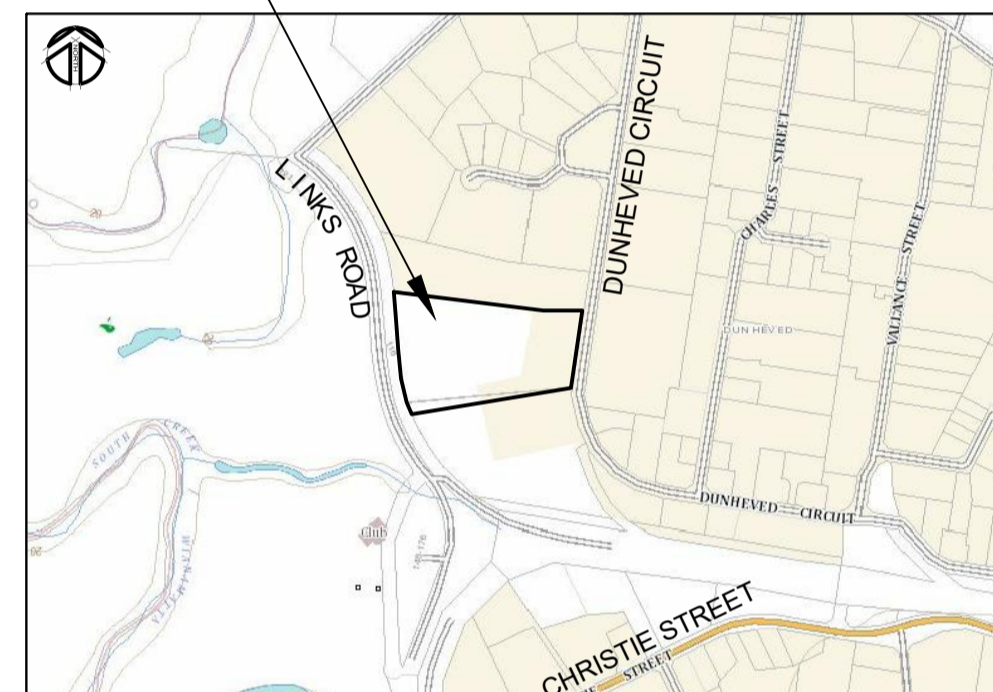


PENRITH CITY COUNCIL PROPOSED INDUSTRIAL DEVELOPMENT 65-75 DUNHEVED CIRCUIT, ST MARYS CONCEPT STORMWATER DRAINAGE PLANS

GENERAL NOTES

Prepared for: **BORG CONSTRUCTION**

LOCATION OF WORKS



LOCALITY SKETCH
NOT TO SCALE

LEGEND

- ROOF DRAINAGE LINE
- PROPOSED DRAINAGE LINE
- EXISTING DRAINAGE LINE
- NATURAL SURFACE CONTOUR
- DESIGN SURFACE CONTOUR
- TABLE DRAIN
- PROPOSED HEADWALL
- PIT NUMBER
- SUBSOIL DRAINAGE LINE
- GRATED SURFACE INLET PIT
- SEALED PIT

SHEET INDEX

SHEET No.	DESCRIPTION
COVER SHEET	COVER SHEET - GENERAL NOTES, SHEET INDEX AND LEGEND
1	GENERAL ARRANGEMENT SHEET
2	CONCEPT STORMWATER AND GRADING PLAN SHEET 1
3	CONCEPT STORMWATER AND GRADING PLAN SHEET 2
4	CONCEPT STORMWATER AND GRADING PLAN SHEET 3
5	CONCEPT STORMWATER AND GRADING PLAN SHEET 4
6	CUT AND FILL PLAN
7	OSD & STORMWATER DETAILS
8	CATCHMENT PLAN

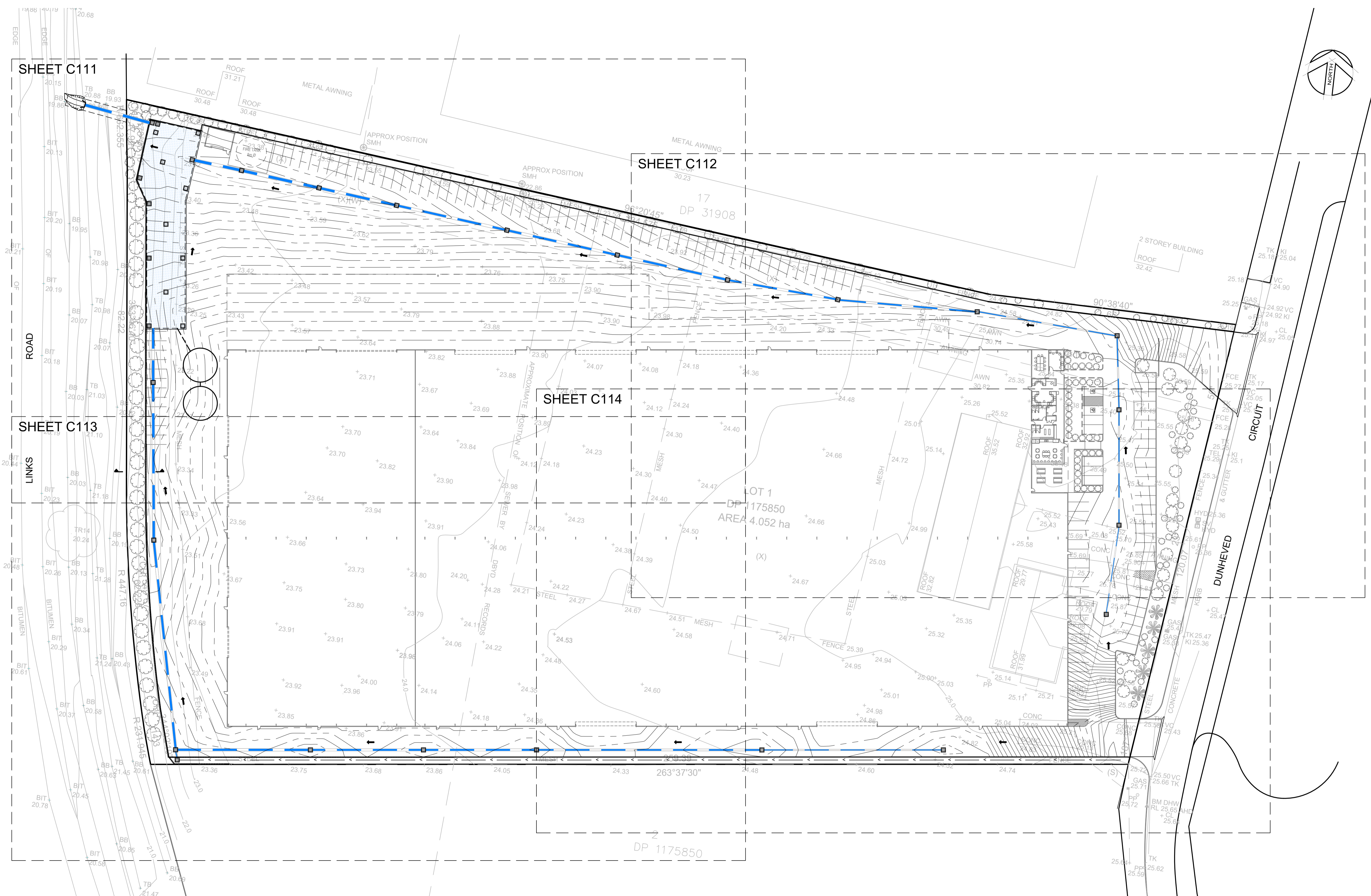
1. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH PENRITH CITY COUNCIL'S ENGINEERING CONSTRUCTION SPECIFICATION FOR CIVIL WORKS AND/OR AS DIRECTED BY THEIR REPRESENTATIVE.
2. THE CONTRACTOR IS TO IDENTIFY, LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION WORKS AND WHERE NECESSARY MAKE ARRANGEMENTS WITH THE RELEVANT AUTHORITY TO RELOCATE OR ADJUST WHERE NECESSARY.
3. COUNCIL'S TREE PRESERVATION ORDER MUST BE OBSERVED AND NO TREE SHALL BE FELLED, LOPPED OR REMOVED WITHOUT THE PRIOR APPROVAL OF COUNCIL.
4. ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE WORK HEALTH & SAFETY ACT 2011 AND ALL RELEVANT OCCUPATIONAL HEALTH & SAFETY POLICIES AND REGULATIONS.
5. DIMENSIONS SHALL NOT BE SCALED FROM THE PLANS. CLARIFICATION OF DIMENSIONS SHALL BE SOUGHT FROM THE SUPERINTENDENT OR REFERRED TO THE DESIGNER.
6. SURVEY MARKS SHOWN THUS ▲ SHALL BE MAINTAINED AT ALL TIMES. WHERE RETENTION IS NOT POSSIBLE THE ENGINEER SHALL BE NOTIFIED AND CONSENT RECEIVED PRIOR TO THEIR REMOVAL.
7. ALL NEW WORK IS TO MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS.
8. THE CONTRACTOR IS NOT TO ENTER UPON NOR DO ANY WORK WITHIN OR ON ADJACENT LANDS WITHOUT THE PRIOR APPROVAL OF THE SUPERINTENDENT AND THE WRITTEN PERMISSION OF THE OWNERS.
9. SEDIMENT MEASURES SHALL BE IMPLEMENTED PRIOR TO SOIL DISTURBANCE IN KEEPING WITH THE 4th EDITION OF LANDCOMS "SOILS AND CONSTRUCTION - MANAGING URBAN STORMWATER" MARCH 2004 TO THE SATISFACTION OF COUNCIL'S REPRESENTATIVE AND AS SHOWN IN THESE DRAWINGS.
10. THE CONTRACTOR SHALL CLEAR AND DISPOSE OF ONLY THOSE TREES THAT ARE CONDEMNED BY THE PLANS. COUNCIL'S TREE PRESERVATION ORDER SHALL BE OBSERVED AND NO TREE SHALL BE FELLED, LOPPED OR REMOVED WITHOUT PRIOR APPROVAL.
11. THE CONTRACTOR SHALL CLEAR THE SITE BY REMOVING ALL RUBBISH, FENCES, OUT HOUSES, CAR BODIES, DEBRIS, ETC. THE CONTRACTOR SHALL NOT DISPOSE OF ANY DEBRIS BY BURNING OFF IN AN OPEN FIRE.
12. UNSOUND MATERIALS AS DETERMINED BY COUNCIL'S REPRESENTATIVE SHALL BE REMOVED FROM ROADS AND LOTS PRIOR TO ANY FILLING.
13. ALL SITE REGRADING AREAS SHALL BE GRADED TO THE SATISFACTION OF COUNCIL'S REPRESENTATIVE. THE CONTRACTOR SHALL TAKE LEVELS ON THE EXISTING SURFACE AFTER STRIPPING TOPSOIL AND PRIOR TO COMMENCING ANY FILL OPERATIONS.
14. SURPLUS EXCAVATED MATERIAL SHALL BE PLACED OR DISPOSED OF IN ACCORDANCE WITH THE CONTRACT, OR AS DIRECTED BY THE SUPERINTENDENT.
15. ALL SITE FILLING SHALL BE PLACED IN LAYERS NOT EXCEEDING 300mm AND COMPACTED IN ACCORDANCE WITH COUNCIL'S SPECIFICATION AND BE TESTED AT THE REQUIRED INTERVALS BY AN APPROVED N.A.T.A. GEOTECHNICAL LABORATORY.
16. MINIMUM 150mm THICK TOPSOIL SHALL BE SPREAD ON ALL FOOTPATHS, BERMS, BATTERS AND SITE REGRADING AREAS. EXCESS TOPSOIL SHALL BE DISPOSED OF AS DIRECTED BY THE SUPERINTENDENT.
17. ALL LAND DISTURBED BY EARTHWORKS SHALL BE SPRAY-GRASSED, OR SIMILARLY TREATED TO ESTABLISH GRASS COVER. SEED MIXTURES ARE TO BE APPROVED BY COUNCIL PRIOR TO SPRAYING. ALL GRASSED AREAS SHALL BE REGULARLY WATERED AND MAINTAINED UNTIL EXPIRATION OF THE MAINTENANCE PERIOD.
18. THE CONTRACTOR SHALL MAINTAIN DUST CONTROL THROUGHOUT THE DURATION OF THE PROJECT.
19. ALL PITS DEEPER THAN 1.2m SHALL HAVE STEP IRONS PROVIDED IN ACCORDANCE WITH COUNCIL'S STANDARDS.
20. ALL DRAINAGE LINES THROUGH LOTS SHALL BE CONTAINED WITHIN THEIR EASEMENTS AND CONFORM WITH COUNCIL'S STANDARDS.
21. ALL DRAINAGE LINES ON HIGH SIDE AND UNDER ROADS SHALL BE BACKFILLED SHARP SAND AND HAVE 3.0m OF AGRICULTURAL LINE WRAPPED IN AN APPROVED FILTER FABRIC, DISCHARGING INTO THE DOWNSTREAM PIT.
22. SUBSOIL DRAINS SHALL BE CONSTRUCTED TO THE SATISFACTION OF COUNCIL'S REPRESENTATIVE.
23. PRECAST KERB INLET LINTELS SHALL BE USED ON GULLY PITS. GRATES SHALL BE "WELDLOK" TYPE GG 78-51 OR APPROVED EQUIVALENT.
24. PROVIDE VEHICULAR ENTRIES IN KERB AND GUTTER WHERE SHOWN OR WHERE DIRECTED BY THE SUPERINTENDENT.
25. GUIDE POSTS SHALL BE 100mm X 50mm HARDWOOD, PAINTED WHITE WITH REFLECTORS.
26. ERECT STREET NAME SIGNS, CONDUIT WARNING SIGNS AND NO THROUGH ROAD SIGNS WHERE SHOWN OR WHERE DIRECTED BY COUNCIL'S REPRESENTATIVE.
27. CONDUITS SHALL BE LAID AFTER POSITIONS HAVE BEEN DETERMINED BY THE RELEVANT AUTHORITIES AND BEFORE FINAL A.C. IS LAID
28. POSITION OF CONDUITS SHALL BE MARKED ON THE KERB.
29. FELLED TREES SHALL BE SALVAGED FOR RE-USE AS WOODCHIP MULCH OR LOG FORM FOR SITE REHABILITATION, NON-SALVAGEABLE MATERIAL SUCH AS STUMPS AND ROOTS SHALL BE DISPOSED OF OFF SITE.
30. THE CONTRACTOR SHALL PROVIDE MINIMUM 24 HOURS NOTICE TO COUNCIL'S REPRESENTATIVE FOR ALL INSPECTIONS.
31. THE CONTRACTOR SHALL MAINTAIN SERVICES AND ALL WEATHER ACCESS AT ALL TIMES TO THE ADJOINING PROPERTIES.
32. THE CONTRACTOR SHALL UNDERTAKE TRAFFIC CONTROL MEASURES TO COUNCIL'S SATISFACTION AND SHALL DISPLAY ALL APPROPRIATE WARNING SIGNS THROUGHOUT THE DURATION OF CONSTRUCTION.
33. ALL NATURAL SURFACE DATA HAS BEEN DETERMINED BY TERRAIN MODELLING. ALL CONSTRUCTION SITE WORKS MUST BE CARRIED OUT USING THE BENCH MARKS SHOWN ON THESE DRAWINGS.

NOT FOR CONSTRUCTION

**BARKER
RYAN
STEWART**

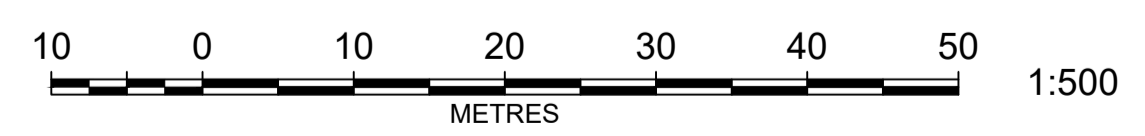
TOTAL PROJECT SOLUTIONS
ENGINEERING | PLANNING | PROJECT MANAGEMENT | SURVEYING | CERTIFICATION

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SITE PLAN
SCALE 1:500



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Client: **BORG CONSTRUCTION**

**65-75 DUNHEVED CIRCUIT, ST MARYS
PROPOSED WAREHOUSE BUILDING**

GENERAL ARRANGEMENT PLAN

Designed: GL
Drawn: GL
Checked: RW

Scales: Plan 1:500
Horiz.
Vert.
X-Sect.

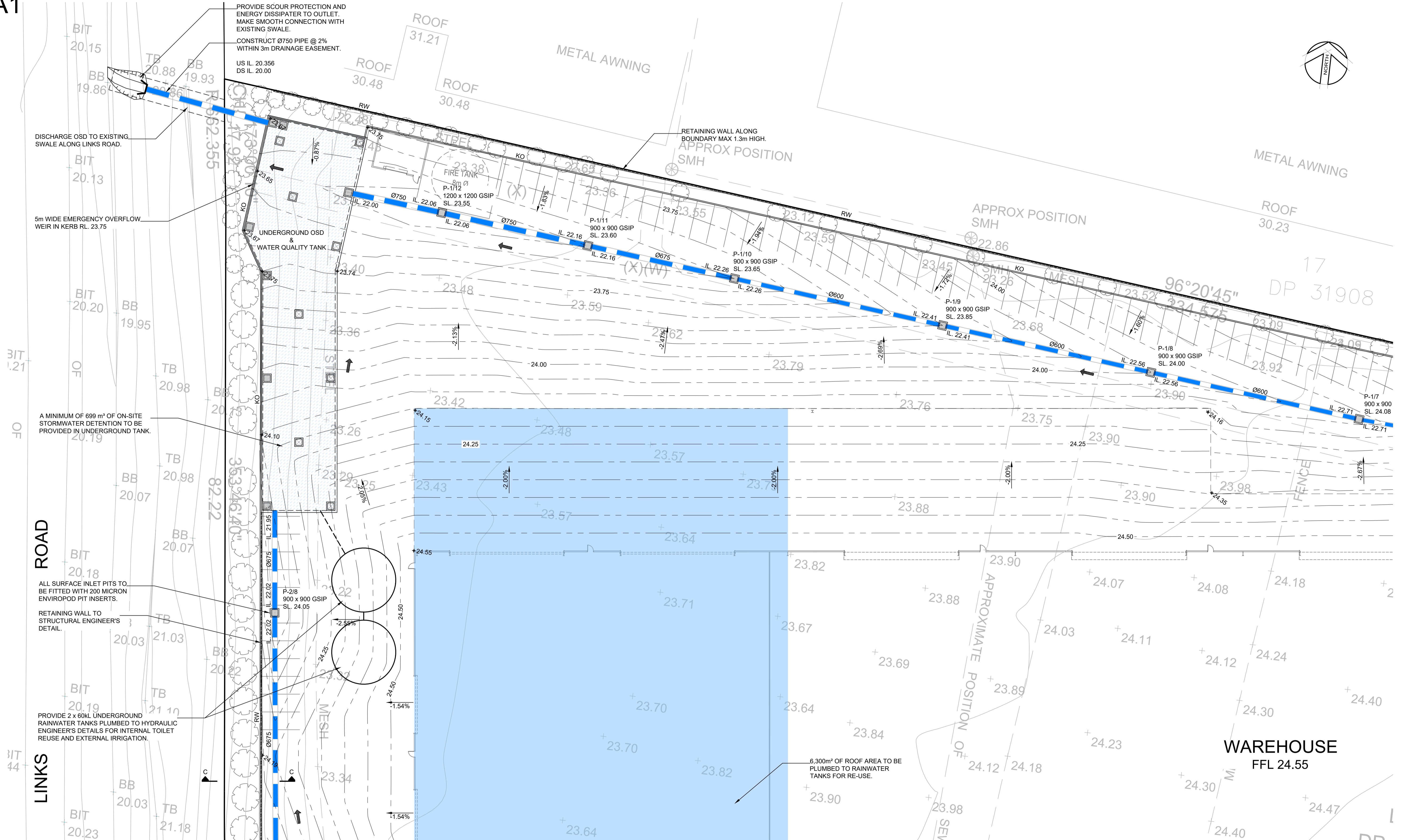
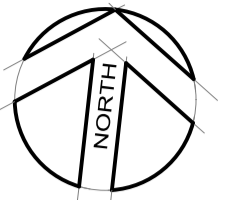
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Plan No. **SY180157C101**

File Ref. SY180157C1_B.dwg
SHEET 1 OF 8 SHEETS

REV. **B**

A1



DISCHARGE OSD TO EXISTING SWALE ALONG LINKS ROAD.

5m WIDE EMERGENCY OVERFLOW WEIR IN KERB RL. 23.75

A MINIMUM OF 699 m³ OF ON-SITE STORMWATER DETENTION TO BE PROVIDED IN UNDERGROUND TANK.

ALL SURFACE INLET PITS TO BE FITTED WITH 200 MICRON ENVIROPOD PIT INSERTS.

RETAINING WALL TO STRUCTURAL ENGINEER'S DETAIL.

PROVIDE 2 x 60kL UNDERGROUND RAINWATER TANKS PLUMBED TO HYDRAULIC ENGINEER'S DETAILS FOR INTERNAL TOILET REUSE AND EXTERNAL IRRIGATION.

PROVIDE SCOUR PROTECTION AND ENERGY DISSIPATER TO OUTLET. MAKE SMOOTH CONNECTION WITH EXISTING SWALE.

CONSTRUCT Ø750 PIPE @ 2% WITHIN 3m DRAINAGE EASEMENT.

US IL. 20.356
DS IL. 20.00

RETAINING WALL ALONG BOUNDARY MAX 1.3m HIGH.

6,300m² OF ROOF AREA TO BE PLUMBED TO RAINWATER TANKS FOR RE-USE.

NOT FOR CONSTRUCTION



NOTE: ALL ROOF WATER IS TO BE RETICULATED AND CONNECTED TO MAIN DRAINAGE

NOTE: ALL GRATED SURFACE INLET PITS TO BE FITTED WITH 200 MICRON ENVIROPOD PIT INSERTS



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Client: **BORG CONSTRUCTION**

65-75 DUNHEVED CIRCUIT, ST MARYS
PROPOSED WAREHOUSE BUILDING

CONCEPT STORMWATER AND GRADING PLAN SHEET 1

Designed: GL
Drawn: GL
Checked: RW

Scales: Plan 1:250
Horiz.
Vert.
X-Sect.

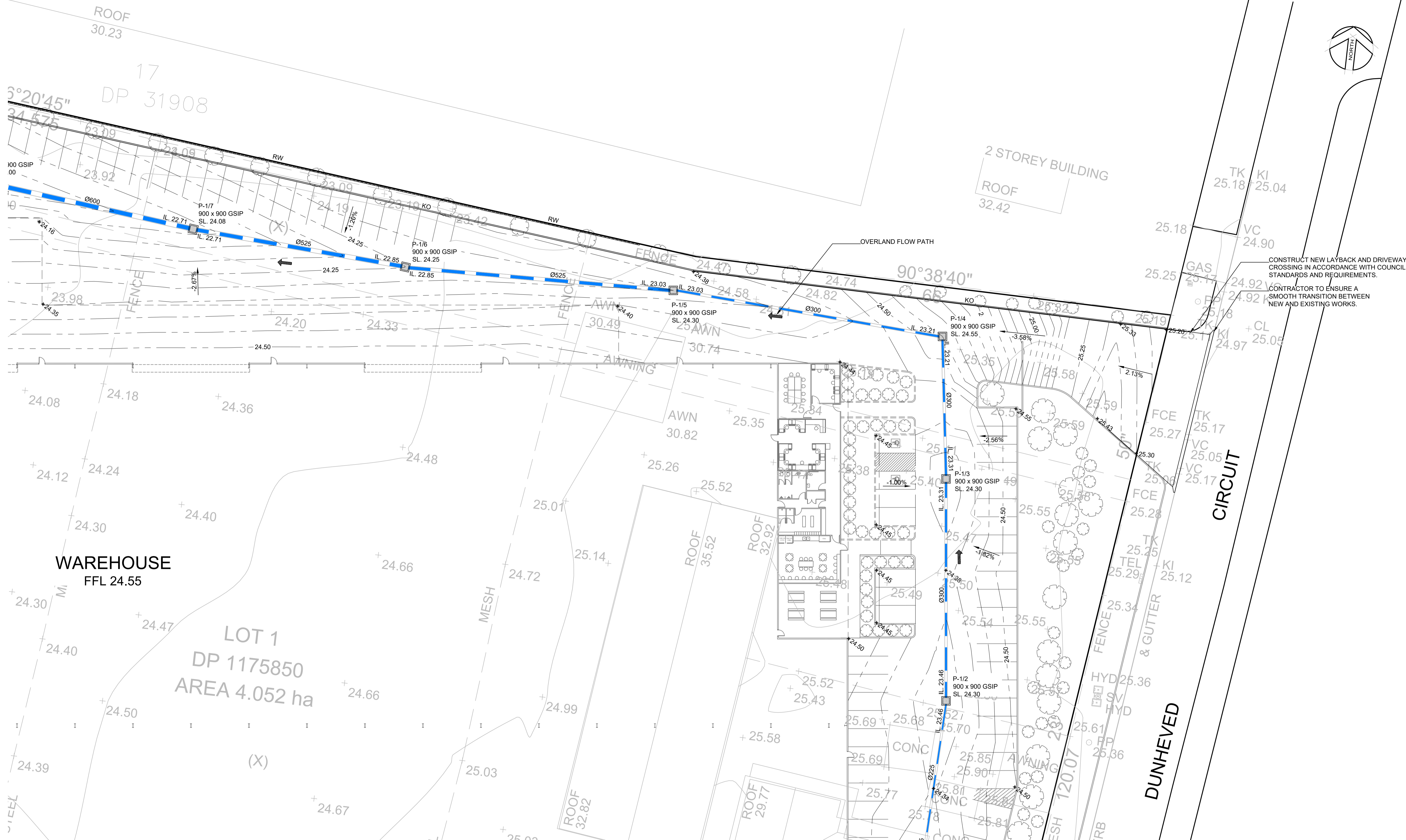
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Plan No. **SY180157C111**

File Ref. SY180157C1_B.dwg
SHEET 2 OF 8 SHEETS

REV. **B**

A1



CONSTRUCT NEW LAYBACK AND DRIVEWAY CROSSING IN ACCORDANCE WITH COUNCIL STANDARDS AND REQUIREMENTS.
CONTRACTOR TO ENSURE A SMOOTH TRANSITION BETWEEN NEW AND EXISTING WORKS.

NOT FOR CONSTRUCTION



NOTE: ALL ROOF WATER IS TO BE RETICULATED AND CONNECTED TO MAIN DRAINAGE
NOTE: ALL GRATED SURFACE INLET PITS TO BE FITTED WITH 200 MICRON ENVIROPOD PIT INSERTS



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Client: **BORG CONSTRUCTION**

65-75 DUNHEVED CIRCUIT, ST MARYS
PROPOSED WAREHOUSE BUILDING
CONCEPT STORMWATER AND GRADING PLAN SHEET 2

Designed: GL
Drawn: GL
Checked: RW

Scales: Plan 1:250
Horiz.
Vert.
X-Sect.

Datum: A.H.D.

Plan No. **SY180157C112**
File Ref. SY180157C1_B.dwg
SHEET 3 OF 8 SHEETS

REV. **B**

A1



WAREHOUSE
FFL 24.55

DP
AREA

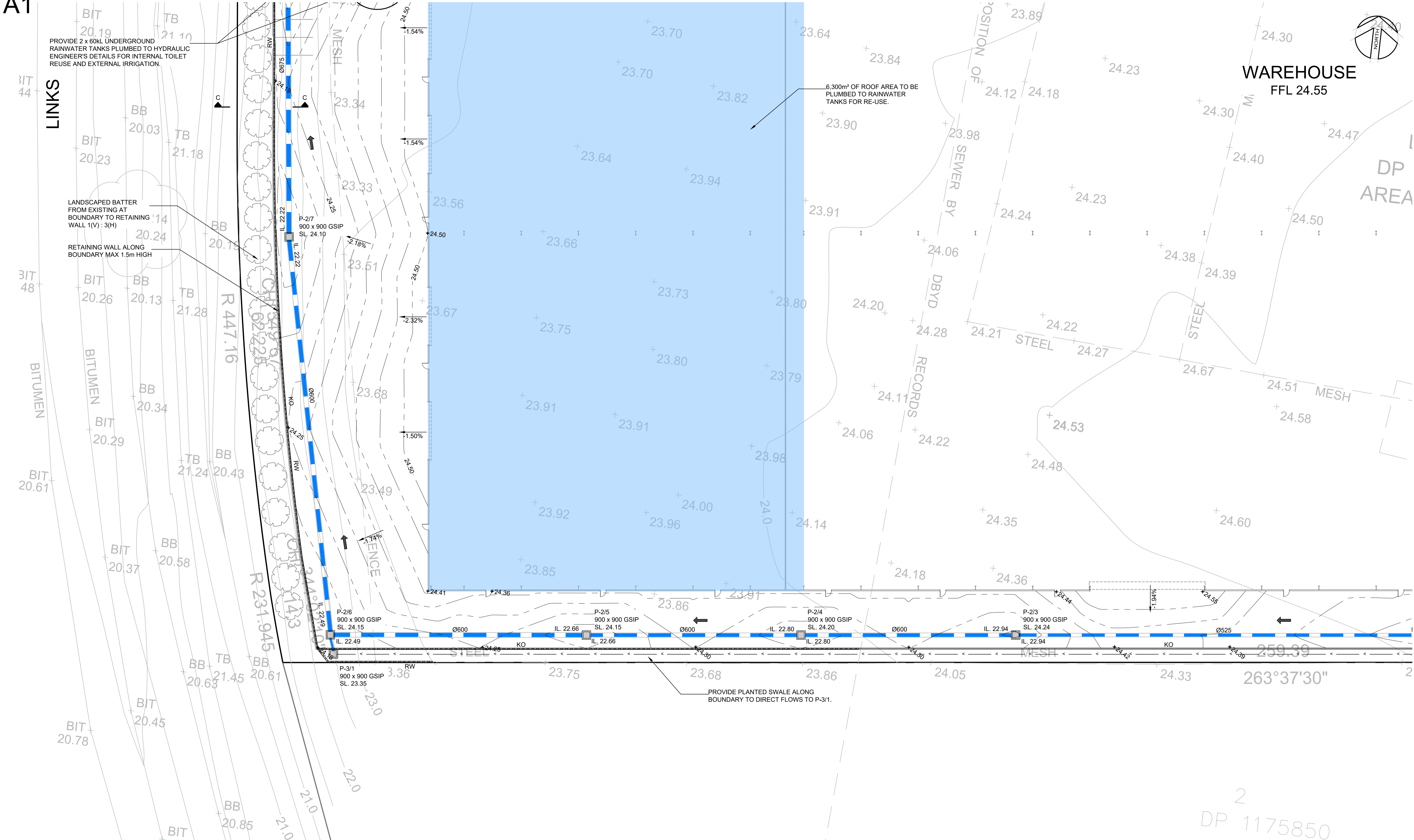
PROVIDE 2 x 60kL UNDERGROUND
RAINWATER TANKS PLUMBED TO HYDRAULIC
ENGINEER'S DETAILS FOR INTERNAL TOILET
REUSE AND EXTERNAL IRRIGATION.

LANDSCAPED BATTER
FROM EXISTING AT
BOUNDARY TO RETAINING
WALL 1(V) : 3(H)

RETAINING WALL ALONG
BOUNDARY MAX 1.5m HIGH

6,300m² OF ROOF AREA TO BE
PLUMBED TO RAINWATER
TANKS FOR RE-USE.

PROVIDE PLANTED SWALE ALONG
BOUNDARY TO DIRECT FLOWS TO P-3/1.



NOT FOR CONSTRUCTION



NOTE: ALL ROOF WATER IS TO BE RETICULATED AND
CONNECTED TO MAIN DRAINAGE
NOTE: ALL GRATED SURFACE INLET PITS TO BE
FITTED WITH 200 MICRON ENVIROPOD PIT INSERTS



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Client:
BORG CONSTRUCTION

**65-75 DUNHEVED CIRCUIT, ST MARYS
PROPOSED WAREHOUSE BUILDING**

CONCEPT STORMWATER AND GRADING PLAN SHEET 3

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Checked: RW

Scales: Plan 1:250
Horiz.
Vert.
X-Sect.

Datum: A.H.D.

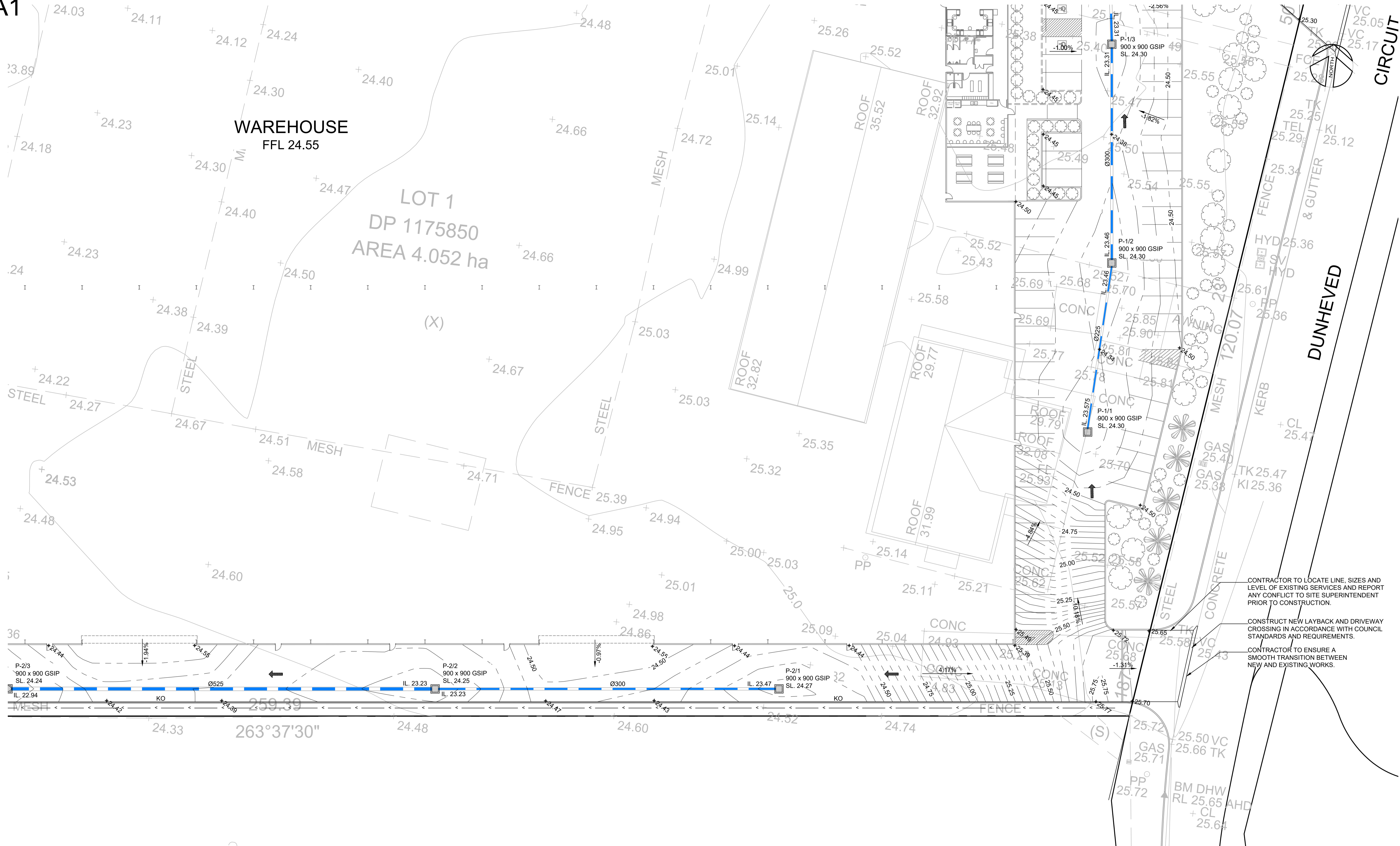
Plan No.
SY180157C113

File Ref.
SY180157C1_B.dwg

SHEET 4 OF 8 SHEETS

REV. **B**

A1



NOT FOR CONSTRUCTION



NOTE: ALL ROOF WATER IS TO BE RETICULATED AND CONNECTED TO MAIN DRAINAGE
NOTE: ALL GRATED SURFACE INLET PITS TO BE FITTED WITH 200 MICRON ENVIROPOD PIT INSERTS



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Client: **BORG CONSTRUCTION**

65-75 DUNHEVED CIRCUIT, ST MARYS
PROPOSED WAREHOUSE BUILDING

CONCEPT STORMWATER AND GRADING PLAN SHEET 4

Designed: GL
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Checked: RW

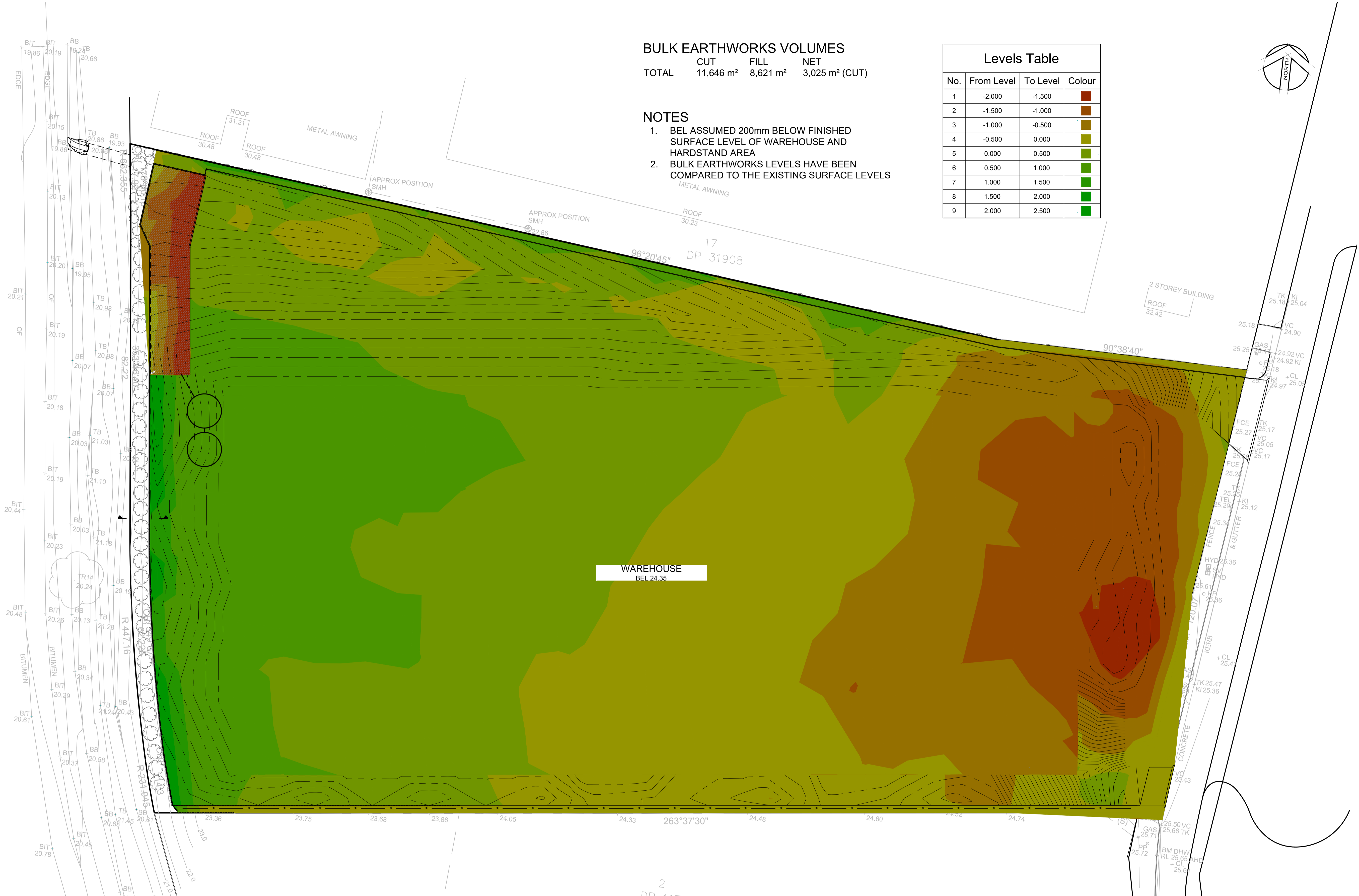
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Datum: A.H.D.

Plan No. **SY180157C114**

File Ref. SY180157C1_B.dwg
SHEET 5 OF 8 SHEETS

REV. **B**



BULK EARTHWORKS VOLUMES

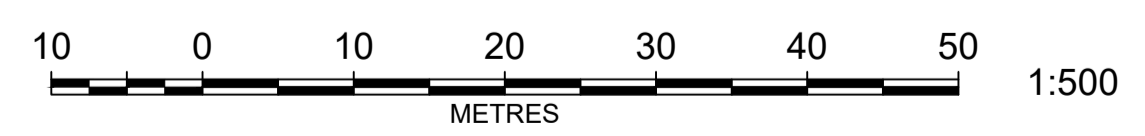
	CUT	FILL	NET
TOTAL	11,646 m ²	8,621 m ²	3,025 m ² (CUT)

Levels Table

No.	From Level	To Level	Colour
1	-2.000	-1.500	Red
2	-1.500	-1.000	Dark Orange
3	-1.000	-0.500	Orange
4	-0.500	0.000	Light Orange
5	0.000	0.500	Yellow-Green
6	0.500	1.000	Yellow
7	1.000	1.500	Light Green
8	1.500	2.000	Green
9	2.000	2.500	Dark Green

- NOTES**
- BEL ASSUMED 200mm BELOW FINISHED SURFACE LEVEL OF WAREHOUSE AND HARDSTAND AREA
 - BULK EARTHWORKS LEVELS HAVE BEEN COMPARED TO THE EXISTING SURFACE LEVELS

NOT FOR CONSTRUCTION



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Client: **BORG CONSTRUCTION**

65-75 DUNHEVED CIRCUIT, ST MARYS
PROPOSED WAREHOUSE BUILDING

CUT AND FILL PLAN

Designed: GL
 Drawn: GL
 Checked: RW

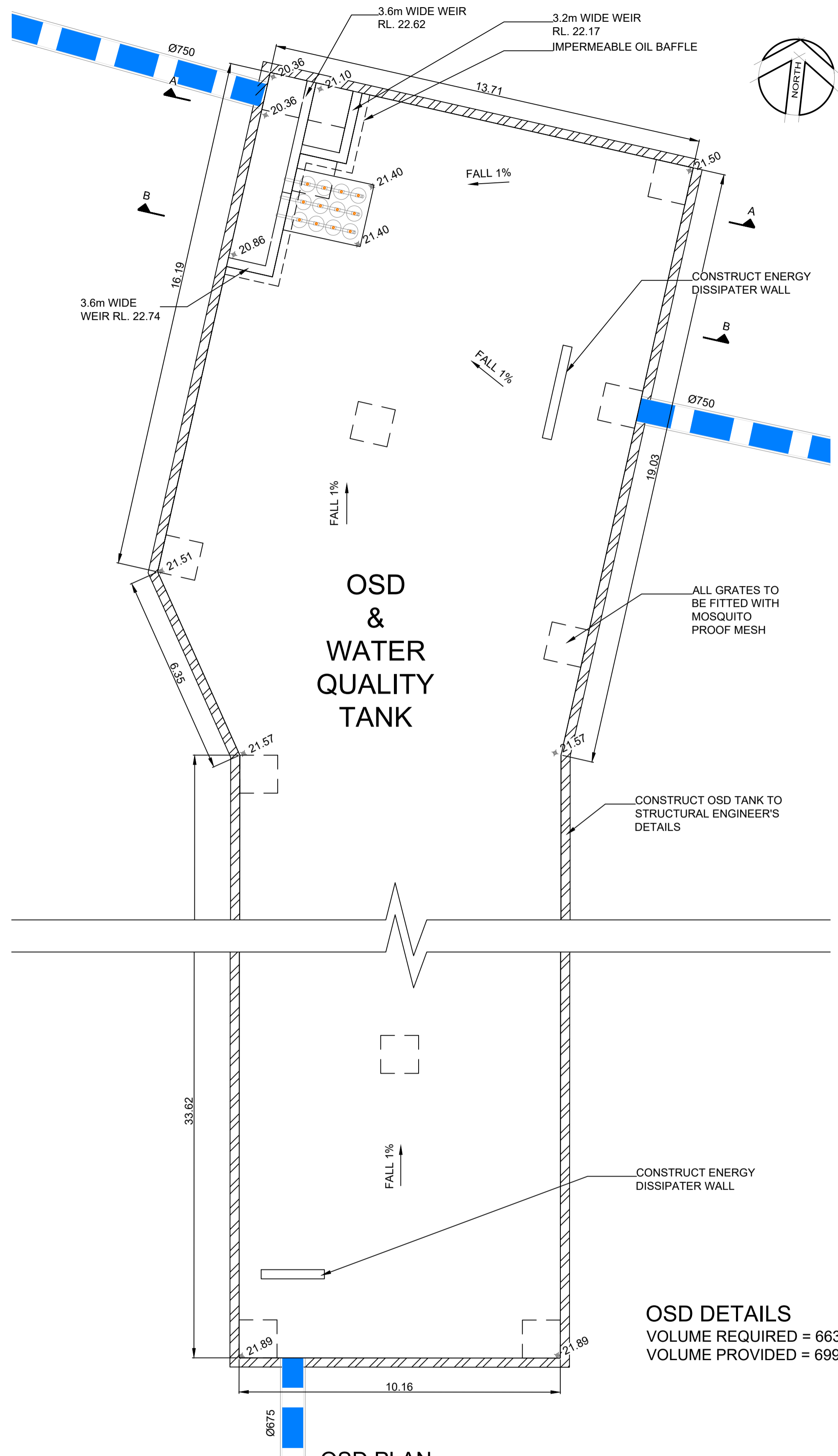
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 Horiz.
 Vert.
 X-Sect.

Datum: A.H.D.

Plan No. **SY180157C121**

File Ref. SY180157C1_B.dwg
 SHEET 6 OF 8 SHEETS

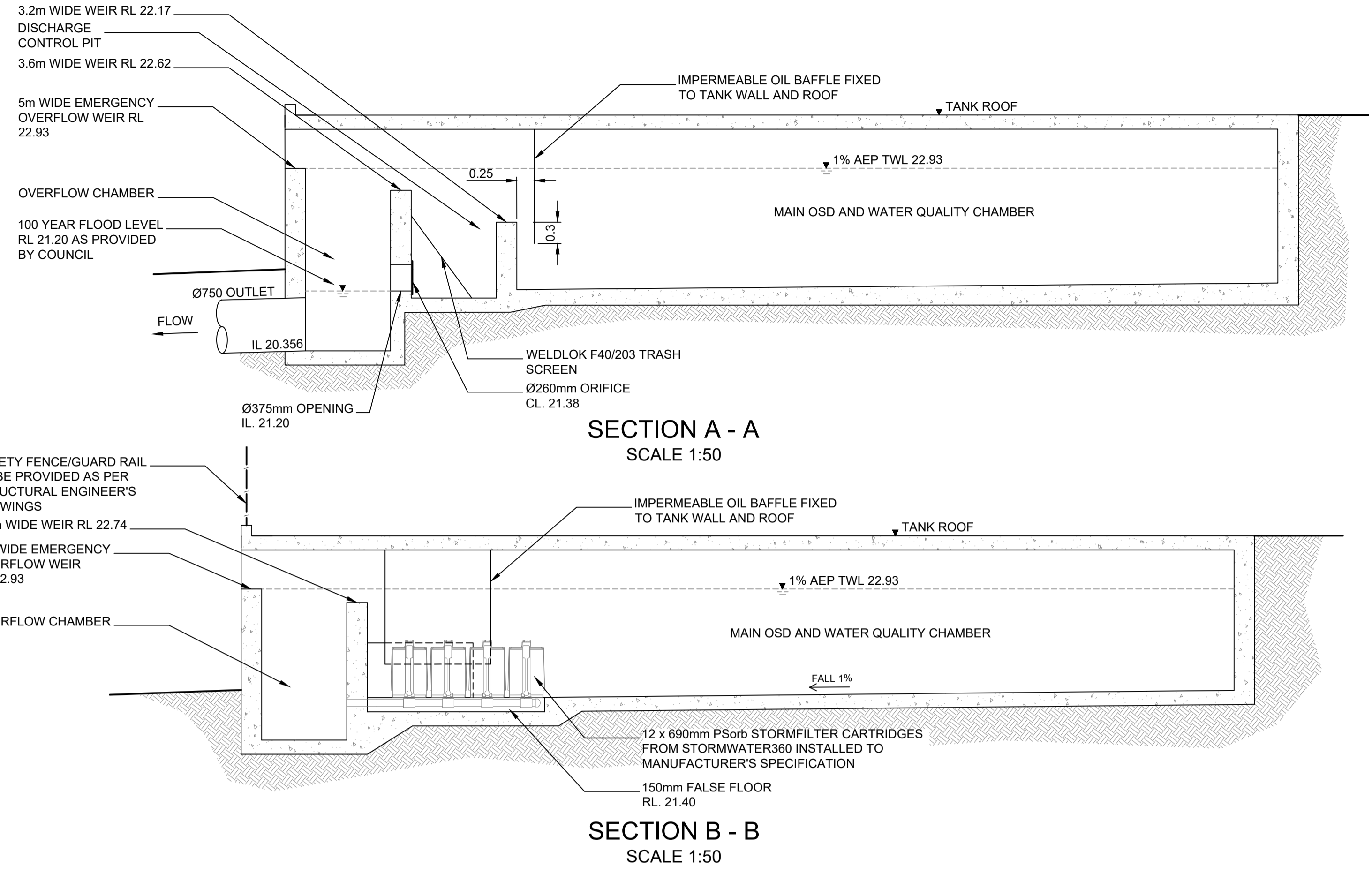
REV. **B**



OSD & WATER QUALITY TANK

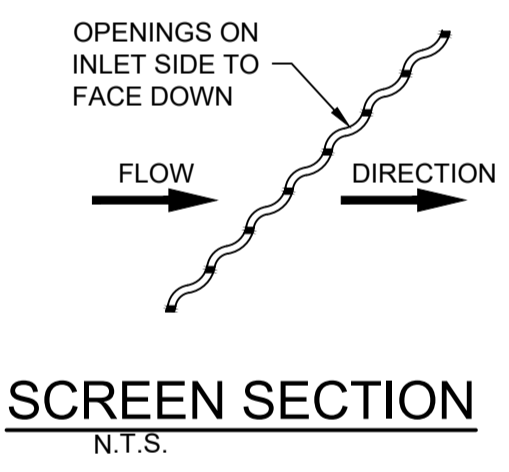
OSD PLAN
SCALE 1:100

OSD DETAILS
 VOLUME REQUIRED = 663.6 m³
 VOLUME PROVIDED = 699.7 m³

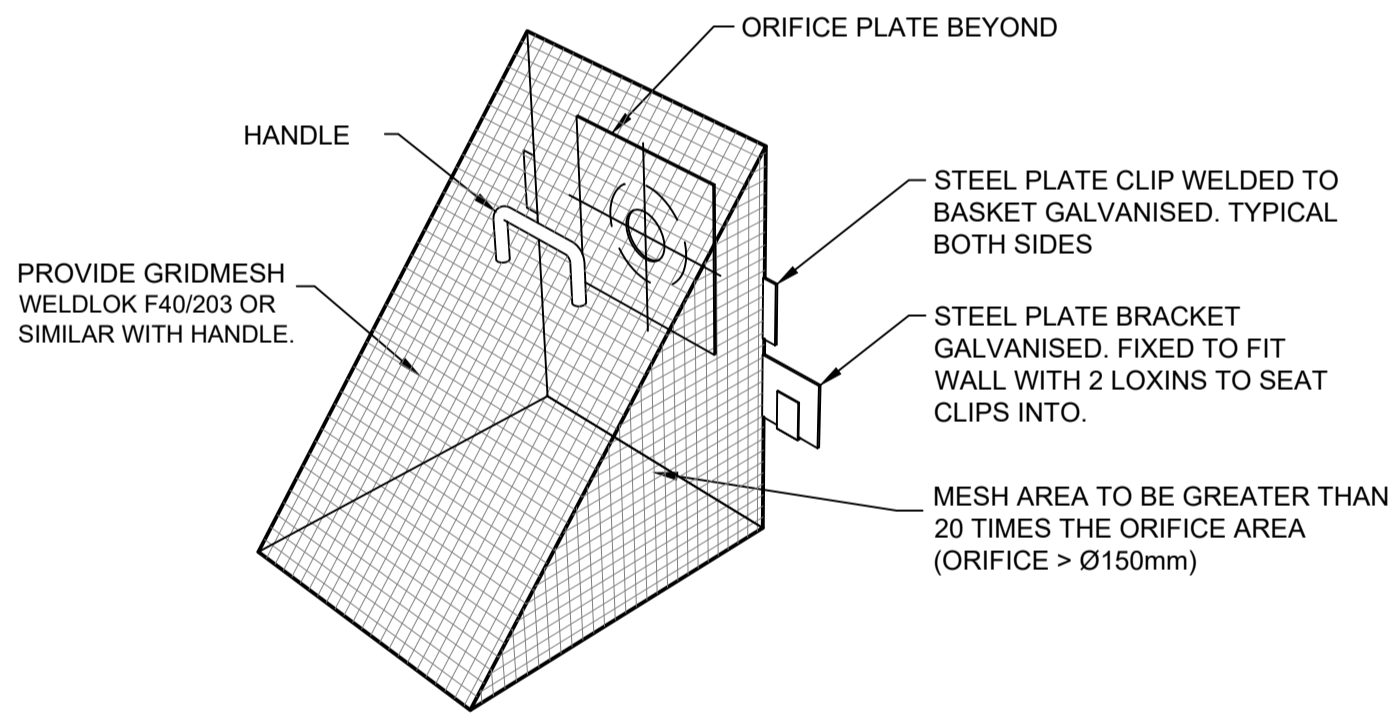


SECTION A - A
SCALE 1:50

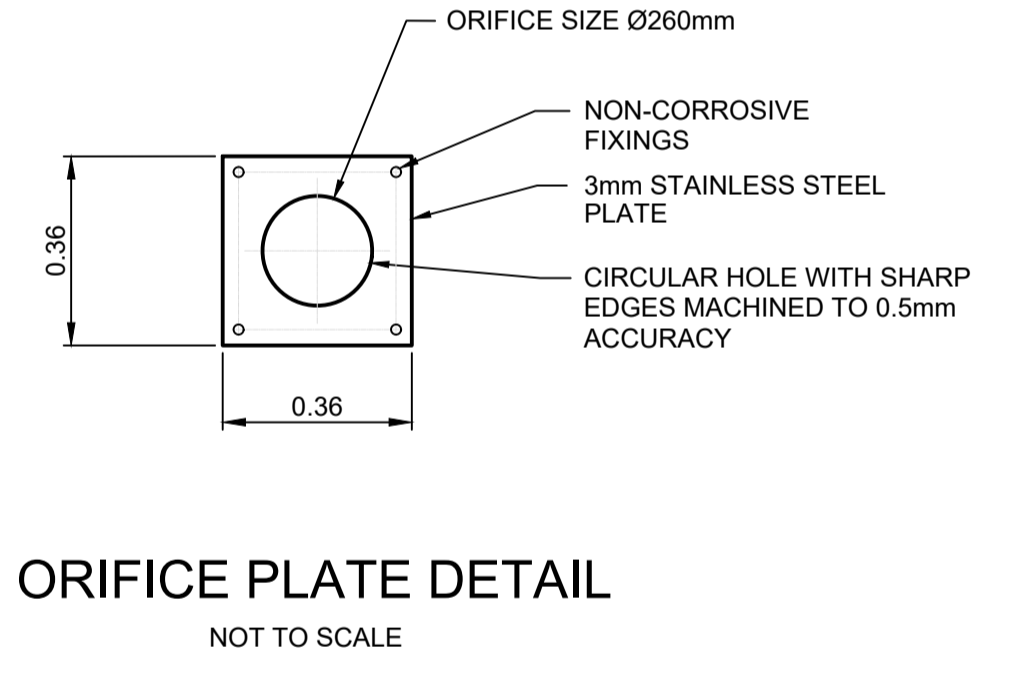
SECTION B - B
SCALE 1:50



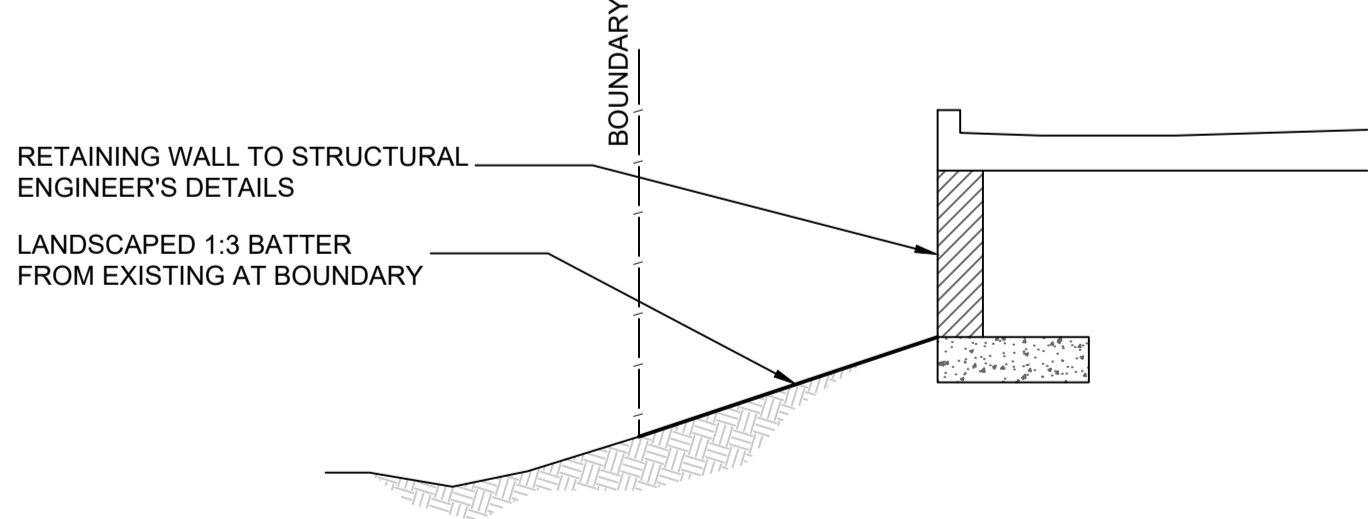
SCREEN SECTION
N.T.S.



SCREEN DETAIL WHERE
IN LARGE PIT OR TANK
N.T.S.

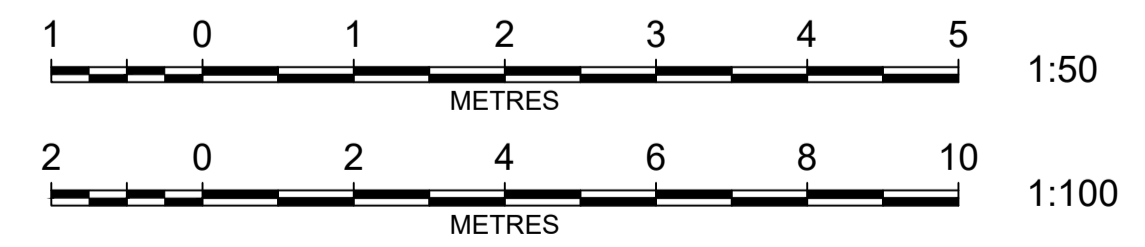


ORIFICE PLATE DETAIL
NOT TO SCALE



SECTION C - C
NOT TO SCALE

NOT FOR CONSTRUCTION



REV	AMENDMENT	ISSUED	DATE
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BARKER RYAN STEWART
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Client: **BORG CONSTRUCTION**

65-75 DUNHEVED CIRCUIT, ST MARYS
 PROPOSED WAREHOUSE BUILDING

OSD AND STORMWATER DETAILS

Designed: GL
 Drawn: GL
 Checked: RW

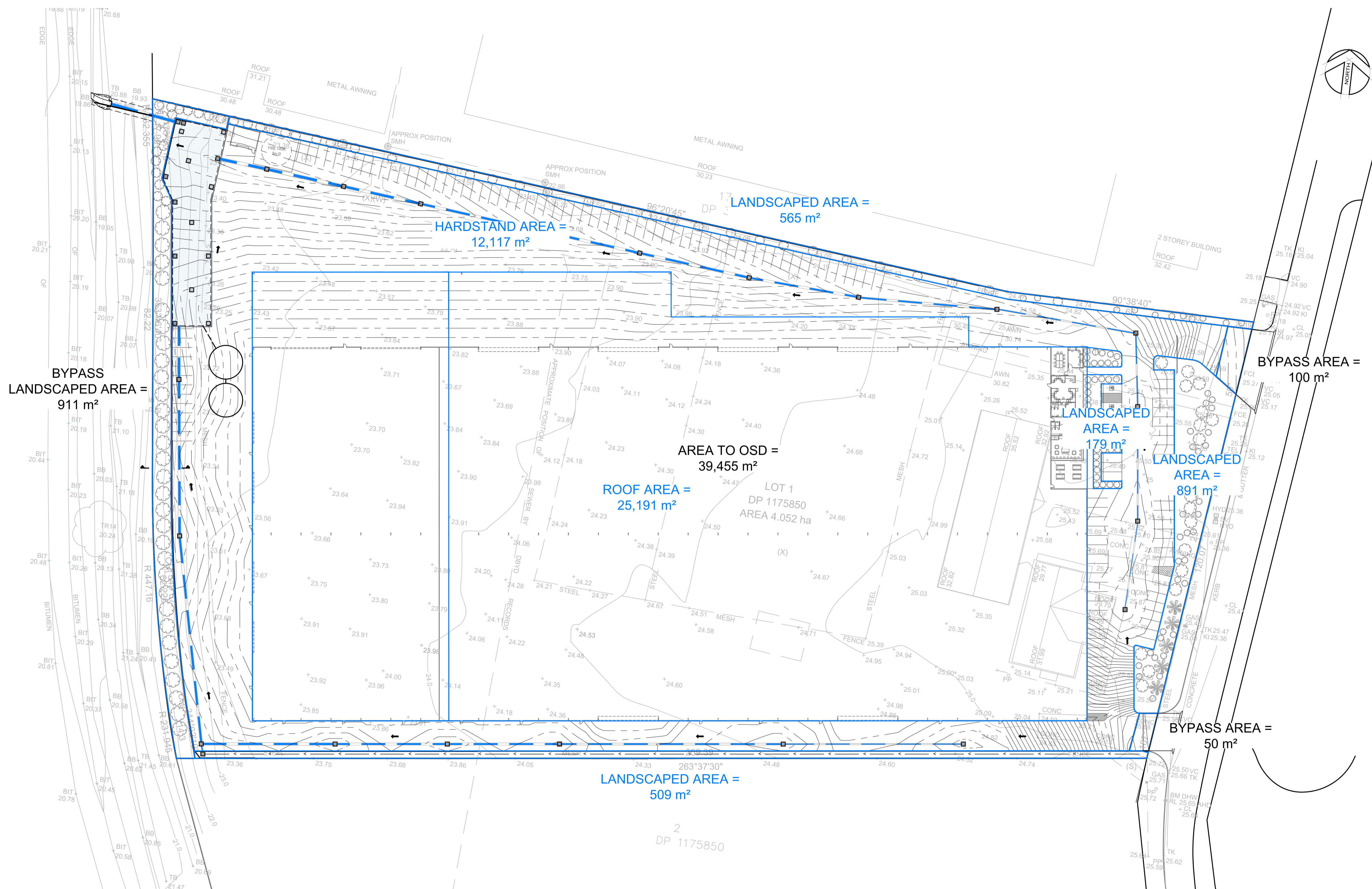
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 X-Sect.

Datum: A.H.D.

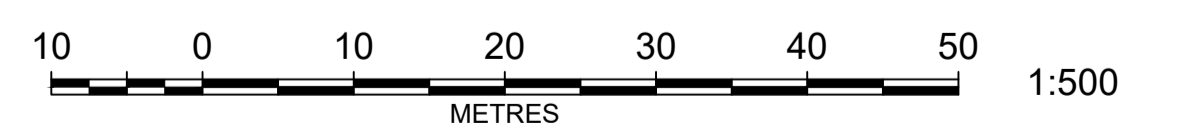
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File Ref. SY180157C1_B.dwg
 SHEET 7 OF 8 SHEETS

REV. **B**



NOT FOR CONSTRUCTION



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Client: **BORG CONSTRUCTION**

**65-75 DUNHEVED CIRCUIT, ST MARYS
PROPOSED WAREHOUSE BUILDING**

CATCHMENT PLAN

Designed: GL
Drawn: GL
Checked: RW

Scales: Plan 1:500
Horiz.
Vert.
X-Sect.

Datum: A.H.D.

Plan No. **SY180157C141**

File Ref. SY180157C1_B.dwg
SHEET 8 OF 8 SHEETS

REV. **B**