTION STANDARDS

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REV. A | SHT.

STEEL CONDUCTORS RURAL 7/2.75 SC/GZ 25% Table 2 (170m-235m)

New Conductor (Initial) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
170 TENSION (Kg)	1407	1385	1363	1341	1320	1299	1277	1256	1234	1213	1193	1171	1151	1130	1110	1090	1069
TIME(s)	8.3	8.3	8.4	8.4	8.5	8.6	8.7	8.7	8.8	8.9	9.0	9.0	9.1	9.2	9.3	9.4	9.5
SAG(m)	0.84	0.85	0.86	0.88	0.89	0.91	0.92	0.94	0.95	0.97	0.99	1.01	1.02	1.04	1.06	1.08	1.10
175 TENSION (Kg)	1407	1385	1363	1341	1320	1299	1277	1256	1235	1214	1194	1172	1152	1131	1111	1091	1071
TIME(s)	8.5	8.6	8.6	8.7	8.8	8.8	8.9	9.0	9.1	9.1	9.2	9.3	9.4	9.5	9.6	9.6	9.7
SAG(m)	0.89	0.90	0.92	0.93	0.95	0.96	0.98	0.99	1.01	1.03	1.05	1.06	1.08	1.10	1.12	1.14	1.17
180 TENSION (Kg)	1406	1384	1363	1341	1320	1299	1277	1257	1235	1215	1194	1173	1153	1133	1112	1093	1072
TIME(s)	8.7	8.8	8.9	8.9	9.0	9.1	9.2	9.2	9.3	9.4	9.5	9.6	9.7	9.7	9.8	9.9	10.0
SAG(m)	0.94	0.95	0.97	0.98	1.00	1.02	1.03	1.05	1.07	1.09	1.11	1.13	1.15	1.17	1.19	1.21	1.23
185 TENSION (Kg)	1406	1384	1363	1341	1320	1299	1278	1257	1236	1215	1195	1174	1154	1134	1114	1094	1074
TIME(s)	9.0	9.1	9.1	9.2	9.3	9.3	9.4	9.5	9.6	9.7	9.7	9.8	9.9	10.0	10.1	10.2	10.3
SAG(m)	0.99	1.01	1.02	1.04	1.06	1.07	1.09	1.11	1.13	1.15	1.17	1.19	1.21	1.23	1.25	1.28	1.30
190 TENSION (Kg)	1406	1384	1363	1341	1320	1299	1278	1257	1236	1216	1196	1175	1155	1135	1115	1096	1075
TIME(s)	9.2	9.3	9.4	9.4	9.5	9.6	9.7	9.8	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.5
SAG(m)	1.05	1.06	1.08	1.10	1.11	1.13	1.15	1.17	1.19	1.21	1.23	1.25	1.27	1.30	1.32	1.34	1.37
195 TENSION (Kg)	1405	1383	1362	1341	1320	1299	1278	1258	1238	1216	1196	1176	1156	1137	1116	1097	1077
TIME(s)	9.5	9.5	9.6	9.7	9.8	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.4	10.5	10.6	10.7	10.8
SAG(m)	1.10	1.12	1.14	1.16	1.17	1.19	1.21	1.23	1.25	1.27	1.30	1.32	1.34	1.36	1.39	1.41	1.44
200 TENSION (Kg)	1405	1383	1362	1341	1320	1300	1278	1258	1238	1217	1197	1177	1157	1138	1118	1099	1080
TIME(s)	9.7	9.8	9.9	9.9	10.0	10.1	10.2	10.3	10.4	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1
SAG(m)	1.16	1.18	1.20	1.22	1.24	1.26	1.28	1.30	1.32	1.34	1.36	1.39	1.41	1.43	1.46	1.48	1.51
205 TENSION (Kg)	1404	1383	1362	1340	1320	1300	1278	1258	1238	1218	1198	1177	1158	1139	1119	1100	1081
TIME(s)	10.0	10.0	10.1	10.2	10.3	10.4	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4
SAG(m)	1.22	1.24	1.26	1.28	1.30	1.32	1.34	1.36	1.38	1.41	1.43	1.45	1.48	1.50	1.53	1.56	1.59
210 TENSION (Kg)	1404	1382	1362	1340	1320	1300	1279	1259	1239	1218	1199	1178	1159	1140	1120	1102	1083
TIME(s)	10.2	10.3	10.4	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.0	11.1	11.2	11.3	11.4	11.5	11.6
SAG(m)	1.28	1.30	1.32	1.34	1.36	1.38	1.41	1.43	1.45	1.48	1.50	1.53	1.55	1.58	1.60	1.63	1.66
215 TENSION (Kg)	1403	1382	1361	1340	1320	1300	1279	1259	1239	1219	1200	1179	1160	1141	1122	1103	1085
TIME(s)	10.4	10.5	10.6	10.7	10.8	10.9	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9
SAG(m)	1.34	1.36	1.38	1.41	1.43	1.45	1.47	1.50	1.52	1.55	1.57	1.60	1.62	1.65	1.68	1.71	1.74
220 TENSION (Kg)	1403	1382	1361	1340	1320	1300	1279	1260	1240	1220	1200	1180	1161	1143	1123	1105	1086
TIME(s)	10.7	10.8	10.9	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2
SAG(m)	1.41	1.43	1.45	1.47	1.49	1.52	1.54	1.57	1.59	1.62	1.64	1.67	1.70	1.73	1.76	1.79	1.82
225 TENSION (Kg)	1403	1381	1361	1340	1320	1300	1279	1260	1241	1220	1201	1181	1162	1144	1124	1106	1088
TIME(s)	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4
SAG(m)	1.47	1.49	1.52	1.54	1.56	1.59	1.61	1.64	1.66	1.69	1.72	1.75	1.78	1.81	1.84	1.87	1.90
230 TENSION (Kg)	1402	1381	1361	1340	1320	1300	1280	1260	1241	1221	1202	1182	1163	1145	1126	1108	1090
TIME(s)	11.2	11.3	11.4	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7
SAG(m)	1.54	1.56	1.59	1.61	1.63	1.66	1.68	1.71	1.74	1.77	1.79	1.82	1.85	1.88	1.92	1.95	1.98
235 TENSION (Kg)	1402	1381	1361	1340	1320	1300	1280	1261	1242	1222	1203	1183	1165	1146	1127	1109	1091
TIME(s)	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	13.0
SAG(m)	1.61	1.63	1.66	1.68	1.71	1.73	1.76	1.79	1.81	1.84	1.87	1.90	1.93	1.96	2.00	2.03	2.06

Beat values are in seconds for five wave returns

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STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE STEEL CONDUCTORS RURAL 7/2.75 SC/GZ 25% TABLE 2 (170m-235m)

DISTRIBUTION CONSTRUCTION STANDARDS

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REV. A | SHT.

STEEL CONDUCTORS RURAL 7/2.75 SC/GZ 25% Table 3 (240m-300m)

New Conductor (Initial) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
New Conductor (Initial) Next Day (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Existing Conductor (Final) (deg C)	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45
Ruling Span																	
240 TENSION (Kg)	1401	1380	1360	1340	1320	1301	1280	1261	1242	1222	1204	1185	1166	1148	1129	1111	1093
TIME(s)	11.7	11.8	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2
SAG(m)	1.68	1.70	1.73	1.75	1.78	1.81	1.83	1.86	1.89	1.92	1.95	1.98	2.01	2.05	2.08	2.11	2.15
245 TENSION (Kg)	1401	1380	1360	1339	1320	1301	1280	1261	1243	1223	1204	1186	1167	1149	1130	1112	1095
TIME(s)	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5
SAG(m)	1.75	1.77	1.80	1.83	1.85	1.88	1.91	1.94	1.97	2.00	2.03	2.06	2.10	2.13	2.17	2.20	2.24
250 TENSION (Kg)	1400	1379	1360	1339	1320	1301	1281	1262	1243	1224	1205	1187	1168	1150	1131	1114	1097
TIME(s)	12.2	12.3	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7
SAG(m)	1.82	1.85	1.87	1.90	1.93	1.96	1.99	2.02	2.05	2.08	2.12	2.15	2.18	2.22	2.25	2.29	2.32
255 TENSION (Kg)	1400	1379	1360	1339	1320	1301	1281	1262	1244	1224	1206	1188	1169	1151	1134	1115	1098
TIME(s)	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0
SAG(m)	1.90	1.92	1.95	1.98	2.01	2.04	2.07	2.10	2.13	2.17	2.20	2.23	2.27	2.30	2.34	2.38	2.41
260 TENSION (Kg)	1399	1379	1359	1339	1320	1301	1281	1263	1244	1225	1207	1189	1170	1153	1135	1117	1100
TIME(s)	12.7	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.1	14.2	14.3
SAG(m)	1.97	2.00	2.03	2.06	2.09	2.12	2.15	2.18	2.22	2.25	2.29	2.32	2.36	2.39	2.43	2.47	2.51
265 TENSION (Kg)	1399	1378	1359	1339	1320	1301	1282	1263	1245	1226	1208	1190	1171	1154	1137	1119	1102
TIME(s)	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.3	14.4	14.5
SAG(m)	2.05	2.08	2.11	2.14	2.17	2.20	2.23	2.27	2.30	2.34	2.37	2.41	2.44	2.48	2.52	2.56	2.60
270 TENSION (Kg)	1398	1378	1359	1339	1320	1301	1282	1263	1245	1226	1208	1191	1172	1155	1138	1120	1103
TIME(s)	13.2	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.4	14.5	14.6	14.7	14.8
SAG(m)	2.13	2.16	2.19	2.22	2.25	2.28	2.32	2.35	2.39	2.42	2.46	2.50	2.54	2.57	2.61	2.65	2.69
275 TENSION (Kg)	1398	1378	1359	1339	1320	1301	1282	1264	1246	1227	1209	1192	1173	1156	1139	1122	1105
TIME(s)	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	15.0	15.1
SAG(m)	2.21	2.24	2.27	2.30	2.34	2.37	2.40	2.44	2.48	2.51	2.55	2.59	2.63	2.67	2.71	2.75	2.79
280 TENSION (Kg)	1397	1377	1358	1339	1320	1302	1282	1264	1246	1228	1210	1193	1175	1158	1141	1123	1107
TIME(s)	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.3	14.4	14.6	14.7	14.8	14.9	15.0	15.1	15.2	15.3
SAG(m)	2.29	2.32	2.35	2.39	2.42	2.46	2.49	2.53	2.57	2.60	2.64	2.68	2.72	2.76	2.80	2.85	2.89
285 TENSION (Kg)	1397	1377	1358	1338	1320	1302	1283	1265	1247	1228	1211	1194	1176	1159	1142	1125	1109
TIME(s)	13.9	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	15.0	15.1	15.2	15.4	15.5	15.6
SAG(m)	2.37	2.41	2.44	2.47	2.51	2.55	2.58	2.62	2.66	2.70	2.74	2.78	2.82	2.86	2.90	2.94	2.99
290 TENSION (Kg)	1396	1376	1358	1338	1320	1302	1283	1265	1247	1229	1212	1195	1177	1160	1144	1126	1110
TIME(s)	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8
SAG(m)	2.46	2.49	2.53	2.56	2.60	2.64	2.67	2.71	2.75	2.79	2.83	2.87	2.91	2.96	3.00	3.04	3.09
295 TENSION (Kg)	1396	1376	1358	1338	1320	1302	1283	1265	1248	1230	1213	1196	1178	1161	1145	1128	1112
TIME(s)	14.4	14.5	14.6	14.7	14.8	14.9	15.0	15.1	15.2	15.3	15.4	15.5	15.7	15.8	15.9	16.0	16.1
SAG(m)	2.54	2.58	2.61	2.65	2.69	2.73	2.77	2.80	2.84	2.89	2.93	2.97	3.01	3.06	3.10	3.15	3.19
300 TENSION (Kg)	1394	1376	1357	1338	1320	1302	1283	1266	1249	1230	1213	1197	1179	1163	1146	1129	1114
TIME(s)	14.6	14.7	14.8	14.9	15.0	15.1	15.2	15.4	15.5	15.6	15.7	15.8	15.9	16.0	16.1	16.3	16.4
SAG(m)	2.63	2.67	2.70	2.74	2.78	2.82	2.86	2.90	2.94	2.98	3.03	3.07	3.11	3.16	3.20	3.25	3.30

Beat values are in seconds for five wave returns

REV. No.	DATE	DESCRIPTION	APPRD.
A	03.06.2014	ORIGINAL ISSUE	GS

STRUCTURE

TITLE CONDUCTOR TENSIONING TABLE
STEEL CONDUCTORS RURAL 7/2.75
SC/GZ 25% TABLE 3 (240m-300m)

DISTRIBUTION CONSTRUCTION STANDARDS

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