DISTRIBUTION DESIGN

CATALOGUE

Section 16

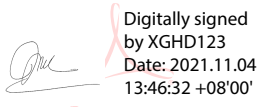
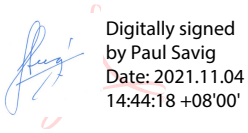
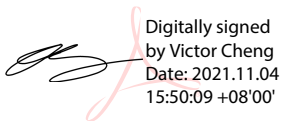
UM – Unmetered Supply

HPC-1DC-07-0016-2014

For application to

Horizon Power

Electricity Distribution Networks

Document Control		
Rev 6 Author	**Name:** Andrew Nguyen **Position:** Standards Engineer	
Reviewed	**Name:** Asif Mahmud **Position:** Senior Engineer Networks	
Endorsed By	**Name:** Paul Savig **Position:** Engineering Services Manager	
Approved By	**Name:** Victor Cheng **Position:** Manager Engineering and Project Services	
Date Created/Last Updated	4 November 2021	
Review Frequency **	Annually	
Next Review Date **	4 November 2022	

*** 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**
6	4/11/2021	CU update

Refer to Appendix A for Full Revision History.

STAKEHOLDERS The following positions shall be consulted if an update or review is required:	***NOTIFICATION LIST*** The following positions shall be notified of any authorised change:
Asset Managers	***Field Practice Coordinators***
Works Delivery Managers	***Logistics Manager***
Asset Service Delivery Managers	***EPCM Contracts Manager***

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UNMETERED SUPPLY LIST

CU	CU DESCRIPTION
UM1_10AL	< 15 m pole to pit – aluminum conductor
UM1_10CU	< 15 m pole to pit – copper conductor
UM1_10ABC	< 15 m pole to pit – ABC cable
UM2_10	< 5 m pillar to pit
UM3_R	Direct connection – install red spot and fit fuse

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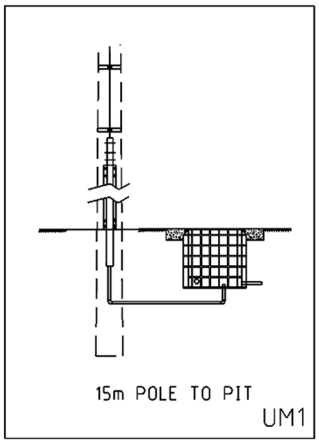
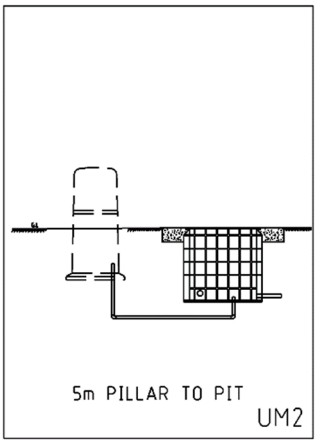


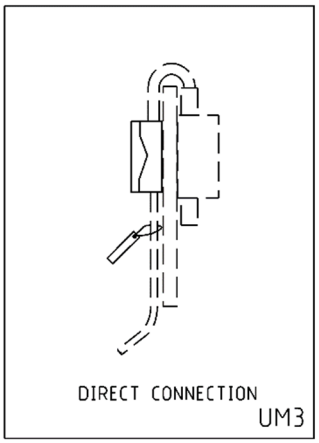
15m POLE TO PIT

UM1



5m PILLAR TO PIT

UM2



DIRECT CONNECTION

UM3

HORIZON POWER DISTRIBUTION DESIGN CATALOGUE	COMPATIBLE UNIT	REVISION 4	DATE 28/10/2021
	UM COMPATIBLE UNITS	DRAWING No. UM INDEX	
OPERATIONS DIVISION			

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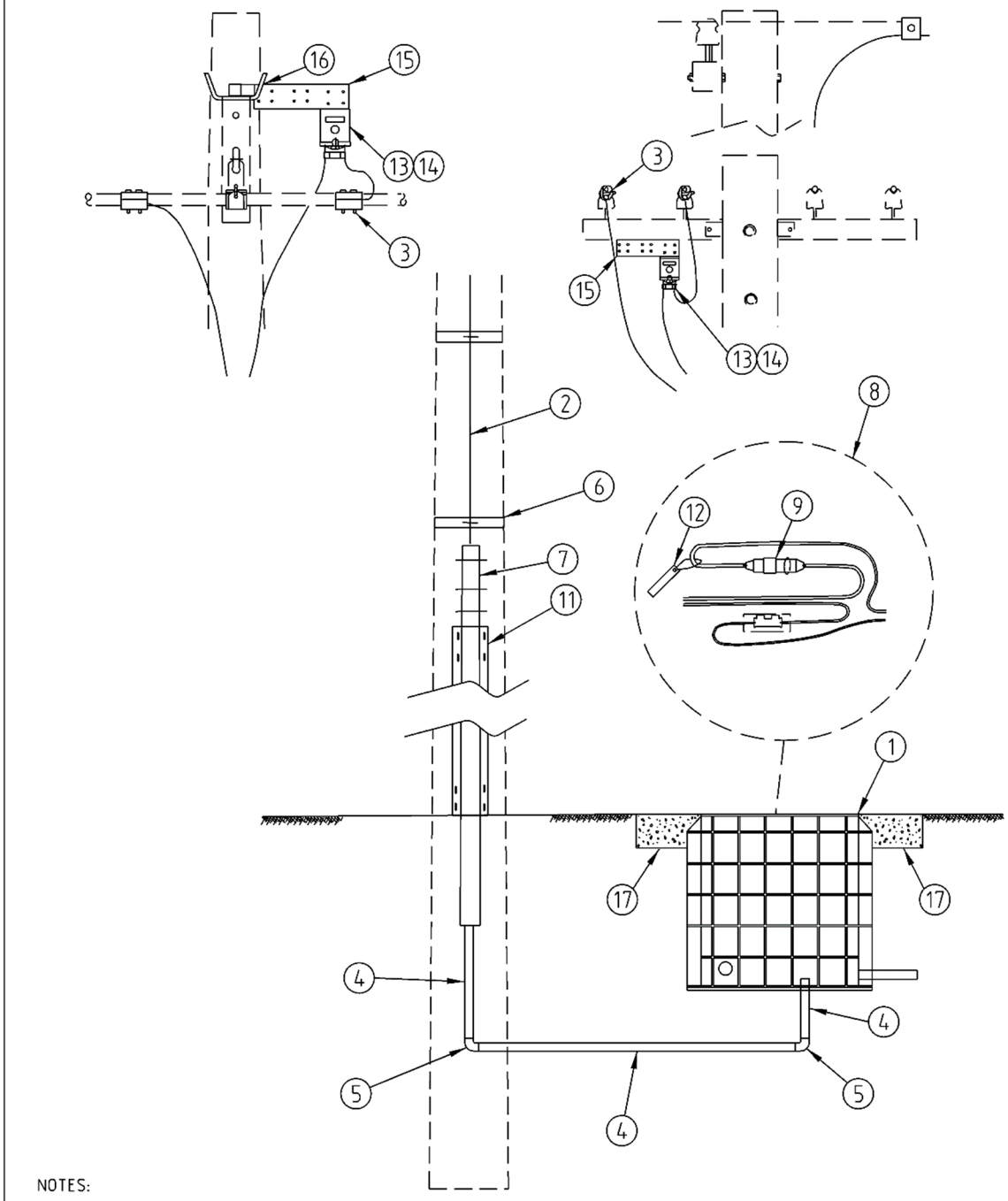

NOTES:

1. HARD STAND TO BE PROVIDED AROUND BELOW GROUND SERVICE PIT.
2. ALLOW 0.1 m³ CONCRETE FOR NEW INSTALLATIONS OR RE-INSTATEMENT OF EXISTING HARD STAND (BITMEN, CONCRETE OR PAVING).

HORIZON POWER DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 3	DATE 04/11/2021
	UNMETERED SUPPLY 15m POLE TO PIT	DRAWING No. UM1	

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CU	CU DESCRIPTION
UM1_10AL	<15 m pole to pit – aluminum conductor

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0051	Below Ground Service Pit	1	ea	
1	FBH0052	Puk	1	ea	
2	EE2559	1C, 16 mm^2 stranded copper 0.6/1kV	15	mtr	
3	FC0110	Clamp, bi-metal service tee connector	2	ea	
4	GC0022	Conduit heavy-duty PVC 25 mm, 4 m long, orange	3	lg	
5	GC0477	Conduit bend PVC 25 mm, 90 degrees, orange	2	ea	
6		Bandit Strap	2	ea	Truck Item
7	GC7842	Conduit PVC 25 mm, 4 m long, grey	2	lg	
8	FE0110	Fuse holder kit	1	kit	
8	FE0032	Heat shrink glove	2	ea	
8	FE0071	Insulation sleeving black	4	mtr	
9	GF2102	Fuse, 20 Amp	1	ea	
11	HT6320	Cable protector steel, galvanised channel	1	ea	
12	CZ0307	Unmetered Supply Warning Label	1	ea	
13	GF1801	Fuse Holder 100A	1	ea	
14	GF1940	Fuse 32A	1	ea	
15	CB3054	Flowline Mounting Bracket	1	ea	
17		Note: 0.1 m^3 of concrete required for new installation or re-instatement of existing hard stand			

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CU	CU DESCRIPTION
UM1_10CU	<15 m pole to pit – copper conductor

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0051	Below Ground Service Pit	1	ea	
1	FBH0052	Puk	1	ea	
2	EE2559	1C, 16 mm^2 stranded copper 0.6/1kV	15	mtr	
3	CC0130	Parallel-groove clamp Cu-Cu	2	ea	
4	GC0022	Conduit heavy-duty PVC 25 mm, 4 m long, orange	3	lg	
5	GC0477	Conduit bend PVC 25 mm, 90 degrees, orange	2	ea	
6		Bandit Strap	2	ea	Truck Item
7	GC7842	Conduit PVC 25 mm, 4 m long, grey	2	lg	
8	FE0110	Fuse holder kit	1	kit	
8	FE0032	Heat shrink glove	2	ea	
8	FE0071	Insulation sleeving black	4	mtr	
9	GF2102	Fuse, 20 Amp	1	ea	
11	HT6320	Cable protector steel, galvanised channel	1	ea	
12	CZ0307	Unmetered Supply Warning Label	1	ea	
13	GF1801	Fuse Holder 100A	1	ea	
14	GF1940	Fuse 32A	1	ea	
15	CB3054	Flowline Mounting Bracket	1	ea	
17		Note: 0.1 m^3 of concrete required for new installation or re-instatement of existing hard stand			

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CU	CU DESCRIPTION
UM1_10ABC	<15 m pole to pit – ABC cable

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0051	Below Ground Service Pit	1	ea	
1	FBH0052	Puk	1	ea	
2	EE2559	1C, 16 mm^2 stranded copper 0.6/1kV	15	mtr	
3		Select from CN68	2	ea	Max 2 cables
4	GC0022	Conduit heavy-duty PVC 25 mm, 4 m long, orange	3	lg	
5	GC0477	Conduit bend PVC 25 mm, 90 degrees, orange	2	ea	
6		Bandit Strap	2	ea	Truck Item
7	GC7842	Conduit PVC 25 mm, 4 m long, grey	2	ea	
8	FE0110	Fuse holder kit	1	kit	
8	FE0032	Heat shrink glove	2	ea	
8	FE0071	Insulation sleeving black	4	mtr	
9	GF2102	Fuse, 20 Amp	1	ea	
11	HT6320	Cable protector steel, galvanised channel	1	ea	
12	CZ0307	Unmetered Supply Warning Label	1	ea	
13	GF1801	Fuse Holder 100A	1	ea	
14	GF1940	Fuse 32A	1	ea	
15	CB3054	Flowline Mounting Bracket	1	ea	
16	CB3019	Mounting Bracket	1	ea	
17		Note: 0.1 m^3 of concrete required for new installation or re-instatement of existing hard stand			

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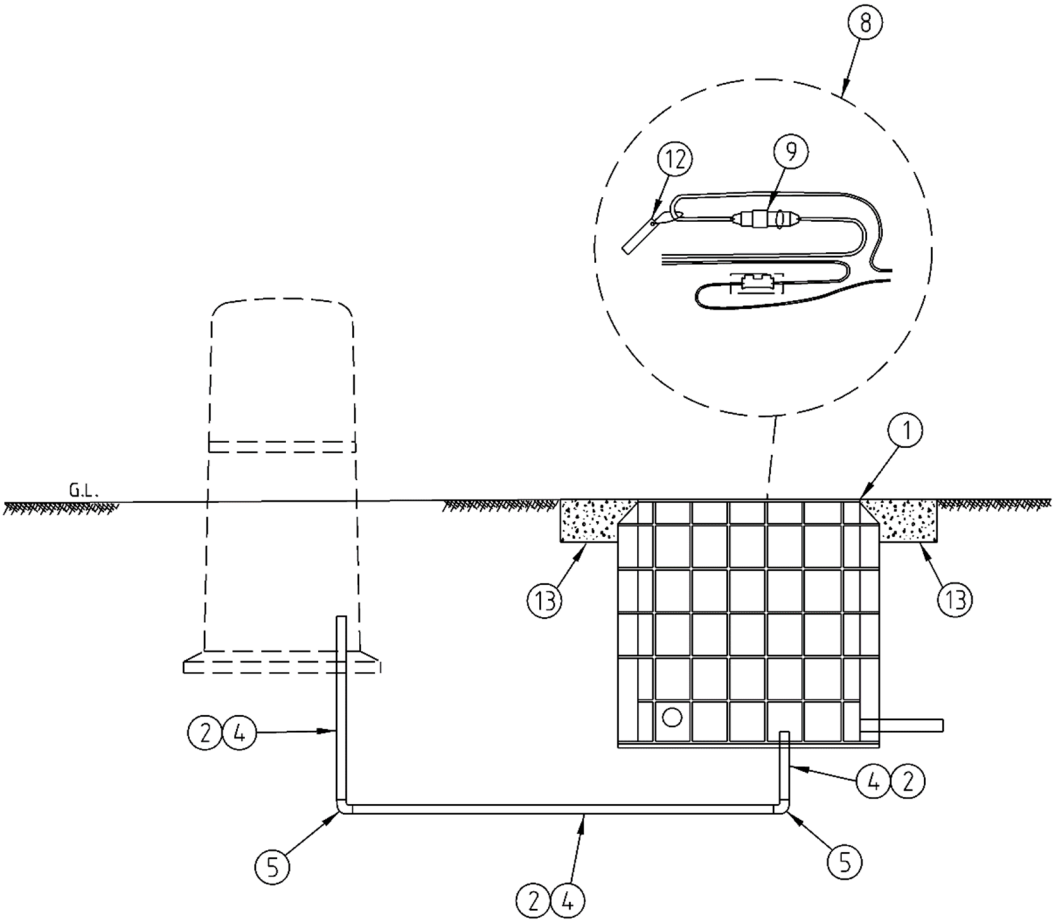

NOTES:

1. HARD STAND TO BE PROVIDED AROUND BELOW GROUND SERVICE PIT.
2. ALLOW 0.1 m^3 CONCRETE FOR NEW INSTALLATIONS OR RE-INSTATEMENT OF EXISTING HARD STAND (BITMEN, CONCRETE OR PAVING).

HORIZON POWER DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 3	DATE 04/11/2021
	UNMETERED SUPPLY 5m PILLAR TO PIT	DRAWING No. UM2	

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CU	CU DESCRIPTION
UM2_10	<5 m pillar to pit

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0051	Below Ground Service Pit	1	ea	
1	FBH0052	Puk	1	ea	
2	EE2559	1C, 16 mm^2 stranded copper 0.6/1kV	5	mtr	
4	GC0022	Conduit heavy-duty PVC 25 mm, 4 m long, orange	3	lg	
5	GC0477	Conduit bend PVC 25 mm, 90 degrees, orange	2	ea	
8	FE0110	Fuse holder kit	1	kit	
8	FE0032	Heat shrink glove	2	ea	
8	FE0071	Insulation sleeving black	1	mtr	
9	GF2102	Fuse, 20 Amp	1	ea	
12	CZ0307	Unmetered Supply Warning Label	1	ea	
13		Note: 0.1 m^3 of concrete required for new installation or re-instatement of existing hard stand			

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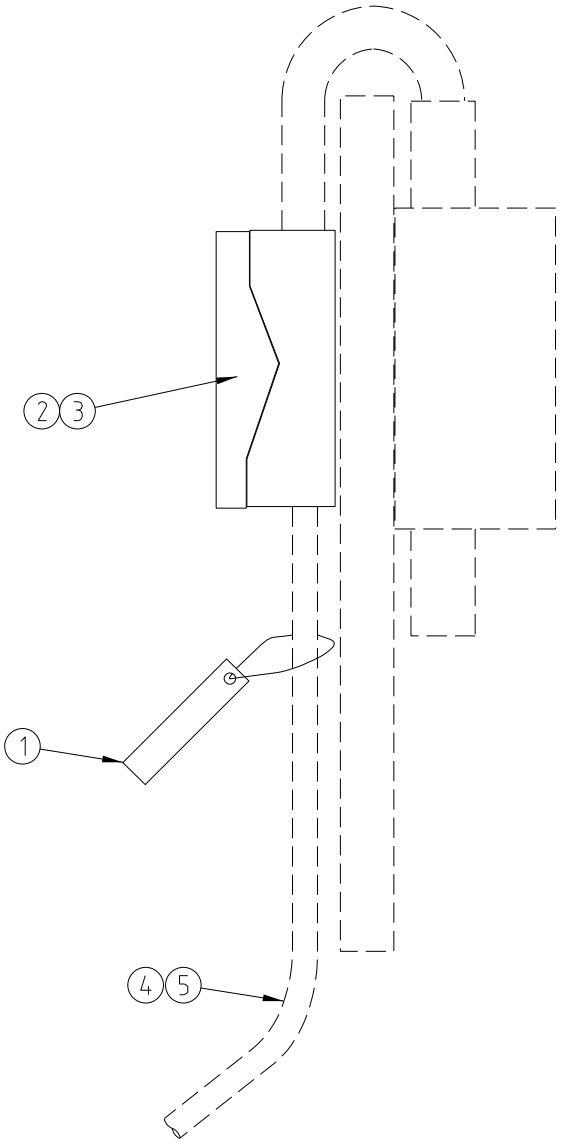

HORIZON POWER DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 3	DATE 07/07/2020
	UNMETERED SUPPLY DIRECT CONNECTION	DRAWING No. UM3	

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CU	CU DESCRIPTION
UM3_R	Direct Connection to Pillar – install red spot and fit fuse

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CZ0307	Unmetered Supply Warning Label	1	ea	
2	GF0917	Red spot fuse, 20 Amp	1	ea	
3	GF0121	Red spot fuse holder	1	ea	
4	FE0032	2 finger heat shrink glove	1	ea	
5	FE0071	Heat shrink tubing	1	mtr	

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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 **DM# 2152321** 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
	0	Western Power Supplied
01/07/2009	1	Original Horizon Power issue
02/01/2012	2	Change of Document Control
21/01/2014	3	UM Index Drawing moved after Index List UM3_NR Drawing and Item list removed from Index List UM1 Drawing • Item (6) removed UM1_10AL / 10CU / 10ABC Lists • Item (6) removed UM2_10 List • Item (8) FE0032 – heat shrink glove added • Item (8) FE0071 – insulation sleeving black added UM3_NR List removed
29/08/2018	4	UM Index and Index Drawing updated to include UM4 UM4 Drawing added UM4_AL, UM4_CU, UM4_ABC95 & UM4_ABC150 Lists added
20/05/2021	5	Removed GF2103 and Replaced GF2101 with GF2102 for: • UM1_10AL • UM1_10CU • UM1_10ABC • UM2_10 Added CZ0307 for: • UM1_10AL • UM1_10CU • UM1_10ABC • UM2_10 Removed CU: • UM4_AL • UM4_CU • UM4_ABC95

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		• UM4_ABC150 CC0079 – changed to Select from CN68: • UM1_10ABC Added Bandit Strap to Lists: • UM1_10AL • UM1_10CU • UM1_10ABC Replace CZ0312 with FB0051 • UM1_10AL • UM1_10CU • UM1_10ABC • UM2_10 Added FBH0052 to Lists: • UM1_10AL • UM1_10CU • UM1_10ABC • UM2_10 Added GF1801 to Lists: • UM1_10AL • UM1_10CU • UM1_10ABC Added GF1940 to Lists: • UM1_10AL • UM1_10CU • UM1_10ABC Added CB3054 to Lists: • UM1_10AL • UM1_10CU • UM1_10ABC
4/11/2021	6	Update UM1 and UM2 drawings showing bottom entry of service cable to BGSP Added Note: 0.1m3 of concrete required for new installation or re-instatement of existing hard stand to: • UM1_10AL • UM1_10CU • UM1_10ABC • UM2_10

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