STATE SIGNIFICANT DEVELOPMENT APPLICATION
YIRIBANA LOGISTICS ESTATE
754-770 & 784-786 MAMRE ROAD, KEMPS CREEK, NSW, 2178

DRAWING LIST

DRAWING NO.	DRAWING TITLE
C013874.06- SSDA100	DRAWING LIST AND LOCALITY PLAN
C013874.06- SSDA110	GENERAL NOTES
C013874.06- SSDA200	EROSION AND SEDIMENT CONTROL PLAN - STAGE 1
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C013874.06- SSDA250	EROSION AND SEDIMENT CONTROL DETAILS
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C013874.06- SSDA400	STORMWATER DRAINAGE MASTER PLAN
C013874.06- SSDA401	PRE-DEVELOPMENT STORMWATER CATCHMENT PLAN
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C013874.06- SSDA500	ROADWORKS MASTER PLAN
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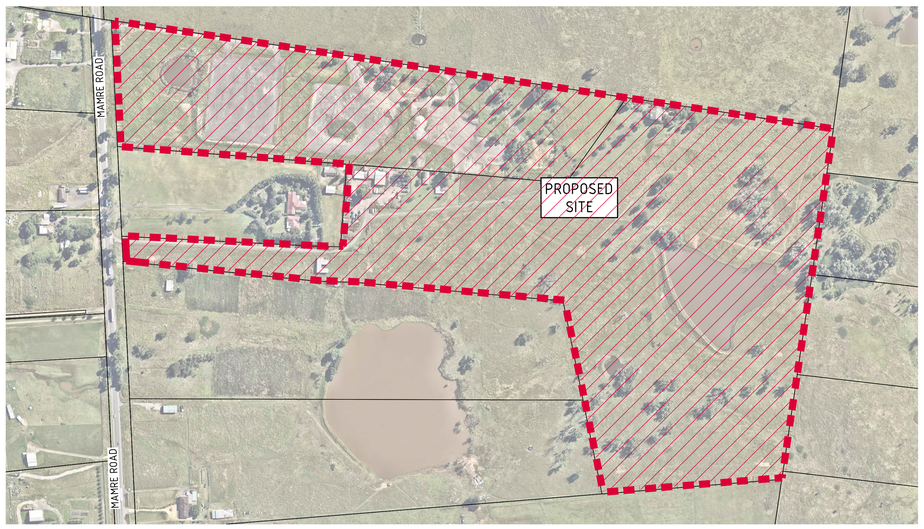
C013874.06- SSDA600	RETAINING WALL SETOUT PLAN
C013874.06- SSDA651	RETAINING WALL DETAILS



LOCALITY PLAN
NTS

FOR DEVELOPMENT APPLICATION

AMENDMENTS	DATE	ISSUE
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	21.05.21	B
ISSUED FOR PRELIMINARY ONLY	09.04.21	A

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754-770 & 784-786 MAMRE ROAD
KEMPS CREEK NSW

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA100

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DRAWING TITLE
DRAWING LIST AND LOCALITY PLAN

DRAWING No. C013874.06-SSDA100 ISSUE B

GENERAL NOTES:

1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
2. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT STANDARDS AUSTRALIA CODES AND WITH THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATION.
3. 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.
4. DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING SHALL BE PROVIDED BY THE BUILDER TO KEEP THE WORKS AND EXCAVATIONS STABLE AT ALL TIMES.
5. UNLESS NOTED OTHERWISE ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.
6. 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.

SURVEY NOTE:

1. EXISTING SITE LEVELS AND DETAILS BASED ON A PLAN OF SURVEY '11019-001' BY 'BOXALL SURVEYORS PTY. LTD.' DATED 23.07.2020.

SITE PREPARATION NOTES:

1. ALL EARTHWORKS SHALL BE COMPLETED GENERALLY IN ACCORDANCE WITH THE GUIDELINES SPECIFIED BY THE GEOTECHNICAL REPORT 'PSM3959-004L' PROVIDED BY PSM DATED 17.10.2019.
2. EXISTING LEVELS ARE BASED ON INFORMATION PROVIDED BY BOXALL SURVEYORS TITLED 11019-001 DATED 23.07.2020.
3. STRIP ANY TOP SOIL OR DELETERIOUS MATERIAL AND DISPOSE OF FROM SITE OR STORE AS DIRECTED.
4. COMPLETE CUT TO FILL EARTHWORKS TO ACHIEVE THE REQUIRED LEVELS AS INDICATED ON THE DRAWINGS WITHIN A TOLERANCE OF +0mm/-10mm THROUGH BUILDING PADS/PAVEMENTS AND +0mm/-20mm ELSEWHERE.
5. PREPARE STEEP BATTERS TO RECEIVE FILL BY CONSTRUCTING BENCHING TO FACILITATE FILL PLACEMENT AND COMPACTION.
6. AREAS TO RECEIVE FILL (THAT ARE NOT ON BENCHED BATTERS) AND AREAS IN CUT SHALL BE PROOF ROLLED TO IDENTIFY ANY SOFT HEAVING MATERIAL. SOFT MATERIAL SHALL BE BOXED OUT AND REMOVED PRIOR TO FILL PLACEMENT. PROOF ROLLING TO BE INSPECTED BY A GEOTECHNICAL ENGINEER OR THE EARTHWORKS DESIGNER.
7. SITE WON FILL SHALL BE COMPACTED IN MAXIMUM 300mm LAYERS AND TO DRY OR HILF DENSITY RATIOS (STANDARD COMPACTION) OF BETWEEN 98% AND 103%. THE PLACEMENT MOISTURE VARIATION OR HILF MOISTURE VARIATION SHALL BE CONTROLLED TO BE BETWEEN 2% DRY AND 2% WET.
8. IMPORTED FILL SHALL BE COMPACTED IN MAXIMUM 300mm LAYERS AND TO DRY OR HILF DENSITY RATIOS (STANDARD COMPACTION) OF BETWEEN 98% AND 103%. THE PLACEMENT MOISTURE VARIATION OR HILF MOISTURE VARIATION SHALL BE CONTROLLED TO BE BETWEEN 2% DRY AND 2% WET.
9. ALL ENGINEERED FILL PARTICLES SHALL BE ABLE TO BE INCORPORATED WITHIN A SINGLE LAYER. FURTHER, LESS THAN 30% OF PARTICLES SHALL BE RETAINED ON THE 37.5 mm SIEVE. ENGINEERED FILL SHALL BE ABLE TO BE TESTED IN ACCORDANCE WITH THE STANDARD COMPACTION METHOD (AS1289.5.4.1) OR HILF TEST METHOD (AS1289.5.7.1). THESE METHODS REQUIRE LESS THAN 20% RETAINED ON THE 37.5 mm SIEVE. WHERE BETWEEN 20% AND 30% OF PARTICLES ARE RETAINED ON THE 37.5 mm SIEVE THE ABOVE TEST METHODS SHALL STILL BE ADOPTED AND TEST REPORTS ANNOTATED APPROPRIATELY. THESE REQUIREMENTS SHOULD BE MET BY THE MATERIAL AFTER PLACEMENT AND COMPACTION
10. ALL THE EARTHWORKS UNDERTAKEN AND THE SUBGRADE CONDITION IN THE CUT AREAS (IN THE STATED PERIOD) ARE DOCUMENTED IN THE REPORTS AND HAVE BEEN UNDERTAKEN IN ACCORDANCE WITH THE SPECIFICATION (EG. COSTIN ROE SITE PREPARATION NOTES IN DWG C014021.00-DA100)
11. PRIOR TO ANY EARTHWORKS, EROSION CONTROL AS OUTLINED IN THE EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE COMPLETED.
12. EXISTING ROCK, IF ANY, SHALL BE REMOVED BY HEAVY ROCK BREAKING OR RIPPING.
13. MATCH EXISTING LEVELS AT BATTER INTERFACE.
14. CONTRACTOR TO MATCH EXISTING LEVELS AT THE INTERFACE OF EARTHWORKS AND EXISTING SURFACE AT BATTER LOCATIONS OR WHERE NO RETAINING WALLS ARE PRESENT. ANY DISCREPANCY BETWEEN DESIGN AND EXISTING LEVELS TO BE REFERRED TO THE ENGINEER FOR DIRECTION OR ADJUSTMENTS TO DESIGN LEVELS.
15. DURING EARTHWORKS THE CONTRACTOR IS TO ENSURE ALL AREAS ARE FREE DRAINING & WILL NOT RETAIN WATER DURING RAINFALL. PROVIDE TEMPORARY MEASURES AS REQUIRED TO ENSURE FREE FLOWING RUNOFF THROUGH MANAGED DRAINAGE PATHS, DIVERSION DRAINS OR OTHER SUITABLE DISPOSAL METHOD AS AGREED DURING THE WORKS. REFER ANY CONCERNS TO THE ENGINEER. REFER TO EROSION AND SEDIMENT CONTROL DRAWINGS AND NOTES.

ELECTRONIC INFORMATION NOTES:

1. THE ISSUED DRAWINGS IN HARD COPY OR PDF FORMAT TAKE PRECEDENCE OVER ANY ELECTRONICALLY ISSUED INFORMATION, LAYOUTS OR DESIGN MODELS.
2. THE CONTRACTOR'S DIRECT AMENDMENT OR MANIPULATION OF THE DATA OR INFORMATION THAT MIGHT BE CONTAINED WITHIN AN ENGINEER-SUPPLIED DIGITAL TERRAIN MODEL AND ITS SUBSEQUENT USE TO UNDERTAKE THE WORKS WILL BE SOLELY AT THE DISCRETION OF AND THE RISK OF THE CONTRACTOR.
3. THE CONTRACTOR IS REQUIRED TO HIGHLIGHT ANY DISCREPANCIES BETWEEN THE DIGITAL TERRAIN MODEL AND INFORMATION PROVIDED IN THE CONTRACT AND/OR DRAWINGS AND IS REQUIRED TO SEEK CLARIFICATION FROM THE SUPERINTENDENT.
4. THE ENGINEER WILL NOT BE LIABLE OR RESPONSIBLE FOR THE POSSIBLE ON-GOING NEED TO UPDATE THE DIGITAL TERRAIN MODEL, SHOULD THERE BE ANY AMENDMENTS OR CHANGES TO THE DRAWINGS OR CONTRACT INITIATED BY THE CONTRACTOR.

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, IMMEDIATELY AFTER CLEARING OF VEGETATION AND BEFORE REMOVAL OF TOP SOIL.
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 HYDROMULCHED 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 SITE MANAGER 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 SITE MANAGER. 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 SITE MANAGER 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 NATURAL WATERCOURSES.
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.

EXISTING SERVICES NOTES:

1. DURING THE EXECUTION OF WORKS, THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF EXISTING SERVICES. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED TO THE EXISTING SERVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE RELEVANT SERVICE AUTHORITY, AT NO COST TO THE PRINCIPAL.
2. WHERE IT IS NECESSARY TO REMOVE, DIVERT OR CUT INTO ANY EXISTING SERVICE, THE CONTRACTOR SHALL GIVE AT LEAST THREE (3) DAYS NOTICE OF ITS REQUIREMENTS TO THE SUPERINTENDENT, WHO WILL ADVISE WHAT ARRANGEMENTS SHOULD BE MADE FOR THE ALTERATION OF SUCH EXISTING WORKS.
3. EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA. THE ACCURACY IS NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO COMMENCING WORK. ALL CLEARANCES AND APPROVALS SHALL ALSO BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL NEW AND EXHUMED SERVICES THAT CROSS EXISTING AND FUTURE ROADS/PAVEMENTS WITHIN THE SITE SHALL BE BACKFILLED WITH DGB20 MATERIAL TO SUBGRADE LEVEL AND COMPACTED TO 98% STANDARD DENSITY RATIO. SUBJECT TO PRIOR APPROVAL FROM RELEVANT AUTHORITY.
5. ON COMPLETION OF SERVICES INSTALLATION. ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AREAS, GRASSED AREAS AND ROAD PAVEMENTS.
6. CARE TO BE TAKEN WHEN EXCAVATING NEAR UTILITY SERVICES. NO MECHANICAL EXCAVATION TO BE UNDERTAKEN OVER SERVICES. LIAISE WITH RELEVANT AUTHORITY.
7. THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION AND REMOVAL IF REQUIRED OF ALL EXISTING SERVICES IN AREAS AFFECTED BY THE WORKS WITHIN THE CONTRACT AREA AS SHOWN ON THE DRAWINGS UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT. ALL TO REGULATORY AUTHORITY STANDARDS AND APPROVAL.
8. THE CONTRACTOR IS TO MAINTAIN EXISTING STORMWATER DRAINAGE FLOWS THROUGH THE ROADS AT ALL TIMES. MAKE DUE ALLOWANCE FOR ALL SUCH FLOWS AT ALL TIMES.
9. PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL OBTAIN THE SUPERINTENDENT'S APPROVAL OF THE PROGRAM FOR THE RELOCATION/CONSTRUCTION OF TEMPORARY SERVICES.
10. CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES AS REQUIRED TO MAINTAIN EXISTING SUPPLY TO BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SUPERINTENDENT. ONCE DIVERSION IS COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT.
11. INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE OR DAMAGE TO THE ADJACENT RESIDENCES. CONTRACTOR TO GAIN APPROVAL OF THE SUPERINTENDENT FOR TIME OF INTERRUPTION.
12. THE CONTRACTOR SHALL UNDERTAKE A DIAL BEFORE YOU DIG (DBYD 1100) SERVICES SEARCH BEFORE THE COMMENCEMENT OF ANY WORKS.

TRAFFIC CONTROL NOTES:

1. TRAFFIC CONTROLS TO COMPLY WITH AS 1742.3-2002
2. TRAFFIC CONTROL PLANS TO BE SUBMITTED AND CERTIFIED BY AN ACCREDITED WORK SITE OPERATIVE.
3. AS PART OF THE TRAFFIC CONTROL PLAN ENSURE THAT PEDESTRIANS ARE CATERED FOR.
4. AFTER-HOURS TRAFFIC CONTROL THROUGH THE WORKSITE HAVE TO BE CATERED FOR.

PCC NOTES:

ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH PENRITH CITY COUNCIL STANDARDS AND SPECIFICATIONS:

STORMWATER DRAINAGE NOTES:

1. ALL STORMWATER WORKS TO BE COMPLETED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS3500.3:2003 PLUMBING AND DRAINAGE, PART 3: STORMWATER DRAINAGE.
2. THE MINOR (PIPED) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 20 YEAR ARI STORM EVENT AND THE MAJOR (OVERLAND) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 100 YEAR ARI STORM EVENT.
3. PIT SIZES SHALL BE AS INDICATED IN THE SCHEDULE WHILE PIPE SIZES AND DETAILS ARE PROVIDED ON PLAN.
4. EXISTING STORMWATER PIT LOCATIONS AND INVERT LEVELS TO BE CONFIRMED BY SURVEY PRIOR TO COMMENCING WORKS ON SITE.
5. ALL STORMWATER PIPES Ø375 OR GREATER SHALL BE CLASS 2 (WITH HS2 SUPPORT) REINFORCED CONCRETE WITH RUBBER RING JOINTS UNLESS NOTED OTHERWISE.
6. ALL PIPES UP TO AND INCLUDING Ø300 TO BE uPVC GRADE SN8 UNO.
7. PIPE CLASS NOMINATED ARE FOR IN-SERVICE LOADING CONDITIONS ONLY. CONTRACTOR IS TO MAKE ANY NECESSARY ADJUSTMENTS REQUIRED FOR CONSTRUCTION CONDITIONS.
8. ALL CONCRETE PITS GREATER THAN 1000mm DEEP SHALL BE REINFORCED USING N12-200 EACH WAY CENTERED IN WALL AND BASE. LAP MINIMUM 300mm WHERE REQUIRED. ALL CONCRETE FOR PITS SHALL BE F'c=25 MPa. PRECAST PITS MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
9. IN ADDITION TO ITEM 9 ABOVE, ALL CONCRETE PITS GREATER THAN 3000mm DEEP SHALL HAVE WALLS AND BASE THICKNESS INCREASED TO 200mm.
10. PIPES SHALL BE LAID AS PER PIPE LAYING DETAILS. PARTICULAR CARE SHALL BE TAKEN TO ENSURE THAT THE PIPE IS FULLY AND EVENLY SUPPORTED. RAM AND PACK FILLING AROUND AND UNDER BACK OF PIPES AND PIPE FAUCETS, WITH NARROW EDGED RAMMERS OR OTHER SUITABLE TAMPING DETAILS.
11. CONCRETE PIPES UNDER, OR WITHIN THE ZONE OF INFLUENCE OF PAVED AREAS SHALL BE LAID USING HS2 TYPE SUPPORT, AS A MINIMUM, IN ACCORDANCE WITH AS 3725. AGGREGATE BACKFILL SHALL NOT BE USED FOR PIPE BEDDING AND OR HAUNCH/SIDE SUPPORT.
12. WHERE PIPE LINES ENTER PITS, PROVIDE 2m LENGTH OF STOCKING WRAPPED SLOTTED Ø100 uPVC TO EACH SIDE OF PIPE.
13. ALL SUBSOIL DRAINAGE LINES SHALL BE Ø100 SLOTTED uPVC WITH APPROVED FILTER WRAP LAID IN 300mm WIDE GRANULAR FILTER UNLESS NOTED OTHERWISE. LAY SUBSOIL LINES TO MATCH FALLS OF LAND AND/OR 1 IN 200 MINIMUM. PROVIDE CAPPED CLEANING EYE (RODDING POINT) AT UPSTREAM END OF LINE AND AT 30m MAX. CTS. PROVIDE SUBSOIL LINES TO ALL PAVEMENT/ LANDSCAPED INTERFACES, TO REAR OF RETAINING WALLS (AS NOMINATED BY STRUCTURAL ENGINEER) AND AS SHOWN ON PLAN.
14. ALL PIPE GRADES 1 IN 200 MINIMUM UNO.
15. PROVIDE STEP IRONS IN PITS DEEPER THAN 1000mm.
16. MIN. 600 COVER TO PIPE OBVERT BENEATH ROADS & MIN. 400 COVER BENEATH LANDSCAPED AND PEDESTRIAN AREAS.
17. PIT COVERS IN TRAFFICABLE PAVEMENT SHALL BE CLASS D 'HEAVY DUTY', THOSE LOCATED IN NON-TRAFFICABLE AREAS SHALL BE CLASS B 'MEDIUM DUTY' U.N.O.
18. PROVIDE CLEANING EYES (RODDING POINTS) TO PIPES AT ALL CORNERS AND T-JUNCTIONS WHERE NO PITS ARE PRESENT.
19. DOWN PIPES (DP) TO BE AS PER HYDRAULIC ENGINEERS DETAILS WITH CONNECTOR TO MATCH DP SIZE U.N.O. ON PLAN. PROVIDE CLEANING EYE AT GROUND LEVEL.
20. PIPE LENGTHS NOMINATED ON PLAN OR LONGSECTIONS ARE MEASURED FROM CENTER OF PITS TO THE NEAREST 0.5m AND DO NOT REPRESENT ACTUAL LENGTH. THE CONTRACTOR IS TO ALLOW FOR THIS.

FINISHED LEVELS PLAN NOTES:

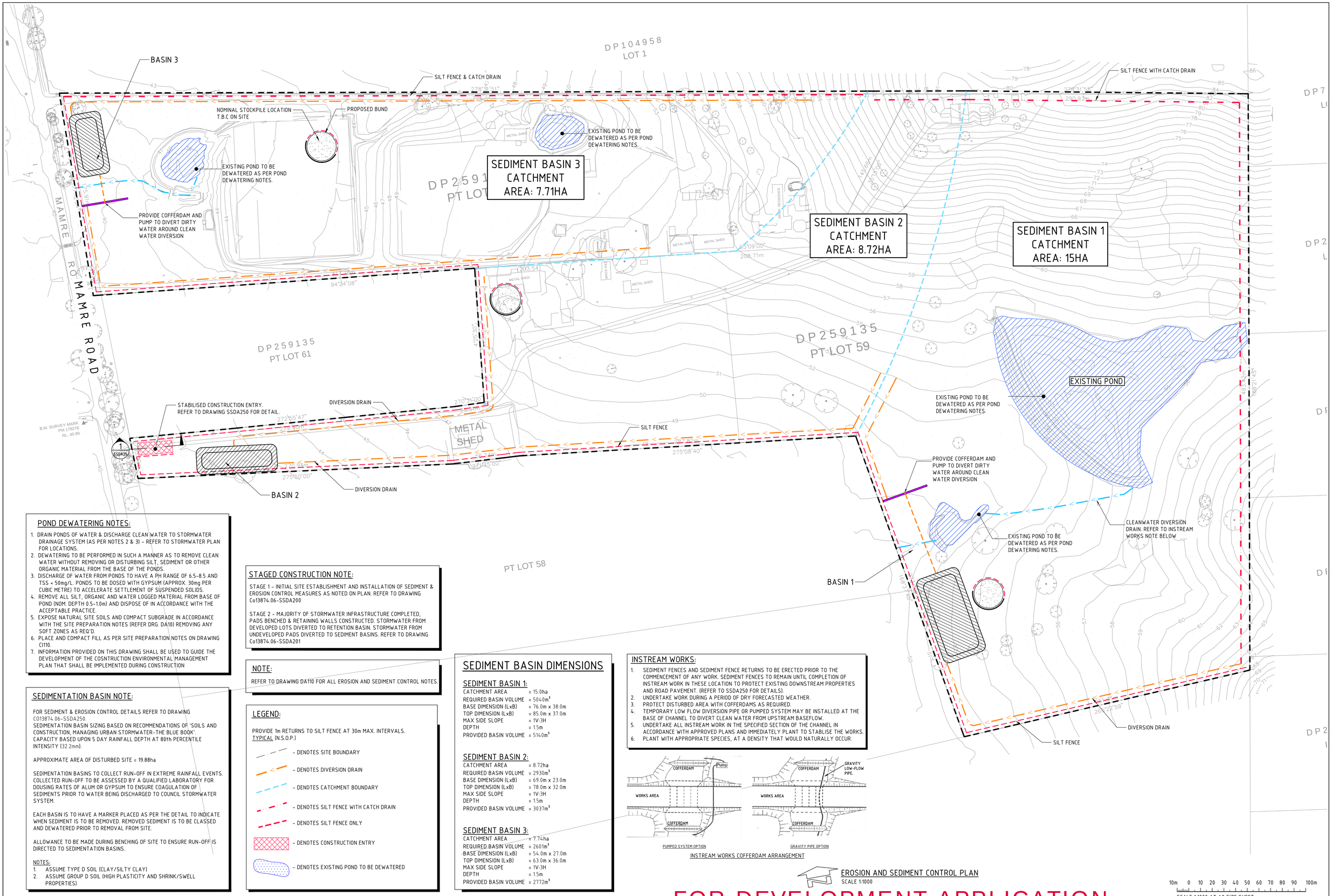
1. LEVELS DATUM IS AUSTRALIAN HEIGHT DATUM (A.H.D.).
2. GRADING REQUIREMENTS TO BE COMPLETED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS2890.1, AS2890.2 AND AS2890.6.
3. ALL CONTOUR LINES & SPOT LEVELS INDICATE FINISHED PAVEMENT LEVELS U.N.O. ON PLAN.
4. CONTOUR INTERVALS
   - THE MINOR CONTOUR INTERVAL IS 0.1m.
   - THE MAJOR CONTOUR INTERVAL IS 0.5m.
5. HARDSTAND GRADING
   - MINIMUM PAVEMENT GRADE IS TO BE 1:100 (1%).
   - GRADING OF ON-GRADE DOCKS TO BE 1:100 (1%) FALL AWAY FROM THE DOCK FACE FOR A LENGTH OF 15m U.N.O.
   - GRADING OF TRUCK CIRCULATION ZONES TO BE MINIMUM AS NOTED ABOVE, 3-4% NOMINAL AND MAX. 5%.
6. CAR PARKING AREA GRADES
   - MINIMUM PAVEMENT GRADE IS TO BE 1:100 (1%), DESIRABLE MINIMUM GRADE 1:50 (2%).
   - MAXIMUM PAVEMENT GRADE IS TO BE 1:20 (5%) N CARPARKING AREAS AND 1:25 (4%) ELSEWHERE.
   - DISABLED ACCESS PARKING ZONES AND SHARED SPACE TO BE MAXIMUM OF 1:33 (3%) IN ASPHALT PAVEMENT AND MAXIMUM OF 1:40 (2.5%) IN CONCRETE PAVEMENT.
   - CARPARK RAMP GRADES TO BE MAX 1:5 WITH 2.5m SMOOTH TRANSITION AT TOP AND BOTTOM U.N.O.
7. TRUCK RAMP GRADES
   - MAXIMUM B-DOUBLE OR 19.0m AV RAMP GRADES ARE TO BE 1:8.3 (12%) U.N.O. ON PLAN
   - PROVIDE MINIMUM 4.0m LONG TRANSITION WHERE CHANGES OF GRADE EXCEED 1:20 (5%) AT A CREST U.N.O.
   - PROVIDE MINIMUM 3.0m LONG TRANSITION WHERE CHANGE OF GRADE EXCEED 1:20 (5%) AT A SAG U.N.O.
   - TRANSITIONS ARE TO PROVIDE A SMOOTH CONTINOUS CIRCULAR AND TANGENTIAL CHANGE IN GRADE TO ENSURE NO SHARP OR ACUTE CHANGES IN GRADE ARE PRESENT.
8. WHERE FIRE BRIGADE ACCESS IS REQUIRED, MAXIMUM RAMP GRADIENTS ARE TO BE 1:6 (16.6%), DESIRABLE RAMP GRADIENTS ARE TO BE 1:8 (12.5%) WITH 7m TRANSITION TOP AND BOTTOM U.N.O. ON PLAN.
9. PERMANENT BATTER SLOPES ARE TO HAVE A MAXIMUM GRADE OF 1V:3H U.N.O. BASED ON GEOTECHNICAL ASSESSMENT. PROVIDE MINIMUM 0.5m BERM BETWEEN THE BACK OF KERB OR PAVEMENT EDGES AND THE TOP OR TOE OF A BATTER.
10. ALL BATTER SLOPE WITH GRADES AT OR EXCEEDING 1V:6H ARE TO BE TURFED IMMEDIATELY OR APPROPRIATE EROSION CONTROL IS TO BE PROVIDED TO THE SATISFACTION OF THE ENGINEER.
11. ALL FOOTPATHS ARE TO FALL AWAY FROM THE BUILDING AT 2.5% NOMINAL. GRADE.
12. ALL PAVEMENTS ARE TO BE SET AT 30mm BELOW THE FINISHED FLOOR LEVEL OF THE WAREHOUSE AND OFFICE AREAS. PROVIDE LOCAL FEATHERING AT DOORWAYS OR ROLLER SHUTTERS TO PROVIDE FLUSH FINISH AS REQUIRED.
13. WHERE NEW AND EXISTING INTERFACING IS REQUIRED, MATCH EXISTING LEVELS AND PROVIDE SMOOTH INTERFACE BETWEEN NEW AND EXISTING GRADIENTS. REFER ANY CONCERNS TO THE ENGINEER.

REINFORCED EARTH RETAINING WALL NOTES:

1. ALL COMPONENTS AND INSTALLATION SHALL COMPLY WITH AS4678 AND THE STANDARDS REFERRED TO THEREIN.
2. MINIMUM HEIGHT (H) TO GEOGRID REINFORCEMENT LENGTH (L) TO BE 1.0.
3. MINIMUM BEARING CAPACITY OF FOUNDATION (BASED ON MINIMUM H/L RATIO OF 1.0) TO BE AS FOLLOWS :
   a. H MAX. 2.0m = 100 kPa
   b. H MAX. 3.5m = 150 kPa
   c. H MAX. 5.0m = 200 kPa
   BEFORE COMMENCEMENT OF CONSTRUCTION THE FOUNDATION SHALL BE INSPECTED AND VERIFIED BY A QUALIFIED GEOTECHNICAL ENGINEER.
4. WHERE MINIMUM BEARING IS NOT ACHIEVABLE OR NOT MEETING DESIGN REQUIREMENT, THE FOUNDATION MATERIAL IS TO BE EXCAVATED AND REPLACED WITH APPROVED MATERIAL PLACED IN ACCORDANCE WITH THE FILLING SPECIFICATION TO A MINIMUM COMPACTION OF 100% SMDD AND PLACED WITHIN 2% OF OMC.
5. MINIMUM SURCHARGE LOADS TO BE APPLIED AS FOLLOWS U.N.O. ON PLAN:
   a. LIVE LOAD = 20 kPa
   b. DEAD LOAD = 5 kPa
   c. CONSTRUCTION TRAFFIC LIVE LOAD = 10 kPa
6. THE GEOGRIDS SHALL BE OF THE TYPE AND INDEX STRENGTH NOMINATED ON THE DRAWINGS. THE MINIMUM GEOGRIDS SHALL BE A SINGLE LENGTH IN THE DIRECTION OF DESIGN TENSION, NOT LAPPED, MAKING PROVISION FOR CONNECTION TO THE FACING ACROSS THE WHOLE WIDTH OF THE FACING AND PROVIDING FOR THE SPECIFIED ANCHORAGE WITHIN THE DESIGNATED ANCHORAGE ZONE. GEOGRIDS SHALL COVER THE WHOLE OF THE PLAN AREA BEHIND THE WALL FOR THE SPECIFIED ANCHORAGE LENGTH AND SHALL BE LAPPED WITH ADJACENT SECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
7. MINIMUM WALL EMBEDMENT AT THE TOE OF THE WALL TO BE 300mm.
8. DESIGN LIFE OF STRUCTURE IS TO BE 100 YEARS.
9. SELECT BACKFILL MATERIAL WITHIN THE REINFORCED SOIL BLOCK SHALL BE SOUND GRANULAR MATERIAL OF NATURAL OR INDUSTRIAL ORIGIN, NON-EXPANSIVE, FREE FROM ORGANIC OR OTHER DELETERIOUS MATERIAL CONFORMING TO THE PHYSICAL, CHEMICAL AND ELECTROCHEMICAL LIMITS AS SPECIFIED AND SHALL NOT BE SUBJECT TO BREAKDOWN UNDER COMPACTION. THE SELECT BACKFILL MATERIAL IS TO HAVE THE FOLLOWING PARAMETERS:
   a. MINIMUM INTERNAL FRICTION, Ø = 34°
   b. EFFECTIVE COHESION, C'= 0 kPa
   c. UNIT WEIGHT = 21 kN/m^3
   d. PH BETWEEN 4 AND 9.
10. SELECT BACKFILL IS TO BE PLACED AND COMPACTED IN LAYERS NOT MORE THAN 300mm (LOOSE). COMPACTION TO NOT LESS THAN 100% SMDD WILL BE ACHIEVED AND MATERIAL PLACED WITHIN 2% OF OMC. DENSITY TESTING SHALL BE PERFORMED IN EACH COMPACTED LIFT IN ACCORDANCE WITH AS3798.
11. PROVIDE A DRAINAGE LAYER DIRECTLY BEHIND THE FACING UNITS IN A MINIMUM 300mm WIDE 12-20mm AGGREGATE LAYER. FACING UNIT VOIDS TO BE FILLED WITH AGGREGATE. PROVIDE 100mm MINIMUM AG. DRAIN IN GEOTEXTILE SOCK AT TOE OF WALL FACING AND CONNECT TO DRAINAGE SYSTEM AT 30m MAX. SPACING.
12. THE NEED FOR A CHIMNEY DRAIN OR DRAINAGE AT THE REAR OF THE MASS SOIL BLOCK IS TO BE CONFIRMED ON SITE BY THE GEOTECHNICAL ENGINEER AND DESIGNER FOLLOWING PREPARATION OF THE FOUNDATION AND PRIOR TO CONSTRUCTION OF THE MASS SOIL BLOCK.
13. CONSTRUCTION EQUIPMENT WEIGHING MORE THAN 500kG STATIC WEIGHT IS TO BE KEPT BACK 1.5m FROM THE REAR FACE OF THE WALL FACING UNITS. COMPACTION OF THE SELECT FILL MATERIAL WITHIN THE 1.5m STRIP ADJACENT TO THE WALL SHALL BE ACHIEVED BY LIGHT MECHANICAL TAMPERS (VIBRATING PLATE, TRENCH COMPACTOR OR SIMILAR) TO GIVE THE SAME DENSITY AS IN THE REMAINDER OF THE SELECT FILL.
14. ALL DESIGN AND CONSTRUCT WALL SYSTEM TO BE COMPLETED IN ACCORDANCE WITH THESE NOTES.
15. TOP OF WALL HEIGHTS ARE NOTED TO ALIGN WITH FINISHED PAVEMENT HEIGHTS. THE CONTRACTOR AND THEIR DESIGN AND CONSTRUCT WALLING CONTRACTORS ARE TO ENSURE THAT ALL WALL STRAPS ARE INSTALLED BELOW THE DESIGN EARTHWORKS SUBGRADE. CONTRACTOR TO ALLOW FOR WALL STRAPS TO BE GRADED AWAY FROM THE FACE OF THE WALL OR OTHERWISE INSTALLED TO SUIT EARTHWORKS DESIGN LEVELS AND GRADES.
16. DIFFERENTIAL SETTLEMENT NOTE:
    FUTURE BUILDING AND SERVICE DESIGNERS TO CONSIDER DIFFERENTIAL SETTLEMENT OF REINFORCED EARTH WALL BLOCK AND GENERAL FILL AREAS. PARTICULAR ATTENTION TO BE DRAWN TO HEAVILY LOADED AREAS, OR DIFFERING LOADED AREAS (INCLUDING SPRINKLER TANK AND TRUCK PAVEMENT AREAS) AND WHERE SIGNIFICANT CHANGES IN OVERALL WALL HEIGHT OR FILL AMOUNTS ARE EXPERIENCED. IT IS THE RESPONSIBILITY OF THE FUTURE DESIGNERS TO ENSURE APPROPRIATE DESIGN CONSIDERATION TO DIFFERENTIAL SETTLEMENT ARE MADE DEPENDING ON THE DESIGN ELEMENT AND INTERACTION WITH RETAINED ELEMENTS AND GENERAL FILL MATERIAL.

RETAINING WALL NOTES:

1. ALL COMPONENTS AND INSTALLATION SHALL COMPLY WITH AS4678 AND THE STANDARDS REFERRED TO THEREIN.
2. MINIMUM BEARING CAPACITY OF FOUNDATION TO BE AS FOLLOWS :
   a. H MAX. 2.0m = 100 kPa
   b. H MAX. 3.5m = 150 kPa
   c. H MAX. 5.0m = 200 kPa
   BEFORE COMMENCEMENT OF CONSTRUCTION THE FOUNDATION SHALL BE INSPECTED AND VERIFIED BY A QUALIFIED GEOTECHNICAL ENGINEER.
3. WHERE MINIMUM BEARING IS NOT ACHIEVABLE OR NOT MEETING DESIGN REQUIREMENT, THE FOUNDATION MATERIAL IS TO BE EXCAVATED AND REPLACED WITH APPROVED MATERIAL PLACED IN ACCORDANCE WITH THE FILLING SPECIFICATION TO A MINIMUM COMPACTION OF 100% SMDD AND PLACED WITHIN 2% OF OMC.
4. MINIMUM SURCHARGE LOADS TO BE APPLIED AS FOLLOWS U.N.O.
5. ON PLAN :
   a. LIVE LOAD = 20 kPa
   b. DEAD LOAD = 5 kPa
   c. CONSTRUCTION TRAFFIC LIVE LOAD = 10 kPa
6. MINIMUM WALL EMBEDMENT AT THE TOE OF THE WALL TO BE 300mm MINIMUM UNLESS NOTED OTHERWISE.
7. DESIGN LIFE OF STRUCTURE IS TO BE 100 YEARS.
8. TIED WALLS ARE TO BE TEMPORARILY PROPPED AT TOP UNTIL SUCH TIME THE TOP OF WALL IS TIED TO THE SLAB AND 28-DAY CONCRETE STRENGTH HAS BEEN ACHIEVED.
9. CONSTRUCTION EQUIPMENT WEIGHING MORE THAN 500KG STATIC WEIGHT IS TO BE KEPT BACK 1.5m FROM THE REAR FACE OF THE WALL FACING UNITS. COMPACTION OF THE SELECT FILL MATERIAL WITHIN THE 1.5m STRIP ADJACENT TO THE WALL SHALL BE ACHIEVED BY LIGHT MECHANICAL TAMPERS (VIBRATING PLATE, TRENCH COMPACTOR OR SIMILAR) TO GIVE THE SAME DENSITY AS IN THE REMAINDER OF THE SELECT FILL.
10. ALL DESIGN AND CONSTRUCT WALL SYSTEMS TO BE COMPLETED IN ACCORDANCE



POND DEWATERING NOTES:

1. DRAIN PONDS OF WATER & DISCHARGE CLEAN WATER TO STORMWATER DRAINAGE SYSTEM (AS PER NOTES 2 & 3) - REFER TO STORMWATER PLAN FOR LOCATIONS.
2. DEWATERING TO BE PERFORMED IN SUCH A MANNER AS TO REMOVE CLEAN WATER WITHOUT REMOVING OR DISTURBING SILT, SEDIMENT OR OTHER ORGANIC MATERIAL FROM THE BASE OF THE PONDS.
3. DISCHARGE OF WATER FROM PONDS TO HAVE A PH RANGE OF 6.5-8.5 AND TSS < 50mg/L. PONDS TO BE DOSED WITH GYPSUM (APPROX. 30mg PER CUBIC METRE) TO ACCELERATE SETTLEMENT OF SUSPENDED SOLIDS.
4. REMOVE ALL SILT, ORGANIC AND WATER LOGGED MATERIAL FROM BASE OF POND (NOM. DEPTH 0.5-1.0m) AND DISPOSE OF IN ACCORDANCE WITH THE ACCEPTABLE PRACTICE.
5. EXPOSE NATURAL SITE SOILS AND COMPACT SUBGRADE IN ACCORDANCE WITH THE SITE PREPARATION NOTES (REFER DRG. DA10) REMOVING ANY SOFT ZONES AS REQ'D.
6. PLACE AND COMPACT FILL AS PER SITE PREPARATION NOTES ON DRAWING C1110.
7. INFORMATION PROVIDED ON THIS DRAWING SHALL BE USED TO GUIDE THE DEVELOPMENT OF THE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN THAT SHALL BE IMPLEMENTED DURING CONSTRUCTION

SEDIMENTATION BASIN NOTE:

FOR SEDIMENT & EROSION CONTROL DETAILS REFER TO DRAWING C013874.06-SSDA250.
SEDIMENTATION BASIN SIZING BASED ON RECOMMENDATIONS OF 'SOILS AND CONSTRUCTION, MANAGING URBAN STORMWATER-THE BLUE BOOK'. CAPACITY BASED UPON 5 DAY RAINFALL DEPTH AT 80th PERCENTILE INTENSITY (32.2mm).

APPROXIMATE AREA OF DISTURBED SITE = 19.88ha

SEDIMENTATION BASINS TO COLLECT RUN-OFF IN EXTREME RAINFALL EVENTS. COLLECTED RUN-OFF TO BE ASSESSED BY A QUALIFIED LABORATORY FOR DOUSING RATES OF ALUM OR GYPSUM TO ENSURE COAGULATION OF SEDIMENTS PRIOR TO WATER BEING DISCHARGED TO COUNCIL STORMWATER SYSTEM.

EACH BASIN IS TO HAVE A MARKER PLACED AS PER THE DETAIL TO INDICATE WHEN SEDIMENT IS TO BE REMOVED. REMOVED SEDIMENT IS TO BE CLASSED AND DEWATERED PRIOR TO REMOVAL FROM SITE.

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

NOTES:
1. ASSUME TYPE D SOIL (CLAY/SILTY CLAY)
2. ASSUME GROUP D SOIL (HIGH PLASTICITY AND SHRINK/SWELL PROPERTIES)

STAGED CONSTRUCTION NOTE:

STAGE 1 - INITIAL SITE ESTABLISHMENT AND INSTALLATION OF SEDIMENT & EROSION CONTROL MEASURES AS NOTED ON PLAN. REFER TO DRAWING Co13874.06-SSDA200

STAGE 2 - MAJORITY OF STORMWATER INFRASTRUCTURE COMPLETED, PADS BENCHED & RETAINING WALLS CONSTRUCTED. STORMWATER FROM DEVELOPED LOTS DIVERTED TO RETENTION BASIN. STORMWATER FROM UNDEVELOPED PADS DIVERTED TO SEDIMENT BASINS. REFER TO DRAWING Co13874.06-SSDA201

NOTE:

REFER TO DRAWING DA110 FOR ALL EROSION AND SEDIMENT CONTROL NOTES.

LEGEND:

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

- DENOTES SITE BOUNDARY
- DENOTES DIVERSION DRAIN
- DENOTES CATCHMENT BOUNDARY
- DENOTES SILT FENCE WITH CATCH DRAIN
- DENOTES SILT FENCE ONLY
- DENOTES CONSTRUCTION ENTRY
- DENOTES EXISTING POND TO BE DEWATERED

SEDIMENT BASIN DIMENSIONS

SEDIMENT BASIN 1:

CATCHMENT AREA	= 15.0ha
REQUIRED BASIN VOLUME	= 5040m³
BASE DIMENSION (LxB)	= 76.0m x 38.0m
TOP DIMENSION (LxB)	= 85.0m x 37.0m
MAX SIDE SLOPE	= 1V:3H
DEPTH	= 1.5m
PROVIDED BASIN VOLUME	= 5140m³

SEDIMENT BASIN 2:

CATCHMENT AREA	= 8.72ha
REQUIRED BASIN VOLUME	= 2930m³
BASE DIMENSION (LxB)	= 69.0m x 23.0m
TOP DIMENSION (LxB)	= 78.0m x 32.0m
MAX SIDE SLOPE	= 1V:3H
DEPTH	= 1.5m
PROVIDED BASIN VOLUME	= 3037m³

SEDIMENT BASIN 3:

CATCHMENT AREA	= 7.74ha
REQUIRED BASIN VOLUME	= 2601m³
BASE DIMENSION (LxB)	= 54.0m x 27.0m
TOP DIMENSION (LxB)	= 63.0m x 36.0m
MAX SIDE SLOPE	= 1V:3H
DEPTH	= 1.5m
PROVIDED BASIN VOLUME	= 2772m³

INSTREAM WORKS:

1. SEDIMENT FENCES AND SEDIMENT FENCE RETURNS TO BE ERECTED PRIOR TO THE COMMENCEMENT OF ANY WORK. SEDIMENT FENCES TO REMAIN UNTIL COMPLETION OF INSTREAM WORK IN THESE LOCATION TO PROTECT EXISTING DOWNSTREAM PROPERTIES AND ROAD PAVEMENT. (REFER TO SSDA250 FOR DETAILS).
2. UNDERTAKE WORK DURING A PERIOD OF DRY FORECASTED WEATHER.
3. PROTECT DISTURBED AREA WITH COFFERDAMS AS REQUIRED.
4. TEMPORARY LOW FLOW DIVERSION PIPE OR PUMPED SYSTEM MAY BE INSTALLED AT THE BASE OF CHANNEL TO DIVERT CLEAN WATER FROM UPSTREAM BASEFLOW.
5. UNDERTAKE ALL INSTREAM WORK IN THE SPECIFIED SECTION OF THE CHANNEL IN ACCORDANCE WITH APPROVED PLANS AND IMMEDIATELY PLANT TO STABLISE THE WORKS.
6. PLANT WITH APPROPRIATE SPECIES, AT A DENSITY THAT WOULD NATURALLY OCCUR.

INSTREAM WORKS COFFERDAM ARRANGEMENT

EROSION AND SEDIMENT CONTROL PLAN
SCALE 1:1000

10m 0 10 20 30 40 50 60 70 80 90 100m
SCALE 1:1000 AT A0 SIZE SHEET

FOR DEVELOPMENT APPLICATION

AMENDMENTS	DATE	ISSUE
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	01.06.21	C
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	21.05.21	B
ISSUED FOR PRELIMINARY ONLY	09.04.21	A

ARCHITECT: SBA ARCHITECTS — Commercial, Residential, Industrial, Interior Design — Suite 702, 83 Mount Street, North Sydney NSW 2060 — T: 02 9929 9988 F: 02 9929 8899 — E: info@sbaarch.com.au W: www.sbaarch.com.au

CLIENT: GPT — The GPT Group

PROJECT: YIRIBANA LOGISTICS ESTATE — 754-770 & 784-786 MAMRE ROAD — KEMPS CREEK NSW

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA200

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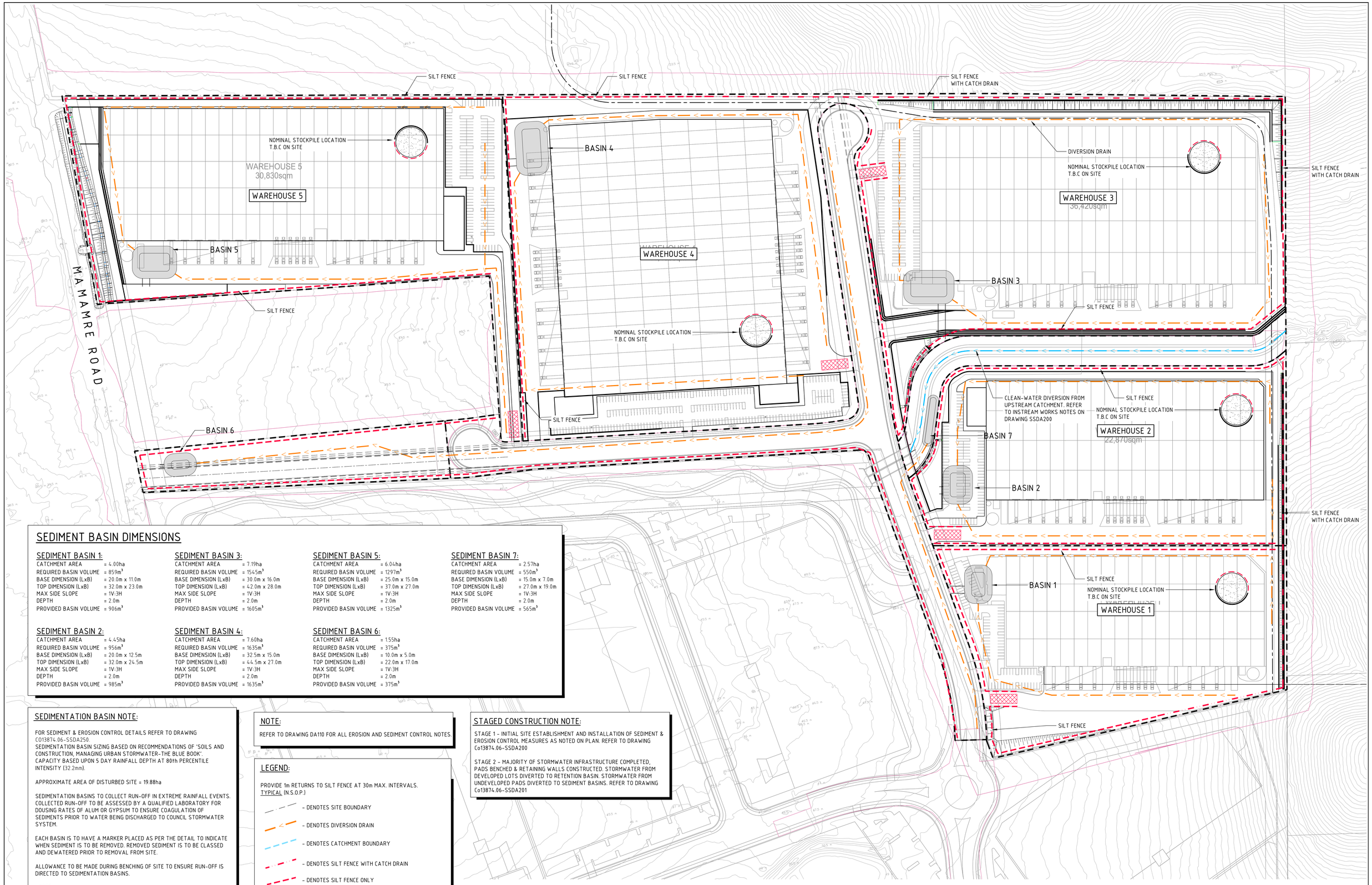
PRECISION | COMMUNICATION | ACCOUNTABILITY

DRAWING TITLE: EROSION AND SEDIMENT CONTROL PLAN STAGE 1

DRAWING No: C013874.06-SSDA200 — ISSUE: C



SEDIMENT BASIN DIMENSIONS

SEDIMENT BASIN 1:

CATCHMENT AREA	= 4.00ha
REQUIRED BASIN VOLUME	= 859m³
BASE DIMENSION (LxB)	= 20.0m x 11.0m
TOP DIMENSION (LxB)	= 32.0m x 23.0m
MAX SIDE SLOPE	= 1V:3H
DEPTH	= 2.0m
PROVIDED BASIN VOLUME	= 906m³

SEDIMENT BASIN 2:

CATCHMENT AREA	= 4.45ha
REQUIRED BASIN VOLUME	= 956m³
BASE DIMENSION (LxB)	= 20.0m x 12.5m
TOP DIMENSION (LxB)	= 32.0m x 24.5m
MAX SIDE SLOPE	= 1V:3H
DEPTH	= 2.0m
PROVIDED BASIN VOLUME	= 985m³

SEDIMENT BASIN 3:

CATCHMENT AREA	= 7.19ha
REQUIRED BASIN VOLUME	= 1545m³
BASE DIMENSION (LxB)	= 30.0m x 16.0m
TOP DIMENSION (LxB)	= 42.0m x 28.0m
MAX SIDE SLOPE	= 1V:3H
DEPTH	= 2.0m
PROVIDED BASIN VOLUME	= 1605m³

SEDIMENT BASIN 4:

CATCHMENT AREA	= 7.60ha
REQUIRED BASIN VOLUME	= 1635m³
BASE DIMENSION (LxB)	= 32.5m x 15.0m
TOP DIMENSION (LxB)	= 44.5m x 27.0m
MAX SIDE SLOPE	= 1V:3H
DEPTH	= 2.0m
PROVIDED BASIN VOLUME	= 1635m³

SEDIMENT BASIN 5:

CATCHMENT AREA	= 6.04ha
REQUIRED BASIN VOLUME	= 1297m³
BASE DIMENSION (LxB)	= 25.0m x 15.0m
TOP DIMENSION (LxB)	= 37.0m x 27.0m
MAX SIDE SLOPE	= 1V:3H
DEPTH	= 2.0m
PROVIDED BASIN VOLUME	= 1325m³

SEDIMENT BASIN 6:

CATCHMENT AREA	= 1.55ha
REQUIRED BASIN VOLUME	= 375m³
BASE DIMENSION (LxB)	= 10.0m x 5.0m
TOP DIMENSION (LxB)	= 22.0m x 17.0m
MAX SIDE SLOPE	= 1V:3H
DEPTH	= 2.0m
PROVIDED BASIN VOLUME	= 375m³

SEDIMENT BASIN 7:

CATCHMENT AREA	= 2.57ha
REQUIRED BASIN VOLUME	= 550m³
BASE DIMENSION (LxB)	= 15.0m x 7.0m
TOP DIMENSION (LxB)	= 27.0m x 19.0m
MAX SIDE SLOPE	= 1V:3H
DEPTH	= 2.0m
PROVIDED BASIN VOLUME	= 565m³

SEDIMENTATION BASIN NOTE:

FOR SEDIMENT & EROSION CONTROL DETAILS REFER TO DRAWING C013874.06-SSDA250
SEDIMENTATION BASIN SIZING BASED ON RECOMMENDATIONS OF 'SOILS AND CONSTRUCTION, MANAGING URBAN STORMWATER-THE BLUE BOOK'.
CAPACITY BASED UPON 5 DAY RAINFALL DEPTH AT 80th PERCENTILE INTENSITY (32.2mm).

APPROXIMATE AREA OF DISTURBED SITE = 19.88ha

SEDIMENTATION BASINS TO COLLECT RUN-OFF IN EXTREME RAINFALL EVENTS. COLLECTED RUN-OFF TO BE ASSESSED BY A QUALIFIED LABORATORY FOR DOUSING RATES OF ALUM OR GYPSUM TO ENSURE COAGULATION OF SEDIMENTS PRIOR TO WATER BEING DISCHARGED TO COUNCIL STORMWATER SYSTEM.

EACH BASIN IS TO HAVE A MARKER PLACED AS PER THE DETAIL TO INDICATE WHEN SEDIMENT IS TO BE REMOVED. REMOVED SEDIMENT IS TO BE CLASSED AND DEWATERED PRIOR TO REMOVAL FROM SITE.

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

NOTES:
1. ASSUME TYPE D SOIL (CLAY/SILTY CLAY)
2. ASSUME GROUP D SOIL (HIGH PLASTICITY AND SHRINK/SWELL PROPERTIES)

NOTE:

REFER TO DRAWING DA110 FOR ALL EROSION AND SEDIMENT CONTROL NOTES.

LEGEND:

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

- DENOTES SITE BOUNDARY
- DENOTES DIVERSION DRAIN
- DENOTES CATCHMENT BOUNDARY
- DENOTES SILT FENCE WITH CATCH DRAIN
- DENOTES SILT FENCE ONLY
- DENOTES CONSTRUCTION ENTRY

STAGED CONSTRUCTION NOTE:

STAGE 1 - INITIAL SITE ESTABLISHMENT AND INSTALLATION OF SEDIMENT & EROSION CONTROL MEASURES AS NOTED ON PLAN. REFER TO DRAWING C013874.06-SSDA200

STAGE 2 - MAJORITY OF STORMWATER INFRASTRUCTURE COMPLETED, PADS BENCHED & RETAINING WALLS CONSTRUCTED. STORMWATER FROM DEVELOPED LOTS DIVERTED TO RETENTION BASIN. STORMWATER FROM UNDEVELOPED PADS DIVERTED TO SEDIMENT BASINS. REFER TO DRAWING C013874.06-SSDA201

EROSION AND SEDIMENT CONTROL PLAN - STAGE 2
SCALE 1:1000

10m 0 10 20 30 40 50 60 70 80 90 100m
SCALE 1:1000 AT A0 SIZE SHEET

FOR DEVELOPMENT APPLICATION

AMENDMENTS	DATE	ISSUE
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	01.06.21	B
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	24.05.21	A

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PROJECT
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754-770 & 784-786 MAMRE ROAD
KEMPS CREEK NSW

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA201

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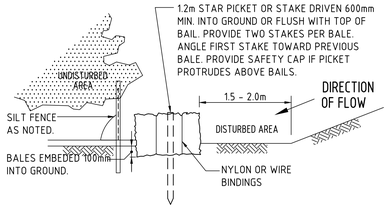
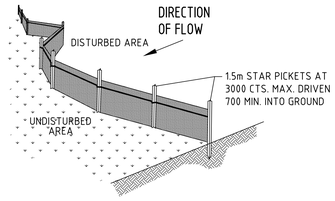
DRAWING TITLE
EROSION AND SEDIMENT CONTROL PLAN
STAGE 2

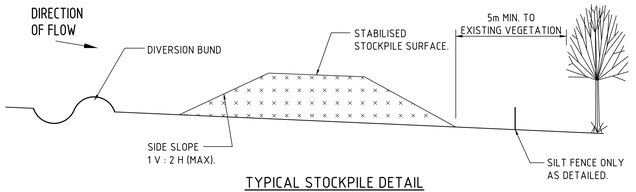
DRAWING NO: C013874.06-SSDA201 ISSUE: B



SILT FENCE WITH STRAW BALE DETAIL
N.T.S.

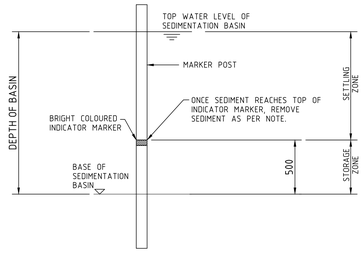


TYPICAL SILT FENCE DETAIL
N.T.S.
PROVIDE 1m RETURNS AT 30m INTERVALS.
TYPICAL



TYPICAL STOCKPILE DETAIL
N.T.S.

STOCKPILE NOTES
1. PLACE ALL STOCKPILES IN LOCATIONS MORE THAN 5m FROM EXISTING VEGETATION, ROADS & HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT ELONGATED MOUNDS. SIDE SLOPE TO BE 1 V: 2 H MAX.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2m IN HEIGHT.
4. WHERE STOCKPILES ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE USING WOOD CHIP MULCH - 16 TONNE/Ha.
5. CONSTRUCT SILT FENCE WITH CATCH DRAIN ON UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES & SILT FENCE ONLY 1 TO 2m DOWNSLOPE AS SHOWN.



SEDIMENT STORAGE MARKER
SCALE 1:20

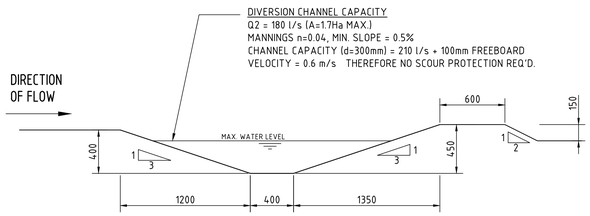
NOTES:
ALL EROSION & SEDIMENT CONTROL MEASURES TO BE INSPECTED & MAINTAINED DAILY BY SITE MANAGER.

MINIMISE DISTURBED AREAS.

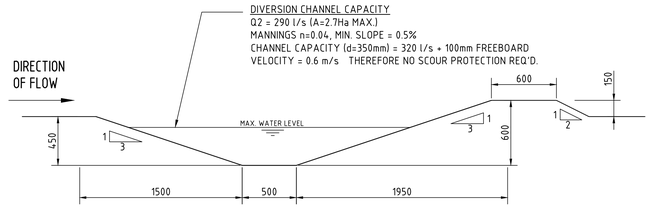
ROADS & FOOTPATHS TO BE SWEPT DAILY.

1.2m TURF TO BE PLACED BEHIND KERBS.

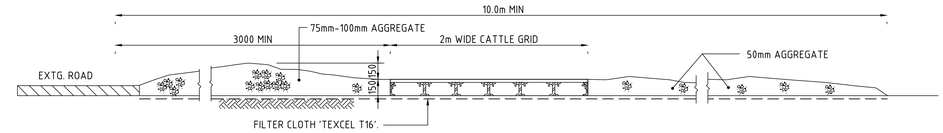
DUST MINIMISATION CONTROL BY WATERING TO BE IMPLEMENTED BY SITE MANAGER AS REQUIRED OR AS DIRECTED BY THE EPA.



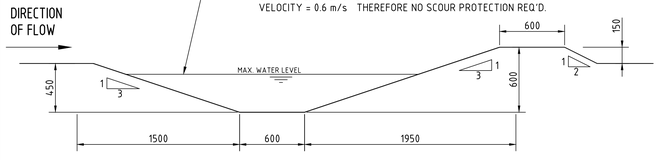
TYPE 1 DIVERSION DRAIN SECTION
SCALE 1:20



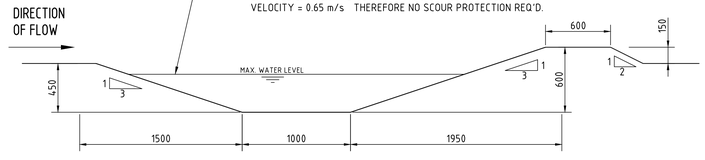
TYPE 2 DIVERSION DRAIN SECTION
SCALE 1:20



SECTION 1:20 (1 / SSDA20) : STABILISED CONSTRUCTION ENTRANCE 'TRUCK SHAKER'



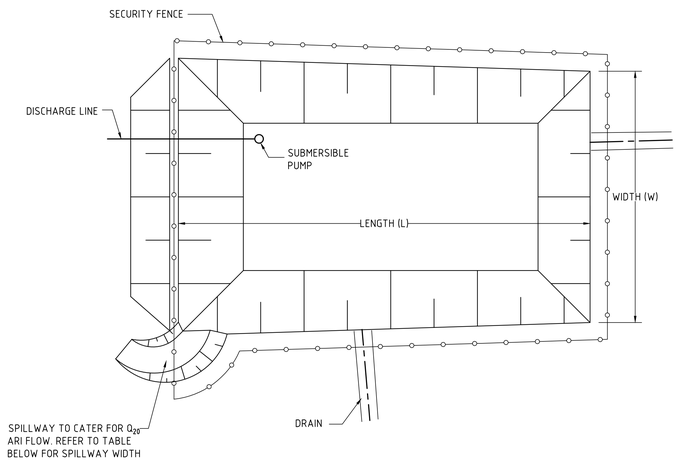
TYPE 3 DIVERSION DRAIN SECTION
SCALE 1:20



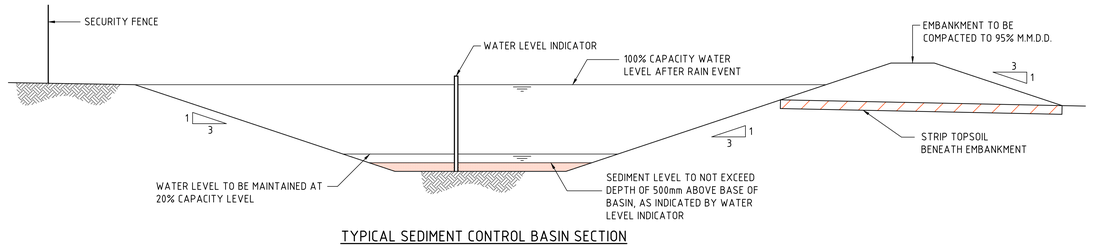
TYPE 4 DIVERSION DRAIN SECTION
SCALE 1:20

SPILLWAY DETAIL & SCHEDULE

CATCHMENT (Ha)	FLOW (m^3/s)	WIDTH (mm)	FLOW DEPTH (mm)	ROCK SIZE (mm)	BUND HEIGHT ABOVE SPILLWAY (mm)
0.20	0.14	1000	200	-	600
0.5	0.2	2000	200	-	600
1	0.3	2000	200	-	700
2	0.6	4000	200	-	700
5	1.4	5000	300	200	800
10	2.8	8000	350	200	850
20	5.5	14000	400	250	900
40	11.0	20000	500	250	1000



TYPICAL SEDIMENT CONTROL POND PLAN
SCALE 1:250



TYPICAL SEDIMENT CONTROL BASIN SECTION
SCALE 1:50

2m 0 5 10 15 20 25m
SCALE 1:250 AT A0 SIZE SHEET

500mm 0 1 2 3 4 5m
SCALE 1:50 AT A0 SIZE SHEET

200mm 0 500 1000 1500 2000mm
SCALE 1:20 AT A0 SIZE SHEET

PRELIMINARY ONLY

AMENDMENTS	DATE	ISSUE
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	01.06.21	C
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	21.05.21	B
ISSUED FOR PRELIMINARY ONLY	09.04.21	A

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CLIENT: The GPT Group

PROJECT: YIRIBANA LOGISTICS ESTATE
754-770 & 784-786 MAMRE ROAD
KEMPS CREEK NSW

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA250

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Costin Roe Consulting
PRECISION | COMMUNICATION | ACCOUNTABILITY

DRAWING: TITLE: EROSION AND SEDIMENT CONTROL DETAILS
DRAWING No: C013874.06-SSDA250 ISSUE: C

WAREHOUSE 5
PAD RL 45.00

WAREHOUSE 4
PAD RL 55.00

WAREHOUSE 3
PAD RL 65.00

WAREHOUSE 2
PAD RL 56.00

WAREHOUSE 1
PAD RL 56.00

MAMRE ROAD

ROAD 1

ROAD 2

E2 CHANNEL

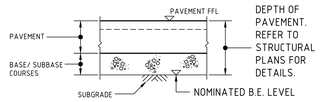
ALTIS SITE
ANTICIPATED PAD LEVEL RL45.70
SITE CURRENTLY UNDER ASSESSMENT FOR DEVELOPMENT BY PENRITH CITY COUNCIL

MIRVAC SITE
ANTICIPATED PAD LEVELS AS SHOWN
SITE LAYOUT PER MIRVAC SSDA_10448 EIS

LEGEND

NOTE:
LEVELS DATUM IS AHD.
ALL LEVELS ARE ±1000 mm

- EXISTING CONTOUR
- B.E.L. CONTOUR (MAJOR 1.0m)
- B.E.L. CONTOUR (MINOR 0.25m)



DEPTH OF PAVEMENT. REFER TO STRUCTURAL PLANS FOR DETAILS.

NOMINATED B.E.L. DETAIL
N.T.S.

ADJACENT PROPERTY LEVELS NOTE:

FUTURE DEVELOPMENT LEVELS FOR NEIGHBOURING PROPERTIES TO NORTH AND EAST NOT CURRENTLY KNOWN. INTERFACING CURRENTLY SHOWN ON PLAN IS TO EXISTING LEVELS. FINAL INTERFACING ARRANGEMENT SUBJECT TO FURTHER DISCUSSION & COORDINATION WITH ADJOINING LANDOWNERS/DEVELOPERS.

LEVELS NOTE:

LEVELS SHOWN TO BE +/-1000mm FROM THOSE SHOWN. FINAL LEVELS SUBJECT TO FINAL GEOTECHNICAL INVESTIGATIONS, ARCHITECTURAL LAYOUT AND ACHIEVING A CUT TO FILL EARTHWORKS BALANCE OVER THE PROPERTY.

DEPTH RANGE

No.	FROM DEPTH	TO DEPTH	COLOUR	DEPTH RANGE VOLUME
1	-18.000	-16.000		44m³
2	-16.000	-14.000		2222m³
3	-14.000	-12.000		7802m³
4	-12.000	-10.000		15344m³
5	-10.000	-8.000		25120m³
6	-8.000	-6.000		38872m³
7	-6.000	-4.000		60199m³
8	-4.000	-2.000		101518m³
9	-2.000	0.000		176985m³
10	0.000	2.000		342971m³
11	2.000	4.000		167543m³
12	4.000	6.000		53626m³
13	6.000	8.000		15454m³
14	8.000	10.000		1426m³

EARTHWORKS VOLUMES

SITE AREA = 33.1 Ha

TOPSOIL STRIP (200 mm)	= (- 66,200 m³)
CUT MATERIAL	= - 428,100 m³
FILL MATERIAL	= + 580,000 m³
DETAILED EXCAVATION (2,000m²/Ha OVER 33.1 Ha)	= - 66,200 m³
BALANCE	= + 86,700 m³

NOTE:
EARTHWORKS VALUES ARE APPROXIMATE ONLY.
NO ALLOWANCE HAS BEEN MADE IN THE ABOVE VOLUMES FOR EROSION & SEDIMENT CONTROL BACKFILLING, BULKING OR COMPACTION OF FILLED SOILS, THE REMOVAL OF UNCONTROLLED OR CONTAMINATED MATERIAL, TEMPORARY DRAINAGE SWALES WITHIN BUILDING PADS, OR ANY OTHER UNSPECIFIED EXCAVATION RELATED TO WAREHOUSE CONSTRUCTION.

BULK EARTHWORKS PLAN
SCALE 1:1000

10m 0 10 20 30 40 50 60 70 80 90 100m
SCALE 1:1000 AT A0 SIZE SHEET

FOR DEVELOPMENT APPLICATION

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DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA300

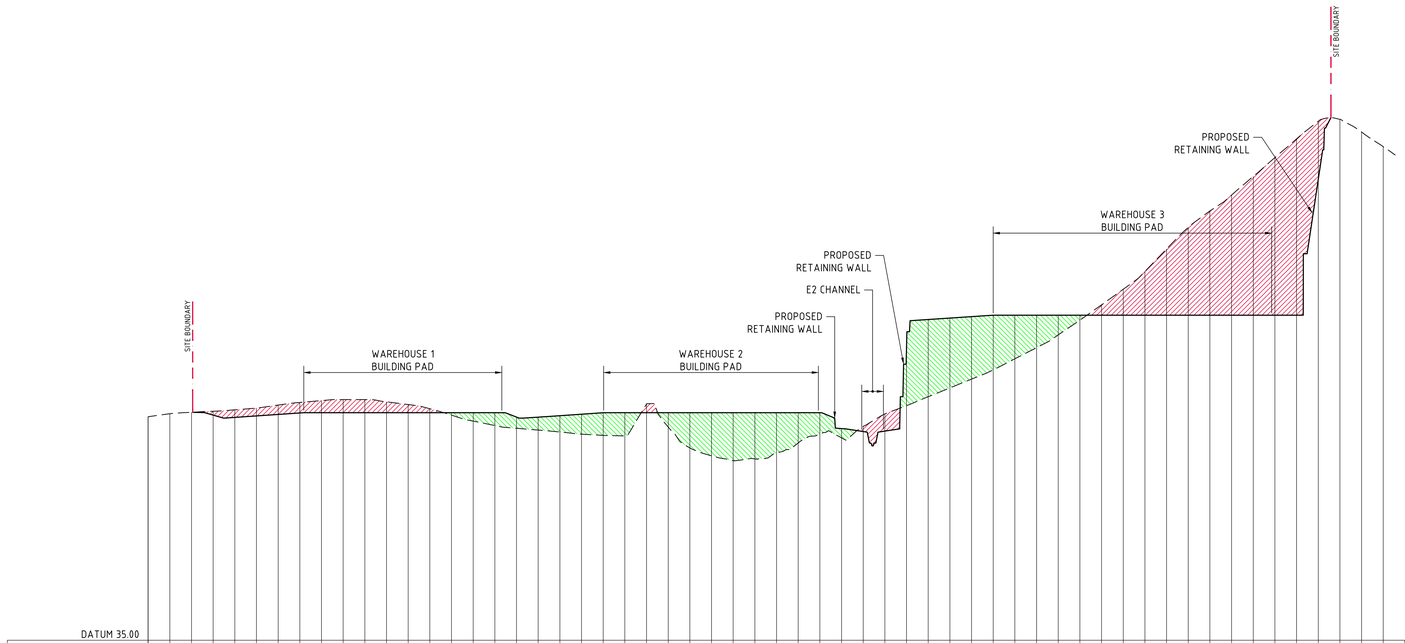
Costin Roe Consulting
PRECISION | COMMUNICATION | ACCOUNTABILITY

DRAWING TITLE
BULK EARTHWORKS PLAN

DRAWING No C013874.06-SSDA300 ISSUE D

LEGEND:

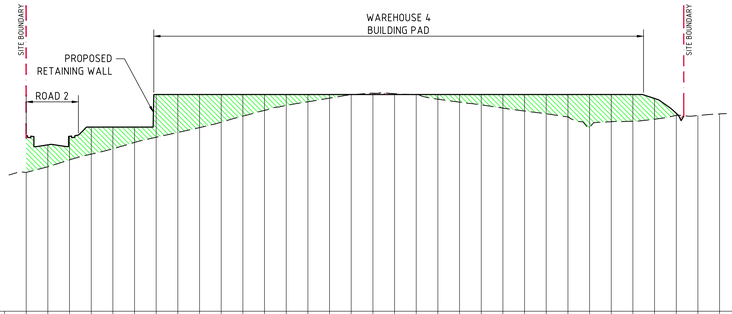
- DENOTES BULK EARTHWORKS PROFILE
- DENOTES EXISTING PROFILE
- DENOTES AREA IN CUT
- DENOTES AREA IN FILL



DATUM 35.00

CHAINAGE	0.000	10.000	20.000	30.000	40.000	50.000	60.000	70.000	80.000	90.000	100.000	110.000	120.000	130.000	140.000	150.000	160.000	170.000	180.000	190.000	200.000	210.000	220.000	230.000	240.000	250.000	260.000	270.000	280.000	290.000	300.000	310.000	320.000	330.000	340.000	350.000	360.000
EXISTING SURFACE LEVEL	55.63	55.909	56.042	56.140	56.268	55.570	56.428	55.705	55.840	55.975	56.000	57.124	57.276	57.211	57.605	56.758	56.370	56.221	55.779	55.227	56.000	56.000	56.000	56.000	56.000	56.000	56.000	56.000	56.000	56.000	56.000	56.000	56.000	56.000	56.000	56.000	56.000
BULK EARTHWORKS LEVEL																																					
CUT/FILL DEPTH				-0.360	-0.698	-0.723	-0.865	-0.978	-1.124	-1.276	-1.211	-1.605	-0.758	-0.370	0.221	0.773	1.184	1.031	1.195	1.507	1.839	2.089	2.143	0.893	1.318	3.245	3.978	4.426	4.262	3.701	2.787	1.966	0.860	-0.473	-1.585	5.423	7.129	6.447	5.769	5.049	4.221	2.991	1.896	0.452	-0.963	-2.394	-4.038	-6.117	-8.196	-9.639	-11.097	-12.813	-14.559	-16.278	-5.391						

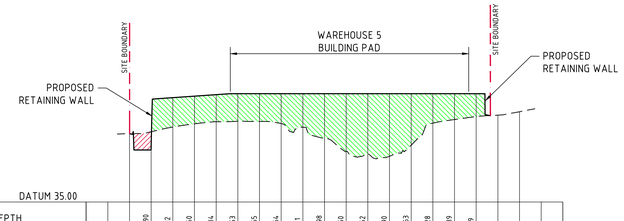
SECTION 1
HORIZONTAL SCALE 1:1000
VERTICAL SCALE 1:200



DATUM 35.00

CHAINAGE	0.000	10.000	20.000	30.000	40.000	50.000	60.000	70.000	80.000	90.000	100.000	110.000	120.000	130.000	140.000	150.000	160.000	170.000	180.000	190.000	200.000	210.000	220.000	230.000	240.000	250.000	260.000	270.000	280.000	290.000	300.000	310.000	320.000	330.000	340.000	350.000	360.000
EXISTING SURFACE LEVEL			47.840	48.334	48.967	49.500	49.995	50.577	51.058	51.594	51.948	52.450	53.088	53.539	53.995	54.332	54.869	54.975	55.122	55.078	54.973	54.572	54.300	54.044	53.750	53.480	53.225	52.932	52.601	52.492	52.532	54.633	53.270	53.064	53.219		
BULK EARTHWORKS LEVEL																																					
CUT/FILL DEPTH			2.020	0.355	1.147	2.180	2.500	2.005	1.423	0.942	0.496	0.652	0.550	1.092	1.441	1.005	0.668	0.331	0.025	-0.122	-0.078	0.023	0.428	0.700	0.956	1.250	1.520	1.775	2.068	2.999	2.508	2.468	1.990	0.290				

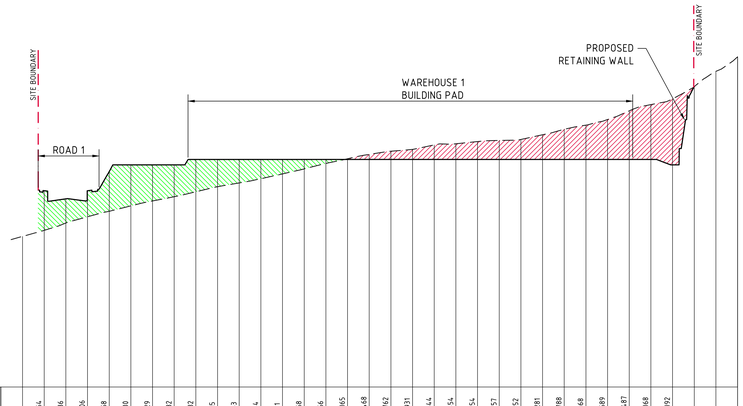
SECTION 2
HORIZONTAL SCALE 1:1000
VERTICAL SCALE 1:200



DATUM 35.00

CHAINAGE	0.000	10.000	20.000	30.000	40.000	50.000	60.000	70.000	80.000	90.000	100.000	110.000	120.000	130.000	140.000	150.000	160.000	170.000	180.000	190.000	200.000	210.000	220.000
EXISTING SURFACE LEVEL			41.361	41.481	41.919	42.210	42.405	42.447	42.435	42.236	41.899	42.902	39.650	39.438	39.210	40.237	42.272	42.611	42.881	43.011	43.328		
BULK EARTHWORKS LEVEL																							
CUT/FILL DEPTH				-1.196	2.712	2.560	2.504	2.553	2.565	2.764	3.101	4.698	5.350	5.562	5.790	4.763	2.728	2.389	2.119				

SECTION 3
HORIZONTAL SCALE 1:1000
VERTICAL SCALE 1:200



DATUM 35.00

CHAINAGE	0.000	10.000	20.000	30.000	40.000	50.000	60.000	70.000	80.000	90.000	100.000	110.000	120.000	130.000	140.000	150.000	160.000	170.000	180.000	190.000	200.000	210.000	220.000	230.000	240.000	250.000	260.000	270.000	280.000	290.000	300.000	310.000	320.000	330.000	340.000
EXISTING SURFACE LEVEL		48.900	49.453	50.133	50.711	51.221	51.720	52.171	52.568	53.018	53.485	53.837	54.226	54.669	55.132	55.634	56.065	56.488	56.762	56.931	57.344	57.654	57.757	57.852	58.281	58.788	59.168	59.689	60.487	61.068	61.592	62.715	64.140	65.148
BULK EARTHWORKS LEVEL																																			
CUT/FILL DEPTH			3.664	2.936	2.406	3.658	3.780	3.329	2.932	2.982	2.515	2.163	1.774	1.331	0.868	0.366	-0.065	-0.448	-0.762	-0.931	-1.344	-1.454	-1.654	-1.757	-1.852	-2.281	-2.788	-3.168	-3.689	-4.487	-5.068	-6.092			

SECTION 4
HORIZONTAL SCALE 1:1000
VERTICAL SCALE 1:200

2m 0 5 10 15 20m
SCALE 1:200 AT A0 SIZE SHEET

10m 0 10 20 30 40 50 60 70 80 90 100m
SCALE 1:1000 AT A0 SIZE SHEET

FOR DEVELOPMENT APPLICATION

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AMENDMENTS DATE ISSUE | AMENDMENTS DATE ISSUE | AMENDMENTS DATE ISSUE

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KEMPS CREEK NSW

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA350

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Costin Roe Consulting

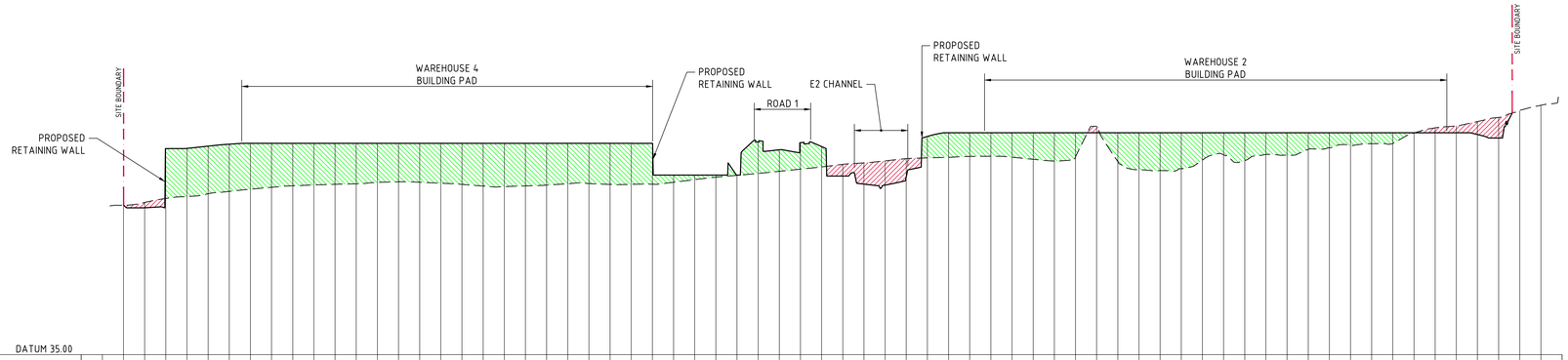
PRECISION | COMMUNICATION | ACCOUNTABILITY

DRAWING TITLE
BULK EARTHWORKS SECTIONS
SHEET 1

DRAWING No C013874.06-SSDA350 ISSUE B

LEGEND:

- DENOTES BULK EARTHWORKS PROFILE
- DENOTES EXISTING PROFILE
- DENOTES AREA IN CUT
- DENOTES AREA IN FILL



DATUM 35.00

| CHAINAGE | 0.000 | 10.000 | 20.000 | 30.000 | 40.000 | 50.000 | 60.000 | 70.000 | 80.000 | 90.000 | 100.000 | 110.000 | 120.000 | 130.000 | 140.000 | 150.000 | 160.000 | 170.000 | 180.000 | 190.000 | 200.000 | 210.000 | 220.000 | 230.000 | 240.000 | 250.000 | 260.000 | 270.000 | 280.000 | 290.000 | 300.000 | 310.000 | 320.000 | 330.000 | 340.000 | 350.000 | 360.000 | 370.000 | 380.000 | 390.000 | 400.000 | 410.000 | 420.000 | 430.000 | 440.000 | 450.000 | 460.000 | 470.000 | 480.000 | 490.000 | 500.000 | 510.000 | 520.000 | 530.000 | 540.000 | 550.000 | 560.000 | 570.000 | 580.000 | 590.000 | 600.000 | 610.000 | 620.000 | 630.000 | 640.000 | 650.000 | 660.000 | 670.000 | 680.000 | 690.000 | 700.000 |
|---|---|---

INTERALLOTMENT DRAIN DISCHARGES TO EXISTING MAMRE ROAD FRONTAGE. PROVIDE NEW 2m WIDE, 1.5m DEEP SWALE TO EXISTING RCBC

BIO-RETENTION CELL B:
BIO-RETENTION AREA = 540m³
FSL RL40.60
400mm EXTENDED DETENTION DEPTH
500mm MIN FILTER MEDIA

PROVIDE Φ1500 INTERALLOTMENT PIPE @ 1.0% WITH 25% BLOCKAGE TO DIVERT UPSTREAM CATCHMENT. RETAINING WALL TO BE FOUNDED BELOW ZOI OF DRAINAGE PIPE

UPSTREAM CATCHMENT ENTRY POINT
Q20 FLOW = 3.60m³/s
Q100 FLOW = 5.40m³/s

PROVIDE 2.5m WIDE, 0.5m DEEP VEGETATED DIVERSION SWALE TO CAPTURE UPSTREAM CATCHMENT. SWALE DISCHARGES TO FIELD INLET PIT & Φ1500 RCP LINE

WAREHOUSE 5
FFL 45.30
±1000mm

ESTATE BASIN 1:
COMBINED OSD AND BIO-RETENTION BASIN
ON-SITE DETENTION VOLUME = 3,500m³
BIO-RETENTION AREA = 1,340m²

DISCHARGE POINT 1:
SITE DISCHARGES TO EXISTING 2x1.2x.0.6 RCBC.

MAMRE ROAD

BIO-RETENTION CELL A:
BIO-RETENTION AREA = 800m³
FSL R 40.60
400mm EXTENDED DETENTION DEPTH
500mm MIN FILTER MEDIA

ALTIS SITE
UNDER ASSESSMENT WITH
PENRITH CITY COUNCIL

WAREHOUSE 4
41,480sqm
WAREHOUSE 4
FFL 55.30
±1000mm

BIO-RETENTION CELL A:
BIO-RETENTION AREA = 650m³
FSL RL 51.90
400mm EXTENDED DETENTION DEPTH
500mm MIN FILTER MEDIA

ROAD 1

ROAD 2

REFER TO DRAWING SSDA413 FOR WAREHOUSE 3 DRAINAGE LAYOUT

WAREHOUSE 3
FFL 65.50
±1000mm

E2 CHANNEL

RE-ALIGNED E2 CORRIDOR. REFER TO DRAWING SSDA420 FOR DETAILS

WAREHOUSE 2
22,870sqm
WAREHOUSE 2
FFL 56.50
±1000mm

UPSTREAM CATCHMENT ENTRY POINT
Q20 FLOW = 4.10m³/s
Q100 FLOW = 6.00m³/s

TEMPORARY ACCESS ROAD. TO BE MADE REDUNDANT ON COMPLETION OF ESTATE ROAD CONNECTIONS

DISCHARGE POINT 2:
SITE DISCHARGES THROUGH PROPOSED BOX CULVERT TO PROPOSED RIPARIAN CORRIDOR ON MIRVAC LAND.

ESTATE BASIN 2:
UTILISE PROPOSED E2 CORRIDOR FOR STORMWATER TREATMENT AND RETENTION
ON-SITE DETENTION VOLUME = 5,400m³
BIO-RETENTION AREA = 1,250m²

BIO-RETENTION CELL B:
BIO-RETENTION AREA = 600m³
FSL RL 51.90
400mm EXTENDED DETENTION DEPTH
500mm MIN FILTER MEDIA

WAREHOUSE 1
19,525sqm
WAREHOUSE1
FFL 56.50
±1000mm

REFER TO DRAWING SSDA411 FOR WAREHOUSE 1 DRAINAGE LAYOUT

UPSTREAM CATCHMENT ENTRY POINT
Q20 FLOW = 0.40m³/s
Q100 FLOW = 0.60m³/s

INTERFACE WITH MIRVAC ESTATE TO BE CONFIRMED

MIRVAC
"ASPECT INDUSTRIAL ESTATE"
PER SSD-10448

LEVELS NOTE:

LEVELS SHOWN TO BE +/-1000mm FROM THOSE SHOWN. FINAL LEVELS SUBJECT TO FINAL GEOTECHNICAL INVESTIGATIONS, ARCHITECTURAL LAYOUT AND ACHIEVING A CUT TO FILL EARTHWORKS BALANCE OVER THE PROPERTY.

LEGEND:

LEVELS DATUM IS AHD.

EXISTING SITE LEVELS AND DETAILS BASED ON A PLAN OF SURVEY 20119 DE-01 BY STATIKER 26/09/20.

- 50.00 – FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- 50.10 – FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
- 50.10 – EXISTING ESTATE CONTOUR
- SW – INFRASTRUCTURE DRAINAGE
- SW – FUTURE SITE DRAINAGE
- – POST-DEVELOPMENT CATCHMENT
- – KIP, KERB INLET PIT
- – SGGP, SINGLE GRATED GULLY PIT
- – SJP, SEALED JUNCTION PIT

STORMWATER DRAINAGE MASTER PLAN
SCALE 1:1000

10m 0 10 20 30 40 50 60 70 80 90 100m
SCALE 1:1000 AT A0 SIZE SHEET

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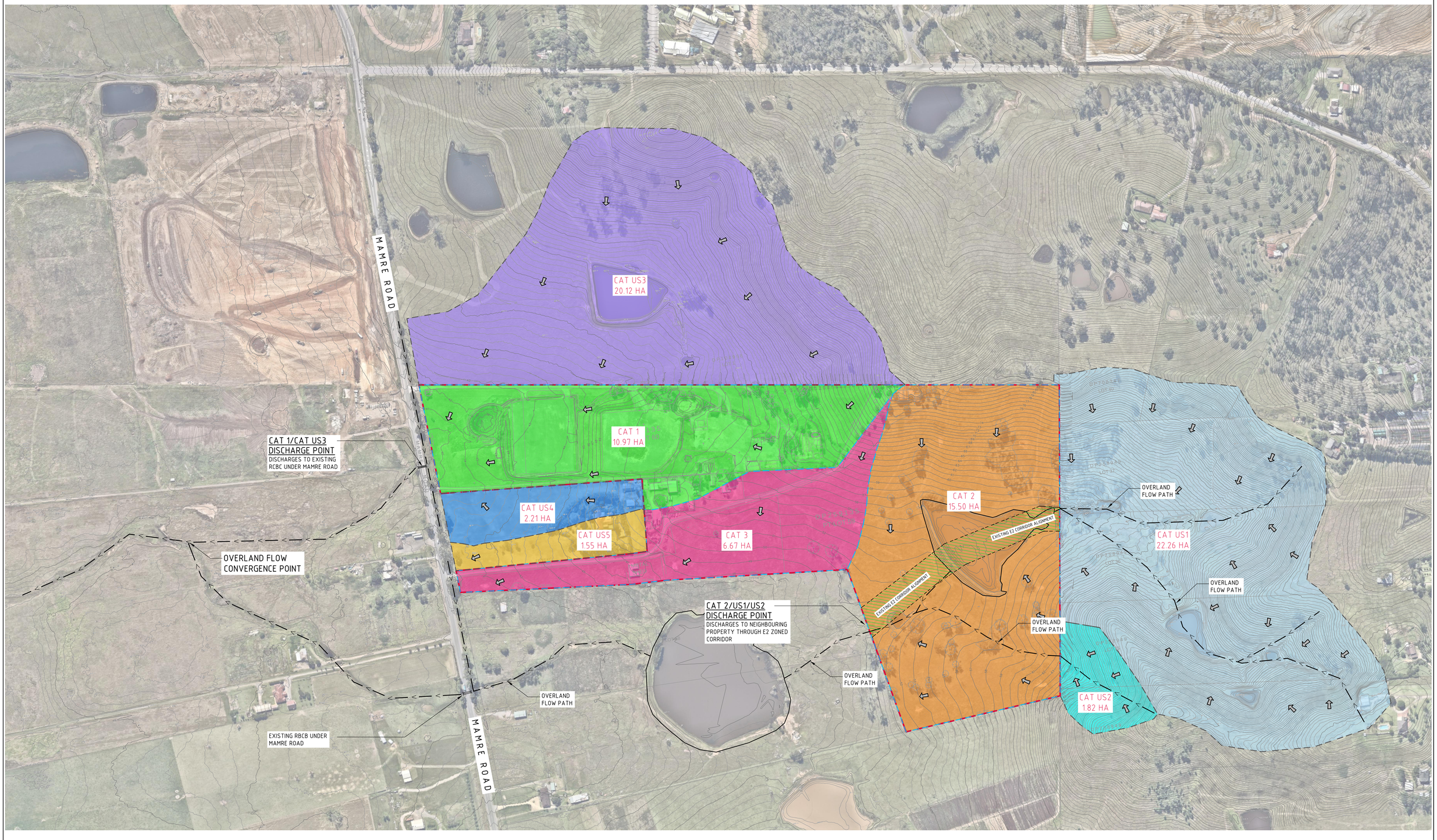
DRAWING TITLE
STORMWATER DRAINAGE MASTERPLAN

DRAWING No C013874.06-SSDA400 ISSUE E



PRE-DEVELOPMENT CATCHMENT PLAN
SCALE 1:2000

20m 0 50 100 150 200m
SCALE 1:2000 AT A0 SIZE SHEET

FOR DEVELOPMENT APPLICATION

AMENDMENTS	DATE	ISSUE
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	21.05.21	A

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CLIENT
GPT
The GPT Group

PROJECT
YIRIBANA LOGISTICS ESTATE
754-770 & 784-786 MAMRE ROAD
KEMPS CREEK NSW

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA401

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Costin Roe Consulting
PRECISION | COMMUNICATION | ACCOUNTABILITY

DRAWING TITLE
PRE-DEVELOPMENT
STORMWATER CATCHMENT PLAN

DRAWING NO C013874.06-SSDA401 ISSUE A

MAMRE ROAD

CAT US3
20.12 HA

CAT US3 COLLECTION POINT
UPSTREAM CATCHMENT COLLECTED IN SWALE & INTERALLOTMENT DRAINAGE LINE

CAT US3 DISCHARGE POINT
CAT US3 DISCHARGES TO EXISTING MAMRE ROAD TABLE DRAIN & EXISTING RCBC CROSSING

CAT 1 DISCHARGE POINT
TREATED & ATTENUATED STORMWATER DISCHARGES TO EXISTING RCBC UNDER MAMRE ROAD

OVERLAND FLOW CONVERGENCE POINT

EXISTING RCBC UNDER MAMRE ROAD

CAT 1-5
5.93 HA

CAT 1-4
7.55 HA

CAT US4
2.21 HA

CAT US5
1.55 HA

CAT 2-3
7.13 HA

CAT 2-E2
0.97 HA

CAT 2-2
4.45 HA

CAT 2-1
4.00 HA

CAT ROAD BYPASS 1
1.06 HA

CAT ROAD 1-1
1.66 HA

CAT ROAD 2-1
0.85 HA

RIPARIAN CORRIDOR ON MIRVAC LAND

CAT 2 DISCHARGE POINT
TREATED & ATTENUATED STORMWATER DISCHARGES TO E2 CORRIDOR ON ADJACENT PROPERTY

CAT US1 COLLECTION POINT
UPSTREAM CATCHMENT DISCHARGES TO REALIGNED E2 CORRIDOR

CAT US1
22.26 HA

CAT US2 COLLECTION POINT
UPSTREAM CATCHMENT DISCHARGES TO ROCK CHUTE/DISSIPATER STRUCTURE TO IN-GROUND STORMWATER

CAT US2
1.82 HA

OVERLAND FLOW PATH

POST DEVELOPMENT STORMWATER CATCHMENT PLAN

SCALE 1:2000

20m 0 50 100 150 200m
SCALE 1:2000 AT A0 SIZE SHEET

FOR DEVELOPMENT APPLICATION

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DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA402

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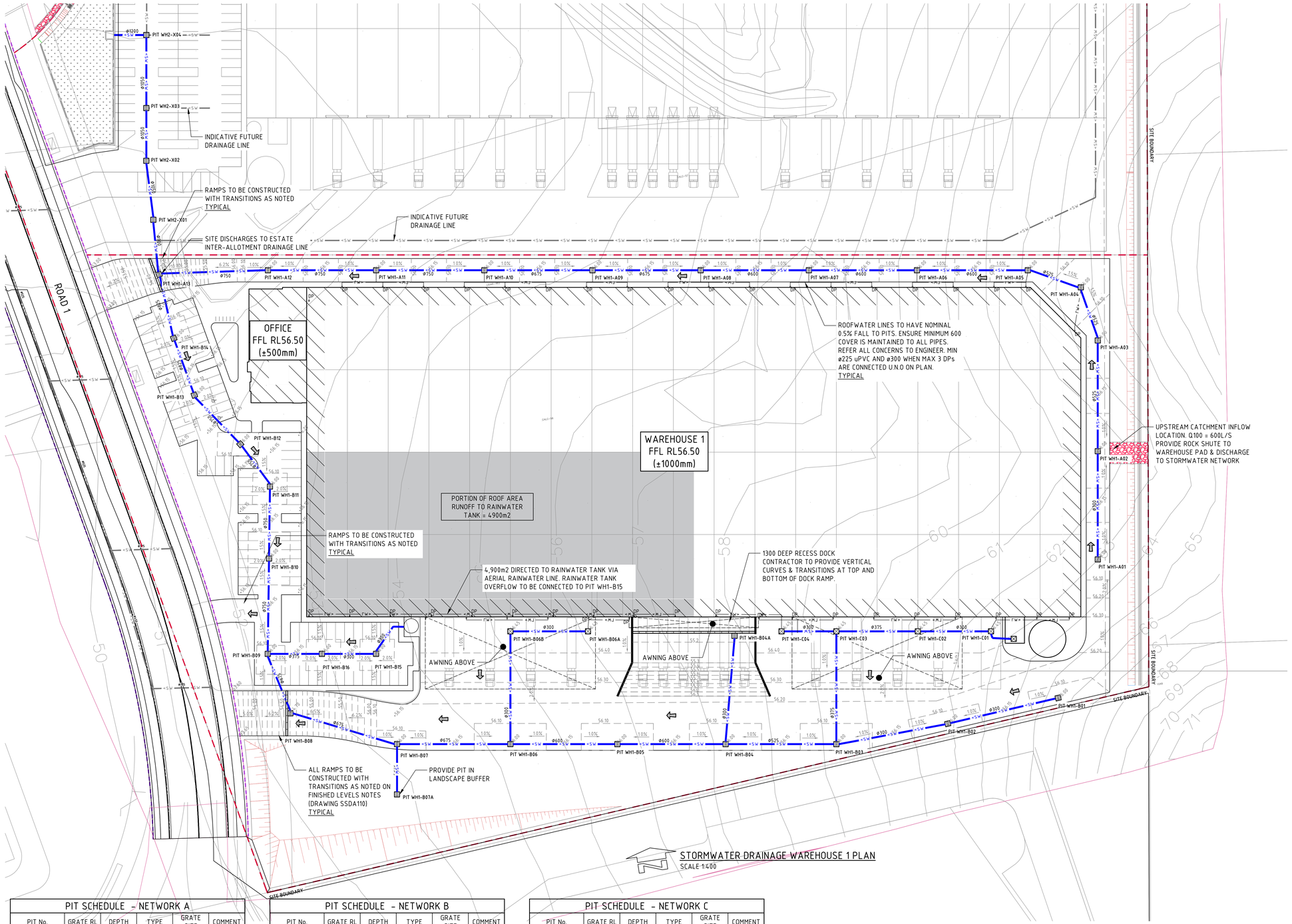
DRAWING TITLE
POST-DEVELOPMENT STORMWATER CATCHMENT PLAN

DRAWING NO C013874.06-SSDA402 ISSUE A



STORMWATER DRAINAGE WAREHOUSE 1 PLAN
SCALE 1:400

LEGEND:

LEVELS DATUM IS AHD.

EXISTING SITE LEVELS AND DETAILS BASED ON A PLAN OF SURVEY 20119 DE-01 BY STATIKER 26/09/20.

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- GD, GRATED DRAIN (300W x 225D UNO)
- PROPOSED DRAINAGE LINE
- EXISTING ESTATE DRAINAGE LINE
- ROOFWATER DOWNPIPE (INDICATIVE)
- OVERLAND FLOW DIRECTION
- FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
- EXISTING ESTATE CONTOUR

STORMWATER DRAINAGE NOTES :

1. ALL STORMWATER WORKS TO BE COMPLETED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS3500.3:2003 PLUMBING AND DRAINAGE, PART 3: STORMWATER DRAINAGE.
2. THE MINOR (PIPED) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 20 YEAR ARI STORM EVENT AND THE MAJOR (OVERLAND) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 100 YEAR ARI STORM EVENT.
3. ALL FINISHED PAVEMENT LEVELS SHALL BE AS INDICATED ON FINISHED LEVELS PLANS SSDA511.
4. PIT SIZES SHALL BE AS INDICATED IN THE SCHEDULE WHILE PIPE SIZES AND DETAILS ARE PROVIDED ON PLAN.
5. EXISTING STORMWATER PIT LOCATIONS AND INVERT LEVELS TO BE CONFIRMED BY SURVEY PRIOR TO COMMENCING WORKS ON SITE.
6. ALL STORMWATER PIPES ø375 OR GREATER SHALL BE CLASS 2 (WITH HS2 SUPPORT) REINFORCED CONCRETE WITH RUBBER RING JOINTS UNLESS NOTED OTHERWISE.
7. ALL PIPES UP TO AND INCLUDING ø300 TO BE uPVC GRADE SN8 UNO.
8. PIPE CLASS NOMINATED ARE FOR IN-SERVICE LOADING CONDITIONS ONLY. CONTRACTOR IS TO MAKE ANY NECESSARY ADJUSTMENTS REQUIRED FOR CONSTRUCTION CONDITIONS.
9. ALL CONCRETE PITS GREATER THAN 1000mm DEEP SHALL BE REINFORCED USING N12-200 EACH WAY CENTERED IN WALL AND BASE. LAP MINIMUM 300mm WHERE REQUIRED. ALL CONCRETE FOR PITS SHALL BE F'c=25 MPa. PRECAST PITS MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
10. IN ADDITION TO ITEM 6 ABOVE, ALL CONCRETE PITS GREATER THAN 3000mm DEEP SHALL HAVE WALLS AND BASE THICKNESS INCREASED TO 200mm.
11. PIPES SHALL BE LAID AS PER PIPE LAYING DETAILS. PARTICULAR CARE SHALL BE TAKEN TO ENSURE THAT THE PIPE IS FULLY AND EVENLY SUPPORTED. RAM AND PACK FILLING AROUND AND UNDER BACK OF PIPES AND PIPE FAUCETS, WITH NARROW EDGED RAMMERS OR OTHER SUITABLE TAMPING DETAILS.
12. CONCRETE PIPES UNDER, OR WITHIN THE ZONE OF INFLUENCE OF PAVED AREAS SHALL BE LAID USING HS2 TYPE SUPPORT, AS A MINIMUM, IN ACCORDANCE WITH AS 3725. AGGREGATE BACKFILL SHALL NOT BE USED FOR PIPE BEDDING AND OR HAUNCH/SIDE SUPPORT.
13. WHERE PIPE LINES ENTER PITS, PROVIDE 2m LENGTH OF STOCKING WRAPPED SLOTTED ø100 uPVC TO EACH SIDE OF PIPE.
14. ALL SUBSOIL DRAINAGE LINES SHALL BE ø100 SLOTTED uPVC WITH APPROVED FILTER WRAP LAID IN 300mm WIDE GRANULAR FILTER UNLESS NOTED OTHERWISE. LAY SUBSOIL LINES TO MATCH FALLS OF LAND AND/OR 1 IN 200 MINIMUM. PROVIDE CAPPED CLEANING EYE (RODDING POINT) AT UPSTREAM END OF LINE AND AT 30m MAX. CTS. PROVIDE SUBSOIL LINES TO ALL PAVEMENT/ LANDSCAPED INTERFACES, TO REAR OF RETAINING WALLS (AS NOMINATED BY STRUCTURAL ENGINEER) AND AS SHOWN ON PLAN.
15. ALL PIPE GRADES 1 IN 200 MINIMUM UNO.
16. PROVIDE STEP IRONS IN PITS DEEPER THAN 1000mm.
17. MIN. 600 COVER TO PIPE OBVERT BENEATH ROADS & MIN. 400 COVER BENEATH LANDSCAPED AND PEDESTRIAN AREAS.
18. PIT COVERS IN TRAFFICABLE PAVEMENT SHALL BE CLASS D 'HEAVY DUTY', THOSE LOCATED IN NON-TRAFFICABLE AREAS SHALL BE CLASS B 'MEDIUM DUTY' U.N.O.
19. PROVIDE CLEANING EYES (RODDING POINTS) TO PIPES AT ALL CORNERS AND T-JUNCTIONS WHERE NO PITS ARE PRESENT.
20. DOWN PIPES (DP) TO BE AS PER HYDRAULIC ENGINEERS DETAILS WITH CONNECTOR TO MATCH DP SIZE U.N.O. ON PLAN. PROVIDE CLEANING EYE AT GROUND LEVEL.
21. PIPE LENGTHS NOMINATED ON PLAN OR LONGSECTIONS ARE MEASURED FROM CENTER OF PITS TO THE NEAREST 0.5m AND DO NOT REPRESENT ACTUAL LENGTH. THE CONTRACTOR IS TO ALLOW FOR THIS.

LEVELS NOTE:

LEVELS SHOWN TO BE +/-1000mm FROM THOSE SHOWN. FINAL LEVELS SUBJECT TO FINAL GEOTECHNICAL INVESTIGATIONS, ARCHITECTURAL LAYOUT AND ACHIEVING A CUT TO FILL EARTHWORKS BALANCE OVER THE PROPERTY.

PIT SCHEDULE - NETWORK A

PIT No.	GRATE RL	DEPTH	TYPE	GRATE SIZE	COMMENT
PIT WH1-A01	56.00		SGGP	900x900	◇
PIT WH1-A02	56.00		SGGP	900x900	◇
PIT WH1-A03	56.00		SGGP	900x900	◇
PIT WH1-A04	56.00		SGGP	900x900	◇
PIT WH1-A05	56.00		SGGP	900x900	◇
PIT WH1-A06	56.00		SGGP	900x900	◇
PIT WH1-A07	56.00		SGGP	900x900	◇
PIT WH1-A08	56.00		SGGP	900x900	◇
PIT WH1-A09	56.00		SGGP	900x900	◇
PIT WH1-A010	56.00		SGGP	900x900	◇
PIT WH1-A11	56.00		SGGP	900x900	◇
PIT WH1-A12	56.00		SGGP	900x900	◇
PIT WH1-A13	54.20		SGGP	900x900	◇

NOTE:
PITS TO BE FITTED WITH OCEAN PROTECT OCEAN GUARD OG200 PIT INSERTS SHOWN THUS ◇
TOTAL NO OF PIT INSERTS = 36
REFER TO PIT SCHEDULE ABOVE

PIT SCHEDULE - NETWORK B

PIT No.	GRATE RL	DEPTH	TYPE	GRATE SIZE	COMMENT
PIT WH1-B01	56.00		SGGP	900x900	◇
PIT WH1-B02	56.00		SGGP	900x900	◇
PIT WH1-B03	56.00		SGGP	900x900	◇
PIT WH1-B04	56.00		SGGP	900x900	◇
PIT WH1-B04A	56.00		SGGP	900x900	◇
PIT WH1-B05	56.00		SGGP	900x900	◇
PIT WH1-B06	56.00		SGGP	900x900	◇
PIT WH1-B06A	56.45		SJP	900x900	
PIT WH1-B06B	56.45		SJP	900x900	
PIT WH1-B07	56.00		SGGP	900x900	◇
PIT WH1-B08	56.00		SGGP	900x900	◇
PIT WH1-B09	56.00		SGGP	900x900	◇
PIT WH1-B10	56.00		SGGP	900x900	◇
PIT WH1-B11	56.00		SGGP	900x900	◇
PIT WH1-B12	56.00		SGGP	900x900	◇
PIT WH1-B13	56.00		SGGP	900x900	◇
PIT WH1-B14	56.00		SGGP	900x900	◇
PIT WH1-B15	56.00		SGGP	900x900	◇
PIT WH1-B16	56.00		SGGP	900x900	◇

PIT SCHEDULE - NETWORK C

PIT No.	GRATE RL	DEPTH	TYPE	GRATE SIZE	COMMENT
PIT WH1-C01	56.45		SJP	900x900	
PIT WH1-C02	56.45		SJP	900x900	
PIT WH1-C03	56.45		SJP	900x900	
PIT WH1-C04	56.45		SJP	900x900	

PIT SCHEDULE - NETWORK X

PIT No.	GRATE RL	DEPTH	TYPE	GRATE SIZE	COMMENT
PIT WH1-X01	54.45		SGGP	900x900	
PIT WH1-X02	56.45		SGGP	900x900	
PIT WH1-X03	56.45		SGGP	900x900	
PIT WH1-X04	56.45		SGGP	900x900	

FOR DEVELOPMENT APPLICATION

4m 0 10 20 30 40m
SCALE 1:400 AT A0 SIZE SHEET

AMENDMENTS	DATE	ISSUE
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	01.06.21	B
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	21.05.21	A

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754-770 & 784-786 MAMRE ROAD
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DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA411

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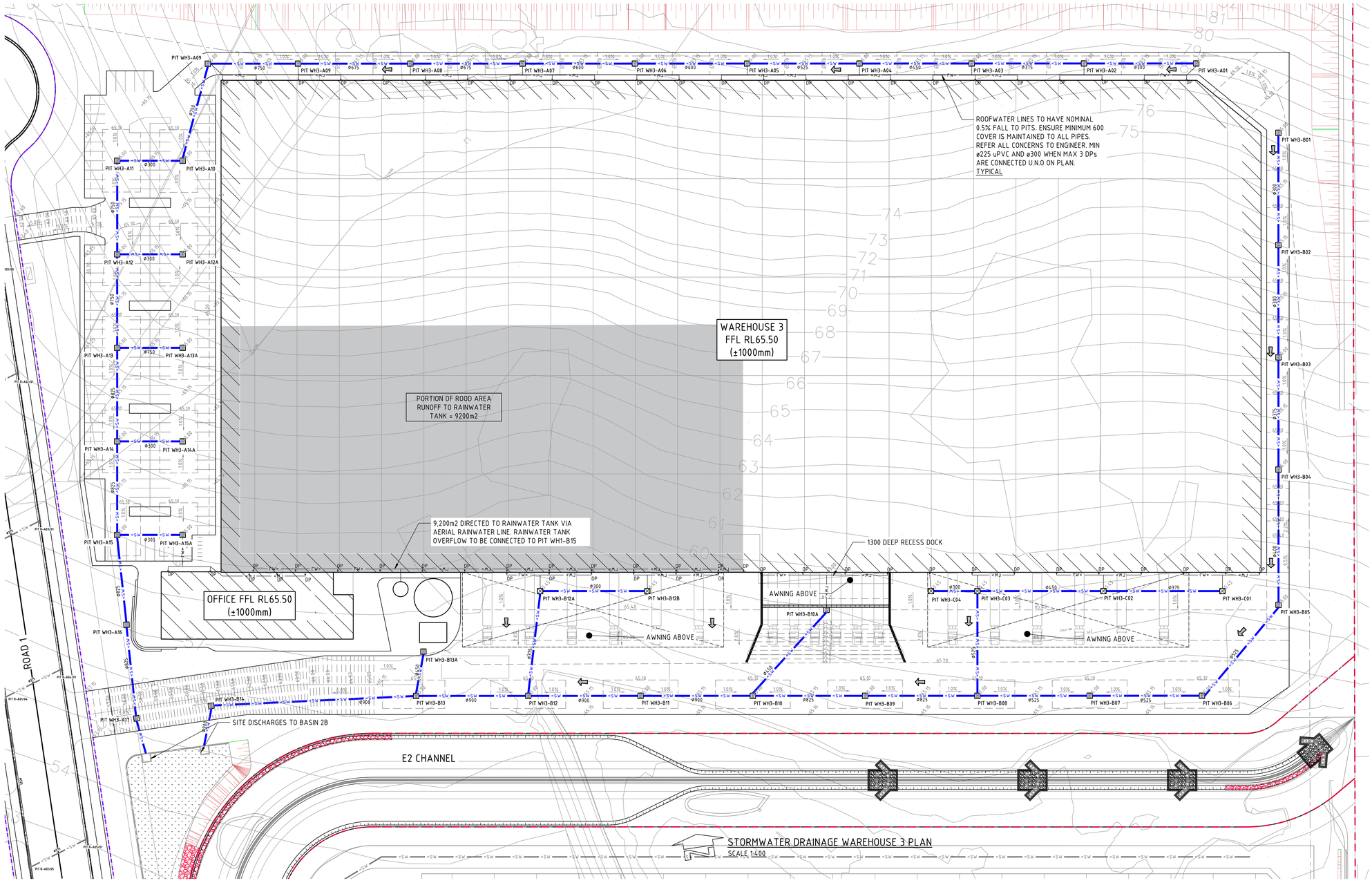
Costin Roe Consulting
PRECISION | COMMUNICATION | ACCOUNTABILITY

DRAWING TITLE
STORMWATER DRAINAGE WAREHOUSE 1 PLAN

DRAWING No. C013874.06-SSDA411 ISSUE B



STORMWATER DRAINAGE WAREHOUSE 3 PLAN
SCALE 1:400

LEGEND:

LEVELS DATUM IS AHD.

EXISTING SITE LEVELS AND DETAILS BASED ON A PLAN OF SURVEY 20119 DE-01 BY STATIKER 26/09/20.

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- GD, GRATED DRAIN (300W x 225D UNO)
- PROPOSED DRAINAGE LINE
- EXISTING ESTATE DRAINAGE LINE
- ROOFWATER DOWNPIPE (INDICATIVE)
- OVERLAND FLOW DIRECTION
- FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
- EXISTING ESTATE CONTOUR

STORMWATER DRAINAGE NOTES :

1. ALL STORMWATER WORKS TO BE COMPLETED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS3500.3:2003 PLUMBING AND DRAINAGE, PART 3: STORMWATER DRAINAGE.
2. THE MINOR (PIPED) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 20 YEAR ARI STORM EVENT AND THE MAJOR (OVERLAND) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 100 YEAR ARI STORM EVENT.
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4. PIT SIZES SHALL BE AS INDICATED IN THE SCHEDULE WHILE PIPE SIZES AND DETAILS ARE PROVIDED ON PLAN.
5. EXISTING STORMWATER PIT LOCATIONS AND INVERT LEVELS TO BE CONFIRMED BY SURVEY PRIOR TO COMMENCING WORKS ON SITE.
6. ALL STORMWATER PIPES Ø375 OR GREATER SHALL BE CLASS 2 (WITH HS2 SUPPORT) REINFORCED CONCRETE WITH RUBBER RING JOINTS UNLESS NOTED OTHERWISE.
7. ALL PIPES UP TO AND INCLUDING Ø300 TO BE uPVC GRADE SN8 UNO.
8. PIPE CLASS NOMINATED ARE FOR IN-SERVICE LOADING CONDITIONS ONLY. CONTRACTOR IS TO MAKE ANY NECESSARY ADJUSTMENTS REQUIRED FOR CONSTRUCTION CONDITIONS.
9. ALL CONCRETE PITS GREATER THAN 1000mm DEEP SHALL BE REINFORCED USING N12-200 EACH WAY CENTERED IN WALL AND BASE. LAP MINIMUM 300mm WHERE REQUIRED. ALL CONCRETE FOR PITS SHALL BE F'c=25 MPa. PRECAST PITS MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
10. IN ADDITION TO ITEM 6 ABOVE, ALL CONCRETE PITS GREATER THAN 3000mm DEEP SHALL HAVE WALLS AND BASE THICKNESS INCREASED TO 200mm.
11. PIPES SHALL BE LAID AS PER PIPE LAYING DETAILS. PARTICULAR CARE SHALL BE TAKEN TO ENSURE THAT THE PIPE IS FULLY AND EVENLY SUPPORTED. RAM AND PACK FILLING AROUND AND UNDER BACK OF PIPES AND PIPE FAUCETS, WITH NARROW EDGED RAMMERS OR OTHER SUITABLE TAMPING DETAILS.
12. CONCRETE PIPES UNDER, OR WITHIN THE ZONE OF INFLUENCE OF PAVED AREAS SHALL BE LAID USING HS2 TYPE SUPPORT, AS A MINIMUM, IN ACCORDANCE WITH AS 3725. AGGREGATE BACKFILL SHALL NOT BE USED FOR PIPE BEDDING AND OR HAUNCH/SIDE SUPPORT.
13. WHERE PIPE LINES ENTER PITS, PROVIDE 2m LENGTH OF STOCKING WRAPPED SLOTTED Ø100 uPVC TO EACH SIDE OF PIPE.
14. ALL SUBSOIL DRAINAGE LINES SHALL BE Ø100 SLOTTED uPVC WITH APPROVED FILTER WRAP LAID IN 300mm WIDE GRANULAR FILTER UNLESS NOTED OTHERWISE. LAY SUBSOIL LINES TO MATCH FALLS OF LAND AND/OR 1 IN 200 MINIMUM. PROVIDE CAPPED CLEANING EYE (RODDING POINT) AT UPSTREAM END OF LINE AND AT 30m MAX. CTS. PROVIDE SUBSOIL LINES TO ALL PAVEMENT/ LANDSCAPED INTERFACES, TO REAR OF RETAINING WALLS (AS NOMINATED BY STRUCTURAL ENGINEER) AND AS SHOWN ON PLAN.
15. ALL PIPE GRADES 1 IN 200 MINIMUM UNO.
16. PROVIDE STEP IRONS IN PITS DEEPER THAN 1000mm.
17. MIN. 600 COVER TO PIPE OBVERT BENEATH ROADS & MIN. 400 COVER BENEATH LANDSCAPED AND PEDESTRIAN AREAS.
18. PIT COVERS IN TRAFFICABLE PAVEMENT SHALL BE CLASS D 'HEAVY DUTY', THOSE LOCATED IN NON-TRAFFICABLE AREAS SHALL BE CLASS B 'MEDIUM DUTY' U.N.O.
19. PROVIDE CLEANING EYES (RODDING POINTS) TO PIPES AT ALL CORNERS AND T-JUNCTIONS WHERE NO PITS ARE PRESENT.
20. DOWN PIPES (DP) TO BE AS PER HYDRAULIC ENGINEERS DETAILS WITH CONNECTOR TO MATCH DP SIZE U.N.O. ON PLAN. PROVIDE CLEANING EYE AT GROUND LEVEL.
21. PIPE LENGTHS NOMINATED ON PLAN OR LONGSECTIONS ARE MEASURED FROM CENTER OF PITS TO THE NEAREST 0.5m AND DO NOT REPRESENT ACTUAL LENGTH. THE CONTRACTOR IS TO ALLOW FOR THIS.

PIT SCHEDULE - NETWORK A

PIT No.	GRATE RL	DEPTH	TYPE	GRATE SIZE	COMMENT
PIT WH3-A01	65.00		SGGP	900x900	◇
PIT WH3-A02	65.00		SGGP	900x900	◇
PIT WH3-A03	65.00		SGGP	900x900	◇
PIT WH3-A04	65.00		SGGP	900x900	◇
PIT WH3-A05	65.00		SGGP	900x900	◇
PIT WH3-A06	65.00		SGGP	900x900	◇
PIT WH3-A07	65.00		SGGP	900x900	◇
PIT WH3-A08	65.00		SGGP	900x900	◇
PIT WH3-A09	65.00		SGGP	900x900	◇
PIT WH3-A10	65.00		SGGP	900x900	◇
PIT WH3-A10A	65.00		SGGP	900x900	◇
PIT WH3-A11	65.00		SGGP	900x900	◇
PIT WH3-A11A	65.00		SGGP	900x900	◇
PIT WH3-A12	65.00		SGGP	900x900	◇
PIT WH3-A13	65.00		SGGP	900x900	◇
PIT WH3-A14A	65.00		SGGP	900x900	◇
PIT WH3-A15	65.00		SGGP	900x900	◇
PIT WH3-A15A	65.00		SGGP	900x900	◇
PIT WH3-A16	65.00		SGGP	900x900	◇
PIT WH3-A17	65.00		SGGP	900x900	◇

PIT SCHEDULE - NETWORK B

PIT No.	GRATE RL	DEPTH	TYPE	GRATE SIZE	COMMENT
PIT WH3-B01	65.00		SGGP	900x900	◇
PIT WH3-B02	65.00		SGGP	900x900	◇
PIT WH3-B03	65.00		SGGP	900x900	◇
PIT WH3-B04	65.00		SGGP	900x900	◇
PIT WH3-B05	65.00		SGGP	900x900	◇
PIT WH3-B06	65.00		SGGP	900x900	◇
PIT WH3-B07	65.00		SGGP	900x900	◇
PIT WH3-B08	65.00		SGGP	900x900	◇
PIT WH3-B09	65.00		SGGP	900x900	◇
PIT WH3-B10	65.00		SGGP	900x900	◇
PIT WH3-B10A	65.00		SGGP	900x900	◇
PIT WH3-B11	65.00		SGGP	900x900	◇
PIT WH3-B12	65.00		SGGP	900x900	◇
PIT WH3-B12A	65.45		SJP	900x900	
PIT WH3-B12B	65.45		SJP	900x900	
PIT WH3-B13	65.00		SGGP	900x900	◇
PIT WH3-B13A	65.00		SGGP	900x900	◇
PIT WH3-B14	65.00		SGGP	900x900	◇

PIT SCHEDULE NETWORK C

PIT No.	GRATE RL	DEPTH	TYPE	GRATE SIZE	COMMENT
PIT WH3-C01	65.45		SJP	900x900	
PIT WH3-C02	65.45		SJP	900x900	
PIT WH3-C03	65.45		SJP	900x900	
PIT WH3-C04	65.45		SJP	900x900	

NOTE:

PITS TO BE FITTED WITH OCEAN PROTECT OCEAN GUARD OG200 PIT INSERTS SHOWN THUS ◇
TOTAL NO OF PIT INSERTS = 42
REFER TO PIT SCHEDULE ABOVE

LEVELS NOTE:

LEVELS SHOWN TO BE +/-1000mm FROM THOSE SHOWN. FINAL LEVELS SUBJECT TO FINAL GEOTECHNICAL INVESTIGATIONS, ARCHITECTURAL LAYOUT AND ACHIEVING A CUT TO FILL EARTHWORKS BALANCE OVER THE PROPERTY.

4m 0 10 20 30 40m
SCALE 1:400 AT A0 SIZE SHEET

FOR DEVELOPMENT APPLICATION

AMENDMENTS	DATE	ISSUE
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	21.05.21	A

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754-770 & 784-786 MAMRE ROAD
KEMPS CREEK NSW

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA413

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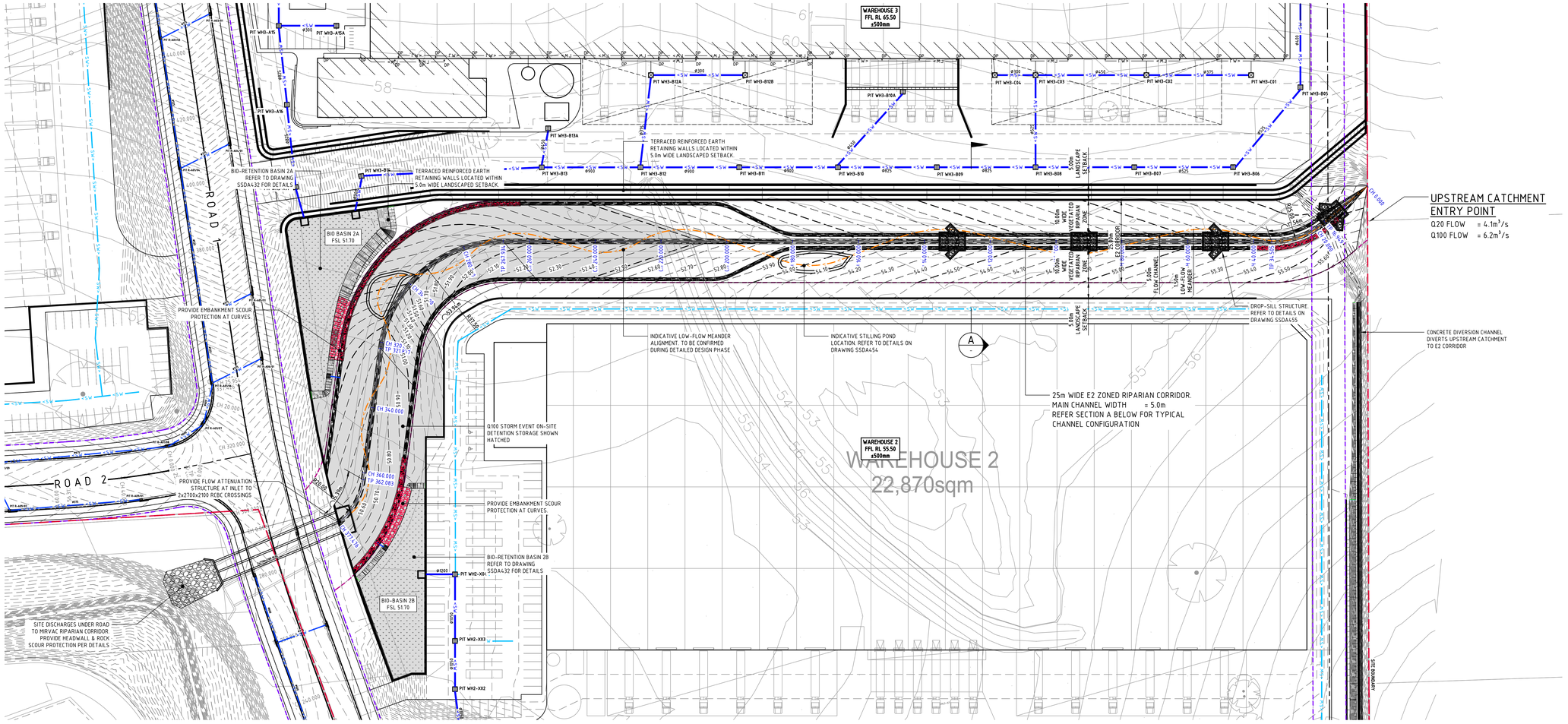
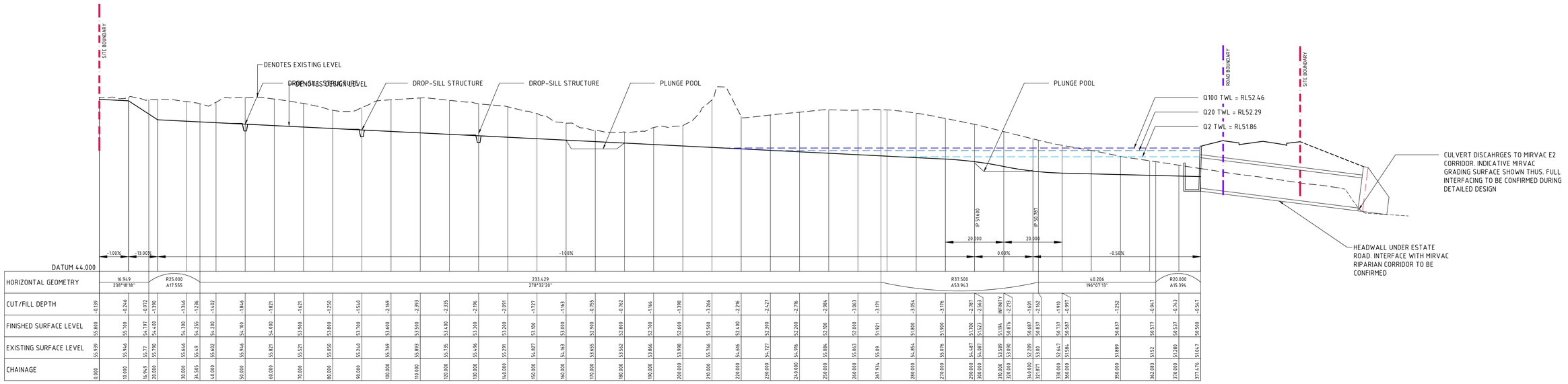
PRECISION | COMMUNICATION | ACCOUNTABILITY

DRAWING TITLE: STORMWATER DRAINAGE WAREHOUSE 3 PLAN
DRAWING No: C013874.06-SSDA413 ISSUE: A

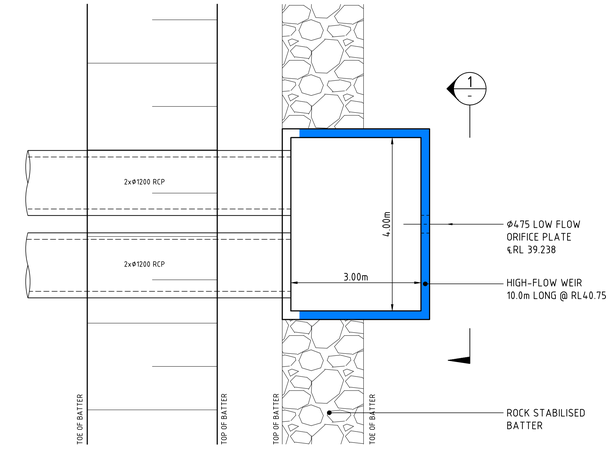

WAREHOUSE 3
FFL RL 65.50
±500mm
WAREHOUSE 2
FFL RL 55.50
±500mm
WAREHOUSE 2
22,870sqm
ROAD 1
ROAD 2
BIO BASIN 2A
FSL 51.70
BIO-BASIN 2B
FSL 51.70
BIO-RETENTION BASIN 2A
REFER TO DRAWING
SSDA432 FOR DETAILS
BIO-RETENTION BASIN 2B
REFER TO DRAWING
SSDA432 FOR DETAILS
TERRACED REINFORCED EARTH
RETAINING WALLS LOCATED WITHIN
5.0m WIDE LANDSCAPED SETBACK.
PROVIDE EMBANKMENT SCOUR
PROTECTION AT CURVES.
PROVIDE FLOW ATTENUATION
STRUCTURE AT INLET TO
2x2700x2100 RCBC CROSSINGS
Q100 STORM EVENT ON-SITE
DETENTION STORAGE SHOWN
HATCHED
SITE DISCHARGES UNDER ROAD
TO MRVAC RIPARIAN CORRIDOR
PROVIDE HEADWALL & ROCK
SCOUR PROTECTION PER DETAILS
INDICATIVE LOW-FLOW MEANDER
ALIGNMENT. TO BE CONFIRMED
DURING DETAILED DESIGN PHASE
INDICATIVE STILLING POND
LOCATION. REFER TO DETAILS ON
DRAWING SSDA454
25m WIDE E2 ZONED RIPARIAN CORRIDOR.
MAIN CHANNEL WIDTH = 5.0m
REFER SECTION A BELOW FOR TYPICAL
CHANNEL CONFIGURATION
DROP-SILL STRUCTURE
REFER TO DETAILS ON
DRAWING SSDA455
CONCRETE DIVERSION CHANNEL
DIVERTS UPSTREAM CATCHMENT
TO E2 CORRIDOR
UPSTREAM CATCHMENT
ENTRY POINT
Q20 FLOW = 4.1m³/s
Q100 FLOW = 6.2m³/s
SITE BOUNDARY
TERRACED REINFORCED EARTH
RETAINING WALLS LOCATED WITHIN
5.0m WIDE LANDSCAPED SETBACK.
10.00m WIDE VEGETATED RIPARIAN ZONE
5.00m WIDE LANDSCAPE SETBACK
5.00m FLOW CHANNEL
1.5m LOW-FLOW MEANDER
E2 CORRIDOR
PIT WH3-A15
PIT WH3-A15A
PIT WH3-A16
PIT WH3-B13A
PIT WH3-B12A
PIT WH3-B12B
PIT WH3-B19A
PIT WH3-C04
PIT WH3-C03
PIT WH3-C02
PIT WH3-C01
PIT WH3-B05
PIT WH3-B16
PIT WH3-B13
PIT WH3-B12
PIT WH3-B11
PIT WH3-B10
PIT WH3-B09
PIT WH3-B08
PIT WH3-B07
PIT WH3-B06
PIT WH2-X04
PIT WH2-X03
PIT WH2-X02
CH 0.000
CH 20.000
CH 40.000
CH 60.000
CH 80.000
CH 100.000
CH 120.000
CH 140.000
CH 160.000
CH 180.000
CH 200.000
CH 220.000
CH 240.000
CH 260.000
CH 280.000
CH 300.000
CH 320.000
CH 340.000
CH 360.000
TP 362.083
CH 326.08
TP 321.87
TP 291.934
TP 345.000
TP 345.000
TP 345.000


SITE BOUNDARY
DENOTES EXISTING LEVEL
DENOTES DESIGN LEVEL
DROP-SILL STRUCTURE
DROP-SILL STRUCTURE
PLUNGE POOL
PLUNGE POOL
ROAD BOUNDARY
SITE BOUNDARY
Q100 TWL = RL52.46
Q20 TWL = RL52.29
Q2 TWL = RL51.86
CULVERT DISCAHRGES TO MIRVAC E2 CORRIDOR. INDICATIVE MIRVAC GRADING SURFACE SHOWN THUS. FULL INTERFACING TO BE CONFIRMED DURING DETAILED DESIGN
HEADWALL UNDER ESTATE ROAD. INTERFACE WITH MIRVAC RIPARIAN CORRIDOR TO BE CONFIRMED
@ RL51.600
@ RL50.787
20.000
20.000
-1.00%
-13.00%
-1.00%
0.00%
-0.50%
DATUM 44.000

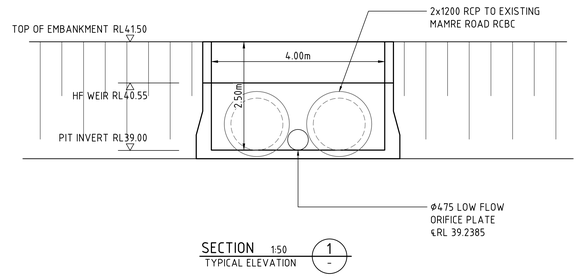
| | | |

PIT X01/06
PIT X01/05
PIT X01/04
PIT X01/03
Φ1500
CONSTRUCTION OF INFRASTRUCTURE DRAINAGE TO BE COORDINATED WITH RETAINING WALL CONSTRUCTION
PROVIDE SEDIMENT FOREBAY AT INLET TO BASIN. DETAILS TO BE CONFIRMED DURING DETAILED DESIGN PHASE.
Φ1500 RCP INTERALLOTMENT DRAIN TO DIVERT UPSTREAM CATCHMENT. BYPASSES BASIN 1
FUTURE WAREHOUSE DRAINAGE LINE
BASIN 1B FSL RL 40.60
BIO-CELL 1B
BIO-RETENTION AREA = 540m²
FSL RL 40.60
400mm EXTENDED DETENTION DEPTH
500mm MIN THICK FILTER MEDIA
INTERALLOTMENT DRAIN DISCHARGES INTO MAMRE ROAD TABLE DRAIN. PROVIDE RIP RAP ENERGY DISSIPATER AND NEW 2m WIDE, 1.5m DEEP SWALE TO EXISTING RCBC UNDER MAMRE ROAD
BUND TO BE SET AT RL41.50
Q2 OSD TWL RL40.56
Q20 OSD TWL RL40.96
Q100 OSD TWL RL41.08
TIERED REINFORCED EARTH RETAINING WALL
STACKED BOULDER EMBANKMENT. DETAILS TO BE CONFIRMED DURING DETAILED DESIGN.
WAREHOUSE 5
FFL RL 45.50
±1000mm
WAREH
30,83
ESTATE BASIN 1
COMBINED ON SITE DETENTION & BIO-RETENTION BASIN
OSD VOLUME = 3,500m³
BIO-RETENTION AREA = 1,340m²
Q100 TWL = RL40.940
MAMRE ROAD
EXISTING 2x1.2x0.6 RCBC TO BE PRESERVED DURING WORKS
BASIN 1 DISCHARGE CONTROL PIT
1 x Φ475 ORIFICE @ ℄RL 39.238
1 x 10m LONG WEIR @ RL 40.75
REFER ADJACENT DETAIL A
PROVIDE 12.5m WIDE, 300mm DEEP EMERGENCY OVERFLOW WEIR SET TO RL41.20
ESTATE BASIN 1 DISCHARGES TO EXISTING BOX CULVERTS UNDER MAMRE ROAD AS SHOWN. PROVIDE ROCK ENERGY DISSIPATER PER DETAILS.
BIO-CELL 1A
BIO-RETENTION AREA = 800m²
FSL RL 40.60
400mm EXTENDED DETENTION DEPTH
500mm MIN THICK FILTER MEDIA
PROVIDE Φ300 HALF-ROUND FLOW SPREADER AT BASE OF WALL/BIO-RETENTION FILTER MEDIA.
PROVIDE SEDIMENT FOREBAY AT INLET TO BASIN. DETAILS TO BE CONFIRMED DURING DETAILED DESIGN PHASE.
BASIN 1A FSL RL 40.60
Φ1350
CONSTRUCTION OF INFRASTRUCTURE DRAINAGE TO BE COORDINATED WITH RETAINING WALL CONSTRUCTION

ESTATE BASIN 1 PLAN
SCALE 1:250



DETAIL 1:50 A
BASIN 1 DCP PLAN



SECTION 1:50 1
TYPICAL ELEVATION

LEGEND:

LEVELS DATUM IS AHD.

EXISTING SITE LEVELS AND DETAILS BASED ON SURVEY INFORMATION PROVIDED BY BOXALL SURVEYORS (REF: 11017-001, DATED 23.07.2020)

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
- SWP – PROPOSED DRAINAGE LINE
- SWF – FUTURE WAREHOUSE DRAINAGE LINE
- 2 YEAR ARI TOP WATER LEVEL
- 20 YEAR ARI TOP WATER LEVEL
- 100 YEAR ARI TOP WATER LEVEL
- OVERLAND FLOW DIRECTION
- 50.00 – FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- 50.10 – FINISHED PAVEMENT CONTOUR (MINOR) 0.10m INTERVALS

2m 0 5 10 15 20 25m
SCALE 1:250 AT A0 SIZE SHEET

FOR DEVELOPMENT APPLICATION

AMENDMENTS	DATE	ISSUE
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	01.06.21	C
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	26.05.21	B
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	24.05.21	A

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CLIENT
GPT The GPT Group

PROJECT
YIRIBANA LOGISTICS ESTATE
754-770 & 784-786 MAMRE ROAD
KEMPS CREEK NSW

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA431

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Consulting Engineers ACN 003 696 448
Level 1, 8 Windmill Street
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PRECISION | COMMUNICATION | ACCOUNTABILITY

DRAWING TITLE
ESTATE BASIN 1 PLAN

DRAWING No C013874.06-SSDA431 ISSUE C

PIT WH3-B14
PIT WH3-B13
PIT WH3-B12
PIT WH3-B11
PIT WH3-A17
PROVIDE SEDIMENT FOREBAY AT INLET TO BASIN. DETAILS TO BE CONFIRMED DURING DETAILED DESIGN PHASE.
CONSTRUCTION OF INFRASTRUCTURE DRAINAGE TO BE COORDINATED WITH RETAINING WALL CONSTRUCTION
TIERED REINFORCED EARTH RETAINING WALL
BIO-CELL 2A
BIO-RETENTION AREA = 650m²
FSL RL 51.90
400mm EXTENDED DETENTION DEPTH
500mm MIN THICK FILTER MEDIA
BASIN 2A FSL RL 51.90
STACKED BOULDER EMBANKMENT. DETAILS TO BE CONFIRMED DURING DETAILED DESIGN.
Q2 OSD TWL RL51.86
Q20 OSD TWL RL52.29
Q100 OSD TWL RL52.46
FUTURE WAREHOUSE DRAINAGE LINE
ESTATE BASIN 2
COMBINED ON SITE DETENTION & BIO-RETENTION BASIN
OSD VOLUME = 5,400m³
BIO-RETENTION AREA = 1,250m²
Q100 TWL = RL52.460
WAREHOUSE 2 FFL RL 55.50 ±1000mm
STACKED BOULDER EMBANKMENT. DETAILS TO BE CONFIRMED DURING DETAILED DESIGN.
BASIN 1 DISCHARGE CONTROL PIT
3 x Ø375 ORIFICE @ ℄RL 50.438
1 x 2m LONG WEIR @ RL 51.650
1 x 8m LONG WEIR @ RL 51.900
1 x 6m LONG WEIR @ RL 52.330
REFER ADJACENT DETAIL A
BIO-CELL 2B
BIO-RETENTION AREA = 600m²
FSL RL 51.90
400mm EXTENDED DETENTION DEPTH
500mm MIN THICK FILTER MEDIA
PIT WH2-X04
CONSTRUCTION OF INFRASTRUCTURE DRAINAGE TO BE COORDINATED WITH RETAINING WALL CONSTRUCTION
BASIN 2B FSL RL 51.90
PROVIDE SEDIMENT FOREBAY AT INLET TO BASIN. DETAILS TO BE CONFIRMED DURING DETAILED DESIGN PHASE.
PIT WH2-X03
PROVIDE Ø300 HALF-ROUND FLOW SPREADER AT BASE OF WALL/BIO-RETENTION FILTER MEDIA.
PIT WH2-X02
ESTATE BASIN 2 DISCHARGES TO PROPOSED BOX CULVERTS UNDER ESTATE ROAD AS SHOWN. PROPOSED CULVERT CROSSING DISCAHRGES TO MIRVAC E2 CORRIDOR
PIT WH2-X01
ROAD 1
PIT R-A01/04
PIT R-A06/01
PIT R-A05/01
PIT R-A01/05
PIT R-A01/06
PIT R-A01/07
2x2700x2100 RCBC
Ø375
Ø450
Ø600
CH 400.000
CH 380.000
CH 360.000
CH 340.000
CH 320.000
CH 300.000
CH 280.000
CH 260.000
CH 240.000
CH 220.000
CH 200.000
CH 180.000
CH 160.000
CH 140.000
CH 120.000
CH 100.000
CH 80.000
CH 60.000
CH 40.000
CH 20.000
TP 321.877
TP 362.083
TP 383.934
TP 404.576
TP 425.006
TP 445.222
TP 465.223
TP 485.008
TP 504.577
TP 523.929
TP 543.063
TP 561.978
TP 580.674
TP 599.150
TP 617.406
TP 635.441
TP 653.255
TP 670.848
TP 688.220
TP 705.370
TP 722.298
TP 739.004
TP 755.488
TP 771.749
TP 787.788
TP 803.604
TP 819.197
TP 834.568
TP 849.715
TP 864.640
TP 879.341
TP 893.819
TP 908.074
TP 922.106
TP 935.914
TP 949.499
TP 962.860
TP 975.998
TP 988.912
TP 1001.602
TP 1014.069
TP 1026.312
TP 1038.331
TP 1050.126
TP 1061.698
TP 1073.045
TP 1084.169
TP 1095.069
TP 1105.745
TP 1116.198
TP 1126.426
TP 1136.431
TP 1146.212
TP 1155.769
TP 1165.103
TP 1174.213
TP 1183.099
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TP 1200.201
TP 1208.417
TP 1216.409
TP 1224.178
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TP 1239.045
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TP 1341.233
TP 1343.645
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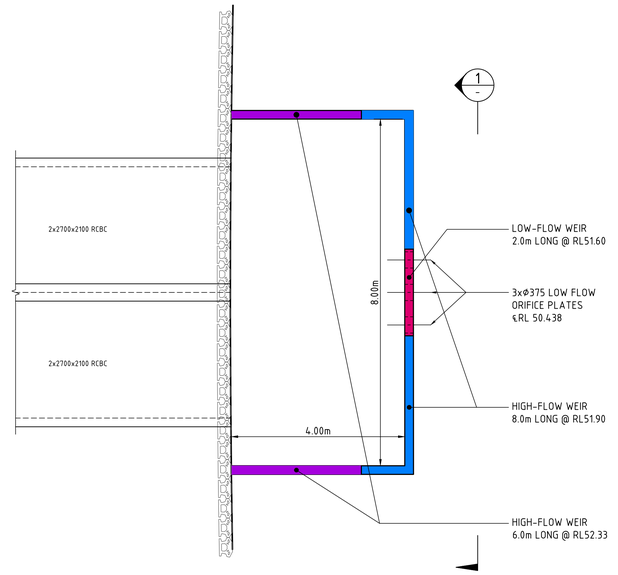
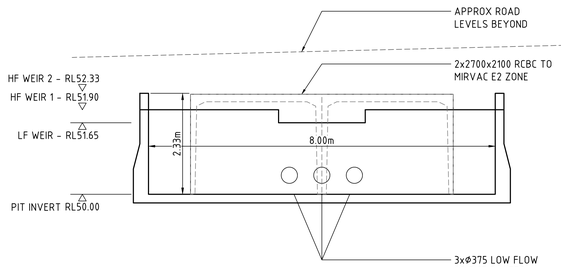
TP 1347.800
TP 1349.543
TP 1351.063
TP 1352.360
TP 1353.434
TP 1354.285
TP 1354.913
TP 1355.318
TP 1355.500

ESTATE BASIN 2 PLAN
SCALE 1:250



DETAIL 1:50 A
BASIN 2 DCP PLAN



SECTION 1:50 1
TYPICAL ELEVATION

LEGEND:

LEVELS DATUM IS AHD.

EXISTING SITE LEVELS AND DETAILS BASED ON SURVEY INFORMATION PROVIDED BY BOXALL SURVEYORS (REF: 11017-001, DATED 23.07.2020)

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
- SW - PROPOSED DRAINAGE LINE
- SW - FUTURE WAREHOUSE DRAINAGE LINE
- 2 YEAR ARI TOP WATER LEVEL
- 20 YEAR ARI TOP WATER LEVEL
- 100 YEAR ARI TOP WATER LEVEL
- OVERLAND FLOW DIRECTION
- 50.00 - FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- 50.10 - FINISHED PAVEMENT CONTOUR (MINOR) 0.10m INTERVALS

500mm 0 1 2 3 4 5m
SCALE 1:50 AT A0 SIZE SHEET

2m 0 5 10 15 20 25m
SCALE 1:250 AT A0 SIZE SHEET

FOR DEVELOPMENT APPLICATION

AMENDMENTS	DATE	ISSUE
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	01.06.21	B
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	24.05.21	A

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CLIENT
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PROJECT
YIRIBANA LOGISTICS ESTATE
754-770 & 784-786 MAMRE ROAD
KEMPS CREEK NSW

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA432

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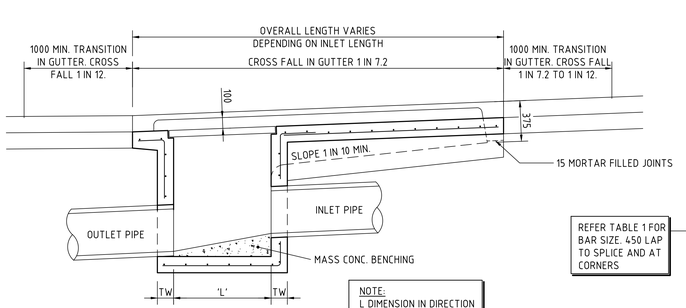
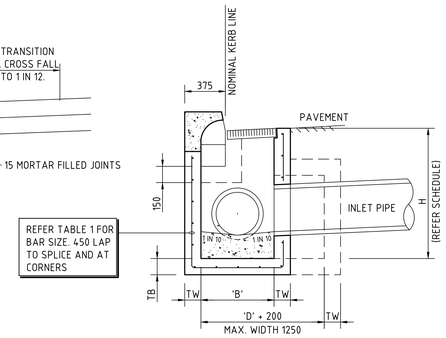
DRAWING TITLE
ESTATE BASIN 2 PLAN

DRAWING No C013874.06-SSDA432 ISSUE A



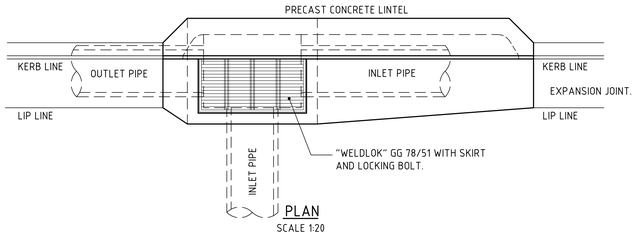
NOTE:
L DIMENSION IN DIRECTION OF DOWNSTREAM PIPE

LONG SECTION.
SCALE 1:20



REFER TABLE 1 FOR BAR SIZE. 450 LAP TO SPLICE AND AT CORNERS

CROSS SECTION.
SCALE 1:20



PLAN
SCALE 1:20

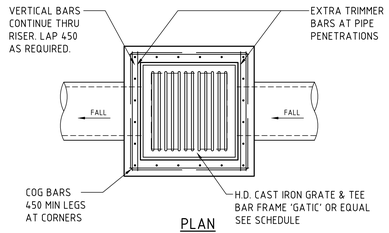
KERB INLET PIT - KIP

TABLE 1 - CLASS D <1200mm SQUARE PIT REINFORCEMENT & WALL THICKNESS				
DEPTH 'H'	WALL THICKNESS 'TW'	WALL REINFORCEMENT	BASE THICKNESS 'TB'	BASE REINFORCEMENT
< 1.0m	150mm	-	150mm	-
1.0m-3.0m	150mm	N12-200 EACH WAY	150mm	N12-200 EACH WAY
3.0m-4.5m	200mm	N12-200 EACH WAY	200mm	N12-200 EACH WAY
4.5-6.0	200mm	N16-200 EACH WAY	200mm	N16-200 EACH WAY

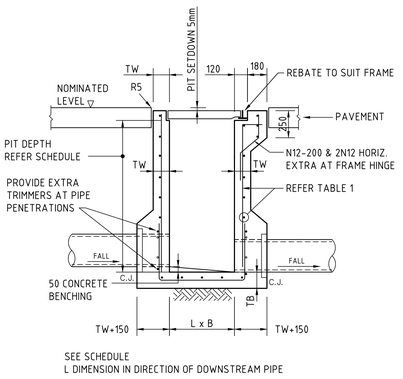
CONCRETE QUALITY					
ELEMENT	SLUMP	AGGREGATE (MAX. SIZE)	CEMENT TYPE	ADMIXTURE	F'c (MPa)
PIT	80	20	GP	NIL	32

NOTES:

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.



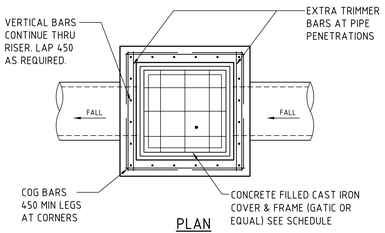
PLAN
SCALE 1:20



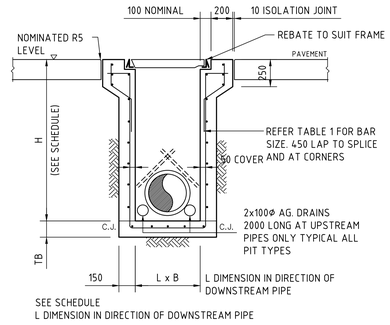
SEE SCHEDULE
L DIMENSION IN DIRECTION OF DOWNSTREAM PIPE

SECTION
SCALE 1:20

SINGLE GRATED GULLY PIT - SGGP



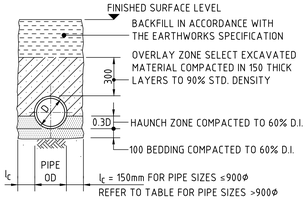
PLAN
SCALE 1:20



SEE SCHEDULE
L DIMENSION IN DIRECTION OF DOWNSTREAM PIPE

SECTION
SCALE 1:20

SEALED PIT - SJP

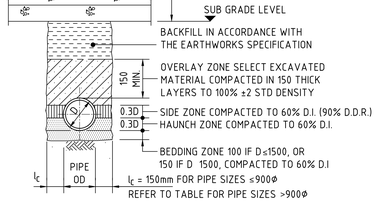


TYPE H1 SUPPORT TO CONCRETE PIPES AT LANDSCAPED AREAS
SCALE 1:20

BEDDING & HAUNCH MATERIAL GRADING	
SIEVE SIZE (mm)	WEIGHT PASSING (%)
19.0	100
2.36	100 TO 50
0.60	90 TO 50
0.30	60 TO 10
0.15	25 TO 0
0.075	10 TO 0

SIDE ZONE WIDTH	
PIPE SIZE (mm)	l_c (mm)
≤ 900Ø	150
1050Ø	175
1200Ø	200
1350Ø	225
1500Ø	250
1650Ø	275
1800Ø	300

ENGINEER TO SPECIFY TRENCH WIDTHS FOR PIPE SIZES GREATER THAN 1800Ø

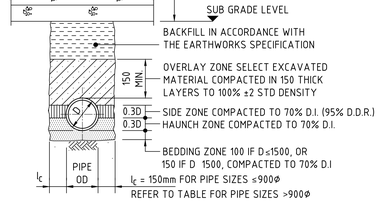


TYPE HS2 SUPPORT TO CONCRETE PIPES UNDER PAVEMENT
SCALE 1:20
D ≤1350, MAX FILL = 4.0m
D >1350, MAX FILL = 3.0m

BEDDING & HAUNCH MATERIAL GRADING	
SIEVE SIZE (mm)	WEIGHT PASSING (%)
19.0	100
2.36	100 TO 50
0.60	90 TO 50
0.30	60 TO 10
0.15	25 TO 0
0.075	10 TO 0

SIDE ZONE WIDTH	
PIPE SIZE (mm)	l_c (mm)
≤ 900Ø	150
1050Ø	175
1200Ø	200
1350Ø	225
1500Ø	250
1650Ø	275
1800Ø	300

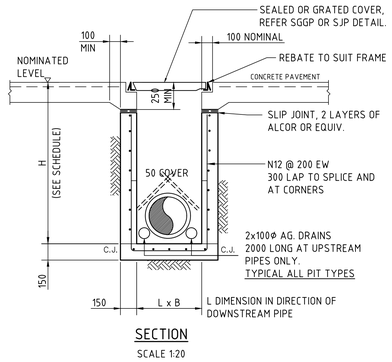
ENGINEER TO SPECIFY TRENCH WIDTHS FOR PIPE SIZES GREATER THAN 1800Ø



TYPE HS3 SUPPORT TO CONCRETE PIPES UNDER PAVEMENT
SCALE 1:20
D ≤1050, MAX FILL = 6.0m
D >1050, MAX FILL = 4.8m

SIDE ZONE MATERIAL GRADING	
SIEVE SIZE (mm)	WEIGHT PASSING (%)
75.0	100
9.5	100 TO 50
2.36	100 TO 50
0.60	50 TO 15
0.075	25 TO 0

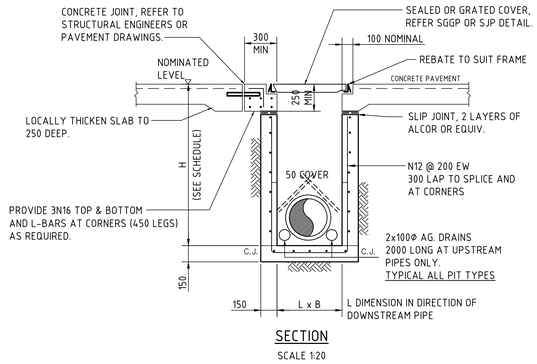
SELECT FILL MATERIAL IN ACCORDANCE WITH TABLE 1 AS 3725



SECTION
SCALE 1:20

SJP/CIS & SGGP/CIS (CAST IN SLAB) PIT DETAIL GRATE/COVER SUPPORT CAST-INTO PAVEMENT SLAB

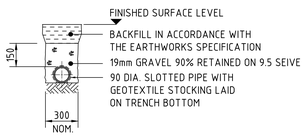
(ADOPT IN CONCRETE PAVEMENTS FOR SGGP's & SJP's, WHERE JOINTS ARE NOT LOCATED WITHIN PROXIMITY OF THE GRATE)



SECTION
SCALE 1:20

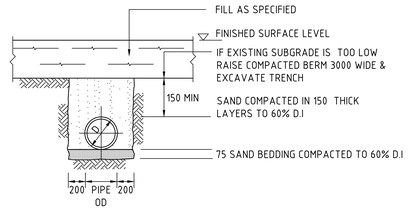
SJP/CIS & SGGP/CIS (CAST IN SLAB) PIT DETAIL GRATE/COVER SUPPORT CAST-INTO PAVEMENT SLAB

(ADOPT IN CONCRETE PAVEMENT FOR SGGP's & SJP's, WHERE PITS ARE LOCATED IN THE CORNER OF SLAB PANELS OR ADJACENT TO SLAB PANEL JOINTS)



SUPPORT TO AGRICULTURAL DRAIN
FOR USE UNDER CAR PARK PAVEMENTS/LANDSCAPED AREAS
SCALE 1:20

SIDE ZONE MATERIAL GRADING	
SIEVE SIZE (mm)	WEIGHT PASSING (%)
19.0	100
9.5	100 TO 50
2.6	100 TO 30
0.60	50 TO 15
0.075	25 TO 0



SUPPORT TO uPVC PIPES

FOR DEVELOPMENT APPLICATION

200mm 0 500 1000 1500 2000mm
SCALE 1:20 AT A0 SIZE SHEET

AMENDMENTS	DATE	ISSUE
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	21.05.21	B
ISSUED FOR PRELIMINARY ONLY	09.04.21	A

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DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA451

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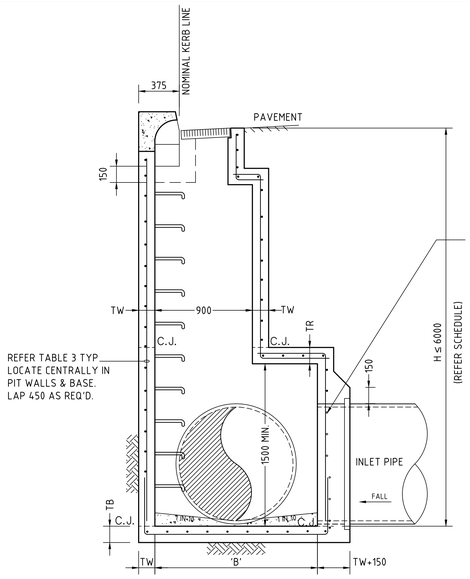
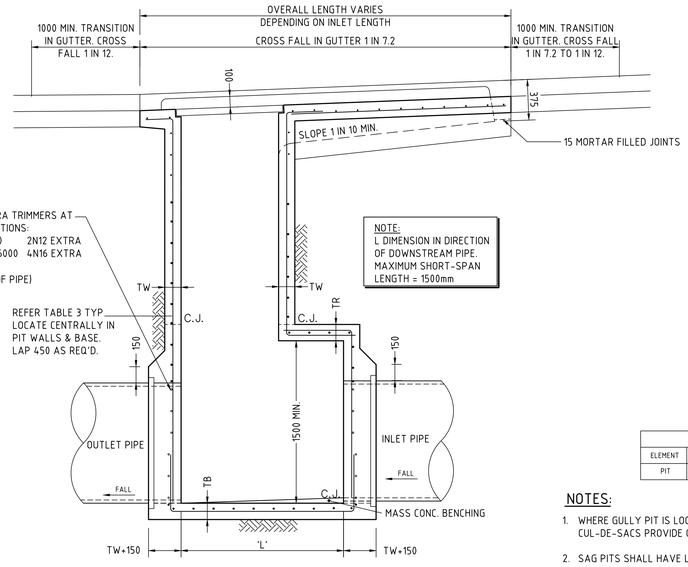
DRAWING TITLE
STORMWATER DRAINAGE DETAILS SHEET 1

DRAWING NO. C013874.06-SSDA451 ISSUE B



CROSS SECTION.
SCALE 1:20

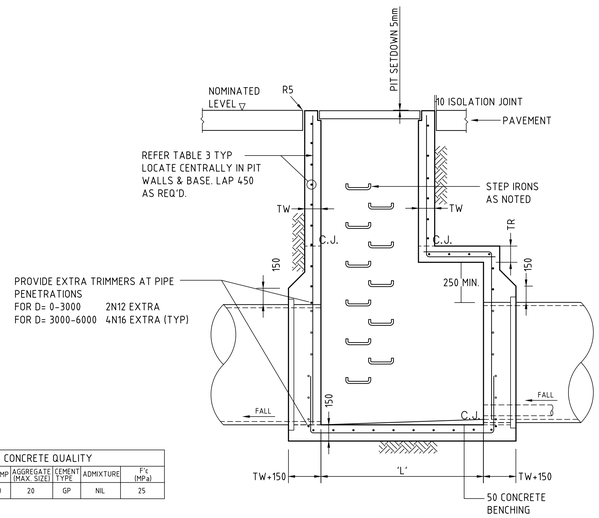


LONG SECTION.
SCALE 1:20

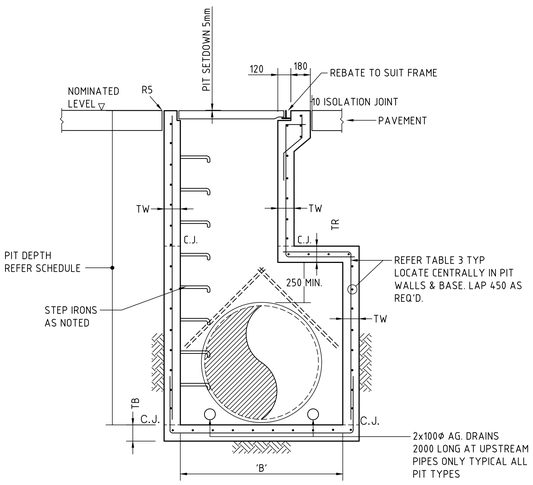
CONCRETE QUALITY					
ELEMENT	SLUMP	AGGREGATE (MAX. SIZE)	CEMENT TYPE	ADMIXTURE	f'_c (MPa)
PIT	80	20	GP	NIL	25

NOTES:

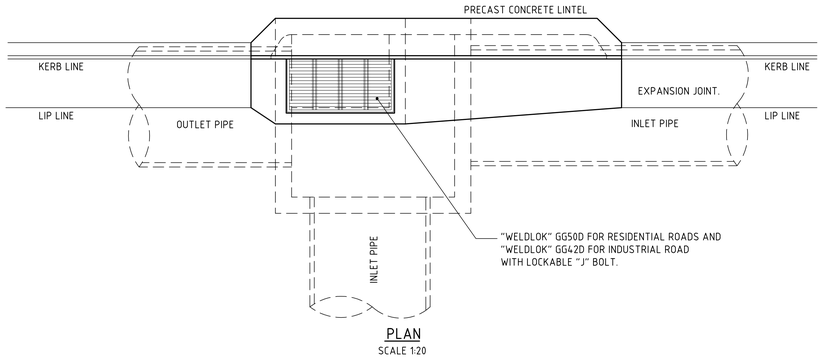
1. WHERE GULLY PIT IS LOCATED ON KERB RETURNS OR BULB OF CUL-DE-SACS PROVIDE CURVED PRECAST CONCRETE LINTELS.
2. SAG PITS SHALL HAVE LINTEL PLACED CENTRALLY ABOUT THE GRATE.
3. ALL REINFORCING TO HAVE 30 MIN. CLEAR CONCRETE COVER.
4. FOR PITS DEEPER THAN 1200mm STEP IRONS SHALL BE PROVIDED.
5. FOR ALL PITS IN ITV PAVEMENT AREAS, PIT WALLS ARE TO BE INCREASED IN THICKNESS BY 50mm AND REINFORCEMENT TO BE N16 BARS IN LIEU OF N12



SECTION
SCALE 1:20

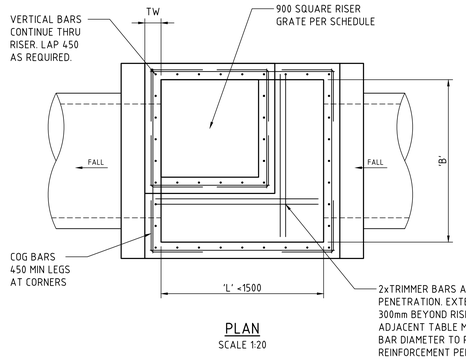


SECTION
SCALE 1:20



PLAN
SCALE 1:20

TABLE 3 - TAPERED CLASS D PIT REINFORCEMENT & WALL THICKNESS						
DEPTH 'H'	WALL THICKNESS 'TW'	WALL REINFORCEMENT	ROOF THICKNESS 'TR'	ROOF REINFORCEMENT	BASE THICKNESS 'TB'	BASE REINFORCEMENT
<1.5m	150mm	N12-200 EACH WAY	150mm	N12-200 EACH WAY	150mm	N12-200 EACH WAY
1.5m-3.0m	150mm	N12-200 EACH WAY	150mm	N12-200 EACH WAY	150mm	N12-200 EACH WAY
3.0m-4.5m	200mm	N16-200 EACH WAY	200mm	N16-200 EACH WAY	200mm	N12-200 EACH WAY
4.5-6.0	250mm	N16-200 EACH WAY	250mm	N16-200 EACH WAY	250mm	N16-200 EACH WAY



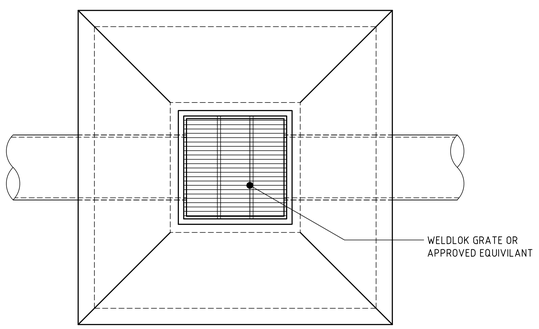
PLAN
SCALE 1:20

TAPERED SINGLE GRATED GULLY PIT - SGGP

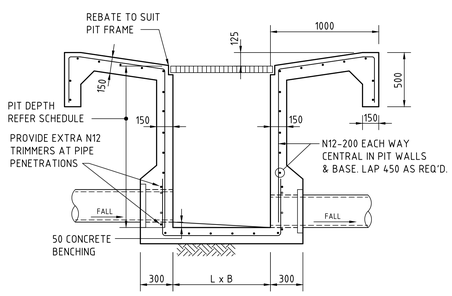
SUBSOIL NOT SHOWN
FOR CLARITY.

TAPERED KERB INLET PIT - KIP

SUBSOIL NOT SHOWN
FOR CLARITY.



PLAN
SCALE 1:20



SEE SCHEDULE
L DIMENSION IN DIRECTION OF DOWNSTREAM PIPE

SECTION
SCALE 1:20

FIELD INLET PIT - SIP

FOR DEVELOPMENT APPLICATION

200mm 0 500 1000 1500 2000mm
SCALE 1:20 AT A0 SIZE SHEET

ISSUE	DATE	AMENDMENTS
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A	09.04.21	ISSUED FOR PRELIMINARY ONLY

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PROJECT
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KEMPS CREEK NSW

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA452

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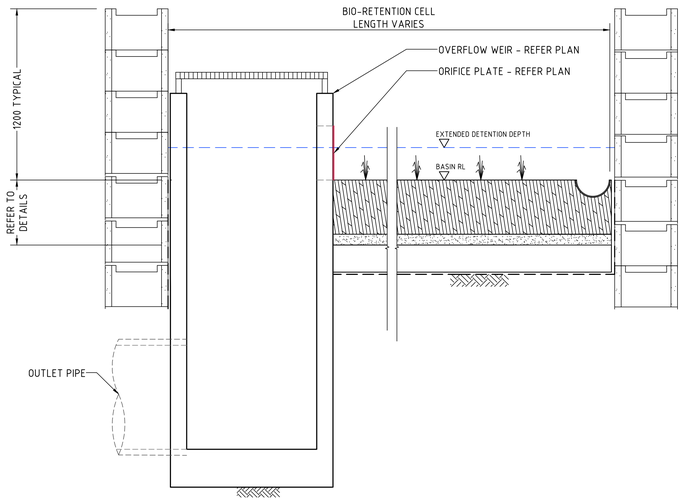
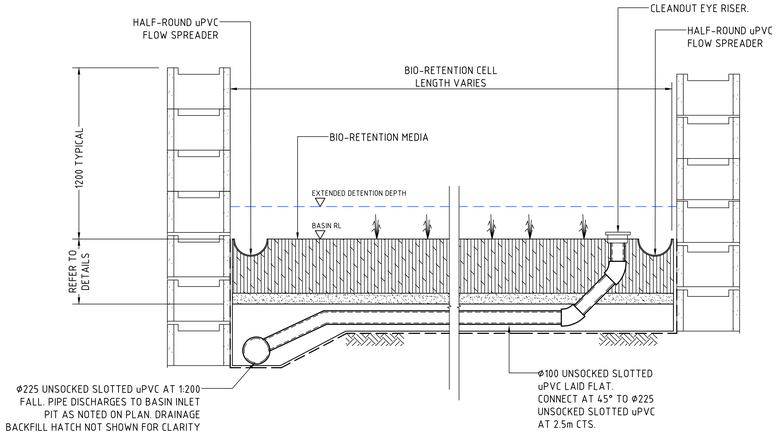
DRAWING TITLE
STORMWATER DRAINAGE DETAILS SHEET 2

DRAWING No. C013874.06-SSDA452 ISSUE B



DETAIL 1:20 — A
TYPICAL THRU OSD



DETAIL 1:20 — B
TYPICAL THRU BIO CELL

BIO-RETENTION NOTES :

FILTER MEDIA TO BE LOAMY SAND WITH A PERMEABILITY NOT LESS THAN 200mm/hr. FILTER MEDIA TO BE FREE OF RUBBISH, DELETERIOUS MATERIAL, TOXICANTS, DECLARED PLANTS AND LOCAL WEEDS, AND IS TO NOT BE HYDROPHOBIC.

FILTER MEDIA TO HAVE THE FOLLOWING COMPOSITION RANGE:

CLAY & SILT (<0.05mm)	<3%
VERY FINE SAND (0.05-0.15mm)	5-30%
FINE SAND (0.15-0.25mm)	10-30%
MEDIUM TO COARSE SAND (0.25-1.00mm)	40-60%
COARSE SAND (1.0-2.0mm)	7-10%
FINE GRAVEL (2.0-3.4mm)	<3%

FILTER MEDIA THAT DOES NOT MEET THE FOLLOWING CRITERIA SHALL BE REJECTED:

a. ORGANIC MATTER CONTENT TO BE IDEALLY WITHIN 1% TO 3% (W/W) AND TO BE NO GREATER THAN 5%(W/W).
b. PH TO BE BETWEEN 5.5 AND 7.5
c. PHOSPHOROUS CONTENT TO BE NO GREATER THAN 35mg/kg

FILTER MEDIA TO BE ASSESSED BY QUALIFIED HORTICULTURALIST TO ENSURE CAPABILITY OF SUPPORTING PLANT LIFE.

DRAINAGE LAYER TO BE CLEAN GRAVEL 5-7mm.

PLANTS TO BE IN ACCORDANCE WITH PENRITH CITY COUNCIL REQUIREMENTS.

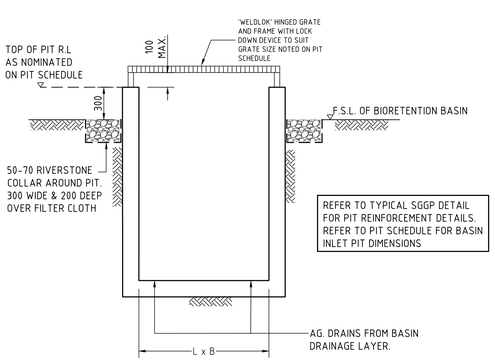
PROVIDE 100mm TOPSOIL AND TEMPORARY EROSION PROTECTION (JUTEMASTER OR EQUIV) TO SWALE BATTER SLOPES AND ADJACENT LANDSCAPED AREAS. NOTE THAT NO TOPSOIL IS TO BE PLACED OVER FILTRATION MEDIA. PROVIDE SILT FENCE TO TOP OF BANK UNTIL SUCH TIME AS THIS STABILISING AND VEGETATION HAS BEEN COMPLETED.

BIO-RETENTION TO BE PARTIALLY INSTALLED, FOLLOWING COMPLETION OF ROADWORKS, WITH THE TOP 75-100mm OF FILTER MEDIA REPLACED WITH A FINE TO COARSE SAND UNDERLAIN WITH A GEOTEXTILE LAYER (REFER TO DETAIL). FOLLOWING COMPLETION OF THE UPSTREAM DEVELOPMENT AND SITE STABILISATION, THE SAND IS TO BE REMOVED, REPLACED WITH FILTER MATERIAL AND PLANTED OUT. REFER TO TEMPORARY BIO-BASIN DETAIL

PRIOR TO PLANTING, THE TOP 100mm OF THE BIORETENTION FILTER MEDIA IS TO BE AMELIORATED WITH APPROPRIATE ORGANIC MATTER, FERTILISER AND TRACE ELEMENTS TO AID PLANT ESTABLISHMENT AS PER THE TABLE BELOW:

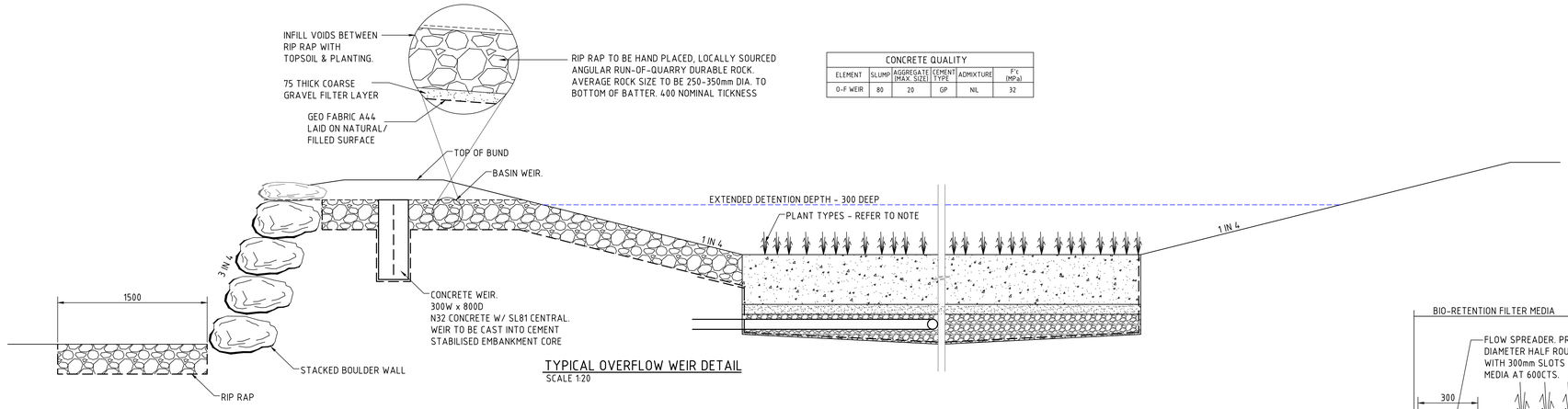
TABLE: RECIPE FOR AMELIORATING TOP 100mm OF BIORETENTION FILTER MEDIA

CONSTITUENT	QUANTITY (kg/m2 OF FILTER AREA)
GRANULATED POULTRY MANURE FINES	50
SUPERPHOSPHATE	2
MAGNESIUM SULPHATE	3
POTASSIUM SULPHATE	2
TRACE ELEMENT MIX	1
FERTILISER NPK (16.4.14)	4
LIME	20



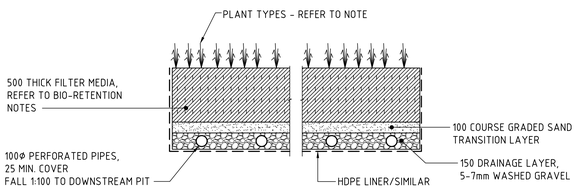
SECTION
SCALE 1:20

BASIN INLET PIT - BIP

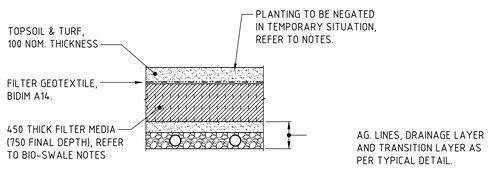


CONCRETE QUALITY					
ELEMENT	SLUMP	AGGREGATE (MAX. SIZE)	CEMENT TYPE	ADMIXTURE	F'c (MPa)
O-F WEIR	80	20	GP	NIL	32

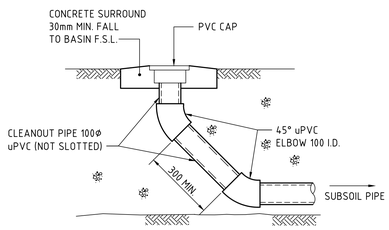
TYPICAL OVERFLOW WEIR DETAIL
SCALE 1:20



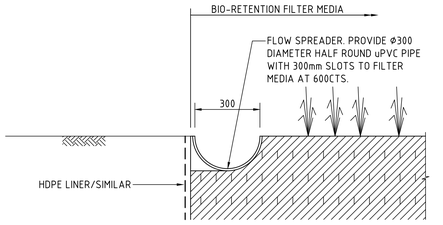
TYPICAL BIO-RETENTION DETAIL
SCALE 1:20



TEMPORARY BIO-RETENTION PROTECTION DETAIL
SCALE 1:20
TEMPORARY CONSTRUCTION REQUIREMENT DETAIL - REFER TO NOTES FOR IMPLEMENTATION PERIODS.



BIORETENTION CLEANOUT EYE ELEVATION
SCALE 1:20
DENOTED C.E. ON PLAN



TYPICAL HALF-ROUND FLOW SPREADER DETAIL
SCALE 1:10

BIO-RETENTION BASIN DETAILS

100mm 0 200 400 600 800 1000mm
SCALE 1:10 AT A0 SIZE SHEET

200mm 0 500 1000 1500 2000mm
SCALE 1:20 AT A0 SIZE SHEET

500mm 0 1 2 3 4 5m
SCALE 1:50 AT A0 SIZE SHEET

FOR DEVELOPMENT APPLICATION

AMENDMENTS	DATE	ISSUE
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	01.06.21	C
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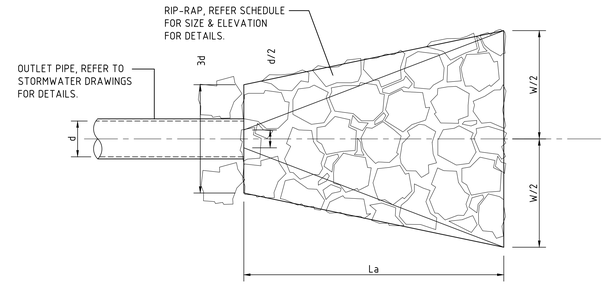
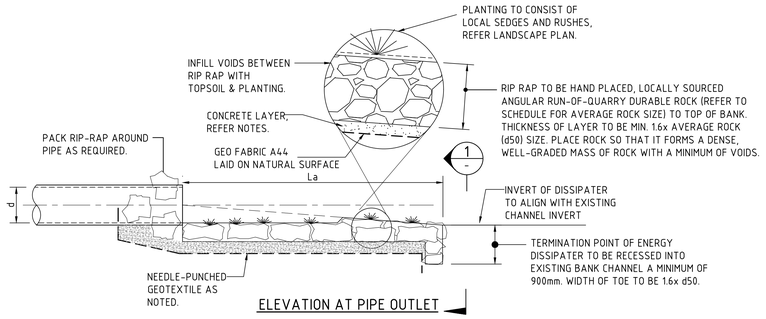
DRAWING TITLE
STORMWATER DRAINAGE DETAILS
SHEET 3

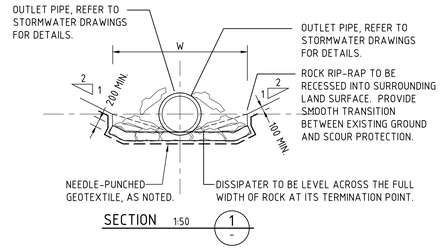
DRAWING NO. C013874.06-SSDA453 ISSUE C



PLAN VIEW AT PIPE OUTLET



ELEVATION AT PIPE OUTLET



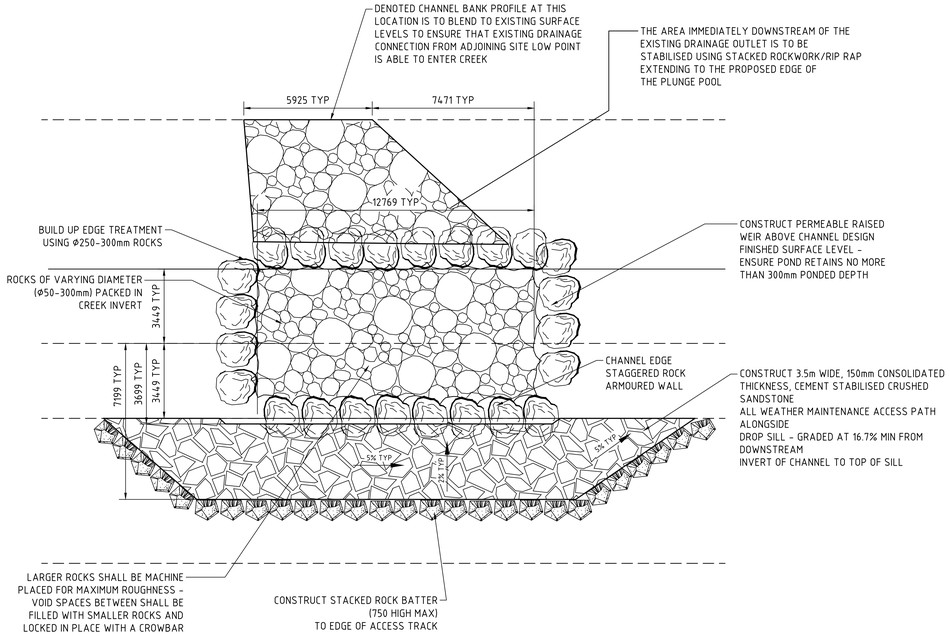
SECTION 1:50 (1 / -)

DISSIPATER NOTES:

1. PIPE TO REST ON, AND BE PACKED IN, BY RIP-RAP (SIZE AS NOTED).
2. DISCHARGE INTO STREAM WHERE BEDROCK IS PRESENT, OTHERWISE SCOUR PROTECT AS REQUIRED.
3. SCOUR PROTECT THE OPPOSITE BANK AS REQUIRED. SCOUR PROTECTION TO BE PROVIDED WHERE OPPOSITE BANK IS WITHIN 12-14 TIMES THE PIPE DIAMETER.
4. RIP-RAP TO CONSIST OF ANGULAR RUN-OF-QUARRY ROCK (d50= 150mm MINIMUM) AS NOTED IN THE SCHEDULE. RIP-RAP TO BE MINIMUM THICKNESS OF RIP-RAP LAYER TO BE 1.6x AVERAGE ROCK SIZE (d50).
5. RIP-RAP IS TO BE PLACED OVER A 200mm LAYER OF MASS CONCRETE OVER NEEDLE-PUNCHED GEOFAB A44.
6. PLACE ROCK SO THAT IT FORMS A DENSE, WELL-GRADED MASS OF ROCK WITH A MINIMUM OF VOIDS. THE FINISHED RIP-RAP SURFACE SHOULD BE FREE OF POCKETS OF SMALL ROCK OR CLUSTERS OF LARGE ROCKS.
7. GAPS IN RIP-RAP TO BE HAND PACKED WITH TOPSOIL & PLANTED WITH NATIVE SEDGES & RUSHES TO PROVIDE. THE INTENT IS FOR THERE TO BE NO VOIDS BETWEEN RIP-RAP BOULDERS.
8. ENSURE THE FINISHED ROCK SURFACE BLENDS WITH THE SURROUNDING GROUND LEVELS. NO OVERFALL OR PROTRUSION OF ROCK SHOULD BE APPARENT.
9. ENSURE THAT STORMWATER FROM SURROUNDING GROUND IS FREE TO ENTER THE STRUCTURE WITHOUT CAUSING UNDESIRABLE PONDING OR SCOUR.

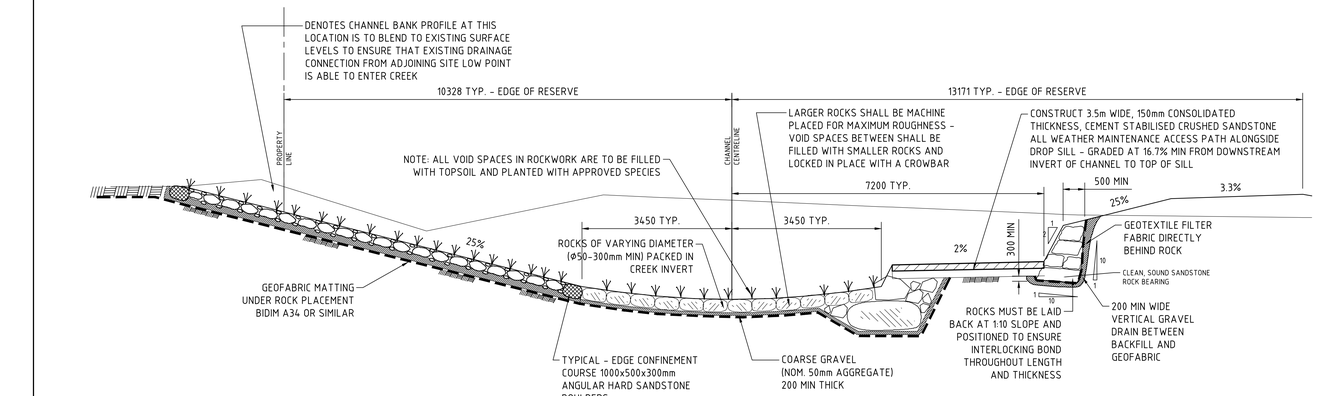
BASIN OUTLET STRUCTURES

SCALE 1:50



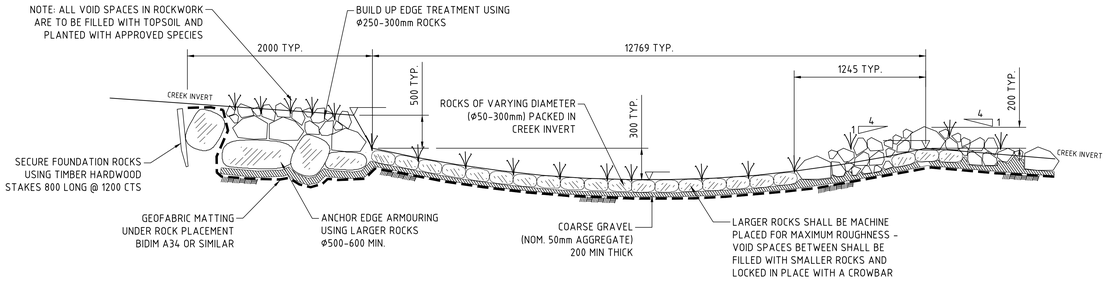
TYPICAL PLAN - PLUNGE POOL

SCALE 1:100



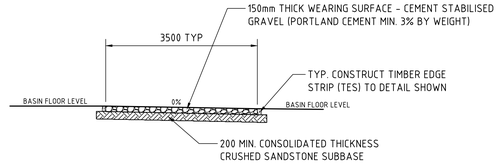
TYPICAL SECTION - PLUNGE POOL

SCALE 1:50



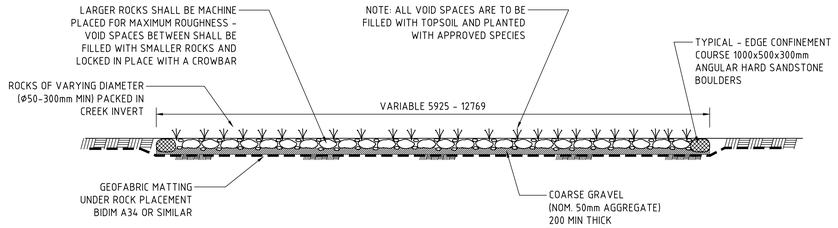
TYPICAL DETAIL - PLUNGE POOL AND WEIR

SCALE 1:50



TYPICAL DETAIL - MAINTENANCE ACCESS DRIVE PAVEMENT CONSTRUCTION

SCALE 1:50



TYPICAL DETAIL - BATTER STABILISATION SCOUR PROTECTION

SCALE 1:50

1m 0 1 2 3 4 5 6 7 8 9 10m

SCALE 1:100 AT A0 SIZE SHEET

500mm 0 1 2 3 4 5m

SCALE 1:50 AT A0 SIZE SHEET

FOR DEVELOPMENT APPLICATION

AMENDMENTS	DATE	ISSUE
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	21.05.21	B
ISSUED FOR PRELIMINARY ONLY	09.04.21	A

AMENDMENTS DATE ISSUE | AMENDMENTS DATE ISSUE

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CLIENT: GPT — The GPT Group

PROJECT: YIRIBANA LOGISTICS ESTATE
754-770 & 784-786 MAMRE ROAD
KEMPS CREEK NSW

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA454

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email: mail@costinroe.com.au ©

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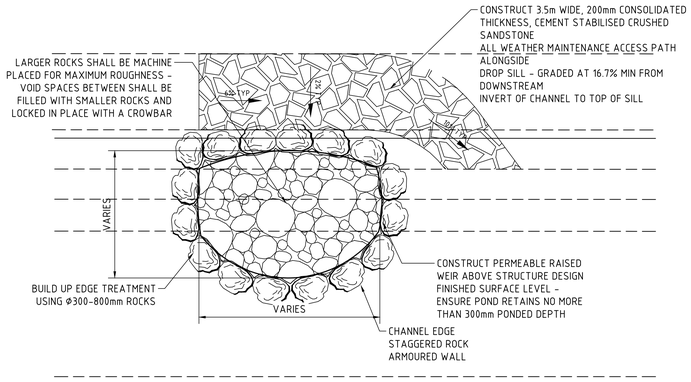
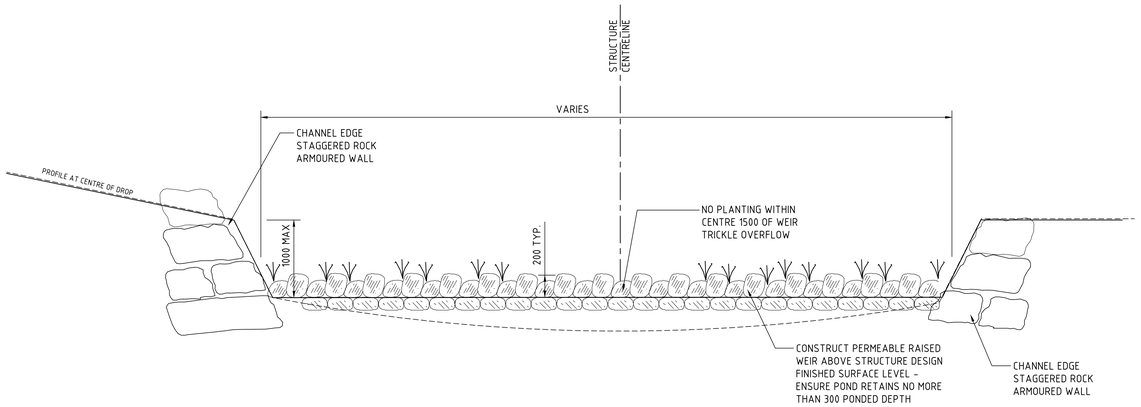
PRECISION | COMMUNICATION | ACCOUNTABILITY

DRAWING TITLE: STORMWATER DRAINAGE DETAILS SHEET 4

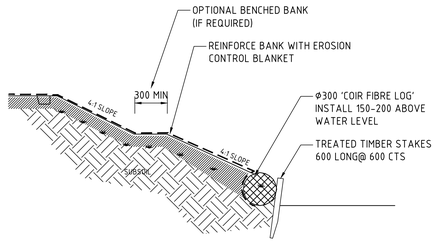
DRAWING NO: C013874.06-SSDA454 ISSUE: B



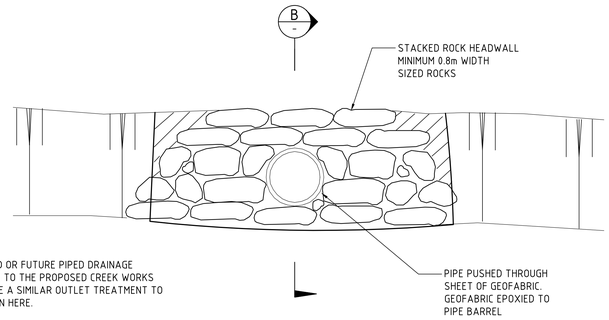
TYPICAL PLAN - BASIN 5 DISCHARGE ROCK DROP SILL
SCALE 1:100



TYPICAL DETAIL - ROCK DROP SILL AND WEIR
SCALE 1:20



TYPICAL DETAIL - COIR FIBRE LOG PLACEMENT ANY LOCATION
SCALE 1:20

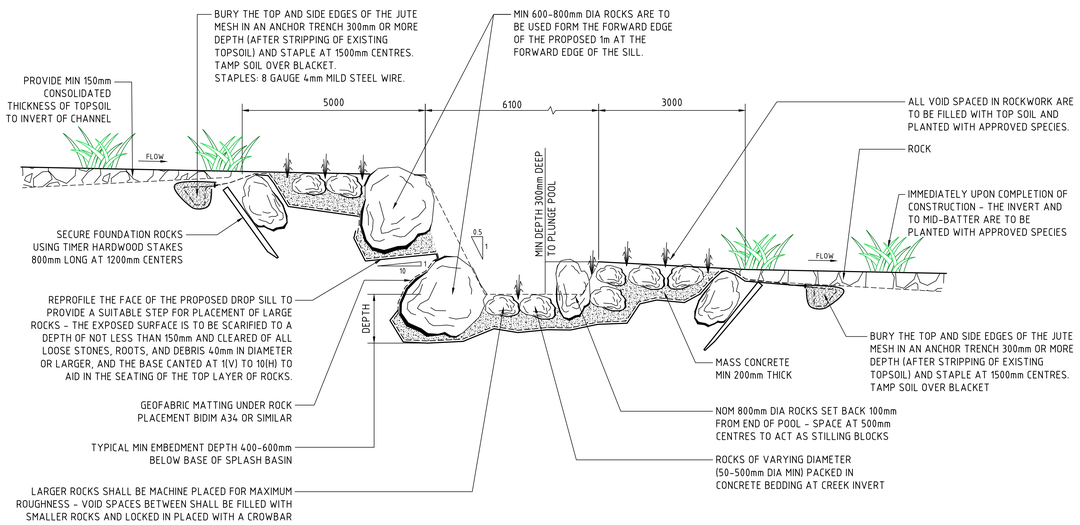


APPLICABILITY:

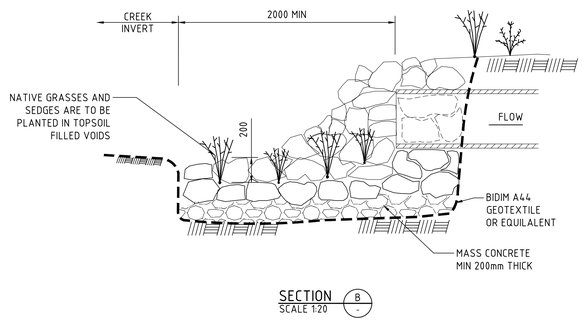
1) ALL PROPOSED OR FUTURE PIPED DRAINAGE CONNECTIONS TO THE PROPOSED CREEK WORKS SHOULD HAVE A SIMILAR OUTLET TREATMENT TO THOSE SHOWN HERE.

2) MIN. ROCK SIZE IN OUTLET DEPRESSED APRON SHOULD BE Ø500-600mm.

TYPICAL STACKED ROCK HEADWALL TREATMENT
SCALE 1:20



TYPICAL DETAIL - ROCK DROP SILL AND WEIR
SCALE 1:20



SECTION B
SCALE 1:20

200mm 0 500 1000 1500 2000mm
SCALE 1:20 AT A0 SIZE SHEET

1m 0 1 2 3 4 5 6 7 8 9 10m
SCALE 1:100 AT A0 SIZE SHEET

FOR DEVELOPMENT APPLICATION

ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	21.05.21	A
AMENDMENTS	DATE	ISSUE

AMENDMENTS DATE ISSUE

AMENDMENTS DATE ISSUE

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DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA455

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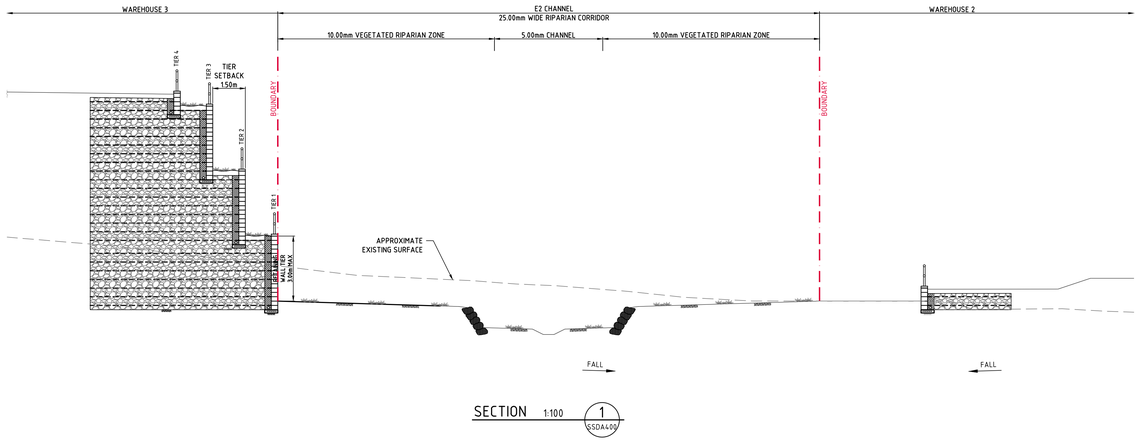
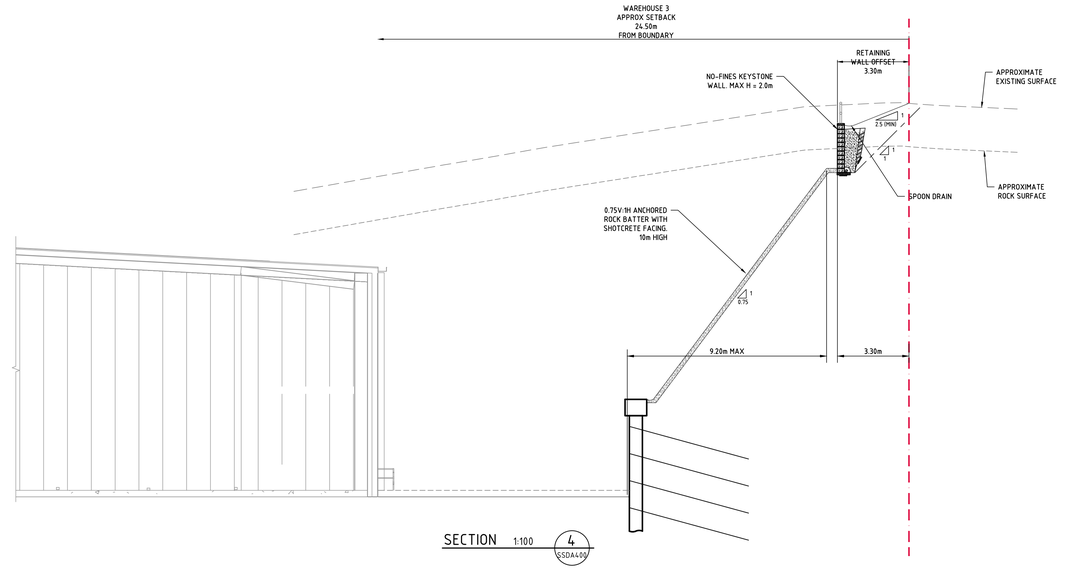
PRECISION | COMMUNICATION | ACCOUNTABILITY

DRAWING TITLE
STORMWATER DRAINAGE DETAILS SHEET 5

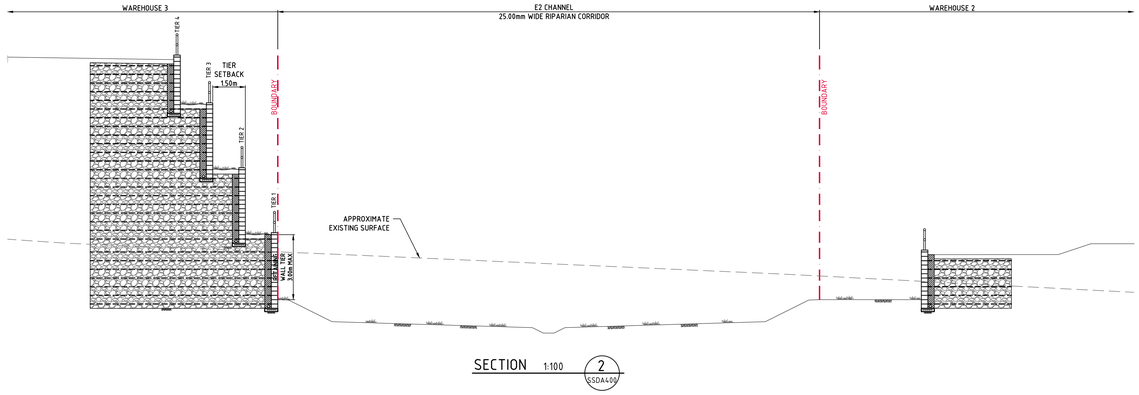
DRAWING No. C013874.06-SSDA455 ISSUE A



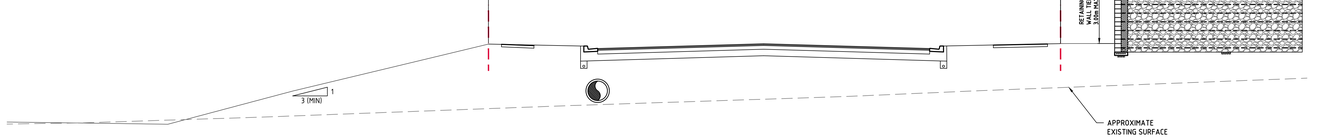
SECTION 1:100 1 SSDA400



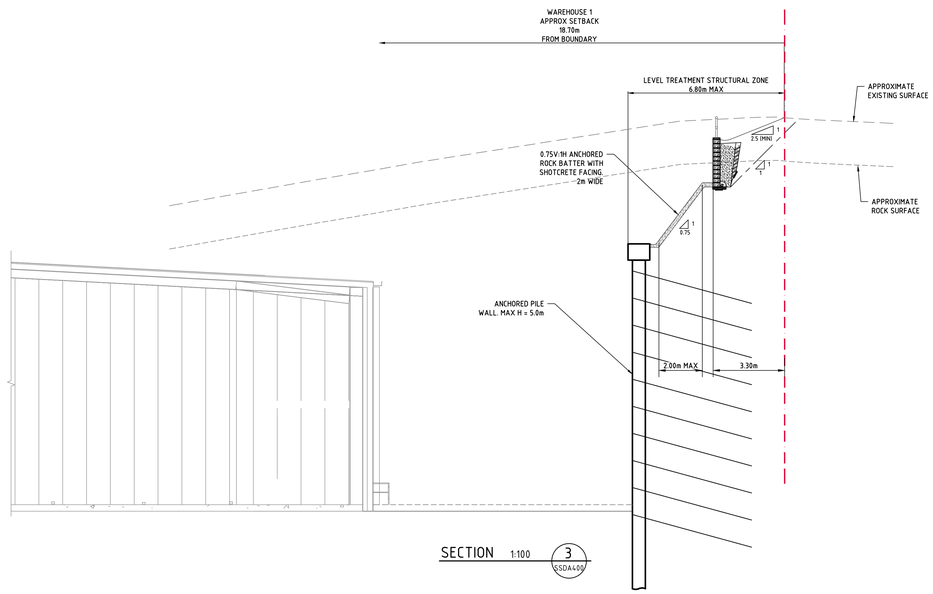
SECTION 1:100 4 SSDA400



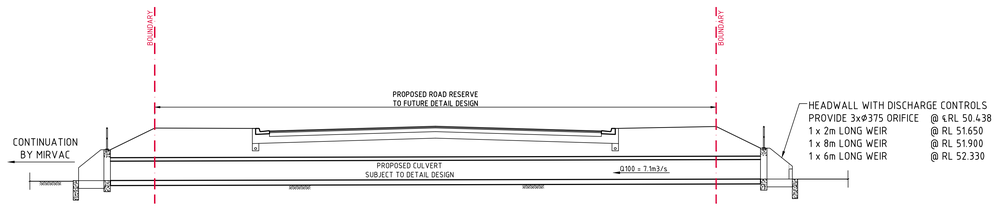
SECTION 1:100 2 SSDA400



SECTION 1:100 5 SSDA400



SECTION 1:100 3 SSDA400



SECTION 1:100 6 SSDA400

500mm 0 1 2 3 4 5m

SCALE 1:50 AT A0 SIZE SHEET

FOR DEVELOPMENT APPLICATION

AMENDMENTS	DATE	ISSUE
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	01.06.21	C
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	21.05.21	B
ISSUED FOR PRELIMINARY ONLY	09.04.21	A

AMENDMENTS	DATE	ISSUE

AMENDMENTS	DATE	ISSUE

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DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA460

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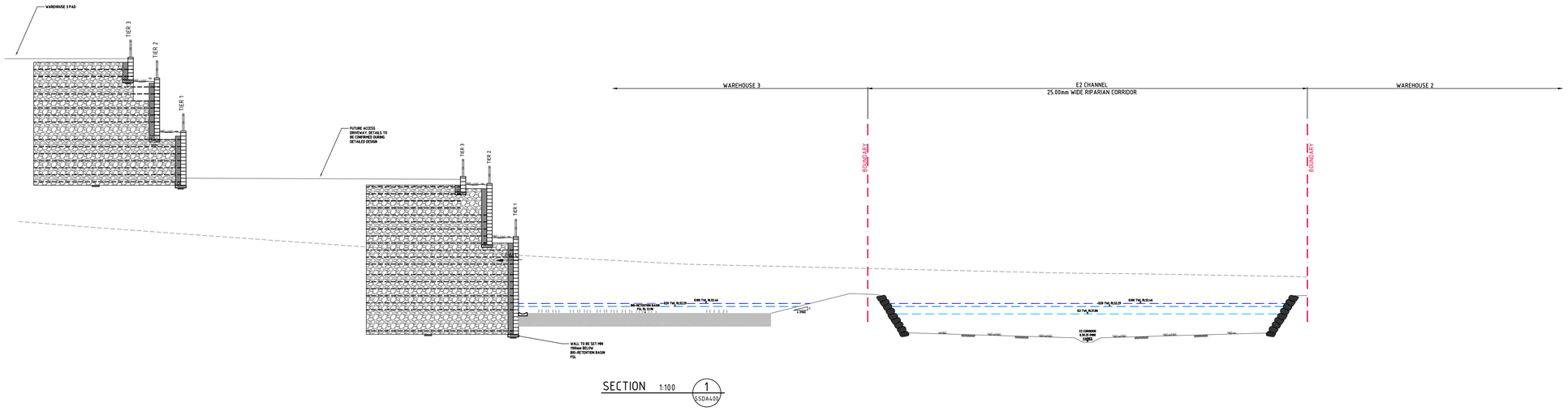
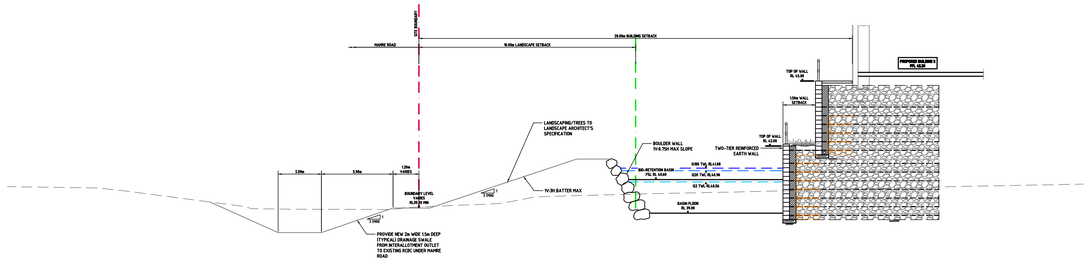
DRAWING TITLE
TYPICAL SECTIONS
SHEET 1

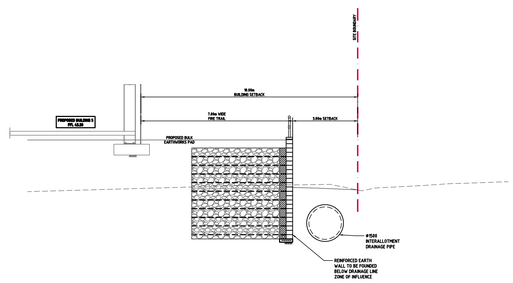
DRAWING No. C013874.06-SSDA460 ISSUE C



SECTION 1:100 (1 / SSDA400)



SECTION 1:100 (2 / SSDA400)



SECTION 1:100 (3 / SSDA400)

FOR DEVELOPMENT APPLICATION

500mm 0 1 2 3 4 5m
SCALE 1:50 AT A0 SIZE SHEET

AMENDMENTS	DATE	ISSUE
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	01.06.21	C
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	26.05.21	B
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	21.05.21	A

AMENDMENTS DATE ISSUE | AMENDMENTS DATE ISSUE

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DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA461

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DRAWING TITLE
TYPICAL SECTIONS
SHEET 2

DRAWING No C013874.06-SSDA461 ISSUE C

WAREHOUSE 5
30,830sqm

WAREHOUSE 4
41,480sqm

WAREHOUSE 3
36,420sqm

WAREHOUSE 2
22,870sqm

WAREHOUSE 1
19,525sqm

MAMRE ROAD

ROAD 2

ROAD 1

TEMPORARY ACCESS ROAD

MIRVAC
"ASPECT INDUSTRIAL ESTATE"
PER SSD-10448

LIMIT OF ROADWORKS.
INTERFACE WITH MIRVAC ROAD
ALIGNMENT TO BE CONFIRMED
DURING DETAILED DESIGN

LEGEND:

LEVELS DATUM IS AHD.

EXISTING SITE LEVELS AND DETAILS BASED ON A PLAN OF SURVEY '11019-001' BY 'BOXALL SURVEYORS PTY. LTD.' DATED 23.07.2020.

- EXTENT OF ROAD PAVEMENT
- EXTENT OF FOOTPATH PAVEMENT
- K&G, KERB & GUTTER
- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
- 50.00 – FINISHED PAVEMENT CONTOUR (MAJOR) 1.0m INTERVALS
- 50.25 – FINISHED PAVEMENT CONTOUR (MINOR) 0.25m INTERVALS

NOTES:

1. REFER TO DRAWING SSDA510 FOR ROADWORKS DETAILS
2. REFER TO DRAWING SSDA510 FOR TYPICAL CROSS SECTIONS.
3. REFER TO DRAWING SSDA521 FOR CENTRELINE LONG SECTIONS.

ROADWORKS MASTER PLAN
SCALE 1:1000

10m 0 10 20 30 40 50 60 70 80 90 100m
SCALE 1:1000 AT A0 SIZE SHEET

FOR DEVELOPMENT APPLICATION

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DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA500

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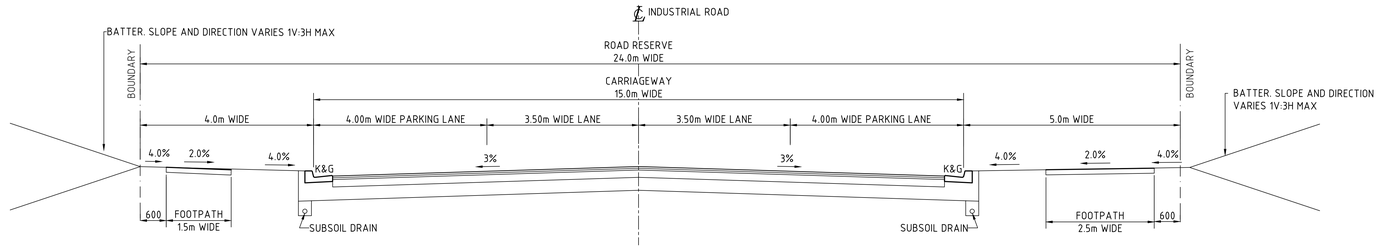
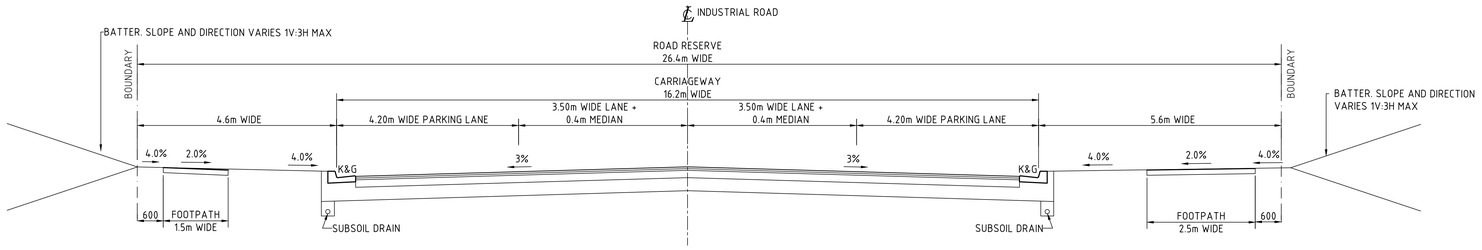
DRAWING TITLE: ROADWORKS MASTER PLAN

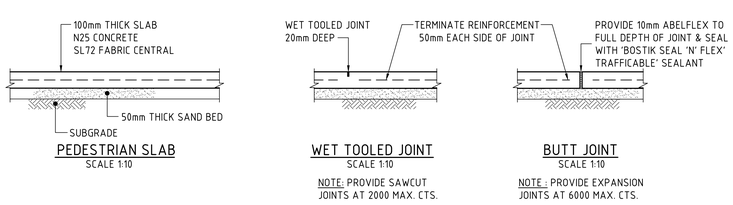
DRAWING No: C013874.06-SSDA500 ISSUE: B



24.0m WIDE LOCAL INDUSTRIAL ROAD
SCALE 1:50



26.40m WIDE DISTRIBUTOR/COLLECTOR ROAD
SCALE 1:50



PEDESTRIAN SLAB
SCALE 1:10

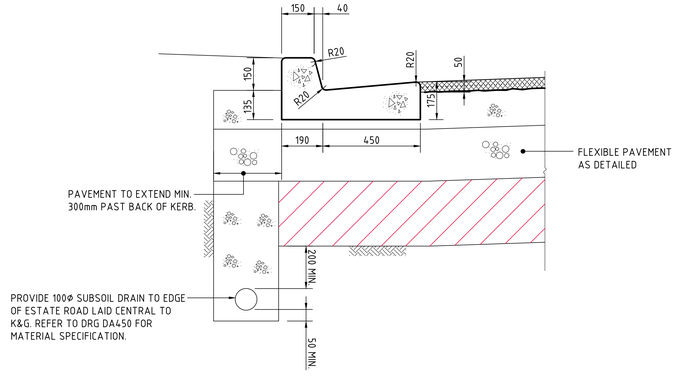
WET TOOLED JOINT
SCALE 1:10

NOTE: PROVIDE SAWCUT JOINTS AT 2000 MAX. CTS.

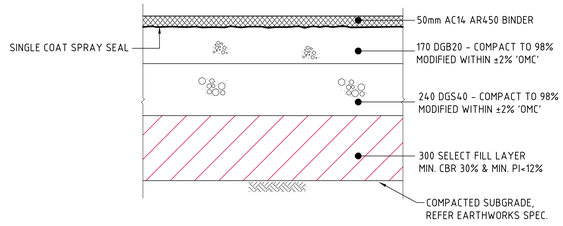
BUTT JOINT
SCALE 1:10

NOTE : PROVIDE EXPANSION JOINTS AT 6000 MAX. CTS.

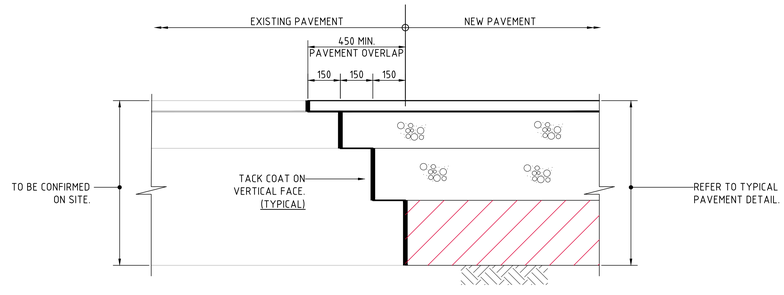
PEDESTRIAN SLAB DETAILS



PENRITH CITY COUNCIL KERB & GUTTER
SCALE 1:10



ROAD PAVEMENT DETAIL
SCALE 1:10
DESIGN TRAFFIC $1x10^7$ ESA's
DESIGN CBR VALUE OF 2%
NOTE: FINAL DESIGN SUBJECT TO
FURTHER TESTING TO CONFIRM
CBR VALUE



TYPICAL NEW / EXISTING PAVEMENT INTERFACE DETAIL
SCALE 1:10

100mm 0 200 400 600 800 1000mm
SCALE 1:10 AT A0 SIZE SHEET

500mm 0 1 2 3 4 5m
SCALE 1:50 AT A0 SIZE SHEET

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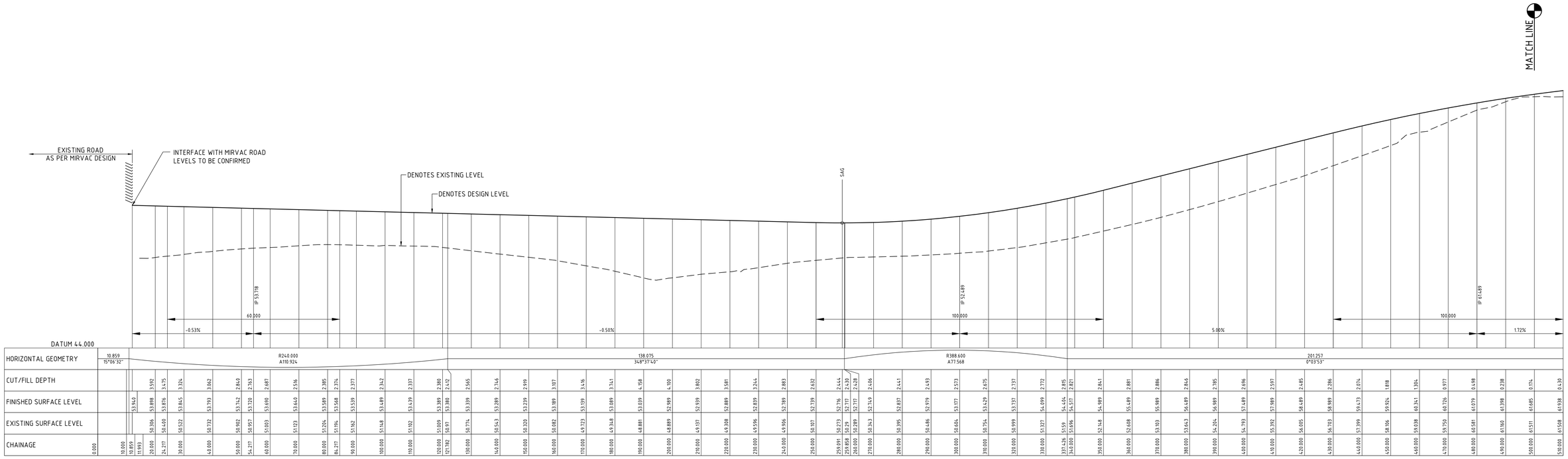
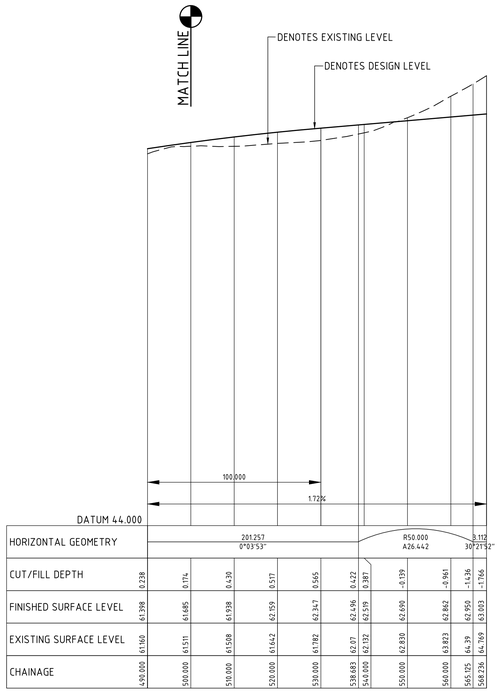
DRAWING TITLE
ROADWORKS TYPICAL SECTIONS AND DETAILS

DRAWING No C013874.06-SSDA510 ISSUE A



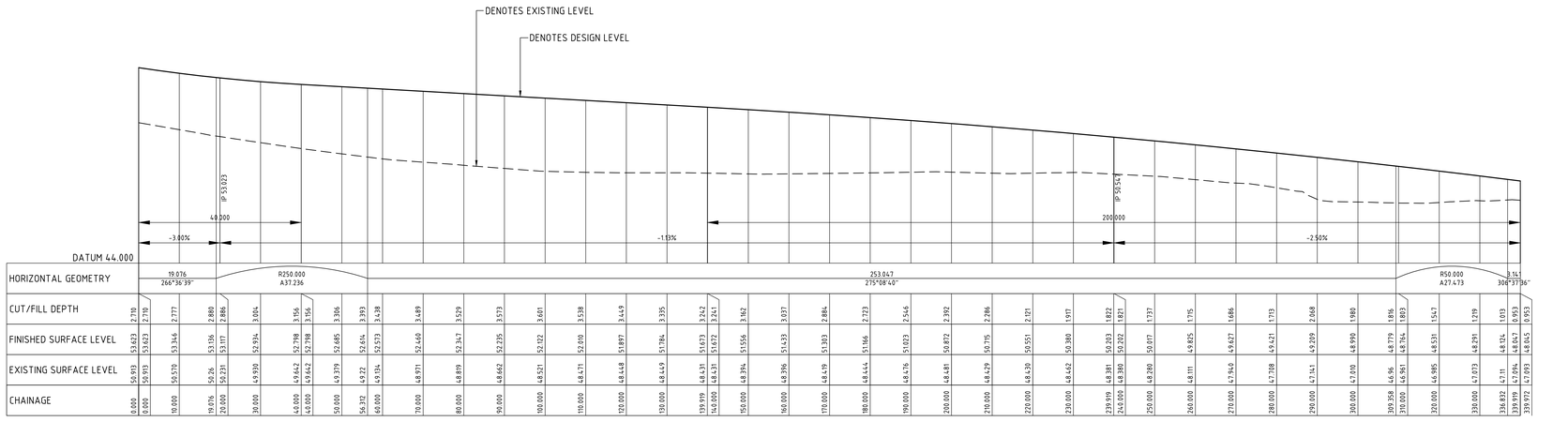
LONGITUDINAL SECTION - CL GPT PRECINCT ROAD

HORIZONAL SCALE 1:500
VERTICAL SCALE 1:100



LONGITUDINAL SECTION - CL GPT PRECINCT ROAD

HORIZONAL SCALE 1:500
VERTICAL SCALE 1:100



LONGITUDINAL SECTION - CL GPT ACCESS ROAD

HORIZONAL SCALE 1:500
VERTICAL SCALE 1:100

1m 0 1 2 3 4 5 6 7 8 9 10m
SCALE 1:100 AT A0 SIZE SHEET

5m 0 10 20 30 40 50m
SCALE 1:500 AT A0 SIZE SHEET

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DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA521

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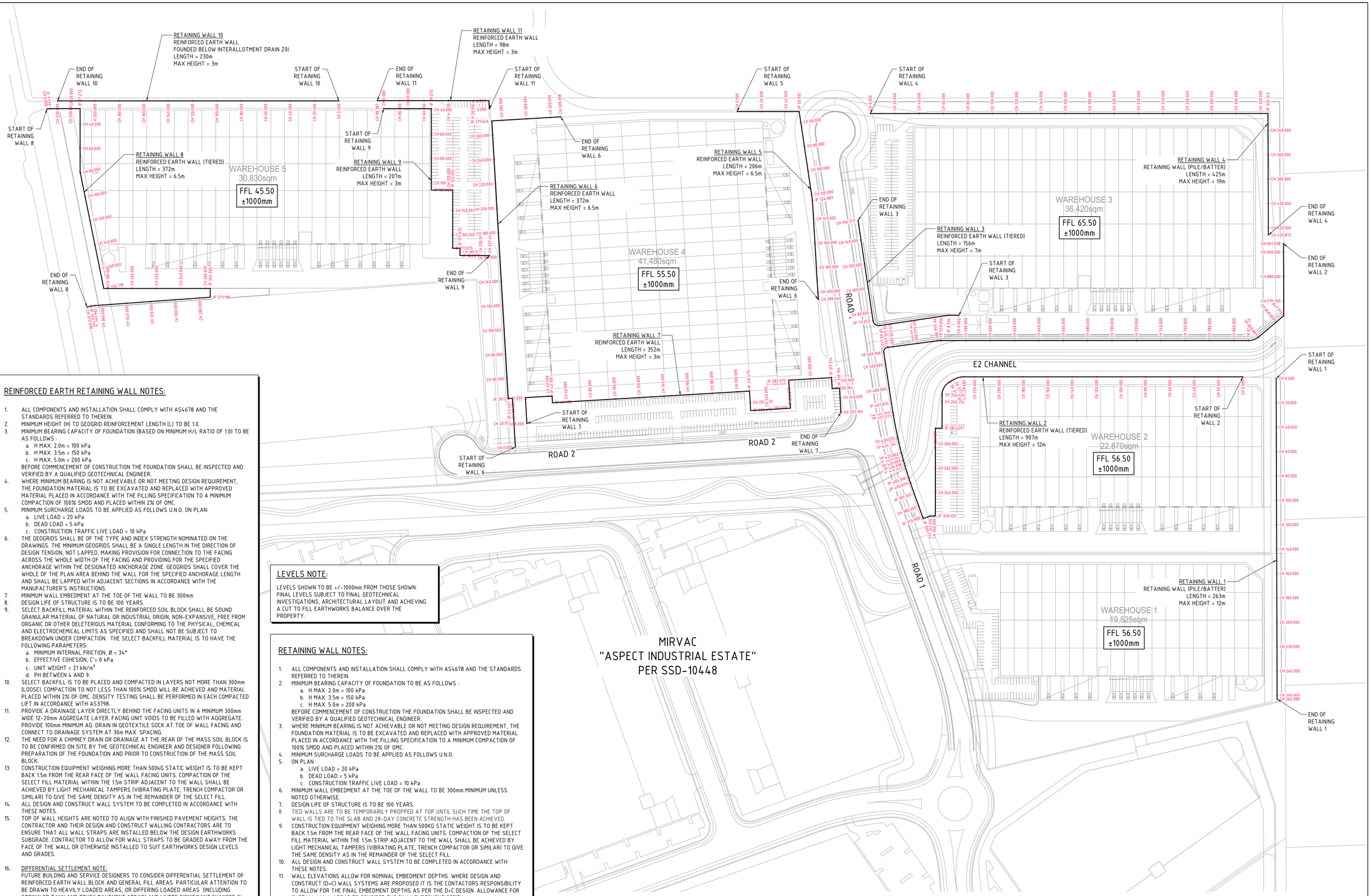
DRAWING TITLE
ROADWORKS LONG SECTIONS
PRECINCT ROAD & ACCESS ROAD

DRAWING NO C013874.06-SSDA521 ISSUE B



REINFORCED EARTH RETAINING WALL NOTES:

1. ALL COMPONENTS AND INSTALLATION SHALL COMPLY WITH AS4678 AND THE STANDARDS REFERRED TO THEREIN.
2. MINIMUM HEIGHT (H) TO GEOGRID REINFORCEMENT LENGTH (L) TO BE 1.0.
3. MINIMUM BEARING CAPACITY OF FOUNDATION (BASED ON MINIMUM H/L RATIO OF 1.0) TO BE AS FOLLOWS :
   a. H MAX. 2.0m = 100 kPa
   b. H MAX. 3.5m = 150 kPa
   c. H MAX. 5.0m = 200 kPa

   BEFORE COMMENCEMENT OF CONSTRUCTION THE FOUNDATION SHALL BE INSPECTED AND VERIFIED BY A QUALIFIED GEOTECHNICAL ENGINEER.
4. WHERE MINIMUM BEARING IS NOT ACHIEVABLE OR NOT MEETING DESIGN REQUIREMENT, THE FOUNDATION MATERIAL IS TO BE EXCAVATED AND REPLACED WITH APPROVED MATERIAL PLACED IN ACCORDANCE WITH THE FILLING SPECIFICATION TO A MINIMUM COMPACTION OF 100% SMDD AND PLACED WITHIN 2% OF OMC.
5. MINIMUM SURCHARGE LOADS TO BE APPLIED AS FOLLOWS U.N.O. ON PLAN:
   a. LIVE LOAD = 20 kPa
   b. DEAD LOAD = 5 kPa
   c. CONSTRUCTION TRAFFIC LIVE LOAD = 10 kPa
6. THE GEOGRIDS SHALL BE OF THE TYPE AND INDEX STRENGTH NOMINATED ON THE DRAWINGS. THE MINIMUM GEOGRIDS SHALL BE A SINGLE LENGTH IN THE DIRECTION OF DESIGN TENSION, NOT LAPPED, MAKING PROVISION FOR CONNECTION TO THE FACING ACROSS THE WHOLE WIDTH OF THE FACING AND PROVIDING FOR THE SPECIFIED ANCHORAGE WITHIN THE DESIGNATED ANCHORAGE ZONE. GEOGRIDS SHALL COVER THE WHOLE OF THE PLAN AREA BEHIND THE WALL FOR THE SPECIFIED ANCHORAGE LENGTH AND SHALL BE LAPPED WITH ADJACENT SECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
7. MINIMUM WALL EMBEDMENT AT THE TOE OF THE WALL TO BE 300mm.
8. DESIGN LIFE OF STRUCTURE IS TO BE 100 YEARS.
9. SELECT BACKFILL MATERIAL WITHIN THE REINFORCED SOIL BLOCK SHALL BE SOUND GRANULAR MATERIAL OF NATURAL OR INDUSTRIAL ORIGIN, NON-EXPANSIVE, FREE FROM ORGANIC OR OTHER DELETERIOUS MATERIAL CONFORMING TO THE PHYSICAL, CHEMICAL AND ELECTROCHEMICAL LIMITS AS SPECIFIED AND SHALL NOT BE SUBJECT TO BREAKDOWN UNDER COMPACTION. THE SELECT BACKFILL MATERIAL IS TO HAVE THE FOLLOWING PARAMETERS:
   a. MINIMUM INTERNAL FRICTION, Ø = 34°
   b. EFFECTIVE COHESION, C' = 0 kPa
   c. UNIT WEIGHT = 21 kN/m^3
   d. PH BETWEEN 4 AND 9.
10. SELECT BACKFILL IS TO BE PLACED AND COMPACTED IN LAYERS NOT MORE THAN 300mm (LOOSE). COMPACTION TO NOT LESS THAN 100% SMDD WILL BE ACHIEVED AND MATERIAL PLACED WITHIN 2% OF OMC. DENSITY TESTING SHALL BE PERFORMED IN EACH COMPACTED LIFT IN ACCORDANCE WITH AS3798.
11. PROVIDE A DRAINAGE LAYER DIRECTLY BEHIND THE FACING UNITS IN A MINIMUM 300mm WIDE 12-20mm AGGREGATE LAYER. FACING UNIT VOIDS TO BE FILLED WITH AGGREGATE. PROVIDE 100mm MINIMUM AG. DRAIN IN GEOTEXTILE SOCK AT TOE OF WALL FACING AND CONNECT TO DRAINAGE SYSTEM AT 30m MAX. SPACING.
12. THE NEED FOR A CHIMNEY DRAIN OR DRAINAGE AT THE REAR OF THE MASS SOIL BLOCK IS TO BE CONFIRMED ON SITE BY THE GEOTECHNICAL ENGINEER AND DESIGNER FOLLOWING PREPARATION OF THE FOUNDATION AND PRIOR TO CONSTRUCTION OF THE MASS SOIL BLOCK.
13. CONSTRUCTION EQUIPMENT WEIGHING MORE THAN 500kG STATIC WEIGHT IS TO BE KEPT BACK 1.5m FROM THE REAR FACE OF THE WALL FACING UNITS. COMPACTION OF THE SELECT FILL MATERIAL WITHIN THE 1.5m STRIP ADJACENT TO THE WALL SHALL BE ACHIEVED BY LIGHT MECHANICAL TAMPERS (VIBRATING PLATE, TRENCH COMPACTOR OR SIMILAR) TO GIVE THE SAME DENSITY AS IN THE REMAINDER OF THE SELECT FILL.
14. ALL DESIGN AND CONSTRUCT WALL SYSTEM TO BE COMPLETED IN ACCORDANCE WITH THESE NOTES.
15. TOP OF WALL HEIGHTS ARE NOTED TO ALIGN WITH FINISHED PAVEMENT HEIGHTS. THE CONTRACTOR AND THEIR DESIGN AND CONSTRUCT WALLING CONTRACTORS ARE TO ENSURE THAT ALL WALL STRAPS ARE INSTALLED BELOW THE DESIGN EARTHWORKS SUBGRADE. CONTRACTOR TO ALLOW FOR WALL STRAPS TO BE GRADED AWAY FROM THE FACE OF THE WALL OR OTHERWISE INSTALLED TO SUIT EARTHWORKS DESIGN LEVELS AND GRADES.
16. DIFFERENTIAL SETTLEMENT NOTE:
    FUTURE BUILDING AND SERVICE DESIGNERS TO CONSIDER DIFFERENTIAL SETTLEMENT OF REINFORCED EARTH WALL BLOCK AND GENERAL FILL AREAS. PARTICULAR ATTENTION TO BE DRAWN TO HEAVILY LOADED AREAS, OR DIFFERING LOADED AREAS (INCLUDING SPRINKLER TANK AND TRUCK PAVEMENT AREAS) AND WHERE SIGNIFICANT CHANGES IN OVERALL WALL HEIGHT OR FILL AMOUNTS ARE EXPERIENCED. IT IS THE RESPONSIBILITY OF THE FUTURE DESIGNERS TO ENSURE APPROPRIATE DESIGN CONSIDERATION TO DIFFERENTIAL SETTLEMENT ARE MADE DEPENDING ON THE DESIGN ELEMENT AND INTERACTION WITH RETAINED ELEMENTS AND GENERAL FILL MATERIAL.

LEVELS NOTE:

LEVELS SHOWN TO BE +/-1000mm FROM THOSE SHOWN. FINAL LEVELS SUBJECT TO FINAL GEOTECHNICAL INVESTIGATIONS, ARCHITECTURAL LAYOUT AND ACHIEVING A CUT TO FILL EARTHWORKS BALANCE OVER THE PROPERTY.

RETAINING WALL NOTES:

1. ALL COMPONENTS AND INSTALLATION SHALL COMPLY WITH AS4678 AND THE STANDARDS REFERRED TO THEREIN.
2. MINIMUM BEARING CAPACITY OF FOUNDATION TO BE AS FOLLOWS :
   a. H MAX. 2.0m = 100 kPa
   b. H MAX. 3.5m = 150 kPa
   c. H MAX. 5.0m = 200 kPa

   BEFORE COMMENCEMENT OF CONSTRUCTION THE FOUNDATION SHALL BE INSPECTED AND VERIFIED BY A QUALIFIED GEOTECHNICAL ENGINEER.
3. WHERE MINIMUM BEARING IS NOT ACHIEVABLE OR NOT MEETING DESIGN REQUIREMENT, THE FOUNDATION MATERIAL IS TO BE EXCAVATED AND REPLACED WITH APPROVED MATERIAL PLACED IN ACCORDANCE WITH THE FILLING SPECIFICATION TO A MINIMUM COMPACTION OF 100% SMDD AND PLACED WITHIN 2% OF OMC.
4. MINIMUM SURCHARGE LOADS TO BE APPLIED AS FOLLOWS U.N.O.
5. ON PLAN :
   a. LIVE LOAD = 20 kPa
   b. DEAD LOAD = 5 kPa
   c. CONSTRUCTION TRAFFIC LIVE LOAD = 10 kPa
6. MINIMUM WALL EMBEDMENT AT THE TOE OF THE WALL TO BE 300mm MINIMUM UNLESS NOTED OTHERWISE.
7. DESIGN LIFE OF STRUCTURE IS TO BE 100 YEARS.
8. TIED WALLS ARE TO BE TEMPORARILY PROPPED AT TOP UNTIL SUCH TIME THE TOP OF WALL IS TIED TO THE SLAB AND 28-DAY CONCRETE STRENGTH HAS BEEN ACHIEVED.
9. CONSTRUCTION EQUIPMENT WEIGHING MORE THAN 500KG STATIC WEIGHT IS TO BE KEPT BACK 1.5m FROM THE REAR FACE OF THE WALL FACING UNITS. COMPACTION OF THE SELECT FILL MATERIAL WITHIN THE 1.5m STRIP ADJACENT TO THE WALL SHALL BE ACHIEVED BY LIGHT MECHANICAL TAMPERS (VIBRATING PLATE, TRENCH COMPACTOR OR SIMILAR) TO GIVE THE SAME DENSITY AS IN THE REMAINDER OF THE SELECT FILL.
10. ALL DESIGN AND CONSTRUCT WALL SYSTEM TO BE COMPLETED IN ACCORDANCE WITH THESE NOTES.
11. WALL ELEVATIONS ALLOW FOR NOMINAL EMBEDMENT DEPTHS. WHERE DESIGN AND CONSTRUCT (D+C) WALL SYSTEMS ARE PROPOSED IT IS THE CONTACTORS RESPONSIBILITY TO ALLOW FOR THE FINAL EMBEDMENT DEPTHS AS PER THE D+C DESIGN. ALLOWANCE FOR OVERALL WALL AREAS TO CONSIDER THE FINAL EMBEDMENT DEPTH.
12. WALL ELEVATIONS AND AREAS ARE BASED ON THE VERTICAL PLAN AREA. CONTRACTOR TO ALLOW ADDITIONAL SURFACE AREA WHERE WALLS ARE NOT VERTICAL OR HAVE BACKSLOPES.

MIRVAC
"ASPECT INDUSTRIAL ESTATE"
PER SSD-10448

RETAINING WALL MASTER PLAN
SCALE 1:1000

10m 0 10 20 30 40 50 60 70 80 90 100m
SCALE 1:1000 AT A0 SIZE SHEET

FOR DEVELOPMENT APPLICATION

AMENDMENTS	DATE	ISSUE
ISSUED FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION	21.05.21	B

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DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA600

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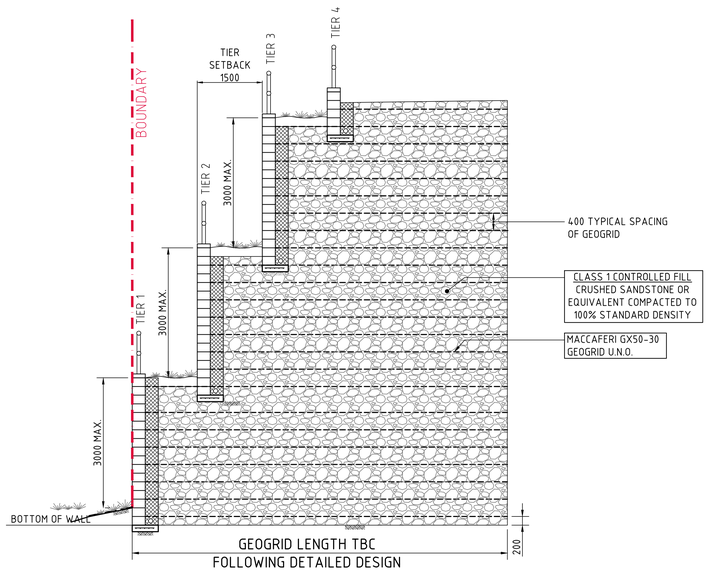
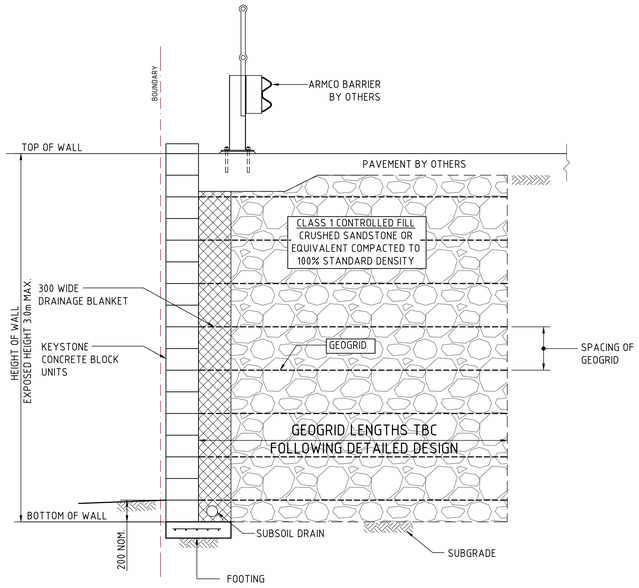
DRAWING TITLE
RETAINING WALL MASTER PLAN

DRAWING No. C013874.06-SSDA600 ISSUE A



TIERED REINFORCED EARTH WALL DETAILS

SCALE 1:50

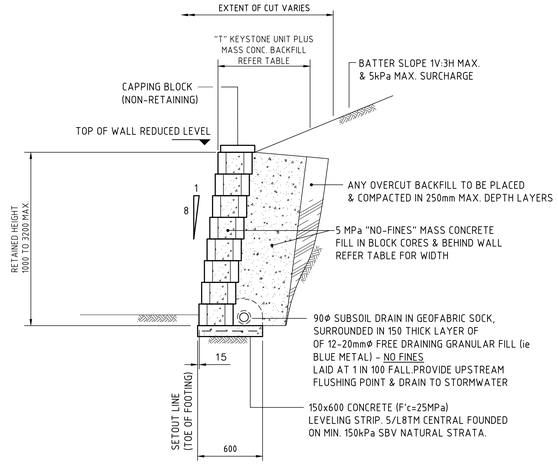


REINFORCED EARTH WALL DETAILS

SCALE 1:20

NOTE :
INDICATIVE REINFORCEMENT LENGTHS SHOWN.

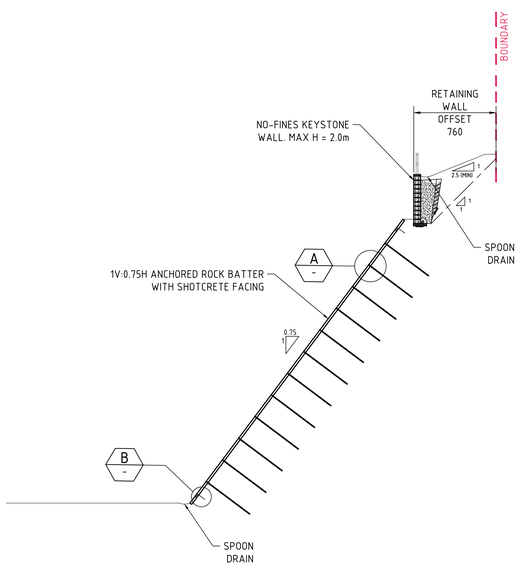
DESIGN TO BE CONFIRMED / PROVIDED BY D+C CONTRACTOR.



TYPICAL THRU' KEYSTONE RETAINING WALL
(1000 TO 3000 MAXIMUM RETAINED HEIGHT)

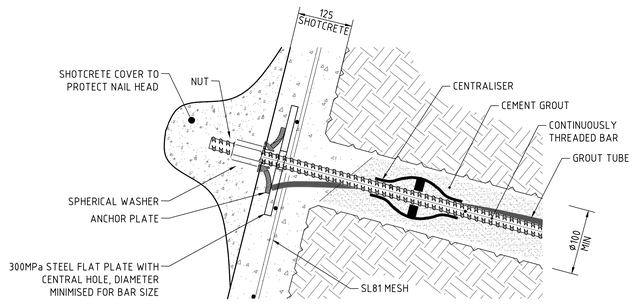
NOTE :
INDICATIVE REINFORCEMENT LENGTHS SHOWN.

DESIGN TO BE CONFIRMED / PROVIDED BY D+C CONTRACTOR.

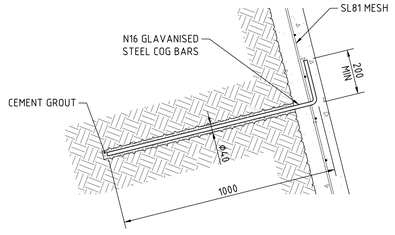


TYPICAL ROCK BATTER WITH SHOTCRETE

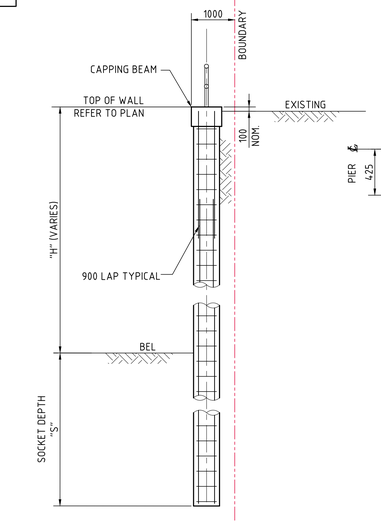
SCALE 1:100



DETAIL 1:5 A



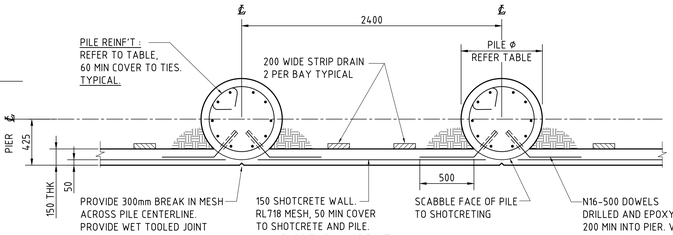
DETAIL 1:10 B



CONTIGUOUS PILE WALL TYPICAL SECTION

SCALE 1:50

NOTE:
SOCKET DEPTH NOTED IS MINIMUM INTO CLASS IV ROCK OR HIGHER. THIS IS TO BE CONFIRMED BY GEOTECHNICAL ENGINEER DURING INSTALLATION. IF SOFTER ROCK IS ENCOUNTERED, ENGINEER TO BE NOTIFIED IMMEDIATELY AND WILL ADVICE OF ADJUSTED SOCKET DEPTH.



NOTE: 150 SHOTCRETE WALL TO BE CONSTRUCTED IN 1500 MAX. DROPS.

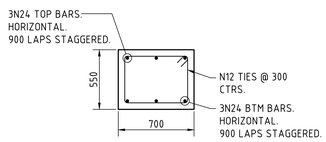
CONTIGUOUS PILE WALL

SCALE 1:20

CONTIGUOUS PILE WALL SCHEDULE

PILE TYPE	MAX. HEIGHT "H" (m)	PILE DIA. (mm)	PILE SPACING (mm)	SOCKET DEPTH "S" (mm)	PILE REINFORCEMENT	CLOSED TIES	CAPPING BEAM
-	-	-	-	-	-	-	-

CONCRETE QUALITY					
ELEMENT	SLUMP	AGGREGATE (MAX. SIZE)	CEMENT TYPE	ADMIXTURE	F'c (MPa)
PILES	80	20	SL	NIL	32
SHOT CRETE	230	10	SL	NIL	32
CAPPING	80	20	GP	NIL	32



DETAIL OF 700x550 CAPPING BEAM

SCALE 1:20

50mm 0 100 200 300 400 500mm
SCALE 1:5 AT A0 SIZE SHEET

100mm 0 200 400 600 800 1000mm
SCALE 1:10 AT A0 SIZE SHEET

200mm 0 500 1000 1500 2000mm
SCALE 1:20 AT A0 SIZE SHEET

500mm 0 1 2 3 4 5m
SCALE 1:50 AT A0 SIZE SHEET

1m 0 1 2 3 4 5 6 7 8 9 10m
SCALE 1:100 AT A0 SIZE SHEET

FOR DEVELOPMENT APPLICATION

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DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
DS	JB	APRIL '21	DS	A0	AS SHOWN	C013874.06-SSDA650

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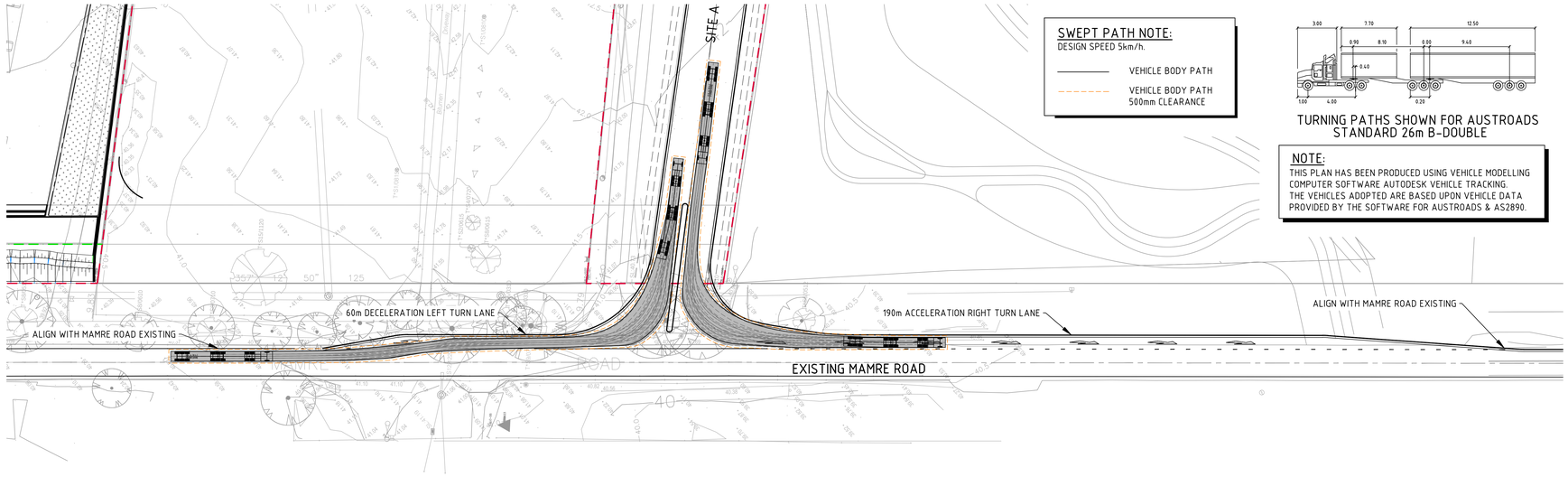
DRAWING TITLE
RETAINING WALL DETAILS

DRAWING No: C013874.06-SSDA650 ISSUE: A



SWEPT PATH NOTE:
DESIGN SPEED 5km/h.

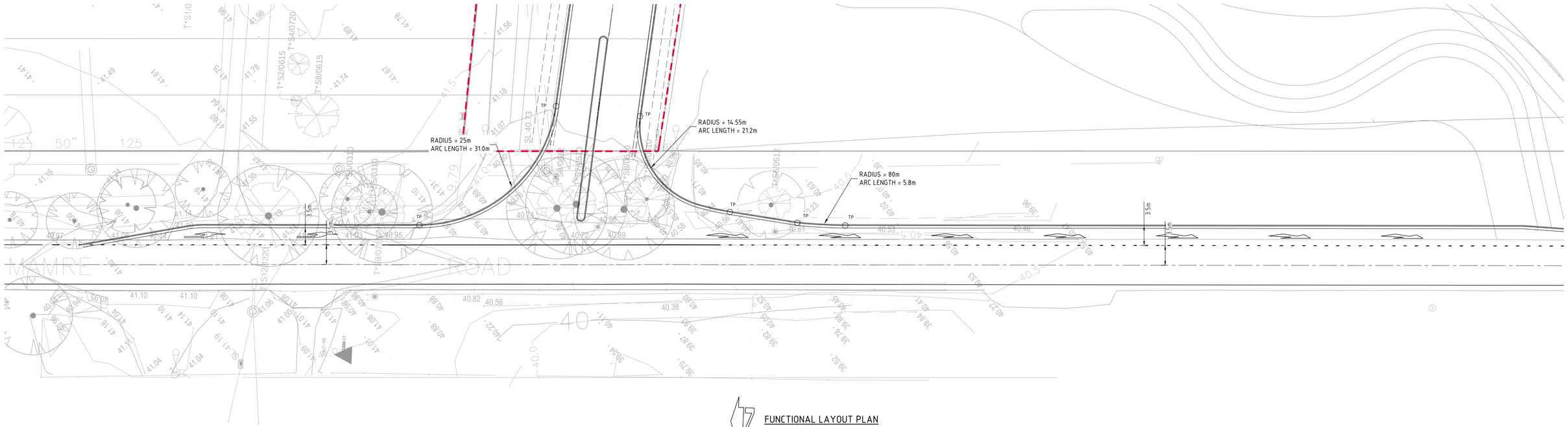
VEHICLE BODY PATH

VEHICLE BODY PATH
500mm CLEARANCE

TURNING PATHS SHOWN FOR AUSTROADS
STANDARD 26m B-DOUBLE

NOTE:
THIS PLAN HAS BEEN PRODUCED USING VEHICLE MODELLING COMPUTER SOFTWARE AUTODESK VEHICLE TRACKING. THE VEHICLES ADOPTED ARE BASED UPON VEHICLE DATA PROVIDED BY THE SOFTWARE FOR AUSTROADS & AS2890.

SWEPT PATH PLAN
SCALE 1:500



FUNCTIONAL LAYOUT PLAN
SCALE 1:250

10m 0 10 20 30 40 50 60 70 80 90 100m
SCALE 1:1000 AT A0 SIZE SHEET

FOR INFORMATION

ISSUED FOR INFORMATION ONLY	21.05.21	A
AMENDMENTS	DATE	ISSUE

AMENDMENTS DATE ISSUE

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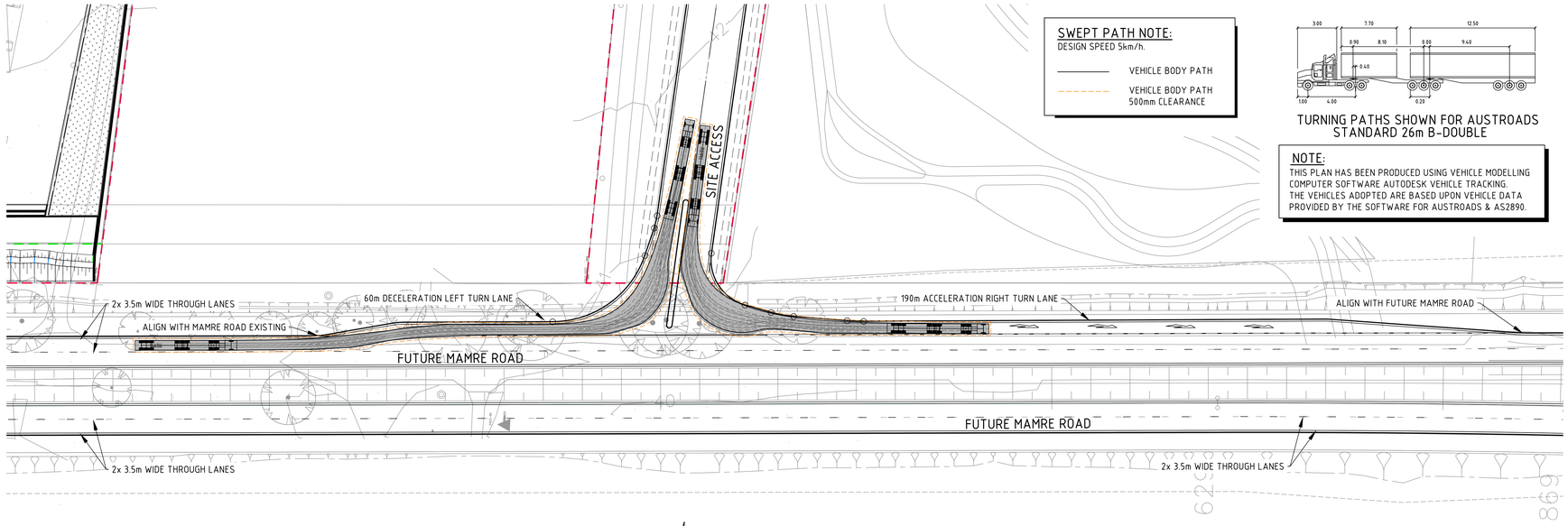
DRAWING TITLE
FUNCTIONAL LAYOUT PLAN
TEMP ACCESS ROAD
STAGE 1 - INTERIM

DRAWING No C013874.06-SK01 ISSUE A



SWEPT PATH NOTE:
DESIGN SPEED 5km/h.

VEHICLE BODY PATH

VEHICLE BODY PATH
500mm CLEARANCE

TURNING PATHS SHOWN FOR AUSTROADS STANDARD 26m B-DOUBLE

NOTE:
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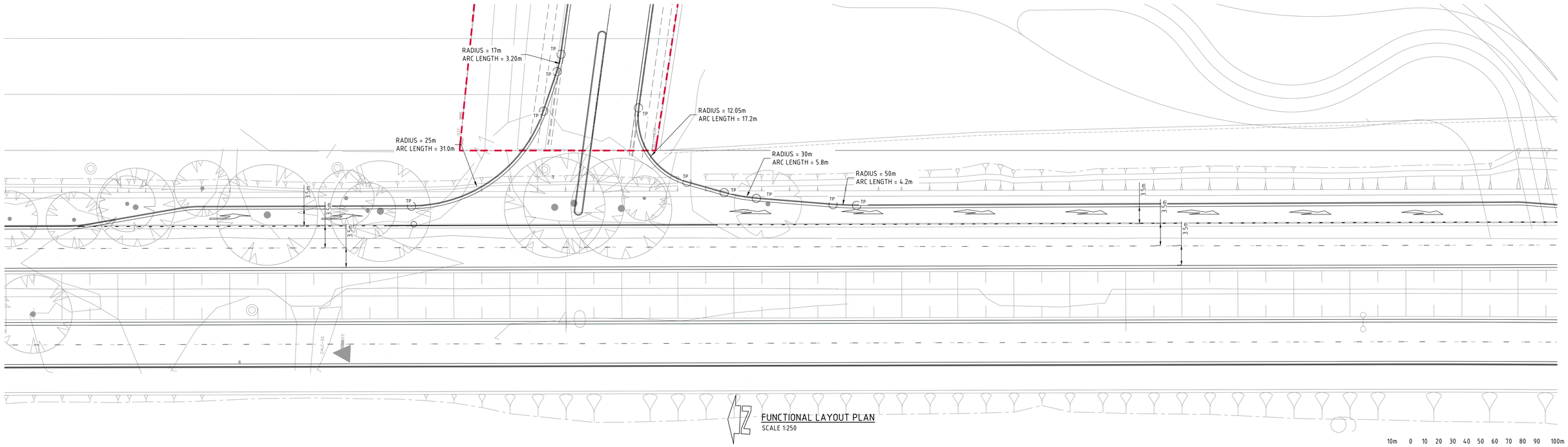
SWEPT PATH PLAN
SCALE 1:500



FUNCTIONAL LAYOUT PLAN
SCALE 1:250

10m 0 10 20 30 40 50 60 70 80 90 100m
SCALE 1:1000 AT A0 SIZE SHEET

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AMENDMENTS	DATE	ISSUE

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DRAWING TITLE
FUNCTIONAL LAYOUT PLAN
TEMP ACCESS ROAD
STAGE 2 - ULTIMATE

DRAWING No C013874.06-SK02 ISSUE A