

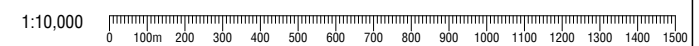
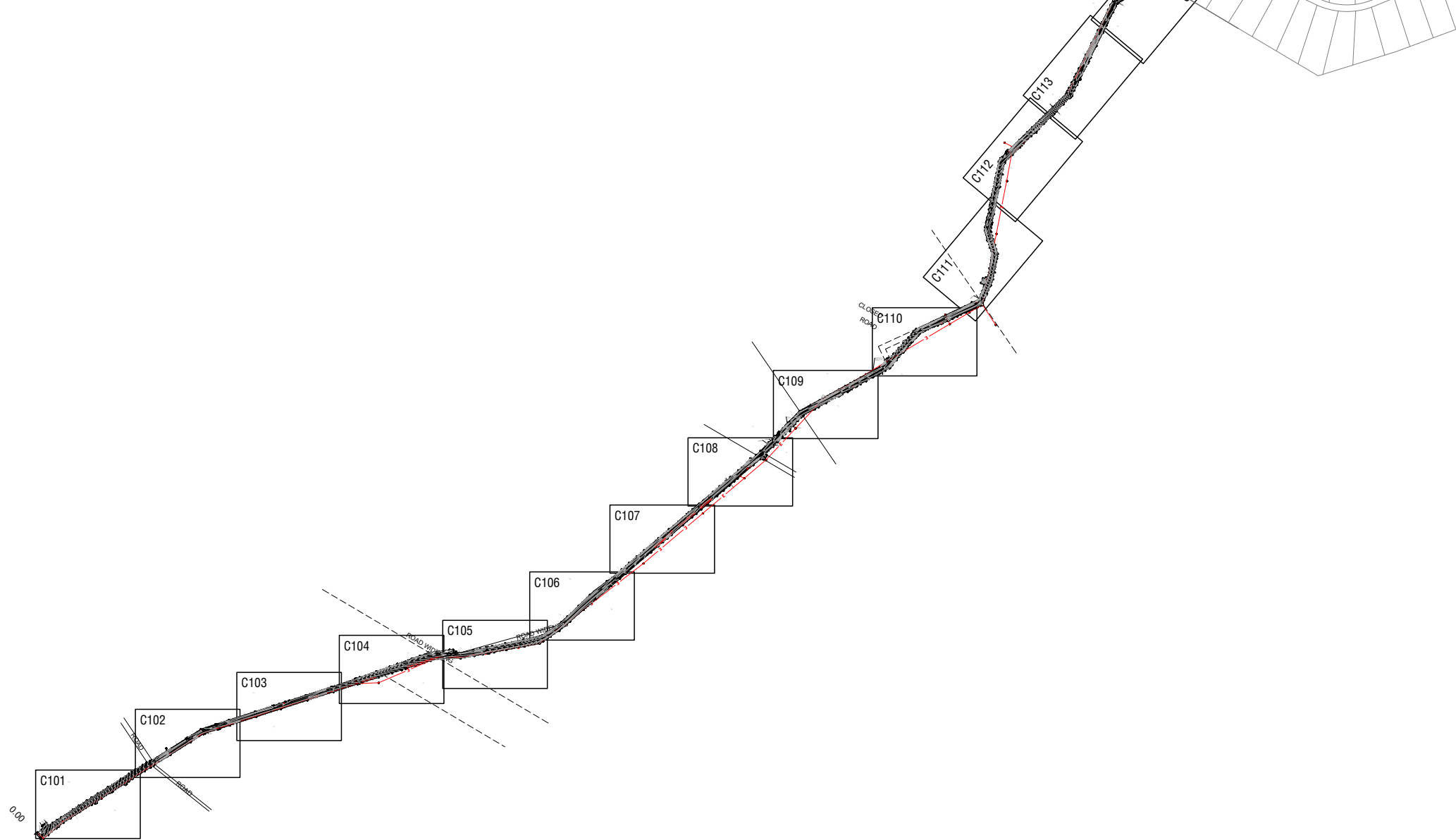


NOTES

- 1. GENERAL**
- LEVELS ARE REDUCED FROM A.H.D.
 - THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL E2390 DRAWINGS AND THE SPECIFICATION.
 - THE CONTRACTOR SHALL LIMIT THE MOVEMENT OF EQUIPMENT AND MANPOWER TO THE MINIMUM AREA NECESSARY AND PROTECT ALL VEGETATION ON SITE.
 - FINISHED LEVELS FOR THE ROAD SHALL BE TAKEN FROM ROAD LONG SECTIONS.
- 2. EARTHWORKS**
- THE CONTRACTOR SHALL REMOVE THE EXISTING 2 COAT SEAL LAYERS AND RE-COMPACT THE EXISTING SURFACE. ANY POTHoles OR DEVIATIONS SHALL BE FILLED SO THAT THE FINISHED BASE COURSE IS SMOOTH. THE CONTRACTOR SHALL LAY AND COMPACT AN ADDITIONAL 100MM OF BASE COURSE OVER THIS EXISTING LAYER AND CONFIRM MINIMUM DEPTH OF BASE COURSE IS 125mm.
 - CONTRACTOR SHALL DEMOLISH AND REMOVE ALL EXISTING ASPHALT/CHIP SEAL AND SHALL COMPACT ALL EXISTING SUB-BASE AND BASE COURSE WHERE PROPOSED LEVELS ARE LOWER THAN EXISTING SUB-BASE AND BASE COURSE.
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 - WHERE THE EXISTING PAVEMENT IS ABOVE PROPOSED LEVELS CONTRACTOR SHALL BOX OUT AND REMOVE ALL EXISTING BASE COURSE AND SUB-BASE AND DISPOSE OF IN AN APPROVED FACILITY.
 - IT IS CONTRACTORS RESPONSIBILITY TO LOCATE AND PROTECT ALL FENCES, TREES AND EXISTING INFRASTRUCTURE INCLUSIVE OF WESTERN POWER POLES AND TELSTRA PITS.
 - ALL LEVELS TO BE BOXED-OUT TO EDGE OF SHOULDER TO -245mm FOR ALL PROPOSED PAVEMENT.
 - CROSS OVERS TO BOXED-OUT TO -150mm (TYP).

LEGEND

- EXISTING CADASTRAL BOUNDARY
- PROPOSED CADASTRAL BOUNDARY
- EXISTING ROAD BITUMEN EDGE
- EXISTING ROAD SHOULDER
- EXISTING ROAD/CROSSOVER GRAVEL EDGE
- ELECTRIC POLE
- ELECTRIC OVERHEAD CABLE
- ELECTRIC CABLE UNDER
- EXISTING TELSTRA PIT
- TREES TO BE PROTECTED
- TREES TO BE REMOVED
- EXISTING FENCING TO BE PROTECTED
- SWALE BASE
- SWALE BASE WITH RIFFLE WEIR
- SWALE BATTER
- PROPOSED EDGE OF SHOULDER
- EXISTING CONTOURS (0.5m INTERVAL)
- DESIGN FINISHED SURFACE CONTOURS (0.2m INTERVAL)
- EXTENTS OF WORK
- PROPOSED CULVERT CROSSING AND HEADWALL
- PROPOSED BASINS LOCATED IN SWALES



REV	REVISION DESCRIPTION	DATE	DRN	CHK
B	ISSUED FOR APPROVALS	24/10/18	JO	JO
C	ISSUED FOR TENDER	5/3/19	JO	JO

WARNING
BEWARE OF UNDERGROUND SERVICES

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DIAL 1100
BEFORE YOU DIG

ISSUED FOR TENDER

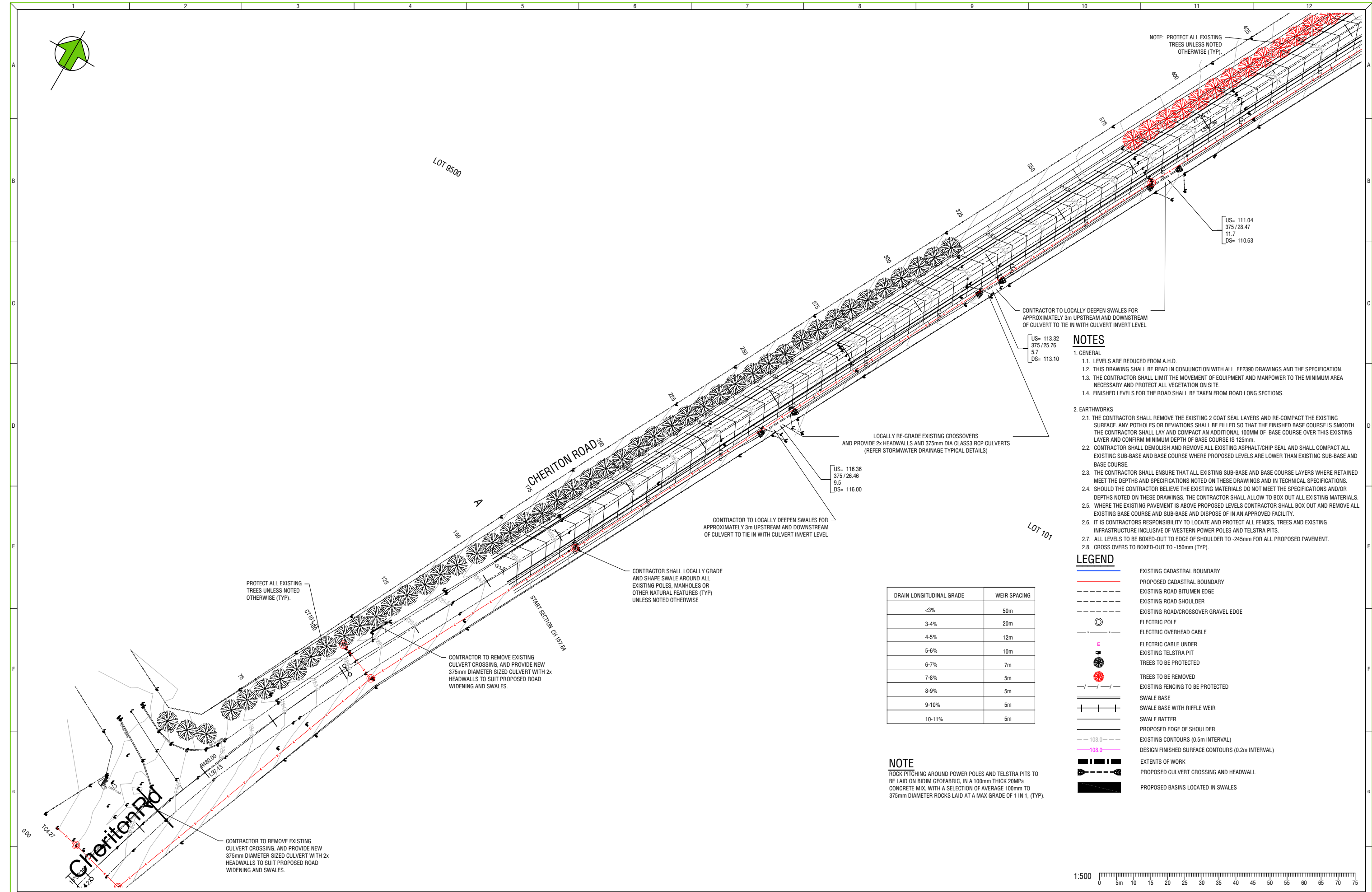
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PO BOX 771 BUNBURY 6231

CLIENT	CLAYMONT DEVELOPMENT PTY LTD			
PROJECT	CHERITON ROAD GINGINUP			
DATE:	DRAWN:	DESIGNED:	CHECKED:	SCALE:
23/10/2018	EXT	JO	JO	AS SHOWN
				A1

DRAWING TITLE				
EARTHWORKS AND DRAINAGE OVERALL LAYOUT				
SURVEY DATUM:	WAPC NUMBER:	PROJECT NUMBER:	DRAWING NUMBER:	REVISION:
PCG 94	NA	2390	C100	C

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LEGEND

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- ELECTRIC POLE
- ELECTRIC OVERHEAD CABLE
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- SWALE BASE
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- SWALE BATTER
- PROPOSED EDGE OF SHOULDER
- EXISTING CONTOURS (0.5m INTERVAL)
- DESIGN FINISHED SURFACE CONTOURS (0.2m INTERVAL)
- EXTENTS OF WORK
- PROPOSED CULVERT CROSSING AND HEADWALL
- PROPOSED BASINS LOCATED IN SWALES

DRAIN LONGITUDINAL GRADE	WEIR SPACING
<3%	50m
3-4%	20m
4-5%	12m
5-6%	10m
6-7%	7m
7-8%	5m
8-9%	5m
9-10%	5m
10-11%	5m

NOTE
 ROCK PITCHING AROUND POWER POLES AND TELSTRA PITS TO BE LAID ON BIDIM GEOFABRIC, IN A 100mm THICK 20MPa CONCRETE MIX, WITH A SELECTION OF AVERAGE 100mm TO 375mm DIAMETER ROCKS LAID AT A MAX GRADE OF 1 IN 1, (TYP).



REV	REVISION DESCRIPTION	DATE	DRN	CHK
B	ISSUED FOR APPROVALS	24/10/18	JO	JO
C	ISSUED FOR TENDER	5/3/19	JO	JO

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DIAL 1100
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CLIENT	CLAYMONT DEVELOPMENT PTY LTD			
PROJECT	CHERITON ROAD GINGINUP			
DATE:	DRAWN:	DESIGNED:	CHECKED:	SCALE:
23/10/2018	EXT	JO	JO	AS SHOWN
				A1

DRAWING TITLE				
EARTHWORKS AND DRAINAGE PLAN SHEET 1 OF 18				
SURVEY DATUM:	WACP NUMBER:	PROJECT NUMBER:	DRAWING NUMBER:	REVISION:
PCG 94	NA	2390	C101	C

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DRAINAGE DETAILS BASIN 1					
ARI	INVERT LEVEL (m)	BASIN AREA (m ²)	DEPTH (m)	VOLUME (m ³)	NOTES
1YR	LEFT 106.61	50.00	0.17	8.50	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES
	RIGHT 106.20			8.50	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES
5YR	LEFT 106.61	50.00	0.59	29.50	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES
	RIGHT 106.20			29.50	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES

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DRAIN LONGITUDINAL GRADE	WEIR SPACING
<3%	50m
3-4%	20m
4-5%	12m
5-6%	10m
6-7%	7m
7-8%	5m
8-9%	5m
9-10%	5m
10-11%	5m

NOTE

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REV	REVISION DESCRIPTION	DATE	DRN	CHK
B	ISSUED FOR APPROVALS	24/10/18	JO	JO
C	ISSUED FOR TENDER	5/3/19	JO	JO

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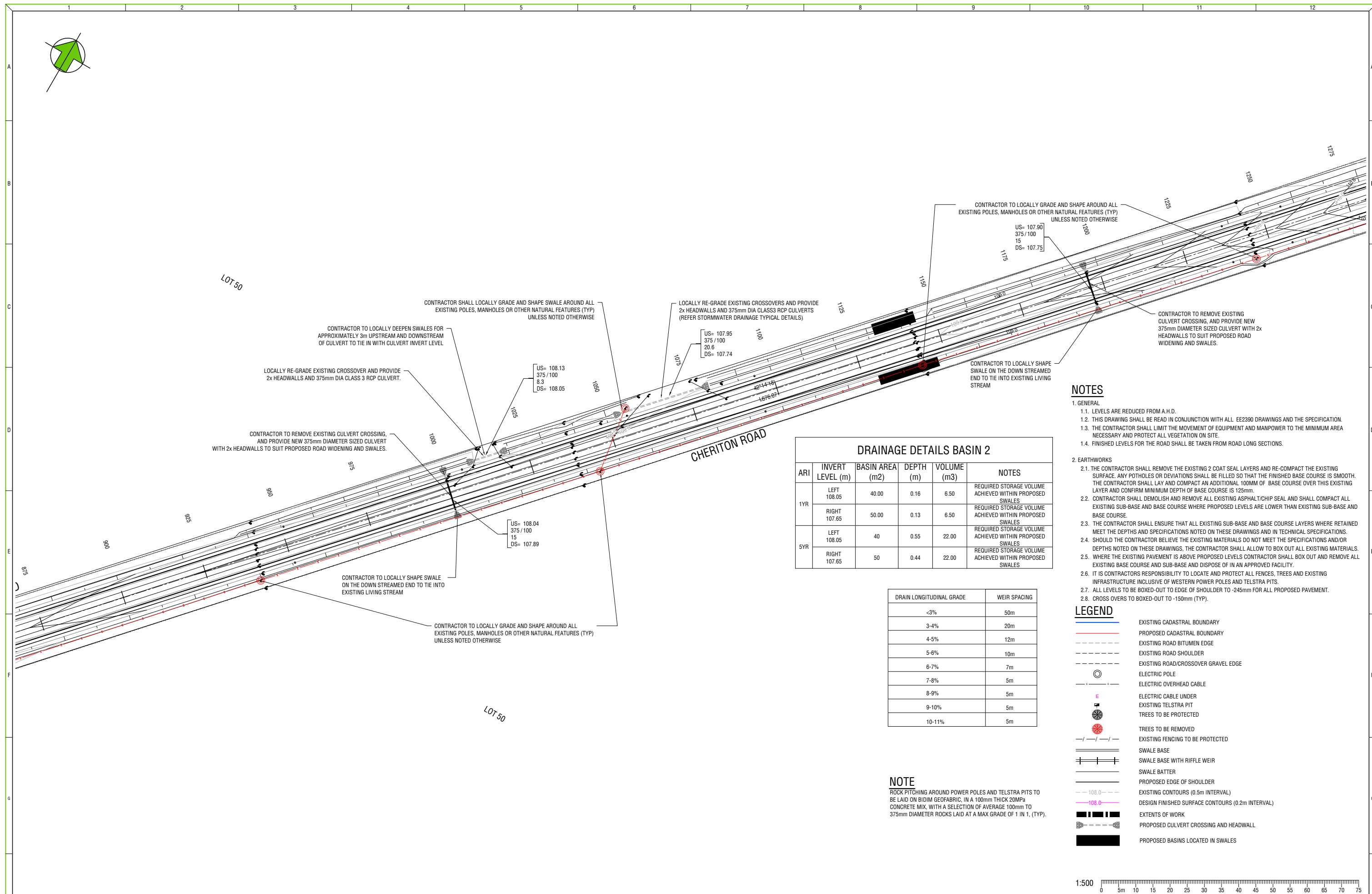
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PO BOX 771 BUNBURY 6231

CLIENT	CLAYMONT DEVELOPMENT PTY LTD		
PROJECT	CHERITON ROAD GINGINUP		
DATE:	23/10/2018	DRAWN:	EXT
DESIGNED:	JO	CHECKED:	JO
SCALE:	AS SHOWN	A1	

DRAWING TITLE		EARTHWORKS AND DRAINAGE PLAN SHEET 2 OF 18			
SURVEY DATUM:	WACP NUMBER:	PROJECT NUMBER:	DRAWING NUMBER:	REVISION:	
PCG 94	NA	2390	C102	C	



NOTES

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DRAINAGE DETAILS BASIN 2

ARI	INVERT LEVEL (m)	Basin Area (m ²)	DEPTH (m)	VOLUME (m ³)	NOTES
1YR	LEFT 108.05	40.00	0.16	6.50	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES
	RIGHT 107.65	50.00	0.13	6.50	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES
5YR	LEFT 108.05	40	0.55	22.00	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES
	RIGHT 107.65	50	0.44	22.00	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES

DRAIN LONGITUDINAL GRADE	WEIR SPACING
<3%	50m
3-4%	20m
4-5%	12m
5-6%	10m
6-7%	7m
7-8%	5m
8-9%	5m
9-10%	5m
10-11%	5m

NOTE
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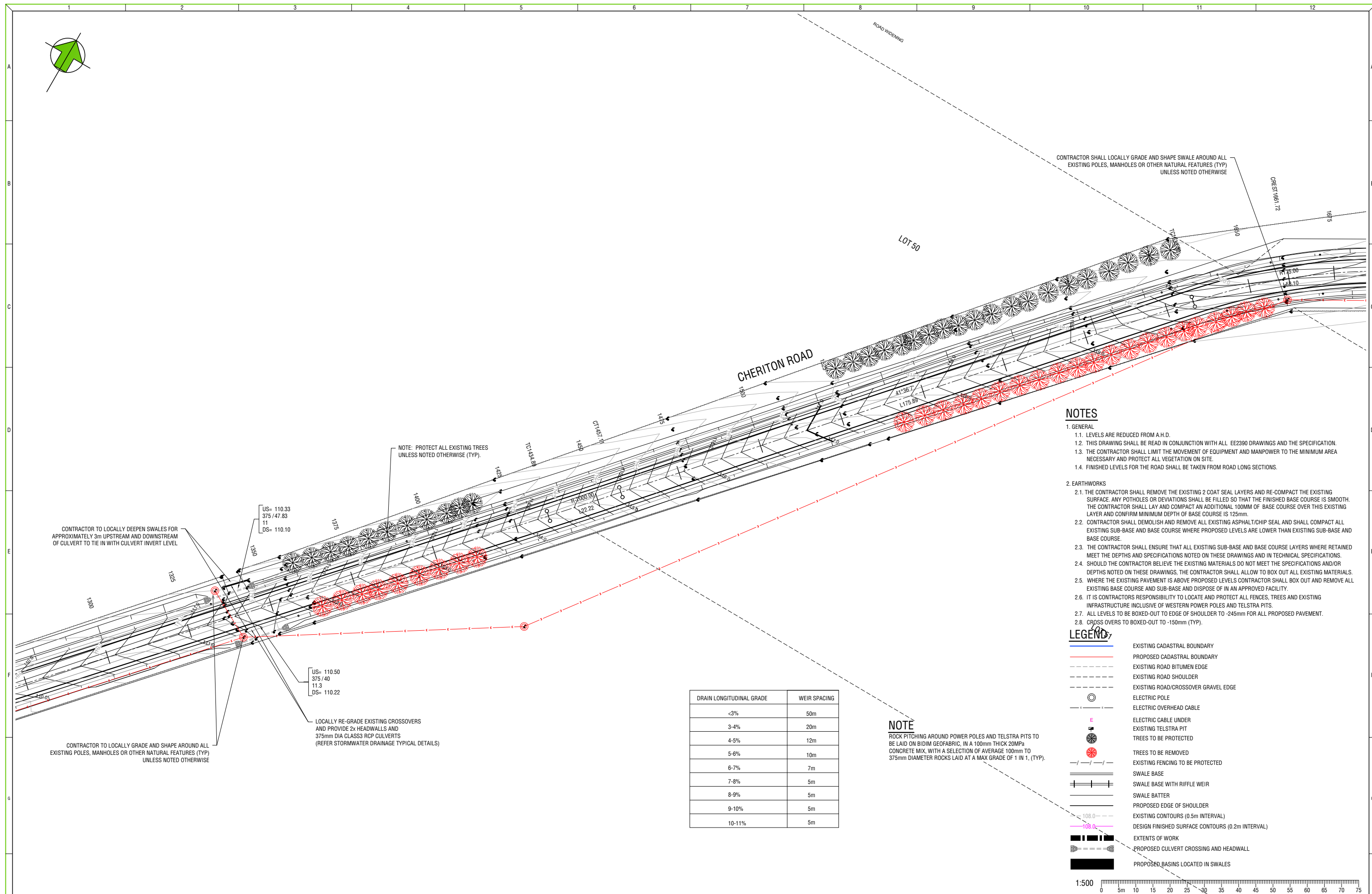
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CLIENT	CLAYMONT DEVELOPMENT PTY LTD									
PROJECT	CHERITON ROAD GINGINUP									
DATE:	23/10/2018	DRAWN:	EXT	DESIGNED:	JO	CHECKED:	JO	SCALE:	AS SHOWN	A1

DRAWING TITLE		EARTHWORKS AND DRAINAGE PLAN SHEET 3 OF 18			
SURVEY DATUM:	WACP NUMBER:	PROJECT NUMBER:	DRAWING NUMBER:	REVISION:	
PCG 94	NA	2390	C103	C	

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CONTRACTOR TO LOCALLY DEEPEN SWALES FOR APPROXIMATELY 3m UPSTREAM AND DOWNSTREAM OF CULVERT TO TIE IN WITH CULVERT INVERT LEVEL

NOTE: PROTECT ALL EXISTING TREES UNLESS NOTED OTHERWISE (TYP).

US= 110.50
375 / 40
11.3
DS= 110.22

LOCALLY RE-GRADE EXISTING CROSSOVERS AND PROVIDE 2x HEADWALLS AND 375mm DIA CLASS3 RCP CULVERTS (REFER STORMWATER DRAINAGE TYPICAL DETAILS)

CONTRACTOR TO LOCALLY GRADE AND SHAPE AROUND ALL EXISTING POLES, MANHOLES OR OTHER NATURAL FEATURES (TYP) UNLESS NOTED OTHERWISE

REV	REVISION DESCRIPTION	DATE	DRN	CHK
B	ISSUED FOR APPROVALS	24/10/18	JO	JO
C	ISSUED FOR APPROVALS	6/12/18	JO	JO
D	ISSUED FOR TENDER	5/3/19	JO	JO

WARNING
BEWARE OF UNDERGROUND SERVICES
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

DIAL 1100
BEFORE YOU DIG

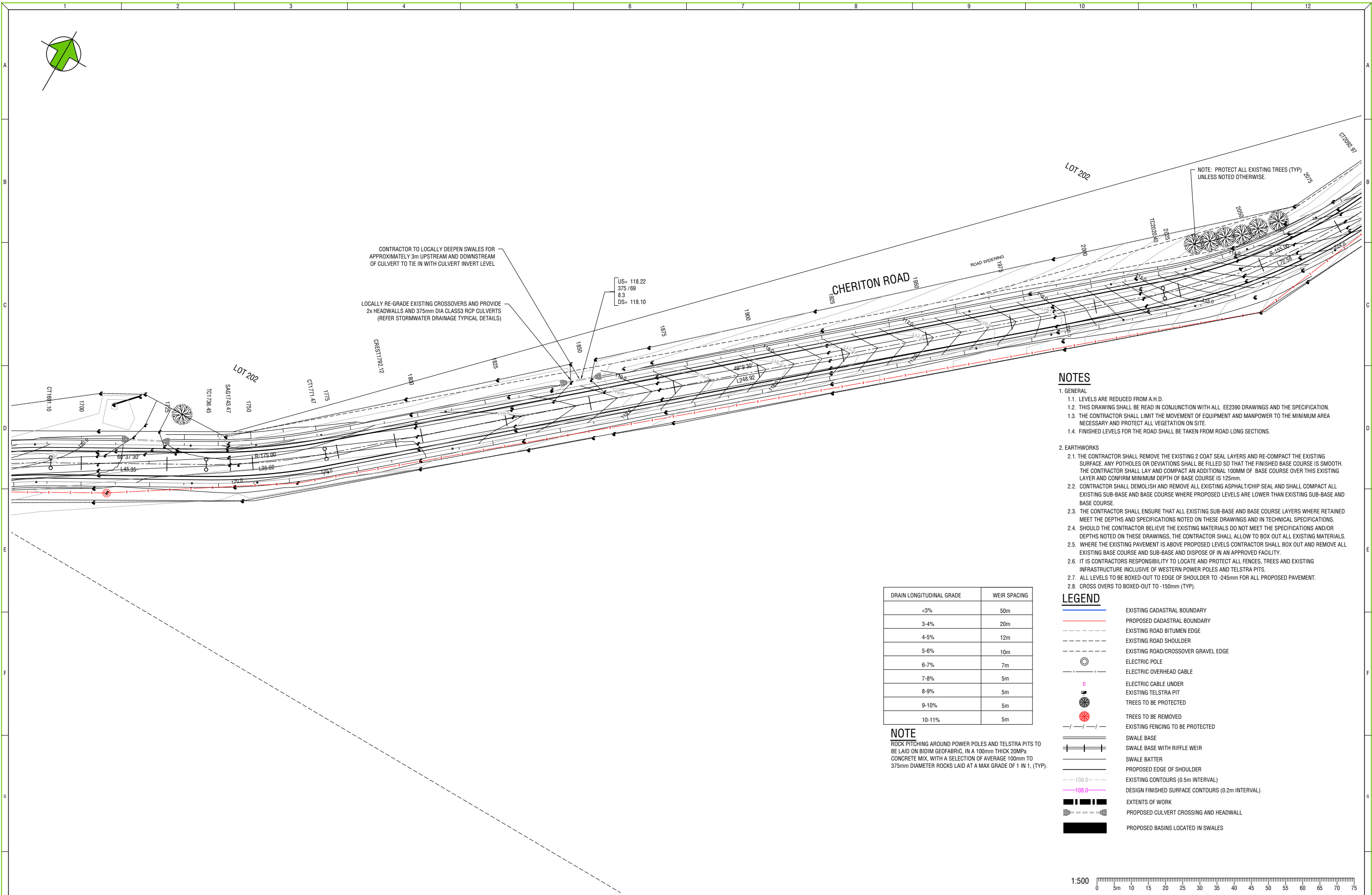
ISSUED FOR TENDER

ENGenuity
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A: LEVEL 4/110 HAY STREET, WEST PERTH WA
PO BOX 771 BUNBURY 6231

CLIENT: CLAYMONT DEVELOPMENT PTY LTD
PROJECT: CHERITON ROAD GINGINUP
DATE: 23/10/2018 DRAWN: EXT DESIGNED: JO CHECKED: JO SCALE: AS SHOWN A1

DRAWING TITLE: EARTHWORKS AND DRAINAGE PLAN SHEET 4 OF 18
SURVEY DATUM: PCG 94 WACP NUMBER: NA PROJECT NUMBER: 2390 DRAWING NUMBER: C104 REVISION: D

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NOTES

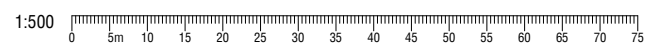
1. GENERAL
 - 1.1. LEVELS ARE REDUCED FROM A.H.D.
 - 1.2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL EE2390 DRAWINGS AND THE SPECIFICATION.
 - 1.3. THE CONTRACTOR SHALL LIMIT THE MOVEMENT OF EQUIPMENT AND MANPOWER TO THE MINIMUM AREA NECESSARY AND PROTECT ALL VEGETATION ON SITE.
 - 1.4. FINISHED LEVELS FOR THE ROAD SHALL BE TAKEN FROM ROAD LONG SECTIONS.
2. EARTHWORKS
 - 2.1. THE CONTRACTOR SHALL REMOVE THE EXISTING 2 COAT SEAL LAYERS AND RE-COMPACT THE EXISTING SURFACE. ANY POTHOLES OR DEVIATIONS SHALL BE FILLED SO THAT THE FINISHED BASE COURSE IS SMOOTH. THE CONTRACTOR SHALL LAY AND COMPACT AN ADDITIONAL 100MM OF BASE COURSE OVER THIS EXISTING LAYER AND CONFIRM MINIMUM DEPTH OF BASE COURSE IS 125mm.
 - 2.2. CONTRACTOR SHALL DEMOLISH AND REMOVE ALL EXISTING ASPHALT/CHIP SEAL AND SHALL COMPACT ALL EXISTING SUB-BASE AND BASE COURSE WHERE PROPOSED LEVELS ARE LOWER THAN EXISTING SUB-BASE AND BASE COURSE.
 - 2.3. THE CONTRACTOR SHALL ENSURE THAT ALL EXISTING SUB-BASE AND BASE COURSE LAYERS WHERE RETAINED MEET THE DEPTHS AND SPECIFICATIONS NOTED ON THESE DRAWINGS AND IN TECHNICAL SPECIFICATIONS.
 - 2.4. SHOULD THE CONTRACTOR BELIEVE THE EXISTING MATERIALS DO NOT MEET THE SPECIFICATIONS AND/OR DEPTHS NOTED ON THESE DRAWINGS, THE CONTRACTOR SHALL ALLOW TO BOX OUT ALL EXISTING MATERIALS.
 - 2.5. WHERE THE EXISTING PAVEMENT IS ABOVE PROPOSED LEVELS CONTRACTOR SHALL BOX OUT AND REMOVE ALL EXISTING BASE COURSE AND SUB-BASE AND DISPOSE OF IN AN APPROVED FACILITY.
 - 2.6. IT IS CONTRACTORS RESPONSIBILITY TO LOCATE AND PROTECT ALL FENCES, TREES AND EXISTING INFRASTRUCTURE INCLUSIVE OF WESTERN POWER POLES AND TELSTRA PITS.
 - 2.7. ALL LEVELS TO BE BOXED-OUT TO EDGE OF SHOULDER TO -245mm FOR ALL PROPOSED PAVEMENT.
 - 2.8. CROSS OVERS TO BE BOXED-OUT TO -150mm (TYP).

DRAIN LONGITUDINAL GRADE	WEIR SPACING
<3%	50m
3-4%	20m
4-5%	12m
5-6%	10m
6-7%	7m
7-8%	5m
8-9%	5m
9-10%	5m
10-11%	5m

NOTE
 ROCK PITCHING AROUND POWER POLES AND TELSTRA PITS TO BE LAID ON BIDIM GEOFABRIC. IN A 100mm THICK 20MPa CONCRETE MIX, WITH A SELECTION OF AVERAGE 100mm TO 375mm DIAMETER ROCKS LAID AT A MAX GRADE OF 1 IN 1, (TYP).

LEGEND

- EXISTING CADASTRAL BOUNDARY
- PROPOSED CADASTRAL BOUNDARY
- EXISTING ROAD BITUMEN EDGE
- EXISTING ROAD SHOULDER
- EXISTING ROAD/CROSSOVER GRAVEL EDGE
- ELECTRIC POLE
- ELECTRIC OVERHEAD CABLE
- ELECTRIC CABLE UNDER
- EXISTING TELSTRA PIT
- TREES TO BE PROTECTED
- TREES TO BE REMOVED
- EXISTING FENCING TO BE PROTECTED
- SWALE BASE
- SWALE BASE WITH RIFLE WEIR
- SWALE BATTER
- PROPOSED EDGE OF SHOULDER
- EXISTING CONTOURS (0.5m INTERVAL)
- DESIGN FINISHED SURFACE CONTOURS (0.2m INTERVAL)
- EXTENTS OF WORK
- PROPOSED CULVERT CROSSING AND HEADWALL
- PROPOSED BASINS LOCATED IN SWALES



REV	REVISION DESCRIPTION	DATE	DRN	CHK
B	ISSUED FOR APPROVALS	24/10/18	JO	JO
C	ISSUED FOR TENDER	5/3/19	JO	JO

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DIAL 1100
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 Engineering

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 PO BOX 771 BUNBURY 6231

CLIENT	CLAYMONT DEVELOPMENT PTY LTD		
PROJECT	CHERITON ROAD GINGINUP		
DATE:	23/10/2018	DRAWN:	EXT
DESIGNED:	JO	CHECKED:	JO
SCALE:	AS SHOWN	A1	

DRAWING TITLE	EARTHWORKS AND DRAINAGE PLAN SHEET 5 OF 18			
SURVEY DATUM:	WAPC NUMBER:	PROJECT NUMBER:	DRAWING NUMBER:	REVISION:
PCG 94	NA	2390	C105	C

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DRAINAGE DETAILS BASIN 3					
ARI	INVERT LEVEL (m)	BASIN AREA (m ²)	DEPTH (m)	VOLUME (m ³)	NOTES
1YR	LEFT 111.29	50.00	0.13	6.50	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES
	RIGHT 110.11		0.13	6.50	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES
5YR	LEFT 111.29	50.00	0.44	22.00	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES
	RIGHT 110.11		0.44	22.00	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES

NOTES

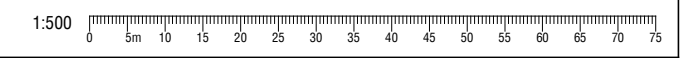
- GENERAL
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 - THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL EE2390 DRAWINGS AND THE SPECIFICATION.
 - THE CONTRACTOR SHALL LIMIT THE MOVEMENT OF EQUIPMENT AND MANPOWER TO THE MINIMUM AREA NECESSARY AND PROTECT ALL VEGETATION ON SITE.
 - FINISHED LEVELS FOR THE ROAD SHALL BE TAKEN FROM ROAD LONG SECTIONS.
- EARTHWORKS
 - THE CONTRACTOR SHALL REMOVE THE EXISTING 2 COAT SEAL LAYERS AND RE-COMPACT THE EXISTING SURFACE. ANY POTHoles OR DEVIATIONS SHALL BE FILLED SO THAT THE FINISHED BASE COURSE IS SMOOTH. THE CONTRACTOR SHALL LAY AND COMPACT AN ADDITIONAL 100MM OF BASE COURSE OVER THIS EXISTING LAYER AND CONFIRM MINIMUM DEPTH OF BASE COURSE IS 125mm.
 - CONTRACTOR SHALL DEMOLISH AND REMOVE ALL EXISTING ASPHALT/CHIP SEAL AND SHALL COMPACT ALL EXISTING SUB-BASE AND BASE COURSE WHERE PROPOSED LEVELS ARE LOWER THAN EXISTING SUB-BASE AND BASE COURSE.
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LEGEND

- EXISTING CADASTRAL BOUNDARY
- PROPOSED CADASTRAL BOUNDARY
- EXISTING ROAD BITUMEN EDGE
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- EXISTING ROAD/CROSSOVER GRAVEL EDGE
- ELECTRIC POLE
- ELECTRIC OVERHEAD CABLE
- ELECTRIC CABLE UNDER
- EXISTING TELSTRA PIT
- TREES TO BE PROTECTED
- TREES TO BE REMOVED
- EXISTING FENCING TO BE PROTECTED
- SWALE BASE
- SWALE BASE WITH RIFFLE WEIR
- SWALE BATTER
- PROPOSED EDGE OF SHOULDER
- EXISTING CONTOURS (0.5m INTERVAL)
- DESIGN FINISHED SURFACE CONTOURS (0.2m INTERVAL)
- EXTENTS OF WORK
- PROPOSED CULVERT CROSSING AND HEADWALL
- PROPOSED BASINS LOCATED IN SWALES

DRAIN LONGITUDINAL GRADE	WEIR SPACING
<3%	50m
3-4%	20m
4-5%	12m
5-6%	10m
6-7%	7m
7-8%	5m
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10-11%	5m

NOTE
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REV	REVISION DESCRIPTION	DATE	DRN	CHK
B	ISSUED FOR APPROVALS	24/10/18	JO	JO
C	ISSUED FOR TENDER	5/3/19	JO	JO

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 BEFORE YOU DIG

ISSUED FOR TENDER

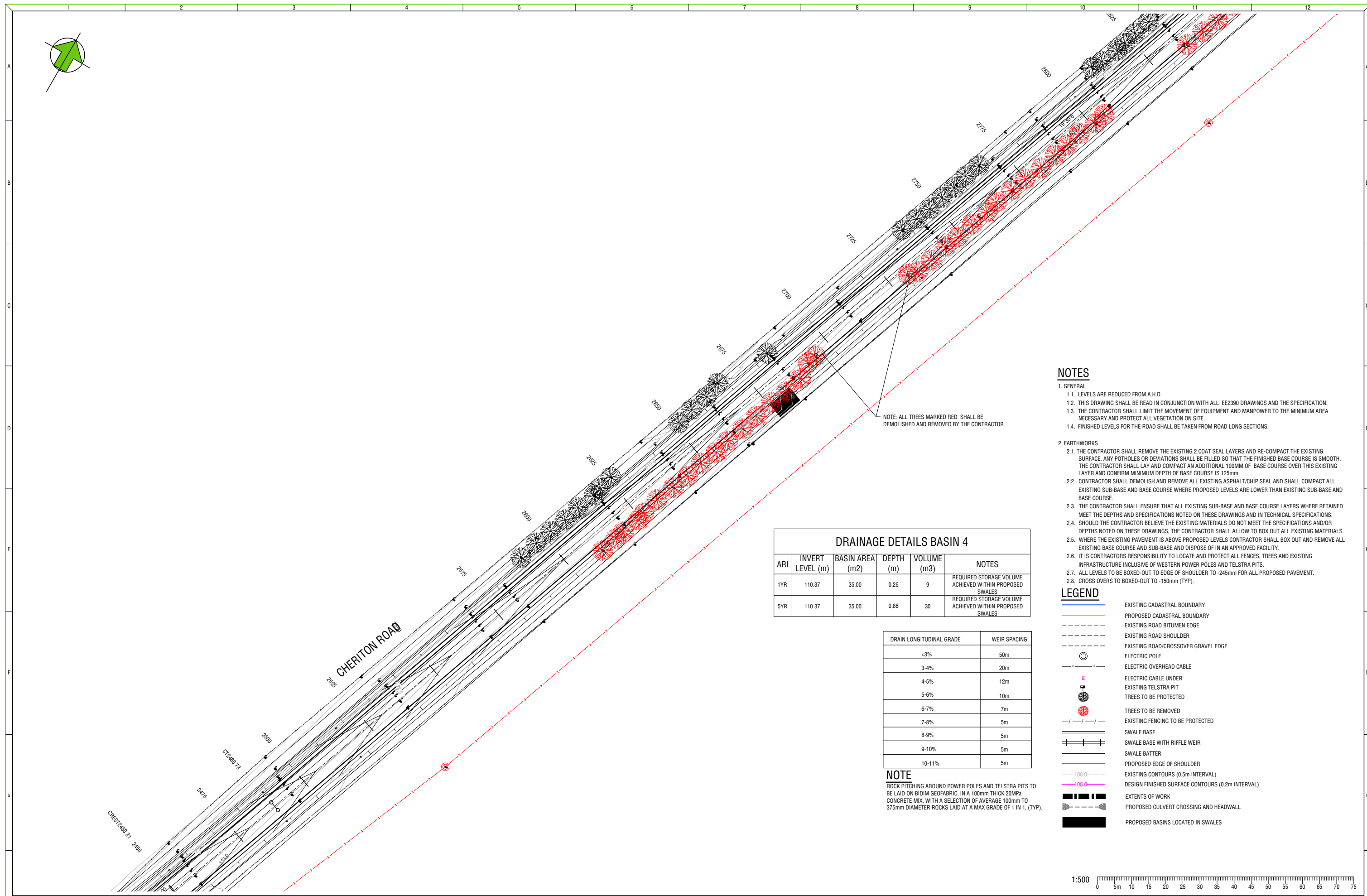
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 3/11 BONEFFO BLVD, BUNBURY, WA
 PO BOX 771 BUNBURY 6231

CLIENT	CLAYMONT DEVELOPMENT PTY LTD				
PROJECT	CHERITON ROAD GINGINUP				
DATE:	23/10/2018	DRAWN:	EXT	DESIGNED:	JO
CHECKED:	JO	SCALE:	AS SHOWN	A1	

DRAWING TITLE					EARTHWORKS AND DRAINAGE PLAN SHEET 6 OF 18				
SURVEY DATUM:	WACP NUMBER:	PROJECT NUMBER:	DRAWING NUMBER:	REVISION:	PCG 94	NA	2390	C106	C

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NOTE: ALL TREES MARKED RED SHALL BE DEMOLISHED AND REMOVED BY THE CONTRACTOR

- NOTES**
- GENERAL
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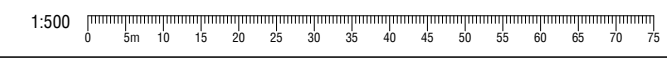
DRAINAGE DETAILS BASIN 4

ARI	INVERT LEVEL (m)	BASIN AREA (m2)	DEPTH (m)	VOLUME (m3)	NOTES
1YR	110.37	35.00	0.26	9	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES
5YR	110.37	35.00	0.86	30	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES

DRAIN LONGITUDINAL GRADE	WEIR SPACING
<3%	50m
3-4%	20m
4-5%	12m
5-6%	10m
6-7%	7m
7-8%	5m
8-9%	5m
9-10%	5m
10-11%	5m

NOTE
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- LEGEND**
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 - EXISTING TELSTRA PIT
 - TREES TO BE PROTECTED
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 - PROPOSED EDGE OF SHOULDER
 - EXISTING CONTOURS (0.5m INTERVAL)
 - DESIGN FINISHED SURFACE CONTOURS (0.2m INTERVAL)
 - EXTENTS OF WORK
 - PROPOSED CULVERT CROSSING AND HEADWALL
 - PROPOSED BASINS LOCATED IN SWALES



REV	REVISION DESCRIPTION	DATE	DRN	CHK
B	ISSUED FOR APPROVALS	24/10/18	JO	JO
C	ISSUED FOR APPROVALS	6/12/18	JO	JO
D	ISSUED FOR TENDER	5/3/19	JO	JO

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CLIENT	CLAYMONT DEVELOPMENT PTY LTD
PROJECT	CHERITON ROAD GINGINUP
DATE:	23/10/2018
DRAWN:	EXT
DESIGNED:	JO
CHECKED:	JO
SCALE:	AS SHOWN
	A1

DRAWING TITLE	EARTHWORKS AND DRAINAGE PLAN SHEET 7 OF 18				
SURVEY DATUM:	WACP NUMBER:	PROJECT NUMBER:	DRAWING NUMBER:	REVISION:	
PCG 94	NA	2390	C107	D	

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DRAINAGE DETAILS BASIN 6					
ARI	INVERT LEVEL (m)	BASIN AREA (m ²)	DEPTH (m)	VOLUME (m ³)	NOTES
1YR	LEFT 109.89	60.00	0.20	12	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES
	RIGHT 109.34	144.00	0.08	12	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES
5YR	LEFT 109.89	60.00	0.42	25	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES
	RIGHT 109.34	144.00	0.47	67	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES

LAND RESUMPTION TABLE	
LOT NO.	AREA [m ²]
12	557.0
13	175.0

DRAINAGE DETAILS BASIN 5					
ARI	INVERT LEVEL (m)	BASIN AREA (m ²)	DEPTH (m)	VOLUME (m ³)	NOTES
1YR	LEFT 110.42	25.00	0.20	5.00	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES
	RIGHT 109.75		0.20		REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES
5YR	LEFT 110.42	25.00	0.34	8.5	REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES
	RIGHT 109.75		0.34		REQUIRED STORAGE VOLUME ACHIEVED WITHIN PROPOSED SWALES

NOTES

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LEGEND

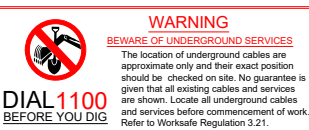
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- PROPOSED EDGE OF SHOULDER
- EXISTING CONTOURS (0.5m INTERVAL)
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- PROPOSED CULVERT CROSSING AND HEADWALL
- LAND RESUMPTION
- PROPOSED BASINS LOCATED IN SWALES

NOTE

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ISSUED FOR TENDER



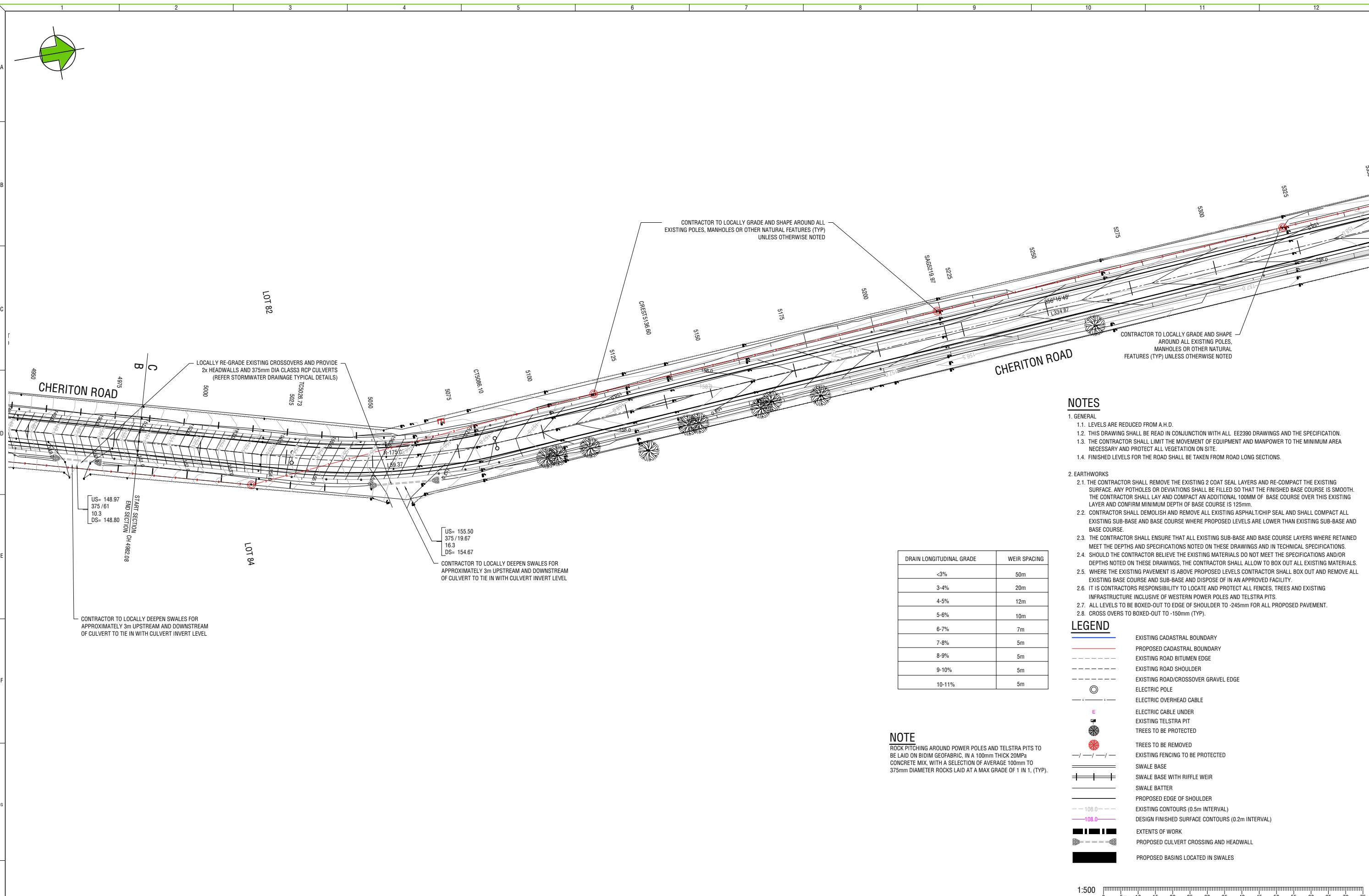
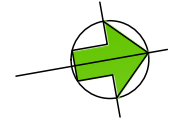
CLIENT: CLAYMONT DEVELOPMENT PTY LTD

PROJECT: CHERITON ROAD GINGINUP

DATE: 23/10/2018 | DRAWN: EXT | DESIGNED: JO | CHECKED: JO | SCALE: AS SHOWN | A1

DRAWING TITLE: EARTHWORKS AND DRAINAGE PLAN SHEET 8 OF 18

SURVEY DATUM: PCG 94 | WACP NUMBER: NA | PROJECT NUMBER: 2390 | DRAWING NUMBER: C108 | REVISION: D



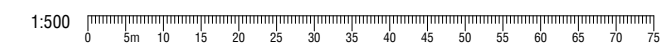
1. GENERAL
 - 1.1. LEVELS ARE REDUCED FROM A.H.D.
 - 1.2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL EE2390 DRAWINGS AND THE SPECIFICATION.
 - 1.3. THE CONTRACTOR SHALL LIMIT THE MOVEMENT OF EQUIPMENT AND MANPOWER TO THE MINIMUM AREA NECESSARY AND PROTECT ALL VEGETATION ON SITE.
 - 1.4. FINISHED LEVELS FOR THE ROAD SHALL BE TAKEN FROM ROAD LONG SECTIONS.
2. EARTHWORKS
 - 2.1. THE CONTRACTOR SHALL REMOVE THE EXISTING 2 COAT SEAL LAYERS AND RE-COMPACT THE EXISTING SURFACE. ANY POTHoles OR DEVIATIONS SHALL BE FILLED SO THAT THE FINISHED BASE COURSE IS SMOOTH. THE CONTRACTOR SHALL LAY AND COMPACT AN ADDITIONAL 100MM OF BASE COURSE OVER THIS EXISTING LAYER AND CONFIRM MINIMUM DEPTH OF BASE COURSE IS 125mm.
 - 2.2. CONTRACTOR SHALL DEMOLISH AND REMOVE ALL EXISTING ASPHALT/CHIP SEAL AND SHALL COMPACT ALL EXISTING SUB-BASE AND BASE COURSE WHERE PROPOSED LEVELS ARE LOWER THAN EXISTING SUB-BASE AND BASE COURSE.
 - 2.3. THE CONTRACTOR SHALL ENSURE THAT ALL EXISTING SUB-BASE AND BASE COURSE LAYERS WHERE RETAINED MEET THE DEPTHS AND SPECIFICATIONS NOTED ON THESE DRAWINGS AND IN TECHNICAL SPECIFICATIONS.
 - 2.4. SHOULD THE CONTRACTOR BELIEVE THE EXISTING MATERIALS DO NOT MEET THE SPECIFICATIONS AND/OR DEPTHS NOTED ON THESE DRAWINGS, THE CONTRACTOR SHALL ALLOW TO BOX OUT ALL EXISTING MATERIALS.
 - 2.5. WHERE THE EXISTING PAVEMENT IS ABOVE PROPOSED LEVELS CONTRACTOR SHALL BOX OUT AND REMOVE ALL EXISTING BASE COURSE AND SUB-BASE AND DISPOSE OF IN AN APPROVED FACILITY.
 - 2.6. IT IS CONTRACTORS RESPONSIBILITY TO LOCATE AND PROTECT ALL FENCES, TREES AND EXISTING INFRASTRUCTURE INCLUSIVE OF WESTERN POWER POLES AND TELSTRA PITS.
 - 2.7. ALL LEVELS TO BE BOXED-OUT TO EDGE OF SHOULDER TO -245mm FOR ALL PROPOSED PAVEMENT.
 - 2.8. CROSS OVERS TO BOXED-OUT TO -150mm (TYP).

DRAIN LONGITUDINAL GRADE	WEIR SPACING
<3%	50m
3-4%	20m
4-5%	12m
5-6%	10m
6-7%	7m
7-8%	5m
8-9%	5m
9-10%	5m
10-11%	5m

LEGEND

- EXISTING CADASTRAL BOUNDARY
- PROPOSED CADASTRAL BOUNDARY
- EXISTING ROAD BITUMEN EDGE
- EXISTING ROAD SHOULDER
- EXISTING ROAD/CROSSOVER GRAVEL EDGE
- ELECTRIC POLE
- ELECTRIC OVERHEAD CABLE
- ELECTRIC CABLE UNDER
- EXISTING TELSTRA PIT
- TREES TO BE PROTECTED
- TREES TO BE REMOVED
- EXISTING FENCING TO BE PROTECTED
- SWALE BASE
- SWALE BASE WITH RIFFLE WEIR
- SWALE BATTER
- PROPOSED EDGE OF SHOULDER
- EXISTING CONTOURS (0.5m INTERVAL)
- DESIGN FINISHED SURFACE CONTOURS (0.2m INTERVAL)
- EXTENTS OF WORK
- PROPOSED CULVERT CROSSING AND HEADWALL
- PROPOSED BASINS LOCATED IN SWALES

NOTE
 ROCK PITCHING AROUND POWER POLES AND TELSTRA PITS TO BE LAID ON BIDIM GEOFABRIC, IN A 100mm THICK 20MPa CONCRETE MIX, WITH A SELECTION OF AVERAGE 100mm TO 375mm DIAMETER ROCKS LAID AT A MAX GRADE OF 1 IN 1, (TYP).



REV	REVISION DESCRIPTION	DATE	DRN	CHK
B	ISSUED FOR APPROVALS	24/10/18	JO	JO
C	ISSUED FOR TENDER	5/3/19	JO	JO

WARNING
 BEWARE OF UNDERGROUND SERVICES
 The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

DIAL 1100
 BEFORE YOU DIG

ISSUED FOR TENDER

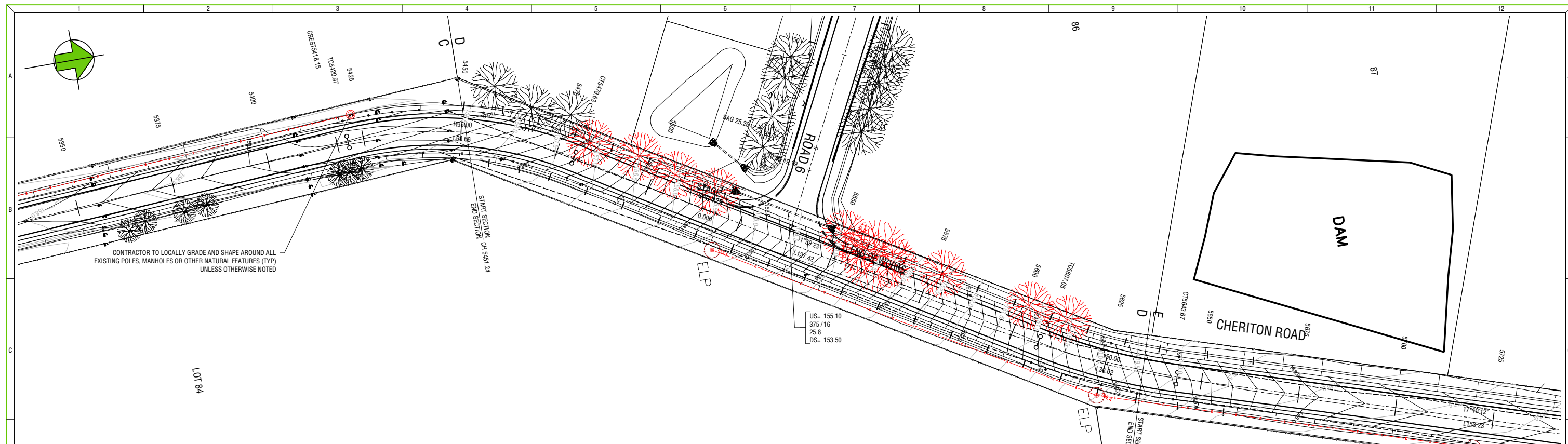
ENGenuity
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 3/11 BONEFFO BLVD, BUNBURY, WA
 PO BOX 771 BUNBURY 6231

CLIENT	CLAYMONT DEVELOPMENT PTY LTD									
PROJECT	CHERITON ROAD GINGINUP									
DATE:	23/10/2018	DRAWN:	EXT	DESIGNED:	JO	CHECKED:	JO	SCALE:	AS SHOWN	A1

DRAWING TITLE		EARTHWORKS AND DRAINAGE PLAN SHEET 13 OF 18			
SURVEY DATUM:	WACP NUMBER:	PROJECT NUMBER:	DRAWING NUMBER:	REVISION:	
PCG 94	NA	2390	C113	C	

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CONTRACTOR TO LOCALLY GRADE AND SHAPE AROUND ALL EXISTING POLES, MANHOLES OR OTHER NATURAL FEATURES (TYP) UNLESS OTHERWISE NOTED

US= 155.10
375 / 16
25.8
DS= 153.50

NOTES

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C	ISSUED FOR APPROVALS	6/12/18	JO	JO
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				A1

DRAWING TITLE				
EARTHWORKS AND DRAINAGE PLAN SHEET 14 OF 18				
SURVEY DATUM:	WAPC NUMBER:	PROJECT NUMBER:	DRAWING NUMBER:	REVISION:
PCG 94	NA	2390	C114	D

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