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To: City of Gold Coast Council

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Attention: Development Assessment

PROJECT: VANTAGE YATALA STAGE 3

Job No: 5941

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Drg/Doc No.	Title	CR	Revision History									
5941 ENG BE3 001	DRAWING SCHEDULE AND LOCALITY PLAN	D	A	B	C	D						
5941 ENG BE3 002	GENERAL NOTES SHEET 1 OF 2	C	A	B	C							
5941 ENG BE3 003	GENERAL NOTES SHEET 2 OF 2	C	A	B	C							
5941 ENG BE3 004	DRAWING LEGENDS	C	A	B	C							
5941 ENG BE3 005	KEY PLAN LAYOUT	D	A	B	C	D						
5941 ENG BE3 010	EXISTING LAYOUT PLAN	C	A	B	C							
5941 ENG BE3 011	SITE STRIPPING LAYOUT PLAN	B		A	B							
5941 ENG BE3 020	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS	C	A	B	C							
5941 ENG BE3 021	SEDIMENT AND EROSION CONTROL LAYOUT PLAN SHEET 1 OF 5	C	A	B	C							
5941 ENG BE3 022	SEDIMENT AND EROSION CONTROL LAYOUT PLAN SHEET 2 OF 5	C	A	B	C							
5941 ENG BE3 023	SEDIMENT AND EROSION CONTROL LAYOUT PLAN SHEET 3 OF 5	C	A	B	C	D						
5941 ENG BE3 024	SEDIMENT AND EROSION CONTROL LAYOUT PLAN SHEET 4 OF 5	D	A	B	C	D						
5941 ENG BE3 025	SEDIMENT AND EROSION CONTROL LAYOUT PLAN SHEET 5 OF 5	D	A	B	C							
5941 ENG BE3 030	CONSTRUCTION PHASE BIO-RETENTION BASIN 1 LAYOUT PLAN	C	A	B	C							
5941 ENG BE3 031	CONSTRUCTION PHASE BIO-RETENTION BASIN 2 LAYOUT PLAN	C	A	B	C							
5941 ENG BE3 032	CONSTRUCTION PHASE BIO-RETENTION BASIN 3 LAYOUT PLAN	D	A	B	C							
5941 ENG BE3 033	CONSTRUCTION PHASE TYPICAL DETAILS	C	A	B	C							
5941 ENG BE3 050	BULK EARTHWORKS LAYOUT PLAN SHEET 1 OF 5	C	A	B	C							
5941 ENG BE3 051	BULK EARTHWORKS LAYOUT PLAN SHEET 2 OF 5	C	A	B	C	D						
5941 ENG BE3 052	BULK EARTHWORKS LAYOUT PLAN SHEET 3 OF 5	C	A	B	C	D						
5941 ENG BE3 053	BULK EARTHWORKS LAYOUT PLAN SHEET 4 OF 5	D	A	B	C							
5941 ENG BE3 054	BULK EARTHWORKS LAYOUT PLAN SHEET 5 OF 5	D	A	B	C							
5941 ENG BE3 100	FINISHED SURFACE LAYOUT PLAN SHEET 1 OF 5	C	A	B	C							
5941 ENG BE3 101	FINISHED SURFACE LAYOUT PLAN SHEET 2 OF 5	C	A	B	C	D						
5941 ENG BE3 102	FINISHED SURFACE LAYOUT PLAN SHEET 3 OF 5	C	A	B	C	D						
5941 ENG BE3 103	FINISHED SURFACE LAYOUT PLAN SHEET 4 OF 5	D	A	B	C							
5941 ENG BE3 104	FINISHED SURFACE LAYOUT PLAN SHEET 5 OF 5	D	A	B	C							
5941 ENG BE3 150	FINISHED SURFACE CROSS SECTIONS SHEET 1 OF 4	C	A	B	C							
5941 ENG BE3 151	FINISHED SURFACE CROSS SECTIONS SHEET 2 OF 4	C	A	B	C	D						
5941 ENG BE3 152	FINISHED SURFACE CROSS SECTIONS SHEET 3 OF 4	C	A	B	C							
5941 ENG BE3 153	FINISHED SURFACE CROSS SECTIONS SHEET 4 OF 4	D	A	B	C							
5941 ENG BE3 570	OPERATIONAL PHASE BIORETENTION BASIN 1 LAYOUT PLAN	C	A	B	C	D						
5941 ENG BE3 571	OPERATIONAL PHASE BIORETENTION BASIN 2 LAYOUT PLAN	C	A	B	C							
5941 ENG BE3 572	OPERATIONAL PHASE BIORETENTION BASIN 3 LAYOUT PLAN	D	A	B	C							
5941 ENG BE3 573	OPERATIONAL PHASE BIORETENTION BASIN SECTIONS SHEET 1 OF 2	C	A	B	C							
5941 ENG BE3 574	OPERATIONAL PHASE BIORETENTION BASIN SECTIONS SHEET 2 OF 2	C	A	B	C							

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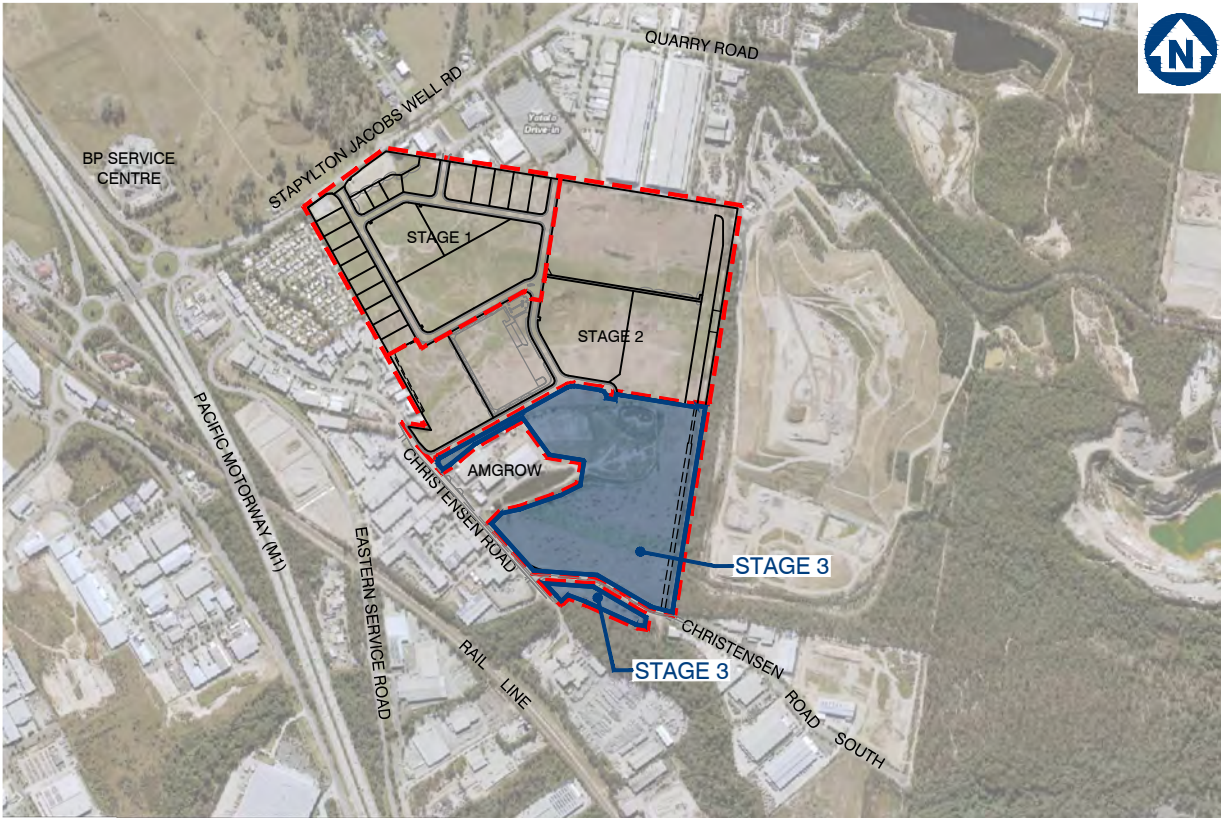
Signed: _____ Dated: / /

Project Manager: Mitchell Gassman

Sent by: mgassman@gassman.com.au

OPERATIONAL WORKS APPLICATION FOR CHANGE TO GROUND LEVEL

DRAWING INDEX		
DRAWING No.	REV	DRAWING TITLE
594I ENG BE3 001	D	DRAWING SCHEDULE AND LOCALITY PLAN
594I ENG BE3 002	C	GENERAL NOTES SHEET 1 OF 2
594I ENG BE3 003	C	GENERAL NOTES SHEET 2 OF 2
594I ENG BE3 004	C	DRAWING LEGENDS
594I ENG BE3 005	C	KEY PLAN
594I ENG BE3 010	C	EXISTING SURFACE AND FEATURE LAYOUT PLAN
594I ENG BE3 011	B	SITE STRIPPING LAYOUT PLAN
594I ENG BE3 020	C	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
594I ENG BE3 021	C	SEDIMENT AND EROSION CONTROL LAYOUT PLAN SHEET 1 OF 5
594I ENG BE3 022	C	SEDIMENT AND EROSION CONTROL LAYOUT PLAN SHEET 2 OF 5
594I ENG BE3 023	C	SEDIMENT AND EROSION CONTROL LAYOUT PLAN SHEET 3 OF 5
594I ENG BE3 024	D	SEDIMENT AND EROSION CONTROL LAYOUT PLAN SHEET 4 OF 5
594I ENG BE3 025	D	SEDIMENT AND EROSION CONTROL LAYOUT PLAN SHEET 5 OF 5
594I ENG BE3 030	C	CONSTRUCTION PHASE BIO RETENTION BASIN 1 LAYOUT PLAN
594I ENG BE3 031	C	CONSTRUCTION PHASE BIO RETENTION BASIN 2 LAYOUT PLAN
594I ENG BE3 032	D	CONSTRUCTION PHASE BIO RETENTION BASIN 3 LAYOUT PLAN
594I ENG BE3 033	C	CONSTRUCTION PHASE BIO RETENTION TYPICAL DETAILS
594I ENG BE3 050	C	BULK EARTHWORKS LAYOUT PLAN SHEET 1 OF 5
594I ENG BE3 051	C	BULK EARTHWORKS LAYOUT PLAN SHEET 2 OF 5
594I ENG BE3 052	C	BULK EARTHWORKS LAYOUT PLAN SHEET 3 OF 5
594I ENG BE3 053	D	BULK EARTHWORKS LAYOUT PLAN SHEET 4 OF 5
594I ENG BE3 054	D	BULK EARTHWORKS LAYOUT PLAN SHEET 5 OF 5
594I ENG BE3 100	C	FINISHED SURFACE LAYOUT PLAN SHEET 1 OF 5
594I ENG BE3 101	C	FINISHED SURFACE LAYOUT PLAN SHEET 2 OF 5
594I ENG BE3 102	C	FINISHED SURFACE LAYOUT PLAN SHEET 3 OF 5
594I ENG BE3 103	D	FINISHED SURFACE LAYOUT PLAN SHEET 4 OF 5
594I ENG BE3 104	D	FINISHED SURFACE LAYOUT PLAN SHEET 5 OF 5
594I ENG BE3 150	C	FINISHED SURFACE CROSS SECTIONS SHEET 1 OF 4
594I ENG BE3 151	C	FINISHED SURFACE CROSS SECTIONS SHEET 2 OF 4
594I ENG BE3 152	C	FINISHED SURFACE CROSS SECTIONS SHEET 3 OF 4
594I ENG BE3 153	D	FINISHED SURFACE CROSS SECTIONS SHEET 4 OF 4
594I ENG BE3 570	C	OPERATIONAL PHASE BIO RETENTION BASIN 1 LAYOUT PLAN
594I ENG BE3 571	C	OPERATIONAL PHASE BIO RETENTION BASIN 2 LAYOUT PLAN
594I ENG BE3 572	D	OPERATIONAL PHASE BIO RETENTION BASIN 3 LAYOUT PLAN
594I ENG BE3 573	C	BIO RETENTION BASIN SECTIONS SHEET 1 OF 2
594I ENG BE3 574	C	BIO RETENTION BASIN SECTIONS SHEET 2 OF 2



LOCALITY PLAN
NOT TO SCALE

CLIENT
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PTY LTD

SITE ADDRESS
LOT 501 ON SP295994
60 STAPYLTON JACOBS WELL ROAD,
STAPYLTON, QLD 4207

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DWG NO.5941 ENG BE3 001 - D

SEPTEMBER 2023

GENERAL NOTES

1. **CONTRACT DOCUMENTATION**
ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE CONTRACT SPECIFICATION AND CoGC STANDARD DRAWINGS AND SPECIFICATIONS.
2. **DATUM**
LEVELS SHOWN ON THE PLANS ARE A.H.D.
3. **SURVEY SETOUT**
THE SURVEY SET OUT INFORMATION TO ALLOW THE CONTRACTOR TO ACCURATELY SET OUT THE WORKS HAS BEEN ESTABLISHED ON SITE BY THE PRINCIPAL'S SURVEYOR. THE CONTRACTOR IS NOT TO SCALE FROM THESE PLANS AS A MEANS OF OBTAINING SETOUT INFORMATION.
4. **EXISTING SURVEY CONTROL STATIONS**
IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT EXISTING SURVEY CONTROL STATIONS ARE NOT DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES. SHOULD THE CONTRACTOR IDENTIFY ANY CONFLICT BETWEEN EXISTING SURVEY CONTROL AND THE REQUIRED CONTRUCTION ACTIVITIES THE SUPERINTENDENT IS TO BE NOTIFIED IMMEDIATELY.
5. **EXISTING SERVICES**
THE LOCATION OF EXISTING SERVICES WHERE SHOWN ON THE PLANS ARE INDICATIVE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE RELEVANT SERVICE AUTHORITIES TO ASCERTAIN THE EXACT LOCATION OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF WORKS AND TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO THE EXISTING SERVICES.
6. **SITE ACCESS**
THE CONTRACTOR SHALL ONLY GAIN ACCESS TO THE SITE VIA ACCESS LOCATIONS APPROVED BY THE SUPERINTENDENT. FREEDOM OF ACCESS TO OTHER WORK AREAS ON THE SITE SHALL BE MAINTAINED AT ALL TIMES.
7. **PROVISION FOR TRAFFIC**
PROVISION FOR TRAFFIC ON LOCAL ROADS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND CoGC COUNCIL REQUIREMENTS.
8. **WORK EXTENT**
THE CONTRACTOR IS TO RESTRICT ACTIVITIES TO THOSE AREAS DESIGNATED AS WORKS AREAS UNDER THE CONTRACT. AT NO TIME IS THE CONTRACTOR TO ENTER ADJOINING PROPERTIES OR CONTRACT AREAS WITHOUT THE WRITTEN AUTHORISATION OF THE SUPERINTENDENT.
9. **TESTING**
ALL TESTING IS TO BE CARRIED OUT BY AN APPROVED N.A.T.A TESTING AUTHORITY IN ACCORDANCE WITH THE PROJECT SPECIFICATION AND REQUIREMENTS OF CoGC COUNCIL.
10. **"AS CONSTRUCTED" SURVEY**
"AS CONSTRUCTED" SURVEY SHALL BE CARRIED OUT BY THE PRINCIPAL'S SURVEYOR AS WORK PROCEEDS. THE CONTRACTOR IS TO PROVIDE ADEQUATE NOTICE TO THE PRINCIPAL'S SURVEYOR ON WHEN THIS IS REQUIRED TO ENSURE COMPLIANCE WITH THE REQUIREMENTS OF CoGC COUNCIL.
11. **MAINTENANCE OF SITE CONDITION**
AT THE COMPLETION OF WORKS THE SITE IS TO BE LEFT IN A CLEAN AND TIDY CONDITIO

8. **DAMS AND PONDS**
WHERE POSSIBLE, WATER FROM DAMS AND PONDS SHALL BE MAINTAINED AND UTILISED FOR CONSTRUCTION PURPOSES AND DUST SUPPRESSION. DAMS AND PONDS NOT TO BE RETAINED SHALL BE DEWATERED, CLEARED OF ANY FOREIGN MATTER AND ORGANIC MATERIAL WITH THIS MATERIAL TO BE REMOVED OFF SITE.
9. **RETAINING STRUCTURES**
THE DESIGN AND STRUCTURAL CERTIFICATION OF RETAINING STRUCTURES SHALL BE UNDERTAKEN BY THE CONTRACTOR'S STRUCTURAL ENGINEER (RPEQ) IN CONSULTATION WITH THE PROJECT'S CIVIL ENGINEER AND LANDSCAPE CONSULTANT. THE CONTRACTOR IS RESPONSIBLE FOR THE SUBMISSION AND APPROVAL COORDINATION OF THE ASSOCIATED DRAWINGS AND CERTIFICATION TO GCCC. A COPY OF THIS SUBMISSION IS TO BE PROVIDED TO THE SUPERINTENDENT.
10. **TOPSOIL REPLACEMENT**
ALL BATTERS AND ALLOTMENT CUT & FILL AREAS SHALL BE TOP SOILED FROM ONSITE STOCKPILES. IF DIRECTED BY THE SUPERINTENDENT THE TOPSOIL SHALL BE SCREENED PRIOR TO PLACING. THE CONTRACTOR SHALL ALLOW IN THEIR RATE FOR SCREENING AND THE DISPOSAL OF REJECT MATERIAL TO TIP OFFSITE INCLUDING ALL FEES. THE CONTRACTOR MUST ENSURE THAT THE STRIPPING SHALL BE UNDERTAKEN IN SUCH A MANNER AS TO AVOID CONTAMINATION BY OVER CUTTING. IF TOPSOIL IS CONTAMINATED BY OVER CUTTING AND DETERMINED NOT SUITABLE FOR REUSE BY THE SUPERINTENDENT, THE CONTRACTOR SHALL BEAR THE COST OF REMOVAL FROM SITE OF ALL CONTAMINATED TOPSOIL AND THE COST TO SUPPLY AND IMPORT SUITABLE TOPSOIL FOR RE–SPREADING.
11. **GRASSING / SEEDING**
ALL CUT & FILL AREAS AND DISTURBED AREAS SHALL BE GRASSED OR SEED

SEDIMENT AND EROSION

1. THE OBJECTIVES OF THE EROSION AND SEDIMENT CONTROL PROGRAM ARE:

a. ALLOW STORMWATER TO PASS THROUGH THE SITE IN A CONTROLLED MANNER AT NON–EROSIVE FLOW VELOCITIES.

b. MINIMISE SOIL EROSION FROM WATER AND WIND

c. MINIMISE ADVERSE EFFECTS OF SEDIMENT RUNOFF.

d. MINIMISE OR PREVENT ENVIRONMENTAL HARM ASSOCIATED WITH DISCHARGE FROM THE CONSTRUCTED SITE.

e. ENSURE THAT THE VALUE AND USE OF RESIDENTIAL AND INDUSTRIAL PROPERTIES ADJACENT TO THE DEVELOPMENT ARE NOT DIMINISHED AS A RESULT OF THE MIGRATION OF SEDIMENT FROM THE DEVELOPMENT.
2. THE EROSION AND SEDIMENT CONTROL PROGRAM SHALL COMPLY WITH THE ENVIRONMENTAL BEST ENGINEERING GUIDELINES FOR QUEENSLAND CONSTRUCTION SITES. THE CURRENT INSTITUTION OF ENGINEERS AUSTRALIA AND LOCAL AUTHORITY GUIDELINES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO CONTROL EROSION AND DOWNSTREAM SEDIMENTATION DURING ALL STAGES OF CONSTRUCTIONS INCLUDING THE MAINTENANCE PERIOD. NOTWITHSTANDING THE FINISHED EARTHWORK DESIGN SHOWN ON THE DRAWINGS THE CONTRACTOR IS RESPONSIBLE TO IMPLEMENT ADDITIONAL SEDIMENT CONTROL MEASURES AND DEVICES USING BEST PRACTICES AS NECESSARY TO MINIMISE THE QUANTITY LEAVING THE SITE DURING CONSTRUCTION AND UPON COMPLETION OF EARTHWORKS.
3. THE CONTRACTOR IS TO FOLLOW CONSTRUCTION PHASE AS OUTLINED IN THE CONSTRUCTION SEQUENCE/SILT MANAGEMENT PROGRAM. ALL SEDIMENT CONTROL DEVICES SHALL BE MONITORED, CLEANED AND/OR REPLACED WHENEVER THE ACCUMULATED SEDIMENT REDUCES THE CAPACITY BY 50%. ALL PERIMETER BANK/SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET. AT ALL TIMES THE CONTRACTOR SHALL MONITOR THE PREVAILING WEATHER CONDITIONS AND PROTECT ANY DOWNSTREAM CONSTRUCTION AND GULLY INLETS. INLETS TO HAVE SILT PROTECTION IN ACCORDANCE WITH KERB INLET PROTECTION DETAIL AT LOCATIONS SHOWN OR AS INDICATED BY THE ENGINEER.
4. PRIOR TO THE COMMENCEMENT OF EARTHWORKS, THE CONTRACTOR IS TO CARRY OUT SOIL TESTING (IF REQUIRED BY SUPERINTENDENT) TO DETERMINE THE DISPERSIVE CHARACTERISTICS OF THE SOIL AND RESULTS TO BE GIVEN TO THE ENGINEERS SO THE FINALIZATION OF THE EROSION AND SEDIMENT CONTROL PLAN CAN BE COMPLETED.
5. TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN LOCATIONS AGREED WITH THE SUPERINTENDENT. CLEARING OF SITE AND STOCKPILE AREAS TO BE AS DIRECTED BY THE SUPERVISING ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST AT ALL TIMES INCLUDING WEEKENDS AND PUBLIC HOLIDAYS.
6. SUITABLE ACCESS SHALL BE PROVIDED TO ALLOW MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES (IT IS TO BE NOTED THAT CLEARING SHALL ONLY OCCUR IN AREAS WHERE THERE IS NO OTHER ALTERNATIVE TO GAIN ACCESS TO THE LOCATION OF THE SEDIMENT CONTROL DEVICES). APPROVAL FOR REMOVAL OF PROTECTED SITE VEGETATION MUST BE OBTAINED PRIOR TO CLEARING.
7. ROCK BUNDS TO BE PLACED AROUND ALL HEADWALLS DURING CONSTRUCTION.
8. 0.8m TURF IS TO BE PLACED BEHIND ON ALL BATTERS WITHIN PRIVATE OPEN SPACE STEEPER THAN 1:4 UNLESS OTHERWISE NOTED. THE EXTENT OF GRASSING SHALL BE DETERMINED BY THE ENGINEER AND SHALL BE SEED

CONSTRUCTION SEQUENCE/SILT MANAGEMENT PROGRAM

1. **PRE START**

a. ERECT SITE SIGNAGE. CONSTRUCT ENTRY AND EXIT POINT AS INDICATED CONSTRUCT VEHICLE WASH–DOWN AREA AND ASSOCIATED SILT MANAGEMENT DEVICES.

b. CONSTRUCT SITE OFFICE AND STORAGE COMPOUND AREA

c. ERECT SILT FENCE AT LOW POINTS OF THE SITE AS DEMONSTRATED

d. ERECT TEMPORARY TREE PROTECTION FENCING FOR VEGETATION TO BE RETAINED IN ACCORDANCE WITH AN OPW (TREE CLEARING) APPROVAL OR IN ACCORDANCE WITH AS4970 PROTECTION OF TREES ON DEVELOPMENT SITE.

e. CONSTRUCT ROCK CHECK DAMS AND SILT FENCE DOWN STREAM OF BASIN.

f. CONSTRUCT BASIN TO FULL DEPTH.

g. CONSTRUCT BALANCE OF BASIN IN CONJUNCTION WITH CLEARING AND BULK EARTHWORKS OPERATIONS.

h. BASIN TO BE UTILISED AS A TEMPORARY SEDIMENT BASIN. DO NOT FILL IN FILTRATION MATERIAL UNTIL CONSTRUCTION OF DEVELOPMENT IS COMPLETE.
2. **CLEARING AND BULK EARTHWORKS**
THERE SHALL BE NO CLEARING OF PROTECTED SITE VEGETATION WITHOUT AN APPROVED TREE CLEARING PLAN WHICH SHALL BE IN ACCORDANCE WITH AS4970. SILT FENCE, SAND BAGS AND EARTH RILLS WITHIN ROADS TO BE ERECTED AS INDICATED OR REQUIRED DURING CLEARING & EARTHWORKS. SUPERINTENDENT TO CONFIRM THE EXTENT OF CLEARING PRIOR TO COMMENCEMENT OF WORKS.
3. **CONSTRUCTION OF SEWER/ROOFWATER/ STORMWATER/SERVICES**
EXCAVATED MATERIAL TO BE PLACED ON HIGH SIDE OF TRENCH AND TO PROTECT PIPE WORK AND DIRECT SURFACE MATERIAL AWAY FROM EXCAVATIONS. TOPSOIL AND GRASS SEED AREAS IN ALLOTMENTS IMMEDIATELY AFTER COMPLETING THE SEWER AND ROOFWATER DRAINAGE CONSTRUCTION. DEPRESS GROUND AROUND TEMPORARY FIELD INLETS TO CREATE SILT POND.
4. **CONSTRUCTION – SEDIMENT BASINS**
SEDIMENT BASIN TO BE CONSTRUCTED TO THE EARTHWORK PROFILES SHOWN. STORMWATER OUTLET PIPES TO BE TEMPORARY BLOCKED OFF UNTIL DECOMMISSIONING OF SEDIMENT BASIN (SUBSEQUENT TO CONSTRUCTION OF ALL STAGES). PLACE SPOIL FROM SEDIMENT BASIN INTO ALLOCATED AREAS AS ENGINEERED FILL IN ACCORDANCE WITH THE STAGING ORDER. SEDIMENT BASIN SHALL ONLY BE REMOVED AFTER APPROVAL BY SUPERINTENDENT AND COUNCIL.
5. **CONSTRUCTION – STOCKPILING**
TEMPORARY SILT FENCE TO BE ERECTED 5m FROM TOE OF BATTER ON LOW SIDE OF STOCKPILING. STOCKPILE SITE TO BE CLEARED OF ADJACENT PROPERTY BOUNDARIES SO AS NOT TO CAUSE NUISANCE TO ADJOINING PROPERTIES. NO STOCKPILES ARE TO BE LOCATED WITHIN THE DRIP ZONE OR STRUCTURAL ROOT ZONE OF ANY RETAINED VEGETATION.
6. **CONSTRUCTION – ROADWORKS**
SILT FENCES TO ALLOTMENTS TO BE ERECTED. KERB INLET PROTECTION TO BE PROVIDED TO ALL GULLIES.
7. **CONSTRUCTION – ALLOTMENTS**
TOPSOIL AND SEED ALLOTMENTS. SILT FENCES TO ALLOTMENTS TO BE RE–ERECTED. COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATE THE GRASS STRIKE IS SUFFICIENT (80% WITHIN 30 CALENDAR DAYS OF FINAL ALLOTMENT RIMMING).
8. **POST CONSTRUCTION – ALLOTMENTS**
TOPSOIL AND GRASS SEED ALL ALLOTMENTS. COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATES THE GRASS STRIKE IS SUFFICIENT (80% WITHIN 30 CALENDAR DAYS OF FINAL ALLOTMENT TRIMMING).
9. **POST CONSTRUCTION – BASIN**
BASIN TO CONTINUE ACTING AS SEDIMENT BASIN UNTIL COMPLETION OF ALL STAGES.
10. **POST CONSTRUCTION – ROAD RESERVES**
TOPSOIL AND TURFING IS TO BE PROVIDED BEHIND KERB.
11. **MAINTENANCE (PRE TO POST CONSTRUCTION)**
THE SILT FENCES ARE TO BE INSPECTED WEEKLY. ANY REPAIRS REQUIRED ARE TO BE EFFECTED IMMEDIATELY. SILT AFTER RAIN IS TO BE CLEANED FROM STREETS AND ALLOTMENTS IMMEDIATELY AND CORRECTIVE ACTION TAKEN TO AVOID A RE–OCCURRENCE OF THE FAILURE.
12. **BASIN CONSTRUCTION**
PRIOR TO COMMENCING CONSTRUCTION OF THE DETENTION BASIN THE DIVERSION OF SURFACE WATER FROM THE PROPOSED WORK AREAS, USING MEASURES SUCH AS OPEN DRAINS/SUMPS, ARE REQUIRED TO AID IN SITE DE–WATERING. BASIN TO CONTINUE ACTING AS SEDIMENT BASIN UNTIL 85% OF CATCHMENT CONSTRUCTION IS COMPLETE. THE CLAY FILLING FOR THE BASIN WALLS SHALL BE PLACED IN HORIZONTAL LAYERS OF 200mm THICKNESS AND COMPACTED TO DENSITY RATIO WITHIN THE RANGE 98%–102% STANDARD COMPACTION (AS 1289.5.1.1). PLACEMENT MOISTURE CONTENT SHOULD BE WITHIN THE RANGE OMC –1% TO OMC –2% (WHERE OMC = OPTIMUM MOISTURE CONTENT FOR STANDARD COMPACTION). CONTRACTOR TO PROVIDE SAFETY FENCING TO BASIN DURING CONSTRUCTION AND APPROPRIATE SIGNAGE (PERMANENT OR TEMPORARY).



EARTHWORKS

1. **PRECEDENCE**
EARTHWORKS SPECIFICATION PREPARED BY PROJECT GEOTECHNICAL ENGINEER TO TAKE PRECEDENCE OVER STANDARD COUNCIL EARTHWORKS NOTES.
2. **TOPSOIL STRIPPING**
TOPSOIL SHALL BE STRIPPED ACROSS THE ENTIRE LIMIT OF THE EARTHWORKS CUT AND FILL AREAS AND SHALL BE STOCKPILED IN A LOCATION APPROVED BY THE SUPERINTENDENT. THE EXISTING STRATA IS TO BE TREATED IN ACCORDANCE WITH THE SPECIFICATION PRIOR TO PLACING ANY FILL. TOPSOIL STRIPPING DEPTHS TO BE AS PER DWG 5941 ENG BE3 011.
3. **EARTHWORKS LEVELS**
EARTHWORKS LEVELS SHOWN ON THE DRAWING ARE TO FINISHED SURFACE LEVELS AND INCLUDE 100mm OF TOPSOIL. THE CONTRACTOR SHALL VERIFY BENCH MARK LEVELS AND ADVISE THE SUPERINTENDENT OF ANY DISCREPANCY BEFORE COMMENCEMENT OF CONSTRUCTION.
4. **UNDESIRABLE MATERIAL**
THE ENTIRE SITE/WORK AREAS SHALL BE CLEARED OF ALL UNDESIRABLE MATTER. THIS SHALL INCLUDE DEAD TIMBER, GRASS, OLD FOUNDATIONS, CONCRETE, MASONRY REMAINS, GARBAGE, DEBRIS AND ALL OTHER OBSTRUCTIONS TO THE WORKS UNLESS NOTED OTHERWISE. HOLES LEFT BY THE REMOVAL OF ANY OF THE ABOVE SHALL BE FILLED WITH APPROVED COMPACTED MATERIAL WITH PROPERTIES AT LEAST SIMILAR TO INSITU SOILS.
5. **COMPACTION STANDARD**
FILL MATERIAL SHALL BE COMPACTED TO THE FOLLOWING STANDARD, WHERE DRY DENSITY RATIO IS DETERMINED IN ACCORDANCE WITH AS 1289 USING STANDARD COMPACTION METHODS.

a. 100% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 80% IN COHESIONLESS MATERIAL FOR ROAD SUBGRADE.

b. 98% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 65% IN COHESIONLESS MATERIAL FOR ALL AREAS OTHER THAN THE ROADWAY AND BUILDING PADS.

c. 98% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 70% IN COHESIONLESS MATERIAL FOR BUILDING PADS.
6. **PAVEMENT DEPTHS**
EARTHWORKS VOLUMES DO NOT INCLUDE DESIGN PAVEMENT DEPTHS AS INDICATED ON THE TYPICAL BULK EARTHWORKS ROAD SECTION.
7. **TESTING**
ALL EARTHWORKS TO BE CARRIED OUT UNDER LEVEL 1 SUPERVISION IN ACCORDANCE WITH AUSTRALIAN STANDARDS AS 3798 UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT. ALL COMPACTION TESTING SHALL BE CARRIED OUT BY AN APPROVED N.A.T.A TESTING AUTHORITY.
8. **ROCK**
THE CONTRACTOR IS TO INCLUDE ROCK EXCAVATION AS PART OF THEIR EARTHWORKS RATES UNLESS SCHEDULED OTHERWISE WITHIN THE CONTRACT DOCUMENT.

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Client:

FPI QUEENSLAND PTY LTD

Project:

VANTAGE YATALA
STAGE 3

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAYPLTON
QLD, 4207

RPD:

Lot:

504

Plan:

SP329845

Local Authority:

CITY OF GOLD COAST

Level Datum:

AHD

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Drawing Title:

GENERAL NOTES
SHEET 1 OF 2

C	05/07/23	FOR APPROVAL	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE	A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES	A3 REDUCED

Scale:

NOT APPLICABLE

PROJECT NORTH POINT

Project No:	5941
Designed: JH	Drafted: JH
Approved:	MG
RPEQ	16939
Signed:	
Date:	05/05/2023

Drawing No:	Revision
5941 ENG BE3 002	C

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HES BASIN GENERAL NOTES

AUTO DOSER

- PROVIDED AS EITHER 'FLOC BOX' OR 'F00-RAIN' DOSING UNIT OR APPROVED EQUIVALENT TO MANUFACTURERS SPECIFICATION.
- DOSER AND SUPPLY OF FLOCCULANT TO BE PROVIDED ON LEVEL PAD 4mX4m WITHIN 10m OF DOSING POINT.
- ALL-WEATHER ACCESS TRACK TO BE PROVIDED TO DOSER.
- FLOCCULANT PROVIDED AS TURBICLEAR (ACH) OR APPROVED EQUIVALENT. IF ALTERNATIVE FLOCCULANT USED THEN THE BASIN SIZE IS TO BE INCREASED ACCORDING TO JAR SETTLEMENT TEST (REFER TO TABLE BELOW).

JAR SETTLEMENT AFTER 15 MINS	MULTIPLICATION FACTOR TO SETTLING ZONE
(mm)	VOLUME
50	x3.0
75	x2.0
100	x1.5
150	x1.0

BASIN CONSTRUCTION

MATERIALS

- EARTH FILL: CLEAN SOIL WITH EMERSON CLASS 2(I), 3, 4 OR 5 AND FREE OF ROOTS, WOODY VEGETATION, ROCKS AND OTHER UNSUITABLE MATERIAL. SOIL WITH EMERSON CLASS 4 AND 5 MAY NOT BE SUITABLE DEPENDING ON PARTICLE SIZE DISTRIBUTION AND DEGREE OF DISPERSION. CLASS 2 (I) SHOULD ONLY BE USED UPON RECOMMENDATION FROM GEOTECHNICAL SPECIALIST.
- SPILLWAY ROCK: HARD, ANGULAR, DURABLE, WEATHER RESISTANT AND EVENLY GRADED ROCK WITH 50% BY WEIGHT LARGER THAN THE SPECIFIED NOMINAL (D50) ROCK SIZE. LARGE ROCK SHOULD DOMINATE, WITH SUFFICIENT SMALL ROCK TO FILL THE VOIDS BETWEEN LARGER ROCK. THE DIAMETER OF THE LARGEST ROCK SHOULD BE NO LARGER THAN 1.5 TIMES THE NOMINAL ROCK SIZE. THE SPECIFIC GRAVITY SHOULD BE AT LEAST 2.5.
- GEOTEXTILE FABRIC: HEAVY DUTY, NEEDLE-PUNCHED, NON-WOVEN CLOTH, MINIMUM 'BIDIM' A24 OR EQUIVALENT.

CONSTRUCTION

- NOTWITHSTANDING ANY DESCRIPTION CONTAINED WITH APPROVED PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SATISFYING THEMSELVES AS TO THE NATURE AND EXTENT OF THE SPECIFIED WORKS AND THE PHYSICAL AND LEGAL CONDITIONS UNDER WHICH THE WORKS WILL BE CARRIED OUT. THIS SHALL INCLUDE MEANS OF ACCESS, EXTENT OF CLEARING, NATURE OF THE MATERIALS TO BE EXCAVATED, TYPE AND SIZE OF MECHANICAL PLANT REQUIRED, LOCATION AND SUITABILITY OF WATER SUPPLY FOR CONSTRUCTION AND TESTING PURPOSES, AND ANY OTHER LIKELY MATTERS AFFECTING THE CONSTRUCTION OF THE WORKS.
- REFER TO APPROVED PLANS FOR LOCATION, DIMENSIONS, AND CONSTRUCTION DETAILS. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION, DIMENSIONS, OR METHOD OF INSTALLATION, CONTACT THE ENGINEER OR RESPONSIBLE ON-SITE OFFICER FOR ASSISTANCE.
- BEFORE STARTING ANY CLEARING OR CONSTRUCTION, ENSURE ALL THE NECESSARY MATERIALS AND COMPONENTS ARE ON THE SITE TO AVOID DELAYS IN COMPLETING THE SEDIMENT BASIN ONCE WORKS BEGIN.
- INSTALL REQUIRED SHORT TERM SEDIMENT CONTROL MEASURES DOWNSTREAM OF THE PROPOSED EARTHWORKS TO CONTROL SEDIMENT RUNOFF DURING CONSTRUCTION OF THE BASIN.
- THE AREA TO BE COVERED BY THE EMBANKMENT, BORROW PITS AND INCIDENTAL WORKS, TOGETHER WITH AN AREA EXTENDING BEYOND THE LIMITS OF EACH FOR A DISTANCE NOT EXCEEDING FIVE (5) METRES ALL AROUND MUST BE CLEARED OF ALL TREES, SCRUB, STUMPS, ROOTS, DEAD TIMBER AND RUBBISH AND DISPOSED OF IN A SUITABLE MANNER. DELAY CLEARING THE MAIN BASIN AREA UNTIL THE EMBANKMENT IS COMPLETE.
- ENSURE ALL HOLES MADE BY GRUBBING WITHIN THE EMBANKMENT FOOTPRINT ARE FILLED WITH SOUND MATERIAL, ADEQUATELY COMPACTED, AND FINISHED FLUSH WITH THE NATURAL SURFACE.
- CUT-OFF TRENCH
- BEFORE CONSTRUCTION OF THE CUT-OFF TRENCH OR ANY ANCILLARY WORKS WITHIN THE EMBANKMENT FOOTPRINT, ALL GRASS GROWTH AND TOPSOIL MUST BE REMOVED FROM THE AREA TO BE OCCUPIED BY THE EMBANKMENT AND MUST BE DEPOSITED CLEAR OF THIS AREA AND RESERVED FOR TOPDRESSING THE COMPLETED EMBANKMENT.

- EXCAVATE A CUT-OFF TRENCH ALONG THE CENTRE LINE OF THE EARTH FILL EMBANKMENT. CUT THE TRENCH TO STABLE SOIL MATERIAL, BUT IN NO CASE MAKE IT LESS THAN 600mm DEEP. THE CUT-OFF TRENCH MUST EXTEND INTO BOTH ABUTMENTS TO AT LEAST THE ELEVATION OF THE OUTLET SPILLWAY CREST. MAKE THE MINIMUM BOTTOM WIDTH WIDE ENOUGH TO PERMIT OPERATION OF THE EXCAVATION AND COMPACTION EQUIPMENT, BUT IN NO CASE LESS THAN 600mm. MAKE THE SIDE SLOPES OF THE TRENCH NO STEEPER THAN 1:2 (H:V).
- ENSURE ALL WATER, LOOSE SOIL, AND ROCK ARE REMOVED FROM THE TRENCH BEFORE BACKFILLING COMMENCES. THE CUT-OFF TRENCH MUST BE BACKFILLED WITH SELECT EARTH-FILL OF THE TYPE SPECIFIED FOR THE EMBANKMENT, AND THIS SOIL MUST HAVE A MOISTURE CONTENT AND DEGREE OF COMPACTION THE SAME AS SPECIFIED FOR THE CORE ZONE.
- MATERIAL EXCAVATED FROM THE CUT-OFF TRENCH MAY BE USED IN THE CONSTRUCTION OF THE EMBANKMENT PROVIDED IT IS SUITABLE AND IT IS PLACED IN THE CORRECT ZONE ACCORDING TO ITS CLASSIFICATION.

EMBANKMENT

- SCARIFY AREAS ON WHICH FILL IS TO BE PLACED BEFORE PLACING THE FILL.
- ENSURE ALL FILL MATERIAL USED TO FORM THE EMBANKMENT MEETS THE SPECIFICATIONS CERTIFIED BY A SOIL SCIENTIST OF GEOTECHNICAL SPECIALIST.
- THE FILL MATERIAL MUST CONTAIN SUFFICIENT MOISTURE SO IT CAN BE FORMED BY HAND INTO A BALL WITHOUT CRUMBLING. IF WATER CAN BE SQUEEZED OUT OF THE BALL, IT IS TOO WET FOR PROPER COMPACTION. PLACE FILL MATERIAL IN 150 TO 200mm CONTINUOUS LAYERS OVER THE ENTIRE LENGTH OF THE FILL AREA AND THEN COMPACT BEFORE PLACEMENT OF FURTHER FILL.
- UNLESS SPECIFIED ON THE APPROVED PLANS, COMPACT THE SOIL AT ABOUT 1% TO 2% WET OPTIMUM AND TO 95% MODIFIED OR 100% STANDARD COMPACTION.
- WHERE BOTH DISPERSIVE AND NON-DISPERSIVE CLASSIFIED EARTH-FILL MATERIALS ARE AVAILABLE, NON-DISPERSIVE EARTH-FILL MUST BE USED IN THE CORE ZONE. THE REMAINING CLASSIFIED EARTH-FILL MATERIALS MUST ONLY BE USED AS DIRECTED BY THE SITE SUPERINTENDENT.
- WHERE SPECIFIED, CONSTRUCT THE EMBANKMENT TO AN ELEVATION 10% HIGHER THAN THE DESIGN HEIGHT TO ALLOW FOR SETTLING; OTHERWISE FINISHED DIMENSIONS OF THE EMBANKMENT AFTER SPREADING OF TOPSOIL MUST CONFORM TO THE DRAWING WITH A TOLERANCE OF 75mm FROM SPECIFIED DIMENSIONS.
- ENSURE DEBRIS AND OTHER UNSUITABLE BUILDING WASTE IS NOT PLACED WITHIN THE EARTH EMBANKMENT.
- AFTER COMPLETION OF THE EMBANKMENT ALL LOOSE UNCOMPACTED EARTH-FILL MATERIAL ON THE UPSTREAM AND DOWNSTREAM BATTER MUST BE REMOVED PRIOR TO SPREADING TOPSOIL.
- TOPSOIL AND RE-VEGETATE/STABILISE ALL EXPOSED EARTH AS DIRECTED WITHIN THE APPROVED PLANS.
- THE AREA TO BE COVERED BY THE STORED WATER OUTSIDE OF THE LIMITS OF THE BORROW PITS MUST BE CLEARED OF RUBBISH. TREES MUST BE CUT DOWN STUMP HIGH AND REMOVED FROM THE IMMEDIATE VICINITY OF THE WORK.
- ESTABLISH ALL REQUIRED INFLOW CHUTES AND INLET BAFFLES IF SPECIFIED TO ENABLE WATER TO DISCHARGE INTO THE BASIN IN A MANNER THAT WILL NOT CAUSE SOIL EROSION OR THE RE-SUSPENSION OF SETTLED SEDIMENT.
- INSTALL A SEDIMENT STORAGE LEVEL MARKER POST WITH A CROSS MEMBER SET JUST BELOW THE TOP OF THE SEDIMENT STORAGE ZONE (AS SPECIFIED ON THE APPROVED PLANS). USE AT LEAST A 75mm WIDE POST FIRMLY SET INTO THE BASIN FLOOR.
- IF SPECIFIED, INSTALL INTERNAL SETTLING POND BAFFLES. ENSURE THE CREST OF THESE BAFFLES IS SET LEVEL WITH, OR JUST BELOW, THE ELEVATION OF THE EMERGENCY SPILLWAY.
- INSTALL ALL APPROPRIATE MEASURES TO MINIMISE SAFETY RISK TO ON-SITE PERSONNEL AND THE PUBLIC CAUSED BY THE PRESENCE OF THE SETTLING POND. AVOID STEEP, SMOOTH INTERNAL SLOPES. APPROPRIATELY FENCE THE SETTLING POND AND POST WARNING SIGNS IF UNSUPERVISED PUBLIC ACCESS IS LIKELY OR THERE IS CONSIDERED TO BE AN UNACCEPTABLE RISK TO THE PUBLIC.

SPILLWAY CONSTRUCTION

- THE SPILLWAY MUST BE EXCAVATED AS SHOWN ON THE PLANS, AND THE EXCAVATED MATERIAL IF CLASSIFIED AS SUITABLE, MUST BE USED IN THE EMBANKMENT, AND IF NOT SUITABLE IT MUST BE DISPOSED OF INTO SPOIL HEAPS.
- ENSURE EXCAVATED DIMENSIONS ALLOW ADEQUATE BOXING-OUT SUCH THAT THE SPECIFIED ELEVATIONS, GRADES, CHUTE WIDTH, AND ENTRANCE AND EXIT SLOPES FOR THE EMERGENCY SPILLWAY WILL BE ACHIEVED AFTER PLACEMENT OF THE ROCK OR OTHER SCOUR PROTECTION MEASURES AS SPECIFIED IN THE PLANS.
- PLACE SPECIFIED SCOUR PROTECTION MEASURES ON THE EMERGENCY SPILLWAY. ENSURE THE FINISHED GRADE BLENDS WITH THE SURROUNDING AREA TO ALLOW A SMOOTH FLOW TRANSITION FROM SPILLWAY TO DOWNSTREAM CHANNEL.
- IF A SYNTHETIC FILTER FABRIC UNDERLAY IS SPECIFIED, PLACE THE FABRIC DIRECTLY ON THE PREPARED FOUNDATION. IF MORE THAN 1 SHEET OF FILTER FABRIC IS REQUIRED, OVERLAP THE EDGES BY AT LEAST 300mm AND PLACE ANCHOR PINS AT MINIMUM 1m SPACING ALONG THE OVERLAP. BURY THE UPSTREAM END OF THE FILTER FABRIC A MINIMUM 300mm BELOW GROUND AND WHERE NECESSARY, BURY THE LOWER END OF THE FABRIC OR OVERLAP A MINIMUM 300mm OVER THE NEXT DOWNSTREAM SECTION AS REQUIRED. ENSURE THE FILTER FABRIC EXTENDS AT LEAST 1000mm UPSTREAM OF THE SPILLWAY CREST.
- TAKE CARE NOT TO DAMAGE THE FABRIC DURING OR AFTER PLACEMENT. IF DAMAGE OCCURS, REMOVE THE ROCK AND REPAIR THE SHEET BY ADDING ANOTHER LAYER OF FABRIC WITH A MINIMUM OVERLAP OF 300mm AROUND THE DAMAGED AREA. IF EXTENSIVE DAMAGE IS SUSPECTED, REMOVE AND REPLACE THE ENTIRE SHEET.
- WHERE LARGE ROCK IS USED, OR MACHINE PLACEMENT IS DIFFICULT, A MINIMUM 100mm LAYER OF FINE GRAVEL, AGGREGATE, OR SAND MAY BE NEEDED TO PROTECT THE FABRIC.
- PLACEMENT OF ROCK SHOULD FOLLOW IMMEDIATELY AFTER PLACEMENT OF THE FILTER FABRIC. PLACE ROCK SO THAT IT FORMS A DENSE, WELL GRADED MASS OF ROCK WITH A MINIMUM OF VOIDS. THE DESIRED DISTRIBUTION OF ROCK THROUGHOUT THE MASS MAY BE OBTAINED BY SELECTIVE LOADING AT THE QUARRY AND CONTROLLED DUMPING DURING FINAL PLACEMENT.
- THE FINISHED SLOPE SHOULD BE FREE OF POCKETS OF SMALL ROCK OR CLUSTERS OF LARGE ROCKS. HAND PLACING MAY BE NECESSARY TO ACHIEVE THE PROPER DISTRIBUTION OF ROCK SIZES TO PRODUCE A RELATIVELY SMOOTH, UNIFORM SURFACE. THE FINISHED GRADE OF THE ROCK SHOULD BLEND WITH THE SURROUNDING AREA. NO OVER FALL OR PROTRUSION OF ROCK SHOULD BE APPARENT.
- ENSURE THAT THE FINAL ARRANGEMENT OF THE SPILLWAY CREST WILL NOT PROMOTE EXCESSIVE FLOW THROUGH THE ROCK SUCH THAT THE WATER CAN BE RETAINED WITHIN THE SETTLING BASIN AT THE ELEVATION NO LESS THAN 50mm ABOVE OF BELOW THE NOMINATED SPILLWAY CREST ELEVATION.

GENERAL NOTES SHEET 2 OF 2



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Client:



FPI QUEENSLAND PTY LTD

Project:

VANTAGE YATALA
STAGE 3

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAYPLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329845
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

GENERAL NOTES
SHEET 2 OF 2

C	05/07/23	FOR APPROVAL	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES
A1 UNREDUCED
A3 REDUCED

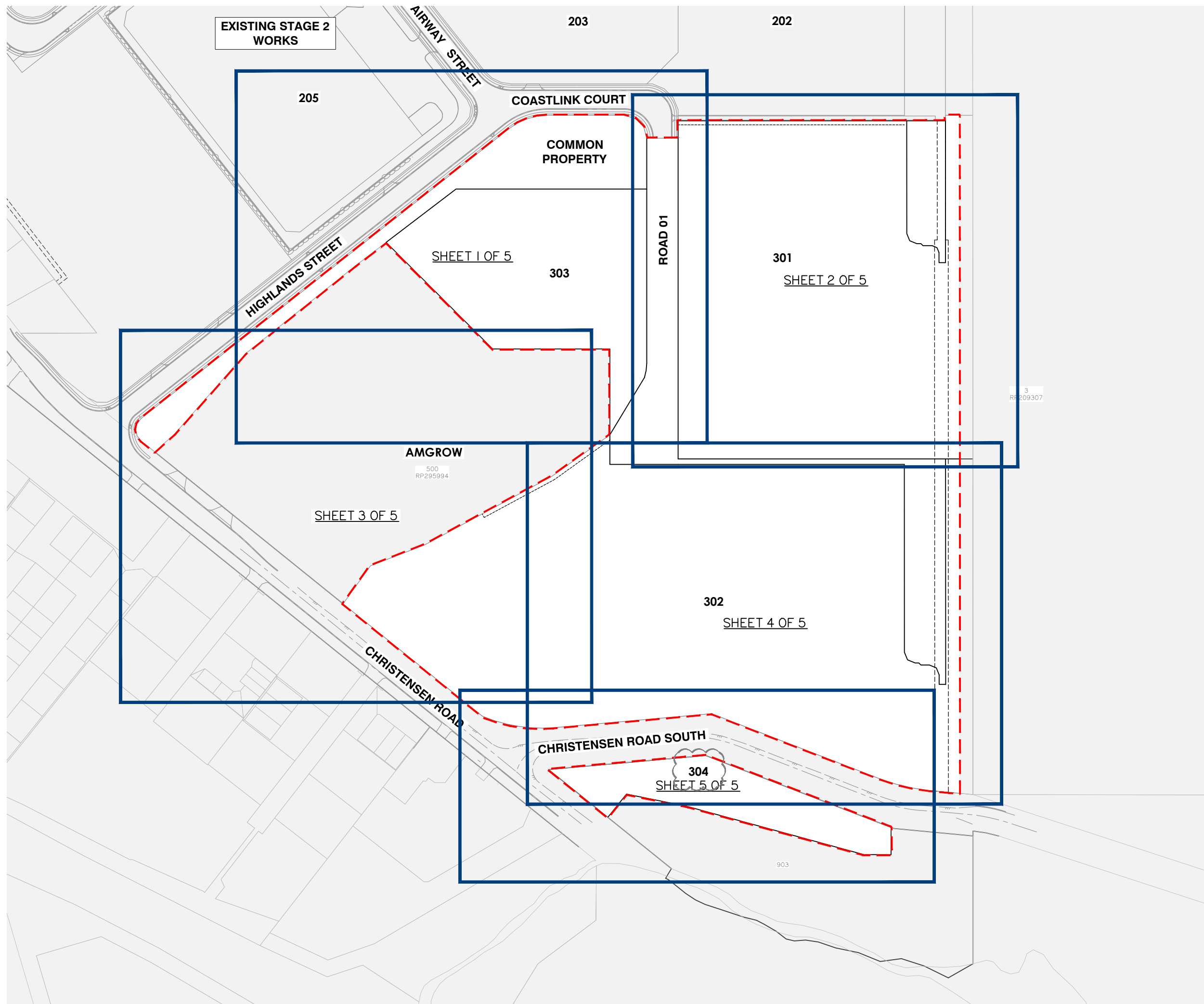
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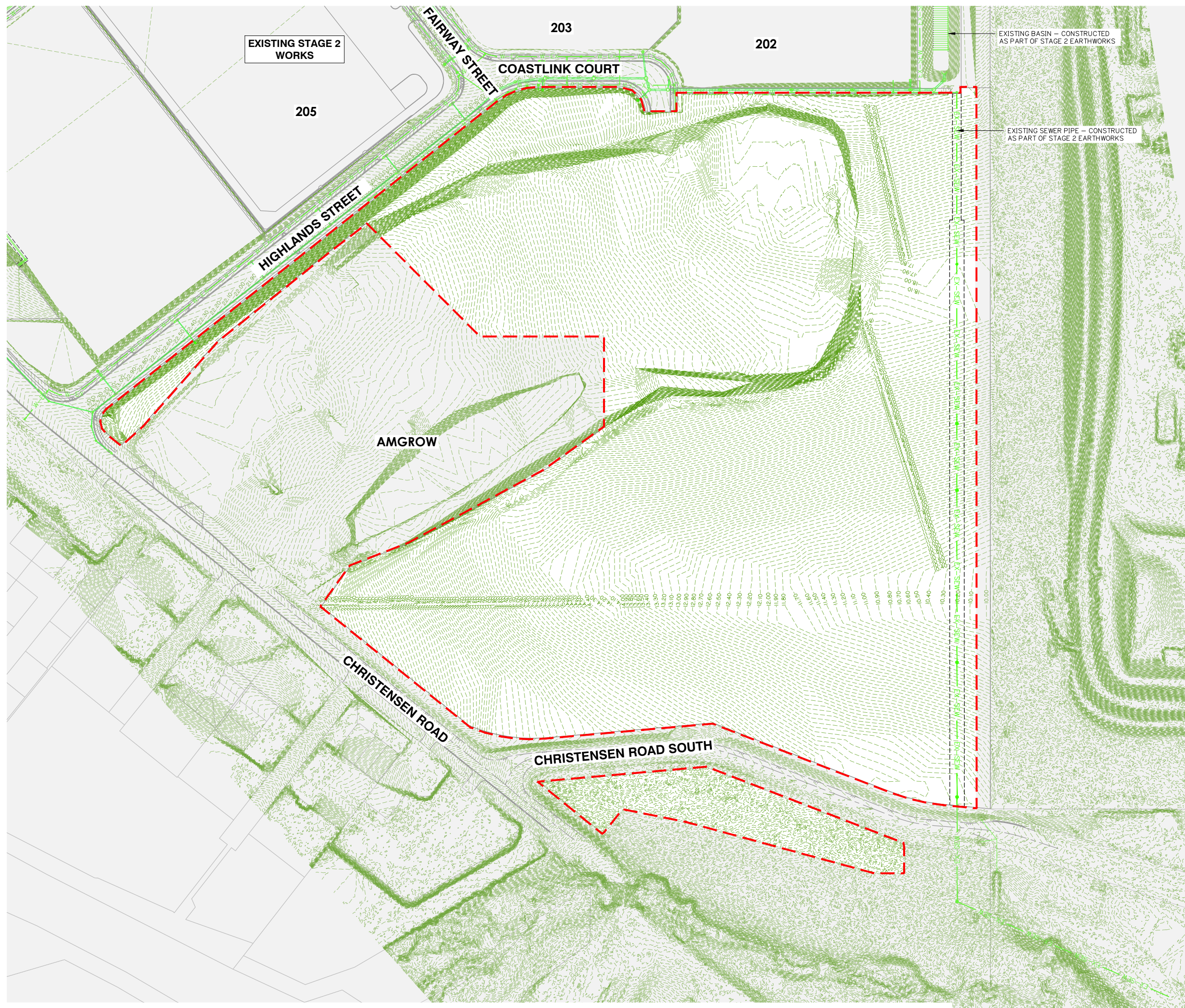
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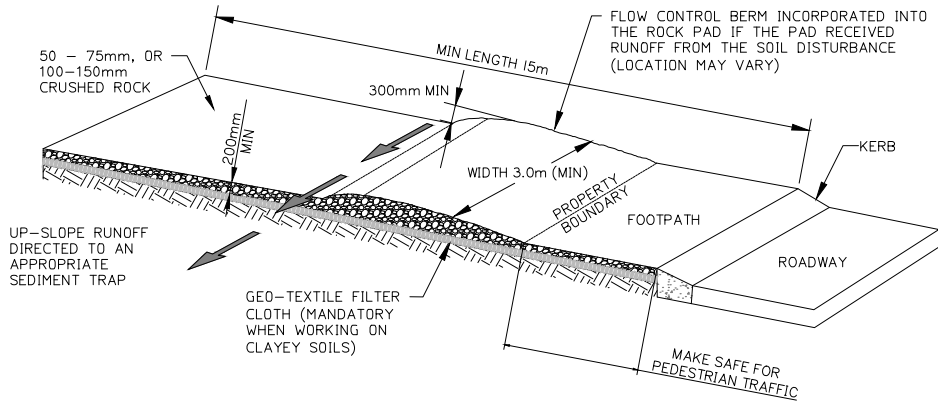
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Designed: JH	Drafted: JH
Approved: MG	
RPEQ	16939
Signed:	
Date:	05/05/2023

Drawing No: 5941 ENG BE3 003	Revision: C
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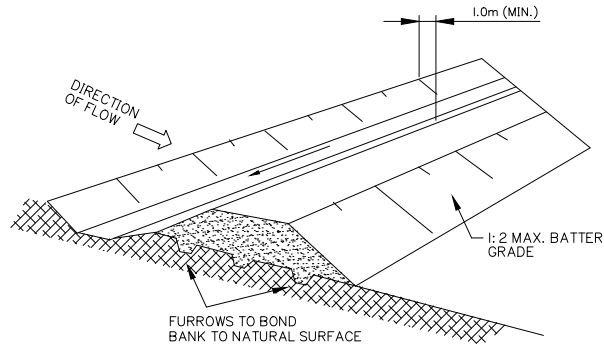




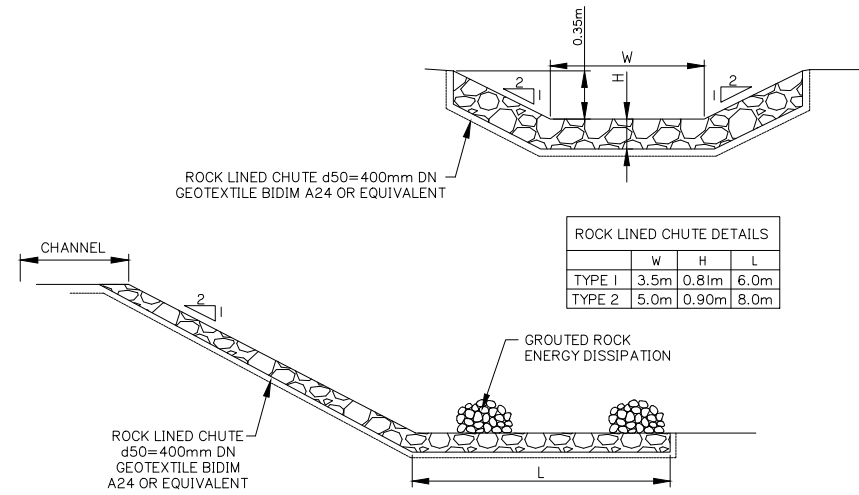
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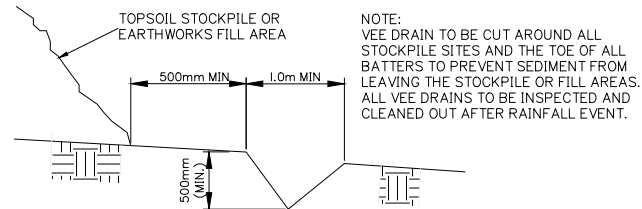
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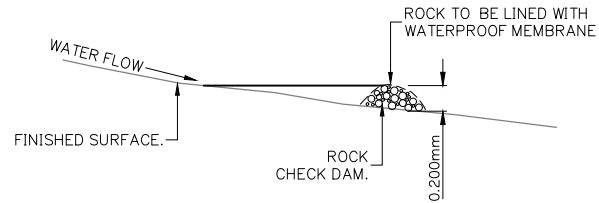
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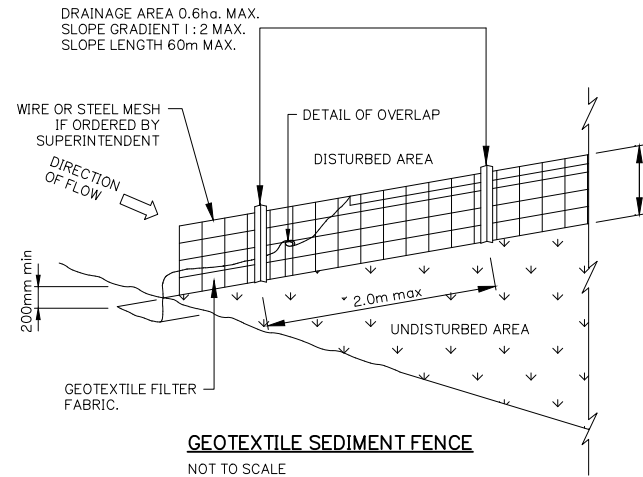
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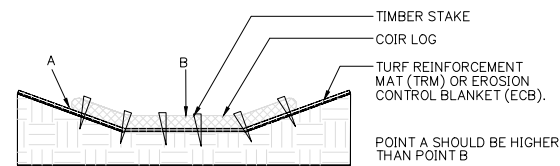
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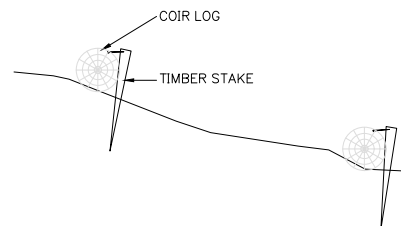
CUT OFF DRAIN END DETAIL
N.T.S.



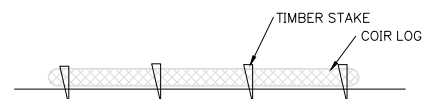
GEOTEXTILE SEDIMENT FENCE
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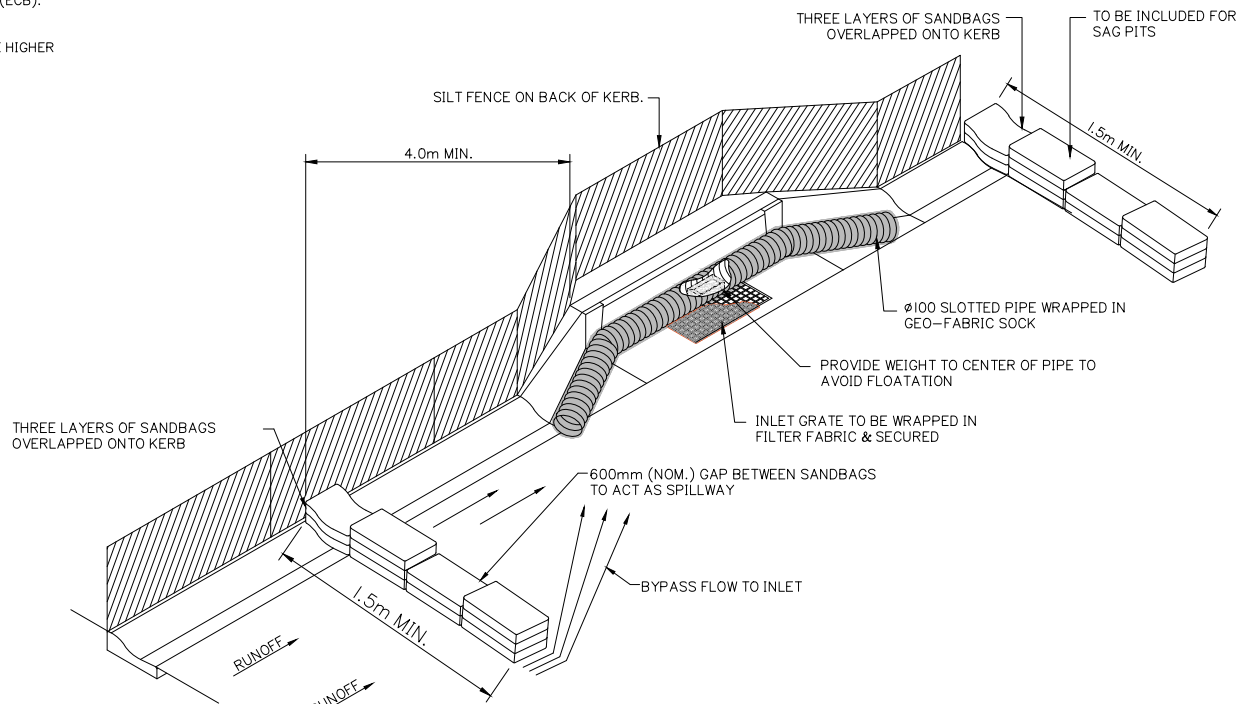
PROPER PLACEMENT OF COIR LOG IN DRAINAGE PATH
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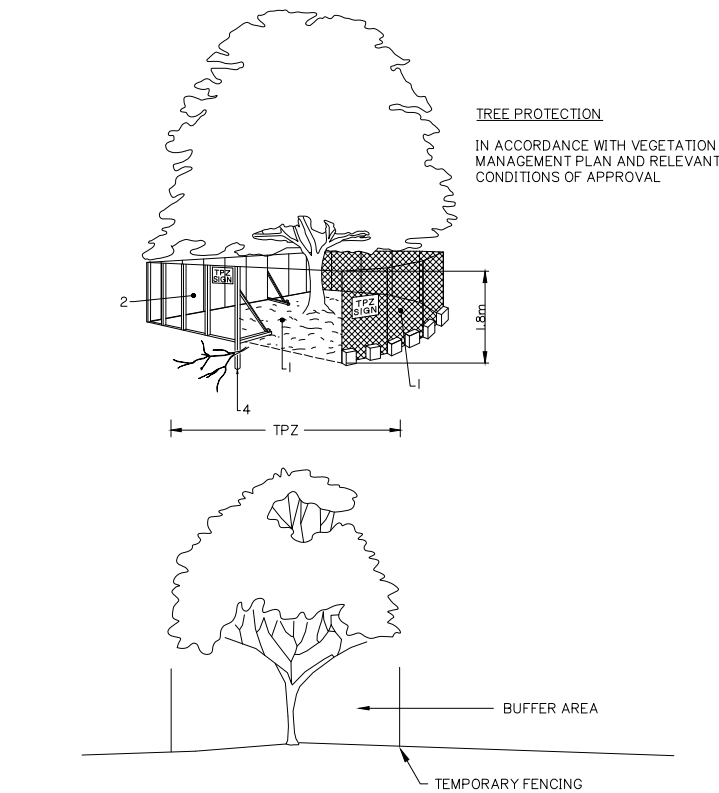
COIR LOG AND TIMBER STAKES STABILISING SLOPE
NOT TO SCALE



PROPER PLACEMENT OF COIR LOG IN SLOPE
NOT TO SCALE



GULLY PIT SEDIMENT BARRIER
SCALE N.T.S.



FENCING AS PER AS: 4970

1. CHAIN WIRE MESH PANELS WITH SHADE CLOTH (IF REQUIRED) ATTACHED, HELD IN PLACE WITH CONCRETE FEET.
2. ALTERNATIVE PLYWOOD OR WOODEN PALING FENCE PANELS. THIS FENCING MATERIAL ALSO PREVENTS BUILDING MATERIALS OR SOIL ENTERING THE TPZ.
3. MULCH INSTALLATION ACROSS SURFACE OF TPZ (AT THE DISCRETION OF THE PROJECT ARBORIST.) NO EXCAVATION, CONSTRUCTION ACTIVITY, GRADE CHANGES, SURFACE TREATMENT OR STORAGE OF MATERIALS OF ANY KIND IS PERMITTED WITHIN THE TPZ.
4. BRACING IS PERMITTED WITHIN THE TPZ. INSTALLATION OF SUPPORTS SHOULD AVOID DAMAGING ROOTS.
5. THE CONSTRUCTION CONTRACTOR IS NOT TO UNDERTAKE ANY PRUNING OF TREES. TREE MANAGEMENT IS TO BE UNDERTAKEN BY A SUITABLY QUALIFIED ARBORIST.
6. NO STOCKPILE/S ARE PERMITTED WITHIN THE ZONE OF ANY RETAINED VEGETATION WITHOUT SUPERVISION AND AUTHORIZATION OF THE SUPERVISING ARBORIST.
7. NO CLEARING OF PROTECTED SIZE VEGETATION IS TO OCCUR WITHOUT APPROVAL FROM LOGAN CITY COUNCIL.

DETERMINING THE TPZ

THE RADIUS OF THE TPZ IS CALCULATED FOR EACH TREE BY MULTIPLYING ITS DBH X 12 = TRUNK DIAMETER MEASURED AT 1.4M ABOVE GROUND. RADIUS IS MEASURED FROM THE CENTRE OF THE STEM AT GROUND LEVEL.

A TPZ SHOULD NOT BE LESS THAN 2M NOR GREATER THAN 15M (EXCEPT WHERE CROWN PROTECTION IS REQUIRED).
THE TPZ OF PALMS, OTHER MONOCOTS, CYCADS AND TREE FERNS SHOULD NOT BE LESS THAN 1M OUTSIDE THE CROWN PROJECTION.

PROTECTIVE FENCING
NOT TO SCALE

Client:



FPI QUEENSLAND PTY LTD

Project:

**VANTAGE YATALA
STAGE 3**

Site Address:

**LOT 504 HOMESTEAD
DRIVE, STAYPLTON
QLD, 4207**

RPD:

Lot: 504
Plan: SP329845
Local Authority: CITY OF GOLD COAST
Level Datum: AHD
Meridian:
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RL:

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Drawing Title:

**SEDIMENT AND EROSION
CONTROL NOTES
AND DETAILS**

C	05/07/23	FOR APPROVAL	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

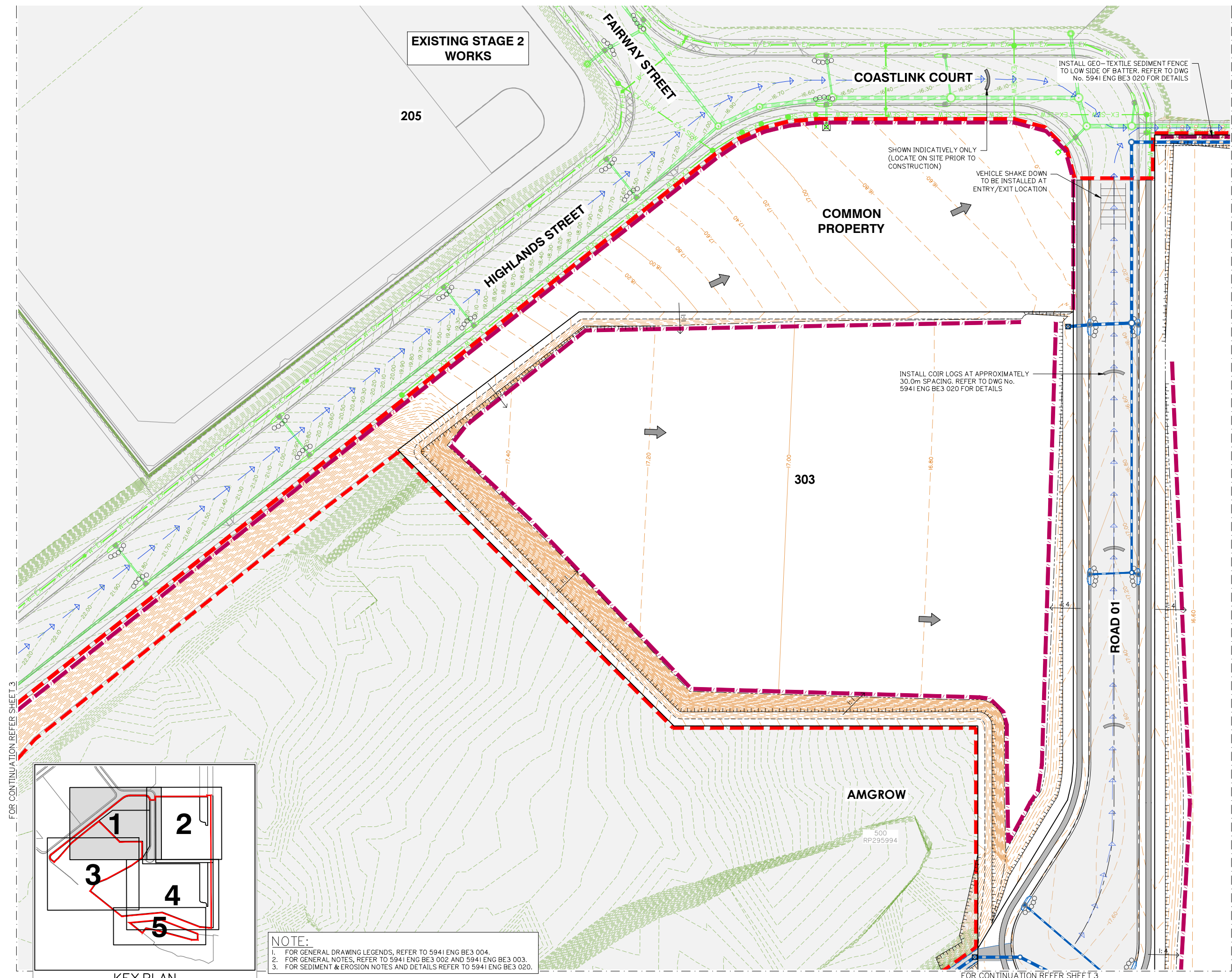
A1 UNREDUCED
A3 REDUCED

Scale:

NOT APPLICABLE

PROJECT NORTH POINT

Project No.	5941	Revision	
Designed:	JH	Drafted:	JH
Approved:			MG
RPEQ			16939
Signed:			
Date:			05/05/2023
Drawing No:	5941 ENG BE3 020	Revision	C



Client:



FPI QUEENSLAND PTY LTD

Project:

VANTAGE YATALA STAGE 3

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAYPLTON
QLD, 4207

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Drawing Title:

SEDIMENT AND EROSION
CONTROL LAYOUT PLAN
SHEET 1 OF 5

C	05/07/23	LAYOUT UPDATED	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE.	A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES	A3 REDUCED

Scale:



1:500 (A1) 1:1000 (A3)

PROJECT NORTH POINT



Project No. 5941

Designed: JH

Drafted: JH

Approved:

MG

RPEQ

16939

Signed:

[Signature]

Date:

5/05/2023

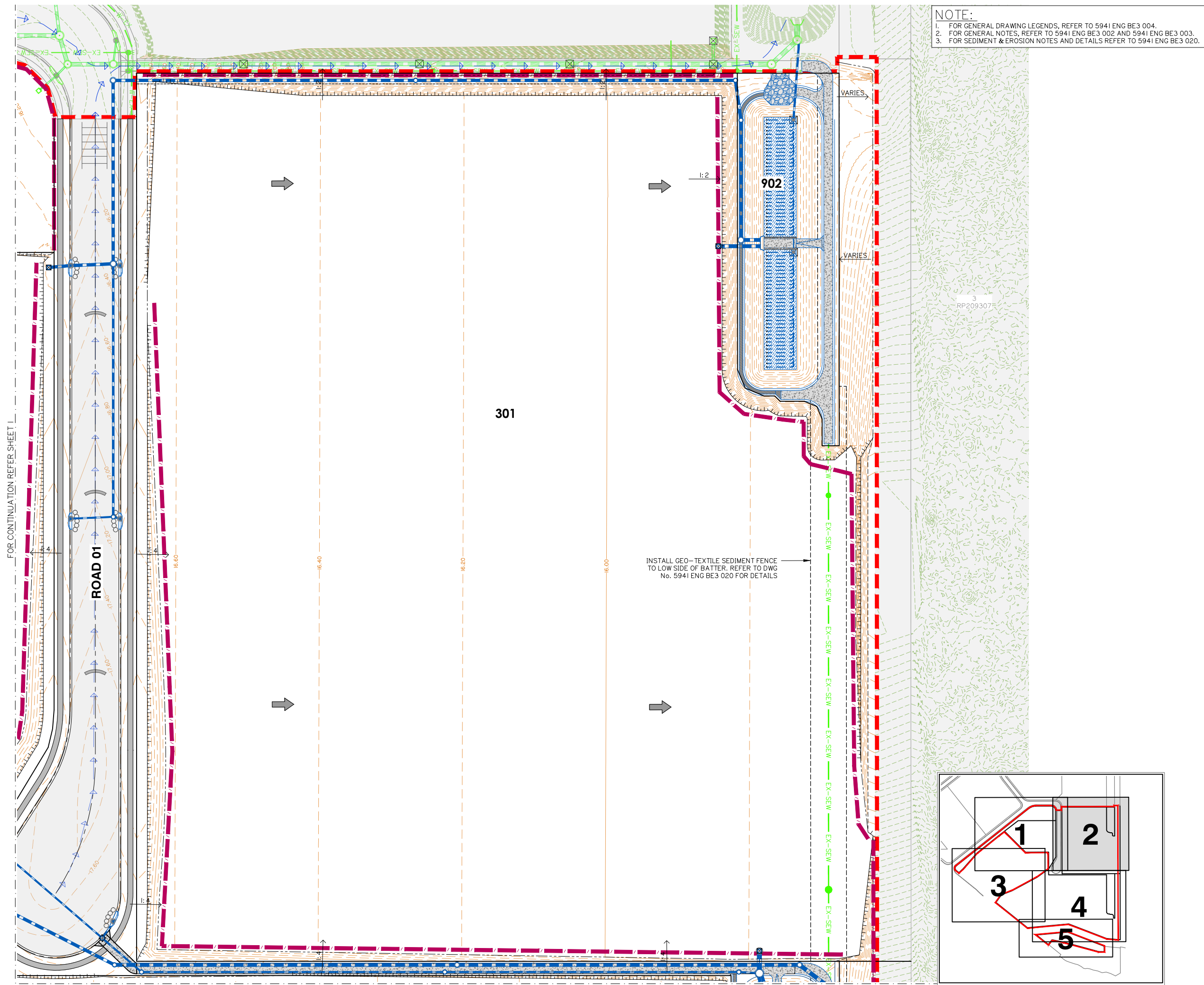
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5941 ENG BE3 021

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- NOTE:
1. FOR GENERAL DRAWING LEGENDS, REFER TO 5941 ENG BE3 004.
 2. FOR GENERAL NOTES, REFER TO 5941 ENG BE3 002 AND 5941 ENG BE3 003.
 3. FOR SEDIMENT & EROSION NOTES AND DETAILS REFER TO 5941 ENG BE3 020.

Rev	Date	Description	DRN	CHK
C	05/07/23	LAYOUT UPDATED	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG

DIMENSIONS IN METRES EXCEPT WHERE
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CULVERT AND PIPE SIZES IN MILLIMETRES

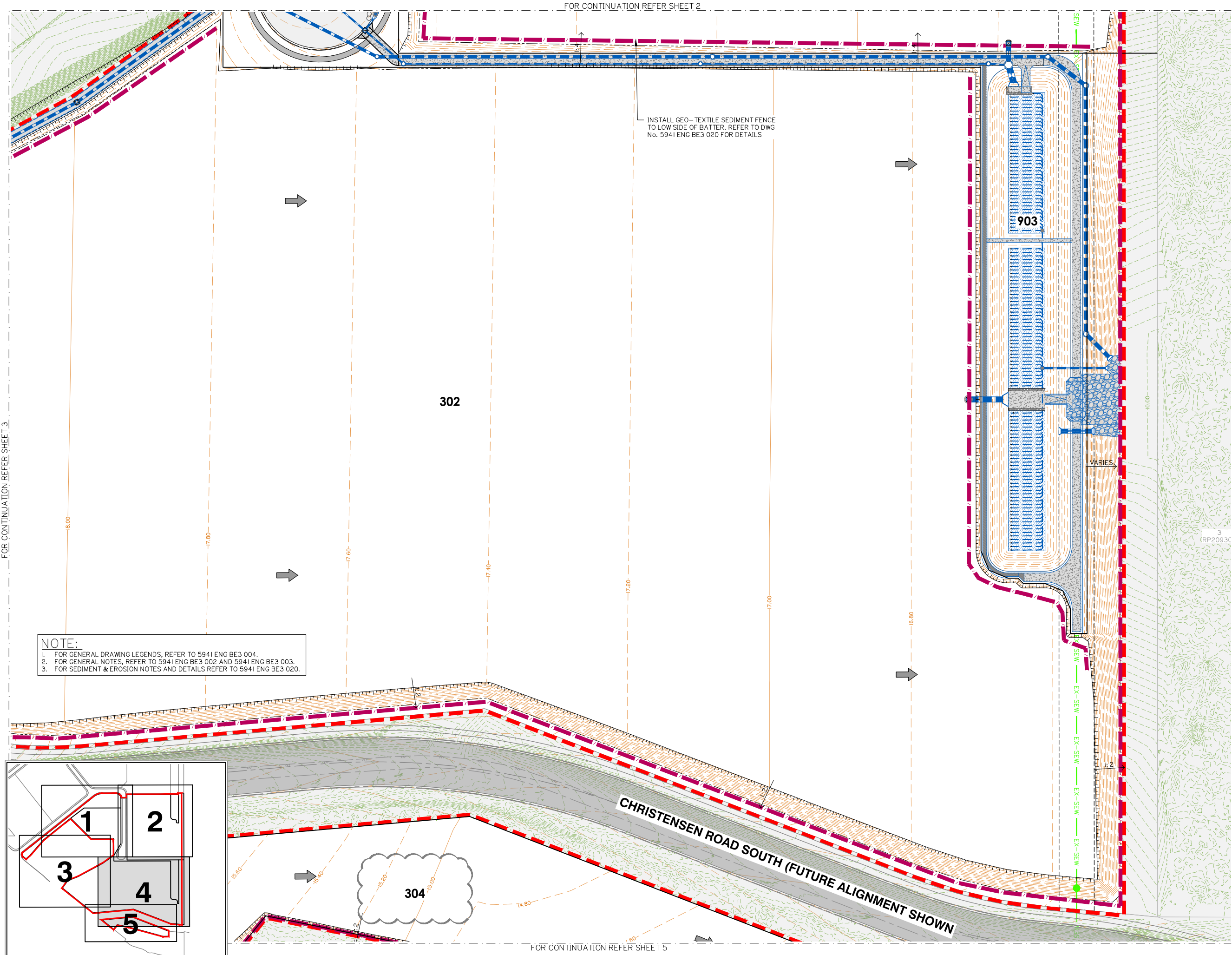
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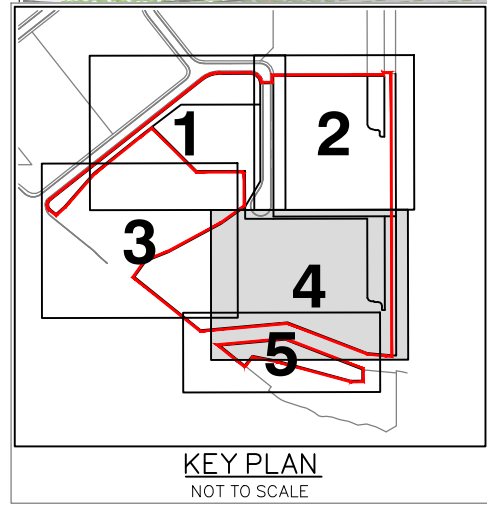
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Approved:	MG
RPEQ	16939
Signed:	
Date:	05/05/2023
Drawing No: 5941 ENG BE3 022	Revision: C



NOTE:
1. FOR GENERAL DRAWING LEGENDS, REFER TO 5941 ENG BE3 004.
2. FOR GENERAL NOTES, REFER TO 5941 ENG BE3 002 AND 5941 ENG BE3 003.
3. FOR SEDIMENT & EROSION NOTES AND DETAILS REFER TO 5941 ENG BE3 020.



SEDIMENT AND EROSION CONTROL LAYOUT PLAN SHEET 4 OF 5



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FPI QUEENSLAND PTY LTD

Project:

VANTAGE YATALA
STAGE 3

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Drawing Title:

SEDIMENT AND EROSION
CONTROL LAYOUT PLAN
SHEET 4 OF 5

Rev	Date	Description	DRN	CHK
D	20/09/23	LOT NUMBER UPDATED	JH	MG
C	05/07/23	LAYOUT UPDATED	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED
A3 REDUCED

Scale:



1:500 (A1) 1:1000 (A3)

PROJECT NORTH POINT



Project No: 5941

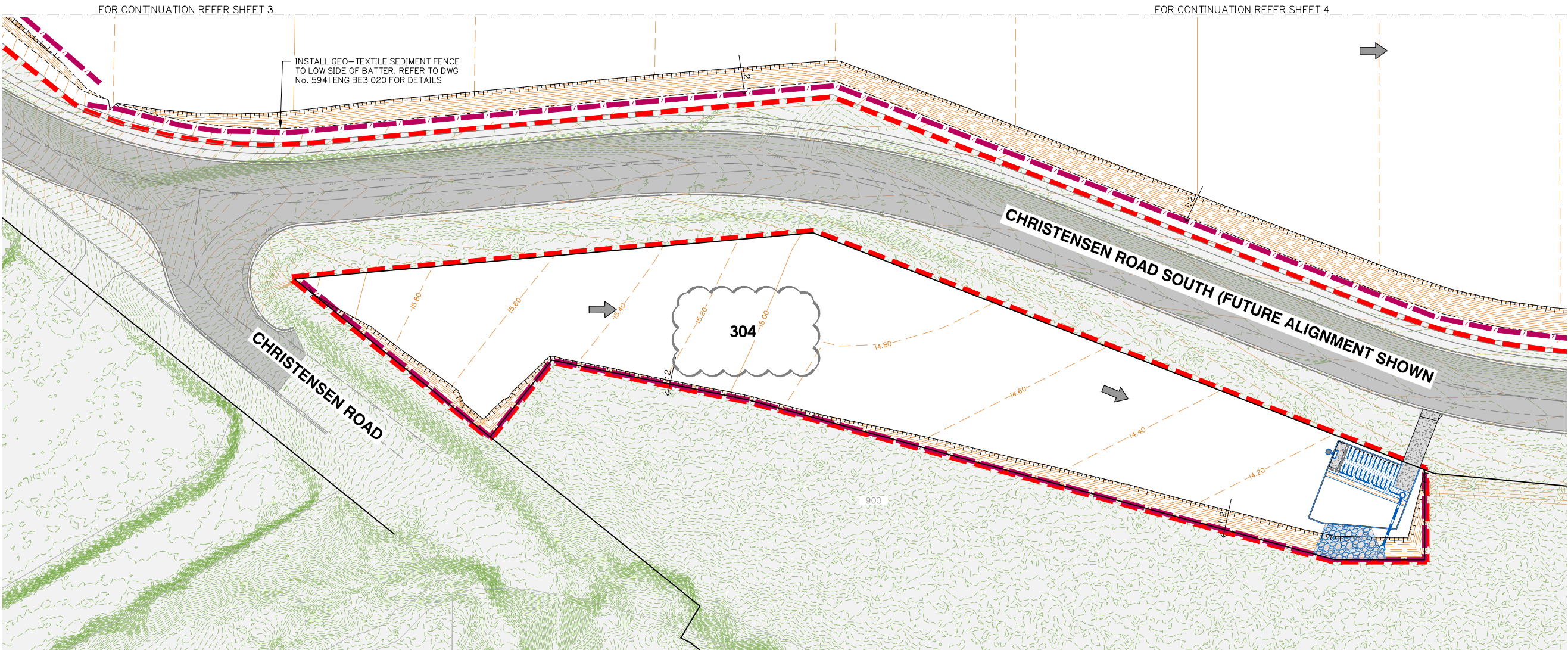
Designed: JH
Approved: MG
RPEQ: 16939
Signed: 
Date: 05/05/2023

Drafted: JH
MG
16939
05/05/2023

Drawing No: 5941 ENG BE3 024

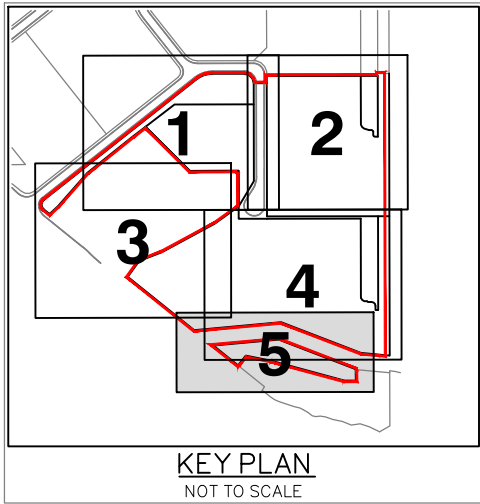
Revision: D

G:\Projects\5941\ENGINEERING\Asad\BE3_OGL\CURRENT\5941 ENG BE3 020.dwg



NOTE:

1. FOR GENERAL DRAWING LEGENDS, REFER TO 5941 ENG BE3 004.
2. FOR GENERAL NOTES, REFER TO 5941 ENG BE3 002 AND 5941 ENG BE3 003.
3. FOR SEDIMENT & EROSION NOTES AND DETAILS REFER TO 5941 ENG BE3 020.



Rev	Date	Description	DRN	CHK
D	20/09/23	LOT NUMBER UPDATED	JH	MG
C	05/07/23	LAYOUT UPDATED	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED
A3 REDUCED

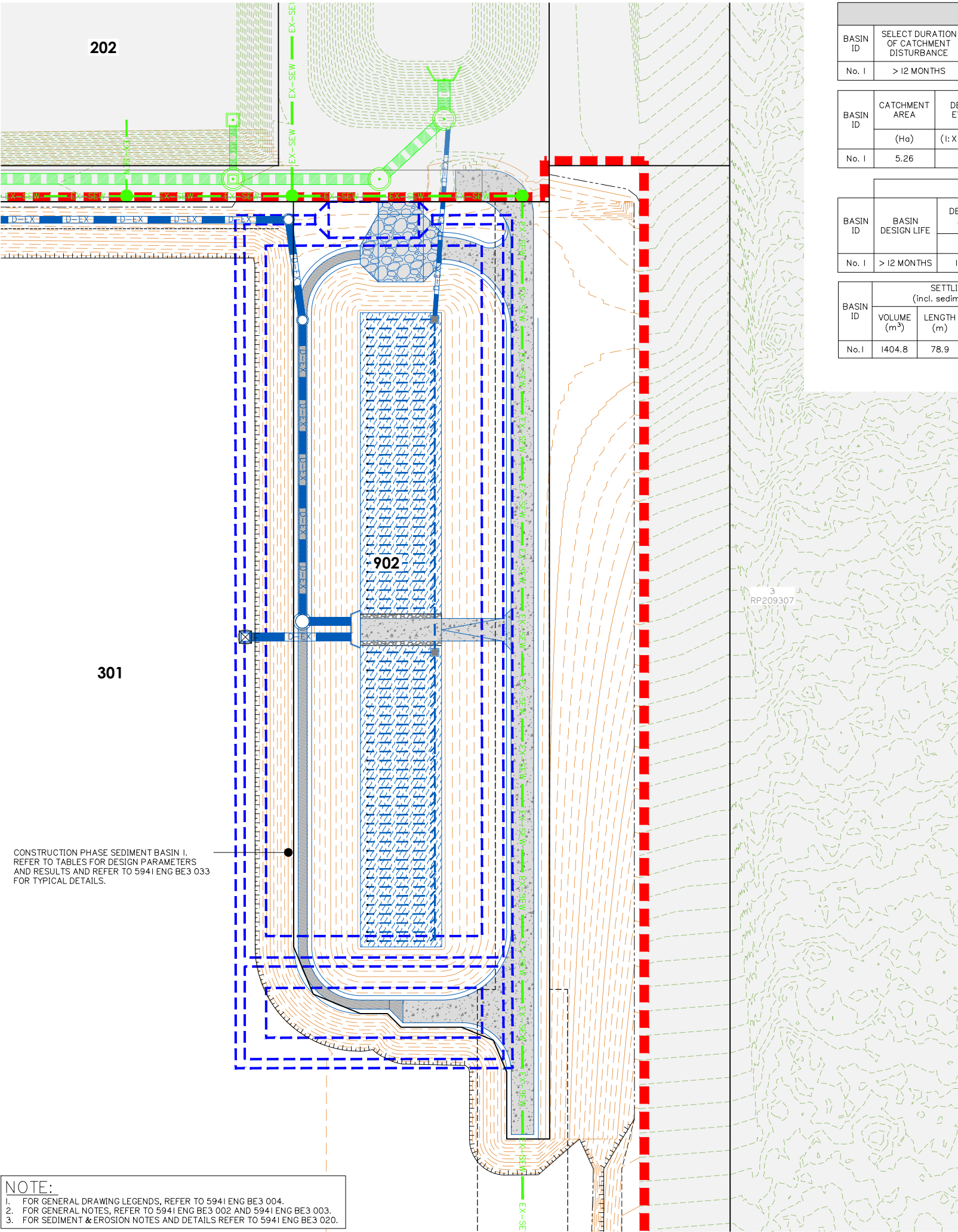
Scale:

0 5 10 15 20 25m

1:500 (A1) 1:1000 (A3)



Project No. 5941	
Designed: JH	Drafted: JH
Approved:	MG
RPEQ	16939
Signed:	
Date:	05/05/2023



NOTE:

- FOR GENERAL DRAWING LEGENDS, REFER TO 5941 ENG BE3 004.
- FOR GENERAL NOTES, REFER TO 5941 ENG BE3 002 AND 5941 ENG BE3 003.
- FOR SEDIMENT & EROSION NOTES AND DETAILS REFER TO 5941 ENG BE3 020.

SEDIMENT BASIN I DESIGN							
BASIN ID	SELECT DURATION OF CATCHMENT DISTURBANCE	IS DEWATERING OF TRENCHES REQUIRED?	EQUIPMENT LEASE OR PURCHASE?	SELECT CATCHMENT SCALE	DO ALL FLOWS ENTER BASIN AT SINGLE POINT?	BASIN TYPE	DOSING EQUIPMENT
No. I	> 12 MONTHS	NO	LEASE	> 5Ha	NO	TYPE B	IFOD-RAIN

BASIN ID	CATCHMENT AREA	DESIGN EVENT	I_x yr. 24 hr	WATER TEMPERATURE	K_s	SETTLING ZONE DEPTH (D_s)	W:L	OPTIMUM LOW-FLOW DECANT RATE	SELECTED LOW-FLOW DECANT RATE (Q_d)	MIN SETTLING ZONE VOLUME (Min V_s)	MIN SETTLING ZONE SURFACE AREA (Min A_s)	LIMITING CRITERIA
	(Ha)	(1: X YEARS)	(mm/hr)	(°C)	(s/m)	(m)	(1: X)	(L/s/Ha)	(L/s/Ha)	(m³)	(m²)	
No. I	5.26	I	64.2	20	—	0.8	3	—	—	1081.0	—	VOLUME

SPILLWAY											
BASIN ID	BASIN DESIGN LIFE	DESIGN ARI	C_{10}	C	t_c	I	Q	HEAD OVER SPILLWAY	SPILLWAY CREST LENGTH	SPILLWAY CREST RL	MIN EMBANKMENT RL
		yr				(mm/hr)	(m³/s)				
No. I	> 12 MONTHS	1: 20	0.80	0.84	20.00	34.40	0.46	0.50	0.80	13.50	14.45

BASIN ID	SETTLING ZONE (incl. sediment storage)				FOREBAY				HYDRAULIC CONTROLS			
	VOLUME (m³)	LENGTH (m)	WIDTH (m)	DEPTH (m)	VOLUME (m³)	LENGTH (m)	WIDTH (m)	DEPTH (m)	SPILLWAY CREST LENGTH (m)	SPILLWAY CREST (RL)	EMBANKMENT (RL)	LEVEL SPREADER CREST (RL)
No. I	1404.8	78.9	26.3	0.8	163.9	10.8	26.3	0.8	1.7	13.50	14.45	13.70



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Gold Coast | 76 Business Street, Yatala QLD | PO Box 392, Beerleigh 4207

Client:



FPI QUEENSLAND PTY LTD

Project:

VANTAGE YATALA
STAGE 3

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAYPLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329845
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

CONSTRUCTION PHASE
BIO-RETENTION BASIN 1
LAYOUT PLAN

Rev	Date	Description	DRN	CHK
C	05/07/23	LAYOUT UPDATED	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
A1 UNREDUCED
A3 REDUCED

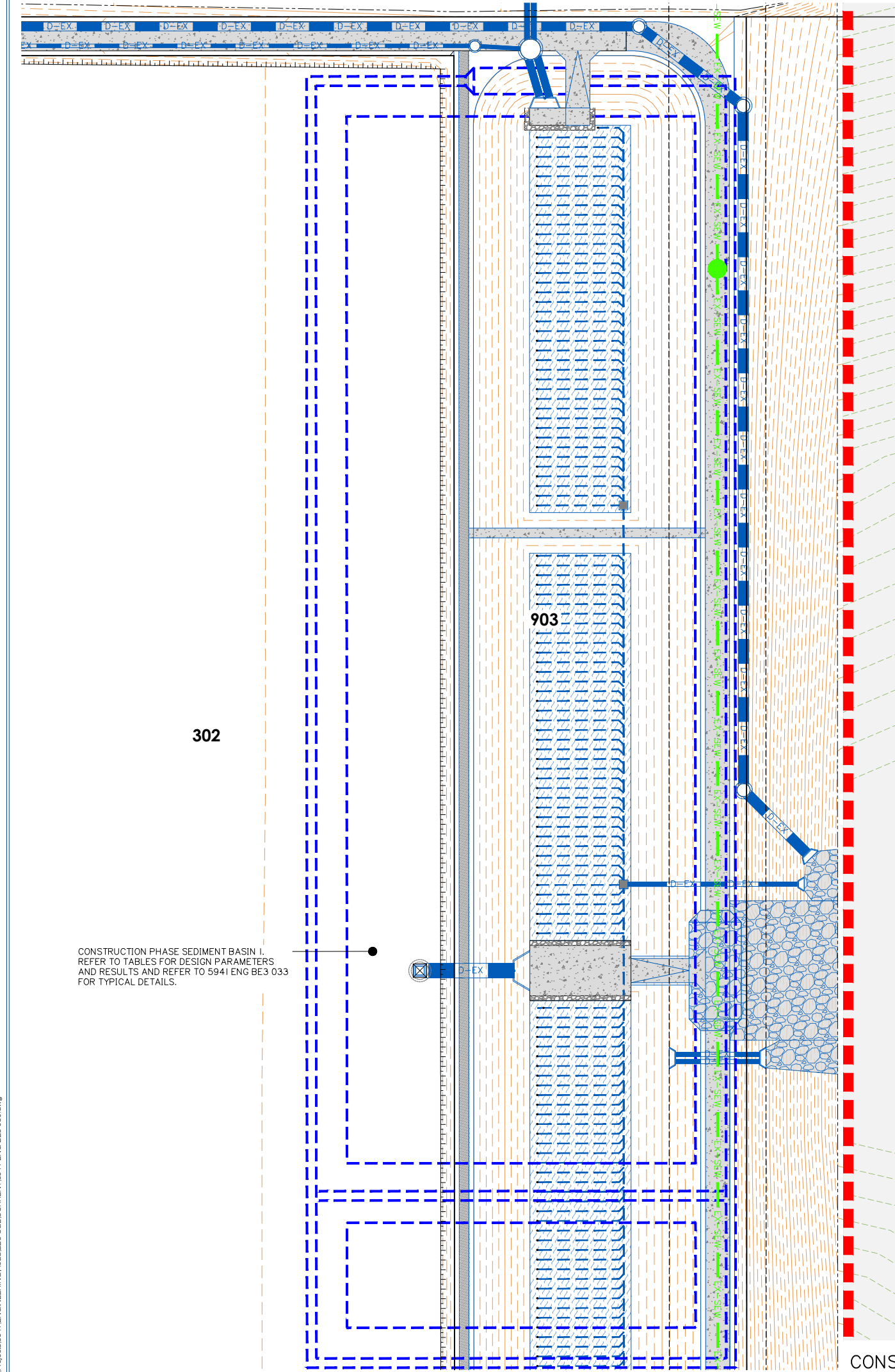
Scale:
0 2.5 5.0 7.5 10 12.5m
1:250 (A1) 1:500 (A3)

PROJECT NORTH POINT



Project No. 5941	
Designed: JH	Drafted: JH
Approved:	MG
RPEQ	16939
Signed:	
Date:	05/05/2023
Drawing No: 5941 ENG BE3 030	Revision: C

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CONSTRUCTION PHASE SEDIMENT BASIN 1.
REFER TO TABLES FOR DESIGN PARAMETERS
AND RESULTS AND REFER TO 5941 ENG BE3 033
FOR TYPICAL DETAILS.

SEDIMENT BASIN 2 DESIGN							
BASIN ID	SELECT DURATION OF CATCHMENT DISTURBANCE	IS DEWATERING OF TRENCHES REQUIRED?	EQUIPMENT LEASE OR PURCHASE?	SELECT CATCHMENT SCALE	DO ALL FLOWS ENTER BASIN AT SINGLE POINT?	BASIN TYPE	DOSING EQUIPMENT
No. 2	> 12 MONTHS	NO	LEASE	> 5Ha	NO	TYPE B	IFOD – RAIN

BASIN ID	CATCHMENT AREA	DESIGN EVENT	I _x yr. 24 hr	WATER TEMPERATURE	K _s	SETTLING ZONE DEPTH (D _s)	W: L	OPTIMUM LOW-FLOW DECANT RATE	SELECTED LOW-FLOW DECANT RATE (Q _d)	MIN SETTLING ZONE VOLUME (Min V _s)	MIN SETTLING ZONE SURFACE AREA (Min A _s)	LIMITING CRITERIA
No. 2	(Ha)	(1: X YEARS)	(mm/hr)	(°C)	(s/m)	(m)	(1: X)	(L/s/Ha)	(L/s/Ha)	(m³)	(m²)	VOLUME
No. 2	11.01	I	64.2	20	–	0.8	3	–	–	2904.5	–	

SPILLWAY											
BASIN ID	BASIN DESIGN LIFE	DESIGN ARI	C ₁₀	C	t _c	I	Q	HEAD OVER SPILLWAY	SPILLWAY CREST LENGTH	SPILLWAY CREST RL	MIN EMBANKMENT RL
		yr				(mm/hr)	(m³/s)				
No. 2	> 12 MONTHS	1: 20	0.80	0.84	20.00	34.40	0.46	0.50	0.80	13.50	14.45

BASIN ID	SETTLING ZONE (incl. sediment storage)				FOREBAY				HYDRAULIC CONTROLS			
	VOLUME (m³)	LENGTH (m)	WIDTH (m)	DEPTH (m)	VOLUME (m³)	LENGTH (m)	WIDTH (m)	DEPTH (m)	SPILLWAY CREST LENGTH (m)	SPILLWAY CREST (RL)	EMBANKMENT (RL)	LEVEL SPREADER CREST (RL)
No.2	2940.5	111.7	37.2	0.79	327.4	11.2	37.2	0.79	3.5	16.20	16.95	16.40

NOTE:

- FOR GENERAL DRAWING LEGENDS, REFER TO 5941 ENG BE3 004.
- FOR GENERAL NOTES, REFER TO 5941 ENG BE3 002 AND 5941 ENG BE3 003.
- FOR SEDIMENT & EROSION NOTES AND DETAILS REFER TO 5941 ENG BE3 020.



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Client:



FPI QUEENSLAND PTY LTD

Project:

VANTAGE YATALA
STAGE 3

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAYPLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329845
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

CONSTRUCTION PHASE
BIO-RETENTION BASIN 2
LAYOUT PLAN

Rev	Date	Description	DRN	CHK
C	05/07/23	LAYOUT UPDATED	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES
A1 UNREDUCED
A3 REDUCED

Scale:

0 2.5 5.0 7.5 10 12.5m 1:250 (A1) 1:500 (A3)

PROJECT NORTH POINT



Project No. 5941

Designed: JH

Drafted: JH

Approved:

MG

RPEQ

16939

Signed:

Date:

05/05/2023

Drawing No:

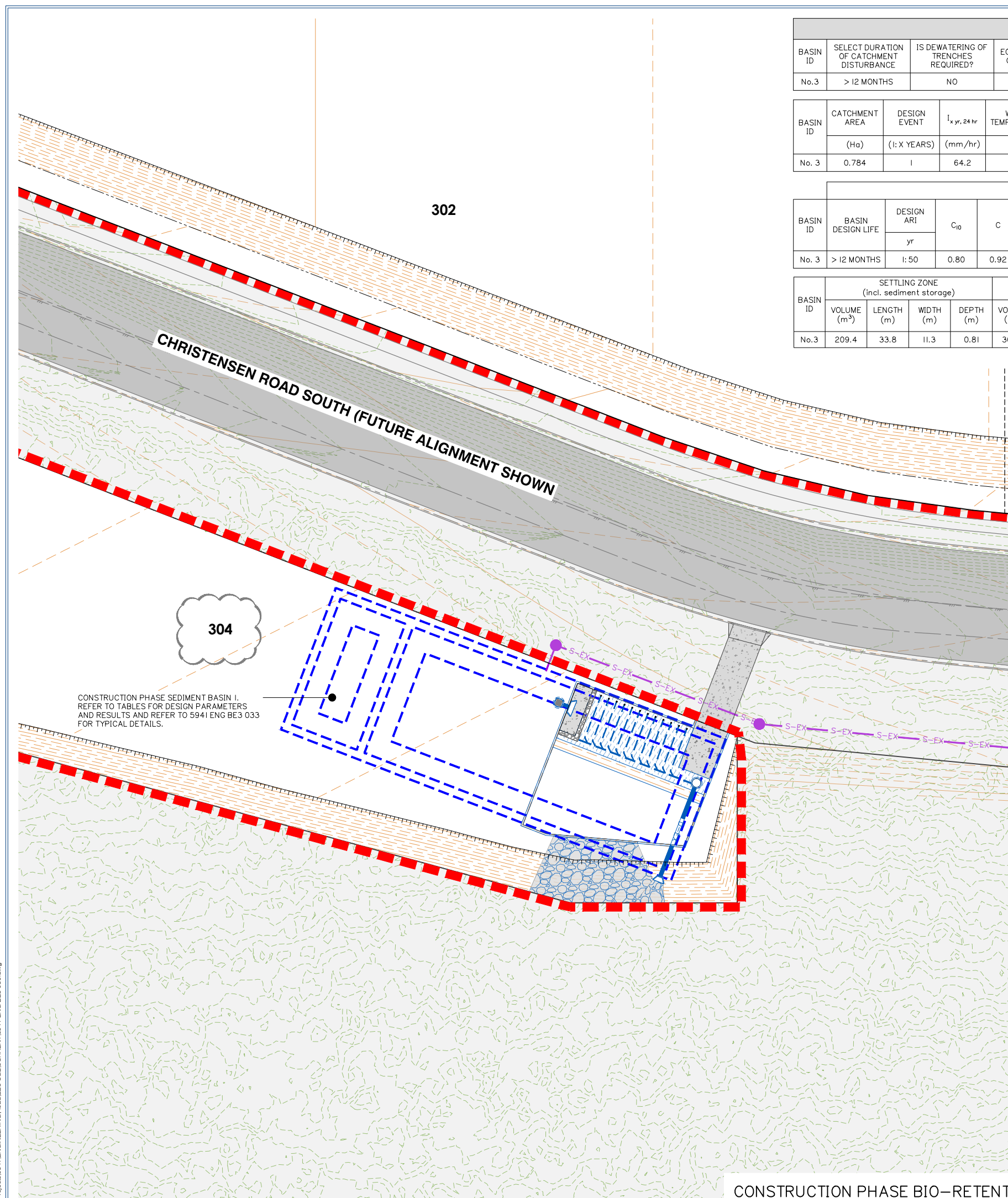
5941 ENG BE3 031

Revision

C

CONSTRUCTION PHASE BIO-RETENTION BASIN 2 LAYOUT PLAN

G:\Projects\5941\ENGINEERING\ASAD\BE3\OGL\CURRENT\5941 ENG BE3 030.dwg



SEDIMENT BASIN 3 DESIGN							
BASIN ID	SELECT DURATION OF CATCHMENT DISTURBANCE	IS DEWATERING OF TRENCHES REQUIRED?	EQUIPMENT LEASE OR PURCHASE?	SELECT CATCHMENT SCALE	DO ALL FLOWS ENTER BASIN AT SINGLE POINT?	BASIN TYPE	DOSING EQUIPMENT
No.3	> 12 MONTHS	NO	LEASE	< 5Ha	NO	TYPE B	FLOC-BOX

BASIN ID	CATCHMENT AREA	DESIGN EVENT	I _x yr. 24 hr	WATER TEMPERATURE	K _s	SETTLING ZONE DEPTH (D _s)	W: L	OPTIMUM LOW-FLOW DECANT RATE	SELECTED LOW-FLOW DECANT RATE (Q _d)	MIN SETTLING ZONE VOLUME (Min V _s)	MIN SETTLING ZONE SURFACE AREA (Min A _s)	LIMITING CRITERIA
	(Ha)	(1: X YEARS)	(mm/hr)	(°C)	(s/m)	(m)	(1: X)	(L/s/Ha)	(L/s/Ha)	(m³)	(m²)	
No. 3	0.784	I	64.2	20	—	0.6	3	—	—	161	—	VOLUME

SPILLWAY											
BASIN ID	BASIN DESIGN LIFE	DESIGN ARI	C ₁₀	C	t _c	I	Q	HEAD OVER SPILLWAY	SPILLWAY CREST LENGTH	SPILLWAY CREST RL	MIN EMBANKMENT RL
		yr				(mm/hr)	(m³/s)				
No. 3	> 12 MONTHS	1: 50	0.80	0.92	20.00	34.40	0.07	0.30	3.00	13.90	14.20

BASIN ID	SETTLING ZONE (incl. sediment storage)				FOREBAY				HYDRAULIC CONTROLS			
	VOLUME (m³)	LENGTH (m)	WIDTH (m)	DEPTH (m)	VOLUME (m³)	LENGTH (m)	WIDTH (m)	DEPTH (m)	SPILLWAY CREST LENGTH (m)	SPILLWAY CREST (RL)	EMBANKMENT (RL)	LEVEL SPREADER CREST (RL)
No.3	209.4	33.8	11.3	0.81	30.77	3.4	11.3	0.81	3.0	13.90	14.2	13.92

NOTE:

- FOR GENERAL DRAWING LEGENDS, REFER TO 5941 ENG BE3 004.
- FOR GENERAL NOTES, REFER TO 5941 ENG BE3 002 AND 5941 ENG BE3 003.
- FOR SEDIMENT & EROSION NOTES AND DETAILS REFER TO 5941 ENG BE3 020.



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Client:



FPI QUEENSLAND PTY LTD

Project:

VANTAGE YATALA
STAGE 3

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAYPLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329845
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

CONSTRUCTION PHASE
BIO-RETENTION BASIN 3
LAYOUT PLAN

Rev	Date	Description	DRN	CHK
D	20/09/23	LOT NUMBER UPDATED	JH	MG
C	05/07/23	LAYOUT UPDATED	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES
A1 UNREDUCED
A3 REDUCED

Scale:

0 2.5 5.0 7.5 10 12.5m 1:250 (A1) 1:500 (A3)

PROJECT NORTH POINT



Project No. 5941	
Designed: JH	Drafted: JH
Approved:	MG
RPEQ	16939
Signed:	
Date:	05/05/2023
Drawing No: 5941 ENG BE3 032	Revision: D

Client:



FPI QUEENSLAND PTY LTD

Project:

VANTAGE YATALA
STAGE 3

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAYPLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329845
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

CONSTRUCTION PHASE
TYPICAL DETAILS

C	05/07/23	FOR APPROVAL	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

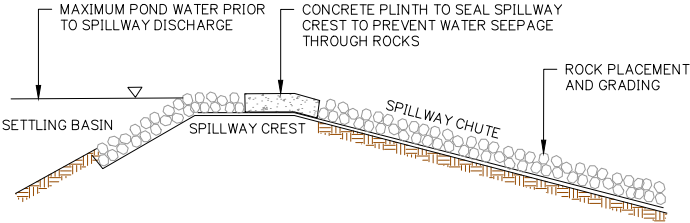
DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES
A1 UNREDUCED
A3 REDUCED

Scale:

NOT APPLICABLE

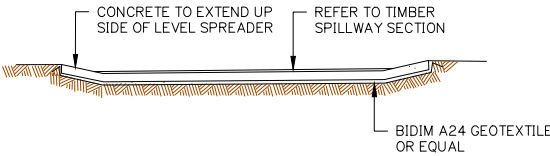
PROJECT NORTH POINT

Project No.	5941
Designed: JH	Drafted: JH
Approved:	MG
RPEQ	16939
Signed:	
Date:	05/05/2023
Drawing No:	Revision
5941 ENG BE3 033	C



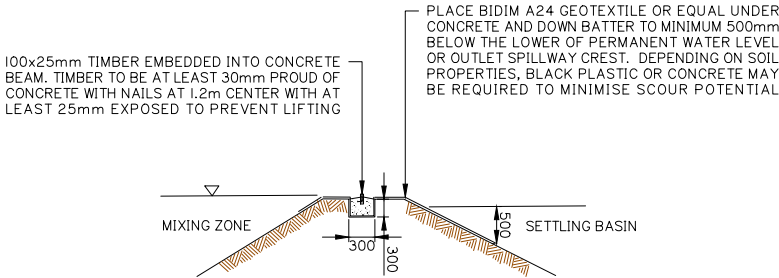
OUTLET SPILLWAY DETAILS
TYPICAL CROSS SECTION

NOT TO SCALE



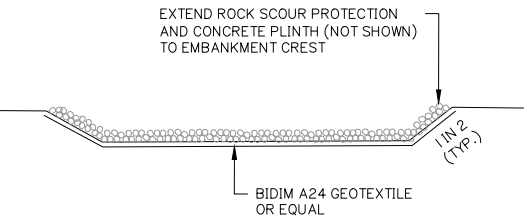
LEVEL SPREADER DETAILS
TYPICAL LONG SECTION

NOT TO SCALE



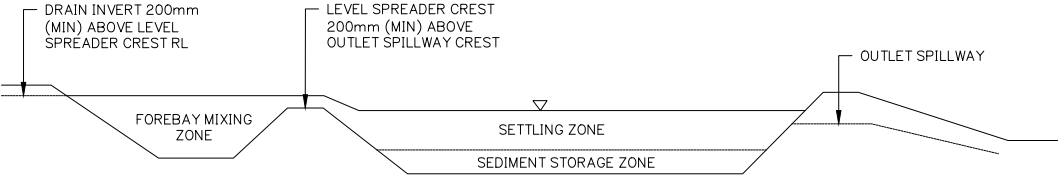
LEVEL SPREADER DETAILS
TYPICAL CROSS SECTION

NOT TO SCALE



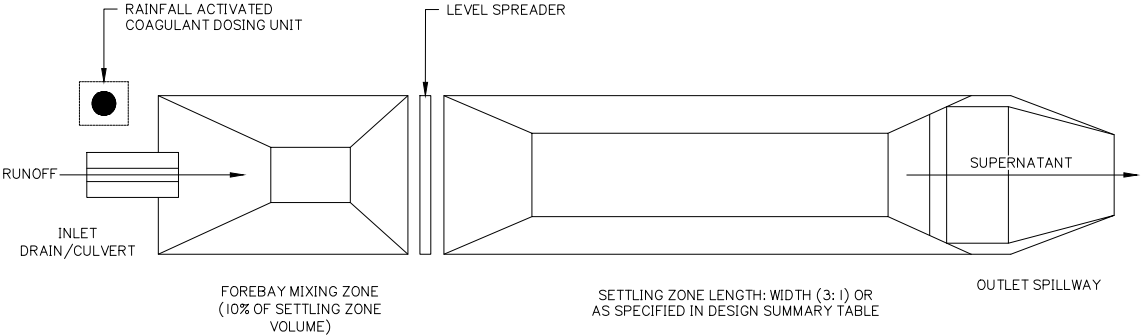
OUTLET SPILLWAY DETAILS
TYPICAL LONGITUDINAL SECTION

NOT TO SCALE



TYPE A SEDIMENT BASIN LONGITUDINAL SECTION (TYP.)

NOT TO SCALE



TYPE A SEDIMENT BASIN PLAN VIEW (TYP.)

NOT TO SCALE

CONSTRUCTION PHASE TYPICAL DETAILS

BULK EARTHWORKS DEPTH RANGE LEGEND

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

1. BULK EARTHWORKS VOLUMES ARE CALCULATED TO AN ASSUMED PAVEMENT SUBGRADE LEVEL OF -0.290m BELOW FSL OF PAVEMENT (WHERE IN FILL), AND -0.440m BELOW FSL OF PAVEMENT (WHERE IN CUT). FINAL PAVEMENT DESIGN DEPTHS ARE TO BE CONFIRMED IN THE DETAILED CIVIL DESIGN PHASE.
2. THE DESIGN ROAD VERGE PROFILES ARE DESIGNED TO SUBGRADE LEVEL AT AN ASSUMED -0.10m BELOW FSL OF VERGE. THE EARTHWORKS VOLUMES REFLECT THIS.
3. BULK EARTHWORKS VOLUMES ARE CALCULATED TO THE UNDERSIDE OF THE TREATMENT ZONE FILTER MEDIA AND DRAINAGE LAYERS, UTILISING -1.10m BELOW FINISHED BASIN FLOOR LEVEL. TOPSOIL IS STRIPPING PRIOR TO EARTHWORKS ACTIVITIES AS PER DWG 5941 ENG BE3 011. THEREFORE THE VOLUMES STATED ARE 'POST-STRIP' VOLUMES.
4. BULK EARTHWORKS VOLUMES ARE CALCULATED TO THE PROPOSED ROL BOUNDARY EXTENT. NO EXTERNAL EARTHWORKS ARE PROPOSED IN THIS IN THIS EXTENT OF WORKS.
5. SPOIL VOLUMES GENERATED FROM SERVICE TRENCHES & BUILDING WORKS ARE NOT REFLECTED IN THE CALCULATIONS. SIMILARLY, EARTHWORKS REQUIRED FOR LOT ACCESS RAMPS IS NOT REFLECTED IN THE CALCULATIONS.

EARTHWORKS VOLUME SUMMARY

CUT	203,744 m ³
FILL	240,566 m ³
FILL TO IMPORT	36,911 m ³

205

EXISTING STAGE 2 WORKS

203

202

COASTLINK COURT

COMMON PROPERTY

HIGHLANDS STREET

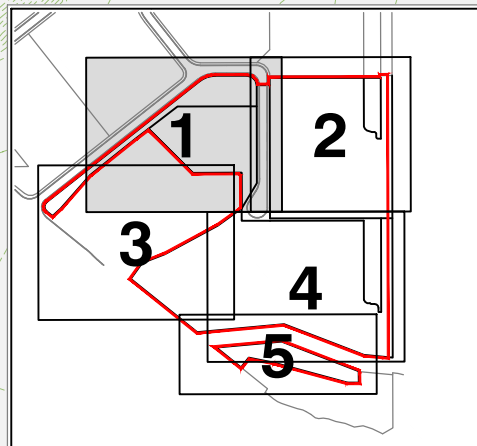
303

ROAD 01

THE IV in 2H CUT BATTER SHALL BE OVER-EXCAVATED, MICRO-BENCHED AND INCORPORATE A MINIMUM OF 400mm DEEP IMPORTED SOIL. REFER CORRESPONDENCE FROM DOUGLAS PARTNERS, PROJECT 90520.00.L.002 DATED 24 JANUARY 2019 TITLED, BATTER TREATMENT

AMGROW

500
RP295994



KEY PLAN
NOT TO SCALE

Client:



FPI QUEENSLAND PTY LTD

Project:

**VANTAGE YATALA
STAGE 3**

Site Address:

**LOT 504 HOMESTEAD
DRIVE, STAYPLTON
QLD, 4207**

RPD:

Lot: 504
Plan: SP329845
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

**BULK EARTHWORKS
LAYOUT PLAN
SHEET 1 OF 5**

C	05/07/23	LAYOUT UPDATED	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

Scale:
0 5 10 15 20 25m
1:500 (A1) 1:1000 (A3)

PROJECT NORTH POINT



Project No. 5941

Designed: JH

Drafted: JH

Approved:

MG

RPEQ

16939

Signed:

Date:

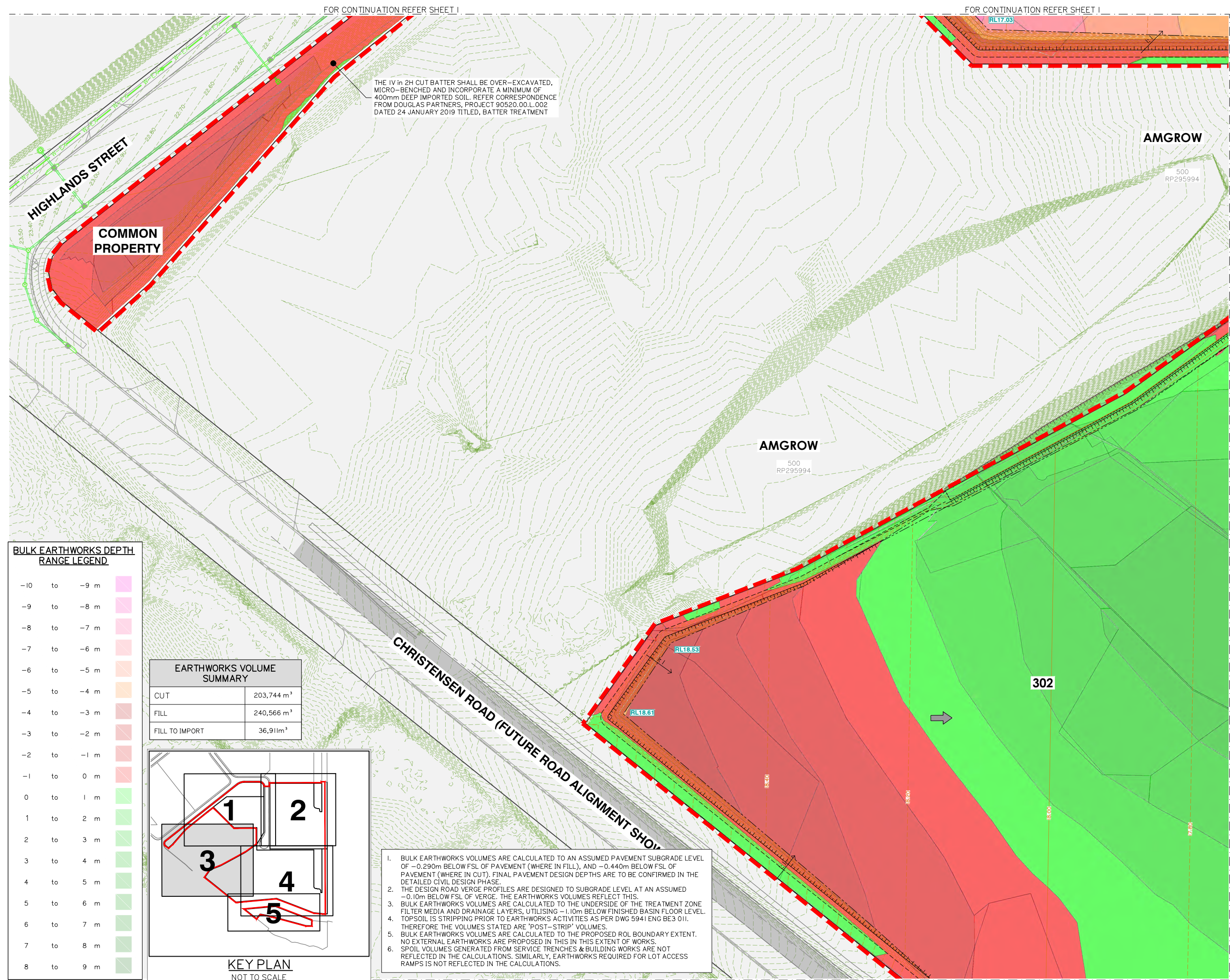
05/05/2023

Drawing No:

5941 ENG BE3 050

Revision

C

[illegible]



Project:

Site Address:

RPD:

Level Datum: AHD
Meridian:
PSM:
RL:

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GENERAL NOTES.

Drawing Title:

BULK EARTHWORKS
LAYOUT PLAN
SHEET 5 OF 5

[illegible]

C	20/09/23	LOT NUMBER UPDATED	JH	M
C	05/07/23	LAYOUT UPDATED	JH	M
B	24/05/23	ISSUED FOR TENDER	JH	M
A	05/05/23	ORIGINAL ISSUE	JH	M
rev	Date	Description	DRN	CH

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE.	A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES	A3 REDUCED

Scale:



0 5 10 15 20 25m

1:500 (A1) 1:1000 (A3)

PROJECT NORTH POINT



Designed: JH	Drafted: JH
--------------	-------------

Approved:	MG
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PREO	16030
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AFPEQ	16939
	16939

Signed: 

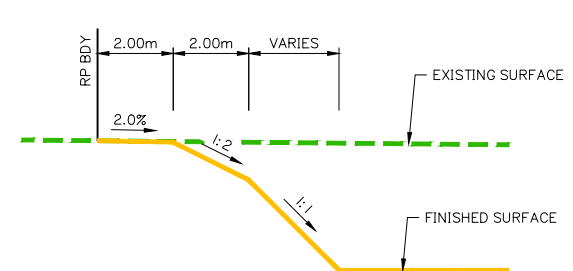
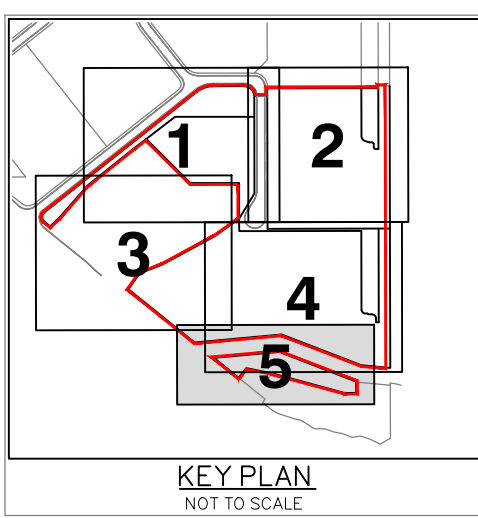
Date:	05/05/2023
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Drawing No: 5041-ENG-REF-054 Revision: D

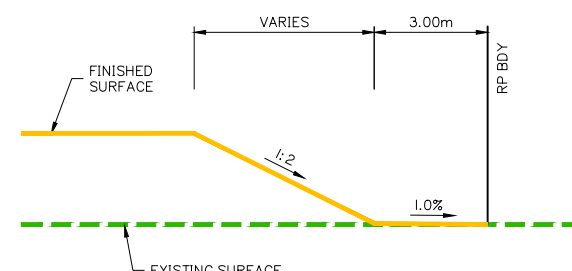


1. BULK EARTHWORKS VOLUMES ARE CALCULATED TO AN ASSUMED PAVEMENT SUBGRADE LEVEL OF -0.290m BELOW FSL OF PAVEMENT (WHERE IN FILL), AND -0.440m BELOW FSL OF PAVEMENT (WHERE IN CUT). FINAL PAVEMENT DESIGN DEPTHS ARE TO BE CONFIRMED IN THE DETAILED CIVIL DESIGN PHASE.
2. THE DESIGN ROAD VERGE PROFILES ARE DESIGNED TO SUBGRADE LEVEL AT AN ASSUMED -0.10m BELOW FSL OF VERGE. THE EARTHWORKS VOLUMES REFLECT THIS.
3. BULK EARTHWORKS VOLUMES ARE CALCULATED TO THE UNDERSIDE OF THE TREATMENT ZONE FILTER MEDIA AND DRAINAGE LAYERS, UTILISING -1.10m BELOW FINISHED BASIN FLOOR LEVEL.
4. TOPSOIL IS STRIPPING PRIOR TO EARTHWORKS ACTIVITIES AS PER DWG 5941 EN BE3 011. THEREFORE THE VOLUMES STATED ARE 'POST-STRIP' VOLUMES.
5. BULK EARTHWORKS VOLUMES ARE CALCULATED TO THE PROPOSED ROL BOUNDARY EXTENT. NO EXTERNAL EARTHWORKS ARE PROPOSED IN THIS IN THIS EXTENT OF WORKS.
6. SPOIL VOLUMES GENERATED FROM SERVICE TRENCHES & BUILDING WORKS ARE NOT REFLECTED IN THE CALCULATIONS. SIMILARLY, EARTHWORKS REQUIRED FOR LOT ACCESS RAMPS IS NOT REFLECTED IN THE CALCULATIONS.

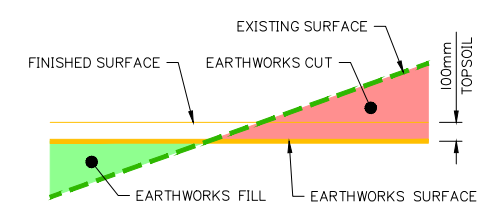
EARTHWORKS VOLUME SUMMARY	
CUT	203,744 m ³
FILL	240,566 m ³
FILL TO IMPORT	36,911m ³



TYPICAL DETAIL
CUT BATTER AT BOUNDARY
SCALE 1:100



TYPICAL DETAIL
FILL BATTER AT BOUNDARY
SCALE 1:100

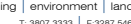
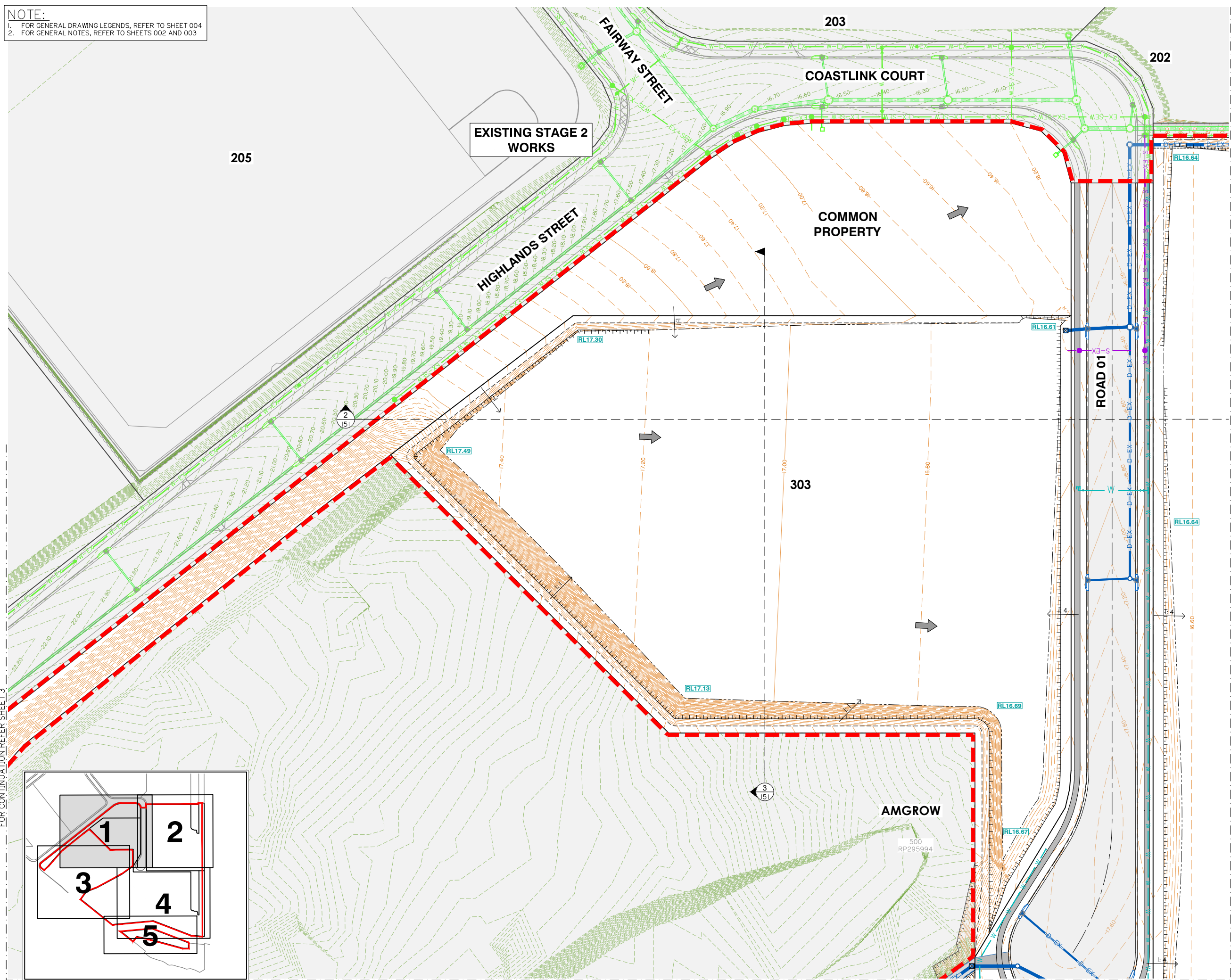


TYPICAL DETAIL
EARTHWORKS PROFILE
SCALE 1:20

BULK EARTHWORKS DEPTH RANGE LEGEND			
-10	to	-9 m	
-9	to	-8 m	
-8	to	-7 m	
-7	to	-6 m	
-6	to	-5 m	
-5	to	-4 m	
-4	to	-3 m	
-3	to	-2 m	
-2	to	-1 m	
-1	to	0 m	
0	to	1 m	
1	to	2 m	
2	to	3 m	
3	to	4 m	
4	to	5 m	
5	to	6 m	
6	to	7 m	
7	to	8 m	
8	to	9 m	

NOTE:

1. FOR GENERAL DRAWING LEGENDS, REFER TO SHEET 004
2. FOR GENERAL NOTES, REFER TO SHEETS 002 AND 003



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est 1985

planning | environment | landscape | engineering | survey

T: 3807 3333 | F: 3287 5461 | www.gassman.com.au

Gold Coast 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:



FPI QUEENSLAND PTY LTD

Project:

VANTAGE YATALA STAGE 3

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAYPLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329845
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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GENERAL NOTES.

Drawing Title:

FINISHED SURFACE
LAYOUT PLAN
SHEET 1 OF 5

[illegible]

Scale:



0 5 10 15 20 25m

1:500 (A1) 1:1000 (A3)

PROJECT NORTH POINT



Project No. 5941

Designed: JH

Drafted: JH

Approved:

MG

RPEQ

5939

Signed:

[Signature]

Date:

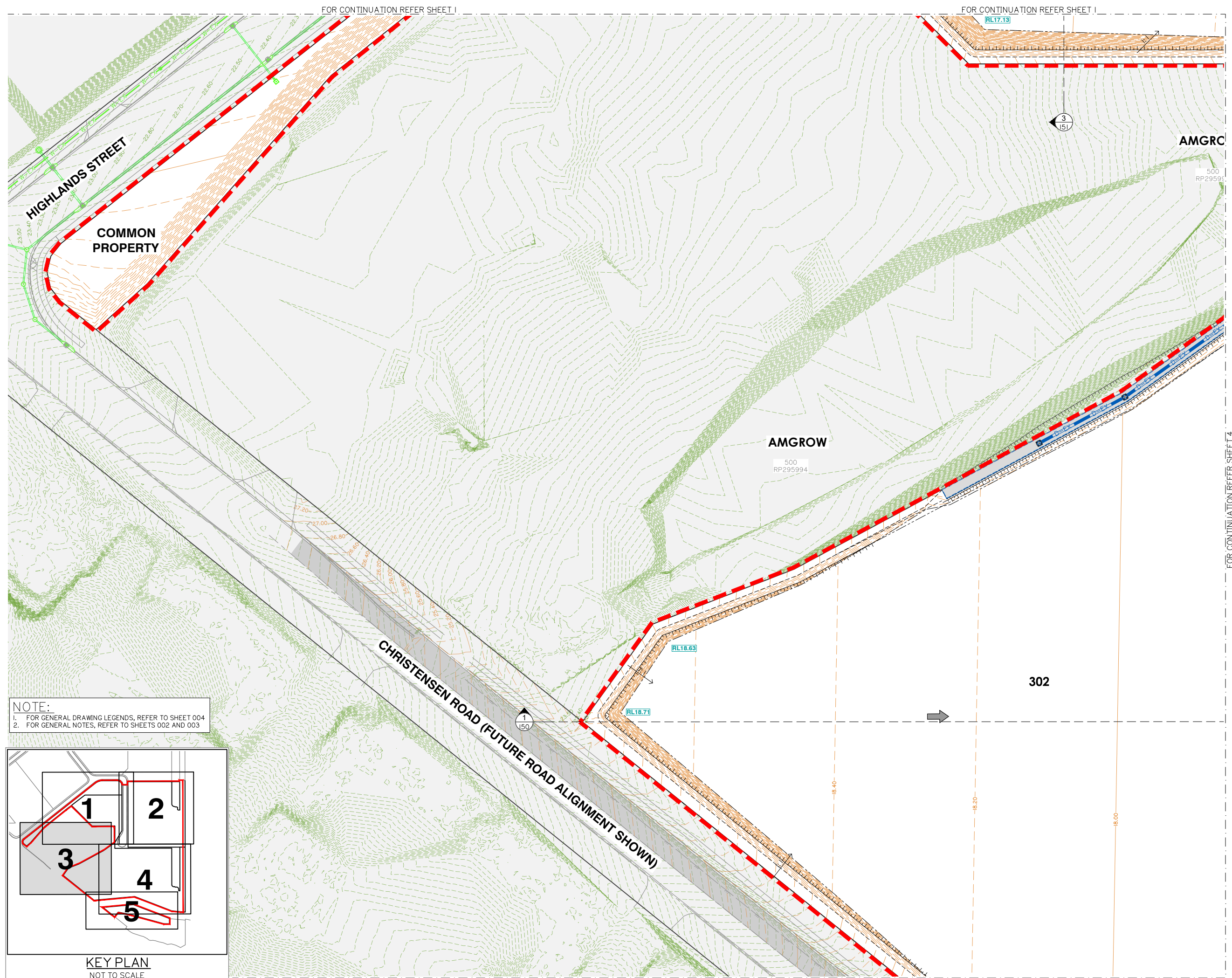
05/05/2023

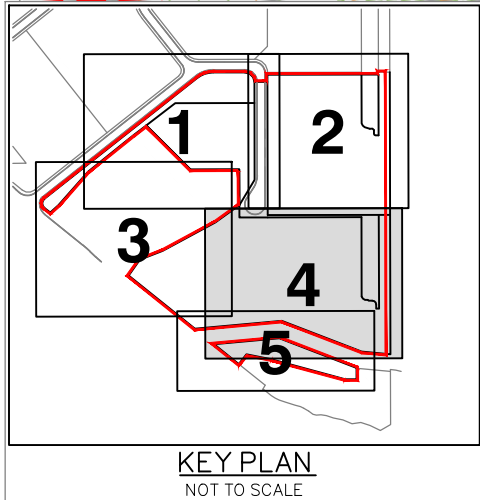
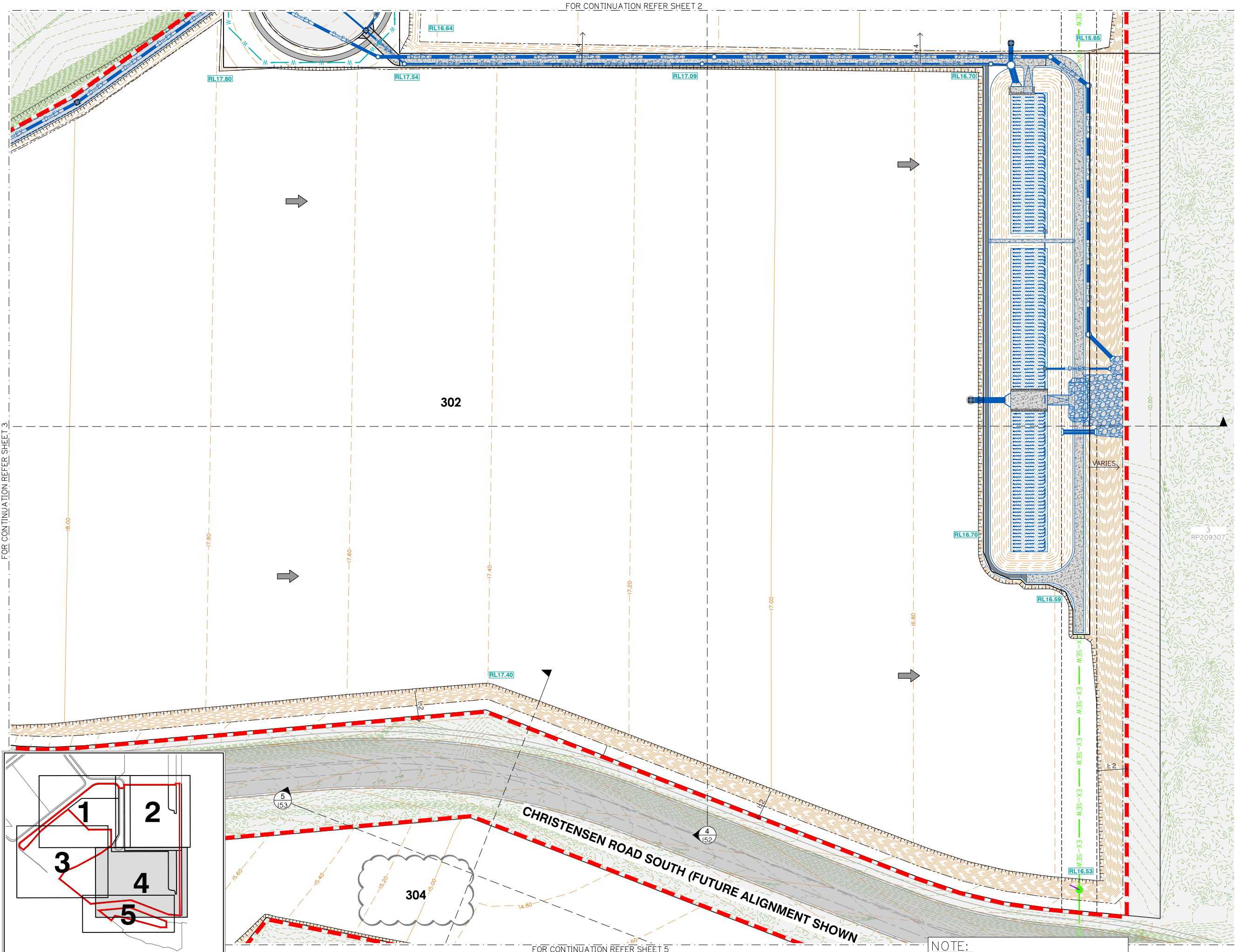
Drawing No:

Revision

5941 ENG BE3 100

C





FINISHED SURFACE LAYOUT PLAN SHEET 4 OF 5

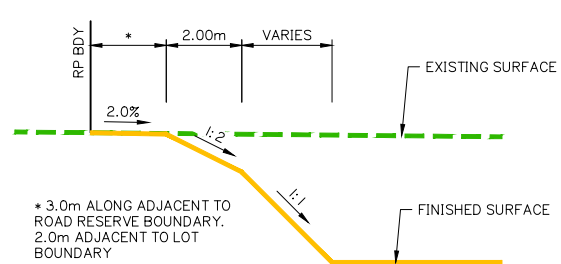
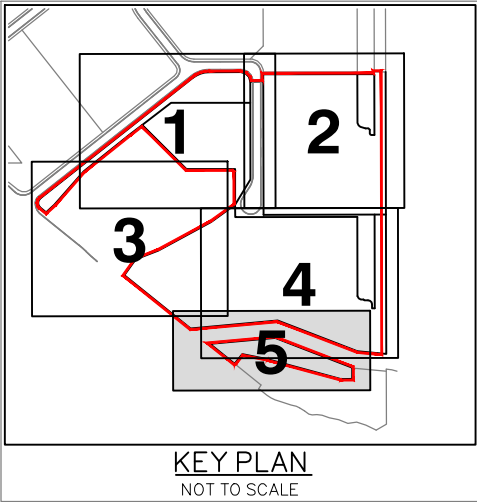
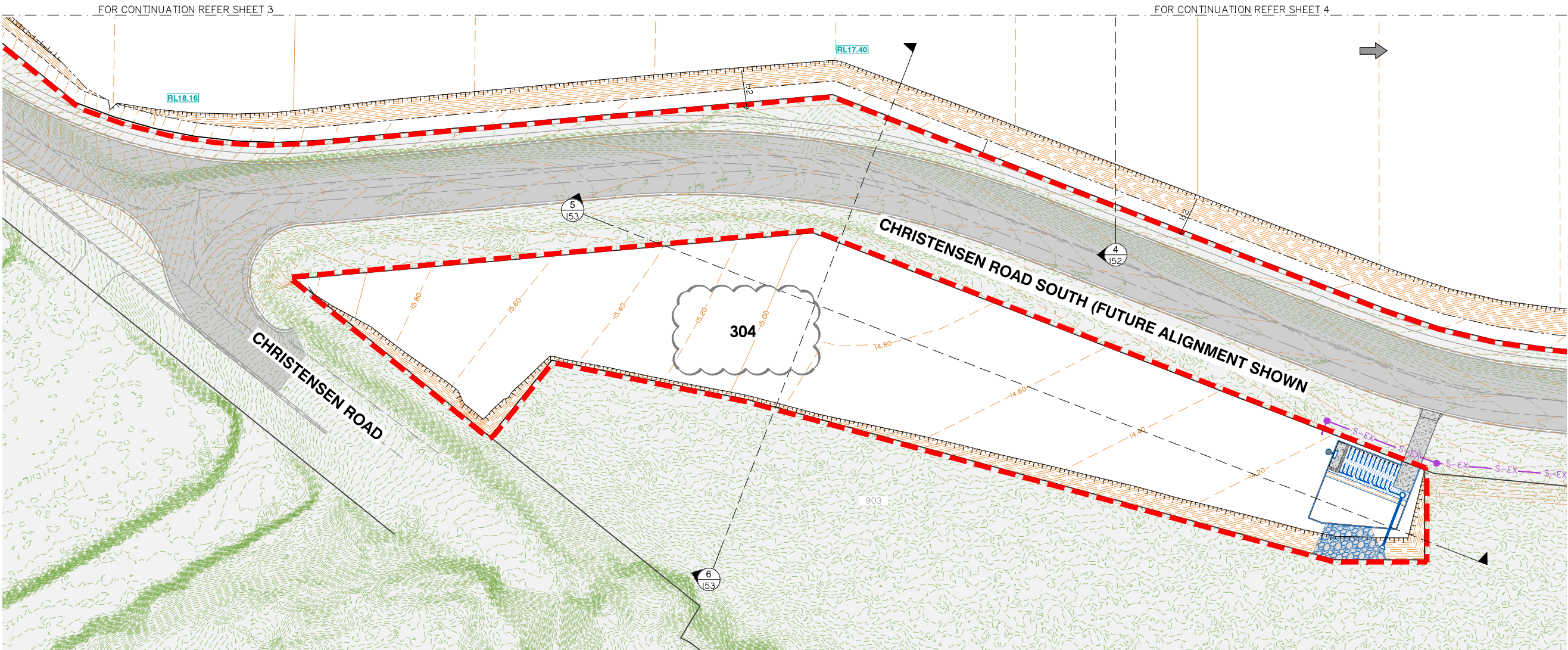
NOTE:
1. FOR GENERAL DRAWING LEGENDS, REFER TO SHEET 004
2. FOR GENERAL NOTES, REFER TO SHEETS 002 AND 003

Rev	Date	Description	DRN	CHK
D	20/09/23	LOT NUMBER UPDATED	JH	MG
C	05/07/23	LAYOUT UPDATED	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG

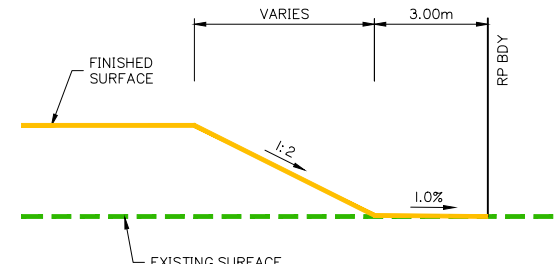
DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED
A3 REDUCED

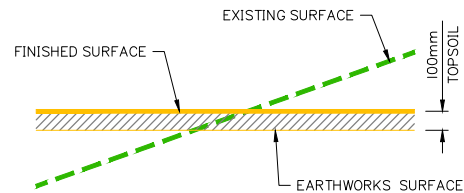
Scale:
0 5 10 15 20 25m
1:500 (A1) 1:1000 (A3)



TYPICAL DETAIL
CUT BATTER AT BOUNDARY
SCALE 1: 100



TYPICAL DETAIL
FILL BATTER AT BOUNDARY
SCALE 1: 100



TYPICAL DETAIL
EARTHWORKS PROFILE
SCALE 1: 20

NOTE:
1. FOR GENERAL DRAWING LEGENDS, REFER TO SHEET 004
2. FOR GENERAL NOTES, REFER TO SHEETS 002 AND 003

Rev	Date	Description	DRN	CHK
D	20/09/23	LOT NUMBER UPDATED	JH	MG
C	05/07/23	LAYOUT UPDATED	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES
A1 UNREDUCED
A3 REDUCED

Scale:
0 5 10 15 20 25m
1:500 (A1) 1:1000 (A3)

PROJECT NORTH POINT



Project No. 5941	
Designed: JH	Drafted: JH
Approved:	MG
RPEQ	16939
Signed:	
Date:	05/05/2023
Drawing No: 5941 ENG BE3 104	Revision: D

Client:



FPI QUEENSLAND PTY LTD

Project:

VANTAGE YATALA
STAGE 3

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAYPLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329845
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

FINISHED SURFACE
CROSS SECTIONS
SHEET 1 OF 4

C	05/07/23	SECTIONS UPDATED	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE
SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED
A3 REDUCED

Scale:

0 2.5 5.0 7.5 10 12.5m 1:250 (A1) 1:500 (A3)

0 1.25 2.5 3.75 5.0 6.25m 1:125 (A1) 1:250(A3)

PROJECT NORTH POINT

Project No. 5941

Designed: JH

Drafted: JH

Approved:

MG

RPEQ

16939

Signed:

Date:

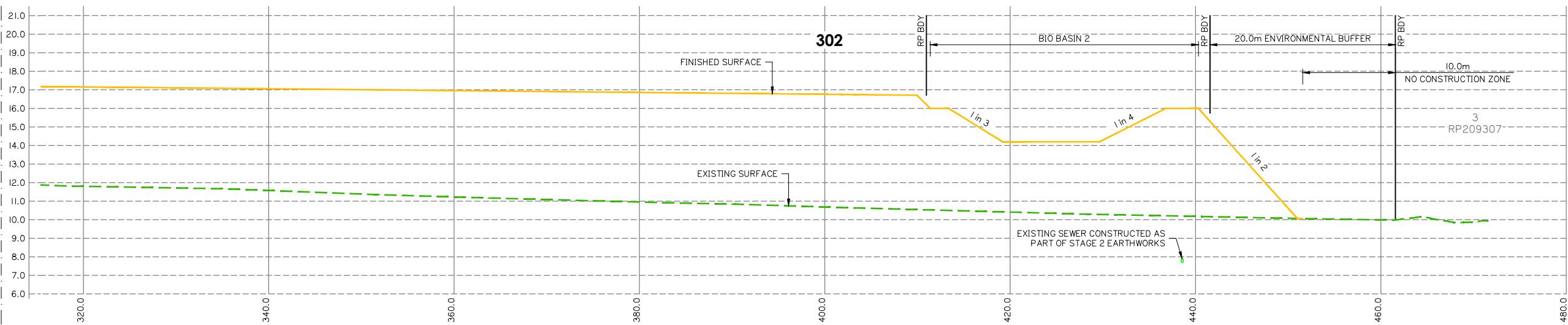
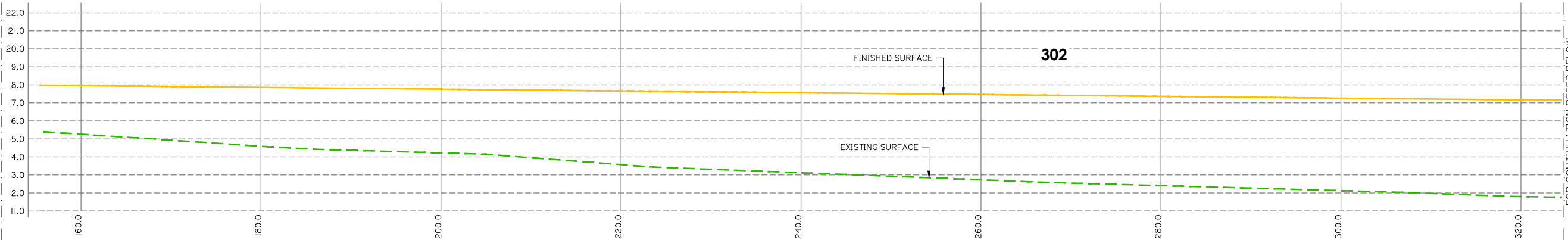
05/05/2023

Drawing No:

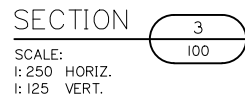
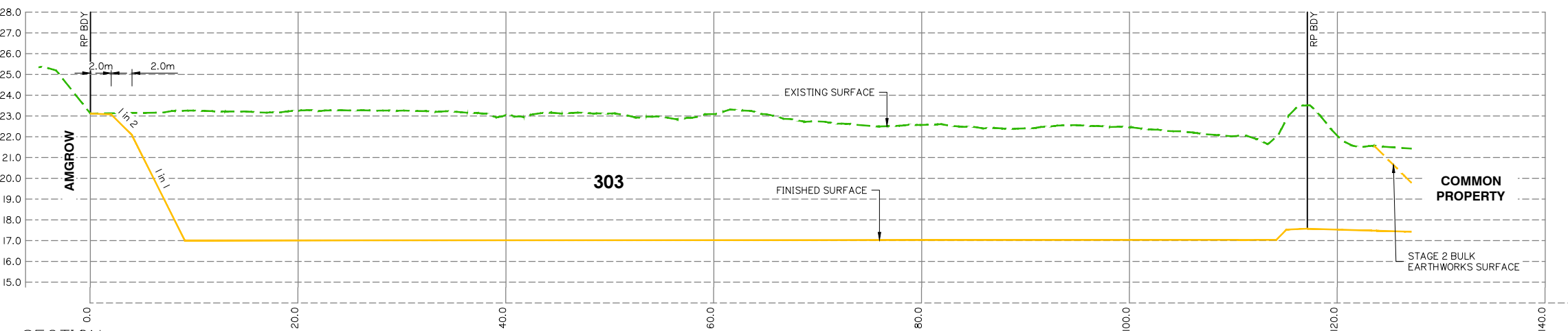
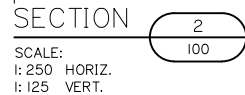
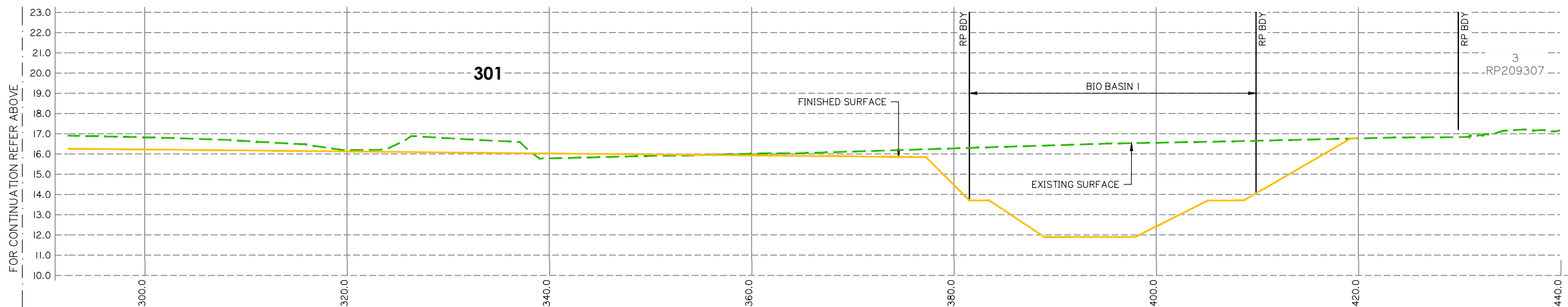
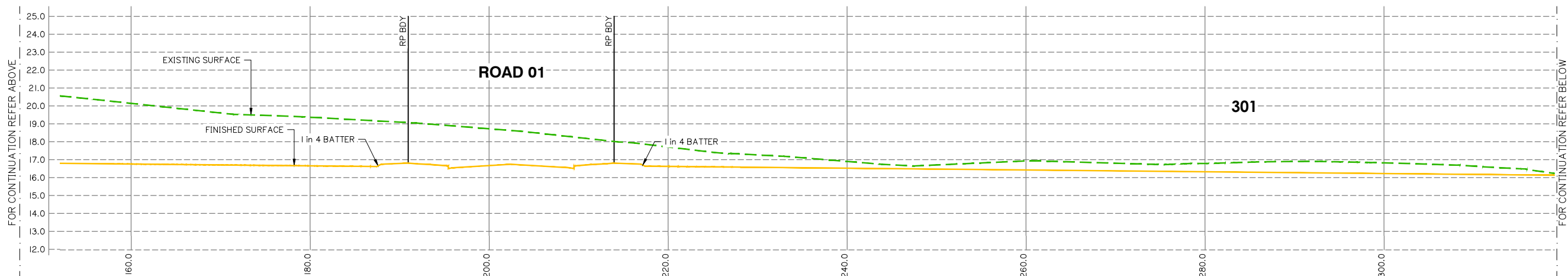
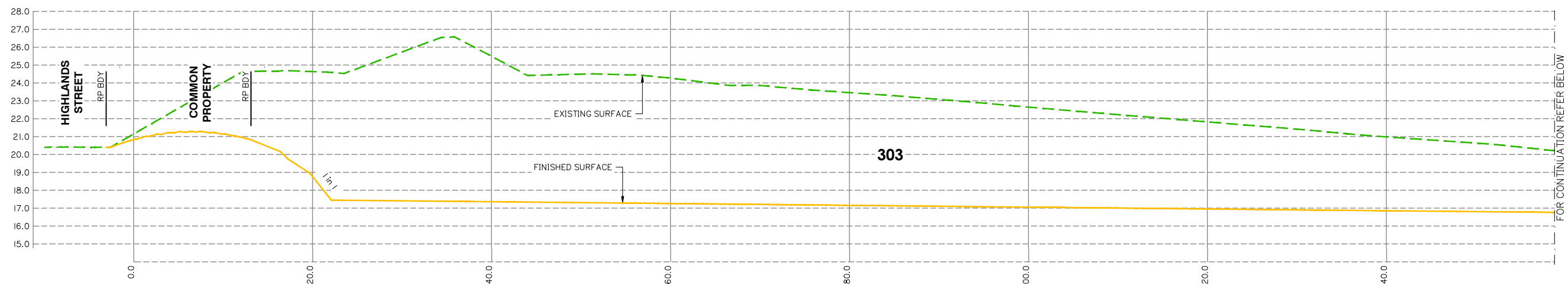
5941 ENG BE3 150

Revision

C



SECTION 1
SCALE:
1: 250 HORIZ.
1: 125 VERT.



FINISHED SURFACE CROSS SECTIONS SHEET 2 OF 4



Client:



FPI QUEENSLAND PTY LTD

Project:

VANTAGE YATALA STAGE 3

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAYPLTON
QLD, 4207

RPD:

Lot:	504
Plan:	SP329845
Local Authority:	CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

FINISHED SURFACE
CROSS SECTIONS
SHEET 2 OF 4

C	05/07/23	SECTIONS UPDATED			JH	MG	
B	24/05/23	ISSUED FOR TENDER			JH	MG	
A	05/05/23	ORIGINAL ISSUE			JH	MG	
Rev	Date	Description			DRN	CHK	
DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE.						A1 UNREDUCED	
CULVERT AND PIPE SIZES IN MILLIMETRES						A3 REDUCED	

Scale:

Scale:

0 2.5 5.0 7.5 10 12.5m 1:250 (A1) 1:500 (A3)

0 1.25 2.5 3.75 5.0 6.25m 1:125 (A1) 1:250 (A3)

PROJECT NORTH POINT

Project No. 5941

Designed: JH

Drafted: JH

Approved:

MG

RPEQ

16939

Signed:

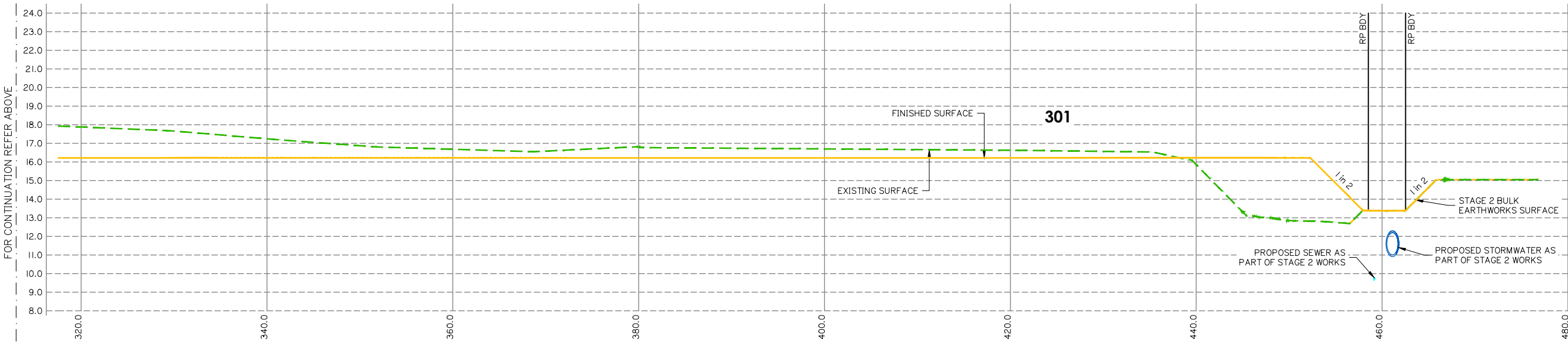
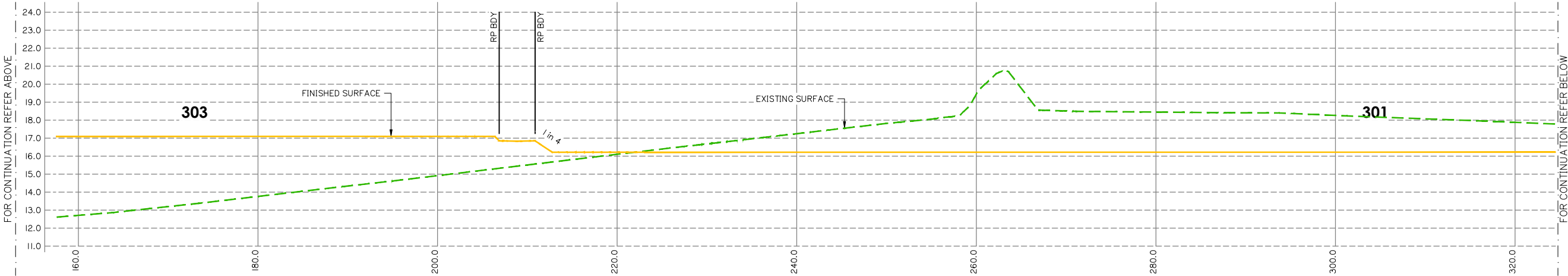
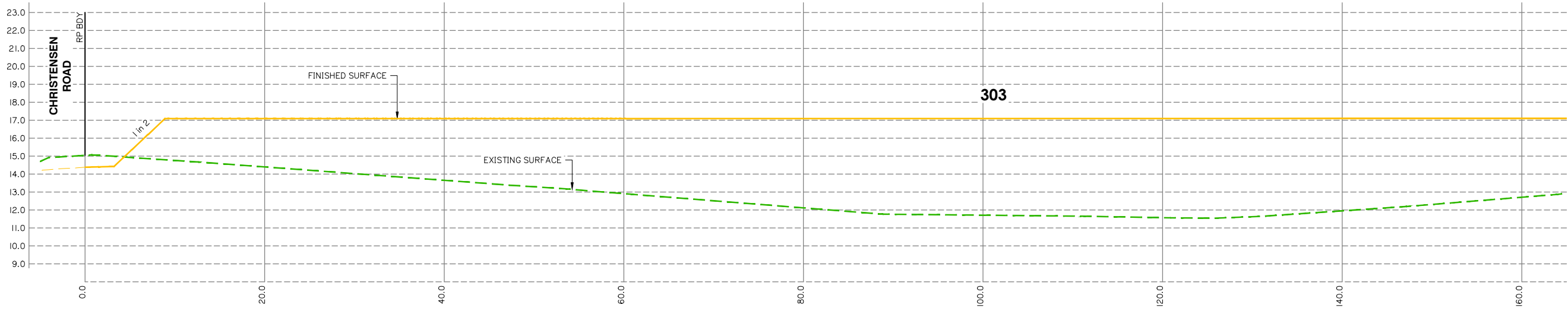
[Signature]

Date:

05/05/2023

Drawing No:
5941 ENG BE3 151

C

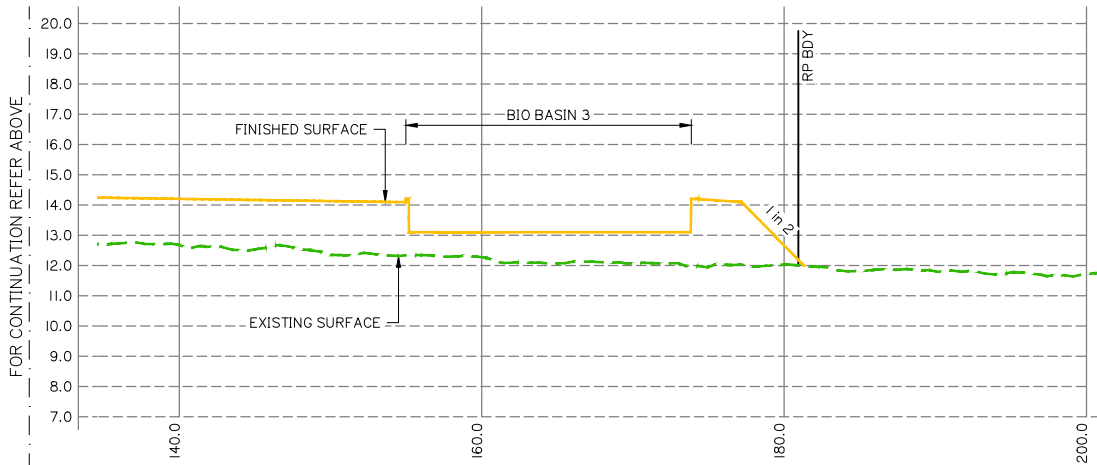
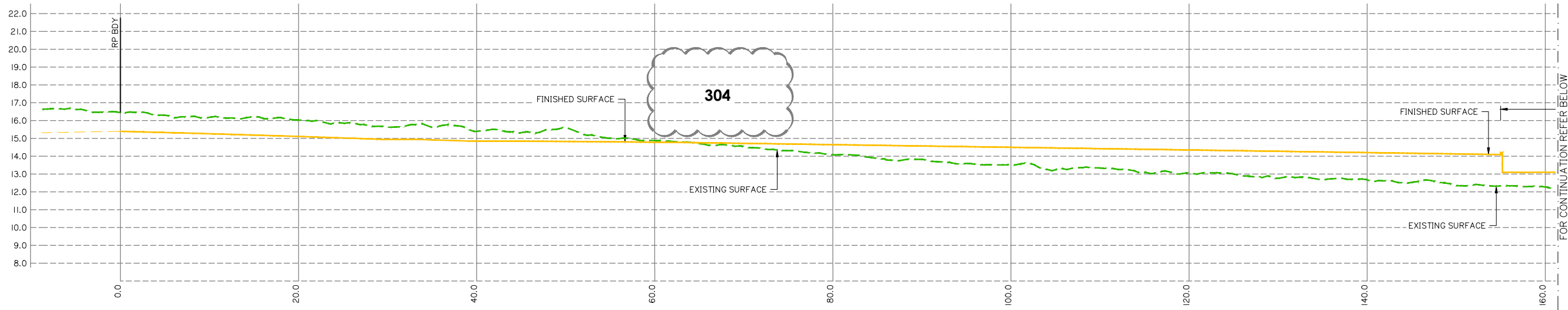


SECTION 4
SCALE:
I: 250 HORIZ.
I: 125 VERT.

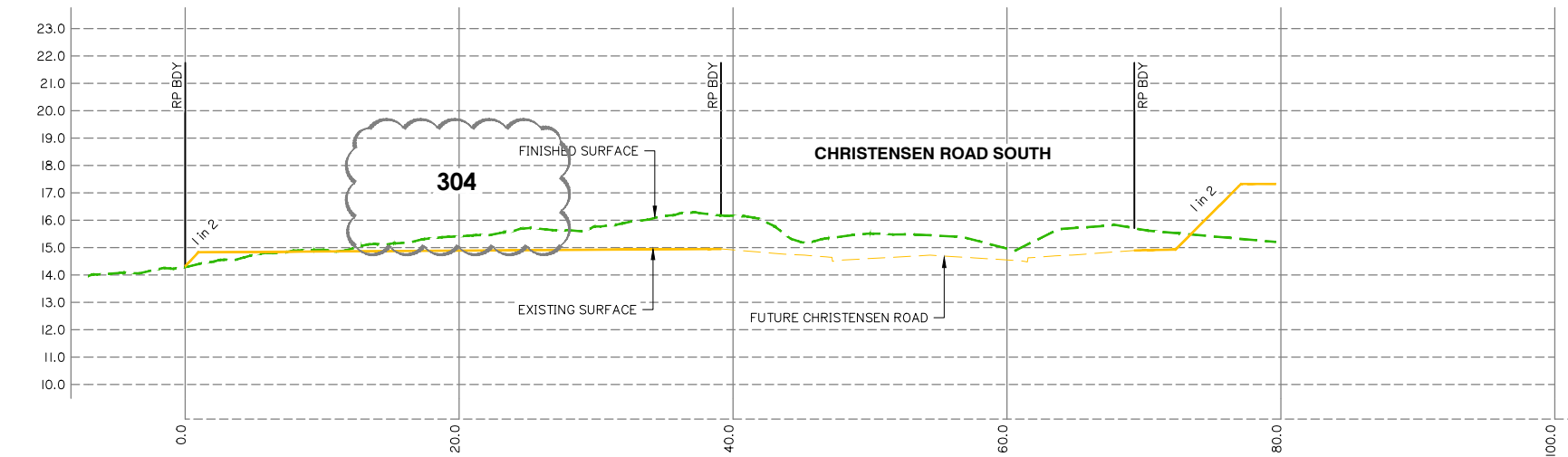
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B	24/05/23	ISSUED FOR TENDER	JH	MG	
A	05/05/23	ORIGINAL ISSUE	JH	MG	
Rev	Date	Description	DRN	CHK	
DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE			A1 UNREDUCED		
CULVERT AND PIPE SIZES IN MILLIMETRES			A3 REDUCED		

Scale:
0 2.5 5.0 7.5 10 12.5m 1:250 (A1) 1:500 (A3)
0 1.25 2.5 3.75 5.0 6.25m 1:125 (A1) 1:250 (A3)

PROJECT NORTH POINT	
Project No. 5941	
Designed: JH	Drafted: JH
Approved:	MG
RPEQ	16939
Signed:	
Date:	05/05/2023
Drawing No: 5941 ENG BE3 152	Revision C



SECTION 5
SCALE:
I: 250 HORIZ.
I: 125 VERT.



SECTION 6
SCALE:
I: 250 HORIZ.
I: 125 VERT.

Rev	Date	Description	DRN	CHK
D	20/09/23	LOT NUMBER UPDATED	JH	MG
C	05/07/23	SECTIONS UPDATED	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG

DIMENSIONS IN METRES EXCEPT WHERE
SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES
A1 UNREDUCED
A3 REDUCED

Scale:
0 2.5 5.0 7.5 10 12.5m 1:250 (A1) 1:500 (A3)
0 1.25 2.5 3.75 5.0 6.25m 1:125 (A1) 1:250 (A3)

PROJECT NORTH POINT

Project No. 5941	
Designed: JH	Drafted: JH
Approved:	MG
RPEQ	16939
Signed:	
Date:	05/05/2023
Drawing No: 5941 ENG BE3 153	Revision D

Client:



FPI QUEENSLAND PTY LTD

Project:

VANTAGE YATALA
STAGE 3

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAYPLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329845
Local Authority: CITY OF GOLD COAST
Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

OPERATIONAL PHASE
BIORETENTION BASIN 1
LAYOUT PLAN

C	05/07/23	LAYOUT UPDATED	JH	MG	
B	24/05/23	ISSUED FOR TENDER	JH	MG	
A	05/05/23	ORIGINAL ISSUE	JH	MG	
Rev	Date	Description	DRN	CHK	

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES
A1 UNREDUCED
A3 REDUCED

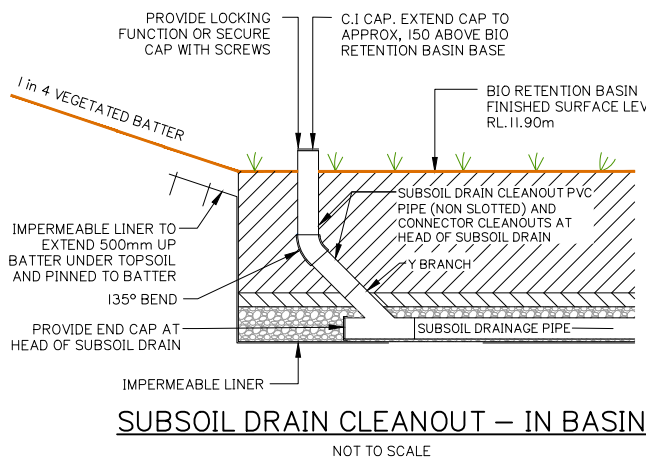
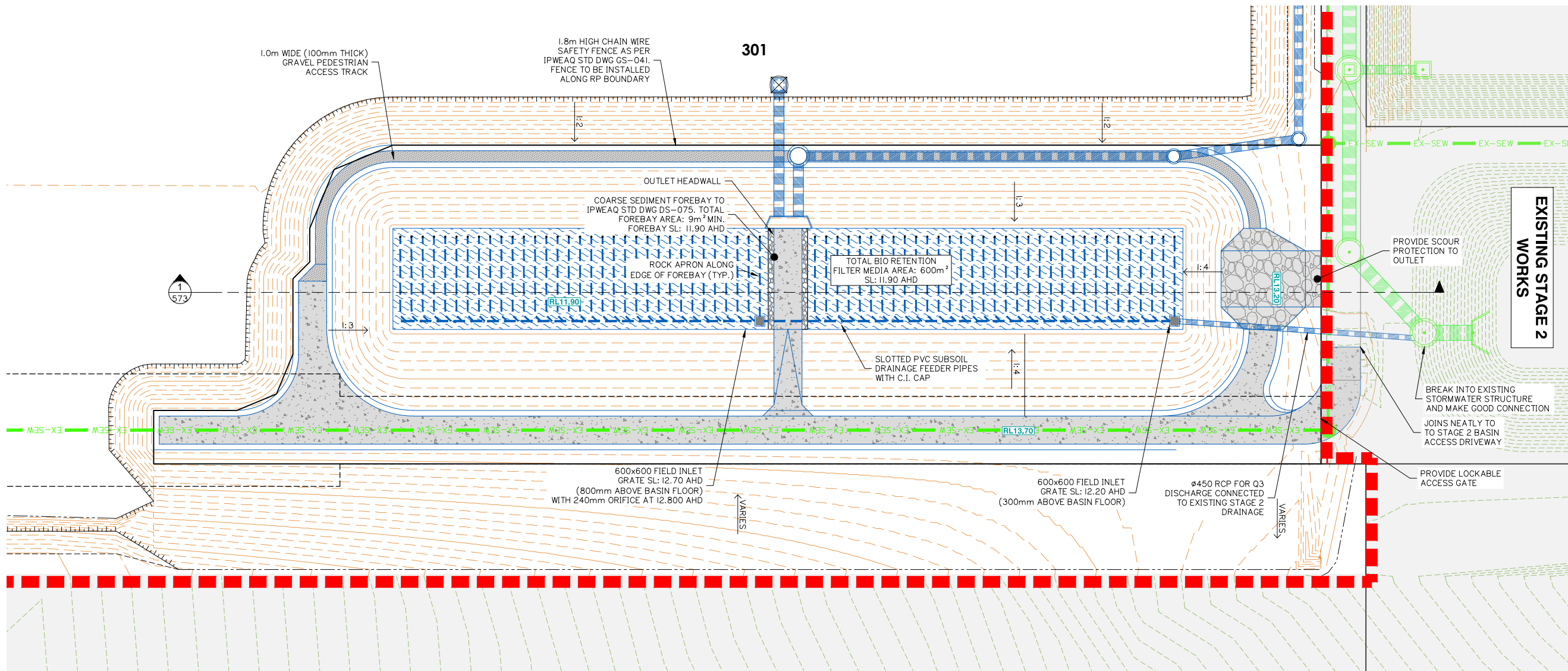
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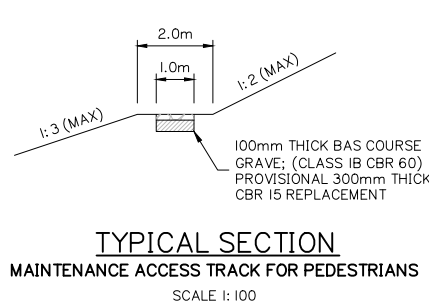
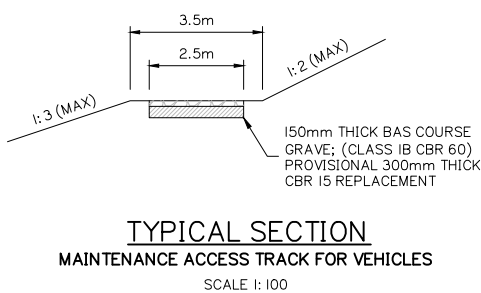
PROJECT NORTH POINT



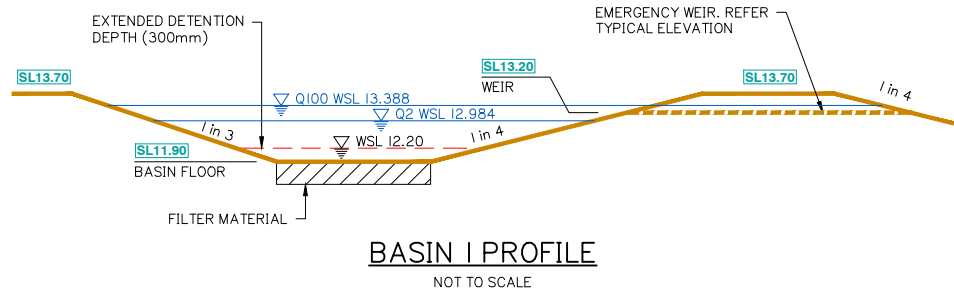
Project No:	5941	Revision	
Designed:	JH	Drafted:	JH
Approved:			MG
RPEQ			16939
Signed:			
Date:			05/05/2023
Drawing No:	5941 ENG BE3 570		



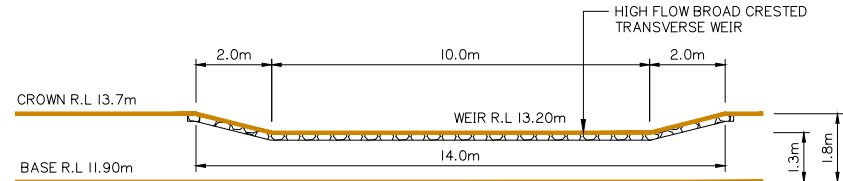
SUBSOIL DRAIN CLEANOUT – IN BASIN
NOT TO SCALE



EVENT (ARI)	LEVEL (AHD)
Q1	12.871
Q2	12.984
Q5	13.099
Q10	13.148
Q20	13.260
Q50	13.341
Q100	13.388



BASIN I PROFILE
NOT TO SCALE



BASIN I EMERGENCY WEIR ELEVATION
SCALE 1: 100

NOTE:
1. FOR GENERAL DRAWING LEGENDS, REFER TO SHEET 004
2. FOR GENERAL NOTES, REFER TO SHEETS 002 AND 003

OPERATIONAL PHASE BIORETENTION BASIN I LAYOUT PLAN

Client:



FPI QUEENSLAND PTY LTD

Project:

VANTAGE YATALA
STAGE 3

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAYPLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329845
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

OPERATIONAL PHASE
BIORETENTION BASIN 2
LAYOUT PLAN

Rev	Date	Description	JH	MG
C	05/07/23	LAYOUT UPDATED	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	JH	MG

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

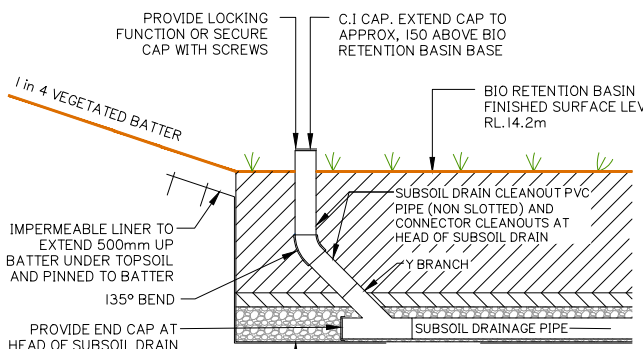
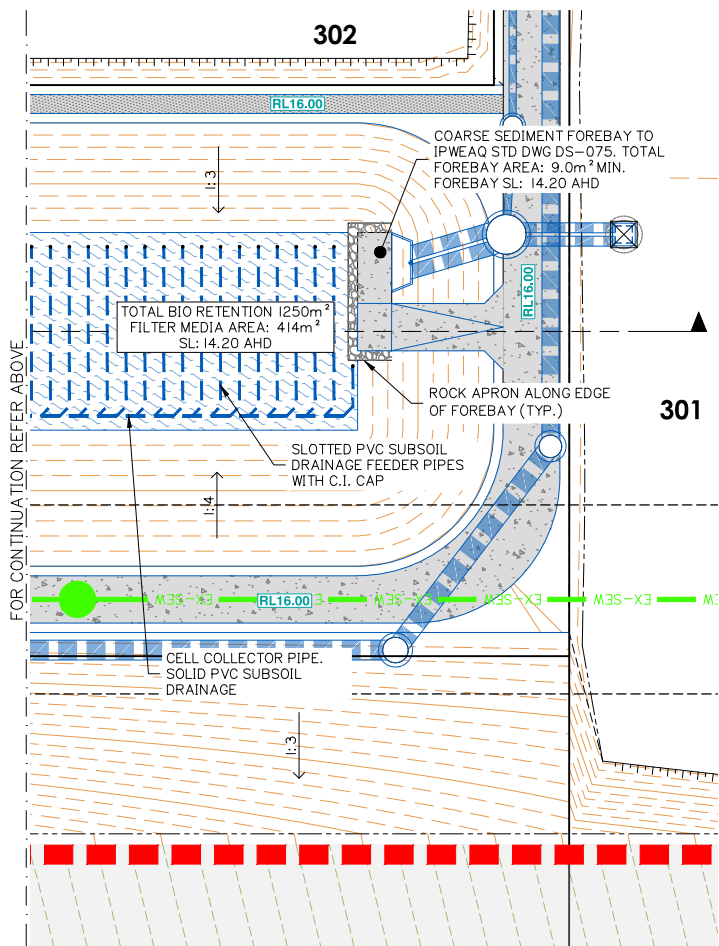
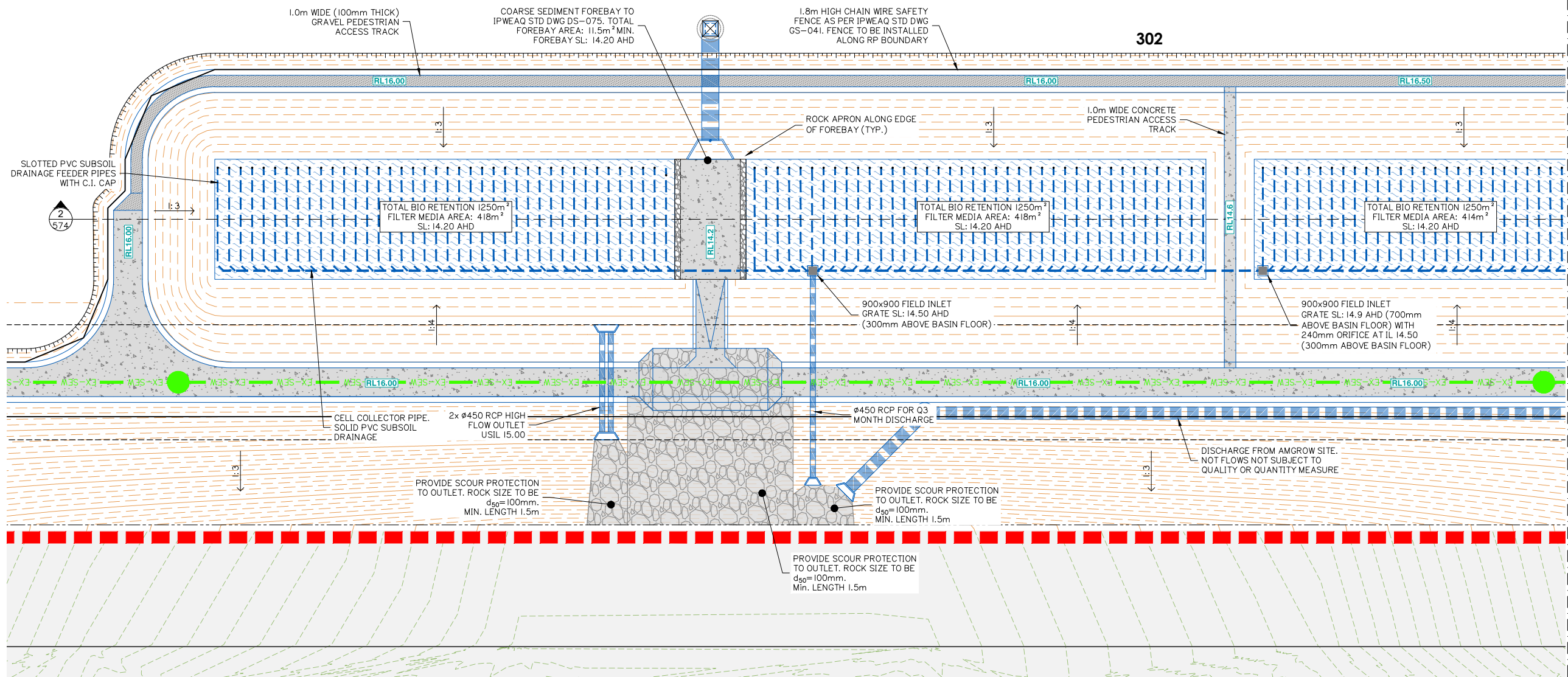
A1 UNREDUCED
A3 REDUCED

Scale:
0 2 4 6 8 10m
1:200 (A1) 1:400 (A3)

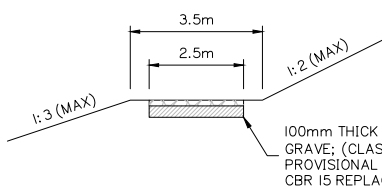
PROJECT NORTH POINT



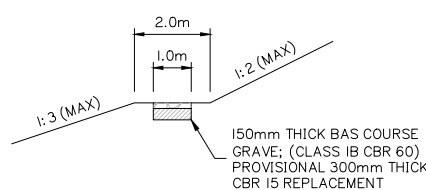
Project No. 5941	
Designed: JH	Drafted: JH
Approved:	MG
RPEQ	16939
Signed:	
Date:	05/05/2023
Drawing No. 5941 ENG BE3 571	Revision C



SUBSOIL DRAIN CLEANOUT - IN BASIN
NOT TO SCALE

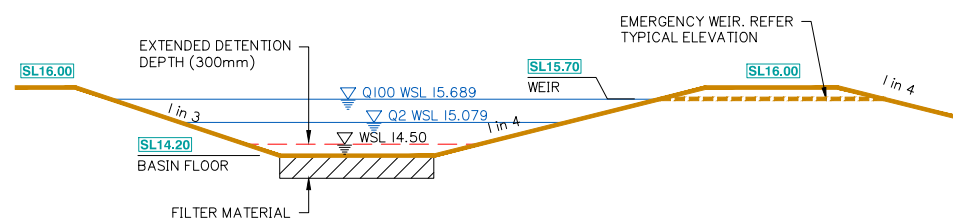


TYPICAL SECTION
MAINTENANCE ACCESS TRACK FOR VEHICLES
SCALE 1:100

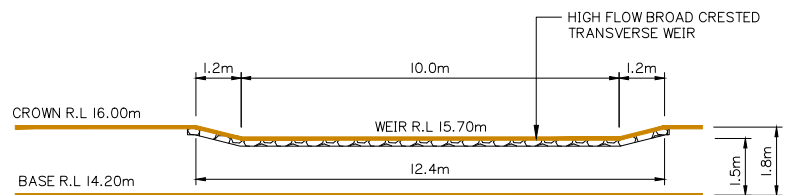


TYPICAL SECTION
MAINTENANCE ACCESS TRACK FOR PEDESTRIANS
SCALE 1:100

OPERATIONAL PHASE BIORETENTION BASIN 2 LAYOUT PLAN



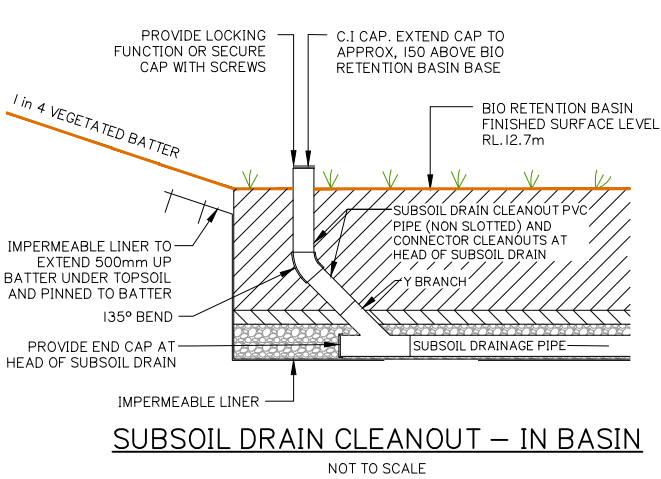
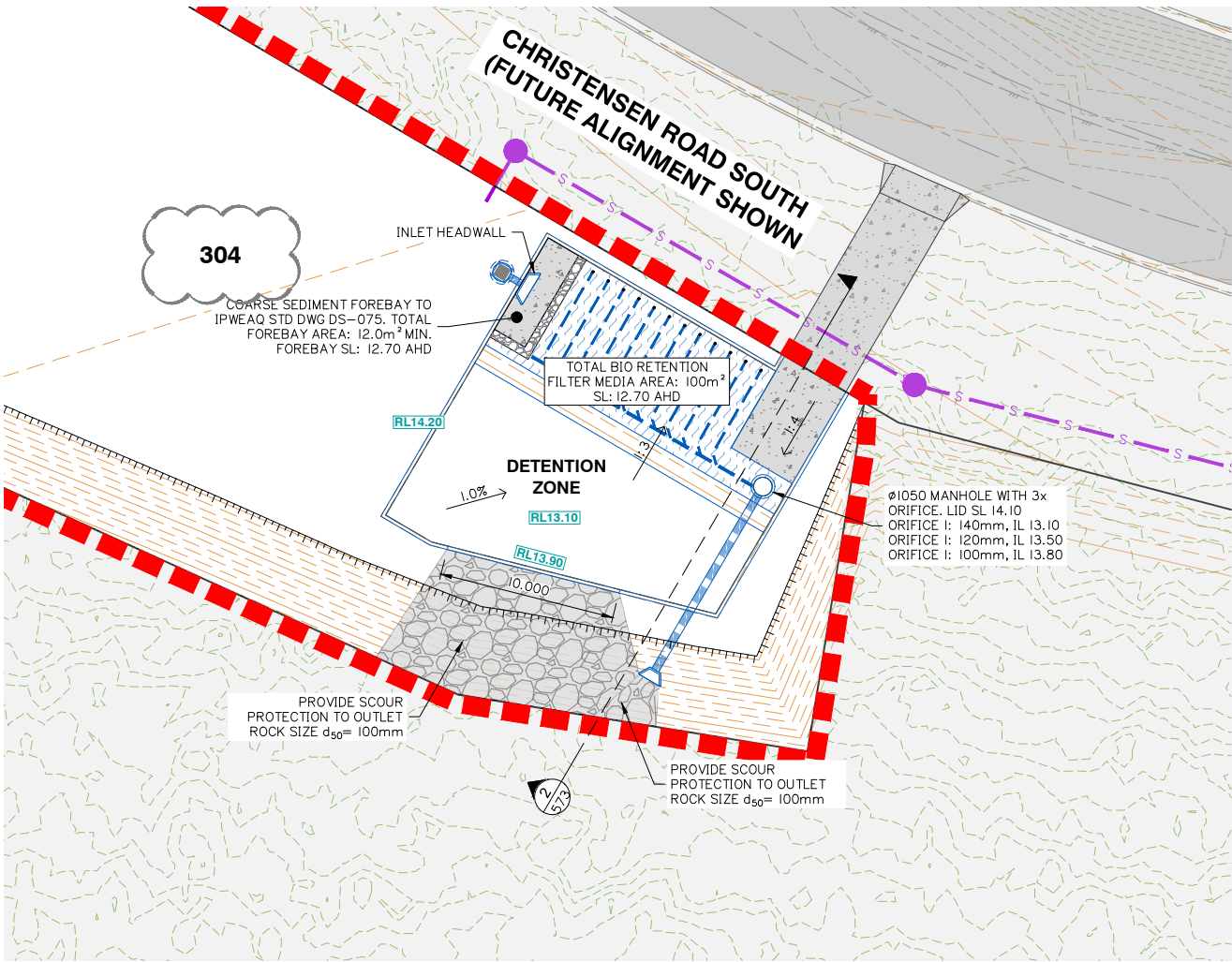
BASIN 2 PROFILE
NOT TO SCALE



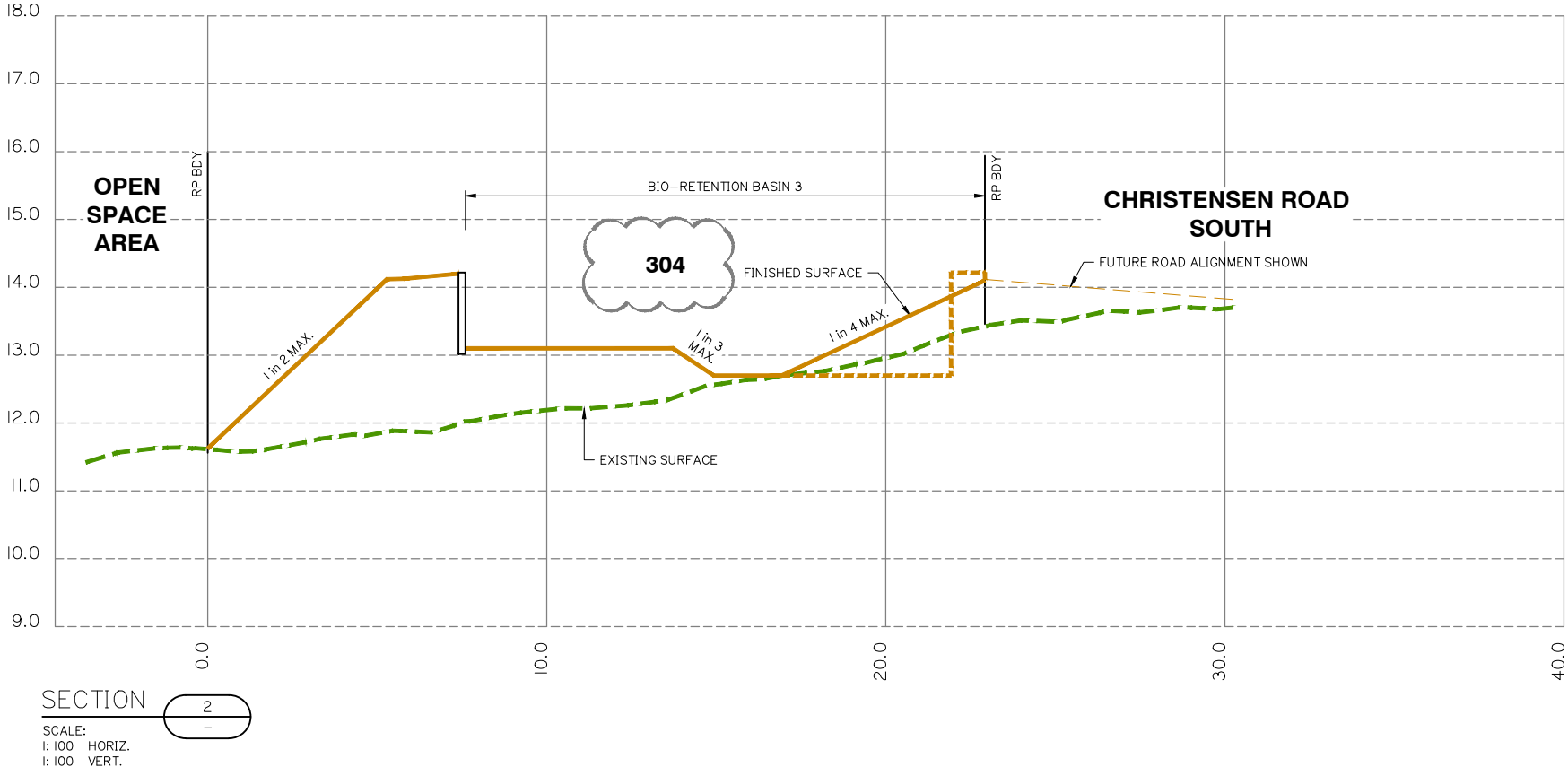
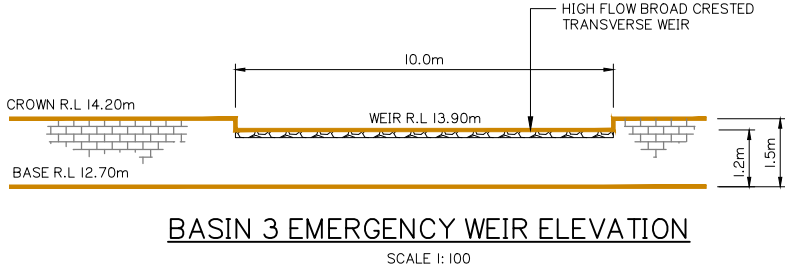
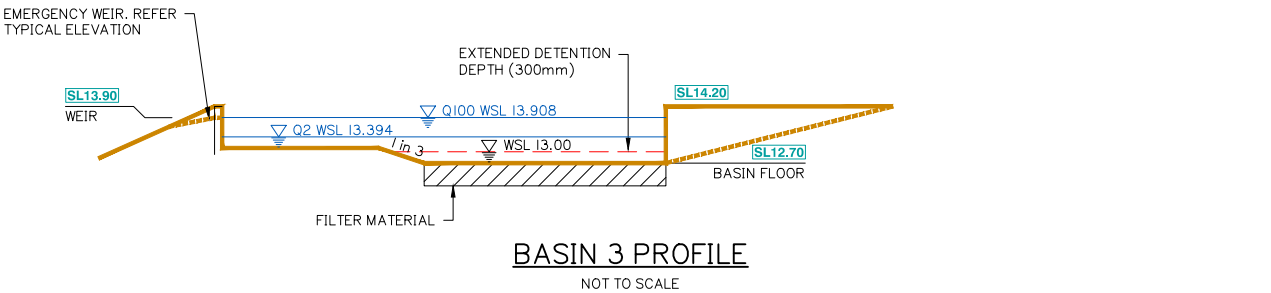
BASIN 2 EMERGENCY WEIR ELEVATION
SCALE 1:100

WATER SURFACE LEVEL TABLE

EVENT (ARI)	LEVEL (AHD)
Q1	14.932
Q2	15.079
Q5	15.225
Q10	15.333
Q20	15.440
Q50	15.580
Q100	15.689



NOTE:
1. FOR GENERAL DRAWING LEGENDS, REFER TO SHEET 004
2. FOR GENERAL NOTES, REFER TO SHEETS 002 AND 003



WATER SURFACE LEVEL TABLE

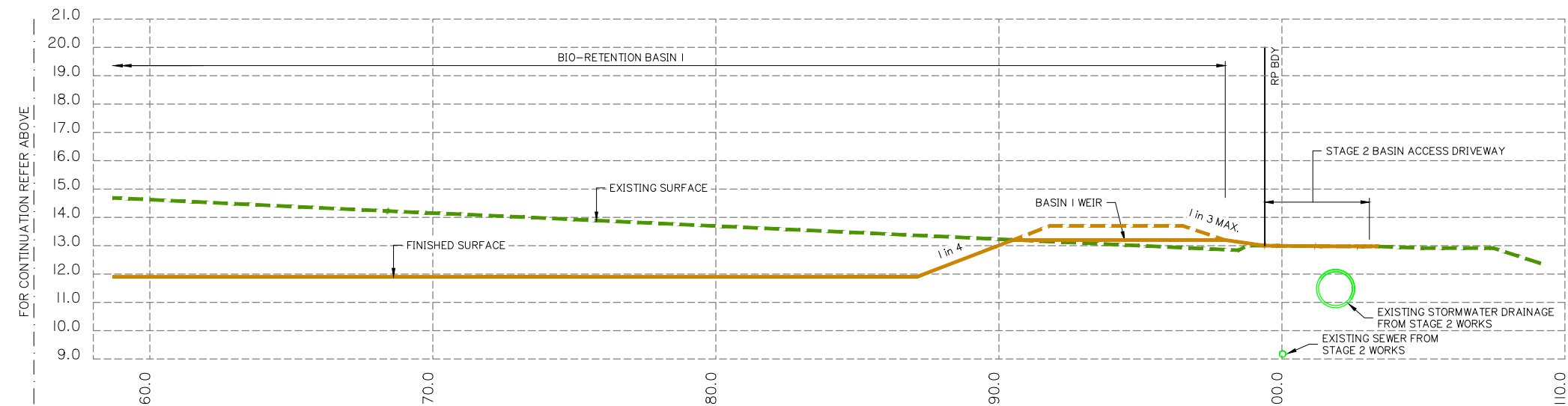
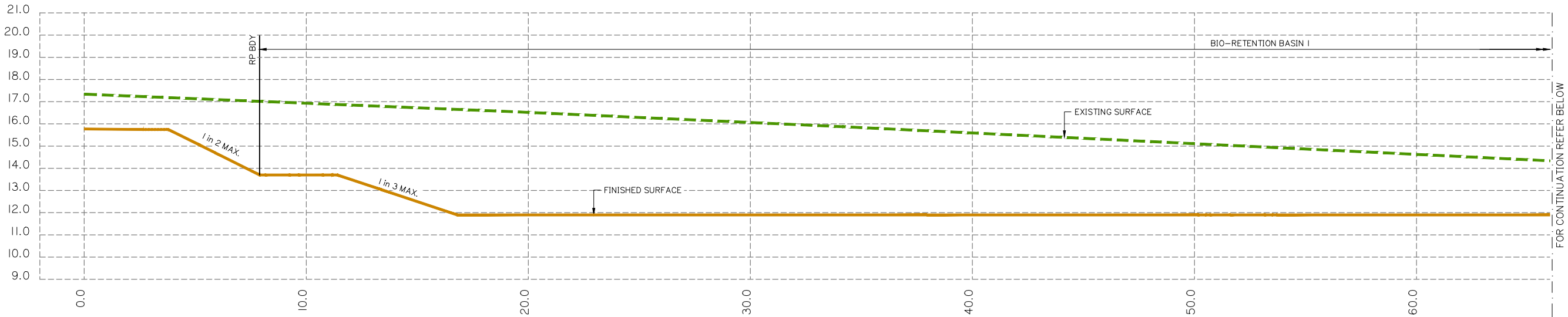
EVENT (ARI)	LEVEL (AHD)
Q1	13.296
Q2	13.394
Q5	13.521
Q10	13.625
Q20	13.731
Q50	13.837
Q100	13.908

D	20/09/23	LOT NUMBER UPDATED	JH MG
C	05/07/23	LAYOUT UPDATED	JH MG
B	24/05/23	ISSUED FOR TENDER	JH MG
A	05/05/23	ORIGINAL ISSUE	JH MG
Rev	Date	Description	DRN CHK

Scale:
0 2 4 6 8 10m 1:200 (A1) 1:400 (A3)

Project No. 5941	
Designed: JH	Drafted: JH
Approved:	MG
RPEQ	16939
Signed:	
Date:	05/05/2023
Drawing No. 5941 ENG BE3 572	Revision D

OPERATIONAL PHASE BIORETENTION BASIN 3 LAYOUT PLAN



SECTION 1
SCALE:
1: 100 HORIZ.
1: 100 VERT.

Client:



FPI QUEENSLAND PTY LTD

Project:

VANTAGE YATALA
STAGE 3

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAYPLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329845
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

ISSUED FOR APPROVAL

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GENERAL NOTES.

Drawing Title:

OPERATIONAL PHASE
BIORETENTION BASIN
SECTIONS SHEET 1 OF 2

C	05/07/23	SECTIONS UPDATED	JH	MG
B	24/05/23	ISSUED FOR TENDER	JH	MG
A	05/05/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES
A1 UNREDUCED
A3 REDUCED

Scale:

0 1 2 3 4 5m 1:100 (A1) 1:200 (A3)

0 1 2 3 4 5m 1:100 (A1) 1:200 (A3)

PROJECT NORTH POINT



Project No. 5941

Designed: JH

Drafted: JH

Approved:

MG

RPEQ

16939

Signed:

Date:

05/05/2023

Drawing No:

5941 ENG BE3 573

Revision

C

Client:



FPI QUEENSLAND PTY LTD

Project:

VANTAGE YATALA
STAGE 3

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAYPLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329845
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

ISSUED FOR APPROVAL

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GENERAL NOTES.

Drawing Title:

OPERATIONAL PHASE
BIORETENTION BASIN
SECTIONS SHEET 2 OF 2

C	05/07/23	SECTIONS UPDATED	JH	MG	
B	24/05/23	ISSUED FOR TENDER	JH	MG	
A	05/05/23	ORIGINAL ISSUE	JH	MG	
Rev	Date	Description	DRN	CHK	

DIMENSIONS IN METRES EXCEPT WHERE
SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED
A3 REDUCED

Scale:

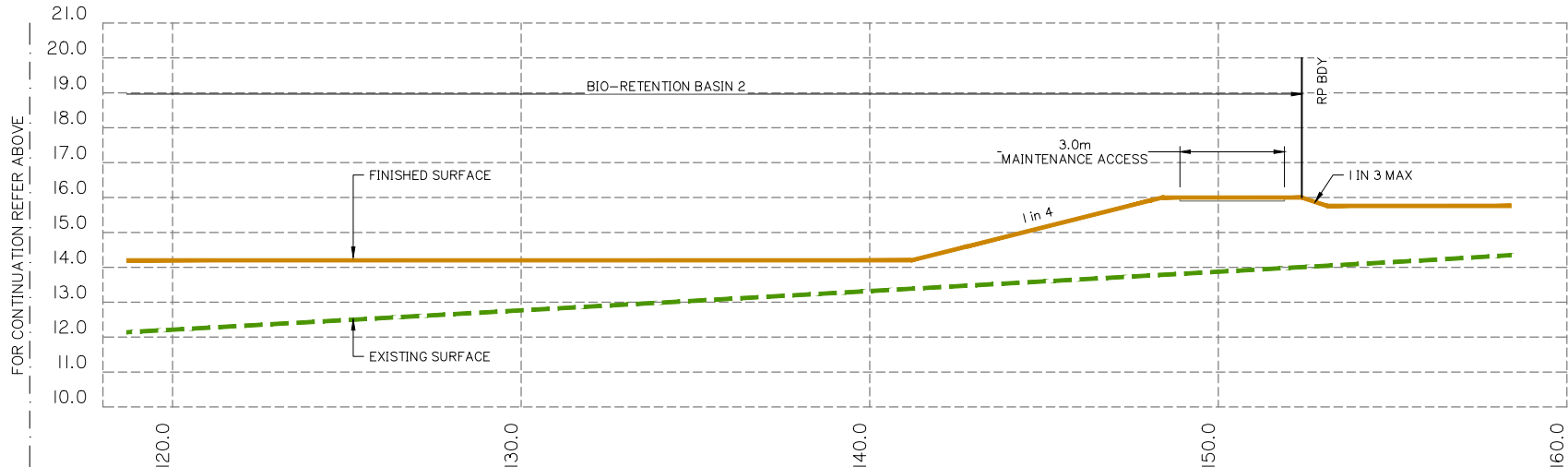
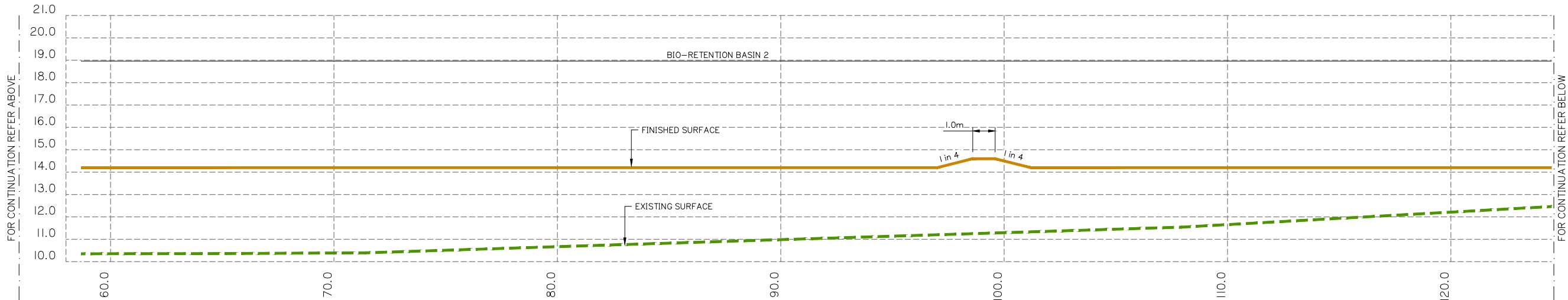
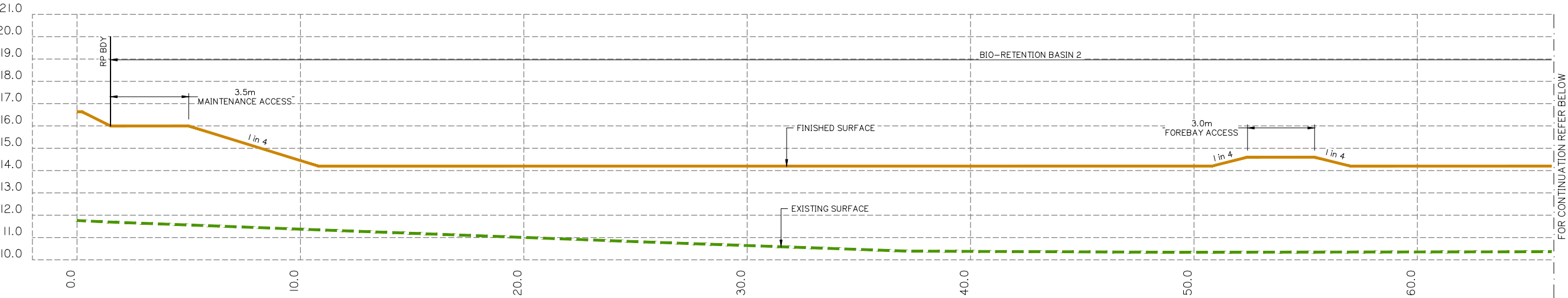
0 1 2 3 4 5m 1:100 (A1) 1:200 (A3)

0 1 2 3 4 5m 1:100 (A1) 1:200 (A3)

PROJECT NORTH POINT



Project No:	5941	
Designed:	JH	Drafted: JH
Approved:		MG
RPEQ		16939
Signed:		
Date:		05/05/2023
Drawing No:	5941 ENG BE3 574	Revision C



SECTION 2
SCALE:
1: 100 HORIZ.
1: 100 VERT.