# RIVER STREET COMMUNITY PRECINCT - LANDSCAPE FOR DA

**KEY PLAN** 



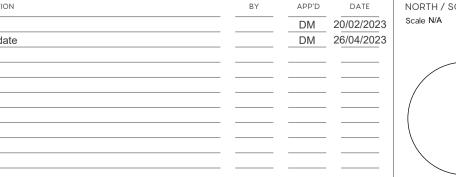


Extent of Landscape Areas

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Note: All dimensions subject to on site verification prior to execution. Figured dimensions shall be taken in preference to scaling. Drawings made to larger scales and those showing particular parts of the works shall take precedence overdrawings made to smaller scale and those for general purposes. All work is to conform to relevant Australian Standards and other codes as applicable together with other authorities' requirements and regulations. Design drawings by other disciplines have been included for coordination only. All rights reserved. COPYRIGHT of 33 Parallel Landscape Architects. May not be reproduced without permission

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Plant List			

LANDSCAPE DRAWINGS SHEET REGISTER

Plant Li	st				
ID	Qty	Common Name	Botanical Name	Scheduled Size	Remarks
Trees					
BraAce	2	Bottle Tree; Illawarra Flame Tree	Brachychiton acerifolius	100 Litre	
ElOb	2	Hard Quandong	Elaeocarpus obovatus	100 Litre	
HaPe	12	Tulipwood	Harpullia pendula	100 Litre	
ToCi-1	2	Red Cedar	Toona ciliata	100 Litre	
Shrubs					
AcMy	54	Myrtle Wattle	Acacia myrtifolia	200mm	
AuDu	45	Midgen Berry	Austromyrtus dulcis	200mm	
CalSal	40	great balls of fire	Callistemon Salignus	200mm	
CoSt	48	Narrow-leaved Palm Lily	Cordyline stricta	200mm	
CoAl	178	White Correa	Correa alba	200mm	
DaPu	11	Davidson's Plum	Davidsonia puriens	25 Litre	
DICarg	18	Silver falls	Dichondra argentea 'Silver Falls'	150mm	
DIEiri	6	African Iris	Dietes robinsoniana	300mm	
GaLi	15	"White Gaura, Lindheimer's beeblosso	Gaura lindheimeri	150mm	
GREcri	9	Crimson Villea	Grevillea 'Crimson villea'	200mm	
RaFi	11	Native Gardenia	Randia fitzalanii	25 Litre	
OzBreed-R	8	Indian Hawthorn	Rhaphiolepis indica	200mm	
Ss	42	'Tall Baeckea', 'Howie's Feathertips'	Sannantha similis (formerly Baeckea virgata)	200mm	
Wf	222	Coastal Rosemary	Westringia fruticosa	200mm	
WeFr	8	Coastal Rosemary	Westringia fruticosa	200mm	
Ground C	overs				
Af	23	Koala Bells	Artanema fimbriatum	150mm	
CaGl	18	Coastal Moonflower, Pigface, Iceplant	Carpobrotus glaucescens	150mm	
FiNo	96	knobby club-rush	Ficinia nodosa	200mm	
Gj	84	Prickly Grevillea	Grevillea juniperina	200mm	
Oa	38	Cat's Whiskers	Orthosiphon aristatus	150mm	
RuHe	33	Wrinkled Kerrawang	Rulingia hermanniifolia	150mm	
ScAe	91	Blue Fanflower	Scaevola aemula	150mm	
ScUn	48	Lilac Lily	Schelhammera undulata	150mm	
ViHe	436	Native Violet	Viola hederacea	150mm	
Grasses					
BaTeOr	50	Tassel Rush	Baloskion tetraphyllum (formerly Restio tetraphyllus)	200mm	
DiCa	450	Paroo Lily, Blue Flax-lily	Dianella caerulea	150mm	
Lc	366	Mat-rush	Lomandra confertifolia	200mm	
LoHy	118	Green matrush	Lomandra hystrix	200mm	
LoLo	106	Spiny-headed Mat-Rush	Lomandra longifolia	200mm	
Oplm	70	Basket Grass	Oplismenus imbecillis	150mm	
PLEarg	9	Silver Plectranthus	Plectranthus argentatus	150mm	
Climbers				100111111	
Sfl	58	Star Jasmine	Stephanotis floribunda	200mm	
Aquatic P		Cai dadiiiilo		20011111	
Aquatic F Perennial					
		Coot Iron Dis-t	Assidiates platice	000	
AsEl	156	Cast Iron Plant	Aspidistra elatior	200mm	
CrPe	292	Swamp Lily, River Lily	Crinum pedunculatum	200mm	
Ferns					
AsAu	29	Crow's Nest Fern	Asplenium australasicum	200mm	
DoAs	48	Prickly Rasp Fern	Doodia aspera	200mm	
Total	3352				

Nimbus Architects for Clarence Valley

LANDSCAPE ARCHITECT / URBAN DESIGNERS

THIRTY-THREE° **PARALLEL** 

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33 PARALLEL

River Street Community Precinct

Landscape Cover

2202

CREATED DATE CHECKED PROJECT STAGE PROJECT NUMBER

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lon: 151.271417 lat: -33.890167 Darren Mansfield AILA Registered Landscape Architect

### SECTION 1 - GENERAL

### **SERVICES**

The Contractor shall be responsible for investigation and location of the existing underground services and having an awareness of above ground services. The presence of services shown on the drawings does not relieve the Contractor from the responsibility to further investigate the existence of such lines and make all proper allowances for their effect on the works.

Existing services are to be protected from damage and any damage is to be made good. Notify all service or supply authorities before commencing work on or in the vicinity of a service as required by the regulations of that Authority. Where an existing service is to be removed, temporarily shut down, redirected, adjusted or augmented, to suit the new works, the Contractor is to arrange for the necessary notifications, approvals, fees, and tradespeople as required by the service provider to implement the works.

#### 1-03 ENVIRONMENTAL PROTECTION

The Contractor shall protect from damage all trees and, neighbouring properties, public land, roads and kerbing, that are specified for protection or that lie outside the realm of reasonable damage from construction, or outside the boundaries of the site.

The Contractor shall demonstrate and implement measures to protect storm water inlets as applicable prior to the commencement of construction. Protective measures once approved are to remain in operation for the full duration of the contract and protect against run off from both stored materials and the construction process.

Building operations such as brick cutting, washing tools, concreting and bricklaying shall be undertaken on the construction site. The pollutants from these building operations shall be contained on site.

At all times and in particular during during windy and dry weather, unprotected areas will be stabilised/kept moist (not wet) to keep dust under control. All dust caused by the use of machinery and tools is to be controlled ensuring conformity to regulatory authority requirements.

Prior to the commencement of works on site, an Erosion and Sediment Control Plan is to be prepared. This shall be submitted for approval by the Superintendent prior to the commencement of any work.

#### 1-04 <u>DELAPIDATION SURVEY</u>

Prior to the commencement of the works a dilapidation survey is to be prepared using digital photographs. The photographs are to be clearly identified as to the location of their content. The following elements are to be recorded:

- all street furniture all street trees and surrounds
- all garden beds
- all kerb & footpath areas
- all adjoining premises ie: shopfronts2
- all permanent marks
- all trees

#### 1-05 TRAFFIC & PEDESTRIAN MANAGEMENT PLAN

Before any Contract Work is undertaken, a Traffic and Pedestrian Management Plan is to be prepared by the Contractor and approved by the Superintendent.

The plan is to identify how pedestrians can safely move around and through the work area. Pedestrian access to all buildings, laneways and pedestrian crossing points is to be maintained at all times. The plan should also address the location of an alternate arrangements for the bus zones, taxi zones, disabled parking and loading zones as necessary during construction in that part of the works.

The plan will also identify how vehicular movement and safety will be maintained and identify impacts on parking.

The contractor is to include allowances for all temporary signage, ramps, fencing etc. to implement the Traffic & Pedestrian Management Plan.

### 1-06 WORK SEQUENCING

Construction works are to be planned and programmed so that footpath areas are progressively finished and reopened to the public. The Superintendent will not allow full sections of footpath to be left closed or under construction to expedite the Contract Works.

The Contractor is to provide a preliminary program and concise written statement confirming how Contract Works will be staged to minimise impact on shopkeepers, pedestrians and available parking.

### 1-07 PRESERVATION OF SURVEY INFRASTRUCTURE (POSI)

All work within a one metre radius of the new Permament Marks shall be undertaken by hand tools. All survey works will be conducted in accordance with the Surveyors Regulation 2017, and the Surveying and Spatial Information Act,

### 1-08 CONSTRUCTION TOLERANCES FOR ABUTMENT OF SURFACES

All finished pavement surfaces are to finish flush with adjoining surfaces except where a step is shown. Acceptable tolerances of differential for abutment of surfaces shall be in accordance with AS1428.1 2009, Clause 7. A tolerance of + or - 3mm vertical or + or 5mm if there is a beveled edge. This includes all pit and service covers, and different pavement materials as well as any settlement following construction within the defects period. Where vertical differences are greater than 3mm the surface differential will be rectified at the contractors' expense.

### SECTION 2 - DEMOLITION

### 2-01 GENERAL

The Demolition of existing structures is to be carried out in accordance with AS 2601.

The Contractor shall ensure the protection of adjacent properties and remaining existing structures during the process of demolition and ensure the weather tightness of remaining existing structures until the new work is completed.

Demolished materials are to be removed from the site. Any re-usable materials not to be re used in the works should be protected from damage and sold or removed to a local recycling centre. Other materials are to be disposed of in accordance with the requirements of Local Authorities. The Contractor is to ensure that the site remains safe at all times for the workers, and occupants of the site and surrounding properties or areas.

A work plan to AS2601 2001 for demolition, dismantling, site clearing and tree protection and removal is to be submitted prior to commencement of the works. The plan is to include proposed methods for the safe removal of asbestos. The work plan is to be submitted in writing and confirmed by the Principal prior to the commencement of the works.

### 2-02 ASBESTOS

Where materials containing asbestos are to be removed as part of demolition, they shall be removed and disposed of in accordance with the requirements of Local Authorities. Workers and people occupying the site are to be protected from inhaling asbestos dust or fibres in accordance with local Safe Work requirements. Removal of Asbestos containing materials is to be carried out in accordance with NOHSC 2002 Code of Practice for the Safe Removal of Asbestos and in accordance with CVC Abestos Management Policy.

Note: All dimensions subject to on site verification prior to execution. Figured dimensions shall be taken ISSUE DESCRIPTION

No materials from the demolition are to be re-used for the works unless specified in the contract and approved by the Superintendent. Structural materials to be reused are to be certified by a structural Engineer

### 2-04 TREE REMOVAL

in preference to scaling. Drawings made to larger scales and those showing particular parts of the works shall

requirements and regulations. Design drawings by other disciplines have been included for coordination

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take precedence overdrawings made to smaller scale and those for general purposes. All work is to conform

o relevant Australian Standards and other codes as applicable together with other authorities'

Trees to be removed are to be removed by a qualified arborist. Care is to be taken when removing trees in the vicinity of trees to be protected to ensure no undue damage to trees to be retained or existing services. All tree parts are to be removed from site and disposed of.

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### SECTION 3 - GROUNDWORKS

### 3-01 EXTENT OF WORKS

This Section comprises the excavation, disposal of surplus excavated material, the supply and compaction of filling material and the preparation necessary to bring the areas under all finished pavement and structures to the correct shape and level prior to construction of finished pavements.

#### 3-02 STANDARDS

3-03 INSPECTION

Comply with the following standards unless otherwise specified:

Methods of testing soils for engineering purposes

## Guidelines on earthworks for commercial and residential developments

The Contractor is to give at least one working day's notice that the following are ready for inspection:

- Set out prior to excavation.
- rock encountered in the excavations excavation completed to Contract levels
- base including any required filling completed to Contract levels

### 3-04 **DEFINITIONS**

Any natural or artificial material encountered in the excavation which cannot be removed until broken up by explosives or mechanical means such as rippers, jackhammers or percussion drills. OTHER THAN ROCK:

All other material encountered in excavation. SUB-GRADE:

> The natural ground below the excavations, compacted and ready for slab, footings, or pavements. Does not include top soil, uncompacted fill, loose or wet material.

A general term for all material spread and compacted over the sub-grade to make up finished levels or levels to the underside of the base. SUB-BASE

Selected filling spread and compacted over the sub-grade to make up levels to the underside of the base.

A selected filling layer spread and compacted to form an acceptable working surface directly under the a structure.

#### 3-05 EXCAVATIONS GENERALLY

Suspend any groundworks during inclement weather that would result in unsatisfactory work. Excavations shall be accurate to shape and profile and free from loose earth and stones. Excavate generally as required or as shown on the Drawings, in material as may be found including but not necessarily limited to the following:

- over the site to give correct finished levels and falls for floor slabs and external paved or graded areas.
- to prepare sub-grades as necessary. Trim the sub-grade surface evenly to the profiles shown on the Drawings. Make allowance for settlement and compaction.
- for underground services mentioned in other Sections of the Specification.
- for pier footings, footing beams, pad footings, ducts and pits, to depths shown.

Carry out additional excavation where necessary to permit full use of suitable mechanical equipment (e.g. skid steer loader) and backfill with appropriate material as specified in this Section.

### 3-01 LATENT CONDITIONS

The Contractor shall give sufficient notice of latent conditions found during the groundworks stage and shall cease work until final approval has been given to proceed from the Superintendent. Latent conditions may include:

Archaeological or Historical remains not already identified or addressed in the works or the archaeological monitoring provisions of the specification. Unknown existing services after reasonable checking by the Contractor pursuant to

GENERALLY EXISTING SERVICES

### 3-02 <u>USE OF EXPLOSIVES</u>

No explosives are to be used in the groundworks.

### 3-08 EXTENT OF EXCAVATION

Excavation is to be carried out to the extent required for the specified footings, slabs, and levels as noted on the drawings and as required by the specification to achieve minimum falls and bearing pressures. Refer to GROUNDWORKS: EXCAVATIONS GENERALLY.

Setting out shall be organised by the Contractor who will be responsible for the accuracy of lines, levels, and location of the finished works. Set out shall be approved by the superintendent prior to the commencement of the works. All dimensions shall be confirmed on site.

3-10 SITE CLEARING Clear only those site areas shown on the Drawings to be cleared, or as required for the proper carrying out of the works.

area specified or shown to be cleared:

compact in 150 - 200mm layers to finish at levels shown on the Drawings;

remove trees, logs, stumps, roots, shrubs, scrub and boulders. grub out roots and stumps over 75mm diameter to a minimum depth of 500mm below sub-grade under building or paved areas or below finished surface in unpaved areas. Fill grub holes and other voids with suitable spoil and

Except for the area to be cleared, protect trees and other plants from damage pursuant to GENERALLY - ENVIRONMENTAL PROTECTION and GROUNDWORKS PROTECTION OF TREES TO BE RETAINED. Within the

remove rubble remaining from excavations; break up and remove slabs, foundations and pavings found on the surface, or within 200mm of the base of finished surface in areas to be landscaped as specified in EXTERNAL WORKS;3-01

## 3-11 PROTECTION OF TREES TO BE RETAINED

## Trees to be retained are those shown on the site plan.

Trees to be retained are to be clearly marked and approved by the Superintendent prior to commencement of works. Should any tree be damaged during the work under the contract the Contractor is to notify the Superintendent. The Contractor shall arrange for any repair work to be carried out by a qualified arborist at no extra cost, but only as directed by the Superintendent. Repair work may include full replacement of damaged trees if the damage precludes repair.

### 3-01 **GROUNDWORKS NEAR TREES**

Do not remove topsoil from within the drip line of trees to be retained unless otherwise specified. If it is necessary to excavate within the drip line, use hand methods such that root systems are preserved intact and undamaged. Open up excavations under tree canopies for as short a period as possible. Do not place spoil from excavations against tree trunks, even for short periods.

Do not cut tree roots exceeding 50mm diameter unless permitted by the Superintendent. Where it is necessary to cut tree roots, use a chain saw or similar means such that the cutting does not unduly disturb or rock the remaining root system. Immediately after cutting, apply an approved fungicidal sealant to the cut surface. Do not stockpile materials within the drip line of trees to be retained.

### Any pruning required to trees above ground shall be carried out with the approval of the Superintendent.

### 3-02 EXISTING SERVICES

Pursuant to GENERALLY: EXISTING SERVICES if services or obstructions not shown on the Drawings or the Services Survey are discovered prior to and during the work under the Contract, notify the Superintendent immediately. Do not excavate by machine within 1m of existing underground services without prior approval.

#### 3-03 <u>DEWATERING</u>

Maintain excavations, levelled and filled areas free of water by temporary catch drains, sumps, pumping, bailing or whatever means are suitable and effective. Immediately before placing concrete or masonry on ground remove all free water and foreign matter. Prevent any water flow over freshly laid work.

### 3-04 **SHORING**

Provide all shoring, planking and strutting necessary to retain the sides of the excavations, and to ensure safe working. Provide safety covers over holes. Provide any necessary needling, shoring and strutting to adjacent structures. If in the opinion of the Superintendent any support provided is insufficient he may order the provision of additional support.

No instruction shall relieve the Contractor of sole responsibility for the sufficient support of the excavation. Guard against the formation of voids outside sheeting or sheet piling if used, and should any voids form, fill and consolidate them to approval.

Remove shoring and timbering progressively as the work proceeds unless otherwise instructed.

### 3-05 EROSION CONTROL

Pursuant to GENERALLY: ENVIRONMENTAL PROPTECTION a Sediment and Erosion Control Plan shall be prepared by the Contractor and submitted to the Superintendent for approval prior to the commencement of works

#### 3-06 GRADING

Grade external areas to achieve falls as specified or to evenly grade between specified levels.

#### 3-07 DISPOSAL OF SPOIL

Spoil not reusable as mulch or fill from clearing and excavation is to be removed from the site and disposed of in accordance with the requirements of local authorities.

#### 3-01 FILLING

Bring all filling on to the site unless it can be provided from spoil recovered from the site. Filling shall be sound material, free of perishable material or any material that will not form stable fill.

Filling shall be of the following types: APPROVED EXCAVATED MATERIAL: The best of the clean inorganic excavated material, approved by the

POROUS FILLING: Blue metal graded from 40mm to 15mm.

### 3-02 COMPACTION

Place filling in layers not exceeding 150mm deep when measured loose. Bring filling to optimum water content by watering, and compact each layer thoroughly and uniformly with a vibrating roller where practicable. Hand tamp against ground or perimeter beams or walls

Compact each layer of filling to obtain a uniform density of not less than 98% of the maximum density at optimum moisture content as determined by the Dry Density/Moisture Content tests set out in AS 1289 Part E, or by proof rolling.

### 3-01 SERVICES EXCAVATIONS

Excavate to the lines, levels and grades are required for drainage, water, gas, NBN, electrical and other underground services specified in the relevant Sections.

Trench widths shall be the minimum consistent with laying and bedding of pipes. Increase trench widths where necessary to permit the construction of manholes and pits Trench depths shall be to the underside of pipe or bedding if any. Take out joint holes as required to accommodate pipe

sockets and to relive them of any load when the pipes are bedded and the trenches backfilled. Excavate trenches truly straight and with uniform grades unless otherwise directed. Trench sides shall be as near vertical as possible. Leave a clear space of at least 300mm between the excavation and the spoil to prevent spoil running back into trenches.

Do not excavate trenches until sufficient pipes, conduits, cables, and the like, are on site ready for laying for the full lengths of trench between manholes, and do not open a length of trench in advance of the laying greater than can be laid in one working day Do not lay pipes, conduits, cables, and the likes, until trenches have been inspected and accepted by the

Superintendent for such purposes Cut back roots encountered in trenches to not less than 600mm clear of the pipe, conduit, cable, etc. Remove such other roots, stumps or obstructions which may, in the opinion of the Superintendent, interfere with the proper functioning of the service.

## 3-01 BACKFILLING SERVICE EXCAVATIONS

Backfill trenches as soon as possible after the relevant service line has been laid, tested and approved by the Superintendent. Where cement mortar bedding has been used it shall attain an approved minimum strength before commencement of backfilling. Prevent pipelines floating before backfilling is completed. Where the trench bottom will provide adequate support for pipes and is free of hard sharp objects trim the trench to grade; otherwise provide a bedding of sand or approved excavated rock-free granular material unless otherwise specified.

To all sewer drainage and to UPVC pipes where specified, provide minimum 50mm thick 4:1 sand :cement mortar bedding to support the underside of pipe over 1/3 its circumference.

approved excavated material and compact as specified in COMPACTION: GROUNDWORKS.

Generally provide initial fill of approved excavated material free from stones retained on a 25mm sieve. For UPVC pipes, provide approved excavated material free from stones retained on a 13.2mm sieve. Fill to cast iron pipes shall be free of cinders, ashes, garbage or highly organic material. Consolidate the fill so that the pipe is buttressed by the walls of the trench. Fill the trench initially to a depth of 150mm

above top of pipes generally and 300mm above top of pipes on mortar bedding, and consolidate by hand without disturbing or damaging pipes or joints. Except for topsoil backfill as specified in GROUNDWORKS: PLACING TOPSOIL backfill remainder of trench with

## 3-01 BEARING SURFACES IN ROCK

Where structural loads bear on rock, unless otherwise specified scabble the rock face to give even plane bearing surfaces, level unless required to be sloping or stepped. Step to brick courses if supporting brickwork. Fill faults or fissures with 1:2:5 concrete.

### 3-02 <u>SITE REINSTATEMENT</u>

Unless otherwise specified, reinstate the developed and undeveloped ground surfaces of the site to the condition existing at the commencement of the work under the Contract.

Bored pier holes shall be taken a minimum of 150mm below the rock surface and the bottoms cleaned of all loose matter

### SHEET IN COLOUR - PRINT ALL COPIES IN COLOUR



PROJECT TEAM



LANDSCAPE ARCHITECT / URBAN DESIGNERS

lon: 151.271417

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Nimbus Architects for Clarence Valley Council PROJECT River Street Community Precinct

Landscape Notes 1

CREATED DATE CHECKED PROJECT STAGE 26/04/2023 DM Design Development PROJECT NUMBER DRAWING NUMBER 2202 001

SHEET SIZE

ISO A1

NOT FOR CONSTRUCTION

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B DA Update

DM 20/02/2023 DM 26/04/2023 

NORTH / SCALE

Scale N/A

BY APP'D DATE

lat: -33.890167

Darren Mansfield AILA Registered Landscape Architect

#### **SECTION 4** - CONCRETE

#### 4-01 <u>SCOPE</u>

This section comprises concrete used in footings & pavements

Welded wire reinforcing fabric for concrete

#### 4-02 STANDARDS

Comply with the following standards unless otherwise specified. Formwork for concrete Steel reinforcing bars for concrete

## 4-03 SAMPLES

AS1304

A) Integral coloured concrete Type 1 - A colour and finishes sample shall be provided of the specified coloured concrete. One square metre x 75mm depth of concrete shall be poured at an agreed location to act as a prototype during construction. Apply concrete sealer as specified.

B 1) Exposed aggregate integral coloured concrete Type 2 - A colour and finishes sample shall be provided of the specified coloured concrete. One square metre x 75mm depth of concrete shall be poured at an agreed location to act as a prototype during

### Finish Lightly Exposed Apply concrete sealer as specified

B 2) Exposed aggregate integral coloured concrete Type 2 - A colour and finishes sample shall be provided of the specified coloured concrete. One square metre x 75mm depth of concrete shall be poured at an agreed location to act as a prototype during

### Finish Medium Exposed Apply concrete sealer as specified.

C) Integral coloured concrete Type 3 - A colour and finishes sample shall be provided of the specified coloured concrete. One square metre x 75mm depth of concrete shall be poured at an agreed location to act as a prototype during construction. Apply concrete sealer as specified.

All similar works not completed to the standard of the Prototype area shall be removed and replaced at the Contractors own expense

#### 4-04 INSPECTIONS

The Contractor shall give 1 full working days notice for inspections by the Superintendent / Engineer at the following stages \* reinforcing in place

## 4-05 GENERAL

Materials and workmanship for the concreting works generally are to comply with the standards outlined in AS3600 Section 19.

#### 4-06 FORMWORK

The formwork used for in-situ concrete shall be designed and built so that the concrete when placed in the form will have the dimension, shape, and surface finish required in accordance with AS 3610.

#### 4-07 REINFORCING

Reinforcing shall be as shown on the Engineering drawings. Fixing, tie wires, chairs, seats and spacers shall be proprietary items specific to their purpose.

### 4-08 CONCRETE

Concrete used shall be as specified on the Engineering drawings. CONCRETE FINISHES AND COLOURS

CONCRETE SEALER: CCS Stain Block or equivalent approved product is to be applied to all concrete pavements. Two coats are to be applied according to manufacturers instructions

BS: Bituminous strip where concrete abuts walls and structures CJ: Control joint placed where shown on drawings in wet concrete EJ: Expansion joint placed where shown on drawings as specified by engineer

### REINFORCING

All reinforcing shall have a minimum cover of 50mm

### A) P1 - SL72

4-09 TACTILE GROUND SURFACE INDICATORS

Warning Tactile Ground Suface Indicators (TGSI) shall be installed where shown on the drawings Warning TGSI shall be 316 marine grade stainless steel concentric ring, stud with yellow carborundum infills and with at least

R13 slip resistance (in accord with AS 4586:2004). They shall be installed in accordance with the manufacturers instructions TGSIs are required to extend from a point 300 mm from the face of the kerb to the building line, clear of shop entries or the like. TGSIs are to be located 300 mm from the Bus Stop flag pole, on the approach side.

### 4-10 PLACING OF CONCRETE

Concrete shall be placed in layers of not more than 200mm and shall be vibrated to ensure all trapped air is removed. Each layer is to be blended with the next.

## **SECTION 5 - BRICKWORK & PAVING**

### 5-01 STANDARDS: BRICKWORK

The works shall comply with the following standards unless otherwise specified:

Limes and limestone AS 2699 Built-in components for masonry construction

Methods of sampling and testing mortar for masonry constructions AS 3700 Masonry structures

Portland and blended cements

## 5-02 BRICKS & MATERIAL SAMPLES

Submit samples, two of each type of brick and paver to be used for approval by Superintendent.

All pavers shall be from Bowral Bricks. Bricks and pavers shall conform to the following dimensions (230x114x65 length x width x height) within standard industry tolerances

## Bowral Bricks London paver series.

40% Chestnut

30% Brahman Granite 30% Maple

Pattern: Staggered Stack Bond

### 5-03 SAMPLE

Prepare 2m2 of paving for approval by Superintendent

### 5-04 MORTARS GENERALLY

Mortars shall comply with AS 3700.

in preference to scaling. Drawings made to larger scales and those showing particular parts of the works shall

take precedence overdrawings made to smaller scale and those for general purposes. All work is to conform

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o relevant Australian Standards and other codes as applicable together with other authorities'

Use mortar within 90 minutes of the initial adding of water.

Mortar materials shall comply generally with AS 2701. Sand shall comply with the specification of fine aggregate in AS 2701. Do not use plasticisers, retarders, and bush sand or sand with a high clay or loam content.

Sand for facework shall be from an approved source, selected for colour and grading. Only use washed sand with a low salt

content.

B DA Update

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Cement and lime shall be delivered to the site in branded sealed bags and stored under cover clear of the ground. Use admixtures only if specified, and then in accordance with the manufacturer's recommendations. Do not use pre-mixed mortars.

Water shall be free from matter harmful to mortar and to items embedded in it or in contact with it. Mix mortar to an even colour and consistency. Note: All dimensions subject to on site verification prior to execution. Figured dimensions shall be taken | ISSUE DESCRIPTION BY APP'D DATE NORTH / SCALE

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5-05 MORTAR TYPES

Mortar ratio for all brickwork shall be cement : lime : sand 1 :  $\frac{1}{4}$  : 3. Cement used shall be off white.

Sand used shall be white brick sand.

#### 5-06 WORKMANSHIP GENERALLY

Store face bricks clear of ground and protect from moisture, staining and damage. Do not build clay bricks into brickwork until they have been out of the kiln for at least 14 days.

Build brickwork plumb, level and properly bonded. Allow no part to rise more than 1000mm above adjacent unfinished work. Carry up corners to a height sufficient only to allow completion of intermediate work by the end of the day's work. Temporarily brace new brickwork to withstand lateral loads.

Re-lay, in fresh mortar, bricks moved after initial laying.

Brick bond generally shall comply with AS 3700.

to match existing kerb, gutter & paving

Minimise cutting of brickwork. Where cutting is required it shall be carried out using a diamond saw. Keep mortar stains to a minimum and protect horizontal ledges, finished sills and the like from mortar droppings as work proceeds. Brickwork is to be cleaned progressively throughout the project and is to be thoroughly cleaned upon completion.

Protect brickwork from rain, frost, and hot drying winds for at least 24 hours after laying. Protect face brickwork during the course of the work under the Contract from disfigurement by timber and rust stains, weld spatter, oils, concrete, plaster and paint splashes, mechanical damage, and the like. If any such stains do occur, attend to them as soon as possible to prevent deep penetration into the bricks.

Provide temporary protective covers where necessary, including covers to vulnerable arrises, sills, thresholds and the like.

#### 5-07 SETTING OUT

Set out blockwork accurately in accordance with drawings. Courses are to be laid horizontally level and vertical joints are to be Joints are to have a uniform thickness of 10mm + / - 2mm. Blocks are to be set out to minimise cutting of bricks.

### 5-08 JOINTING

Lay bricks on a full bed of mortar, and fill perpends solidly with mortar. Work mortar joints with the jointing tool to a dense, smooth Point up joints around flashings & penetrations. Finish joints in facework as follows:

## 5-01 FACEWORK

Distribute face bricks embodying the approved colour range evenly throughout the work. Avoid 'banding' and colour concentrations.

Make provision as the work proceeds for building into their correct positions and alignments, plates, bolts, anchors, fixings

Ferrous metals built in or in contact with brickwork shall be hot-dipped galvanised unless otherwise specified.

Whenever practicable provide holes, sleeves and chases for services during erection of brickwork to avoid cutting away and making good.

Remove mortar droppings from brickwork and clean down facework and exposed brickwork generally to remove discolouration, mortar splashes, and stains.

Protect adjacent surfaces during cleaning by suitable means, which may include temporary coatings or coverings. Where practicable keep adjacent surfaces wet to minimize risk of accidental etching by acid. Rectify any damage or replace the

### 5-05 CLEANING GENERALLY

Wet bricks thoroughly immediately before applying cleaning agent and keep bricks wet during cleaning to reduce absorption. Work from the top down and mop off surplus water with a clean sponge unless otherwise specified. Consult brick manufacturer before attempting to remove stains not specified below and obtain approval for the method

Identify the stain or stains and adopt appropriate procedure from the following:

MORTAR STAINS: Dry clean walls to remove excess mortar, then thoroughly wet walls and clean off loose dirt and mortar

Unless otherwise specified use a solution of 1 part hydrochloric acid to 20 parts water, which may be increased if necessary up to a maximum of 1 part acid to 10 parts water. Apply the appropriate solution to well wetted brickwork with a two-knot fibre brush, and scrub with a bristle brush. Wash down thoroughly

EFFLORESCENCE: (Powdery deposit usually white, may be yellow, green or brown). Dry brush and then wet brush and For timber, iron, magnesium and vandium stains, approved chemical solutions specified for the task may be used.

### SECTION 6 - DRAINAGE

### 6-01 GENERAL

Verify exact positions of fixtures and appliances before commencing pipe work. Test pipework after curing of bedded and adhesive joints and before covering.

Provide mortar joints for clay or concrete pipes using 1 cement: 2 sand ratio. Adhesive joints for UPVC pipes are to be water resistant, flexible, and as recommended by the manufacturer. Rubber joint rings are to provide a complete seal and to allow Keep pipelines clear from debris and flush upon completion.

### 6-02 PIPES

Concrete pipes over 150mm diameter are to be reinforced. UPVC pipes are to be used in concealed (underfloor, underground, or in walls) drainage situations only unless otherwise specified. UPVC not to be used in any externally exposed locations.

### 6-03 INSTALLATION

Sub soil 65 - 150

Pipes are to be laid in straight sections with uniform falls to outlets. Provide inspection or access pits at changes in direction. Joints are to be aligned flush to internal pipe surfaces and are to be kept to a minimum. Provide the following minimum fall gradients:

Pipeline Diameter Gradient Stormwater 65 - 80 1 in 60 100 1 in 100 150 1 in 150

1 in 300

Provide 300mm cover to under ground pipes generally, 600mm under vehicle traffic areas Encase pipes in 150mm of 20 Mpa concrete under floor slabs on ground and if it is not possible to provide the above covers.

PROJECT TEAM

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LANDSCAPE ARCHITECT / URBAN DESIGNERS

THIRTY-THREE° **PARALLEL** lon: 151.271417 lat: -33.890167

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Darren Mansfield

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33 PARALLEL

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River Street Community Precinct

Landscape Notes 2

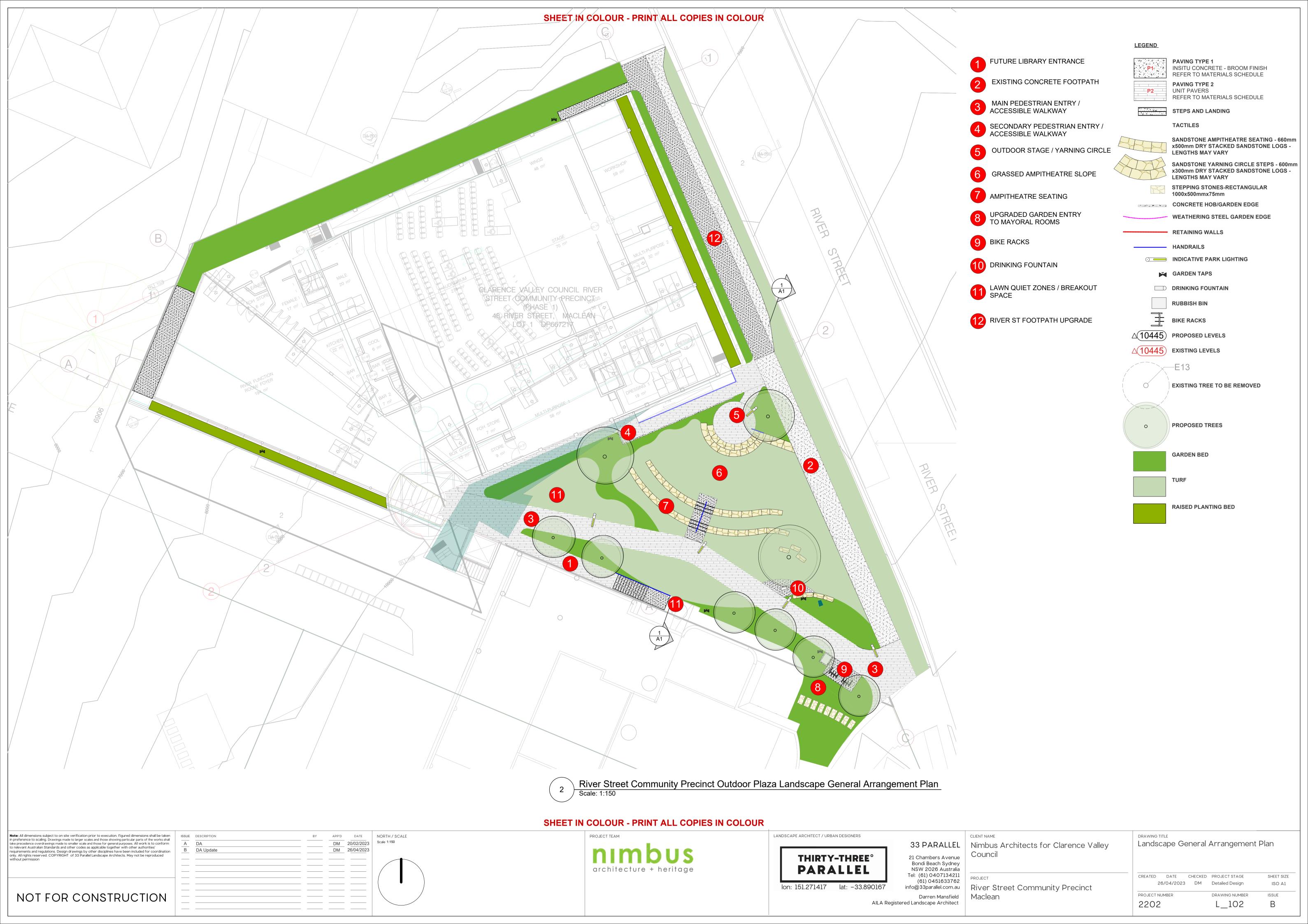
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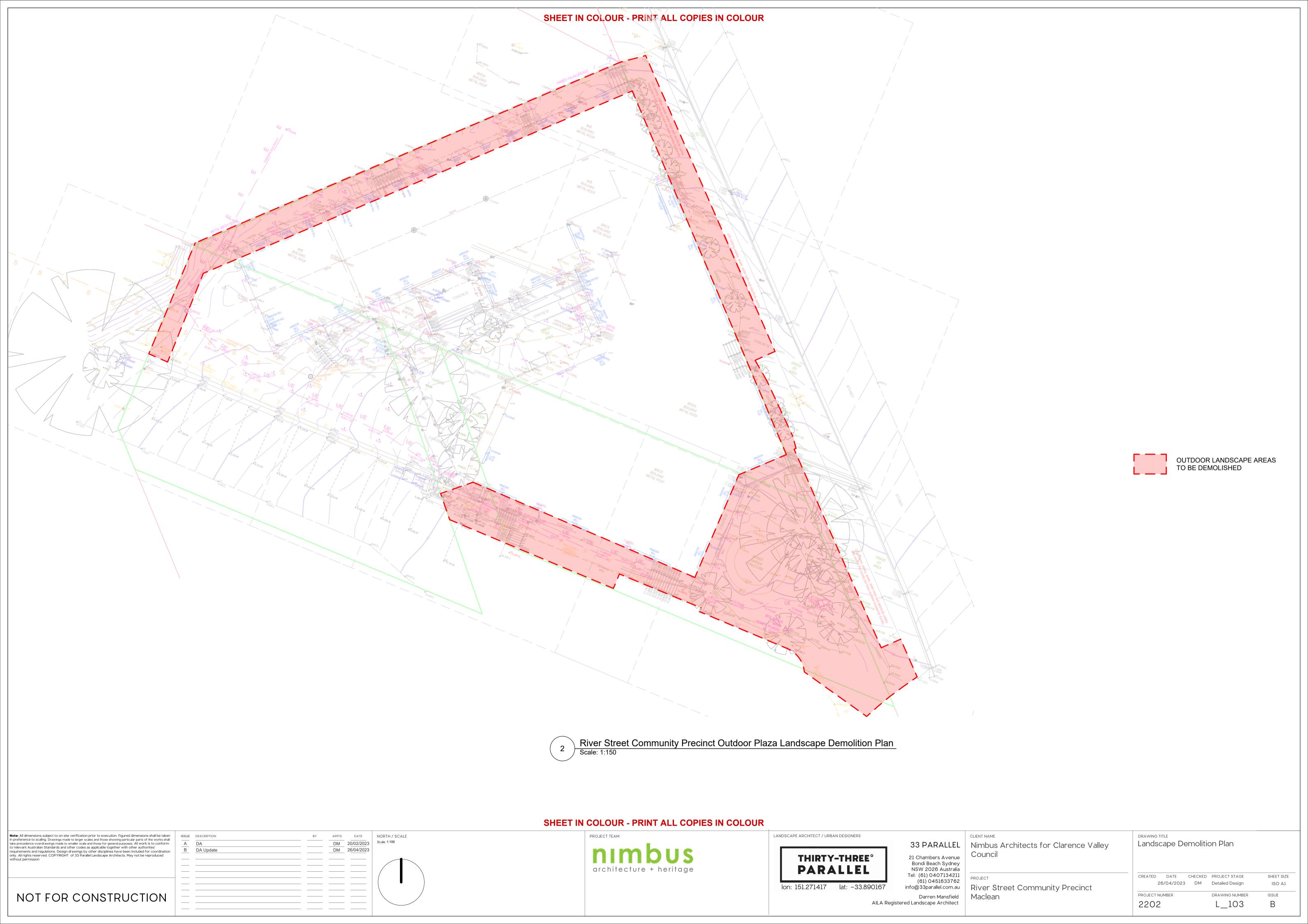
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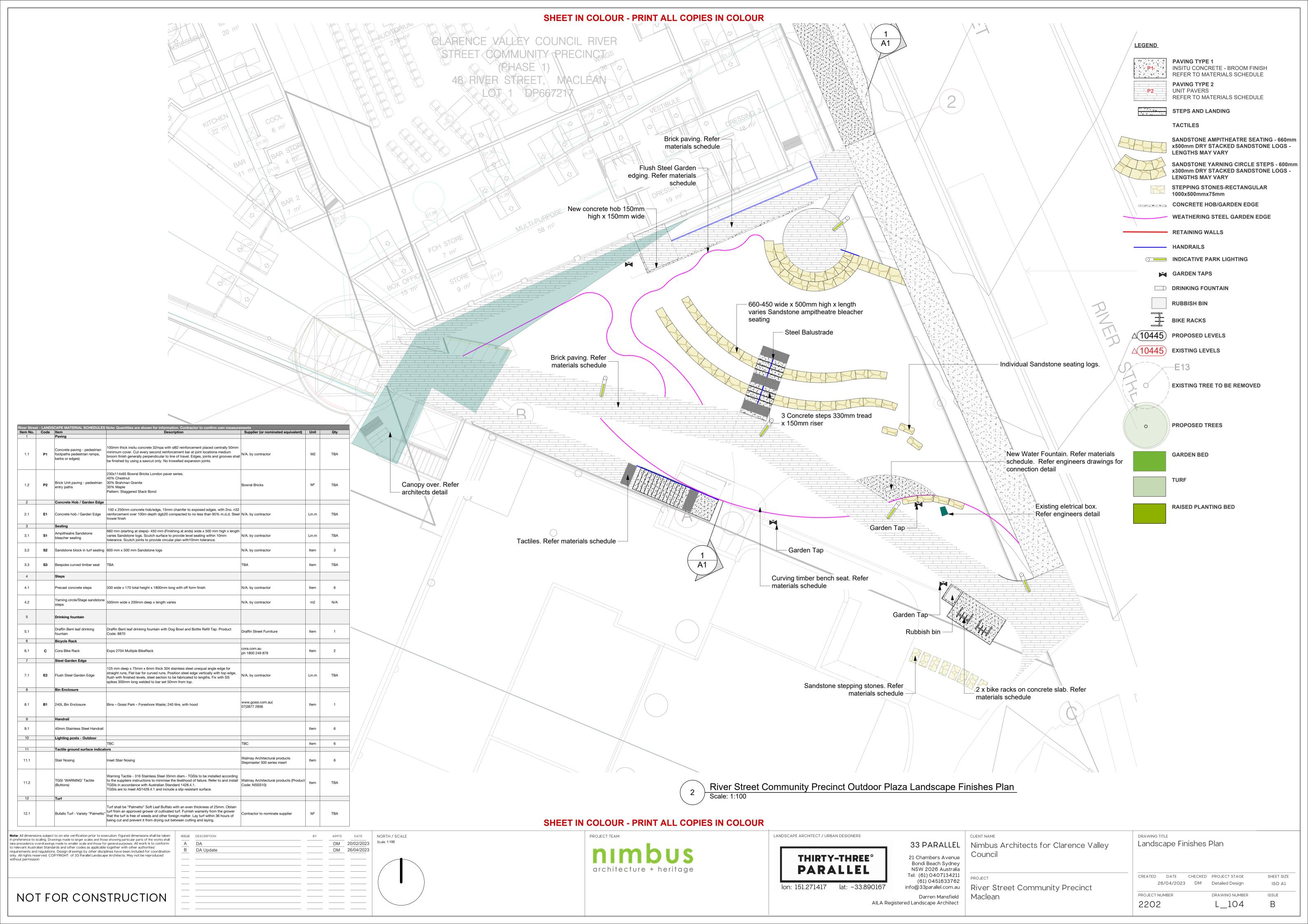
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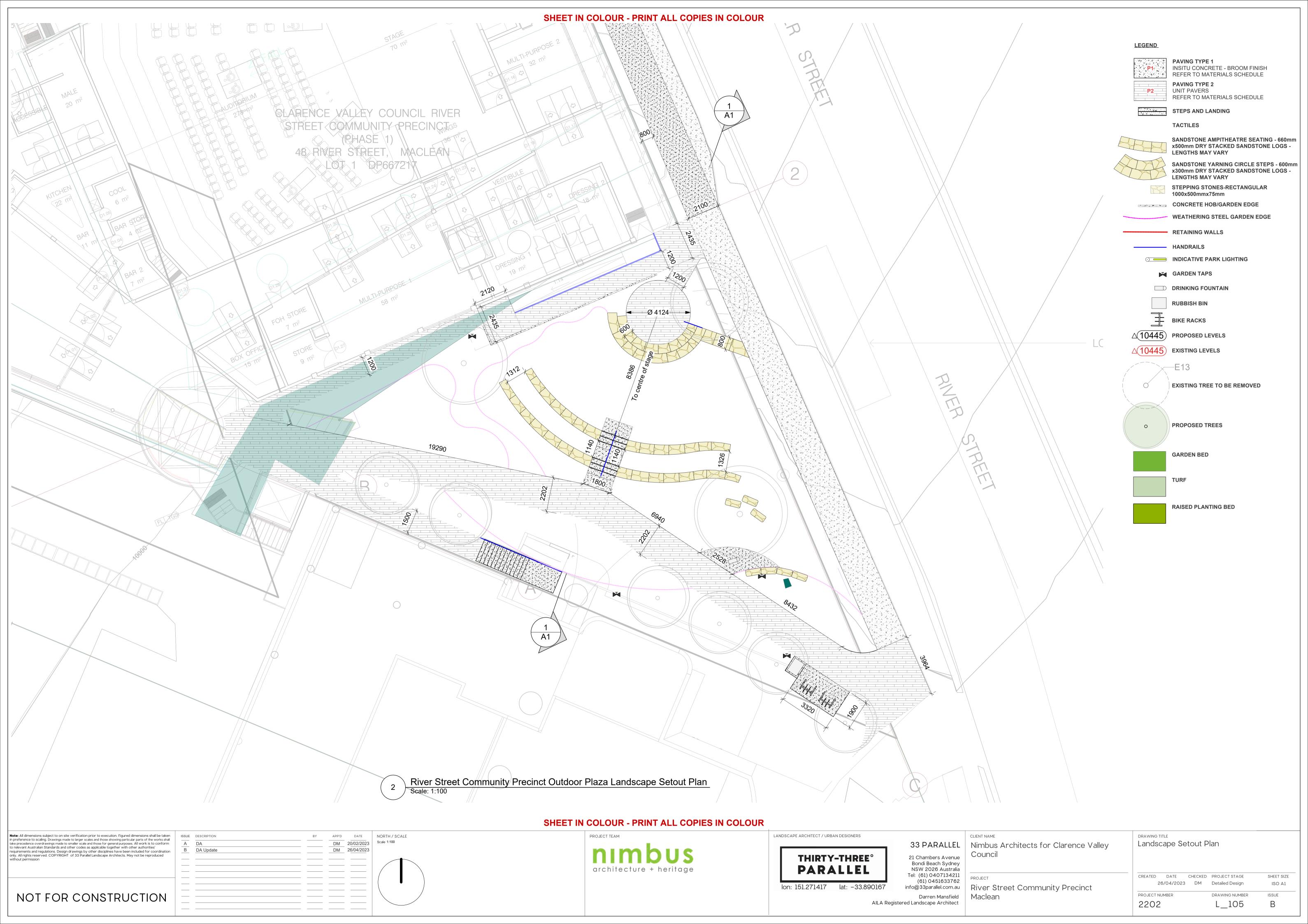
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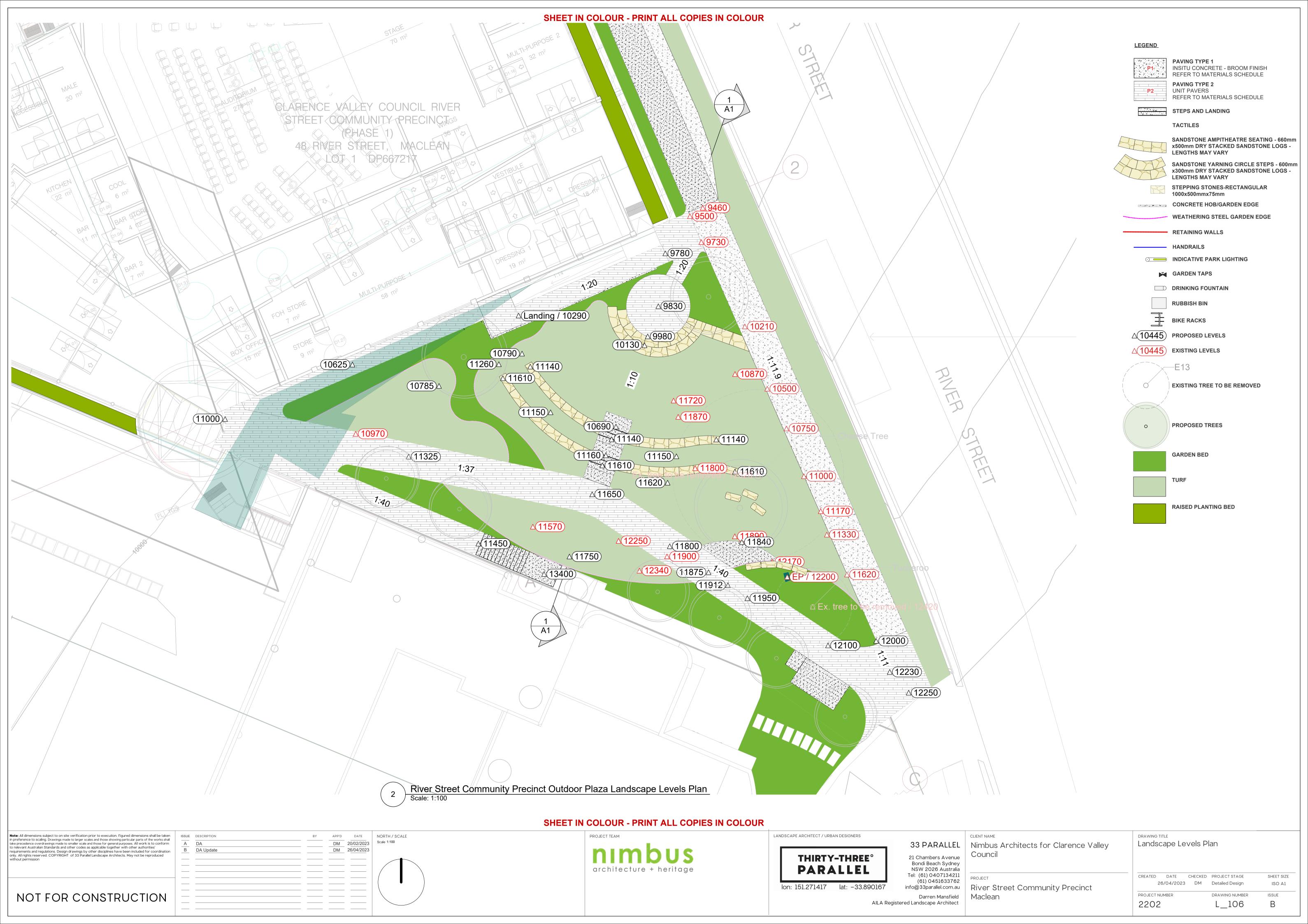
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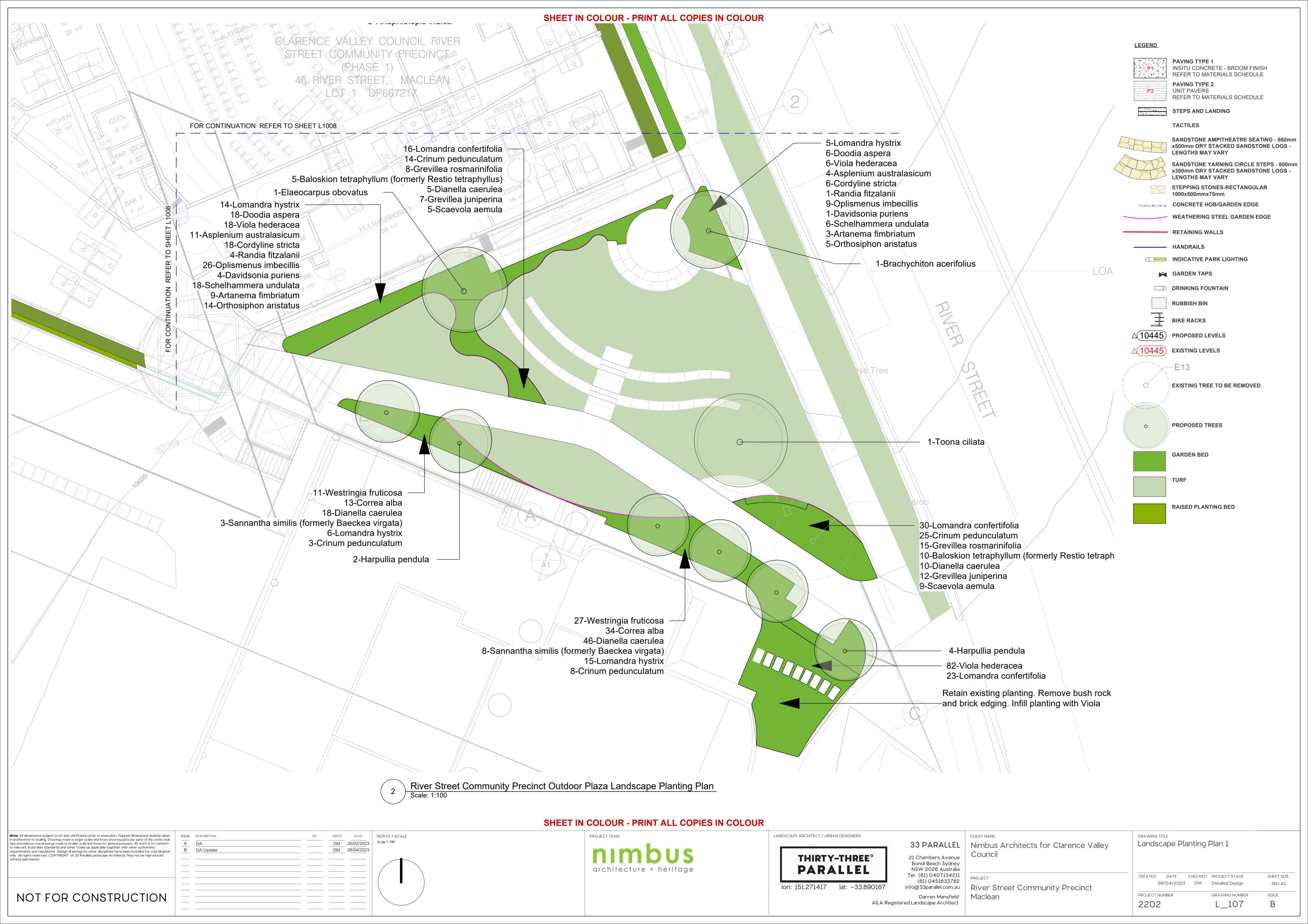


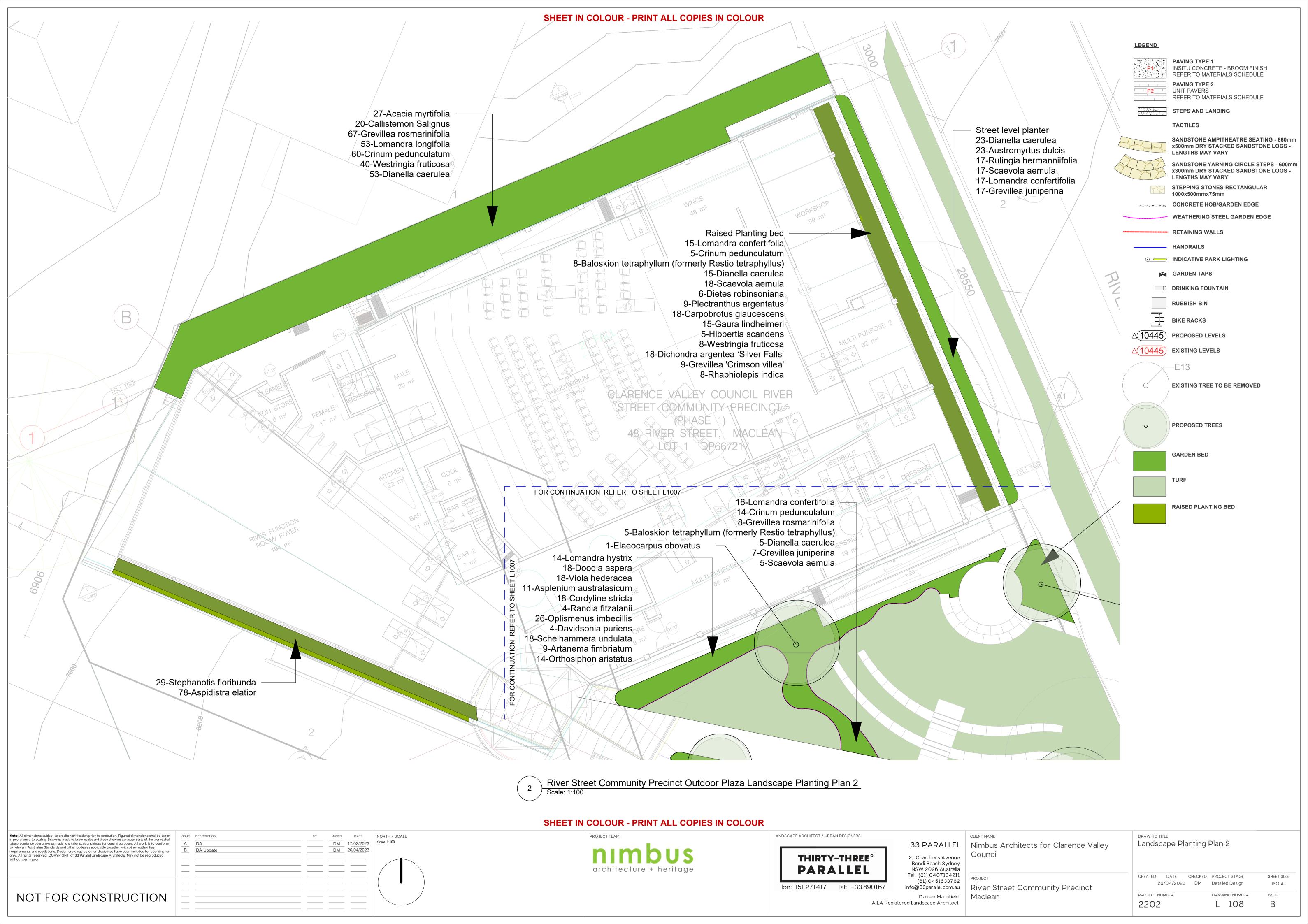


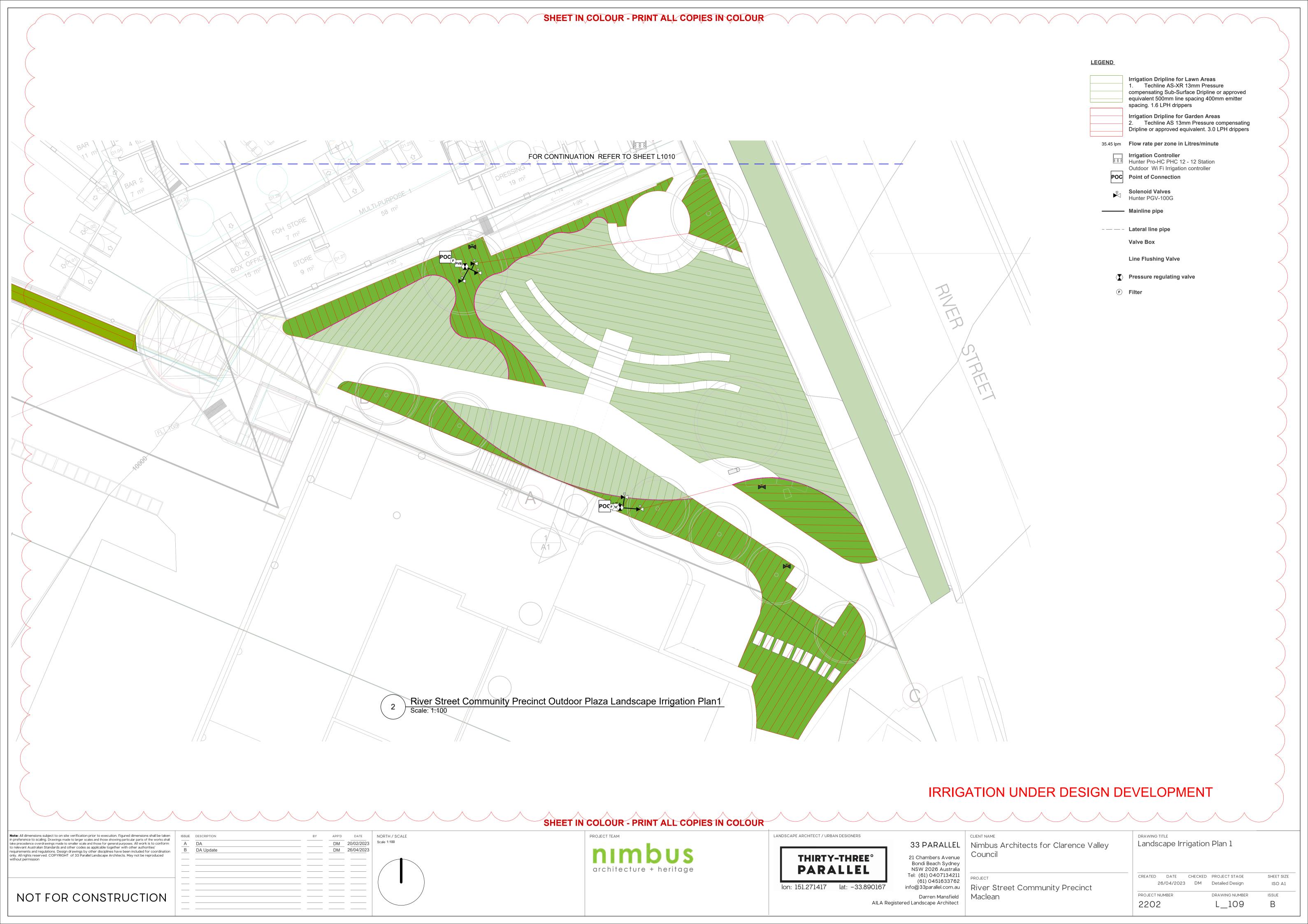


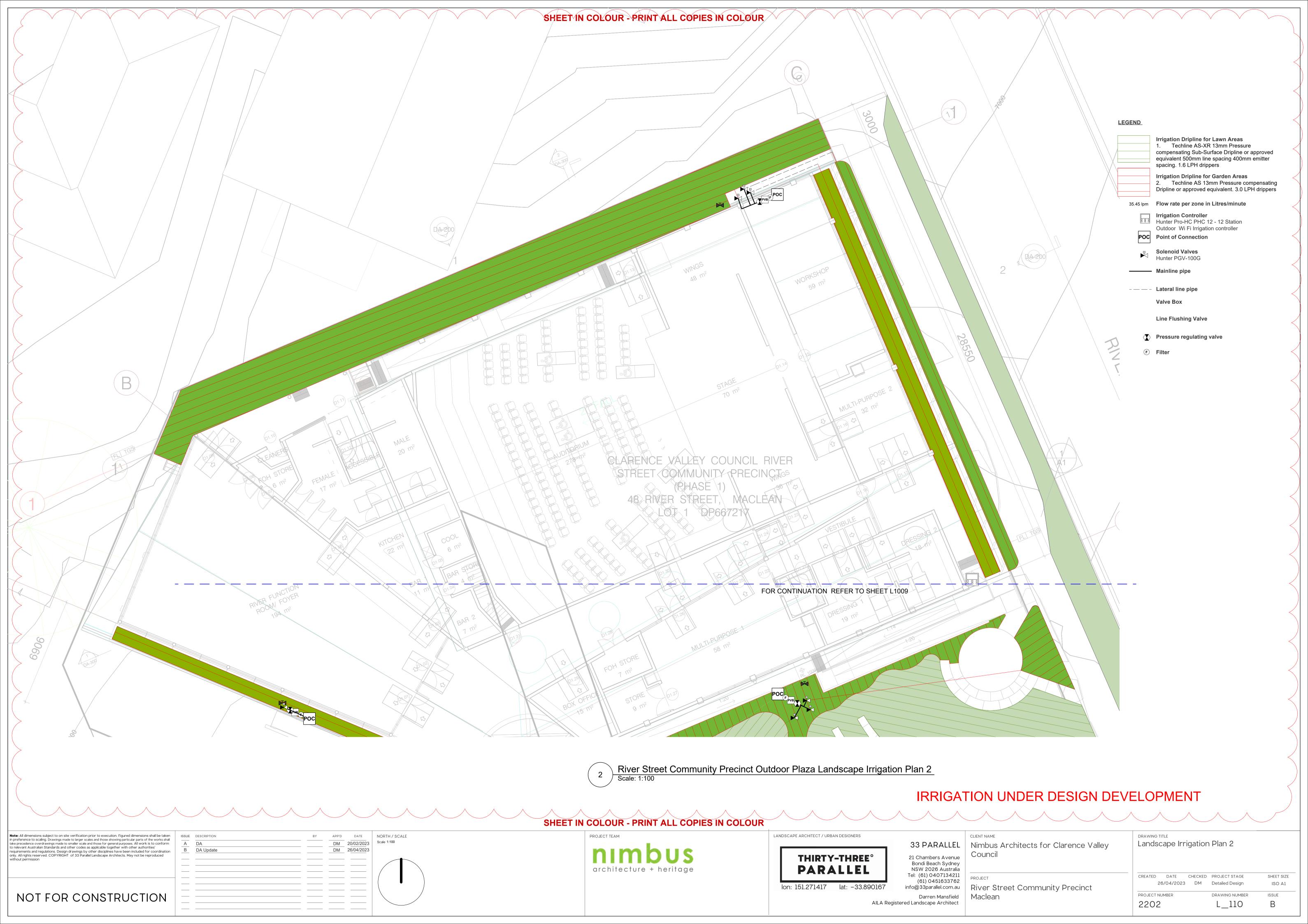












### IRRIGATION (PERFORMANCE SPECIFICATION)

The Scope of the irrigation supply and installation is;

1. the entire garden area of the site

The entire turf areas of the site

Raised Garden beds located on River Street and in the River Room The irrigation system should be designed, supplied and installed by an experienced specialist irrigation

sub-Landscape Contractor, nominated by the Landscape Contractor and approved by the Principal's Authorised Person. After selection they will be required to prepare detailed irrigation plans and specification for approval by the Principal's Authorised Person prior to commencing work. The Landscape Contractor will co-ordinate the irrigation installation to the Principal's Authorised Person approval.

Ensure completion of the irrigation system before the commencement of any other landscape works, so as to provide a readily available supply of water to planting areas.

A plan must be prepared within 21 days of the contract been let to show the comprehensive irrigation system as specified, including detailed locations of all conduits as required under paved surfaces throughout the site. The information must be suitable to permit the location and installation of such conduits during hardworks preparation.

The Landscape Contractor is to liaise with Contractor as required and to coordinate locations for conduit sleeves or wall penetrations for later installation of irrigation.

The work is to be provided by an experienced, reputable and approved irrigation Landscape Contractor. The irrigation Landscape Contractor shall be responsible for determining water pressure, flow rate and locations of water connection and electrical supply. 1.1.1 Conduits

All irrigation conduits are the responsibility of the Builder. Landscape Contractor to prepare D/C irrigation design drawings indicating locations of irrigation conduits. Drawings to be submitted to Principal's Authorised Person for approval prior to installation. Once approved, the drawings to be issued to Builder for coordination and construction. Conduits are to be placed in the locations as required in accordance with future installation of irrigation control lines to the Irrigation designer's details. Ensure that these conduits are supplied with a draw cord and remain clearly marked throughout construction.

Obtain all necessary approvals from relevant authorities. The Landscape Contractor is also responsible for complying with the requirements of all authorities connected with the works.

1.1.3 Standards and authorities All workmanship and materials must conform to the relevant Australian Standards and all Sydney Water

requirements. 1.1.4 Co-ordination of services The Landscape Contractor shall be responsible for the co-ordination of the irrigation systems with other

services throughout the site. The central electrical control box and timer shall be positioned in locations to be approved by Principal's Authorised Person.

1.2 Execution 1.2.1 Irrigation design

Provide the following documents for approval within 3 weeks of approval of the proposed Landscape

Overall Landscape Watering System.

Design plan at 1:200 scale indicating the overall layout of the proposed irrigation installation to the entire irrigated area including pipework and supply, defining pipe layout, control box location, type, and electricity supply. Ensure that all areas are fitted with an automated time controlled irrigation system. Liaise with Landscape Architect and Architect to determine location of control box and water outlet. All relevant information including the following details:

Product data

Performance data

System description

Water demands

The irrigations system shall be approved by the Principal's Authorised Person prior to installation. The irrigation system shall be supplied and installed in accordance with the manufacturer's recommendations. However the following general principles apply:

#### Irrigation System Component Schedule Model Quantity Manufacturer Series 1 Backflow Preventer Pressure Vacuum Breakers 1 Backflow Preventer PVB-3/4 Pressure Vacuum Breakers 1 Backflow Preventer PVB-3/4 Pressure Vacuum Breakers 1 Backflow Preventer Pressure Vacuum Breakers PVB-3/4 1 Filter 1 Filter 1 Pressure Regulator T-PMR15-LF PC Regulators 1 Pressure Regulator PR-3/4 Pressure Regulators PR-3/4 1 Pressure Regulator Pressure Regulators PR-3/4 Pressure Regulator Pressure Regulators PR-3/4 1 Pressure Regulator Pressure Regulators

Connections to water supply points to be made in copper and piping is to remain in copper until isolation

### 2. Isolation and master valve

An isolation valve of approved type (Brass gate or ball) is to be installed in an approved thermoplastic valve box. A master solenoid valve shall be installed downstream in the same box. 3. Backflow prevention

Backflow prevention will be obtained by the installation of a brass swing check valve downstream of the master valve and shall be in a separate thermoplastic valve box. 4. Controller

The controller shall have a minimum of 2 programs (winter and summer) and shall be of approved type, Richdel, Irritrol, Rainbird, Hardie or Toro. There will be sufficient stations to run lawn and garden areas independently. A 240 volt general purpose outlet will be provided at designated locations.

Piping All piping sizes are to be established from allowable water velocities of no greater than 2m/s and the minimum pressure losses required to operate the sprays or drippers according to manufacturer's specifications. PVC piping to be CL 12 and to be set at minimum depth of 300mm below finished grade.

Wiring to be in conduit when above ground or any areas where there is no associated piping. In all other areas wire is to be fastened to irrigation pipes. Wire to be stranded multi core and all splices are to be watertight.

7. Valves Valves to be of solenoid type (Rainbird, Richdel, Toro or Hardie) located in approved dark green or black coloured thermoplastic valve boxes set at grade in garden beds only.

The drip system is to have adequate filtration and pressure regulation provided in line, in accordance with the manufacturers specifications. Filter and pressure regulator shall be located together in separate valve box downstream from and adjacent to solenoid valve operating drip system. Dripper placement and numbers to provide adequate application rate for plant requirements as related to size and type. Low density polyethylene tubing on in-line tubing to be set 50mm below top of soil level. If drippers on micro-tube are to be used the dripper is to be located between mulch and soil level and is to be held in position with 150mm wire stakes. Drippers shall be pressure compensating with diaphragm or turbulent

Provide spares at completion of irrigation work, properly packaged and labelled, and delivered to the Principal's Authorised Person or as directed. Allow 5% of risers/heads for spares.

10. Guarantees and warranties Relating to the installation and products are to be handed to the Principal's Authorised Person on

completion of the works. 1.2.2 Works as executed drawing

Provide complete dimension drawings, based on the approved design plan, of the entire irrigation system as executed, clearly indicating the type and location of all sprinkler lines, heads, etc. Obtain approval and revise as required. Hand the WAE Drawings to the Principal's Authorised Person upon completion of the works.

1.3 Completion

1.3.1 Completion and maintenance

Upon completion Landscape Contractor is to run through system to ensure system is operating correctly and instruct the client's representative in the correct operation and maintenance of the system. All instructions and programs are to be typed. Manuals, warranties, and a minimum of two programs, summer and winter to be provided to the Landscape Architect and the client's representative at the time of completion.

1.3.2 Practical completion certificate

Upon practical completion Landscape contractor is to provide a certificate to the Principal's Authorised Person to confirm all landscape works have been carried out in accordance with all landscape documentation drawings and landscape specifications.

Upon practical completion (and following final inspection) Landscape architect is to provide a certificate to the Principal's Authorised Person to confirm that the landscape works have been completed in accordance with landscape documentation drawings and landscape specifications.

#### **Irrigation Drip Area Schedule** Area Quantity Manufacturer Series Model Row Spacing | Estimated Length Note Area 9 Netafim (r) Techline AS Dripline 370.081 sq n 784120.74 539339.61 4 Netafim (r) AS-XR 268.573 sq r Techline AS Dripline 2 Netafim (r) Techline AS Dripline AS 0.07 sq m 609.6 231.13

Zone ID	Symbol	Туре	Manufacturer	Series	Model	Size	Design Flow	Note
	<b>A</b>	Control / Zone	Hunter Industries (r)	PGV	PGV-101G-AS-ADJ	25.4	44.4	
	<b>P</b>	Control / Zone	Hunter Industries (r)	PGV	PGV-101G-AS-ADJ	25.4	0	
	<b>M</b>	Control / Zone	Hunter Industries (r)	PGV	PGV-101G-AS-ADJ	25.4	9.42	
	<b>P</b>	Control / Zone	Hunter Industries (r)	PGV	PGV-101G-AS-ADJ	25.4	8.15	
	×	Control / Zone	Hunter Industries (r)	PGV	PGV-101G-AS-ADJ	25.4	13.9	
	<b>K</b>	Control / Zone	Hunter Industries (r)	PGV	PGV-101G-AS-ADJ	25.4	5.061	
	<b>P</b>	Control / Zone	Hunter Industries (r)	PGV	PGV-101G-AS-ADJ	25.4	13.501	
	×	Control / Zone	Hunter Industries (r)	PGV	PGV-101G-AS-ADJ	25.4	24.908	
	×	Control / Zone	Hunter Industries (r)	PGV	PGV-101G-AS-ADJ	25.4	5.061	
	<b>N</b>	Control / Zone	Hunter Industries(R)	1in PGV Jar Top	PGV-100JT-G	25.4	0	
	<b>₽</b>	Control / Zone	Hunter Industries (r)	PGV	PGV-101G-AS-ADJ	25.4	6.934	

Note: All dimensions subject to on site verification prior to execution. Figured dimensions shall be taken DATE NORTH / SCALE in preference to scaling. Drawings made to larger scales and those showing particular parts of the works shall Scale 1:100 DM 20/02/2023 take precedence overdrawings made to smaller scale and those for general purposes. All work is to conform o relevant Australian Standards and other codes as applicable together with other authorities' 26/04/2023 requirements and regulations. Design drawings by other disciplines have been included for coordination only. All rights reserved. COPYRIGHT of 33 Parallel Landscape Architects. May not be reproduced NOT FOR CONSTRUCTION







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33 PARALLEL Nimbus Architects for Clarence Valley

**LEGEND** 

**Irrigation Dripline for Lawn Areas** 

Irrigation Dripline for Garden Areas

spacing. 1.6 LPH drippers

35.45 lpm Flow rate per zone in Litres/minute

POC Point of Connection

----- Mainline pipe

- — — - Lateral line pipe

F Filter

Valve Box

Solenoid Valves

Hunter PGV-100G

Line Flushing Valve

Pressure regulating valve

Irrigation Controller
Hunter Pro-HC PHC 12 - 12 Station

Outdoor Wi Fi Irrigation controller

1. Techline AS-XR 13mm Pressure

compensating Sub-Surface Dripline or approved

2. Techline AS 13mm Pressure compensating

Dripline or approved equivalent. 3.0 LPH drippers

equivalent 500mm line spacing 400mm emitter

River Street Community Precinct

Landscape Irrigation Specification

CREATED DATE CHECKED PROJECT STAGE 26/04/2023 DM Detailed Design ISO A1 PROJECT NUMBER DRAWING NUMBER L\_109 2202

- LIBRARY ENTRANCE
- ACCESSIBLE LAWN AREAS
- PEDESTRIAN ENTRY / ACCESSIBLE WALKWAY
- PROPOSED STREET TREES RIVER STREET FRONTAGE
- 5 AMPITHEATRE SEATING
- 6 GRASSED AMPITHEATRE SLOPE
- OUTDOOR STAGE / YARNING CIRCLE
- SCREEN PLANTING BACKDROP TO STAGE

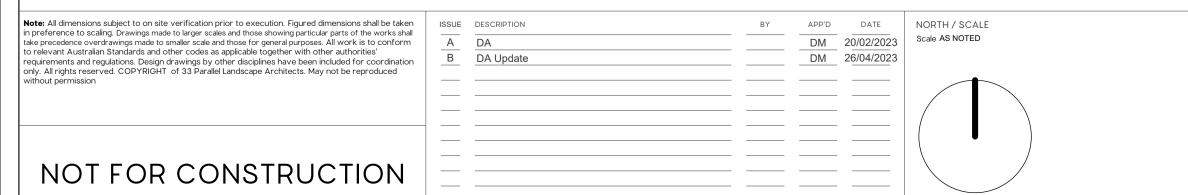


The green plaza space is designed to be a public open area that embodies the notion of "gathering". It is the forecourt that draws people into the main entry to the theatre alongside a corridor of trees before opening up to the wider views of the Clarence River. The yarning circle in the forecourt also mirrors the circular motifs of the main entry, establishing both as key gathering points. This is a place for the community to gather. A place to meet before a show, yarn around the yarning circle, spectate an outdoor performance and find respite from busy River St under a canopy of rustling trees. This design follows the natural slope of the existing topography.

## Key features include;

- The Outdoor Plaza acts as a forecourt and entry for the new theatre building, a Breakout space and also as a new stand-alone town centre park.
- Access to the Mayoral rooms and proposed library entrance is provided.
- The Plaza is accessible from anywhere along the River Street footpath, making the park more inviting and providing excellent passive surveillance.
- Wheelchair accessible access to the theatre is provided via the main entry or alternatively from the bottom end of the River Street footpath
- The plaza is left relativeley uncluttered to allow for generous turfed areas and varied programming associated with the outdoor stage, ampitheatre and yarning circle.
- Maintenance is kept to a minimum with simple and few materials.
- Seating is provided by ampitheatre bleacher seating, the yarning circle/stage steps and a curving bench along the back wall which acts as a sun trap at the south of the site.
- The stage is sunken so that it also acts as a yarning circle.
- Perimeter trees privide shade, frame the space and and articulate the "River Room" entry.

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AILA Registered Landscape Architect

Darren Mansfield

Nimbus Architects for Clarence Valley Council

Landscape Plan-section

PROJECT NUMBER

2202

River Street Community Precinct

CREATED DATE CHECKED PROJECT STAGE 26/04/2023 DM Detailed Design

DRAWING NUMBER

L\_203

ISO A1

