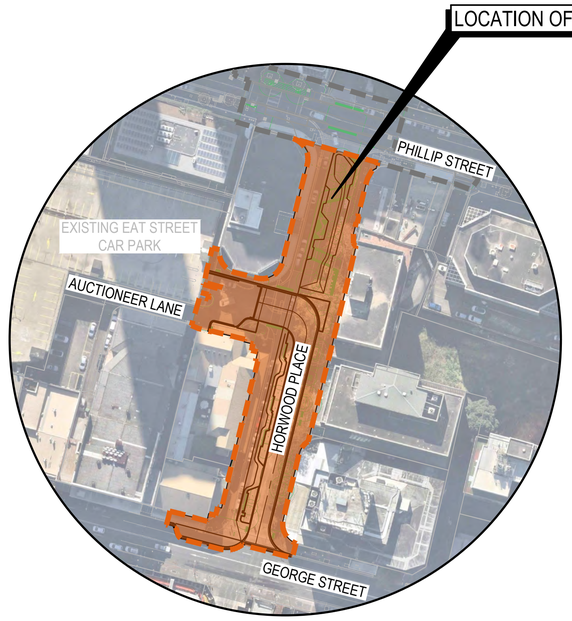
PARRAMATTA CIVIC LINK - HORWOOD PLACE WORKS

100% DETAILED DESIGN

CITY OF PARRAMATTA

DRAWING SCHEDULE

DRAWING NUMBER	DESCRIPTION
GENERAL	
CL3-AAP-DD-HP-DRG-CI-0001	COVER SHEET AND DRAWING LIST
CL3-AAP-DD-HP-DRG-CI-0021	GENERAL NOTES
CL3-AAP-DD-HP-DRG-CI-0061	GENERAL ARRANGEMENT PLAN
CL3-AAP-DD-HP-DRG-CI-0081	DEMOLITION PLAN SHEET 1
CL3-AAP-DD-HP-DRG-CI-0082	DEMOLITION PLAN SHEET 2
CL3-AAP-DD-HP-DRG-CI-0083	DEMOLITION PLAN SHEET 3
CL3-AAP-DD-HP-DRG-CI-0084	DEMOLITION PLAN SHEET 4
EARTHWORKS	
CL3-AAP-DD-HP-DRG-CI-0101	EARTHWORKS PLAN SHEET 1
CL3-AAP-DD-HP-DRG-CI-0102	EARTHWORKS PLAN SHEET 2
CL3-AAP-DD-HP-DRG-CI-0103	EARTHWORKS PLAN SHEET 3
CL3-AAP-DD-HP-DRG-CI-0104	EARTHWORKS PLAN SHEET 4
CL3-AAP-DD-HP-DRG-CI-0121	EARTHWORKS SITE SECTIONS
CL3-AAP-DD-HP-DRG-CI-0171	EROSION AND SEDIMENT CONTROL PLAN SHEET 1
CL3-AAP-DD-HP-DRG-CI-0172	EROSION AND SEDIMENT CONTROL PLAN SHEET 2
CL3-AAP-DD-HP-DRG-CI-0173	EROSION AND SEDIMENT CONTROL PLAN SHEET 3
CL3-AAP-DD-HP-DRG-CI-0174	EROSION AND SEDIMENT CONTROL PLAN SHEET 4
CL3-AAP-DD-HP-DRG-CI-0191	EROSION AND SEDIMENT CONTROL DETAILS
ROADWORKS AND DRAINAGE	
CL3-AAP-DD-HP-DRG-CI-0201	CIVIL WORKS PLAN SHEET 1
CL3-AAP-DD-HP-DRG-CI-0202	CIVIL WORKS PLAN SHEET 2
CL3-AAP-DD-HP-DRG-CI-0203	CIVIL WORKS PLAN SHEET 3
CL3-AAP-DD-HP-DRG-CI-0204	CIVIL WORKS PLAN SHEET 4
CL3-AAP-DD-HP-DRG-CI-0221	ROAD CONTROL SETOUT PLAN SHEET 1
CL3-AAP-DD-HP-DRG-CI-0222	ROAD CONTROL SETOUT PLAN SHEET 2
CL3-AAP-DD-HP-DRG-CI-0223	ROAD CONTROL SETOUT PLAN SHEET 3
CL3-AAP-DD-HP-DRG-CI-0224	ROAD CONTROL SETOUT PLAN SHEET 4
CL3-AAP-DD-HP-DRG-CI-0241	TYPICAL ROAD SECTIONS
CL3-AAP-DD-HP-DRG-CI-0251	ROAD LONGITUDINAL SECTIONS SHEET 1
CL3-AAP-DD-HP-DRG-CI-0252	ROAD LONGITUDINAL SECTIONS SHEET 2
CL3-AAP-DD-HP-DRG-CI-0281	ROAD CROSS SECTIONS SHEET 1
CL3-AAP-DD-HP-DRG-CI-0282	ROAD CROSS SECTIONS SHEET 2
CL3-AAP-DD-HP-DRG-CI-0283	ROAD CROSS SECTIONS SHEET 3
CL3-AAP-DD-HP-DRG-CI-0284	ROAD CROSS SECTIONS SHEET 4
CL3-AAP-DD-HP-DRG-CI-0285	ROAD CROSS SECTIONS SHEET 5
CL3-AAP-DD-HP-DRG-CI-0311	KERB RETURNS SHEET 1
CL3-AAP-DD-HP-DRG-CI-0312	KERB RETURNS SHEET 2
CL3-AAP-DD-HP-DRG-CI-0313	KERB RETURNS SHEET 3
CL3-AAP-DD-HP-DRG-CI-0314	KERB RETURNS SHEET 4
CL3-AAP-DD-HP-DRG-CI-0341	PAVEMENT PLAN SHEET 1
CL3-AAP-DD-HP-DRG-CI-0342	PAVEMENT PLAN SHEET 2
CL3-AAP-DD-HP-DRG-CI-0343	PAVEMENT PLAN SHEET 3
CL3-AAP-DD-HP-DRG-CI-0344	PAVEMENT PLAN SHEET 4
CL3-AAP-DD-HP-DRG-CI-0351	SIGNAGE AND LINEMARKING PLAN SHEET 1
CL3-AAP-DD-HP-DRG-CI-0352	SIGNAGE AND LINEMARKING PLAN SHEET 2
CL3-AAP-DD-HP-DRG-CI-0353	SIGNAGE AND LINEMARKING PLAN SHEET 3
CL3-AAP-DD-HP-DRG-CI-0354	SIGNAGE AND LINEMARKING PLAN SHEET 4
CL3-AAP-DD-HP-DRG-CI-0361	CIVIL WORKS DETAILS SHEET 1
CL3-AAP-DD-HP-DRG-CI-0362	CIVIL WORKS DETAILS SHEET 2
CL3-AAP-DD-HP-DRG-CI-0401	STORMWATER PLAN SHEET 1
CL3-AAP-DD-HP-DRG-CI-0402	STORMWATER PLAN SHEET 2
CL3-AAP-DD-HP-DRG-CI-0403	STORMWATER PLAN SHEET 3
CL3-AAP-DD-HP-DRG-CI-0404	STORMWATER PLAN SHEET 4
CL3-AAP-DD-HP-DRG-CI-0421	CATCHMENT PLAN
CL3-AAP-DD-HP-DRG-CI-0441	STORMWATER LONGITUDINAL SECTIONS AND PIT SCHEDULE
CL3-AAP-DD-HP-DRG-CI-0471	BIORETENTION GENERAL NOTES
CL3-AAP-DD-HP-DRG-CI-0472	BIORETENTION DETAILS
CL3-AAP-DD-HP-DRG-CI-0473	BIORETENTION SETOUT PLAN SHEET 1
CL3-AAP-DD-HP-DRG-CI-0474	BIORETENTION SETOUT PLAN SHEET 2
CL3-AAP-DD-HP-DRG-CI-0475	BIORETENTION SECTIONS SHEET 1
CL3-AAP-DD-HP-DRG-CI-0476	BIORETENTION SECTIONS SHEET 2
CL3-AAP-DD-HP-DRG-CI-0477	BIORETENTION SECTIONS SHEET 3
CL3-AAP-DD-HP-DRG-CI-0478	BIORETENTION SECTIONS SHEET 4
CL3-AAP-DD-HP-DRG-CI-0481	STORMWATER DETAILS SHEET 1
CL3-AAP-DD-HP-DRG-CI-0482	STORMWATER DETAILS SHEET 2
CL3-AAP-DD-HP-DRG-CI-0483	STORMWATER DETAILS SHEET 3
SERVICES	
CL3-AAP-DD-HP-DRG-CI-0501	COMBINED UTILITIES PLAN SHEET 1
CL3-AAP-DD-HP-DRG-CI-0502	COMBINED UTILITIES PLAN SHEET 2
CL3-AAP-DD-HP-DRG-CI-0503	COMBINED UTILITIES PLAN SHEET 3
CL3-AAP-DD-HP-DRG-CI-0504	COMBINED UTILITIES PLAN SHEET 4
CL3-AAP-DD-HP-DRG-CI-0511	UTILITIES REGISTER PLAN SHEET 1
CL3-AAP-DD-HP-DRG-CI-0512	UTILITIES REGISTER PLAN SHEET 2
CL3-AAP-DD-HP-DRG-CI-0513	UTILITIES REGISTER PLAN SHEET 3
CL3-AAP-DD-HP-DRG-CI-0514	UTILITIES REGISTER PLAN SHEET 4
CL3-AAP-DD-HP-DRG-CI-0521	UTILITIES REGISTER SHEET 1
CL3-AAP-DD-HP-DRG-CI-0522	UTILITIES REGISTER SHEET 2
CL3-AAP-DD-HP-DRG-CI-0711	LIGHTING DETAILS SHEET 1
CL3-AAP-DD-HP-DRG-CI-0712	LIGHTING DETAILS SHEET 2
CL3-AAP-DD-HP-DRG-CI-0713	LIGHTING DETAILS SHEET 3
CL3-AAP-DD-HP-DRG-CI-0714	LIGHTING DETAILS SHEET 4
CL3-AAP-DD-HP-DRG-CI-0715	LIGHTING DETAILS SHEET 5
CL3-AAP-DD-HP-DRG-CI-0716	LIGHTING DETAILS SHEET 6
CL3-AAP-DD-HP-DRG-CI-0717	LIGHTING DETAILS SHEET 7
CL3-AAP-DD-HP-DRG-CI-0721	LIGHTING SCHEDULE
CL3-AAP-DD-HP-DRG-CI-0731	ISOLUX PLAN SHEET 1
CL3-AAP-DD-HP-DRG-CI-0732	ISOLUX PLAN SHEET 2
CL3-AAP-DD-HP-DRG-CI-0733	ISOLUX PLAN SHEET 3
CL3-AAP-DD-HP-DRG-CI-0734	ISOLUX PLAN SHEET 4
STRUCTURAL	
CL3-AAP-DD-HP-DRG-CI-0741	STRUCTURAL NOTES SHEET 1
CL3-AAP-DD-HP-DRG-CI-0742	STRUCTURAL NOTES SHEET 2
CL3-AAP-DD-HP-DRG-CI-0743	STRUCTURAL NOTES SHEET 3
CL3-AAP-DD-HP-DRG-CI-0744	STRUCTURAL NOTES SHEET 4
CL3-AAP-DD-HP-DRG-CI-0751	STRUCTURAL DETAILS SHEET 1
CL3-AAP-DD-HP-DRG-CI-0752	STRUCTURAL DETAILS SHEET 2
CL3-AAP-DD-HP-DRG-CI-0753	STRUCTURAL DETAILS SHEET 3
CL3-AAP-DD-HP-DRG-CI-0754	STRUCTURAL DETAILS SHEET 4
CL3-AAP-DD-HP-DRG-CI-0755	STRUCTURAL DETAILS SHEET 5
CL3-AAP-DD-HP-DRG-CI-0756	STRUCTURAL DETAILS SHEET 6
CL3-AAP-DD-HP-DRG-CI-0757	STRUCTURAL DETAILS SHEET 7



Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 10 20 40 60 80 100m

1 : 1000

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: COVER SHEET AND DRAWING LIST

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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0001

Issue: 03

Date Plotted: 13 Nov 2025 - 02:41pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0001-CoverSheetAndDrawingList.dwg

GENERAL

1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH RELEVANT AUSTRALIAN STANDARDS, OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED, DRAWINGS SUCH AS:
   - ASP3 A536471_ARP6198_Relic
   - OCULUS LANDSCAPE DRAWINGS AND SPECIFICATIONS
   - ASSOCIATED PHILLIP STREET PACKAGES/DRAWINGS
   - PARRAMATTA CIVIC LINK BLOCK 3 - CIVIL TECHNICAL SPECIFICATIONS
   - PARRAMATTA CIVIC LINK BLOCK 3 - LANDSCAPE WORKS TECHNICAL SPECIFICATIONS
   - PARRAMATTA CIVIC LINK BLOCK 3 - ELECTRICAL TECHNICAL SPECIFICATIONS
   - PARRAMATTA CIVIC LINK BLOCK 3 - STRUCTURAL TECHNICAL SPECIFICATIONS
   - PARRAMATTA CIVIC LINK BLOCK 3 - SUPPLY AND INSTALLATION OF NEW IRRIGATION SYSTEM - PC_CL3_IR_2409
2. ANY DISCREPANCIES OR OMISSIONS SHALL BE REFERRED TO THE SUPERINTENDENT FOR A DECISION BEFORE PROCEEDING WITH THE WORK.
3. ALL WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE BUILDING CODE OF AUSTRALIA AS AMENDED AND THE APPROPRIATE AND CURRENT AUSTRALIAN STANDARDS.
4. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
5. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.
6. ALL DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED ON SITE BY THE BUILDER PRIOR TO CONSTRUCTION OR FABRICATION.
7. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH CITY OF PARRAMATTA COUNCIL ENGINEERING DESIGN FOR DEVELOPMENT GUIDELINES, ENGINEERING CONSTRUCTION CODE AND STANDARD DRAWINGS. WHERE DISCREPANCIES OCCUR THE MORE STRINGENT SPECIFICATION WILL TAKE PRECEDENCE.
8. THE CONTRACTOR SHALL LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO COMMENCING CONSTRUCTION AND SHALL MAKE ALL NECESSARY ARRANGEMENTS WITH THE RELEVANT AUTHORITY TO RELOCATE OR ADJUST AS REQUIRED. ALL COSTS TO BE BORNE BY THE APPLICANT.
9. THE CONTRACTOR SHALL NOT ENTER UPON OR DO ANY WORK WITHIN ADJACENT LAND WITHOUT PRIOR WRITTEN PERMISSION OF THE LAND OWNER.
10. THE CONTRACTOR SHALL PROVIDE MINIMUM 48 HOURS NOTICE TO THE PRINCIPAL FOR ALL INSPECTIONS.
11. ALL CIVIL ENGINEERING DEVELOPMENT WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH THE COUNCIL APPROVED WORKS CERTIFICATE CIVIL ENGINEERING DESIGN DRAWINGS. THE CIVIL ENGINEERING DESIGN DRAWINGS TAKE PRECEDENCE OVER ANY CIVIL DESIGN MODELS THAT MAY BE SUPPLIED TO THE CONTRACTOR DURING THE CONSTRUCTION PHASES.
12. SAFE ACCESS TO EXISTING BUILDINGS, EAT STREET CARPARK AND AUCTIONEER LANE IS TO BE MAINTAINED THROUGH ALL PHASES OF THE WORKS.

SITEWORKS NOTES

1. ORIGIN OF LEVELS:- REFER SURVEY NOTES.
2. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO THE SUPERINTENDENT.
3. MAKE SMOOTH CONNECTION WITH EXISTING WORKS.
4. ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
5. ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED IN ACCORDANCE WITH CITY OF PARRAMATTA ENGINEERING DESIGN FOR DEVELOPMENT GUIDELINES AND HS3 BEDDING OR RELEVANT AUTHORITY STANDARD.
6. ALL BASE COURSE MATERIAL SHALL BE COMPACTED TO MINIMUM 98% MODIFIED DENSITY IN ACCORDANCE WITH AS 1289 5.2.1.
7. ALL SUB-BASE COURSE MATERIAL SHALL BE COMPACTED TO MINIMUM 100% SUBGRADE AND DENSITY IN ACCORDANCE WITH CITY OF PARRAMATTA COUNCIL CONSTRUCTION OF SUBDIVISIONAL ROADS AND DRAINAGE WORKS SPECIFICATION AND A.S 1289 5.2.1. BEFORE PLACING FILL, PROOF ROLL EXPOSED SUBGRADE WITH AN 12 TONNE (MIN) DEADWEIGHT SMOOTH DRUM NON-VIBRATORY ROLLER TO DETECT THEN REMOVE SOFT SPOTS (AREAS WITH MORE THAN 2mm MOVEMENT UNDER ROLLER). SOFT SPOTS ARE TO BE REPLACED WITH SUITABLE SELECT FILL FOR A DEPTH OF AT LEAST 0.5m OR AS ADVISED BY THE GEOTECHNICAL ENGINEER.
8. SELECT MATERIAL FOR BACKFILLING SHALL BE GRANULAR MATERIAL WHICH IS NATURALLY OCCURRING, HAVING A PARTICLE SIZE DISTRIBUTION, DETERMINED IN ACCORDANCE WITH AS 1289. 3.6.1. SELECT MATERIAL CAN BE CRUSHED ROCK, NATURAL SOIL, GRAVEL AND SAND, OR OTHER APPROVED GRANULAR MATERIAL CONSISTING OF CLEAN, SOUND, DURABLE FRAGMENTS, FREE FROM ORGANIC MATTER FROM AN APPROVED SOURCE. GRADING LIMITS FOR SELECT FILL SHALL BE IN ACCORDANCE WITH AS 3725 AND CITY OF PARRAMATTA COUNCIL ENGINEERING DESIGN FOR DEVELOPMENT GUIDELINES.
9. ALL FREQUENCY OF COMPACTION TESTING SHALL BE IN ACCORDANCE WITH CITY OF PARRAMATTA COUNCIL ENGINEERING OR RELEVANT AUSTRALIAN STANDARDS.
10. FILL MATERIAL SHALL BE SPREAD IN LAYERS MAXIMUM 300mm THICK AND COMPACTED TO SPECIFICATION.
11. WHERE NOTED ON THE DRAWINGS THAT WORKS ARE TO BE CARRIED BY OTHERS, (e.g. ADJUSTMENT OF SERVICES), THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CO-ORDINATION OF THESE WORKS.

KERB AND GUTTER NOTES

1. ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 32MPa U.N.O IN REINFORCED CONCRETE NOTES.
2. ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON MIN. 175mm DGB20 COMPACTED TO MINIMUM 98% MODIFIED DRY DENSITY (AS 1289 5.2.1).
3. EXPANSION JOINTS (E.J) TO BE FORMED FROM 10mm COMPRESSIBLE JOINT FILLER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PITS, ON TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX 6m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.
4. WEAKENED PLANE JOINTS TO BE 3mm TO 5mm WIDE AND LOCATED AT 3m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.
5. LIGHT BROOM FINISH TO ALL FOOTPATHS, PRAM RAMPS AND DRIVEWAYS.
6. IN THE REPLACEMENT OF KERB AND GUTTER :- EXISTING ROAD PAVEMENT IS TO BE SAWCUT 500mm U.N.O FROM THE LIP OF GUTTER. UPON COMPLETION OF THE NEW KERB AND GUTTER NEW BASECOURSE AND SURFACE TO BE LAID 500mm WIDE U.N.O. REFER TO PARRAMATTA CITY COUNCIL STANDARD DRAWING DS1 FOR SAWCUT AND PAVEMENT REINSTATEMENT DETAILS.
7. EXISTING KERB AND GUTTER IS TO BE COMPLETELY REMOVED WHERE NEW KERB AND GUTTER IS SHOWN.

STREET FURNITURE

1. ALL SIGNAGE TO BE IN ACCORDANCE WITH THE CURRENT VERSION OF THE TINSW REGULATORY SIGNS MANUAL.
2. ALL LAMP COLUMNS TO BE IN ACCORDANCE WITH CITY OF PARRAMATTA COUNCIL AND / OR ENDEAVOUR ENERGY ENERGY SPECIFICATIONS.

SURVEY NOTES

1. DETAILED GROUND SURVEY WITHIN THE SITE AND BOUNDARIES WERE SUPPLIED BY SURVEYPLUS.
2. DETAILED UTLITIES AND STORMWATER SURVEY WITHIN THE SITE AND BOUNDARIES WERE SUPPLIED BY DURKIN.
3. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. ARCADIS DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.
4. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT ARCADIS.

MARK ADOPTED: SSM 50311
COORDINATES: MGA ZONE 56 (GDA2020)
E: 315372.077
N: 6256690.495
RL: 8.85m (AHD)

TRAFFIC CONTROL NOTES

1. A TRAFFIC CONTROL PLAN IF REQUIRED IS TO BE PREPARED AND LODGED WITH COUNCIL BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.

LINEMARKING

1. ALL ROAD MARKINGS ON ASPHALT SURFACES TO BE THERMOPLASTIC LINEMARKING (UNLESS NOTED OTHERWISE.
2. ALL MARKINGS ON LOCAL ROADS TO BE THERMOPLASTIC EXCEPT FOR CHEVRONS WHICH IS TO BE WATER-BORNE PAINT MATERIAL.
3. ALL MARKINGS ON SHARED PATHS TO BE WATER-BORNE PAINT (UNLESS NOTED OTHERWISE)

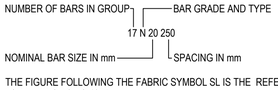
CONCRETE NOTES

1. FOR STRUCTURAL NOTES REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0741 TO 0744
2. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS AND CITY OF PARRAMATTA COUNCIL ENGINEERING DESIGN FOR DEVELOPMENT GUIDELINES.
3. CONCRETE QUALITY:
   ALL REQUIREMENTS OF THE CURRENT AUSTRALIAN STANDARD SHALL APPLY TO THE FORMWORK, REINFORCEMENT AND CONCRETE UNLESS NOTED OTHERWISE.

ELEMENT	AS3600 F'c MPa AT 28 DAYS	SPECIFIED SLUMP	NOMINAL AGG. SIZE
PRECAST SLAB	40	80	20
PRECAST KICKRAIL BEAM	40	80	20
RETAINING WALL	40	80	20
FOOTINGS	40	80	20

- CEMENT TYPE SHALL BE (AS 3600) TYPE SL
- CEMENT TYPE SHALL BE TYPE SR FOR ALL ELEMENTS IN CONTACT WITH ACID SULFATE SOIL
- PROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 1379.

3. NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING BY ARCADIS.
4. ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON MILD STEEL PLASTIC TIPPED CHAIRS, PLASTIC CHAIRS OR CONCRETE CHAIRS AT NOT GREATER THAN 1m CENTRES BOTH WAYS. BARS SHALL BE TIED AT ALTERNATE INTERSECTIONS.
5. THE FINISHED CONCRETE SHALL BE A DENSE HOMOGENEOUS MASS, COMPLETELY FILLING THE FORMWORK, THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. ALL CONCRETE INCLUDING SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED AND CURED IN ACCORDANCE WITH TINSW SPECIFICATION R83.
6. REINFORCEMENT SYMBOLS:
   N - DENOTES GRADE 500 N BARS TO AS 4671 GRADE N
   R - DENOTES 230 R HOT ROLLED PLAIN BARS TO AS 4671
   SL - DENOTES HARD-DRAWN WIRE REINFORCING FABRIC TO AS 4671



   THE FIGURE FOLLOWING THE FABRIC SYMBOL SL IS THE REFERENCE NUMBER FOR FABRIC TO AS 4671.
7. REINFORCEMENT SHOULD HAVE THE FOLLOWING MINIMUM COVER:
   - 50mm MINIMUM (AS PER CITY OF PARRAMATTA COUNCIL SPECIFICATIONS)
   - 50mm FOR CONCRETE CAST IN CONTACT WITH EARTH OR FRESH WATER
   - 55mm FOR CONCRETE CAST IN CONTACT WITH SALTWATER
   - 65mm FOR CONCRETE CAST IN CONTACT WITH ACID SULFATE SOIL
   - AS NOTED ON DESIGN DRAWINGS AND DETAILS
9. FABRIC SHALL BE LAPPED IN ACCORDANCE WITH THE FOLLOWING DETAIL:



JOINTING NOTES

PEDESTRIAN PAVEMENT JOINTS

1. ALL PEDESTRIAN PAVEMENTS ARE TO BE JOINTED IN ACCORDANCE WITH CITY OF PARRAMATTA COUNCIL STANDARD DRAWING DS40.
2. WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBING AND OR ADJACENT PAVEMENT JOINTS.
3. PEDESTRIAN PAVEMENT JOINT LOCATIONS TO BE CONFIRMED BY PAVEMENT DESIGN FOLLOWING IN-SITU MATERIAL TESTING AND CITY OF PARRAMATTA COUNCIL ENGINEERING DESIGN CODE.
4. REFER TO LANDSCAPE ARCHITECTS PLANS FOR ALL OTHER PEDESTRIAN PAVEMENT JOINT SPECIFICATIONS.

PAVEMENT NOTES:

1. PAVEMENT IS TO BE INSTALLED IN ACCORDANCE WITH CITY OF PARRAMATTA COUNCIL DCP GUIDELINES DRAWING DS40.
2. SUBSOIL DRAINAGE TO BE PROVIDED IN ACCORDANCE WITH CITY OF PARRAMATTA COUNCIL DCP GUIDELINES DRAWING DS33.

TELSTRA - DUTY OF CARE NOTE

1. TELSTRA'S PLANS SHOW ONLY THE PRESENCE OF CABLES AND PLANT. THEY ONLY SHOW THEIR POSITION RELATIVE TO ROAD BOUNDARIES, PROPERTY FENCES ETC. AT THE TIME OF INSTALLATION AND TELSTRA DOES NOT WARRANT OR HOLD OUT THAT SUCH PLANS ARE ACCURATE THEREAFTER DUE TO CHANGES THAT MAY OCCUR OVER TIME. DO NOT ASSUME DEPTH OR ALIGNMENT OF CABLES OR PLANT AS THESE VARY SIGNIFICANTLY.
2. THE CONTRACTOR HAS A DUTY OF CARE WHEN EXCAVATING NEAR TELSTRA CABLES AND PLANT. BEFORE USING MACHINE EXCAVATORS TELSTRA PLANT MUST FIRST BE PHYSICALLY EXPOSED BY SOFT DIG POTHOLING TO IDENTIFY ITS LOCATION TELSTRA WILL SEEK COMPENSATION FOR DAMAGES CAUSED TO ITS PROPERTY AND LOSSES CAUSED TO TELSTRA AND ITS CUSTOMERS.

EROSION AND SEDIMENT CONTROL NOTES

GENERAL INSTRUCTIONS

1. THE SITE SUPERINTENDENT/ENGINEER WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE IMPLEMENTED AND MAINTAINED TO SUIT THE CONSTRUCTION STAGING AND METHODOLOGY AND THE SITE AND WEATHER CONDITIONS AT THE TIME.
2. ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH:
   2.1. LOCAL AUTHORITY REQUIREMENTS
   2.2. EPA REQUIREMENTS
   2.3. LANDCOM MANUAL "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION", 4th EDITION, MARCH 2004.
3. MAINTAIN THE EROSION CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.
4. WHEN STORMWATER PITS ARE CONSTRUCTED, PREVENT SITE RUNOFF ENTERING UNLESS SEDIMENT FENCES ARE ERECTED AROUND PITS OR THE STORMWATER OUTLET PITS AND PIPES HAVE BEEN CONSTRUCTED.
5. CONTRACTOR IS TO ENSURE ALL EROSION & SEDIMENT CONTROL DEVICES ARE MAINTAINED IN GOOD WORKING ORDER AND OPERATE EFFECTIVELY. REPAIRS AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.

LAND DISTURBANCE

6. WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE WILL BE KEPT AS LOW AS POSSIBLE.

EROSION CONTROL

7. DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
8. SITE STABILISATION BY APPLICATION OF SEEDED HYDROMULCH WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 14 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.

SEDIMENT CONTROL

9. STOCKPILES WILL NOT BE LOCATED WITHIN 2 METRES OF HAZARD AREAS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS. WHERE THEY ARE BETWEEN 2 AND 5 METRES FROM SUCH AREAS, SPECIAL SEDIMENT CONTROL MEASURES SHOULD BE TAKEN TO MINIMISE POSSIBLE POLLUTION TO DOWNSLOPE WATERS, E.G. THROUGH INSTALLATION OF SEDIMENT FENCING.
10. CONTRACTOR TO DESIGN AND MANAGE ALL OF THE STOCKPILE REQUIREMENTS.
11. CONTRACTOR TO CONSIDER CONSTRUCTION ENVIRONMENTAL MANAGEMENT REPORT. ANY PROTECTED TREES TO BE REMOVED SHALL BE CONSULTED WITH THE ARBORIST.
12. WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE, I.E. THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE.
13. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.

OTHER MATTERS

14. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.
15. ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN MUST BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY: (A) PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE.

    (A) PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE.

    (B) ENSURING THAT NOTHING IS NAILED TO THEM.

    (C) PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS.:

    - ENCROACHMENT ONLY OCCURS ON ONE SIDE AND NO CLOSER TO THE TRUNK THAN EITHER 1.5 METRES OR HALF THE DISTANCE BETWEEN THE OUTER EDGE OF THE DRIP LINE AND THE TRUNK, WHICH EVER IS THE GREATER.
    - A DRAINAGE SYSTEM THAT ALLOWS AIR AND WATER TOCIRCULATE THROUGH THE ROOT ZONE (E.G. A GRAVEL BED) ISPLACED UNDER ALL FILL LAYERS OF MORE THAN 300 MILLIMETERS DEPTH.
    - CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY NOR TO COMPACT THE SOIL AROUND THEM.

EXISTING UNDERGROUND SERVICES NOTES

1. THE LOCATIONS OF UNDERGROUND SERVICES SHOWN IN THIS SET OF DRAWINGS HAVE BEEN PLOTTED FROM SURVEY INFORMATION AND SERVICE AUTHORITY INFORMATION. THE SERVICE INFORMATION HAS BEEN PREPARED ONLY TO SHOW THE APPROXIMATE POSITIONS OF ANY KNOWN SERVICES AND MAY NOT BE AS CONSTRUCTED OR ACCURATE. ARCADIS CAN NOT GUARANTEE THAT THE SERVICES INFORMATION SHOWN ON THESE DRAWINGS ACCURATELY INDICATES THE PRESENCE OR ABSENCE OF SERVICES OR THEIR LOCATION AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.
2. CONTRACTORS SHALL TAKE DUE CARE WHEN EXCAVATING ONSITE INCLUDING HAND EXCAVATION WHERE NECESSARY.
3. CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.
4. CONTRACTORS ARE TO UNDERTAKE A SERVICES SEARCH, PRIOR TO COMMENCEMENT OF WORKS ON SITE. SEARCH RESULTS ARE TO BE KEPT ON SITE AT ALL TIMES.

STORMWATER DRAINAGE NOTES

1. STORMWATER DESIGN CRITERIA:
   ROAD DRAINAGE
   20 YEAR ARI MINOR STORM EVENT
   100 YEAR ARI MAJOR STORM EVENT
2. ALL STORMWATER DRAINAGE INFRASTRUCTURE TO BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT CITY OF PARRAMATTA COUNCIL STANDARDS.
3. REINFORCED CONCRETE CLASS '2' APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS UNLESS NOTED OTHERWISE.
4. REINFORCED BOX CULVERTS TO BE EXPOSURE CLASS C2.
5. PIPES TO BE INSTALLED TO TYPE HS1 SUPPORT IN ACCORDANCE WITH AS 3725 IN ALL CASES BACKFILL TRENCH WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)
6. ALL STORMWATER TRENCHES AND BEDDING SHALL BE BACKFILLED IN ACCORDANCE WITH CITY OF PARRAMATTA COUNCIL ENGINEERING DESIGN DEVELOPMENT.
7. ALL INTERNAL STORMWATER DRAINAGE WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3500 3.1 AND AS/NZS 3500 3.2.
8. PRECAST PITS ARE NOT PERMITTED IN PUBLIC ROADS. ALL OTHER PRECAST PITS SUBJECT TO CITY OF PARRAMATTA COUNCIL APPROVAL.
9. ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.
10. WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPE IS TO BE USED.
11. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
12. GRATES AND COVERS SHALL CONFORM TO AS 3996.
13. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
14. ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR FURTHER DIRECTIONS.
15. STEP IRONS ARE TO BE PROVIDED IN ALL PITS DEEPER THAN 1.0m IN ACCORDANCE WITH CITY OF PARRAMATTA COUNCIL ENGINEERING SPECIFICATIONS AND STANDARD DRAWING DS19.
16. MINIMUM PIPE SIZE WITHIN ROAD RESERVE TO BE 375mm DIAMETER. UNLESS CONTROLLED BY CONNECTION TO EXISTING PIPES.
17. CCTV ALL PIPES AFTER CONSTRUCTION AND PRIOR TO PRACTICAL COMPLETION. THIS INCLUDES ALL EXISTING PIPES THAT ARE TO BE RETAINED.
18. PIPES ARE DESIGNED FOR OPERATIONAL LOADS ONLY. APPROPRIATE MEASURES SHOULD BE TAKEN TO PROTECT PIPES DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY DAMAGED PIPE.
19. ALL DIRECT CONNECTIONS TO BE MINIMUM 150mm DIAMETER PVC PIPEWORK, LAID AT MINIMUM 1.0% GRADE FROM POINT OF CONNECTION.
20. PREFABRICATED PITS TO COME FROM A QUALITY ASSURED SUPPLIER. CONTRACTOR TO INSPECT PITS WHEN DELIVERED TO SITE PRIOR TO INSTALLATION. ONLY THE DESIGNED KNOCKOUT AREAS TO BE USED FOR PIPE ENTRIES. ANY CRACKS IN PITS OR EVIDENCE THAT CONTRACTOR HAS EXTENDED THE KNOCKOUT AREA SHALL RENDER THE PIT UNACCEPTABLE. IT IS RECOMMENDED TO SAW CUT THE KNOCK OUT AREA WHEN CREATING THE OPENING IN THE PIT FOR THE PIPE TO MINIMISE POTENTIAL DAMAGE TO PIT.
21. CONTRACTOR TO CCTV STORMWATER DRAINAGE NO SOONER THAN AFTER BASE COURSE LAYER IS PLACED. ANY DAMAGE TO PIPES / CULVERTS MUST BE REPORTED TO THE PCA PRIOR TO UNDERTAKING ANY REPAIRS. IT IS TO BE NOTED THAT ANY DAMAGE TO PIPES / CULVERTS IDENTIFIED IN THE CCTV REPORT THAT ARE LOCATED UNDER ROADS SHALL AS A MINIMUM REQUIRE A FULL SLEEVE REPAIR FROM PIT TO PIT. CIRCUMFERENTIAL CRACKS IN OTHER LOCATIONS SHALL AS A MINIMUM REQUIRE A SLEEVE REPAIR. THE REPAIR SHALL BE DONE BY AN APPROVED CONTRACTOR. A CCTV REPORT ON ALL REPAIRS WILL BE REQUIRED BY COUNCIL.
22. PVC PIPES SHOULD BE INSTALLED IN ACCORDANCE WITH AS 2032:2006 INSTALLATION OF PVC PIPE SYSTEMS.
23. REINFORCED BOX CULVERTS AND BASE SLABS ARE TO BE PRECAST AND INSTALLED IN ACCORDANCE TO MANUFACTURERS DETAILS, UNLESS OTHERWISE STATED.

ELECTRICAL AND LIGHTING NOTES

1. EXISTING UTILITY PITS TO BE ADJUSTED TO SUIT PROPOSED LEVELS. FOR MORE INFORMATION REFER TO UTILITY REGISTER.
2. STANDARD CITY OF PARRAMATTA POLE OFFSET, 600mm FROM THE FACE OF KERB TO FACE OF POLE.
3. DUE TO EXISTING UNDERGROUND SERVICES, THE POLE SETOUT SHALL BE FOLLOWED.
4. CONTRACTOR TO CHECK THE EXISTING CONDUITS RUN PRIOR COMMENCING WORK.
5. VERIFY ALL DIMENSIONS ON SITE.
6. THE ELECTRICAL CONTRACTOR SHALL UNDERTAKE A "BEFORE YOU DIG AUSTRALIA" SEARCH FOR EXISTING IN-GROUND SERVICES PRIOR TO EXCAVATION ON SITE. ANY DAMAGE TO EXISTING IN-GROUND SERVICES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
7. THE CONDUIT ROUTE IS DIAGRAMMATIC ONLY. THE ELECTRICAL CONTRACTOR SHALL FOLLOW THE MOST APPROPRIATE ROUTE TO RETICULATE THE CONDUITS AFTER COORDINATE WITH OTHER SERVICES. THE EXISTING UNDERGROUND SERVICES ARE TO BE REALIGNED BY OTHER, IF REQUIRED.
8. THE EXISTING UNDERGROUND SERVICES ARE OBTAINED FROM THIRD PARTY.
9. CONTRACTOR TO ALLOW POT HOLING TO OBTAIN AN ACCURATE INFORMATION ABOUT THE EXISTING UNDERGROUND SERVICES.
10. ALL WORKS TO CONFORM WITH THE LATEST CITY OF PARRAMATTA STREET LIGHTING DESIGN GUIDE AND PUBLIC DOMAIN GUIDELINES.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

100mm on Original

Scales

Surveyor: surveyplus / DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: GENERAL NOTES

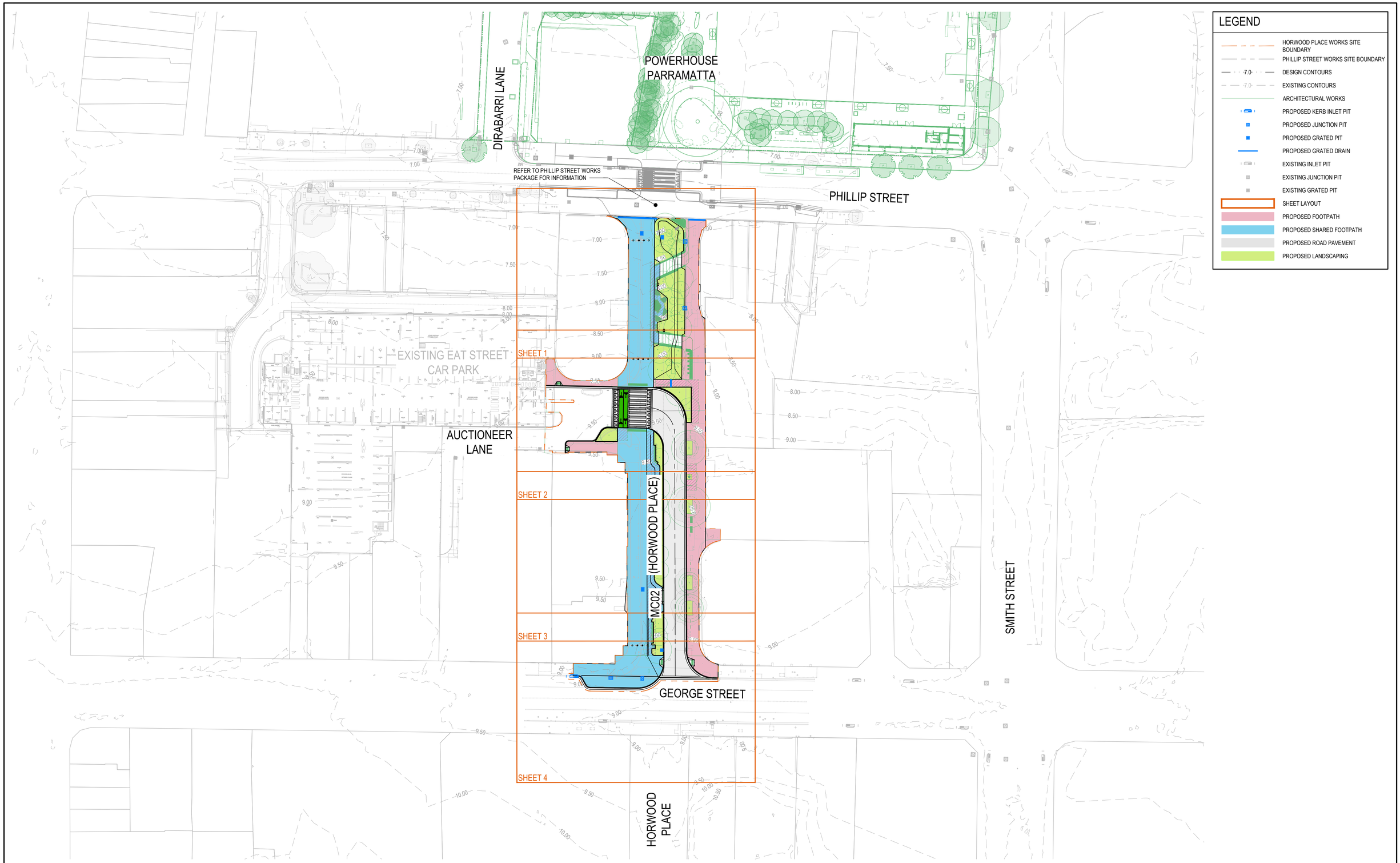
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0021

Issue: 03

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Issue	Description	DR	CH	VE	Date
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01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

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1 : 500

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Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

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Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: GENERAL ARRANGEMENT PLAN

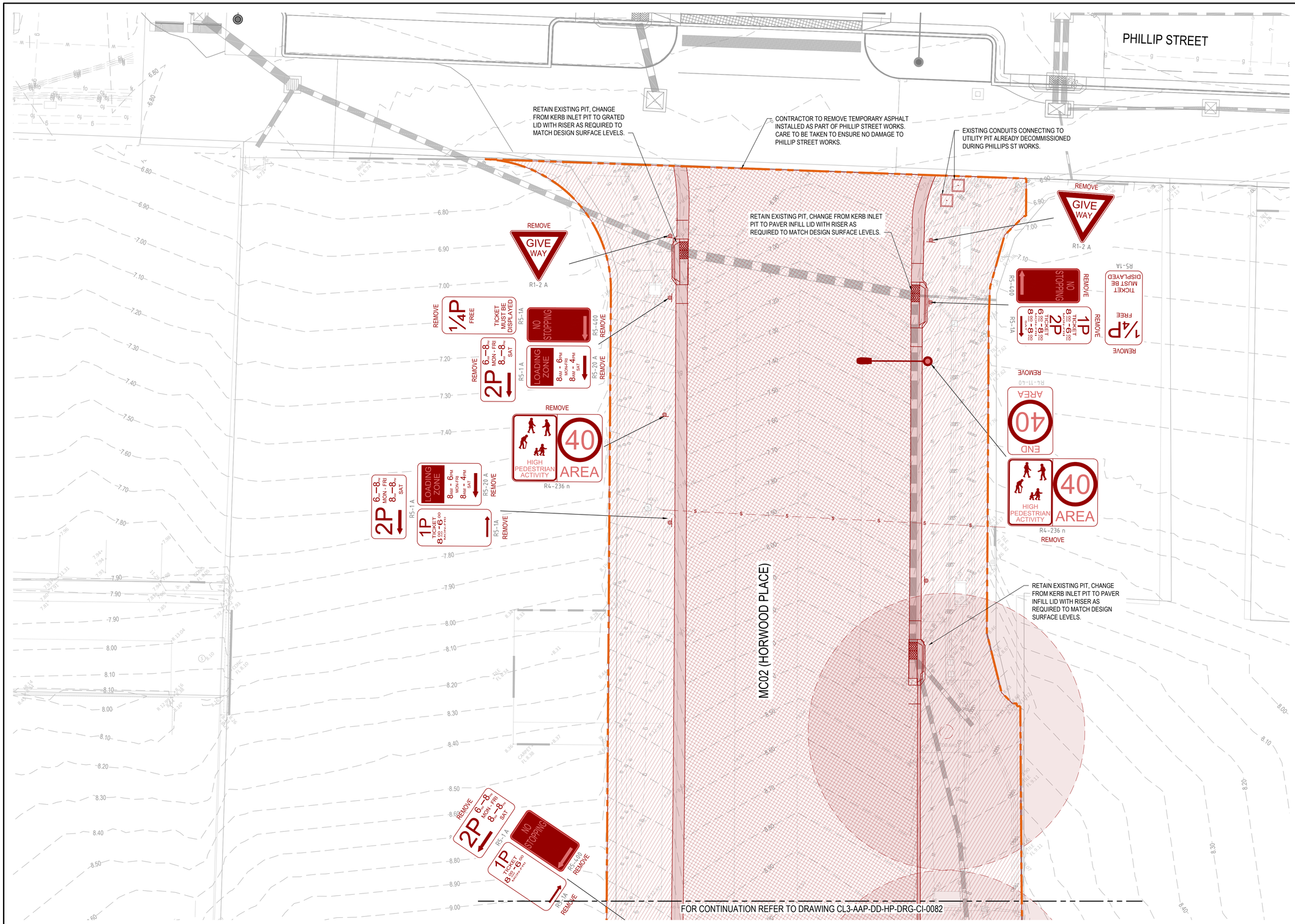
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Drawing No.: CL3-AAP-DD-HP-DRG-CI-0061

Issue: 03

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LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- EXISTING STORMWATER PIPE TO BE DEMOLISHED
- EXISTING ELECTRICAL TO BE DEMOLISHED
- EXISTING FIBER-OPTIC TO BE DEMOLISHED
- EXISTING SEWER TO BE DEMOLISHED
- EXISTING UTILITY PIT TO BE DEMOLISHED
- EXISTING ENDEAVOUR ENERGY LIGHT POLE TO BE DEMOLISHED
- DEMOLISHED SIGN POST
- EXISTING TREE TO BE REMOVED
- EXISTING ROAD PAVEMENT TO BE DEMOLISHED (REFER NOTE 9)
- EXISTING PEDESTRIAN PAVEMENT TO BE DEMOLISHED (REFER NOTE 9)
- EXISTING KERB TO BE DEMOLISHED (REFER NOTE 8)
- DEMOLISHED KERB INLET PIT
- EXISTING SAG PIT
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT

NOTES

1. THIS SITE HAS KNOWN ASBESTOS CONTAINING MATERIALS WITHIN THE EXISTING ENDEAVOUR ENERGY LINE. REFER TO ASP3 AND UTILITIES DESIGN FOR FURTHER DETAILS.
2. THIS DEMOLITION PLAN SHOULD BE COORDINATED WITH THE DEMOLITION PLAN FOR PHILLIP STREET. SHOULD THEY NOT RUN CONCURRENTLY THEN ADDITIONAL TEMPORARY FENCING, SIGNAGE ETC. MAY BE REQUIRED.
3. CONTRACTOR IS REQUIRED TO LIAISE AND RECEIVE APPROVAL AND PROCESSES WITH ALL RELEVANT AUTHORITIES PRIOR TO ANY WORKS.
4. SHOULD ANY HAZARDOUS MATERIAL BE FOUND ON SITE CONTRACTOR SHOULD IMPLEMENT APPROPRIATE UNEXPECTED FINDS PROTOCOL AND TREAT APPROPRIATELY.
5. LOCATION OF ALL SERVICES SHOULD BE COMPLETED PRIOR TO COMMENCEMENT OF DEMOLITION.
6. FOR EXISTING TREE REMOVAL/RETENTION/PROTECTION STRATEGY REFER TO LANDSCAPE ARCHITECTS PLANS.
7. WHERE DRAINAGE PIPES AND SERVICES ARE BEING REMOVED, BACKFILL WITH APPROPRIATE MATERIAL AND COMPACTED AS PER RELEVANT GUIDELINES. CONTRACTOR TO COORDINATE INTERIM DRAINAGE STRATEGY TO ENSURE NO EXCESSIVE POOLING OR EROSION AND SEDIMENT OCCURS ON SITE.
8. ALL KERB AND GUTTER WITHIN LIMIT OF WORKS TO BE DEMOLISHED AND REMOVED FROM SITE.
9. PAVEMENT AND PATH WITHIN THE LIMIT OF WORKS SHOULD BE REMOVED TO THE DEPTH REQUIRED TO CONSTRUCT THE PROPOSED PAVEMENT AND PATH AND REMOVED FROM SITE.
10. ALL RECEIPTS OF REMOVAL AND TIPPING SHOULD BE RETAINED FOR PROOF OF APPROPRIATE DISPOSAL AND PROGRESS CLAIMS.
11. REFER TO UTILITIES, ASP3 AND DRAINAGE PLANS FOR TREATMENT OF RETAINED PITS AND PIPES.
12. ALL EXISTING DRAINAGE WITHIN THE PROPOSED PATH AREA ARE TO BE CONVERTED TO PAVER INFILL LIDS WITH RISERS AS REQUIRED TO MATCH DESIGN SURFACE LEVELS UNLESS NOTED OTHERWISE.
13. ALL EXISTING DRAINAGE WITHIN THE PROPOSED ROAD PAVEMENT ARE TO BE ADJUSTED AS REQUIRED TO MATCH DESIGN SURFACE LEVELS UNLESS NOTED OTHERWISE.
14. FOR UTILITY PIT ADJUSTMENTS REFER TO UTILITY DESIGN DRAWINGS.
15. FOR SIGNAGE ADJUSTMENTS REFER TO SIGNAGE AND LINE MARKING PLAN.
16. CONTRACTOR TO LOOK FOR OPPORTUNITIES FOR REUSE OF MATERIAL WHERE POSSIBLE (SIGNS, POSTS AND STREET FURNITURE ETC.) AND STORE SAFELY UNTIL CONSTRUCTION.
17. ALL ENVIRONMENTAL IMPACT STATEMENT OR EQUIVALENT DOCUMENTATION TO BE REVIEWED AND APPROPRIATE PROCESSES TO BE IMPLEMENTED PRIOR TO WORKS.
17. ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH HERITAGE ASSESSMENTS.
18. CONTRACTOR IS TO INSTALL EROSION AND SEDIMENT CONTROLS TO MANAGE RUNOFF.
19. CONTRACTOR TO ENSURE SAFETY OF PEDESTRIAN AND VEHICLE ACCESS IF REQUIRED DURING AND POST DEMOLITION WORKS.

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Scales

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1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: DEMOLITION PLAN
SHEET 1

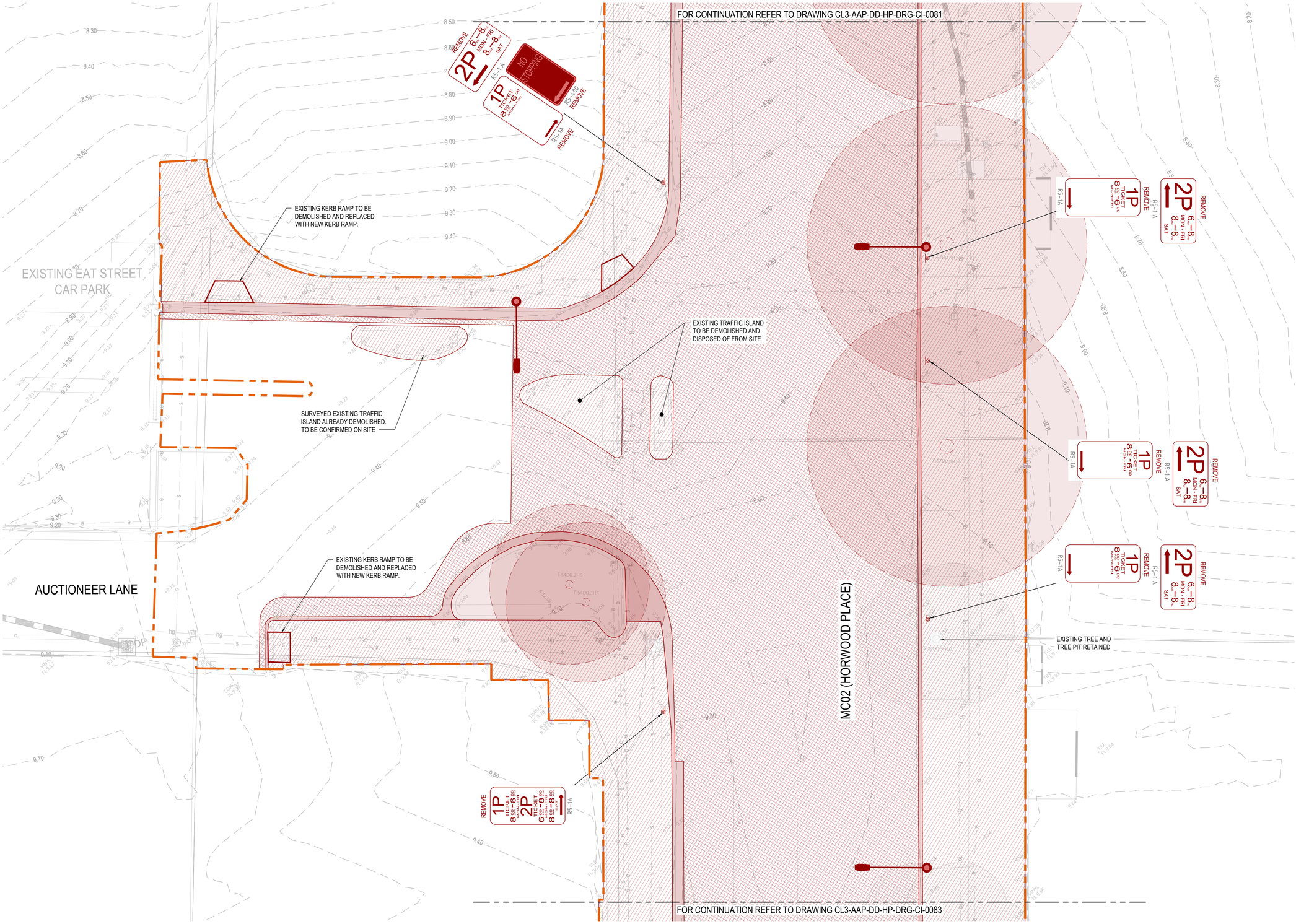
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Drawing No.: CL3-AAP-DD-HP-DRG-CI-0081

Issue: 03

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LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- EXISTING STORMWATER PIPE TO BE DEMOLISHED
- EXISTING ELECTRICAL TO BE DEMOLISHED
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- EXISTING SEWER TO BE DEMOLISHED
- EXISTING UTILITY PIT TO BE DEMOLISHED
- EXISTING ENDEAVOUR ENERGY LIGHT POLE TO BE DEMOLISHED
- DEMOLISHED SIGN POST
- EXISTING TREE TO BE REMOVED
- EXISTING ROAD PAVEMENT TO BE DEMOLISHED (REFER NOTE 9)
- EXISTING PEDESTRIAN PAVEMENT TO BE DEMOLISHED (REFER NOTE 9)
- EXISTING KERB TO BE DEMOLISHED (REFER NOTE 8)
- DEMOLISHED KERB INLET PIT
- EXISTING SAG PIT
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT

NOTES

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6. FOR EXISTING TREE REMOVAL/RETENTION/PROTECTION STRATEGY REFER TO LANDSCAPE ARCHITECTS PLANS.
7. WHERE DRAINAGE PIPES AND SERVICES ARE BEING REMOVED, BACKFILL WITH APPROPRIATE MATERIAL AND COMPACTED AS PER RELEVANT GUIDELINES. CONTRACTOR TO COORDINATE INTERIM DRAINAGE STRATEGY TO ENSURE NO EXCESSIVE POOLING OR EROSION AND SEDIMENT OCCURS ON SITE.
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Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

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Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: DEMOLITION PLAN SHEET 2

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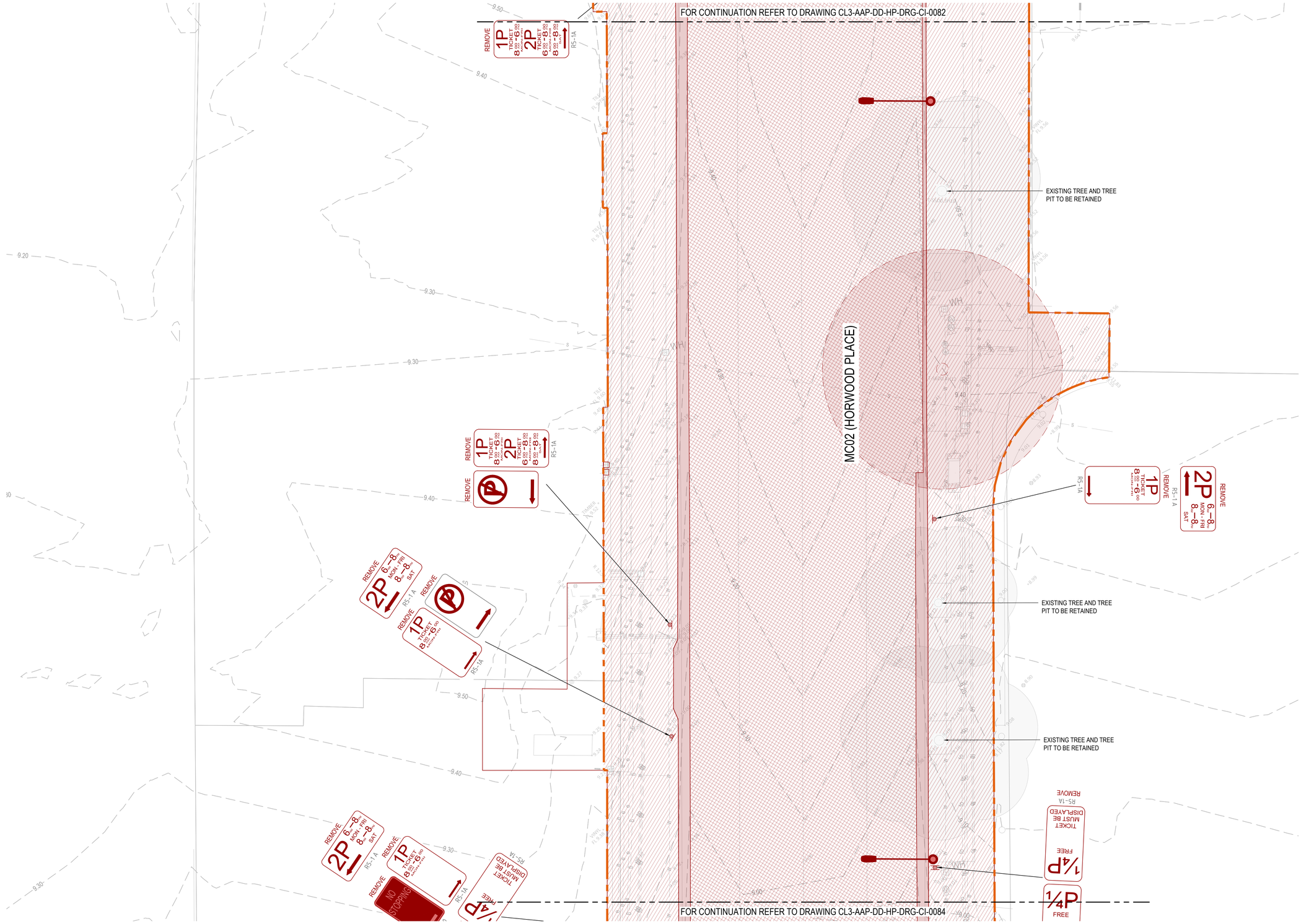
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Issue: 03

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LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- EXISTING STORMWATER PIPE TO BE DEMOLISHED
- EXISTING ELECTRICAL TO BE DEMOLISHED
- EXISTING FIBER-OPTIC TO BE DEMOLISHED
- EXISTING SEWER TO BE DEMOLISHED
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- EXISTING SAG PIT
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT

NOTES

1. THIS SITE HAS KNOWN ASBESTOS CONTAINING MATERIALS WITHIN THE EXISTING ENDEAVOUR ENERGY LINE. REFER TO ASP3 AND UTILITIES DESIGN FOR FURTHER DETAILS.
2. THIS DEMOLITION PLAN SHOULD BE COORDINATED WITH THE DEMOLITION PLAN FOR PHILLIP STREET. SHOULD THEY NOT RUN CONCURRENTLY THEN ADDITIONAL TEMPORARY FENCING, SIGNAGE ETC. MAY BE REQUIRED.
3. CONTRACTOR IS REQUIRED TO LIAISE AND RECEIVE APPROVAL AND PROCESSES WITH ALL RELEVANT AUTHORITIES PRIOR TO ANY WORKS.
4. SHOULD ANY HAZARDOUS MATERIAL BE FOUND ON SITE CONTRACTOR SHOULD IMPLEMENT APPROPRIATE UNEXPECTED FINDS PROTOCOL AND TREAT APPROPRIATELY.
5. LOCATION OF ALL SERVICES SHOULD BE COMPLETED PRIOR TO COMMENCEMENT OF DEMOLITION.
6. FOR EXISTING TREE REMOVAL/RETENTION/PROTECTION STRATEGY REFER TO LANDSCAPE ARCHITECTS PLANS.
7. WHERE DRAINAGE PIPES AND SERVICES ARE BEING REMOVED, BACKFILL WITH APPROPRIATE MATERIAL AND COMPACTED AS PER RELEVANT GUIDELINES. CONTRACTOR TO COORDINATE INTERIM DRAINAGE STRATEGY TO ENSURE NO EXCESSIVE POOLING OR EROSION AND SEDIMENT OCCURS ON SITE.
8. ALL KERB AND GUTTER WITHIN LIMIT OF WORKS TO BE DEMOLISHED AND REMOVED FROM SITE.
9. PAVEMENT AND PATH WITHIN THE LIMIT OF WORKS SHOULD BE REMOVED TO THE DEPTH REQUIRED TO CONSTRUCT THE PROPOSED PAVEMENT AND PATH AND REMOVED FROM SITE.
10. ALL RECEIPTS OF REMOVAL AND TIPPING SHOULD BE RETAINED FOR PROOF OF APPROPRIATE DISPOSAL AND PROGRESS CLAIMS.
11. REFER TO UTILITIES, ASP3 AND DRAINAGE PLANS FOR TREATMENT OF RETAINED PITS AND PIPES.
12. ALL EXISTING DRAINAGE WITHIN THE PROPOSED PATH AREA ARE TO BE CONVERTED TO PAVER INFILL LIDS WITH RISERS AS REQUIRED TO MATCH DESIGN SURFACE LEVELS UNLESS NOTED OTHERWISE.
13. ALL EXISTING DRAINAGE WITHIN THE PROPOSED ROAD PAVEMENT ARE TO BE ADJUSTED AS REQUIRED TO MATCH DESIGN SURFACE LEVELS UNLESS NOTED OTHERWISE.
14. FOR UTILITY PIT ADJUSTMENTS REFER TO UTILITY DESIGN DRAWINGS.
15. FOR SIGNAGE ADJUSTMENTS REFER TO SIGNAGE AND LINE MARKING PLAN.
16. CONTRACTOR TO LOOK FOR OPPORTUNITIES FOR REUSE OF MATERIAL WHERE POSSIBLE (SIGNS, POSTS AND STREET FURNITURE ETC.) AND STORE SAFELY UNTIL CONSTRUCTION.
17. ALL ENVIRONMENTAL IMPACT STATEMENT OR EQUIVALENT DOCUMENTATION TO BE REVIEWED AND APPROPRIATE PROCESSES TO BE IMPLEMENTED PRIOR TO WORKS.
17. ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH HERITAGE ASSESSMENTS.
18. CONTRACTOR IS TO INSTALL EROSION AND SEDIMENT CONTROLS TO MANAGE RUNOFF.
19. CONTRACTOR TO ENSURE SAFETY OF PEDESTRIAN AND VEHICLE ACCESS IF REQUIRED DURING AND POST DEMOLITION WORKS.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: DEMOLITION PLAN SHEET 3

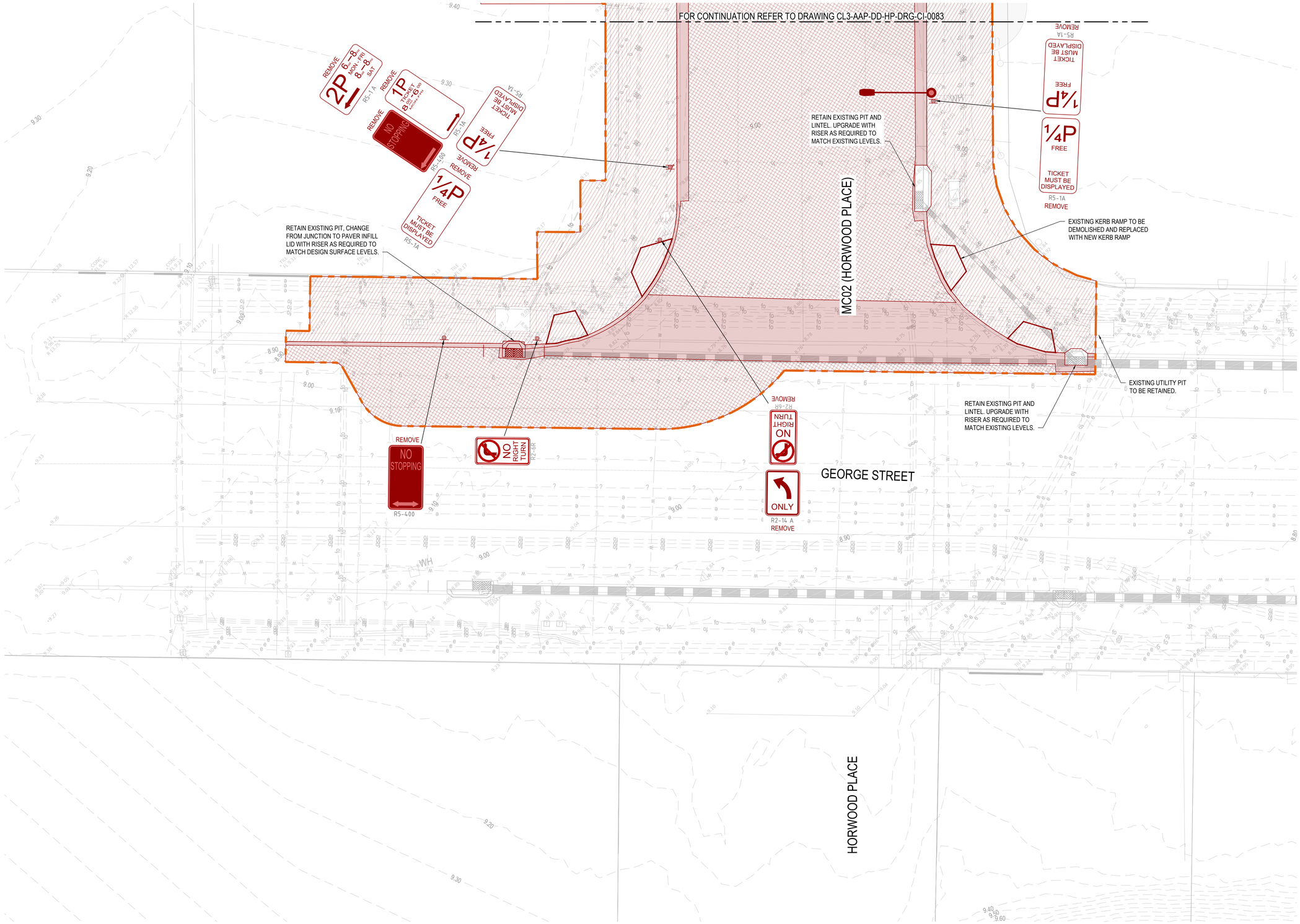
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0083

Issue: 03

Date Plotted: 13 Nov 2025 - 02:42pm File Name: C:\Users\santosa4174\IDC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0083-DemolitionPlanSheet3.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- EXISTING STORMWATER PIPE TO BE DEMOLISHED
- EXISTING ELECTRICAL TO BE DEMOLISHED
- EXISTING FIBER-OPTIC TO BE DEMOLISHED
- EXISTING SEWER TO BE DEMOLISHED
- EXISTING UTILITY PIT TO BE DEMOLISHED
- EXISTING ENDEAVOUR ENERGY LIGHT POLE TO BE DEMOLISHED
- DEMOLISHED SIGN POST
- EXISTING TREE TO BE REMOVED
- EXISTING ROAD PAVEMENT TO BE DEMOLISHED (REFER NOTE 9)
- EXISTING PEDESTRIAN PAVEMENT TO BE DEMOLISHED (REFER NOTE 9)
- EXISTING KERB TO BE DEMOLISHED (REFER NOTE 8)
- DEMOLISHED KERB INLET PIT
- EXISTING SAG PIT
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT

NOTES

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19. CONTRACTOR TO ENSURE SAFETY OF PEDESTRIAN AND VEHICLE ACCESS IF REQUIRED DURING AND POST DEMOLITION WORKS.

Issue	Description	DR	CH	VE	Date
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02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: DEMOLITION PLAN SHEET 4

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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0084

Issue: 03

Date Plotted: 13 Nov 2025 - 02:42pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0084-DemolitionPlanSheet4.dwg

PHILLIP STREET

REFER TO PHILLIP STREET WORKS PACKAGE FOR INFORMATION

04
0121

FOR CONTINUATION REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0102

LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- EARTHWORKS CONTOURS
- EXISTING CONTOURS
- ARCHITECTURAL WORKS
- SAW CUT INTERFACE
- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT

CUT FILL DEPTH RANGE

Lower_value		Upper_value	Colour
-999	to	-1.5	Metre
-1.5	to	-1	Metre
-1	to	-0.9	Metre
-0.9	to	-0.8	Metre
-0.8	to	-0.7	Metre
-0.7	to	-0.6	Metre
-0.6	to	-0.5	Metre
-0.5	to	-0.25	Metre
-0.25	to	-0.2	Metre
-0.2	to	-0.15	Metre
-0.15	to	-0.1	Metre
-0.1	to	-.05	Metre
-.05	to	0.00	Metre
0.000	to	.1	Metre
.1	to	0.2	Metre
0.2	to	0.3	Metre
0.3	to	0.4	Metre
0.4	to	0.5	Metre
0.5	to	1	Metre
1	to	999	Metre

CUT/FILL VOLUMES

EARTHWORKS IS CALCULATED FROM UNDERSIDE OF CONSTRUCTION MATERIAL TO EXISTING SURFACE. TIN "SUPER EXISTING" TO TIN "HP/SUPER/EARTHWORKS".

CONSTRUCTION THICKNESS FOR AREA BELOW:

- ROAD - 0.6m

CUT	-1500	m³
FILL	2	m³
NET CUT	1498	m³

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: EARTHWORKS PLAN SHEET 1

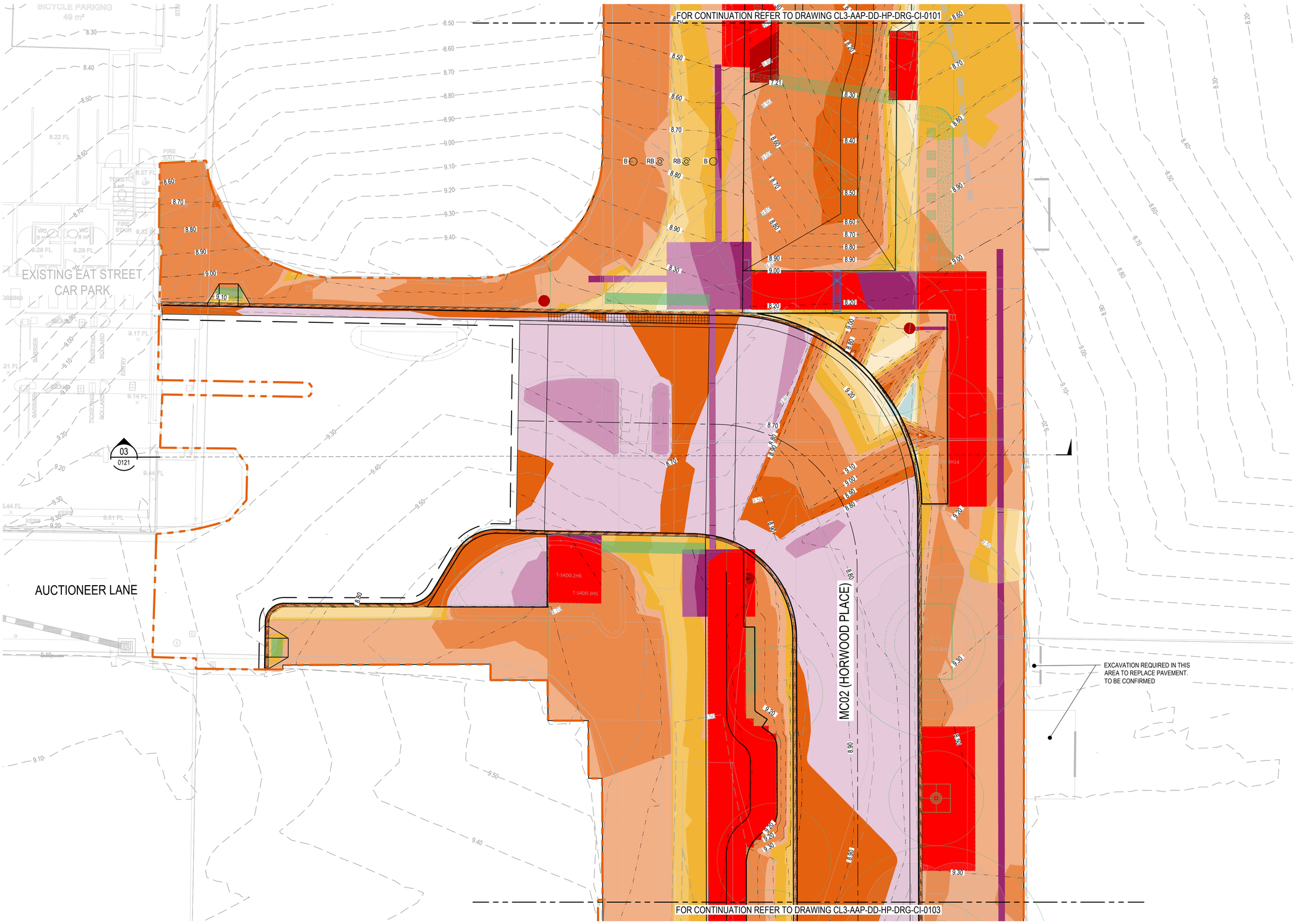
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0101

Issue: 03

Date Plotted: 17 Nov 2025 - 01:28pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0101-EarthworksPlanSheet1.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- EARTHWORKS CONTOURS
- EXISTING CONTOURS
- ARCHITECTURAL WORKS
- SAW CUT INTERFACE
- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT

CUT FILL DEPTH RANGE

Lower_value		Upper_value	Colour
-999	to	-1.5	Metre
-1.5	to	-1	Metre
-1	to	-0.9	Metre
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-0.25	to	-0.2	Metre
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-0.1	to	-.05	Metre
-.05	to	0.00	Metre
0.000	to	.1	Metre
.1	to	0.2	Metre
0.2	to	0.3	Metre
0.3	to	0.4	Metre
0.4	to	0.5	Metre
0.5	to	1	Metre
1	to	999	Metre

CUT/FILL VOLUMES

EARTHWORKS IS CALCULATED FROM UNDERSIDE OF CONSTRUCTION MATERIAL TO EXISTING SURFACE. TIN "SUPER EXISTING" TO TIN "HP/SUPER/EARTHWORKS".

CONSTRUCTION THICKNESS FOR AREA BELOW:

- ROAD - 0.6m

CUT	-1500 m³
FILL	2 m³
NET CUT	1498 m³

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: EARTHWORKS PLAN SHEET 2

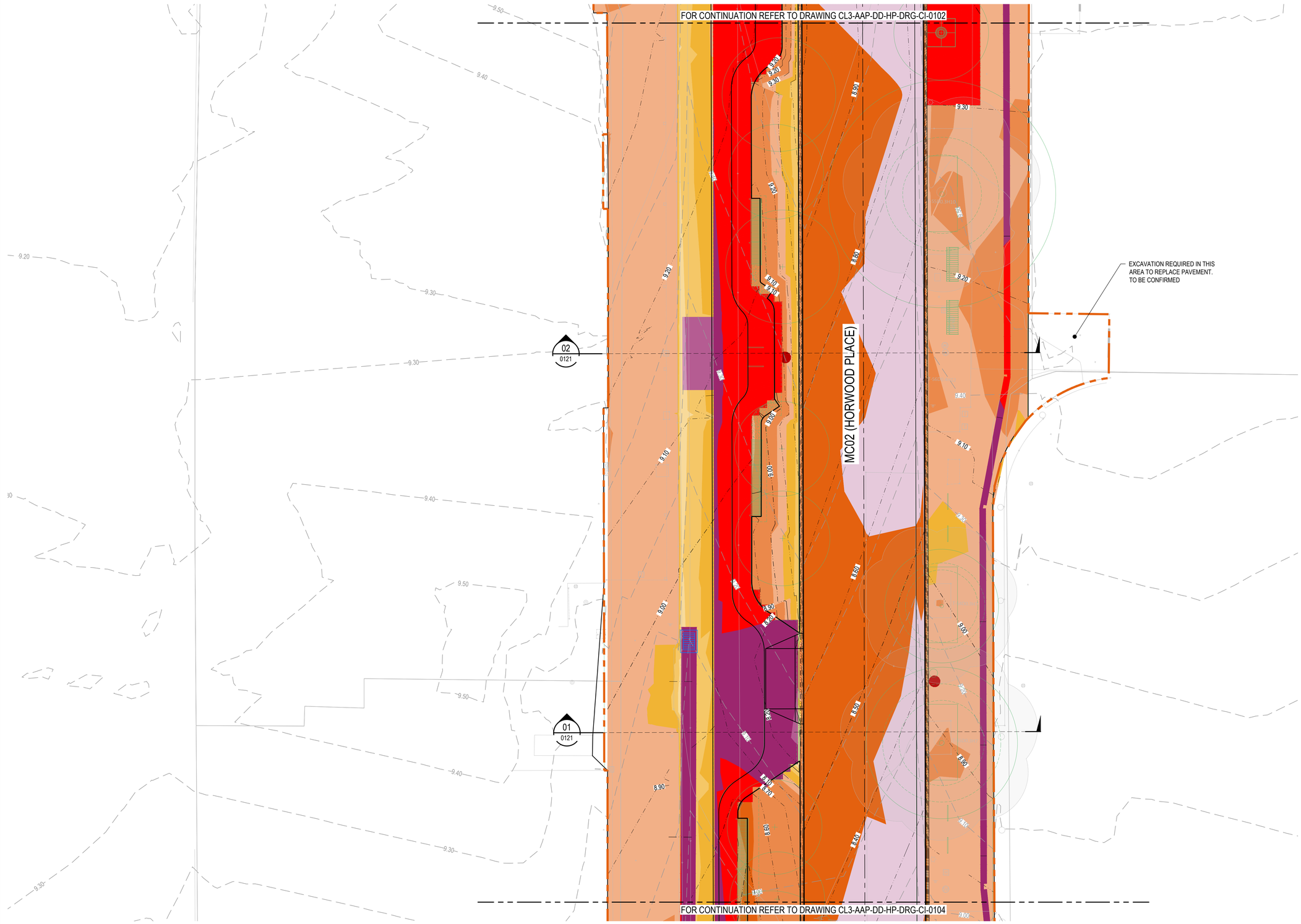
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0102

Issue: 03

Date Plotted: 17 Nov 2025 - 01:28pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0102-EarthworksPlanSheet2.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- EARTHWORKS CONTOURS
- EXISTING CONTOURS
- ARCHITECTURAL WORKS
- SAW CUT INTERFACE
- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE
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CUT FILL DEPTH RANGE

Lower_value		Upper_value	Colour
-999	to	-1.5	Metre
-1.5	to	-1	Metre
-1	to	-0.9	Metre
-0.9	to	-0.8	Metre
-0.8	to	-0.7	Metre
-0.7	to	-0.6	Metre
-0.6	to	-0.5	Metre
-0.5	to	-0.25	Metre
-0.25	to	-0.2	Metre
-0.2	to	-0.15	Metre
-0.15	to	-0.1	Metre
-0.1	to	-.05	Metre
-.05	to	0.00	Metre
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0.2	to	0.3	Metre
0.3	to	0.4	Metre
0.4	to	0.5	Metre
0.5	to	1	Metre
1	to	999	Metre

CUT/FILL VOLUMES

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03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
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100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

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Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: EARTHWORKS PLAN SHEET 3

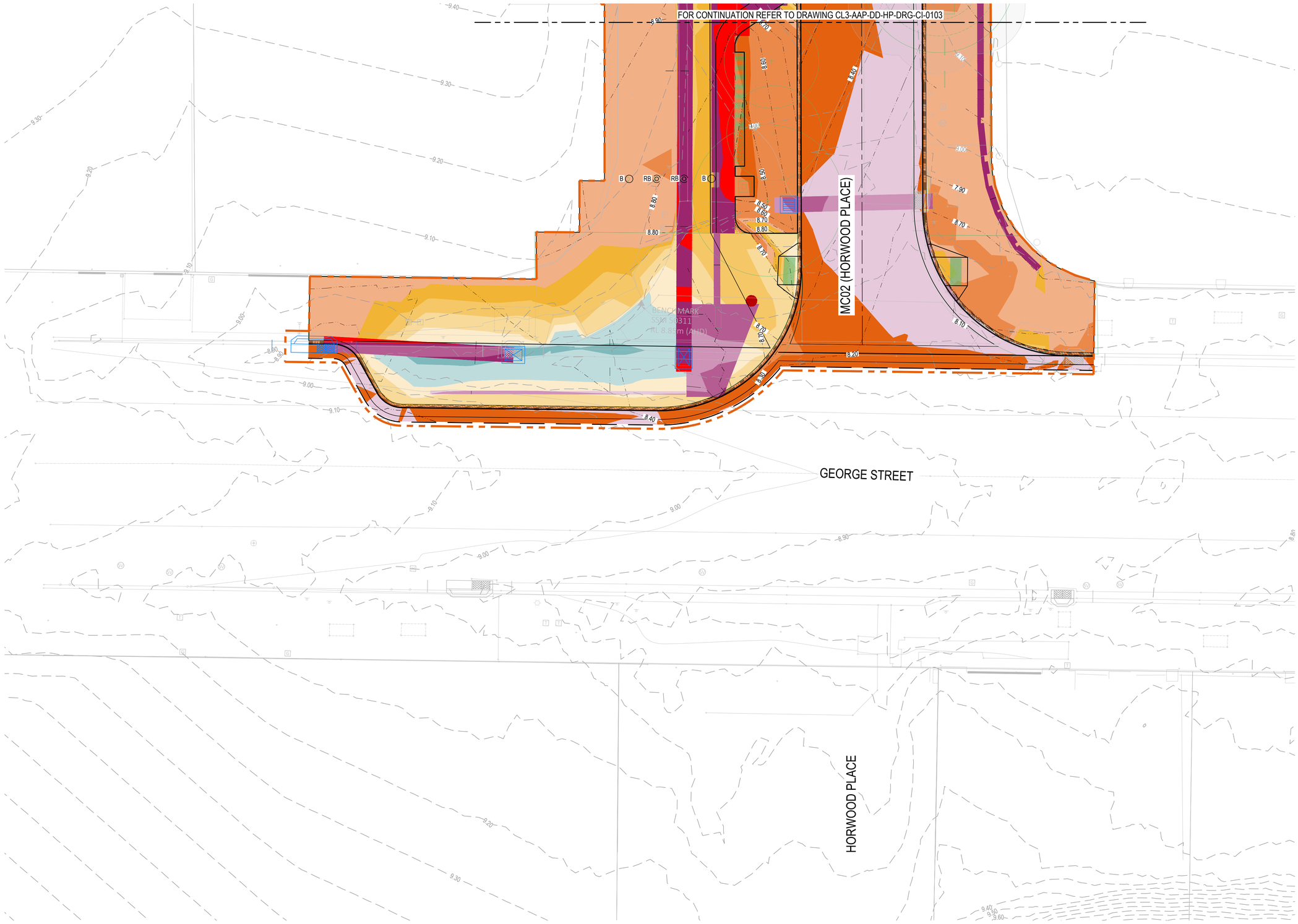
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0103

Issue: 03

Date Plotted: 17 Nov 2025 - 01:28pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0103-EarthworksPlanSheet3.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- EARTHWORKS CONTOURS
- EXISTING CONTOURS
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-1.5	to	-1	Metre
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.1	to	0.2	Metre
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1	to	999	Metre

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NET CUT	1498 m³

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01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: EARTHWORKS PLAN
SHEET 4

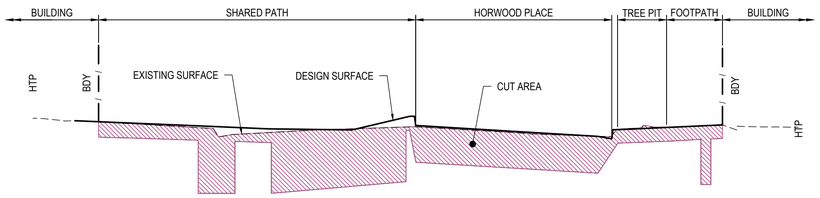
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Project Number: 30286862

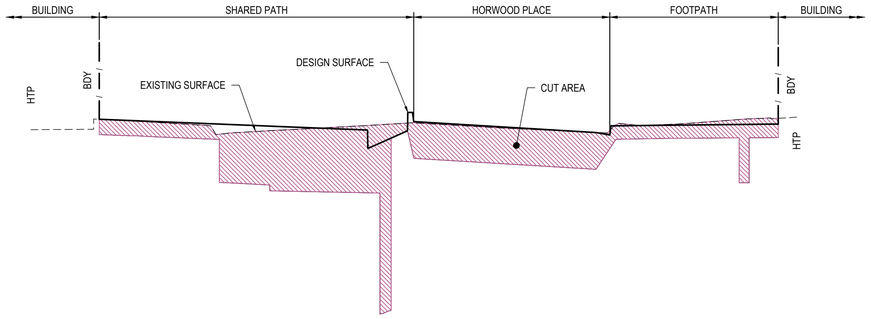
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Issue: 03

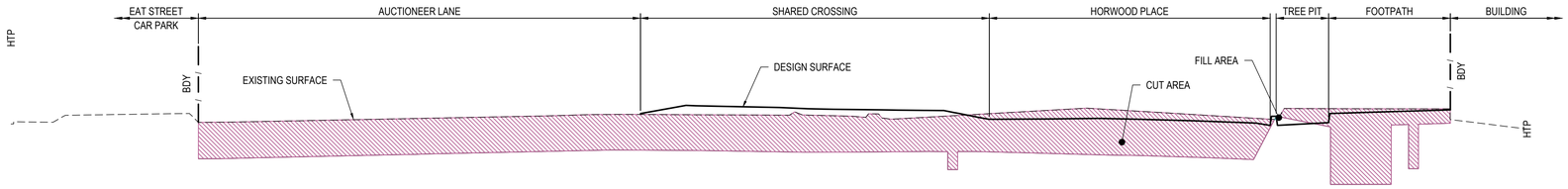
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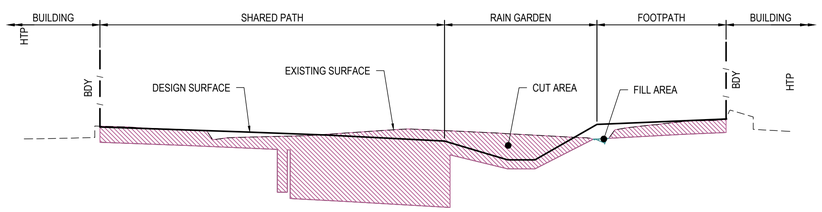
SECTION 1
1 : 100h 1 : 50v
0103



SECTION 2
1 : 100h 1 : 50v
0103



SECTION 3
1 : 100h 1 : 50v
0102



SECTION 4
1 : 100h 1 : 50v
0101

Issue	Description	DR	CH	VE	Date
02	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	10.09.2025

Scales

0 1 2 4 6 8 10m
1 : 100

0 0.5 1 2 3 4 5m
1 : 50

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: EARTHWORKS SITE SECTIONS

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Tel No: +61 2 8907 9000
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0121

Issue: 02

Date Plotted: 13 Nov 2025 - 02:41pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0121-EarthworksSiteSections.dwg

PHILLIP STREET

ACCESS TO BUSINESSES TO BE RETAINED DURING CONSTRUCTION

ACCESS TO BUSINESSES TO BE RETAINED DURING CONSTRUCTION

FOR CONTINUATION REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0172

LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- DESIGN CONTOURS
- EXISTING CONTOURS
- ARCHITECTURAL WORKS
- SITE FENCE
- SEDIMENT FENCE (SD 6-8)
- SITE GATE
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- MESH AND GRAVEL INLET FILTER (SD 6-11)
- STABILISED SITE ACCESS (SD 6-14)
- SEDIMENT TRAP FOR GRATED INLET PIT ON PAVEMENT

NOTES

1. ALL SEDIMENT AND EROSION CONTROL MEASURES ARE SHOWN INDICATIVELY ONLY AND REPRESENT THE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONTROL OF EROSION AND SEDIMENTATION TO THE SATISFACTION OF COUNCIL.
2. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0191 FOR EROSION AND SEDIMENT CONTROL DETAILS.
3. FOR TREE PROTECTION DETAILS REFER TO CITY OF PARRAMATTA COUNCIL STANDARDS DS43.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: EROSION AND SEDIMENT CONTROL PLAN SHEET 1

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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0171

Issue: 03

Date Plotted: 13 Nov 2025 - 02:42pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0171-ErosionAndSedimentControlPlanSheet1.dwg

FOR CONTINUATION REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0171

BICYCLE PARKING
49 m²

EXISTING EAT STREET
CAR PARK

VEHICULAR ENTRY/ EGRESS TO
EAT ST CARPARK TO BE MANAGED
DURING CONSTRUCTION

ACCESS TO BUSINESSES
TO BE RETAINED
DURING CONSTRUCTION

ACCESS TO AUCTIONEER LANE AND
CARPARKING BEYOND MUST BE
RETAINED DURING CONSTRUCTION

AUCTIONEER LANE

ACCESS TO BUSINESSES
TO BE RETAINED
DURING CONSTRUCTION

ACCESS TO BUSINESSES
TO BE RETAINED
DURING CONSTRUCTION

MC02 (HORWOOD PLACE)

FOR CONTINUATION REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0173

LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- DESIGN CONTOURS
- EXISTING CONTOURS
- ARCHITECTURAL WORKS
- SITE FENCE
- SEDIMENT FENCE (SD 6-8)
- SITE GATE
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- MESH AND GRAVEL INLET FILTER (SD 6-11)
- STABILISED SITE ACCESS (SD 6-14)
- SEDIMENT TRAP FOR GRATED INLET PIT ON PAVEMENT

NOTES

1. ALL SEDIMENT AND EROSION CONTROL MEASURES ARE SHOWN INDICATIVELY ONLY AND REPRESENT THE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONTROL OF EROSION AND SEDIMENTATION TO THE SATISFACTION OF COUNCIL.
2. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0191 FOR EROSION AND SEDIMENT CONTROL DETAILS.
3. FOR TREE PROTECTION DETAILS REFER TO CITY OF PARRAMATTA COUNCIL STANDARDS DS43.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus / DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: EROSION AND SEDIMENT CONTROL PLAN SHEET 2

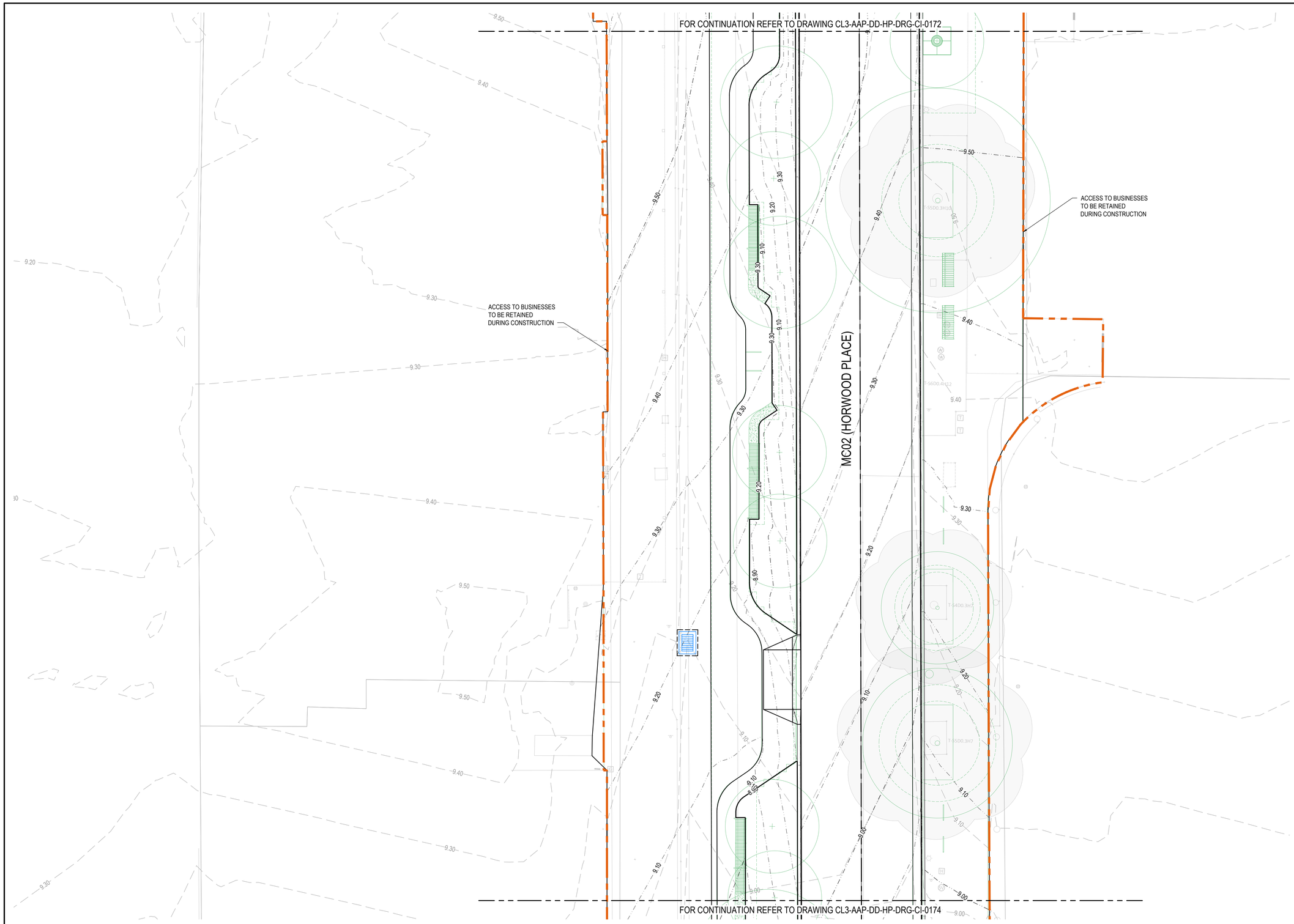
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0172

Issue: 03

Date Plotted: 13 Nov 2025 - 02:42pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0172-ErosionAndSedimentControlPlanSheet2.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- DESIGN CONTOURS
- EXISTING CONTOURS
- ARCHITECTURAL WORKS
- SITE FENCE
- SEDIMENT FENCE (SD 6-8)
- SITE GATE
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- MESH AND GRAVEL INLET FILTER (SD 6-11)
- STABILISED SITE ACCESS (SD 6-14)
- SEDIMENT TRAP FOR GRATED INLET PIT ON PAVEMENT

NOTES

1. ALL SEDIMENT AND EROSION CONTROL MEASURES ARE SHOWN INDICATIVELY ONLY AND REPRESENT THE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONTROL OF EROSION AND SEDIMENTATION TO THE SATISFACTION OF COUNCIL.
2. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0191 FOR EROSION AND SEDIMENT CONTROL DETAILS.
3. FOR TREE PROTECTION DETAILS REFER TO CITY OF PARRAMATTA COUNCIL STANDARDS DS43.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: EROSION AND SEDIMENT CONTROL PLAN SHEET 3

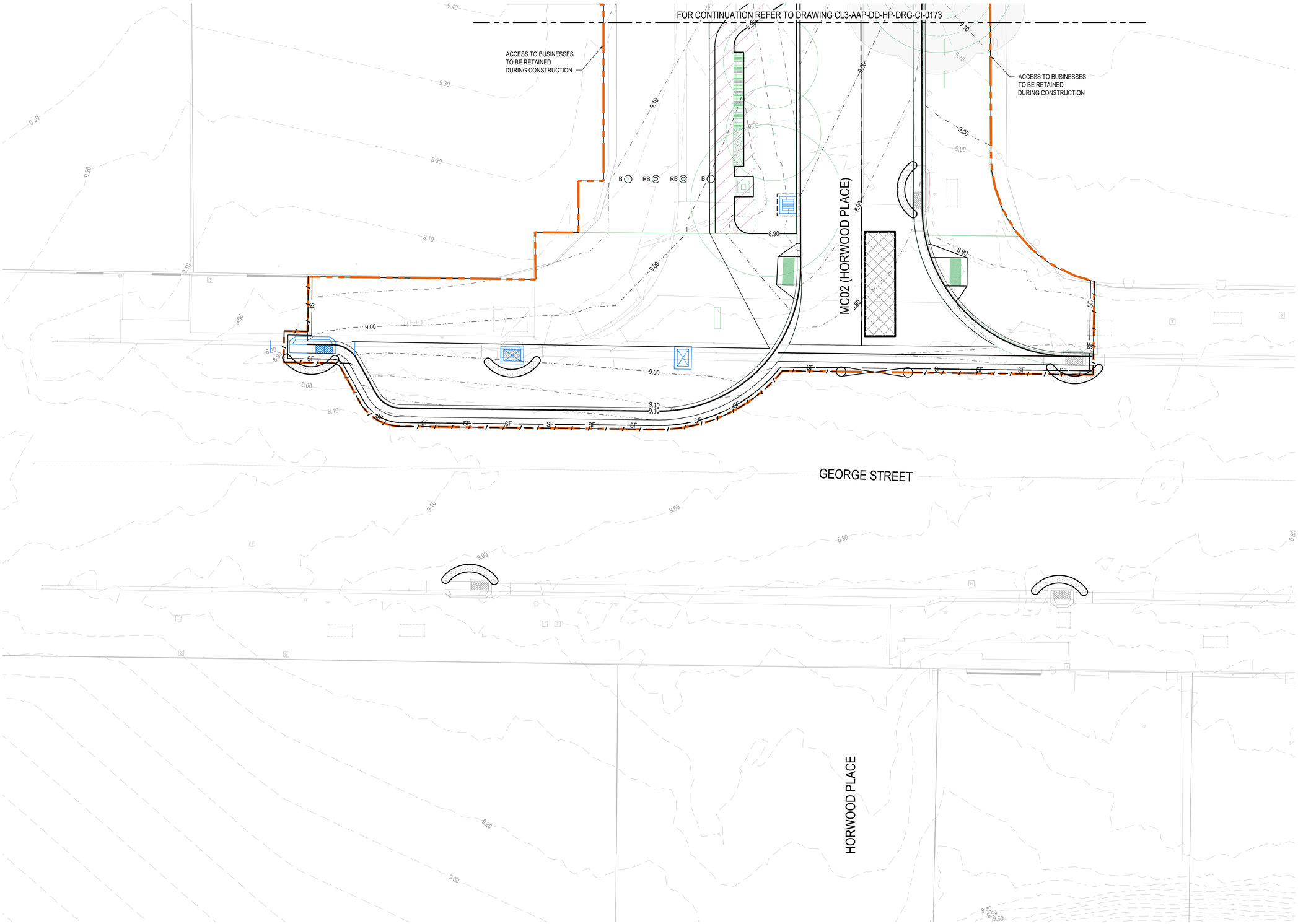
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www.arcadis.com/au

Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0173

Issue: 03

Date Plotted: 13 Nov 2025 - 02:42pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0173-ErosionAndSedimentControlPlanSheet3.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- DESIGN CONTOURS
- EXISTING CONTOURS
- ARCHITECTURAL WORKS
- SITE FENCE
- SEDIMENT FENCE (SD 6-8)
- SITE GATE
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- MESH AND GRAVEL INLET FILTER (SD 6-11)
- STABILISED SITE ACCESS (SD 6-14)
- SEDIMENT TRAP FOR GRATED INLET PIT ON PAVEMENT

NOTES

1. ALL SEDIMENT AND EROSION CONTROL MEASURES ARE SHOWN INDICATIVELY ONLY AND REPRESENT THE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONTROL OF EROSION AND SEDIMENTATION TO THE SATISFACTION OF COUNCIL.
2. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0191 FOR EROSION AND SEDIMENT CONTROL DETAILS.
3. FOR TREE PROTECTION DETAILS REFER TO CITY OF PARRAMATTA COUNCIL STANDARDS DS43.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: EROSION AND SEDIMENT CONTROL PLAN SHEET 4

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Project Number: 30286862

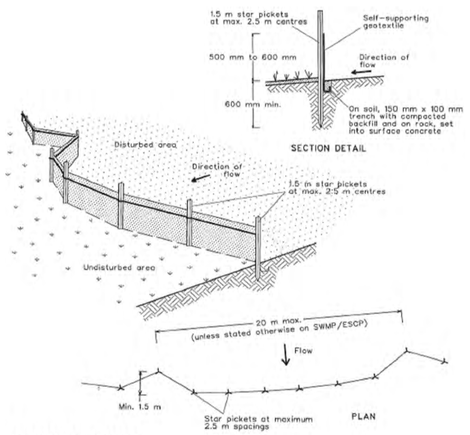
Drawing No.: CL3-AAP-DD-HP-DRG-CI-0174

Issue: 03

Date Plotted: 13 Nov 2025 - 02:42pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0174-ErosionAndSedimentControlPlanSheet4.dwg

NOTES

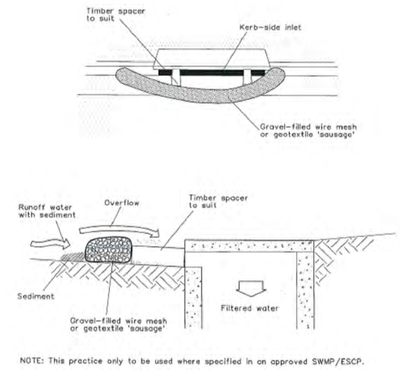
1. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0171, 0172, 0173 AND 0174 FOR THE EROSION AND SEDIMENT CONTROL PLANS.
2. EROSION AND SEDIMENT CONTROL DETAILS HAVE BEEN TAKEN DIRECTLY FROM NSW DEPARTMENT OF HOUSING MANUAL. 'MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION' 4TH EDITION, MARCH 2004
3. FOR TREE PROTECTION DETAILS REFER TO CITY OF PARRAMATTA COUNCIL STANDARDS DS43.



Construction Notes

1. Construct sediment fences as close as possible to being parallel to the contours of the site, but with small returns as shown in the drawing to limit the catchment area of any one section. The catchment area should be small enough to limit water flow if concentrated at one point to 50 litres per second in the design storm event, usually the 10-year event.
2. Cut a 150-mm deep trench along the upslope line of the fence for the bottom of the fabric to be entrenched.
3. Drive 1.5 metre long star pickets into ground at 2.5 metre intervals (max) at the downslope edge of the trench. Ensure any star pickets are fitted with safety caps.
4. Fix self-supporting geotextile to the upslope side of the posts ensuring it goes to the base of the trench. Fix the geotextile with wire ties or as recommended by the manufacturer. Only use geotextile specifically produced for sediment fencing. The use of shade cloth for this purpose is not satisfactory.
5. Join sections of fabric at a support post with a 150-mm overlap.
6. Backfill the trench over the base of the fabric and compact it thoroughly over the geotextile.

SEDIMENT FENCE (SD 6-8)

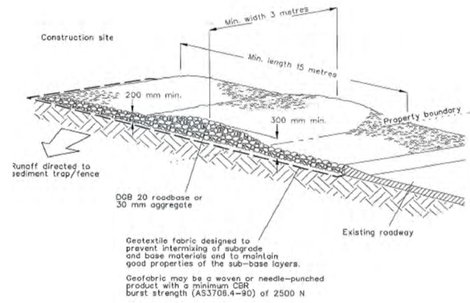


NOTE: This practice only to be used where specified in an approved SWMP/ESCP.

Construction Notes

1. Install filters to kerb inlets only at sag points.
2. Fabricate a sleeve made from geotextile or wire mesh longer than the length of the inlet pit and fill it with 25 mm to 50 mm gravel.
3. Form an elliptical cross-section about 150 mm high x 400 mm wide.
4. Place the filter at the opening leaving at least a 100-mm space between it and the kerb inlet. Maintain the opening with spacer blocks.
5. Form a seal with the kerb to prevent sediment bypassing the filter.
6. Sandbags filled with gravel can substitute for the mesh or geotextile providing they are placed so that they firmly abut each other and sediment-laden waters cannot pass between.

MESH AND GRAVEL INLET FILTER (SD 6-11)



Construction Notes

1. Strip the topsoil, level the site and compact the subgrade.
2. Cover the area with needle-punched geotextile.
3. Construct a 200-mm thick pad over the geotextile using road base or 30-mm aggregate.
4. Ensure the structure is at least 15 metres long or to building alignment and at least 3 metres wide.
5. Where a sediment fence joins onto the stabilised access, construct a hump in the stabilised access to divert water to the sediment fence

STABILISED SITE ACCESS (SD 6-14)

MATERIALS

FABRIC (LIGHT TRAFFIC AREAS):
HEAVY DUTY, NEED-PUNCHED, NON WOVEN FILTER CLOTH ('BIDIM' A34 OR EQUIVALENT).

FABRIC (HEAVY TRAFFIC AREAS):
POLY-PROPYLENE , POLYAMIDE, NYLON, POLYESTER, OR POLYETHYLENE WOVEN OR NON-WOVEN REINFORCED FABRIC. THE FABRIC WIDTH SHOULD BE AT LEAST 700mm WITH A MINIMUM UNIT WEIGHT OF 140g/m². FABRICS SHOULD CONTAIN ULTRAVIOLET INHIBITORS AND STABILISERS TO PROVIDE A MINIMUM OF 6 MONTHS OF USEABLE CONSTRUCTION LIFE (ULTRAVIOLET STABILITY EXCEEDING 70%)

INSTALLATION

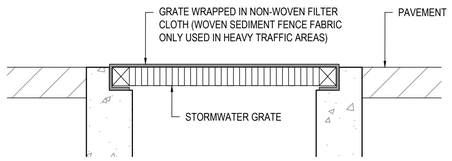
1. REFER TO APPROVED PLANS FOR LOCATION AND DIMENSIONAL DETAILS. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION, DIMENSIONS OR METHOD OF INSTALLATION CONTACT THE ENGINEER OR RESPONSIBLE ON-SITE OFFICER FOR ASSISTANCE.
2. ENSURE THAT THE INSTALLATION OF THE SEDIMENT TRAP WILL NOT CAUSE UNDESIRABLE SAFETY OR FLOODING ISSUES.
3. APPLY THE APPROPRIATE FABRIC FOR THE SITE CONDITIONS.
4. WRAP THE FABRIC AROUND OR OVER THE STORMWATER INLET GRATE IN SUCH A MANNER THAT PREVENTS ANY WATER ENTERING THE STORMWATER INLET WITHOUT PASSING THROUGH THE FABRIC.
5. ENSURE ALL OTHER FLOW ENTRY POINTS ARE COVERED WITH FABRIC SUCH THAT WATER CANNOT ENTER THE STORMWATER INLET WITHOUT PASSING THROUGH A SUITABLE FILTER.
6. TAKE ALL NECESSARY MEASURES TO MINIMISE SAFETY OR FLOODING RISK CAUSED BY OPERATION OF THE SEDIMENT TRAP.

MAINTENANCE

1. INSPECT THE BARRIER AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT AND MAKE REPAIRS AS NEEDED TO THE SEDIMENT TRAP.
2. REMOVE COLLECTED SEDIMENT AND DISPOSE OF IN A SUITABLE MANNER THAT WILL NOT CAUSE AN EROSION OR POLLUTION HAZARD.
3. REPLACE THE FABRIC IF IT IS TORN OR DAMAGED.
4. SEDIMENT DEPOSITS SHOULD BE REMOVED IMMEDIATELY IF THEY REPRESENT A SAFETY RISK.

REMOVAL

WHEN THE UP-SLOPE DRAINAGE AREA HAS BEEN STABILISED, REMOVE ALL MATERIALS INCLUDED DEPOSITED SEDIMENT AND DISPOSE OF IN A SUITABLE MANNER THAT WILL NOT CAUSE AN EROSION OR POLLUTION HAZARD.



SEDIMENT TRAP
FOR GRATED INLET PIT ON PAVEMENT

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

100mm on Original

Scales: NOT TO SCALE

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: EROSION AND SEDIMENT CONTROL DETAILS

ARCADIS
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Level 15, 580 George Street
SYDNEY NSW 2000
ABN 76 104 485 289
Tel No: +61 2 8907 9000
www.arcadis.com/au

Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0191

Issue: 03

Date Plotted: 13 Nov 2025 - 02:41pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0191-ErosionAndSedimentControlDetails.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- DESIGN CONTOURS
- EXISTING CONTOURS
- ARCHITECTURAL WORKS
- SAWCUT INTERFACE
- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- B01-2 — PROPOSED PIT LABEL
- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- K&G — PROPOSED KERB AND GUTTER (K&G) AS PER CITY OF PARRAMATTA COUNCIL STANDARDS
- SK — PROPOSED SLOTTED KERB (SK)
- KO — PROPOSED KERB ONLY (KO) AS PER CITY OF PARRAMATTA COUNCIL STANDARDS
- ES — PROPOSED EDGE STRIP (ES) AS PER CITY OF PARRAMATTA COUNCIL STANDARDS
- KR — PROPOSED KERB RAMP AS PER PARRAMATTA COUNCIL STANDARDS
- VC — PROPOSED DRIVEWAY AS PER PARRAMATTA COUNCIL STANDARDS
- PROPOSED SIGN POST
- PROPOSED PAVEMENT MARKING BA-1
- PROPOSED PAVEMENT MARKING PS-3
- LINEMARKING DELINEATION BL1
- LINEMARKING DELINEATION TF
- LINEMARKING DELINEATION NS1
- B — FIXED BOLLARDS
- RB — RETRACTABLE BOLLARDS
- PROPOSED FOOTPATH
- PROPOSED SHARED FOOTPATH
- PROPOSED ROAD PAVEMENT
- PROPOSED LANDSCAPING
- PROPOSED PAVEMENT TO MATCH EXISTING LEVELS
- EXISTING ENDEAVOUR ENERGY LIGHT POLE TO BE DEMOLISHED
- PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x1)
- PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
- PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x3)

NOTES

1. PAVEMENT MARKINGS AS PER NSW DELINEATION GUIDELINES.
2. SIGNS AS PER TINSW GUIDELINES.
3. STRATAVAULT CELLS TO BE DESIGNED AND DOCUMENTED AS PART OF LANDSCAPE ARCHITECTS DETAILS.
4. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0251 FOR THE ROAD LONGITUDINAL SECTIONS.
5. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0281 TO 284 FOR THE ROAD CROSS SECTIONS.
6. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0361 FOR CIVIL WORKS DETAILS.
7. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0441 FOR THE STORMWATER LONGITUDINAL SECTIONS AND PIT SCHEDULE.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: CIVIL WORKS PLAN SHEET 1

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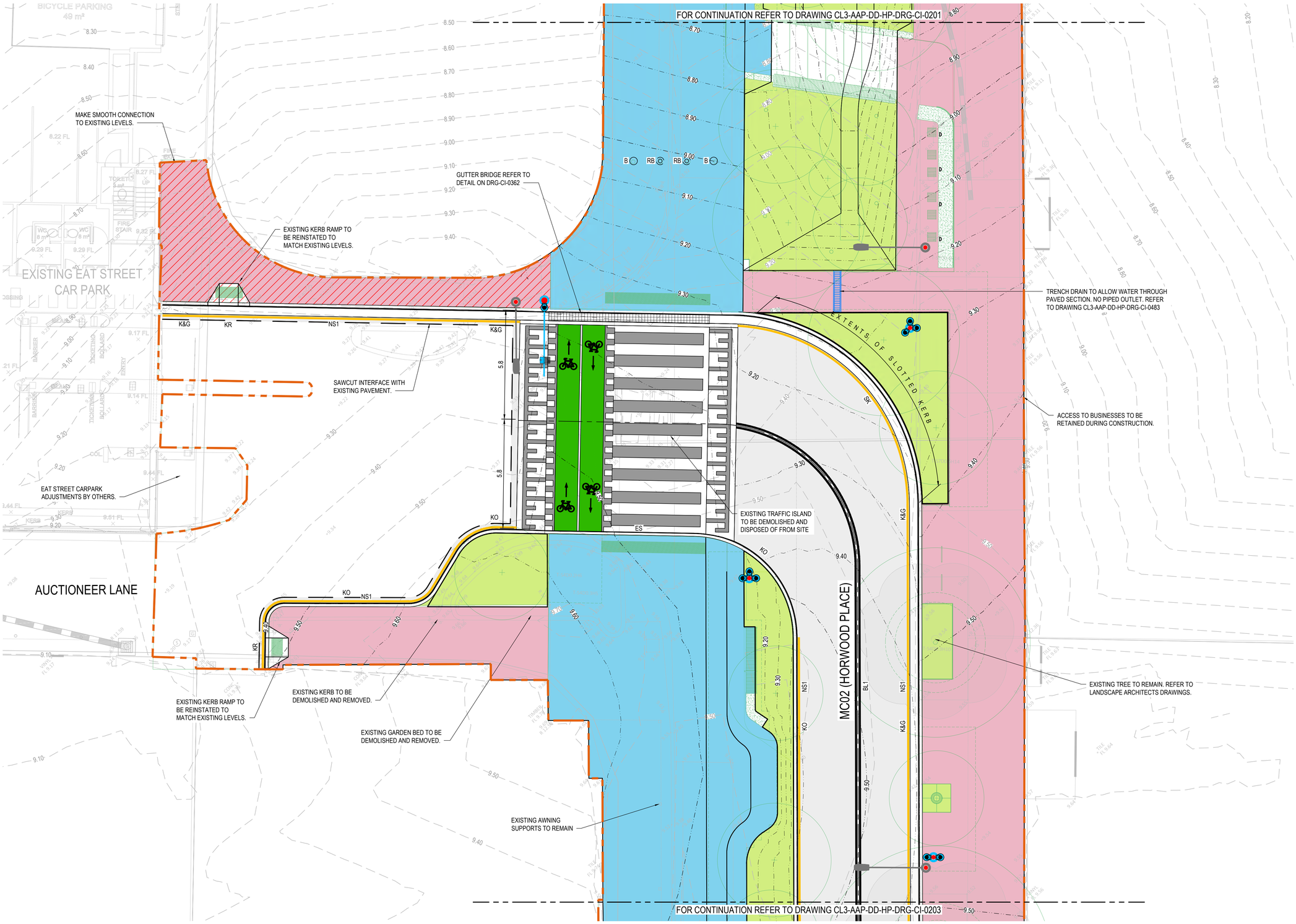
Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0201

Issue: 03

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LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- DESIGN CONTOURS
- EXISTING CONTOURS
- ARCHITECTURAL WORKS
- SAWCUT INTERFACE
- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- B01-2 — PROPOSED PIT LABEL
- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- K&G — PROPOSED KERB AND GUTTER (K&G) AS PER CITY OF PARRAMATTA COUNCIL STANDARDS
- SK — PROPOSED SLOTTED KERB (SK)
- KO — PROPOSED KERB ONLY (KO) AS PER CITY OF PARRAMATTA COUNCIL STANDARDS
- ES — PROPOSED EDGE STRIP (ES) AS PER CITY OF PARRAMATTA COUNCIL STANDARDS
- KR — PROPOSED KERB RAMP AS PER PARRAMATTA COUNCIL STANDARDS
- VC — PROPOSED DRIVEWAY AS PER PARRAMATTA COUNCIL STANDARDS
- PROPOSED SIGN POST
- PROPOSED PAVEMENT MARKING BA-1
- PROPOSED PAVEMENT MARKING PS-3
- LINEMARKING DELINEATION BL1
- LINEMARKING DELINEATION TF
- LINEMARKING DELINEATION NS1
- B — FIXED BOLLARDS
- RB — RETRACTABLE BOLLARDS
- PROPOSED FOOTPATH
- PROPOSED SHARED FOOTPATH
- PROPOSED ROAD PAVEMENT
- PROPOSED LANDSCAPING
- PROPOSED PAVEMENT TO MATCH EXISTING LEVELS
- EXISTING ENDEAVOUR ENERGY LIGHT POLE TO BE DEMOLISHED
- PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x1)
- PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
- PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x3)

NOTES

1. PAVEMENT MARKINGS AS PER NSW DELINEATION GUIDELINES.
2. SIGNS AS PER TINSW GUIDELINES.
3. STRATAVAULT CELLS TO BE DESIGNED AND DOCUMENTED AS PART OF LANDSCAPE ARCHITECTS DETAILS.
4. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0251 FOR THE ROAD LONGITUDINAL SECTIONS.
5. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0281 TO 284 FOR THE ROAD CROSS SECTIONS.
6. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0361 FOR CIVIL WORKS DETAILS.
7. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0441 FOR THE STORMWATER LONGITUDINAL SECTIONS AND PIT SCHEDULE.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIL LINK HORWOOD PLACE WORKS

Title: CIVIL WORKS PLAN SHEET 2

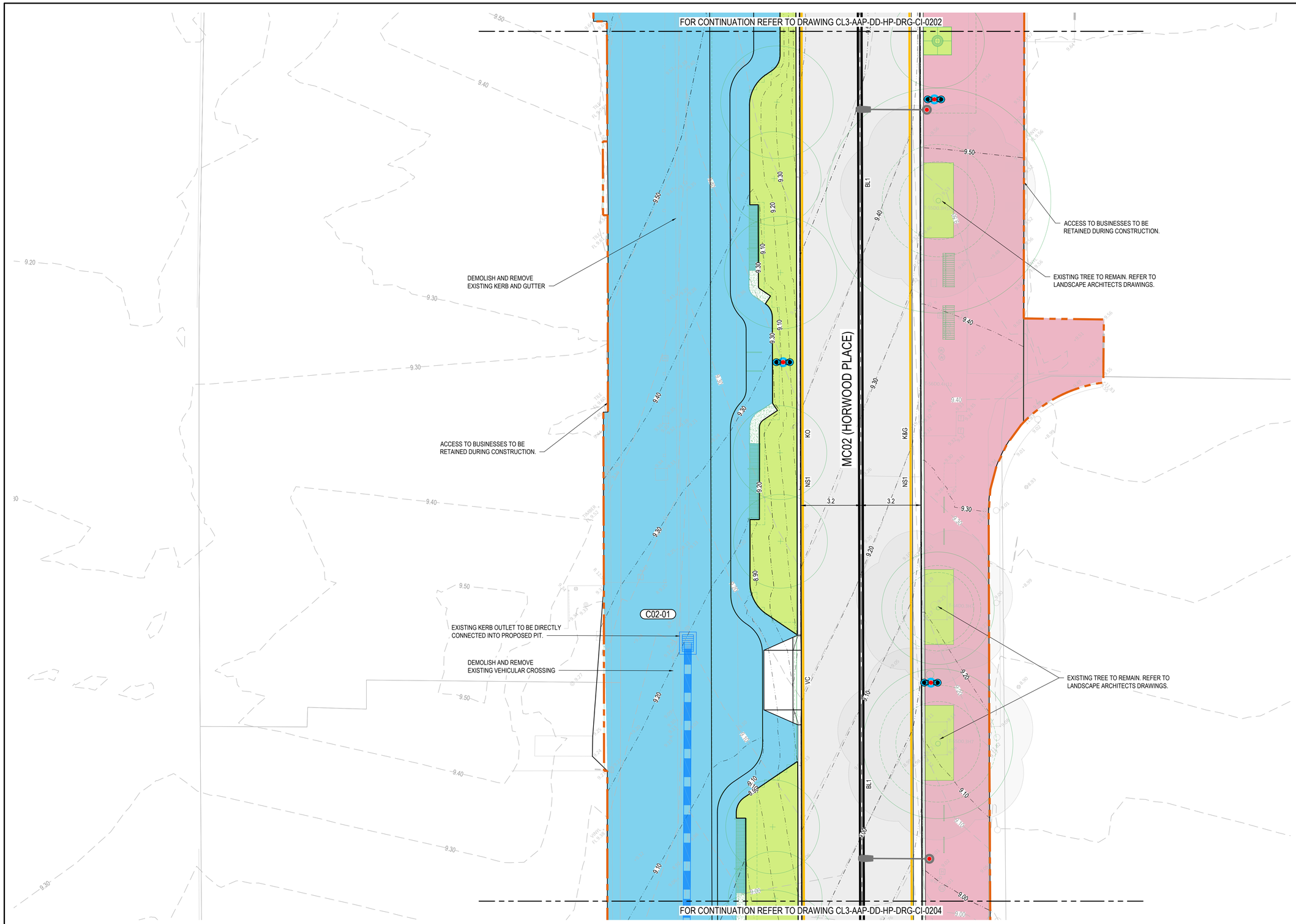
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0202

Issue: 03

Date Plotted: 13 Nov 2025 - 02:42pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0202-CivilWorksPlanSheet2.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- DESIGN CONTOURS
- EXISTING CONTOURS
- ARCHITECTURAL WORKS
- SAWCUT INTERFACE
- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- B01-2 — PROPOSED PIT LABEL
- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- K&G — PROPOSED KERB AND GUTTER (K&G) AS PER CITY OF PARRAMATTA COUNCIL STANDARDS
- SK — PROPOSED SLOTTED KERB (SK)
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- PROPOSED PAVEMENT MARKING BA-1
- PROPOSED PAVEMENT MARKING PS-3
- LINEMARKING DELINEATION BL1
- LINEMARKING DELINEATION TF
- LINEMARKING DELINEATION NS1
- B — FIXED BOLLARDS
- RB — RETRACTABLE BOLLARDS
- PROPOSED FOOTPATH
- PROPOSED SHARED FOOTPATH
- PROPOSED ROAD PAVEMENT
- PROPOSED LANDSCAPING
- PROPOSED PAVEMENT TO MATCH EXISTING LEVELS
- EXISTING ENDEAVOUR ENERGY LIGHT POLE TO BE DEMOLISHED
- PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x1)
- PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
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NOTES

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6. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0361 FOR CIVIL WORKS DETAILS.
7. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0441 FOR THE STORMWATER LONGITUDINAL SECTIONS AND PIT SCHEDULE.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: CIVIL WORKS PLAN
SHEET 3

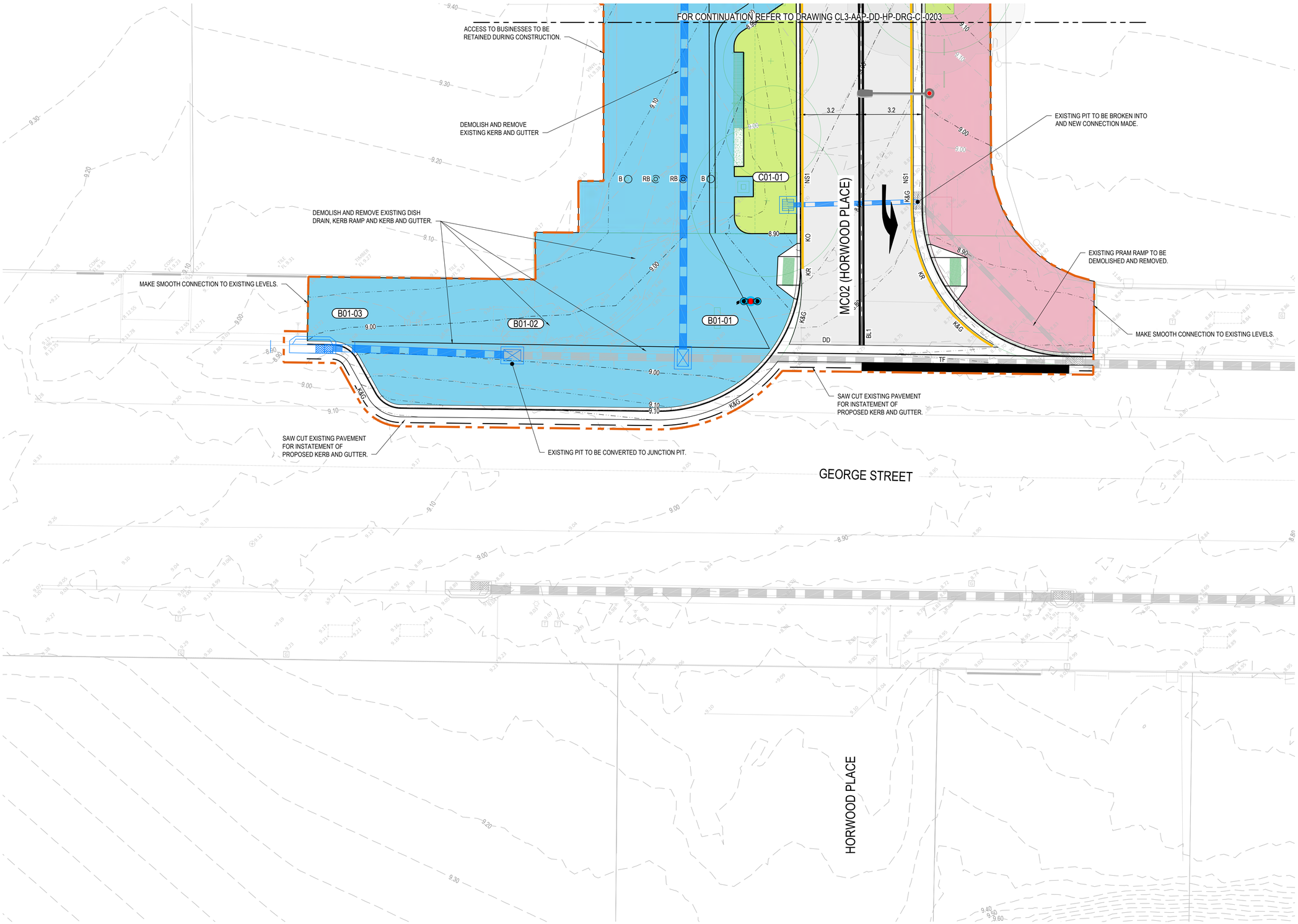
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0203

Issue: 03

Date Plotted: 13 Nov 2025 - 02:42pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0203-CivilWorksPlanSheet3.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- DESIGN CONTOURS
- EXISTING CONTOURS
- ARCHITECTURAL WORKS
- SAWCUT INTERFACE
- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- B01-2 — PROPOSED PIT LABEL
- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
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- LINEMARKING DELINEATION TF
- LINEMARKING DELINEATION NS1
- B — FIXED BOLLARDS
- RB — RETRACTABLE BOLLARDS
- PROPOSED FOOTPATH
- PROPOSED SHARED FOOTPATH
- PROPOSED ROAD PAVEMENT
- PROPOSED LANDSCAPING
- PROPOSED PAVEMENT TO MATCH EXISTING LEVELS
- EXISTING ENDEAVOUR ENERGY LIGHT POLE TO BE DEMOLISHED
- PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x1)
- PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
- PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x3)

NOTES

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2. SIGNS AS PER TINSW GUIDELINES.
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5. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0281 TO 284 FOR THE ROAD CROSS SECTIONS.
6. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0361 FOR CIVIL WORKS DETAILS.
7. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0441 FOR THE STORMWATER LONGITUDINAL SECTIONS AND PIT SCHEDULE.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: CIVIL WORKS PLAN
SHEET 4

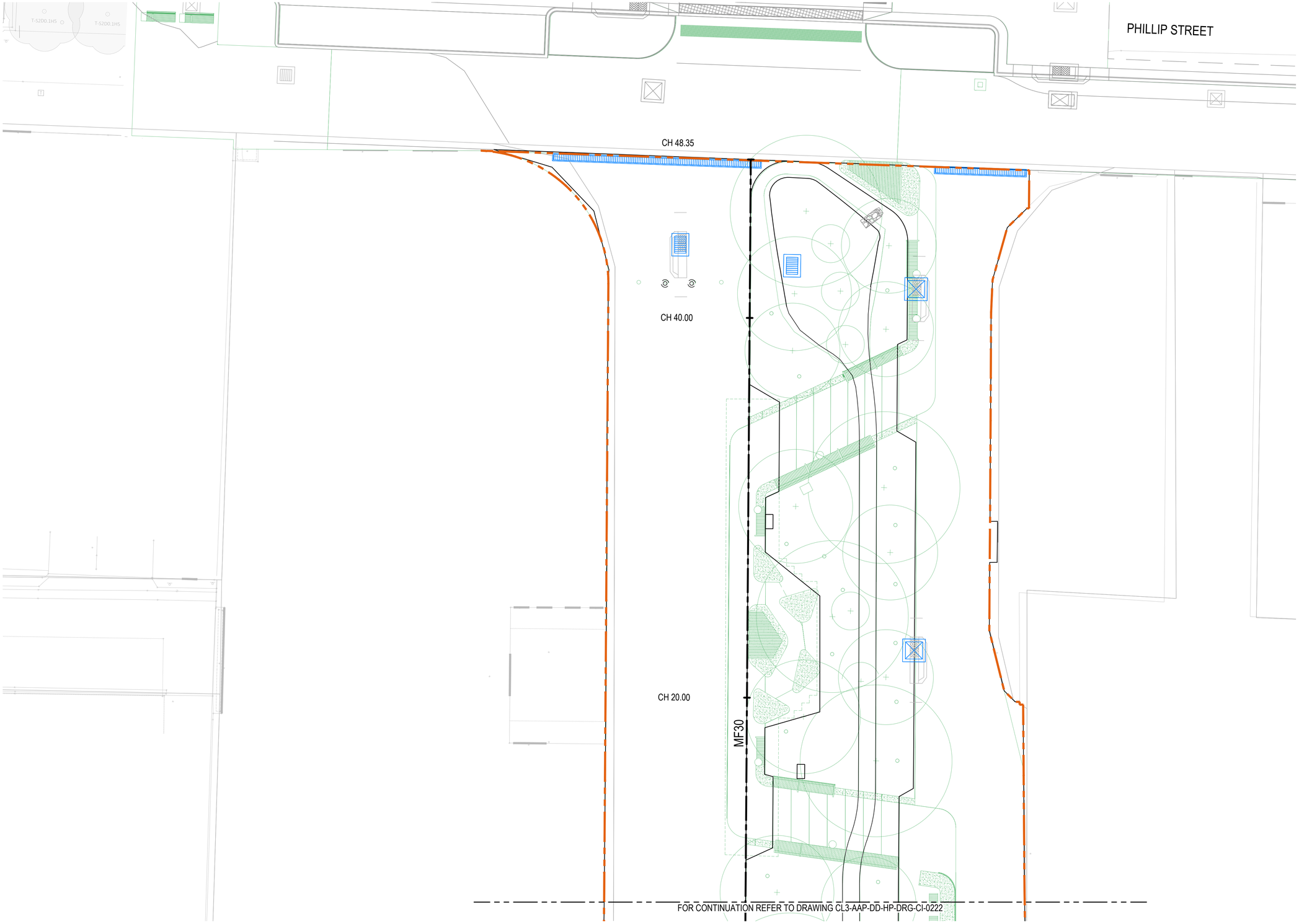
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0204

Issue: 03

Date Plotted: 13 Nov 2025 - 02:42pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0204-CivilWorksPlanSheet4.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- CH. 0.000 — CHAINAGE AND CONTROL LINE
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT

NOTES

1. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0251 TO 0252 FOR THE ROAD LONGITUDINAL SECTION.
2. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0281 TO 0284 FOR THE ROAD CROSS SECTIONS.

Issue	Description	DR	CH	VE	Date
02	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
01	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CR	GD	10.09.2025

100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: ROAD CONTROL SETOUT PLAN SHEET 1

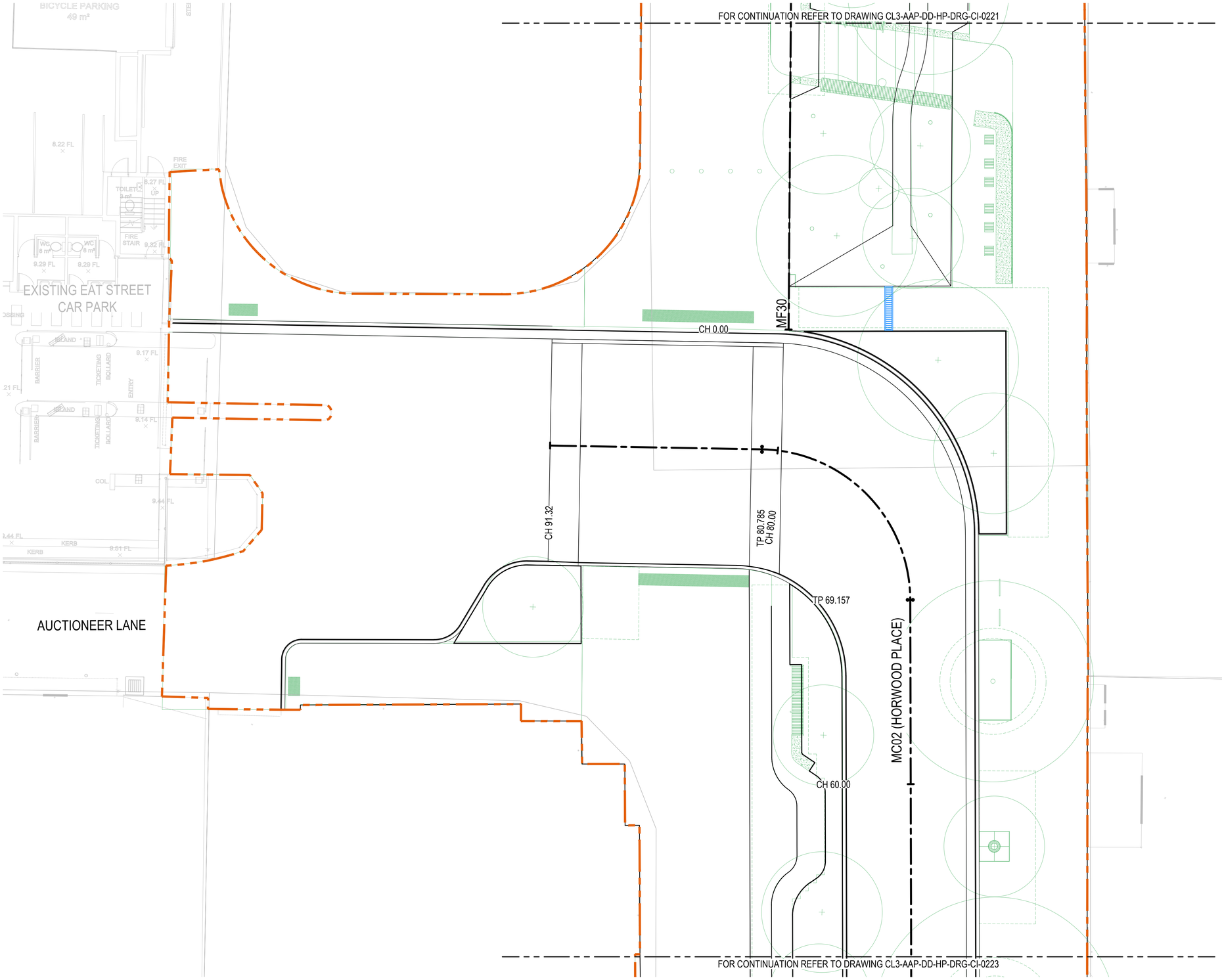
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0221

Issue: 02

Date Plotted: 13 Nov 2025 - 02:42pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0221-RoadControlSetoutPlanSheet1.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- CH. 0.000 — CHAINAGE AND CONTROL LINE
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT

NOTES

1. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0251 TO 0252 FOR THE ROAD LONGITUDINAL SECTION.
2. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0281 TO 0284 FOR THE ROAD CROSS SECTIONS.

Issue	Description	DR	CH	VE	Date
02	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
01	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CR	GD	10.09.2025

100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: ROAD CONTROL SETOUT PLAN SHEET 2

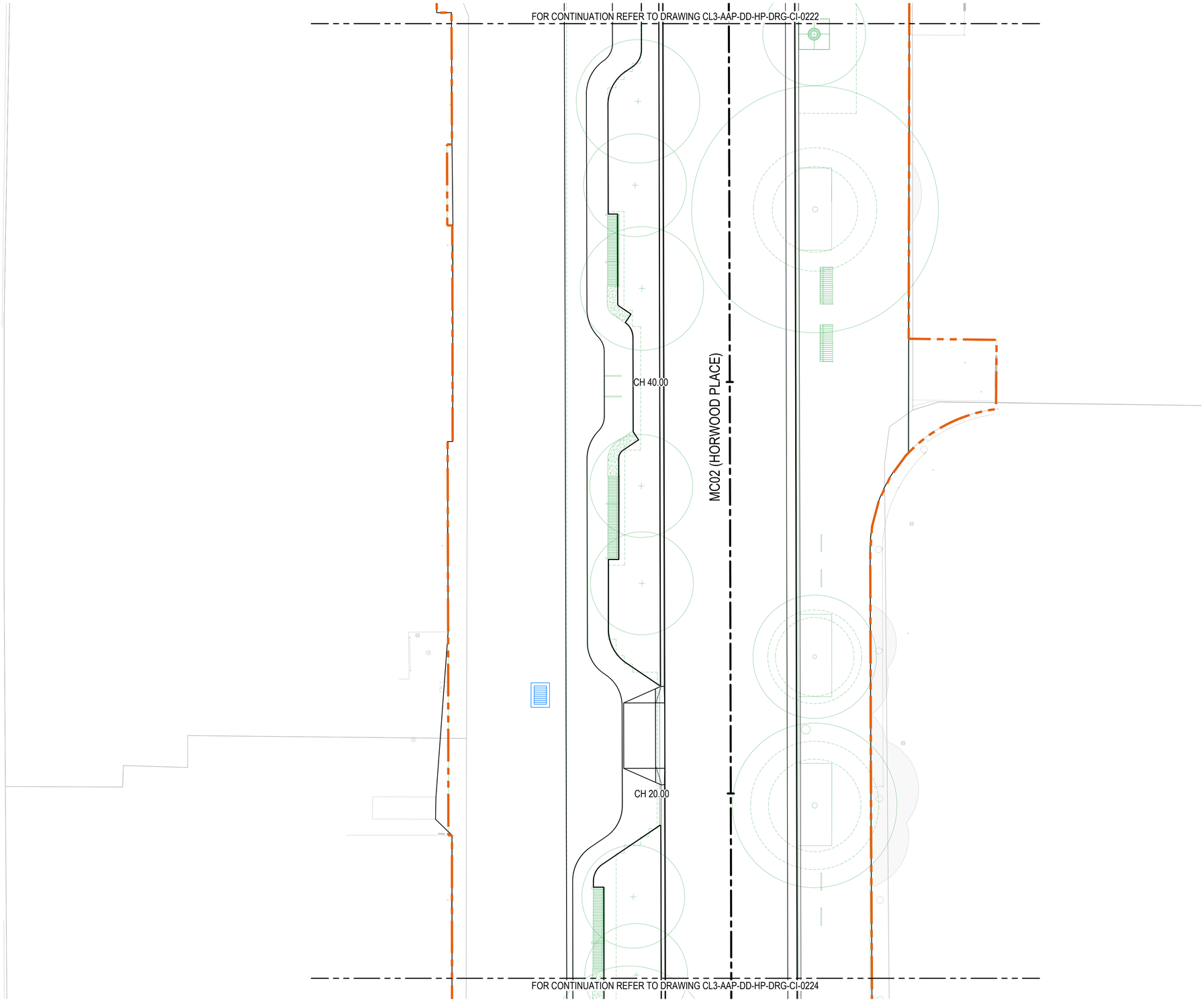
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0222

Issue: 02

Date Plotted: 13 Nov 2025 - 02:42pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0222-RoadControlSetoutPlanSheet2.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- CH. 0.000 — CHAINAGE AND CONTROL LINE
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT

NOTES

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Issue	Description	DR	CH	VE	Date
02	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
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100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: ROAD CONTROL SETOUT PLAN SHEET 3

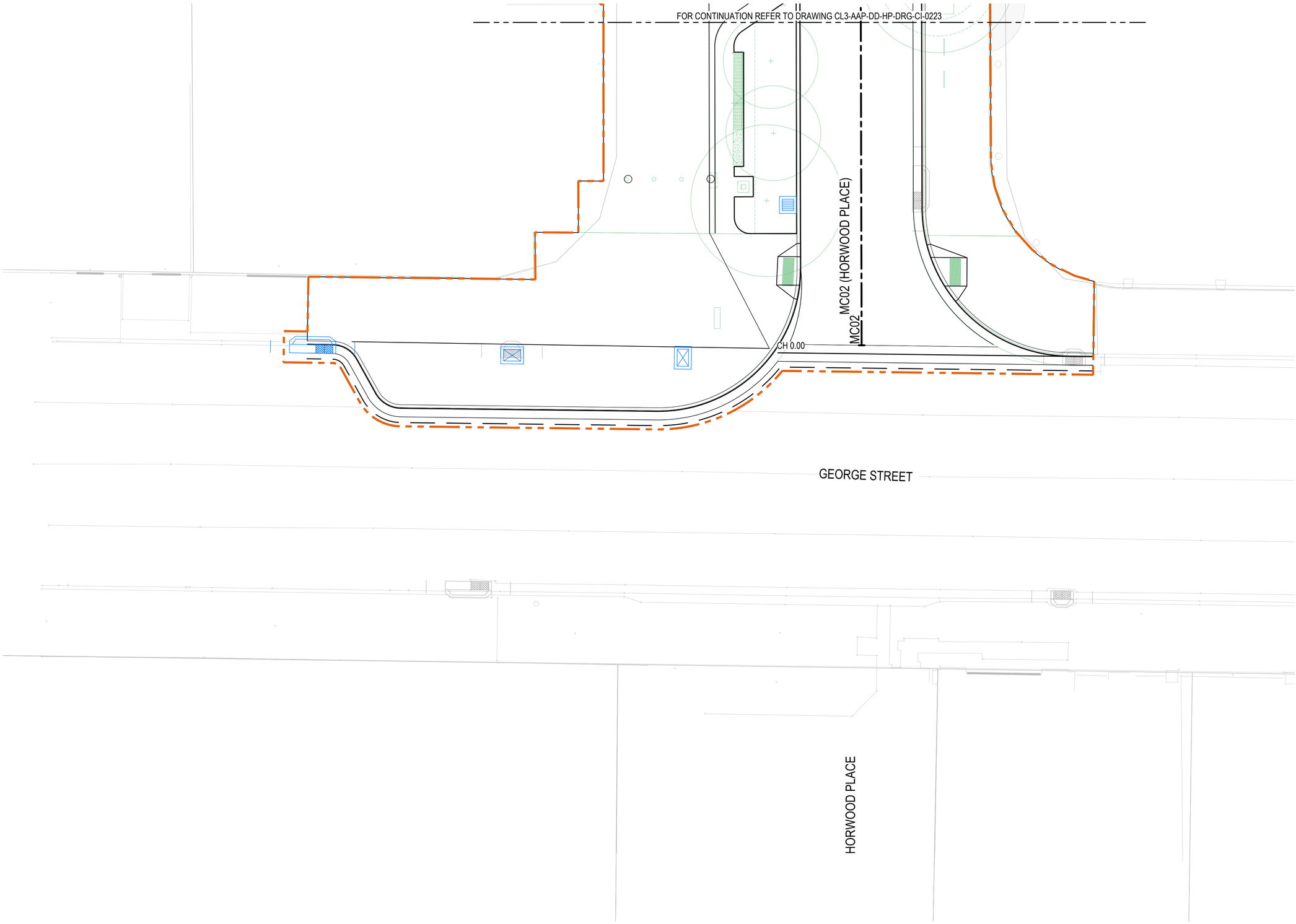
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www.arcadis.com/au

Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0223

Issue: 02

Date Plotted: 13 Nov 2025 - 02:42pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0223-RoadControlSetoutPlanSheet3.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- CH. 0.000 — CHAINAGE AND CONTROL LINE
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT

NOTES

1. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0251 TO 0252 FOR THE ROAD LONGITUDINAL SECTION.
2. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0281 TO 0284 FOR THE ROAD CROSS SECTIONS.

Issue	Description	DR	CH	VE	Date
02	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
01	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CR	GD	10.09.2025

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: ROAD CONTROL SETOUT PLAN SHEET 4

ARCADIS
Arcadis Australia Pacific Pty Limited
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ABN 76 104 485 289
Tel No: +61 2 8907 9000
www.arcadis.com/au

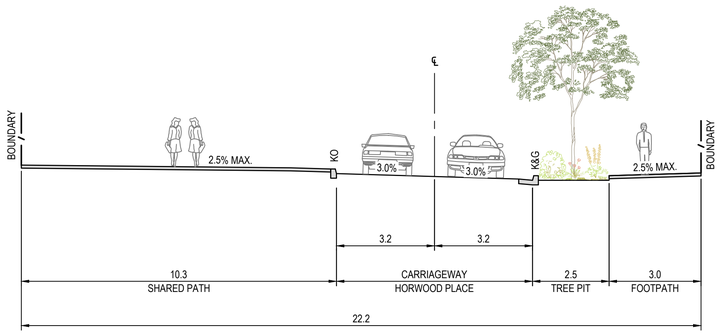
Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0224

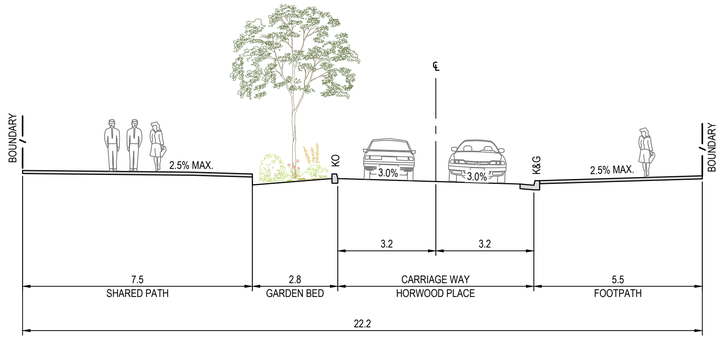
Issue: 02

100mm on Original

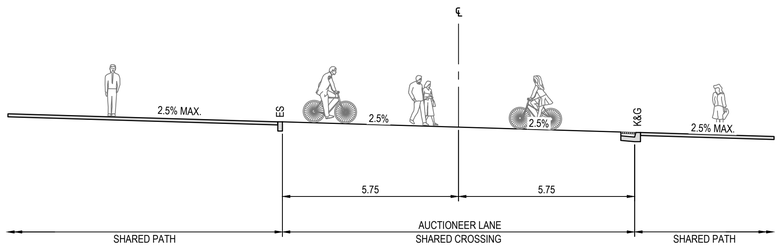
Date Plotted: 13 Nov 2025 - 02:42pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0224-RoadControlSetoutPlanSheet4.dwg



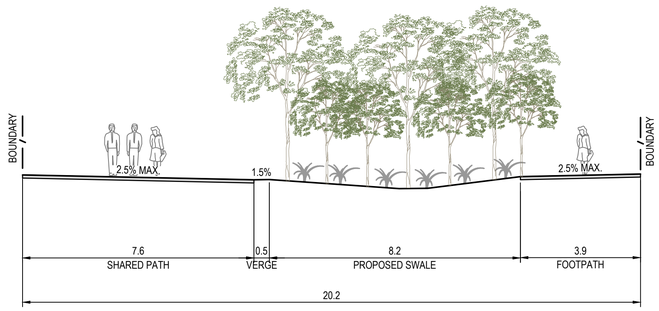
TYPICAL ROAD SECTION 1
HORWOOD PLACE - TREE PIT
1 : 100



TYPICAL ROAD SECTION 2
HORWOOD PLACE - GARDEN BED
1 : 100



TYPICAL ROAD SECTION 3
RAISED PEDESTRIAN CROSSING
1 : 100



TYPICAL ROAD SECTION 4
HORWOOD PLACE - GREEN ZONE
1 : 100

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: TYPICAL ROAD SECTIONS

ARCADIS
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Level 15, 580 George Street
SYDNEY NSW 2000
ABN 76 104 485 289
Tel No: +61 2 8907 9000
www.arcadis.com/au

Project Number: 30286862

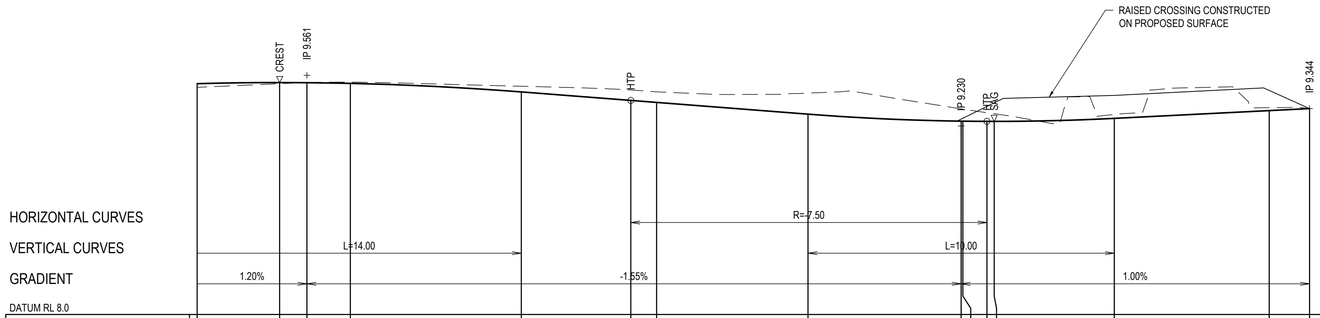
Drawing No.: CL3-AAP-DD-HP-DRG-CI-0241

Issue: 03

Date Plotted: 13 Nov 2025 - 02:42pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0241-TypicalRoadSections.dwg

NOTES

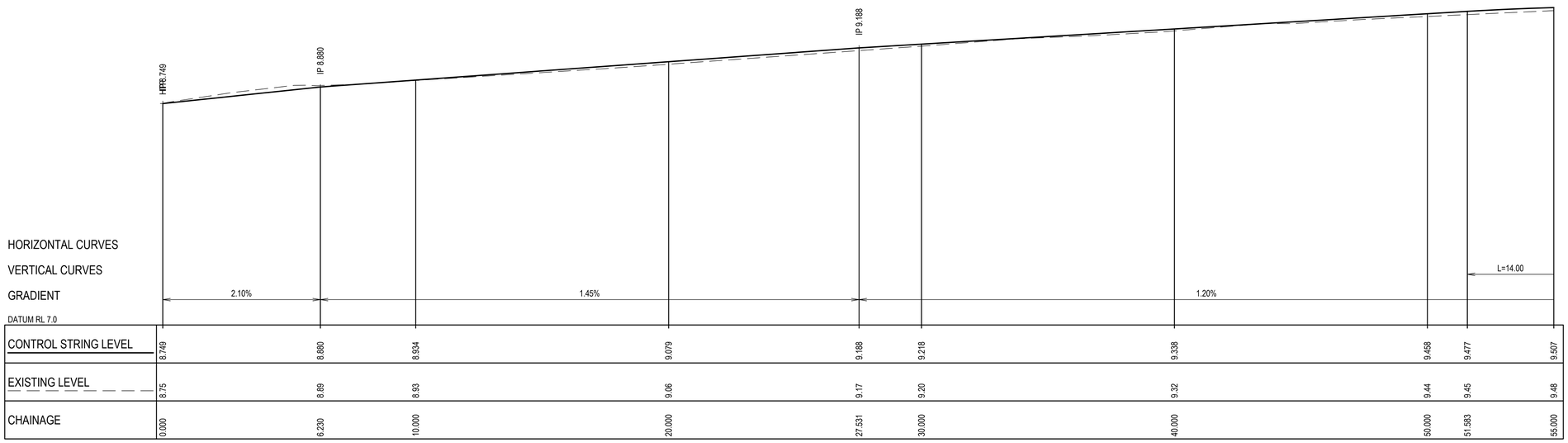
1. REFER TO DRAWINGS CL3-AAP-DD-HP-DRG-CI-0221 TO 0224 FOR ROAD CONTROL SETOUT PLANS.



CONTROL STRING LEVEL	9.507	9.514	9.513	9.509	9.453	9.397	9.384	9.308	9.262 9.262	9.261 9.260	9.280	9.331	9.344	
EXISTING LEVEL	9.48	9.51	9.51	9.52	9.49	9.47	9.45	9.44	9.34 9.34	9.32 9.31	9.31	9.35	9.34	
CHAINAGE	55.000	57.692	58.583	60.000	65.583	69.157	70.000	74.942	79.942 80.000	80.765 81.021	84.942	90.000	91.316	

MC02 LONGITUDINAL SECTION

SCALE 1:100 HORI.
1:20 VERT.



CONTROL STRING LEVEL	8.749	8.880	8.934	9.079	9.188	9.218	9.338	9.458	9.477	9.507				
EXISTING LEVEL	8.75	8.89	8.93	9.06	9.17	9.20	9.32	9.44	9.45	9.48				
CHAINAGE	0.000	6.230	10.000	20.000	27.531	30.000	40.000	50.000	51.583	55.000				

MC02 LONGITUDINAL SECTION

SCALE 1:100 HORI.
1:20 VERT.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	GD	MK	18.07.2025

Scales

HORZ 0 1 2 4 6 8 10m
1:100
VERT 0 0.5 1 1.5 2m
1 : 20

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: ROAD LONGITUDINAL SECTIONS SHEET 1

ARCADIS
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www.arcadis.com/au

Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0251

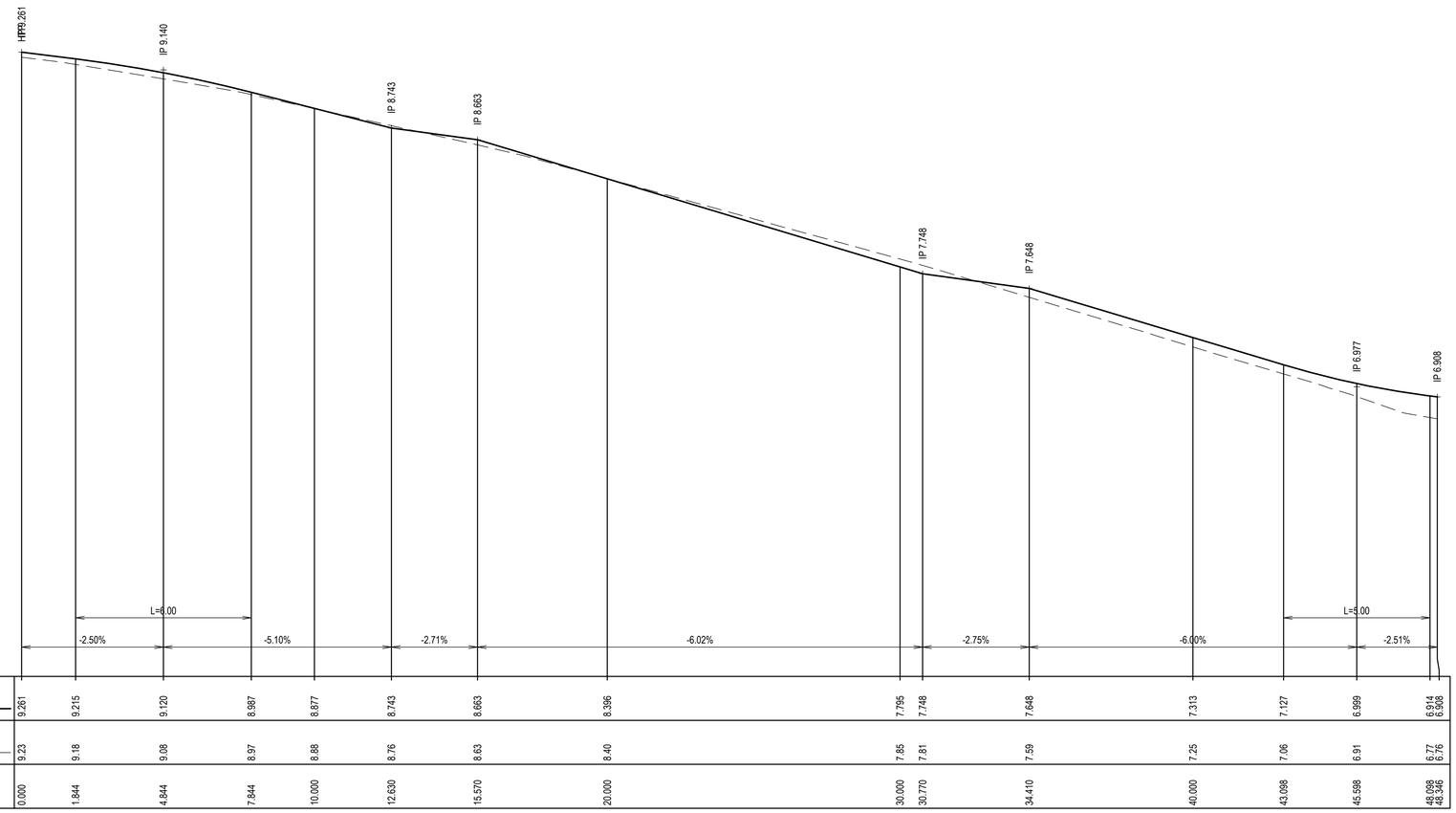
Issue: 03

100mm on Original

Date Plotted: 13 Nov 2025 - 02:41pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0251-RoadLongitudinalSectionsSheet1.dwg

NOTES

1. REFER TO DRAWINGS CL3-AAP-DD-HP-DRG-CI-0221 TO 0224 FOR ROAD CONTROL SETOUT PLANS.



MF30 LONGITUDINAL SECTION

SCALE 1:100 HORI.
1:20 VERT.

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	GD	GD	12.11.2025

100mm on Original

Scales
HORZ 0 1 2 4 6 8 10m
1:100
VERT 0 0.5 1 1.5 2m
1 : 20

Surveyor: surveyplus, DURKIN
Landscape Architect: OCULUS
Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: ROAD LONGITUDINAL SECTIONS SHEET 2

ARCADIS
Arcadis Australia Pacific Pty Limited
Level 15, 580 George Street
SYDNEY NSW 2000
ABN 76 104 485 289
Tel No: +61 2 8907 9000
www.arcadis.com/au

Project Number: 30286862

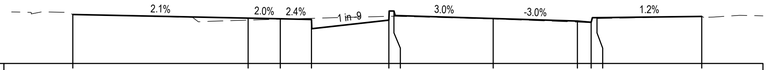
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Issue: 01

Date Plotted: 13 Nov 2025 - 02:41pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0252-RoadLongitudinalSectionsSheet2.dwg

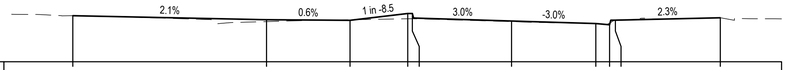
NOTES

1. REFER TO DRAWINGS CL3-AAP-DD-HP-DRG-CI-0221 TO 0224 FOR ROAD CONTROL SETOUT PLANS.



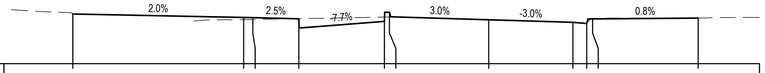
DATUM RL 7.75														
PROPOSED LEVEL	9.349		9.230	9.209	9.185	9.164	9.464	9.218	9.136	9.096	9.246	9.285		
EXISTING LEVEL	9.349		9.165	9.196	9.224	9.290	9.293	9.202	9.102	9.107	9.217	9.285		
OFFSET	-13.724		-8.000	-6.950	-5.932	-3.405	-3.240	0.000	2.750	3.200	3.390	6.809		

CH 30.000



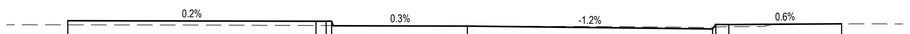
DATUM RL 7.75														
PROPOSED LEVEL	9.253		9.120	9.103	9.325	9.325		9.079	8.997	8.957	9.107	9.185		
EXISTING LEVEL	9.253		9.060	9.121	9.153	9.155		9.060	9.000	9.006	9.116	9.185		
OFFSET	-14.325		-8.000	-5.272	-3.390	-3.240		0.000	2.750	3.200	3.390	6.815		

CH 20.000



DATUM RL 7.50														
PROPOSED LEVEL	9.122		9.009	9.003	8.965	8.880	9.180	8.934	8.852	8.812	8.962	8.990		
EXISTING LEVEL	9.122		8.940	8.943	8.972	9.022	9.025	8.931	8.836	8.842	8.981	8.990		
OFFSET	-13.579		-8.000	-7.700	-6.200	-3.405	-3.240	0.000	2.750	3.200	3.390	6.838		

CH 10.000



DATUM RL 7.50														
PROPOSED LEVEL	8.926		8.909	8.908	8.910	8.749			8.656	8.805	8.801	8.824		
EXISTING LEVEL	8.791		8.769	8.767	8.767	8.748			8.712	8.722	8.728	8.823		
OFFSET	-13.047		-4.942	-4.610	-4.431	0.000			8.005	8.110	8.305	12.217		

CH 0.000

ROAD CROSS SECTIONS MC02

1 : 100

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	GD	MK	18.07.2025

100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: ROAD CROSS SECTIONS SHEET 1

ARCADIS
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SYDNEY NSW 2000
ABN 76 104 485 289
Tel No: +61 2 8907 9000
www.arcadis.com/au

Project Number: 30286862

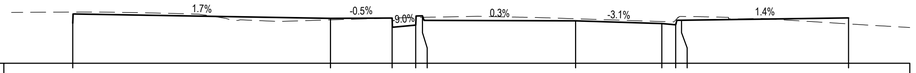
Drawing No.: CL3-AAP-DD-HP-DRG-CI-0281

Issue: 03

Date Plotted: 13 Nov 2025 - 02:41pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AUAAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0281-RoadCrossSectionsSheet1.dwg

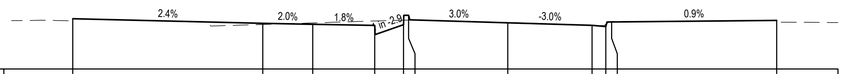
NOTES

1. REFER TO DRAWINGS CL3-AAP-DD-HP-DRG-CI-0221 TO 0224 FOR ROAD CONTROL SETOUT PLANS.



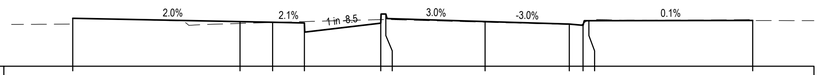
DATUM RL 8.00														
PROPOSED LEVEL	9.309			9.466	9.476	9.245	9.549		9.384		9.296	9.255	9.405			9.480
EXISTING LEVEL	9.671			9.416	9.475	9.496	9.501		9.453		9.363	9.414	9.529			9.285
OFFSET	-16.416			-8.003	-5.990	-5.220	-4.999		0.000		2.815	3.268	3.459			8.912

CH 70.000



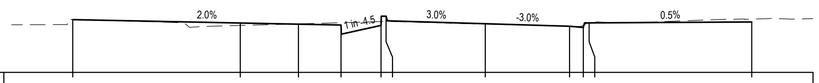
DATUM RL 8.00														
PROPOSED LEVEL	9.640			9.492	9.459	9.423	9.447	9.755	9.509		9.426	9.386	9.536			9.586
EXISTING LEVEL	9.640			9.454	9.505	9.567	9.592	9.595	9.516		9.429	9.460	9.551			9.586
OFFSET	-14.203			-8.000	-6.367	-4.345	-3.405	-3.240	0.000		2.750	3.200	3.390			8.779

CH 60.000



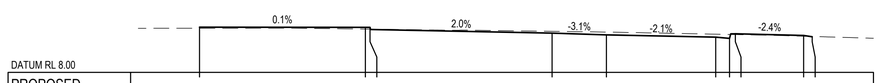
DATUM RL 8.00														
PROPOSED LEVEL	9.565			9.455	9.434	9.412	9.404	9.704	9.458		9.376	9.336	9.486			9.494
EXISTING LEVEL	9.565			9.396	9.429	9.457	9.521	9.526	9.437		9.361	9.388	9.496			9.490
OFFSET	-13.460			-8.000	-6.935	-5.897	-3.405	-3.240	0.000		2.750	3.200	3.390			8.739

CH 50.000



DATUM RL 7.75														
PROPOSED LEVEL	9.472			9.362	9.324	9.297	9.284	9.584	9.338		9.256	9.216	9.366			9.394
EXISTING LEVEL	9.472			9.283	9.333	9.371	9.411	9.415	9.323		9.257	9.294	9.380			9.487
OFFSET	-13.468			-8.000	-6.100	-4.710	-3.405	-3.240	0.000		2.750	3.200	3.390			8.698

CH 40.000



DATUM RL 8.00														
PROPOSED LEVEL	9.477			9.469	9.469				9.261	9.225		9.149	9.109	9.259	9.205	9.163
EXISTING LEVEL	9.441			9.414	9.412				9.340	9.315		9.247	9.238	9.234	9.181	9.173
OFFSET	-11.509			-6.095	-5.944				0.000	1.775		5.344	5.794	5.984	8.214	8.493

CH 80.000

ROAD CROSS SECTIONS MC02

1 : 100

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	GD	MK	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: ROAD CROSS SECTIONS SHEET 2

ARCADIS
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Level 15, 580 George Street
SYDNEY NSW 2000
ABN 76 104 485 289
Tel No: +61 2 8907 9000
www.arcadis.com/au

Project Number: 30286862

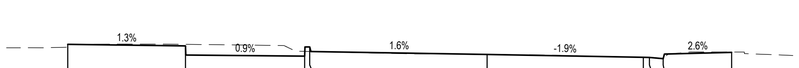
Drawing No.: CL3-AAP-DD-HP-DRG-CI-0282

Issue: 03

Date Plotted: 13 Nov 2025 - 02:41pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0282-RoadCrossSectionsSheet2.dwg

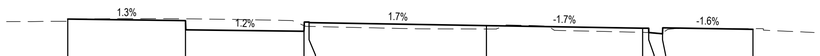
NOTES

1. REFER TO DRAWINGS CL3-AAP-DD-HP-DRG-CI-0221 TO 0224 FOR ROAD CONTROL SETOUT PLANS.



DATUM RL 8.00										
PROPOSED LEVEL	9.673	9.623	9.289	9.589	9.344	9.249	9.245	9.205	9.412	
EXISTING LEVEL	9.673	9.673	9.444	9.440	9.344	9.246	9.245	9.231	9.422	
OFFSET	-13.669	-9.845	-5.955	-5.790	0.000	5.102	5.300	5.750	7.985	

CH 91.316



DATUM RL 8.00									
PROPOSED LEVEL	9.675	9.624	9.277	9.577	9.462	9.376	9.376	9.195	9.341
EXISTING LEVEL	9.675	9.683	9.463	9.408	9.350	9.241	9.235	9.221	9.361
OFFSET	-13.668	-9.824	-5.955	-5.790	0.000	5.100	5.298	5.750	8.702

CH 90.000

ROAD CROSS SECTIONS MC02

1 : 100

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	GD	MK	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: ROAD CROSS SECTIONS SHEET 3

ARCADIS
Arcadis Australia Pacific Pty Limited
Level 15, 580 George Street
SYDNEY NSW 2000
ABN 76 104 485 289
Tel No: +61 2 8907 9000
www.arcadis.com/au

Project Number: 30286862

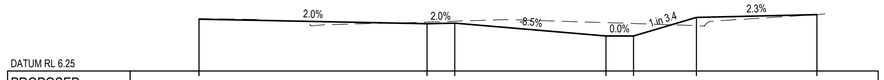
Drawing No.: CL3-AAP-DD-HP-DRG-CI-0283

Issue: 03

Date Plotted: 13 Nov 2025 - 02:41pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0283-RoadCrossSectionsSheet3.dwg

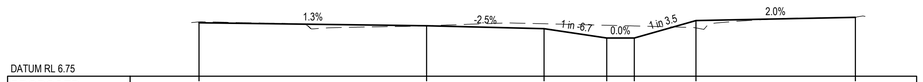
NOTES

1. REFER TO DRAWINGS CL3-AAP-DD-HP-DRG-CI-0221 TO 0224 FOR ROAD CONTROL SETOUT PLANS.



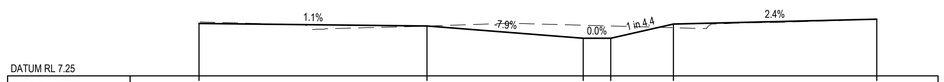
DATUM RL 6.25							
PROPOSED LEVEL	7.942	7.795	7.812	7.394	7.395	8.000	8.090
EXISTING LEVEL	7.961	7.848	7.877	7.829	7.801	7.725	8.090
OFFSET	-7.444	0.000	0.905	5.841	6.741	8.795	12.730

CH 30.000



DATUM RL 6.75							
PROPOSED LEVEL	8.493	8.396	8.301	7.996	7.996	8.567	8.672
EXISTING LEVEL	8.524	8.398	8.462	8.413	8.391	8.326	8.672
OFFSET	-7.429	0.000	3.835	5.882	6.782	8.795	13.999

CH 20.000



DATUM RL 7.25							
PROPOSED LEVEL	8.960	8.877	8.477	8.477	8.941	9.099	
EXISTING LEVEL		8.875	8.902	8.878	8.820		
OFFSET	-7.442	0.000	5.100	6.000	8.045	14.684	

CH 10.000



DATUM RL 8.00							
PROPOSED LEVEL	9.395	9.261	9.236	9.128	9.132	9.339	
EXISTING LEVEL	9.310	9.225	9.218	9.296	9.289	9.343	
OFFSET	-17.094	0.000	6.286	10.448	10.791	14.806	

CH 0.000

ROAD CROSS SECTIONS MF30

1 : 100

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RS	CN	GD	10.10.2025

100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R.SANTOS	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: ROAD CROSS SECTIONS SHEET 4

ARCADIS
Arcadis Australia Pacific Pty Limited
Level 15, 580 George Street
SYDNEY NSW 2000
ABN 76 104 485 289
Tel No: +61 2 8907 9000
www.arcadis.com/au

Project Number: 30286862

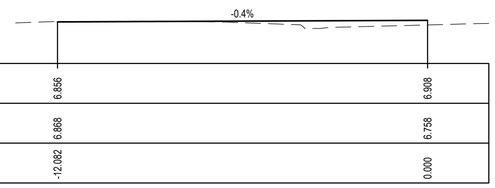
Drawing No.: CL3-AAP-DD-HP-DRG-CI-0284

Issue: 01

Date Plotted: 13 Nov 2025 - 02:41pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0284-RoadCrossSectionsSheet4.dwg

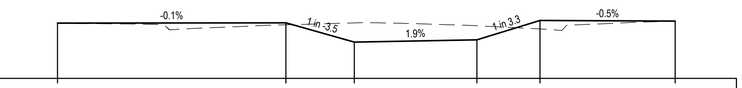
NOTES

1. REFER TO DRAWINGS CL3-AAP-DD-HP-DRG-CI-0221 TO 0224 FOR ROAD CONTROL SETOUT PLANS.



DATUM RL 5.50		
PROPOSED LEVEL	6.856	6.908
EXISTING LEVEL	6.868	6.758
OFFSET	-12.082	0.000

CH 48.346



DATUM RL 5.50						
PROPOSED LEVEL	7.304	7.313	6.683	6.759	7.391	7.370
EXISTING LEVEL		7.248	7.310	7.217	7.114	
OFFSET	-7.456	0.000	2.234	6.237	8.295	12.710

CH 40.000

ROAD CROSS SECTIONS MF30

1 : 100

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RS	CN	GD	10.10.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: ROAD CROSS SECTIONS SHEET 5

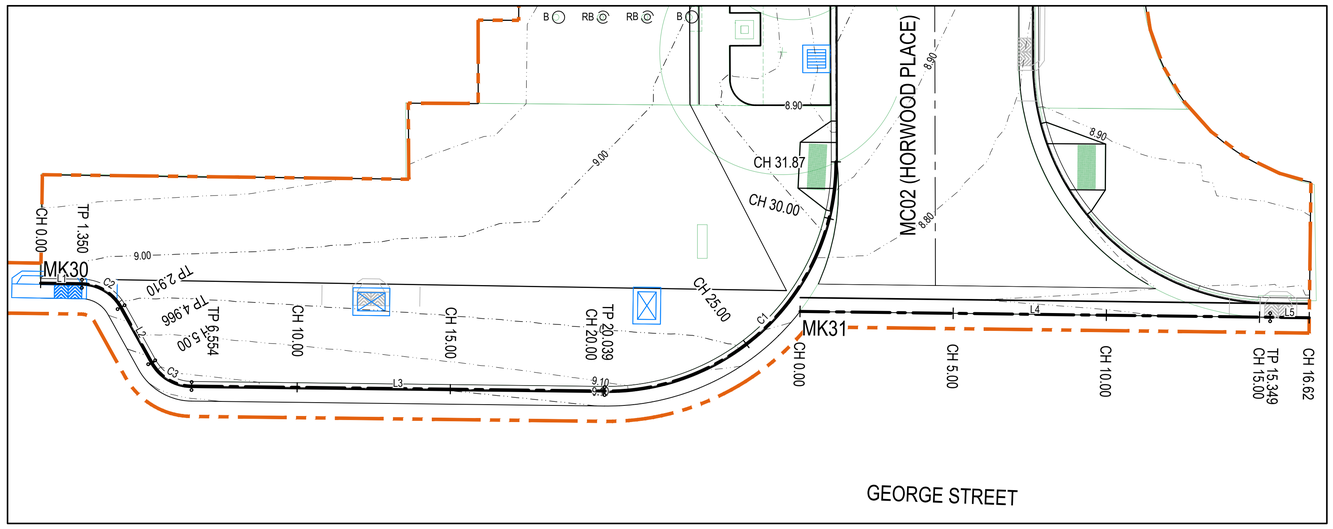
ARCADIS
Arcadis Australia Pacific Pty Limited
Level 15, 580 George Street
SYDNEY NSW 2000
ABN 76 104 485 289
Tel No: +61 2 8907 9000
www.arcadis.com/au

Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0285

Issue: 01

Date Plotted: 13 Nov 2025 - 02:41pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0285-RoadCrossSectionsSheet5.dwg



MK30 AND MK31

1 : 100

CONTROL LINE SETOUT MK30

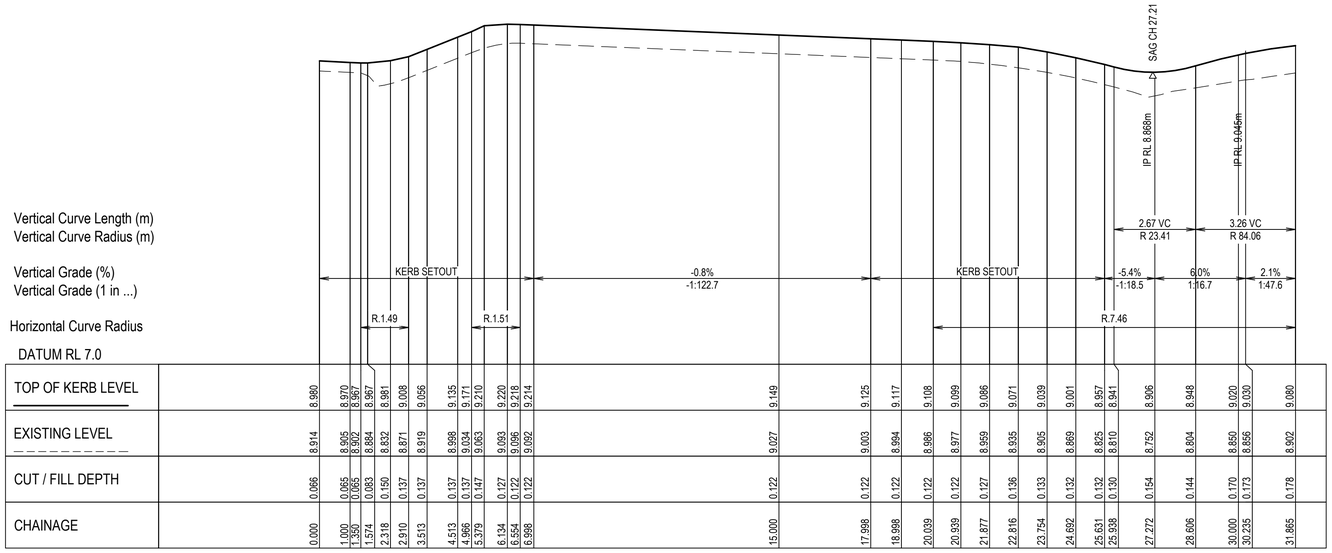
	PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
L1	BP	0.000	315354.544	6256692.677	104° 48' 55.35"		1.350	
	EP	1.350	315355.849	6256692.331				
C2	TC	1.350	315355.849	6256692.331	104° 48' 55.35"	R = 1.490	1.560	60°00'00.06"
	IP	2.210	315356.680	6256692.111				
	CT	2.910	315356.906	6256691.281	164° 48' 55.41"			
L2	BP	2.910	315356.906	6256691.281	164° 48' 55.41"		2.056	
	EP	4.966	315357.444	6256689.297				
C3	TC	4.966	315357.444	6256689.297	164° 48' 55.41"	R = 1.510	1.588	60°14'30.54"
	IP	5.842	315357.674	6256688.452				
	CT	6.554	315358.521	6256688.231	104° 34' 24.87"			
L3	BP	6.554	315358.521	6256688.231	104° 34' 24.87"		13.485	
	EP	20.039	315371.572	6256684.838				
C1	TC	20.039	315371.572	6256684.838	104° 34' 24.87"	R = 7.460	11.827	90°49'59.24"
	IP	27.608	315378.898	6256682.933				
	CT	31.865	315380.696	6256690.286	13° 44' 25.63"			

CONTROL LINE SETOUT MK31

	PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
L4	BP	0.000	315378.390	6256685.829	104° 35' 52.19"		15.349	
	EP	15.349	315393.243	6256681.961				
L5	BP	15.349	315393.243	6256681.961	104° 35' 52.09"		1.275	
	EP	16.624	315394.478	6256681.639				

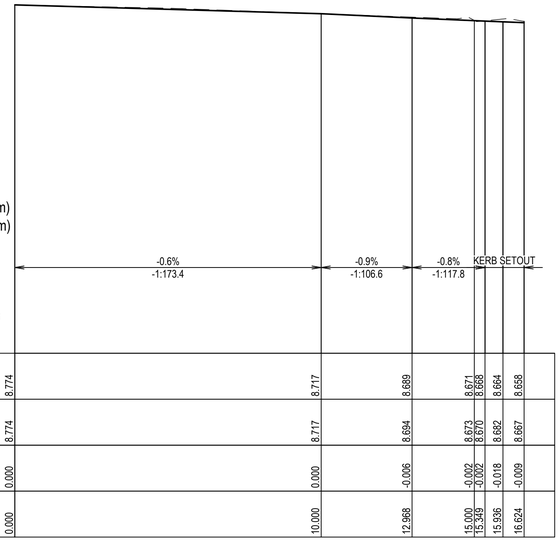
LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- CH. 0.000 — CHAINAGE AND CONTROL LINE
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT



MK30 LONGITUDINAL SECTION

SCALE 1:100 HORI.
1:20 VERT.



MK31 LONGITUDINAL SECTION

SCALE 1:100 HORI.
1:20 VERT.

Issue	Description	DR	CH	VE	Date
02	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
01	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CR	GD	10.09.2025

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: KERB RETURNS
SHEET 1

ARCADIS
Arcadis Australia Pacific Pty Limited
Level 15, 580 George Street
SYDNEY NSW 2000
ABN 76 104 485 289
Tel No: +61 2 8907 9000
www.arcadis.com/au

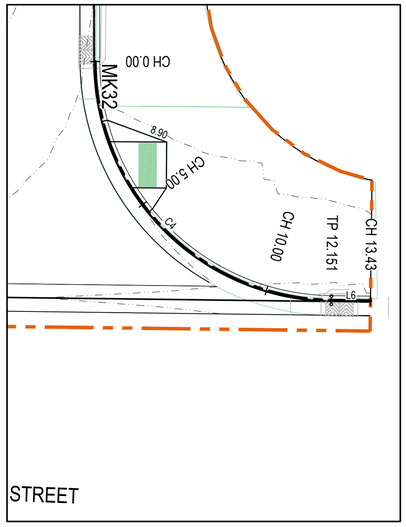
Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0311

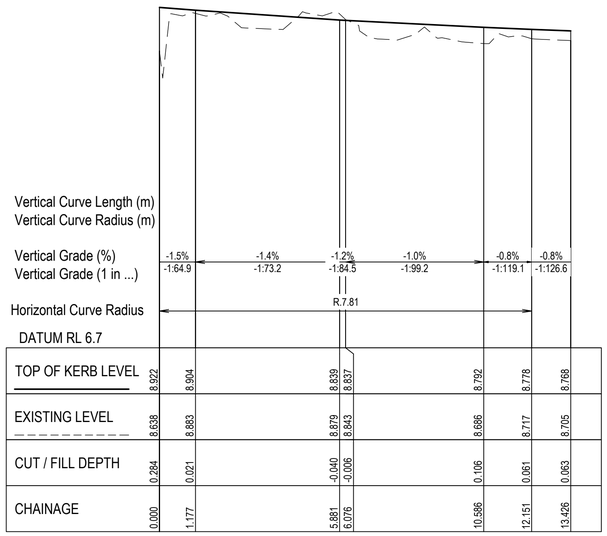
Issue: 02

100mm on Original

Date Plotted: 13 Nov 2025 - 02:52pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0311-KerbReturnsSheet1.dwg



MK32
1 : 100



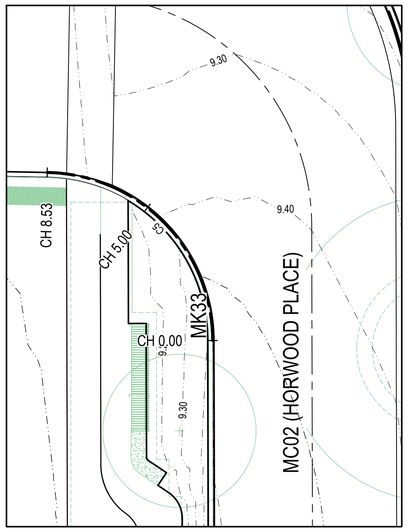
MK32 LONGITUDINAL SECTION
SCALE 1:100 HORI.
1:20 VERT.

CONTROL LINE SETOUT MK32

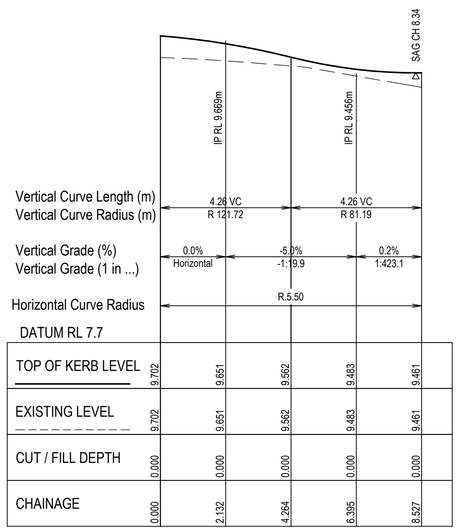
	PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
C4	TC	0.000	315387.749	6256691.848	193° 44' 25.63"	R = 7.810	12.151	89°08'33.44"
	IP	7.694	315385.921	6256684.374				
	CT	12.151	315393.367	6256682.435	104° 35' 52.20"			
L6	BP	12.151	315393.367	6256682.435	104° 35' 52.09"		1.275	
	EP	13.426	315394.601	6256682.114				

LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- CH. 0.000 — CHAINAGE AND CONTROL LINE
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT



MK33
1 : 100



MK33 LONGITUDINAL SECTION
SCALE 1:100 HORI.
1:20 VERT.

CONTROL LINE SETOUT MK33

	PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
C5	TC	0.000	315395.268	6256749.879	13° 44' 25.61"	R = 5.500	8.527	88°49'51.94"
	IP	5.389	315396.548	6256755.113				
	CT	8.527	315391.340	6256756.500	284° 54' 33.68"			

Issue	Description	DR	CH	VE	Date
02	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
01	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CR	GD	10.09.2025

100mm on Original

Scales
0 1 2 4 6 8 10m
1 : 100
0 0.5 1 1.5 2m
1 : 20

Surveyor: surveyplus, DURKIN
Landscape Architect: OCULUS
Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

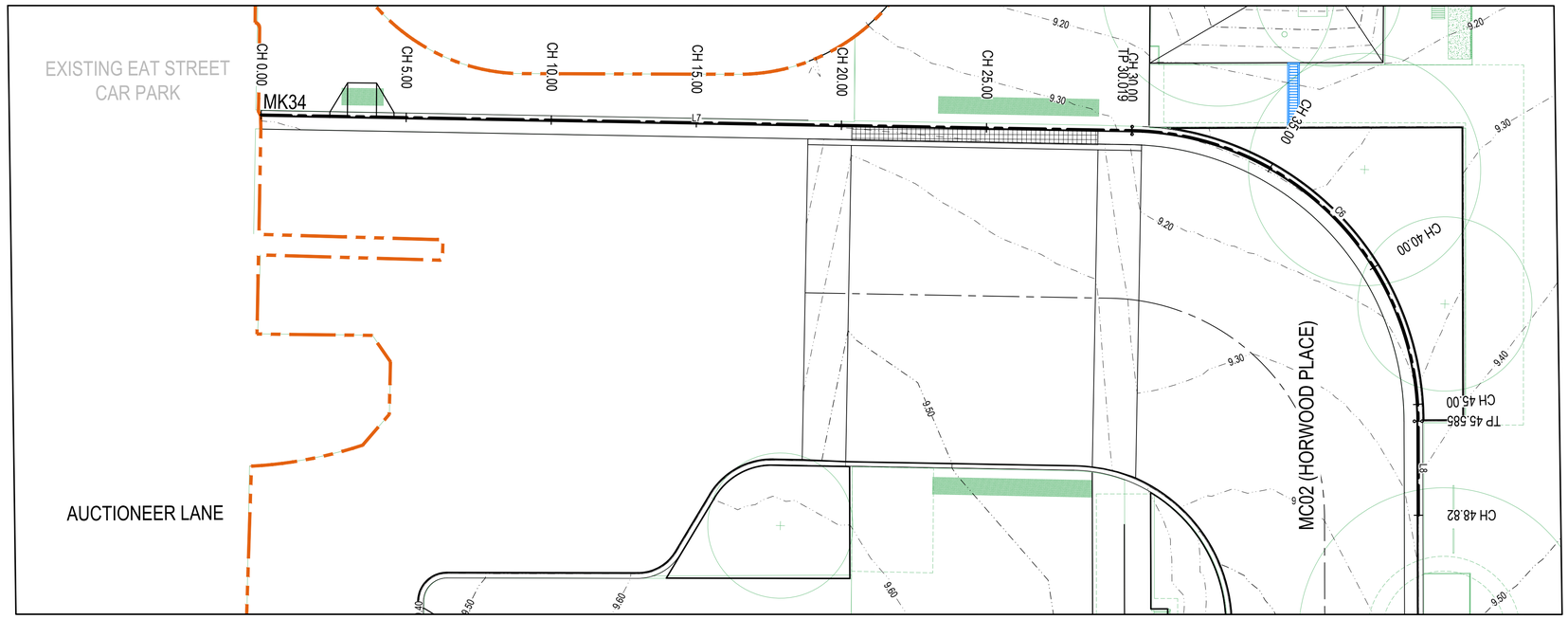
Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: KERB RETURNS SHEET 2

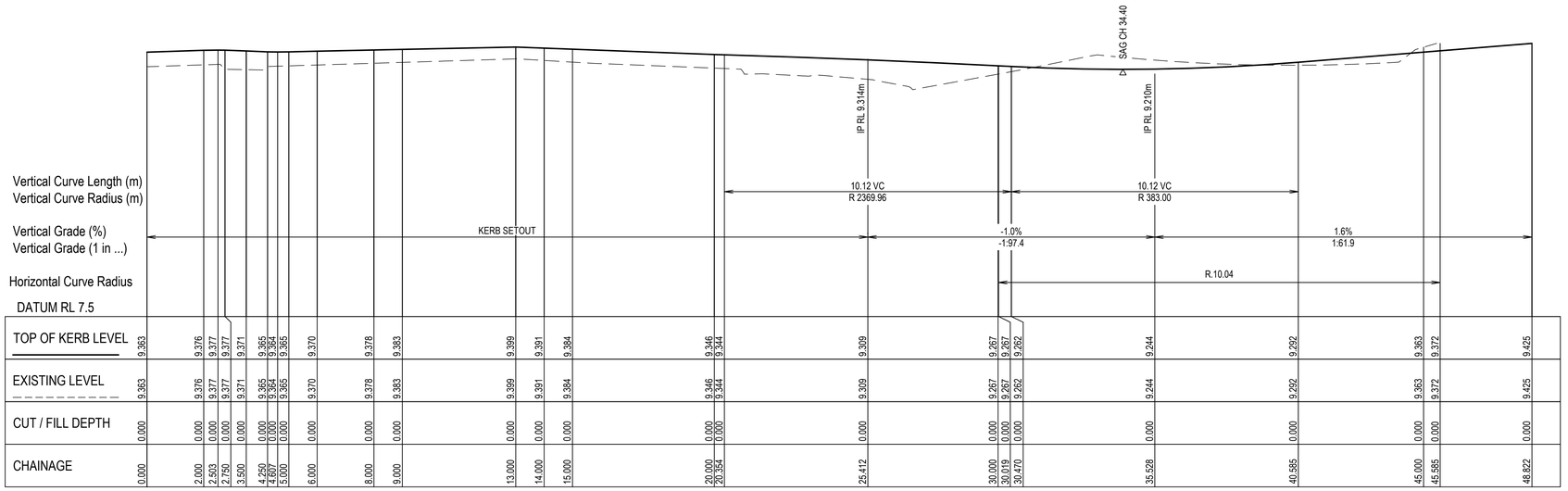
ARCADIS
Arcadis Australia Pacific Pty Limited
Level 15, 580 George Street
SYDNEY NSW 2000
ABN 76 104 485 289
Tel No: +61 2 8907 9000
www.arcadis.com/au

Project Number: 30286862
Drawing No.: CL3-AAP-DD-HP-DRG-CI-0312
Issue: 02

Date Plotted: 13 Nov 2025 - 02:52pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0312-KerbReturnsSheet2.dwg



MK 34
1 : 100



MK34 LONGITUDINAL SECTION

SCALE 1:100 HORI.
1:20 VERT.

CONTROL LINE SETOUT MK34

	PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
L7	BP	0.000	315367.047	6256774.951	104° 54' 33.70"		30.019	
	EP	30.019	315396.056	6256767.228				
C6	TC	30.019	315396.056	6256767.228	104° 54' 33.70"	R = 10.040	15.566	88°49'51.92"
	IP	39.857	315405.562	6256764.697				
	CT	45.585	315403.225	6256755.141	193° 44' 25.62"			
L8	BP	45.585	315403.225	6256755.141	193° 44' 25.62"		3.236	
	EP	48.822	315402.457	6256751.997				

Issue	Description	DR	CH	VE	Date
02	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
01	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CR	GD	10.09.2025

Scales
0 1 2 4 6 8 10m
1 : 100
0 0.5 1 1.5 2m
1 : 20

Surveyor: surveyplus, DURKIN
Landscape Architect: OCULUS
Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: KERB RETURNS SHEET 3

ARCADIS
Arcadis Australia Pacific Pty Limited
Level 15, 580 George Street
SYDNEY NSW 2000
ABN 76 104 485 289
Tel No: +61 2 8907 9000
www.arcadis.com/au

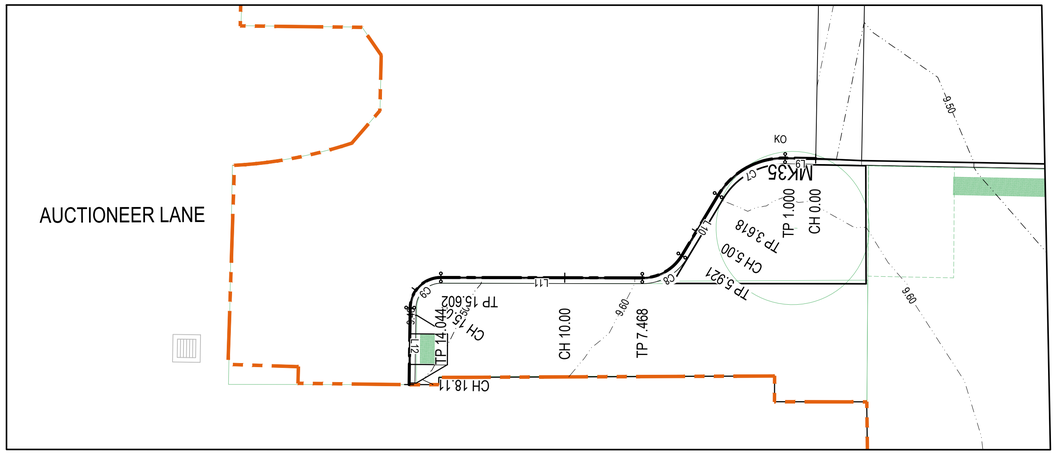
Project Number: 30286862
Drawing No.: CL3-AAP-DD-HP-DRG-CI-0313
Issue: 02

100mm on Original

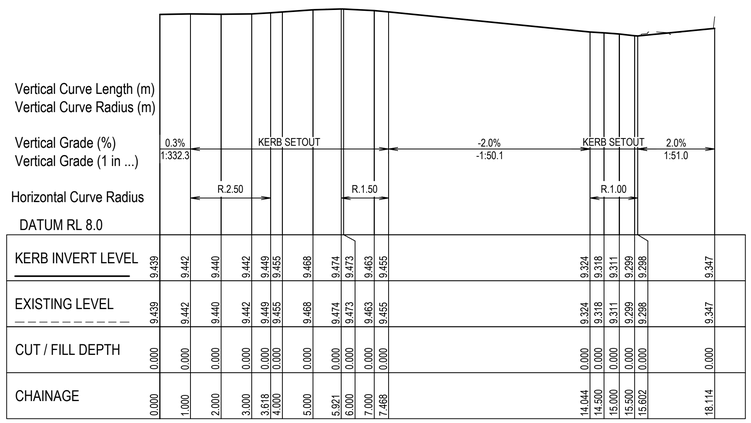
Date Plotted: 13 Nov 2025 - 02:51pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0313-KerbReturnsSheet3.dwg

LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- CH. 0.000 — CHAINAGE AND CONTROL LINE
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT



MK 35
1 : 100



MK35 LONGITUDINAL SECTION
SCALE 1:100 HORI.
1:20 VERT.

CONTROL LINE SETOUT MK35

	PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
L9	BP	0.000	315382.298	6256758.949	284° 54' 33.77"		1.000	
	EP	1.000	315381.331	6256759.206				
C7	TC	1.000	315381.331	6256759.206	284° 54' 33.77"	R = 2.500	2.618	60°00'00.13"
	IP	2.443	315379.937	6256759.578				
	CT	3.618	315378.918	6256758.555	224° 54' 33.64"			
L10	BP	3.618	315378.918	6256758.555	224° 54' 33.64"		2.303	
	EP	5.921	315377.292	6256756.924				
C8	TC	5.921	315377.292	6256756.924	224° 54' 33.64"	R = 1.500	1.547	59°05'22.62"
	IP	6.771	315376.692	6256756.322				
	CT	7.468	315375.867	6256756.528	283° 59' 56.25"			
L11	BP	7.468	315375.867	6256756.528	283° 59' 56.25"		6.576	
	EP	14.044	315369.486	6256758.119				
C9	TC	14.044	315369.486	6256758.119	283° 59' 56.25"	R = 1.000	1.558	89°17'34.20"
	IP	15.032	315368.527	6256758.358				
	CT	15.602	315368.277	6256757.402	194° 42' 22.05"			
L12	BP	15.602	315368.277	6256757.402	194° 42' 22.05"		2.512	
	EP	18.114	315367.639	6256754.973				

Issue	Description	DR	CH	VE	Date
02	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
01	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CR	GD	10.09.2025

Scales
0 1 2 4 6 8 10m
1 : 100
0 0.5 1 1.5 2m
1 : 20

Surveyor: surveyplus, DURKIN
Landscape Architect: OCULUS
Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: KERB RETURNS SHEET 4

ARCADIS
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SYDNEY NSW 2000
ABN 76 104 485 289
Tel No: +61 2 8907 9000
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Project Number: 30286862
Drawing No.: CL3-AAP-DD-HP-DRG-CI-0314
Issue: 02

100mm on Original

Date Plotted: 13 Nov 2025 - 02:51pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0314-KerbReturnsSheet4.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- PV02 PAVEMENT TYPE PV02
- PV03 PAVEMENT TYPE PV03
- PV04 PAVEMENT TYPE PV04
- PV05 PAVEMENT TYPE PV05
- PV06 PAVEMENT TYPE PV06
- PV07 PAVEMENT TYPE PV07
- PV08 PAVEMENT TYPE PV08
- PV11 PAVEMENT TYPE PV11
- PROPOSED SEATING BY ARCHITECTS
- PROPOSED LANDSCAPING
- PROPOSED CONCRETE PAVEMENT BY ARCHITECTS
- PROPOSED PORPHYRY PAVEMENT BY ARCHITECTS
- EXPANSION JOINT (EJ)
- SAWN JOINT (SJ)
- DOWELLED EXPANSION JOINT (DEJ)
- SAWCUT INTERFACE
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- CoP PROPOSED 600x600 ELECTRICAL PIT
- CoP PROPOSED 600x600 COMMUNICATION PIT
- CoP PROPOSED MFP WITH CIRCULAR AND RECTANGULAR FLOODLIGHT
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x3)

NOTES

1. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0361 FOR JOINTING AND PAVEMENT DETAILS.
2. JOINTING LAYOUT PLAN IS INDICATIVE BASED ON AVAILABLE INFORMATION. ADJUSTMENTS ON SITE SHOULD MAINTAIN THE DESIGN INTENT AS NOTED IN THE DRAWINGS AND NOTES.
3. SHAPE RATIO TO BE MAXIMUM OF 3:2 WITH THE LONGEST LENGTH TO BE A MAXIMUM OF 3m.
4. EVERY THIRD JOINT TO BE AN EXPANSION JOINT (IN NON TRAFFICABLE AREAS) AND A DOWEL EXPANSION JOINT (IN TRAFFICABLE AREAS)
5. ALL PITS AND INTERFACES WITH STRUCTURES TO NEW PAVEMENT TO HAVE ISOLATION JOINTS. WHERE ADDITIONAL PITS ARE FOUND ON SITE, JOINTING PLAN TO BE ADJUSTED AS PER NOTE 2.
6. ALL PIT LIDS TO HAVE TRIMMER BARS AT CORNERS, REFER TO DETAIL ON CIVIL WORKS DETAIL DRAWING.
7. NOTIFY ENGINEER PRIOR OF CONSTRUCTION OF ADDITIONAL INTERFACES AND CONFIRM IF UPDATE IS REQUIRED.
8. CURRENT DESIGN ASSUMES NATURAL GRANITE PAVERS WITH MINIMUM 16.9MPa FLEXURAL STRENGTH SOAKED FOR PAVEMENTS EXPERIENCING VEHICULAR TRAFFIC LOADING, HOLD POINT, CONTRACTOR TO NOTIFY ENGINEER OF MINIMUM FLEXURAL STRENGTH AND RECEIVE APPROVAL PRIOR TO PROCUREMENT AND CONSTRUCTION.
9. ALLOWANCE FOR AN ADDITIONAL 10% OF PAVERS TO BE INCLUDED IN TENDERING, TO BE SUPPLIED TO ASSET OWNER FOR MAINTENANCE. FINAL QUANTITY TO BE CONFIRMED BY ASSET OWNER PRIOR TO PROCUREMENT.
10. FOR JOINT LAYOUT OF ALL KERB RAMPS AND ACCESS CROSSINGS REFER TO COUNCIL'S STANDARD DRAWINGS.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	GD	MK	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	T. SUMMERSBY	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	N. BIASON		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: PAVEMENT PLAN
SHEET 1

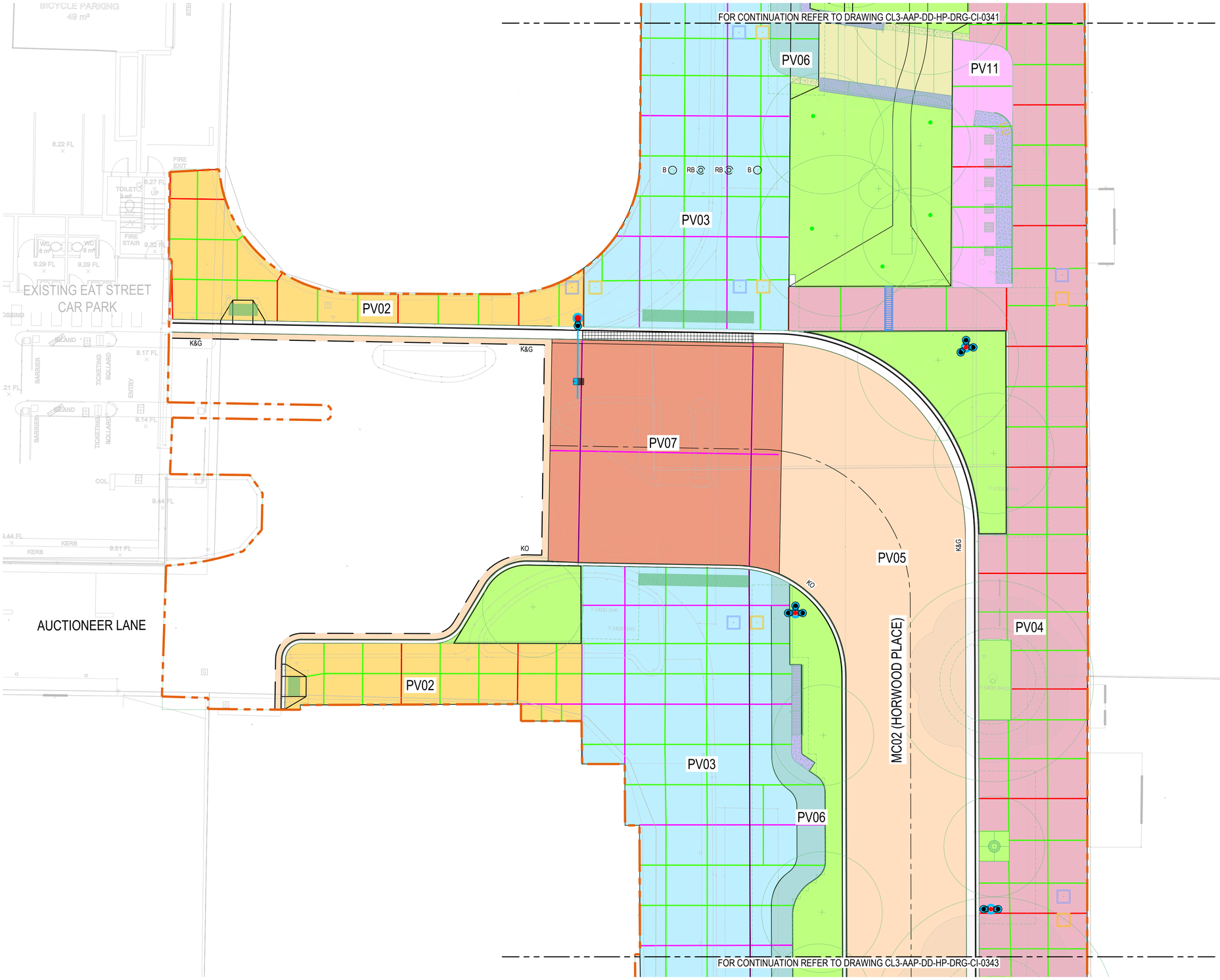
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0341

Issue: 03

Date Plotted: 13 Nov 2025 - 03:29pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0341-PavementPlanSheet1.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- PV02 PAVEMENT TYPE PV02
- PV03 PAVEMENT TYPE PV03
- PV04 PAVEMENT TYPE PV04
- PV05 PAVEMENT TYPE PV05
- PV06 PAVEMENT TYPE PV06
- PV07 PAVEMENT TYPE PV07
- PV08 PAVEMENT TYPE PV08
- PV11 PAVEMENT TYPE PV11
- PROPOSED SEATING BY ARCHITECTS
- PROPOSED LANDSCAPING
- PROPOSED CONCRETE PAVEMENT BY ARCHITECTS
- PROPOSED PORPHYRY PAVEMENT BY ARCHITECTS
- EXPANSION JOINT (EJ)
- SAWN JOINT (SJ)
- DOWELLED EXPANSION JOINT (DEJ)
- SAWCUT INTERFACE
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- CoP PROPOSED 600x600 ELECTRICAL PIT
- CoP PROPOSED 600x600 COMMUNICATION PIT
- CoP PROPOSED MFP WITH CIRCULAR AND RECTANGULAR FLOODLIGHT
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x3)

NOTES

1. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0361 FOR JOINTING AND PAVEMENT DETAILS.
2. JOINTING LAYOUT PLAN IS INDICATIVE BASED ON AVAILABLE INFORMATION. ADJUSTMENTS ON SITE SHOULD MAINTAIN THE DESIGN INTENT AS NOTED IN THE DRAWINGS AND NOTES.
3. SHAPE RATIO TO BE MAXIMUM OF 3:2 WITH THE LONGEST LENGTH TO BE A MAXIMUM OF 3m.
4. EVERY THIRD JOINT TO BE AN EXPANSION JOINT (IN NON TRAFFICABLE AREAS) AND A DOWEL EXPANSION JOINT (IN TRAFFICABLE AREAS)
5. ALL PITS AND INTERFACES WITH STRUCTURES TO NEW PAVEMENT TO HAVE ISOLATION JOINTS. WHERE ADDITIONAL PITS ARE FOUND ON SITE, JOINTING PLAN TO BE ADJUSTED AS PER NOTE 2.
6. ALL PIT LIDS TO HAVE TRIMMER BARS AT CORNERS, REFER TO DETAIL ON CIVIL WORKS DETAIL DRAWING.
7. NOTIFY ENGINEER PRIOR OF CONSTRUCTION OF ADDITIONAL INTERFACES AND CONFIRM IF UPDATE IS REQUIRED.
8. CURRENT DESIGN ASSUMES NATURAL GRANITE PAVERS WITH MINIMUM 16.9MPa FLEXURAL STRENGTH SOAKED FOR PAVEMENTS EXPERIENCING VEHICULAR TRAFFIC LOADING, HOLD POINT, CONTRACTOR TO NOTIFY ENGINEER OF MINIMUM FLEXURAL STRENGTH AND RECEIVE APPROVAL PRIOR TO PROCUREMENT AND CONSTRUCTION.
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Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	GD	MK	18.07.2025

100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	T. SUMMERSBY	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	N. BIASON		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: PAVEMENT PLAN
SHEET 2

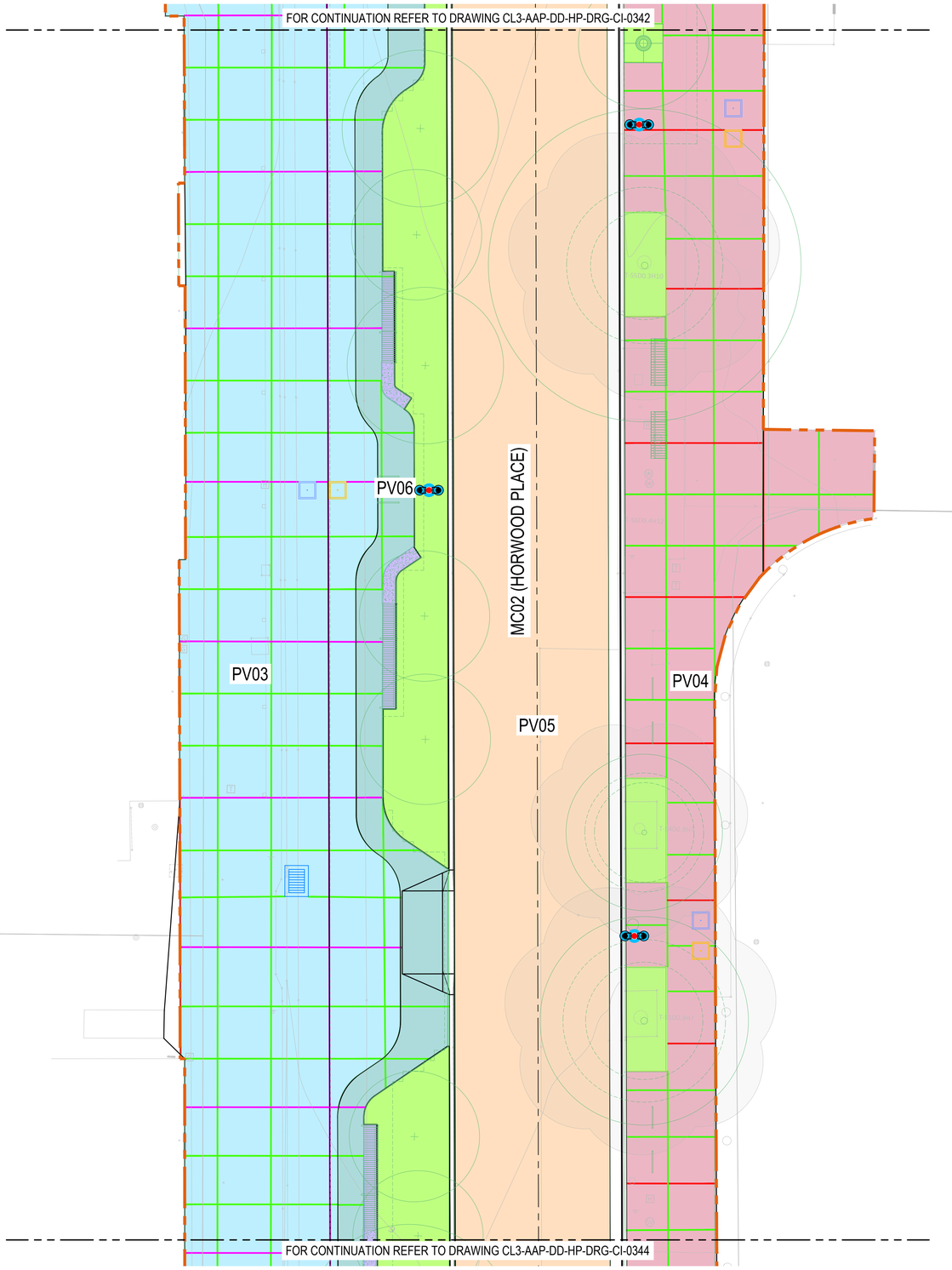
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0342

Issue: 03

Date Plotted: 13 Nov 2025 - 02:50pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0342-PavementPlanSheet2.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- PV02 PAVEMENT TYPE PV02
- PV03 PAVEMENT TYPE PV03
- PV04 PAVEMENT TYPE PV04
- PV05 PAVEMENT TYPE PV05
- PV06 PAVEMENT TYPE PV06
- PV07 PAVEMENT TYPE PV07
- PV08 PAVEMENT TYPE PV08
- PV11 PAVEMENT TYPE PV11
- PROPOSED SEATING BY ARCHITECTS
- PROPOSED LANDSCAPING
- PROPOSED CONCRETE PAVEMENT BY ARCHITECTS
- PROPOSED PORPHYRY PAVEMENT BY ARCHITECTS
- EXPANSION JOINT (EJ)
- SAWN JOINT (SJ)
- DOWELLED EXPANSION JOINT (DEJ)
- SAWCUT INTERFACE
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
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- CoP PROPOSED 600x600 ELECTRICAL PIT
- CoP PROPOSED 600x600 COMMUNICATION PIT
- CoP PROPOSED MFP WITH CIRCULAR AND RECTANGULAR FLOODLIGHT
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x3)

NOTES

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8. CURRENT DESIGN ASSUMES NATURAL GRANITE PAVERS WITH MINIMUM 16.9MPa FLEXURAL STRENGTH SOAKED FOR PAVEMENTS EXPERIENCING VEHICULAR TRAFFIC LOADING, HOLD POINT, CONTRACTOR TO NOTIFY ENGINEER OF MINIMUM FLEXURAL STRENGTH AND RECEIVE APPROVAL PRIOR TO PROCUREMENT AND CONSTRUCTION.
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Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	GD	MK	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	T. SUMMERSBY	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	N. BIASON		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: PAVEMENT PLAN
SHEET 3

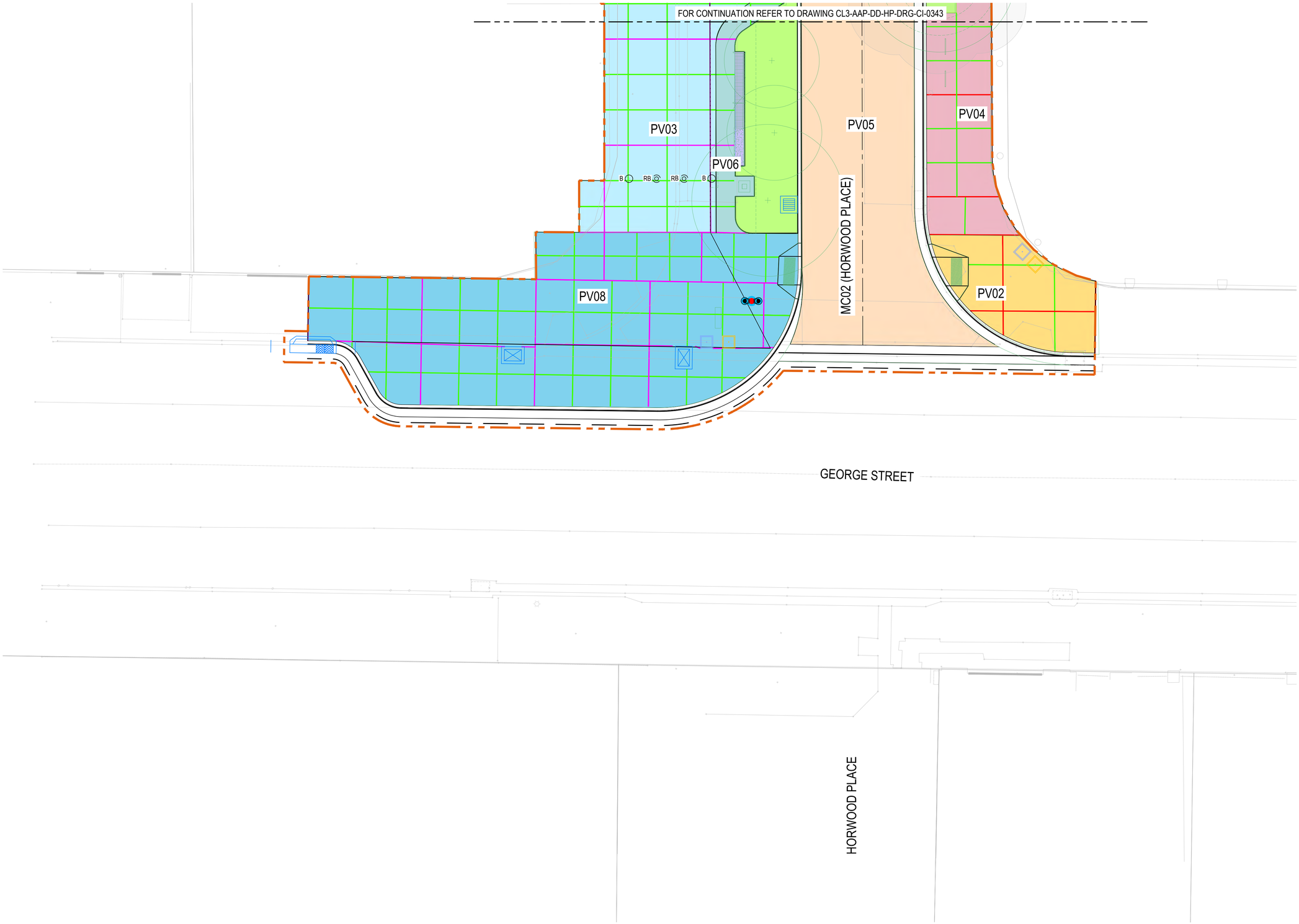
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0343

Issue: 03

Date Plotted: 13 Nov 2025 - 02:50pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0343-PavementPlanSheet3.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- PV02 PAVEMENT TYPE PV02
- PV03 PAVEMENT TYPE PV03
- PV04 PAVEMENT TYPE PV04
- PV05 PAVEMENT TYPE PV05
- PV06 PAVEMENT TYPE PV06
- PV07 PAVEMENT TYPE PV07
- PV08 PAVEMENT TYPE PV08
- PV11 PAVEMENT TYPE PV11
- PROPOSED SEATING BY ARCHITECTS
- PROPOSED LANDSCAPING
- PROPOSED CONCRETE PAVEMENT BY ARCHITECTS
- PROPOSED PORPHYRY PAVEMENT BY ARCHITECTS
- EXPANSION JOINT (EJ)
- SAWN JOINT (SJ)
- DOWELLED EXPANSION JOINT (DEJ)
- SAWCUT INTERFACE
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- CoP PROPOSED 600x600 ELECTRICAL PIT
- CoP PROPOSED 600x600 COMMUNICATION PIT
- CoP PROPOSED MFP WITH CIRCULAR AND RECTANGULAR FLOODLIGHT
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x3)

NOTES

1. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0361 FOR JOINTING AND PAVEMENT DETAILS.
2. JOINTING LAYOUT PLAN IS INDICATIVE BASED ON AVAILABLE INFORMATION. ADJUSTMENTS ON SITE SHOULD MAINTAIN THE DESIGN INTENT AS NOTED IN THE DRAWINGS AND NOTES.
3. SHAPE RATIO TO BE MAXIMUM OF 3:2 WITH THE LONGEST LENGTH TO BE A MAXIMUM OF 3m.
4. EVERY THIRD JOINT TO BE AN EXPANSION JOINT (IN NON TRAFFICABLE AREAS) AND A DOWEL EXPANSION JOINT (IN TRAFFICABLE AREAS)
5. ALL PITS AND INTERFACES WITH STRUCTURES TO NEW PAVEMENT TO HAVE ISOLATION JOINTS. WHERE ADDITIONAL PITS ARE FOUND ON SITE, JOINTING PLAN TO BE ADJUSTED AS PER NOTE 2.
6. ALL PIT LIDS TO HAVE TRIMMER BARS AT CORNERS, REFER TO DETAIL ON CIVIL WORKS DETAIL DRAWING.
7. NOTIFY ENGINEER PRIOR OF CONSTRUCTION OF ADDITIONAL INTERFACES AND CONFIRM IF UPDATE IS REQUIRED.
8. CURRENT DESIGN ASSUMES NATURAL GRANITE PAVERS WITH MINIMUM 16.9MPa FLEXURAL STRENGTH SOAKED FOR PAVEMENTS EXPERIENCING VEHICULAR TRAFFIC LOADING, HOLD POINT, CONTRACTOR TO NOTIFY ENGINEER OF MINIMUM FLEXURAL STRENGTH AND RECEIVE APPROVAL PRIOR TO PROCUREMENT AND CONSTRUCTION.
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03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	GD	MK	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	T. SUMMERSBY	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	N. BIASON		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: PAVEMENT PLAN
SHEET 4

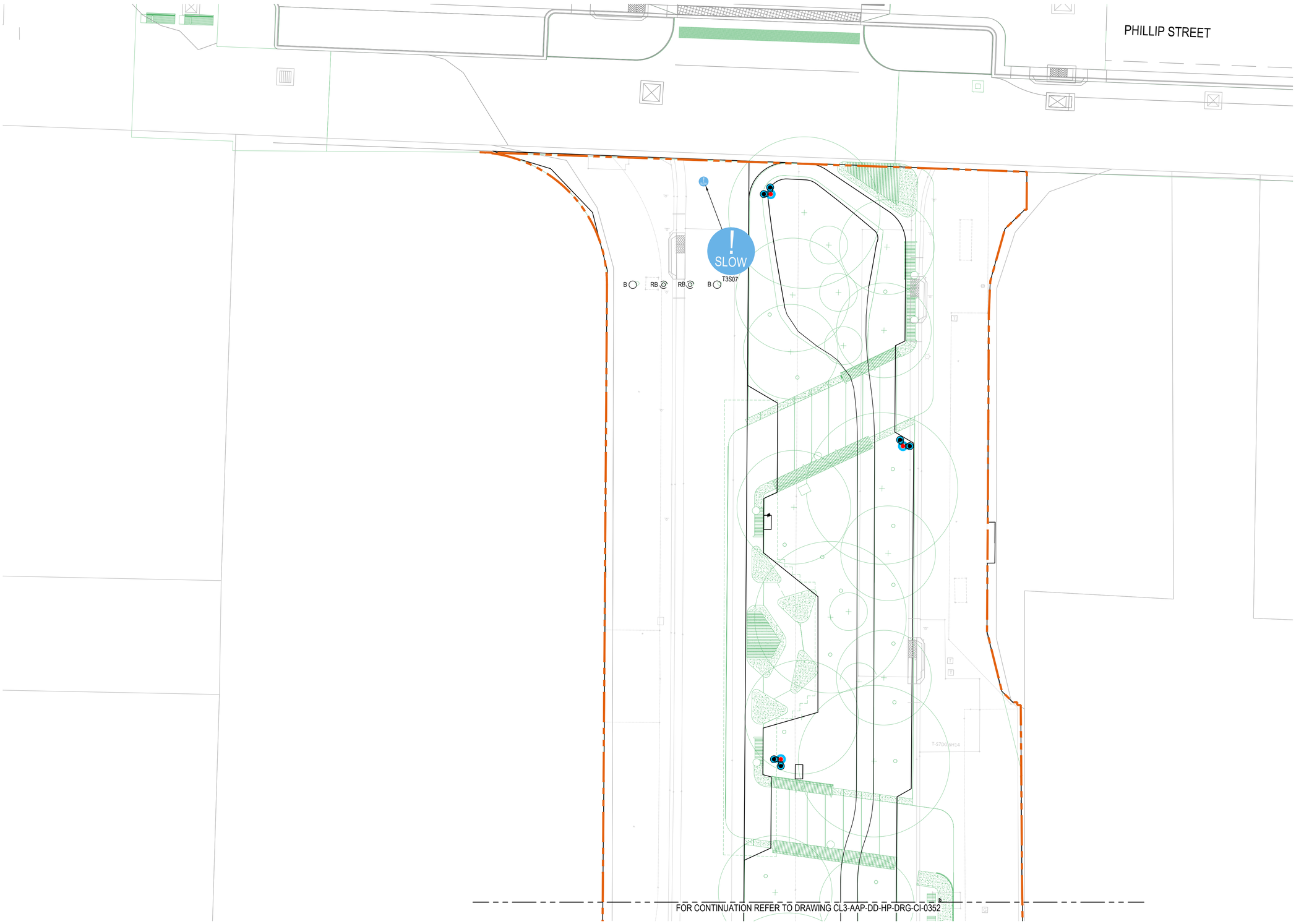
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www.arcadis.com/au

Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0344

Issue: 03

Date Plotted: 13 Nov 2025 - 02:50pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0344-PavementPlanSheet4.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- PROPOSED SIGN POST
- LINEMARKING DELINEATION NS1
- LINEMARKING DELINEATION BL1
- LINEMARKING DELINEATION TF
- CoP PROPOSED MFP WITH CIRCULAR AND RECTANGULAR FLOODLIGHT
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x3)
- B FIXED BOLLARDS
- RB RETRACTABLE BOLLARDS

NOTES

1. PAVEMENT MARKINGS AS PER NSW DELINEATION GUIDELINES.
2. SIGNS AS PER TINSW GUIDELINES.
3. ALL ROAD MARKINGS ON ASPHALT SURFACES TO BE THERMOPLASTIC LINEMARKING (UNLESS NOTED OTHERWISE)
4. ALL MARKINGS ON LOCAL ROADS TO BE THERMOPLASTIC EXCEPT FOR CHEVRONS WHICH IS TO BE WATER-BORNE PAINT MATERIAL
5. ALL MARKINGS ON SHARED PATHS TO BE WATER-BORNE PAINT (UNLESS NOTED OTHERWISE)

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025

100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: SIGNAGE AND LINEMARKING PLAN SHEET 1

ARCADIS
Arcadis Australia Pacific Pty Limited
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SYDNEY NSW 2000
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www.arcadis.com/au

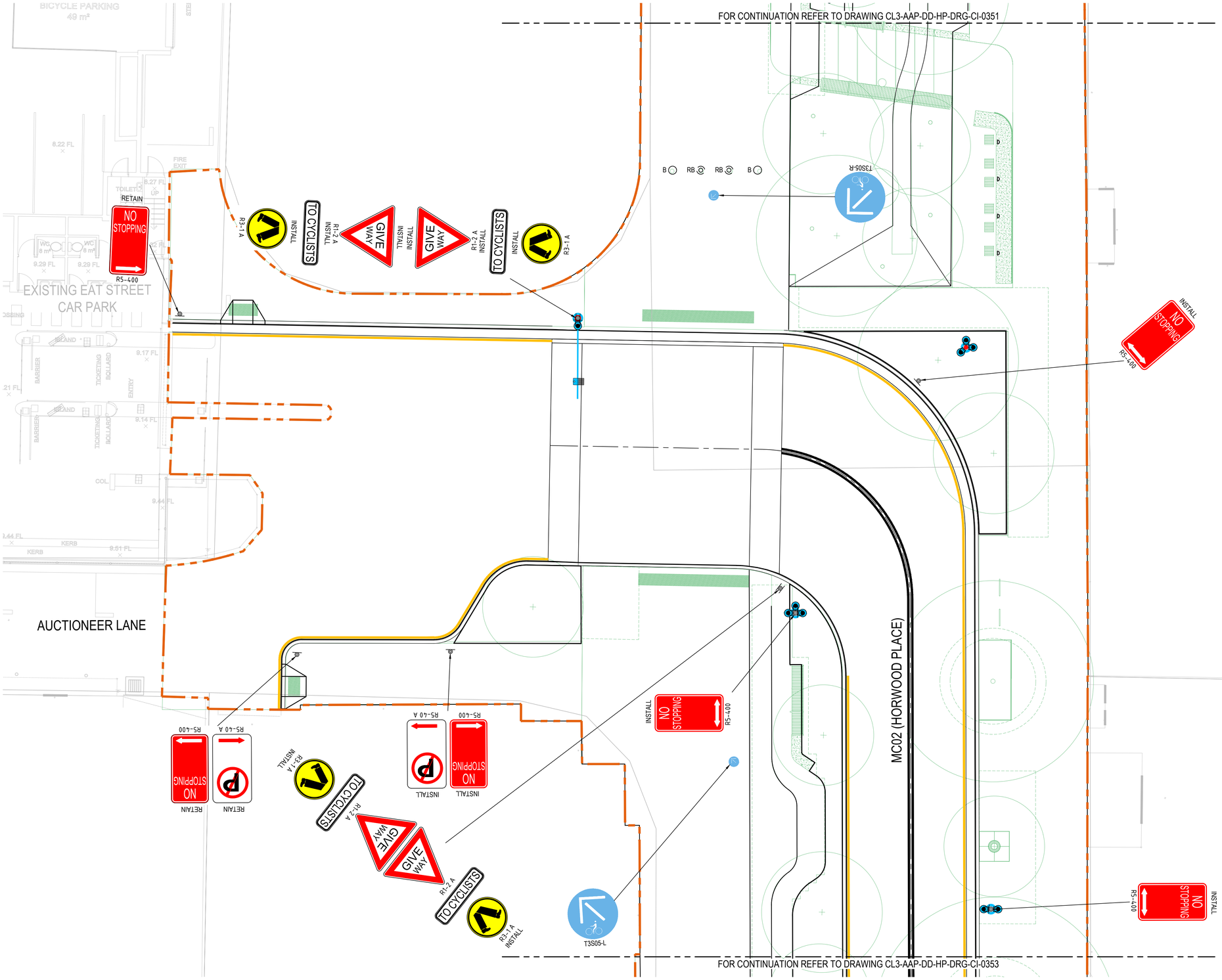
Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0351

Issue: 01

Date Plotted: 13 Nov 2025 - 02:50pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0351-SignageAndLinemarkingPlanSheet1.dwg

FOR CONTINUATION REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0351



FOR CONTINUATION REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0353

LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- PROPOSED SIGN POST
- LINEMARKING DELINEATION NS1
- LINEMARKING DELINEATION BL1
- LINEMARKING DELINEATION TF
- CoP PROPOSED MFP WITH CIRCULAR AND RECTANGULAR FLOODLIGHT
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x3)
- B FIXED BOLLARDS
- RB RETRACTABLE BOLLARDS

NOTES

1. PAVEMENT MARKINGS AS PER NSW DELINEATION GUIDELINES.
2. SIGNS AS PER TINSW GUIDELINES.
3. ALL ROAD MARKINGS ON ASPHALT SURFACES TO BE THERMOPLASTIC LINEMARKING (UNLESS NOTED OTHERWISE)
4. ALL MARKINGS ON LOCAL ROADS TO BE THERMOPLASTIC EXCEPT FOR CHEVRONS WHICH IS TO BE WATER-BORNE PAINT MATERIAL
5. ALL MARKINGS ON SHARED PATHS TO BE WATER-BORNE PAINT (UNLESS NOTED OTHERWISE)

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025

100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: SIGNAGE AND LINEMARKING PLAN SHEET 2

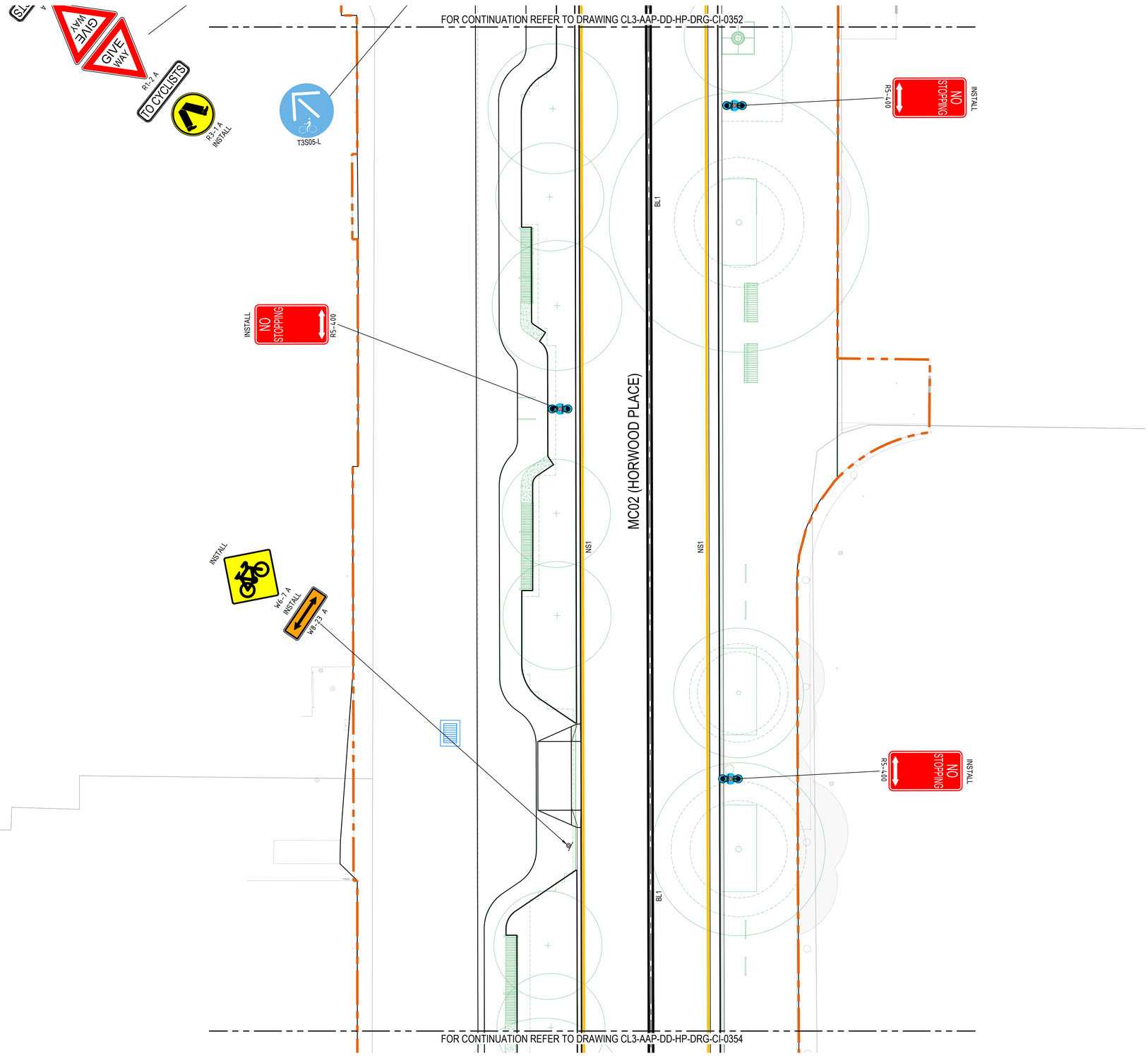
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Arcadis Australia Pacific Pty Limited
Level 15, 580 George Street
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Tel No: +61 2 8907 9000
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0352

Issue: 01

Date Plotted: 13 Nov 2025 - 02:50pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0352-SignageAndLinemarkingPlanSheet2.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- PROPOSED SIGN POST
- LINEMARKING DELINEATION NS1
- LINEMARKING DELINEATION BL1
- LINEMARKING DELINEATION TF
- CoP PROPOSED MFP WITH CIRCULAR AND RECTANGULAR FLOODLIGHT
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x3)
- B FIXED BOLLARDS
- RB RETRACTABLE BOLLARDS

NOTES

1. PAVEMENT MARKINGS AS PER NSW DELINEATION GUIDELINES.
2. SIGNS AS PER TINSW GUIDELINES.
3. ALL ROAD MARKINGS ON ASPHALT SURFACES TO BE THERMOPLASTIC LINEMARKING (UNLESS NOTED OTHERWISE)
4. ALL MARKINGS ON LOCAL ROADS TO BE THERMOPLASTIC EXCEPT FOR CHEVRONS WHICH IS TO BE WATER-BORNE PAINT MATERIAL
5. ALL MARKINGS ON SHARED PATHS TO BE WATER-BORNE PAINT (UNLESS NOTED OTHERWISE)

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025

100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: SIGNAGE AND LINEMARKING PLAN SHEET 3

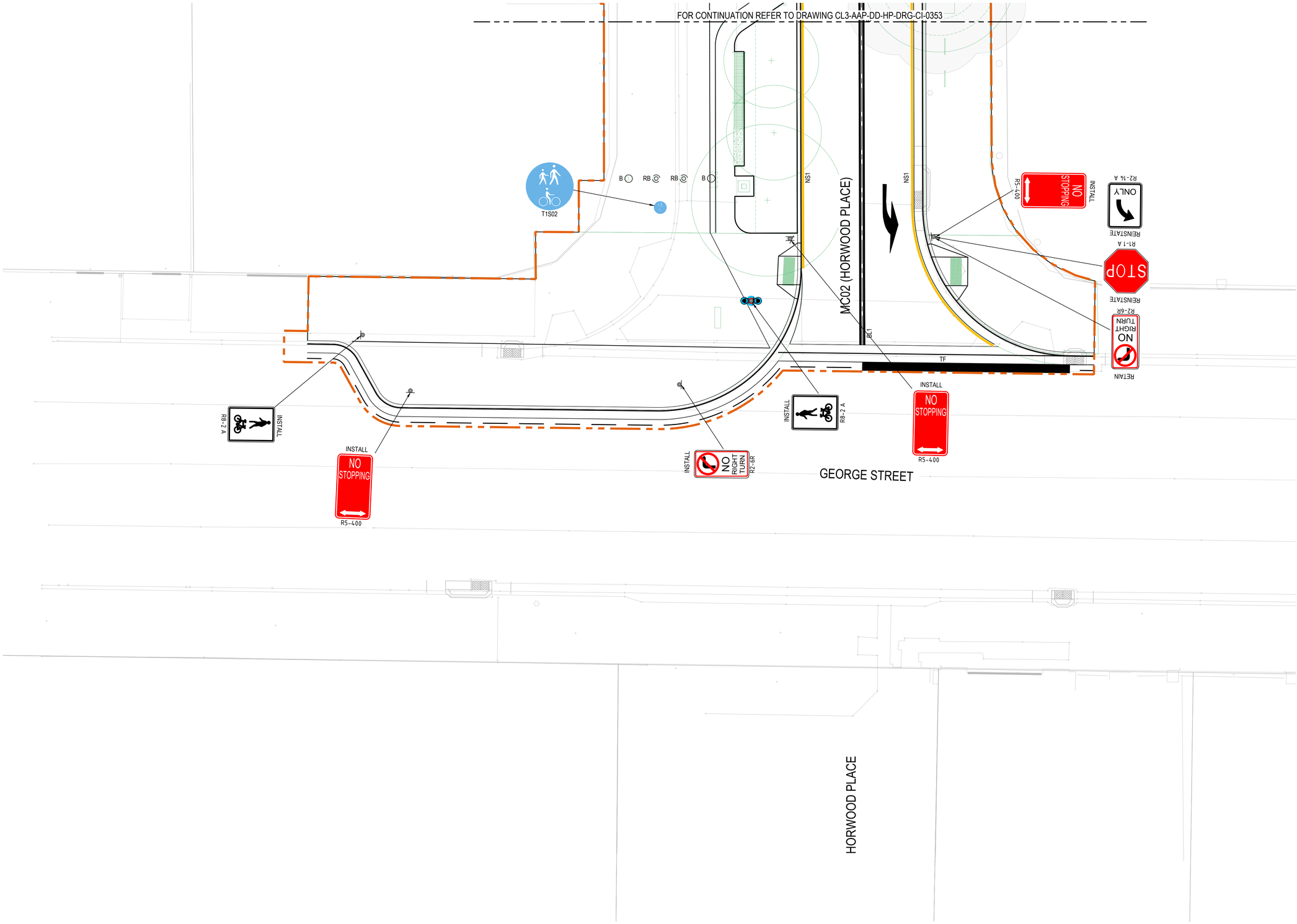
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0353

Issue: 01

Date Plotted: 13 Nov 2025 - 02:50pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0353-SignageAndLinemarkingPlanSheet3.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- PROPOSED SIGN POST
- LINEMARKING DELINEATION NS1
- LINEMARKING DELINEATION BL1
- LINEMARKING DELINEATION TF
- CoP PROPOSED MFP WITH CIRCULAR AND RECTANGULAR FLOODLIGHT
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x3)
- B — FIXED BOLLARDS
- RB — RETRACTABLE BOLLARDS

NOTES

1. PAVEMENT MARKINGS AS PER NSW DELINEATION GUIDELINES.
2. SIGNS AS PER TINSW GUIDELINES.
3. ALL ROAD MARKINGS ON ASPHALT SURFACES TO BE THERMOPLASTIC LINEMARKING (UNLESS NOTED OTHERWISE)
4. ALL MARKINGS ON LOCAL ROADS TO BE THERMOPLASTIC EXCEPT FOR CHEVRONS WHICH IS TO BE WATER-BORNE PAINT MATERIAL
5. ALL MARKINGS ON SHARED PATHS TO BE WATER-BORNE PAINT (UNLESS NOTED OTHERWISE)

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: SIGNAGE AND LINEMARKING PLAN SHEET 4

ARCADIS
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Level 15, 580 George Street
SYDNEY NSW 2000
ABN 76 104 485 289
Tel No: +61 2 8907 9000
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Project Number: 30286862

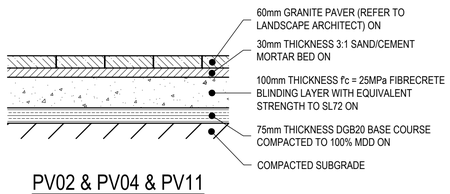
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Issue: 01

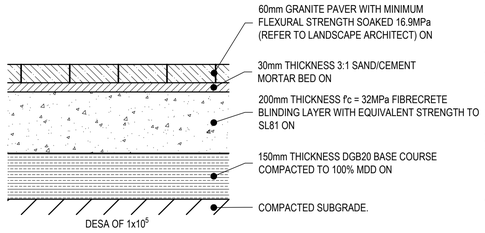
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NOTES

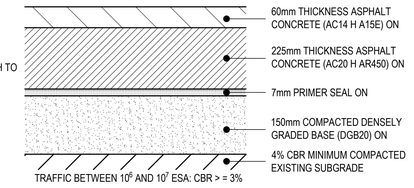
1. REFER TO DRAWINGS CL3-AAP-DD-HP-DRG-CI-0341 TO 0344 FOR PAVEMENT PLAN.
2. REFER TO LANDSCAPE ARCHITECT FOR ALL PAVER'S LANDSCAPING DOCUMENTS. NOTHING STRUCTURAL MINIMUM FLEXURAL STRENGTH REQUIREMENT MUSTS BE AS SPECIFIED IN THE DRAWING
3. DETAILS TAKEN DIRECTLY FROM CITY OF PARRAMATTA (CoP) STANDARD DRAWINGS



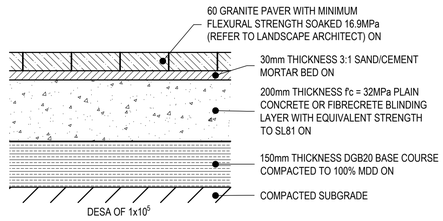
PV02 & PV04 & PV11
N.T.S.



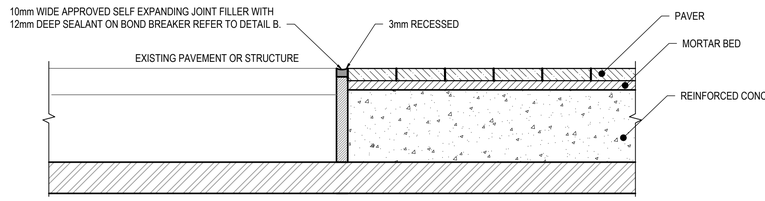
PV03 & PV08
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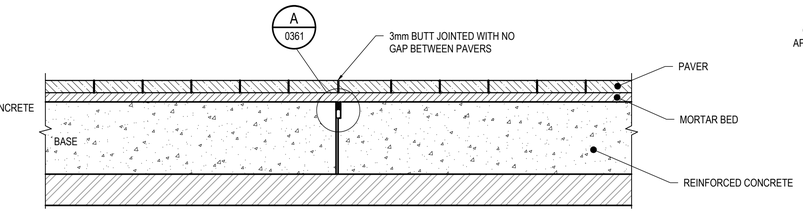
PV05
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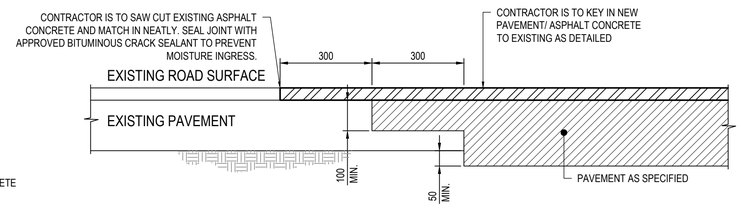
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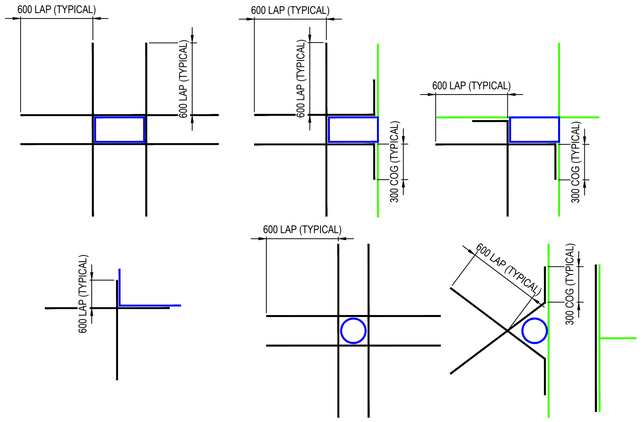
JOINT TYPE
FORMED ISOLATION JOINT (IJ)
SCALE 1:10



JOINT TYPE
SAWN JOINT (SJ)
SCALE 1:10



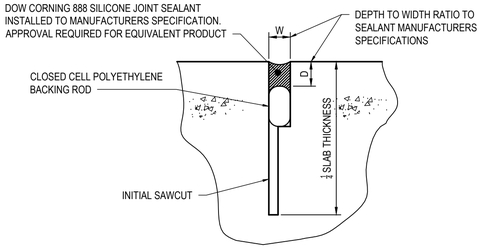
SAWCUT INTERFACE WITH EXISTING PAVEMENT
TYPICAL DETAIL SHOWING LONGITUDINAL CONSTRUCTION DETAIL FOR CONNECTION TO EXIST PAVEMENT/ASPHALT CONCRETE
SCALE 1:10



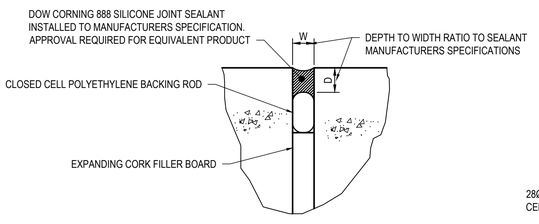
NOTES
1. PROVIDE TRIMMER BARS AT SLAB PENETRATIONS (COLUMNS, WALLS, PITS ETC)
2. ALL TRIMMER BARS TO BE 1N16 U.N.O
3. PROVIDE 50 COVER EACH FACE U.N.O
4. TRIMMER DETAILS ARE TO BE READ IN CONJUNCTION WITH GIVEN JOINTING DETAILS
5. TRIMMER BARS TO MAINTAIN A MINIMUM OFFSET OF 50mm FROM ALL JOINTS

LEGEND
- TRIMMER BAR
- SLAB PENETRATION WITH ISOLATION JOINT
- JOINT

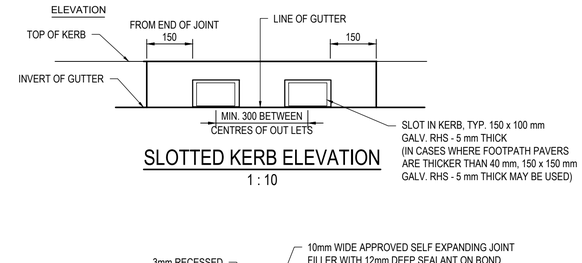
TYPICAL SLAB ON GROUND TRIMMER BAR DETAILS
SCALE N.T.S.



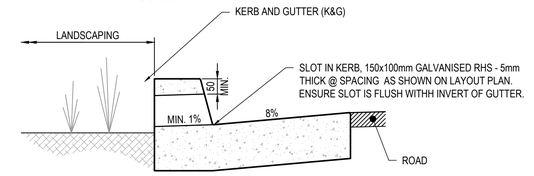
DETAIL A
N.T.S. 0361



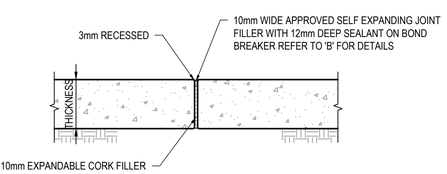
DETAIL B
N.T.S. 0361



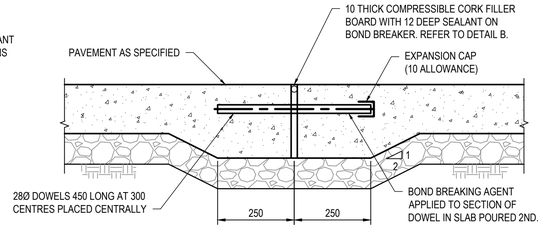
SLOTTED KERB ELEVATION
1 : 10



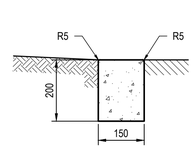
SLOTTED KERB SECTION
1 : 10



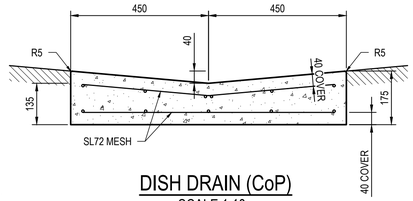
EXPANSION JOINT (EJ)
SCALE 1:10



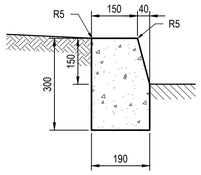
DOWELLED EXPANSION JOINT (DEJ)
SCALE 1:10



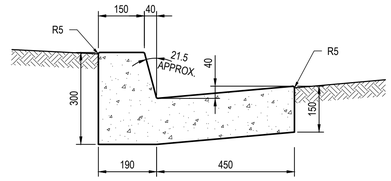
EDGE STRIP (CoP)
SCALE 1:10



DISH DRAIN (CoP)
SCALE 1:10



KERB ONLY (CoP)
SCALE 1:10



KERB & GUTTER (CoP)
SCALE 1:10

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	GD	MK	18.07.2025

Scales
0 100 200 400 600 800 1000mm
1 : 10

Surveyor: surveyplus, DURKIN
Landscape Architect: OCULUS
Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

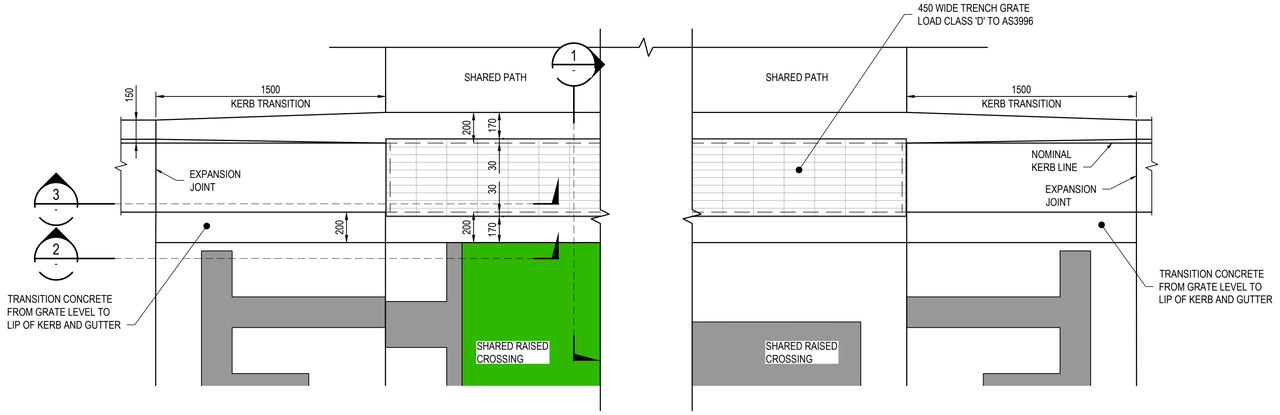
Title: CIVIL WORKS DETAILS SHEET 1

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Project Number: 30286862
Drawing No.: CL3-AAP-DD-HP-DRG-CI-0361
Issue: 03

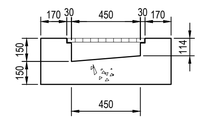
100mm on Original

Date Plotted: 14 Nov 2025 - 09:47am File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0361-CivilWorksDetailsSheet1.dwg



GUTTER BRIDGE DETAIL (PLAN)

1 : 20

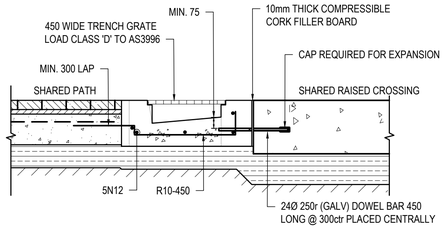


DETAIL 'A'

1 : 20

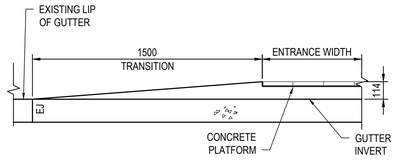
GUTTER BRIDGE NOTES

1. ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 32MPa U.N.O.
2. EXISTING GUTTER IS TO BE REMOVED AND NEW GUTTER TO BE CONSTRUCTED.
3. ALL NEW CONCRETE SLABS INCLUDING KERB AND GUTTER SHALL BE FOUNDED ON MIN. 75mm DGB20 COMPACTED TO 95% MODIFIED DRY DENSITY. IN THE CONSTRUCTION OF GUTTER BRIDGE, EXISTING ROAD PAVEMENT IS TO BE SAWCUT 500mm U.N.O. FROM THE LIP OF GUTTER UPON COMPLETION OF THE NEW LAYBACK. NEW BASECOURSE AND SURFACE TO BE LAID 500mm WIDE U.N.O. REFER TO PARRAMATTA CITY COUNCIL STANDARD DRAWING DS1 FOR SAWCUT AND PAVEMENT REINSTATEMENT DETAILS.
4. COUNCIL'S ASSET ENGINEER SHALL BE CONTACTED FOR THE FOLLOWING INSPECTIONS:
   a. INITIAL INSPECTION PRIOR TO EXCAVATION
   b. FORMWORKS INSPECTION
   c. FINAL INSPECTION (28 DAYS FOLLOWING COMPLETION OF WORKS)
5. DIMENSIONS INDICATED IN DRAWING MAY BE AMENDED AT THE DISCRETION OF COUNCIL'S INSPECTING OFFICER TO MEET SITE REQUIREMENTS.
6. ALL GUTTER BRIDGE GRATES ARE TO COMPLY WITH AS3996 WITH RESPECT TO:
   a. HEEL SAFE
   b. MEDIUM DUTY (HEAVY DUTY TO USED WHERE AREA IS TRAFFICABLE BY MEDIUM TO LARGE TRUCKS)
   c. 450mm MINIMUM CLEAR OPENING (UNLESS NOTED OTHERWISE)
   d. HINGED
   e. GALVANISED GRATE AND FRAME
7. MEET EXISTING GUTTER LIP AT BOTH UPSTREAM AND DOWNSTREAM EXTENT OF WORKS.



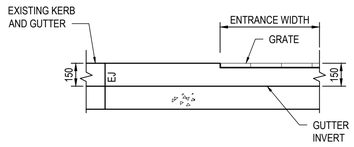
SECTION 1

1 : 20



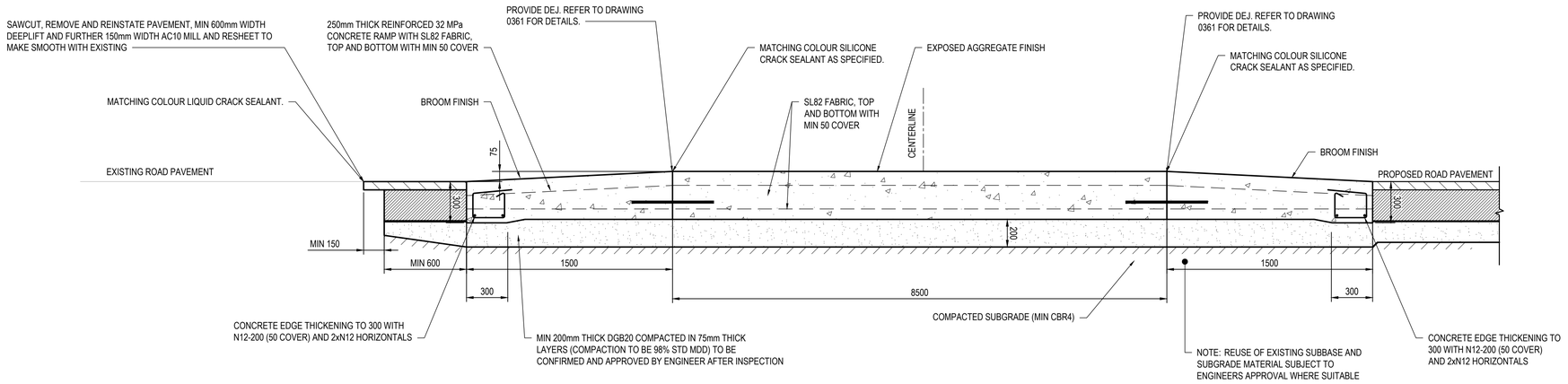
SECTION 2

1 : 20



SECTION 3

1 : 20



RAISED PEDESTRIAN CROSSING DETAIL (PV07)

NTS

RAISED PEDESTRIAN CROSSING NOTES:

1. UNLESS SPECIFIED, CRACK SEALANT FOR FLEXIBLE PAVEMENT TO BE BITULASTIC BITUFLEX OR APPROVED EQUIVALENT.
2. UNLESS SPECIFIED, CRACK SEALANT FOR RIGID PAVEMENT TO BE "DOW CORNING 888" OR APPROVED EQUIVALENT.

Issue	Description	DR	CH	VE	Date
02	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	GD	MK	12.11.2025
01	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	GD	MK	10.09.2025

Scales

0 0.5 1 1.5 2m

1 : 20

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	L. CORSCADDEN	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: CIVIL WORKS DETAILS SHEET 2

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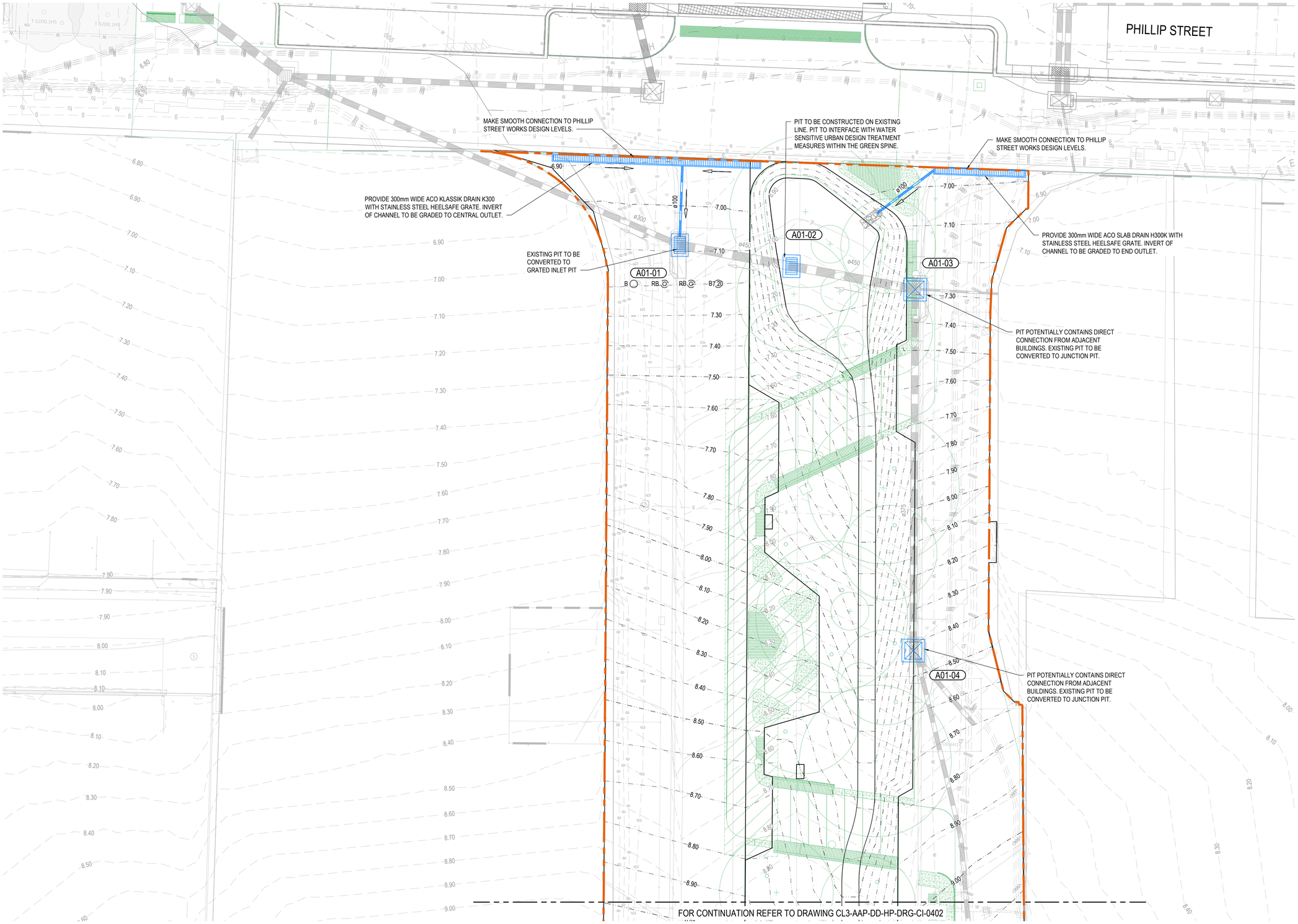
Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0362

Issue: 02

100mm on Original

Date Plotted: 13 Nov 2025 - 02:50pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0362-CivilWorksDetailsSheet2.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- 7.0 DESIGN CONTOURS
- 7.0 EXISTING CONTOURS
- ARCHITECTURAL WORKS
- PROPOSED KERB INLET PIT
- ø375 PROPOSED STORMWATER PIPE
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- B01-2 PROPOSED PIT LABEL
- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- EX 14-02 EXISTING PIT LABEL

NOTES

1. AT ALL TIMES DURING STORMWATER PIPE INSTALLATION AND CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE UNDERTAKEN TO MITIGATE THE POTENTIAL FOR PERSONNEL FALLING DOWN TRENCHES AND PITS.
2. ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE NOMINATED AUTHORITY FOR FURTHER INSTRUCTION.
3. ALL CONSTRUCTED DRAINAGE LINES AND PITS SHALL BE FLUSHED AND CLEANED AT THE COMPLETION OF WORKS.
4. ALL PITS, GRILLES AND STRUCTURES MUST CONFORM TO TINSW AND CITY OF PARRAMATTA COUNCIL STANDARDS.
5. EXISTING DRAINAGE PIT AND PIPE LAYOUT SHOWN ON THE DRAWINGS ARE INDICATIVE ONLY. ALL LOCATIONS, ORIENTATION AND LEVELS OF EXISTING DRAINAGE MUST BE VERIFIED ON SITE PRIOR TO COMMENCING ANY WORK.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	J. PEÑA	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: STORMWATER PLAN
SHEET 1

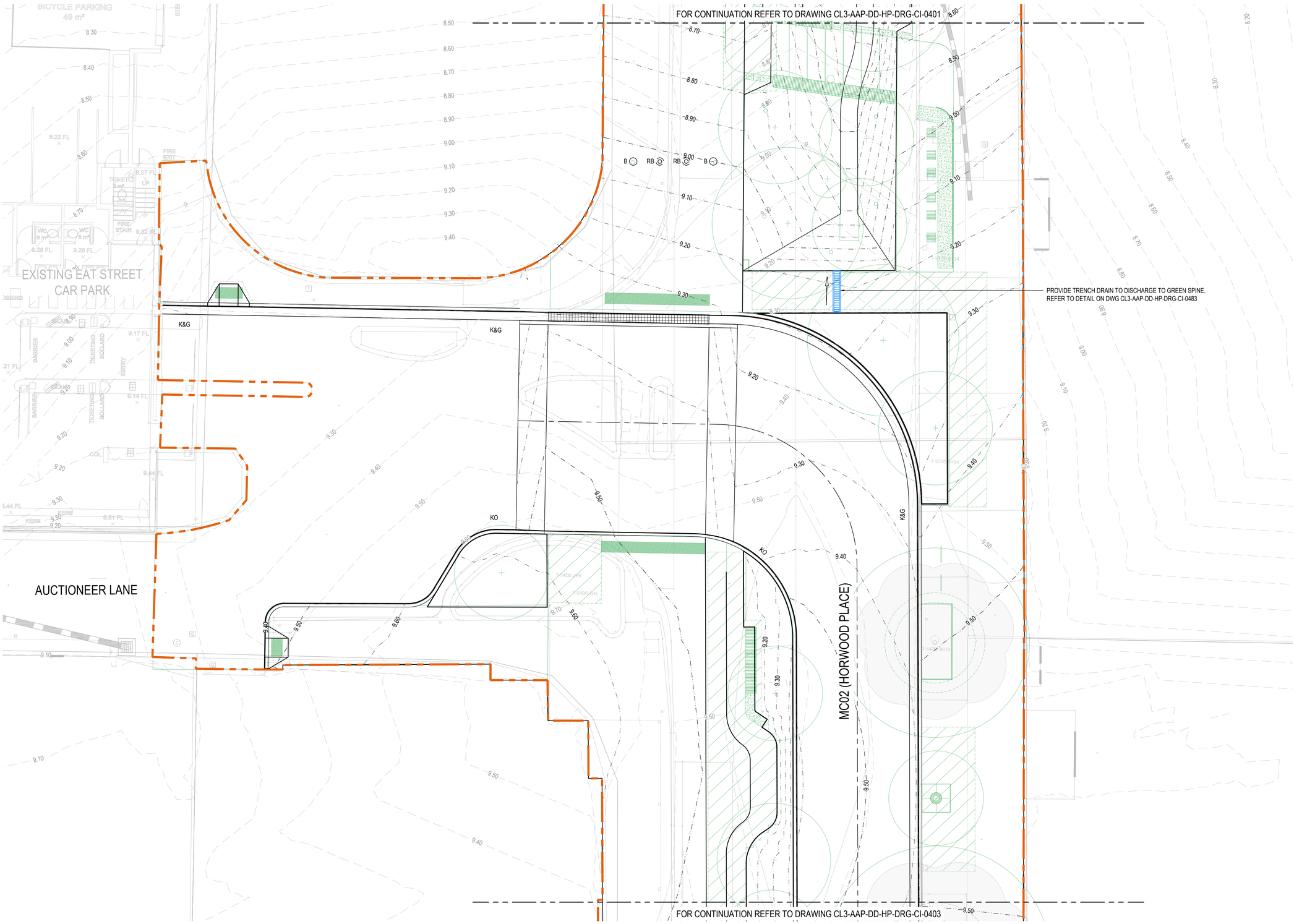
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0401

Issue: 03

Date Plotted: 13 Nov 2025 - 02:51pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0401-StormwaterPlanSheet1.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- DESIGN CONTOURS
- EXISTING CONTOURS
- ARCHITECTURAL WORKS
- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE (ø375)
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- B01-2 — PROPOSED PIT LABEL
- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- EX 14-02 — EXISTING PIT LABEL

NOTES

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01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	J. PEÑA	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: STORMWATER PLAN
SHEET 2

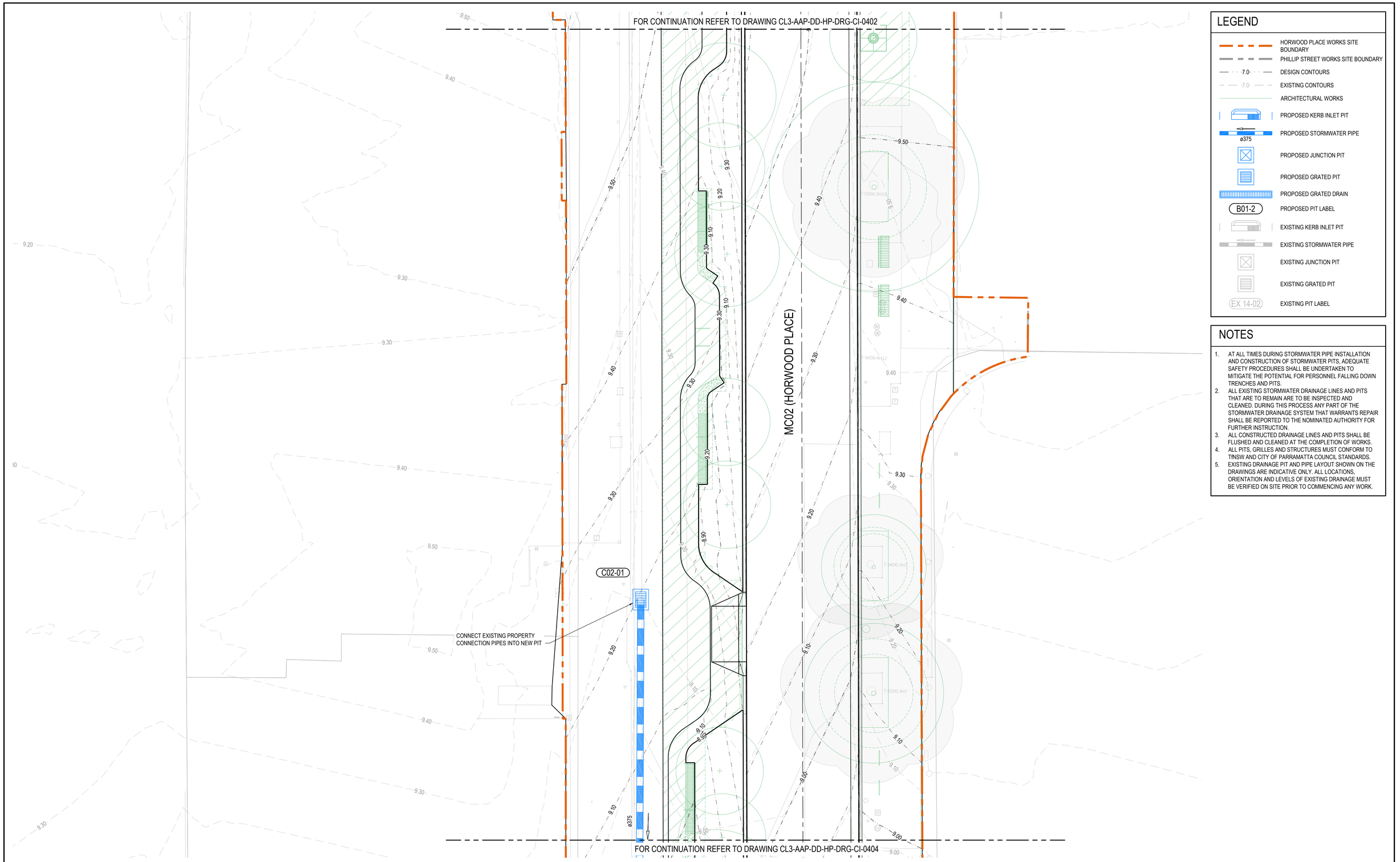
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0402

Issue: 03

Date Plotted: 13 Nov 2025 - 02:51pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0402-StormwaterPlanSheet2.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- 7.0 DESIGN CONTOURS
- 7.0 EXISTING CONTOURS
- ARCHITECTURAL WORKS
- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE (ø375)
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- B01-2 PROPOSED PIT LABEL
- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- EX 14-02 EXISTING PIT LABEL

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01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
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Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: STORMWATER PLAN
SHEET 3

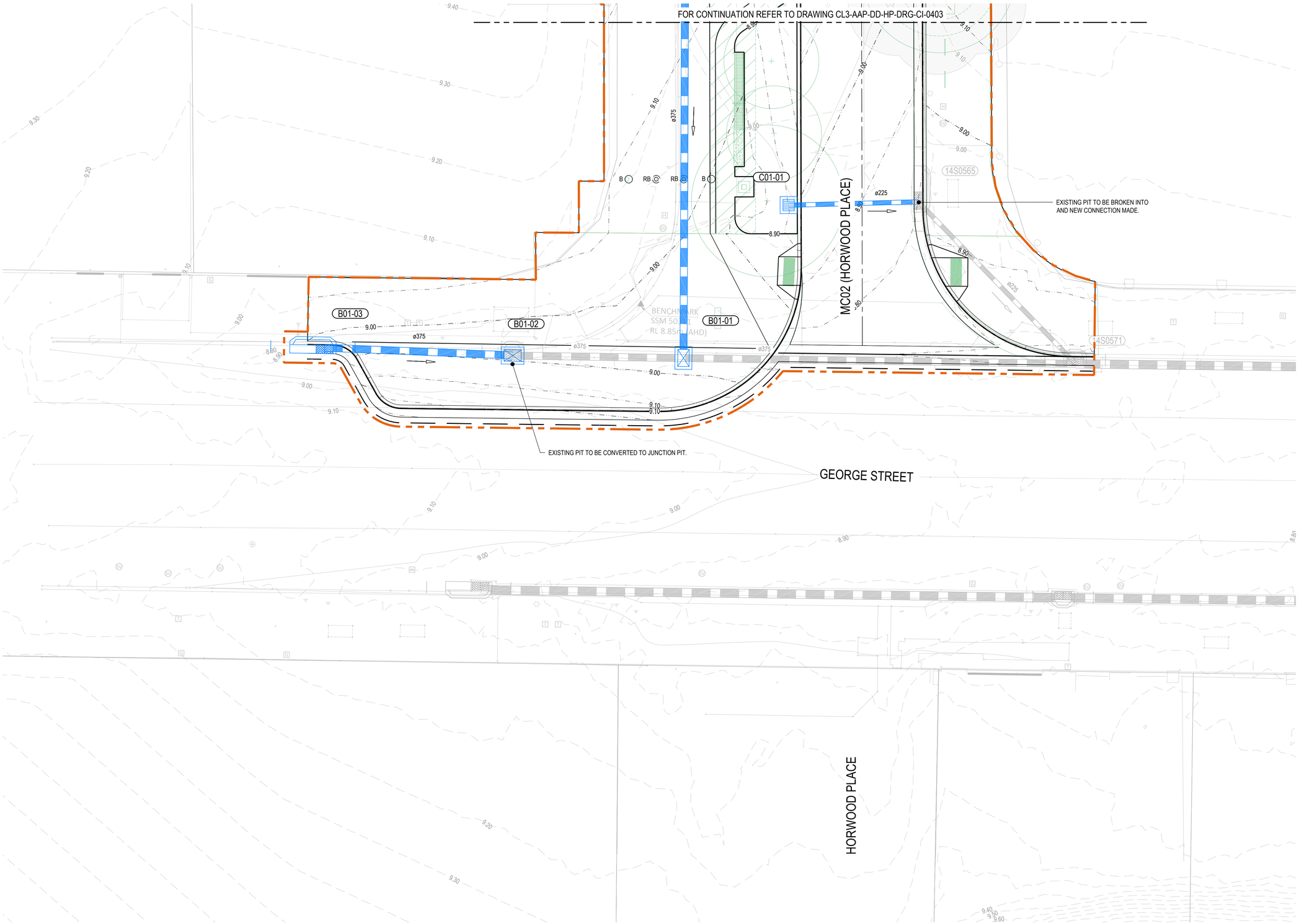
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0403

Issue: 03

Date Plotted: 13 Nov 2025 - 02:51pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0403-StormwaterPlanSheet3.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- DESIGN CONTOURS
- EXISTING CONTOURS
- ARCHITECTURAL WORKS
- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE (ø375)
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- B01-2 PROPOSED PIT LABEL
- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- EX 14-02 EXISTING PIT LABEL

NOTES

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Issue	Description	DR	CH	VE	Date
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02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	J. PEÑA	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: STORMWATER PLAN
SHEET 4

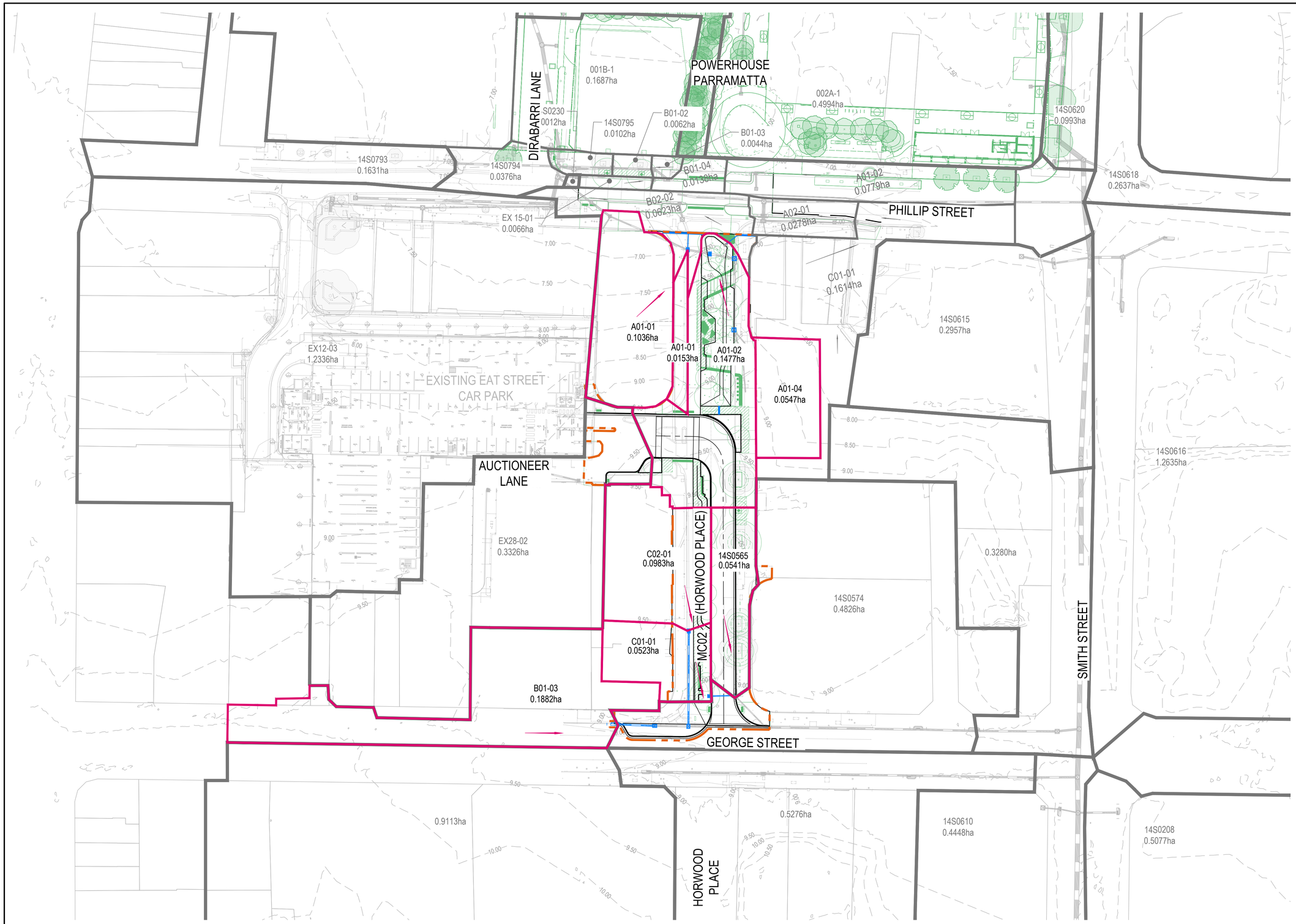
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0404

Issue: 03

Date Plotted: 13 Nov 2025 - 02:51pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0404-StormwaterPlanSheet4.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- DESIGN CONTOURS
- EXISTING CONTOURS
- ARCHITECTURAL WORKS
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- PROPOSED CATCHMENT BOUNDARY
- EXISTING CATCHMENT BOUNDARY
- PROPOSED CATCHMENT FLOW
- B01-2 0.0277ha — PROPOSED CATCHMENT LABEL
- 001C-1 0.1958ha — EXISTING CATCHMENT LABEL

NOTES

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02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 5 10 20 30 40 50m

1 : 500

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	J. PEÑA	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: CATCHMENT PLAN

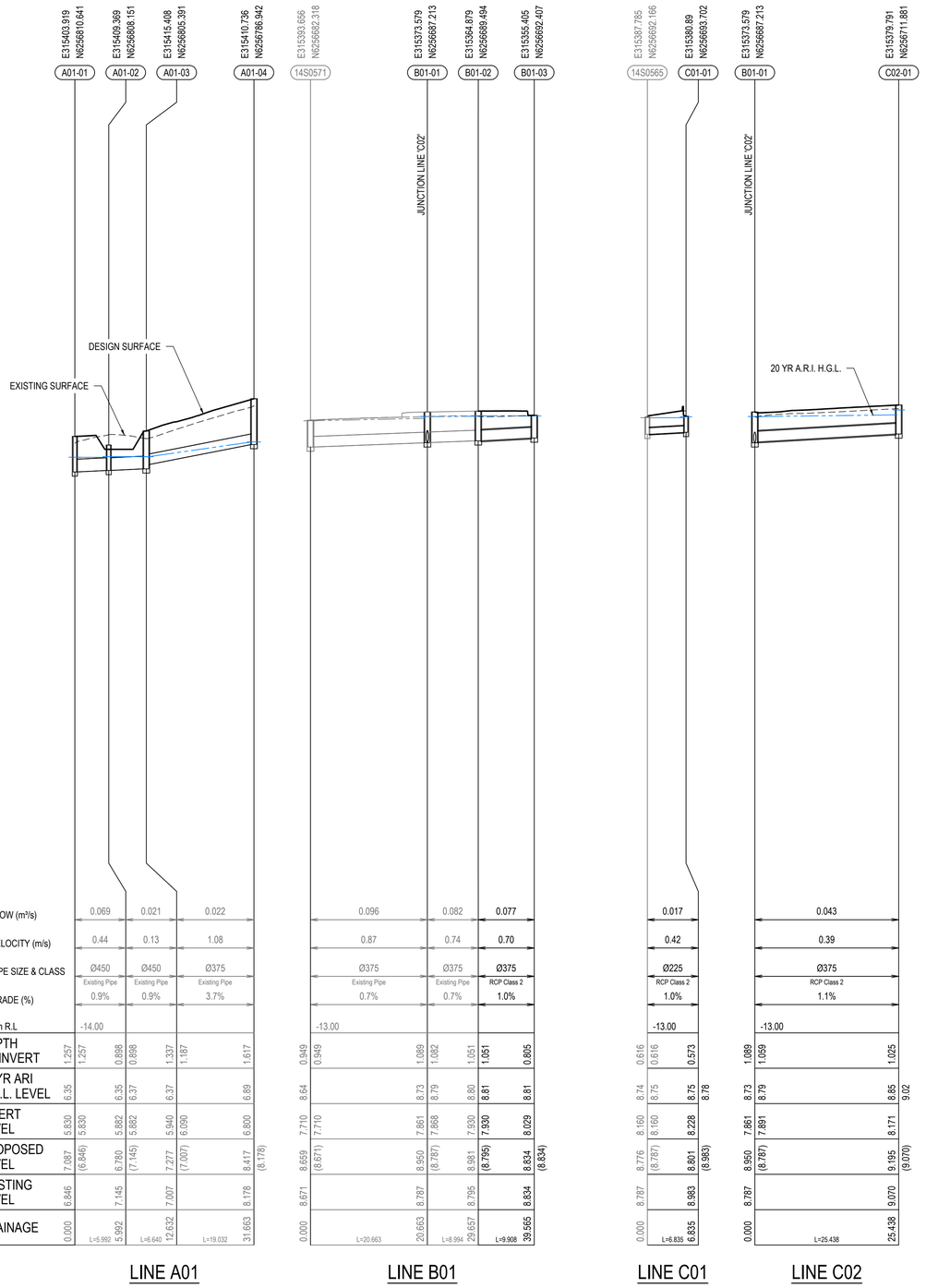
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0421

Issue: 03

Date Plotted: 13 Nov 2025 - 02:51pm File Name: C:\Users\isantosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0421-CatchmentPlan.dwg



PIT SCHEDULE

PIT NAME	PIT WIDTH 'X' (mm)	PIT LENGTH 'Y' (mm)	COVER TYPE	COVER SPECIFICATION	COVER CLASS	COMMENTS
A01-04	900.000	900.000	JUNCTION	900x900 Infill Cover to Suit 60 mm Paver	B	REMOVE EXISTING LINTEL AND CONSTRUCT NEW PIT TO SUIT
A01-03	900.000	900.000	JUNCTION	900x900 Infill Cover to Suit 60 mm Paver	B	REMOVE EXISTING LINTEL AND CONSTRUCT NEW PIT TO SUIT, REFER TO LANDSCAPE DETAILS FOR INFILL LID PAVER
A01-02	900.000	600.000	GRATED DRAIN	600x900 Grate	D	CONSTRUCT PIT OVER EXISTING PIPELINE
A01-01	900.000	600.000	GRATED DRAIN	600x900 Grate	D	REMOVE EXISTING LINTEL AND CONSTRUCT NEW PIT TO SUIT
B01-03	600.000	900.000	LINTEL	1.8m Lintel with 450x900 Grate	D	
B01-02	900.000	600.000	JUNCTION	600x900 Infill Cover to Suit 60 mm Paver	D	REMOVE EXISTING LINTEL AND CONSTRUCT NEW PIT TO SUIT, REFER TO LANDSCAPE DETAILS FOR INFILL LID PAVER
B01-01	900.000	600.000	JUNCTION	600x900 Infill Cover to Suit 60 mm Paver	D	CONSTRUCT PIT OVER EXISTING PIPELINE, REFER TO LANDSCAPE DETAILS FOR INFILL LID PAVER
C01-01	600.000	600.000	GRATED DRAIN	600x600 Grate	D	
C02-01	900.000	600.000	GRATED DRAIN	600x900 Grate	D	

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01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RS	CR	GD	18.07.2025

Scales

0 5 10 20 30 40 50m

1 : 500 (H)

0 1 2 4 6 8 10m

1 : 100 (V)

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. SANTOS	Original Size	A1
Designed	J. PEÑA	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: STORMWATER LONGITUDINAL SECTIONS AND PIT SCHEDULE

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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0441

Issue: 03

100mm on Original

Date Plotted: 13 Nov 2025 - 02:50pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0441-StormwaterLongitudinalSectionsAndPitSchedule.dwg

BIORETENTION NOTES

1. A HDPE OR BENTONITE LINER SHALL BE INSTALLED TO FULLY CONTAIN INFILTRATED WATER AND PREVENT INFILTRATION TO GROUNDWATER. LINER SUBGRADE SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY AND TO FORM CONTINUOUS BED FREE OF VOIDS AND FREE OF SHARP OBJECTS TO PREVENT TEARING. SUBGRADE SHALL BE GRADED AS SHOWN ON THE DRAWINGS TO FORM ROUNDED BASE. LINER TO HAVE ALL WELDED JOINTS SEALED IN ACCORDANCE WITH PRODUCT SPECIFICATIONS TO ENSURE THE SYSTEM IS WATERTIGHT. LINER NEEDS TO BE APPROPRIATELY KEYED INTO THE BATTERS AND EMBANKMENTS AND WRAPPED UP AGAINST DRAINAGE PITS TO TOP OF SOIL LAYER WITH CONSIDERATION TO PROTRUSIONS THROUGH THE LINERS SUCH AS OUTLET PIPES.
2. THE UNDERDRAIN FOR THE BIORETENTION SYSTEM SHALL BE 150mm SLOTTED PVC PIPE TO THE REQUIREMENTS OF AS2439 PART 1 ACCORDING TO THE FOLLOWING:
   - PIPE SPACING FOR SYSTEMS <100m² IS 1.5m AND FOR SYSTEMS >100m² IS 2.5m OR AS SHOWN ON DRAWINGS.
   - THE MINIMUM CLEAR OPENING FOR SLOTS SHOULD BE 1500mm²/m, WITH THE MAXIMUM SLOT WIDTH OF 1.5mm.
   - ALL PIPE JUNCTIONS AND CONNECTIONS TO THE OVERFLOW PIT SHALL BE SEALED TO PREVENT SOIL ENTERING THE PIPE NETWORK.
   - FILTER CLOTH WRAPPINGS OR SOCKS ARE NOT PERMITTED AROUND SLOTTED UNDERDRAINS.
   - AN INSPECTION WELL SHALL BE PROVIDED BY EXTENDING THE UNDERDRAIN VERTICALLY BEYOND THE SURFACE OF THE BIORETENTION SYSTEM BY A MINIMUM OF 50mm. ALL VERTICAL SECTIONS OF THE UNDERDRAIN SHALL NOT BE PERFORATED AND SHALL BE CAPPED WITH SECURED SCREWS TO REDUCE THE RISK OF VANDALISM. USE 45 DEGREE ELBOWS RATHER THAN 90 DEGREE ELBOWS TO FACILITATE ENTRY OF MAINTENANCE EQUIPMENT.
3. UNDERDRAINS SHALL BE LAID IN A DRAINAGE LAYER COMPRISED OF FINE GRAVEL (2-5mm), WITH <2% FINES AND HYDRAULIC CONDUCTIVITY OF 4000mm/hr. THE DRAINAGE LAYER DEPTHMUST ENSURE AT LEAST 50mm COVER OVER THE UNDERDRAIN. BRIDGING CRITERIA SHALL BE APPLIED TO AVOID MIGRATION OF THE ON-TOP LAYER INTO THE DRAINAGE LAYER. D15 (DRAINAGE LAYER) Ø5 x D85 (ON-TOP LAYER).
4. WHERE INDICATED ON THE DRAWINGS, A SUBMERGED ZONE SHALL BE INCLUDED. IT IS COMPRISED OF A MIX OF MEDIUM TO COARSE SAND AND CARBON SOURCE AS FOLLOWS:
   - AT LEAST 90% OF THE SAND IS CLASSIFIED AS MEDIUM SAND (0.25-0.5mm) OR COARSE SAND (0.5-1.0mm).
   - CARBON SOURCE (PER 100L) OF 500G (OR 2% BY VOLUME) READILY BIODEGRADABLE MATERIAL SUCH AS SUGAR-CANE MULCH OR FINE STRAW (PREFERABLY LOW IN NITROGEN AND PHOSPHORUS) AND 1.5kg (OR 5% BY VOLUME) 5-40mm HARDWOOD CHIPS. RECYCLED TIMBER (NOT CHEMICALLY TREATED) CAN BE USED.
5. WHERE INDICATED ON THE DESIGN DRAWINGS A TRANSITION LAYER SHALL BE INCLUDED. THE TRANSITION LAYER MATERIAL SHALL BE CLEAN, WELL GRADED SAND MATERIAL (TYPICALLY 1mm) CONTAINING <2% FINES. THE PARTICLE SIZE DISTRIBUTION OF THE SAND SHALL BE ASSESSED TO MEET BRIDGING CRITERIA THAT THE SMALLEST 15% OF THE SAND PARTICLES BRIDGE WITH THE LARGEST 15% OF THE FILTER MEDIA. D15 (TRANSITION LAYER) Ø5 x D85 (FILTER MEDIA).
6. BIORETENTION FILTER MEDIA SHALL COMPLY WITH THE FOLLOWING:
   - HAVE A MINIMUM HYDRAULIC CONDUCTIVITY OF 100mm/hr. THIS SHOULD BE MEASURED ACCORDING TO ASTM F1815-06: STANDARD TEST METHODS FOR SATURATED HYDRAULIC CONDUCTIVITY, WATER RETENTION, POROSITY, AND BULK DENSITY OF PUTTING GREEN AND SPORTS TURF ROOT ZONES METHOD.
   - HAVE TOTAL CLAY AND SILT MIX LESS THAN 3% (w/w) TO REDUCE THE LIKELIHOOD OF STRUCTURAL COLLAPSE OF SUCH SOILS.
   - THE FILTER MEDIA SHALL BE WELL GRADED LOAMY SAND WITHOUT GAP IN THE PARTICLE SIZE GRADING AND THE COMPOSITION SHALL NOT BE DOMINATED BY A SMALL PARTICLE SIZE RANGE. THE FOLLOWING IS A GUIDE FOR THE FILTER MEDIA PARTICLE SIZE DISTRIBUTION:

CLAY & SILT	<3%	(<0.05mm)
VERY FINE SAND	5-30%	(0.05-0.15mm)
FINE SAND	10-30%	(0.15-0.25mm)
MEDIUM TO COARSE SAND	40-60%	(0.25-1.0mm)
COARSE SAND	7-10%	(1.0-2.0mm)
FINE GRAVEL	<3%	(2.0-3.4mm)

   - FILTER MEDIA SHALL BE TESTED (ACCORDING TO AS4419-2003) TO COMPLY WITH THE FOLLOWING:
     I. TOTAL NITROGEN (TN) CONTENT <400mg/kg
     II. ORTHOPHOSPHATE (P04) CONTENT <9mg/kg
     III. ORGANIC MATTER AT LEAST 3% (w/w)
     IV. PH 5.5-7.5 (PH 1:5 IN WATER)
     V. ELECTRICAL CONDUCTIVITY (EC) <1.2dS/m
     VI. DISPERSIBILITY (OPTIONAL)
7. DRAINAGE LAYERS, SUBMERGED ZONE TRANSITION LAYERS, FILTER MEDIA TO BE BENEDICT OR EQUIVALENT.

BIORETENTION NOTES (CONT'D)

8. AN ALTERNATIVE OPTION FOR BIORETENTION FILTER MEDIA IF THE ABOVE IS NOT AVAILABLE IS AN ENGINEERED FILTER MEDIA. THIS IS A WASHED, WELL-GRADED SAND WITH APPROPRIATE HYDRAULIC CONDUCTIVITY (SUCH AS MATERIALS USED FOR CONSTRUCTION OF GOLF GREENS). THE TOP 100mm OF THE FILTER MEDIA SHALL THEN BE AMELIORATED WITH APPROPRIATE ORGANIC MATTER, FERTILISER AND TRACE ELEMENTS AS SHOWN BELOW:

CONSTITUENT	QUANTITY (kg/100m² FILTER AREA)
GRANULATED POULTRY MANURE FINES	50
SUPERPHOSPHATE	2
MAGNESIUM SULPHATE	3
POTASSIUM SULPHATE	2
TRACE ELEMENT MIX	1
FERTILISER NPK (16.4.14)	4
LIME	20

9. POTENTIAL FILTER MEDIA SHALL BE ASSESSED BY A HORTICULTURALIST TO ENSURE THAT THEY ARE CAPABLE OF SUPPORTING A HEALTHY VEGETATION COMMUNITY.
10. THE BIORETENTION FILTER MEDIA SHALL BE TESTED TO DEMONSTRATE COMPLIANCE WITH THE ABOVE-MENTIONED REQUIREMENTS AT THE FOLLOWING FREQUENCIES:
    - FOR BIORETENTION SYSTEMS <500m², ONE SAMPLE PER 500m³ OF FILTER MEDIA.
    - FOR BIORETENTION SYSTEMS >500m², ONE SAMPLE PER 500m³ OF FILTER MEDIA FOR THE HYDRAULIC CONDUCTIVITY TEST PLUS ONE SAMPLE PER 2000m³ OF FILTER MEDIA FOR ALL OTHER REQUIRED TESTS.
11. TESTING SHALL BE UNDERTAKEN ON THE ACTUAL MATERIAL TO BE DELIVERED TO THE SITE. THE SUPPLIER AND CONTRACTOR WILL BE RESPONSIBLE FOR ENSURING THE FILTER MEDIA MEETS THE SPECIFICATIONS AND THE CORRECT MATERIAL IS DELIVERED TO THE SITE PRIOR TO INSTALLATION. THE SUPPLIER SHALL ARRANGE FOR THE FILTER MEDIA TO BE TESTED BY A CERTIFIED SOIL LABORATORY IN ACCORDANCE WITH THE ABOVE SPECIFICATIONS. ON THE BASIS OF THE TESTING, THE SOIL LABORATORY AND SUPPLIER SHALL CERTIFY THAT THE MATERIAL MEETS THESE SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE A COPY OF THE SUPPLIER'S CERTIFICATION, TEST RESULTS AND SUPPLY DOCKET TO THE DESIGNER (THROUGH THE SITE SUPERINTENDENT) FOR REVIEW AND APPROVAL.
12. FIELD TESTING OF HYDRAULIC CONDUCTIVITY SHOULD BE CARRIED OUT AT LEAST TWICE :
    - ONE MONTH FOLLOWING COMMENCEMENT OF OPERATION, AND
    - IN THE SECOND YEAR OF OPERATION TO ASSESS THE IMPACT OF VEGETATION ON HYDRAULIC CONDUCTIVITY. FOLLOWING THIS, HYDRAULIC CONDUCTIVITY TESTING SHOULD BE CONDUCTED EVERY TWO YEARS OR WHEN THERE HAS BEEN A SIGNIFICANT CHANGE IN CATCHMENT CHARACTERISTICS (e.g. CONSTRUCTION WITHOUT APPROPRIATE SEDIMENT CONTROL).

    THIS TESTING SHALL BE ACCORDING TO CRC FOR WATER SENSITIVE CITIES ADOPTION GUIDELINE FOR STORMWATER BIOFILTRATION SYSTEMS APPENDIX I - MEASUREMENT OF HYDRULIC CONDUCTIVITY - USING IN SITU AND EX SITU (LABORATORY) SAMPLING METHODS.
13. THE FILTER MEDIA SHALL BE LIGHTLY COMPACTED DURING INSTALLATION TO PREVENT MIGRATION OF FINE PARTICLES. A SINGLE PASS OF COMPACTING MACHINERY (VIBRATING PLATE FOR SMALL SYSTEMS AND DRUM LAWN ROLLER FOR LARGER SYSTEMS) SHALL BE USED. NO HEAVY COMPACTION OR MULTI-PASS SHALL BE MADE.
14. FILTER MEDIA SHALL BE INSTALLED IN TWO LIFTS FOR DEPTHS OF OVER 500mm.
15. THE BIORETENTION SYSTEMS SHALL BE CONSTRUCTED TO THE FOLLOWING TOLERANCES:

BIORETENTION ELEMENT	TOLERANCE
HYDRAULIC STRUCTURES (OVERFLOW PIT, PIPE AND WEIRS)	+/-25mm
	WHERE SYSTEM INSTALLED IN STREETSCAPE THEN +/-15mm
UNDERDRAINS	+/-25mm
EARTHWORKS (BASE OF BIORETENTION)	+/-50mm
DRAINAGE AND TRANSITION LAYERS	+/-25mm
SURFACE LEVEL (FILTER MEDIA SURFACE)	+/-25mm FOR BASINS <300m²
	+/-40mm FOR BASINS >300m²
EMBANKMENTS AND BUNDS	-25mm
	+50mm

16. TO ENSURE BIORETENTION SYSTEMS ARE NOT DAMAGED DURING THE DEVELOPMENT PHASE OF THE PROJECT, CONSTRUCTION OF THE BIORETENTION SYSTEMS SHALL BE DELAYED UNTIL CONSTRUCTION UPSTREAM OF THE BASIN IS COMPLETE. ALTERNATIVELY, THE CIVIL WORKS FOR BIORETENTION SYSTEMS CAN BE UNDERTAKEN ACCORDING TO THE DESIGN SPECIFICATIONS WHILE TEMPORARY PROTECTIVE MEASURES INSTALLED TO PREVENT CLOGGING OF THE FILTER MEDIA DURING THE BUILDING PHASE. THESE BUILDING PHASE PROTECTION MEASURES SHALL INVOLVE THE FOLLOWING:

    -INSTALLING SEDIMENT FENCES AROUND THE PERIMETER OF THE FILTER MEDIA AND THE TOP OF THE BATTER TO PREVENT SEDIMENT FROM BEING CARRIED INTO THE SYSTEM BY OVERLAND FLOW. THE FENCES WOULD CLEARLY SHOW THAT CONSTRUCTION TRAFFIC SHOULD NOT ENTER THE SYSTEM.

BIORETENTION NOTES (CONT'D)

- COVERING THE SURFACE OF THE FILTER MEDIA WITH A TEMPORARY FILTER CLOTH AND LAYING 25 MM OF TOP SOIL AND TURF OVER IT TO PROTECT THE BIORETENTION SYSTEM DURING THE CONSTRUCTION AND BUILDING PHASES. DURING THE BUILDING PHASE, THE EXTENDED DETENTION WILL ACT AS A SHALLOW SEDIMENT BASIN.
- WHEN THE BUILDING PHASE IS 85% COMPLETE, THESE TEMPORARY MEASURES AND ACCUMULATED SEDIMENT CAN BE REMOVED AND THE BIORETENTION SYSTEM CAN BE PLANTED AND ESTABLISHED ACCORDING TO THE LANDSCAPE DESIGN AND SPECIFICATIONS.

17. THE CONSTRUCTION OF THE BIORETENTION SYSTEMS SHALL COMPLY WITH THE FOLLOWING STEPS AND HOLD POINTS

CONSTRUCTION STEP	HOLD POINT	SUBMISSION DETAILS	RELEASE OF HOLD POINT
BULK EARTHWORKS AND HYDRAULIC STRUCTURES. THIS INCLUDES SITE PREPARATION, INSTALLING OVERFLOW PIT AND OUTLET PIPE, UNDERTAKE BULK EARTHWORKS, TRIMMING AND PROFILING AND CONSTRUCT OVERFLOW WEIR	-INSPECTION AND SIGN OFF TO CONFIRM COMPLIANCE WITH DESIGN AND TOLERANCES.	-AS-CONSTRUCTED SURVEY OF THE SYSTEM AT THIS STAGE INCLUDING HYDRAULIC STRUCTURES.	THE DESIGNER (THROUGH THE SITE'S SUPERINTENDENT) SHALL INSPECT THE SYSTEM, REVIEW THE AS-CONSTRUCTED SURVEY AND TAKE PHOTOS. IF THE CONSTRUCTED SYSTEM CONFORMS TO THE DESIGN AND SPECIFICATIONS, A SIGN-OFF FORM SHALL BE COMPLETED WITH AS-CONSTRUCTED SURVEY AND PHOTOS AS ATTACHMENTS.
LINER AND UNDER-DRAINAGE. THIS INCLUDES INSTALLING HDPE LINER, UNDERDRAINS AND CLEANOUTS.	-INSPECTION AND SIGN OFF TO CONFIRM COMPLIANCE WITH DESIGN AND TOLERANCES.	-SITE INSPECTION	THE DESIGNER (THROUGH THE SITE'S SUPERINTENDENT) SHALL INSPECT THE SYSTEM AND TAKE PHOTOS. IF THE CONSTRUCTED SYSTEM CONFORMS TO THE DESIGN AND SPECIFICATIONS, A SIGN-OFF FORM SHALL BE COMPLETED WITH PHOTOS AS ATTACHMENTS.
SOURCE MATERIALS FOR BIORETENTION SYSTEM. THIS INCLUDES MATERIALS FOR DRAINAGE LAYER, SUBMERGED ZONE, TRANSITION LAYER AND FILTER MEDIA	-CERTIFICATION AND SIGN OFF OF MATERIALS TO CONFIRM COMPLIANCE WITH TESTING REQUIREMENTS	-SUPPLIER CERTIFICATION (THROUGH CERTIFIED SOIL LABORATORY) THAT MATERIALS COMPLY WITH TESTING REQUIREMENTS. -TEST RESULTS AND SUPPLY DOCKET.	THE DESIGNER (THROUGH THE SITE'S SUPERINTENDENT) SHALL REVIEW THE SUBMITTED DOCUMENTATION AND IF THE MATERIALS CONFORM TO THE TESTING SPECIFICATIONS, A SIGN-OFF FORM SHALL BE COMPLETED WITH THE SUBMITTED DOCUMENTATION AS ATTACHMENTS.
CONSTRUCTION OF DRAINAGE LAYER, SUBMERGED ZONE, TRANSITION LAYER AND FILTER MEDIA	-INSPECTION TO ENSURE BIORETENTION SYSTEM LAYERS ARE CONSTRUCTED TO DESIGN SPECIFICATIONS	-SITE INSPECTION	THE DESIGNER (THROUGH THE SITE'S SUPERINTENDENT) SHALL INSPECT THE SYSTEM AND TAKE PHOTOS. NO STOP TO CONSTRUCTION IS NEEDED
FINAL INSPECTION AND SIGN OFF	-INSPECTION AND SIGN OFF TO CONFIRM COMPLIANCE WITH DESIGN AND TOLERANCES	-AS-CONSTRUCTED SURVEY OF THE SYSTEM SURFACE AND SURROUNDING BUNDS.	THE DESIGNER (THROUGH THE SITE'S SUPERINTENDENT) SHALL INSPECT THE SYSTEM, REVIEW THE AS-CONSTRUCTED SURVEY AND TAKE PHOTOS. IF THE CONSTRUCTED SYSTEM CONFORMS TO THE DESIGN AND SPECIFICATIONS, A SIGN-OFF FORM SHALL BE COMPLETED WITH AS-CONSTRUCTED SURVEY AND PHOTOS AS ATTACHMENTS.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	J. PEÑA	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: BIORETENTION GENERAL NOTES

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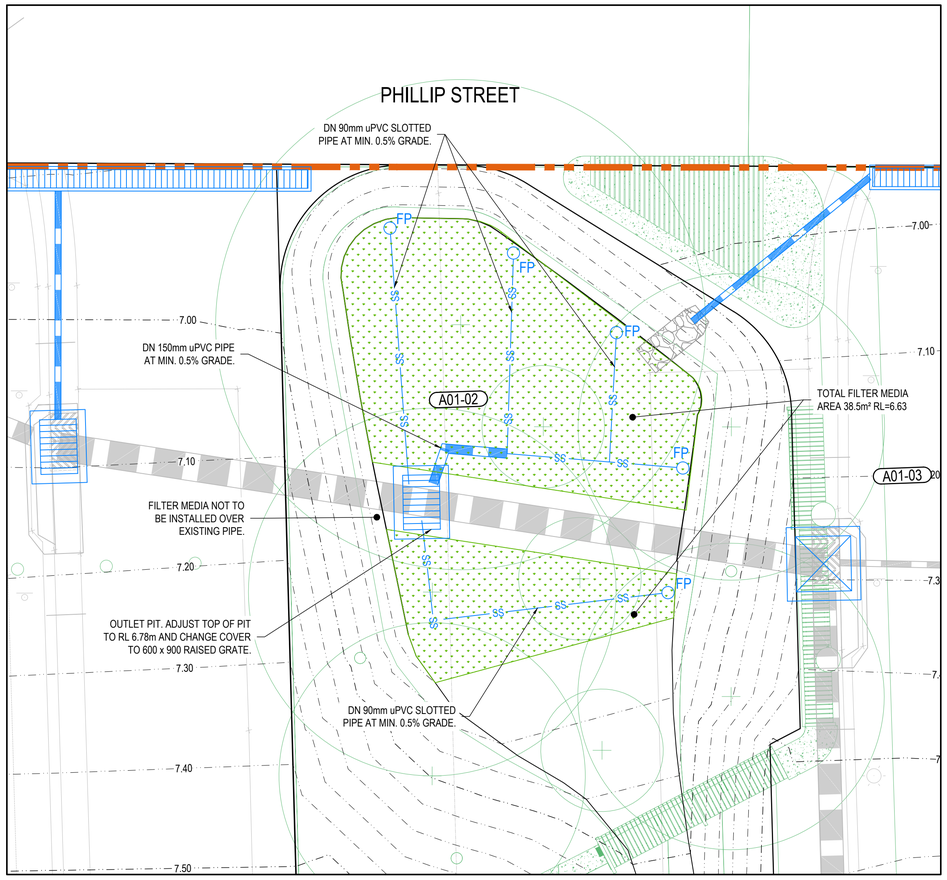
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Drawing No.: CL3-AAP-DD-HP-DRG-CI-0471

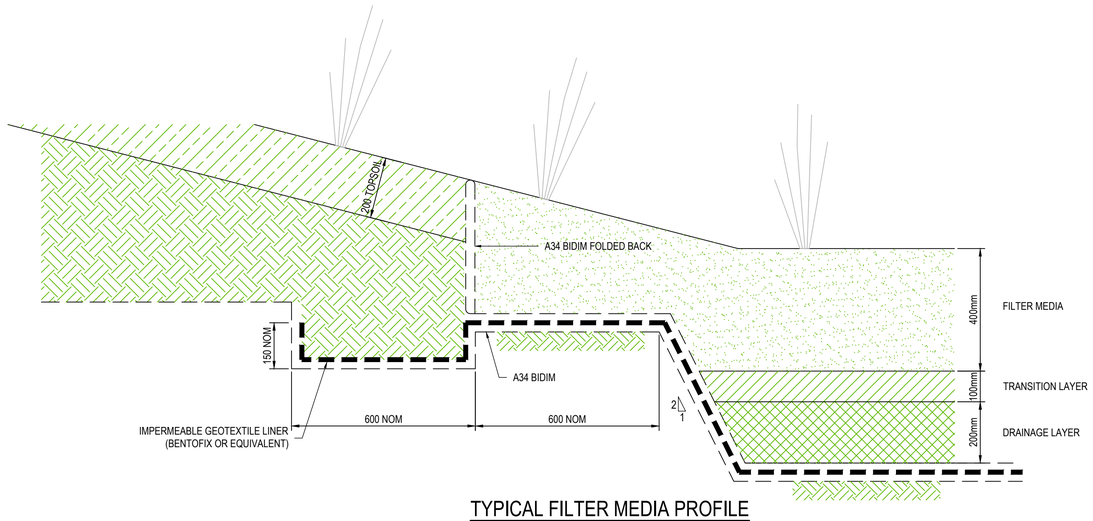
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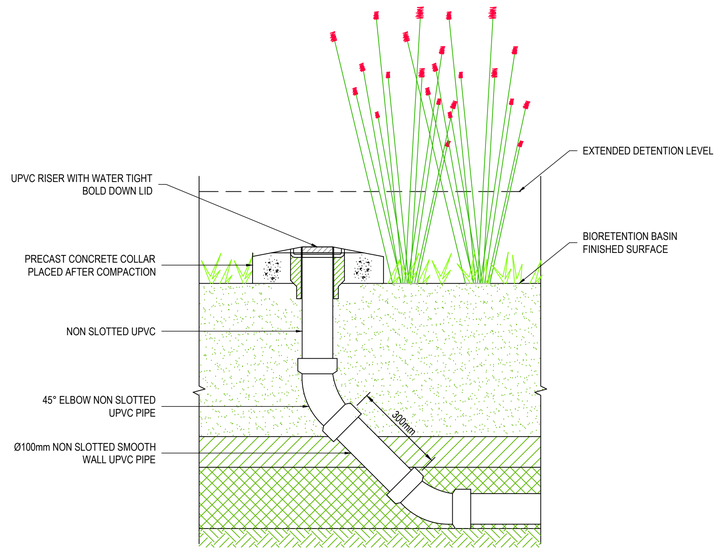
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BIORETENTION BASIN PLAN
1 : 50



TYPICAL FILTER MEDIA PROFILE
1 : 10



TYPICAL BIORETENTION FLUSHING POINT
1 : 10

LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- 7.0 DESIGN CONTOURS
- 7.0 EXISTING CONTOURS
- ARCHITECTURAL WORKS
- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT
- ø375 PROPOSED PIPE LABEL
- B01-2 PROPOSED PIT LABEL
- EX 14-02 EXISTING PIT LABEL
- SS — FP PORPOSED SUBSOIL / FLUSHING POINT

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

100mm on Original

Scales
0 0.5 1 2 3 4 5m
1 : 50
0 100 200 400 600 800 1000mm
1 : 10

Surveyor: surveyplus, DURKIN
Landscape Architect: OCULUS
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Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

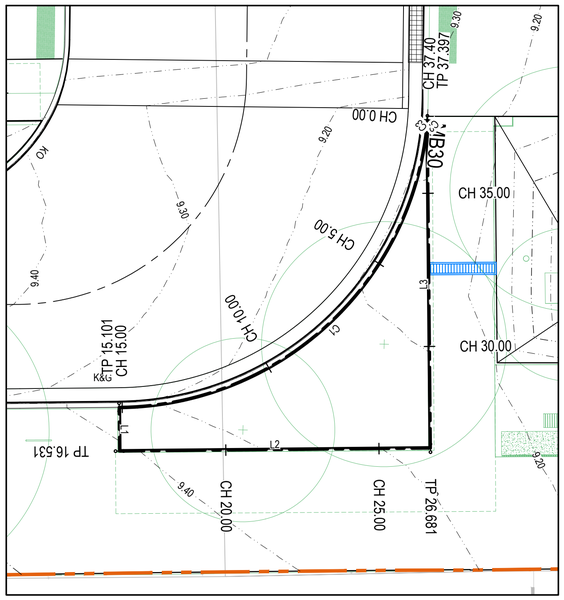
Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: BIORETENTION DETAILS

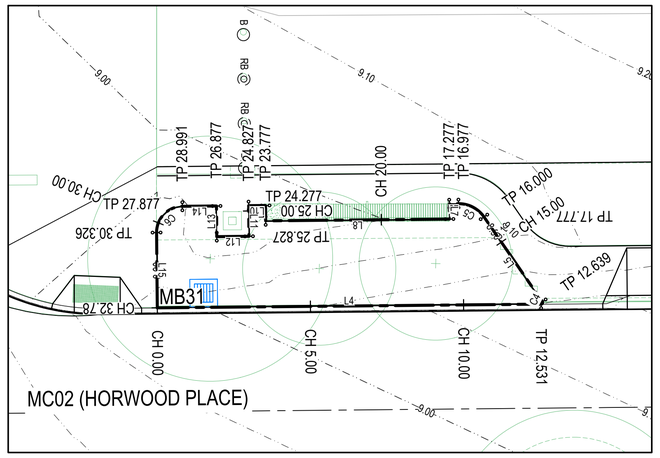
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Project Number: 30286862
Drawing No.: CL3-AAP-DD-HP-DRG-CI-0472
Issue: 03

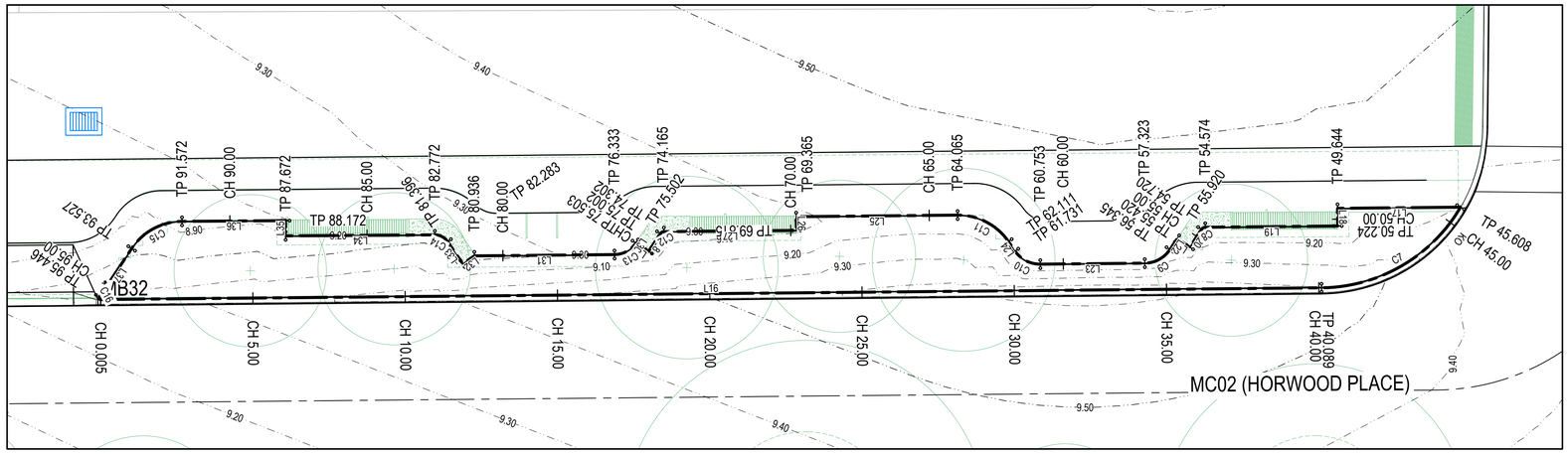
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MB30
1 : 100



MB31
1 : 100



MB32
1 : 100

LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- CH. 0.000 — CHAINAGE AND CONTROL LINE
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT

NOTES

1. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0475 TO 0478 FOR THE BIORETENTION SECTIONS.

Issue	Description	DR	CH	VE	Date
02	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
01	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CR	GD	10.09.2025

100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

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Designed	J. PEÑA	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: BIORETENTION SETOUT PLAN SHEET 1

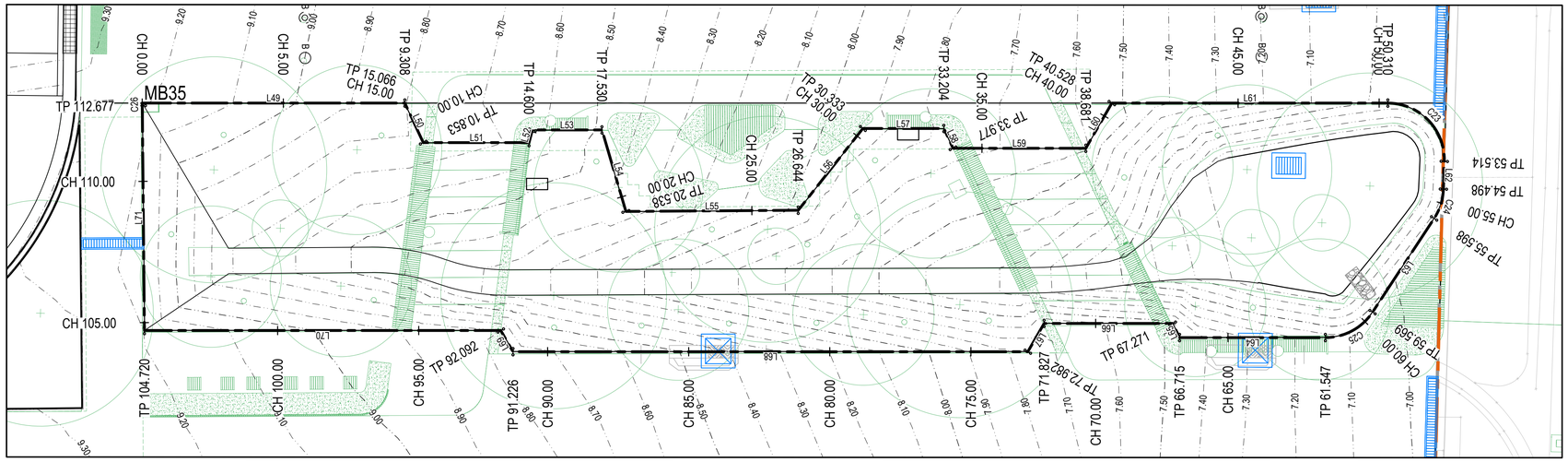
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0473

Issue: 02

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MB35
1 : 100

LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- CH. 0.000
- CHAINAGE AND CONTROL LINE
- PROPOSED KERB INLET PIT
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT

NOTES

1. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0475 TO 0478 FOR THE BIORETENTION SECTIONS.

Issue	Description	DR	CH	VE	Date
02	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
01	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CR	GD	10.09.2025

Scales

0 1 2 4 6 8 10m

1 : 100

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Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: BIORETENTION SETOUT PLAN
SHEET 2

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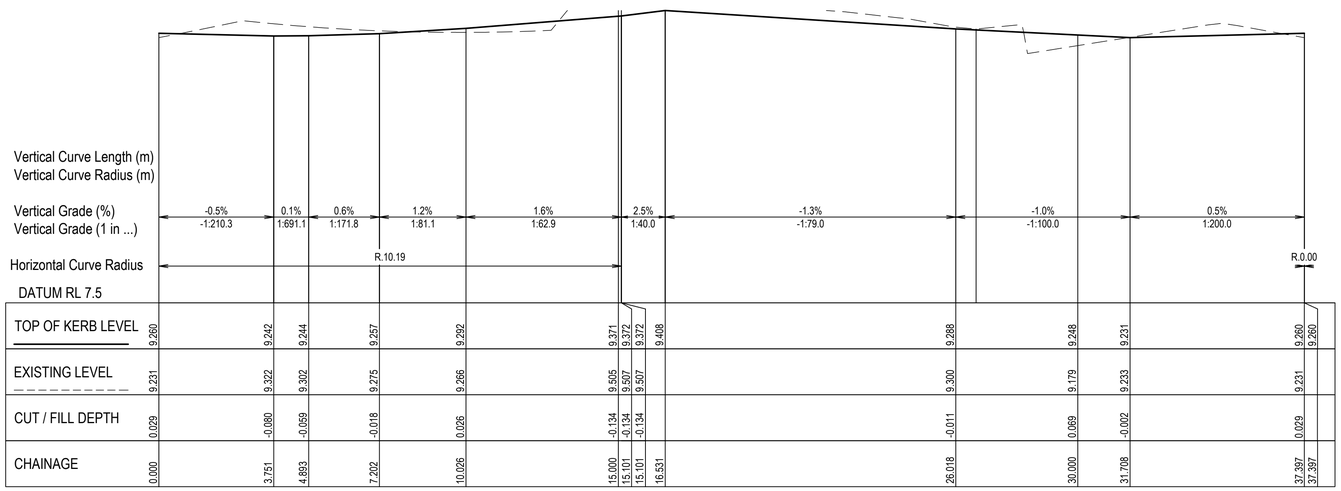
Issue: 02

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NOTES

1. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0473 TO 0474 FOR THE BIORETENTION SETOUT PLAN .

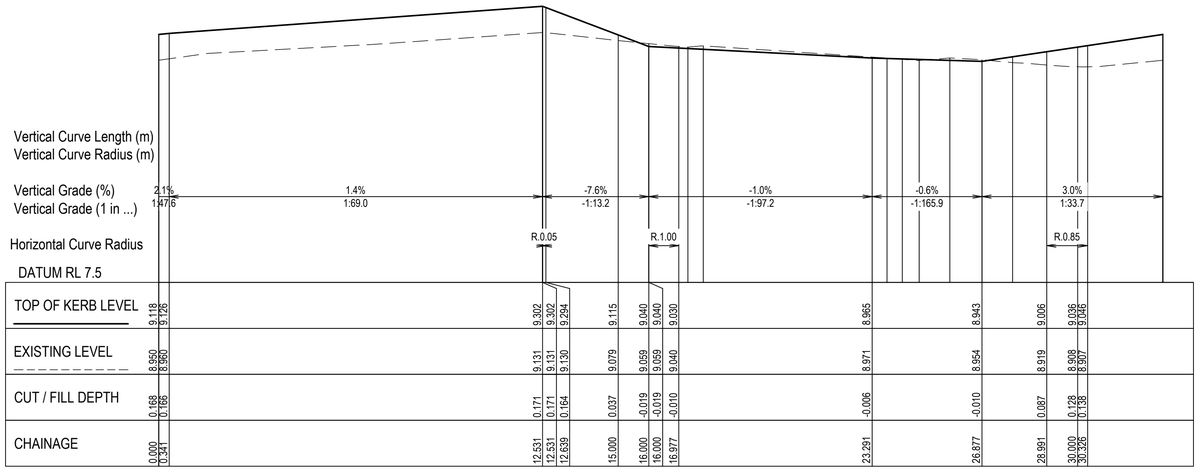


MB30 LONGITUDINAL SECTION

SCALE 1:100 HORI.
1:20 VERT.

CONTROL LINE SETOUT MB30

	PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
C1	TC IP CT	0.000 9.323 15.101	315396.762 315405.585 315403.371	6256767.170 6256764.161 6256755.105	108° 49' 53.24" 193° 44' 25.63"	R = 10.190	15.101	84°54'32.39"
L1	BP EP	15.101 16.531	315403.371 315404.760	6256755.105 6256754.766	103° 44' 25.71"		1.430	
L2	BP EP	16.531 26.681	315404.760 315407.171	6256754.766 6256764.625	13° 44' 25.63"		10.150	
L3	BP EP	26.681 37.397	315407.171 315396.762	6256764.625 6256767.171	283° 44' 25.64"		10.716	
C2	TC IP CT	37.397 37.397 37.397	315396.762 315396.762 315396.762	6256767.171 6256767.170 6256767.170	196° 15' 34.12" 106° 15' 40.19"	R = 0.000	0.000	89°59'53.38"
C3	TC IP CT	37.397 37.397 37.397	315396.762 315396.762 315396.762	6256767.170 6256767.170 6256767.170	286° 15' 38.27" 196° 15' 33.69"	R = 0.000	0.000	90°00'04.05"



MB31 LONGITUDINAL SECTION

SCALE 1:100 HORI.
1:20 VERT.

CONTROL LINE SETOUT MB31

	PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
L4	BP EP	0.000 12.531	315380.984 315383.960	6256692.116 6256704.288	13° 44' 25.63"		12.531	
C4	TC IP CT	12.531 12.625 12.639	315383.960 315383.983 315383.894	6256704.288 6256704.379 6256704.347	13° 44' 25.75" 249° 44' 25.14"	R = 0.050	0.108	124°00'00.61"
L5	BP EP	12.639 16.000	315383.894 315380.741	6256704.347 6256703.183	249° 44' 25.64"		3.361	
C5	TC IP CT	16.000 16.531 16.977	315380.741 315380.243 315380.116	6256703.183 6256702.999 6256702.483	249° 44' 25.68" 193° 44' 25.67"	R = 1.000	0.977	56°00'00.01"
L6	BP EP	16.977 17.277	315380.116 315380.045	6256702.483 6256702.192	193° 44' 25.67"		0.300	
L7	BP EP	17.277 17.777	315380.045 315380.531	6256702.192 6256702.073	103° 44' 25.61"		0.500	
L8	BP EP	17.777 23.777	315380.531 315379.106	6256702.073 6256696.244	193° 44' 25.62"		6.000	
L9	BP EP	23.777 24.277	315379.106 315378.620	6256696.244 6256696.363	283° 44' 25.61"		0.500	
L10	BP EP	24.277 24.827	315378.620 315378.489	6256696.363 6256695.829	193° 44' 25.54"		0.550	
L11	BP EP	24.827 25.827	315378.489 315379.461	6256695.829 6256695.591	103° 44' 25.66"		1.000	
L12	BP EP	25.827 26.877	315379.461 315379.211	6256695.591 6256694.572	193° 44' 25.57"		1.050	
L13	BP EP	26.877 27.877	315379.211 315378.240	6256694.572 6256694.809	283° 44' 25.61"		1.000	
L14	BP EP	27.877 28.991	315378.240 315377.975	6256694.809 6256693.727	193° 44' 25.49"		1.114	
C6	TC IP CT	28.991 29.841 30.326	315377.975 315377.773 315378.599	6256693.727 6256692.901 6256692.699	193° 44' 25.79" 103° 44' 25.49"	R = 0.850	1.335	90°00'00.29"
L15	BP EP	30.326 32.781	315378.599 315380.984	6256692.699 6256692.116	103° 44' 25.59"		2.455	

Issue	Description	DR	CH	VE	Date
02	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
01	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CR	GD	10.09.2025

Scales

0 1 2 4 6 8 10m
1 : 100

0 0.5 1 1.5 2m
1 : 20

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	J. PEÑA	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: BIORETENTION SECTIONS SHEET 1

ARCADIS
Arcadis Australia Pacific Pty Limited
Level 15, 580 George Street
SYDNEY NSW 2000
ABN 76 104 485 289
Tel No: +61 2 8907 9000
www.arcadis.com/au

Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0475

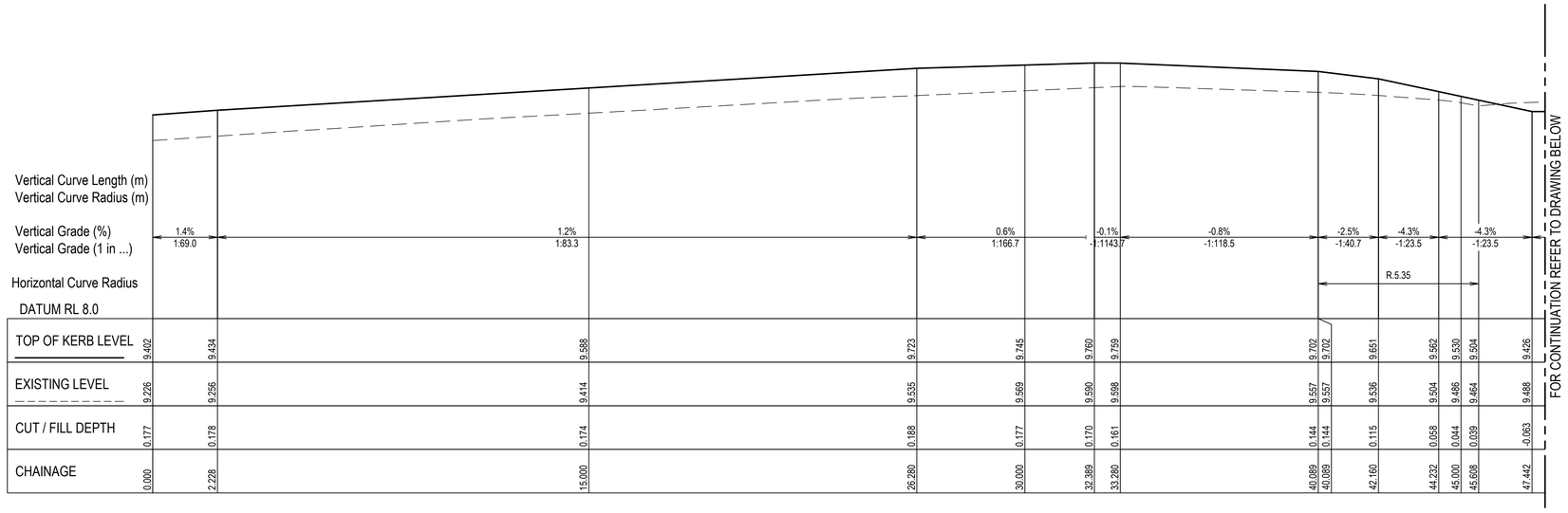
Issue: 02

100mm on Original

Date Plotted: 13 Nov 2025 - 02:52pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0475-BioRetentionSectionsSheet1.dwg

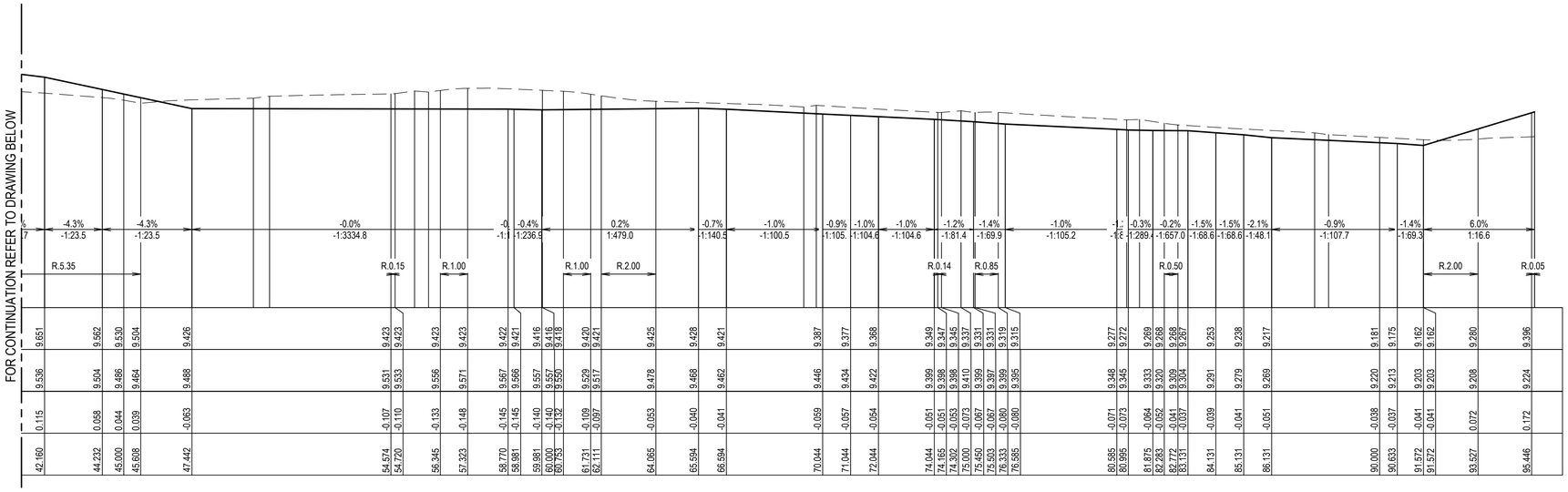
NOTES

1. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0473 TO 0474 FOR THE BIORETENTION SETOUT PLAN .



MB32 LONGITUDINAL SECTION

SCALE 1:100 HORI.
1:20 VERT.



MB32 LONGITUDINAL SECTION

SCALE 1:100 HORI.
1:20 VERT.

CONTROL LINE SETOUT MB32

	PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
L16	BP	0.000	315385.595	6256710.974	13° 44' 25.63"		40.089	
	EP	40.089	315395.117	6256749.916				
C7	TC	40.089	315395.117	6256749.916	13° 44' 25.63"	R = 5.345	5.519	59°09'39.33"
	IP	43.123	315395.838	6256752.863				
	CT	45.608	315393.677	6256754.992	314° 34' 46.30"			
L17	BP	45.608	315393.677	6256754.992	193° 44' 25.60"		4.036	
	EP	49.644	315392.718	6256751.072				
L18	BP	49.644	315392.718	6256751.072	103° 44' 25.68"		0.580	
	EP	50.224	315393.282	6256750.934				
L19	BP	50.224	315393.282	6256750.934	193° 44' 25.61"		4.350	
	EP	54.574	315392.248	6256746.708				
C8	TC	54.574	315392.248	6256746.708	193° 44' 26.01"	R = 0.150	0.147	55°59'59.90"
	IP	54.653	315392.229	6256746.631				
	CT	54.720	315392.283	6256746.572	137° 44' 26.11"			
L20	BP	54.720	315392.283	6256746.572	137° 44' 25.80"		0.700	
	EP	55.420	315392.754	6256746.054				
L21	BP	55.420	315392.754	6256746.054	227° 44' 25.64"		0.500	
	EP	55.920	315392.384	6256745.718				
L22	BP	55.920	315392.384	6256745.718	137° 44' 25.68"		0.425	
	EP	56.345	315392.669	6256745.403				
C9	TC	56.345	315392.669	6256745.403	137° 44' 25.52"	R = 1.000	0.977	56°00'00.02"
	IP	56.877	315393.027	6256745.009				
	CT	57.323	315392.901	6256744.493	193° 44' 25.54"			
L23	BP	57.323	315392.901	6256744.493	193° 44' 25.62"		3.431	
	EP	60.753	315392.086	6256741.161				
C10	TC	60.753	315392.086	6256741.161	193° 44' 25.64"	R = 1.000	0.977	56°00'00.11"
	IP	61.285	315391.960	6256740.644				
	CT	61.731	315391.461	6256740.460	249° 44' 25.75"			
L24	BP	61.731	315391.461	6256740.460	249° 44' 25.93"		0.380	
	EP	62.111	315391.104	6256740.328				
C11	TC	62.111	315391.104	6256740.328	249° 44' 25.64"	R = 2.000	1.955	56°00'00.06"
	IP	63.174	315390.107	6256739.960				
	CT	64.065	315389.854	6256738.927	193° 44' 25.58"			
L25	BP	64.065	315389.854	6256738.927	193° 44' 25.61"		5.300	
	EP	69.365	315388.595	6256733.779				
L26	BP	69.365	315388.595	6256733.779	103° 44' 25.24"		0.450	
	EP	69.815	315389.032	6256733.672				

CONTROL LINE SETOUT MB32

	PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
L27	BP	69.815	315389.032	6256733.672	193° 44' 25.64"		4.350	
	EP	74.165	315387.999	6256729.446				
C12	TC	74.165	315387.999	6256729.446	193° 44' 25.50"	R = 0.140	0.137	56°00'00.99"
	IP	74.240	315387.981	6256729.374				
	CT	74.302	315388.031	6256729.319	137° 44' 24.51"			
L28	BP	74.302	315388.031	6256729.319	137° 44' 25.60"		0.700	
	EP	75.002	315388.502	6256728.801				
L29	BP	75.002	315388.502	6256728.801	227° 44' 25.64"		0.500	
	EP	75.502	315388.132	6256728.465				
L30	BP	75.502	315388.132	6256728.465	137° 46' 30.46"		0.000	
	EP	75.503	315388.132	6256728.464				
C13	TC	75.503	315388.132	6256728.464	137° 44' 25.63"	R = 0.850	0.831	56°00'00.11"
	IP	75.955	315388.436	6256728.130				
	CT	76.333	315388.329	6256727.691	193° 44' 25.74"			
L31	BP	76.333	315388.329	6256727.691	193° 44' 25.64"		4.603	
	EP	80.936	315387.236	6256723.220				
L32	BP	80.936	315387.236	6256723.220	159° 59' 25.69"		0.460	
	EP	81.396	315387.393	6256722.788				
L33	BP	81.396	315387.393	6256722.788	249° 59' 25.51"		0.886	
	EP	82.283	315386.560	6256722.484				
C14	TC	82.283	315386.560	6256722.484	249° 59' 25.83"	R = 0.500	0.489	56°05'00.09"
	IP	82.549	315386.310	6256722.393				
	CT	82.772	315386.246	6256722.135	193° 54' 25.74"			
L34	BP	82.772	315386.246	6256722.135	193° 54' 25.62"		4.900	
	EP	87.672	315385.068	6256717.378				
L35	BP	87.672	315385.068	6256717.378	283° 54' 25.53"		0.500	
	EP	88.172	315384.583	6256717.498				
L36	BP	88.172	315384.583	6256717.498	193° 54' 25.66"		3.400	
	EP	91.572	315383.766	6256714.198				
C15	TC	91.572	315383.766	6256714.198	193° 54' 25.58"	R = 2.000	1.955	55°59'59.91"
	IP	92.635	315383.510	6256713.166				
	CT	93.527	315384.223	6256712.377	137° 54' 25.67"			
L37	BP	93.527	315384.223	6256712.377	137° 54' 25.61"		1.919	
	EP	95.446	315385.509	6256710.953				
C16	TC	95.446	315385.509	6256710.953	137° 54' 23.16"	R = 0.050	0.108	124°09'57.28"
	IP	95.540	315385.573	6256710.883				
	CT	95.554	315385.595	6256710.974	13° 44' 25.88"			

Issue	Description	DR	CH	VE	Date
02	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
01	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CR	GD	10.09.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	J. PEÑA	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: BIORETENTION SECTIONS SHEET 2

ARCADIS
Arcadis Australia Pacific Pty Limited
Level 15, 580 George Street
SYDNEY NSW 2000
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www.arcadis.com/au

Project Number: 30286862

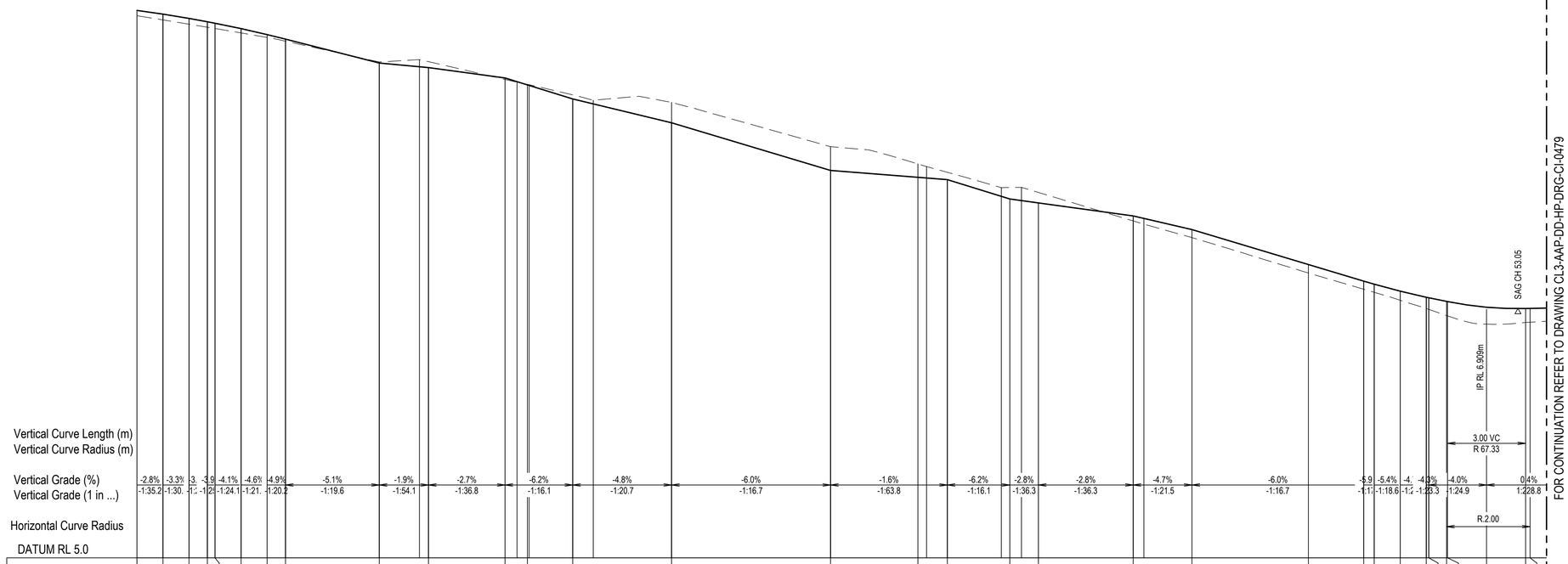
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Issue: 02

Date Plotted: 13 Nov 2025 - 02:52pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0476-BioRetentionSectionsSheet2.dwg

NOTES

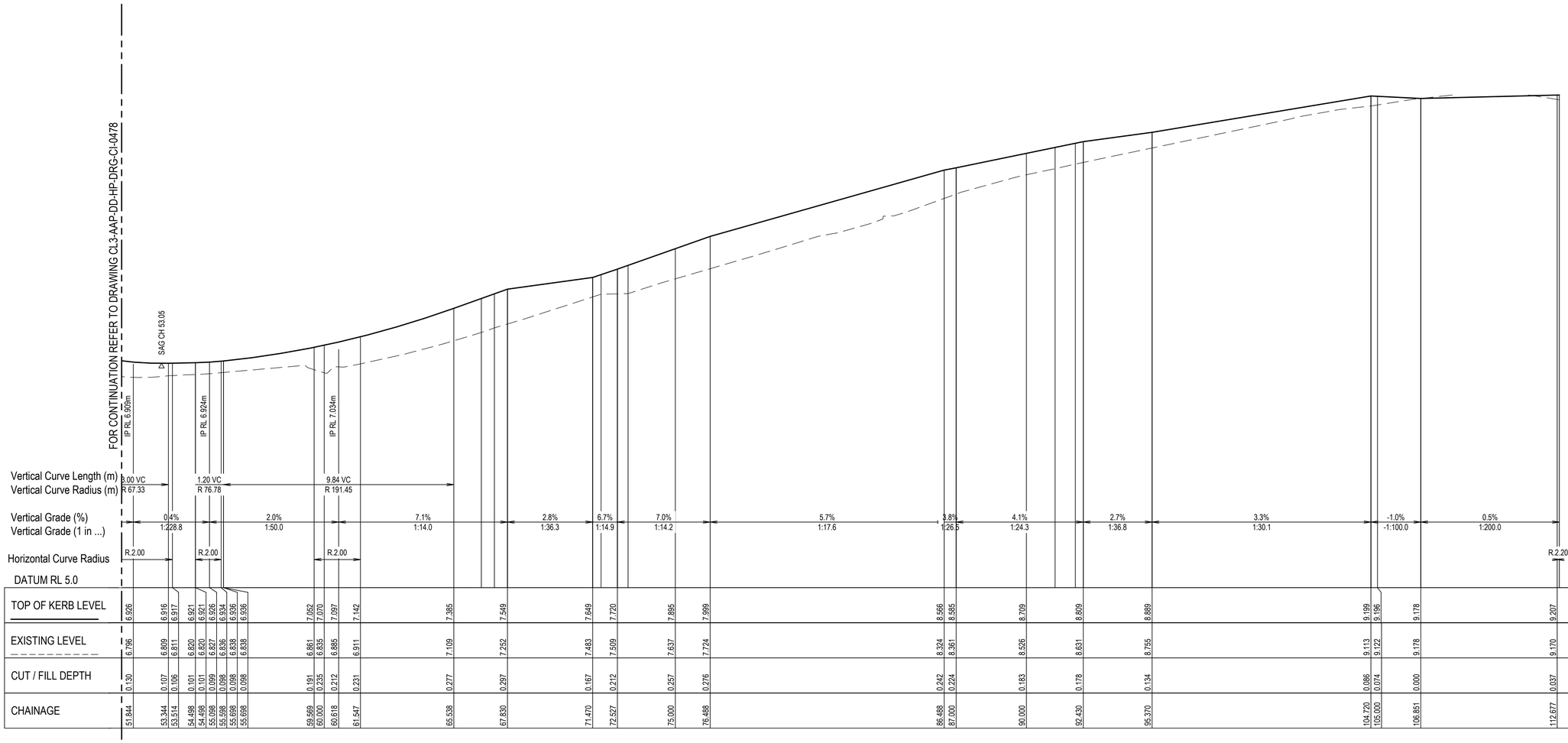
1. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0473 TO 0474 FOR THE BIORETENTION SETOUT PLAN .



| | | |

NOTES

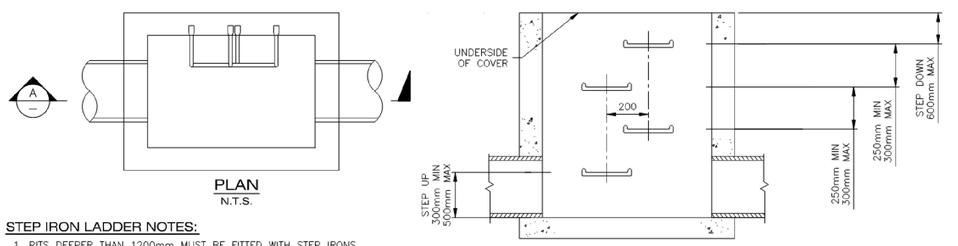
1. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0473 TO 0474 FOR THE BIORETENTION SETOUT PLAN .



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NOTES

1. DETAILS TAKEN DIRECTLY FROM CITY OF PARRAMATTA (CoP) STANDARD DRAWINGS

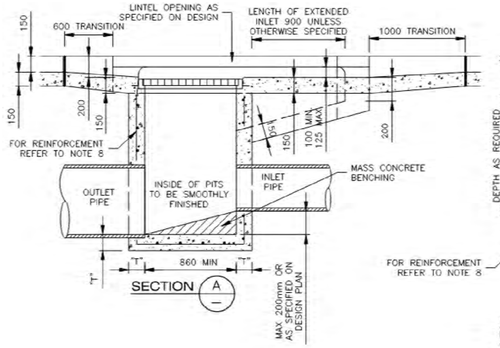


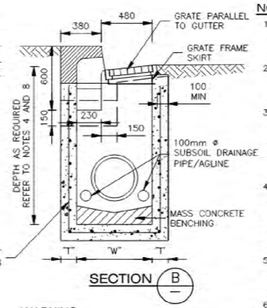
STEP IRON LADDER NOTES:

1. PITS DEEPER THAN 1200mm MUST BE FITTED WITH STEP IRONS.
2. VERTICAL RISE NOT TO EXCEED 6m.
3. STEP IRONS TO BE LOCATED DESIRABLY ON A WALL WITHOUT PIPE OPENINGS AND ON ONE OF THE LONG SIDES OF THE PIT AND ARE NOT TO OBSTRUCT MAIN FLOW.
4. STEEL FOR STEP IRONS SHALL BE STRUCTURAL GRADE 250 TO AS/NZS 3679.1:2016 MINIMUM 20mm ø DESIRABLY 24mm ø.
5. STEP IRONS SHALL HAVE SHARP EDGES ROUNDED AND HOT DIP GALVANISED AFTER FABRICATION TO AS/NZS 4680:2006 (R2017).
6. ALL BENDS TO BE FORMED AROUND 12mm ø PIN.
7. STEP IRONS TO COMPLY WITH AS 1657:2018 AND MANUFACTURERS SPECIFICATIONS EN 13101:2002.
8. TO AVOID SLIPS GALVANISED STEEL STEP IRONS MUST BE CRANKED. PLASTIC COATED STEP IRONS SHOULD BE TEXTURED FOR GRIP AND MUST HAVE FORMED RETURNS ON SIDES.
9. STEP IRONS SHALL BE PROVIDED WITH SUITABLE CORROSION PROTECTION (eg. PLASTIC ENCAPSULATION) IN ACCORDANCE WITH EN 13101:2002.
10. STEP IRONS TO BE SPACED EVENLY FROM TOP TO BOTTOM NOT LESS THAN 250mm OR MORE THAN 300mm.
11. THE TOP OF THE BOTTOM RUNG MUST NOT BE MORE THAN 500mm OR LESS THAN 300mm ABOVE THE INVERT OF THE PIT.
12. THE TOP OF THE UPPER MOST RUNG MUST NOT BE MORE THAN 600mm BELOW THE TOP OF THE PIT.
13. FOR PRECAST PITS, STEP IRONS SHALL BE LOAD TESTED TO AS 4198-1994.
14. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

STEP IRON DETAILS
N.T.S. (in mm)

STEP IRONS
CITY OF PARRAMATTA COUNCIL (DS19)





NOTES

1. ALL KERB INLET PITS (ON GRADE) SHALL BE PROVIDED WITH AN EXTENDED INLET 900mm (MIN) LONG ON THE HIGHER SIDE.
2. PITS DEEPER THAN 2500mm TO BE DESIGNED AND CERTIFIED BY A QUALIFIED EXPERIENCED PRACTICING STRUCTURAL ENGINEER. (PRECAST OR CAST IN-SITU)
3. PRE-CAST PITS CAN BE USED ONLY IF THEY ARE CONSISTENT WITH COUNCIL'S MINIMUM REQUIREMENTS AS SHOWN ON COUNCIL'S STANDARD DRAWINGS AND IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND AT THE DIRECTION OF THE SUPERINTENDENT.
4. STEP IRONS TO BE PROVIDED AT 300mm CENTRES FOR PITS GREATER THAN 1200mm DEEP AND PLACED ON A WALL CLEAR OF FLOW WHERE POSSIBLE IN ACCORDANCE WITH AS 1657:2018. REFER TO COUNCIL STANDARD DRAWING DS19.
5. CONCRETE TO BE A MINIMUM OF N32 IN ACCORDANCE WITH AS 1012, AS 1379-2007 (R2017) AND AS 3600:2018.
6. MINIMUM COVER TO ALL PIPES TO BE 600mm UNDER ROADS AND 450 ELSEWHERE.
7. ALL INTERNAL PIT CORNERS TO BE PROVIDED WITH BENCHING TO IMPROVE FLOW.
8. WHERE INTERNAL WIDTH EXCEEDS 750mm OR DEPTH EXCEEDS 1200mm WALLS TO BE REINFORCED. PROVIDE N16 REINFORCEMENT AT 250mm CENTRE/CENTRE BOTH WAYS OR MESH SL72 CENTRALLY PLACED.
9. MINIMUM WALL AND BASE THICKNESS MUST BE 150mm ("T") AND WHERE PIT DEPTH EXCEEDS 1200mm TO BE 200mm ("T") OR AS SPECIFIED IN THE DESIGN.
10. MINIMUM WIDTH OF "W" SHOULD BE OD (OUTER DIAMETER) OF LARGER PIPE + 200mm.
11. SELECTED GRANULAR MATERIAL BACKFILL SHALL BE PLACED TO FILL ALL EXCAVATED VOIDS. REFER TO AS / NZS 3725:2007.
12. ALL PIPES TO BE LAID SO THAT THEIR CENTRELINES INTERSECT AT THE CENTRE OF THE PIT.
13. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.

WARNING

IN THE LIKELIHOOD THAT ASBESTOS OR OTHER CONTAMINATED CONTAINING MATERIALS MAY BE PRESENT, EXERCISE APPROPRIATE CAUTION AND TREAT IN ACCORDANCE WITH WHS REGULATIONS AND THE EPA CONTAMINATED LAND MANAGEMENT REGULATION.

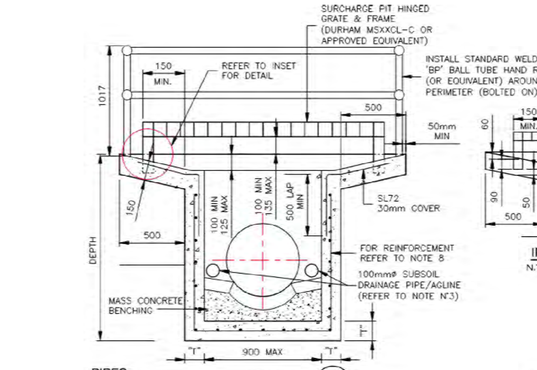
PIT GRATE AND FRAME

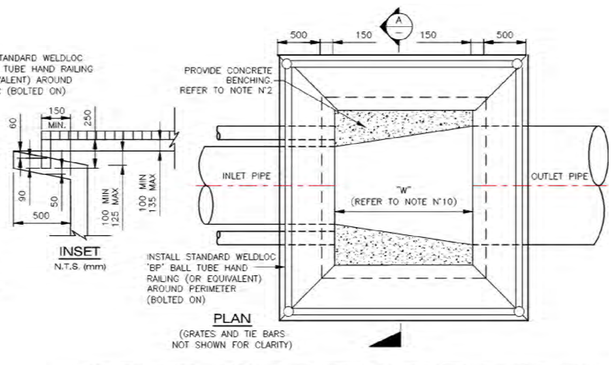
- PIT GRATE AND FRAME ARE TO BE DURHAM DRAINAGE PRODUCTS OR APPROVED EQUIVALENT AND COMPLY TO AS 3996:2019.
- CLASS OF GRATE AND FRAME ARE TO BE CLASS "D" FOR ROAD WAY. CLASS "C" ELSEWHERE.
- GRATE AND FRAME TO BE "MEDIUM/HEAVY TRAFFICABLE BIKE SAFE.

SUBSOIL DRAINAGE PIPE

100mm DIA. SUBSOIL DRAINAGE PIPE/AGLINE 3.0m LONG WRAPPED IN FABRIC SOCK TO BE PLACED ADJACENT TO INLET PIPES ON BOTH SIDES AND 100mm MINIMUM ABOVE PIT FLOOR. SURROUND SUBSOIL DRAINAGE PIPE/AGLINE WITH 10mm AGGREGATE.

KERB INLET PIT (ON GRADE)
CITY OF PARRAMATTA COUNCIL (DS21)





PIPES

MAXIMUM SIZE PIPES
- INLET 750mm DIA
- OUTLET 900mm DIA ON STRAIGHT

GRATE

PIT GRATES TO BE CLASS "C" (150kN) (REFER TO AS 3996:2019)
GRATES ARE HINGED AND LOCKABLE.

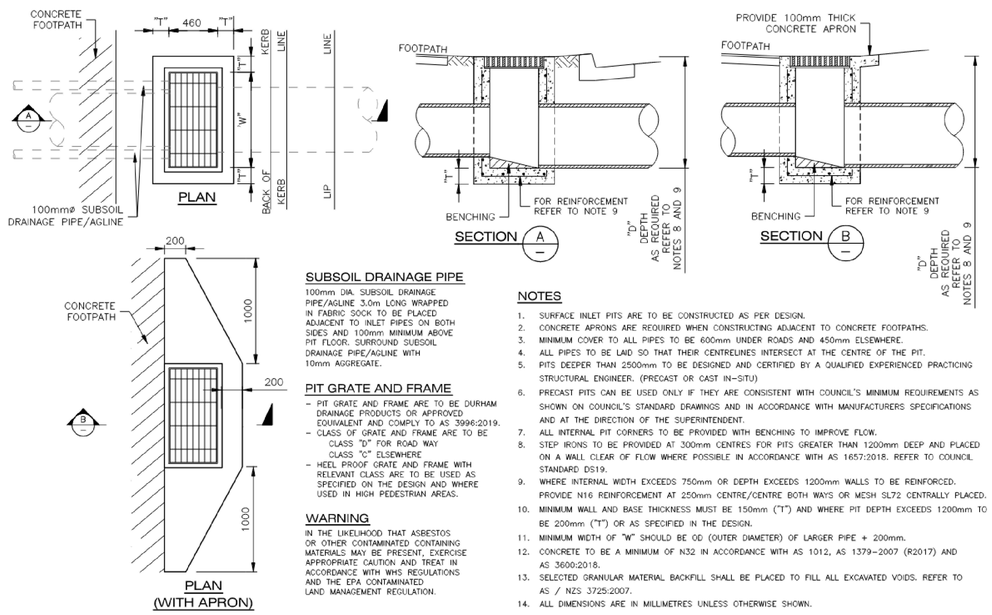
WARNING

IN THE LIKELIHOOD THAT ASBESTOS OR OTHER CONTAMINATED CONTAINING MATERIALS MAY BE PRESENT, EXERCISE APPROPRIATE CAUTION AND TREAT IN ACCORDANCE WITH WHS REGULATIONS AND THE EPA CONTAMINATED LAND MANAGEMENT REGULATION.

NOTES

1. CONCRETE TO BE A MINIMUM OF N32 IN ACCORDANCE WITH AS 1012, AS 1379-2007 (R2017) AND AS 3600:2018.
2. PROVIDE CONCRETE BENCHING ACROSS PIT TO SUIT INLET AND OUTLET PIPES AS DETAILED.
3. 100mm SUBSOIL DRAINAGE PIPE/AGLINE 3.0m LONG WRAPPED IN FABRIC SOCK TO BE PLACED ADJACENT TO INLET PIPES ON BOTH SIDES AND 100mm MINIMUM ABOVE PIT FLOOR. SURROUND SUBSOIL DRAINAGE PIPE/AGLINE WITH 10mm AGGREGATE.
4. PITS DEEPER THAN 2500mm TO BE DESIGNED AND CERTIFIED BY A QUALIFIED EXPERIENCED PRACTICING STRUCTURAL ENGINEER. (PRECAST OR CAST IN-SITU)
5. PRE-CAST CONCRETE PITS CAN BE USED ONLY IF THEY ARE CONSISTENT WITH COUNCIL'S MINIMUM REQUIREMENTS AS SHOWN ON COUNCIL'S STANDARD DRAWINGS AND IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND AT THE DIRECTION OF THE SUPERINTENDENT.
6. STEP IRONS TO BE PROVIDED AT 300mm CENTRES FOR PITS GREATER THAN 1200mm DEEP AND PLACED ON A WALL CLEAR OF FLOW WHERE POSSIBLE IN ACCORDANCE WITH AS 1657:2018. REFER TO COUNCIL STANDARD DRAWING DS19
7. SELECTED GRANULAR BACK FILL IS TO BE PLACED TO FILL ALL EXCAVATED VOIDS. REFER TO AS /NZS 3725:2007
8. WHERE INTERNAL WIDTH EXCEEDS 900mm OR DEPTH EXCEEDS 1200mm WALLS TO BE REINFORCED. PROVIDE N16 REINFORCEMENT AT 250mm CENTRE/CENTRE BOTH WAYS OR MESH SL72 CENTRALLY PLACED.
9. MINIMUM WALL AND BASE THICKNESS MUST BE 150mm ("T") AND WHERE PIT DEPTH EXCEEDS 1200mm TO BE 200mm ("T") OR AS SPECIFIED IN THE DESIGN.
10. MINIMUM WIDTH OF "W" SHOULD BE OD (OUTER DIAMETER) OF LARGER PIPE + 200mm.
11. ALL PIPES TO BE LAID SO THAT THEIR CENTRELINES INTERSECT AT THE CENTRE OF THE PIT.
12. MINIMUM COVER TO ALL PIPES TO BE 600mm UNDER ROADS AND 450mm ELSEWHERE.
13. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

INLET PIT - RAISED GRATE
CITY OF PARRAMATTA COUNCIL (DS23)



SUBSOIL DRAINAGE PIPE

100mm DIA. SUBSOIL DRAINAGE PIPE/AGLINE 3.0m LONG WRAPPED IN FABRIC SOCK TO BE PLACED ADJACENT TO INLET PIPES ON BOTH SIDES AND 100mm MINIMUM ABOVE PIT FLOOR. SURROUND SUBSOIL DRAINAGE PIPE/AGLINE WITH 10mm AGGREGATE.

PIT GRATE AND FRAME

- PIT GRATE AND FRAME ARE TO BE DURHAM DRAINAGE PRODUCTS OR APPROVED EQUIVALENT AND COMPLY TO AS 3996:2019.
- CLASS OF GRATE AND FRAME ARE TO BE CLASS "D" FOR ROAD WAY CLASS "C" ELSEWHERE
- HEEL PROOF GRATE AND FRAME WITH RELEVANT CLASS ARE TO BE USED AS SPECIFIED ON THE DESIGN AND WHERE USED IN HIGH PEDESTRIAN AREAS.

WARNING

IN THE LIKELIHOOD THAT ASBESTOS OR OTHER CONTAMINATED CONTAINING MATERIALS MAY BE PRESENT, EXERCISE APPROPRIATE CAUTION AND TREAT IN ACCORDANCE WITH WHS REGULATIONS AND THE EPA CONTAMINATED LAND MANAGEMENT REGULATION.

NOTES

1. SURFACE INLET PITS ARE TO BE CONSTRUCTED AS PER DESIGN.
2. CONCRETE APRONS ARE REQUIRED WHEN CONSTRUCTING ADJACENT TO CONCRETE FOOTPATHS.
3. MINIMUM COVER TO ALL PIPES TO BE 600mm UNDER ROADS AND 450mm ELSEWHERE.
4. ALL PIPES TO BE LAID SO THAT THEIR CENTRELINES INTERSECT AT THE CENTRE OF THE PIT.
5. PITS DEEPER THAN 2500mm TO BE DESIGNED AND CERTIFIED BY A QUALIFIED EXPERIENCED PRACTICING STRUCTURAL ENGINEER. (PRECAST OR CAST IN-SITU)
6. PRECAST PITS CAN BE USED ONLY IF THEY ARE CONSISTENT WITH COUNCIL'S MINIMUM REQUIREMENTS AS SHOWN ON COUNCIL'S STANDARD DRAWINGS AND IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND AT THE DIRECTION OF THE SUPERINTENDENT.
7. ALL INTERNAL PIT CORNERS TO BE PROVIDED WITH BENCHING TO IMPROVE FLOW.
8. STEP IRONS TO BE PROVIDED AT 300mm CENTRES FOR PITS GREATER THAN 1200mm DEEP AND PLACED ON A WALL CLEAR OF FLOW WHERE POSSIBLE IN ACCORDANCE WITH AS 1657:2018. REFER TO COUNCIL STANDARD DS19.
9. WHERE INTERNAL WIDTH EXCEEDS 750mm OR DEPTH EXCEEDS 1200mm WALLS TO BE REINFORCED. PROVIDE N16 REINFORCEMENT AT 250mm CENTRE/CENTRE BOTH WAYS OR MESH SL72 CENTRALLY PLACED.
10. MINIMUM WALL AND BASE THICKNESS MUST BE 150mm ("T") AND WHERE PIT DEPTH EXCEEDS 1200mm TO BE 200mm ("T") OR AS SPECIFIED IN THE DESIGN.
11. MINIMUM WIDTH OF "W" SHOULD BE OD (OUTER DIAMETER) OF LARGER PIPE + 200mm.
12. CONCRETE TO BE A MINIMUM OF N32 IN ACCORDANCE WITH AS 1012, AS 1379-2007 (R2017) AND AS 3600:2018.
13. SELECTED GRANULAR MATERIAL BACKFILL SHALL BE PLACED TO FILL ALL EXCAVATED VOIDS. REFER TO AS / NZS 3725:2007.
14. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

SURFACE INLET PIT FOR FOOTPATHS
CITY OF PARRAMATTA COUNCIL (DS25)

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales: NOT TO SCALE

Surveyor: surveyplus DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	J. PEÑA	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: STORMWATER DETAILS SHEET 1

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ABN 76 104 485 289
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Project Number: 30286862

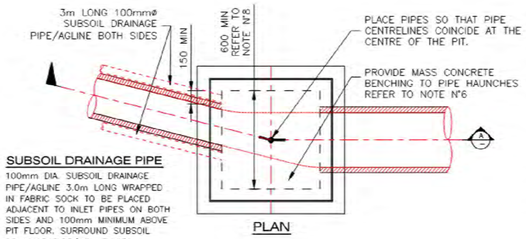
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Issue: 03

100mm on Original

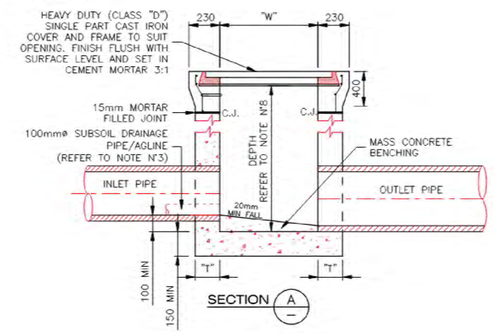
NOTES

1. DETAILS TAKEN DIRECTLY FROM CITY OF PARRAMATTA (CoP) STANDARD DRAWINGS



SUBSOIL DRAINAGE PIPE

100mm DIA. SUBSOIL DRAINAGE PIPE/AGLINE 3.0m LONG WRAPPED IN FABRIC SOCK TO BE PLACED ADJACENT TO INLET PIPES ON BOTH SIDES AND 100mm MINIMUM ABOVE PIT FLOOR. SURROUND SUBSOIL DRAINAGE PIPE/AGLINE WITH 10mm AGGREGATE.



NOTES

1. MINIMUM COVER TO ALL PIPES TO BE 600mm UNDER ROADS AND 450mm ELSEWHERE.
2. ALL PIPES TO BE LAID SO THAT THEIR CENTRELINES INTERSECT AT THE CENTRE OF THE PIT.
3. PITS DEEPER THAN 2500mm TO BE DESIGNED AND CERTIFIED BY A QUALIFIED EXPERIENCED PRACTICING STRUCTURAL ENGINEER. (PRECAST OR CAST IN-SITU)
4. PRECAST PITS CAN BE USED ONLY IF THEY ARE CONSISTENT WITH COUNCIL'S MINIMUM REQUIREMENTS AS SHOWN ON COUNCIL'S STANDARD DRAWINGS AND IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND AT THE DIRECTION OF THE SUPERINTENDENT.
5. THE INLET PIPE IS TO BE NO HIGHER THAN THE OUTLET PIPE OBVERT.
6. PROVIDE CONCRETE BENCHING ACROSS PIT TO SUIT INLET AND OUTLET PIPES AS DETAILED.
7. STEP IRONS TO BE PROVIDED AT 300mm CENTRES FOR PITS GREATER THAN 1200mm DEEP AND PLACED ON A WALL CLEAR OF FLOW WHERE POSSIBLE IN ACCORDANCE WITH AS 1657:2018. REFER TO COUNCIL STANDARD DS19.
8. MINIMUM INTERNAL DIMENSIONS: 600mmx600mm FOR DEPTH LESS THAN 800 OR 900mmx600mm FOR DEPTH OF 800mm TO 1200mm. WHERE INTERNAL WIDTH EXCEEDS 750mm OR DEPTH EXCEEDS 1200mm WALLS TO BE REINFORCED. PROVIDE N16 REINFORCEMENT AT 250mm CENTRE/CENTRE BOTH WAYS OR MESH SL72 CENTRALLY PLACED.
9. MINIMUM WALL AND BASE THICKNESS MUST BE 150mm ("T") AND WHERE PIT DEPTH EXCEEDS 1200mm TO BE 200mm ("T") OR AS SPECIFIED IN THE DESIGN.
10. MINIMUM WIDTH OF "W" SHOULD BE OD (OUTER DIAMETER) OF LARGER PIPE + 200mm.
11. CONCRETE TO BE A MINIMUM OF N32 IN ACCORDANCE WITH AS 1012, AS 1379-2007 (R2107) AND AS 3600:2018.
12. SELECTED GRANULAR MATERIAL BACKFILL SHALL BE PLACED TO FILL ALL EXCAVATED VOIDS. REFER TO AS / NZS 3725:2007.
13. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

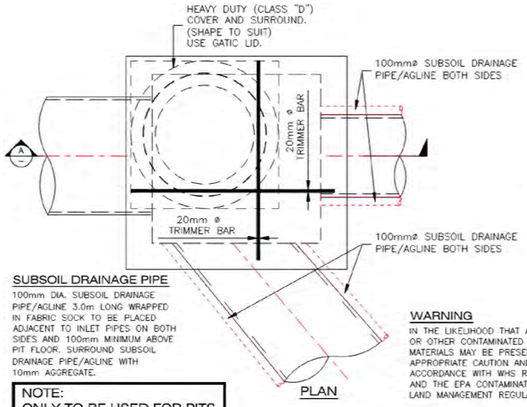
PIT GRATE AND FRAME

PIT GRATE AND FRAME ARE TO BE DURHAM DRAINAGE PRODUCTS OR APPROVED EQUIVALENT AND COMPLY TO AS 3996:2019.
- CLASS OF GRATE AND FRAME ARE TO BE CLASS "D" FOR ROAD WAY CLASS "C" ELSEWHERE
- HEEL PROOF GRATE AND FRAME WITH RELEVANT CLASS ARE TO BE USED AS SPECIFIED ON THE DESIGN AND WHERE USED IN HIGH PEDESTRIAN AREAS.

WARNING

IN THE LIKELIHOOD THAT ASBESTOS OR OTHER CONTAMINATED CONTAINING MATERIALS MAY BE PRESENT, EXERCISE APPROPRIATE CAUTION AND TREAT IN ACCORDANCE WITH WHS REGULATIONS AND THE EPA CONTAMINATED LAND MANAGEMENT REGULATION.

JUNCTION PIT
CITY OF PARRAMATTA COUNCIL (DS26)



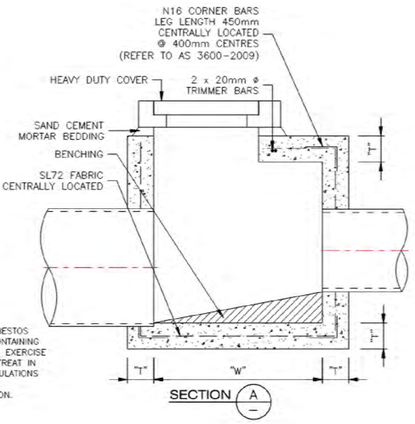
SUBSOIL DRAINAGE PIPE

100mm DIA. SUBSOIL DRAINAGE PIPE/AGLINE 3.0m LONG WRAPPED IN FABRIC SOCK TO BE PLACED ADJACENT TO INLET PIPES ON BOTH SIDES AND 100mm MINIMUM ABOVE PIT FLOOR. SURROUND SUBSOIL DRAINAGE PIPE/AGLINE WITH 10mm AGGREGATE.

NOTE:
ONLY TO BE USED FOR PITS DEEPER THAN 1200mm

WARNING

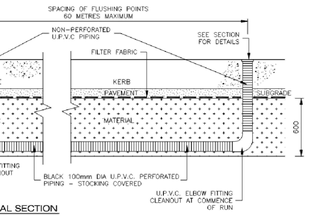
IN THE LIKELIHOOD THAT ASBESTOS OR OTHER CONTAMINATED CONTAINING MATERIALS MAY BE PRESENT, EXERCISE APPROPRIATE CAUTION AND TREAT IN ACCORDANCE WITH WHS REGULATIONS AND THE EPA CONTAMINATED LAND MANAGEMENT REGULATION.

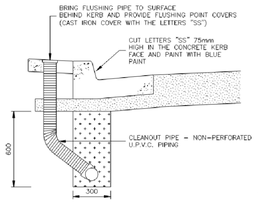


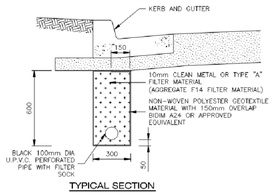
NOTES

1. MINIMUM COVER TO ALL PIPES TO BE 600mm UNDER ROADS AND 450mm ELSEWHERE.
2. ALL PIPES TO BE LAID SO THAT THEIR CENTRELINES INTERSECT AT THE CENTRE OF THE PIT.
3. PITS DEEPER THAN 2500mm TO BE DESIGNED AND CERTIFIED BY A QUALIFIED EXPERIENCED PRACTICING STRUCTURAL ENGINEER. (PRECAST OR CAST IN-SITU)
4. PRECAST PITS CAN BE USED ONLY IF THEY ARE CONSISTENT WITH COUNCIL'S MINIMUM REQUIREMENTS AS SHOWN ON COUNCIL'S STANDARD DRAWINGS AND IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND AT THE DIRECTION OF THE SUPERINTENDENT.
5. PROVIDE CONCRETE BENCHING ACROSS PIT TO SUIT INLET AND OUTLET PIPES AS DETAILED.
6. STEP IRONS TO BE PROVIDED AT 300mm CENTRES FOR PITS GREATER THAN 1200mm DEEP AND PLACED ON A WALL CLEAR OF FLOW WHERE POSSIBLE IN ACCORDANCE WITH AS 1657:2018. REFER TO COUNCIL STANDARD DS19.
7. WHERE INTERNAL WIDTH EXCEEDS 750mm OR DEPTH EXCEEDS 1200mm WALLS TO BE REINFORCED. PROVIDE N16 REINFORCEMENT AT 250mm CENTRE/CENTRE BOTH WAYS OR MESH SL72 CENTRALLY PLACED.
8. MINIMUM WALL AND BASE THICKNESS MUST BE 150mm ("T") AND WHERE PIT DEPTH EXCEEDS 1200mm TO BE 200mm ("T") OR AS SPECIFIED IN THE DESIGN.
9. MINIMUM WIDTH OF "W" SHOULD BE OD (OUTER DIAMETER) OF LARGER PIPE + 200mm.
10. CONCRETE TO BE A MINIMUM BE OF N32 IN ACCORDANCE WITH AS 1012, AS 1379-2007 (R2017) AND AS 3600:2018.
11. SELECTED GRANULAR MATERIAL BACKFILL SHALL BE PLACED TO FILL ALL EXCAVATED VOIDS. REFER TO AS / NZS 3725:2007.
12. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

HEAVY DUTY JUNCTION PIT
CITY OF PARRAMATTA COUNCIL (DS26)







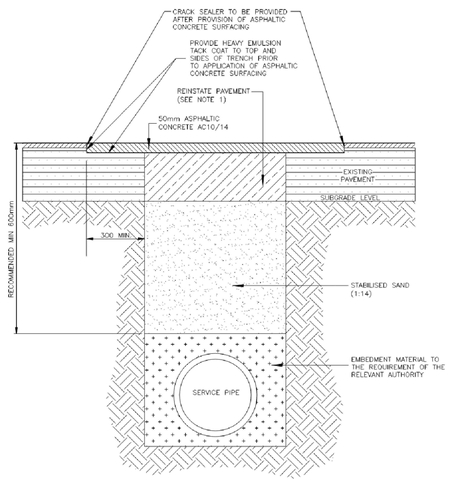
NOTES

1. EXACT LOCATION WHETHER IN ROAD OR BEHIND KERB AND GUTTER TO BE IN ACCORDANCE WITH APPROVED DESIGN DRAWINGS OR AS DETERMINED ON SITE PENDING NUMBER OF CONCRETE DRIVEWAYS THAT NEED TO BE DISTURBED.
2. SELECTED GRANULAR MATERIAL BACKFILL SHALL BE PLACED TO FILL ALL EXCAVATED VOIDS. REFER TO AS / NZS 3725:2007.
3. ALL WORKS AND MATERIALS TO BE ACCORDING TO "AUSPEC"
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

WARNING

IN THE LIKELIHOOD THAT ASBESTOS OR OTHER CONTAMINATED CONTAINING MATERIALS MAY BE PRESENT, EXERCISE APPROPRIATE CAUTION AND TREAT IN ACCORDANCE WITH WHS REGULATIONS AND THE EPA CONTAMINATED LAND MANAGEMENT REGULATION.

SUBSOIL DRAINAGE DETAILS
CITY OF PARRAMATTA COUNCIL (DS33)



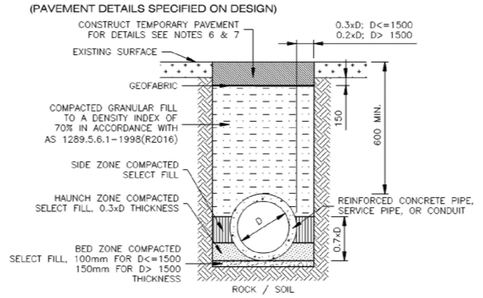
NOTE 1:

REINSTATE PAVEMENT – MATCH EXISTING PAVEMENT TYPE AND THICKNESS OR APPLY THE FOLLOWING MINIMUM THICKNESS, WHICHEVER IS THICKER UNLESS OTHERWISE INSTRUCTED BY COUNCIL'S ENGINEER:
- ASPHALT PAVEMENT: MINIMUM 150mm AC20 IN TWO LAYERS IN ACCORDANCE TO AUS SPEC 1144 (ROADWAYS) OR RMS SPEC R116 (HEAVY DUTY DENSE GRADED ASPHALT)
- STABILISED PAVEMENT: 225mm STABILISED MATERIAL CONSTRUCTED IN ONE LAYER (AUS SPEC 1141 FLEXIBLE PAVEMENT BASE AND SUBBASE) (UCS=1.5~3MPa)
- UNBOUND GRANULAR PAVEMENT: 250mm OF DGB20 IN TWO LAYERS (AUS SPEC 1141 FLEXIBLE PAVEMENT BASE AND SUBBASE)

WARNING

IN THE LIKELIHOOD THAT ASBESTOS OR OTHER CONTAMINATED CONTAINING MATERIALS MAY BE PRESENT, EXERCISE APPROPRIATE CAUTION AND TREAT IN ACCORDANCE WITH WHS REGULATIONS AND THE EPA CONTAMINATED LAND MANAGEMENT REGULATION.

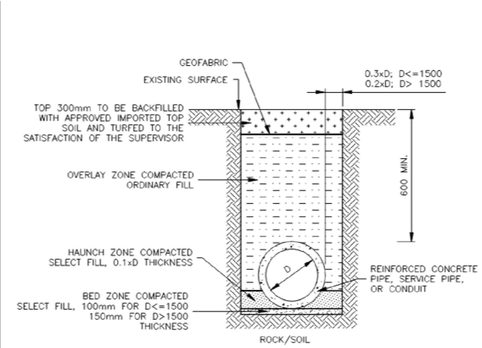
INSTALLATION OF PIPELINES AND RESTORATION OF TRENCHES (SERVICES)
CITY OF PARRAMATTA COUNCIL (DS37)



INSTALLATION AND BACKFILL DETAILS FOR PIPES
- UNDER ROAD PAVEMENT, CONCRETE FOOTPAVING AND VEHICULAR CROSSINGS (DRIVEWAYS)

NOTES

1. INSTALLATION IS TO CONFORM WITH THE REQUIREMENT OF AS / NZS 3725:2007 FOR TYPE HS3 SUPPORT.
2. FOR CONCRETE PAVEMENTS BACKFILL IS TO BE LOW STRENGTH 5MPa CONCRETE OR 14:1 SAND:CEMENT MIX.
3. BEDDING IS TO COMPLY WITH THE REQUIREMENTS OF ANY APPROVAL GIVEN BY A PUBLIC UTILITY AUTHORITY.
4. MINIMUM COVER OF 600mm SHALL BE PROVIDED TO ALL PIPELINES, INCLUDING SERVICES CONDUITS. SPECIFIC APPROVAL WILL BE REQUIRED FROM COUNCIL TO VARY THIS REQUIREMENT.
5. CONCRETE VEHICULAR CROSSINGS SHALL BE SAWCUT ONCE ONLY (ALONG NEAREST JOINT) AND RESTORED TO LEAVE TWO SECTIONS ONLY.
6. TEMPORARY PAVEMENT FOR ROADWAY AND VEHICULAR CROSSING (DRIVEWAY) RESTORATION SHALL CONSIST OF 30-50mm BITUMINOUS COLD MIX OVER COMPACTED FINE CRUSHED ROCK (GRADED TO DGB20). TOTAL ROADWAY PAVEMENT THICKNESS IS TO BE EQUIVALENT TO THE EXISTING PAVEMENT THICKNESS PLUS 150mm (300mm MIN. THICKNESS SHALL APPLY).
7. TEMPORARY PAVEMENT FOR FOOTPAVING SHALL CONSIST OF 30-50mm BITUMINOUS COLD MIX OVER 100mm (MIN. THICKNESS) OF COMPACTED FINE CRUSHED ROCK (GRADED TO DGB20).
8. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.



INSTALLATION AND BACKFILL DETAILS FOR PIPES
- UNDER UNPAVED AREAS IN PARKS / RESERVES / FOOTWAYS

NOTES

1. INSTALLATION IS TO CONFORM WITH THE REQUIREMENT OF AS / NZS 3725:2007 FOR TYPE HS1 SUPPORT.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

WARNING

IN THE LIKELIHOOD THAT ASBESTOS OR OTHER CONTAMINATED CONTAINING MATERIALS MAY BE PRESENT, EXERCISE APPROPRIATE CAUTION AND TREAT IN ACCORDANCE WITH WHS REGULATIONS AND THE EPA CONTAMINATED LAND MANAGEMENT REGULATION.

INSTALLATION OF PIPELINES AND RESTORATION OF TRENCHES (DRAINAGE)
CITY OF PARRAMATTA COUNCIL (DS37)

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales: NOT TO SCALE

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	J. PEÑA	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: STORMWATER DETAILS SHEET 2

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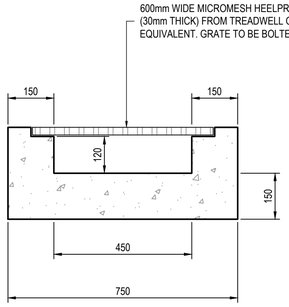
Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0482

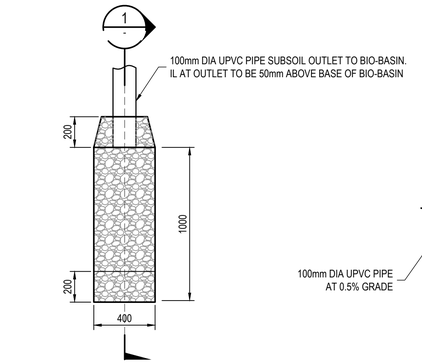
Issue: 03

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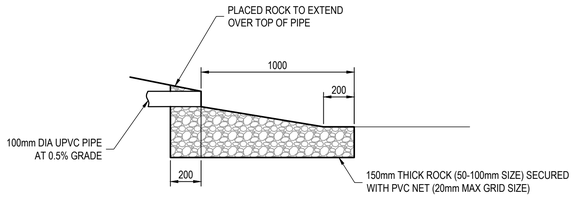
Date Plotted: 13 Nov 2025 - 02:55pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0482-StormwaterDetailsSheet2.dwg



TRENCH DRAIN DETAIL
SCALE 1 : 10



SCOUR PROTECTION PLAN
1 : 20



SECTION 1 / -
1 : 20

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RS	GD	MK	12.11.2025

Scales

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1 : 20

0 100 200 400 600 800 1000mm

1 : 10

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures			
Drawn	R. SANTOS	Original Size	A1
Designed	J. PEÑA	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: STORMWATER DETAILS SHEET 3

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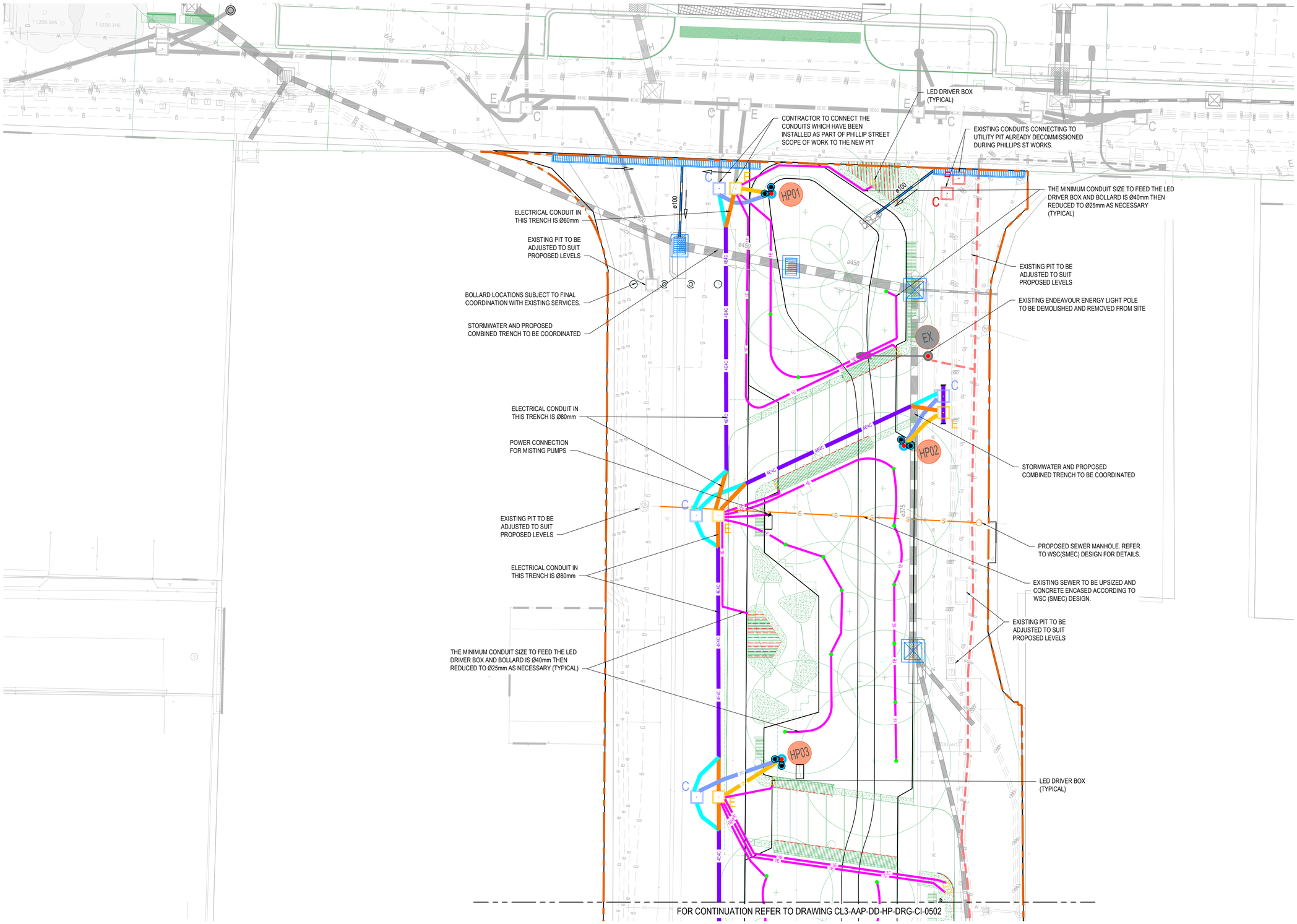
Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0483

Issue: 01

100mm on Original

Date Plotted: 13 Nov 2025 - 02:55pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0483-StormwaterDetailsSheet3.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- ARCHITECTURAL WORKS
- EXISTING ENDEAVOUR ENERGY CONDUIT TO BE DECOMMISSION AND REMAIN IN SITU. REFER TO ASP3 DRAWING
- CoP PROPOSED 1x ELECTRICAL CONDUIT
- CoP PROPOSED 3x ELECTRICAL CONDUITS
- CoP PROPOSED 3x COMMUNICATION CONDUITS
- CoP PROPOSED 3x ELECTRICAL CONDUITS & COMMUNICATION CONDUITS
- CoP PROPOSED 4x ELECTRICAL CONDUITS
- CoP PROPOSED 4x COMMUNICATION CONDUITS
- CoP PROPOSED 4x ELECTRICAL & COMMUNCATION CONDUITS
- CoP PROPOSED 6x ELECTRICAL CONDUITS
- CoP PROPOSED 6x COMMUNICATION CONDUITS
- CoP PROPOSED 6x ELECTRICAL & COMMUNCATION CONDUITS
- CoP EXISTING CONDUITS TO BE REUSED
- CoP EXISTING CONDUITS TO BE DEMOLISHED
- CoP EXISTING CONDUITS TO BE DECOMMISSIONED AND REMAIN IN SITU
- CoP PROPOSED LED LIGHTING
- PROPOSED SEWER
- EXISTING COMM OPTICAL FIBRE
- EXISTING SEWER
- EXISTING GAS
- EXISTING WATER
- EXISTING COMM.
- EXISTING ELEC (UNDERGROUND)
- PROPOSED SEWER MANHOLE
- CoP PROPOSED 600x600 ELECTRICAL PIT
- CoP EXISTING ELECTRICAL PIT TO REMAIN
- CoP EXISTING ELECTRICAL PIT TO BE DEMOLISHED
- CoP PROPOSED 600x600 COMMUNICATION PIT
- CoP EXISTING COMMUNICATION PIT TO REMAIN
- CoP EXISTING COMMUNICATION PIT TO BE DEMOLISHED
- CoP PROPOSED MFP WITH CIRCULAR AND RECTANGULAR FLOODLIGHT
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x3)
- EXISTING ENDEAVOUR ENERGY LIGHT POLE TO BE DEMOLISHED
- BOLLARD LIGHTING
- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	C. NUGPO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: COMBINED UTILITIES PLAN
SHEET 1

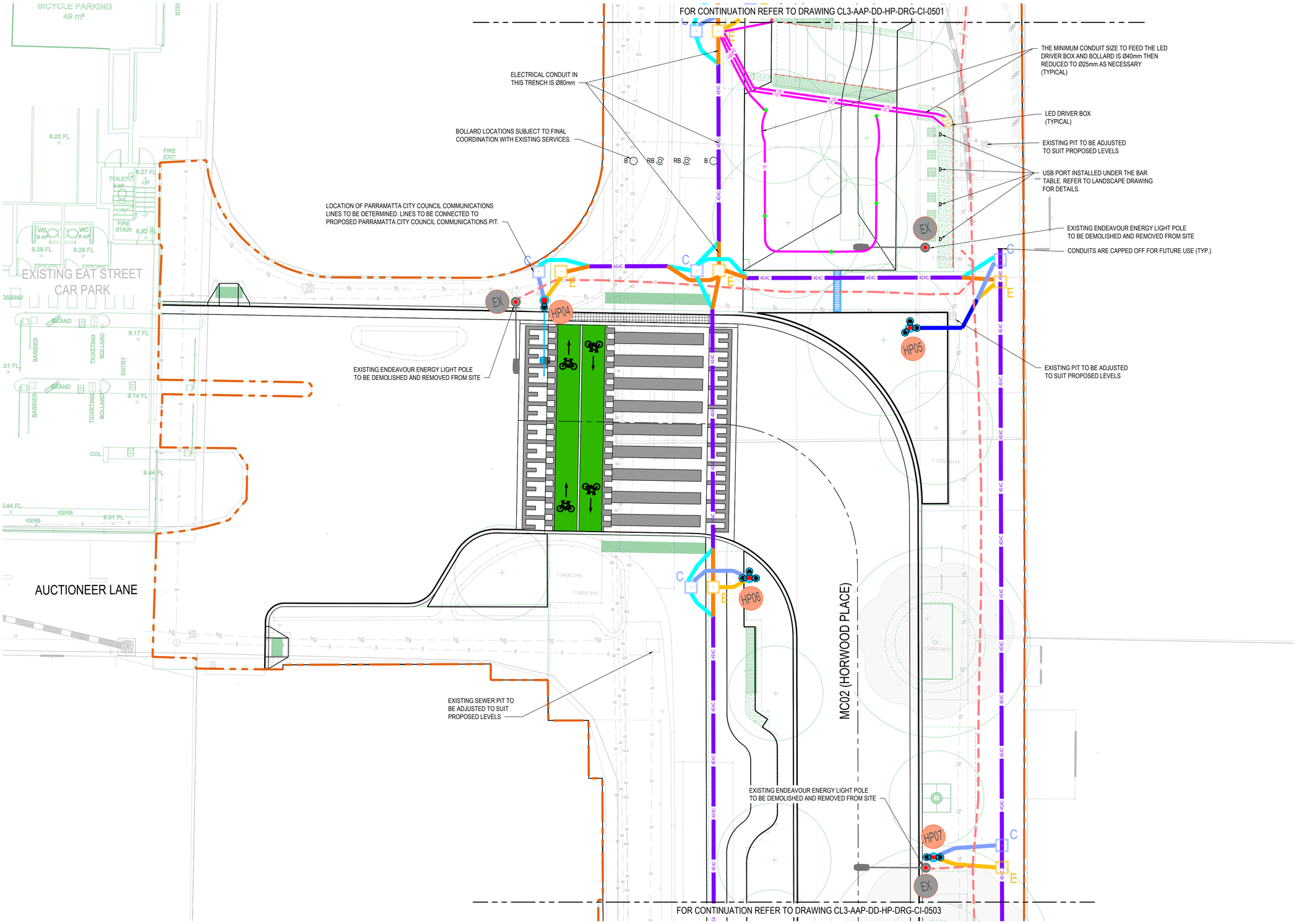
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0501

Issue: 03

Date Plotted: 13 Nov 2025 - 02:56pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0501-CombinedUtilitiesPlanSheet1.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- ARCHITECTURAL WORKS
- EXISTING ENDEAVOUR ENERGY CONDUIT TO BE DECOMMISSION AND REMAIN IN SITU. REFER TO ASP3 DRAWING
- CoP PROPOSED 1x ELECTRICAL CONDUIT
- CoP PROPOSED 3x ELECTRICAL CONDUITS
- CoP PROPOSED 3x COMMUNICATION CONDUITS
- CoP PROPOSED 3x ELECTRICAL CONDUITS & COMMUNICATION CONDUITS
- CoP PROPOSED 4x ELECTRICAL CONDUITS
- CoP PROPOSED 4x COMMUNICATION CONDUITS
- CoP PROPOSED 4x ELECTRICAL & COMMUNCATION CONDUITS
- CoP PROPOSED 6x ELECTRICAL CONDUITS
- CoP PROPOSED 6x COMMUNICATION CONDUITS
- CoP PROPOSED 6x ELECTRICAL & COMMUNCATION CONDUITS
- CoP EXISTING CONDUITS TO BE REUSED
- CoP EXISTING CONDUITS TO BE DEMOLISHED
- CoP EXISTING CONDUITS TO BE DECOMMISSIONED AND REMAIN IN SITU
- CoP PROPOSED LED LIGHTING
- PROPOSED SEWER
- EXISTING COMM OPTICAL FIBRE
- EXISTING SEWER
- EXISTING GAS
- EXISTING WATER
- EXISTING COMM.
- EXISTING ELEC (UNDERGROUND)
- PROPOSED SEWER MANHOLE
- CoP PROPOSED 600x600 ELECTRICAL PIT
- CoP EXISTING ELECTRICAL PIT TO REMAIN
- CoP EXISTING ELECTRICAL PIT TO BE DEMOLISHED
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- CoP EXISTING COMMUNICATION PIT TO REMAIN
- CoP EXISTING COMMUNICATION PIT TO BE DEMOLISHED
- CoP PROPOSED MFP WITH CIRCULAR AND RECTANGULAR FLOODLIGHT
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x3)
- EXISTING ENDEAVOUR ENERGY LIGHT POLE TO BE DEMOLISHED
- BOLLARD LIGHTING
- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
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01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	C. NUGPO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: COMBINED UTILITIES PLAN
SHEET 2

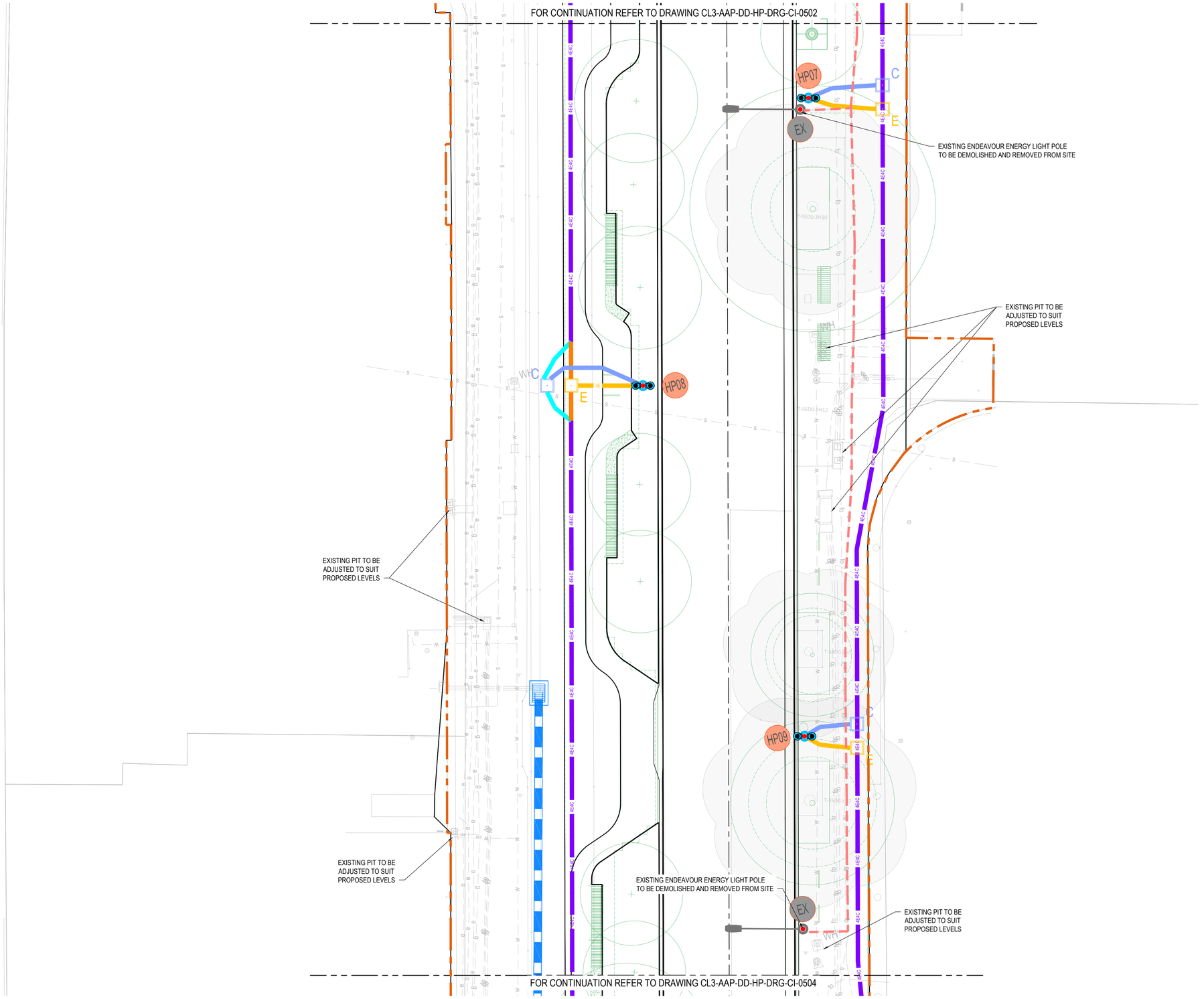
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0502

Issue: 03

Date Plotted: 13 Nov 2025 - 02:56pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0502-CombinedUtilitiesPlanSheet2.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- ARCHITECTURAL WORKS
- EXISTING ENDEAVOUR ENERGY CONDUIT TO BE DECOMMISSION AND REMAIN IN SITU. REFER TO ASP3 DRAWING
- CoP PROPOSED 1x ELECTRICAL CONDUIT
- CoP PROPOSED 3x ELECTRICAL CONDUITS
- CoP PROPOSED 3x COMMUNICATION CONDUITS
- CoP PROPOSED 3x ELECTRICAL CONDUITS & COMMUNICATION CONDUITS
- CoP PROPOSED 4x ELECTRICAL CONDUITS
- CoP PROPOSED 4x COMMUNICATION CONDUITS
- CoP PROPOSED 4x ELECTRICAL & COMMUNCATION CONDUITS
- CoP PROPOSED 6x ELECTRICAL CONDUITS
- CoP PROPOSED 6x COMMUNICATION CONDUITS
- CoP PROPOSED 6x ELECTRICAL & COMMUNCATION CONDUITS
- CoP EXISTING CONDUITS TO BE REUSED
- CoP EXISTING CONDUITS TO BE DEMOLISHED
- CoP EXISTING CONDUITS TO BE DECOMMISSIONED AND REMAIN IN SITU
- CoP PROPOSED LED LIGHTING
- PROPOSED SEWER
- EXISTING COMM OPTICAL FIBRE
- EXISTING SEWER
- EXISTING GAS
- EXISTING WATER
- EXISTING COMM.
- EXISTING ELEC (UNDERGROUND)
- PROPOSED SEWER MANHOLE
- CoP PROPOSED 600x600 ELECTRICAL PIT
- CoP EXISTING ELECTRICAL PIT TO REMAIN
- CoP EXISTING ELECTRICAL PIT TO BE DEMOLISHED
- CoP PROPOSED 600x600 COMMUNICATION PIT
- CoP EXISTING COMMUNICATION PIT TO REMAIN
- CoP EXISTING COMMUNICATION PIT TO BE DEMOLISHED
- CoP PROPOSED MFP WITH CIRCULAR AND RECTANGULAR FLOODLIGHT
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x3)
- EXISTING ENDEAVOUR ENERGY LIGHT POLE TO BE DEMOLISHED
- BOLLARD LIGHTING
- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT

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01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	C. NUGPO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: COMBINED UTILITIES PLAN SHEET 3

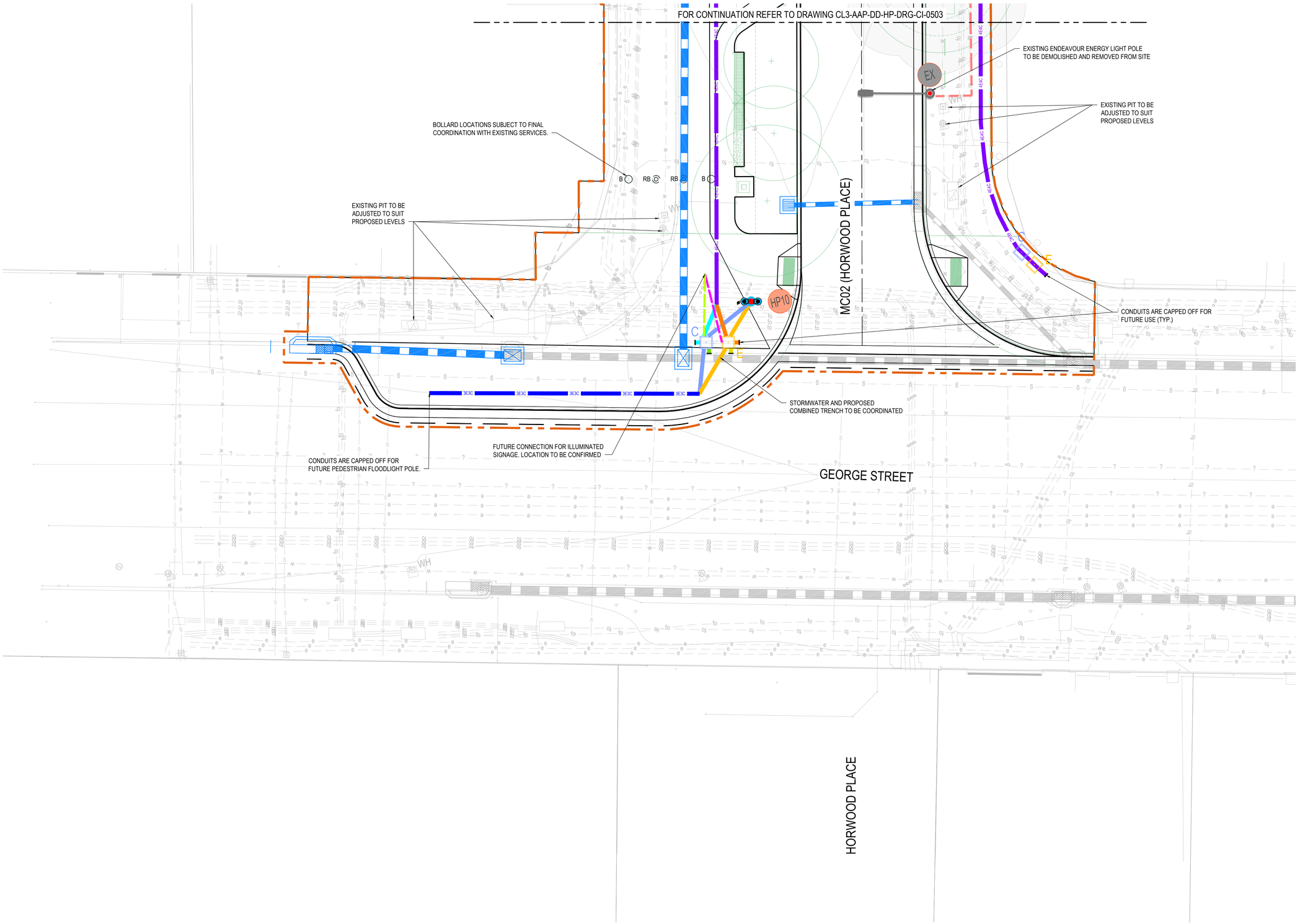
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0503

Issue: 03

Date Plotted: 13 Nov 2025 - 02:56pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0503-CombinedUtilitiesPlanSheet3.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- ARCHITECTURAL WORKS
- EXISTING ENDEAVOUR ENERGY CONDUIT TO BE DECOMMISSION AND REMAIN IN SITU. REFER TO ASP3 DRAWING
- 1E — CoP PROPOSED 1x ELECTRICAL CONDUIT
- 3E — CoP PROPOSED 3x ELECTRICAL CONDUITS
- 3C — CoP PROPOSED 3x COMMUNICATION CONDUITS
- 3E3C — CoP PROPOSED 3x ELECTRICAL CONDUITS & COMMUNICATION CONDUITS
- 4E — CoP PROPOSED 4x ELECTRICAL CONDUITS
- 4C — CoP PROPOSED 4x COMMUNICATION CONDUITS
- 4E4C — CoP PROPOSED 4x ELECTRICAL & COMMUNCATION CONDUITS
- 6E — CoP PROPOSED 6x ELECTRICAL CONDUITS
- 6C — CoP PROPOSED 6x COMMUNICATION CONDUITS
- 6E6C — CoP PROPOSED 6x ELECTRICAL & COMMUNCATION CONDUITS
- CoP EXISTING CONDUITS TO BE REUSED
- CoP EXISTING CONDUITS TO BE DEMOLISHED
- CoP EXISTING CONDUITS TO BE DECOMMISSIONED AND REMAIN IN SITU
- CoP PROPOSED LED LIGHTING
- S — PROPOSED SEWER
- fo — EXISTING COMM OPTICAL FIBRE
- s — EXISTING SEWER
- g — EXISTING GAS
- w — EXISTING WATER
- c — EXISTING COMM.
- e — EXISTING ELEC (UNDERGROUND)
- PROPOSED SEWER MANHOLE
- E — CoP PROPOSED 600x600 ELECTRICAL PIT
- E — CoP EXISTING ELECTRICAL PIT TO REMAIN
- E — CoP EXISTING ELECTRICAL PIT TO BE DEMOLISHED
- C — CoP PROPOSED 600x600 COMMUNICATION PIT
- C — CoP EXISTING COMMUNICATION PIT TO REMAIN
- C — CoP EXISTING COMMUNICATION PIT TO BE DEMOLISHED
- HPXX — CoP PROPOSED MFP WITH CIRCULAR AND RECTANGULAR FLOODLIGHT
- HPXX — CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
- HPXX — CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x3)
- EX — EXISTING ENDEAVOUR ENERGY LIGHT POLE TO BE DEMOLISHED
- BOLLARD LIGHTING
- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN
- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT

Issue	Description	DR	CH	VE	Date
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100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	C. NUGPO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: COMBINED UTILITIES PLAN
SHEET 4

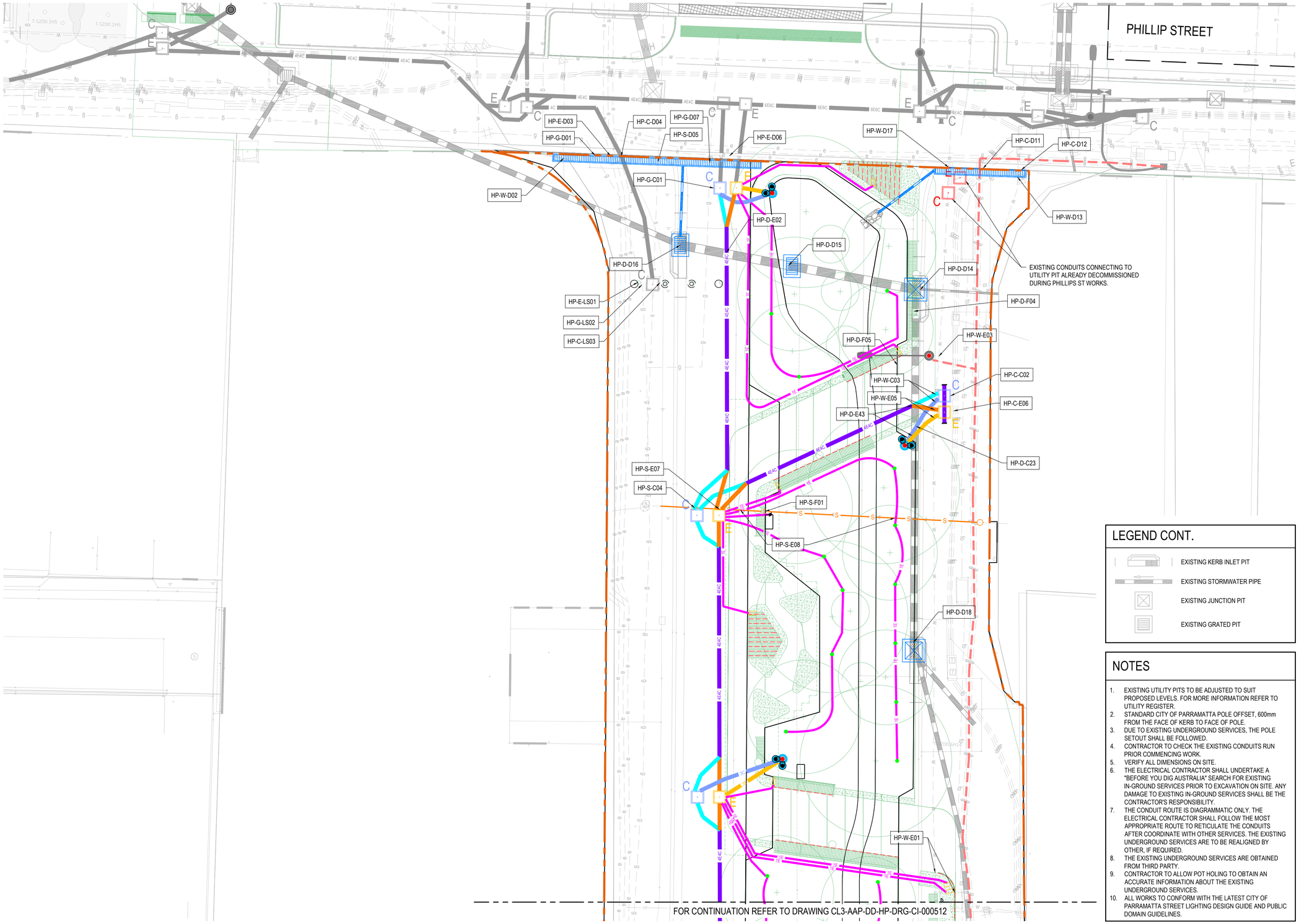
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0504

Issue: 03

Date Plotted: 13 Nov 2025 - 02:56pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0504-CombinedUtilitiesPlanSheet4.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- ARCHITECTURAL WORKS
- EXISTING ENDEAVOUR ENERGY CONDUIT TO BE DECOMMISSION AND REMAIN IN SITU. REFER TO ASP3 DRAWING
- 1E — CoP PROPOSED 1x ELECTRICAL CONDUIT
- 3E — CoP PROPOSED 3x ELECTRICAL CONDUITS
- 3C — CoP PROPOSED 3x COMMUNICATION CONDUITS
- 3E3C — CoP PROPOSED 3x ELECTRICAL & COMMUNICATION CONDUITS
- 4E — CoP PROPOSED 4x ELECTRICAL CONDUITS
- 4C — CoP PROPOSED 4x COMMUNICATION CONDUITS
- 4E4C — CoP PROPOSED 4x ELECTRICAL & COMMUNCATION CONDUITS
- 6E — CoP PROPOSED 6x ELECTRICAL CONDUITS
- 6C — CoP PROPOSED 6x COMMUNICATION CONDUITS
- 6E6C — CoP PROPOSED 6x ELECTRICAL & COMMUNCATION CONDUITS
- CoP EXISTING CONDUITS TO BE REUSED
- CoP EXISTING CONDUITS TO BE DEMOLISHED
- CoP EXISTING CONDUITS TO BE DECOMMISSIONED AND REMAIN IN SITU
- 3E — CoP NEW 3x ELECTRICAL CONDUITS
- 3C — CoP NEW 3x COMMUNICATION CONDUITS
- 4E — CoP NEW 4x ELECTRICAL CONDUITS
- 4C — CoP NEW 4x COMMUNICATION CONDUITS
- 4E4C — CoP NEW 4x ELECTRICAL & COMMUNICATION CONDUITS
- 6E — CoP NEW 6x ELECTRICAL CONDUITS
- 6C — CoP NEW 6x COMMUNICATION CONDUITS
- 6E6C — CoP NEW 6x ELECTRICAL & COMMUNICATION CONDUITS
- CoP PROPOSED LED LIGHTING
- S — PROPOSED SEWER
- fo — EXISTING COMM OPTICAL FIBRE
- S — EXISTING SEWER
- g — EXISTING GAS
- w — EXISTING WATER
- c — EXISTING COMM.
- e — EXISTING ELEC (UNDERGROUND)
- E — CoP PROPOSED 600x600 ELECTRICAL PIT
- E — CoP EXISTING ELECTRICAL PIT TO REMAIN
- E — CoP EXISTING ELECTRICAL PIT TO BE DEMOLISHED
- C — CoP PROPOSED 600x600 COMMUNICATION PIT
- C — CoP EXISTING COMMUNICATION PIT TO REMAIN
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- CoP PROPOSED MFP WITH CIRCULAR AND RECTANGULAR FLOODLIGHT
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- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN

LEGEND CONT.

- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT

NOTES

1. EXISTING UTILITY PITS TO BE ADJUSTED TO SUIT PROPOSED LEVELS. FOR MORE INFORMATION REFER TO UTILITY REGISTER.
2. STANDARD CITY OF PARRAMATTA POLE OFFSET, 600mm FROM THE FACE OF KERB TO FACE OF POLE.
3. DUE TO EXISTING UNDERGROUND SERVICES, THE POLE SETOUT SHALL BE FOLLOWED.
4. CONTRACTOR TO CHECK THE EXISTING CONDUITS RUN PRIOR COMMENCING WORK.
5. VERIFY ALL DIMENSIONS ON SITE.
6. THE ELECTRICAL CONTRACTOR SHALL UNDERTAKE A "BEFORE YOU DIG AUSTRALIA" SEARCH FOR EXISTING IN-GROUND SERVICES PRIOR TO EXCAVATION ON SITE. ANY DAMAGE TO EXISTING IN-GROUND SERVICES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
7. THE CONDUIT ROUTE IS DIAGRAMMATIC ONLY. THE ELECTRICAL CONTRACTOR SHALL FOLLOW THE MOST APPROPRIATE ROUTE TO RETICULATE THE CONDUITS AFTER COORDINATE WITH OTHER SERVICES. THE EXISTING UNDERGROUND SERVICES ARE TO BE REALIGNED BY OTHER, IF REQUIRED.
8. THE EXISTING UNDERGROUND SERVICES ARE OBTAINED FROM THIRD PARTY.
9. CONTRACTOR TO ALLOW POT HOLING TO OBTAIN AN ACCURATE INFORMATION ABOUT THE EXISTING UNDERGROUND SERVICES.
10. ALL WORKS TO CONFORM WITH THE LATEST CITY OF PARRAMATTA STREET LIGHTING DESIGN GUIDE AND PUBLIC DOMAIN GUIDELINES.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	C. NUGPO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: UTILITIES REGISTER PLAN SHEET 1

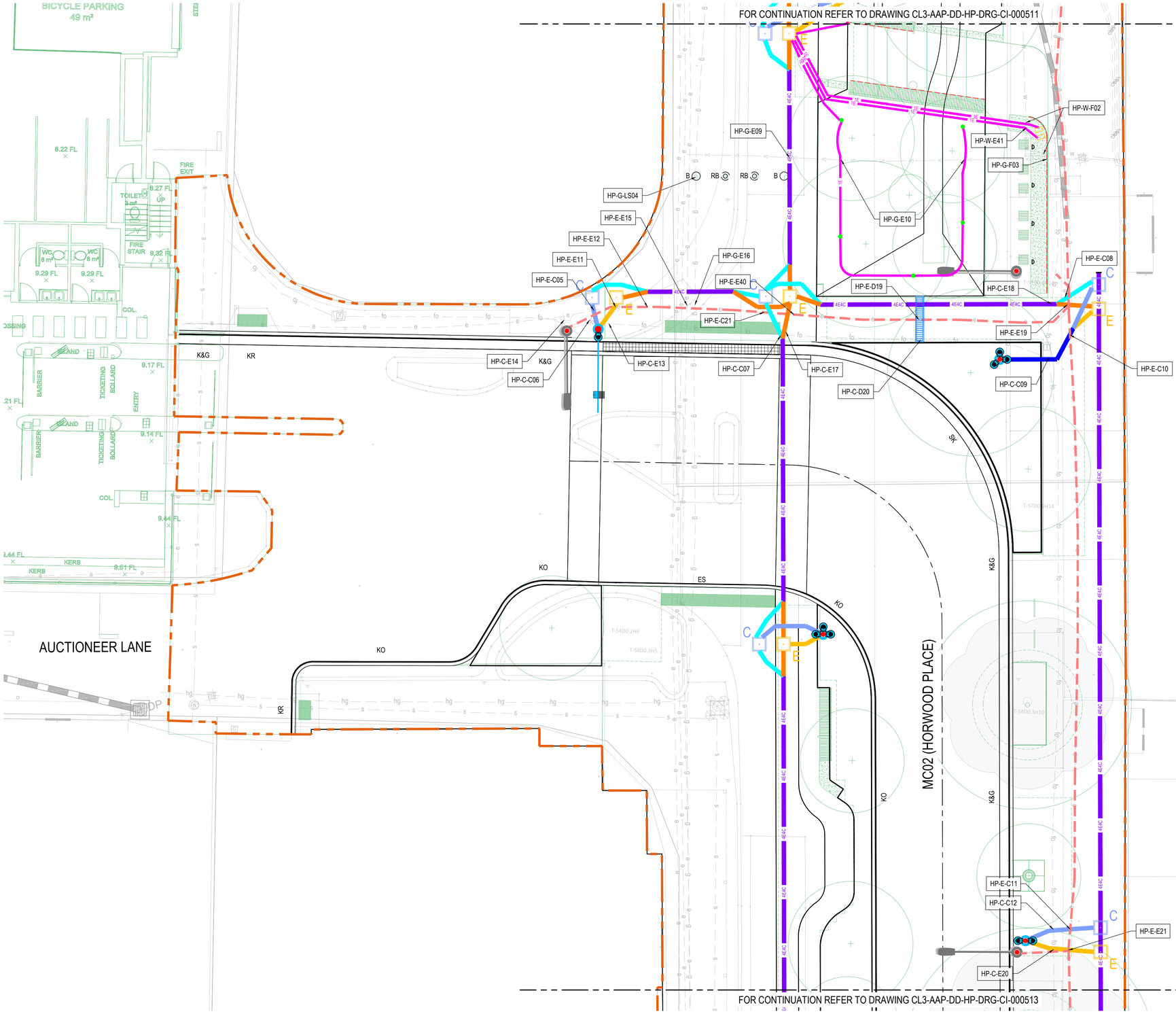
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0511

Issue: 03

Date Plotted: 13 Nov 2025 - 02:56pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0511-UtilitiesRegisterPlanSheet1.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- ARCHITECTURAL WORKS
- EXISTING ENDEAVOUR ENERGY CONDUIT TO BE DECOMMISSION AND REMAIN IN SITU. REFER TO ASP3 DRAWING
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- 6C — CoP PROPOSED 6x COMMUNICATION CONDUITS
- 6E6C — CoP PROPOSED 6x ELECTRICAL & COMMUNCATION CONDUITS
- CoP EXISTING CONDUITS TO BE REUSED
- CoP EXISTING CONDUITS TO BE DEMOLISHED
- CoP EXISTING CONDUITS TO BE DECOMMISSIONED AND REMAIN IN SITU
- 3E — CoP NEW 3x ELECTRICAL CONDUITS
- 3C — CoP NEW 3x COMMUNICATION CONDUITS
- 4E — CoP NEW 4x ELECTRICAL CONDUITS
- 4C — CoP NEW 4x COMMUNICATION CONDUITS
- 4E4C — CoP NEW 4x ELECTRICAL & COMMUNICATION CONDUITS
- 6E — CoP NEW 6x ELECTRICAL CONDUITS
- 6C — CoP NEW 6x COMMUNICATION CONDUITS
- 6E6C — CoP NEW 6x ELECTRICAL & COMMUNICATION CONDUITS
- CoP PROPOSED LED LIGHTING
- S — PROPOSED SEWER
- fo — EXISTING COMM OPTICAL FIBRE
- S — EXISTING SEWER
- g — EXISTING GAS
- w — EXISTING WATER
- c — EXISTING COMM.
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- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
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- EXISTING ENDEAVOUR ENERGY LIGHT POLE TO BE DEMOLISHED
- BOLLARD LIGHTING
- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE
- PROPOSED JUNCTION PIT
- PROPOSED GRATED PIT
- PROPOSED GRATED DRAIN

LEGEND CONT.

- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIPE
- EXISTING JUNCTION PIT
- EXISTING GRATED PIT

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10. ALL WORKS TO CONFORM WITH THE LATEST CITY OF PARRAMATTA STREET LIGHTING DESIGN GUIDE AND PUBLIC DOMAIN GUIDELINES.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	C. NUGPO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: UTILITIES REGISTER PLAN
SHEET 2

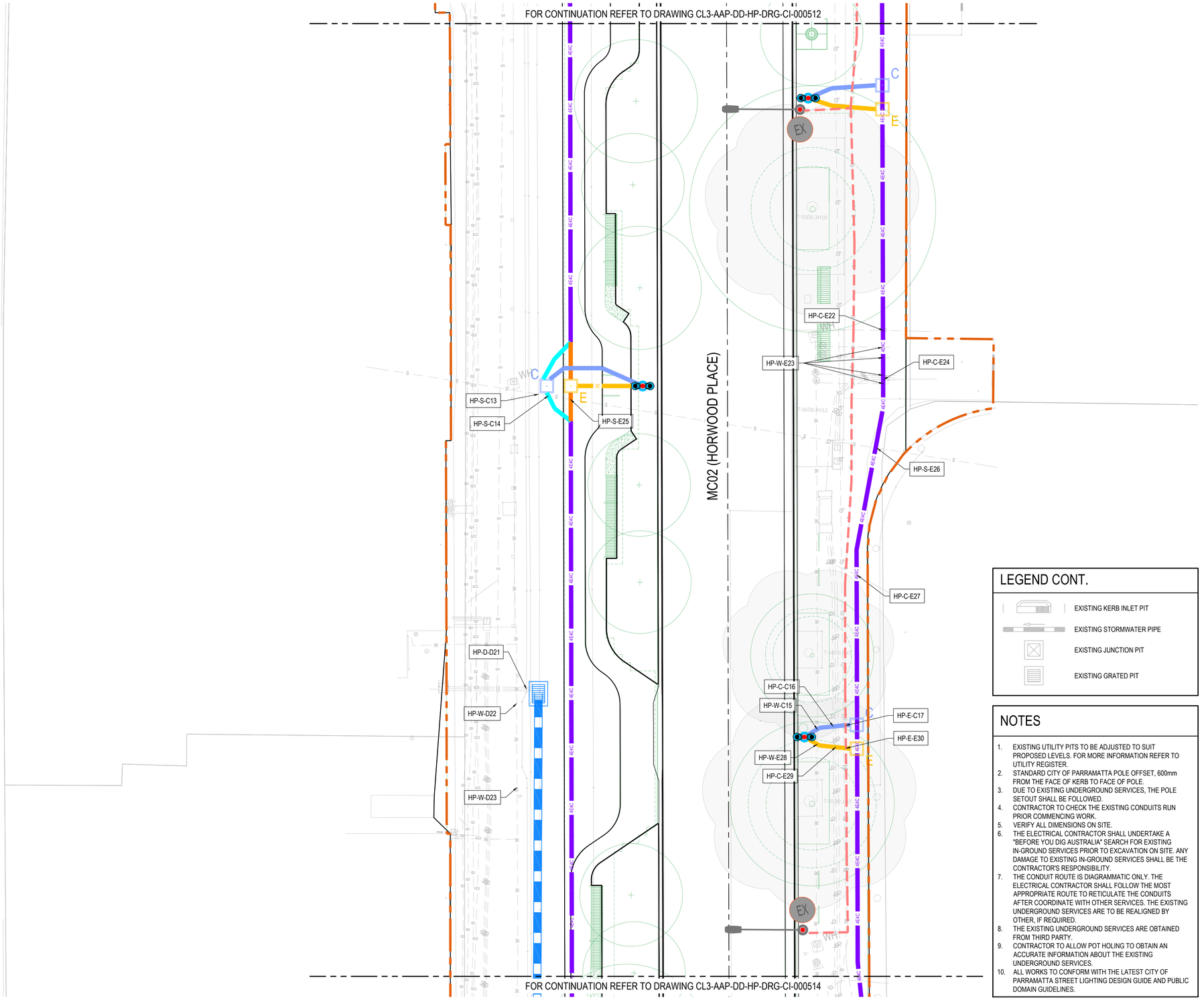
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0512

Issue: 03

Date Plotted: 13 Nov 2025 - 02:56pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0512-UtilitiesRegisterPlanSheet2.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- ARCHITECTURAL WORKS
- EXISTING ENDEAVOUR ENERGY CONDUIT TO BE DECOMMISSION AND REMAIN IN SITU. REFER TO ASP3 DRAWING
- 1E — CoP PROPOSED 1x ELECTRICAL CONDUIT
- 3E — CoP PROPOSED 3x ELECTRICAL CONDUITS
- 3C — CoP PROPOSED 3x COMMUNICATION CONDUITS
- 3E3C — CoP PROPOSED 3x ELECTRICAL & COMMUNICATION CONDUITS
- 4E — CoP PROPOSED 4x ELECTRICAL CONDUITS
- 4C — CoP PROPOSED 4x COMMUNICATION CONDUITS
- 4E4C — CoP PROPOSED 4x ELECTRICAL & COMMUNCATION CONDUITS
- 6E — CoP PROPOSED 6x ELECTRICAL CONDUITS
- 6C — CoP PROPOSED 6x COMMUNICATION CONDUITS
- 6E6C — CoP PROPOSED 6x ELECTRICAL & COMMUNCATION CONDUITS
- CoP EXISTING CONDUITS TO BE REUSED
- CoP EXISTING CONDUITS TO BE DEMOLISHED
- CoP EXISTING CONDUITS TO BE DECOMMISSIONED AND REMAIN IN SITU
- 3E — CoP NEW 3x ELECTRICAL CONDUITS
- 3C — CoP NEW 3x COMMUNICATION CONDUITS
- 4E — CoP NEW 4x ELECTRICAL CONDUITS
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- CoP PROPOSED LED LIGHTING
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- fo — EXISTING COMM OPTICAL FIBRE
- S — EXISTING SEWER
- G — EXISTING GAS
- W — EXISTING WATER
- C — EXISTING COMM.
- E — EXISTING ELEC (UNDERGROUND)
- E — CoP PROPOSED 600x600 ELECTRICAL PIT
- E — CoP EXISTING ELECTRICAL PIT TO REMAIN
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- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (x2)
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- PROPOSED KERB INLET PIT
- PROPOSED STORMWATER PIPE
- PROPOSED JUNCTION PIT
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- PROPOSED GRATED DRAIN

LEGEND CONT.

- EXISTING KERB INLET PIT
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NOTES

1. EXISTING UTILITY PITS TO BE ADJUSTED TO SUIT PROPOSED LEVELS. FOR MORE INFORMATION REFER TO UTILITY REGISTER.
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1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
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Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: UTILITIES REGISTER PLAN
SHEET 3

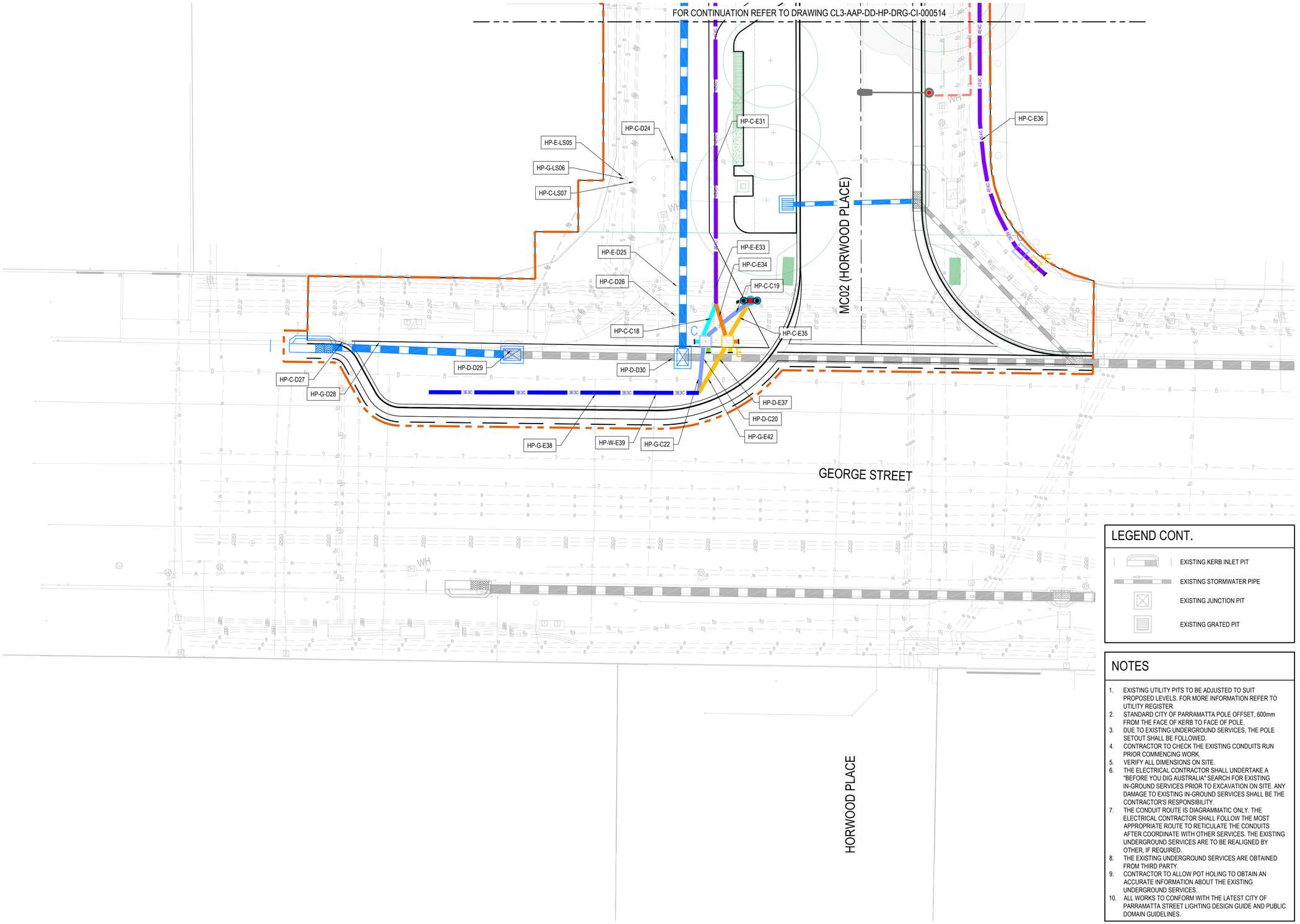
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0513

Issue: 03

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Project Manager	G. DUNSTAN	Grid	MGA/20-56
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HORWOOD PLACE WORKS

Title: UTILITIES REGISTER PLAN
SHEET 4

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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0514

Issue: 03

Date Plotted: 13 Nov 2025 - 02:56pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0514-UtilitiesRegisterPlanSheet4.dwg

EXISTING UNDERGROUND UTILITIES - HORWOOD PLACE (EARLY WORKS)

Clash ID (Horwood Place-Existing Asset-Proposed Asset [Interface Number])	Existing Asset Classification	Existing Asset Information	Asset Owner	Clash Description	Criticality	Proposed Action
HP-E-D03	Electrical	"1 x 2 DN50 PVC 2 x 3 DN140 Fibro Conduit (Asbestos)"	Endeavour Energy	Proposed trench drainage will cross over existing electrical with approx. 1m cover.	High	Coordinate
HP-G-D01	Gas	"DN110 7kPa low pressure"	Jemena	Proposed trench drainage will cross over existing gas with approx. 650mm cover.	Medium	Coordinate
HP-W-D02	Potable water	Property connection	Sydney Water	Proposed trench drainage will cross over existing potable water with approx. 500mm cover.	Low	Protect
HP-C-D04	Communications	TBC	TBC	Proposed trench drainage will cross over existing communications with approx. 550mm cover.	Low	Coordinate
HP-G-D07	Gas	"DN110 PE 7kPa low pressure"	Jemena	Proposed trench drainage will cross over existing gas with approx. 700mm cover.	Medium	Coordinate
HP-S-D05	Sewer	DN225 VC	Sydney Water	Proposed trench drainage will cross over existing sewer.	Low	Protect
HP-G-C01	Gas	"DN110 PE 7kPa low pressure"	Jemena	Proposed communications pit will be adjacent to existing gas with approx. 700mm cover.	Low	Coordinate
HP-E-D06	Electrical	"1 x 1 DN50 PVC 3 x 2 DN140 Fibro Conduit (Asbestos)"	Endeavour Energy	Proposed trench drainage will be adjacent to existing electrical with approx. 1.1m cover.	High	Coordinate
HP-W-D17	Potable water	Property connection	Sydney Water	Proposed trench drainage will cross over existing potable water with approx. 700mm cover.	Low	Protect
HP-C-D11	Communications	TBC	TBC	Proposed trench drainage will cross existing communications with approx. 400mm cover.	Low	Coordinate
HP-C-D12	Communications	TBC	TBC	Proposed trench drainage will cross existing communications with approx. 200mm cover.	Low	Coordinate
HP-W-D13	Potable water	Property connection	Sydney Water	Proposed trench drain clashes with existing potable water stop valve.	High	Coordinate
HP-D-D16	Drainage	Kerb inlet pit	Council	Proposed drainage pit clashes with existing drainage pit.	Low	Replace
HP-D-E02	Drainage	DN450	Council	Proposed electrical will cross existing drainage.	Low	Coordinate
HP-E-LS01	Electrical	"1 x 2 DN50 PVC 2 x 3 DN140 Fibro Conduit (Asbestos)"	Endeavour Energy	Proposed bollard will be adjacent to existing electrical with approx. 900mm cover.	High	Coordinate
HP-G-LS02	Gas	"DN110 PE 7kPa low pressure"	Jemena	Proposed bollard will clash / be adjacent to existing gas with approx. 650mm cover.	Medium	Coordinate
HP-C-LS03	Communications	Communications pit	TBC	Proposed bollard will be adjacent to existing communications pit.	Low	Coordinate
HP-D-D15	Drainage	DN450	Council	Proposed drainage pit to be installed over existing drainage.	Low	Protect
HP-D-D14	Drainage	Kerb inlet pit	Council	Proposed drainage pit clashes with existing drainage pit.	Low	Replace
HP-W-E03	Potable water	Property connection	Sydney Water	Existing electrical light pole to be removed is adjacent to existing potable water with approx. 600mm cover.	Low	Protect
HP-W-C03	Potable water	Property connection	Sydney Water	Proposed communications and pit will cross existing potable water with approx. 600mm cover.	Low	Protect
HP-W-E05	Potable water	Property connection	Sydney Water	Proposed electrical will cross existing potable water with approx. 600mm cover.	Low	Protect
HP-C-C02	Potable water	Property connection	Sydney Water	Proposed communications pit will be adjacent to existing communications with approx. 400mm cover.	Low	Coordinate
HP-C-E06	Communications	TBC	TBC	Proposed electrical pit will be adjacent to existing communications with approx. 400mm cover.	Low	Coordinate
HP-S-E07	Sewer	DN150 VC	Sydney Water	Proposed electrical pit clashes with existing sewer.	Low	Protect
HP-S-C04	Sewer	DN150 VC	Sydney Water	Proposed communications pit clashes with existing sewer.	Low	Protect
HP-S-E08	Sewer	DN150 VC	Sydney Water	Proposed electrical will cross over existing sewer.	Low	Protect
HP-S-F01	Sewer	DN150 VC	Sydney Water	Proposed structural footing furniture will cross over existing sewer.	Low	Protect
HP-D-D18	Drainage	Kerb inlet pit	Council	Proposed drainage pit clashes with existing drainage pit.	Low	Replace
HP-G-E09	Gas	Property connection	Jemena	Proposed electrical will cross existing gas with approx. 500mm cover.	Medium	Coordinate
HP-W-E01	Potable water	Property connection	Sydney Water	Proposed electrical will cross over existing potable water.	Low	Protect
HP-G-LS04	Gas	"DN110 PE 7kPa low pressure"	Jemena	Proposed bollard clashes with existing gas with approx. 800mm cover.	Medium	Coordinate
HP-W-E41	Potable water	Property connection	Sydney Water	Proposed electrical will cross over existing potable water.	Low	Protect
HP-W-F02	Potable water	Property connection	Sydney Water	Proposed pre-cast table supports may cross over existing potable water.	Low	Coordinate
HP-G-F03	Gas	Property connection	Jemena	Proposed LED lighting will cross existing gas with approx. 500mm cover.	Low	Coordinate
HP-E-E15	Electrical	"1 x 2 DN50 PVC 2 x 3 DN140 Fibro Conduit (Asbestos)"	Endeavour Energy	Proposed electrical will cross existing electrical with approx. 1.05m cover.	High	Coordinate
HP-E-E11	Electrical	"1 x 1 DN50 PVC 2 x 2 DN140 Fibro Conduit (Asbestos)"	Endeavour Energy	Proposed electrical pit will clash with existing electrical with approx. 1m cover.	High	Coordinate
HP-E-C05	Electrical	"1 x 1 DN50 PVC 2 x 2 DN140 Fibro Conduit (Asbestos)"	Endeavour Energy	Proposed communications and pit will clash with existing electrical with approx. 1m cover.	High	Coordinate
HP-C-E14	Communications	TBC	TBC	Existing electrical light pole to be removed is adjacent to existing communications with approx. 1m cover.	Medium	Coordinate
HP-E-C06	Communications	TBC	TBC	Proposed communications will cross existing communications with approx. 1m cover.	Low	Coordinate

EXISTING UNDERGROUND UTILITIES - HORWOOD PLACE (EARLY WORKS)

Clash ID (Horwood Place-Existing Asset-Proposed Asset [Interface Number])	Existing Asset Classification	Existing Asset Information	Asset Owner	Clash Description	Criticality	Proposed Action
HP-C-E13	Communications	TBC	TBC	Proposed electrical and new light pole will cross existing communications with approx. 1m cover.	Medium	Coordinate
HP-G-E10	Gas	Property connection	Jemena	Proposed electrical will cross existing gas with approx. 500mm cover.	Medium	Coordinate
HP-G-E16	Gas	"DN110 PE 7kPa low pressure"	Jemena	Proposed electrical will cross existing gas with approx. 700mm cover.	Medium	Coordinate
HP-E-E40	Electrical	"1 x 1 DN50 PVC 3 x 2 DN140 Fibro Conduit (Asbestos)"	Endeavour Energy	Proposed electrical will cross existing electrical with approx. 1m cover.	High	Coordinate
HP-E-C21	Electrical	"1 x 1 DN50 PVC 3 x 2 DN140 Fibro Conduit (Asbestos)"	Endeavour Energy	Proposed communications will cross existing electrical with approx. 1m cover.	High	Coordinate
HP-C-C07	Communications	TBC	TBC	Proposed communications will cross existing communications with approx. 800mm cover.	Low	Coordinate
HP-C-E17	Communications	TBC	TBC	Proposed electrical will cross existing communications with approx. 800mm cover.	Low	Coordinate
HP-E-D19	Electrical	"1 x 1 DN50 PVC 3 x 2 DN140 Fibro Conduit (Asbestos)"	Endeavour Energy	Proposed trench drainage will cross over existing electrical with approx. 600mm cover.	High	Coordinate
HP-C-D20	Communications	TBC	TBC	Proposed trench drainage will cross over existing communications with approx. 800mm cover.	Medium	Coordinate
HP-C-E18	Communications	TBC	TBC	Proposed electrical will cross existing communications with approx. 1.1m cover.	Low	Coordinate
HP-E-E19	Electrical	"1 x 1 DN50 PVC 2 x 2 DN140 Fibro Conduit (Asbestos)"	Endeavour Energy	Proposed electrical will cross existing electrical with approx. 700mm cover.	High	Coordinate
HP-C-C09	Communications	TBC	TBC	Proposed communications will cross existing communications with approx. 800mm cover.	Low	Coordinate
HP-E-C08	Electrical	"1 x 1 DN50 PVC 2 x 2 DN140 Fibro Conduit (Asbestos)"	Endeavour Energy	Proposed communications will cross existing electrical with approx. 700mm cover.	High	Coordinate
HP-E-C10	Electrical	1 x 1 DN50 PVC	Endeavour Energy	Proposed communications will cross existing electrical with approx. 800mm cover.	Low	Coordinate
HP-E-C11	Electrical	1 x 1 DN50 PVC	Endeavour Energy	Proposed communications will cross existing electrical with approx. 800mm cover.	Low	Coordinate
HP-C-C12	Communications	TBC	TBC	Proposed communications will cross existing communications.	Low	Coordinate
HP-E-E21	Electrical	1 x 1 DN50 PVC	Endeavour Energy	Proposed electrical will cross existing electrical with approx. 800mm cover.	Low	Coordinate
HP-C-E20	Communications	TBC	TBC	Proposed electrical will cross eixisting communications.	Low	Coordinate
HP-C-E22	Communications	TBC	TBC	Proposed electrical will cross existing communications.	Low	Coordinate
HP-W-E23	Potable water	Property connection	Sydney Water	Proposed electrical will cross existing potable water with approx. 500mm cover.	Low	Protect
HP-C-E24	Communications	TBC	TBC	Proposed electrical will cross existing communications with approx. 350mm cover.	Low	Coordinate
HP-S-C13	Sewer	Abandoned	Sydney Water	Proposed communications pit will be adjacent to abandoned sewer.	Low	Identify
HP-S-C14	Sewer	Abandoned	Sydney Water	Proposed communications will cross abandoned sewer.	Low	Identify
HP-S-E25	Sewer	Abandoned	Sydney Water	Proposed electrical will cross abandoned sewer.	Low	Identify
HP-S-E26	Sewer	Abandoned	Sydney Water	Proposed electrical will cross abandoned sewer.	Low	Identify
HP-C-E27	Communications	TBC	TBC	Proposed electrical will cross existing communications with approx. 400mm cover.	Low	Coordinate
HP-D-D21	Drainage	3 x unknown	Council	Proposed drainage pit clashes with existing drainage.	Low	Protect
HP-W-D22	Potable water	DN100 DICL	Sydney Water	Proposed drainage pit will be adjacent to existing potable water.	Medium	Protect
HP-W-D23	Potable water	DN100 DICL	Sydney Water	Proposed drainage will run adjacent to existing potable water.	Medium	Protect
HP-C-C16	Communications	TBC	TBC	Proposed communications will cross existing communications with approx. 600mm cover.	Low	Coordinate
HP-W-C15	Potable water	DN150 DICL	Sydney Water	Proposed communications will cross existing potable water with approx. 600mm cover.	Low	Coordinate
HP-E-C17	Electrical	1 x 1 DN50 PVC	Endeavour Energy	Proposed communications will cross existing electrical with approx. 650mm cover.	Low	Coordinate
HP-E-E30	Electrical	1 x 1 DN50 PVC	Endeavour Energy	Proposed electrical will cross existing electrical with approx. 650mm cover.	Low	Coordinate
HP-W-E28	Potable water	DN150 DICL	Sydney Water	Proposed electrical will cross existing potable water with approx. 600mm cover.	Low	Coordinate
HP-C-E29	Communications	TBC	TBC	Proposed electrical will cross existing communications with approx. 600mm cover.	Low	Coordinate
HP-C-D24	Communications	TBC	TBC	Proposed drainage will cross existing communications with approx. 700mm cover.	Low	Coordinate
HP-E-LS05	Electrical	"1 x 1 DN50 PVC 2 x 2 DN125 PVC 1 x 2 DN125 PVC"	Endeavour Energy	Proposed bollard will be adjacent to existing electrical with approx. 700mm cover.	Medium	Coordinate
HP-G-LS06	Gas	"DN110 PE 7kPa low pressure"	Jemena	Proposed bollard will be adjacent to existing gas with approx. 600mm cover.	Medium	Coordinate
HP-C-LS07	Communications	TBC	TBC	Proposed bollard will be adjacent to existing communications with approx. 700mm cover.	Medium	Coordinate
HP-C-E31	Communications	TBC	TBC	Proposed electrical will cross existing communications with approx. 800mm cover.	Low	Coordinate

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RS	CR	GD	12.11.2025

Scales

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. SANTOS	Original Size	A1
Designed	C. NUGPO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: UTILITIES REGISTER SHEET 1

ARCADIS
Arcadis Australia Pacific Pty Limited
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SYDNEY NSW 2000
ABN 76 104 485 289
Tel No: +61 2 8907 9000
www.arcadis.com/au

Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0521

Issue: 01

100mm on Original

Date Plotted: 13 Nov 2025 - 02:55pm File Name: C:\Users\santosa4174\IDC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0521-UtilitiesRegisterSheet1.dwg

EXISTING UNDERGROUND UTILITIES - HORWOOD PLACE (EARLY WORKS)

Clash ID (Horwood Place-Existing Asset-Proposed Asset [Interface Number])	Existing Asset Classification	Existing Asset Information	Asset Owner	Clash Description	Criticality	Proposed Action
HP-C-E36	Communications	TBC	TBC	Proposed electrical will cross existing communications with approx. 300mm cover.	Low	Coordinate
HP-E-D25	Electrical	"1 x 1 DN50 PVC 3 x 2 DN140 Fibro Conduit (Asbestos)"	Endeavour Energy	Proposed drainage will cross existing electrical with approx. 1m cover.	High	Coordinate
HP-C-D26	Communications	TBC	TBC	Proposed drainage will cross existing communications with approx. 600mm cover.	Medium	Coordinate
HP-C-C18	Communications	TBC	TBC	Proposed communications will cross existing communications with approx. 600mm cover.	Low	Coordinate
HP-E-E33	Electrical	"1 x 1 DN50 PVC 3 x 2 DN140 Fibro Conduit (Asbestos)"	Endeavour Energy	Proposed electrical will cross existing electrical with approx. 1m cover.	High	Coordinate
HP-C-E34	Communications	TBC	TBC	Proposed electrical will cross existing communications with approx. 600mm cover.	Low	Coordinate
HP-C-C19	Communications	TBC	TBC	Proposed communications will cross existing communications with approx. 600mm cover.	Low	Coordinate
HP-C-E35	Communications	TBC	TBC	Proposed electrical will cross existing communications with approx. 600mm cover.	Low	Coordinate
HP-C-D27	Communications	TBC	TBC	Proposed drainage clashes with existing communications with approx. 500mm cover. Proposed drainage pit will be adjacent to existing communications.	Medium	Coordinate
HP-G-D28	Gas	Property connection	Jemena	Proposed drainage will cross existing gas.	Low	Coordinate
HP-D-D29	Drainage	Kerb inlet pit	Council	Proposed drainage pit clashes with existing drainage pit.	Low	Replace
HP-D-D30	Drainage	DN375	Council	Proposed drainage pit to be built over existing drainage.	Medium	Protect
HP-D-E37	Drainage	DN375	Council	Proposed electrical will cross existing drainage.	Low	Coordinate
HP-D-C20	Drainage	DN375	Council	Proposed communications will cross existing drainage.	Low	Coordinate
HP-G-E38	Gas	Property connection	Jemena	Proposed electrical will cross existing gas with approx. 500mm cover.	Low	Coordinate
HP-W-E39	Potable water	DN100 DICL	Sydney Water	Proposed electrical will cross existing potable water with approx. 500mm cover.	Low	Coordinate
HP-G-E42	Gas	"DN110 NY 7kPa low pressure"	Jemena	Proposed electrical will cross existing gas with approx. 800mm cover.	Medium	Coordinate
HP-G-C22	Gas	"DN110 NY 7kPa low pressure"	Jemena	Proposed communications will cross existing gas with approx. 800mm cover.	Medium	Coordinate
HP-D-E43	Drainage	DN375	Council	Proposed electrical will cross existing drainage. New light pole will clash / be adjacent to existing drainage.	Medium	Coordinate
HP-D-C23	Drainage	DN375	Council	Proposed communications will cross existing drainage.	Low	Coordinate
HP-D-F04	Drainage	DN375	Council	Proposed furniture footings will be built over existing drainage.	Low	Coordinate
HP-D-F05	Drainage	DN375	Council	Proposed bridge retaining wall will be built over existing drainage.	High	Coordinate

NOTE:

1. THE CONTRACTOR SHALL LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO COMMENCING CONSTRUCTION AND SHALL MAKE ALL NECESSARY ARRANGEMENTS WITH THE RELEVANT AUTHORITY TO RELOCATE, ADJUST OR PROTECT AS REQUIRED.
2. ALL COSTS TO BE BORNE BY THE APPLICANT. ADDITIONALLY WHERE DIRECTED BY AUTHORITY, CCTV (OR OTHER INVESTIGATIVE ACTIONS) SHOULD BE COMPLETED TO ASSESS CURRENT CONDITION OF ASSETS AND ALLOW AUTHORITY AN OPPORTUNITY TO INCLUDE REPLACEMENT AS A PART OF SCOPE.
3. UTILITIES REGISTER IS INDICATIVE AND BASED ON PLAN VIEW CLASHES BETWEEN EXISTING AND PROPOSED UTILITIES. CLASHES BETWEEN DESIGN LEVEL CHANGES, PAVEMENT, KERB/GUTTER, STRUCTURES, LANDSCAPE ETC. HAVE NOT BEEN NOTED. CONTRACTOR TO SPATIALLY PROOF ALL EXISTING AND PROPOSED UTILITIES IN ACCORDANCE WITH RELEVANT AUTHORITIES' GUIDELINES. APPROVAL FROM RELEVANT AUTHORITIES MUST BE OBTAINED PRIOR TO CONSTRUCTION.
4. REFER TO GENERAL NOTES & EXISTING UNDERGROUND SERVICES NOTES ON DRAWING CL3-AAP-DD-HP-DRG-CI-0021

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RS	CR	GD	12.11.2025

Scales

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. SANTOS	Original Size	A1
Designed	C. NUGPO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	M. KURTZ		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: UTILITIES REGISTER SHEET 2

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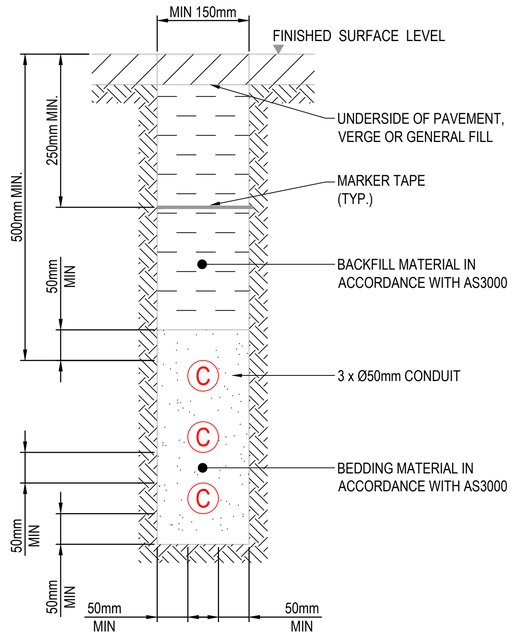
Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0522

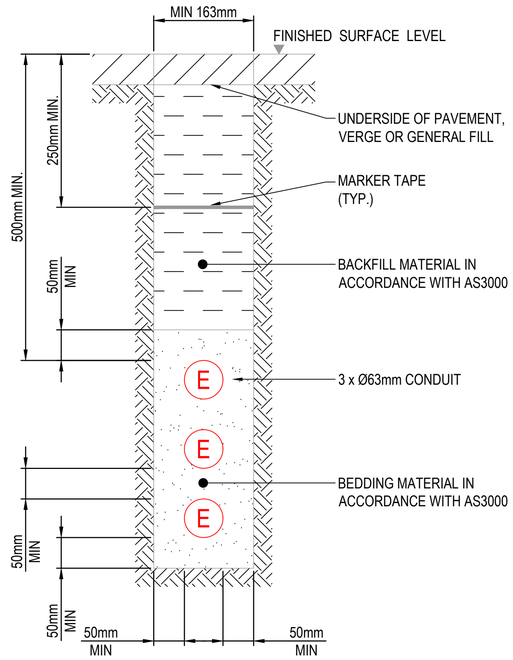
Issue: 01

100mm on Original

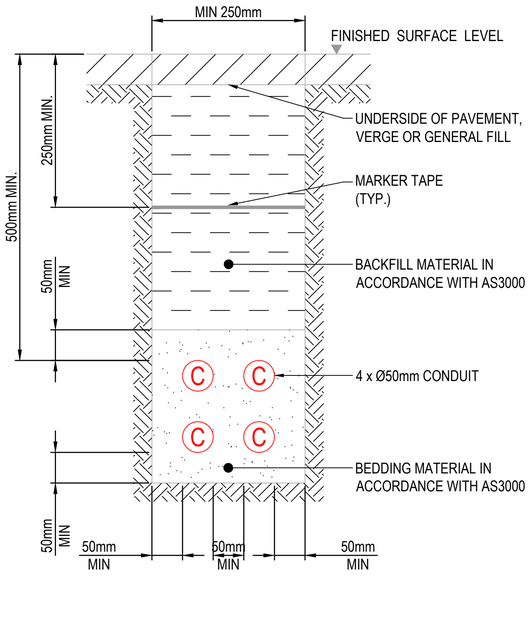
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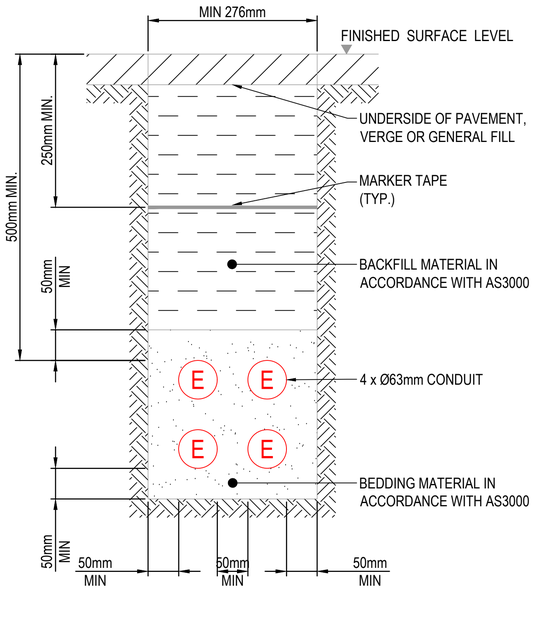
3C 3C



3E 3E



4C 4C



4E 4E

TYPICAL ELECTRICAL & COMMUNICATION CONDUIT TRENCH DETAILS (UNDER FOOTPATH PAVEMENT, IN VERGE OR GENERAL FILL)

SCALE 1:5

LEGEND:

E — ELECTRICAL CONDUIT
63mm DIAMETER

C — COMMUNICATION CONDUIT
50mm DIAMETER

NOTES:

1. CONTRACTOR TO CHECK THE EXISTING CONDUITS RUN PRIOR COMMENCING WORK.
2. THE ELECTRICAL CONTRACTOR SHALL UNDERTAKE A "BEFORE YOU DIG AUSTRALIA" SEARCH FOR EXISTING IN-GROUND SERVICES PRIOR TO EXCAVATION ON SITE. ANY DAMAGE TO EXISTING IN-GROUND SERVICES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
3. ALL WORKS TO CONFORM WITH THE LATEST CITY OF PARRAMATTA STREET LIGHTING DESIGN GUIDE AND PUBLIC DOMAIN GUIDELINES.
4. THE CONDUIT TYPE SHALL BE HDuPVC.
5. THE TRENCH WIDTH AND CLEARANCE BETWEEN CONDUITS SHALL BE ADJUSTED ACCORDINGLY FOR OTHER CONDUIT SIZE. REFER TO THE PLAN FOR OTHER SIZE OF ELECTRICAL CONDUIT

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales
0 50 100 200 300 400 500mm
1 : 5

Surveyor: surveyplus, DURKIN
Landscape Architect: OCULUS
Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	H. THIAUW	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	S. ASHMAN		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: LIGHTING DETAILS SHEET 1

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www.arcadis.com/au

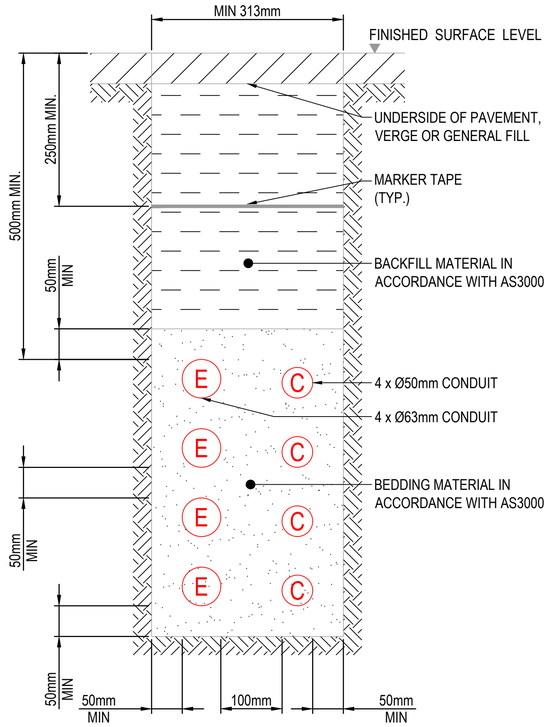
Project Number: 30286862

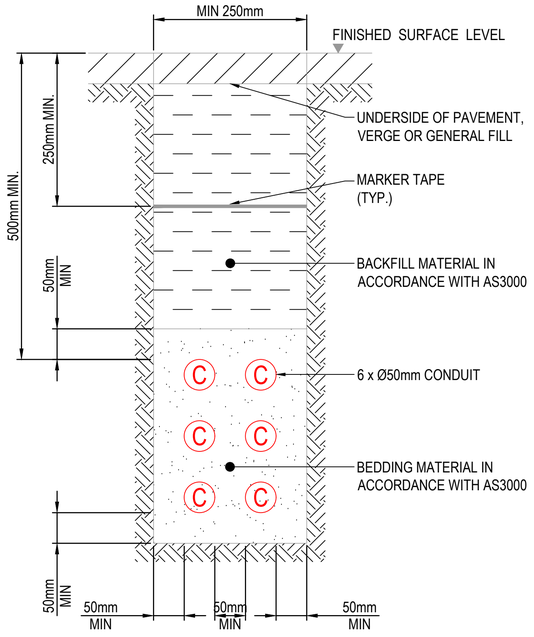
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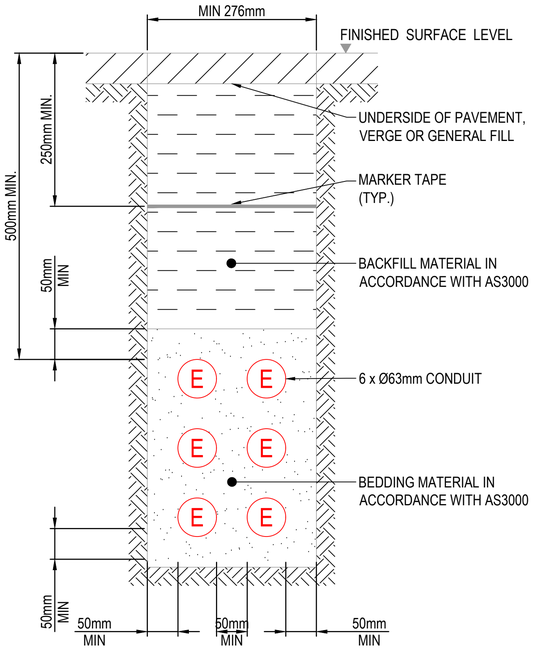
Issue: 03

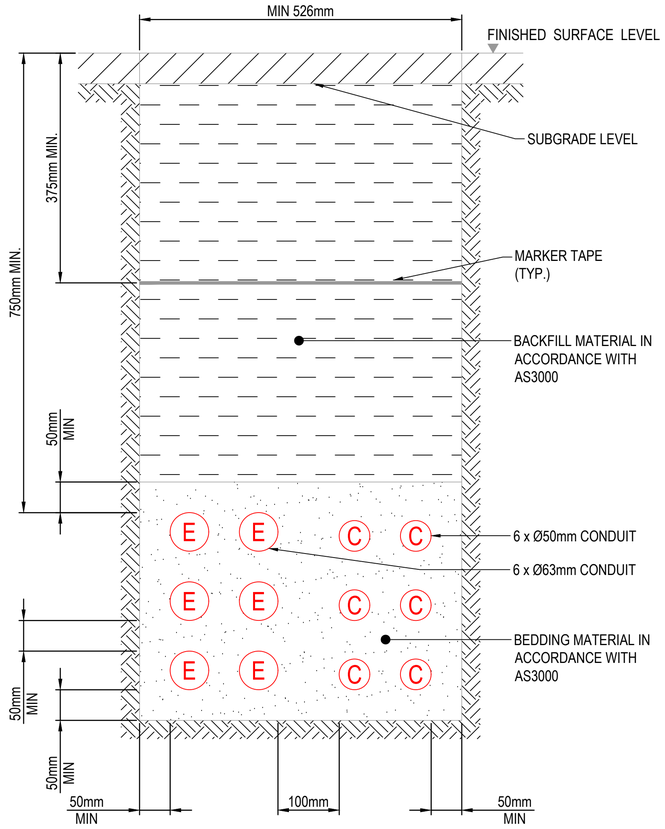
100mm on Original

Date Plotted: 13 Nov 2025 - 02:55pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0711-LightingDetailsSheet1.dwg









TYPICAL ELECTRICAL & COMMUNICATION CONDUIT TRENCH DETAILS (UNDER FOOTPATH PAVEMENT, IN VERGE OR GENERAL FILL)

1 : 5

TYPICAL ELECTRICAL & COMMUNICATION CONDUIT TRENCH DETAILS (CROSSING OF ROAD)

1 : 5

LEGEND:

- (E) ELECTRICAL CONDUIT 63mm DIAMETER
- (C) COMMUNICATION CONDUIT 50mm DIAMETER

NOTES:

1. CONTRACTOR TO CHECK THE EXISTING CONDUITS RUN PRIOR COMMENCING WORK.
2. THE ELECTRICAL CONTRACTOR SHALL UNDERTAKE A "BEFORE YOU DIG AUSTRALIA" SEARCH FOR EXISTING IN-GROUND SERVICES PRIOR TO EXCAVATION ON SITE. ANY DAMAGE TO EXISTING IN-GROUND SERVICES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
3. ALL WORKS TO CONFORM WITH THE LATEST CITY OF PARRAMATTA STREET LIGHTING DESIGN GUIDE AND PUBLIC DOMAIN GUIDELINES.
4. THE CONDUIT TYPE SHALL BE HDuPVC.
5. THE TRENCH WIDTH AND CLEARANCE BETWEEN CONDUITS SHALL BE ADJUSTED ACCORDINGLY FOR OTHER CONDUIT SIZE. REFER TO THE PLAN FOR OTHER SIZE OF ELECTRICAL CONDUIT.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales: 0 50 100 200 300 400 500mm — 1 : 5

100mm on Original

Surveyor: surveyplus / DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY — NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
Designed	H. THIAUW	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	S. ASHMAN		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: LIGHTING DETAILS SHEET 2

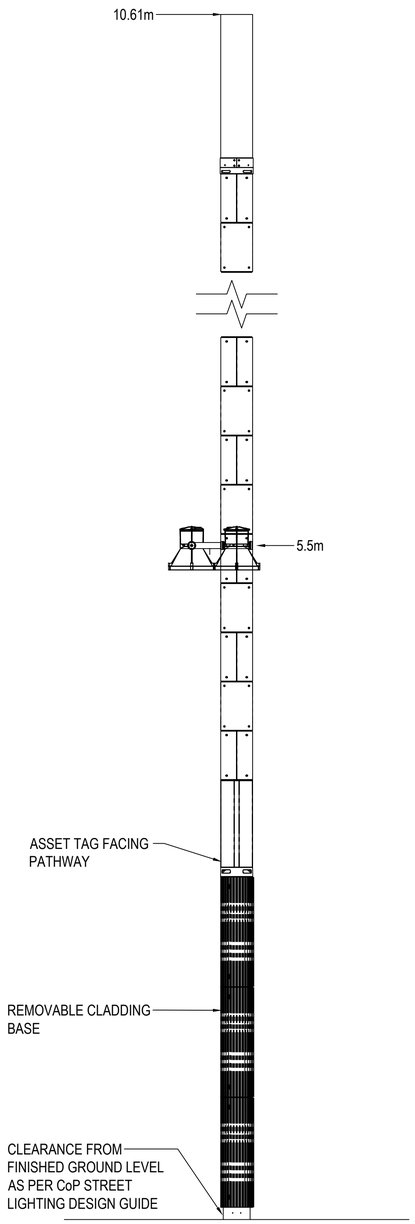
ARCADIS
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Project Number: 30286862

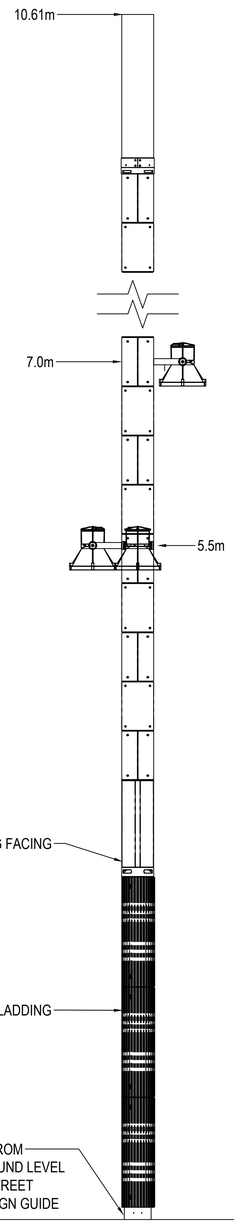
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Issue: 03

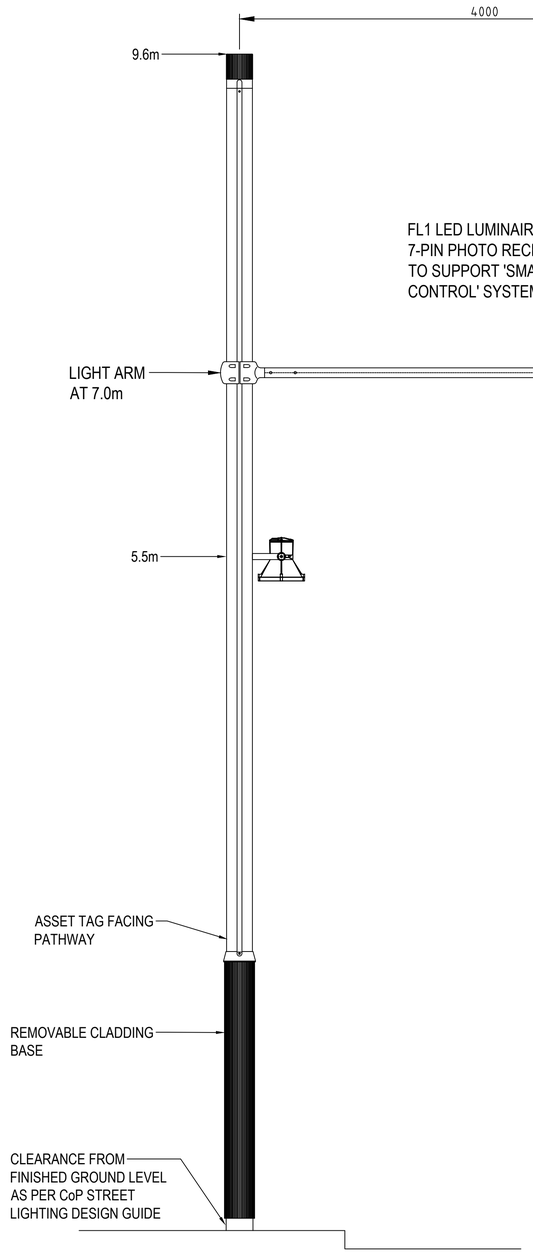
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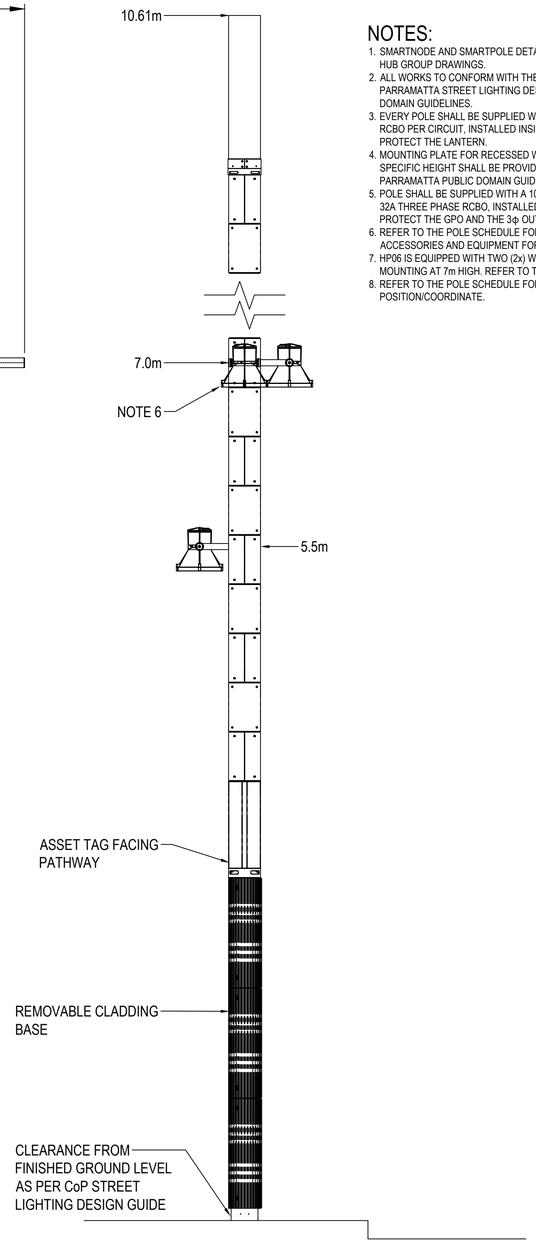
9.0m SMARTNODE WITH BEACON DETAILS
FOR POLE HP01 - HP03
(HUB GROUP)
SCALE NTS



9.0m SMARTNODE WITH BEACON DETAILS
FOR POLE HP05
(HUB GROUP)
SCALE NTS



S1B 9.6m SMARTPOLE DETAILS
FOR POLE HP04
(HUB GROUP)
SCALE NTS



9.0m SMARTNODE WITH BEACON DETAILS
FOR POLE HP06 - HP10
(HUB GROUP)
SCALE NTS

NOTES:

1. SMARTNODE AND SMARTPOLE DETAILS ARE EXTRACTED FROM HUB GROUP DRAWINGS.
2. ALL WORKS TO CONFORM WITH THE LATEST CITY OF PARRAMATTA STREET LIGHTING DESIGN GUIDE AND PUBLIC DOMAIN GUIDELINES.
3. EVERY POLE SHALL BE SUPPLIED WITH A 10A SINGLE PHASE RCBO PER CIRCUIT, INSTALLED INSIDE THE POLE BASE, TO PROTECT THE LANTERN.
4. MOUNTING PLATE FOR RECESSED WATERPROOF GPO AT SPECIFIC HEIGHT SHALL BE PROVIDED AS PER CITY OF PARRAMATTA PUBLIC DOMAIN GUIDELINES, SECTION 2.2.
5. POLE SHALL BE SUPPLIED WITH A 10A SINGLE PHASE RCBO AND 32A THREE PHASE RCBO, INSTALLED IN THE POLE BASE TO PROTECT THE GPO AND THE 3φ OUTLET.
6. REFER TO THE POLE SCHEDULE FOR THE REQUIRED ACCESSORIES AND EQUIPMENT FOR EACH POLE.
7. HP06 IS EQUIPPED WITH TWO (2x) WOODY FLOODLIGHT MOUNTING AT 7m HIGH. REFER TO THE LIGHTING LAYOUT PLAN.
8. REFER TO THE POLE SCHEDULE FOR THE EXACT POLE POSITION/COORDINATE.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

100mm on Original

Scales

0 0.5 1 1.5 2 2.5m

1 : 25

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	H. THIAUW	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	S. ASHMAN		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: LIGHTING DETAILS
SHEET 3

ARCADIS
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www.arcadis.com/au

Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0713

Issue: 03

Date Plotted: 13 Nov 2025 - 02:55pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0713-LightingDetailsSheet3.dwg

NOTES:

1. SMARTPOLE FOOTING DETAILS, CONDUIT ARRANGEMENT AND HD BOLT SETUP ARE EXTRACTED FROM HUB GROUP DRAWINGS.
2. LIGHT POLE BASE PLATE MUST BE VERIFIED AND CHECKED BY THE MANUFACTURER.

POLE LOADING AND BASE REACTIONS TABLE

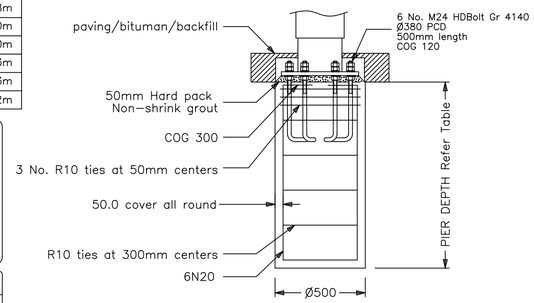
PART No.	POLE	LOAD CASE	MOMENT M*x(kNm	MOMENT M*y(kNm)	TORQUE T*x(kNm)	SHEAR V*x(kNm)	SHEAR V*y(kNm)	AXIAL P*(kN)
SAS–101	S1A 12.0m	A – Wind from side	96	13	27	0	15	10
		B – Wind from back	12	67	3	9	2	10
SAS–102	S1A 9.6m	A – Wind from side	96	13	27	0	15	10
		B – Wind from back	12	67	3	9	2	10
SAS–103	S1B 9.6m	A – Wind from side	58	0	2	0	11	5
		B – Wind from back	0	38	0	7	0	5
SAS–104	S1B 7.2m	A – Wind from side	37	0	1	0	7	5
		B – Wind from back	0	37	1	7	0	5
SAS–105	S1B 4.8m	A – Wind from side	18	0	1	0	5	5
		B – Wind from back	0	18	1	5	0	5
SAS–106	S2B 7.2m	A – Wind from side	46	5	3	1	10	4
		B – Wind from back	3	23	1	5	1	4
SAS–107	S2C 7.2m	A – Wind from side	44	5	3	1	10	4
		B – Wind from back	2	21	1	5	1	4
SAS–108	S2C 4.8m	A – Wind from side	18	2	1.5	1	6	3
		B – Wind from back	2	18	1.5	6	1	3
SAS–109	S2D 5.0m	A – Wind from side	13	1	1	0	4	2
		B – Wind from back	1	13	1	4	0	2

FOUNDATION TABLE

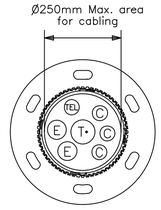
POLE Type	SQUARE Dim	PAD DEPTH	PAD REINFORCEMENT Top & Bottom	PIER DEPTH
S1A 12–9.6m	2.5m	0.75m	9N16	2.8m
S1B 9.6m	2.0m	0.7m	7N16	2.0m
S1B 7.2–4.8m	1.5m	0.8m	6N12	1.8m
S2B 7.2m	1.5m	0.6m	N16–200	2.0m
S2C 7.2m	1.5m	0.6m	N16–200	2.0m
S2C 4.8m	1.2m	0.45m	N16–250	1.3m
S2D 5.0m	1.2m	0.45m	N16–250	1.3m
S2 4.75m	1.2m	0.5m	N16–200	1.2m

NOTE
1. Design based on following conditions.
2. Concrete cover to reinforcement 50mm
3. Concrete strength f'c=32MPa
4. Soil Parameters:
   peirs – Cu = 40kPa
   pad – minimum bearing capacity 150kPa
5. A Geo Technical survey is required to determine each specific sites conditions.
6. The following is for comparison only.
7. Refer to Fully Loaded Dwg's for detailed pole configuration.

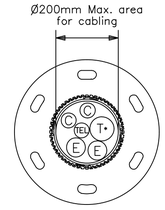
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INFORMATION ONLY



PIER FOOTING

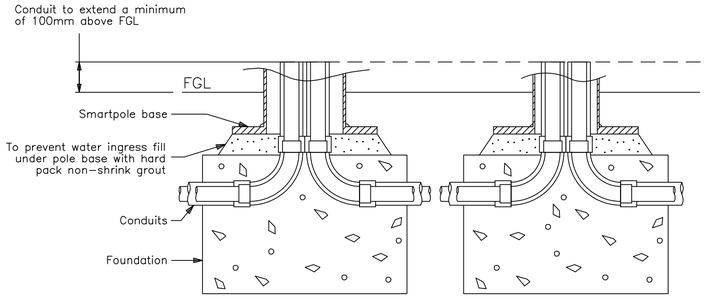


7 Conduits



6 Conduits

FOOTING PLAN VIEW



Type S1A

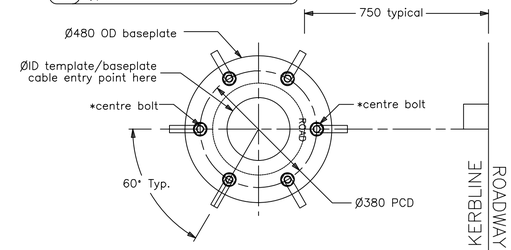
Type S1B, S2B

FOOTING SECTION VIEW

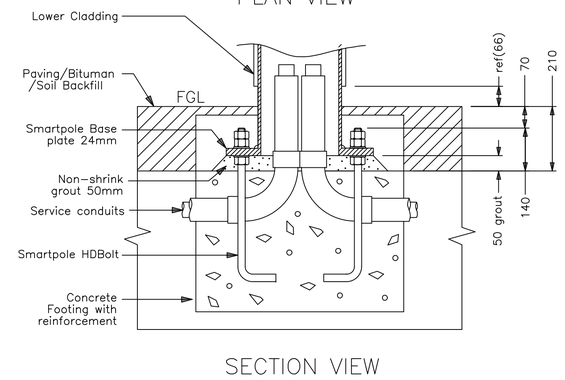
SYMBOLS	
TEL	–Ø50 Teleco.
C	–Ø50 Council
E	–Ø63 Electricity
T•	–Ø80 Traffic Signal

NOTE
All conduits as shown in the plan views shall be placed in all Smartpoles.
Where the Ø80 Traffic conduit is not used for traffic signals then the use of this conduit is at the discrection of the council.
Microcell's – Where fitted to Smartpole the Ø50 Telecommunications conduit shall be segregated from the other services. This is to be achieved by running the conduit from the base of the pole to the underside of the mounted unit. Approx. 5m.

NOTE
- *Center bolts must be set perpendicular the the roadway. Failure to do this will result in the light arm of the pole being skewed over the road.
- *Ensure template ØID matches pole type.



PLAN VIEW



SECTION VIEW

TYPICAL SMARTPOLE FOOTING DETAILS
(HUB GROUP)

TYPICAL SMARTPOLE CONDUIT ARRANGEMENT
(HUB GROUP)

TYPICAL SMARTPOLE HDBOLT SETUP
(HUB GROUP)

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
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Scales: NOT TO SCALE

Surveyor: surveyplus DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. SANTOS	Original Size	A1
Designed	H. THIAUW	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	S. ASHMAN		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: LIGHTING DETAILS SHEET 4

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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0714

Issue: 03

100mm on Original

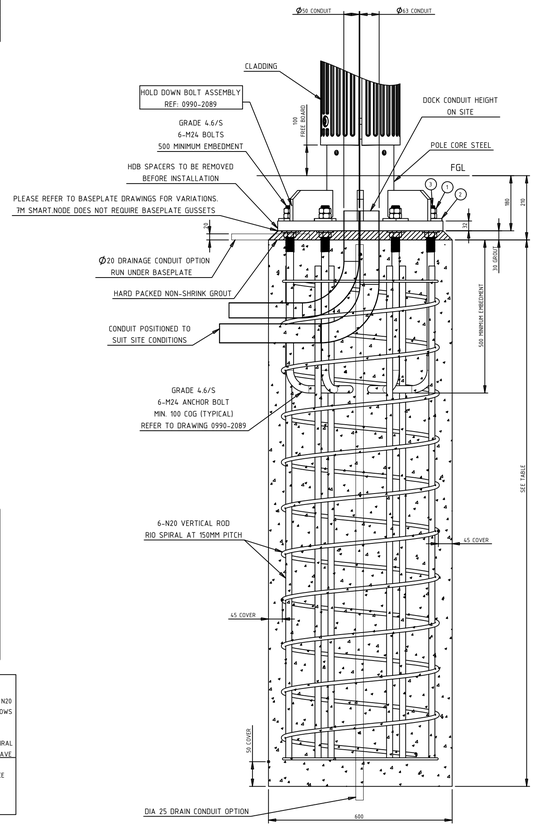
Date Plotted: 13 Nov 2025 - 02:55pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0714-LightingDetailsSheet4.dwg

NOTES:

1. SMARTNODE FOOTING DETAILS, CONDUIT ARRANGEMENT AND HD BOLT SETUP ARE EXTRACTED FROM HUB GROUP DRAWINGS.

SMART.NODE + M.BEACON + MAX LOAD	
POLE OA HEIGHT	FOOTING DEPTH
PL-SN-260-260-07-001-A	2400d
PL-SN-260-260-09-001-A	2400d
PL-SN-260-260-11-001-A	2800d

NOTE:
HDB'S FOR PIER FOOTING, USE HDB ASSEMBLY 0990-2089. NEED TO HAVE MINIMUM 500 EMBEDMENT, AND MINIMUM 100MM COG AT ENDS



FOOTING NOTES:

1. CONCRETE COVER TO ALL REINFORCING AND EMBEDDED STEELWORK TO BE 45mm AT SIDE, 50mm BELOW AND ABOVE
2. CONCRETE GRADE N32-100-20 (32 MPa)
3. SOIL PARAMETERS:
   1. NATURAL FIRM TO STIFF CLAY, OR DENSE SAND
   2. BORED PIERS – CU = 50
   3. PAD FOOTINGS – MIN BEARING CAPACITY = 150kPa
   4. ENGINEER TO BE CONSULTED IF SITE CONDITIONS VARY
4. A GEOTECHNICALSURVEY IS REQUIRED TO DETERMINE SITE SPECIFIC CONDITIONS
5. 50 YEAR DESIGN LIFE.
6. SOIL EXPOSURE CLASSIFICATION: "NON-AGGRESSIVE" SOIL.

REBAR CONSTRUCTION NOTES:

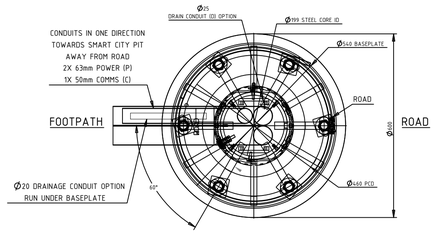
1. MIN. REBAR FSY = 500MPa
2. THE OUTER DIAMETER OF THE R10 SPIRAL CAN BE DIAM 510. THE N20 VERTICAL RODS SIT INSIDE THE SPIRAL. OUTER SPIRAL DIAM ALLOWS 45mm COVER.
3. THE INNER DIAMETER IS 490mm. THIS WILL ALLOW THE OUTER DIAMETER OF THE ANCHOR BOLTS (484mm) TO SIT INSIDE THE SPIRAL
4. BENT ANCHOR BOLTS NEEDS EMBEDMENT OF 500mm AND MUST HAVE 100MM COG AT ENDS
5. TOP OF CAGE MUST NOT BE TACK WELDED. TIE TOP SPIRALS ONCE ANCHOR BOLTS INSTALLED FOR EASE OF INSTALLATION.
6. N20 TO BE ORIENTATED AROUND INNER PERIMETER OF SPIRAL, LOCATED NEXT TO M24 ANCHOR BOLTS

CONDUITS
P - POWER (IN/OUT) Ø63
C - COMMS (IN/OUT) Ø50
D - DRAIN Ø25/ Ø20 OPTION

NOTE:
SITE SPECIFIC CONDUIT REQUIREMENTS TO BE CONFIRMED PRIOR TO FOOTING INSTALLATION

FASTENERS LIST				
NO	TITLE	MATERIAL	DRAWING	QTY
1	M24 HEX NUT	STEEL GRADE 4.6/S HDG		18
2	SQUARE WASHER – 60 X 60 X 8	STEEL GRADE 4.6/S HDG	0990-3928	6
3	M24 ANCHOR BOLT – PAD AND PIER FOOTING 7M-12M	STEEL GRADE 4.6/S HDG	0990-3920	6

FASTENERS NOTE:
1. NUTS/BOLTS TO COMPLY WITH AS 1111-2015
2. TIGHTENING NUTS/BOLTS COMPLY WITH AS 4100-1998. GRADE 4.6/S TO BE TENSIONED SO THEY ARE 'SNUG' TIGHT



TOP VIEW
SHOWING CONDUIT AND ROAD ORIENTATION

TOP VIEW
SHOWING HDB, PIER AND REBAR

TYPICAL SMARTNODE FOOTING DETAILS, CONDUIT ARRANGEMENT AND HDBOLT SETUP (HUB GROUP)

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
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Scales: NOT TO SCALE

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

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Original Issue Signatures			
Drawn	R. SANTOS	Original Size	A1
Designed	H. THIAUW	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	S. ASHMAN		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: LIGHTING DETAILS SHEET 5

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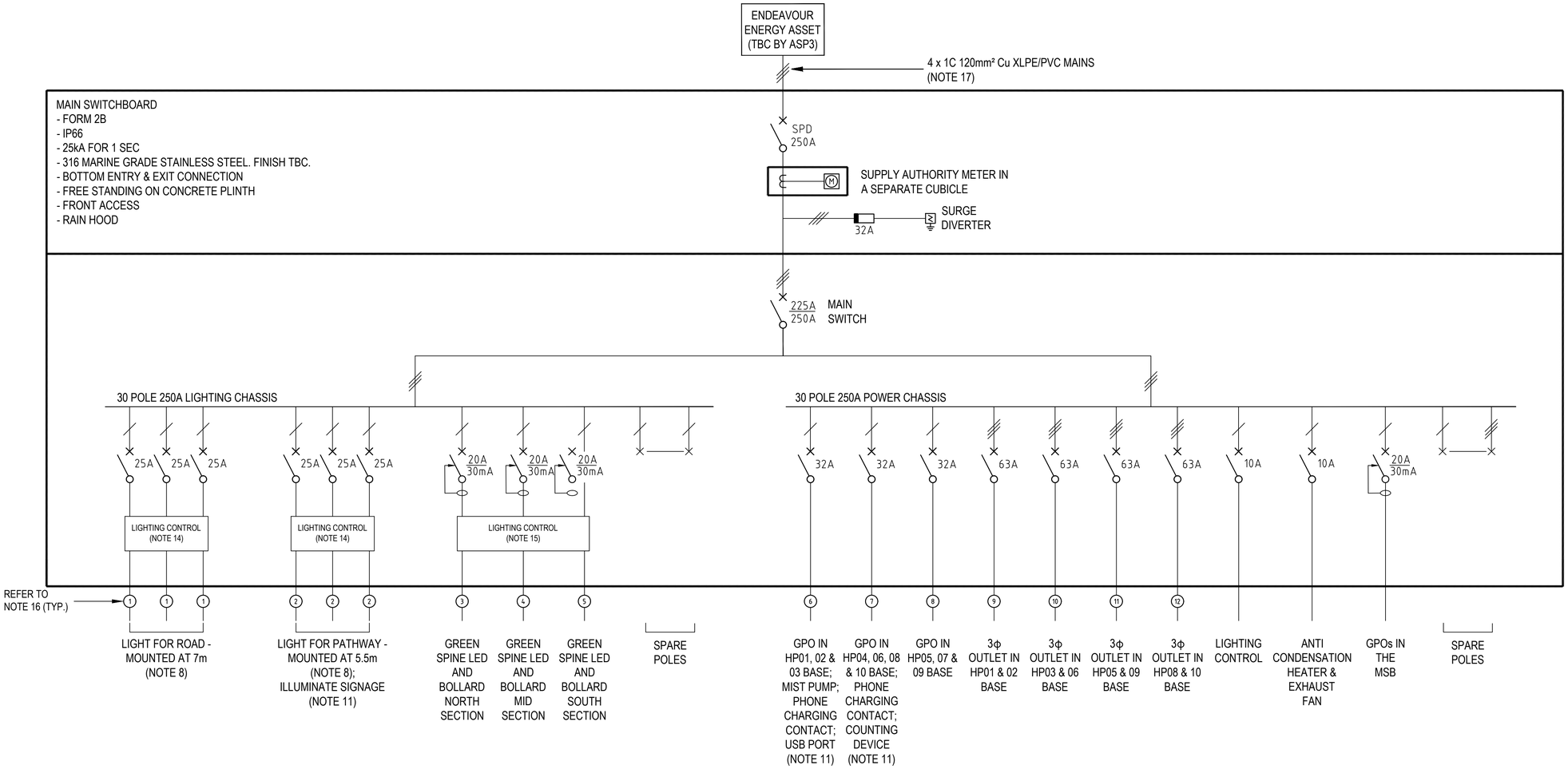
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Drawing No.: CL3-AAP-DD-HP-DRG-CI-0715

Issue: 03

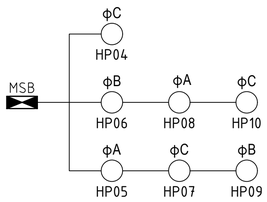
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Date Plotted: 13 Nov 2025 - 02:55pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0715-LightingDetailsSheet5.dwg



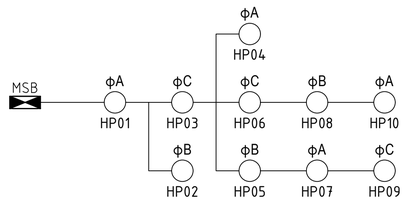
SINGLE LINE DIAGRAM

NOT TO SCALE



ROAD LIGHTING AND PHASE CONNECTION CIRCUIT DIAGRAM

NOT TO SCALE



PATHWAY LIGHTING AND PHASE CONNECTION CIRCUIT DIAGRAM

NOT TO SCALE

LEGEND

- CIRCUIT BREAKER (xA)
- CIRCUIT BREAKER RCD TYPE (20A)
- CONTACTOR
- FUSE
- EARTH
- SURGE PROTECTION DEVICE
- SUPPLY AUTHORITY METER
- PHOTO CELL (PE)
- TIME CLOCK (TC)
- MAIN SWITCHBOARD
- PHASE CONNECTION (ϕ)
- LIGHTING COLUMN

NOTES:

1. THE INFORMATION EXTRACTED FROM COUNCIL'S GUIDELINE ARE TYPICAL AND FOR GUIDANCE ONLY.
2. THE CONTRACTOR SHALL REFER TO COUNCIL'S STREET LIGHTING DESIGN GUIDE FOR THE MAIN SWITCHBOARD LOCK AND ASSET TAGGING DETAILS.
3. THE DETAILS ON SCHEMATIC ARE APPLICABLE TO THE NEW SWITCHBOARD FEEDING THE LIGHTING WORK ON HORWOOD PLACE.
4. **THIS NEW SWITCHBOARD SHOULD BE CONSTRUCTED DURING THE PHILLIP STREET PROJECT STAGING AND NO CABLING REQUIRED, AS PART OF PHILLIP STREET SCOPE OF WORK. THE PHILLIP STREET PROJECT STAGE COMMENCES PRIOR THE HORWOOD PLACE PROJECT TAKES PLACE.**
5. SPARE 1x ϕ80mm ELECTRICAL HDuPVC CONDUIT AND 1x ϕ50mm COMMUNICATION HDuPVC CONDUIT, CAPPED OFF 1m DISTANCE FROM MSB CONCRETE PLINTH SHALL BE PROVIDED.
6. SPARE 1x ϕ63mm ELECTRICAL HDuPVC CONDUIT AND 1x ϕ50mm COMMUNICATION HDuPVC CONDUIT, CAPPED OFF 1m DISTANCE FROM COLUMN OR FOOTING SHALL BE PROVIDED.
7. THE PVC/PVC CABLE SHALL BE V-90 TYPE OF INSULATION.
8. A COMMON NEUTRAL IS USED FOR THE ROAD AND PATHWAY LIGHTING.
9. A LABEL STATING **'A COMMON NEUTRAL IS USED FOR THE ROAD AND PATHWAY LIGHTING'** IS TO BE LOCATED IN A POSITION AND OF A TYPE TO BE PROMINENT TO ANY PERSON PREPARING TO WORK ON THE SWITCHBOARD.
10. THE CABLING METHOD SHALL FOLLOW CITY OF PARRAMATTA INSTALLATION GUIDELINE, WHICH IS LOOP IN LOOP OUT. THE CABLE CONNECTION BRANCHES OUT TO A MULTIPLE DIRECTION IS PERMITTED INSIDE THE PIT USING **SICAME PIRANHA** SERIES MULTI-PORT WATERPROOF CONNECTORS.
11. THE BELOW EQUIPMENT SHALL BE CONNECTED AS STATED.
    - POWER SUPPLY FOR PHONE CHARGING CONTACT AT POLE HP02, HP03 AND HP06 SHALL BE CONNECTED TO THE RESPECTIVE POLE'S GPO CIRCUIT.
    - POWER SUPPLY FOR USB PORTS AT BAR TABLE SHALL BE CONNECTED TO HP03 GPO CIRCUIT.
    - POWER SUPPLY FOR BICYCLE/SCOOTER/PEDESTRIAN COUNTING DEVICE AT HP04 SHALL BE CONNECTED TO HP04 GPO CIRCUIT.
    - POWER SUPPLY FOR MISTING PUMP SHALL BE CONNECTED TO HP02 GPO CIRCUIT WITH A DEDICATED 20A RCBO.
    - POWER SUPPLY FOR FUTURE ILLUMINATE SIGNAGE SHALL BE CONNECTED TO HP10 PATHWAY LIGHTING CIRCUIT.
12. THE POWER SUPPLY FOR USB PORTS AT BAR TABLE SHALL BE CONNECTED TO HP03 GPO CIRCUIT.
13. THE POWER SUPPLY FOR BICYCLE/SCOOTER/PEDESTRIAN COUNTING DEVICE AT HP04 SHALL BE CONNECTED TO HP04 GPO CIRCUIT.
14. THE ROAD AND PATHWAY LIGHTING ARE CONTROLLED THROUGH EXEDRA TALQ OWLET SLCs SMART LIGHTING CONTROLLER FROM SCS-SCHREDER AS PER CITY OF PARRAMATTA REQUIREMENT.
15. THE FEATURE LIGHTING ARE CONTROLLED THROUGH DALI SYSTEM AS SHOWN IN THE FEATURE LIGHTING CONTROL BLOCK DIAGRAM IN SHEET CL3-AAP-DD-HP-DRG-CI-0717, INTERFACED WITH COUNCIL'S EXEDRA NETWORK.
16. REFER TO TABLE FOR CABLE SCHEDULE.
17. CABLE SIZE MAY CHANGE SUBJECT TO WHICH ENDEAVOUR ENERGY ASSET THE MAIN SWITCHBOARD IS CONNECTED TO.

CABLE SCHEDULE

No.	DESIGNATION
1	4x 1C 16mm² XLPE/PVC Cu + 6mm² E
2	4x 1C 16mm² XLPE/PVC Cu + 6mm² E
3	1x 2C 6mm² PVC/PVC Cu + 2.5mm² E
4	1x 2C 6mm² PVC/PVC Cu + 2.5mm² E
5	1x 2C 6mm² PVC/PVC Cu + 2.5mm² E
6	1x 2C 16mm² XLPE/PVC Cu + 6mm² E
7	1x 2C 25mm² XLPE/PVC Cu + 6mm² E
8	1x 2C 25mm² XLPE/PVC Cu + 6mm² E
9	1x 4C 25mm² XLPE/PVC Cu + 6mm² E
10	1x 4C 25mm² XLPE/PVC Cu + 6mm² E
11	1x 4C 25mm² XLPE/PVC Cu + 6mm² E
12	1x 4C 25mm² XLPE/PVC Cu + 6mm² E

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Scales: NOT TO SCALE

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Landscape Architect: OCULUS

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Original Issue Signatures

Drawn	R. SANTOS	Original Size	A1
Designed	H. THIAUW	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	S. ASHMAN		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: LIGHTING DETAILS SHEET 6

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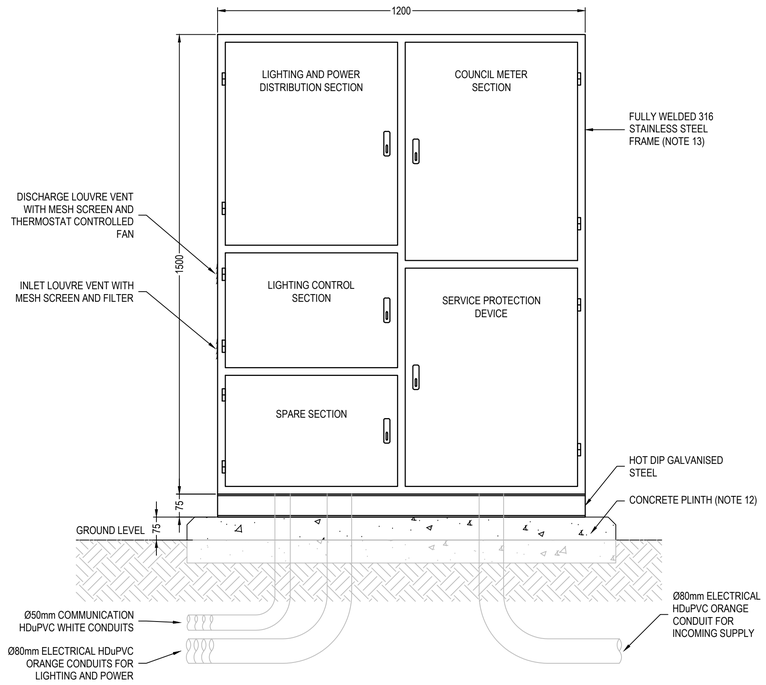
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Issue: 03

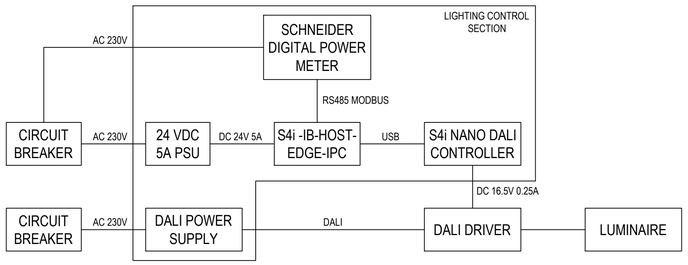
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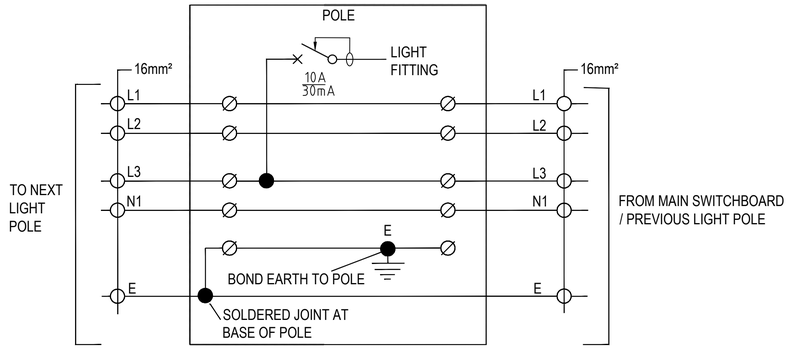
MAIN SWITCHBOARD GENERAL ARRANGEMENT

NOT TO SCALE



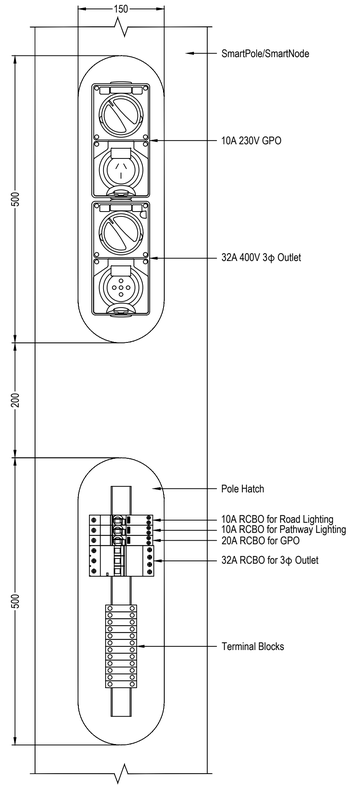
FEATURE LIGHTING CONTROL BLOCK DIAGRAM

NOT TO SCALE



TYPICAL POLE WIRING

NOT TO SCALE



TYPICAL POLE BASE DETAILS

NOT TO SCALE

NOTES:

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2. THE CONTRACTOR SHALL REFER TO COUNCIL'S STREET LIGHTING DESIGN GUIDE FOR THE MAIN SWITCHBOARD LOCK AND ASSET TAGGING DETAILS.
3. REFER TO SHEET CL3-AAP-DD-HP-DRG-CI-0716 FOR THE MAIN SWITCHBOARD SINGLE LINE DIAGRAM.
4. THE MAIN SWITCHBOARD (MSB) SHALL BE PROVIDED WITH EARTHING SYSTEM AND BONDING OF ALL EXPOSED METAL STRUCTURE IN ACCORDANCE WITH AS3000. MAIN EARTHING CABLE SHALL RUN INSIDE A HDuPVC CONDUIT BETWEEN EARTH PIT AND THE BASE OF MSB.
5. DOUBLE GPO SHALL BE PROVIDED IN ALL SECTIONS ON THE OUTGOING SIDE.
6. THE LIGHTING CONTROL SECTION SHALL BE PROVIDED WITH A DIN RAIL TO HOUSE THE EQUIPMENT SHOWN IN THE FEATURE LIGHTING CONTROL BLOCK DIAGRAM. THE COMPARTMENT SHALL HAVE MINIMUM DEPTH OF 200mm FROM THE DIN RAIL TRACK TO THE IN SIDE OF THE COMPARTMENT DOOR.
7. ALL INCOMING AND OUTGOING CONDUITS TO BE COMPLETELY SEALED AFTER INSTALLATION.
8. THE QUANTITY OF OUTGOING CONDUITS SHOWN IS INDICATIVE. CONTRACTOR TO ALLOW SPARE CONDUIT FOR FUTURE USE AS STATED IN THE NOTES OF SHEET CL3-AAP-DD-HP-DRG-CI-0716.
9. A COMMON NEUTRAL IS USED FOR THE ROAD AND PATHWAY LIGHTING.
10. A LABEL STATING '**A COMMON NEUTRAL IS USED FOR THE ROAD AND PATHWAY LIGHTING**' IS TO BE LOCATED IN A POSITION AND OF A TYPE TO BE PROMINENT TO ANY PERSON PREPARING TO WORK ON THE SWITCHBOARD.
11. THE EQUIPMENT SHOWN IN THE 'TYPICAL DETAILS - POLE BASE' ARE VARY BETWEEN POLE. CONTRACTOR SHALL REFER TO THE POLE SCHEDULE FOR THE REQUIRED EQUIPMENT ON EACH POLE THEN PROVIDE THE AMOUNT OF CIRCUIT BREAKERS AND TERMINAL BLOCKS ACCORDINGLY.
12. CONCRETE PLINTH BY BUILDER. IT SHALL BE DETERMINED AFTER THE SWITCHBOARD MANUFACTURER DEVELOPS THE SHOP DRAWING AND INDICATE THE WEIGHT.
13. MAIN SWITCHBOARD COLOUR/FINISH IS TO BE CONFIRMED BY CITY OF PARRAMATTA.

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100mm on Original

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Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	S. ASHMAN		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: LIGHTING DETAILS SHEET 7

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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0717

Issue: 03

Date Plotted: 13 Nov 2025 - 02:55pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0717-LightingDetailsSheet7.dwg

LUMINAIRE SCHEDULE

POLE NUMBER	CODE	DESCRIPTION	PRODUCT CODE AND NAME	FINISH	CONTROL GEAR	OPTICS	SUPPLIER
HP01 - HP03	L1	POLE MOUNTED SPOTLIGHT - WOODY 36W, 3000K, IP67, IK08 WITH ZHAGA SOCKET. MOUNTED AT 5.5m HIGH	EH36 MEDIUM BODY SPOTLIGHT WITH BRACKET	TO MATCH WITH POLE FINISH	INTEGRAL DRIVER	ST1	iGuzzini
HP04	FL1	POLE MOUNTED FLOODLIGHT - SASTA LED MAXIMUS 110W, 4000K, IP66, IK07 WITH 7 PIN NEMA BASE. MOUNTED AT 7.0m HIGH.	SL99Z43L110 - SLED2 110W 4K XT PES7 CO 9007	TO MATCH WITH POLE FINISH	INTEGRAL DALI-2 DRIVER	ASYMMETRIC	SYLVANIA SCHREDER
	L2	POLE MOUNTED SPOTLIGHT - WOODY 56W, 3000K, IP67, IK08 WITH ZHAGA SOCKET. MOUNTED AT 7.0m HIGH	EH40 MEDIUM BODY SPOTLIGHT WITH BRACKET	TO MATCH WITH POLE FINISH	INTEGRAL DRIVER	ST1.2	iGuzzini
HP05	L1	POLE MOUNTED SPOTLIGHT - WOODY 36W, 3000K, IP67, IK08 WITH ZHAGA SOCKET. MOUNTED AT 5.5m HIGH	EH36 MEDIUM BODY SPOTLIGHT WITH BRACKET	TO MATCH WITH POLE FINISH	INTEGRAL DRIVER	ST1	iGuzzini
	L2	POLE MOUNTED SPOTLIGHT - WOODY 56W, 3000K, IP67, IK08 WITH ZHAGA SOCKET. MOUNTED AT 7.0m HIGH	EH40 MEDIUM BODY SPOTLIGHT WITH BRACKET	TO MATCH WITH POLE FINISH	INTEGRAL DRIVER	ST1.2	iGuzzini
HP06, HP08 & HP10	L2	POLE MOUNTED SPOTLIGHT - WOODY 56W, 3000K, IP67, IK08 WITH ZHAGA SOCKET. MOUNTED AT 5.5m HIGH	EH40 MEDIUM BODY SPOTLIGHT WITH BRACKET	TO MATCH WITH POLE FINISH	INTEGRAL DRIVER	ST1.2	iGuzzini
	L2	POLE MOUNTED SPOTLIGHT - WOODY 56W, 3000K, IP67, IK08 WITH ZHAGA SOCKET. MOUNTED AT 7.0m HIGH (2x)	EH40 MEDIUM BODY SPOTLIGHT WITH BRACKET	TO MATCH WITH POLE FINISH	INTEGRAL DRIVER	ST1.2	iGuzzini
HP07 & HP09	L1	POLE MOUNTED SPOTLIGHT - WOODY 36W, 3000K, IP67, IK08 WITH ZHAGA SOCKET. MOUNTED AT 5.5m HIGH	EH36 MEDIUM BODY SPOTLIGHT WITH BRACKET	TO MATCH WITH POLE FINISH	INTEGRAL DRIVER	ST1	iGuzzini
	L2	POLE MOUNTED SPOTLIGHT - WOODY 56W, 3000K, IP67, IK08 WITH ZHAGA SOCKET. MOUNTED AT 7.0m HIGH	EH40 MEDIUM BODY SPOTLIGHT WITH BRACKET	TO MATCH WITH POLE FINISH	INTEGRAL DRIVER	ST1.2	iGuzzini
N/A	LED	LINEAR LED - UNDERSCORE INOUT 6.7W/m, 2900K, IP68, IK10. MOUNTED UNDER THE PEBBLE, SEATING AND BAR TABLE	SIDE BEND 10mm WITH BRACKET. CUSTOM LENGTH TO SUIT STREET FURNITURE	WHITE	REMOTE DALI-2 DRIVER	GENERAL	iGuzzini
N/A	BOLLARD	BOLLARD LIGHTING - iWAY ROUND 13.1W, 3000K, IP66, IK10.	EN97 BOLLARD 610mm HIGH (EN97.15+EP15.15+B513.00)	BLACK	INTEGRAL DALI-2 DRIVER	360° SYMMETRICAL	iGuzzini

NOTE:

1. CONTRACTOR SHALL SUPPLY AND INSTALL THE REQUIRED ACCESSORIES IN ORDER TO ENABLE COMPLETE INSTALLATION.
2. CONTRACTOR SHALL PROVIDE LED LINEAR DRIVER FROM FROM MEANWELL ELG-240 SERIES WITH DALI FUNCTION TO FIT IN FIBOX PC-203615 DRIVER BOX.

EQUIPMENT SCHEDULE

ITEM	DESCRIPTION	SUPPLIER
PIT	600x600 ELECTRICAL AND COMMUNICATION PIT WITH PAVING INFILL LID (CLASS D)	ACO CABLEMATE OR MASCOT ENGINEERING
CONTROL CABLE	DALI LIGHTING CONTROL CABLE 2x1.5mm2	-
DRIVER BOX	FIBOX PC-203615	IP ENCLOSURES
ELECTRICAL CONNECTOR	SICAME PIRANHA SERIES MULTIPORT WATERPROOF CONNECTOR	SICAME
USB PORT	SOLIROC USB PORT - SURFACE MOUNT. CONSIST OF: - ARTEOR USB FEMALE SOCKET - ADAPTOR WITH COVER - SURFACE MOUNTING BOX	LEGRAND

NOTE:

1. CONTRACTOR SHALL COORDINATE THE PIT LID PAVERS WITH LANDSCAPE ARCHITECTS.
2. CONTRACTOR SHALL SUPPLY AND INSTALL THE REQUIRED ACCESSORIES IN ORDER TO ENABLE COMPLETE INSTALLATION.
3. CONTRACTOR SHALL PROVIDE APPROPRIATE SEALING METHOD ON THE DRIVER BOX HOLE OPENING FOR THE CONDUIT ENTRY.
4. THE PIT LID SHALL HAVE 'CoPC ELECTRICAL' AND 'CoPC COMMUNICATION' WORDING IMPRESSED ON THE LID.

POLE SCHEDULE

POLE NUMBER	POLE SETOUT (CENTRE OF POLE) EASTING	POLE SETOUT (CENTRE OF POLE) NORTHING	POLE HEIGHT (m)	OUTREACH LENGTH (m)	POLE TYPE	FINISH	STANDARD HUB PIER FOOTING	LUMINAIRE TYPE	LUMINAIRE MOUNTING HEIGHT (m)	LUMINAIRE UPCAST (°)	FUTURE FEATURE LIGHTING	SMART LIGHTING CONTROLLER	3Ø OUTLET	GPO	CCTV (PTZ)	BICYCLE/SCOOTER/ PEDESTRIAN COUNTER	Wi-Fi	BEACON 260	WAYFINDING SIGNAGE BRACKETS	PHONE CHARGING CONTACT PLATE
HP01 (MW01)	315409.287	6256812.135	WITH BEACON = 10.61m	N/A	SMARTNODE WITH 260 BASE, 260 UPPER FROM HUB GROUP PL-SN-260-260-09-001-A	DULUX DURATEC NATURAL - BRONZE KINETIC FLAT	STANDARD HUB	L1	5.5	- 0° FACING PED CROSSING ON PHILLIP ST - 5° FACING WEST PATHWAY	✓	✓	✓	✓	N/A	N/A	✓	✓	✓	N/A
HP02 (MW02)	315412.874	6256797.552	WITH BEACON = 10.61m	N/A	SMARTNODE WITH 260 BASE, 260 UPPER FROM HUB GROUP PL-SN-260-260-09-001-A	DULUX DURATEC NATURAL - BRONZE KINETIC FLAT	STANDARD HUB	L1	5.5	- 0° FACING GREEN SPINE BRIDGE - 5° FACING EAST PATHWAY	✓	✓	✓	✓	N/A	N/A	✓	✓	N/A	✓
HP03 (MW03)	315402.651	6256783.054	WITH BEACON = 10.61m	N/A	SMARTNODE WITH 260 BASE, 260 UPPER FROM HUB GROUP PL-SN-260-260-09-001-A	DULUX DURATEC NATURAL - BRONZE KINETIC FLAT	STANDARD HUB	L1	5.5	- 0° FACING GREEN SPINE BRIDGE - 5° FACING WEST PATHWAY	✓	✓	✓	✓	M/A	N/A	✓	✓	N/A	✓
HP04 (MW04)	315386.635	6256770.320	9.6m	4	SMARTPOLE S1B FROM HUB GROUP	TO MATCH WITH SMARTPOLE FINISH AT PHILLIP STREET	STANDARD HUB	FL1 & L2	FL1 = 7 L2 = 5.5	FL1 = 0° L2 = 10°	N/A	✓	N/A	✓	✓	✓	✓	N/A	✓	N/A
HP05 (MW05)	315405.013	6256764.281	WITH BEACON = 10.61m	N/A	SMARTNODE WITH 260 BASE, 260 UPPER FROM HUB GROUP PL-SN-260-260-09-001-A	DULUX DURATEC NATURAL - BRONZE KINETIC FLAT	STANDARD HUB	L1 & L2	L1 = 5.5 L2 = 7	0°	✓	✓	✓	✓	N/A	N/A	✓	✓	N/A	N/A
HP06 (MW06)	315393.614	6256753.501	WITH BEACON = 10.61m	N/A	SMARTNODE WITH 260 BASE, 260 UPPER FROM HUB GROUP PL-SN-260-260-09-001-A	DULUX DURATEC NATURAL - BRONZE KINETIC FLAT	STANDARD HUB	L2	5.5 & 7	- 0° FACING ROADWAY (2x) - 10° FACING WEST PATHWAY	✓	✓	✓	✓	N/A	N/A	✓	✓	N/A	✓
HP07 (MW07)	315399.514	6256736.884	WITH BEACON = 10.61m	N/A	SMARTNODE WITH 260 BASE, 260 UPPER FROM HUB GROUP PL-SN-260-260-09-001-A	DULUX DURATEC NATURAL - BRONZE KINETIC FLAT	STANDARD HUB	L1 & L2	L1 = 5.5 L2 = 7	0°	✓	✓	N/A	✓	✓	N/A	✓	✓	N/A	N/A
HP08 (MW08)	315388.319	6256725.209	WITH BEACON = 10.61m	N/A	SMARTNODE WITH 260 BASE, 260 UPPER FROM HUB GROUP PL-SN-260-260-09-001-A	DULUX DURATEC NATURAL - BRONZE KINETIC FLAT	STANDARD HUB	L2	5.5 & 7	- 0° FACING ROADWAY - 10° FACING WEST PATHWAY	✓	✓	✓	✓	N/A	N/A	✓	✓	N/A	N/A
HP09 (MW09)	315391.869	6256706.725	WITH BEACON = 10.61m	N/A	SMARTNODE WITH 260 BASE, 260 UPPER FROM HUB GROUP PL-SN-260-260-09-001-A	DULUX DURATEC NATURAL - BRONZE KINETIC FLAT	STANDARD HUB	L1 & L2	L1 = 5.5 L2 = 7	0°	✓	✓	✓	✓	N/A	N/A	✓	✓	N/A	N/A
HP10 (MW10)	315377.760	6256689.246	WITH BEACON = 10.61m	N/A	SMARTNODE WITH 260 BASE, 260 UPPER FROM HUB GROUP PL-SN-260-260-09-001-A	DULUX DURATEC NATURAL - BRONZE KINETIC FLAT	STANDARD HUB	L2	5.5 & 7	- 0° FACING ROADWAY - 10° FACING WEST PATHWAY	✓	✓	✓	✓	✓	N/A	✓	✓	N/A	N/A
(MW11)	315360.154	6256688.627	N/A	N/A	S1A FROM HUB GROUP	N/A	STANDARD HUB	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOTE:

1. THE PROPOSED POLES LOCATION HAVE BEEN COORDINATED WITH OTHER SERVICES AND AVOID THE EXISTING UNDERGROUND SERVICES. THEREFORE, THE POLE SETOUT SHALL BE FOLLOWED.
2. THE LUMINAIRE MOUNTING HEIGHT OF 5.5m IS FACING THE PATHWAY AND/OR GREEN SPINE, EXCEPT FOR HP04 WHICH IS FACING THE ROADWAY. THE MOUNTING HEIGHT OF 7m IS FACING THE ROADWAY.
3. REFER TO THE LIGHTING LAYOUT PLAN FOR THE LUMINAIRE ORIENTATION.
4. CONTRACTOR SHALL PROVIDE THE REQUIRED ACCESSORIES AND EQUIPMENT FOR EACH POLE AS SHOWN IN THE ABOVE TABLE.
5. CONTRACTOR SHALL LIAISE WITH HUB GROUP, COUNTCULTURE, CCTV AND WIFI SUPPLIER FOR THE REQUIRED OUTREACH ARM.
6. CONTRACTOR SHALL LIAISE WITH HUB GROUP FOR THE PHONE CHARGING CONTACT PLATE.
7. CONTRACTOR SHALL LIAISE WITH SCHREDER FOR THE EXEDRA TALQ OWLET SLCs SMART LIGHTING CONTROLLER.
8. THE NEW CCTV CAMERA FOR HP04 IS **HANWHA PNM-C34404RQPZ.** THE HP07 AND HP10 WILL BE EQUIPPED WITH **AXIS P3827-PVE PANORAMIC CAMERA**.
9. THE FUTURE PEDESTRIAN CROSSING LIGHT POLE (MW11) IS NOT PART OF THE HORWOOD PLACE SCOPE OF WORK, EXCEPT THE CONDUIT AND POLE FOOTING FOR FUTUREPROOF.
10. THE EXISTING COMMUNICATION CABLES HAVE TO BE RE-ROUTED THROUGH THE NEW CONDUITS AND PITS THEN RECONNECTED TO THE EXISTING EQUIPMENTS.
11. THE EXISTING COMMUNICATION CABLES HAVE TO BE REPLACED WITH NEW IF THE LENGTH IS INSUFFICIENT TO REACH THE EQUIPMENT AFTER RE-ROUTING. APPROVAL FROM CITY OF PARRAMATTA ASSET TEAM IS REQUIRED IF CONTRACTOR PROPOSES TO EXTEND THE EXISTING COMMUNICATION CABLES BY JOINING WITH NEW.
12. THE GPO AND 3Ø OUTLET IN THE POLE BASE SHALL BE LOCKABLE TYPE.

Issue	Description	DR	CH	VE	Date
03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
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01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RS	CR	GD	18.07.2025

100mm on Original

Scales

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	H. THIAUW	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	S. ASHMAN		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: LIGHTING SCHEDULE

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www.arcadis.com/au

Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0721

Issue: 03

Date Plotted: 13 Nov 2025 - 02:55pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0721-LightingSchedule.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- CoP PROPOSED MFP WITH CIRCULAR AND RECTANGULAR FLOODLIGHT (HPXX)
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (HPXX)
- ISOLUX 15 LX
- ISOLUX 7.5 LX

NOTES

1. EXISTING UTILITY PITS TO BE ADJUSTED TO SUIT PROPOSED LEVELS. FOR MORE INFORMATION REFER TO UTILITY REGISTER.
2. STANDARD CITY OF PARRAMATTA POLE OFFSET, 600mm FROM THE FACE OF KERB TO FACE OF POLE.
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5. VERIFY ALL DIMENSIONS ON SITE.
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8. THE EXISTING UNDERGROUND SERVICES ARE OBTAINED FROM THIRD PARTY.
9. CONTRACTOR TO ALLOW POT HOLING TO OBTAIN AN ACCURATE INFORMATION ABOUT THE EXISTING UNDERGROUND SERVICES.
10. ALL WORKS TO CONFORM WITH THE LATEST CITY OF PARRAMATTA STREET LIGHTING DESIGN GUIDE AND PUBLIC DOMAIN GUIDELINES.

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03	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RD	CN	GD	12.11.2025
02	ISSUED FOR INFORMATION - 95% DETAILED DESIGN	RD	CN	GD	10.09.2025
01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

Scales

0 1 2 4 6 8 10m

1 : 100

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	H. THIAUW	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	S. ASHMAN		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: ISOLUX PLAN SHEET 1

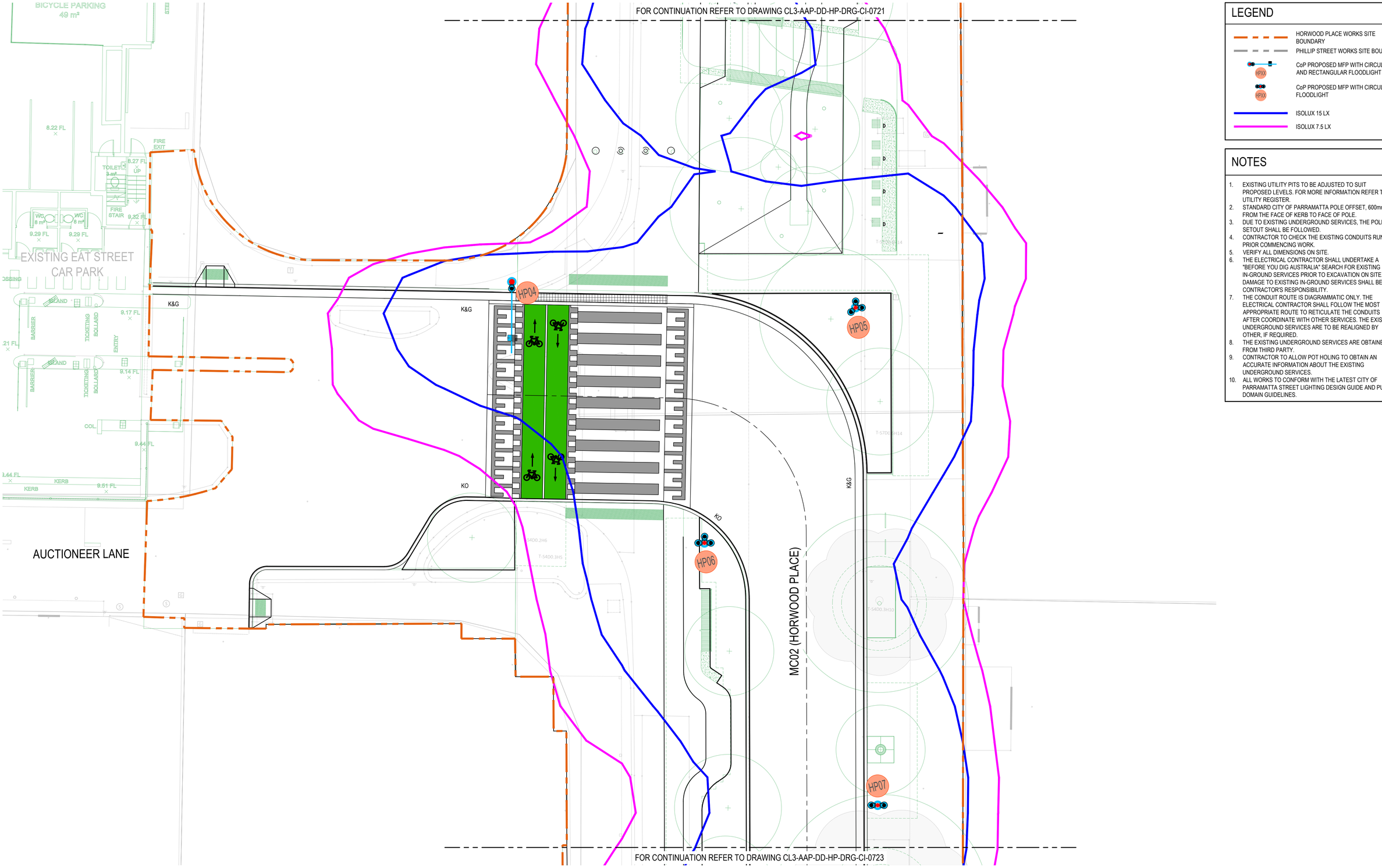
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0731

Issue: 03

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LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- CoP PROPOSED MFP WITH CIRCULAR AND RECTANGULAR FLOODLIGHT (HPXX)
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (HPXX)
- ISOLUX 15 LX
- ISOLUX 7.5 LX

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100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	H. THIAUW	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	S. ASHMAN		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: ISOLUX PLAN
SHEET 2

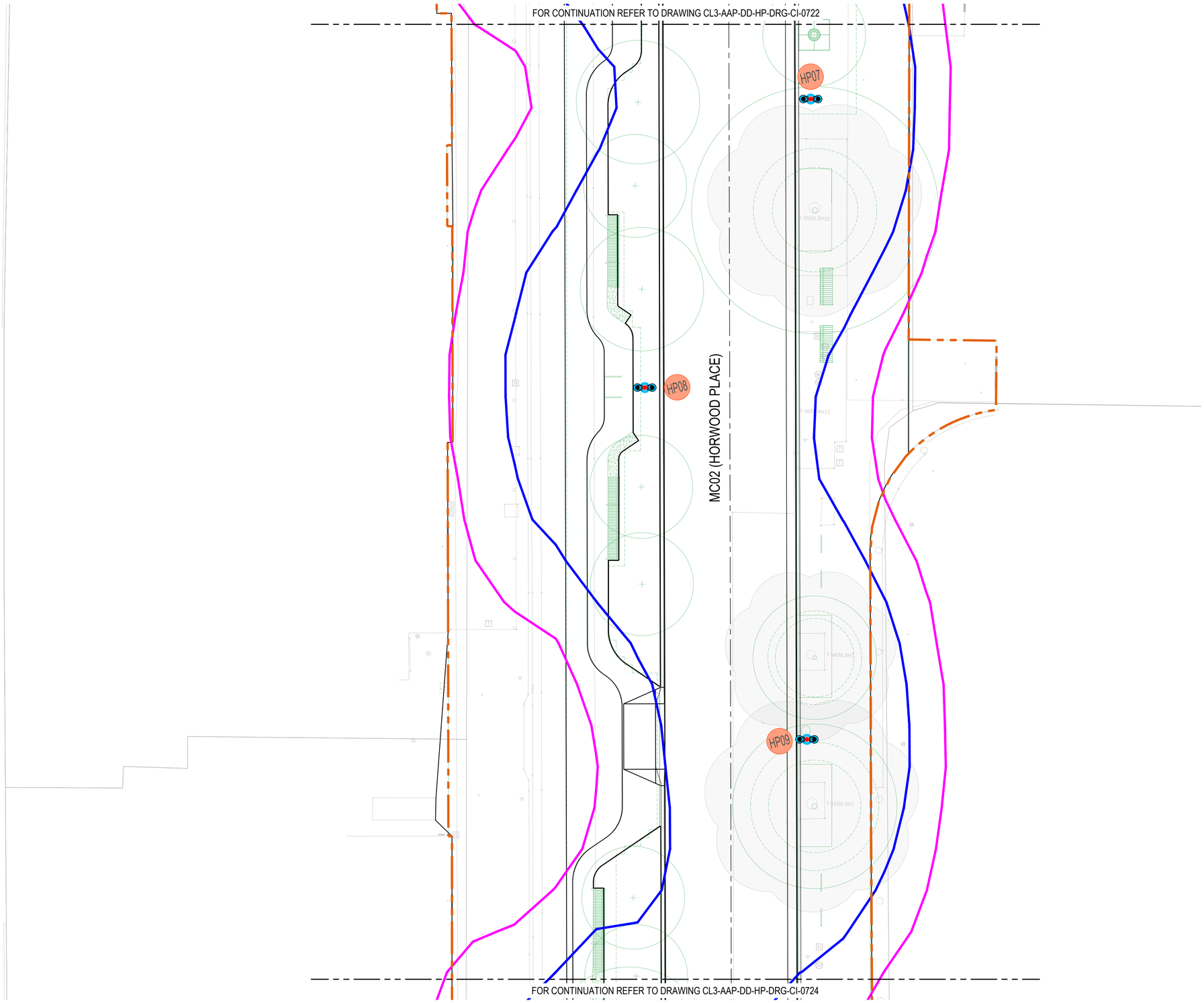
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0732

Issue: 03

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LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- CoP PROPOSED MFP WITH CIRCULAR AND RECTANGULAR FLOODLIGHT (HPXX)
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (HPXX)
- ISOLUX 15 LX
- ISOLUX 7.5 LX

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01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

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Original Issue Signatures			
Drawn	R. DIESTA	Original Size	A1
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Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	S. ASHMAN		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: ISOLUX PLAN
SHEET 3

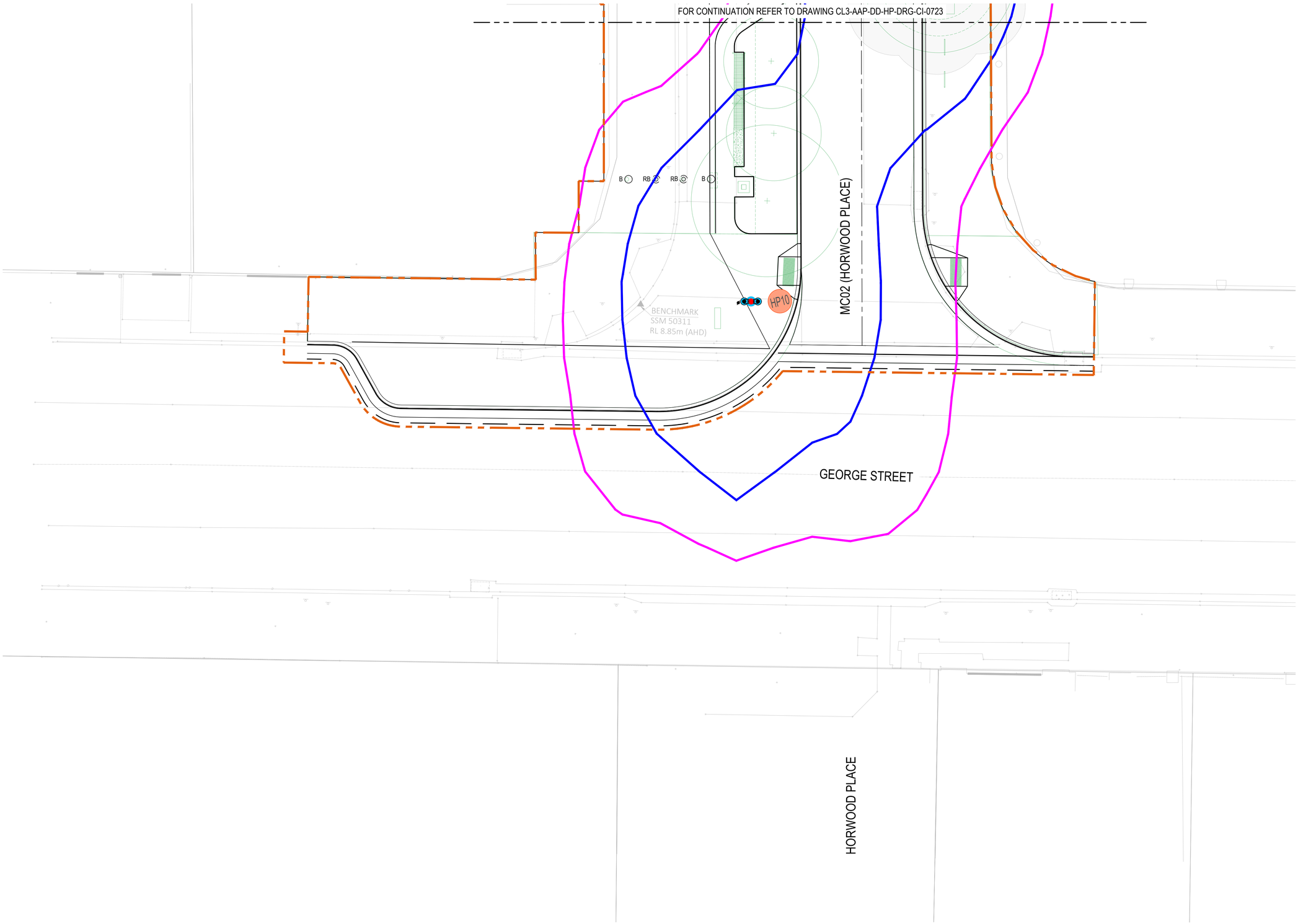
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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0733

Issue: 03

Date Plotted: 13 Nov 2025 - 02:56pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0733-IsoluxPlanSheet3.dwg



LEGEND

- HORWOOD PLACE WORKS SITE BOUNDARY
- PHILLIP STREET WORKS SITE BOUNDARY
- CoP PROPOSED MFP WITH CIRCULAR AND RECTANGULAR FLOODLIGHT (HPXX)
- CoP PROPOSED MFP WITH CIRCULAR FLOODLIGHT (HPXX)
- ISOLUX 15 LX
- ISOLUX 7.5 LX

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01	ISSUED FOR INFORMATION - 80% DETAILED DESIGN	RD	CR	GD	18.07.2025

100mm on Original

Scales

0 1 2 4 6 8 10m

1 : 100

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

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Original Issue Signatures

Drawn	R. DIESTA	Original Size	A1
Designed	H. THIAUW	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	S. ASHMAN		

Project: PARRAMATTA CIVIC LINK
HORWOOD PLACE WORKS

Title: ISOLUX PLAN
SHEET 4

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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0734

Issue: 03

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GENERAL

G01. PROJECT DOCUMENTATION.
THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL STRUCTURAL ENGINEERING PROJECT SPECIFICATIONS, ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ALL DISCREPANCIES SHALL BE REFERRED TO THE ENGINEER PRIOR TO PROCEEDING WITH WORK.

G02. DESIGN LIFE.
THE DESIGN LIFE OF THE STRUCTURE IS 50 YEARS U.N.O. ALL MATERIALS AND WORKMANSHIP SHALL ENSURE THAT THE DESIGN LIFE OF THE STRUCTURE ACHIEVED IS MORE THAN 50 YEARS.

G03. ENGINEER.
ANY REFERENCE TO THE WORD ENGINEER IN THESE NOTES OR ON THESE DRAWINGS REFERS TO AN EMPLOYEE OR NOMINATED REPRESENTATIVE OF ARCADIS PTY LTD UNLESS SPECIFICALLY NOTED OTHERWISE.

G04. CONTRACTOR.
ANY REFERENCE TO THE WORD CONTRACTOR OR BUILDER IN THESE NOTES OR ON THE DRAWINGS REFERS TO THE REPRESENTATIVE OF THE CONSTRUCTION COMPANY TO WHICH THESE WORKS HAVE BEEN CONTRACTED. THE CONTRACTOR (ON BEHALF OF THE CONSTRUCTION COMPANY) SHALL BE RESPONSIBLE FOR ALL WORKS AND WORKMANSHIP PERFORMED BY ALL SUB-CONTRACTORS ENGAGED TO CARRY OUT WORKS ON THIS CONTRACT.

G05. CODES.
ALL CODES REFERRED TO IN THESE NOTES ARE THE LATEST EDITION WITH AMENDMENTS. THE CONTRACTOR SHALL REFERENCE ONLY THE LATEST EDITION.

G06. WORKMANSHIP AND MATERIALS.
ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL CONSTRUCTION CODE (NCC) AT THE TIME OF ' CONTRACT AWARD INCLUDING RELEVANT PROVISIONS FOR EACH STATE S CODES OF PRACTICE AND LOCAL STATUTORY AUTHORITIES, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.

G07. DESIGN LIMITATION.
THE DOCUMENTED DESIGN CONSTITUTES THE MAIN STRUCTURAL FRAMING BUT DOES NOT INCLUDE A FULL SCOPE OF SECONDARY FRAMING TO SUPPORT FACADE CLADDING, HANDRAILS, INTERNAL PARTITION WALLS ETC.

G08. DETAIL DRAFTER.
'THE SHOP DETAIL DRAFTER SHALL REFER TO THE ENGINEER S TYPICAL DETAILS AND SCHEDULES FOR ALL STANDARD STEEL TO STEEL CONNECTIONS. NON-STANDARD CONNECTIONS SHALL BE IDENTIFIED AND DRAFTED INDIVIDUALLY ON THE SHOP DRAWINGS. THE CONTRACTOR SHALL CHECK AND COORDINATE THE SHOP DRAWINGS WITH ALL TRADES, OTHER CONSULTANT DOCUMENTS AND SITE CONDITIONS. THE CONTRACTOR IS REQUIRED TO PRICE FOR ALL ASSOCIATED ENGINEERING DESIGN AND DETAILING NOT SPECIFICALLY SHOWN.

G09. SECONDARY FIXINGS.
THE STRUCTURAL DRAWINGS DO NOT SHOW ALL DETAILS AND SUPPORT MEMBERS OF FIXTURES, INSERTS, SLEEVES, OPENINGS, ETC. REQUIRED BY THE VARIOUS TRADES. ALL SUCH DETAILS, INCLUDING OPENINGS FOR CONSTRUCTION PURPOSES, MUST BE APPROVED BY THE CONTRACTOR AND ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. THE CONTRACTOR SHALL ALLOW FOR COSTS OF SUCH WORKS.

G10. DISCREPANCIES TO BE CLARIFIED.
ANY DISCREPANCY OR OMISSIONS ON THE ENGINEERING DRAWINGS OR BETWEEN THE DRAWINGS AND/OR THE SPECIFICATION AND/OR THE SPECIFIED AUSTRALIAN STANDARD SHALL BE REFERRED TO THE ENGINEER FOR WRITTEN INSTRUCTION TO BE GIVEN PRIOR TO PROCEEDING WITH THE WORK. IF IN DOUBT - ASK

G11. METRIC UNITS.
ALL DIMENSIONS ARE IN MILLIMETERS (mm). ALL RELATIVE LEVELS ARE IN METRES (m).

G12. SITE SETTING OUT.
ALL DIMENSIONS RELEVANT TO SETTING OUT AND OFF-SITE WORK SHALL BE OBTAINED FROM THE ARCHITECTURAL DRAWINGS AND VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND/OR FABRICATION BEING COMMENCED. DIMENSIONS SHALL NOT BE ' OBTAINED BY SCALING ARCADIS DRAWINGS.

G13. RESPONSIBILITY FOR BUILDING STABILITY.
AT ALL TIMES DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE, ADJACENT STRUCTURES, PROPERTIES AND SERVICES IN A STABLE AND SAFE CONDITION. THE CONTRACTOR SHALL ENSURE THAT NO PART SHALL BE OVERSTRESSED DURING CONSTRUCTION ACTIVITIES. THE METHOD OF CONSTRUCTION AND MAINTAINING SAFETY DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR AND THEIR ERECTION DESIGN ENGINEER. IF DURING CONSTRUCTION ANY STRUCTURAL ELEMENT PRESENTS AN ISSUE IN RESPECT TO CONSTRUCTABILITY OR SAFETY; THE MATTER SHOULD BE REFERRED TO THE ENGINEER. THE DETERMINATION OF A SAFE WORK METHOD REMAINS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL ENGAGE A SUITABLY QUALIFIED ERECTION DESIGN ENGINEER TO CARRY OUT AND CERTIFY THE DESIGN OF ALL COMPONENTS REQUIRED FOR ERECTION AND PROPPING OF WORKS DURING CONSTRUCTION.

G14. RESPONSIBILITY FOR EXISTING SERVICES DAMAGE.
THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT NO EXCAVATION, PILE DRILLING, ANCHOR PLACEMENTS OR ANY SECONDARY WORKS HAS ANY ADVERSE EFFECT ON EXISTING SERVICES OR STRUCTURE. THE MANDATORY DIAL BEFORE YOU DIG APPLIES AND ADVERSE WEATHER CONDITIONS SHALL BE GIVEN THE NECESSARY RESPECT. THE CONTRACTOR SHALL NOT EXCAVATE BY MACHINE WITHIN 1M OF EXISTING UNDERGROUND SERVICES.

G15. SUBSTITUTIONS REQUIRE ENGINEER'S APPROVAL.
NO CHANGES OR SUBSTITUTIONS IN ANY STRUCTURAL ELEMENT DOCUMENTED IN THE STRUCTURAL DRAWINGS SHALL BE MADE WITHOUT APPROVAL FROM THE ENGINEER. THE ENGINEER 'S APPROVAL OF A SUBSTITUTION IS NOT AN AUTHORISATION FOR AN EXTRA PAYMENT FOR WORKS. ANY CLAIM FOR EXTRA PAYMENT FOR WORKS MUST BE SUBMITTED TO, AND APPROVED BY THE SUPERINTENDENT AND ARCHITECT BEFORE WORK COMMENCES.

THE PROPOSED SUBSTITUTION SHALL BE EQUIVALENT IN PERFORMANCE. THE PERFORMANCE SHALL INCLUDE, BUT NOT BE LIMITED TO, STRENGTH, TYPE, CAPACITY, COMPATIBILITY AND LIFE OF THE SPECIFIED PRODUCT ON THE DOCUMENTATION. THE SUBSTITUTION SHALL COMPLY WITH ALL RELEVANT AUSTRALIAN STANDARDS AND/OR INDEPENDENT TESTING AUTHORITY REQUIREMENTS.

THE CONTRACTOR SHALL SUPPLY THE ENGINEER ALL APPLICABLE TECHNICAL INFORMATION TO ASSESS THE SUBSTITUTION. THIS SHALL INCLUDE THE MANUFACTURERS PUBLISHED PRODUCT DATA, INCLUSIVE OF TECHNICAL SPECIFICATIONS, LOAD INFORMATION, RECOMMENDATIONS FOR INSTALLATION AND INDEPENDENT TESTING AUTHORITY REPORTS

THE ENGINEER MAY, IN THEIR ABSOLUTE DISCRETION, APPROVE OR REJECT THE ALTERNATIVE. NO CLAIM SHALL ARISE FROM ANY REJECTION. ALL ENGINEER COSTS ASSOCIATED WITH REVIEW OF THE SUBSTITUTION SHALL BE PAID BY THE CONTRACTOR.

G16. TEMPORARY FORMWORK AND FALSEWORK.
DESIGN OF FORMWORK AND FALSEWORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR'S ERECTION DESIGN ENGINEER AND SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT CODES. ALL PROPS AND FORMWORK FOR FLOOR BEAMS AND SLABS SHALL BE REMOVED UPON THE ERECTION DESIGN ENGINEER APPROVAL BEFORE CONSTRUCTION OF ANY MASONRY WALLS OR PARTITIONS ON THE FLOOR (REFER TO SPECIFICATIONS). SUBJECT TO THE APPROVAL OF THE ERECTION DESIGN ENGINEER.

G17. PROPRIETARY ITEM INSTALLATION.
PROPRIETARY ITEMS SPECIFIED ON THE STRUCTURAL DRAWINGS OR APPROVED EQUIVALENTS SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN RECOMMENDATIONS.

G18. DESIGN AND CONSTRUCT CERTIFICATION.
THE CONTRACTOR SHALL ARRANGE FOR INDEPENDENT SEPARATE CERTIFICATION OF ANY DESIGN AND CONSTRUCT COMPONENT OF THE STRUCTURE. THE CERTIFICATION IS TO BE DONE BY A CHARTERED (NPER REGISTERED) STRUCTURAL ENGINEER (WHO IN VICTORIA AND QUEENSLAND SHALL ALSO BE A REGISTERED BUILDING PRACTITIONER OR ENGINEER OF THAT STATE). IN ACCORDANCE WITH THE LEGISLATIVE REQUIREMENTS OF THE STATE WHERE THE WORK IS BEING CARRIED OUT.

G19. NON-LOAD BEARING WALLS INSTALLATION.
ALL NON-LOAD BEARING WALLS SHALL BE KEPT 20mm CLEAR OF THE UNDERSIDE OF SLABS AND BEAMS UNLESS NOTED OTHERWISE.

G20. ARCHITECTURAL FITOUT.
ALL ARCHITECTURAL FITOUT (GLAZING, PARTITIONS, CEILINGS AND THE LIKE) HALL ALLOW FOR BOTH SHORT AND LONG TERM MOVEMENTS OF THE STRUCTURE, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR THE EXTENT OF ALLOWANCE TO BE MADE.

G21. FIRE PROTECTION.
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THE REQUIRED FIRE PROTECTION BARRIER TREATMENT IS INSTALLED WHERE REQUIRED (REFER TO ARCHITECTURAL DRAWINGS).

G22. LIMIT OF RESPONSIBILITY.
THE ENGINEER ACCEPTS NO RESPONSIBILITY FOR ANY WORKS NOT INSPECTED OR NOT APPROVED BY THE ENGINEER DURING CONSTRUCTION.

G23. INSPECTION NOTIFICATION.
TWO (2) WORKING DAYS NOTICE IS REQUIRED TO BE GIVEN FOR AN ENGINEER TO ATTEND AN OUT OF OFFICE INSPECTION.

G24. COPYRIGHT.
COPYRIGHT OF ALL DRAWINGS AND OTHER DOCUMENTS PROVIDED SHALL REMAIN VESTED IN ARCADIS (AUSTRALIA) PTY LTD UNLESS SPECIFICALLY AGREED IN WRITING.

G25. ALTERNATIVE CONSTRUCTION.
ANY PROPOSED VARIATION IN THE CONSTRUCTION SEQUENCE SHOWN OR IMPLIED HEREIN SHALL BE TAKEN UP BY THE CONTRACTOR AT THE TIME OF SUBMITTING THEIR PRICE. SHOULD ADDITIONAL SERVICES OR CHANGES TO THE STRUCTURAL DOCUMENTATION BE REQUESTED BY THE CONTRACTOR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS AND ASSOCIATED CONSULTING FEES AND EXPENSES INCURRED BY ARCADIS.

G26. FOR CONSTRUCTION DRAWINGS.
THESE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNTIL ISSUED AS FOR CONSTRUCTION' BY THIS OFFICE.

G27. HOLES AND RECESSES.
NO HOLES, RECESSES OR CHASES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE WITHOUT THE ENGINEER'S APPROVAL.

G28. TEMPORARY CONSTRUCTION LOADS.
WHERE ADDITIONAL CONSTRUCTION LOADS SUCH AS TEMPORARY SHORING, MOBILE CRANES ETC ARE TO BE IMPOSED ON THE STRUCTURE; THE CONTRACTOR IS TO SUBMIT FULL DETAILS OF THE PROPOSED TEMPORARY SUPPORTS TO THE ERECTION DESIGN ENGINEER FOR APPROVAL. SUCH INFORMATION MUST BE PROVIDED A MINIMUM OF 5 WORKING DAYS PRIOR TO THE PROPOSED WORKS COMMENCING. SHOULD THE CONTRACTOR REQUEST THE ENGINEER TO REVIEW THE LOADS, THE COST OF REVIEW WILL BE CHARGED TO THE CONTRACTOR.

G29. CHECK EXISTING SERVICES.
PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST CHECK WITH ALL RELEVANT AUTHORITIES, AND BY SITE EXPLORATION IF NECESSARY, FOR THE LOCATION OF ANY SERVICES AFFECTED BY THE WORKS. THE ENGINEER MUST BE INFORMED OF ANY DISCREPANCIES OF ACTUAL SERVICES OR EASEMENTS WITH THOSE SHOWN IN THE DOCUMENTATION.

G30. TESTING AND CERTIFICATES.
ALL REQUIRED VERIFICATION TESTS TO COMPLETE THE WORKS ARE TO THE CONTRACTOR'S EXPENSE. ADDITIONAL TESTING AND REPORTING REQUIREMENTS MAY BE SPECIFIED IN OTHER SECTIONS OF THESE NOTES.

THE CONTRACTOR SHALL SUBMIT TEST RESULTS PROGRESSIVELY AND IMMEDIATELY. SHOULD THE TESTED MATERIAL BE REJECTED, THE CONTRACTOR SHALL INCUR ALL COSTS ASSOCIATED WITH RECTIFICATION OF THE MATERIAL, INCLUDING ENGINEERING FEES.

THE CONTRACTOR SHALL ALLOW FOR THE FOLLOWING MINIMUM TESTING REQUIREMENTS:

FOUNDATIONS SUB-BASE: AFTER EXCAVATIONS HAVE BEEN COMPLETED THE SUB-BASES SHALL RECEIVE APPROVAL FROM THE GEOTECHNICAL ENGINEER BEFORE BLINDING LAYER AND REINFORCEMENT CAGES ARE SET IN POSITION AND CONCRETE POURED.

PILING: CONTROL TESTING OF CONCRETE IN PILES, INCLUDING SLUMP TESTING. TESTING MUST BE CARRIED OUT BY AN APPROVED NATA LABORATORY.

ON ANY DAY WHERE CONCRETE IS POURED A MINIMUM OF ONE SAMPLE (3 CYLINDERS) IS REQUIRED.

ONE SAMPLE MUST BE TAKEN FROM THE FIRST AND SECOND TRUCK EACH THEN AT A RATE OF 1 SAMPLE PER 25m³ UP TO 4 SAMPLES AFTER WHICH THE RATE IS TO BE 1 SAMPLE PER 50m³

TEMPORARY ANCHORS: UNLESS NOTED OTHERWISE, PROOF STRESSING TO 1.25 TIMES THE REQUIRED WORKING LOAD IS TO BE CARRIED OUT ON ALL ANCHORS.

READY MIX CONCRETE: IN ACCORDANCE WITH AS 3600.

ONE (1) TEST SHALL MEAN THE TAKING OF AT LEAST THREE (3) STANDARD TEST CYLINDERS.

THE NUMBER AND RATE OF CONCRETE SLUMP TESTS SHALL BE AT THE RATE OF ONE (1) TEST PER TRUCK, UNLESS OTHERWISE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.

IN ADDITION TO THE TESTS REQUIRED IN ACCORDANCE WITH AS 3600 THE CONTRACTOR SHALL ALLOW FOR SEVEN DAY TESTS ON EACH STRENGTH AND TYPE OF CONCRETE IN THE PROPORTION OF ONE (1) SEVEN DAY TEST FOR EACH THREE (3) TWENTY EIGHT DAY TESTS.

NOTWITHSTANDING THE ABOVE, ANY CONCRETE OF STRENGTH 32, 40 AND 50 MPa SHALL BE TESTED AT THE RATE OF AT LEAST ONE (1) TEST PER POUR AND CONCRETE STRENGTH ABOVE 50 MPa SHALL BE TESTED AT THE RATE OF ONE (1) TEST PER TRUCK UNLESS OTHERWISE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.

THE CONTRACTOR SHALL ALLOW FOR ADDITIONAL CONCRETE TESTING FOR INSITU, EARLY AGE STRENGTH AS REQUIRED, INCLUDING INITIAL POST TENSION STRESSING OR TRANSFER STRENGTH, FORMWORK STRIPPING STRENGTHS, EARLY LOADING ETC. IN THESE CASES THE CONCRETE SAMPLES TESTED SHALL BE PREPARED AND CURED TO REPRESENT THE ACTUAL CONCRETE ON SITE.

THE ASSESSMENT OF DRYING SHRINKAGE SHALL BE ON THE BASIS OF THE AVERAGE OF THE THREE TEST RESULTS. THE CONCRETE OF THE SAME TYPE SHALL BE TESTED EVERY THREE MONTHS DURING THE COURSE OF THE PROJECT. THE CRITERION OF COMPLIANCE SHALL BE THAT THE AVERAGE TEST RESULT OF THE THREE SPECIMENS SHALL NOT EXCEED THE SPECIFIED VALUE.

LIGHTWEIGHT CONCRETE: IN ADDITION TO THE TYPICAL READY MIX CONCRETE TESTING, THE DENSITY OF LIGHTWEIGHT CONCRETE SHALL BE ASSESSED IN ACCORDANCE WITH AS 1012, PART 5. THE NUMBER OF SAMPLES TO BE OVEN DRIED SHALL BE ONE (1) SAMPLE FROM EACH DAY'S SUPPLY OF LIGHTWEIGHT CONCRETE.

COMPOSITE SHEAR CONNECTORS: VISUAL INSPECTION OF WELDING OF ALL STUDS BY A QUALIFIED WELDING INSPECTOR. WHEN VISUALLY SATISFACTORY WELDS ARE ACHIEVED, THE STUDS SHALL BE SUBJECT TO A BEND TEST IN ACCORDANCE WITH NOTE CSO6.

STEEL WORK SUPPLY: MANUFACTURER'S CERTIFICATES IN ACCORDANCE WITH AS 3678, AS 3679 AND AS 1163. STEEL WORK FABRICATION AND ERECTION: INSPECTION CERTIFICATION BY A SPECIALIST STEELWORK INSPECTOR TO VERIFY ALL STEELWORK HAS BEEN FABRICATED AND ERECTED IN ACCORDANCE WITH AS 4100.

G31. NEW EXCAVATION.
THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY AND PERMANENT SUPPORT FOR EXCAVATIONS. THIS SHALL INCLUDE FINAL CERTIFIED DESIGN AND DOCUMENTATION OF ALL PERMANENT SHORING ELEMENTS AS SHOWN ON THE STRUCTURAL DRAWINGS.

G32. CHANGES.
SHOULD CHANGES TO THE STRUCTURAL OR CIVIL DOCUMENTATION BE REQUESTED BY THE CONTRACTOR, THEY SHALL BE AT THE CONTRACTORS EXPENSE AND AT A MUTUALLY AGREED PROGRAM.

G33. AS BUILTS.
THE CONTRACTOR SHALL PROVIDE "AS BUILT" DRAWINGS FOR THE STRUCTURE THAT REFLECTS THE AS BUILT CONDITIONS AT THE COMPLETION OF CONSTRUCTION. REVIT (VERSION AS PER BIM EXECUTION PLAN) FORMAT DOCUMENTATION MAY BE AVAILABLE AS BACKGROUNDS FOR THE "AS BUILT" DRAWINGS. SHOULD ANOTHER FORMAT OF ELECTRONIC DRAWINGS BE REQUIRED, A MINIMUM OF FIVE (5) WORKING DAYS NOTICE SHOULD BE GIVEN TO THE ENGINEER. AN AGREED FEE / CHARGE PER DRAWING MAY BE APPLICABLE FOR CONVERSION OF THE DRAWINGS TO THE REQUESTED FORMAT.

G34. GEOTECHNICAL ENGINEER.
THE CONTRACTOR IS TO SELECT AND ENGAGE A GEOTECHNICAL ENGINEER FOR THE PURPOSE OF CERTIFYING REQUIRED GROUND CONDITIONS AS NOMINATED IN THE DOCUMENTS AND CERTIFYING THE DESIGN OF GROUND ANCHORS, PAVING DESIGN AND PROPRIETARY / MANUFACTURER METHODS OR MATERIALS. THE GEOTECHNICAL ENGINEER SHALL ALSO SUPERVISE THE INSTALLATION OF GROUND ANCHORS, BORED PIERS AND OTHER FOOTINGS. THE ENGINEER MAY AT THEIR DISCRETION REJECT THE CONTRACTORS CHOICE OF GEOTECHNICAL ENGINEER AND NOMINATE A DIFFERENT GEOTECHNICAL ENGINEER.

G35. PROPRIETARY PRODUCTS.
WHERE PROPRIETARY PRODUCTS ARE SHOWN ON THE STRUCTURAL DRAWINGS, THE CONTRACTOR SHALL OBTAIN WRITTEN CERTIFICATION OF THE PRODUCT AND INSTALLATION FROM THE PROPRIETARY PRODUCT MANUFACTURER. THE CONTRACTOR SHALL INCLUDE AN ALLOWANCE FOR THE MANUFACTURER TO VISIT THE SITE DURING CONSTRUCTION, AND AT COMPLETION OF CONSTRUCTION, TO ALLOW FOR THE WRITTEN CERTIFICATION THAT THE WORK HAS BEEN CARRIED OUT IN ACCORDANCE WITH THEIR REQUIREMENTS.

G36. STEEL SUPERVISION/INSPECTING.
THE CONTRACTOR SHALL ENGAGE AT THEIR COST AN INDEPENDENT WELDING INSPECTION AND SPECIALIST STEELWORK ERECTION SUPERVISION SERVICE.

G37. CERTIFICATION.
THE CONTRACTOR SHALL ENGAGE AN INDEPENDENT ENGINEER TO PROVIDE THE APPLICABLE "CERTIFICATE OF COMPLIANCE DESIGN" FOR ISSUE TO THE BUILDING SURVEYOR OR CERTIFIER FOR THEIR PREPARATION OF THE BUILDING PERMIT.

G38. PROGRAM.
THE CONTRACTOR SHALL ALLOW IN THEIR PROGRAM ADEQUATE TIME FOR COMPLETION OF DOCUMENTATION TO 100% COMPLETE. THE PROGRAM SHALL BE MUTUALLY AGREED BETWEEN ALL PARTIES FOLLOWING NOVATION.

DESIGN DATA

DD01. CODE REQUIREMENTS.
THIS STRUCTURAL DESIGN IS BASED ON THE CODE REQUIREMENTS TO PART B1 OF *"THE NATIONAL CONSTRUCTION CODE"*

DD02. APPLIED LOADS.
THE STRUCTURE DETAILED ON THE ASSOCIATED DRAWINGS HAS BEEN DESIGNED FOR APPLIED LOADS IN ACCORDANCE WITH AS 1170 AND AS SHOWN BELOW.

(a) PERMANENT AND SUPERIMPOSED LOADS IN THE TABLE BELOW ARE BASED ON AS 1170.1

PERMANENT AND SUPERIMPOSED LOADS		
AREA	**SDL kPa**	**LL kPa**
BRIDGES	3	-
-	-	-

DD03. EXPOSURE CLASSIFICATION
STRUCTURAL CONCRETE ELEMENTS HAVE BEEN DESIGNED FOR THE FOLLOWING EXPOSURE CLASSIFICATION IN ACCORDANCE WITH AS 3600:

DURABILITY	
ELEMENT	**EXPOSURE CLASSIFICATION**
FURNITURE	A2
BRIDGES, RETAINING WALLS	B1
-	-

DD04. REPORTS.
THE CONSULTANT BRIEF AND/OR PERFORMANCE REPORT MAY PROVIDE ADDITIONAL DESIGN REQUIREMENT INFORMATION.

SITE SAFETY

THE PROJECT CLIENT, CONTRACTOR, SUB-CONTRACTORS, AND OTHER ASSOCIATED PARTIES' ATTENTION IS DRAWN TO THE FACT THAT ALL SITE WORKS HAVE THE POTENTIAL FOR SITE SAFETY RISKS TO PERSONNEL, PROPERTY AND EQUIPMENT. ALL PARTIES ARE REQUIRED TO CONSIDER, DOCUMENT AND EMPLOY APPROPRIATE WORK SAFE PROCEDURES FOR ALL REQUIRED ACTIVITIES.

HS01. THE CONTRACTOR SHALL:
BE BOUND IN ACCORDANCE WITH THE CURRENT SAFE WORK AUSTRALIA ACT, REGULATIONS AND PRIORITY CODES OF PRACTICE STATE BY STATE. BE RESPONSIBLE FOR THE IMPLEMENTATION, DOCUMENTATION AND MAINTENANCE OF WORK SAFETY AND OTHER RELEVANT DOCUMENTATION AND ENSURE THAT ALL SUB-CONTRACTORS COMPLY. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER IF THERE IS ANY POTENTIAL PERCEIVED RISK.

THE CONTRACTOR SHALL BE ALERT AND PROACTIVE TO:
IDENTIFY HAZARDS AND MANAGE RISKS TO ELIMINATE OR MINIMIZE

HS02. THE CONTRACTOR SHALL ENSURE:
SO FAR AS IS REASONABLY PRACTICABLE THAT THE CONSTRUCTION PHASE IS WITHOUT RISK TO THE HEALTH AND SAFETY OF PERSONS WHO ARE ENGAGED TO WORK ON THIS SITE OR ANY PERSON WHO MAY ENTER THIS SITE. ALL TRADES SHALL CONSIDER; DOCUMENT AND EMPLOY APPROPRIATE WORKSAFE PROCEDURES FOR ALL REQUIRED ACTIVITIES.

SPECIFIC ATTENTION SHALL BE GIVEN TO, BUT NOT LIMITED TO ACTIVITIES INVOLVING:

* SITE ESTABLISHMENT
* DEMOLITION, RECYCLING AND REMOVAL
* DEMOLITION WORKS WHERE SERVICES ARE EXPOSED
* TEMPORARY WORKS
* EXCAVATION AND TRENCHING – UNSTABLE GROUND
* GAS SERVICES
* GASES AND TOXIC WASTE
* JACK HAMMERING - NOISE AND DUST PROTECTION
* WELDING – EYE PROTECTION
* CONTAMINATED SOILS
* CONSTRUCTION PROCESSES
* CONFINED SPACES
* TRIPS AND FALLS (GENERAL) - UNSTABLE FOOTING
* HIGH RISK WORK
* ELECTRICAL – HIGH VOLTAGE CABLES
* ASBESTOS OR ANY FIBROUS MATERIALS
* WORKING AT HEIGHT
* MAINTENANCE AND REPAIR
* REFURBISHMENT, RENOVATION AND EXTENSION
* USE AS A WORK PLACE

HS03. COMPLIANCE MANDATORY:
THE CONTRACTOR AND ALL SUB-CONTRACTORS SHALL COMPLY WITH ALL APPLICABLE
WORK HEALTH AND SAFETY LEGISLATION (ACTS, CODES OF PRACTICE, GUIDANCE NOTES) AND OTHER RELEVANT DOCUMENTATION.

HS04. SITE INDUCTION REQUIRED:
THE CONTRACTOR SHALL ENSURE THAT ALL PERMANENT AND CONTRACT WORKERS ENGAGED ON THIS SITE SHALL BE FORMALLY INDUCTED THROUGH THE SAFETY REQUIREMENTS BEFORE ENTERING THIS SITE ZONE. A SEPARATE LOG-IN / LOG-OUT REGISTER SHALL BE KEPT FOR ALL CASUAL VISITORS AT THE SITE OFFICE. THE CONTRACTOR SHALL ENSURE THAT ALL PERSONS WHO ENTER THE WORK ZONE ARE WEARING SUITABLE PROTECTIVE CLOTHING AND EQUIPMENT IN ACCORDANCE WITH SAFETY REQUIREMENTS. NB: ONE OFF OR URGENT SITE INSPECTIONS ATTENDED BY A PROFESSIONAL SPECIALIST MAY CARRY OUT SUCH INSPECTIONS WITHOUT BEING INDUCTED AS LONG AS THEY WEAR THE REQUIRED PROTECTIVE CLOTHING AND EQUIPMENT AND BE ACCOMPANIED AT ALL TIMES BY A SUITABLY SITE INDUCTED PERSON.

HS05. PUBLIC SAFETY.
A LIVE SITE THAT IS WORKING OR UNATTENDED HAS A STRONG ATTRACTION TO THE PUBLIC IN GENERAL. THE CONTRACTOR IS REQUIRED TO TAKE ALL REASONABLE PRECAUTIONS TO PREVENT UNAUTHORISED PEOPLE ENTERING THE SITE. EXCAVATIONS, STRUCTURES AND ACCESS EQUIPMENT SHALL BE LEFT IN A SECURE MANNER AS IS REASONABLY PRACTICABLE TO PREVENT UNAUTHORISED PEOPLE INCLUDING CHILDREN FROM ENTERING, CLIMBING OR FALLING. THE SITE SHALL HAVE CLEAR WARNING SIGNS IN APPROPRIATE LOCATIONS e.g. – " DANGER KEEP OUT " AND SECURELY BARRICADED AND WHEN UNATTENDED LEFT IN A LOCKED CONDITION AS IS REASONABLY PRACTICABLE.

HS06. AUSTRALIAN STATES AND TERRITORIES:
IT IS TO BE UNDERSTOOD AND ACCEPTED THAT ANY REFERENCE TO SAFETY PROCEDURES AND RECOMMENDATIONS SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES OF THE AREA WHERE THESE WORKS ARE BEING UNDERTAKEN AND ADMINISTERED IN ACCORDANCE WITH CURRENT REGULATIONS.

HS07. CURRENT LEGISLATION.
CURRENT LEGISLATION REQUIRES THAT ALL PERSONS ARE TO CONSIDER THEIR ACTIONS OR LACK OF ACTION ON THE HEALTH AND SAFETY OF THEMSELVES AND OTHERS.

HS08. RISK ASSESSMENT.
THE COMMISSIONED CONTRACTOR AND ALL SUB-CONTRACTORS SHALL CARRY OUT RISK ASSESSMENTS FOR ALL OF THEIR ACTIVITIES AND WHERE NECESSARY, INTRODUCE SUITABLE CONTROL MEASURES, OR PROVIDE PROTECTIVE CLOTHING/EQUIPMENT TO MINIMISE THOSE RISKS. THE SUB-CONTRACTORS SHALL PROVIDE COPIES OF THEIR RISK ASSESSMENT TO THE CONTRACTOR FOR APPROVAL.

HS09. SAFETY PRECAUTIONS.
EXCAVATIONS FOR TRENCHES REQUIRED FOR INSTALLATION OF SERVICES SHALL BE IN ACCORDANCE WITH WORK HEALTH AND SAFETY CODE OF PRACTICE – SAFETY PRECAUTIONS IN TRENCHING OPERATIONS' , AND ALL OTHER NECESSARY STATUTORY AUTHORITY REGULATIONS AND RECOMMENDATIONS.

HS10. PERCEIVED RISKS.
THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER IF THERE IS ANY PERCEIVED RISK WITH THE DESIGN OR WITH THE CONSTRUCTION OF THE DESIGN. THE CONTRACTOR SHOULD ENGAGE SUITABLY QUALIFIED ENGINEERS TO CERTIFY ALL TEMPORARY STRUCTURAL WORKS.

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RS	GD	MK	12.11.2025

100mm on Original

Scales

Surveyor: surveyplus / DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. SANTOS	Original Size	A1
Designed	D. ESTANISLAO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	P. MICHAEL		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: STRUCTURAL NOTES SHEET 1

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SAFETY IN DESIGN

THIS DESIGN IS IN ACCORDANCE WITH THE CURRENT SAFE WORK AUSTRALIA ACT, REGULATIONS AND PRIORITY CODES OF PRACTICE STATE BY STATE.

SD01. A RISK MANAGEMENT PROCESS MUST BE APPLIED.
THIS RISK MANAGEMENT PROCESS IS A SYSTEMATIC WAY OF MAKING THE WORKPLACE AS SAFE AS REASONABLY POSSIBLE. IT SHALL BE USED AS PART OF THE DESIGN PROCESS WHICH INVOLVES THE FOLLOWING FIVE STEPS:

1. IDENTIFY THE LIKELIHOOD OF ANY HAZARD OR RISK ASSOCIATED WITH THE STRUCTURE OCCURRING.
2. ASSESS THE DEGREE OF HARM THAT MIGHT RESULT FROM THE HAZARD AND/OR RISK.
3. GATHER KNOWLEDGE ABOUT THE HAZARD AND/OR RISK.
4. IDENTIFY THE AVAILABILITY AND SUITABILITY OF WAYS TO ELIMINATE OR MINIMISE THE RISK BY DESIGNING CONTROL MEASURES.
5. REVIEW THE CONTROL MEASURES AND THE COST ASSOCIATED WITH ELIMINATING OR MINIMISING THE RISK, INCLUDING WHETHER THE COST IS GROSSLY DISPROPORTIONATE TO THE RISK.

THE CONTRACTOR SHALL CONSULT THE ARCHITECT AND THE CLIENT FOR ANY KNOWLEDGE OF POTENTIAL HAZARDS IDENTIFIED THAT MAY EFFECT THE DESIGN. CONSIDERATION HAS BEEN GIVEN TO:

* THE INTENDED PURPOSE OF THIS STRUCTURE.
* THE DESIGN OF THIS STRUCTURE.
* MATERIALS TO BE USED.
* POSSIBLE METHOD OF CONSTRUCTION, MAINTENANCE, OPERATION, DEMOLITION OR DISMANTLING AND DISPOSAL.
* WHAT LEGISLATION, CODES OF PRACTICE AND STANDARDS NEED TO BE CONSIDERED AND COMPLIED WITH.
* MATTERS OF WORKPLACE HEALTH AND SAFETY IMPACTED BY THIS DESIGN SHALL CONFORM TO CURRENT SAFE WORK AUSTRALIA CODE OF PRACTICE. (NOTE: FOR VICTORIA, CONFORM TO WORK SAFE – "DESIGNING SAFER BUILDINGS AND STRUCTURES")
* THE CONTRACTOR SHOULD ENSURE THAT ALL PROFESSIONAL DESIGN SERVICES ENGAGED FOR THIS CONTRACT SHALL COMPLY WITH SAFE WORK AUSTRALIA.

THIS STRUCTURE HAS BEEN DESIGNED TO ELIMINATE HAZARDS TO HEALTH AND SAFETY WHEREVER POSSIBLE. WHERE THIS HAS NOT BEEN POSSIBLE, THE RISK TO HEALTH AND SAFETY OF PERSONS HAS BEEN MINIMISED TO BE REASONABLY PRACTICABLE FOR THE DESIGNED LIFE OF THE STRUCTURE.

SD02. WORK HEALTH AND SAFETY.
THE CONTRACTOR SHALL ENSURE THAT THE CONSTRUCTION OF THIS PROJECT IS CARRIED OUT UNDER A WORK HEALTH AND SAFETY COORDINATION PLAN AND ANY OTHER APPLICABLE ' SAFETY IN THE WORKPLACE LEGISLATION' COMPLIANT WITH AUSTRALIAN REQUIREMENTS STATE BY STATE IN WHICH THE WORK IS CARRIED OUT.

SD03. IDENTIFY HAZARDS.
THE CONTRACTOR SHALL MAKE EVERY EFFORT TO ENSURE ALL PERSONS WHO MAY ENTER THE CONSTRUCTION SITE WHICH INCLUDES WORKERS AND NON WORKERS ALIKE, ARE MADE AWARE OF THE RISK OF HAZARDS AND POTENTIAL HAZARDS WHICH MAY INCLUDE, BUT ARE NOT LIMITED TO INGROUND HOLES OR OBSTACLES, TEMPORARY CONSTRUCTION WORKS AND OVERHEAD ACTIVITIES, NOISE AND WELDING FLASHES. ANY SUCH HAZARD SHALL BE ISOLATED AND CLEARLY IDENTIFIED WITH HIGH VISIBILITY OFFICIAL SIGNAGE AND HIGH VISIBILITY BARRICADES. THE CORRECT LEVEL OF TRAINING SHALL BE MANDATORY BEFORE ANY PERSON ENTERS THE CONSTRUCTION AREA. ALL PERSONS SHALL WEAR THE APPROPRIATE SAFETY PROTECTION APPAREL SUPPLIED BY THE CONTRACTOR BEFORE ENTERING THE SITE. A QUALIFIED GUIDE SHALL ACCOMPANY ALL NEW CONSTRUCTION WORKERS DURING THEIR INITIATION AND ALL SITE VISITORS WHILE ON THE SITE.

SD04. EXISTING SERVICES.
THIS DESIGN HAS TAKEN INTO ACCOUNT EXISTING SERVICES AS IDENTIFIED ON DRAWINGS SUPPLIED. THE CONTRACTOR SHALL TAKE ALL NECESSARY SAFETY PRECAUTIONS WHEN WORKING WITH EXISTING SERVICES AND INSTALLING NEW SERVICES. THIS INCLUDES PERSONAL SAFETY AND THE SAFETY OF OTHERS.

VERIFICATION OF EXISTING SERVICES.
THESE DRAWINGS SHALL NOT BE INTERPRETED AS THE AUTHORITY TO IDENTIFY ANY EXISTING SERVICES. THE CONTRACTOR SHALL SOURCE AND PROVIDE ANY AVAILABLE DRAWINGS AS REFERENCE TO THE RELEVANT SUB-CONTRACTOR.

THE CONTRACTOR SHALL EXAMINE THE SITE AND ITS SURROUNDINGS AND BE AWARE OF ALL RELEVANT PHYSICAL CONDITIONS UPON THE SITE, THIS INCLUDES CONCEALED SURROUNDINGS SUCH AS UNDERGROUND SERVICES.

THESE WORKS SHALL INCLUDE BUT ARE NOT LIMITED TO SERVICES INVOLVING:
* WORKING IN AREAS OF HIGH VOLTAGE ELECTRICAL CABLES.
* WORKING WITH MACHINERY IN AREAS OF HIGH VOLTAGE CABLES: e.g. USING MOBILE CRANES, TOWER CRANES ETC.
* WORKING IN AREAS OF UNDERGROUND SERVICES INCLUDING: SEWER, WATER, FIRE, GAS AND ELECTRICAL CABLES.
* DEEP EXCAVATIONS – UNSTABLE GROUND AND ROCK EXCAVATIONS AND TENSIONING SYSTEMS.
* HIGH PRESSURE GAS.
* TOXIC WASTE.
* CONTAMINATED SOIL.
* DEMOLITION WORKS WHERE SERVICES ARE EXPOSED.
* POWER CABLES AND OVERHEAD CABLES.
* ASBESTOS OR ANY FIBROUS MATERIALS
* FIRE HYDRANTS ETC.
* WORKING OVER/UNDER THOROUGH FARES-TRAFFIC AND/OR PEDESTRIAN.

SD05. DIAL BEFORE YOU DIG.
THE CONTRACTOR SHALL ENSURE THE SUB-CONTRACTOR OBTAINS 'DIAL BEFORE YOU DIG' INFORMATION AND IDENTIFIES AREAS OF EXISTING UNDERGROUND SERVICES PRIOR TO EXCAVATION.

SD06. PRIOR TO EXCAVATION.
PRIOR TO COMMENCING ANY EXCAVATION WORKS ON SITE, THE CONTRACTOR IS TO IDENTIFY AND LOCATE ANY INGROUND SERVICES VIA AN ULTRASONIC UNDERGROUND SURVEY. ENSURE AREAS OF HIGH RISK HAVE BEEN IDENTIFIED ON DRAWINGS AND ARE CLEARLY MARKED WITH AN APPROPRIATE DANGER SYMBOL EXAMPLES AS FOLLOW:
DEEP EXCAVATION, HIGH VOLTAGE, UNDERGROUND SERVICES,CONTAMINATED SOIL, ETC.

SD07. STABILITY OF THE STRUCTURE.
TEMPORARY MEASURES MUST BE TAKEN DURING CONSTRUCTION AND DEMOLITION TO ENSURE THE STABILITY OF THE STRUCTURE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND THE CONTRACTOR'S ERECTION DESIGN ENGINEER TO TAKE ALL MEASURES NECESSARY TO MAINTAIN STRUCTURAL INTEGRITY DURING ALL PHASES OF DECONSTRUCTION AND CONSTRUCTION.

TEMPORARY SUPPORT IS REQUIRED TO ITEMS INVOLVING (BUT NOT LIMITED TO):
* SOIL AND ROCK EXCAVATION.
* CONCRETE FORMWORK TO FACILITATE CONCRETE PLACEMENT.
* STRUCTURAL STEEL FRAMEWORK.
* BRICK OR CONCRETE BLOCKWORK.
* PRECAST CONCRETE ELEMENTS.
* ENGINEERED TIMBER WALL PANELS.
* TIMBER FRAMEWORK.
* STATIC OR OPERATING PLANT AND EQUIPMENT.
* STORED MATERIALS.

SD08. SPECIALIST CONTRACTOR.
ACTIVITIES REQUIRED TO BE CARRIED OUT DURING THE CONSTRUCTION WHICH ARE NOT CONSIDERED TO BE NORMAL BUILDING PRACTICE MAY REQUIRE ENGAGEMENT OF A SPECIALIST CONTRACTOR.

SD09. BUILDING CODE REQUIREMENT.
THE DESIGN HAS BEEN CARRIED OUT IN ACCORDANCE WITH THE DESIGN INTENT OF THE NATIONAL CONSTRUCTION CODE AS APPLIES STATE BY STATE.

SD10. BUILDING OPERATION AND MAINTENANCE.
MUST BE CARRIED OUT IN ACCORDANCE WITH THE DESIGN INTENT OF THE NATIONAL CONSTRUCTION CODE AS APPLIES STATE BY STATE.

OPERATION, CLEANING AND MAINTENANCE OF THE BUILDING MAY REQUIRE, (BUT NOT LIMITED TO):
* ACCESS USING WORK PLATFORMS, STEPS, FALL ARREST SYSTEMS AND LADDERS.
* WORKING AT HEIGHT.
* INCLUSION OF BMU IN ROOF LAYOUT.
* USE OF HAZARDOUS MATERIAL / CHEMICALS.
* LIFTING OF MATERIALS.
* ACCESS AND WORKING IN CONFINED SPACES
* SUFFICIENT WORK SPACE.
* OPERATION AND MAINTENANCE MANUALS.
* USE OF HEAVY EQUIPMENT.
* WORKING ON SMOOTH / SLIPPERY SURFACES.
* WORKING ADJACENT TO VEHICULAR / FORKLIFT TRAFFIC.
* WORKING NEAR TRAFFIC OR MOVING FREIGHT CARRIERS.

SD11. DECONSTRUCTION.
AT THE END OF THE LIFE OF THIS STRUCTURE, ENGAGE SUITABLY QUALIFIED DEMOLITION ENGINEERS TO ASSIST WITH ITS DECONSTRUCTION.

ABBREVIATIONS AND LEGENDS

ABBREVIATION & DESCRIPTION CONT.	
B or BTM - BOTTOM FACE	NF - NEAR FACE
BS - BOTH SIDES	NOM - NOMINAL
CENT - CENTRALLY PLACED	NS - NEAR SIDE
CFW - CONTINUOUS FILLET WELD	NSOE - NOT SHOWN ON ELEVATION
CJ - CONSTRUCTION JOINT	NSOP - NOT SHOWN ON PLAN
CL - CENTRE LINE	NTS - NOT TO SCALE
CRS - CENTRES	OPP - OPPOSITE
D - DEEP/DEPTH	PL - PLATE
DRG - DRAWING(S)	PPBW - PARTIAL PENETRATION BUTT WELD
EF - EACH FACE	PT - POST TENSION
EQ - EQUALLY SPACED	REINF - REINFORCEMENT
EW - EACH WAY	REQ - REQUIRED
FF - FAR FACE	SIM - SIMILAR
FPBW - FULL PENETRATION BUTT WELD	T or TOP - TOP FACE
FS - FAR SIDE	TBC - TO BE CONFIRMED
FSBW - FULL STRENGTH BUTT WELD	THK - THICKNESS
GA - GENERAL ARRANGEMENT	TMJ - TEMPORARY MOVEMENT JOINT
H - HEIGHT/HIGH	TYP - TYPICAL
HDG - HOT DIPPED GALVANISED	T&B - TOP AND BOTTOM
HORIZ - HORIZONTAL	US - UNDER SIDE
IJ - ISOLATION JOINT	U.N.O. - UNLESS NOTED OTHERWISE
LG - LENGTH/LONG	VERT - VERTICAL
MJ - MOVEMENT JOINT	W -WIDE/WIDTH

GENERAL ARRANGEMENT LEGEND

No.	DESCRIPTION	
L01.	MEMBERS ARE PLACED SYMMETRICALLY ABOUT GRID LINES U.N.O.	
L02.	RL 00.000	DENOTES STRUCTURE MEMBER LEVEL IN SECTION / ELEVATION IN METRES
L03.	STEP	DENOTES STEP IN TOP STRUCTURAL LEVEL OR EDGE REBATE
L04.	200	DENOTES STRUCTURAL SLAB / WALL THICKNESS
L05.	SSL, 400, 500	SECTION THROUGH DOWNSTAND BEAM SHOWN ON PLAN 400D x 500W (O/A DEPTH FROM TOP OF SLAB)
L06.	500, 400, SSL	SECTION THROUGH UPSTAND BEAM SHOWN ON PLAN 400D x 500W (O/A DEPTH FROM SOFFIT OF SLAB)
L07.		DENOTES: SLAB / WALL PENETRATION IN PLAN / ELEVATION
L08.		DENOTES: REBATE IN PLAN / ELEVATION
L09.	01 / S3001	DENOTES: STRUCTURAL SECTION MARK (SECTION TAKEN THROUGH STRUCTURE IN DIRECTION OF ARROWS.)
L10.	A / S6001	DENOTES: STRUCTURAL DETAIL MARK (ENLARGED STRUCTURE DETAIL TAKEN WITHIN AREA HIGHLIGHTED)
L11.		DENOTES LOAD BEARING UNDER
L12.		DENOTES INSITU ELEMENT OVER
L13.		DENOTES PRECAST ELEMENT OVER
L14.		DENOTES MASONRY ELEMENT OVER
L15.		DENOTES EXISTING BUILDING
L16.		DENOTES DIRECTION OF METAL DECK FORMWORK
L17.	Wxx / xxxTHK	DENOTES WALL IDENTITY, THICKNESS AND ELEVATION DIRECTION
L18.	CxX / LxW	DENOTES CONCRETE COLUMN IDENTITY AND SIZE

FOUNDATIONS, FOOTINGS AND RETAINING WALLS

F01. FOOTING EXCAVATION WORKS
FOOTING EXCAVATIONS SHALL BE CARRIED DOWN TO UNDISTURBED, UNIFORM, FOUNDATION MATERIAL, U.N.O. FOOTINGS HAVE BEEN DESIGNED FOR THE FOLLOWING CAPACITY:

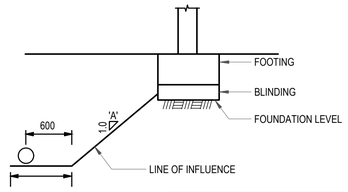
ELEMENT	BEARING PRESSURE (kPa)	SHAFT ADHESION (kPa)	NOTES
PAD FOOTINGS	100 kPa	-	-
STRIP FOOTINGS	100 kPa	-	-
BORED PIERS/ PILES	-	-	-

F02. GEOTECHNICAL REPORT
REFER TO GEOTECHNICAL REPORT FOR DETAILS OF THE SOIL CONDITIONS. THE GEOTECHNICAL REPORT IS FOR INFORMATION ONLY AND MAY NOT BE A COMPLETE DESCRIPTION OF THE CONDITIONS BELOW GROUND LEVEL. THE CONTRACTOR SHALL MAKE THEIR OWN INVESTIGATIONS AS NECESSARY. ALL RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT ARE TO BE ADHERED TO U.N.O.

F03. VERIFICATION OF FOUNDING MATERIAL.
THE CONTRACTOR SHALL ENGAGE A QUALIFIED GEOTECHNICAL ENGINEER TO VERIFY THAT THE FOUNDING MATERIAL MEETS THE REQUIRED NOMINATED FOUNDATION CONDITIONS. APPROVAL OF THE FOUNDATION SHALL BE OBTAINED FROM THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.

F04. OVER EXCAVATION.
ANY OVER EXCAVATION SHALL BE BACK FILLED WITH A MASS CONCRETE BLINDING LAYER (REFER TO CONCRETE NOTES) TO THE ASSUMED FOUNDING LEVEL.

F05. EXCAVATION NEAR FOOTINGS.
EXCAVATION NEAR RETAINING WALLS OR ESTABLISHED OR NEW FOOTINGS SHALL NOT EXTEND BELOW FOUNDATION LEVEL WITHOUT THE ENGINEER'S APPROVAL. FOOTINGS ADJACENT TO SERVICES ETC SHALL BE EXTENDED DOWN SUCH THAT THE INFLUENCE LINE OF THE FOOTINGS IS CLEAR OF THE ADJACENT SERVICE EXCAVATION U.N.O.



MATERIAL	"A"
SAND	-
CLAY	-
ROCK	-

F06. FOOTING ALIGNMENTS.
ALL FOOTINGS SHALL BE LOCATED CENTRALLY UNDER WALLS AND COLUMNS, U.N.O.

F07. BACKFILLING BEHIND WALLS.
DO NOT BACKFILL RETAINING WALLS (OTHER THAN CANTILEVER WALLS) UNTIL FLOOR CONSTRUCTION AT TOP AND BOTTOM IS COMPLETED. FREE DRAINING BACKFILL, DRAINAGE AND WATERPROOF MEMBRANE SHALL BE PLACED BEHIND ALL RETAINING WALLS, U.N.O.

F08. EXCAVATION STABILITY.
THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ANY EXCAVATION IN A STABLE CONDITION WITHOUT ADVERSELY EFFECTING SURROUNDING PROPERTY INCLUDING SERVICES. THIS INCLUDES OBTAINING ALL NECESSARY APPROVALS FOR SHORING AND ANCHORING SYSTEMS.

F09. VERTICAL EXCAVATIONS.
VERTICAL EXCAVATIONS IN ROCK AND BATTERS IN SOIL ARE TO BE INSPECTED BY THE GEOTECHNICAL ENGINEER TO DETERMINE FACE STABILITY.

F10. FREE OF WATER AND / OR LOOSE SOIL.
REMOVE ALL SOFT AND LOOSE MATERIAL PRIOR TO PLACING CONCRETE.
ALL FOUNDATIONS ARE TO BE FREE OF WATER. REMOVE WATER IN EXCAVATIONS BY BAILING OR PUMPING IF NECESSARY. DO NOT USE CONCRETE TO DISPLACE WATER IN EXCAVATIONS.

REINFORCEMENT

R01. WORKMANSHIP AND MATERIALS.
ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 AND ANYOTHER APPLICABLE CODES EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTATION.

R02. REINFORCEMENT TYPE AND GRADE.

REINFORCEMENT NOTATION TYPE	DESCRIPTION AND TYPE	CLASSIFICATION AND DESIGNATION TO AS/NZS 4671
N	HOT ROLLED DEFORMED BAR, MICROALLOY TEMPCORE	D500N
R	HOT ROLLED PLAIN ROUND BAR MILD STEEL	R250N
W	COLD DRAWN PLAIN ROUND WIRE, MILD STEEL COIL	R500L
S	HOT ROLLED DEFORMED BAR, MILD STEEL	D250N
SL	SQUARE MESH OF COLD DRAWN, DEFORMED WIRE, MILD STEEL SHEETS	D500SL
RL	RECTANGULAR MESH OF COLD DRAWN DEFORMED WIRE, MILD STEEL SHEETS	D500RL
LTM	RECTANGULAR MESH OF COLD DRAWN DEFORMED WIRE, MILD STEEL SHEETS	D500RL

WHERE NOT SHOWN REINFORCEMENT SHALL BE GRADE D500

R03. BAR NOTATION.
THIS GIVES THE FOLLOWING INFORMATION IN THE FOLLOWING ORDER:
e.g. 20N16-200T(3000 LG)
No. OF BARS, TYPE, BAR SIZE (mm), SPACING (mm), LAYER T= TOP. B= BOTTOM, BAR LENGTH IF NOTED (mm)

R04. FABRIC NOTATION.
e.g. RL918 TOP OR SL82 TOP THIS GIVES THE FOLLOWING INFORMATION IN THIS ORDER:
TYPE, MESH DESIGNATION, LOCATION.

R05. REINFORCEMENT.
IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.

R06. REINFORCEMENT COVER.
CLEAR COVER TO ALL REINFORCEMENT SHALL CONFORM TO THE FOLLOWING TABLE (U.N.O. ON THE DRAWINGS).

SURFACE AND EXPOSURE ENVIRONMENT		ELEMENT	EXPOSURE CLASS TO AS 3600	FIRE RATING FRP	CONCRETE GRADE	MINIMUM COVER, U.N.O.
SURFACES IN CONTACT WITH GROUND	PROTECTED BY VAPOUR BARRIER	ALL	A2	-	40 MPa	50 mm
	UNPROTECTED BY VAPOUR BARRIER	ALL	A2	-	40 MPa	50 mm
SURFACES IN INTERIOR ENVIRONMENTS STANDARD FORMWORK AND COMPACTION (NON RESIDENTIAL)		SLABS	-	-	-	-
		BEAMS	-	-	-	-
		COLUMNS	-	-	-	-
		WALLS	-	-	-	-
SURFACES IN EXTERIOR ENVIRONMENTS		ALL	B1	-	40 MPa	30 mm

A VAPOUR BARRIER SHALL BE A MINIMUM 0.2mm THICK POLYTHENE MEMBRANE.

R07. DRIP GROOVES.
COVER SPECIFIED ALSO APPLIES LOCALLY AT RECESSES, DRIP GROOVES AND FILLETS ETC.

R08. REINFORCEMENT LAPS.
LAP REINFORCEMENT ONLY AT LOCATIONS SHOWN ON THE DRAWINGS OR AS APPROVED BY THE ENGINEER IN WRITING, U.N.O. LAP ALL BARS AS TABULATED BELOW:

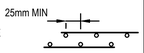
SLAB REINFORCEMENT	
BAR SIZE	MINIMUM LAP LENGTH (mm)
N12	500
N16	700
N20	950

BEAM REINFORCEMENT		
BAR SIZE	<300mm CONCRETE CAST BELOW THE BAR	>300mm CONCRETE CAST BELOW THE BAR
N12	500	650
N16	700	950
N20	950	1250
N24	1250	1600
N28	1600	2000
N32	1850	2400
N36	NO LAPS ALLOWED	
N40	NO LAPS ALLOWED	

WALL REINFORCEMENT	
BAR SIZE	MINIMUM LAP LENGTH (mm)
N12	650
N16	950
N20	1250
N24	1600
N28	2000

COLUMN REINFORCEMENT	
BAR SIZE	MINIMUM LAP LENGTH (mm)
N12	500
N16	650
N20	800
N24	1000
N28	1150
N32	1300

R09. FABRIC LAPPING.
FABRIC SHALL BE LAPPED SUCH THAT THE TWO (2) OUTERMOST WIRES OF ONE (1) SHEET OVERLAP THE TWO (2) OUTERMOST WIRES OF THE OTHER SHEET BY 25mm MINIMUM U.N.O.



R10. FABRIC PLACEMENT.
A MAXIMUM OF THREE (3) SHEETS OF FABRIC SHALL BE LAPPED AT ANY POINT.
ARRANGE MESH SHEET LAYOUT AS REQUIRED TO SUIT.
ALLOW TO CUT AWAY MIDDLE SHEET CORNER TO ACHIEVE CORRECT COVER.

R11. REINFORCEMENT BAR EXTENSIONS AND COGS.
SLAB REINFORCEMENT SHALL EXTEND AT LEAST 65mm ONTO THE SUPPORTING STRUCTURE AT SLAB EDGES, 50% OF BOTTOM BARS SHALL BE COGGED TO ACHIEVE ANCHORAGE AT BARS. (FOR PRECAST PANELS AND OTHER CASES REFER TO DETAIL ON DESIGN DRAWINGS)

R12. JOGGLES.
REINFORCEMENT BAR JOGGLES SHALL BE ONE (1) BAR DIAMETER OVER A LENGTH OF TWELVE (12) BAR DIAMETERS.

R13. SEQUENCE.
SEQUENCE OF LAYING REINFORCEMENT TO BE AS FOLLOWS.

R14. BAR BENDING.
REINFORCEMENT SHALL NOT BE BENT OR HEATED ON SITE UNLESS APPROVED BY THE ENGINEER.

R15. CAST-IN ELEMENTS.
REFER TO DRAWINGS FOR CAST-IN ELEMENTS (FERRULES, SLEEVES, STEEL PLATES FOR FIXINGS ETC).

R16. DISTRIBUTION REINFORCEMENT.
UNLESS OTHERWISE SHOWN, PROVIDE N12-400 DISTRIBUTION REINFORCEMENT, LAPPED 450 AT SPLICES.

R17. TOLERANCES.
TOLERANCES FOR FIXING OF REINFORCEMENT UNLESS OTHERWISE NOTED SHALL BE:
FOR MEMBER THICKNESS LESS THAN 600mm ±5mm; FOR MEMBER THICKNESS GREATER THAN 600mm ±10mm.

R18. WELDING NOT PERMITTED.
WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.

R19. REINFORCEMENT SUPPORT.
ALL REINFORCEMENT SHALL BE SECURELY SUPPORTED AND HELD IN ITS CORRECT POSITION BY APPROVED BAR CHAIRS, SPACERS OR SUPPORT BARS AT 1000mm MAXIMUM CENTRES. THE CHAIR MATERIAL WITHIN THE COVER ZONE SHALL SUIT THE EXPOSURE CONDITIONS.

R20. REINFORCEMENT LENGTHS.
REINFORCEMENT LENGTHS INDICATED ARE IN MILLIMETRES (mm). TURN DOWNS AND CRANKS ARE NOT INCLUDED IN THE DIMENSION. THE CONTRACTOR SHALL CHECK ALL LENGTHS BEFORE ORDERING.

R21. ALTERNATE BAR PLACEMENT.
WHERE STAGGERED BARS ARE SHOWN ON PLAN BARS MUST BE STAGGERED ON SITE AND LAID ALTERNATELY U.N.O.

R22. BAR DISTRIBUTION.
BARS SHALL BE EVENLY DISTRIBUTED OVER THE WIDTH OF THE STRIP INDICATED ON THE DRAWINGS U.N.O.

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RS	GD	MK	12.11.2025

100mm on Original

Scales

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. SANTOS	Original Size	A1
Designed	D. ESTANISLAO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	P. MICHAEL		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: STRUCTURAL NOTES SHEET 2

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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0742

Issue: 01

Date Plotted: 13 Nov 2025 - 02:55pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0742-StructuralNotesSheet2.dwg

CONCRETE WORKS

C01. ALL WORKMANSHIP AND MATERIALS.
SHALL BE IN ACCORDANCE WITH AS 1379 AND AS/NZ 3600 AND OTHER APPLICABLE AUSTRALIAN STANDARDS (EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS).

C02. BEAM DEPTHS.
ARE WRITTEN FIRST AND INCLUDES SLAB THICKNESS, BEAMS AND SLABS ARE TO BE CAST TOGETHER (MONOLITHIC) U.N.O. - SEE L05 AND L06.

C03. ELEMENTS.
SIZES OF CONCRETE ELEMENTS ARE EXCLUSIVE OF THICKNESS OF APPLIED FINISHES.

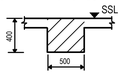
C04. HOLES, CHASES & EMBEDMENT.
NO HOLES, CHASES OR EMBEDMENT OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT PRIOR APPROVAL OF THE ENGINEER.

C05. CONSTRUCTION JOINT LOCATIONS.
CONSTRUCTION JOINTS SHALL BE FULLY FORMED AND AS DETAILED ON THE DRAWINGS. USE ONLY WHERE SHOWN ON THE DRAWINGS OR SPECIFICALLY APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL ALLOW A MINIMUM OF FIVE (5) WORKING DAYS FOR WRITTEN APPROVAL.

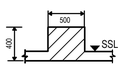
C06. EXPOSED CORNERS.
ALL EXPOSED CORNERS OF CONCRETE COLUMNS AND SLABS / BEAMS SHALL HAVE 15mm CHAMFER U.N.O.

C07. CAMBER TO SUSPENDED SLABS.
SHALL BE POSITIVE UPWARD CAMBER OF 3mm OVER 1000mm SPAN U.N.O. BEAMS SHALL BE CAMBERED AS SHOWN ON DRAWINGS. NO CAMBER IS REQUIRED TO POST-TENSIONED BEAMS AND SLABS U.N.O. ON PLANS.

C08. DEFINITION OF SUSPENDED BEAMS AND SLABS SHOWN ON PLANS.



SECTION THROUGH DOWNSTAND BEAM
SHOWN ON PLAN 400D x 500W
(O/A DEPTH FROM TOP OF SLAB)



SECTION THROUGH UPSTAND BEAM
SHOWN ON PLAN 400D x 500W
(O/A DEPTH FROM SOFFIT OF SLAB)

C09. QUALITY.
CONCRETE MAXIMUM AGGREGATE SIZE SHALL BE 20mm AND QUALITY SHALL BE AS FOLLOWING TABLE: UNO ON STRUCTURAL DRAWINGS

ELEMENT	F'c (MPa)	SPECIAL REQUIREMENTS
MASS OR BLINDING CONCRETE	15	-
PILE CAPS	40	-
STRIP FOOTINGS / PAD FOOTINGS GROUND BEAMS	40	-
RAFTS	-	-
SHEAR / CORE WALLS	-	-
SLAB ON GROUND	40	-
SUSPENDED SLAB & BEAM	40	-
POST-TENSIONED CONCRETE	-	-

C10. CONCRETE CLASS AND COLOUR.
IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR CONCRETE CLASS AND COLOUR REQUIREMENTS.

C11. CEMENT GRADE.
ALL CEMENT IS TO BE GENERAL PURPOSE (GP) PORTLAND CEMENT OR GENERAL PURPOSE (GB) BLENDED CEMENT OR TYPE SULPHATE-RESISTING CEMENT (SR) AS REQUIRED, COMPLYING WITH AS 3972 U.N.O. ON THE DRAWINGS.

DESIGN ENGINEER'S WRITTEN APPROVAL REQUIRED BEFORE USING:
EXTRA RAPID HARDENING SUPER SULPHATED AND HIGH ALUMINIA CEMENTS AND CEMENTS CONTAINING CHLORIDE, AND THE USE OF FLY ASH AND/OR SILICA FUME AS A CEMENT SUBSTITUTE, OTHER THAN THAT PROPORTION ALLOWED AS PART OF THE "GB" CEMENT CONTENT.

C12. 'D' DURABLE CONCRETE.
WHERE THE LETTER "D" APPEARS BESIDE A CONCRETE ELEMENT, THIS SYMBOLISES SPECIAL DURABLE CONCRETE WHERE THE ELEMENT HAS AT LEAST ONE FACE EXPOSED TO THE WEATHER OR POSSIBLE CORROSIVE ATTACK. (THIS CONCRETE REQUIRES A SPECIAL TOLERANCE FOR THE COVERS OF 0mm +10mm). SPECIAL PRECAUTIONS ARE REQUIRED TO IMPROVE THE LONG TERM PERFORMANCE OF THESE FACES OF CONCRETE. IN PARTICULAR, NO METAL INSERTS, METAL BAR CHAIRS OR METAL FORM SPACES OF ANY KIND ARE TO BE PLACED IN THE COVER ZONE WITHOUT THE EXPRESS PERMISSION OF THE ENGINEER. TAKE SPECIAL CARE TO AVOID SCRAP TIE WIRE OR OTHER MATERIAL BEING PRESENT. ANY OFF-CUTS, SCRAP OR FOREIGN MATERIAL SHALL BE REMOVED BEFORE POUR BEGINS. REFER DRAWINGS FOR LOCATIONS.

C13. MAXIMUM SLUMP ALLOWANCE.
CONCRETE SLUMP SHALL BE 80mm IN COMPLIANCE WITH AS 1379 UNO ON THE DRAWINGS.

C14. FREE DROPPING.
FREE DROPPING OF CONCRETE FROM HEIGHTS GREATER THAN 1000mm IS NOT PERMITTED UNLESS METHOD APPROVED BY THE ENGINEER.

C15. LIFT OF POUR.
MAXIMUM LIFT OF POUR AT ONE TIME FOR CONCRETE ELEMENTS SHALL BE 3000 mm UNLESS METHOD OF PLACEMENT HAS BEEN OTHERWISE APPROVED BY THE ENGINEER.

C16. VIBRATION.
ALL CONCRETE SHALL BE MECHANICALLY VIBRATED IN THE FORM TO ACHIEVE MAXIMUM COMPACTION WITHOUT SEGREGATION OF THE CONCRETE.

C17. FORMWORK.
FORMWORK SHALL BE DESIGNED, CONSTRUCTED AND STRIPPED IN ACCORDANCE WITH AS 3610 AND AS 3600.

C18. CONSTRUCTION JOINTS.
SURFACES RECEIVING GROUT AND CONSTRUCTION JOINTS SHALL BE PREPARED ROUGHENED AND FREE OF LAITANCE.

C19. CURING PERIOD.
CONCRETE MUST BE CURED BY AN APPROVED METHOD IN ACCORDANCE WITH THE SPECIFICATION FOR SEVEN (7) DAYS AFTER POURING. CURING COMPOUNDS WHERE APPROVED MUST COMPLY WITH AS 3799

C20. EMBEDMENTS.
ALL EMBEDMENTS SHALL BE HOT DIPPED GALVANISED (HDG) U.N.O.

C21. CONCRETE BOND SEPARATION.
CONCRETE SHALL BE SEPARATED FROM SUPPORTING MASONRY BY TWO LAYERS OF MALTHOID (OR AN APPROVED EQUIVALENT). VERTICAL JOINTS IN CONCRETE EXCEPT FOR CONSTRUCTION JOINTS (CJ's) SHALL BE KEPT FREE OF ADJOINING SURFACES BY 10mm ABLEFLEX (OR APPROVED EQUIVALENT) U.N.O. ON DRAWINGS. ALL NON-LOAD BEARING WALLS SHALL BE KEPT CLEAR OF THE UNDERSIDE OF THE SLABS AND BEAMS BY 20mm (MINIMUM) (U.N.O.). BRACKETS FIXING TO NON-LOAD BEARING WALLS ARE NOT PERMITTED WITHOUT ENGINEERING APPROVAL. ENSURE THE REQUIRED FIRE PROTECTION BARRIER TREATMENT IS INSTALLED.

C22. BRICKWORK.
BRICKWORK MUST NOT BE BUILT ON CONCRETE SLABS OR BEAMS UNTIL THE SUPPORTING CONCRETE FORMWORK IS REMOVED.

C23. **CONCRETE SHRINKAGE.**
THE BASIC CONCRETE SHRINKAGE SHALL NOT EXCEED 650μ AT 56 DAYS IN ACCORDANCE WITH AS 1012. SUBMIT SAMPLES OF SHRINKAGE TESTS WITH (MIX DESIGN) FOR APPROVAL PRIOR TO COMMENCEMENT OF CONCRETE WORKS.

C24. **ANCHORS.**
EXERCISE CARE WHEN DRILLING INSTALLING OF MASONRY ANCHORS, CUTTING OR DAMAGE TO EXISTING REINFORCEMENT IS STRICTLY NOT PERMITTED. USE A COVER METER TO LOCATE EXISTING REINFORCEMENT AND PERCUSSION DRILL EACH ANCHOR HOLE. ALL FIXING PLATES TO BE FABRICATED TO MATCH HOLES DRILLED ON SITE.

SLAB ON GROUND/RAFT SLAB

RS01. SUBGRADE PREPARATION.
(a) ALL VEGETATION SHALL BE STRIPPED FROM UNDER PAVEMENT AND BUILDING WORKS AREAS. THIS SHALL INCLUDE SURFACE MATERIAL INCLUDING TURF, TOPSOIL AND ALL ORGANIC MATTER TO A MINIMUM DEPTH OF 100mm BELOW NATURAL SURFACE (OR AS SPECIFIED ON DRAWINGS). REMOVE ALL OLD DEBRIS, TREE ROOTS ETC. STOCKPILE SELECT QUANTITIES OF TOPSOIL SEPARATELY FOR FUTURE LANDSCAPE WORKS (IF APPLICABLE).
(b) THE EXPOSED AREA SHOULD THEN BE PROOF ROLLED WITH A HEAVY DUTY ROLLER TO ENSURE THAT NO LOCALISED SOFT SPOTS EXIST. IF ANY SUCH AREAS ARE REVEALED THEY SHOULD BE MADE GOOD WITH GRANULAR CLEAN FILL COMPACTED TO A DENSITY EQUIVALENT TO THAT OF THE SURROUNDING SOIL.
(c) PRIOR TO PLACING ANY FILL MATERIAL, THE EXPOSED TOP SURFACE OF THE SITE SHALL BE COMPACTED TO 98% STANDARD DRY DENSITY AS MEASURED BY AS 1289 AND TESTED AT THE RATE OF ONE (1) TEST PER 100 METRES OF SURFACE AREA.
(d) FILL MATERIAL, APPROVED BY THE ENGINEER AND PLACED TO LEVEL 1 SUPERVISION, SHALL BE SPREAD AND COMPACTED IN UNIFORM LAYERS NOT EXCEEDING 150mm LOOSE DEPTHS. THE MINIMUM DEGREE OF COMPACTION OBTAINED SHALL BE 100% OF THE STANDARD DRY DENSITY AS MEASURED BY AS 1289.
(e) THE MOISTURE CONTENT OF THE FILL MATERIAL SHALL BE ADJUSTED DURING COMPACTION AS NECESSARY TO ENSURE THAT THE SPECIFIED COMPACTION IS OBTAINED.
(f) THE FILL MATERIAL SHALL BE COMPACTION TESTED AT A RATE OF ONE (1) TEST PER 100 SQUARE METRES OF SITE AREA PER LAYER OF FILL. INDEPENDENT NATA TEST REPORTS ARE TO BE SUPPLIED.
(g) REFER ALSO TO GEOTECHNICAL REPORT FOR ANY ADDITIONAL SUBGRADE PREPARATION REQUIREMENTS.

RS02. TRENCHES - RAFT SLABS.
ALL EDGE BEAM TRENCHES TO BE TAKEN INTO UNDISTURBED GROUND ▫ MINIMUM BELOW NATURAL SURFACE.

RS03. VAPOUR BARRIER - SAND BED.
A CONTINUOUS POLYTHENE VAPOUR BARRIER 0.2mm THICK ON 50mm THICK SAND BED SHALL BE PLACED UNDER THE ENTIRE SLAB U.N.O.

RS04. PIPES
ALL PLUMBING PIPES AND DRAINAGE SHALL BE ARTICULATED OR ISOLATED AND / LAGGED AT INTERSECTION WITH SLAB AND EXTERNAL WALLS.

RS05. SLAB RIBS.
TO BE FOUNDED IN SOIL WITH MINIMUM BEARING CAPACITY AS SPECIFIED IN FOUNDATIONS AND FOOTING NOTES. CONSTRUCTION JOINTS ARE NOT ALLOWED UNLESS SPECIFIED OR APPROVED BY THE ENGINEER.

RS06. FINISHED SLAB LEVEL.
FINISHED SLAB LEVEL SHALL BE A MINIMUM 100mm U.N.O. ABOVE EXTERNAL GROUND LEVEL.

RS07. SLAB ON GROUND.
SLAB-ON GROUND SHALL BE IN ACCORDANCE WITH AS 2870 U.N.O. ON STRUCTURAL DRAWINGS.

RS08. TERMITE PROTECTION.
WHERE TERMITE PROTECTION IS SPECIFIED, IT SHALL BE PROVIDED AS REQUIRED BY THE RELEVANT AUSTRALIAN STANDARD AND THE LOCAL STATUTORY AUTHORITY.

RS09. PREVENT WATER INGRESS.
EXCAVATIONS NEAR THE BUILDING EDGE SHALL BE BACKFILLED IN SUCH A MANNER TO PREVENT READY INGRESS OF WATER TO THE FOUNDATIONS.

RS10. REINFORCEMENT COVER.
REFER TO REINFORCEMENT NOTES/R06 FOR COVER TO REINFORCEMENT.

RS11. REINFORCEMENT SUPPORT.
REINFORCEMENT SHALL BE SECURELY SUPPORTED AND HELD IN POSITION DURING CONCRETE PLACEMENT USING DENSE PRECAST SPACER BLOCKS OR BAR CHAIRS ON GALVANISED STEEL DISHES (EITHER OF WHICH MUST NOT DAMAGE THE MEMBRANE) AT 900mm MAXIMUM CENTRES EACH WAY. PROVIDE R6 SPACERS AT 600mm CENTRES IN TRENCHES.

RS12. TRENCH MESH.
SHALL BE SPLICED WHERE NECESSARY IN ACCORDANCE WITH REINFORCEMENT STEEL NOTE R09.

RS13. RE-ENTRANT CORNERS.
PROVIDE (TWO) 2N12 1200mm LONG BARS DIAGONALLY ACROSS ALL PENETRATION CORNERS AND TIE TO UNDERSIDE OF TOP MESH.

RS14. HEATING PIPES:
HOT WATER HEATING PIPES MAY BE EMBEDDED IN THE SLAB WITH THE ENGINEER'S APPROVAL.

RS15. ENGINEERS APPROVAL.
THE ENGINEER'S WRITTEN APPROVAL SHALL BE RECEIVED PRIOR TO POURING SLAB.

FORMWORK

FW01. FORMWORK DESIGN.
FORMWORK SHALL BE DESIGNED AND CERTIFIED BY THE CONTRACTOR'S TEMPORARY WORKS / ERECTION DESIGN ENGINEER AND CONSTRUCTED IN ACCORDANCE WITH AS 3610 EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING BOTH THE CONSTRUCTION
SAFETY ACT AND ASSOCIATED REGULATIONS AND THE WORK-COVER CODE OF PRACTICE ARE ABIDED BY. THIS INCLUDES CONSTRUCTION AND PERFORMANCE TO THE CERTIFIED FORMWORK AND FALSEWORK DESIGN.

FW02. CONCRETE FINISHES.
CONCRETE FORMED SURFACES TO HAVE FINISHES IN ACCORDANCE WITH AS 3610 AND
AS 3600.

FW03. PRIOR TO PLACEMENT OF CONCRETE.
THE CONTRACTOR SHALL OBTAIN WRITTEN CERTIFICATION OF ADEQUACY FROM THEIR
STRUCTURAL ENGINEER PRIOR TO POURING CONCRETE

FW04. FOUNDATION FORMWORK.
DESIGN INFORMATION CONCERNING THE FOUNDATION FORMWORK SHALL BE DETERMINED FROM THE CONDITIONS EXISTING ON SITE AT THE TIME OF CONSTRUCTION

FW05. POST TENSIONING FORMWORK.
WHERE APPLICABLE, THE POST TENSIONING FORMWORK SHALL BE DESIGNED TO ACCOMMODATE MOVEMENT AND LOAD RE-DISTRIBUTION DUE TO POST TENSIONING.
THE FORMWORK DESIGNER MAY NEED TO CONSULT THE POST TENSIONING . SUB-CONTRACTOR AND / OR DESIGNER TO OBTAIN THIS INFORMATION.

FW06. FORMWORK PROCEDURES.
THE FOLLOWING REQUIREMENTS SHALL BE INCORPORATED INTO THE FORMWORK DESIGN AND/OR ALLOWED FOR BY THE FORMWORK SUB-CONTRACTOR AS APPROPRIATE.

a) MINIMUM FORMWORK STRIPPING TIMES ARE TO BE AS FOLLOWS.
i) VERTICAL SURFACES MAY BE STRIPPED OF FORMWORK AND REPLACED WITH BACKPROPPING WHEN THE MINIMUM MEAN COMPRESSIVE STRENGTH OF CONCRETE (fcm) HAS REACHED 5.0MPa. IF THE STRENGTH CANNOT BE ACCURATELY ASSESSED VIA THE USE OF TEST CYLINDERS STORED ON SITE AND CURED IN A SIMILAR MANNER TO THE PERMANENT STRUCTURE THEN THE MINIMUM FORMWORK STRIPPING TIME IS TO BE TWO (2) DAYS PROVIDED THE AVERAGE AMBIENT TEMPERATURE OVER THAT PERIOD IS BETWEEN 12 AND 20 DEGREES CELSIUS.
ii) SOFFITS OF BEAMS AND SLABS MAY BE STRIPPED OF FORMWORK AND BACKPROPPED WHEN THE MINIMUM MEAN COMPRESSIVE STRENGTH OF THE CONCRETE (fcm) HAS REACHED 22MPa. IF THE STRENGTH CANNOT BE ACCURATELY ASSESSED VIA THE USE OF TEST CYLINDERS STORED ON SITE AND CURED IN A SIMILAR MANNER TO THE PERMANENT STRUCTURE THEN THE MINIMUM FORMWORK STRIPPING TIME IS TO BE SIX (6) DAYS PROVIDED THE AVERAGE AMBIENT TEMPERATURE OVER THAT PERIOD IS BETWEEN 12 AND 20 DEGREES CELSIUS.
iii) REMOVAL OF FORMWORK SUPPORT (PROPS) TO BEAM AND SLAB SOFFITS MAY BE UNDERTAKEN WHEN THE MINIMUM MEAN COMPRESSIVE STRENGTH OF THE CONCRETE HAS REACHED 28MPa. IF THE STRENGTH CANNOT BE ACCURATELY ASSESSED VIA THE USE OF TEST CYLINDERS STORED ON SITE AND CURED IN A SIMILAR MANNER TO THE PERMANENT STRUCTURE THEN THE MINIMUM FORMWORK STRIPPING TIME IS TO BE EIGHTEEN (18) DAYS PROVIDED THE AVERAGE AMBIENT TEMPERATURE OVER THAT PERIOD IS BETWEEN 12 AND 20 DEGREES CELSIUS.
b) THE FORMWORK DESIGN SHALL ALLOW FOR 4KPa OF STACKED MATERIALS ON ANY AREA OF FLOOR SYSTEM. ALL OTHER FORMWORK DESIGN LOADS SHALL BE AS SPECIFIED IN SECTION 4.4 OF AS 3610.
c) THE FLOOR SYSTEM IS TO ATTAIN A MINIMUM MEAN COMPRESSIVE STRENGTH OF CONCRETE (fcm) OF 15MPa PRIOR TO STACKING OF MATERIALS ON THAT LEVEL OF HE PERMANENT STRUCTURE.
d) HORIZONTAL LOADS ON FORMWORK ARE TO BE RESISTED BY THE FORMWORK BRACING. STRUTTING OF THE FORMWORK OFF THE PERMANENT STRUCTURE TO RESIST HORIZONTAL LOADS IS NOT PERMITTED.
e) REFER TO THE DRAWINGS FOR LOCATIONS OF CONSTRUCTION JOINTS.
f) THE SEQUENCE OF PLACEMENT FOR THE CONCRETE WORKS IS TO BE SPECIFIED BY THE SUB-CONTRACTOR U.N.O. ON THE DRAWINGS.
g) PROPPING OF COMPOSITE CONSTRUCTION IS TO BE SPECIFIED ON THE DRAWINGS.
h) DESIGN LOADS FOR THE PERMANENT STRUCTURES ARE NOTED ON THE DRAWINGS
i) A SUITABLY QUALIFIED CONSULTANT OF THE CONTRACTOR ' S CHOICE TO BE AVAILABLE FOR GUIDANCE FOR FOUNDATION MATERIAL AVAILABLE FOR THE FORMWORK SUPPORT.
j) DETAILS OF THE REQUIREMENTS OF PERMANENT FORMWORK SHALL BE AS SPECIFIED IN THE CONTRACT DOCUMENTS.

PRECAST CONCRETE

PC01. WORKMANSHIP.
ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3850.1, AS 3850.2, AS 3600 AND AS 3610 EXCEPT AS VARIED BY THE CONTRACT DOCUMENTS.

PC02. PRECAST PANELS.
PRECAST CONCRETE IS TO BE GENERALLY IN ACCORDANCE WITH AS 3850 "TILT-UP" CONCRETE CONSTRUCTION

PC03. DIMENSIONS.
FOR LOCATIONS AND NON-STRUCTURAL DIMENSIONS OF PRECAST PANELS REFER TO ARCHITECTURAL DRAWINGS.

a) THE PRECAST CONCRETE SUPPLIER SHALL BE RESPONSIBLE FOR THE DETAILING OF PRECAST ELEMENTS AND ANY CONNECTIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS
b) REINFORCEMENT SHOWN ON STRUCTURAL DRAWINGS IS THE MINIMUM REQUIRED FOR IN-SERVICE CONDITIONS. THE SUPPLIER IS RESPONSIBLE FOR ANY ADDITIONAL REINFORCEMENT REQUIRED FOR LOADS DUE TO HANDLING, PROPPING, TRANSPORTATION AND ERECTION.

PC04. FORMED SURFACE.
PANELS ARE TO CONSIST OF OFF-FORM CONCRETE POURED IN APPROVED MOULDS AS SPECIFIED BY THE ARCHITECT.

PC05. CONCRETE STRENGTH.
THE CONCRETE IN THE PANELS IS TO HAVE A CHARACTERISTIC STRENGTH (f ' c) AS SPECIFIED ON THE DRAWINGS. THE CONCRETE STRENGTH AT REMOVAL FROM MOULDS IS TO BE A MINIMUM OF 20MPa. ALL PANELS ARE TO BE CONSTRUCTED FROM NORMAL WEIGHT CONCRETE.

PC06. CORBELS.
ALL CORBELS TO THE PRECAST PANELS TO BE POURED MONOLITHICALLY WITH THE PANEL.

PC07. CONCRETE MIX.
WATER/CEMENT RATIO NOT EXCEED 0.45 SLUMP NOT TO EXCEED 50mm.

PC08. CHEMICAL CONTROLS.
CALCIUM CHLORIDE WILL UNDER NO CIRCUMSTANCES BE PERMITTED, AND OTHER ADMIXTURES WILL ONLY BE PERMITTED WITH THE WRITTEN CONSENT OF THE CONTRACTOR.

PC09. CLEANING.
ACID ETCHING WILL UNDER NO CIRCUMSTANCES BE PERMITTED. ACID CLEANING WITH DILUTE HYDROCHLORIC ACID OF MAXIMUM CONCENTRATION OF 20 TO 1 MAY BE PERMITTED UNDER CONTROLLED CONDITIONS IF THE CHLORIDE ION PENETRATION AND CONCENTRATION IS WITHIN ACCEPTABLE LIMITS. HIGH PRESSURE WATER JETS ARE TO BE USED TO REMOVE ALL TRACES OF ACID FROM THE SURFACE. FULL DETAILS OF PROPOSED CLEANING PROCEDURE IS TO BE SUBMITTED TO THE CONTRACTOR FOR WRITTEN APPROVAL PRIOR TO CLEANING.

PC10. CHLORIDE ION CONTENT.
THE MAXIMUM CHLORIDE ION CONTENT BY MASS OF CEMENT IS NOT TO EXCEED 0.1%. CHEMICAL TEST RESULTS ON TRIAL PANELS TREATED IN THE INTENDED MANNER SHALL BE SUBMITTED TO THE CONTRACTOR AND APPROVAL GAINED PRIOR TO MANUFACTURE

PC11 . NOT PERMITTED.
VENEERED CONSTRUCTION AND/OR USE OF DIFFERENT CONCRETE MIX AND/OR USE OF DIFFERENT CONCRETE SUPPLIERS IS NOT PERMITTED.

PC12. APPROVAL REQUIRED.
DETAILS OF ALL SURFACE TREATMENTS ARE TO BE SUBMITTED TO THE CONTRACTOR FOR WRITTEN APPROVAL PRIOR TO MANUFACTURE.

PC13. REINFORCEMENT COVER.
CONCRETE COVER SHALL BE AS NOTED ON THE DRAWINGS MINIMUM COVER FOR EXPOSED FACE 35mm AND INTERNAL FACE 25mm, WHICHEVER IS THE GREATER TOLERANCE +5mm, -0mm U.N.O.

PC14. LIFTING.
LIFTING FERRULES ARE TO BE DESIGNED AND DETAILED BY THE PRECAST MANUFACTURER TO SUIT THE METHOD OF PRECAST MANUFACTURE, TRANSPORT AND ERECTION. TYPICAL LIFTING FERRULES ARE TO BE AT LEAST 24mm DIAMETER, HOT DIPPED GALVANISED STEEL FERRULES FITTED WITH A "J" BAR ANCHOR CAPABLE OF DEVELOPING AT LEAST THE FULL DESIGN CAPACITY OF THE BOLT. LIFTING FERRULES ARE NOT SHOWN ON DESIGN DRAWINGS. LIFTING FIXINGS SHALL NOT BE LOCATED IN THE FACE WHICH IS EXPOSED TO VIEW IN THE FINAL CONDITION AND AFTER USE SHALL BE PROTECTED TO AVOID CORROSION AND STAINING. FERRULES THAT WOULD BE EXPOSED ON COMPLETION OF ERECTION ARE TO BE SET 25mm BELOW FINISHED LEVEL AND THE RECESS TO BE GROUTED ON COMPLETION

PC15. CONNECTIONS.
ALL CONNECTION MEMBERS AND FIXINGS ARE TO BE HOT DIPPED GALVANISED.

PC16. JOINT SEALANT.
CLOSED CELL POLYETHYLENE FOAM ROD COMPRESSION SEALS (25% MIN. COMPRESSION) OR APPROVED EQUIVALENT TO BE USED AS SHOWN ON DETAILS TO CONTAIN IN-SITU GROUT AND TO EXCLUDE CONCRETE SCREED IN JOINTS BETWEEN PANEL AND IN-SITU FLOOR. FOR DETAILS OF FIRE PROTECTION AND WEATHER PROOFING OF JOINTS REFER TO ARCHITECT'S DRAWINGS.

PC17. SHOP DRAWINGS.
PRECAST MANUFACTURER TO PROVIDE A (pdf) FILE OF EACH FULLY DETAILED SHOP DRAWING INCLUDING DETAILS OF ALL INSERTS, FIXINGS, ANCHORS, BOLTS, FERRULES,
PENETRATIONS, LIFTING DEVICES, ETC TO ARCADIS AND TO THE CONTRACTOR FOR APPROVAL.

PC18. ERECTION.
THE PRECAST CONTRACTOR IS TO PROVIDE TEMPORARY SUPPORTS DURING THE ERECTION OF THE PRECAST PANELS AS REQUIRED TO ENSURE STABILITY OF THE PRECAST UNITS UNTIL THE PERMANENT FIXINGS BOTH TOP AND BOTTOM HAVE BEEN INSTALLED. THE PRECAST PANELS HAVE BEEN DESIGNED FOR IN SERVICE CONDITIONS ONLY (i.e. LOADS THE PRECAST PANELS ARE SUBJECTED TO AFTER ERECTION ON SITE). THE PRECAST MANUFACTURER IS TO PROVIDE COMPUTATIONS TO THE CONTRACTOR FOR REVIEW OF STRESSES INDUCED DURING REMOVAL FROM THE MOULD, HANDLING, LIFTING, TRANSPORTATION AND ERECTION. ADDITIONAL REINFORCEMENT REQUIRED FOR THESE CONDITIONS IS THE RESPONSIBILITY OF THE PRECAST MANUFACTURER AND SHALL BE ALL.

PC21. TOLERANCE.
OWED FOR IN THE TENDER.

PC19. GROUTED JOINTS.
GROUT TO BE USED SHALL BE NON-SHRINK AND HAVE A 28 DAY CHARACTERISTIC STRENGTH OF 60MPa. PACKERS SHALL BE NON FERROUS (NEOPRENE OR EQUIV.) AND SHALL BE PROVIDED WITH 50mm MINIMUM COVER EXTERNALLY OR WHERE IN VIEW. DURING JOINT GROUTING ALL GAPS BETWEEN PRECAST ELEMENTS SHALL BE PROPERLY SEALED TO STOP THE GROUT FILLING THE REQUIRED GAPS BETWEEN THE PRECAST AND THE STRUCTURE AND TO AVOID SPOILING THE FACE OF THE PRECAST.

PC20. PANEL TYPES.
PANELS CALLED UP AS SIMILAR ARE ONLY STRUCTURALLY SIMILAR, ARCHITECTURAL DIFFERENCES SUCH AS DIMENSIONS, GROOVES, REBATES, FERRULES, MINOR PENETRATIONS, ETC, MAY EXIST BETWEEN PANELS WHICH ARE STRUCTURALLY SIMILAR. REFER ARCHITECT ' S DRAWINGS FOR DETAILS.
MAXIMUM TOLERANCE ON PRECAST ELEMENTS MEASURED AFTER ERECTION ON SITE TO BE +/- 20mm IN ABSOLUTE POSITION FOR ANY POINT ON THE ELEMENT AND A MAXIMUM OF +/- 5mm RELATIVE TO ANY ADJACENT PRECAST ELEMENT.

PC22. CONCRETE THICKNESS
THE MINIMUM ELEMENT STRUCTURAL THICKNESS SHALL BE 150mm OR AS NOTED ON DRAWINGS. THE DIMENSIONS ARE THE FINAL STRUCTURAL SIZES. ADDITIONAL CONCRETE THICKNESS SHALL BE PROVIDED TO ACCOMMODATE THE ARCHITECTURAL REBATES AND SURFACE TREATMENTS.

PC23. CONCRETE PROPERTIES
THE MINIMUM CONCRETE GRADES SHALL BE S40 UNLESS NOTED OTHERWISE. CONCRETE SHALL BE NORMAL WEIGHT WITH MINIMUM CEMENT CONTENT OF 330 kg/m³, S40 GRADE WILL MEET THE FOLLOWING CRITERIA:

(a) SHRINKAGE LIMIT 650 MICROSTRAIN AFTER 56 DAYS
(b) CHLORIDE CONTENT TO BE RESTRICTED AS PER CLAUSE 4.9 OF AS 3600
(c) NO SALT SHALL BE ADDED WITHOUT ENGINEER APPROVAL

THE PRECAST CONTRACTOR SHALL SUBMIT THE PROPOSED MIX DESIGN FOR REVIEW BY THE ENGINEER.

PC24. REINFORCEMENT
THE REINFORCEMENT IN THE PRECAST ELEMENTS SHALL BE AS DETAILED. FABRIC SHALL BE ONE SHEET WHERE POSSIBLE. IF LAPPING IS REQUIRED IT SHALL BE TO AS 3600 CLAUSE 13.2.4. THE SPLICES SHALL NOT OCCUR WITHIN 2000mm OF THE MID SPAN OF THE PRECAST ELEMENT. WHERE TWO LAYERS OF MESH ARE USED, THE SPLICES SHALL BE STAGGERED BY 1000 mm UNLESS OTHERWISE APPROVED BY THE ENGINEER.

PC25. CONSTRUCTION JOINTS
CONSTRUCTION JOINTS IN PRECAST ELEMENTS ARE NOT PERMITTED.

PC26. GROUT REQUIREMENTS
GROUTING OF DOWELS AND JOINTS SHALL BE DONE WITH A WATERPROOF PREPACKED CEMENT-BASED PRODUCT, WHICH SHALL BE MIXED WITH WATER ON SITE TO THE RECOMMENDED CONSISTENCY. THE COMPRESSIVE STRENGTH OF GROUT MUST EXCEED 40 MPa AT 7 DAYS AND 60 MPa AT 28 DAYS, OR THE CONCRETE STRENGTH OF THE PANEL. THE PRODUCT SHALL BE STORED, HANDLED AND PLACED STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS. WHERE THE PRECAST ELEMENTS CARRY MORE THAN SEVEN STORIES, MAKE A PROTOTYPE OF THE JOINT USING THE PROPOSED METHOD OF CONSTRUCTION, SPLIT THE JOINT AFTER THREE DAYS FOR INSPECTION. THE DOWEL BAR NEED NOT BE USED.

PC27. INSPECTION RECORDS
THE CONTRACTOR SHALL SUBMIT DETAILED INSPECTION RECORDS FOR ALL PRECAST CONCRETE ELEMENTS.

PC28. SITE WELDING
WHERE SITE WELDING OF METAL FIXINGS IS REQUIRED IN EXPOSED AREAS, DEGREASE THE WELDED AREAS, CHIP OR GRIND OFF THE WELD SPATTER, GRIND THE WELD AREA DOWN AND COAT WITH AN APPROVED ZINC RICH PAINT TO THE MANUFACTURE'S RECOMMENDATIONS.

PC29. NON LOAD BEARING ELEMENTS
CLIP ON OR NON LOAD BEARING PRECAST ELEMENTS SHALL NOT BE ERECTED UNTIL ALL PROPS ARE REMOVED FROM THE SUPPORTING FLOOR STRUCTURE.

PC30. PENETRATIONS
NO HOLES SHALL BE CORED AND NO INSERTS SHALL BE "SHOT" OR DRILLED INTO THE PRECAST ELEMENTS WITHOUT THE ENGINEER'S APPROVAL.

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RS	GD	MK	12.11.2025

Scales

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. SANTOS	Original Size	A1
Designed	D. ESTANISLAO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	P. MICHAEL		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: STRUCTURAL NOTES SHEET 3

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100mm on Original

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STRUCTURAL STEEL

S01. WORKMANSHIP & MATERIALS.
ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 4100, AS/NZ 4600 AND AS/NZS 5131 EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS

S02. DESIGN FUNDAMENTALS.
ALL DETAILS, GAUGE LINES ETC, WHERE NOT SPECIFICALLY SHOWN ARE TO BE IN ACCORDANCE WITH AISC DESIGN CAPACITY TABLES FOR STRUCTURAL STEEL AND AISC STANDARDISED STRUCTURAL DETAILS.

S03. COMPONENTS.
ALL STRUCTURAL STEELWORK COMPONENTS SHALL CONFORM TO THE FOLLOWING TABLE U.N.O.

COMPONENT	TO COMPLY WITH AUSTRALIAN STANDARD	MIN. GRADE
PLATE	AS/NZS 3678	300+
HOT ROLLED SECTION	AS/NZS 3679	300+
CHS > 80mm DIA	AS/NZS 1163	250
CHS < 80mm DIA	AS/NZS 1163	350
RHS AND SHS	AS/NZS 1163	350
PURLINS AND GIRTS	AS 1397	450
WELDED BEAMS AND COLUMNS	AS/NZS 3679	300
FLAT BARS AND RODS	AS/NZS 3679	300+
SHEAR STUDS	AS/NZS 1554.2	380

S04. APPROVAL PROCESS.
A (PDF) FILE OF EACH STEEL FABRICATION DRAWING SHALL BE SUBMITTED TO THE ENGINEER FOR A STRUCTURAL APPROVAL REVIEW. TURNAROUND WILL BE SUBJECT TO THE CLEAR AND LOGICAL PRESENTATION OF THE MARKING PLANS AND THE COMPLEXITY AND QUALITY OF DOCUMENTATION PRESENTED FOR THE APPROVAL PROCESS. APPROVAL REVIEW WILL COVER MEMBER SIZES AND CONNECTIONS ONLY. ANY DETAILS REJECTED OR APPROVED SUBJECT TO CORRECTIONS SHALL BE RE-ISSUED FOR APPROVAL REVIEW. APPROVAL REVIEW WILL NOT EXTEND TO DIMENSIONS UNLESS THEY AFFECT THE STRUCTURAL DESIGN. ALL DIMENSIONS AND SETTING OUT SHALL BE OBTAINED FROM THE ARCHITECTURAL DRAWINGS U.N.O. REFER SITE SUPERVISION & INSPECTION NOTES FOR APPROVAL TIMES. A '3D' MODEL OF THE STEEL CONSTRUCTION IS TO BE SUPPLIED WITH ALL MEMBERS DEPICTED. NON APPROVED WORK. ANY STRUCTURAL STEEL FABRICATION UNDERTAKEN PRIOR TO RECEIVING THE ENGINEER'S WRITTEN APPROVAL OF THE RELEVANT SHOP DRAWINGS SHALL BE AT THE CONTRACTOR'S DISCRETION ON THE UNDERSTANDING THAT: THE CONTRACTOR SHALL BEAR ANY COSTS FOR PRE-APPROVAL WORKS FOR ANY MATERIALS OR FABRICATION RE-WORKS DUE TO CORRECTIONS MADE TO THE DOCUMENTATION DURING THE ENGINEER'S WRITTEN STRUCTURAL APPROVAL REVIEW PROCESS.

S05. BOLT DESIGNATION.
ALL BOLTS AND WASHERS SHALL BE HOT DIPPED GALVANISED TO COMPLY WITH AS 1214.

4.6/S REFERS TO COMMERCIAL BOLTS OF GRADE 4.6 TO AS 1111 AND AS 4100, TIGHTENED TO A SNUG TIGHT CONDITION.
8.8/S REFERS TO HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS/NZS 1252 AND AS 4100, TIGHTENED TO A SNUG TIGHT CONDITION.
8.8/TB REFERS TO HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS/NZS 1252 AND FULLY TENSIONED TO AS 4100 AS A BEARING JOINT.
8.8/TF REFERS TO HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS/NZS 1252 AND FULLY TENSIONED TO AS 4100 AS A FRICTION JOINT WITH CONTACT SURFACES LEFT UNCOATED AND FREE OF SCALE UNLESS OTHERWISE SPECIFIED.
10.9/TB REFERS TO HIGH STRENGTH STRUCTURAL BOLTS FO GRADE 10.9 TO AS/NZ 1252 AND FULLY TENSIONED TO AS 4100 AS A BEARING JOINT
10.9/TF REFERS TO HIGH STRENGTH BOLTS TO GRADE 10.9 TO AS/NZ 1252 AND FULLY TENSIONED TO AS 4100 AS FRICTION JOINT WITH CONTACT SURFACES LEFT UNCOATED AND FREE OF SCALE OTHERWISE SPECIFIED

NOTE : GRADE 8.8 AND 10.9 BOLTS ARE NOT TO BE WELDED

S06. METHOD OF TENSIONING
LOAD INDICATING WASHERS SHALL BE USED TO VERIFY TIGHTENING OF BOLTS IN TF AND TB CONNECTIONS. TORQUE WRENCHES SHALL NOT BE USED AND IMPACT DRILLS IF USED, MUST BE CALIBRATED. A HARDENED WASHER SHALL BE PLACED UNDER THE BOLT HEAD OR NUT, WHICHEVER IS TO BE ROTATED. THE RE-USE OF FULLY TENSIONED BOLTS IS PROHIBITED. RE-TENSIONING OF GALVANISED BOLTS SHALL NOT BE PERMITTED. 'TB AND 'TF BOLT CATEGORIES SHALL BE INSTALLED USING EITHER PART TURN METHOD OR THE DIRECT TENSION INDICATOR METHOD. TEST CERTIFICATES FROM AN ACCREDITED AUSTRALIAN TEST LABORATORY CONFIRMING CONFORMANCE OF THE BOLT AND ASSOCIATED NUTS AND WASHERS WITH THE RELEVANT AUSTRALIAN STANDARDS SHALL BE SUPPLIED TO THE ENGINEER. EACH COMPLIANCE CERTIFICATE MUST IDENTIFY THE ORGANISATION, THE PRODUCTS AND THAT THE FOLLOWING REQUIREMENTS ARE MET:

- TENSILE STRENGTH
- PROOF LOAD – BOLTS AND NUTS
- ELONGATION TO BREAK
- HARDNESS FOR NUTS, WASHERS AND VERY LONG BOLTS
- CHEMICAL COMPOSITION
- THE CONTRACTOR MUST VERIFY THAT THE CERTIFICATES MATCH THE
- BATCH NUMBERS OF BOLTS AND NUTS AND PROVIDE A WRITTEN

THE CONTRACTOR MUST VERIFY THAT THE CERTIFICATES MATCH THE BATCH NUMBERS OF BOLTS AND NUTS AND PROVIDE A WRITTEN STATEMENT OF VERIFICATION TO THE FACT.

S07. MINIMUM CONNECTION GUIDELINES.
UNLESS SPECIFIC INSTRUCTIONS ARE SUPPLIED ON THE DRAWINGS, ALL CONNECTIONS SHALL BE IN ACCORDANCE WITH THE FOLLOWING MINIMUM REQUIREMENTS:

(a) ALL WELDS SHALL BE 6mm CONTINUOUS FILLET WELD (CFW) ALL ROUND U.N.O.
(b) ALL CAST IN HOLD DOWN BOLTS SHALL BE GRADE 4.6/S U.N.O.
(c) ALL STEEL TO STEEL CONNECTIONS SHALL BE TWO (2) M20 GRADE 8.8/S MINIMUM U.N.O.
(d) ALL PURLIN AND GIRT FIXINGS SHALL BE TWO (2) M12 GRADE 4.6/S BOLTS MINIMUM U.N.O.
(e) A MINIMUM OF TWO (2) THREADS SHALL EXTEND PAST THE NUT
(f) ALL PLATES SHALL BE 10mm MINIMUM THICK U.N.O

(g) ALL PURLIN CLEATS SHALL BE 8mm MINIMUM THICK U.N.O.
(h) ALL BOLTS, INCLUDING HOLD DOWN BOLTS ARE TO BE HOT DIPPED GALVANISED
(i) WASHERS ARE TO BE IN ACCORDANCE WITH AS4100.
(j) HOLES 3mm OR MORE GREATER THAN THE BOLT DIAMETER AND SLOTTED HOLES ARE TO HAVE PLATE WASHERS OF MINIMUM 4mm THICKNESS AND ARE TO EXTEND A MINIMUM OF 0.5 THE BOLT DIAMETER PAST THE EDGE OF THE HOLE.

ALL FABRICATIONS INCLUDING BOLT HOLES AND TOLERANCES TO COMPLY WITH AS 4100 SECTION 14

S08. LEVELLING & PLUMBING OF COLUMNS.
COLUMNS AND MULLIONS SHALL HAVE THEIR BASE PLATES FULLY GROUTED IN ACCORDANCE WITH THE SPECIFICATIONS AFTER PLUMBING AND LEVELLING ON STEEL PACKERS.

S09. WELDING.
(a). ALL WELDS AND WELDING SHALL BE CATEGORY SP IN ACCORDANCE WITH AS/NZS 1544 AND AS/NZS 4100 U.N.O. USING E48XX ELECTRODES TO AS/NZS 1553 UNO. ALL WELDS TO BE SHOP APPLIED.

NOTE: REFER SEPARATE SPECIFICATION FOR WELDING OF LARGE DIAMETER CHS MEMBERS AND HIGH GRADE STEEL MEMBERS WHERE APPLICABLE

WELD QUALITY	
ELEMENT	**WELD CATEGORY**
SHOP WELDS	S.P. U.N.O.
SITE WELDS	G.P. U.N.O.

WELDING QUALIFICATIONS.
WELDING SHALL BE PERFORMED BY A QUALIFIED OPERATOR IN ACCORDANCE WITH AUSTRALIAN STANDARD AS/NZS 1554. INSPECTED AND CERTIFIED BY A QUALIFIED PERSON AS DESCRIBED IN AS/NZS 5131. THE INSPECTION/TESTING OF WELDS TO BE IN ACCORDANCE WITH THE STRUCTURAL STEEL SPECIFICATIONS AND AS/NZS 5131.

NON-DESTRUCTIVE WELD EXAMINATION, IN ACCORDANCE WITH AS/NZS 1554.1, AND NOT LESS THAN THE FOLLOWING TABLE:

NON-DESTRUCTIVE WELD EXAMINATION (INDIE) TABLE		
TYPE OF WELD AND CATEGORY	EXAMINTATION METHOD	EXTENT (% OF TOTAL LENGTH OF WELD)
FILLET WELDS	VISUAL INSPECTION	100%
BUTT WELDS, GP	VISUAL INSPECTION	100%
BUTT WELDS, SP	VISUAL INSPECTION RADIOGRAPHIC OR ULTRASONIC INSPECTION	100% 10%
SITE WELDS	VISUAL INSPECTION RADIOGRAPHIC OR ULTRASONIC INSPECTION	100% AS REQUIRED BY THE STRUCTURAL ENGINEER

(a). BEFORE COMMENCING FABRICATION, SUBMIT DETAILS OF PROPOSED WELDING PROCEDURES WITH THE FORM IN APPENDIX OF AS/NZS 1554.1.
(b). DO NOT COMMENCE FABRICATION UNTIL WELDING PROCEDURES HAVE BEEN ACCEPTED.
(c). OTHER THAN SITE WELDS (IF ANY) SHOWN ON SHOP DRAWINGS, DO NOT WELD ON SITE WITHOUT PRIOR APPROVAL FROM THE ENGINEER. WHERE POSSIBLE LOCATE SITE WELDS IN POSITIONS FOR DOWN HAND WELDING.
(d). ALL BUTT WELDS, EXCEPT WHERE PRODUCED WITH THE AID OF BACKING MATERIAL, SHALL HAVE THE ROOT OR INITIAL LAYER GOUGED OR CHIPPED OUT ON THE BACK SIDE BEFORE WELDING IS STARTED FROM THAT SIDE. BUTT WELDS MADE WITH THE USE OF BACKING STRIPS SHALL HAVE THE WELD MATERIAL FUSED WITH THE BACKING STRIP. ENDS OF BUTTS SHALL HAVE THE START AND STOP ZONES REMOVED BY THE USE OF RUN ON AND RUN OFF PLATES, SUCH PLATES SHALL BE REMOVED AFTER WELD COMPLETED.
(e). BUTT WELDING SHALL BE CARRIED OUT UNDER THE IMMEDIATE AND CONTINUOUS SUPERVISION OF A SUPERVISOR EMPLOYED BY THE FABRICATOR. THIS PERSON SHALL HAVE QUALIFICATIONS DESCRIBED IN AS/NZS 1554 SECTION 4.11 AND THESE QUALIFICATIONS SHALL BE SUBMITTED TO THE CONTRACTOR ON REQUEST. WELDING SHALL BE PERFORMED ONLY BY WELDERS WITH QUALIFICATIONS AS DESCRIBED IN AS/NZS 1554 SECTION 4.11.
(f). WHERE 'NDT' IS SPECIFIED, IT SHALL MEAN NON DESTRUCTIVE TESTS BY EITHER RADIOGRAPHIC OR ULTRASONIC MEANS. THE WELD EXAMINATION SHALL BE PERFORMED BY AN INDEPENDENT TESTING AUTHORITY. THE TEST REPORTS SHALL BE SUBMITTED TO THE ENGINEER.
(g). AFTER REPAIRING A FAULTY WELD REVEALED BY 'NDT', REPEAT THE SPECIFIC EXAMINATION AND PROVIDE THE TESTING AUTHORITY'S REPORT TO THE CONTRACTOR.
(h). WHERE SITE WELDING IS NECESSARY, THE WELDING OPERATOR SHALL TAKE ALL SAFETY PRECAUTIONS TO ACHIEVE A QUALITY WELD AND TO SHIELD THEIR WORK TO PREVENT INJURY SUCH AS WELD FLASH TO PASSING PEDESTRIANS AND OTHER SITE WORKERS, PROTECTION OF OTHERS IS SHALL BE GIVEN ALL CARE.

S10a. PROTECTIVE TREATMENT.
STRUCTURAL STEELWORK SHALL HAVE SURFACE PREPARATION IN ACCORDANCE WITH AS/NZS 5131 AND PROTECTIVE TREATMENT IN ACCORDANCE WITH AS/NZS 2312 AND AS DEFINED IN THE STEELWORK SPECIFICATION. REFER TO FOLLOWING TABLE FOR MINIMUM REQUIREMENTS.

REFER TO ARCHITECT'S DRAWINGS AND SPECIFICATION FOR SPECIFIC DETAILS OF ANY PAINTING FINISH COATS TO BE APPLIED OVER PRIMER AND FIRE PROTECTION TREATMENT.

LOCATION	SURFACE PREPARATION	PROTECTIVE COAT	TOP COAT
ENCASED STEELWORK	CLASS 1 TOOL CLEAN	NIL	NIL
FIRE SPRAYED STEELWORK	CLASS 1 TOOL CLEAN	NIL	NIL
INTERNAL STEELWORK: NOT SUBJECT TO ATMOSPHERIC ELEMENTS	CLASS 1 TOOL CLEAN	ONE COAT ZINC RICH EPOXY PRIMER 75 MICRONS	REFER ARCHITECT
EXTERNAL STEELWORK	PICKLED TO AS 1627.5	HOT DIPPED GALVANISED (HDG) AVG. 600g/m² 500g/sqm (MIN)	REFER ARCHITECT
STEELWORK UNDERCOVER BUT SUBJECT TO ATMOSPHERIC ELEMENTS	PICKLED TO AS 1627.5	HOT DIPPED GALVANISED (HDG) AVG. 600g/m² 500g/sqm (MIN)	REFER ARCHITECT

S10b. EXPOSED STEEL.
(a). ALL STRUCTURAL STEELWORK EXPOSED TO THE WEATHER INCLUDING LINTEL BEAMS, SHALL BE HOT DIPPED GALVANISED (HDG) TO AS/NZS 4680 WITH AN AVERAGE ZINC COATING MASS OF 600g/m² (550g/m² MINIMUM) U.N.O.
(b). **CAP ENDS.**
THE ENDS OF ALL TUBULAR MEMBERS ARE TO BE SEALED WITH MINIMUM 6mm THICK END PLATES AND BE CONTINUOUS FILLET WELDED U.N.O.
(c). **END VENTS.**
TUBULAR MEMBERS TO BE HOT DIPPED GALVANISED (HDG) SHALL BE PROVIDED WITH VENT AND DRAINAGE HOLES IN ACCORDANCE WITH THE GALVANISER'S RECOMMENDATIONS AND TO THE ACCEPTANCE OF THE CONTRACTOR.
(d). **GALVANISING BATH RESTRICTIONS**.
ENSURE STRUCTURAL STEEL IS DETAILED IN ACCORDANCE WITH AVAILABLE GALVANISING BATH DIMENSIONS.

S11. STEEL PURLINS AND GIRTS.
THE PURLIN AND GIRT DESIGN HAS BEEN BASED ON THE PROPRIETARY SYSTEM AS REFERENCED IN THE DRAWINGS AN ALTERNATIVE PURLIN AND GIRT SYSTEM OF EQUAL OR GREATER LOAD CAPACITY MAY BE SUBSTITUTED ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER. ALL STEEL PURLINS AND GIRTS SHALL BE A COMPLETE PROPRIETARY SYSTEM TO MANUFACTURER'S WRITTEN SPECIFICATION.

S12. BRIDGING AND SAG RODS.
ALL CONTINUOUS BRIDGING, SAG ROD AND BRACING SYSTEMS SHALL BE INCORPORATED AS SHOWN ON THE STRUCTURAL DRAWINGS. PROVIDE DIAGONAL SAG RODS TO WALL GIRTS AND PURLINS IN SLOPES GREATER THAN 20 DEGREES FROM THE HORIZONTAL. THE CONTRACTOR SHALL PROVIDE HOOK BOLTS TO PURLINS ADJACENT TO BRACING MID SPANS TO CONTROL BRACE SAG. CEILINGS, FIRE AND MECHANICAL SERVICES AND NOT TO BE FIXED TO PURLIN FLANGES UNLESS PRIOR APPROVAL IS GIVEN BY THE ENGINEER.

S13. FASTENING TO CLEATS.
REFER TO ENGINEERING DRAWINGS FOR PURLIN AND GIRT ORIENTATION.

S14. STRUCTURAL STEELWORK ERECTION.
STRUCTURAL STEELWORK ERECTION SHALL CONFORM TO THE REQUIREMENTS OF AS/NZS 5131.

S15. NATURAL CAMBER.
ALL BEAMS AND RAFTERS SHALL BE FABRICATED AND ERECTED WITH NATURAL CAMBER UP. ADDITIONAL CAMBERS OR PRE-SETS SHALL BE AS NOTED ON THE STRUCTURAL DRAWINGS.

S16. STEEL LENGTHS.
ALL STRUCTURAL STEELWORK MEMBERS SHALL BE SUPPLIED IN A SINGLE LENGTH. SPLICES SHALL ONLY BE PERMITTED AT LOCATIONS SHOWN ON THE STRUCTURAL DRAWINGS OR WHERE APPROVED BY THE ENGINEER IN WRITING

S17. NON AUSTRALIAN STEEL SECTIONS.
WHERE IT IS PROPOSED TO USE A STEEL SECTION NOT MANUFACTURED IN AUSTRALIA, IT IS MANDATORY THAT CERTIFICATES BE PROVIDED BY A SUITABLY QUALIFIED INDEPENDENT AUSTRALIAN AUTHORITY, CERTIFYING COMPLIANCE WITH THE RELEVANT REQUIREMENTS OF AS 4100, AS/NZS 5131 OR OTHER APPLICABLE MATERIAL AUSTRALIAN STANDARD FOR THE GRADE OF STEEL SPECIFIED.

S18. PENETRATION CUTTING.
BEFORE CUTTING NOTCHES AND PENETRATIONS IN STRUCTURAL STEELWORK, EACH INTERNAL CORNER SHALL HAVE A 22mm DIAMETER HOLE PREDRILLED TO PREVENT OVER-CUT (AND POTENTIAL CORNER FAILURE).

S19. COMPRESSION JOINTS.
OUT OF FLATNESS IS NOT ACCEPTABLE. THE FABRICATOR SHALL COMPLY WITH THE AUSTRALIAN STANDARD AS 4100 AND AS/NZS 5131 TO ENSURE CONTACT SURFACES ARE TRUE AND ACHIEVE THE REQUIRED FULL BEARING.

S20. CONTRACTOR TO PROVIDE.
THE CONTRACTOR SHALL PROVIDE ALL STEELWORK FITMENTS, BRACKETS, CONNECTORS, DRILL HOLES, ETC., NECESSARY TO COMPLETE THE PROJECT. THESE DRAWINGS INDICATE THE DESIGN INTENT ONLY. WHERE PROPRIETARY ITEMS ARE NOT AVAILABLE, FULL STEELWORK DETAILING SHALL BE DEVELOPED BY THE CONTRACTOR IN CONSULTATION WITH THE SHOP DETAILER GIVING CONSIDERATION TO ARCHITECTURAL DESIGN REQUIREMENTS.

S21. FIRE PROTECTION TO STEEL.
REFER TO ARCHITECTS SPECIFICATIONS FOR FIRE PROTECTION REQUIREMENTS. MEMBERS TO BE FIRE SPRAYED MUST NOT BE PAINTED AND BE FREE OF SCALE. FOR MEMBERS TO BE PROTECTED WITH FIRE RATED PLASTERBOARDS, INSTALLATION AND JOINTING OF THE PLASTERBOARDS ARE TO ARCHITECT'S DETAILS AND MANUFACTURER'S SPECIFICATIONS.

S22. CONCRETE ENCASED STEEL.
CONCRETE ENCASED STEELWORK SHALL BE UNPAINTED AND FREE OF SCALE ALL STEELWORK ABOVE GROUND SHALL BE PLACED CENTRALLY WITH 50mm MINIMUM COVER CONCRETE ENCASEMENT. ALL STEELWORK BELOW GROUND SHALL BE PLACED CENTRALLY WITH 75mm MINIMUM COVER CONCRETE ENCASEMENT. REFER TO DRAWINGS FOR ANY REINFORCEMENT REQUIREMENTS.

S23. FABRICATION TOLERANCES.
FABRICATION TOLERANCE SHALL CONFORM TO THE REQUIREMENTS OF AS/NZS 5131. THE TOLERANCE CLASS FOR FUNCTIONAL TOLERANCES SHALL BE CLASS 1 U.N.O.

S24. ARCHITECTURAL FEATURES.
WHERE STEEL ELEMENTS SHOWN ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS ARE REQUIRED TO BE CURVED, BENT OR ROLLED, THE STEEL FABRICATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE METHODS TO ACHIEVE THE REQUIRED SHAPES WITHOUT LOCALISED DISTORTION OR COMPROMISING THE STRENGTH OF THE MEMBERS.

S25. SHEETING TRIMMING MEMBERS.
TRIMMING MEMBERS ARE NOT NECESSARILY SHOWN ON THESE DRAWINGS. THE CONTRACTOR MUST PROVIDE TRIMMING MEMBERS AS REQUIRED IN ACCORDANCE WITH MANUFACTURERS DETAIL OF ALL RIDGES,VALLEYS, PENETRATIONS AND EDGES.

S26. MECHANICAL AND CHEMICAL ANCHORS.
MECHANICAL AND CHEMICAL ANCHORS SHALL CONFORM TO THE REQUIREMENTS OF AS/NZS 5131.

S27. POST-INSTALLED ANCHORS.
THE INSTALLATION OF MECHANICAL AND CHEMICAL ANCHORS SHALL CONFORM TO THE REQUIREMENTS OF AS/NZS 5131. SITE TESTING SHALL BE PERFORMED ON MECHANICAL AND CHEMICAL ANCHORS TO VALIDATE CORRECT INSTALLATION (PROOFING TESTING). A MINIMUM TEST SAMPLE POPULATION SHALL BE THREE SPECIMENS OR 2.5% OF THE TOTAL RELEVANT ANCHOR POPULATION, WHICHEVER IS GREATER. IF A SINGLE FAILURE IS RECORDED, THE MINIMUM TEST SAMPLE POPULATION.

SECONDARY STEEL FRAMING

SS01. INCLUSIONS
THE STRUCTURAL DRAWINGS INCLUDE PRIMARY BASE BUILDING STRUCTURE ONLY THE CONTRACTOR SHALL MAKE ALLOWANCE FOR THE PROVISION OF SECONDARY STEEL FRAMING AS REQUIRED TO SUPPORT NON-STRUCTURAL ELEMENTS INCLUDING, BUT NOT LIMITED TO:

- NON LOAD-BEARING FACADES
- CEILING AND CLADDING SYSTEMS
- PARTITIONS AND INTERNAL WALLS
- GLAZED ROOF, SKYLIGHTS
- LANDSCAPING
- PLANT AND EQUIPMENT REQUIREMENTS
- LIGHTING SYSTEMS
- ACCESS SYSTEMS
- DOOR AND GLAZING SYSTEMS
- FURNITURE AND FIXTURES
- EQUIPMENT SUPPORT SYSTEMS
- SIGNAGE
- HANDRAIL SYSTEMS
- BARRIER SYSTEMS
- FALL ARREST/RESTRAINT SYSTEMS
- PROPRIETARY PRODUCTS

SS02. DOCUMENTATION
SECONDARY STEELWORK IS NOT INCLUDED IN THE STRUCTURAL DOCUMENTATION IRRESPECTIVE OF WHETHER THE OTHER CONSULTANTS DOCUMENTATION MAKE REFERENCE TO THE STRUCTURAL DOCUMENTATION FOR THE SAME. THE CONTRACTOR SHALL REFER TO THE OTHER CONSULTANTS DOCUMENTATION FOR ALL SECONDARY STEELWORK REQUIREMENTS.

SS03. CONTRACTOR REQUIREMENTS
THE CONTRACTOR SHALL ALLOW TO DESIGN, SUPPLY AND INSTALL ALL SECONDARY STEELWORK AS REQUIRED ON THE OTHER CONSULTANTS DOCUMENTATION.

SS04. ARCADIS ASSISTANCE
THE CONTRACTOR SHALL ALLOW PROVISION FOR THE COST OF ADDITIONAL ENGINEERING SERVICES SHOULD THEY REQUEST ARCADIS TO ASSIST WITH THE DESIGN AND/OR DOCUMENTATION OF THE SECONDARY STEELWORK.

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RS	GD	MK	12.11.2025

Scales

Surveyor: surveyplus DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. SANTOS	Original Size	A1
Designed	D. ESTANISLAO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	P. MICHAEL		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: STRUCTURAL NOTES SHEET 4

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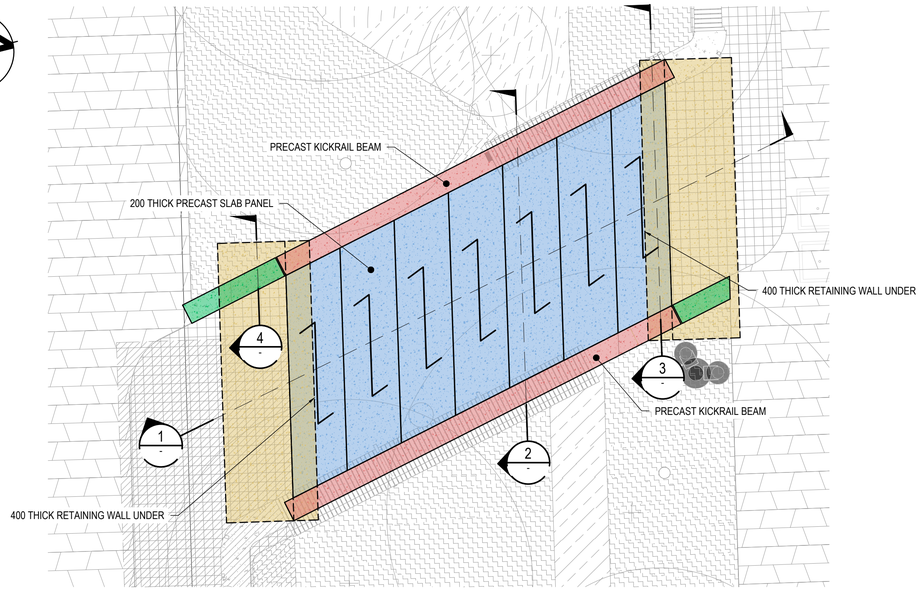
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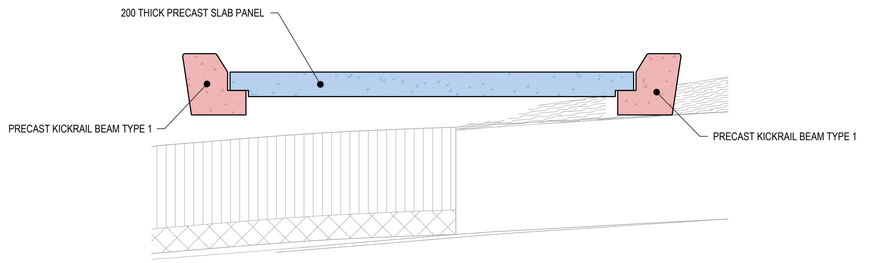
Issue: 01

100mm on Original

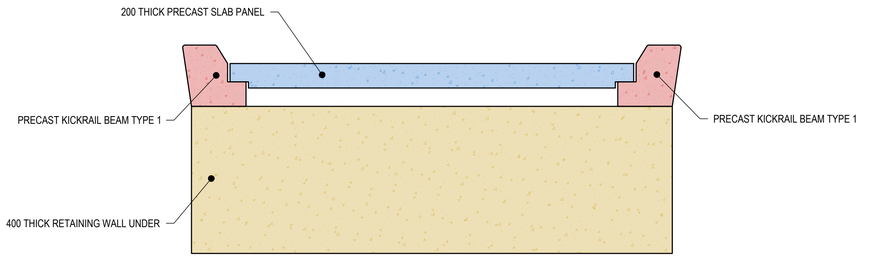
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NORTHERN PRECAST CONCRETE BRIDGE - PLAN
1 : 50



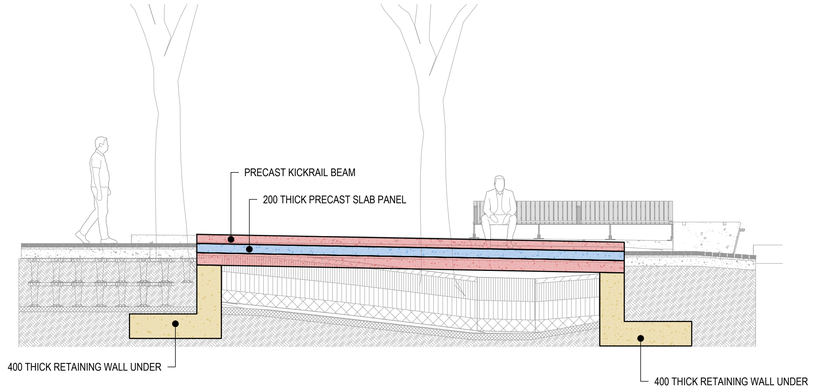
NORTHERN PRECAST CONCRETE BRIDGE 2 -
1 : 25



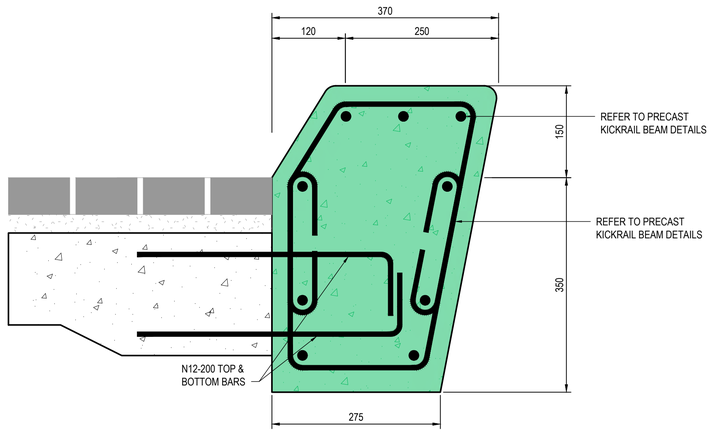
NORTHERN PRECAST CONCRETE BRIDGE 3 -
1 : 25

NOTES

1. ALL STRUCTURAL ELEMENTS ARE 40MPa UNLESS NOTED OTHERWISE.
2. THE BRIDGE SLAB AND KICKRAIL BEAM HAVE 30mm COVER WHILE THE RETAINING WALL HAS 50mm COVER.
3. ASSUMED ALLOWABLE SOIL BEARING CAPACITY = 100kPa.
4. PROVIDE 15MPa BLINDING CONCRETE AS REQUIRED TO ACHIEVE FOUNDING DEPTH, IN ACCORDANCE WITH GEOTECHNICAL REPORT.
5. GROUNDWATER LEVEL ASSUMED TO BE 2.3m BELOW GROUND LEVEL. AS PER GEOTECHNICAL REPORT (GEOTECHNICAL INTERPRETATIVE REPORT PARRAMATTA CIVIL LINK – BLOCK 3 – REV 1 DATED 30/06/2026).
6. THE PRECAST CONTRACTOR IS TO PROVIDE TEMPORARY SUPPORTS DURING THE ERECTION OF THE PRECAST PANELS AS REQUIRED TO ENSURE STABILITY OF THE PRECAST UNITS UNTIL THE PERMANENT FIXINGS BOTH TOP AND BOTTOM HAVE BEEN INSTALLED. THE PRECAST PANELS HAVE BEEN DESIGNED FOR IN SERVICE CONDITIONS ONLY (I.E. LOADS THE PRECAST PANELS ARE SUBJECTED TO AFTER ERECTION ON SITE). THE PRECAST MANUFACTURER IS TO PROVIDE COMPUTATIONS TO THE CONTRACTOR FOR REVIEW OF STRESSES INDUCED DURING REMOVAL FROM THE MOULD, HANDLING, LIFTING, TRANSPORTATION AND ERECTION. ADDITIONAL REINFORCEMENT REQUIRED FOR THESE CONDITIONS IS THE RESPONSIBILITY OF THE PRECAST MANUFACTURER AND SHALL BE ALLOWED FOR IN THE TENDER.
7. GROUTING OF DOWELS AND JOINTS SHALL BE DONE WITH A WATERPROOF PREPACKED CEMENT-BASED PRODUCT, WHICH SHALL BE MIXED WITH WATER ON SITE TO THE RECOMMENDED CONSISTENCY. THE COMPRESSIVE STRENGTH OF GROUT MUST EXCEED 40MPa AT 7 DAYS AND 60MPa AT 28 DAYS, OR THE CONCRETE STRENGTH OF THE PANEL. THE PRODUCT SHALL BE STORED, HANDLED AND PLACED STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS.
8. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0753 FOR THE PRECAST SLAB PANEL AND PRECAST KICK RAIL BEAM DETAIL.



NORTHERN PRECAST CONCRETE BRIDGE 1 -
N.T.S.



PRECAST KICK RAIL BEAM TYPE 2 4 -
1 : 5

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RS	GD	MK	12.11.2025

100mm on Original

Scales
0 0.5 1 2 3 4 5m
1 : 50
0 0.5 1 1.5 2 2.5m
1 : 25
0 50 100 200 300 400 500mm
1 : 5

Surveyor: surveyplus DURKIN
Landscape Architect: OCULUS
Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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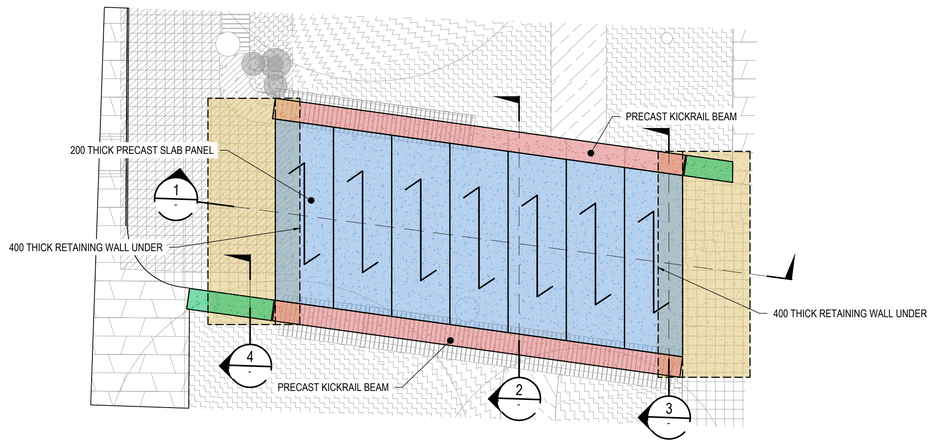
Original Issue Signatures			
Drawn	R. SANTOS	Original Size	A1
Designed	D. ESTANISLAO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	P. MICHAEL		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS
Title: STRUCTURAL DETAILS SHEET 1

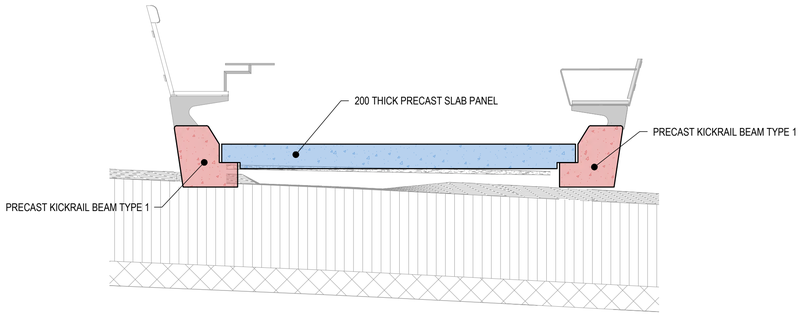
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ABN 76 104 485 289
Tel No: +61 2 8907 9000
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Project Number: 30286862
Drawing No.: CL3-AAP-DD-HP-DRG-CI-0751
Issue: 01

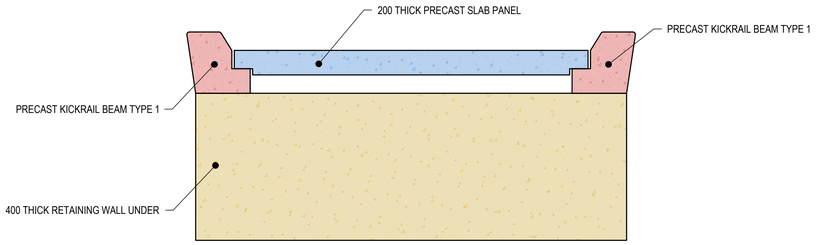
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SOUTHERN PRECAST CONCRETE BRIDGE - PLAN
1 : 50



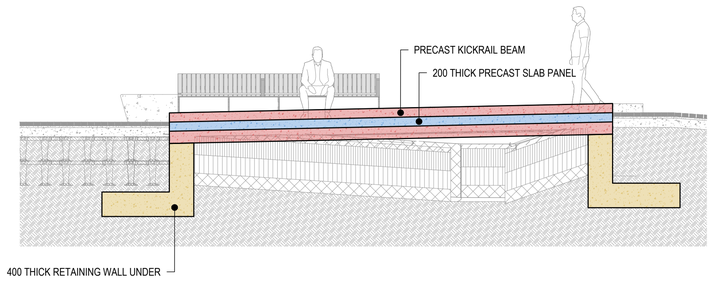
SOUTHERN PRECAST CONCRETE BRIDGE 2
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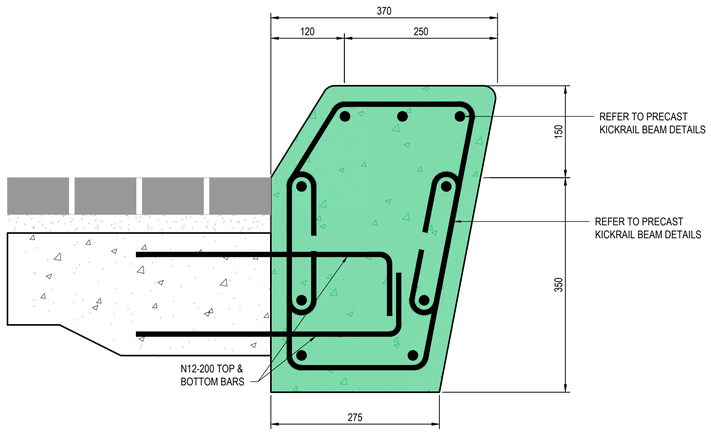
SOUTHERN PRECAST CONCRETE BRIDGE 3
1 : 25

NOTES

1. ALL STRUCTURAL ELEMENTS ARE 40MPa UNLESS NOTED OTHERWISE.
2. THE BRIDGE SLAB AND KICKRAIL BEAM HAVE 30mm COVER WHILE THE RETAINING WALL HAS 50mm COVER.
3. ASSUMED ALLOWABLE SOIL BEARING CAPACITY = 100kPa.
4. PROVIDE 15MPa BLINDING CONCRETE AS REQUIRED TO ACHIEVE FOUNDING DEPTH, IN ACCORDANCE WITH GEOTECHNICAL REPORT.
5. GROUNDWATER LEVEL ASSUMED TO BE 2.3m BELOW GROUND LEVEL. AS PER GEOTECHNICAL REPORT (GEOTECHNICAL INTERPRETATIVE REPORT PARRAMATTA CIVIL LINK – BLOCK 3 – REV 1 DATED 30/06/2025).
6. THE PRECAST CONTRACTOR IS TO PROVIDE TEMPORARY SUPPORTS DURING THE ERECTION OF THE PRECAST PANELS AS REQUIRED TO ENSURE STABILITY OF THE PRECAST UNITS UNTIL THE PERMANENT FIXINGS BOTH TOP AND BOTTOM HAVE BEEN INSTALLED. THE PRECAST PANELS HAVE BEEN DESIGNED FOR IN SERVICE CONDITIONS ONLY (I.E. LOADS THE PRECAST PANELS ARE SUBJECTED TO AFTER ERECTION ON SITE). THE PRECAST MANUFACTURER IS TO PROVIDE COMPUTATIONS TO THE CONTRACTOR FOR REVIEW OF STRESSES INDUCED DURING REMOVAL FROM THE MOULD, HANDLING, LIFTING, TRANSPORTATION AND ERECTION. ADDITIONAL REINFORCEMENT REQUIRED FOR THESE CONDITIONS IS THE RESPONSIBILITY OF THE PRECAST MANUFACTURER AND SHALL BE ALLOWED FOR IN THE TENDER.
7. GROUTING OF DOWELS AND JOINTS SHALL BE DONE WITH A WATERPROOF PREPACKED CEMENT-BASED PRODUCT, WHICH SHALL BE MIXED WITH WATER ON SITE TO THE RECOMMENDED CONSISTENCY. THE COMPRESSIVE STRENGTH OF GROUT MUST EXCEED 40MPa AT 7 DAYS AND 60MPa AT 28 DAYS, OR THE CONCRETE STRENGTH OF THE PANEL. THE PRODUCT SHALL BE STORED, HANDLED AND PLACED STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS.
8. REFER TO DRAWING CL3-AAP-DD-HP-DRG-CI-0753 FOR THE PRECAST SLAB PANEL AND PRECAST KICK RAIL BEAM DETAIL.



SOUTHERN PRECAST CONCRETE BRIDGE 1
N.T.S.



PRECAST KICK RAIL BEAM TYPE 2 4
1 : 5

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RS	GD	MK	12.11.2025

100mm on Original

Scales
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1 : 50
0 0.5 1 1.5 2 2.5m
1 : 25
0 50 100 200 300 400 500mm
1 : 5

Surveyor: surveyplus, DURKIN
Landscape Architect: OCULUS
Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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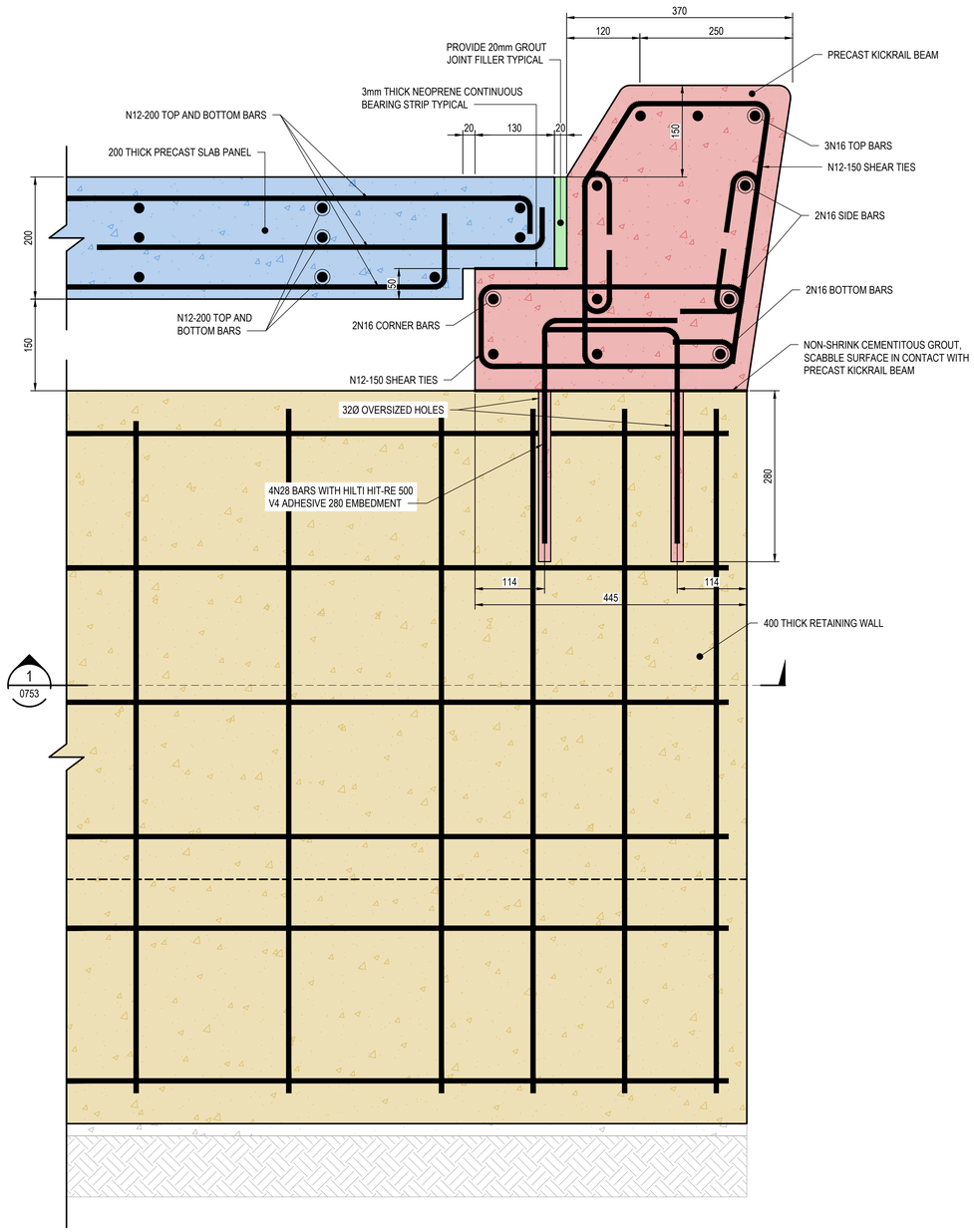
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Drawn	R. SANTOS	Original Size	A1
Designed	D. ESTANISLAO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	P. MICHAEL		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS
Title: STRUCTURAL DETAILS SHEET 2

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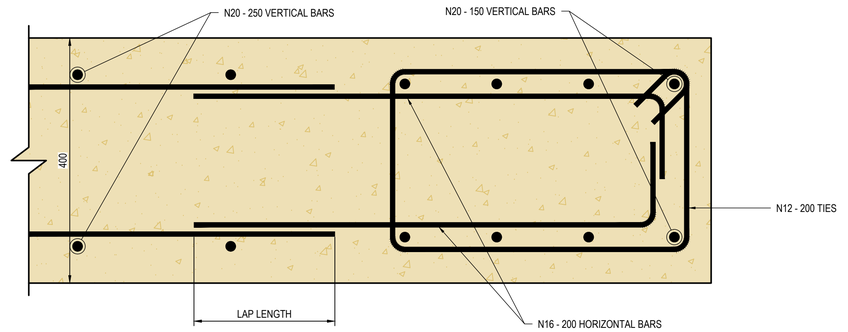
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Issue: 01

Date Plotted: 13 Nov 2025 - 02:55pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0752-Structural\DetailsSheet2.dwg



PRECAST SLAB PANEL TO PRECAST KICKRAIL BEAM TYPE 1 DETAIL

1 : 5



SECTION 1 / -

1 : 5

NOTES

1. ALL STRUCTURAL ELEMENTS ARE 40MPa UNLESS NOTED OTHERWISE.
2. THE BRIDGE SLAB AND KICKRAIL BEAM HAVE 30mm COVER WHILE THE RETAINING WALL HAS 50mm COVER.
3. ASSUMED ALLOWABLE SOIL BEARING CAPACITY = 100kPa.
4. PROVIDE 15MPa BLINDING CONCRETE AS REQUIRED TO ACHIEVE FOUNDING DEPTH, IN ACCORDANCE WITH GEOTECHNICAL REPORT.
5. GROUNDWATER LEVEL ASSUMED TO BE 2.3m BELOW GROUND LEVEL.
6. THE PRECAST CONTRACTOR IS TO PROVIDE TEMPORARY SUPPORTS DURING THE ERECTION OF THE PRECAST PANEELS AS REQUIRED TO ENSURE STABILITY OF THE PRECAST UNITS UNTIL THE PERMANENT FIXINGS BOTH TOP AND BOTTOM HAVE BEEN INSTALLED. THE PRECAST PANELS HAVE BEEN DESIGNED FOR IN SERVICE CONDITIONS ONLY (I.E. LOADS THE PRECAST PANELS ARE SUBJECTED TO AFTER ERECTION ON SITE). THE PRECAST MANUFACTURER IS TO PROVIDE COMPUTATIONS TO THE CONTRACTOR FOR REVIEW OF STRESSES INDUCED DURING REMOVAL FROM THE MOULD, HANDLING, LIFTING, TRANSPORTATION AND ERECTION. ADDITIONAL REINFORCEMENT REQUIRED FOR THESE CONDITIONS IS THE RESPONSIBILITY OF THE PRECAST MANUFACTURER AND SHALL BE ALLOWED FOR IN THE TENDER.
7. GROUTING OF DOWELS AND JOINTS SHALL BE DONE WITH A WATERPROOF PREPACKED CEMENT-BASED PRODUCT, WHICH SHALL BE MIXED WITH WATER ON SITE TO THE RECOMMENDED CONSISTENCY. THE COMPRESSIVE STRENGTH OF GROUT MUST EXCEED 40MPa AT 7 DAYS AND 60MPa AT 28 DAYS, OR THE CONCRETE STRENGTH OF THE PANEL. THE PRODUCT SHALL BE STORED, HANDLED AND PLACED STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS.

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RS	GD	MK	12.11.2025

Scales

0 50 100 200 300 400 500mm

1 : 5

100mm on Original

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. SANTOS	Original Size	A1
Designed	D. ESTANISLAO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	P. MICHAEL		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: STRUCTURAL DETAILS SHEET 3

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Project Number: 30286862

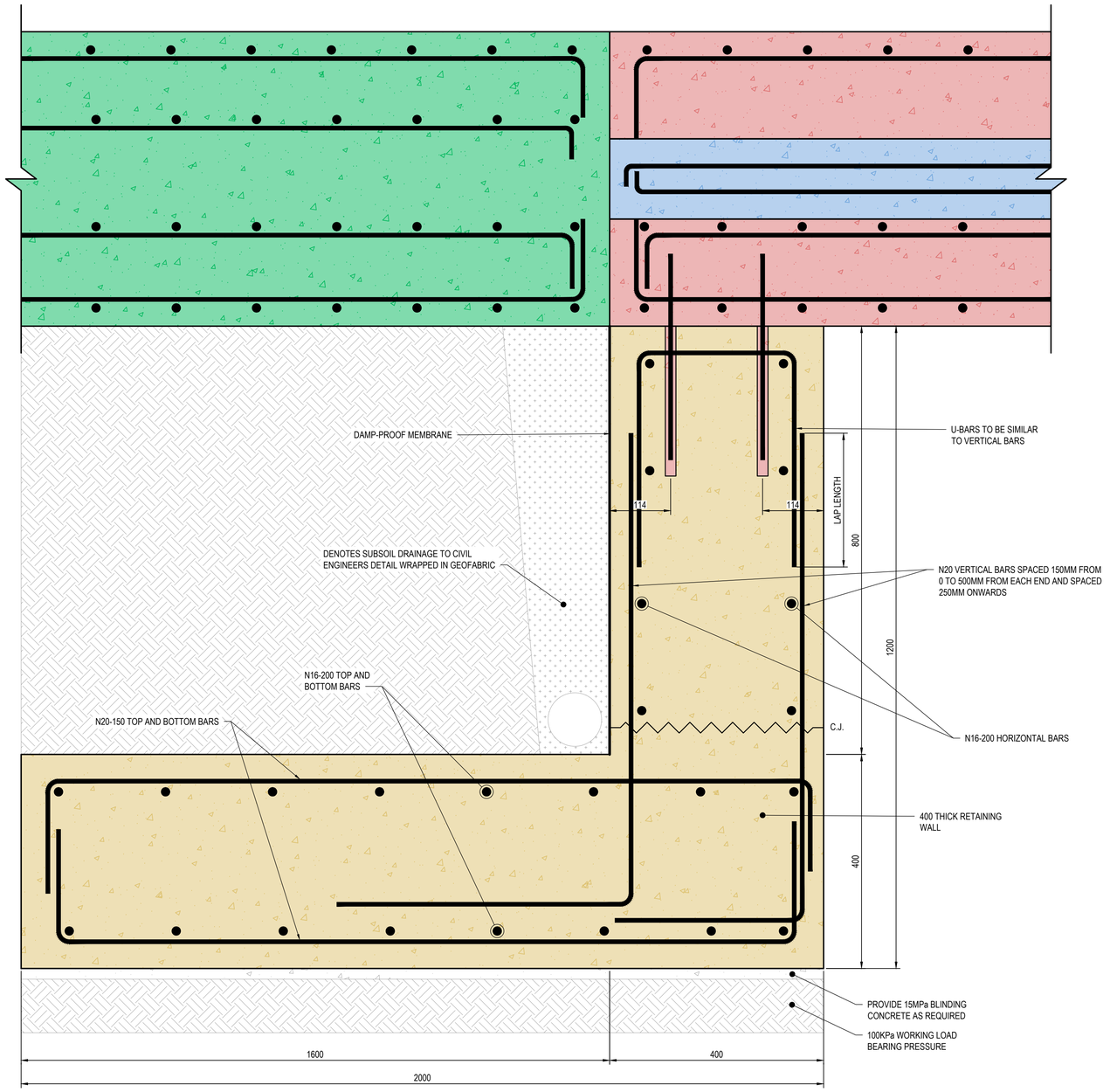
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NOTES

1. ALL STRUCTURAL ELEMENTS ARE 40MPa UNLESS NOTED OTHERWISE.
2. THE BRIDGE SLAB AND KICKRAIL BEAM HAVE 30mm COVER WHILE THE RETAINING WALL HAS 50mm COVER.
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PRECAST KICKRAIL BEAM DETAIL TO RETAINING WALL DETAIL
1 : 5

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RS	GD	MK	12.11.2025

Scales
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1 : 5

100mm on Original

Surveyor: surveyplus, DURKIN
Landscape Architect: OCULUS
Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures

Drawn	R. SANTOS	Original Size	A1
Designed	D. ESTANISLAO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	P. MICHAEL		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: STRUCTURAL DETAILS SHEET 4

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Project Number: 30286862

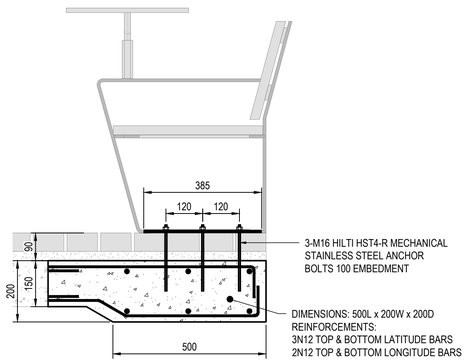
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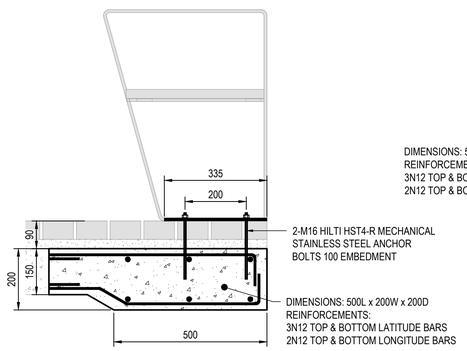
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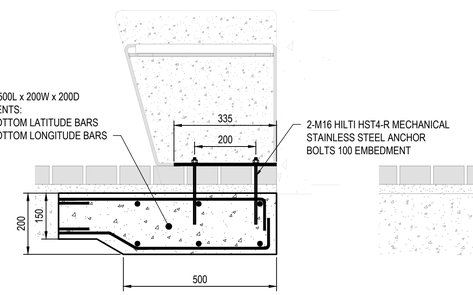
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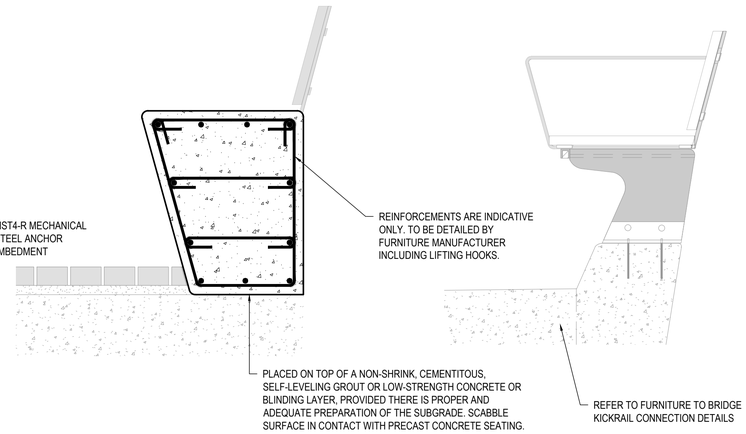
NOTES

1. ALL STRUCTURAL ELEMENTS ARE 40MPA WITH 40MM COVER UNLESS NOTED OTHERWISE.
2. ASSUMED ALLOWABLE SOIL BEARING CAPACITY = 40KPA
3. PROVIDE 15MPa BLINDING CONCRETE AS REQUIRED TO ACHIEVE FOUNDING DEPTH, IN ACCORDANCE WITH GEOTECHNICAL REPORT.

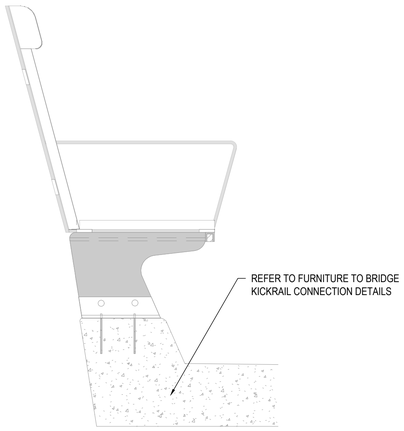




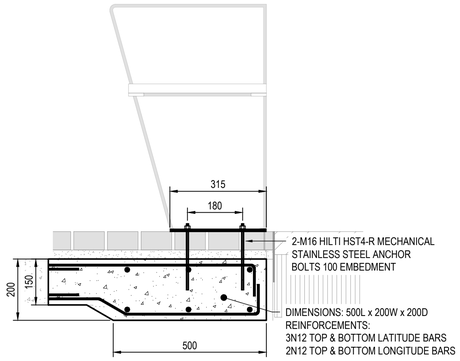


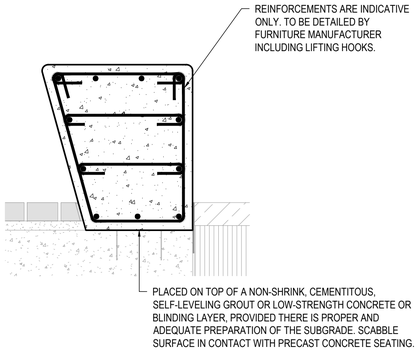


FN01 FOOTING DETAILS
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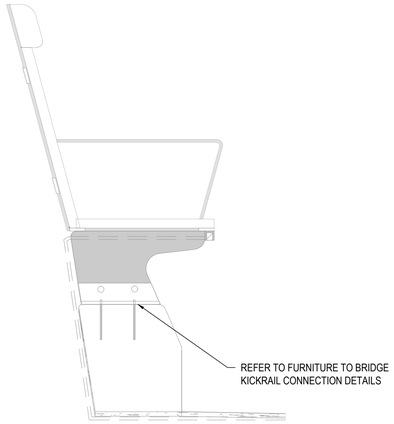
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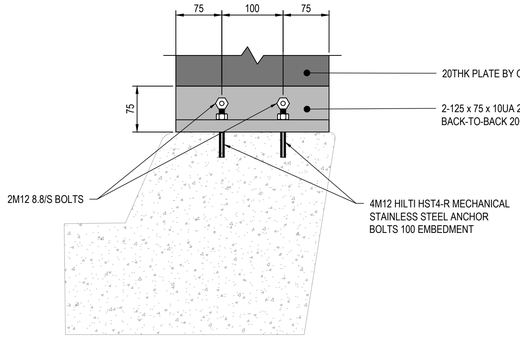


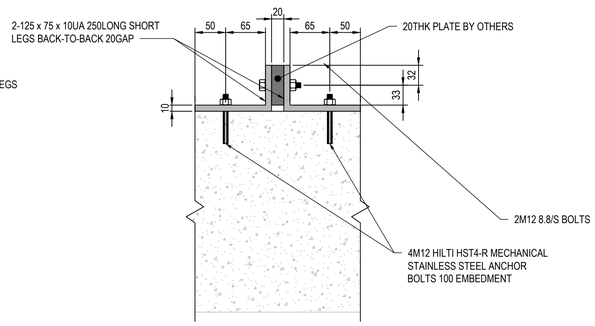


FN03 FOOTING DETAILS
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FN04 FOOTING DETAILS
1 : 10





FN01-04 FURNITURE TO BRIDGE KICKRAIL CONNECTION DETAILS
N.T.S.

Issue	Description	DR	CH	VE	Date
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Scales
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1 : 10

Surveyor: surveyplus, DURKIN
Landscape Architect: OCULUS
Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. SANTOS	Original Size	A1
Designed	D. ESTANISLAO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	P. MICHAEL		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: STRUCTURAL DETAILS SHEET 5

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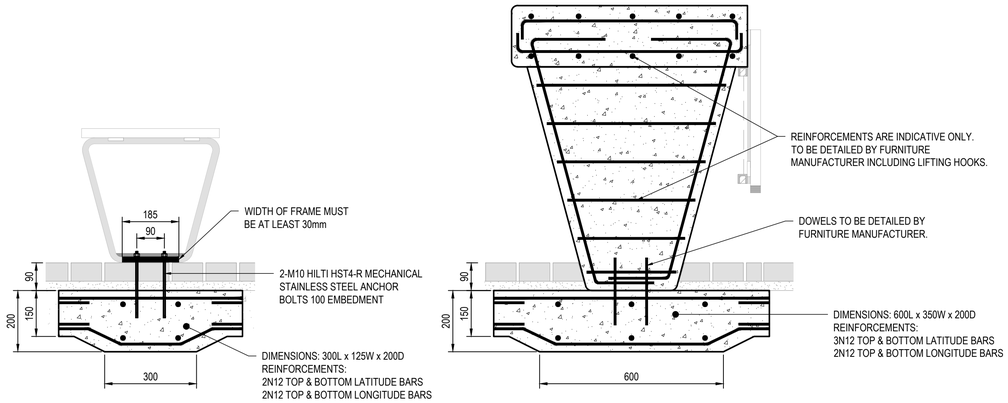
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Issue: 01

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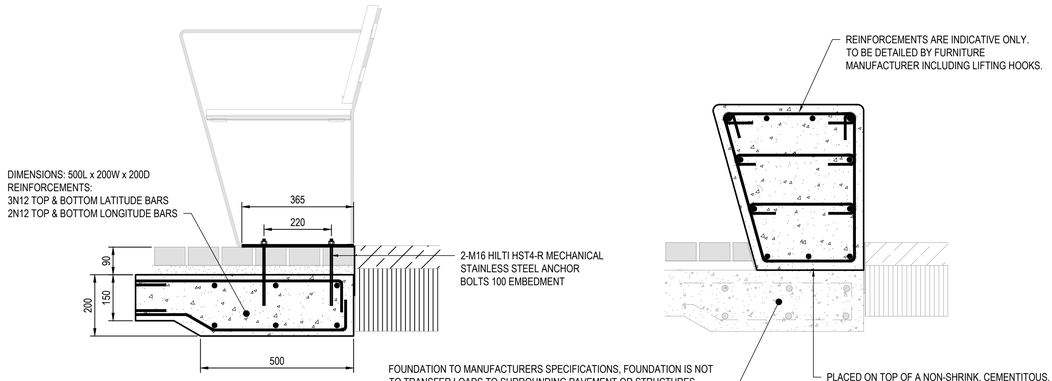
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NOTES

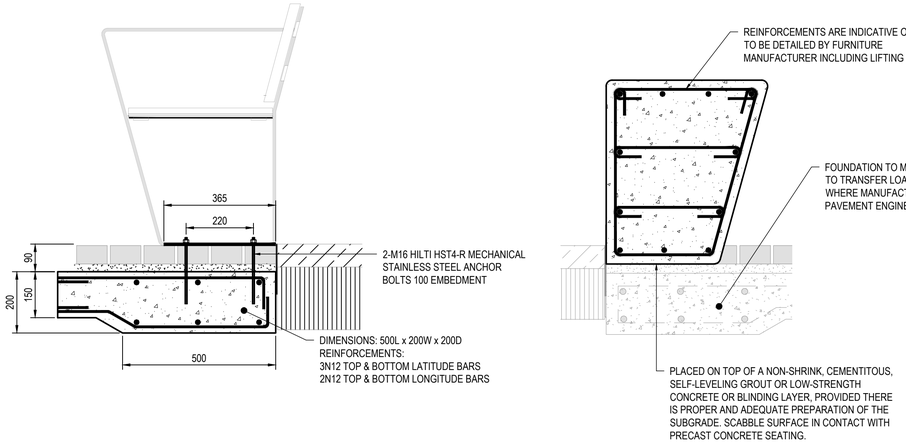
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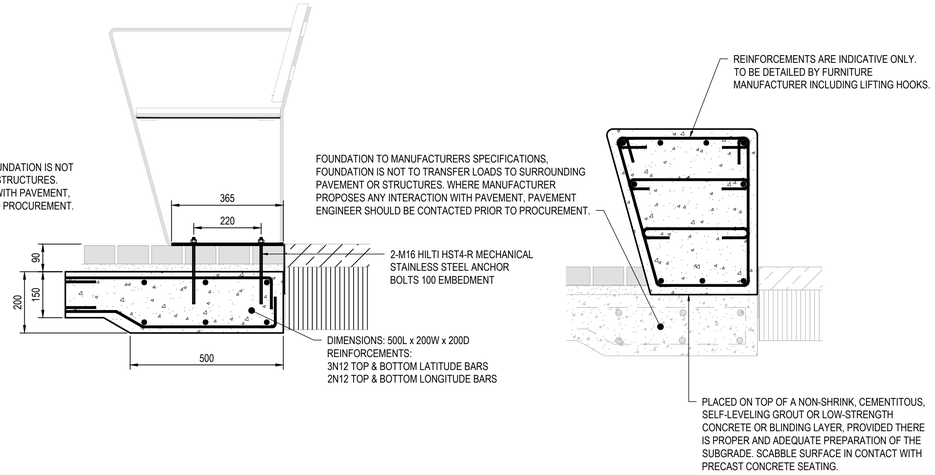
FN05 FOOTING DETAILS
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FN06 FOOTING DETAILS
1 : 10



FN07 FOOTING DETAILS
1 : 10



FN08 FOOTING DETAILS
1 : 10

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RS	GD	MK	12.11.2025

Scales
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1 : 10

Surveyor: surveyplus, DURKIN
Landscape Architect: OCULUS
Client: CITY OF PARRAMATTA

Status: PRELIMINARY
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Original Issue Signatures			
Drawn	R. SANTOS	Original Size	A1
Designed	D. ESTANISLAO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	P. MICHAEL		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: STRUCTURAL DETAILS SHEET 6

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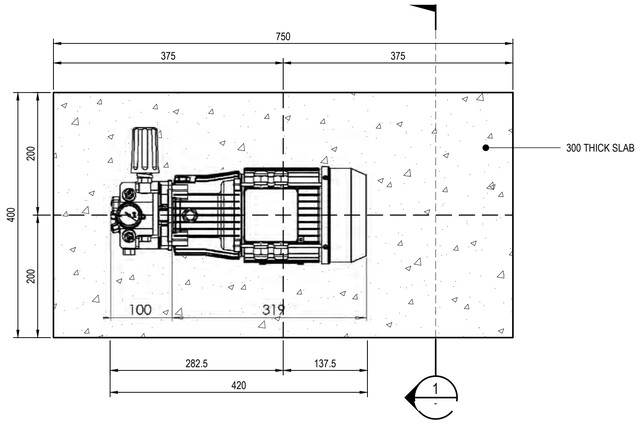
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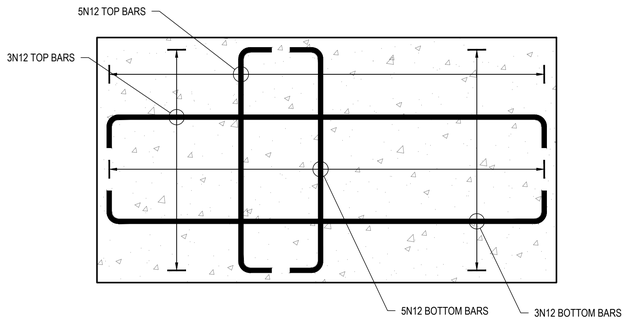
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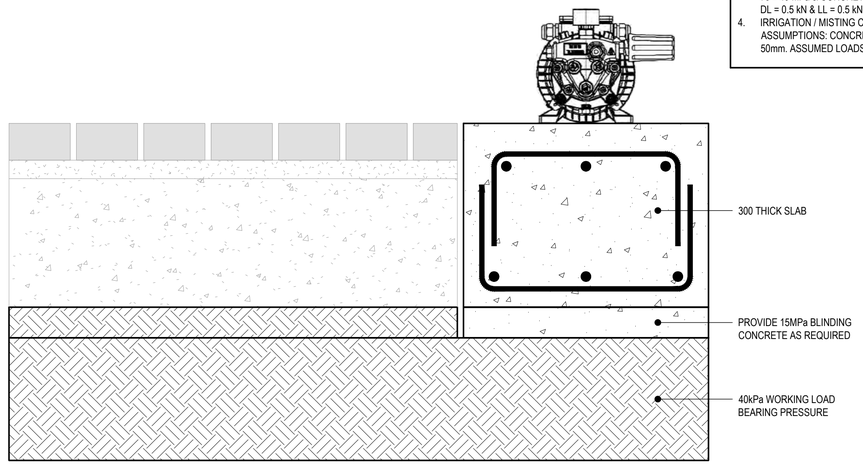
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GENERAL ARRANGEMENT PLAN
1 : 5



REINFORCEMENT PLAN
1 : 5

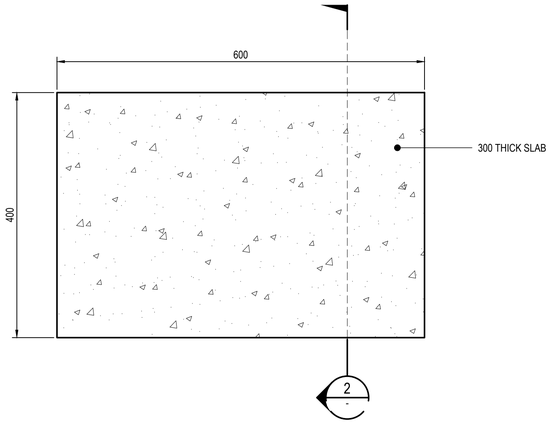


SECTION 1 / -
1 : 5

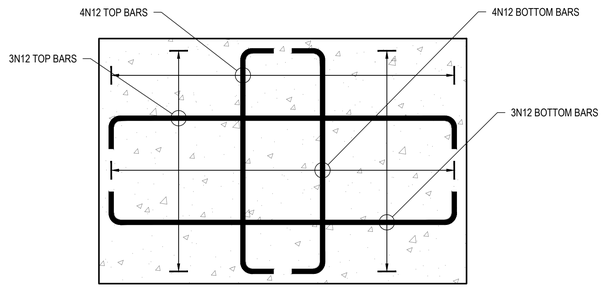
NOTES

1. ALL STRUCTURAL ELEMENTS ARE 40MPa WITH 50mm COVER UNLESS NOTED OTHERWISE.
2. ASSUMED ALLOWABLE SOIL BEARING CAPACITY = 40kPa PROVIDE 15MPa BLINDING CONCRETE AS REQUIRED TO ACHIEVE FOUNDING DEPTH, IN ACCORDANCE WITH GEOTECHNICAL REPORT.
3. MISTING PUMP SUPPORT DETAIL ASSUMPTIONS: CONCRETE f'c = 40 MPa & CONCRETE COVER = 50mm. ASSUMED LOADS: DL = 0.5 kN & LL = 0.5 kN
4. IRRIGATION / MISTING CONTROL SUPPORT DETAIL ASSUMPTIONS: CONCRETE f'c = 40 MPa & Concrete Cover = 50mm. ASSUMED LOADS: DL = 0.3 kN & LL = 0.3 kN

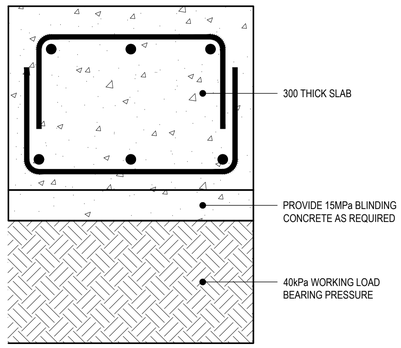
MIST PUMP SUPPORT DETAIL



GENERAL ARRANGEMENT PLAN
1 : 5



REINFORCEMENT PLAN
1 : 5



SECTION 2 / -
1 : 5

IRRIGATION/MISTING CONTROL SLAB SUPPORT DETAIL

Issue	Description	DR	CH	VE	Date
01	ISSUED FOR INFORMATION - 100% DETAILED DESIGN	RS	GD	MK	12.11.2025

100mm on Original

Scales
0 50 100 200 300 400 500mm
1 : 5

Surveyor: surveyplus, DURKIN

Landscape Architect: OCULUS

Client: CITY OF PARRAMATTA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Original Issue Signatures

Drawn	R. SANTOS	Original Size	A1
Designed	D. ESTANISLAO	Height Datum	AHD
Project Manager	G. DUNSTAN	Grid	MGA/20-56
Verified	P. MICHAEL		

Project: PARRAMATTA CIVIC LINK HORWOOD PLACE WORKS

Title: STRUCTURAL DETAILS SHEET 7

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Project Number: 30286862

Drawing No.: CL3-AAP-DD-HP-DRG-CI-0757

Issue: 01

Date Plotted: 17 Nov 2025 - 01:33pm File Name: C:\Users\santosa4174\DC\ACCDocs\Arcadis ACC AU\AAU-30286862-Parramatta Civic Link Block 3\Project Files\10_WIP\10_Civil\STG_Horwood Place\DRG\CL3-AAP-DD-HP-DRG-CI-0757-StructuralDetailsSheet7.dwg