



have been paid particular attention in the design to improve the safety of people using the underpasses. The underpasses have been widened to improve visibility and reduce the confinement of the area and extra lighting has been applied.

The provision of formal on road cycling will improve the safe passage of bicycles along the section of road.

d) whether public transport services are necessary and, if so, whether they are available and adequate

JGD has been designated as an Intertown Public Transport Route and accordingly adequate public transport services have been provided. The proposed development includes the provision of bus stops which have been included in the design in consultation with ACTION and ESDD. Please refer to the design drawings in Appendix C of this report for further information regarding the location of the proposed bus stop locations and dimensions.

e) impacts on the likely accessibility to facilities and services for users and consumers

The construction of the road, on road cycling and footpath will increase accessibility to facilities and services for users and consumers in new subdivision areas in proposed and facilitate improved access between NSW and the ACT.

f) any significant short or long-term effect, that the relevant authority considers the use or development may have on the environment, including social and economic effects and potential cumulative effects

There will be some short term effects associated with the construction of this section of the proposed JGD, however, there will be long term benefits to the local area and to Canberra. Short term effects could potentially include noise, stormwater run-off and minor traffic delays. However, long term benefits of the construction of the new road and upgraded intersections as well as on-road cycling will facilitate the movement of people and vehicles through the area, particularly as traffic volumes increase with the construction of new subdivisions. Similarly, the proposed development will have a positive economic impact through the creation of employment for local contractors.

g) impacts on the watercourses and drainage characteristics of the area, including water quality

Water quality in the lower Molonglo River is poor as a result of past and present activities in the catchment. Factors that have contributed to poor water quality in the lower Molonglo River include limited releases from Scrivener Dam, urban runoff from Woden and Weston Creek, runoff from grazing land and former



plantation forestry, as well as the residual effects of mining at Captains Flat (before the construction of Scrivener Dam) and discharge from the former Weston Creek sewage treatment plant.

The Proposal involves the construction of stormwater gutters and drains along the road. This will alter the existing character of the drainage in the area as currently there is no formal stormwater system in place. Watercourses in the area should not be impacted by the works on the ongoing use of the road. There will be minimal impacts to water quality as all water draining from above the proposed works will be diverted into existing drainage lines and all water falling on or below the works will be treated through the use of swales, cut off drains, hay bales and sediment barriers before being discharged from the site.

Sediment and erosion control ponds have not been proposed due to the cross-fall nature of the site. The road will be constructed almost perpendicular to the slope.

Holdens Creek will be heavily modified immediately downstream of the proposed bridge due to the proposed development of the Coombs Pond which will assist in improving water quality entering the Molonglo River. The drainage line crossed by the road at its northern extent will be concrete lined with stone pitched batters. An underpass will be constructed adjacent to the channel to facilitate pedestrian traffic. The waterway is currently degraded and the water quality is poor due to run off from pine plantation and previously disturbed areas in the upper catchment. Water Sensitive Urban Design principles have been incorporated into the design to manage the water quality of surface run-off leaving the proposed road.

h) impacts on the amenity of surrounding land uses, including impacts on air quality, the level of noise generated, overshadowing, privacy, and the level of wind turbulence generated.

The upgraded and duplicated road should facilitate more consistent traffic flow with reduced stoppage or slowing time leading to a net improvement in localised air quality. Noise generated from the road is associated with existing and predicted traffic levels associated with the proposed and subdivisions being constructed in the area; however will not be a direct result of the road upgrade and extension.

As part of the PSP documentation for the project GHD undertook a desktop assessment of the potential traffic noise impacts of the proposed JGD on proposed adjacent residential areas. The results of the noise study were provided in the PSP report submission.

Predicted results indicate that the ESDD's traffic noise goal may be exceeded at some parts of the proposed residential areas adjacent to the JGD.

There are a number of options for mitigation of traffic noise that can be contained within the road reserve. However, GHD understands that ESDD's intention is that the property developers within the proposed residential areas will address noise attenuation requirements and that no attenuation measures will be built within the



road reserve. The predicted noise results provided in the PSP report can be used as a guide by developers to provide an indication of the areas of the proposed adjacent developments that may need more attention to noise mitigation measures.



9. Entity Advice

A referral entity may be a government department, statutory body or utility that provides advice to assist with assessing development applications.

Schedule 2 of the Planning and Development Regulation 2008 prescribes the referral entities and circumstances for referral.

The following referral entities and other bodies have been consulted with/or are expected to be consulted during the course of the development application process:

- ▶ Environmental Protection Authority;
- ▶ Parks, Conservation and Lands;
- ▶ Territory and Municipal Services;
- ▶ Heritage Council;
- ▶ ESDD;
- ▶ ActewAGL –Electricity and Water and Sewerage /Gas division;
- ▶ Roads ACT;
- ▶ Telstra;
- ▶ TransACT;
- ▶ ICON;
- ▶ NBN Co; and
- ▶ Jemena

It is anticipated that the application will be referred to relevant agencies which are listed above.

9.1 Entity Approval

Roads ACT has provided its Design Acceptance at Document Readiness for Stage 1D of John Gorton Drive. The Letter of Design Acceptance is included in Appendix E.



Appendix A

Section 211 Exemption

North Weston, Wright, Coombs and associated infrastructure



Andrew Barr MLA

MINISTER FOR EDUCATION AND TRAINING
MINISTER FOR CHILDREN AND YOUNG PEOPLE
MINISTER FOR PLANNING
MINISTER FOR TOURISM, SPORT AND RECREATION

MEMBER FOR MOLONGLO

Mr Stephen Howard
Senior Project Officer
ACT Procurement Solutions
PO Box 818
DICKSON ACT, 2602

Dear Mr Howard

Molonglo Urban Land Development – Section 211 Exemption Request

I have reviewed the information provided in relation to the above proposal in order to consider the merit of your application under Section 211 of the *Planning and Development Act 2007* (the Act) for an exemption from the requirement to complete an Environmental Impact Statement (EIS).

The proposed development is listed in Schedule 4 of the Act as an activity that requires an EIS to be completed. However, the proposal may be considered exempt from the EIS requirement if in the opinion of the Minister, or his delegate, the expected environmental impact of the proposal has already been sufficiently addressed by another study or studies. Having considered the information submitted in support of your request, I consider that the proposal as submitted meets this exemption criterion.

As Minister for the purposes of the Act, I am therefore pleased to advise that the proposed development of the suburbs of North Weston, Wright, Coombs and associated infrastructure will not require any further environmental assessment. You are now able to lodge an impact track development application for these estates and infrastructure projects. Please ensure that you include a copy of this letter with your development application.

Yours sincerely

Andrew Barr MLA
Minister for Planning

ACT LEGISLATIVE ASSEMBLY

London Circuit, Canberra ACT 2601 GPO Box 1020, Canberra ACT 2601
Phone (02) 6205 0011 Fax (02) 6205 0157 Email barr@act.gov.au



Appendix B

Vegetation, Constraints and EIS Triggers Analysis

Ecological Australia – AECOM – ESDD



Legend	
Exotic vegetation (EcoLogical 2010)	
Native vegetation (EcoLogical 2010)	
Native vegetation (previous studies)	
John Gorton Drive Stage 2	



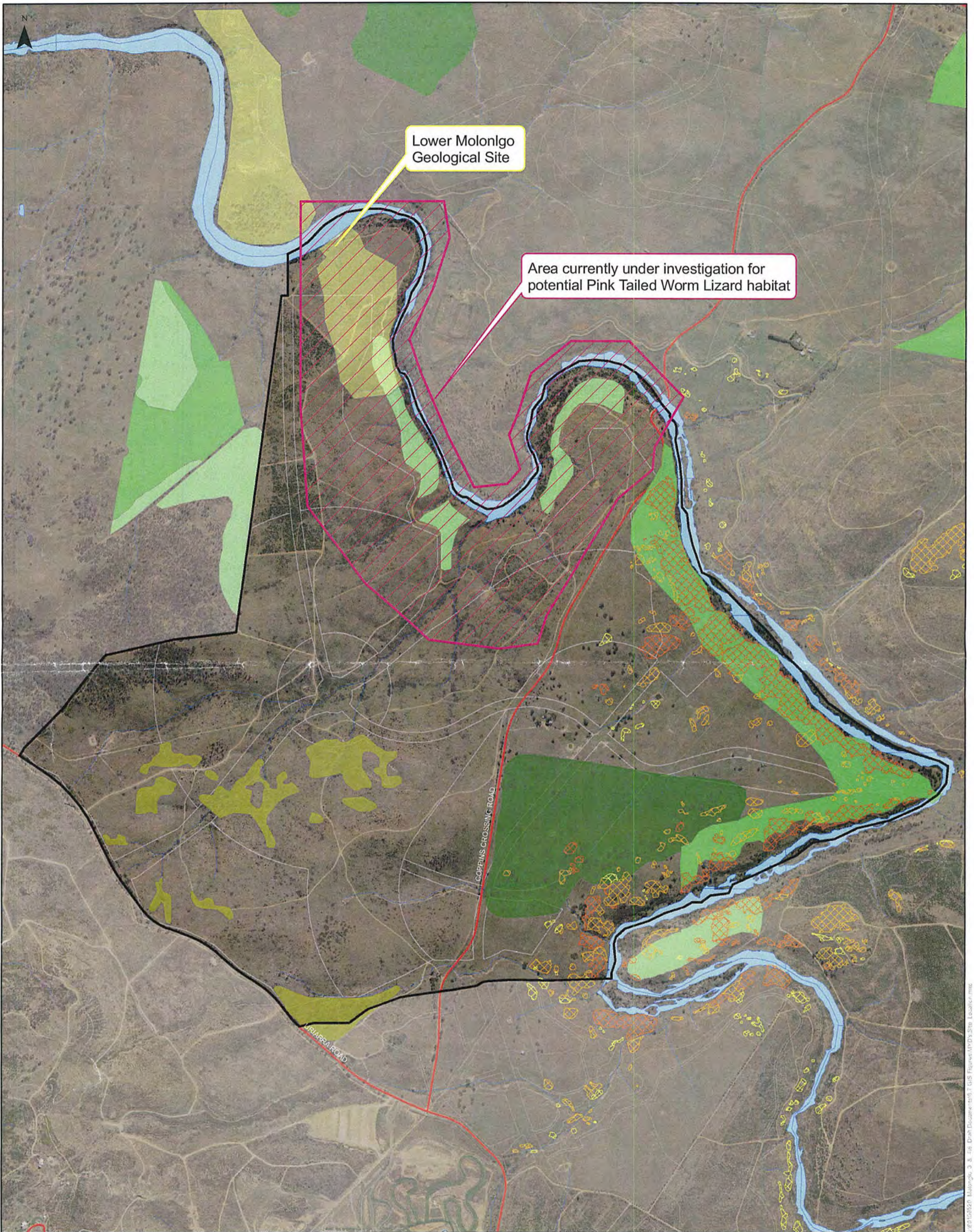
Molonglo Valley Stage 2 EIS Triggers Analysis
John Gorton Drive Stage 2 & Areas of Native Vegetation

<http://www.actpla.act.gov.au/actlic> DPMH - 16 Challis Street Dickson ACT 2601

Scale: 1:14000 & A3 Date: May 2011



Ref:101110-110517



Stage 2 Boundary

Stage 2 Precinct Boundaries

Pink Tailed Worm Lizard Habitat Quality Rating



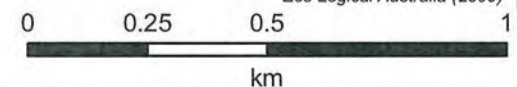
Lower Molonglo Geological Site

Box Gum Woodland Quality Rating

- (21+ native, non-grass understorey species)
- (16-20 native, non-grass understorey species)
- (12-15 native, non-grass understorey species)
- Regeneration (Native dominated, mature canopy or regeneration)

**MOLONGLO STAGE 2
SITE ENVIRONMENTAL CONSTRAINTS**

Source: ACTPLA (2010), University of Canberra (2010),
Eco Logical Australia (2009)



1:15,000 @ A3

AUG 2010
60156520

Fig 9

J:\0156520 Molonglo_3_8_10 Data\Docu\env\2 GIS\Figures\AVD\2510_Locallist.mxd



Appendix C
Stage 1D Design Drawings

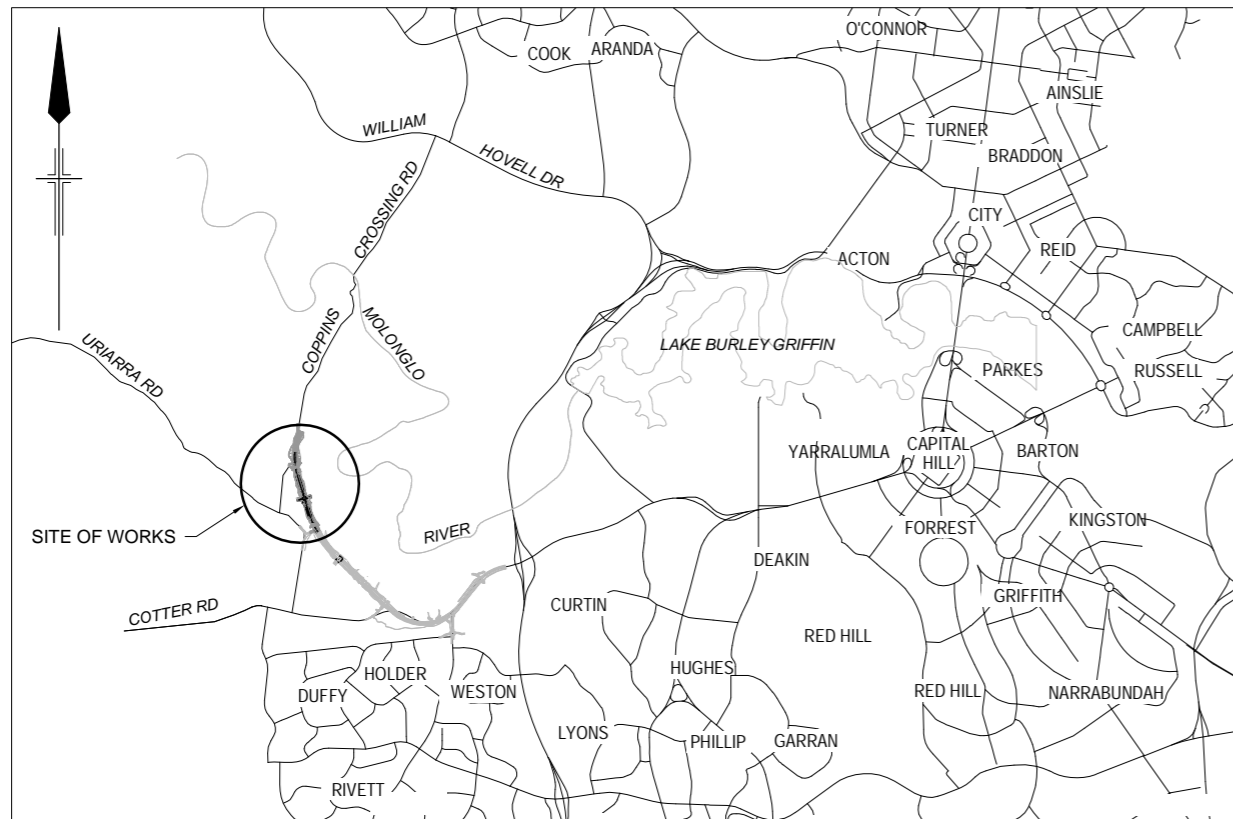
Molonglo Infrastructure



PROCUREMENT SOLUTIONS



MOLONGLO INFRASTRUCTURE - STAGE 1D



LOCALITY PLAN
N.T.S.

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
B	(DA)		MPQ	ML*	CK*	26.08.11
A	FSP ISSUE		TM	ML*	GV*	04.05.11



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Client	PROCUREMENT SOLUTIONS
Project	MOLONGLO INFRASTRUCTURE - STAGE 1D
Title	COVER SHEET AND LOCALITY PLAN
Original Size	A3
Drawing No:	23-12739-C7000
Rev:	B

DRAWING LIST - FOR DA ISSUE

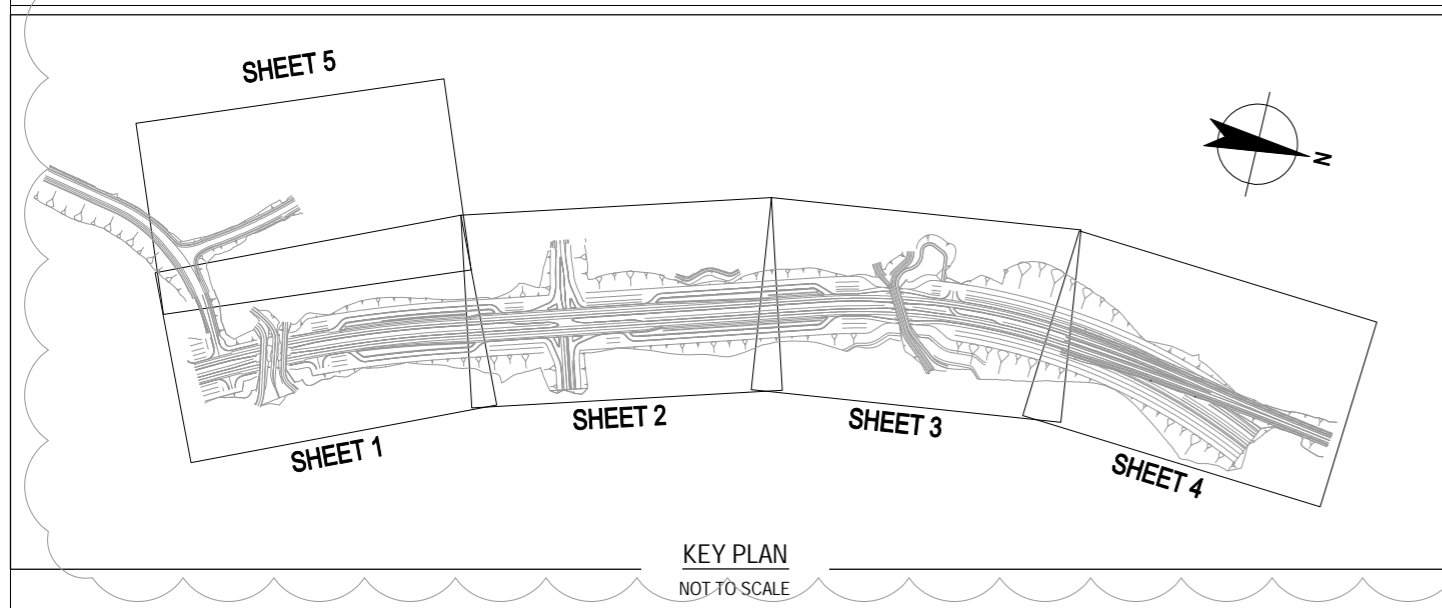
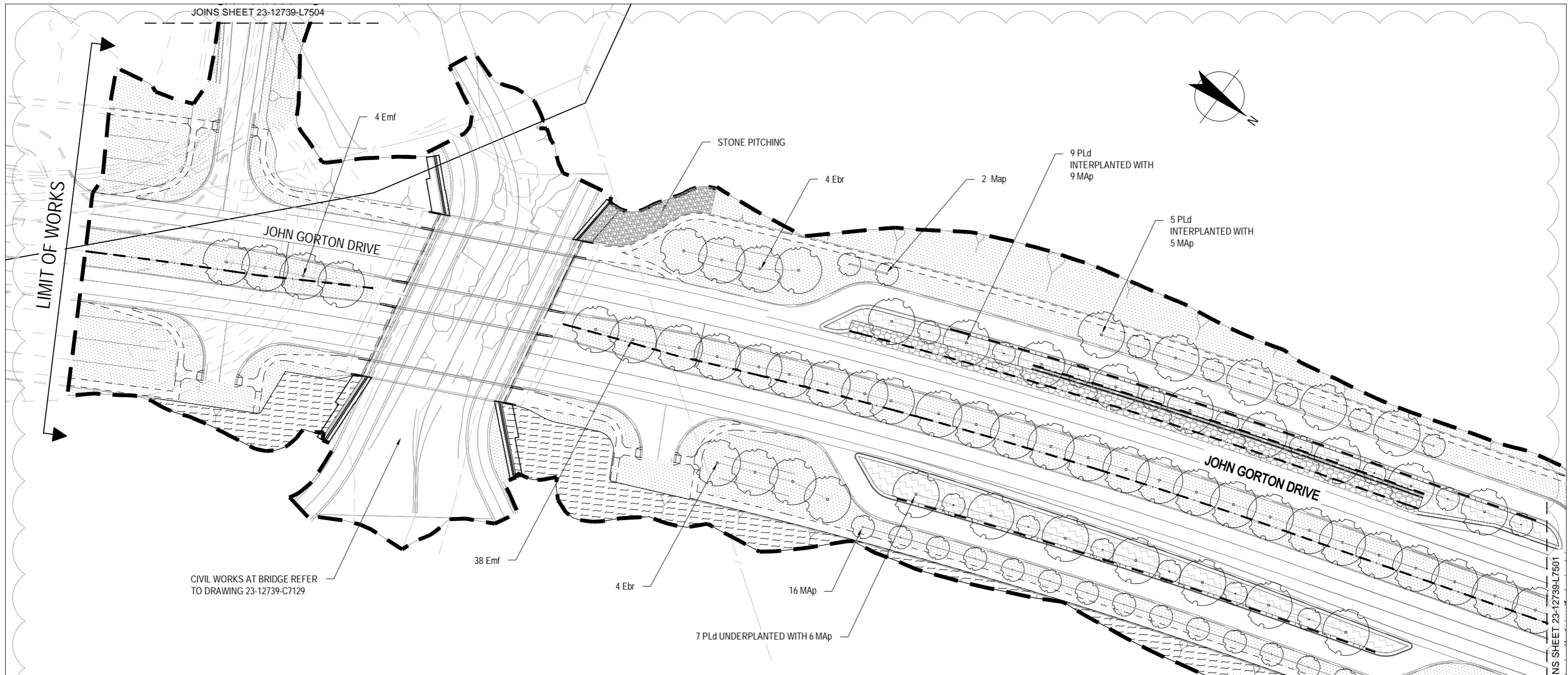
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23-12739-C7001	DRAWING LIST - SHEET 1 OF 1	23-12739-C7171	PUBLIC UTILITIES & LIGHTING PLAN - SHEET 2 OF 10
23-12739-C7003	SCOPE OF WORKS	23-12739-C7172	PUBLIC UTILITIES & LIGHTING PLAN - SHEET 3 OF 10
23-12739-C7005	TYPICAL CROSS SECTIONS - SHEET 1 OF 4	23-12739-C7173	PUBLIC UTILITIES & LIGHTING PLAN - SHEET 4 OF 10
23-12739-C7006	TYPICAL CROSS SECTIONS - SHEET 2 OF 4	23-12739-C7174	PUBLIC UTILITIES & LIGHTING PLAN - SHEET 5 OF 10
23-12739-C7007	TYPICAL CROSS SECTIONS - SHEET 3 OF 4	23-12739-C7175	PUBLIC UTILITIES & LIGHTING PLAN - SHEET 6 OF 10
23-12739-C7008	TYPICAL CROSS SECTIONS - SHEET 4 OF 4	23-12739-C7176	PUBLIC UTILITIES & LIGHTING PLAN - SHEET 7 OF 10
23-12739-C7009	TYPICAL DETAILS	23-12739-C7177	PUBLIC UTILITIES & LIGHTING PLAN - SHEET 8 OF 10
23-12739-C7070	GENERAL ARRANGEMENT - SHEET 1 OF 4	23-12739-C7178	PUBLIC UTILITIES & LIGHTING PLAN - SHEET 9 OF 10
23-12739-C7071	GENERAL ARRANGEMENT - SHEET 2 OF 4	23-12739-C7179	PUBLIC UTILITIES & LIGHTING PLAN - SHEET 10 OF 10
23-12739-C7072	GENERAL ARRANGEMENT - SHEET 3 OF 4	23-12739-C7180	PEDESTRIAN CROSSING LIGHTING DETAILS AND AND LIGHTING DIAGRAM
23-12739-C7073	GENERAL ARRANGEMENT - SHEET 4 OF 4	23-12739-C7181	PUBLIC UTILITIES & LIGHTING DETAILS, LEGEND AND NOTES
23-12739-C7100	DRAINAGE PLAN - SHEET 1 OF 10	23-12739-C7182	PUBLIC UTILITIES & LIGHTING VOLTAGE DROP DATA - CIRCUIT 1 AND 2
23-12739-C7101	DRAINAGE PLAN - SHEET 2 OF 10	23-12739-C7183	PUBLIC UTILITIES & LIGHTING VOLTAGE DROP DATA - CIRCUIT 3 AND 4
23-12739-C7102	DRAINAGE PLAN - SHEET 3 OF 10	23-12739-C7303	TEMPORARY TRAFFIC MANAGEMENT CONCEPT
23-12739-C7103	DRAINAGE PLAN - SHEET 4 OF 10	23-12739-C7400	EROSION AND SEDIMENT CONTROL CONCEPT PLAN - SHEET 1 OF 4
23-12739-C7104	DRAINAGE PLAN - SHEET 5 OF 10	23-12739-C7401	EROSION AND SEDIMENT CONTROL CONCEPT PLAN - SHEET 2 OF 4
23-12739-C7105	DRAINAGE PLAN - SHEET 6 OF 10	23-12739-C7402	EROSION AND SEDIMENT CONTROL CONCEPT PLAN - SHEET 3 OF 4
23-12739-C7106	DRAINAGE PLAN - SHEET 7 OF 10	23-12739-C7403	EROSION AND SEDIMENT CONTROL CONCEPT PLAN - SHEET 4 OF 4
23-12739-C7107	DRAINAGE PLAN - SHEET 8 OF 10	23-12739-C7404	EROSION AND SEDIMENT CONTROL CONCEPT PLAN DETAILS AND NOTES - SHEET 1 OF 2
23-12739-C7108	DRAINAGE PLAN - SHEET 9 OF 10	23-12739-C7405	EROSION AND SEDIMENT CONTROL CONCEPT DETAILS AND NOTES - SHEET 2 OF 2
23-12739-C7109	DRAINAGE PLAN - SHEET 10 OF 10	23-12739-C7410	TREE MANAGEMENT PLAN - SHEET 1 OF 4
23-12739-C7129	CIVIL WORKS AT BRIDGE AT CH 12660	23-12739-C7411	TREE MANAGEMENT PLAN - SHEET 2 OF 4
23-12739-C7130	CIVIL WORKS AT BRIDGE AT CH 13460	23-12739-C7412	TREE MANAGEMENT PLAN - SHEET 3 OF 4
23-12739-C7151	NORTH/SOUTH ARTERIAL WATER MAINS COVER SHEET, LOCALITY PLAN & SHEET LAYOUT	23-12739-C7413	TREE MANAGEMENT PLAN - SHEET 4 OF 4
23-12739-C7152	NORTH/SOUTH ARTERIAL WATER MAINS PLAN & LONGITUDINAL SECTION - SHEET 1 OF 4	23-12739-C7414	TREE MANAGEMENT PLAN - TREE DETAIL SURVEY
23-12739-C7153	NORTH/SOUTH ARTERIAL WATER MAINS PLAN & LONGITUDINAL SECTION - SHEET 2 OF 4	23-12739-L7500	LANDSCAPE PLAN - SHEET 1 OF 5
23-12739-C7154	NORTH/SOUTH ARTERIAL WATER MAINS PLAN & LONGITUDINAL SECTION - SHEET 3 OF 4	23-12739-L7501	LANDSCAPE PLAN - SHEET 2 OF 5
23-12739-C7155	NORTH/SOUTH ARTERIAL WATER MAINS PLAN & LONGITUDINAL SECTION - SHEET 4 OF 4	23-12739-L7502	LANDSCAPE PLAN - SHEET 3 OF 5
23-12739-C7156	NORTH/SOUTH ARTERIAL WATER MAINS NOTES, SETOUT TABLE & CONNECTION DETAILS	23-12739-L7503	LANDSCAPE PLAN - SHEET 4 OF 5
23-12739-C7157	NORTH/SOUTH ARTERIAL WATER MAIN THRUST BLOCK DETAIL	23-12739-L7504	LANDSCAPE PLAN - SHEET 5 OF 5
23-12739-C7158	NORTH/SOUTH ARTERIAL WATER MAIN PROTECTION	23-12739-L7505	LANDSCAPE PLANTING SCHEDULE AND GENERAL NOTES
23-12739-C7159	NORTH/SOUTH ARTERIAL 150 WATER MAIN AND LONGITUDINAL SECTIONS	23-12739-L7506	LANDSCAPE DETAILS
23-12739-C7160	PAVEMENT PLAN - SHEET 1 OF 4	23-12739-S7601	HOLDEN CREEK BRIDGE No. 4152 GENERAL ARRANGEMENT - SHEET A
23-12739-C7161	PAVEMENT PLAN - SHEET 2 OF 4	23-12739-S7602	HOLDEN CREEK BRIDGE No. 4152 GENERAL ARRANGEMENT - SHEET B
23-12739-C7162	PAVEMENT PLAN - SHEET 3 OF 4	23-12739-S7701	CH 13470 UNDERPASS PLAN
23-12739-C7163	PAVEMENT PLAN - SHEET 4 OF 4	23-12739-S7702	CH 13470 UNDERPASS GENERAL ARRANGEMENT - SHEET 1 OF 2
		23-12739-S7703	CH 13470 UNDERPASS GENERAL ARRANGEMENT - SHEET 2 OF 2

SUPPLEMENTARY DRAWINGS

RG 11021 - 01	TRAFFIC CONTROL DEVICE PLAN - SHEET 1 OF 8
RG 11021 - 02	TRAFFIC CONTROL DEVICE PLAN - SHEET 2 OF 8
RG 11021 - 03	TRAFFIC CONTROL DEVICE PLAN - SHEET 3 OF 8
RG 11021 - 04	TRAFFIC CONTROL DEVICE PLAN - SHEET 4 OF 8
RG 11021 - 05	TRAFFIC CONTROL DEVICE PLAN - SHEET 5 OF 8
RG 11021 - 06	TRAFFIC CONTROL DEVICE PLAN - SHEET 6 OF 8
RG 11021 - 07	TRAFFIC CONTROL DEVICE PLAN - SHEET 7 OF 8
RG 11021 - 08	TRAFFIC CONTROL DEVICE PLAN - SHEET 8 OF 8

PRELIMINARY

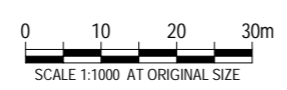
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C REVISED DRAWING LIST (DA) MPQ* ML* CK* 15.08.11 B REVISED DRAWING LIST (DA) MPQ ML* CK* 26.08.11 A FSP ISSUE TM ML* GV* 04.05.11	No Revision Note: * indicates signatures on original issue of drawing or last revision of drawing Drawn Job Manager Project Director Date			



- PROPOSED TREE. REFER TO PLANT SCHEDULE SHEET 23-12739-L7505
- NATIVE GRASS. REFER TO PLANTING SCHEDULE SHEET 23-12739-L7505
- 100mm CRUSHED GRANITE COMPACTED TO 95% MMDD. COLOUR - CREAM. STABILISED WITH 'SOIL BOND'
- STONE PITCHING REFER TO CIVIL DRAWINGS
- FEATURE NATIVE GROUNDCOVER OUTER MEDIAN REFER TO PLANT SCHEDULE 23-12739-L7505
- MIXED NATIVE GROUNDCOVERS AND SHRUBS. MULCHED PLANTING BED. REFER TO PLANT SCHEDULE 23-12739-L7505
- INTERIM PLANTING. MULCHED PLANTING BED. REFER TO PLANT SCHEDULE SHEET 23-12739-L7505
- RETAINING WALL
- SWALE LINING (REFER I 23-12739-L7506 FOR DETAILS)
- ROOT CONTROL BARRIER
- EXTENT OF WORKS

PRELIMINARY

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C	LANDSCAPE UPDATES (DA)	GD	ML*	CK*	15.08.11
B	LANDSCAPE REVISION (DA)	MPQ	ML*	CK*	26.08.11
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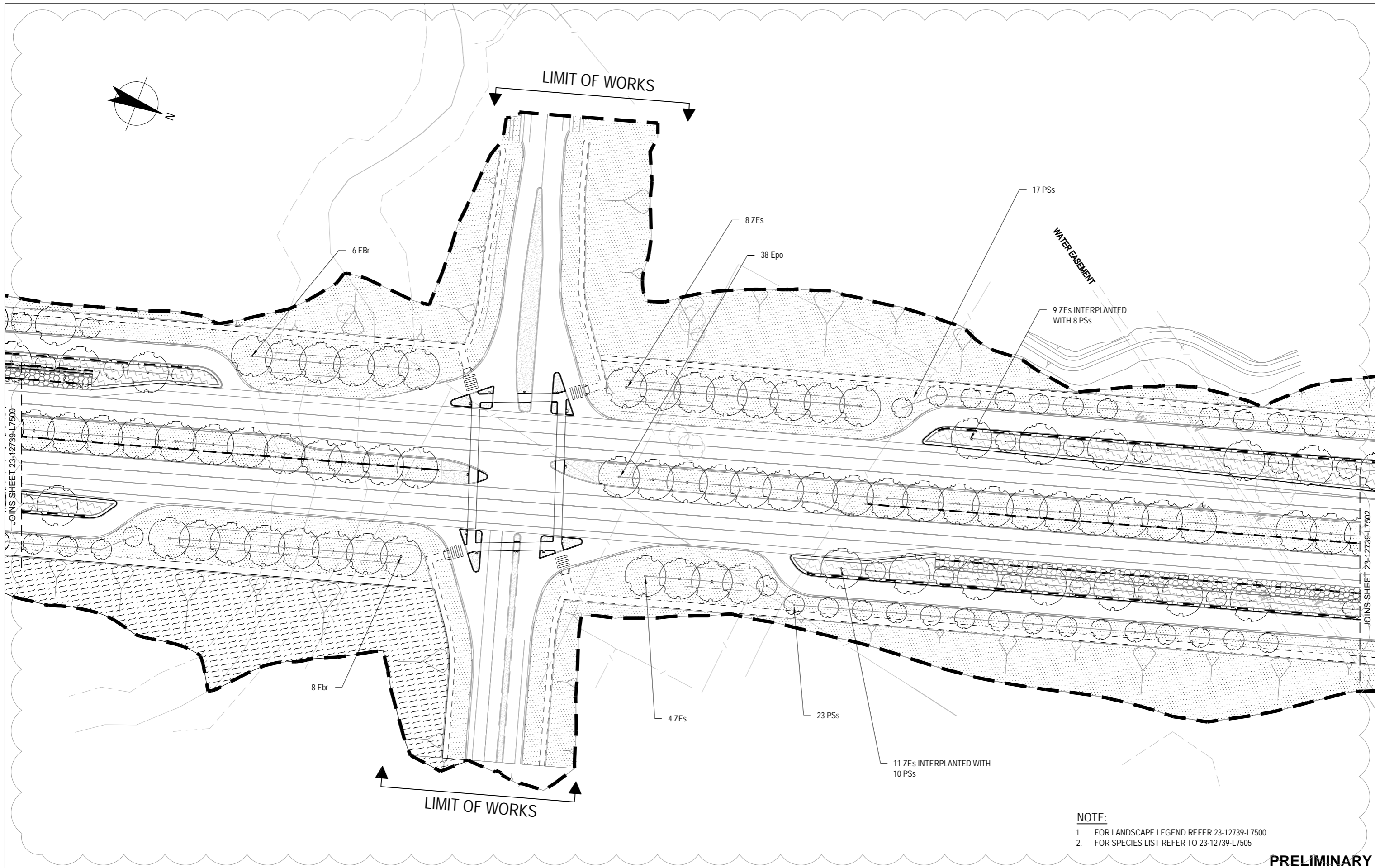
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Client **PROCUREMENT SOLUTIONS**

Project **MOLONGLO INFRASTRUCTURE - STAGE 1D**

Title **LANDSCAPE PLAN - SHEET 1 OF 5**

Original Size **A3** Drawing No: **23-12739-L7500** Rev: **D**



- NOTE:**
- FOR LANDSCAPE LEGEND REFER 23-12739-L7500
 - FOR SPECIES LIST REFER TO 23-12739-L7505

PRELIMINARY

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C	LANDSCAPE UPDATES	GD	ML*	CK*	15.08.11		
B	LANDSCAPE REVISION (DA)	MPQ	ML*	CK*	26.08.11		
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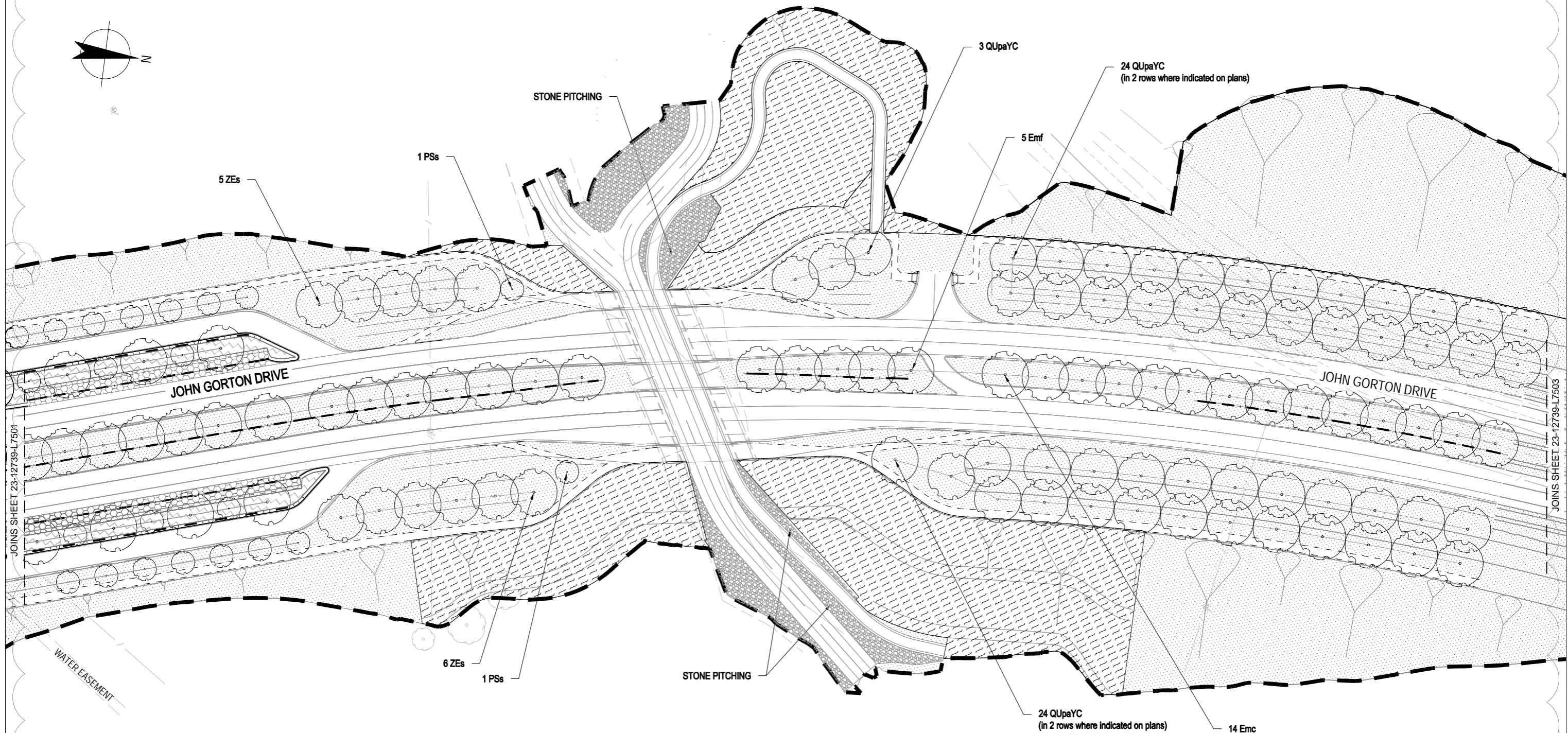
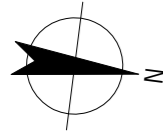


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Client	PROCUREMENT SOLUTIONS
Project	MOLONGLO INFRASTRUCTURE - STAGE 1D
Title	LANDSCAPE PLAN - SHEET 2 OF 5
Original Size	A3
Drawing No:	23-12739-L7501
Rev:	D



JOINS SHEET 23-12739-L7501

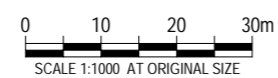
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NOTE:

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PRELIMINARY

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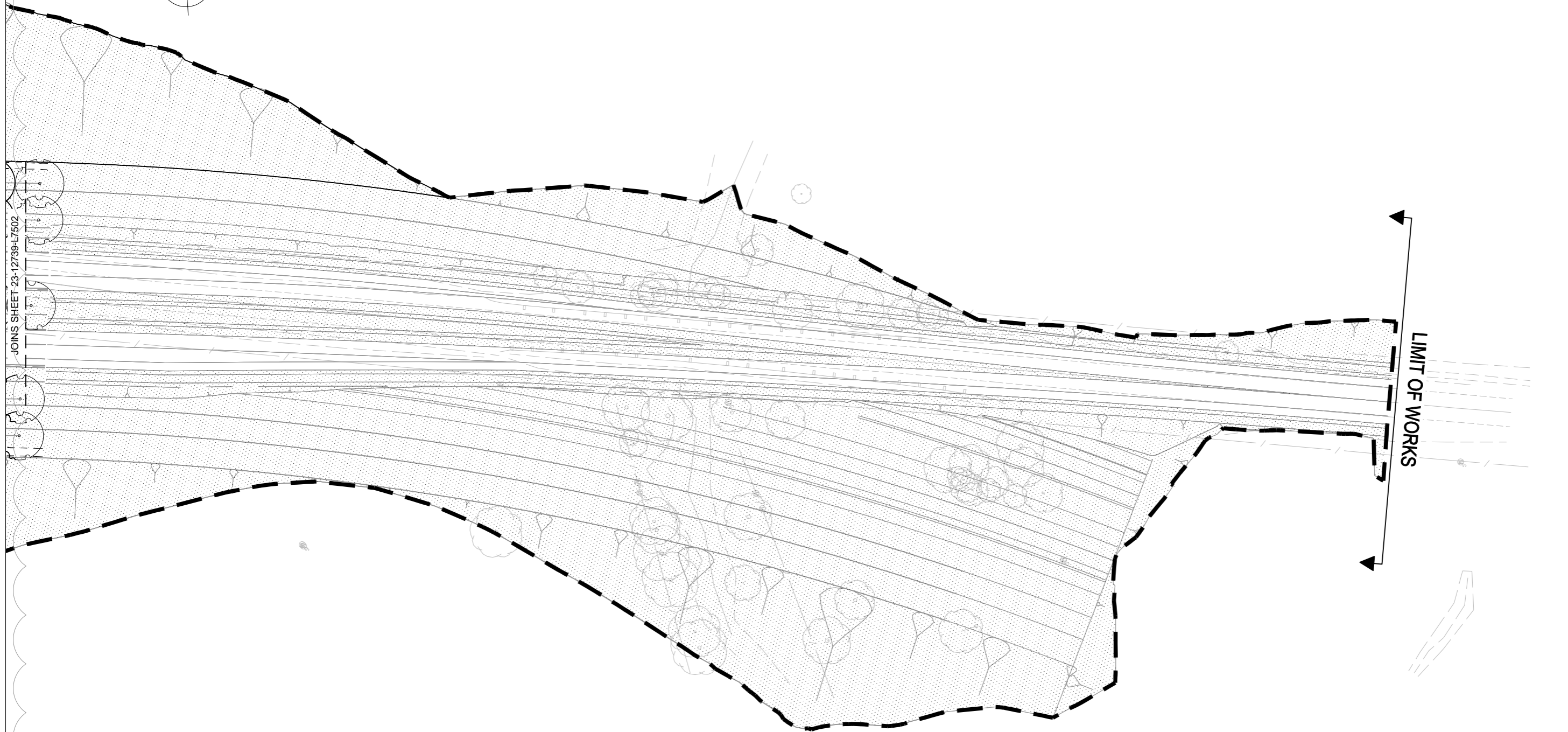
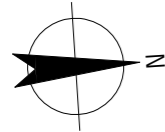


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Client	PROCUREMENT SOLUTIONS
Project	MOLONGLO INFRASTRUCTURE - STAGE 1D
Title	LANDSCAPE PLAN - SHEET 3 OF 5
Original Size	A3
Drawing No:	23-12739-L7502
Rev:	D



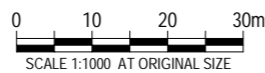
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LIMIT OF WORKS

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 2. FOR SPECIES LIST REFER TO 23-12739-L7505

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A	FSP ISSUE		TM	ML*	GV*	04.05.11

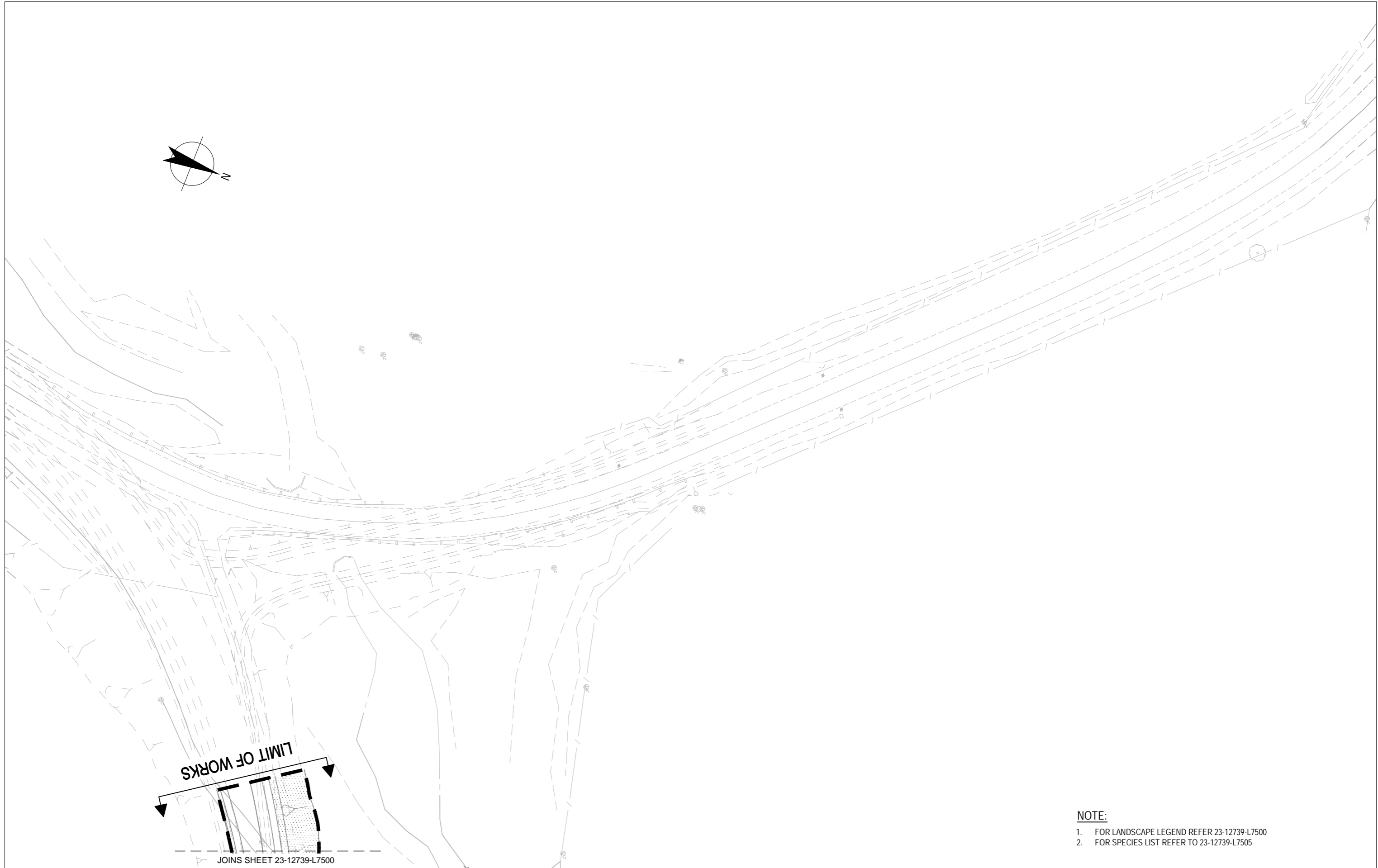
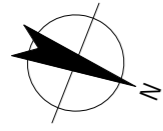


GHD CLIENTS | PEOPLE | PERFORMANCE

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DO NOT SCALE	Drawn T.MUSE	Designer B.MORGAN
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	Approved (Project Director)	Date
	Scale 1:1000	This Drawing must not be used for Construction unless signed as Approved

Client	PROCUREMENT SOLUTIONS
Project	MOLONGLO INFRASTRUCTURE - STAGE 1D
Title	LANDSCAPE PLAN - SHEET 4 OF 5
Original Size	A3
Drawing No:	23-12739-L7503
Rev:	C



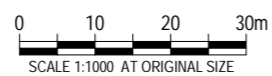
LIMIT OF WORKS

JOINS SHEET 23-12739-L7500

NOTE:

1. FOR LANDSCAPE LEGEND REFER 23-12739-L7500
2. FOR SPECIES LIST REFER TO 23-12739-L7505

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
B	LANDSCAPE REVISION (DA)*		MPQ	ML*	CK*	26.08.11
A	FSP ISSUE		TM	ML*	GV*	04.05.11



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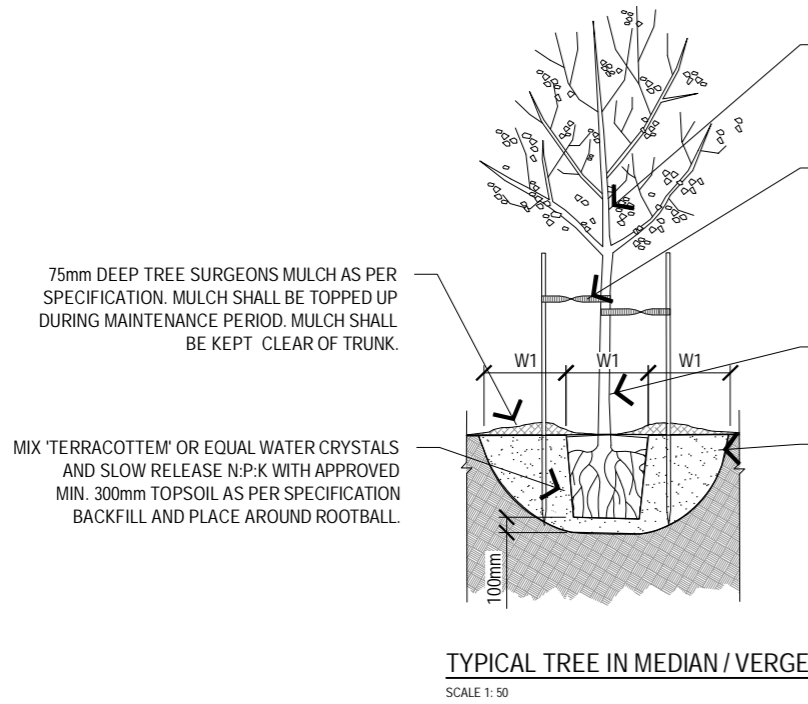
DO NOT SCALE	Drawn T.MUSE	Designer B.MORGAN	Client PROCUREMENT SOLUTIONS MOLONGLO INFRASTRUCTURE - STAGE 1D
	Drafting Check	Design Check	
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	Scale 1:1000	This Drawing must not be used for Construction unless signed as Approved	
Original Size A3			Drawing No: 23-12739-L7504
			Rev: B

PLANTING SCHEDULE					
CODE	SCIENTIFIC NAME	CONTAINER SIZE	QUANTITY	H x W (m)	LINEAL SPACING (m) CENTRE TO CENTRE
TREES					
Ebr	Eucalyptus brigesiana	200 SR	22	20 x 10	12
Emc	Eucalyptus microcarpa	200 SR	14	20 x 10	10
Emf	Eucalyptus mannifera	200 SR	47	20 x 10	10
Epo	Eucalyptus polyanthemos	200 SR	35	20 x 10	10
MApp	Malus halliana 'Parkmanii'	200 SR	38	5 x 3	INTERPLANTED WITH PLANTANUS ORIENTALIS AS PER DRAWING 23-12739-L7500
PLd	Platanus orientalis 'Chilensis'	200 SR	21	18 x 8	10
PSs	Pistacia chinensis	200 SR	60	6 x 4	INTERPLANTED WITH ZELKOVA SERRATA AS PER DRAWING 23-12739-L7501
QUpa 'YC'	Quercus palustris 'Yarralumla Clone'	200 SR	51	18 x 12	12
ZEs	Zelkova serrata	200 SR	43	12 x 8	10
MIXED NATIVE GROUNDCOVERS - TOTAL AREA APPROXIMATELY 12590m2					
Crd	Correa decumbens	140mm	2915	0.2 x 2	1/m ²
Gju	Grevillea juniperina	140mm	2915	2 x 2	1/m ² IN GROUPS OF 3-5 PLANTS WITH NOM. 3M GAP BETWEEN GROUPS
Gpr	Grevillea poorinda 'Royal Mantle'	140mm	2915	.2 x 2	1/m ²
INTERIM PLANTING - TOTAL AREA APPROXIMATELY 1885m2					
Abo	Acacia boormanii dwarf	VIROTUBE	995	1 X 1.5	1/m ² IN GROUPS OF 7-11 PLANTS WITH NOM. 3M GAP BETWEEN GROUPS
Dir	Dianella revoluta 'Little Rev'	VIROTUBE	3980	0.3 X 0.3	4/m ²
FEATURE NATIVE GROUNDCOVER OUTER MEDIAN - TOTAL AREA APPROXIMATELY 3709m2					
PoL	Poa labillardieri	140mm	12,420	1 x 0.5	0.5/m ²

GRASS MIXTURES - TOTAL AREA APPROXIMATELY 7.62 ha			
	SCIENTIFIC NAME	DISTRIB. %	APPL RATE (kg/ha)
NATIVE GRASS TYPE 1			
	AUSTRODANTHONIA SSP.	60	12
	MICROLAENA STIPOIDES	20	4
	THEMEDA TRIANDRA	10	2
	CHLORIS TRUNCATA	10	2
	TOTAL		20

PRELIMINARY

D AREAS AMENDED AND MIXED NATIVE WATER ZONE REMOVED C DETAILS UPDATED B DETAILS AMENDED (DA) A FSP ISSUE		GSP ML* CK* 23.08.11	ML* CK* 15.08.11	CK* 26.08.11	23.08.11 15.08.11 26.08.11 04.05.11	  CLIENTS PEOPLE PERFORMANCE <small>Level 7, 16 Marcus Clarke Street Canberra ACT 2601 Australia GPO Box 1877 Canberra ACT 2601 T 61 2 6113 3200 F 61 2 6113 3299 E cbmail@ghd.com W www.ghd.com</small>	DO NOT SCALE Conditions of Use. This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.	Drawn T.MUSE Designer B.MORGAN Drafting Check Design Check Approved (Project Director) Date	Client PROCUREMENT SOLUTIONS Project MOLONGLO INFRASTRUCTURE - STAGE 1D Title LANDSCAPING SPECIES LIST Original Size A3 Drawing No: 23-12739-L7505	Rev: D
No Revision Note: * indicates signatures on original issue of drawing or last revision of drawing Drawn Job Manager Project Director Date										



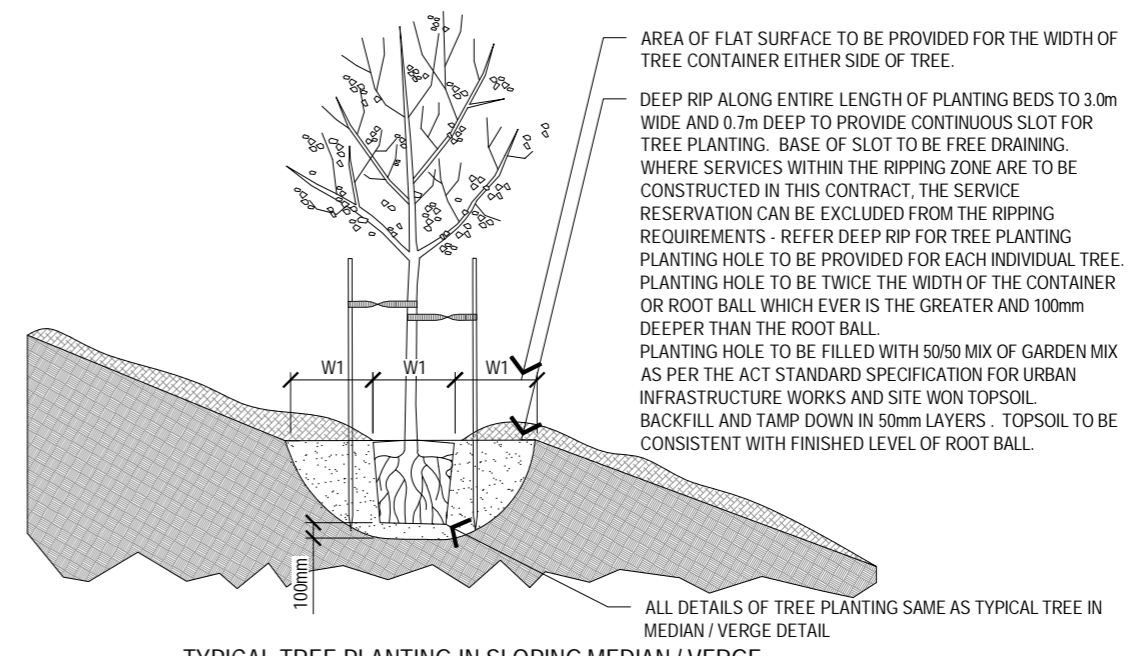
ALL TREES TO HAVE A SINGLE STRAIGHT TERMINAL AXIS, UNLESS OTHERWISE SPECIFIED, WITH NO DAMAGE TO GROWING TIP, CROWN MUST BE OF APPROPRIATE PROPORTION TO THE TRUNK.

HESSIAN TIES INSTALLED TO MANUFACTURERS SPECIFICATIONS. SECURE HESSIAN TIES TO TIMBER STAKES (APPROX 1200mm H x 50mm W). PLACE TWO STAKES ON EITHER SIDE OF THE TREE AT LEAST 100mm FROM THE EXTERNAL EDGE OF THE ROOTBALL.

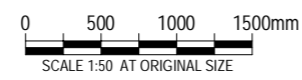
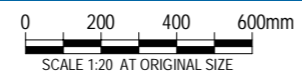
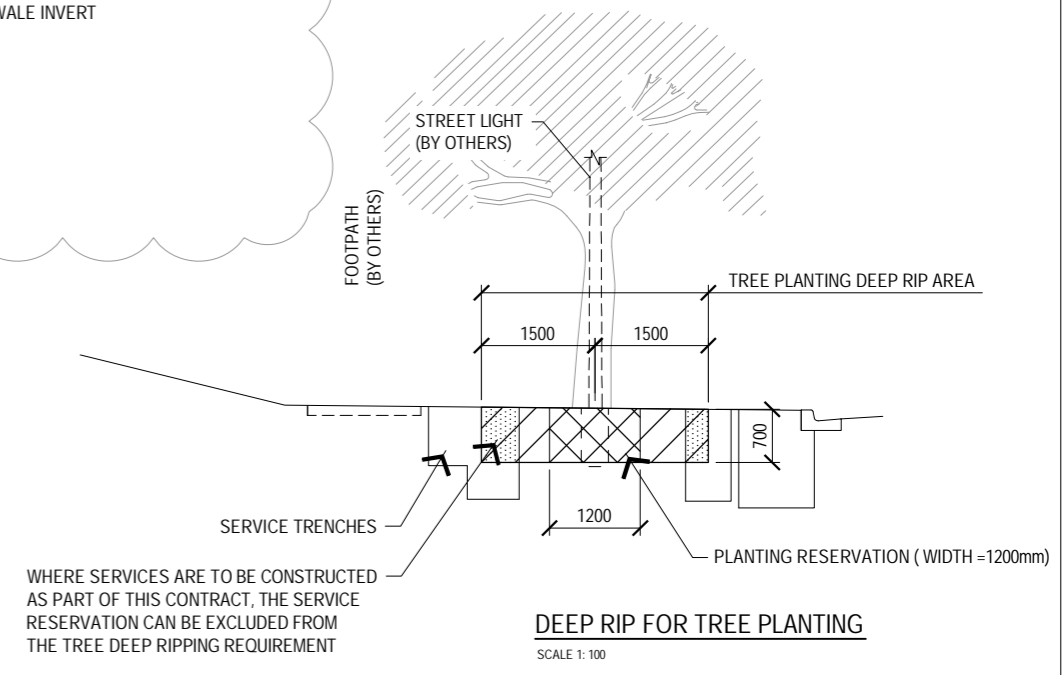
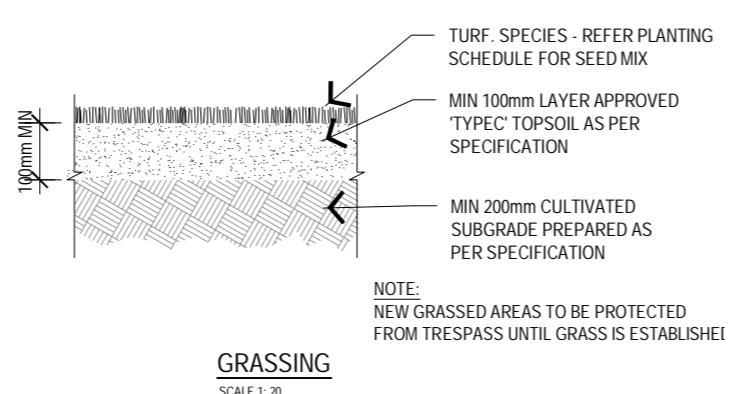
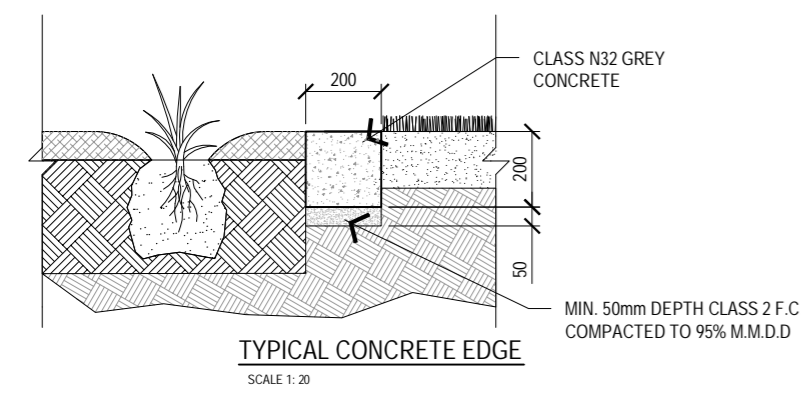
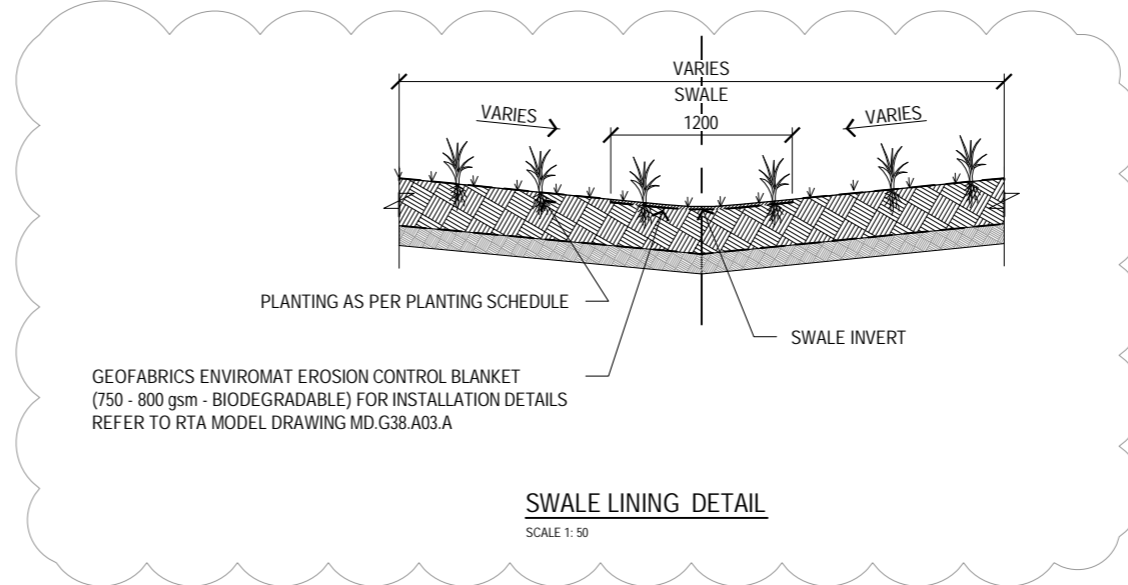
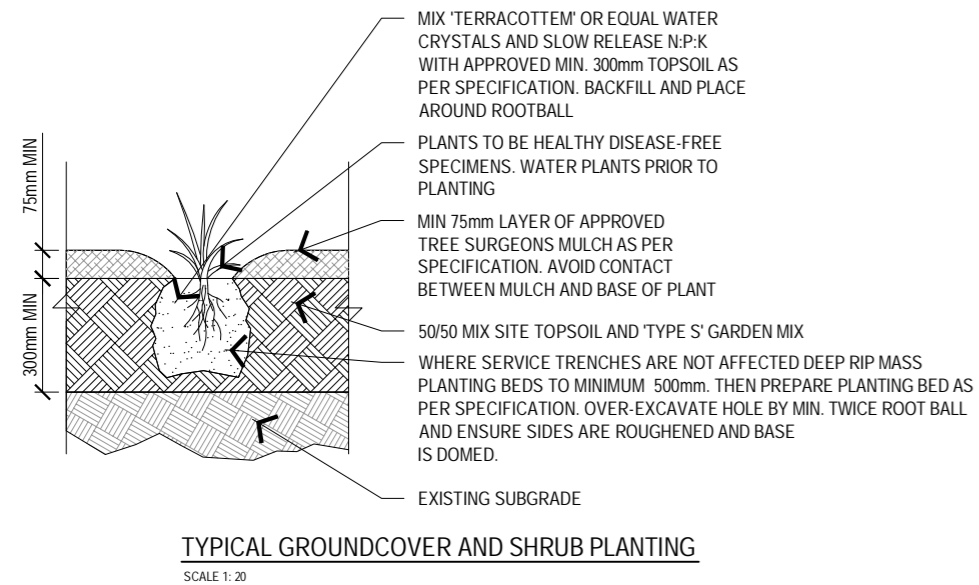
TRUNK IS TO BE BRANCH AND SUCKER FREE TO A MIN. HEIGHT OF 1000mm AFTER SUFFICIENT GROWTH HAS OCCURRED.

DEEP RIP ALONG ENTIRE LENGTH OF PLANTING BEDS TO 3.0m WIDE AND 0.7m DEEP TO PROVIDE CONTINUOUS SLOT FOR TREE PLANTING. BASE OF SLOT TO BE FREE DRAINING. WHERE SERVICES WITHIN THE RIPPING ZONE ARE TO BE CONSTRUCTED IN THIS CONTRACT, THE SERVICE RESERVATION CAN BE EXCLUDED FROM THE RIPPING REQUIREMENTS - REFER DEEP RIP FOR TREE PLANTING PLANTING HOLE TO BE PROVIDED FOR EACH INDIVIDUAL TREE. PLANTING HOLE TO BE TWICE THE WIDTH OF THE CONTAINER OR ROOT BALL WHICH EVER IS THE GREATER AND 100mm DEEPER THAN THE ROOT BALL.

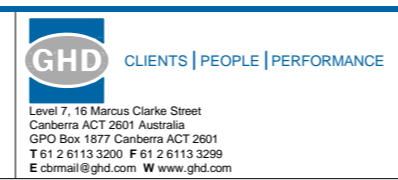
PLANTING HOLE TO BE FILLED WITH 50/50 MIX OF GARDEN MIX AS PER THE ACT STANDARD SPECIFICATION FOR URBAN INFRASTRUCTURE WORKS AND SITE WON TOPSOIL. BACKFILL AND TAMP DOWN IN 50mm LAYERS. TOPSOIL TO BE CONSISTENT WITH FINISHED LEVEL OF ROOT BALL.



ALL DETAILS OF TREE PLANTING SAME AS TYPICAL TREE IN MEDIAN / VERGE DETAIL



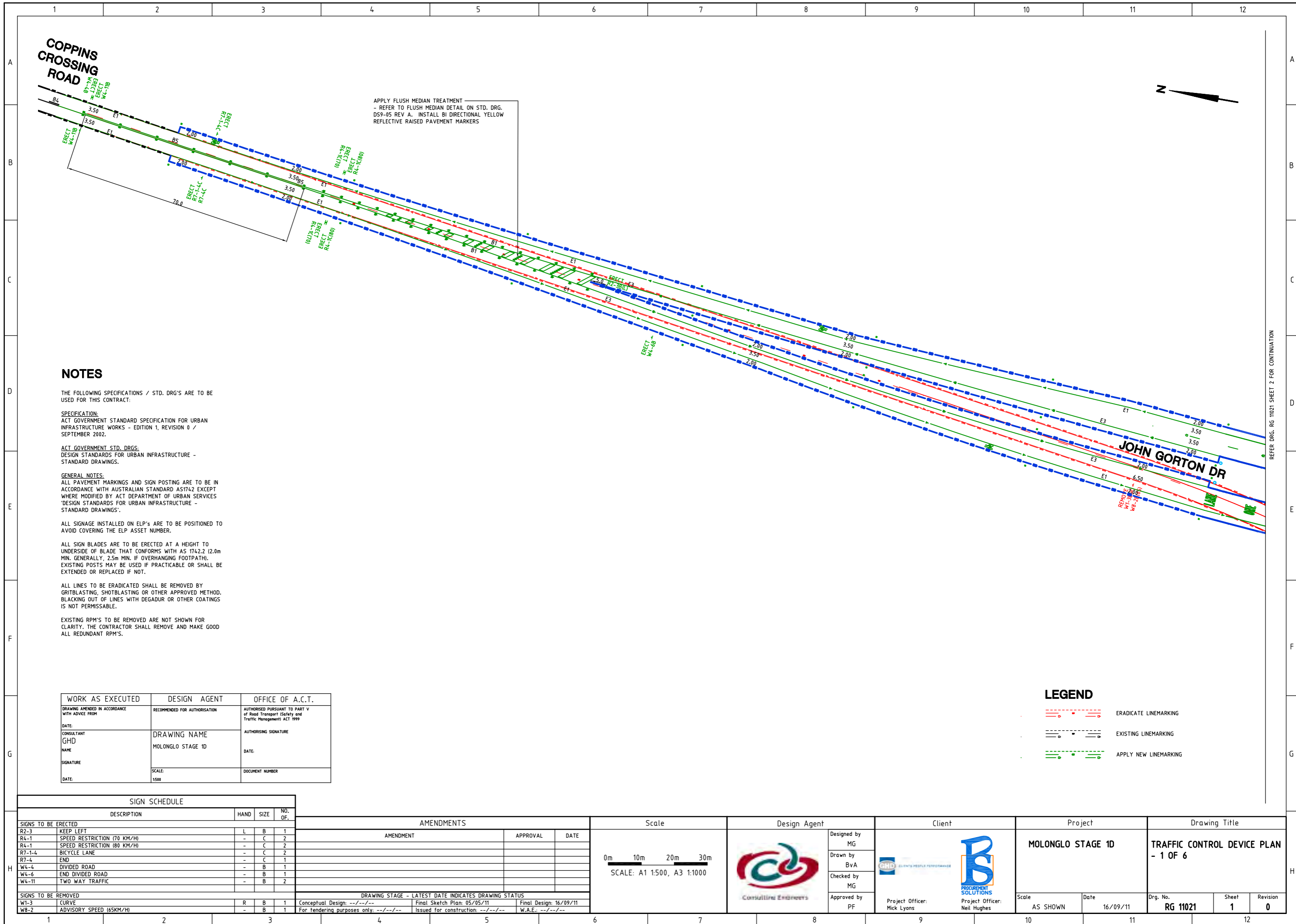
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
C	DETAILS ADDED (DA)		MPQ	ML*	CK*	23.08.11
B	DETAILS AMENDED (DA)		MPQ	ML*	CEK*	26.08.11
A	FSP ISSUE		TM	ML*	GV*	04.05.11



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	Approved (Project Director)	Date
	Scale AS SHOWN	This Drawing must not be used for construction unless signed as Approved

Client	PROCUREMENT SOLUTIONS
Project	MOLONGLO INFRASTRUCTURE - STAGE 1D
Title	LANDSCAPING DETAILS
Original Size	A3
Drawing No:	23-12739-L7506
Rev:	C

PRELIMINARY



NOTES

THE FOLLOWING SPECIFICATIONS / STD. DRG'S ARE TO BE USED FOR THIS CONTRACT:

SPECIFICATION:
ACT GOVERNMENT STANDARD SPECIFICATION FOR URBAN INFRASTRUCTURE WORKS - EDITION 1, REVISION 0 / SEPTEMBER 2002.

ACT GOVERNMENT STD. DRGS:
DESIGN STANDARDS FOR URBAN INFRASTRUCTURE - STANDARD DRAWINGS.

GENERAL NOTES:
ALL PAVEMENT MARKINGS AND SIGN POSTING ARE TO BE IN ACCORDANCE WITH AUSTRALIAN STANDARD AS1742 EXCEPT WHERE MODIFIED BY ACT DEPARTMENT OF URBAN SERVICES 'DESIGN STANDARDS FOR URBAN INFRASTRUCTURE - STANDARD DRAWINGS'.

ALL SIGNAGE INSTALLED ON ELP'S ARE TO BE POSITIONED TO AVOID COVERING THE ELP ASSET NUMBER.

ALL SIGN BLADES ARE TO BE ERRECTED AT A HEIGHT TO UNDERSIDE OF BLADE THAT CONFORMS WITH AS 1742.2 (2.0m MIN. GENERALLY, 2.5m MIN. IF OVERHANGING FOOTPATH). EXISTING POSTS MAY BE USED IF PRACTICABLE OR SHALL BE EXTENDED OR REPLACED IF NOT.

ALL LINES TO BE ERADICATED SHALL BE REMOVED BY GRITBLASTING, SHOTBLASTING OR OTHER APPROVED METHOD. BLACKING OUT OF LINES WITH DEGADUR OR OTHER COATINGS IS NOT PERMISSABLE.

EXISTING RPM'S TO BE REMOVED ARE NOT SHOWN FOR CLARITY. THE CONTRACTOR SHALL REMOVE AND MAKE GOOD ALL REDUNDANT RPM'S.

WORK AS EXECUTED	DESIGN AGENT	OFFICE OF A.C.T.
DRAWING AMENDED IN ACCORDANCE WITH ADVICE FROM:	RECOMMENDED FOR AUTHORISATION	AUTHORISED PURSUANT TO PART V of Road Transport (Safety and Traffic Management) ACT 1999
DATE:	DRAWING NAME	AUTHORISING SIGNATURE
CONSULTANT GHD	MOLONGLO STAGE 1D	DATE:
NAME	SCALE:	DOCUMENT NUMBER
SIGNATURE	1:500	
DATE:		

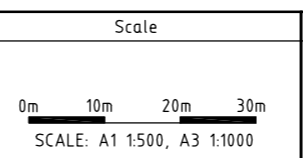
LEGEND

- ERADICATE LINEMARKING
- EXISTING LINEMARKING
- APPLY NEW LINEMARKING

SIGN SCHEDULE

DESCRIPTION	HAND	SIZE	NO. OF.
SIGNS TO BE ERRECTED			
R2-3 KEEP LEFT	L	B	1
R4-1 SPEED RESTRICTION (70 KM/H)	-	C	2
R4-1 SPEED RESTRICTION (80 KM/H)	-	C	2
R7-1-4 BICYCLE LANE	-	C	2
R7-4 END	-	C	1
W4-4 DIVIDED ROAD	-	B	1
W4-6 END DIVIDED ROAD	-	B	1
W4-11 TWO WAY TRAFFIC	-	B	2
SIGNS TO BE REMOVED			
W1-3 CURVE	R	B	1
W8-2 ADVISORY SPEED (65KM/H)	-	B	1

AMENDMENT	APPROVAL	DATE



	Design Agent		Client		Project		Drawing Title	
	Designed by MG		MOLONGLO STAGE 1D		TRAFFIC CONTROL DEVICE PLAN - 1 OF 6			
	Drawn by BvA		Project Officer: Mick Lyons		Project Officer: Neil Hughes			
	Checked by MG		Scale AS SHOWN		Date 16/09/11	Drg. No. RG 11021	Sheet 1	Revision 0
Approved by PF	Scale		Date	Drg. No.	Sheet	Revision		

REFER DRG. RG 11021 SHEET 2 FOR CONTINUATION

NOTES

THE FOLLOWING SPECIFICATIONS / STD. DRG'S ARE TO BE USED FOR THIS CONTRACT:

SPECIFICATION:
ACT GOVERNMENT STANDARD SPECIFICATION FOR URBAN INFRASTRUCTURE WORKS - EDITION 1, REVISION 0 / SEPTEMBER 2002.

ACT GOVERNMENT STD. DRGS:
DESIGN STANDARDS FOR URBAN INFRASTRUCTURE - STANDARD DRAWINGS.

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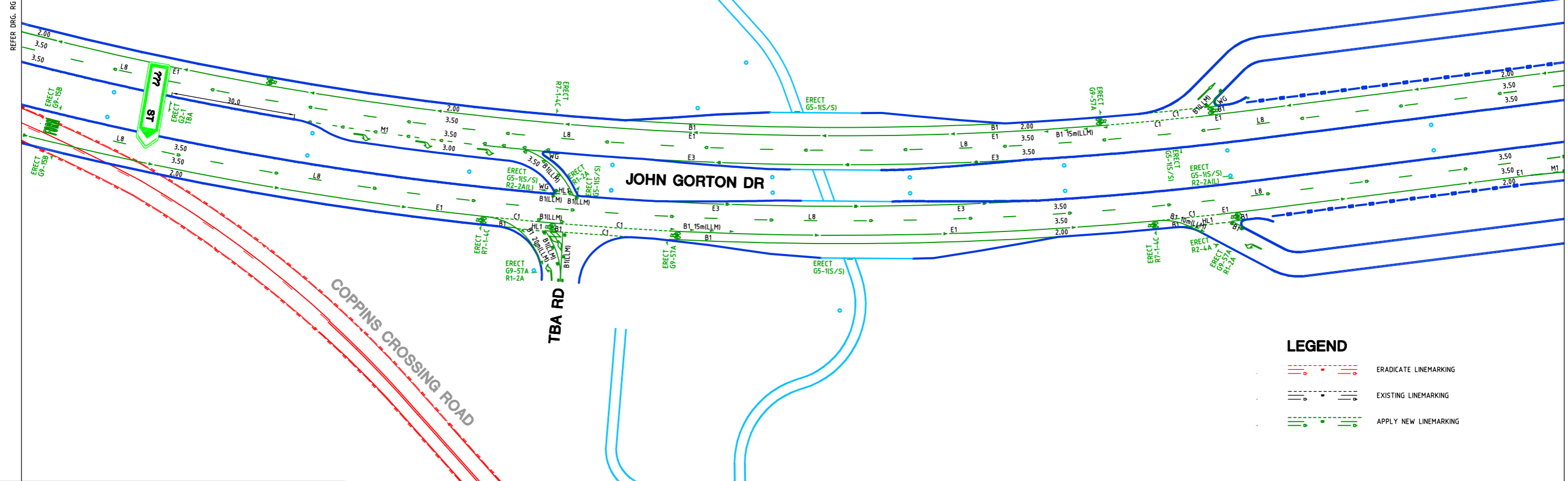
EXISTING RPM'S TO BE REMOVED ARE NOT SHOWN FOR CLARITY. THE CONTRACTOR SHALL REMOVE AND MAKE GOOD ALL REDUNDANT RPM'S.



WORK AS EXECUTED	DESIGN AGENT	OFFICE OF A.C.T.
DRAWING AMENDED IN ACCORDANCE WITH ADVICE FROM:	RECOMMENDED FOR AUTHORISATION:	AUTHORISED PURSUANT TO PART V of Road Transport (Safety and Traffic Management) ACT 1999
DATE:	DRAWING NAME	AUTHORISING SIGNATURE
CONSULTANT GHD	MOLONGLO STAGE 1D	DATE:
NAME	SCALE:	DOCUMENT NUMBER
SIGNATURE	1500	
DATE:		

REFER DRG. RG 11021 SHEET 1 FOR CONTINUATION

REFER DRG. RG 11021 SHEET 3 FOR CONTINUATION



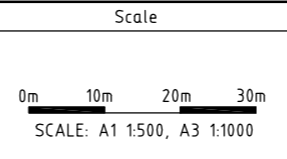
LEGEND

- ERADICATE LINEMARKING
- EXISTING LINEMARKING
- APPLY NEW LINEMARKING

SIGN SCHEDULE

DESCRIPTION	HAND	SIZE	NO. OF.
SIGNS TO BE ERECTED			
G2-1 GUIDE SIGN	-	-	1
G5-1 FINGERBOARD STREET SIGN	-	-	6
G9-15 FORM ONE LANE	-	B	2
G9-57 WATCH FOR BICYCLES	-	A	4
R1-2 GIVE WAY	-	A	3
R2-2 ONE WAY	L	A	2
R2-4 NO ENTRY	-	A	1
R7-1-4 BICYCLE LANE	-	C	3
SIGNS TO BE REMOVED			
-	-	-	-

AMENDMENTS		
AMENDMENT	APPROVAL	DATE



	Design Agent		Client		Project		Drawing Title		
	Designed by MG				MOLONGLO STAGE 1D		TRAFFIC CONTROL DEVICE PLAN - 2 OF 6		
	Drawn by BvA				Scale	Date	Drg. No.	Sheet	Revision
	Checked by MG				AS SHOWN	16/09/11	RG 11021	2	0
Approved by PF									

NOTES

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SPECIFICATION:
ACT GOVERNMENT STANDARD SPECIFICATION FOR URBAN INFRASTRUCTURE WORKS - EDITION 1, REVISION 0 / SEPTEMBER 2002.

ACT GOVERNMENT STD. DRGS:
DESIGN STANDARDS FOR URBAN INFRASTRUCTURE - STANDARD DRAWINGS.

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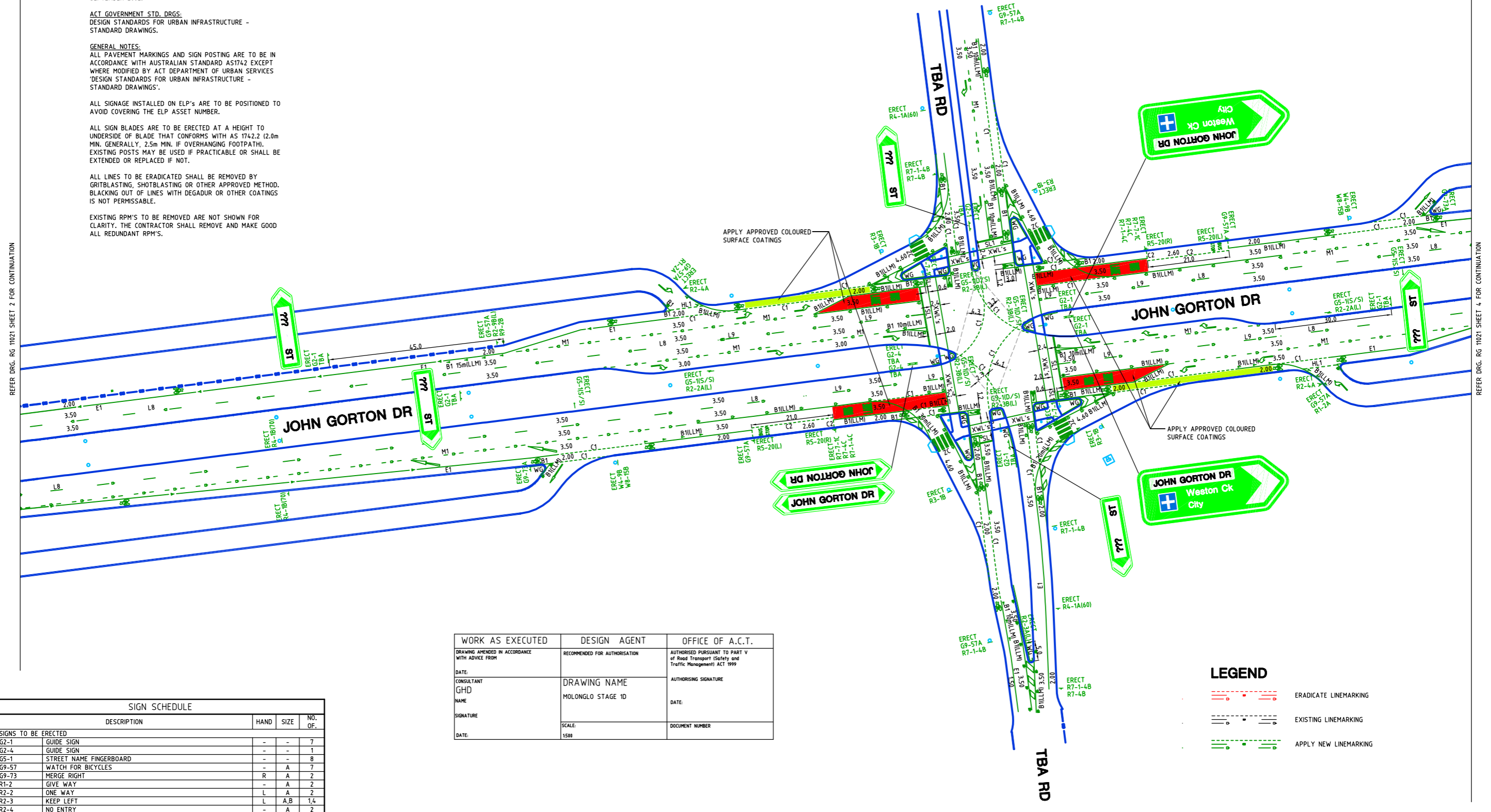
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EXISTING RPM'S TO BE REMOVED ARE NOT SHOWN FOR CLARITY. THE CONTRACTOR SHALL REMOVE AND MAKE GOOD ALL REDUNDANT RPM'S.



REFER DRG. RG 11021 SHEET 2 FOR CONTINUATION

REFER DRG. RG 11021 SHEET 4 FOR CONTINUATION



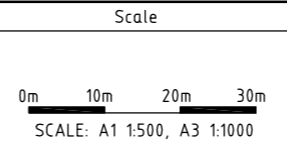
SIGN SCHEDULE				
DESCRIPTION	HAND	SIZE	NO.	OF.
SIGNS TO BE ERECTED				
G2-1	GUIDE SIGN	-	-	7
G2-4	GUIDE SIGN	-	-	1
G5-1	STREET NAME FINGERBOARD	-	-	8
G9-57	WATCH FOR BICYCLES	R	A	7
G9-73	MERGE RIGHT	-	A	2
R1-2	GIVE WAY	-	A	2
R2-2	ONE WAY	L	A	2
R2-3	KEEP LEFT	L	A,B	1,4
R2-4	NO ENTRY	-	A	2
R2-9	LEFT LANE MUST TURN LEFT	L	B	1
R3-1	PEDESTRIAN CROSSING	-	B	4
R4-1	SPEED RESTRICTION (60KM/H)	-	A	2
R4-1	SPEED RESTRICTION (70KM/H)	-	B	2
R5-20	BUS ZONE	L,R	-	2,2
R7-1-1	BUS LANE	-	C	4
R7-1-4	BICYCLE LANE	-	B,C	5,2
R7-4	END	-	B,C	2,2
R9-2	BUSES EXCEPTED	-	B	1
W4-9	LEFT LANE ENDS	L	B	2
W8-15	MERGE RIGHT	R	B	2
SIGNS TO BE REMOVED				
-	-	-	-	-

WORK AS EXECUTED	DESIGN AGENT	OFFICE OF A.C.T.
DRAWING AMENDED IN ACCORDANCE WITH ADVICE FROM	RECOMMENDED FOR AUTHORISATION	AUTHORISED PURSUANT TO PART V of Road Transport (Safety and Traffic Management) ACT 1999
DATE:	DRAWING NAME	AUTHORISING SIGNATURE
CONSULTANT	MOLONGLO STAGE 1D	DATE:
GHD	SCALE:	DOCUMENT NUMBER
NAME	1:500	
SIGNATURE		
DATE:		

LEGEND

	ERADICATE LINEMARKING
	EXISTING LINEMARKING
	APPLY NEW LINEMARKING

AMENDMENTS		
AMENDMENT	APPROVAL	DATE



Design Agent	Client
Designed by MG	
Drawn by BvA	
Checked by MG	
Approved by PF	
Project Officer: Mick Lyons	Project Officer: Neil Hughes

Project		Drawing Title	
MOLONGLO STAGE 1D		TRAFFIC CONTROL DEVICE PLAN - 3 OF 6	
Scale	Date	Drg. No.	Sheet
AS SHOWN	16/09/11	RG 11021	3
			Revision
			0