Morris Goding
Access Consulting

Spackman Mossop Michaels

Charles Street Square

Access Review Design Development

27 May 2020

Morris Goding
Access Consulting
ABN 70 414 330 06

Studio 6, Level 1
56 Bowman Street
Pyrmont NSW 20 09

T 02 9692 9322
F 02 9692 8433
W mgac.com.au

NSW
QLD
VIC

Morris Goding
Access Consulting

1 Introduction

Morris Goding Access Consulting (MGAC) has reviewed the detailed design documentation for Charles Street Square.

This report highlights key recommendations and/or items requiring further clarification. It is specific to the following key stage drawings:

Design Development Package.

MGAC has prepared the access report to provide reasonable advice and strategies to maximise the provisions of access within the external domain.

It considers current Codes, Standards and applicable guidelines along with universal and inclusive design principles.

The following are relevant Legislation, standards and guidelines considered under a best practice approach:

- Disability Discrimination Act (DDA) 1992.
- Disability (Access to Premises) Standards 2010 (APS).
- Disability Public Transport Standard 2002 (DSAPT).
- National Construction Code 2019.
- AS1428.1 – 2009, Part 1: General Requirements for Access – New Building Work.
- AS1428.2 – 1992, Part 2: Enhanced and Additional Requirements – Buildings and Facilities.
- AS1428.4.1 – 2009, Part 4.1: Means to Assist the Orientation of People with Vision Impairment – TGSI.
- AHRC Guidelines.
- SA HB 198:2014 Guide to the specification and testing of slip resistance of pedestrian surfaces.
- Universal Design principles.

Morris Goding
Access Consulting

2 Issues/Clarifications

This section of the report addresses access issues within an external context. It considers the functionality of the place and user groups of these facilities. The public domain is not covered by the minimum prescribed BCA nor Premises Standards. However, by utilising the relevant prescribed regulatory Codes and Standards, and including applicable industry guidelines and best practices, these considerations will promote improvements to any public spaces which will enhance the quality of life and the community in general. And in turn, promote an inclusive environment that is inclusive of people with disabilities.

MGAC recommends that accessibility be considered to the extent possible, and wherever practical to the existing situations. Noting that any access considerations made will enhance and improve accessibly within the community.

ELEMENT / ISSUES		RESOLUTION	STATUS
Pedestrian Pathways			
1.1.	Ensure all pathways: 1. Have crossfalls no steeper than 1:40. 2. Slip resistant surface rating per HB 198. 3. Appropriate paving that minimises contrast between different paving units (refer marked plans). 4. Appropriate grate openings per AS 1428.1. 5. A smooth transition between different surfaces with no more than 3-5mm construction tolerance.	Refer design checklist and AS 1428.1 and AS 1428.2.	**OPEN**
2. Handrails			
2.1.	Ensure handrails:	Refer design checklist and AS 1428.1.	**OPEN**

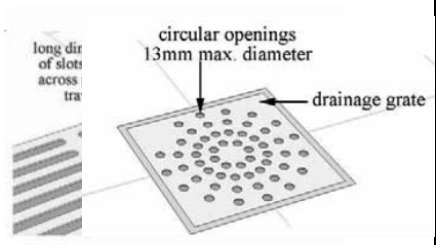
	1. Are installed as per requirement. 2. Domed buttons of 4-5mm high x 10-12mm diameter 150mm from the end of the handrail. 3. Clear of obstruction above that is minimum 50mm away from the edge of handrail. Refer mark up. 4. Provision of an opinion letter for the double handrails in lieu of handrails on both sides.		Provide opinion letter.
3. Tactile Ground Surface Indicators (TGSI's)			
3.1.	Ensure tactile indicators: 1. Are installed as per requirement. 2. Achieves minimum contrast.	Refer design checklist and AS 1428.4.1.	**OPEN**
4. Luminance Contrast			
4.1.	Consider the following: 1. Ensure minimum 30% contrast to stair nosing, TGSIs, bollards, signage or the like against its background.	Refer design checklist and AS 1428.4.1.	**OPEN**
5. Furniture, Fixtures and Fittings			
5.1.	Consider the following: 1. Accessible service counter to information booth. Refer marked plans.	Refer design checklist and AS 1428.1 and AS 1428.2.	**OPEN**

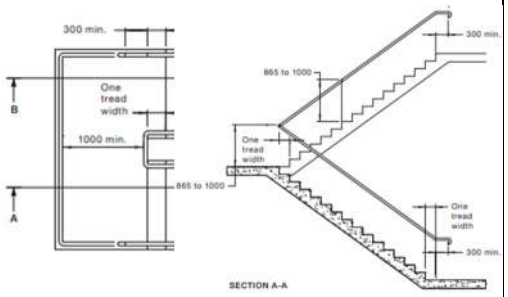
6. Signage			
6.1.	Consider the following: 1. That signage is installed at decision points. 2. Any symbol of access to comply with the international standard in style, colour and layout. 3. Appropriate signage for people with a disability be installed at a height between 1200-1600mm. 4. All accessible signage utilises Sentence Case. 5. Consider luminance contrast for vision impaired.	Refer design checklist and AS 1428.1 and AS 1428.2.	**OPEN**

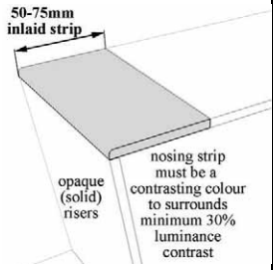
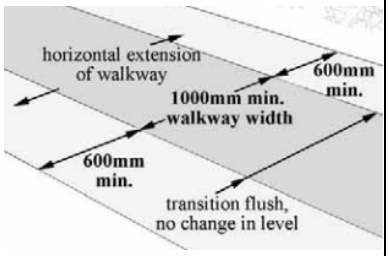
Morris Goding
Access Consulting

3. Design Checklist

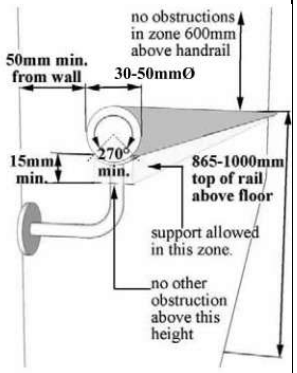
The following design checklist is for additional design guidance and should be consulted during construction. The design checklist and referenced Standards and Legislation shall be considered to the extent where possible within the external environmental context.

1. Paths of Travel	
1.1.	Provide 1200mm min. width paths of travel.
1.2.	Ensure the slip resistance of flooring systems used within areas required to be accessible (including ramps, stairs and landings) are traversable by a wheelchair or walking frame, tested in accordance with wet pendulum test method of AS4586:2013/HB198. This is needed to satisfy AS1428.1 Clause 7.1. Test certificates required at OC Stage. **NB. All wet pendulum testing issued after 1 May 2014 must use 2013 test method. Test results issued prior to 1 May 2014 using 2004 method (HB197 Table 3) are still valid under BCA and for compliance purposes the slip ratings V, W, X (under 2004 method) can be considered equivalent to P5, P4, P3 (under 2013 method).*
1.3.	Ensure that any overhead hazards in areas with less than 2m min. vertical clearance (e.g. angled wall/columns or exposed underside of any stairs/escalators) will have access impeded by suitable physical barrier or have handrail and kerb rail or warning TGSI's installed, compliant with AS1428.4.1 fig. 2.6.
1.4.	Ensure drainage grates on accessible path of travel have openings no more than 13mm wide x 150mm long, with greater dimension transverse to main direction of travel to assist wheelchair users. 

2. Stairs	
2.1.	Ensure stairs located at site boundary are recessed (900mm min. from boundary) to allow required handrail extensions and TGSI's to not protrude into transverse path of travel, compliant with AS1428.1 fig. 26a.
2.2.	Ensure stairs adjacent to internal corridors are recessed (1 tread width plus handrail extension /turn down, approx. 650mm) to allow required handrail extensions to not protrude into transverse path of travel, compliant with AS1428.1 fig. 26b.
2.3.	Ensure all stairs have closed risers to assist people with ambulant and sensory disabilities, in accordance with AS1428.1.
2.4.	The stair design to provide an <u>off-set tread at base</u> of all stair flights to enable the continuous handrail provision at consistent height, compliant with AS1428.1 fig. 28a below: 
2.5.	Provide handrails on both sides of stairs compliant with AS1428.1 (see below).
2.6.	Provide warning tactile ground surface indicators (TGSI's) at top and bottom of all stairs in accordance with AS1428.4.1 (see below).

2.7.	Provide contrasting step nosing strips on all stair treads compliant with AS1428.1 as follows: Step nosing strips to be across full width of stair, between 50-75mm wide, in a continuous colour solid strip with 30% luminance contrast to background surface. Step nosing strips to be located on edge of tread (15mm max. setback if applied) and not extend onto risers more than 10mm. (if exposed). 
3. Walkways	
3.1.	Ensure 1:20 walkways have suitable landings at 15m max. intervals, compliant with AS1428.1 (see Landings section).
3.2.	Ensure walkway landings are 1200mm min. length, (no change in direction) or 1500mm x 1500mm min. length (internal splay permitted), for 90 degree turn, compliant with AS1428.1.
3.3.	Without walls or kerbing, walkways (1:20 - 1:33 gradients) need to extend at least 600mm min. width at same grade in firm and level surface of different material compliant with AS1428.1. 
3.4.	Ensure curved walkways have 1500mm min. clear width with appropriate min. inside curve radius compliant with AS1428.1 fig. 20.
3.5.	Ensure the threshold of 1:20 walkway has smooth level transition between surfaces. Alternatively, provide wall or handrail and kerbing compliant with AS1428.1 to minimise potential trip hazards.

4. Ramps	
4.1.	Ensure ramps have 1:14 gradient and appropriate level landings at top and bottom and at 9m. max intervals (see landings section).
4.2.	Ensure ramp landings are 1200mm min. length, (no change in direction) or 1500mm W x 1500mm min. L (internal splay permitted), for 90 degree turn, or 1540mm W x 2070mm L for 180 degree turn, compliant with AS1428.1. These min. landing dimensions are required clear of handrails and kerb rails.
4.3.	Ensure there are handrails on both sides of all ramps compliant with AS1428.1.
4.4.	Ensure curved ramps have 1500mm min. clear width with appropriate min. inside curve radius compliant with AS1428.1 fig. 20.
4.5.	Provide a suitable height wall (450mm min. height) or kerbing along open ramp sides, compliant with AS1428.1 fig 19: Kerbing to be between 65-75mm height above FFL, or; At least 150mm height above FFL. NB. The top of kerbing must not be within 75-150mm range above FFL to minimise risk of wheelchair footplate entrapment. If kerbing extends within 75-150mm range between it must be continuous with no gap greater than 20mm.
4.6.	The kerb to be suitably located in relation to handrail (and vertical supports if provided) i.e. Internal face of kerb in line with internal face of handrail or up to 100mm max. off-set inside the ramp, compliant with AS1428.1 fig. 19.
4.7.	Provide warning tactile ground surface indicators (TGSI's) at top and bottom of ramps in accordance with AS1428.4.1.
5. Handrails	

5.1.	Ensure circular/elliptical handrails have 30-50mm diameter, with 270 degree clear arc around top of handrail (extending for 600mm min. height) compliant with AS1428.1 fig. 29. 
5.2.	Ensure handrails are installed at a consistent height between 865-1000mm height above step nosing or FFL ramp surface, compliant with AS1428.1 Clause 12d. NB. The specified height should allow for construction tolerance as outside of this range will be non-compliant.
5.3.	Ensure handrails are installed no less than 50mm away from an adjacent side wall, compliant with AS1428.1 Clause 12h.
5.4.	Ensure the handrail at the top of the stair extends 300mm (horizontal) past the step tread then turns 180 degrees downwards or returns fully to post/wall, compliant with AS1428.1 Clause 11.2e, fig. 26.
5.5.	Ensure the handrail at the base of the stair extends one tread width (at same angle) plus 300mm (horizontal) from last riser, then turns 180 degrees downwards or returns fully to post/wall compliant with AS1428.1 Clause 11.2d, fig. 28b.
5.6.	Ensure that the handrail at the top or bottom of a ramp extends (on the horizontal) 300mm past ramp then turns 180 degrees downwards or returns fully to post /wall, compliant with AS1428.1 Clause 10.3h, fig. 14 and 15.

5.7.	For situations (e.g. class 9a and 9c buildings) where domed buttons are permitted by BCA Part 3.8a and 3.8c to be used instead of TGSI's at stairs/ramps, ensure handrails have suitable tactile warning i.e. domed button (4-5mm height and 10-12mm diameter) provided on top of handrail, 150±10mm from handrail end compliant with AS1428.4.1.
6. Tactile Ground Surface Indicators (TGSI's)	
6.1.	Ensure that TGSI's are slip-resistant and have the following minimum luminance contrast values against back ground surface, compliant with AS1428.4.1: Integrated TGSI's (i.e. tiles) require 30% min. luminance contrast. Discrete TGSI's (i.e. buttons) require 45% min. luminance contrast. Composite TGSI's with 2 materials/colours requires 60% min. luminance contrast.
6.2.	Ensure that warning TGSI's extend across the full width of the path of travel and commence 300mm from the edge of stairs, ramps etc. compliant with AS1428.4.1.
6.3.	Ensure that warning TGSI's have between 600-800mm depth at open areas, or at landings (>3m length) and/or when handrail is discontinuous, compliant with AS1428.4.1.
6.4.	Ensure that warning TGSI's have between 300-400mm depth at enclosed landings (<3m) or when external handrail is discontinuous, compliant with AS1428.4.1.
7. Signage	
7.1.	All male, female and accessible toilet identification signs to include appropriate raised tactile pictogram, raised text (in title case) and Braille.

	The signage to be located on the wall, adjacent to latch side of door between 1200-1600mm height from FFL (with single lines of tactile text located between 1250-1350mm above FFL).
7.2.	Accessible toilet sign to include international symbol of access (wheelchair logo) in white on blue background, compliant with AS1428.1. Sign to also include 'LH' or 'RH' to indicate a left-hand or right-hand transfer onto toilet pan. Min. font size to be 20mm san serif, compliant with AS1428.1.
7.3.	Provide directional signage, e.g. at any toilet banks (without accessible toilet) to show path of travel to nearest accessible toilet and/or at the non-accessible entry to show path of travel to the accessible entrance. The directional signage for these items to include: appropriate raised directional arrow, raised tactile pictogram, raised text (in title case) and Braille and international symbol of access, compliant with AS1428.1. The signage to be located on the wall, adjacent to latch side of door between 1200-1600mm height from FFL (with single lines of tactile text located between 1250-1350mm above FFL). If the sign can be temporarily obscured consideration for additional overhead directional signage located above 2m height (advisory).
7.4.	Ensure that all signage is designed to be detectable, with raised symbols, providing 30% luminance contrast with sign background that in turn contrasts with background wall surface.

Morris Goding
Access Consulting

4. Marked Plans

1 Site Plan
Scale: 1:200
0 2 4 6 8 10 m

MGAC Review 18/05/2020

NOTES
1 Sewer vent pipe to be relocated
2 Existing fire hydrant relocated

LEGEND

PAVING FINISH
P1 Exposed aggregate concrete
P2 Precast concrete unit pavers
P3 Granite pavers

STAIRS
S1 Solid precast concrete steps
S2 Solid granite steps
HR Stainless steel double handrail
TI Tactile ground surface indicators
Discrete 316 stainless steel warning indicators
Note: All steps to include 50mm insert safety stair bar
Latham ACS-50SK

RAMPS
R1 1:20 walkway (to DSAPT/AS1428.2 standard)
Exposed aggregate concrete finish
Stainless steel handrails both sides
R2 1:14 ramp (to DSAPT/AS1428.2 standard)
Precast concrete unit pavers
Stainless steel handrail one side
R3 1:14 ramp (to DSAPT/AS1428.2 standard)
Granite pavers
Stainless steel handrail one side

TERRACES
T1 Preacst concrete terraces
T2 Timber terraces
136x42 DAR seasoned recycled
Class 1 Australian hardwood
T3 Concrete deck
Precast concrete unit pavers over suspended slab
TG Corten circular tree grate
CSA TG1090 (light vehicle rated)

STRUCTURES
WS Wharf shelter to architect's detail
includes microwave antenna, CCTV and PA system (relocated)
FO Ferry site office andartowrok projectors to architect's detail
EO Exceloo 'Orbit'
relocated existing automated toilets with new graphic 'skin'

BALUSTRADES
B1 Corten pleated balustrade
with integrated SS handrail
B2 Flat steel balustrade
2 pack epoxy MIO painted finish
with integrated SS handrail
B3 Flat steel balustrade,
2 pack epoxy painted finish

WALLS
W1 Cast in situ concrete retaining wall
W2 Cast in situ concrete retaining/seat wall
W3 Cast in situ concrete terrace walls
W4 Reinforced blockwork wall, rendered & painted
W5 Reinforced blockwork wall, granite clad
WE Precast concrete wedge block

SEATING
SE1 Timber seat insert to precast terrace
Recycled class 1 Australian hardwood
SE2 Timber seat on steel frame
Recycled class 1 Australian hardwood
SE3 Precast concrete seat/low wall
with timber seat insert
Recycled class 1 Australian hardwood
SE4 Precast concrete seat/low wall

ARTWORK
AP Arthur Phillip Memorial Artwork (by others)
Pedestal and bronze figure

BIKE PARKING
BE Bike rack - existing relocated
Stainless steel bike hoops
BH Bike hire (by others)
BL Bike lockers (single, front opening)
Leda Securabike BSL18S
Powder coated finish
BR Bike rack - new
Stainless steel bike hoops, sub surface mounted

FURNITURE & FIXTURES
BF Bollard, fixed installation
BIN Rubbish bin
DF Drinking fountain
FH Fire hydrant
LP Light Pole
Hess City Elements 200
OT Opal Top Up machine
SB Switchboard
SIGN Plan Your Trip sign
SMH Sewer manhole
levels to be adjusted

PLANTING
GB Garden bed with mass planting

TREES
New tree
Existing tree retained
Existing tree removed

CONTOURS
Existing contours @200mm
Proposed contours @500mm
Proposed contours @100mm

NOT FOR CONSTRUCTION

ORIGINAL IN COLOUR

Filename: Charles St Sq - DD PLAN.vwx

REV	DESCRIPTION	DATE	APPROVED
A	DD PACKAGE FOR COST PLAN 5	5/5/20	MS

REVISION HISTORY

GENERAL NOTES
1. Do not scale from this drawing. Use figured dimensions only.
2. Verify all dimensions on site. Refer any discrepencies to the Principal's Representative for resolution before proceeding.
3. If this drawing is unclear, ask for direction from the Principal's Representative.
4. Site check the location of utilities and services prior to the commencement of works. Refer any discrepencies to the Principal's Representative for resolution.

SURVEY
YSCO GEOMATICS
Suite 4, 114 Hampden Road
Artarmon NSW 2064
www.yscogeomatics.com.au
T 9419 8222

Survey drawing date	Grid	Datum
07/05/2019	MGA	AHD

DIMENSION STANDARD
Unless noted otherwise:
- All levels are shown in metres
- All dimensions are computer generated to 1mm

DESIGN TEAM
Architect
LAHZNIMMO ARCHITECTS
Suite 404, Flourmill Studios
3 Gladstone St, Newtown NSW 2042
T 02 9550 5200

Engineers
NORTHROP CONSULTING ENGINEERS
www.northrop.com.au
Civil & structural
Northrop Wollongong | T 02 4226 3333
Lighting & electrical - Hydraulic
Northrop Parramatta | T 02 9241 4188
Flood
Northrop Newcastle | T 02 4943 1777
Traffic
Northrop Canberra | T 02 6285 1822

CLIENT
CITY OF PARRAMATTA
City of Parramatta
126 Church Street
Parramatta NSW 2150
PO Box 3
Parramatta NSW 2124

LANDSCAPE ARCHITECT | HEAD CONSULTANT
smm
Spackman Mossop Michaels Pty Ltd
115 Flinders Street Surry Hills NSW 2010
www.sm2group.com.au
info@sm2group.com.au | T 02 9361 4549

SMM Project no: 18074

Approval	Director	Date
Tender		xx/xx/xx
Construction		xx/xx/xx

DRAWING STATUS
DESIGN DEVELOPMENT

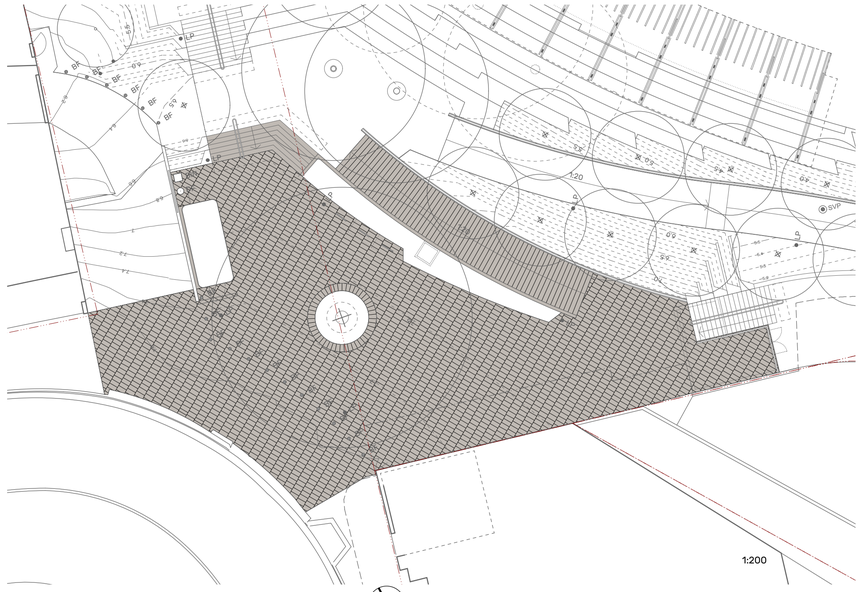
Designed	Drawing date	North
CD	April 2020	
Drawn	Plot date	
CD	5/5/20	
Checked		Scale
MS		1:200 @ A1

Sheet size A1
Size on original 0 10 20 30 40 50mm

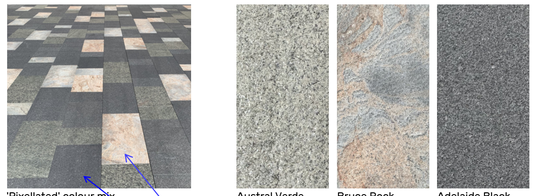
PROJECT
CHARLES STREET SQUARE
CHARLES STREET, PARRAMATTA

Drawing name
GENERAL ARRANGEMENT PLAN

Drawing number **L-DD-101**
Rev **A**



1 GRANITE PAVING
Scale: 1:200
0 2 4 6 8 10 m


'Pixellated' colour mix

Austral Verde

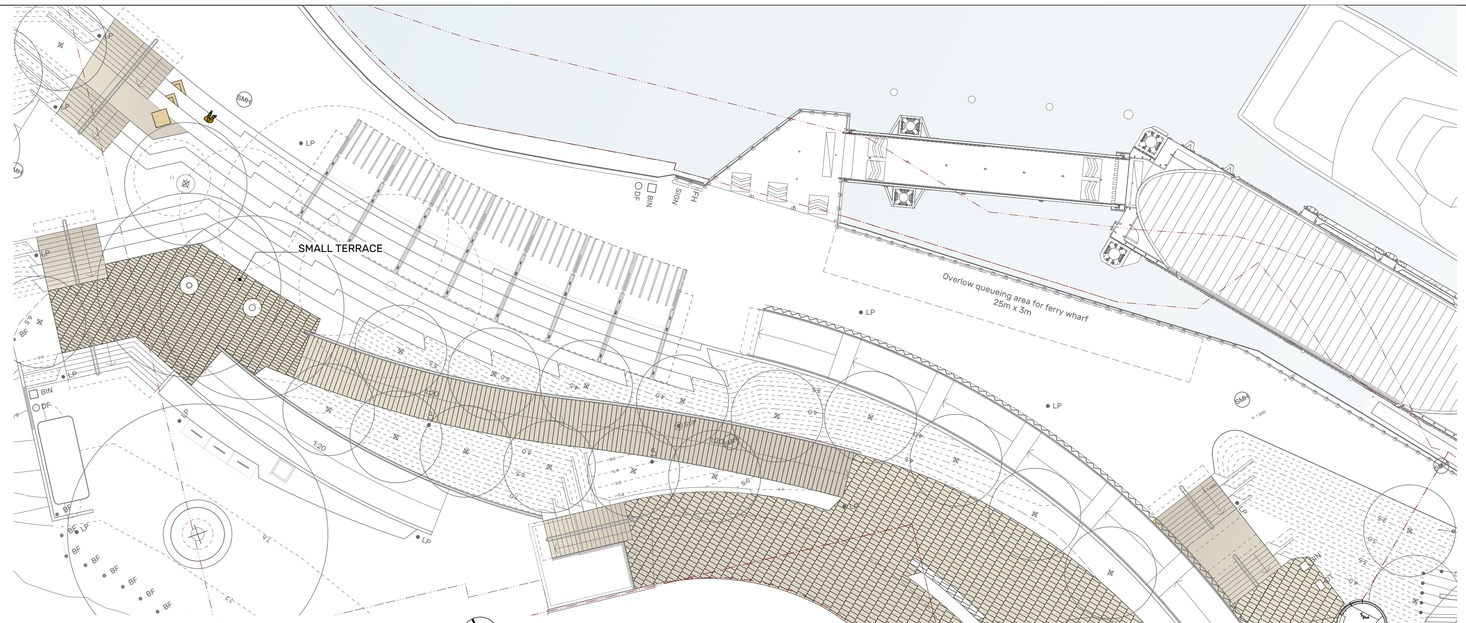
Bruce Rock
(Austral Juparana)

Adelaide Black
(Austral Black)

UPPER SQUARE
600 x 300 x 60 granite pavers
offset stack bond
'pixellated' colour mix
60% Austral Verde
20% Bruce Rock
20% Adelaide Black

RAMPED WALKWAY
600/450/300 x 300 x 60 granite pavers
stretcher bond
'pixellated' colour mix
80% Austral Verde
20% Adelaide Black

GRANITE STEPS
Solid 300 x 190 granite steps
Austral Verde



2 PRECAST CONCRETE PAVING
Scale: 1:200
0 2 4 6 8 10 m

GARDEN TERRACE
600 x 300 x 60 concrete pavers
offset stack bond
'pixellated' colour/finish mix

RAMPED WALKWAY
600/450/300 x 300 x 60 concrete pavers
stretcher bond, single colour & finish

SMALL TERRACES
600 x 200 concrete pavers
offset stack bond, single colour & finish

CONCRETE STEPS
Solid 300 x 190 concrete steps
single colour & finish
600/450/300 x 300 x 60 concrete pavers at landings
stretcher bond, single colour & finish

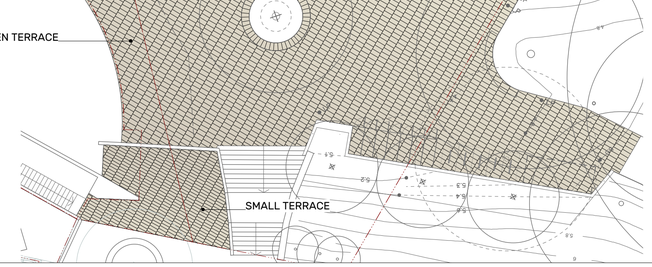
CONCRETE PAVERS BY STONEOUTDOORS


Colour: Marino
Finish: Hammered


Colour: Erskine
Finish: Honed


Colour: LaTrobe
Finish: Hammered

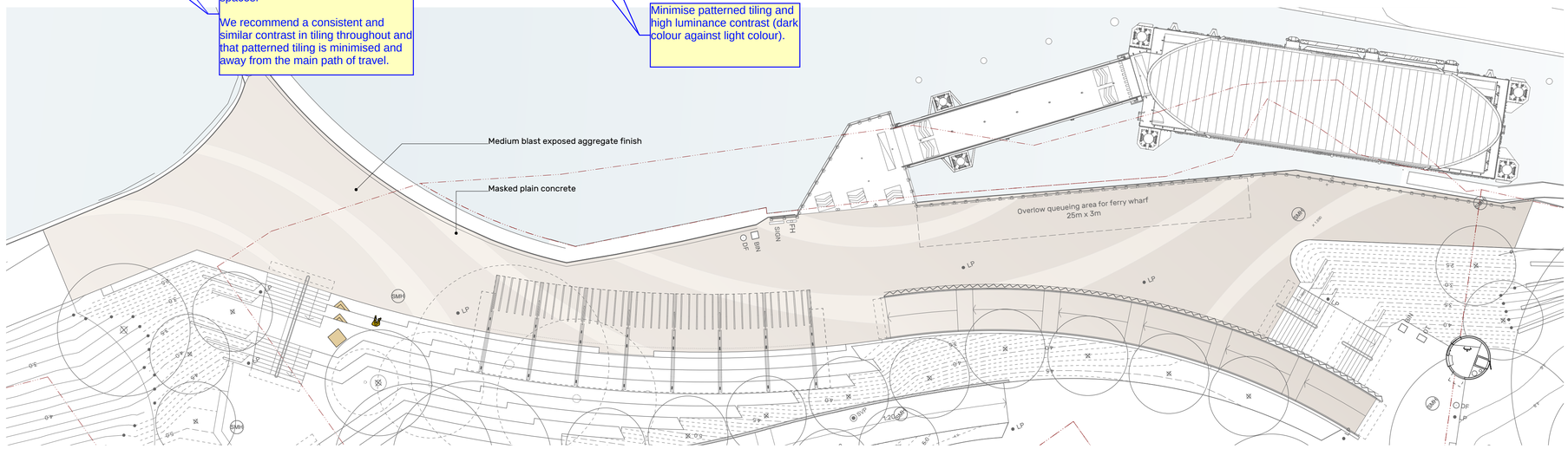
Note:
Colour and finish selection to be finalised, pending samples



Any ground contrast 30% and greater will be challenging for the vision impaired to navigate the path in public spaces.

We recommend a consistent and similar contrast in tiling throughout and that patterned tiling is minimised and away from the main path of travel.

Minimise patterned tiling and high luminance contrast (dark colour against light colour).



3 IN SITU CONCRETE PAVING
Scale: 1:200
0 2 4 6 8 10 m

PATTERNED EXPOSED AGGREGATE FINISH

Location: riverfront path and ramped walkway

Exposed Aggregate Abrasive Finish
Pattern of areas of exposed aggregate finish (medium abrasive blast) and non-exposed aggregate finish, achieved by steel plate stencils to protect the concrete surface from the abrasive blasting.
Acid wash finish after abrasive blasting.

Concrete and aggregate mix to be confirmed. Allow for 10-15mm aggregate.

MGAC Review
18/05/2020

ORIGINAL IN COLOUR

NOT FOR CONSTRUCTION

Filename: Charles St Sq - DD PLAN.vwx

REV	DESCRIPTION	DATE	APPROVED
A	DD PACKAGE FOR COST PLAN 5	5/5/20	MS

REVISION HISTORY

GENERAL NOTES
1. Do not scale from this drawing. Use figured dimensions only.
2. Verify all dimensions on site. Refer any discrepencies to the Principal's Representative for resolution before proceeding.
3. If this drawing is unclear, ask for direction from the Principal's Representative.
4. Site check the location of utilities and services prior to the commencement of works. Refer any discrepencies to the Principal's Representative for resolution.

SURVEY
YSCO GEOMATICS
Suite 4, 114 Hampden Road
Artarmon NSW 2064
www.yscogeomatics.com.au
T 9419 8222

Survey drawing date	Grid	Datum
07/05/2019	MGA	AHD

DIMENSION STANDARD
Unless noted otherwise:
- All levels are shown in metres
- All dimensions are computer generated to 1mm

DESIGN TEAM

Architect
LAHZNIMMO ARCHITECTS
Suite 404, Flourmill Studios
3 Gladstone St, Newtown NSW 2042
T 02 9550 5200

Engineers
NORTHROP CONSULTING ENGINEERS
www.northrop.com.au
Civil & structural
Northrop Wollongong | T 02 4226 3333
Lighting & electrical • Hydraulic
Northrop Parramatta | T 02 9241 4188
Flood
Northrop Newcastle | T 02 4943 1777
Traffic
Northrop Canberra | T 02 6285 1822

CLIENT
CITY OF PARRAMATTA
City of Parramatta
126 Church Street
Parramatta NSW 2150
PO Box 3
Parramatta NSW 2124

LANDSCAPE ARCHITECT | HEAD CONSULTANT
smm
Spackman Mossop Michaels Pty Ltd
115 Flinders Street Surry Hills NSW 2010
www.sm2group.com.au
info@sm2group.com.au | T 02 9361 4549

SMM Project no: 18074

Approval	Director	Date
Tender		xx/xx/xx
Construction		xx/xx/xx

DRAWING STATUS
DESIGN DEVELOPMENT

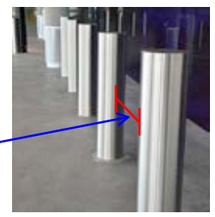
Designed	Drawing date	North
CD	April 2020	
Drawn	Plot date	
CD	5/5/20	
Checked		Scale
MS		1:200 @ A1

Sheet size: A1
Size on original: 0 10 20 30 40 50mm

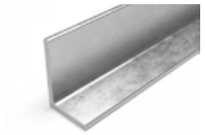
PROJECT
CHARLES STREET SQUARE
CHARLES STREET, PARRAMATTA

Drawing name
PAVING FINISHES

Drawing number: L-DD-103
Rev: A

REF.	MODEL	SUPPLIER	DESCRIPTION	DETAILS	CUSTOMISATION	IMAGE
FURNITURE & FIXTURES						
BIN1	Standard bin	Spark	Standard CoP 120L Rubbish bin enclosure with rain shroud	Powder coated (Colour TBC)	Parramatta lock & key Integrated ashtray	
BIN2	Bigbelly High Capacity Compactor	Smartsensor technologies	Solar powered compactor bin	Galvanized sheet metal steel interior and exterior construction Heavy duty plastic side panels for dent and scratch resistance	Powder coated (Colour TBC)	
DF	Apollo 900	Urban Fountains and Furniture	Drinking fountain	Powder coated (Colour TBC) Accessible drinking fountain	Bottle refill tap and dog bowl	
BR	Slim hoop	Street Furniture Australia	U-Shaped bike rack	316 Stainless steel Brushed finish Sub-surface mounted		
BL	MBSL18S	Leda	Bike single locker	Powder coated (colour TBC)		
BF	SP400 – PAS68	Leda	Fixed bollard suitable for Hostile Vehicle Mitigation V/7500(N2)64/90 rating	Stainless steel		

Ensure minimum 1200mm clear width.

REF.	MODEL	SUPPLIER	DESCRIPTION	DETAILS	CUSTOMISATION	IMAGE
FURNITURE & FIXTURES						
TG	TG1090 Circular Tree Grate Class A	Commercial Systems Australia	Corten steel circular tree grate	Corten steel	Vehicle rated (TBC by manufacturer)	
TI	N/A	N/A	Discrete 316 stainless steel tactile ground surface indicators	Stainless steel		
	N/A	N/A	Steel garden edge/150 kerb	10mm corten steel plate		
	N/A	N/A	Flush steel paving edge	90EA6 hot dipped galvanised steel angle		
	ACS-50SK	Latham	Stair safety strip	Aluminium filled with silicon carbide mineral granules.		

Ensure minimum 30% contrast is achieved to its background.

Ensure compliance to AS 1428.1 and AS 1428.4.1.

MGAC Review 18/05/2020

NOT FOR CONSTRUCTION

ORIGINAL IN COLOUR

File name: Charles St Sq – DD SCHEDULES.vwx

Filename:

REV	DESCRIPTION	DATE	APPROVED
A	Design Development issue for Cost Plan 5	5/5/20	MS

REVISION HISTORY

GENERAL NOTES

1. Do not scale from this drawing. Use figured dimensions only.
2. Verify all dimensions on site. Refer any discrepencies to the Principal's Representative for resolution before proceeding.
3. If this drawing is unclear, ask for direction from the Principal's Representative.
4. Site check the location of utilities and services prior to the commencement of works. Refer any discrepencies to the Principal's Representative for resolution.

SURVEY

YSCO GEOMATICS
Suite 4, 114 Hampden Road
Artarmon NSW 2064
www.yscogeomatics.com.au
T 9419 8222

Survey drawing date 07/05/2019 | Grid MGA | Datum AHD

DIMENSION STANDARD

Unless noted otherwise:
- All levels are shown in metres
- All dimensions are computer generated to 1mm

DESIGN TEAM

Architect
LAHZNIMMO ARCHITECTS
Suite 404, Flourmill Studios
3 Gladstone St, Newtown NSW 2042
T 02 9550 5200

Engineers
NORTHROP CONSULTING ENGINEERS
www.northrop.com.au
Civil & structural
Northrop Wollongong | T 02 4226 3333
Lighting & electrical • Hydraulic
Northrop Parramatta | T 02 9241 4188
Flood
Northrop Newcastle | T 02 4943 1777
Traffic
Northrop Canberra | T 02 6285 1822

CLIENT

CITY OF PARRAMATTA
City of Parramatta
126 Church Street
Parramatta NSW 2150
PO Box 3
Parramatta NSW 2124

LANDSCAPE ARCHITECT | HEAD CONSULTANT

smm
Spackman Mossop Michaels Pty Ltd
115 Flinders Street Surry Hills NSW 2010
www.sm2group.com.au
info@sm2group.com.au | T 02 9361 4549

SMM Project no: 18074

	Director	Date
Approval		xx/xx/xx
Tender		xx/xx/xx
Construction		xx/xx/xx

DRAWING STATUS

DESIGN DEVELOPMENT

Designed CD | Drawing date May 2020
Drawn BH | Plot date 6/5/20
Checked MS
North | Scale NTS
Sheet size A3 | Size on original 0 5 10 15 20 25mm

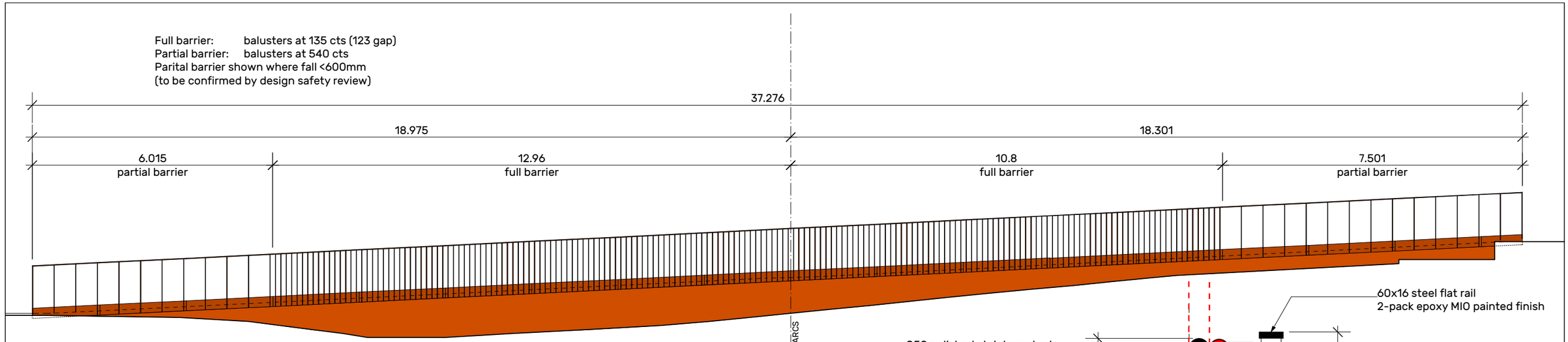
PROJECT

CHARLES STREET SQUARE
CHARLES STREET, PARRAMATTA

Drawing name
FIXTURES & FURNITURE SCHEDULE

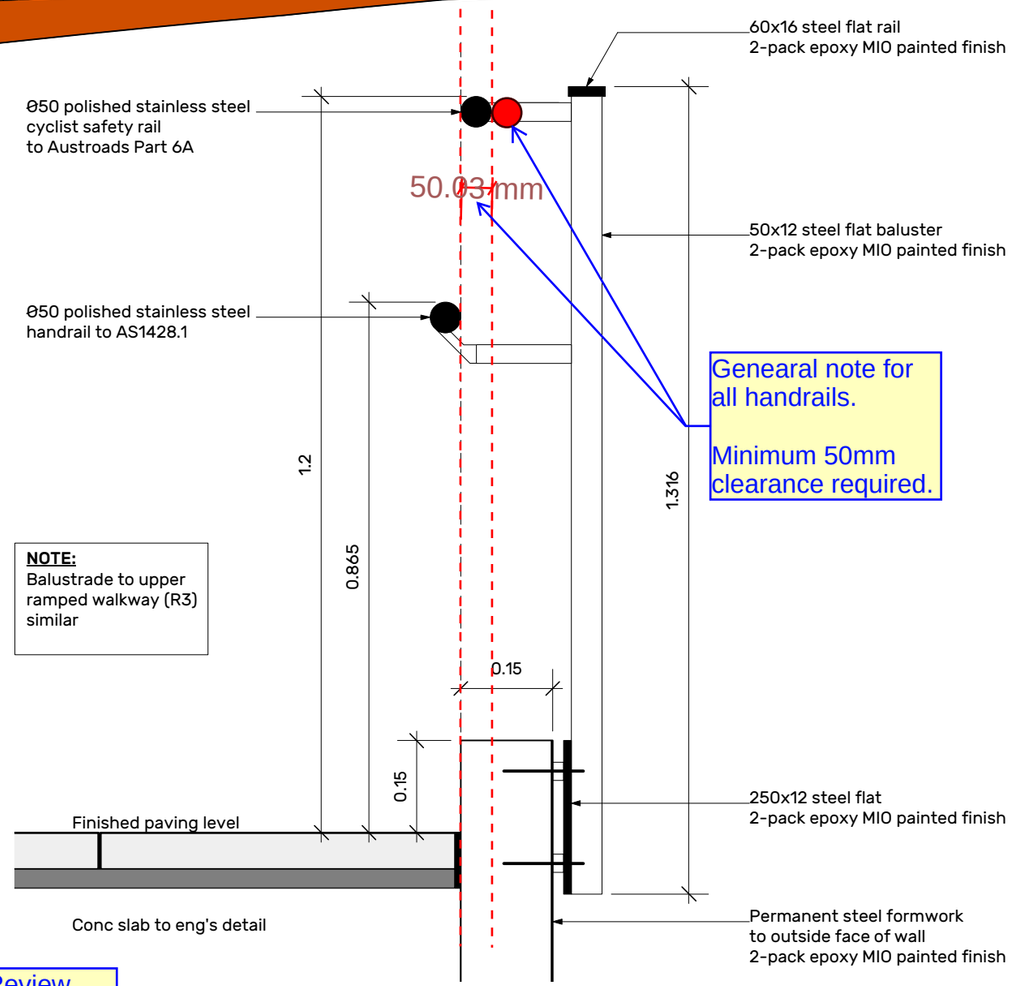
Drawing number L-DD-105 | Rev A

Full barrier: balusters at 135 cts (123 gap)
Partial barrier: balusters at 540 cts
Parital barrier shown where fall <600mm
(to be confirmed by design safety review)



1 Elevation along middle ramped walkway (R2)
Scale: 1:100 (0, 1, 2 m)

3 Ramped walkway balustrade
not to scale



NOTE:
Balustrade to upper ramped walkway (R3) similar

2 Section through ramped walkway balustrade
Scale: 1:10 (0, 0, 0 m)

MGAC Review
18/05/2020

NOT FOR CONSTRUCTION

ORIGINAL IN COLOUR

File name: CSS Ramp wall elevations.vwx

Filename:

REVISION HISTORY

REV	DESCRIPTION	DATE	APPROVED
A	DD PACKAGE FOR COST PLAN 5	5/5/20	MS

GENERAL NOTES

1. Do not scale from this drawing. Use figured dimensions only.
2. Verify all dimensions on site. Refer any discrepencies to the Principal's Representative for resolution before proceeding.
3. If this drawing is unclear, ask for direction from the Principal's Representative.
4. Site check the location of utilities and services prior to the commencement of works. Refer any discrepencies to the Principal's Representative for resolution.

SURVEY
YSCO GEOMATICS
Suite 4, 114 Hampden Road
Artarmon NSW 2064
www.yscogeomatics.com.au
T 9419 8222

Survey drawing date	Grid	Datum
07/05/2019	MGA	AHD

DIMENSION STANDARD
Unless noted otherwise:
- All levels are shown in metres
- All dimensions are computer generated to 1mm

DESIGN TEAM
Architect
LAHZNIMMO ARCHITECTS
Suite 404, Flourmill Studios
3 Gladstone St. Newtown NSW 2042
T 02 9550 5200

Engineers
NORTHROP CONSULTING ENGINEERS
www.northrop.com.au
Civil & structural
Northrop Wollongong | T 02 4226 3333
Lighting & electrical • Hydraulic
Northrop Parramatta | T 02 9241 4188
Flood
Northrop Newcastle | T 02 4943 1777
Traffic
Northrop Canberra | T 02 6285 1822

CLIENT
CITY OF PARRAMATTA
City of Parramatta
126 Church Street
Parramatta NSW 2150
PO Box 3
Parramatta NSW 2124

LANDSCAPE ARCHITECT | HEAD CONSULTANT
smm
Spackman Mossop Michaels Pty Ltd
115 Flinders Street Surry Hills NSW 2010
www.sm2group.com.au
info@sm2group.com.au | T 02 9361 4549

SMM Project no: 18074

Approval	Director	Date
Tender		xx/xx/xx
Construction		xx/xx/xx

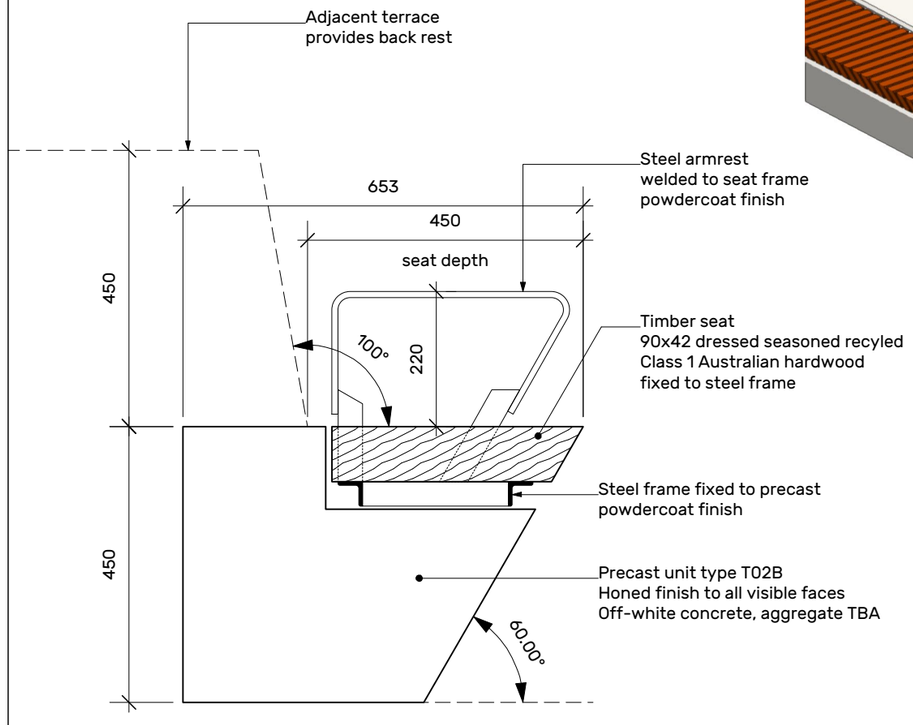
DRAWING STATUS
DESIGN DEVELOPMENT

Designed	Drawing date	North
CD	April 2020	
Drawn	Plot date	
CD	5/5/20	
Checked		Scale
MS		As shown
Sheet size	Size on original	
A3	0 5 10 15 20 25mm	

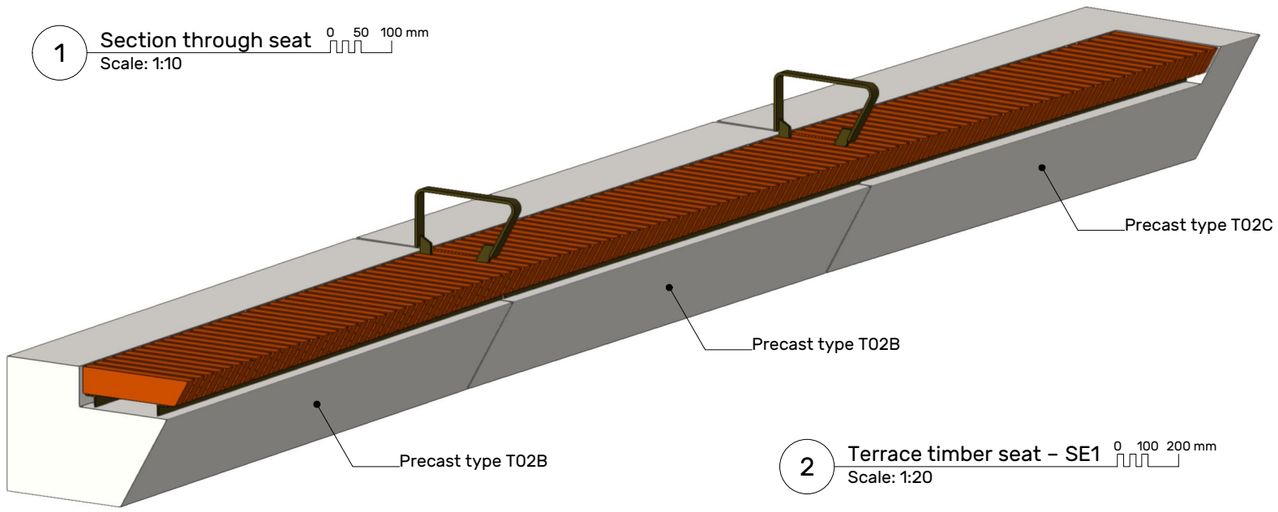
PROJECT
CHARLES STREET SQUARE
CHARLES STREET, PARRAMATTA

Drawing name
RAMPED WALKWAY BALUSTRADE

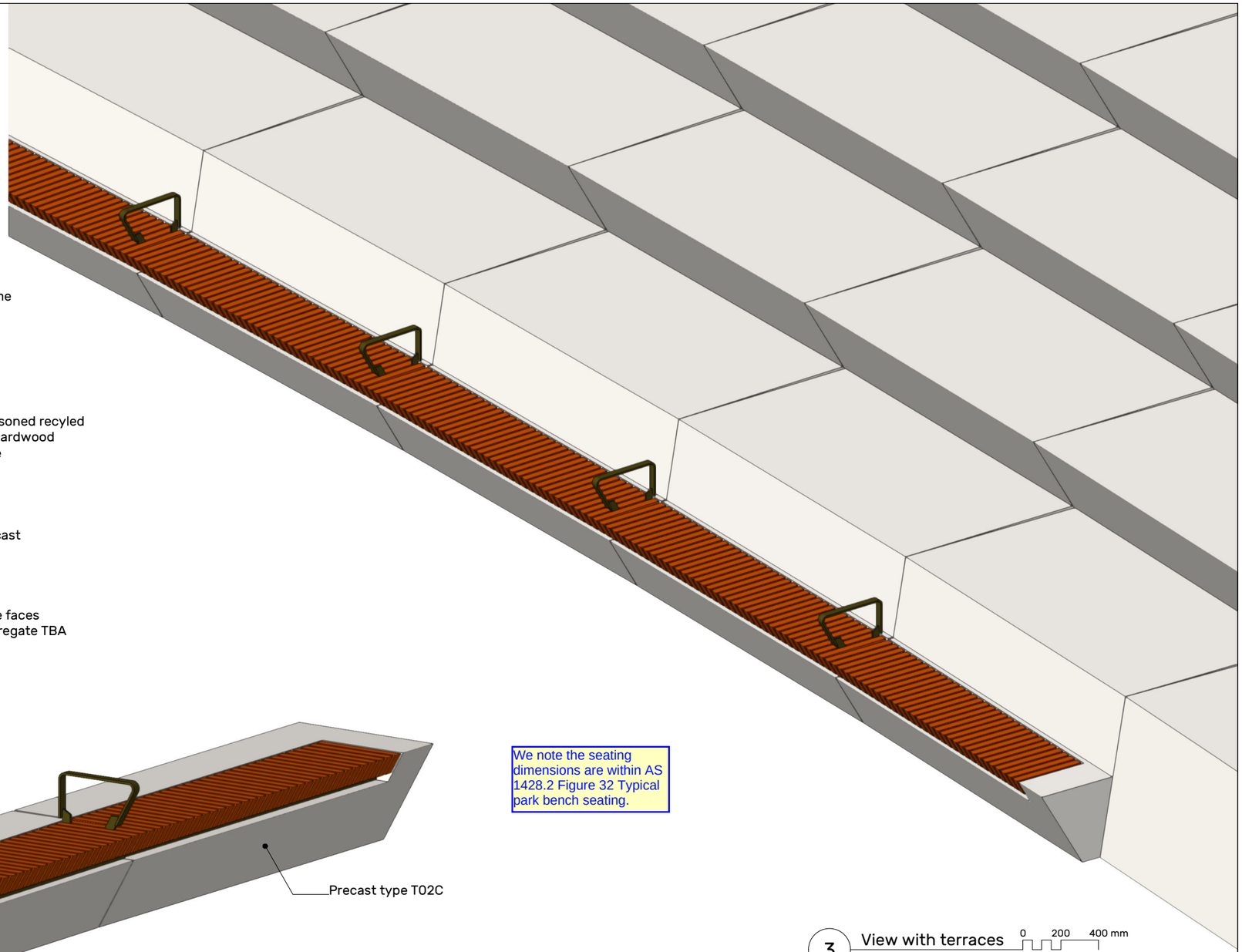
Drawing number **L-DD-331** Rev **A**



1 Section through seat 0 50 100 mm
Scale: 1:10



2 Terrace timber seat – SE1 0 100 200 mm
Scale: 1:20



3 View with terraces 0 200 400 mm
Scale: 1:25

We note the seating dimensions are within AS 1428.2 Figure 32 Typical park bench seating.

MGAC 18.05.20

NOT FOR CONSTRUCTION

ORIGINAL IN COLOUR

File name: CSS DD Precast model revB.vwx

Filename:

REV	DESCRIPTION	DATE	APPROVED
A	DD PACKAGE FOR COST PLAN 5	5/5/20	MS

REVISION HISTORY

GENERAL NOTES
1. Do not scale from this drawing. Use figured dimensions only.
2. Verify all dimensions on site. Refer any discrepencies to the Principal's Representative for resolution before proceeding.
3. If this drawing is unclear, ask for direction from the Principal's Representative.
4. Site check the location of utilities and services prior to the commencement of works. Refer any discrepencies to the Principal's Representative for resolution.

SURVEY
YSCO GEOMATICS
Suite 4, 114 Hampden Road
Artarmon NSW 2064
www.yscogeomatics.com.au
T 9419 8222

Survey drawing date	Grid	Datum
07/05/2019	MGA	AHD

DIMENSION STANDARD
Unless noted otherwise:
- All levels are shown in metres
- All dimensions are computer generated to 1mm

DESIGN TEAM
Architect
LAHZNIMMO ARCHITECTS
Suite 404, Flourmill Studios
3 Gladstone St, Newtown NSW 2042
T 02 9550 5200

Engineers
NORTHROP CONSULTING ENGINEERS
www.northrop.com.au
Civil & structural
Northrop Wollongong | T 02 4226 3333
Lighting & electrical • Hydraulic
Northrop Parramatta | T 02 9241 4188
Flood
Northrop Newcastle | T 02 4943 1777
Traffic
Northrop Canberra | T 02 6285 1822

CLIENT
CITY OF PARRAMATTA
City of Parramatta
126 Church Street
Parramatta NSW 2150
PO Box 3
Parramatta NSW 2124

LANDSCAPE ARCHITECT | HEAD CONSULTANT
smm
Spackman Mossop Michaels Pty Ltd
115 Flinders Street Surry Hills NSW 2010
www.sm2group.com.au
info@sm2group.com.au | T 02 9361 4549

SMM Project no: 18074

Approval	Director	Date
Tender		xx/xx/xx
Construction		xx/xx/xx

DRAWING STATUS
DESIGN DEVELOPMENT

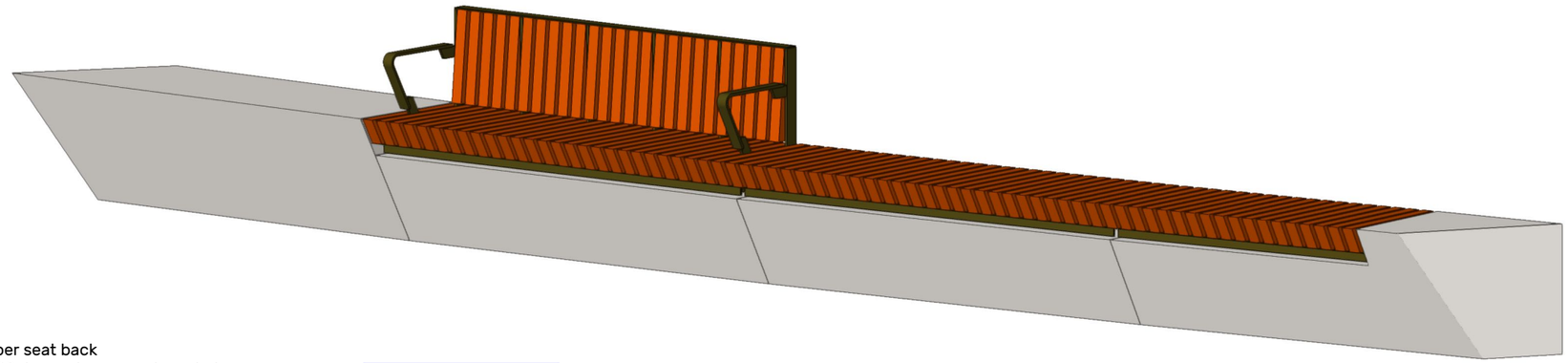
Designed	Drawing date	North
CD	April 2020	
Drawn	Plot date	
CD	14/5/20	
Checked		Scale
MS		As shown

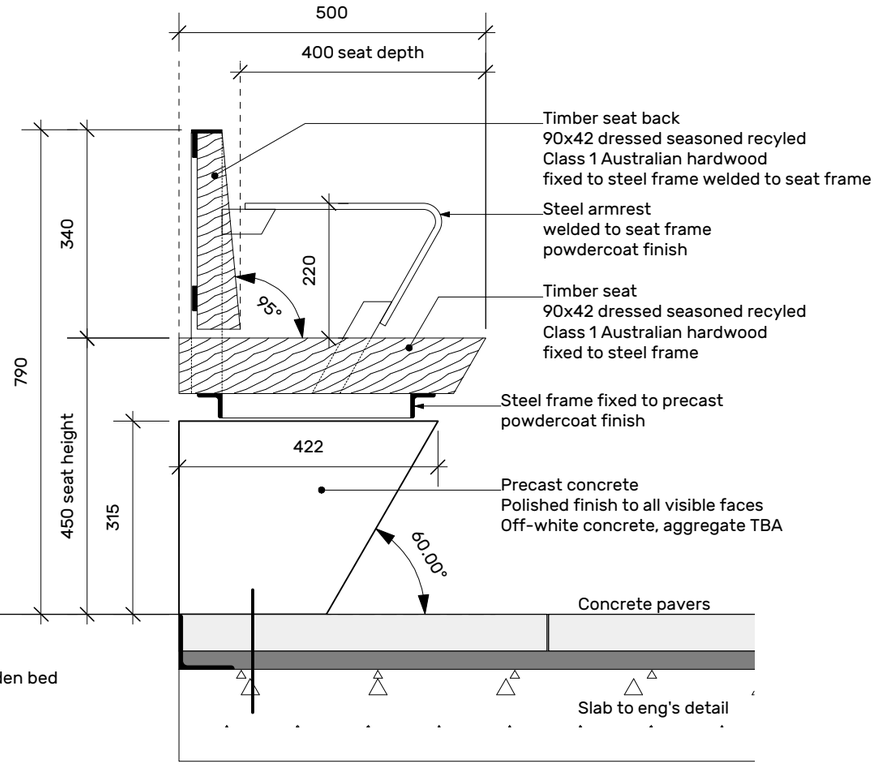
Sheet size A3 — Size on original 0 5 10 15 20 25mm

PROJECT
CHARLES STREET SQUARE
CHARLES STREET, PARRAMATTA

Drawing name
PRECAST TERRACE TIMBER SEAT TYPE SE1

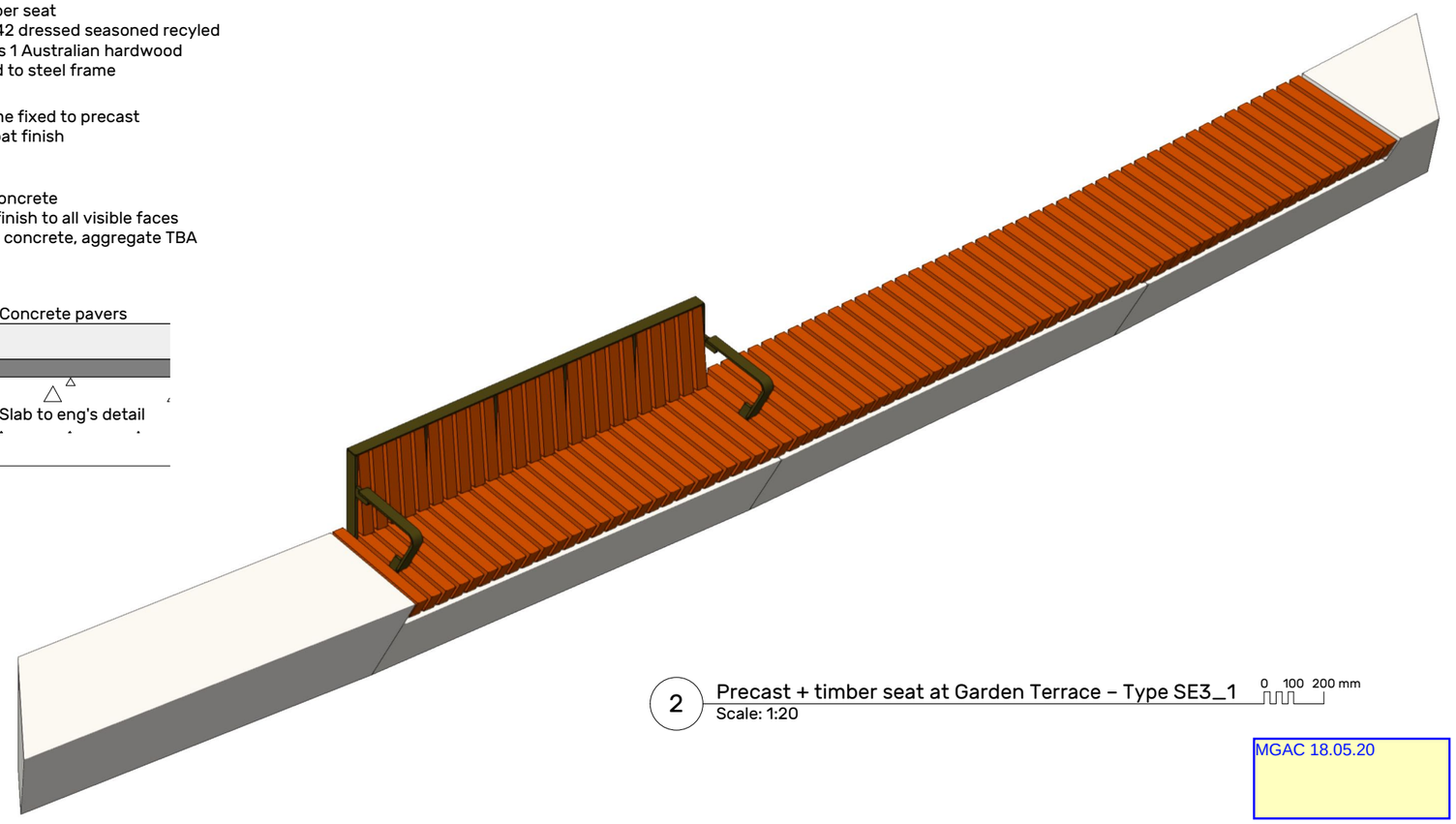
Drawing number **L-DD-321** Rev **A**





1 Section through seat 0 50 100 mm
Scale: 1:10

We note the seating dimensions are within AS 1428.2 Figure 32 Typical park bench seating.



2 Precast + timber seat at Garden Terrace – Type SE3_1 0 100 200 mm
Scale: 1:20

MGAC 18.05.20

NOT FOR CONSTRUCTION

ORIGINAL IN COLOUR

File name: CSS DD Precast model revB.vwx

Filename:

REV	DESCRIPTION	DATE	APPROVED
A	DD PACKAGE FOR COST PLAN 5	5/5/20	MS

REVISION HISTORY

GENERAL NOTES
1. Do not scale from this drawing. Use figured dimensions only.
2. Verify all dimensions on site. Refer any discrepencies to the Principal's Representative for resolution before proceeding.
3. If this drawing is unclear, ask for direction from the Principal's Representative.
4. Site check the location of utilities and services prior to the commencement of works. Refer any discrepencies to the Principal's Representative for resolution.

SURVEY
YSCO GEOMATICS
Suite 4, 114 Hampden Road
Artarmon NSW 2064
www.yscogeomatics.com.au
T 9419 8222

Survey drawing date	Grid	Datum
07/05/2019	MGA	AHD

DIMENSION STANDARD
Unless noted otherwise:
- All levels are shown in metres
- All dimensions are computer generated to 1mm

DESIGN TEAM
Architect
LAHZNIMMO ARCHITECTS
Suite 404, Flourmill Studios
3 Gladstone St, Newtown NSW 2042
T 02 9550 5200

Engineers
NORTHROP CONSULTING ENGINEERS
www.northrop.com.au
Civil & structural
Northrop Wollongong | T 02 4226 3333
Lighting & electrical • Hydraulic
Northrop Parramatta | T 02 9241 4188
Flood
Northrop Newcastle | T 02 4943 1777
Traffic
Northrop Canberra | T 02 6285 1822

CLIENT
CITY OF PARRAMATTA
City of Parramatta
126 Church Street
Parramatta NSW 2150
PO Box 3
Parramatta NSW 2124

LANDSCAPE ARCHITECT | HEAD CONSULTANT
Spackman Mossop Michaels Pty Ltd
115 Flinders Street Surry Hills NSW 2010
www.sm2group.com.au
info@sm2group.com.au | T 02 9361 4549

SMM Project no: 18074

Approval	Director	Date
Tender		xx/xx/xx
Construction		xx/xx/xx

DRAWING STATUS
DESIGN DEVELOPMENT

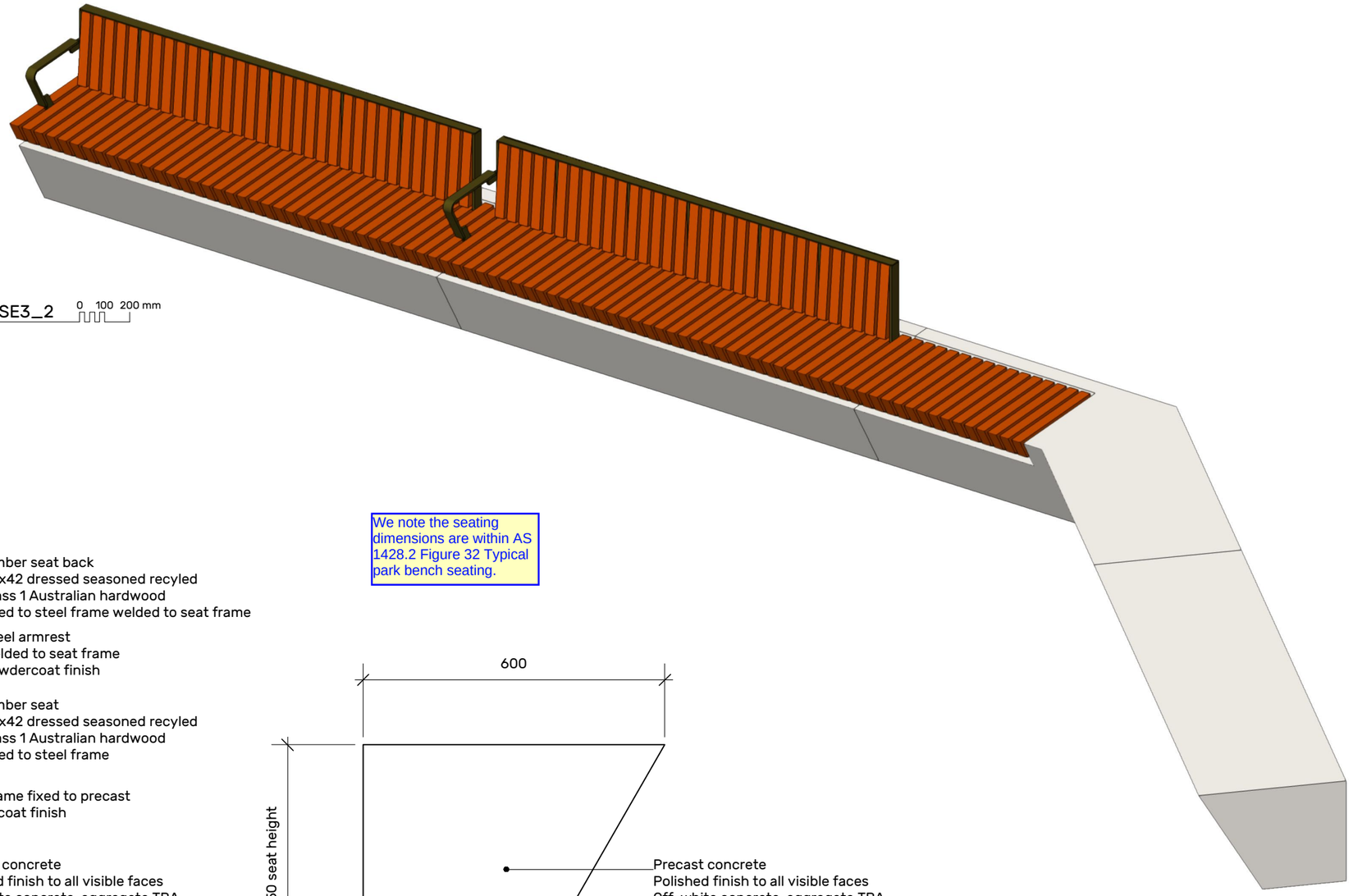
Designed	Drawing date	North
CD	April 2020	
Drawn	Plot date	
CD	14/5/20	
Checked		Scale
MS		As shown

Sheet size **A3** Size on original 0 5 10 15 20 25mm

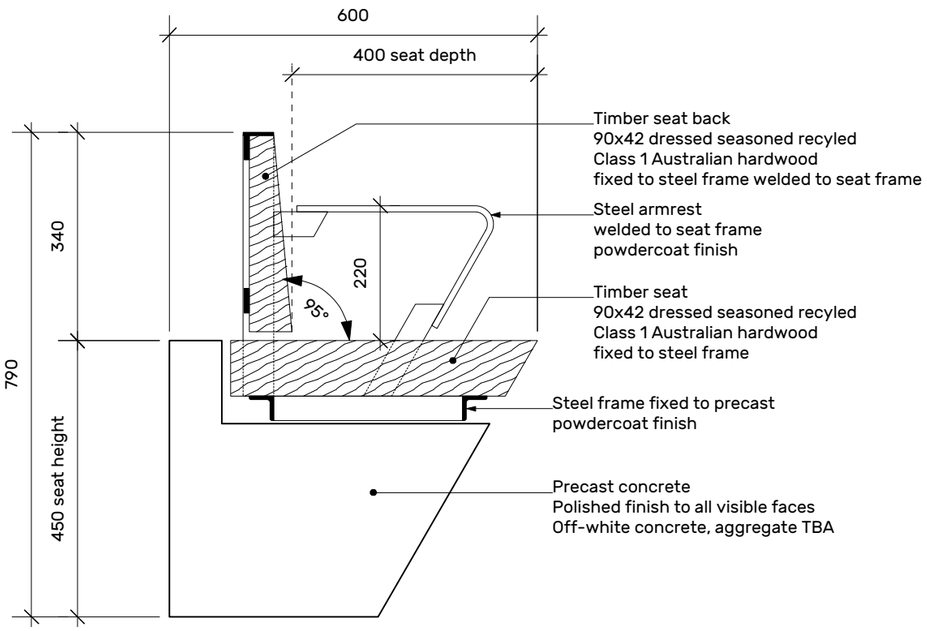
PROJECT
CHARLES STREET SQUARE
CHARLES STREET, PARRAMATTA

Drawing name
PRECAST CONCRETE SEAT + TIMBER AT GARDEN TERRACE – TYPE SE3_1

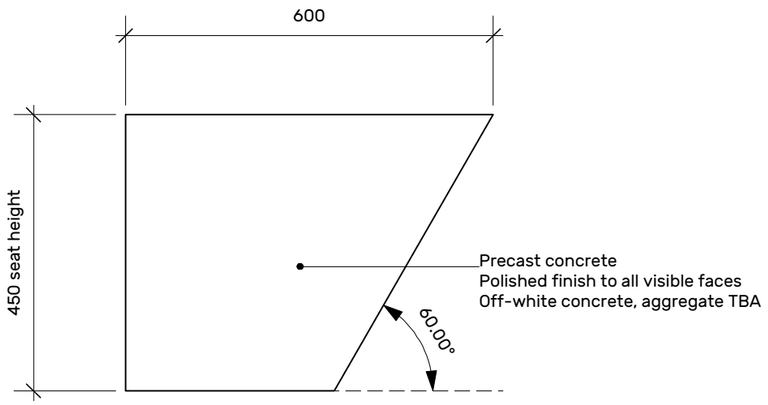
Drawing number **L-DD-324** Rev **A**



2 Precast + timber seat at stair landing – Type SE3_2
Scale: 1:20 0 100 200 mm



SEAT WITH TIMBER INSERT



CONCRETE BENCH

1 Sections through seat
Scale: 1:10 0 50 100 mm

We note the seating dimensions are within AS 1428.2 Figure 32 Typical park bench seating.

MGAC 18.05.20

NOT FOR CONSTRUCTION

ORIGINAL IN COLOUR

File name: CSS DD Precast model revB.vwx

Filename:

REV	DESCRIPTION	DATE	APPROVED
A	DD PACKAGE FOR COST PLAN 5	5/5/20	MS

REVISION HISTORY

GENERAL NOTES
1. Do not scale from this drawing. Use figured dimensions only.
2. Verify all dimensions on site. Refer any discrepencies to the Principal's Representative for resolution before proceeding.
3. If this drawing is unclear, ask for direction from the Principal's Representative.
4. Site check the location of utilities and services prior to the commencement of works. Refer any discrepencies to the Principal's Representative for resolution.

SURVEY
YSCO GEOMATICS
Suite 4, 114 Hampden Road
Artarmon NSW 2064
www.yscogeomatics.com.au
T 9419 8222

Survey drawing date	Grid	Datum
07/05/2019	MGA	AHD

DIMENSION STANDARD
Unless noted otherwise:
- All levels are shown in metres
- All dimensions are computer generated to 1mm

DESIGN TEAM
Architect
LAHZNIMMO ARCHITECTS
Suite 404, Flourmill Studios
3 Gladstone St, Newtown NSW 2042
T 02 9550 5200

Engineers
NORTHROP CONSULTING ENGINEERS
www.northrop.com.au
Civil & structural
Northrop Wollongong | T 02 4226 3333
Lighting & electrical • Hydraulic
Northrop Parramatta | T 02 9241 4188
Flood
Northrop Newcastle | T 02 4943 1777
Traffic
Northrop Canberra | T 02 6285 1822

CLIENT
CITY OF PARRAMATTA
City of Parramatta
126 Church Street
Parramatta NSW 2150
PO Box 3
Parramatta NSW 2124

LANDSCAPE ARCHITECT | HEAD CONSULTANT
smm
Spackman Mossop Michaels Pty Ltd
115 Flinders Street Surry Hills NSW 2010
www.sm2group.com.au
info@sm2group.com.au | T 02 9361 4549

SMM Project no: 18074

	Director	Date
Approval		xx/xx/xx
Tender		xx/xx/xx
Construction		xx/xx/xx

DRAWING STATUS
DESIGN DEVELOPMENT

Designed CD	Drawing date April 2020	North
Drawn CD	Plot date 14/5/20	
Checked MS		Scale As shown

Sheet size **A3** Size on original 0 5 10 15 20 25mm

PROJECT
CHARLES STREET SQUARE
CHARLES STREET, PARRAMATTA

Drawing name
PRECAST CONCRETE SEAT + TIMBER AT STAIR LANDING – TYPE SE3_2

Drawing number **L-DD-325** Rev **A**