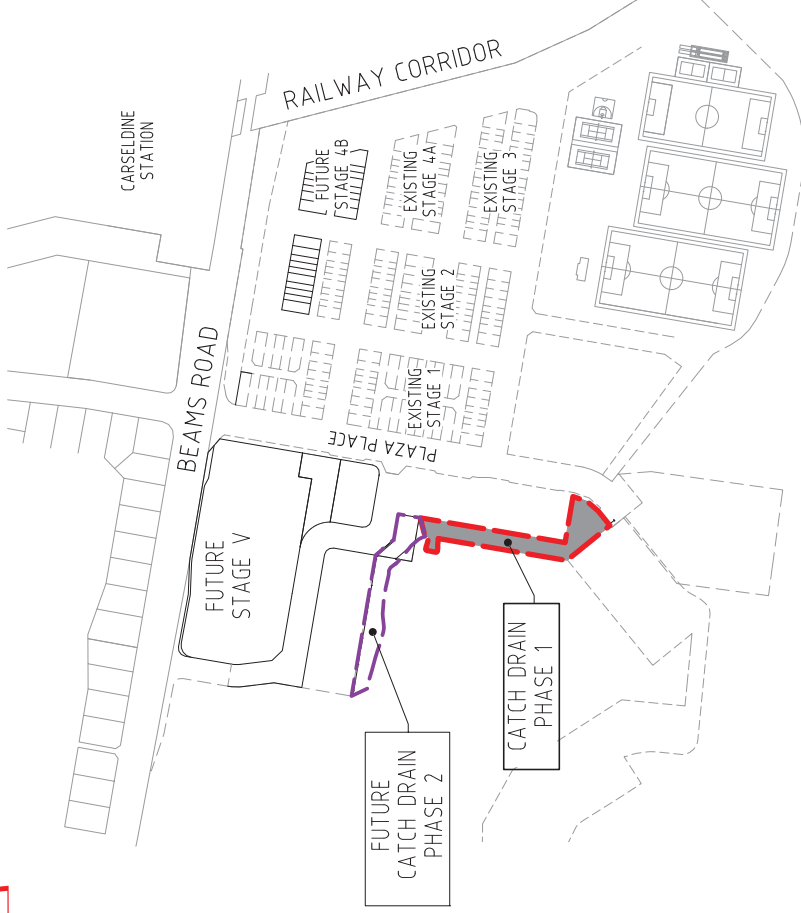




# CARSELDINE VILLAGE CATCH DRAIN



PLAN  
SCALE 1:2000

PLANS AND DOCUMENTS  
referred to in the PDA  
DEVELOPMENT APPROVAL  
Approval no: DEV/2022/1329  
Date: 16 December 2022



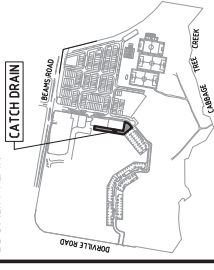
### DRAWING INDEX

DRAWING NO.	DRAWING TITLE
22-106-01	GENERAL - LOCALITY PLAN, DRAWING INDEX AND NOTES
22-106-02	GENERAL - SETOUT PLAN
22-106-03	GENERAL - LAYOUT PLAN
22-106-04	EARTHWORKS - CONTOUR PLAN SHEET 1
22-106-05	EARTHWORKS - CONTOUR PLAN SHEET 2
22-106-06	TEMPORARY - TURNOAROUND DETAILS
22-106-07	CATCH DRAIN - CROSS SECTIONS PHASE 1 WORKS
22-106-08	CATCH DRAIN - CROSS SECTIONS PHASE 2 WORKS
22-106-09	EROSION AND SEDIMENT - CONTOUR PLAN LAYOUT PLAN
22-106-10	EROSION AND SEDIMENT - CONTOUR PLAN NOTES
22-106-11	EROSION AND SEDIMENT - CONTOUR PLAN DETAILS
22-106-12	SAFETY IN DESIGN

DO NOT SCALE THIS DRAWING  
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LOCALITY PLAN



### REVISIONS

No	Description	Date	By
A	FOR APPROVAL	27.07.2022	AA

Client

ECONOMIC  
DEVELOPMENT  
QUEENSLAND (EDQ)

Project

CARSELDINE VILLAGE  
CATCH DRAIN



Approved

M. Shaw  
Mark Andrew Shaw BEng  
CIVIL ENGINEER (PEQ) 7544  
2022.07.27 13:32:44 +10'00'

Drawn by

Checked

Date

Drawn by

Checked

Date

Drawn by

Checked

Date

Drawn by

Checked

Date

### GENERAL LOCALITY PLAN, DRAWING INDEX AND NOTES

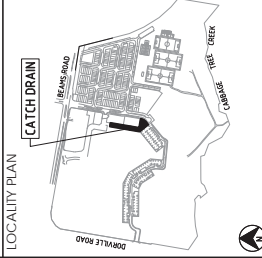
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Drawing No  
A1

Sheet  
01 of 12

Revision  
A

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No	Description	By	Date
A	FOR APPROVAL	AA	27/07/2022

Client  
**ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)**

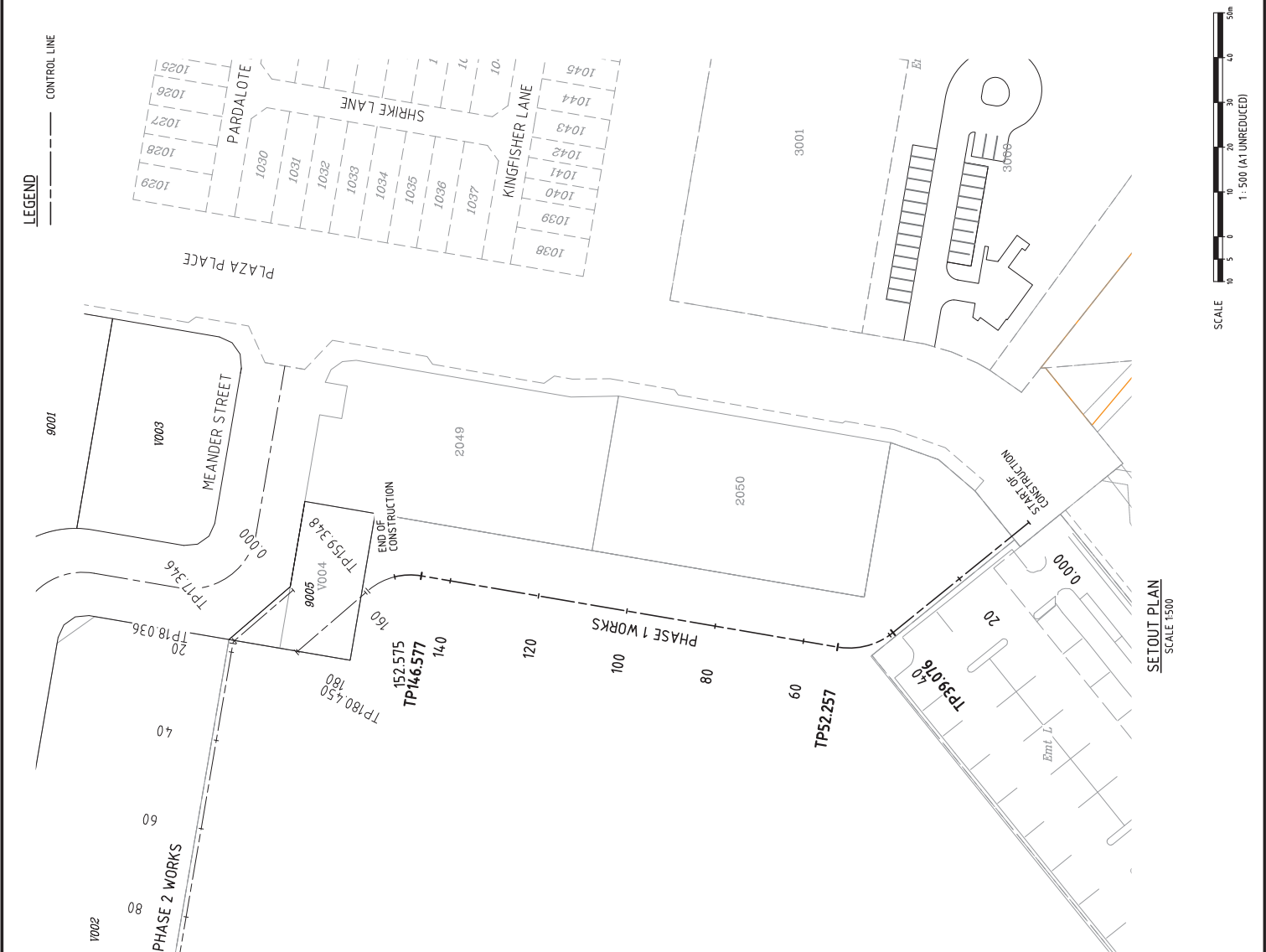
Project  
**CARSLINE VILLAGE CATCH DRAIN**



Approved  
**M. Shaw**  
Mark Andrew Shaw BE99  
(CIVIL ENGINEER) PREC 7544  
2022.07.27 13:33:00 +10:00

Drawn	Designed	Checked	Date
RW	JB	MS	JUL '22

Scale	AS SHOWN	Sheet	Revision
A1	22-106-02	02 of 12	A



**CATCH DRAIN CONTROL LINE DETAILS**

PT	CHAINAGE	EASTING	NORTHING	BEARING	RADIUS	TANGENT	DEF ANGLE	ARC-LEN
IP1	0.000	502387.596	6974671.368	320d58'50"	-	-	-	-
TP1	39.076	502562.994	6974701.721	320d58'50"	-	-	-	-
IP2	45.666	502558.575	6974707.881	-	15.500	7.019	48d43'29"	13.181
TP2	52.257	502559.759	6974714.099	94d27'19"	-	-	-	-
TP3	146.577	502575.659	6974607.069	94d27'19"	-	-	-	-
IP3	152.963	502576.811	6974813.804	319d14'38"	14.500	6.833	50d27'42"	12.770
TP4	159.348	502572.351	6974818.980	319d14'38"	-	-	-	-
IP4	180.451	502558.574	6974834.965	319d14'38"	-	-	-	-

**FUTURE PHASE 2 WORKS CONTROL LINE DETAILS**

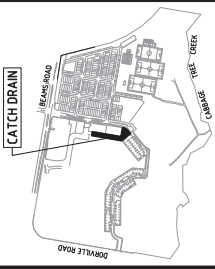
PT	CHAINAGE	EASTING	NORTHING	BEARING	RADIUS	TANGENT	DEF ANGLE	ARC-LEN
IP1	0.000	502572.482	6974835.677	319d14'38"	-	-	-	-
TP1	17.346	502561.157	6974848.817	319d14'38"	-	-	-	-
IP2	17.691	502560.993	6974849.089	-	1.000	0.359	39d32'18"	0.690
TP2	18.036	502560.569	6974849.150	279d42'19"	-	-	-	-
IP3	124.272	502455.853	6974867.059	279d42'19"	-	-	-	-



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LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	27.07.2022	AA

Client  
ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)

Project  
CARSELINE VILLAGE CATCH DRAIN

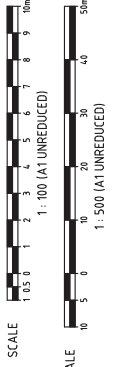
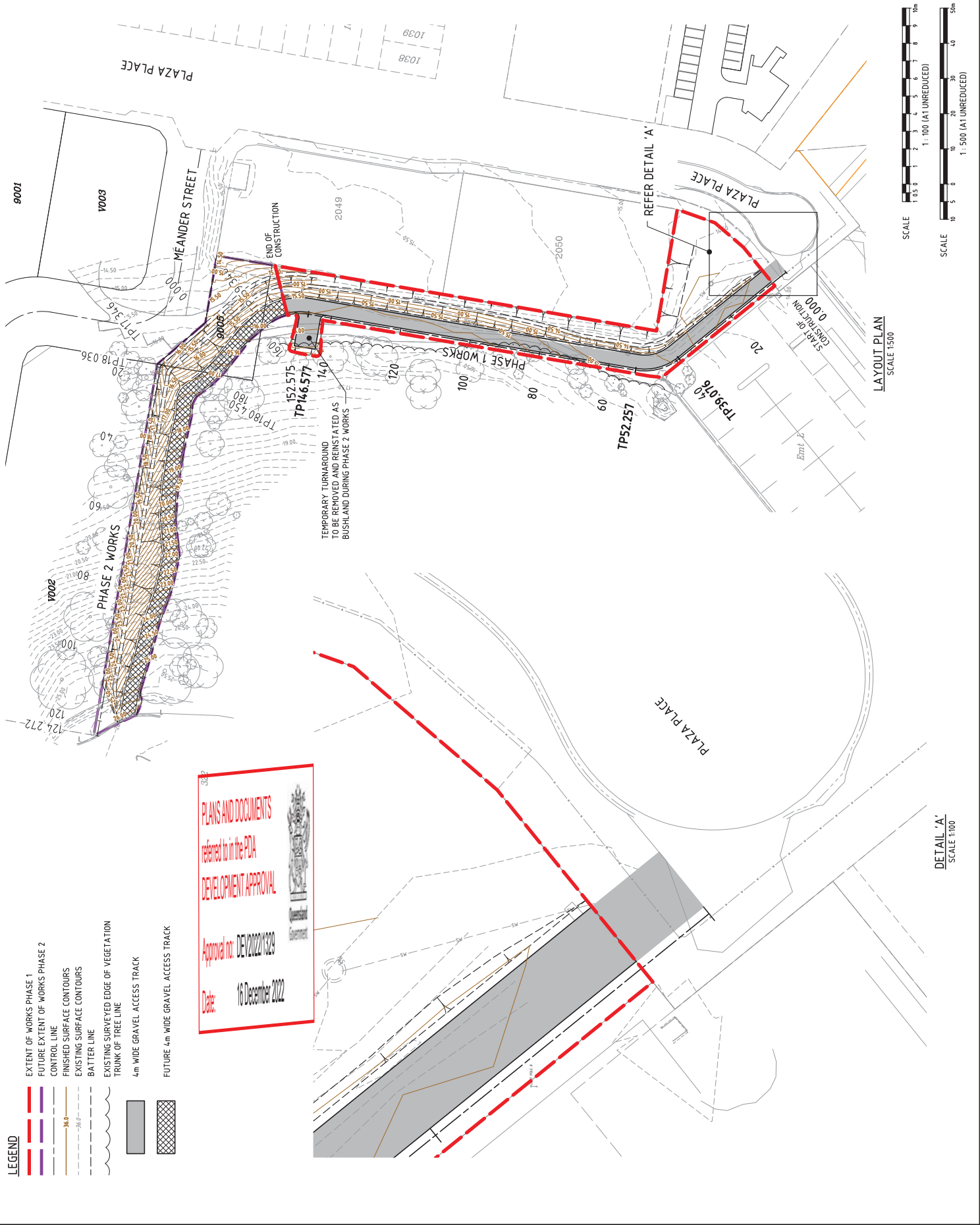


Approved by  
*M. Shaw*  
Mark Andrew Shaw BEng  
(CIVIL) MEANUS (RPEQ) 7544  
2022.07.27 13:33:10 +10:00

Drawings Title  
GENERAL LAYOUT PLAN

Drawn	Designed	Checked	Date
RW	JB	MS	JUL '22

Scale	Sheet	Of	Revision
AS SHOWN	03	12	A



LAYOUT PLAN  
SCALE 1:500

DETAIL 'A'  
SCALE 1:100

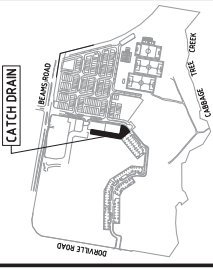
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- EXTENT OF WORKS PHASE 1
  - FUTURE EXTENT OF WORKS PHASE 2
  - CONTROL LINE
  - FINISHED SURFACE CONTOURS
  - EXISTING SURFACE CONTOURS
  - BATTER LINE
  - EXISTING SURVEYED EDGE OF VEGETATION
  - TRUNK OF TREE LINE
  - 4m WIDE GRAVEL ACCESS TRACK
  - FUTURE 4m WIDE GRAVEL ACCESS TRACK

PLANS AND DOCUMENTS  
 referred to in the PDA  
 DEVELOPMENT APPROVAL  
 Approval no: DEV/2022/1329  
 Date: 16 December 2022

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LOCALITY PLAN



REVISIONS

No	Description	Date	By
A.	FOR APPROVAL	27/07/2022	AA

Client  
ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)

Project  
CARSELDINE VILLAGE CATCH DRAIN



Approved  
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Mark Andrew Shaw BEng  
(CIVIL) (MIEAUST) (PEQ) 7544  
2022.07.27 13:33:19 +10:00

Drawings Title  
EARTHWORKS CONTOUR PLAN

SHEET 1

Drawn	Designed	Checked	Date
RW	JB	MS	JUL '22

Scale	AS SHOWN	Sheet	Of
A1	22-106-04	04	12

Drawing No. A1  
Revision A

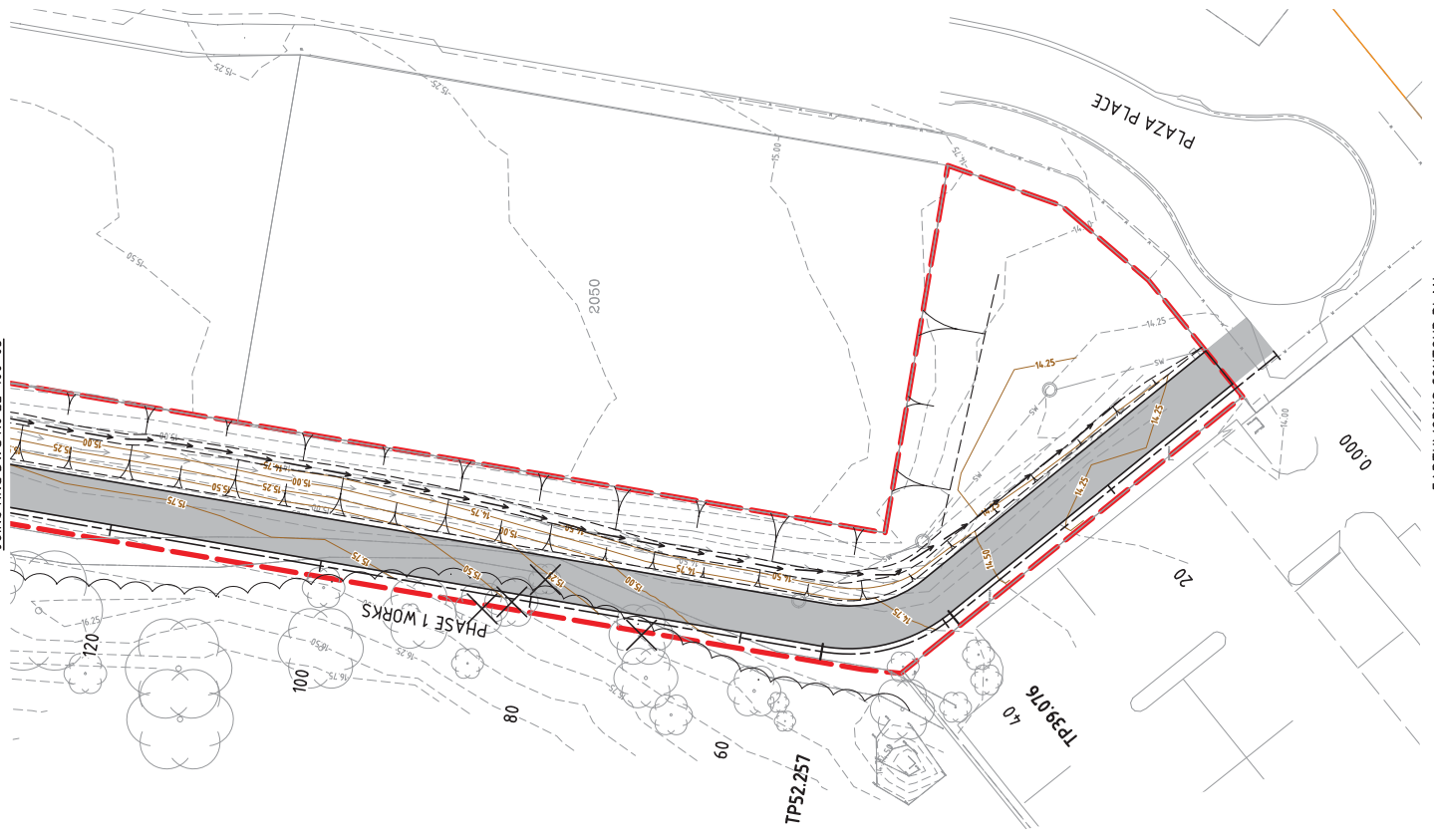
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- EXTENT OF WORKS PHASE 1
  - FUTURE EXTENT OF WORKS PHASE 2
  - CONTROL LINE
  - CATCH DRAIN
  - FINISHED SURFACE CONTOURS
  - EXISTING SURFACE CONTOURS
  - BATTER LINE
  - EXISTING SURVEYED EDGE OF VEGETATION
  - TRUNK OF TREE LINE
  - 4m WIDE GRAVEL ACCESS TRACK
  - FUTURE 4m WIDE GRAVEL ACCESS TRACK
  - EXISTING TREE
  - EXISTING TREE TO BE REMOVED TO BE CONFIRM BY OTHERS

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV2022/1329

Date: 16 December 2022

JOINS KNG DWG No 22-106-05



EARTHWORKS CONTOUR PLAN  
SCALE 1:250

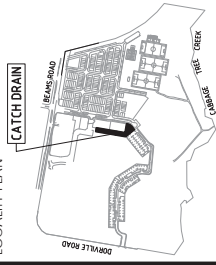




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LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	27.07.2022	AA

ECONOMIC  
DEVELOPMENT  
QUEENSLAND (EDQ)

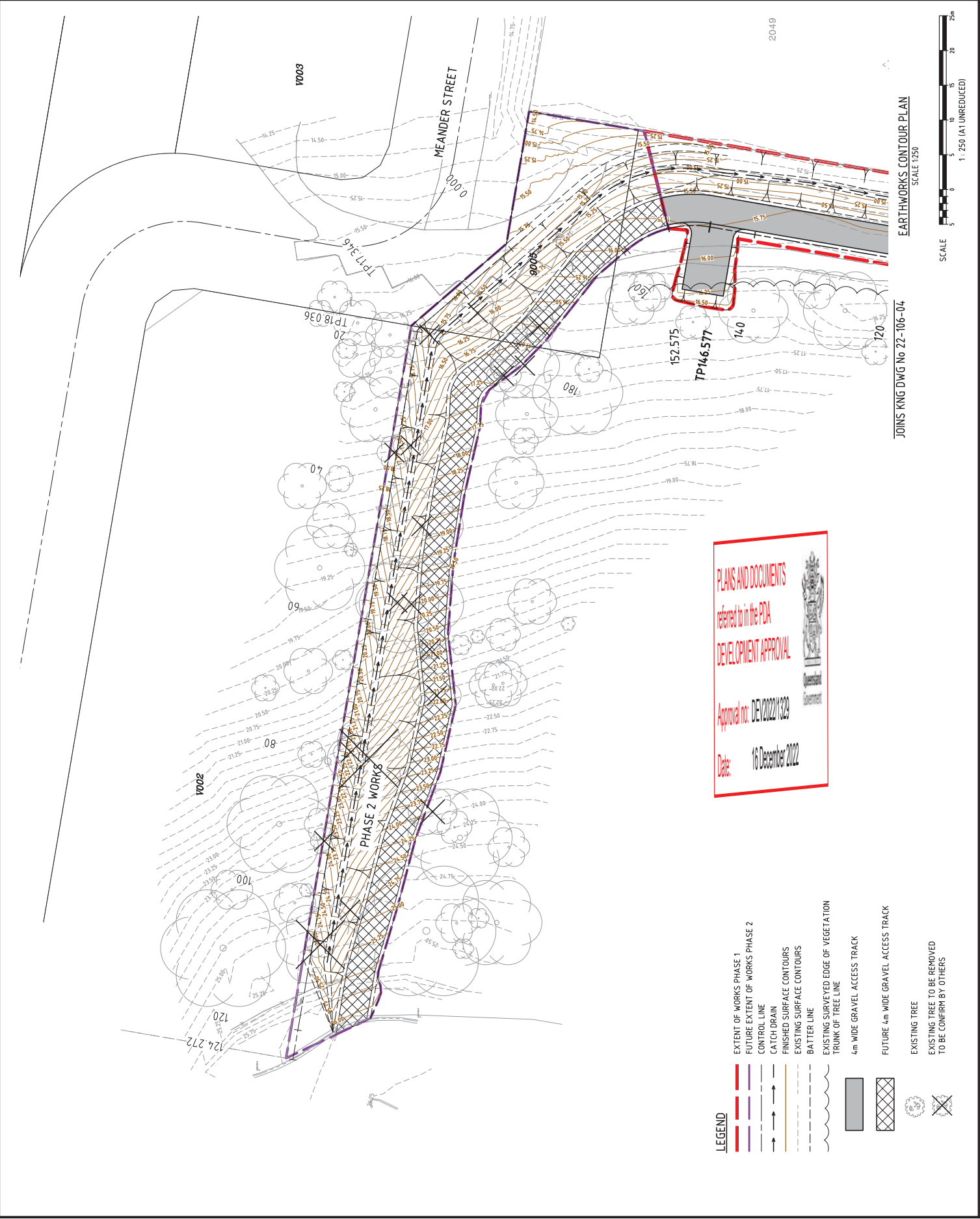
CARSLINE VILLAGE  
CATCH DRAIN



Approved by:  
**M. Shaw**  
Mark Andrew Shaw BEng  
(CIVIL) MIEAust. (PEQ) 17544  
2022.07.27 13:33:30 +10:00

Drawn by:  
**EARTHWORKS**  
C/CONTOUR PLAN

Drawn	RW	Designed	JB	Checked	MS	Date	JUL '22
Scale		AS SHOWN				Sheet	05 of 12
Revision	A1	22-106-05				Drawing No.	22-106-05
						Region	A



**PLANS AND DOCUMENTS**  
referred to in the PDA  
**DEVELOPMENT APPROVAL**

Approval no: DEV/2022/1039

Date: 16 December 2022

**LEGEND**

	EXTENT OF WORKS PHASE 1
	FUTURE EXTENT OF WORKS PHASE 2
	CONTROL LINE
	CATCH DRAIN
	FINISHED SURFACE CONTOURS
	EXISTING SURFACE CONTOURS
	BATTER LINE
	EXISTING SURVEYED EDGE OF VEGETATION
	TRUNK OF TREE LINE
	4m WIDE GRAVEL ACCESS TRACK
	FUTURE 4m WIDE GRAVEL ACCESS TRACK
	EXISTING TREE
	EXISTING TREE TO BE REMOVED TO BE CONFIRM BY OTHERS

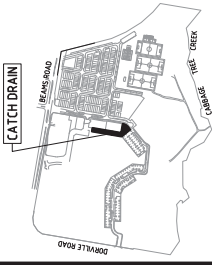
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EARTHWORKS CONTOUR PLAN  
SCALE 1:250



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LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	27/07/2022	AA

Client  
ECONOMIC  
DEVELOPMENT  
QUEENSLAND (EDQ)

Project  
CARSELDINE VILLAGE  
CATCH DRAIN



Approved  
Mark Andrew Shaw BEng  
(Civil) (Mechatronics) (PEQ) 7544  
2022.07.27 13:33:39 +10:00

Drawings title  
TEMPORARY  
TURNAROUND DETAILS

Drawn	Designed	Checked	Date
RW	JB	MS	JUL '22

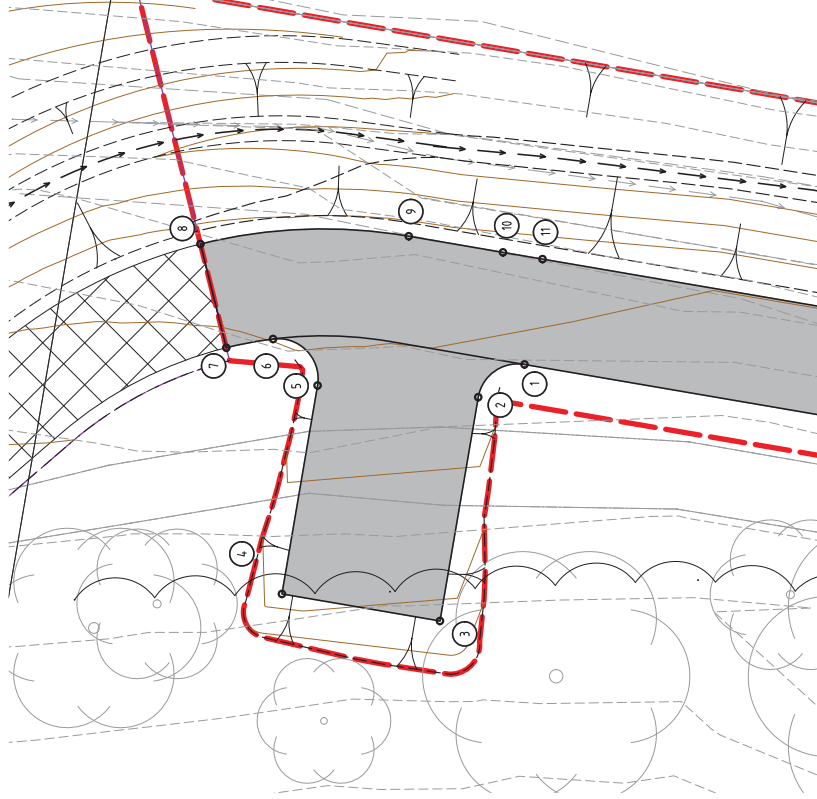
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		06	12

Drawing No	Revision
A1	22-106-06

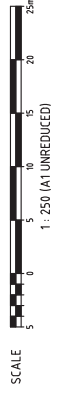
LEGEND

- EXTENT OF WORKS PHASE 1
- FINISHED SURFACE CONTOURS
- EXISTING SURFACE CONTOURS
- BATTER LINE
- FUTURE BATTER LINE
- EXISTING SURVEYED EDGE OF VEGETATION TRUNK OF TREE LINE
- GRAVEL ACCESS TRACK

NOTE:  
TEMPORARY TURNAROUND  
TO BE REMOVED AND REINSTATED AS  
BUSHLAND DURING PHASE 2 WORKS



TEMPORARY TURNAROUND DETAIL  
SCALE 1:100



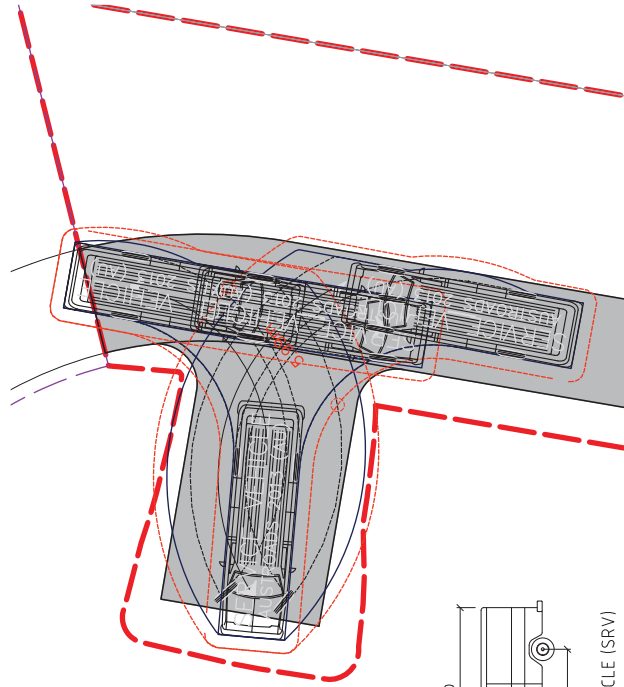
SETOUT TABLE

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1	502515.296	6974801.980	15.816
2	502517.4071	6974803.711	15.863
3	502565.695	6974805.144	16.291
4	502566.706	6974811.058	16.214
5	502574.508	6974809.724	15.818
6	502576.249	6974811.390	15.745
7	502575.932	6974813.141	15.789
8	502579.803	6974816.108	15.590
9	502580.095	6974806.311	15.546
10	502579.492	6974802.784	15.588
11	502579.2391	6974801.306	15.616

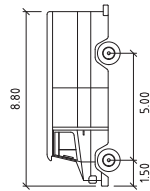
PLANS AND DOCUMENTS  
related to in the PDA  
DEVELOPMENT APPROVAL

Approval no: DE/2022/1329

Date: 16 December 2022



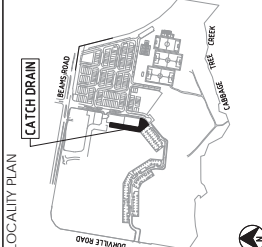
TEMPORARY TURNAROUND TURN PATHS  
SCALE 1:100



SERVICE VEHICLE (SRV)

- Width : 8.80 meters
- Track : 1.50 meters
- Lock to Lock : 6.0 meters
- Steering Angle : 38.7 degrees

DO NOT SCALE THIS DRAWING  
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**REVISIONS**

No	Description	Date	By
A	FOR APPROVAL	27.07.2022	AA

Client:  
**ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)**

Project:  
**CARSELDINE VILLAGE CATCH DRAIN**



Approved:  
**M. Shaw**  
Mark Andrew Shaw BEng  
(Civil) MIEAust. RPFO. 17544  
2022.07.27 13:33:49 +10'00'

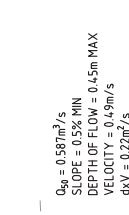
Drawings Title:  
**CATCH DRAIN CROSS SECTIONS PHASE 1 WORKS**

Drawn	Designed	Checked	Date
RW	JB	MS	JUL '22

Scale:  
A1

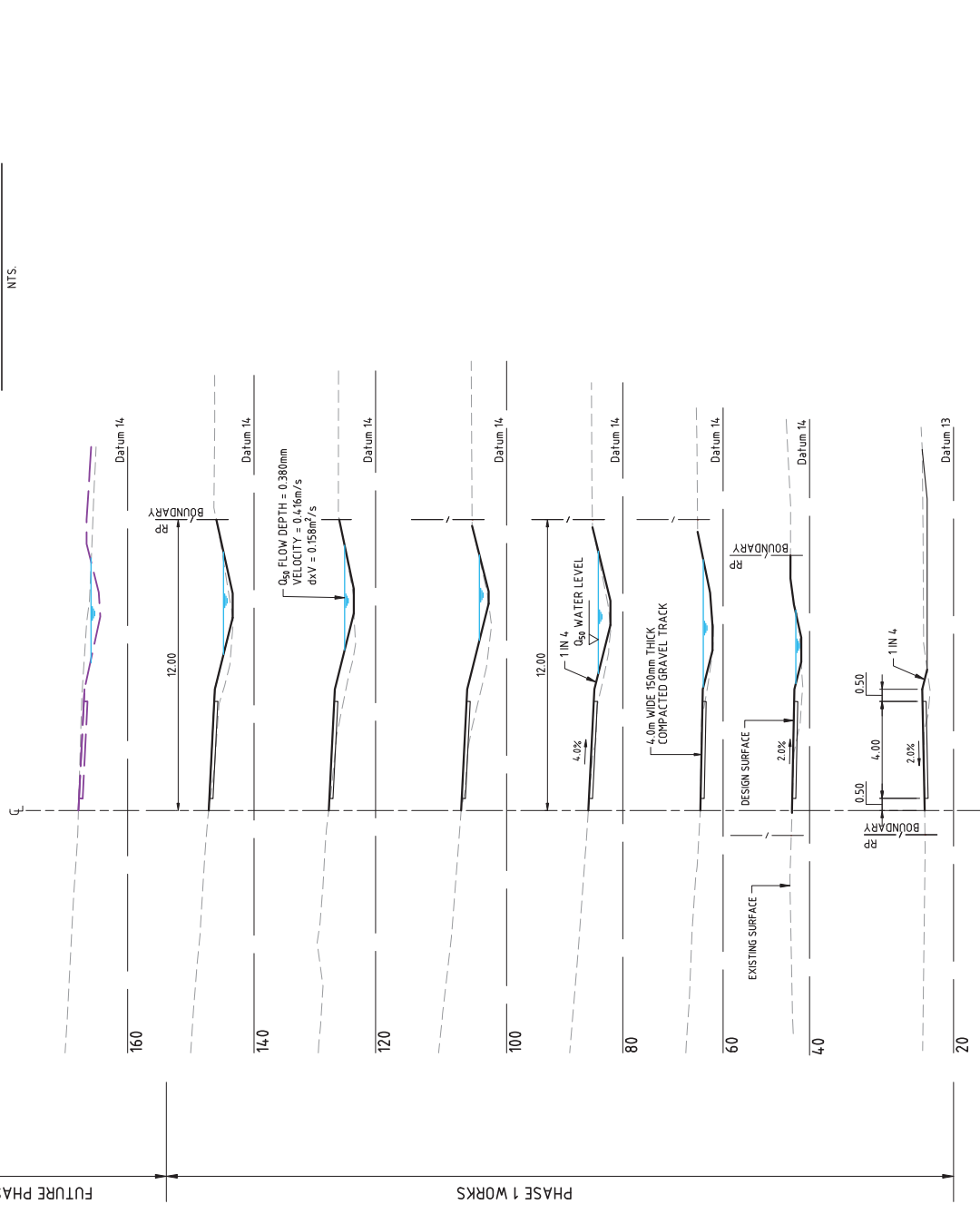
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Revision:  
A

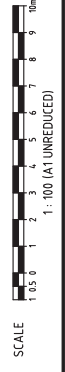


**CATCH DRAIN TYPICAL SECTION**  
NTS.

**NOTE:**  
REFER LANDSCAPE PLANS FOR  
TURF/PLANTING DETAILS



**CROSS SECTIONS - CATCH DRAIN PHASE 1 WORKS**  
SCALE 1 : 100



**PLANS AND DOCUMENTS**  
referred to in the PDA  
**DEVELOPMENT APPROVAL**

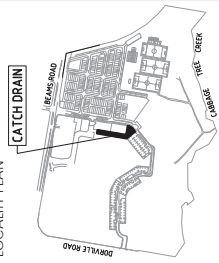
Approval no: DEV/2022/1303

Date: 16 December 2022

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LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	27.07.2022	AA

Client

ECONOMIC  
DEVELOPMENT  
QUEENSLAND (EDQ)

Project

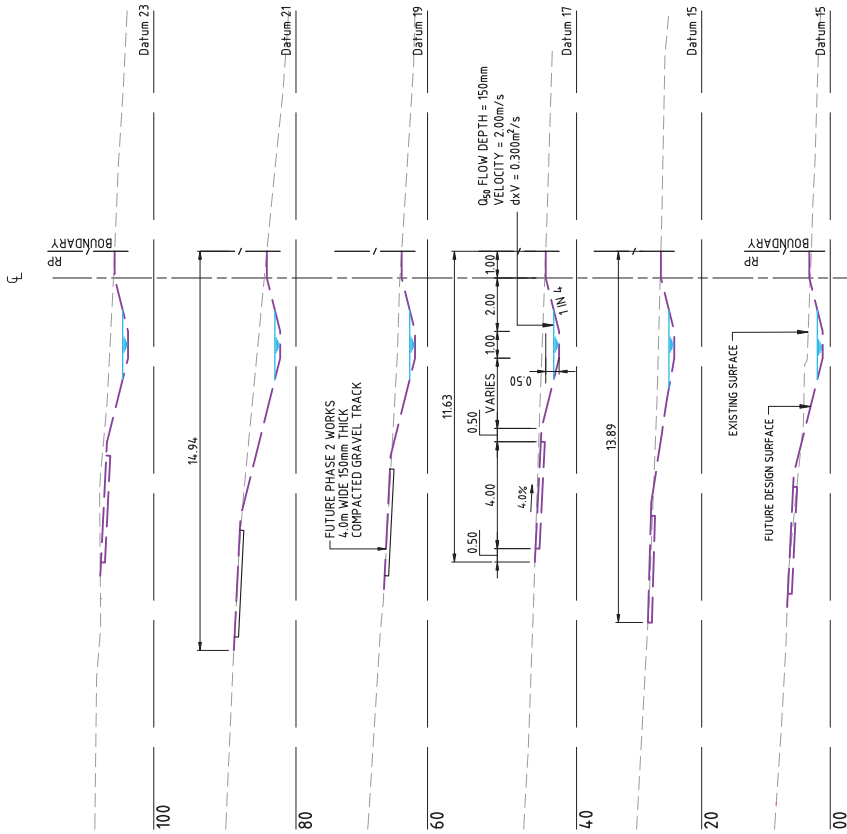
CARLSDEINE VILLAGE  
CATCH DRAIN



Approved  
M. Shaw  
Mark Andrew Shaw BEng  
(CIVIL) MIEAust. IPFO 17544  
2022.07.27 13:34:01 +10'00'

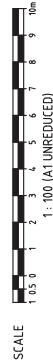
Drawn by	Designed	Checked	Date
RW	JB	MS	JUL '22
Scale	AS SHOWN	Sheet	08 of 12
Revision	A1	Drawing No	22-106-08
		Region	A

PLANS AND DOCUMENTS  
referred to in the PDA  
DEVELOPMENT APPROVAL  
Approval no: DEV20221329  
Date: 16 December 2022



CROSS SECTIONS - CATCH DRAIN FUTURE PHASE 2 WORKS

SCALE 1 : 100



SCALE

1:100 (A1 UNREDUCED)

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LOCALITY PLAN

No	Description	By	Date
A.	FOR APPROVAL	AA	27/07/2022

REVISIONS

Client: ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)

Project: CARSELDINE VILLAGE CATCH DRAIN

Approved: **M. Shaw**  
Mick Andrew Shaw BE09  
(CIVIL) MEASUR. PROJ. 1544  
2022.07.27 13:34:12 +10'00'

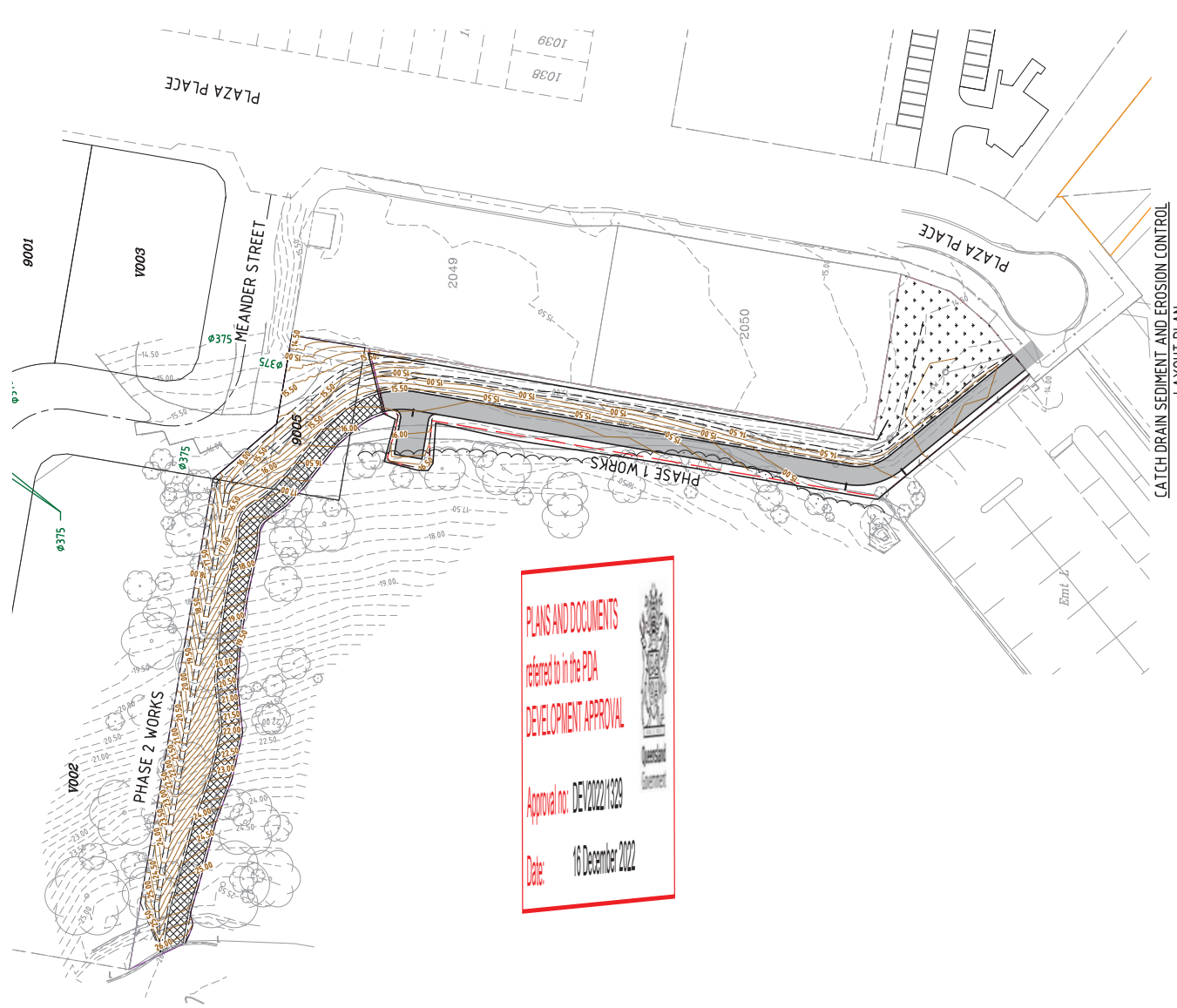
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Drawn	RW	Designed	JB	Checked	MS	Date	JUL '22	
Scale		AS SHOWN				Sheet	09 of 12	
Drawing No.	A1	Revision	22-106-09					A

**LEGEND**

- SEDIMENT AND DIVERSION FENCE (TEMP)
- AREA TO BE GRASS SEEDED AND MULCHED

SCALE  
1:500 (A1 UNREDUCED)



PLANS AND DOCUMENTS  
referred to in the PDA  
DEVELOPMENT APPROVAL

Approval no: DEV2022/1329

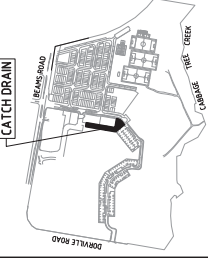
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LOCALITY PLAN



REVISIONS

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A.	FOR APPROVAL	27/07/2022	AA

TOPSOIL

- STOP AND STOCKPILE AVAILABLE TOPSOIL (ASSUMED AVERAGE DEPTH 150mm) FROM ALL DISTURBED AREAS PRIOR TO BULK EARTHWORKS. GRADE ELEVATION BETWEEN ALLOTMENT FINISHED SURFACE LEVELS AND FINISH LOT LEVELS ARE FREE DRAINING.
- MINIMUM SOLE ACCESS ALLOTMENTS TO BE 2%.
- ALL FOOTPATHS, BATTERS, AND EARTHWORKS AFFECTED ALLOTMENTS ARE TO BE TOPSOILED TO A MINIMUM DEPTH OF 150mm (LIGHTLY COMPACTED) AND TURFED WHERE SPECIFIED.

SEDIMENT FENCES

- SEDIMENT FENCES TO BE PLACED AS SHOWN. SEDIMENT FENCED TO BE REPAIRED AND EXCESSIVE SEDIMENT DEPOSITS SHALL BE REMOVED ONCE CAPACITY FALLS BELOW 75%.
- FOR DETAILS OF SEDIMENT FENCE REFER BEST PRACTICE EROSION & SEDIMENT CONTROL BOOK 1 PAGE 2.50, FIGURE 2.8.
- SEDIMENT FENCES TO BE REPAIRED AS REQUIRED AND EXCESSIVE SEDIMENT DEPOSITS SHOULD BE REMOVED.
- INSTALL KERB INLETS WITH GRAVEL RANGING FROM 50mm TO 75mm IN SIZE SHALL BE INSTALLED AT ALL COMPLETED INLETS. REFER IPWEAQ STANDARD DRAWING D-0041. THESE SHALL BE MAINTAINED IN A CLEAN CONDITION. IN THE EVENT OF HEAVY RAIN THEY SHALL BE REMOVED TO MINIMISE THE POTENTIAL FOR FLOODING.
- CHECKS OF SILT CONTROL DEVICES ARE TO BE MADE WEEKLY, OR AFTER ANY SIGNIFICANT STORM EVENT TO ENSURE INTEGRITY AND PERFORMANCE.

TURFING

- PROVIDE TURFING TO ENTIRE WIDTH OF ALL SWALES, FOOTPATHS AND 1 IN 4 CUT AND FILL BATTERS.
- FOOTPATH BATTERS ARE TO BE STABILISED WITH TOPSOIL (AND TURFED) AS SOON AS PRACTICAL AFTER THE BATTERS HAVE BEEN COMPLETED.

DURING CONSTRUCTION SEQUENCE:

- TOPSOIL STOCKPILES SHALL BE LESS THAN 1m DEEP AND UNCOMPACTED. A SEDIMENTATION FENCE SHALL BE CONSTRUCTED ON THE D/S SIDE, OR THE STOCKPILE STABILISED WITH VEGETATION, MULCH, OR A SOIL STABILISER.
- SEDIMENTATION FENCES TO BE PLACED AS SHOWN.
- REGULARLY INSPECT BANKS AND REPAIR ANY SLUMPS, WHEEL TRACK DAMAGE OR LOSS OF FREEBOARD.
- REMOVE SEDIMENT TO AVOID PONDING FROM CATCH DRAINS.
- REMOVE EXCESSIVE SEDIMENT FROM UPSTREAM OF CHECK DAM.
- ROAD RESERVE TO BE USED AS HAUL ROAD.
- A CATCH DRAIN OR DIVERSION BANK IS TO BE PROVIDED ON THE TOP SIDE OF ALL CUTS, WITH DISCHARGE EITHER TO UNDISTURBED GRASS LANDS OR TO THE CROSS ROAD DRAINAGE.
- SUPPLEMENTARY EROSION AND SEDIMENT CONTROL DEVICES MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER.
- WATER QUALITY SAMPLES MUST BE TAKEN AND ANALYSED PRIOR TO THE RELEASE OF ANY WATER FROM THE SEDIMENT POND. WATER QUALITY MUST SATISFY THE FOLLOWING CRITERIA: TSS-50MG/L PH BETWEEN 6.5 AND 8.5.
- ALL WATER QUALITY DATA INCLUDING DATES OF RAINFALL, 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 BE AVAILABLE ON SITE FOR INSPECTION BY COUNCIL OFFICERS ON REQUEST.
- EXPLORED AREAS ON LOTS ARE TO BE SEED AND MULCHED (E.G. HYDROMULCHED). MULCH SHALL BE APPLIED AT A MINIMUM RATE OF 2.5T/HA. ALTERNATIVELY THEY SHALL BE DRILL-SEEDED AND IRRIGATED SO AS TO ENSURE >70% GROUND COVER WITHIN 14 DAYS FROM NOVEMBER TO APRIL, OR 30 DAYS FROM MAY TO OCTOBER.

FOLLOWING CONSTRUCTION:

- SEDIMENTATION FENCES TO BE MAINTAINED UNTIL TURFING IS COMPLETED.
- SEDIMENT BASINS TO BE CHECKED AFTER EVERY SIGNIFICANT STORM AND DESIRED ONCE THE SETTLEMENT LIMIT HAS BEEN REACHED.

STABILISATION:

- THE AMOUNT OF AREA EXPOSED AT ANY ONE TIME TO BE MINIMISED BY STAGING THE WORKS WHEREVER POSSIBLE AND AIMING TO ACHIEVE FINISHED LEVEL IN EACH AREA AS QUICKLY AS POSSIBLE BEFORE OPENING NEW AREAS.
- TOPSOIL TO BE STRIPPED AND STOCKPILED SEPARATELY TO SUB-SOILS.
- STOCKPILES TO BE PROVIDED WITH SURFACE COVER USING A CHEMICAL SURFACE STABILISER SUCH AS VITAL-CHEMICALS VITAL-BON MATT STONEWALL.
- IF WORKS ARE DELAYED OR PUT ON HOLD THEN TEMPORARY EROSION CONTROL COVERING TO BE PROVIDED USING VITAL-CHEMICALS VITAL-BON MATT P4.7-VRI OR EQUIVALENT.
- ONCE AREAS REACH FINISHED LEVEL:
  - TOPSOIL TO BE SPREAD TO CAP/BURY THE DISPERSIVE SUBSOILS.
  - TOPSOIL TO BE DRILL-SEEDED WITH A MIXTURE OF ANNUAL AND PERENNIAL GRASS SPECIES (REFER TABLE) AND FERTILISER WITH CROP-KING 88 (0.3/Ha).
  - TEMPORARY SOIL COVER TO BE APPLIED CONSISTING OF VITAL-CHEMICALS VITAL-BON MATT P4.7-VRI OR EQUIVALENT.
  - WATERING UNDERTAKEN AS NECESSARY UNTIL STABLE GRASS SURFACE COVER IS ESTABLISHED.

UNMULCHED GREEN COUGH (CYNOCHUS DACTYLON) OR BLUE COACH (DITTA ARIA DIOXYLATA)	SEED MIXES		WINTER BLEND APPLICATIONS (MAY/AUGUST) (APPLICATIONS MAY VARY)
	SUMMER BLEND APPLICATIONS (NOVEMBER - DECEMBER)	MID-SEASON BLEND APPLICATIONS (FEBRUARY/OCTOBER)	
	25%	25%	25%
MULCHED GREEN COUGH (CYNOCHUS DACTYLON) OR BLUE COACH (DITTA ARIA DIOXYLATA)	25%	25%	25%
JAPANESE MILLET	30%	N/A	N/A
PYE GRASS	N/A	15%	30%
CARPET GRASS (AERODOPUS AFFINIS)	20%	20%	20%

EROSION AND SEDIMENT CONTROL PROGRAM

- NO DISTURBED AREAS TO REMAIN EXPOSED LONGER THAN 60 DAYS.
- THE EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING AND GRUBBING OR ANY OTHER EARTHWORKS OR TRENCHING.
- ALL STORMWATER, SEWER LINE AND SERVICES, TRENCHES NOT IN STREETS, ARE TO BE MULCHED AND SEEDED WITHIN 10 DAYS AFTER BACKFILL, NO MORE THAN 150 METRES ARE TO BE OPEN AT ANY ONE TIME.
- ALL TEMPORARY EARTH BANKS, DIVERSIONS AND SEDIMENT DAM EMBANKMENTS ARE TO BE MACHINE-COMPACTED, SEEDED AND MULCHED FOR TEMPORARY VEGETATIVE COVER WITHIN 10 DAYS AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED.
- END OF EACH DAY'S OPERATION ARE TO BE LEFT WITH A LIP AT THE TOP OF THE SLOPE AT THE COMPLETION OF GRADING.
- ALL CUT AND FILL BATTERS ARE TO BE SEEDED AND MULCHED WITHIN 10 DAYS OF SUPERVISING ENGINEER.
- ADDITIONAL SILT AND EROSION CONTROLS MAY BE REQUIRED AS ORDERED ON SITE BY THE SUPERVISING ENGINEER.
- ALL CONTROLS ARE TO BE INSPECTED AFTER EACH STORM EVENT AND MAINTAINED AS REQUIRED. CONTROLS ARE TO BE MAINTAINED UNTIL THE DISTURBED AREAS ARE PERMANENTLY STABILIZED OR UNTIL NO LONGER REQUIRED.

PHASE 1 – CLEARING AND BULK EARTHWORKS

CONSTRUCT AND MAINTAIN SILT FENCES, STRAW BALE TRAPS, ALLOTMENT DRAINAGE BANKS, CATCH DRAINS AND HYDROMULCHING WHICH CONTROL SEDIMENT AND EROSION DURING CLEARING AND BULK EARTHWORKS.

PHASE 2 – TRENCH EXCAVATION

CONSTRUCT AND MAINTAIN SILT FENCES, STRAW BALE TRAPS, ALLOTMENT DRAINAGE BANKS AND CATCH DRAINS WHICH CONTROL SEDIMENTATION AND EROSION DURING TRENCHING WORK.

PHASE 3 – PAVEMENT CONSTRUCTION

CONSTRUCT AND MAINTAIN SILT FENCES, STRAW BALE TRAPS, ALLOTMENT DRAINAGE BANKS, GULLY INLET PROTECTION, AND PIPE INLET/OUTLET PROTECTION WHICH CONTROL SEDIMENTATION AND EROSION DURING PAVEMENT CONSTRUCTION. SAND BAGGING TO BE PLACED ACROSS PAVEMENT TO CONTROL RUNOFF IN PAVEMENT BOXING AS DIRECTED ON SITE.

PHASE 4 – MAINTENANCE PERIOD

CONSTRUCT AND MAINTAIN CONTROLS AND VEGETATIVE TREATMENTS WHICH CONTROL SEDIMENTATION AND EROSION PRIOR TO THE ESTABLISHMENT OF GRASS COVER. PROVIDE 600mm WIDE GRASS FILTER STRIPS BEHIND KERB AND CHANNEL.

NOTE: TURF TREATMENT IN CERTAIN AREAS BY LANDSCAPER. REFER TO LANDSCAPE DRAWING.

NOTE

ALL VEHICLES EXITING FROM THE SITE ARE TO BE CLEANED AND TREATED TO PREVENT MATERIAL BEING TRACKED OR DEPOSITED ONTO PUBLIC ROADS. IF MATERIAL IS ACCIDENTALLY DEPOSITED ONTO PUBLIC ROADS IT SHALL BE REMOVED WITHOUT DELAY. IF THE SHAKEDOWN DEVICE PROVES TO BE INEFFECTIVE THE CONTRACTOR IS TO USE OTHERS MEANS TO PREVENT MATERIAL BEING DEPOSITED ONTO PUBLIC ROADS.



EROSION AND SEDIMENT CONTROL PROGRAM

- THIS PROGRAM OF DESIGNATED PLANS SHOULD BE READ IN CONJUNCTION WITH THE MANAGEMENT SPECIFICATION INCORPORATED IN THE CONTRACT DOCUMENTS. THE PROVISIONS OF THE SPECIFICATION ARE TO BE STRICTLY ADHERED TO.
- THE BASIC OBJECTIVES OF THE EROSION AND SEDIMENT CONTROL ARE:
  - IDENTIFY CRITICAL AREAS AND PROVIDE APPROPRIATE ATTENTION TO THOSE AREAS.
  - PLAN SITE LAYOUTS SO THAT ACCESS TO ALL REQUIRED DRAINAGE EROSION AND SEDIMENT CONTROL MEASURES IS MAINTAINED.
  - LIMIT EXPOSURE TIME BY PROGRAMMING TO MINIMISE THE AREA OF LAND EXPOSED TO POTENTIALLY ADVERSE WEATHER CONDITIONS AT ANY ONE TIME. I.E. PROGRESSIVELY CLEAR AND VEGETATE.
  - PROVIDE CONTROL MEASURES INCLUDING TEMPORARY AND PERMANENT DRAINAGE, EROSION AND SEDIMENT CONTROLS.
- THE EROSION AND SEDIMENT CONTROL SHALL COMPLY WITH BEST PRACTICE FOR EROSION AND SEDIMENT CONTROL. THE POLLUTION CONTROL MANUAL FOR URBAN STORMWATER MANAGEMENT, THE QUEENSLAND URBAN DRAINAGE MANUAL, AND THE SOIL EROSION AND SEDIMENT CONTROL - ENGINEERING GUIDELINES FOR QUEENSLAND (CURRENT EDITIONS).
- CONSTRUCTION SEQUENCE THE CONSTRUCTION SEQUENCE WILL GENERALLY BE:
  - OBTAIN ALL NECESSARY PERMITS AND APPROVALS BEFORE SITE ESTABLISHMENTS.
  - HOLD A PRE-CONSTRUCTION CONFERENCE.
  - STABILISE ALL CONSTRUCTION ACCESS ROUTES AND ENTRY/EXIT POINTS.
  - ESTABLISH SEDIMENT CONTROL STRUCTURES AND TEMPORARY DRAINAGE CONTROL MEASURES AS NECESSARY.
  - CARRY OUT BULK EARTHWORKS.
  - MAINTAIN AND REPAIR DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES.
  - REMOVE SEDIMENT CONTROL MEASURES WHEN THE SITE IS STABILISED. I.E. >70% GROUND COVER.
- THE CONTRACTOR SHALL PREPARE A SUPPLEMENTARY EROSION AND SEDIMENT CONTROL PLAN TO SUIT HIS/HER CONSTRUCTION METHODOLOGY, AND SUBMIT THIS PLAN FOR APPROVAL TO THE SUPERINTENDENT. IT SHOULD BE NOTED THAT ANY SIGNIFICANT VARIATION TO THIS PLAN MAY REQUIRE RESUBMISSION TO COUNCIL FOR APPROVAL. THE CLIENT SHALL NOT BE RESPONSIBLE FOR ANY SUCH ASSOCIATED DELAY.
- ALL ESC DEVICES ARE TO BE INSPECTED WEEKLY, PRIOR TO EXPECTED AND AFTER RAINFALL ANY DAMAGE IS TO BE REPAIRED AS REQUIRED TO MAINTAIN THEIR EFFICACY.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL (ESCO) MEASURE TO BE MAINTAINED AND FULLY OPERATIONAL DURING THE MAINTENANCE PERIOD AND ARE TO BE REMOVED AFTER THE SATISFACTORY COMPLETION OF AN OFF-MAINTENANCE INSPECTION BY COUNCIL AND PRIOR TO FORMAL ACCEPTANCE "OFF MAINTENANCE" BY COUNCIL.
- PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR IS TO PROVIDE A DETAILED PROGRAM TO THE SUPERINTENDENT SHOWING THE TIMING FOR ALL WORKS ASSOCIATED WITH THE PROJECT, NOMINATING, IN PARTICULAR, THE PROGRAM FOR INSTALLATION OF SOIL AND EROSION CONTROL SYSTEMS.
- EARTHWORKS SHALL BE CARRIED OUT IN SUCH A MANNER THAT THE SITE IS MAINTAINED IN A WELL DRAINED CONDITION. AREAS OF LOOSE SOIL ARE MINIMISED AND CONCENTRATIONS OF STORMWATER ARE MINIMISED. BULK EARTHWORKS WILL BE CARRIED OUT OVER THE ENTIRE SITE IN ONE STAGE.
- A SHAKE DOWN AS DETALLED ON THE PLAN COMPRISING FREE DRAINAGE GRAVEL SHALL BE LOCATED ADJACENT TO THE POINT OF ACCESS WHERE VEHICLES CAN BE WASHED DOWN PRIOR TO EXIT TO THE STREET SYSTEM IF REQUIRED. THE WASH DOWN AREA SHALL BE KEPT FREE OF MUD/ENTRY/EXIT SEDIMENT PAD REFER TO BEST PRACTICE EROSION & SEDIMENT CONTROL BOOK 1, PAGE 2.48, FIGURE 2.8.
- DISCRETION OF THE SUPERINTENDENT SEDIMENT CONTROL DEVICES MAY BE REQUIRED AT THE REFINER'S BEST PRACTICE TO BE PLACED AS SHOWN. FOR DETAILS OF SEDIMENT FENCE REFER BEST PRACTICE EROSION & SEDIMENT CONTROL BOOK 1, PAGE 2.50, FIGURE 2.8.
- WHERE SEDIMENT FENCES ARE SHOWN TO BE CONSTRUCTED IN AREAS OF SIGNIFICANT EARTHWORKS, SECTION OF THE FENCE MAY BE DEFERRED UNTIL COMPLETION OF THE BULK EARTHWORKS, SUBJECT TO ABSENCE OF RAIN.

TREES

- ENSURE COMPLIANCE WITH THE REQUIREMENTS OF AS4970 - TREES ON CONSTRUCTION SITES. AS THIS REQUIRES CONSULTATION AND GUIDANCE FROM A CLASS V CERTIFIED ARBORIST AS TREES OUTSIDE THE IMMEDIATE WORK AREA MAY BE AFFECTED. ENSURE COMPLIANCE WITH THE REQUIREMENTS OF THE 28 SOUTH ENVIRONMENTAL FMP, INCLUDING IMPLEMENTING THE NOMINATED TREE PROTECTION ZONES.

ECONOMIC DEVELOPMENT QUEENSLAND (EDO)

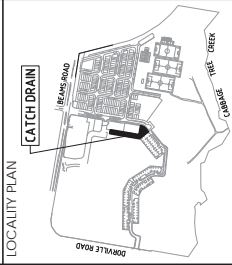
Project: CARSELDINE VILLAGE CATCH DRAIN



Approved by: M. Shaw  
Mark Andrew Shaw BEng  
(Civil) (MIEAust) IPRO 17544  
2022.07.27 13:34:32 +10:00

Drawing Title:		Checked:		Date:
EROSION AND SEDIMENT CONTOUR PLAN		JB	MS	JUL '22
NOTES		RW	MS	
Drawing No:		Sheet:		10 of 12
Revision:		Revision:		
A1	22-106-10			A

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No	Description	Date	By
A	FOR APPROVAL	27/07/2022	AA



ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)

CARSELINE VILLAGE CATCH DRAIN



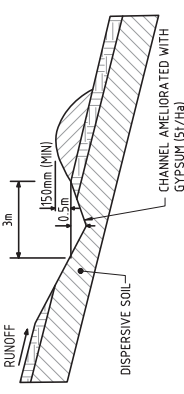
Approved by: M. Shaw  
Made Andreas Shaw BEng  
(Civil) MIEAust (P) 2544  
2022.07.27 13:34:48 +10:00

Drawn	Designed	Checked	Date
AA	JB	MS	JUL '22

Scale	Sheet	T1 of 12
AS SHOWN		

Drawing No	Revision
A1	22-106-11

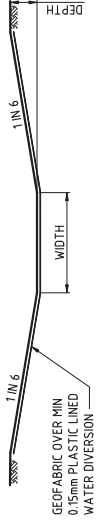
Drawing Title:  
**EROSION AND SEDIMENT CONTOUR PLAN DETAILS**



CATCH DRAIN

OPEN EARTH SLOPES		VEGETATED SLOPES	
SLOPE	VERT.	SLOPE	VERT.
1%	80m	0.9%	15%
2%	60m	1.2%	20%
4%	40m	1.6%	25%
6%	30m	1.9%	30%
8%	20m	2.2%	35%
10%	15m	2.5%	40%
12%	12m	2.8%	50%

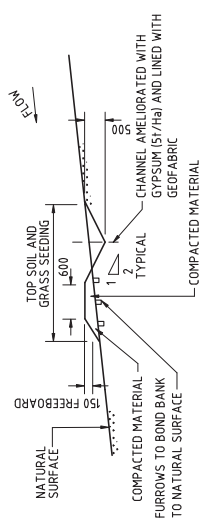
TYPICAL CATCH DRAIN DIMENSIONS & SPACINGS



TYPICAL LINED CATCH DRAIN

SCALE 1: 40

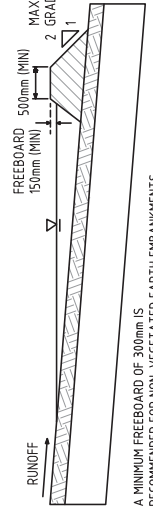
SIZING TO BE DETERMINED DURING CONSTRUCTION



CROSS SECTION

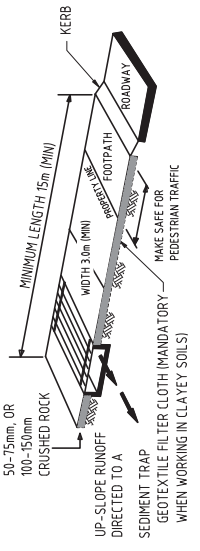
DIVERSION CHANNEL

N.T.S.



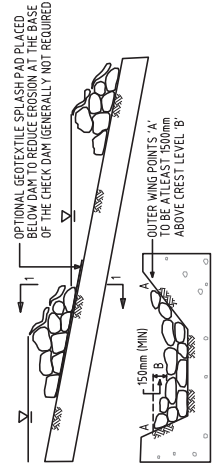
DIVERSION DRAINAGE BANK

N.T.S.



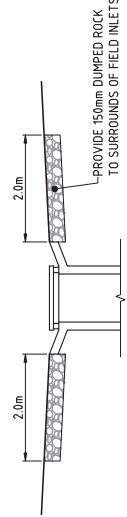
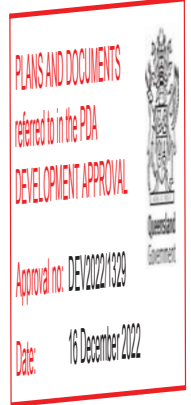
SITE ACCESS POINT ENTRY/EXIT PAD

N.T.S.



CHECK DAM

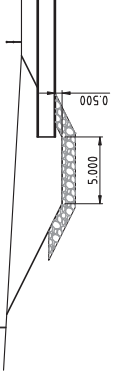
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FIELD INLET PROTECTION

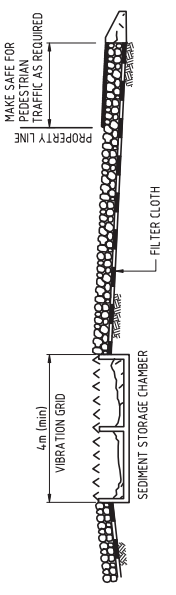
N.T.S.

REFER IPWEA DWG GS-044 FOR TYPE 2 TUBULAR STEEL FENCE DETAILS



TEMPORARY HEADWALL DETAIL

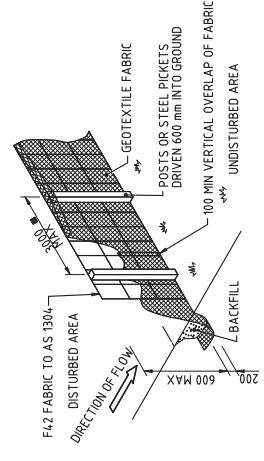
N.T.S.



TYPICAL PROFILE OF A VIBRATION GRID

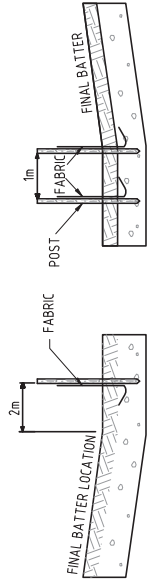
SITE ACCESS POINT SHAKEDOWN FACILITY

N.T.S.



SEDIMENT FENCE

N.T.S.



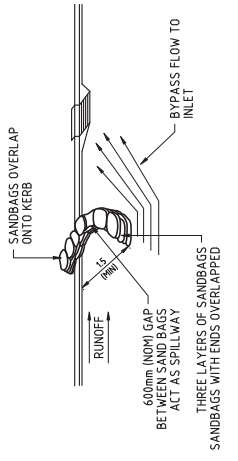
a) PLACEMENT OF SEDIMENT FENCE AT BASE OF FILL SLOPE

b) USE OF DOUBLE SEDIMENT FENCE AT THE BASE OF FILL SLOPE

SEDIMENT FENCE DETAILS

N.T.S.

LOCATION OF SEDIMENT FENCE AT BASE OF FILL SLOPE



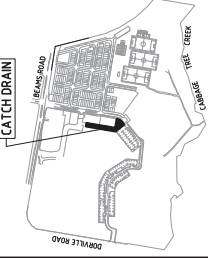
ON GRADE GULLY INLET

N.T.S.

DO NOT SCALE THIS DRAWING  
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LOCALITY PLAN



No	Description	Date	By
A	FOR APPROVAL	27/07/2022	AA

Client  
ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)

Project  
CARSELDINE VILLAGE CATCH DRAIN



Approved  
Mark Andrew Shaw BEO  
CIVIL ENGINEER  
2022.07.27 13:34:57 +10:00

Drawn	Designed	Checked	Date
RW	JB	MS	JUL '22

Scale	Sheet	12 of 12
AS SHOWN		

Drawing No	Revision
A1	22-106-12 A

Section of Works	Identify any Potential Incident or Hazard	Risk Rating	Risk Control Measures	Residual Risk Rating (after design applied)	Risk Manager
Earthworks/Material Investigation	Geotechnical Investigation	C 3 5	SWMS required by Contractor	D 3	Contractor
Road/Earthworks Works	Pedestrians Injury	D 3 M	TMP to be provided by Contractor to exclude pedestrians from work site	E 3 L	Contractor
	Workers Injury	A 4 H	TMP and SWMS required for all activities	C 2 S	Contractor
	Maintenance Workers	A 4 H	TMP and SWMS required for all activities	C 3 S	Contractor
	Underground Services (Existing)	A 3 H	BIDD documentation to be sent prior to design. All existing services to be located and depths confirmed prior to works commencing. SWMS to be provided by Contractor	C 2 S	Designer/Contractor
Working adjacent to existing infrastructure	Conflict between construction activities and infrastructure in particular Power lines	B 4 S	All existing services highlighted in the documentation. Contractor to complete BIDD search before commencing works. SWMS to be provided by Contractor	C 4 M	Designer/Contractor
Service trench/pipe installation	Works within all structures or services	A 4 H	Mark located with sufficient clearance to existing pressure mains, structures and battered embankments	C 4 M	Designer
	Trench depth	A 4 M	Depth of trenches minimized for both safety and cost efficiency	C 4 M	Designer
Works within Confined Spaces	Construction of stormwater, sewers, structures	A 4 M	Contractor to ensure works undertaken in a manner complying with safe work method statements	D 5 L	Contractor
SH and Erosion Control	SH and Erosion retaining temporary sediment basins	A 5 S	Retention measures - that a fencing of all water retaining structures with safe slopes greater than 4 in 5 as described in International Erosion Control Association (Australasian) Table B9	C 4 M	Designer/Contractor

H: High Risk  
M: Moderate Risk  
S: Significant Risk  
L: Low Risk

Read the Risk Rating from the matrix below:

Risk Assessment Matrix	S: Significant Risk			L: Low Risk		
	A	B	C	D	E	F
1	H	H	H	S	S	S
2	H	H	S	S	M	M
3	H	S	M	L	L	L
4	H	S	M	L	L	L
5	S	S	M	L	L	L

Probable – means an event or situation that occurs or is likely to occur about ten times or more per year  
Possible – means an event or situation that occurs or is likely to occur about once per year  
Unlikely – means an event or situation that occurs or is likely to occur less frequently than once every ten years

Client: ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)  
Project: CARSELDINE VILLAGE – CATCH DRAIN  
Prepared By: Jason Burton  
Reviewed By: Mark Shaw  
Date: 10<sup>th</sup> June 2022  
Date: 10<sup>th</sup> June 2022

**Safety in Design Analysis**

Complete Safety in Design Analysis by populating the table where applicable with all of the relevant safety issues for the project. For example:

<input type="checkbox"/> Positioning of new services adjacent to existing live services <input type="checkbox"/> Construction adjacent to existing road carriageways <input checked="" type="checkbox"/> Slope Stability <input checked="" type="checkbox"/> Retaining Walls <input checked="" type="checkbox"/> Erosion Control <input checked="" type="checkbox"/> Erosion Control/Sediment Control/Management <input checked="" type="checkbox"/> Civil Construction Workers <input checked="" type="checkbox"/> Sediment Basin Construction <input checked="" type="checkbox"/> Maintenance Workers <input checked="" type="checkbox"/> Work Place Health and Safety Constraints <input type="checkbox"/> Wetland/Dam Construction <input type="checkbox"/> Working under traffic <input type="checkbox"/> Unusual material handling <input type="checkbox"/> Falls from heights <input checked="" type="checkbox"/> Underground Services (existing) <input type="checkbox"/> Electrical Service Installation <input type="checkbox"/> Gas Service Installation <input type="checkbox"/> Communication Installation <input type="checkbox"/> Traffic Signal Installation <input checked="" type="checkbox"/> Landscape Workers <input type="checkbox"/> Line marking Workers <input checked="" type="checkbox"/> Excavation – open cut trenching - Trench excavation depths <input type="checkbox"/> Tunnel Boring <input checked="" type="checkbox"/> Confined Spaces <input checked="" type="checkbox"/> Lifting of loads <input checked="" type="checkbox"/> Unloading of materials and storage <input checked="" type="checkbox"/> Storage of hazardous materials <input checked="" type="checkbox"/> Geotechnical investigation – works <input checked="" type="checkbox"/> Bulk Earthworks <input checked="" type="checkbox"/> List all relevant safety studies	<b>Project-Specific Design Elements:</b> <input type="checkbox"/> Slope Stability <input type="checkbox"/> Retaining Walls <input type="checkbox"/> Erosion Control <input type="checkbox"/> Erosion Control/Sediment Control/Management <input type="checkbox"/> Civil Construction Workers <input type="checkbox"/> Sediment Basin Construction <input type="checkbox"/> Maintenance Workers <input type="checkbox"/> Work Place Health and Safety Constraints <input type="checkbox"/> Wetland/Dam Construction <input type="checkbox"/> Working under traffic <input type="checkbox"/> Unusual material handling <input type="checkbox"/> Falls from heights <input type="checkbox"/> Underground Services (existing) <input type="checkbox"/> Electrical Service Installation <input type="checkbox"/> Gas Service Installation <input type="checkbox"/> Communication Installation <input type="checkbox"/> Traffic Signal Installation <input type="checkbox"/> Landscape Workers <input type="checkbox"/> Line marking Workers <input type="checkbox"/> Excavation – open cut trenching - Trench excavation depths <input type="checkbox"/> Tunnel Boring <input type="checkbox"/> Confined Spaces <input type="checkbox"/> Lifting of loads <input type="checkbox"/> Unloading of materials and storage <input type="checkbox"/> Storage of hazardous materials <input type="checkbox"/> Geotechnical investigation – works <input type="checkbox"/> Bulk Earthworks <input type="checkbox"/> List all relevant safety studies
--	---

The following table summarises the safety in design issues considered.

**RISK ASSESSMENT AND CONTROL**

Risk Assessment

Select one category from each of the columns below that best represents the likely outcome if the potential hazard actually did occur. For each consequence consider the most likely outcome and not the 'absolute worst' case.

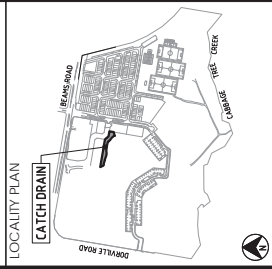
Consequence	Likelihood
A Death – major environmental damage	1 Certain
B Permanent Disability – severe environmental damage	2 Probable
C Lost Time Injury – moderate environmental damage	3 Possible
D Medical Treatment Injury – minor environmental damage	4 Unlikely
E First Aid Treatment	5 Very Unlikely

**RISK RATING**

Certain – means an event or situation that is happening more or less all the time, including continuous situations  
 Permanent Disability – means a disability, such as loss of a limb or eyesight, loss of hearing, chronic skin disorder, chronic back disorder, emphysema, and the like



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REVISIONS		
No.	Description	Date
A.	FOR APPROVAL	27.07.22

Client  
ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)

Project  
CARSELDINE VILLAGE CATCH DRAIN PHASE 2

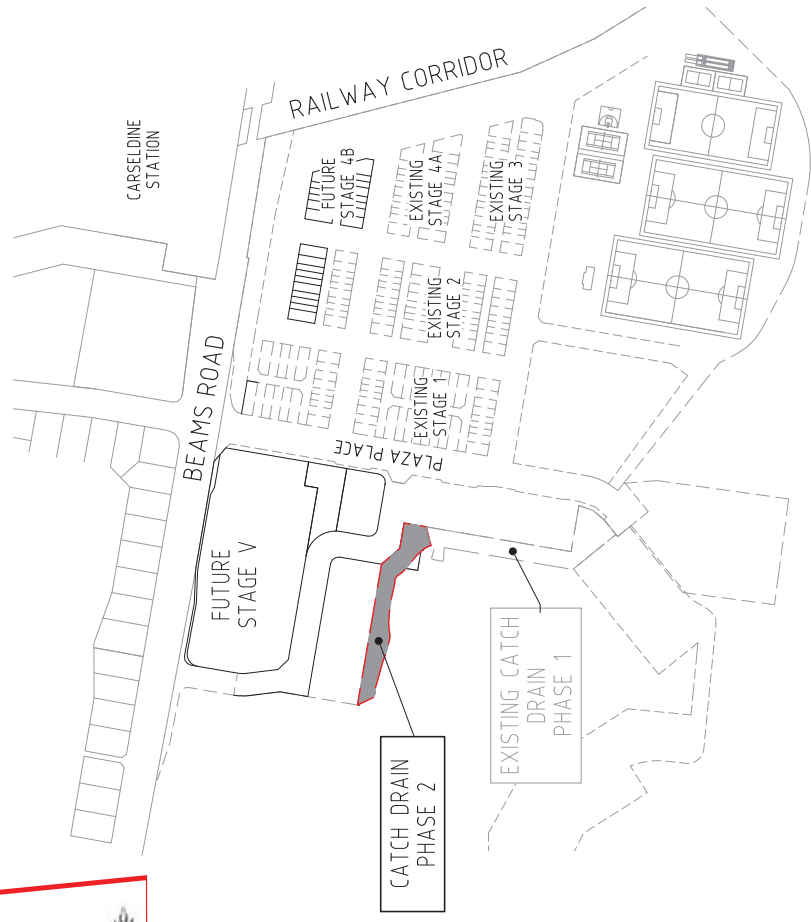


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Scale	A3 SHOWN			Sheet		01 of 10	
Revision	A1			Drawing No.		22-106-101	
Revision	A			Revision		A	

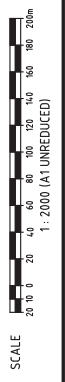
Approved  
*M. Shaw*  
Mark Andrew Shaw BEng  
CIVIL ENGINEER (PEQ) 7544  
2022.07.27 13:35:09 +10'00'

Drawing Title  
**GENERAL LOCALITY PLAN, CATCH DRAIN PHASE 2**

# CARSELDINE VILLAGE CATCH DRAIN



PLAN SCALE 1:2000



PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DE120221029

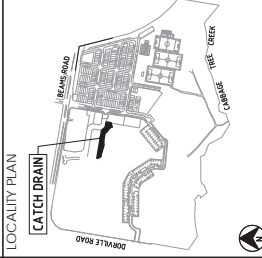
Date: 16 December 2022

### DRAWING INDEX

DRAWING NO.	DRAWING TITLE
22-106-101	GENERAL - LOCALITY PLAN, DRAWING INDEX AND NOTES
22-106-102	GENERAL - SETOUT PLAN
22-106-103	GENERAL - LAYOUT PLAN
22-106-104	EARTHWORKS - CONTOUR PLAN
22-106-105	CATCH DRAIN - CROSS SECTIONS EXISTING PHASE 1 WORKS
22-106-106	CATCH DRAIN - CROSS SECTIONS PROPOSED PHASE 2 WORKS
22-106-107	EROSION AND SEDIMENT - CONTOUR PLAN LAYOUT PLAN
22-106-108	EROSION AND SEDIMENT - CONTOUR PLAN NOTES
22-106-109	EROSION AND SEDIMENT - CONTOUR PLAN DETAILS
22-106-110	SAFETY IN DESIGN



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A	FOR APPROVAL	AA	25.07.22

Client  
**ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)**

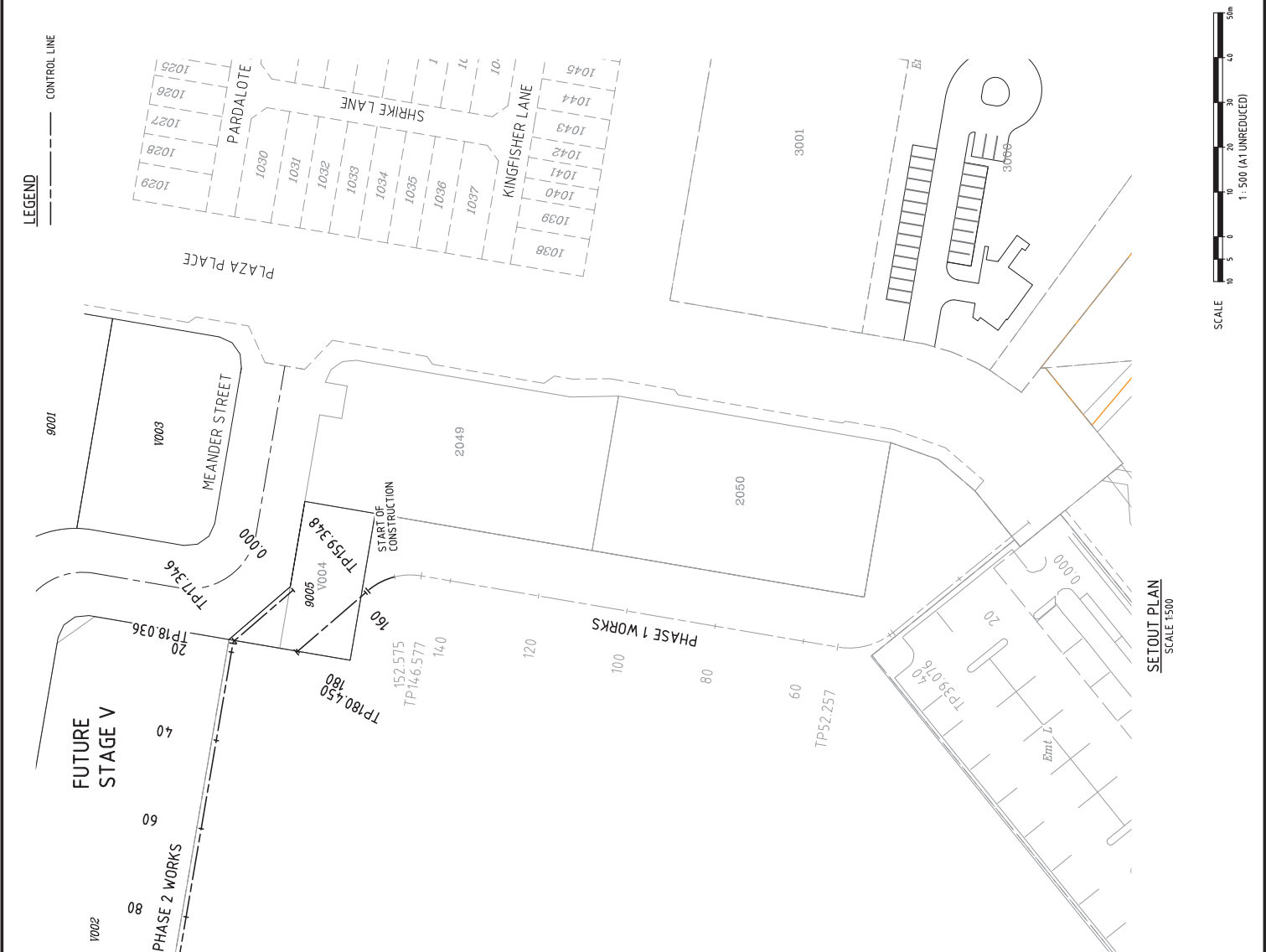
Project  
**CARSELINE VILLAGE CATCH DRAIN PHASE 2**



Approved  
**M. Shaw**  
Mark Andrew Shaw BE09  
(CIVIL, MECHANICAL, PPEO) 7544  
2022.07.27 13:35:19 +10'00'

Drawn	DES	Designed	JB	Checked	MS	Date
Sheet	02	of	10			JUL '22
Revision						

Drawing No: **A1**  
Revision: **22-106-102**  
Scale: **A**



SCALE  
1:500 (A1 UNREDUCED)

**CATCH DRAIN CONTROL LINE DETAILS**

PT	CHAINAGE	EASTING	NORTHING	BEARING	RADIUS	TANGENT	DEF ANGLE	ARC-LEN
IP1	0.000	502587.596	6974671.368	320d58'50"	-	-	-	-
IP2	39.076	502562.994	6974701.721	320d58'50"	-	-	-	13.181
IP3	45.666	502558.575	6974707.881	-	15.500	7.019	48d43'29"	-
IP4	52.257	502559.759	6974714.099	94d27'19"	-	-	-	-
IP5	146.577	502575.659	6974607.069	94d27'19"	-	-	-	-
IP6	152.963	502576.811	6974813.804	-	14.500	6.833	50d27'42"	12.770
IP7	159.348	502572.351	6974818.980	319d14'38"	-	-	-	-
IP8	180.451	502558.574	6974834.965	319d14'38"	-	-	-	-

**PHASE 2 WORKS CONTROL LINE DETAILS**

PT	CHAINAGE	EASTING	NORTHING	BEARING	RADIUS	TANGENT	DEF ANGLE	ARC-LEN
IP1	0.000	502572.482	6974835.677	319d14'38"	-	-	-	-
IP2	17.346	502561.157	6974848.817	319d14'38"	-	-	-	-
IP3	17.691	502560.993	6974849.089	-	1.000	0.359	39d32'18"	0.690
IP4	18.036	502560.569	6974849.150	279d42'19"	-	-	-	-
IP5	124.272	502455.853	6974867.059	279d42'19"	-	-	-	-

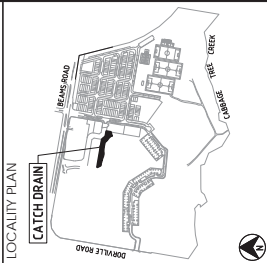
PLANS AND DOCUMENTS  
referred to in the PDA  
DEVELOPMENT APPROVAL

Approval no: DE1202214329

Date: 16 December 2022



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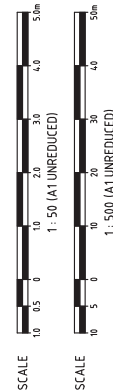
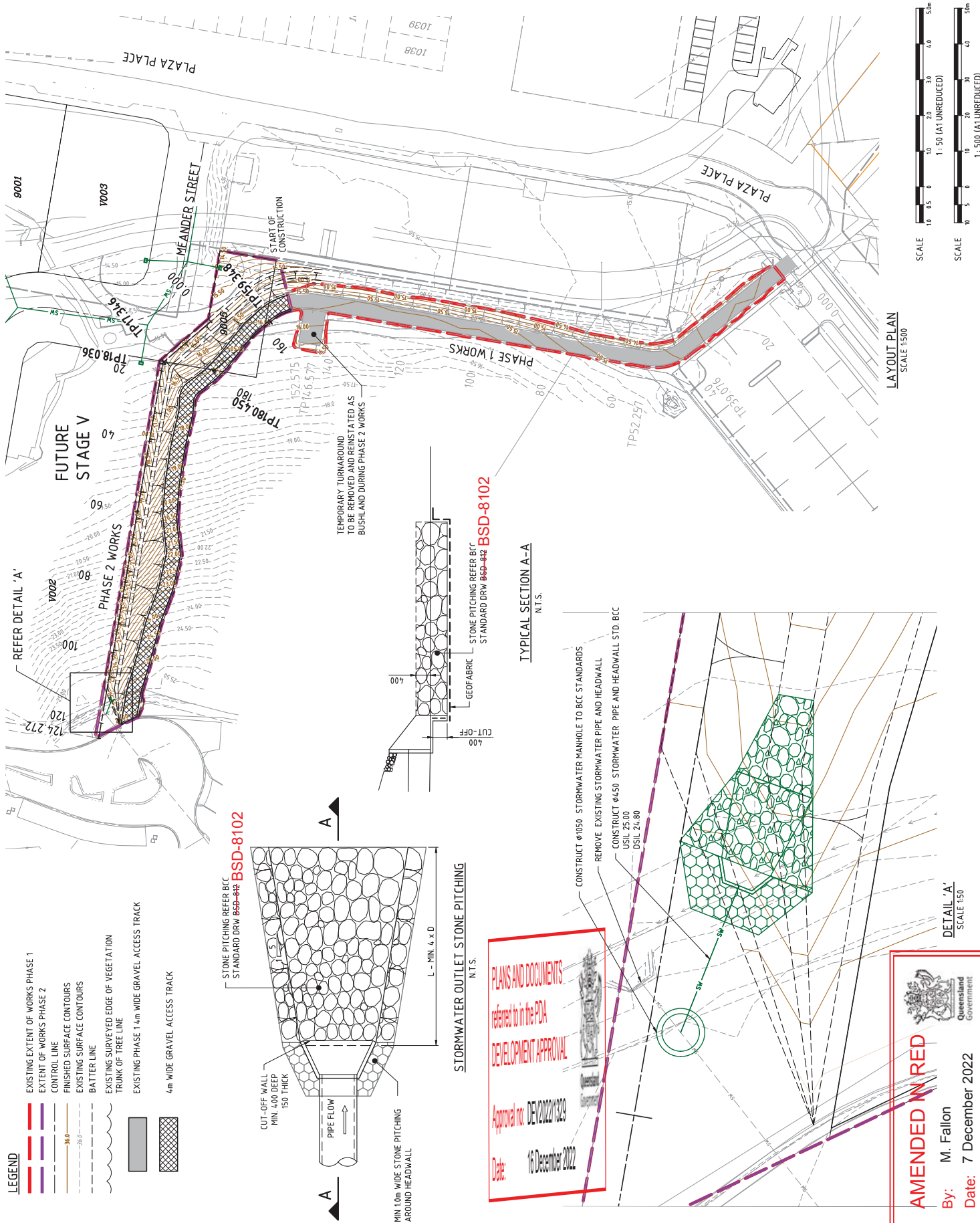
ECONOMIC DEVELOPMENT QUEENSLAND (EDO)

CARSELINE VILLAGE CATCH DRAIN PHASE 2

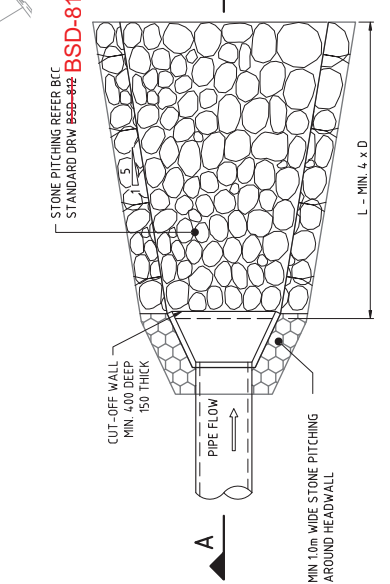


Approved by: *M. Shaw*  
Mark Andrew Shaw BEng  
CIVIL/MEAUR/PEQ 7544  
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GENERAL LAYOUT PLAN							
Drawn	DES	Designed	JB	Checked	MS	Date	JUL '22
Scale	AS SHOWN	Sheet	03 of 10	Revision			
Drawing No	A1	Revision	22-106-103				A



- LEGEND**
- EXISTING EXTENT OF WORKS PHASE 1
  - EXTENT OF WORKS PHASE 2
  - CONTROL LINE
  - FINISHED SURFACE CONTOURS
  - EXISTING SURFACE CONTOURS
  - BATTER LINE
  - EXISTING SURVEYED EDGE OF VEGETATION
  - TRUNK OF TREE LINE
  - EXISTING PHASE 1 4m WIDE GRAVEL ACCESS TRACK
  - 4m WIDE GRAVEL ACCESS TRACK



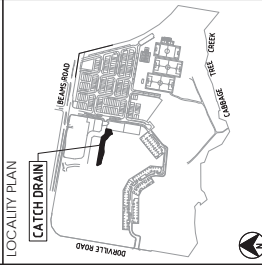
**PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL**

Approval no. DEV/2022/1039  
Date: 16 December 2022

**AMENDED IN RED**

By: M. Fallon  
Date: 7 December 2022

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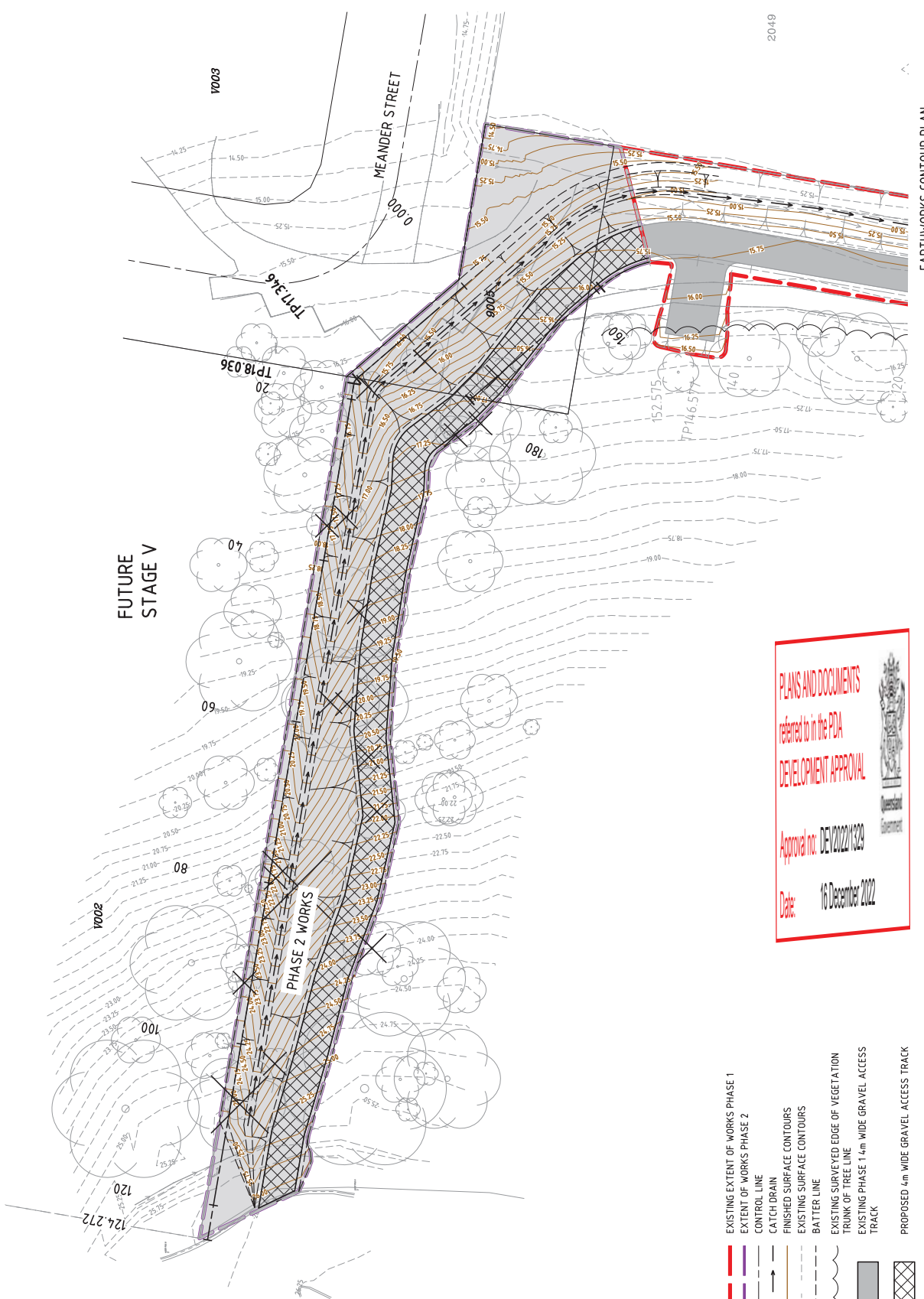
Client  
**ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)**

Project  
**CARSELINE VILLAGE CATCH DRAIN PHASE 2**



Approved  
**M. Shaw**  
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2022.07.27 13:35:40 +10:00

Drawn	DES	Designed	JB	Checked	MS	Date	JUL '22
Scale	AS SHOWN	Drawing No	A1	22-106-104	Revision	A	

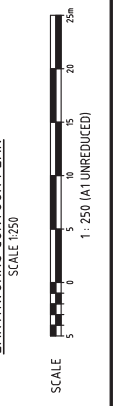


**PLANS AND DOCUMENTS**  
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**DEVELOPMENT APPROVAL**

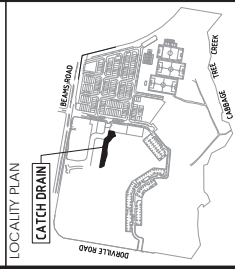
Approval no: **DEV20221029**

Date: **16 December 2022**

LEGEND	
	EXISTING EXTENT OF WORKS PHASE 1
	EXTENT OF WORKS PHASE 2
	CONTROL LINE
	CATCH DRAIN
	FINISHED SURFACE CONTOURS
	EXISTING SURFACE CONTOURS
	BATTER LINE
	EXISTING SURVEYED EDGE OF VEGETATION
	TRUNK OF TREE LINE
	EXISTING PHASE 1 4m WIDE GRAVEL ACCESS TRACK
	PROPOSED 4m WIDE GRAVEL ACCESS TRACK
	EXISTING TREE
	EXISTING TREE TO BE REMOVED TO BE CONFIRM BY OTHERS



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A	FOR APPROVAL	AS
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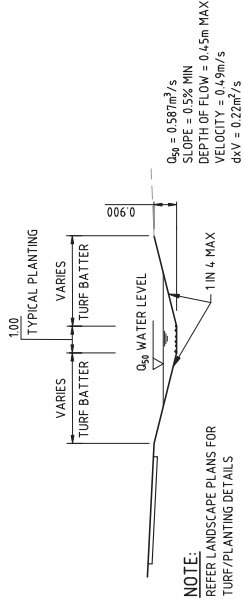
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**ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)**

Project  
**CARSELINE VILLAGE CATCH DRAIN PHASE 2**



Approved by  
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Drawn	Designed	Checked	Date
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**CATCH DRAIN TYPICAL SECTION**  
NTS.

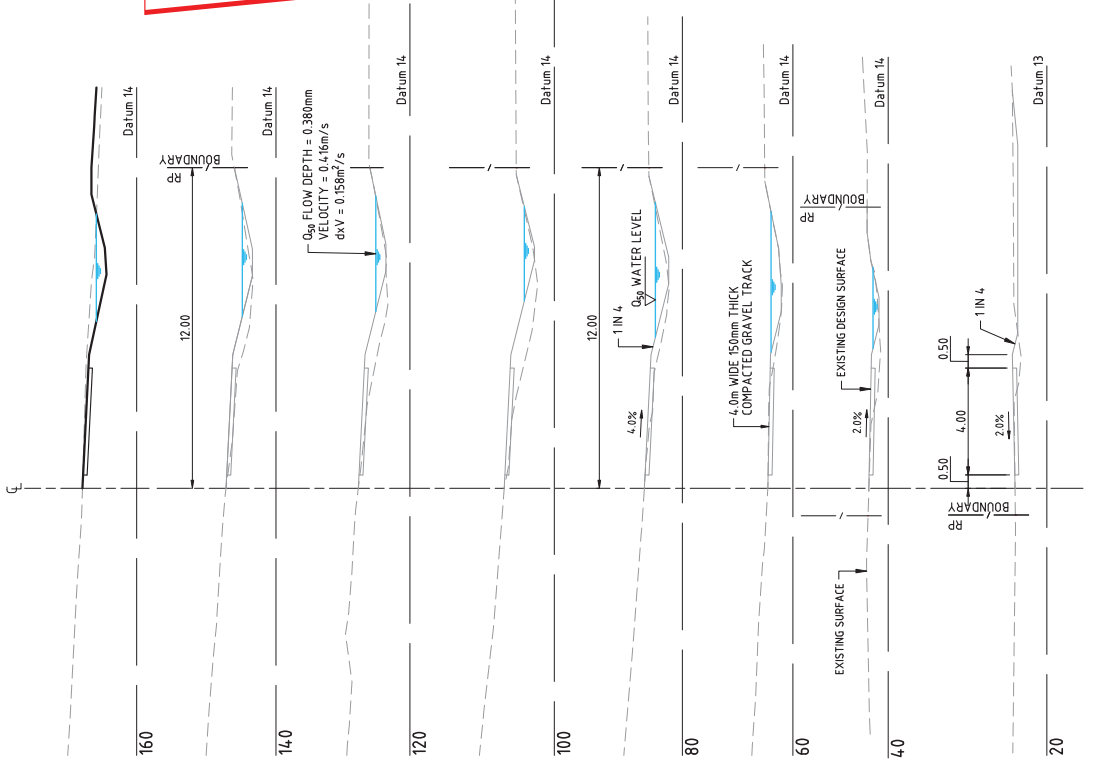
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Approval no: DEV/2022/1323

Date: 16 December 2022

PROPOSED PHASE 2 WORKS

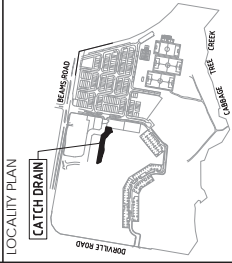
EXISTING PHASE 1 WORKS



**CROSS SECTIONS - CATCH DRAIN PHASE 1 WORKS**  
SCALE 1:100



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Client

ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)

Project

CARSELDINE VILLAGE CATCH DRAIN PHASE 2



Approved

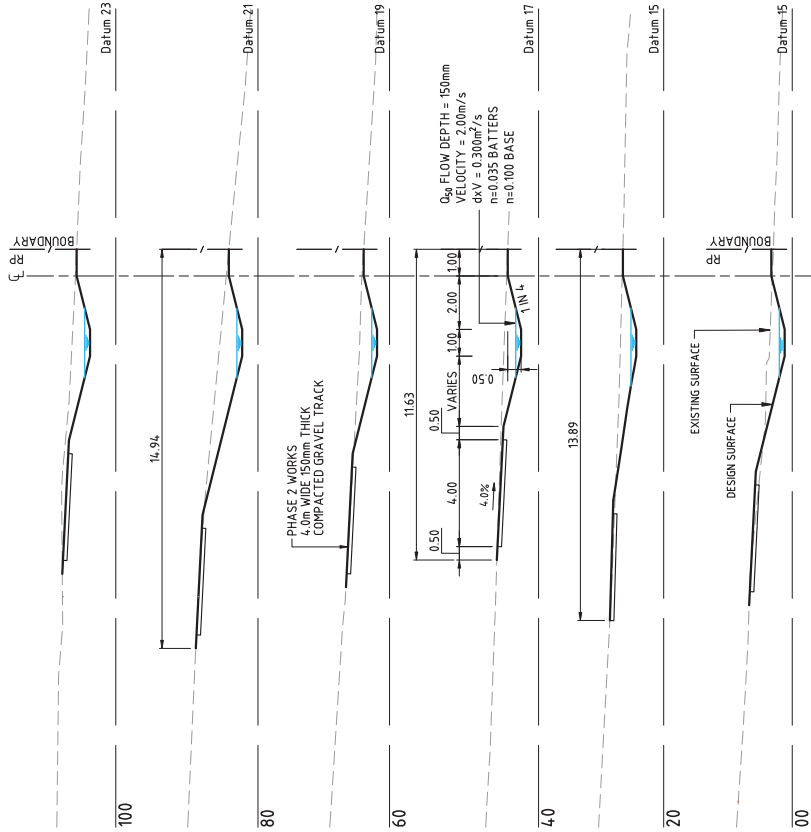
M. Shaw  
Mark Andrew Shaw BEng  
(CIVIL) MIEAust, IPFEO, T544  
2022.07.27 13:36:04 +10:00

Drawing title

CATCH DRAIN CROSS SECTIONS PROPOSED PHASE 2 WORKS

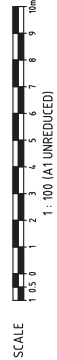
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Drawing No	A1			22-106-106		Revision	A

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL  
 Approval no: DEV2022/1329  
 Date: 16 December 2022



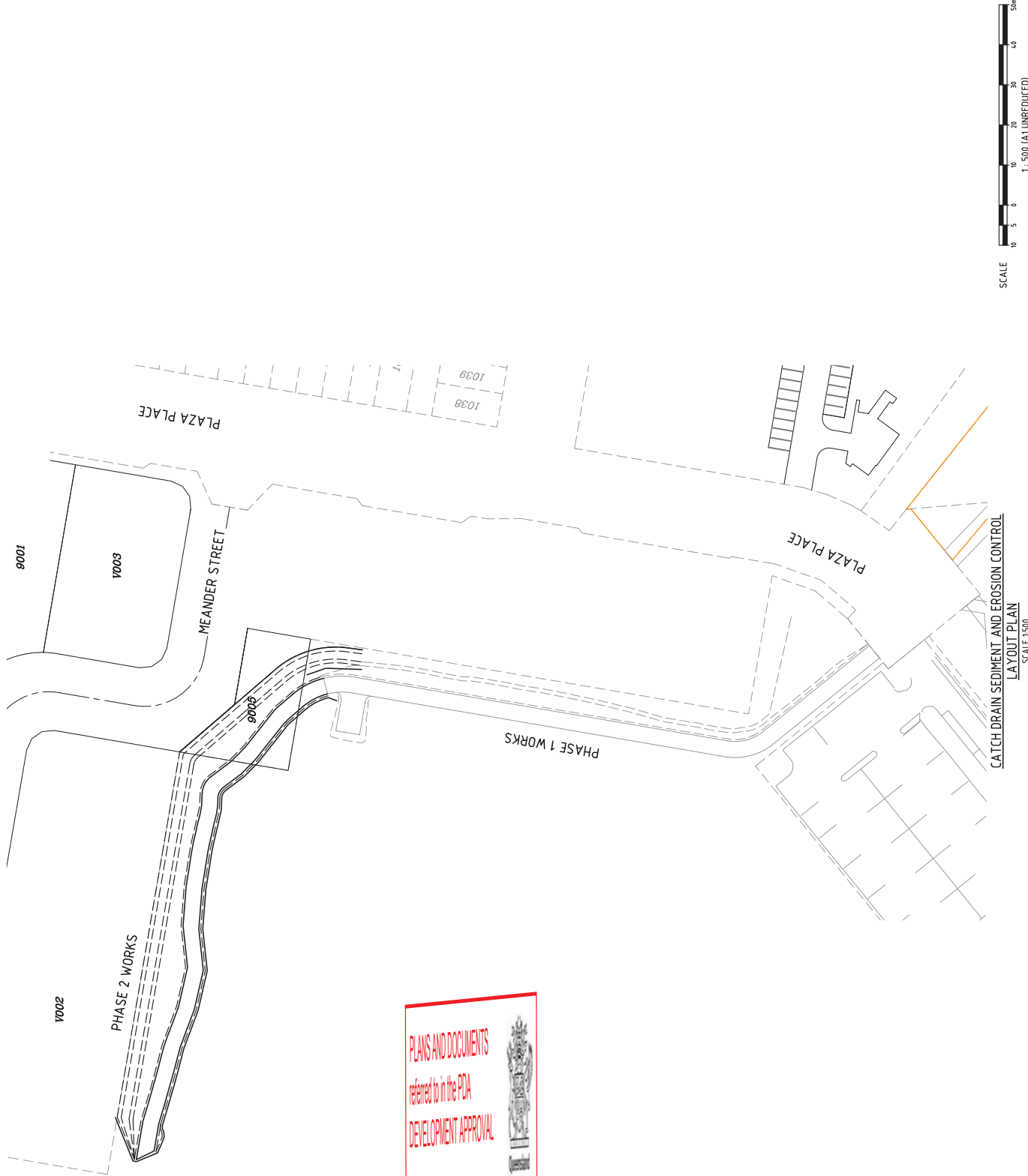
CROSS SECTIONS - CATCH DRAIN FUTURE PHASE 2 WORKS

SCALE 1:100



**LEGEND**

— SEDIMENT AND DIVERSION FENCE (TEMP)



PLANS AND DOCUMENTS  
referred to in the PDA  
DEVELOPMENT APPROVAL

Approval no: DEV/2022/1329  
Date: 16 December 2022



## EROSION AND SEDIMENT CONTROL PROGRAM

- THIS PROGRAM AND DESIGNATED PLANS SHOULD BE READ IN CONJUNCTION WITH THE SITE MANAGEMENT SPECIFICATION INCORPORATED IN ALL CONTRACT DOCUMENTS. THE PROVISIONS OF THE SPECIFICATION ARE TO BE STRICTLY ADHERED TO.
- THE BASIC OBJECTIVES OF THE EROSION AND SEDIMENT CONTROL ARE:
  - IDENTIFY CRITICAL AREAS AND PROVIDE APPROPRIATE ATTENTION TO THOSE AREAS.
  - PLAN SITE LAAYOUTS SO THAT ACCESS TO ALL REQUIRED DRAINAGE EROSION AND SEDIMENT CONTROL MEASURES IS MAINTAINED.
  - LIMIT EXPOSURE TIME BY PROGRAMMING TO MINIMISE THE AREA OF LAND EXPOSED TO POTENTIALLY ADVERSE WEATHER CONDITIONS AT ANY ONE TIME. I.E. PROGRESSIVELY CLEAR AND REVEGETATE.
  - PROVIDE CONTROL MEASURES INCLUDING TEMPORARY AND PERMANENT DRAINAGE, EROSION AND SEDIMENT CONTROLS.
- THE EROSION AND SEDIMENT CONTROL SHALL COMPLY WITH BEST PRACTICE FOR EROSION AND SEDIMENT CONTROL. THE POLLUTION CONTROL MANUAL FOR URBAN STORMWATER MANAGEMENT, THE QUEENSLAND URBAN DRAINAGE MANUAL, AND THE SOIL EROSION AND SEDIMENT CONTROL - ENGINEERING GUIDELINES FOR QUEENSLAND (CURRENT EDITIONS).
- CONSTRUCTION SEQUENCE THE CONSTRUCTION SEQUENCE WILL GENERALLY BE:
  - OBTAIN ALL NECESSARY PERMITS AND APPROVALS BEFORE SITE ESTABLISHMENTS.
  - HOLD A PRE-CONSTRUCTION CONFERENCE.
  - STABILISE ALL CONSTRUCTION ACCESS ROUTES AND ENTRY/EXIT POINTS.
  - ESTABLISH SEDIMENT CONTROL STRUCTURES AND TEMPORARY DRAINAGE CONTROL MEASURES AS NECESSARY.
  - CARRY OUT BULK EARTHWORKS.
  - MAINTAIN AND REPAIR DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES.
  - REMOVE SEDIMENT CONTROL MEASURES WHEN THE SITE IS STABILISED. I.E. >70% GROUND COVER.
  - THE CONTRACTOR SHALL PREPARE A SUPPLEMENTARY EROSION AND SEDIMENT CONTROL PLAN TO SUIT HIS/HER CONSTRUCTION METHODOLOGY, AND SUBMIT THIS PLAN FOR APPROVAL TO THE SUPERINTENDENT. IT SHOULD BE NOTED THAT ANY SIGNIFICANT VARIATION TO THIS PLAN MAY REQUIRE RESUBMISSION TO COUNCIL FOR APPROVAL. THE CLIENT SHALL NOT BE RESPONSIBLE FOR ANY SUCH ASSOCIATED DELAY.
  - ALL ESC DEVICES ARE TO BE INSPECTED WEEKLY, PRIOR TO EXPECTED AND AFTER RAINFALL ANY DAMAGE IS TO BE REPAIRED AS REQUIRED TO MAINTAIN THEIR EFFICACY.
  - ALL TEMPORARY EROSION AND SEDIMENT CONTROL (ESCO) MEASURE TO BE MAINTAINED AND FULLY OPERATIONAL DURING THE MAINTENANCE PERIOD AND ARE TO BE REMOVED AFTER THE SATISFACTORY COMPLETION OF AN OFF-MAINTENANCE INSPECTION BY COUNCIL AND PRIOR TO FORMAL ACCEPTANCE "OFF MAINTENANCE" BY COUNCIL.
  - PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR IS TO PROVIDE A DETAILED PROGRAM TO THE SUPERINTENDENT SHOWING THE TIMING FOR ALL WORKS ASSOCIATED WITH THE PROJECT, NOMINATING, IN PARTICULAR, THE PROGRAM FOR INSTALLATION OF SOIL AND EROSION CONTROL SYSTEMS.
  - EARTHWORKS SHALL BE CARRIED OUT IN SUCH A MANNER THAT THE SITE IS MAINTAINED IN A WELL DRAINED CONDITION. AREAS OF LOOSE SOIL ARE MINIMISED AND CONCENTRATIONS OF STORMWATER ARE MINIMISED. BULK EARTHWORKS WILL BE CARRIED OUT OVER THE ENTIRE SITE IN ONE STAGE.
  - A SHAKE DOWN AS ORDERED ON THE PLAN COMPRISING FREE DRAINAGE GRAVEL SHALL BE LOCATED ADJACENT TO THE POINT OF ACCESS WHERE VEHICLES CAN BE WASHED DOWN PRIOR TO EXIT TO THE STREET SYSTEM IF REQUIRED. THE WASH DOWN AREA SHALL BE KEPT FREE OF MUD/ENTRY/EXIT SEDIMENT PAD REFER TO BEST PRACTICE EROSION & SEDIMENT CONTROL BOOK 1, PAGE 248; FIGURE 2.6.
  - DISCRETIONARY PROVISIONS TEMPORARY CONTROL DEVICES MAY BE REQUIRED AT THE REFINER BEST PRACTICE EROSION & SEDIMENT CONTROL BOOK 1 PAGE 250, FIGURE 2.8 WHERE SEDIMENT FENCES ARE SHOWN TO BE CONSTRUCTED IN AREAS OF SIGNIFICANT EARTHWORKS. ERECTION OF THE FENCE MAY BE DEFERRED UNTIL COMPLETION OF THE BULK EARTHWORKS, SUBJECT TO ABSENCE OF RAIN.

- ## EROSION AND SEDIMENT CONTROL NOTES
- NO DISTURBED AREAS TO REMAIN EXPOSED LONGER THAN 60 DAYS.
  - THE EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING AND GROUBING OR ANY OTHER EARTHWORKS OR TRENCHING.
  - ALL STORMWATER SEWER LINE AND SERVICES TRENCHES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITHIN 10 DAYS AFTER BACKFILL, NO MORE THAN 150 METRES ARE TO BE OPEN AT ANY ONE TIME.
  - ALL TEMPORARY EARTH BANKS, DIVERSIONS AND SEDIMENT DAM EMBANKMENTS ARE TO BE MACHINE-COMPACTED, SEEDED AND MULCHED FOR TEMPORARY VEGETATIVE COVER WITHIN 10 DAYS AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED.
  - END OF EACH DAY'S OPERATION ARE TO BE LEFT WITH A LIP AT THE TOP OF THE SLOPE AT THE COMPLETE END OF GRADING.
  - ALL CUT AND FILL BATTERS ARE TO BE SEEDED AND MULCHED WITHIN 10 DAYS OF SUPERVISION ENGINEER.
  - ADDITIONAL SILT AND EROSION CONTROLS MAY BE REQUIRED AS ORDERED ON SITE BY THE SUPERVISING ENGINEER.
  - ALL CONTROLS ARE TO BE INSPECTED AFTER EACH STORM EVENT AND MAINTAINED AS REQUIRED. CONTROLS ARE TO BE MAINTAINED UNTIL THE DISTURBED AREAS ARE PERMANENTLY STABILIZED OR UNTIL NO LONGER REQUIRED.
- ### PHASE 1 – CLEARING AND BULK EARTHWORKS
- CONSTRUCT AND MAINTAIN SILT FENCES, STRAW BALE TRAPS, ALLOTMENT DRAINAGE BANKS, CATCH DRAINS AND HYDROMULCHING WHICH CONTROL SEDIMENT AND EROSION DURING CLEARING AND BULK EARTHWORKS.
- ### PHASE 2 – TRENCH EXCAVATION
- CONSTRUCT AND MAINTAIN SILT FENCES, STRAW BALE TRAPS, ALLOTMENT DRAINAGE BANKS AND CATCH DRAINS WHICH CONTROL SEDIMENTATION AND EROSION DURING TRENCHING WORK.
- ### PHASE 3 – PAVEMENT CONSTRUCTION
- CONSTRUCT AND MAINTAIN SILT FENCES, STRAW BALE TRAPS, ALLOTMENT DRAINAGE BANKS, GULLY INLET PROTECTION, AND PIPE INLET/OUTLET PROTECTION WHICH CONTROL SEDIMENTATION AND EROSION DURING PAVEMENT CONSTRUCTION. SAND BAGGING TO BE PLACED ACROSS PAVEMENT TO CONTROL RUNOFF IN PAVEMENT BOXING AS DIRECTED ON SITE.
- ### PHASE 4 – MAINTENANCE PERIOD
- CONSTRUCT AND MAINTAIN CONTROLS AND VEGETATIVE TREATMENTS WHICH CONTROL SEDIMENTATION AND EROSION PRIOR TO THE ESTABLISHMENT OF GRASS COVER. PROVIDE 600mm WIDE GRASS FILTER STRIPS BEHIND KERB AND CHANNEL.
- NOTE: TURF TREATMENT IN CERTAIN AREAS BY LANDSCAPER. REFER TO LANDSCAPE DRAWING.
- ## NOTE
- ALL VEHICLES EXITING FROM THE SITE ARE TO BE CLEANED AND TREATED TO PREVENT MATERIAL BEING TRACKED OR DEPOSITED ONTO PUBLIC ROADS.  
IF MATERIAL IS ACCIDENTLY DEPOSITED ONTO PUBLIC ROADS IT SHALL BE REMOVED WITHOUT DELAY. IF THE SHAKEDOWN DEVICE PROVES TO BE INEFFECTIVE THE CONTRACTOR IS TO USE OTHERS MEANS TO PREVENT MATERIAL BEING DEPOSITED ONTO PUBLIC ROADS.

- ## EROSION AND SEDIMENT CONTROL NOTES
- STOP AND STOCKPILE AVAILABLE TOPSOIL (ASSUMED AVERAGE DEPTH 150mm) FROM ALL DISTURBED AREAS PRIOR TO BULK EARTHWORKS. GRADE LEVELS BETWEEN ALLOTMENT FINISHED SURFACE LEVELS AND FINISH LOT ARE FREE DRAINING.
  - MINIMUM SORE ACCESS ALLOTMENTS TO BE 4%.
  - ALL FOOTPATHS, BATTERS, AND EARTHWORKS AFFECTED ALLOTMENTS ARE TO BE TOPSOILED TO A MINIMUM DEPTH OF 150mm (LIGHTLY COMPACTED) AND TURFED WHERE SPECIFIED.
- ## SEDIMENT FENCES
- SEDIMENT FENCES TO BE PLACED AS SHOWN. SEDIMENT FENCED TO BE REPAIRED AND EXCESSIVE SEDIMENT DEPOSITS SHALL BE REMOVED ONCE CAPACITY FALLS BELOW 75%.
  - FOR DETAILS OF SEDIMENT FENCE REFER BEST PRACTICE EROSION & SEDIMENT CONTROL BOOK 1, PAGE 250, FIGURE 2.8.
  - SEDIMENT FENCES TO BE REPAIRED AS REQUIRED AND EXCESSIVE SEDIMENT DEPOSITS SHOULD BE REMOVED.
  - INSTALL KERB INLETS WITH GRAVEL RANGING FROM 50mm TO 75mm IN SIZE SHALL BE INSTALLED AT ALL COMPLETED INLETS. REFER IPEWAG STANDARD DRAWING D-0041. THESE SHALL BE MAINTAINED IN A CLEAN CONDITION. IN THE EVENT OF HEAVY RAIN THEY SHALL BE REMOVED TO MINIMISE THE POTENTIAL FOR FLOODING.
  - CHECKS OF SILT CONTROL DEVICES ARE TO BE MADE WEEKLY, OR AFTER ANY SIGNIFICANT STORM EVENT TO ENSURE INTEGRITY AND PERFORMANCE.
- ## TURFING
- PROVIDE TURFING TO ENTIRE WIDTH OF ALL SWALES, FOOTPATHS AND 1 IN 4 CUT AND FILL BATTERS.
  - FOOTPATH BATTERS ARE TO BE STABILISED WITH TOPSOIL (AND TURFED) AS SOON AS PRACTICAL AFTER THE BATTERS HAVE BEEN COMPLETED.
- ## DURING CONSTRUCTION SEQUENCE:
- TOPSOIL STOCKPILES SHALL BE LESS THAN 1m DEEP AND UNCOMPACTED. A SEDIMENTATION FENCE SHALL BE CONSTRUCTED ON THE D/S SIDE, OR THE STOCKPILE STABILISED WITH VEGETATION, MULCH, OR A SOIL STABILISER.
  - SEDIMENTATION FENCES TO BE PLACED AS SHOWN.
  - REGULARLY INSPECT BANKS AND REPAIR ANY SLUMPS, WHEEL TRACK DAMAGE OR LOSS OF FREEBOARD.
  - REMOVE SEDIMENT TO AVOID PONDING FROM CATCH DRAINS.
  - REMOVE EXCESSIVE SEDIMENT FROM UPSTREAM OF CHECK DAM.
  - ROAD RESERVE TO BE USED AS HAUL ROAD.
  - A CATCH DRAIN OR DIVERSION BANK IS TO BE PROVIDED ON THE TOP SIDE OF ALL CUTS, WITH DISCHARGE EITHER TO UNDISTURBED GRASS LANDS OR TO THE CROSS ROAD DRAINAGE.
  - SUPPLEMENTARY EROSION AND SEDIMENT CONTROL DEVICES MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER.
  - WATER QUALITY SAMPLES MUST BE TAKEN AND ANALYSED PRIOR TO THE RELEASE OF ANY WATER FROM THE SEDIMENT POND. WATER QUALITY MUST SATISFY THE FOLLOWING CRITERIA: TSS-50MG/L PH BETWEEN 6.5 AND 8.5.
  - ALL WATER QUALITY DATA INCLUDING DATES OF RAINFALL, 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 BE AVAILABLE ON SITE FOR INSPECTION BY COUNCIL OFFICERS ON REQUEST.
  - EXPPOSED AREAS ON LOTS ARE TO BE SEEDED AND MULCHED (E.G. HYDROMULCHED). MULCH SHALL BE APPLIED AT A MINIMUM RATE OF 2.5T/HA. ALTERNATIVELY THEY SHALL BE DRILL-SEEDED AND IRRIGATED SO AS TO ENSURE >70% GROUND COVER WITHIN 14 DAYS FROM NOVEMBER TO APRIL, OR 30 DAYS FROM MAY 1 TO OCTOBER.

- ## FOLLOWING CONSTRUCTION:
- SEDIMENTATION FENCES TO BE MAINTAINED UNTIL TURFING IS COMPLETED.
  - SEDIMENT BASINS TO BE CHECKED AFTER EVERY SIGNIFICANT STORM AND DESIRED ONCE THE SETTLEMENT LIMIT HAS BEEN REACHED.
- ## STABILISATION:
- THE AMOUNT OF AREA EXPOSED AT ANY ONE TIME TO BE MINIMISED BY STAGING THE WORKS WHEREVER POSSIBLE AND AIMING TO ACHIEVE FINISHED LEVEL IN EACH AREA AS QUICKLY AS POSSIBLE BEFORE OPENING NEW AREAS.
  - TOPSOIL TO BE STRIPPED AND STOCKPILED SEPARATELY TO SUB-SOILS.
  - STOCKPILES TO BE PROVIDED WITH SURFACE COVER USING A CHEMICAL SURFACE STABILISER SUCH AS VITAL-CHEMICALS VITAL-BON MATT STONEWALL.
  - IF WORKS ARE DELAYED OR PUT ON HOLD THEN TEMPORARY EROSION CONTROL COVERING TO BE PROVIDED USING VITAL-CHEMICALS VITAL-BON MATT P4.7-VRI OR EQUIVALENT.
  - ONCE AREAS REACH FINISHED LEVEL:
    - TOPSOIL TO BE SPREAD TO CAP/BURY THE DISPERSIVE SUBSOILS.
    - TOPSOIL TO BE DRILL-SEEDED WITH A MIXTURE OF ANNUAL AND PERENNIAL GRASS SPECIES (REFER TABLE) AND FERTILISER WITH CROP-KING 88 (0.3/HA).
    - TEMPORARY SOIL COVER TO BE APPLIED CONSISTING OF VITAL-CHEMICALS VITAL-BON MATT P4.7-VRI OR EQUIVALENT.
    - WATERING UNDERTAKEN AS NECESSARY UNTIL STABLE GRASS SURFACE COVER IS ESTABLISHED.

UNMULCHED GREEN COUGH (CYNODON DACTYLON) OR BLUE COACH (DIT AREA)	SEED MIXES		WINTER BLEND (APPLICATIONS MARCH/APRIL & SEPTEMBER/OCTOBER)
	SUMMER BLEND (APPLICATIONS NOVEMBER - DECEMBER)	NO. SEASON BLEND (APPLICATIONS FEBRUARY)	
HALLED GREEN COUGH (CYNODON DACTYLON) OR BLUE COACH (DIT AREA)	25%	25%	25%
JAPANESE MILLET	N/A	15%	N/A
PYE GRASS	N/A	20%	20%
CARPET GRASS (AQUARIUM AFFINIS)			

**PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL**

Approval No: **DEV/2022/1329**

Date: **16 December 2022**




## ECONOMIC DEVELOPMENT

### QUEENSLAND (EDQ)

Client

Project

**CARSELDINE VILLAGE CATCH DRAIN PHASE 2**



Mark Andrew Shaw BEng (CIVIL) MIEAust (PEQ) 7544  
2022.07.27 13:36:26 +10:00


Drawn: DES  
Checked: MS  
Date: JUL '22

Sheet: 06 of 10  
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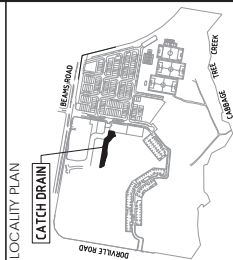
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Revision: A

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A	FOR APPROVAL	20.07.22	AA

LOCALITY PLAN



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REVISIONS

No	Description	Date	By
A	FOR APPROVAL	25.07.22	AA

Client  
**ECONOMIC DEVELOPMENT QUEENSLAND (EDO)**

Project  
**CARSELINE VILLAGE CATCH DRAIN PHASE 2**



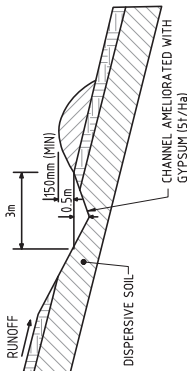
Approved  
**M. Shaw**  
Mark Andrew Shaw BEng  
(CIVIL, MIEAUST, IPRO 17544)  
2022.07.27 13:36:36 +10:00

Drawing Title  
**EROSION AND SEDIMENT CONTOUR PLAN DETAILS**

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DES	JB	MS	JUL '22

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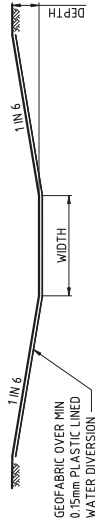
Drawing No	Revision
A1	22-106-109



CATCH DRAIN

OPEN EARTH SLOPES			VEGETATED SLOPES		
SLOPE	HORIZ.	VERT.	SLOPE	HORIZ.	VERT.
1%	80m	0.8m	15%	10m	2.0m
2%	60m	1.2m	20%	10m	3.2m
4%	40m	1.6m	25%	10m	3.5m
6%	30m	1.9m	30%	10m	3.5m
8%	20m	2.2m	35%	10m	3.5m
10%	20m	2.5m	40%	9m	3.5m
12%	20m	2.6m	50%	6m	3.0m

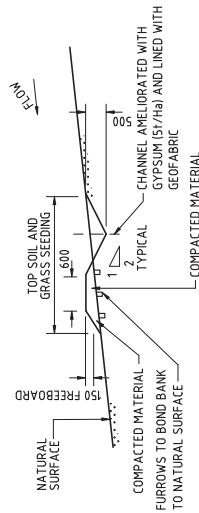
TYPICAL CATCH DRAINS DIMENSIONS & SPACINGS



TYPICAL LINED CATCH DRAIN

SCALE 1: 40

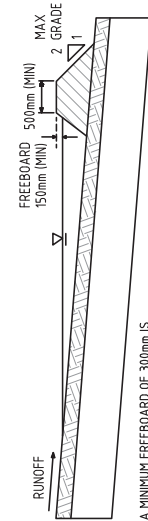
SIZING TO BE DETERMINED DURING CONSTRUCTION



CROSS SECTION

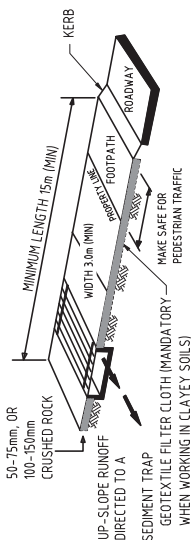
DIVERSION CHANNEL

N.T.S.



DIVERSION DRAINAGE BANK

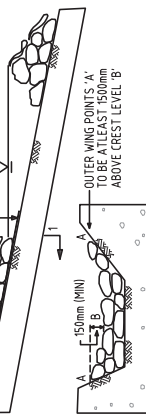
N.T.S.



SITE ACCESS POINT ENTRY/EXIT PAD

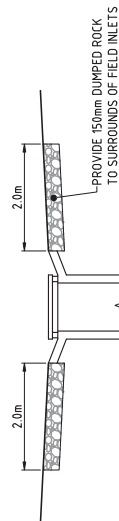
N.T.S.

OPTIONAL GEOTEXTILE SPIGAS PAD PLACED BELOW DAM TO REDUCE EROSION AT THE BASE OF THE CHECK DAM (GENERALLY NOT REQUIRED)



CHECK DAM

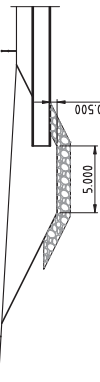
N.T.S.



FIELD INLET PROTECTION

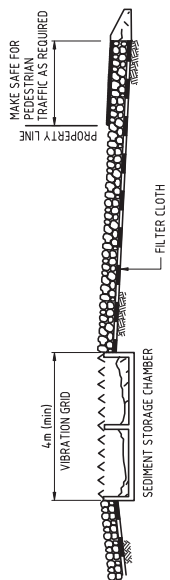
N.T.S.

REFER IPWEA DWG GS-044 FOR TYPE 2 TUBULAR STEEL FENCE DETAILS



TEMPORARY HEADWALL DETAIL

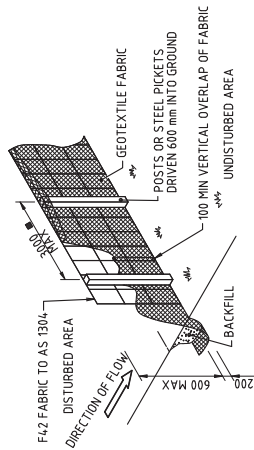
SCALE



TYPICAL PROFILE OF A VIBRATION GRID

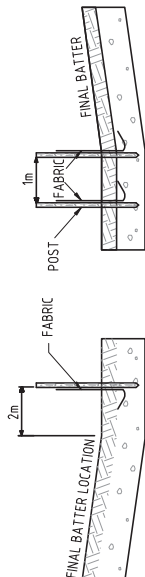
SITE ACCESS POINT SHAKEDOWN FACILITY

N.T.S.



SEDIMENT FENCE

N.T.S.



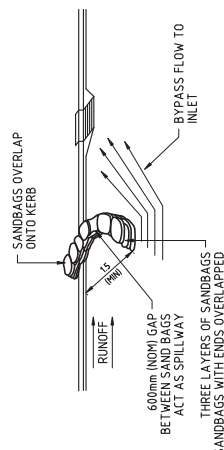
a) PLACEMENT OF SEDIMENT FENCE AT BASE OF FILL SLOPE

b) USE OF DOUBLE SEDIMENT FENCE AT THE BASE OF FILL SLOPE

SEDIMENT FENCE DETAILS

N.T.S.

LOCATION OF SEDIMENT FENCE AT BASE OF FILL SLOPE



ON GRADE GULLY INLET

N.T.S.

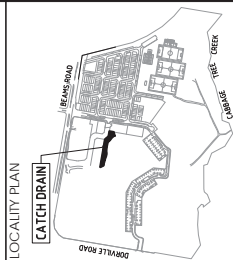
SANDBAGS WITH ENDS OVERLAPPED

600mm (MIN) GAP BETWEEN SAND BAGS ACT AS SPILLWAY

THREE LAYERS OF SANDBAGS

BYPASS FLOW TO INLET

DO NOT SCALE THIS DRAWING  
IF IN DOUBT - ASK!



No	Description	Date	By
A	FOR APPROVAL	25.07.22	AA

ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)

CARSELDINE VILLAGE CATCH DRAIN PHASE 2



Approved: M. Shaw  
Mark Andrew Shaw BEng  
(Civil) MEMBERSHIP 7544  
2022.07.27 13:36:46 +10:00

Drawing Title: SAFETY IN DESIGN

Drawn	DES	Designed	JB	Checked	MS	Date	JUL '22
Scale	AS SHOWN	Revision					
Sheet							10 of 10
Revision	A1	22-106-110					

Section of Works	Identify any Potential Incident or Hazard	Consequence	Likelihood	Risk Rating	Risk Control Measures	Consequence	Likelihood	Residual Risk Rating (after design applied)	Risk Manager
Earthworks Material Investigation	Geotechnical Investigation	C	3	S	SWMS required by Contractor	D	3	M	Contractor
Road/Earthworks Works	Pedestrian Injury	D	3	M	TIP to be provided by Contractor to exclude pedestrians from work areas	E	3	L	Contractor
	Overhead Power Lines	A	4	H	TIP and SWMS required for all activities	C	2	S	Contractor
	Maintenance Workers	A	4	H	TIP and SWMS required for all activities	C	3	S	Contractor
	Underground Services (Existing)	A	3	H	DBPD information to be supplied to design. Existing to be located by survey if applicable to design. All existing services to be located and depths confirmed prior to commencement of works. SWMS to be provided by Contractor	C	2	S	Designer/Contractor
Working adjacent to existing infrastructure	Conflict between construction equipment / personnel in particular Power Lines	B	4	S	All existing services highlighted in the documentation. Contractor to complete DBPD search before commencing works. SWMS to be provided by Contractor	C	4	M	Designer/Contractor
Services trench/pipe installation	Presence of all trenches to provide clearance to all other services and all structures or services in particular embankments	A	4	H	Main located with safe working clearance to existing pressure mains, structures and battered embankments	C	4	M	Designer
Works within Confined Spaces	Construction of stormwater, sewer, water and wetland structures	A	4	M	Depth of trenches minimized for both safety and cost efficiency	C	4	M	Designer
Silt and Erosion Control	Construction of water retaining temporary sediment basins	A	5	S	Protection measures - that is fencing of all water retaining structures with side slopes greater than 1 in 5 as described in International Erosion Control Association (Australasian) Table B9	D	5	L	Contractor

H: High Risk S: Significant Risk  
M: Moderate Risk L: Low Risk

Read the Risk Rating from the matrix below:

Risk Assessment Matrix	S: Significant Risk				
	A	B	C	D	E
1	H	H	H	S	S
2	H	H	S	S	M
3	H	H	S	M	L
4	H	S	M	L	L
5	S	S	M	L	L

Probable - means an event or situation that occurs or is likely to occur about ten times or more per year  
Possible - means an event or situation that occurs or is likely to occur about once per year  
Unlikely - means an event or situation that occurs or is likely to occur less frequently than once every ten years

Client: ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)  
Project: CARSELDINE VILLAGE - CATCH DRAIN (PHASE 2)

Prepared By: Jason Burton  
Reviewed By: Mark Shaw

Date: 27<sup>th</sup> July 2022  
Date: 27<sup>th</sup> July 2022

Safety in Design Analysis

Complete Safety in Design Analysis by populating the table where applicable with all of the relevant safety issues for the project. For example:

- Positioning of new services adjacent to existing live services
- Non-adjacent to existing road carriageways
- Slope stability
- Retaining Walls
- Pedestrian
- Disposal
- Erosion and Sediment Control/Management
- Maintenance Workers
- Civil Construction Works
- Sediment Basin Construction
- Wetland/Dam Construction
- Working under traffic
- Unusual material handling
- Falls from heights
- Project-Specific Design Elements:
- Underground Services (existing)
- Gas Service Installation
- Electrical Service Installation
- Communication Installation
- Traffic Signal Installation
- Landscape Workers
- Line marking Workers
- Excavation - open cut trenching - Trench excavation depths
- Tunnel Boring
- Confined Spaces
- Lifting of loads
- Unloading of materials and storage
- Storage of hazardous materials
- Geotechnical investigation - works
- Bulk Earthworks
- List all relevant safety studies

The following table summarises the safety in design issues considered.

RISK ASSESSMENT AND CONTROL

Risk Assessment	
Consequence	Likelihood
A Death - major environmental damage	1 Certain
B Permanent Disability - severe environmental damage	2 Probable
C Lost Time Injury - moderate environmental damage	3 Possible
D Medical Treatment Injury - minor environmental damage	4 Unlikely
E First Aid Treatment	5 Very Unlikely

RISK RATING

Certain - means an event or situation that is happening more or less all the time, including continuous situations  
Permanent Disability - means a disability, such as loss of a limb or eyesight, loss of hearing, chronic skin disorder, chronic back disorder, emphysema, and the like

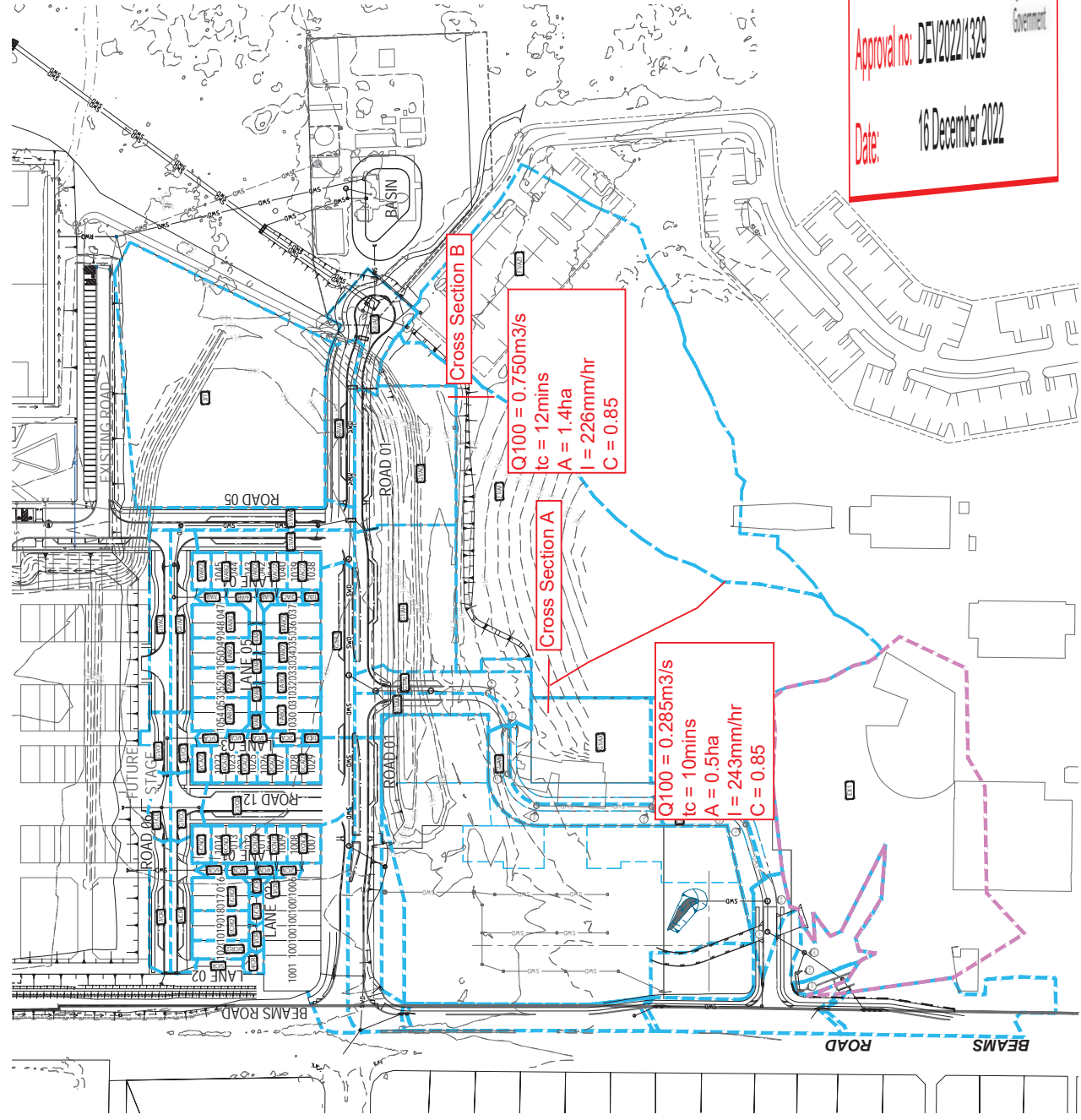
PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV/2022/1329

Date: 16 December 2022



NOTE:  
REFER DRG: 15-003002.01-1410 FOR LEGEND AND NOTES.



Cross Section B

Q100 = 0.750m<sup>3</sup>/s  
tc = 12mins  
A = 1.4ha  
I = 226mm/hr  
C = 0.85

Cross Section A

Q100 = 0.285m<sup>3</sup>/s  
tc = 10mins  
A = 0.5ha  
I = 243mm/hr  
C = 0.85

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV/2022/1329

Date: 16 December 2022

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	SCALE	STATUS	FOR CONSTRUCTION	DATE	PROJECT	DRAWING NO.	PROJECT NO.	REVISION
A	23/02/21	REF: 21/10/21	AA	AA	1:1000	FOR CONSTRUCTION	LESLIE ROCHE	08/03/21	STORMWATER DRAINAGE EXTERNAL CATCHMENT PLAN	15-003002.01	1412	A
APPROVED BY: <i>Leslie Roche</i> FOR A CONVEYANCE SERVICES PTY LTD									PROJECT: CARSELDINE URBAN VILLAGE STAGE 1 DRAWING NO: 1412 PROJECT NO: 15-003002.01 REVISION: A			
SCALE: 1:1000 12000 0 10 20 30 40 50m A1 A3									SUBJECT: ECONOMIC DEVELOPMENT QUEENSLAND CALBRE GROUP calbre@calbregroup.com			
PDA REF NO. DEV2019/1074												

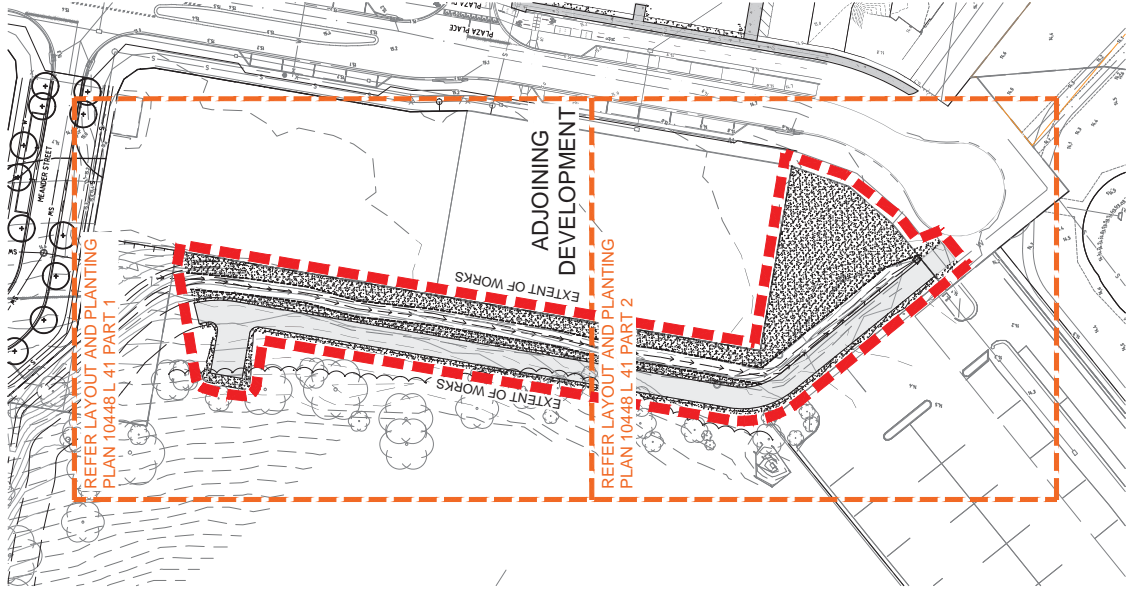
# CARSELDINE VILLAGE BEAMS ROAD, CARSELDINE - CATCH DRAIN - PHASE 1 LANDSCAPE DOCUMENTATION

ISSUE C 01.07.2022  
REVISED COUNCIL SUBMISSION

DWG NO.	DRAWING TITLE	ISSUE	DATE
10448 L 40	LANDSCAPE COVER SHEET	C	01.07.2022
10448 L 41	LANDSCAPE LAYOUT AND PLANTING PLAN	C	01.07.2022
10448 L 42	LANDSCAPE CONSTRUCTION DETAILS	C	01.07.2022



○ SITE LAYOUT PLAN  
SCALE: 1:1500 @ A1



**PLANS AND DOCUMENTS**  
referred to in the PDA  
**DEVELOPMENT APPROVAL**  
Approval no: DEV2022/1329  
Date: 16 December 2022



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SCALE: AS NOTED

AMENDMENTS:	DESCRIPTION	DATE	BY
A	22.06.2022 CLIENT ISSUE	RM	CT
B	07.07.2022 COUNCIL SUBMISSION ISSUE	RM	RM
C	01.07.2022 REVISED COUNCIL SUBMISSION	RM	RM

CLIENT: ECONOMIC DEVELOPMENT QUEENSLAND

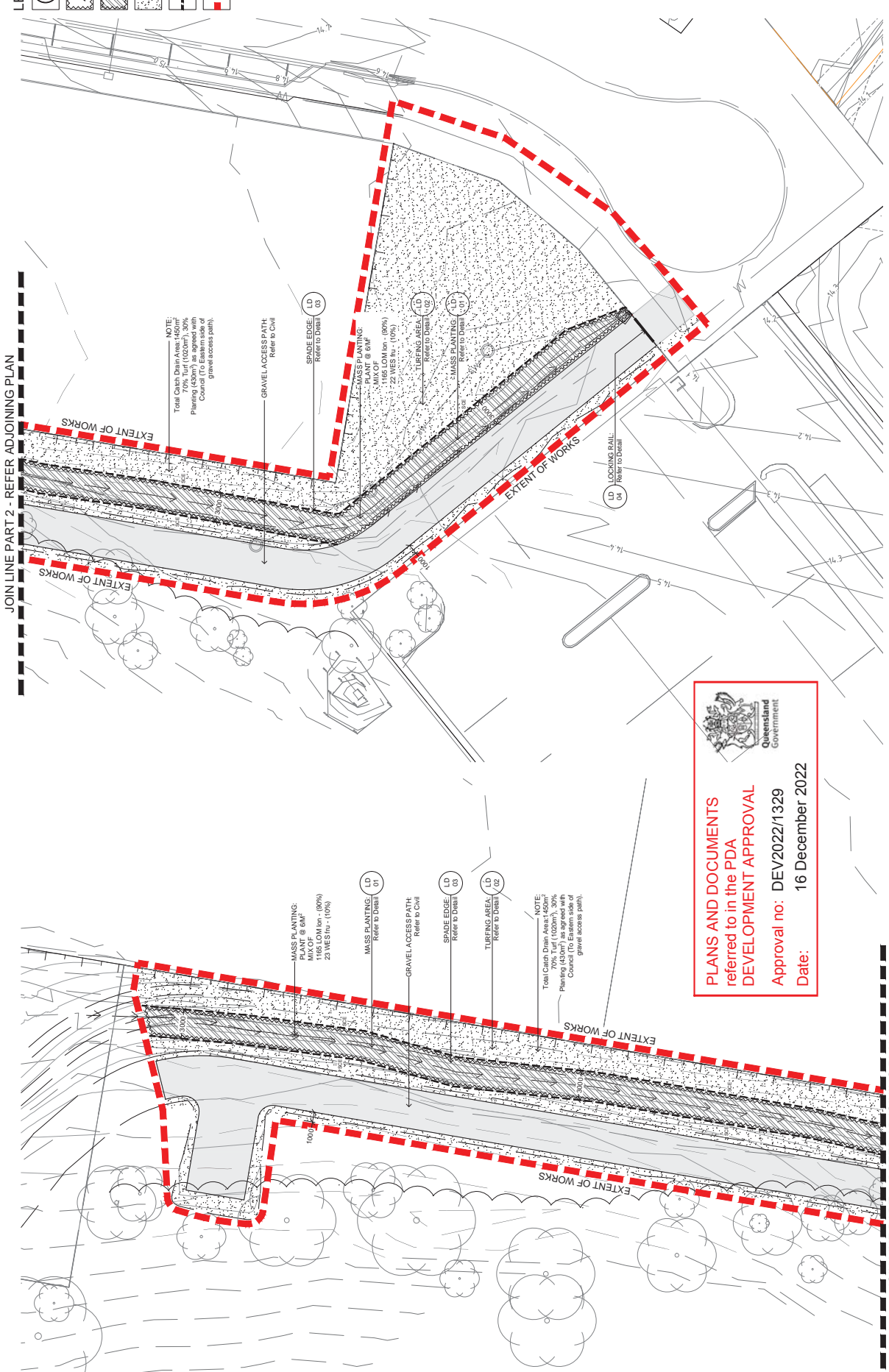
PROJECT: CARSELDINE VILLAGE BEAMS RD. CARSELDINE CATCH DRAIN - PHASE 1

DRAWING: LANDSCAPE COVER SHEET  
DRAWN: FWICT  
CHECKED: RM  
DRAWING #: 10448 L 40 C





JOIN LINE PART 2 - REFER ADJOINING PLAN



JOIN LINE PART 1 - REFER ADJOINING PLAN

**PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL**

Approval no: DEV2022/1329  
Date: 16 December 2022

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**AMENDMENTS:**

NO.	DESCRIPTION	DATE
A	12.06.2022 CLIENT ISSUE	RM
B	07.07.2022 COUNCIL SUBMISSION ISSUE	RM
C	07.07.2022 REVISED COUNCIL SUBMISSION	RM

**CLIENT:** ECONOMIC DEVELOPMENT QUEENSLAND

**PROJECT:** CARSELDINE VILLAGE BEAMS RD, CARSELDINE CATCH DRAIN - PHASE 1

**DRAWING:** LANDSCAPE LAYOUT PLAN AND PLANTING PLAN

**DRAWN:** FWICT **CHECKED:** RM

**DRAWING #:** 10448 L 41 C

**SCALE:** 1:400 @ A1 0 2 4 10m

**SAUNDERS HAVILL GROUP**  
LANDSCAPE ARCHITECTURE  
PHONE 1300 121 816 WWW.SAUNDERSHAVILL.COM

**ISO 9001** QUALITY MANAGEMENT SYSTEM  
**ISO 14001** ENVIRONMENTAL MANAGEMENT SYSTEM  
**AS 4801** OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM



# CARSELDINE VILLAGE BEAMS ROAD, CARSELDINE - CATCH DRAIN - PHASE 2

## LANDSCAPE DOCUMENTATION

ISSUE A 27.07.2022

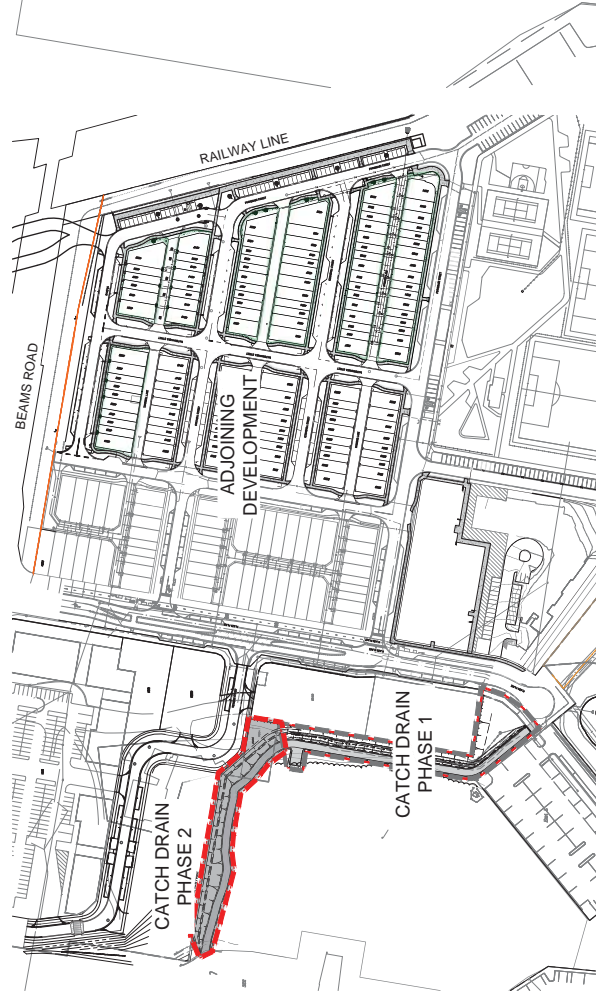
CLIENT ISSUE

DWG NO.	DRAWING TITLE	ISSUE	DATE
10448 L 50	LANDSCAPE COVER SHEET	A	27.07.2022
10448 L 51	LANDSCAPE LAYOUT AND PLANTING PLAN	A	27.07.2022
10448 L 52	LANDSCAPE CONSTRUCTION DETAILS	A	27.07.2022



**PLANS AND DOCUMENTS**  
referred to in the PDA  
**DEVELOPMENT APPROVAL**

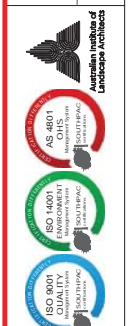
**Approval no: DEV2022/1329**  
**Date: 16 December 2022**



○ SITE LAYOUT PLAN  
SCALE: 1:500 @ A1

○ STAGE LAYOUT PLAN  
SCALE: 1:500 @ A1

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SCALE: AS NOTED

AMENDMENTS:	DATE	DESCRIPTION	BY	CHKD BY
A	27.07.2022	CLIENT ISSUE	RM	

CLIENT: ECONOMIC DEVELOPMENT QUEENSLAND

PROJECT: CARSELDINE VILLAGE BEAMS RD, CARSELDINE CATCH DRAIN - PHASE 2

CARSELDINE VILLAGE

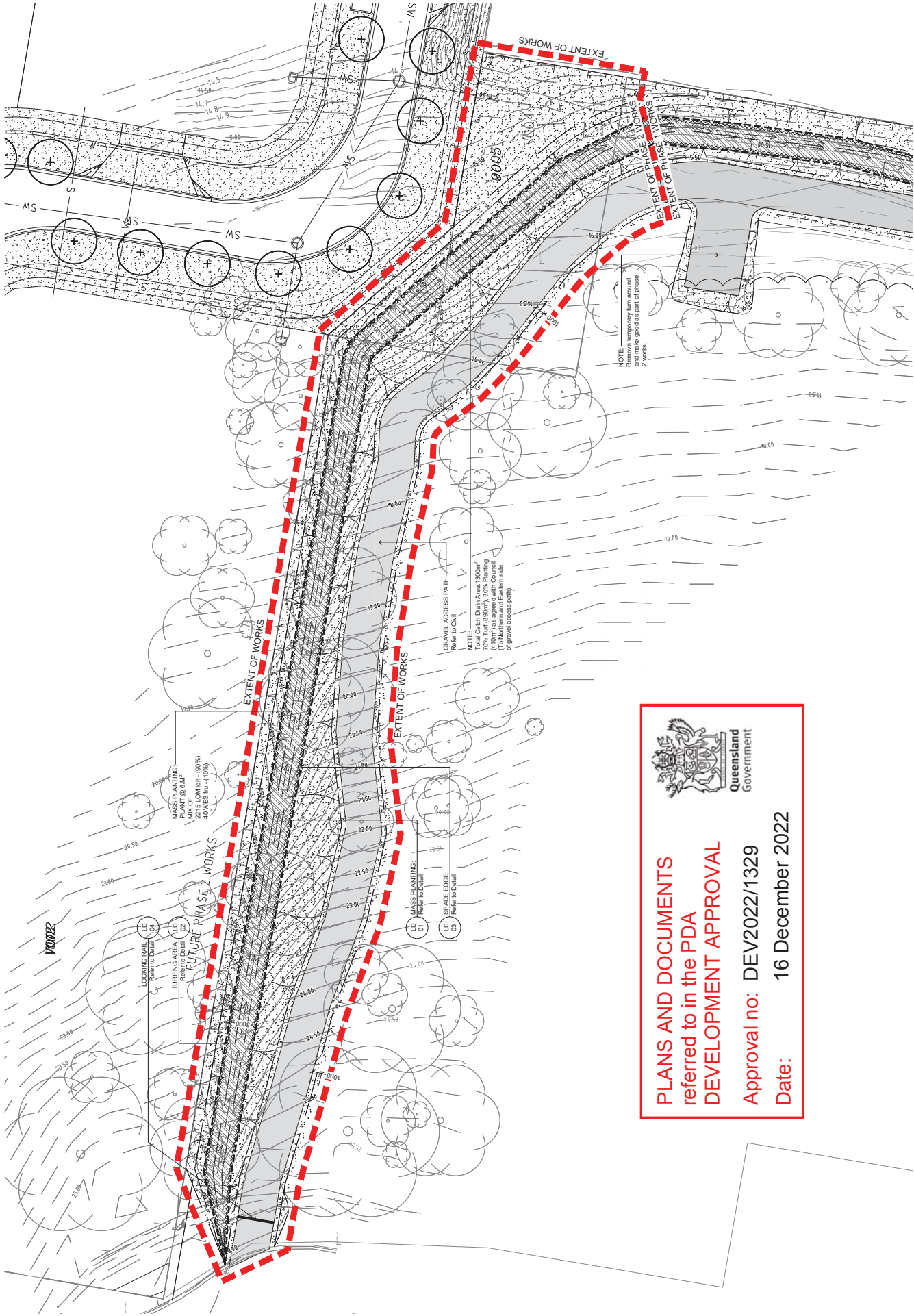
DRAWING: LANDSCAPE COVER SHEET

DRAWN: FWICT CHECKED: RM

DRAWING #: 10448 L 50 A










**LEGEND**

- PROPOSED TREE: Refer to Planting Plan and Schedule
- GROUNDCOVERS & FEATURE PLANTS: Refer to Planting Plan and Schedule
- PLANTING AREA: Refer to Landscape Specifications
- TURFED AREA: Refer to Landscape Specification
- PLANTING EDGING: Spade Cut Edge Refer to Landscape Specification
- EXTENT OF WORKS BOUNDARY: Refer to Landscape Plans

  
**PLANS AND DOCUMENTS**  
 referred to in the PDA  
**DEVELOPMENT APPROVAL**  
 Approval no: **DEV2022/1329**  
 Date: **16 December 2022**

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SCALE: 200@A1 0 2 4 10m  
 1:400@A3

AMENDMENTS:

NO.	DATE	DESCRIPTION	BY	CHECKED
A	17/07/2022	CLIENT ISSUE	RM	

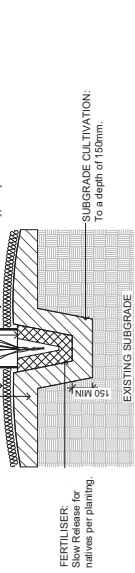
CLIENT: ECONOMIC DEVELOPMENT QUEENSLAND

PROJECT: CARSELDINE VILLAGE BEAMS RD, CARSELDINE CATCH DRAIN - PHASE 2

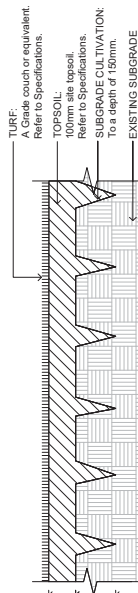
DRAWING: LANDSCAPE LAYOUT PLAN AND PLANTING PLAN  
 DRAWN: FWICT  
 CHECKED: RM  
 DRAWING #: 10448 L 51 A

**saunders havill group**  
 LANDSCAPE ARCHITECTURE  
 PHONE 1300 123 818 WWW.SAUNDERSHAVILL.COM

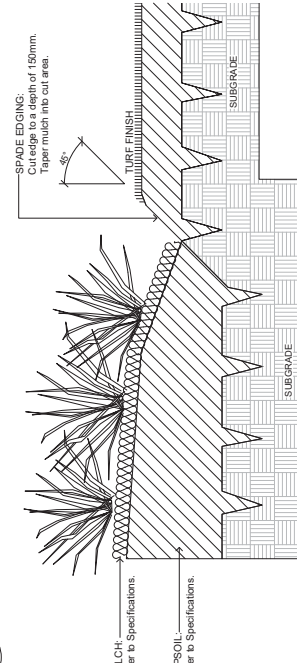
**PLANTING:**  
 - Mulch: 100mm Mulch - Refer to Specifications.  
 - FERTILISER: Slow Release for native per planting.  
 - MULCH: 100mm Mulch - Refer to Specifications.  
 - FERTILISER: Slow Release for native per planting.  
 - MULCH: 100mm Mulch - Refer to Specifications.  
 - FERTILISER: Slow Release for native per planting.



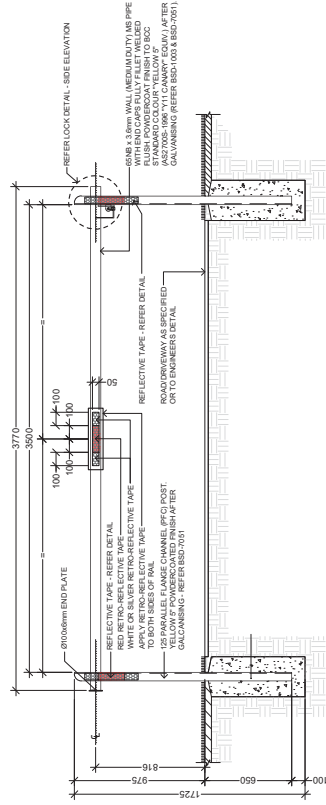
**LD 01 MASS PLANTING DETAIL**  
 SCALE: 1:20 @ A1



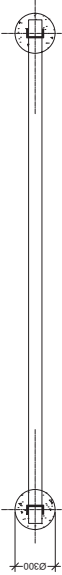
**LD 02 TURFING DETAIL**  
 SCALE: 1:10 @ A1



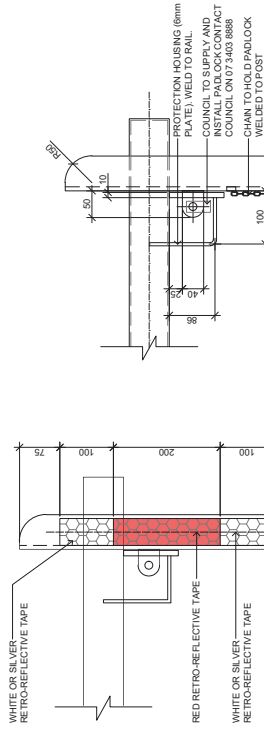
**LD 03 SPADE CUT EDGE DETAIL**  
 SCALE: 1:10 @ A1



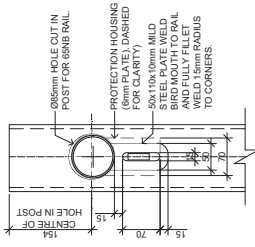
**SECTION ELEVATION A-A**  
 SCALE: 1:20 @ A1



**PLAN VIEW**  
 SCALE: 1:20 @ A1



**LOCK DETAIL - END ELEVATION**  
 SCALE: 1:5 @ A1  
 APPLY TO BOTH SIDE OF POST



**LOCK DETAIL - SIDE ELEVATION**  
 SCALE: 1:5 @ A1

**LD 04 ENTRANCE BARRIER - LOCKRAIL WITH STEEL POSTS - (BSD-7054)**

**10448 - CARSELDINE VILLAGE, CARSELDINE CATCH DRAINAGE - PHASE 2 PLANT SCHEDULE**

CODE	SPECIES	COMMON NAME	SIZE	QTY	HEIGHT (Min.)	SPREAD (Min.)	STAKING	TRUNK CALIPER
LOM lon	LOMANDRA longifolia	Long-leaved Matrush	TUBESTOCK	2215	300mm	150mm	No	N/A
WES fru	WESTRINGIA fruticosa	Coast Rosemary	TUBESTOCK	40	300mm	150mm	No	N/A

**PLANT SCHEDULE**

**PLANS AND DOCUMENTS**  
 referred to in the PDA  
**DEVELOPMENT APPROVAL**  
 Approval no: DEV2022/1329  
 Date: 16 December 2022

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**AS NOTED**  
 SCALE: AS NOTED

**AMENDMENTS:**  
 A 17.07.2022 CLIENT ISSUE RM  
 B 08.08.2022 CLIENT ISSUE RM

**CLIENT:** ECONOMIC DEVELOPMENT QUEENSLAND

**PROJECT:** CARSELDINE VILLAGE BEAMS RD, CARSELDINE CATCH DRAIN - PHASE 2

**DRAWING:** LANDSCAPE CONSTRUCTION DETAILS

**DRAWN:** FWICT **CHECKED:** RM

**DRAWING #:** 10448 L 52 A

