



DISTRIBUTION DESIGN

CATALOGUE

Section 06

ST – Stays

HPC-1DC-07-0006-2014

For application to
Horizon Power
Electricity Distribution Networks

Document Control		
Revision 4 Author	Name: Andrew Nguyen Position: Standards Engineer	
Reviewed	Name: Atul Sinha Position: Standards Engineer	
Endorsed By	Name: Sandeep Magan Position: Engineering Services Manager/ Principal Engineer	
Approved By	Name: Marc Beckx Position: Manager Engineering and Project Services	
Date Created/Last Updated	September 2019	
Review Frequency **	Annually	
Next Review Date **	September 2020	

** Frequency period is dependent upon circumstances– maximum is 5 years from last issue, review, or revision whichever is the latest. If left blank, the default shall be 1 year unless otherwise specified.

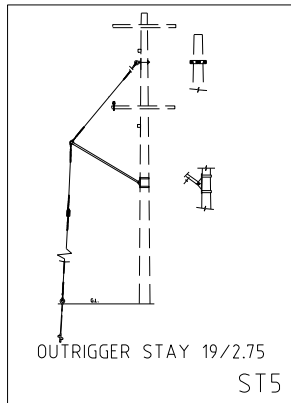
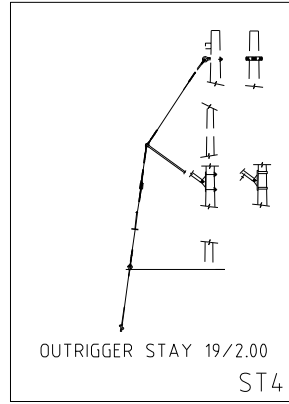
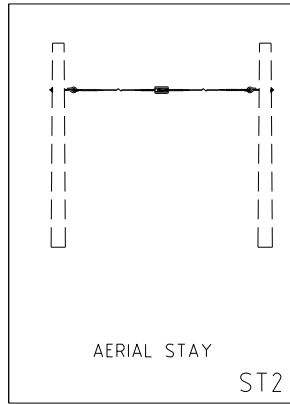
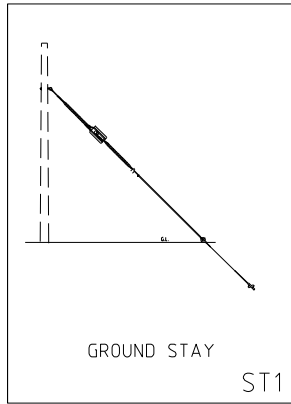
Revision Control		
Revision	Date	Description
1	15/03/2011	Original Horizon Power issue
2	09/06/2014	Original Horizon Power issue
3	12/07/2018	Eyebolt changed
4	01/09/2019	Compatible Unit Updated

STAKEHOLDERS	NOTIFICATION LIST
The following positions shall be consulted if an update or review is required:	The following positions shall be notified of any authorised change:
Assets Managers	Works Delivery Managers
Field Practices Coordinators	Logistics Manager
Asset Services Delivery Manager	

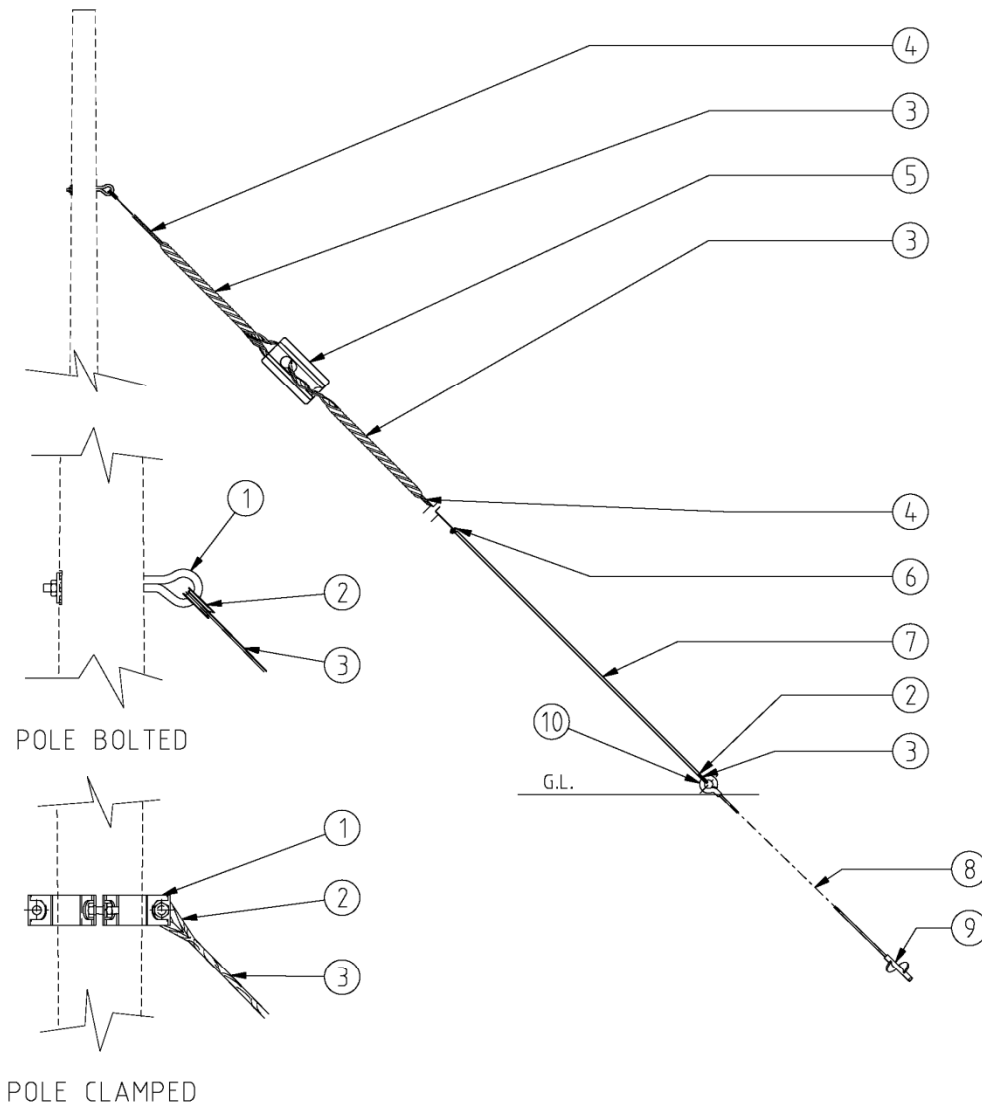
STAYS LIST

CU	CU DESCRIPTION
ST1 19/200	Ground stay – 19/2.00 – Pole bolted
ST1 19/200 C	Ground stay – 19/2.00 – Pole clamped
ST1 19/275	Ground stay – 19/2.75 – Pole bolted
ST1 19/275 C	Ground stay – 19/2.75 – Pole clamped
ST2 19/200	Aerial stay – 19/2.00 – Pole bolted
ST2 19/200 C	Aerial stay – 19/2.00 – Pole clamped
ST4	Outrigger stay – 19/2.00 – Pole bolted
ST4 C	Outrigger stay – 19/2.00 – Pole clamped
ST5	Outrigger stay – 19/2.75 – Pole bolted
ST5 C	Outrigger stay – 19/2.75 – Pole clamped

Note No.	DESCRIPTION
1	Stock item FM0900 only required for Pole clamped
2	Extra IA0053 (x1) and CF0664 (x2) required for wood pole (see R14/3)



 DISTRIBUTION DESIGN CATALOGUE	COMPATIBLE UNIT	REVISION 2	DATE 16/09/19
	ST COMPATIBLE UNITS	DRAWING No. ST INDEX	



1. IF THE STAY WIRE PASSES THROUGH L.V. MAINS THEN THE L.V. MAINS MUST BE CONSTRUCTED ON A 2100mm CROSSARM
2. ON 33kV & 19.1kV LINES THE SECTION OF THE STAY ABOVE THE STAY INSULATOR MUST BE EARTHED

<p>HORIZON POWER</p> <p>DISTRIBUTION DESIGN CATALOGUE</p> <p>OPERATIONS DIVISION</p>	COMPATIBLE UNIT	REVISION 2	DATE 15/11/13
	GROUND STAY	DRAWING No. ST1	

CU	CU DESCRIPTION
ST1_19/200	Ground stay – 19/2.00 – Pole bolted

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6035	eyebolt 20 dia x 300 mm lg with nut and washers	1	ea	
2	OT0064	rope thimble 20 mm	2	ea	
3	CF0664	Helical termination steel 19/2.00	4	ea	
4	ES0062	stay wire 19/2.00, 15 m coil	1	coil	
5	IA0053	stay insulator	1	ea	
6	OG0351	10 mm saddle clamp wire rope	1	ea	
7	CG0005	UPVC stay protector	1	ea	
8	CA0151	rod anchor	1	ea	2.14 m
9	CA0027	screw anchor 200 mm	1	ea	
10	CA9050	thimble eye nut	1	ea	

CU	CU DESCRIPTION
ST1_19/200_C	Ground stay – 19/2.00 – Pole clamped

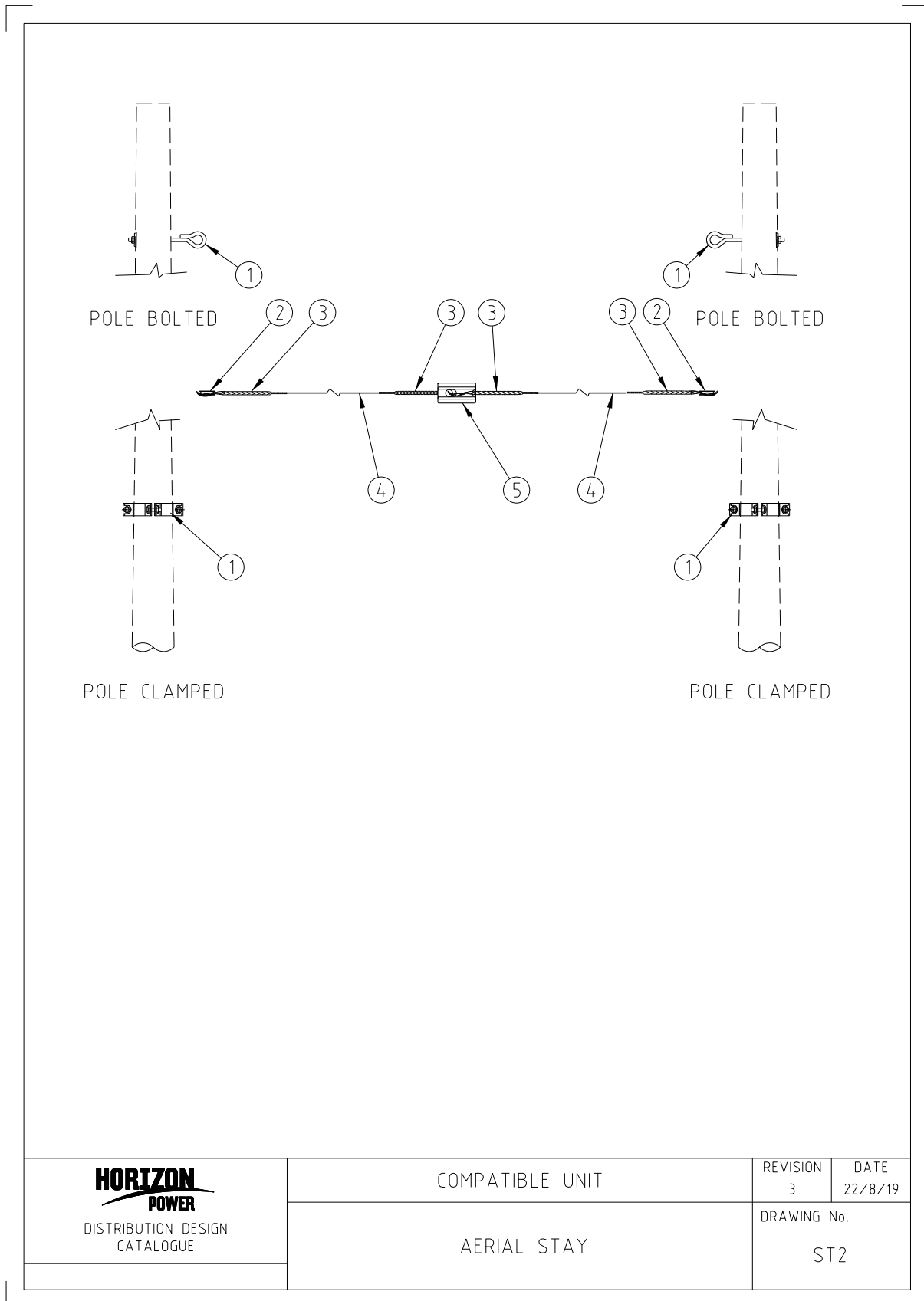
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB3041	stay clamp with 4 x M20 bolts 65 mm lg, nuts and washers	1	set	
2	OT0064	rope thimble 20 mm	2	ea	
3	CF0664	Helical termination steel 19/2.00	4	ea	
4	ES0062	stay wire 19/2.00, 15 m coil	1	coil	
5	IA0053	stay insulator	1	ea	
6	OG0351	10 mm saddle clamp wire rope	1	ea	
7	CG0005	UPVC stay protector	1	ea	
8	CA0151	rod anchor	1	ea	2.14 m
9	CA0027	screw anchor 200 mm	1	ea	
10	CA9050	thimble eye nut	1	ea	

CU	CU DESCRIPTION
ST1_19/275	Ground stay – 19/2.75 – Pole bolted

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6035	eyebolt 20 dia x 300 mm lg with nut and washers	1	ea	
2	OT0064	rope thimble 20 mm	2	ea	
3	CF0662	Helical termination steel 19/2.75	4	ea	
4	ES0061	stay wire 19/2.75, 15 m coil	1	coil	
5	IA0053	stay insulator	1	ea	
6	OG0352	12 mm saddle clamp wire rope	1	ea	
7	CG0005	UPVC stay protector	1	ea	
8	CA0151	Rod anchor	1	ea	2.14 m
9	CA0029	screw anchor 300 mm	1	ea	
10	CA9050	thimble eye nut	1	ea	

CU	CU DESCRIPTION
ST1_19/275_C	Ground stay – 19/2.75 – Pole clamped

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB3041	stay clamp with 4 x M20 bolts 65 mm lg, nuts and washers	1	set	
2	OT0064	rope thimble 20 mm	2	ea	
3	CF0662	Helical termination steel 19/2.75	4	ea	
4	ES0061	stay wire 19/2.75, 15 m coil	1	coil	
5	IA0053	stay insulator	1	ea	
6	OG0352	12 mm saddle clamp wire rope	1	ea	
7	CG0005	UPVC stay protector	1	ea	
8	CA0151	rod anchor	1	ea	2.14 m
9	CA0029	screw anchor 300 mm	1	ea	
10	CA9050	thimble eye nut	1	ea	



HORIZON
POWER
DISTRIBUTION DESIGN
CATALOGUE

COMPATIBLE UNIT

REVISION	DATE
3	22/8/19

AERIAL STAY

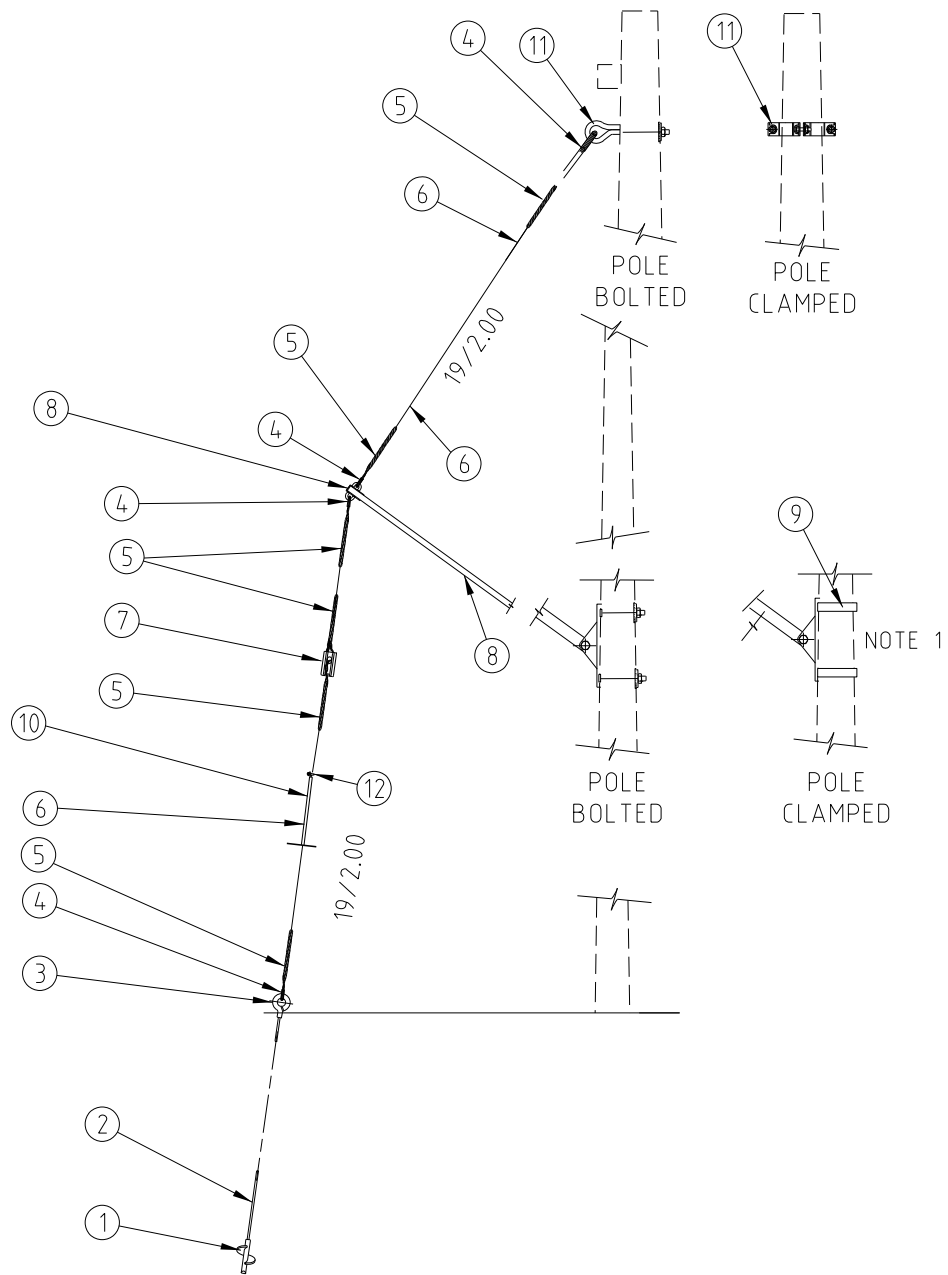
DRAWING No.
ST2

CU	CU DESCRIPTION
ST2_19/200	Aerial stay – 19/2.00 – Pole bolted

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AB6035	eyebolt 20 dia x 300 mm lg with nut and washers	2	ea	
2	OT0064	rope thimble 20 mm	2	ea	
3	CF0664	Helical termination steel 19/2.00	4	ea	
4	ES0062	stay wire 19/2.00, 15 m coil	1	coil	
5	IA0053	stay insulator	1	ea	


CU	CU DESCRIPTION
ST2_19/200_C	Aerial stay – 19/2.00 – Pole clamped

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CB3041	stay clamp with 4 x M20 bolts 65 mm lg, nuts and washers	2	set	
2	OT0064	rope thimble 20 mm	2	ea	
3	CF0664	Helical termination steel 19/2.00	4	ea	
4	ES0062	stay wire 19/2.00, 15 m coil	1	coil	
5	IA0053	stay insulator	1	ea	



NOTE:

1. BANDIT STRAPS TO BE USED FOR CONCRETE POLE WHERE REQUIRED

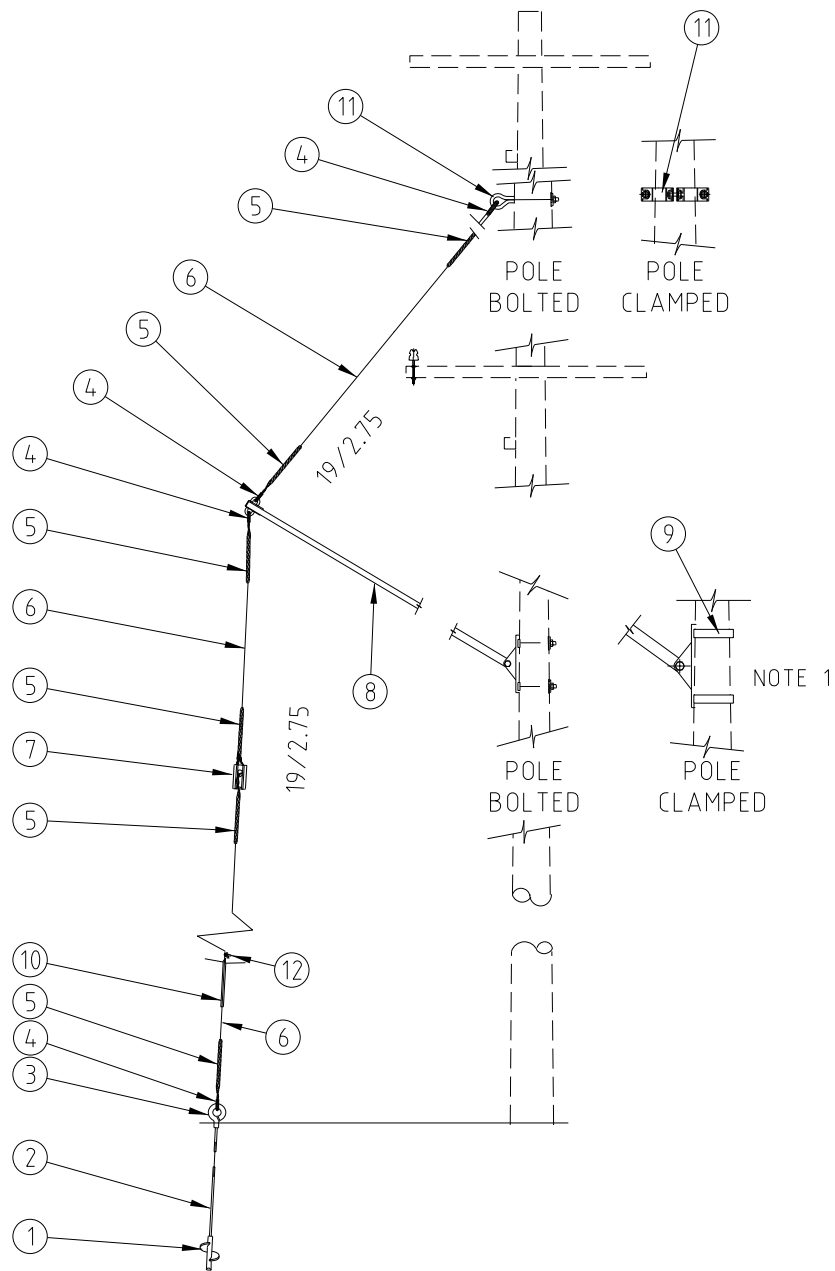
 DISTRIBUTION DESIGN CATALOGUE	COMPATIBLE UNIT	REVISION 3	DATE 16/09/19
	OUTRIGGER STAY - 19/2.00	DRAWING No. ST4	

CU	CU DESCRIPTION
ST4	Outrigger stay – 19/2.00 - Pole bolted

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CA0027	screw anchor 200 mm	1	ea	
2	CA0151	rod anchor	1	ea	2.14 m
3	CA9050	thimble eye nut	1	ea	
4	OT0064	rope thimble 20 mm	4	ea	
5	CF0664	Helical termination steel 19/2.00	6	ea	Note 2
6	ES0062	stay wire 19/2.00, 15 m coil	1	coil	
7	IA0053	stay insulator	1	ea	Note 2
8	CB0476	outrigger bracket	1	ea	
10	CG0003	UPVC stay protector helical split style	1	ea	
11	AB6035	eyebolt 20 dia x 300 mm lg with nut and washers	1	ea	
12	OG0351	10 mm saddle clamp wire rope	1	ea	


CU	CU DESCRIPTION
ST4_C	Outrigger stay – 19/2.00 - Pole clamped

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CA0027	screw anchor 200 mm	1	ea	
2	CA0151	rod anchor	1	ea	2.14 m
3	CA9050	thimble eye nut	1	ea	
4	OT0064	rope thimble 20 mm	4	ea	
5	CF0664	Helical termination steel 19/2.00	6	ea	Note 2
6	ES0062	stay wire 19/2.00, 15 m coil	1	coil	
7	IA0053	stay insulator	1	ea	Note 2
8	CB0476	outrigger bracket	1	ea	
9	FM0900	clamp loop steel saddle mount 270 mm	2	ea	Note 1
10	CG0003	UPVC stay protector helical split style	1	ea	
11	CB3041	stay clamp with 4 x M20 bolts 65 mm lg, nuts and washers	1	set	
12	OG0351	10 mm saddle clamp wire rope	1	ea	



NOTES:

1. BANDIT STRAPS TO BE USED FOR CONCRETE POLE WHERE REQUIRED

 DISTRIBUTION DESIGN CATALOGUE	COMPATIBLE UNIT	REVISION 3	DATE 16/09/19
	OUTRIGGER STAY - 19/2.75	DRAWING No. ST5	

CU	CU DESCRIPTION
ST5	Outrigger stay – 19/2.75 - Pole bolted

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CA0029	screw anchor 300 mm	1	ea	
2	CA0151	rod anchor	1	ea	2.14 m
3	CA9050	thimble eye nut	1	ea	
4	OT0064	rope thimble 20 mm	4	ea	
5	CF0662	Helical termination steel 19/2.75	6	ea	Note 2
6	ES0061	stay wire 19/2.75, 15 m coil	1	coil	
7	IA0053	stay insulator	1	ea	Note 2
8	CB0476	outrigger bracket	1	ea	
10	CG0003	UPVC stay protector helical split style	1	ea	
11	AB6035	eyebolt 20 dia x 300 mm lg with nut and washers	1	ea	
12	OG0352	12 mm saddle clamp wire rope	1	ea	

CU	CU DESCRIPTION
ST5_C	Outrigger stay – 19/2.75 – Pole clamped

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CA0029	screw anchor 300 mm	1	ea	
2	CA0151	rod anchor	1	ea	2.14 m
3	CA9050	thimble eye nut	1	ea	
4	OT0064	rope thimble 20 mm	4	ea	
5	CF0662	Helical termination steel 19/2.75	6	ea	Note 2
6	ES0061	stay wire 19/2.75, 15 m coil	1	coil	
7	IA0053	stay insulator	1	ea	Note 2
8	CB0476	outrigger bracket	1	ea	
9	FM0900	clamp loop steel saddle mount 270 mm	2	ea	Note 1
10	CG0003	UPVC stay protector helical split style	1	ea	
11	CB3041	stay clamp with 4 x M20 bolts 65 mm lg, nuts and washers	1	set	
12	OG0352	12 mm saddle clamp wire rope	1	ea	

APPENDIX A – REVISION INFORMATION

(Informative) Horizon Power has endeavoured to provide standards of the highest quality and would appreciate notification if any errors are found or even queries raised.

Each Standard makes use of its own comment sheet which is maintained throughout the life of the standard, which lists all comments made by stakeholders regarding the standard.

The document **HPC-1DC-07-0006-COM CS# 2152796** can be used to record any errors or queries found in or pertaining to this standard, which can then be addressed whenever the standard gets reviewed.

Date	Rev No.	Notes
01/09/2019	4	<p>CA0027 replaces CA0026 and CA0151 replaces CA0150 in lists:</p> <ul style="list-style-type: none"> • ST1_19/200 • ST1_19/200_C • ST4 • ST4_C • <p>CA0029 replaces CA0028 and CA0151 replaces CA0150 in lists:</p> <ul style="list-style-type: none"> • ST1_19/275 • ST1_19/275_C • ST5 • ST5_C <p>Include Note 1 and Note 2 in lists of ST4 and ST5</p> <p>Remove Note 1 on Drawing ST2</p> <p>Remove repeated wording (11,12.5m Poles) in all CU descriptions</p> <p>Update ST Index drawing</p> <p>Update Drawing and Drawing title of:</p> <ul style="list-style-type: none"> • ST4 • ST5
12/07/2018	3	<p>Index List CU Description</p> <ul style="list-style-type: none"> • (11, 12.5m Pole) added <p>(11, 12.5m Pole) added to all Lists</p> <p>AB6035 replace AB6037 in lists ST1_19/200, ST1_19/275, ST2_19/200, ST4 & ST5 Pole Bolted</p>
21/01/2014	2	<p>Index List CU Description</p> <ul style="list-style-type: none"> • Pole Bolted added to ST1_19/200, ST1_19/275, ST2_19/200, ST4 & ST5 • Concrete pole changed to Pole Clamped on ST1_19/200_C, ST1_19/275_C, ST2_19/200_C, ST4_C & ST5_C <p>ST Index Drawing</p> <ul style="list-style-type: none"> • ST5 changed to reflect drawing ST5 <p>ST1 Drawing</p>

Date	Rev No.	Notes
		<ul style="list-style-type: none"> • Steel changed to Pole Bolted • Concrete changed to Pole Clamped • Item (3) added above stay insulator • Item (2) added above thimble eye nut • Ground line added • Comment (installed over 3) removed <p>ST1 List</p> <ul style="list-style-type: none"> • Pole Bolted added to ST1_19/200, ST1_19/275 • Concrete pole changed to Pole Clamped on ST1_19/200_C, ST1_19/275_C <p>ST2 Drawing</p> <ul style="list-style-type: none"> • Steel changed to Pole Bolted • Concrete changed to Pole Clamped • 3000 dimension removed • Poles now dashed <p>ST2 List</p> <ul style="list-style-type: none"> • Pole Bolted added to ST2_19/200 • Concrete pole changed to Pole Clamped on ST2_19/200_C <p>ST4 Drawing</p> <ul style="list-style-type: none"> • Steel changed to Pole Bolted • Concrete changed to Pole Clamped • Item (4) added above thimble eye nut • Comment (installed over 5) removed • All dimensions removed • Notes added (1-Bandit straps to be used) • Poles now dashed • Item (7) stay insulator moved to below outrigger <p>ST4 & ST4_C Lists</p> <ul style="list-style-type: none"> • Pole Bolted added to ST4 • Concrete pole changed to Pole Clamped on ST4_C <p>ST5 Drawing</p> <ul style="list-style-type: none"> • Steel changed to Pole Bolted • Concrete changed to Pole Clamped • Item (4) added above thimble eye nut • Item (12) and (6) added above and below conduit • Comment (installed over 5) removed • All dimensions removed • Notes added (1-Bandit straps to be used) • Poles now dashed <p>ST5 & ST5_C Lists</p> <ul style="list-style-type: none"> • Pole Bolted added to ST5 • Concrete pole changed to Pole Clamped on ST5_C • Item (12) OG0352 12 mm saddle clamp wire rope added to both lists
01/07/2009	1	Original Horizon Power issue
	0	Western Power Supplied