NEWCASTLE INTERNATIONAL HOCKEY CENTRE

TURTON ROAD, BROADMEADOW, NSW 2292

ARCHITECTURAL DRAWING SCHEDULE

A000 COVER SHEET
A001 SITE PLAN
A002 EXISTING/ DEMOLITION PLAN
A003 SITE ANALYSIS PLAN

A101 PLAYING LEVEL FLOOR PLAN - HOCKEY CENTRE A
A102 LEVEL 1 FLOOR PLAN - HOCKEY CENTRE A
A104 ROOF LEVEL PLAN - HOCKEY CENTRE A

A111 PLAYING LEVEL FLOOR PLAN - HOCKEY CENTRE B
A112 LEVEL 1 FLOOR PLAN - HOCKEY CENTRE B
A114 ROOF LEVEL PLAN - HOCKEY CENTRE B

A121 PLAYING LEVEL FLOOR PLAN - HOCKEY CENTRE C
A122 LEVEL 1 FLOOR PLAN - HOCKEY CENTRE C
A124 ROOF LEVEL PLAN - HOCKEY CENTRE C

A141 BOULEVARD FLOOR PLAN
A151 NORTHERN PARKING FLOOR PALN

A501 ELEVATIONS - HOCKEY CENTRE A
A502 SECTIONS - HOCKEY CENTRE A

A511 ELEVATIONS - HOCKEY CENTRE B
A512 SECTIONS - HOCKEY CENTRE B

A971 PERSPECTIVES 01
A972 PERSPECTIVES 02

A974 PERSPECTIVES 04
A975 PERSPECTIVES 05

A977 PERSPECTIVES 07
A978 PERSPECTIVES 08
A979 PERSPECTIVES 09
A980 PERSPECTIVES 10
A981 PERSPECTIVES 11

A991 SCHEDULE OF EXTERNAL FINISHES
A996 NOTIFICATION - SITE PLAN
A997 NOTIFICATION - ELEVATIONS A
A998 NOTIFICATION - ELEVATIONS B
A999NOTIFICATION - ELEVATIONS C

REV. DA ISSUE

Newcastle HOCKEY

EJE ARCHITECTURE

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Nominated Architect - Peter Campbell | NSW Architects Registration No: 4294
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A 412 King Street, Newcastle, NSW 2300

FILE NAME: 10699 - DA 180213.pln PRINTED ON: 14/02/2018

EJE architecture

PHOTOGRAPH 1

PHOTOGRAPH 7

PHOTOGRAPH 2

PHOTOGRAPH 8

PHOTOGRAPH 3

PHOTOGRAPH 9

PHOTOGRAPH 4

PHOTOGRAPH 10

PHOTOGRAPH 5

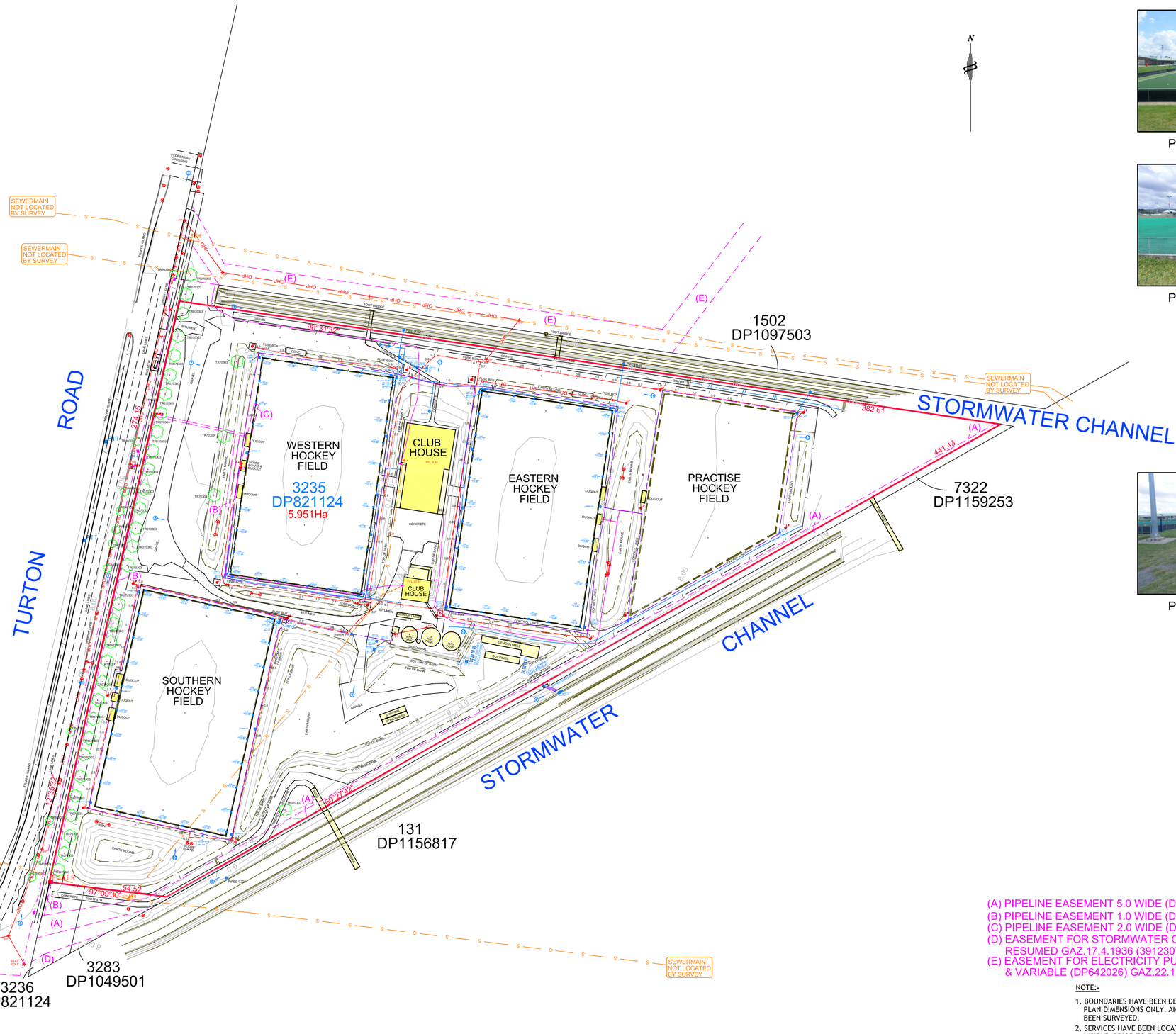
PHOTOGRAPH 11

PHOTOGRAPH 6

PHOTOGRAPH 12

PHOTOGRAPH 13

PHOTOGRAPH 14



LEGEND

- PHOTO LOCATION & DIRECTION
- HYD HYDRANT
- S SEWERMAIN
- W WATERMAIN
- OHP OVERHEAD ELECTRICITY
- T TELSTRA LINE
- FENCE LINE
- MINOR CONTOUR LINE
- MAJOR CONTOUR LINE
- BOUNDARY LINE
- TOP & TOE OF BANKS
- UNDERGROUND POWER
- TREE CODES: TR16034 = TR/HH/DD/S
- PP POWER POLE
- GAS
- SIP SEWER INSPECTION POINT
- SM H SEWER MAN HOLE
- TELSTRA PIT
- TPIL TELSTRA PILLAR
- GPIT GRATED PIT
- SIGN
- WM WATER METER
- RW RAIN WATER OUTLET
- CONTROL WIRES
- WHERE: HH = 16m (HEIGHT), DD = 0.3m (DIAMETER), S = 4m (SPREAD - RADIUS)

SCALE 1:1000 (A1)

25 0 25 50 75 100

(A) PIPELINE EASEMENT 5.0 WIDE (DP499009)
(B) PIPELINE EASEMENT 1.0 WIDE (DP499022)
(C) PIPELINE EASEMENT 2.0 WIDE (DP499022)
(D) EASEMENT FOR STORMWATER CHANNEL RESUMED GAZ.17.4.1936 (39123070, 39183070)
(E) EASEMENT FOR ELECTRICITY PURPOSES 10 WIDE & VARIABLE (DP642026) GAZ.22.12.1989 E 11583(Y958535)

DIAL1100 BEFORE YOU DIG www.dialbeforeyoudig.com.au

NOTE:-

1. BOUNDARIES HAVE BEEN DETERMINED BY PLAN DIMENSIONS ONLY, AND HAVE NOT BEEN SURVEYED.
2. SERVICES HAVE BEEN LOCATED ONLY WHERE VISIBLE, PRIOR TO EXCAVATION OR CONSTRUCTION ALL SERVICES ARE TO BE LOCATED BY RELEVANT AUTHORITY.
3. SPOT LEVELS AND CONTOURS SHOWN HEREON ARE FOR DESIGN PURPOSES ONLY AND ARE TO BE CONFIRMED ON SITE PRIOR TO EXCAVATION OR CONSTRUCTION.
4. APPROXIMATE SITE AREA = 5.951Ha
5. DETAILS OF SURVEY ARE CORRECT TO THE DATE SHOWN 21/02/17

Ed.	Details of Revisions	Date
A	ISSUED FOR APPROVAL	27/02/17

Client / Council Development Consent Number

Scale:	1:1000 (A1) 1:2000 (A3)	Datum:	AHD
Origin:	PM 12421	Contour Int:	0.5m
Surveyor:	C.C./M.R.	Drawn:	C.C.
Checked:	J.H.	Approved:	J.H.
Job Number:	4061	Drawing File:	4061-DET.dwg

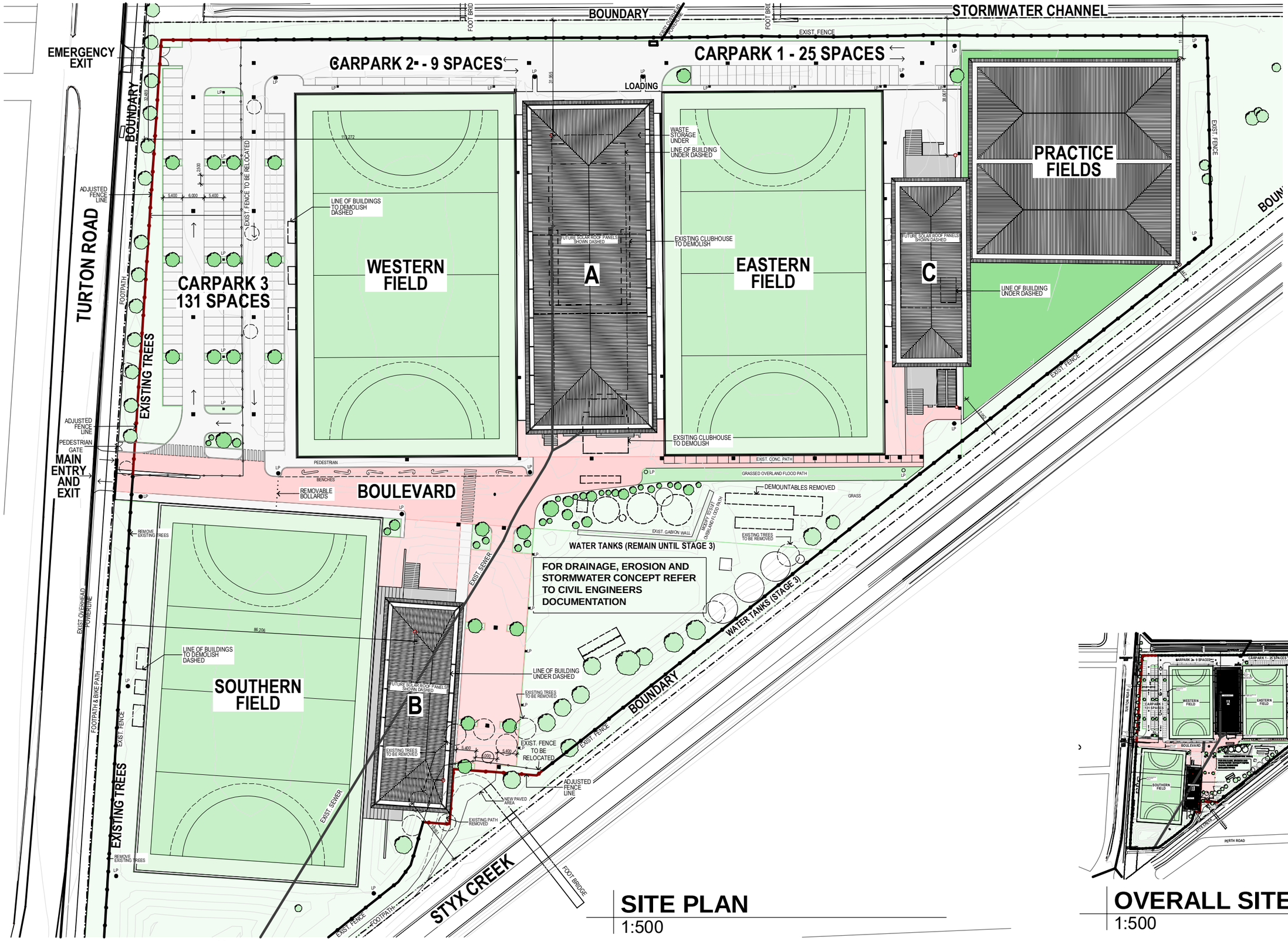
Registered Surveyor: .....

Land Development SOLUTIONS
Surveying • Planning • Engineering
PO Box 853 THE JUNCTION NSW 2291
Phone: (02) 4963 5520 Fax: (02) 4963 5521
E-mail: mail@lds.net.au
ABN: 42 110 897 928

DETAIL SURVEY OF LOT 3235 DP821124 BEING THE NEWCASTLE INTERNATIONAL HOCKEY CENTRE TURTON STREET BROADMEADOW, NEWCASTLE

Drawing Number	Edition
1	A

Sheet 1 of 1



SITE PLAN
1:500

OVERALL SITE PLAN
1:500

NOT FOR CONSTRUCTION

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 649 849
Nominated Architect - Peter Campbell
NSW Architects Registration No: 4264
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N

0 10mm 50mm 100mm ON ORIGINAL A3

REV	DATE	COMMENTS
A	07.07.2017	ISSUE FOR DEVELOPMENT APPLICATION
B	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
PHB	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : NOTIFICATION - SITE PLAN

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 10699 - DA 180213.pln DATE PRINTED : 14/02/2018

DRAWN :	DATE :	SCALES :
PHB	07.07.17	1:1000@A1 1:2000@A3

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A996	B

EJE architecture

LEGEND

BOL	BOLLARD
COS	CONFIRM ON SITE
(E)	EXISTING
KB	CONCRETE KERB
LM	GENERAL CARPARK & LINE MARKINGS TO AS2890
PP	POWER POLE
PT	STORMWATER PIT

DEMOLISHED ITEMS SHOWN DASHED

FOOT BRID

FOOT BRID

EXISTING CLUBHOUSE DEMOLISHED

DUGOUTS DEMOLISHED

DUGOUTS DEMOLISHED

EXISTING CLUBHOUSE DEMOLISHED

EXISTING WATER TANKS RELOCATED

DEMOUNTABLES REMOVED

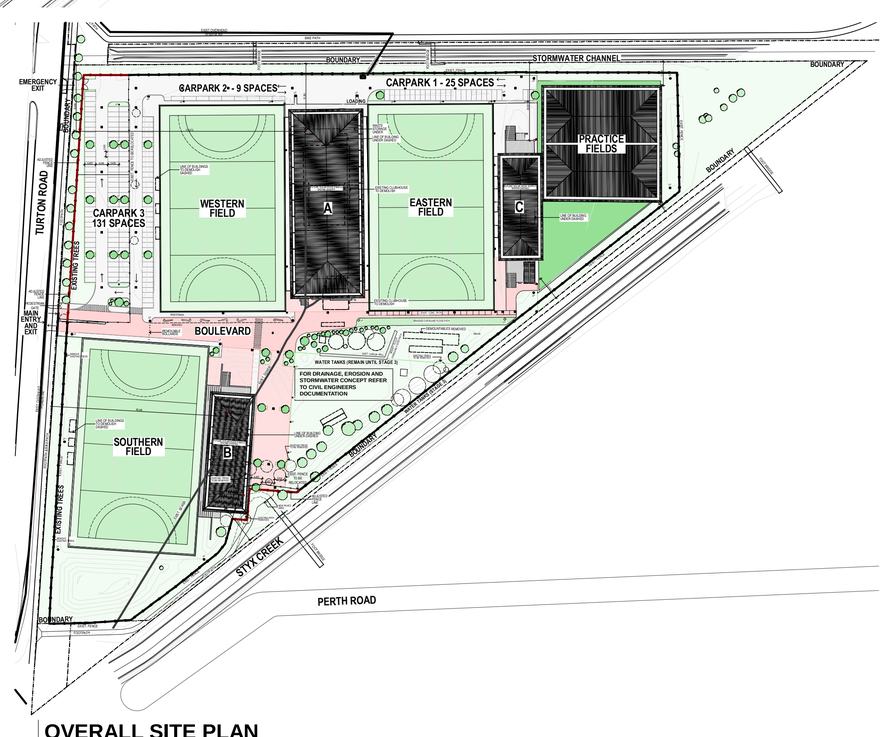
DUGOUTS DEMOLISHED

SHIPPING CONTAINERS REMOVED

FOOT BRIDGE

N

DEMO SITE PLAN
1:500



OVERALL SITE PLAN
1:500

NOT FOR CONSTRUCTION

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0 25mm 100mm 200mm ON ORIGINAL A1

Newcastle HOCKEY

REV	DATE	COMMENTS
A	13.12.2016	ISSUE TO CLIENT FOR REVIEW
B	06.02.2017	ISSUE TO CLIENT FOR REVIEW
C	08.02.2017	ISSUE TO CLIENT FOR REVIEW
D	27.03.2017	ISSUE FOR COORDINATION
E	14.07.2017	ISSUE FOR DEVELOPMENT APPLICATION
F	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

SITE : TURTON ROAD
BROADMEADOW 2292

DRAWING : EXISTING / DEMOLITION SITE PLAN

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 10699 - DA 180213.pln
DATE PRINTED : 14/02/2018

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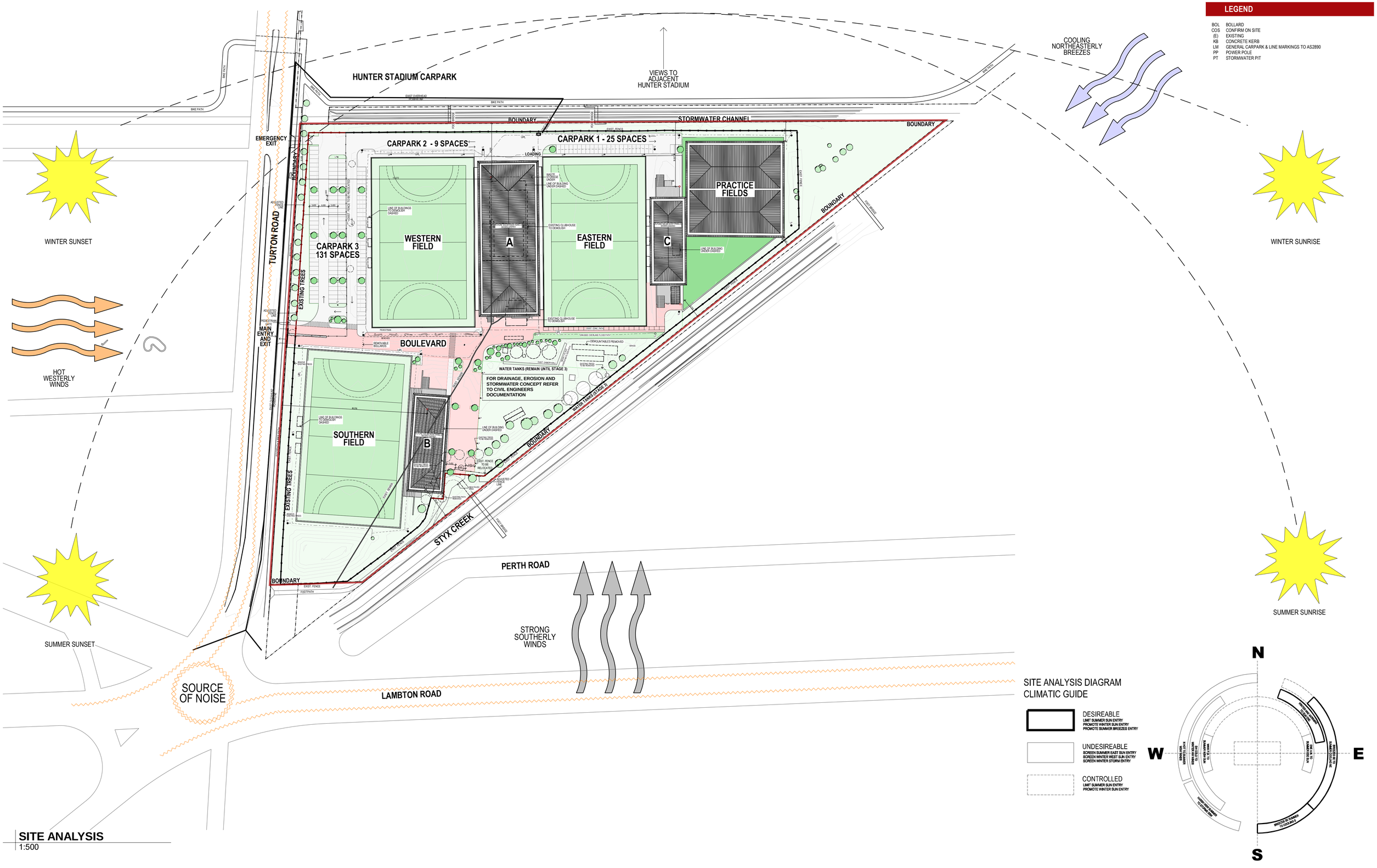
PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A002	F

EJE architecture



SITE ANALYSIS
1:500

NOT FOR CONSTRUCTION

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N

0 25mm 100mm 200mm ON ORIGINAL A1

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DRN	CHKD	VRFD
PHB	PHB	BC
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

SITE : TURTON ROAD
BROADMEADOW 2292

DRAWING : SITE ANALYSIS PLAN

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DATE PRINTED : 14/02/2018

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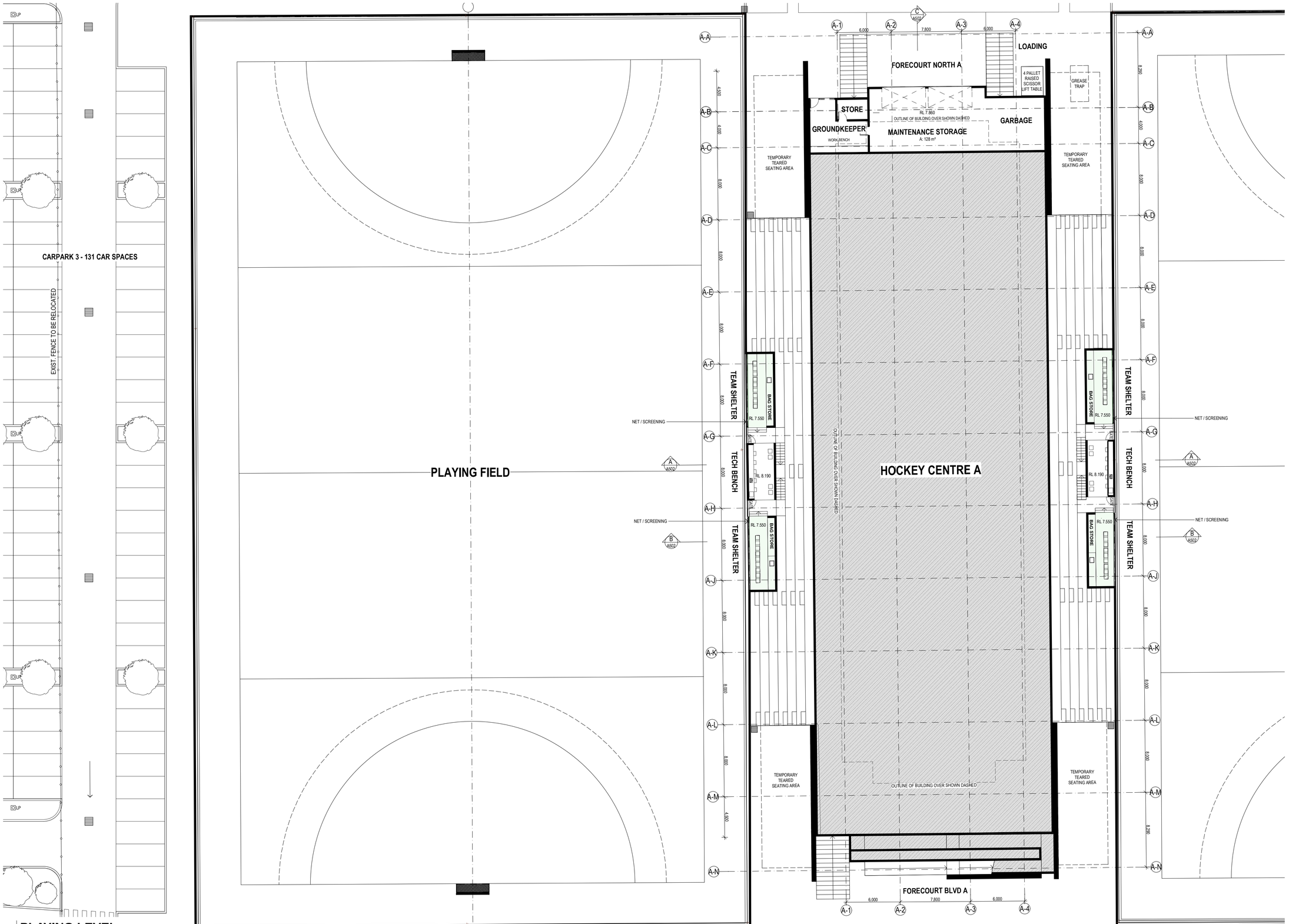
PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A003	C

EJE architecture



LEGEND

BG	BOX GUTTER
BOL	BOLLARD
COL	COLUMN - REFER TO STRUCTURAL DOCUMENTATION
COS	CONFIRM ON SITE
CPT	CARPET - No. DENOTES TYPE AS SCHEDULED
CT	CERAMIC TILE - No. DENOTES TYPE AS SCHEDULED
DP	COLORBOND DOWNPIPE - REFER HYDRAULIC DOCUMENTS
(E)	EXISTING
FHR	FIRE HOSE REEL - REFER HYDRAULIC DOCUMENTATION
HB	HAND BASIN AS SCHEDULED
HWU	HOT WATER UNITS
LP	EXISTING LIGHT POLE TO REMAIN
MRS	METAL ROOF SHEETING
OPW	OPERABLE WALL - DORMA HSW-G OR SIMILAR
RWH	RAIN WATER HEAD
TME	TO MATCH EXISTING
TB	TABLE
UR	URINAL AS SCHEDULED
WC	TOILET PAN AS SCHEDULED

L1.05 LOUVRE MARKER
eg. LOUVRE / LEVEL 1 / LOUVRE N° 05

W1.05 WINDOW MARKER
eg. WINDOW / LEVEL 1 / WINDOW N° 05

D1.05 DOOR MARKER
eg. DOOR / LEVEL 1 / DOOR N° 05

SUMP. REFER TO CIVIL ENGINEERS DOCUMENTATION

LOCATION OF LIGHTING POLE

STAGE 1

PLAYING LEVEL
1:200

N

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0 25mm 100mm 200mm ON ORIGINAL A1

Newcastle HOCKEY

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J	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : PLAYING LEVEL FLOOR PLAN
HOCKEY CENTRE A

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

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DRAWN :	DATE :	SCALES :
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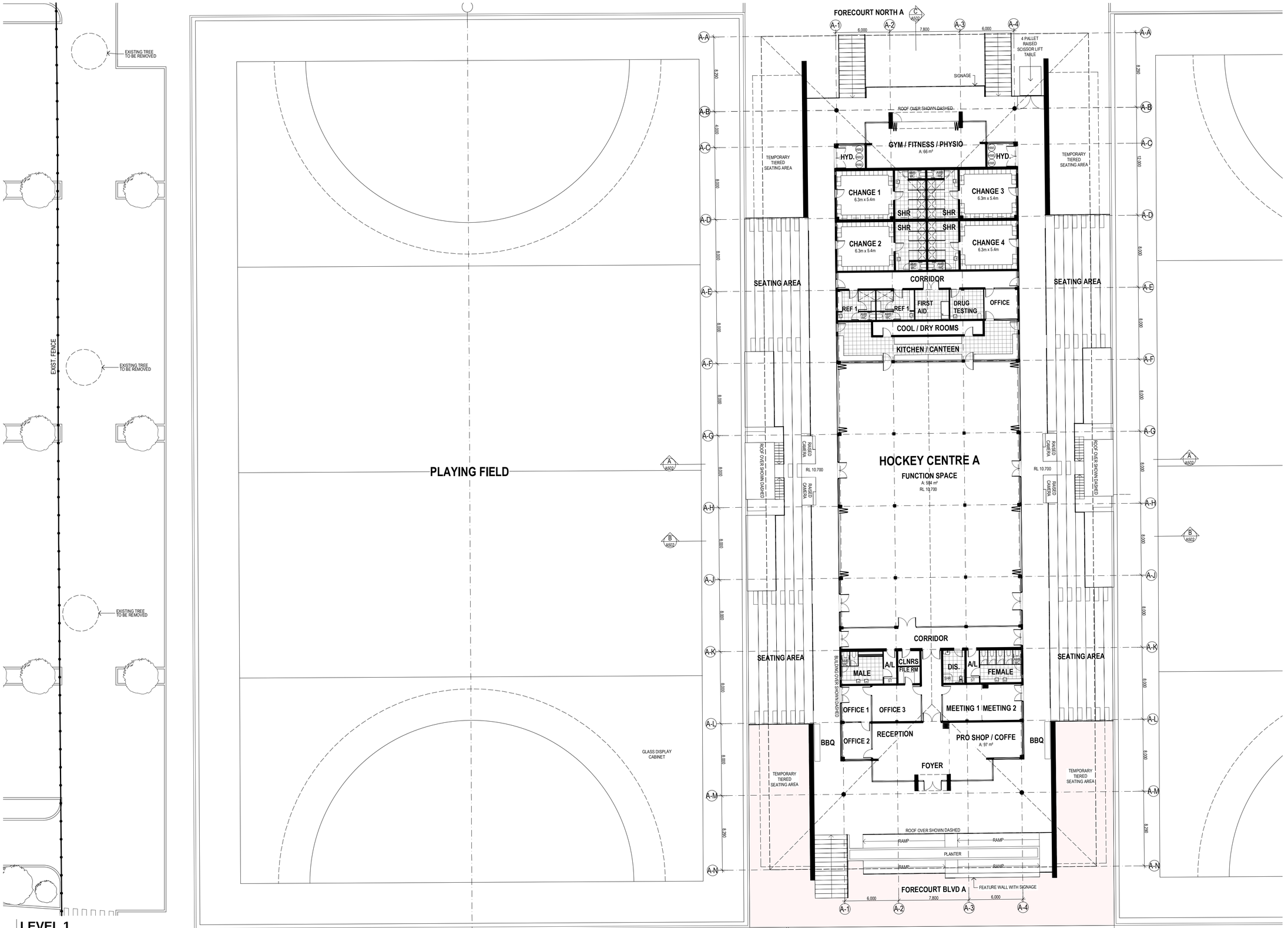
PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A101	J

NOT FOR CONSTRUCTION

EJE architecture



LEVEL 1
1:200

N

LEGEND

BG	BOX GUTTER
BOL	BOLLARD
COL	COLUMN - REFER TO STRUCTURAL DOCUMENTATION
COS	CONFIRM ON SITE
CPT	CARPET - No. DENOTES TYPE AS SCHEDULED
CT	CERAMIC TILE - No. DENOTES TYPE AS SCHEDULED
DP	COLORBOND DOWNPIPE - REFER HYDRAULIC DOCUMENTS
(E)	EXISTING
FHR	FIRE HOSE REEL - REFER HYDRAULIC DOCUMENTATION
HB	HAND BASIN AS SCHEDULED
HWU	HOT WATER UNITS
LP	EXISTING LIGHT POLE TO REMAIN
MRS	METAL ROOF SHEETING
OPW	OPERABLE WALL - DORMA HSW-G OR SIMILAR
RWH	RAIN WATER HEAD
TME	TO MATCH EXISTING
TB	TABLE
UR	URINAL AS SCHEDULED
WC	TOILET PAN AS SCHEDULED

L1.05 LOUVRE MARKER
eg. LOUVRE / LEVEL 1 / LOUVRE N° 05

W1.05 WINDOW MARKER
eg. WINDOW / LEVEL 1 / WINDOW N° 05

D1.05 DOOR MARKER
eg. DOOR / LEVEL 1 / DOOR N° 05

SUMP. REFER TO CIVIL ENGINEERS DOCUMENTATION

LOCATION OF LIGHTING POLE

STAGE 1

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0 25mm 100mm 200mm ON ORIGINAL A1

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PHB	PHB	BC
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PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : LEVEL 1 FLOOR PLAN
HOCKEY CENTRE A

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

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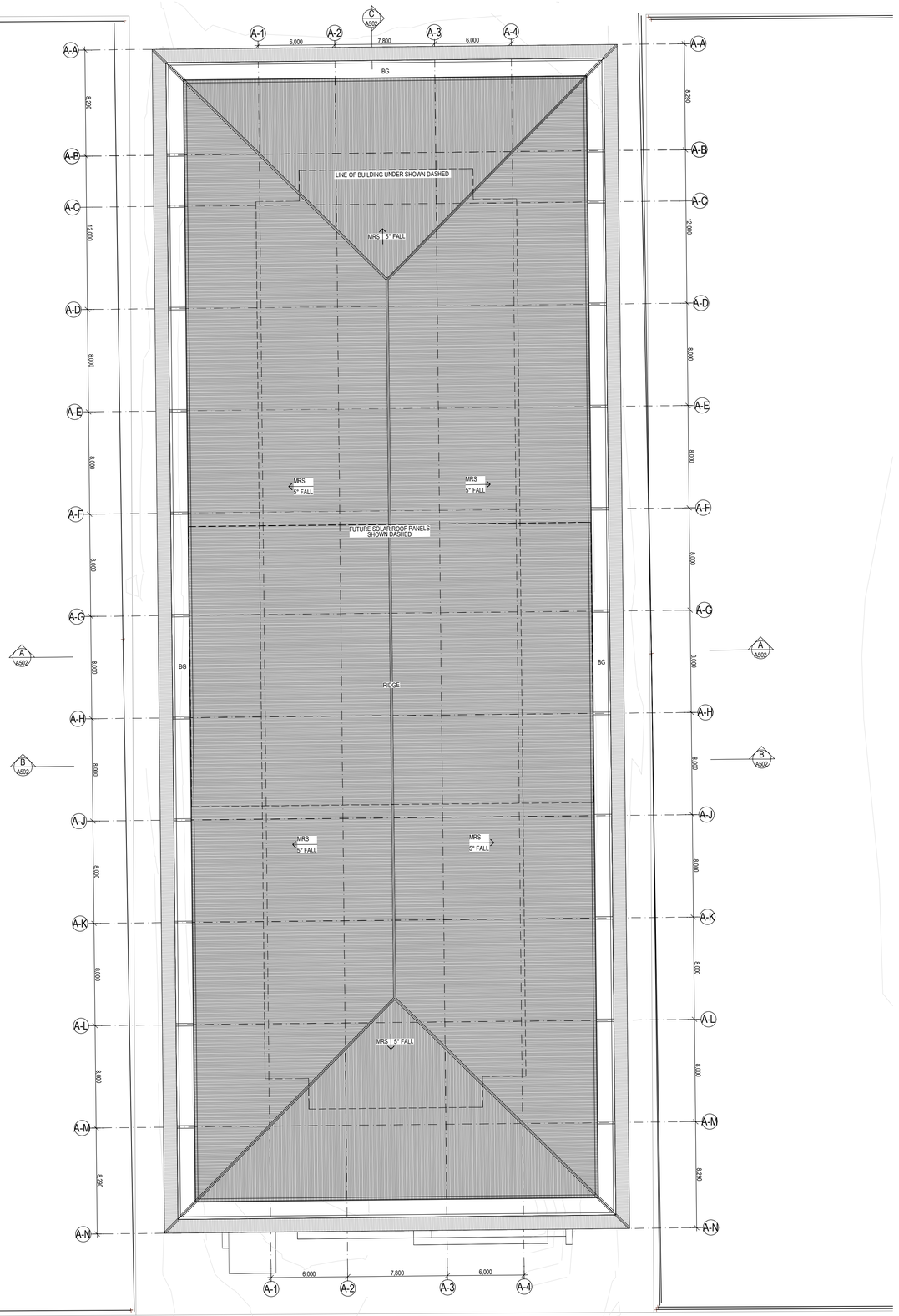
PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A102	J

NOT FOR CONSTRUCTION

EJE architecture



LEGEND

BG	BOX GUTTER
COL	COLUMN - REFER TO STRUCTURAL DOCUMENTATION
COS	CONFIRM ON SITE
CPT	CARPET - No. DENOTES TYPE AS SCHEDULED
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L1.05 LOUVRE MARKER
eg. LOUVRE / LEVEL 1 / LOUVRE N° 05

W1.05 WINDOW MARKER
eg. WINDOW / LEVEL 1 / WINDOW N° 05

D1.05 DOOR MARKER
eg. DOOR / LEVEL 1 / DOOR N° 05

ROOF LEVEL
1:200

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Newcastle HOCKEY

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PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
RJ	PHB	BC
PHB	**PHB**	**BC**

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SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : ROOF LEVEL PLAN
HOCKEY CENTRE A

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

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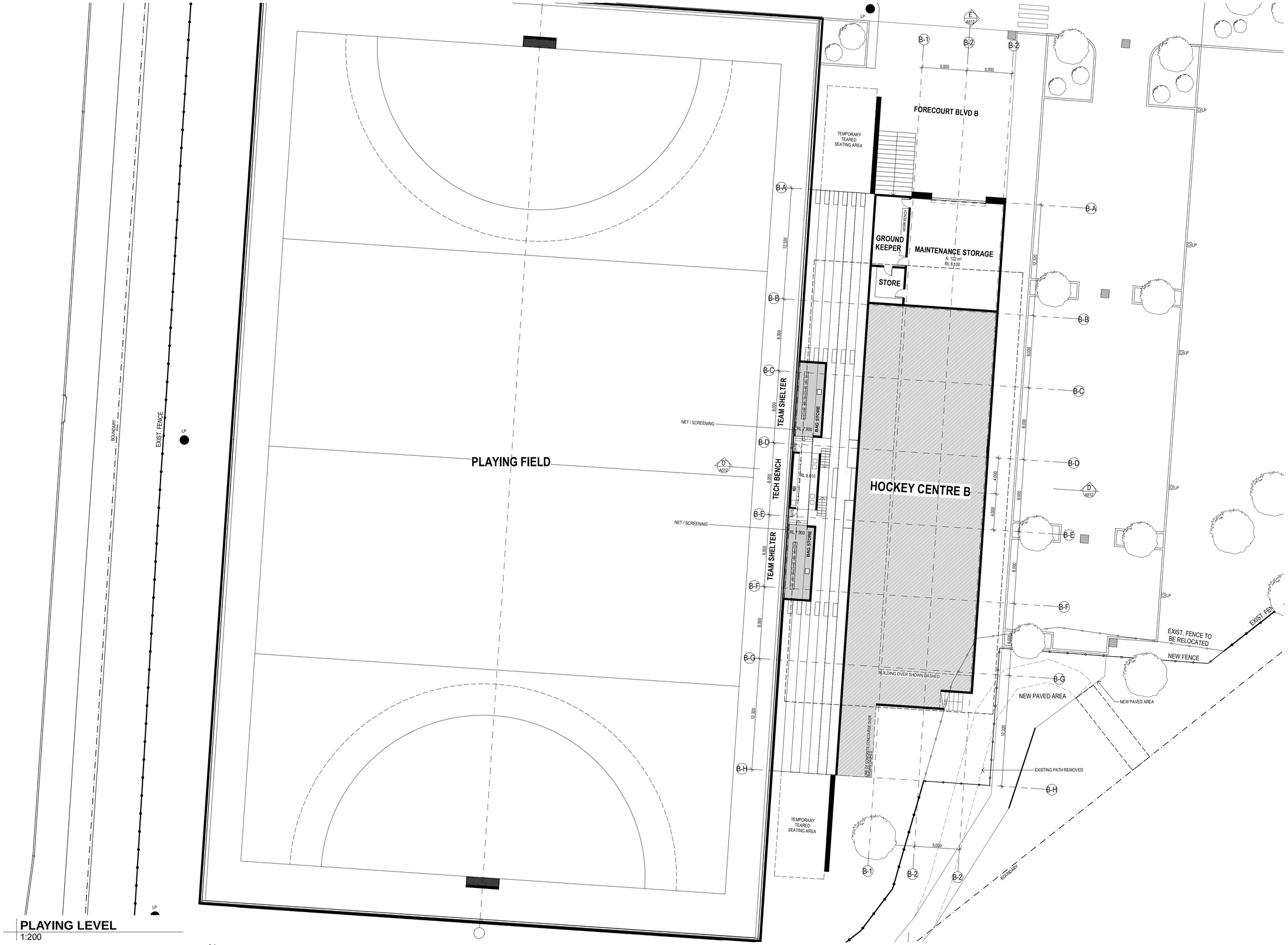
PHB	13.12.2016	1:200@A1 1:400@A3

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A104	H

NOT FOR CONSTRUCTION

EJE architecture

0 25mm 100mm 200mm ON ORIGINAL A1



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WC	TOILET PAN AS SCHEDULED

L1.05 LOUVRE MARKER
eg. LOUVRE / LEVEL 1 / LOUVRE N° 05

W1.05 WINDOW MARKER
eg. WINDOW / LEVEL 1 / WINDOW N° 05

D1.05 DOOR MARKER
eg. DOOR / LEVEL 1 / DOOR N° 05

SUMP. REFER TO CIVIL ENGINEERS DOCUMENTATION

LOCATION OF LIGHTING POLE

STAGE 1

PLAYING LEVEL
1:200

N

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 649 849
Nominated Architect - Peter Campbell
NSW Architects Registration No: 4294
A 412 KING STREET, NEWCASTLE, NSW 2300
P +61 2 4929 2353 | **F** +61 2 4926 3099 | **E** mail@eje.com.au | **W** www.eje.com.au

0 25mm 100mm 200mm ON ORIGINAL A1

Newcastle HOCKEY

REV	DATE	COMMENTS
B	06.02.2017	ISSUE TO CLIENT FOR REVIEW
C	08.02.2017	ISSUE TO CLIENT FOR REVIEW
D	27.03.2017	ISSUE FOR COORDINATION
E	11.05.2017	ISSUE TO CLIENT FOR REVIEW
F	23.05.2017	ISSUE TO CLIENT FOR REVIEW
G	07.06.2017	ISSUE TO CLIENT FOR REVIEW
H	14.07.2017	ISSUE FOR DEVELOPMENT APPLICATION
J	15.09.2017	ISSUE FOR DEVELOPMENT APPLICATION
K	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
RJ	PHB	BC
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : PLAYING LEVEL FLOOR PLAN
HOCKEY CENTRE B

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 10699 - DA 180213.pln
DATE PRINTED : 14/02/2018

DRAWN :	DATE :	SCALES :
PHB	13.12.2016	1:200@A1 1:400@A3

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A111	K

NOT FOR CONSTRUCTION

EJE architecture

LEGEND

BG	BOX GUTTER
BOL	BOLLARD
COL	COLUMN - REFER TO STRUCTURAL DOCUMENTATION
COS	CONFIRM ON SITE
CPT	CARPET - No. DENOTES TYPE AS SCHEDULED
CT	CERAMIC TILE - No. DENOTES TYPE AS SCHEDULED
DP	COLORBOND DOWNPIPE - REFER HYDRAULIC DOCUMENTS
(E)	EXISTING
FHR	FIRE HOSE REEL - REFER HYDRAULIC DOCUMENTATION
HB	HAND BASIN AS SCHEDULED
HWU	HOT WATER UNITS
LP	EXISTING LIGHT POLE TO REMAIN
MRS	METAL ROOF SHEETING
OPW	OPERABLE WALL - DORMA HSW-G OR SIMILAR
RWH	RAIN WATER HEAD
TME	TO MATCH EXISTING
TB	TABLE
UR	URINAL AS SCHEDULED
WC	TOILET PAN AS SCHEDULED

L1.05 LOUVRE MARKER
eg. LOUVRE / LEVEL 1 / LOUVRE N° 05

W1.05 WINDOW MARKER
eg. WINDOW / LEVEL 1 / WINDOW N° 05

D1.05 DOOR MARKER
eg. DOOR / LEVEL 1 / DOOR N° 05

SUMP. REFER TO CIVIL ENGINEERS DOCUMENTATION

LOCATION OF LIGHTING POLE

STAGE 1

LEVEL 1
1:200

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Newcastle HOCKEY

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E	11.05.2017	ISSUE TO CLIENT FOR REVIEW	PHB	PHB	BC
F	23.05.2017	ISSUE TO CLIENT FOR REVIEW	PHB	PHB	BC
G	07.06.2017	ISSUE TO CLIENT FOR REVIEW	PHB	PHB	BC
H	14.07.2017	ISSUE FOR DEVELOPMENT APPLICATION	RJ	PHB	BC
J	15.09.2017	ISSUE FOR DEVELOPMENT APPLICATION	RJ	PHB	BC
K	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**	**PHB**	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : LEVEL 1 FLOOR PLAN
HOCKEY CENTRE B

NOT FOR CONSTRUCTION

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

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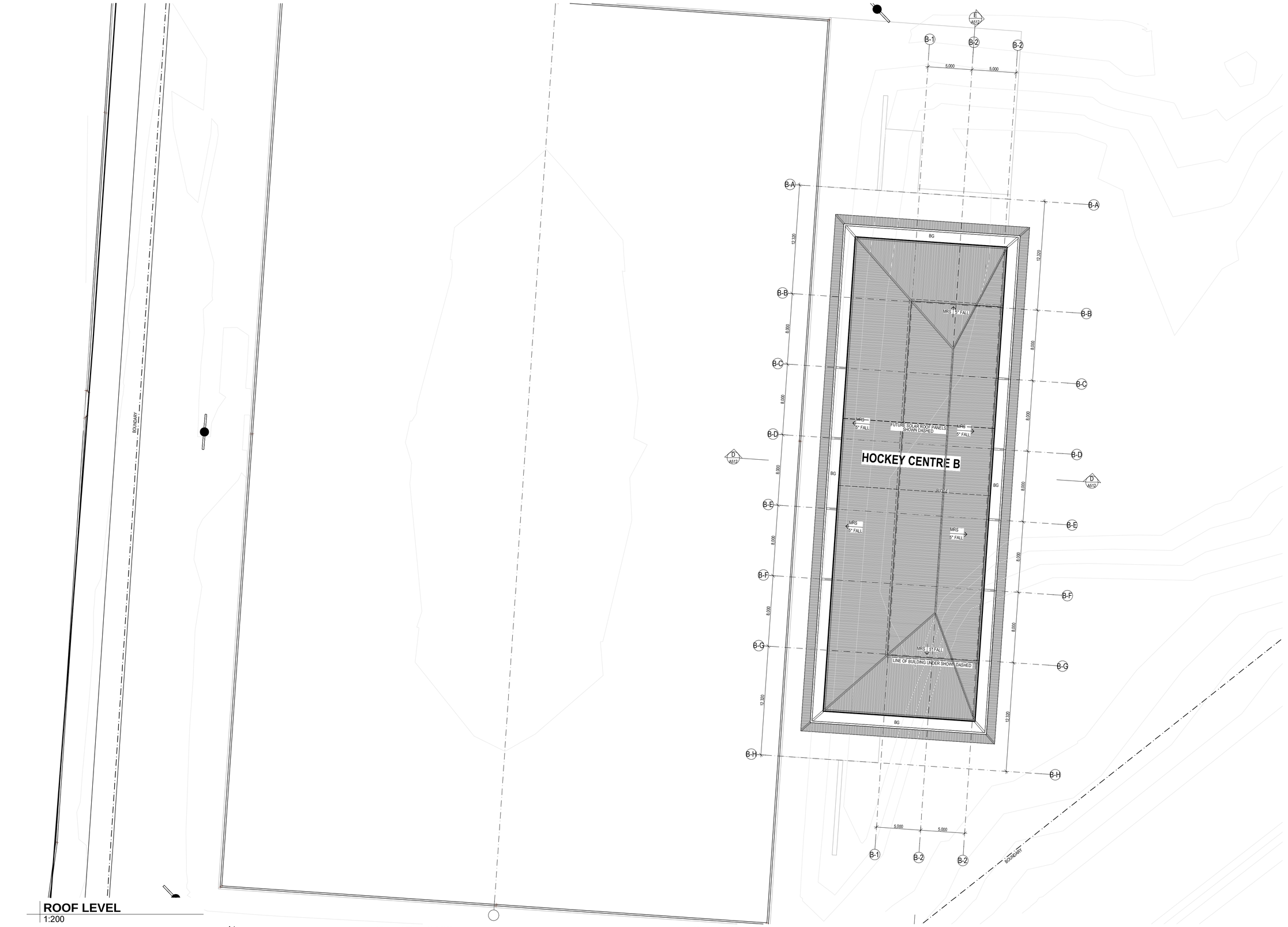
PHB	13.12.2016	1:200@A1 1:400@A3

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A112	K

EJE architecture



ROOF LEVEL
1:200

LEGEND

BG	BOX GUTTER
BOL	BOLLARD
COL	COLUMN - REFER TO STRUCTURAL DOCUMENTATION
COS	CONFIRM ON SITE
CPT	CARPET - No. DENOTES TYPE AS SCHEDULED
CT	CERAMIC TILE - No. DENOTES TYPE AS SCHEDULED
DP	COLORBOND DOWNPIPE - REFER HYDRAULIC DOCUMENTS
(E)	EXISTING
FHR	FIRE HOSE REEL - REFER HYDRAULIC DOCUMENTATION
HB	HAND BASIN AS SCHEDULED
HWU	HOT WATER UNITS
LP	EXISTING LIGHT POLE TO REMAIN
MRS	METAL ROOF SHEETING
OPW	OPERABLE WALL - DORMA HSW-G OR SIMILAR
RWH	RAIN WATER HEAD
TME	TO MATCH EXISTING
TB	TABLE
UR	URINAL AS SCHEDULED
WC	TOILET PAN AS SCHEDULED

L1.05 LOUVRE MARKER
eg. LOUVRE / LEVEL 1 / LOUVRE N° 05

W1.05 WINDOW MARKER
eg. WINDOW / LEVEL 1 / WINDOW N° 05

D1.05 DOOR MARKER
eg. DOOR / LEVEL 1 / DOOR N° 05

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D	27.03.2017	ISSUE FOR COORDINATION	PHB	PHB	BC
E	11.05.2017	ISSUE TO CLIENT FOR REVIEW	PHB	PHB	BC
F	23.05.2017	ISSUE TO CLIENT FOR REVIEW	PHB	PHB	BC
G	14.07.2017	ISSUE FOR DEVELOPMENT APPLICATION	RJ	PHB	BC
H	15.09.2017	ISSUE FOR DEVELOPMENT APPLICATION	RJ	PHB	BC
J	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**	**PHB**	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE TURTON ROAD 2292 BROADMEADOW
DRAWING : ROOF LEVEL PLAN **HOCKEY CENTRE B**

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

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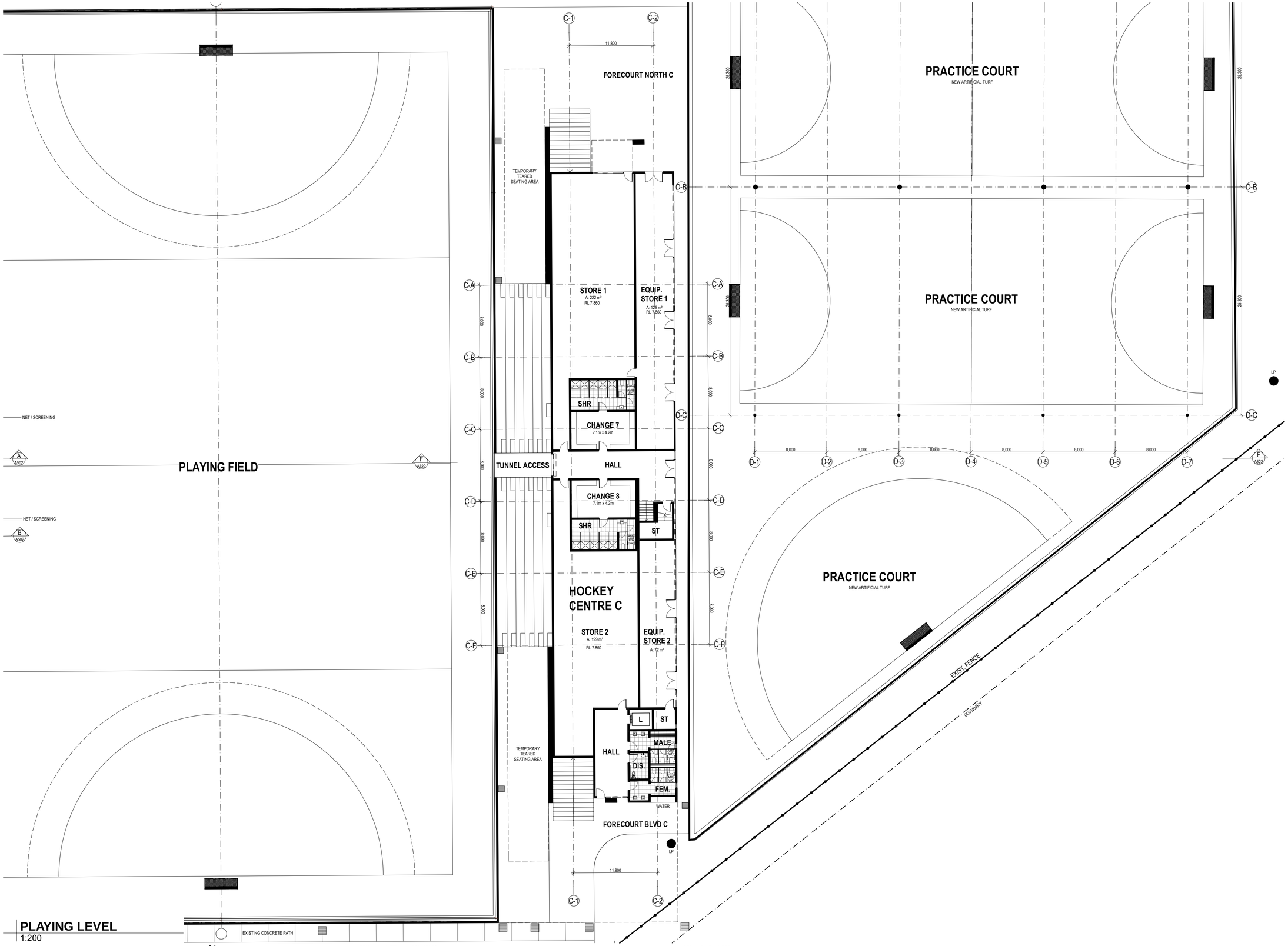
PHB	13.12.2016	1:200@A1 1:400@A3

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A114	J

NOT FOR CONSTRUCTION

EJE architecture



LEGEND

BG	BOX GUTTER
BOL	BOLLARD
COL	COLUMN - REFER TO STRUCTURAL DOCUMENTATION
COS	CONFIRM ON SITE
CPT	CARPET - No. DENOTES TYPE AS SCHEDULED
CT	CERAMIC TILE - No. DENOTES TYPE AS SCHEDULED
DP	COLORBOND DOWNPIPE - REFER HYDRAULIC DOCUMENTS
(E)	EXISTING
FHR	FIRE HOSE REEL - REFER HYDRAULIC DOCUMENTATION
HB	HAND BASIN AS SCHEDULED
HWU	HOT WATER UNITS
LP	EXISTING LIGHT POLE TO REMAIN
MRS	METAL ROOF SHEETING
OPW	OPERABLE WALL - DORMA HSW-G OR SIMILAR
RWH	RAIN WATER HEAD
TME	TO MATCH EXISTING
TB	TABLE
UR	URINAL AS SCHEDULED
WC	TOILET PAN AS SCHEDULED

L1.05 LOUVRE MARKER
eg. LOUVRE / LEVEL 1 / LOUVRE N° 05

W1.05 WINDOW MARKER
eg. WINDOW / LEVEL 1 / WINDOW N° 05

D1.05 DOOR MARKER
eg. DOOR / LEVEL 1 / DOOR N° 05

SUMP. REFER TO CIVIL ENGINEERS DOCUMENTATION

LOCATION OF LIGHTING POLE

STAGE 1

PLAYING LEVEL
1:200

N

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Newcastle HOCKEY

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G	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : PLAYING LEVEL FLOOR PLAN
HOCKEY CENTRE C

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

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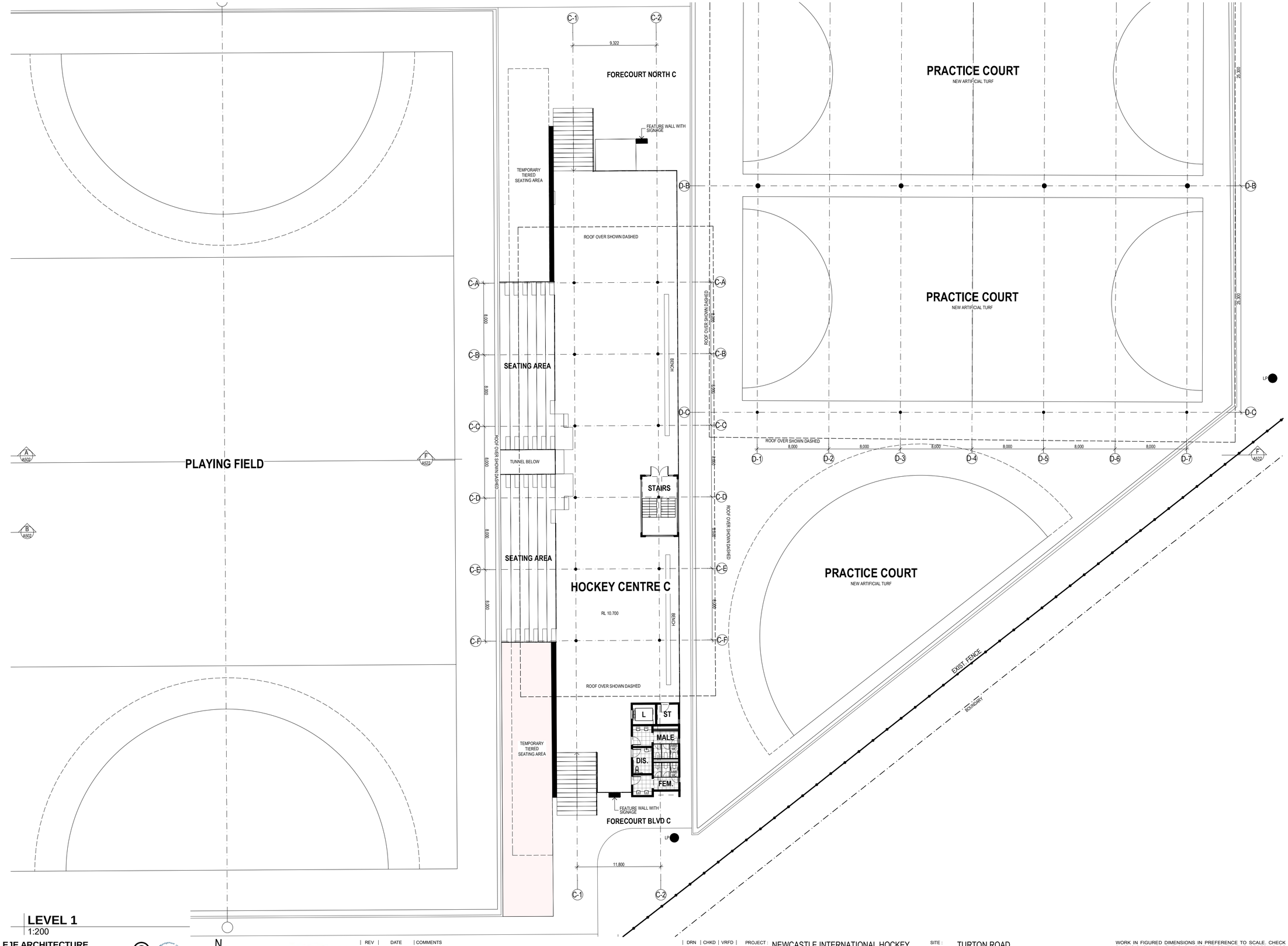
PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A121	G

NOT FOR CONSTRUCTION

EJE architecture



LEGEND

BG	BOX GUTTER
BOL	BOLLARD
COL	COLUMN - REFER TO STRUCTURAL DOCUMENTATION
COS	CONFIRM ON SITE
CPT	CARPET - No. DENOTES TYPE AS SCHEDULED
CT	CERAMIC TILE - No. DENOTES TYPE AS SCHEDULED
DP	COLORBOND DOWNPIPE - REFER HYDRAULIC DOCUMENTS
(E)	EXISTING
FHR	FIRE HOSE REEL - REFER HYDRAULIC DOCUMENTATION
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UR	URINAL AS SCHEDULED
WC	TOILET PAN AS SCHEDULED

L1.05 LOUVRE MARKER
eg. LOUVRE / LEVEL 1 / LOUVRE N° 05

W1.05 WINDOW MARKER
eg. WINDOW / LEVEL 1 / WINDOW N° 05

D1.05 DOOR MARKER
eg. DOOR / LEVEL 1 / DOOR N° 05

SUMP. REFER TO CIVIL ENGINEERS DOCUMENTATION

LOCATION OF LIGHTING POLE

STAGE 1

LEVEL 1
1:200

N

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G	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : LEVEL 1 FLOOR PLAN
HOCKEY CENTRE C

0 25mm 100mm 200mm ON ORIGINAL A1

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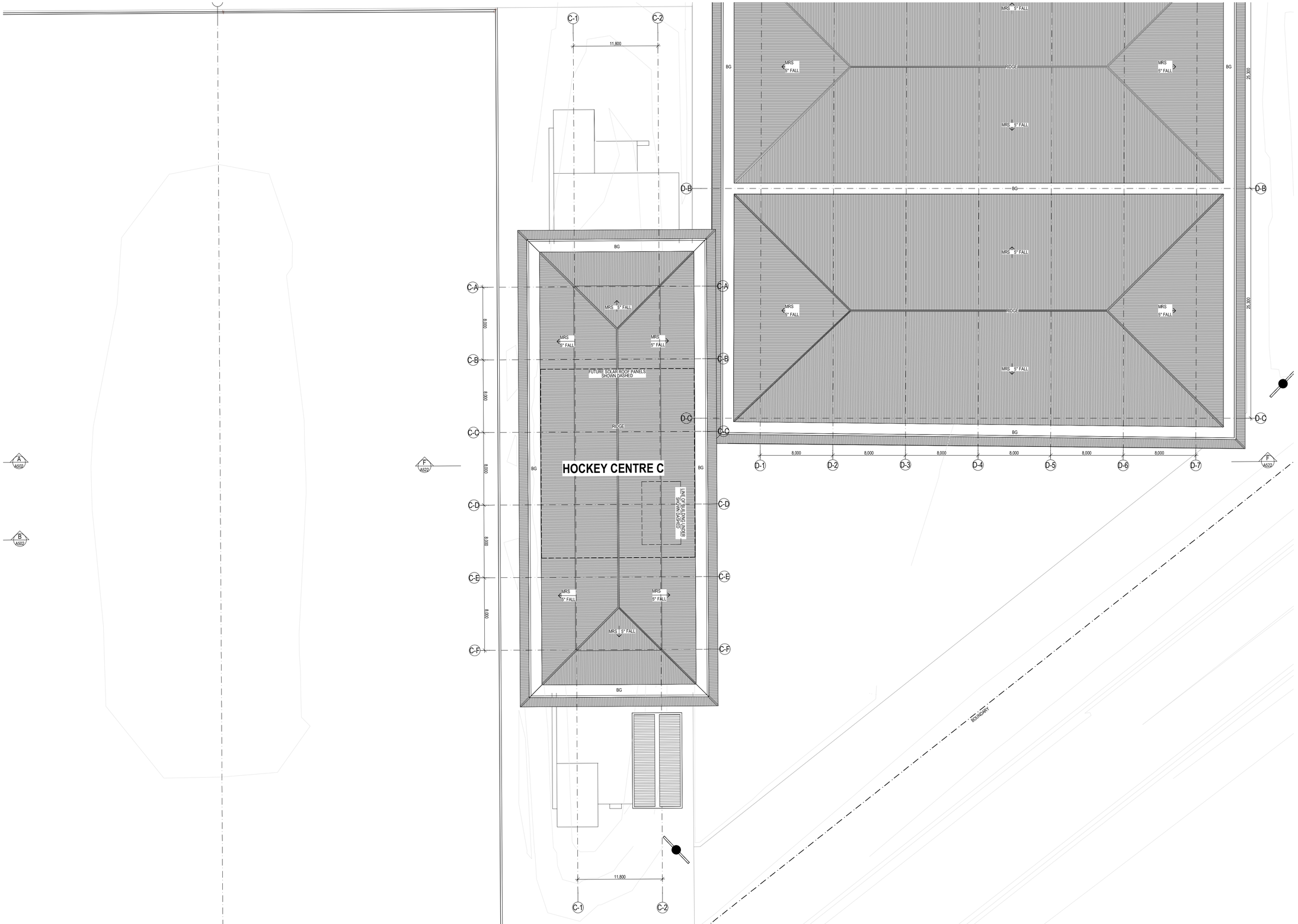
PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A122	G

NOT FOR CONSTRUCTION

EJE architecture



ROOF LEVEL
1:200

N

LEGEND

BG	BOX GUTTER
BOL	BOLLARD
COL	COLUMN - REFER TO STRUCTURAL DOCUMENTATION
COS	CONFIRM ON SITE
CPT	CARPET - No. DENOTES TYPE AS SCHEDULED
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L1.05 LOUVRE MARKER
eg. LOUVRE / LEVEL 1 / LOUVRE N° 05

W1.05 WINDOW MARKER
eg. WINDOW / LEVEL 1 / WINDOW N° 05

D1.05 DOOR MARKER
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Newcastle HOCKEY

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F	14.07.2017	ISSUE FOR DEVELOPMENT APPLICATION	RJ	PHB	BC
G	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**	**PHB**	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : ROOF LEVEL PLAN
HOCKEY CENTRE C

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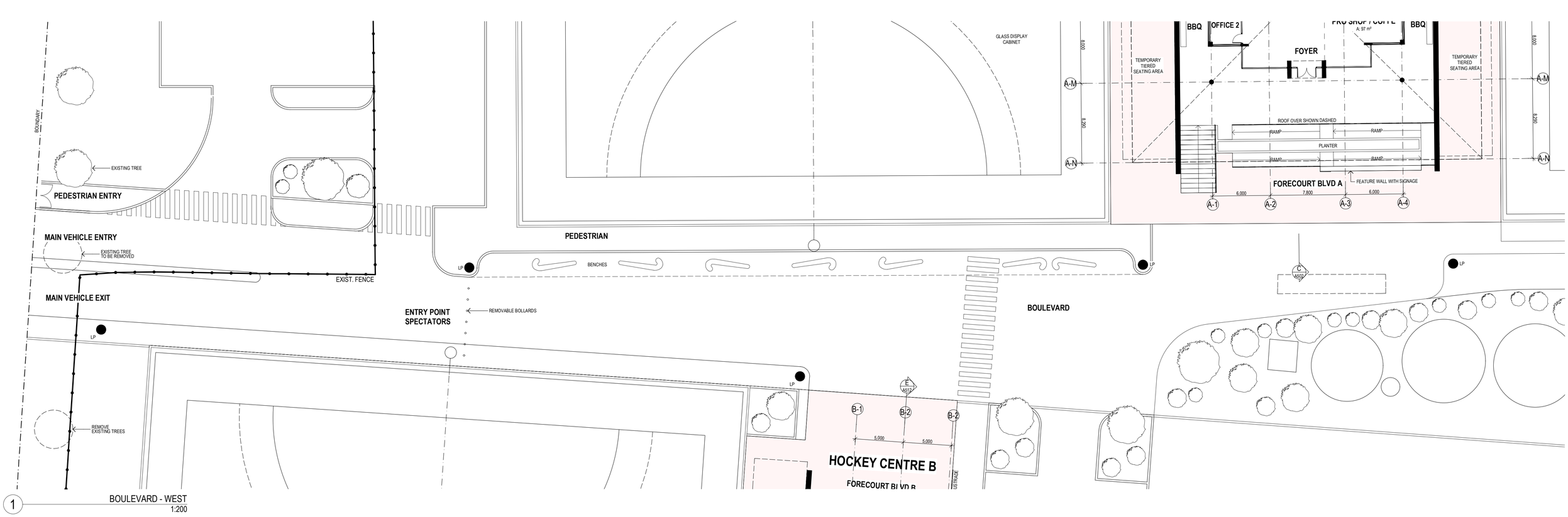
PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A124	G

EJE architecture



1 BOUNDARY - WEST 1:200

2 BOUNDARY - EAST 1:200

LEGEND

BG	BOX GUTTER
BOL	BOLLARD
COL	COLUMN - REFER TO STRUCTURAL DOCUMENTATION
COS	CONFIRM ON SITE
CPT	CARPET - No. DENOTES TYPE AS SCHEDULED
CT	CERAMIC TILE - No. DENOTES TYPE AS SCHEDULED
DP	COLORBOND DOWNPIPE - REFER HYDRAULIC DOCUMENTS
(E)	EXISTING
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HB	HAND BASIN AS SCHEDULED
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L1.05	LOUVRE MARKER eg. LOUVRE / LEVEL 1 / LOUVRE N° 05
W1.05	WINDOW MARKER eg. WINDOW / LEVEL 1 / WINDOW N° 05
D1.05	DOOR MARKER eg. DOOR / LEVEL 1 / DOOR N° 05

SUMP. REFER TO CIVIL ENGINEERS DOCUMENTATION

LOCATION OF LIGHTING POLE

NOT FOR CONSTRUCTION

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DRN	CHKD	VRFD
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

SITE : TURTON ROAD BROADMEADOW 2292

DRAWING : BOULEVARD FLOOR PLAN
HOCKEY CENTRE A-C

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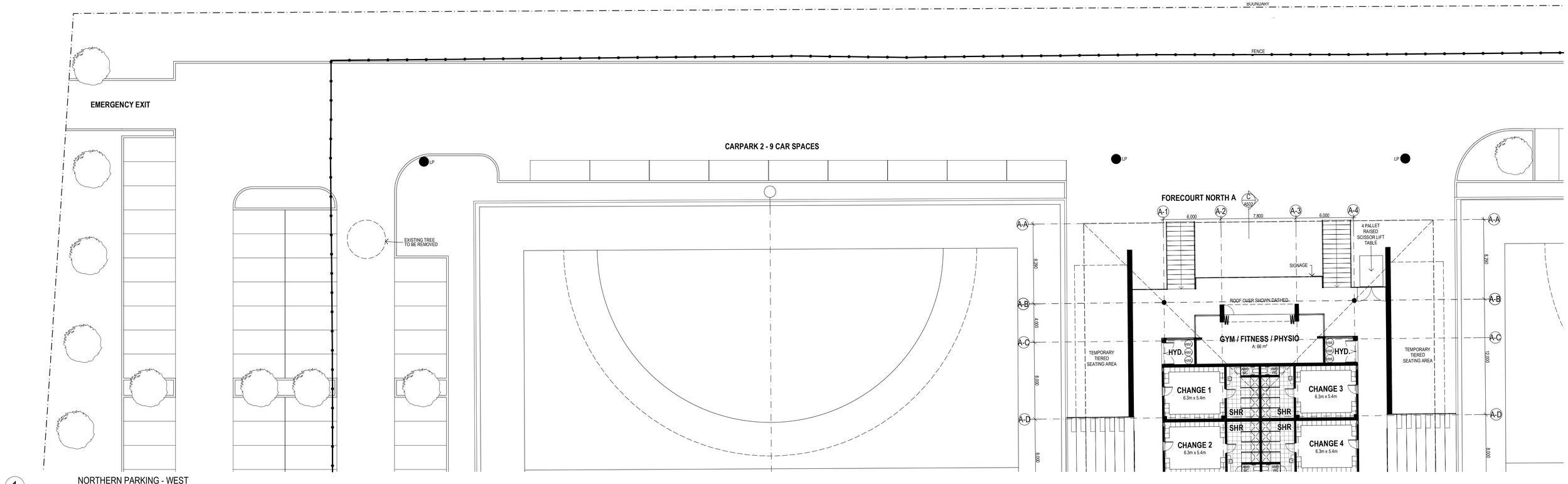
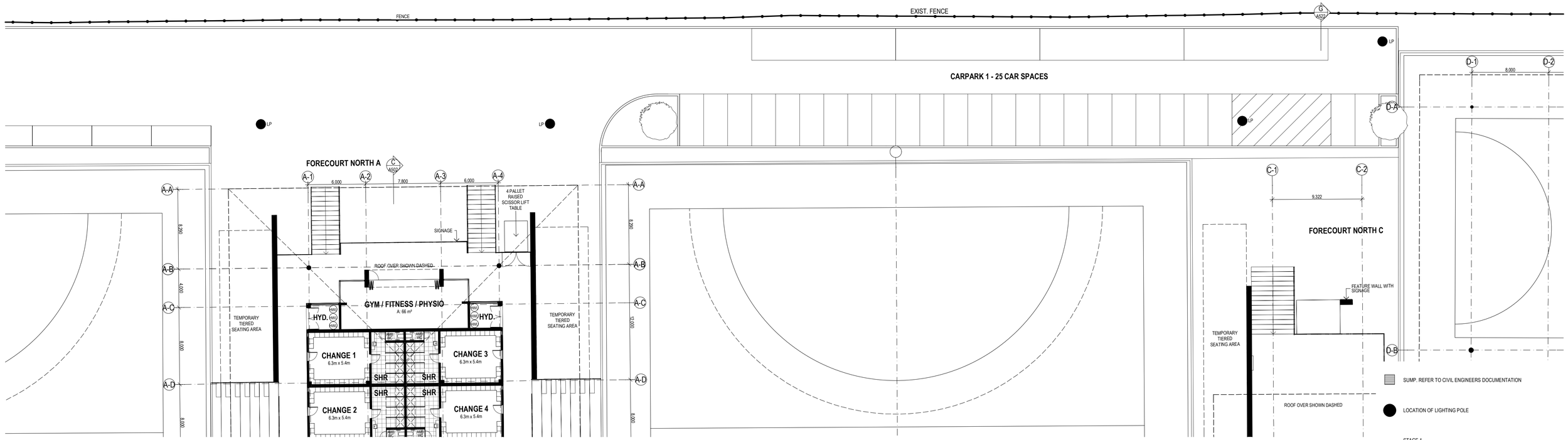
EJE architecture



1 NORTHERN PARKING - WEST
1:200



2 NORTHERN PARKING - EAST
1:200

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Newcastle HOCKEY

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DRN	CHKD	VRFD
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : NORTHERN PARKING FLOOR PLAN
HOCKEY CENTRE A & C

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

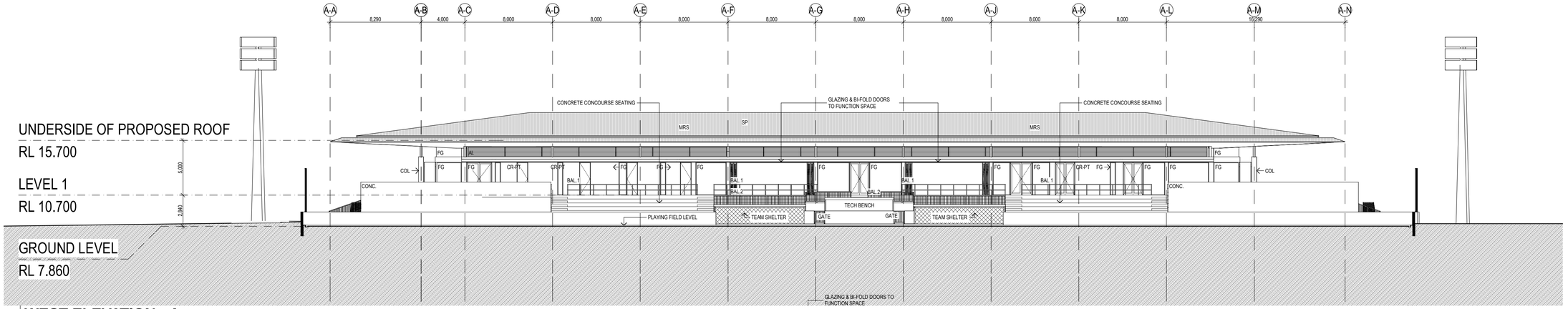
FILENAME : 10699 - DA 180213.pln
DATE PRINTED : 14/02/2018

DRAWN :	DATE :	SCALES :
PHB	13.12.2016	1:200@A1 1:400@A3

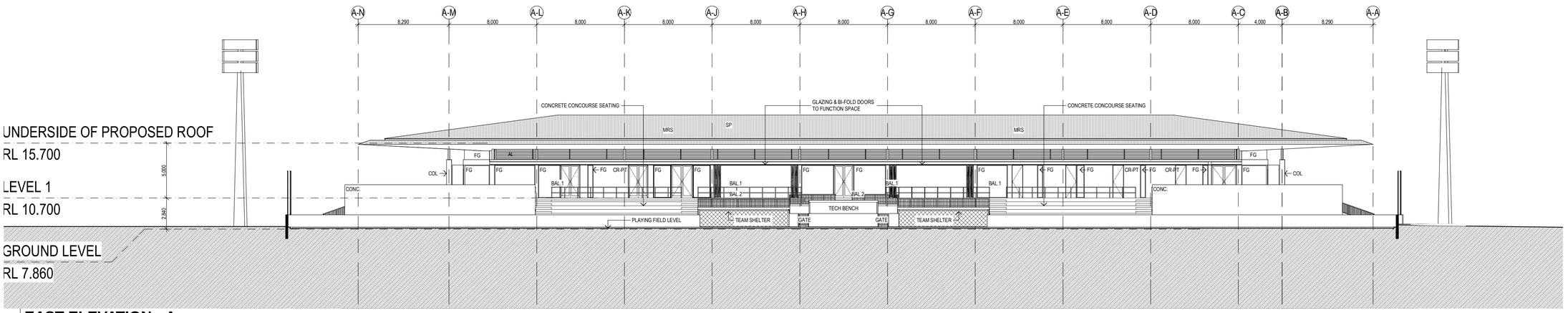
PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A151	J

NOT FOR CONSTRUCTION

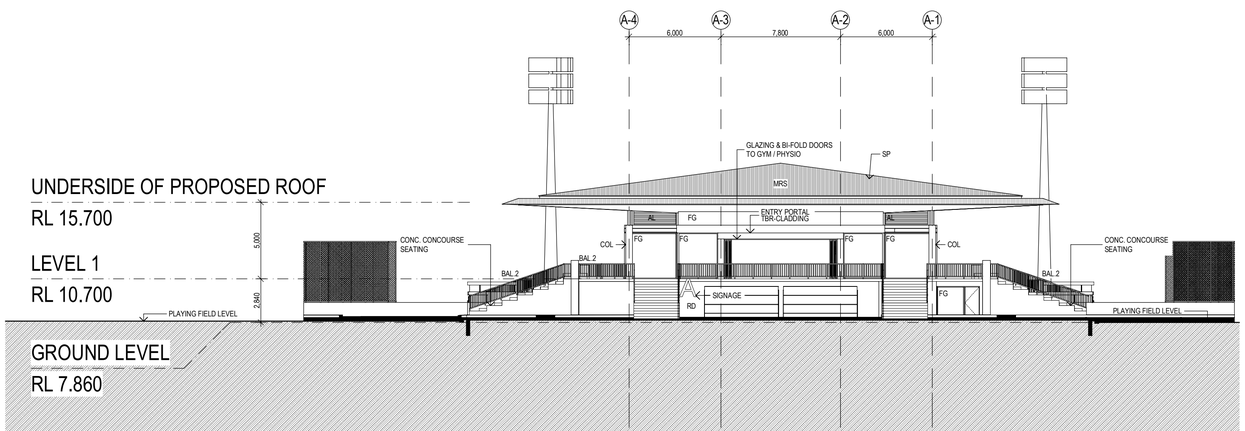
EJE architecture



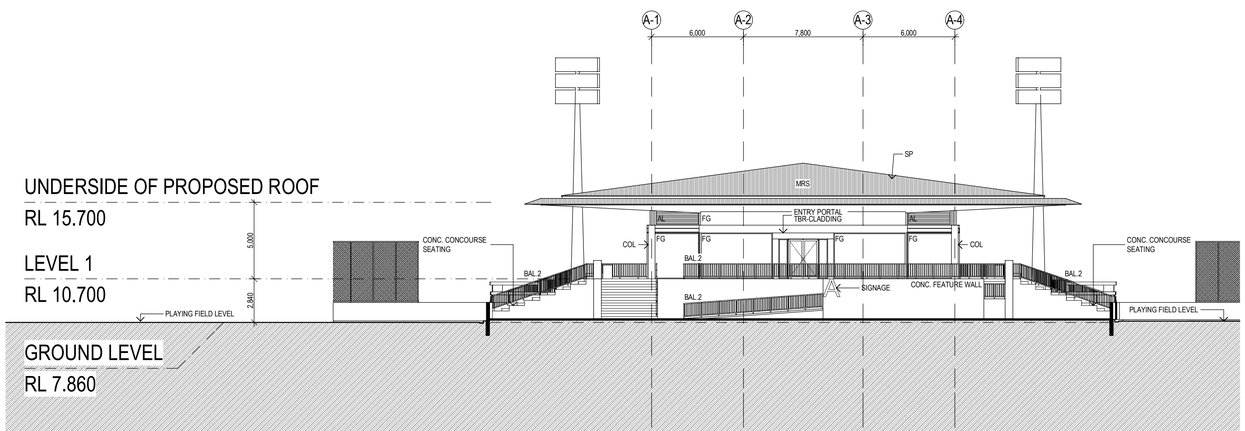
WEST ELEVATION - A
1:200



EAST ELEVATION - A
1:200



NORTH ELEVATION A
1:200



SOUTH ELEVATION - A
1:200

LEGEND

AL	POWDERCOATED ALUMINIUM LOUVRES
BAL 1	BALUSTRADE TYPE 1
BAL 2	BALUSTRADE TYPE 2
BG	BOX GUTTER
BOL	BOLLARD
CFC	COMP. FIBRE CEMENT PANELS WITH PAINT FINISH AS SCHEDULED
CL	COVED LIGHTING
COL	COLUMN
DP	COLORBOND DOWNPIPE
(E)	EXISTING
EG	EAVES GUTTER
FG	FIXED GLASS - TO AUST. STANDARDS
GD	GLASS DOOR - TO AUST. STANDARDS
MWC	METAL WALL CLADDING
MRS	PRE- FINISHED METAL ROOF SHEETING
OG	OPAQUE GLASS
PB	13mm PLASTERBOARD LINING WITH PAINT FINISH AS SCHEDULED
R	RENDER - No. DENOTES COLOUR AS SCHEDULED
RD	ROLLER DOOR
SP	SOLAR PANELS
TBR	TIMBER
V	VENT

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 649 849
Nominated Architect - Peter Campbell
NSW Architects Registration No: 4294
A 412 KING STREET, NEWCASTLE, NSW 2300
P +61 2 4929 2353 | **F** +61 2 4926 3069 | **E** mail@eje.com.au | **W** www.eje.com.au

0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS	DRN	CHKD	VRFD
A	13.12.2016	ISSUE TO CLIENT FOR REVIEW	PHB	PHB	BC
B	06.02.2017	ISSUE TO CLIENT FOR REVIEW	PHB	PHB	BC
C	08.02.2017	ISSUE TO CLIENT FOR REVIEW	PHB	PHB	BC
D	27.03.2017	ISSUE FOR COORDINATION	PHB	PHB	BC
E	11.05.2017	ISSUE TO CLIENT FOR REVIEW	PHB	PHB	BC
F	23.05.2017	ISSUE TO CLIENT FOR REVIEW	PHB	PHB	BC
G	07.06.2017	ISSUE TO CLIENT FOR REVIEW	PHB	PHB	BC
H	14.07.2017	ISSUE FOR DEVELOPMENT APPLICATION	RJ	PHB	BC
J	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**	**PHB**	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : ELEVATIONS
HOCKEY CENTRE A

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

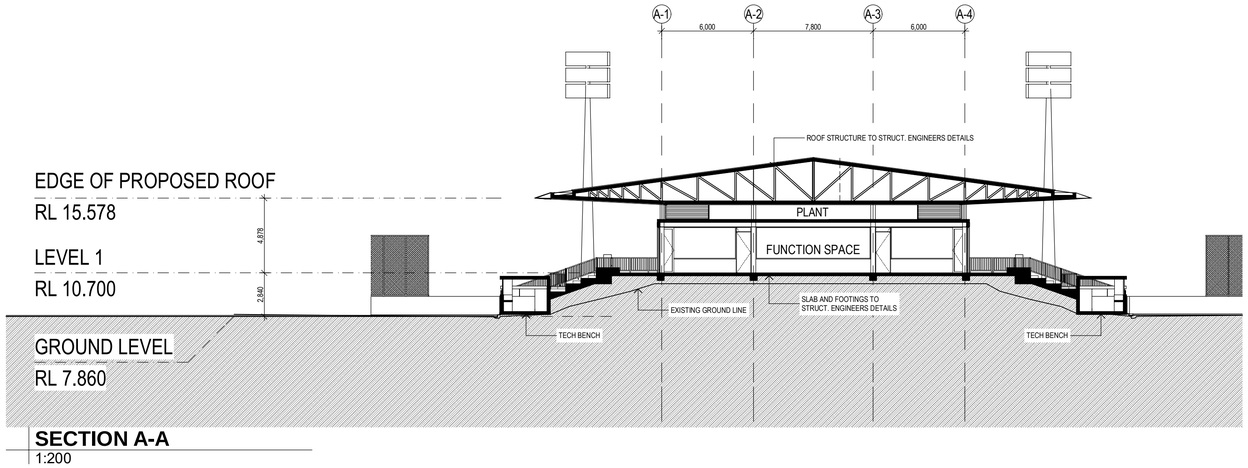
FILENAME : 10699 - DA 180213.pln
DATE PRINTED : 14/02/2018

DRAWN :	DATE :	SCALES :
PHB	13.12.2016	1:200@A1 1:400@A3

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A501	J

NOT FOR CONSTRUCTION

EJE architecture



SECTION A-A
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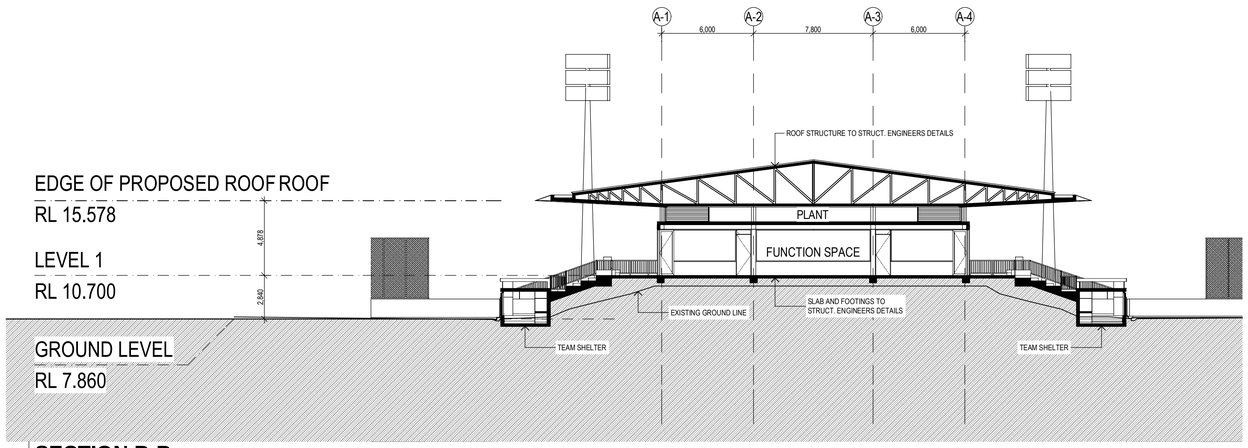
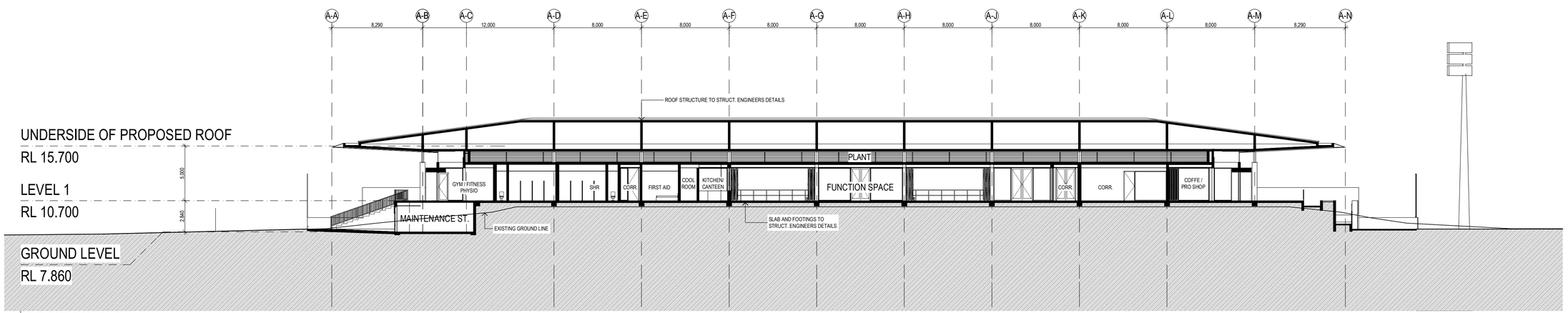


SECTION B-B
1:200



SECTION C-C
1:200

LEGEND

AL	POWDERCOATED ALUMINIUM LOUVRES
BAL.1	BALUSTRADE TYPE 1
BAL.2	BALUSTRADE TYPE 2
BG	BOX GUTTER
BOL	BOLLARD
CFC	COMP. FIBRE CEMENT PANELS WITH PAINT FINISH AS SCHEDULED
CL	COVED LIGHTING
COL	COLUMN
DP	COLORBOND DOWNPIPE
(E)	EXISTING
EG	EAVES GUTTER
FG	FIXED GLASS - TO AUST. STANDARDS
GD	GLASS DOOR - TO AUST. STANDARDS
MWC	METAL WALL CLADDING
MRS	PRE- FINISHED METAL ROOF SHEETING
OG	OPAQUE GLASS
PB	13mm PLASTERBOARD LINING WITH PAINT FINISH AS SCHEDULED
R	RENDER - No. DENOTES COLOUR AS SCHEDULED
RD	ROLLER DOOR
SP	SOLAR PANELS
TBR	TIMBER
V	VENT

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 649 849
Nominated Architect - Peter Campbell
NSW Architects Registration No: 4294
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P +61 2 4929 2353 | **F** +61 2 4926 3069 | **E** mail@eje.com.au | **W** www.eje.com.au

0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS
A	13.12.2016	ISSUE TO CLIENT FOR REVIEW
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C	08.02.2017	ISSUE TO CLIENT FOR REVIEW
D	27.03.2017	ISSUE FOR COORDINATION
E	11.05.2017	ISSUE TO CLIENT FOR REVIEW
F	23.05.2017	ISSUE TO CLIENT FOR REVIEW
G	07.06.2017	ISSUE TO CLIENT FOR REVIEW
H	14.07.2017	ISSUE FOR DEVELOPMENT APPLICATION
J	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : SECTIONS
HOCKEY CENTRE A

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMMISSIONS.

FILENAME : 10699 - DA 180213.pln
DATE PRINTED : 14/02/2018

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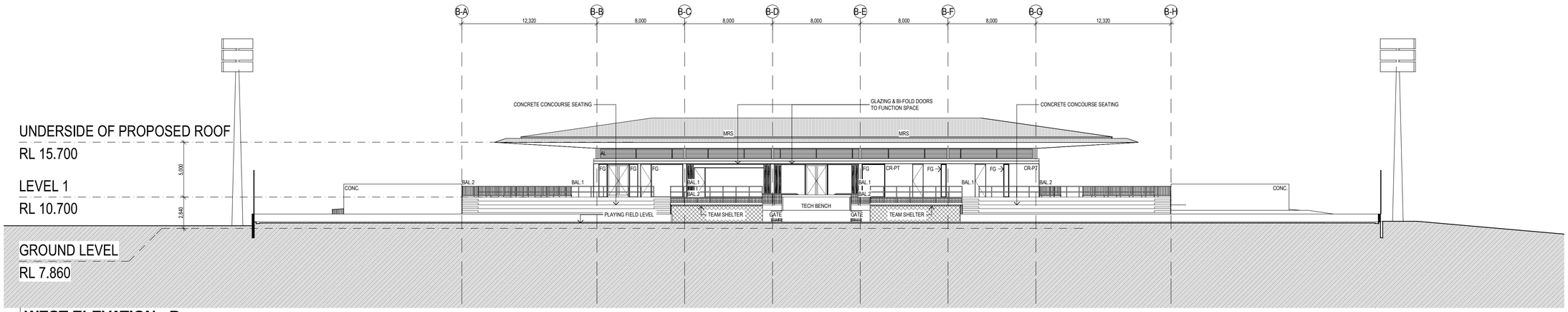
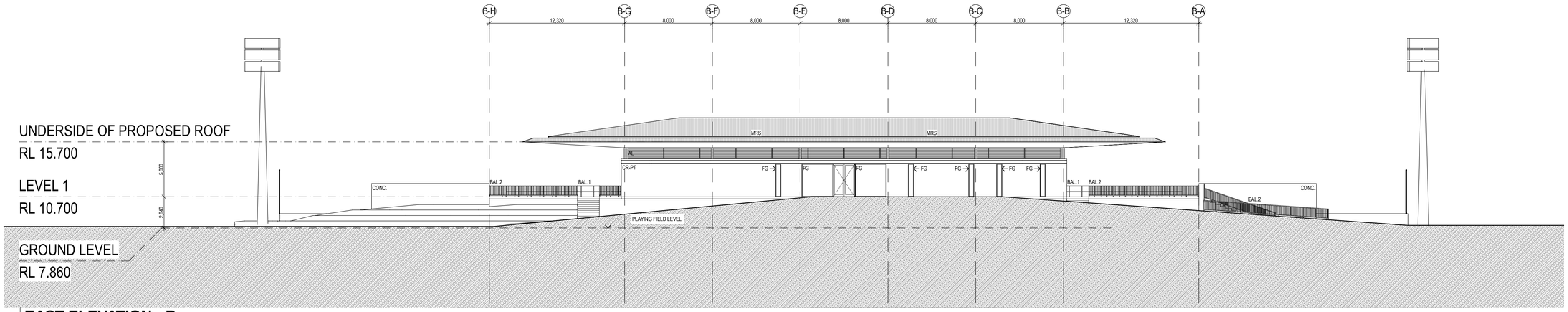
PHB	13.12.2016	1:200@A1 1:400@A3

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A502	J

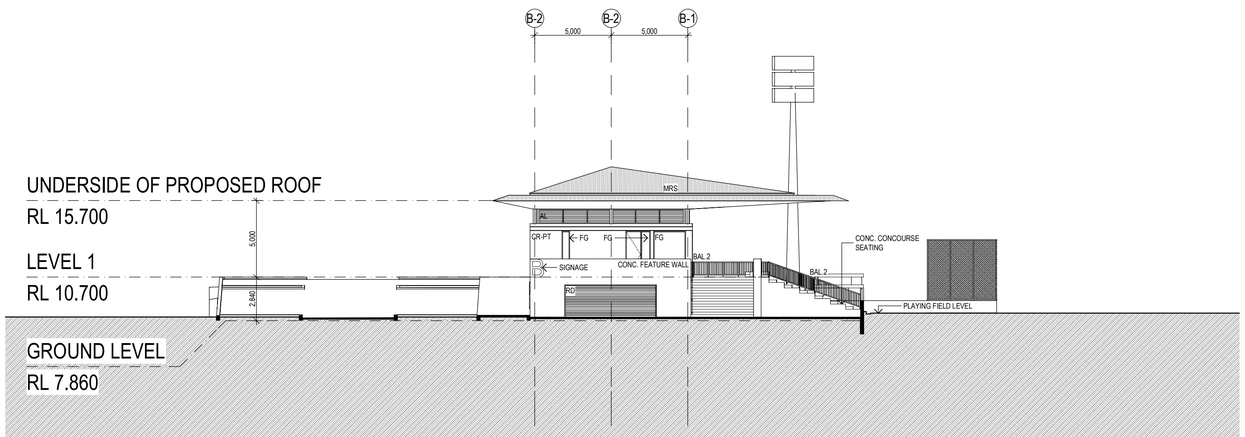
NOT FOR CONSTRUCTION



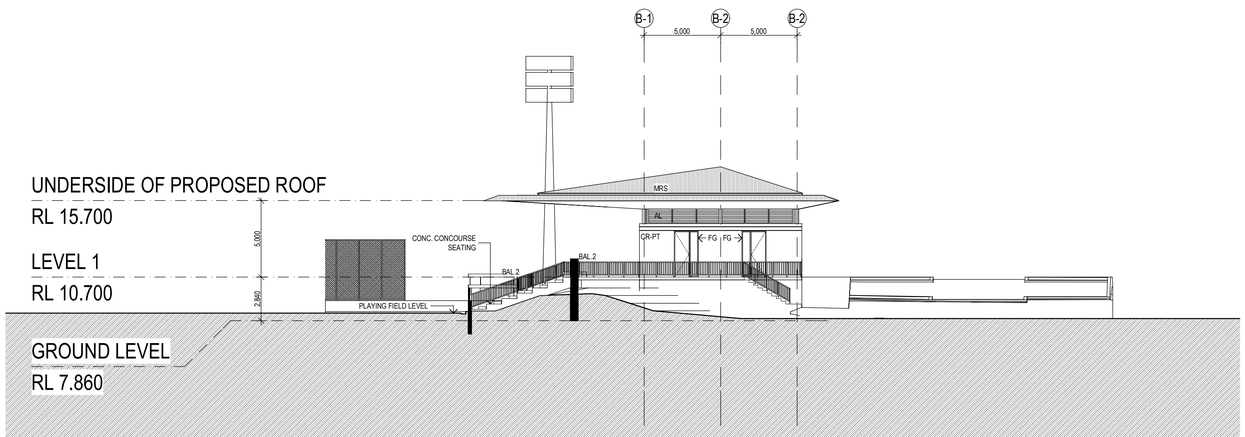
WEST ELEVATION - B
1:200



EAST ELEVATION - B
1:200



NORTH ELEVATION - B
1:200



SOUTH ELEVATION - B
1:200

LEGEND

AL	POWDERCOATED ALUMINIUM LOUVRES
BAL 1	BALUSTRADE TYPE 1
BAL 2	BALUSTRADE TYPE 2
BG	BOX GUTTER
BOL	BOLLARD
CFC	COMP. FIBRE CEMENT PANELS WITH PAINT FINISH AS SCHEDULED
CL	COVED LIGHTING
COL	COLUMN
DP	COLORBOND DOWNPIPE
(E)	EXISTING
EG	EAVES GUTTER
FG	FIXED GLASS - TO AUST. STANDARDS
GD	GLASS DOOR - TO AUST. STANDARDS
MWC	METAL WALL CLADDING
MRS	PRE- FINISHED METAL ROOF SHEETING
OG	OPAQUE GLASS
PB	13mm PLASTERBOARD LINING WITH PAINT FINISH AS SCHEDULED
R	RENDER - No. DENOTES COLOUR AS SCHEDULED
RD	ROLLER DOOR
SP	SOLAR PANELS
TBR	TIMBER
V	VENT

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 649 849
Nominated Architect - Peter Campbell
NSW Architects Registration No: 4294
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REV	DATE	COMMENTS	DRN	CHKD	VRFD
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D	27.03.2017	ISSUE FOR COORDINATION	PHB	PHB	BC
E	11.05.2017	ISSUE TO CLIENT FOR REVIEW	PHB	PHB	BC
F	23.05.2017	ISSUE TO CLIENT FOR REVIEW	PHB	PHB	BC
G	07.06.2017	ISSUE TO CLIENT FOR REVIEW	PHB	PHB	BC
H	14.07.2017	ISSUE FOR DEVELOPMENT APPLICATION	RJ	PHB	BC
J	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**	**PHB**	**PHB**	**BC**

0 25mm 100mm 200mm ON ORIGINAL A1

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : ELEVATIONS
HOCKEY CENTRE B

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 10699 - DA 180213.pln
DATE PRINTED : 14/02/2018

DRAWN :	DATE :	SCALES :
PHB	13.12.2016	1:200@A1 1:400@A3

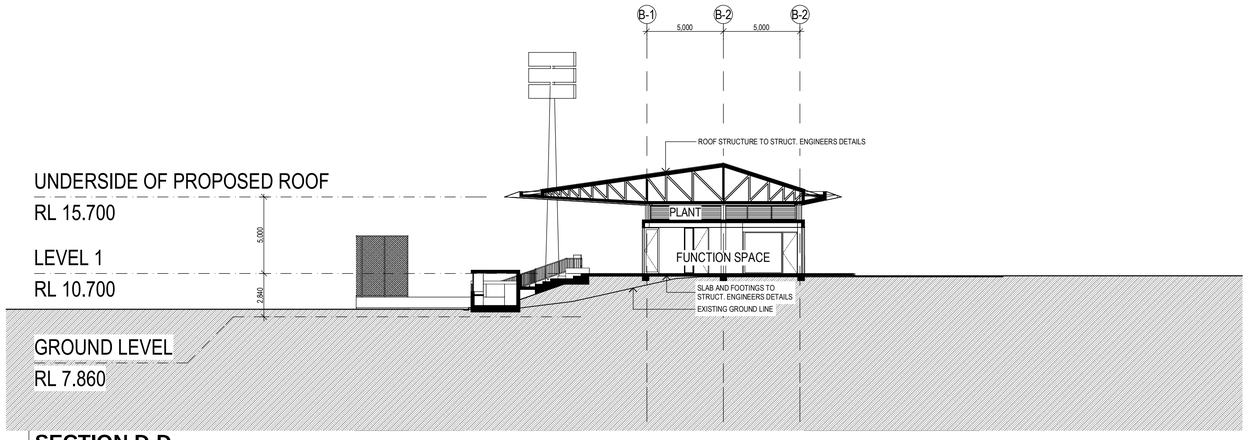
PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A511	J

NOT FOR CONSTRUCTION

EJE architecture

LEGEND

AL	POWDERCOATED ALUMINIUM LOUVRES
BAL.1	BALUSTRADE TYPE 1
BAL.2	BALUSTRADE TYPE 2
BG	BOX GUTTER
BOL	BOLLARD
CFC	COMP. FIBRE CEMENT PANELS WITH PAINT FINISH AS SCHEDULED
CL	COVED LIGHTING
COL	COLUMN
DP	COLORBOND DOWNPIPE
(E)	EXISTING
EG	EAVES GUTTER
FG	FIXED GLASS - TO AUST. STANDARDS
GD	GLASS DOOR - TO AUST. STANDARDS
MWC	METAL WALL CLADDING
MRS	PRE- FINISHED METAL ROOF SHEETING
OG	OPAQUE GLASS
PB	13mm PLASTERBOARD LINING WITH PAINT FINISH AS SCHEDULED
R	RENDER - No. DENOTES COLOUR AS SCHEDULED
RD	ROLLER DOOR
SP	SOLAR PANELS
TBR	TIMBER
V	VENT



SECTION D-D
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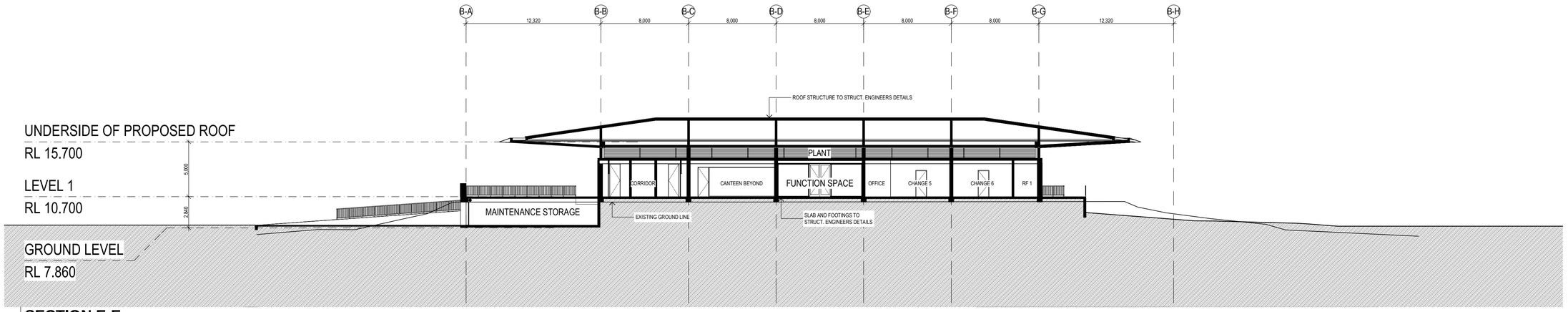

SECTION E-E
1:200

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 649 849
Nominated Architect - Peter Campbell
NSW Architects Registration No: 4294
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P +61 2 4929 2353 | **F** +61 2 4926 3069 | **E** mail@eje.com.au | **W** www.eje.com.au

0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS
A	13.12.2016	ISSUE TO CLIENT FOR REVIEW
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F	23.05.2017	ISSUE TO CLIENT FOR REVIEW
G	14.07.2017	ISSUE FOR DEVELOPMENT APPLICATION
H	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : SECTIONS
HOCKEY CENTRE B

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

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DATE PRINTED : 14/02/2018

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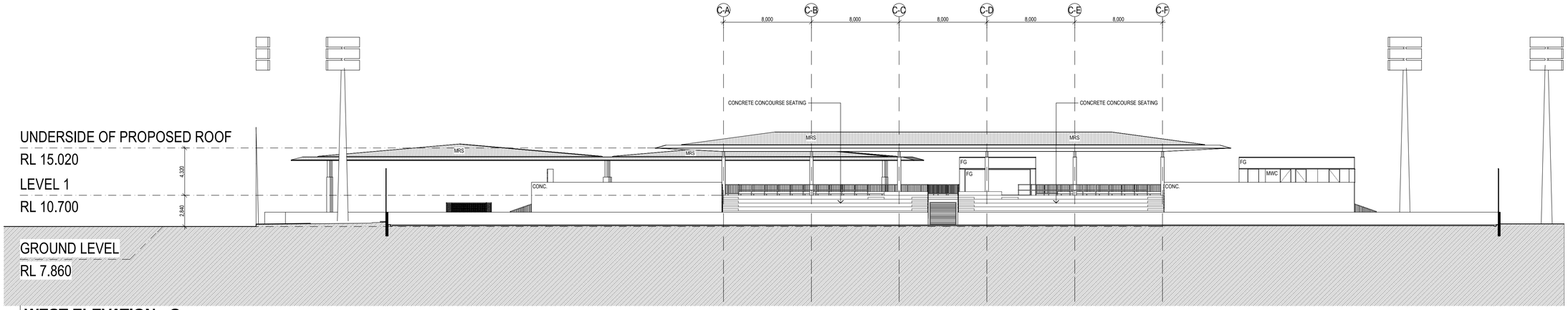
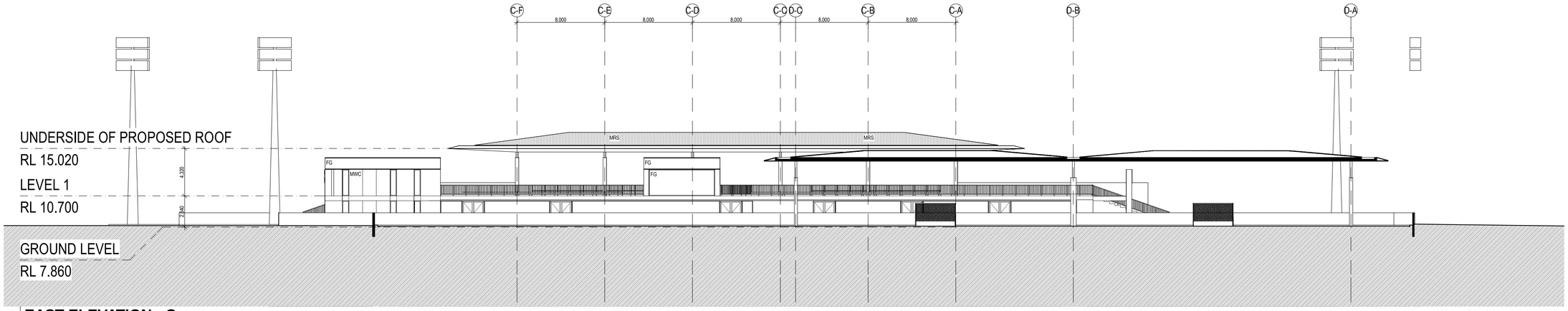
PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A512	H

NOT FOR CONSTRUCTION

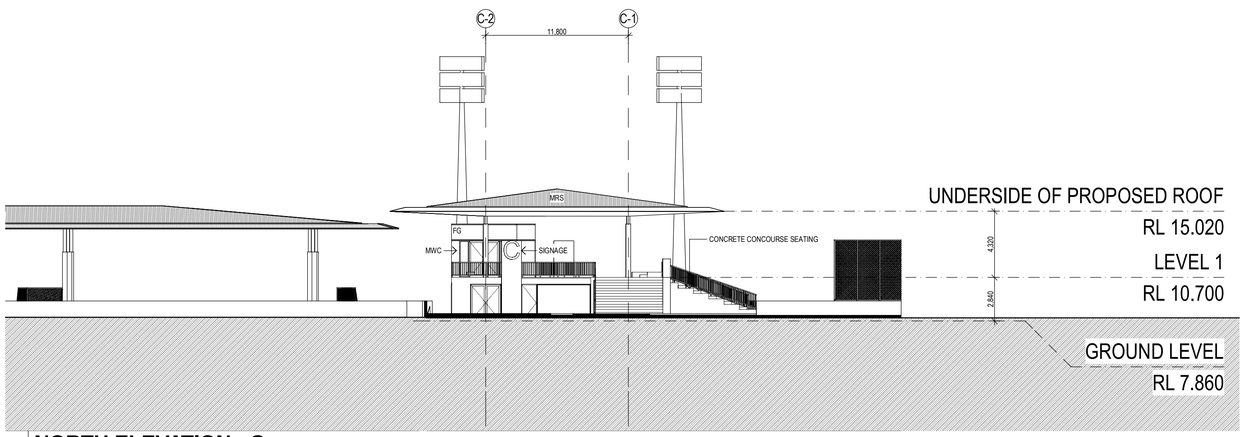
EJE architecture



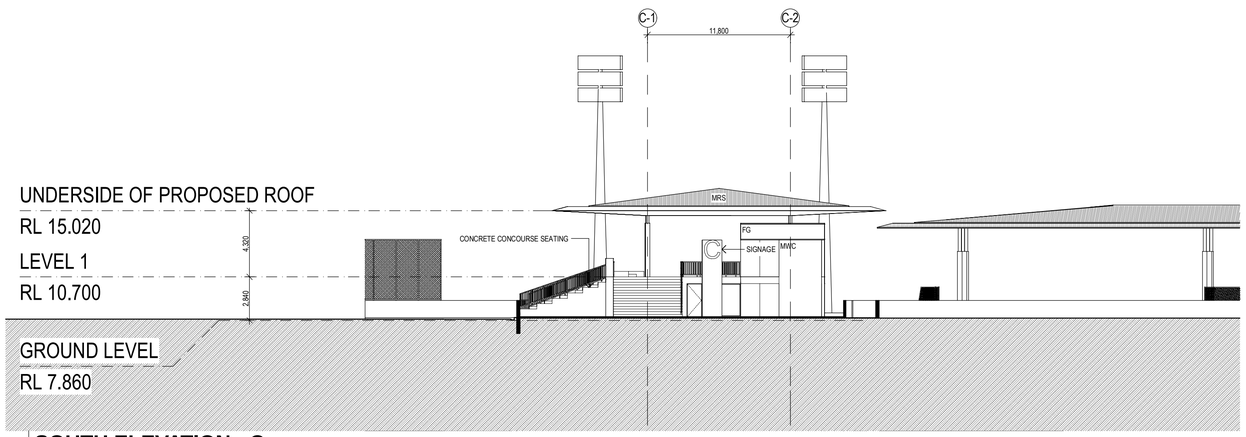
WEST ELEVATION - C
1:200



EAST ELEVATION - C
1:200



NORTH ELEVATION - C
1:200



SOUTH ELEVATION - C
1:200

LEGEND

AL	POWDERCOATED ALUMINIUM LOUVRES
BAL 1	BALUSTRADE TYPE 1
BAL.2	BALUSTRADE TYPE 2
BG	BOX GUTTER
BOL	BOLLARD
CFC	COMP. FIBRE CEMENT PANELS WITH PAINT FINISH AS SCHEDULED
CL	COVED LIGHTING
COL	COLUMN
DP	COLORBOND DOWNPIPE
(E)	EXISTING
EG	EAVES GUTTER
FG	FIXED GLASS - TO AUST. STANDARDS
GD	GLASS DOOR - TO AUST. STANDARDS
MWC	METAL WALL CLADDING
MRS	PRE- FINISHED METAL ROOF SHEETING
OG	OPAQUE GLASS
PB	13mm PLASTERBOARD LINING WITH PAINT FINISH AS SCHEDULED
R	RENDER - No. DENOTES COLOUR AS SCHEDULED
RD	ROLLER DOOR
SP	SOLAR PANELS
TBR	TIMBER
V	VENT

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 649 849
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0 25mm 100mm 200mm ON ORIGINAL A1

Newcastle HOCKEY

REV	DATE	COMMENTS	DRN	CHKD	VRFD
A	13.12.2016	ISSUE TO CLIENT FOR REVIEW	PHB	PHB	BC
B	06.02.2017	ISSUE TO CLIENT FOR REVIEW	PHB	PHB	BC
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G	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**	**PHB**	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : ELEVATIONS
HOCKEY CENTRE C

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 10699 - DA 180213.pln
DATE PRINTED : 20/02/2018

DRAWN :	DATE :	SCALES :
PHB	13.12.2016	1:200@A1 1:400@A3

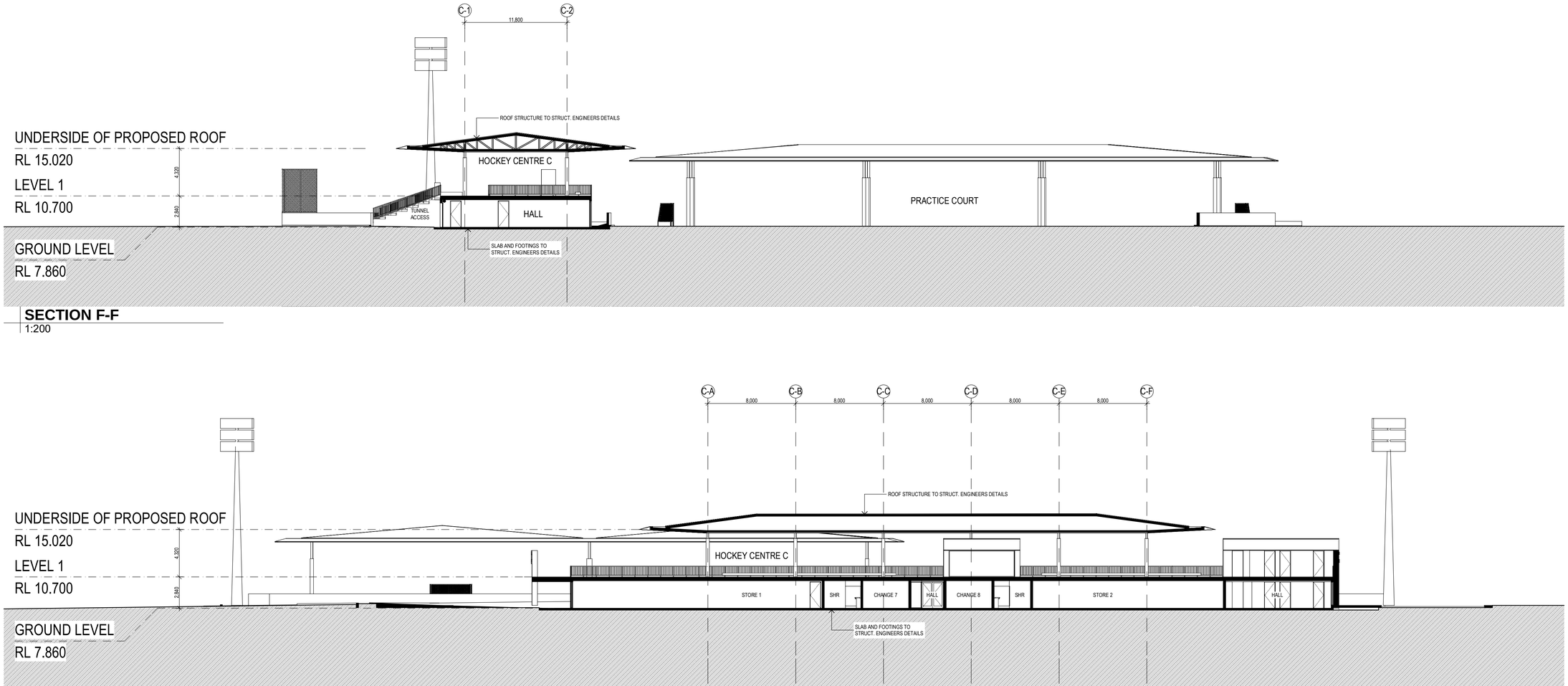
PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A521	G

NOT FOR CONSTRUCTION

EJE architecture

LEGEND

AL	POWDERCOATED ALUMINIUM LOUVRES
BAL.1	BALUSTRADE TYPE 1
BAL.2	BALUSTRADE TYPE 2
BG	BOX GUTTER
BOL	BOLLARD
CFC	COMP. FIBRE CEMENT PANELS WITH PAINT FINISH AS SCHEDULED
CL	COVED LIGHTING
COL	COLUMN
DP	COLORBOND DOWNPIPE
(E)	EXISTING
EG	EAVES GUTTER
FG	FIXED GLASS - TO AUST. STANDARDS
GD	GLASS DOOR - TO AUST. STANDARDS
MWC	METAL WALL CLADDING
MRS	PRE- FINISHED METAL ROOF SHEETING
OG	OPAQUE GLASS
PB	13mm PLASTERBOARD LINING WITH PAINT FINISH AS SCHEDULED
R	RENDER - No. DENOTES COLOUR AS SCHEDULED
RD	ROLLER DOOR
SP	SOLAR PANELS
TBR	TIMBER
V	VENT



SECTION F-F
1:200

SECTION G-G
1:200

NOT FOR CONSTRUCTION

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 649 849
Nominated Architect - Peter Campbell
NSW Architects Registration No: 4294
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0 25mm 100mm 200mm ON ORIGINAL A1

Newcastle HOCKEY

REV	DATE	COMMENTS
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E	11.05.2017	ISSUE TO CLIENT FOR REVIEW
F	14.07.2017	ISSUE FOR DEVELOPMENT APPLICATION
G	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
PHB	PHB	BC
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : SECTIONS
HOCKEY CENTRE C

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 10699 - DA 180213.pln
DATE PRINTED : 20/02/2018

DRAWN :	DATE :	SCALES :
PHB	13.12.2016	1:200@A1 1:400@A3

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A522	G

EJE architecture

VIEW FROM CARPARK 1 TO HOCKEY CENTRE A

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 649 849
Nominated Architect - Peter Campbell
NSW Architects Registration No: 4294
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P +61 2 4929 2353 | **F** +61 2 4926 3069 | **E** mail@eje.com.au | **W** www.eje.com.au

0 10mm 50mm 100mm ON ORIGINAL A3

REV	DATE	COMMENTS
A	14.07.2017	ISSUE FOR DEVELOPMENT APPLICATION
B	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : PERSPECTIVE 01

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 10699 - DA 180213.pln DATE PRINTED : 14/02/2018

DRAWN :	DATE :	SCALES :
RJ	07.07.17	NTS

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A971	B

EJE architecture

VIEW FROM BOULEVARD TO HOCKEY CENTRE A

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 649 849
Nominated Architect - Peter Campbell
NSW Architects Registration No: 4294
A 412 KING STREET, NEWCASTLE, NSW 2300
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0 10mm 50mm 100mm ON ORIGINAL A3

REV	DATE	COMMENTS
A	07.07.2017	ISSUE FOR DEVELOPMENT APPLICATION
B	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : PERSPECTIVE 02

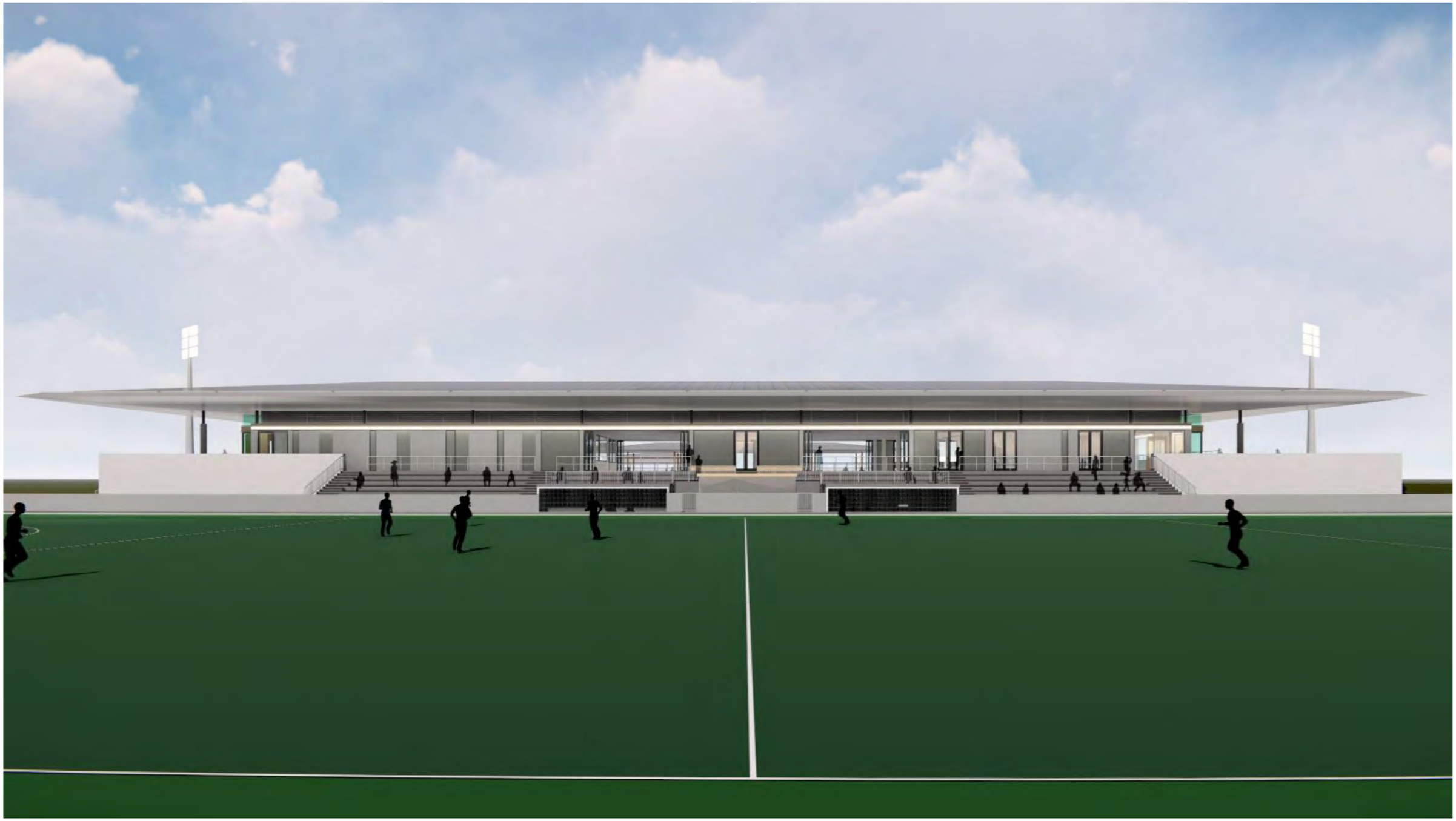
WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 10699 - DA 180213.pln DATE PRINTED : 14/02/2018

DRAWN :	DATE :	SCALES :
RJ	07.07.17	NTS

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A972	B

EJE architecture



VIEW FROM WESTERN PLAYING FIELD TO HOCKEY CENTRE A

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 649 849
Nominated Architect - Peter Campbell
NSW Architects Registration No: 4294
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0 10mm 50mm 100mm ON ORIGINAL A3

REV	DATE	COMMENTS
A	07.07.2017	ISSUE FOR DEVELOPMENT APPLICATION
B	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : PERSPECTIVE 04

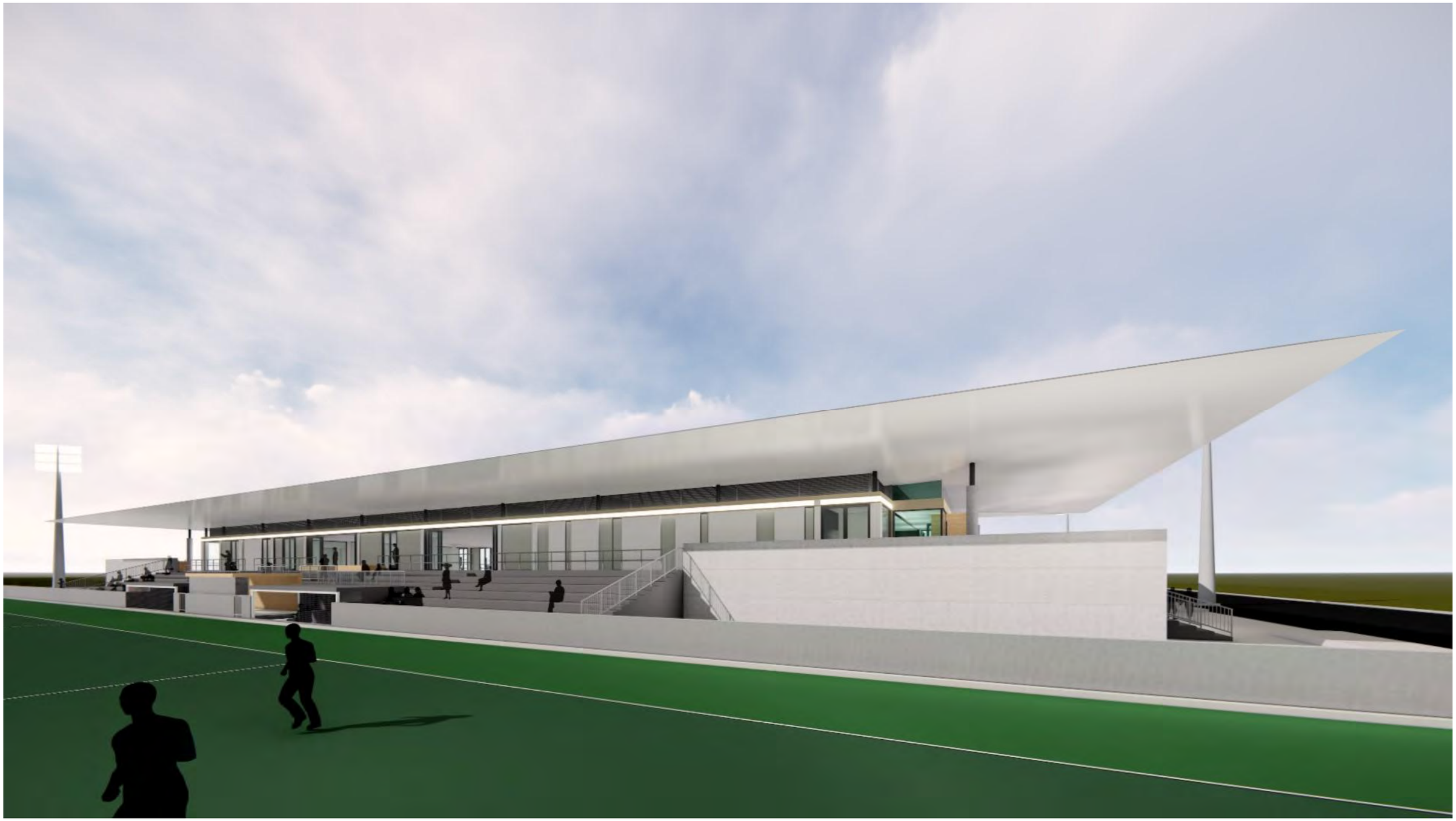
WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 10699 - DA 180213.pln DATE PRINTED : 14/02/2018

DRAWN :	DATE :	SCALES :
RJ	07.07.17	NTS

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A974	B

EJE architecture



VIEW FROM EASTERN PLAYING FIELD TO HOCKEY CENTRE A

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 649 849
Nominated Architect - Peter Campbell
NSW Architects Registration No: 4294
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0 10mm 50mm 100mm ON ORIGINAL A3

REV	DATE	COMMENTS
A	07.07.2017	ISSUE FOR DEVELOPMENT APPLICATION
B	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : PERSPECTIVE 05

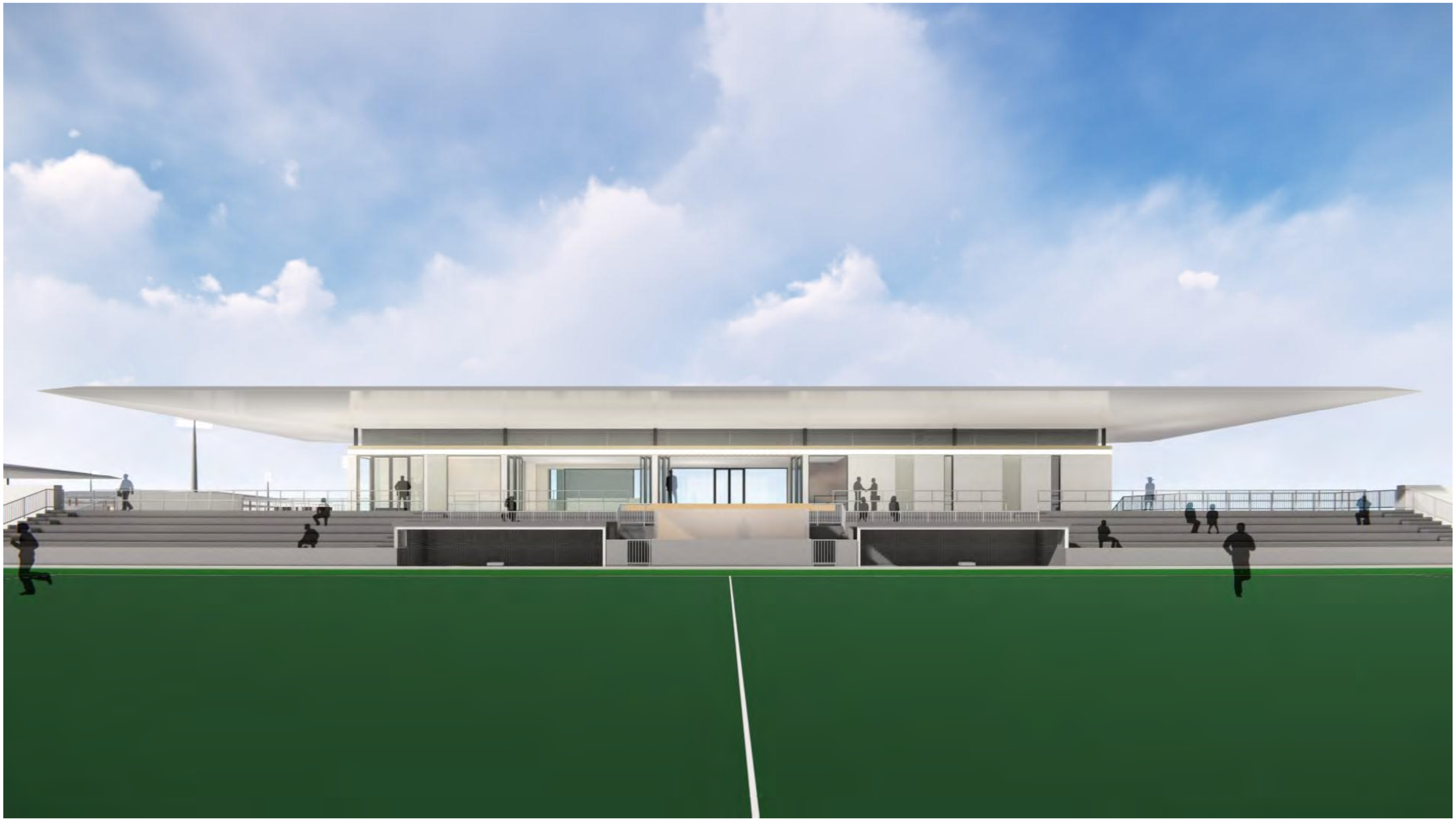
WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 10699 - DA 180213.pln DATE PRINTED : 14/02/2018

DRAWN :	DATE :	SCALES :
RJ	07.07.17	NTS

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A975	B

EJE architecture



VIEW FROM SOUTHERN PLAYING FIELD TO HOCKEY CENTRE B

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 849 849
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0 50mm 100mm 100mm ON ORIGINAL A3

REV	DATE	COMMENTS
A	07.07.2017	ISSUE FOR DEVELOPMENT APPLICATION
B	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : PERSPECTIVE 07

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 10699 - DA 180213.pln DATE PRINTED : 14/02/2018

DRAWN :	DATE :	SCALES :
RJ	07.07.17	NTS

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A977	B

EJE architecture

VIEW FROM NORTH TO HOCKEY CENTRE B

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 649 849
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0 10mm 50mm 100mm ON ORIGINAL A3

REV	DATE	COMMENTS
A	07.07.2017	ISSUE FOR DEVELOPMENT APPLICATION
B	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : PERSPECTIVE 08

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 10699 - DA 180213.pln DATE PRINTED : 14/02/2018

DRAWN :	DATE :	SCALES :
RJ	07.07.17	NTS

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A978	B

EJE architecture

VIEW FROM WESTERN PLAYING FIELD TO HOCKEY CENTRE A

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 649 849
Nominated Architect - Peter Campbell
NSW Architects Registration No: 4294
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0 10mm 50mm 100mm ON ORIGINAL A3

REV	DATE	COMMENTS
A	07.07.2017	ISSUE FOR DEVELOPMENT APPLICATION
B	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : PERSPECTIVE 09

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 10699 - DA 180213.pln DATE PRINTED : 14/02/2018

DRAWN :	DATE :	SCALES :
RJ	07.07.17	NTS

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A979	B

EJE architecture

VIEW FROM SOUTHERN PLAYING FIELD TO HOCKEY CENTRE B

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 649 849
Nominated Architect - Peter Campbell
NSW Architects Registration No: 4294
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0 10mm 50mm 100mm ON ORIGINAL A3

REV	DATE	COMMENTS
A	07.07.2017	ISSUE FOR DEVELOPMENT APPLICATION
B	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : PERSPECTIVE 10

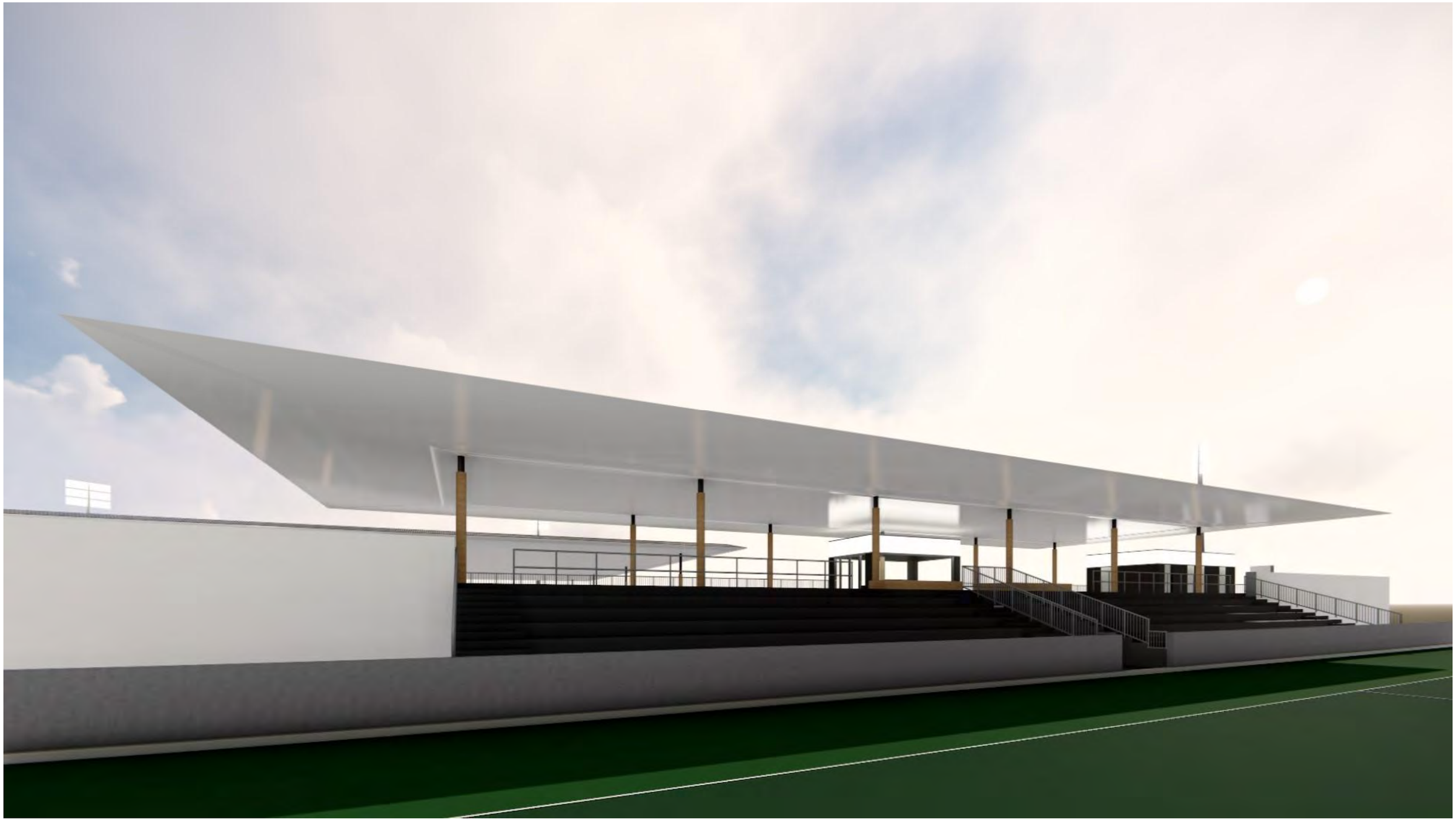
WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 10699 - DA 180213.pln DATE PRINTED : 14/02/2018

DRAWN :	DATE :	SCALES :
RJ	07.07.17	NTS

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A980	B

EJE architecture



VIEW FROM EASTERN PLAYING FIELD TO HOCKEY CENTRE C

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 649 849
Nominated Architect - Peter Campbell
NSW Architects Registration No: 4294
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0 50mm 100mm 100mm ON ORIGINAL A3

REV	DATE	COMMENTS
A	07.07.2017	ISSUE FOR DEVELOPMENT APPLICATION
B	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : PERSPECTIVE 11

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

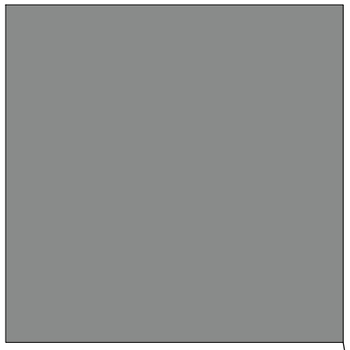
FILENAME : 10699 - DA 180213.pln DATE PRINTED : 14/02/2018

DRAWN :	DATE :	SCALES :
RJ	07.07.17	NTS

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A981	B

EJE architecture

LIGHT COLOURED CONCRETE FEATURE WALL



METAL ROOF SHEETING- COLOUR WINDSPRAY

TIMBER WALL CLADDING (ENTRY)

COLOURED GLAZING (ENTRY AREAS)

METAL CLADDING (ROOF UNDERSIDE)

POWDERCOATED ALUMINIUM LOUVRES

BALUSTRADES GALVANISED STEEL

EJE ARCHITECTURE
ACN 002 912 843 | **ABN** 82 644 649 849
Nominated Architect - Peter Campbell
NSW Architects Registration No: 4264
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0 50mm 100mm

100mm ON ORIGINAL A3

REV	DATE	COMMENTS
A	07.07.2017	ISSUE FOR DEVELOPMENT APPLICATION
B	**13.02.2018**	**REV. ISSUE FOR DEVELOPMENT APPLICATION**

DRN	CHKD	VRFD
RJ	PHB	BC
PHB	**PHB**	**BC**

PROJECT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE

SITE : TURTON ROAD BROADMEADOW 2292

CLIENT : NEWCASTLE INTERNATIONAL HOCKEY CENTRE
TURTON ROAD
2292 BROADMEADOW

DRAWING : SCHEDULE OF EXTERNAL FINISHES

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 10699 - DA 180213.pln DATE PRINTED : 14/02/2018

DRAWN :	DATE :	SCALES :
RJ	07.07.17	NTS

PROJECT No :	PHASE :	DRAWING No :	REV :
10699	DA	A991	B

NOT FOR CONSTRUCTION

EJE architecture

PROPOSED WORKS AT;
NEWCASTLE INTERNATIONAL HOCKEY CENTRE,
TURTON ROAD,
BROADMEADOW

CIVIL DRAWING INDEX

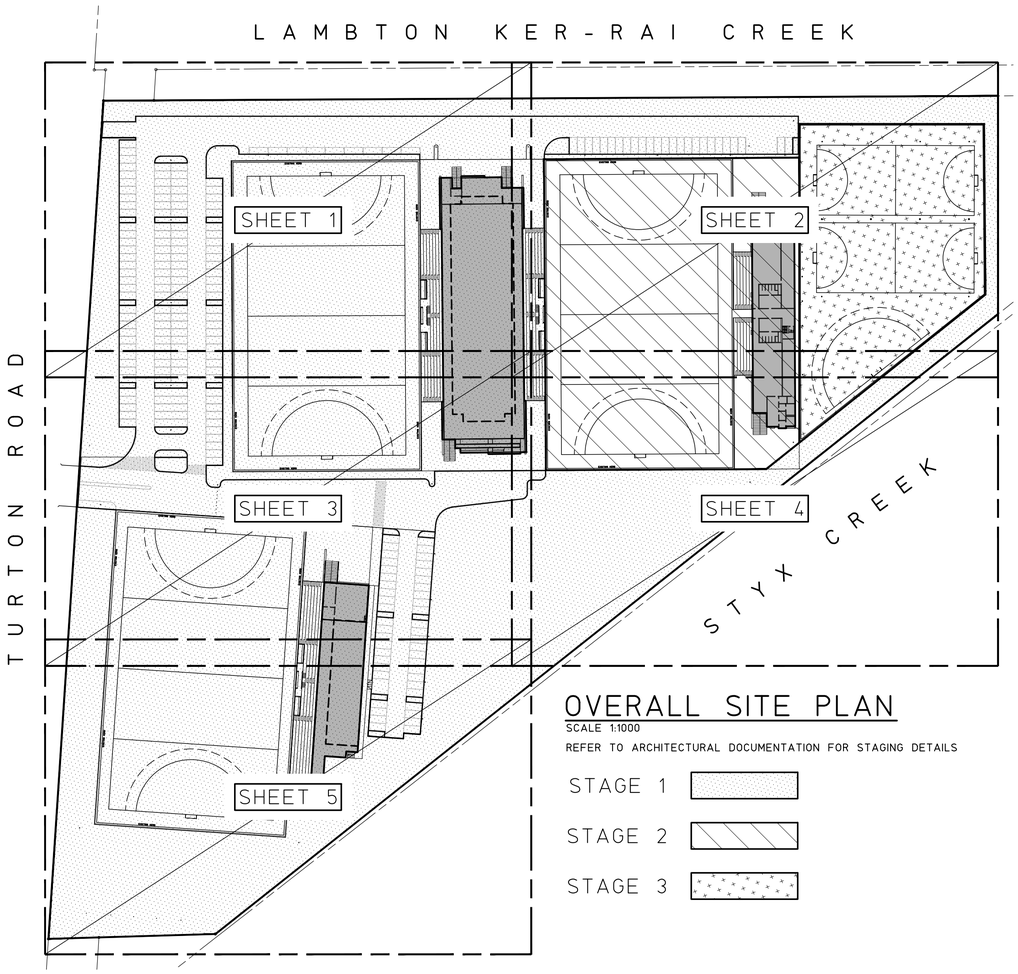
C01 - COVER SHEET AND OVERALL SITE PLAN

SEDIMENTATION AND EROSION CONTROL

C10 - SEDIMENTATION AND EROSION CONTROL PLAN SHEET 1
C11 - SEDIMENTATION AND EROSION CONTROL PLAN SHEET 2
C12 - SEDIMENTATION AND EROSION CONTROL PLAN SHEET 3
C13 - SEDIMENTATION AND EROSION CONTROL PLAN SHEET 4
C14 - SEDIMENTATION AND EROSION CONTROL PLAN SHEET 5
C15 - SEDIMENTATION AND EROSION CONTROL PLAN NOTES
C16 - SEDIMENTATION AND EROSION CONTROL DETAILS

STORMWATER

C20 - STORMWATER PLAN SHEET 1
C21 - STORMWATER PLAN SHEET 2
C22 - STORMWATER PLAN SHEET 3
C23 - STORMWATER PLAN SHEET 4
C24 - STORMWATER PLAN SHEET 5
C25 - STORMWATER PLAN NOTES AND DETAILS



OVERALL SITE PLAN
SCALE 1:1000
REFER TO ARCHITECTURAL DOCUMENTATION FOR STAGING DETAILS

STAGE 1
STAGE 2
STAGE 3

NOT FOR CONSTRUCTION

ISSUE	REASON FOR ISSUE	DATE
3	REVISED DEVELOPMENT APPLICATION	22.12.17
2	DEVELOPMENT APPLICATION	14.7.17
1	REVIEW	21.6.17
0	REVIEW	13.6.17

mpc CONSULTING ENGINEERS
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Fax: (02) 4927 5577
Email: admin@mpceng.com.au
Web: www.mpcconsultingengineers.com.au
A.C.N. 098 542 575

CLIENT: NEWCASTLE INTERNATIONA HOCKEY CENTRE

TITLE: COVER SHEET AND OVERALL SITE PLAN

PROJECT: PROPOSED WORKS AT; NEWCASTLE INTERNATIONAL HOCKEY CENTRE, TURTON ROAD, BROADMEADOW

DO NOT SCALE DRAWING

DRAWN	ENGINEER	No in SET	SHEET
C.H.	M.S.	14	A1
SCALES	JOB No	DRAWING No	ISSUE
1:1000	17-605	C01	3

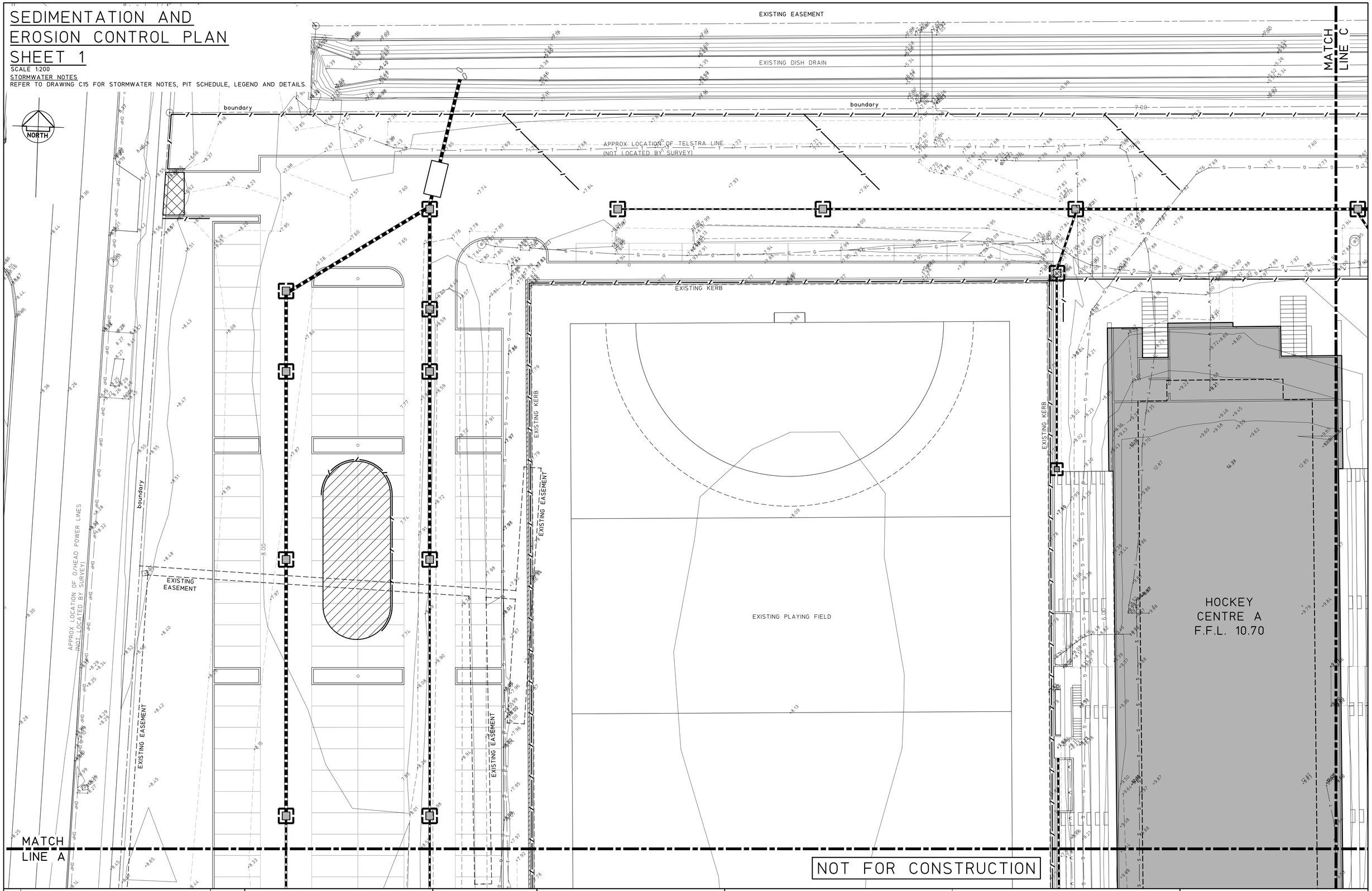
FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm

SEDIMENTATION AND EROSION CONTROL PLAN SHEET 1

SCALE 1:200

STORMWATER NOTES

REFER TO DRAWING C15 FOR STORMWATER NOTES, PIT SCHEDULE, LEGEND AND DETAILS.



NOT FOR CONSTRUCTION

ISSUE	REASON FOR ISSUE	DATE
3	REVISED DEVELOPMENT APPLICATION	22.12.17
2	DEVELOPMENT APPLICATION	14.7.17
1	REVIEW	21.6.17
0	REVIEW	13.6.17

mpc CONSULTING ENGINEERS

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CLIENT: NEWCASTLE INTERNATIONA HOCKEY CENTRE

TITLE: SEDIMENTATION AND EROSION CONTROL PLAN SHEET 1

PROJECT: PROPOSED WORKS AT; NEWCASTLE INTERNATIONAL HOCKEY CENTRE, TURTON ROAD, BROADMEADOW

DO NOT SCALE DRAWING

DRAWN	ENGINEER	No in SET	SHEET
C.H.	M.S.	14	A1
SCALES	JOB No	DRAWING No	ISSUE
1:200	17-605	C10	3

FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm

SEDIMENTATION AND EROSION CONTROL PLAN SHEET 2

SCALE 1:200

STORMWATER NOTES
REFER TO DRAWING C15 FOR STORMWATER NOTES, PIT SCHEDULE, LEGEND AND DETAILS.

NORTH

MATCH LINE C

EXISTING EASEMENT

EXISTING DISH DRAIN

boundary

DENOTES CLEAN WATER OVERFLOW TYPICAL

DENOTES ROCK MATTRESS/ SPILL WAY TYPICAL

APPROX LOCATION OF GASMAIN (NOT LOCATED BY SURVEY)

EXISTING KERB

EXISTING KERB

EXISTING KERB

EXISTING PLAYING FIELD

HOCKEY CENTRE C
F.F.L. 10.70

EXISTING PRACTICE FIELD

EXISTING PRACTICE FIELD

APPROX LOCATION OF WATERMAIN (NOT LOCATED BY SURVEY)

EXISTING EASEMENT

boundary

boundary

MATCH LINE A

NOT FOR CONSTRUCTION

ISSUE	REASON FOR ISSUE	DATE
3	REVISED DEVELOPMENT APPLICATION	22.12.17
2	DEVELOPMENT APPLICATION	14.7.17
1	REVIEW	21.6.17
0	REVIEW	13.6.17

mpc CONSULTING ENGINEERS

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Web: www.mpcconsultingengineers.com.au
A.C.N. 098 542 575

CLIENT
NEWCASTLE INTERNATIONA HOCKEY CENTRE

TITLE
SEDIMENTATION AND EROSION CONTROL PLAN SHEET 2

PROJECT
PROPOSED WORKS AT;
NEWCASTLE INTERNATIONAL HOCKEY CENTRE,
TURTON ROAD,
BROADMEADOW

DO NOT SCALE DRAWING

DRAWN	ENGINEER	No in SET	SHEET
C.H.	M.S.	14	A1
SCALES	JOB No	DRAWING No	ISSUE
1:200	17-605	C11	3

FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm

MATCH LINE A

HOCKEY CENTRE A F.F.L. 10.70

EXISTING PLAYING FIELD

EXISTING KERB

EXISTING EASEMENT

boundary

APPROX LOCATION OF O/HEAD POWER LINES (NOT LOCATED BY SURVEY)

APPROX LOCATION OF GASMAIN (NOT LOCATED BY SURVEY)

APPROX LOCATION OF SEWER MAIN (NOT LOCATED BY SURVEY)

HOCKEY CENTRE B F.F.L. 10.70

EXISTING PLAYING FIELD

NORTH

SEDIMENTATION AND EROSION CONTROL PLAN SHEET 3

STORMWATER NOTES
REFER TO DRAWING C15 FOR STORMWATER NOTES, PIT SCHEDULE, LEGEND AND DETAILS.

MATCH LINE B

MATCH LINE C

NOT FOR CONSTRUCTION

ISSUE	REASON FOR ISSUE	DATE
4	REVISED DEVELOPMENT APPLICATION	13.2.18
3	REVISED DEVELOPMENT APPLICATION	22.12.17
2	DEVELOPMENT APPLICATION	14.7.17
1	REVIEW	21.6.17
0	REVIEW	13.6.17

mpc CONSULTING ENGINEERS

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A.C.N. 098 542 575

CLIENT
NEWCASTLE INTERNATIONA HOCKEY CENTRE

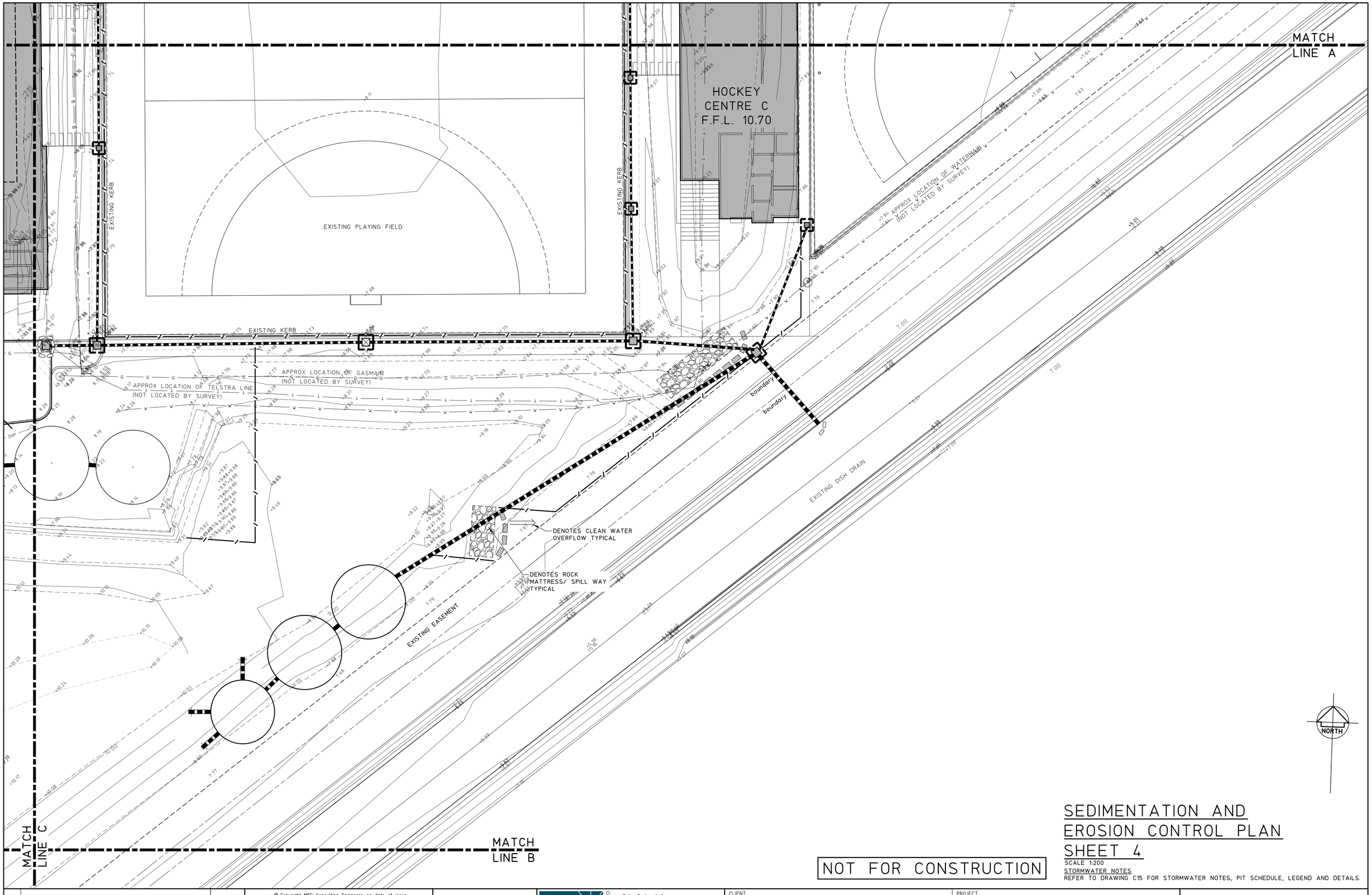
TITLE
SEDIMENTATION AND EROSION CONTROL PLAN SHEET 3

PROJECT
PROPOSED WORKS AT;
NEWCASTLE INTERNATIONAL HOCKEY CENTRE,
TURTON ROAD,
BROADMEADOW

DO NOT SCALE DRAWING

DRAWN	ENGINEER	No in SET	SHEET
C.H.	M.S.	14	A1
SCALES	JOB No	DRAWING No	ISSUE
1:200	17-605	C12	4

FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm



SEDIMENTATION AND EROSION CONTROL PLAN SHEET 4

SCALE 1:200

STORMWATER NOTES

REFER TO DRAWING C15 FOR STORMWATER NOTES, PIT SCHEDULE, LEGEND AND DETAILS.

NOT FOR CONSTRUCTION

ISSUE	REASON FOR ISSUE	DATE
4	REVISED DEVELOPMENT APPLICATION	13.2.18
3	REVISED DEVELOPMENT APPLICATION	22.12.17
2	DEVELOPMENT APPLICATION	14.7.17
1	REVIEW	21.6.17
0	REVIEW	13.6.17

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CLIENT
NEWCASTLE INTERNATIONA HOCKEY CENTRE

TITLE
SEDIMENTATION AND EROSION CONTROL PLAN SHEET 4

PROJECT
PROPOSED WORKS AT;
NEWCASTLE INTERNATIONAL HOCKEY CENTRE,
TURTON ROAD,
BROADMEADOW

DO NOT SCALE DRAWING

DRAWN	ENGINEER	No in SET	SHEET
C.H.	M.S.	14	A1
SCALES	JOB No	DRAWING No	ISSUE
1:200	17-605	C13	4

FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm

MATCH LINE B

MATCH LINE C

EXISTING PLAYING FIELD

HOCKEY CENTRE B
F.F.L. 10.70

EXISTING KERB

EXISTING EASEMENT

boundary

APPROX LOCATION OF GASMAIN (NOT LOCATED BY SURVEY)

APPROX LOCATION OF SEWERMAIN (NOT LOCATED BY SURVEY)

EXISTING DISH DRAIN

NORTH

NOT FOR CONSTRUCTION

SEDIMENTATION AND EROSION CONTROL PLAN SHEET 5

SCALE 1:200

STORMWATER NOTES

REFER TO DRAWING C15 FOR STORMWATER NOTES, PIT SCHEDULE, LEGEND AND DETAILS.

ISSUE	REASON FOR ISSUE	DATE
4	REVISED DEVELOPMENT APPLICATION	13.2.18
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CLIENT: NEWCASTLE INTERNATIONA HOCKEY CENTRE

TITLE: SEDIMENTATION AND EROSION CONTROL PLAN SHEET 5

PROJECT: PROPOSED WORKS AT; NEWCASTLE INTERNATIONAL HOCKEY CENTRE, TURTON ROAD, BROADMEADOW

DO NOT SCALE DRAWING

DRAWN	ENGINEER	No in SET	SHEET
C.H.	M.S.	14	A1
SCALES	JOB No	DRAWING No	ISSUE
1:200	17-605	C14	4

FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm

STORMWATER PLAN SHEET 1

SCALE 1:200

STORMWATER NOTES

REFER TO DRAWING C25 FOR STORMWATER NOTES, PIT SCHEDULE, LEGEND AND DETAILS.

NORTH

EXISTING EASEMENT

EXISTING DISH DRAIN

MATCH LINE C

boundary

APPROX LOCATION OF TELSTRA LINE (NOT LOCATED BY SURVEY)

ϕ375 RCP

GPT1

P8/1 P7/1 P6/1 P5/1 P4/1

ϕ150 ϕ225 ϕ300

P1/2 P9/1 P2/2 P10/1 P3/2 P11/1 P4/2 P12/1

P1/3 P2/3

EXISTING KERB

T.O.K

EXISTING EASEMENT

RW1

EXISTING PLAYING FIELD

HOCKEY CENTRE A F.F.L. 10.70

PROVIDE SUMPS TO BOTTOM TIER OF STAND TO DRAIN RAINWATER TO ARCH DETAILS TYPICAL

APPROX LOCATION OF O/HEAD POWER LINES (NOT LOCATED BY SURVEY)

MATCH LINE A

NOT FOR CONSTRUCTION

ISSUE	REASON FOR ISSUE	DATE
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CLIENT
NEWCASTLE INTERNATIONA HOCKEY CENTRE

TITLE
STORMWATER PLAN
SHEET 1

PROJECT
PROPOSED WORKS AT;
NEWCASTLE INTERNATIONAL HOCKEY CENTRE,
TURTON ROAD,
BROADMEADOW

DO NOT SCALE DRAWING

DRAWN	ENGINEER	No in SET	SHEET
C.H.	M.S.	14	A1
SCALES	JOB No	DRAWING No	ISSUE
1:200	17-605	C20	3

FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm

STORMWATER PLAN SHEET 2

SCALE 1:200

STORMWATER NOTES

REFER TO DRAWING C25 FOR STORMWATER NOTES, PIT SCHEDULE, LEGEND AND DETAILS.

MATCH LINE C

MATCH LINE A

EXISTING EASEMENT

EXISTING DISH DRAIN

boundary

GPT2

IL 5.24

Φ450 RCP

P1/15

P1/1

P1/8

P1/9

P1/4

P2/4

P2/8

P3/8

P2/6

P4/1

P3/1

P2/1

Φ375

Φ225

K1

T.O.K

APPROX LOCATION OF GAS MAIN (NOT LOCATED BY SURVEY)

EXISTING KERB

EXISTING PLAYING FIELD

EXISTING PRACTICE FIELD

HOCKEY CENTRE C
F.F.L. 10.70

APPROX LOCATION OF WATERMAIN (NOT LOCATED BY SURVEY)

EXISTING EASEMENT

PROVIDE SUMPS TO BOTTOM TIER OF STAND TO DRAIN RAINWATER TO ARCH DETAILS TYPICAL

PROVIDE SUMPS TO BOTTOM TIER OF STAND TO DRAIN RAINWATER TO ARCH DETAILS TYPICAL

NOT FOR CONSTRUCTION

ISSUE	REASON FOR ISSUE	DATE
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CLIENT
NEWCASTLE INTERNATIONA HOCKEY CENTRE

TITLE
STORMWATER PLAN
SHEET 2

PROJECT
PROPOSED WORKS AT;
NEWCASTLE INTERNATIONAL HOCKEY CENTRE,
TURTON ROAD,
BROADMEADOW

DO NOT SCALE DRAWING

DRAWN	ENGINEER	No in SET	SHEET
C.H.	M.S.	14	A1
SCALES	JOB No	DRAWING No	ISSUE
1:200	17-605	C21	3

FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm

MATCH LINE A

P4/2 P12/1 P5/2 P13/1 P11/5

EXISTING PLAYING FIELD

HOCKEY CENTRE A F.F.L. 10.70

HOCKEY CENTRE B F.F.L. 10.70

EXISTING PLAYING FIELD

P1/16 P1/10 P10/5 P1/13 P1/12 P2/12

GPT3

OVERFLOW CHAMBER

DETENTION TANK

ET1 ET1

DOWNPIPE TYPICAL

OVERFLOW PIPE TYPICAL

RE-USE PIPE FOR TOILETS AND LAUNDRIES TO HYDRAULIC ENGINEERS SPECIFICATIONS AND DETAILS TYPICAL

GD1

TOP OF EXISTING KERB

EXISTING KERB

BOLLARDS TO ARCH DETAILS TYPICAL

APPROX LOCATION OF GASMAIN (NOT LOCATED BY SURVEY)

APPROX LOCATION OF O/HEAD POWER LINES (NOT LOCATED BY SURVEY)

APPROX LOCATION OF SEWERMAIN (NOT LOCATED BY SURVEY)

EXISTING EASEMENT

boundary

NOTE
DRIVEWAY TO BE INTEGRATED WITH EXISTING CYCLEWAY. FULL DETAILS TO BE PROVIDED DURING DETAILED DESIGN.

NORTH

STORMWATER PLAN SHEET 3

SCALE 1:200

STORMWATER NOTES
REFER TO DRAWING C25 FOR STORMWATER NOTES, PIT SCHEDULE, LEGEND AND DETAILS.

MATCH LINE B

MATCH LINE C

NOT FOR CONSTRUCTION

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4	REVISED DEVELOPMENT APPLICATION	13.2.18
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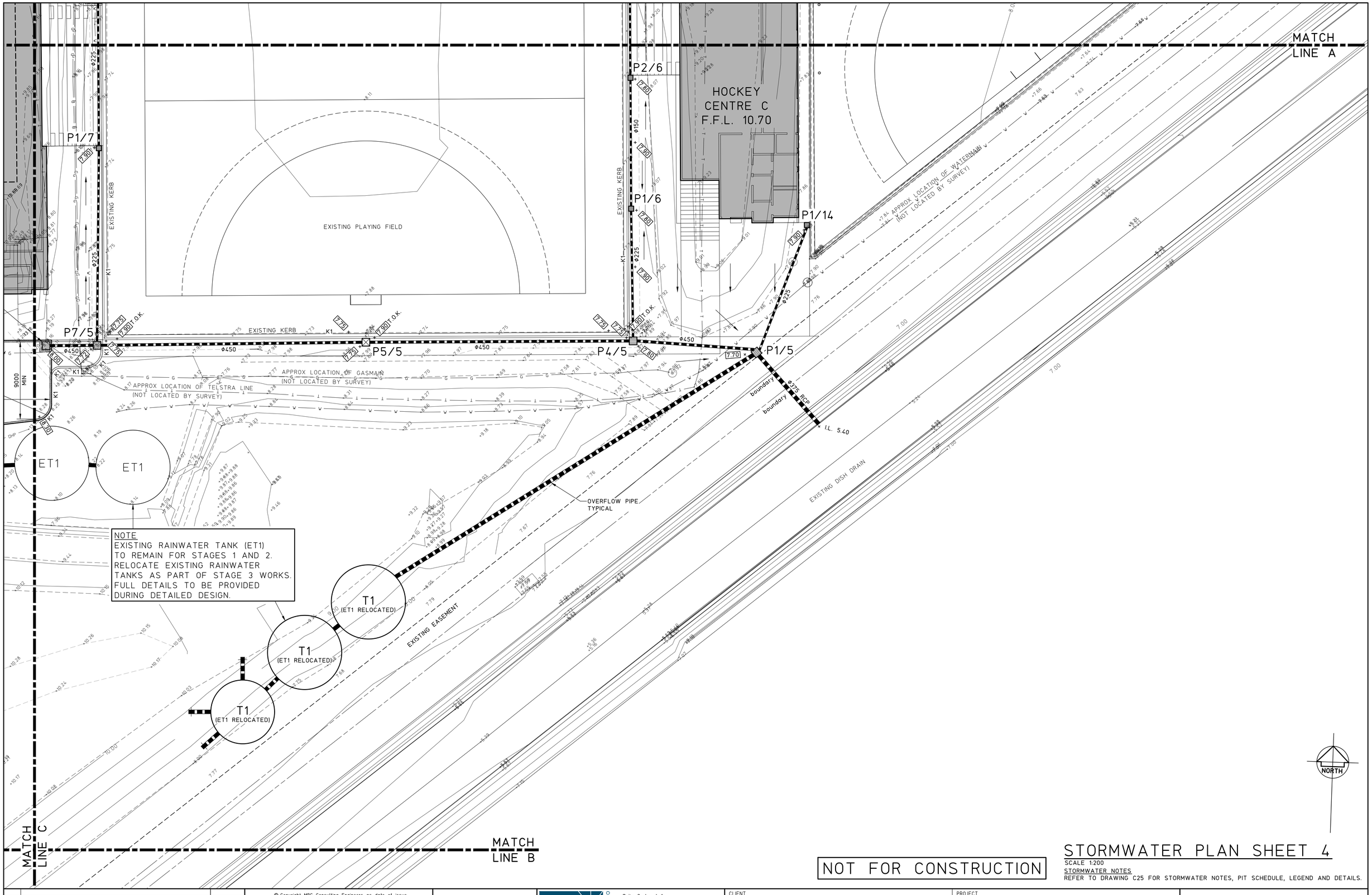
TITLE
STORMWATER PLAN
SHEET 3

PROJECT
PROPOSED WORKS AT;
NEWCASTLE INTERNATIONAL HOCKEY CENTRE,
TURTON ROAD,
BROADMEADOW

DO NOT SCALE DRAWING

DRAWN	ENGINEER	No in SET	SHEET
C.H.	M.S.	14	A1
SCALES	JOB No	DRAWING No	ISSUE
1:200	17-605	C22	4

FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm



NOT FOR CONSTRUCTION

STORMWATER PLAN SHEET 4

SCALE 1:200

STORMWATER NOTES

REFER TO DRAWING C25 FOR STORMWATER NOTES, PIT SCHEDULE, LEGEND AND DETAILS.

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2	DEVELOPMENT APPLICATION	14.7.17
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CLIENT
NEWCASTLE INTERNATIONA HOCKEY CENTRE

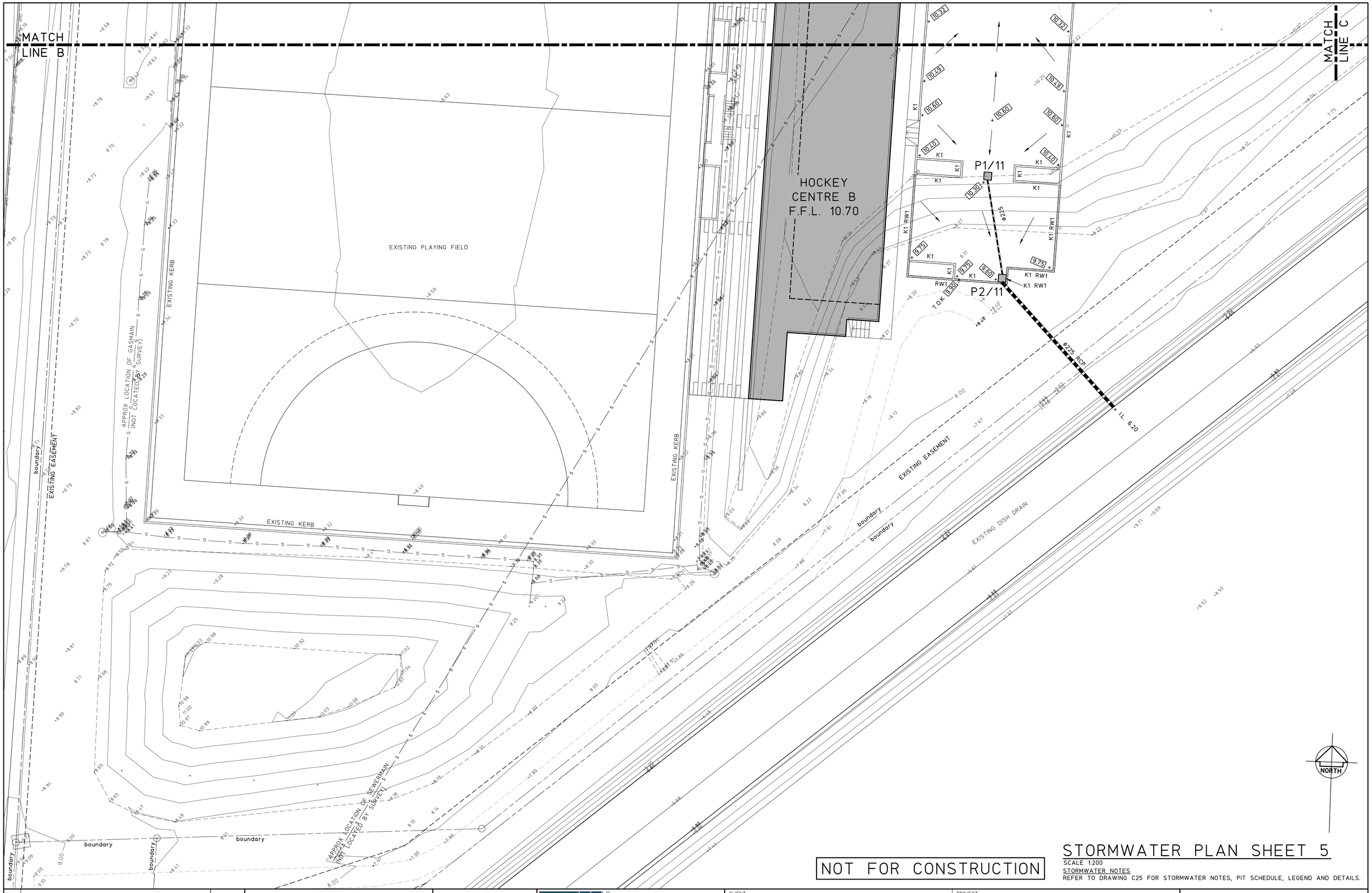
TITLE
STORMWATER PLAN
SHEET 4

PROJECT
PROPOSED WORKS AT;
NEWCASTLE INTERNATIONAL HOCKEY CENTRE,
TURTON ROAD,
BROADMEADOW

DO NOT SCALE DRAWING

DRAWN	ENGINEER	No in SET	SHEET
C.H.	M.S.	14	A1
SCALES	JOB No	DRAWING No	ISSUE
1:200	17-605	C23	4

FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm



NOT FOR CONSTRUCTION

STORMWATER PLAN SHEET 5

SCALE 1:200

STORMWATER NOTES

REFER TO DRAWING C25 FOR STORMWATER NOTES, PIT SCHEDULE, LEGEND AND DETAILS.

ISSUE	REASON FOR ISSUE	DATE
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CLIENT: NEWCASTLE INTERNATIONA HOCKEY CENTRE

TITLE: STORMWATER PLAN SHEET 5

PROJECT: PROPOSED WORKS AT; NEWCASTLE INTERNATIONAL HOCKEY CENTRE, TURTON ROAD, BROADMEADOW

DO NOT SCALE DRAWING

DRAWN	ENGINEER	No in SET	SHEET
C.H.	M.S.	14	A1
SCALES	JOB No	DRAWING No	ISSUE
1:200	17-605	C24	4

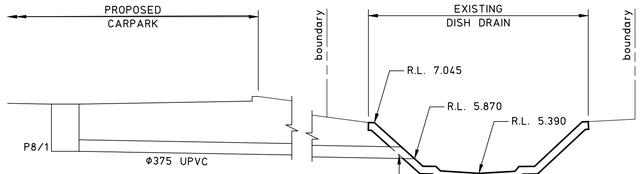
FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm

STORMWATER PLAN NOTES

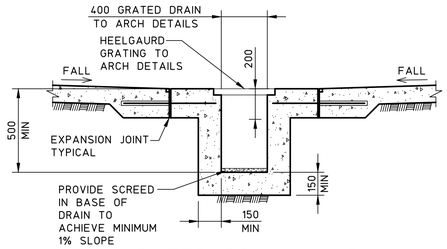
SCALE 1:200

STORMWATER NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH AS3500.3.
2. ALL PIPES TO HAVE A 1% MINIMUM FALL U.N.O.
3. ALL DOWN PIPES (DP) TO BE SPECIFIED BY ARCHITECT. FOR EXACT LOCATION OF DOWN PIPES, REFER TO ARCHITECTURAL DRAWINGS.
4. ALL PIPES TO BE UPVC U.N.O
5. ALL UPVC PIPES TO BE SEWER GRADE AND TO AS1260.
6. ALL REINFORCED CONCRETE PIPES (RCP) TO BE SPIGOT AND SOCKET TYPE WITH RUBBER RINGS CLASS 2 TO AS4058.
7. PITS TO BE CI&D REINFORCED PRE-CAST CONCRETE PITS OR EQUIVALENT PROPRIETARY PITS.
8. ALL LIDS AND GRATES TO BE PROPRIETARY HEAVY DUTY IN AREAS OF VEHICULAR TRAFFIC, LIGHT DUTY ELSEWHERE, IN ACCORDANCE WITH AS3996.
9. MINIMUM COVER TO STORMWATER PIPES TO BE AS FOLLOW U.N.O:
   TRAFFICABLE AREAS - 450mm, LANDSCAPED AREAS - 300mm.
   PIPES TO BE CONCRETE ENCASED IF MINIMUM COVERS CANNOT BE OBTAINED IN TRAFFICABLE AREAS, REFER TO CLAUSE 3.8 AS3500.3.
   ALTERNATIVELY USE UPVC SEWER GRADE PIPES UNDER ROAD AND BUILDINGS.
10. PROVIDE 100Φ AG DRAINS IN FILTER SOCKS TO ALL LANDSCAPED AREAS, PLANTER BEDS AND STORMWATER PIPE TRENCHES. ALL AG DRAINS TO BE BEDDED IN COARSE AGGREGATE AND TO BE CONNECTED TO STORMWATER SYSTEM.
11. ALL PITS, DETENTION TANKS AND PROPRIETARY POLLUTION CONTROL DEVICES TO BE CLEANED OF SEDIMENT AT 3 MONTH MAXIMUM INTERVALS.
12. ALL EXISTING SERVICES TO BE LOCATED PRIOR TO COMMENCEMENT OF WORK.
13. ANY FOOTPATHS, KERB AND GUTTER OR ROADWAY DISTURBED BY WORKS TO BE REINSTATED TO CURRENT COUNCIL REQUIREMENTS.
14. PROVIDE ACCESS LADDER TO TANK AS REQUIRED, REFER TO AS1657.

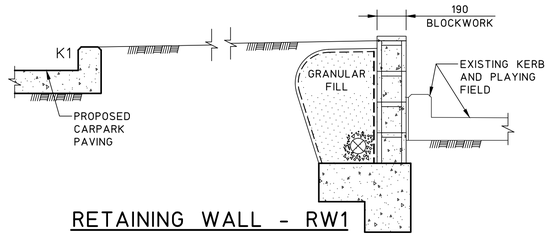


SECTION 1 C20
SCALE 1:100



GRATED DRAIN - GD1

SECTION 2 C20
SCALE 1:20



RETAINING WALL - RW1

SECTION 3 C20
SCALE 1:20

PIT SCHEDULE

PIT No.	SIZE	TYPE	SURFACE LEVEL S.L.	INVERT LEVEL I.L.
P1/1 ✳△	900x900	GRATED SAG PIT	7.45	5.323
P2/1 ✳	900x900	GRATED SAG PIT	7.45	5.447
P3/1 ✳	900x900	GRATED SAG PIT	7.45	5.599
P4/1 ✳	900x900	GRATED SAG PIT	7.45	5.780
P5/1 ✳	900x900	GRATED SAG PIT	7.45	6.112
P6/1 ✳	900x900	GRATED SAG PIT	7.45	6.425
P7/1 ✳	900x900	GRATED SAG PIT	7.45	6.700
P8/1 ✳△	900x900	GRATED SAG PIT	7.65	6.112
P9/1 ✳△	900x900	GRATED SAG PIT	8.10	6.247
P10/1 ✳	900x900	GRATED SAG PIT	7.95	6.317
P11/1 ✳	900x900	GRATED SAG PIT	7.95	6.553
P12/1 ✳	900x900	GRATED SAG PIT	7.95	6.834
P13/1 ✳	900x900	GRATED SAG PIT	7.95	7.125
P1/2 ✳△	900x900	GRATED SAG PIT	7.95	6.210
P2/2 ✳	900x900	GRATED SAG PIT	7.95	6.317
P3/2 ✳	900x900	GRATED SAG PIT	7.95	6.556
P4/2 ✳	900x900	GRATED SAG PIT	7.95	6.834
P5/2 ✳	900x900	GRATED SAG PIT	7.95	7.125
P1/3 ✳	900x900	JUNCTION PIT	7.65	6.709
P2/3	900x900	GRATED SAG PIT	7.75	6.925
P1/4 ✳	900x900	JUNCTION PIT	7.65	6.709
P2/4	900x900	GRATED SAG PIT	7.75	6.925
P1/5 ✳	900x900	GRATED PIT	7.70	5.326
		NOT USED		
		NOT USED		
P4/5 ✳△	1200x1200	GRATED PIT	7.80	5.552
P5/5 ✳	1200x1200	GRATED PIT	7.75	5.800
		NOT USED		
P7/5 ✳	1200x1200	GRATED PIT	7.72	6.201
		NOT USED		
P9/5	1200x1200	GRATED PIT	7.97	6.417
P10/5	900x900	GRATED SAG PIT	8.10	6.633
P11/5	900x900	GRATED SAG PIT	8.00	7.175
P1/6	900x900	GRATED SAG PIT	7.80	6.879
P2/6	900x900	GRATED SAG PIT	7.80	7.050
P1/7	900x900	GRATED SAG PIT	7.90	7.075
P1/8	900x900	JUNCTION PIT	7.80	6.653
P2/8	900x900	GRATED SAG PIT	7.80	6.819
P3/8	900x900	GRATED SAG PIT	7.80	6.975
P1/9	900x900	GRATED SAG PIT	7.95	7.127
P1/10	900x900	GRATED SAG PIT	7.95	6.950
P1/11 ✳	900x900	GRATED SAG PIT	10.30	8.875
P2/11 ✳	900x900	GRATED SAG PIT	9.60	8.250
P1/12 ✳	1200x1200	GRATED PIT	8.35	7.274
P2/12 ✳△	900x900	GRATED PIT	9.95	8.875
P1/13	900x900	JUNCTION PIT	8.30	7.475
P1/14	900x900	GRATED SAG PIT	7.90	7.075
P1/15 ✳△	900x900	GRATED SAG PIT	7.65	5.293
P1/16	900x900	GRATED SAG PIT	7.95	7.050

LEGEND

- DENOTES STORMWATER PIPE
- 8.00 — DENOTES EXISTING CONTOUR
- 8.10 — DENOTES DESIGN CONTOUR
- x7.55 — DENOTES EXISTING LEVELS
- x 7.45 — DENOTES DESIGN SPOT LEVELS
- K1 — DENOTES 150 HIGH KERB U.N.O.
- RW1 — DENOTES RETAINING WALL TO ARCH DETAILS
- RW1(u) — DENOTES RETAINING WALL UNDER PAVEMENT TO ARCHITECTS DETAILS
- DEB — DENOTES DROPPED EDGE BEAM TO BUILDING SLAB OR PAVEMENT
- DENOTES DIRECTION OF SURFACE FLOWS
- T1 — DENOTES RELOCATED EXISTING WATER STORAGE TANK STORING ROOF RAIN WATER TO MANUFACTURERS SPECIFICATION. PUMP SYSTEM TO BE FITTED FOR REUSE ON PLAYING FIELDS. PUMP FOR RE-USE TO BE USED ON PLAYING FIELDS
- 'GPT' — DENOTES GROSS POLLUTANT TRAP TO MANUFACTURERS SPECIFICATIONS AND DETAILS
- GD1 — DENOTES PROPRIETARY GRATED DRAIN WITH HEELGUARD GRATE TO ARCH DETAILS
- AG — DENOTES 100Φ AG DRAIN IN FILTER SOCK
- DENOTES 600x600 MANHOLE PIT LID

NOTE
DETENTION TANK - INTERNAL DIMENSION 20000x11000 MINx1100 DEEP
SL REFER TO PLAN, IL 6.70.
OVERFLOW CHAMBER SL REFER TO PLAN, IL 6.70.
REFER TO DRAWING C25 FOR DETAILS.

NOTE
BUILDER TO PROVIDE ADEQUATE SHORING IN ORDER TO MAINTAIN STABILITY OF EXISTING NEIGHBOURING STRUCTURES AND FENCES DURING EXCAVATION WORKS TYPICAL

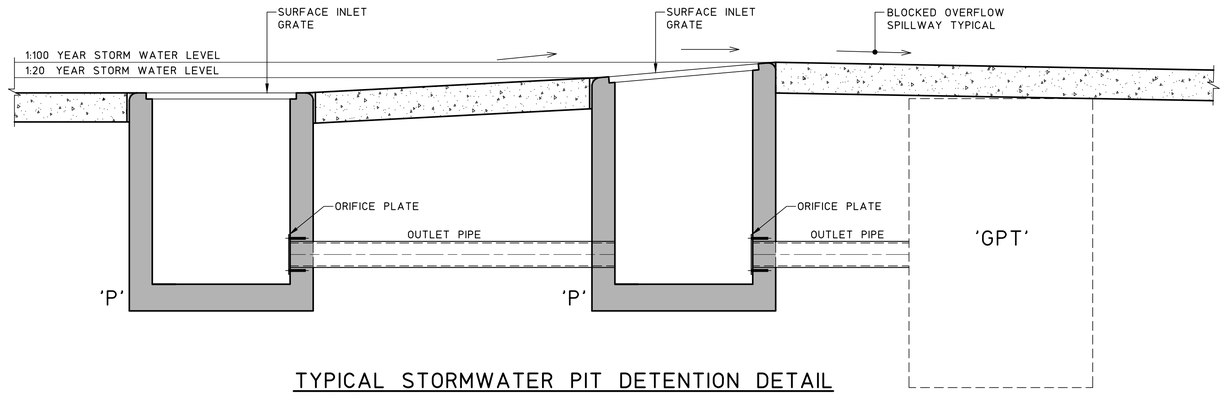
NOTE
ALL STRIP DRAINS AND AG LINES BEHIND RETAINING WALLS (RW1) AND KERBS (K1) TO CONNECT TO STORMWATER SYSTEM TYPICAL

NOTE
SETOUT AND ALIGNMENT OF WALLS TO BOUNDARY TO ARCHITECTS DETAILS TYPICAL

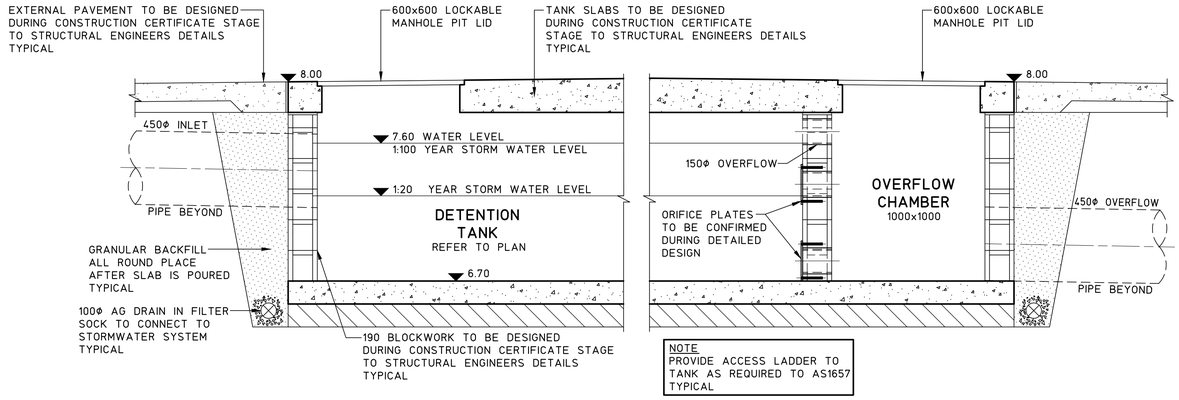
NOTE
✳ DENOTES PITS TO HAVE 'SPEL' STORMWATER INSERT OR SIMILAR IN PIT

NOTE
△ DENOTES PITS WITH ORIFICE PLATES. TBC DURING DETAILED DESIGN

NOTE
ALL SETOUT, DIMENSIONS AND RL's TO ARCHITECTS SPECIFICATION & DETAILS



TYPICAL STORMWATER PIT DETENTION DETAIL
SCALE 1:20



NOTE
PROVIDE ACCESS LADDER TO TANK AS REQUIRED TO AS1657 TYPICAL

TYPICAL DETENTION TANK AND OVERFLOW CHAMBER SECTION
SCALE 1:20

NOT FOR CONSTRUCTION

ISSUE	REASON FOR ISSUE	DATE
3	REVISED DEVELOPMENT APPLICATION	22.12.17
2	DEVELOPMENT APPLICATION	14.7.17
1	REVIEW	21.6.17
0	REVIEW	13.6.17

MPC CONSULTING ENGINEERS
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A.C.N. 098 542 575

CLIENT: NEWCASTLE INTERNATIONA HOCKEY CENTRE

TITLE: STORMWATER PLAN NOTES AND DETAILS

PROJECT: PROPOSED WORKS AT; NEWCASTLE INTERNATIONAL HOCKEY CENTRE, TURTON ROAD, BROADMEADOW

DO NOT SCALE DRAWING

DRAWN	ENGINEER	No in SET	SHEET
C.H.	M.S.	14	A1
SCALES	JOB No	DRAWING No	ISSUE
1:100, 50, 20	17-605	C25	3

FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm

STORMWATER PLAN SHEET 1

SCALE 1:200

STORMWATER NOTES

REFER TO DRAWING C25 FOR STORMWATER NOTES, PIT SCHEDULE, LEGEND AND DETAILS.

NORTH

EXISTING EASEMENT

EXISTING DISH DRAIN

MATCH LINE C

boundary

APPROX LOCATION OF TELSTRA LINE (NOT LOCATED BY SURVEY)

ϕ375 RCP

GPT1

P8/1 P7/1 P6/1 P5/1 P4/1

ϕ150 ϕ225 ϕ300

P1/2 P9/1 P2/2 P10/1 P3/2 P11/1 P4/2 P12/1

P1/3 P2/3

EXISTING KERB

T.O.K

EXISTING EASEMENT

RW1

EXISTING PLAYING FIELD

HOCKEY CENTRE A F.F.L. 10.70

PROVIDE SUMPS TO BOTTOM TIER OF STAND TO DRAIN RAINWATER TO ARCH DETAILS TYPICAL

APPROX LOCATION OF O/HEAD POWER LINES (NOT LOCATED BY SURVEY)

MATCH LINE A

NOT FOR CONSTRUCTION

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CLIENT
NEWCASTLE INTERNATIONA HOCKEY CENTRE

TITLE
STORMWATER PLAN
SHEET 1

PROJECT
PROPOSED WORKS AT;
NEWCASTLE INTERNATIONAL HOCKEY CENTRE,
TURTON ROAD,
BROADMEADOW

DO NOT SCALE DRAWING

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C.H.	M.S.	14	A1
SCALES	JOB No	DRAWING No	ISSUE
1:200	17-605	C20	3

FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm

STORMWATER PLAN SHEET 2

SCALE 1:200

STORMWATER NOTES

REFER TO DRAWING C25 FOR STORMWATER NOTES, PIT SCHEDULE, LEGEND AND DETAILS.

MATCH LINE C

MATCH LINE A

EXISTING EASEMENT

EXISTING DISH DRAIN

boundary

GPT2

IL 5.24

Φ450 RCP

P1/15

P1/1

P1/8

P1/9

P1/4

P2/4

P2/8

P3/8

P2/6

P4/1

P3/1

P2/1

Φ375

Φ225

K1

T.O.K

APPROX LOCATION OF GAS MAIN (NOT LOCATED BY SURVEY)

EXISTING KERB

EXISTING PLAYING FIELD

EXISTING PRACTICE FIELD

HOCKEY CENTRE C
F.F.L. 10.70

APPROX LOCATION OF WATERMAIN (NOT LOCATED BY SURVEY)

EXISTING EASEMENT

PROVIDE SUMPS TO BOTTOM TIER OF STAND TO DRAIN RAINWATER TO ARCH DETAILS TYPICAL

PROVIDE SUMPS TO BOTTOM TIER OF STAND TO DRAIN RAINWATER TO ARCH DETAILS TYPICAL

NOT FOR CONSTRUCTION

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CLIENT
NEWCASTLE INTERNATIONA HOCKEY CENTRE

TITLE
STORMWATER PLAN
SHEET 2

PROJECT
PROPOSED WORKS AT;
NEWCASTLE INTERNATIONAL HOCKEY CENTRE,
TURTON ROAD,
BROADMEADOW

DO NOT SCALE DRAWING

DRAWN	ENGINEER	No in SET	SHEET
C.H.	M.S.	14	A1
SCALES	JOB No	DRAWING No	ISSUE
1:200	17-605	C21	3

FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm

MATCH LINE A

MATCH LINE B

MATCH LINE C

P4/2 P12/1 P5/2 P13/1 P11/5 P1/16 P1/10 P10/5 P1/13 P1/12 P2/12 GPT3 GD1

HOCKEY CENTRE A F.F.L. 10.70

HOCKEY CENTRE B F.F.L. 10.70

EXISTING PLAYING FIELD

EXISTING EASEMENT

boundary

APPROX LOCATION OF O/HEAD POWER LINES (NOT LOCATED BY SURVEY)

EXISTING KERB

TOP OF EXISTING KERB

T.O.K.

APPROX LOCATION OF GASMAIN (NOT LOCATED BY SURVEY)

APPROX LOCATION OF SEWERMAIN (NOT LOCATED BY SURVEY)

BOLLARDS TO ARCH DETAILS TYPICAL

OVERFLOW CHAMBER

DETENTION TANK

ET1

DOWNPIPE TYPICAL

OVERFLOW PIPE TYPICAL

RE-USE PIPE FOR TOILETS AND LAUNDRIES TO HYDRAULIC ENGINEERS SPECIFICATIONS AND DETAILS TYPICAL

NOTE
DRIVEWAY TO BE INTEGRATED WITH EXISTING CYCLEWAY. FULL DETAILS TO BE PROVIDED DURING DETAILED DESIGN.

NORTH

STORMWATER PLAN SHEET 3

SCALE 1:200

STORMWATER NOTES

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NOT FOR CONSTRUCTION

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NEWCASTLE INTERNATIONA HOCKEY CENTRE

TITLE
STORMWATER PLAN
SHEET 3

PROJECT
PROPOSED WORKS AT;
NEWCASTLE INTERNATIONAL HOCKEY CENTRE,
TURTON ROAD,
BROADMEADOW

DO NOT SCALE DRAWING

DRAWN	ENGINEER	No in SET	SHEET
C.H.	M.S.	14	A1
SCALES	JOB No	DRAWING No	ISSUE
1:200	17-605	C22	3

FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm

NOT FOR CONSTRUCTION

STORMWATER PLAN SHEET 4

SCALE 1:200

STORMWATER NOTES

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2	DEVELOPMENT APPLICATION	14.7.17
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0	REVIEW	13.6.17

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION UNLESS ENDORSED BELOW

DATE OF RELEASE	RESPONSIBLE PRINCIPAL SIGNATURE	ISSUE

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CLIENT
NEWCASTLE INTERNATIONA HOCKEY CENTRE

TITLE
STORMWATER PLAN SHEET 4

PROJECT
PROPOSED WORKS AT; NEWCASTLE INTERNATIONAL HOCKEY CENTRE, TURTON ROAD, BROADMEADOW

DO NOT SCALE DRAWING

DRAWN	ENGINEER	No in SET	SHEET
C.H.	M.S.	14	A1
SCALES	**JOB No**	**DRAWING No**	**ISSUE**
1:200	17-605	C23	3

FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm

MATCH LINE B

MATCH LINE C

EXISTING PLAYING FIELD

HOCKEY CENTRE B
F.F.L. 10.70

P1/11

P2/11

Φ225

Φ225 RCP

I.L. 6.20

T.O.K. 9.30

EXISTING KERB

EXISTING EASEMENT

boundary

EXISTING DISH DRAIN

APPROX LOCATION OF GASMAIN (NOT LOCATED BY SURVEY)

APPROX LOCATION OF SEWERMAIN (NOT LOCATED BY SURVEY)

NORTH

NOT FOR CONSTRUCTION

STORMWATER PLAN SHEET 5

SCALE 1:200

STORMWATER NOTES

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CLIENT: NEWCASTLE INTERNATIONA HOCKEY CENTRE

TITLE: STORMWATER PLAN SHEET 5

PROJECT: PROPOSED WORKS AT; NEWCASTLE INTERNATIONAL HOCKEY CENTRE, TURTON ROAD, BROADMEADOW

DO NOT SCALE DRAWING

DRAWN	ENGINEER	No in SET	SHEET
C.H.	M.S.	14	A1
SCALES	JOB No	DRAWING No	ISSUE
1:200	17-605	C24	3

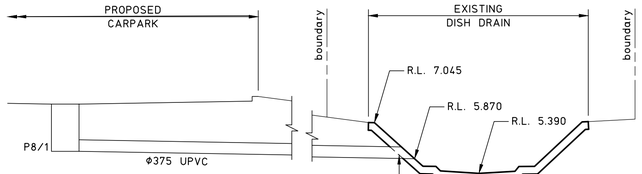
FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm

STORMWATER PLAN NOTES

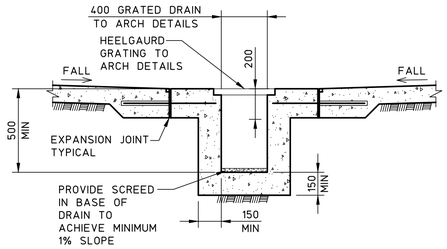
SCALE 1:200

STORMWATER NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH AS3500.3.
2. ALL PIPES TO HAVE A 1% MINIMUM FALL U.N.O.
3. ALL DOWN PIPES (DP) TO BE SPECIFIED BY ARCHITECT. FOR EXACT LOCATION OF DOWN PIPES, REFER TO ARCHITECTURAL DRAWINGS.
4. ALL PIPES TO BE UPVC U.N.O
5. ALL UPVC PIPES TO BE SEWER GRADE AND TO AS1260.
6. ALL REINFORCED CONCRETE PIPES (RCP) TO BE SPIGOT AND SOCKET TYPE WITH RUBBER RINGS CLASS 2 TO AS4058.
7. PITS TO BE CI&D REINFORCED PRE-CAST CONCRETE PITS OR EQUIVALENT PROPRIETARY PITS.
8. ALL LIDS AND GRATES TO BE PROPRIETARY HEAVY DUTY IN AREAS OF VEHICULAR TRAFFIC, LIGHT DUTY ELSEWHERE, IN ACCORDANCE WITH AS3996.
9. MINIMUM COVER TO STORMWATER PIPES TO BE AS FOLLOW U.N.O:
   TRAFFICABLE AREAS - 450mm, LANDSCAPED AREAS - 300mm.
   PIPES TO BE CONCRETE ENCASED IF MINIMUM COVERS CANNOT BE OBTAINED IN TRAFFICABLE AREAS, REFER TO CLAUSE 3.8 AS3500.3.
   ALTERNATIVELY USE UPVC SEWER GRADE PIPES UNDER ROAD AND BUILDINGS.
10. PROVIDE 100Φ AG DRAINS IN FILTER SOCKS TO ALL LANDSCAPED AREAS, PLANTER BEDS AND STORMWATER PIPE TRENCHES. ALL AG DRAINS TO BE BEDDED IN COARSE AGGREGATE AND TO BE CONNECTED TO STORMWATER SYSTEM.
11. ALL PITS, DETENTION TANKS AND PROPRIETARY POLLUTION CONTROL DEVICES TO BE CLEANED OF SEDIMENT AT 3 MONTH MAXIMUM INTERVALS.
12. ALL EXISTING SERVICES TO BE LOCATED PRIOR TO COMMENCEMENT OF WORK.
13. ANY FOOTPATHS, KERB AND GUTTER OR ROADWAY DISTURBED BY WORKS TO BE REINSTATED TO CURRENT COUNCIL REQUIREMENTS.
14. PROVIDE ACCESS LADDER TO TANK AS REQUIRED, REFER TO AS1657.

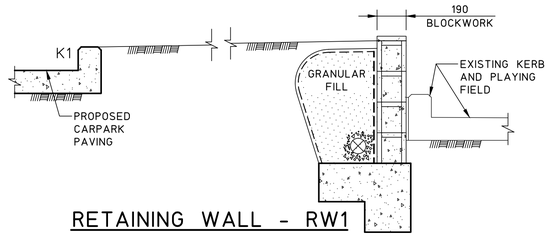


SECTION 1 C20
SCALE 1:100



GRATED DRAIN - GD1

SECTION 2 C20
SCALE 1:20



RETAINING WALL - RW1

SECTION 3 C20
SCALE 1:20

PIT SCHEDULE

PIT No.	SIZE	TYPE	SURFACE LEVEL S.L.	INVERT LEVEL I.L.
P1/1 ✳△	900x900	GRATED SAG PIT	7.45	5.323
P2/1 ✳	900x900	GRATED SAG PIT	7.45	5.447
P3/1 ✳	900x900	GRATED SAG PIT	7.45	5.599
P4/1 ✳	900x900	GRATED SAG PIT	7.45	5.780
P5/1 ✳	900x900	GRATED SAG PIT	7.45	6.112
P6/1 ✳	900x900	GRATED SAG PIT	7.45	6.425
P7/1 ✳	900x900	GRATED SAG PIT	7.45	6.700
P8/1 ✳△	900x900	GRATED SAG PIT	7.65	6.112
P9/1 ✳△	900x900	GRATED SAG PIT	8.10	6.247
P10/1 ✳	900x900	GRATED SAG PIT	7.95	6.317
P11/1 ✳	900x900	GRATED SAG PIT	7.95	6.553
P12/1 ✳	900x900	GRATED SAG PIT	7.95	6.834
P13/1 ✳	900x900	GRATED SAG PIT	7.95	7.125
P1/2 ✳△	900x900	GRATED SAG PIT	7.95	6.210
P2/2 ✳	900x900	GRATED SAG PIT	7.95	6.317
P3/2 ✳	900x900	GRATED SAG PIT	7.95	6.556
P4/2 ✳	900x900	GRATED SAG PIT	7.95	6.834
P5/2 ✳	900x900	GRATED SAG PIT	7.95	7.125
P1/3 ✳	900x900	JUNCTION PIT	7.65	6.709
P2/3	900x900	GRATED SAG PIT	7.75	6.925
P1/4 ✳	900x900	JUNCTION PIT	7.65	6.709
P2/4	900x900	GRATED SAG PIT	7.75	6.925
P1/5 ✳	900x900	GRATED PIT	7.70	5.326
		NOT USED		
		NOT USED		
P4/5 ✳△	1200x1200	GRATED PIT	7.80	5.552
P5/5 ✳	1200x1200	GRATED PIT	7.75	5.800
		NOT USED		
P7/5 ✳	1200x1200	GRATED PIT	7.72	6.201
		NOT USED		
P9/5	1200x1200	GRATED PIT	7.97	6.417
P10/5	900x900	GRATED SAG PIT	8.10	6.633
P11/5	900x900	GRATED SAG PIT	8.00	7.175
P1/6	900x900	GRATED SAG PIT	7.80	6.879
P2/6	900x900	GRATED SAG PIT	7.80	7.050
P1/7	900x900	GRATED SAG PIT	7.90	7.075
P1/8	900x900	JUNCTION PIT	7.80	6.653
P2/8	900x900	GRATED SAG PIT	7.80	6.819
P3/8	900x900	GRATED SAG PIT	7.80	6.975
P1/9	900x900	GRATED SAG PIT	7.95	7.127
P1/10	900x900	GRATED SAG PIT	7.95	6.950
P1/11 ✳	900x900	GRATED SAG PIT	10.30	8.875
P2/11 ✳	900x900	GRATED SAG PIT	9.60	8.250
P1/12 ✳	1200x1200	GRATED PIT	8.35	7.274
P2/12 ✳△	900x900	GRATED PIT	9.95	8.875
P1/13	900x900	JUNCTION PIT	8.30	7.475
P1/14	900x900	GRATED SAG PIT	7.90	7.075
P1/15 ✳△	900x900	GRATED SAG PIT	7.65	5.293
P1/16	900x900	GRATED SAG PIT	7.95	7.050

LEGEND

- DENOTES STORMWATER PIPE
- 8.00 — DENOTES EXISTING CONTOUR
- 8.10 — DENOTES DESIGN CONTOUR
- x7.55 — DENOTES EXISTING LEVELS
- x 7.45 — DENOTES DESIGN SPOT LEVELS
- K1 — DENOTES 150 HIGH KERB U.N.O.
- RW1 — DENOTES RETAINING WALL TO ARCH DETAILS
- RW1(u) — DENOTES RETAINING WALL UNDER PAVEMENT TO ARCHITECTS DETAILS
- DEB — DENOTES DROPPED EDGE BEAM TO BUILDING SLAB OR PAVEMENT
- DENOTES DIRECTION OF SURFACE FLOWS
- T1 — DENOTES RELOCATED EXISTING WATER STORAGE TANK STORING ROOF RAIN WATER TO MANUFACTURERS SPECIFICATION. PUMP SYSTEM TO BE FITTED FOR REUSE ON PLAYING FIELDS. PUMP FOR RE-USE TO BE USED ON PLAYING FIELDS
- 'GPT' — DENOTES GROSS POLLUTANT TRAP TO MANUFACTURERS SPECIFICATIONS AND DETAILS
- GD1 — DENOTES PROPRIETARY GRATED DRAIN WITH HEELGUARD GRATE TO ARCH DETAILS
- AG — DENOTES 100Φ AG DRAIN IN FILTER SOCK
- DENOTES 600x600 MANHOLE PIT LID

NOTE
DETENTION TANK - INTERNAL DIMENSION 20000x11000 MINx1100 DEEP
SL REFER TO PLAN, IL 6.70.
OVERFLOW CHAMBER SL REFER TO PLAN, IL 6.70.
REFER TO DRAWING C25 FOR DETAILS.

NOTE
BUILDER TO PROVIDE ADEQUATE SHORING IN ORDER TO MAINTAIN STABILITY OF EXISTING NEIGHBOURING STRUCTURES AND FENCES DURING EXCAVATION WORKS TYPICAL

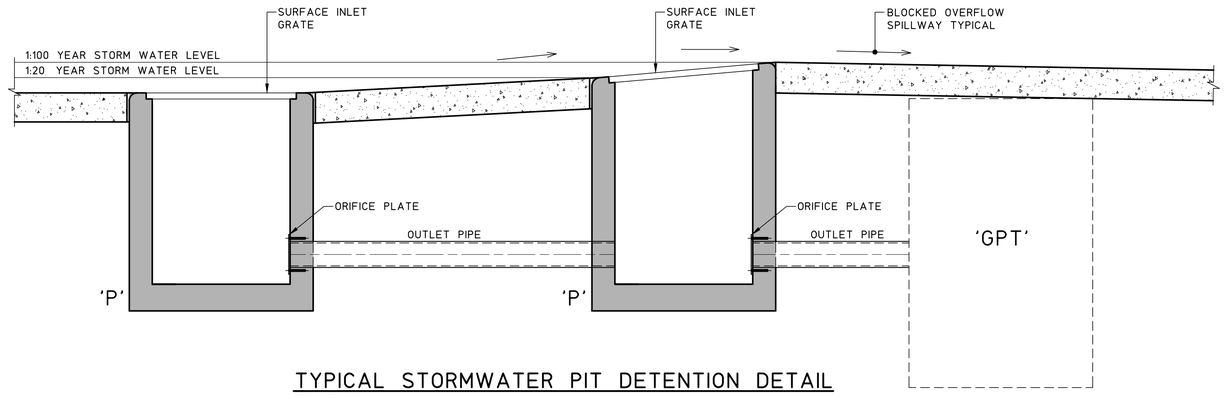
NOTE
ALL STRIP DRAINS AND AG LINES BEHIND RETAINING WALLS (RW1) AND KERBS (K1) TO CONNECT TO STORMWATER SYSTEM TYPICAL

NOTE
SETOUT AND ALIGNMENT OF WALLS TO BOUNDARY TO ARCHITECTS DETAILS TYPICAL

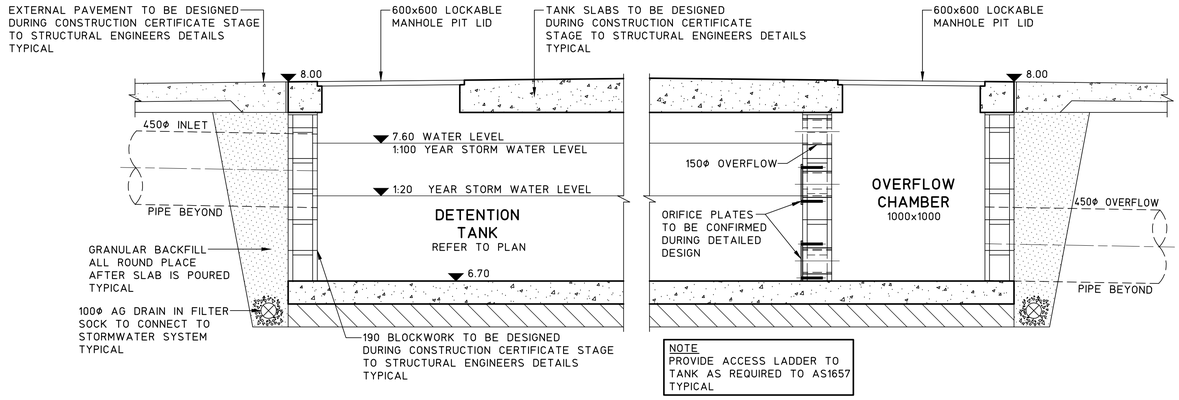
NOTE
✳ DENOTES PITS TO HAVE 'SPEL' STORMWATER INSERT OR SIMILAR IN PIT

NOTE
△ DENOTES PITS WITH ORIFICE PLATES. TBC DURING DETAILED DESIGN

NOTE
ALL SETOUT, DIMENSIONS AND RL's TO ARCHITECTS SPECIFICATION & DETAILS



TYPICAL STORMWATER PIT DETENTION DETAIL
SCALE 1:20



NOTE
PROVIDE ACCESS LADDER TO TANK AS REQUIRED TO AS1657 TYPICAL

TYPICAL DETENTION TANK AND OVERFLOW CHAMBER SECTION
SCALE 1:20

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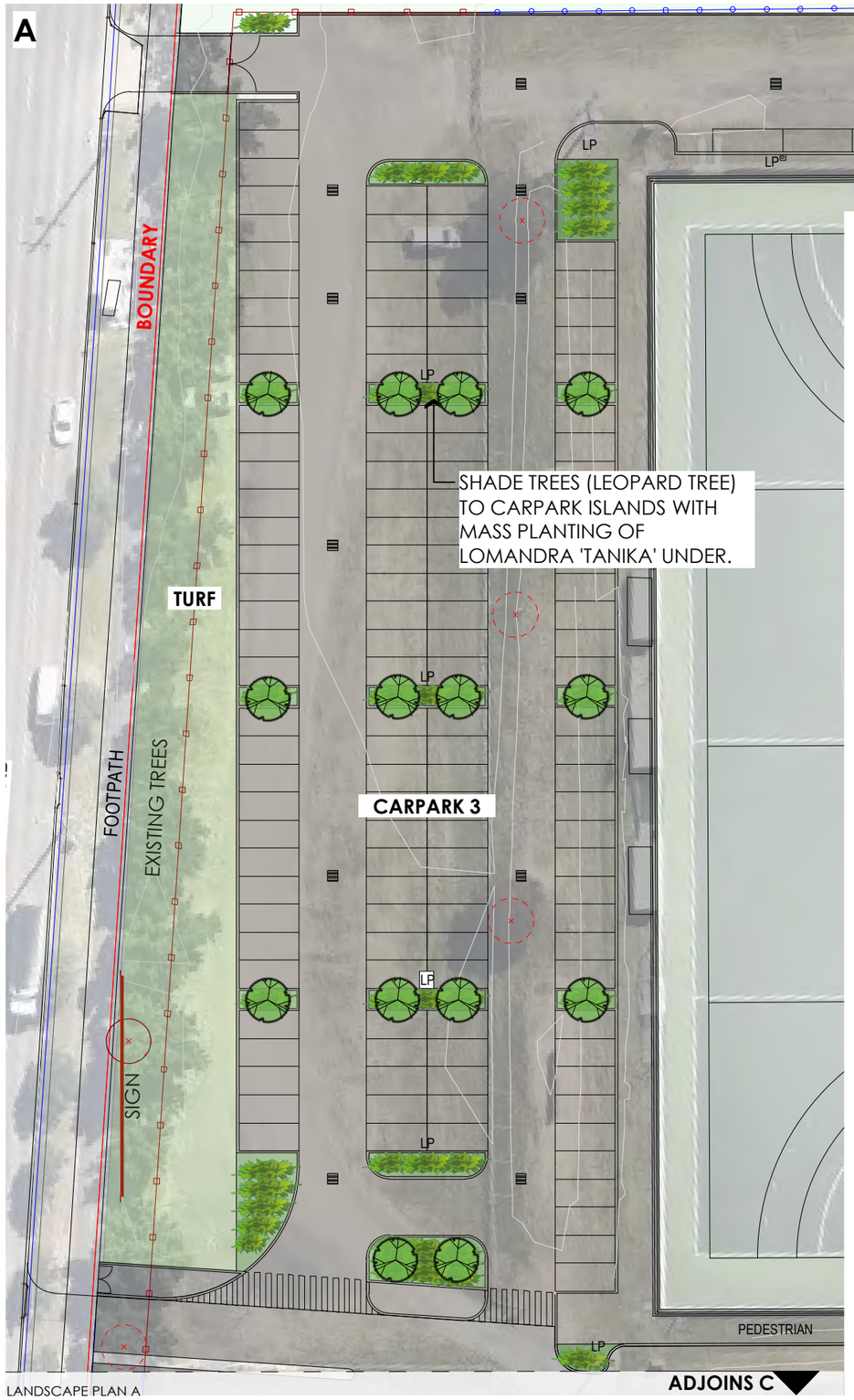
C.H.	M.S.	14	A1
SCALES	JOB No	DRAWING No	ISSUE
1:100, 50, 20	17-605	C25	3

FULL SIZE ON ORIGINAL 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 cm

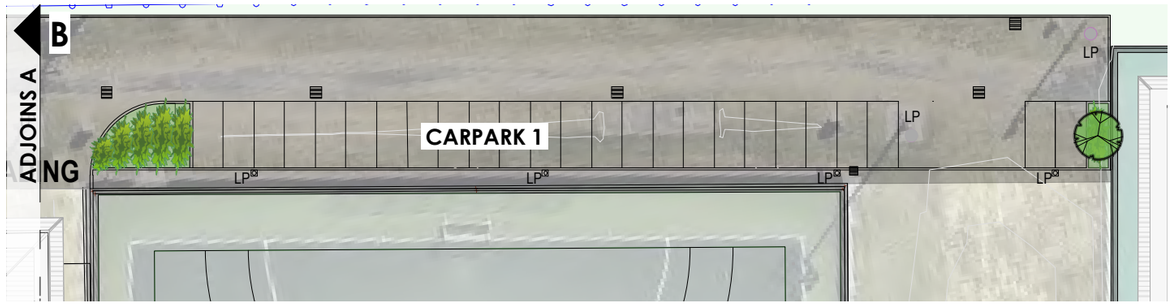
landscape concept plan - a & b

Newcastle International Hockey Centre

01



LANDSCAPE PLAN A



LANDSCAPE PLAN B

SUGGESTED PLANT SCHEDULE

ID	COMMON NAME	BOTANICAL NAME	POT SIZE	MATURE HEIGHT	MATURE SPREAD
Trees					
LF	Leopard Tree	*Libidibia ferrea*	100 Litre	10 - 12 m	4 - 6 m
Shrubs					
CS	Bottlebrush	*Callistemon species.*	25 Litre	1.0 - 2.5 m	1.0 - 2.5 m
Grasses					
Lt	Dwarf Mat Rush	*Lomandra 'Tanika'*	2.5 Litre	0.75 - 0.9 m	0.9 - 1.2 m

LEGEND

EXISTING TREE TO BE REMOVED (LOCATION APPROXIMATE - PLOTTED FROM AERIAL PHOTO).

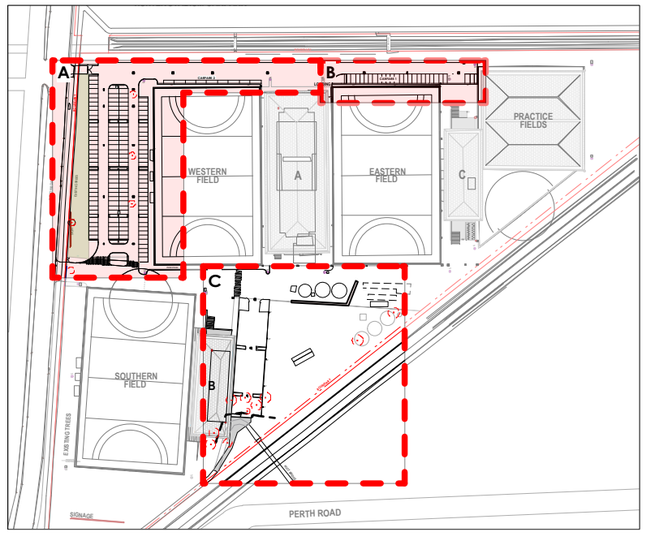
EXISTING TREE TO BE RETAINED (LOCATION APPROXIMATE - PLOTTED FROM AERIAL PHOTO).

NEW TREE: LEOPARD TREE.

SCREENING SHRUBS: CALLISTEMON

NEW PLANTING: LOMANDRA 'TANIKA'.

NEW TURF.



SITE PLAN

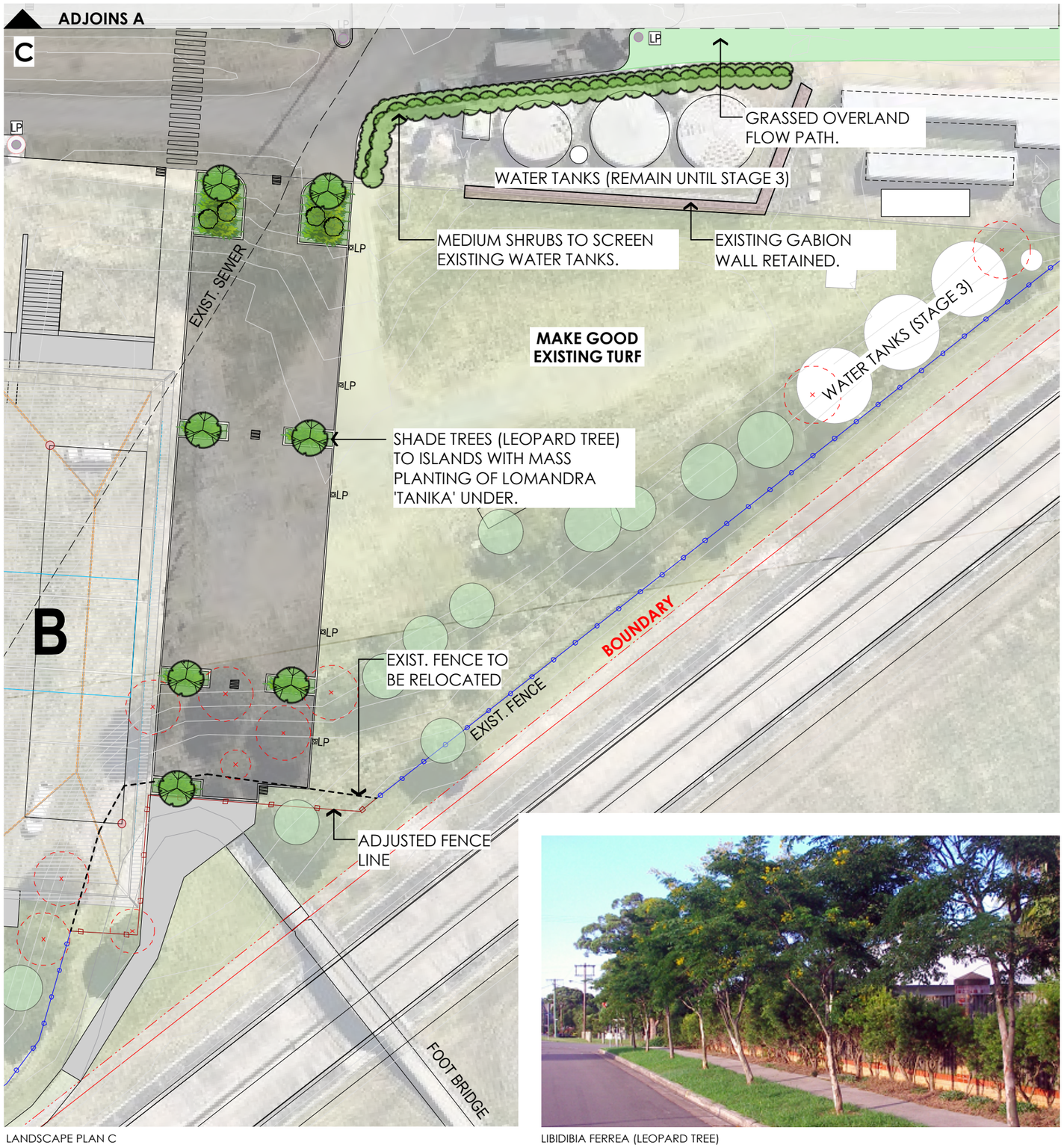
PROJECT:
NEWCASTLE INTERNATIONAL HOCKEY CENTRE
SITE:
TURTON ROAD
BROADMEADOW
CLIENT:
NEWCASTLE INTERNATIONAL HOCKEY CENTRE
DATE:
14.02.2018
JOB NUMBER:
10699.5
DRAWN:
AVL
SCALE:
500 @A3
250 @A1
NO. IN SET:
1 of 2
REVISION:
E

terras landscape architects

landscape concept plan - c

Newcastle International Hockey Centre

02



LANDSCAPE PLAN C

LEGEND

EXISTING TREE TO BE REMOVED (LOCATION APPROXIMATE - PLOTTED FROM AERIAL PHOTO).

EXISTING TREE TO BE RETAINED (LOCATION APPROXIMATE - PLOTTED FROM AERIAL PHOTO).

NEW TREE: LEOPARD TREE.

SCREENING SHRUBS: CALLISTEMON

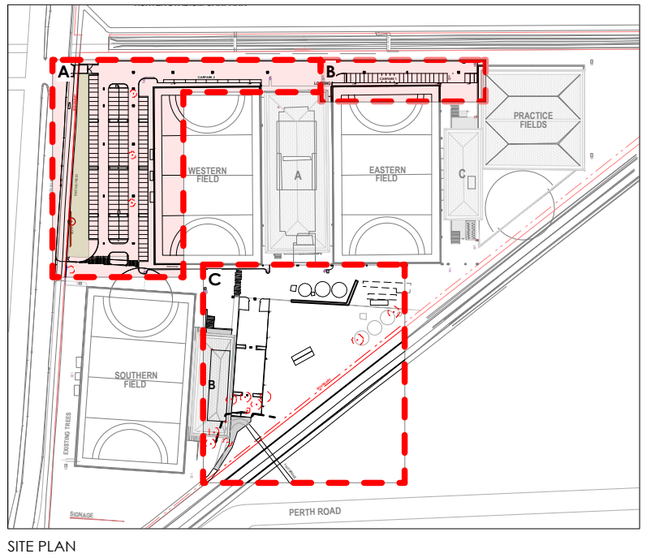
NEW PLANTING: LOMANDRA 'TANIKA'.

NEW TURF.

LOMANDRA 'TANIKA'

CALLISTEMON SPECIES

LIBIDIBIA FERREA (LEOPARD TREE)



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terras landscape architects

STATEMENT OF
ENVIRONMENTAL EFFECTS

FOR THE

DEMOLITION OF EXISTING CLUB HOUSE AND ADMINISTRATION BUILDING, CONSTRUCTION OF THREE NEW BUILDINGS, INTERSECTION AND ASSOCIATED CAR PARKING UPGRADE

NEWCASTLE INTERNATIONAL HOCKEY CENTRE
330 TURTON ROAD, BROADMEADOW

LOT 3235 DP 821124

Prepared: October 2017
Client: Newcastle International Hockey Centre
Reference: 4061

PREPARED BY

Land Development SOLUTIONS
PO Box 853
The Junction NSW 2291
Ph: 02 4963 5520

TABLE OF CONTENTS

1 INTRODUCTION

This Statement of Environmental Effects has been prepared to accompany a development application for the demolition of the existing club house and offices and construction of three new associated buildings & car parking. The construction will be over three stages as detailed in the Architectural plans and provide the Newcastle International Hockey Centre (NIHC) much needed upgraded facilities.

Land Development Solutions Pty Ltd is lodging the application on behalf of the client Newcastle International Hockey Centre, pursuant to Section 78A of the Environmental Planning and Assessment (EP&A) Act 1979.

The proposal has been prepared in accordance with the provisions of the Newcastle Local Environment Plan, Development Control Plan No.1 and the Concept Plan for the Hunter Sports and Entertainment Precinct (HSEP).

EJE Architecture designed the proposed new construction works and car parking which is supported by venues NSW and is an accordance with the proposed (HSEP).

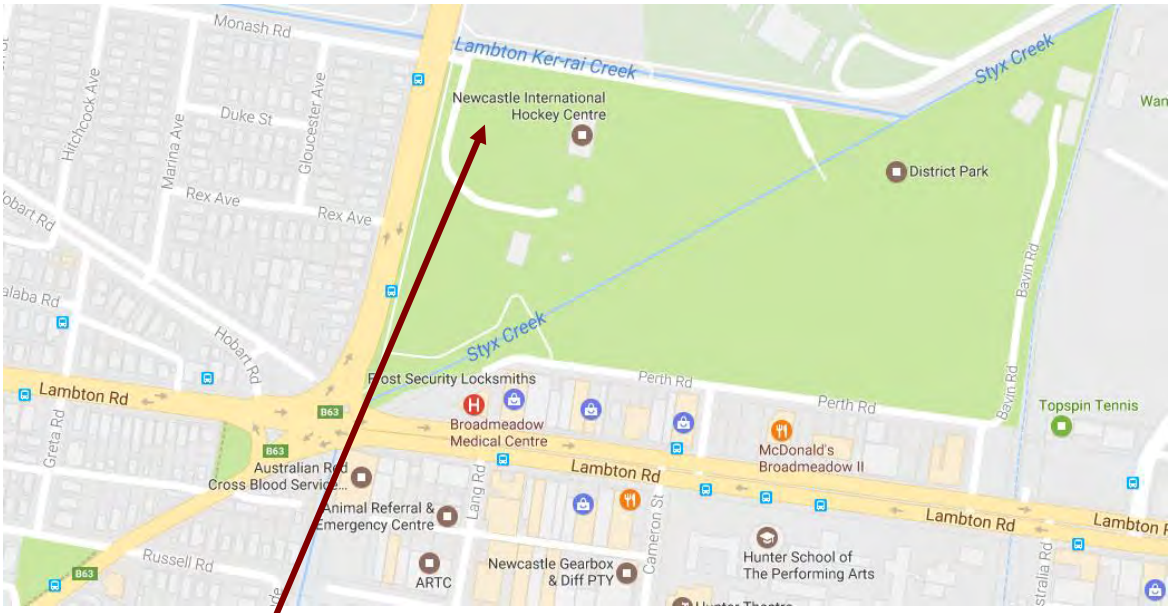
This development is an exciting opportunity for the NIHC to be recognised as an internationally renowned facility, with high-class sport and recreational facilities in one precinct, offering significant social, employment and economic benefits to the region.

2 SITE DESCRIPTION

2.1 LOCATION & SITE DESCRIPTION

The title details of the parcel subject to this Development Application are Lot 3235 in Deposited Plan Number 821124, Parish of Newcastle, County of Northumberland.

The site is located on the eastern side of Turton Road and currently contains three hockey fields, one practice field, a club house, offices and limited parking on grass surrounding the existing fields. Hunter Stadium is located to the north of the proposed development and District Park is located to the east. A major concrete trunk drainage line runs through the site to the north and south–east of the proposed development.



The Site

Picture 1: looking north towards the existing club house

Picture 2: looking north towards the existing Administration Building

2.2 SITE CHARACTERISTICS

The subject site is zoned RE1 Public Recreation and falls within a well-developed sporting and recreational facility. The site currently contains three playing fields, a practice field, modest club house/administration building, and limited car parking.

This proposal will see the construction of three facilities buildings, seating, and 221 car spaces to accommodate the volume of traffic anticipated to be visiting the NIHC. Access to car parking will be via Turton Road.

Topography - The site is generally flat with the majority of the site around RL 8.0 AHD. A range in levels of approximately RL 7.5 – 11.0 AHD exist with several soil mounds to the south, east and central to the site.

Easements – The subject site is burdened by several easements as shown on the Detail Survey included at Appendix A. These easements are remote to any of the proposed works and will not be affected.

Flooding - The land included in this application is located within the Throsby, Styx and Cottage Creek catchments and as such falls within a flood plain management mapped area. The proposed works will not remove any storage area or create any flooding issues.

Mine Subsidence - The land not located within a mine subsidence district and as such the development does not require endorsement by the Mine Subsidence Board.

Heritage Significance - We are not aware of any heritage significance of the subject site.

Bushfire - The subject site is not located within a bushfire threat area.

Ecology - The land subject to this development application has no intrinsic ecological value and is within a suburban environment. There are no trees or vegetation located within the site (other than lawn).

2.3 STREETSCAPE AND SURROUNDING DEVELOPMENT

The subject site comprises of the existing synthetic hockey fields. The proposal will increase the visual impact of the sporting facility and surrounding area with a boulevard for public access leading to additional spectator seating and modern designed hockey pavilion.

The main pavilion will comprise spectator seating, four change rooms, gym, physiotherapy facilities, office space, first aid room, and function space.

The modern and sophisticated design and appeal of the proposal will add a sophisticated visual impact to the area and complement the design of neighbouring Hunter Stadium.

Picture 3 Looking west along what will be the location of the Boulevard

Picture 4 Location of proposed building B

Picture 5 Location of the proposed Boulevard looking east

Picture 6 Location of proposed building C

3 DETAILS OF THE PROPOSAL

3.1 THE PROPOSAL

The purpose of this application is to obtain consent for design and construction of three buildings, in a three stage process, and associated car parking. As mentioned above, the main hockey pavilion will also incorporate spectator seating, associated rooms and offices, as well as garbage and storage area.

A boulevard will be accessible from the public entry via Turton Road and be the main thoroughfare to the pavilion.

3.2 TRAFFIC, ACCESS AND ON-SITE PARKING

Access to the site will be via a main entrance from Turton Road, which is Broadmeadow's main arterial road. The site is located in a high traffic area, particularly on weekends when National Rugby League (NRL) games are held at Hunter Stadium in addition to the traffic flow to the hockey centre.

During peak events, parking requirements are:

- 144 car spaces
- Two to three bike spaces
- Seven motor bike spaces

Two hundred and twenty one car spaces are proposed as part of this development to accommodate the patrons using the facilities at the site. Intersect Traffic Pty Ltd has prepared a traffic report included at Appendix C.

Accessed from Turton Road, which is classified as a local road, the NIHC has ample access to public transport. This proposal is in line with the objectives of the Hunter Regional Plan 2036 (Direction 21), which acknowledges that opportunities for redevelopment and renewal should be identified in areas with good access to public transport.

3.3 LIGHTING

The design has been undertaken so as to not impact on the existing playing fields or flood lighting.

3.4 DRAINAGE

MPC Consulting Engineers prepared a Stormwater Management Plan (included in Appendix D), in line with Council's DCP & technical manual for the proposed development. The requirements to be addressed are as follows:

• Ensure that the rate of rainwater runoff from roofs and paved areas from the pre-developed site is not increased for the developed condition for all storms up to and including the 1 in 100 years ARI event;

• Provide detention of the post-developed flows such that they do not exceed the pre-developed conditions;

• Provide rainwater re-use where appropriate, proprietary first flush devices would be proposed prior to rainwater entering the harvesting tank;

• To ensure Water Sensitive principles are adopted, the site drainage system will also incorporate pollution control measures designed to remove and site generated pollutants in accordance with DCP 2012. The hydraulic engineering consultant will be required to design a system of pollution control in order to satisfy the requirements of the DCP prior to water overflowing from the harvesting tank;

• Ensure that overland flow in the event of a choked or blocked piped system does not impact on neighbouring properties or other buildings on the site.

• Install appropriate erosion protection and soil stabilisation measures in association with the proposed site works. Such measures are to be designed in accordance with the requirements of the Managing Urban Stormwater: Soils and Construction 4th Edition – Wol.1 (the "Blue Book") published by Landcom, 2004.

Nature and Function of Stormwater Management Facilities

The principal stormwater management components and their function are listed below:

a) The proposed works consists of redevelopment of approximately 55% of the existing site. The existing playing and practice fields will not be modified as part of the proposed development. Stormwater systems are designed to cater for roof, hardstand and landscaped areas. For the purposes of analysis, the site has been broken up into five sub-catchments, each with its own detention system.

b) Roof rainwater will be directed through a new pipe/pit system into three new 120,000 litre harvesting tanks for retention and re-use on the existing water based playing fields. First flush and pollution control devices will be provided prior to entering the harvesting tank and designed by the hydraulic engineer to satisfy the requirements of the DCP. This harvesting tank will have its water connected to a pump system for use on the existing playing fields. Overflow will be directed to site retention facilities outlined below.

c) Retention facilities will be incorporated into the network in accordance with council's DCP. Low flow outlet measures will be provided for major rainfall events with all overflow being directed to the council drainage channels located to the North and South East of the site. As such stormwater quality for the existing site will not be compromised by the proposed development (refer Appendix B of the Stormwater Management Plan, included in this report at Appendix D);

Design Storm Events

The stormwater management system for the proposed 'Developed Site Area' will collect roof rainwater in Harvesting and Retention facilities that will be designed in accordance with council's DCP.

Blocked system overflow locations for large storm events have been provided and will be fully detailed in final design documentation.

Total Site Area – 59505m^2

Total Existing Impervious Area – 20051m^2

Total New Impervious Area – 26600m2 Catchment Area 1 – Area – 6040m^2

Total Developed Impermeable = 6040m2 Catchment Area 2 – Area – 5950m^2

Total Developed Impermeable = 5950m2 Catchment Area 3 – Area – 7820m^2

Total Developed Impermeable = 7820m2 Catchment Area 4 – Area - 320m^2

Total Developed Impermeable = 320m2 Catchment 5 (Roof Areas) – Area – 6470m^2

Total Pre-Developed Impermeable Area = 1080m2 Total Developed Impermeable = 6470m^2

Stormwater Harvesting Roof Rainwater Tank

Three 120,000 litre rainwater harvesting tank will be used to store the roof water which is to be used for irrigation purposes, within the development.

Roof rainwater is piped directly to the harvesting tank via the downpipe system and a first flush device. In order to ensure supply to the connected uses, there will be a control valve connected to mains supply to maintain a minimum of 10% tank capacity. Mains backup will require interconnection with Hunter Water mains.

Backflow prevention methods will be provided to ensure the protection of the mains water supply and a demand pump will be provided to supply tank water to internal plumbing fixtures.

Rainwater tanks will be used as a retention system for the proposed roof catchment areas. Water will be released from the rainwater tanks at the calculated pre-developed flows.

A high level overflow pipe will be provided in the event of high rainfall periods and a blocked overflow.

Stormwater Retention

This section refers to the requirements in NCC DCP 2012.

The primary aim with site run-off under the DCP is to ensure that the run-off from the developed site replicates that of the natural conditions. The drainage system is to be designed for peak run-off with this run-off being released at a rate comparable with natural conditions during peak rainfall.

The Stormwater Retention is proposed to be provided in surface detention within the carpark and hardstand areas. A separate retention system is proposed within the rainwater harvesting tanks and as such all guttering and pipes are to be designed to meet the major storm rainfall event.

Refer Appendix C1 of the Stormwater Management Plan (included at Appendix D) for specific outflows and calculations.

Site Flood Storage Analysis

The site is bounded by stormwater channels but is generally not flood affected.

Water Quality

The proposed development will comply with the Protection of the Environment Operations Act 1997, in particular water quality exiting the site during construction and operation. In order to satisfy the requirement, Section 5 of MPC's report outlines the construction phase erosion and sediment control measures.

Once the development is operating, it is intended to minimise the amount of pollution entering the trunk stormwater system by employing best environmental practice stormwater facilities.

MPC Consulting Engineers aims to control pollutants associated with the development of the site, particularly hydrocarbons, sediments and nutrients, so that the rate of pollution discharge off-site is minimal.

The use of proprietary pollution control devices prior to exiting the site will be designed by the hydraulic consultant to achieve this objective.

Maintenance of Stormwater Management Facilities

Maintenance of concrete pits, pipes and paved flow paths will be minimal as they are generally self-cleansing, and hence only involve very occasional cleaning. Regular inspections of control systems should be carried out to ensure satisfactory performance of the drainage systems proposed.

Sediment/pollution control pits and proprietary pollution control devices will be provided prior to entering irrigation and retention facilities. Proprietary tanks or pollution control chambers located in roadway areas will also be accessible for cleaning and maintenance. Maintenance should occur on a three-month basis or after major storm events.

3.5 PROVISION OF SERVICES

Sewer, water and electricity services are available to the subject site and are adequate for the proposal.

3.6 VEGETATION

The subject site is an already developed site featuring sporting fields and associated building. Car parking is currently predominantly provided on the facility's grassed area but no other vegetation is associated with the site.

The development of additional car parking spaces will have no adverse impact on vegetation.

4 PLANNING POLICIES

The following legislation and policies are relevant to the proposed development:

- Newcastle Development Control Plan (2012)
- Newcastle Local Environmental Plan 2012 (LEP 2012)
- State Environmental Plan Policy (Infrastructure) 2007

4.1 NEWCASTLE DEVELOPMENT CONTROL PLAN (2012)

The following areas are to be addressed in accordance with Section 3.11 of Newcastle's Development Control Plan:

4.1.1 Safety and Security

The proposed main pedestrian thoroughfare is central to the site with open lines of site and high visibility from all three elevated buildings.

4.1.2 Building Design Criteria

The building form is a modern design to complement the adjoining stadium and become a highly recognisable building within the state's sporting facilities.

4.1.3 Landscaping, Open Space and Visual Amenity

The perimeter landscaping will remain with low maintenance drought and tolerant native grasses proposed within the parking bays.

4.1.4 Traffic, Parking and Access

Section 3.2 of this report addresses traffic, parking and access relevant to the subject site.

4.1.5 Energy Efficiency

A Section J report has been prepared by Northrop and included in Appendix E

4.1.6 Stormwater

Section 3.4 of this report addresses drainage/stormwater. Please refer to Appendix D for engineering plans.

4.1.7 Water Efficiency

Three 120,000 litre rainwater harvesting tanks are proposed to capture the roof water for reuse within the building toilet facilities and irrigation purposes.

4.1.8 Waste Management

As illustrated on the architectural plans included at Appendix B, a garbage area is located on the lower level Hockey Centre A and direct access from the loading bay located adjacent to the garbage and storage area.

Waste produced will not change from the current volumes produced as the number of playing fields are not increased. During larger state and national tournaments, additional waste removal can be undertaken by a private contractor.

4.2 NEWCASTLE LOCAL ENVRONMENTAL PLAN 2012

The site is located within an RE1 Public Recreation zone. The objectives of this zone as set out in the Newcastle LEP are as follows;

- To enable land to be used for public open space or recreational purposes
- To provide a range of recreational settings and activities and compatible land uses
- To protect and enhance the natural environment for recreational purposes

The proposed development complies with the above objectives and is considered to provide a valuable addition to the existing sporting amenity within the area and provide significant improvements to the economic and visual impacts of the existing Hockey Centre facilities whilst complementing the HSEP Plan.

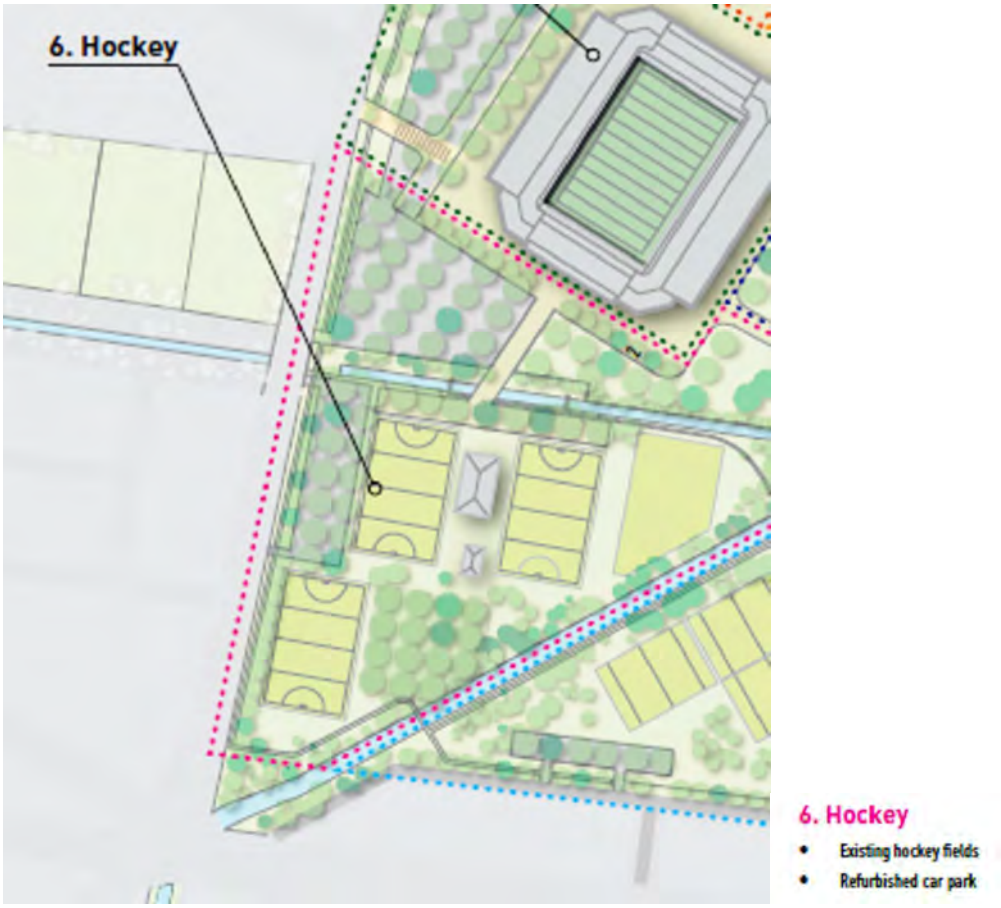


Figure 1 – Extract of the HSEP detailing the proposed works are in accordance with the overall scheme of the precinct

4.3 STATE ENVIRONMENTAL PLANNING POLICY (INFRASTRUCTURE) 2007

The aim of this Policy is to facilitate the effective delivery of infrastructure across the State by:

- improving regulatory certainty and efficiency through a consistent planning regime for infrastructure and the provision of services, and
- providing greater flexibility in the location of infrastructure and service facilities, and
- allowing for the efficient development, redevelopment or disposal of surplus government owned land, and
- identifying the environmental assessment category into which different types of infrastructure and services development fall (including identifying certain development of minimal environmental impact as exempt development), and
- identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development, and
- providing consultation with relevant public authorities about certain development during the assessment process or prior to development commencing.

The proposed development is consistent with the SEPP objectives above. The additional buildings will enhance the sporting facility while providing a much-needed aesthetic and functional upgrade to the complex. As an international facility, it will be designed to international standards and therefore attract domestic, national and international tournaments to Newcastle, providing positive economic, social and employment opportunities in the area.

5 ENVIRONMENTAL EFFECTS

5.1 STREETSCAPE AND VISUAL IMPACT

The proposal is a fitting form of development that is consistent with the character of neighbouring developments. The footprint of the proposal observes the current location of the existing fields. The visual impact is considered to enhance the existing character of the streetscape by utilising landscaping and modern design.

5.2 STORMWATER MANAGEMENT

As mentioned previously in Sections 3.4 and 4.1.6 of this report where possible roof water will be captured and reused within the toilets and for site irrigation.

5.3 CAR PARKING AND TRAFFIC GENERATION

An additional 221 car spaces across four separate parking areas, are proposed on the subject site. The car spaces to the east and north of Turton Road will have direct access from Turton Road. Carpark 4, located to the south-east of Turton Road, will be accessed via the proposed boulevard.

5.4 NOISE

It is considered that this development proposal will be a negligible noise source, and the proposed use is consistent with surrounding development.

5.5 EROSION & SEDIMENT CONTROL MEASURES

Appropriate erosion control measures will be implemented in accordance with Newcastle City Council's requirements throughout the construction period of this development. Ongoing stormwater / sediment / silt management systems will be installed to operate for the ongoing life of the development.

5.6 ENVIRONMENTAL, SOCIAL AND ECONOMIC IMPACTS

5.6.1 Impacts on the natural environment

The site is ideal for the proposed development and currently contains developed land used for sport and recreational purposes. There is no existing on-site vegetation or other significant natural features within the site. The site is located within a well-established sporting and recreational facility, with residential and commercial buildings locate to the west, south and east of the proposed development. Turton Road is one Newcastle's main roads with frequent and easy access to public transport and in close proximity to restaurants, bars, cafes and schools.

5.6.2 Impacts on the built environment

The proposal comprises a sport and recreational development which will be consistent with the scale of the existing structures and hockey fields. The proposed development generally complies with Council's planning controls and will not have any adverse impacts on the built environment by way of increased overshadowing or privacy.

The existing character and amenity of this area will be improved with upgraded sporting facilities that are comparable to world-class facilities, with the synthetic grass finish being the same used by world-leading hockey centres.

5.6.3 Social and economic impacts

The proposal will have positive social and economic impacts, by increasing the number and quality of hockey fields and the first-class clubhouse and office buildings.

The brand new facilities will provide the opportunity to attract national and international hockey players/teams, with the long-term vision to have international games played from Centre, attracting international media and promotion.

The proposed development will also result in increased pedestrian activity within the area, which will result in positive economic benefits for local cafes, restaurants, bars and shopping centres.

5.7 CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

The proposal is not a high risk development that requires extensive measures to be incorporated to provide security for its occupants. The design aims to increase surveillance external to the building by maintaining the high perimeter security fence which is locked every evening by staff as they leave the complex.

The proposed development satisfies the principle of providing access control in several ways. The security of occupants is maintained by retaining clearly visible, easily identifiable entry to the site. Pedestrian access around the site will not be altered and will maintain as a clearly defined walkway that is well lit and clear of obstructions such as landscaping or nooks.

5.8 SOCIAL IMPACTS

Since 1999, Newcastle City Council has adopted and used a Social Impact Assessment Policy to be used in the assessment of applications such as that proposed by this application.

5.8.1 Access & Mobility

The proposal will comply with the BCA access requirements, with the allocation of disabled car spaces included in this development.

A flat walkway is accessible from the facility's main entrance and ramp access is available within the sporting precinct to the clubhouse facilities.

5.8.2 Community Services & Facilities

The proposed development will provide unrivalled sporting facilities with international quality synthetic surfaces that will arguably establish Newcastle as a world-leader in the sport of hockey.

Positioned next to Hunter Stadium, the home-ground of NRL's local team, the Newcastle Knights, the proposed development further positions Newcastle as a leader in the provision of reputable, high-class sporting grounds.

The development will not decrease the community's capacity to act co-operatively and will not cause divisions within the community.

The proposal does not physically separate one part of a community from another.

5.8.3 Needs of Social Groups

The proposal provides additional sport and recreational facilities to support the growing popularity of hockey in the area.

The proposed development will cater for boys and girls, men and women, of all ages and abilities.

5.8.4 Population Change

The proposal will not result in a significant population change, however it is expected the development will bring an increase in tourists – both players and supporters.

5.8.5 Recreation Facilities

The site is well located with respect to being in close proximity to shops, restaurants, bars, and cafes. Turton Road is one of Newcastle's main roads, meaning public transport is frequently passing the facility. The NIHC is adjoined to the north by the Newcastle Knights' and the Jets home ground, Hunter Stadium, with Broadmeadow Basketball Stadium and tennis courts located within a 5km radius.

5.9 SITE SUITABILITY

The subject site is within an RE1 Public Recreation zone and surrounded by a mix of sporting, residential and commercial properties.

The NIHC has operated in Newcastle since 1985 and is the region's most recognised hockey facility. The proposed development will arguably become one of Australia's biggest and best hockey facilities.

As explained in previous sections of this report, the site is within close proximity to public transport, shops, additional sporting facilities, cafes, shops and restaurants. Adjoining the NIHC is Hunter Stadium which caters for national football and NRL teams.

6 SECTION 94 CONTRIBUTIONS EP & A Act 1979

94 Contribution towards provision or improvement of amenities or services

(1) If a consent authority is satisfied that development for which development consent is sought will or is likely to require the provision of or increase the demand for public amenities and public services within the area, the consent authority may grant the development consent subject to a condition requiring:

(a) the dedication of land free of cost, or

(b) the payment of a monetary contribution,

or both.

(2) A condition referred to in subsection (1) may be imposed only to require a reasonable dedication or contribution for the provision, extension or augmentation of the public amenities and public services concerned.

(3) If:

(a) a consent authority has, at any time, whether before or after the date of commencement of this Part, provided public amenities or public services within the area in preparation for or to facilitate the carrying out of development in the area, and

(b) development for which development consent is sought will, if carried out, benefit from the provision of those public amenities or public services,

the consent authority may grant the development consent subject to a condition requiring the payment of a monetary contribution towards recoupment of the cost of providing the public amenities or public services (being the cost as indexed in accordance with the regulations).

(4) A condition referred to in subsection (3) may be imposed only to require a reasonable contribution towards recoupment of the cost concerned.

(5) The consent authority may accept:

(a) the dedication of land in part or full satisfaction of a condition imposed in accordance with subsection (3), or

(b) the provision of a material public benefit (other than the dedication of land or the payment of a monetary contribution) in part or full satisfaction of a condition imposed in accordance with subsection (1) or (3).

(6) If a consent authority proposes to impose a condition in accordance with subsection (1) or (3) in respect of development, the consent authority must take into consideration any land, money or other material public benefit that the applicant has elsewhere dedicated or provided free of cost within the area (or any adjoining area) or previously paid to the consent authority, other than:

(a) a benefit provided as a condition of the grant of development consent under this Act, or

(b) a benefit excluded from consideration under section 93F (6).

(7) If:

(a) a condition imposed under subsection (1) or (3) in relation to development has been complied with, and

(b) a public authority would, but for this subsection, be entitled under any other Act to require, in relation to or in connection with that development, a dedication of land or payment of money in respect of the provision of public amenities or public services or both,

then, despite that other Act, compliance with the condition referred to in paragraph (a) is taken to have satisfied the requirement referred to in paragraph (b) to the extent of the value (determined, if the regulations so provide, in accordance with the regulations) of the land dedicated or the amount of money paid in compliance with the condition.

It is requested that Councils Section 94 Officer take into consideration to following items when determining the level of contribution the proposed development may be levied to contribute.

1. The proposed works will not increase the patronage to the Hockey Centre and therefore will not create any additional demand on local infrastructure. The development application is to improve the current facilities within the grounds by way of a sealed car park and larger more purpose built player and spectator facilities
2. A new intersection is proposed to access the site. This will be fully funded by the club.
3. A material public benefit occurs with the upgraded facilities paid for by the club benefit other clubs within the region, schools and the greater community.

7. CONCLUSION

The above assessment of the proposed construction of three buildings and additional car parking at the Newcastle Hockey Centre addresses the requirements of Newcastle City Council's Development Application guidelines. The hockey centre is an iconic facility in Newcastle and the re-development will position the precinct as one of country's leading hockey centres that will attract major domestic, national and international tournaments.

The additional buildings have a modern sophisticated design that will enhance the area and complement neighbouring Hunter Stadium.

The proposal constitutes an appropriate form of development that is consistent with the character and uses of the surrounding area and in accordance with the greater vision of the Hunter Sports & Entertainment Precinct. The proposal is one that has been the subject of detailed design consideration and the resultant scheme is one which fits comfortably within the locality and which creates no significant adverse impacts on any neighbouring property.

The proposal is reasonable and appropriate when considered under the relevant heads for consideration in Section 79C(1) of the Environmental Planning and Assessment Act, 1979, as amended, and is worthy of favourable consideration by Council.

TRAFFIC & PARKING ASSESSMENT

NEWCASTLE HOCKEY CENTRE REDEVELOPMENT
LOT 3235 IN DP 821824
1/330 TURTON ROAD, BROADMEADOW

PREPARED FOR: NEWCASTLE HOCKEY CENTRE LTD

OCTOBER 2017

17/026

TRAFFIC AND PARKING ASSESSMENT
NEWCASTLE HOCKEY CENTRE LTD

NEWCASTLE HOCKEY CENTRE REDEVELOPMENT
LOT 3235 IN DP 821824
1/330 TURTON ROAD, BROADMEADOW

Intersect Traffic Pty Ltd (ABN: 43 112 606 952)

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Cnr Chelmsford Drive & Tennyson Street
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Email: jeff@intersecttraffic.com.au

QUALITY ASSURANCE

This document has been prepared, checked and released in accordance with the Quality Control Standards established by Intersect Traffic Pty Ltd.

Issue	Date	Description	By
A	24/03/17	Draft	JG
B	29/03/17	Edit	JG
C	31/03/17	Final Proof	JG
D	14/10/17	Amended Plans	JG
E	14/10/17	Approved	JG

This document has been authorised by

Date 14th October 2017

Disclaimer

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1.0 INTRODUCTION

Intersect Traffic Pty Ltd was engaged by Newcastle Hockey Centre Ltd to prepare a Traffic and Parking Assessment Report for the redevelopment of the existing Newcastle Hockey Centre on Lot 3235 in DP 821824, 1/330 Turton Road, Broadmeadow.

The proposal includes the following;

- Demolition of existing buildings on the site;
- Construction of three (3) new buildings containing, change rooms, small gymnasium, medical rooms, storage rooms, function rooms, offices, small shop and equipment rooms;
- 221 on-site at grade car parks;
- Renovations to existing hockey fields; and;
- Improved landscaping and drainage works.

The development plans are shown in ***Attachment A***. This report is required to support a development application to Newcastle City Council and presents the findings of the traffic and parking assessment including;

1. An outline of the existing situation near the site.
2. An assessment of the traffic impacts of the proposed development including the predicted traffic generation and its impact on existing road and intersection capacities.
3. Reviews parking, public transport, pedestrian and cycle way requirements for the proposed development, including assessment against Council and Australian Standards.
4. Presentation of conclusions and recommendations.

2.0 SITE LOCATION

The subject site is shown in ***Figure 1*** below. It is located on the eastern side of Turton Road, Broadmeadow approximately 220 metres north of Lambton Road. It is addressed as 1/300 Turton Road, Broadmeadow and is immediately south of McDonald Jones Stadium.

The site is formally titled as Lot 3235 DP 821824 and is currently zoned RE1 – Public Recreation pursuant to the Newcastle LEP (2012). ***Photograph 1*** below shows existing conditions at the site.

The site currently has a single combined entry / exit 6-metre wide concrete vehicular access crossing off Turton Road opposite Monash Road (see ***Photograph 2***). It is noted this existing access is within a prohibited area for vehicular access as shown in Figure 3.1 of Australian Standard ***AS2890.1-2004 Parking facilities Part 1 – Off-street car parking***.

Figure 1 – Site Location

Photograph 1 – Development site from Turton Road

Photograph 2 – Existing vehicular access off Turton Road

3.0 EXISTING ROAD NETWORK

Turton Road is a classified Main Road (B63) near the site and is a five lane two way sealed urban road (see ***Photograph 3)*** with three southbound lanes and two northbound lanes and an additional parking lane beside the northbound lanes. A central raised concrete median with fencing separates the travel flow directions while kerb and gutter and longitudinal drainage are provided. Lane widths are in the order of 3 metres to 3.5 metres and a 60 km/h speed limit applies to this section of road. At the time of inspection Turton Road was observed to be in good condition.

Under a functional road hierarchy Turton Road functions as a major collector road which collects and distributes traffic from the Waratah, Hamilton North, Broadmeadow, Lambton and Kotara areas to the higher order road network (Pacific Highway) at Highfields and Mayfield. It is therefore a major transportation route within the Newcastle road network and carries large volumes of traffic during peak periods. Being a classified road, it is under the care and control of the NSW Roads and Maritime Service (RMS) though Newcastle City Council is the road authority. On-street parking along the site frontage is prohibited and an off-road shared pedestrian cycle path also runs along the site frontage.

Photograph 3 – Turton Road near the site

4.0 ROAD NETWORK IMPROVEMENTS

There are no known road network improvements in the area that will increase the capacity of the local and state road network. Upgrading works on the local and state road network will be undertaken in the future in accordance with NSW RMS and Newcastle City Council works programs.

5.0 TRAFFIC VOLUMES

To determine traffic volumes on the road network Northern Transport Planning and Engineering on behalf of Intersect Traffic undertook traffic classifier counts on the southbound lanes of Turton Road between Wednesday 15th March 2017 and Tuesday 21st March 2017. The summary results sheets for these counts are provided in ***Attachment C***.

The southbound lanes were only recorded as the new access to the site proposed south of the existing access to the site will be limited to left in and left out only due to the central raised concrete median and fencing in Turton Road.

The existing mid-block peak traffic volumes adopted for this assessment as recorded in the manual traffic counts are;

- AM peak (8.00 am – 9.00 am) – 1,489 vtph;
- PM peak (5.00 pm – 6.00 pm) – 1,903 vtph; and
- Weekend peak (Saturday 11.00 am – 12.00 pm) – 1,527 vtph.

Adopting a background traffic growth rate of 1.5 % per annum the future 2027 peak traffic volumes adopted for this assessment are;

- AM peak (8.00 am – 9.00 am) – 1,730 vtph;
- PM peak (5.00 pm – 6.00 pm) – 2,210 vtph; and
- Weekend peak (Saturday 11.00 am – 12.00 pm) – 1,770 vtph.

As the development is a recreation facility it is considered the relevant peak for assessment is the weekend peak and thus the weekend peak traffic volumes have been adopted in this report.

6.0 ROAD CAPACITY

The capacity of urban roads is generally determined by the capacity of intersections. However, Tables 4.3 and 4.4 of the RMS' ***Guide to Traffic Generating Developments*** provides some guidance on mid block capacities for urban roads and likely levels of service. These tables are reproduced below.

Table 4.3
Typical mid-block capacities for urban roads with interrupted flow

Type of Road	One-Way Mid-block Lane Capacity (pcu/hr)	
Median or inner lane:	Divided Road	1,000
	Undivided Road	900
Outer or kerb lane:	With Adjacent Parking Lane	900
	Clearway Conditions	900
	Occasional Parked Cars	600
4 lane undivided:	Occasional Parked Cars	1,500
	Clearway Conditions	1,800
4 lane divided:	Clearway Conditions	1,900

Table 4.4
Urban road peak hour flows per direction

Level of Service	One Lane (veh/hr)	Two Lanes (veh/hr)
A	200	900
B	380	1400
C	600	1800
D	900	2200
E	1400	2800

As a major collector road, it is considered that an acceptable level of service on the road would be a LoS D or better. Noting that for a single direction of flow with two lanes a LoS D is experienced up to a traffic volume of 2,800 vtph when a LoS E would exist. Therefore, a traffic volume of 2,800 vtph would be the capacity for two lanes of flow in one direction for a LoS D. This equates to 1,100 vtph per lane therefore three lanes of flow would have a capacity for a LoS D of at least 3,300 vtph. Therefore, Turton Road southbound past the site would have a capacity of at least 3,300 vtph and this capacity threshold has been adopted in this report.

Given the existing traffic data collected in ***Section 5*** is less than the likely technical mid-block road capacity of Turton Road as determined above it is considered existing levels of service on the road network are satisfactory during peak periods and the network has capacity to cater for additional development in the area.

7.0 ALTERNATE TRANSPORT MODES

Public transport is available to the site via both train and bus services. The site is within convenient walking distance of bus stops on Turton Road and Lambton Road thereby providing access to the following services;

- Route 111 – Newcastle to Mount Hutton;
- Route 222 – Newcastle Wallsend via Lambton;
- Route 230 – Newcastle to Wallsend via North Lambton;
- Route 231 – Newcastle to Wallsend via Jesmond;
- Route 317 – Newcastle to Belmont via Broadmeadow;
- Route 322 – Newcastle to Belmont via Redhead & Dudley; and
- Route 363 – Newcastle to Warners Bay via John Hunter Hospital.

These routes provide regular public bus services during both peak and non-peak periods seven days a week servicing Newcastle and many suburbs in the area. The nearest bus stops are located on Turton Road in front of the site (see ***Photograph 4***). The local bus routes are shown below in ***Figure 2***.

Figure 2 – Local Bus Route Map

Pedestrian connections around the site are considered good with an off-road shared asphalt pedestrian / cycle path running along the front of the site on Turton Road which connects to the Newcastle cycle ways network (see ***photograph 5***). Safe cycle and pedestrian crossing facilities of Turton Road are provided as part of the cycle way network with a signalised pedestrian crossing located 60 metres north of the site (see ***photograph 6***).

Overall the site is well serviced by public transport and alternative transport mode infrastructure.

Photograph 4 –Bus stop – Turton Road in front of site

Photograph 5 – Off-road shared pathway – Turton Road

Photograph 6 – Signalised Pedestrian Crossing – Turton Road near site

8.0 DEVELOPMENT PROPOSAL

The proposed development involves the redevelopment of the existing Newcastle Hockey Centre on Lot 3235 in DP 821824, 1/330 Turton Road, Broadmeadow. Specifically, the proposal includes the following;

- Demolition of existing buildings on the site;
- Construction of three (3) new buildings containing, change rooms, small gymnasium, medical rooms, storage rooms, function rooms, offices, small shop and equipment rooms;
- 221 on-site at grade car parks;
- Construction of a new combined entry / exist access to Turton Road south of the existing access and conversion of the existing access to an emergency access only.
- Renovations to existing hockey fields; and;
- Improved landscaping and drainage works.

The internal pedestrian pathway through the site is to be designed and constructed as a share way to provide vehicular access to the car park on the southern side of the pedestrian pathway as shown on the development plans. The development plans are provided in ***Attachment A***.

The development does not provide any additional facilities to be used during the peak operating times for the development therefore the peak traffic generation from the site will not change from the existing development on the site. The improved facilities on the site are either for the amenity of existing players, officials and supporters or are for use during non-peak operating times for the recreation facility.

9.0 TRAFFIC GENERATION

The RMS' ***Guide to Traffic Generating Development's (2002)*** and ***RMS Technical Direction TDT 2013/04 dated May 2013*** provide specific advice on the traffic generation potential of various land uses.

Neither of these guides provides any information on the traffic generating potential for hockey fields so a first principles basis is used to determine traffic generation. For the major frequency weekend use there are 3 competition fields operating at once with two teams of 11 players on each. With likely stay times of greater than 1 hour there is no need to consider overlap of arrivals and departures except to assume within the peak hour period one game will arrive and one game will depart.

Therefore, the likely regular peak traffic generation can be calculated assuming a 50 % loading for additional players, officials and spectators and a vehicle occupation rate of 1.5 to allow for some car-pooling and alternative transport mode travel.

Weekly peak hour traffic = ((11 players x 2 team's x 3 fields) x 1.5 / 1.5) x 2
= **132 vtph**.

As a regional facility it is likely that special event weekends for major tournaments would occur on a frequency of up to 3 - 4 times a year where higher traffic generation rates would occur. Therefore, the centre is designed to cater for up to 221 vehicles on site which if it is assumed the tournament is such that vehicles stay all day and all arrive and depart within the same peak hour could generate up to **221 vtph** during these special events. During these events however, it is likely that traffic management plans will be developed and enforced on the day where necessary to reduce queuing at the car park entry, ensure pedestrian safety around the site and ensure minimal impact on the adjoining local and state road network.

As it is likely that during peak periods the main access which operates as a left in and left out only the additional traffic volumes on each leg of Turton Road would be as follows;

- Turton Road north of the site access – 66 vtph (normal peak) and 221 vtph (special events); and
- Turton Road south of the site access – 66 vtph (normal peak) and 221 vtph (special events).

10.0 TRAFFIC IMPACTS OF DEVELOPMENT

10.1 Road Network Capacity

It has previously been shown in ***Section 6*** of this report that the local road network is currently operating within its technical mid-block capacity. It is noted that the Newcastle Hockey Centre already operates and the proposed upgrading of the facility will not result in any additional traffic generation for normal weekday and weekend use as no additional fields for competition or practice are proposed. The impact of the normal use of the site would therefore already have been recorded within the traffic counts undertaken in March 2017. As existing and future mid-block traffic volumes (2027) for the southbound lanes of Turton Road are all below the likely mid-block capacity of the southbound lanes (3,300 vtph) it is reasonable to conclude the normal weekday and weekend use of the Newcastle Hockey Centre does not adversely impact on the state road network. This is consistent with observations undertaken at the site during both weekday and weekend peak periods.

Regarding special events with a likely traffic generation of up to 221 vtph or up to 155 vtph more than the normal weekend and weekday use of the centre it is noted that even if added to the existing and future (2027) southbound traffic volumes the likely peak southbound traffic volume on Turton Road would still be only 2,365 vtph if the event coincided with a weekday PM peak. This is still below the likely capacity of the road network (3,300 vtph – southbound lanes). Therefore, again it is reasonable to conclude a special event at the Newcastle Hockey Centre would not adversely impact on the mid-block traffic flows on the state road network.

It is therefore concluded that the state road network has sufficient spare mid-block capacity to cater for the proposed development.

10.2 Intersection Capacity

Regarding intersection capacity the main intersections around the site impacted by traffic from the development all have high levels of intersection control, traffic signals, and as such would be expected to adequately cater for any additional traffic associated with a special event at the site. These intersections by observation already operate satisfactorily during normal weekday and weekend peaks for the existing Hockey centre and with no increase in traffic generated by the site during these periods overall it would be reasonable to conclude that the proposal will not adversely impact on the efficiency of any intersection on the nearby local and state road network.

10.3 Access

Access to the proposed development is proposed via a new combined entry / exit driveway approximately 10 metres wide to Newcastle City Council requirements directly off Turton Road south of the existing access near Monash Road. The access would need to have flow directions median separated to comply with Australian Standard requirements for a Category 3 access facility given the site fronts a major road.

In assessing compliance with Australian Standard ***AS2890.1-2004 Parking Facilities – Part 1 Off-street car parking*** the following is noted;

- Parking User Class is Class 2 – Sporting facilities;
- Parking area capacity is 221 car parks; and
- Turton Road is a local road.
- The minimum queuing space required will be 3 vehicles i.e. 18 metres.

From Table 3.1 of Australian Standard ***AS2890.1-2004 Parking Facilities – Part 1 Off-street car parking*** the required access facility category is a category 3 access. Table 3.2 then identifies that a category 3 access has separate entry and exit driveways both 4 to 6 metres wide separated by at least 1 to 3 metres. The proposed access could comply with this requirement and conditioned on the consent.

It is also noted that the current access lies within a prohibited area for accesses as shown in Figure 3.1 of Australian Standard ***AS2890.1-2004 Parking Facilities – Part 1 Off-street car parking.*** Therefore, the existing vehicular access to the proposed on-site car parking is not compliant with Australian Standard ***AS2890.1-2004 Parking Facilities – Part 1 Off-street car parking*** with the redevelopment and the provision of a new access to the facility and conversion of the existing access to an emergency access only is supported.

Therefore, a new vehicular access to the Hockey Centre is required to be constructed south of the existing vehicular access and the proposed access could be constructed to Australian Standards and Newcastle City Council requirements.

10.4 On-site Parking

Regarding on-site parking the proposal should comply with Australian Standard ***AS2890.1-2004 Parking facilities – Part 1 Off-street car parking*** and ***Section 7.03 – Traffic, Parking and Access*** of Newcastle City Council's DCP 2012. No rates for Hockey Fields are applied within the DCP however it is noted that the following rates apply for squash courts and tennis courts;

Squash Courts / Tennis Courts

> ***Car parking – 3 spaces per court***
> ***Bike parking – 1 space per 20 staff; and***
> ***Motor bike parking – 1 space per 20 cars.***

Noting the car parking requirement equates to 1.5 x the number of participants in the game it is considered reasonable to apply the following car parking rate to the Hockey Centre based on each hockey team having up to 16 players including reserves in a team.

Hockey Fields

> ***Car parking – 48 spaces per field***
> ***Bike parking – 1 space per 20 staff (Class 2) and 1 space per 10 staff (Class 3); and***
> ***Motor bike parking – 1 space per 20 cars.***

The total parking requirement (peak parking demand) for the proposed development as required by the DCP can then be calculated as shown below;

> Car Parking – 48 x 3 = 144 car spaces;
> Bike Parking – 2 to 3 spaces
> Motor bike parking – 7 spaces.

The development provides 221 on-site car spaces while no bike or motor bike parking is shown. The proposal therefore provides an excess of what is considered a reasonable parking supply for the centre and thus the excess parking compensates for the lack of motor cycle parking (motor cycles can park in car spaces). Further there is sufficient area within the site for bicycle parking such that this requirement can be conditioned on any consent. It is therefore considered the proposal is compliant with Newcastle City Council's DCP (2012) regarding on-site parking.

The on-site car park design should be in accordance with Australian Standard ***AS2890.1-2004 Parking Facilities – Part 1 Off-street car parking*** to ensure forward entry and exit from the site. Whilst this can be conditioned on the consent and checked at Construction Certificate stage a

review of the car park design and layout indicates compliance with Australian Standard ***AS2890.1-2004 Parking Facilities – Part 1 Off-street car parking*** and suitable car spaces (minimum 2.5 metres x 5.4 metres) and aisle widths (6 metres) have been provided. Manoeuvrability through the car park is satisfactory and convenient enough to ensure forward entry and exit from the site.

It is noted that the southern car park is accessed through the proposed pedestrian way which is designed and constructed as a share way (10km/h) and this proposal is also compliant with Australian Standard ***AS2890.1-2004 Parking Facilities – Part 1 Off-street car parking.***

Overall it is concluded that sufficient and suitable on-site car parking has been incorporated into the development such that the development is compliant with Newcastle City Council's DCP (2012) and Australian Standard ***AS2890.1-2004 Parking Facilities – Part 1 Off-street car parking.***

10.5 Servicing

Servicing of the shop, offices and function centres premises on the site is likely to be of the order of 2 to 3 vehicles per day with mainly food, beveridge and laundry deliveries as well as waste collection being the main servicing requirements. To accommodate service vehicles a loading area is provided to the north of Building A that could accommodate the largest service vehicle entering the site medium rigid vehicle (8.8 metre length). Suitable servicing is also provided in front of the maintenance shed within Building B. The site layout is such that a service vehicle could easily enter and exit the site in a forward direction. Servicing would also occur outside the normal weekday and weekend peak periods for the centre ensuring minimal pedestrian and light vehicle conflict associated with servicing.

Waste collection from the site is proposed to be via private contractor using a MRV collection vehicle utilising the provided loading areas on-site. It is concluded that the proposed servicing arrangements for the development are satisfactory.

10.6 Construction Traffic

The construction of the development will result in additional traffic entering and exiting the site. It is estimated that during the peak construction periods up to 50 construction employees will be on-site at any one time. If a car occupancy rate of 1.2 is assumed for employee traffic this would result in an AM and PM peak traffic flow to the site of in the order of 40 vtph. This will also increase the peak parking demand at the site by a similar number during construction.

Material deliveries will add to this traffic with peak materials delivery traffic expected during the pouring of concrete slabs early in the construction period. With a large pour and a fleet of concrete trucks sourced from nearby it is likely that a further 10 vtph could occur during the AM peak period resulting from the construction activity. Therefore, overall it is estimated that the peak construction traffic generation resulting from the construction of the development will be in the order of 50 vtph during the AM peak or 40 vtph in the PM peak

This assessment has already determined that the current normal weekend traffic generation from the site is in the order of up to 132 vtph and that this will not adversely impact on the capacity of the local road network. As this is more than the likely construction traffic generation from the site it would also be reasonable to conclude that the construction traffic associated with the new development will also not adversely impact on the local road network. There is also ample room on site to cater for construction employee parking during the works though this will need to be covered by the Construction Traffic Management Plan prepared for the works to ensure no construction employee parking occurs on-street within the local road network or in the adjacent McDonald Jones Stadium car park.

11.0 PEDESTRIAN FACILITIES

The development is likely to generate additional pedestrian movements as some player's, officials and spectators utilise public transport facilities to access the site. By observation the existing external pedestrian facilities are considered adequate with a shared pathway around the site.

Internally the proposal has a major pedestrian access and boulevard / share way through the middle of the site connecting to the shared pathway along Turton Road which then connects to nearby bus stops and pedestrian crossing facilities in Turton Road.

12.0 ALTERNATE TRANSPORT MODE FACILITIES

The proposed development is not likely to generate any significant additional public transport usage. Existing public transport services to the site are also considered excellent and no new facilities or service amendments will be required resulting from this development.

The development is not likely to significantly increase bicycle traffic to the site and would not warrant additional specific external bicycle infrastructure though a small bicycle storage area for staff use and the visitor bicycle racks as required by the DCP would be of benefit to the development.

13.0 CONCLUSIONS

This traffic impact assessment for the proposed redevelopment of the Newcastle Hockey Centre on Lot 3235 in DP 821824, 1/330 Turton Road, Broadmeadow has determined the following;

- The local road network near the site has a likely technical mid-block capacity of up to 3,300 vtph for southbound lanes on Turton Road. As existing traffic volumes on the local road network are well below this threshold the local road network currently has spare mid-block capacity.
- It is expected that the Hockey Centre would generate approximately 132 vtph during normal weekday and weekend usage and up to 221 vtph during special events / tournaments.
- The redevelopment of the Hockey Centre will however not generate any additional traffic on the local road network during peak operational times as no additional playing fields are proposed. However, there is sufficient spare capacity within the local and state road network around the site to cater for expected traffic volumes generated even during special events / tournaments at the centre.
- Intersections around the site by observation already operate satisfactorily during normal weekday and weekend peaks for the existing Hockey Centre and with no increase in traffic generated by the site during these periods overall it would be reasonable to conclude that the proposal will not adversely impact on the efficiency of any intersection on the nearby local and state road network.
- The existing vehicular access to the proposed on-site car parking is not compliant with Australian Standard ***AS2890.1-2004 Parking Facilities – Part 1 Off-street car parking*** with the redevelopment. Therefore, a new vehicular access to the Hockey Centre will be constructed south of the existing vehicular access. This access would comply with both Australian Standard and Newcastle City Council requirements and operate as a left in and left out only access. The existing access is to be converted to an emergency access only.
- Sufficient and suitable on-site car parking has been incorporated into the development such that the development is compliant with Newcastle City Council's DCP (2012) and Australian Standard ***AS2890.1-2004 Parking Facilities – Part 1 Off-street car parking.***
- The proposed servicing arrangements for the development are satisfactory.
- The construction traffic associated with the new development will also not adversely impact on the local road network.
- Existing public transport services to the site are considered excellent and no new facilities or service amendments will be required resulting from the additional public transport usage generated by the development.
- The development is not likely to significantly increase bicycle traffic to the site and would not warrant additional specific external bicycle infrastructure being provided. On-site bicycle storage and bicycle racks would be beneficial to the development.

14.0 RECOMMENDATION

Having carried out this traffic impact assessment for the proposed redevelopment of the Newcastle Hockey Centre on Lot 3235 in DP 821824, 1/330 Turton Road, Broadmeadow it is recommended that subject to the relocation and upgrading of the vehicular access to the site and provision of internal pedestrian linkages to the car parking areas the proposal can be supported from a traffic and parking impact perspective as it will not adversely impact on the local and state road network and complies with all relevant Newcastle City Council, Australian Standard and RMS requirements.

JR Garry BE (Civil), Masters of Traffic
Director
Intersect Traffic Pty Ltd

Waste Management Plan

Project: Staged development for demolition of clubhouse and associated structures, erection of club rooms associated change facilities viewing areas, car parking and landscaping
Address: 1/330 Turton Road, Broadmeadow NSW 2292

This Waste Management plan has been prepared in conjunction with Newcastle City Councils Waste Management Technical Manual, Section 7.08 of the DCP and Better Practice Guide for Waster Management produced by Dept. of Environment & Climate Change NSW.

The principles of this document are to outline and identify waste reduction and recycling methods that can be implemented during, demolition, construction and ongoing operational use of the proposed multi unit development.

Appropriate waste minimisation and management measures are required to be provided to adequately serve the proposed development. The management measures and facilities to be used will depend upon the nature, scale and scope of the proposed development and level of predicted waste. This may involve one or a combination of private or communal waste management facilities such as (but not limited to):

- Waste cupboard
- Waste storage and recycling area
- Garbage and recycling rooms
- Garbage shute systems
- Collection areas
- Administrative arrangements

In accordance with Newcastle Council DCP 2012 and Technical Manual for Waste Management, the overall objectives for management and minimisation of waste within the proposed development are:

1. *Minimise resource requirements and construction waste through reuse and recycling and the efficient selection and use of resources.*
2. *Minimise demolition waste by promoting adaptability in building design and focussing upon end of life deconstruction.*
3. *Encourage building designs, construction and demolition techniques which minimise waste generation.*
4. *Maximise reuse and recycling of household waste and industrial/commercial waste.*
5. *Ensure waste management systems are compatible with collection services.*
6. *Minimise risks associated with waste management at all stages of development.*

Demolition & Construction Phase

The principal objective of managing this activity is to maximise resource recovery and minimise residual waste from demolition and construction activities by:

Objectives:

1. *Optimising adaptive reuse opportunities of existing building/structures.*
2. *Maximise reuse and recycling of materials.*
3. *Minimise waste generation.*
4. *Ensure appropriate storage and collection of waste.*
5. *Minimise the environmental impacts associated with waste management.*
6. *Avoid illegal dumping.*
7. *Promote improved project management.*

Where possible the demolition company will remove for reuse any salvageable items such as steel & timber beams and sheeting.

Recycling will be in accordance with the table below

Description of waste generated	Estimated Volume in m^3 or area m^2 or weight in tonne (t)	Reuse and Recycling		Disposal
		On-Site	Off-Site	
Garden waste	Nil			-
Glass	<2 tonnes	-	Sent to local glass recycler or Summerhill	-
Bricks	<30 tonnes	-	Sent to local recycler	Concrush, Racecourse Rd, Teralba
Timber	<1 tonnes	Reuse for formwork and chips for landscaping.	Remainder disposed of at Summerhill waste recycling facility by contractor	-
Concrete	<20 tonnes	-	Sent to local recycler	Concrush, Racecourse Rd, Teralba
Metal	<20 tonnes	-	Sent to local metal recycler	Hunter Recyclers 8 Gross St, Carrington
Excavated material including soil, rock.	$<20m^3$	-	Take off site for disposal.	Summerhill Waste Facility by contractor
Any contaminated or asbestos-containing excavated material	Unknown volume	-	-	Managed and disposed of at licensed facility

Please note that the above quantities are estimates only based on site survey and proposed development plans. Quantities are to be confirmed by the contractor

The existing site access on Turton Road will be utilised for construction vehicle access due to the nature of the proposed works and construction of the Boulevard. This allows the removal vehicles to utilise the existing concrete hard stand apron and asphalt areas area to load. As the development involves a construction over a large portion of the site, construction waste must be managed efficiently daily, within the carpark area. As indicated in the Engineering plans, appropriate sediment and erosion control measures shall be implemented on site and a suitable all-weather construction vehicle access provided.

In accordance with the Newcastle City Council Technical Manual for Waste Management, the following practices shall be employed to minimise waste during the demolition and construction phase of the development:

- Demolition shall be undertaken in a de-construction manner to ensure maximum re-use and recycling of materials.
- An allocated area for waste storage on site separated for the purposes of reuse, recycling and disposal. Waste storage areas to be suitably covered and contained.
- Bulk waste storage bins to be located within the site
- Arrange contractors for the transport, processing and disposal of waste and recycling. Ensure that all contractors are aware of the legal requirements for disposing of waste. Contractors shall be employed to remove waste from the site regularly.
- During construction phase, delivery of materials 'as needed' to prevent the degradation of materials through weathering and moisture damage, and consider organising to return excess materials to the supplier or manufacturer.
- Clearly signpost the purpose and content of all bins and storage areas on site.
- Retain all records demonstrating lawful disposal of waste and keep them readily accessible for inspection by regulatory authorities such as Council, DECC or NSW WorkCover Authority.

The likely generation of waste during construction is summarised in the Table below.

Type of waste generated	Estimates Volume in m^3 or weight in tonne	Reuse and Recycling		Disposal
		On-Site	Off-Site	
Glass (windows, mirrors, lights)	<0.2 tonnes	-	Local recycling facility, Summerhill.	
Timbers	<1 tonne	-	Local recycling facility, Summerhill.	
Metals / masonry / concrete	<0.5 tonnes	-	Local recycling facility. Hunter Recyclers: 8 Gross St, Carrington and Concrush: Racecourse Rd, Teralba	
Gardening waste (including external timber element waste/offcuts)	<0.5 tonnes	-	Local green waste facility or Summerhill Facility.	
Plasterboard (offcuts)	<2.0 tonnes	-		Unused disposed of at Summerhill Waste Facility by contractor
Fixtures and fittings	Nil (pre-ordered)	-	N/A	N/A
Packaging (including used pallets, pallet wrap, cardboards)	<1 tonne	-	Pallets reused where possible	Unused quantity disposed of at Summerhill Waste Facility by contractor
Other waste e.g. pvc plastics, paints.	<1 tonne	-		Disposed of at Summerhill Waste Facility by contractor

Operational Phase

Objectives

1. Encourage source separation of waste, reuse, and recycling by ensuring appropriate storage and collection facilities for waste, and quality design of waste facilities.

3. Ensure appropriate resourcing of waste management systems, including servicing.

4. Minimise risk to health and safety associated with handling and disposal of waste and recycled material, and ensure optimum hygiene.

5. Minimise adverse environmental impacts associated with waste management.

6. Discourage illegal dumping by providing on site storage, and removal services.

Waste Generation

Typical waste generation rates are provided in Appendix B of the Newcastle Council Waste Management Technical Manual. Non-food retail is included in the Technical Manual, and the rates applied to non- food retail premises are in the Technical Manual than the rates within the EPA Guidelines.

Rates for sporting venues are not specified within the Newcastle Council Waste Management Technical Manual.

The generation of waste from the proposed development is summarised in the Table below.

Commercial waste

Type of Premises	Waste Generation	Recycling Generation
Backpackers accommodation	40L/occupant/week	20 litres/occupant/week
Boarding house, Guest house	60L/occupant/week	20 litres/occupant/week
Food Premises **Butcher** **Delicatessen** **Fish Shop** **Greengrocer** **Hairdresser** **Restaurants** **Supermarket** **Takeaway**	80L/100m² floor area/day 80L/100m² floor area/day 80L/100m² floor area/day 240L/100m²/day 60L/100m² floor area/day 10L/1.5m² floor area/day 240L/100m² floor area/day 80L/100m² floor area/day	Discretionary Discretionary Discretionary 120L/100m²/day Discretionary 2L/1.5m²/day dining 240L/100m²/day Discretionary
Hotel	5L/bed/day 50L/100m²/bar area/day	50L/100m²/of bar 8 Dining areas/day
Licensed club	50L/100m²/bar area/day 10L/1.5m²/of dining	50L/100m²/of bar 8 Dining areas/day
Motel (without public restaurant)	5L/bed/day 10L/1.5m²/of dining area/day	1L/bed/day
Offices	10L/100m²/day	10L/100m²/day
Retail (other than food sales) **Shop less than 100m² floor area** **Shop over 100m² floor area**	50L/100m² floor area/day 50L/100m² floor area/day	25L/100m² floor area/day 50L/100m² floor area/day
Showrooms	40L/100m²floor area/day	10L/100m²floor area/day

Domestic waste

Waste stream	Allowance
Garbage	80 L/unit/week
Combined recycling	40 L/unit/week
If paper and containers collected separately	
Paper recycling	25 L/unit/week
Containers recycling	15 L/unit/week

The proposed building upgrades are not expected to increase the demand on waste generation as the number of field will not change or the number of vehicles that can park within the site. Therefore the current waste management system will remain unchanged. Details of the current system are detailed below

Waste Removal: by Private Contractor – Cleanaway
Serviced: March and September – twice a week
October to February – once a week
Bin Size General Waste two bins 3.0m³ and 1.5m³
Recycle 1.5m³ – is cleared on request- can at times be cleared fortnightly.
During major events: (National championships which go for 7 -10 days)
bins emptied daily.
Cleanaway also provide a sanitary service
Cooking oil: Scanline- pick up when needed.
Grease Trap: Enviroking- monthly basis.

Mobile containers with a capacity from 500L to 1700L with four wheels

Dome or flat lid containers

Bin Type	660 Litre MGB	770 Litre MGB	1100 Litre MGB	1300 Litre MGB	1700 Litre MGB
Height	1250	1425	1470	1480	1470
Depth	850	1100	1245	1250	1250
Width	1370	1370	1370	1770	1770

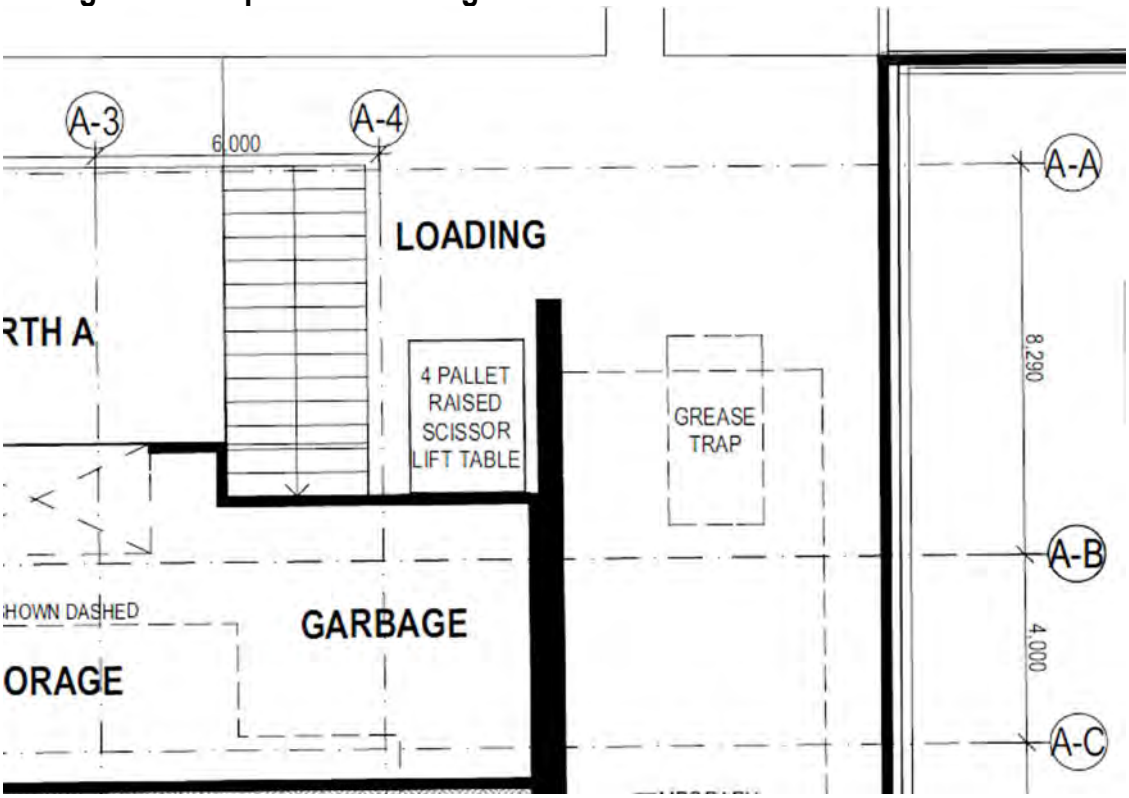
Bulk bins greater than 1700L capacity

The following bulk bin dimensions are a guide only and may differ slightly according to manufacturer.
Not all available bulk bin sizes are shown.

Bin Type	2.0 m³ Skip	3.0 m³ Skip	4.5 m³ Skip
Height	865 mm	1225 mm	1570 mm
Depth	1400 mm	1505 mm	1605 mm
Width	1830 mm	1805 mm	1805 mm

Current Storage Area

Storage Area Required - Building A



The proposed waste management system for this development comprises a waste storage room within the ground floor of building A. As detailed above sufficient storage area is available to accommodate the required number and size of bins. The area required is approximately 5.38m x 1.505m and the area provided is well in excess. The Architectural plans shows the location and size of this room and how it is easily accessible for waste pickup.

Conclusion

This Waste Management Plan has been prepared in accordance with Newcastle Council's Waste Management DCP provisions, Technical Manual for Waste Management and NSW EPA Better Practice Guidelines. The detailed management system displays it compliance with the relevant legislation and provides a readily accessible and manageable waste system. The development implements reuse and recycling procedures during demolition and construction phases to actively seek a better environmental outcome.

15 December 2017

CR2017/004304
SF2017/253323
MJD

General Manager
Newcastle City Council
PO Box 489
NEWCASTLE NSW 2300

Attention: Ian Clark

TURTON ROAD (MR326): DA 2017/01362, STAGED DEVELOPMENT – DEMOLITION OF CLUBHOUSE AND ASSOCIATED STRUCTURES, AND CONSTRUCTION OF CLUB ROOMS AND CAR PARKING, LOT: 3235 DP: 821124, 1/330 TURTON ROAD BROADMEADOW

Reference is made to Council's letter dated 1 November 2017, regarding the abovementioned application which was referred to Roads and Maritime Services (Roads and Maritime) for comment.

Roads and Maritime understands the development to be for the following:

- Demolition of existing buildings on the site
- Construction of three (3) new buildings containing, change rooms, small gymnasium, medical rooms, storage rooms, function rooms, offices, small shop and equipment rooms
- 221 on-site at grade car parks
- Construction of a new combined entry / exit access to Turton Road south of the existing access, and conversion of the existing access to an emergency access only
- Renovations to existing hockey fields, and
- Improved landscaping and drainage works.

Roads and Maritime response

Roads and Maritime has reviewed the information provided and raises no objection to the proposed development, subject to inclusion of the following within the Conditions of Consent:

- The site entry is to be designed as a driveway and not a road, maintaining right of way of the shared path fronting the site over vehicles entering and leaving the site
- Traffic calming measures should be installed on-site to slow vehicles approaching the shared pathway

- The landscaping along the front boundary adjacent to the site driveway may restrict vision to the shared pathway, and should be removed to increase sight to and from motorists leaving the site
- The current site driveway at the northern end of the site, proposed to be emergency vehicle access only, is to have a locked gate installed. This access is only to be used during emergency situations and not for convenient on-site manoeuvrability
- Council is to forward the Section 138 for the driveway application to Roads and Maritime for concurrence and conditions in accordance with the Roads Act requirements.

Advice to Council

Roads and Maritime recommends that the following matters should be considered by Council in determining this development:

- Roads and Maritime has no proposal that requires any part of the property.
- Council should ensure that appropriate traffic measures are in place during the construction phase of the project to minimise the impacts of construction vehicles on traffic efficiency and road safety within the vicinity.
- Council should have consideration for appropriate sight line distances in accordance with the relevant Australian Standards (i.e. AS2890:1:2004) and should be satisfied that the location of the proposed driveway promotes safe vehicle movements.
- Discharged stormwater from the development shall not exceed the capacity of the Turton Road stormwater drainage system. Council shall ensure that drainage from the site is catered for appropriately and should advise Roads and Maritime of any adjustments to the existing system that are required prior to final approval of the development.

On Council's determination of this matter, please forward a copy of the Notice of Determination to Roads and Maritime for record and / or action purposes. Should you require further information please contact Hunter Land Use on 4908 7688 or by email at development.hunter@rms.nsw.gov.au

Yours sincerely

Peter Marler
Manager Land Use Assessment
Hunter Region