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CIVIL | ENVIRONMENTAL | PROJECT MANAGEMENT

BEAUDESERT & BOONAH CRANES

149 SANDY CREEK ROAD, BROMELTON QLD 4285

LOCALITY PLAN
N.T.S

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				SURVEY DATA
				DATUM
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3	INCLUSION OF VEGETATION BUFFER, RELOCATED DRAIN	MLS	22/04/24	HEIGHT ORIGIN
2	FOR APPROVAL	NJF	10/04/24	SURVEY BOOKS
1	PRELIMINARY	NJF	28/09/23	
	REVISION/DETAILS	DWN	DATE	DES DATE

FILE: C:\12DS\DATA\ACSSYN\230068 BEAUDESERT & BOONAH CRANES - 149 SANDY CREEK ROAD, BROMELTON_681\DESIGN\DRAWING FILES\ACS-230068-GEN.DWG PLOT TIME: 24/4/2024 - 9:24AM BY USER: MALINDASELLARS

BEAUDESERT & BOONAH CRANES

48 KOOROOMBA DRIVE, MT ALFORD QLD 4310

BEAUDESERT & BOONAH CRANES

149 SANDY CREEK ROAD, BROMELTON QLD 4285

COVER SHEET

ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		24/04/24

PO Box 554
Beaudesert QLD 4285

(07) 5541 3500
www.acsengineers.com.au

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DRAWING NUMBER: ACS-230068-GEN-01

REVISION: 3

GENERAL NOTES

1. THE BILL OF QUANTITIES (BOQ) IS PROVIDED AS A GUIDE ONLY. THE CONTRACTOR IS TO REVIEW THIS BOQ AGAINST THE PLANS AND VERIFY QUANTITIES AS A PART OF THEIR DUE DILIGENCE IN TENDERING. ANY DISCREPANCIES ARE TO BE REFERRED TO ACS ENGINEERS FOR CLARIFICATION.
2. THE CONTRACTOR IS RESPONSIBLE FOR ACCURATELY ASCERTAINING THE LOCATION OF EXISTING UNDERGROUND AND OVERHEAD SERVICES PRIOR TO THE COMMENCEMENT OF WORKS.
3. REFER ANY DISCREPANCY TO THE PRINCIPLE ENGINEER BEFORE PROCEEDING WITH THE WORK.
4. PRIOR TO CONSTRUCTION LOCATE ALL EXISTING SERVICES IN THE VICINITY THAT MAY BE AFFECTED BY THE PROPOSED CONSTRUCTION.
5. DESIGN LEVELS TO BE CONFIRMED ON SITE PRIOR TO COMMENCING CONSTRUCTION.
6. CONCRETE ELEMENTS INCLUDING KERBS, FOOTPATHS, DRIVEWAYS ETC. SHALL BE SAW CUT WHERE REQUIRED AND SHALL BE REPLACED WITH MATCHING SURFACE TEXTURE AND TREATMENT AS ADJOINING SURFACES OR AS SPECIFIED IN THE DRAWINGS. NEW SURFACE SHALL MATCH SMOOTHLY WITH ADJOINING SURFACES.

SURVEY:

1. THE DATUM FOR ALL LEVELS IS THE AUSTRALIAN HEIGHT DATUM IN METRES AND PROJECTIONS ARE BASED ON MGA 94 ZONE 56 COORDINATE SYSTEM.
2. THE ACCURACY OF PROPERTY BOUNDARIES IS NOT TO BE RELIED UPON AND SHOULD BE VERIFIED BY THE SURVEYOR.
3. SOME SERVICES HAVE BEEN EXPOSED AND LOCATED BUT OTHER SERVICE POSITIONS ARE DERIVED FROM SURFACE FEATURES ONLY. PRIOR TO EXCAVATION THE RELEVANT AUTHORITY SHOULD BE CONTACTED FOR DETAILED LOCATION OF ALL SERVICES.

SITE ACCESS:

1. PRIOR TO THE COMMENCEMENT OF SITE WORKS, THE LOCATION OF THE SITE ACCESS POINT MUST BE VERIFIED WITH RELEVANT AUTHORITY.
2. SITE ACCESS IS RESTRICTED TO ONE LOCATION.
3. SITE EXIT POINT MUST BE APPROPRIATELY MANAGED TO MINIMISE THE RISK OF SEDIMENT BEING TRACKED ONTO SEALED PUBLIC ROADWAYS.
4. STORMWATER RUNOFF FROM ACCESS ROADS AND STABILISED ENTRY/EXIT POINTS MUST DRAIN TO AN APPROPRIATE SEDIMENT CONTROL DEVICE.

EARTHWORKS - GENERAL

1. THE CONTRACTOR IS TO STRIP THE CONSTRUCTION AREA OF ALL GRASS, SHRUBS, RUBBISH, DELETERIOUS MATERIAL AND UNSUITABLE TOPSOIL AS NOMINATED BY THE ENGINEER.
2. DISPOSAL OF UNSUITABLE MATERIAL IS TO BE ONSITE. TOPSOIL APPROVED BY THE CLIENT FOR REUSE, IS TO BE STOCKPILED ON SITE AS DIRECTED.
3. BULK EARTHWORKS IS TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL STANDARDS AND THE REQUIREMENTS OF AS3798.
4. ALL FILL UNDER FOOTINGS AND SLABS SHALL BE COMPACTED IN LAYERS NOT GREATER THAN 200mm TO 98% STANDARD COMPACTION FOR COHESIVE MATERIALS OR A DENSITY INDEX OF NOT LESS THAN 70% FOR NON COHESIVE MATERIALS.
5. ALL EARTHWORKS ARE TO BE UNDERTAKEN UNDER THE LEVEL 1 INSPECTION AND TESTING REQUIREMENTS OUTLINED IN AS3798.
6. THE CONTRACTOR SHALL PROVIDE DETAILS OF ALL TESTING TO THE SUPERVISING ENGINEER PROGRESSIVELY THROUGH THE WORKS AND NOTIFY THE ENGINEER OF ANY NON-CONFORMANCES. ALL NON CONFORMING WORK IS TO BE RECTIFIED.
7. PRIOR TO WORKS PROCEEDING, REMOVE SOFT AND OR COMPRESSIBLE ZONES AND REPLACE WITH SELECT SITE MATERIAL COMPACTED TO A DENSITY CONSISTENT WITH THAT NOTED FOR THE PROPOSED FILLING.
8. IT IS THE CONTRACTORS RESPONSIBILITY TO PROTECT THE SITE AND SURROUNDING AREAS FROM DAMAGE RESULTING FROM STORMWATER RUNOFF. TEMPORARY DIVERSION DRAINS AND OR OTHER DRAINAGE CONTROL DEVICES ARE TO BE IMPLEMENTED BY THE CONTRACTOR DURING CONSTRUCTION TO MINIMISE THE EFFECTS OF WEATHER.
9. ALL FILL MATERIAL PLACED ON THE SITE COMPRISING ONLY NATURAL EARTH AND ROCK IS TO BE FREE OF CONTAMINANTS (AS DEFINED BY SECTION 11 OF THE ENVIRONMENTAL PROTECTION ACT (EPA) 1994), NOXIOUS, HAZARDOUS, DELETERIOUS AND ORGANIC MATERIALS.
10. IMPORTED FILL FOR BUILDING PAD SHALL MEET THE REQUIREMENTS OF AS3798 FOR IMPORTED FILL.
11. BUILDING PAD TO BE KEYED INTO NATURAL SURFACE AFTER TOPSOIL STRIP.

EARTHWORKS - ROADWAYS

1. CLEARING AND GRUBBING SHALL BE LIMITED TO THOSE AREAS REQUIRED TO CONSTRUCT THE WORKS AND/OR MEET VISIBILITY REQUIREMENTS.
2. CLEARED AND GRUBBED MATERIAL OTHER THAN THAT MULCHED SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL RELEVANT STATUTORY REQUIREMENTS.
3. WHERE WHEREVER PRACTICAL TOPSOIL SHALL BE TRANSFERRED DIRECTLY TO PLACEMENT AS PLANTING MEDIA. WHERE STOCKPILING OF TOPSOIL IS REQUIRED, IT SHALL BE CARRIED OUT IN A MANNER WHICH ENSURES THE PROPERTIES OF THE TOPSOIL ARE NOT PERMITTED TO DEGRADE SUCH THAT IT BECOMES UNSUITABLE AS PLANTING MEDIA.
4. WHERE UNSUITABLE MATERIAL MATERIAL IS ENCOUNTERED ONSITE, THE FOREMAN SHALL NOTIFY THE PROJECT ENGINEER BEFORE PROCEEDING TO REMOVE OR COVER SUCH MATERIAL.
5. MATERIAL USED FOR CONSTRUCTION OF SUBGRADE IN ROAD EMBANKMENT, WHERE DIRECTED, SHALL BE GENERAL FILL MATERIAL SUITABLE FOR PLACEMENT USING THE COMPACTED LAYER METHOD AND HAS A MAXIMUM STONE SIZE OF 75mm.

EXCAVATION ADJACENT TO POWER POLES:

1. POSSIBLE TRENCH SHORING REQUIREMENTS NEAR POWER POLES TO BE COORDINATED WITH ENERGEX AND THE APPROPRIATE APPROVALS TO BE OBTAINED FROM ENERGEX PRIOR TO CONSTRUCTION COMMENCEMENT.
2. ANY TRENCHING REQUIREMENTS ADJACENT TO EXISTING POWER POLES SHALL HAVE THE POWER POLES ADEQUATELY SUPPORTED DURING TRENCHING AND BACKFILLING OPERATIONS. A CERTIFIED ENGINEERING ASSESSMENT OF THE COMPACTION OF BACKFILL MATERIAL IS TO BE PROVIDED TO AND ASSESSED BY ENERGEX TO ENSURE POLE STABILITY BEFORE REMOVAL OF ADDITIONAL SUPPORT.
3. ALL CONSTRUCTION WITHIN 3m OF OVERHEAD POWER LINES REQUIRE 'SAFETY ADVICE ON WORKING AROUND ELECTRICAL POSTS' FORM BS0001405F108 FROM ENERGEX.

CONSTRUCTION NOTES

1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ENGINEERS AND OTHER CONSULTANT'S DRAWINGS AND SPECIFICATIONS AND WITH OTHER SUCH WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCIES SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
2. NO RESPONSIBILTY WILL BE TAKEN FOR DIMENSIONS OBTAINED BY SCALING THESE DRAWINGS.
3. ALL DIMENSIONS SHALL BE VERIFIED ON SITE BY THE CONTRACTOR WHO SHALL BE RESPONSIBLE FOR THEIR CORRECTNESS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE AND NEIGHBOURING STRUCTURES IN A SAFE AND STABLE CONDITION DURING CONSTRUCTION. NO PART SHALL BE OVER STRESSED.
5. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT S.R.R.C SPECS AND THE BY-LAWS AND ORDINANCES OF THE RELEVANT GOVERNMENT AUTHORITY.
6. THE CONTRACTOR SHALL PROVIDE TRAFFIC MANAGEMENT FOR THE DURATION OF CONSTRUCTION IN ACCORDANCE WITH "THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES - PART 3 2017", IF REQUIRED.
7. THE CONTRACTOR IS TO LOCATE, IDENTIFY AND ESTABLISH THE CONNECTIVITY OF ALL EXISTING SERVICES WITHIN THE LIMITS OF THE WORKS AND CONFIRM THIS INFORMATION WITH THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
8. PROPERTY BOUNDARIES ARE SUBJECT TO CONFIRMATION BY FIELD SURVEY CARRIED OUT BY A REGISTERED SURVEYOR.
9. ALL WORK SHALL BE JOINED NEATLY TO EXISTING FEATURES.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MEASURING DEVICES, SAFETY EQUIPMENT AND MACHINERY REQUIRED TO CARRY OUT INSPECTIONS AS SPECIFIED OR REQUESTED.
11. THE CONTRACTOR SHALL RESTORE ALL EXTERNAL AREAS TO THE SITE, TO THEIR ORIGINAL CONDITION UPON COMPLETION OF THE WORKS.

PAVEMENT NOTES:

1. BASE GRAVEL TO BE TYPE 2 MATERIAL WITH MINIMUM CBR80 AND SUB-BASE GRAVEL TO BE TYPE 2 MATERIAL WITH MINIMUM CBR45 IN ACCORDANCE WITH MAIN ROADS SPECIFICATION MRTS05 UNBOUND PAVEMENTS.
2. COMPACTION STANDARD OF SUB-BASE & BASE PAVEMENTS SHALL ACHIEVE A CHARACTERISTIC VALUE OF THE RELATIVE DRY DENSITY NOT LESS THAN 100%.
3. THE PAVEMENT SHALL BE CONSTRUCTED SO AS NOT TO DEPART FROM THE WIDTHS, LENGTHS, HEIGHTS AND SHAPES SPECIFIED IN THESE PLANS UNLESS AUTHORISED BY PROJECT ENGINEER. THE WIDTHS, HEIGHTS AND SHAPES OF LAYERS OTHER THAN THE FINAL LAYER SHALL BE CALCULATED USING THE COMPLETED PAVEMENT SURFACE AND THE DEPTH TO SURFACE OF THE PARTICULAR LAYER WITHIN THE PAVEMENT.
4. COMPACTED LAYER THICKNESS SHALL NOT BE GREATER THAN 200mm OR LESS THAN 100mm.
5. ROAD SURFACE TO BE CLEAN AND DRY PRIOR TO PLACING SEAL.
6. SEAL TO CONSIST OF TWO COATS C170 BITUMEN WITH 14mm COVER AGGREGATE APPLIED TO FIRST COAT AND 7mm COVER AGGREGATE TO SECOND COAT. SPRAY RATES AND AGGREGATE SPREAD RATES TO BE CONFIRMED BY PROJECT ENGINEER.

DELINEATION:

1. WHERE PAVEMENT IS 6.8m WIDE OR GREATER, GUIDE POSTS SHALL BE USED ON UNDIVIDED RURAL ROADS AT, OR NEAR, THE EDGE OF FORMATION AND AT A CONSTANT DISTANCE (GENERALLY BETWEEN 1.2m AND 3.0m) FROM THE PAVEMENT EDGE.
2. NOMINAL SPACING OF GUIDE POSTS ON A STRAIGHT SECTION OF ROAD SHALL BE 150m, WITH THE POSTS IN PAIRS, ONE EACH SIDE OF THE FORMATION. THE SPACING MAY BE REDUCED TO 75M IN AREAS SUBJECT TO FREQUENT FOGS.
3. THE SPACING OF GUIDE POSTS ON CURVES SHALL BE AS GIVEN IN THE TABLE 4.1 ON THIS SHEET.

ENVIRONMENTAL:

1. THE EXTENT OF CLEARING OF VEGETATION SHALL BE KEPT TO THE ABSOLUTE MINIMUM NECESSARY TO UNDERTAKE THE WORKS.
2. SILTATION CONTROLS, SITE REVEGETATION AND ENVIRONMENTAL REQUIREMENTS SHALL BE CARRIED OUT TO THE SATISFACTION OF THE PRINCIPAL.

OTHER:

1. THE CONTRACTOR IS TO TAKE ALL NECESSARY PRECAUTIONS TO CONTROL EROSION AND DOWNSTREAM SEDIMENTATION DURING ALL STAGES OF CONSTRUCTION INCLUDING THE MAINTENANCE PERIOD.
2. ALL SEDIMENT CONTROL DEVICES SHALL BE MONITORED, CLEANED AND/OR REPAIRED WHENEVER THE ACCUMULATED SEDIMENT REDUCES THE CAPACITY BY 50%.
3. THE EXTENT OF GRASSING SHALL BE DETERMINED BY THE SUPERINTENDENT AND SHALL BE SEEDED, AS SPECIFIED, WITHIN SEVEN DAYS OF FINAL TRIMMING.
4. EXTENT AND POSITION OF SILT FENCE CONTROL MEASURES TO BE DETERMINED ON SITE BY SUPERINTENDENT.
5. MEASURES SHOWN ON THIS DRAWING ARE MINIMUM REQUIREMENTS ONLY.
6. SCOUR PROTECTION AND SILT MANAGEMENT MEASURES TO BE PROVIDED AT STORMWATER OUTLET HEADWALLS.
7. PROVISION TO BE MADE FOR DIRT/SAND REMOVAL FROM CONSTRUCTION VEHICLES PRIOR TO TRAVEL ON PUBLIC ROADS. METHOD TO BE APPROVED BY SUPERINTENDENT PRIOR TO COMMENCEMENT OF WORK.
8. ANY SILT OR SEDIMENT CAUSED BY CONSTRUCTION TRAFFIC ON EXISTING ROADS IS TO BE REMOVED DAILY.
9. THE CONTRACTOR SHALL IMPLEMENT EROSION AND SEDIMENT CONTROL PROCEDURES DURING CONSTRUCTION AND MAINTENANCE STAGES OF THE DEVELOPMENT AND SHALL TAKE ALL NECESSARY ACTIONS TO COMPLY WITH THE POLICY OBJECTIVES OF COUNCIL'S LOCAL PLANNING POLICY - EROSION AND SEDIMENT CONTROL.
10. A SCHEDULE SHALL BE SUBMITTED FOR THE APPROVAL OF COUNCIL'S REPRESENTATIVE AT THE PRE-START MEETING FOR THE FIELD IMPLEMENTATION OF EROSION AND SEDIMENT CONTROL, DETAILING THE STAGES AT WHICH VARIOUS MANAGEMENT TECHNIQUES WOULD BE IN PLACE AND AUDITING PROCEDURES.
11. FINAL FORM OF SEDIMENT EROSION CONTROL TO BE DECIDED ON SITE BY THE SUPERINTENDENT.
12. THE CONTRACTOR IS TO ENSURE THAT NO SILT REACHES THE DOWNSTREAM WATER COURSE AND IS TO PROVIDE ADEQUATE PROTECTION TO PREVENT THIS OCCURRING.

REVISION/DETAILS		DWN	DATE	DES	DATE
3	INCLUSION OF VEGETATION BUFFER, RELOCATED DRAIN	MLS	22/04/24		
2	FOR APPROVAL	NJF	10/04/24		
1	PRELIMINARY	NJF	28/09/23		

SURVEY DATA
DATUM
MAP GRID
HEIGHT ORIGIN
SURVEY BOOKS

BEAUDESERT & BOONAH CRANES
48 KOOROOMBA DRIVE, MT ALFORD QLD 4310

BEAUDESERT & BOONAH CRANES
149 SANDY CREEK ROAD, BROMELTON QLD 4285

GENERAL NOTES

ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		24/04/24

PO Box 554
Beaudesert QLD 4285
(07) 5541 3500
www.acsengineers.com.au
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DRAWING NUMBER: ACS-230068-GEN-02
REVISION: 3

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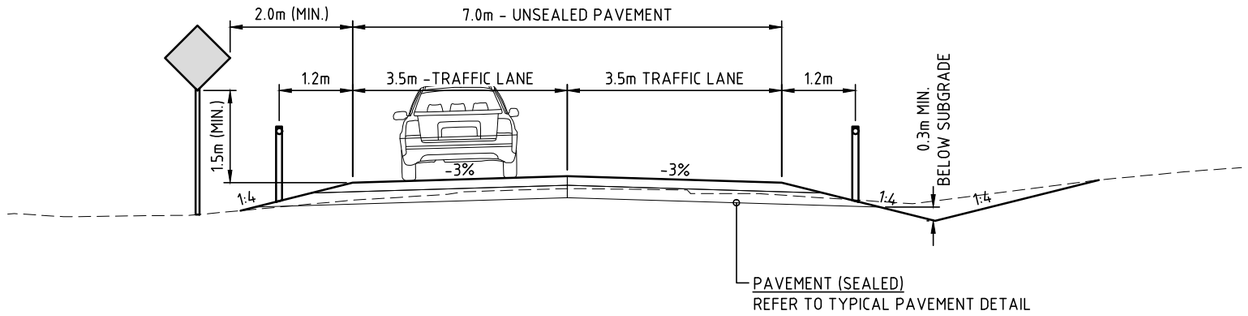
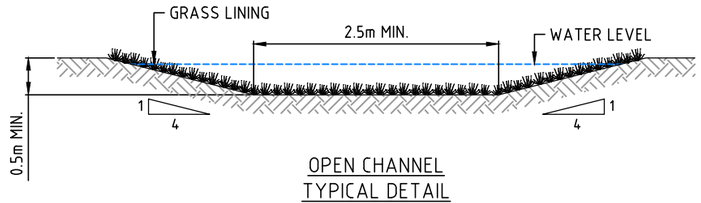


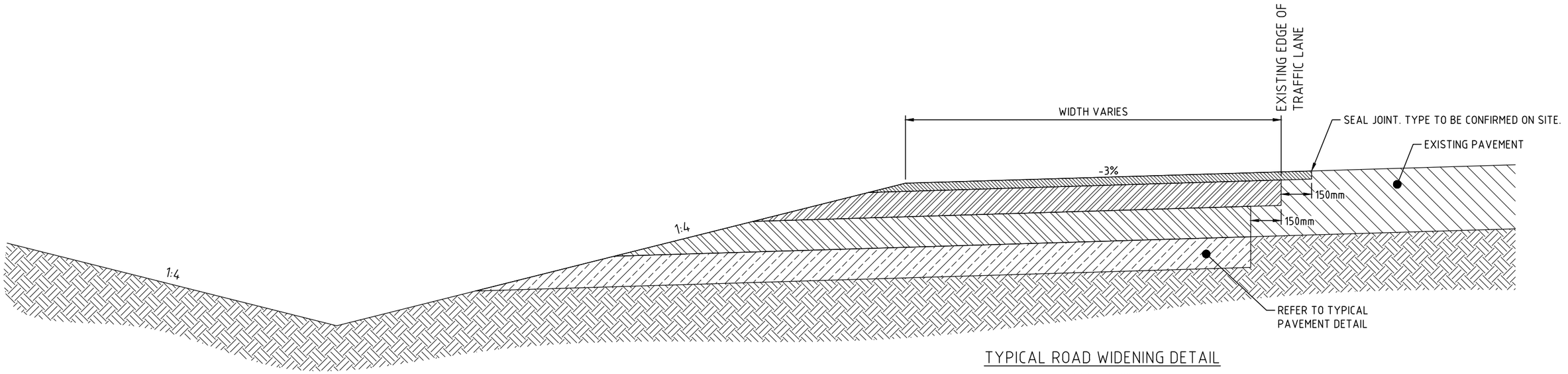
TYPICAL CROSS SECTION - INTERNAL ACCESS ROADS

SCALE 1:100
CLASS 5A



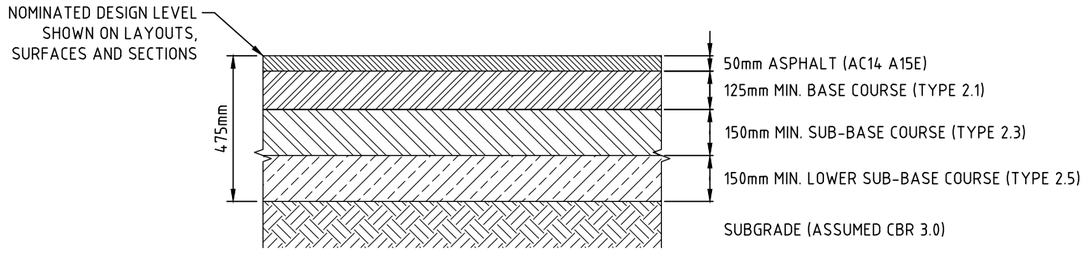
OPEN CHANNEL TYPICAL DETAIL

NTS



TYPICAL ROAD WIDENING DETAIL

SCALE 1 : 20



TYPICAL PAVEMENT DETAIL

SCALE 1 : 20

				SURVEY DATA	
				DATUM	
				MAP GRID	
3	INCLUSION OF VEGETATION BUFFER, RELOCATED DRAIN	MLS	22/04/24	HEIGHT ORIGIN	
2	FOR APPROVAL	NJF	10/04/24	SURVEY BOOKS	
1	PRELIMINARY	NJF	28/09/23		
	REVISION/DETAILS	DWN	DATE	DES	DATE

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149 SANDY CREEK ROAD, BROMELTON QLD 4285

TYPICAL DETAILS

ENGINEERING CERTIFICATION (RPEQ)

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13697	CIVIL	S. SHAY		24/04/24

PO Box 554
Beaudesert QLD 4285
(07) 5541 3500
www.acsengineers.com.au
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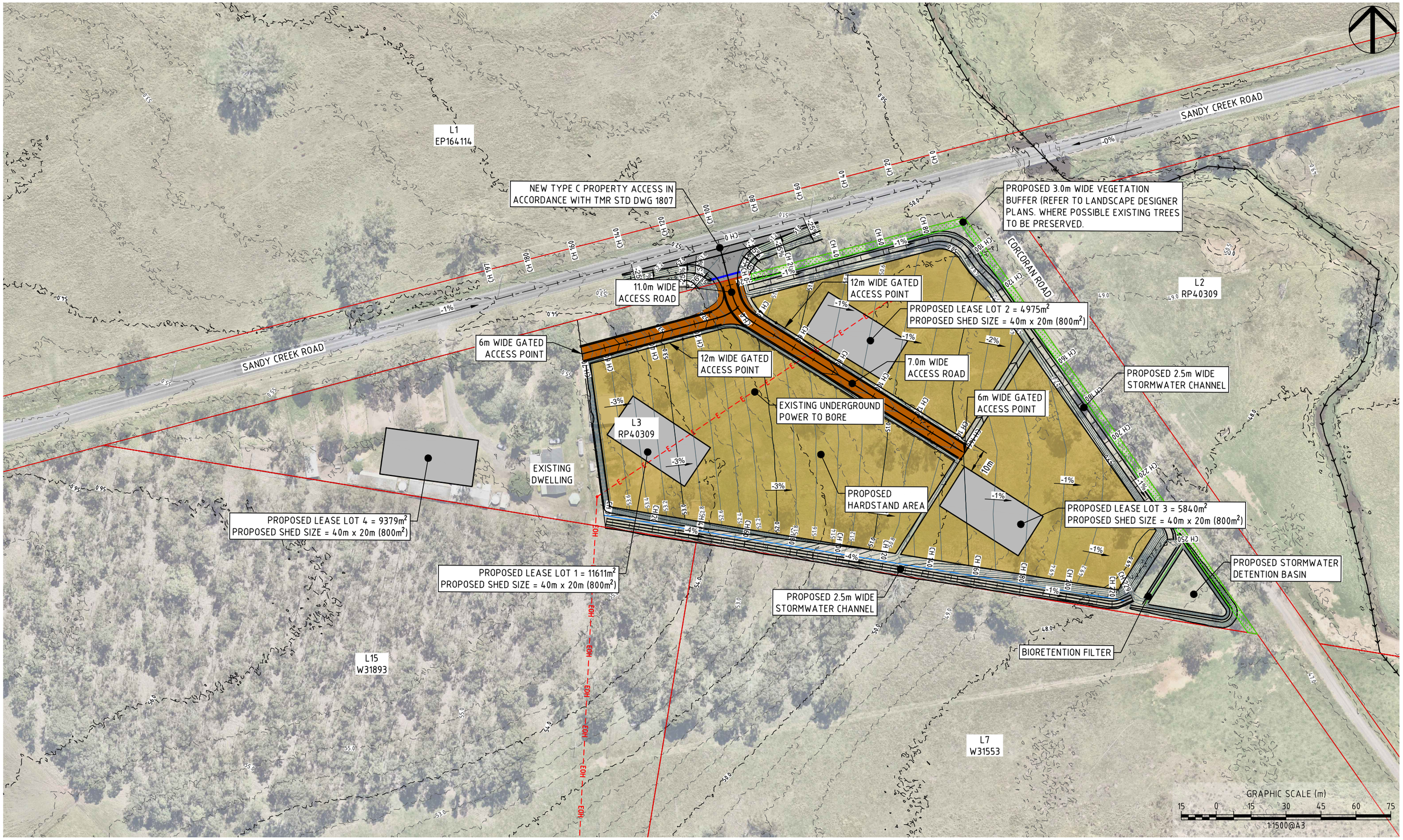
DRAWING NUMBER: ACS-230068-GEN-03
REVISION: 3



				SURVEY DATA	
				DATUM	
				MAP GRID	
3	INCLUSION OF VEGETATION BUFFER, RELOCATED DRAIN	MLS	22/04/24	HEIGHT ORIGIN	
2	FOR APPROVAL	NJF	10/04/24	SURVEY BOOKS	
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	REVISION/DETAILS	DWN	DATE	DES	DATE

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BEAUDESERT & BOONAH CRANES

48 KOOROOMBA DRIVE, MT ALFORD QLD 4310

BEAUDESERT & BOONAH CRANES

149 SANDY CREEK ROAD, BROMELTON QLD 4285

OVERALL LAYOUT PLAN

PO Box 554
Beaudesert QLD 4285

(07) 5541 3500
www.acsengineers.com.au

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ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		24/04/24

DRAWING NUMBER: ACS-230068-GEN-04

REVISION: 3

Prime mover and semi-trailer (19 m)	
Overall Length	19.000m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.540m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

				SURVEY DATA	BEAUDESERT & BOONAH CRANES	TURNING TEMPLATES
				DATUM	48 KOOROOMBA DRIVE, MT ALFORD QLD 4310	
				MAP GRID		
3	INCLUSION OF VEGETATION BUFFER, RELOCATED DRAIN	MLS	22/04/24	HEIGHT ORIGIN	BEAUDESERT & BOONAH CRANES	
2	FOR APPROVAL	NJF	10/04/24	SURVEY BOOKS		
1	PRELIMINARY	NJF	28/09/23		149 SANDY CREEK ROAD, BROMELTON QLD 4285	
	REVISION/DETAILS	DWN	DATE	DES	DATE	

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ENGINEERING CERTIFICATION (RPEQ)

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PO Box 554
Beaudesert QLD 4285
(07) 5541 3500
www.acsengineers.com.au
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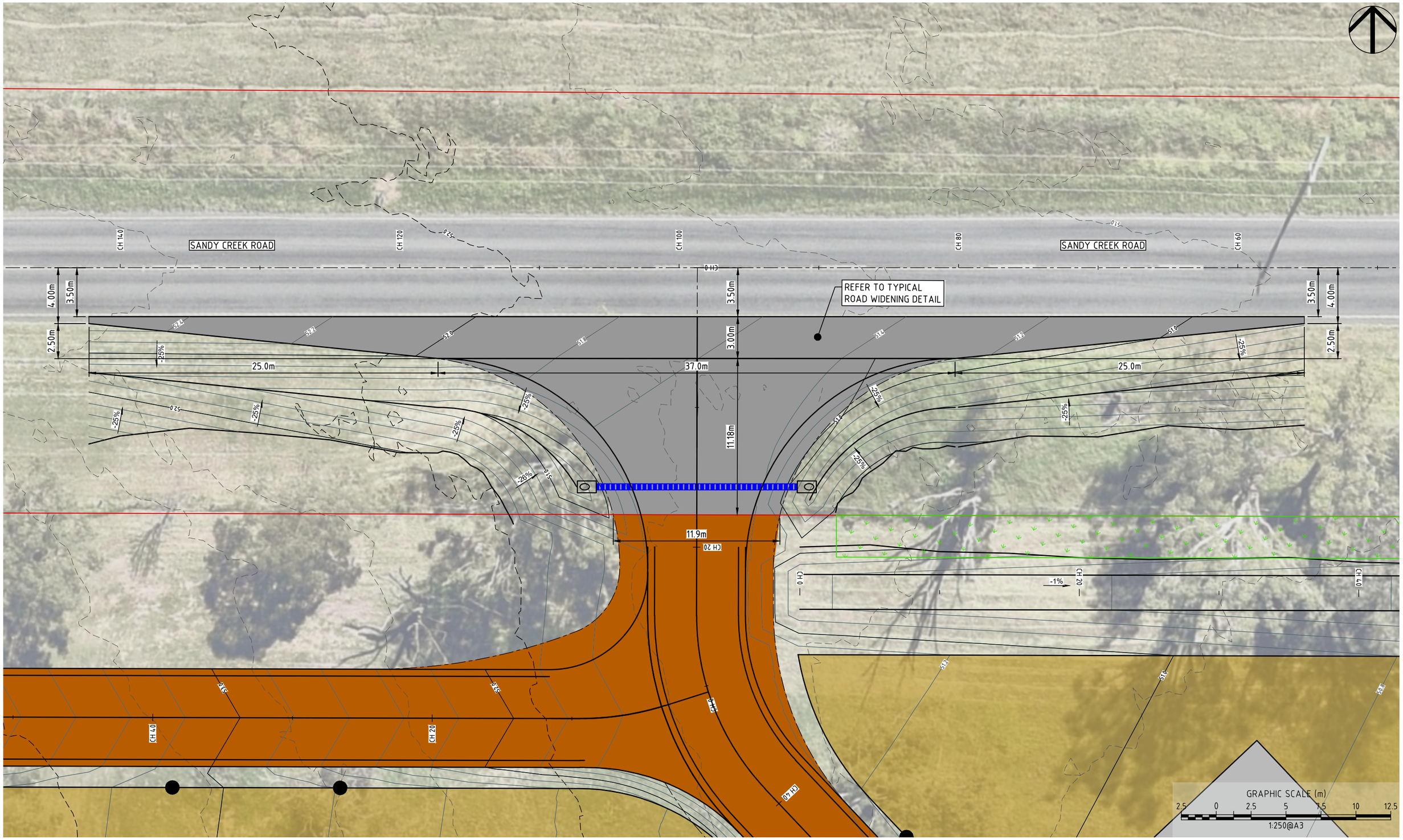

				SURVEY DATA	BEAUDESERT & BOONAH CRANES
				DATUM	
				MAP GRID	48 KOOROOMBA DRIVE, MT ALFORD QLD 4310
				HEIGHT ORIGIN	
3	INCLUSION OF VEGETATION BUFFER, RELOCATED DRAIN	MLS	22/04/24	SURVEY BOOKS	BEAUDESERT & BOONAH CRANES
2	FOR APPROVAL	NJF	10/04/24		
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REVISION/DETAILS		DWN	DATE	DES DATE	

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PROPERTY ACCESS LAYOUT PLAN

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13697	CIVIL	S. SHAY		24/04/24

PO Box 554
Beaudesert QLD 4285

(07) 5541 3500
www.acsengineers.com.au

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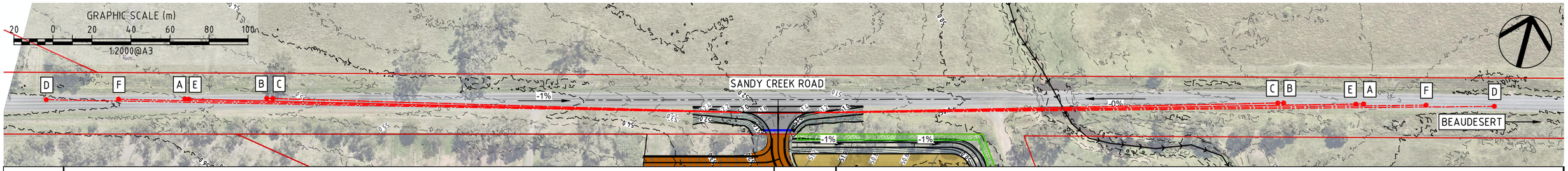
REVISION: 3



NDD Check Cases

EASTBOUND

Table 3.2 & 3.3

ID	Case	V (km/hr)	h1 (m)	h2 (m)	Ot (s)	Rt (s)	d	a (%)	SISD (m)
A	Car Day	110	1.1	1.25	3	2.5	0.36	-1	**304**
B	Car Night 1	110	0.65	1.25	2.6	2.5	0.46	-1	**262**
C	Car Night 2	110	1.1	0.8	2.5	2.5	0.46	-1	**259**
D	Truck Day	110	2.4	1.25	3	2.5	0.24	-1	**375**

Table 3.2 & 3.3

ID	Case	V (km/hr)	h1 (m)	h2 (m)	Ot (s)	Rt (s)	d	a (%)	SISD (m)
E	Truck Night 1	110	1.05	1.25	1.8	2.5	0.29	-1	**302**
F	Truck Night 2	110	2.4	0.8	3	2.5	0.29	-1	**338**

NDD Check Cases

WESTBOUND

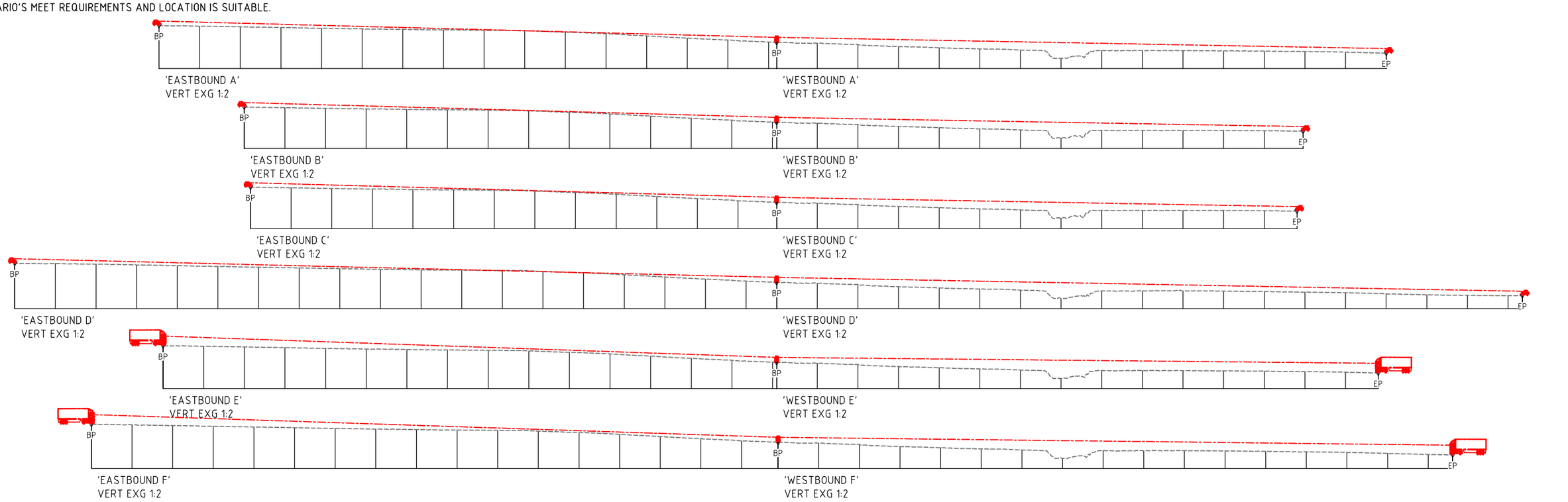
Table 3.2 & 3.3

ID	Case	V (km/hr)	h1 (m)	h2 (m)	Ot (s)	Rt (s)	d	a (%)	SISD (m)
A	Car Day	110	1.1	1.25	3	2.5	0.36	0	**300**
B	Car Night 1	110	0.65	1.25	2.6	2.5	0.46	0	**259**
C	Car Night 2	110	1.1	0.8	2.5	2.5	0.46	0	**256**
D	Truck Day	110	2.4	1.25	3	2.5	0.24	0	**367**

Table 3.2 & 3.3

ID	Case	V (km/hr)	h1 (m)	h2 (m)	Ot (s)	Rt (s)	d	a (%)	SISD (m)
E	Truck Night 1	110	1.05	1.25	1.8	2.5	0.29	0	**296**
F	Truck Night 2	110	2.4	0.8	3	2.5	0.29	0	**332**

NOTE:
1. SIGHT DISTANCE CHECKS BASED ON LIDAR.
2. ON SITE SIGHT DISTANCE CHECKS CONFIM THAT ALL SENARIO'S MEET REQUIREMENTS AND LOCATION IS SUITABLE.



				SURVEY DATA	BEAUDESERT & BOONAH CRANES
				DATUM	48 KOOROOMBA DRIVE, MT ALFORD QLD 4310
				MAP GRID	
3	INCLUSION OF VEGETATION BUFFER, RELOCATED DRAIN	MLS	22/04/24	HEIGHT ORIGIN	BEAUDESERT & BOONAH CRANES
2	FOR APPROVAL	NJF	10/04/24	SURVEY BOOKS	
1	PRELIMINARY	NJF	28/09/23		149 SANDY CREEK ROAD, BROMELTON QLD 4285
	REVISION/DETAILS	DWN	DATE	DES DATE	

FILE: C:\12DS\DATA\ACSSYN\230068 BEAUDESERT & BOONAH CRANES - 149 SANDY CREEK ROAD, BROMELTON_681\DESIGN\DRAWING FILES\ACS-230068-GEN.DWG PLOT TIME: 24/4/2024 - 9:24AM BY USER: MALINDASELLARS

SIGHT DISTANCE ASSESSMENT

PO Box 554
Beaudesert QLD 4285

(07) 5541 3500
www.acsengineers.com.au

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#	FIELD	NAME	SIGNATURE	DATE
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DRAWING NUMBER: ACS-230068-GEN-07

REVISION: 3

				SURVEY DATA	BEAUDESERT & BOONAH CRANES
				DATUM	48 KOOROOMBA DRIVE, MT ALFORD QLD 4310
				MAP GRID	
3	INCLUSION OF VEGETATION BUFFER, RELOCATED DRAIN	MLS	22/04/24	HEIGHT ORIGIN	BEAUDESERT & BOONAH CRANES
2	FOR APPROVAL	NJF	10/04/24	SURVEY BOOKS	
1	PRELIMINARY	NJF	28/09/23		149 SANDY CREEK ROAD, BROMELTON QLD 4285
	REVISION/DETAILS	DWN	DATE	DES DATE	

FILE: C:\12DS\DATA\ACSSYN\230068 BEAUDESERT & BOONAH CRANES - 149 SANDY CREEK ROAD, BROMELTON__681\DESIGN\DRAWING FILES\ACS-230068-GEN.DWG PLOT TIME: 24/4/2024 - 9:25AM BY USER: MALINDASELLARS

STORMWATER LAYOUT PLAN

ENGINEERING CERTIFICATION (RPEQ)

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13697	CIVIL	S. SHAY		24/04/24

PO Box 554
Beaudesert QLD 4285

(07) 5541 3500
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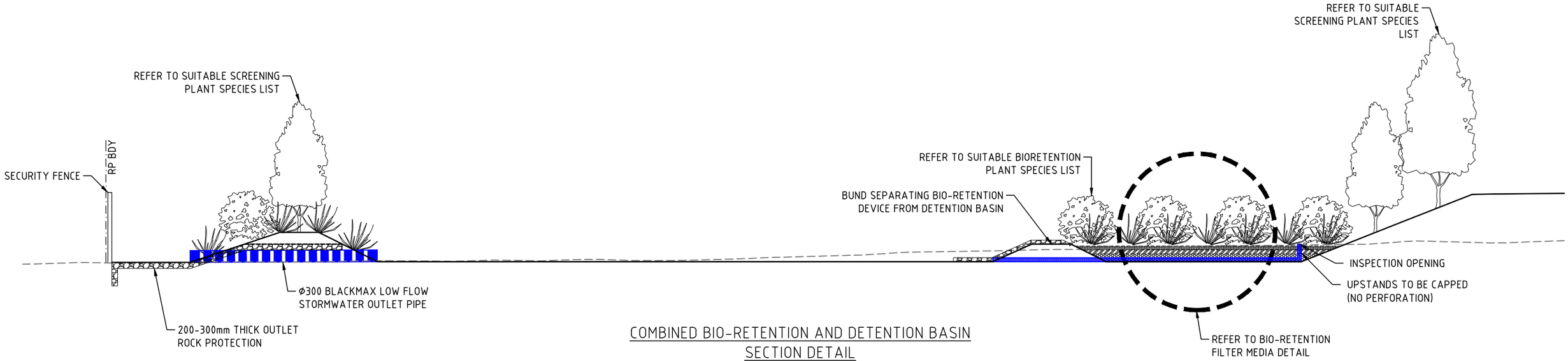
REVISION: 3

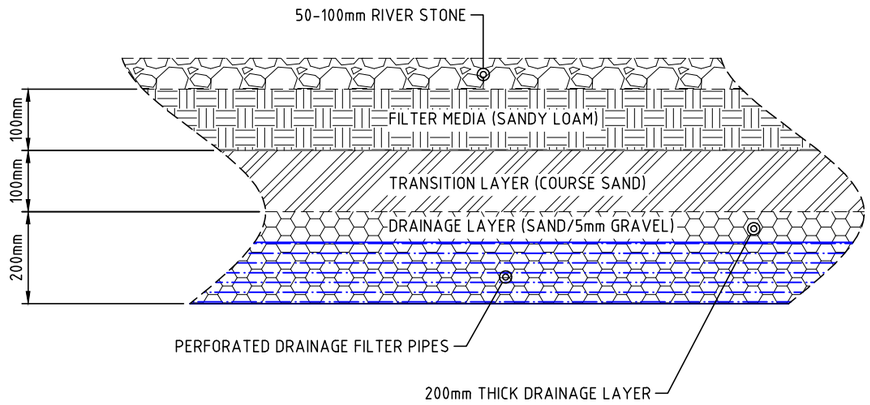


COMBINED BIO-RETENTION AND DETENTION BASIN SECTION DETAIL

NTS

SUITABLE BIORETENTION PLANT SPECIES	
LOMANDRA	'SHARA'
THEMEDA TRIANDRA	'KANGAROO GRASS'
MELALEUCA THYMIFOLIA	'HONEY MYRTLE'

SUITABLE SCREENING SPECIES	
SYZYGIUM SMITHII	'LILLY PILLY'
PHOTINIA X FRASERI	'RED ROBIN'



BIO-RETENTION FILTER MEDIA DETAIL

NTS

#	DESCRIPTION	DWN	DATE
3	INCLUSION OF VEGETATION BUFFER, RELOCATED DRAIN	MLS	22/04/24
2	FOR APPROVAL	NJF	10/04/24
1	PRELIMINARY	NJF	28/09/23

REVISION/DETAILS | DES | DATE

SURVEY DATA
DATUM
MAP GRID
HEIGHT ORIGIN
SURVEY BOOKS

BEAUDESERT & BOONAH CRANES
48 KOOROOMBA DRIVE, MT ALFORD QLD 4310

BEAUDESERT & BOONAH CRANES
149 SANDY CREEK ROAD, BROMELTON QLD 4285

BIO-DETENTION BASIN DETAILS

ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		24/04/24

PO Box 554
Beaudesert QLD 4285
(07) 5541 3500
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REVISION: 3

FILE: C:\12DS\DATA\ACSSYN\230068 BEAUDESERT & BOONAH CRANES - 149 SANDY CREEK ROAD, BROMELTON_681\DESIGN\DRAWING FILES\ACS-230068-GEN.DWG PLOT TIME: 24/4/2024 - 9:25AM BY USER: MALINDASELLARS

SEDIMENT AND EROSION CONTROL - GENERAL NOTES:

1. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MUST BE IMPLEMENTED AND A REVISED EROSION AND SEDIMENT CONTROL PLAN (ESCP) MUST BE SUBMITTED FOR APPROVAL IN THE EVENT THAT SITE CONDITIONS CHANGE SIGNIFICANTLY FROM THOSE CONSIDERED WITHIN THE CURRENT ESCP.
2. WHERE THERE IS A HIGH PROBABILITY THAT SERIOUS OR MATERIAL ENVIRONMENTAL HARM MAY OCCUR AS A RESULT OF CURRENT SEDIMENT LEAVING THE SITE, APPROPRIATE ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MUST BE IMPLEMENTED SUCH THAT ALL REASONABLE AND PRACTICABLE MEASURES ARE BEING TAKEN TO PREVENT OR MINIMISE SUCH HARM. ONLY THOSE WORKS NECESSARY TO MINIMISE OR PREVENT ENVIRONMENTAL HARM SHALL BE CONDUCTED ON-SITE PRIOR TO APPROVAL OF THE AMENDED EROSION AND SEDIMENT CONTROL PLAN (ESCP).
3. IN CIRCUMSTANCES WHERE IT IS CONSIDERED NECESSARY TO PREPARE AN AMENDED EROSION AND SEDIMENT CONTROL PLAN (ESCP), AND WHERE THE DELIVERY OF SUCH AN AMENDED ESCP IS NOT IMMINENT, THEN ALL NECESSARY NEW OR MODIFIED EROSION AND SEDIMENT CONTROL WORKS MUST BE IN ACCORDANCE TO WITH IECA (2008) BEST PRACTICE EROSION & SEDIMENT CONTROL. UPON APPROVAL OF THE AMENDED ESCP ALL WORKS MUST BE IMPLEMENTED IN ACCORDANCE WITH THE AMENDED PLAN.

SITE ACCESS:

1. PRIOR TO THE COMMENCEMENT OF SITE WORKS, THE LOCATION OF THE SITE ACCESS POINT MUST BE VERIFIED WITH RELEVANT LOCAL AUTHORITY.
2. SITE ACCESS IS RESTRICTED TO ONE LOCATION.
3. SITE EXIT POINT MUST BE APPROPRIATELY MANAGED TO MINIMISE THE RISK OF SEDIMENT BEING TRACKED ONTO SEALED PUBLIC ROADWAYS.
4. STORMWATER RUNOFF FROM ACCESS ROADS AND STABILISED ENTRY/EXIT POINTS MUST DRAIN TO AN APPROPRIATE SEDIMENT CONTROL DEVICE.

LAND CLEARING

1. LAND CLEARING MUST BE DELAYED AS LONG AS PRACTICABLE AND MUST BE UNDERTAKEN IN CONJUNCTION WITH DEVELOPMENT, UNLESS OTHERWISE APPROVED BY THE SUPERINTENDENT.
2. ALL REASONABLE AND PRACTICABLE EFFORTS MUST BE TAKEN TO DELAY THE REMOVAL OF, OR DISTURBANCE TO, EXISTING GROUND COVER (ORGANIC OR INORGANIC) PRIOR TO LAND-DISTURBING ACTIVITIES.
3. BULK TREE CLEARING MUST OCCUR IN A MANNER THAT MINIMISES DISTURBANCE TO EXISTING GROUND COVER (ORGANIC OR INORGANIC).
4. BULK TREE CLEARING AND GRUBBING OF THE SITE MUST BE IMMEDIATELY FOLLOWED BY SPECIFIED TEMPORARY STABILISATION MEASURES (E.G. TEMPORARY GRASSING, OR MULCHING) PRIOR TO COMMENCEMENT OF EACH STAGE OF CONSTRUCTION WORKS.
5. DISTURBANCE TO NATURAL WATERCOURSES (INCLUDING BED AND BANKS) AND THEIR ASSOCIATED RIPARIAN ZONES MUST BE LIMITED TO THE MINIMUM PRACTICABLE.
6. NO LAND CLEARING SHALL BE UNDERTAKEN UNLESS PRECEDED BY THE INSTALLATION OF ADEQUATE DRAINAGE AND SEDIMENT CONTROL MEASURES, UNLESS SUCH CLEARING IS REQUIRED FOR THE PURPOSE OF INSTALLING SUCH MEASURES, IN WHICH CASE, ONLY THE MINIMUM CLEARING REQUIRED TO INSTALL SUCH MEASURES SHALL OCCUR.
7. LAND CLEARING MUST BE LIMITED TO 5m FROM THE EDGE OF PROPOSED CONSTRUCTED WORKS, 2m OF ESSENTIAL CONSTRUCTION TRAFFIC ROUTES, AND A TOTAL OF 10m WIDTH FOR CONSTRUCTION ACCESS, UNLESS OTHERWISE APPROVED BY THE SUPERINTENDENT.
8. PRIOR TO LAND CLEARING, AREAS OF PROTECTED VEGETATION, AND SIGNIFICANT AREAS OF RETAINED VEGETATION MUST BE CLEARLY IDENTIFIED (E.G. WITH HIGH-VISIBILITY TAPE, OR LIGHT FENCING) FOR THE PURPOSES OF MINIMISING THE RISK OF UNNECESSARY LAND CLEARING.
9. ALL REASONABLE AND PRACTICABLE MEASURES MUST BE TAKEN TO MINIMISE THE REMOVAL OF, OR DISTURBANCE TO, THOSE TREES, SHRUBS AND GROUND COVERS (ORGANIC OR INORGANIC) THAT ARE INTENDED TO BE RETAINED.
10. ALL LAND CLEARING MUST BE IN ACCORDANCE WITH THE FEDERAL, STATE AND LOCAL GOVERNMENT VEGETATION PROTECTION/PRESERVATION REQUIREMENTS AND/OR POLICIES.
11. LAND CLEARING IS LIMITED TO THE MINIMUM PRACTICABLE DURING THOSE PERIODS WHEN SOIL EROSION DUE TO WIND, RAIN OR SURFACE WATER IS POSSIBLE.
12. LAND CLEARING MUST NOT EXTEND BEYOND THAT NECESSARY TO PROVIDE UP TO EIGHT (8) WEEKS OF SITE ACTIVITY DURING THOSE MONTHS WHEN THE ACTUAL OR AVERAGE RAINFALL IS LESS THAN 45mm, SIX (6) IF BETWEEN 45 AND 100mm, FOUR (4) WEEKS IF BETWEEN 100 AND 225mm, AND TWO (2) WEEKS IF GREATER THAN 225mm.

SOIL AND STOCKPILE MANAGEMENT:

1. ALL REASONABLE AND PRACTICABLE MEASURES MUST BE TAKEN TO OBTAIN THE MAXIMUM BENEFIT FROM EXISTING TOPSOIL, INCLUDING:
   (i) WHERE THE PROPOSED AREA OF SOIL DISTURBANCE DOES NOT EXCEED 2500m^2, AND THE TOPSOIL DOES NOT CONTAIN UNDESIRABLE WEED SEED, THE TOP 100mm OF SOIL LOCATED WITHIN AREAS OF PROPOSED SOIL DISTURBANCE (INCLUDING STOCKPILE AREAS) MUST BE STRIPPED AND STOCKPILED SEPARATELY FROM THE REMAINING SOIL.
   (ii) WHERE THE PROPOSED AREA OF SOIL DISTURBANCE EXCEEDS 2500m^2, AND THE TOPSOIL DOES NOT CONTAIN UNDESIRABLE WEED SEED, THE TOP 50mm OF SOIL MUST BE STRIPPED AND STOCKPILED SEPARATELY FROM THE REMAINING TOPSOIL, AND SPREAD AS A FINAL SURFACE SOIL.
   (iii) IN AREAS WHERE THE TOPSOIL CONTAINS UNDESIRABLE WEED SEED, THE AFFECTED SOIL MUST BE SUITABLY BURIED OR REMOVED FROM THE SITE.
2. STOCKPILES OF ERODIBLE MATERIAL THAT HAS THE POTENTIAL TO CAUSE ENVIRONMENTAL HARM IF DISPLACED MUST BE:
   (i) APPROPRIATELY PROTECTED FROM WIND, RAIN, CONCENTRATED SURFACE FLOW AND EXCESSIVE UP-SLOPE STORMWATER SURFACE FLOWS.
   (ii) LOCATED AT LEAST 2m FROM ANY HAZARDOUS AREA, RETAINED VEGETATION OR CONCENTRATED DRAINAGE LINE.
   (iii) LOCATED UP-SLOPE OF AN APPROPRIATE SEDIMENT CONTROL SYSTEM.
   (iv) PROVIDED WITH AN APPROPRIATE PROTECTIVE COVER (SYNTHETIC, MULCH OR VEGETATIVE) IF THE MATERIALS ARE LIKELY TO BE STOCKPILED FOR MORE THAN 28 DAYS.
   (v) PROVIDED WITH AN APPROPRIATE PROTECTIVE COVER (SYNTHETIC, MULCH OR VEGETATIVE) IF THE MATERIALS ARE LIKELY TO BE STOCKPILED FOR MORE THAN 10 DAYS DURING THOSE MONTHS THAT HAVE A HIGH EROSION RISK.
   (vi) PROVIDED WITH AN APPROPRIATE PROTECTIVE COVER (SYNTHETIC, MULCH OR VEGETATIVE) IF THE MATERIALS ARE LIKELY TO BE STOCKPILED FOR MORE THAN 5 DAYS DURING THOSE MONTHS THAT HAVE A EXTREME EROSION RISK.
3. A SUITABLE FLOW DIVERSION SYSTEM MUST BE ESTABLISHED IMMEDIATELY UP-SLOPE OF A STOCKPILE OF ERODIBLE MATERIAL THAT HAS THE POTENTIAL TO CAUSE ENVIRONMENTAL HARM IF DISPLACED IF THE UP-SLOPE CATCHMENT AREA DRAINING TO THE STOCKPILE EXCEEDS 1500m^2.

SITE MANAGEMENT:

1. ALL OFFICE FACILITIES AND OPERATIONAL ACTIVITIES MUST BE LOCATED SUCH THAT ANY LIQUID EFFLUENT (E.G. PROCESS WATER, WASH-DOWN WATER, EFFLUENT FROM EQUIPMENT CLEANING, OR PLANT WATERING), CAN BE TOTALLY CONTAINED AND TREATED WITHIN THE SITE.
2. THE CONSTRUCTION SCHEDULE MUST AIM TO MINIMISE THE DURATION THAT ANY AND ALL AREAS OF SOIL ARE EXPOSED TO THE EROSIVE EFFECTS OF WIND, RAIN AND SURFACE WATER.
3. LAND-DISTURBING ACTIVITIES MUST BE UNDERTAKEN IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN (ESCP) AND ASSOCIATED DEVELOPMENT CONDITIONS.
4. LAND-DISTURBING ACTIVITIES MUST BE UNDERTAKEN IN SUCH A MANNER THAT ALLOWS ALL REASONABLE AND PRACTICABLE MEASURES TO BE UNDERTAKEN TO:
   (i) ALLOW STORMWATER TO PASS THROUGH THE SITE IN A CONTROLLED MANNER AND AT NON-EROSIVE FLOW VELOCITIES UP TO THE SPECIFIED DESIGN STORM DISCHARGE;
   (ii) MINIMISE SOIL EROSION RESULTING FROM RAIN, WATER FLOW AND/OR WIND;
   (iii) MINIMISE ADVERSE EFFECTS OF SEDIMENT RUNOFF, INCLUDING SAFETY ISSUES;
   (iv) PREVENT OR AT LEAST MINIMISE, ENVIRONMENTAL HARM RESULTING FROM WORK-RELATED SOIL EROSION AND SEDIMENT RUNOFF;
   (v) ENSURE THAT THE VALUE AND USE OF LAND/PROPERTIES ADJACENT TO THE DEVELOPMENT (INCLUDING ROADS) ARE NOT DIMINISHED AS A RESULT OF THE ADOPTED ESC MEASURES.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST CONFORM TO THE STANDARDS AND SPECIFICATIONS CONTAINED IN:
   (i) THE DEVELOPMENT APPROVAL CONDITION ISSUED BY RELEVANT LOCAL AUTHORITY; AND/OR
   (ii) THE APPROVED ESCP AND SUPPORTING DOCUMENTATION; OR
   (iii) THE LATEST VERSION OF IECA (2008) BEST PRACTICE EROSION & SEDIMENT CONTROL IF THE STANDARDS AND SPECIFICATIONS ARE NOT CONTAINED IN THE APPROVED ESCP.
6. ANY WORKS THAT MAY CAUSE SIGNIFICANT SOIL DISTURBANCE AND ARE ANCILLARY TO ANY ACTIVITY FOR WHICH REGULATORY BODY APPROVAL IS REQUIRED, MUST NOT COMMENCE BEFORE THE ISSUE OF THAT APPROVAL.
7. ADDITIONAL AND/OR ALTERNATIVE ESC MEASURES MUST BE IMPLEMENTED IN THE EVENT THAT THE RELEVANT AUTHORITY IDENTIFIES THAT UNACCEPTABLE OFF-SITE SEDIMENTATION IS OCCURRING AS A RESULT OF THE WORK ACTIVITIES.
8. LAND-DISTURBING ACTIVITIES MUST NOT CAUSE UNNECESSARY SOIL DISTURBANCE IF AN ALTERNATIVE CONSTRUCTION PROCESS IS AVAILABLE THAT ACHIEVES THE SAME OR EQUIVALENT OUTCOMES AT AN EQUIVALENT COST.
9. SEDIMENT (INCLUDING CLAY, SILT, SAND, GRAVEL, SOIL, MUD, CEMENT AND CERAMIC WASTE) DEPOSITED OFF THE SITE AS A DIRECT RESULT OF AN ON-SITE ACTIVITY, MUST BE COLLECTED AND THE AREA APPROPRIATELY CLEANED/REHABILITATED AS SOON AS REASONABLE AND PRACTICABLE, AND IN A MANNER THAT GIVES APPROPRIATE CONSIDERATION TO THE SAFETY AND ENVIRONMENTAL RISKS ASSOCIATED WITH THE SEDIMENT DEPOSITION.
10. ALL WASTE INCLUDING PETROLEUM AND OIL-BASED PRODUCTS, MUST BE PREVENTED FROM ENTERING AN INTERNAL WATER BODY, OR AN EXTERNAL DRAIN, STORMWATER SYSTEM, OR WATER BODY.
11. ALL FLAMMABLE AND COMBUSTIBLE LIQUIDS, INCLUDING ALL LIQUID CHEMICALS IF SUCH CHEMICALS COULD POTENTIALLY BE WASHED OR DISCHARGED FROM THE SITE, ARE STORED AND HANDLED ON-SITE IN ACCORDANCE WITH RELEVANT STANDARDS SUCH AS AS1940 THE STORAGE AND HANDLING OF FLAMMABLE AND COMBUSTIBLE LIQUIDS.
12. NO MORE THAN 150m OF A STORMWATER, SEWER LINE OR OTHER SERVICE TRENCH MUST TO BE OPEN AT ANY ONE TIME.
13. SITE SPOIL MUST BE LAWFULLY DISPOSED OF IN A MANNER THAT DOES NOT RESULT IN ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.
14. ALL FILL MATERIAL PLACED ON SITE MUST COMPRISE ONLY NATURAL EARTH AND ROCK, AND IS TO BE FREE OF CONTAMINANTS, BE FREE DRAINING, AND BE COMPACTED IN LAYERS NOT EXCEEDING 300mm TO 90% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS1289.

DRAINAGE CONTROL:

1. ALL DRAINAGE CONTROL MEASURES MUST BE APPLIED AND MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION PLANS.
2. WHEREVER REASONABLE AND PRACTICABLE, STORMWATER RUNOFF ENTERING THE SITE FROM EXTERNAL AREAS, AND NON-SEDIMENT LADEN (CLEAN) STORMWATER RUNOFF ENTERING A WORK AREA OR AREA OF SOIL DISTURBANCE, MUST BE DIVERTED AROUND OR THROUGH THAT AREA IN A MANNER THAT MINIMISES SOIL EROSION AND THE CONTAMINATION OF THAT WATER FOR ALL DISCHARGES UP TO THE SPECIFIED DESIGN STORM DISCHARGE.
3. DURING THE CONSTRUCTION PERIOD, ALL REASONABLE AND PRACTICABLE MEASURES MUST BE IMPLEMENTED TO CONTROL FLOW VELOCITIES IN SUCH A MANNER THAN PREVENTS SOIL EROSION ALONG DRAINAGE PATHS AND AT THE ENTRANCE AND EXIT OF ALL DRAINS AND DRAINAGE PIPES DURING ALL STORMS UP TO THE RELEVANT DESIGN STORM DISCHARGE.
4. TO THE MAXIMUM DEGREE REASONABLE AND PRACTICABLE, ALL WATERS DISCHARGED DURING THE CONSTRUCTION PHASE MUST DISCHARGE ONTO STABLE LAND, IN A NON-EROSIVE MANNER, AND AT A LEGAL POINT OF DISCHARGE.
5. WHEREVER REASONABLE AND PRACTICABLE, "CLEAN" SURFACE WATERS MUST BE DIVERTED AWAY FROM SEDIMENT CONTROL DEVICES AND ANY UNTREATED, SEDIMENT-LADEN WATERS.
6. DURING THE CONSTRUCTION PERIOD, ROOF WATER MUST BE MANAGED IN A MANNER THAT MINIMISES SOIL EROSION THROUGHOUT THE SITE, AND SITE WETNESS WITHIN ACTIVE WORK AREAS.
7. DRAINS ARE TO BE SIZED AND CONSTRUCTED TO ALLOW WATER TO DRAIN. THIS MAY INCLUDE CUTTING INTO THE EARTH TO OBTAIN THE REQUIRED FALL TO PERMIT DRAINAGE. DIMENSIONS GIVEN ARE A MINIMUM.

				SURVEY DATA	
				DATUM	
				MAP GRID	
				HEIGHT ORIGIN	
3	INCLUSION OF VEGETATION BUFFER, RELOCATED DRAIN	MLS	22/04/24	SURVEY BOOKS	
2	FOR APPROVAL	NJF	10/04/24		
1	PRELIMINARY	NJF	28/09/23		
	REVISION/DETAILS	DWN	DATE	DES	DATE

FILE: C:\12DS\DATA\ACSSYN\230068 BEAUDESERT & BOONAH CRANES - 149 SANDY CREEK ROAD, BROMELTON_681\DESIGN\DRAWING FILES\ACS-230068-GEN.DWG PLOT TIME: 24/4/2024 - 9:25AM BY USER: MALINDASELLARS

BEAUDESERT & BOONAH CRANES
48 KOOROOMBA DRIVE, MT ALFORD QLD 4310

BEAUDESERT & BOONAH CRANES
149 SANDY CREEK ROAD, BROMELTON QLD 4285

ESC NOTES - SHEET 01

ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		24/04/24

PO Box 554
Beaudesert QLD 4285
(07) 5541 3500
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REVISION: 3

EROSION CONTROL:

1. ALL EROSION CONTROL MEASURES MUST BE APPLIED AND MAINTAINED IN ACCORDANCE WITH IECA (2008) BEST PRACTICE EROSION & SEDIMENT CONTROL.
2. THE APPLICATION OF LIQUID-BASED DUST SUPPRESSION MEASURES MUST ENSURE THAT SEDIMENT-LADEN RUNOFF RESULTING FROM SUCH MEASURES DOES NOT CREATE A TRAFFIC OR ENVIRONMENTAL HAZARD.
3. ALL TEMPORARY EARTH BANKS, FLOW DIVERSION SYSTEMS, AND EMBANKMENTS ASSOCIATED WITH CONSTRUCTED SEDIMENT BASINS MUST BE MACHINE-COMPACTED, SEEDED AND MULCHED FOR THE PURPOSE OF ESTABLISHING A TEMPORARY VEGETATIVE COVER WITHIN 10 DAYS AFTER GRADING.
4. UNPROTECTED SLOPE LENGTHS MUST NOT EXCEED 80m, OR AN EQUIVALENT VERTICAL FALL OF 3m DURING THE CONSTRUCTION PERIOD.
5. THE CONSTRUCTION AND STABILISATION OF EARTH BATTERS STEEPER THAN 6:1 (H:V) MUST BE STAGED SUCH THAT NO MORE THAN 3 VERTICAL-METRES OF ANY BATTER IS EXPOSED TO RAINFALL AT ANY INSTANT.
6. SYNTHETIC REINFORCED EROSION CONTROL MATS AND BLANKETS MUST NOT BE PLACED WITHIN, OR ADJACENT TO, RIPARIAN ZONES AND WATERCOURSES IF SUCH MATERIALS ARE LIKELY TO CAUSE ENVIRONMENTAL HARM TO WILDLIFE OR WILDLIFE HABITATS.
7. A MINIMUM 60% GROUND COVER MUST BE ACHIEVED ON ALL NON-COMPLETED EARTHWORKS EXPOSED TO ACCELERATED SOIL EROSION IF FURTHER CONSTRUCTION ACTIVITIES OR SOIL DISTURBANCES ARE LIKELY TO BE SUSPENDED FOR MORE THAN 30 DAYS DURING THOSE MONTHS WHEN THE EXPECTED RAINFALL IS LESS THAN 30mm; MINIMUM 70% COVER WITHIN 30 DAYS IF BETWEEN 30 AND 45mm; MINIMUM 70% COVER WITHIN 20 DAYS IF BETWEEN 45 AND 100mm; MINIMUM 75% COVER WITHIN 10 DAYS IF BETWEEN 100 AND 225mm; AND MINIMUM 80% COVER WITHIN 5 DAYS IF GREATER THAN 225mm. (ALTERNATIVE TO ABOVE)

SEDIMENT CONTROL:

1. ALL SEDIMENT CONTROL MEASURES MUST BE APPLIED AND MAINTAINED IN ACCORDANCE WITH IECA (2008) BEST PRACTICE EROSION & SEDIMENT CONTROL.
2. OPTIMUM BENEFIT MUST BE MADE OF EVERY OPPORTUNITY TO TRAP SEDIMENT WITHIN THE WORK SITE, AND AS CLOSE AS PRACTICABLE TO ITS SOURCE.
3. SEDIMENT TRAPS MUST BE INSTALLED AND OPERATED TO BOTH COLLECT AND RETAIN SEDIMENT.
4. THE POTENTIAL SAFETY RISK OF A PROPOSED SEDIMENT TRAP TO SITE WORKERS AND THE PUBLIC MUST BE GIVEN APPROPRIATE CONSIDERATION, ESPECIALLY THOSE DEVICES LOCATED WITHIN PUBLICLY ACCESSIBLE AREAS.
5. ALL REASONABLE AND PRACTICABLE MEASURES MUST BE TAKEN TO PREVENT, OR AT LEAST MINIMISE, THE RELEASE OF SEDIMENT FROM THE SITE.
6. SUITABLE ALL-WEATHER MAINTENANCE ACCESS MUST BE PROVIDED TO ALL SEDIMENT CONTROL DEVICES.
7. SEDIMENT CONTROL DEVICES MUST BE DE-SILTED AND MADE FULLY OPERATIONAL AS SOON AS REASONABLE AND PRACTICABLE AFTER A SEDIMENT-PRODUCING EVENT, WHETHER NATURAL OR ARTIFICIAL, IF THE DEVICE'S SEDIMENT RETENTION CAPACITY REDUCES BY 30% OF DESIGN CAPACITY.
8. MATERIALS, WHETHER LIQUID OR SOLID, REMOVED FROM SEDIMENT CONTROL DEVICES DURING MAINTENANCE OR DECOMMISSIONING, MUST BE DISPOSED OF IN A MANNER THAT DOES NOT CAUSE ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.

ROADWORKS:

1. VEGETATION REMOVED DURING ROAD WORKS MUST BE RE-USED TO THE MAXIMUM POSSIBLE EXTENT TO MINIMISE SHORT AND LONG-TERM SOIL EROSION. NON-SALVAGEABLE DEBRIS MUST BE DISPOSED OF IN A MANNER THAT DOES NOT CAUSE ONGOING ENVIRONMENTAL HARM.
2. SOIL DISTURBANCES MUST BE STAGED INTO MANAGEABLY-SIZED AREAS OF NO GREATER THAN TEN (10) HECTARES TO ENSURE ADEQUATE ESC MANAGEMENT AND PROGRESSIVE STABILISATION OF DISTURBED SURFACES.
3. NEWLY CONSTRUCTED SPRAY-SEALED ROADS MUST BE SWEPT THOROUGHLY AS SOON AS POSSIBLE AFTER GRAVELLING TO PREVENT EXCESS GRAVEL ENTERING STORMWATER DRAINS OR WATERWAYS.
4. DURING THE CONSTRUCTION PERIOD, ALL UNSTABLE FILL EMBANKMENTS ARE TO BE LEFT WITH A LIP (WINDROW) AT THE TOP OF THE SLOPE AT THE END OF EACH DAY'S OPERATION, OR OTHER APPROPRIATE DRAINAGE CONTROL MEASURES, TO PREVENT BANK EROSION.
5. ALL CUT AND FILL EARTH BATTERS ARE TO BE TOPSOILED, AND GRASS SEEDED/HYDROMULCHED WITHIN TEN (10) DAYS OF COMPLETION OF GRADING.

SITE REHABILITATION:

1. ALL DISTURBED AREAS IDENTIFIED AS VERY LOW, LOW, MEDIUM, HIGH, OR EXTREME EROSION RISK MUST BE SUITABLY STABILISED WITHIN 30, 30, 20, 10 OR 5 DAYS RESPECTIVELY, OR PRIOR TO ANTICIPATED RAINFALL, WHICHEVER IS THE GREATER, FROM THE DAY THAT SOIL DISTURBANCES ON THE AREA HAVE BEEN FINALISED.
2. A MINIMUM 60% GROUND COVER MUST BE ACHIEVED ON ALL COMPLETED EARTHWORKS EXPOSED TO ACCELERATED SOIL EROSION WITHIN 30 DAYS DURING THOSE MONTHS WHEN THE EXPECTED RAINFALL IS LESS THAN 30mm; MINIMUM 70% COVER WITHIN 30 DAYS IF BETWEEN 30 AND 45mm; MINIMUM 70% COVER WITHIN 20 DAYS IF BETWEEN 45 AND 100mm; MINIMUM 75% COVER WITHIN 10 DAYS IF BETWEEN 100 AND 225mm; AND MINIMUM 80% COVER WITHIN 5 DAYS IF GREATER THAN 225mm. (ALTERNATIVE TO ABOVE)
3. NO COMPLETED EARTHWORK SURFACE MUST REMAIN DENUDED FOR LONGER THAN 60 DAYS.
4. THE TYPE OF GROUND COVER APPLIED TO COMPLETED EARTHWORKS IS COMPATIBLE WITH THE ANTICIPATED LONG-TERM LAND USE, ENVIRONMENTAL RISK, AND SITE REHABILITATION MEASURES.
5. UNLESS OTHERWISE DIRECTED BY THE SUPERINTENDENT OR WHERE DIRECTED BY THE APPROVED REVEGETATION PLAN, TOPSOIL MUST BE PLACED AT A MINIMUM DEPTH OF 75mm ON SLOPES 4:1 (H:V) OR FLATTER, AND 50mm ON SLOPES STEEPER THAN 4:1.
6. SOIL AMELIORANTS MUST BE ADDED TO THE SOIL IN ACCORDANCE WITH THE APPROVED LANDSCAPE/REVEGETATION PLANS AND/OR SOIL ANALYSIS.
7. TEMPORARY SITE STABILISATION PROCEDURES MUST COMMENCE AT LEAST 30 DAYS PRIOR TO THE NOMINATED SITE SHUTDOWN DATE. AT LEAST 70% STABLE COVER OF ALL UNSTABLE AND/OR DISTURBED SOIL SURFACES MUST BE ACHIEVED PRIOR TO ANY SHUTDOWN. THE STABILISATION WORKS MUST NOT RELY UPON THE LONGEVITY OF NON-VEGETATED EROSION CONTROL BLANKETS, OR TEMPORARY SOIL BINDERS.
8. ALL UNSTABLE OR DISTURBED SOIL SURFACES MUST BE ADEQUATELY STABILISED AGAINST EROSION (MINIMUM 70%) PRIOR TO COMMENCEMENT OF USE, OR SURVEY PLAN ENDORSEMENT.

SITE MAINTENANCE:

1. ENSURE ESC PLANS ARE ON SITE AT ALL TIMES.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING DRAINAGE CONTROL MEASURES, MUST BE MAINTAINED IN PROPER WORKING ORDER AT ALL TIMES DURING THEIR OPERATIONAL LIVES.
3. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING DRAINAGE CONTROL MEASURES, MUST BE FULLY OPERATIONAL AND MAINTAINED IN PROPER WORKING ORDER AT ALL TIMES DURING THE MAINTENANCE PERIOD AS SPECIFIED BY RELEVANT AUTHORITY.
4. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING DRAINAGE CONTROL MEASURES, MUST BE REMOVED AFTER ACHIEVING A SATISFACTORY "OFF-MAINTENANCE INSPECTION" BY THE RELEVANT AUTHORITY.
5. ALL DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSPECTED:
   (i) AT LEAST DAILY (WHEN WORK IS OCCURRING ON-SITE);
   (ii) AT LEAST WEEKLY (WHEN WORK IS NOT OCCURRING ON-SITE);
   (iii) WITHIN 24 HOURS OF EXPECTED RAINFALL; AND
   (iv) WITHIN 18 HOURS OF A RAINFALL EVENT OF SUFFICIENT INTENSITY AND DURATION TO CAUSE RUNOFF ON-SITE).
   IF FAILURE HAS BEEN FOUND, IMMEDIATE REMEDIATIONS ARE REQUIRED AND TO A STANDARD WHICH ENSURES THE FAILURE DOES NOT CONTINUALLY OCCUR UNDER DESIGN RAINFALL CONDITIONS.
6. WASHING/FLUSHING OF SEALED ROADWAYS MUST ONLY OCCUR WHERE SWEEPING HAS FAILED TO REMOVE SUFFICIENT SEDIMENT AND THERE IS A COMPELLING NEED TO REMOVE THE REMAINING SEDIMENT (E.G. FOR SAFETY REASONS). IN SUCH CIRCUMSTANCES, ALL REASONABLE AND PRACTICABLE SEDIMENT CONTROL MEASURES MUST BE USED TO PREVENT, OR AT LEAST MINIMISE, THE RELEASE OF SEDIMENT INTO RECEIVING WATERS. ONLY THOSE MEASURES THAT WILL NOT CAUSE SAFETY AND PROPERTY FLOODING ISSUES SHALL BE EMPLOYED. SEDIMENT REMOVED FROM ROADWAYS MUST BE DISPOSED OF IN A LAWFUL MANNER THAT DOES NOT CAUSE ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.
7. SEDIMENT REMOVED FROM SEDIMENT TRAPS AND PLACES OF SEDIMENT DEPOSITION MUST BE DISPOSED OF IN A LAWFUL MANNER THAT DOES NOT CAUSE ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.
8. MAINTENANCE IS TO OCCUR ON ALL EROSION AND SEDIMENT CONTROL MEASURES WHEN CAPACITY REDUCES BY 30%.
9. MAINTENANCE MOWING OF ALL ROAD SHOULDERS, TABLE DRAINS, BATTERS AND OTHER SURFACES LIKELY TO EXPERIENCE ACCELERATED SOIL EROSION MUST AIM TO LEAVE THE GRASS LENGTH NO SHORTER THAN 50mm WHERE REASONABLE AND PRACTICABLE.
10. MAINTENANCE MOWING MUST BE DONE IN A MANNER THAT WILL NOT DAMAGE THE PROFILE OF FORMED, SOFT EDGES, SUCH AS THE CREST OF EARTH EMBANKMENTS.
11. ENSURE RECORDS ARE KEPT OF DATES OF MAINTENANCE AND THE PERSONNEL RESPONSIBLE FOR UNDERTAKING THE MAINTENANCE.
12. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE SOIL EROSION IS LIMITED AS MUCH AS POSSIBLE. THE TECHNIQUES USED IN THE DESIGN SHOULD NOT BE TAKEN AS THE MAXIMUM CONTROLS ALLOWABLE, AND THE CONTRACTOR MAY ADD CONTROLS AS NECESSARY TO LIMIT SOIL EROSION AND SEDIMENTATION.
13. MONITORING SHALL BE UNDERTAKEN BY A PERSON WITH EXPERIENCE IN EROSION AND SEDIMENT CONTROL MONITORING. MONITORING IS TO BE UNDERTAKEN IN A MANNER WHICH COMPLIES WITH IECA GUIDELINES 2008, CHAPTER 7. SITE INSPECTION.

OTHER:

1. THE CONTRACTOR IS TO TAKE ALL NECESSARY PRECAUTIONS TO CONTROL EROSION AND DOWNSTREAM SEDIMENTATION DURING ALL STAGES OF CONSTRUCTION INCLUDING THE MAINTENANCE PERIOD.
2. ALL SEDIMENT CONTROL DEVICES SHALL BE MONITORED, CLEANED AND/OR REPAIRED WHENEVER THE ACCUMULATED SEDIMENT REDUCES THE CAPACITY BY 30%.
3. THE EXTENT OF GRASSING SHALL BE DETERMINED BY THE SUPERINTENDENT AND SHALL BE SEEDED, AS SPECIFIED, WITHIN SEVEN DAYS OF FINAL TRIMMING.
4. EXTENT AND POSITION OF SILT FENCE CONTROL MEASURES TO BE DETERMINED ON SITE BY SUPERINTENDENT.
5. MEASURES SHOWN ON THIS DRAWING ARE MINIMUM REQUIREMENTS ONLY.
6. SCOUR PROTECTION AND SILT MANAGEMENT MEASURES TO BE PROVIDED AT STORMWATER OUTLET HEADWALLS.
7. PROVISION TO BE MADE FOR DIRT/SAND REMOVAL FROM CONSTRUCTION VEHICLES PRIOR TO TRAVEL ON PUBLIC ROADS. METHOD TO BE APPROVED BY SUPERINTENDENT PRIOR TO COMMENCEMENT OF WORK.
8. ANY SILT OR SEDIMENT CAUSED BY CONSTRUCTION TRAFFIC ON EXISTING ROADS IS TO BE REMOVED DAILY.
9. THE CONTRACTOR SHALL IMPLEMENT EROSION AND SEDIMENT CONTROL PROCEDURES DURING CONSTRUCTION AND MAINTENANCE STAGES OF THE DEVELOPMENT AND SHALL TAKE ALL NECESSARY ACTIONS TO COMPLY WITH THE POLICY OBJECTIVES OF COUNCIL'S LOCAL PLANNING POLICY - EROSION AND SEDIMENT CONTROL.
10. A SCHEDULE SHALL BE SUBMITTED FOR THE APPROVAL OF COUNCIL'S REPRESENTATIVE AT THE PRE-START MEETING FOR THE FIELD IMPLEMENTATION OF EROSION AND SEDIMENT CONTROL, DETAILING THE STAGES AT WHICH VARIOUS MANAGEMENT TECHNIQUES WOULD BE IN PLACE AND AUDITING PROCEDURES.
11. FINAL FORM OF SEDIMENT EROSION CONTROL TO BE DECIDED ON SITE BY THE SUPERINTENDENT.
12. THE CONTRACTOR IS TO ENSURE THAT NO SILT REACHES THE DOWNSTREAM WATER COURSE AND IS TO PROVIDE ADEQUATE PROTECTION TO PREVENT THIS OCCURRING.

ROCK CHECK DAMS, SAND BAG CHECK DAMS AND COIR LOGS:

1. TO BE LOCATED AS DIRECTED ON SITE AND SPACED TO SUIT SETOUT DETAIL, REFER DRG 04.
2. MAINTENANCE OF CHECK DAMS TO BE IN ACCORDANCE WITH 'IECA BEST PRACTICE EROSION AND SEDIMENT CONTROL BOOK 6 STANDARD DRAWINGS'.

LEVEL SPREADERS:

1. TO BE LOCATED AS DIRECTED ON SITE, TYPICALLY MAX. SPACING OF 120m. MAINTENANCE OF CHECK DAMS TO BE IN ACCORDANCE WITH 'IECA BEST PRACTICE EROSION AND SEDIMENT CONTROL BOOK 6 STANDARD DRAWINGS'.

				SURVEY DATA	
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				MAP GRID	
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BEAUDESERT & BOONAH CRANES

48 KOOROOMBA DRIVE, MT ALFORD QLD 4310

BEAUDESERT & BOONAH CRANES

149 SANDY CREEK ROAD, BROMELTON QLD 4285

ESC NOTES - SHEET 02

ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		24/04/24

PO Box 554
Beaudesert QLD 4285
(07) 5541 3500
www.acsengineers.com.au

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DRAWING NUMBER: ACS-230068-GEN-11

REVISION: 3

SILT & SEDIMENTATION NOTES

1. DESIGNED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL ENGINEERING GUIDELINES FOR QUEENSLAND & REGULATORY AUTHORITIES REQUIREMENTS.
2. ALL WORK, FIXTURES, FITTINGS & STRUCTURES SHALL COMPLY WITH & BE CARRIED OUT TO SOIL EROSION & SEDIMENT CONTROL ENGINEERING GUIDELINES OF QLD REGULATORY AUTHORITIES REQUIREMENTS.
3. PROVIDE, INSTALL AND MAINTAIN ALL BARRIERS, GROSS POLLUTANT TRAPS, CONSTRUCTION EXITS, PUMP SUCTION PITS, POLLUTANT AND SEDIMENT TRAPS FENCES NECESSARY FOR THE CONTROL OF EROSION AND SEDIMENTATION WITHIN AND AROUND THE SITE DURING CONSTRUCTION. ALL IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL ENGINEERING GUIDELINES FOR QUEENSLAND & REGULATORY AUTHORITIES REQUIREMENTS.
4. EXACT DETAIL, TYPE & EXTENT OF SEDIMENT FENCE SHALL BE DETERMINED ON SITE IN CONJUNCTION WITH REGULATORY AUTHORITY TO ACHIEVE & MAINTAIN A SUITABLE LEVEL OF PERFORMANCE FOR THE EXPECTED FLOWS, INCLUDING POSSIBLE OVERLAND FLOWS.
5. PROVIDE AND INSTALL 750mm HIGH SEDIMENT FENCE AROUND SITE. EXACT EXTENT OF FENCE SHALL BE DETERMINED ON SITE IN CONJUNCTION WITH REGULATORY AUTHORITY.
6. PROVIDE AND INSTALL 450mm HIGH SEDIMENT FENCE COMPLETELY AROUND ALL OPEN STORMWATER PIPES AT THE END OF EACH DAYS WORK & IMMEDIATELY PRIOR TO ANY STORM EVENT.
7. PROVIDE AND INSTALL 450mm HIGH SEDIMENT FENCE COMPLETELY AROUND ALL SWS's, GRATED TRENCHES & GRATES.
8. PROVIDE AND INSTALL CONSTRUCTION ENTRY / EXIT SEDIMENT CONTROL STRUCTURE.
9. PROVIDE AND INSTALL SEDIMENT BARRIERS TO ALL EXISTING ROAD INLET GULLIES AFFECTED BY CONSTRUCTION. CONSTRUCTION OF ALL SEDIMENT MANAGEMENT DEVICES SHALL BE COMPLETED AND EFFECTIVE PRIOR TO STRIPPING OF TOP SOIL AND GRASS, BULK EARTHWORKS TO SITE, AND SERVICE INSTALLATION.
10. ALL SEDIMENT MANAGEMENT DEVICES ARE TO REMAIN IN PLACE UNTIL WRITTEN NOTICE FROM LICENSING AND COMPLIANCE.
11. BOTH TEMPORARY AND PERMANENT SEDIMENTATION MANAGEMENT DEVICES SHALL BE MAINTAINED AT A SUITABLE LEVEL / CONDITION THROUGHOUT CONSTRUCTION. SEDIMENT FENCES ARE TO BE CLEANED OUT WHEN CAPACITY IS REDUCED BY 30%.
12. PRIOR TO COMMENCEMENT OF CONSTRUCTION, APPROVAL SHALL BE OBTAINED FROM LICENSING AND COMPLIANCE FOR THE LOCATION OF THE SITE ACCESS POINT AND WASH DOWN AREA WHICH SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
13. IF EROSION AND SEDIMENT CONTROL DEVICES HAVE BEEN FOUND TO BE DEFICIENT OR FAILED IN SERVICE, DUE TO UNFORESEEN CIRCUMSTANCES, CORRECTIVE ACTION IS TO BE UNDERTAKEN IMMEDIATELY WHICH MAY INCLUDE AMENDMENTS / ADDITIONS TO THE ORIGINAL EROSION CONTROL PLANS. SUCH ADDITIONS OR AMENDMENTS ARE TO BE APPROVED BY LICENSING AND COMPLIANCE OFFICER AND REGULATORY AUTHORITY.
14. THE INSTALLATION, REMOVAL, RELOCATION, OR MODIFICATION TO EROSION AND SEDIMENT CONTROL DEVICES MAY BE MADE BY A LICENSING AND COMPLIANCE OFFICER AND REGULATORY AUTHORITY IF DEEMED NECESSARY AND RELEVANT.
15. ALL MUD TRACKED ONTO COUNCIL ROADS SHALL BE BROOMED OFF IMMEDIATELY (NOT WASHED OFF INTO COUNCIL STORMWATER SYSTEM).
16. ADDITIONAL SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED DURING CONSTRUCTION IF DIRECTED BY COUNCIL REPRESENTATIVE.

EROSION & SEDIMENT CONTROL PROGRAM

1. MESH AND INLET PROTECTION DEVICES TO ALL GULLY PITS TO BE REMOVED DURING CONSTRUCTION OF ROADWAYS. AFTER ROADS HAVE BEEN COMPLETED CONTRACTOR TO ENSURE ALL GULLY GRATES ARE WRAPPED IN GEOFABRIC AND ROCK FILLED AGRICULTURAL PIPE PLACED ALONG LINTELS. (REFER DETAIL).
2. MESH AND INLET PROTECTION DEVICES TO FIELD INLETS TO REMAIN UNTIL SWALES HAVE BEEN TOPSOILED AND TURFED.
3. SEDIMENT PONDS TO BE REMOVED AT THE COMPLETION OF ALL WORKS OR WHEN ALL ALLOTMENTS HAVE 80% GRASS COVERAGE.
4. SEDIMENT FENCES TO REMAIN ALONG PROPERTY BOUNDARIES AND TO BE MAINTAINED/REPLACED DURING THE 'ON MAINTENANCE' PERIOD OR UNTIL LOTS ARE SOLD AND BUILDING CONSTRUCTION COMMENCES.
5. THE CONTRACTOR TO REMOVE GULLY PIT PROTECTION DEVICES AFTER SUCCESSFUL 'ON MAINTENANCE' INSPECTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES DURING CONSTRUCTION UNTIL AFTER SUCCESSFUL 'ON MAINTENANCE' INSPECTION.

RELEASE LIMITS

ALL RELEASE OF STORMWATER CAPTURED IN A SEDIMENT BASIN MUST NOT EXCEED THE FOLLOWING LIMITS:

a. 50mg/L OF TOTAL SUSPENDED SOLIDS (TSS) AS A MAXIMUM CONCENTRATION;
b. TURBIDITY (NTU) VALUE LESS THAN 10% ABOVE BACKGROUND;
c. pH VALUE MUST BE IN THE RANGE 6.5 TO 8.5 EXCEPT WHERE, AND TO THE EXTENT THAT, THE NATURAL RECEIVING WATERS LIE OUTSIDE THIS RANGE

MAINTENANCE OF PUBLIC ROADS

1. ALL CONSTRUCTION VEHICLES DEPARTING THE SITE SHALL HAVE THEIR TYRES WASHED DOWN.
2. THE CONTRACTOR SHALL INSPECT THE PUBLIC ROADS ADJACENT TO THE SITE DAILY AND REMOVE ANY SOIL OR SILT DEPOSITS.
3. THE CONTRACTOR SHALL PROVIDE A WASH-DOWN AREA AND ANY STORMWATER INLETS ADJACENT TO THIS AREA ARE TO BE PROTECTED FROM SILT INFILTRATION.
4. THE WASH-DOWN AREA SHALL BE LOCATED SUCH THAT SILTED WATER IS FILTERED PRIOR TO LEAVING THE SITE. SHOULD THE WATER POND IT MUST BE TESTED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PROGRAM PRIOR TO DISPOSAL.

CONSTRUCTION SEQUENCE

1. INSTALL SHAKE DOWN DEVICE AT ENTRY LOCATIONS.
2. CONSTRUCT ROCK CHECK DAM AT SITE STORMWATER OUTLET.
3. INSTALL ALL ADDITIONAL SEDIMENT CONTROL DEVICES.
4. CONSTRUCT DRAINAGE CHANNELS.
5. CONSTRUCT STORMWATER PIPED NETWORK. ALL GULLY INLETS AND STORMWATER OUTLETS TO BE PROTECTED.
6. CONSTRUCT WATER AND ELECTRICAL RETICULATION.
7. CONSTRUCT ROADS.
8. ALL AREAS OF DISTURBANCE OUTSIDE ROADWAY TO BE GRASS SEEDED AS DIRECTED ON COMPLETION OF WORKS AND 70% GRASS COVER AND APPROVAL BY COUNCIL. SEDIMENT BASIN TO BE REMOVED AND AREA TO BE CONVERTED TO DETENTION BASIN IN ACCORDANCE WITH APPROVED DRAWINGS.

SEDIMENT MANAGEMENT PROGRAM

1. CLEARING
   - EARTH BANK AND TABLE DRAIN TO BE CONSTRUCTED ALONG THE TOP OF THE EXISTING BATTER.
   - SEDIMENT FENCE, SAND BAGS, SEDIMENT BASINS AND EARTH RILLS TO BE ERECTED AS INDICATED OR REQUIRED.
   - EXISTING GRASSED AREAS TO BE KEPT WHERE POSSIBLE.
   - SHAKE DOWN/WASH DOWN BAY AT ENTRY/EXIT POINT AS REQUIRED BY COUNCIL OFFICER.
2. EARTHWORKS
   - SEDIMENT FENCES, SEDIMENT BASINS AND EARTH RILLS WITHIN ROADS TO BE ERECTED AS INDICATED OR REQUIRED.
3. SEWER / ROOFWATER / STORMWATER / SERVICES
   - EXCAVATED MATERIAL TO BE PLACED ON HIGH SIDE OF TRENCH AND TO PROTECT PIPE WORK AND DIRECT SURFACE MATERIAL AWAY FROM EXCAVATIONS.
   - TOPSOIL AND GRASS SEED AREAS IN ALLOTMENTS IMMEDIATELY AFTER COMPLETING THE SEWER AND ROOFWATER DRAINAGE CONSTRUCTION.
   - DEPRESS GROUND AROUND TEMPORARY FIELD INLETS TO CREATE SEDIMENT POND.
4. STOCKPILE
   - SEDIMENT FENCE TO BE ERECTED 5m FROM TOE OF BATTER ON LOW SIDE OF STOCKPILE.
5. ROADWORKS
   - SEDIMENT FENCES TO ALLOTMENTS TO BE ERECTED.
   - KERB INLET PROTECTION TO BE PROVIDED.
   - SAND BAGS SURROUND SAG GULLY PITS AS INDICATED.
6. ALLOTMENTS
   - MULCH AS DIRECTED AND TOPSOIL AND SEED ALLOTMENTS.
   - SEDIMENT FENCES TO ALLOTMENTS TO BE RE-ERECTED.
   - COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATES THE GRASS STRIKE IS SUFFICIENT.
   - ESTABLISHMENT OF 70% COVERAGE WITHIN 30 CALENDAR DAYS OF COMPLETION OF WORKS.
7. MAINTENANCE PERIOD
   - ALL ESC MEASURES SHALL BE INSPECTED AT LEAST DAILY (WHEN WORK IS OCCURRING ON SITE) OR WEEKLY (WHEN WORK IS NOT OCCURRING ON SITE) WITHIN 24 HOURS OF EXPECTED RAIN, AND WITHIN 18 HOURS OF A RAINFALL EVENT
   - ALL ESC MEASURES SHALL BE MAINTAINED THE SAME DAY WHEN THE CAPACITY OF THE ESC MEASURE REDUCES BY 30%.

				SURVEY DATA	
				DATUM	
				MAP GRID	
3	INCLUSION OF VEGETATION BUFFER, RELOCATED DRAIN	MLS	22/04/24	HEIGHT ORIGIN	
2	FOR APPROVAL	NJF	10/04/24	SURVEY BOOKS	
1	PRELIMINARY	NJF	28/09/23		
	REVISION/DETAILS	DWN	DATE	DES	DATE

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BEAUDESERT & BOONAH CRANES

48 KOOROOMBA DRIVE, MT ALFORD QLD 4310

BEAUDESERT & BOONAH CRANES

149 SANDY CREEK ROAD, BROMELTON QLD 4285

ESC NOTES - SHEET 03

ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		24/04/24

PO Box 554
Beaudesert QLD 4285

(07) 5541 3500
www.acsengineers.com.au

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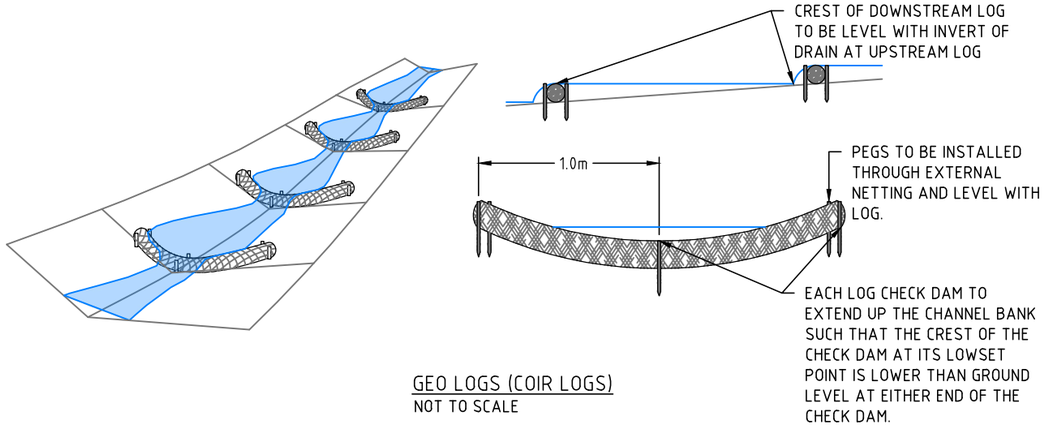
DRAWING NUMBER: ACS-230068-GEN-12

REVISION: 3



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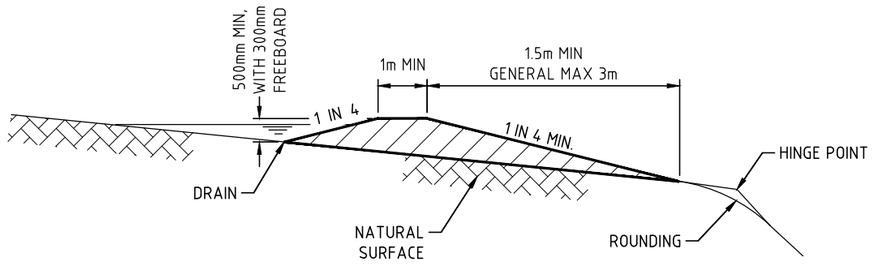
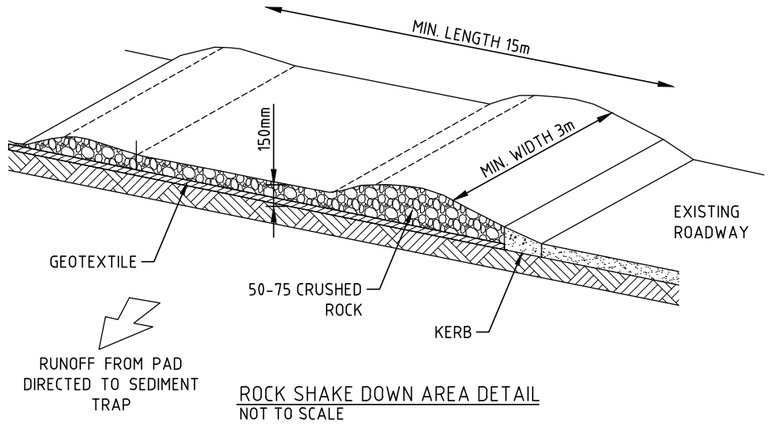


CATCH DRAIN
NOT TO SCALE



ROCK SHAKE DOWN AREA DETAIL
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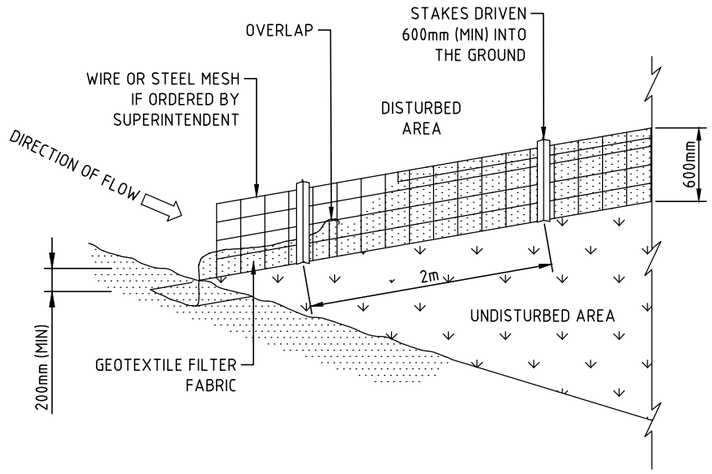

GEOTEXTILE SEDIMENT FENCE
NOT TO SCALE

				SURVEY DATA	
				DATUM	
				MAP GRID	
3	INCLUSION OF VEGETATION BUFFER, RELOCATED DRAIN	MLS	22/04/24	HEIGHT ORIGIN	
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BEAUDESERT & BOONAH CRANES

48 KOOROOMBA DRIVE, MT ALFORD QLD 4310

BEAUDESERT & BOONAH CRANES

149 SANDY CREEK ROAD, BROMELTON QLD 4285

ESC NOTES - SHEET 03

ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		24/04/24

PO Box 554
Beaudesert QLD 4285
(07) 5541 3500
www.acsengineers.com.au
ACS Engineers
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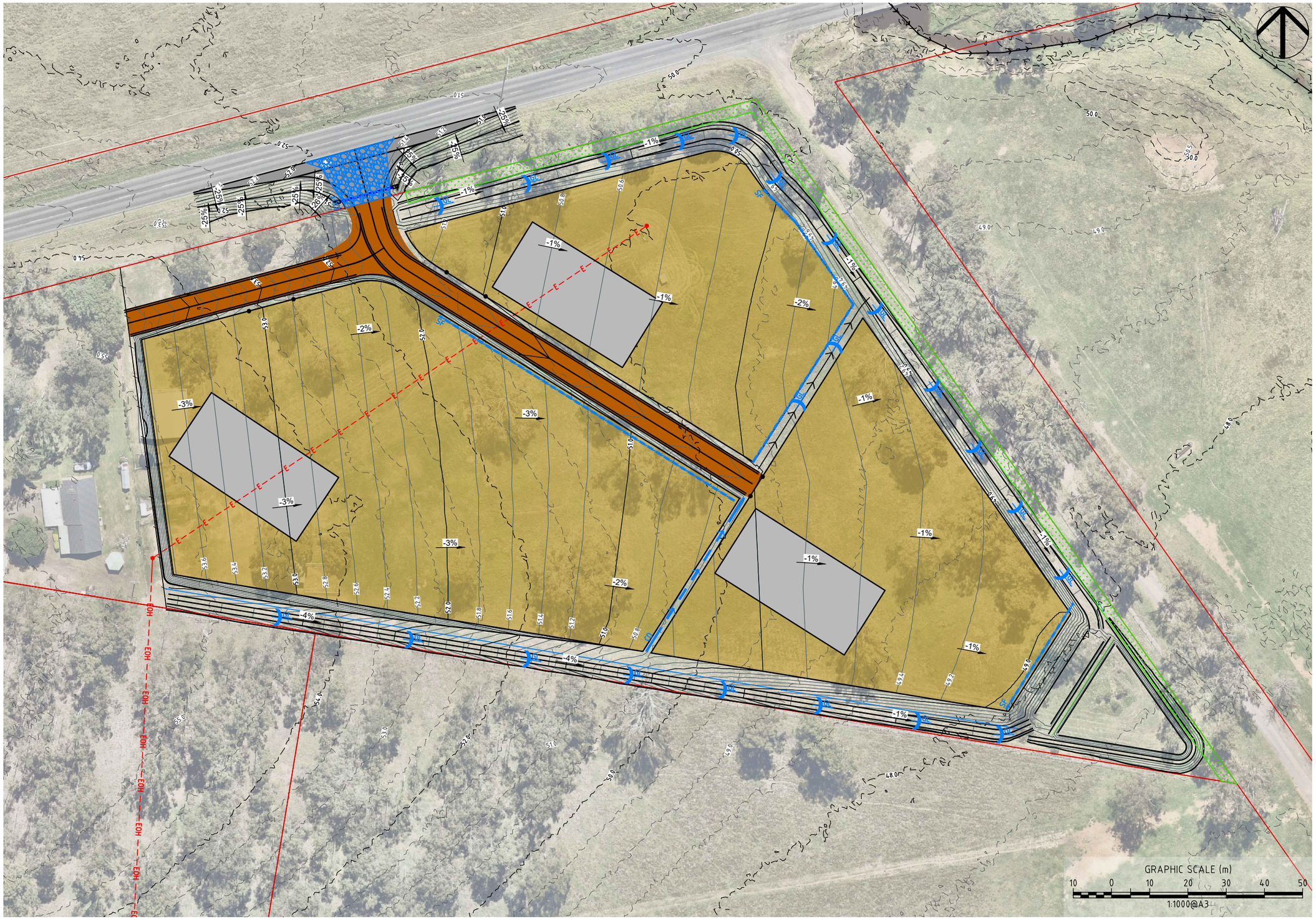
DRAWING NUMBER: ACS-230068-GEN-13

REVISION: 3

LEGEND

- CD — CATCH DRAIN
- GL — GEO LOG (COIR LOG)
- SF — SEDIMENT FENCE
- EXIT — ROCK PAD



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48 KOOROOMBA DRIVE, MT ALFORD QLD 4310

BEAUDESERT & BOONAH CRANES

149 SANDY CREEK ROAD, BROMELTON QLD 4285

ESC LAYOUT PLAN

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		24/04/24

PO Box 554
Beaudesert QLD 4285

(07) 5541 3500
www.acsengineers.com.au

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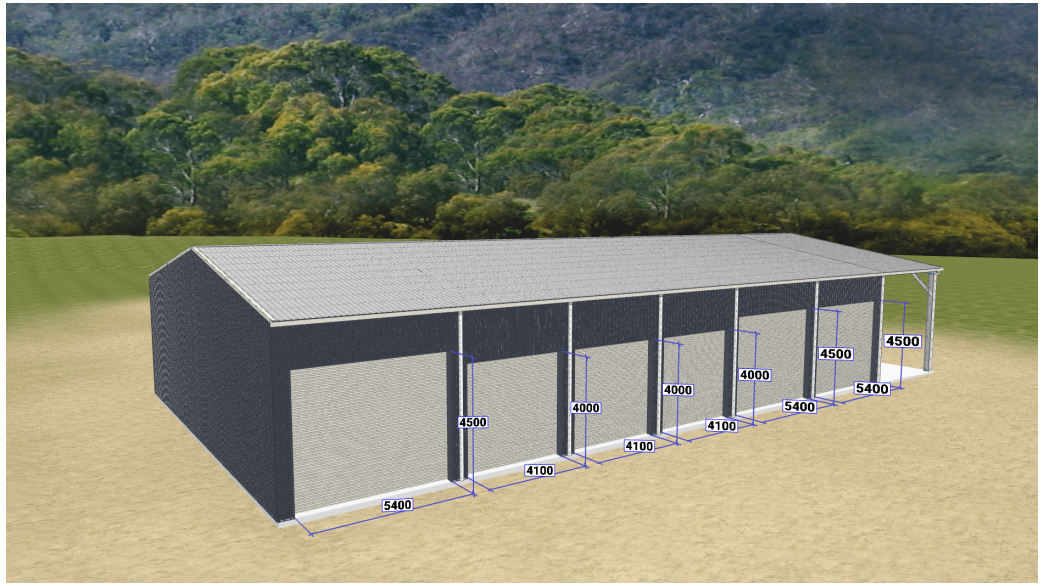
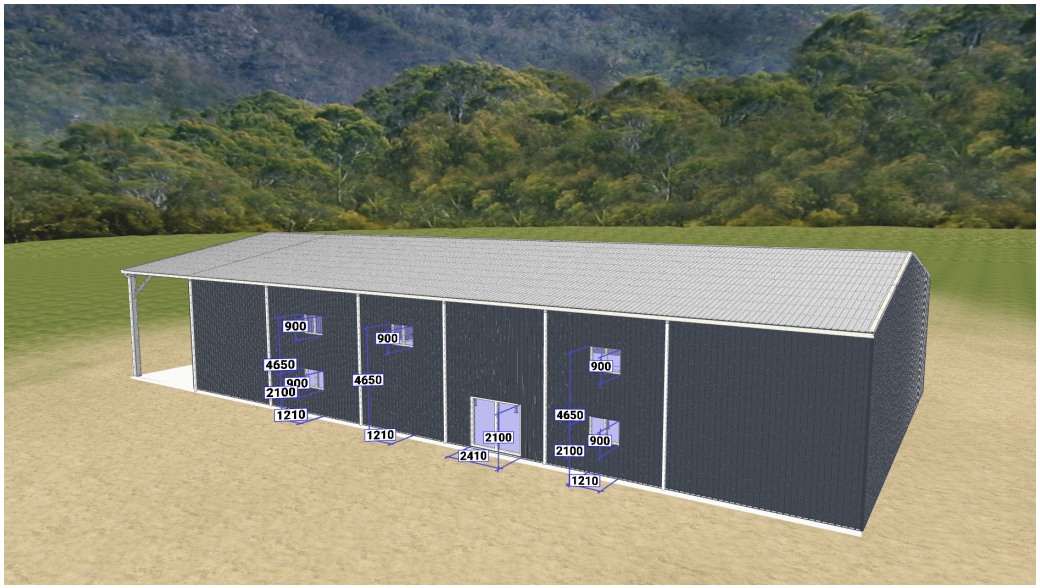
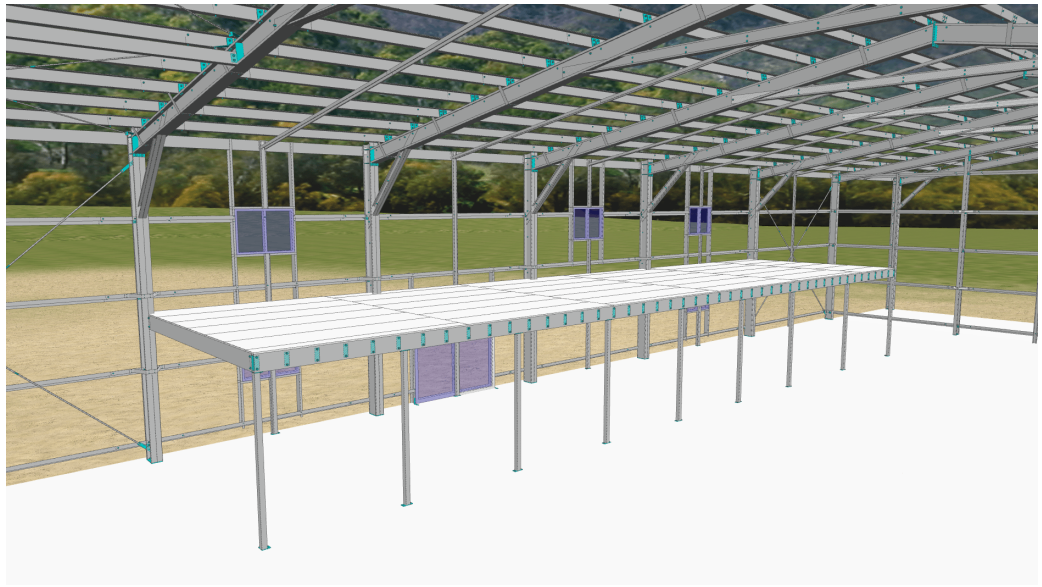
REVISION: 3





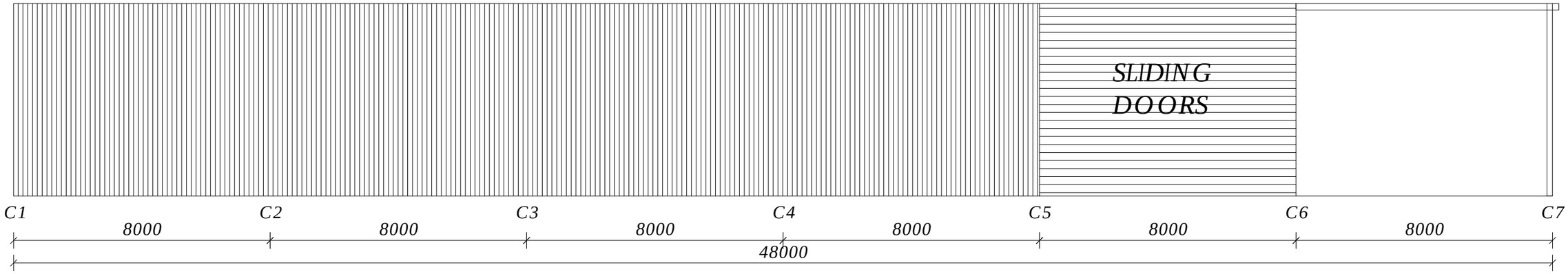


R&F STEEL BUILDINGS
R&F Steel Buildings Brisbane West
ABN: 84 849 102 256

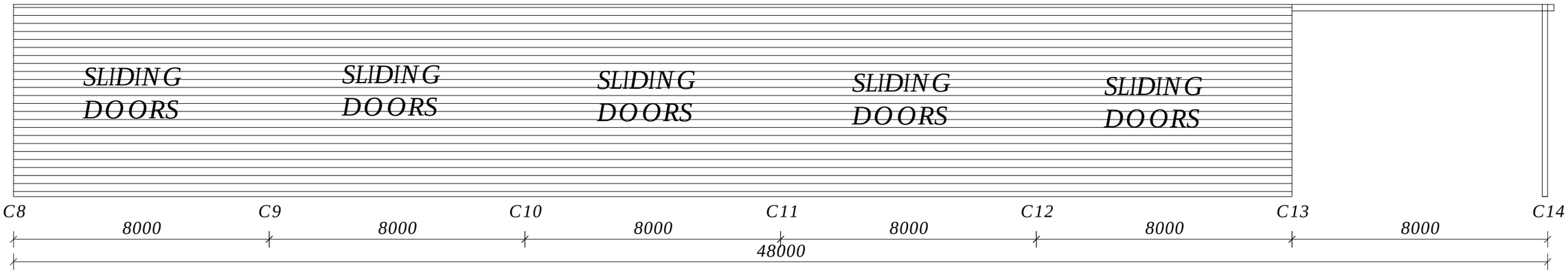
R&F Steel Buildings Brisbane West
QBCC Lic. 15249426
119 Jutland Street, Oxley QLD 4075

T 0432 589 753
E brisbane.west@rfsteelbuildings.com.au

PROJECT NO: **P12232Q5**	CUSTOMER: Boonah Cranes	SITE: 48 Kooroomba Dr Mount Alford, QLD 4310	DATE: **10/09/2023**
PROJECT NAME: **Boonah Cranes**		LOT: RP/SP:	ULT WIND SPEED: **49.28 m/s** SERVICEABILITY: **33.72 m/s**
JOB NAME: **Boonah Cranes**		DRAWING No: **-Boonah Cranes:**	



BACK SIDE



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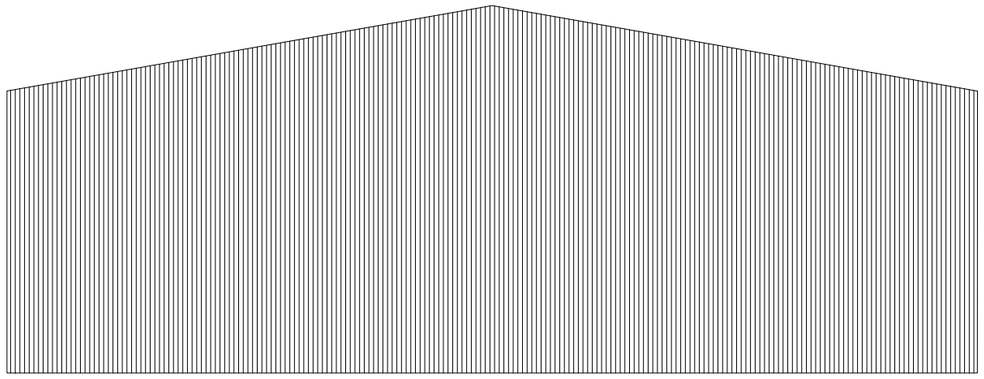
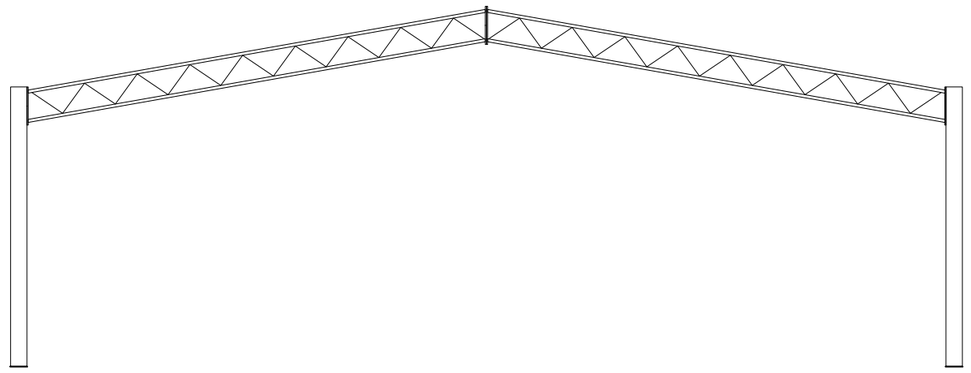
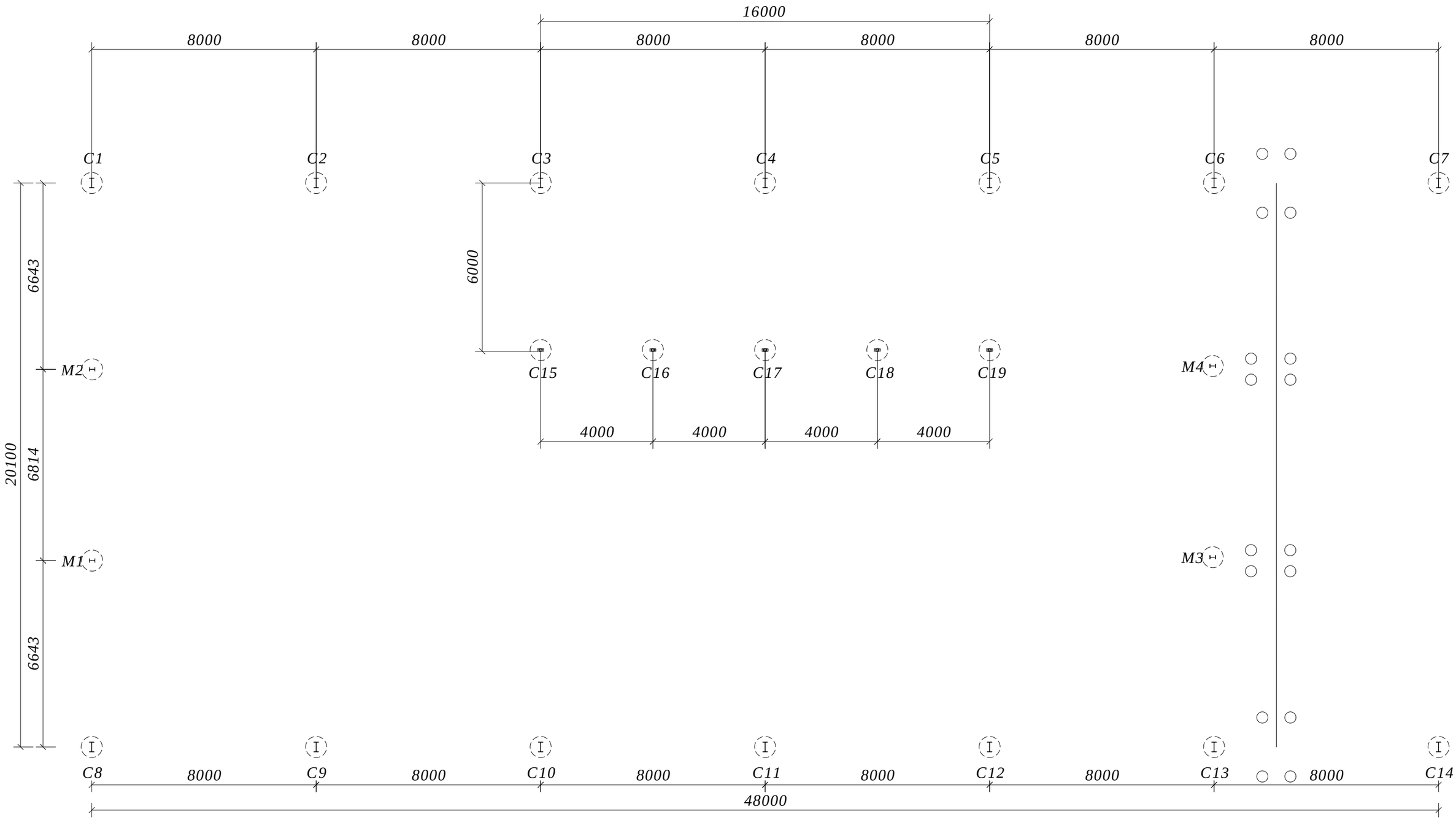


END VIEW



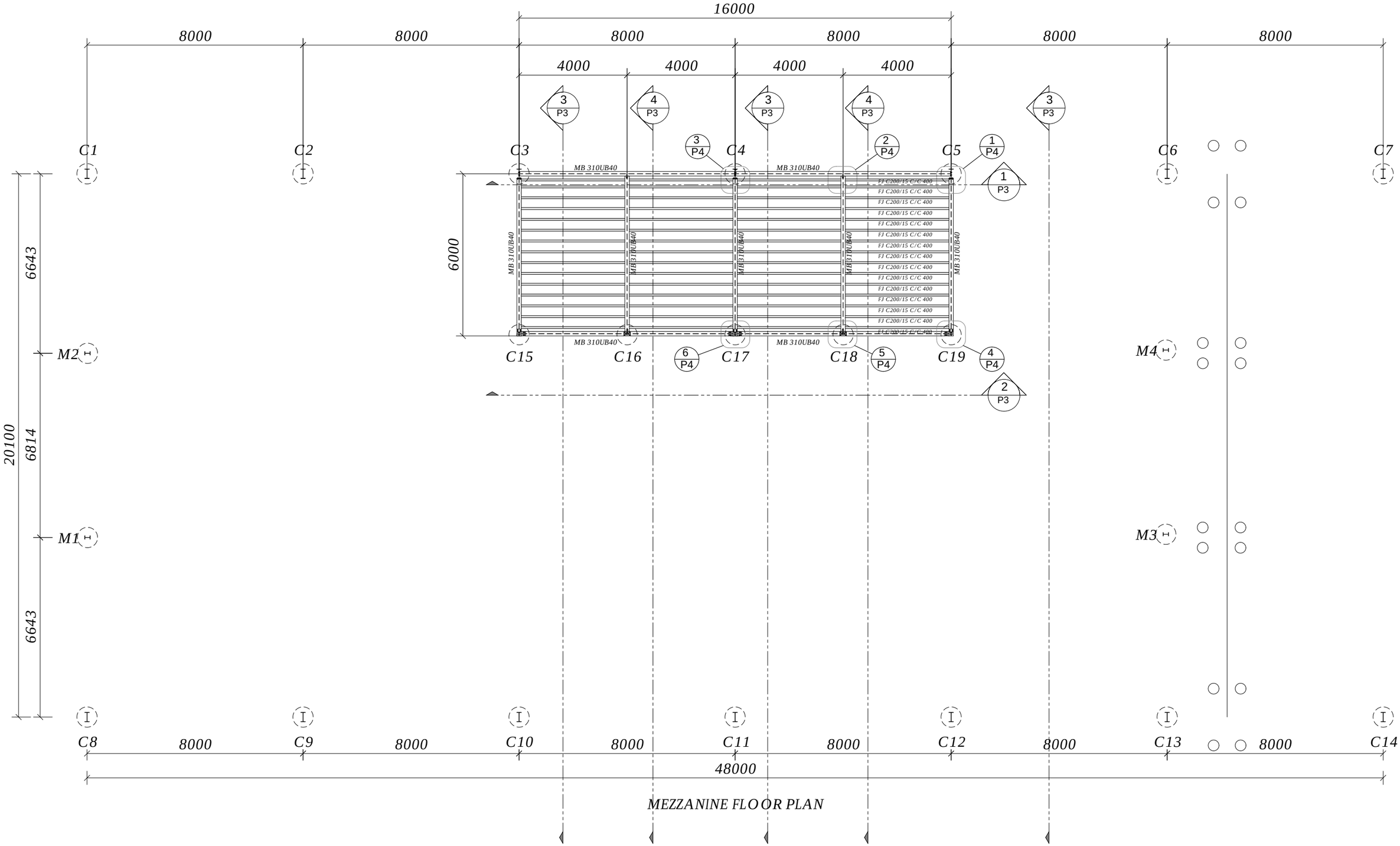
END VIEW

CLIENT:	VERENA JOYCE 149 SANDY CREEK ROAD BROMELTON QLD 4285			SCALE	SEE DRAWING
PAGE 6/6		DRAWN BY: WILL SCOTT		PROJECT	BOONAH CRANES
				DATE	23/04/24

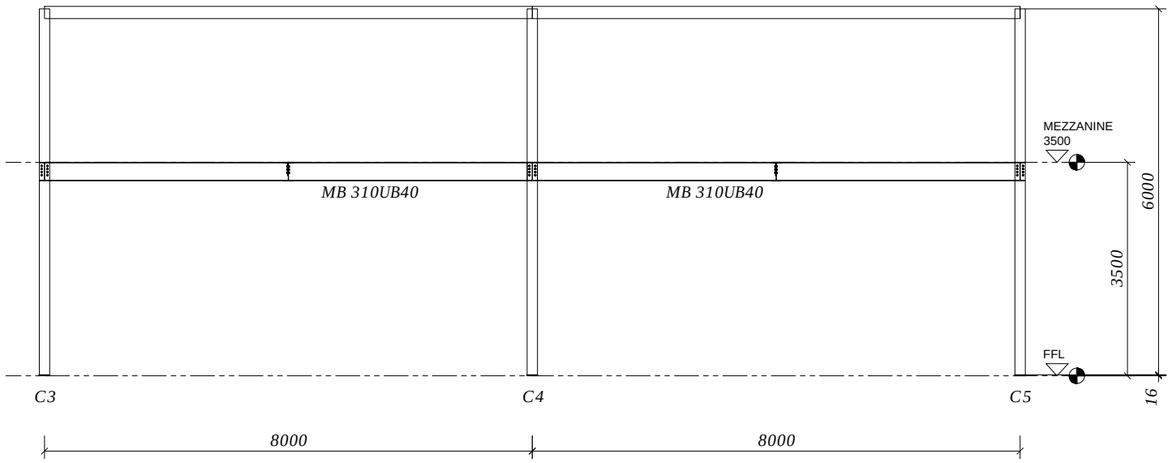


MEZZANINE FLOOR PLAN

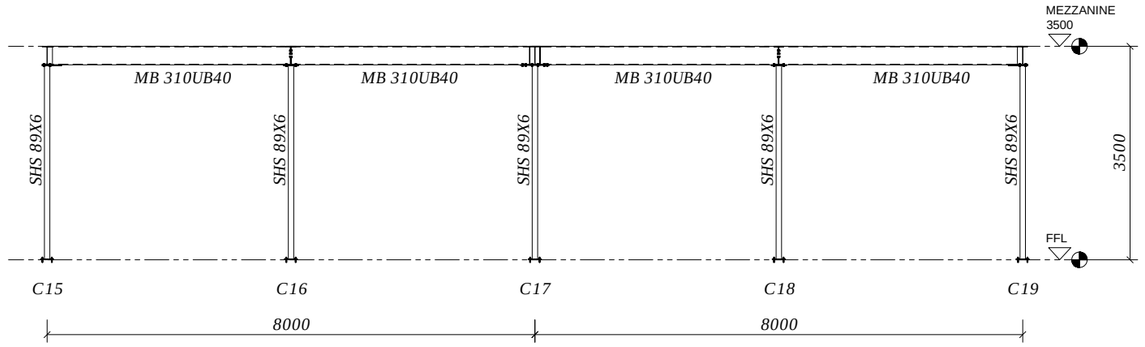
CLIENT:	VERENA JOYCE 149 SANDY CREEK ROAD BROMELTON QLD 4285			SCALE	SEE DRAWING
PAGE 6/6		DRAWN BY: WILL SCOTT		PROJECT	BOONAH CRANES
				DATE	23/04/24



CLIENT:	VERENA JOYCE 149 SANDY CREEK ROAD BROMELTON QLD 4285			SCALE	SEE DRAWING
PAGE 6/6		DRAWN BY: WILL SCOTT		PROJECT	BOONAH CRANES
				DATE	21/05/24



SECTION 1-1



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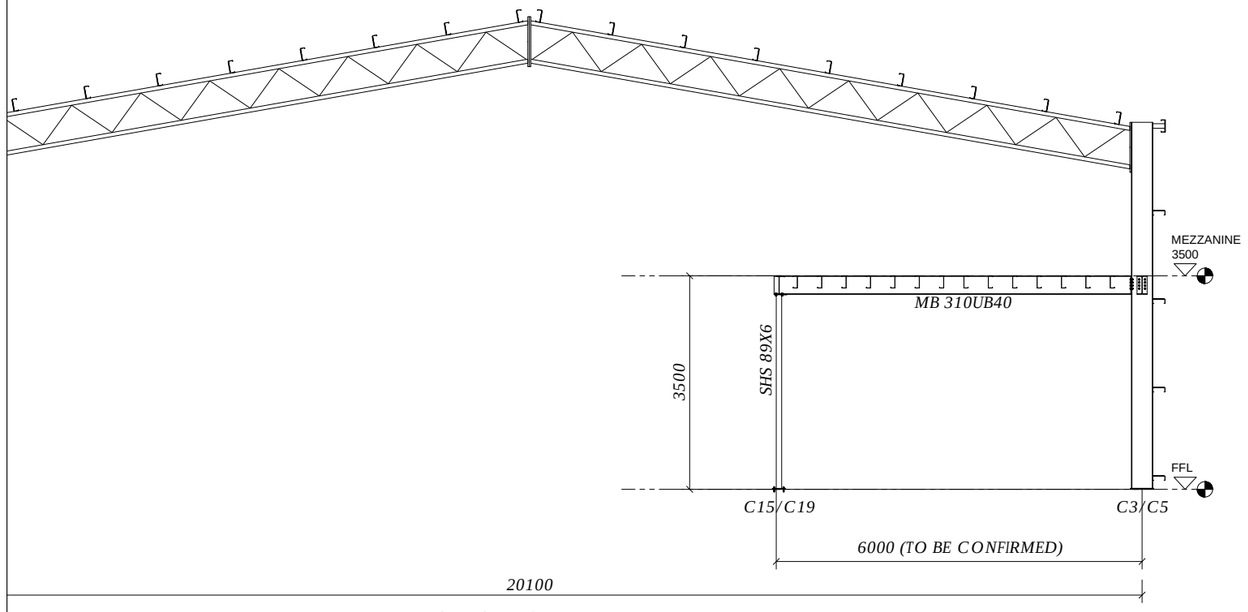

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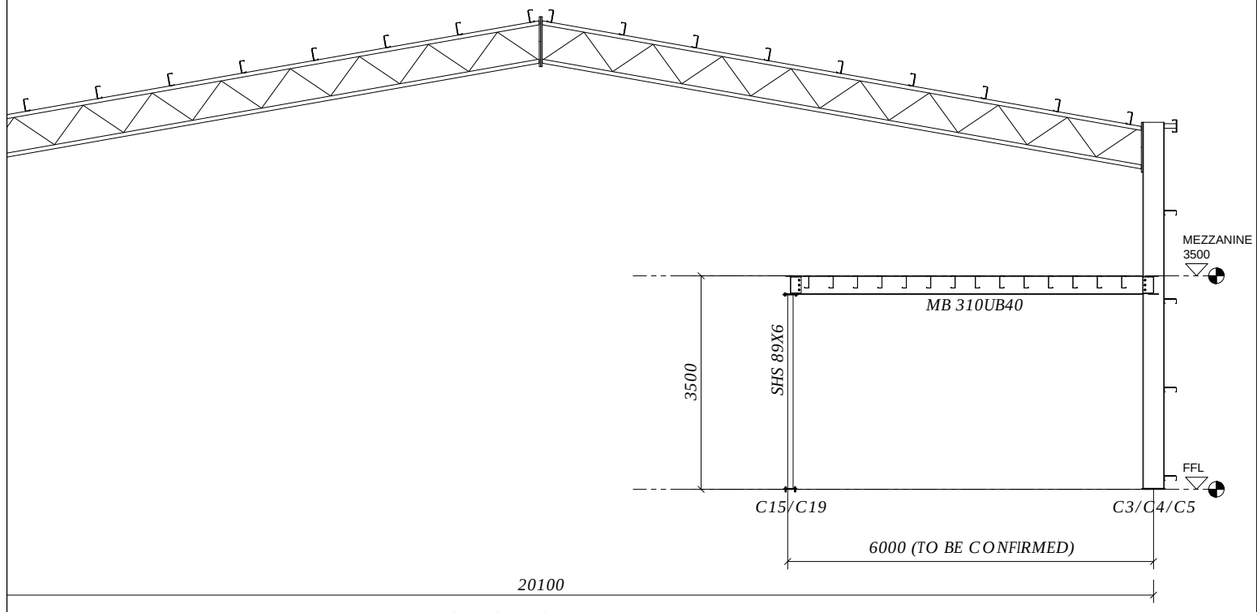

SECTION 4-4

CLIENT:	VERENA JOYCE		SCALE	SEE DRAWING
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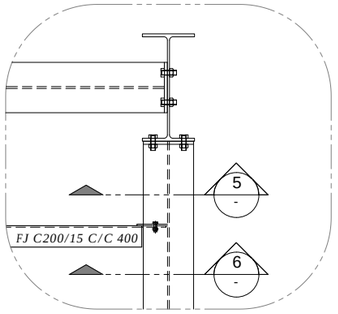
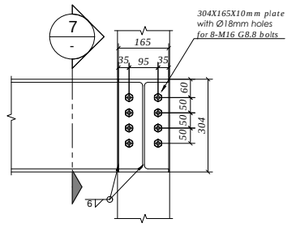
			DATE	21/05/24



DETAIL-1



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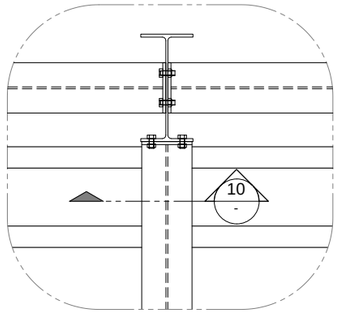

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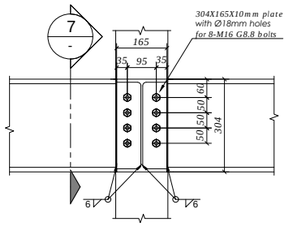

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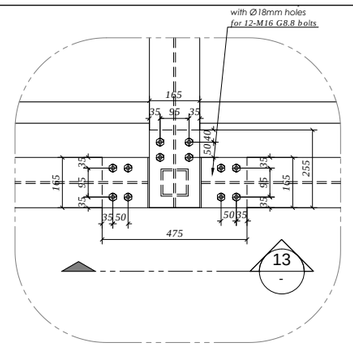

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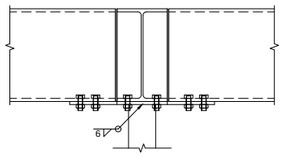

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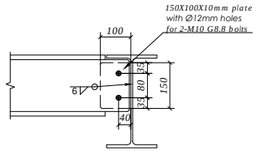
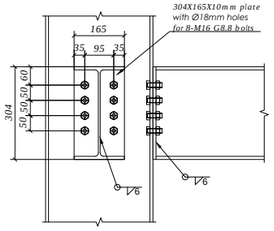


SECTION 6-6
TYP. FOR ALL FJ



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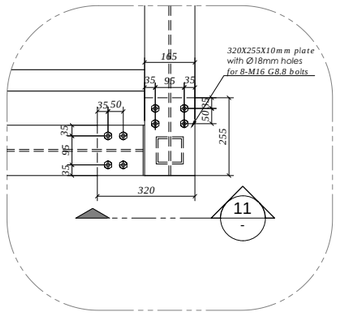
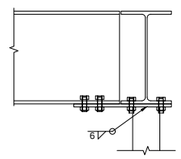


DETAIL-4



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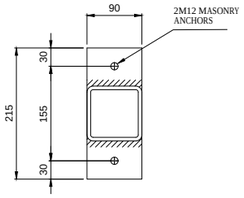
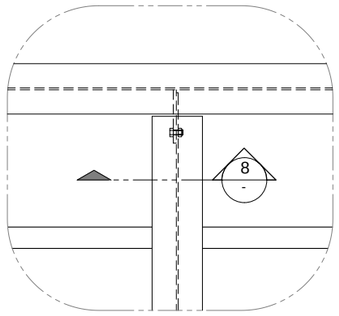
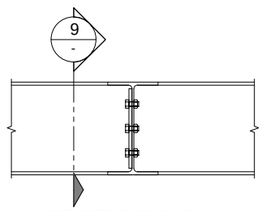


TYPICAL BASE PLATE (16mm)
DETAILS



DETAIL-2



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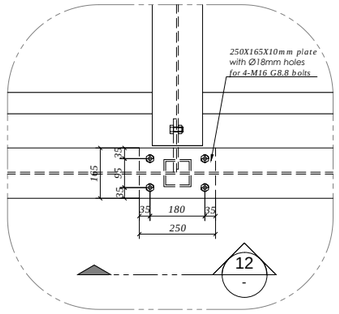

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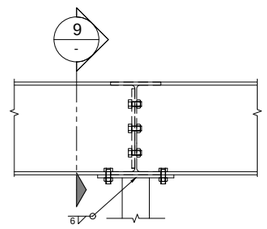

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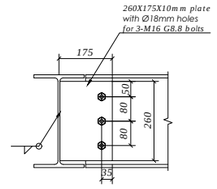

SECTION 9-9

CLIENT:	VERENA JOYCE			SCALE	SEE DRAWING
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