APPENDIX 5 CIVIL ENGINEERING PLANS



PROPOSED MAINFREIGT FACILITY EXPANSION

26 YARRAWA STREET, PRESTONS, NSW

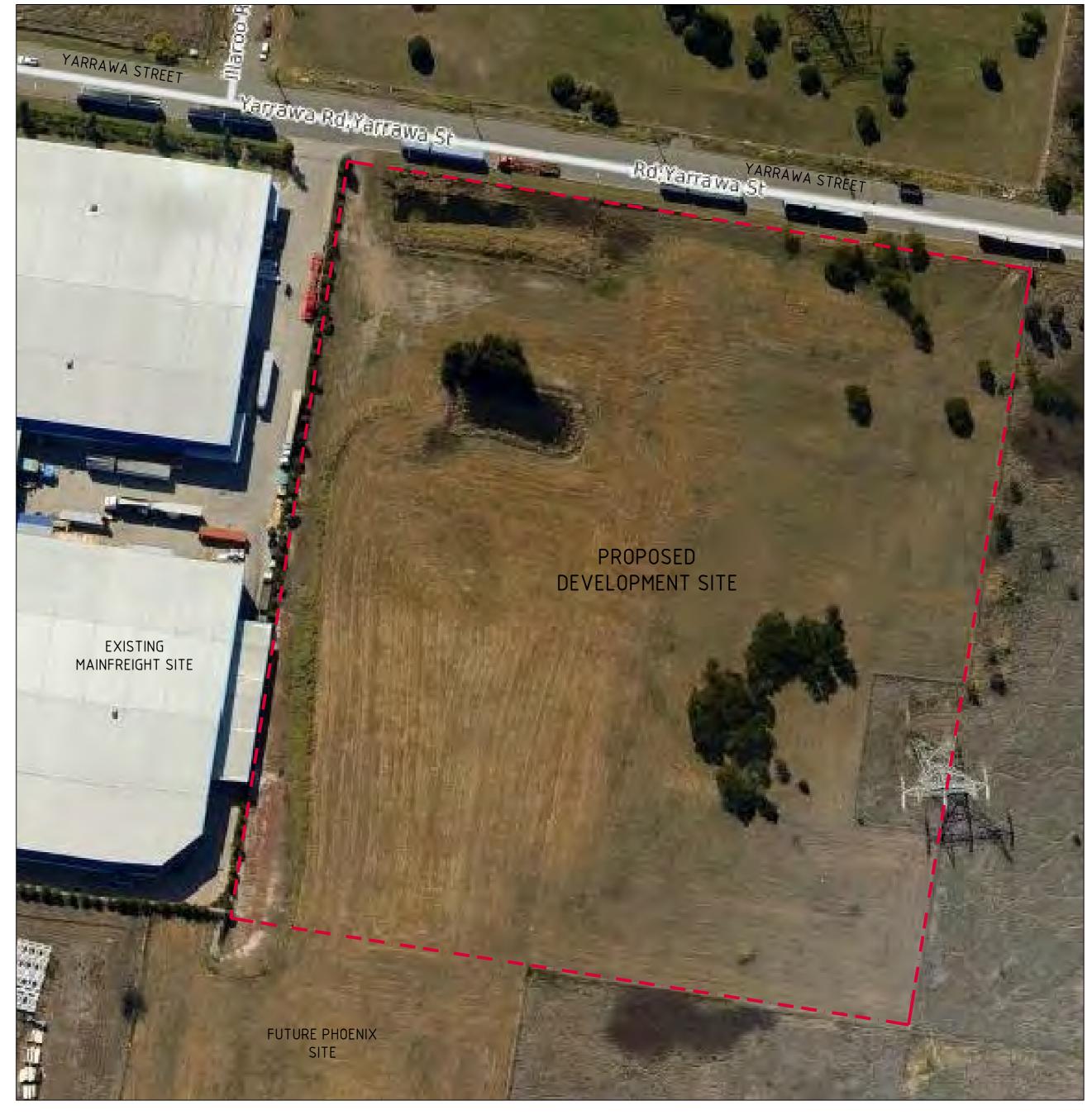
CIVIL DRAWINGS FOR DEVELOPMENT APPLICATION

DRAWING LIST

DRAWING NO. DRAWING TITLE DRAWING LIST & GENERAL NOTES Co8753.08-DA10 Co8753.08-DA15 SITE MASTER PLAN EROSION AND SEDIMENT CONTROL PLAN Co8753.08-DA20 EROSION AND SEDIMENT CONTROL DETAILS Co8753.08-DA25 CONCEPT STORMWATER MASTER PLAN Co8753.08-DA40 Co8753.08-DA41 CONCEPT STORMWATER PLAN - SHEET 1 Co8753.08-DA42 CONCEPT STORMWATER PLAN - SHEET 2 CONCEPT STORMWATER DETAILS Co8753.08-DA45 Co8753.08-DA51 FINISHED LEVELS PLAN - SHEET 1 Co8753.08-DA52 FINISHED LEVELS PLAN - SHEET 2 Co8753.08-DA70 APPROVED INFRASTRUCTURE COMPARISON PLAN

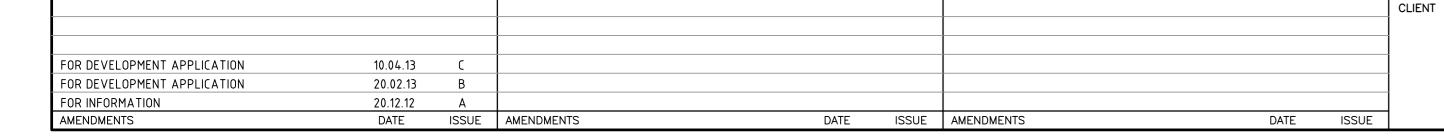
GENERAL NOTES

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATION
- G3 ALL DIMENSIONS SHOWN SHALL BE VERIFIED BY THE BUILDER ON SITE. ENGINEER'S DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS. ENGINEER'S DRAWINGS ISSUED IN ANY ELECTRONIC FORMAT MUST NOT BE USED FOR DIMENSIONAL SETOUT. REFER TO THE ARCHITECT'S DRAWINGS FOR ALL DIMENSIONAL SETOUT INFORMATION.
- G4 UNLESS NOTED OTHERWISE ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETERS.
- G5 ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH ACCEPTABLE SAFETY STANDARDS & APPROPRIATE SAFETY SIGNS SHALL BE INSTALLED AT ALL TIMES DURING THE PROGRESS OF THE JOB.
- G6 THE CONTRACTOR IS TO PERFORM A DIAL-BEFORE-YOU-DIG SEARCH & CONFIRM LOCATION OF ALL EXISTING SERVICES PRIOR TO CONSTRUCTION WORKS.





FOR DEVELOPMENT APPLICATION





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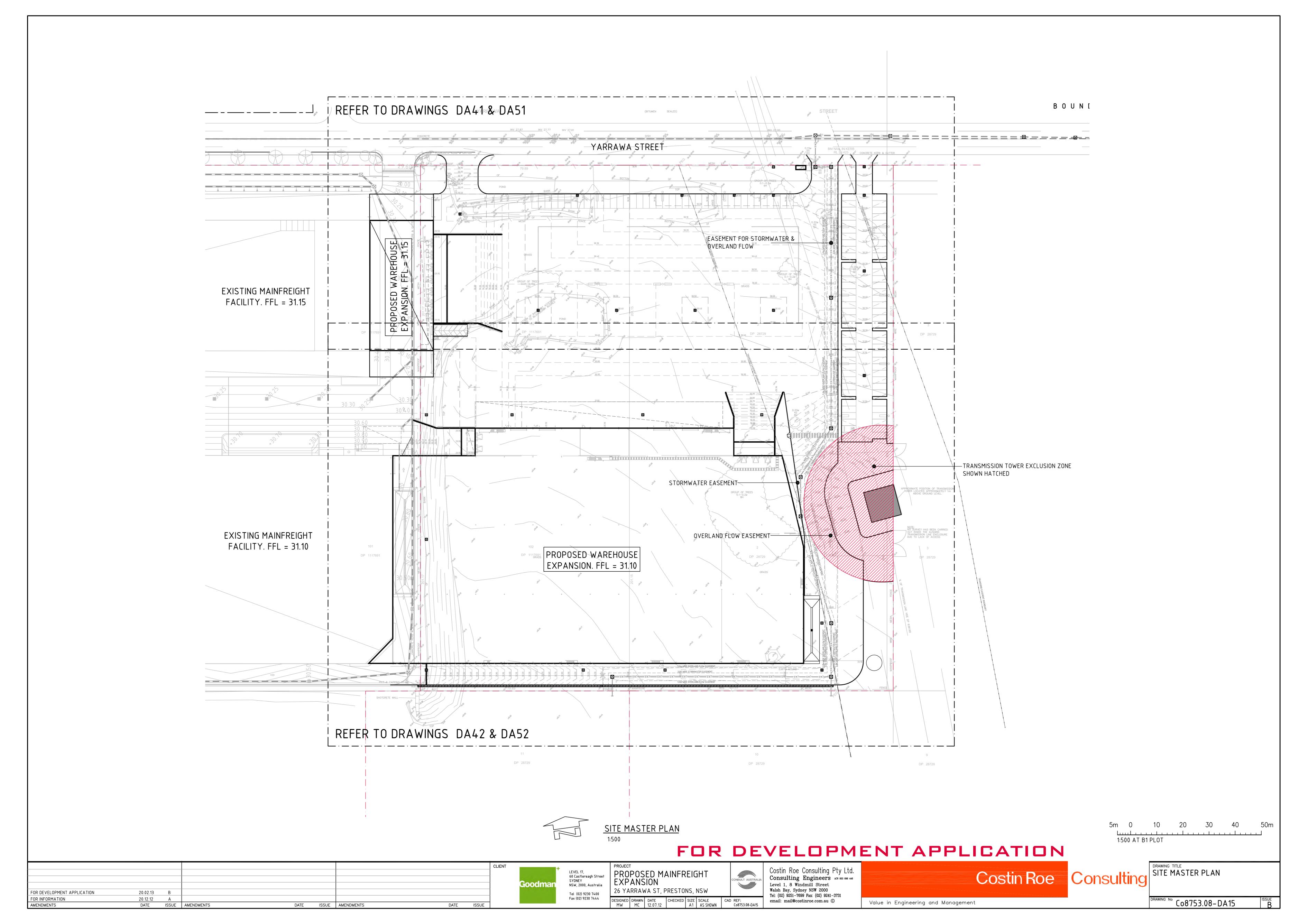
PROPOSED MAINFREIGHT EXPANSION 26 YARRAWA ST, PRESTONS, NSW

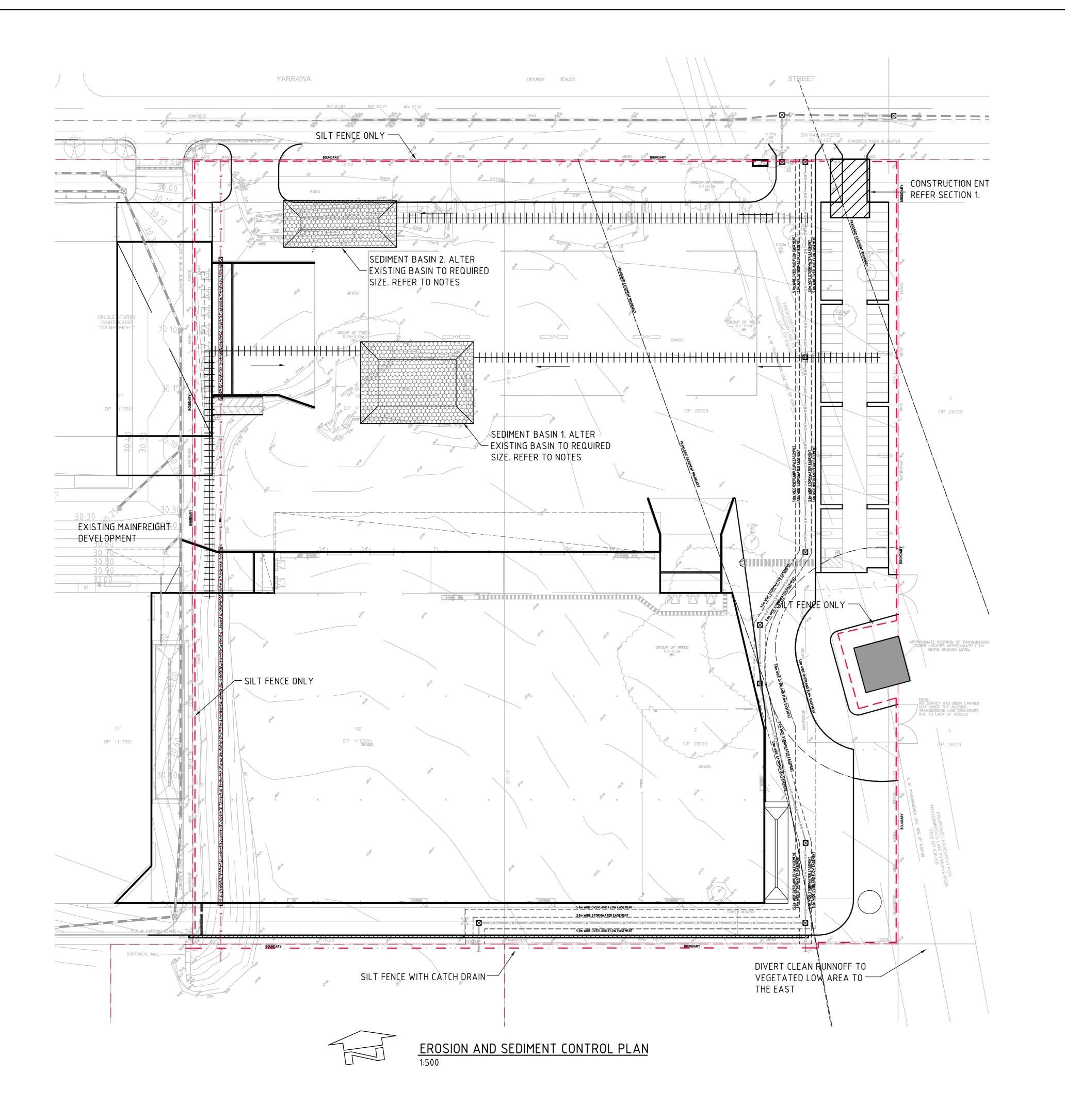
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EROSION CONTROL NOTES

- ALL CONTROL WORK INCLUDING DIVERSION BANKS AND CATCH DRAINS, V-DRAINS AND SILT FENCES SHALL BE COMPLETED DIRECTLY FOLLOWING THE COMPLETION OF THE EARTHWORKS.
- 1. SILT FENCES AND SILT FENCE RETURNS SHALL BE ERECTED CONVEX TO THE CONTOUR TO POND WATER.
- 2. HAY BALE BARRIERS AND GEOFABRIC FENCES ARE TO BE CONSTRUCTED TO TOE OF BATTER, PRIOR TO COMMENCEMENT OF EARTHWORKS,
- 3. ALL TEMPORARY EARTH BERMS, DIVERSION AND SILT DAM EMBANKMENTS ARE TO BE MACHINE COMPACTED, SEEDED AND MULCHED FOR TEMPORARY VEGETATION COVER AS SOON AS THEY HAVE BEEN FORMED.
- 4. CLEAR WATER IS TO BE DIVERTED AWAY FROM DISTURBED GROUND AND INTO THE DRAINAGE SYSTEM
- 5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND PROVIDING ON GOING ADJUSTMENT TO EROSION CONTROL MEASURES AS REQUIRED DURING CONSTRUCTION.
- 6. ALL SEDIMENT TRAPPING STRUCTURES AND DEVICES ARE TO BE INSPECTED AFTER STORMS FOR STRUCTURAL DAMAGE OR CLOGGING, TRAPPED
- MATERIAL IS TO BE REMOVED TO A SAFE, APPROVED LOCATION. 7. ALL FINAL EROSION PREVENTION MEASURES INCLUDING THE ESTABLISHMENT OF GRASSING ARE TO BE MAINTAINED UNTIL THE END OF THE
- DEFECTS LIABILITY PERIOD.
- 8. ALL EARTHWORKS AREAS SHALL BE ROLLED ON A REGULAR BASIS TO SEAL THE EARTHWORKS.
- 9. ALL FILL AREAS ARE TO BE LEFT WITH A BUND AT THE TOP OF THE SLOPE AT THE END OF EACH DAYS EARTHWORKS. THE HEIGHT OF THE BUND SHALL BE A MINIMUM OF 200MM.
- 10. ALL CUT AND FILL SLOPES ARE TO BE SEEDED AND MULCHED WITHIN 10 DAYS OF COMPLETION OF FORMATION.
- 11. AFTER REVEGETATION OF THE SITE IS COMPLETE AND THE SITE IS STABLE IN THE OPINION OF A SUITABLY QUALIFIED PERSON ALL TEMPORARY WORK SUCH AS SILT FENCE, DIVERSION DRAINS ETC SHALL BE REMOVED.
- 12. ALL TOPSOIL STOCKPILES ARE TO BE SUITABLY COVERED TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR TO PREVENT WIND AND WATER EROSION.
- 13. ANY AREA THAT IS NOT APPROVED BY THE CONTRACT ADMINISTRATOR FOR CLEARING OR DISTURBANCE BY THE CONTRACTOR'S ACTIVITIES SHALL BE CLEARLY MARKED AND SIGN POSTED, FENCED OFF OR OTHERWISE APPROPRIATELY PROTECTED AGAINST ANY SUCH DISTURBANCE
- 14. ALL STOCKPILE SITES SHALL BE SITUATED IN AREAS APPROVED FOR SUCH USE BY THE CONTRACT ADMINISTRATOR. A 6m BUFFER ZONE SHALL EXIST BETWEEN STOCKPILE SITES AND ANY STREAM OR FLOW PATH. ALL STOCKPILES SHALL BE ADEQUATELY PROTECTED FROM EROSION AND CONTAMINATION OF THE SURROUNDING AREA BY USE OF THE MEASURES APPROVED IN THE EROSION AND SEDIMENTATION CONTROL PLAN.
- 15. ACCESS AND EXIT AREAS SHALL INCLUDE SHAKE-DOWN OR OTHER METHODS APPROVED BY THE CONTRACT ADMINISTRATOR FOR THE REMOVAL OF SOIL MATERIALS FORM MOTOR VEHICLES.
- 16. THE CONTRACTOR IS TO ENSURE RUNOFF FROM ALL AREAS WHERE THE NATURAL SURFACE IS DISTURBED BY CONSTRUCTION, INCLUDING ACCESS ROADS, DEPOT AND STOCKPILE SITES, SHALL BE FREE OF POLLUTANTS BEFORE IT IS EITHER DISPERSED TO STABLE AREAS OR DIRECTED TO
- 17. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SLOPES, CROWNS AND DRAINS ON ALL EXCAVATIONS AND EMBANKMENTS TO ENSURE SATISFACTORY DRAINAGE AT ALL TIMES WATER SHALL NOT BE ALLOWED TO POND ON THE WORKS UNLESS SUCH PONDING IS PART OF AN APPROVED ESCP / SWMP.
- 18. THE CONTRACTOR SHALL INCORPORATE THE MEASURES ON THIS PLAN WITHIN THE CONTRACTORS CONSTRUCTION MANAGEMENT PLAN.

SEDIMENTATION BASIN NOTE:

SEDIMENTATION BASIN SIZING BASED ON RECOMMENDATIONS OF 'SOILS AND CONSTRUCTION, MANAGING URBAN STORMWATER-THE BLUE BOOK'.

CAPACITY BASED UPON 5 DAY RAINFALL DEPTH AT 85th PERCENTILE INTENSITY (32.2mm).

APPROXIMATE AREA OF SITE = 3.6ha

= 580m³ REQUIRED SETTLING ZONE VOLUME

REQUIRED SEDIMENT STORAGE ZONE VOLUME = 290m³

TOTAL REQUIRED BASIN VOLUME

SEDIMENTATION BASIN 1 DIMENSIONS:

 $= 20.0 \text{m} \times 12.0 \text{m}$ BASE DIMENSIONS (L X B) TOP DIMENSIONS (L X B) $= 29.0 \text{m} \times 21.0 \text{m}$ MAX SIDE SLOPE = 1V:3H

= 869m³

= 616m³

= 1.5m

TOTAL VOLUME PROVIDED

SEDIMENTATION BASIN 2 DIMENSIONS: BASE DIMENSIONS (L X B) $= 20.0 \text{m} \times 3.0 \text{m}$ TOP DIMENSIONS (L X B) $= 29.0 \text{m} \times 12.0 \text{m}$

MAX SIDE SLOPE = 1V:3H = 1.5m TOTAL VOLUME PROVIDED = 276m³

SEDIMENTATION BASIN TO BE CONSTRUCTED TO DIMENSIONS AS SPECIFIED ABOVE AND TO BE FENCED.

BASIN IS TO HAVE SEDIMENT MARKER PLACED AS PER DETAIL ON DRG FC25 TO INDICATE WHEN SEDIMENT IS TO BE REMOVED. REMOVED SEDIMENT IS TO BE CLASSED AND DEWATERED PRIOR TO REMOVAL FROM SITE.

ALLOWANCE IS TO BE MADE DURING BENCHING OF SITE TO ENSURE RUN-OFF IS DIRECTED TO SEDIMENTATION BASIN.

VEHICLE NOTE:

ANY VEHICLES THAT ENTER THE SITE AND LEAVE THE SEALED PAVEMENT AREA ARE TO HAVE THEIR WHEELS WASHED PRIOR TO LEAVING THE SITE WITH THE WASH RUN-OFF DIRECTED TO THE SEDIMENTATION BASINS.

PROVIDE 1m RETURNS TO SILT FENCE AT 30m MAX. INTERVALS. TYPICAL (N.S.O.P.)

- SILT FENCE WITH CATCH DRAIN. - SILT FENCE ONLY

- DIVERSION DRAIN

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CLIENT FOR DEVELOPMENT APPLICATION 20.02.13 E FOR INFORMATION DATE ISSUE AMENDMENTS DATE ISSUE AMENDMENTS AMENDMENTS

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PROPOSED MAINFREIGHT EXPANSION 26 YARRAWA ST, PRESTONS, NSW A1 AS SHOWN

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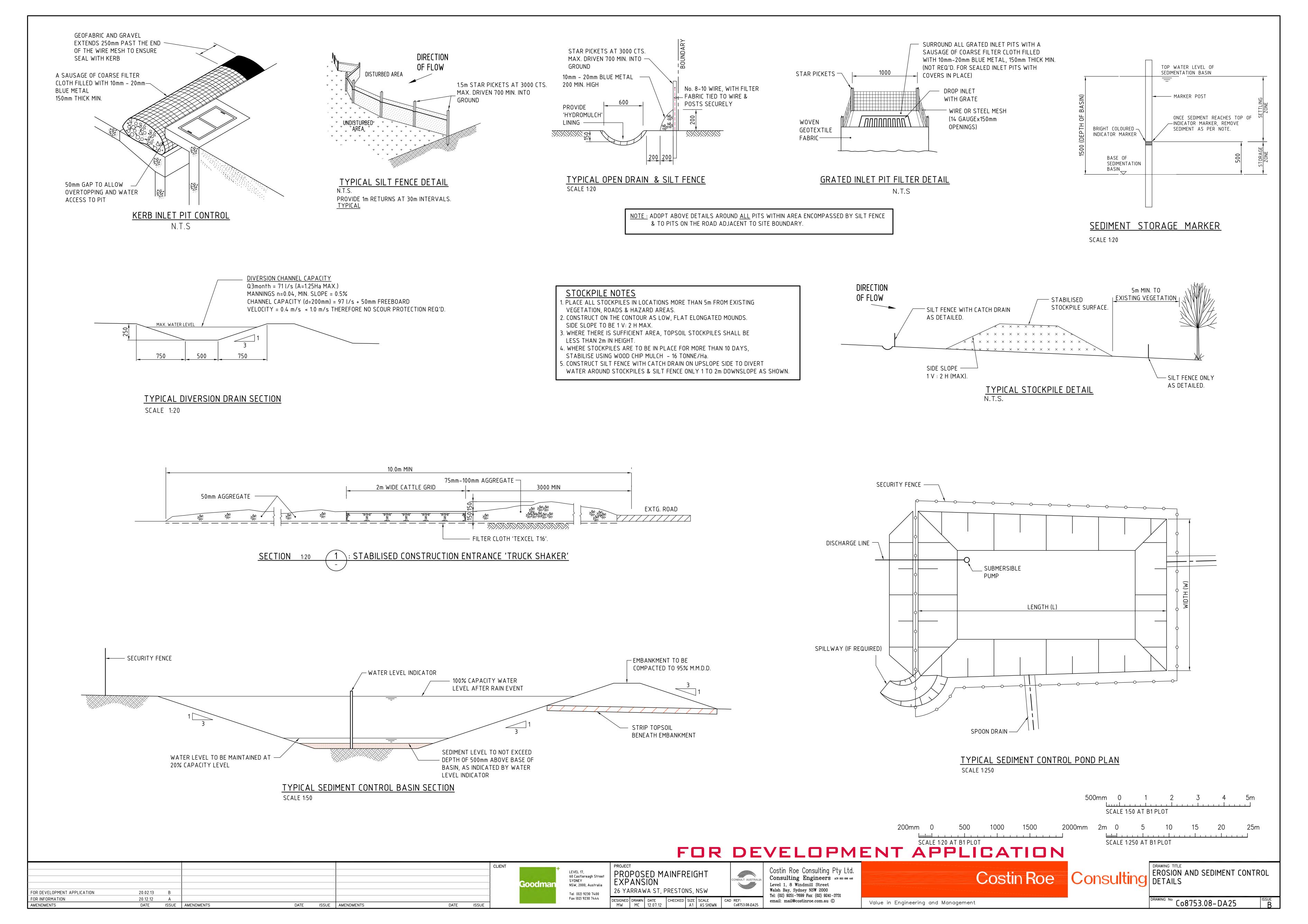
1:500 AT B1 PLOT

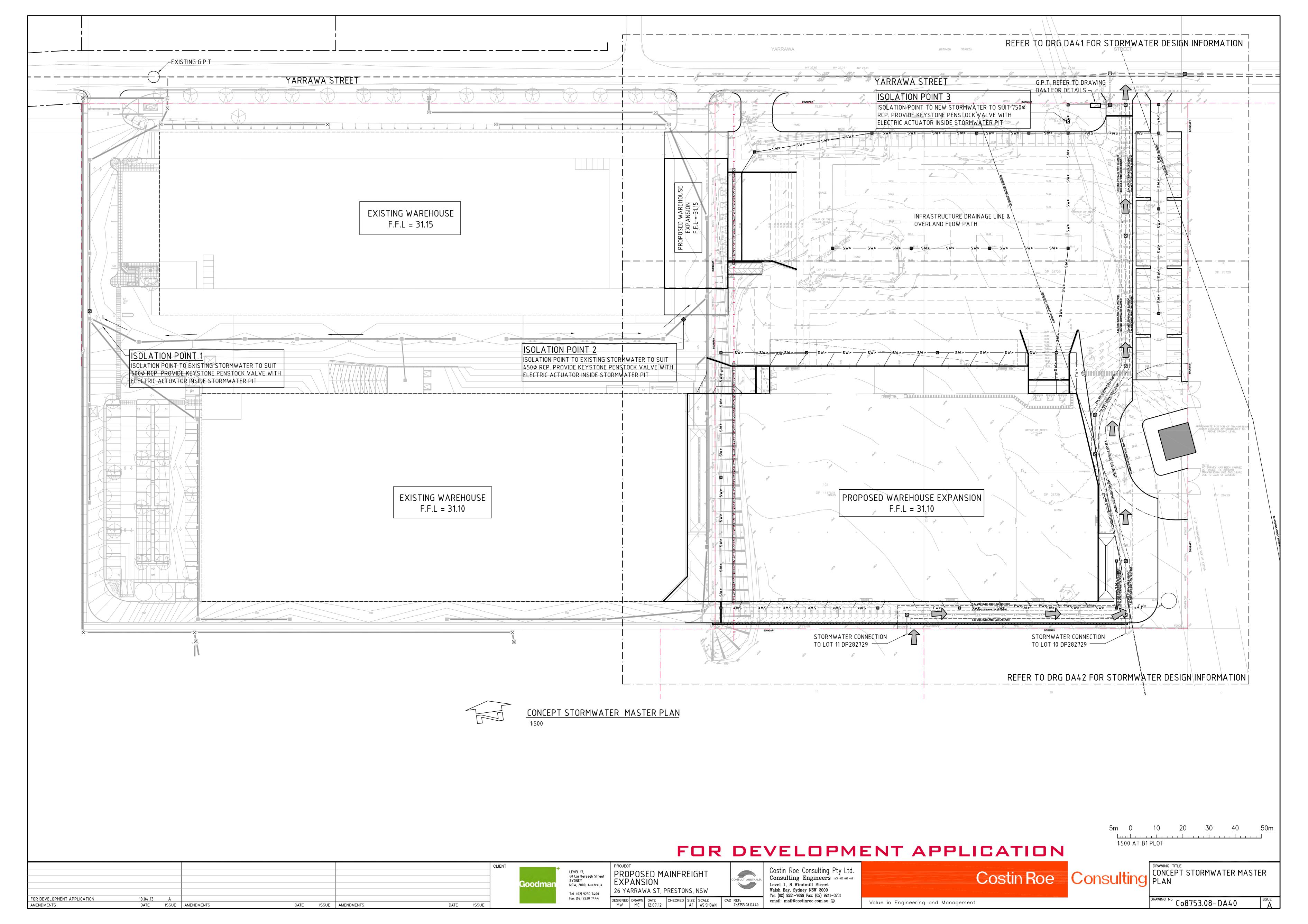
Costin Roe Consulting EROSION AND SEDIMENT CONTROL PLAN

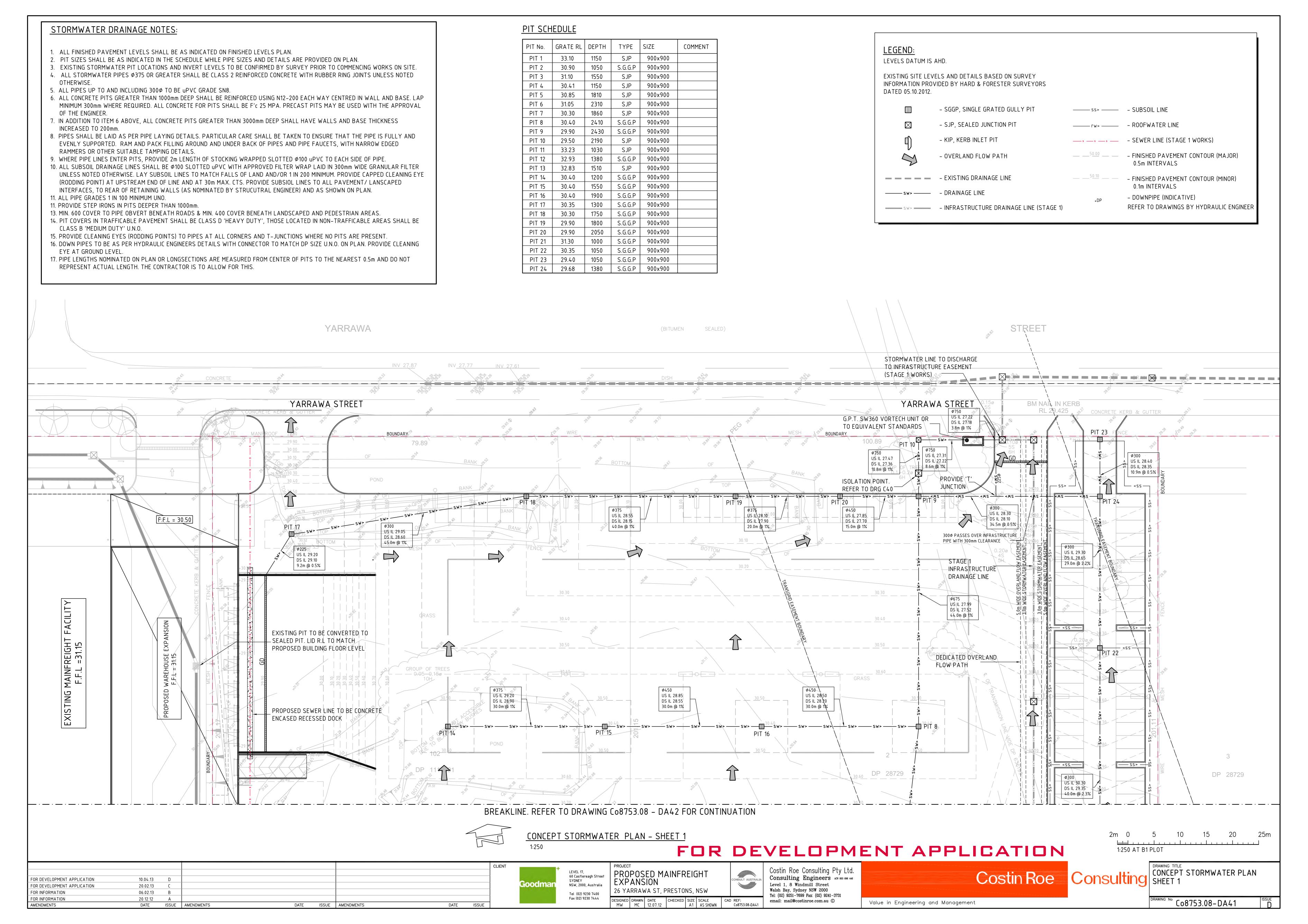
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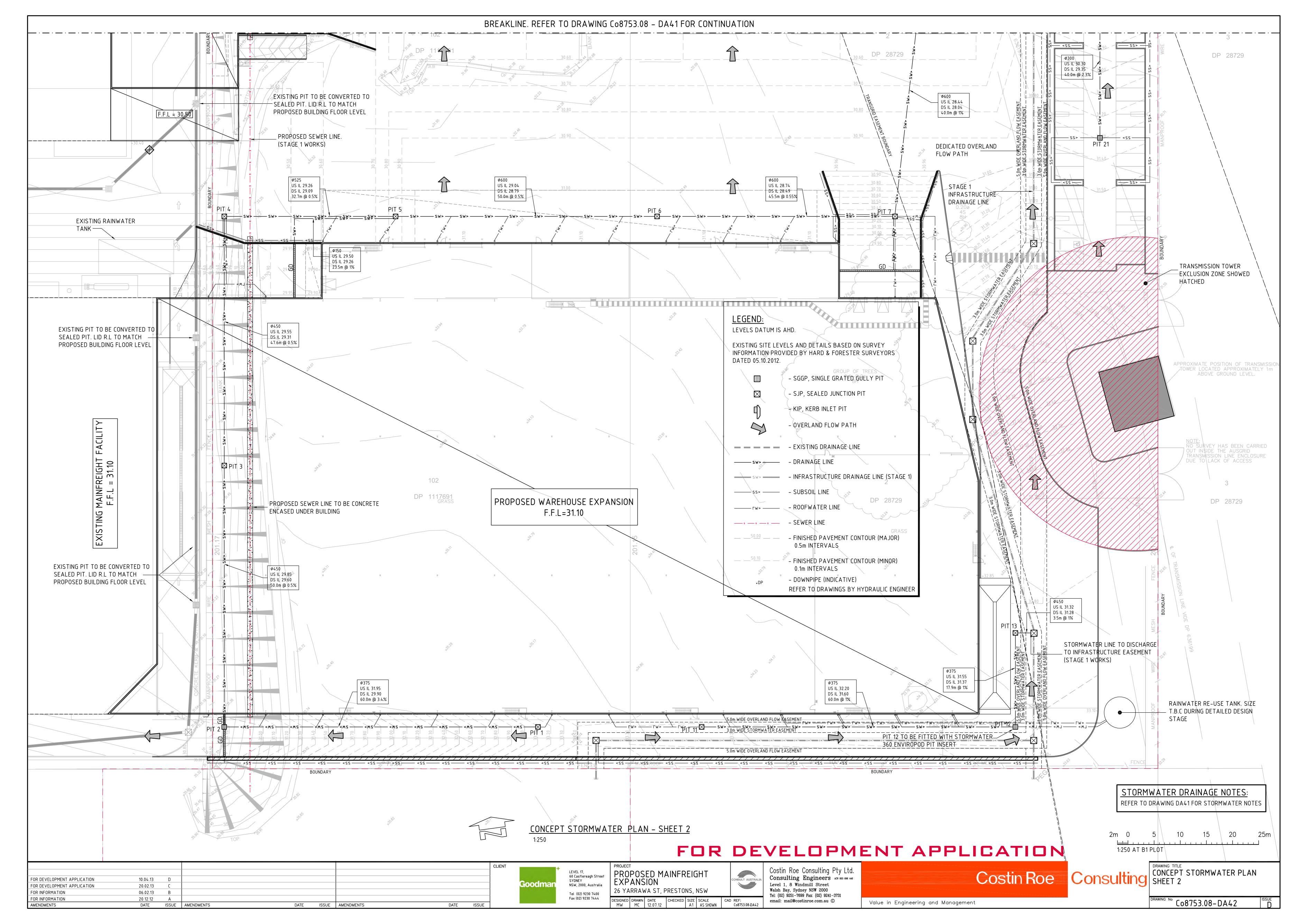
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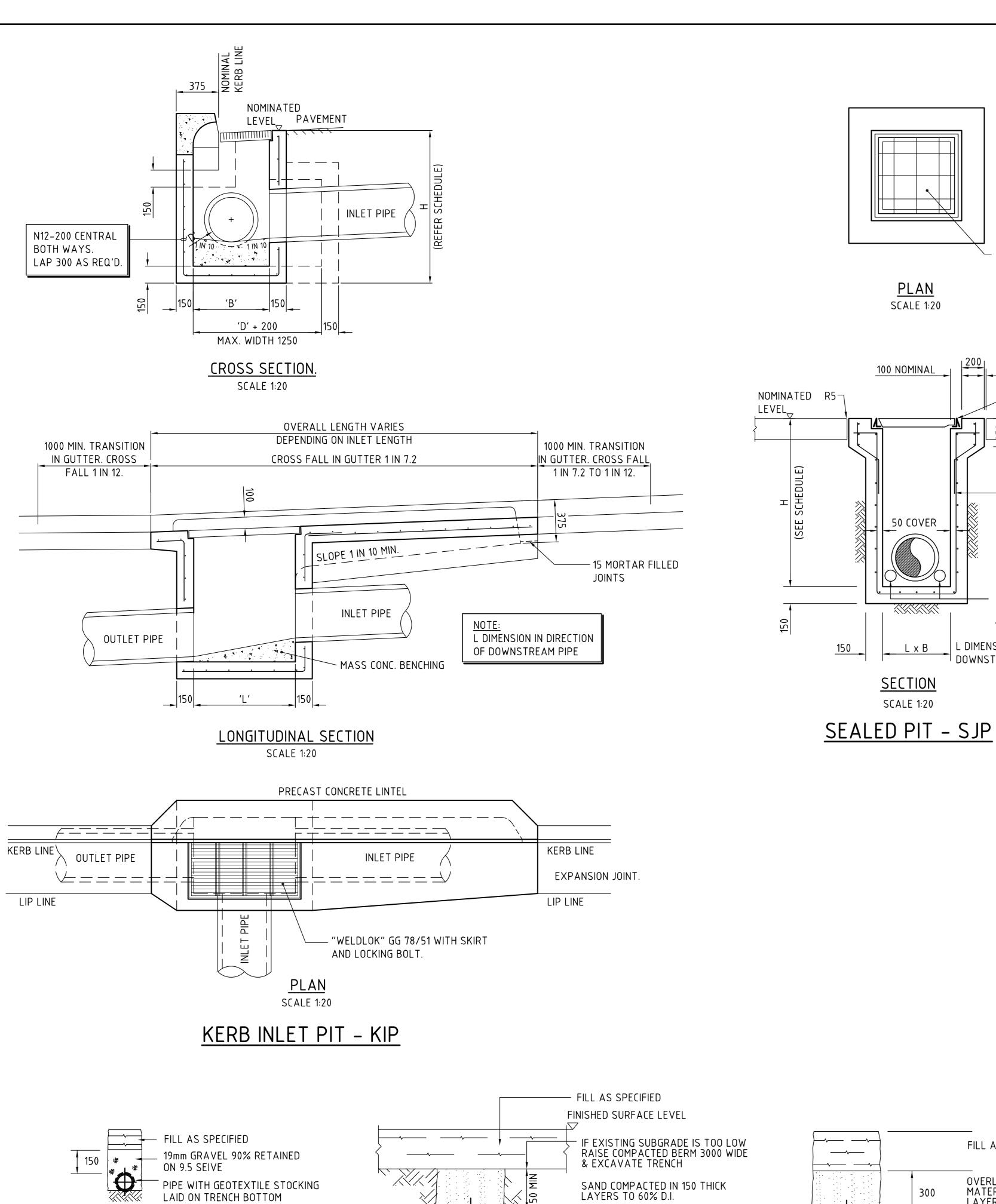
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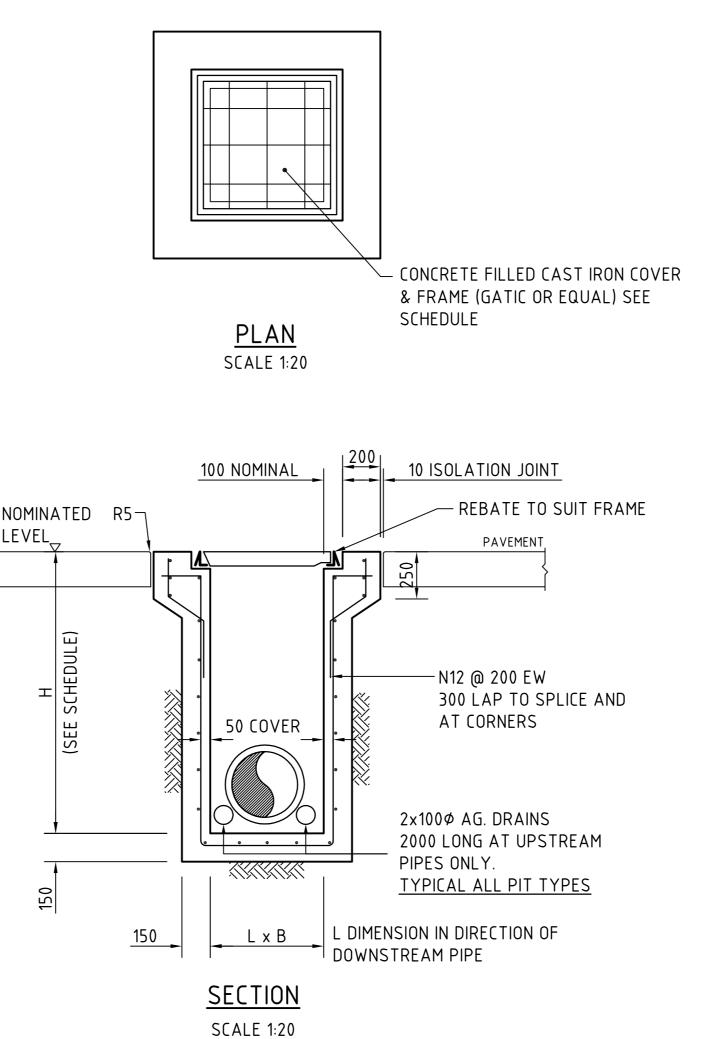


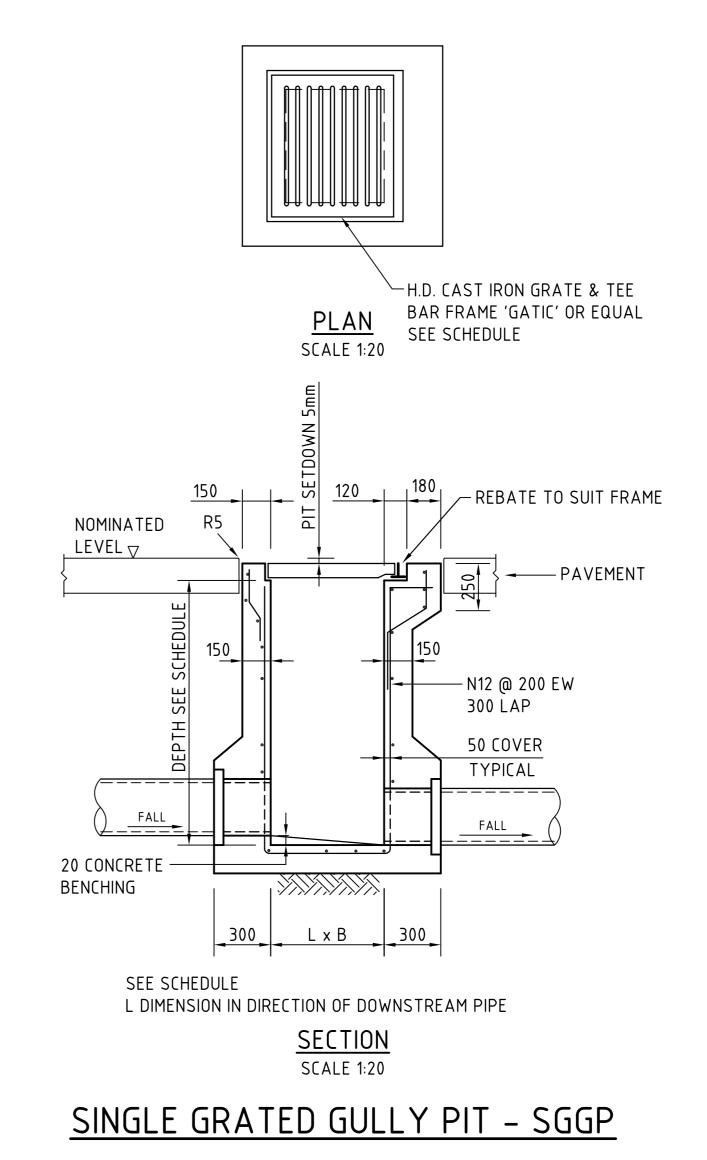


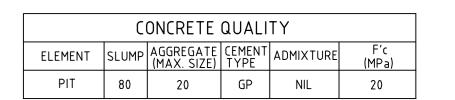






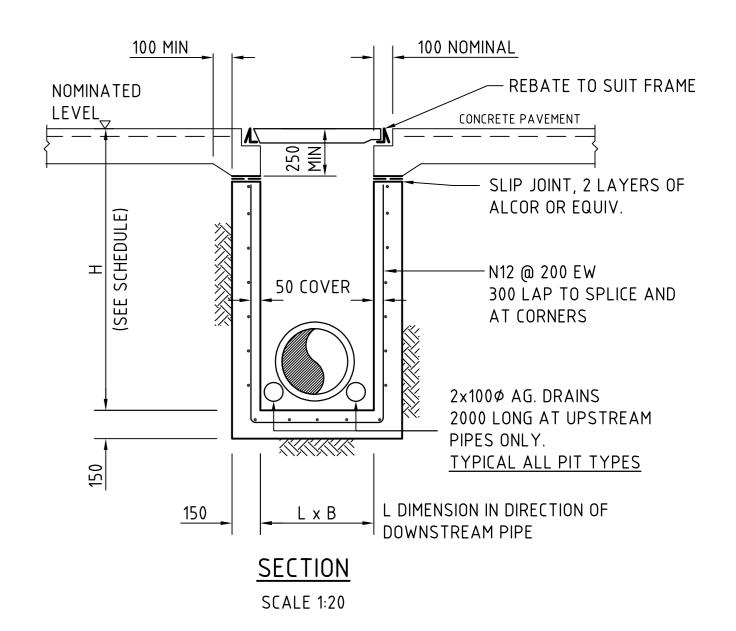






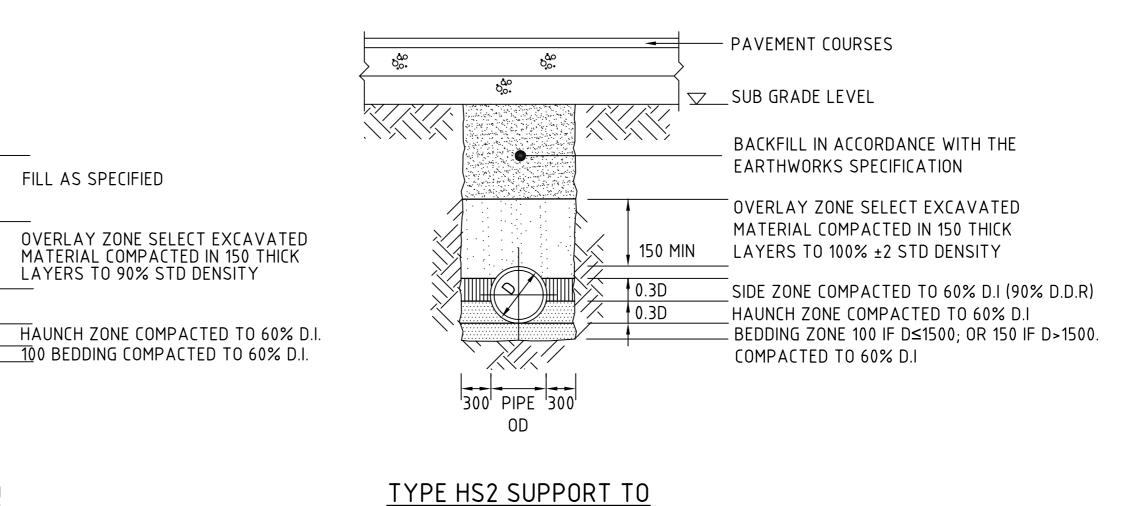
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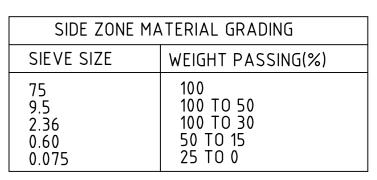
- 1. WHERE GULLY PIT IS LOCATED ON KERB RETURNS OR BULB OF CUL-DE-SACS PROVIDE CURVED PRECAST CONCRETE LINTELS.
- 2. SAG PITS SHALL HAVE LINTEL PLACED CENTRALLY ABOUT THE GRATE.
- 3. ALL REINFORCING TO HAVE 30 MIN. CLAER CONCRETE COVER.
- 4. FOR PITS DEEPER THAN 1200mm CLIMB RAILS SHALL BE PROVIDED.



ALTERNATIVE PIT DETAIL GRATE/COVER SUPPORT CAST-INTO PAVEMENT SLAB

(ADOPT AS REQUIRED FOR SGGP's & SJP's)





BEDDING & HAUNCH MATERIAL GRADING

100 TO 50

90 TO 20

60 TO 10

25 TO 0

10 TO 0

WEIGHT PASSING(%)

SIEVE SIZE

0.15

0.075

SELECT FILL MATERIAL IN ACCORDANCE WITH **TABLE 1 AS 3725**

PIPE LAYING DETAILS

75 SAND BEDDING COMPACTED TO 60% D.I.

PIPE 200 OD 200

SUPPORT TO uPVC PIPES

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SCALE 1:20 AT A1 PLOT

CONCEPT STORMWATER DETAILS Co8753.08-DA45

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300 NOM.

SUPPORT TO AG. DRAIN



NSW, 2000, Australia Tel (02) 9230 7400 Fax (02) 9230 7444

PIPE 300 OD 300

TYPE H1 SUPPORT TO

CONCRETE PIPES AT LANDSCAPED AREAS

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A1 AS SHOWN C08753.08-DA45

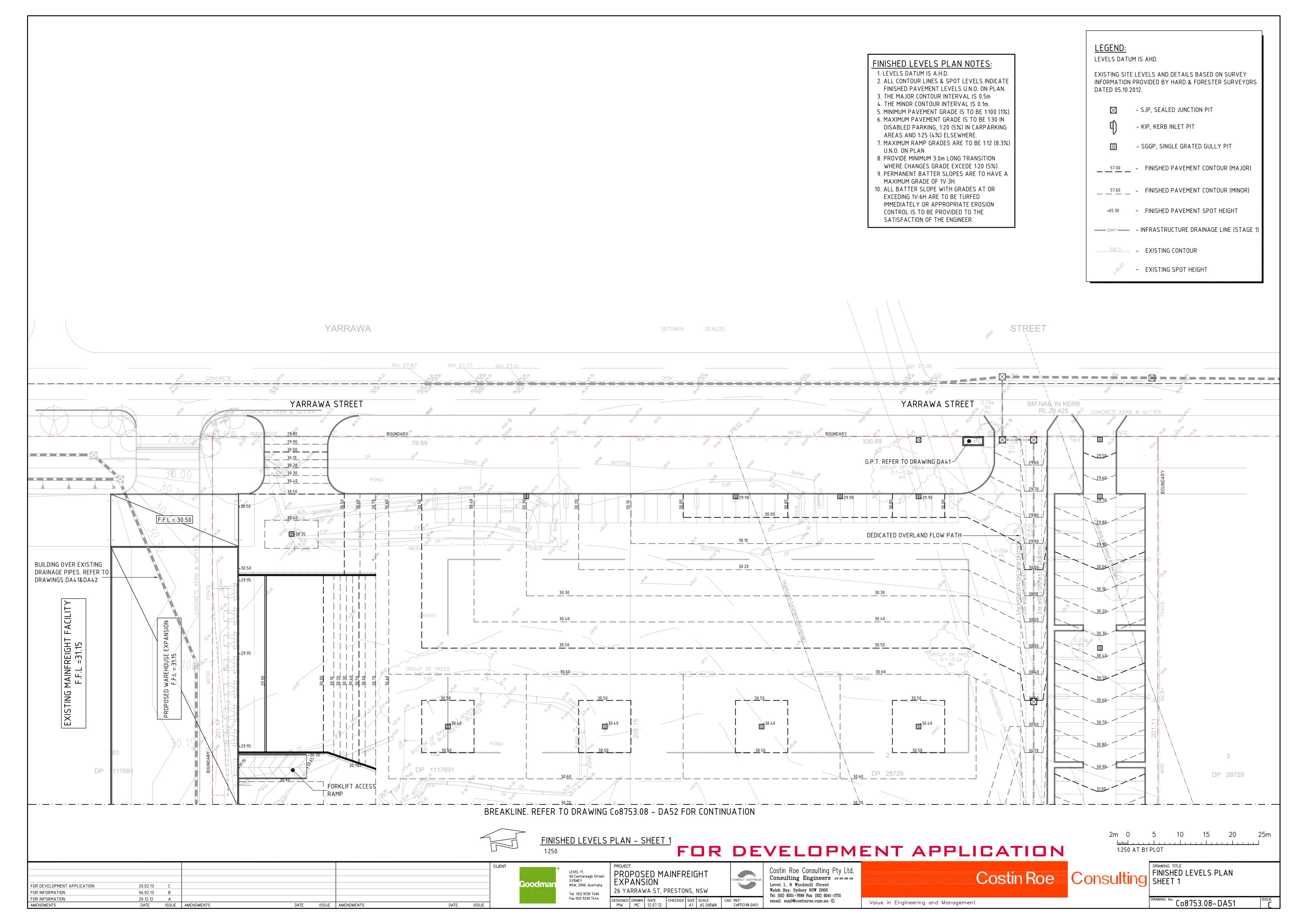
FILL AS SPECIFIED

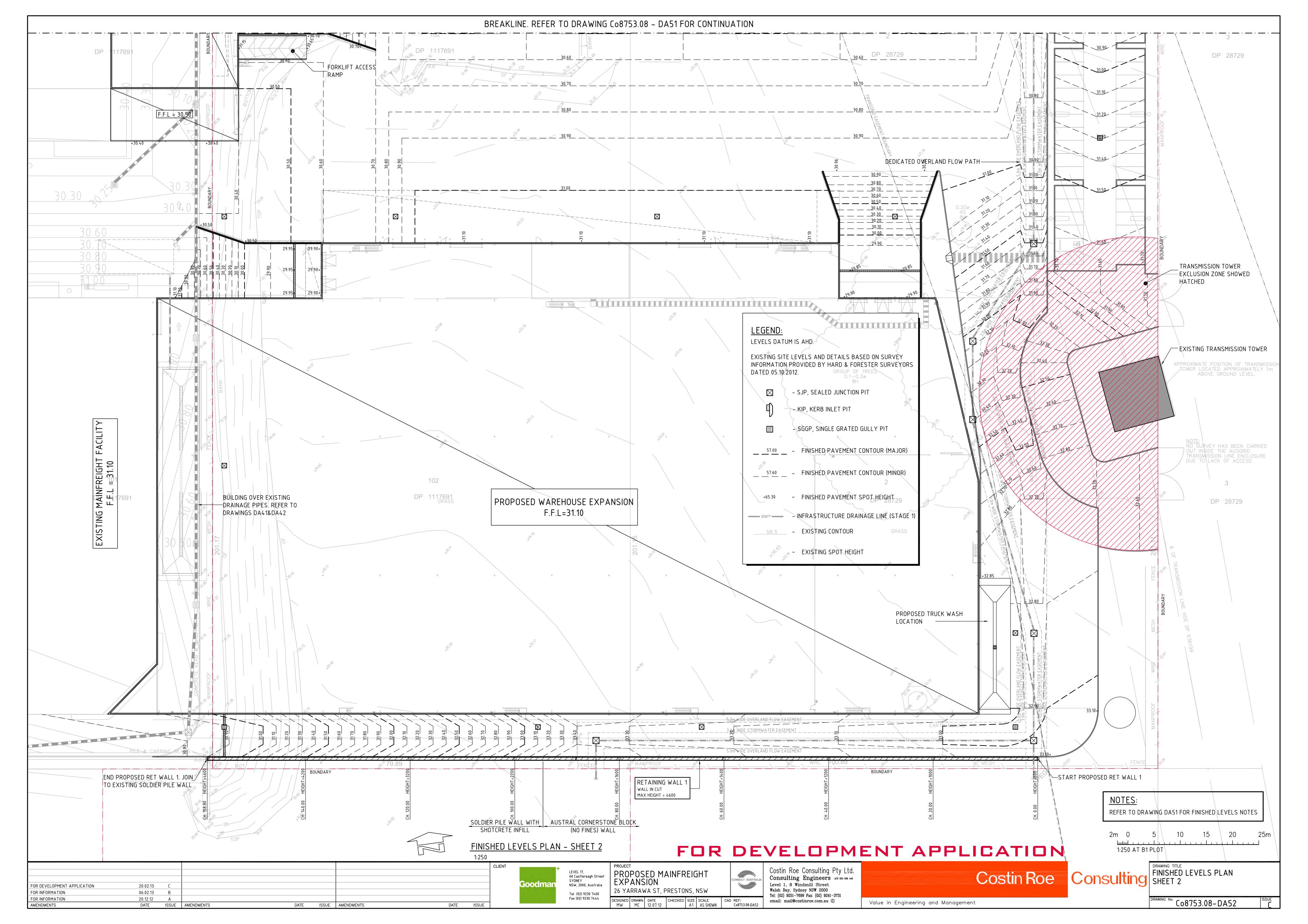
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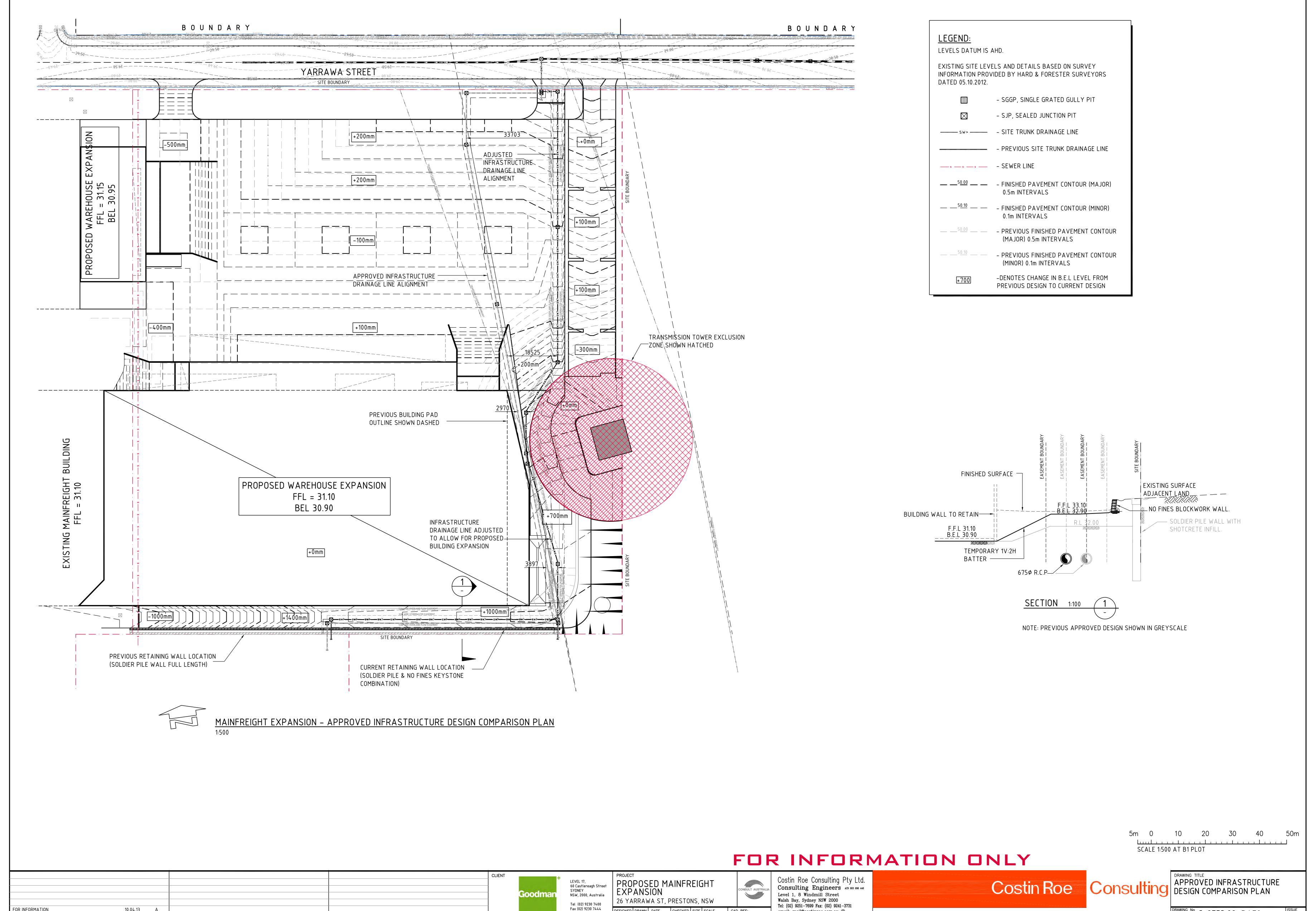
CONCRETE PIPES

UNDER PAVEMENT

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Fax (02) 9230 7444

DESIGNED DRAWN DATE
MW MC 05.04.13

CHECKED SIZE SCALE CAD REF:

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10.04.13 A

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