

**DARWIN INTERNATIONAL AIRPORT**  
**DEPARTMENT OF DEFENCE**

**METHOD OF WORKING PLAN**

**YPDN 23/02**

<b>AERODROME:</b>	<b>RAAF Base Darwin / Darwin International Airport</b>
<b>PROJECT DESCRIPTION:</b>	<b>P0009 - National Airfields Works at RAAF Base Darwin - Package 1 - RWY 11-29 Reconstruction</b>
<b>DATES:</b>	
<b>Approval of MOWP</b>	<b>31 July 2023</b>
<b>Commencement of works</b>	<b>15 August 2023</b>
<b>Completion of works</b>	<b>11 February 2025</b>
<b>Expiry of MOWP</b>	<b>28 February 2025</b>

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## 1 WORKS INFORMATION

### 1.1 Description of the Works

This MOWP has been prepared in accordance with the requirements of CASA Part 139 MOS – Aerodromes, Chapter 16 – Method of Working Plans (CASA, 2019).

The scope of works covered in this MOWP includes the Runway 11-29 reconstruction at RAAF Base Darwin / Darwin International Airport as part of the P0009 - National Airfields Works (Package 1 Expedited Runway Works) at RAAF Base Darwin and Mount Bunday Airfield project (P0009).

A series of reviews will be conducted through workshops during the project to review productivity, operations and refine procedures and timelines for the remaining stages. The MOWP will be updated and distributed accordingly following the reviews.

### 1.2 Definitions

A table of MOWP YPDN 23/02 specific definitions is provided below.

<b>Package</b>	Package: The P0009 RAAF Darwin Works are broken up into two (2) Packages. Package 1 is the focus of this MOWP YPDN 23/02, including pavement reconstruction and overlay works to Runway 11-29. Package 1 will enable the runway width to be reduced from 60m to 45m for reclassification to a Code 4E runway.
<b>Stage</b>	Stage: All works conducted within a specific duration. Stage drawings at Annex B illustrate the conditions and associated information of the airfield during the Stage depicted, whilst indicating the location of the work zones contained within that Stage. The MOWP is restricted to working under only one (1) Stage per work shift. The Stage Sequencing is presented in <b><u>1.5 Works sequence</u></b> .
<b>Phase</b>	Phase: A series of Stages, describing the works progress. There are four (4) phases under MOWP YPDN 23/02: <ul style="list-style-type: none"> <li>▪ Main Construction,</li> <li>▪ Cut Over of AGL and line marking for the new 45m runway width requirements,</li> <li>▪ Grooving and</li> <li>▪ Remaining AGL Works.</li> </ul>
<b>Zone</b>	Zone: Areas of work within a Stage, dependent on the Stage in effect. Numerical Zones describe on pavement work areas within the graded runway strip. Alphabetical Zones describe off pavement work areas outside of the graded runway strip, identified by the gable markers
<b>RTS</b>	RTS: Return to Service. Describes a work activity / shift in which the works contractor is required to vacate and reinstate the work areas (zones) back to a nominated extent and to allow for aircraft traffic as detailed within the Stage description and associated NOTAM.

### 1.3 Times and Dates

Note that all Shift Times and Dates presented in MOWP YPDN 23/02 are in Local Darwin time (Australian Central Standard Time).

### 1.4 Work Activities

The asphalt pavement section of Runway 11-29 at RAAF Base Darwin (the primary and longest runway for long-haul and wide body aircraft movements) requires an essential maintenance program as aspects of the runway surface, and the underlying pavement, are at the end of their serviceable life.

Maintenance works under this Project include reconstructed asphalt pavements, asphalt overlays, construction of a new drainage network and associated Runway Airfield Ground Lighting (AGL) works to Runway 11-29.

The planned works may include but are not limited to pavement, electrical works, drainage works, survey or geological investigation and will be undertaken within a prescribed MOWP stage.

Phases	Stages	Key Activities
Main Construction	1 to 4 7 to 12	<ul style="list-style-type: none"> <li>▪ Pavement reconstruction.</li> <li>▪ Asphalt overlays.</li> <li>▪ Drainage installation inclusive of subsoil drain, swale and stormwater pipes and culverts.</li> <li>▪ Airfield Ground Lighting (AGL) removal / protection.</li> <li>▪ AGL installation inc. cabling.</li> <li>▪ Grooving activities.</li> </ul>
Cut Over	13 and 14	<ul style="list-style-type: none"> <li>▪ Pre-commissioning of AGL whilst existing 60m wide RWY lighting remains.</li> <li>▪ Cut Over from 60m wide RWY lighting to new 45m wide RWY lighting.</li> <li>▪ Full closure of RWY11/29</li> </ul>
Grooving	5 and 6 15 to 17	<ul style="list-style-type: none"> <li>▪ Grooving of all new pavement works as soon as practicable (8 - 10 weeks after laying of asphalt) following the completion of the main construction pavement stages.</li> <li>▪ Decommissioning of redundant 60m wide RWY lighting.</li> <li>▪ Installation of inset AGL within Runway 11-29 grooving extent.</li> </ul>

The actual date and time of commencement will be advised by a NOTAM, to be issued not less than 48 hours before work commences.

*Note: Environmental management requirements are covered under Section 3.6 and 3.10 and all works are to be covered by the P0009 CEMP and approved Environmental Clearance Certificate.*

## 1.5 Works sequence

A detailed Works sequence is provided in the proceeding sub-sections and presented per Stage. The below Table summarises the overall Works sequence.

Phases	Stage Sequence	Start	End
Main Construction	Stage 1	15-Aug-23	7-Sep-23
	Stage 2	8-Sep-23	8-Oct-23
	Stage 3	9-Oct-23	30-Nov-23
	Stage 3 / Stage 4*	9-Oct-23	30-Nov-23
	Stage 1	30-Nov-23	13-Dec-23
Grooving	Stage 5	19-Dec-23	22-Dec-23
	Stage 5	10-Jan-23	23-Feb-24
	Stage 6	24-Feb-24	8-Mar-24
Main Construction	Stage 7 / Stage 8*	2-Apr-24	29-May-24
	Stage 9 / Stage 8*	30-May-24	11-Jun-24
	Stage 9 / Stage 10*	12-Jun-24	7-Aug-24
	Stage 10	8-Aug-24	24-Aug-24
	Stage 11	25-Aug-24	30-Sep-24
	Stage 12	30-Sep-24	12-Nov-24
Cut Over	Stage 13	13-Nov-24	13-Nov-24
	Stage 14	30-Nov-24	30-Nov-24
Grooving	Stage 15	4-Nov-24	28-Nov-24
	Stage 16	29-Nov-24	24-Jan-25
	Stage 17	25-Jan-25	11-Feb-25

**\*Note that works in Stages 4, 8 and 10 within the central section of Runway 11-29 will occur under RTS (return to service) and will revert back to Stages described below.**

For Stage 4; the RTS (return to service) arrangement will be Stage 3.

For Stage 8; the RTS (return to service) arrangement will be Stage 7 until 29-May-24 and then Stage 9 until 11-Jun-24.

For Stage 10; the RTS (return to service) arrangement will be Stage 9.

**[Note: Start and end dates as illustrated in the table are based on current project staging/planning and subject to change as the project progresses]**



### 1.5.1 Works sequence - Stage 1

<b>Planned dates</b>	15-Aug-23 to 7-Sep-23 30-Nov-23 to 13-Dec-23	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 1
<b>Phase</b>	Main Construction	<b>RWY 11-29 TORA</b>	29 RWY 2649m 11 RWY 2589m
<b>Zones</b>	On-pavement: 1 Off-pavement (drainage): A Off-pavement (AGL): E	<b>Shift timing</b>	Non-RTS, 24/7 works.
<b>Activities</b>	<ul style="list-style-type: none"> <li>Removal and reconstruction of Runway 11-29 pavement at the Eastern end inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li> <li>Removal and installation of a new Runway 11-29 Approach lighting system inclusive of commissioning and flight testing.</li> <li>Installation of associated drainage (sub-soil drain, open swale, stormwater culverts underneath Taxiway A6).</li> <li>Flank regrading and AGL secondary trenching.</li> <li>Grooving activities.</li> </ul>		
<b>Displaced Threshold</b>	DTHR29 by 765m / 705m E END RWY 11/29 CLOSED DTHR29 at CH2589. Temp Displaced Threshold at the RWY 29 end during the entirety of Stage 1.		

### 1.5.2 Works sequence - Stage 2

<b>Planned dates</b>	8-Sep-23 to 8-Oct-23	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 2
<b>Phase</b>	Main Construction	<b>RWY 11-29 TORA</b>	29 RWY 2480m 11 RWY 2420m
<b>Zones</b>	On-pavement: 1, 2 Off-pavement (drainage): A, B Off-pavement (AGL): E	<b>Shift timing</b>	Non-RTS, 24/7 works.
<b>Activities</b>	<ul style="list-style-type: none"> <li>Removal and reconstruction of Runway 11-29 pavement at the Eastern end inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li> <li>Removal and installation of a new Runway 11-29 Approach lighting system inclusive of commissioning and flight testing.</li> <li>Installation of associated drainage (sub-soil drain, open swale, stormwater culverts underneath Taxiway A6).</li> <li>Flank regrading and AGL secondary trenching.</li> </ul>		
<b>Displaced Threshold</b>	DTHR29 by 1046m / 874m E END RWY 11/29 CLOSED DTHR29 at CH2308. Temp Displaced Threshold at the RWY 29 end during the entirety of Stage 2.		

### 1.5.3 Works sequence - Stage 3

<b>Planned dates</b>	9-Oct-23 to 30-Nov-23	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 3
<b>Phase</b>	Main Construction	<b>RWY 11-29 TORA</b>	29 RWY 2160m 11 RWY 2100m
<b>Zones</b>	On-pavement: 1, 2, 3 Off-pavement (drainage): A, B, C Off-pavement (AGL): E	<b>Shift timing</b>	Non-RTS.  1130-0200 Local 0200-1630 UTC when Stage 3 is concurrent with Stage 4
<b>Activities</b>	<ul style="list-style-type: none"> <li>Removal and reconstruction of Runway 11-29 pavement at the Eastern end inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li> <li>Removal and installation of a new Runway 11-29 Approach lighting system inclusive of commissioning and flight testing.</li> <li>Installation of associated drainage (sub-soil drain, open swale, stormwater culverts underneath Taxiway A6).</li> <li>Flank regrading and AGL secondary trenching.</li> </ul>		
<b>Displaced Threshold</b>	DTHR29 by 1354m / 1194m E END RWY 11/29 CLOSED DTHR29 at CH2000. Temp Displaced Threshold at the RWY 29 end during the entirety of Stage 3.		

#### 1.5.4 Works sequence - Stage 4

<b>Planned dates</b>	9-Oct-23 to 30-Nov-23	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 4
<b>Phase</b>	Main Construction	<b>RWY 11-29 TORA</b>	<p>During Stage 4 RTS: 29 RWY 1481m 11 RWY 1421m</p> <p>All other times revert to Stage 3 29 RWY 2160m 11 RWY 2100m</p>
<b>Zones</b>	On-pavement: 1, 2, 3, 4-1, 4-2 Off-pavement (drainage): A, B, C, D Off-pavement (AGL): E	<b>Shift timing</b>	<p>During Stage 4 RTS (0200 to 1130 Local).</p> <p>All other times revert to Stage 3 Non-RTS, 24/7 works.</p> <p><b><u>Refer 1.5 Works Sequence.</u></b></p>
<b>Activities</b>	<p><b>Stage 4 is specific to works during the RTS nightshift. At all other times outside of the RTS nightshift, the Runway 11-29 arrangement will return to the Stage 3 arrangement as non-RTS works.</b></p> <ul style="list-style-type: none"> <li>• Works in Stage 4 include the asphalt overlay of the existing Runway 11-29 pavement, inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li> <li>• Installation of associated drainage (sub-soil drain, open swale, stormwater pipes and culverts underneath Taxiway A6 and Taxiway D).</li> <li>• Flank regrading and AGL secondary trenching.</li> <li>• Grooving activities.</li> </ul>		
<b>Displaced Threshold</b>	DTHR29 by 1933m / 1873m E END RWY 11/29 CLOSED DTHR29 at CH1421. Temp Displaced Threshold at the RWY 29 end for RTS times only.		

### 1.5.5 Works sequence - Stage 5

<b>Planned dates</b>	19-Dec-23 to 22-Dec-23 10-Jan-23 to 23-Feb-24	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 5
<b>Phase</b>	Grooving	<b>RWY 11-29 TORA</b>	During Stage 5 RTS: 29 RWY 1481m 11 RWY 1421m  All other times, the full Runway 11-29 TORA will be available.
<b>Zones</b>	On-pavement: 1, 2, 3, 4-1, 4-2 Off-pavement (drainage): n/a Off-pavement (AGL): E	<b>Shift timing</b>	During Stage 5 RTS (0145 to 0545 Local), noting the exceptions below.  All other times, the full Runway 11-29 TORA will be available.
<b>Activities</b>	<p><b>Stage 5 is specific to works during the RTS nightshift. At all other times outside of the RTS nightshift, the full Runway 11-29 TORA will be available.</b></p> <ul style="list-style-type: none"> <li>• Works in Stage 5 include grooving commencing from the central section (western most extent of Stage 5) and working towards the eastern extent of Stage 5, inclusive of line marking reinstatement.</li> <li>• Reinstatement of inset AGL lighting and secondary cable slotting following the grooving works including commissioning and powering the reinstated lights.</li> </ul>		
<b>Displaced Threshold</b>	DTHR29 by 1933m / 1873m E END RWY 11/29 CLOSED DTHR29 at CH1421. Temp Displaced Threshold at the RWY 29 end for RTS times only.		
<b>Shift timing exceptions</b>	23-Dec-23 to 9-Jan-24 No Work		

### 1.5.6 Works sequence - Stage 6

<b>Planned dates</b>	24-Feb-24 to 8-Mar-24	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 6
<b>Phase</b>	Grooving	<b>RWY 11-29 TORA</b>	29 RWY 2480m 11 RWY 2420m
<b>Zones</b>	On-pavement: 1, 2 Off-pavement (drainage): n/a Off-pavement (AGL): E	<b>Shift timing</b>	Non-RTS, 24/7 works.
<b>Activities</b>	<ul style="list-style-type: none"> <li>Works in Stage 6 include grooving commencing from the western most extent of Stage 6 and working towards the eastern extent of Stage 6, inclusive of line marking reinstatement.</li> <li>Reinstatement of inset AGL lighting and secondary cable slotting following the grooving works including commissioning and powering the reinstated lights.</li> </ul>		
<b>Displaced Threshold</b>	DTHR29 by 1046m / 874m E END RWY 11/29 CLOSED. DTHR29 at CH2308. Temp Displaced Threshold at the RWY 29 end during the entirety of Stage 6.		

### 1.5.7 Works sequence - Stage 7

<b>Planned dates</b>	2-Apr-24 to 29-May-24	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 7
<b>Phase</b>	Main Construction	<b>RWY 11-29 TORA</b>	29 RWY 2100m 11 RWY 2160m
<b>Zones</b>	On-pavement: 5, 7 Off-pavement (drainage): n/a Off-pavement (AGL): E	<b>Shift timing</b>	Non-RTS, 24/7 works.  (1130-0200 Local 0200-1630 UTC when Stage 7 is concurrent with Stage 8)
<b>Activities</b>	<ul style="list-style-type: none"> <li>Removal and reconstruction of Runway 11-29 pavement at the Western end inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li> <li>Installation of associated drainage.</li> <li>Flank regrading and AGL secondary trenching.</li> </ul>		
<b>Displaced Threshold</b>	DTHR11 by 1254m / 1194m W END RWY 11/29 CLOSED. DTHR11 at CH1254. Temp Displaced Threshold at the RWY 11 end during the entirety of Stage 7.		

### 1.5.8 Works sequence - Stage 8

<b>Planned dates</b>	2-Apr-24 to 11-Jun-24	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 8
<b>Phase</b>	Main Construction	<b>RWY 11-29 TORA</b>	<p>During Stage 8 RTS: 29 RWY 1420m 11 RWY 1480m</p> <p>Between 2-Apr-24 to 29-May-24 revert to Stage 7 29 RWY 2100m 11 RWY 2160m</p> <p>Between 30-May-24 to 11-Jun-24 revert to Stage 9 29 RWY 2631m 11 RWY 2691m</p>
<b>Zones</b>	On-pavement: 4-2, 4-3, 5, 7 Off-pavement (drainage): G, H, I Off-pavement (AGL): E	<b>Shift timing</b>	<p>During Stage 8 RTS (0200 to 1130 Local) with noted exceptions below.</p> <p>Between 2-Apr-24 to 29-May-24 revert to Stage 7 Non-RTS, 24/7 works.</p> <p>Between 30-May-24 to 11-Jun-24 revert to Stage 9 Non-RTS, 24/7 works.</p> <p>Refer 1.5 Works sequence.</p>
<b>Activities</b>	<p><b>Stage 8 is specific to works during the RTS nightshift.</b></p> <p>Between 2-Apr-24 to 29-May-24 outside of the RTS nightshift, the Runway 11-29 arrangement will revert to the Stage 7 arrangement as non-RTS works.</p> <p>Between 30-May-24 to 11-Jun-24 outside of the RTS nightshift, the Runway 11-29 arrangement will revert to the Stage 9 arrangement as non-RTS works.</p> <ul style="list-style-type: none"> <li>• Works in Stage 8 include the asphalt overlay of the existing Runway 11-29 pavement, inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li> <li>• Installation of associated drainage.</li> <li>• Flank regrading and AGL secondary trenching.</li> </ul>		
<b>Displaced Threshold</b>	DTHR11 by 1934m /1874m W END RWY 11/29 CLOSED. DTHR11 at CH1934. Temp Displaced Threshold at the RWY 11 end for RTS times only.		
<b>Shift timing exceptions</b>	05-Apr-24 to 14-Apr-24 0200 – 0800 (6.0hrs) The shift timing of the above reduced working hour shifts (6hr RTS shifts) will be advised via NOTAM in advance.		

### 1.5.9 Works sequence - Stage 9

<b>Planned dates</b>	30-May-24 to 7-Aug-24	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 9
<b>Phase</b>	Main Construction	<b>RWY 11-29 TORA</b>	29 RWY 2631m 11 RWY 2691m
<b>Zones</b>	On-pavement: 7 Off-pavement (drainage): n/a Off-pavement (AGL): E	<b>Shift timing</b>	Non-RTS, 24/7 works.  (1130-0200 Local 0200-1630 UTC when Stage 9 is concurrent with Stage 8 or Stage 10)
<b>Activities</b>	<ul style="list-style-type: none"> <li>Removal and reconstruction of Runway 11-29 pavement at the Western end inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li> <li>Installation of associated drainage.</li> <li>Flank regrading and AGL secondary trenching.</li> </ul>		
<b>Displaced Threshold</b>	DTHR by 723m / 663m W END RWY 11/29 CLOSED. DTHR11 at CH723. Temp Displaced Threshold at the RWY 11 end during the entirety of Stage 9.		



### 1.5.10 Works sequence - Stage 10

<b>Planned dates</b>	12-Jun-24 to 24-Aug-24	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 10
<b>Phase</b>	Main Construction	<b>RWY 11-29 TORA</b>	<p>During Stage 10 RTS:  29 RWY 1420m  11 RWY 1480m</p> <p>Between 12-Jun-24 to 7-Aug-24  revert to Stage 9  29 RWY 2631m  11 RWY 2691m</p> <p>Between 8-Aug-24 to 24-Aug-24  revert to full length RWY 11/29  outside RTS hours.</p>
<b>Zones</b>	On-pavement: 4-2, 4-3, 7 Off-pavement (drainage): G, H, I Off-pavement (AGL): E	<b>Shift timing</b>	<p>During Stage 10 RTS (0200 to 1130 Local) with noted exceptions below.</p> <p>Between 12-Jun-24 to 7-Aug-24  revert to Stage 9 Non-RTS, 24/7 works.</p> <p>Between 8-Aug-24 to 24-Aug-24,  RTS works only.</p> <p>Refer 1.5 Works sequence.</p>
<b>Activities</b>	<p><b>Stage 10 is specific to works during the RTS nightshift.</b>  Between 12-Jun-24 to 7-Aug-24 outside of the RTS nightshift, the Runway 11-29 arrangement will revert to the Stage 9 arrangement as non-RTS works.</p> <p>Between 8-Aug-24 to 24-Aug-24, the Runway 11-29 arrangement will revert to full length RWY 11/29 outside RTS hours.</p> <ul style="list-style-type: none"> <li>• Works in Stage 10 include the asphalt overlay of the existing Runway 11-29 pavement, inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li> <li>• Installation of associated drainage.</li> <li>• Flank regrading and AGL secondary trenching.</li> </ul>		
<b>Displaced Threshold</b>	<p>DTHR11 by 1934m / 1874m W END RWY 11/29 CLOSED</p> <p>DTHR11 at CH1934.  Temp Displaced Threshold at the RWY 11 end for RTS times only.</p>		
<b>Shift timing exceptions</b>	<p>22-Jun-24 to 14-Jul-24 0200 – 0800 (6.0hrs)  15-Jul-24 to 03-Aug-24 No RTS Works</p> <p>The shift timing of the above reduced working hour shifts (6hr RTS shifts) will be advised via NOTAM in advance.</p>		

### 1.5.11 Works sequence - Stage 11

<b>Planned dates</b>	25-Aug-24 to 30-Sep-24	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 11
<b>Phase</b>	Main Construction	<b>RWY 11-29 TORA</b>	29 RWY 2269m 11 RWY 2329m
<b>Zones</b>	On-pavement: 6, 7 Off-pavement (drainage): n/a Off-pavement (AGL): E	<b>Shift timing</b>	Non-RTS, 24/7 works.
<b>Activities</b>	<ul style="list-style-type: none"> <li>Removal and reconstruction of Runway 11-29 pavement at the Western end inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li> <li>Installation of associated drainage.</li> <li>Flank regrading and AGL secondary trenching.</li> </ul>		
<b>Displaced Threshold</b>	DTHR11 by 1084m / 1024m W END RWY 11/29 CLOSED. DTHR11 at CH1084. Temp Displaced Threshold at the RWY 11 end during the entirety of Stage 11.		

### 1.5.12 Works sequence - Stage 12

<b>Planned dates</b>	30-Sep-24 to 12-Nov-24	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 12
<b>Phase</b>	Main Construction	<b>RWY 11-29 TORA</b>	<p>During Stage 12 RTS            29 RWY 1481m            11 RWY 1421m</p> <p>At all other times the full Runway 11-29 TORA will be available.</p>
<b>Zones</b>	On-pavement: 4-1, 4-2 Off-pavement (drainage): D, F, G Off-pavement (AGL): E	<b>Shift timing</b>	<p>During Stage 12            RTS (0200 to 1130 Local)            with noted exceptions below.</p>
<b>Activities</b>	<p><b>Stage 12 is specific to works during the RTS nightshift. At all other times outside of the RTS nightshift, the full Runway 11-29 TORA will be available.</b></p> <ul style="list-style-type: none"> <li>• Works in Stage 12 include the asphalt overlay of the existing Runway 11-29 pavement, inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li> <li>• Installation of associated drainage.</li> <li>• Flank regrading and AGL secondary trenching.</li> </ul>		
<b>Displaced Threshold</b>	<p>DTHR29 by 1933m / 1873m E END RWY 11/29 CLOSED.            DTHR29 at CH1421.            Temp Displaced Threshold at the RWY 29 end for RTS times only.</p>		
<b>Shift timing exceptions</b>	<p>23-Sep-24 to 6-Oct-24 0200 – 0800 (6.0hrs)</p> <p>The shift timing of the above reduced working hour shifts (6hr RTS shifts) will be advised via NOTAM in advance.</p>		

### 1.5.13 Works sequence - Stage 13

<b>Planned dates</b>	13-Nov-24	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 13
<b>Phase</b>	Cut Over	<b>RWY 11-29 TORA</b>	During RTS Stage 13 works (0200 – 1130), RWY 11/29 will be closed.  All other times, the full Runway 11-29 TORA will be available.
<b>Zones</b>	On-pavement: All Zones Off-pavement (drainage): n/a Off-pavement (AGL): E	<b>Shift timing</b>	During Stage 13 RTS (0200 to 1130 Local)  All other times, the full Runway 11-29 TORA will be available.
<b>Activities</b>	Ground Checks and Flight Checks of the newly installed (unpowered) Runway 11-29 Airfield Ground Lighting system in preparation for the Cut Over to the 45m width AGL system in Stage 14. At the completion of each shift in Stage 13, the existing 60m wide Runway 11-29 arrangement will be returned to service.		
<b>Displaced Threshold</b>	During Stage 13 (All Zones) RTS works: Runway 11-29 will be closed.		

### 1.5.14 Works sequence - Stage 14

<b>Planned dates</b>	30-Nov-24	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 14
<b>Phase</b>	Cut Over	<b>RWY 11-29 TORA</b>	During RTS Stage 14 works (0200 – 1130 Local), RWY 11/29 will be closed.  All other times, the full Runway 11-29 TORA will be available.
<b>Zones</b>	On-pavement: All Zones Off-pavement (drainage): n/a Off-pavement (AGL): E	<b>Shift timing</b>	During Stage 14 RTS (0200 to 1130)  All other times, the full Runway 11-29 TORA will be available.
<b>Activities</b>	AGL Cut Over: 60m to 45m wide Runway 11-29 All Runway 11-29 lighting and line marking to suit 60m width to be extinguished. All Runway 11-29 lighting to suit 45m width to be powered and made live. All Runway 11-29 line marking to suit 45m width to be painted.		
<b>Displaced Threshold</b>	During Stage 14 (All Zones) RTS works: Runway 11-29 will be closed.		

### 1.5.15 Works sequence - Stage 15

<b>Planned dates</b>	4-Nov-24 to 28-Nov-24	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 15
<b>Phase</b>	Grooving	<b>RWY 11-29 TORA</b>	<p>During Stage 15 RTS            29 RWY 2100m            11 RWY 2160m</p> <p>At all other times the full Runway 11-29 TORA will be available.</p>
<b>Zones</b>	On-pavement: 7, 6, 5 Off-pavement (drainage): n/a Off-pavement (AGL): E	<b>Shift timing</b>	RTS (0145 - 0545 Local)
<b>Activities</b>	<p><b>Stage 15 is specific to works during the RTS nightshift. At all other times outside of the RTS nightshift, the full Runway 11-29 TORA will be available.</b></p> <ul style="list-style-type: none"> <li>• Works in Stage 15 include grooving commencing from the western most extent of Stage 15 and working towards the eastern extent of Stage 15, inclusive of line marking reinstatement.</li> <li>• Reinstatement of inset AGL lighting and secondary cable slotting following the grooving works including commissioning and powering the reinstated lights.</li> </ul>		
<b>Displaced Threshold</b>	<p>DTHR11 by 1254m / 1194m W END RWY 11/29 CLOSED.            DTHR11 at CH1254.            Temp Displaced Threshold at the RWY 11 end for RTS times only.</p>		

### 1.5.16 Works sequence - Stage 16

<b>Planned dates</b>	29-Nov-24 to 24-Jan-25	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 16
<b>Phase</b>	Grooving	<b>RWY 11-29 TORA</b>	<p>During Stage 16 RTS            29 RWY 1420m            11 RWY 1480m</p> <p>At all other times the full Runway 11-29 TORA will be available.</p>
<b>Zones</b>	On-pavement: 4-3, 4-2, 7 Off-pavement (drainage): n/a Off-pavement (AGL): E	<b>Shift timing</b>	RTS (0145 to 0545 Local) with noted exceptions below.
<b>Activities</b>	<p><b>Stage 16 is specific to works during the RTS nightshift. At all other times outside of the RTS nightshift, the full Runway 11-29 TORA will be available.</b></p> <ul style="list-style-type: none"> <li>• Works in Stage 16 include grooving commencing from the western most extent of Stage 16 and working towards the eastern extent of Stage 16, inclusive of line marking reinstatement.</li> <li>• Reinstatement of inset AGL lighting and secondary cable slotting following the grooving works including commissioning and powering the reinstated lights.</li> </ul>		
<b>Displaced Threshold</b>	DTHR11 by 1934m / 1874m W END RWY 11/29 CLOSED. DTHR11 at CH1934. Temp Displaced Threshold at the RWY 11 end for RTS times only.		
<b>Shift timing exceptions</b>	22-Dec-24 to 5-Jan-25 (No Work)		

### 1.5.17 Works sequence - Stage 17

<b>Planned dates</b>	25-Jan-25 to 11-Feb-25	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 17
<b>Phase</b>	Grooving	<b>RWY 11-29 TORA</b>	<p>During Stage 17 RTS 29 RWY 1481m 11 RWY 1421m</p> <p>At all other times the full Runway 11-29 TORA will be available.</p>
<b>Zones</b>	On-pavement: 4-2, 4-1 Off-pavement (drainage): n/a Off-pavement (AGL): E	<b>Shift timing</b>	RTS (0145 to 0545 Local)
<b>Activities</b>	<p><b>Stage 17 is specific to works during the RTS nightshift. At all other times outside of the RTS nightshift, the full Runway 11-29 TORA will be available.</b></p> <ul style="list-style-type: none"> <li>• Works in Stage 17 include grooving commencing from the western most extent of Stage 17 and working towards the eastern extent of Stage 17, inclusive of line marking reinstatement.</li> <li>• Reinstatement of inset AGL lighting and secondary cable slotting following the grooving works including commissioning and powering the reinstated lights.</li> </ul>		
<b>Displaced Threshold</b>	DTHR29 by 1933m / 1873m E END RWY 11/29 CLOSED. DTHR29 at CH1421. Temp Displaced Threshold at the RWY 29 end for RTS times only.		

## 2 RESTRICTIONS TO AIRCRAFT OPERATIONS (RTAO)

### 2.1 RTAO - Stage 1

Planned dates	15-Aug-23 to 7-Sep-23 30-Nov-23 to 13-Dec-23	Drawing	ANNEX B – DRAWINGS – STAGE 1
Phase	Main Construction	RWY 11-29 TORA	29 RWY 2649m 11 RWY 2589m
Zones	On-pavement: 1 Off-pavement (drainage): A Off-pavement (AGL): E	Shift timing	Non-RTS, 24/7 works.
Activities	<ul style="list-style-type: none"><li>Removal and reconstruction of Runway 11-29 pavement at the Eastern end inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li><li>Removal and installation of a new Runway 11-29 Approach lighting system inclusive of commissioning and flight testing.</li><li>Installation of associated drainage (sub-soil drain, open swale, stormwater culverts underneath Taxiway A6).</li><li>Flank regrading and AGL secondary trenching.</li><li>Grooving activities.</li></ul>		
Restrictions: Manoeuvring Area			
Runways	DTHR29 by 765m / 705m E END RWY 11/29 CLOSED DTHR29 at CH2589. Temp Displaced Threshold at the RWY 29 end during the entirety of Stage 1.		
Taxiways	Taxiway A6 closed, east of the FRA leading onto RWY29 end.		
Aircraft type restrictions			



**2.1.1 RTAO - Stage 1 NOTAM****Stage 1 NOTAM**

THR RWY 29 DISPLACED 765M DUE WIP  
RWY 11/29 OPR LEN REDUCED BY 705M EASTERN END

DISPLACED THR MARKED BY GREEN THR LGT EACH SIDE OF RWY HN AND RWY THR IDENT LGT HJ, PILOT MNT

OBST 17 FT AGL ON RWY 2889M FM START OF TORA RWY 11

## REVISED DECLARED DISTANCES

RWY	TORA	TODA	ASDA	LDA
RWY 11	2589 (8494)	2649 (8691) (2.0)	2589 (8494)	2589 (8494)
RWY 29	2649 (8691)	2739 (8987) (1.2)	2649 (8691)	2589 (8494)

## SUPPLEMENTARY TKOF DIST:

RWY 11 - 2598 (8524) (1.6) 2639 (8658) (1.9)

LDA FOR LAND AND HOLD SHORT OPS (LAHSO) AMD DISTANCE WHEN RWY 29 THR DISPLACED 765M - RWY 29 1922 (6306)

GP INFRINGES APCH BY 11FT WHEN THR DISPLACED

RWY 29 TKOF TO COMMENCE AT RED LGTS HN AND RED AND WHITE CONES HJ

RWY 29 PAPI NOT AVBL WHEN THR DISPLACED

RWY 29 TEMPO PAPI AVBL 3.0 DEG 61FT

RWY THR IDENT LGTS AND TEMPO PAPI PILOT MNT

RWY 11 DIST TO RUN MARKERS NOT AVBL WHEN 29 THR DISPLACED

RWY 11 TWY B1, B2, E1, E2, C3 AND C4 TKOF RUN AVBL SIGNS NOT AVBL WHEN 29 THR DISPLACED

TWY A6 CLOSED

WHEN RWY 29 DISPL BY 765M ILS NOT AVBL.

AVBL INST APCH PROCEDURES ARE LOC-T, VOT-T, NDB-T, RNP T, RNP Y, AND RNP S

ADVISE DN APCH ON FIRST CTC OF APCH INTENTION

REFER METHOD OF WORKING PLAN YPDN 23/02 STAGE 1

**Remarks (Details of any special restrictions and the requirements for the issue of NOTAMs)**

Runway 11-29 remains a Code 4 Runway (Instrument/Non-Precision).

Refer Aircservices NOTAM published notifying ILS GP 'IDN' 333.2 RWY 29 U/S DUE DTHR

RWY 11/29 EASTERN HOOKCABLE NOT AVBL WHEN 29 THR DISP

## 2.2 RTAO - Stage 2

Planned dates	8-Sep-23 to 8-Oct-23	Drawing	ANNEX B – DRAWINGS – STAGE 2
Phase	Main Construction	RWY 11-29 TORA	29 RWY 2480m 11 RWY 2420m
Zones	On-pavement: 1, 2 Off-pavement (drainage): A, B Off-pavement (AGL): E	Shift timing	Non-RTS, 24/7 works.
Activities	<ul style="list-style-type: none"><li>Removal and reconstruction of Runway 11-29 pavement at the Eastern end inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li><li>Removal and installation of a new Runway 11-29 Approach lighting system inclusive of commissioning and flight testing.</li><li>Installation of associated drainage (sub-soil drain, open swale, stormwater culverts underneath Taxiway A6).</li><li>Flank regrading and AGL secondary trenching.</li></ul>		
Restrictions: Manoeuvring Area			
Runways	DTHR29 by 1046m / 874m E END RWY 11/29 CLOSED DTHR29 at CH2308. Temp Displaced Threshold at the RWY 29 end during the entirety of Stage 2. ACFT above 100,000kg limited to 180 DEG turns on RWY 11/29 THR or TEMP RWY ENDS WHEN RWY 11/29 THR DISPLACED.		
Taxiways	Taxiway A6 closed, east of the FRA leading onto RWY29 end.		
Aircraft type restrictions			

## 2.2.1 RTAO - Stage 2 NOTAM

### Stage 2 NOTAM

THR RWY 29 DISPLACED 1046M DUE WIP  
RWY 11/29 874M E END CLOSED DUE

DISPLACED THR MARKED BY GREEN THR LGT EACH SIDE OF RWY HN AND RWY THR IDENT LGT HJ, PILOT MNT

OBST 16 FT AGL ON RWY 2720M FM START OF TORA RWY 11

#### REVISED DECLARED DISTANCES

RWY	TORA	TODA	ASDA	LDA
RWY 11	2420 (7940)	2480 (8137) (2.0)	2420 (7940)	2420 (7940)
RWY 29	2480 (8137)	2570 (8432) (1.2)	2480 (8137)	2308 (7573)

#### SUPPLEMENTARY TKOF DIST:

RWY 11 – 2416(7926) (1.6) 2469(8100) (1.9)

ACTIVE LAND AND HOLD SHORT OPS (LAHSO) NOT AVBL WHEN RWY 29 THR DISPLACED 1046M

RWY 29 TKOF TO COMMENCE AT RED LGTS HN AND RED AND WHITE CONES HJ

RWY 29 PAPI NOT AVBL WHEN THR DISPLACED

RWY 29 TEMPO PAPI AVBL 3.0 DEG 52FT

RWY THR IDENT LGTS AND TEMPO PAPI PILOT MNT

RWY 11 DIST TO RUN MARKERS NOT AVBL WHEN 29 THR DISPLACED

RWY 11 TWY B1, B2, E1, E2, C3 AND C4 TKOF RUN AVBL SIGNS NOT AVBL WHEN 29 THR DISPLACED

TWY A6 CLOSED

ALTERNATE APCH PROCEDURES IN PROGRESS SEPARARE NOTAM REFERS

ADVISE DN APCH ON FIRST CTC OF APCH AND STAR TERMINATION INTENTIONS

REFER METHOD OF WORKING PLAN YPDN 23/02 STAGE 2

#### Remarks (Details of any special restrictions and the requirements for the issue of NOTAMs)

Runway 11-29 remains a Code 4 Runway (Instrument/Non-Precision).

Refer Aircservices NOTAM published notifying ILS GP 'IDN' 333.2 RWY 29 U/S DUE DTHR

Alternate APCH PROCEDURES IN PROGRESS refer separate NOTAM and AIP SUP H33/23 DARWIN (YPDN) DAP PROCEDURES FOR TEMPORARY DISPLACED THRESHOLD RWY 29 – STAGE 2

RWY 11/29 EASTERN HOOKCABLE NOT AVBL WHEN 29 THR DISP

### 2.3 RTAO - Stage 3

Planned dates	9-Oct-23 to 30-Nov-23	Drawing	ANNEX B – DRAWINGS – STAGE 3
Phase	Main Construction	RWY 11-29 TORA	29 RWY 2160m 11 RWY 2100m
Zones	On-pavement: 1, 2, 3 Off-pavement (drainage): A, B, C Off-pavement (AGL): E	Shift timing	Non-RTS.  1130-0200 Local 0200-1630 UTC when Stage 3 is concurrent with Stage 4
Activities	<ul style="list-style-type: none"><li>• Removal and reconstruction of Runway 11-29 pavement at the Eastern end inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li><li>• Removal and installation of a new Runway 11-29 Approach lighting system inclusive of commissioning and flight testing.</li><li>• Installation of associated drainage (sub-soil drain, open swale, stormwater culverts underneath Taxiway A6).</li><li>• Flank regrading and AGL secondary trenching.</li></ul>		
Restrictions: Manoeuvring Area			
Runways	DTHR29 by 1354m / 1194m E END RWY 11/29 CLOSED DTHR29 at CH2000. Temp Displaced Threshold at the RWY 29 end during the entirety of Stage 3. ACFT above 100,000kg limited to 180 DEG turns on RWY 11/29 THR or TEMP RWY ENDS WHEN RWY 11/29 THR DISPLACED.		
Taxiways	Taxiway A6 closed, east of the FRA leading onto RWY29 end. Taxiway D closed.		
Aircraft type restrictions			

**2.3.1 RTAO - Stage 3 NOTAM****Stage 3 NOTAM**

THR RWY 29 DISPLACED 1354M DUE WIP  
RWY 11/29 1194M E END CLOSED DUE

DISPLACED THR MARKED BY GREEN THR LGT EACH SIDE OF RWY HN AND RWY THR IDENT LGT HJ, PILOT MNT

OBST 15 FT AGL ON RWY 2409M FM START OF TORA RWY 11

## REVISED DECLARED DISTANCES

RWY	TORA	TODA	ASDA	LDA
RWY 11	2100 (6890)	2160 (7087) (2.0)	2100 (6890)	2100 (6890)
RWY 29	2160 (7087)	2250 (7382) (1.2)	2160 (7087)	2000 (6562)

## SUPPLEMENTARY TKOF DIST:

RWY 11 – 2102(6896) (1.6) 2146(7042) (1.9)

ACTIVE LAND AND HOLD SHORT OPS (LAHSO) NOT AVBL WHEN THR RWY 29 DISPLACED 1354M

RWY 29 TKOF TO COMMENCE AT RED LGTS HN AND RED AND WHITE CONES HJ

RWY 29 PAPI NOT AVBL WHEN THR DISPLACED

RWY 29 TEMPO PAPI AVBL LH SIDE 3.0 DEG 52FT

RWY THR IDENT LGTS AND TEMPO PAPI PILOT MNT

RWY 11 DIST TO RUN MARKERS NOT AVBL WHEN 29 THR DISPLACED

RWY 11 TWY B1, B2, E1, E2, C3 AND C4 TKOF RUN AVBL SIGNS NOT AVBL WHEN 29 THR DISPLACED

TWY D AND A6 CLOSED

ALTERNATE APCH PROCEDURES IN PROGRESS SEPARARE NOTAM REFERS

ADVISE DN APCH ON FIRST CTC OF APCH AND STAR TERMINATION INTENTIONS

REFER METHOD OF WORKING PLAN YPDN 23/02 STAGE 3

**Remarks (Details of any special restrictions and the requirements for the issue of NOTAMs)**

Runway 11-29 remains a Code 4 Runway (Instrument/Non-Precision).

Refer Aircservices NOTAM published notifying ILS GP 'IDN' 333.2 RWY 29 U/S DUE DTHR

Alternate APCH PROCEDURE IN PROGRESS refer separate NOTAM and AIP SUP H49/23 DARWIN (YPDN) DAP PROCEDURES FOR TEMPORARY DISPLACED THRESHOLD RWY 29 – Stage 3

RWY 11/29 EASTERN HOOKCABLE NOT AVBL WHEN 29 THR DISP

## 2.4 RTAO - Stage 4

Planned dates	9-Oct-23 to 30-Nov-23	Drawing	ANNEX B – DRAWINGS – STAGE 4
Phase	Main Construction	RWY 11-29 TORA	During Stage 4 RTS: 29 RWY 1510m 11 RWY 1450m  All other times revert to Stage 3 29 RWY 2190m 11 RWY 2100m
Zones	On-pavement: 1, 2, 3, 4-1, 4-2 Off-pavement (drainage): A, B, C, D Off-pavement (AGL): E	Shift timing	During Stage 4 RTS (0200 to 1130 Local).  All other times revert to Stage 3 Non-RTS, 24/7 works.  <b><u>Refer 1.5 Works sequence.</u></b>
Activities	<b>Stage 4 is specific to works during the RTS nightshift. At all other times outside of the RTS nightshift, the Runway 11-29 arrangement will return to the Stage 3 arrangement as non-RTS works.</b> <ul style="list-style-type: none"><li>• Works in Stage 4 include the asphalt overlay of the existing Runway 11-29 pavement, inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li><li>• Installation of associated drainage (sub-soil drain, open swale, stormwater pipes and culverts underneath Taxiway A6 and Taxiway D).</li><li>• Flank regrading and AGL secondary trenching.</li></ul>		
Restrictions: Manoeuvring Area			
Runways	DTHR29 by 1933m / 1873m E END RWY 11/29 CLOSED DTHR29 at CH1421. Temp Displaced Threshold at the RWY 29 end for RTS times only.		
Taxiways	Taxiway A6 closed, east of the FRA leading onto RWY29 end. Taxiway D closed. Taxiway E1 closed. Taxiway E2 closed.		
Aircraft type restrictions	Aircraft operations above Code 2 at discretion of the aircraft operator.		

### 2.4.1 RTAO - Stage 4 NOTAM

#### Stage 4 NOTAM

THR RWY 29 DISPLACED 1933M DUE WIP  
RWY 11/29 1873M E END CLOSED DUE

DISPLACED THR MARKED BY GREEN THR LGT EACH SIDE OF RWY HN AND RWY THR IDENT LGT HJ, PILOT MNT

OBST 15 FT AGL ON RWY 1611M FM START OF TORA RWY 11

#### REVISED DECLARED DISTANCES

RWY	TORA	TODA	ASDA	LDA
RWY 11	1421 (4662)	1481 (4859) (4.0)	1421 (4662)	1421 (4662)
RWY 29	1481 (4859)	1571 (5154) (1.2)	1481 (4859)	1421 (4662)

#### SUPPLEMENTARY TKOF DIST:

RWY 11 – 1238 (4061) (1.6) 1294 (4245) (1.9) 1343 (4406) (2.2) 1385 (4541) (2.5)  
1448 (4751) (3.33)

ACTIVE LAND AND HOLD SHORT OPS (LAHSO) NOT AVBL WHEN THR RWY 29 DISPLACED 1933M

RWY 29 TKOF TO COMMENCE AT RED LGTS HN AND RED AND WHITE CONES HJ

RWY 29 PAPI NOT AVBL WHEN THR DISPLACED

RWY 29 TEMPO PAPI AVBL LH SIDE 3.0 DEG 29FT

RWY THR IDENT LGTS AND TEMPO PAPI PILOT MNT

RWY 11 DIST TO RUN MARKERS READ INCORRECTLY WHEN 29 THR DISPLACED

RWY 11 TWY B1, B2, E1, E2, C3 AND C4 TKOF RUN AVBL SIGNS READ INCORRECTLY WHEN 29 THR DISPLACED

TWY E1, E,2 D AND A6 CLOSED

REFER METHOD OF WORKING PLAN YPDN 23/02 STAGE 4

#### Remarks (Details of any special restrictions and the requirements for the issue of NOTAMs)

Runway 11-29 reclassified as a Code 2 Runway (Non-Instrument).

Refer Aircservices NOTAM published notifying ILS GP 'IDN' 333.2 RWY 29 U/S DUE DTHR

RWY 11/29 EASTERN HOOKCABLE NOT AVBL WHEN 29 THR DISP

## 2.5 RTAO - Stage 5

Planned dates	19-Dec-23 to 22-Dec-23 10-Jan-23 to 23-Feb-24	Drawing	ANNEX B – DRAWINGS – STAGE 5
Phase	Grooving	RWY 11-29 TORA	During Stage 5 RTS: 29 RWY 1481m 11 RWY 1421m  All other times, the full Runway 11-29 TORA will be available.
Zones	On-pavement: 1, 2, 3, 4-1, 4-2 Off-pavement (drainage): n/a Off-pavement (AGL): E	Shift timing	During Stage 5 RTS (0145 to 0545 Local), noting the exceptions below.  All other times, the full Runway 11-29 TORA will be available.  <b><u>Refer 1.5 Works sequence.</u></b>
Activities	<b>Stage 5 is specific to works during the RTS nightshift. At all other times outside of the RTS nightshift, the full Runway 11-29 TORA will be available.</b> <ul style="list-style-type: none"><li>• Works in Stage 5 include grooving commencing from the central section (western most extent of Stage 5) and working towards the eastern extent of Stage 5, inclusive of line marking reinstatement.</li><li>• Reinstatement of inset AGL lighting and secondary cable slotting following the grooving works including commissioning and powering the reinstated lights.</li></ul>		
Shift timing exceptions	23-Dec-23 to 9-Jan-24 No Work		
Restrictions: Manoeuvring Area			
Runways	DTHR29 by 1933m / 1873m E END RWY 11/29 CLOSED. DTHR29 at CH1421. Temp Displaced Threshold at the RWY 29 end for RTS times only.		
Taxiways	Taxiway A6 closed, east of the FRA leading onto RWY29 end. Taxiway D closed. Taxiway E1 closed. Taxiway E2 closed. Taxiway F closed. Taxiway T closed.		
Aircraft type restrictions	Aircraft operations above Code 2 at discretion of the aircraft operator.		



### 2.5.1 RTAO - Stage 5 NOTAM

#### Stage 5 NOTAM

THR RWY 29 DISPLACED 1933M DUE WIP  
RWY 11/29 1873M E END CLOSED DUE

DISPLACED THR MARKED BY GREEN THR LGT EACH SIDE OF RWY HN AND RWY THR IDENT LGT HJ, PILOT MNT

OBST 15 FT AGL ON RWY 1611M FM START OF TORA RWY 11

#### REVISED DECLARED DISTANCES

RWY	TORA	TODA	ASDA	LDA
RWY 11	1421 (4662)	1481 (4859) (4.0)	1421 (4662)	1421 (4662)
RWY 29	1481 (4859)	1571 (5154) (1.2)	1481 (4859)	1421 (4662)

#### SUPPLEMENTARY TKOF DIST:

RWY 11 – 1238 (4061) (1.6) 1294 (4245) (1.9) 1343 (4406) (2.2) 1385 (4541) (2.5)  
1448 (4751) (3.33)

ACTIVE LDA FOR LAND AND HOLD SHORT OPS (LAHSO) NOT AVBL WHEN THR RWY 29 DISPLACED 1933M

RWY 29 TKOF TO COMMENCE AT RED LGTS HN AND RED AND WHITE CONES HJ  
RWY 29 PAPI NOT AVBL WHEN THR DISPLACED  
RWY 29 TEMPO PAPI AVBL LHS 3.0 DEG 29FT  
RWY THR IDENT LGTS AND TEMPO PAPI PILOT MNT

RWY 11 DIST TO RUN MARKERS READ INCORRECTLY WHEN 29 THR DISPLACED  
RWY 11 TWY B1, B2, E1, E2, C3 AND C4 TKOF RUN AVBL SIGNS READ INCORRECTLY WHEN 29 THR DISPLACED

TWY E1, E,2 D AND A6 CLOSED

REFER METHOD OF WORKING PLAN YPDN 23/02 STAGE 5

#### Remarks (Details of any special restrictions and the requirements for the issue of NOTAMs)

Runway 11-29 reclassified as a Code 2 Runway (Non-Instrument).

Refer Aircservices NOTAM published notifying ILS GP 'IDN' 333.2 RWY 29 U/S DUE DTHR

RWY 11/29 EASTERN HOOKCABLE NOT AVBL WHEN 29 THR DISP

## 2.6 RTAO - Stage 6

Planned dates	24-Feb-24 to 8-Mar-24	Drawing	ANNEX B – DRAWINGS – STAGE 6
Phase	Grooving	RWY 11-29 TORA	29 RWY 2480m 11 RWY 2420m
Zones	On-pavement: 1, 2 Off-pavement (drainage): n/a Off-pavement (AGL): E	Shift timing	Non-RTS, 24/7 works.
Activities	<ul style="list-style-type: none"><li>Works in Stage 6 include grooving commencing from the western most extent of Stage 6 and working towards the eastern extent of Stage 6, inclusive of line marking reinstatement.</li><li>Reinstatement of inset AGL lighting and secondary cable slotting following the grooving works including commissioning and powering the reinstated lights.</li></ul>		
Restrictions: Manoeuvring Area			
Runways	DTHR29 by 1046m / 874m E END RWY 11/29 CLOSED. DTHR29 at CH2308. Temp Displaced Threshold at the RWY 29 end during the entirety of Stage 6. ACFT above 100,000kg limited to 180 DEG turns on RWY 11/29 THR or TEMP RWY ENDS WHEN RWY 11/29 THR DISPLACED.		
Taxiways	Taxiway A6 closed, east of the FRA leading onto RWY29 end.		
Aircraft type restrictions			

## 2.6.1 RTAO - Stage 6 NOTAM

### Stage 6 NOTAM

THR RWY 29 DISPLACED 1046M DUE WIP  
RWY 11/29 874M E END CLOSED DUE

DISPLACED THR MARKED BY GREEN THR LGT EACH SIDE OF RWY HN AND RWY THR IDENT LGT HJ, PILOT MNT

OBST 16 FT AGL ON RWY 2720M FM START OF TORA RWY 11

#### REVISED DECLARED DISTANCES

RWY	TORA	TODA	ASDA	LDA
RWY 11	2420 (7940)	2480 (8137) (2.0)	2420 (7940)	2420 (7940)
RWY 29	2480 (8137)	2570 (8432) (1.2)	2480 (8137)	2308 (7573)

#### SUPPLEMENTARY TKOF DIST:

RWY 11 – 2416(7926) (1.6) 2469(8100) (1.9)

ACTIVE LAND AND HOLD SHORT OPS (LAHSO) NOT AVBL WHEN RWY 29 THR DISPLACED 1046M

RWY 29 TKOF TO COMMENCE AT RED LGTS HN AND RED AND WHITE CONES HJ

RWY 29 PAPI NOT AVBL WHEN THR DISPLACED

RWY 29 TEMPO PAPI AVBL 3.0 DEG 52FT

RWY THR IDENT LGTS AND TEMPO PAPI PILOT MNT

RWY 11 DIST TO RUN MARKERS NOT AVBL WHEN 29 THR DISPLACED

RWY 11 TWY B1, B2, E1, E2, C3 AND C4 TKOF RUN AVBL SIGNS NOT AVBL WHEN 29 THR DISPLACED

TWY A6 CLOSED

ALTERNATE APCH PROCEDURES IN PROGRESS SEPARARE NOTAM REFERS

ADVISE DN APCH ON FIRST CTC OF APCH INTENTIONS

REFER METHOD OF WORKING PLAN YPDN 23/02 STAGE 6

#### Remarks (Details of any special restrictions and the requirements for the issue of NOTAMs)

Runway 11-29 remains a Code 4 Runway (Instrument/Non-Precision).

Refer Aircservices NOTAM published notifying ILS GP 'IDN' 333.2 RWY 29 U/S DUE DTHR

RWY 11/29 EASTERN HOOKCABLE NOT AVBL WHEN 29 THR DISP

## 2.7 RTAO - Stage 7

<b>Planned dates</b>	2-Apr-24 to 29-May-24	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 7
<b>Phase</b>	Main Construction	<b>RWY 11-29 TORA</b>	29 RWY 2100m 11 RWY 2160m
<b>Zones</b>	On-pavement: 5, 7 Off-pavement (drainage): n/a Off-pavement (AGL): E	<b>Shift timing</b>	Non-RTS, 24/7 works.  (1130-0200 Local 0200-1630 UTC when Stage 7 is concurrent with Stage 8)
<b>Activities</b>	<ul style="list-style-type: none"><li>• Removal and reconstruction of Runway 11-29 pavement at the Western end inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li><li>• Installation of associated drainage.</li><li>• Flank regrading and AGL secondary trenching.</li></ul>		
<b>Restrictions: Manoeuvring Area</b>			
<b>Runways</b>	DTHR11 by 1254m / 1194m W END RWY 11/29 CLOSED DTHR11 at CH1254. Temp Displaced Threshold at the RWY 11 end during the entirety of Stage 7. ACFT above 100,000kg limited to 180 DEG turns on RWY 11/29 THR or TEMP RWY ENDS WHEN RWY 11/29 THR DISPLACED.		
<b>Taxiways</b>	Taxiway W closed. Taxiway B1 closed. Taxiway B2 closed. Taxiway V2 closed.		
<b>Aircraft type restrictions</b>			

### 2.7.1 RTAO - Stage 7 NOTAM

<b>Stage 7 NOTAM</b>	
NOTAM text to be advised.	
<b>Remarks (Details of any special restrictions and the requirements for the issue of NOTAMs)</b>	Runway 11-29 remains a Code 4 Runway (Instrument/Non-Precision).  RWY 11/29 WESTERN HOOKCABLE NOT AVBL WHEN 11 THR DISP

## 2.8 RTAO - Stage 8

Planned dates	2-Apr-24 to 11-Jun-24	Drawing	ANNEX B – DRAWINGS – STAGE 8
Phase	Main Construction	RWY 11-29 TORA	<p>During Stage 8 RTS: 29 RWY 1420m 11 RWY 1480m</p> <p>Between 2-Apr-24 to 29-May-24 revert to Stage 7 29 RWY 2100m 11 RWY 2160m</p> <p>Between 30-May-24 to 11-Jun-24 revert to Stage 9 29 RWY 2631m 11 RWY 2691m</p>
Zones	On-pavement: 4-2, 4-3, 5, 7 Off-pavement (drainage): G, H, I Off-pavement (AGL): E	Shift timing	<p>During Stage 8 RTS (0200 to 1130 Local) with noted exceptions below.</p> <p>Between 2-Apr-24 to 29-May-24 revert to Stage 7 Non-RTS, 24/7 works.</p> <p>Between 30-May-24 to 11-Jun-24 revert to Stage 9 Non-RTS, 24/7 works.</p> <p>Refer 1.5 Works sequence.</p>
Activities	<p><b>Stage 8 is specific to works during the RTS nightshift.</b></p> <p>Between 2-Apr-24 to 29-May-24 outside of the RTS nightshift, the Runway 11-29 arrangement will revert to the Stage 7 arrangement as non-RTS works.</p> <p>Between 30-May-24 to 11-Jun-24 outside of the RTS nightshift, the Runway 11-29 arrangement will revert to the Stage 9 arrangement as non-RTS works.</p> <ul style="list-style-type: none"><li>• Works in Stage 8 include the asphalt overlay of the existing Runway 11-29 pavement, inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li><li>• Installation of associated drainage.</li><li>• Flank regrading and AGL secondary trenching.</li><li>•</li></ul>		
Shift timing exceptions	<p>05-Apr-24 to 14-Apr-24 0200 – 0800 (6.0hrs)</p> <p>The shift timing of the above reduced working hour shifts (6hr RTS shifts) will be advised via NOTAM in advance.</p>		
Restrictions: Manoeuvring Area			

<b>Runways</b>	DTHR by 1934m / 1874m W END RWY 11/29 CLOSED DTHR11 at CH1934. Temp Displaced Threshold at the RWY 11 end for RTS times only. ACFT above 100,000kg limited to 180 DEG turns on RWY 11/29 THR or TEMP RWY ENDS WHEN RWY 11/29 THR DISPLACED.
<b>Taxiways</b>	Taxiway W closed. Taxiway B1 closed. Taxiway B2 closed. Taxiway V2 closed. Taxiway E1 closed. Taxiway E2 closed. Taxiway F closed. Taxiway T closed.
<b>Aircraft type restrictions</b>	Aircraft operations above Code 2 at discretion of the aircraft operator.

### 2.8.1 RTAO - Stage 8 NOTAM

Stage 8 NOTAM	
NOTAM text to be advised	
<b>Remarks (Details of any special restrictions and the requirements for the issue of NOTAMs)</b>	Runway 11-29 reclassified as a Code 2 Runway (Non-Instrument).  RWY 11/29 WESTERN HOOKCABLE NOT AVBL WHEN 11 THR DISP

## 2.9 RTAO - Stage 9

Planned dates	30-May-24 to 7-Aug-24	Drawing	ANNEX B – DRAWINGS – STAGE 9
Phase	Main Construction	RWY 11-29 TORA	29 RWY 2631m 11 RWY 2691m
Zones	On-pavement: 7 Off-pavement (drainage): n/a Off-pavement (AGL): E	Shift timing	Non-RTS, 24/7 works.  (1130-0200 Local 0200-1630 UTC when Stage 9 is concurrent with Stage 8 or Stage 10)
Activities	<ul style="list-style-type: none"><li>• Removal and reconstruction of Runway 11-29 pavement at the Western end inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li><li>• Installation of associated drainage.</li><li>• Flank regrading and AGL secondary trenching.</li></ul>		
Restrictions: Manoeuvring Area			
Runways	DTHR by 723m / 663m W END RWY 11/29 CLOSED DTHR11 at CH723. Temp Displaced Threshold at the RWY 11 end during the entirety of Stage 9. ACFT above 100,000kg limited to 180 DEG turns on RWY 11/29 THR or TEMP RWY ENDS WHEN RWY 11/29 THR DISPLACED.		
Taxiways	Taxiway W closed.		
Aircraft type restrictions			

2.9.1 RTAO - Stage 9 NOTAM

Stage 9 NOTAM	
NOTAM text to be advised	
Remarks (Details of any special restrictions and the requirements for the issue of NOTAMs)	Runway 11-29 remains a Code 4 Runway (Instrument/Non-Precision).  RWY 11/29 WESTERN HOOKCABLE NOT AVBL WHEN 11 THR DISP



## 2.10 RTAO - Stage 10

<b>Planned dates</b>	12-Jun-24 to 24-Aug-24	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 10
<b>Phase</b>	Main Construction	<b>RWY 11-29 TORA</b>	<p>During Stage 10 RTS:            29 RWY 1420m            11 RWY 1480m</p> <p>Between 12-Jun-24 to 7-Aug-24            revert to Stage 9            29 RWY 2631m            11 RWY 2691m</p> <p>Between 8-Aug-24 to 24-Aug-24 revert to full length RWY 11/29 outside RTS hours.</p>
<b>Zones</b>	On-pavement: 4-2, 4-3, 7 Off-pavement (drainage): G, H, I Off-pavement (AGL): E	<b>Shift timing</b>	<p>During Stage 10 RTS (0200 to 1130 Local) with noted exceptions below.</p> <p>Between 12-Jun-24 to 7-Aug-24            revert to Stage 9 Non-RTS, 24/7 works.</p> <p>Between 8-Aug-24 to 24-Aug-24, RTS works only.</p> <p>Refer 1.5 Works sequence.</p>
<b>Activities</b>	<p><b>Stage 10 is specific to works during the RTS nightshift.</b>            Between 12-Jun-24 to 7-Aug-24 outside of the RTS nightshift, the Runway 11-29 arrangement will revert to the Stage 9 arrangement as non-RTS works.</p> <p>Between 8-Aug-24 to 24-Aug-24, the Runway 11-29 arrangement will revert to full length RWY 11/29 outside RTS hours.</p> <ul style="list-style-type: none"> <li>• Works in Stage 10 include the asphalt overlay of the existing Runway 11-29 pavement, inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li> <li>• Installation of associated drainage.</li> <li>• Flank regrading and AGL secondary trenching.</li> </ul>		
<b>Shift timing exceptions</b>	<p>22-Jun-24 to 14-Jul-24 0200 – 0800 (6.0hrs)            15-Jul-24 to 03-Aug-24 No RTS Works</p> <p>The shift timing of the above reduced working hour shifts (6hr RTS shifts) will be advised via NOTAM in advance.</p>		

<b>Restrictions: Manoeuvring Area</b>	
<b>Runways</b>	DTHR11 by 1934m / 1874m W END RWY 11/29 CLOSED DTHR11 at CH1934. Temp Displaced Threshold at the RWY 11 end for RTS times only.
<b>Taxiways</b>	Taxiway W closed. Taxiway V2 closed. Taxiway B1 closed. Taxiway B2 closed. Taxiway E1 closed. Taxiway E2 closed. Taxiway F closed. Taxiway T closed.
<b>Aircraft type restrictions</b>	Aircraft operations above Code 2 at discretion of the aircraft operator.

### 2.10.1 RTAO - Stage 10 NOTAM

<b>Stage 10 NOTAM</b>	
NOTAM text to be advised.	
<b>Remarks (Details of any special restrictions and the requirements for the issue of NOTAMs)</b>	Runway 11-29 reclassified as a Code 2 Runway (Non-Instrument).  RWY 11/29 WESTERN HOOKCABLE NOT AVBL WHEN 11 THR DISP

## 2.11 RTAO - Stage 11

Planned dates	25-Aug-24 to 30-Sep-24	Drawing	ANNEX B – DRAWINGS – STAGE 11
Phase	Main Construction	RWY 11-29 TORA	29 RWY 2269m 11 RWY 2329m
Zones	On-pavement: 6, 7 Off-pavement (drainage): n/a Off-pavement (AGL): E	Shift timing	Non-RTS, 24/7 works.
Activities	<ul style="list-style-type: none"><li>Removal and reconstruction of Runway 11-29 pavement at the Western end inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li><li>Installation of associated drainage.</li><li>Flank regrading and AGL secondary trenching.</li></ul>		
Restrictions: Manoeuvring Area			
Runways	DTHR11 by 1084m / 1024m W END RWY 11/29 CLOSED DTHR11 at CH1084. Temp Displaced Threshold at the RWY 29 end during the entirety of Stage 11. ACFT above 100,000kg limited to 180 DEG turns on RWY 11/29 THR or TEMP RWY ENDS WHEN RWY 11/29 THR DISPLACED. Runway 18-36 closed.		
Taxiways	Taxiway W closed. Taxiway C1 closed. Taxiway C3 closed. Taxiway C4 closed. Taxiway O access to RWY 18/36 closed. Taxiway V2 closed.		
Aircraft type restrictions			

2.11.1RTAO - Stage 11 NOTAM

Stage 11 NOTAM	
NOTAM text to be advised.	
Remarks (Details of any special restrictions and the requirements for the issue of NOTAMs)	Runway 11-29 remains a Code 4 Runway (Instrument/Non-Precision). Runway 18-36 closed.  RWY 11/29 WESTERN HOOKCABLE NOT AVBL WHEN 11 THR DISP

## 2.12 RTAO - Stage 12

Planned dates	30-Sep-24 to 12-Nov-24	Drawing	ANNEX B – DRAWINGS – STAGE 12
Phase	Main Construction	RWY 11-29 TORA	During Stage 12 RTS 29 RWY 1481m 11 RWY 1421m  At all other times the full Runway 11-29 TORA will be available.
Zones	On-pavement: 4-1, 4-2 Off-pavement (drainage): D, F, G Off-pavement (AGL): E	Shift timing	During Stage 12 RTS (0200 to 1130 Local) with noted exceptions below.
Activities	<b>Stage 12 is specific to works during the RTS nightshift. At all other times outside of the RTS nightshift, the full Runway 11-29 TORA will be available.</b> <ul style="list-style-type: none"><li>• Works in Stage 12 include the asphalt overlay of the existing Runway 11-29 pavement, inclusive of the reinstatement of Runway 11-29 AGL lighting and installation of new AGL lighting to suit the cut-over to 45m width.</li><li>• Installation of associated drainage.</li><li>• Flank regrading and AGL secondary trenching.</li></ul>		
Shift timing exceptions	23-Sep-24 to 6-Oct-24 0200 – 0800 (6.0hrs)  The shift timing of the above reduced working hour shifts (6hr RTS shifts) will be advised via NOTAM in advance.		
Restrictions: Manoeuvring Area			
Runways	DTHR29 by 1933mm / 1873m E END RWY 11/29 CLOSED DTHR29 at CH1421. Temp Displaced Threshold at the RWY 29 end for RTS times only.		
Taxiways	Taxiway A6 closed, east of the FRA leading onto RWY29 end. Taxiway D closed. Taxiway E1 closed. Taxiway E2 closed. Taxiway F closed. Taxiway T closed.		
Aircraft type restrictions	Aircraft operations above Code 2 at discretion of the aircraft operator.		

2.12.1 RTAO - Stage 12 NOTAM

Stage 12 NOTAM	
NOTAM text to be advised.	
Remarks (Details of any special restrictions and the requirements for the issue of NOTAMs)	Runway 11-29 reclassified as a Code 2 Runway (Non-Instrument).  RWY 11/29 EASTERN HOOKCABLE NOT AVBL WHEN 29 THR DISP

## 2.13 RTAO - Stage 13

Planned dates	13-Nov-24	Drawing	ANNEX B – DRAWINGS – STAGE 13
Phase	Cut Over	RWY 11-29 TORA	During RTS Stage 13 works (0200 – 1130), RWY 11/29 will be closed.  All other times, the full Runway 11-29 TORA will be available.
Zones	On-pavement: All Zones Off-pavement (drainage): n/a Off-pavement (AGL): E	Shift timing	During Stage 13 RTS (0200 to 1130 Local)  All other times, the full Runway 11-29 TORA will be available.
Activities	Ground Checks and Flight Checks of the newly installed (unpowered) Runway 11-29 Airfield Ground Lighting system in preparation for the Cut Over to the 45m width AGL system in Stage 14. At the completion of each shift in Stage 13, the existing 60m wide Runway 11-29 arrangement will be returned to service.		
Restrictions: Manoeuvring Area			
Runways	During Stage 13 (All Zones) RTS works: Runway 11-29 will be closed.		
Taxiways	Taxiway A6 closed, east of the FRA leading onto RWY29 end. Taxiway D closed. Taxiway E1 closed. Taxiway E2 closed. Taxiway B1 closed. Taxiway B2 closed. Taxiway V2 closed. Taxiway W closed. Taxiway F closed. Taxiway T closed.		
Aircraft type restrictions	Runway 11/29 closed.		

2.13.1RTAO - Stage 13 NOTAM

Stage 13 NOTAM	
NOTAM text to be advised.	
Remarks (Details of any special restrictions and the requirements for the issue of NOTAMs)	Runway 11-29 will be closed.



## 2.14 RTAO - Stage 14

<b>Planned dates</b>	30-Nov-24	<b>Drawing</b>	ANNEX B – DRAWINGS – STAGE 14
<b>Phase</b>	Cut Over	<b>RWY 11-29 TORA</b>	During RTS Stage 14 works (0200 – 1130 Local), RWY 11/29 will be closed.  All other times, the full Runway 11-29 TORA will be available.
<b>Zones</b>	On-pavement: All Zones Off-pavement (drainage): n/a Off-pavement (AGL): E	<b>Shift timing</b>	During Stage 14 RTS (0200 to 1130)  All other times, the full Runway 11-29 TORA will be available.
<b>Activities</b>	AGL Cut Over: 60m to 45m wide Runway 11-29 All Runway 11-29 lighting and line marking to suit 60m width to be extinguished. All Runway 11-29 lighting to suit 45m width to be powered and made live. All Runway 11-29 line marking to suit 45m width to be painted.		
<b>Restrictions: Manoeuvring Area</b>			
<b>Runways</b>	During Stage 14 (All Zones) RTS works: <b>Runway 11-29 will be closed.</b>		
<b>Taxiways</b>	Taxiway A6 closed, east of the FRA leading onto RWY29 end. Taxiway D closed. Taxiway E1 closed. Taxiway E2 closed. Taxiway B1 closed. Taxiway B2 closed. Taxiway V2 closed. Taxiway W closed. Taxiway F closed. Taxiway T closed.		
<b>Aircraft type restrictions</b>	Runway 11/29 closed.		

2.14.1RTAO - Stage 14 NOTAM

Stage 14 NOTAM	
NOTAM text to be advised.	
Remarks (Details of any special restrictions and the requirements for the issue of NOTAMs)	Runway 11-29 will be closed.

## 2.15 RTAO - Stage 15

Planned dates	4-Nov-24 to 28-Nov-24	Drawing	ANNEX B – DRAWINGS – STAGE 15
Phase	Grooving	RWY 11-29 TORA	During Stage 15 RTS 29 RWY 2100m 11 RWY 2160m  At all other times the full Runway 11-29 TORA will be available.
Zones	On-pavement: 7, 6, 5 Off-pavement (drainage): n/a Off-pavement (AGL): E	Shift timing	RTS (0145 - 0545 Local)
Activities	<b>Stage 15 is specific to works during the RTS nightshift. At all other times outside of the RTS nightshift, the full Runway 11-29 TORA will be available.</b> <ul style="list-style-type: none"><li>• Works in Stage 15 include grooving commencing from the western most extent of Stage 15 and working towards the eastern extent of Stage 15, inclusive of line marking reinstatement.</li><li>• Reinstatement of inset AGL lighting and secondary cable slotting following the grooving works including commissioning and powering the reinstated lights.</li></ul>		
Restrictions: Manoeuvring Area			
Runways	DTHR11 by 1254m / 1194m W END RWY 11/29 CLOSED DTHR11 at CH1254. Temp Displaced Threshold at the RWY 11 end for RTS times only. ACFT above 100,000kg limited to 180 DEG turns on RWY 11/29 THR or TEMP RWY ENDS WHEN RWY 11/29 THR DISPLACED. Runway 18-36 will be closed.		
Taxiways	Taxiway W closed. Taxiway C1 closed. Taxiway C3 closed. Taxiway C4 closed. Taxiway O access to RWY 18/36 closed. Taxiway V2 closed. Taxiway B1 closed. Taxiway B2 closed.		
Aircraft type restrictions			

2.15.1RTAO - Stage 15 NOTAM

Stage 15 NOTAM	
NOTAM text to be advised.	
Remarks (Details of any special restrictions and the requirements for the issue of NOTAMs)	Runway 11-29 remains a Code 4 Runway (Instrument/Non-Precision). Runway 18-36 will be closed.  RWY 11/29 WESTERN HOOKCABLE NOT AVBL WHEN 11 THR DISP

## 2.16 RTAO - Stage 16

Planned dates	29-Nov-24 to 24-Jan-25	Drawing	ANNEX B – DRAWINGS – STAGE 16
Phase	Grooving	RWY 11-29 TORA	During Stage 16 RTS 29 RWY 1420m 11 RWY 1480m  At all other times the full Runway 11-29 TORA will be available.
Zones	On-pavement: 4-3, 4-2, 7 Off-pavement (drainage): n/a Off-pavement (AGL): E	Shift timing	RTS (0145 to 0545 Local) with noted exceptions below.
Activities	<b>Stage 16 is specific to works during the RTS nightshift. At all other times outside of the RTS nightshift, the full Runway 11-29 TORA will be available.</b> <ul style="list-style-type: none"><li>• Works in Stage 16 include grooving commencing from the western most extent of Stage 16 and working towards the eastern extent of Stage 16, inclusive of line marking reinstatement.</li><li>• Reinstatement of inset AGL lighting and secondary cable slotting following the grooving works including commissioning and powering the reinstated lights.</li></ul>		
Shift timing exceptions	22-Dec-24 to 5-Jan-25 (No Work)		
Restrictions: Manoeuvring Area			
Runways	DTHR11 by 1934m / 1874m W END RWY 11/29 CLOSED DTHR11 at CH1934. Temp Displaced Threshold at the RWY 11 end for RTS times only.		
Taxiways	Taxiway W closed. Taxiway V2 closed. Taxiway B1 closed. Taxiway B2 closed. Taxiway E1 closed. Taxiway E2 closed. Taxiway F closed. Taxiway T closed.		
Aircraft type restrictions	Aircraft operations above Code 2 at discretion of the aircraft operator.		

2.16.1RTAO - Stage 16 NOTAM

Stage 16 NOTAM	
NOTAM text to be advised.	
Remarks (Details of any special restrictions and the requirements for the issue of NOTAMs)	Runway 11-29 reclassified as a Code 2 Runway (Non-Instrument).  RWY 11/29 WESTERN HOOKCABLE NOT AVBL WHEN 11 THR DISP

## 2.17 RTAO - Stage 17

Planned dates	25-Jan-25 to 11-Feb-25	Drawing	ANNEX B – DRAWINGS – STAGE 17
Phase	Grooving	RWY 11-29 TORA	During Stage 17 RTS 29 RWY 1481m 11 RWY 1421m  At all other times the full Runway 11-29 TORA will be available.
Zones	On-pavement: 4-2, 4-1 Off-pavement (drainage): n/a Off-pavement (AGL): E	Shift timing	RTS (0145 to 0545 Local)
Activities	<b>Stage 17 is specific to works during the RTS nightshift. At all other times outside of the RTS nightshift, the full Runway 11-29 TORA will be available.</b> <ul style="list-style-type: none"><li>• Works in Stage 17 include grooving commencing from the western most extent of Stage 17 and working towards the eastern extent of Stage 17, inclusive of line marking reinstatement.</li><li>• Reinstatement of inset AGL lighting and secondary cable slotting following the grooving works including commissioning and powering the reinstated lights.</li></ul>		
Restrictions: Manoeuvring Area			
Runways	DTHR29 by 1933m / 1873m E END RWY 11/29 CLOSED DTHR29 at CH1421. Temp Displaced Threshold at the RWY 29 end for RTS times only.		
Taxiways	Taxiway A6 closed, east of the FRA leading onto RWY29 end. Taxiway E1 closed. Taxiway E2 closed. Taxiway D closed. Taxiway F closed. Taxiway T closed.		
Aircraft type restrictions	Aircraft operations above Code 2 at discretion of the aircraft operator.		

2.17.1RTAO - Stage 17 NOTAM

Stage 17 NOTAM	
NOTAM text to be advised.	
Remarks (Details of any special restrictions and the requirements for the issue of NOTAMs)	Runway 11-29 reclassified as a Code 2 Runway (Non-Instrument).  RWY 11/29 EASTERN HOOKCABLE NOT AVBL WHEN 29 THR DISP



### **3 DECLARED EMERGENCIES AND ADVERSE WEATHER**

All work zones can only be conducted during normal visual meteorological conditions (VMC) and will be terminated during periods of reducing visibility in accordance with Darwin Airports low visibility procedures.

The work sequence is to be managed in order to enable vacate of works site within 30 minutes with no return to operational status.

ARFF vehicles responding to a declared emergency will have access to the works site under direction of WSO.

Under the direction of Air Traffic Control (ATC), DAR ARO or Base Aviation Safety Officer (BASO), the Works Safety Officer (WSO) is responsible for instructing the works contractor to vacate the work site in the event of a declared emergency.

Note that provision of AFIS includes SARWATCH, In-Flight Emergency Response (IFER) and Alerting Services outside operational ATC hours. The AFIS controller will pass/receive emergency details as required including passing details of arriving emergency aircraft to the DIA Safety Officer and ARFF.

The WSO is to remain in contact with ATC (during operational hours) and or monitor the CTAF frequency 133.1, when ATC is not active.

Weather conditions including thunderstorms will be monitored by the WSO via BOM and / or thunderstorm alerting software.

The WSO, in consultation with the Works Contractor, will advise ATC whether reinstatement of the manoeuvring area is possible or not possible.

Works will not be carried out during periods where Low Visibility Operations are declared. All stages could be adversely affected by wet weather and may result in delays or temporary stoppages of the works.

All works are to vacate the airfield when lightning is within 5 nautical miles of the aerodrome, WSO to direct the Works Contractor.

#### 4 NOTAM

The DIA Head of Airside Operations or approved delegate is responsible for approving and issuing the NOTAM for each stage of the works.

DIA will confirm that the NOTAM has been raised for the relevant stage of the works prior to the commencement.

The NOTAM per Work Stage is described in the above section, **2 RESTRICTIONS TO AIRCRAFT OPERATIONS (RTAO)**.

Preferred Taxi Routes will be promulgated by NOTAM where required.

The actual date and time of commencement will be advised by a NOTAM, to be issued not less than 48 hours before work commences.

## **5 PERSONNEL AND EQUIPMENT**

### **5.1 General**

The works are to take place on and in the vicinity of aircraft manoeuvring areas and the specific requirements of this MOWP, together with site instructions from the Works Safety Officer (or the DIA Terminal and Airside Operations Officer) must be strictly followed at all times.

While at the work site, all vehicles, plant and personnel must remain within the limits of the designated works area. All vehicles and plant not actually engaged in the works are to be parked clear of the works and movement area in an area nominated by the Works Safety Officer.

The limits of the work areas are to be defined by row of orange road markers (non-reflective witches' hats) and lights in accordance with Part 139 MOS, across the runways or taxiways in accordance with the relevant NOTAM. The Works Organisation must not move beyond these lines.

Works are to comply with the Fulton Hogan Work Health and Safety Plan for the project, including all requirements for Personal Protective Equipment (PPE).

Smoking is not permitted airside or within any restricted areas of the aerodrome.

### **5.2 Control of Works Personnel, Security and Safety of Aircraft Operations**

All personnel associated with the work are bound by any instructions issued by the WSO, who has the right to refuse access to persons likely, in his/her opinion, to compromise aircraft safety on the airfield.

Any breaches of aviation safety and aircraft safety occurrences (not detected by the WSO) must be reported to the WSO.

The WSO must initiate an immediate response in consultation with ATC, ADG-DIA (Safety 1) and the BASO.

The BASO will prepare and submit an Aviation Safety Report (ASR) if required, and provide details to the P0009 PMCA, Defence personnel and the DIA Head of Airside.

### 5.3 Vehicles and Plant

Vehicles and plant used for these works will include various vehicles, trucks, and trailers; asphalt profiler and paver; and suction sweeper. All vehicles plant and equipment used for airside access are to be fitted with flashing beacons and use dipped headlights during nightworks. Vehicles and equipment used in these works are not to exceed the equipment maximum heights above ground level detailed in each Stage Drawing.

No movement of vehicles or plant is to take place outside the works areas or access routes without the consent of the WSO. Only vehicles and plant engaged in the work activities shall be permitted at the work site. Private vehicles will not be permitted at the airside work site.

At the end of each work period, all vehicles, plant, equipment, and material are moved clear of the works area and parked in the designated parking area.

Vehicles and self-propelled items of plant are to have vehicle warning lights as detailed in CASR MOS Part 139 Section 14.05: Airside vehicle lighting requirements.

The Works Contractor Vehicle Management Plan is to be developed and approved by DIA and RAAF Darwin prior to any works commencing.

### 5.4 Critical and Sensitive Areas - CNS Equipment

The Glide Path will be switched-off by Airservices during all works stages at the eastern end (Displaced Thresholds - RWY 29), and the Localiser will be switched-off during all works stages at the western end (Displaced Thresholds – RWY 11) and there are no restrictions for vehicles or equipment operating in the proximity of the critical and sensitive areas during the respective works stages.

### 5.5 Access to the Works and Security

Access to all works area is to be agreed with the RAAF BAEO and the WSO. Movement of vehicles, plant and equipment must be confined to designated access routes.

DIA TAOO staff may require access to the work site to conduct wildlife hazard management. These activities could include the use of flashing lights, sirens and discharge of firearms and will be conducted in consultation with the WSO.

All personnel are to have on their person and visible at all times a valid security pass issued by the RAAF Base Darwin Pass Office or equivalent in accordance with DI (AF) ADMIN 14-7 – Visits to Air Force Establishments.

Personnel are only permitted to move about the designated work areas, and only using the designated access routes. Any person detected on the site outside these limits may be evicted from the site and denied return.

All works at RAAF Base Darwin are to be conducted in accordance with:

1. DAR SI(ADMIN) 14-01 – *Visits to RAAF Base Darwin*
2. DAR SI(ADMIN) 09-10 – *Photography-imagery at RAAF Base Darwin*
3. DAR SI(LOG) 14-01 – *Request to Conduct Works*
4. DAR Aerodrome Manual – *Aerodrome works Safety/Management*

Additional instructions maybe applicable for specific works; the Contractor is to consult with the RAAF BAEO prior to undertaking works for access to the abovementioned documents.

## 5.6 Visual Ground Aids

Markings, markers, and ground lighting are not to be installed, altered, or removed without the approval of the Works Safety Officer. Any markings or markers that are required to be moved or removed due to works in progress must be advised to the DIA Terminal and Airside Operations Officer and reinstated prior to the completion of the works shift.

Any accidental damage to the markers must immediately be reported to the Works Safety Officer and to the DIA Terminal and Airside Operations Officer.

## 5.7 Works Permits

To prevent damage to airport lighting systems and other airport facilities the Defence Personnel must obtain dig permits from the local Defence Support; contact Mr Jeff Grose, prior to undertaking any excavation on the site.

All works are to be undertaken in accordance with the P0009 Construction Environmental Management Plan (CEMP) and approved Environmental Clearance Certificate (ECC).

## 5.8 Protection of Electrical Services

The Contractor must confirm the location of all underground services within the vicinity of the works to be undertaken. Any works on or near electrical cables must be referred to the DIA Technical Team Leader a minimum of 48 hours prior to commencement of works to arrange all necessary isolations or temporary connections.

## 5.9 Crane Permit

A permit must be obtained prior to erection of any crane on airport and/or use of equipment that will exceed the equipment maximum heights above ground level detailed in each Stage Drawing.

Applications for approval must be sent to [airportoperations@ntairports.com.au](mailto:airportoperations@ntairports.com.au)

## 5.10 Other Restrictions

All loose material and equipment must be secured against movement in strong winds or aircraft propeller wash or jet blast.

Any damage to aerodrome facilities or property must be reported immediately to the Works Safety Officer and the DIA Terminal and Airside Operations Officer.

Personnel and equipment may need to partially withdraw from a work area to avoid propeller wash or jet blast from a departing or passing aircraft. The Works Safety Officer will direct the Works Contractor to vacate to a safe working distance before aircraft movement.

## 5.11 Environmental

Environmental impacts have been assessed with controls documented within the Fulton Hogan P0009 Construction Environmental Management Plan (CEMP), approved Environmental Clearance Certificate (ECC) and the DIA / RAAF Base Darwin Wildlife Hazard Management Plan.

## 5.12 Foreign Object Debris (FOD) Control

The Works Contractor is to ensure that aircraft pavements used or crossed during the works are kept clean and free of debris. Any debris is to be immediately removed by the Works Contractor to the satisfaction of the WSO.

All loose material and equipment are to be secured against movement in strong winds or aircraft blast. Measures shall be taken at all times for control of dust or other nuisance materials and the Works Contractor shall immediately respond to any direction by the DIA Terminal and Airside Operations Officer, WSO, BAEO or BASO to eliminate any problem. The Works Contractor is responsible for implementing appropriate control measures.

On completion of each work period where airfield movement areas are required to be returned to active use, the Works Contractor is to ensure the works area is made serviceable, including the removal of all FOD hazards, to the satisfaction of the WSO.

Prior to vacating the work site when returning a works area back to service, a joint inspection will occur inclusive of a DIA representative, RAAF Darwin representative and the WSO at the end of each shift. Following the joint written approval of the suitability of the works area for aircraft activity, the Works Contractor will vacate the work site.

## **6 AERODROME MARKERS, MARKINGS and LIGHTS**

The works contractor shall mark, paint, and light the unserviceable areas of the airfield affected by the works in accordance with the requirements of CASA Part 139 MOS – Aerodromes and this will be reviewed by RAAF Base Darwin / Darwin International Airport.

The Works Contractor is responsible for deploying and removing all AGL, works limit markings (non-reflective orange witches' hats) and temporary runway end markers (red and white cones).

The works contractor is responsible for deploying and removing 36m high unserviceability markers (white crosses) for the temporary runway closures and displaced thresholds.

Aerodrome markers, markings, and lights (visual aids) associated with this MOWP are detailed in the following subsections. All markers are to be appropriately secured against jet blast and or high winds.

### **6.1 Unserviceability Markers**

Closed portions of the manoeuvring area will be marked by red and white unserviceability markers (refer to CASA Part 139 MOS Section 8.108) during the day, and red lights at night.

Unserviceability markers for the runway (white crosses) are recommended by CASA Part 139 MOS at international and frequent aircraft movement aerodromes. These will accompany the temporary runway threshold displacements for RWY 11-29 and partial runway closures of RWY 11-29.

### **6.2 Works Limit Markers**

The limit of works is marked with Works limit markers – non-reflective orange witches' hats (and orange lights at night). The installation of the Works Limits markers is the responsibility of the Works Contractor. All personnel (and equipment) must remain within the designated works area, this includes when working in the runway strip.

A clearance from ATC when active or broadcast on CTAF when ATC not active, to enter the runway is required to proceed past the limit of works markers and/or lights, this includes to access the portion of the runway between the limit of works and the red and white cones.

### **6.3 Lighting**

All lighting within and directly leading into the closed portion of the manoeuvring area will be obscured or extinguished by the Works Contractor as instructed by the WSO. The contractor shall make sure not obscure or move any temporary runway or taxiway lighting associated with the works.

#### **6.4 RWY 11-29 Temporary Displaced Thresholds**

Temporary displaced threshold markings ("Vee-bars") are not required for the displacement of RWY 29 threshold which are indicated with Runway Threshold Identification Lights (RTIL) for scheduled international transport operations which is in accordance with Part 139 (Aerodromes), MOS Section 8.27(3).

RTIL must be placed as detailed in CASA Part 139 MOS Section 9.59 (5) will be used to identify temporarily displaced thresholds (green threshold lights each side of the runway at night).

#### **6.5 RWY 11-29 Temporary PAPIs**

Temporary PAPI wing bars (double-sided PAPI's) shall be installed for non-RTS Stages as per CASA Part 139 MOS Section 9.44, to service the agreed runway threshold displacements for RWY 11-29, with runway threshold displacements as stated in preceding sections of this MOWP.

Temporary PAPI wing bar (single-sided PAPI) shall be installed for non-RTS Stages as per CASA Part 139 MOS Section 9.44 (3)(4), when there is a physical obstruction and a double-sided PAPI is not reasonably practical to be installed.

Temporary PAPI wing bars (single-sided PAPI's) shall be installed for RTS Stages as per CASA Part 139 MOS Section 9.44, to service the agreed runway threshold displacements for RWY 11-29, with runway threshold displacements as stated in preceding sections of this MOWP.

The location of the temporary PAPI wing bars is indicated on the drawings included in Appendix B.

The deployment of the temporary PAPI wing bars shall be by the Works Contractor, with the necessary survey associated with the deployment of the wing bar to be arranged by the Works Contractor.

#### **6.6 Works within the Runway Strip**

Works within the Runway 11-29 Strip are only to occur in accordance with the detailed Stage's work extents, Stage's working times, and maximum vehicle heights.

Works within the Runway 18-36 Strip will remain clear of the transitional surfaces at all times, subject to WSO approval.



## 7 ADMINISTRATION

### 7.1 Design Consultant (DC)

The Design Consultant for P0009 is **Aurecon Australasia Pty Limited (Aurecon)**. The Works Organisation and WSO are subsequently sub-contractors as per sub-contractor agreements.

The DC Consultant's Representative for P0009 is Mr Tim Meinecke [not on site]. The DC's on-site Representative is included in the table in section **7.6 Contact Details.**

The Design Consultant's Representative may be contacted on the following numbers:

Mobile: +61 425 794 411

Email: [tim.meinecke@aurecongroup.com](mailto:tim.meinecke@aurecongroup.com)

### 7.2 Works Organisation / Contractor

The Contractor's Project Manager will be Mr Edward Callaghan (Mobile: 0439 281 658)

The Contractor's Works Manager will be Mr Dayne Clarke (Mobile: 0429 000 743)

The Fulton Hogan duty phone number will be (Mobile: 0499 573 099)

The Contractor's Works Manager or his/her delegate must be present on site during all work periods and is responsible for complying with the requirements of this MOWP.

All contact, with the Base, by the Contractor, in relation to the work, is to be made through the E&IG Project Officer.

### 7.3 Project Manager Contract Administrator (PMCA)

The PMCA for P0009 is Mr Pete Muir [not on site].

The PMCA may be contacted on the following numbers:

Mobile: +61 401 348 371

Email: [pete.muir@beca.com](mailto:pete.muir@beca.com)

The DC's on-site Representative is included in the table in section **7.6 Contact Details.**

## 7.4 Works Safety Officer

The nominated Works Safety Officers (WSOs) for these works will be from Oz Airports and Tarmac Aerodrome Operations.

The Oz Airports duty phone number will be (Mobile: 0483 208 157) and Oz Airports will be responsible for the operational safety of the works for non-RTS shifts.

The Tarmac Aerodrome Operations lead WSO will be Jason Dechaineux (Mobile: 0429 467 481) and Tarmac Aerodrome Operations will be responsible for the operational safety of the works for RTS shifts.

A letter is to be provided to DIA by the RAAF BASO to confirm that the nominated WSO has the appropriate level of training to undertake the tasks as detailed in this MOWP.

The WSO contact details are included in section **7.6 Contact Details.**

The WSO is responsible for the operational safety of the works and carrying out WSO duties in accordance with the requirements CASA MOS Part 139 13.04 Works safety officer; and 15.04 Management and Control of Aerodrome Works, and this MOWP.

The WSO must be present on site at all times while work is in progress.

The WSO must maintain radio communications with Darwin SMCV on 119.55 MHz when ATC is active in accordance with procedures agreed with RAAF ATC and monitor CTAF 133.1 when ATC not active.

The WSO must have a copy of this MOWP accessible at all times.

## 7.5 Base Aviation Safety Officer

The Base Aviation Safety Officer (BASO) will provide airside induction training to the personnel involved in carrying out any works on the manoeuvring areas, including competency check of WSOs involved in these works.

The BASO will be the main point of contact for any aviation safety issues during the Works.

The Base Aviation Safety Officer for the works will be SQNLDR Jay Murray.

## 7.6 Contact Details

<b>RAAF Base Darwin – 13 Squadron</b>		
CO 13 Squadron SADFO	WGCDR Jim Collisson	E: <a href="mailto:jim.collisson@defence.gov.au">jim.collisson@defence.gov.au</a>
Air Base Executive Officer	SQNLDR Andrew Miller	E: <a href="mailto:andrew.miller10@defence.gov.au">andrew.miller10@defence.gov.au</a>
Base Aviation Safety Officer	SQNLDR Jay Murray	E: <a href="mailto:dar.baso@defence.gov.au">dar.baso@defence.gov.au</a>
Base Airfield Engineering Officer	FLTLT Mitchel Heming	E: <a href="mailto:Mitchell.heming@defence.gov.au">Mitchell.heming@defence.gov.au</a>
<b>RAAF ATC - 452 SQN DAR FLT</b>		
452SQN DAR FLT CDR	SQNLDR Marty Ferguson	E: <a href="mailto:452sqndar.fltcdr@defence.gov.au">452sqndar.fltcdr@defence.gov.au</a>
452SQN DAR FLT CDR	SQNLDR James Lee	E: <a href="mailto:452sqndar.opscdr@defence.gov.au">452sqndar.opscdr@defence.gov.au</a>
ATC Duty Controller	Various	E: <a href="mailto:dar.atc@defence.gov.au">dar.atc@defence.gov.au</a>
<b>CFI</b>		
Director General Capital Facilities and Infrastructure	AIRCDRE Ron Tilley	E: <a href="mailto:ron.tilley@defence.gov.au">ron.tilley@defence.gov.au</a>
Director – National Projects	GPCAPT Adrian Carswell	E: <a href="mailto:adrian.carswell@defence.gov.au">adrian.carswell@defence.gov.au</a>
Project Director - National Airfield Projects	WGCDR Danny Cusack	E: <a href="mailto:danny.cusack@defence.gov.au">danny.cusack@defence.gov.au</a>
Senior Project Officer - National Airfields Projects	Paul Smit	E: <a href="mailto:paul.smit@defence.gov.au">paul.smit@defence.gov.au</a>
Assistant Project Manager	Simon Ganter	E: <a href="mailto:simon.ganter1@defence.gov.au">simon.ganter1@defence.gov.au</a>
<b>DEIC</b>		

Base Redevelopment Officer	SQNLDR David Champion	E: <a href="mailto:david.champion2@defence.gov.au">david.champion2@defence.gov.au</a>
<b>DEEP</b>		
Senior Civil Engineer – DEEP	SQNLDR Kathleen Pearce	E: <a href="mailto:adf.ces@defence.gov.au">adf.ces@defence.gov.au</a>
Assistant Director Aerodrome Policy – DEEP	TBA	E: TBA
<b>SDD</b>		
Regional Environment and Sustainability Officer	Katina Croft	E: <a href="mailto:Katina.croft@defence.gov.au">Katina.croft@defence.gov.au</a>
Base Manager – RAAF Base Darwin	Nola Chellingworth	E: <a href="mailto:Nola.chellingworth@defence.gov.au">Nola.chellingworth@defence.gov.au</a>
Assistant Base Manager	Jeff Grose	E: <a href="mailto:Jeff.grose@defence.gov.au">Jeff.grose@defence.gov.au</a>
<b>Darwin International Airport</b>		
Executive General Manager Operations	Rob Porter	E: <a href="mailto:rob.porter@adgnt.com.au">rob.porter@adgnt.com.au</a>
Head of Airside Operations	Glen Dodds	E: <a href="mailto:Glen.dodds@adgnt.com.au">Glen.dodds@adgnt.com.au</a>
Airside Manager	Mike Clancy	E: <a href="mailto:Mike.clancy@adgnt.com.au">Mike.clancy@adgnt.com.au</a>
Aerodrome Safety & Standards Manager	Bob Calaby	M: <a href="mailto:Bob.calaby@adgnt.com.au">Bob.calaby@adgnt.com.au</a>
<b>Beca Consultants (PMCA)</b>		
PMCA	Pete Muir	E: <a href="mailto:pete.muir@beca.com">pete.muir@beca.com</a>
Assistant Project Manager	Kristian Smith	E: <a href="mailto:kristian.smith@beca.com">kristian.smith@beca.com</a>
<b>Aurecon Australasia Pty Ltd (DSC)</b>		
Consultant's Representative	Tim Meinecke	E: <a href="mailto:tim.meinecke@aurecongroup.com">tim.meinecke@aurecongroup.com</a>

Project Manager	Vivian Kelly	E: <a href="mailto:vivian.kelly@aurecongroup.com">vivian.kelly@aurecongroup.com</a>
Design Manager	Kevin Dearden	E: <a href="mailto:kevin.dearden@aurecongroup.com">kevin.dearden@aurecongroup.com</a>
<b>Contractor – Fulton Hogan</b>		
Project Manager	Edward Callaghan	E: <a href="mailto:Edward.Callaghan@fultonhogan.com.au">Edward.Callaghan@fultonhogan.com.au</a>
Works Manager	Dayne Clarke	E: <a href="mailto:Dayne.Clarke@fultonhogan.com.au">Dayne.Clarke@fultonhogan.com.au</a>
<b>OZ Airports - Works Safety Officer (WSO)</b>		
Director	Rod Cecchini	E: <a href="mailto:admin@ozairports.com.au">admin@ozairports.com.au</a> <a href="mailto:rod.cecchini@ozairports.com.au">rod.cecchini@ozairports.com.au</a>
NT Manager	Simon Spence	E: <a href="mailto:simon.spence@ozairports.com.au">simon.spence@ozairports.com.au</a>
<b>Tarmac Aerodrome Operations (WSO)</b>		
Director	Jason Dechaineux	E: <a href="mailto:jason@taops.com.au">jason@taops.com.au</a>

## 7.7 Distribution

This MOWP is to be distributed to all of the persons and agencies listed in the Distribution List attached at **ANNEX A**.

8 AUTHORITY

8.1 Issue

This MOWP is issued in accordance with CASA Part 139 MOS – Aerodromes (CASA, 2019).

All work must be carried out in accordance with these documents and the specific requirements of this MOWP.

8.2 Variation



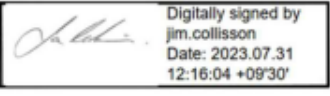
Requests or proposals to vary the MOWP, as well as queries on its content or meaning, are to be directed to the RAAF Base Representative FLTLT Heming and DIA Representative Glen Dodds.

8.3 Expiry

This MOWP will remain effective until 28 February 2025 unless extended by amendment.

8.4 Approval

Under the authority of the following signatures, this MOWP is approved for release.

		
<b>Rob Porter</b> Executive General Manager Operations Darwin International Airport	<b>Lou Kramer</b> Acting Base Manager RAAF Base Darwin	<b>WGCDR Jim Collisson</b> CO 13 Squadron Senior ADF Officer RAAF Base Darwin

**9 ANNEX A – DISTRIBUTION LISTS**

<b>RAAF BASE Darwin</b>		
<b>13 SQN – RAAF Darwin</b>		
WGCDR Jim Collisson	SADFO	<a href="mailto:Jim.collisson@defence.gov.au">Jim.collisson@defence.gov.au</a>
SQNLDR Andrew Miller	ABXO	<a href="mailto:andrew.miller10@defence.gov.au">andrew.miller10@defence.gov.au</a>
SQNLDR Toan Nguyen	Airbase Operations FLTCDR	<a href="mailto:toan.nguyen@defence.gov.au">toan.nguyen@defence.gov.au</a>
FLTLT David Champion	Base Infrastructure Advisor	<a href="mailto:Dar.13sqnbia@defence.gov.au">Dar.13sqnbia@defence.gov.au</a>
FLTLT Mitchel Heming	BAEO	<a href="mailto:mitchell.heming@defence.gov.au">mitchell.heming@defence.gov.au</a> <a href="mailto:dar.baео@defence.gov.au">dar.baео@defence.gov.au</a>
FLTLT Jay Murray	BASO 13 SQN	<a href="mailto:Dar.baso@defence.gov.au">Dar.baso@defence.gov.au</a>
SGT Troy Ammerlaan CPL Luke O'Brien	AAS SNCO MEOMS 13 SQN	<a href="mailto:troy.ammerlaan@defence.gov.au">troy.ammerlaan@defence.gov.au</a> <a href="mailto:luke.obrien4@defence.gov.au">luke.obrien4@defence.gov.au</a>
WOFF Paul Healey	MEOMS 13 SQN	<a href="mailto:Paul.healey@defence.gov.au">Paul.healey@defence.gov.au</a>
Air Base Command Post	ABCP	<a href="mailto:dar.abcp@defence.gov.au">dar.abcp@defence.gov.au</a>
<b>452 SQN DAR FLT – RAAF ATC</b>		
SQNLDR Marty Ferguson	Flight Commander	<a href="mailto:452SQNDAR.FLTCDR@defence.gov.au">452SQNDAR.FLTCDR@defence.gov.au</a>
SQNLDR James Lee	Operations Commander	<a href="mailto:452SQNDAR.OPSCDR@defence.gov.au">452SQNDAR.OPSCDR@defence.gov.au</a>
FLGOFF Mohamed Shahim	OIC ATC	<a href="mailto:Mohamed.shahim@defence.gov.au">Mohamed.shahim@defence.gov.au</a>
452SQN – Various	Duty Controller	<a href="mailto:DAR.ATC@defence.gov.au">DAR.ATC@defence.gov.au</a> <a href="mailto:452sqndarflt.FlightData@defence.gov.au">452sqndarflt.FlightData@defence.gov.au</a> <a href="mailto:452sqn.darflttom@defence.gov.au">452sqn.darflttom@defence.gov.au</a>
<b>Defence Support – RAAF Base Darwin</b>		
Nola Chellingworth	Base Manager RAAF Base Darwin	<a href="mailto:nola.chellingworth@defence.gov.au">nola.chellingworth@defence.gov.au</a>

Jeff Grose	Senior Base Support Operations Officer	<a href="mailto:Jeffrey.Grose@defence.gov.au">Jeffrey.Grose@defence.gov.au</a>
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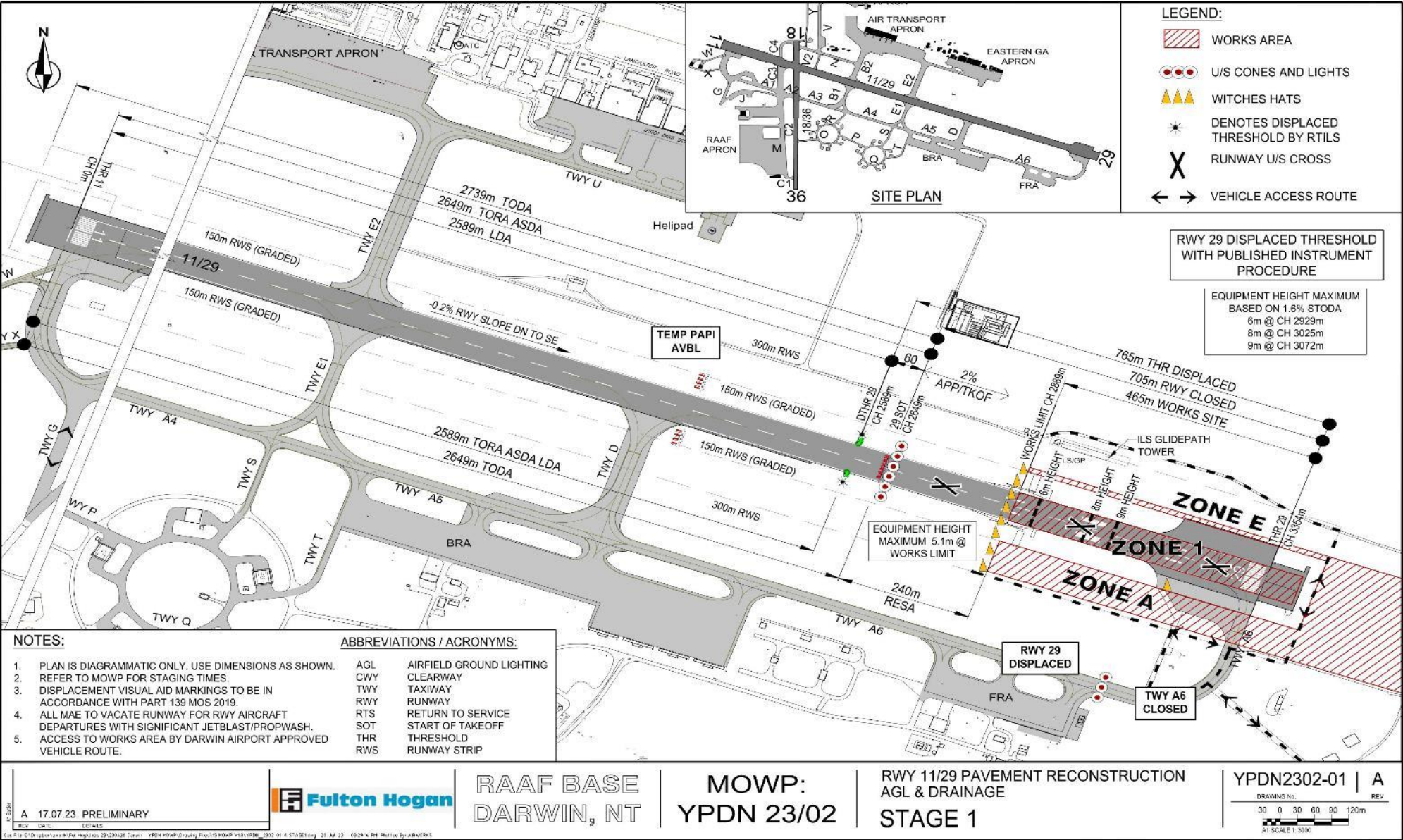
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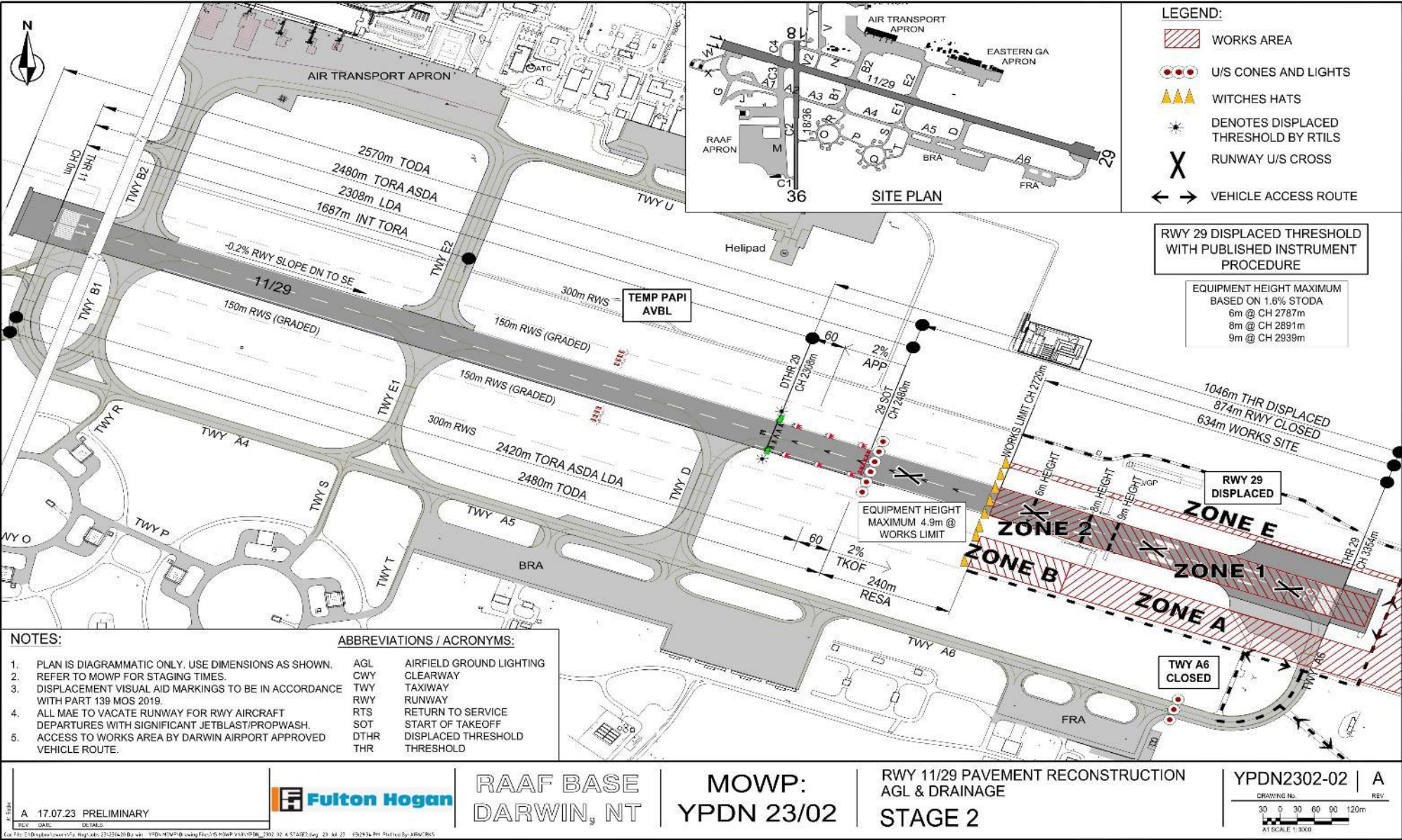


10 ANNEX B – DRAWINGS – STAGE 1

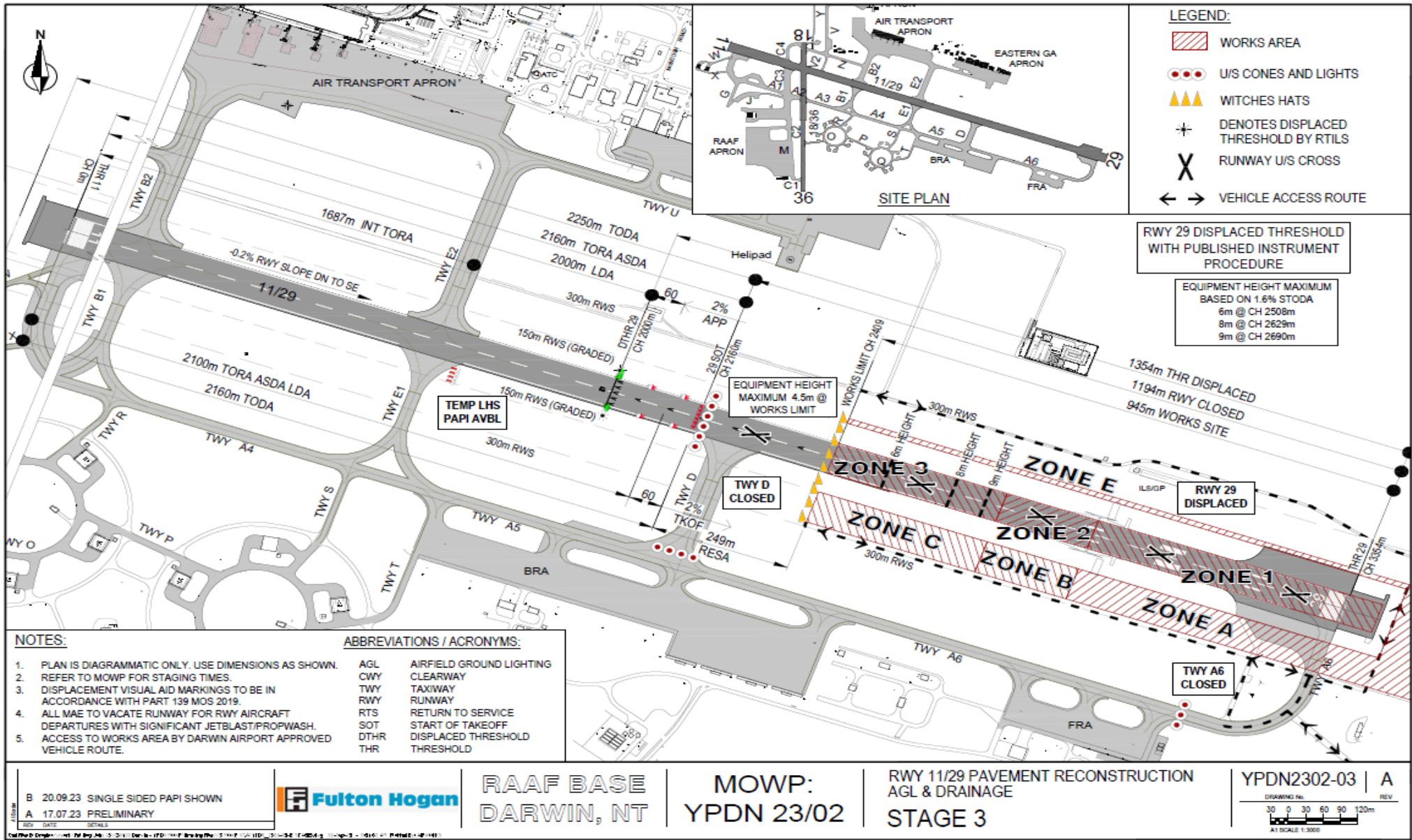




11 ANNEX B – DRAWINGS – STAGE 2

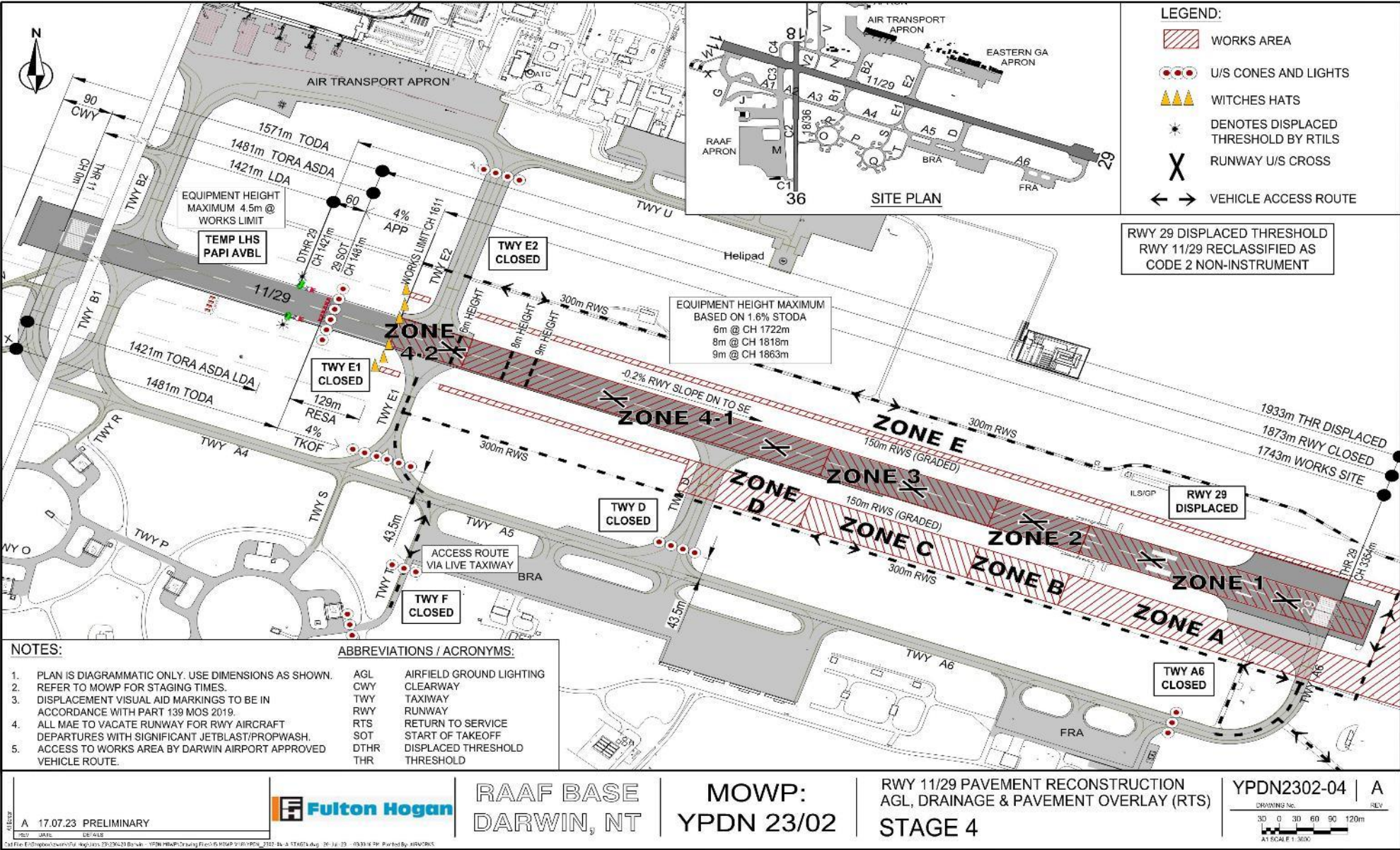


12 ANNEX B – DRAWINGS – STAGE 3



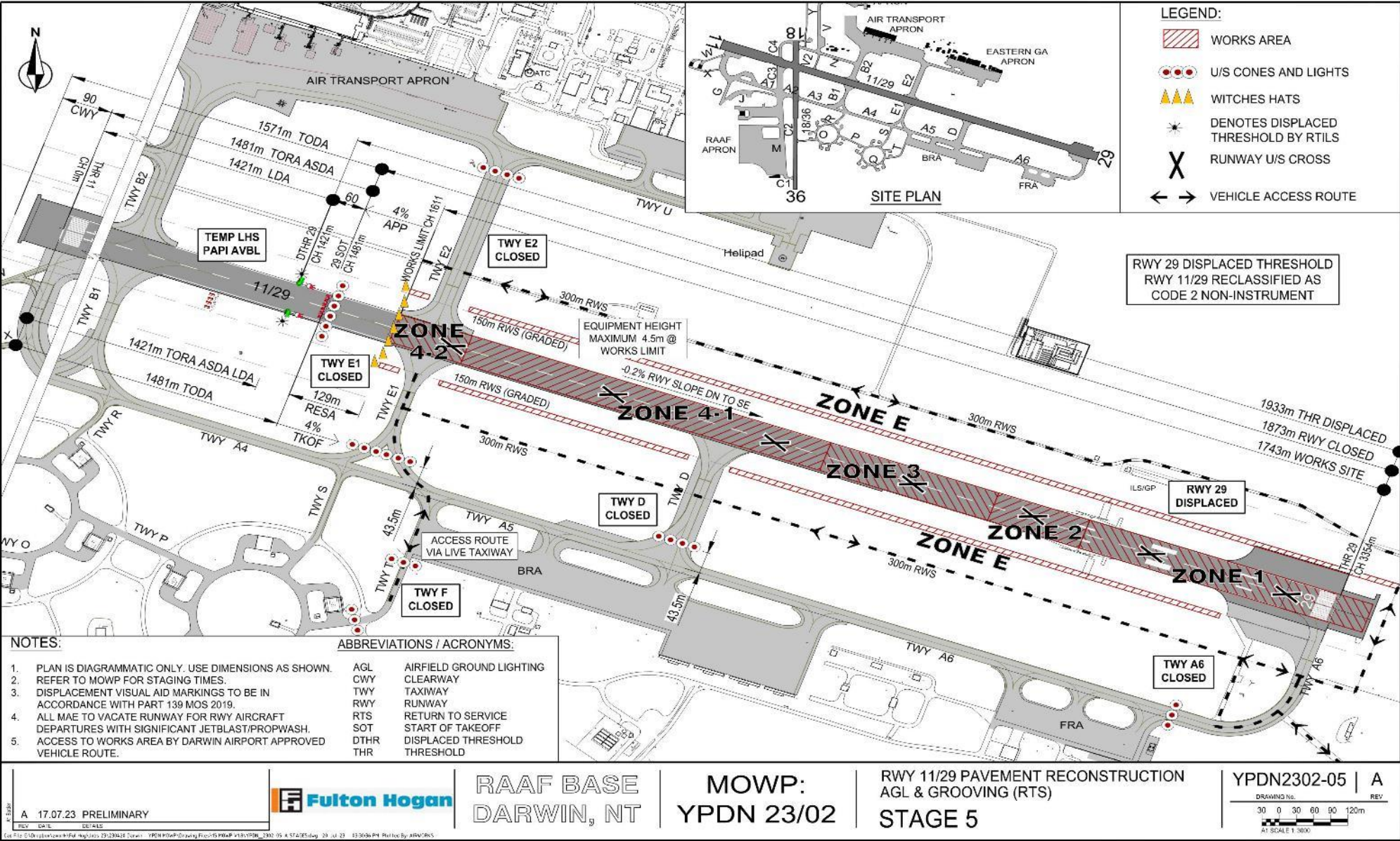


13 ANNEX B – DRAWINGS – STAGE 4





14 ANNEX B – DRAWINGS – STAGE 5





**LEGEND:**

- WORKS AREA
- U/S CONES AND LIGHTS
- WITCHES HATS
- DENOTES DISPLACED THRESHOLD BY RTLS
- RUNWAY U/S CROSS
- VEHICLE ACCESS ROUTE

**NOTES:**

- PLAN IS DIAGRAMMATIC ONLY. USE DIMENSIONS AS SHOWN. REFER TO MOWP FOR STAGING TIMES.
- DISPLACEMENT VISUAL AID MARKINGS TO BE IN ACCORDANCE WITH PART 139 MOS 2019.
- ALL MAE TO VACATE RUNWAY FOR RWY AIRCRAFT DEPARTURES WITH SIGNIFICANT JETBLAST/PROPWASH. ACCESS TO WORKS AREA BY DARWIN AIRPORT APPROVED VEHICLE ROUTE.

**ABBREVIATIONS / ACRONYMS:**

AGL	AIRFIELD GROUND LIGHTING
CWY	CLEARWAY
TWY	TAXIWAY
RWY	RUNWAY
RTS	RETURN TO SERVICE
SOT	START OF TAKEOFF
DTHR	DISPLACED THRESHOLD
THR	THRESHOLD

**RAAF BASE DARWIN, NT**

**MOWP: YPDN 23/02**

**RWY 11/29 PAVEMENT RECONSTRUCTION AGL & GROOVING (RTS) STAGE 6**

**YPDN2302-06 | A**

**Fulton Hogan**

**RAAF BASE DARWIN, NT**

**MOWP: YPDN 23/02**

**RWY 11/29 PAVEMENT RECONSTRUCTION AGL & GROOVING (RTS) STAGE 6**

**YPDN2302-06 | A**

**30 0 30 60 90 120m**

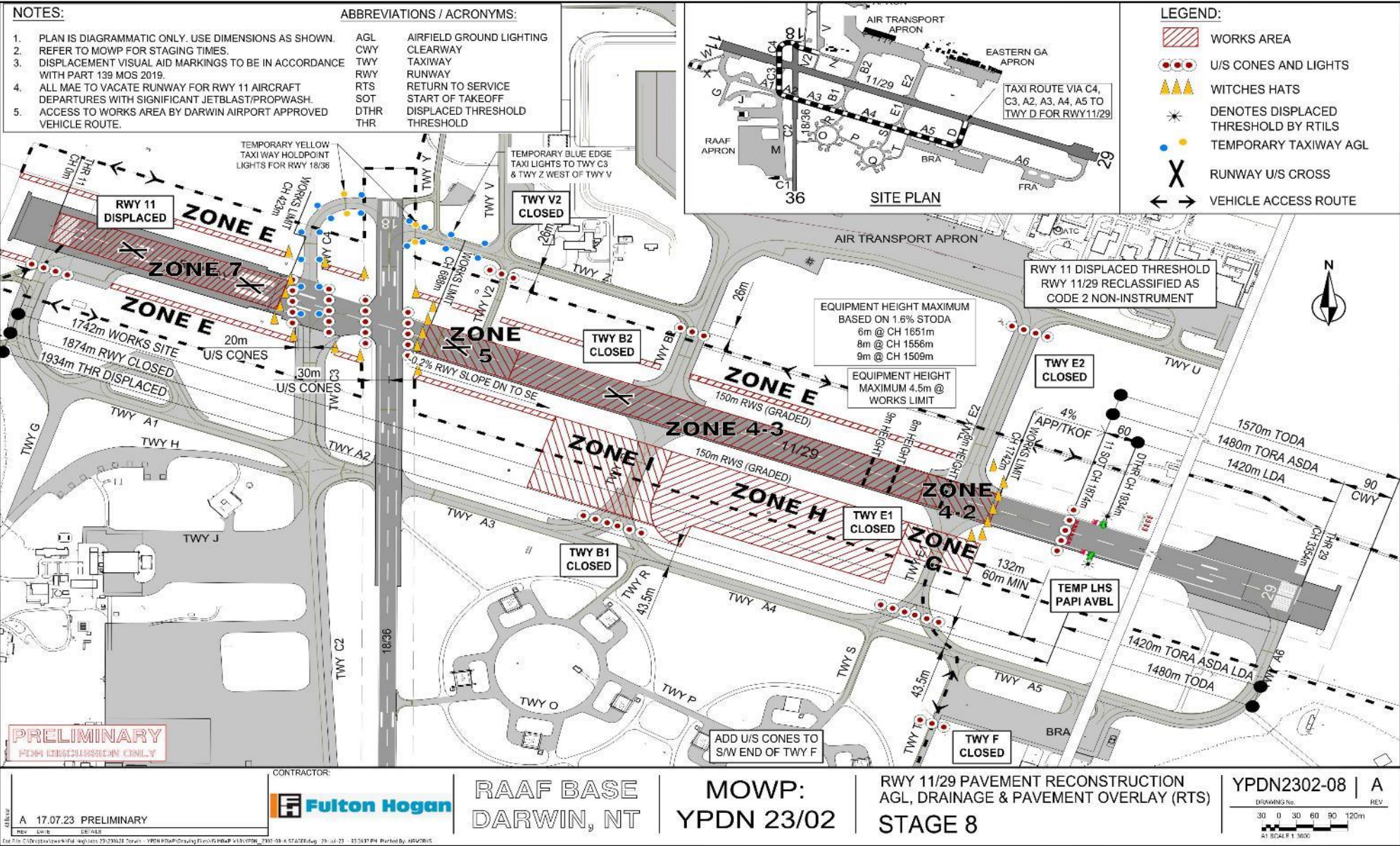
**AT SCALE 1:3000**



[illegible]



17 ANNEX B – DRAWINGS – STAGE 8





**NOTES:**

- PLAN IS DIAGRAMMATIC ONLY. USE DIMENSIONS AS SHOWN.
- REFER TO MOWP FOR STAGING TIMES.
- DISPLACEMENT VISUAL AID MARKINGS TO BE IN ACCORDANCE WITH PART 139 MOS 2019.
- ALL MAE TO VACATE RUNWAY FOR RWY 11 AIRCRAFT DEPARTURES WITH SIGNIFICANT JETBLAST/PROPWASH.
- ACCESS TO WORKS AREA BY DARWIN AIRPORT APPROVED VEHICLE ROUTE.

**ABBREVIATIONS / ACRONYMS:**

AGL	AIRFIELD GROUND LIGHTING
CWY	CLEARWAY
TWY	TAXIWAY
RWY	RUNWAY
RTS	RETURN TO SERVICE
SOT	START OF TAKEOFF
DTHR	DISPLACED THRESHOLD
THR	THRESHOLD

**LEGEND:**

- WORKS AREA
- U/S CONES AND LIGHTS
- WITCHES HATS
- DENOTES DISPLACED THRESHOLD BY RTILS
- X RUNWAY U/S CROSS
- VEHICLE ACCESS ROUTE



**NOTES:**

1. PLAN IS DIAGRAMMATIC ONLY. USE DIMENSIONS AS SHOWN.
2. REFER TO MOWP FOR STAGING TIMES.
3. DISPLACEMENT VISUAL AID MARKINGS TO BE IN ACCORDANCE WITH PART 139 MOS 2019.
4. ALL MAE TO VACATE RUNWAY FOR RWY 11 AIRCRAFT DEPARTURES WITH SIGNIFICANT JETBLAST/PROPWASH.
5. ACCESS TO WORKS AREA BY DARWIN AIRPORT APPROVED VEHICLE ROUTE.

**ABBREVIATIONS / ACRONYMS:**

AGL	AIRFIELD GROUND LIGHTING
CWY	CLEARWAY
TWY	TAXIWAY
RWY	RUNWAY
RTS	RETURN TO SERVICE
SOT	START OF TAKEOFF
DTHR	DISPLACED THRESHOLD
THR	THRESHOLD

**LEGEND:**

- WORKS AREA
- U/S CONES AND LIGHTS
- WITCHES HATS
- DENOTES DISPLACED THRESHOLD BY RTILS
- TEMPORARY TAXIWAY AGL
- RUNWAY U/S CROSS
- VEHICLE ACCESS ROUTE

**SITE PLAN**

**RAAF BASE DARWIN, NT**

**MOWP: YPDN 23/02**

**RWY 11/29 PAVEMENT RECONSTRUCTION AGL, DRAINAGE & PAVEMENT OVERLAY (RTS) STAGE 10**

**YPDN2302-10 | A**

**CONTRACTOR: Fulton Hogan**

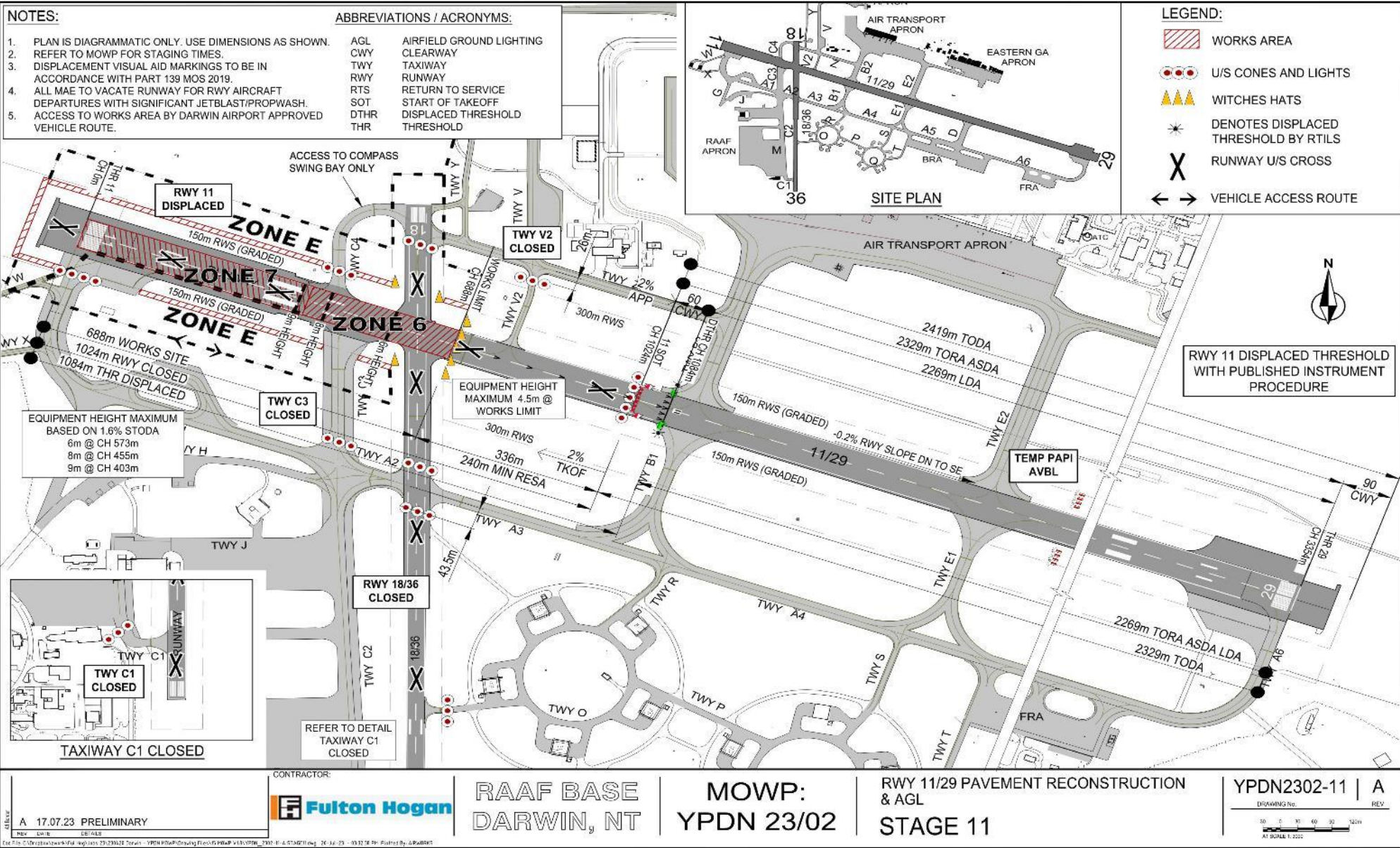
**DATE: 17.07.23 PRELIMINARY**

**DRAWING NO. 30 0 30 60 90 120m**

**SCALE: 1:3000**

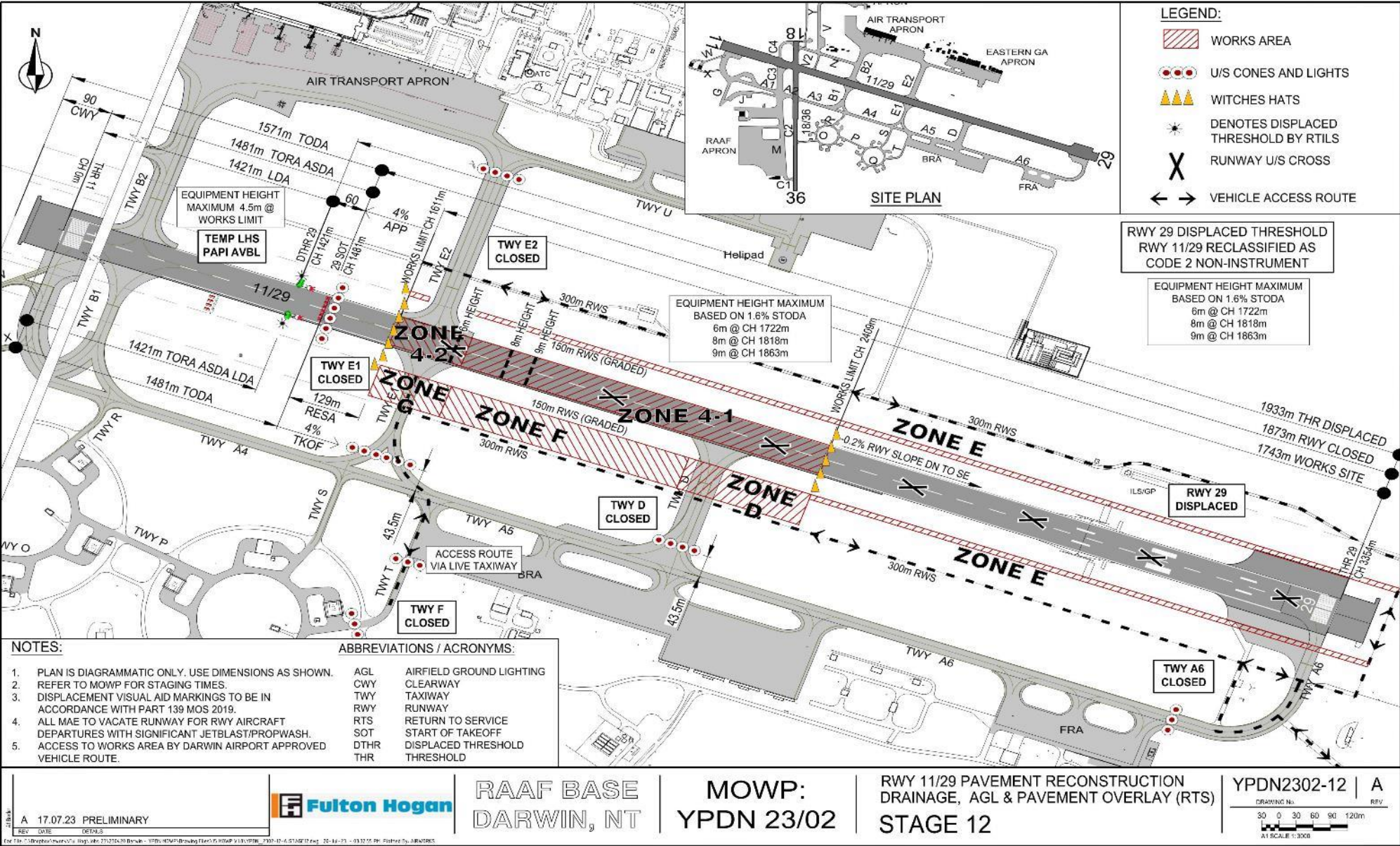


20 ANNEX B – DRAWINGS – STAGE 11





21 ANNEX B – DRAWINGS – STAGE 12





**NOTES:**

1. PLAN IS DIAGRAMMATIC ONLY. USE DIMENSIONS AS SHOWN.
2. REFER TO MOWP FOR STAGING TIMES.
3. DISPLACEMENT VISUAL AID MARKINGS TO BE IN ACCORDANCE WITH PART 139 MOS 2019.
4. ALL MAE TO VACATE RUNWAY FOR RWY AIRCRAFT DEPARTURES WITH SIGNIFICANT JETBLAST/PROPWASH.
5. ACCESS TO WORKS AREA BY DARWIN AIRPORT APPROVED VEHICLE ROUTE.

**ABBREVIATIONS / ACRONYMS:**

AGL	AIRFIELD GROUND LIGHTING
CIWY	CLEARWAY
TWY	TAXIWAY
RWY	RUNWAY
RTS	RETURN TO SERVICE
SOT	START OF TAKEOFF
DTHR	DISPLACED THRESHOLD
THR	THRESHOLD

**LEGEND:**

- WORKS AREA
- U/S CONES AND LIGHTS
- WITCHES HATS
- DENOTES DISPLACED THRESHOLD BY RTILS
- RUNWAY U/S CROSS
- VEHICLE ACCESS ROUTE

**SITE PLAN**

**RAAF BASE DARWIN, NT**

**MOWP: YPDN 23/02**

**RWY 11/29 PAVEMENT RECONSTRUCTION AGL FLIGHT TEST (RTS) STAGE 13**

**YPDN2302-13 | A**

**CONTRACTOR: Fulton Hogan**

**DATE: 17.07.23 PRELIMINARY**

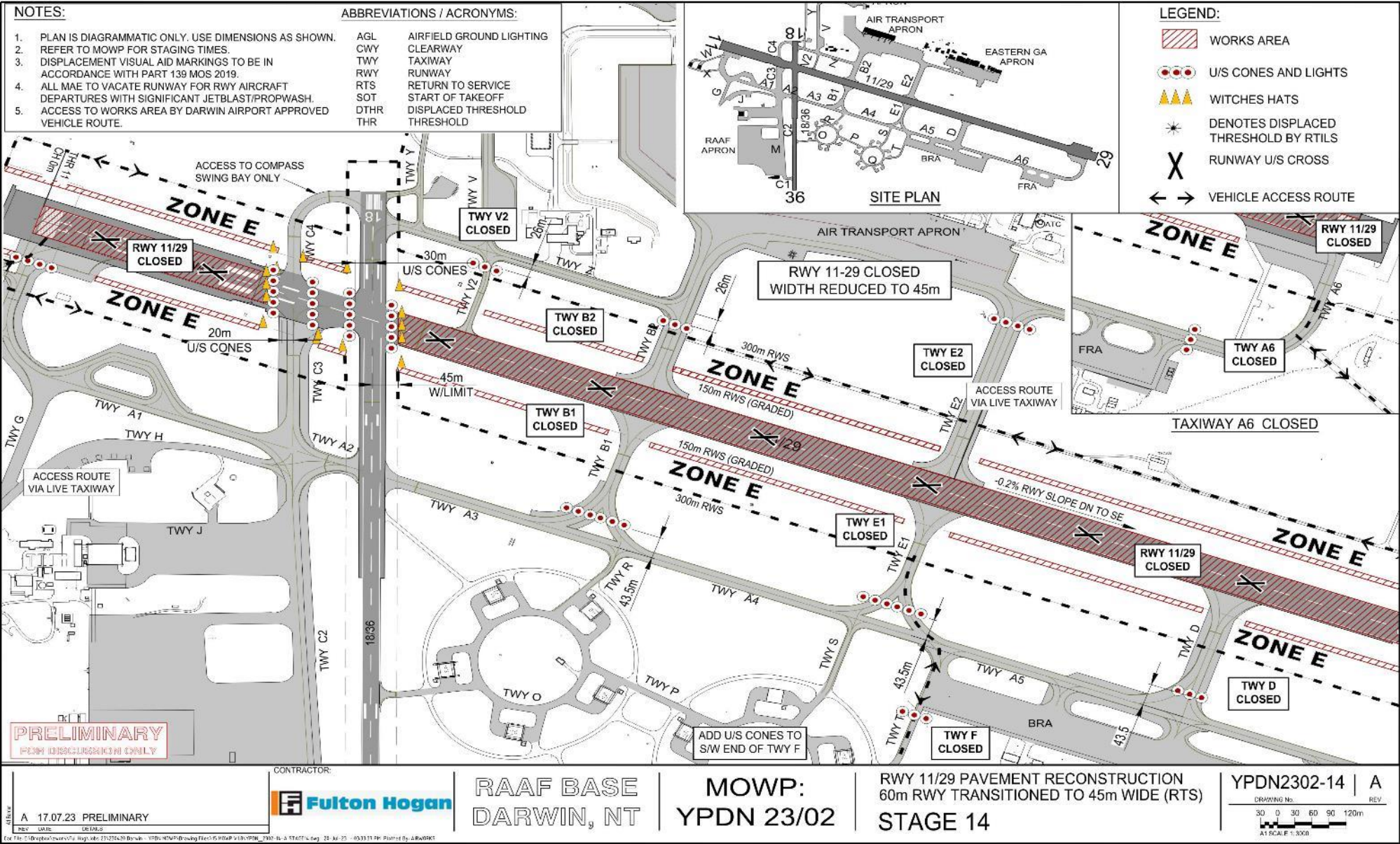
**SCALE: 1:3000**

**REVISIONS:**

NO.	DATE	DESCRIPTION
1	17.07.23	PRELIMINARY



23 ANNEX B – DRAWINGS – STAGE 14





**NOTES:**

1. PLAN IS DIAGRAMMATIC ONLY. USE DIMENSIONS AS SHOWN.
2. REFER TO MOWP FOR STAGING TIMES.
3. DISPLACEMENT VISUAL AID MARKINGS TO BE IN ACCORDANCE WITH PART 139 MOS 2019.
4. ALL MAE TO VACATE RUNWAY FOR RWY AIRCRAFT DEPARTURES WITH SIGNIFICANT JETBLAST/PROPWASH.
5. ACCESS TO WORKS AREA BY DARWIN AIRPORT APPROVED VEHICLE ROUTE.

**ABBREVIATIONS / ACRONYMS:**

AGL	AIRFIELD GROUND LIGHTING
CWY	CLEARWAY
TWY	TAXIWAY
RWY	RUNWAY
RTS	RETURN TO SERVICE
SOT	START OF TAKEOFF
DTHR	DISPLACED THRESHOLD
THR	THRESHOLD

**LEGEND:**

- WORKS AREA
- U/S CONES AND LIGHTS
- WITCHES HATS
- DENOTES DISPLACED THRESHOLD BY RTILS
- RUNWAY U/S CROSS
- VEHICLE ACCESS ROUTE

**SITE PLAN**

**RAAF BASE DARWIN, NT**

**MOWP: YPDN 23/02**

**RWY 11/29 PAVEMENT RECONSTRUCTION AGL & GROOVING (RTS)**

**STAGE 15**

**YPDN2302-15 | A**

**CONTRACTOR: Fulton Hogan**

**DATE: 17.07.23 PRELIMINARY**

**SCALE: 1:3000**



**NOTES:**

1. PLAN IS DIAGRAMMATIC ONLY. USE DIMENSIONS AS SHOWN.
2. REFER TO MOWP FOR STAGING TIMES.
3. DISPLACEMENT VISUAL AID MARKINGS TO BE IN ACCORDANCE WITH PART 139 MOS 2019.
4. ALL MAE TO VACATE RUNWAY FOR RWY 11 AIRCRAFT DEPARTURES WITH SIGNIFICANT JETBLAST/PROPWASH.
5. ACCESS TO WORKS AREA BY DARWIN AIRPORT APPROVED VEHICLE ROUTE.

**ABBREVIATIONS / ACRONYMS:**

AGL	AIRFIELD GROUND LIGHTING
CWY	CLEARWAY
TWY	TAXIWAY
RWY	RUNWAY
RTS	RETURN TO SERVICE
SOT	START OF TAKEOFF
DTHR	DISPLACED THRESHOLD
THR	THRESHOLD

**LEGEND:**

- WORKS AREA
- U/S CONES AND LIGHTS
- WITCHES HATS
- DENOTES DISPLACED THRESHOLD BY RTLS
- TEMPORARY TAXIWAY AGL
- RUNWAY U/S CROSS
- VEHICLE ACCESS ROUTE

**SITE PLAN**

**PRELIMINARY FOR DISCUSSION ONLY**

**CONTRACTOR:** **Fulton Hogan**

**RAAF BASE DARWIN, NT**

**MOWP: YPDN 23/02**

**RWY 11/29 PAVEMENT RECONSTRUCTION AGL & GROOVING (RTS) STAGE 16**

**YPDN2302-16 | A**

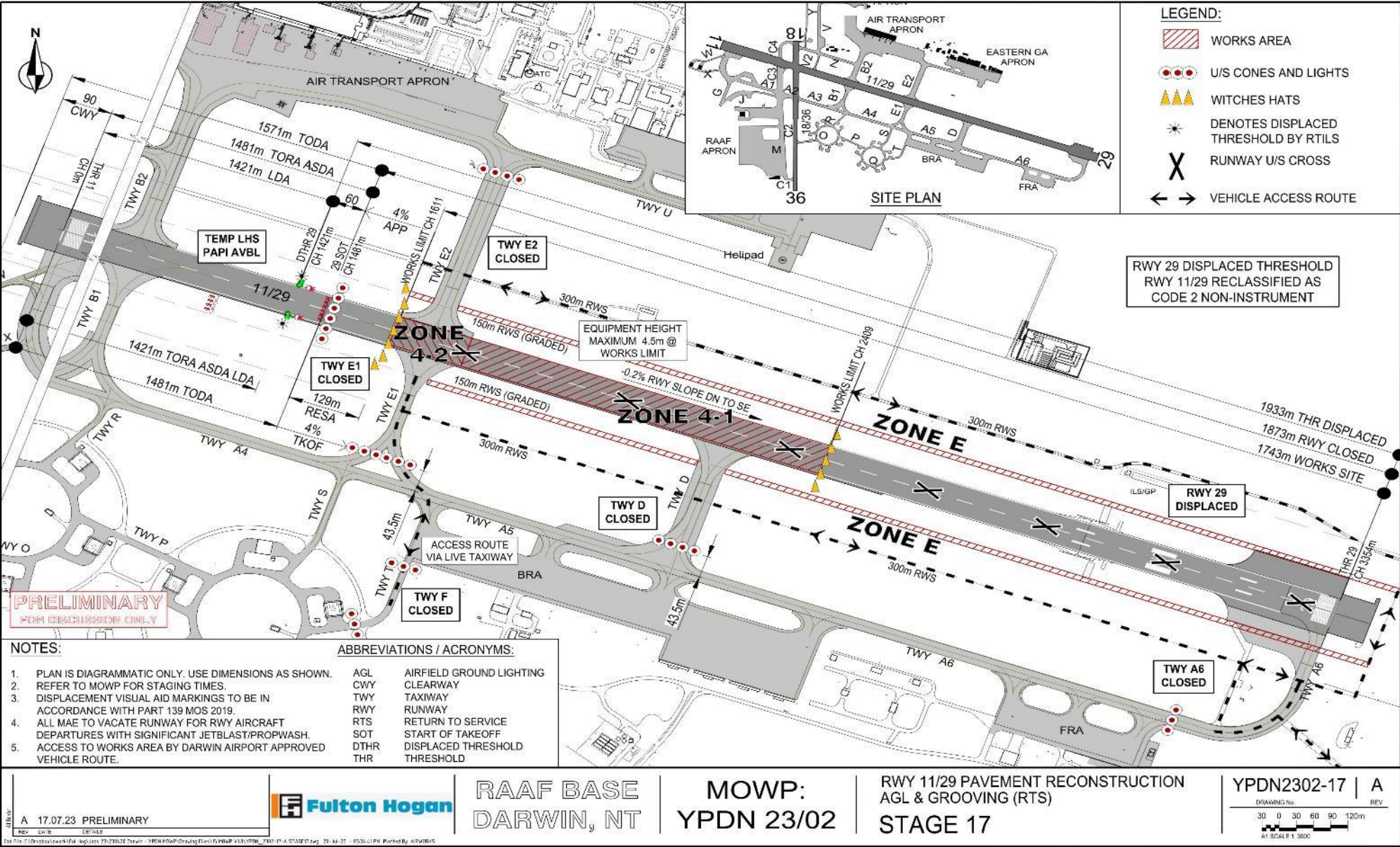
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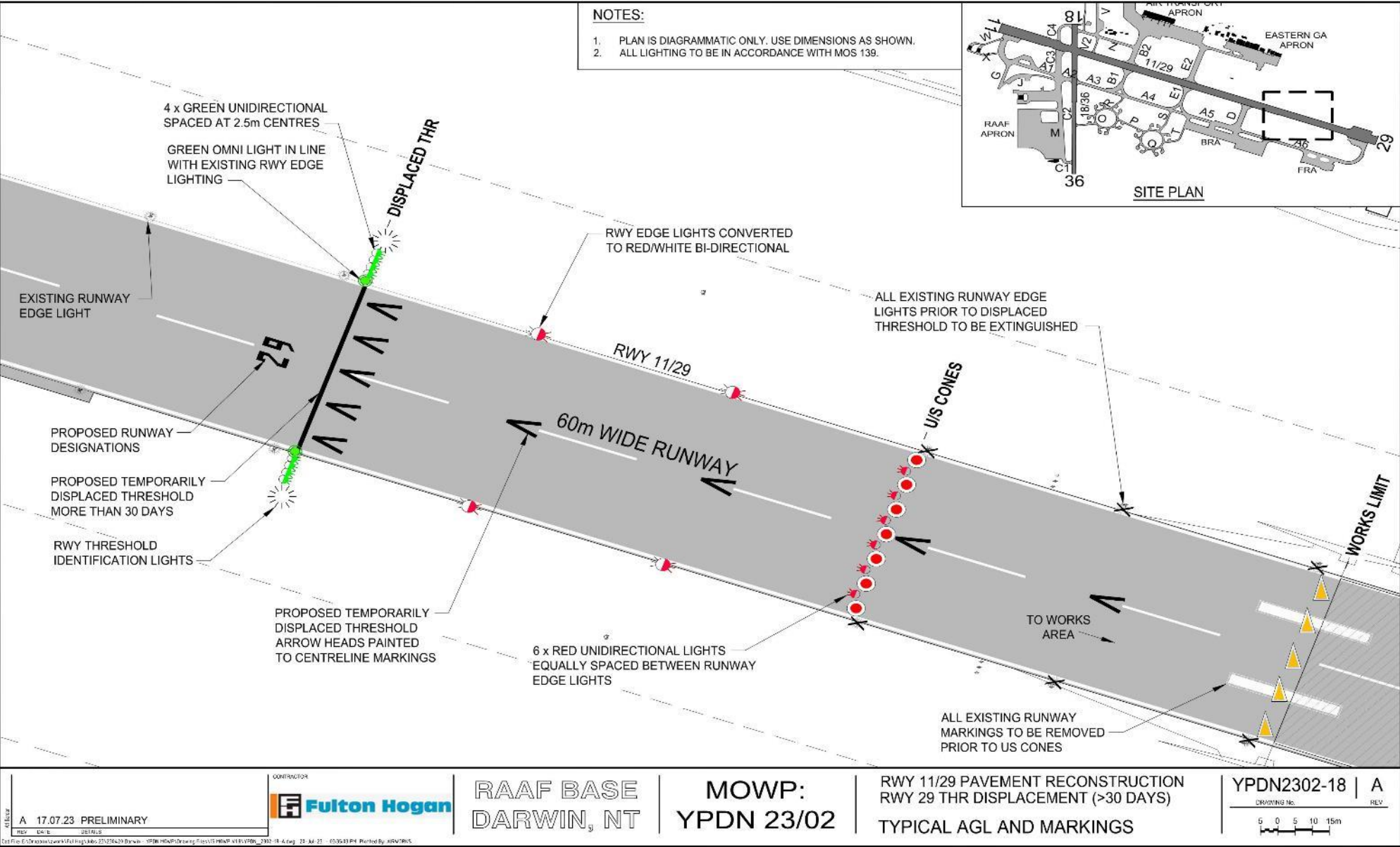


26 ANNEX B – DRAWINGS – STAGE 17

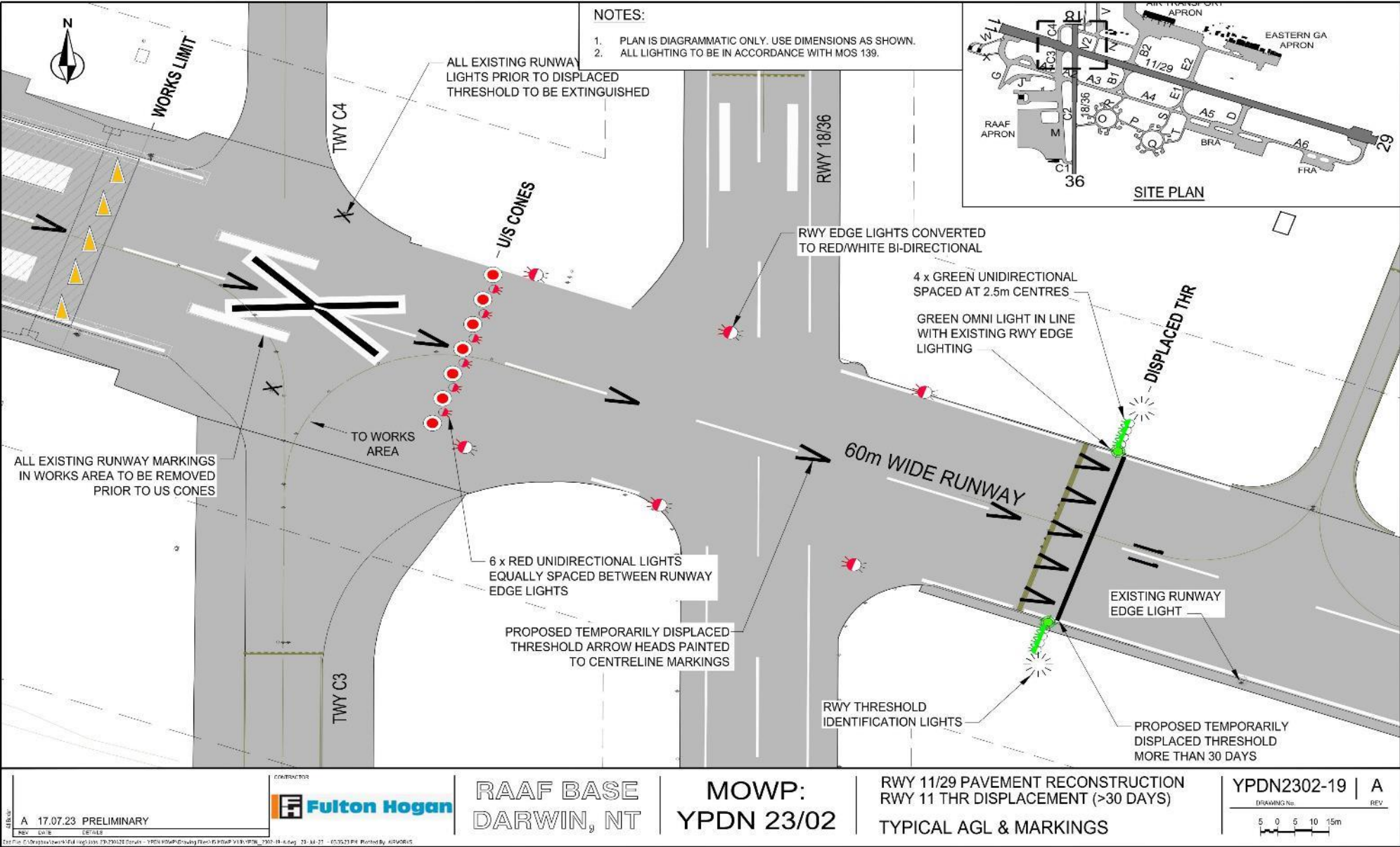




27 ANNEX B - TEMP DISPLACED THRESHOLD (RWY29) (>30 DAYS)



28 ANNEX B – TEMP DISPLACED THRESHOLD (RWY11) (>30 DAYS)



29 ANNEX B – AIRCRAFT JETBLAST PROFILES

