EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT TEVIOT ROAD, GREENBANK FOR MIRVAC QLD PTY LTD

	SHEET LIST TABLE
SHEET NO.	SHEET TITLE
C001	COVER SHEET
C002	SURVEY SETOUT PLAN
C003	OVERALL SERVICES LAYOUT
C004	SAFETY IN DESIGN
C100	ROADWORKS AND DRAINAGE LAYOUT PLAN - SHEET 1
C101	ROADWORKS AND DRAINAGE LAYOUT PLAN - SHEET 2
C200	BULK EARTHWORKS LAYOUT PLAN - SHEET 1
C201	BULK EARTHWORKS LAYOUT PLAN - SHEET 2
C210	BULK EARTHWORKS NOTES AND DETAILS - SHEET 1
C211	BULK EARTHWORKS NOTES AND DETAILS - SHEET 2
C220	EARTHWORKS SUBGRADE ROCK PREPARATION DETAILS
C300	ROADWORKS NOTES AND DETAILS
C310	ANDERSON DRIVE LONG SECTION
C311	ANDERSON DRIVE CROSS SECTIONS - SHEET 1
C312	ANDERSON DRIVE CROSS SECTIONS - SHEET 2
C313	ANDERSON DRIVE CROSS SECTIONS - SHEET 3
C314	ANDERSON DRIVE CROSS SECTIONS - SHEET 4
C330	PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN - SHEET 1
C331	PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN - SHEET 2
C400	STORMWATER CATCHMENT LAYOUT PLAN
C410	STORMWATER DRAINAGE LONG SECTIONS - SHEET 1
C411	STORMWATER DRAINAGE LONG SECTIONS - SHEET 2
C412	STORMWATER DRAINAGE LONG SECTIONS - SHEET 3
C413	STORMWATER DRAINAGE LONG SECTIONS - SHEET 4
C420	STORMWATER DRAINAGE NOTES AND DETAILS
C430	STORMWATER DRAINAGE STRUCTURE DETAILS - SHEET 1
C431	STORMWATER DRAINAGE STRUCTURE DETAILS - SHEET 2
C440	STORMWATER CALCULATIONS 10% AEP STORM - SHEET 1
C441	STORMWATER CALCULATIONS 10% AEP STORM - SHEET 2
C443	STORMWATER CALCULATIONS 1% AEP STORM - SHEET 1
C444	STORMWATER CALCULATIONS 1% AEP STORM - SHEET 2
C500	SEWERAGE LOCALITY PLAN & NOTES
C510	SEWERAGE LAYOUT PLAN - SHEET 1
C511	SEWERAGE LAYOUT PLAN - SHEET 2
C520	SEWERAGE LONG SECTIONS - SHEET 1
C521	SEWERAGE LONG SECTIONS - SHEET 2
C522	SEWERAGE LONG SECTIONS - SHEET 3
C530	SEWERAGE NOTES AND DETAILS
C600	WATER RETICULATION LOCALITY PLAN & NOTES
C610	WATER RETICULATION LAYOUT PLAN - SHEET 1
C611	WATER RETICULATION LAYOUT PLAN - SHEET 2
C620	WATER LIVE CONNECTION AND TYPICAL DETAILS
C700	OVERALL EROSION & SEDIMENT CONTROL KEY PLAN
C701	EROSION AND SEDIMENT CONTROL - EARTHWORKS PHASE
C702	EROSION AND SEDIMENT CONTROL - STABILISATION PHASE
C710	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
C711	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
C712	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
C713	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

GENERAL NOTES

- 1. ALL DIMENSIONS GIVEN ON THESE DRAWINGS
- ARE IN METRES UNLESS NOTED OTHERWISE.
 ALL NEW WORK AND MATERIALS SHALL COMPLY CURRENT RELEVANT COUNCIL STANDARDS AND SPECIFICATIONS.
- ALL WORK SHALL BE JOINED NEATLY TO EXISTING CONSTRUCTION.
- THE CONTRACTOR IS TO LOCATE, IDENTIFY AND ESTABLISH THE CONNECTIVITY OF ALL EXISTING SERVICES WITHIN THE LIMITS OF PROPOSED WORKS AND CONFIRM THIS INFORMATION WITH THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MEASURING DEVICES, SAFETY EQUIPMENT AND MACHINERY REQUIRED TO CARRY OUT INSPECTIONS/MEETINGS AS SPECIFIED OR
- REQUESTED BY THE ENGINEER.
 CONSTRUCTION CERTIFICATION REQUIREMENTS SUCH AS PAVEMENT PROOF ROLLS ETC. ARE TO BE AS PER THE LOGAN CITY COUNCIL SPECIFICATION.
- THESE NOTES SHALL APPLY TO ALL PORTIONS
- THE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS.
 ANY POINT OF CONFLICT WILL BE RESOLVED
- THE CONTRACTOR IS RESPONSIBLE FOR PLAN FOR THE SITE TO BE ACCEPTED BY EDQ. THIS PLAN IS TO INCLUDE ALL ITEMS AS LISTED IN THE DECISION NOTICE AS A

NOISE

 ALL PLANT AND EQUIPMENT SHALL BE
 CONTROLLED TO MINIMISE NOISE EMISSION IN ACCORDANCE WITH AS2436 (GUIDE TO NOISE CONTROL ON CONSTRUCTION. MAINTENANCE AND DEMOLITION). THE SITE WORKING HOURS SHOULD BE IN ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS. WHERE NOT SPECIFIED THE HOURS SHALL BE-

MONDAY - SATURDAY 7:00am to 6:00pm SUNDAY OR PUBLIC HOLIDAY NO WORK PERMITTED

PRE-CONSTRUCTION & **APPROVALS**

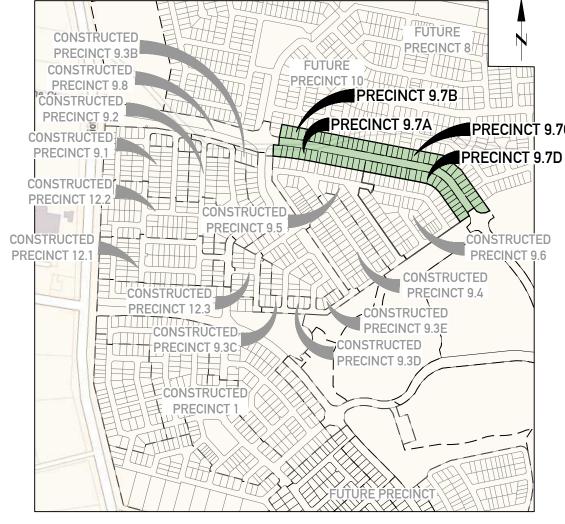
- NO LOCATING/ POTHOLING OF EXISTING SERVICES HAS BEEN CARRIED OUT. THE CONTRACTOR IS TO DETERMINE THE LOCATION AND DEPTH OF ALL EXISTING SERVICES WHICH AFFECT THE WORKS AND REPORT ANY POTENTIAL CLASHES TO THE SUPERINTENDENT PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION WORKS
- THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING WITH THE APPROPRIATE AUTHORITY FOR LOCATING EXISTING SERVICES AND FOR ANY MODIFICATIONS TO EXISTING SERVICES REQUIRED AS A RESULT OF THE WORKS.
 THE CONTRACTOR IS RESPONSIBLE TO
- PROTECT ALL EXISTING SERVICES FROM DAMAGE
- ANY WORKS DAMAGED AS A RESULT OF CONSTRUCTION ARE TO BE REINSTATED TO RELEVANT AUTHORITY'S REQUIREMENTS AT THE CONTRACTORS COST
- FINISHED SURFACE LEVELS ARE TO BE GRADED UNIFORMLY BETWEEN LEVELS INDICATED ON THE DRAWINGS.

WORKPLACE HEALTH & SAFETY

- THE CONTRACTOR SHALL BE THE PRINCIPAL CONTRACTOR AS DESIGNATED BY THE WORK
- THE CONTRACTOR SHALL PREPARE AND IMPLEMENT A WORKPLACE HEALTH AND SAFETY PLAN AS REQUIRED BY THE WORK HEALTH AND SAFETY ACT (2011).

SETOUT NOTES

- CO-ORDINATE SETOUT PROVIDED ON THESE DRAWINGS IS BASED ON A CO-ORDINATE BASE PROVIDED ON THE DETAIL SURVEY DRAWING 7598 S 02 DTH, PREPARED BY SAUNDERS HAVILL GROUP. REFERENCE MARKS AND CORRESPONDING CO-ORDINATES ARE PROVIDED ON DRAWING C002.
- THE LEVEL DATUM FOR WORKS IS A H D (AUSTRALIAN HEIGHT DATUM).



LOCALITY PLAN Scale 1:5000



FOR CONSTRUCTION ISSUED FOR CONSTRUCTION



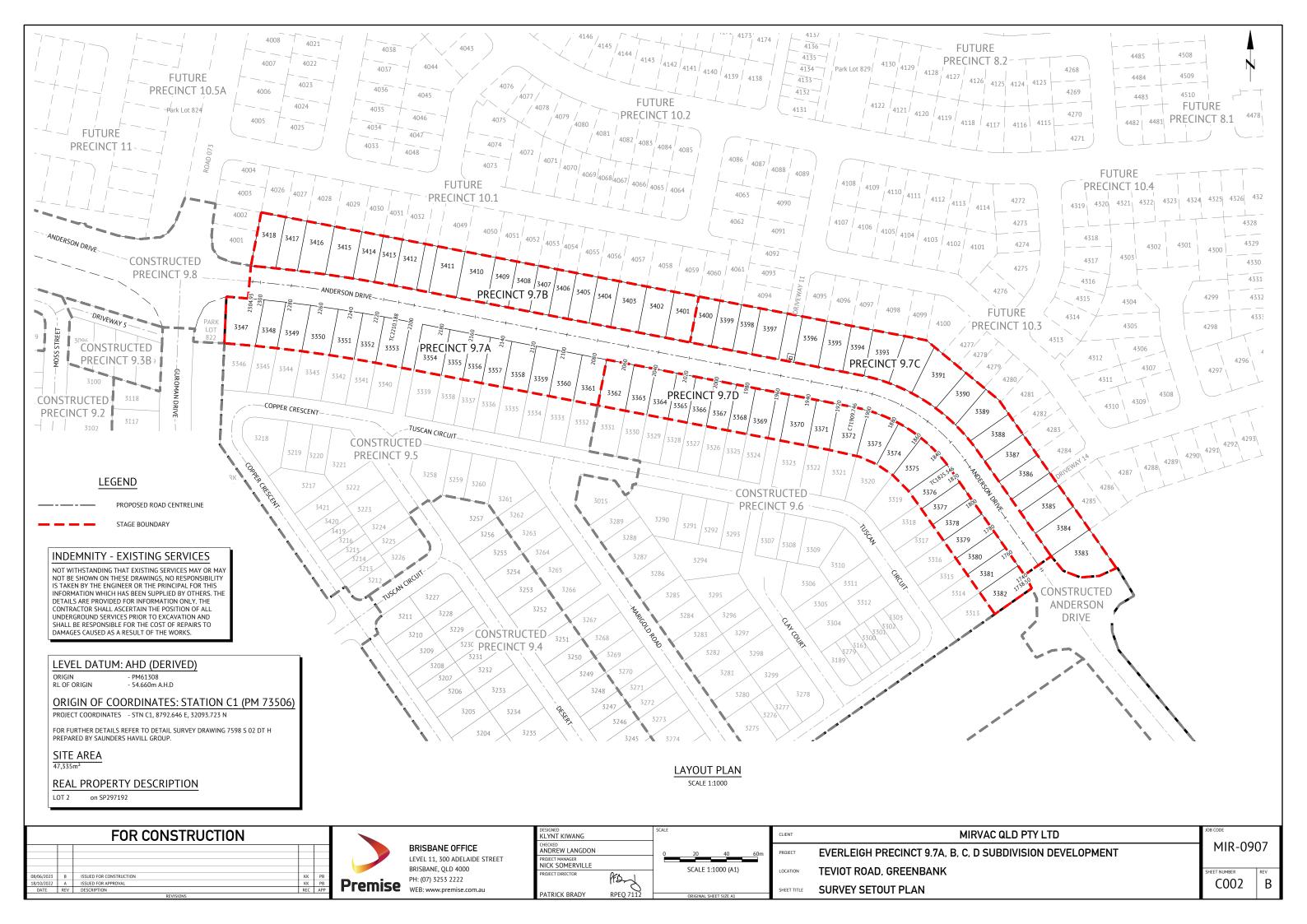
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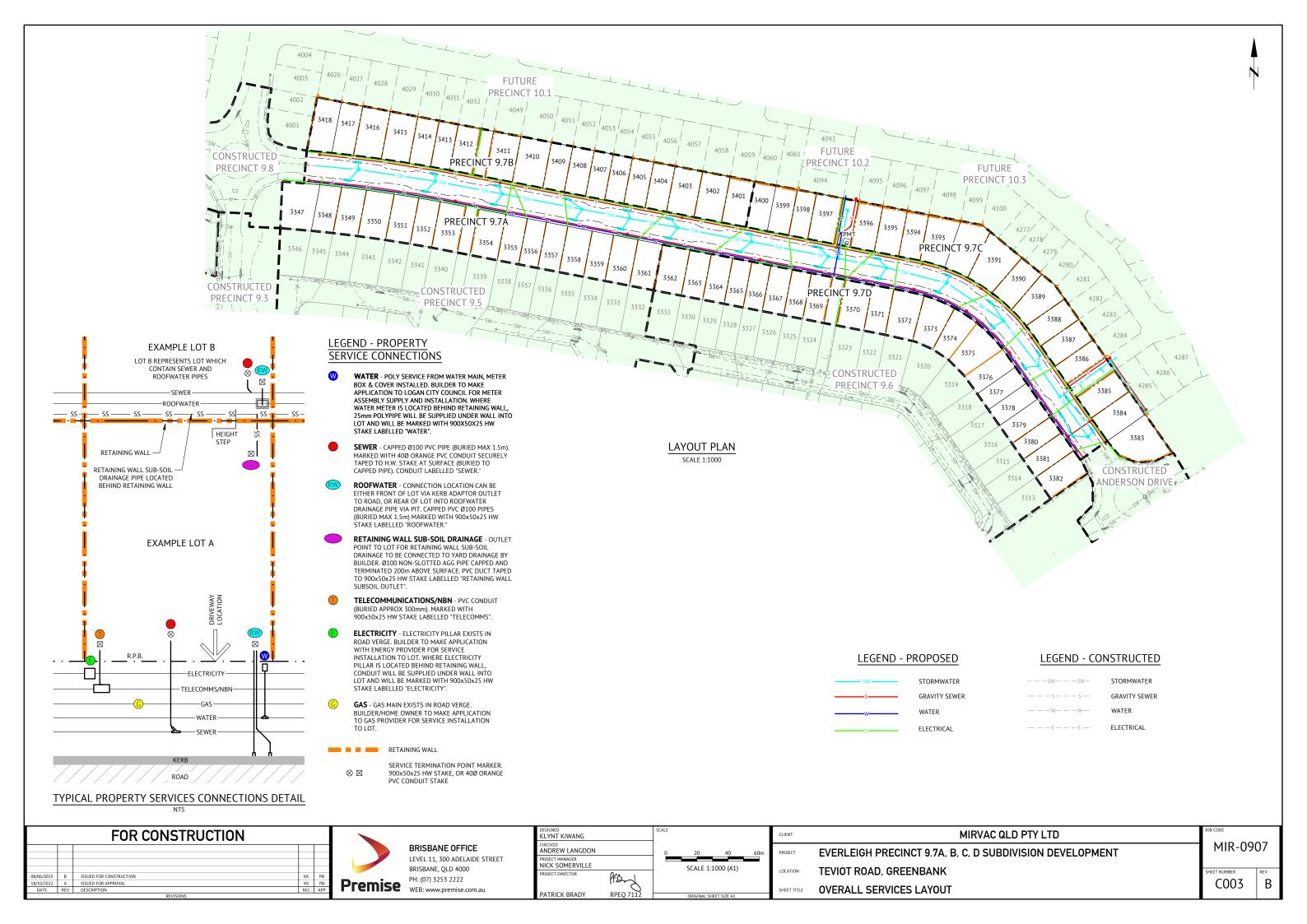
DESIGNED KLYNT KIWANG		Si
CHECKED ANDREW LANGDON		
PROJECT MANAGER NICK SOMERVILLE		
PROJECT DIRECTOR	PFD-	
DATRICK BRADY	PDEO 7113	L

SCALE			
0	100	200	300m
	SCALE 1:	5000 (A1)	
	ODICINIAL CL	EET CIZE A1	

CLIENT	MIRVAC QLD PTY LTD
PROJECT	EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT
LOCATION	TEVIOT ROAD, GREENBANK
SHEET TITLE	COVER SHEET

MIR-0907 C001





DESIGN HAZARD NOTES:

- 1. PREMISE, HAVING BEEN COMMISSIONED TO CARRY OUT DETAILED DESIGN AND DOCUMENTATION OF THESE WORKS, CONFIRM THAT THE PREMISE DRAWING SET HAS BEEN INTERNALLY REVIEWED FOR DESIGN SAFETY IN ACCORDANCE WITH SECTION 22 OF THE WORK HEALTH AND SAFETY ACT 2011 QLD.
- HEALTH AND SAFETY ACT 2011 QLD.

 2. THIS REPORT SUMMARISES AN INTERNAL REVIEW OF PREMISE'S DETAILED DESIGN DRAWINGS FOR DESIGN SAFETY.

 3. THIS REPORT IN NO WAY RELIEVES THE PRINCIPAL, CONTRACTOR OR ANY OTHER PARTY OF THEIR OWN OBLIGATIONS AND RESPONSIBILITIES UNDER THE WORK HEALTH AND SAFETY ACT 2011 QLD, INCLUDING (BUT NOT LIMITED TO) CONSULTATION WITH THE DESIGNER UNDER SECTION 294 OF THE ACT, THE PREPARATION OF SATISFACTORY SAFE WORK METHOD STATEMENTS AND DUTIES
- OF CARE.

 4. IT IS A REQUIREMENT UNDER SECTION 296 OF THE WORK HEALTH AND SAFETY ACT 2011 QLD, THAT A COPY OF THIS REPORT BE PROVIDED TO THE CONTRACTOR BY THE ENTITY COMMISSIONING THE WORK SHOWN OF THE PREMISE DRAWINGS.

 5. AS PER THE DEPARTMENT OF JUSTICE AND THE ATTORNEY-GENERAL- WORKPLACE HEALTH AND SAFETY QUEENSLAND, A WRITTEN REPORT IS NOT REQUIRED FOR DESIGNS THAT HAVE TYPICAL FEATURES.

CONSEQUENCE TABLE			
LEVEL	LEVEL CONSEQUENCE		
5 - CATASTROPHIC	FATALITY OR MULTIPLE PERSONS ONSITE WITH LIFE THREATENING HEALTH EFFECT OR INABILITY TO CONTINUE	HUGE FINANCIAL OR TIME LOSS	
4 - MAJOR	EXTENSIVE INJURIES, OR ONSET OF SEVERE OR LIFE THREATENING HEALTH EFFECT TO SINGLE PERSON ONSITE. MULTIPLE PERSONS WITH ONSET OF IRREVERSIBLE HEALTH EFFECTS. PREMANENT INJURT TO PERSON INSITE.	MAJOR FINANCIAL OR TIME LOSS	
3 - MODERATE	MEDICAL TREATMENT REQUIRED. IRREVERSIBLE HEALTH EFFECT TO A SINGLE PERSON. MULTIPLE PERSONS ONSITE WITH REVERSIBLE HEALTH EFFECTS.	HIGH FINANCIAL OR TIME LOSS	
2 - MINOR	FIRST AID, SINGLE OR MULTIPLE INJURIES AMONGST PERSONS ONSITE. SINGLE PERSON ONSITE WITH MODERATE SHORT TERM REVERSIBLE HEALTH EFFECTS.	MEDIUM FINANCIAL OR TIME LOSS	
1 - INSIGNIFICANT	NO INJURIES. OVER EXPOSURE TO A SINGLE PERSON ONSITE, BUT NO REPORTED HEALTH EFFECTS.	LOW FINANCIAL OR TIME LOSS	

CONSTRUCTION HAZARD NOTES:

1. UNDER THE QUEENSLAND WORK HEALTH AND SAFETY ACT 2011, THE WORK HEALTH AND SAFETY REGULATION 2011 AND OTHER LEGISLATION AND GUIDELINES, THE PRINCIPAL CONTRACTOR HAS SPECIFIC OBLIGATIONS IN RELATION TO THE SAFE OPERATION OF

TO ASSIST THE PRINCIPAL CONTRACTOR IN COMPLYING WITH THESE OBLIGATIONS THE PROJECT DESIGNERS HAVE IDENTIFIED BY DRAWING NOTES, AREAS WHERE POTENTIAL HAZARDS MAY ARISE. THESE NOTES OR ADVICE, SHALL NOT NECESSARILY BE CONSIDERED COMPLETE AND ARE BASED UPON THE DESIGNERS' UNDERSTANDING OF THE SAFETY RISKS ASSOCIATED WITH THE

WURNS.
THESE NOTES OR ADVICE SHALL NOT RELIEVE THE PRINCIPAL CONTRACTOR OF ANY OBLIGATION UNDER THE RELEVANT LEGISLATION
OR GUIDELINE. THE PRINCIPAL CONTRACTOR SHALL REMAIN RESPONSIBLE FOR THE PREPARATION OF AN APPROPRIATE WORK HEALTH

SAFETY MANAGEMENT PLAN AND SAFE WORK METHOD STATEMENTS FOR THE SITE.
2. PURSUANT TO THE WORK HEALTH AND SAFETY ACT 2011 WE HEREBY ADVISE THAT OUR DESIGN SAFETY REVIEW HAS IDENTIFIED UNUSUAL OR ATYPICAL DESIGN FEATURES THAT MAY PRESENT ADDITIONAL HAZARDS OR RISKS DURING THE CONSTRUCTION PHASE AND THESE ARE LISTED IN THE CONSTRUCTION HAZARD SCHEDULE.

	RISK ANALYSIS MATRIX					
	1 - INSIGNIFICANT 2 - MINOR 3 - MODERATE 4 - MAJOR 5 - CATASTROPHIC					5 - CATASTROPHIC
	A - ALMOST CERTAIN	MODERATE	HIGH	EXTREME	EXTREME	EXTREME
Q0	B - LIKELY	MODERATE	HIGH	HIGH	EXTREME	EXTREME
LIKELIHOOD	C - POSSIBLE	LOW	MODERATE	HIGH	EXTREME	EXTREME
Ĭ	D - UNLIKELY	LOW	LOW	MODERATE	HIGH	EXTREME
	E - RARE	LOW	LOW	MODERATE	HIGH	HIGH

RISK EVALUATION TABLE			
RISK LEVEL	ACTION REQUIRED		
EXTREME	UNACCEPTABLE RISK. RE-DESIGN REQUIRED. DO NOT PROCEED WITHOUT ADDITIONAL CONTROLS.		
HIGH UNACCEPTABLE RISK. ADDITIONAL CONTROLS NEEDED. CONSIDER FURTHER REVIEW AND CONSIDER RE-DESIGN			
MODERATE	RISK MAY BE ACCEPTABLE. MANAGEMENT TO DETERMINE ACTIONS REQUIRED		
LOW	ACCEPTABLE. MANAGE RISK THROUGH ROUTINE PROCEDURES AND OTHER ADMINISTRATIVE CONTROLS		

LIKELIHOOD TABLE			
LEVEL	DESCRIPTION	QUANTIFICATION GUIDE	
A - ALMOST CERTAIN	THE EVENT IS EXPECTED TO OCCUR IN MOST CERTAIN CIRCUMSTANCES	MORE THAN ONCE PER YEAR	
B - LIKELY	THE EVENT WILL PROBABLY OCCUR IN MOST CIRCUMSTANCES	AT LEAST ONCE IN 5 YEARS	
C - POSSIBLE	THE EVEN T SHOULD OCCUR AT SOME TIME	AT LEAST ONCE IN 10 YEARS	
D - UNLIKELY	THE EVENT COULD OCCUR AT SOME TIME	AT LEAST ONCE IN 30 YEARS	
E - RARE	THE EVENT MAY OCCUR IN EXCEPTIONAL CIRCUMSTANCES	LESS THAN ONCE IN 30 YEARS	

	FOR CONSTRUCTION				
		1 01/ 001/31/10011014			
08/06/2023	В	ISSUED FOR CONSTRUCTION	KK	PB	
18/10/2022	Α	ISSUED FOR APPROVAL	KK	PB	
DATE	REV	DESCRIPTION	REC	APP	
		REVISIONS			



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DESIGNED KLYNT KIWANG		SCALE
CHECKED ANDREW LANGDON		
PROJECT MANAGER NICK SOMERVILLE		
PROJECT DIRECTOR	Pronj	
PATRICK BRADY	RPEO 7112	

PROJECT	EVERLEIG
LOCATION	TEVIOT RO
SHEET TITLE	SAFETY IN

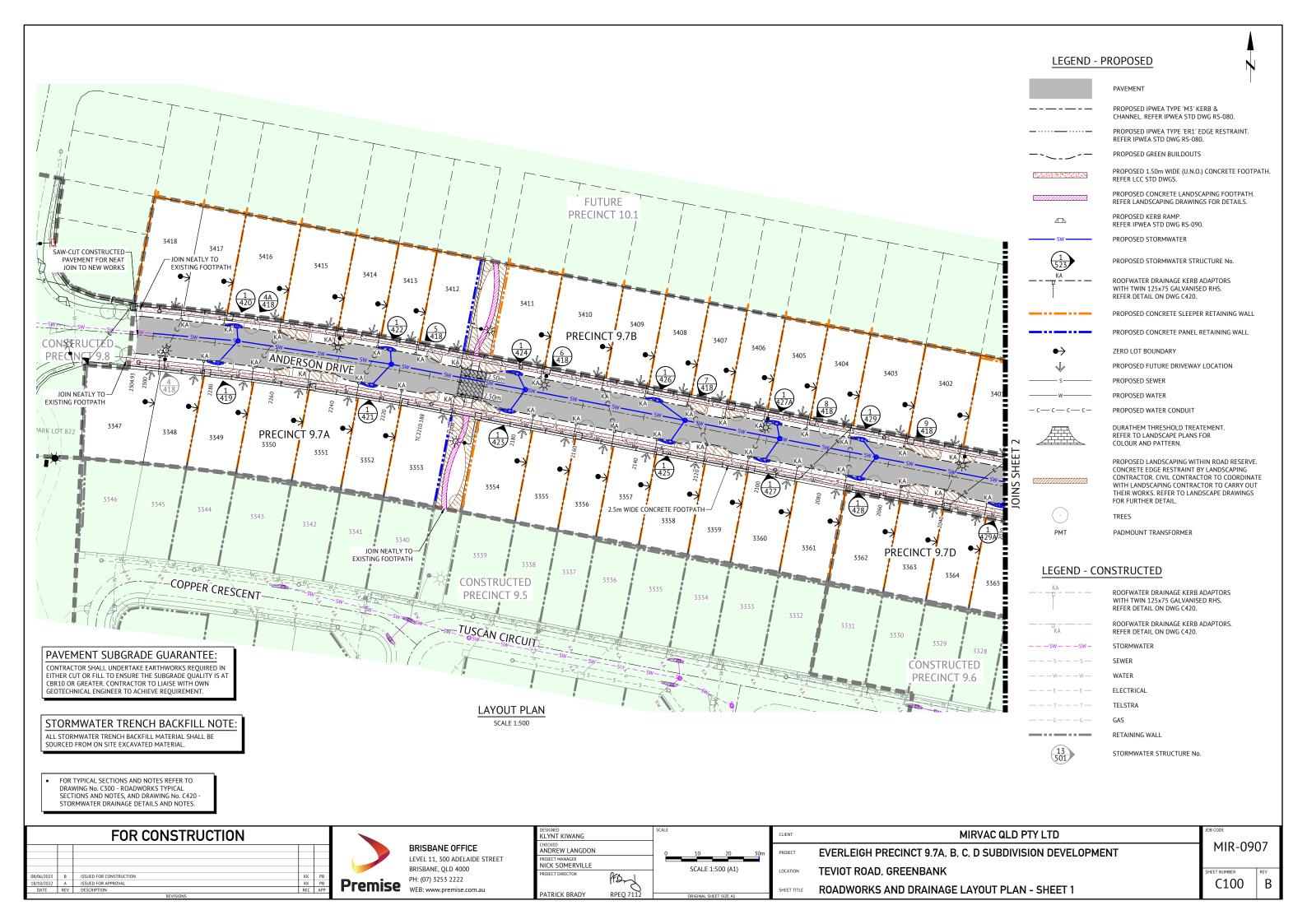
CLIENT	MIRVAC QLD PTY LTD
PROJECT	EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT
LOCATION	TEVIOT ROAD, GREENBANK
SHEET TITLE	SAFETY IN DESIGN

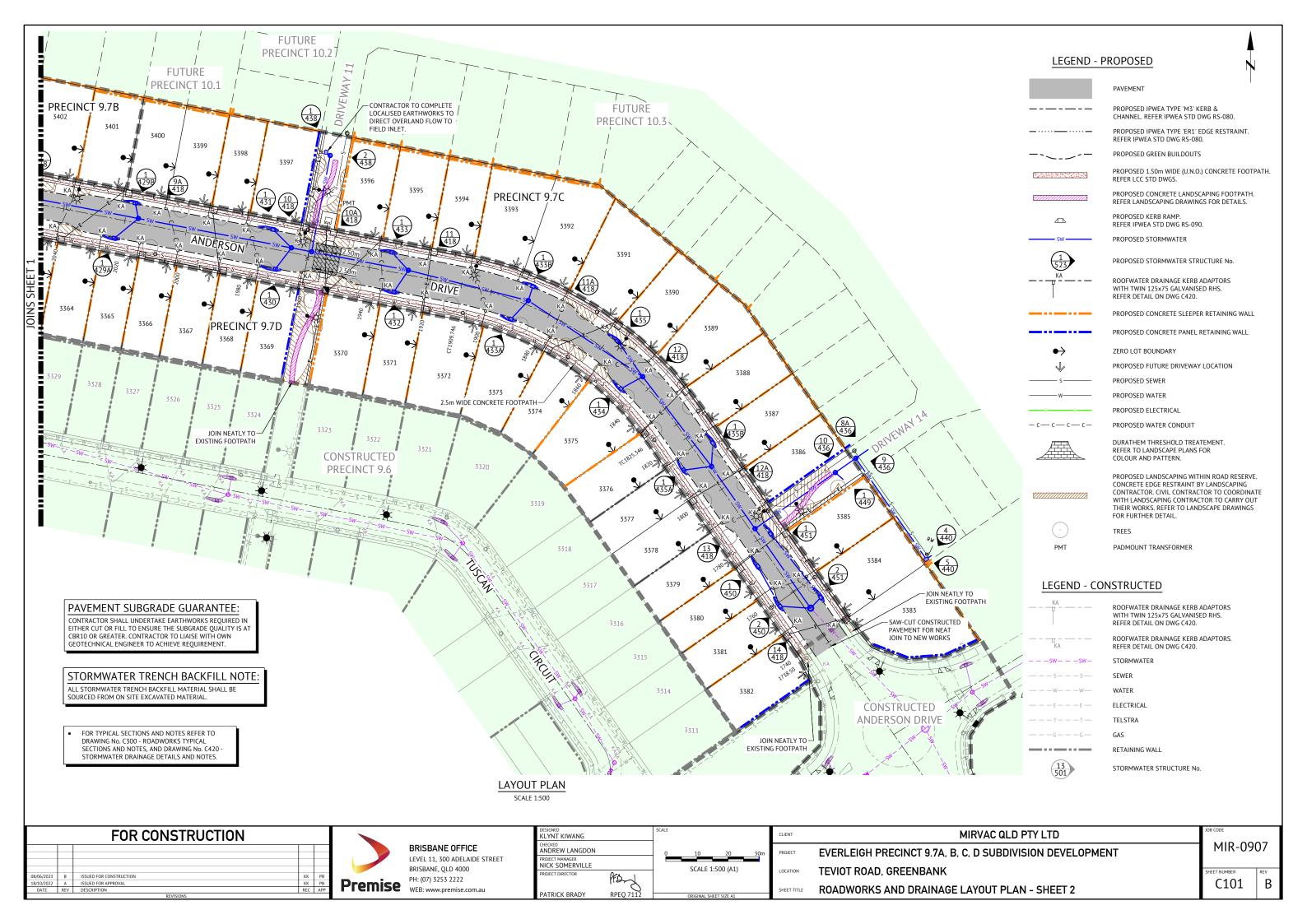
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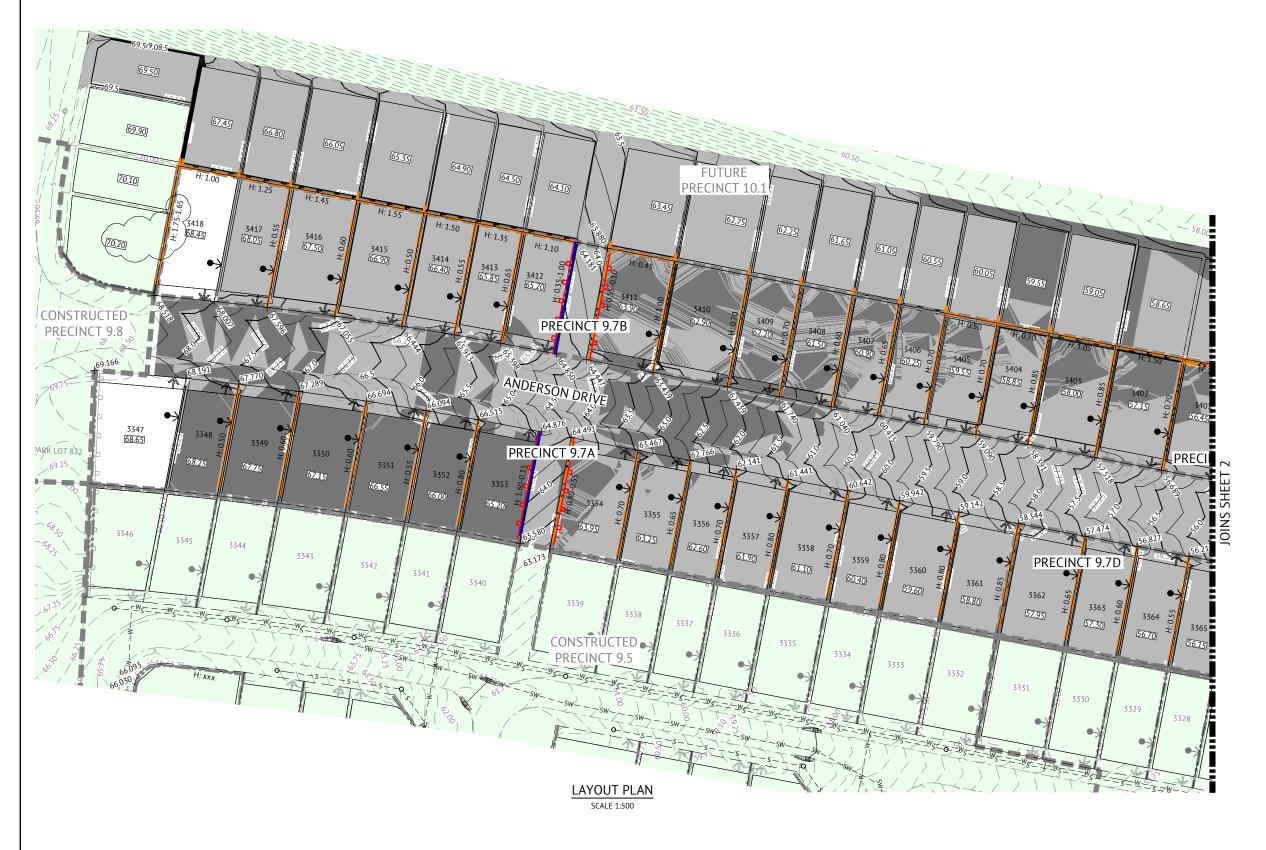
	DESIGN HAZARD SCHEDULE							
ITEM	DESIGN HAZARD	POTENTIAL HAZARD	RISK	ELIMINATION / MINIMISATION OF HAZARD / RISK	RESIDUAL RISK			
D1	URBAN LAYOUT HAZARD	THE URBAN LAYOUT IS DESIGNED AROUND A PARTICULAR HAZARD : INTERSECTION IS UNCLEAR WHICH ROAD HAS PRIORITY	HIGH	THE HAZARD HAS BEEN REDUCED/ELIMINATED BY: LINE MARKED INTERSECTION TO ENSURE IT IS CLEAR WHICH ROAD HAS PRIORITY - DESIGN VEHICLE SWEPT PATH CHECKED FOR COMPLIANCE	LOW			
D2	EXISTING UNDERGROUND / OVERHEAD SERVICES HAZARD	EXISTING UNDERGROUND AND/OR OVERHEAD SERVICES HAZARD EXIST ON SITE AND NEEDS TO BE REMOVED AND RELOCATED.	HIGH	THE DESIGN OF THE PROJECT HAS INCORPORATED THE RELOCATION OF THESE EXISTING SERVICES AND THE CONTRACTOR IS TO BE MADE AWARE OF THESE EXISTING SERVICES AND TAKE ALL ACTIONS NECESSARY TO MITIGATE THIS HAZARD DURING CONSTRUCTION.	MEDIUM			
D3	DEEP EXCAVATION HAZARD	DEEP EXCAVATION IS REQUIRED TO INSTALL SEWER TO SERVICE STRUCTURE.	HIGH	THE DEEP EXCAVATION HAZARD CANNOT BE AVOIDED AND THE CONTRACTOR WILL NEED TO TAKE ALL ACTIONS NECESSARY TO ADDRESS THIS HAZARD DURING CONSTRUCTION.	MEDIUM			
D4	HIGH RETAINING WALLS	SOME AREAS OF WORKS CONTAIN HIGH RETAINING WALLS WHERE LAND MORPHOLOGY DICTATES.	HIGH	HIGH RETAINING WALLS CANNOT BE AVOIDED DUE TO EXISTING LAND MORPHOLOGY. SINGLE TIER WALLS HAVE LIMITED TO A MAX HEIGHT OF 2m. CONTRACTOR WILL NEED TO TAKE ALL ACTIONS NECESSARY TO ADDRESS THIS HAZARD DURING CONSTRUCTION.	MEIDUM			
D5	WATER BODIES	PROPOSED CONSTRUCTION WATER DAMS WILL BE PRESENT ON SITE.	MEDIUM	PROPOSED WATER BODIES HAVE BEEN LOCATED AWAY FROM PUBLIC ACCESS AREAS. ACCESS TO THESE LOCATION WILL BE RESTRICTED FROM THE PUBLIC. CONTRACTOR WILL NEED TO TAKE ALL ACTIONS NECESSARY TO ADDRESS THIS HAZARD DURING CONSTRUCTION.	LOW			

	CONSTRUCTION HAZARD SCHEDULE					
ITEM	POTENTIAL HAZARD	POSSIBLE PREVENTATIVE ACTION				
C1	DEEP EXCAVATION HAZARD	ALL STEPS MUST BE TAKEN TO OBTAIN CURRENT UNDERGROUND SERVICES INFORMATION BEFORE EXCAVATION WORKS COMMENCE. EXCAVATION WORK MUST BE UNDERTAKEN BY APPROPRIATELY EXPERIENCED AND QUALIFIED PERSONNEL. EXCAVATIONS SHALL BE ADEQUATELY SHORED AND APPROPRIATE BARRICADES AND SIGNAGE ERECTED, IF REQUIRED.				
C2	OVERHEAD POWER HAZARD	WARNING SIGNS AND MARKERS SHALL BE ERECTED ADVISING OF THE PRESENCE OF LIVE OVERHEAD CABLES. A REPRESENTATIVE OF THE SUPPLY AUTHORITY SHALL REMAIN ON SITE DURING EARTHWORKS AND ANY OTHER HIGH RISK WORKS, IF REQUIRED.				
C3	UNDERGROUND ELECTRICAL, TELECOMMUNICATION, GAS AND WATER MAIN HAZARD	WARNING SIGNS AND MARKERS SHALL BE ERECTED ADVISING OF THE PRESENCE OF THE EXISTING SERVICE. THE SERVICE SHALL BE IDENTIFIED AND MARKED BY THE SUPPLY AUTHORITY PRIOR TO THE COMMENCEMENT OF EXCAVATION. A REPRESENTATIVE OF THE SUPPLY AUTHORITY SHALL REMAIN ON SITE DURING THE EXCAVATION WORK, IF REQUIRED.				
C4	WORKS NEAR RAIL, AIRPORTS AND ROADS HAZARD	ALL REQUIRED PERMITS, APPROVALS AND SAFETY REQUIREMENTS FROM THE RELEVANT AUTHORITY SHOULD BE OBTAINED PRIOR TO COMMENCING WORK. A REPRESENTATIVE OF THE RELEVANT AUTHORITY SHALL REMAIN ON SITE DURING CONSTRUCTION WHILE THE HAZARD REMAINS.				
C5	PEDESTRIAN ACCESS HAZARD	WORK WITHIN OR ADJACENT TO AREAS WHICH THE PUBLIC REQUIRES PEDESTRIAN ACCESS MUST HAVE APPROPRIATE BARRICADES AND SIGNAGE ERECTED AT ALL TIMES.				
C6	POTENTIAL VEHICLE HAZARD	SITE PERSONNEL SHALL BE ADVISED OF THE POTENTIAL HAZARDS AND THE APPROPRIATE PROCEDURES FOR WORKING ADJACENT TO OPERATING PUBLIC ROADS. APPROPRIATE SAFETY CLOTHING SHALL BE WORN AND THE REQUIRED SIGNAGE SHALL BE ERECTED. THE WORKS SHALL BE UNDERTAKEN IN A MANNER WHICH DOES NOT COMPROMISE THE SAFETY OF THE VEHICLE OCCUPANTS OR THE SITE PERSONNEL.				
C7	DEMOLITION AND CLEARING HAZARD	SUITABLE QUALIFIED AND EXPERIENCED PERSONNEL SHALL BE RESPONSIBLE FOR THE DEMOLITION AND CLEARING WORKS FOR THE PROJECT AT ALL TIMES. THE CONTRACTORS WORK METHOD STATEMENT SHALL ALSO GIVE CONSIDERATION TO FALLING DEBRIS, COLLAPSE AND DANGEROUS AIRBORNE AGENTS.				
C8	TRAFFIC MANAGEMENT HAZARD	SUITABLE QUALIFIED AND EXPERIENCED PERSONNEL SHALL BE RESPONSIBLE FOR THE SAFE AND ORDERLY PASSAGE OF VEHICULAR AND PEDESTRIAN TRAFFIC THROUGH THE PROJECT AT ALL TIMES. THE CONTRACTOR SHALL DEVELOP A TRAFFIC MANAGEMENT PLAN (TMP) FOR THE PROJECT TO ESTABLISH APPROPRIATE CONTROLS IN ACCORDANCE WITH THE MANUAL FOR UNIFORM TRAFFIC CONTROL.				
С9	ASBESTOS HAZARD	ALL PERSONNEL SHOULD BE ADVISED OF THE POTENTIAL PRESENCE OF ASBESTOS AND AN IDENTIFICATION AND ACTION PLAN SHALL BE PUT IN PLACE. SAMPLING AND IDENTIFICATION IS TO BE UNDERTAKEN IN ACCORDANCE WITH WORKPLACE HEALTH AND SAFETY REGULATIONS. IF SAMPLING CONFIRMS THE PRESENCE OF ASBESTOS THEN THE ACTION PLAN IS TO BE IMPLEMENTED TO REMEDIATE THE SITE.				
C10	POTENTIAL ROCK FALL	LAND ABOVE THE SITE HAS BEEN CLEARED AND SOME EARTHWORKS HAS BEEN UNDERTAKEN CREATING A POTENTIAL ROCK FALL HAZARD. SUITABLE PERSONNEL SHALL BE RESPONSIBLE FOR IDENTIFYING ANY POTENTIAL HAZARD AND THE CONTRACTOR SHALL TAKE APPROPRIATE ACTION TO ELIMINATE THE HAZARD.				

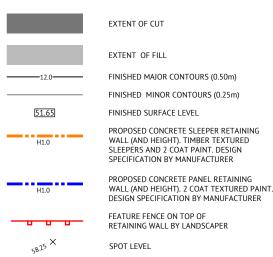








LEGEND - PROPOSED



ZERO LOT LINE

DRIVEWAY LOCATION

PADMOUNT TRANSFORMER

STAGE BOUNDARY

LEGEND - EXISTING

ightharpoons

NOTES

- REFER TO BULK EARTHWORKS NOTES & DETAILS DRAWINGS FOR:
 - EARTHWORKS NOTES AND DETAILS
 RETAINING WALL NOTES AND DETAILS
- PROPOSED SERVICES ARE WITHIN THE VICINITY OF RETAINING WALLS. REFER SERVICE DRAWINGS FOR SERVICE LOCATIONS AND DETAILS.
- SERVICE LOCATIONS AND DETAILS.

 3. EXISTING DWELLINGS, FENCES ETC TO BE DEMOLISHED AND REMOVED OFF SITE BY OTHERS (UNLESS NOTED OTHERWISE)
- 4. FINAL RETAINING WALL TYPES AND FINISHES SHALL BE CONFIRMED WITH THE SUPERINTENDENT PRIOR TO CONSTRUCTION.
 5. CUT AND FILL HATCHES DERIVED FROM PRECINCT 9.3
- 5. CUT AND FILL HATCHES DERIVED FROM PRECINCT 9.
 BULK EARTHWORKS TO PRECINCT 9.7 FINISHED

SUKFAC

		FOR CONSTRUCTION		
08/06/2023	В	AMENDED PAD LEVEL AND RETAINING WALL HEIGHTS	KK	PB
18/10/2022	Α	ISSUED FOR APPROVAL	KK	PB
DATE	REV	DESCRIPTION	REC	APP
		REVISIONS		

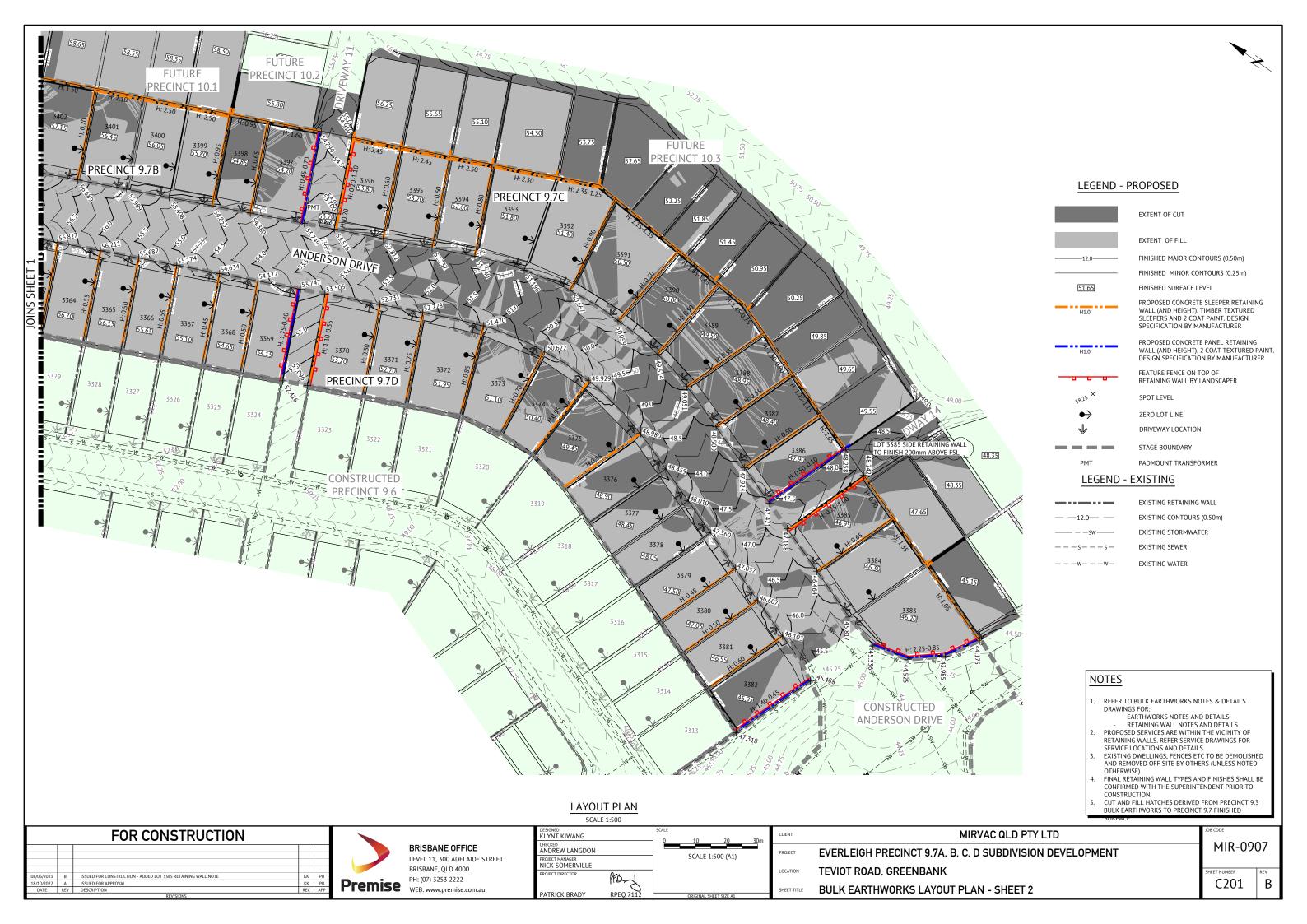
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DESIGNED KLYNT KIWANG		SCALE 0	10	20	30m
CHECKED ANDREW LANGDON				_	30111
PROJECT MANAGER NICK SOMERVILLE			SCALE 1	:500 (A1)	
PROJECT DIRECTOR	PRONS				
PATRICK BRADY	RPEQ 7112		ORIGINAL S	HEET SIZE A1	

CLIENT	MIRVAC QLD PTY LTD
PROJECT	EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT
LOCATION	TEVIOT ROAD, GREENBANK
SHEET TITLE	BULK EARTHWORKS LAYOUT PLAN - SHEET 1

MIR-0907

C200 REV



NOTES

- LOCATION & LEVELS OF ALL EXISTING SERVICES TO BE CONFIRMED ON SITE
- BY CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
 EARTHWORKS DRAWINGS ARE TO BE READ IN CONJUNCTION WITH EROSION AND SEDIMENT CONTROL LAYOUT PLANS AND EROSION AND SEDIMENT
- ALL EARTHWORKS TO BE CARRIED OUT UNDER 'LEVEL ONE' GEOTECHNICAL
- CONTROL IN ACCORDANCE WITH LOCAL AUTHORITIES AND AS3798. EXCESS CUT TO BE STOCKPILED IN THE LOCATION SHOWN OR AS DIRECTED
- ALL BATTERS ARE 1 IN 4 UNLESS SHOWN OTHERWISE.
- CONTRACTOR TO INSTALL TEMPORARY CONSTRUCTION FENCING ALONG THE FULL PERIMETER BOUNDARY INCLUDING APPROPRIATE SIGNAGE.

TESTING

THE SUPERINTENDENT MAY ORDER ADDITIONAL TESTS. REFER TO THE LOCAL AUTHORITIES SPECIFICATION FOR STANDARDS OF COMPACTION AND MATERIAL STANDARDS. FAILED TESTS WILL BE AT THE CONTRACTOR'S

EARTHWORKS TESTING

CONTROL NOTES AND DETAILS.

COMPACTION TESTS

LOCATION	AREA PER TEST
FINISHED LEVEL OR ROAD SUBGRADE (IN CUT OR FILL)	
LOWEST TWO LEVELS OF EMBANKMENT (PER LAYER)	REFER TO THE LOCAL AUTHORITY
OTHER LAYERS OF EMBANKMENT	SPECIFICATION
PREPARED NATURAL GROUND UNDER EMBANKMENT	

- **OUALITY TESTS**
- QUALITY TESTS OF IMPORTED MATERIAL ARE REQUIRED AS SET OUT BY I OCAL ALITHORITY
- SUBGRADE TESTS
- THE NUMBER AND LOCATION OF PAVEMENT SUBGRADE TESTS SHALL BE IN ACCORDANCE WITH LOGAN CITY COUNCIL SPECIFICATION REQUIREMENTS.

DUST

- NO VISIBLE DUST EMISSIONS MUST OCCUR AT THE BOUNDARIES OF THE SITE DURING EARTHWORKS AND CONSTRUCTION ACTIVITIES ON THE SITE. DUST CONTROL TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH AS/NZS3580.10.1:2003. DUST CONTROL SHALL COMPLY WITH THE NSW DEPARTMENT OF ENVIRONMENT AND CONSERVATION REPORT "APPROVED METHODS & GUIDANCE FOR THE MODELLNG AND ASSESSMENT OF AIR
- THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN CONTROLS TO ACHIEVE THE REQUIREMENTS OF ITEM 1 ABOVE.

FILL MANAGEMENT

- ALL FILL MATERIAL WILL BE PLACED IN ACCORDANCE WITH THE FILL SPECIFICATION PROVIDED ON THIS SHEET, OR WHERE PROVIDED, THE REQUIREMENTS OF THE GEOTECHNICAL REPORT SPECIFIC TO THIS CONTRACT
- THE FILL MATERIAL WILL COMPRISE ONLY OF NATURAL EARTH AND ROCK AND SHALL BE FREE OF ALL CONTAMINATES, NOXIOUS, HAZARDOUS, DELETERIOUS AND ORGANIC MATERIAL.
- ALL SITE PREPARATION WORK SHOULD GENERALLY BE CARRIED OUT IN ACCORDANCE WITH AS3798 'GUIDELINES ON EARTHWORKS FOR
- COMMERCIAL AND RESIDENTIAL DEVELOPMENTS'.
 THE SITE SHOULD BE STRIPPED OF ANY TOPSOIL FROM CUT AND FILL AREAS, ROAD ALIGNMENTS AND CARPARKING AREAS, AND STOCKPILED FOR LATER
- PRIOR TO THE PLACEMENT OF ANY STRUCTURAL FILL THE SITE SHOULD BE PROOF ROLLED USING A MINIMUM 10 TONNE (STATIC WEIGHT) PADFOOT ROLLER. ANY LOOSE OR SOFT AREAS SHOULD BE REMOVED AND RECOMPACTED OR REPLACED USING A COMPACTED SELECT FILL
- DEPRESSIONS FORMED BY THE REMOVAL OR VEGETATION, EXISTING STRUCTURES LINDERGROUND SERVICES FTC SHOULD HAVE ALL DISTURBED SOIL CLEANED OUT AND BE BACKFILLED WITH COMPACTED SELECT FILL
- ALL COMPLIANCE TESTING SHALL BE CARRIED OUT BY THE GEOTECHNICAL ENGINEER WHO WILL BE ENGAGED BY THE PRINCIPAL CONTRACTOR. ANY/ALL TESTING NECESSARY FOR GUIDANCE OR RE-TESTS WILL BE AT THE COST OF THE CONTRACTOR
- THE PLACEMENT OF FILL TO BE EXECUTED SUCH THAT TO BE FREE DRAINING AT ALL TIMES AND NOT TO BE A NUISANCE OR PONDING TO ADJOINING PROPERTY OR ROADS.
- NO DEMOLITION MATERIAL TO BE USED AS FILL MATERIAL.
 WHERE UNSUITABLE MATERIAL IN AREAS OF FILL IS ENCOUNTERED, THIS WILL BE TREATED AS SET OUT IN THE EARTHWORK SPECIFICATION.
- ALL VEHICLES EXITING FROM THE SITE TO BE CLEAN TO PREVENT MATERIAL BEING TRACKED OR DEPOSITED ON THE ADJOINING PUBLIC ROADS, REFER ENVIRONMENTAL MANAGEMENT NOTES ON THE EROSION AND SEDIMENT
- SITE ACCESS TO AND ACROSS THE SITE ARE SUBJECT TO SUPERINTENDENT

TOPSOIL RESPREAD REQUIREMENTS

TOPSOIL RESPREAD THICKNESS SHALL BE AS SPECIFIED BELOW IN THE FOLLOWING AREAS:

REFER TO EROSION & SEDIMENT CONTROL - STABILISATION PHASE DRAWING FOR TOPSOIL RESPREAD LOCATIONS AND THICKNESS.

TURF

CONTRACTOR SHALL SUPPLY AND LAY TURF AS SPECIFIED IN THE FOLLOWING

REFER TO EROSION & SEDIMENT CONTROL - STABILISATION PHASE DRAWING FOR TURF SUPPLY AND LAY AREAS.

TRENCH SPOIL

EXCESS TRENCH SPOIL MATERIAL GENERATED BY THIS CONTRACT SHALL BE PLACED EITHER WITHIN THE FILL ZONE NOMINATED ON THE EARTHWORKS DRAWINGS OR WITHIN A FILL ZONE NOMINATED BY THE SUPERINTENDENT THAT SHALL BE CONFIRMED PRIOR TO CONSTRUCTION COMMENCEMENT. FILL TO BE PLACED UNDER LEVEL 1 SUPERVISION AND IN ACCORDANCE WITH THE EARTHWORKS SPECIFICATION.

TRENCH BACKFILL

CBR15 STORMWATER TRENCH BACKFILL MATERIAL SHALL BE SOURCED FROM ON SITE EXCAVATED MATERIAL

EXCAVATION IN ROCK

CONTRACT SHALL INCLUDE TREATING, SIZING, CONDITIONING AND PROCESSING ALL TYPES OF ROCK IN ALL EXCAVATIONS. PROCESSING TO BE COMPLETED TO ENSURE THAT FILL SPECIFICATION AND LEVEL ONE CERTIFICATION IS ACHIEVED.

EVERLEIGH EARTHWORKS TOLERANCE TABLE

ITEM	TOLERANCE
EARTHWORKS IN ALLOTMENTS AND VERGES ^(a)	EWL or FSL +/- 50mm
CUT BATTERS (OTHER THAN IN LOTS)	EWL or FSL +/- 150mm ^(b)
FILL BATTERS (OTHER THAN IN LOTS)	EWL or FSL +/- 300mm ^(b)
EARTHWORKS IN PARKS	EWL or FSL +/- 50mm

- (a) TOI FRANCE IS -0mm / +50mm WHERE ADIACENT DRAINAGE ELEMENT
- (b) MEASURED FROM THE AVERAGE SLOPE PLANE.

TOLERANCE NOTES

- EARTHWORKS LEVEL (EWL) IS 100mm BELOW FINISHED SURFACE LEVEL (FSL) ON ALLOTMENTS (TOPSOIL RESPREAD THICKNESS).
- FINISHED SURFACE LEVEL (FSL) IS TOP OF TURF / STABILISED TOPSOIL
- ROADWORKS SUBGRADE, PAVEMENT, ASPHALT CONSTRUCTION LEVEL
- STORMWATER DRAINAGE CONSTRUCTION LEVEL TOLERANCES AS PER LCC
- SEWER AND WATER RETICULATION CONSTRUCTION LEVEL TOLERANCES AS PER SEQ D&C CODE.

DISPERSIVE SOILS MANAGEMENT NOTES

- DISPERSIVE SOIL TREATMENT MEASURES IN THE FOLLOWING AREAS SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE REQUIREMENTS OF THE EVERLEIGH DISPERSIVE SOIL MANAGEMENT:
 - WITHIN SERVICE TRENCHES
 - SURFACE AREAS SURROUNDING STORMWATER HEADWALLS
 - TURE/LANDSCAPED AREAS SUBJECT TO WATER FLOW
- TURF/LANDSCAPED AREAS SUBJECT TO WATER PONDING STABILISATION OF DISTURBED AREAS AND MANAGEMENT OF EROSION AND SEDIMENT SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLANS IN THIS DRAWING SET
- CONTRACTOR MUST CONSTRUCT AND ESTABLISH THE EROSION AND SEDIMENT CONTROL DEVICES, CONSTRUCTION WATER HOLDING DAM AND HES BASIN PRIOR TO COMMENCING EARTHWORKS OPERATION.
- ALL DISTURBED AREAS SHALL BE STABILISED AS SOON AS PRACTICABLE (BUT NOT MORE THAN 10 DAYS) FOLLOWING FINALISATION OF LEVELS. STABILISATION TO BE IN ACCORDANCE WITH EROSION & SEDIMENT CONTROL - STABILISATION PHASE.

TOPSOIL AMELIORATION

ONSITE STRIPPED TOPSOIL SHALL BE AMELIORATED PRIOR TO RESPREAD. THE FOLLOWING AMELIORATION SPECIFICATIONS SHALL APPLY:

A-GRADE OUALITY TOPSOIL AMELIORATION:

- ON-SITE COMPOST INCORPORATION (0.15kg/m³ OF TOPSOIL) DOLOMITE (15kg/m³ OF TOPSOIL)
- GRANULAR WETTING AGENT (0.5kg/m³ OF TOPSOIL)
- FERTILISER (0.4kg/m3 OF TOPSOIL)

- SCREEN STRIPPED TOPSOIL
- GRANULAR WETTING AGENT (0.5kg/m³ OF TOPSOIL)

- DOLOMITE (15kg/m³ OF TOPSOIL)
- FERTILISER (0.4kg/m³ OF TOPSOIL)

ROCK TREATMENT IN ALLOTMENTS

WHERE ALLOTMENTS ARE LOCATED IN CUT, THE CONTRACTOR SHALL OVER-EXCAVATE A MINIMUM 500mm DEPTH BELOW DESIGN EARTHWORKS LEVEL (FWL), AND RECOMPACT IN ACCORDANCE WITH THE FARTHWORKS SPECIFICATION AND LEVEL ONE SUPERVISION

ALL CUT LOTS WHICH ARE NOT LOCATED IN ROCK MUST ACHIEVE 100kPa BEARING CAPACITY. WHERE THIS CAN'T BE ACHIEVED, THE CONTRACTOR SHALL RECTIFY THE SUBGRADE IN ACCORDANCE WITH THE EARTHWORKS SPECIFICATION TO ACHIEVE A 100kPa BEARING CAPACITY

ROCK TREATMENT IN VERGES

WHERE ROAD RESERVES ARE LOCATED IN CUT, THE CONTRACTOR SHALL OVER-EXCAVATE A MINIMUM 1000mm DEPTH BELOW DESIGN EARTHWORKS LEVEL (EWL) AND RECOMPACT IN ACCORDANCE WITH THE EARTHWORKS SPECIFICATION . AND LEVEL ONE SUPERVISION.

EARTHWORKS SPECIFICATION

SPECIFICATION	DEPTH RANGE (m)				PAVEMENT	TRENCH	
	0.0 - 0.6	0.6 - 3.00	3.00 - 5.00	> 5.00	SUBGRADE	BACKFILL	
CBR %	-	-	-	-	10	15	
LAYER THICKNESS (mm)	300	300	300	300	BETWEEN SUBGRADE AND 0.3m BELOW	300	
MAXIMUM PARTICLE SIZE (mm)	200	500	500	500	200	200	
% PASSING 37.5mm	80% MIN	REFER NOTES AND KEY OUTCOMES	REFER NOTES AND KEY OUTCOMES	REFER NOTES AND KEY OUTCOMES	REFER NOTES AND KEY OUTCOMES	REFER NOTES AND KEY OUTCOMES	
% PASSING 0.075mm	30% MIN	REFER NOTES	REFER NOTES	REFER NOTES	REFER NOTES	REFER NOTES AND AS3798	
COMPACTION	95% STD	95% STD	95% STD	95% STD	100% STD	95% MOD IN ROADS AND 95% STD OUTSIDE ROADS	
MOISTURE	+/- 2% OMC	+/- 2% OMC	+/- 2% OMC	+/- 2% OMC	60% - 90% OF OMC	+/- 2% OMC	

- 1. OMC OPTIMUM MOISTURE CONTENT
- 2. LAYER OF THICKNESS IS LIMITED TO 300mm TO ALLOW IDENTIFICATION OF LARGER PARTICLES AND ALLOW EVERY CHANCE OF BREAK DOWN IN FILLING OR REMOVAL
- 3. TREATMENT OF ROCK TO SIZES ABOVE SHOULD BE CARRIED OUT IN CUT PRIOR TO LOADING TO FILL AREAS. TREATED ROCK TO BE APPROVED BY GITA PRIOR TO TRANSPORTING.
 4. UPPER 0.6m, (PARTICULARLY IN AREAS OF DEEP FILL), OF THE FILL PROFILE TO BE RELATIVELY IMPERMEABLE HENCE INCREASE IN FINES COMPONENT.
- 5.PROOF ROLL TESTING ON EACH COMPACTED LAYER USING RUBBER WHEELED PLANT SUCH AS LOADED ADT'S OR LOADED SCRAPERS, UNFAVOURABLE DEFORMATION OF THE COMPACTED SURFACE UNDER LOAD OF ADT'S OR SCRAPERS WILL REQUIRE REPAIR PRIOR TO ADDITIONAL PLACEMENT.
- 6. MECHANICAL INTERLOCK METHODOLOGY IS NOT APPROPRIATE DUE TO POOR DURABILITY OF SITE WON SANDSTONE. FILL COMPOSITION IS REQUIRED TO INCLUDE AN APPROPRIATE SAND GRAVEL AND FINES COMPONENT CONFORMING TO THE REQUIREMENTS OF AS798.

EY OUTCOMES FOR EARTHWORKS OPERATIONS

- 1. DELIVER RESIDENTIAL LOTS WITH FAVOURABLE LOT CLASSIFICATIONS I.E NO P CLASSIFICATIONS 2. FILL THICKNESS DOES NOT VARY MORE THAN 2m OVER A DISTANCE OF 10m
- 3. CONSTRUCT FILL AND LIMIT LONG TERM CREEP SETTLEMENTS TO WITHIN 0.5% TO 1.0% OF THE FILL THICKNESS
 4. BUILDING PLATFORM THAT ALLOWS BUILDERS TO CONSTRUCT SLAB ON GROUND RAFTS USING LIGHT EARTHMOVING EQUIPMENT
- 5. MATERIAL WON FROM CUTS AND USED IN FILL WITH REQUIRE
- CUTS IN ROCK AS WELL AS BLENDED WITH
- CUTS IN FINER MATERIALS SUCH AS SANDS AND CLAYS
 CREATING A FILL PLATFORM THAT IS ABLE TO BE TESTED IN ACCORDANCE WITH AS3798 AND AS1289

FOR CONSTRUCTION						
08/06/2023	В	ISSUED FOR CONSTRUCTION	KK	PB		
18/10/2022	Α	ISSUED FOR APPROVAL	KK	PB		
DATE	REV	DESCRIPTION	REC	APP		
		DEVICIONS				



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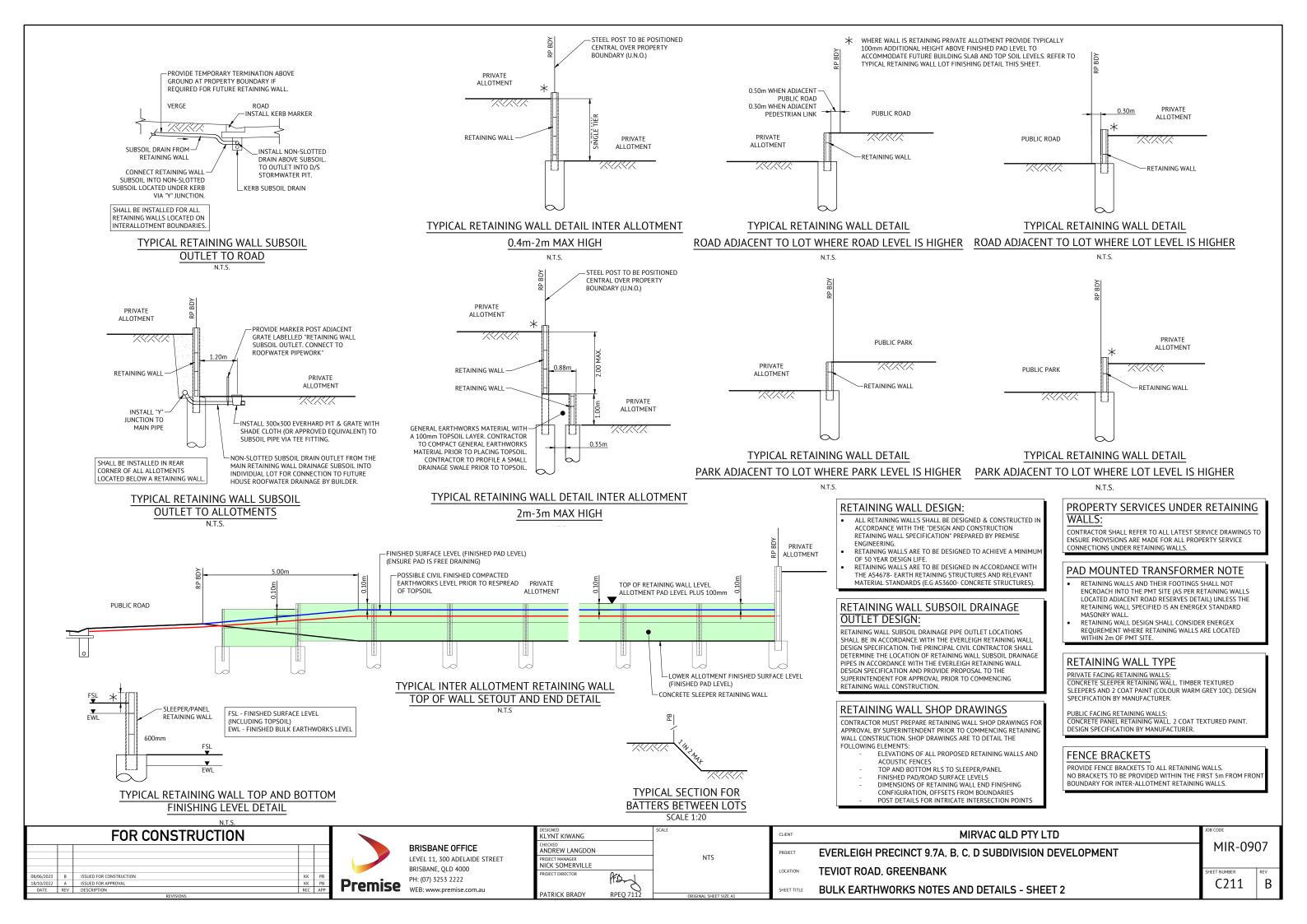
LEVEL 11, 300 ADELAIDE STREET BRISBANE, QLD 4000 PH: (07) 3253 2222

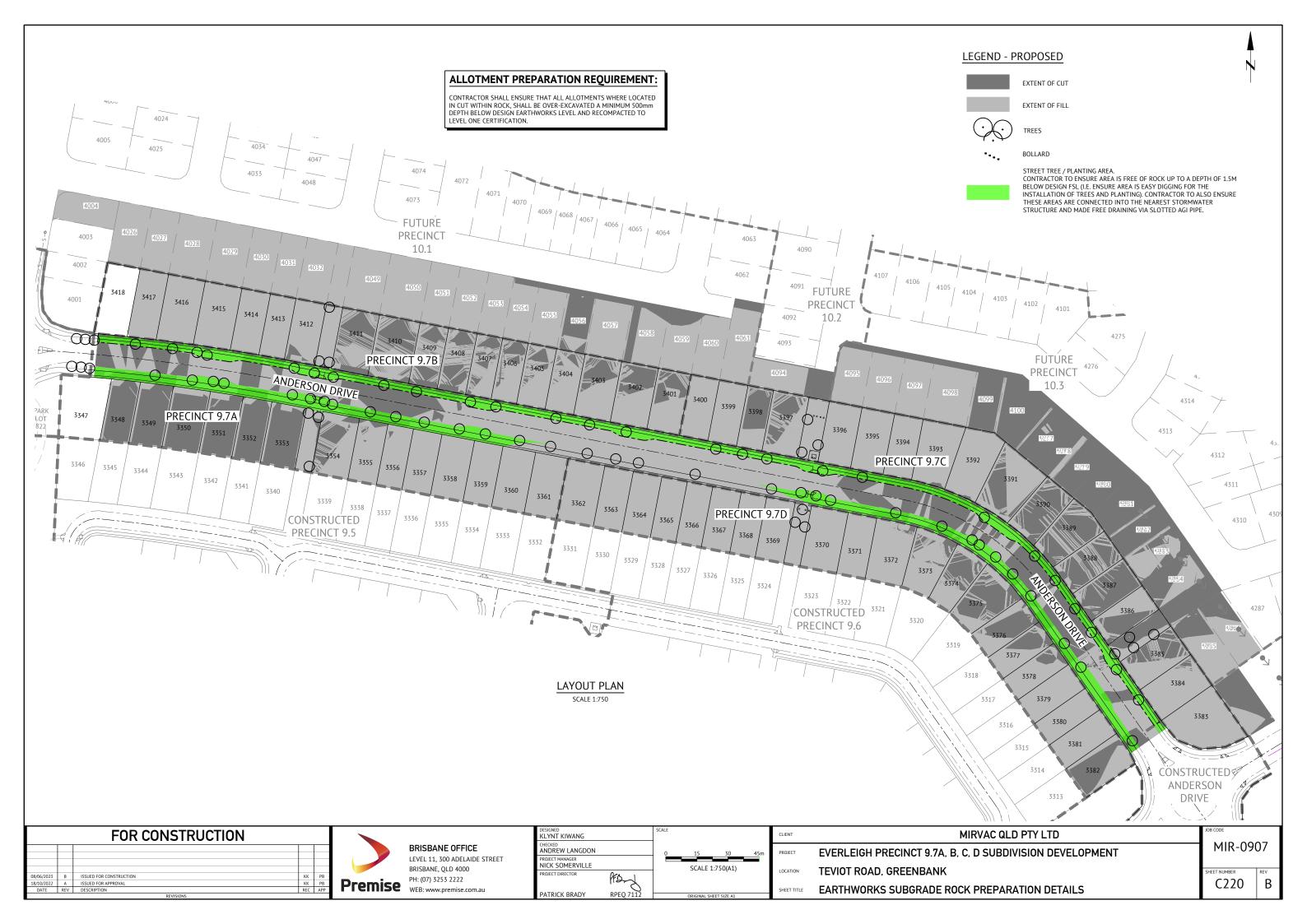
LYNT KIWANG		
HECKED NDREW LANGDON		
ROJECT MANAGER IICK SOMERVILLE		
ROJECT DIRECTOR	Prond	
ATRICK BRADY	RPEQ 7112	

SCALE	1
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ORIGINAL SHEET SIZE A1	 ı
ONGHAL SHELL SIZE M	 _

CLIENT MIRVAC QLD PTY LTD EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT PROJECT TEVIOT ROAD, GREENBANK **BULK EARTHWORKS NOTES AND DETAILS - SHEET 1**

MIR-0907

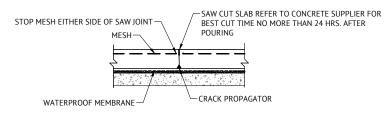




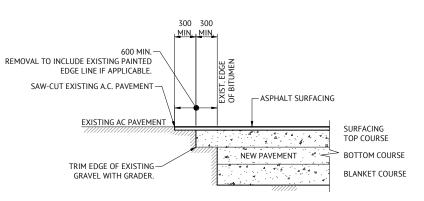
- 1. ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH LOGAN CITY COUNCIL STANDARD DRAWINGS AND METHODS (U.N.O.).
- NOTWITHSTANDING THE LIMITS OF CUTTING AND FILLING SHOWN ON THE DRAWINGS, THE ACTUAL LIMITS SHALL BE DETERMINED ON SITE BY THE SUPERINTENDENT DURING CONSTRUCTION AND SIMILARLY THE FINISHED SURFACE CONTOURS MAY BE ADJUSTED BY WRITTEN DIRECTION OF THE
- SUPERINTENDENT DURING CONSTRUCTION.
 THE CONTRACTOR IS TO ASCERTAIN THE EXACT LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE COST OF RECTIFICATION OF ANY DAMAGES TO EXISTING SERVICES WHICH MAY OCCUR. THE LOCATION OF EXISTING SERVICES SHOWN ON THESE DRAWINGS ARE APPROXIMATE ONLY.
 SUBGRADE TEST RESULTS TO BE FORWARDED TO SUPERINTENDENT FOR DETERMINATION OF BOX
- DEPTHS PRIOR TO EXCAVATION. TESTS SHALL INCLUDE SOAKED CBR AND/OR OTHER TESTS AS REQUESTED BY THE SUPERINTENDENT.
- ALLOTMENT FILLING TO BE COMPACTED TO 95% (min) OF THE R.D.D. (AS 1289 TESTS E1.1, E4.1). LEVELS AND SETOUT INFORMATION FOR KERB AND CHANNEL CONSTRUCTION IS GIVEN TO LIP OF KERB.
- LEVELS AND GRADIENTS AT JUNCTIONS WITH EXISTING WORKS MAY BE VARIED AS APPROVED BY THE SUPERINTENDENT TO ACHIEVE SATISFACTORY CONNECTION TO THE EXISTING WORKS.
- SIDE DRAINS AND MITRE DRAINS TO BE CONSTRUCTED ADJACENT TO ALL KERB AND CHANNEL PROVIDE FLUSH POINTS TO SUBSOIL DRAINS, LOCATIONS TO BE CONFIRMED ON SITE.
- ALL STORMWATER PIPES SHALL BE CLASS '2' (UNO) R.C. PIPES UNLESS AN ALTERNATIVE IS APPROVED
- BY THE SUPERINTENDENT PRIOR TO CONSTRUCTION. ALL PIPES ARE 375mm DIAMETER U.N.O. GULLIES AND GULLY GRATES SHALL BE TO STD. DRGs BSD-8051 - BSD-8059.
- 12. KACEY GALV. STEEL KERB ADAPTORS ARE TO BE INSTALLED TO THE REQUIREMENTS OF THE LOCAL COUNCILS STANDARD DRAWINGS AND SPECIFICATIONS.
- ALL LOTS SHOWN BOXED TO HAVE ROOFWATER FOOTPATH CROSSINGS TO KERB. CROSSINGS ARE TO BE 88.9 DIA. GALV. CHS.TO KACEY KERB ADAPTOR.
- ALL TEMPORARY ROOFWATER OUTLETS TO BE EXCAVATED AT 1 IN 200 TO NATURAL SURFACE.
 ROOFWATER PITS ARE TO BE 600mm DIAMETER FOR DEPTHS LESS THAN 750mm, 900mm DIAMETER FOR DEPTHS BETWEEN 750mm AND 1500mm DEEP AND 1050mm DIAMETER FOR DEPTHS GREATER THAN 1500mm
- ALL ROOFWATER PIPES CROSSING CONCRETE FOOTPATHS ARE TO BE INSTALLED PRIOR TO CONSTRUCTION OF CONCRETE FOOTPATHS.
- HAZARD MARKERS (D4-4A) TO BE PLACED AT THE END OF NEW WORKS AS DIRECTED BY SUPERINTENDENT
- 18. SITE CBR VALUE AND PAVEMENT DESIGN AND DEPTHS TO BE VERIFIED WITH CBR TESTS PRIOR TO CONSTRUCTION.
- 19. LOCATION & LEVELS OF ALL EXISTING SERVICES TO BE CONFIRMED ON SITE BY CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- 20. TO BE READ IN CONJUNCTION WITH ALL STORMWATER DRAINAGE LAYOUT PLANS & ROADWORKS

ROADWORKS NOTES

- GEOTECHNICAL TESTING FOR PAVEMENT CONSTRUCTION IS TO BE CARRIED OUT IN ACCORDANCE WITH THE PROJECT SPECIFICATION. TEST CERTIFICATES ARE TO BE PREPARED BY A REGISTERED N.A.T.A. LABORATORY AT THE CONTRACTORS COST AND SHALL BE PROVIDED TO THE ENGINEER PROGRESSIVELY THROUGH THE WORKS. THE CONTRACTOR IS TO NOTIFY THE ENGINEER OF ANY NON-CONFORMANCES.
- ALL NON CONFORMING WORK IS TO BE RECTIFIED AS DIRECTED BY THE ENGINEER.
 FULL DEPTH PAVEMENT CONSTRUCTION SHALL EXTEND BEHIND ALL KERB AND KERB AND CHANNEL FOR A DISTANCE WHICH IS THE GREATER OF 150mm FROM THE BACK OF KERB OR ACROSS TO THE OUTER LIMIT OF SIDE DRAIN FILTER MATERIAL.
- TRANSITION KERB AND CHANNEL TO BARRIER KERB SMOOTHLY OVER MIN. 1.0m LENGTH.
 PAVEMENT THICKNESSES NOMINATED ON THESE DRAWINGS ARE PROVISIONAL ONLY AND MAY BE
- VARIED BY THE SUPERINTENDENT SUBJECT TO INSITU PAVEMENT SUBGRADE TESTING, PAVEMENT SUBGRADE TESTING, PAVEMENT SUBGRADES ARE TO BE INITIALLY CONSTRUCTED TO THE UNDERSIDE OF THE NOMINATED LOWER SUBBASE COURSE WITHIN FILL AREAS, AND TO THE UNDERSIDE OF THE NOMINATED UPPER SUBBASE COURSE WITHIN CUT AREAS, INSITU SUBGRADE CBR TESTING AS SPECIFIED FOR PAVEMENT DESIGN
- REPAIR ANY DAMAGE TO EXISTING KERB AND CHANNEL. FOOTPATH OR ROADWAY (INCLUDING REMOVAL OF CONCRETE SLURRY FROM FOOTPATHS, ROADS, KERB AND CHANNEL AND STORMWATER GULLIES AND SIDEDRAINS) THAT MAY OCCUR DURING ANY WORKS CARRIED OUT.



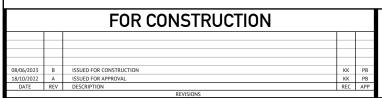
SAWCUT JOINT (S.J.)



TYPICAL PAVEMENT CUT-BACK DETAIL

NOTE: CONTRACTOR TO PROVIDE BOX-OUT TREATMENT ON ROAD BOXES OF FUTURE ROADS FUTURE ROAD LEVEL-UPSTREAM OF ADJOINING COMPLETED ROADS. RUN SOCKED PIPE WITHIN GEOFABRIC LINED GRAVEL SUMPTRENCH (AS SHOWN). 50mm GRAVEL. PIPE WILL DRAIN PONDING WATER REMAINING AFTER RAIN EVENT. FLOWS DURING RAIN EVENT WILL BE COLLECTED IN DOWNSTREAM GULLY PITS FINISHED ROAD LEVEL BOXED OUT FUTURE ROAD LEVEL -(BULK EARTHWORKS) IOIN SOCKED SLOTTED PIPE TO CONSTRUCTED SIDE DRAINS GEOFABRIC LINING

TYPICAL FUTURE ROADS BOX-OUT TREATMENT



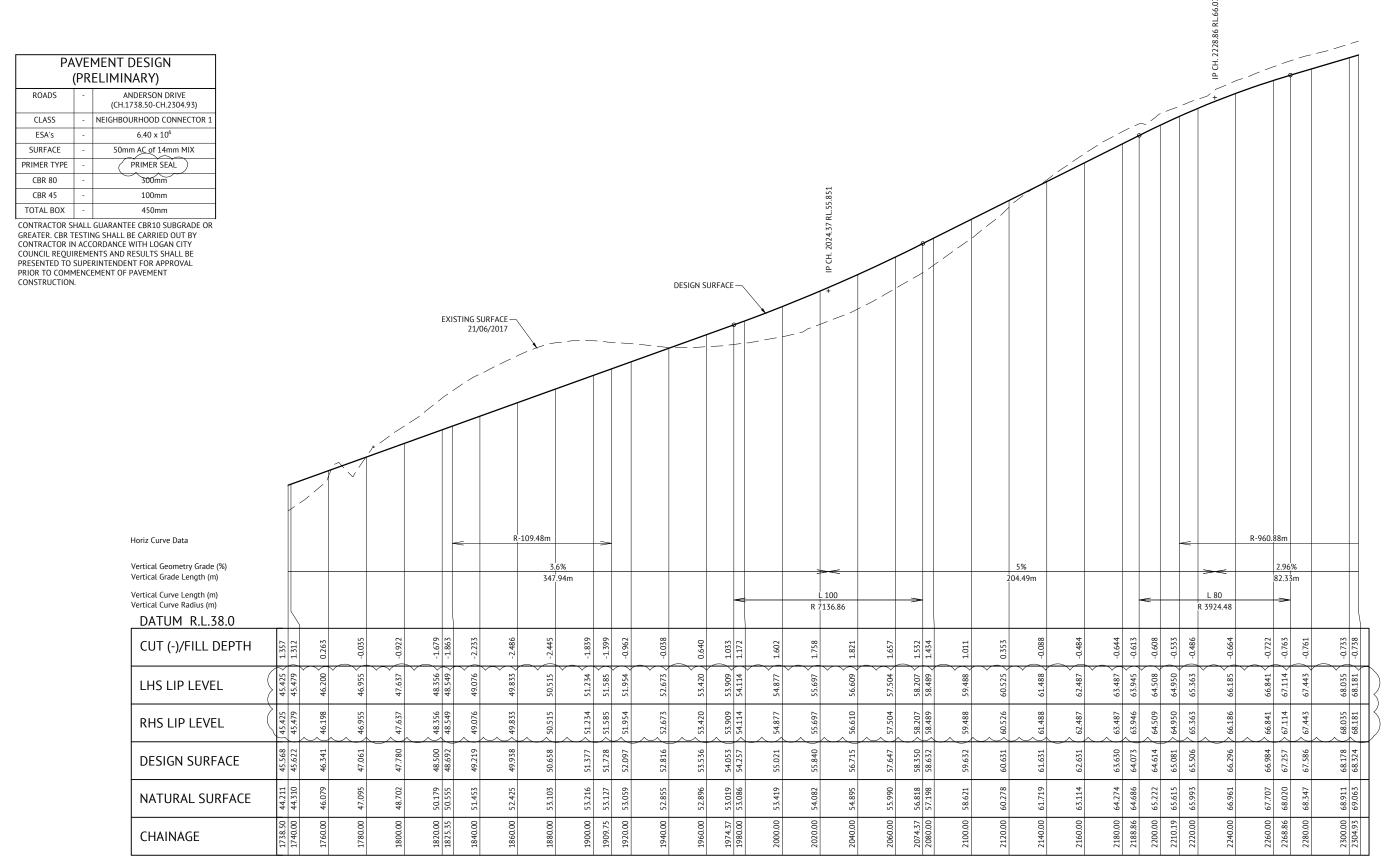


BRISBANE OFFICE LEVEL 11, 300 ADELAIDE STREET BRISBANE, QLD 4000 PH: (07) 3253 2222

DESIGNED KLYNT KIWANG		SCALE				(
CHECKED ANDREW LANGDON		0	0.4	0.8	1.2m	
PROJECT MANAGER NICK SOMERVILLE				:20 (A1)		
PROJECT DIRECTOR	PFD		JONEL 1	20 (/11)		
PATRICK BRADY	RPFO 7117		ODICINIAL SI	IEET CIZE A1		9

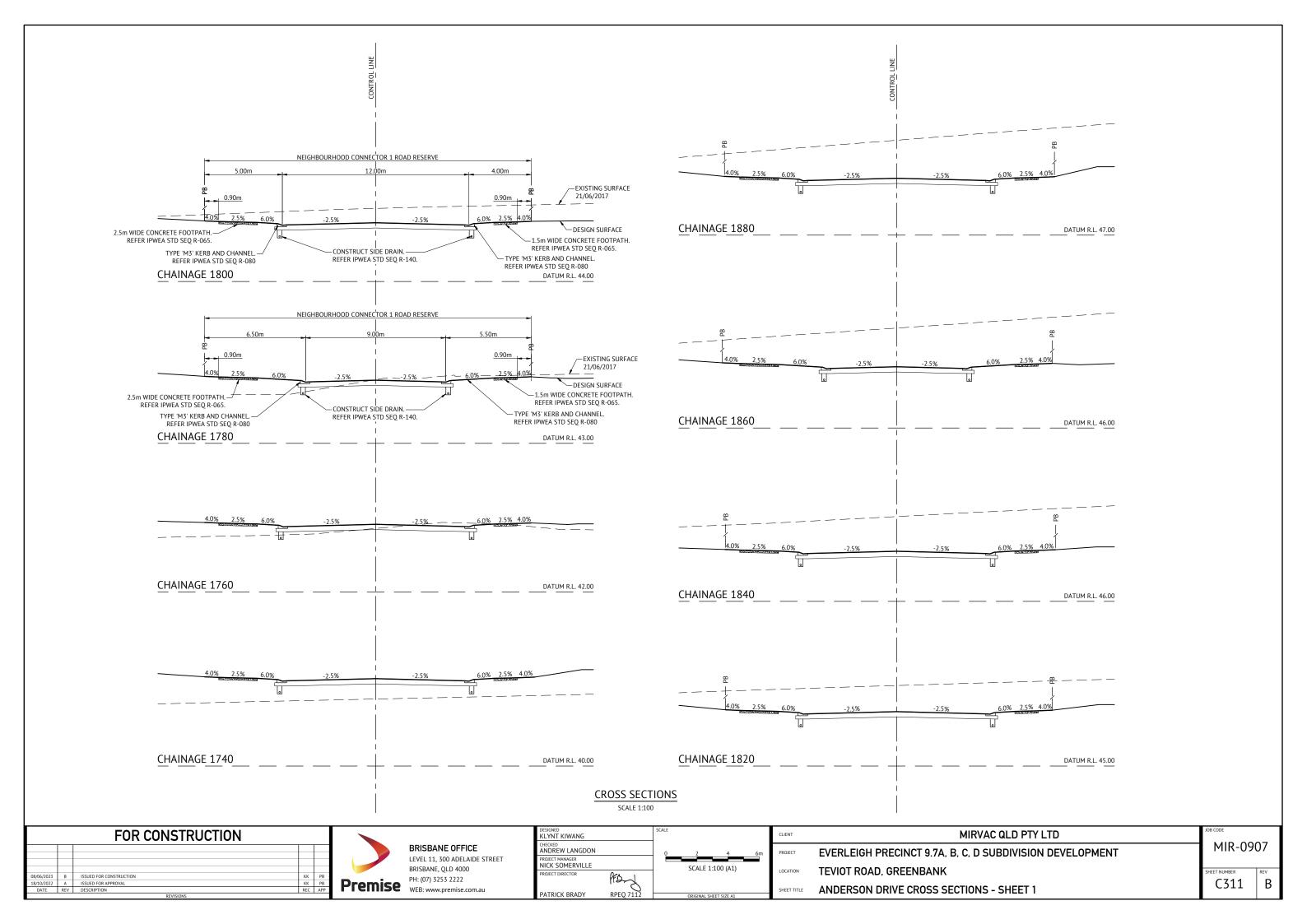
CLIENT	MIRVAC QLD PTY LTD
PROJECT	EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT
LOCATION	TEVIOT ROAD, GREENBANK
SHEET TITLE	ROADWORKS NOTES AND DETAILS

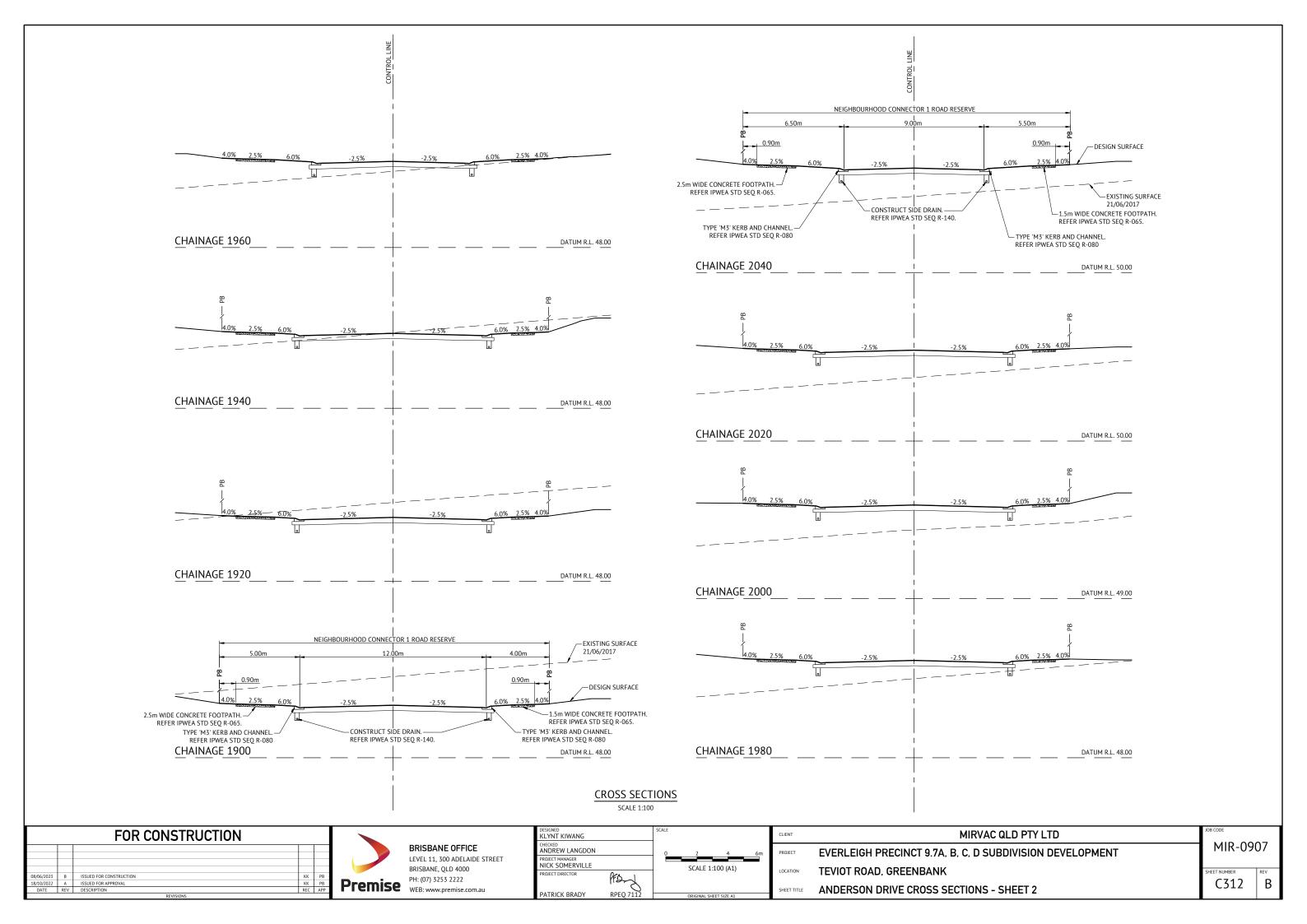
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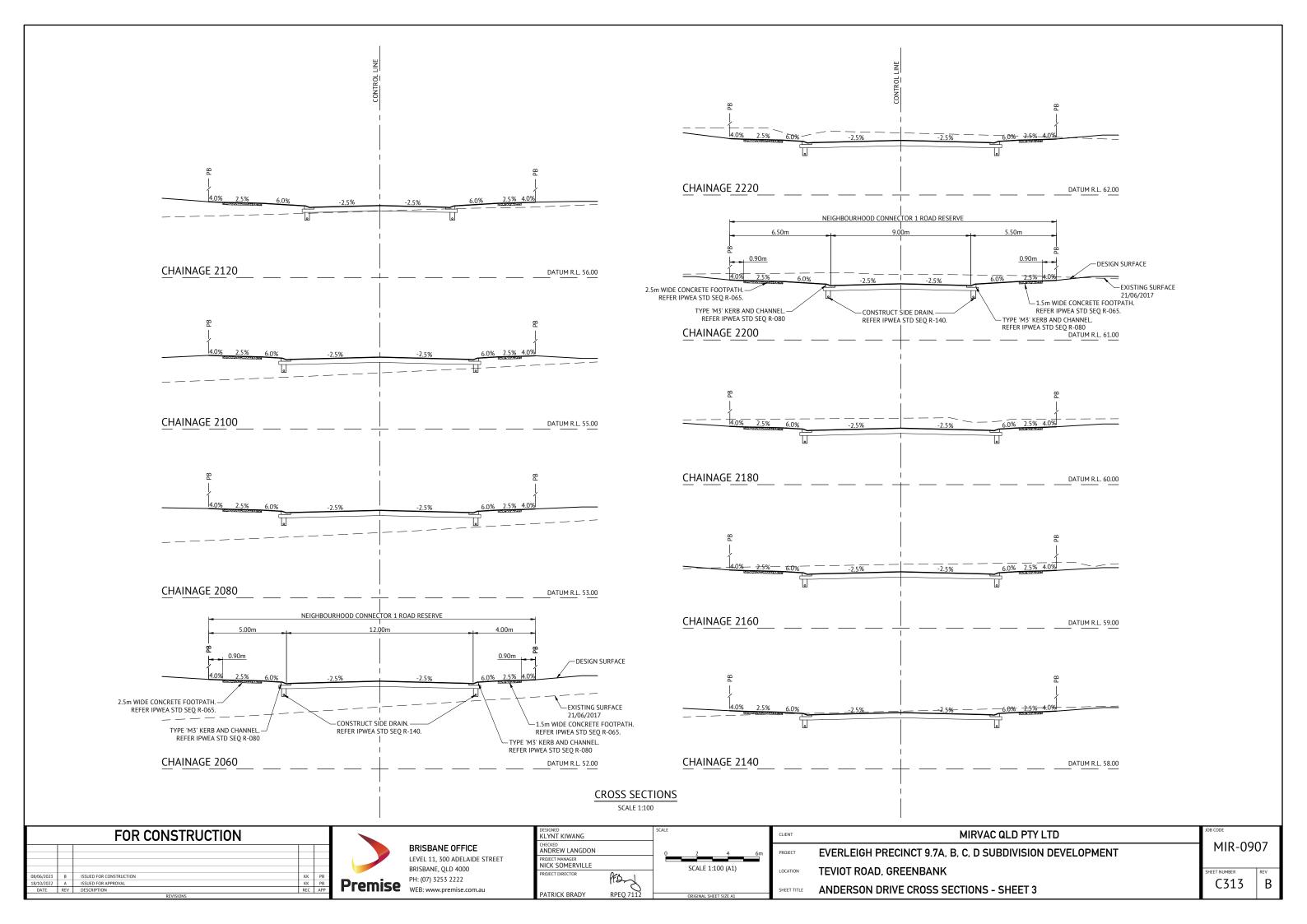


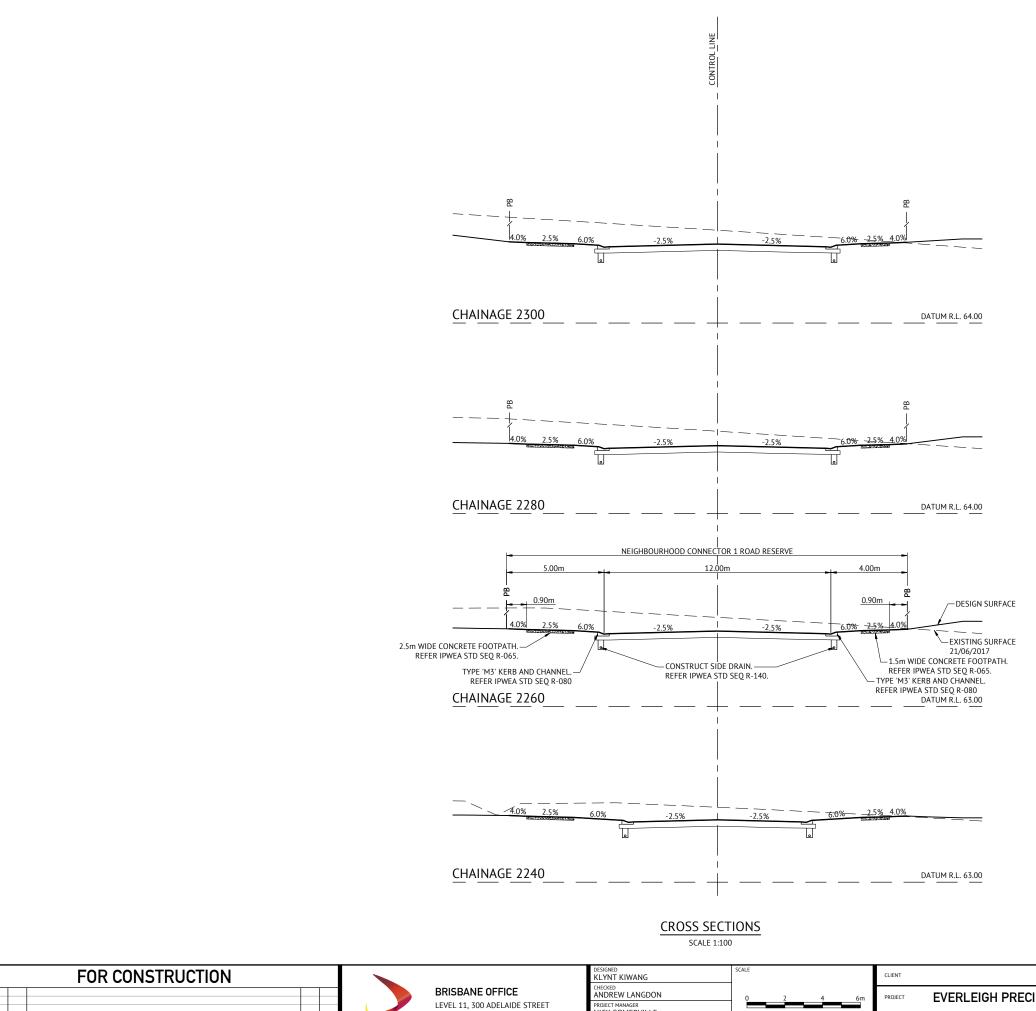
LONGITUDINAL SECTION SCALE 1:1000(H) 1:100(V)

FOR CONSTRUCTION				DESIGNED KLYNT KIWANG		SCALE	CLIENT	MIRVAC QLD PTY LTD	JOB CODE	207	
				BRISBANE OFFICE LEVEL 11, 300 ADELAIDE STREET	ANDREW LANGDON PROJECT MANAGER		HORIZONTAL 1:1000 (A1) 0 20 40 60m	PROJECT	EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT	MIR-09	907
08/06/20	23 B	AMENDED PRIMER TYPE, UPDATED LONG SECTION LIP LEVELS KK PB		BRISBANE, QLD 4000 PH: (07) 3253 2222	PROJECT DIRECTOR	DED 1	VERTICAL 1:100 (A1)	LOCATION	TEVIOT ROAD, GREENBANK	SHEET NUMBER	REV
18/10/20 DATE	22 A REV	ISSUED FOR APPROVAL KK PB DESCRIPTION REC APPL	Premise	WEB: www.premise.com.au	PATRICK BRADY	RPEO 7112	ORIGINAL SHEFT SIZE A1	SHEET TITLE	ANDERSON DRIVE LONG SECTION	C310	В









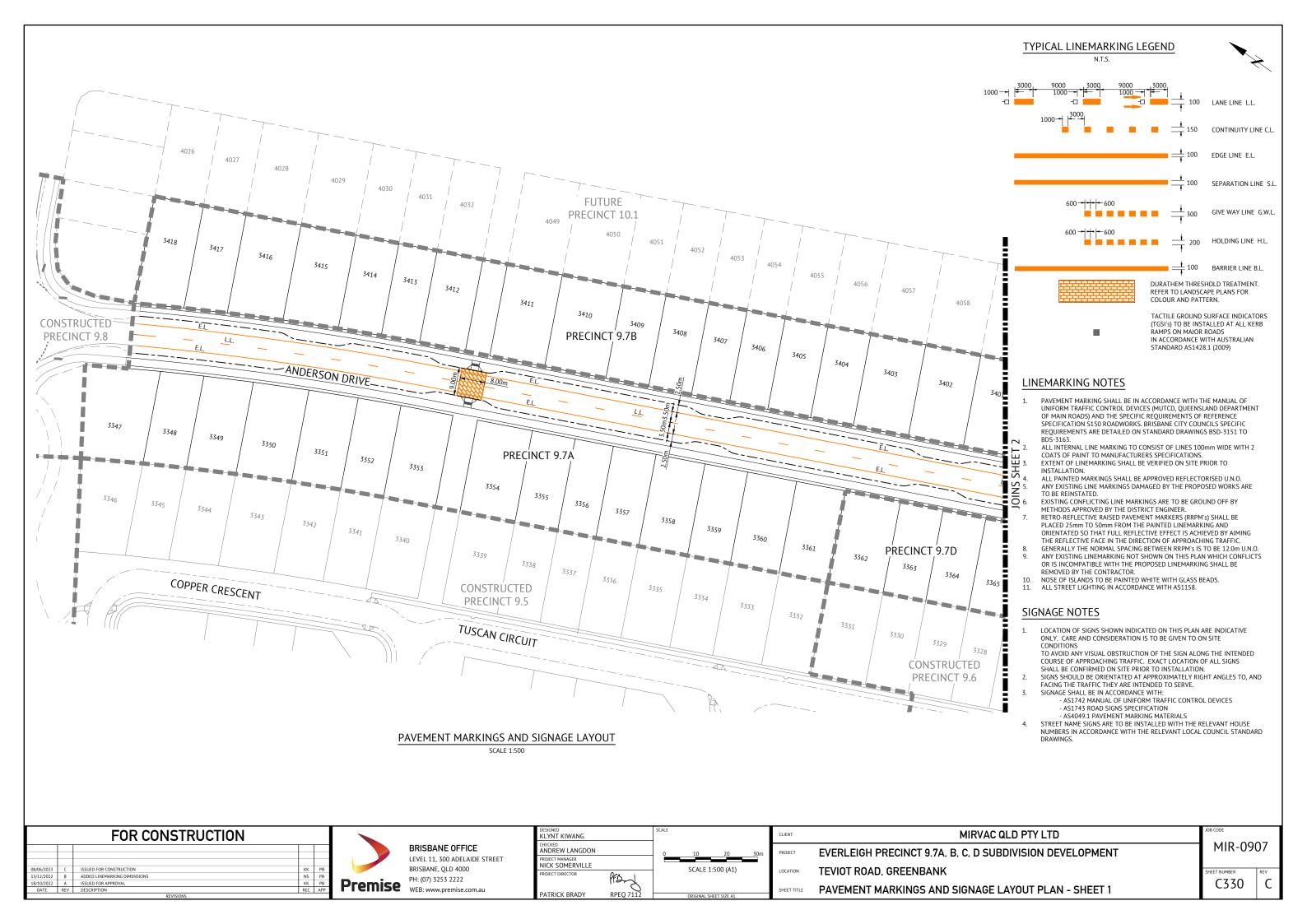
FOR CONSTRUCTION							
08/06/2023	В	ISSUED FOR CONSTRUCTION	KK	PB			
18/10/2022	Α	ISSUED FOR APPROVAL	KK	PB			
DATE	REV	DESCRIPTION	REC	APP			

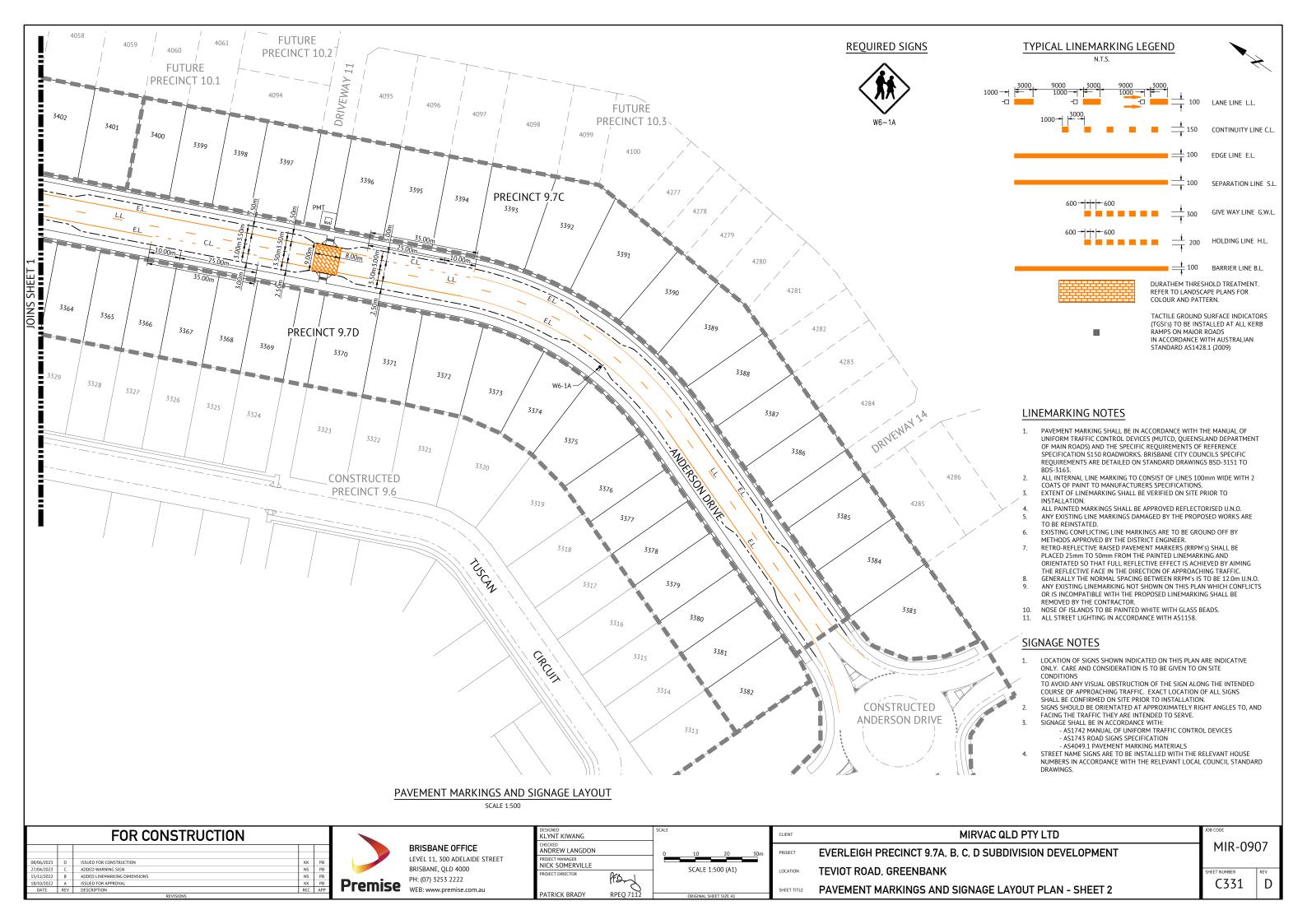
	BRISBANE OFFICE
	LEVEL 11, 300 ADELAIDE STR
	BRISBANE, QLD 4000
Dromico	PH: (07) 3253 2222
Premise	WEB: www.premise.com.au

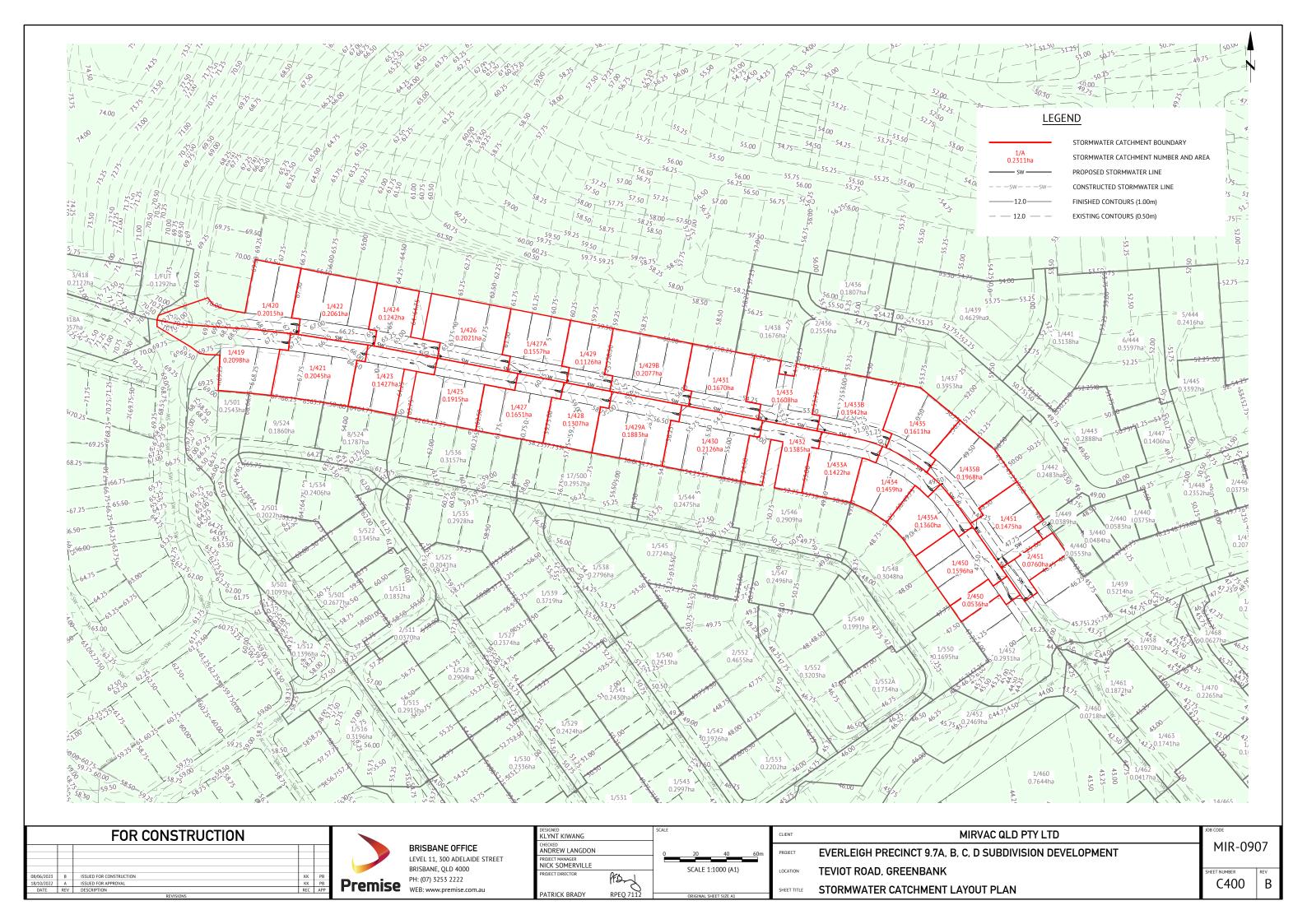
DESIGNED KLYNT KIWANG		SCALE				
ANDREW LANGDON		0	2	4	6m	
PROJECT MANAGER				_		
NICK SOMERVILLE			SCALE 1:1	00 (A1)		
PROJECT DIRECTOR	PRON			()		
DATRICK DRADY	0050 7443					
PATRICK BRADY	RPEQ 7112	1	ORIGINAL SHE	ET SIZE A1		

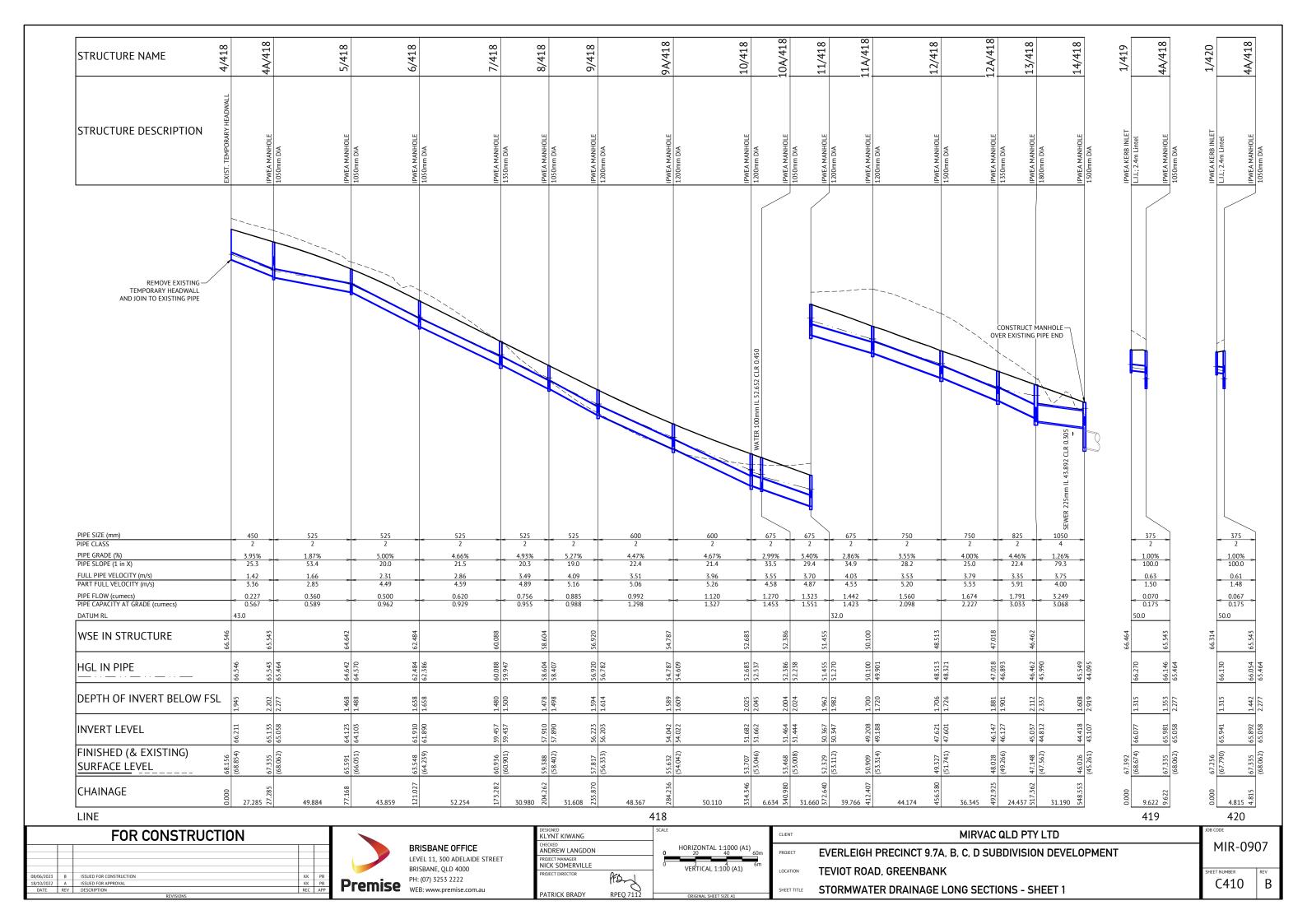
CLIENT	MIRVAC QLD PTY LTD
PROJECT	EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT
LOCATION	TEVIOT ROAD, GREENBANK
SHEET TITLE	ANDERSON DRIVE CROSS SECTIONS - SHEET 4

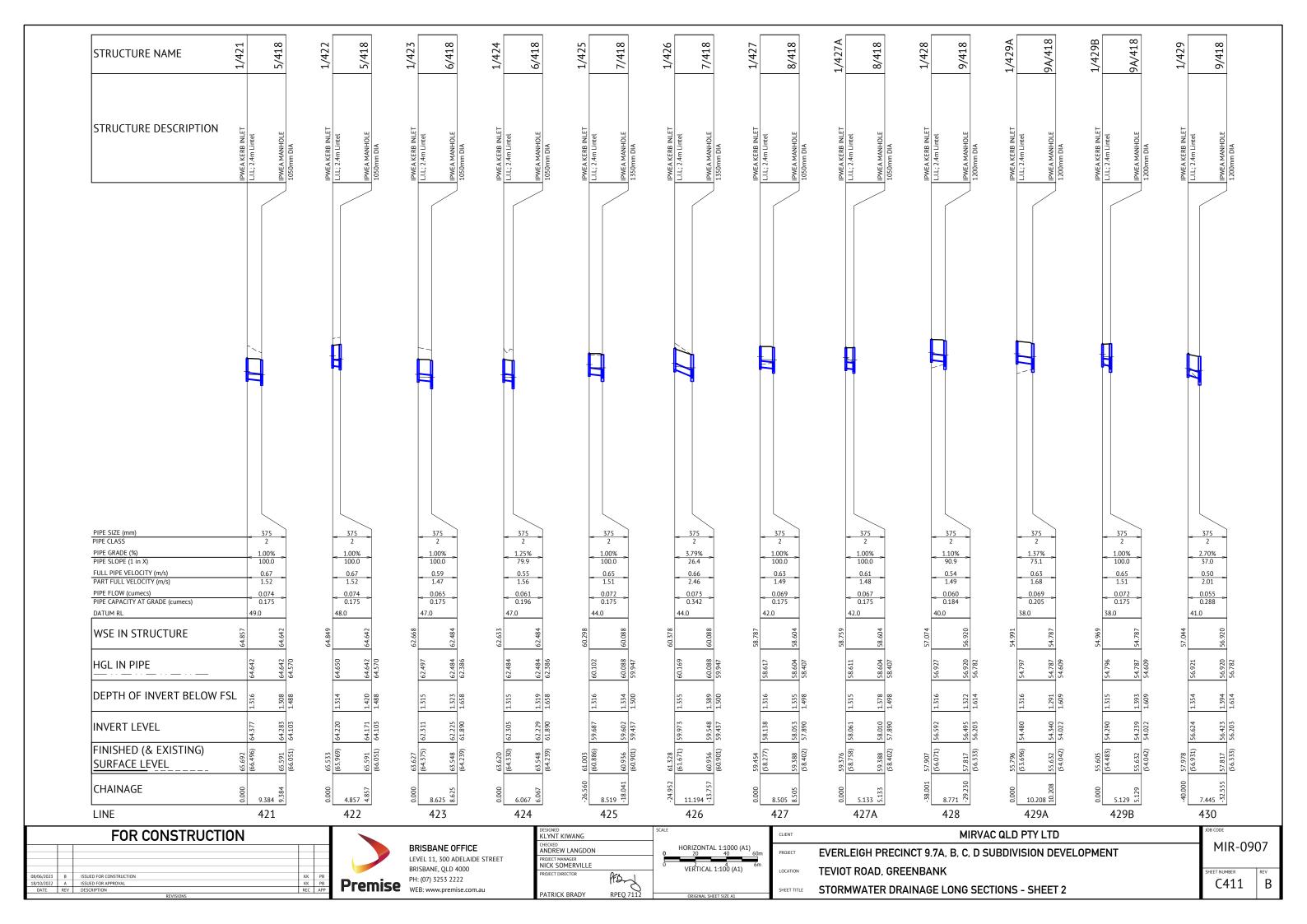
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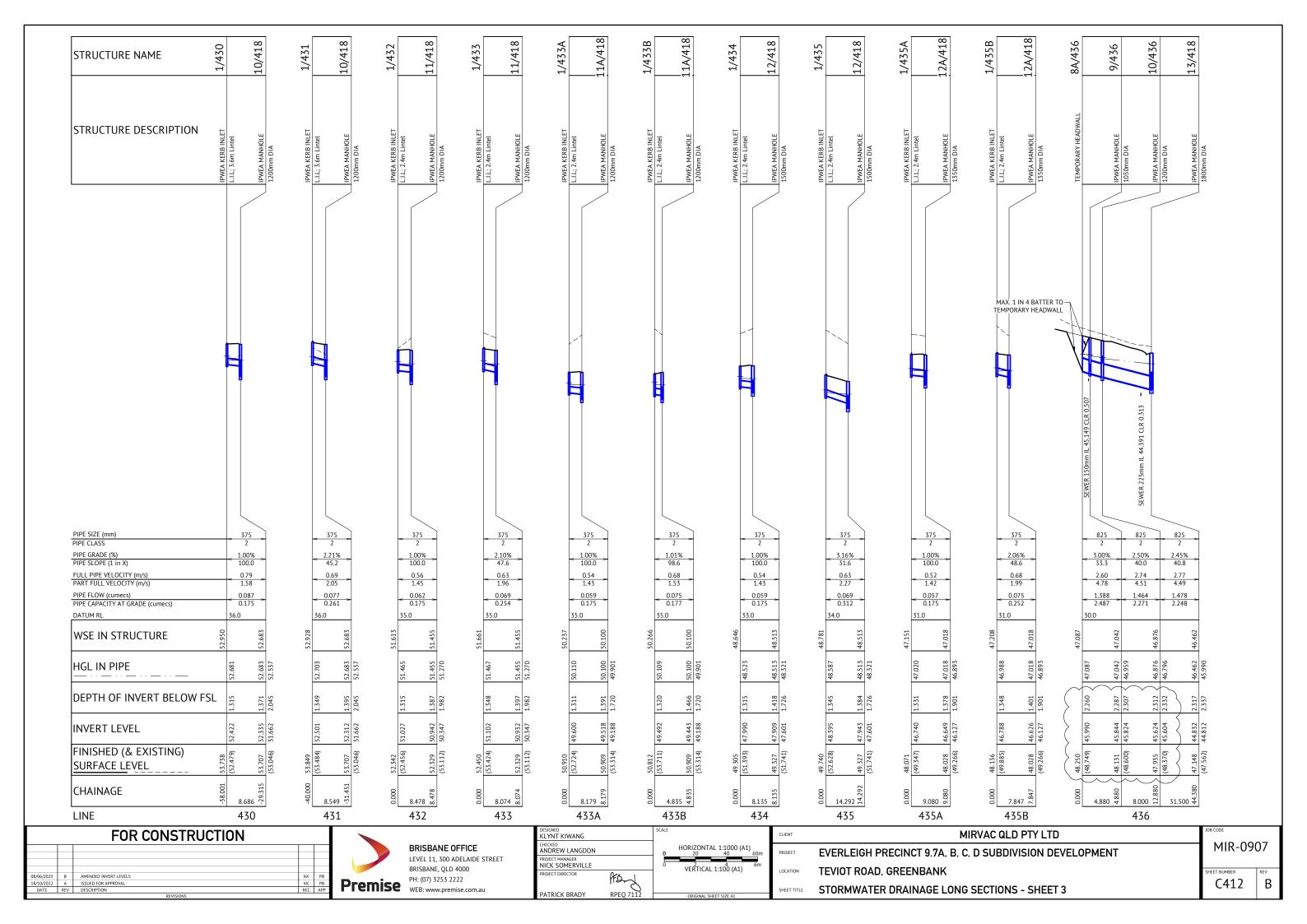


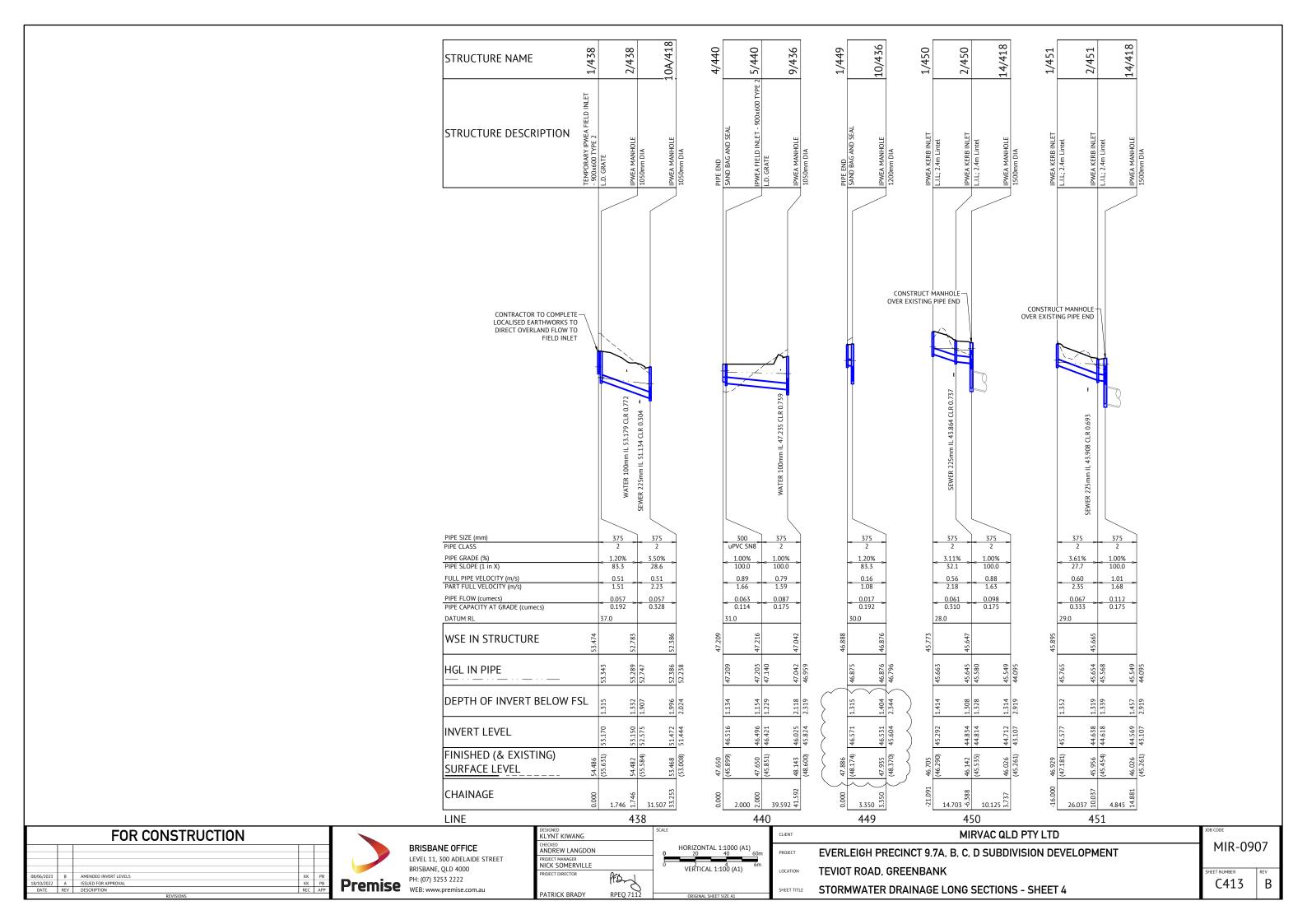












STORMWATER DRAINAGE NOTES

- ALL STORMWATER DRAWINGS ARE TO BE READ IN CONJUNCTION WITH DRAWING C001. STORMWATER LAYOUT PLANS, NOTES AND DETAILS.
- STORMWATER PITS ARE TO BE CONSTRUCTED INSITU IN ACCORDANCE WITH DRAWINGS OR AS VARIED AS NOTED ON THE DRAWING, PREFABRICATED STORMWATER PITS CAN BE USED SUBJECT TO WRITTEN APPROVAL FROM THE SUPERINTENDENT, CLASS D HEAVY DUTY GALVANIZED STEEL GRATES ARE TO BE FITTED IN TRAFFIC AREAS, CLASS B LIGHT DUTY GALVANIZED STEEL GRATES ARE
- TO BE FITTED IN LANDSCAPE AREAS UNLESS NOTED OTHERWISE.
 ALL DRAINAGE EXCAVATION AND CONSTRUCTION SHALL BE CARRIED OUT IN ACCORDANCE WITH AS3500 AND THE APPLICABLE LOCAL AUTHORITY SPECIFICATIONS AND STANDARD DETAILS.
- ALL MATERIALS SHALL MEET THE REQUIREMENTS OF AS1254 & AS1273.
 ALL uPVC PIPES SHALL BE CLASS 'SN8' FOR DN150 & DN225, AND CLASS 'SN6'
- FOR DN100 UNLESS NOTED OTHERWISE.
 PIPES SHALL BE LAID AT MIN. 1% GRADE UNLESS NOTED OTHERWISE.
- CONTRACTOR MUST VERIFY THAT ALL PIPE LEVELS AND GRADES CAN BE ACHIEVED PRIOR TO CONSTRUCTING DRAIN LINES. ANY CONFLICT SHALL BE REPORTED TO THE SUPERINTENDENT FOR ANY NECESSARY ALTERATIONS PRIOR TO ANY CONSTRUCTION OF CONNECTING PIPEWORK
- WHERE PIPES ARE TO BE LAID WITHIN THE ZONE OF INFLUENCE OF STRUCTURAL LOADINGS (e.g. BUILDING FOOTINGS, RETAINING WALLS...etc). THE BUILDER SHALL PROVIDE ADEQUATE BRIDGING / PROTECTION. WHERE ANY DOUBT MAY EXIST REFERENCE SHALL BE MADE TO THE DESIGNER OF THE STRUCTURE.
- BENCHING OF PIT STRUCTURES SHALL HAVE A SMOOTH FINISHED SURFACE, AND PIPES SHALL NOT PROJECT INSIDE THE SHAFT OF THE PIT.
- WHERE RECTANGULAR PIT STRUCTURES ARE USED, PIPES MUST NOT CONNECT TO THE PIT AT CORNERS.
- ALL CONSTRUCTION AND EXCAVATIONS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT REQUIREMENTS OF THE WORK HEALTH AND SAFETY ACT 2011 AND SUBSEQUENT AMENDMENTS.
- ALL STORMWATER PIPES SHALL BE CLASS '2' (UNO) R.C. PIPES UNLESS AN ALTERNATIVE IS APPROVED BY THE SUPERINTENDENT PRIOR TO CONSTRUCTION.
- ALL TEMPORARY ROOFWATER OUTLETS TO BE EXCAVATED AT 1 IN 200 TO NATURAL SURFACE.
- ALL ROOFWATER PIPES CROSSING CONCRETE FOOTPATHS ARE TO BE INSTALLED PRIOR TO CONSTRUCTION OF CONCRETE FOOTPATHS
- INSTALL 150mm DIAMETER PVC ROOFWATER HOUSE CONNECTION STUB INTO ROOFWATER PITS. INSTALL AT 750mm DEPTH TYPICAL OR 50mm FROM THE BASE OF PIT (WHICHEVER IS SHALLOWER).

REFERENCE POINT LOCATION FOR DRAINAGE STRUCTURES

STRUCTURE TYPE	HORIZONTAL CONTROL POINT [REFERENCE POINT LOCATION]	VERTICAL CONTROL REFERENCE LEVEL
MANHOLE	CENTRELINE OF MAIN SHAFT	FINISHED SURFACE LEVEL AT CENTRE OF MAIN SHAFT
GULLY PIT OVER MANHOLE	CENTRE OF GULLY PIT	LIP LEVEL
GULLY PIT (LIP IN LINE)	CENTRE OF GULLY PIT	LIP LEVEL
HEADWALL	INTERSECTION OF HEADWALL FACE AND PIPE CENTRE LINE	INVERT LEVEL
FIELD INLET	CENTRE OF PIT	TOP OF CONCRETE PIT
ROOFWATER PIT	CENTRE OF PIT	TOP OF GRATE

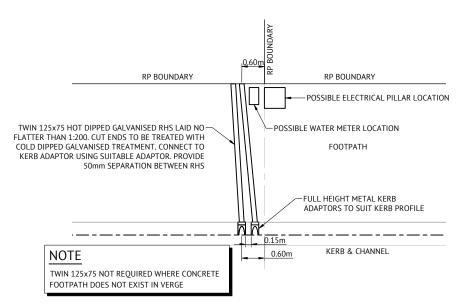
EXCAVATION IN ROCK NOTE:

CONTRACT SHALL INCLUDE TREATING, SIZING CONDITIONING AND PROCESSING ALL TYPES OF ROCK IN ALL EXCAVATIONS. PROCESSING TO BE COMPLETED AS PER MORRISON GEOTECHNICAL REPORTS TO ENSURE LEVEL 1 IS ACHIEVED.

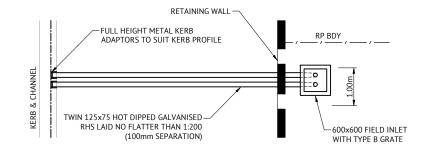
TRENCH SPOIL NOTE:

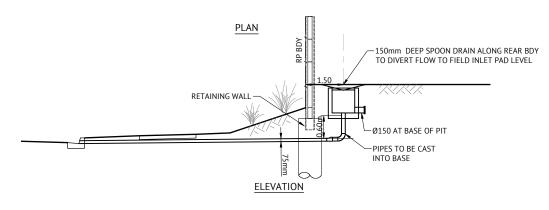
SPOILAGE OF EXCESS MATERIAL TO BE PLACED INTO THE SOUTHERN DAM REHABILITATION AREA INCLUDING ALL LEVEL ONE COMPACTION REQUIREMENTS AND TESTING IN ACCORDANCE WITH MORRISON GEOTECHNICAL SPECIFICATION AND ALL LOCAL AUTHORITY STANDARDS, AND SHALL BE FREE DRAINING.

EAD AGNICEDITATION

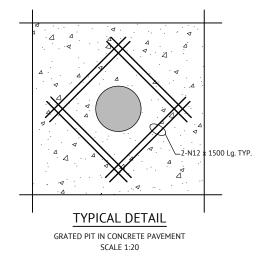


TYPICAL ROOFWATER KERB ADAPTOR **OUTLET DETAIL**





TYPICAL ROOFWATER PROPERTY PIT TO KERB ADAPTOR OUTLET DETAIL



FOR CONSTRUCTION		
ISSUED FOR CONSTRUCTION	KK	PB
ISSUED FOR APPROVAL	KK	PB

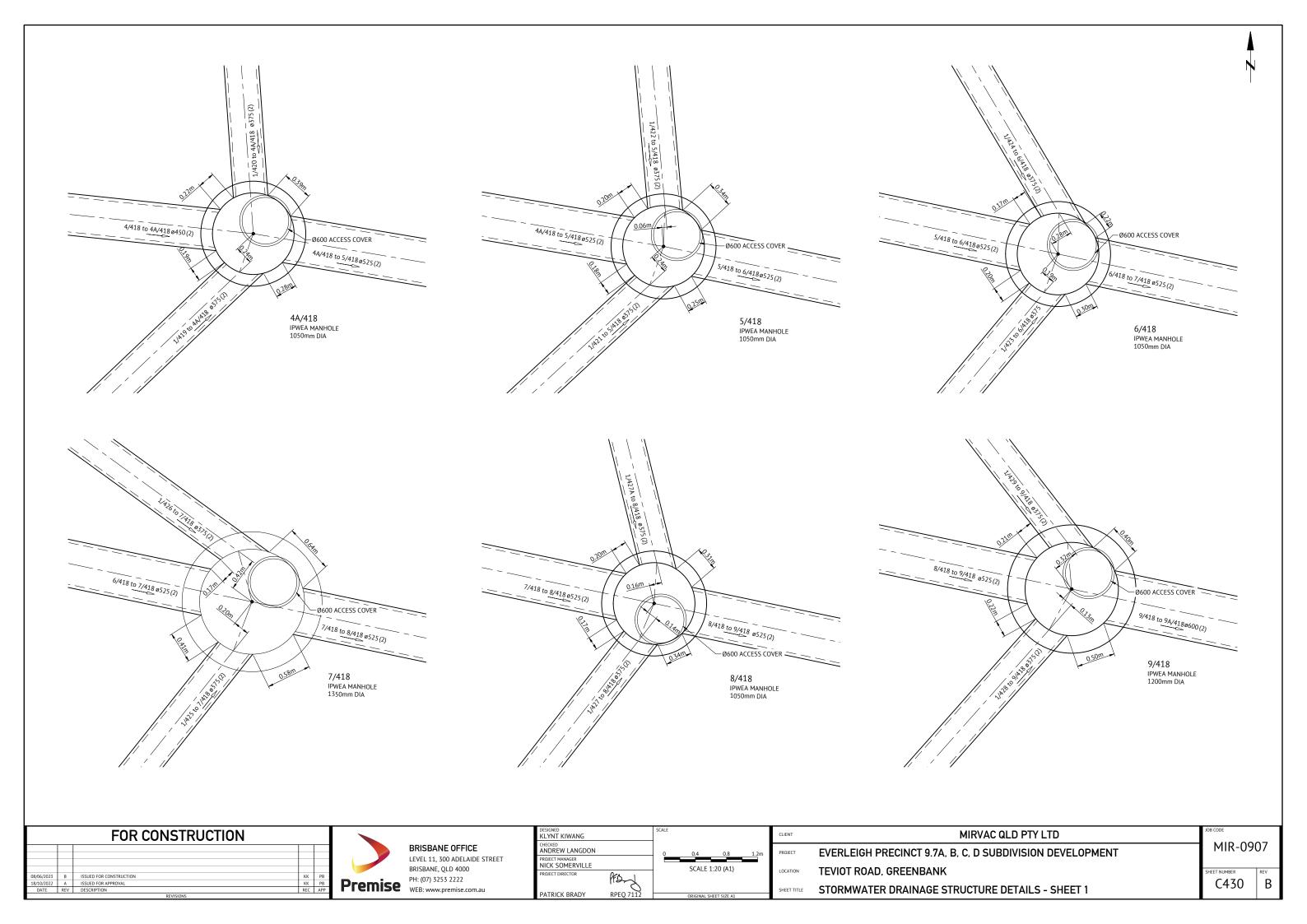


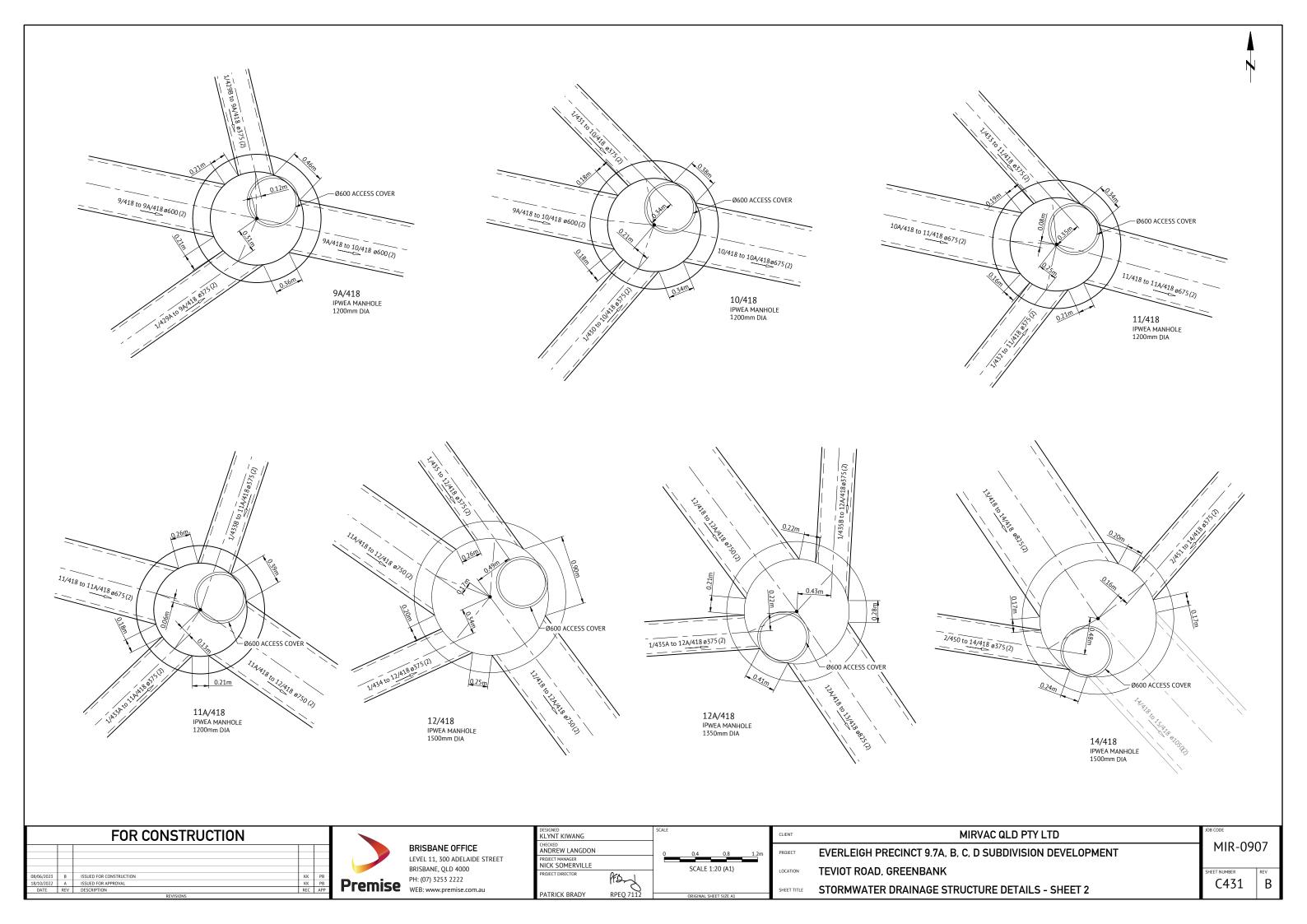
BRISBANE OFFICE LEVEL 11, 300 ADELAIDE STREET BRISBANE, QLD 4000 PH: (07) 3253 2222

DESIGNED KLYNT KIWANG		SCALE
KLTINI KIWANG		
CHECKED ANDREW LANGDON		
PROJECT MANAGER NICK SOMERVILLE		NTS
PROJECT DIRECTOR	Pronj	
PATRICK BRADY	RPEO 7112	
PATRICK BRADY	KPEQ /112	ORIGINAL SHEET SIZE A1

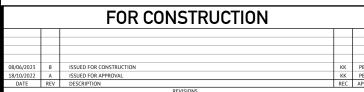
CLIENT	MIRVAC QLD PTY LTD
PROJECT	EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT
LOCATION	TEVIOT ROAD, GREENBANK
SHEET TITLE	STORMWATER DRAINAGE NOTES AND DETAILS

MIR-0907 C420





		LOCATION		TIME	SUI	B-CAT	CHMEN	NT RUNG	OFF		IN	LET DE:	SIGN					DI	RAIN D	ESIGN								HE	ADLC	SSES					PA	RT FULL			D	SIGN LEV	√ELS		
			tc		_	A	CA	Q				Q	g Qb		tc	CA		Qp L		S			Vf=Q/A			STRUC	TURE RAT	IOS V2/	′2g	Ku hi	ı Kw	hw	Sf		dn	Vn V	1						
STRUCTURE NUMBER	DOWNSTREAM STRUCTURE	SUB-CATCHMENTS CONTRIBUTING	SUB-CATCHMENT TIME OF CONCENTRATION	RAINFALL INTENSITY	CO ELLICIENT OF AGEN		EQUIVALENT AREA	SUB-CATCHMENT DISCHARGE FLOW IN K&C	(INC. BYPASS) FLOW WIDTH	FLOW DEPTH	ROAD GRADE AT INLET	HALF ROAD CAPACITY	BYPASS FLOW	BYPASS STRUCTURE NUMBER	CRITICAL TIME OF CONCENTRATION	TOTAL (C x A)	SUM ADDITIONAL PIPE FLOW	PIPE FLOW		PIPE GRADE	PIPE/BOX DIMENSIONS	CLASS	FULL PIPE VELOCITY	TIME OF FLOW IN REACH	CHARTS USED	Qg/Qo	Du/Do	S/D0 VFI OCITY HFAD	UPSTREAM HEADI OSS	CO-EFFICIENT	W.S.E. CO-EFFICIENT	CHANGE IN W.S.E.	S	PIPE FRICTION HEADLOSS (L × Sf)	. DEРТН	NORMAL DEPTH VELOCITY (MINOR STORM) NORMAL DEPTH VELOCITY		DOWNSTREAM OBVERT	UPSTREAM H.G.L.	DOWNSTREAM H.G.L.	W.S.E.	SURFACE OR GRATE LEVEL	STRUCTURE NUMBER
			min		h	_	_		l/s m			-	l/s		min mn			l/s n		%	mm		m/s	min				m		n		m	%		m	m/s m		m	m	m	m	m	
4/418	4A/418	1/418A 1/418 2/418 3/418	0.00	0	0.00	0.0	000 0	0			2.96	0	0		8.48 16	0.648	0 2	27 27.2	3.9	951 45	50	2	1.42	0.13	34 37			0.10	3 0.	00.00	0	0.000	3.68	1.052	0.198	3.36 2.8	2 67.10	64.598	66.546	65.543	66.546	68.156	4/418
4A/418	5/418	1/420 1/419 1/418A 1/418 2/418 3/418													8.10 16	0.990	0 3	60 49.8	84 1.8	373 52	25	2	1.66	0.31		0.00	1.00 1.1	0.14	1 0.	56 0.07	9	0.079	1.65	0.885	0.297	2.85 2.4	2		65.464	64.642	65.543	67.335	4A/418
5/418	6/418	1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418													8.41 166	1.348	0 5	00 43.8	59 5.0	000 52	25	2	2.31	0.16	34 37	0.00	1.00 1.1	14 0.27	3 0.	26 0.07	2	0.072	4.76	2.122	0.269	4.49 3.7	6 64.59	62.473	64.570	62.484	64.642	65.591	5/418
6/418	7/418	1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418													8.54 16	1.578	0 6	20 52.2	54 4.6	557 52	25	2	2.86	0.20		0.00	1.00 1.1	0.41	9 0.	23 0.09	8	0.098	4.40	2.317	0.314	4.59 3.8	3		62.386	60.088	62.484	63.548	6/418
7/418	8/418	1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418													8.74 164	1.921	0 7	56 30.9	30 4.9	928 52	25	2	3.49	0.12	33 34	0.00	1.00 1.2	0.62	2 0.	23 0.14	.0	0.140	4.34	1.353	0.352	4.89 4.1	1 60.66	58.239	59.947	58.604	60.088	60.936	7/418
8/418	9/418	1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418													8.84 16	2.198	0 8	31.6	08 5.2	274 52	25	2	4.09	0.12		0.00	1.00 1.3	0.85	2 0.	23 0.19	16	0.196	4.71	1.493	0.388	5.16 4.3	7		58.407	56.920	58.604	59.388	8/418
9/418	9A/418	1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418													8.96 163	2.410	0 9	92 48.3	67 4.4	168 60	00	2	3.51	0.18	33 34	0.00	1.00 1.2	23 0.62	8 0.	22 0.13	7	0.137	4.13	2.009	0.393	5.06 4.1	9 56.48	53.076	56.782	54.787	56.920	57.817	9/418
9A/418	10/418	1/429B 1/429A 1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418													8.87 16	2.730	0 1	120 50.1	06 4.6	571 60	00	2	3.96	0.18		0.00	1.00 1.3	0.80	0.1	22 0.17	8	0.178	3.84	1.935	0.423	5.26 4.4	1		54.609	52.683	54.787	55.632	9A/418
10/418	10A/418	1/431 1/430 1/429B 1/429A 1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418													9.05 16	3.060	0 1	270 6.63	4 2.9	987 67	75	2	3.55	0.03	33 34	0.00	1.00 1.5	51 0.64	3 0.	23 0.14	.5	0.145	2.28	0.151	0.489	4.58 3.8	3 53.07	49.870	52.537	52.386	52.683	53.707	10/418
10A/418	11/418	1/438 1/431 1/430 1/4298 1/429A 1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418	0.00	0	0.00	0.0	000 0) 25	5		0	0	25	1/433	9.03 16.	3.201	0 1	323 31.6	54 3.4	101 67	75	2	3.70	0.12		0.00	1.00 1.4	10 0.69	7 0.	21 0.14	8	0.148	2.47	0.783	0.480	4.87 4.0	7		52.238	51.455	52.386	53.468	10A/418
11/418	11A/418	1/433 1/432 1/438 1/431 1/430 1/429B 1/429A 1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418													9.15 16:	3.461	0 1	142 39.7	54 2.8	364 67	75	2	4.03	0.17		0.00	1.00 1.6	54 0.82	9 0.	22 0.18	:5	0.185	2.94	1.170	0.562	4.53 3.8	9		51.270	50.100	51.455	52.329	11/418
11A/418	12/418	1/433B 1/433A 1/433 1/432 1/438 1/431 1/430 1/429B 1/429A 1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418													9.20 16:	3.736	0 1	560 44.1	54 3.5	551 75	50	2	3.53	0.16	34 37	0.00	1.00 1.2	0.63	7 0.	31 0.19	9	0.199	3.14	1.412	0.482	5.20 4.2	8 49.85	47.280	49.901	48.513	50.100	50.909	11A/418
12/418	12A/418	1/435 1/434 1/433B 1/433A 1/433 1/432 1/438 1/431 1/430 1/429B 1/429A 1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418													9.35 160	4.003	0 1	574 36.3	45 4.0	000 75	50	2	3.79	0.12		0.00	1.00 1.2	26 0.73	2 0.	26 0.19	2	0.192	3.59	1.323	0.485	5.53 4.5	5		48.321	47.018	48.513	49.327	12/418
12A/418	13/418	1/435B 1/435A 1/435 1/434 1/433B 1/433A 1/433 1/435 1/438 1/431 1/430 1/429B 1/429A 1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418													9.44 159	4.288	0 1	791 24.4	37 4.4	460 82	25	2	3.35	0.07	34	0.00	1.00 1.1	0.57	3 0	22 0.12	5	0.125	1.76	0.469	0.456	5.91 4.7	9 47.26	45.958	46.893	46.462	47.018	48.028	12A/418
13/418	14/418	1/449 1/440 2/440 3/440 5/440 1/448 1/447 1/446 2/446 1/445 5/444 6/444 1/443 1/442 1/437 1/441 1/439 1/436 2/436 1/435B 1/435A 1/435 1/434 1/435B 1/435A 1/433 1/432 1/438 1/431 1/430 1/429B 1/429A 1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418													9.20 16:	. 7.523	0 3	249 31.1	90 1.2	262 10	050	4	3.75	0.15	34 37	0.00	1.00 1.:	57 0.71	.8 0.1	66 0.47	3	0.473	1.41	0.441	0.932	4.00 3.4	3 45.65	45.024	45.990	45.549	46.462	47.148	13/418



Premise PH: (07) 3253 2222
WEB: www.premise.com.au

BRISBANE OFFICE LEVEL 11, 300 ADELAIDE STREET BRISBANE, QLD 4000

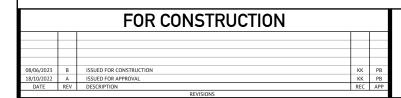
DESIGNED KLYNT KIWANG			
CHECKED ANDREW LANGDON			
PROJECT MANAGER NICK SOMERVILLE			
PROJECT DIRECTOR	Oca	1	

EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT TEVIOT ROAD, GREENBANK STORMWATER CALCULATIONS 10% AEP STORM - SHEET 1

MIRVAC QLD PTY LTD

MIR-0907

LOCATIO		TIME	_		HMENT	RUNC)FF			INLET	DESIGN								N DESIG	N								HEADI						_	RT FULL			D	ESIGN LE	VELS		
		I C	A	C/	A Q	<u> </u>			_		Qg (Ďρ	to	: 1	CA		Qp	L	S			Vf=Q/A			STRUC	CTURE R.	ATIOS	V2/2g	Ku	hu	Kw h	w Sf		dn	Vn \	1	+-				+	_
STRUCTURE NUMBER DOWNSTREAM STRUCTURE	SUB-CATCHMENTS CONTRIBUTING SUB-CATCHMENT	RAIN CO-E	+	FOLIVALENT ARE,	SUB-CATCHIM	PISCH	(INC. BYPASS)	FLOW FLOW	ROAD	HALF ROAD CAPACITY	FLOW INTO INLET		CRITICAL TIME OF	CONCENT	TOTAL (C × A)	SUM ADDITIONAL		REACH LENGTH	PIPE GRADE	PIPE/BOX DIMENSIONS	CLASS	FULL PIPE	TIME OF FLOW IN REACH	CHARTS USED	09/00	Du/Do	S/Do	VELOCITY	UPSTREAM HEADLOSS CO-EFFICIENT	UPSTREAM HEADLOSS	W.S.E. CO-EFFICIENT	PIPE FRIC	PIPE FRICTION (L x Sf)	NORMAL DEPTH	NORMAL (MINOR S' NORMAL	(1 YEAR STORM) UPSTREAM OBVERT LEVEL			_	W.S.E.	SURFACE OR GRATE LEVEL	STRUCTURE
14/418	mi	n mm/h	ha	h	a l/:	s l,	/s ı	m m	%	l/s	l/s l	/s	mi	n mm	h ha	l/s	l/s	m	%	mm		m/s	min					m		m	n	1 %	m	m	m/s m	/s m	m	m	m	m	m	
1/418 1/419 4A/418	8.00	168 0.87	0.210	0.18	2 85	85	2.4	521 0.07	14 2 09	909	70 16	1/42	L 8.0	168	0.182	0	70	9.487	1.014	77 5	2	0.63	0.10		1.00		1.52	0.020	0.60	0.195	0.10	5 1.29	0.086	0.164	1.50 1.2		+-	66.270	66 146	45.647 66.464		
1/420 4A/418		168 0.87		_	_	82	_	507 0.07		+	67 14	1/42	_	_	0.175	0	_	4.807	1.002				0.10		1.00			0.019			0.18	_	0.038	0.161	1.48 1.2		+-	66.130		66.314		
1/421 5/418			0.201	_	8 83	99	_	637 0.07		_		1/42	_		0.178	0		9.255	1.014				0.10	32	1.00			0.023			0.21	_	0.017	+		5 64.952	64.858		_		_	
1/422 5/418		168 0.87		_	9 84	98		504 0.07	_	_		1/42		_		0		4.840	1.004				0.05		1.00	-		0.023				9 0.18		_		5 64.795	_			64.849	_	
1/423 6/418	8.00	168 0.87	0.143	0.12	4 58	82	2.3	349 0.06	57 5.00	1170	65 17	1/42	8.0	168	0.124	0	65	8.553	1.008	375	2	0.59	0.09		1.00		1.46	0.018	9.70	0.171	0.17	1 0.15	0.053	0.158	1.47 1.1	3		62.497	62.484	62.668	63.62	27 1/4
1/424 6/418	8.00	168 0.87	0.124	0.10	8 50	75	2.2	257 0.06	5 5.00	1176	61 14	1/42	5 8.0	168	0.108	0	61	5.903	1.286	375	2	0.55	0.06		1.00		1.40	0.015	9.70	0.149	0.14	19 -0.01	0.040	0.143	1.56 1.1	7		62.484	62.484	62.633	63.62	20 1/42
1/425 7/418	8.00	168 0.87	0.192	0.16	78	95	2.4	477 0.07	0 5.00	1182	72 23	1/42	7 8.0	168	0.167	0	72	8.451	1.008	375	2	0.65	0.09	32	1.00		1.63	0.022	9.00	0.196	0.19	0.17	0.014	0.168	1.51 1.2	2 60.962	60.877	60.102	60.088	60.298	61.00	03 1/4
1/426 7/418	8.00	168 0.87	0.202	0.17	6 82	96	2.4	491 0.07	1 5.00	1176	73 23	1/42	7A 8.0	168	0.176	0	73	11.007	3.859	375	2	0.66	0.06	32	1.00		1.56	0.022	9.40	0.208	0.20	0.73	0.138	0.118	2.46 1.9	9 61.029	60.919	60.169	60.088	60.378	61.32	28 1/42
1/427 8/418	8.00	168 0.87	0.165	0.14	4 67	90	2.4	421 0.06	5.00	1187	69 21	1/42	8.0	168	0.144	0	69	8.450	1.006	375	2	0.63	0.09		1.00		1.73	0.020	8.46	0.170	0.17	0.16	0.013	0.164	1.49 1.1	7		58.617	58.604	58.787	59.45	54 1/4
1/427A 8/418		168 0.87	_	_	5 63	87	_	415 0.06		_		1/42			0.135	0	+	5.079	1.011		_		0.05		1.00		1.86		7.76		0.14		0.008	0.161	1.48 1.1	_		58.611		58.759		
1/428 9/418			0.131	_	.4 53	74		252 0.06	_	_			9A 8.0		0.114	0	_	8.708		375			0.09	32	1.00		1.39			0.147	0.14			0.148		4 56.991	56.858		_	57.074	_	
1/429A 9A/418			0.188	_	-	90	_	512 0.07		+		1/43	_			0	_	10.026	1.393				0.09		1.00			0.020			0.19			0.150	1.68 1.3			54.797				
1/429B 9A/418			0.208	_	84	94	_	562 0.07				1/43	_		0.181	0	_	5.085	1.009				0.05	73	1.00			0.022				3 0.17			1.51 1.2	_	56.046	54.796				
1/429 9/418 1/430 10/418		168 0.87 168 0.87		_	_	10	_	142 0.06		_		1/42	9B 8.0		0.098	0	+	7.239 8.604	2.779	375			0.05		1.00		1.33			0.122	0.12			+		9 56.999	_		_	57.044		_
						10		764 0.07			87 20				0.185	10					2										0.26		0.023	0.187		6 53.491						
1/431 10/418	8.00	168 0.87	0.167	0.14	5 68	90	2.5	593 0.07	3.61	997	77 14	10A/4	18 8.0	168	0.145	0	77	8.367	2.260	375	2	0.69	0.06	32	1.00		1.60	0.025	9.16	0.225	0.22	25 0.24	0.077	0.139	2.05 1.5	6 53.528	53.395	52.703	52.683	52.928	53.84	49 1/4
1/432 11/418	8.00	168 0.87	0.139	0.12	1 56	76	2.4	428 0.06	3.60	998	62 15	1/43	3A 8.0	168	0.121	0	62	8.391	1.010	375	2	0.56	0.09		1.00		1.57	0.016	9.35	0.148	0.14	8 0.12	0.010	0.153	1.45 1.1	2		51.465	51.455	51.613	52.34	42 1/4
1/433 11/418	8.00	168 0.87	0.161	0.14	0 65	90	2.5	594 0.07	3.60	994	69 21	1/43	3B 8.0	168	0.140	0	69	7.870	2.156	375	2	0.63	0.06		1.00		1.52	0.020	9.61	0.194	0.19	0.15	0.012	0.134	1.96 1.5	2		51.467	51.455	51.661	52.45	50 1/4
1/433A 11A/418	8.00	168 0.87	0.142	0.12	4 58	72	2.2	257 0.06	3.81	1131	59 13	1/43	8.0	168	0.124	0	59	8.132	1.006	375	2	0.54	0.09	32	1.00		1.70	0.015	8.63	0.127	0.12	0.11	0.009	0.150	1.43 1.1	2 50.168	50.086	50.110	50.100	50.237	50.91	10 1/43
	9.00	168 0.87	0.104	0.16	0 70	10	0 20	247 0.07	7 7 41	017	75 25	1/43	- 0.0	160	0.160		75	4.074	1.014	775	1,	0.60	0.05	7.7	1.00		200	0.037	. 77	0.157	0.15	7 010	0.000	0.170	1 57 1 1	7 50.066	F0.011	FO 100	F0 100	50.266	FO 01	12 1/43
1/433B 11A/418								843 0.07			75 25					0		4.834	1.014		2		0.05	52	1.00			0.023			0.15		0.009			3 50.060	50.011	50.109				
1/434 12/418			0.146		7 59	_	_	360 0.06		+		_	5A 8.0	_		0	+	8.044	1.011				0.09		1.00			0.015				0.11		+	1.43 1.1			48.523	_	48.646		
1/435 12/418	8.00	168 0.87	0.161	0.14	65	90	2.6	652 0.07	3.46	427	69 21	1/43	5B 8.0	168	0.140	0	69	14.102	3.205	375	2	0.63	80.0		1.00		1.52	0.020	9.61	0.194	0.19	0.51	0.129	0.120	2.27 1.7	5	+-	48.587	48.513	48.781	49.74	40 1/4
1/435A 12A/418	8.00	168 0.87	0.136	0.11	.8 55	68	2.3	325 0.06	3.60	997	57 11	1/45	8.0	168	0.118	0	57	8.997	1.009	375	2	0.52	0.10	32	1.00		1.35	0.014	9.70	0.132	0.13	0.02	0.009	0.147	1.42 1.1	1 47.443	47.366	47.020	47.018	47.151	48.07	71 1/43
1/435B 12A/418	8.00	168 0.87	0.197	0.17	1 80	10	1 2.6	699 0.07	6 3.60	1002	75 25	1/45	8.0	168	0.171	0	75	7.600	2.124	375	2	0.68	0.06	32	1.00		1.59	0.024	9.24	0.219	0.21	.9 -0.38	0.027	0.141	1.99 1.5	9 47.598	47.527	46.988	47.018	47.208	48.13	36 1/43
1/448 1/	13/ 1/441 1/439	0	0.000	0.00	0 0	0					0 0		8.7	7 163	3.068	0	1388	4.880	3.000	825	2	2.60	0.02					0.344	0.00	0.000	0.00	0.93	0.046	0.441	4.78 3.8	2		47.087	47.042	47.087	48.26	62 8A/4
9/436 10/436 1/448 1/ 1/445 5/ 1/442 1/ 1/436 2/	137 1/441 1/439 136												8.7	3 163	3.238	0	1464	8.000	2.500	825	2	2.74	0.03		0.00	1.00	1.48	0.383	0.22	0.083	0.08	33 1.04	0.083	0.482	4.51 3.6	3		46.959	46.876	47.042	48.14	43 9/4:
10/436 13/418 2/446 1/ 1/443 1/4	140 2/440 3/440 148 1/447 1/446 145 5/444 6/444 142 1/437 1/441 136 2/436												8.8	1 163	3.272	0	1478	31.500	2.450	825	2	2.77	0.12	33 34	0.00	1.00	1.54	0.390	0.20	0.079	0.07	79 1.06	0.334	0.488	4.49 3.6	1 46.613	45.520	46.796	46.462	46.876	47.94	48 10/4
1/438 2/438	8.00	168 0.87	0.168	0.14	68	68	2.3	348 0.06	3.50	2204	57 11	10A/4	18 8.0	168	0.146	0	57	1.678	1.249	375	2	0.51	0.02		1.00		1.35	0.014	9.70	0.131	0.13	3.10	0.004	0.140	1.51 1.2	5		53.343	53.289	53.474	54.48	86 1/4
2/438 _{10A/418} 1/438													8.0	168	0.146	0	57	31.507	3.500	375	2	0.51	0.18		0.00	1.00	1.10	0.013	2.09	0.028	2.66 0.03	6 1.15	0.414	0.106	2.23 1.8	4		52.747	52.386	52.783	54.48	82 2/4
4/440 5/440 1/440 2/	140 3/440 0.00	0	0.000	0.00	0 0	0					0 0		5.4	9 186	0.123	0	63	2.000	1.000	300	uPVC SN8	0.89	0.02					0.041	0.00	0.000	0.00	00 0.31	0.006	0.159	1.66 1.3	2	1	47.209	47.203	47.209	47.65	50 4/4
5/440 9/436 1/440 2/	140 3/440 5.00	189 0.85	0.055	0.04	7 25	25		0.04	14	28	25 0	1/45	5.5	1 185	0.170	0	87	39.592	1.000	375	0.110	0.79	0.42	32	0.28	0.80	2.12	0.032	1.98	0.063	2.39 0.07	6 0.25	0.098	0.187	1.59 1.2	6 50.69?	50.591	47.140	47.042	47.216	47.65	50 5/4
1/449 10/436		182 0.88		_				452 0.04		_		1/45	_		0.034	_			1.213				0.03		1.00			0.001								4 46.165						_
1/450 2/450	8.00	168 0.87	0.160	0.13	9 65	76	2.4	425 0.06	9 3.60	456	61 15	2/45	8.0	168	0.139	0	61	14.698	3.116	375	2	0.56	0.09	32	1.00		1.29	0.016	7.00	0.111	0.11	1 0.12	0.018	0.113	2.18 1.7	4 45.667	45.209	45.663	45.645	45.773	46.70	05 1/4
2/450 14/418 1/450	8.00	168 0.87	0.054	0.04	7 22	36	1.8	321 0.05	5 3.98	986	36 0	1/45	8.0	167	0.185	0	98	9.866	1.026	375	2	0.88	0.11	32	0.37	1.00	2.22	0.040	1.64	0.065	1.70 0.06	0.31	0.031	0.200	1.63 1.2	6 45.189	45.089	45.580	45.549	45.647	46.14	42 2/4
4/454 2/454	8.00	168 0.87	0.147	0.12	8 60	85	2.5	545 0.07	2 3.60	450	67 19	2/45	8.0	168	0.128	0	67	26.035	3.607	375	2	0.60	0.14	32	1.00		1.35	0.019	7.00	0.130	0.13	0.43	0.166	0.114	2.35 1.7	9 45.757	45.023	45.765	45.654	45.895	46.92	29 1/4
1/451 2/451		168 0.87		_	_	_							-	-		_					_		0.05		_					-	1.85 0.09						-					





DESIGNED KLYNT KIWANG		SCALE
CHECKED ANDREW LANGDON		
PROJECT MANAGER NICK SOMERVILLE		
PROJECT DIRECTOR	PROM	
PATRICK BRADY	RPEQ 7112	ORIGINAL SHEET SIZE A1

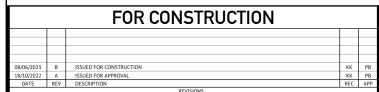
CLIENT	MIRVAC QLD PTY LTD
PROJECT	EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT
LOCATION	TEVIOT ROAD, GREENBANK
SHEET TITLE	STORMWATER CALCULATIONS 10% AEP STORM - SHEET 2

MIR-0907

C441

В

		LOCATION	TIME	SUB-	CATCH	IMENT R	RUNOFF	I	NLET D	ESIGN					C	DRAIN DE	SIGN								HEA	ADLOSS	SES					PART	FULL			DESIG	N LEVI	ELS			RU	JNOFF	
			tc I C	А	CA	, Q		Qg	Qb		tc	ı	CA		Qp	L S	5		Vf=Q	/A		STR	RUCTURE	RATIOS	V2/2g	Ku	hu	Kw	hw	Sf	_	dn	Vn									$\overline{}$	—
STRUCTURE NUMBER	DOWNSTREAM STRUCTURE	SUB-CATCHMENTS CONTRIBUTING	SUB-CATCHMENT TIME OF CONCENTRATION RAINFALL INTENSITY CO-FFEICIENT OF RUNDE		EQUIVALENT AREA		시연기	ROAD GRADE AT INLET FLOW INTO INLET	BYPASS FLOW	BYPASS STRUCTURE NUMBER	CRITICAL TIME OF CONCENTRATION	RAINFALL INTENSITY	L (C × A)	SUM ADDITIONAL PIPE FLOW	PIPE FLOW	REACH LENGTH			CLASS FULL PIPE VELOCITY	PF F	IN KEACH	CHARLS USED Oa/Oo		S/Do	VELOCITY HEAD	UPSTREAM HEADLOSS CO-EFFICIENT	UPSTREAM HEADLOSS	W.S.E. CO-EFFICIENT	CHANGE IN W.S.E.	PIPE FRICTION SLOPE	PIPE FRICTION HEADLOSS (L x Sf)	NORMAL DEPTH	NORMAL DEPTH VELOCITY	UPSTREAM OBVERT LEVEL	DOWNSTREAM OBVERT LEVEL	UPSTREAM H.G.L.	DOWNSTREAM HG.	:	W.S.E.	SURFACE OR GRATE LEVEL		MAJOR SURFACE FLOW DEPTH × VELOCITY PRODUCT	STRUCTURE NUMBER
			min mm/h	ha	_	_		% l/s				mm/h	ha	l/s		m 9	ś m	m	m/s						m	1	m		m	%	m	m	m/s	m	m	m	n	_	-	m		l/s m ² /s	
4/418	4A/418	1/418A 1/418 2/418 3/418	0.00 0	0.000	0.000	0 0	0	2.96 0	0		8.48	247	0.761	0	317 27.	285 3.95	1 450	2	2.00	0.13	34 37				0.203	0.00	0.000		0.000	3.86	1.074	0.241	3.66	67.103	64.598	66.601	65.5	19 66.6	01 6	8.156	0	,	4/418
4A/418	5/418	1/420 1/419 1/418A 1/418 2/418 3/418									8.10	251	1.153	0	413 49.	884 1.87	3 525	2	1.91	0.31	L	0.00	0 1.00	1.11	0.186	0.31	0.058		0.058	1.67	0.885	0.324	2.94			65.490	64.6	65.5	49 6	7.335			4A/418
5/418	6/418	1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418									8.38	248	1.562	0	533 43.	859 5.00	0 525	2	2.46	0.16	34 37	0.00	0 1.00	1.15	0.309	0.25	0.078		0.078	4.75	2.112	0.279	4.56	64.598	62.473	64.580	62.49	98 64.6	58 6	5.591			5/418
6/418	7/418	1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418									8.54	247	1.829	0	651 52.	254 4.65	57 525	2	3.01	0.20)	0.00	0 1.00	1.21	0.462	0.23	0.108		0.108	4.38	2.307	0.324	4.64			62.390	60.10	00 62.4	98 6	3.548			6/418
7/418	8/418	1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418									8.72	245	2.221	0	783 30.	980 4.92	8 525	2	3.62	0.12	33 34	0.00	0 1.00	1.29	0.667	0.23	0.151		0.151	3.65	1.140	0.362	4.92	60.669	58.239	59.949	58.83	18 60.1	00 60	0.936			7/418
8/418	9/418	1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418									8.84	244	2.542	0	862 31.	608 5.27	4 525	2	3.98	0.12	2	0.00	0 1.00	1.77	0.809	0.22	0.179		0.179	4.02	1.269	0.380	5.14			58.639	57.36	59 58.8	18 59	9.388			8/418
9/418	9A/418	1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418									8.70	245	2.756	0	1152 48.	367 4.46	68 600	2	4.07	0.18	3 33 34	0.00	0 1.00	1.94	0.847	0.24	0.204		0.204	3.52	1.701	0.440	5.19	56.481	53.076	57.166	55.46	55 57.3	69 57	7.817			9/418
9A/418	10/418	1/429B 1/429A 1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418									8.87	243	3.152	0	1237 50.	106 4.67	1 600	2	4.37	0.18	3	0.00	0 1.00	2.40	0.976	0.21	0.208		0.208	4.05	2.031	0.459	5.33			55.257	53.22	27 55.4	65 5!	5.632			9A/418
10/418	10A/418	1/431 1/430 1/429B 1/429A 1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418									9.05	242	3.532	0	1349 6.6	34 2.98	675	2	3.77	0.03	3 33 34	0.00	0 1.00	2.32	0.725	0.22	0.159		0.159	2.57	0.171	0.514	4.61	53.076	49.870	53.068	52.89	97 53.2	27 5:	3.707			10/418
10A/418	11/418	1/438 1/431 1/430 1/429B 1/429A 1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418	0.00 0	0.000	0.000	0 0	459	0	459	1/433	9.03	242	3.693	0	1425 31.	654 3.40	675	2	3.98	0.12	2	0.00	0 1.00	2.15	0.809	0.22	0.175		0.175	2.87	0.909	0.510	4.91			52.722	51.83	12 52.8	97 5:	3.468	4	1 59	10A/418
11/418	11A/418	1/433 1/432 1/438 1/431 1/430 1/429B 1/429A 1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418									9.15	241	3.992	0	1525 39.	764 2.86	675	2	4.26	0.17	7	0.00	0 1.00	2.17	0.927	0.22	0.203		0.203	3.29	1.308	0.618	4.44			51.609	50.30	01 51.8	12 5	2.329			11/418
11A/418	12/418	1/433B 1/433A 1/433 1/432 1/438 1/431 1/430 1/429B 1/429A 1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418									9.32	239	4.329	0	1712 44.	154 3.55	1 750	2	3.87	0.16	34 37	0.00	0 1.00	1.48	0.766	0.36	0.276		0.276	2.36	1.043	0.515	5.29	49.850	47.280	50.024	48.98	31 50.3	01 50	0.909			11A/418
12/418	12A/418	1/435 1/434 1/433B 1/433A 1/433 1/432 1/438 1/431 1/430 1/429B 1/429A 1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418									9.35	239	4.615	0	1931 36.	345 4.00	750	2	4.37	0.12	2	0.00	0 1.00	1.84	0.974	0.26	0.255		0.255	3.00	1.092	0.540	5.67			48.726	47.6	34 48.9	81 4	9.327			12/418
12A/418	13/418	1/435B 1/435A 1/435 1/434 1/433B 1/433A 1/433 1/432 1/438 1/431 1/430 1/429B 1/429A 1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418									9.44	238	4.942	0	2235 24.	437 4.46	60 825	2	4.18	0.07	7 34	0.00	0 1.00	1.83	0.892	0.23	0.204		0.204	2.42	0.592	0.527	6.20	47.260	45.958	47.430	46.8	37 47.6	34 4	8.028			12A/418
13/418	14/418	1/449 1/440 2/440 3/440 5/440 1/448 1/447 1/446 2/446 1/445 5/444 6/444 1/443 1/442 1/437 1/441 1/439 1/436 2/456 1/435B 1/435A 1/435 1/434 1/433B 1/433A 1/433 1/432 1/438 1/431 1/430 1/429B 1/429A 1/429 1/428 1/427A 1/427 1/426 1/425 1/424 1/423 1/422 1/421 1/420 1/419 1/418A 1/418 2/418 3/418									9.20	240	8.667	0	3678 31.	190 1.26	2 1050	4	4.25	0.15	5 34 37	0.00	0 1.00	1.93	0.921	0.55	0.511		0.511	1.81	0.565	1.050	4.25	45.650	45.024	46.327	45.70	61 46.8	37 4	7.148			13/418



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BRISBANE OFFICE LEVEL 11, 300 ADELAIDE STREET BRISBANE, QLD 4000

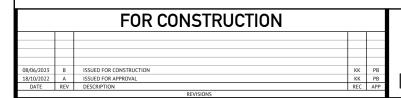
DESIGNED KLYNT KIWANG			9
CHECKED ANDREW LANGDON			
PROJECT MANAGER NICK SOMERVILLE]
PROJECT DIRECTOR	DER	1	1

	PROJECT
	LOCATIO
SHEFT SIZE A1	SHEET T

MIRVAC QLD PTY LTD EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT TEVIOT ROAD, GREENBANK STORMWATER CALCULATIONS 1% AEP STORM - SHEET 1

MIR-0907

LOCATION	TIME	S	UB-CA	АТСНМІ	ENT RU	INOFF		INLE	T DESIGN					D	RAIN D	ESIGN				\Box				HE	ADLO	SSES				PART	FULL		DESI	GN LEVE	LS		$\overline{\top}$	RUNOF	FF	
	tc I	_	Α	CA	Q		Ç	<u>Q</u>	Qb	tc	ı	CA	Qr	l		S		Vf	=Q/A	二		STRUC	TURE RA	TIOS V2/2	g Kı	u hu l	Kw	hw Sf	hf	dn	_						\blacksquare	$oldsymbol{oldsymbol{oldsymbol{\square}}}$	\prod	
STRUCTURE NUMBER DOWNSTREAM STRUCTURE SUB-CATCHMENTS CONTRIBUTING	SUB-CATCHMENT TIME OF CONCEN RAINFALL INTENS	CO-EFFICIENT OF	SUB-CATCHMENT AREA	EQUIN	SUB-CATCHMENT DISCHARGE	FLOW IN K&C (INC. BYPASS)			BYPASS FLUW BYPASS STRUCTURE NUMBER	CRITICAL TIME OF CONCENTRATION	RAINFALL INTENSITY	TOTAL (C × A)	PIPE	_	KEAC	PIPE GRADE	PIPE/BOX DIMENSIONS	CLASS	FULL PI	TIME OF FLOW IN REACH	CHARTS USED	Qg/Qo	00/ng	S/Do VELOCITY HEAD		CO-EFFICI UPSTREAN	W.S.E. CO-E	CHANGE IN W.S.E.	PIPE FRICTION (L × Sf)	오	NORMAL DEPTH VELOCITY	UPSTREAM OBVERT LEVEL		DOWNSTRE		SURFACE OR GRATE LEVEL	MAJOR SURFACE		DEPTH x VELOCI [·] PRODUCT	STRUCTURE NUMBER
14/418	min mm/h	_	ha	ha	l/s	l/S	% l,	/S L,	/s	min	nm/n	ha l/s	i l/s	r	n	%	mm	r	n/s	min				m	+	m	_	m %	m	m	m/s	m	m m	m	_	m	_	L/S	m ² /s	14/418
1/419 4A/418	8.00 252 1.	00 0	210	0.210	147	147	2.98 51	95	1/421	8.00	252 (0.210 0	51	9.48	17 11	014 3	75	2 0.4	7 (0.10		1.00	1	1.29 0.011	0.74	0 0.108		100 136	0.087	0.170	1.38		(()4	2 66.12	45.956) 147	0.10	1/419
1/420 4A/418	8.00 252 1. 8.00 252 1.			0.210			2.98 51	_				0.210 0	50	4.80			i75	2 0.4		0.10		1.00		1.27 0.011	_	0 0.108	_	108 1.26 102 1.51			_		66.10		_		_		0.10	1/419
1/421 5/418	8.00 252 1.	_					4.03 68	_			_	0.204 0	68	9.25	_		75	2 0.6	_	0.10 3		1.00		1.49 0.019	_			185 0.03	_	+	-	64.952		_	_	_	_	_	_	1/421
1/422 5/418	8.00 252 1.	_			1		3.99 67				-	0.206 0	67	4.84			75	2 0.6	_	0.05		1.00	-	1.64 0.019	_	6 0.168	_	168 0.15		0.161	+	_			_				0.15	1/422
1/423 6/418	8.00 252 1.	00 0.	.143	0.143	100	271	5.00 66	20	5 1/425	8.00	252 (0.143 0	66	8.55	3 1.0	008 3	75	2 0.6	0 (0.09		1.00	1	1.47 0.018	9.70	0 0.176	0.	176 -0.00	0.043	0.159	1.47		62.49	8 62.49	8 62.674	63.62	7 2108	3 271	0.16	1/423
1/424 6/418	8.00 252 1.	00 0.	.124	0.124	87	255	5.00 64	19	2 1/426	8.00	252 (0.124 0	64	5.90	3 1	286 3	75	2 0.5	8 (0.06		1.00	1	1.44 0.017	9.70	0 0.164	0.	164 -0.17	0.033	0.147	1.58		62.48	8 62.49	8 62.652	63.62	0 2108	3 255	0.16	1/424
1/425 7/418	8.00 252 1.	00 0.	192	0.192	134	339	5.00 75	26	4 1/427	8.00	252 (0.192 0	75	8.45	1 1.0	008 3	75	2 0.6	8 (0.09	32	1.00	1	1.69 0.024	8.6	6 0.206	0.	206 0.19	0.016	0.172	1.53	60.962	60.877 60.11	6 60.10	0 60.322	61.00	3 2108	3 339	0.19	1/425
1/426 7/418	8.00 252 1.	00 0.	.202	0.202	141	333	5.00 75	25	8 1/427A	8.00	252 (0.202 0	75	11.0	07 3.8	859 3	75	2 0.6	8 (0.06	32	1.00	1	1.58 0.023	9.29	9 0.216	0.	216 0.65	0.129	0.119	2.48	61.029	60.919 60.17	2 60.10	0 60.388	61.32	8 2108	3 333	0.19	1/426
1/427 8/418	+ + +	_	_				5.00 69	_		_		0.165 0	69	8.45	_		75	2 0.6	_	0.09		1.00		2.18 0.020	_	5 0.124	_	124 0.15		0.163	+		58.83	_	_	_	_	_	0.20	1/427
1/427A 8/418		_					5.00 25	_			_	0.156 0	25	5.07			75	2 0.2	_	0.05		1.00		2.07 0.003	_	2 0.018	_	0.02	_	0.096	_		58.81		_	_			0.19	1/427A
1/428 9/418 1/429A 9A/418	8.00 252 1. 8.00 252 1.				91 132		4.90 14 4.31 10			8.00	-	0.131 0 0.188 0	143 106				75 75	2 1.2	_	0.09		1.00		3.07 0.085 3.18 0.047	_	2 0.316 1 0.170	_	316 0.66 170 0.37	_	0.248		56.991		7 57.36 2 55.46	_			3 402 5 391	0.20	1/428 1/429A
1/429B 9A/418	8.00 252 1.	-			_		4.31 10	40				0.208 0	2	5.08	_	-	i75 i75	2 0.9	_	0.09		1.00	_	3.13 0.000	_	6 0.000	_	000 0.00	_	0.191	+		55.46						0.19	1/429B
1/430 10/418	8.00 252 1.	_			_		3.60 44	_			_	0.213 0	44	8.60	_	_	75	2 0.3	_	0.09		1.00	_	2.28 0.008	_	2 0.046	_	046 0.06			_	53.491	53.392 53.23	_	7 53.278	_	_	_	0.20	1/430
1/429 9/418	8.00 252 1.	_						_	0 1/429B				161	_		779 3		2 1.4		0.05		1.00		3.20 0.109	_		_	391 0.85		+	_				9 57.823		8 2108	_		1/429
1/431 10/418	8.00 252 1.	00 0.	167	0.167	117	521	3.61 95	42	6 10A/418	8.00	252 (0.167 0	95	8.36	7 2.	260 3	75	2 0.8	6 (0.06	32	1.00		2.49 0.037		3 0.184	0.	184 0.29	0.025	0.156	2.17	53.528	53.395 53.25	1 53.22	7 53.436	53.84	9 2236	5 521	0.22	1/431
1/432 11/418	8.00 252 1.	00 0.	139	0.139	97	487	3.60 33	45	4 1/433A	8.00	252 (0.139 0	33	8.39	1 1.0	010 3	75	2 0.3	0 (0.09		1.00	2	2.18 0.005	6.2	4 0.029	0.	029 0.04	0.003	0.111	1.22		51.81	5 51.81	2 51.844	52.34	2 2236	487	0.21	1/432
1/433 11/418	8.00 252 1.	00 0.	.161	0.161	113	572	3.60 87	48	4 1/433B	8.00	252 (0.161 0	87	7.87	0 2.:	156 3	75	2 0.7	9 (0.06		1.00	2	2.40 0.032	5.32	2 0.170	0.	170 0.25	0.020	0.152	2.09		51.83	2 51.81	2 52.002	52.45	0 2236	572	0.23	1/433
1/433A 11A/418	8.00 252 1.	00 0.	.142	0.142	100	553	3.81 11	9 43	4 1/434	8.00	252 (0.142 0	119	8.13	2 1.0	006 3	75	2 1.0	8 (0.09	32	1.00	2	2.68 0.059	4.5	0 0.267	0.	267 0.46	0.038	0.227	1.71	50.168	50.086 50.33	9 50.30	1 50.606	50.91	0 2236	5 553	0.24	1/433A
1/433B 11A/418	8.00 252 1.	00 0.	.194	0.194	136	620	3.41 96	52	4 1/435	8.00	252	0.194 0	96	4.83	64 1.0	014 3	75	2 0.8	7	0.05	32	1.00	2	2.66 0.039	4.5	4 0.175	0.	175 0.30	0.014	0.197	1.63	50.060	50.011 50.31	5 50.30	1 50.490	50.81	2 2306	620	0.23	1/433B
1/434 12/418	8.00 252 1.	00 0.	146	0.146	102	536	3.81 91	44	5 1/435A	8.00	252 (0.146 0	91	8.04	4 1.0	011 3	75	2 0.8	2 (0.09		1.00	3	3.05 0.035	3.7	5 0.130	0.	130 0.27	0.022	0.192	1.60		49.00	3 48.98	1 49.133	49.30	5 2236	5 536	0.23	1/434
1/435 12/418	8.00 252 1.	00 0.	161	0.161	113	637	3.46 15	6 48	1 1/435B	8.00	252 (0.161 0	156	14.1	.02 3.2	205 3	75	2 1.4	1 (0.08		1.00	2	2.93 0.102	3.94	4 0.401	0.	401 0.79	0.113	0.188	2.82		49.09	4 48.98	1 49.495	49.74	0 2306	637	0.25	1/435
1/435A 12A/418	8.00 252 1.	00 0.	136	0.136	95	541	3.60 16	3 37	7 1/450	8.00	252 (0.136 0	163	8.99	7 1.0	009 3	75	2 1.4	8 (0.10	32	1.00	3	3.55 0.111	3.2	1 0.357	0.	357 0.86	0.079	0.286	1.80	47.443	47.366 47.71	2 47.63	4 48.070	48.07	1 2236	5 541	0.22	1/435A
1/435B 12A/418	8.00 252 1.	00 0.	.197	0.197	138	619	3.60 16	9 45	0 1/451	8.00	252	0.197 0	169	7.60	0 2.:	124 3	75	2 1.5	3 (0.06	32	1.00	3	3.49 0.119	3.2	7 0.389	0.	389 0.92	0.072	0.225	2.44	47.598	47.527 47.70	6 47.63	4 48.095	48.13	6 2236	, 619	0.24	1/435B
8A/436 9/436 1/448 1/447 1/446 2/446 1/445 5/444 6/444 1/443 1/442 1/437 1/441 1/439 1/436 2/436	0.00	0.	.000	0.000	0	0	0	0		8.77	244 3	3.529 0	123	0 4.88	3.0	000 8	325	2 2.3	0 (0.02				0.270	0.00	0.000	0.	000 0.73	0.036	0.410	4.64		47.42	9 47.39	3 47.429	48.26	2	0		8A/436
1/440 2/440 3/440 5/440 1/448 1/447 1/446 2/446 9/436 10/436 1/445 5/444 6/444 1/443 1/442 1/437 1/441 1/439 1/436 2/436										8.78	244 3	3.728 0	128	7 8.00	0 2.	500 8	325	2 2.4	1 (0.03		0.00	1.00 1	1.90 0.296	5 0.2	2 0.064	0.	0.80	0.064	0.445	4.38		47.32	9 47.26	5 47.393	48.14	3			9/436
1/449 1/440 2/440 3/440 5/440 1/448 1/447 1/446 10/436 13/418 2/446 1/445 5/444 6/444 1/443 1/442 1/437 1/441 1/439 1/436 2/436										8.81	244 3	5.767 0	148	0 31.5	00 2.4	450 8	325	2 2.7	7 (0.12	33 34	0.00	1.00 2	2.01 0.391	0.2	4 0.093	0.	093 1.06	0.334	0.489	4.49	46.613	45.520 47.17	2 46.83	7 47.265	47.94	8			10/436
1/438 2/438	8.00 252 1.	00 0.	168	0.168	117	117	3.50 84	33	10A/418	8.00	252	0.168 0	84	1.67	8 1.	249 3	75	2 0.7	6 (0.02		1.00	1	1.69 0.030	8.70	0 0.257	0.	257 3.42	0.002	0.174	1.68		53.38	3 53.32	3 53.640	54.48	5 169	117	0.09	1/438
2/438 _{10A/418} 1/438										8.02).168 0	84			500 3		2 0.7		0.18		0.00	1.00 1			9 0.062 2.				0.129			++	_	7 53.048			_	<u> </u>	2/438
4/440 5/440 1/440 2/440 3/440	0.00 0	0.	.000	0.000	0	0	0	0		5.49	282	0.144 0	69	2.00	0 1.0	000 3	000	uPVC SN8 0.9	8 (0.02				0.049	0.0	0.000	0.	000 0.37	0.007	0.169	1.69		47.52	9 47.52	2 47.529	47.65)	0	⊥ '	4/440
5/440 9/436 1/440 2/440 3/440	5.00 288 1.	00 0.	.055	0.055	44	44	11	33	1/459	5.45	282	0.199 0	80	39.5	92 1.0	000 3	75	2 0.7	2 (0.42	32	0.14	0.80 2	2.96 0.027	1.7	7 0.047 2.	.10 0.	056 0.21	0.082	0.177	1.55	50.693	50.591 47.47	5 47.39	3 47.531	47.65	ე 1264	44		5/440
1/449 10/436	6.00 275 1.				-	1168		_		6.00	_	0.039 0	199			213 3		2 1.8	_	0.03		1.00		3.42 0.166				557 1.29	_	+	_		46.123 47.30	_	_	_	_	_	0.32	1/449
1/450 2/450	8.00 252 1.						3.60 19	_					190	_	98 3.:			2 1.7	_	0.09		1.00		3.74 0.151	_		_			_	_	_	45.209 46.29			_		_	_	
2/450 14/418 1/450	8.00 252 1.							_					216				75	2 1.9		0.11 3									_	+			45.089 45.91				2 2236	_		2/450
1/451 2/451 2/451 14/418 1/451	8.00 252 1. 8.00 252 1.	_	_					_					206		35 3.0	_		2 1.8	_	0.14 3		1.00		3.35 0.177	_		_		_		_		45.023 46.31 44.955 45.79	_	_	_	_			
2/731 17/710 1/731	0.00 232 1.	00 0.	.070	0.076	در	1703	.د- ا ۱۰۰۰	14	21 1/439	0.14	ا درد	,,223 0	154	4.82	1.0	000 5	., .	2 1.3	,	0.05	JL	0.00	1.00 5	1.0.099	1.5	0 0.13/ 1.	.00 0.	0.//	0.03/	0.272	1./9	د00.05	45./5	/ 43./6	43.936	, 45.95	, 2230	1309	0.39	10771





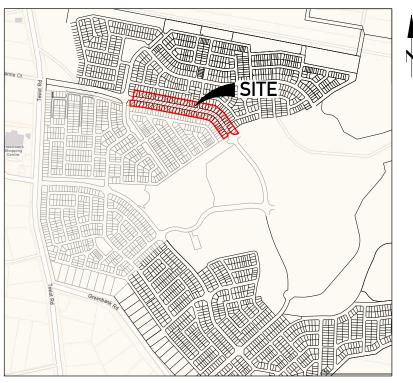
LYNT KIWANG		
HECKED ANDREW LANGDON		
ROJECT MANAGER NICK SOMERVILLE		
ROJECT DIRECTOR	PFD	
PATRICK BRADY	RPEQ 7112	ORIGINAL SHEET SIZE A1

CLIENT	MIRVAC QLD PTY LTD
PROJECT	EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT
LOCATION	TEVIOT ROAD, GREENBANK
SHEET TITLE	STORMWATER CALCULATIONS 1% AEP STORM - SHEET 2

MIR-0907

EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT

TEVIOT ROAD, GREENBANK FOR MIRVAC QLD PTY LTD **SEWERAGE**



LOCALITY PLAN **REAL PROPERTY DESCRIPTION**

LOT 205 & 434 on RP845844

NAME OF ES	STATE	EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT
SUBDIVIDER		Mirvac QLD Pty Ltd
APPLICATION No.		DEV 2020/1160
SP DELEGATE APPR	OVAL DATE	26/08/21
COUNCIL DA APPRO	IVAL No.	=
DRAWING/PLAN No.		C510
No. OF ALLOTMENT	S	72
AREA ha		4.73ha
LENGTH OF	DN150 uPVC SN8	971.33m
SEWERS	DN225 uPVC SN8	272.96m

GENERAL NOTES

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT SOUTH EAST QUEENSLAND SEWERAGE CODE SPECIFICATIONS AND
- UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
- THE CONSTRUCTION OF THE SEWERAGE WORK SHOWN ON THIS DRAWING SHALL BE SUPERVISED BY AN ENGINEER WHO HAS RPEO REGISTRATION. SEWERAGE WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT INTO THE SEO SERVICE PROVIDER SEWERAGE
- 4. ALL WORK ASSOCIATED WITH LIVE SEWERS OR MAINTENANCE HOLES SHALL BE CARRIED OUT BY THE CONTRACTOR UNDER LOGAN WATER SUPERVISION AT THE DEVELOPER'S COST
- ALL PIPES AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE "ACCEPTED PRODUCTS AND MATERIALS" LIST.
- EACH ALLOTMENT SHALL BE SERVED BY A DN100 PROPERTY CONNECTION. FOR ALLOTMENTS OTHER THAN SINGLE RESIDENTIAL, A DN150 PROPERTY CONNECTION SHALL BE PROVIDED.
- PROPERTY CONNECTIONS SHALL BE LOCATED WITHIN THE PROPERTY AS SHOWN IN THE DRAWINGS.
- SHUWN IN THE DRAWINGS.
 PROPERTY CONNECTION BRANCHES SHALL EXTEND INTO THE PROPERTY A
 MINIMUM OF 300mm AND A MAXIMUM OF 750mm.
- WHERE PIPES ARE LAID IN FILL, THE FILLING SHALL BE CARRIED OUT IN LAYERS NOT EXCEEDING 300mm (LOOSE) IN DEPTH AND SHALL BE COMPACTED UNTIL THE COMPACTION IS NOT LESS THAN 95% OF THE MATERIALS MAXIMUM COMPACTION WHEN TESTED IN ACCORDANCE WITH A.S. 1289 (MODIFIED COMPACTION). TESTING SHALL BE CARRIED OUT AFTER FACH ALTERNATE LAYER, IN ALL SUCH CASES APPROVAL OF CONSTRUCTED SEWERS WILL NOT BE ISSUED BY THE SEQ SERVICE PROVIDER UNLESS CERTIFICATES ARE PRODUCED CERTIFYING THAT THE REQUIRED
- COMPACTION HAS BEEN ACHIEVED.

 10. WHERE SEWERS HAVE A GRADE OF 1 IN 20 OR STEEPER,BULKHEADS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SEQ SEWER CODE.
- 11 THE CONTRACTOR SHALL VERIEV THE LOCATION AND DEPTH OF EXISTING SERVICES WITH RELEVANT AUTHORITIES BEFORE COMMENCING WORKS.
- 12 SEWERS SHALL BE DISUSED /ARANDONED IN ACCORDANCE WITH PROCEDURES SET OUT IN THE SEQ SEWER CODE.
- 13. BENCH MARK AND LEVELS TO AHD.
- 14. REFER TO BULK EARTHWORKS DRAWINGS FOR FINISHED SURFACE LEVELS. 15. ALL SEWER CONSTRUCTION WORK UNDERTAKEN BY THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE QUEENSLAND WORK HEALTH AND SAFETY ACT. FOR INFORMATION PHONE: 1300 369 915

 16. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY
- PERMITS TO ALLOW CONSTRUCTION OF THE SEWER SYSTEM.

 17. THE CONTRACTOR IS RESPONSIBLE FOR EXCAVATION AND SAFE SHORING TO ALLOW SEWER MAINTENANCE SECTION TO CARRY OUT LIVE SEWER
- 18. CONSTRUCT TRENCHES TO SEQ-SEW-1200-2, WITH EMBEDMENT TYPE 3 SUPPORT MINIMUM TO SEQ-SEW-1201-1, AND ROAD CROSSINGS TO SEQ-SEW-1205-1 AND LCC STANDARDS.
- 19 CONSTRUCT PROPERTY CONNECTIONS TO SEO-SEW-1100 SERIES
- 20. CONSTRUCT MAINTENANCE STRUCTURES TO SEQ-SEW-1300 SERIES. 21 CONSTRUCT BUILKHEADS TO SEO-SEW-1206-1
- 22. INSTALL DETECTABLE MARKER TAPE ON ALL MAINS AND PROPERTY

CONNECTIONS

- 23. CALCAREOUS CONCRETE IN MAINTENANCE HOLES REQUIRED IN
- ACCORDANCE WITH SEQ WS&S D&C CODE REQUIREMENTS.

 24. CCTV OF SEWER TO BE UNDERTAKEN AND SUPPLIED TO SUPERINTENDENT PRIOR TO, BUT NO GREATER THAN 2 WEEKS BEFORE, THE ON-SITE

VEGETATION PROTECTION

A. TREES LOCATED ALONG THE FOOTPATH SHALL BE, TRANSPLANTED PRIOR TO CONSTRUCTION, OR REPLACED IF DESTROYED.

B. WHEN WORKING WITHIN 4m OF TREES, RUBBER OR HARDWOOD GIRDLES S HALL BE CONSTRUCTED WITH 1.8m BATTENS CLOSELY SPACED AND ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES SHALL BE STRAPPED TO TREES PRIOR TO CONSTRUCTION AND REMAIN UNTIL COMPLETION.

. TREE ROOTS SHALL BE TUNNELLED UNDER, RATHER THAN SEVERED. IF ROOTS ARE SEVERED THE DAMAGED AREA SHALL BE TREATED WITH A SUITABLE FUNGICIDE. CONTACT RELEVANT COUNCIL ARBORIST FOR FURTHER ADVICE. D. ANY TREE LOPPING REQUIRED SHOULD BE UNDERTAKEN BY AN APPROVED

A. TOPSOIL AND SUBSOIL SHALL BE STOCKPILED SEPARATELY.
B. CARE SHALL BE TAKEN TO PREVENT SEDIMENT FROM ENTERING THE STORMWATER SYSTEM. THIS MAY INVOLVE PLACING APPROPRIATE SEDIMENT CONTROLS AROUND STOCKPILES.

C. IF ACID SULPHATE SOILS EXIST IN THE WORKS AREA, ACID SULPHATE SOILS ARE TO MANAGED IN ACCORDANCE WITH AN APPROVED ACID SULPHATE SOIL

CREEK CROSSINGS

A. SILTATION CONTROL MEASURES SHALL BE PLACED DOWNSTREAM OF ANY

B. APPROPRIATE SEDIMENT CONTROLS SHALL BE USED TO PREVENT SEDIMENT FROM ENTERING THE CREEK.

C. NO SOIL SHALL BE STOCKPILED WITHIN 5m OF THE CREEK.

REHABILITATION

A. PREDISTURBANCE SOIL PROFILES AND COMPACTION LEVELS SHALL BE B. PREDISTURBANCE VEGETATION PATTERNS SHALL BE RESTORED

A. THE DESIGN AND CONSTRUCTION OF THE WORKS SHALL COMPLY WITH ALL

INDEMNITY - EXISTING SERVICES

NOT WITHSTANDING THAT EXISTING SERVICES MAY OR MAY NOT BE SHOWN ON THESE DRAWINGS, NO RESPONSIBILITY IS TAKEN BY THE ENGINEER OR THE PRINCIPAL FOR THIS INFORMATION WHICH HAS BEEN SUPPLIED BY OTHERS. THE DETAILS ARE PROVIDED FOR INFORMATION ONLY, THE CONTRACTOR SHALL ASCERTAIN THE POSITION OF ALL UNDERGROUND SERVICES PRIOR TO EXCAVATION AND SHALL BE RESPONSIBLE FOR THE COST OF REPAIRS TO DAMAGES CAUSED AS A RESULT OF THE WORKS.

ALL ENVIRONMENT PROTECTION MEASURES SHALL BE IMPLEMENTED PRIOR TO COMMENCING ANY CONSTRUCTION WORK INCLUDING CLEARING

ALL SEWER CONSTRUCTION WORK LINDERTAKEN BY THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS O THE OUFFNSLAND WORKPLACE HEALTH AND SAFETY ACT 2011. CONTACT THE DIVISION OF HEALTH & SAFETY FOR PHONE: 1300 369 915

CONTACT "DIAL BEFORE YOU DIG" ON 1100 FOR LOCATION

TRENCH SPOIL NOTE:

SPOILAGE OF EXCESS MATERIAL TO BE PLACED INTO THE SOUTHERN DAM REHABILITATION AREA INCLUDING ALL LEVEL ONE COMPACTION REQUIREMENTS AND TESTING IN ACCORDANCE WITH MORRISON GEOTECHNICAL SPECIFICATION AND ALL LOCAL AUTHORITY STANDARDS, AND SHALL BE FREE DRAINING

EXCAVATION IN ROCK NOTE:

CONTRACT SHALL INCLUDE TREATING, SIZING CONDITIONING AND PROCESSING ALL TYPES OF ROCK IN ALL EXCAVATIONS. PROCESSING TO BE COMPLETED AS PER MORRISON GEOTECHNICAL REPORTS TO

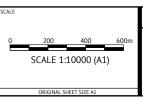
SHEET LIST TABLE		
SHEET NO.	SHEET TITLE	
C500	SEWERAGE LOCALITY PLAN & NOTES	
C510	SEWERAGE LAYOUT PLAN - SHEET 1	
C511	SEWERAGE LAYOUT PLAN - SHEET 2	
C520	SEWERAGE LONG SECTIONS - SHEET 1	
C521	SEWERAGE LONG SECTIONS - SHEET 2	
C522	SEWERAGE LONG SECTIONS - SHEET 3	
C530	SEWERAGE NOTES AND DETAILS	

FOR CONSTRUCTION				
08/06/2023	C	ISSUED FOR CONSTRUCTION	KK	PB
01/12/2022	В	AMENDED PIPE LENGTH	KK	PB
18/10/2022	Α	ISSUED FOR APPROVAL	KK	PB
DATE	REV	DESCRIPTION	REC	APP
		REVISIONS		



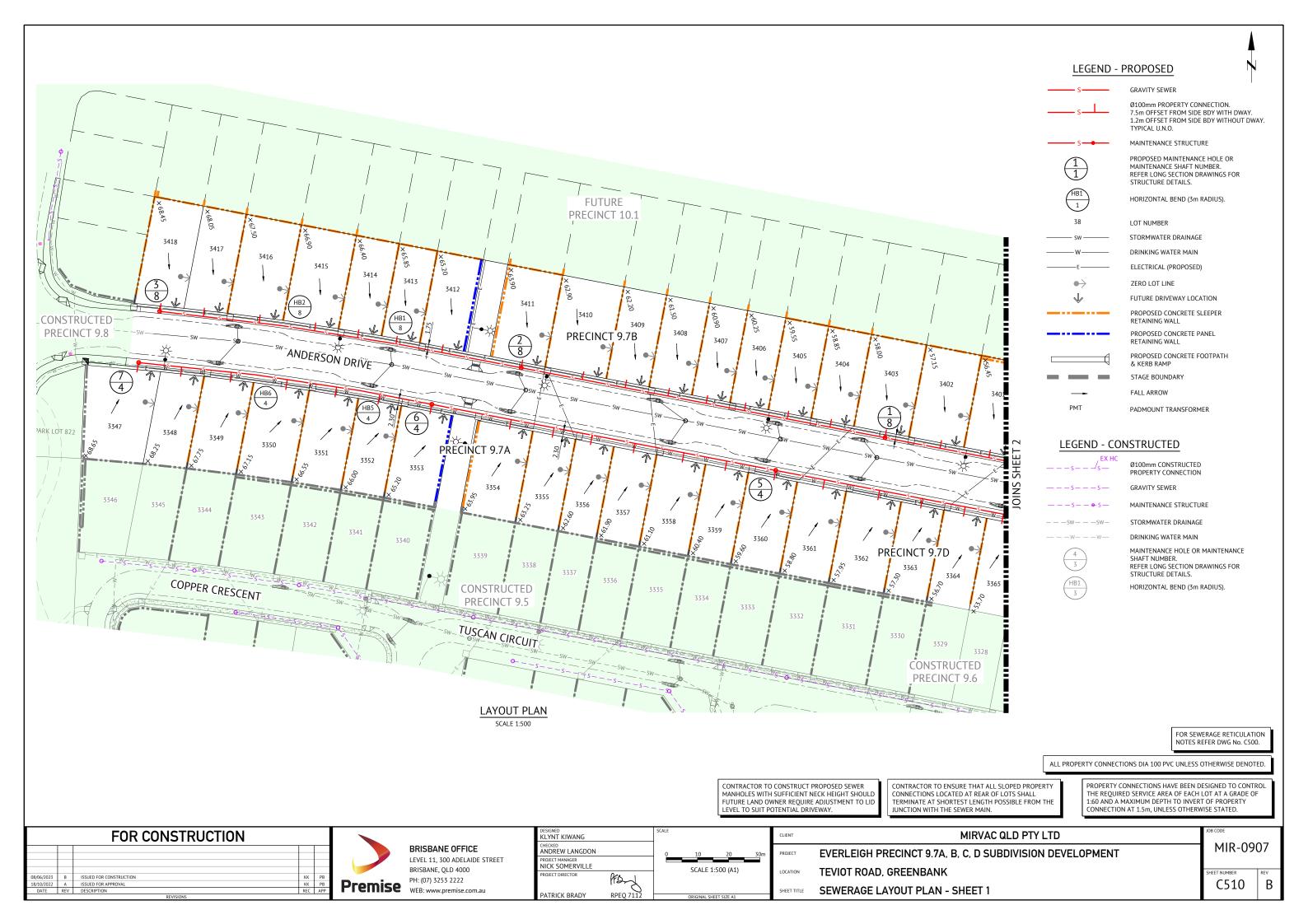
BRISBANE OFFICE LEVEL 11, 300 ADELAIDE STREET BRISBANE, OLD 4000 PH: (07) 3253 2222

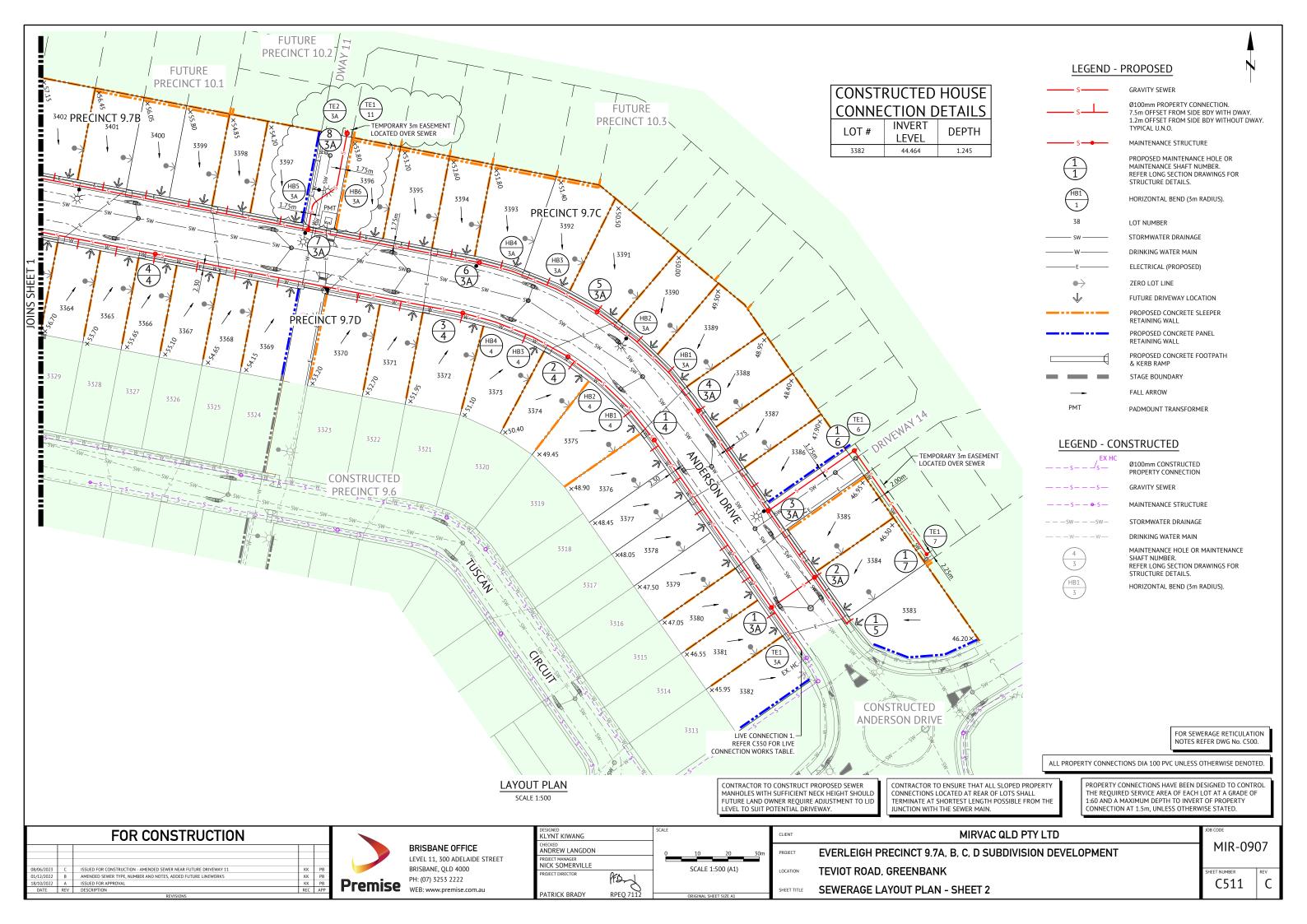
DESIGNED KLYNT KIWANG	
CHECKED ANDREW LANGDON	
PROJECT MANAGER NICK SOMERVILLE	
PROJECT DIRECTOR	
PATRICK BRADY	

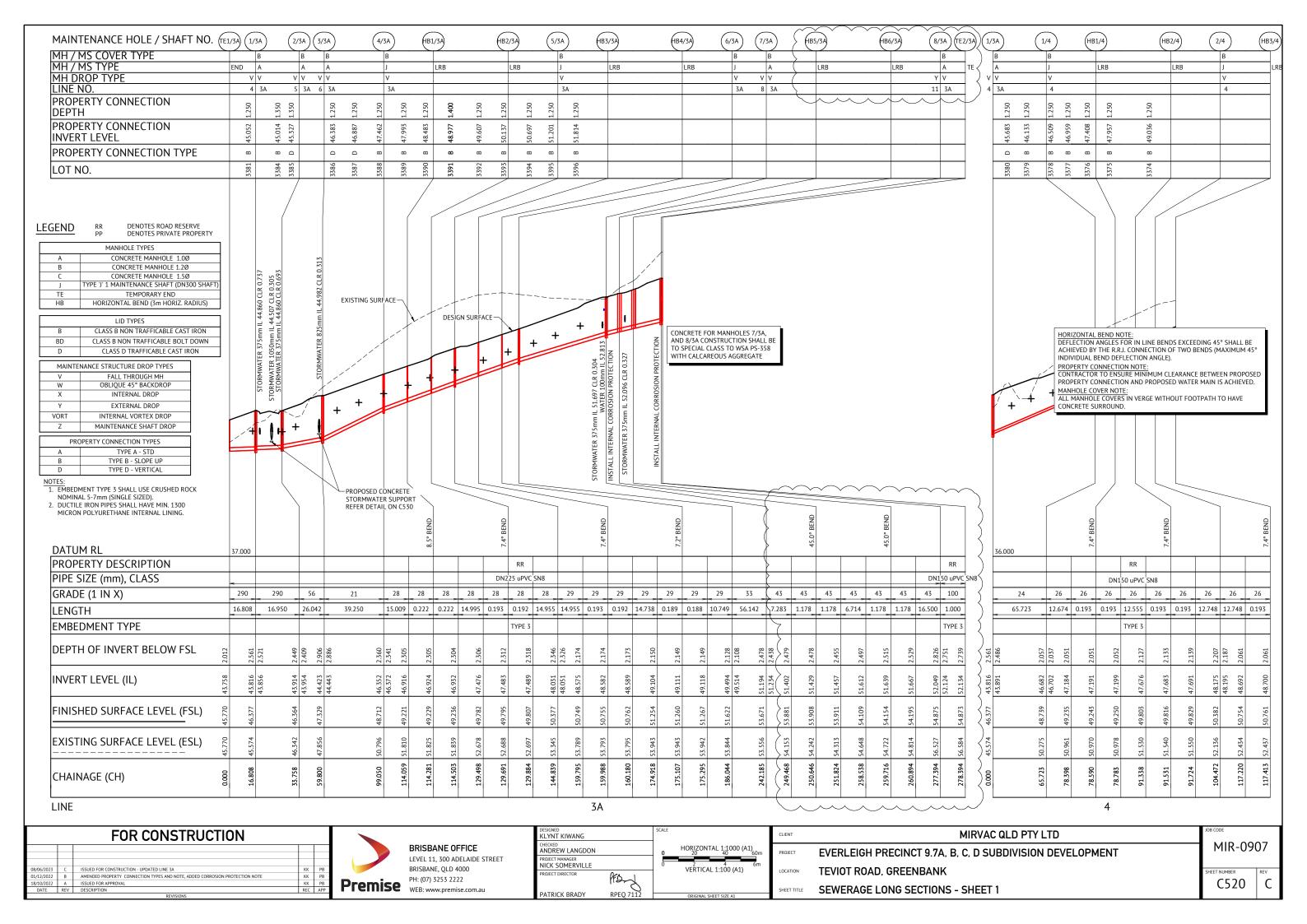


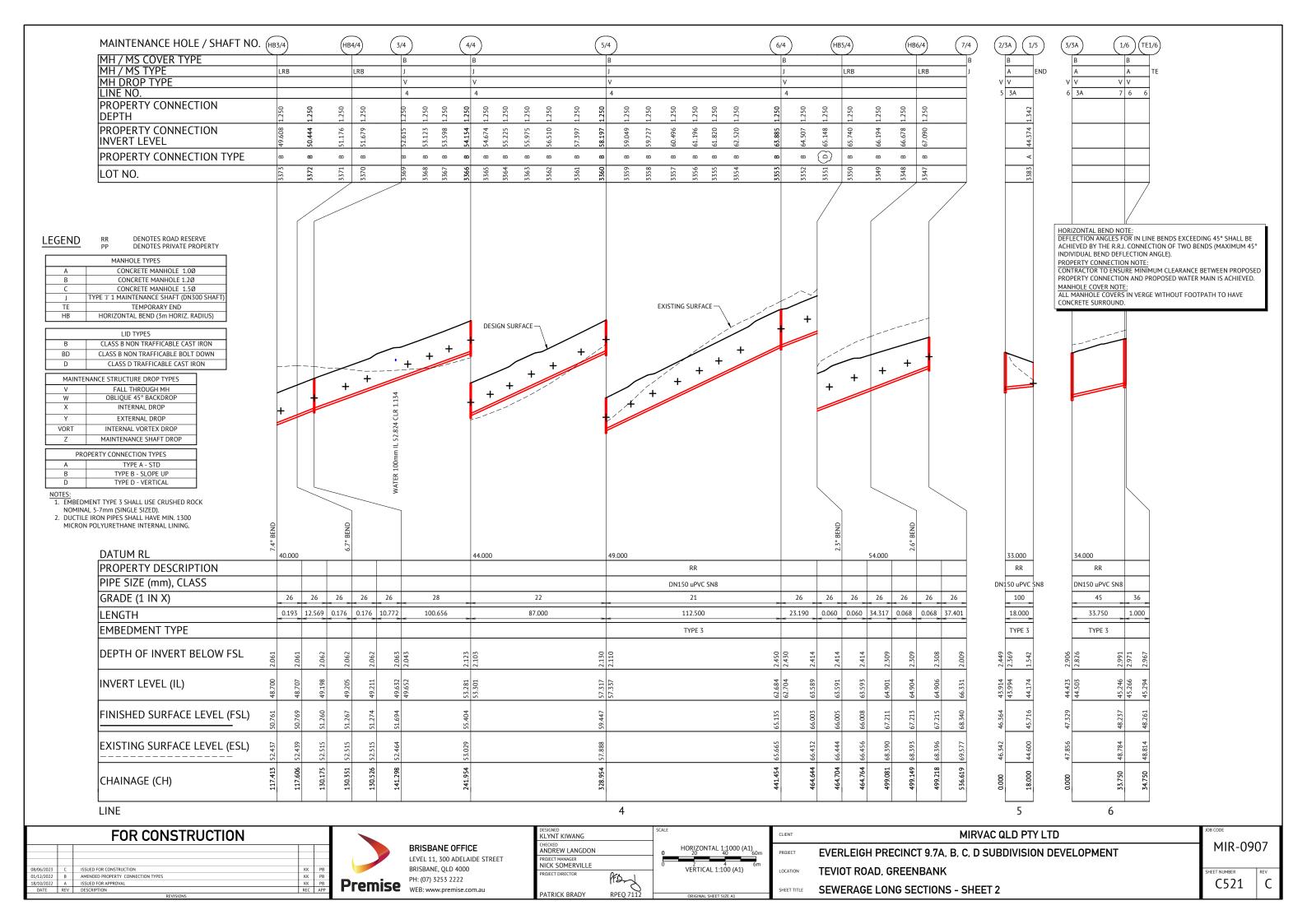
CLIENT	MIRVAC QLD PTY LTD
PROJECT	EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT
LOCATION	TEVIOT ROAD, GREENBANK
SHEET TITLE	SEWERAGE LOCALITY PLAN & NOTES

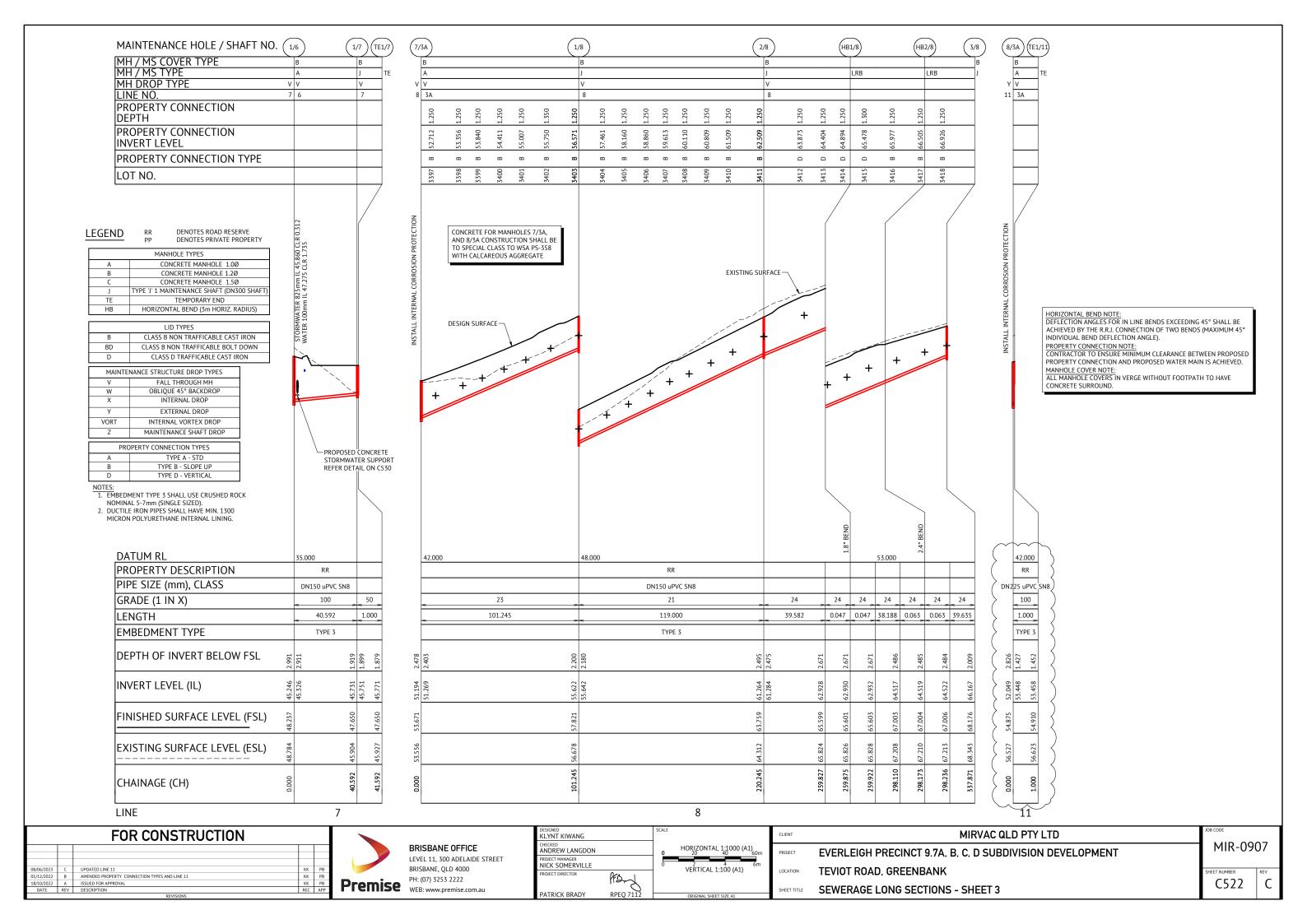
MIR-0907











LIVE SEWER WORKS

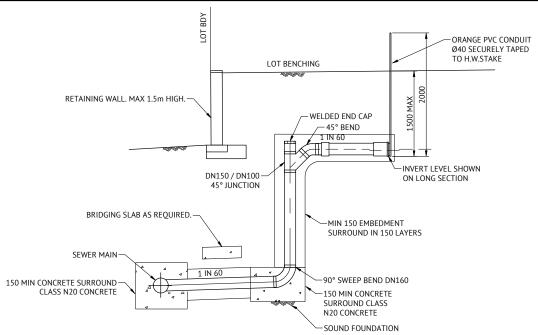
No.	DESCRIPTION	DIA. SEWER	MH NO.	MH TYPE	COVER TYPE	LOT NO.	F.S.L.	E.S.L.	I.L.	DEPTH
1(A)	0.5m FROM STUB END CAP TE1/3A, CONSTRUCTOR TO LAY NEW LINE 3A. AFTER CLEANSING, TESTING AND INSPECTING, NOTIFY AGENCY.	225	TE1/3A	END	-	3382	45.770	45.770	43.758	2.012
1(B)	AGENCY TO REMOVE TEMPORARY END CAP ON STUB AND LINE 3A AND MAKE LIVE CONNECTIONS AFTER SUCCESSFUL "ON MAINTENANCE" INSPECTION.									

LEVELS IN THE LIVE SEWER TABLE, ARE DESIGN LEVELS.

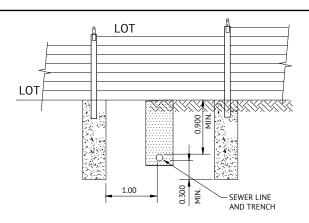
CONSULTING ENGINEERS ARE TO CONTACT PRIOR TO COMMENCEMENT OF CONSTRUCTION TO ARRANGE FOR THIS WORK TO BE CARRIED OUT. (EXCAVATION, SAFE-SHORTING AND ASSOCIATED WORK BY CONTRACTOR).

EXCAVATION WORKS CARRIED OUT BY CONTRACTORS AT DEPTH OF 1.5m OR GREATER MUST PROVIDE A "SAFE WORK PLAN" AS PER WORKPLACE HEALTH AND SAFETY LEGISLATION TO SEO-SPS PRIOR TO COMMENCING ANY WORK.

IT IS THE DEVELOPER'S RESPONSIBILITY TO ENSURE ALL LIVE SEWER WORKS ARE COMPLETE BEFORE ALLOWING PRIVATE DRAINAGE TO BE CONNECTED.

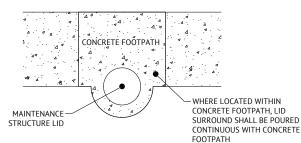


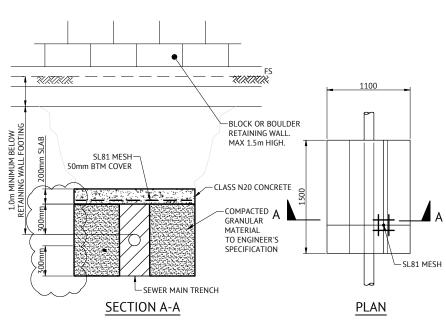
EXTENDED PROPERTY CONNECTION UNDER RETAINING WALL - TYPE D (E)



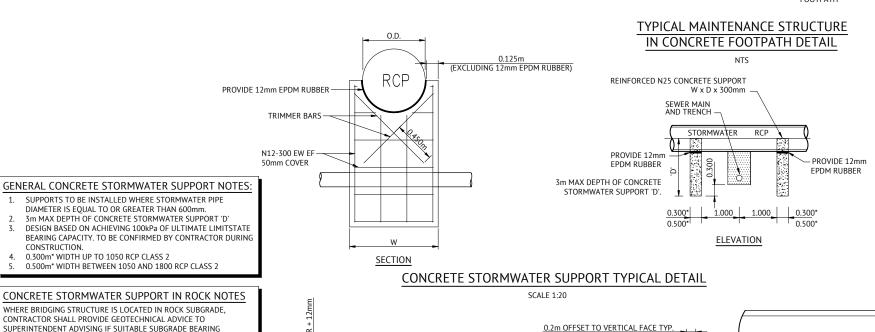
SEWER LINE CROSSING CONCRETE SLEEPER RETAINING WALL

BRIDGING SLAB DETAIL





SERVICE LINE CROSSING BOULDER OR BLOCK RETAINING WALL **BRIDGING SLAB DETAIL**



RCP

CONCRETE STORMWATER SUPPORT IN ROCK SUBGRADE DETAIL

SCALE 1:40

R. alyate 16/06/2023 RAMIL ALZATE RPEQ 19671

-SEWER LINE

ELEVATION

FOR CONSTRUCTION



BRISBANE OFFICE LEVEL 11, 300 ADELAIDE STREET BRISBANE, QLD 4000 PH: (07) 3253 2222

GIGNED YNT KIWANG		SCALE
ECKED IDREW LANGDON		
DIECT MANAGER CK SOMERVILLE		NTS
DIECT DIRECTOR	Pray	
TRICK BRADY	RPEQ 7112	ORIGINAL SHEET SIZE A1

PROVICE 12mm EPDM RUBBER

11 OF N12 HORIZONTAL BARS EQUALLY SPACED

CAPACITY CAN BE ACHIEVED TO FACILITATE THIS SUPPORT TYPE.

CLIENT	MIRVAC QLD PTY LTD
PROJECT	EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT
LOCATION	TEVIOT ROAD, GREENBANK
SHEET TITLE	SEWERAGE NOTES AND DETAILS

N12-300 SIDE FACE REINFORCEMENT

4 - N12 STARTER BARS WITH 300mm COGGED ENDS-

0.200m (EXCLUDING 12mm EPDM RUBBER)

OPENING PROFILE, 3 OF, ENSURING 50mm COVER

-N12 TRIMMER BAR TO MATCH

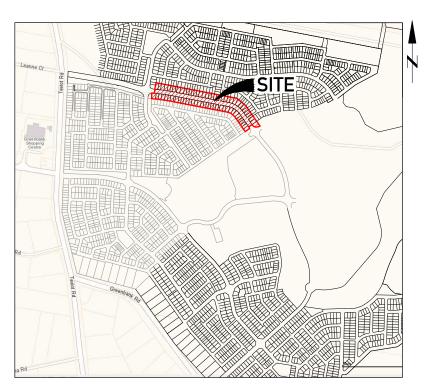
MIR-0907 C530

RCP

TRENCH EXCAVATION

EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT

TEVIOT ROAD, GREENBANK FOR MIRVAC QLD PTY LTD WATER RETICULATION



LOCALITY PLAN

REAL PROPERTY DESCRIPTION

SHEET LIST TABLE SHEET NO. SHEET TITLE WATER RETICULATION LOCALITY PLAN & NOTES C600 WATER RETICULATION LAYOUT PLAN - SHEET 1 C610 WATER RETICULATION LAYOUT PLAN - SHEET 2 C611 WATER LIVE CONFCTION DETAILS C620

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT SOUTH EAST OUEENSLAND WATER SUPPLY CODE SPECIFICATIONS
- LINI ESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
- ADOPT LIP OF KERB OR SHOULDER OF ROAD AS PERMANENT LEVEL COVER OF MAIN FROM PERMANENT LEVEL TO BE AS SHOWN IN SEO-WAT-1200-2
- CONDUITS TO BE INSTALLED IN ACCORDANCE WITH THE STANDARD
- ALL MATERIALS USED IN THE WORKS SHALL COMPLY WITH SEQ-SP's ACCEPTED PRODUCTS AND MATERIALS LIST OR BE APPROPRIATELY SHOWN, LISTED AND DEFINED IN THE ENGINEERING SUBMISSION SO THAT THE ALTERNATIVE PRODUCT OR MATERIAL CAN BE ASSESSED AND IF APPROPRIATE, APPROVED BY SEO-SP's
- ALL CONCRETE FOOTPATHS TO BE CLEAR OF WATER MAINS. WHERE
- CONSTRUCTION OF THE WATER RETICULATION WORK SHOWN ON THIS DRAWING MUST BE SUPERVISED BY AN ENGINEER WHO HAS RPEQ REGISTRATION. WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT TO THE
- ALL WATER CONSTRUCTION WORK UNDERTAKEN BY THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE OLIFENSI AND WORK HEALTH AND SAFETY ACT 2011 CONTACT THE DIVISION OF WORKPLACE HEALTH & SAFETY FOR INFORMATION. PHONE: 1300 362 128.
- 10. CONSTRUCT THRUST BLOCKS ON ALL BENDS, TEES, TAPERS AND DEAD ENDS IN ACCORDANCE WITH SEQ-WAT-1205-1, AND SEQ-WAT-1206-1.

 11. CONSTRUCT TRENCHES IN ACCORDANCE WITH SEQ-WAT-1200-2, PIPE
- EMBEDMENT TO SEQ-WAT-1201-1 (TYPE C SUPPORT) AND ROAD CROSSINGS TO SEQ-WAT-1204-1 AND LCC STANDARDS.
- INSTALL SCOURS IN ACCORDANCE WITH SEO-WAT-1307-3
- 13. INSTALL DETECTABLE MARKER TAPE ON ALL WATER MAINS AND PROPERTY SERVICES
- 14. INSTALL HYDRANTS IN ACCORDANCE WITH SEO-WAT-1302-1.
- 15. INSTALL PAVEMENT MARKERS IN ACCORDANCE WITH SEQ-WAT-1300-1 CREEK CROSSINGS
- 16. WATER SERVICE CONNECTIONS INCLUSIVE OF WATER METER BOXES ARE TO BE INSTALLED IN ACCORDANCE WITH STANDARD DRAWINGS SEO-WAT-1110-1 & SEO-WAT-1110-2 AND OTHER RELEVANT
- STANDARD DRAWINGS FROM SEQ DESIGN AND CONSTRUCTION CODE. 17 TERMINATE ALL WATER SERVICES AFTER INSTALLATION OF THE BALL VALVE (PRIOR TO THE WATER METER). THE APPLICANT IS NOT REQUIRED TO MAKE AN APPLICATION TO COUNCIL FOR THE
- PROVISION OF A WATER METER AT THIS TIME. 18. THE POLYETHYLENE SERVICE LINE MUST COMPLY WITH AS/NZ4130 SERIES 1 DN20 PN16.
- 19. TAPPING BANDS MUST BE USED WHEN PROVIDING CONNECTION, UNLESS OTHERWISE APPROVED BY COUNCIL
- PROPERTY SERVICES WITHIN ANY FOOTWAY SHALL BE POSITIONED AT 90+/-5 DEGREES TO THE WATER MAIN OR KERB, WHERE REQUIRED TO CROSS THE ROAD CARRIAGEWAY, PROPERTY SERVICES SHALL BE LOCATED WITHIN THE SERVICE DUCTS (CONDUITS) POSITIONED AT BOUNDARY TO SIDE BOUNDARY AND EXTENDING BEHIND EACH KERB IN ACCORDANCE WITH CLAUSE 5.11.3 OF THE SOUTH EAST

- QUEENSLAND WATER SUPPLY AND SEWERAGE DESIGN AND CONSTRUCTION CODE. THE CONDUIT SHALL HAVE A MAXIMUM LENGTH OF 25m AND EXTEND 300mm BEYOND THE BACK OF THE KERB OR CONCRETE/PAVED AREA
- 21. WHERE PRACTICABLE, PROPERTY SERVICE CONNECTION POINTS MUST BE LOCATED 300mm FROM THE RESIDENTIAL PROPERTY SIDE BOUNDARY ON THE OPPOSITE SIDE OF THE ALLOTMENT TO THE ELECTRICAL SERVICE PILLAR-BOX. SERVICES MUST BE LOCATED AT LEAST 1.0m FROM ALL ELECTRICAL SOURCES AND CLEAR OF EXISTING OR FUTURE DRIVEWAYS. PROPERTY SERVICES LAID PARALLEL TO THE FOOTPATH AND/OR PROPERTY BOUNDARY ARE NOT PERMITTED (SEQ CODE CLAUSE 5.11.5). TERMINATE ALL WATER SERVICES AFTER INSTALLATION OF THE BALL VALVE (PRIOR TO THE WATER METER)

VEGETATION PROTECTION

- TREES LOCATED ALONG THE FOOTPATH SHALL BE, TRANSPLANTED PRIOR TO CONSTRUCTION, OR REPLACED IF DESTROYED.
- WHEN WORKING WITHIN 4m OF TREES, RUBBER OR HARDWOOD GIRDLES SHALL BE CONSTRUCTED WITH 1.8m BATTENS CLOSELY SPACED AND ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES SHALL BE STRAPPED TO TREES PRIOR TO CONSTRUCTION AND REMAIN UNTIL COMPLETION.
- TREE ROOTS SHALL BE TUNNELLED UNDER, RATHER THAN SEVERED, IE ROOTS ARE SEVERED THE DAMAGED AREA SHALL BE TREATED WITH A SUITABLE FUNGICIDE. CONTACT RELEVANT COUNCIL ARBORIST FOR FURTHER ADVICE.
- ANY TREE LOPPING REQUIRED SHOULD BE UNDERTAKEN BY AN

- TOPSOIL AND SUBSOIL SHALL BE STOCKPILED SEPARATELY.
- CARE SHALL BE TAKEN TO PREVENT SEDIMENT FROM ENTERING THE STORMWATER SYSTEM. THIS MAY INVOLVE PLACING APPROPRIATE SEDIMENT CONTROLS AROUND STOCKPILES.

- SILTATION CONTROL MEASURES SHALL BE PLACED DOWNSTREAM OF
- APPROPRIATE SEDIMENT CONTROLS SHALL BE USED TO PREVENT SEDIMENT FROM ENTERING THE CREEK.
- NO SOIL SHALL BE STOCKPILED WITHIN 5m OF THE CREEK.

REHABILITATION

- PRE-DISTURBANCE SOIL PROFILES AND COMPACTION LEVELS SHALL
- PRE-DISTURBANCE VEGETATION PATTERNS SHALL BE RESTORED, ALL DISTURBED AREAS ASSOCIATED WITH CONSTRUCTION SHALL BE REHABILITATED, HEAVILY COMPACTED AREAS SHOULD BE RIPPED PRIOR TO TREATMENT
- ALL DISTURBED AREAS ARE TO BE LEFT IN STABLE CONDITION.
- ALL PLANTING/RE-VEGETATION WILL NEED TO BE MAINTAINED

CONSTRUCTION REQUIREMENTS

- LIVE WATER CONNECTIONS TO BE CARRIED OUT BY CONTRACTOR IN ACCORDANCE WITH A VALID NETWORK ACCESS PERMIT UNDER LOGAN MARKED.
- PRIOR TO ANY EXCAVATION, CONTRACTOR IS TO LOCATE ACTUAL POSITIONS OF PUBLIC SERVICE UTILITIES BY POT HOLES.
- LIPON COMPLETION OF ALL WORKS CONTRACTORS SHALL SLIPPLY THE SUPERVISING RPEQ DETAILED "AS CONSTRUCTED" INFORMATION OF THE WORK "AS CONSTRUCTED" INFORMATION SHALL COMPLY WITH CURRENT SEO CODE OR LOCAL AUTHORITY STANDARDS FOR PLAN AND DIGITAL INFORMATION.
- CONTRACTOR IS TO BE RESPONSIBLE FOR ARRANGING ALL LOGAN WATER CONNECTIONS AND PAYMENTS OF CONNECTION FEES

TRENCH SPOIL NOTE:

SPOILAGE OF EXCESS MATERIAL TO BE PLACED INTO THE SOUTHERN DAM REHABILITATION AREA INCLUDING ALL LEVEL ONE MORRISON GEOTECHNICAL SPECIFICATION AND ALL LOCAL AUTHORITY STANDARDS, AND SHALL BE FREE DRAINING

EXCAVATION IN ROCK NOTE:

CONTRACT SHALL INCLUDE TREATING, SIZING CONDITIONING AND PROCESSING ALL TYPES OF ROCK IN ALL EXCAVATIONS, PROCESSING TO BE COMPLETED AS PER MORRISON GEOTECHNICAL REPORTS TO ENSURE LEVEL 1 IS ACHIEVED.

INDEMNITY - EXISTING SERVICES

NOT WITHSTANDING THAT EXISTING SERVICES MAY OR MAY NOT BE SHOWN ON THESE DRAWINGS, NO RESPONSIBILITY IS TAKEN BY THE ENGINEER OR THE PRINCIPAL FOR THIS INFORMATION WHICH HAS BEEN SUPPLIED BY OTHERS. THE DETAILS ARE PROVIDED FOR INFORMATION ONLY. THE CONTRACTOR SHALL ASCERTAIN THE POSITION OF ALL UNDERGROUND SERVICES PRIOR TO EXCAVATION AND SHALL BE RESPONSIBLE FOR THE COST OF REPAIRS TO DAMAGES CAUSED AS A RESULT OF THE WORKS.

RPEQ CERTIFICATION

THE CONSTRUCTION OF THE WATER RETICULATION WORK ENGINEER WHO HAS RPEO REGISTRATION, WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT INTO LOGAN WATER RETICULATION SYSTEM. ALL RPEQ CERTIFIED DRAWINGS COMPLY WITH SE CODE AND LOGAN WATER REQUIREMENTS

INSPECTION REQUIREMENTS

PRIOR TO COMMENCEMENT OF WORKS CONTACT PREMISE (07) 3253 2222 AND LOGAN WATER TO CONFIRM INSPECTIO REQUIREMENTS INCLUDING LIVE CONNECTIONS.

MINIMUM 48 HOURS NOTICE IS REQUIRED

INSPECTIONS ARE REQUIRED TO BE ORGANIZED WITH PREMISE AND LOGAN WATER. ANY COSTS ASSOCIATED WITH ENGAGING LOGAN WATER TO UNDERTAKE INSPECTIONS OUTSIDE OF THE FEE PAID SHALL BE BORNE BY THE

ALL ENVIRONMENT PROTECTION MEASURES SHALL BE IMPLEMENTED PRIOR TO COMMENCING ANY CONSTRUCTION WORK, INCLUDING CLEARING

ALL WATER CONSTRUCTION WORK UNDERTAKEN BY THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE OUEENSLAND WORK HEALTH AND SAFETY ACT 2011. CONTACT THE DIVISION OF WORKPLACE HEALTH & SAFETY FOR INFORMATION PHONE: 1300 362 128

SEO CODE STD DRAWING SCHEDULE

SOIL CLASSIFICATION SFO-WAT-1200-1 EMBEDMENT AND TRENCH FILL THRUST BLOCK DETAILS SFO-WAT-1205-1 VALVE THRUST BLOCKS SEO-WAT-1206-1 IDENTIFICATION MARKERS SEO-WAT-1300-1.2

Premise

FOR CONSTRUCTION ISSUED FOR CONSTRUCTION



BRISBANE OFFICE

LEVEL 11, 300 ADELAIDE STREET BRISBANE, OLD 4000 PH: (07) 3253 2222

DESIGNED KLYNT KIWANG	
CHECKED ANDREW LANGDON	
PROJECT MANAGER NICK SOMERVILLE	
PROJECT DIRECTOR	Pronj
PATRICK BRADY	RPEQ 7112

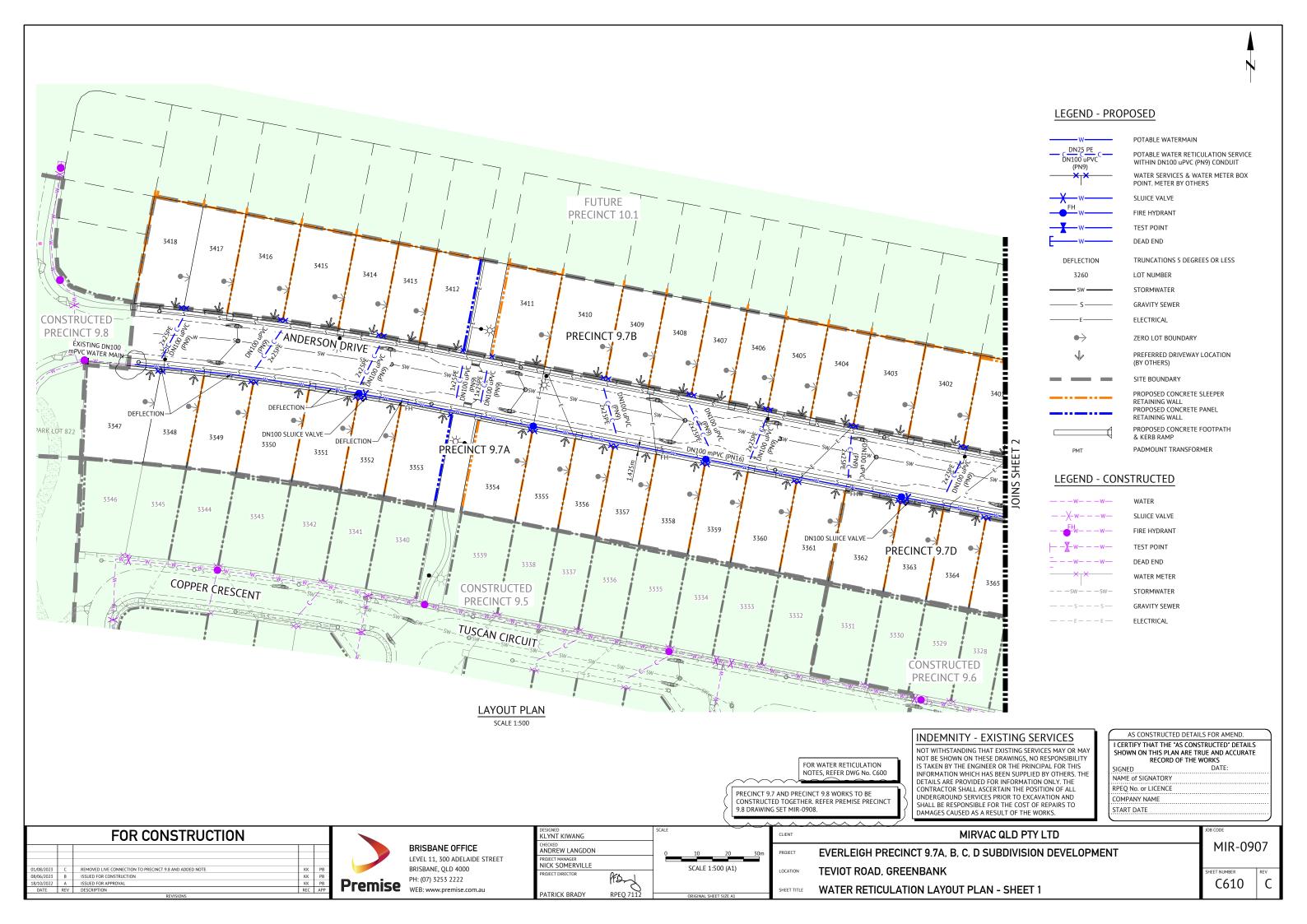
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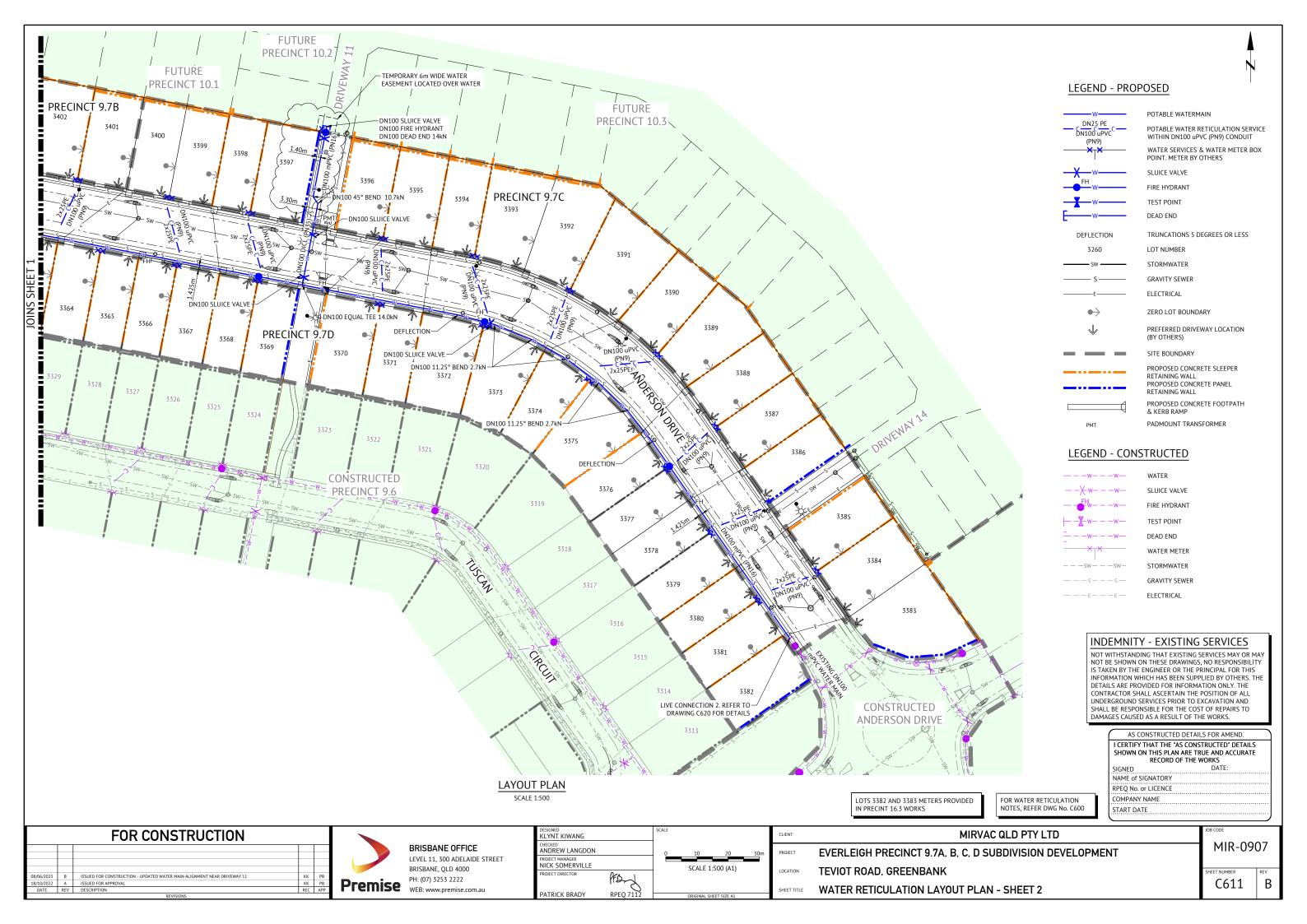
		CLIENT
00	600m	PROJECT
0 (A1)		LOCATION
		SHEET TITLE

MIRVAC QLD PTY LTD

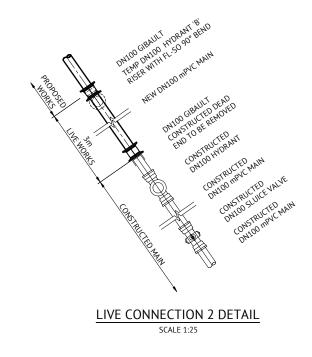
EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT TEVIOT ROAD, GREENBANK WATER RETICULATION LOCALITY PLAN & NOTES

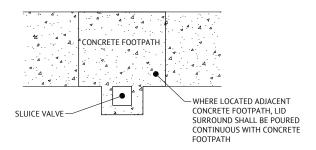
MIR-0907











TYPICAL SLUICE VALVE ADJACENT CONCRETE FOOTPATH DETAIL

LIVE CONNECTION NOTES:

- LIVE CONNECTIONS BY LOGAN WATER
 LIVE CONNECTION IN ACCORDANCE WITH SEQ-WAT-1303-1
 THRUST BLOCKS NOT SHOWN FOR CLARITY.
 PRE-CHLORINATION FITTINGS AS REQUIRED.

AS CONSTRUCTED DETAILS	S FOR AMEND.
I CERTIFY THAT THE "AS CONST	RUCTED" DETAILS
SHOWN ON THIS PLAN ARE TRU	
RECORD OF THE W	ORKS
SIGNED	DATE:
NAME of SIGNATORY	
RPEQ No. or LICENCE	
COMPANY NAME	
START DATE	

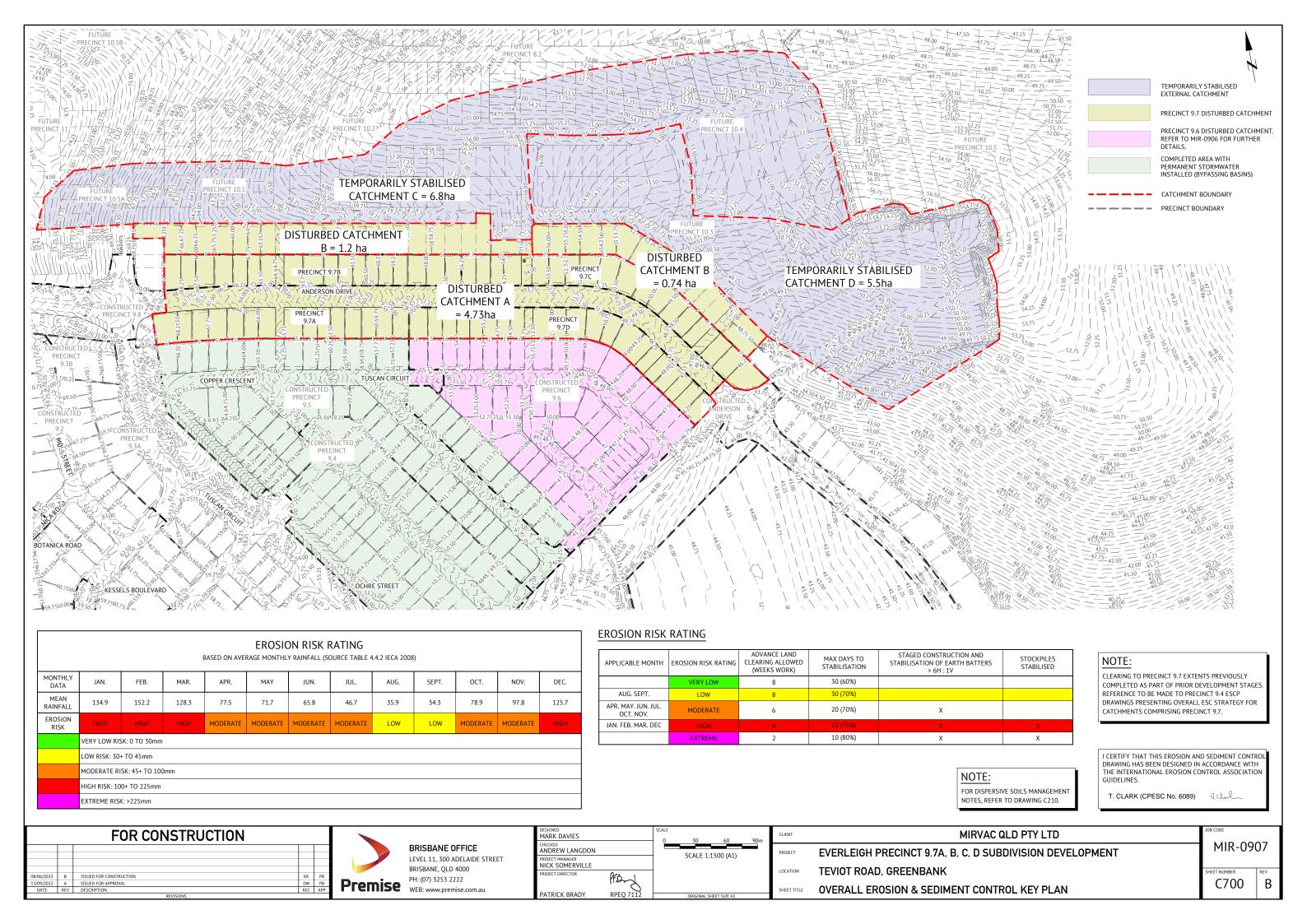
FOR CONSTRUCTION						
01/08/2023	C	REMOVED LIVE CONNECTION 1	KK	PB		
08/06/2023	В	ISSUED FOR CONSTRUCTION	KK	PB		
18/10/2022	Α	ISSUED FOR APPROVAL	KK	PB		
DATE	REV	DESCRIPTION	REC	APP		

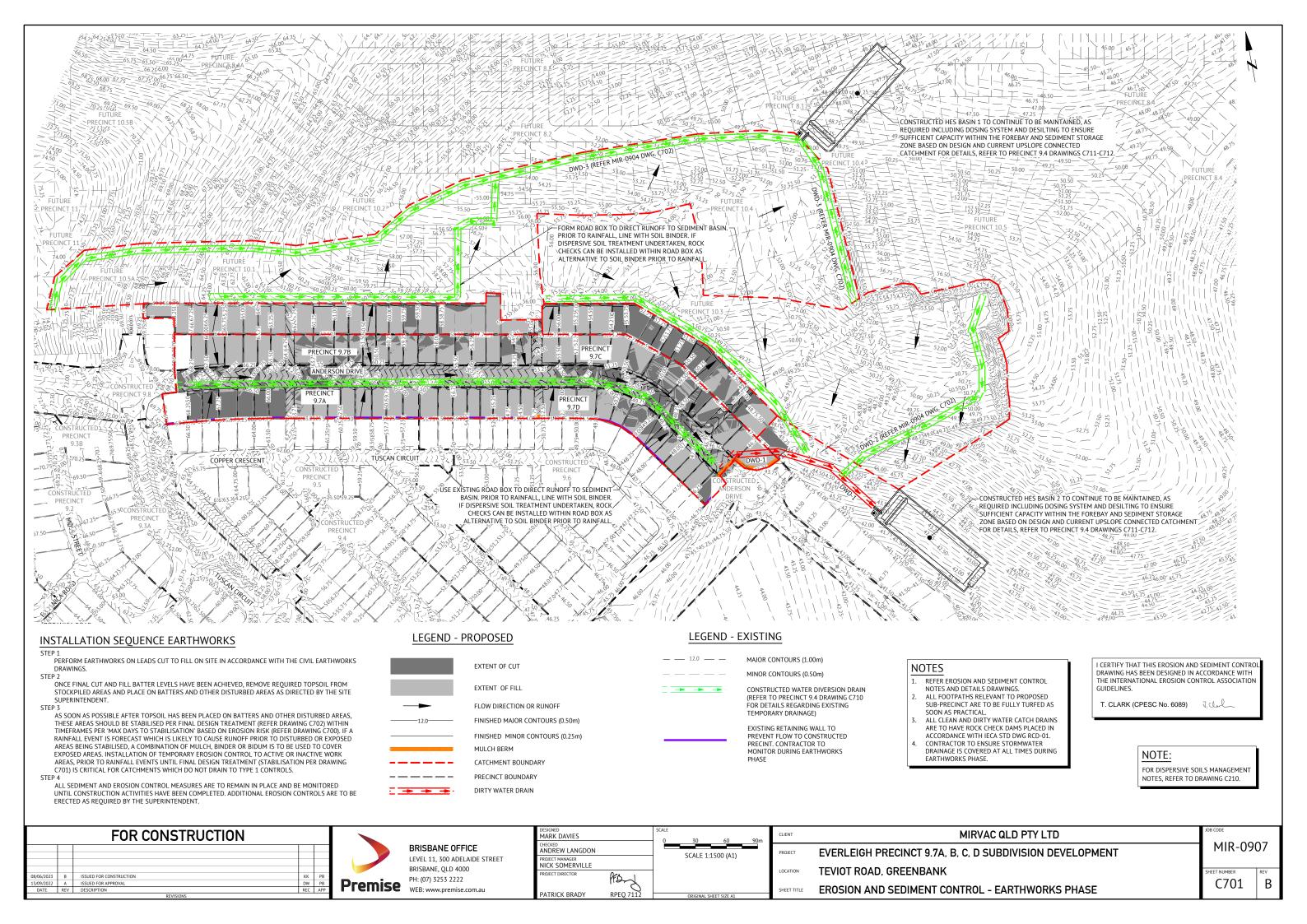


DESIGNED KLYNT KIWANG		SCALE				CL
CHECKED ANDREW LANGDON		0	10	20	30m	PR
PROJECT MANAGER						i
NICK SOMERVILLE			SCALE 1	:500 (A1)		
PROJECT DIRECTOR	PRON			,		LC
						SH
PATRICK BRADY	RPEQ 7112		ORIGINAL SH	IEET SIZE A1		

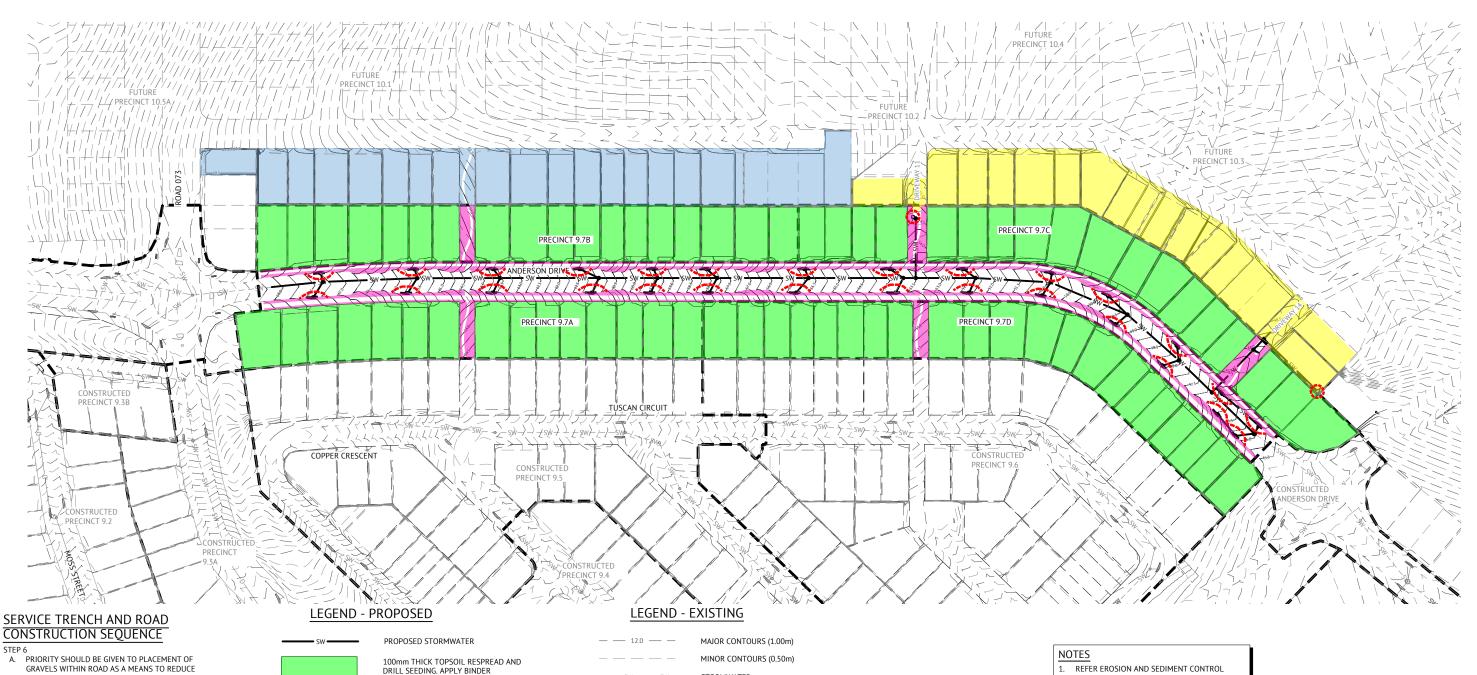
CLIENT	MIRVAC QLD PTY LTD
PROJECT	EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT
LOCATION	TEVIOT ROAD, GREENBANK
SHEET TITLE	WATER LIVE CONNECTION AND TYPICAL DETAILS

MIR-0907









- EROSION RISK
 PAVEMENT CONSTRUCTION
- MAINTAIN ALL EXISTING ESC MEASURES DURING PAVEMENT CONSTRUCTION GULLY INLET CONTROLS TO BE REINSTATED
 DURING PAVEMENT AND STORMWATER CONSTRUCTION AND MAINTAINED UNTIL ENTIRE UPSLOPE CATCHMENT HAS BEEN STABILISED.

A. MAINTENANCE PERIOD
B. MAINTAIN CONTROL MAINTAIN CONTROL AND ESC AND VEGETATIVE TREATMENTS WHICH CONTROL SEDIMENTATION AND EROSION PRIOR TO THE ESTABLISHMENT OF STABILIZED GRASS COVER.

EP 8

REMOVE CONSTRUCTION ENTRANCES.
ADDITIONAL EROSION CONTROLS ARE TO BE ERECTED AND MONITORED AS REQUIRED BY THE SUPERINTENDENT

DRILL SEEDING. APPLY BINDER IMMEDIATELY AFTER DRILL SEEDING.

100mm THICK TOPSOIL AND TURF

50mm TOPSOIL AND GRASS SEEDING. APPLY BINDER IMMEDIATELY AFTER SEEDING. ALTERNATIVELY APPLY TEMPORARY HYDROMULCH.

NO TOPSOIL AND POLYMER SPRAY

GULLY INLET PROTECTION. REFER DETAIL IECA DRAWING ESC-03 FOR DETAILS. FIELD INLET PROTECTION. REFER DETAIL

IECA DRAWING ESC-02 FOR DETAILS. FINISHED MAJOR CONTOURS (0.50m) FINISHED MINOR CONTOURS (0.25m)

- REFER EROSION AND SEDIMENT CONTROL
- NOTES AND DETAILS DRAWINGS. ALL FOOTPATHS ARE TO BE FULLY TURFED AS
- SOON AS PRACTICAL. CONTRACTOR TO ENSURE THAT GRASS SEEDED AREAS SHOWN ON THIS PLAN ACHIEVE SUFFICIENT STRIKE AND COVERAGE IN ACCORDANCE WITH LOGAN CITY COUNCIL STANDARDS.
- FOR STABILISATION MEASURES OF FUTURE PRECINCTS, REFER TO MIR-0904 C703 EROSION AND SEDIMENT CONTROL LAYOUT
 STABILISATION PHASE

TURFING AND TOPSOIL NOTE

CONTRACTOR SHALL RESPREAD AMELIORATED TOPSOIL (AMELIORATION REQUIREMENTS AS DIRECTED BY SUPERINTENDENT) TO VERGES AT A THICKNESS OF 100mm. TURFING TO VERGES WITHIN PRECINCT 9.7 WORKS SHALL BE UNDERTAKEN BY THE CIVIL CONTRACTOR.

I CERTIFY THAT THIS EROSION AND SEDIMENT CONTROI DRAWING HAS BEEN DESIGNED IN ACCORDANCE WITH THE INTERNATIONAL EROSION CONTROL ASSOCIATION GUIDELINES.

T. CLARK (CPESC No. 6089) J. Clark

NOTE:

FOR DISPERSIVE SOILS MANAGEMENT NOTES, REFER TO DRAWING C210.

FOR CONSTRUCTION							
08/06/2023	В	ISSUED FOR CONSTRUCTION	KK	PB			
13/09/2022	Α	ISSUED FOR APPROVAL	DW	PB			
DATE	REV	DESCRIPTION	REC	APP			
		PENICIONIC					

BRISBANE OFFICE

LEVEL 11, 300 ADELAIDE STREET BRISBANE, QLD 4000 PH: (07) 3253 2222 Premise PH: (U/) 3233 2222 WEB: www.premise.com.au

DESIGNED MARK DAVIES		SCALE			
CHECKED		0	20	40	60m
ANDREW LANGDON			SCALE 1:	1000 (41)	
PROJECT MANAGER NICK SOMERVILLE			SCALE 1	1000 (A1)	
PROJECT DIRECTOR	PFD				
PATRICK BRADY	RPEQ 7112		ORIGINAL SI	HEET SIZE A1	

STORMWATER

CLIENT	MIRVAC QLD PTY LTD
PROJECT	EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT
LOCATION	TEVIOT ROAD, GREENBANK
SHEET TITLE	FROSION AND SEDIMENT CONTROL - STABILISATION PHASE

MIR-0907

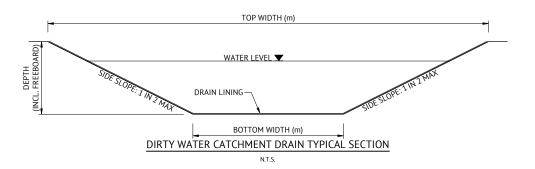
EROSION & SEDIMENT CONTROL NOTES

- LOCATION & LEVELS OF ALL EXISTING SERVICES TO BE CONFIRMED ON SITE BY CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- REFER EARTHWORKS DRAWINGS FOR ADDITIONAL NOTES.
- ALL TRENCHES, FOOTPATH EXCAVATIONS & STOCKPILES TO BE PROTECTED BY TEMPORARY
- SEDIMENT FENCES LINTIL 80% GRASS COVERAGE IS ACHIEVED TO DISTURBED AREAS
- EVERY PRECAUTION IS TO BE TAKEN TO PREVENT THE TRANSPORT OF SILT INTO THE NEWLY LAID STORMWATER PIPES THAT ARE CONNECTED TO THE DOWNSTREAM PIPE SYSTEMS, AND ANY EXISTING
- THESE NOTES SHALL BE READ IN CONJUNCTION WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- THE EROSION AND SEDIMENT CONTROL WORKS SHALL COMPLY WITH THE REQUIREMENTS OF THE LOCAL AUTHORITIES EROSION AND SEDIMENT CONTROL STANDARDS.
- THE CONTRACTOR SHALL TAKE ALL REASONABLE AND PRACTICABLE MEASURES TO: ALLOW STORMWATER TO PASS THROUGH THE SITE IN A CONTROLLED MANNER AND AT NON EROSIVE FLOW VELOCITIES;
- MINIMISE SOIL EROSION FROM WATER AND WIND;
- MINIMISE ADVERSE EFFECTS OF SEDIMENT RUN-OFF;
 MINIMISE OR PREVENT ENVIRONMENTAL HARM ASSOCIATED WITH DISCHARGES FROM THE SITE (E.G. THE EFFECTS OF SEDIMENTATION ON THE ENVIRONMENTAL VALUES OF RECEIVING WATERS); AND ENSURE THAT THE VALUE AND USE OF RESIDENTIAL PROPERTIES ADJACENT TO THE DEVELOPMENT
- (SUCH AS DRAINAGE AND ROADS) ARE NOT DIMINISHED AS A RESULT OF THE MIGRATION OF SEDIMENT FROM THE DEVELOPMENT
- THE CONTRACTOR SHALL APPOINT AN APPROPRIATELY EXPERIENCED PERSON TO BE MADE RESPONSIBLE FOR IMPLEMENTATION OF THE ESC.
- ALL ESC MEASURES SHALL BE INSPECTED:
- AT LEAST DAILY (WHEN WORK IS OCCURRING ON SITE).
- AT LEAST WEEKLY (WHEN WORK IS NOT OCCURRING ON SITE).
- WITHIN 24 HOURS OF EXPECTED RAINFALL.
- WITHIN 18 HOURS OF RAINFALL OCCURRING
- MAINTENANCE OF ESC MEASURES SHALL OCCUR TO ENSURE THEY ARE OPERATING EFFICIENTLY AND IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

ESC MEASURES	MAINTENANCE TRIGGER	TIME FRAME FOR UNDERTAKING MAINTENANCE
ESC MEASURES	WHEN SETTLED SEDIMENT VOLUME EXCEEDS 25% OF THE CAPACITY OF THE ESC MEASURE	BY THE END OF THE DAY

- INSTALL DIVERSION CATCH DRAINS UPSTREAM OF, AND SILT FENCE DOWNSTREAM OF, STOCKPILES. STOCKPILES ARE TO BE LOCATED AWAY FROM EROSION HAZARD AREAS SUCH AS DRAINAGE LINES
- STOCKPILES ARE TO BE PROTECTED FROM EROSION BY THE WIND.
- ADEQUATE SUPPLIES OF EMERGENCY MAINTENANCE MATERIALS, INCLUDING (BUT NOT LIMITED TO) TIE WIRE, STAKES, FILTER CLOTH, WIRE MESH AND CLEAN GRAVEL SHOULD BE AVAILABLE ON-SITE.
- ESC MAINTENANCE ACTIVITIES ARE TO BE RECORDED IN AN ON-SITE REGISTER. THE REGISTER IS TO BE MAINTAINED FOR THE DURATION OF THE WORKS AND IS TO BE MADE AVAILABLE TO THE
- 12. DISTURBED AREA ARE TO BE STABILISED AS SOON AS POSSIBLE ON COMPLETION OF BULK EARTHWORKS. LOTS TO BE STABILISED FOLLOWING RESPREADING OF TOPSOIL.
- 13. SUPPLEMENTARY ESC MEASURES SHALL BE DIRECTED BY THE SUPERINTENDENT.

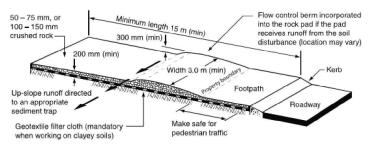
	CATCH DRAIN SIZING					
	$Q_y = (C_y * I_{tc,y} * A)/360$	[Equation 1 (IECA 2008)				
where:						
Q _y	PEAK FLOW RATE (m ³ /s) OF AVERAGE RECURRENCE INTE	RVAL (ARI) OF Y YEARS				
Су	RUNOFF COEFFICIENT (DIMENSIONLESS) FOR A	RI OF Y YEARS				
I _{tc,y}	AVERAGE RAINFALL INTENSITY (mm/hr) FOR DESIGN DURATION OF	TC HOURS AND ARI OF Y YEARS				
A	AREA OF CATCHMENTS (ha)					
360	CONVERSION FACTOR					
FLOW I	HEIGHT IS SOLVED BY TRIAL AND ERROR USING THE THREE EQUATIONS I	BELOW AS PER IECA 2008.				
	Q = 1/n * A * R ^{2/3} * S ^{1/2}	[Equation 2 (IECA 2008				
where:						
Q	PEAK FLOW RATE (m ³ /s) OF AVERAGE RECURRENCE INTE	RVAL (ARI) OF Y YEARS				
n	MANNING'S COEFFICIENT (UNITLESS)					
Α	CROSS SECTIONAL AREA OF FLOW (m²), REFER TO EQUATION 3					
R	HYDRAULIC RADIUS (m), REFER TO EQUATION 4					
S	SLOPE OF ENERGY LINE, EQUAL TO SLOPE OF CHA	NNEL BED (m/m)				
	A = (b + xy)y	[Equation 3 (IECA 2008				
where:						
Α	CROSS SECTIONAL AREA OF FLOW (r	m²)				
b	BASE WIDTH OF CHANNEL (m)					
х	SIDE SLOPE OF CHANNEL					
у	DEPTH OF FLOW IN CHANNEL (m) + REQURED 0.1	5m FREEBOARD				
	$R = ((b + xy)y) / (b + 2y(1 + x^2)^{1/2})$	[Equation 4 (IECA 2008				
where:						
R	HYDRAULIC RADIUS OF FLOW (m)					
b	BASE WIDTH OF CHANNEL (m)					
х	SIDE SLOPE OF CHANNEL					
у	DEPTH OF FLOW IN CHANNEL (m) + REQUIRED 0.30m FREEBOARD					



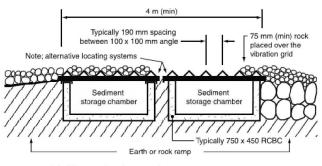
DIRTY WATER CATCH DRAIN DETAILS

DRAIN ID	SLOPE	LINING	BASE WIDTH (m)	TOP WIDTH (m)	DEPTH INCLUDING FREEBOARD (m)
DWD-1	4.00%	BLACK PLASTIC	0.5	2.7	0.55

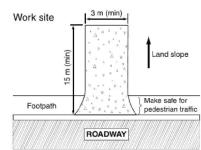
NOTE: REFER TYPICAL SECTION ABOVE FOR DETAILS. CATCH DRAINS SIZED FOR Q2 FLOW. ONCE EARTHWORKS PROGRESS DWD-1 TO BE REDUNDANT AND RUNOFF CONVEYED WITHIN ROAD BOX PER DRAWING C701. ROAD BOX TO BE MANAGED PER COMMENTS ON DRAWING C701.



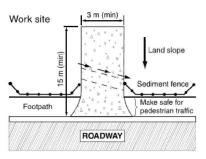
(a) Rock entry/exit pad for construction sites (refer to Standard Drawing Exit-03 for building sites)



(c) Alternative low maintenance arrangement (still under development)



(b) Rock pad sloping away from road



(d) Rock pad sloping towards the road

CONSTRUCTION ENTRANCE DETAIL

I CERTIFY THAT THIS EROSION AND SEDIMENT CONTROL DRAWING HAS BEEN DESIGNED IN ACCORDANCE WITH THE INTERNATIONAL EROSION CONTROL ASSOCIATION

T. CLARK (CPESC No. 6089)

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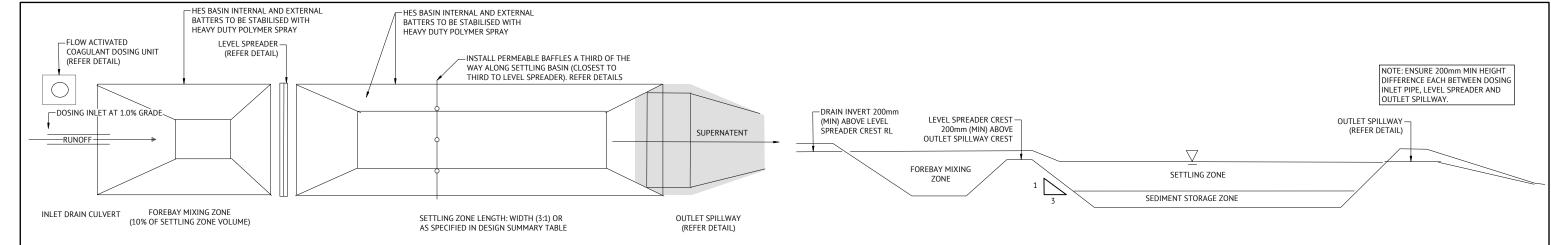
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THATRIC DATAILS		
ANDREW LANGDON		
PROJECT MANAGER		
NICK SOMERVILLE		
PROJECT DIRECTOR	PFD-	
PATRICK BRADY	RPEQ 7112	ORIGINAL SHEET SIZE A1

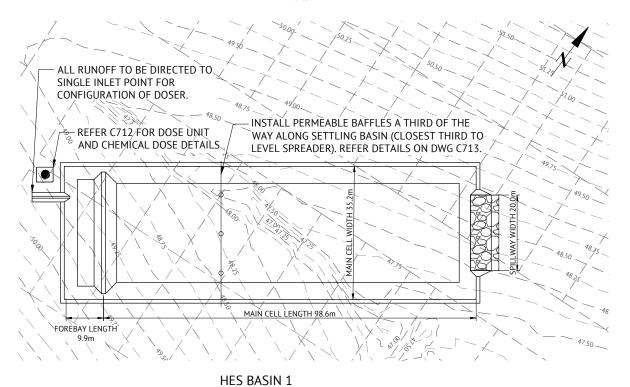
CLIENT	MIRVAC QLD PTY LTD	
PROJECT	EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT	
OCATION	TEVIOT ROAD, GREENBANK	
SHEET TITLE	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS	

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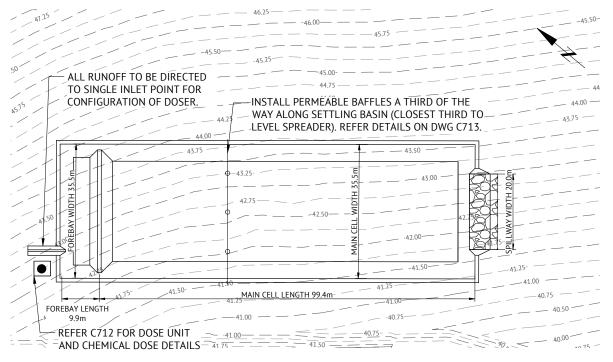


TYPICAL TYPE B SEDIMENT BASIN PLAN VIEW

N.T.S.



TYPICAL TYPE B SEDIMENT BASIN PROFILE



 $\frac{\mathsf{HES}\;\mathsf{BASIN}\;\mathsf{2}}{{}_{1:500}}$

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T. CLARK (CPESC No. 6089)

HES BASIN SIZING DETAILS (AS PER PRECINCT 9.4 DRAWINGS C711-C712)

			IGN PA	RAMETER			SETTLING ZONE (INCLUDING SEDIMENT STORAGE)			FOREBAY				HYDRAULIC CONTROLS				
BASIN ID	CATCHMENT AREA	SETTLING DEPTH Ds	C1	TIME OF CONC	I1	FLOC SETTLE DEPTH Df	VOLUME	LENGTH	WIDTH	DEPTH (AT SPILLWAY)	VOLUME	LENGTH	WIDTH	DEPTH	SPILLWAY CREST BASE WIDTH	SPILLWAY CREST	EMBANKME NT	LEVEL SPREADER CREST
	НА	m		MIN	MM/HR	m	(m³)	(m)	(m)	(m)	(m³)	(m)	(m)	(m)	(m)	RL	RL	RL
HES BASIN 1	11.20	1.00	0.56	19.00	61.00	0.60	3708.00	98.60	35.20	1.5	348.48	9.90	35.20	1.00	20.00	49.55	50.20	49.75
HES BASIN 2	9.97	1.00	0.56	16.00	70.00	0.60	3796.00	99.40	35.50	1.5	351.45	9.90	35.50	1.00	20.00	43.30	43.80	43.50

REFER C713 FOR SPILLWAY DETAILS

NO

1. JAR TESTING USING REPRESENTATIVE SITE SOILS HAS BEEN UNDERTAKEN (REFER DRAWING C712). JAR TESTING CONFIRMS A
SETTLEMENT RATE OF 150mm IN 15 MINUTES IS ACHIEVABLE USING THE NOMINATED ACH COAGULANT AT A DOSE RATE OF

100ppm. BASIN DESIGN HAS ADOPTED AN EQUIVALENT SETTLEMENT RATE IN SIZING.
2. SCOUR VELOCITY CALCULATED THROUGH BASINS MAY EXCEED NOMINAL 0.015m/s VELOCITY PER DESIGN PROCEDURE (OPTION 2B WITHIN IECA, 2018). RECOMMENDED THAT PERMEABLE BAFFLES BE INSTALLED IN BASIN AND REGULAR MONITORING BE UNDERTAKEN TO VERIFY PERFORMANCE.

FOR CONSTRUCTION					
08/06/2023	В	ISSUED FOR CONSTRUCTION	KK	PB	
13/09/2022	Α	ISSUED FOR APPROVAL	DW	PB	
DATE	REV	DESCRIPTION	REC	APP	

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DESIGNED		SCALE				
MARK DAVIES						
CHECKED ANDREW LANGDON		0	10	20	30m	
PROJECT MANAGER						
NICK SOMERVILLE			SCALE 1:	500 (Δ1)		١.
PROJECT DIRECTOR	PFD		JONEE 1.	300 (11)		
	0					9
PATRICK BRADY	RPEQ 7112		ORIGINAL SH	IEET SIZE A1		

CLIENT	MIRVAC QLD PTY LTD	
PROJECT	EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT	
LOCATION	TEVIOT ROAD, GREENBANK	ŀ
SHEET TITLE	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS	

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EROSION & SEDIMENT CONTROL NOTES

- LOCATION & LEVELS OF ALL EXISTING SERVICES TO BE CONFIRMED ON SITE BY CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
 REFER EARTHWORKS DRAWINGS FOR ADDITIONAL NOTES.
- ALL TRENCHES, FOOTPATH EXCAVATIONS & STOCKPILES TO BE PROTECTED BY TEMPORARY
- SEDIMENT FENCES LINTIL 80% GRASS COVERAGE IS ACHIEVED TO DISTURBED AREAS. EVERY PRECAUTION IS TO BE TAKEN TO PREVENT THE TRANSPORT OF SILT INTO THE NEWLY LAID
- STORMWATER PIPES THAT ARE CONNECTED TO THE DOWNSTREAM PIPE SYSTEMS, AND ANY EXISTING
- THESE NOTES SHALL BE READ IN CONJUNCTION WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- THE EROSION AND SEDIMENT CONTROL WORKS SHALL COMPLY WITH THE REQUIREMENTS OF THE LOCAL AUTHORITIES EROSION AND SEDIMENT CONTROL STANDARDS.
- THE CONTRACTOR SHALL TAKE ALL REASONABLE AND PRACTICABLE MEASURES TO: ALLOW STORMWATER TO PASS THROUGH THE SITE IN A CONTROLLED MANNER AND AT NON EROSIVE
- FLOW VELOCITIES; MINIMISE SOIL EROSION FROM WATER AND WIND;
- MINIMISE ADVERSE EFFECTS OF SEDIMENT RUN-OFF;
 MINIMISE OR PREVENT ENVIRONMENTAL HARM ASSOCIATED WITH DISCHARGES FROM THE SITE (E.G. THE EFFECTS OF SEDIMENTATION ON THE ENVIRONMENTAL VALUES OF RECEIVING WATERS); AND ENSURE THAT THE VALUE AND USE OF RESIDENTIAL PROPERTIES ADJACENT TO THE DEVELOPMENT
- (SUCH AS DRAINAGE AND ROADS) ARE NOT DIMINISHED AS A RESULT OF THE MIGRATION OF SEDIMENT FROM THE DEVELOPMENT
- THE CONTRACTOR SHALL APPOINT AN APPROPRIATELY EXPERIENCED PERSON TO BE MADE RESPONSIBLE FOR IMPLEMENTATION OF THE ESC.
- ALL ESC MEASURES SHALL BE INSPECTED:
- AT LEAST DAILY (WHEN WORK IS OCCURRING ON SITE).
- AT LEAST WEEKLY (WHEN WORK IS NOT OCCURRING ON SITE).
- WITHIN 24 HOURS OF EXPECTED RAINFALL.
- WITHIN 18 HOURS OF RAINFALL OCCURRING
- MAINTENANCE OF ESC MEASURES SHALL OCCUR TO ENSURE THEY ARE OPERATING EFFICIENTLY AND IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

ESC MEASURES	MAINTENANCE TRIGGER	TIME FRAME FOR UNDERTAKING MAINTENANCE
ESC MEASURES	WHEN SETTLED SEDIMENT VOLUME EXCEEDS 25% OF THE CAPACITY OF THE ESC MEASURE	BY THE END OF THE DAY

- INSTALL DIVERSION CATCH DRAINS UPSTREAM OF, AND SILT FENCE DOWNSTREAM OF, STOCKPILES. STOCKPILES ARE TO BE LOCATED AWAY FROM EROSION HAZARD AREAS SUCH AS DRAINAGE LINES
- STOCKPILES ARE TO BE PROTECTED FROM EROSION BY THE WIND.
- ADEQUATE SUPPLIES OF EMERGENCY MAINTENANCE MATERIALS, INCLUDING (BUT NOT LIMITED TO) TIE WIRE, STAKES, FILTER CLOTH, WIRE MESH AND CLEAN GRAVEL SHOULD BE AVAILABLE ON-SITE.
- ESC MAINTENANCE ACTIVITIES ARE TO BE RECORDED IN AN ON-SITE REGISTER. THE REGISTER IS TO BE MAINTAINED FOR THE DURATION OF THE WORKS AND IS TO BE MADE AVAILABLE TO THE
- 12. DISTURBED AREA ARE TO BE STABILISED AS SOON AS POSSIBLE ON COMPLETION OF BULK EARTHWORKS. LOTS TO BE STABILISED FOLLOWING RESPREADING OF TOPSOIL.
- 13. SUPPLEMENTARY ESC MEASURES SHALL BE DIRECTED BY THE SUPERINTENDENT.

AUTO DOSER

- JAR TESTING UNDERTAKEN BY TURBID WITH REPRESENTATIVE SOIL SAMPLES COMPOSITED OVER THE SUBJECT AREA USED. BASED ON JAR TESTING A DOSE RATE OF 100PPM (100L OF ACH PER 1ML OF BASIN STORAGE VOLUME) IS TO BE ADOPTED. NOMINATED ACH COAGULANT IS TURBICLEAR. IF ALTERNATIVE PRODUCT/S USED THAN IAR TESTING TO BE VERIFIED
- JAN LESTING TO BE VENIFIED.

 GIVEN THE CATCHMENT AREA AND DYNAMIC NATURE OF THE SITE IT IS RECOMMENDED THAT A FLOW BASED AUTOMATED DOSER BE INSTALLED AT THE INLET TO THE FOREBAY.
- A WELL CONSTRUCTED AND DEFINED OPEN CHANNEL OR PIPE WILL BE REQUIRED TO ACHIEVE FEFECTIVE AND ACCURATE FLOW DEPTH RECORDING BY THE DOSE UNIT. A STILLING POND UPSLOPE OF THE INLET TO THE OPEN CHANNEL OR PIPE IS RECOMMENDED TO IMPROVE ACCURACY AND PERFORMANCE OF THE SYSTEM.
- ALL WEATHER ACCESS TRACK TO BE PROVIDED TO DOSER.
- THE DOSE UNIT SUPPLIER SHOULD BE CONTACTED TO DISCUSS SETUP AND INSTALLATION REQUIREMENTS.

OPERATIONAL PROCEDURES

IT IS PROPOSED THAT STORMWATER RUNOFF COLLECTED BY THE SEDIMENT BASINS BE RE-USED ON SITE AS PART CIVIL CONSTRUCTION OPERATIONS. HOWEVER, IF IT IS REQUIRED TO RELEASE COLLECTED RUNOFF INTO DOWNSTREAM OFFSITE SYSTEMS, THE REQUIRED WATER QUALITY IS TO BE MET. TABLE 5 BELOW DETAILS RECOMMENDED WATER QUALITY STANDARDS FOR DISCHARGE OF WET BASINS.

RECOMMENDED DISCHARGE STANDARD FOR DEWATERING OPERATIONS.

SITE CONDITIONS	DISCHARGE WATER QUALITY
SITE CONDITIONS	STANDARD
POST-STORM DEWATERING OF WET SEDIMENT BASINS	90 PERCENTLE TOTAL SUSPENDED SOLIDS (TSS) CONCENTRATION NOT EXCEEDING 50mg/L
	pH 6.5 TP 8.5

SEDIMENT BASIN MAINTENANCE

- SEDIMENT BASINS SHOULD BE INSPECTED DURING THE FOLLOWING PERIODS:
- DURING CONSTRUCTION TO DETERMINE WHETHER MACHINERY OR CONSTRUCTION ACTIVITIES HAVE DAMAGED ANY COMPONENTS OF THE SEDIMENT BASIN. IF DAMAGE HAS OCCURRED, FIX IT;
- AFTER FACH RUNOFF EVENT, INSPECT THE FROSION DAMAGE AT FLOW ENTRY AND EXIT POINTS
- AT LEAST WEEKLY DURING THE WET SEASON AND THEN FORTNIGHTLY AFTER THAT;
- PRIOR TO, AND IMMEDIATELY AFTER, PERIODS OF "STOP WORK" OR SITE SHUT DOWN. CLEAN OUT ACCUMULATED SEDIMENT WHEN IT REACHES THE MARKER BOARD/POST, AND RESTORE
- THE ORIGINAL STORAGE VOLUME. PLACE SEDIMENT IN A DISPOSAL AREA OR IF APPROPRIATE MIX WITH DRY SOIL ON SITE.
- DO NOT DISPOSE OF SEDIMENT IN A MANNER THAT WILL CREATE AN EROSION OR POLLUTION
- CHECK ALL VISIBLE PIPE CONNECTIONS FOR LEAKS, AND REPAIR AS NECESSARY.

 CHECK FILL MATERIAL IN THE DAM FOR EXCESSIVE SETTLEMENT, SLUMPING OF THE SLOPES OR PIPING BETWEEN THE CONDUIT AND THE EMBANKMENT, MAKE ALL NECESSARY REPAIRS.
- REMOVE ALL TRASH AND OTHER DEBRIS FROM THE BASIN AND RISER.
- SUBMERGE INFLOW PIPES MUST BE INSPECTED AND DE-SILTED (AS REQUIRED) AFTER EACH

SEDIMENT BASIN REMOVAL

- 8. WHEN GRADING AND CONSTRUCTION IN THE DRAINAGE AREA ABOVE A TEMPORARY SEDIMENT BASIN IS COMPLETED AND THE DISTURBED AREAS ARE ADEQUATELY STABILISED, THE BASIN MUST BE REMOVED. SEDIMENT SHOULD BE CLEARED AND PROPERLY DISPOSED OF AND THE BASIN AREA
- BEFORE STARTING ANY MAINTENANCE WORK ON THE BASIN, INSTALL ALL NECESSARY SHORT TERM SEDIMENT CONTROL MEASURES DOWNSTREAM OF THE SEDIMENT BASIN.
- 10. ALL WATER AND SEDIMENT MUST BE REMOVED FROM THE BASIN. DISPOSE OF SEDIMENT AND WATER IN A MANNER THAT WILL NOT CREATE AN EROSION OR POLLUTION HAZARD.
- 11. BRING THE DISTURBED BASIN AREAS TO A PROPER GRADE, THEN SMOOTH, COMPACT, AND STABILISE AND/OR REVEGETATE AS REQUIRED TO ESTABLISH A STABLE LAND SURFACE.

	JAR TEST	RESULTS (DOSIN	IG CHEMICAL: TU	RBICLEAR ACH)		
DOSE RATE (ml/L)	0.00 CONTROL	0.04	0.06	0.08	0.10	0.12
CLARITY ACHIEVED AFTER 5 MINS	481	199	87.4	61.5	58.5	37.2
CLARITY ACHIEVED AFTER 15 MINS	458	84.8	65.5	54.5	39.8	34.2
CLARITY ACHIEVED AFTER 30 MINS	385	68.2	56.9	42.3	30.9	26.7
CLARITY ACHIEVED AFTER 60 MINS	307	53.0	41.1	26.5	17.3	15.6
FINAL pH	7.4	7.4	7.3	7.3	7.3	7.3
FINAL TURBIDITY	307	53	56	26	17	15
FINAL TEST RESULT	ONTRA	0.04	o.at	0.08	0.1	

NOTE: STARTING pH = 7.4 STARTING TURBIDITY = 930

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T. CLARK (CPESC No. 6089) J Clark

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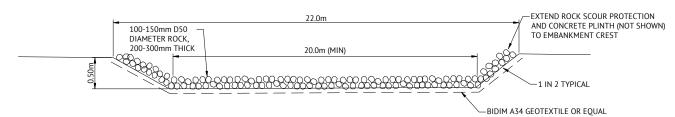
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DESIGNED MARK DAVIES		SCALE
HECKED ANDREW LANGDON		
PROJECT MANAGER NICK SOMERVILLE		
PROJECT DIRECTOR	Pranj	
PATRICK BRADY	RPEQ 7112	ORIGINAL SHEET SIZE A1

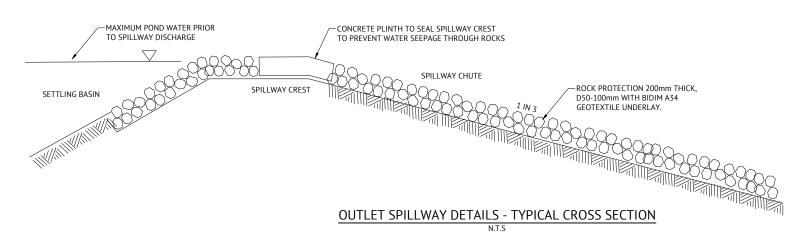
CLIENT	MIRVAC QLD PTY LTD
PROJECT	EVERLEIGH PRECINCT 9.7A, B, C, D SUBDIVISION DEVELOPMENT
LOCATION	TEVIOT ROAD, GREENBANK
SHEET TITLE	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

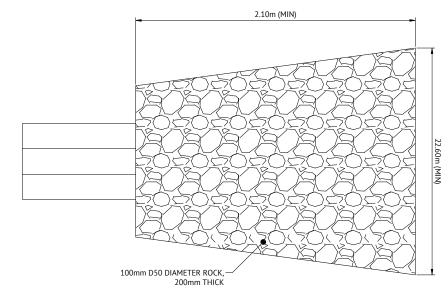
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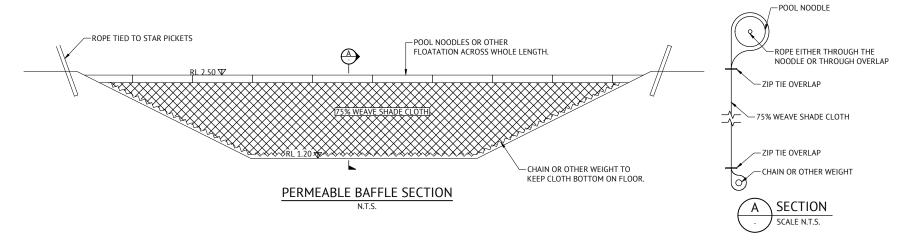
OUTLET SPILLWAY DETAILS - TYPICAL LONG SECTION

N.T.S.





ENERGY DISSIPATER DETAILS - TYPICAL LAYOUT



SPILLWAY DETAILS

	WEIR			CHUTE			DISSIPATER			
BASIN ID	BASE WIDTH	SIDE SLOPE	MIN. HEIGHT SPILLWAY TO TOB	TOP WIDTH	LONG SLOPE (m/m)	ROCK SIZE D50	DEPTH WITH FREE BOARD	MEAN ROCK SIZE D50	WIDTH	LENGTH
	(m)	1 IN X	(m)	(m)	%	(mm)	(m)	(mm)	(m)	(m)
HES BASIN 1	20	2	0.50	22	30	100-150	0.5	100	22.60	2.1
HES BASIN 2	20	2	0.50	22	30	100-150	0.5	100	22.60	2.1

REFER TYPICAL SECTION ABOVE FOR DETAILS. NOTE: SPILLWAY SIZED FOR 20yr ARI FLOW.

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ROLES AND RESPONSIBILITIES

ROLE	RESPONSIBILITY
PROJECT MANAGER	• OVERALL RESPONSIBILITY OF ESC IMPLEMENTATION
	 NOTIFY THE ENVIRONMENTAL MANAGER IMMEDIATELY OF ANY NON-COMPLIANCE WITH ESCP
	 ENSURE THE PROMPT IMPLEMENTATION OF MEASURES TO MITIGATE EROSION AND SEDIMENT GENERATION
SITE SUPERVISOR / FOREMEN	MONITOR DAILY RAINFALL
	 NOTIFY ENVIRONMENTAL ADVISOR/CONSULTANT WHEN RUNOFF GENERATING RAINFALL OCCURS IN THE PREVIOUS 24 HOURS
	 MAINTAIN CURRENT RECORDS OF RAINFALL, STORAGE VOLUMES, WATER QUALITY, TREATMENT PRACTICES, DISCHARGE VOLUMES (AS APPROPRIATE)
	• INSTALLATION AND MAINTENANCE OF ESC
ENVIRONMENTAL MANAGER	PROVIDE DESIGN INFORMATION AS REQUIRED
	 CONDUCT IN-SITU MONITORING (AS REQUIRED)
	 COLLECT AND SUBMIT SAMPLES TO LABORATORY (AS REQUIRED)
	 COLLATE RESULTS AND PREPARE REPORTS (AS REQUIRED)
	 CONDUCT SITE INSPECTIONS AN AUDITS (AS REQUIRED)
	• INSPECT ESC INSTALLATION AND MAINTENANCE
	• INSPECT OFFSITE IMPACTS AND MANAGEMENT
	• PROVIDE ADVICE REGARDING ESC SITE IMPROVEMENT (AS REQUIRED)
ALL PERSONNEL	REPORT ANY DAMAGE TO ESC DEVICES AND ANY POTENTIAL OR ACTUAL ENVIRONMENTAL HARM IN LINE WITH DUTY TO NOTIFY UNDER THE REOUIREMENTS OF THE ENVIRONMENTAL PROTECTION ACT 1994

CORRECTIVE AND PREVENTATIVE ACTION

AN ENVIRONMENTAL INCIDENT WITH RESPECT TO THE ESCP IS DEFINED AS ANY OCCURRENCE WHERE SEDIMENT IS RELEASED FROM THE SITE, WHETHER CONTROLLED OR UNCONTROLLED, OR WHERE STORM WATER IS RELEASED (CONTROLLED) FROM SITE WHICH DOES NOT MEET THE WATER QUALITY REQUIREMENTS.

ALL INCIDENTS AND NON-CONFORMANCES ARE TO BE REPORTED, INVESTIGATED AND CORRECTED IN ACCORDANCE WITH THE ESCP TO ENSURE EFFECTIVE SOIL AND WATER QUALITY MANAGEMENT PRACTICES AT ALL TIMES.

BEST PRACTICE SITE MANAGEMENT REQUIRES ALL ESC MEASURES TO BE INSPECTED BY THE CONTRACTORS NOMINATED REPRESENTATIVE AT LEAST DAILY WHEN RAIN IS OCCURRING, WITHIN 24 HOURS PRIOR TO EXPECTED RAINFALL, AND WITHIN 18 HOURS OF A RAINFALL EVENT OF SUFFICIENT INTENSITY AND DURATION TO CAUSE ONSITE RUNOFF (IECA, 2008). SUCH INSPECTIONS MUST CHECK:

- DAILY SITE INSPECTIONS (DURING PERIODS OF RUNOFF PRODUCING RAINFALL)
- ALL DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES
- OCCURRENCES OF EXCESSIVE SEDIMENT DEPOSITION (WHETHER ON-SITE OR OFF-SITE)
- ALL SITE DISCHARGE POINTS (INCLUDING DEWATERING ACTIVITIES AS APPROPRIATE)
- WEEKLY SITE INSPECTIONS (EVEN IF WORK IS NOT OCCURRING ON-SITE)
- ALL DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES
 OCCURRENCES OF EXCESSIVE SEDIMENT DEPOSITION (WHETHER ON-SITE OR OFF-SITE)
- OCCURRENCES OF CONSTRUCTION MATERIALS, LITTER OR SEDIMENT PLACED, DEPOSITED, WASHED OR BLOWN FROM THE SITE, INCLUDING DEPOSITION BY VEHICULAR MOVEMENTS.

 LITTER AND WASTE RECEPTORS
- OIL, FUEL AND CHEMICALS STORAGE FACILITIES
- PRIOR TO ANTICIPATED RUNOFF PRODUCING RAINFALL
- ALL DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES
- ALL TEMPORARY FLOW DIVERSION AND DRAINAGE WORKS
- FOLLOWING RUNOFF PRODUCING RAINFALL
- ALL DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES
- OCCURRENCES OF EXCESSIVE SEDIMENT DEPOSITION (WHETHER ON-SITE OR OFF-SITE)
 OCCURRENCES OF CONSTRUCTION MATERIALS, LITTER OR SEDIMENT PLACED, DEPOSITED, WASHED OR BLOWN FORM THE SITE, INCLUDING DEPOSITION BY VEHICULAR MOVEMENTS.

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T. CLARK (CPESC No. 6089)

FOR CONSTRUCTION



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