

This BAL Plan was prepared by:
 Kathryn Kinnear, Bio Diverse Solutions
 Accreditation No: BPAD30794
 Jurisdiction: Level 2 - WA



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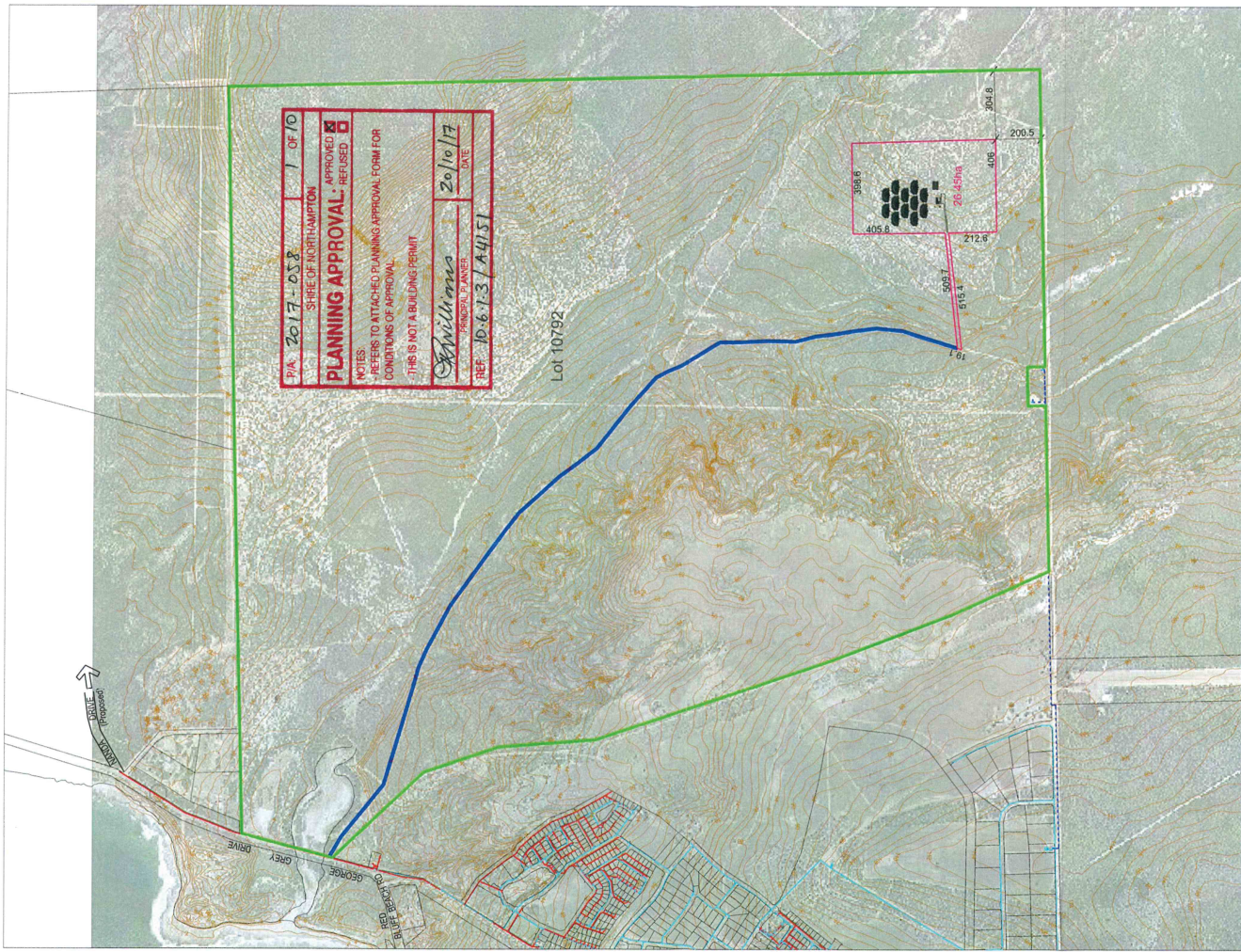
- Legend**
- Solar Farm Area
 - Cadastre
 - 5m Contours

Scale
 1:8,000 @ A3
 GDA MGA 94 Zone 50

Data Sources
 Aerial Imagery: SLIP Visual Mosaic, MMS Service, Landgate 2016
 Cadastre and Contours: Landgate 2016
 Overview Map: World Topographic map service, ESRI 2012

CLIENT
 Allsage Pty Ltd
 Lot 10792 George Grey Drive
 Kalbarri, WA 6536

Area to be Cleared - Solar Farm		
STATUS	FILE	DATE
FINAL	WHEL033	31/10/2017



P/A: 2017-058	1 OF 10
SHIRE OF NORTHAMPTON	
PLANNING APPROVAL	
APPROVED <input checked="" type="checkbox"/>	REFUSED <input type="checkbox"/>
NOTES: - REFER TO ATTACHED PLANNING APPROVAL FORM FOR CONDITIONS OF APPROVAL - THIS IS NOT A BUILDING PERMIT	
<i>Spillmanns</i>	20/10/17
APPROVED BY:	DATE:
REP: 10-6-1-3 / A4151	

Lot 10792

Plan No: 20890/05
 Revision: 580/1
 Scale: 1:15000/3
 Date: 10/10/17

Scale 1: First Floor 40 Hunter Road Osborne Park, WA 6017 www.whelans.com.au

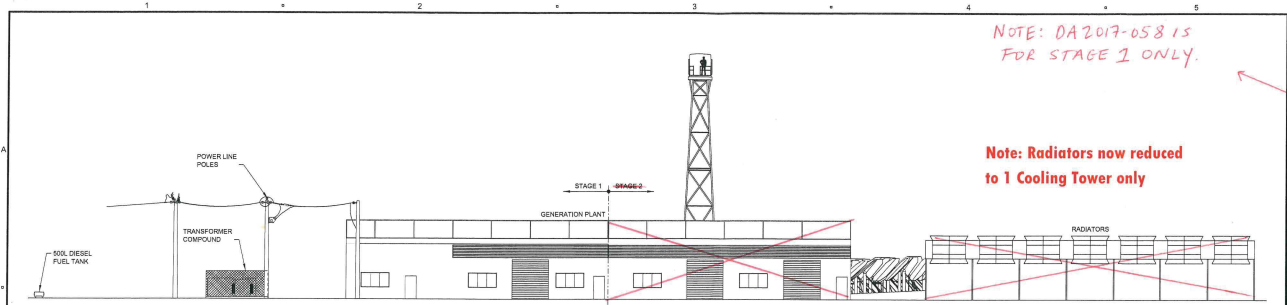
whelans
TOWN PLANNING

**PROPOSED SOLAR THERMAL POWER STATION
 SITE PLAN
 LOT 10792
 GEORGE GREY ROAD
 KALBARRI**

Subject site
 Solar Farm
 Proposed access along existing tracks

SOLID WARE (08/11/2016)
 PAVEMENT (08/11/2016)
 CONCRETE (08/11/2016)
 ASPHALT (08/11/2016)
 DRIVEWAY (08/11/2016)
 DRIVEWAY (08/11/2016)

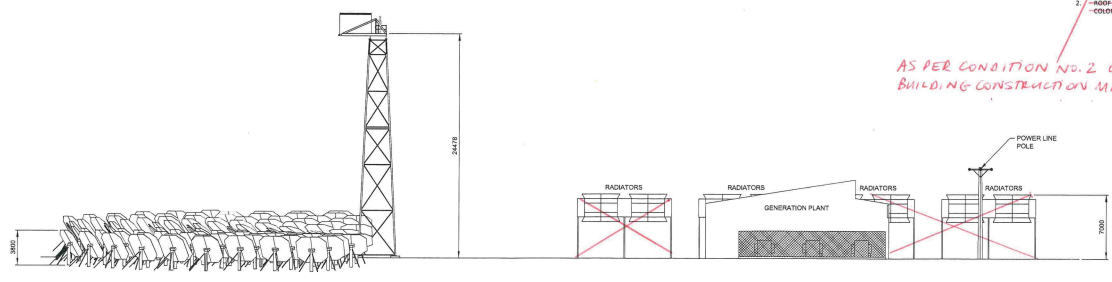
BDA 10/11/17 10:41 AM 1:41 PM



FRONT VIEW - LOOKING NORTH

NOTE: DA 2017-058 IS FOR STAGE 1 ONLY.

Note: Radiators now reduced to 1 Cooling Tower only



LEFT VIEW - LOOKING EAST

- NOTE:
1. ~~OUTBUILDINGS WILL BE CONSTRUCTED WITH COLORBOND SUBSTRATE.~~
 2. ~~ROOF WILL BE CONSTRUCTED OF COLORBOND SHALE GREY.~~

AS PER CONDITION NO. 2 OF DA 2017-058 BUILDING CONSTRUCTION MATERIAL MODIFIED.

Note: Radiators now reduced to 1 Cooling Tower only

PIA: 2017-058	7 OF 10
SHIRE OF NORTHAMPTON	
PLANNING APPROVAL: APPROVED <input checked="" type="checkbox"/> REFUSED <input type="checkbox"/>	
NOTES:	
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<i>Williamson</i> PRINCIPAL PLANNER	20/10/17 DATE
REF: 10.6.13 / A4151	

AECOM

PROJECT
KALBARRI SOLAR THERMAL GENERATOR PLANT - 4MW STAGE 1 & 2

CLIENT
LOWER ORD PTY LTD

CONSULTANT
AECOM Australia Pty Ltd
A.S.N. 20 193 848 925
www.aecom.com

SAFETY IN DESIGN INFORMATION
ARE THERE ANY ADDITIONAL HAZARDS / RISKS NOT NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING?
 NO
 YES - REFER TO THE FOLLOWING:

REGISTRATION
PRELIMINARY
(NOT FOR CONSTRUCTION)

PROJECT MANAGEMENT INITIALS

DESIGNER	CHECKED	APPROVED
PS	BR	JV

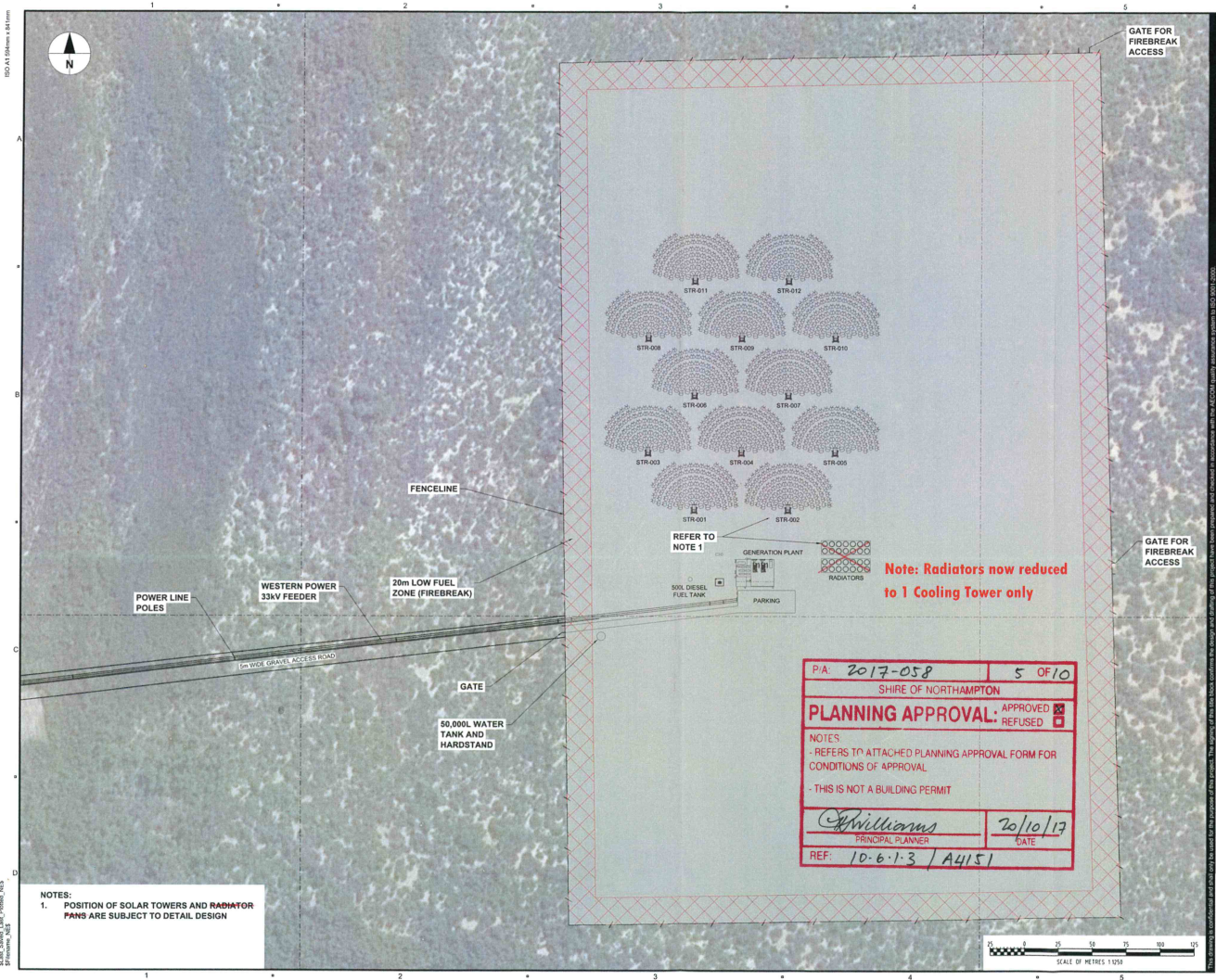
ISSUE/REVISION

NO	DATE	DESCRIPTION

PROJECT NUMBER
6047754

SHEET TITLE
ELECTRICAL SERVICES
SITE GENERAL ARRANGEMENT
ELEVATIONS

SHEET NUMBER
6047754-02-CIV-2003



GATE FOR FIREBREAK ACCESS

GATE FOR FIREBREAK ACCESS

FENCELINE

POWER LINE POLES

WESTERN POWER 33KV FEEDER

20m LOW FUEL ZONE (FIREBREAK)

GATE

50,000L WATER TANK AND HARDSTAND

500L DIESEL FUEL TANK

PARKING

GENERATION PLANT

RADIATORS

REFER TO NOTE 1

Note: Radiators now reduced to 1 Cooling Tower only

P/A: 2017-058	5 OF 10
SHIRE OF NORTHAMPTON	
PLANNING APPROVAL: APPROVED <input checked="" type="checkbox"/> REFUSED <input type="checkbox"/>	
NOTES: - REFERS TO ATTACHED PLANNING APPROVAL FORM FOR CONDITIONS OF APPROVAL - THIS IS NOT A BUILDING PERMIT	
<i>Williams</i> PRINCIPAL PLANNER	20/10/17 DATE
REF: 10-6-1-3 / A4151	

NOTES:
1. POSITION OF SOLAR TOWERS AND RADIATOR FANS ARE SUBJECT TO DETAIL DESIGN



AECOM
PROJECT
KALBARRI SOLAR THERMAL GENERATOR PLANT 1MW - STAGE 1 12 TOWERS
CLIENT
LOWER ORD PTY LTD

CONSULTANT
AECOM Australia Pty Ltd
A.B.N 20 093 846 925
www.aecom.com

SAFETY IN DESIGN INFORMATION
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PRELIMINARY
(NOT FOR CONSTRUCTION)

PROJECT MANAGEMENT INITIALS

PS	BR	JV
DESIGNER	CHECKED	APPROVED

ISSUE/REVISION

NO	DATE	DESCRIPTION
B	01/11/16	FOR SUBMISSION
A	27/10/16	ISSUED FOR INFORMATION

PROJECT NUMBER
6047754
SHEET TITLE
STAGE 1 - 12 TOWERS
SITE LAYOUT
PLAN VIEW
SHEET NUMBER
6047754-01-CIV-0002

ISO 15926 Rev. 04/2010
B
C
D
B:\a\6047754\12 Towers\12 Towers.dwg
20/10/17

100 M Scale 0.4 Mm



NOTE: DA 2017-058 IS FOR STAGE 1 ONLY.

AECOM

PROJECT
KALBARRI SOLAR
THERMAL
GENERATOR PLANT
4MW - STAGE 2
48 TOWERS
CLIENT
LOWER ORD PTY
LTD

CONSULTANT
AECOM Australia Pty Ltd
A.B.N 20 093 848 925
www.aecom.com

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PRELIMINARY

NOT FOR CONSTRUCTION

PROJECT MANAGEMENT INITIALS

DESIGNER	CHECKED	APPROVED

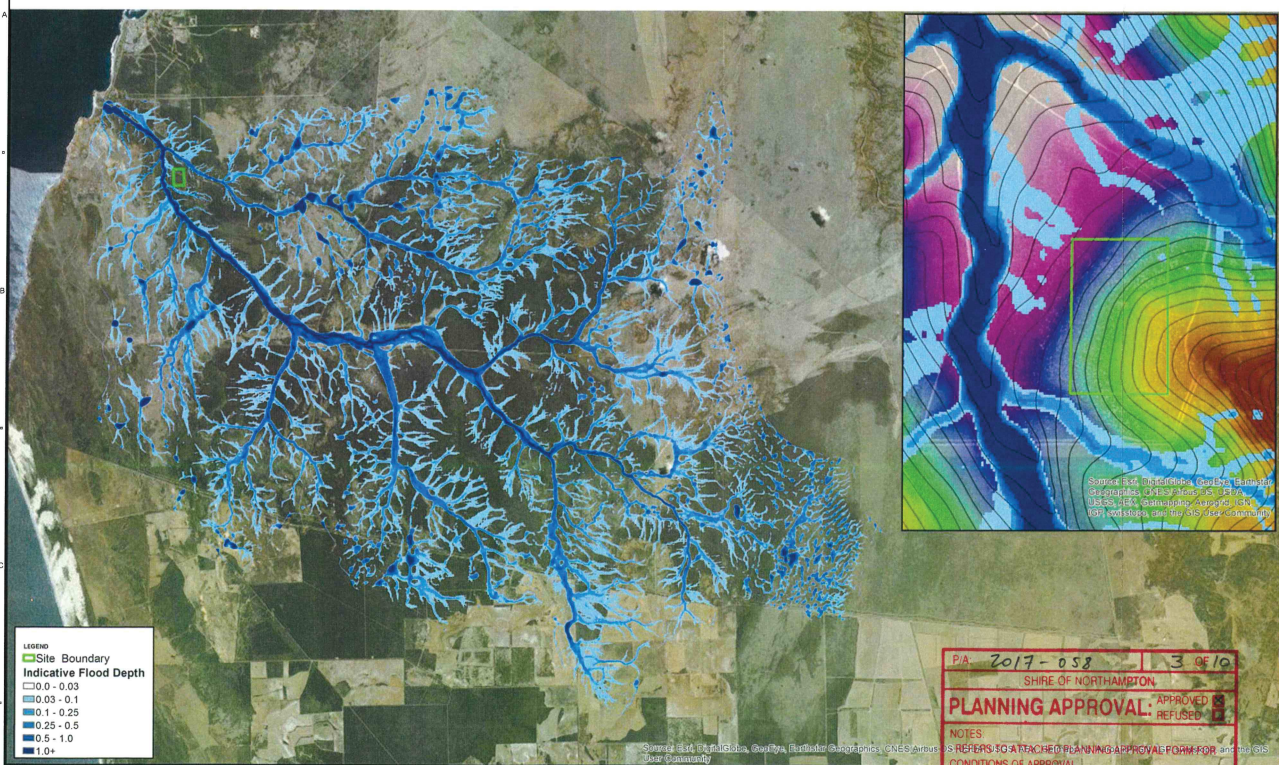
ISSUE/REVISION

NO	DATE	DESCRIPTION

PROJECT NUMBER
60477754

SHEET TITLE
STAGE 2 - 48 TOWERS
FLOOD PLAN INUNDATION
PLAN VIEW

SHEET NUMBER
60477754-02-CIV-2201



LEGEND

Site Boundary

Indicative Flood Depth

0.0 - 0.03
0.03 - 0.1
0.1 - 0.25
0.25 - 0.5
0.5 - 1.0
1.0+

PA: 2017-058 3 OF 10

SHIRE OF NORTHAMPTON

PLANNING APPROVAL: APPROVED REFUSED

NOTES:
- REFERS TO A TIERED PLANNING APPROVAL FORM FOR THE SITE
- THIS IS NOT A BUILDING PERMIT

R. Williams 20/10/17
PRINCIPAL PLANNER DATE

REF: 10-6-1-3 / A4151

This drawing is a computer-generated drawing based on the project data provided. The project data has been prepared and checked in accordance with the AECOM quality assurance system (ISO 9001:2008).

NOTE: DA 2017-058 IS FOR STAGE 1 ONLY.

AECOM

PROJECT
KALBARRI SOLAR THERMAL GENERATOR PLANT 4MW - STAGE 2
48-TOWERS
CLIENT
LOWER ORD PTY LTD

CONSULTANT
AECOM Australia Pty Ltd
A.B.N. 20 093 848 925
www.aecom.com

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REGISTRATION

PRELIMINARY

(NOT FOR CONSTRUCTION)

PROJECT MANAGEMENT INITIALS

PS	DM	JV
DESIGNER	CHECKED	APPROVED

ISSUE/REVISION

NO	DATE	DESCRIPTION
1	01-11-18	FOR SUBMISSION
2	20-10-19	ISSUED FOR INFORMATION

PROJECT NUMBER

60477754

SHEET TITLE

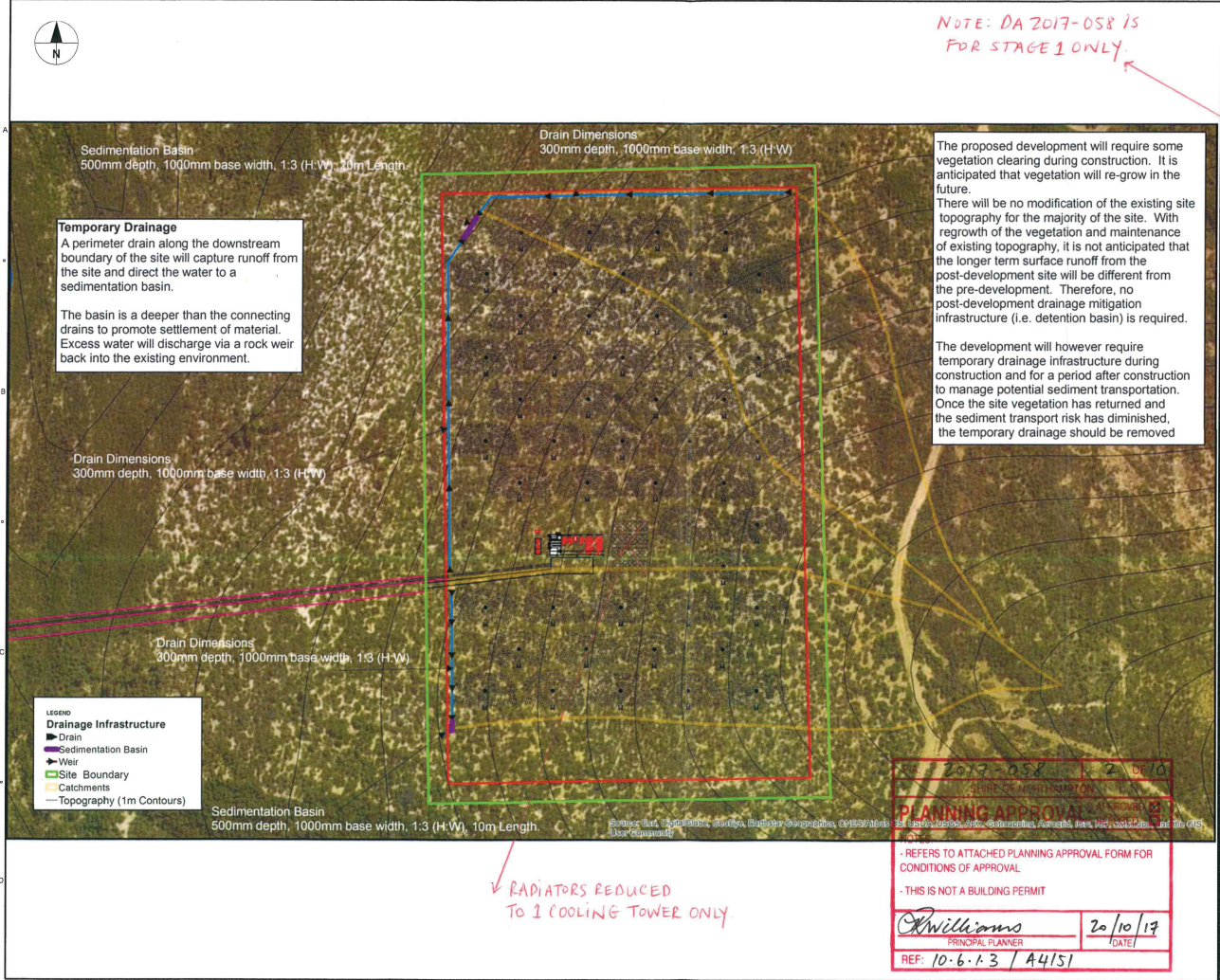
STAGE 2 - 48 TOWERS

DRAINAGE LAYOUT

PLAN VIEW

SHEET NUMBER

60477754-02-CIV-2202



Sedimentation Basin
500mm depth, 1000mm base width, 1:3 (H:W), 20m Length

Temporary Drainage
A perimeter drain along the downstream boundary of the site will capture runoff from the site and direct the water to a sedimentation basin.
The basin is a deeper than the connecting drains to promote settlement of material. Excess water will discharge via a rock weir back into the existing environment.

Drain Dimensions
300mm depth, 1000mm base width, 1:3 (H:W)

Drain Dimensions
300mm depth, 1000mm base width, 1:3 (H:W)

LEGEND
Drainage Infrastructure
■ Drain
■ Sedimentation Basin
▲ Weir
□ Site Boundary
○ Catchments
— Topography (1m Contours)

Sedimentation Basin
500mm depth, 1000mm base width, 1:3 (H:W), 10m Length

Drain Dimensions
300mm depth, 1000mm base width, 1:3 (H:W)

The proposed development will require some vegetation clearing during construction. It is anticipated that vegetation will re-grow in the future.
There will be no modification of the existing site topography for the majority of the site. With regrowth of the vegetation and maintenance of existing topography, it is not anticipated that the longer term surface runoff from the post-development site will be different from the pre-development. Therefore, no post-development drainage mitigation infrastructure (i.e. detention basin) is required.
The development will however require temporary drainage infrastructure during construction and for a period after construction to manage potential sediment transportation. Once the site vegetation has returned and the sediment transport risk has diminished, the temporary drainage should be removed.

RADIATORS REDUCED TO 1 COOLING TOWER ONLY.

2017-058 / 2 / 0610
2017-058
PLANNING APPROVAL APPROVED
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Williams
PRINCIPAL PLANNER
20/10/19
DATE
REF: 10-6-13 / A4151