B.1.4 Operational Works Drawings (Bulk Earthworks)

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KALFRESH PTY LTD

SCENIC RIM
AGRICULTURAL INDUSTRIAL PRECINCT

DATE PLOTTED: 22 February 2023 1:21 PM BY : PAULO ZOTTIS
CAD File: \\ausfcfs02\data\5103-57\008 - DETAILED BULK EARTHWORKS\Drawings\510357-008-CI-1000.dwg

510357-008-CI-1000
Drawing Number

C
Revision

SCHEDULE OF DRAWINGS

DRAWING No.	DESCRIPTION
GENERAL	
510357-008-CI-1000	COVER SHEET
510357-008-CI-1001	DRAWING SCHEDULE AND LOCALITY PLAN
510357-008-CI-1002	GENERAL NOTES AND TYPICAL SECTIONS
510357-008-CI-1003	EXISTING FEATURES PLAN
EROSION AND SEDIMENT CONTROL	
510357-008-CI-1020	EROSION AND SEDIMENT CONTROL LEGEND AND NOTES
510357-008-CI-1021	EROSION AND SEDIMENT CONTROL CONSTRUCTION SEQUENCE
510357-008-CI-1022	EROSION AND SEDIMENT CONTROL CONCEPT DEVICE DETAILS
510357-008-CI-1023	EROSION AND SEDIMENT CONTROL CONCEPT LAYOUT PLAN
EARTHWORKS	
510357-008-CI-1030	BULK EARTHWORKS OVERALL LAYOUT PLAN
510357-008-CI-1031	CUT AND FILL PLAN SHEET 1
510357-008-CI-1032	CUT AND FILL PLAN SHEET 2
510357-008-CI-1033	CUT AND FILL PLAN SHEET 3
510357-008-CI-1034	CUT AND FILL PLAN SHEET 4
510357-008-CI-1035	BULK EARTHWORKS SETOUT TABLES
510357-008-CI-1036	BULK EARTHWORKS SITE SECTIONS SHEET 1
510357-008-CI-1037	BULK EARTHWORKS SITE SECTIONS SHEET 2
SITEWORKS	
510357-008-CI-1110	CONTROL LINE SETOUT PLAN
510357-008-CI-1130	MC01 LONGITUDINAL SECTION
510357-008-CI-1131	MC02 LONGITUDINAL SECTION SHEET 1
510357-008-CI-1132	MC02 LONGITUDINAL SECTION SHEET 2
510357-008-CI-1133	TD01 LONGITUDINAL SECTION SHEET 1
510357-008-CI-1134	TD01 LONGITUDINAL SECTION SHEET 2
510357-008-CI-1135	TD01 LONGITUDINAL SECTION SHEET 3
STORMWATER DRAINAGE	
510357-008-CI-1301	WEIR CULVERT PLAN AND DETAILS
510357-008-CI-1302	BUND CULVERT PLAN AND DETAILS

NORTH

LOCALITY PLAN
NOT TO SCALE

Rev.	Date	Description	Des.	Verif.	Appd.
C	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
B	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

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Designed	M.D.	Date 20/01/2020
Verified	J.O.S.	Date 20/02/2020
Approved	RPEQ. 19706	Date 22/02/2023

Client: KALFRESH PTY LTD

Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT

Title: DRAWING SCHEDULE AND LOCALITY PLAN

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number: 510357-008-CI-1001

Revision: C

GENERAL NOTES:

G.1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCIES OR OMISSIONS SHALL BE IMMEDIATELY REFERRED TO THE SUPERINTENDENT FOR RESOLUTION.

G.2. CONSTRUCTION FROM THESE DRAWINGS AND ASSOCIATED CONSULTANTS' DRAWINGS SHALL NOT COMMENCE UNTIL APPROVED BY THE DEPARTMENT OF INFRASTRUCTURE, LOCAL GOVERNMENT AND PLANNING (DILGP), ALL RELEVANT PROTECTED SPECIES, HERITAGE AND ENVIRONMENTAL MONITORING IS ESTABLISHED AND ALL RELEVANT CLEARING PERMITS ARE IN PLACE.

G.3. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT AUSTRALIAN STANDARDS, IPWEA, WSAA, NATSPEC/AUS-SPEC, THE BUILDING CODE OF AUSTRALIA AND WITH THE POLICIES, BY-LAWS, CODES AND SPECIFICATIONS OF THE RELEVANT LOCAL AUTHORITIES.

G.4. WHERE PROVIDED, THE ACCOMPANYING BILLS OF QUANTITIES SHALL ONLY SERVE AS A SUPPLEMENT FOR PRICING PURPOSES. THE CONTRACTOR SHALL ALLOW FOR ALL WORKS REQUIRED TO COMPLY WITH THE DRAWINGS. THIS INCLUDES ANY TEMPORARY, INTERMEDIATE OR PROTECTIVE WORKS REQUIRED TO FACILITATE FINAL CONSTRUCTION.

G.5. SERVICES SHOWN ON THESE PLANS ARE ONLY THOSE EVIDENT AT THE TIME OF SURVEY, FROM AS CONSTRUCTED SURVEY AND FROM 'DIAL BEFORE YOU DIG' SEARCHES. THERE MAY BE ADDITIONAL SERVICES WHICH ARE NOT SHOWN ON THESE DRAWINGS.

G.6. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE RELEVANT SERVICE UTILITY PROVIDERS TO CONFIRM THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS.

G.7. ANY DAMAGE TO SERVICES SHALL BE REPAIRED BY THE CONTRACTOR OR THE RELEVANT AUTHORITY AT THE CONTRACTOR'S EXPENSE.

G.8. THIS PROJECT HAS BEEN DESIGNED ON MAP GRID OF AUSTRALIA AS SUPPLIED BY RPS.

G.9. ALL SETOUT DATA TO BE SUPPLIED ELECTRONICALLY.

EARTHWORKS NOTES:

EW.1. EARTHWORKS SHALL BE IN ACCORDANCE WITH JOB SPECIFICATIONS (INCLUDING MRTS SPECIFICATIONS) AND AS 3798-2007 ('GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS').

EW.2. FILL SHALL BE PLACED AND COMPACTED TO THE FOLLOWING STANDARDS:

(I) COHESIVE MATERIALS:- ALLOTMENT FILL SHALL ACHIEVE A MINIMUM DRY DENSITY RATIO (M.D.D.R.) OF 95% STANDARD. COMMERCIAL ALLOTMENT FILL SHALL ACHIEVE A 98% STANDARD. DENSITY RATIO (M.D.D.R.)

ROAD EMBANKMENTS SHALL ACHIEVE THE FOLLOWING MINIMUM STANDARDS.

(A) GREATER THAN OR EQUAL TO 0.3m BELOW PAVEMENT SUBGRADE: 95% STD. M.D.D.R.

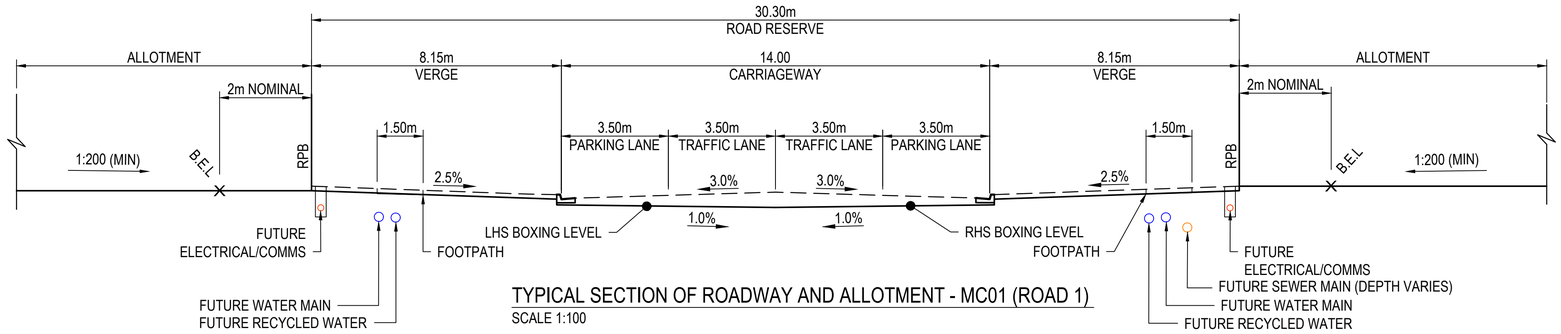
(B) LESS THAN 0.3m BELOW PAVEMENT SUBGRADE: 100% STD. M.D.D.R.

(II) NON COHESIVE MATERIALS:- FILL SHALL ACHIEVE A MINIMUM DENSITY INDEX RATIO OF 75%.

EW.3. GEOTECHNICAL CERTIFICATION SHALL BE 'LEVEL 1' AS PER AS.3798.

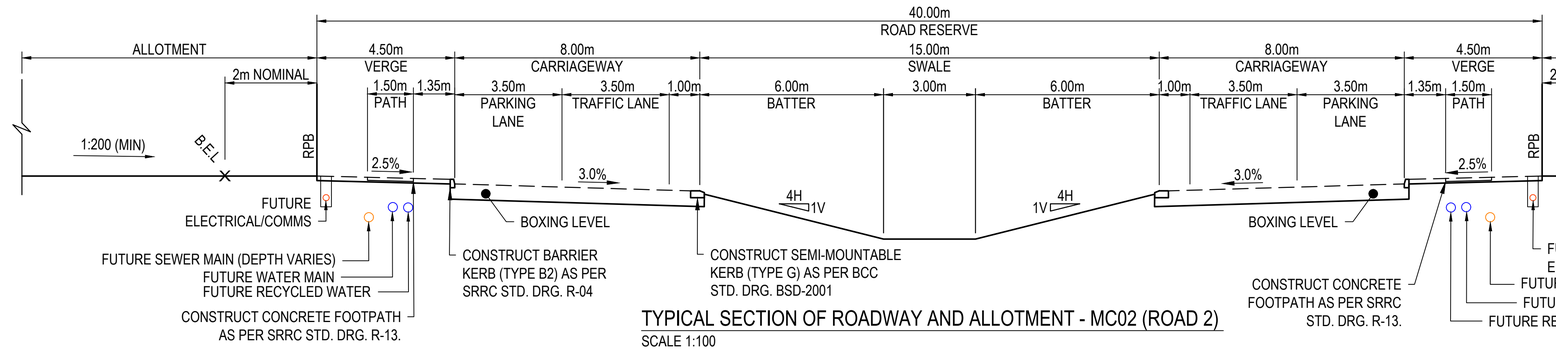
EW.4. EXCESS SPOIL TO BE TRANSPORTED TO A LOCATION CONFIRMED BY SUPERINTENDENT.

EW.5. PRELIMINARY INVESTIGATION INTO ROAD CORRIDORS. TEST PIT EXCAVATION WITHIN NEW ROAD CARRIAGEWAYS SHALL BE UNDERTAKEN TO INVESTIGATE SUBGRADE MATERIALS, PRIOR TO IMPORT OF ANY FILL TO IDENTIFY. OPPORTUNITY TO EXCAVATE AND REPLACE POOR SUBGRADE WITH IMPORTED MATERIAL AND USE EXCAVATED MATERIAL AS FILL ON ALLOTMENTS.



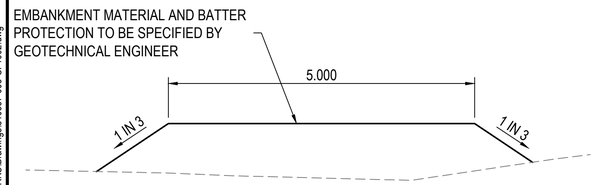
TYPICAL SECTION OF ROADWAY AND ALLOTMENT - MC01 (ROAD 1)

SCALE 1:100



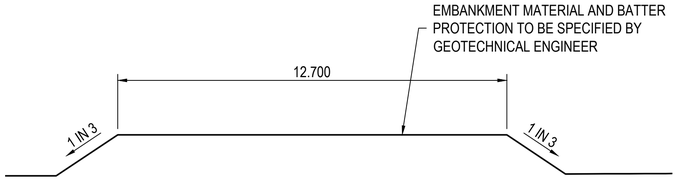
TYPICAL SECTION OF ROADWAY AND ALLOTMENT - MC02 (ROAD 2)

SCALE 1:100



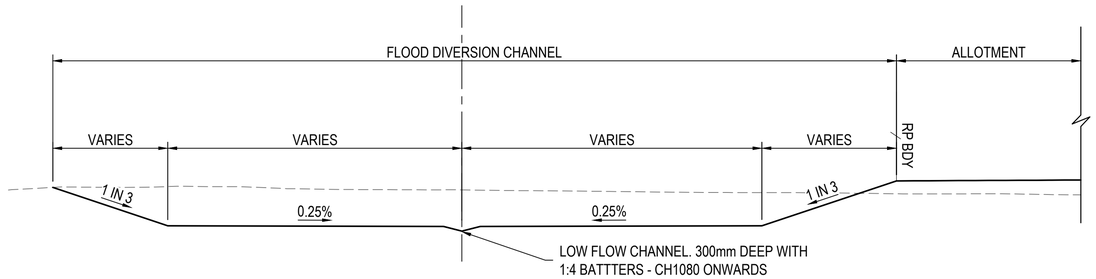
TYPICAL SECTION OF BUND

NOT TO SCALE



TYPICAL SECTION OF WEIR

NOT TO SCALE



TYPICAL SECTION OF FLOOD DIVERSION CHANNEL

NOT TO SCALE

Rev.	Date	Description	Des.	Verif.	Appd.
D	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
C	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
B	14/04/2020	FISH MITIGATION MEASURES ADDED	B.J.F.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

0 1 2 4 6 8 10m

SCALE 1:100 @A1

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Verified	J.O.S.	Date 20/02/2020
Approved	RPEQ. 19706	Date 22/02/2023

Client: KALFRESH PTY LTD

Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT

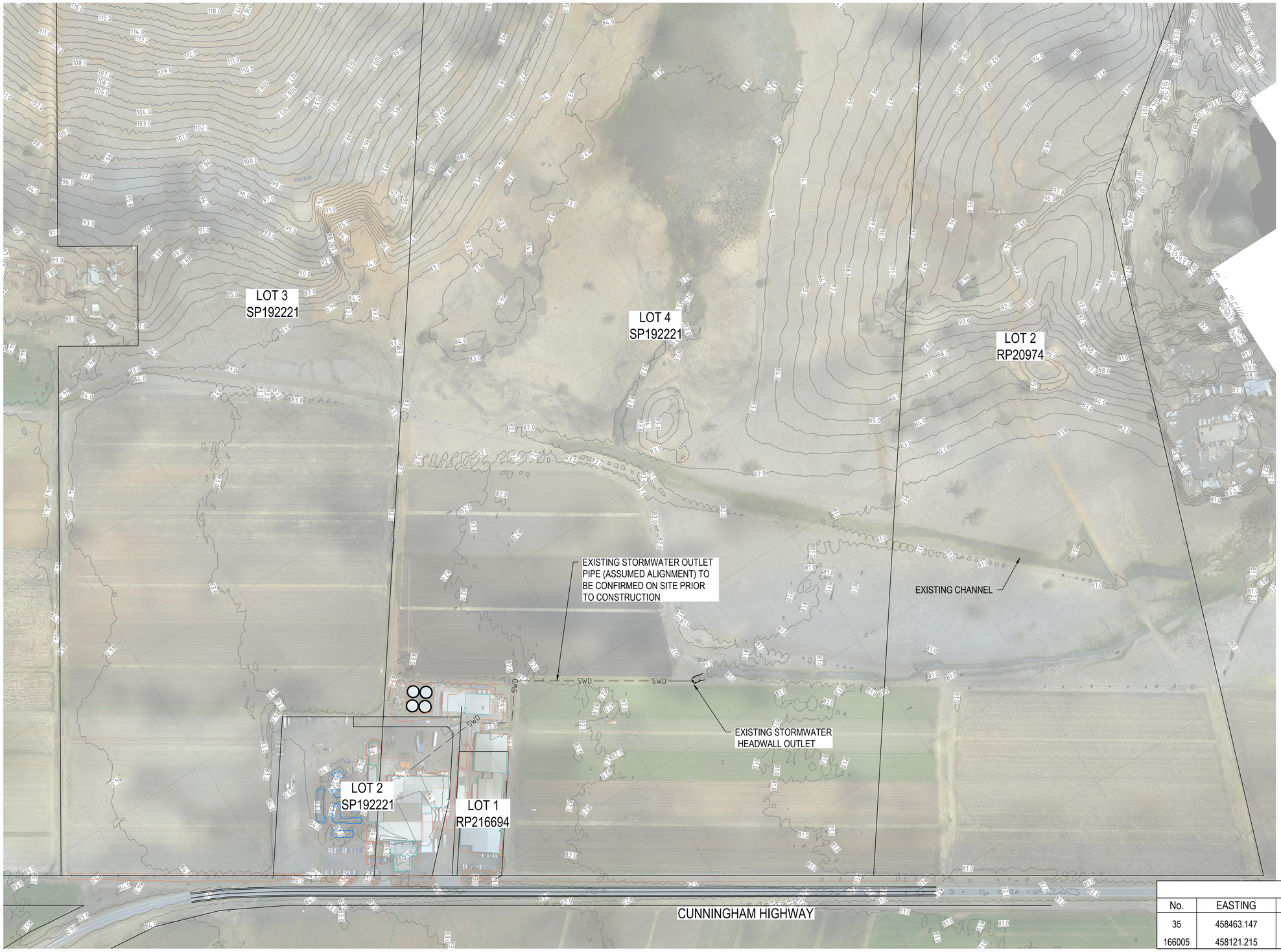
Title: GENERAL NOTES AND TYPICAL SECTIONS

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number: 510357-008-CI-1002

Revision: D



EXISTING FEATURES
SCALE 1:2000

LEGEND

PROPERTY BOUNDARY

82.0 EXISTING CONTOURS (1m)

WARNING

BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM GIS DATA OR KNOWN POSITIONS OF VALVES, MANHOLES ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK

BENCHMARK TABLE

No.	EASTING	NORTHING	LEVEL	DESCRIPTION
35	458463.147	6907403.028	86.999	SOUTH-WEST OF SITE ALONG CUNNINGHAM HIGHWAY
166005	458121.215	6907500.599	84.958	PSM - SOUTH OF SITE

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0 50 100 150 200m
SCALE 1:2000 @A1

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Approved	RPEQ. 19706	Date 22/02/2023

Client: KALFRESH PTY LTD
Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINT
Title: EXISTING FEATURES PLAN
Status: FOR APPROVAL — NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number: 510357-008-CI-1003
Revision: C

EROSION, SEDIMENT AND DRAINAGE CONTROL GENERAL NOTES

1. THE EROSION AND SEDIMENT CONTROL MEASURES IMPLEMENTED ON SITE SHOULD BE INSTALLED AND UTILISED IN ACCORDANCE WITH THE INTERNATIONAL EROSION CONTROL ASSOCIATION (IECA) AUSTRALASIA *'BEST PRACTICE EROSION AND SEDIMENT CONTROL (NOVEMBER 2008)'* GUIDELINES, WITH DETAILS SHOWN ON THE STANDARD DRAWINGS NOTED, AND AS REQUIRED FOR COMPLIANCE WITH THE REQUIREMENTS OF THE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN.
2. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THESE PLANS HAVE BEEN BASED ON A CONSTRUCTION PERIOD OF UP TO 12 MONTHS. SHOULD THE CONSTRUCTION PERIOD EXTEND BEYOND 12 MONTHS THEN THE CONTROL MEASURES PROVIDED SHOULD BE REVIEWED TO CONFIRM IF THE DEVICES REMAIN ADEQUATE.
3. THE CONTROL MEASURES NOTED IN THIS PLAN REPRESENT THE MINIMUM ANTICIPATED STANDARDS OF EROSION AND SEDIMENT CONTROL FOR THE CONSTRUCTION PHASE. ALL MEASURES ARE TO BE SUPPLEMENTED WITH MONITORING AND MAINTENANCE ON SITE. ADDITIONAL CONTROLS OR MODIFICATIONS TO WORK PRACTICES MAY BE REQUIRED TO SUIT THE SITE CONDITIONS OR CONSTRUCTION SEQUENCING AS IDENTIFIED THROUGH ON-SITE MONITORING.
4. SHOULD IT BE DEEMED NECESSARY FROM MONITORING OR WHERE DIRECTED BY THE SUPERINTENDENT, THE CONTRACTOR SHALL INSTALL ADDITIONAL MEASURES TO MINIMISE THE IMPACT OF CONSTRUCTION ACTIVITIES ON THE SURROUNDING ENVIRONMENT.
5. PUBLIC AND WORKPLACE SAFETY ISSUES MUST BE CONSIDERED AND MONITORED FOR EACH DEVICE TO THE SATISFACTION OF LOCAL AUTHORITIES AND INDUSTRY STANDARDS.
6. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING EROSION AND SEDIMENT CONTROL DEVICES TO ACCOMMODATE EARTHWORKS AS REQUIRED. THE LOCATION OF THE EROSION AND SEDIMENT CONTROL DEVICES SHOWN ARE INDICATIVE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SPECIFICALLY LOCATE THE CONTROL DEVICES, AND MINIMISE SEDIMENT TRANSPORT DOWNSTREAM DURING ALL STAGES OF CONSTRUCTION, INCLUDING THE MAINTENANCE PERIOD. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE INTENTS OF THESE PLANS AND ANY CONSENT AUTHORITY COMPLIANCE RECOMMENDATIONS ARE COMPLIED WITH.
7. WHERE PRACTICAL ALL AREAS OF THE SITE NOT SUBJECT TO EROSION, CONTAMINATION OR DISTURBANCE MUST HAVE PROVISION FOR ALL RUN-OFF TO BE DIVERTED AWAY FROM THE NOMINATED EROSION AND SEDIMENT CONTROL MEASURES AND FACILITIES, IN A MANNER, WHICH DOES NOT CAUSE SCOURING, OR EROSION.
8. WHERE INDICATED CONTAMINATED RUN-OFF MUST BE DIRECTED TOWARDS A TEMPORARY SEDIMENT CONTROL DEVICE DURING BOTH THE BULK EARTHWORKS PHASE AND CIVIL WORKS PHASE UNTIL 80% OF THE CONTRIBUTING SITE IS ADEQUATELY STABILISED.
9. ALL EROSION AND SEDIMENT CONTROL MEASURES INSTALLED DURING BULK EARTHWORKS ARE TO BE MAINTAINED IN EFFECTIVE OPERATIONAL CONDITION UNTIL THE SITE IS ADEQUATELY STABILISED. THIS INCLUDES MONITORING, REPAIRS AND CLEANING OUT AT REGULAR INTERVALS, AFTER STORM EVENTS, DISTURBANCE BY CONSTRUCTION AND AS DIRECTED BY SUPERINTENDENT ON SITE. THESE STRUCTURES MUST NOT BE ALLOWED TO ACCUMULATE SEDIMENT VOLUMES IN EXCESS OF FORTY PER CENT (40%) SEDIMENT STORAGE DESIGN CAPACITY. WHERE SEDIMENT BASINS ARE USED A MARKER SHALL BE PLACED WITHIN THE BASIN TO SHOW THE LEVEL ABOVE WHICH THE SEDIMENT STORAGE DESIGN CAPACITY OCCURS. MATERIALS REMOVED FROM SEDIMENT RETENTION DEVICES MUST BE DISPOSED OF IN A MANNER APPROVED BY THE CONSENT AUTHORITY THAT DOES NOT CAUSE POLLUTION.
10. WHERE WATER STORAGE IS PROPOSED FOR CONSTRUCTION PURPOSES, IT SHOULD BE PROVIDED OVER AND ABOVE THE MINIMUM NOTED SEDIMENT BASIN SETTLING ZONE AND STORAGE ZONE VOLUMES. WATER LEVELS SHOULD NOT EXTEND INTO THE SETTLING ZONE VOLUME TO ALLOW FOR THIS VOLUME TO BE AVAILABLE FOR THE NEXT RAINFALL EVENT.
11. ACCESS TO THE SITE MUST BE RESTRICTED TO THE NOMINATED STABILISED CONSTRUCTION ENTRANCE / EXITS. ROCK PAD ACCESS POINTS SHALL BE PROVIDED TO HELP SHAKE MUD FROM VEHICLE TYRES. THE NUMBER OF CONSTRUCTION ACCESS POINTS TO BE LIMITED. ADDITIONAL MEASURES TO BE PROVIDED IF EVIDENCE OF SEDIMENT BEING TRANSPORTED ONTO ROADWAYS.
12. ANY DIRT / MATERIALS SPILT OR TRACKED ONTO TMR, COUNCIL OR OTHER EXTERNAL ROADS IS TO BE BROOMED UP AND COLLECTED - NOT WASHED INTO STORMWATER DRAINS OR WATERWAYS.
13. THE CONTRACTOR SHALL ENSURE THE STABILISED SITE ACCESS IS MAINTAINED AND CLEANED OUT REGULARLY AND AS DIRECTED BY THE SUPERINTENDENT ON SITE.
14. RUNOFF RETAINED WITHIN THE SEDIMENT BASINS IS NOT TO BE RELEASED TO THE RECEIVING ENVIRONMENT UNTIL THE SUSPENDED SOLIDS CONCENTRATIONS ARE LESS THAN 50 MILLIGRAMS PER LITRE, AND THE pH OF THE WATER WITHIN THE BASIN IS WITHIN THE 6.5-8.5 RANGE. TESTING OF SUSPENDED SOLIDS AND pH WITHIN ANY TEMPORARY SEDIMENT BASIN IS TO OCCUR PRIOR TO ANY CONTROLLED DISCHARGES. DOSING WITH A COAGULANT AND/OR FLOCCULANT IS ANTICIPATED TO BE REQUIRED TO REACH ACCEPTABLE LEVELS OF pH AND SUSPENDED SOLIDS. CONTRACTOR TO CONFIRM THE DETAILED METHODS FOR FLOCCULATION, AND THE TYPES AND DOSES OF COAGULANTS AND / OR FLOCCULANTS TO BE UTILISED ON SITE.
15. DURING CONSTRUCTION, STOCKPILES AND AREAS OF BARE SOIL OR EARTH THAT ARE LIKELY TO BECOME ERODED MUST BE ADEQUATELY PROTECTED – BY UPSLOPE SURFACE WATER DIVERSION, DOWNSLOPE SEDIMENT CONTROLS AND TEMPORARY SURFACE COVERINGS.
16. TOPSOIL STOCKPILES ARE TO BE MULCHED OR TEMPORARILY VEGETATED IF THEY ARE TO REMAIN FOR MORE THAN 10 DAYS.
17. MAXIMUM LENGTH OF EXPOSED SLOPE TO BE LIMITED TO 80m BY THE USE OF THE EROSION AND SEDIMENT DEVICES SHOWN.
18. CLEAN WATER DIVERSION DRAINS TO BE TURFED IF LONGITUDINAL GRADE <10% AND 2 YR ARI VELOCITY IS LESS THAN 1.5m/s, OTHERWISE THEY ARE TO BE ROCK LINED.
19. THE OUTLETS OF ALL DIVERSION DRAINS TO HAVE ROCK SCOUR PROTECTION INSTALLED TO ACT AS AN OUTLET DISCHARGE ENERGY DISSIPATER.
20. VELOCITY CONTROLS AND / OR CHANNEL LININGS TO BE UTILISED WITHIN EARTH LINED CATCH DRAINS WITH FLOW VELOCITIES >0.6m/s.
21. FOR MANAGEMENT OF DISPERSIVE SOILS REFER TO IECA *'BEST PRACTICE EROSION AND SEDIMENT CONTROL (NOVEMBER,2008)'* GUIDELINES AND IPSWICH CITY COUNCILS *'IMPLEMENTATION GUIDELINE No. 28 - DISPERSIVE SOIL MANAGEMENT'* FOR FURTHER GUIDANCE.
22. FOR IDENTIFIED DISPERSIVE SOILS AREAS, FLOW DIVERSION BUNDS/BANKS SHOULD BE ADOPTED OVER CUT IN CATCH DRAINS. WHERE CUT IN DRAINS ARE NECESSARY WITHIN DISPERSIVE SOIL AREAS, THESE CATCH DRAINS SHOULD BE ADEQUATELY LINED WITH A MINIMUM OF 150mm OF NON-DISPERSIVE MATERIAL PRIOR TO THE INSTALLATION OF OTHER TEMPORARY CHANNEL LININGS OR CHECK DAMS.
23. ALL DISTURBED SURFACES OTHER THAN CHANNEL WORKS AREAS TO BE EITHER ADEQUATELY SEALED, STABILISED OR VEGETATED TO THE DESIGN REQUIREMENTS WITHIN 20 DAYS OF COMPLETION OF SITE WORKS FOR MODERATE EROSION RISK AREAS, AND WITHIN 10 DAYS FOR HIGH EROSION RISK AREAS.
24. CHANNEL WORKS AREAS TO BE ADEQUATELY STABILISED OR VEGETATED TO THE DESIGN REQUIREMENTS WITHIN 10 DAYS OF COMPLETION OF WORKS FOR MODERATE EROSION RISK AREAS, AND WITHIN 5 DAYS FOR HIGH EROSION RISK AREAS.

EROSION RISK

1. FROM TABLE 4.4.5 - EROSION RISK RATING BASED ON AVERAGE MONTHLY RAINFALL DEPTH OF THE IECA GUIDELINES, THE SUBJECT SITE IS ESTIMATED TO HAVE AN EROSION RISK RATING RANGING BETWEEN 'HIGH' FOR THE MONTHS OF DECEMBER THROUGH TO FEBRUARY, TO 'LOW' FOR JULY THROUGH TO SEPTEMBER. REFER TO TABLE BELOW FOR THE MONTHLY EROSION RISK RATINGS FOR NEARBY LOCATIONS OF IPSWICH AND TOOWOOMBA.

EROSION RISK RATING BASED ON AVERAGE MONTHLY RAINFALL DEPTH TABLE

LOCATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
IPSWICH	H	H	M	M	M	M	L	L	L	M	M	H
TOOWOOMBA	H	H	M	M	M	M	M	L	M	M	M	H

2. FROM TABLE 4.4.7 OF THE IECA GUIDELINES, THE FOLLOWING BEST PRACTICE LAND CLEARING AND REHABILITATION REQUIREMENTS HAVE BEEN RECOMMENDED FOR 'LOW', 'MODERATE' AND 'HIGH' EROSION RISK RATINGS:

FOR A 'LOW' EROSION RISK RATING:
- LAND CLEARING LIMITED TO MAXIMUM OF EIGHT WEEKS OF WORK.
- DISTURBED SOIL SURFACES STABILISED WITH A MINIMUM 70% COVER WITHIN 30 DAYS OF COMPLETION OF WORKS WITHIN ANY AREA OF A WORK SITE.
- UNFINISHED EARTHWORKS ARE SUITABLY STABILISED IF RAINFALL IS REASONABLY POSSIBLE, AND DISTURBANCE IS EXPECTED TO BE SUSPENDED FOR A PERIOD EXCEEDING 30 DAYS.

FOR A 'MODERATE' EROSION RISK RATING:
- LAND CLEARING LIMITED TO MAXIMUM OF SIX WEEKS OF WORK.
- DISTURBED SOIL SURFACES STABILISED WITH A MINIMUM 70% COVER WITHIN 20 DAYS OF COMPLETION OF WORKS WITHIN ANY AREA OF A WORK SITE.
- STAGE CONSTRUCTION AND STABILISATION OF EARTH BATTERS (STEEPER THAN 6H:1V) IN MAXIMUM 3m VERTICAL INCREMENTS WHEREVER REASONABLE AND PRACTICABLE.
- UNFINISHED EARTHWORKS ARE SUITABLY STABILISED IF RAINFALL IS REASONABLY POSSIBLE, AND DISTURBANCE IS EXPECTED TO BE SUSPENDED FOR A PERIOD EXCEEDING 20 DAYS.

FOR A 'HIGH' EROSION RISK RATING:
- LAND CLEARING LIMITED TO MAXIMUM OF FOUR WEEKS OF WORK.
- DISTURBED SOIL SURFACES STABILISED WITH A MINIMUM 75% COVER WITHIN 10 DAYS OF COMPLETION OF WORKS WITHIN ANY AREA OF A WORK SITE.
- STAGE CONSTRUCTION AND STABILISATION OF EARTH BATTERS (STEEPER THAN 6H:1V) IN MAXIMUM 3m VERTICAL INCREMENTS WHEREVER REASONABLE AND PRACTICABLE.
- THE USE OF TURF TO FORM GRASSED SURFACES GIVEN APPROPRIATE CONSIDERATION.
- SOIL STOCKPILES AND UNFINISHED EARTHWORKS ARE SUITABLY STABILISED IF DISTURBANCE IS EXPECTED TO BE SUSPENDED FOR A PERIOD EXCEEDING 10 DAYS.

APPLICATION OF EROSION CONTROL MEASURES TO SOIL SLOPES (TABLE 4.4.13 OF IECA 2008)

FLAT LAND	MILD SLOPE	STEEP SLOPE
(FLATTER THAN 1 in 10)	(1 in 10 - 1 in 4)	(STEEPER THAN 1 in 4)
EROSION CONTROL BLANKETS	BONDED FIBRE MATRIX	BONDED FIBRE MATRIX
GRAVELLING	COMPOST BLANKETS	CELLULAR CONFINEMENT SYSTEMS
MULCHING	EROSION CONTROL BLANKETS, MATS AND MESH	COMPOST BLANKETS
REVEGETATION	MULCHING WELL ANCHORED	EROSION CONTROL BLANKETS, MATS AND MESH
ROCK MULCHING	REVEGETATION	REVEGETATION
SOIL BINDER	ROCK MULCHING	ROCK ARMOURING
TURFING	TURFING	TURFING

LEGEND

- WORKS BOUNDARY
- CLEARING LIMITS
- CATCHMENT BOUNDARY
- **CATCHMENT 1B 0.640ha** — CATCHMENT ID AND AREA
- SF — SEDIMENT FENCE (REFER IECA STD DWG SD-SF-01 AND SD-SF-02). SEDIMENT FENCE INSTALLED DOWN THE SLOPE TO HAVE RETURNS, WITH SPILL THROUGH WEIRS, PLACED AT REGULAR INTERVALS. ENDS OF SEDIMENT FENCE TO BE EXTENDED UPSLOPE AT LEAST 1.0m.
- SF — SEDIMENT FENCE SPILL THROUGH WEIR. PROVIDE BATTER CHUTE TO ADJACENT CATCH DRAIN WHERE OUTLET GRADE EXCEEDS 1 IN 20 (5%)
- FLOW CONTROL BERM/BUND (REFER IECA STD DWG SD-CB-01 AND SD-MB-01 FOR TYPICAL DETAILS)
- DD — CLEAN WATER DIVERSION DRAIN, REFER NOTES 18 & 19 (REFER IECA STD DWG No. SD-DC-01)
- CD — DIRTY WATER CATCH DRAIN, REFER NOTES 19 & 20 (REFER IECA STD DWG No. SD-CD-01, SD-CD-02, SD-CD-04 & SD-CD-05)
- 36 — EXISTING CONTOUR (1.0m INTERVAL)
- 36 — FINISHED CONTOUR (0.25m INTERVAL)
- TEMPORARY LINED BATTER CHUTE (REFER IECA STD DWG SD-CH-01, SD-CH-02, SD-CH-03 AND SD-CH-06)
- SITE COMPOUND (INDICATIVE ONLY)
- SEDIMENT BASIN (REFER TO TABLE 1 AND 2 FOR DETAILS, INDICATIVE LOCATION ONLY, REFER IECA STD DWG SD-SB-05 AND SD-SB-06)
- CHECK DAM (INDICATIVE ONLY, REFER IECA STD DWG SD-RCD-01)(SAND BAGS TO BE USED WHERE CHANNELS ARE <0.5m DEPTH, ROCK TO BE USED WHERE CHANNELS ARE >0.5m DEPTH)
- ON GRADE OR SAG PIT FILTER SOCK INLET PROTECTION (REFER IECA STD DWG SD-FS-01 AND SD-SA-01)
- SEDIMENT BASIN EMERGENCY SPILLWAY LOCATION (INDICATIVE ONLY, TO BE CONFIRMED ON-SITE)
- DESIGNATED STOCKPILE LOCATION (INDICATIVE ONLY, IF REQUIRED)
- AREA TO BE TOPSOILED AND SEEDED OR STABILISED TO DESIGN REQUIREMENTS. BATTERS TO BE LANDSCAPED, TURFED OR HYDROMULCHED ETC IN ACCORDANCE WITH APPROVED CIVIL DRAWINGS.
- TURF FULL VERGE AREA FROM BACK OF KERB TO LOT BOUNDARY. TURF LINE INTER-ALLOTMENT DRAINAGE CHANNELS (REFER IECA STD DWG SD-GFS-01 AND SD-GFS-02)
- FABRIC DROP INLET PROTECTION AROUND FIELD INLET (REFER IECA STD DWG SD-FD-01 AND SD-FD-02)
- CONSTRUCTION ENTRY / EXIT ROCK PAD (INDICATIVE ONLY, REFER IECA STD DWG SD-EXIT-01 AND SD-EXIT-02)
- SEDIMENT TRENCH AND WEIR (REFER IECA STD DWG SD-SS-01, SD-SS-02, SD-SW-01 AND SD-SW-02) (INDICATIVE LOCATION ONLY, FINAL POSITION TO BE CONFIRMED ON SITE)
- ROCK FILTER DAM (REFER TO IECA STD DWG SD-RFD-01 AND SD-RFD-02) (INDICATIVE LOCATION ONLY, FINAL POSITION TO BE CONFIRMED ON-SITE)
- SP1 — WATER QUALITY SAMPLING LOCATION (INDICATIVE ONLY, CONTRACTOR TO CONFIRM ON SITE)
- BONDED FIBRE MATRIX OR APPROVED EQUIVALENT HYDRAULICALLY APPLIED STABILISER TO BE APPLIED TO ALL BATTERS TO SUPERINTENDENTS INSTRUCTIONS (REFER IECA STD DWG SD-BFM-01). ANY TABLE DRAINS TO BE STABILISED USING EROSION CONTROL METHODS SUITABLE FOR CONCENTRATED FLOW AREAS.
- LS — LEVEL SPREADER FLOW DISSIPATER (INDICATIVE ONLY, REFER IECA STD DWG SD-LS-01)
- FLOW DIRECTION

Rev.	Date	Description	Des.	Verif.	Appd.
C	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
B	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
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Client: KALFRESH PTY LTD
Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT
Title: EROSION AND SEDIMENT CONTROL LEGEND AND NOTES
Status: FOR APPROVAL — NOT TO BE USED FOR CONSTRUCTION PURPOSES
DATUM: AHD | GRID: | Scale: AS SHOWN | Size: A1
Drawing Number: 510357-008-CI-1020
Revision: C

EROSION AND SEDIMENT CONTROL CONSTRUCTION SEQENCE

PHASE 1 - PRIOR TO EARTHWORKS:

1. INSTALL CONSTRUCTION ENTRY/EXIT AND SITE FENCING. IF REQUIRED SECURITY GATES TO BE INSTALLED.
2. INSTALL 'NO GO' FENCING TO RESTRICT ACCESS TO PROTECTED AREAS.
3. INSTALL SEDIMENT FENCING ALONG DOWNSLOPE EXTENT OF WORK AREAS.
4. WHERE PRACTICAL INSTALL CLEAN WATER DIVERSION DRAINS/BUNDS AROUND CONSTRUCTION AREAS AND APPROPRIATELY STABILISE. OUTLET OF DIVERSION DRAINS TO HAVE APPROPRIATE SCOUR PROTECTION INSTALLED.
5. TEMPORARY STOCKPILE AREAS TO BE MARKED OUT. TOPSOIL TO BE TRANSPORTED IN A DAMP CONDITION TO RETAIN SOIL STRUCTURE. TOPSOIL STOCKPILES TO BE LOW FLAT LONG MOUNDS.
6. STRIP AND STOCKPILE TOPSOIL FROM SEDIMENT BASIN AREAS.
7. CONSTRUCT SEDIMENT BASINS AND OTHER NOMINATED SEDIMENT CONTROL DEVICES AS NOTED. PROVIDE APPROPRIATE SAFETY FENCING IF BATTERS STEEPER THAN 1 IN 4 ARE USED.
8. CONSTRUCT PERIMETER BUNDS/CATCH DRAINS ALONG DOWNSLOPE EXTENT OF WORK AREAS TO DIRECT DIRTY WATER RUNOFF TOWARDS NOMINATED SEDIMENT CONTROL DEVICES. AS NOTED OR WHERE IDENTIFIED THROUGH MONITORING CHECK DAMS OR CHANNEL LININGS MAY BE NECESSARY TO ASSIST WITH THE MANAGEMENT OF FLOW VELOCITIES.
9. FINAL LOCATION OF EROSION, SEDIMENT AND DRAINAGE CONTROL DEVICES TO BE CONFIRMED ON SITE WITH CONTRACTOR'S ENVIRONMENTAL MANAGER AND THE SUPERINTENDENT.

PHASE 2 - DURING EARTHWORKS:

1. ENSURE THAT NOMINATED CONTROL MEASURES FROM PHASE 1, WHICH ARE TO REMAIN IN PLACE, ARE MAINTAINED AND FUNCTIONAL.
2. STRIP AND STOCKPILE TOPSOIL FROM EARTHWORKS AREAS.
3. EARTHWORKS TO BE CARRIED OUT PROGRESSIVELY AND COMPACTED IN STAGES TO PREVENT LARGE AREAS OF UNCONSOLIDATED MATERIALS BEING PRESENT ON SITE.
4. DIVERT ALL DIRTY WATER RUNOFF TOWARDS NOMINATED SEDIMENT CONTROL DEVICES. AS EARTHWORKS PROGRESSES REVIEW AND ADD/AMEND DIRTY WATER DRAINAGE CONTROL DEVICES AS REQUIRED. VELOCITY CONTROLS TO BE IMPLEMENTED AS REQUIRED.
5. REVIEW LOCATION AND MINIMUM SIZING OF SEDIMENT CONTROL DEVICES AS EARTHWORKS PROGRESSES, AND AMENDED AS NECESSARY.
6. SEDIMENT FENCING / DIVERSION BUNDS TO BE INSTALLED ALONG THE TOP OF BATTERS TO MANAGE UNCONTROLLED FLOWS DOWN THE EXPOSED STEEP AREAS. TEMPORARY BATTER CHUTES TO BE UTILISED TO CONTROL FLOWS DOWN BATTER SLOPES WHERE REQUIRED.
7. PROGRESSIVELY RESPREAD TOPSOIL FOLLOWING COMPLETION OF EARTHWORKS STAGES, LEAVING IN A ROUGHENED STATE. TOPSOIL TO BE TRANSPORTED IN A DAMP CONDITION TO RETAIN SOIL STRUCTURE. SEED/MULCH/HYDROMULCH/TURF AREAS IMMEDIATELY UPON COMPLETION. IRRIGATE AREAS AS REQUIRED.
8. AS ROADS ARE FORMED, SANDBAG CHECK DAMS TO BE PLACED TO ASSIST WITH MANAGING RUNOFF VELOCITIES.
9. FINAL LOCATION OF EROSION, SEDIMENT AND DRAINAGE CONTROL DEVICES TO BE CONFIRMED ON SITE WITH CONTRACTOR'S ENVIRONMENTAL MANAGER AND THE SUPERINTENDENT.
10. REGULARLY MONITOR AND MAINTAIN EROSION, SEDIMENT AND DRAINAGE CONTROLS TO ENSURE MEASURES REMAIN FUNCTIONAL. DAMAGED AND/OR INEFFECTIVE CONTROLS AND MATERIALS ARE TO BE REPAIRED, REFURBISHED OR REPLACED.
11. INSPECT ALL CONTROL DEVICES AND MEASURES PRIOR TO AND FOLLOWING RAINFALL EVENTS, AND REPAIR/REPLACE AS REQUIRED.

PHASE 3 - SITE STABILISATION:

1. ENSURE THAT NOMINATED CONTROL MEASURES FROM PHASES 1 AND 2, WHICH ARE TO REMAIN IN PLACE, ARE MAINTAINED AND FUNCTIONAL.
2. UNCOMPLETED EARTHWORKS AREAS TO BE TEMPORARILY STABILISED WITH APPROPRIATE SOIL BINDER/MULCH/HYDROMULCH OR EQUIVALENT WHERE WORKS HAVE CEASED FOR AN EXTENDED PERIOD OF TIME (SUBJECT TO EROSION RISKS).
3. MONITOR AND MAINTAIN ALL TEMPORARY CONTROL DEVICES AND PERMANENT STABILISATION MEASURES. DAMAGED AND/OR INEFFECTIVE CONTROLS AND MATERIALS ARE TO BE REPAIRED, REFURBISHED OR REPLACED.
4. INSPECT ALL CONTROL DEVICES AND MEASURES PRIOR TO AND FOLLOWING RAINFALL EVENTS, AND REPAIR/REPLACE AS REQUIRED.
5. RESEED AND IRRIGATE ANY DISTURBED AREAS.
6. SEDIMENT BASINS AND OTHER SEDIMENT CONTROL DEVICES TO BE DECOMMISSIONED FOLLOWING ADEQUATE STABILISATION OF THE UPSLOPE CONTRIBUTING CATCHMENT AREAS.
7. WHERE SEDIMENT BASIN AREA DOES NOT FORM PART OF PERMANENT STORMWATER MANAGEMENT STRATEGY, AREA TO BE APPROPRIATELY STABILISED. DOWNSLOPE SEDIMENT FENCING TO REMAIN IN PLACE UNTIL ADEQUATE STABILISATION OF DISTURBED AREA.
8. TEMPORARY STOCKPILE AREAS AND SITE COMPOUND/OFFICE TO BE DECOMMISSIONED AND AREAS APPROPRIATELY STABILISED.
9. DOWNSLOPE EXTENT OF WORK AREA SEDIMENT FENCING TO REMAIN IN PLACE UNTIL ADEQUATE STABILISATION OF CONTRIBUTING UPSLOPE CATCHMENT AREA.
10. PLANTING, TURFING, MULCHING ETC. TO NOMINATED APPROVED LANDSCAPE PLANS.

DUST MANAGEMENT NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR THE CONTROL OF ALL DUST EMISSIONS DURING ALL EARTHWORKS OPERATIONS.

2. DUST CONTROL TECHNIQUES AND PRACTICES MAY INCLUDE, BUT MAY NOT BE LIMITED TO, THE FOLLOWING TO MINIMISE THE MOVEMENT OF DUST OFF-SITE:
   - THE PRE-CLEARING OF LAND WILL BE MINIMISED. NO VEGETATION STRIPPING/CLEARING WILL OCCUR IN SITUATIONS OF HIGH WIND.
   - ALL PERMANENT BUNDS AND RESHAPED AREAS WILL BE RE-VEGETATED AS QUICKLY AS POSSIBLE.
   - STABILISATION AND RE-VEGETATION OF FILL AREAS.
   - STOCKPILING ON-SITE WILL BE MINIMISED WHERE POSSIBLE.
   - CONSIDER THE ORIENTATION OF TEMPORARY STOCKPILES TO MINIMISE THE EFFECT OF PREVAILING WINDS.
   - PROVISION OF BARRIER FENCE WIND BREAKS.
   - WATER CARTS OPERATING AS WARRANTED.
   - MAINTENANCE OF VEGETATED BUFFERS AND/OR THE IMPLEMENTATION OF BARRIERS, PARTICULARLY AROUND STOCKPILE AREAS.
   - USE OF SHAKEDOWN AREAS FOR HAUL TRUCKS LEAVING THE SITE.
   - MINIMISATION OF VEHICULAR MOVEMENT EXCEPT FOR DESIGNATED TRAFFIC ROUTES.

3. VISUAL MONITORING IS TO BE UNDERTAKEN THROUGHOUT THE CONSTRUCTION PHASE. DUST MONITORING DEVICES MAY NEED TO BE INSTALLED WHERE IDENTIFIED THROUGH MONITORING. THE CONTRACTOR IS TO ENSURE ANY DUST PRODUCTION IS KEPT TO A MINIMUM AND ACTION TAKEN ON ANY COMPLAINTS RECEIVED. IF VISIBLE DUST EMISSIONS ARE OBSERVED WORKS TO CEASE IMMEDIATELY UNTIL APPROPRIATE DUST CONTROL MEASURES CAN BE PUT IN PLACE.

4. THE CONTRACTOR SHALL MAINTAIN A DAILY RECORD OF SITE CONDITIONS AND THE DUST MANAGEMENT MEASURES IMPLEMENTED. COMPLAINTS BY RESIDENTS ARE TO BE RECORDED IN A COMPLAINTS REGISTER.

5. DEPENDING ON THE SOURCE OF THE DUST THE FOLLOWING MEASURES WILL BE IMPLEMENTED:
   - APPLY WATER SPRAYS TO VEGETATION.
   - DAMPEN EXPOSED AREAS.
   - ENSURE ALL LOADED TRUCKS ARE COVERED.
   - INCREASE NUMBER OF WATER TRUCKS IN OPERATION.
   - CEASE OPERATIONS DURING PERIODS OF EXTREME WINDS.

6. PRIOR TO COMMENCEMENT OF BULK EARTHWORKS, THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF A SPRINKLER SYSTEM IF WATER TRUCK OPERATION IS NOT ABLE TO BE UNDERTAKEN. A 100mm MINIMUM DIAMETER PRESSURE MAIN IS TO BE LAID, THE EXACT ALIGNMENT TO BE DETERMINED ON SITE BY THE SUPERVISING ENGINEER. A DIESEL PUMP WITH PRESSURE REDUCING VALVE WILL OPERATE DURING BULK EARTHWORKS. VALVES WILL BE LOCATED AT 100m INTERVALS ALONG THE MAIN FROM WHICH 'EASYSHIFT' SPRINKLERS (OR APPROVED EQUIVALENT) CONNECT. SPRINKLERS ARE TO HAVE A MINIMUM CAPACITY OF 0.7 LITRES PER SECOND, A MINIMUM 16m SPREAD RADIUS AND TRAFFICABLE HOSES. THE CONTRACTOR SHALL ENSURE ALL EXPOSED EARTHWORK AREAS ARE WATERED AS REQUIRED LIMITING THE OCCURRENCE OF DUST TO A LEVEL ACCEPTABLE TO THE LOCAL COUNCIL.

EROSION AND SEDIMENT MANAGEMENT STRATEGY

OBECTIVE/TARGET	COMPLY WITH THE EROSION AND SEDIMENT CONTROL PLAN AS SHOWN, TO CONTROL EROSION AND SEDIMENT TRANSPORT. ENSURE THAT ALL EROSION AND SEDIMENT CONTROL DEVICES ARE OPERATIONAL AT ALL TIMES.
MANAGEMENT STRATEGY	CONTRACTOR TO IDENTIFY AND CHECK DIRECTION OF STORMWATER OVER LAND FLOWS AS SHOWN ON PLAN. PROVIDE BARRIERS AND OTHER CONTROL MEASURES SHOWN ON THE PLAN TO PREVENT STORMWATER FLOWS OVER EMBANKMENTS, AND SEDIMENTS INTO THE RECEIVING ENVIRONMENT
TASKS/ACTIONS	ERECT SEDIMENTATION BARRIERS AT PERIMETER OF CONSTRUCTION AREAS AS SHOWN ON EROSION AND SEDIMENT CONTROL PLAN.
FREQUENCY/DEADLINE	CONTRACTOR TO INSPECT DEVICES AT LEAST WEEKLY AND PRIOR TO AND IMMEDIATELY FOLLOWING EACH SIGNIFICANT RAINFALL EVENT.
RESPONSIBLE PERSON/ ORGANISATION	CONTRACTOR TO BE RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE OF CONTROL DEVICES.
REPORTING/REVIEW	SITE WORKMEN TO ADVISE FOREMAN IF THEY NOTICE ANY CONTROLS NEEDING REPAIR. ALL WATER QUALITY SAMPLING DATA INCLUDING DATES AND AMOUNTS OF RAINFALL, DATES OF TESTING AND WATER RELEASE MUST BE MAINTAINED IN AN ON-SITE REGISTER. THIS REGISTER IS TO BE MAINTAINED FOR THE DURATION OF THE APPROVED WORKS, AND MADE AVAILABLE TO COUNCIL OFFICERS ON REQUEST.
CORRECTIVE ACTIONS	IF EROSION AND SEDIMENT CONTROL DEVICES HAVE BEEN FOUND TO BE DEFICIENT OR FAILED IN SERVICE DUE TO UNFORSEEN CIRCUMSTANCES, CORRECTIVE ACTION IS TO BE UNDERTAKEN BY THE CONTRACTOR IMMEDIATELY WHICH MAY INCLUDE AMENDMENTS/ADDITIONS TO THE ORIGINAL EROSION AND SEDIMENT CONTROL PLANS. SUCH ADDITIONS OR AMENDMENTS ARE TO BE APPROVED BY THE SUPERINTENDENT.

Rev.	Date	Description	Des.	Verif.	Appd.
C	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
B	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
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Checked	C.D.B.	Date 20/02/2020
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Client: KALFRESH PTY LTD

Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT

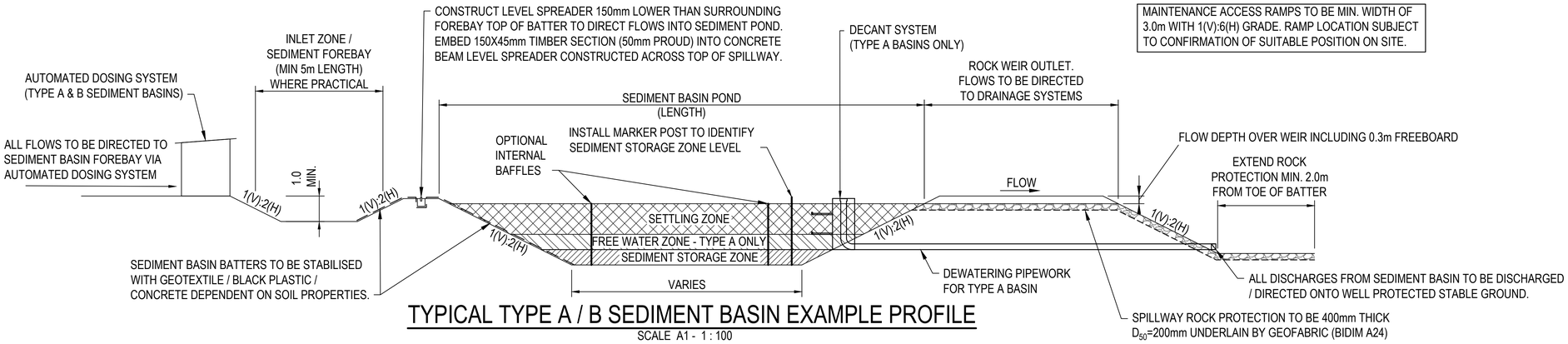
Title: EROSION AND SEDIMENT CONTROL CONSTRUCTION SEQUENCE

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number: 510357-008-CI-1021

Revision: C



TYPICAL TYPE A / B SEDIMENT BASIN EXAMPLE PROFILE

SCALE A1 - 1 : 100
A3 - 1 : 200

NOTE:
THE EROSION AND SEDIMENT STRATEGY SHOWN ON THIS PLAN IS CONCEPTUAL ONLY BASED ON THE SINGLE PHASE BULK EARTHWORKS CONTOURS PROVIDED. THE CONTRACTOR IS TO PREPARE AND MAINTAIN THEIR OWN EROSION AND SEDIMENT CONTROL PLANS, IN ACCORDANCE WITH THE IECA GUIDELINES, BASED UPON THEIR CHOSEN CONSTRUCTION METHODOLOGY AND SEQUENCING, AND THE PREVAILING SITE CONDITIONS FOR ALL PHASES OF THE WORKS (I.E. CLEARING AND GRUBBING, BULK EARTHWORKS, CIVIL WORKS AND SITE STABILISATION).
ALL MEASURES ARE TO BE SUPPLEMENTED WITH MONITORING AND MAINTENANCE ON SITE. ADDITIONAL CONTROLS OR MODIFICATIONS TO WORK PRACTICES MAY BE REQUIRED TO SUIT THE SITE CONDITIONS OR CONSTRUCTION SEQUENCING AS IDENTIFIED THROUGH ON-SITE MONITORING.

TABLE 1 - 'IDEAL SIZED' TYPE B SEDIMENT BASIN CONCEPTUAL DETAILS

DEVICE ID	CATCHMENT	CATCHMENT AREA (ha)	SIDE BATTERS	BASIN LENGTH @ MID-ZONE DEPTH (m)	BASIN WIDTH @ MID-ZONE DEPTH (m)	BASIN AREA @ MID-ZONE DEPTH (m^2)	SETTLING ZONE DEPTH (m)	SEDIMENT STORAGE DEPTH (m)	TOTAL DEPTH FROM SPILLWAY (m)	SETTLING ZONE VOLUME (m^3)	SEDIMENT STORAGE VOLUME (m^3)	TOTAL BASIN STORAGE VOLUME (m^3)	INLET ZONE LENGTH (m)	INLET ZONE WIDTH (m)	INLET ZONE DEPTH (m)	EMERGENCY SPILLWAY LENGTH (m)	Q20 SPILLWAY DEPTH (m)	FREEBOARD (m)
SB-2A	C_2A	3.54	1 IN 3	90	30	2685	0.50	0.20	0.70	1343	403	1745	9	31	1.0	30	0.08	0.3
SB-2B	C_2B	3.92	1 IN 3	93	31	2904	0.52	0.20	0.72	1510	453	1963	9	33	1.0	31	0.09	0.3
SB-2C	C_2C	3.13	1 IN 3	84	28	2373	0.50	0.20	0.70	1186	356	1542	9	30	1.0	28	0.08	0.3
SB-2E	C_2E	2.74	1 IN 3	77	26	1978	0.50	0.20	0.70	989	297	1285	8	27	1.0	26	0.07	0.3
SB-2F	C_2F	2.01	1 IN 3	67	22	1486	0.50	0.20	0.70	743	223	966	7	24	1.0	22	0.07	0.3
SB-2G	C_2G	2.02	1 IN 3	68	23	1531	0.50	0.20	0.70	765	230	995	7	24	1.0	23	0.07	0.3
SB-2H	C_2H	1.57	1 IN 3	60	20	1192	0.50	0.20	0.70	596	179	775	6	21	1.0	20	0.06	0.3
SB-2I	C_2I	5.40	1 IN 3	110	37	3999	0.61	0.20	0.81	2439	732	3171	11	38	1.0	37	0.09	0.3
SB-2J	C_2J	4.97	1 IN 3	100	33	3342	0.56	0.20	0.76	1872	561	2433	10	35	1.0	33	0.09	0.3

TABLE 2 - 'IDEAL SIZED' TYPE A SEDIMENT BASIN CONCEPTUAL DETAILS

DEVICE ID	CATCHMENT	CATCHMENT AREA (ha)	SIDE BATTERS	BASIN LENGTH @ MID-ZONE DEPTH (m)	BASIN WIDTH @ MID-ZONE DEPTH (m)	BASIN AREA @ MID-ZONE DEPTH (m^2)	SETTLING ZONE DEPTH (m)	FREE WATER DEPTH (m)	SEDIMENT STORAGE DEPTH (m)	TOTAL DEPTH FROM SPILLWAY (m)	SETTLING ZONE VOLUME (m^3)	SEDIMENT STORAGE VOLUME (m^3)	FREE WATER ZONE STORAGE (m^3)	TOTAL BASIN STORAGE VOLUME (m^3)	INLET ZONE LENGTH @ MID-ZONE LEVEL (m)	INLET ZONE WIDTH (m)	INLET ZONE DEPTH (m)	EMERGENCY SPILLWAY LENGTH (m)	Q20 SPILLWAY DEPTH (m)	FREEBOARD (m)	No. OF DECENT ARMS
SB-2M	C_2M	3.66	1 IN 3	50	17	848	0.6	0.20	0.25	1.05	509	153	138	799	5.0	19	1.0	17	0.14	0.3	8
SB-2N	C_2N	4.04	1 IN 3	53	18	936	0.6	0.20	0.25	1.05	562	169	154	885	5.0	19	1.0	18	0.14	0.3	9
SB-2O	C_2O	5.74	1 IN 3	63	21	1329	0.6	0.20	0.23	1.03	797	239	227	1263	6.0	23	1.0	21	0.15	0.3	12
SB-2P	C_2P	0.97	1 IN 3	26	9	225	0.6	0.20	0.42	1.22	135	40	30	205	5.0	10	1.0	9	0.09	0.3	2

SEDIMENT BASIN NOTES

1. FOR IDEAL SIZED SEDIMENT BASIN THE NOTED MINIMUM AVERAGE SETTLING ZONE AREAS, LENGTHS AND WIDTHS ARE AT THE MID-DEPTH OF THE SETTLING ZONE. THE TOTAL BASIN DIMENSIONS NEED TO CONSIDER THE ADOPTED BATTERS SLOPES.
2. IDEAL SIZED SEDIMENT BASIN RECOMMENDED 3:1 EFFECTIVE LENGTH TO WIDTH RATIO.
3. BASIN DEPTH MINIMUM ADOPTED FOR COMBINED SETTLING, FREE WATER (TYPE A ONLY) AND STORAGE VOLUME.
4. ADDITIONAL 0.45m MINIMUM REQUIRED ABOVE FOR SPILLWAY HEIGHT AND FREEBOARD (0.3m)
5. FOR IDEAL SIZED SEDIMENT BASIN:
   - SETTLING ZONE 0.6m MINIMUM DEPTH FOR TYPE A BASINS AND 0.5m MINIMUM DEPTH FOR TYPE B BASINS.
   - FREE WATER ZONE DEPTH 0.2m MINIMUM DEPTH (TYPE A ONLY).
   - SEDIMENT STORAGE ZONE 0.2m MINIMUM DEPTH.
6. FOR IDEAL SIZED SEDIMENT BASIN, SEDIMENT STORAGE VOLUME BASED ON 30% OF SETTLING ZONE VOLUME. A MARKER SHALL BE PLACED WITHIN THE BASIN TO SHOW THE LEVEL AT WHICH THE SEDIMENT STORAGE ZONE DESIGN CAPACITY OCCURS.
7. FOR IDEAL SIZED SEDIMENT BASIN EMERGENCY SPILLWAY WEIR LENGTHS BASED ON CONVEYING THE 20 YEAR ARI PEAK DISCHARGE, FOR THE CONTRIBUTING CATCHMENT AREA, WITH A MAXIMUM DEPTH OVER THE WEIR OF 0.15m.
8. SEDIMENT BASIN CUT/FILL BATTERS TO BE CONSTRUCTED TO TIE IN WITH THE EXISTING GROUND.
9. DEWATERING AND SPILLWAY OUTLET LOCATIONS ARE TO BE SPECIFIED ON SITE BY THE CONTRACTOR'S ENVIRONMENTAL MANAGER AND CONFIRMED BY THE SUPERINTENDENT.
10. WHERE ROCK IS ENCOUNTERED, THE CUT BATTER OF THE SEDIMENT BASIN MAY BE CONSTRUCTED WITH A NOMINAL BATTER SLOPE OF 1(V) : 1(H). FOR OTHER SOILS, THE CUT BATTER SLOPE SHALL BE CONSTRUCTED WITH A NOMINAL BATTER SLOPE OF 1(V) : 2(H) OR FLATTER IF IT IS CONSIDERED THAT THE 1(V) : 2(H) SLOPE IS NOT SUFFICIENTLY STABLE FOR THE SOILS ENCOUNTERED. APPROPRIATE BASIN BATTER SLOPES FOR THE ON SITE CONDITIONS ENCOUNTERED TO BE CONFIRMED BY GEOTECHNICAL ENGINEER.
11. EARTH EMBANKMENTS IN EXCESS OF 1m IN HEIGHT SHOULD BE CERTIFIED BY GEOTECHNICAL ENGINEER.
12. IF BATTER SLOPES STEEPER THAN 1(V) : 4(H) ARE USED AROUND EDGE OF SEDIMENT BASIN, THEN SAFETY FENCING IS TO BE SUPPLIED TO THE FULL PERIMETER FOR THE DURATION OF THE BASIN'S OPERATION.
13. TO INCREASE THE EFFECTIVE TREATMENT OF THE SEDIMENT BASINS, REFER TO SEDIMENT BASIN DESIGN, CONSTRUCTION, OPERATION AND MAINTENANCE GUIDELINES FOR DETAILS ON THE INCORPORATION OF ANCILLARY ITEMS SUCH AS INTERNAL BAFFLES.
14. REFER IECA *'BEST PRACTICE EROSION AND SEDIMENT CONTROL'* GUIDELINES APPENDIX B - SEDIMENT BASIN DESIGN AND OPERATION (REV. JUNE 2018) FOR THE FOLLOWING:
   - EXAMPLE BASIN PERFORMANCE REPORT.
   - SECTION B4 DEFAULT CONSTRUCTION SPECIFICATION.
15. REFER ABOVE, TO IECA STD DWGS SD-SB-05 AND SD-SB-06, AND TO APPENDIX A OF THE WATER BY DESIGN SEDIMENT MANAGEMENT ON CONSTRUCTION SITES DOCUMENT FOR TYPICAL SEDIMENT BASIN DETAILS.

SEDIMENT BASIN MANAGEMENT NOTES

1. TESTING OF pH, TOTAL SUSPENDED SOLIDS (TSS) AND TURBIDITY WITHIN ANY TEMPORARY SEDIMENT BASINS IS TO OCCUR PRIOR TO ANY CONTROLLED DISCHARGES FROM THE SITE AND AT THE FOLLOWING FREQUENCIES FOR THE DURATION OF THE CONSTRUCTION PHASE:
   - IMMEDIATELY FOLLOWING RAIN EVENTS > 25mm IN A 24 HOUR PERIOD.
2. IF THE pH OR TSS / TURBIDITY READINGS ARE OUTSIDE THE ALLOWABLE RELEASE CRITERIA, THEN FURTHER DOSING WITH AN APPROPRIATE APPROVED COAGULANT AND / OR FLOCCULANT IS REQUIRED UNTIL ACCEPTABLE LEVELS ARE REACHED.
3. WATER QUALITY MONITORING RESULTS ARE TO BE RETAINED ON SITE AND BE MADE AVAILABLE FOR VIEWING UPON REQUEST.
4. PRIOR TO A RAINFALL EVENT, TO IMPROVE THE EFFICIENCY AND EFFECTIVENESS OF THE FLOCCULATION PROCESS, IT IS RECOMMENDED THAT THE CONTRACTOR UNDERTAKE TRIAL TESTING TO DETERMINE APPROPRIATE FLOCCULANT AND / OR COAGULANT TYPES, AND DOSING RATES FOR THE ON-SITE SOILS. THIS GENERALLY INVOLVES CONDUCTING SOIL JAR TESTS OF THE ON-SITE SOILS. FOR THE CHARACTERISTICS OF VARIOUS FLOCCULATING AGENTS REFER TO TABLE 1 IN THE *'CHEMICAL COAGULANTS AND FLOCCULANTS'* FACT SHEET BY IECA, OBTAINABLE FROM THE IECA WEBSITE UNDER THE BEST PRACTICE EROSION AND SEDIMENT CONTROL 'APPENDIX B - REVISION JUNE 2018' SECTION. FOR DETAILS ON THE SOIL JAR TESTING PROCEDURE, REFER TO SECTION 5 OF THE FACT SHEET MENTIONED ABOVE.
5. MANAGING THE FLOCCULATION OF THE SEDIMENT BASINS SHOULD BE UNDERTAKEN USING AUTOMATED DOSING SYSTEMS SUCH AS RAINFALL OR FLOW ACTIVATED FLOCKING SYSTEMS. THIS WILL ALLOW MAXIMUM TIME FOR FLOCCULATION TO OCCUR TO ASSIST IN REDUCING THE RUNOFF HOLDING TIMES. THE EFFECTIVENESS OF THE FLOCCULANT WILL DETERMINE THE ACTUAL RUNOFF HOLDING TIMES FOR EACH BASIN. THE DETAILED METHODS FOR FLOCCULATION AND TYPES OF FLOCCULANTS TO BE USED ARE TO BE CONFIRMED BY THE CONTRACTOR.
6. WHERE APPROPRIATE THE CONTRACTOR MAY ALSO CONSIDER PASSIVE APPLICATION TECHNIQUES OF COAGULANTS AND / OR FLOCCULANTS, SUCH AS 'FLOC BLOCKS' OR SIMILAR PLACED WITHIN CATCH DRAINS, TO IMPROVE THE EFFICIENCY AND EFFECTIVENESS OF THE FLOCCULATION PROCESS.
7. TO ASSIST WITH THE PERFORMANCE OF THE SEDIMENT BASINS, IN-LINE PERMEABLE INTERNAL BAFFLES CAN BE INCORPORATED ACROSS THE BASIN SETTLING ZONE PERPENDICULAR TO THE DIRECTION OF FLOW.
8. THE SEDIMENT BASINS MUST OPERATE AS WET BASINS, WITH THE TREATED RUNOFF TO BE DECANTED FROM THE BASINS ONCE COMPLIANT WITH THE 'DISCHARGE PERFORMANCE CRITERIA'. AS SOON AS CONDITIONS ALLOW, THE WATER LEVEL WITHIN THE BASINS SHOULD BE LOWERED BACK DOWN TO AT LEAST THE INVERT OF THE SETTLING ZONE. THIS WILL ALLOW THE SETTLING ZONE VOLUME OF THE BASINS TO BE AVAILABLE FOR THE NEXT RAINFALL EVENT.
9. IN THE EVENT THAT THE SEDIMENT BASIN CANNOT BE DE-WATERED TO RE-INSTATE THE SETTLING ZONE VOLUME PRIOR TO BEING SURCHARGED BY THE FOLLOWING RAINFALL EVENT, THE CONTRACTOR MUST RECORD THE OCCURRENCE OF SUCH AN EVENT AND REPORT IT TO THE LOCAL AUTHORITY. SUBJECT TO CONSULTATION WITH AND APPROVAL FROM THE LOCAL AUTHORITY, ALTERNATIVE OPERATING PROCEDURES FOR THE SEDIMENT BASINS MAY NEED TO BE ADOPTED IN ORDER TO ACHIEVE OPTIMUM ENVIRONMENTAL PROTECTION.

Rev.	Date	Description	Des.	Verif.	Appd.
C	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
B	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	C.D.B.	C.D.B.

0 1 2 4 6 8 10m
SCALE 1:100 @A1

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Drawn	C.V	Date 21/01/2020
Checked	C.D.B.	Date 20/02/2020
Designed	M.D.	Date 20/01/2020
Verified	C.D.B.	Date 20/02/2020
Approved	CD CPESC 7619	Date 20/02/2020

Client: KALFRESH PTY LTD
Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT
Title: EROSION AND SEDIMENT CONTROL CONCEPT DEVICE DETAILS
Status: FOR APPROVAL — NOT TO BE USED FOR CONSTRUCTION PURPOSES
DATUM: AHD | GRID | Scale: AS SHOWN | Size: A1
Drawing Number: 510357-008-CI-1022 | Revision: C

DATE PLOTTED: 22 February 2023 5:16 PM BY - HUNG TRAN

XREF's: XR-SURVEY; XR-CONT-BULK-EWRK; XR-DSGN; XR-CONT-EXST; XR-DSGN-OP2; XR-CONT-BULK-EWRK-OP2
CAD File: \\aus\fcfs02\data\5103-57\008 - DETAILED BULK EARTHWORKS\Drawings\510357-008-CI-1023.dwg

NOTES:

1. THIS PLAN IS TO BE READ IN CONJUNCTION WITH NOTES AND LEGEND ON DRG. 510357-008-CI-1020, 1021 AND 1022.
2. CONSTRUCTION OF BY-PASS CHANNEL TO BE STAGED, WITH STAGING TO BE CONFIRMED BY CONTRACTOR. WHERE PRACTICAL ACTIVE CONSTRUCTION AREAS SHOULD BE ISOLATED OFF-LINE TO EXTERNAL CATCHMENT LOW FLOWS. WHERE PRACTICAL CONSTRUCT AND STABILISE A LOW FLOW DIVERSION CHANNEL TO ALLOW EXTERNAL CATCHMENT LOW FLOWS TO BE CONVEYED EITHER THROUGH OR AROUND ACTIVE CONSTRUCTION AREAS.
3. ALL DISTURBED SURFACES OTHER THAN CHANNEL WORKS AREAS TO BE EITHER ADEQUATELY SEALED, STABILISED OR VEGETATED TO THE DESIGN REQUIREMENTS WITHIN 20 DAYS OF COMPLETION OF SITE WORKS DURING MONTHS WITH MODERATE EROSION RISK, AND WITHIN 10 DAYS DURING MONTHS WITH HIGH EROSION RISK.
4. CHANNEL WORKS AREAS, INCLUDING BATTERS, TO BE ADEQUATELY STABILISED (100% COVERAGE) OR VEGETATED TO THE DESIGN REQUIREMENTS WITHIN 10 DAYS OF COMPLETION OF WORKS DURING MONTHS WITH MODERATE EROSION RISK, AND WITHIN 5 DAYS DURING MONTHS WITH HIGH EROSION RISK. ADDITIONAL EROSION CONTROL METHODS, SUCH AS HYDRAULICALLY APPLIED SOIL BINDERS/BLANKETS, MAY NEED TO BE APPLIED IF VEGETATION COVERAGE OF 100% CANNOT BE IMMEDIATELY ACHIEVED.
5. BATTER SLOPES DOWNSTREAM OF SEDIMENT BASIN TEMPORARY SPILLWAYS TO BE ADEQUATELY STABILISED WITH GEOFABRIC AND ROCK.
6. CONTRACTOR TO REVIEW EROSION AND SEDIMENT CONTROL STRATEGY FOR THE BORROW PIT AREAS FOLLOWING CONFIRMATION OF THE CONSTRUCTION TIMING AND EXTENT OF WORKS AREA, WITH THE STRATEGY TO BE REVISED AS NECESSARY TO SUIT.

CONTRACTOR TO REVIEW EROSION AND SEDIMENT CONTROL STRATEGY FOR THE EARTHWORKS ASSOCIATED WITH THE PROPOSED WATER STORAGE DAM FOLLOWING CONFIRMATION OF THE CONSTRUCTION TIMING. ADDITIONAL SEDIMENT CONTROLS, SUCH AS A SEDIMENT BASIN, MAY BE REQUIRED IF THE WORKS IS TIMED SEPARATELY TO THE PROPOSED BY-PASS CHANNEL CONSTRUCTION WORKS.

NOTE:

THE EROSION AND SEDIMENT STRATEGY SHOWN ON THIS PLAN IS CONCEPTUAL ONLY BASED ON THE SINGLE PHASE BULK EARTHWORKS CONTOURS PROVIDED. THE CONTRACTOR IS TO PREPARE AND MAINTAIN THEIR OWN EROSION AND SEDIMENT CONTROL PLANS, IN ACCORDANCE WITH THE IECA GUIDELINES, BASED UPON THEIR CHOSEN CONSTRUCTION METHODOLOGY AND SEQUENCING, AND THE PREVAILING SITE CONDITIONS FOR ALL PHASES OF THE WORKS (I.E. CLEARING AND GRUBBING, BULK EARTHWORKS, CIVIL WORKS AND SITE STABILISATION).
ALL MEASURES ARE TO BE SUPPLEMENTED WITH MONITORING AND MAINTENANCE ON SITE. ADDITIONAL CONTROLS OR MODIFICATIONS TO WORK PRACTICES MAY BE REQUIRED TO SUIT THE SITE CONDITIONS OR CONSTRUCTION SEQUENCING AS IDENTIFIED THROUGH ON-SITE MONITORING.

CUNNINGHAM HIGHWAY

EROSION AND SEDIMENT CONTROL PLAN

SCALE 1:2000

Rev.	Date	Description	Des.	Verif.	Appd.
D	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
C	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
B	14/04/2020	FISH MITIGATION MEASURES ADDED	B.J.F.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	C.D.B.	C.D.B.

0 50 100 150 200m
SCALE 1:2000 @A1

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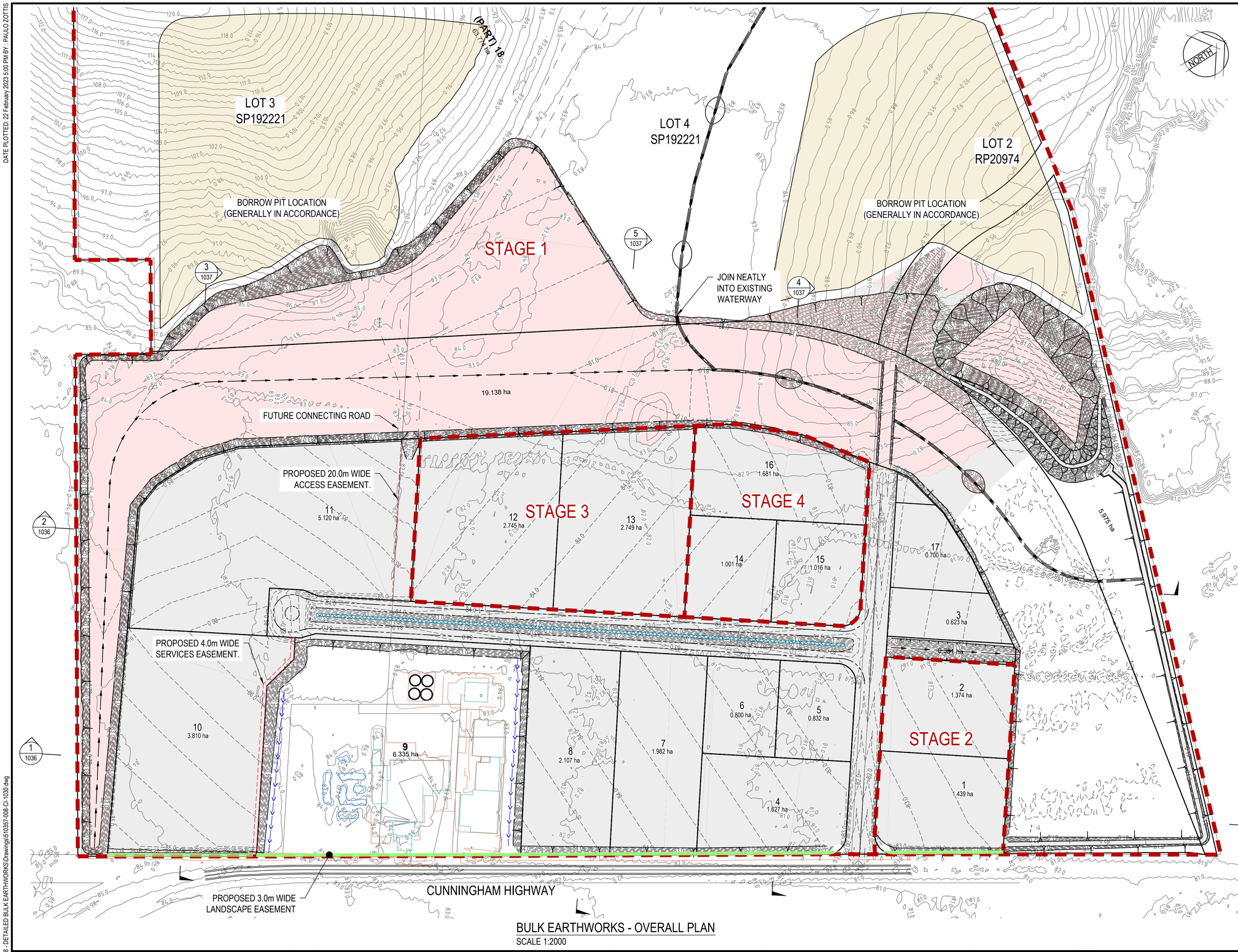
Checked	C.D.B.	Date 20/02/2020
Designed	M.D.	Date 20/01/2020
Verified	C.D.B.	Date 20/02/2020
Approved	CD CPESC 7619	Date 14/04/2020

Client: KALFRESH PTY LTD
Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT
Title: EROSION AND SEDIMENT CONTROL CONCEPT LAYOUT PLAN

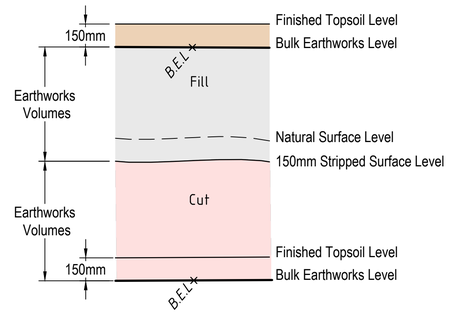
Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number: 510357-008-CI-1023
Revision: D



BULK EARTHWORKS - OVERALL PLAN
SCALE 1:2000



EARTHWORKS PAYLINES
N.T.S.

WARNING!
BEWARE OF UNDERGROUND SERVICES THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM GIS DATA OR KNOWN POSITIONS OF VALVES, MANHOLES ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.

BATTER NOTE:
- ALL BATTER SLOPES AND STABILITY TO BE CONFIRMED BY GEOTECHNICAL CONSULTANTS DURING CONSTRUCTION.
- BATTERS STEEPER THAN 1 IN 4 (25%) ARE TO BE HYDROMULCHED;
- BATTERS LESS THAN 1 IN 4 (25%) TO BE MULCHED AND LANDSCAPED;
- TABLE DRAINS STEEPER THAN 1 IN 4 (25%) ARE TO BE ROCKED;
- TABLE DRAINS LESS THAN 1 IN 4 (25%) TO BE TURF LINED OR AS SPECIFIED BY SUPERINTENDENT.

NOTE:
REFER DRG. 510357-008-CI-1034 FOR EARTHWORKS VOLUMES.

LEGEND
- EARTHWORKS CUT
- EARTHWORKS FILL
- LANDSCAPE EASEMENT
- EXISTING PROPERTY BOUNDARY
- PROPOSED PROPERTY BOUNDARY
- STAGE BOUNDARY
- TOP OF BATTER
- BOTTOM OF BATTER
- 82.0 EARTHWORKS CONTOURS (0.25m)
- 82.0 EXISTING CONTOURS (1m)
- PROPOSED OVERLAND FLOWPATH
- V-DRAIN

Rev.	Date	Description	Des.	Verif.	Appd.
D	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
C	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
B	14/04/2020	FISH MITIGATION MEASURES ADDED	B.J.F.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

0 50 100 150 200m
SCALE 1:2000 @A1

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Verified	J.O.S.	Date 20/02/2020
Approved	RPEQ. 19706	Date 22/02/2023

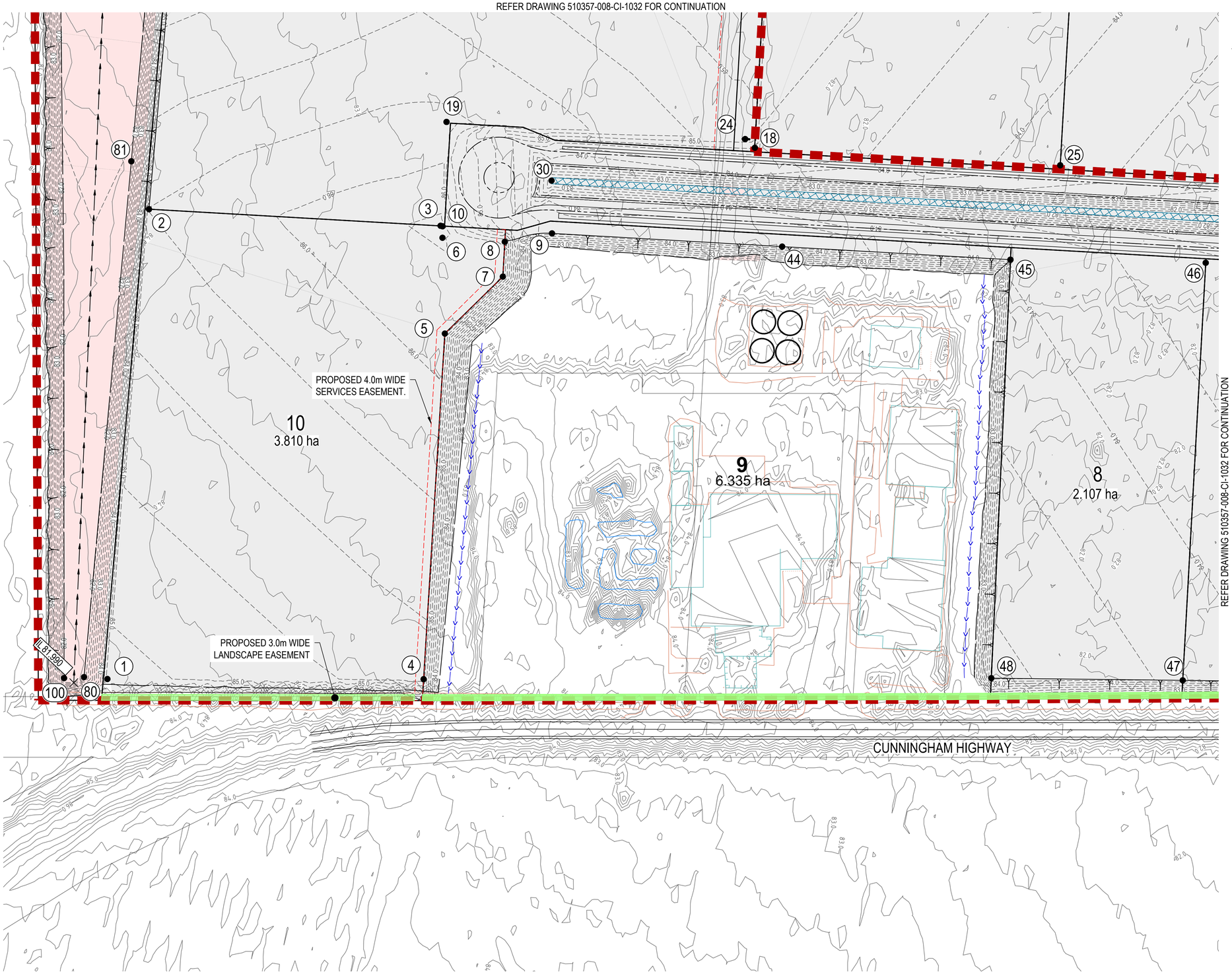
Client: KALFRESH PTY LTD
Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT
Title: BULK EARTHWORKS OVERALL LAYOUT PLAN

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number: 510357-008-CI-1030
Revision: D

REFER DRAWING 510357-008-CI-1032 FOR CONTINUATION



REFER DRAWING 510357-008-CI-1032 FOR CONTINUATION

WARNING!

BEWARE OF UNDERGROUND SERVICES THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM GIS DATA OR KNOWN POSITIONS OF VALVES, MANHOLES ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.

BATTER NOTE:

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- TABLE DRAINS STEEPER THAN 1 IN 4 (25%) ARE TO BE ROCKED;
- TABLE DRAINS LESS THAN 1 IN 4 (25%) TO BE TURF LINED OR AS SPECIFIED BY SUPERINTENDENT.

NOTE:
REFER DRG. 510357-008-CI-1034 FOR EARTHWORKS VOLUMES AND DRG. 510357-008-CI-1035 FOR SETOUT TABLES.

LEGEND

- EARTHWORKS CUT
- EARTHWORKS FILL
- LANDSCAPE EASEMENT
- EXISTING PROPERTY BOUNDARY
- PROPOSED PROPERTY BOUNDARY
- PROPOSED OVERLAND FLOWPATH
- STAGE BOUNDARY
- TOP OF BATTER
- BOTTOM OF BATTER
- 82.0 EARTHWORKS CONTOURS (0.25m)
- 82.0 EXISTING CONTOURS (0.25m)
- V-DRAIN

CUT AND FILL PLAN

SCALE 1:1000

Rev.	Date	Description	Des.	Verif.	Appd.
D	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
C	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
B	14/04/2020	FISH MITIGATION MEASURES ADDED	B.J.F.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

0 20 40 60 80 100m

SCALE 1:1000 @A1

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Designed	M.D.	Date 20/01/2020
Verified	J.O.S.	Date 20/02/2020
Approved	RPEQ. 19706	Date 22/02/2023

Client: KALFRESH PTY LTD

Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT

Title: CUT AND FILL PLAN SHEET 1

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

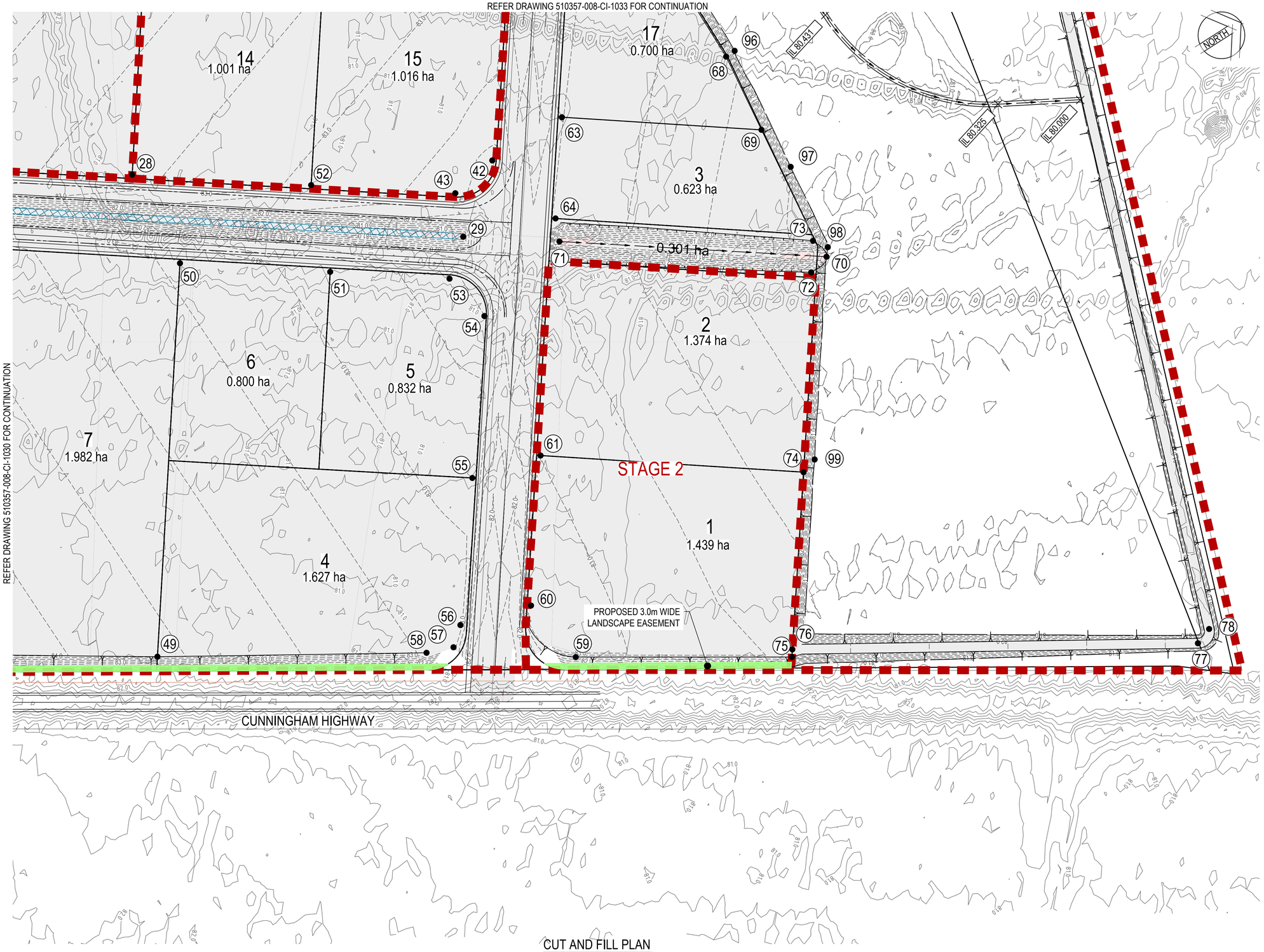
DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number: 510357-008-CI-1031

Revision: D

REFER DRAWING 510357-008-CI-1033 FOR CONTINUATION

REFER DRAWING 510357-008-CI-1030 FOR CONTINUATION



CUT AND FILL PLAN
SCALE 1:1000

WARNING!
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BATTER NOTE:
- ALL BATTER SLOPES AND STABILITY TO BE CONFIRMED BY GEOTECHNICAL CONSULTANTS DURING CONSTRUCTION.
- BATTERS STEEPER THAN 1 IN 4 (25%) ARE TO BE HYDROMULCHED;
- BATTERS LESS THAN 1 IN 4 (25%) TO BE MULCHED AND LANDSCAPED;
- TABLE DRAINS STEEPER THAN 1 IN 4 (25%) ARE TO BE ROCKED;
- TABLE DRAINS LESS THAN 1 IN 4 (25%) TO BE TURF LINED OR AS SPECIFIED BY SUPERINTENDENT.

NOTE:
REFER DRG. 510357-008-CI-1034 FOR EARTHWORKS VOLUMES AND DRG. 510357-008-CI-1035 FOR SETOUT TABLES.

LEGEND
- EARTHWORKS CUT
- EARTHWORKS FILL
- LANDSCAPE EASEMENT
- EXISTING PROPERTY BOUNDARY
- PROPOSED PROPERTY BOUNDARY
- STAGE BOUNDARY
- TOP OF BATTER
- BOTTOM OF BATTER
- 82.0 EARTHWORKS CONTOURS (0.25m)
- 82.0 EXISTING CONTOURS (0.25m)
- V-DRAIN

Rev.	Date	Description	Des.	Verif.	Appd.
C	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
B	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

0 20 40 60 80 100m
SCALE 1:1000 @A1

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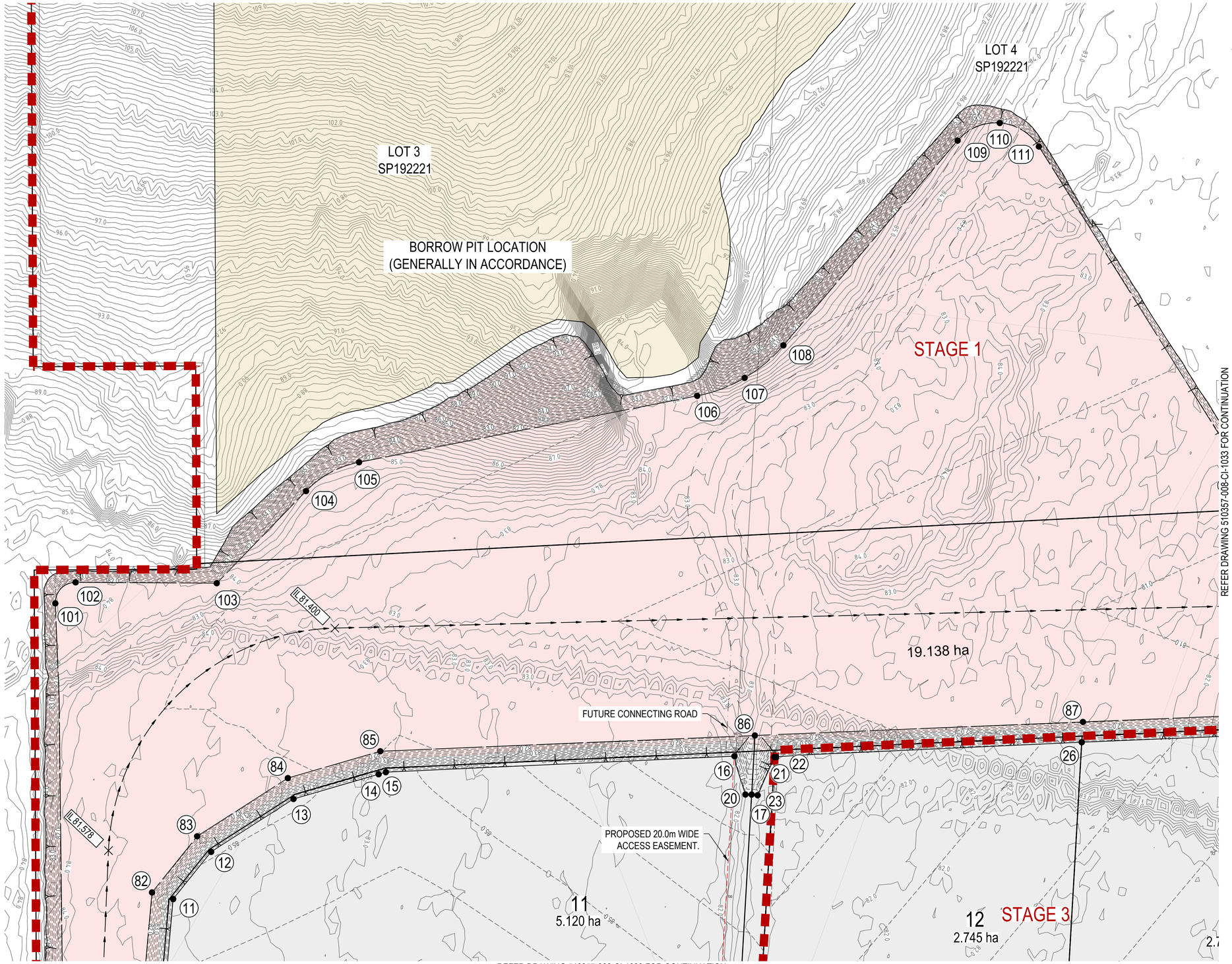
Checked	B.W.	Date 20/02/2020
Designed	M.D.	Date 20/01/2020
Verified	J.O.S.	Date 20/02/2020
Approved	RPEQ. 19706	Date 22/02/2023

Client: KALFRESH PTY LTD
Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT
Title: CUT AND FILL PLAN SHEET 2
Status: FOR APPROVAL — NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number: 510357-008-CI-1032
Revision: C



CUT AND FILL PLAN

SCALE 1:1000

WARNING!

BEWARE OF UNDERGROUND SERVICES THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM GIS DATA OR KNOWN POSITIONS OF VALVES, MANHOLES ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.

BATTER NOTE:

- ALL BATTER SLOPES AND STABILITY TO BE CONFIRMED BY GEOTECHNICAL CONSULTANTS DURING CONSTRUCTION.
- BATTERS STEEPER THAN 1 IN 4 (25%) ARE TO BE HYDROMULCHED;
- BATTERS LESS THAN 1 IN 4 (25%) TO BE MULCHED AND LANDSCAPED;
- TABLE DRAINS STEEPER THAN 1 IN 4 (25%) ARE TO BE ROCKED;
- TABLE DRAINS LESS THAN 1 IN 4 (25%) TO BE TURF LINED OR AS SPECIFIED BY SUPERINTENDENT.

NOTE:
REFER DRG. 510357-008-CI-1034 FOR EARTHWORKS VOLUMES AND DRG. 510357-008-CI-1035 FOR SETOUT TABLES.

LEGEND

- EARTHWORKS CUT
- EARTHWORKS FILL
- EXISTING PROPERTY BOUNDARY
- PROPOSED PROPERTY BOUNDARY
- STAGE BOUNDARY
- TOP OF BATTER
- BOTTOM OF BATTER
- 82.0 EARTHWORKS CONTOURS (0.25m)
- 82.0 EXISTING CONTOURS (0.25m)
- V-DRAIN

Rev.	Date	Description	Des.	Verif.	Appd.
D	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
C	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
B	14/04/2020	FISH MITIGATION MEASURES ADDED	B.J.F.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

0 20 40 60 80 100m
SCALE 1:1000 @A1

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Drawn	C.V	Date 21/01/2020
Checked	B.W.	Date 20/02/2020
Designed	M.D.	Date 20/01/2020
Verified	J.O.S.	Date 20/02/2020
Approved	RPEQ. 19706	Date 22/02/2023

Client: KALFRESH PTY LTD
Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT
Title: CUT AND FILL PLAN SHEET 3
Status: FOR APPROVAL — NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number: 510357-008-CI-1033
Revision: D

DATE PLOTTED: 22 February 2023 4:56 PM BY - PAULO ZOTTIS

XREFs: XR-SURVEY; XR-DSGN; XR-CONT-EXIST; XR-CONT-BULK-EWRK; XR-CUTFILL; XR-DSGN-OP2; XR-CONT-BULK-EWRK-OP2; XR-CUTFILL-OP2
CAD File: \\Aust\cbd02\data\5103-57\008 - DETAILED BULK EARTHWORKS\Drawings\510357-008-CI-1031-1035.dwg

EARTHWORKS - STAGE 1

DATE: FRI FEB 03 15:02:27 2023
REPORT FILE: EWRK VOL.RPT

VOLUMES FROM TIN "S EXIST" TO TIN "DESIGN OPTION 2" - (WITH PLAN POLYGON "STAGE 1")

CUT VOLUMES ARE NEGATIVE
FILL VOLUMES ARE POSITIVE

TOTAL CUT	-486574.530m³
TOTAL FILL	465617.663m³
IE EXCESS OF CUT OVER FILL	-20956.867m³

NOTE:
1. A 150mm STRIPPING DEPTH HAS BEEN ASSUMED.
2. THE BULK EARTHWORKS SURFACE HAS BEEN CALCULATED TO 150mm BELOW FINISHED SURFACE LEVEL TO ALLOW FOR TOPSOIL TO BE PLACED ON ALL PADS AND VERGES.
3. EARTHWORKS VOLUMES ARE CALCULATED FROM THE BULK EARTHWORKS SURFACE TO A CALCULATED STRIPPED NATURAL SURFACE 150mm BELOW THE EXISTING NATURAL SURFACE.

EARTHWORKS - STAGE 2

DATE: FRI FEB 03 15:02:27 2023
REPORT FILE: EWRK VOL.RPT

VOLUMES FROM TIN "S EXIST" TO TIN "DESIGN OPTION 2" - (WITH PLAN POLYGON "STAGE 2")

CUT VOLUMES ARE NEGATIVE
FILL VOLUMES ARE POSITIVE

TOTAL CUT	0.000m³
TOTAL FILL	57487.232m³
IE EXCESS OF FILL OVER CUT	57487.232m³

NOTE:
1. A 150mm STRIPPING DEPTH HAS BEEN ASSUMED.
2. THE BULK EARTHWORKS SURFACE HAS BEEN CALCULATED TO 150mm BELOW FINISHED SURFACE LEVEL TO ALLOW FOR TOPSOIL TO BE PLACED ON ALL PADS AND VERGES.
3. EARTHWORKS VOLUMES ARE CALCULATED FROM THE BULK EARTHWORKS SURFACE TO A CALCULATED STRIPPED NATURAL SURFACE 150mm BELOW THE EXISTING NATURAL SURFACE.

EARTHWORKS - STAGE 3

DATE: FRI FEB 03 15:02:27 2023
REPORT FILE: EWRK VOL.RPT

VOLUMES FROM TIN "S EXIST" TO TIN "DESIGN OPTION 2" - (WITH PLAN POLYGON "STAGE 3")

CUT VOLUMES ARE NEGATIVE
FILL VOLUMES ARE POSITIVE

TOTAL CUT	-353.680m³
TOTAL FILL	123973.322m³
IE EXCESS OF FILL OVER CUT	123619.642m³

NOTE:
1. A 150mm STRIPPING DEPTH HAS BEEN ASSUMED.
2. THE BULK EARTHWORKS SURFACE HAS BEEN CALCULATED TO 150mm BELOW FINISHED SURFACE LEVEL TO ALLOW FOR TOPSOIL TO BE PLACED ON ALL PADS AND VERGES.
3. EARTHWORKS VOLUMES ARE CALCULATED FROM THE BULK EARTHWORKS SURFACE TO A CALCULATED STRIPPED NATURAL SURFACE 150mm BELOW THE EXISTING NATURAL SURFACE.

EARTHWORKS - STAGE 4

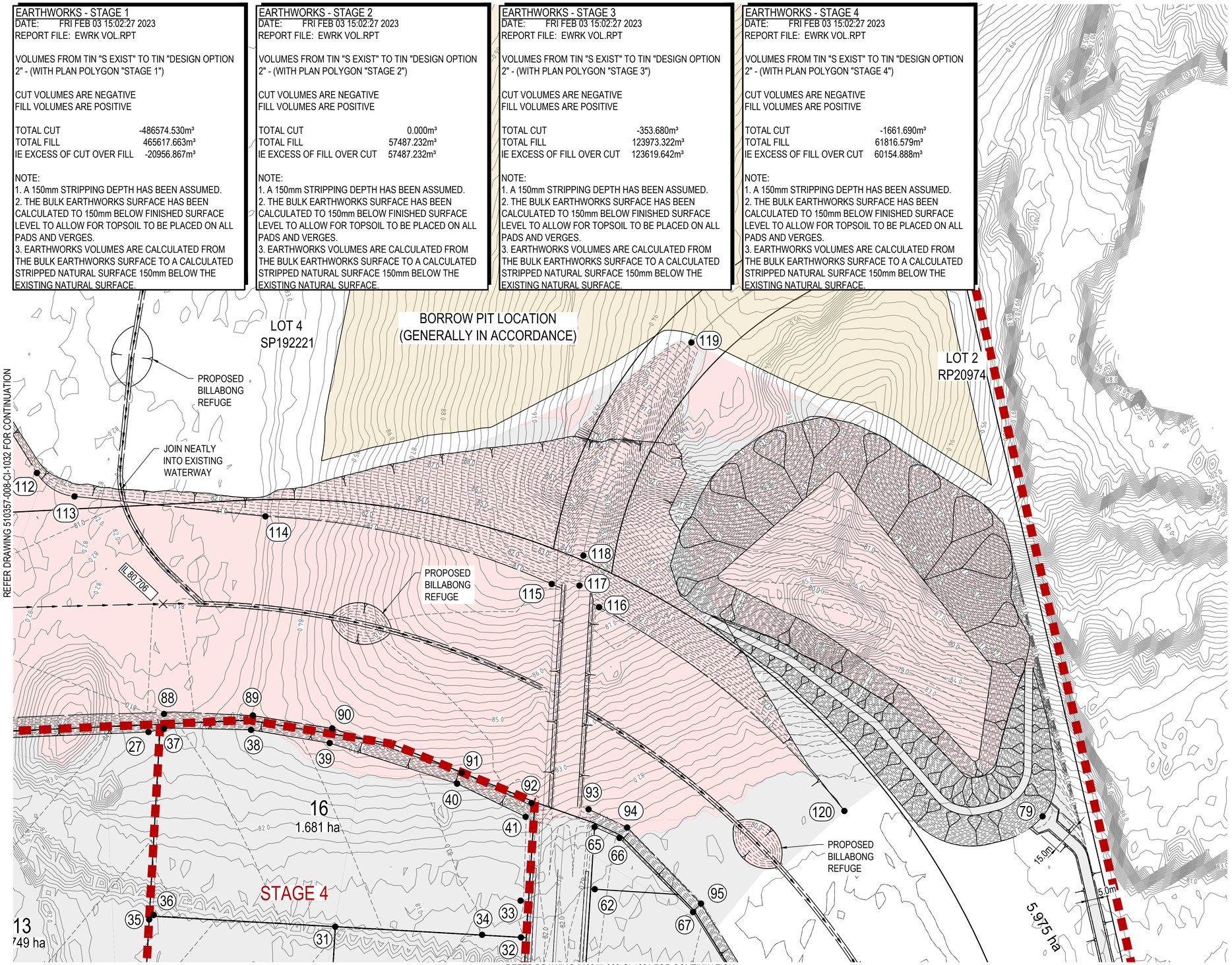
DATE: FRI FEB 03 15:02:27 2023
REPORT FILE: EWRK VOL.RPT

VOLUMES FROM TIN "S EXIST" TO TIN "DESIGN OPTION 2" - (WITH PLAN POLYGON "STAGE 4")

CUT VOLUMES ARE NEGATIVE
FILL VOLUMES ARE POSITIVE

TOTAL CUT	-1661.690m³
TOTAL FILL	61816.579m³
IE EXCESS OF FILL OVER CUT	60154.888m³

NOTE:
1. A 150mm STRIPPING DEPTH HAS BEEN ASSUMED.
2. THE BULK EARTHWORKS SURFACE HAS BEEN CALCULATED TO 150mm BELOW FINISHED SURFACE LEVEL TO ALLOW FOR TOPSOIL TO BE PLACED ON ALL PADS AND VERGES.
3. EARTHWORKS VOLUMES ARE CALCULATED FROM THE BULK EARTHWORKS SURFACE TO A CALCULATED STRIPPED NATURAL SURFACE 150mm BELOW THE EXISTING NATURAL SURFACE.



REFER DRAWING 510357-008-CI-1031 FOR CONTINUATION

CUT AND FILL PLAN

SCALE 1:1000

WARNING!

BEWARE OF UNDERGROUND SERVICES THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM GIS DATA OR KNOWN POSITIONS OF VALVES, MANHOLES ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.

BATTER NOTE:

- ALL BATTER SLOPES AND STABILITY TO BE CONFIRMED BY GEOTECHNICAL CONSULTANTS DURING CONSTRUCTION.
- BATTERS STEEPER THAN 1 IN 4 (25%) ARE TO BE HYDROMULCHED;
- BATTERS LESS THAN 1 IN 4 (25%) TO BE MULCHED AND LANDSCAPED;
- TABLE DRAINS STEEPER THAN 1 IN 4 (25%) ARE TO BE ROCKED;
- TABLE DRAINS LESS THAN 1 IN 4 (25%) TO BE TURF LINED OR AS SPECIFIED BY SUPERINTENDENT.

NOTE:
REFER DRG. 510357-008-CI-1035 FOR SETOUT TABLES.

LEGEND

- EARTHWORKS CUT
- EARTHWORKS FILL
- EXISTING PROPERTY BOUNDARY
- PROPOSED PROPERTY BOUNDARY
- STAGE BOUNDARY
- TOP OF BATTER
- BOTTOM OF BATTER
- 82.0 EARTHWORKS CONTOURS (0.25m)
- 82.0 EXISTING CONTOURS (0.25m)
- V-DRAIN
- BILLABONG REFUGE - REFER FISH MITIGATION REPORT FOR DETAILS

Rev.	Date	Description	Des.	Verif.	Appd.
D	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
C	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
B	14/04/2020	FISH MITIGATION MEASURES ADDED	B.J.F.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

0 20 40 60 80 100m
SCALE 1:1000 @A1

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Level 6, Springfield Tower, 145 Sinnathamby Boulevard
Springfield Central QLD 4300
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Drawn	C.V	Date 21/01/2020
Checked	B.W.	Date 20/02/2020
Designed	M.D.	Date 20/01/2020
Verified	J.O.S.	Date 20/02/2020
Approved	RPEQ. 19706	Date 22/02/2023

Client: KALFRESH PTY LTD
Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT
Title: CUT AND FILL PLAN SHEET 4

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number: 510357-008-CI-1034
Revision: D

SETOUT POINTS

PT No.	EASTING	NORTHING	RL.
1	458487.826	6908096.330	84.903
2	458302.913	6908238.274	85.750
3	458387.155	6908355.542	86.310
4	458571.790	6908228.230	85.377
5	458433.271	6908328.738	86.100
6	458392.672	6908353.149	86.269
7	458424.909	6908368.030	86.271
8	458410.896	6908378.098	85.959
9	458419.888	6908400.016	84.365
10	458387.901	6908356.237	86.320
11	458200.985	6908316.537	85.038
12	458191.350	6908344.934	84.985
13	458191.162	6908393.373	84.972
14	458203.450	6908435.505	85.066
15	458204.491	6908439.072	85.074
16	458290.394	6908588.946	84.187
17	458310.988	6908585.920	84.250
18	458437.991	6908507.374	84.674
19	458345.430	6908385.559	85.800
20	458309.324	6908583.337	84.408
21	458301.358	6908605.453	84.264
22	458301.761	6908606.086	84.471
23	458312.858	6908588.250	84.387
24	458431.796	6908505.612	85.124
25	458526.313	6908630.146	83.873
26	458376.800	6908737.705	84.425
27	458444.422	6908854.489	83.928
28	458608.076	6908743.802	83.312
29	458726.217	6908870.213	80.500
30	458397.765	6908413.816	82.749
31	458575.321	6908880.798	83.337
32	458629.111	6908955.568	82.821
33	458613.655	6908965.136	82.909
34	458617.690	6908939.992	82.993
35	458522.872	6908804.968	83.628
36	458522.194	6908808.086	83.816
37	458447.133	6908861.840	83.535
38	458470.776	6908897.864	83.356
39	458497.151	6908927.204	83.192
40	458547.956	6908969.673	82.917
41	458579.968	6908989.486	82.785
42	458701.159	6908903.833	82.349
43	458705.173	6908878.771	82.609
44	458486.462	6908492.557	84.424
45	458552.479	6908584.345	83.972
46	458605.581	6908664.989	83.574
47	458773.646	6908544.665	84.192
48	458721.969	6908465.380	84.583
49	458823.945	6908621.904	83.811
50	458659.622	6908740.109	83.204
51	458704.761	6908802.854	82.894
52	458661.926	6908818.513	82.944
53	458740.615	6908852.694	82.628
54	458766.413	6908857.540	82.501
55	458833.273	6908807.686	82.840
56	458893.736	6908761.988	83.150
57	458901.450	6908752.877	83.190
58	458896.418	6908739.664	83.229
59	458939.392	6908803.159	82.507
60	458904.750	6908797.975	83.193
61	458842.337	6908843.436	82.997
62	458628.565	6908999.142	82.780
63	458701.618	6908945.933	82.755
64	458743.723	6908915.264	82.731
65	458602.559	6909015.611	82.796
66	458613.707	6909023.067	82.742

SETOUT POINTS

PT No.	EASTING	NORTHING	RL.
67	458664.243	6909034.155	82.533
68	458720.627	6909033.804	82.304
69	458762.091	6909028.958	82.135
70	458835.000	6909022.194	80.340
71	458754.799	6908910.627	80.450
72	458837.570	6909011.230	81.974
73	458824.355	6909020.730	81.918
74	458922.047	6908952.870	82.369
75	458998.935	6908896.867	82.698
76	458995.762	6908899.178	82.691
77	459104.901	6909076.693	81.420
78	459101.785	6909085.493	81.384
79	458717.071	6909205.537	80.535
80	458480.822	6908087.096	81.999
81	458278.226	6908243.604	81.760
82	458192.609	6908309.478	81.540
83	458181.157	6908343.232	81.593
84	458180.949	6908396.572	81.512
85	458194.286	6908442.297	81.499
86	458287.201	6908602.946	81.325
87	458368.653	6908743.566	81.146
88	458440.985	6908865.766	81.281
89	458465.209	6908902.452	80.935
90	458491.692	6908932.167	80.899
91	458544.606	6908974.609	80.875
92	458575.809	6908995.599	80.460
93	458593.563	6909017.763	80.724
94	458611.414	6909029.056	80.764
95	458662.816	6909039.714	80.886
96	458720.443	6909039.092	80.590
97	458786.172	6909031.400	80.335
98	458831.202	6909025.367	80.195
99	458919.591	6908961.167	80.529
100	458475.960	6908078.473	82.000
101	458046.262	6908345.800	81.689
102	458042.870	6908359.865	81.690
103	458080.689	6908418.594	81.534
104	458065.956	6908480.330	81.580
105	458068.018	6908510.132	81.588
106	458130.095	6908669.018	81.481
107	458135.185	6908693.565	81.478
108	458131.905	6908718.419	81.495
109	458092.696	6908845.520	81.652
110	458096.520	6908867.803	81.649
111	458116.753	6908877.889	81.603
112	458306.620	6908876.615	81.086
113	458326.378	6908886.083	81.036
114	458385.402	6908960.532	80.919
115	458489.704	6909062.203	80.789
116	458511.928	6909075.830	80.625
117	458497.678	6909073.387	81.322
118	458486.244	6909082.995	83.026
119	458425.933	6909184.672	95.029
120	458662.203	6909124.203	80.598

Rev.	Date	Description	Des.	Verif.	Appd.
C	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
B	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

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Drawn C.V	Date	21/01/2020
Checked B.W.	Date	20/02/2020
Designed M.D.	Date	20/01/2020
Verified J.O.S.	Date	20/02/2020
Approved	RPEQ. 19706	
	Date	22/02/2023

Client: KALFRESH PTY LTD

Project: SCENIC RIM
AGRICULTURAL INDUSTRIAL PRECINCT

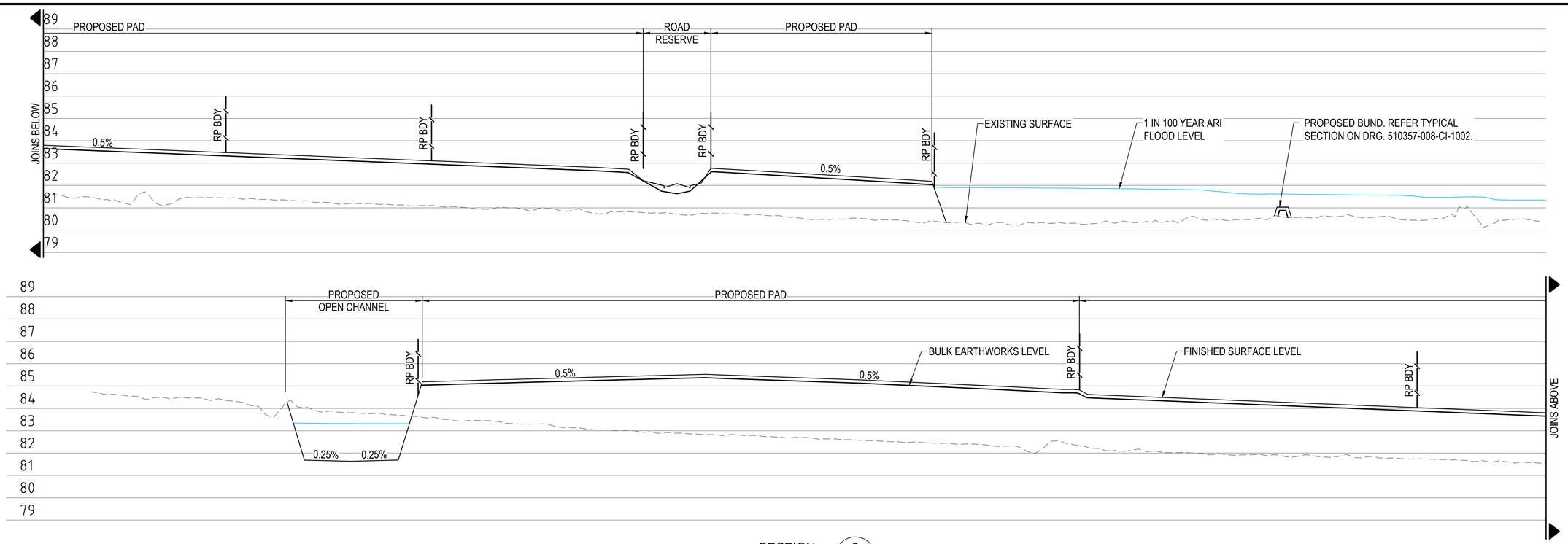
Status:

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Title: BULK EARTHWORKS
SETOUT TABLES

Drawing Number: 510357-008-CI-1035

Revision: C



SECTION 2 / 1030

SECTION 1 / 1030

Rev.	Date	Description	Des.	Verif.	Appd.
D	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
C	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
B	14/04/2020	FISH MITIGATION MEASURES ADDED	B.J.F.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

H: 0 20 40 60 80 100m
V: 0 2 4 6 8 10m
SCALE: H:1:1000 V:1:100 @A1

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Approved	RPEQ. 19706	Date 22/02/2023

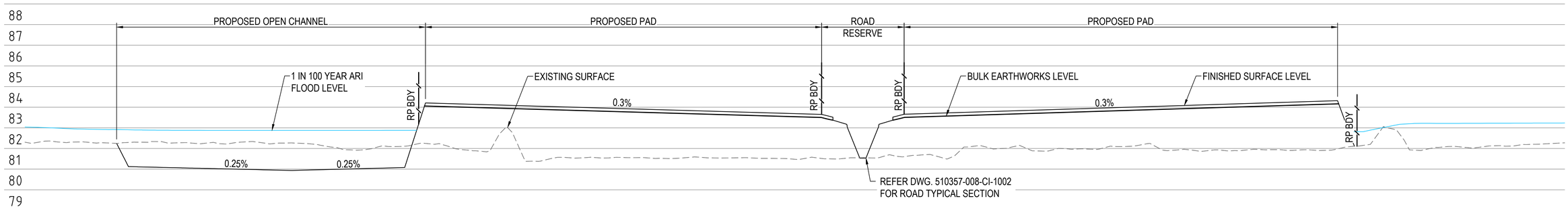
Client: KALFRESH PTY LTD
Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT
Title: BULK EARTHWORKS SITE SECTIONS SHEET 1

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

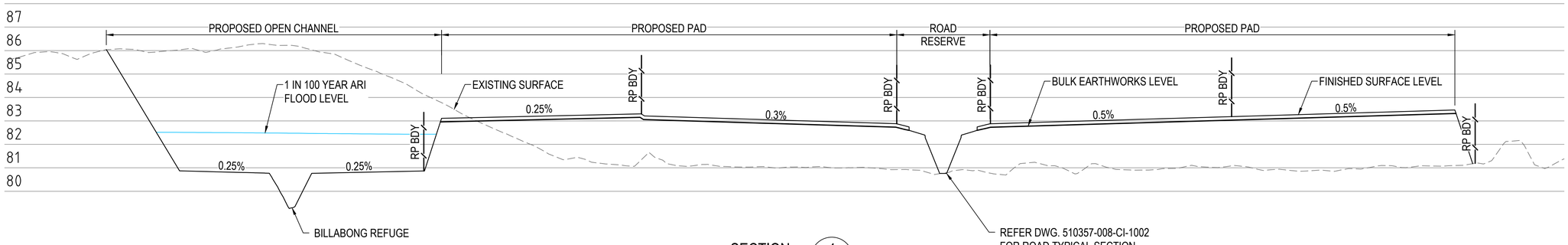
DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number: 510357-008-CI-1036
Revision: D

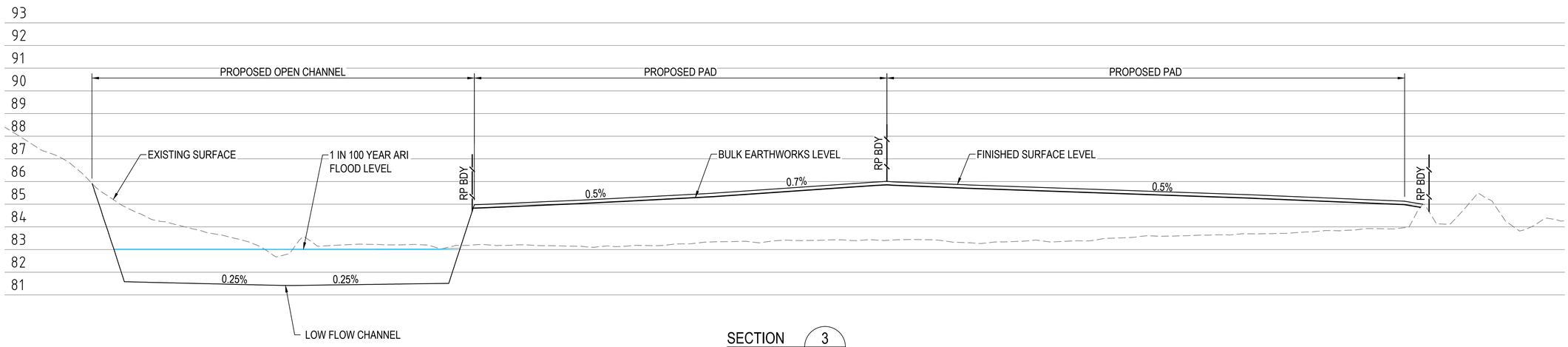
XREFs:
CAD File: \\ausltds02\data\5103-57\008 - DETAILED BULK EARTHWORKS\Drawings\510357-008-CI-1036-1037.dwg



SECTION 5 / 1030



SECTION 4 / 1030



SECTION 3 / 1030

Rev.	Date	Description	Des.	Verif.	Appd.
D	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
C	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
B	14/04/2020	FISH MITIGATION MEASURES ADDED	B.J.F.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

H: 0 20 40 60 80 100m
V: 0 2 4 6 8 10m
SCALE: H:1:1000 V:1:100 @A1

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Drawn	C.V	Date 21/01/2020
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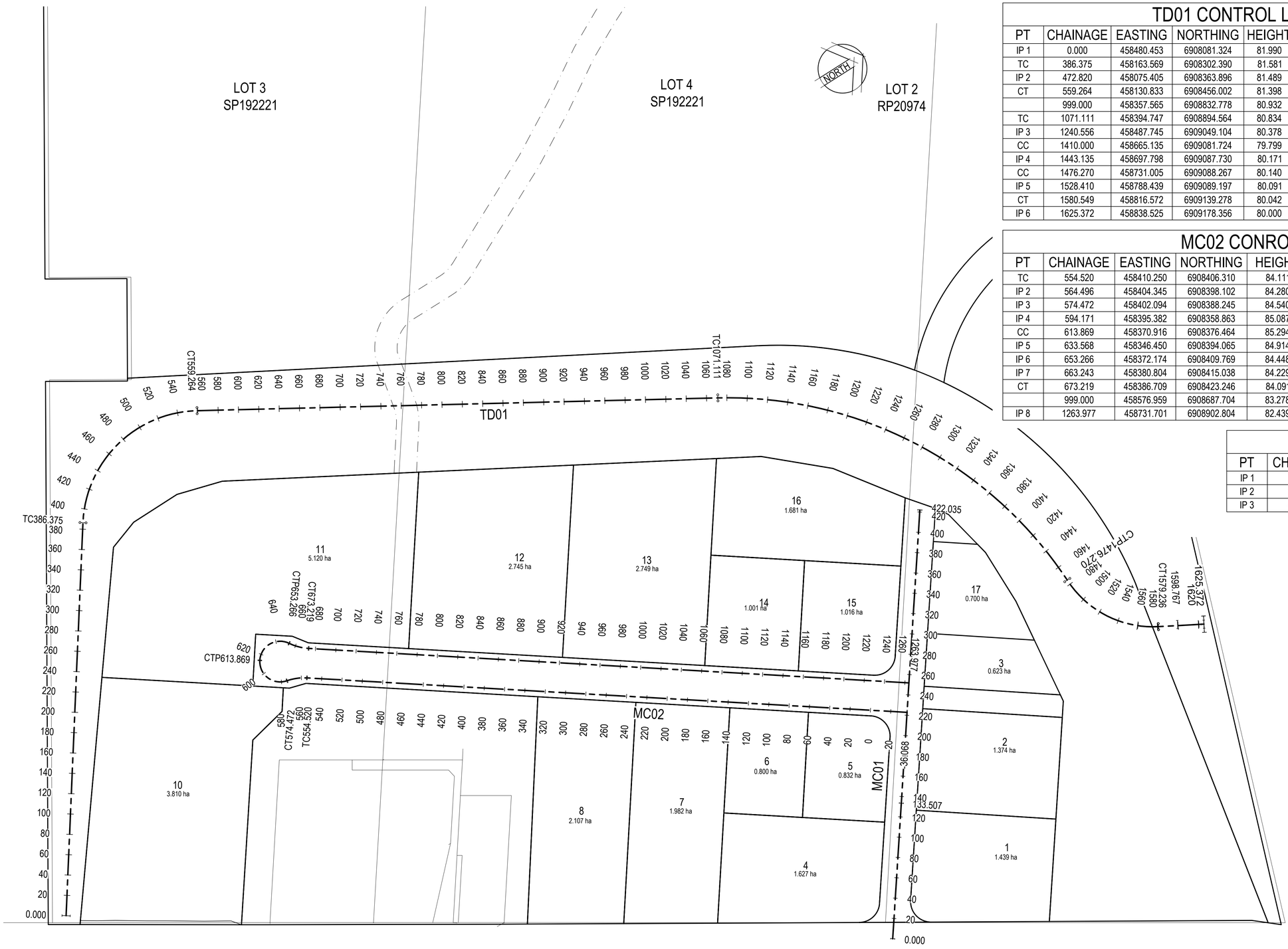
Designed	M.D.	Date 20/01/2020
Verified	J.O.S.	Date 20/02/2020
Approved	RPEQ. 19706	Date 22/02/2023

Client: KALFRESH PTY LTD
Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT
Title: BULK EARTHWORKS SITE SECTIONS SHEET 2

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number: 510357-008-CI-1037
Revision: D



CONTROL LINE SETOUT PLAN

SCALE 1:2000

TD01 CONTROL LINE SETOUT TABLE

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	458480.453	6908081.324	81.990	304°54'02.06"			
TC	386.375	458163.569	6908302.390	81.581	304°54'02.06"			
IP 2	472.820	458075.405	6908363.896	81.489		R = 115.000	172.890	86°08'15.96"
CT	559.264	458130.833	6908456.002	81.398	31°02'18.02"			
	999.000	458357.565	6908832.778	80.932	31°02'18.02"			
TC	1071.111	458394.747	6908894.564	80.834	31°02'18.02"			
IP 3	1240.556	458487.745	6909049.104	80.378		R = 400.000	338.889	48°32'32.07"
CC	1410.000	458665.135	6909081.724	79.799	79°34'50.08"			
IP 4	1443.135	458697.798	6909087.730	80.171		R = 400.000	66.270	9°29'32.85"
CC	1476.270	458731.005	6909088.267	80.140	89°04'22.93"			
IP 5	1528.410	458788.439	6909089.197	80.091		R = -100.000	104.280	59°44'52.12"
CT	1580.549	458816.572	6909139.278	80.042	29°19'30.81"			
IP 6	1625.372	458838.525	6909178.356	80.000	29°19'30.81"			

MC02 CONROL LINE - ROAD 2

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
TC	554.520	458410.250	6908406.310	84.111	215°43'51.81"			
IP 2	564.496	458404.345	6908398.102	84.280		R = -50.000	19.952	22°51'49.20"
IP 3	574.472	458402.094	6908388.245	84.540				
IP 4	594.171	458395.382	6908358.863	85.087		R = 20.000	39.397	112°51'51.01"
CC	613.869	458370.916	6908376.464	85.294	305°43'53.63"			
IP 5	633.568	458346.450	6908394.065	84.914		R = 20.000	39.397	112°51'51.01"
IP 6	653.266	458372.174	6908409.769	84.448				
IP 7	663.243	458380.804	6908415.038	84.229		R = -50.000	19.953	22°51'52.81"
CT	673.219	458386.709	6908423.246	84.091	35°43'51.83"			
	999.000	458576.959	6908687.704	83.278	35°43'51.83"			
IP 8	1263.977	458731.701	6908902.804	82.439	35°43'51.83"			

MC01 CONTROL LINE - ROAD 1

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING
IP 1	0.000	458935.282	6908754.520	82.038	306°04'07.67"
IP 2	133.507	458827.367	6908833.123	82.243	
IP 3	422.035	458594.147	6909002.995	81.828	306°04'07.67"

WARNING

BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM GIS DATA OR KNOWN POSITIONS OF VALVES, MANHOLES ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK

LEGEND

- CONTROL LINE
- EXISTING PROPERTY BOUNDARY
- PROPOSED PROPERTY BOUNDARY

Rev.	Date	Description	Des.	Verif.	Appd.
D	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
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A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

0 50 100 150 200m
SCALE 1:2000 @A1

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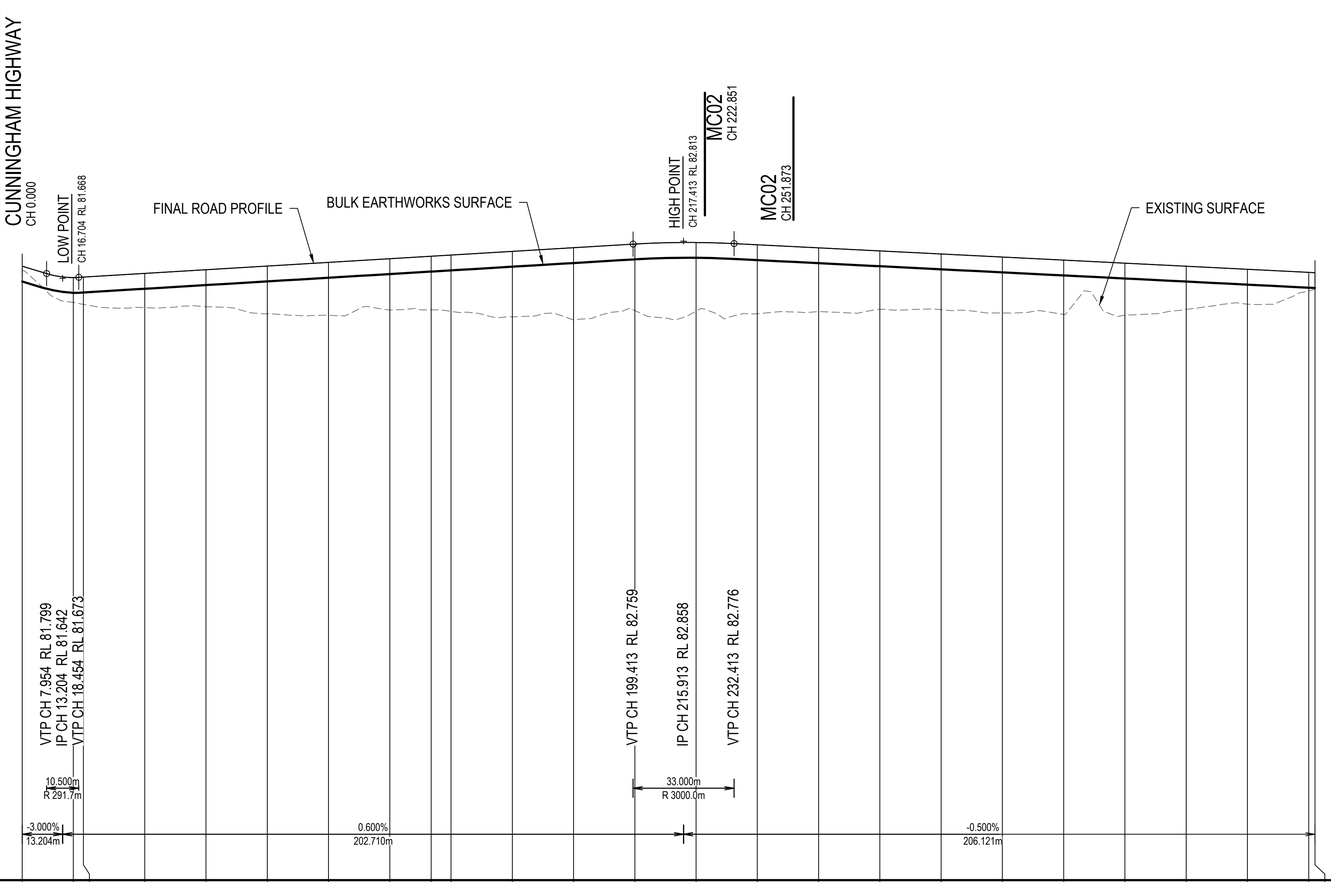
Drawn	C.V	Date 21/01/2020
Checked	B.W.	Date 20/02/2020
Designed	M.D.	Date 20/01/2020
Verified	J.O.S.	Date 20/02/2020
Approved		RPEQ. 19706 Date 22/02/2023

Client: KALFRESH PTY LTD
Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT
Title: CONTROL LINE SETOUT PLAN
Status: FOR APPROVAL — NOT TO BE USED FOR CONSTRUCTION PURPOSES
DATUM: AHD | GRID: | Scale: AS SHOWN | Size: A1
Drawing Number: 510357-008-CI-1110 | Revision: D



VERT. CURVE LENGTH (m)
VERT. CURVE RADIUS (m)
VERT. GEOMETRY GRADE (%)
VERT. GEOMETRY LENGTH(m)
DATUM RL 62.000

HORZ. CURVE LENGTH (m) HORZ. CURVE RADIUS (m)																									
LHS BOXING LEVELS	81.596	81.226	81.241	81.361	81.481	81.601	81.721	81.841	81.922	81.961	82.081	82.201	82.321	82.371	82.296	82.196	82.096	81.996	81.896	81.796	81.696	81.596	81.496	81.396	
RHS BOXING LEVELS	81.596	81.226	81.241	81.361	81.481	81.601	81.721	81.841	81.922	81.961	82.081	82.201	82.321	82.371	82.296	82.196	82.096	81.996	81.896	81.796	81.696	81.596	81.496	81.396	
DESIGN LEVEL KERB FACE	82.038	81.668	81.683	81.803	81.923	82.043	82.163	82.283	82.364	82.403	82.523	82.643	82.763	82.812	82.738	82.638	82.538	82.438	82.338	82.238	82.138	82.038	81.938	81.838	81.828
CUT / FILL DEPTH TO EXISTING SURFACE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EXISTING SURFACE LEVELS	81.884	80.855	80.793	80.686	80.717	80.489	80.437	80.611	80.612	80.565	80.387	80.293	80.592	80.570	80.492	80.559	80.628	80.620	80.511	80.466	80.436	80.628	80.798	81.230	81.296
BOXING LEVEL BELOW KERB FACE	82.038	81.668	81.683	81.803	81.923	82.043	82.163	82.283	82.364	82.403	82.523	82.643	82.763	82.812	82.738	82.638	82.538	82.438	82.338	82.238	82.138	82.038	81.938	81.838	81.828
CONTROL LINE CHAINAGE INVERT CENTRELINE	0.000	16.704	20.000	40.000	60.000	80.000	100.000	120.000	133.507	140.000	160.000	180.000	200.000	220.000	240.000	260.000	280.000	300.000	320.000	340.000	360.000	380.000	400.000	420.000	422.035

MC01
SCALE: H 1:1000
V 1:100

Rev.	Date	Description	Des.	Verif.	Appd.
C	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
B	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

H: 0 20 40 60 80 100m
V: 0 2 4 6 8 10m
SCALE: H:1:1000 V:1:100 @A1

Stantec
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Level 6, Springfield Tower, 145 Sinnathamby Boulevard
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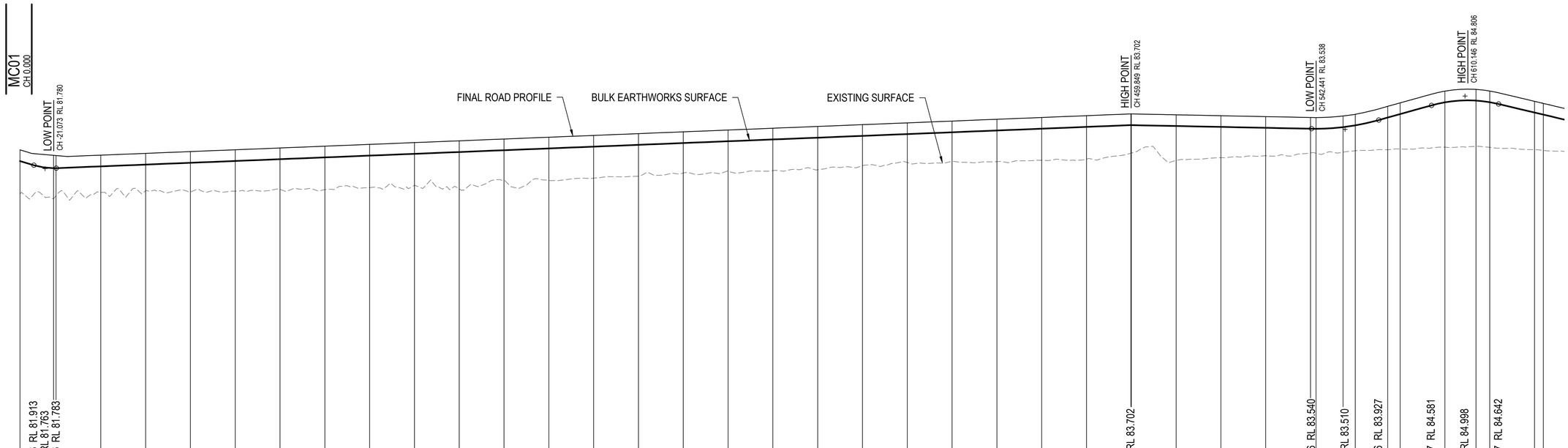
Drawn	C.V	Date 21/01/2020
Checked	B.W.	Date 20/02/2020
Designed	M.D.	Date 20/01/2020
Verified	J.O.S.	Date 20/02/2020
Approved		RPEQ. 19706 Date 22/02/2023

Client: KALFRESH PTY LTD
Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT
Title: MC01 LONGITUDINAL SECTION

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number: 510357-008-CI-1130
Revision: C



MC02

SCALE: H 1:1000
V 1:100

Rev.	Date	Description	Des.	Verif.	Appd.
C	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
B	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

H: 0 20 40 60 80 100m
V: 0 2 4 6 8 10m
SCALE: H:1:1000 V:1:100 @A1

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Drawn	C.V	Date 21/01/2020
Checked	B.W.	Date 20/02/2020
Designed	M.D.	Date 20/01/2020
Verified	J.O.S.	Date 20/02/2020
Approved	RPEQ. 19706	Date 22/02/2023

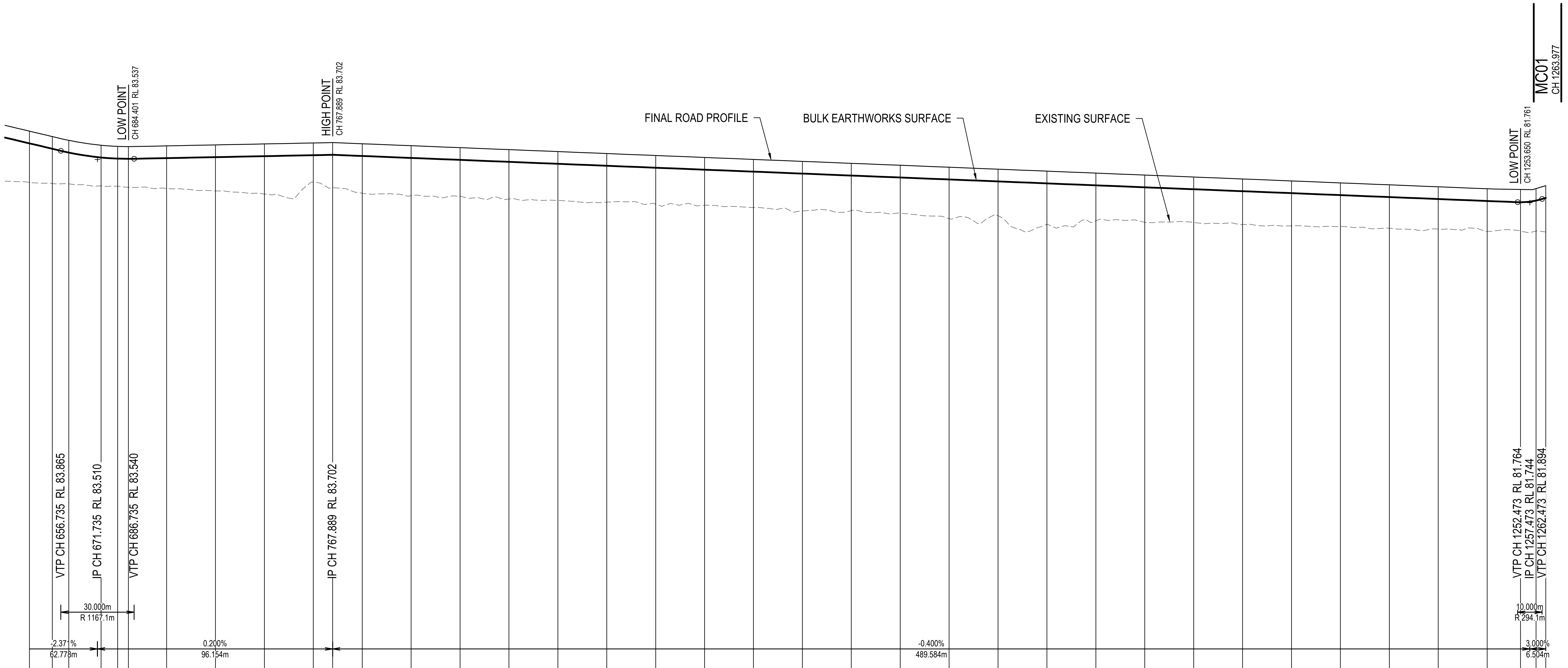
Client: KALFRESH PTY LTD
Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT
Title: MC02 LONGITUDINAL SECTION SHEET 1

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number: 510357-008-CI-1131
Revision: C

DATE PLOTTED: 22 February 2023 2:52 PM BY : PAULO ZOTTIS



VERT. CURVE LENGTH (m)
VERT. CURVE RADIUS (m)
VERT. GEOMETRY GRADE (%)
VERT. GEOMETRY LENGTH(m)
DATUM RL 62.000

HORZ. CURVE LENGTH (m) HORZ. CURVE RADIUS (m)	39.397m R 20.000m	19.953m R -50.000m											
DESIGN LEVEL KERB FACE	84.670	84.448	84.292	84.091	84.046	84.037	84.066	84.106	84.146	84.186	84.202	84.154	84.074
EXISTING SURFACE LEVELS	82.574	82.527	82.514	82.435	82.421	82.373	82.328	82.225	82.099	82.582	82.355	82.133	82.025
CUT / FILL DEPTH TO EXISTING SURFACE	2.095	1.921	1.778	1.656	1.625	1.664	1.738	1.882	2.048	1.604	1.847	2.021	2.048
BOXING LEVEL BELOW KERB FACE	84.169	83.948	83.792	83.591	83.546	83.537	83.566	83.606	83.646	83.686	83.702	83.654	83.574
CONTROL LINE CHAINAGE INVERT CENTRELINE	643.932	653.266	660.000	673.219	680.000	684.401	700.000	720.000	740.000	760.000	767.889	780.000	800.000

HORZ. CURVE LENGTH (m) HORZ. CURVE RADIUS (m)													
DESIGN LEVEL KERB FACE	83.994	83.914	83.834	83.754	83.674	83.594	83.514	83.434	83.354	83.274	83.194	83.114	83.034
EXISTING SURFACE LEVELS	82.005	81.896	81.836	81.765	81.683	81.640	81.544	81.410	81.420	81.314	81.091	81.210	80.858
CUT / FILL DEPTH TO EXISTING SURFACE	1.988	2.018	1.997	1.989	1.991	1.953	1.969	2.023	1.934	1.959	2.102	1.903	2.176
BOXING LEVEL BELOW KERB FACE	83.494	83.414	83.334	83.254	83.174	83.094	83.014	82.934	82.854	82.774	82.694	82.614	82.534
CONTROL LINE CHAINAGE INVERT CENTRELINE	820.000	840.000	860.000	880.000	900.000	920.000	940.000	960.000	980.000	1000.000	1020.000	1040.000	1060.000

HORZ. CURVE LENGTH (m) HORZ. CURVE RADIUS (m)												
DESIGN LEVEL KERB FACE	82.954	82.874	82.794	82.714	82.634	82.554	82.474	82.394	82.314	82.286	82.320	82.439
EXISTING SURFACE LEVELS	81.003	80.945	80.937	80.852	80.798	80.771	80.701	80.665	80.576	80.601	80.582	80.544
CUT / FILL DEPTH TO EXISTING SURFACE	1.950	1.929	1.857	1.861	1.836	1.782	1.772	1.729	1.738	1.660	1.748	1.895
BOXING LEVEL BELOW KERB FACE	82.454	82.374	82.294	82.214	82.134	82.054	81.974	81.894	81.814	81.761	81.830	81.939
CONTROL LINE CHAINAGE INVERT CENTRELINE	1080.000	1100.000	1120.000	1140.000	1160.000	1180.000	1200.000	1220.000	1240.000	1253.650	1260.000	1263.977

MC02

SCALE: H 1:1000
V 1:100

Rev.	Date	Description	Des.	Verif.	Appd.
C	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
B	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

H: 0 20 40 60 80 100m
V: 0 2 4 6 8 10m
SCALE: H:1:1000 V:1:100
@A1

Stantec

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Drawn C.V	Date 21/01/2020
Checked B.W.	Date 20/02/2020
Designed M.D.	Date 20/01/2020
Verified J.O.S.	Date 20/02/2020
Approved 22/02/2023 Digitally signed by JOHN O'SULLIVAN for STANTEC AUSTRALIA Pty Ltd	RPEQ. 19706 Date 22/02/2023

Client KALFRESH PTY LTD

Project SCENIC RIM
AGRICULTURAL INDUSTRIAL PRECINCT

Title
MC02 LONGITUDINAL SECTION
SHEET 2

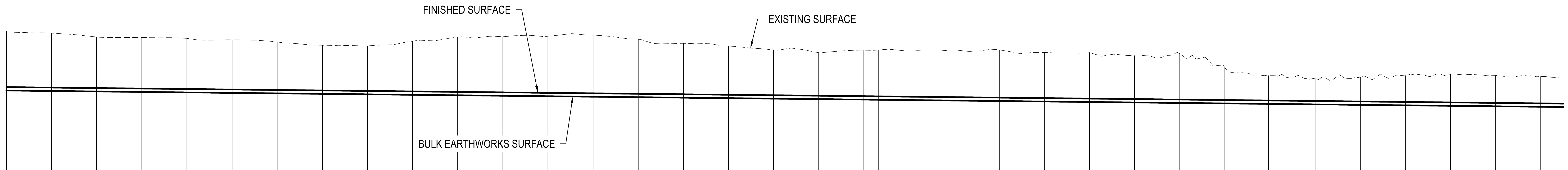
Status
FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number	Revision
510357-008-CI-1132	C

XREF's:
CAD File: \\Ausflcfs02\data\5103-57\008 - DETAILED BULK EARTHWORKS\Drawings\510357-008-CI-1130-1135.dwg

DATE PLOTTED: 22 February 2023 2:52 PM BY : PAULO ZOTTIS



VERT. CURVE LENGTH (m)
VERT. CURVE RADIUS (m)
VERT. GEOMETRY GRADE (%) -0.106%
VERT. GEOMETRY LENGTH(m) 1069.659m
DATUM RL 67.000

HORZ. CURVE LENGTH (m) HORZ. CURVE RADIUS (m)													
LHS BULK EWRK LEVELS EDGE OF CHANNEL	81.852	81.833	81.814	81.795	81.776	81.757	81.738	81.719	81.700	81.681	81.662	81.643	81.625
RHS BULK EWRK LEVELS EDGE OF CHANNEL		81.833	81.814	81.796	81.777	81.758	81.739	81.721	81.702	81.683	81.665	81.646	81.627
EXISTING SURFACE LEVELS CHANNEL CENTRELINE	84.449	84.378	84.206	84.183	84.144	84.080	83.983	83.840	83.812	84.022	84.206	84.215	84.240
CUT / FILL DEPTH TO EXISTING SURFACE	-2.459	-2.409	-2.259	-2.256	-2.239	-2.196	-2.120	-1.998	-1.991	-2.223	-2.428	-2.458	-2.505
BULK EARTHWORKS LEVELS CHANNEL CENTRELINE	81.990	81.969	81.948	81.926	81.905	81.884	81.863	81.842	81.821	81.799	81.778	81.757	81.736
CONTROL LINE CHAINAGE CHANNEL CENTRELINE	0.000	20.000	40.000	60.000	80.000	100.000	120.000	140.000	160.000	180.000	200.000	220.000	240.000

HORZ. CURVE LENGTH (m) HORZ. CURVE RADIUS (m)									172.890m R 115.000m				
LHS BULK EWRK LEVELS EDGE OF CHANNEL	81.606	81.588	81.569	81.551	81.533	81.514	81.496	81.490	81.480	81.476	81.485	81.519	81.499
RHS BULK EWRK LEVELS EDGE OF CHANNEL	81.608	81.589	81.571	81.552	81.533	81.514	81.490	81.480	81.445	81.447	81.448	81.415	81.385
EXISTING SURFACE LEVELS CHANNEL CENTRELINE	84.291	84.105	83.925	83.801	83.634	83.511	83.622	83.631	83.590	83.631	83.637	83.519	83.510
CUT / FILL DEPTH TO EXISTING SURFACE	-2.577	-2.411	-2.253	-2.149	-2.004	-1.902	-2.034	-2.050	-2.024	-2.086	-2.113	-2.016	-2.028
BULK EARTHWORKS LEVELS CHANNEL CENTRELINE	81.715	81.694	81.672	81.651	81.630	81.609	81.588	81.581	81.566	81.545	81.524	81.503	81.482
CONTROL LINE CHAINAGE CHANNEL CENTRELINE	260.000	280.000	300.000	320.000	340.000	360.000	380.000	386.375	400.000	420.000	440.000	460.000	480.000

HORZ. CURVE LENGTH (m) HORZ. CURVE RADIUS (m)											
LHS BULK EWRK LEVELS EDGE OF CHANNEL	81.423	81.386	81.406	81.441	81.441	81.433	81.420	81.408	81.395	81.383	81.370
RHS BULK EWRK LEVELS EDGE OF CHANNEL	81.361	81.353	81.345	81.340	81.340	81.349	81.358	81.335	81.313	81.291	81.269
EXISTING SURFACE LEVELS CHANNEL CENTRELINE	83.376	83.469	82.853	82.494	82.495	82.374	82.438	82.492	82.572	82.506	82.454
CUT / FILL DEPTH TO EXISTING SURFACE	-1.915	-2.029	-1.435	-1.096	-1.098	-0.998	-1.083	-1.158	-1.260	-1.215	-1.184
BULK EARTHWORKS LEVELS CHANNEL CENTRELINE	81.461	81.439	81.418	81.398	81.397	81.376	81.355	81.334	81.312	81.291	81.270
CONTROL LINE CHAINAGE CHANNEL CENTRELINE	500.000	520.000	540.000	559.264	560.000	580.000	600.000	620.000	640.000	660.000	680.000

TD01 - FLOOD DIVERSION CHANNEL

SCALE: H 1:1000
V 1:100

Rev.	Date	Description	Des.	Verif.	Appd.
D	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
C	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
B	14/04/2020	FISH MITIGATION MEASURES ADDED	B.J.F.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

H: 0 20 40 60 80 100m
V: 0 2 4 6 8 10m
SCALE: H:1:1000 V:1:100 @A1

Stantec

Stantec Australia Pty Ltd | ABN 17 007 820 322
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Springfield Central QLD 4300
Tel: 07 3381 0111
Web: www.stantec.com/au

Drawn	C.V	Date 21/01/2020
Checked	B.W.	Date 20/02/2020
Designed	M.D.	Date 20/01/2020
Verified	J.O.S.	Date 20/02/2020
Approved	RPEQ. 19706	Date 22/02/2023

22/02/2023
Digitally signed by JOHN O'SULLIVAN for STANTEC AUSTRALIA Pty Ltd

Client KALFRESH PTY LTD

Project SCENIC RIM
AGRICULTURAL INDUSTRIAL PRECINCT

Title TD01 LONGITUDINAL SECTION
SHEET 1

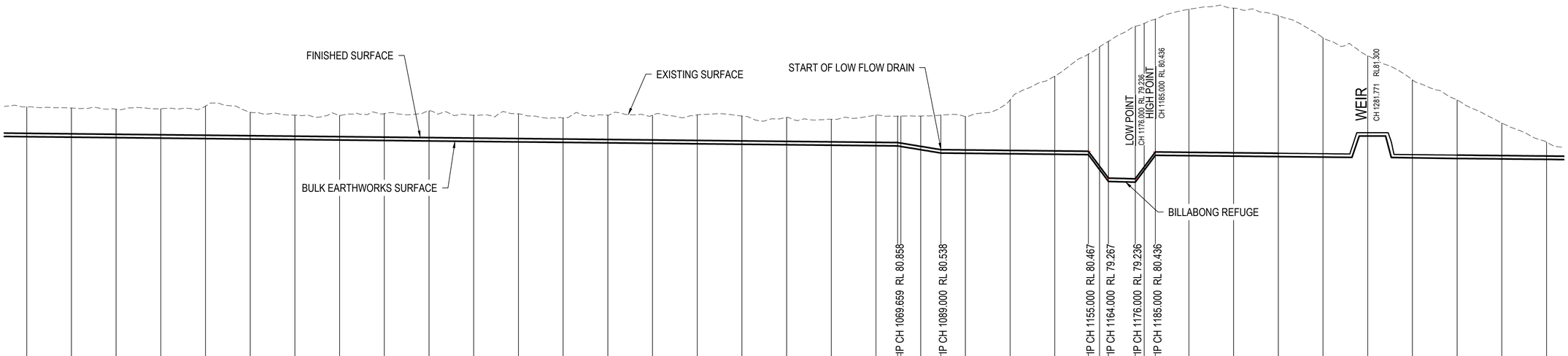
Status FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number 510357-008-CI-1133
Revision D

XREF's:
CAD File: \\Ausfcfs02\data\5103-57\008 - DETAILED BULK EARTHWORKS\Drawings\510357-008-CI-1130-1135.dwg

DATE PLOTTED: 22 February 2023 2:52 PM BY : PAULO ZOTTIS



VERT. CURVE LENGTH (m)											
VERT. CURVE RADIUS (m)											
VERT. GEOMETRY GRADE (%)	-0.106%										
VERT. GEOMETRY LENGTH(m)	1069.659m										
DATUM RL 67.000											
HORZ. CURVE LENGTH (m)											
HORZ. CURVE RADIUS (m)											
LHS BULK EWRK LEVELS EDGE OF CHANNEL	81.370	81.357	81.345	81.332	81.326	81.338	81.372	81.407	81.441	81.476	81.505
RHS BULK EWRK LEVELS EDGE OF CHANNEL	81.269	81.247	81.225	81.203	81.181	81.159	81.137	81.115	81.093	81.071	81.049
EXISTING SURFACE LEVELS CHANNEL CENTRELINE	82.454	82.406	82.347	82.368	82.491	82.211	82.082	82.074	82.155	82.276	82.080
CUT / FILL DEPTH TO EXISTING SURFACE	-1.184	-1.157	-1.120	-1.162	-1.305	-1.047	-0.939	-0.952	-1.054	-1.196	-1.022
BULK EARTHWORKS LEVELS CHANNEL CENTRELINE	81.270	81.249	81.228	81.207	81.185	81.164	81.143	81.122	81.101	81.080	81.058
CONTROL LINE CHAINAGE CHANNEL CENTRELINE	680.000	700.000	720.000	740.000	760.000	780.000	800.000	820.000	840.000	860.000	880.000

VERT. CURVE LENGTH (m)											
VERT. CURVE RADIUS (m)											
VERT. GEOMETRY GRADE (%)										-1.651%	
VERT. GEOMETRY LENGTH(m)										19.341m	
DATUM RL 67.000											
HORZ. CURVE LENGTH (m)											338.889m
HORZ. CURVE RADIUS (m)											R 400.000m
LHS BULK EWRK LEVELS EDGE OF CHANNEL	81.488	81.412	81.307	81.201	81.096	80.990	80.902	80.871	80.843	80.830	80.828
RHS BULK EWRK LEVELS EDGE OF CHANNEL	81.027	81.005	80.983	80.961	80.939	80.917	80.895	80.873	80.852		80.840
EXISTING SURFACE LEVELS CHANNEL CENTRELINE	82.142	81.960	82.086	82.084	82.099	82.046	81.982	81.902	82.084	82.041	82.044
CUT / FILL DEPTH TO EXISTING SURFACE	-1.105	-0.944	-1.091	-1.110	-1.146	-1.115	-1.072	-1.013	-1.216	-1.183	-1.210
BULK EARTHWORKS LEVELS CHANNEL CENTRELINE	81.037	81.016	80.995	80.974	80.953	80.931	80.910	80.889	80.868	80.858	80.834
CONTROL LINE CHAINAGE CHANNEL CENTRELINE	900.000	920.000	940.000	960.000	980.000	1000.000	1020.000	1040.000	1060.000	1069.659	1071.111

VERT. CURVE LENGTH (m)											
VERT. CURVE RADIUS (m)											
VERT. GEOMETRY GRADE (%)		-0.108%				-13.333%		-0.261%		13.333%	-0.104%
VERT. GEOMETRY LENGTH(m)		66.000m				9.000m		12.000m		9.000m	197.000m
DATUM RL 67.000											
HORZ. CURVE LENGTH (m)											
HORZ. CURVE RADIUS (m)											
LHS BULK EWRK LEVELS EDGE OF CHANNEL	80.815	80.803	80.790	80.767	80.748	80.734	80.729	80.725	80.714	80.710	80.705
RHS BULK EWRK LEVELS EDGE OF CHANNEL	80.831	80.822	80.811	80.788	80.769	80.753	80.747	80.742	80.731	80.728	80.723
EXISTING SURFACE LEVELS CHANNEL CENTRELINE	82.046	82.089	82.025	82.769	83.829	84.816	85.138	85.387	86.059	86.187	86.380
CUT / FILL DEPTH TO EXISTING SURFACE	-1.359	-1.551	-1.498	-2.264	-3.346	-4.349	-5.338	-6.120	-6.823	-6.417	-5.944
BULK EARTHWORKS LEVELS CHANNEL CENTRELINE	80.687	80.538	80.526	80.505	80.483	80.467	79.801	79.267	79.236	79.769	80.436
CONTROL LINE CHAINAGE CHANNEL CENTRELINE	1080.000	1089.000	1100.000	1120.000	1140.000	1155.000	1160.000	1164.000	1176.000	1180.000	1185.000

VERT. CURVE LENGTH (m)									
VERT. CURVE RADIUS (m)									
VERT. GEOMETRY GRADE (%)									
VERT. GEOMETRY LENGTH(m)									
DATUM RL 67.000									
HORZ. CURVE LENGTH (m)									
HORZ. CURVE RADIUS (m)									
LHS BULK EWRK LEVELS EDGE OF CHANNEL	80.690	80.669	80.648		80.605	80.583	80.561	80.538	80.514
RHS BULK EWRK LEVELS EDGE OF CHANNEL	80.709	80.688	80.665	80.643	80.621		80.543	80.513	80.497
EXISTING SURFACE LEVELS CHANNEL CENTRELINE	86.822	86.871	86.537	85.543	84.741	83.664	82.764	81.731	80.878
CUT / FILL DEPTH TO EXISTING SURFACE	-6.402	-6.471	-6.158	-5.185	-4.404	-3.348	-2.468	-1.456	-0.624
BULK EARTHWORKS LEVELS CHANNEL CENTRELINE	80.420	80.400	80.379	80.358	80.337	80.316	80.296	80.275	80.254
CONTROL LINE CHAINAGE CHANNEL CENTRELINE	1200.000	1220.000	1240.000	1260.000	1280.000	1300.000	1320.000	1340.000	1360.000

TD01 - FLOOD DIVERSION CHANNEL

SCALE: H 1:1000
V 1:100

Rev.	Date	Description	Des.	Verif.	Appd.
D	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
C	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
B	14/04/2020	FISH MITIGATION MEASURES ADDED	B.J.F.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

H: 0 20 40 60 80 100m
V: 0 2 4 6 8 10m
SCALE: H:1:1000 V:1:100
@A1

Stantec
Stantec Australia Pty Ltd | ABN 17 007 820 322
Level 6, Springfield Tower, 145 Sinnathamby Boulevard
Springfield Central QLD 4300
Tel: 07 3381 0111
Web: www.stantec.com/au

Drawn	C.V	Date 21/01/2020
Checked	B.W.	Date 20/02/2020
Designed	M.D.	Date 20/01/2020
Verified	J.O.S.	Date 20/02/2020
Approved	RPEQ. 19706	Date 22/02/2023

22/02/2023
Digitally signed by JOHN O'SULLIVAN for STANTEC AUSTRALIA Pty Ltd

Client: KALFRESH PTY LTD

Project: SCENIC RIM
AGRICULTURAL INDUSTRIAL PRECINCT

Title: TD01 LONGITUDINAL SECTION
SHEET 2

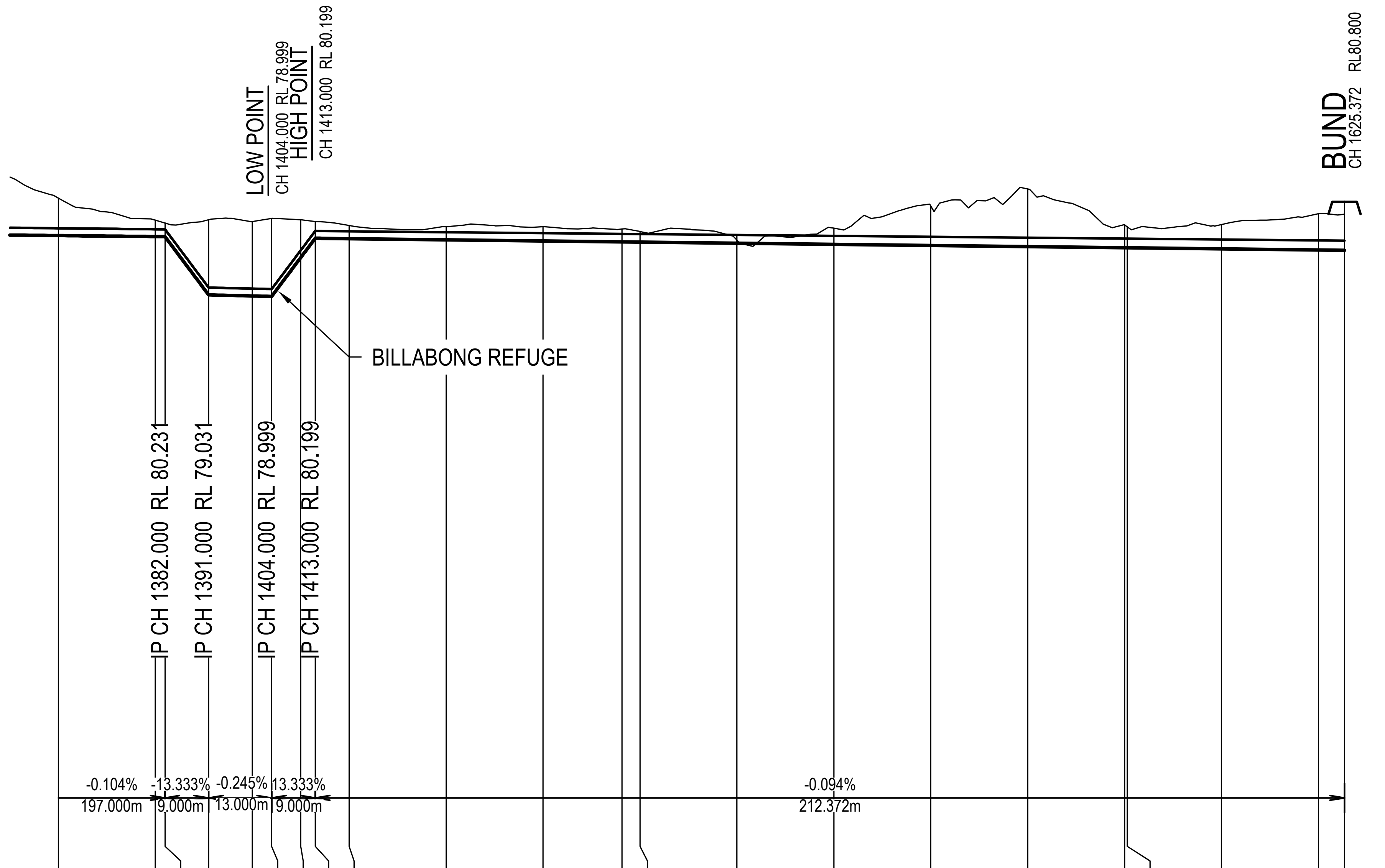
Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number: 510357-008-CI-1134
Revision: D

XREF's:
CAD File: \\Ausficfs02\data\5103-57\008 - DETAILED BULK EARTHWORKS\Drawings\510357-008-CI-1130-1135.dwg

DATE PLOTTED: 22 February 2023 2:52 PM BY : PAULO ZOTTIS



VERT. CURVE LENGTH (m)
VERT. CURVE RADIUS (m)
VERT. GEOMETRY GRADE (%)
VERT. GEOMETRY LENGTH(m)
DATUM RL 67.000

HORZ. CURVE LENGTH (m) HORZ. CURVE RADIUS (m)		338.889m R 400.000m							66.270m R 400.000m				104.280m R -100.000m								
LHS BULK EWRK LEVELS EDGE OF CHANNEL	80.514	80.490	80.488	80.477	80.466	80.461	80.454	80.450													
RHS BULK EWRK LEVELS EDGE OF CHANNEL	80.497	80.480	80.478	80.469	80.460	80.458	80.454	80.452													
EXISTING SURFACE LEVELS CHANNEL CENTRELINE	80.878	80.421	80.363	80.430	80.392	80.460	80.431	80.395	80.314	80.286	80.287	80.239	80.189	80.010	80.257	80.717	81.066	80.325	80.284	80.333	80.557	80.546
CUT / FILL DEPTH TO EXISTING SURFACE	-0.624	-0.188	-0.132	-1.399	-1.383	-1.461	-0.632	-0.196	-0.121	-0.112	-0.131	-0.099	-0.052	0.107	-0.159	-0.637	-1.005	-0.282	-0.242	-0.309	-0.552	-0.546
BULK EARTHWORKS LEVELS CHANNEL CENTRELINE	80.254	80.233	80.231	79.031	79.009	78.999	79.799	80.199	80.193	80.174	80.155	80.140	80.136	80.118	80.099	80.080	80.061	80.043	80.042	80.024	80.005	80.000
CONTROL LINE CHAINAGE CHANNEL CENTRELINE	1360.000	1380.000	1382.000	1391.000	1400.000	1404.000	1410.000	1413.000	1420.000	1440.000	1460.000	1476.270	1480.000	1500.000	1520.000	1540.000	1560.000	1580.000	1580.549	1600.000	1620.000	1625.372

TD01 - FLOOD DIVERSION CHANNEL

SCALE: H 1:1000
V 1:100

Rev.	Date	Description	Des.	Verif.	Appd.
D	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
C	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
B	14/04/2020	FISH MITIGATION MEASURES ADDED	B.J.F.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

H: 0 20 40 60 80 100m
V: 0 2 4 6 8 10m
SCALE: H:1:1000 V:1:100
@A1

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Approved	RPEQ. 19706 22/02/2023 Digitally signed by JOHN O'SULLIVAN for STANTEC AUSTRALIA Pty Ltd	Date 22/02/2023

Client KALFRESH PTY LTD

Project SCENIC RIM
AGRICULTURAL INDUSTRIAL PRECINCT

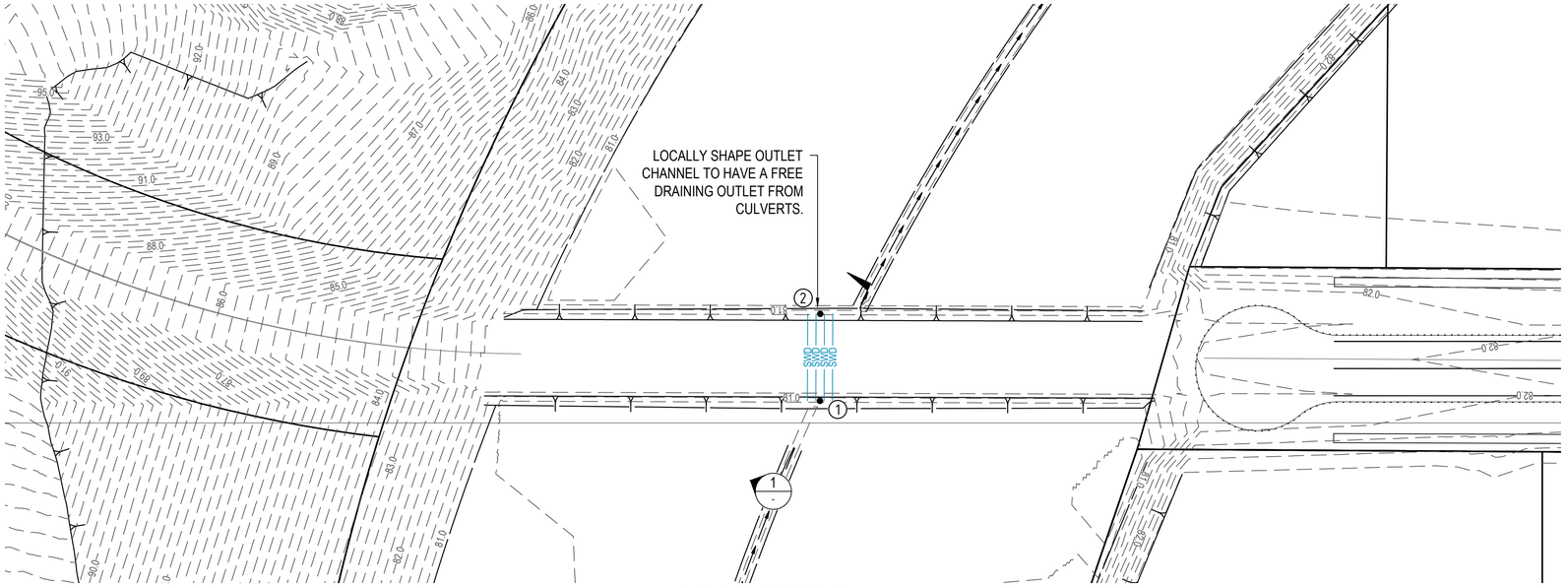
Title TD01 LONGITUDINAL SECTION
SHEET 3

Status FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number 510357-008-CI-1135
Revision D

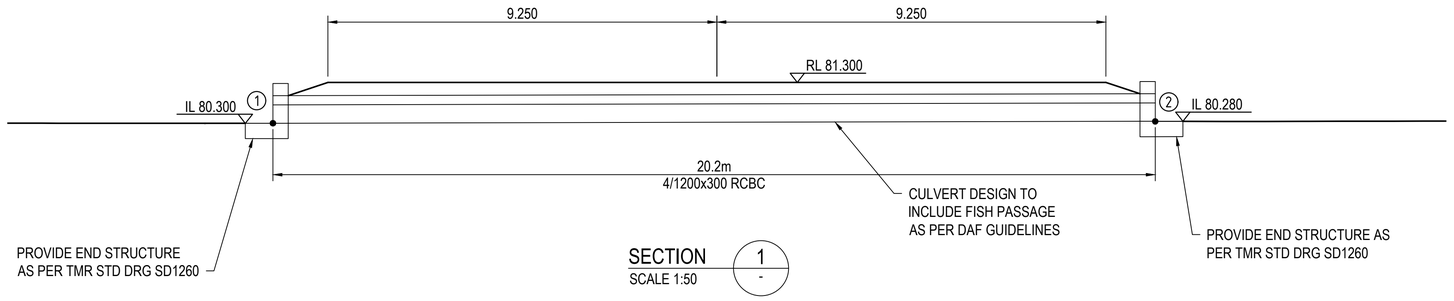
XREF's:
CAD File: \\Ausflcfs02\data\5103-57\008 - DETAILED BULK EARTHWORKS\Drawings\510357-008-CI-1130-1135.dwg



WEIR LAYOUT PLAN
SCALE 1:500

SETOUT POINTS		
PT No.	EASTING	NORTHING
1	458538.292	6909034.439
2	458546.736	6909046.103

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM GIS DATA OR KNOWN POSITIONS OF VALVES, MANHOLES ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK



SECTION 1 -
SCALE 1:50

LEGEND

- PROPERTY BOUNDARY
- TOP OF BATTER
- BOTTOM OF BATTER
- SWD — STORMWATER CULVERTS
- DIVERSION CHANNEL
- 36.0 — FINISHED CONTOURS (0.25m)

Rev.	Date	Description	Des.	Verif.	Appd.
D	22/02/2023	SITE LAYOUT UPDATED	H.T.	B.W.	J.O.S.
C	01/02/2023	DESIGN AMENDED	H.T.	B.W.	J.O.S.
B	14/04/2020	FISH MITIGATION MEASURES ADDED	B.J.F.	B.W.	J.O.S.
A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

0 1 2 3 4 5m
SCALE 1:50 @A1

0 10 20 30 40 50m
SCALE 1:500 @A1

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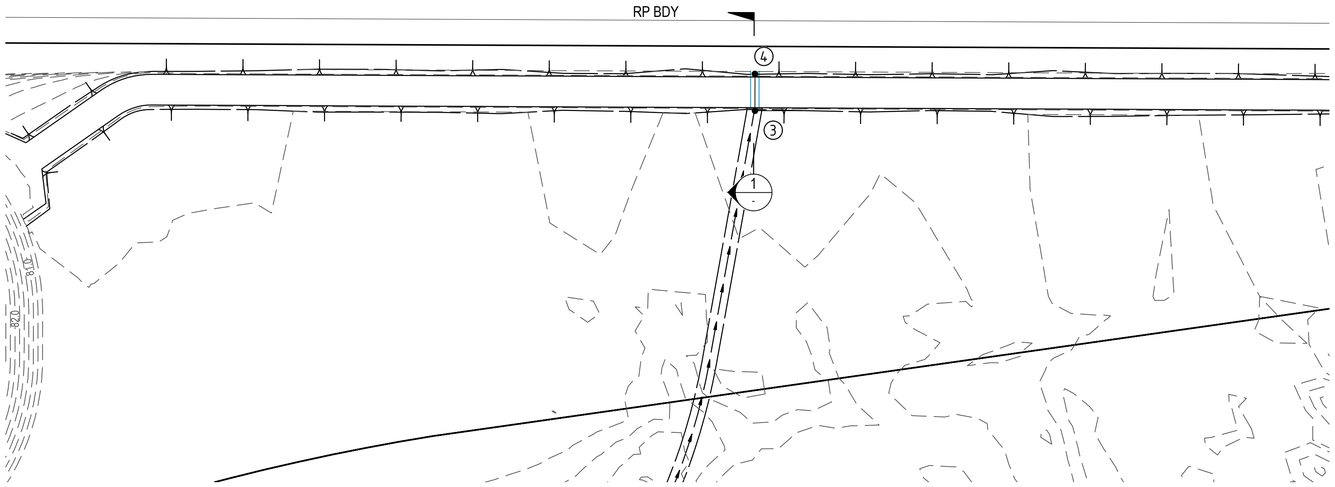
Approved	Signed By: JOHN SULLIVAN for STANTEC AUSTRALIA PTY LTD 22/02/2023	Date 22/02/2023

Client: KALFRESH PTY LTD
Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT
Title: WEIR CULVERT PLAN AND DETAILS

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number: 510357-008-CI-1301
Revision: D



BUND LAYOUT PLAN
SCALE 1:500

SETOUT POINTS		
PT No.	EASTING	NORTHING
3	458837.133	6909175.668
4	458839.093	6909181.334

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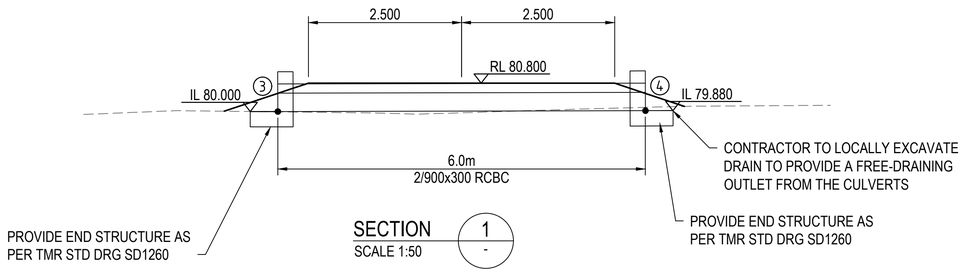

SECTION 1 / -
SCALE 1:50

LEGEND
- PROPERTY BOUNDARY
- TOP OF BATTER
- BOTTOM OF BATTER
- SWD — STORMWATER CULVERTS
- DIVERSION CHANNEL
- 36.0 — FINISHED CONTOURS (0.25m)

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A	20/02/2020	ISSUE FOR APPROVAL	M.D.	B.W.	J.O.S.

0 1 2 3 4 5m
SCALE 1:50 @A1

0 10 20 30 40 50m
SCALE 1:500 @A1

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Designed M.D.	Date	20/01/2020
Verified J.O.S.	Date	20/02/2020
Approved	RPEQ. 19706	
	Date	22/02/2023

Client: KALFRESH PTY LTD
Project: SCENIC RIM AGRICULTURAL INDUSTRIAL PRECINCT
Title: BUND CULVERT PLAN AND DETAILS

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATUM	GRID	Scale	Size
AHD		AS SHOWN	A1

Drawing Number: 510357-008-CI-1302
Revision: D