SHEET LIST TABLE SHEET TITLE SHEET NO. COVER SHEET C001 C002 SURVEY SETOUT PLAN C003 OVERALL SERVICES LAYOUT SAFETY IN DESIGN C004 C100 ROADWORKS AND DRAINAGE LAYOUT PLAN - SHEET : C101 ROADWORKS AND DRAINAGE LAYOUT PLAN - SHEET 2 C200 OVERALL FARTHWORKS LAYOUT PLAN C201 BULK EARTHWORKS LAYOUT PLAN - SHEET 1 C202 BULK EARTHWORKS LAYOUT PLAN - SHEET 2 C203 BULK FARTHWORKS LAYOUT PLAN - SHEFT 3 C210 BULK EARTHWORKS NOTES AND DETAILS - SHEET BULK EARTHWORKS NOTES AND DETAILS - SHEET 2 C211 C220 FARTHWORKS SUBGRADE ROCK PREPARATION LAYOUT PLAN HAUL ROADS & CONSTRUCTION WATER DETAILS C230 PRINCIPAL CONTRACTOR AREAS PLAN C240 C250 **VEGETATION CLEARING SECTIONS & NOTES** C300 ROADWORKS NOTES AND DETAILS TUSCAN CIRCUIT (NORTH) LONG & CROSS SECTIONS C310 C311 TUSCAN CIRCUIT (ADIACENT PARK) ROAD LONG & CROSS SECTIONS C312 OCHRE STREET LONG & CROSS SECTIONS - SHEET 1 C313 OCHRE STREET CROSS SECTIONS - SHEET 2 C314 DESERT ROAD LONG & CROSS SECTIONS - SHEET 1 DESERT ROAD CROSS SECTIONS - SHEET 2 C315 C320 INTERSECTION DETAILS LAYOUT PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN C330 C400 STORMWATER CATCHMENT LAYOUT PLAN C410 STORMWATER DRAINAGE LONG SECTIONS - SHEET 1 STORMWATER DRAINAGE LONG SECTIONS - SHEET 2 C411 STORMWATER DRAINAGE LONG SECTIONS - SHEET 3 C412 C420 STORMWATER DRAINAGE NOTES AND DETAILS C430 STORMWATER DRAINAGE STRUCTURE DETAILS - SHEET 1 C431 STORMWATER DRAINAGE STRUCTURE DETAILS - SHEET 2 C440 STORMWATER CALCULATIONS 39% AEP STORM - SHEET 1 C441 STORMWATER CALCULATIONS 39% AEP STORM - SHEET 2 C442 STORMWATER CALCULATIONS 1% AFP STORM - SHEFT 1 C443 STORMWATER CALCULATIONS 1% AEP STORM - SHEET 2 STORMWATER STRUCTURE NOTES C450 C451 STORMWATER STRUCTURE CIRCULAR PIT BASE & WALLS C452 STORMWATER STRUCTURE CIRCULAR PIT ROOF 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 C620 WATER LIVE CONNECTION DETAILS C700 OVERALL EROSION & SEDIMENT CONTROL KEY PLAN C701 FROSION AND SEDIMENT CONTROL - CLEAR AND GRUB PHASE C702 FROSION AND SEDIMENT CONTROL - BUI K FARTHWORKS PHASE C703 FROSION AND SEDIMENT CONTROL - STABILISATION PHASE C710 EROSION AND SEDIMENT CONTROL NOTES AND DETAILS - SHEET 1 C711 EROSION AND SEDIMENT CONTROL NOTES AND DETAILS - SHEET 2 C712 EROSION AND SEDIMENT CONTROL NOTES AND DETAILS - SHEET 3 C713 EROSION AND SEDIMENT CONTROL NOTES AND DETAILS - SHEET 4 C714 EROSION AND SEDIMENT CONTROL NOTES AND DETAILS - SHEET 5 C715 EROSION AND SEDIMENT CONTROL NOTES AND DETAILS - SHEET 6 TEMPORARY WORKS - ROADWORKS AND DRAINAGE C900

EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT TEVIOT ROAD, GREENBANK FOR MIRVAC QLD PTY LTD

GENERAL NOTES

- 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 SLICH 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
- 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 HEALTH AND SAFETY ACT (2011).
- 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 90% REVIEW ISSUE



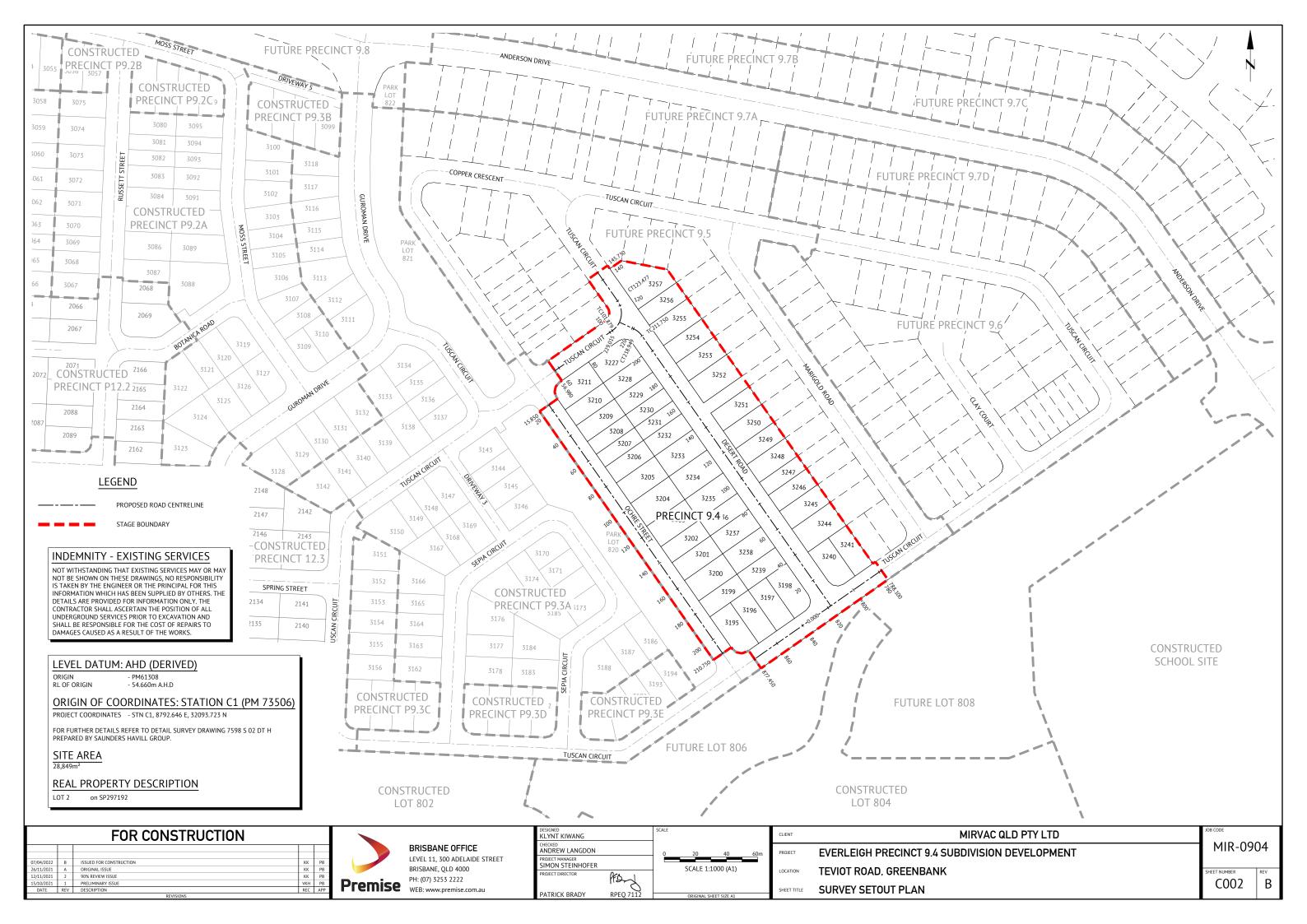
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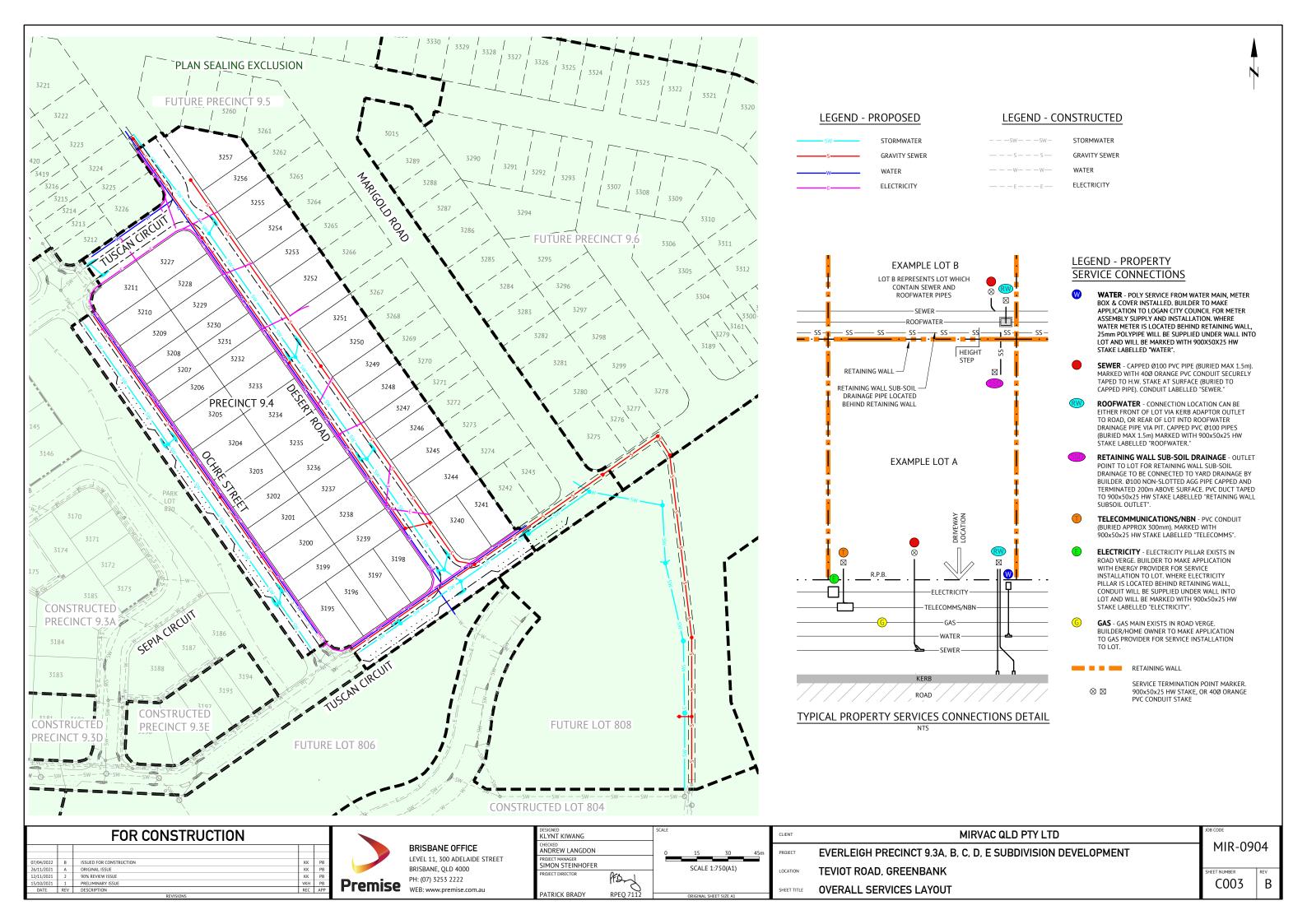
| DESIGNED KLYNT KIWANG | | SCALE |
|----------------------------------|-----------|-------|
| CHECKED ANDREW LANGDON | | 0 |
| PROJECT MANAGER SIMON STEINHOFER | | |
| PROJECT DIRECTOR | PFD-J | |
| PATRICK BRADY | RPFO 7112 | |

| SCALE | | | |
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| 0 | 100 | 200 | 300m |
| | SCALE 1: | 5000 (A1) | _ |
| | | | |
| | ORIGINAL SH | IFFT SIZE A1 | |

| CLIENT | MIRVAC QLD PTY LTD |
|-------------|------------------------------------------------|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| LOCATION | TEVIOT ROAD, GREENBANK |
| SHEET TITLE | COVER SHEET |

MIR-0904 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 | CONSEQUENCE | COST/TIME | |
| 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

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 |
| | A - ALMOST CERTAIN | MODERATE | HIGH | EXTREME | EXTREME | EXTREME |
| LIKELIHOOD | B - LIKELY | MODERATE | HIGH | HIGH | EXTREME | EXTREME |
| | C - POSSIBLE | LOW | MODERATE | HIGH | EXTREME | EXTREME |
| | 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 | | | | | |
|------------------|-----|-------------------------|-----|-----|--|
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| | | | | | |
| 07/04/2022 | В | ISSUED FOR CONSTRUCTION | KK | PB | |
| 26/11/2021 | Α | ORIGINAL ISSUE | KK | PB | |
| 12/11/2021 | 2 | 90% REVIEW ISSUE | KK | PB | |
| 15/10/2021 | 1 | PRELIMINARY ISSUE | VKH | PB | |
| DATE | REV | DESCRIPTION | REC | APP | |
| | | REVISIONS | | | |



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| KLYNT KIWANG | | |
|----------------------------------|-----------|----------------|
| CHECKED ANDREW LANGDON | | |
| PROJECT MANAGER SIMON STEINHOFER | | |
| PROJECT DIRECTOR | Prand | |
| PATRICK BRADY | RPEQ 7112 | ORIGINAL SHEET |
| | | |

ITEM DESIGN HAZARD

| CLIENT | MIRVAC QLD PTY LTD |
|-------------|------------------------------------------------|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| LOCATION | TEVIOT ROAD, GREENBANK |
| SHEET TITLE | SAFETY IN DESIGN |

| 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 | | |
|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| | EXISTING UNDERGROUND / 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 | |
| | | CAVATION HAZARD DEEP EXCAVATION IS REQUIRED TO INSTALL SEWE 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 |
| | HIGH RETAINING WALLS | VALLS 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 |
| | WATER BODIES PROPOSED CO SITE. | | NSTRUCTION WATER DAMS WILL BE PRESENT ON | 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 |
| | | | | | | |
| | | | CONSTRUCTIO | N HAZAR[|) SCHEDULE | |
| | POTENTIAL HAZARD | | POSSIBI | F PREVENTATIVE ACTION | | |

ELIMINATION / MINIMISATION OF HAZARD /

RESIDUAL

RISK

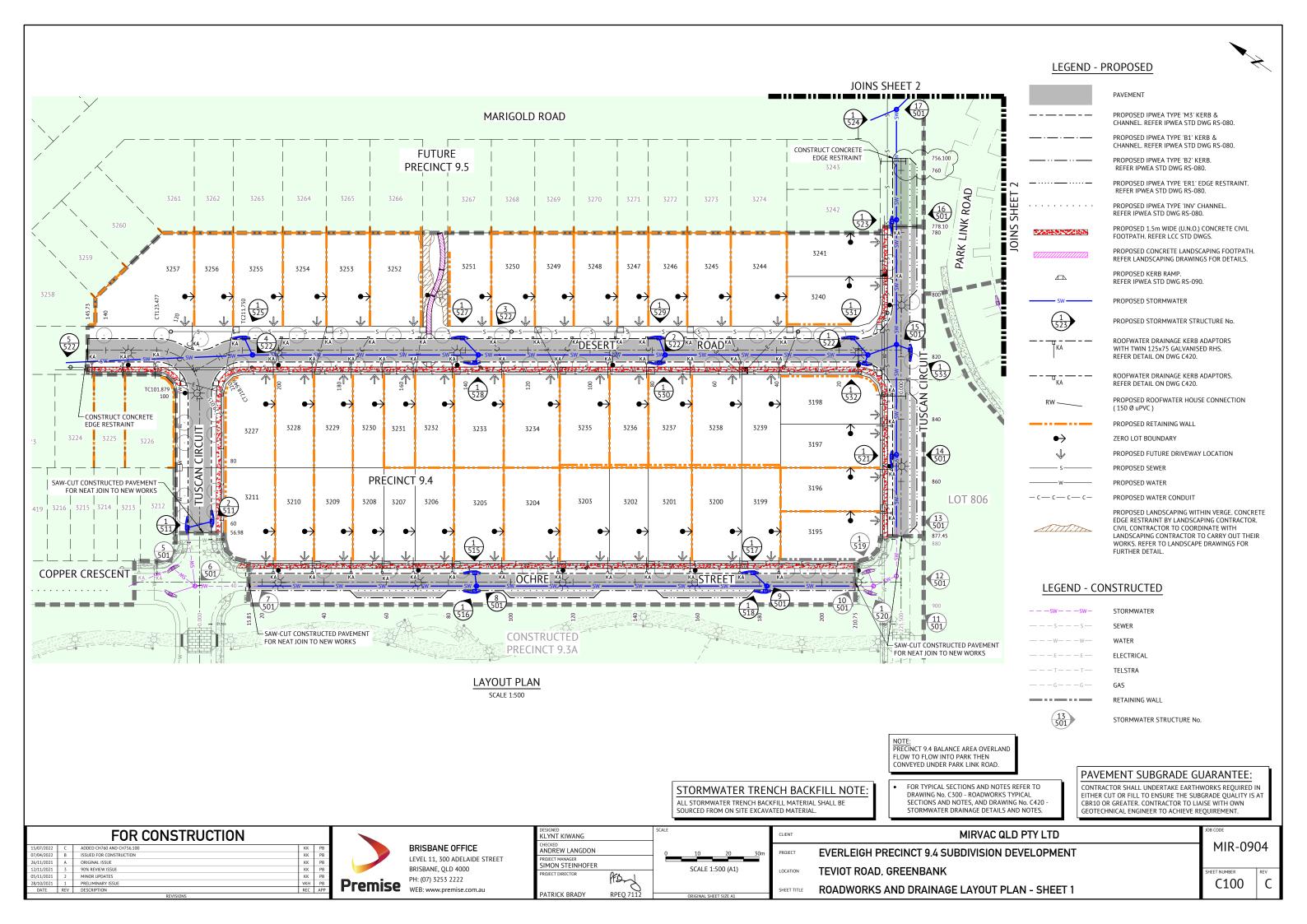
| | CONSTRUCTION HAZARD SCHEDULE | | | |
|------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| 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 | | 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 | TELECOMMUNICATION, GAS AND WATER | 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 | | 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. | | |
| С7 | | 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. | | |
| C9 | 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. | | |

DESIGN HAZARD SCHEDULE

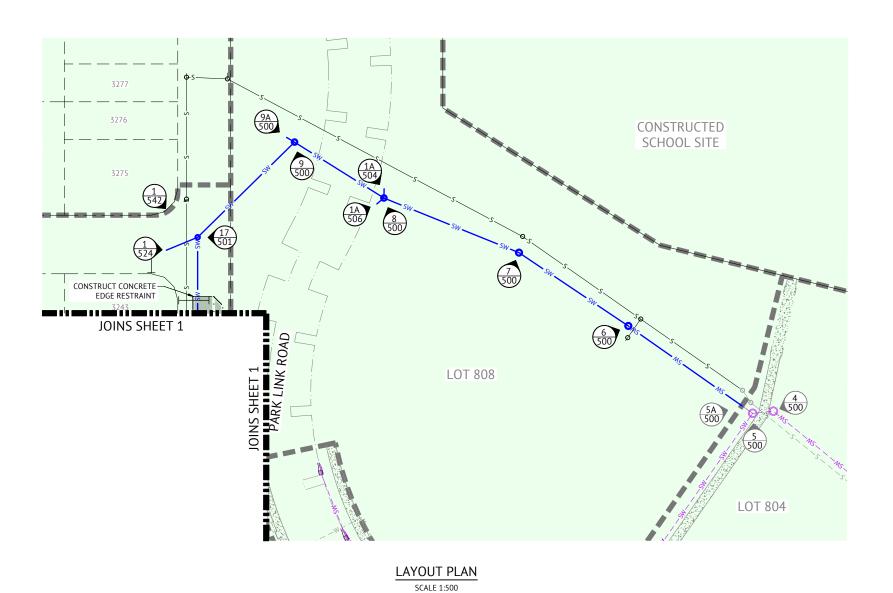
POTENTIAL HAZARD

RISK

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STORMWATER TRENCH BACKFILL NOTE:

ALL STORMWATER TRENCH BACKFILL MATERIAL SHALL BE SOURCED FROM ON SITE EXCAVATED MATERIAL.

 FOR TYPICAL SECTIONS AND NOTES REFER TO DRAWING NO. C300 - ROADWORKS TYPICAL SECTIONS AND NOTES, AND DRAWING No. C420 -STORMWATER DRAINAGE DETAILS AND NOTES.

PAVEMENT SUBGRADE GUARANTEE:

CONTRACTOR SHALL UNDERTAKE EARTHWORKS REQUIRED IN EITHER CUT OR FILL TO ENSURE THE SUBGRADE QUALITY IS AT CBR10 OR GREATER. CONTRACTOR TO LIAISE WITH OWN GEOTECHNICAL ENGINEER TO ACHIEVE REQUIREMENT.

| FOR CONSTRUCTION | | | | | |
|------------------|-----|-------------------------|-----|-----|--|
| | | | | | |
| 07/04/2022 | В | ISSUED FOR CONSTRUCTION | KK | PB | |
| 26/11/2021 | Α | ORIGINAL ISSUE | KK | PB | |
| 12/11/2021 | 3 | 90% REVIEW ISSUE | KK | PB | |
| 05/11/2021 | 2 | MINOR UPDATES | KK | PB | |
| 28/10/2021 | 1 | PRELIMINARY ISSUE | VKH | PB | |
| DATE | REV | DESCRIPTION | REC | APP | |

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

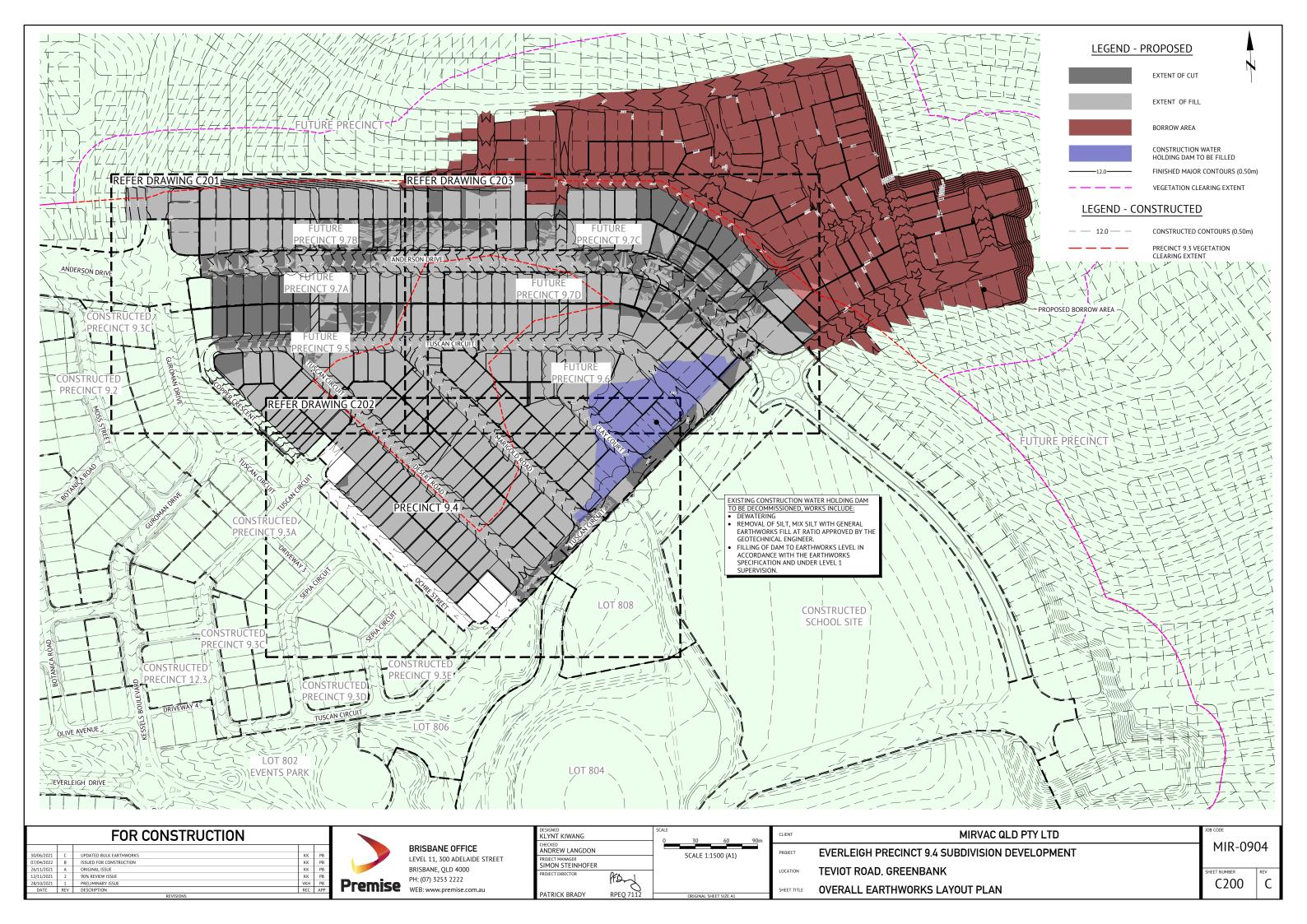
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| DESIGNED KLYNT KIWANG | | SCALE | | | | I |
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| CHECKED ANDREW LANGDON | | 0 | 10 | 20 | 30m | ľ |
| PROJECT MANAGER | | | | | | 1 |
| SIMON STEINHOFER | | | SCALE 1 | :500 (A1) | _ | ı |
| PROJECT DIRECTOR | Prond | | JC/LL I | 500 (11) | | l |
| PATRICK BRADY | RPEQ 7112 | | ORIGINAL SH | EET SIZE A1 | | ı |

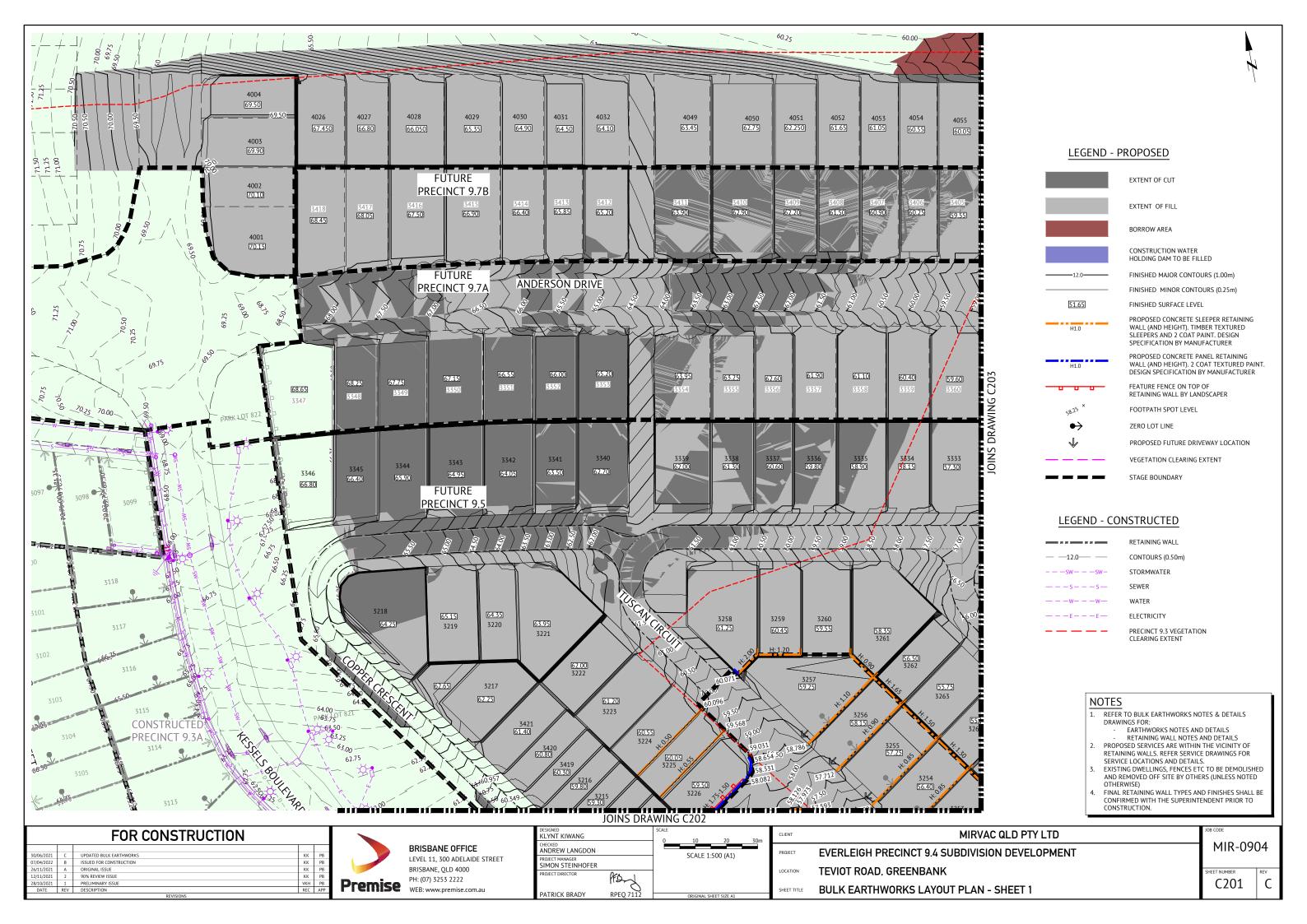
| CLIENT | MIRVAC QLD PIY LID |
|-------------|------------------------------------------------|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| LOCATION | TEVIOT ROAD, GREENBANK |
| SHEET TITLE | ROADWORKS AND DRAINAGE LAYOUT PLAN - SHEET 2 |

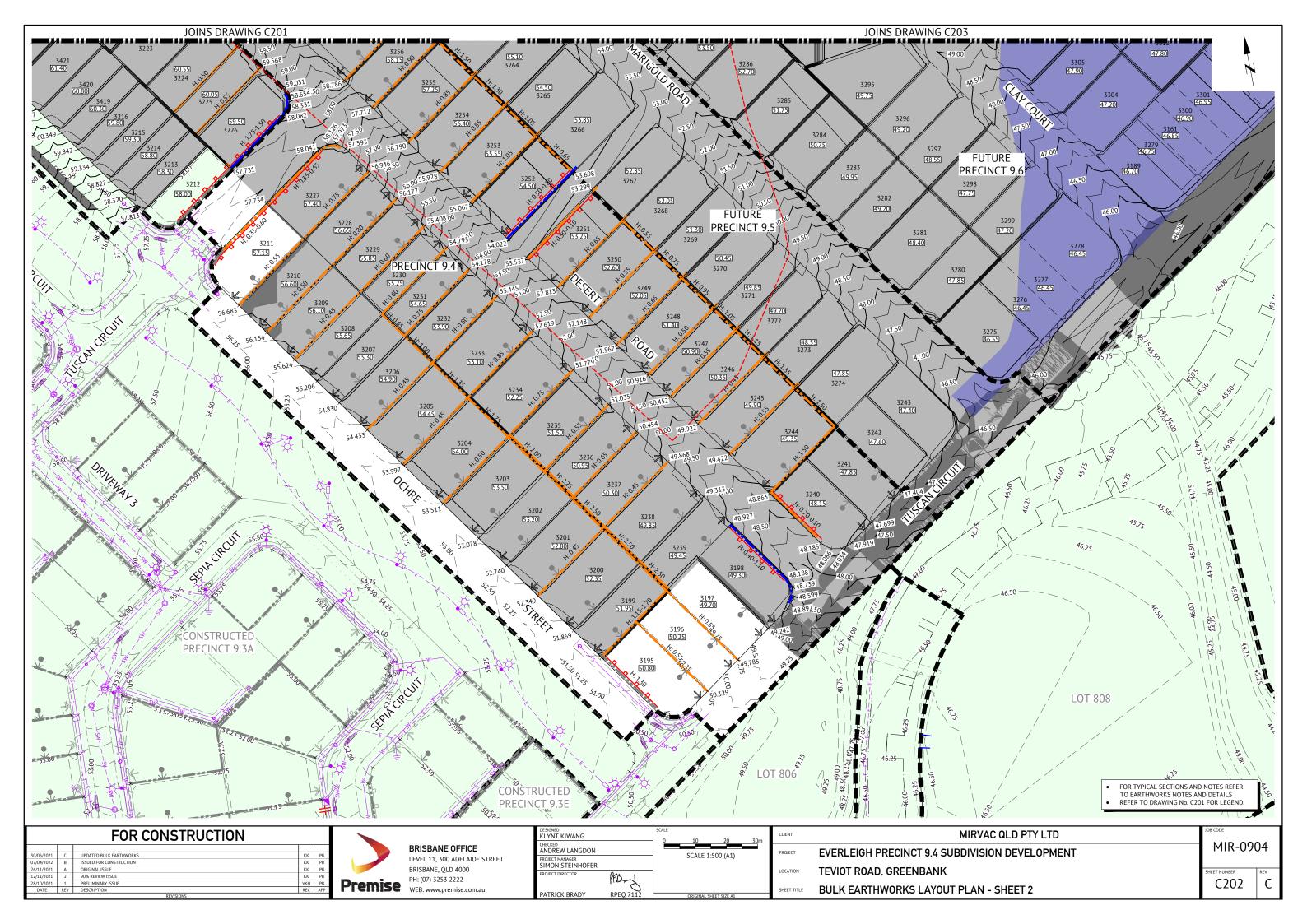
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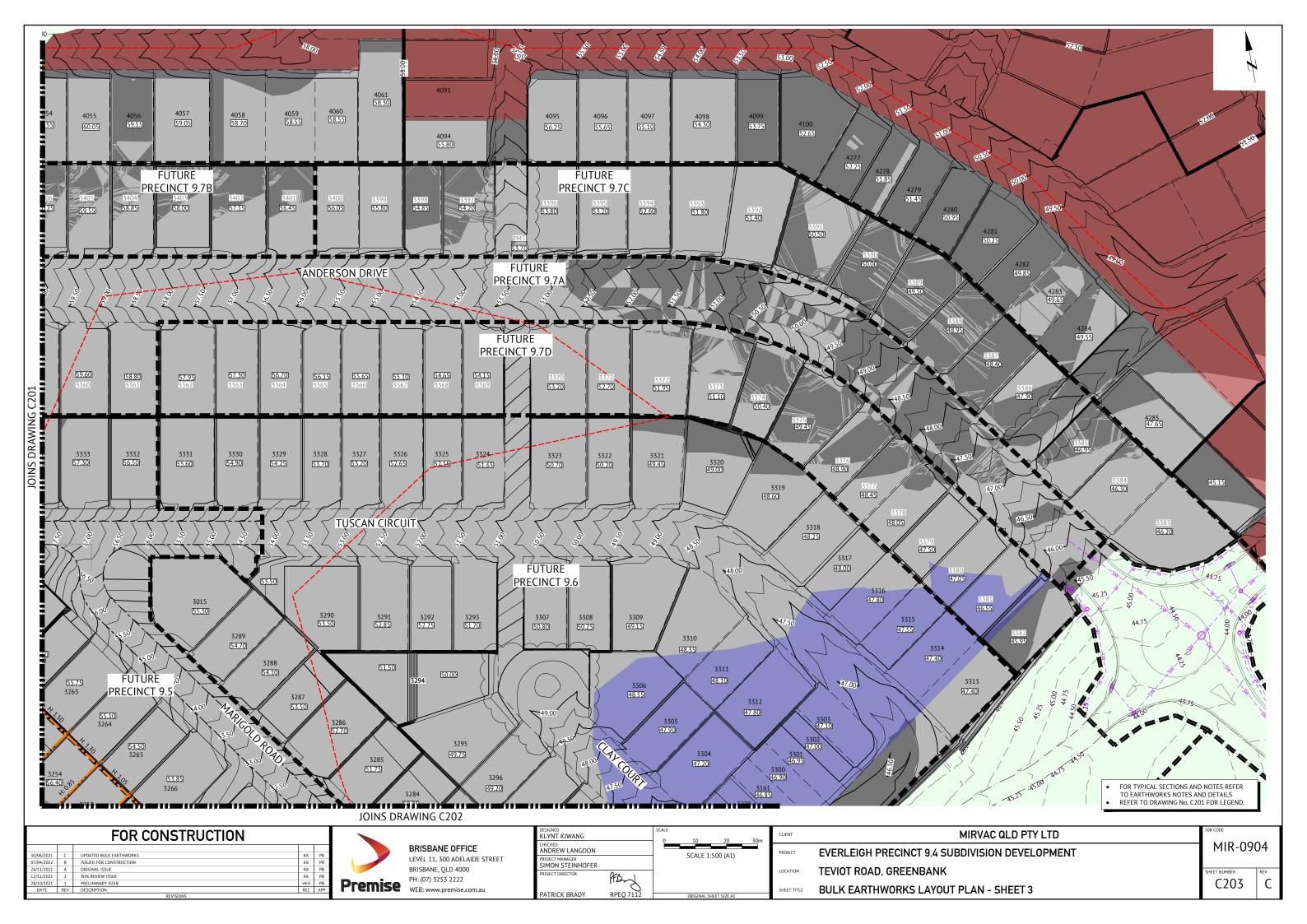
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NOTES

- 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.

CONTROL NOTES AND DETAILS.

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

COMPACTION TESTS

| COMMINEMONTESTS | |
|--------------------------------------------------|---------------|
| LOCATION | AREA PER TEST |
| FINISHED LEVEL OR ROAD SUBGRADE (IN CUT OR FILL) | |
| LOWEST TWO LEVELS OF EMBANKMENT (PER LAYER) | REFER TO THE |
| 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.

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) TOLERANCE IS -0mm / +50mm WHERE ADJACENT 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)

B-GRADE QUALITY TOPSOIL AMELIORATION:

- SCREEN STRIPPED TOPSOIL
 DOLOMITE (15kg/m³ OF TOPSOIL)
- GRANULAR WETTING AGENT (0.5kg/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

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| 07/04/2022 | В | ISSUED FOR CONSTRUCTION | KK | PB | | |
| 26/11/2021 | Α | ORIGINAL ISSUE | KK | PB | | |
| 12/11/2021 | 2 | 90% REVIEW ISSUE | KK | PB | | |
| 28/10/2021 | 1 | PRELIMINARY ISSUE | VKH | PB | | |
| DATE | REV | DESCRIPTION | REC | APP | | |
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BRISBANE OFFICE

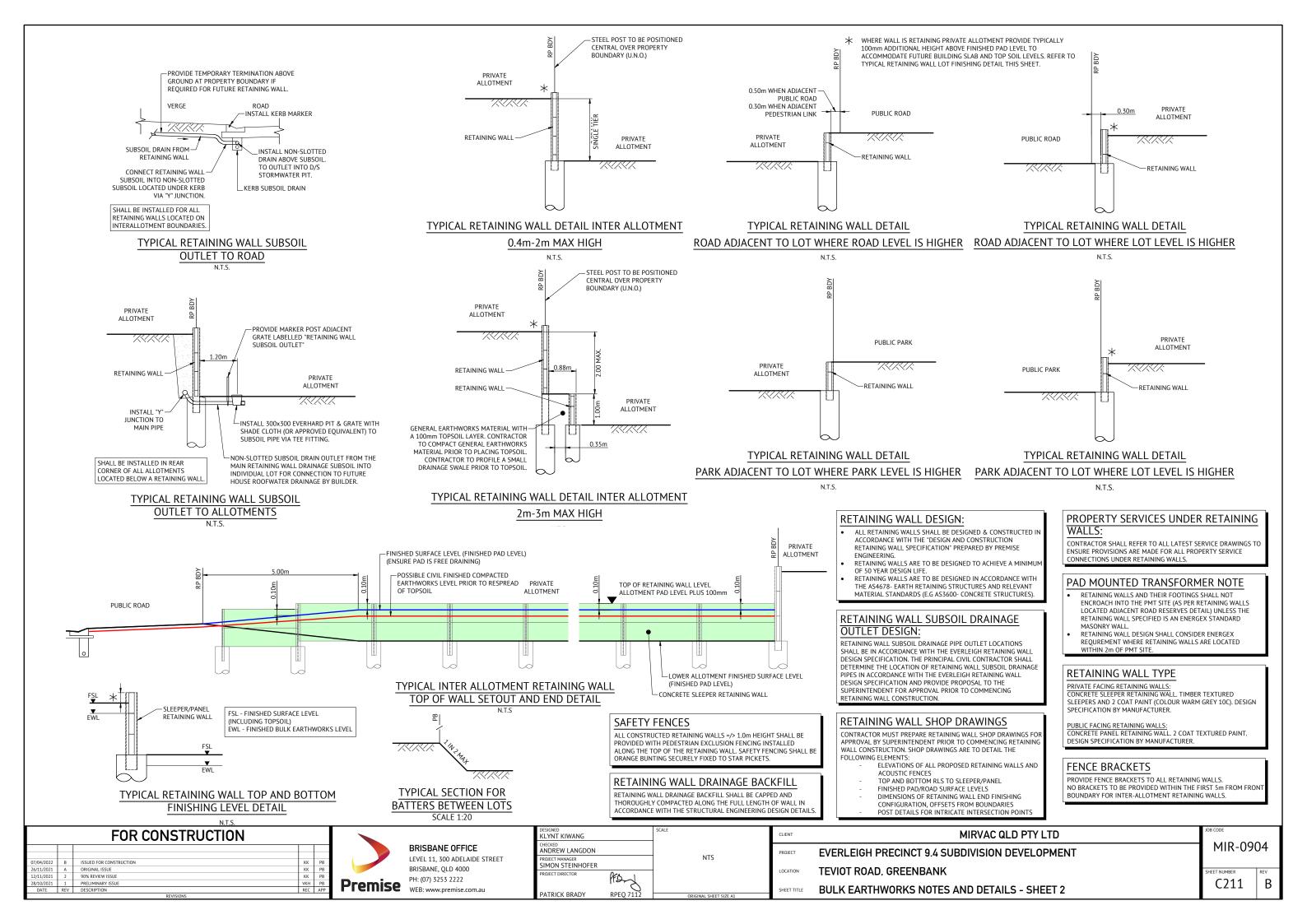
LEVEL 11, 300 ADELAIDE STREET BRISBANE, QLD 4000 PH: (07) 3253 2222

| DESIGNED KLYNT KIWANG | | SCALE |
|----------------------------------|-----------|-------|
| CHECKED ANDREW LANGDON | | |
| PROJECT MANAGER SIMON STEINHOFER | | |
| PROJECT DIRECTOR | PFD | |
| PATRICK BRADY | RPEQ 7112 | |

PROJECT

MIRVAC QLD PTY LTD **EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT** TEVIOT ROAD, GREENBANK **BULK EARTHWORKS NOTES AND DETAILS - SHEET 1**

MIR-0904





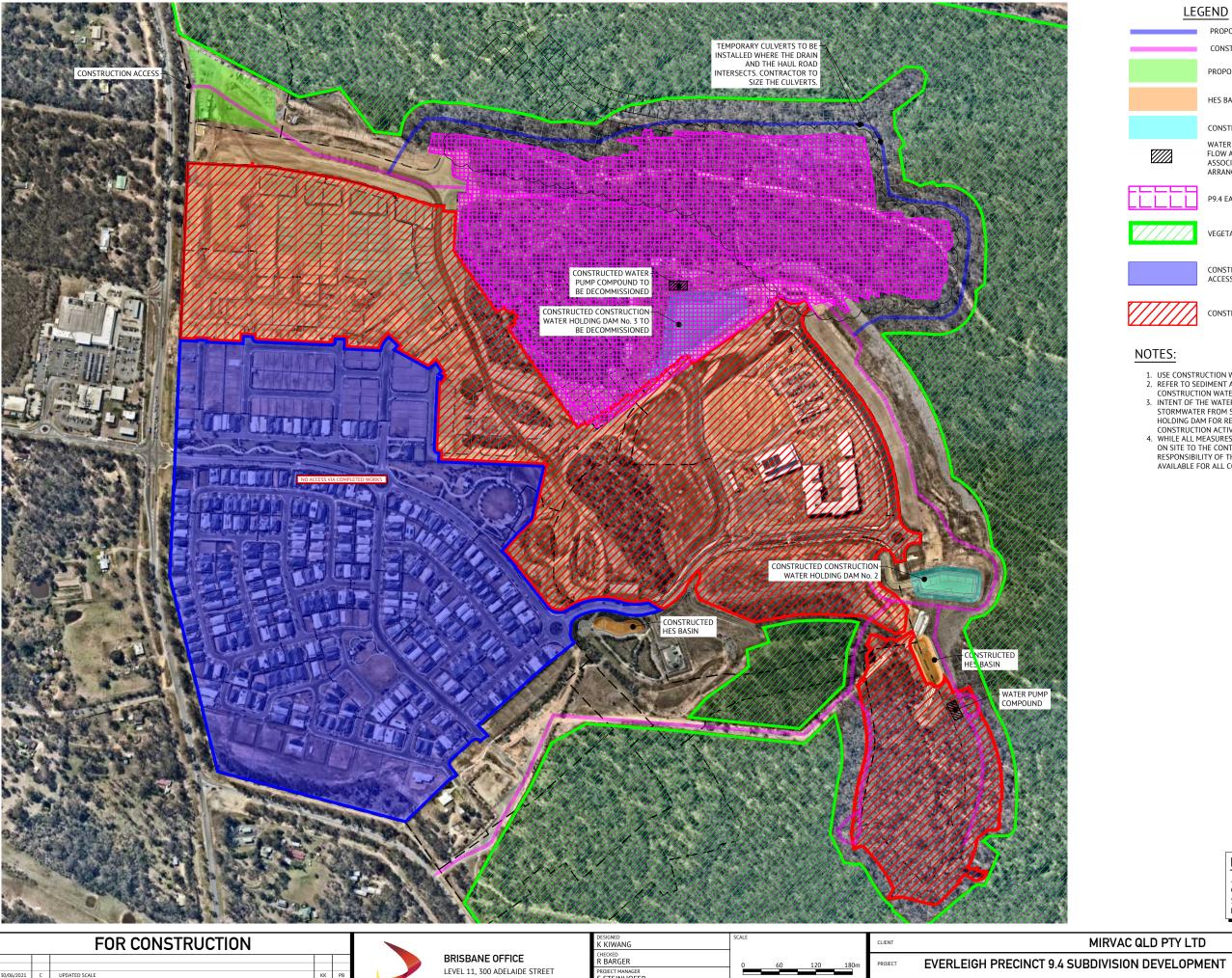
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|)i | PH: (07) 3253 22 |
| Premise | WEB: www.prem |
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2222 mise.com.au

| DESIGNED KLYNT KIWANG | | SCALE | | | |
|----------------------------------|-----------|-------|----------------|--------------|-----|
| CHECKED ANDREW LANGDON | | | 20 SCALE 1: | 40 | 60m |
| PROJECT MANAGER SIMON STEINHOFER | | | SCALE 1: | 1000 (A1) | |
| PROJECT DIRECTOR | PEDY | | | | |
| PATRICK BRADY | RPEQ 7112 | | ORIGINAL S | HEET SIZE A1 | |

| CLIENT | MIRVAC QLD PTY LTD | |
|-------------|--------------------------------------------------|--|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT | |
| LOCATION | TEVIOT ROAD, GREENBANK | |
| SHEET TITLE | EARTHWORKS SUBGRADE ROCK PREPARATION LAYOUT PLAN | |



PROPOSED PERMANENT ALL WEATHER HAUL ROAD

CONSTRUCTED PERMANENT ALL WEATHER HAUL ROAD

PROPOSED CONTRACTOR SITE COMPOUND

HES BASIN

CONSTRUCTION WATER HOLDING DAM (CWD)

WATER PUMP COMPOUND LOCATION. PROVIDE HARDSTAND WITH HIGH FLOW AND LOW FLOW PUMPING ARRANGEMENT INCLUDING ALL ASSOCIATED HARDWARE FOR DRAWING FROM ADJACENT WATER SOURCE.
ARRANGEMENT TO BE SUITABLE FOR ALL WATER TRUCK TYPES.

P9.4 EARTHWORKS AREA

VEGETATION TO BE RETAINED

CONSTRUCTED AREAS. NO CONSTRUCTION ACCESS WITHOUT PRIOR APPROVAL

CONSTRUCTION AREAS

- USE CONSTRUCTION WATER DAM WHEN WATER IS AVAILABLE.
 REFER TO SEDIMENT AND EROSION CONTROL DRAWINGS FOR DRAINS TO CONSTRUCTION WATER DAM ON SITE.
 INTENT OF THE WATER RE-USE STRATEGY SHOWN ON THIS PLAN IS TO CAPTURE ALL STORMWATER FROM SITE IN THE EXISTING DAMS AND THE CONSTRUCTION WATER HOLDING DAM FOR RE-USE BY CONTRACTOR FOR ANY RELEVANT SITE AND CONSTRUCTION ACTIVITIES.
- HOLDING DAM FOR RE-USE BY CONTRACTOR FOR AIM RELEVANT SITE AIM CONSTRUCTION ACTIVITIES.

 4. WHILE ALL MEASURES HAVE BEEN TAKEN TO MAKE CONSTRUCTION WATER AVAILABLE ON SITE TO THE CONTRACTOR FOR USE DURING CONSTRUCTION, IT REMAINS THE RESPONSIBILITY OF THE PRINCIPAL CONTRACTOR TO ENSURE CONSTRUCTION WATER IS AVAILABLE FOR ALL CONSTRUCTION ACTIVITIES RELEVANT TO THIS CONTRACT.

NOTE:

ALL WORKS WITHIN THE Q100 FLOOD EXTENT OF THE EXISTING CHANNEL SHALL NOT REDUCE THE EXISTING FLOODED CROSS SECTIONAL AREA AND ARE RESTRICTED TO MINOR SURFACE EXCAVATION AND SURFACE TREATMENT WORKS.

| | FOR CONSTRUCTION | | | | | | |
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| | | | | | | | |
| | | | | | | | |
| 30/06/2021 | C | UPDATED SCALE | KK | PE | | | |
| 07/04/2022 | В | UPDATED EARTHWORKS EXTENT | KK | PI | | | |
| 26/11/2021 | Α | ORIGINAL ISSUE | KK | PE | | | |
| 23/11/2021 | 1 | ORIGINAL ISSUE | VKH | PI | | | |
| DATE | REV | DESCRIPTION | REC | AP | | | |
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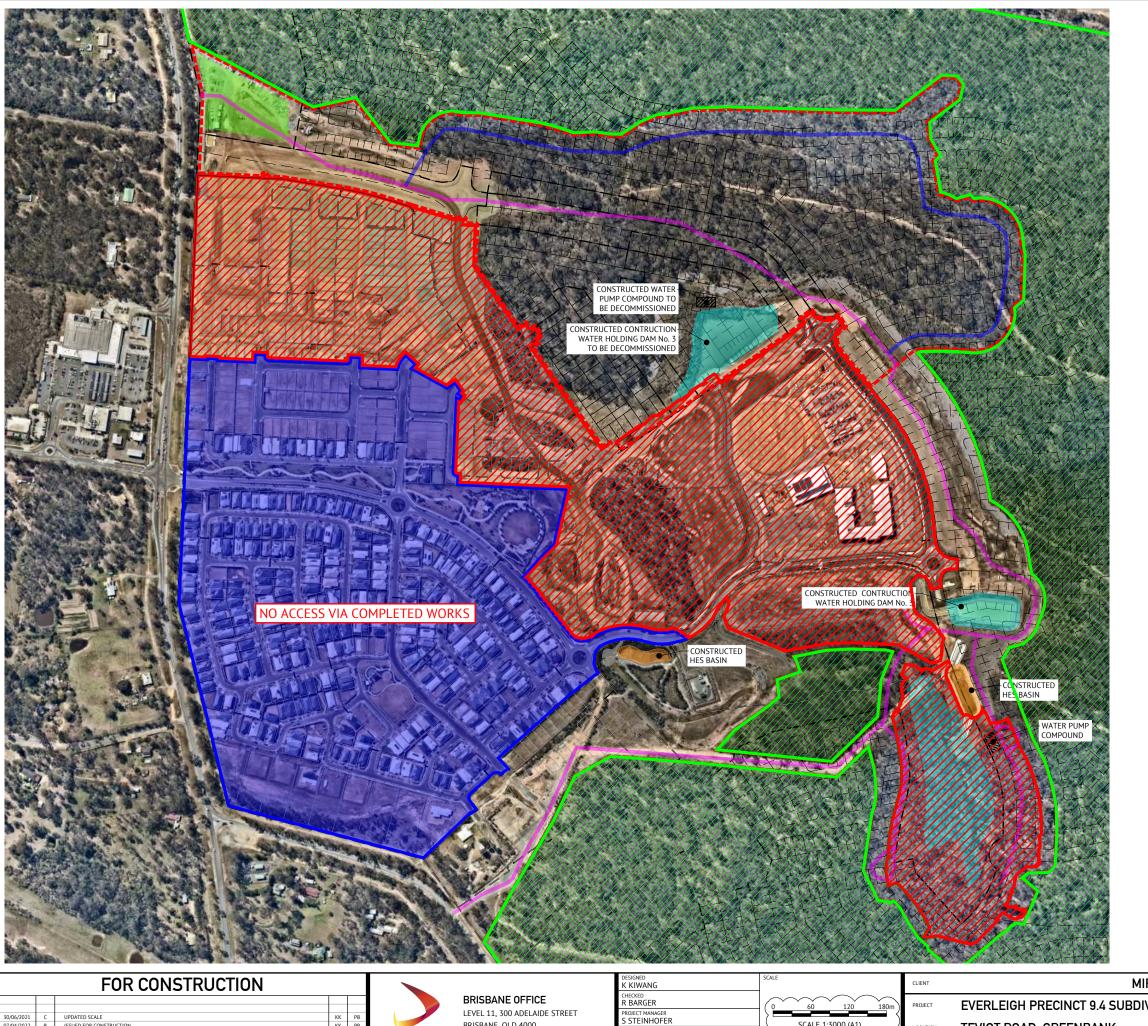




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| | SCALE 1:3 | 000 (A1) | | LOCA |
| | | | | SHEE |

EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT TEVIOT ROAD, GREENBANK HAUL ROADS & CONSTRUCTION WATER DETAILS

MIR-0904



LEGEND

PRECINCT 9.4 PRINCIPAL CONTRACTOR AREA

PROPOSED HAUL ROAD

CONSTRUCTED HAUL ROAD

PROPOSED CONTRACTOR SITE COMPOUND



CONSTRUCTION WATER HOLDING DAM (CWD)

WATER PUMP COMPOUND LOCATION





VEGETATION TO BE RETAINED



CONSTRUCTED AREAS. NO CONSTRUCTION ACCESS WITHOUT PRIOR APPROVAL



CONSTRUCTION AREAS

TEMPORARY CULVERTS

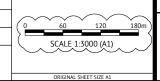
NOTE:

ALL WORKS WITHIN THE Q100 FLOOD EXTENT OF THE EXISTING CHANNEL SHALL NOT REDUCE THE EXISTING FLOODED CROSS SECTIONAL AREA AND ARE RESTRICTED TO MINOR SURFACE EXCAVATION AND SURFACE TREATMENT WORKS.

| | FOR CONSTRUCTION | | | | | | | |
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| | | | | | | | | |
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| 30/06/2021 | C | UPDATED SCALE | KK | PE | | | | |
| 07/04/2022 | В | ISSUED FOR CONSTRUCTION | KK | PE | | | | |
| 26/11/2021 | Α | ORIGINAL ISSUE | KK | PE | | | | |
| 23/11/2021 | 1 | ORIGINAL ISSUE | VKH | PE | | | | |
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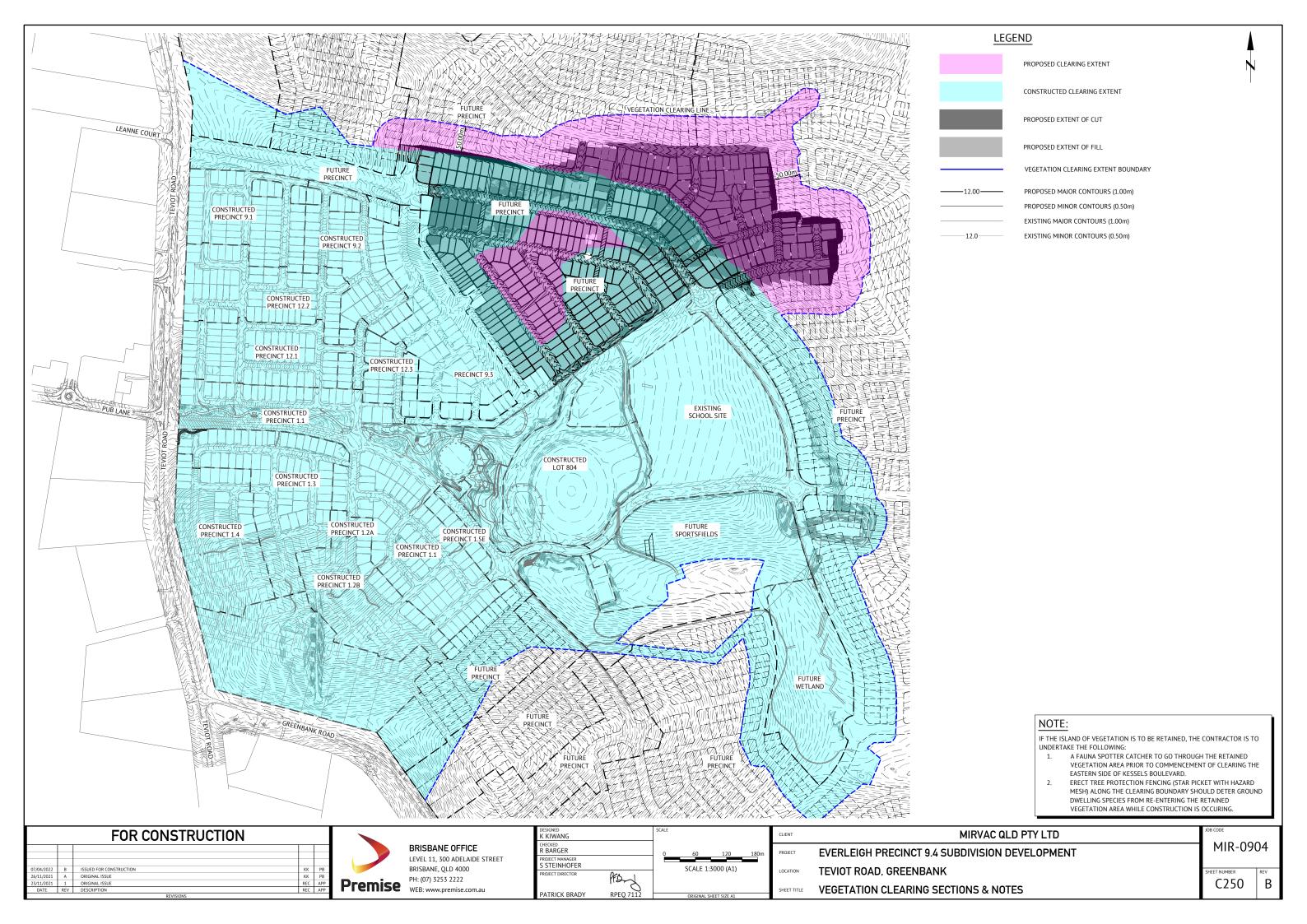
BRISBANE, QLD 4000 Premise PH: (07) 3253 2222
WEB: www.premise.com.au

PATRICK BRADY



MIRVAC QLD PTY LTD **EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT** TEVIOT ROAD, GREENBANK PRINCIPAL CONTRACTOR AREAS PLAN

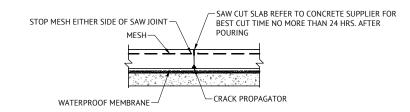
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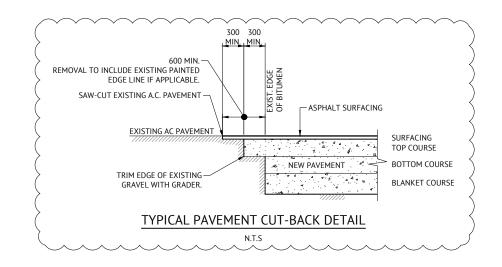
- ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH LOGAN CITY COUNCIL STANDARD DRAWINGS
- AND METHODS (U.N.O.).
 NOTWITHSTANDING THE LIMITS OF CUTTING AND FILLING SHOWN ON THE DRAWINGS, THE ACTUAL LIMITS SHALL BE DETERMINED ON SITE BY THE SUPERINTENDENT DURING CONSTRUCTION AND SIMILARLY THE FINISHED 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.
- KACEY GALV. STEEL KERB ADAPTORS ARE TO BE INSTALLED TO THE REQUIREMENTS OF THE LOCAL COUNCILS STANDARD DRAWINGS AND SPECIFICATIONS.
- 13. 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

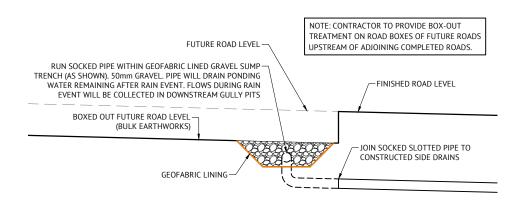
ROADWORKS NOTES

- 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 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 VERIFICATION IS TO BE CARRIED OUT AT THESE LEVELS.
- 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.

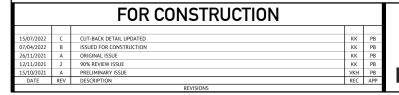


SAWCUT JOINT (S.J.)

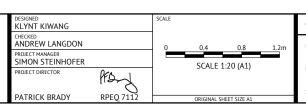




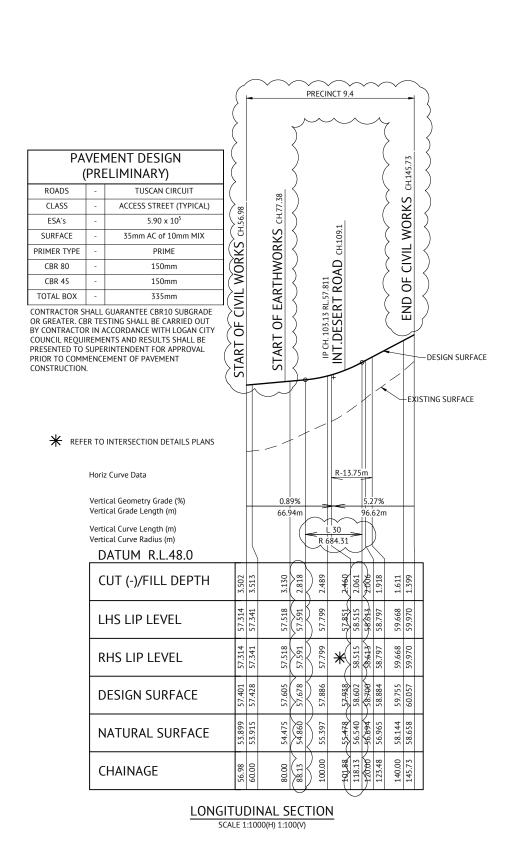
TYPICAL FUTURE ROADS BOX-OUT TREATMENT

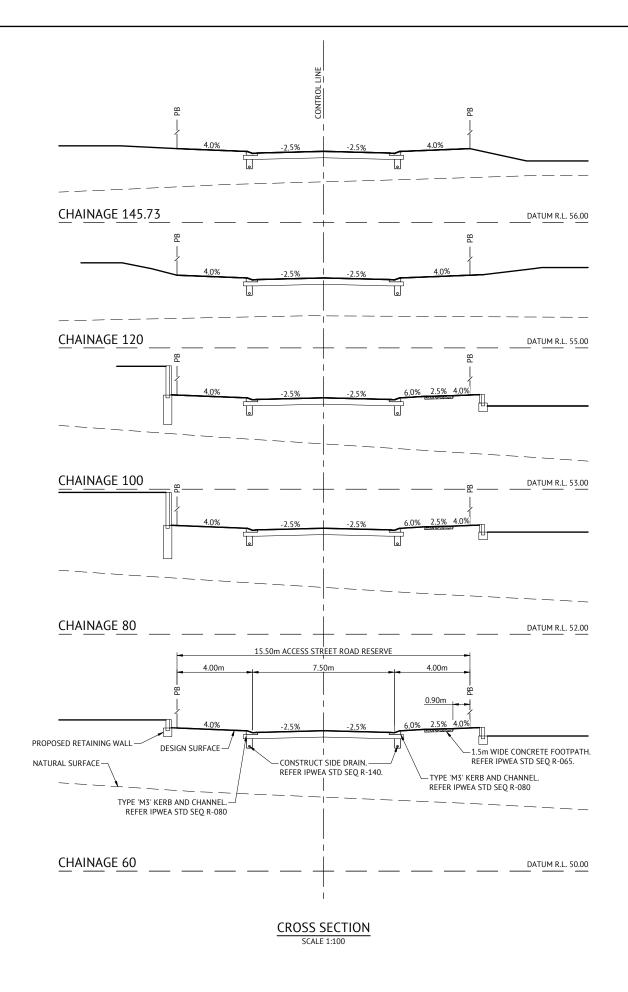






| CLIENT | MIRVAC QLD PTY LTD | JOB CODE MIR-09(| ۰. | |
|-------------|------------------------------------------------|-------------------|-----|--|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT | | | |
| LOCATION | TEVIOT ROAD, GREENBANK | SHEET NUMBER | REV | |
| SHEET TITLE | ROADWORKS NOTES AND DETAILS | C300 | C | |



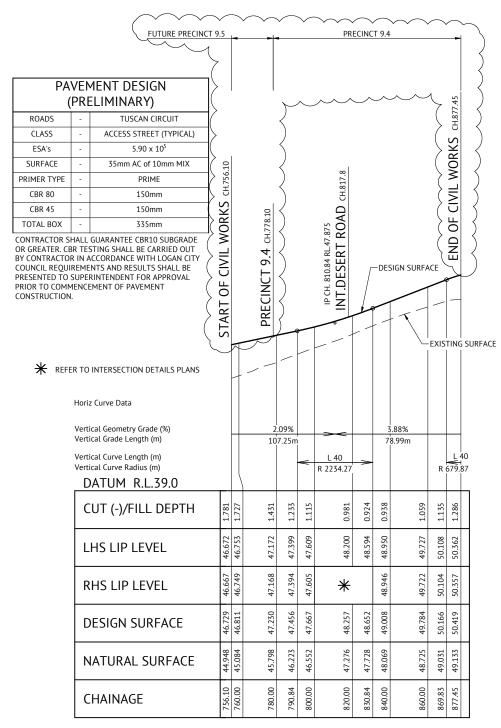


| | FOR CONSTRUCTION | | | | | | |
|------------|------------------|-------------------------|-----|-----|--|--|--|
| | | | | | | | |
| 15/07/2022 | C | AMENDED LONG SECTION | KK | PB | | | |
| 07/04/2022 | В | ISSUED FOR CONSTRUCTION | KK | PB | | | |
| 26/11/2021 | Α | ORIGINAL ISSUE | KK | PB | | | |
| 12/11/2021 | 2 | 90% REVIEW ISSUE | KK | PB | | | |
| 28/10/2021 | 1 | PRELIMINARY ISSUE | VKH | PB | | | |
| DATE | REV | DESCRIPTION | REC | APP | | | |
| | | PEVISIONS | | | | | |



| DESIGNED KLYNT KIWANG | | SCALE | | AL 1:1000 (A: | |
|-----------------------|-----------|----------|-------------|---------------|-----|
| CHECKED | | <u> </u> | 20 | 40 | 60m |
| ANDREW LANGDON | | 0 | VERTICAL | 1:100 (A1) | 6m |
| PROJECT MANAGER | | | VERTICAL | _ 1:100 (A1) | |
| SIMON STEINHOFER | | 0 | 2 | 4 | 6m |
| PROJECT DIRECTOR | 000 | | | | |
| | read | | SCALE 1 | :100 (A1) | |
| PATRICK BRADY | RPEQ 7112 | | ORIGINAL SI | HEET SIZE A1 | |

| CLIENT | MIRVAC QLD PTY LTD | JOB CODE MIR-090 | | | | |
|-------------|------------------------------------------------|---------------------|-----|--|--|--|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT | | | | | |
| LOCATION | TEVIOT ROAD, GREENBANK | SHEET NUMBER | REV | | | |
| SHEET TITLE | TUSCAN CIRCUIT (NORTH) LONG & CROSS SECTIONS | C310 | C | | | |



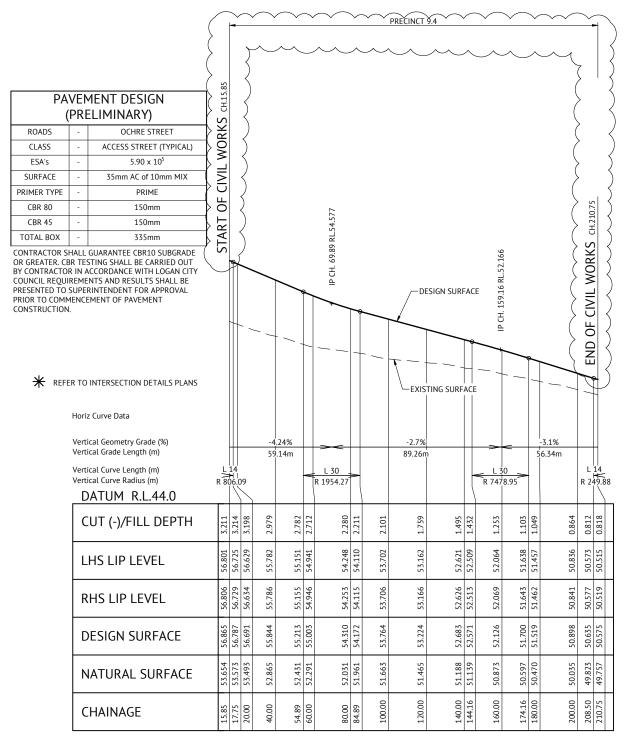
LONGITUDINAL SECTION SCALE 1:1000(H) 1:100(V)

CHAINAGE 860 DATUM R.L. 47.00 CHAINAGE 840 DATUM R.L. 46.00 INTERSECTION DESERT ROAD CHAINAGE 820 DATUM R.L. 44.00 CHAINAGE 800 DATUM R.L. 45.00 14.00m ACCESS STREET (PARK) ROAD RESERVE _PARKING DESIGN SURFACE--1.5m WIDE CONCRETE FOOTPATH. REFER IPWEA STD SEQ R-065. – 900 INVERT KERB. TYPE 'B2' KERB ONLY. – REFER IPWEA STD SEQ R-080 REFER IPWEA STD SEQ R-080 – TYPE 'M3' KERB AND CHANNEL. REFER IPWEA STD SEQ R-080 CONSTRUCT SIDE DRAIN. -REFER IPWEA STD SEQ R-140. CHAINAGE 780 CHAINAGE 760 **CROSS SECTION**

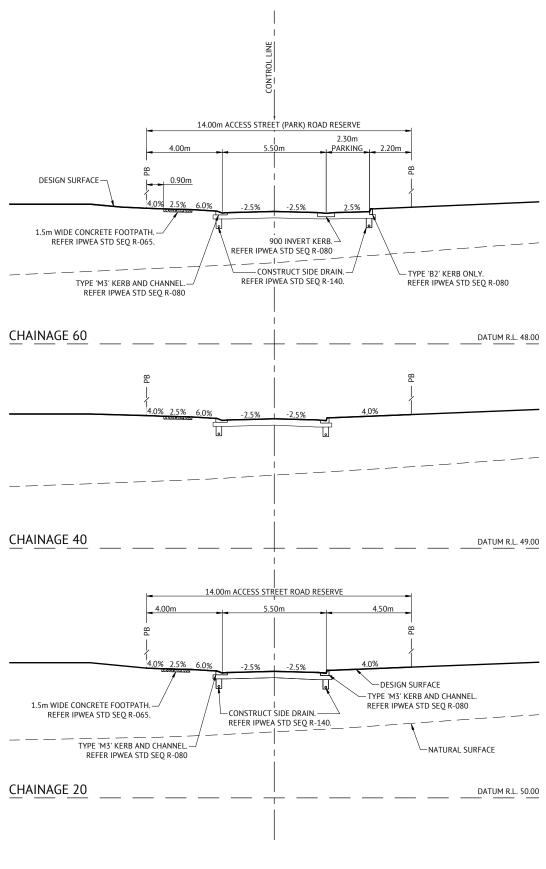
SCALE 1:100

MIR-0904

| | FOR CONSTRUCTION | | | | | DESIGNED KLYNT KIWANG | | SCALE 0 | HORIZONTAL 1:1000 (A1) | 60m | CLIENT | MIRVAC QLD PTY LTD |
|------------|---------------------------------------------------------|------|-------|------------------|-------------------------------|--------------------------|-----------|------------|------------------------|---------|-------------|-----------------------------------------------------------|
| 15/07/2022 | C AMENDED LONG SECTION AND ADDED CH760 TO CROSS SECTION | - VI | / DR | | BRISBANE OFFICE | ANDREW LANGDON | | | VERTICAL 1.100 (A1) | 6m | PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| 07/04/2022 | B ISSUED FOR CONSTRUCTION | KI | C PB | | LEVEL 11, 300 ADELAIDE STREET | PROJECT MANAGER | | | VEŔTICAL 1:100 (A1) | | | EVERTED TO REGISTER OF SUBSTITUTION DEVELOT MENT |
| 26/11/2021 | A ORIGINAL ISSUE | KK | (PB | | BRISBANE, QLD 4000 | SIMON STEINHOFER | | 0 | 2 4 6 | 6m ⊐ | LOCATION | TEVIOT ROAD, GREENBANK |
| 12/11/2021 | 2 90% REVIEW ISSUE | KK | (PB | | PH: (07) 3253 2222 | PROJECT DIRECTOR | PFB -1 | | | • 1 | | TEVIOT ROAD, ORELINDAM |
| 28/10/2021 | 1 PRELIMINARY ISSUE | VK | H PB | I Premise | , | | 1100 | | SCALE 1:100 (A1) | | | |
| DATE | REV DESCRIPTION | RE' | C APP | I LIGIIIISE | WEB: www.premise.com.au | DATES OF A DATE OF | 2252 7443 | | | | SHEET TITLE | TUSCAN CIRCUIT (ADJACENT PARK) ROAD LONG & CROSS SECTIONS |
| | REVISIONS | | | | | PATRICK BRADY | RPEQ 7112 | | ORIGINAL SHEET SIZE A1 | | | |



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



CROSS SECTION SCALE 1:100

| | FOR CONSTRUCTION | | | | | | | |
|------------|------------------|---------------------------------------|-----|-----|--|--|--|--|
| | | | | | | | | |
| 15/07/2022 | C | ADDED PRECINCT NUMBER TO LONG SECTION | KK | PB | | | | |
| 07/04/2022 | В | ISSUED FOR CONSTRUCTION | KK | PB | | | | |
| 26/11/2021 | Α | ORIGINAL ISSUE | KK | PB | | | | |
| 12/11/2021 | 2 | 90% REVIEW ISSUE | KK | PB | | | | |
| 28/10/2021 | 1 | PRELIMINARY ISSUE | VKH | PB | | | | |
| DATE | REV | DESCRIPTION | REC | APP | | | | |
| | | REVISIONS | | | | | | |

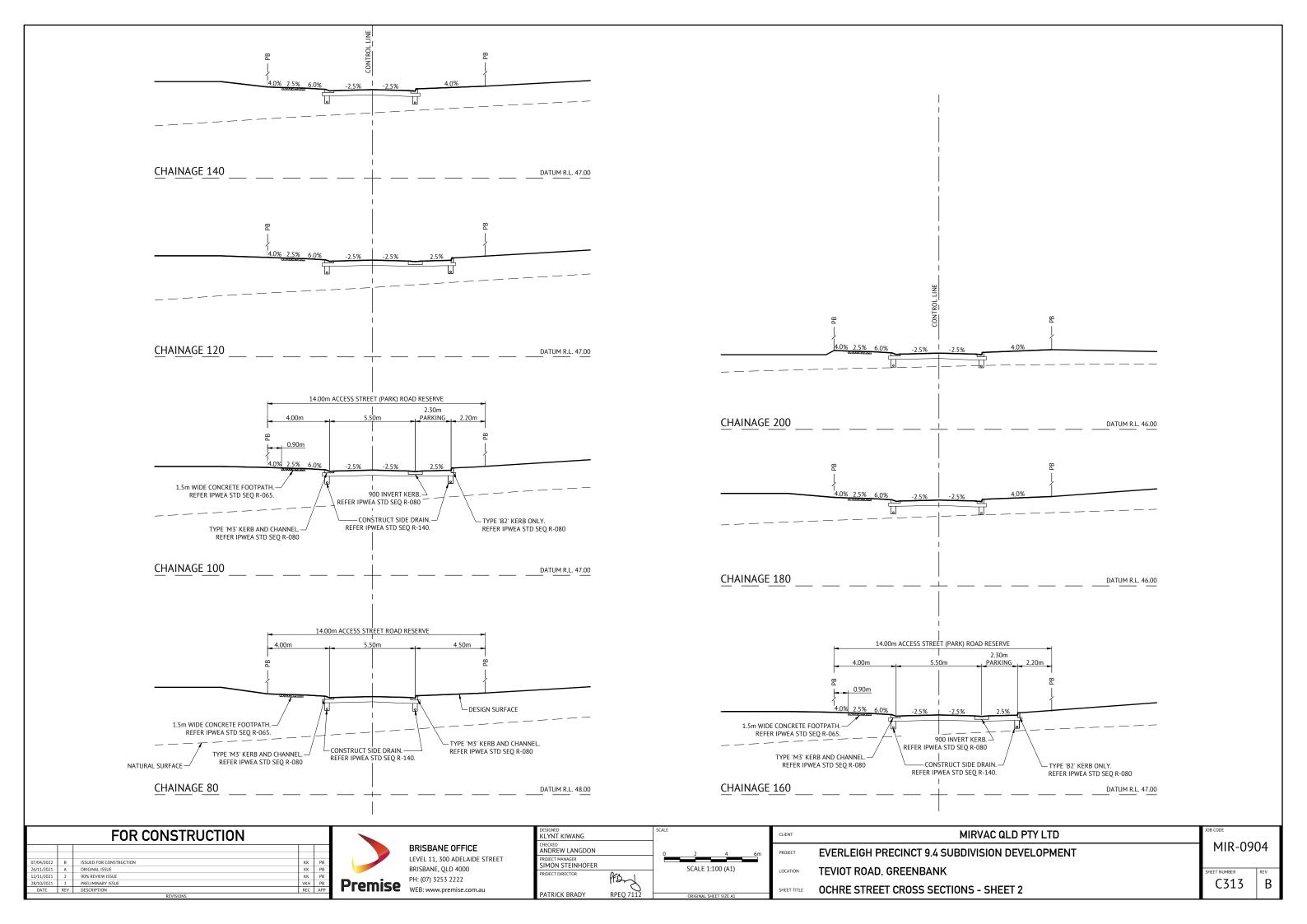
Premise PH: (U/) 3233 2222 WEB: www.premise.com.au

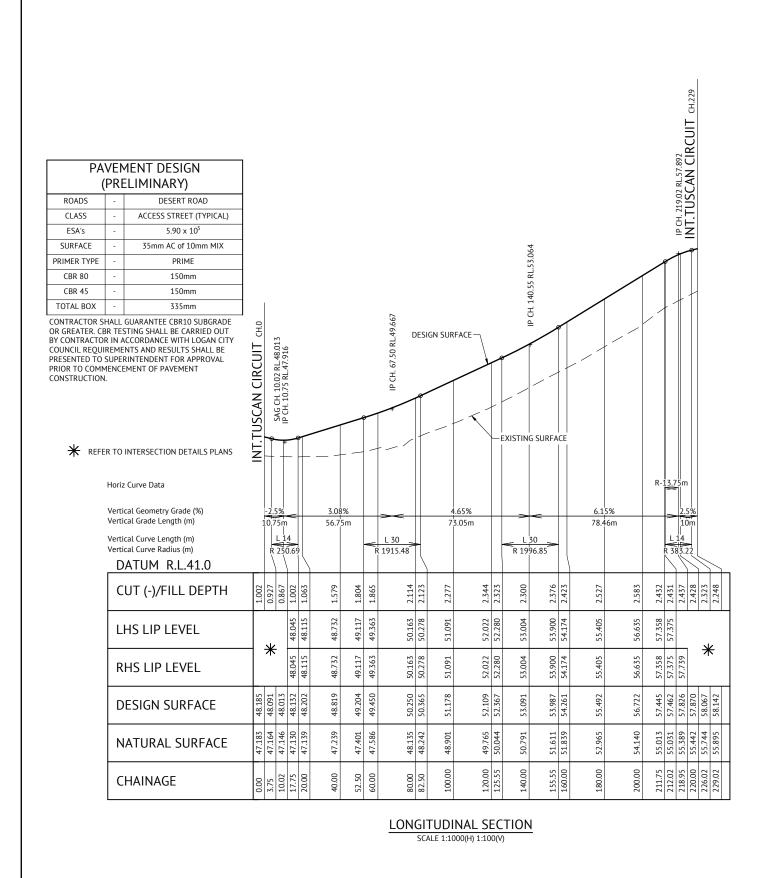
BRISBANE OFFICE LEVEL 11, 300 ADELAIDE STREET BRISBANE, QLD 4000 PH: (07) 3253 2222

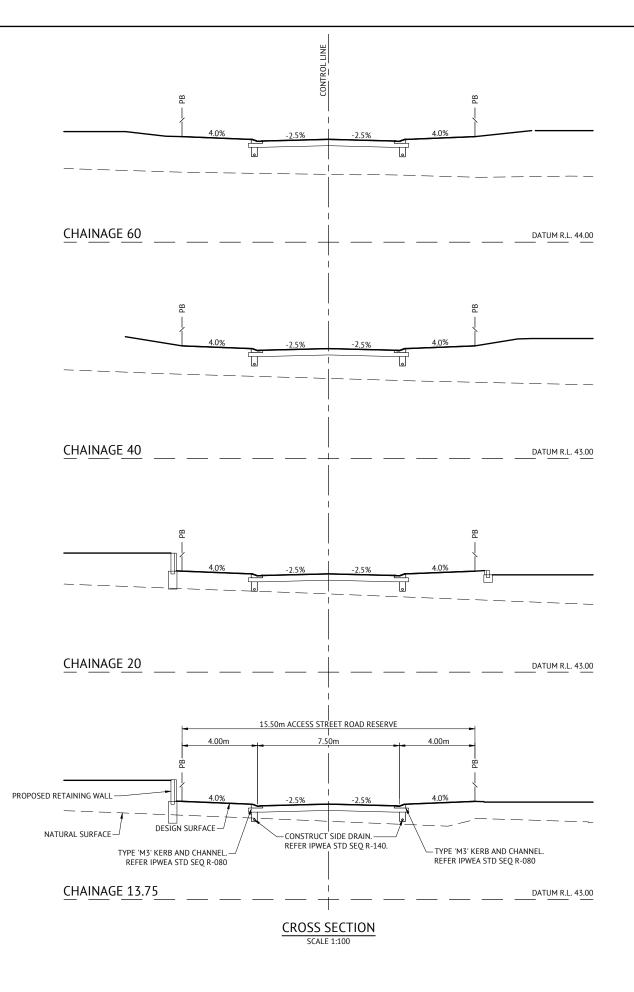
| DESIGNED KLYNT KIWANG | | SCALE | HORIZONTA | L 1:1000 (A | 1) 60m |
|---------------------------|-----------|-------|-------------|-------------|-----------|
| CHECKED ANDREW LANGDON | | | 20 | 40 | |
| PROJECT MANAGER | | 0 | VERTICAL | 1:100 (A1) | 6m |
| SIMON STEINHOFER | | 0 | 2 | 4 | 6m |
| PROJECT DIRECTOR | Prond | | SCALE 1: | 100 (A1) | |
| PATRICK BRADY | RPEQ 7112 | | ORIGINAL SH | EET SIZE A1 | |

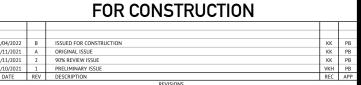
| CLIENT | MIRVAC QLD PTY LTD |
|-------------|------------------------------------------------|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| LOCATION | TEVIOT ROAD, GREENBANK |
| SHEET TITLE | OCHRE STREET LONG & CROSS SECTIONS - SHEET 1 |

MIR-0904 C312









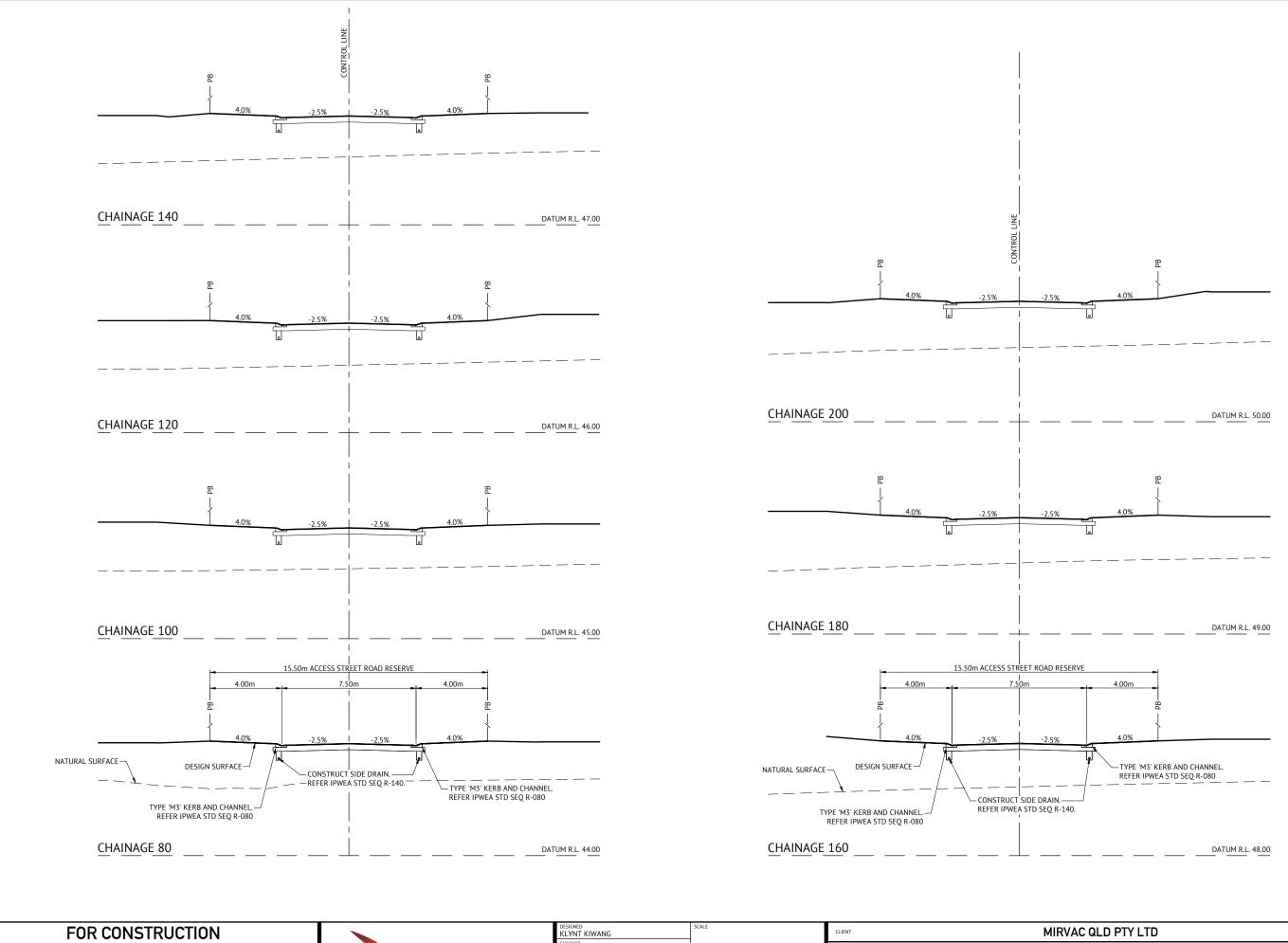


BRISBANE OFFICE LEVEL 11, 300 ADELAIDE STREET BRISBANE, QLD 4000 PH: (07) 3253 2222

| | DESIGNED KLYNT KIWANG | | SCALE | HORIZONTA | AL 1:1000 (A | 1) 60m |
|---|--------------------------|-----------|-------|-------------|--------------|-----------|
| ı | CHECKED | | | 20 | 40 | 60111 |
| | ANDREW LANGDON | | 0 | VERTICAL | 1.100 (11) | 6m |
| ı | PROJECT MANAGER | | | VERTICAL | 1:100 (A1) | |
| | SIMON STEINHOFER | | 0 | 2 | 4 | 6m |
| ı | PROJECT DIRECTOR | 000 1 | | | | |
| ı | | Many | | SCALE 1: | :100 (A1) | |
| 1 | PATRICK BRADY | RPEQ 7112 | | ORIGINAL SI | HEET SIZE A1 | |

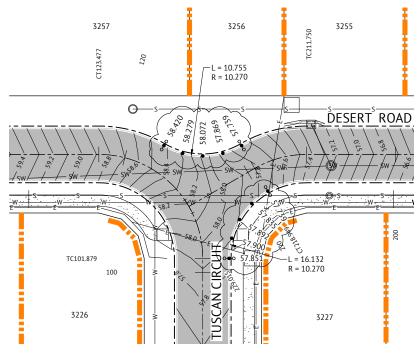
| | CLIENT | MIRVAC QLD PTY LTD |
|---|-------------|------------------------------------------------|
| | PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| | LOCATION | TEVIOT ROAD, GREENBANK |
| | SHEET TITLE | DESERT ROAD LONG & CROSS SECTIONS - SHEET 1 |
| _ | | |

MIR-0904

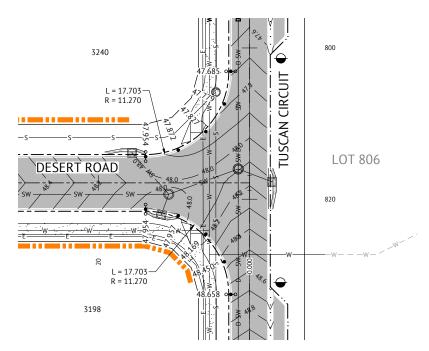


| | FOR CONSTRUCTION | | | KLYNT KIWANG | SCALE | CLIENT | MIRVAC QLD PTY LTD | JOB CODE | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------------------------------|-----------------------------------|------------------|-------------|------------------------------------------------|------------------|----|
| | | | BRISBANE OFFICE LEVEL 11, 300 ADELAIDE STREET | ANDREW LANGDON PROJECT MANAGER | 0 2 4 6m | PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT | MIR-0904 | 4 |
| 07/04/2022 26/11/2021 12/11/2021 | B ISSUED FOR CONSTRUCTION KK A ORIGINAL ISSUE KK 2 90% REVIEW ISSUE KK | PB PB PB | BRISBANE, QLD 4000 | SIMON STEINHOFER PROJECT DIRECTOR | SCALE 1:100 (A1) | LOCATION | TEVIOT ROAD, GREENBANK | SHEET NUMBER REV | EV |
| 28/10/2021 DATE | 1 PRELIMINARY ISSUE VKI REV DESCRIPTION REV REVISIONS | PB Premise | PH: (07) 3253 2222 WEB: www.premise.com.au | PATRICK BRADY RPEQ 7: | 3 | SHEET TITLE | DESERT ROAD CROSS SECTIONS - SHEET 2 | C315 | В |





$\frac{\text{INTERSECTION TUSCAN CIRCUIT AND DESERT ROAD}}{\underbrace{\frac{\text{DETAIL 1}}{\text{SCALE 1:250}}}$



 $\frac{\text{INTERSECTION TUSCAN CIRCUIT AND DESERT ROAD}}{\underbrace{\frac{DETAIL\ 2}{\text{SCALE\ 1:250}}}}$

LEGEND - PROPOSED

PAVEMENT ---58.0-----FINISHED MAJOR CONTOURS (0.20m) FINISHED MINOR CONTOURS (0.10m) PROPOSED 1.5m WIDE CONCRETE FOOTPATH. (UNO) REFER CONC. REQUIREMENTS ON DRG. No. C300 PROPOSED KERB RAMP. REFER IPWEA STD DWG RS-090. PROPOSED IPWEA TYPE 'B1' KERB & CHANNEL. REFER IPWEA STD DWG RS-080. PROPOSED IPWEA TYPE 'M3' KERB & CHANNEL. REFER IPWEA STD DWG RS-080. PROPOSED IPWEA TYPE 'B2' KERB. REFER IPWEA STD DWG RS-080. PROPOSED IPWEA TYPE 'INV' CHANNEL. REFER IPWEA STD DWG RS-080. 51.³⁵⁸ • LIP OF KERB LEVEL TRANSITION IN KERB AND CHANNEL TYPE PROPOSED STORMWATER PROPOSED SEWER PROPOSED WATER PROPOSED ELECTRICAL PROPOSED RETAINING WALL

LEGEND - CONSTRUCTED

NOTE

LEVELS AND SETOUT INFORMATION FOR KERB AND CHANNEL CONSTRUCTION IS GIVEN TO LIP OF KERB.

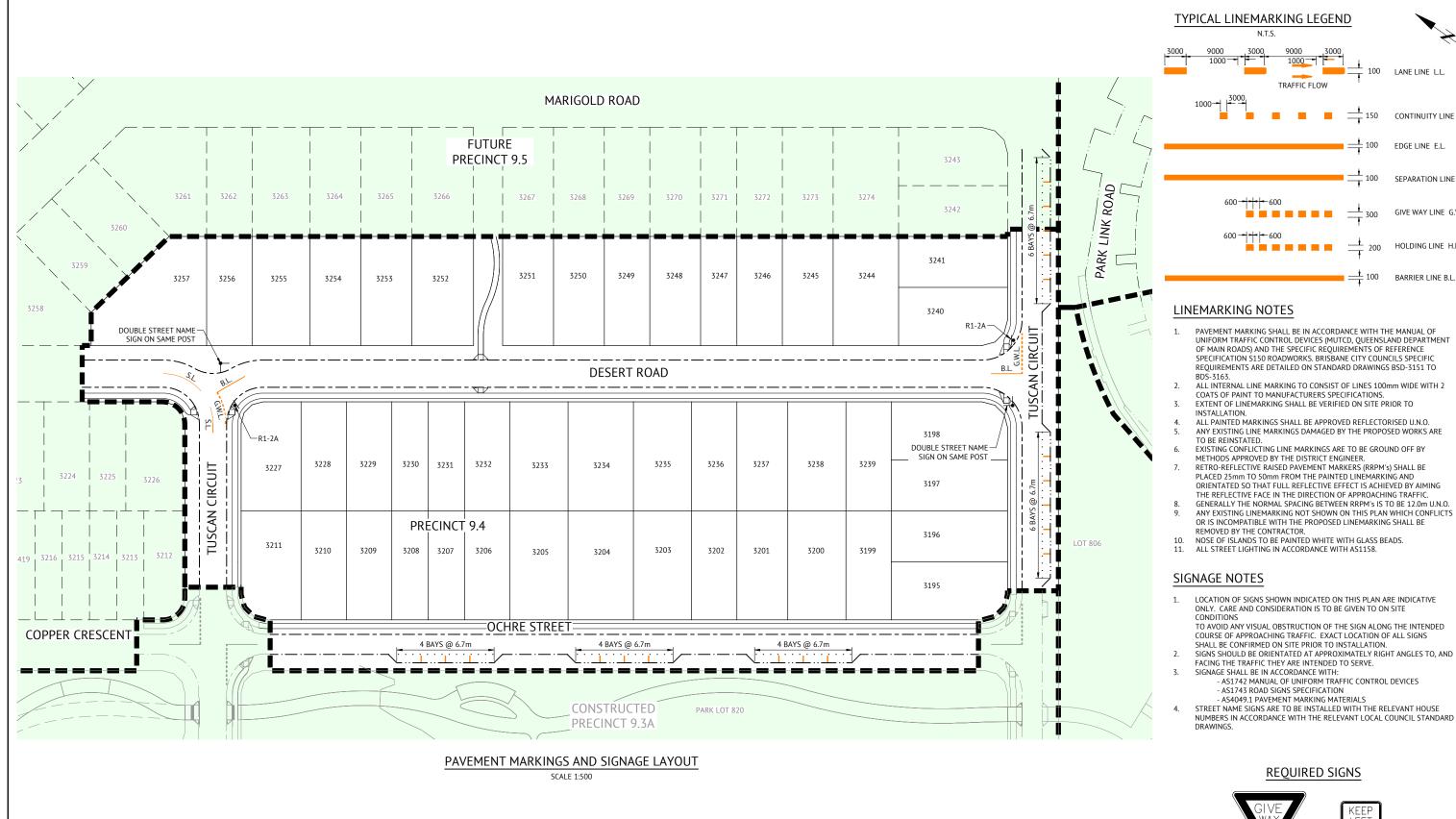
| FOR CONSTRUCTION | | | | | | | | |
|------------------|-----|----------------------------|-----|-----|--|--|--|--|
| | | | | | | | | |
| 15/07/2022 | C | AMENDED LIP OF KERB LEVELS | KK | PB | | | | |
| 07/04/2022 | В | ISSUED FOR CONSTRUCTION | KK | PB | | | | |
| 26/11/2021 | Α | ORIGINAL ISSUE | KK | PB | | | | |
| 12/11/2021 | 2 | 90% REVIEW ISSUE | KK | PB | | | | |
| 28/10/2021 | 1 | PRELIMINARY ISSUE | VKH | PB | | | | |
| DATE | REV | DESCRIPTION | REC | APP | | | | |
| | | REVISIONS | | | | | | |



| DESIGNED KLYNT KIWANG | | SCALE | | | |
|---------------------------|-----------|------------|--------------|----------|-----|
| CHECKED ANDREW LANGDON | | 0 | 5 | 10 | 15m |
| PROJECT MANAGER | | 1 - | | -10 | |
| SIMON STEINHOFER | | | SCALE 1:2 | 250 (Δ1) | |
| PROJECT DIRECTOR | Pronj | | 301EE 1.2 | -50 (11) | |
| PATRICK BRADY | RPEO 7112 | | | | |
| | | | ORIGINAL SHI | | |

| CLIENT | MIRVAC QLD PTY LTD |
|-------------|------------------------------------------------|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| LOCATION | TEVIOT ROAD, GREENBANK |
| SHEET TITLE | INTERSECTION DETAILS LAYOUT |

MIR-0904



REQUIRED SIGNS



100 LANE LINE L.L.

CONTINUITY LINE C.L.

SEPARATION LINE S.L.

GIVE WAY LINE G.W.L

HOLDING LINE H.L.

BARRIER LINE B.L.

FDGE LINE F.L.

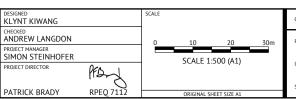
100

_____ 100

TRAFFIC FLOW

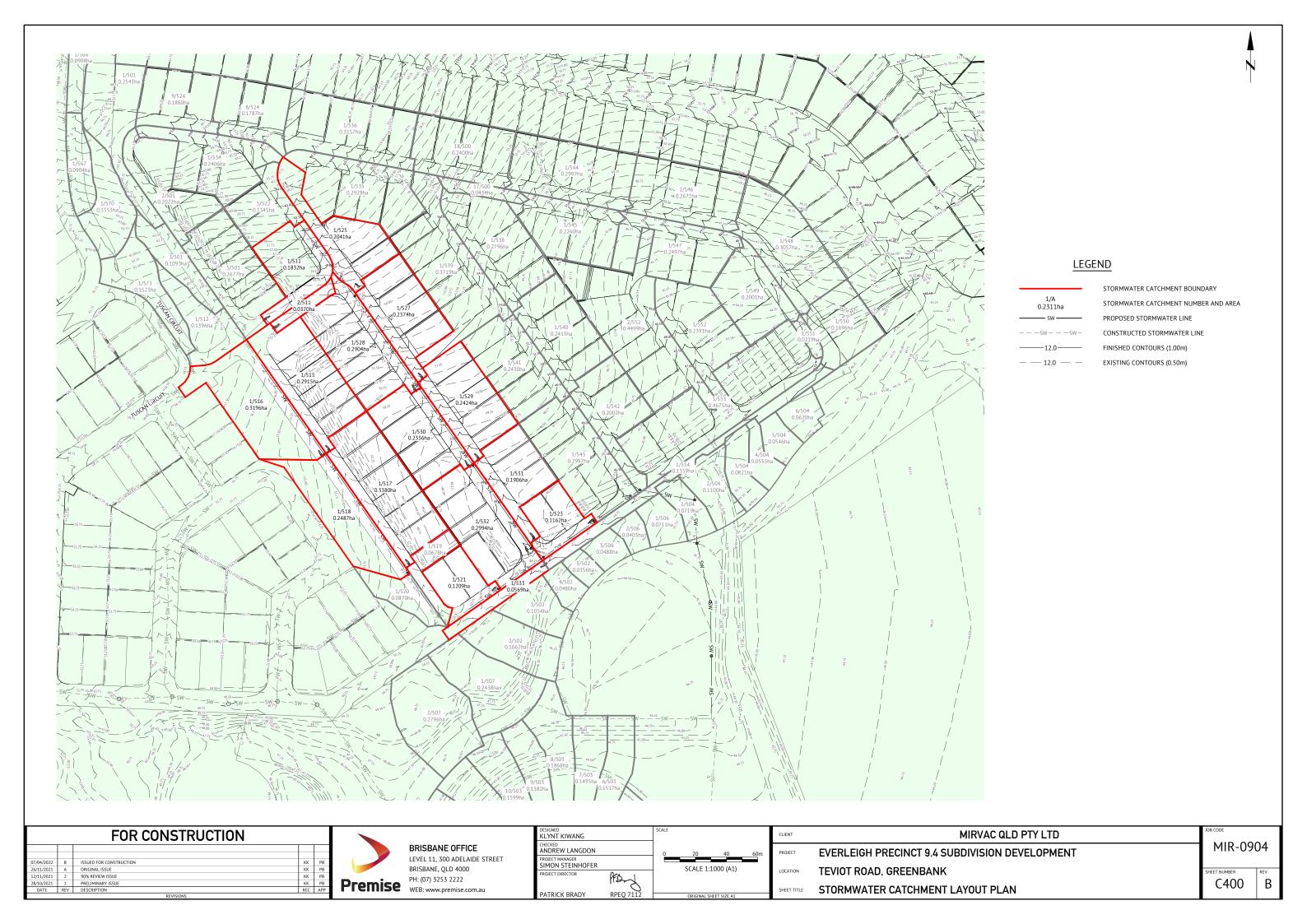
FOR CONSTRUCTION ISSUED FOR CONSTRUCTION ORIGINAL ISSUE 90% REVIEW ISSUE 07/04/2022 26/11/2021

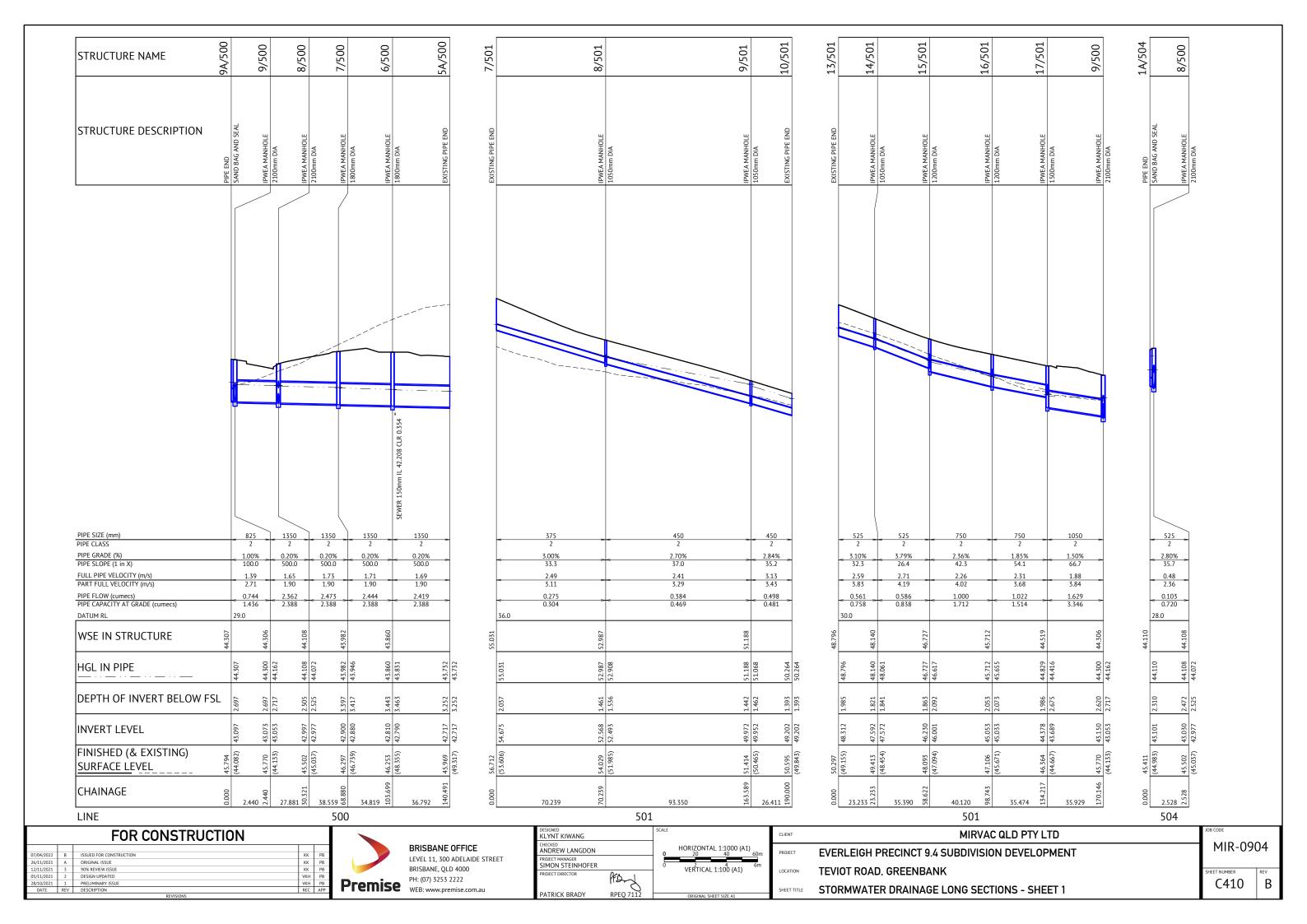


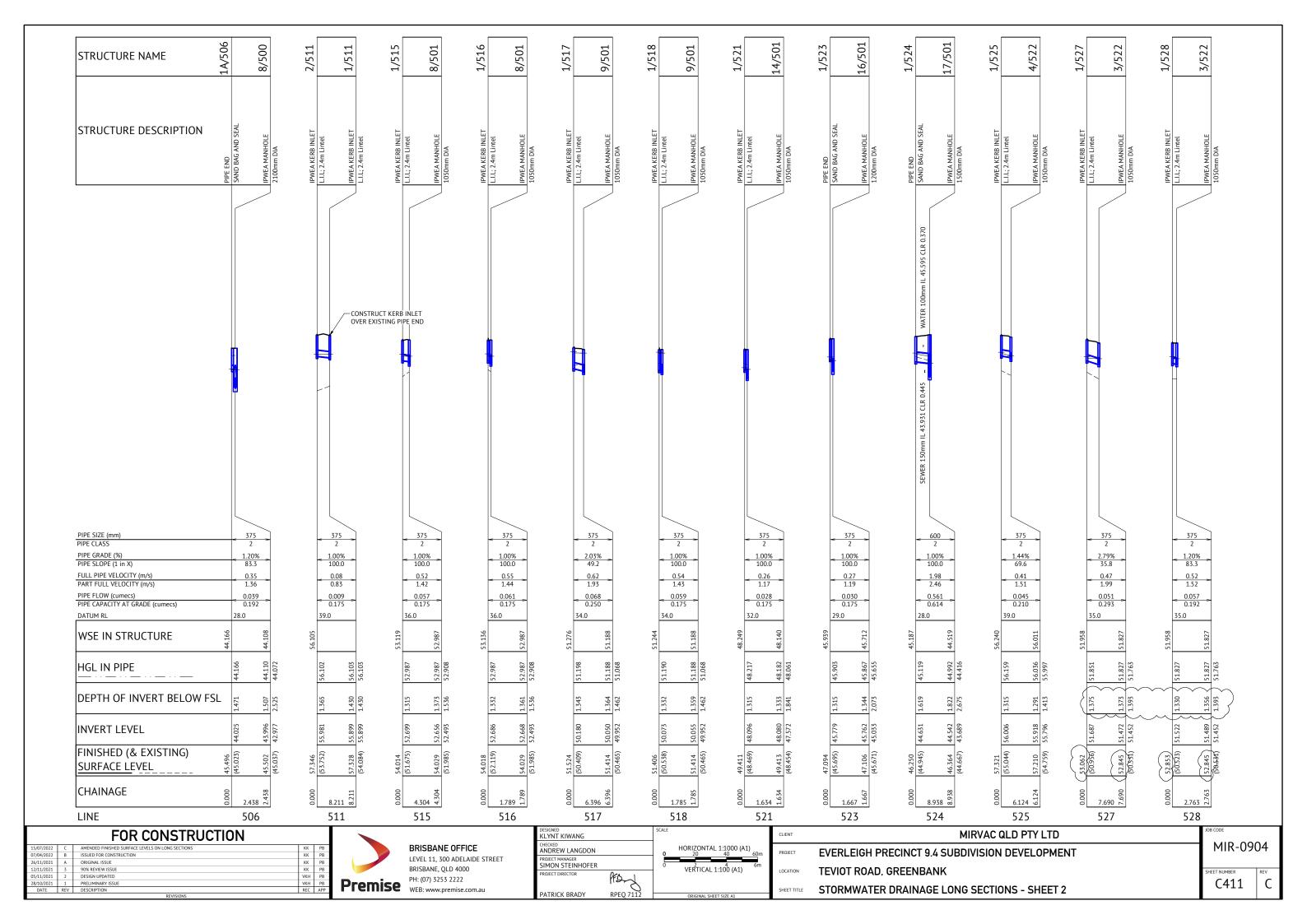


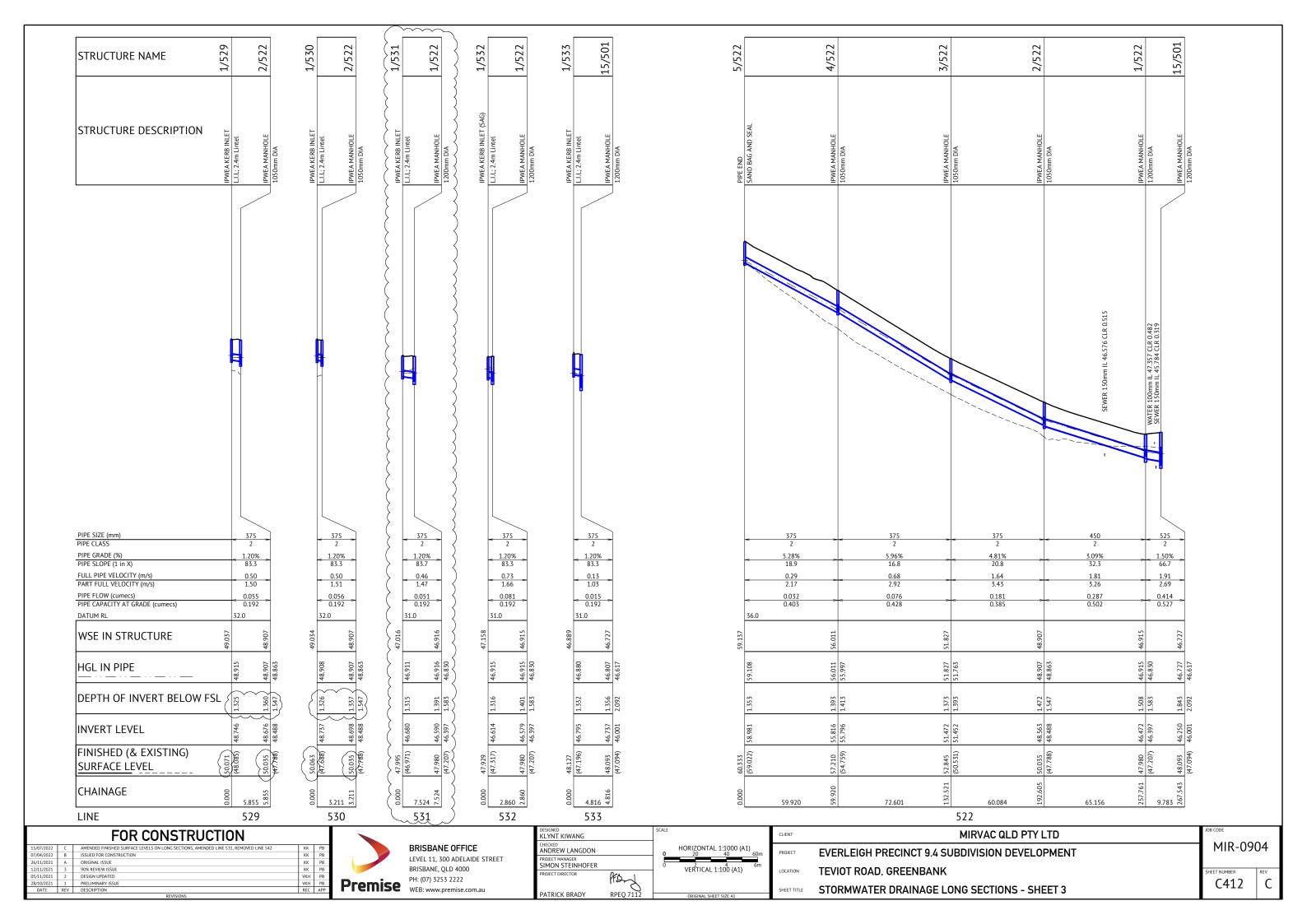
| CLIENT | MIRVAC QLD PTY LTD |
|-------------|------------------------------------------------|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| LOCATION | TEVIOT ROAD, GREENBANK |
| SHEET TITLE | PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN |

MIR-0904 C330 В









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

REFERENCE POINT LOCATION FOR DRAINAGE STRUCTURES

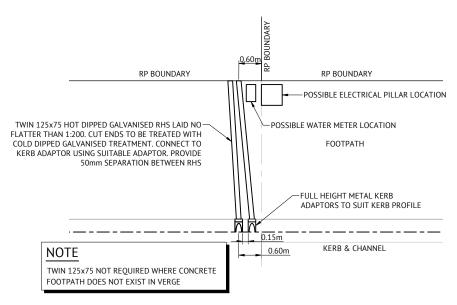
| STRUCTURE TYPE | HORIZONTAL CONTROL POINT [REFERENCE POINT LOCATION] | VERTICAL CONTROL REFERENCE LEVEL |
|----------------------------|----------------------------------------------------------|------------------------------------------------------|
| MANHOLE | CENTRELINE OF MAIN SHAFT | FINISHED 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:

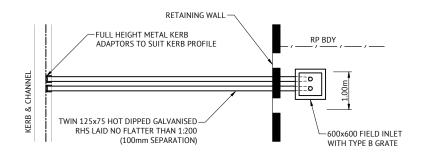
CONTRACT SHALL INCLUDE TREATING, SIZING CONDITIONING AND PROCESSING ALL TYPES OF ROCK IN ALL EXCAVATIONS. PROCESSING TO BE COMPLETED AS PER MORRISON GEOTECHNICAL REPORTS TO ENSURE LEVEL 1 IS ACHIEVED.

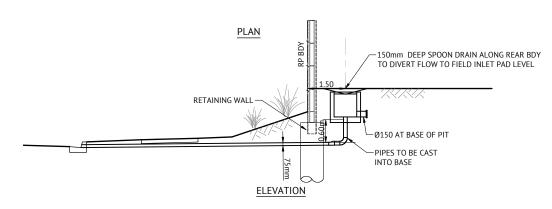
TRENCH SPOIL NOTE:

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.



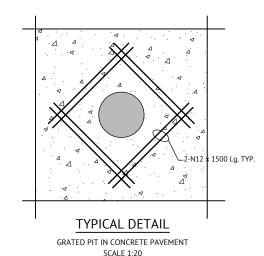
TYPICAL ROOFWATER KERB ADAPTOR **OUTLET DETAIL**





TYPICAL ROOFWATER PROPERTY PIT TO KERB ADAPTOR OUTLET DETAIL

N.T.S.



STORMWATER DRAINAGE LONG SECTION CHAINAGE LENGTHS ARE MEASURED FROM NODE CENTRE POINTS ALONG THE PROPOSED PIPE ALIGNMENT INCLUDING PIPE OFFSETS SUCH AS TO CENTRE OF PIT SIDE WALL AND CUSTOM PIPE SPACING INTO STRUCTURES. REFER STORMWATER DRAINAGE STRUCTURE DETAILS DRAWINGS.

FOR CONSTRUCTION

| | 10110011011 | | | | | | | |
|------------|-------------|-------------------------|-----|-----|--|--|--|--|
| | | | | | | | | |
| | | | | | | | | |
| 15/07/2022 | C | ADDED NOTE | KK | PB | | | | |
| 07/04/2022 | В | ISSUED FOR CONSTRUCTION | KK | PB | | | | |
| 26/11/2021 | A | ORIGINAL ISSUE | KK | PB | | | | |
| 28/10/2021 | 1 | PRELIMINARY ISSUE | VKH | PB | | | | |
| DATE | REV | DESCRIPTION | REC | APP | | | | |
| | | | | | | | | |

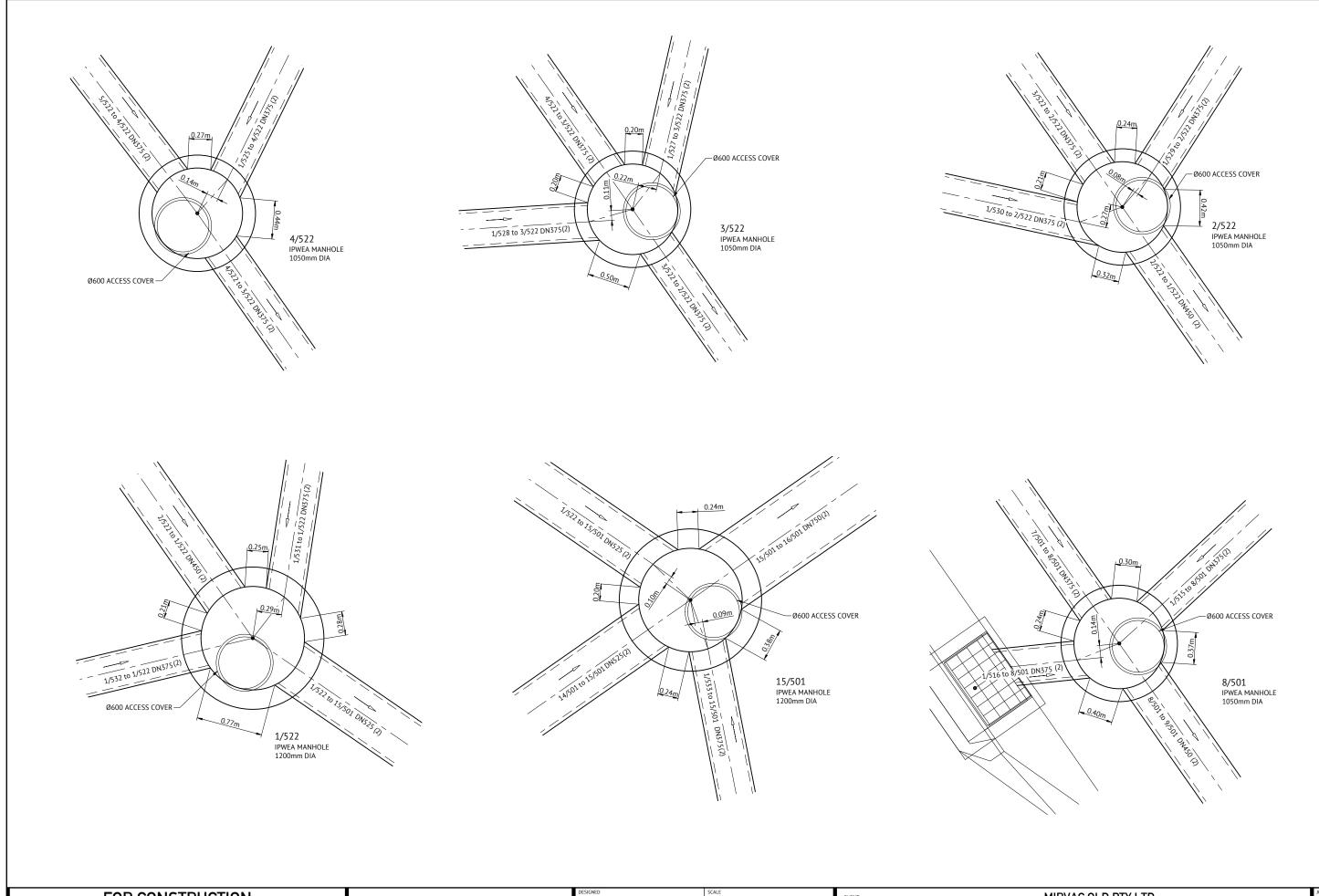
NOTE:

BRISBANE OFFICE LEVEL 11, 300 ADELAIDE STREET BRISBANE, QLD 4000 PH: (07) 3253 2222 Premise PH: (U/) 5233 2222
WEB: www.premise.com.au

| _ | | | | | | |
|---|----------------------------------|-----------|-------|-------------|-------------|------|
| | DESIGNED KLYNT KIWANG | | SCALE | | | |
| 1 | | | 0 | 0.4 | 0.8 | 1.2m |
| | CHECKED ANDREW LANGDON | | | CCALE 1 | -20 (41) | |
| | PROJECT MANAGER SIMON STEINHOFER | | | SCALE 1 | :20 (A1) | |
| | PROJECT DIRECTOR | Pront | | | | |
| | PATRICK BRADY | RPEQ 7112 | | ORIGINAL SH | EET SIZE A1 | |

| MIRVAC QLD PTY LTD | JOB |
|------------------------------------------------|-----|
| EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT | |
| TEVIOT ROAD, GREENBANK | SHE |
| STORMWATER DRAINAGE NOTES AND DETAILS | |

MIR-0904 HEET NUMBE

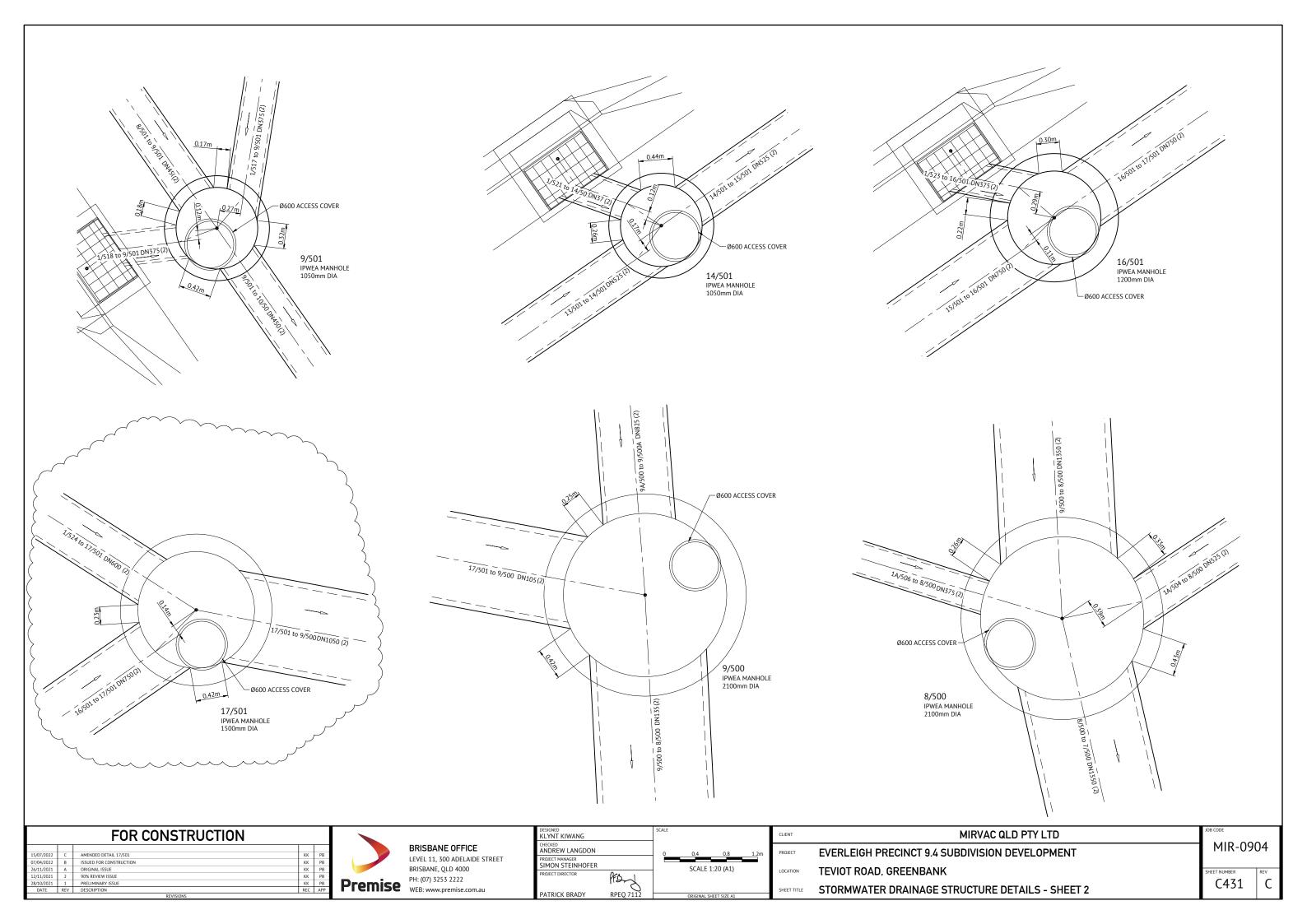


| | FOR CONSTRUCTION | | | | | | | | |
|------------|------------------|-------------------------|-----|-----|--|--|--|--|--|
| | | | | | | | | | |
| | | | | | | | | | |
| 07/04/2022 | В | ISSUED FOR CONSTRUCTION | KK | PB | | | | | |
| 26/11/2021 | Α | ORIGINAL ISSUE | KK | PB | | | | | |
| 12/11/2021 | 2 | 90% REVIEW ISSUE | KK | PB | | | | | |
| 28/10/2021 | 1 | PRELIMINARY ISSUE | KK | PB | | | | | |
| DATE | REV | DESCRIPTION | REC | APP | | | | | |
| | REVISIONS | | | | | | | | |



| | DESIGNED KLYNT KIWANG | | SCALE | | | |
|-----|---------------------------|-----------|-------|-------------|--------------|--|
| | CHECKED ANDREW LANGDON | | 0 | 0.4 | 0.8 | |
| | PROJECT MANAGER | | | | 0.0 | |
| - 1 | SIMON STEINHOFER | | | SCALE 1 | L:20 (A1) | |
| | PROJECT DIRECTOR | Prond | | | | |
| 1 | PATRICK BRADY | RPEQ 7112 | | ORIGINAL SI | HEET SIZE A1 | |

| | CLIENT | MIRVAC QLD PTY LTD | JOB CODE | |
|----|-------------|-------------------------------------------------|----------|-----|
| !m | PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT | MIR-090 |)4 |
| | LOCATION | TEVIOT ROAD, GREENBANK | | REV |
| | SHEET TITLE | STORMWATER DRAINAGE STRUCTURE DETAILS - SHEET 1 | C430 | В |



| | LOCATION | TIM | | SUB-CA | | | OFF | | . ! | | DESIGN | | | | | | | | N DESIG | ΞN. | | | | | | | | EADLOS | | | | | | | T FUL | | $\overline{}$ | | DESI | IGN LEVI | ELS | | \Box |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|------------------------|--------------------|-----------------|-------------------------|----------------------------------------------|------------|---------------------|--------------------|-----------------|------------------------------|----------------------------|----------------------------------|---------------|-----------------------------|-----------|--------------|------------|---------------------|-------|--------------------|--------------------------|-------------|-------|---------|----------|---------------------------------|-----------------------------------|---------------------|------------------|---------------------|-------|--------------|--------|------------------------------------------------------------|-------------------------|-------|-----------------|-------------------|--------|------------------------|------------------|
| | | tc I | _ | | CA | Q | | | | | Qg | Qb | t | c I | CA | | Qp | L | S | 1 | + | Vf=Q/A | | | STRUC | CTURE R | ATIOS V | /2g Kı | ı hu | Kw | hw | | | dn > | - | | + | | | | | | - |
| STRUCTURE NUMBER | DOWNSTREAM STRUCTURE SUB-CATCHMENTS CONTRIBUTING | SUB-CATCHMENT TIME OF CONCENTRATION RAINFALL INTENSITY | CO-EFFICIENT OF RUNOFF | SUB-CATCHMENT AREA | EQUIVALENT AREA | SUB-CATCHMENT DISCHARGE | FLOW IN K & C (INC. BYPASS) FLOW WIDTH | FLOW DEPTH | ROAD GRADE AT INLET | HALF ROAD CAPACITY | FLOW INTO INLET | BYPASS FLOW BYPASS STRUCTURE | NUMBER CRITICAL TIME OF | CONCENTRATION RAINFALL INTENSITY | TOTAL (C x A) | SUM ADDITIONAL PIPE FLOW | PIPE FLOW | REACH LENGTH | PIPE GRADE | PIPE/BOX DIMENSIONS | CLASS | FULL PIPE VELOCITY | TIME OF FLOW IN REACH | CHARTS USED | Qg/Qo | Du/Do | S/Do | VELUCITY HEAD UPSTREAM HEADLOSS | CO-EFFICIENT UPSTREAM HEADLOSS | W.S.E. CO-EFFICIENT | CHANGE IN W.S.E. | PIPE FRICTION SLOPE | | NORMAL DEPTH | STORM) | NORMAL DEPTH VELOCITY (1 YEAR STORM) UPSTREAM OBVERT | LEVEL DOWNSTREAM OBVERT | LEVEL | UPSTREAM H.G.L. | DOWNSTREAM H.G.L. | W.S.E. | SURFACE OR GRATE LEVEL | STRUCTURE NUMBER |
| | | min mm | /h | ha | | | l/s m | m | % | l/s | l/s | l/s | | in mm/ | h ha | l/s | l/s | m | % | mm | | m/s | min | | | | | n | m | | m | % | m | m | m/s | m/s m | | n | m | m | m | m | |
| 9A/500 | 1/546 1/545 1/544 1//500 | | | | | | | | | | | | 9.5 | 5 107 | 2.461 | 0 | 744 | 2.440 | 1.000 | 825 | 2 | 1.39 | 0.02 | | | | 0.0 | 99 0.0 | 0.000 | | 0.000 | 0.27 0.0 | 007 0 |).421 2 | 2.71 | 2.5 | | 44 | 4.307 | 44.300 | 44.307 | 45.794 _{9A} | A/500 |
| 9/500 | 1/542 1/543 1/541 1/540 1/539 1/538 1/536 1/535 1/534 9/524 8/524 1/523 1/532 1/531 1/530 1/529 1/528 1/527 1/525 5/522 8/500 1/533 1/521 1/520 1/521 1/518 1/517 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 1/554 1/553 1/552 2/552 1/550 1/549 1/548 1/547 1/546 1/545 1/544 17/500 | | | | | | | | | | | | 9.6 | 4 106 | 7.990 | 0 | 2362 | 27.881 | 0.200 | 1350 | 2 | 1.65 | 0.28 | | 0.00 | 0.99 | 1.11 0.1 | 39 0.9 | 0.138 | 1.03 | 0.144 | 0.19 0.1 | 054 1 | 094 1 | 1.90 | 1.82 | | 44 | 4.162 | 44.108 | 44.306 | 45.770 9/ | 1/500 |
| 8/500 | 3/506 2/506 1/506 6/504 5/504 4/504 3/504 2/504 1/504 1/504 1/542 1/543 1/541 1/540 1/539 1/538 1/536 1/535 1/535 1/535 1/535 1/535 1/537 1/530 1/529 1/528 1/527 1/525 5/522 1/533 1/521 1/520 1/519 1/518 1/517 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 1/554 1/535 1/552 2/552 1/550 1/549 1/544 1/540 1/546 1/545 1/544 17/500 | | | | | | | | | | | | 9.8 | 4 106 | 8.429 | 0 | 2473 | 38.559 | 0.200 | 1350 | 2 | 1.73 | 0.39 | | 0.00 | 1.00 | 1.03 0.1 | 52 0.2· | 4 0.037 | | 0.037 | 0.23 0.0 | 085 1 | 156 1 | 1.90 | 1.84 | | 44 | 4.072 | 43.982 | 44.108 | 45.502 8/ | :/500 |
| 7/500 | 3/506 2/506 1/506 6/504 5/504 4/504 3/504 2/504 1/504 1/540 1/539 1/538 1/541 1/540 1/539 1/538 1/536 1/535 1/535 1/535 1/531 1/530 1/523 1/532 1/531 1/530 1/529 1/528 1/527 1/525 5/522 1/533 1/521 1/520 1/519 1/518 1/517 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 1/554 1/553 1/552 2/552 1/550 1/549 1/548 1/547 1/546 1/545 1/544 17/500 | | | | | | | | | | | | 10. | 45 104 | 8.488 | 0 | 2444 | 34.819 | 0.200 | 1350 | 2 | 1.71 | 0.35 | | 0.00 | 1.00 | 1.03 0.1 | 49 0.2· | 1 0.035 | | 0.035 | 0.25 0. | 080 1 | 138 1 | 1.90 | 1.84 | | 43 | 3.946 | 43.860 | 43.982 | 46.297 7/ | '/500 |
| 6/500 | 3/506 2/506 1/506 6/504 5/504 4/504 3/504 2/504 1/504 1/542 1/543 1/541 1/540 1/539 1/538 1/536 1/535 1/534 9/524 8/524 1/523 1/532 1/531 1/530 1/529 1/528 1/527 1/525 5A/500 5/522 1/533 1/521 1/520 1/519 1/518 1/517 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 1/554 1/553 1/552 2/552 1/550 1/549 1/548 1/547 1/546 1/545 1/544 17/500 | | | | | | | | | | | | 10. | 68 103 | 8.459 | 0 | 2419 | 36.792 | 0.200 | 1350 | 2 | 1.69 | 0.37 | | 0.00 | 1.00 | 1.02 0.1 | 46 0.2 | 0.030 | | 0.030 | 0.27 0. | 088 1 | 124 1 | 1.90 | 1.83 | | 43 | 3.831 | 43.732 | 43.860 | 46.253 6/ | ı/500 |
| 5A/500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 43.732 | 45.969 _{5A} | A/500 |
| 7/501 | 1/512 2/511 1/511 1/501 | | | | | | | | | | | | 8.4 | 9 111 | 0.891 | 0 | 275 | 70.239 | 3.000 | 375 | 2 | 2.49 | 0.43 | | | | 0.3 | 16 0.0 | 0.000 | | 0.000 | 2.91 2.0 | 056 | 0.279 3 | 3.11 | 2.95 | | 55 | 5.031 | 52.987 | 55.031 | 56.712 7/ | |
| 8/501 | 9/501 1/516 1/515 1/512 2/511 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 | | | | | | | | | | | | 8.7 | 5 110 | 1.341 | 0 | 384 | 93.350 | 2.700 | 450 | 2 | 2.41 | 0.53 | | 0.00 | 1.00 | 1.18 0.2 | 97 0.2 | 7 0.079 | | 0.079 | 1.84 1. | 742 0 | 0.310 | 3.29 | 3.11 | | 52 | 2.908 | 51.188 | 52.987 | 54.029 8/ | 3/501 |
| 9/501 | 1/518 1/517 1/516 1/515 | | | | | | | | | | | | 9.1 | 7 108 | 1.773 | 0 | 498 | 26.411 | 2.839 | 450 | 2 | 3.13 | 0.15 | | 0.00 | 1.00 | 2.75 0.5 | 00 0.2 | 0.120 | | 0.120 | 3.04 0.3 | 804 0 | 0.385 3 | 3.43 | 3.35 | | 51 | 1.068 | 50.264 | 51.188 | 51.414 9/ | 7/501 |
| 10/501 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50.264 | 50.595 10, | 0/501 |
| | 1/520 1/519 1/518 1/517 1/516 1/515 1/512 2/511 14/501 1/511 1/501 2/501 3/501 | 0.00 0 | | 0.000 | 0.000 | 0 0 |) | | 2.95 | | 0 0 | | 9.5 | 0 107 | 1.889 | 0 | 561 | 23.204 | 3.104 | 525 | 2 | 2.59 | 0.11 | | | | 0.3 | 43 0.0 | 0.000 | | 0.000 | 2.82 0.0 | 682 0 | 0.337 3 | 3.83 | 3.58 | | 48 | 8.796 | | | 50.297 13/ | |
| 14/501 | 5/501 1/521 1/520 1/519 1/518 1/517 1/516 1/515 1/512 15/501 2/511 1/511 1/501 2/501 3/501 5/501 | | | | | | | | | | | | 9.6 | 1 107 | 1.980 | 0 | 586 | 35.390 | 3.791 | 525 | 2 | 2.71 | 0.15 | | 0.00 | 1.00 | 1.15 0.3 | 74 0.2 | 0.079 | | 0.079 | 3.77 1. | 341 0 | 0.324 | 4.19 | 3.9 | | 48 | 8.061 | 46.727 | 48.140 | 49.413 | ¥/501 |

| | | FOR CONSTRUCTION | | |
|------------|-----|-------------------------|-----|-----|
| | | | | |
| | | | | |
| 07/04/2022 | В | ISSUED FOR CONSTRUCTION | KK | PB |
| 26/11/2021 | Α | ORIGINAL ISSUE | KK | PB |
| 12/11/2021 | 2 | 90% REVIEW ISSUE | KK | PB |
| 15/10/2021 | 1 | PRELIMINARY ISSUE | VKH | PB |
| DATE | REV | DESCRIPTION | REC | APF |
| | | | | |



| DESIGNED KLYNT KIWANG | | SCAL |
|----------------------------------|-------|------|
| CHECKED ANDREW LANGDON | | |
| PROJECT MANAGER SIMON STEINHOFER | | |
| PROJECT DIRECTOR | Prand | |

| | CLIENT |
|-----------|-------------|
| | PROJECT |
| | LOCATION |
| T C17E A4 | SHEET TITLE |

MIRVAC QLD PTY LTD EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT TEVIOT ROAD, GREENBANK STORMWATER CALCULATIONS 39% AEP STORM - SHEET 1

MIR-0904

| | LOCATION | | TIME | | SUB-CA | TCHM | ENT RU | UNOFF | F | | | INLET | DESIG | N | | | | | | | DRAIN | DESIG | SN | | | | | | | | HEADL | .OSSES | 5 | | | | PART | FULL | - | | DES | SIGN LEV | 'ELS | |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------|------------------------|--------------------|-----------------|----------------------------|------------------------------|------------|------------|---------------------|--------------------|-----------------|-------------|----------------------------|--------------------------------|--------------------|-----------|-----------------------------|-----------|--------------|------------|---------------------|-------|--------------------|--------------------------|-------------|-------|-------|--------|--------|-----------------------------------|------------------------------------------|------------------|--------------------------------------------|----------|------------------------------------|-------|---------------------------------------------------------------------|----------------------------|-----------------|-------------------|--------|-----------------------------------------|
| | | tc | I | С | Α | CA | Q | | | | | | Qg | Qb | | tc | ı | CA | | Qр | L | S | | | Vf=Q/A | | | STRU | CTURE | RATIOS | V2/2g | Ku | hu Kw | hw | Sf h | nf | dn ' | Vn | Vn | | | | | |
| STRUCTURE NUMBER | DWNSTF | SUB-CATCHMENT TIME OF CONCENTRATION | RAINFALL INTENSITY | CO-EFFICIENT OF RUNOFF | SUB-CATCHMENT AREA | EQUIVALENT AREA | SUB-CATCHMENT DISCHARGE | FLOW IN K&C (INC. BYPASS) | FLOW WIDTH | FLOW DEPTH | ROAD GRADE AT INLET | HALF ROAD CAPACITY | 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 | PIPE GRADE | PIPE/BOX DIMENSIONS | CLASS | FULL PIPE VELOCITY | TIME OF FLOW IN REACH | CHARTS USED | 09/00 | Du/Do | S/Do | 'Y HE∕ | UPSTREAM HEADLOSS CO-EFFICIENT | UPSTREAM HEADLOSS W.S.E. CO-EFFICIENT | CHANGE IN W.S.E. | PIPE FRICTION SLOPE PIPE FRICTION HEADLOSS | (L × 5f) | NORMAL DEPTH NORMAL DEPTH VELOCITY | TORM) | NOKMAL DEPTH VELOCITY (1 YEAR STORM) UPSTREAM OBVERT LEVEL | DOWNSTREAM OBVERT LEVEL | UPSTREAM H.G.L. | DOWNSTREAM H.G.L. | W.S.E. | SURFACE OR GRATE LEVEL STRUCTURE NUMBER |
| | | min | mm/h | | ha | ha | l/s | l/s | m | m | % | l/s | l/s | l/s | | min | mm/h | ha | l/s | l/s | m | % | mm | n | m/s | min | | | | | m | | m | m | % г | n | m n | n/s | m/s m | m | m | m | m | m |
| 15/501 | 1/532 1/531 1/530 1/529 1/528 1/527 1/525 5/522 1/533 1/521 1/520 1/519 16/501 1/518 1/517 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 | | | | | | | | | | | | | | | 9.17 | 108 | 3.332 |) | 1000 | 40.110 | 2.363 | 750 | 2 | 2.26 | 0.17 | | 0.00 | 1.00 | 1.15 | 0.261 | 0.42 | 0.109 | 0.109 | 2.26 0.9 | 42 0.4 | 4 12 4. | 02 3 | 3.73 | | 46.617 | 45.712 | 46.727 | 48.093 15/501 |
| 16/501 | 1/523 1/532 1/531 1/530 1/529 1/528 1/527 1/525 5/522 1/533 1/521 1/520 17/501 1/519 1/518 1/517 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 | | | | | | | | | | | | | | | 9.34 | 108 | 3.419 (|) | 1022 | 35.461 | 1.849 | 750 | 2 | 2.31 | 0.17 | | 0.00 | 1.00 | 1.08 | 0.273 | 0.21 | 0.056 | 0.056 | 2.33 0.4 | 83 0.4 | 452 3.4 | 68 3 | 3.42 | | 45.655 | 44.829 | 45.712 | 47.106 16/501 |
| 17/501 | 1/542 1/543 1/541 1/540 1/539 1/538 1/536 1/535 1/534 9/524 8/524 1/523 1/532 1/531 1/530 1/529 9/500 1/528 1/527 1/525 5/522 1/533 1/521 1/520 1/519 1/518 1/517 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 | | | | | | | | | | | | | | | 9.49 | 107 | 5.523 (|) | 1629 | 35.929 | 1.500 | 1050 | 2 | 1.88 | 0.15 | | 0.00 | 0.98 | 1.10 | 0.181 | 0.57 | 0.103 | 0.103 | 0.32 0.2 | 66 0.5 | 517 3. | 84 3 | 3.55 | | 44.416 | 44.300 | 44.519 | 46.364 17/501 |
| 1A/504 | 8/500 6/504 5/504 4/504 3/504 2/504 1/504 | | | | | | | | | | | | | | | 8.54 | 111 | 0.334 |) | 103 | 2.484 | 2.852 | 525 | 2 | 0.48 | 0.01 | | | | | 0.012 | 0.00 | 0.000 | 0.000 | 0.06 0.0 | 01 0.1 | 134 2. | 36 2 | 2.16 | | 44.110 | 44.108 | 44.110 | 45.411 1A/504 |
| 1A/506 | 8/500 3/506 2/506 1/506 | | | | | | | | | | | | | | | 8.27 | 112 | 0.124 |) [| 39 | 2.438 | 1.200 | 375 | 2 | 0.35 | 0.02 | | | | | 0.006 | 0.00 | 0.000 | 0.000 | 2.32 0.0 | 15 0.1 | 114 1. | 36 1 | 1.25 | | 44.166 | 44.110 | 44.166 | 45.496 1A/506 |
| 2/511 | 1/511 | 8.00 | 113 (| 0.75 0 | .037 | 0.028 | 9 | 9 | 1.345 | 0.044 | 0.89 | 142 | 9 | 0 | 1/515 | 8.00 | 113 | 0.028 |) | 9 | 8.183 | 1.003 | 375 | 2 | 0.08 | 0.09 | | 1.00 | | 1.01 | 0.000 | 9.70 | 0.003 | 0.003 | -0.02 0.0 | 02 0.0 | 057 0. | 83 (| 0.76 | | 56.102 | 56.103 | 56.105 | 57.346 2/511 |
| 1/511 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 57.328 1/511 |
| 1/515 | 8/501 | 8.00 | 113 | 0.75 0 | .291 (| 0.218 | 68 | 68 | 2.461 | 0.070 | 2.70 | 112 | 57 | 11 | 1/517 | 8.00 | 113 | 0.218 |) | 57 | 4.301 | 1.001 | 375 | 2 | 0.52 | 0.05 | | 1.00 | | 1.35 | 0.014 | 9.70 | 0.132 | 0.132 | 0.00 0.0 | 05 0.1 | L47 1. | 42 1 | 1.34 | | 52.987 | 52.987 | 53.119 | 54.014 1/515 |
| 1/516 | 8/501 | 8.00 | 113 | 0.75 0 | .320 | 0.239 | 75 | 75 | 2.375 | 0.088 | 2.70 | 110 | 61 | 15 | 1/518 | 8.00 | 113 | 0.239 | | 61 | 1.751 | 1.022 | 375 | 2 | 0.55 | 0.02 | | 1.00 | | 1.40 | 0.015 | 9.70 | 0.149 | 0.149 | 0.00 0.0 | 02 0.1 | 152 1. | 44 1 | 1.36 | | 52.987 | 52.987 | 53.136 | 54.018 1/516 |
| 1/517 | 9/501 | 8.00 | 113 (| 0.75 0 | .338 (| 0.253 | 79 | 91 | 2.673 | 0.075 | 3.10 | 120 | 68 | 22 | 1/519 | 8.00 | 113 | 0.253 |) | 68 | 6.190 | 2.102 | 375 | 2 | 0.62 | 0.05 | | 1.00 | | 2.92 | 0.020 | 3.97 | 0.078 | 0.078 | 0.15 0.0 | 10 0.1 | 134 1. | 93 1 | 1.81 | | 51.198 | 51.188 | 51.276 | 51.524 1/517 |
| 1/518 | 9/501 | 8.00 | 113 (| 0.75 0 | .249 (| 0.186 | 58 | 73 | 2.279 | 0.085 | 3.10 | 117 | 59 | 13 | 1/520 | 8.00 | 113 | 0.186 |) | 59 | 1.751 | 1.020 | 375 | 2 | 0.54 | 0.02 | | 1.00 | | 3.12 | 0.015 | 3.67 | 0.054 | 0.054 | 0.11 0.0 | 02 0.1 | 151 1. | 43 1 | 1.34 | | 51.190 | 51.188 | 51.244 | 51.406 1/518 |
| 1/521 | 14/501 | 8.00 | 113 | 0.75 0 | .121 | 0.090 | 28 | 28 | 1.616 | 0.050 | 3.88 | 134 | 28 | 0 | 1/532 | 8.00 | 113 | 0.090 |) | 28 | 1.585 | 1.031 | 375 | 2 | 0.26 | 0.02 | | 1.00 | | 1.09 | 0.003 | 9.70 | 0.033 | 0.033 | 2.13 0.0 | 09 0.1 | 102 1. | 17 1 | 1.07 | | 48.217 | 48.182 | 48.249 | 49.411 1/521 |
| 1/527 | | 8.00 | 113 | 0.75 0 | .116 (| 0.087 | 27 | 30 | 1.870 | 0.056 | 2.09 | 99 | 30 | 0 | 1/543 | 8.00 | 113 | 0.087 |) | 30 | 1.585 | 1.052 | 375 | 2 | 0.27 | 0.02 | | 1.00 | | 1.10 | 0.004 | 9.70 | 0.036 | 0.036 | 2.14 0.0 | 09 0.1 | 1.05 1. | 19 1 | 1.06 | | 45.903 | 45.867 | 45.939 | 47.094 1/523 |
| | 1/543 1/541 1/540 1/539 1/538 1/536 1/535 1/534 9/524 8/524 | | | | | | | | | | | | | | | 9.14 | 108 | 1.943 |) | 561 | 8.938 | 1.000 | 600 | 2 | 1.98 | 0.07 | | 0.00 | 1.00 | 1.11 | 0.201 | 0.34 | 0.068 | 0.068 | 1.42 0.0 | 82 0.4 | 450 2.· | 46 2 | 2.35 | | 45.119 | 44.992 | 45.187 | 46.250 1/524 |
| | | 8.00 | 113 | 0.75 0 | .204 | 0.153 | 48 | 48 | 1.819 | 0.055 | 4.73 | 372 | 45 | 3 | 1/527 | 8.00 | 113 | 0.153 |) | 45 | 6.062 | 1.451 | 375 | 2 | 0.41 | 0.05 | | 1.00 | | 1.22 | 0.008 | 9.70 | 0.081 | 0.081 | 2.01 0.0 | 64 0.1 | 118 1. | 51 1 | 1.42 | | 56.159 | 56.036 | 56.240 | 57.321 1/525 |
| 1/527 | 3/522 | 8.00 | 113 | 0.75 0 | .237 (| 0.178 | 56 | 59 | 2.014 | 0.059 | 5.58 | 355 | 51 | 8 | 1/529 | 8.00 | 113 | 0.178 |) | 51 | 7.491 | 2.866 | 375 | 2 | 0.47 | 0.05 | | 1.00 | | 1.29 | 0.011 | 9.70 | 0.107 | 0.107 | 0.31 0.0 | 75 0.1 | 106 1. | 99 1 | 1.87 | | 51.851 | 51.827 | 51.958 | 53.044 1/527 |
| 1/528 | 3/522 | 8.00 | 113 | 0.75 0 | .290 (| 0.217 | 68 | 68 | 2.177 | 0.063 | 5.01 | 338 | 57 | 11 | 1/530 | 8.00 | 113 | 0.217 |) | 57 | 2.710 | 1.224 | 375 | 2 | 0.52 | 0.03 | | 1.00 | | 1.35 | 0.014 | 9.70 | 0.132 | 0.132 | -0.00 0.0 | 03 0.1 | 140 1. | 52 1 | 1.43 | | 51.827 | 51.827 | 51.958 | 52.837 1/528 |
| 1/529 | 2/522 | 8.00 | 113 | 0.75 0 | .242 | 0.181 | 57 | 65 | 2.163 | 0.063 | 4.65 | 324 | 55 | | 1/531 | | | | | 55 | 5.823 | 1.207 | | 2 | 0.50 | 0.06 | | 1.00 | | 1.32 | 0.013 | 9.70 | 0.121 | 0.121 | 0.14 0.0 | 44 0.1 | 137 1. | 50 1 | 1.39 | | 48.915 | 48.907 | 49.037 | 50.061 1/529 |
| 1/530 | 2/522 | 8.00 | 113 | 0.75 0 | .234 (| 0.175 | 55 | 66 | 2.183 | 0.063 | 4.65 | 325 | 56 | 10 | 1/532 | 8.00 | 113 | 0.175 |) | 56 | 3.056 | 1.261 | 375 | 2 | 0.50 | 0.03 | | 1.00 | | 1.34 | 0.013 | 9.70 | 0.126 | 0.126 | 0.02 0.0 | 27 0.1 | 138 1. | 51 1 | 1.4 | | 48.908 | 48.907 | 49.034 | 50.052 1/530 |
| | | | | _ | .191 (| | | _ | 2.314 | _ | _ | 230 | | | | | | 0.143 | - | 52 | | 1.229 | + | 2 | 0.47 | 0.07 | | 1.00 | | _ | 0.011 | | | | -0.07 0.0 | | | | | | 46.910 | | | 47.995 1/531 |
| — | | 8.00 | 113 | 0.75 0 | .299 (| 0.224 | 70 | 81 | | 0.030 | 1.70 | 260 | 81 | 0 | 1/531 | 8.00 | 113 | 0.224 |) | 81 | 2.854 | 1.202 | 375 | 2 | 0.73 | 0.03 | | 1.00 | | 1.65 | 0.027 | 8.90 | 0.243 | 0.243 | -0.02 0.0 | 06 0.1 | 170 1. | 66 1 | 1.49 | | 46.915 | 46.915 | 47.158 | 47.929 1/532 |
| 1/533 | | 6.00 | 122 | 0.76 0 | .057 | 0.043 | 15 | 15 | 1.024 | 0.054 | 3.17 | 119 | 15 | 0 | 1/554 | 6.00 | 122 | 0.043 |) | 15 | 4.780 | 1.209 | 375 | 2 | 0.13 | 0.05 | | 1.00 | | 1.02 | 0.001 | 9.70 | 0.009 | 0.009 | 1.53 0.0 | 50 0.0 | 070 1. | 03 0 | 0.94 | | 46.880 | 46.807 | 46.889 | 48.127 1/533 |
| 1/542 | 17/501 | 8.00 | 113 | 0.75 0 | .200 | 0.150 | 47 | 58 | | 0.013 | 0.61 | 260 | 58 | 0 | 1/553 | 8.00 | 113 | 0.150 | | 58 | 7.108 | 1.202 | 375 | 2 | 0.52 | 0.07 | | 1.00 | | 1.36 | 0.014 | 9.70 | 0.136 | 0.136 | 1.67 0.0 | 68 0.1 | 141 1. | 52 1 | 1.34 | | 44.889 | 44.770 | 45.024 | 46.130 1/542 |
| | | 8.00 | 113 | 0.75 0 | .134 (| 0.101 | 32 | 32 | 1.586 | 0.049 | 5.27 | 346 | 32 | 0 | 1/511 | 8.00 | 113 | 0.101 |) | 32 | 59.920 | 5.281 | 375 | 2 | 0.29 | 0.27 | | 1.00 | | 1.08 | 0.004 | 7.00 | 0.029 | 0.029 | 5.17 3.1 | 28 0.0 | 071 2. | 17 1 | 1.99 | | 59.108 | 56.011 | 59.137 | 60.333 5/522 |
| | 3/522 1/525 5/522 | | | | | | | | | | | | | | | 8.27 | 112 | 0.253 |) | 76 | 72.601 | 5.957 | 375 | 2 | 0.68 | 0.31 | | 0.00 | 1.00 | 1.04 | 0.024 | 0.58 | 0.014 | 0.014 | 5.74 4.2 | 26 0.1 | 107 2. | 92 2 | 2.71 | | 55.997 | | _ | 57.210 4/522 |
| | 2/522 1/528 1/527 1/525 5/522 | | | | | | | | | | | | | | | 8.37 | 112 | 0.646 |) | 181 | 60.084 | 4.808 | 375 | 2 | 1.64 | 0.29 | | 0.00 | 1.00 | 1.17 | 0.137 | 0.46 | 0.063 | 0.063 | 4.75 2.8 | 82 0.1 | 181 3. | 43 3 | 3.23 | | 51.763 | 48.907 | 51.827 | 52.831 3/522 |
| 2/522 | 1/522 1/530 1/529 1/528 1/527 1/525 5/522 | | | | | | | | | | | | | | | 8.34 | 112 | 0.992 |) | 287 | 65.156 | 3.094 | 450 | 2 | 1.81 | 0.34 | | 0.00 | 1.00 | 1.10 | 0.167 | 0.26 | 0.044 | 0.044 | 2.99 1.9 | 90 0.2 | 244 3. | 26 3 | 3.07 | | 48.863 | 46.915 | 48.907 | 50.022 2/522 |
| 1/522 | 1/532 1/531 1/530 1/529 15/501 1/528 1/527 1/525 5/522 | | | | | | | | | | | | | | | 8.68 | 110 | 1.359 |) | 414 | 9.775 | 1.501 | 525 | 2 | 1.91 | 0.07 | | 0.00 | 1.00 | 1.16 | 0.186 | 0.46 | 0.085 | 0.085 | 1.06 0.1 | 38 0.3 | 350 2. | 69 2 | 2.53 | | 46.830 | 46.727 | 46.915 | 47.980 1/522 |

| | | FOR CONSTRUCTION | | |
|------------|-----|-------------------------|-----|-----|
| | | | | |
| | | | | |
| 07/04/2022 | В | ISSUED FOR CONSTRUCTION | KK | PB |
| 26/11/2021 | A | ORIGINAL ISSUE | KK | PB |
| 12/11/2021 | 2 | 90% REVIEW ISSUE | KK | PB |
| 15/10/2021 | 1 | PRELIMINARY ISSUE | VKH | PB |
| DATE | REV | DESCRIPTION | REC | APF |
| | | | | |



| DESIGNED KLYNT KIWANG | | SC |
|----------------------------------|-----|----|
| CHECKED ANDREW LANGDON | | |
| PROJECT MANAGER SIMON STEINHOFER | | |
| PROJECT DIRECTOR | PFD | |

| CLIENT | MIRVAC QLD PTY LTD |
|----------|------------------------------------------------|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| LOCATION | TEVIOT ROAD, GREENBANK |

SHEET TITLE STORMWATER CALCULATIONS 39% AEP STORM - SHEET 2

MIR-0904

| LOCATION | TIN | 1E | | ATCHM | | JNOFF | | | DESIGN | | | | | | AIN DE | | | | | | | | | | EADLO | | | | | | PART | | | D | DESIGN | LEVELS | | | RU | NOFF | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------|---------------|-----------------|----------------------------|------------------------------|-----------|-----------------|--------|---------|--------------------|---------|-----------|---------|--------|------------|----------|-------|-----------|-----------------------|-------------|-------|---------|-----------|----------|---------|---------------------|------------------|---------------------|---------------------------------|--------------|------|-----------------------|----------------------------|-----------------|-------------------|----------|------------------------|-----|----------|--------------------------|------|
| | tc I | - | _ | CA | Q | | Ç | Qg Qt | b | tc | ı | CA | Qp | L | | S | | Vi | f=Q/A | | | STRUC | TURE RA | ATIOS V2, | /2g K | lu h | u Kw | hw | Sf | | dn | Vn | _ | | | | \vdash | | | + | | - |
| JT TAST TA | SUB-CATCHMENT TIME OF CONCENTRATI | CO-EFFICI | SUB-CATCHMENT | EQUIVALENT AREA | SUB-CATCHMENT DISCHARGE | FLOW IN K&C (INC. BYPASS) | ROAD GRAD | FLOW INTO INLET | _ | | RAINFALL INTENSITY | 701 | PIPE FLOW | REA | \neg | PIPE GRADE | <u>=</u> | CLASS | FULL PIPE | TIME OF FLOW IN REACH | CHARTS USED | Qg/Qo | Du/Do | S/Do | UPSTREAN | _ | W.S.E. CO-EFFICIENT | CHANGE IN W.S.E. | PIPE FRICTION SLOPE | PIPE FRICTION HEADLOSS (L × Sf) | NORMAL DEPTH | | UPSTREAM OB' LEVEL | DOWNSTREAM OBVERT LEVEL | UPSTREAM H.G.L. | DOWNSTREAM H.G.L. | W.S.E. | SURFACE OR GRATE LEVEL | | | PRODUCT STRUCTURE NUMBER | |
| 1/554 1/553 1/552 2/552 | min mm | ı/h | ha | ha | l/s | l/s | % l, | /s l/s | 5 | | | | l/s l/s | | | | mm | | | min | | | | n | | | n | m | % | m | m | m/s | m | m | m | m | m | m | l/s | l/s m² | 1 ² /s | _ |
| 9A/500 9/500 1/550 1/549 1/548 1/547 1/546 1/545 1/544 17/500 | | | | | | | | | | 9.55 | 237 3. | .289 0 | 676 | 2.440 | 1.0 | 00 825 | 5 2 | 1.2 | 27 0 | 0.02 | | | | 0.08 | 32 0.0 | 0.00 | 00 | 0.000 | 0.22 | 0.005 | 0.398 | 2.65 | | 4 | 14.715 | 44.710 | 44.715 | 45.794 | | | 9A/50 | 00 |
| 9/500 8/500 8/500 1/542 1/543 1/541 1/540 1/539 1/538 1/536 1/535 1/535 1/535 1/534 8/524 1/523 1/532 1/531 1/530 1/529 1/528 1/527 1/525 5/522 1/533 1/521 1/520 1/519 1/518 1/517 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 1/554 1/553 1/552 2/552 1/550 1/549 1/548 1/547 1/546 1/545 1/544 1/7500 | | | | | | | | | | 9.64 2 | 236 1 | 0.676 C | 284 | 6 27.88 | 1 0.2 | 00 135 | 50 2 | 1.9 | 99 C | 0.28 | | 0.00 | 0.99 | 1.24 0.20 | 1.1 | .9 0.24 | 41 1.26 | 0.255 | 0.28 | 0.079 | 1.350 | 1.99 | | 4 | 14.469 | 44.390 | 44.724 | 45.770 | | | 9/50 | 00 |
| 8/500 1/506 1/506 6/504 5/504 4/504 3/504 2/504 1/504 1/542 1/543 1/541 1/540 1/539 1/538 1/536 1/535 1/535 1/531 1/530 1/529 1/528 1/527 1/525 5/522 1/533 1/521 1/520 1/519 1/518 1/517 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 1/554 1/553 1/552 2/552 1/550 1/549 1/548 1/547 1/546 1/545 1/544 17/500 | | | | | | | | | | 9.84 2 | 234 1 | 1.241 C | 316 | 38.55 | 9 0.2 | 00 135 | 50 2 | 2.2 | 21 (| 0.39 | | 0.00 | 1.00 | 1.05 0.24 | 9 0.2 | 25 0.0€ | 63 | 0.063 | 0.33 | 0.122 | 1.350 | 2.21 | | 4 | 14.327 | 44.198 | 44.390 | 45.502 | | | 8/50 | 00 |
| 3/506 2/506 1/506 6/504 5/504 4/504 3/504 2/504 1/504 1/542 1/543 1/541 1/540 1/539 1/538 1/536 1/535 1/534 9/524 8/524 1/523 1/532 1/531 1/530 1/529 1/528 1/527 1/525 5/522 1/533 1/521 1/520 1/519 1/518 1/517 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 1/554 1/555 1/552 2/552 1/550 1/549 1/548 1/547 1/556 1/545 1/545 1/545 | | | | | | | | | | 10.31 2 | 231 1 | 1.273 C | 306 | 34.81 | 9 0.2 | 00 135 | 50 2 | 2.1 | .4 C | 0.35 | | 0.00 | 1.00 | 1.04 0.23 | 33 0.2 | 24 0.05 | 55 | 0.055 | 0.32 | 0.099 | 1.350 | 2.14 | | 4 | 14.143 | 44.033 | 44.198 | 46.297 | | | 7/50 | 00 |
| 3/506 2/506 1/506 6/504 5/504 4/504 3/504 2/504 1/504 1/504 3/504 2/504 1/504 1/545 1/543 1/541 1/540 1/539 1/538 1/536 1/535 1/534 9/524 8/524 1/523 1/532 1/531 1/530 1/529 1/528 1/527 1/525 5/522 1/533 1/521 1/520 1/519 1/518 1/517 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 1/554 1/553 1/552 2/552 1/550 1/549 1/548 1/547 1/546 1/545 1/545 1/544 | | | | | | | | | | 10.65 2 | 228 1 | 1.273 C | 297 | 3 36.79 | 2 0.2 | 00 135 | 50 2 | 2.0 | 08 C | 0.37 | | 0.00 | 1.00 | 1.03 0.22 | 20 0.2 | 20 0.04 | 45 | 0.045 | 0.33 | 0.104 | 1.350 | 2.08 | | 4 | 13.988 | 43.866 | 44.033 | 46.253 | | | 6/50 | 00 |
| 5A/500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 43.866 | 45.969 | | _ | 5A/50 | 00 |
| 7/501 8/501 1/512 2/511 1/511 1/501 2/501 3/501 5/501 | | | | | | | | | | 8.49 | 247 1 | .191 | 249 | 70.23 | 9 3.0 | 00 375 | 5 2 | 2.2 | 25 0 | 0.43 | | | | 0.25 | 9 0.0 | 0.00 | 00 | 0.000 | 2.99 | 2.107 | 0.258 | 3.07 | | 5 | 55.023 | 52.920 | 55.023 | 56.712 | | | 7/50 | 01 |
| 8/501 9/501 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 | | | | | | | | | | 8.75 | 245 1 | .792 | 300 | 93.35 | 0 2.7 | 00 450 |) 2 | 1.8 | 39 0 | 0.53 | | 0.00 | 1.00 | 1.10 0.18 | 31 0.2 | 25 0.04 | 46 | 0.046 | 2.66 | 2.512 | 0.262 | 3.13 | | 5 | 52.874 | 50.391 | 52.920 | 54.029 | | | 8/50 | 01 |
| 9/501 10/501 1/518 1/517 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 | | | | | | | | | | 9.17 | 240 2 | .370 | 320 | 26.41 | 1 2.8 | 39 450 | 0 2 | 2.0 | 01 (| 0.15 | | 0.00 | 1.00 | 1.11 0.20 | 06 0.2 | 23 0.04 | 47 | 0.047 | 1.73 | 0.493 | 0.268 | 3.23 | | 5 | 0.344 | 49.887 | 50.391 | 51.414 | | | 9/50 | 01 |
| 10/501 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 49.887 | 50.595 | | | 10/50 | 01 |
| 13/501 14/501 1/510 1/519 1/518 1/517 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 | 0.00 | | 0.000 | 0.000 | 0 | 0 | 2.95 0 | 0 | | 9.50 | 237 2 | .524 | 444 | 23.20 | 4 3.1 | 04 525 | 5 2 | 2.0 |)5 C | 0.11 | | | | 0.21 | .5 0.0 | 0.00 | 00 | 0.000 | 2.77 | 0.690 | 0.289 | 3.64 | | 4 | 18.759 | 48.115 | 48.759 | 50.297 | | | 13/50 | 01 |
| 14/501 15/501 1/512 1/520 1/519 1/518 1/517 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 | | | | | | | | | | 9.61 | 236 2. | .645 0 | 384 | 35.39 | | 91 525 | 5 2 | 1.7 | 77 C | 0.15 | | 0.00 | 1.00 | 1.24 0.16 | 0.7 | 78 0.12 | 25 | 0.125 | 3.04 | 1.136 | 0.249 | 3.78 | | 4 | 17.991 | 46.913 | 48.116 | 49.413 | | JOB CODE | 14/50 | 01 |

FOR CONSTRUCTION B ISSUED FOR CONSTRUCTION
A ORIGINAL ISSUE
2 90% REVIEW ISSUE
1 PRELIMINARY ISSUE
REV DESCRIPTION



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

| DESIGNED KLYNT KIWANG | | S |
|----------------------------------|-----|---|
| CHECKED ANDREW LANGDON | | |
| PROJECT MANAGER SIMON STEINHOFER | | |
| PROJECT DIRECTOR | PFD | |

| PROJECT |
|-----------|
| LOCATION |
| SHEET TIT |

MIRVAC QLD PTY LTD **EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT** TEVIOT ROAD, GREENBANK STORMWATER CALCULATIONS 1% AEP STORM - SHEET 1

MIR-0904

| | L | OCATION | TIME | 1 | SUB-CA | ATCHN | 1ENT R | RUNOFF | : | INL | LET DE | SIGN | | | | | | DRA | IN DES | IGN | | | | T | | | | HEA | DLOSS | SES | | | | | PART | FULL | | | DESI | GN LEVI | ELS | | | R | UNOFF | | \Box |
|------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------|--------------------|-----------------|----------------------------|--------------|---------------------|-----------------|-------------|----------------------------|--------------------------------|--------------------|---------------|-----------------------------|-----------|-----------------|------------|---------------------|-------|--------------------------|-----------|-------------|-------|---------|--------|---------------|-----------------------------------|-------|---------------------|------------------|---------------------|---------------------------------|--------------|-----------------------|--------------------------|----------------------------|-------|------------------|-------------|--------------------|------------------------|--------------------------------|----------|-----------------------|------------------|
| | | | tc I | С | Α | CA | Q | | | Qg | Qb | | tc | 1 | CA | | Qp | L | S | | | Vf=Q | /A | | STRU | CTURE R | RATIOS | V2/2g | Ku | hu | Kw | hw | Sf | hf | _ | Vn | | | | | | | | | | 二 | |
| STRUCTURE NUMBER | DOWNSTREAM STRUCTURE | SUB-CATCHMENTS CONTRIBUTING | SUB-CATCHMENT TIME OF CONCEN RAINFALL INTENS | CO-EFFICIENT OF RUNOFF | SUB-CATCHMENT AREA | EQUIVALENT AREA | SUB-CATCHMENT DISCHARGE | FLOW (NC. | ROAD GRADE AT INLET | FLOW INTO INLET | BYPASS FLOW | BYPASS STRUCTURE NUMBER | CRITICAL TIME OF CONCENTRATION | RAINFALL INTENSITY | TOTAL (C × A) | SUM ADDITIONAL PIPE FLOW | PIPE FLOW | REACH LENGTH | PIPE GRADE | PIPE/BOX DIMENSIONS | 33 10 | CLASS FULL PIPE VELOCITY | TIME OF F | CHARTS USED | 09/00 | Du/Do | S/Do | VELOCITY HEAD | UPSTREAM HEADLOSS CO-EFFICIENT | | W.S.E. CO-EFFICIENT | CHANGE IN W.S.E. | PIPE FRICTION SLOPE | PIPE FRICTION HEADLOSS (L × Sf) | NORMAL DEPTH | NORMAL DEPTH VELOCITY | UPSTREAM OBVERT LEVEL | DOWNSTREAM OBVERT LEVEL | | LOWNSTREAM H.C.I | DOWN STREAM | W.S.E. | SURFACE OR GRATE LEVEL | MAJOR SURFACE FLOW CAPACITY | MAJOR SI | DEPTH × VE PRODUCT | STRUCTURE NUMBER |
| | | | min mm/h | | ha | ha | l/s | l/s | % | l/s | l/s | | min | mm/h | ha | l/s | l/s | m | % | mm | | m/s | min | | | | | m | | m | | m | % | m | m | m/s | m | m | m | n | 1 | m | m | l/s | l/s i | .n²/s | |
| 15/501 | | 1/532 1/531 1/530 1/529 1/528 1/527 1/525 5/522 1/533 1/521 1/520 1/519 1/518 1/517 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 | | | | | | | | | | | 9.17 | 240 | 4.452 | 0 | 1109 | 40.110 | 2.363 | 750 | 2 | 2.51 | 0.17 | | 0.00 | 1.00 | 1.36 | 0.322 | 0.84 | 0.269 | 0.85 | 0.272 | 2.27 | 0.943 | 0.440 | 4.12 | | | 46.64 | 5 45.7 | 33 46 | 5.917 4 | 18.093 | | | 1 | 15/501 |
| 16/501 | 17/501 | 1/523 1/532 1/531 1/530 1/529 1/528 1/527 1/525 5/522 1/533 1/521 1/520 1/519 1/518 1/517 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 | | | | | | | | | | | 9.34 | 239 | 4.568 | 0 | 1045 | 35.461 | 1.849 | 750 | 2 | 2.37 | 0.17 | | 0.00 | 1.00 | 1.10 | 0.286 | 0.25 | 0.071 | | 0.071 | 1.47 | 0.594 | 0.458 | 3.70 | | | 45.66 | 1 45.1 | 39 45 | 5.733 4 | 4 7.106 | | | 1 | 16/501 |
| 17/501 | 9/500 | 1/542 1/543 1/541 1/540 1/539 1/538 1/536 1/535 1/534 9/524 8/524 1/523 1/532 1/531 1/530 1/529 1/528 1/527 1/525 5/522 1/533 1/521 1/520 1/519 1/518 1/517 1/516 1/515 1/512 2/511 1/511 1/501 2/501 3/501 5/501 | | | | | | | | | | | 9.49 | 238 | 7.380 | 0 | 2201 | 35.929 | 1.500 | 1050 | 2 | 2.54 | 0.15 | | 0.00 | 0.98 | 1.38 | 0.330 | 0.59 | 0.196 | | 0.196 | 0.65 | 0.233 | 0.622 | 4.12 | | | 44.94 | 3 44.7 | 10 45 | i.139 4 | 46.364 | | | 1 | 17/501 |
| 1A/504 | 8/500 | 6/504 5/504 4/504 3/504 2/504 1/504 | | | | | | | | | | | 8.54 | 247 | 0.432 | 0 | 296 | 2.484 | 2.852 | 525 | 2 | 1.37 | 0.01 | | | | | 0.095 | 0.00 | 0.000 | | 0.000 | 0.47 | 0.012 | 0.234 | 3.16 | | | 44.40 | 2 44.3 | 90 44 | .402 4 | 15.411 | | | 1 | 1A/504 |
| 1A/506 | 8/500 | 3/506 2/506 1/506 | | | | | | | | | | | 8.20 | 250 | 0.160 | 0 | 111 | 2.438 | 1.200 | 375 | 2 | 1.00 | 0.02 | | | | | 0.051 | 0.00 | 0.000 | | 0.000 | 0.38 | 0.009 | 0.205 | 1.80 | | | 44.39 | 9 44.3 | 90 44 | .399 4 | 15.496 | | | 1 | 1A/506 |
| 2/511 | 1/511 | | 8.00 252 1 | 1.00 | 0.037 | 0.037 | 26 | 26 | 0.89 | 5 | 21 | 1/515 | 8.00 | 252 | 0.037 | 0 | 5 | 8.183 | 1.003 | 375 | 2 | 0.05 | 0.09 | | 1.00 | | 1.00 | 0.000 | 9.70 | 0.001 | | 0.001 | -0.10 | 0.008 | 0.044 | 0.71 | | | 56.03 | 1 56.0 | 39 56 | .032 5 | 7.346 | 1548 | 26 | 0.03 | 2/511 |
| 1/511 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 56 | .040 5 | 7.328 | | | | 1/511 |
| 1/515 | 8/501 | | 8.00 252 1 | L.00 (| 0.291 | 0.291 | 204 | 974 | 2.70 | 40 | 934 | 1/517 | 8.00 | 252 | 0.291 | 0 | 40 | 4.301 | 1.001 | 375 | 2 | 0.36 | 0.05 | | 1.00 | | 1.17 | 0.007 | 9.70 | 0.064 | | 0.064 | -0.05 | 0.004 | 0.121 | 1.28 | | | 52.91 | 8 52.9 | 20 52 | .982 5 | 4.014 | 1815 | 974 | 0.39 | 1/515 |
| 1/516 | 8/501 | | 8.00 252 1 | 1.00 | 0.320 | 0.320 | 224 | 725 | 2.70 | 40 | 685 | 1/518 | 8.00 | 252 | 0.320 | 0 | 40 | 1.751 | 1.022 | 375 | 2 | 0.36 | 0.02 | | 1.00 | | 1.17 | 0.007 | 9.70 | 0.064 | | 0.064 | -0.05 | 0.002 | 0.121 | 1.28 | | | 52.91 | 9 52.9 | 20 52 | .983 5 | 4.018 | 1815 | 725 | 0.37 | 1/516 |
| 1/517 | 9/501 | | 8.00 252 1 | 1.00 | 0.338 | 0.338 | 237 | 1171 | 3.10 | 32 | 1138 | 1/519 | 8.00 | 252 | 0.338 | 0 | 32 | 6.190 | 2.102 | 375 | 2 | 0.29 | 0.05 | | 1.00 | | 1.11 | 0.004 | 9.70 | 0.043 | | 0.043 | -0.09 | 0.003 | 0.091 | 1.56 | | | 50.38 | 5 50.3 | 91 50 | .427 5 | 51.524 | 1775 | 1171 | 0.45 | 1/517 |
| 1/518 | 9/501 | | 8.00 252 1 | 1.00 | 0.249 | 0.249 | 174 | 860 | 3.10 | 32 | 827 | 1/520 | 8.00 | 252 | 0.249 | 0 | 32 | 1.751 | 1.020 | 375 | 2 | 0.29 | 0.02 | | 1.00 | | 1.11 | 0.004 | 9.70 | 0.043 | | 0.043 | 0.01 | 0.001 | 0.109 | 1.21 | | | 50.39 | 1 50.3 | 91 50 | .434 5 | 1.406 | 1775 | 860 | 0.42 | 1/518 |
| 1/521 | 14/501 | | 8.00 252 1 | 1.00 | 0.121 | 0.121 | 85 | 1008 | 3.88 | -48 | 1056 | 1/532 | 8.00 | 252 | 0.121 | 0 | 867 | 1.585 | 1.031 | 375 | 2 | 7.85 | 0.02 | | | | | 3.145 | 0.00 | 0.000 | | 0.000 | 24.47 | 0.400 | 0.375 | 7.85 | | | 48.85 | 4 48.4 | 55 48 | 3.854 4 | 19.411 | 1743 | 1008 | 0.42 | 1/521 |
| 1/523 | 16/501 | | 8.00 252 1 | L.00 (| 0.116 | 0.116 | 81 | 1345 | 2.09 | -41 | 1386 | 1/543 | 8.00 | 252 | 0.116 | 0 | 378 | 1.585 | 1.052 | 375 | 2 | 3.42 | 0.02 | | | | | 0.598 | 0.00 | 0.000 | 1 | 0.000 | 4.90 | 0.078 | 0.375 | 3.42 | | | 46.21 | 3 46.1 | 32 46 | 5.213 4 | 17.094 | 1867 | 1345 | ე.45 | 1/523 |
| 1/524 | 17/501 | 1/543 1/541 1/540 1/539 1/538 1/536 1/535 1/534 9/524 8/524 | | | | | | | | | | | 9.14 | 241 | 2.596 | 0 | 935 | 8.938 | 1.000 | 600 | 2 | 3.31 | 0.07 | | 0.00 | 1.00 | 1.51 | 0.558 | 0.34 | 0.191 | | 0.191 | 2.32 | 0.207 | 0.600 | 3.31 | | | 45.34 | 6 45.1 | 39 45 | 5.537 4 | 16.250 | | | | 1/524 |
| 1/525 | 4/522 | | 8.00 252 1 | 1.00 | 0.204 | 0.204 | 143 | 143 | 4.73 | 97 | 46 | 1/527 | 8.00 | 252 | 0.204 | 0 | 97 | 6.062 | 1.451 | 375 | 2 | 0.88 | 0.05 | | 1.00 | | 1.83 | 0.040 | 7.90 | 0.312 | | 0.312 | 0.36 | 0.063 | 0.179 | 1.87 | | | 56.23 | 5 56.2 | 13 56 | .547 5 | 57.321 | 1680 | 143 | 0.12 | 1/525 |
| 1/527 | 3/522 | | 8.00 252 1 | 1.00 | 0.237 | 0.237 | 166 | 212 | 5.58 | 117 | 95 | 1/529 | 8.00 | 252 | 0.237 | 0 | 117 | 7.491 | 2.866 | 375 | 2 | 1.06 | 0.05 | | 1.00 | | 2.04 | 0.057 | 6.83 | 0.390 | | 0.390 | -0.03 | 0.033 | 0.165 | 2.50 | | | 51.96 | 1 51.9 | 63 52 | .351 5 | 3.044 | 1631 | 212 | 0.15 | 1/527 |
| 1/528 | 3/522 | | 8.00 252 1 | L.00 (| 0.290 | 0.290 | 203 | 203 | 5.01 | 31 | 173 | 1/530 | 8.00 | 252 | 0.290 | 0 | 31 | 2.710 | 1.224 | 375 | 2 | 0.28 | 0.03 | | 1.00 | | 1.28 | 0.004 | 9.70 | 0.038 | | 0.038 | 0.03 | 0.001 | 0.101 | 1.27 | | | 51.96 | 4 51.9 | 63 52 | .002 5 | 2.837 | 1656 | 203 | 0.14 | 1/528 |
| | 2/522 | | 8.00 252 1 | | | _ | _ | | _ | | | | | | | | 50 | 5.823 | 1.207 | 375 | 2 | 0.45 | 0.06 | | 1.00 | | 1.27 | 0.010 | 9.70 | 0.101 | | 0.101 | 0.02 | 0.004 | 0.131 | 1.46 | | | 49.05 | 6 49.0 | 55 49 | .157 5 | 0.061 | 1680 | 265 | ე.16 | 1/529 |
| | 2/522 | | 8.00 252 1 | | | | | _ | | | | | _ | | | _ | 67 | _ | 1.261 | | 2 | 0.61 | | | 1.00 | | | | _ | 0.181 | _ | | | 0.004 | | | | | | _ | | 0.237 50 | | | | | |
| | 1/522 | | 8.00 252 1 | _ | | - | _ | | _ | - | | | + | + | - | _ | 64 | | 1.229 | | 2 | 0.58 | | | 1.00 | | | | | 0.137 | - | | | 0.010 | _ | | | | | _ | | .361 4 | | | | | |
| | 1/522 | | 8.00 252 1 | | | _ | | | - | - | | | _ | | | 0 | 56 | + | 1.202 | | 2 | 0.50 | | | 1.00 | | | | | 0.100 | + | 0.100 | + | 0.003 | | _ | | | _ | 7 47.2 | - | | | 2528 | | | 1/532 |
| | 15/501 | | 6.00 275 1 | _ | | _ | | _ | _ | - | | | _ | | | 0 | + | | | _ | 2 | 1.87 | _ | | 1.00 | | | | | 0.713 | | | | 0.059 | | + | | | | _ | | .847 4 | | | | | |
| | 17/501 4/522 | | 8.00 252 1 8.00 252 1 | | | | _ | | | | | | _ | 252 | | _ | | 7.108 59.920 | _ | 375 | 2 | 2.33 | _ | | 1.00 | | | | _ | 0.829 | + | | | 0.154 3.085 | | | | - | | _ | | 5.121 4 5.596 6 | | | | | 1/542 5/522 |
| | | 1/525 5/522 | 0.00 232 1 | | 0.154 | 0.134 | 74 | 220 | 3.21 | 120 | 72 | 1/ /11 | _ | 249 | | | + | 72.601 | | | 7 | 2.02 | | | | | | | | 0.331 | + | - | _ | 4.194 | _ | + | - | - | | _ | | .213 5 | | 1030 | 220 | | 4/522 |
| | | 1/528 1/527 1/525 5/522 | | | | | | | | | | | _ | 248 | | _ | + | 60.084 | | _ | 2 | 3.27 | | | _ | | | | | 0.143 | + | | _ | 2.770 | _ | + | | | _ | | | .963 5 | | | | | 3/522 |
| | | 1/530 1/529 1/528 1/527 1/525 5/522 | | \dashv | | | | | | | | | | 249 | | 0 | 1 | 65.156 | | | 2 | 2.93 | | | | | | | | 0.105 | | | 2.66 | | 0.343 | | | | | 9 47.2 | | | 50.022 | | | _ | 2/522 |
| 1/522 | 15/501 | 1/532 1/531 1/530 1/529 1/528 1/527 1/525 5/522 | | | | | | | | | | | 8.66 | 245 | 1.814 | 0 | 563 | 9.775 | 1.501 | 525 | 2 | 2.60 | 0.07 | | 0.00 | 1.00 | 1.56 | 0.345 | 0.39 | 0.133 | | 0.133 | 1.71 | 0.168 | 0.477 | 2.73 | | | 47.08 | 1 46.9 | 13 47 | 7.215 4 | 17.980 | | | + | 1/522 |

| FOR CONSTRUCTION | | | | | | | |
|------------------|-----|-------------------------|-----|-----|--|--|--|
| | | | | | | | |
| | | | | | | | |
| 07/04/2022 | В | ISSUED FOR CONSTRUCTION | KK | PB | | | |
| 26/11/2021 | A | ORIGINAL ISSUE | KK | PB | | | |
| 12/11/2021 | 2 | 90% REVIEW ISSUE | KK | PB | | | |
| 15/10/2021 | 1 | PRELIMINARY ISSUE | VKH | PB | | | |
| DATE | REV | DESCRIPTION | REC | APP | | | |
| | | | | | | | |



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

| DESIGNED KLYNT KIWANG | | S |
|----------------------------------|------|---|
| CHECKED ANDREW LANGDON | | |
| PROJECT MANAGER SIMON STEINHOFER | | |
| PROJECT DIRECTOR | PRON | |

| KIWANG | | |
|------------|-----------|------------------------|
| W LANGDON | | |
| MANAGER | | |
| STEINHOFER | | |
| DIRECTOR | PFD | |
| | 0 | |
| CK BRADY | RPEQ 7112 | ORIGINAL SHEET SIZE A1 |

| CLIENT | MIRVAC QLD PTY LTD |
|-------------|------------------------------------------------|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| LOCATION | TEVIOT ROAD, GREENBANK |
| SHEET TITLE | STORMWATER CALCULATIONS 1% AEP STORM - SHEET 2 |

MIR-0904

GENERAL:

- CONSTRUCTION METHODS ARE THE RESPONSIBILITY OF THE BUILDER. DETAILS SHOWN ARE A GUIDE AND ALTERNATE DETAILS MAY BE SUBMITTED FOR ENGINEERING APPROVAL, PRIOR TO WORKS COMMENCING
- MAINTAIN THE STRUCTURE IN A STABLE CONDITION DURING CONSTRUCTION
- DO NOT OVERSTRESS ANY PART OF THE MEMBERS DURING FABRICATION, TRANSPORTATION OR FRECTION
- PROPRIETARY ITEMS ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION AND DESIGN
- IT IS THE RESPONSIBILITY OF THE BUILDER TO MAKE GOOD ANY DAMAGE CAUSED TO ADJOINING STRUCTURES OR ELEMENTS CREATED DURING CONSTRUCTION

SERVICE LOADS:

- STRUCTURAL WORK HAS BEEN DESIGNED FOR THE FOLLOWING LOADS:
 - PERMANENT DEAD LOAD OF STRUCTURE AS SHOWN ON DRAWINGS
 - 80 kN (W80 WHEEL LOAD) - LIVE LOADS TO ASS100 1
 - IMPOSED SURCHARGE LOAD ON GROUND: 20 kPa

 - 22 kN/m³ (HEIGHT OF SOIL OVER ROOF SLAB = 0.3m MAX. UNO) AT REST LATERAL EARTH PRESSURE COEFFICIENT ko: 0.531
- THE ABOVE DO NOT INCLUDE LOADS WHICH MAY BE APPLIED DURING CONSTRUCTION.

SITE PREPARATION AND FOUNDATIONS:

- NO GEOTECHNICAL INVESTIGATION HAS BEEN COMPLETED. BUILDER TO CONFIRM SITE CLASSIFICATION AND INSITU P.1. MATERIAL PROPERTIES PRIOR TO POURING FOUNDATIONS.
 GEOTECHNICAL ENGINEER SHALL BE ENGAGED, AT THE BUILDER'S EXPENSE TO CERTIFY THAT THE ALLOWABLE BEARING
- PRESSURE HAS BEEN ACHIEVED IN THE BASE OF ALL FOOTINGS. GEOTECHNICAL ENGINEER'S CERTIFICATE SHALL BE SUBMITTED TO STRUCTURAL ENGINEER PRIOR TO PLACEMENT OF 50mm BLINDING LAYER AND/OR REINFORCEMENT.
- EARTHWORKS SHALL BE IN ACCORDANCE WITH AS 3798 INCLUDING THE FOLLOWING.
 THE BUILDING SITE SHALL BE STRIPPED OF ALL VEGETABLE MATTER AND THE ASSOCIATED LAYER OF TOPSOIL
- FOUNDATIONS HAVE BEEN DESIGNED FOR A SAFE BEARING CAPACITY OF 100 kPa. IT IS THE RESPONSIBILITY OF THE BUILDER TO DETERMINE FINAL BEARING PRESSURE ON SITE, UPON EXCAVATION.
- THE TOP 150mm OF SUBGRADE (UNDER FOUNDATIONS, FOOTINGS AND SLABS) SHALL BE COMPACTED TO A DENSITY OF NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH METHOD 5.1.1 OF AS 1289
- FILL MATERIAL SHALL BE SAND FILL OR OTHER APPROVED GRANLILAR MATERIAL AND SHALL BE PLACED IN LAYERS NOT EXCEEDING 150mm IN THICKNESS. FILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS PER ABOVE. FOR COHESIONLESS FILL WITH LESS THAN 5% PASSING THE 75 MICRON SIEVE, THE MATERIAL SHALL BE COMPACTED TO 70% DENSITY INDEX IN ACCORDANCE WITH AS 1289 TEST E6.1.
- TO AVOID SWELLING OF FOUNDATIONS AND SLAB MOVEMENTS. THE AREA AROUND THE SLAB SHALL BE FEFECTIVELY DRAINED, BOTH BEFORE AND AFTER CONSTRUCTION, TO ENSURE NO PONDING OF WATER ON OR ADJACENT TO THE SLAB AREA. SPOON DRAINS SHALL BE PROVIDED AS REQUIRED TO FACILITATE DRAINAGE ADJACENT TO THE SLAB AND
- ALL SLABS SHALL BE CAST ON A MINIMUM THICKNESS OF 50mm OF BEDDING SAND.

CONCRETE

C.1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS1379, AS1478, AS2870, AS3600, AND AS3610. CONCRETE SHALL HAVE THE FOLLOWING PROPERTIES

| CONCRETE SCHEDULE | | | | | | |
|--------------------------|----------------------------|------------------|---------------------------|------------------------|--------------------|--|
| ELEMENT | EXPOSURE CLASSIFICATION | CLASS & GRADE | CLEAR COVER TO REINF'T | MAX. AGG. SIZE (mm) | MAX. SLUMP (mm) | |
| STORMWATER PIT WALLS | B1 | N32 | 40 | 20 | 80 | |
| STORMWATER PIT BASE | B1 | N32 | 45 | 20 | 80 | |
| STORMWATER PIT ROOF SLAB | B1 | N40 | 30 | 20 | 80 | |

- DO NOT ADD WATER TO CONCRETE AFTER TRUCK HAS LEFT BATCHING PLANT
- ALL ADMIXTURES TO COMPLY WITH AS1478 AND MUST NOT REDUCE STRENGTH OF CONCRETE. ALL ADMIXTURES TO BE USED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. CONCRETE ADDITIVES SHALL NOT PROMOTE CORROSION OF REINFORCEMENT. DO NOT USE ADMIXTURES WITHOUT PRIOR APPROVAL FROM SUPERINTENDENT.
 DESIGN OF FORMWORK IS THE CONTRACTORS RESPONSIBILITY. DESIGN TO ALLOW FOR DIMENSIONAL CHANGES AND
- DEFLECTIONS RESULTING FROM IMPOSED ACTIONS, CONCRETE SHRINKAGE AND CREEP, TEMPERATURE CHANGES, AND THE APPLICATION OF PRESTRESSING FORCES (IF ANY).
- DO NOT USE FORMWORK HARDWARE THAT FORMS A COMPLETE HOLE THROUGH CONCRETE ELEMENTS. DO NOT USE REINFORCEMENT TO SUPPORT FORMWORK.
- EXPOSED EDGES AND RE-ENTRANT CORNERS TO BE CONSTRUCTED WITH 25mm x 45° CHAMFER UNO
- DO NOT MAKE PENETRATIONS, RECESSES, OR EMBED PIPES (OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS) WITHOUT PRIOR APPROVAL OF SUPERINTENDENT.
- ACHIEVE MINIMUM COVER ON ALL EMBEDDED REINFORCEMENT, LIGATURES, TIES, CONDUITS, AND PIPES
- C.10. USE PLACEMENT METHODS THAT WILL MINIMUM SETTLEMENT AND PLASTIC SHRINKAGE CRACKING. MAINTAIN A NOMINALLY VERTICAL AND PLASTIC CONCRETE EDGE DURING PLACEMENT
- C.11. USE IMMERSION AND SCREED VIBRATORS ACCOMPANIED BY HAND METHODS AS APPROPRIATE TO REMOVED ENTRAPPED AIR TO FULLY COMPACT THE MIX. DO NOT ALLOW VIBRATORS TO CONTACT SET CONCRETE, REINFORCEMENT OR ITEMS INCLUDING PIPES AND CONDUITS EMBEDDED IN CONCRETE. AVOID CAUSING SEGREGATION BY OVER-VIBRATION.
- C.12. CURING OF ALL CONCRETE MUST BE ACHIEVED BY KEEPING SURFACES CONTINUOUSLY WET FOR A PERIOD OF 7 DAYS UNO IN ACCORDANCE WITH AS3600. APPROVED SPRAY-ON CURING COMPOUNDS THAT COMPLY WITH AS3799 MAYBE USED WHERE FLOOR FINISHES WILL NOT BE AFFECTED. POLYTHENE SHEETING OR WET HESSIAN MAY BE USED TO RETAIN CONCRETE MOISTURE WHERE PROTECTED FROM THE WIND AND TRAFFIC. CURING MUST COMMENCE IMMEDIATELY AFTER CONCRETE
- C.13. DO NOT STRIP FORMWORK PRIOR TO 48 HOURS AFTER PLACEMENT.

REINFORCEMENT

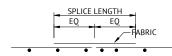
- SYMBOLS ON DRAWINGS FOR GRADE AND TYPE OF REINFORCEMENT ARE AS FOLLOWS: R: DENOTES STRUCTURAL GRADE 250 PLAIN ROUND BAR AS4671

 - N: DENOTES HOT ROLLED GRADE 500 DEFORMED BAR DUCTILITY CLASS N TO TO AS4671. L: DENOTES HARD DRAWN WIRE GRADE 500 SQUARE REINFORCING MESH DUCTILITY CLASS L TO AS4671
 - L: DENOTES HARD DRAWN WIRE GRADE 500 RECTANGULAR REINFORCING MESH DUCTILITY CLASS L TO AS4671 SL: DENOTES HARD DRAWN WIRE GRADE 500 SQUARE REINFORCING MESH DUCTILITY CLASS L TO AS4671
 - TM: DENOTES HARD DRAWN GRADE 500 TRENCH MESH DUCTILITY CLASS L TO AS4671 ALL N BARS TO BE GRADE 500.
- FOLLOWING ABBREVIATIONS APPLY TO LOCATION OF REINFORCEMENT
 - BB: BOTTOM BOTTOM (LAID FIRST) FW: FACH WAY - FF: FAR FACE
 - EF: EACH FACE - B: BOTTOM TT: TOP TOP (LAID LAST) NF: NFAR FACE - T: TOP - CP: CENTRALLY PLACED
- CLEAR COVER TO REINFORCEMENT SHALL BE PROVIDED BY APPROVED CHAIRS, SPACERS OR TIES AS REQUIRED TO PROVIDE ADFOUATE SUPPORT AS FOLLOWS:
 - BARS 16mm AND LESS AND FABRIC 1000mm CENTRES
- BARS 20mm AND OVER 1200mm CENTRES.
- USE MESH SUPPLIED IN FLAT SHEETS UNLESS APPROVED OTHERWISE.
- WELDING AND BENDING OF REINFORCEMENT IS NOT PERMITTED UNLESS SHOWN ON THE DRAWINGS OR APPROVED BY
- LAP LENGTHS TO COMPLY WITH AS3600, OR FOR SLAB AND WALL REINFORCEMENT WITH BARS AT > 150mm CENTRES WITH THE FOLLOWING UNO - REFER TO TABLE BELOW:

| REINFORCEMENT LAP TABLE | | | | | | |
|---------------------------------------------------------------------|-----|------------------------------|------|------|------|------|
| LOCATION | F'c | BAR SIZE AND LAP LENGTH (mm) | | | | |
| | | N12 | N16 | N20 | N24 | N28 |
| HORIZONTAL BARS WITH ≤ 300mm CONCRETE BELOW | 25 | 525 | 800 | 1000 | 1300 | 1600 |
| | 32 | 475 | 700 | 875 | 1175 | 1400 |
| | 40+ | 450 | 625 | 775 | 1050 | 1250 |
| HORIZONTAL BARS WITH ≥ 300mm CONCRETE BELOW BAR, & VERTICAL BARS | 25 | 700 | 1050 | 1300 | 1700 | 2050 |
| | 32 | 625 | 925 | 1175 | 1525 | 1850 |
| | 40+ | 575 | 825 | 1000 | 1350 | 1650 |

REINFORCEMENT NOMINATIONS

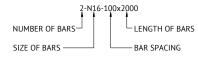
RN.1. SPLICE REINFORCEMENT ONLY AT LOCATIONS SHOWN ON DRAWINGS OR AS APPROVED BY SUPERINTENDENT. LAP LENGTH TO COMPLY WITH AS3600, OR FOR SLAB AND WALL REINFORCEMENT WITH BARS AT > 150mm CENTRES WITH THE FOLLOWING



RN.2. PROVIDE MINIMUM MESH LAPS TO CROSS WIRES OF REINFORCING MESH, SO THAT TWO OUTERMOST WIRES OF ONE SHEET OVERLAP TWO OUTERMOST WIRES OF ADJACENT SHEET BY AT LEAST 25mm, THUS:



RN.3. NOMINATION CALL OUT DESCRIPTION



INSPECTION AND CERTIFICATION REQUIREMENTS

IC.1. FOR FINAL ENGINEERING CERTIFICATION TO BE PROVIDED BY PREMISE, ALL THE APPLICABLE STRUCTURAL ELEMENTS

REPRESENTATIVE. TYPICAL HOLD POINTS: - CONCRETE PIT SLAB / WALLS

ALL CONCRETE ELEMENTS MUST BE INSPECTED AFTER PLACEMENT OF REINFORCEMENT AND PRIOR TO CONCRETE POUR. IC.2. ALL INSPECTIONS REQUIRE A MINIMUM 24 HOUR NOTICE.

IF IN DOUBT OF REQUIREMENT OF INSPECTION, ASK.
OBTAIN GEOTECHNICAL ENGINEER'S WRITTEN INSTRUCTION AT PREPARATION OF FOUNDING MATERIAL AND FORWARD TO STRUCTURAL ENGINEER FOR APPROVAL, AT BUILDER'S COST.

IC.5. FOR FINAL ENGINEERING CERTIFICATION TO BE PROVIDED BY PREMISE. THE FOLLOWING MUST BE PROVIDED DOCUMENTARY EVIDENCE OF SLUMP TEST RESULTS (AT LEAST ONE SAMPLE TO BE FROM EACH BATCH. SLUMP TO BE MEASURED ON SITE, AT THE POINT OF DISCHARGE FROM THE AGITATOR).

FOR CAST IN-SITU CONCRETE ELEMENTS 28 DAY COMPRESSIVE STRENGTH TEST RESULTS PRODUCED BY A NATA REGISTERED LABORATORY, SAMPLES TO BE COLLECTED FOUALLY SPREAD THROUGHOUT THE POUR. AT LEAST 2 SAMPLES SHALL BE TAKEN PER DAY. EACH SAMPLE TO COMPRISE OF TWO CYLINDERS.

- FOR PRECAST CONCRETE ELEMENTS 3, 7, 14, AND 28 DAY COMPRESSIVE STRENGTH TEST RESULTS PRODUCED BY A NATA REGISTERED LABORATORY. SAMPLES TO BE COLLECTED EQUALLY SPREAD THROUGHOUT THE POUR. AT LEAST 4 SHALL BE

TAKEN PER DAY. EACH SAMPLE TO COMPRISE OF TWO CYLINDERS.
- FOR ALL CONCRETE ELEMENTS 56 DAY DRYING SHRINKAGE TEST RESULTS PRODUCED BY A NATA REGISTERED LABORATORY. AT LEAST 3 DRYING SHRINKAGE SAMPLES TO BE COLLECTED FROM EACH MIX DESIGN EVERY THREE MONTHS. BASE ASSESSMENT ON AVERAGE OF THREE TEST RESULTS.

- DOCUMENTARY EVIDENCE TO SHOW REINFORCEMENT SUPPLIER AND MILL COMPLIES WITH AS/NZS4671

TESTING TO BE PERFORMED BY AN INDEPENDENT NATA ACCREDITED AUTHORITY.

INSPECTIONS UNDERTAKEN BY SUPERINTENDENT OR OTHERS DO NOT RELIEVE CONTRACTOR OF RESPONSIBILITY FOR

SPECIFICATION

RPEQ 10854

FOR CONSTRUCTION ISSUED FOR CONSTRUCTION ORIGINAL ISSUE



BRISBANE OFFICE

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

RIONY HOOPER ANDREW LANGDON IMON STEINHOFER PRON RPEQ 711 ATRICK BRADY

MIRVAC QLD PTY LTD **EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT** PROJECT TEVIOT ROAD, GREENBANK STORMWATER STRUCTURE NOTES

MIR-0904

NOTES

- FOR STRUCTURAL NOTES REFER TO DRAWING No. MIR-0904-C450
- REFER CIVIL DRAWINGS FOR REFERENCE HEIGHT, SETTING OUT REFERENCE POINT, SIZE AND HEIGHT OF CULVERTS. PRECAST UNITS MAY BE USED AND INSTALLED TO THE MANUFACTURER'S DETAILS, PROVIDED THEY CONFORM TO
- AS3600 AND AUSTRALIAN BRIDGE DESIGN CODE.
- LIFTING ANCHORS TO BE 'SWIFTLIFT' OR APPROVED EQUIVALENT, GALVANISED TO AS/NZS4680 AND FITTED TO MANUFACTURER'S SPECIFICATIONS.
 - PIT 1050 TO 1800 ID WLL 1.3 TONNE (75 MIN. EMBEDMENT)
- COVERS AND FRAMES SHALL COMPLY WITH THE REQUIREMENTS OF AS3996 CLASS D DESIGN LOAD. APPROVED

1050 DIA.

ACCESS HOLE

N12-200 U BARS

400 LEGS TYP.

COUNCIL APPROVED CLASS D

CAST IRON COVER AND FRAME

REINFORCED ROOF SLAB REFER DRG No. MIR012-1-C453

COVERS AND FRAMES ARE TO BE USED. DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

PRECAST CONCRETE COVER AND SURROUND

INTERNAL

DIAMETER

1800

INSTALL IN ACCORDANCE WITH MANUFACTURERS SPECIFICATION

ALL WELDS SHALL BE E48XX SP 6mm CONTINUOUS FILLET WELDS IN ACCORDANCE WITH AS1554.1 UNO. REFER TO DRAWING No. C453 FOR REINFORCED ROOF SLAB DETAILS

REFERENCE HEIGHT

THICKNESS

250

RL818 MESH EF-

MESH TO BE PLACED WITH MAIN

N25 CONCRETE BENCHING AS REQUIRED

2-N12-100 STARTER BARS -

BEND WITH 80 DIA. BENDING PIN

N12 CIRCULAR BAR TOP & BTM LAP 200 4 CFW (100 LONG)

TO DEWATER THE PIPÉ TRENCH.

100 DIA. AGG. PIPE STUB WITH GEOTEXTILE SOCK -

1000 LONG WITH END CAP INSTALLED ON THE

UPSTREAM SIDE OF ACCESS CHAMBER (UNLESS DIRECTED OTHERWISE). THE STUB IS REQUIRED

MINIMUM LIFTING REQUIREMENTS

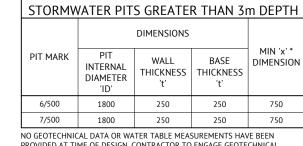
MAX. WATER

PROVIDE PARCHEM EMER-SEAL 200

SIMILAR TO TYPICAL WALL CJ DETAIL

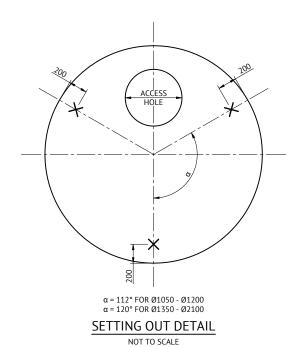
LIFTING AND PLACEMENT OF PRECAST ROOF SHALL NOT OCCUR UNTIL MINIMUM CHARACTERISTIC COMPRESSIVE STRENGTH OF 25MPa IS ACHIEVED. THE CONTRACTOR SHALL DEMONSTRATE THAT THE DESIGN CHARACTERISTIC COMPRESSIVE STRENGTH HAS BEEN ACHIEVED VIA NATA APPROVED TESTING WHICH IS TO BE SUBMITTED TO PREMISE FOR APPROVAL PRIOR TO LIFTING.

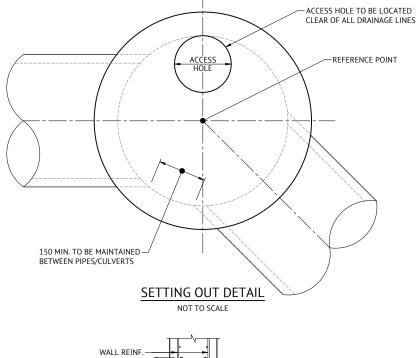
MAXIMUM HOISTING SPEED DURING LIFT
MAXIMUM ACCELERATION AND DECELERATION DURING LIFTING

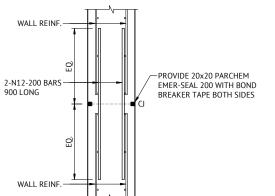


STORMWATER PIT SCHEDULE FOR

PROVIDED AT TIME OF DESIGN. CONTRACTOR TO ENGAGE GEOTECHNICAL ENGINEER TO CONFIRM WATER TABLE LEVEL ON SITE. IF WATER TABLE IS HIGHER THAN THE LEVEL NOMINATED BY THE 'x' DIMENSIONS, NOTIFY
STRUCTURAL ENGINEER AND ADOPT ALTERNATIVE BASE SLAB TOE DETAIL.



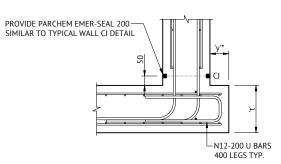




CONTRACTOR TO PROVIDE WALL CONTROL JOINT WHERE

TYPICAL WALL CONSTRUCTION JOINT DETAIL

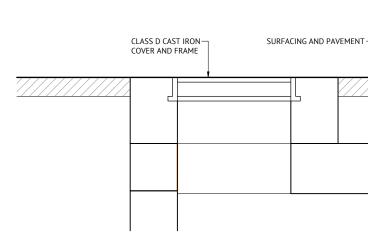
NOT TO SCALE



ALTERNATIVE BASE SLAB TOE DETAIL

NOT TO SCALE

'y' DIMENSION TO BE ASSESSED BY STRUCTURAL ENGINEER AFTER WATER TABLE LEVELS ARE CONFIRMED



TREATMENT IN ROADWAY NOT TO SCALE

BRIONY HOOPER RPEQ 10854

FOR CONSTRUCTION ISSUED FOR CONSTRUCTION ORIGINAL ISSUE



-SL81 MESH

TOP & BTM

TYPICAL SECTION - ACCESS CHAMBER

WHERE 'd' > 3m BUT < 5m NOT TO SCALE

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

400 LAP

| DESIGNED BRIONY HOOPER | | SCALE |
|----------------------------------|-----------|------------------------|
| CHECKED ANDREW LANGDON | | |
| PROJECT MANAGER SIMON STEINHOFER | | |
| PROJECT DIRECTOR | PFD | |
| PATRICK BRADY | RPEQ 7112 | ORIGINAL SHEET SIZE A1 |
| | | |

| CLIENT | MIRVAC QLD PTY LTD |
|-------------|------------------------------------------------|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| LOCATION | TEVIOT ROAD, GREENBANK |
| SHEET TITLE | STORMWATER STRUCTURE CIRCULAR PIT BASE & WALLS |

MIR-0904 C451

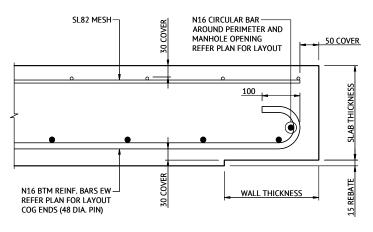
-N16 CIRCULAR BARS LAP 200 4 CFW (100 LONG) 2000 - BARS AT 100 CTS. 2300 DIA. WALL THICKNESS 250 - SLAB THICKNESS 250 1800 DIA. ACCESS CHAMBER SCALE 1:20

PIT ROOF DETAILS FOR PITS GREATER THAN 3m DEEP

NOTES

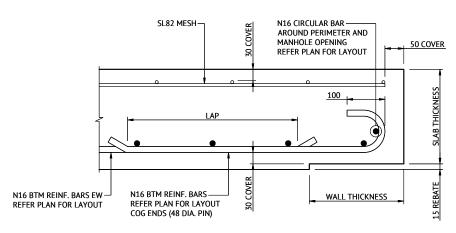
- FOR STRUCTURAL NOTES REFER TO DRAWING No. MIR-0904-C450
- ROOF SLAB THICKNESS DOES NOT INCLUDE 15mm REBATE. REFER TYPICAL PART SECTION FOR DETAILS. FOR LIFTING ANCHOR LOCATIONS AND DETAILS REFER TO DRG No. MIR012-1-C2151
- BOTTOM REINFORCEMENT ONLY SHOWN ON PLANS. TOP REINFORCEMENT TO BE SL82 MESH AS DETAILED IN TYPICAL PART SECTION
- DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

 ALL WELDS SHALL BE E48XX SP 6mm CONTINUOUS FILLET WELDS IN ACCORDANCE WITH AS1554.1 UNO.
 REFER TO DRAWING No. C452 FOR REINFORCED PIT DETAILS



TYPICAL PART SECTION

SCALE 1:5



ALTERNATIVE PART SECTION

MIR-0904

В

C452

FOR CONSTRUCTION 022 B ISSUED FOR CONSTRUCTION 021 A ORIGINAL ISSUE 021 1 PRELIMINARY ISSUE : REV DESCRIPTION

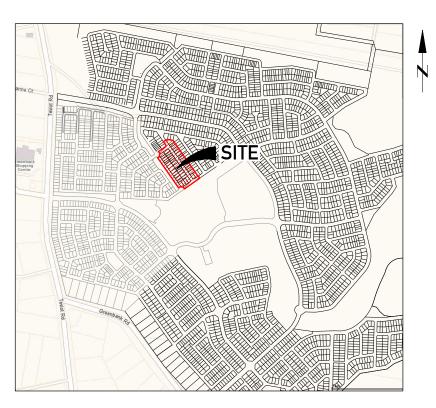


| DESIGNED BRIONY HOOPER | | SCALE 0 | 0.4 | 0.8 | 1.2m | (|
|------------------------|-------------|------------|------------|--------------|------|----|
| CHECKED | | | 0.4 | 0.8 | 1.2m | |
| ANDREW LANGDON | | | SCALE | 1:20 (A1) | _ | F |
| PROJECT MANAGER | | | JCALL | 1.20 (A1) | | |
| SIMON STEINHOFER | | 0 | 0.1 | 0.2 | 0.3m | Ι. |
| PROJECT DIRECTOR | DEB 1 | | | | _ | |
| | 1100 | | SCALE | 1:5 (A1) | | |
| PATRICK BRADY | RPEO 7112 | | | | | 5 |
| FAIRICK DRADT | INFLO / 112 | 1 | ORIGINAL S | HFFT SIZE A1 | | |

| 2m | CLIENT | MIRVAC QLD PTY LTD |
|---------|-------------|------------------------------------------------|
| • | PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| 3m 1 | LOCATION | TEVIOT ROAD, GREENBANK |
| | SHEET TITLE | STORMWATER STRUCTURE CIRCULAR PIT ROOF |

EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT

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



LOCALITY PLAN

REAL PROPERTY DESCRIPTION

LOT 205 & 434 on RP845844

| NAME OF ESTATE | | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT | |
|---------------------------|----------------|------------------------------------------------------|--|
| SUBDIVIDER | | Mirvac QLD Pty Ltd | |
| APPLICATION No. | | DEV 2020/1160 | |
| SP DELEGATE APPROVAL DATE | | 26/08/21 | |
| COUNCIL DA APPRO | VAL No. | - | |
| DRAWING/PLAN No. | | C510 - C511 | |
| No. OF ALLOTMENT | S | 46 | |
| AREA ha | | 2.88ha | |
| LENGTH OF | DN150 uPVC SN8 | 834.43m | |
| SEWERS | DN225 uPVC SN8 | 160.13m | |

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 INSPECTION FOR OFF MAINTENANCE.

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

SOIL

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 EXCAVATION WORK.

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. THI 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 | | | | | |
|------------------|-----|----------------------------------|-----|-----|--|
| | | | | | |
| | | | | | |
| | | | | | |
| 07/04/2022 | С | ISSUED FOR CONSTRUCTION | KK | PB | |
| 08/11/2021 | В | AMENDED DETAILS AND LOCALITY PLA | KK | PB | |
| 28/10/2021 | Α | ORIGINAL ISSUE | KK | PB | |
| DATE | REV | DESCRIPTION | REC | APF | |
| | | REVISIONS | | | |



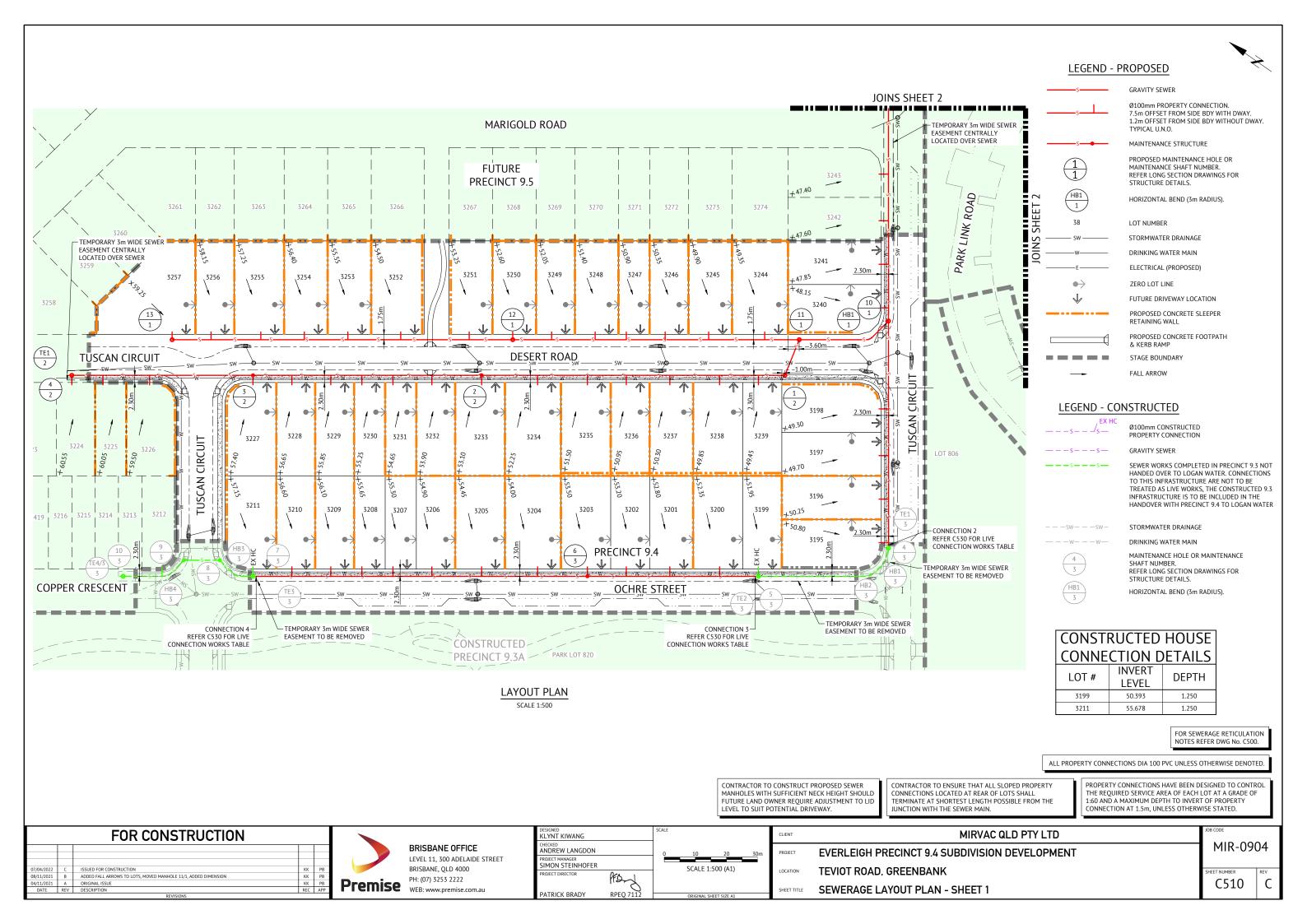
BRISBANE OFFICE LEVEL 11, 300 ADELAIDE STREET BRISBANE, OLD 4000 PH: (07) 3253 2222 Premise WEB: www.premise.com.au

| DESIGNED KLYNT KIWANG | | SCALE |
|----------------------------------|-----------|-------|
| KLINI KIWANG | | |
| ANDREW LANGDON | | 0 |
| PROJECT MANAGER SIMON STEINHOFER | | SC |
| PROJECT DIRECTOR | Pronj | |
| PATRICK BRADY | RPEQ 7112 | |

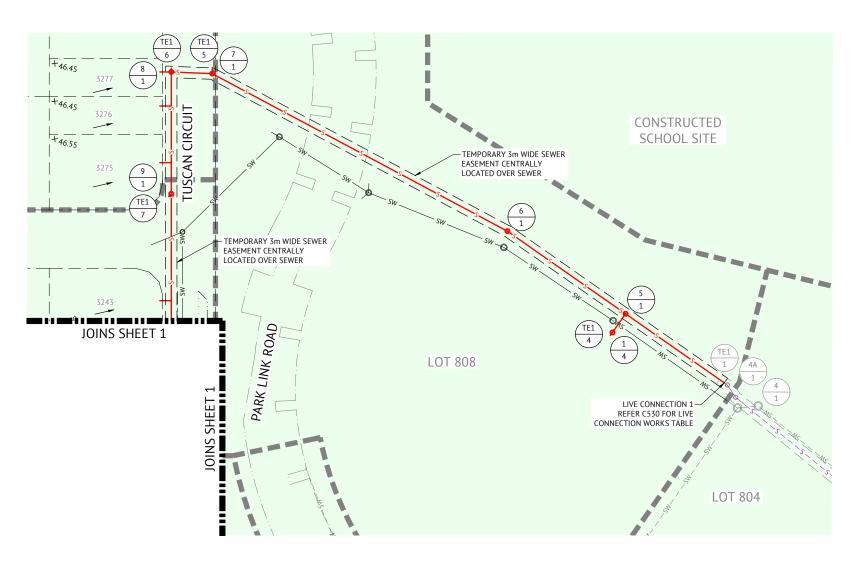
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| 0 | 200 | 400 | 600m |
| | SCALE 1:1 | .0000 (A1 |) |
| | | | |
| | ORIGINAL SI | HEET SIZE A1 | |

MIRVAC QLD PTY LTD **EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT** TEVIOT ROAD, GREENBANK SEWERAGE LOCALITY PLAN & NOTES

MIR-0904







LAYOUT PLAN
SCALE 1:500

PROPERTY CONNECTIONS HAVE BEEN DESIGNED TO CONTROL THE REQUIRED SERVICE AREA OF EACH LOT AT A GRADE OF 1:60 AND A MAXIMUM DEPTH TO INVERT OF PROPERTY CONNECTION AT 1.5m, UNLESS OTHERWISE STATED.

ALL PROPERTY CONNECTIONS DIA 100 PVC UNLESS OTHERWISE DENOTED.

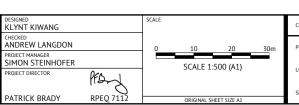
FOR SEWERAGE RETICULATION NOTES REFER DWG No. C500.

CONTRACTOR TO ENSURE THAT ALL SLOPED PROPERTY CONNECTIONS LOCATED AT REAR OF LOTS SHALL TERMINATE AT SHORTEST LENGTH POSSIBLE FROM THE JUNCTION WITH THE SEWER MAIN.

CONTRACTOR TO CONSTRUCT PROPOSED SEWER MANHOLES WITH SUFFICIENT NECK HEIGHT SHOULD FUTURE LAND OWNER REQUIRE ADJUSTMENT TO LID LEVEL TO SUIT POTENTIAL DRIVEWAY.

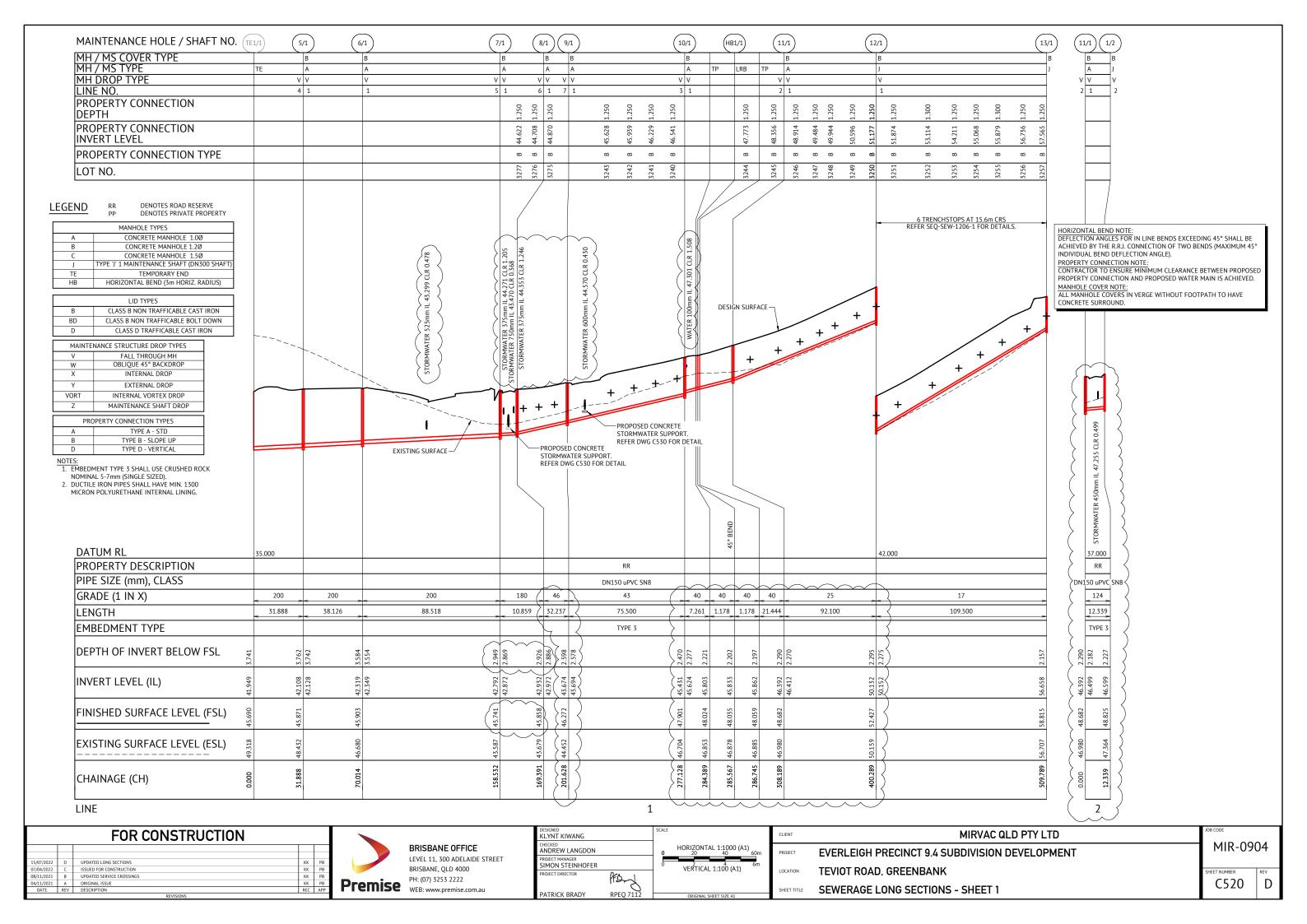
| Company | Comp

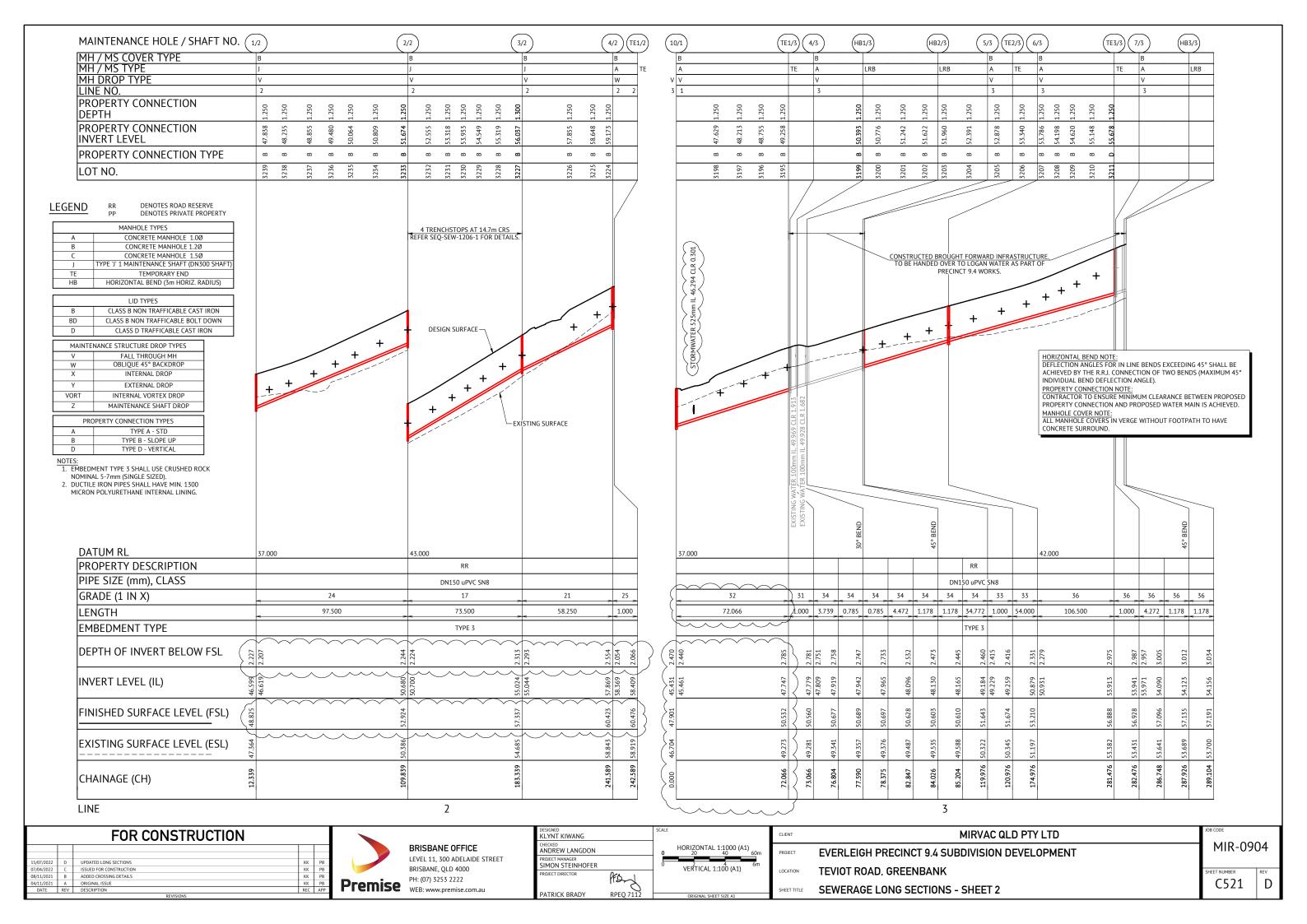


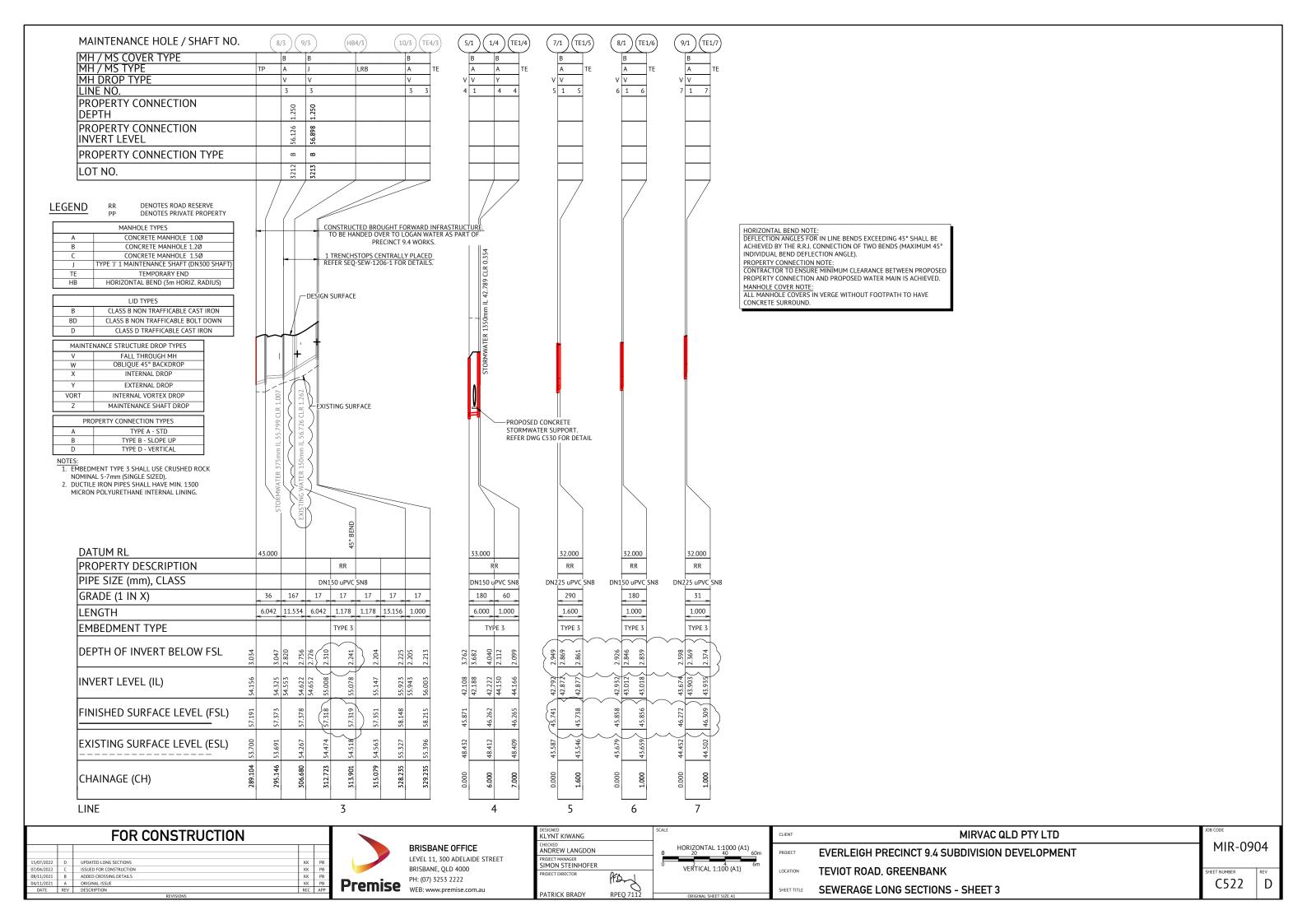


| CLIENT | MIRVAC QLD PTY LTD | |
|-------------|------------------------------------------------|--|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT | |
| LOCATION | TEVIOT ROAD, GREENBANK | |
| SHEET TITLE | SEWERAGE LAYOUT PLAN - SHEET 2 | |

MIR-0904

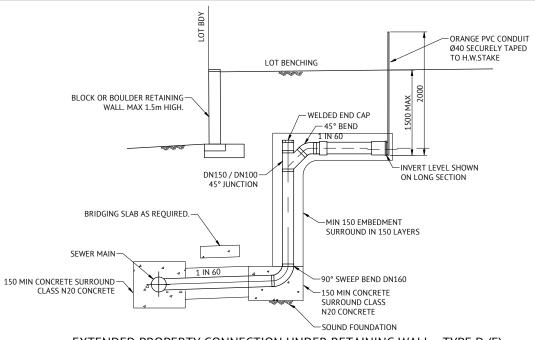




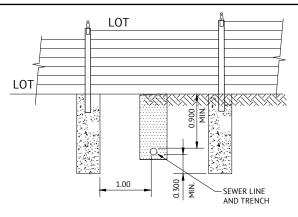


LIVE SEWER WORKS

| No. | DESCRIPTION | DIA. SEWER | MH NO. | MH TYPE | COVER TYPE | LOT NO. | F.S.L. | E.S.L. | I.L. | DEPTH |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------|------------|---------------|------------|--------|--------|--------|-------|
| 1(A) 1(B) | 0.5m FROM STUB END CAP TE1/1, CONSTRUCTOR TO LAY NEW LINE 1. AFTER CLEANSING, TESTING AND INSPECTING, NOTIFY AGENCY. AGENCY TO REMOVE TEMPORARY END CAP ON STUB AND LINE 1 AND MAKE LIVE CONNECTIONS AFTER SUCCESSFUL 'ON MAINTENANCE' INSPECTION. | 225 | TE1/1 | END | - | 808 | 45.690 | 45.690 | 41.949 | 3.741 |
| 2(A) | 0.5m FROM STUB END CAP TE1/3, CONSTRUCTOR TO LAY NEW LINE 3. AFTER CLEANSING, TESTING AND INSPECTING. | 150 | TE1/3 | END | - | 3195 | 50.532 | 49.273 | 47.747 | 2.785 |
| 2(B) | CONSTRUCTOR TO REMOVE TEMPORARY END CAP ON STUB AND LINE 3 AND MAKE LIVE CONNECTIONS. | | | | | | | | | |
| 3(A) | 0.5m FROM STUB END CAP TE2/3, CONSTRUCTOR TO LAY NEW LINE 3. AFTER CLEANSING, TESTING AND INSPECTING. | 150 | TE2/3 | END | - | 3199 | 51.674 | 50.345 | 49.259 | 2.416 |
| 3(B) | CONSTRUCTOR TO REMOVE TEMPORARY END CAP ON STUB AND LINE 3 AND MAKE LIVE CONNECTIONS. | | | | | | | | | |
| 4(A) | 0.5m FROM STUB END CAP TE3/3, CONSTRUCTOR TO LAY NEW LINE 3. AFTER CLEANSING, TESTING AND INSPECTING. | 150 | TE3/3 | END | - | 3211 | 56.888 | 53.382 | 53.913 | 2.975 |
| 4(B) | CONSTRUCTOR TO REMOVE TEMPORARY END CAP ON STUB AND LINE 3 AND MAKE LIVE CONNECTIONS. | | | | | | | | | |



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



SEWER LINE CROSSING CONCRETE SLEEPER RETAINING WALL

BRIDGING SLAB DETAIL

CONCRETE FOOTPATH WHERE LOCATED WITHIN CONCRETE FOOTPATH, LID MAINTENANCE SURROUND SHALL BE POURED STRUCTURE LID CONTINUOUS WITH CONCRETE FOOTPATH

LEVELS IN THE LIVE SEWER TABLE ARE DESIGN LEVELS. AS CONSTRUCTED INFORMATION TO BE ADDED WHEN AVAILABLE

SL81 MESH-

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 SEQ-SPS PRIOR TO SEQ-SPS COMMENCING ANY WORK.

*XXXXXX

-BLOCK OR BOULDER RETAINING WALL. MAX 1.5m HIGH.

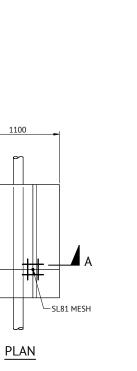
CLASS N20 CONCRETE

COMPACTED A

TO ENGINEER'S

GRANULAR MATERIAL

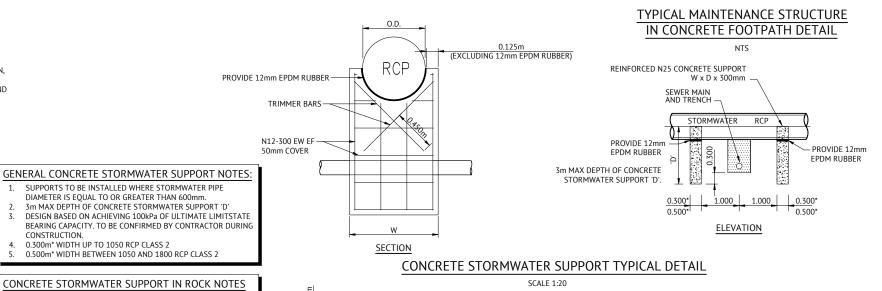
IT IS THE DEVELOPER'S RESPONSIBILITY TO ENSURE ALL LIVE SEWER WORKS ARE COMPLETE BEFORE ALLOWING PRIVATE DRAINAGE TO BE CONNECTED.



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

- SEWER MAIN TRENCH

SECTION A-A



WHERE BRIDGING STRUCTURE IS LOCATED IN ROCK SUBGRADE, CONTRACTOR SHALL PROVIDE GEOTECHNICAL ADVICE TO 0.2m OFFSET TO VERTICAL FACE TYP. SUPERINTENDENT ADVISING IF SUITABLE SUBGRADE BEARING CAPACITY CAN BE ACHIEVED TO FACILITATE THIS SUPPORT TYPE. N12-300 SIDE FACE REINFORCEMENT 4 - N12 STARTER BARS WITH 300mm COGGED ENDS-0.200m (EXCLUDING 12mm EPDM RUBBER) RCP PROVICE 12mm EPDM RUBBER TRENCH EXCAVATION 11 OF N12 HORIZONTAL BARS EQUALLY SPACED - SEWER LINE -N12 TRIMMER BAR TO MATCH OPENING PROFILE, 3 OF, ENSURING 50mm COVER **ELEVATION**

CONCRETE STORMWATER SUPPORT IN ROCK SUBGRADE DETAIL

SCALE 1:40

BRIONY HOOPER

| | | FOR CONSTRUCTION | | |
|------------|-----|-------------------------|-----|-----|
| | | | | |
| | | | | |
| | | | | |
| 07/04/2022 | С | ISSUED FOR CONSTRUCTION | KK | PB |
| 31/03/2022 | В | ISSUED FOR CONSTRUCTION | KK | PB |
| 04/11/2021 | Α | ORIGINAL ISSUE | KK | PB |
| DATE | REV | DESCRIPTION | REC | APP |
| | | PEVISIONS | | |



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

| DESIGNED KLYNT KIWANG | | SCALE | |
|----------------------------------|-----------|------------------------|--|
| CHECKED ANDREW LANGDON | | | |
| PROJECT MANAGER SIMON STEINHOFER | | | |
| PROJECT DIRECTOR | Pronj | | |
| PATRICK BRADY | RPEQ 7112 | ORIGINAL SHEET SIZE A1 | |
| | | | |

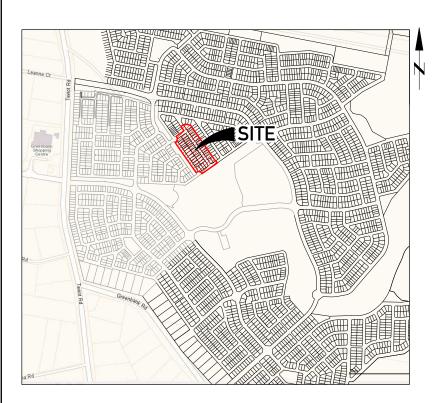
| CLIENT | MIRVAC QLD PTY LTD |
|-------------|------------------------------------------------|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| LOCATION | TEVIOT ROAD, GREENBANK |
| SHEET TITLE | SEWERAGE NOTES AND DETAILS |

MIR-0904 C530

RCP

EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT

TEVIOT ROAD, GREENBANK FOR MIRVAC QLD PTY LTD WATER RETICULATION



LOCALITY PLAN

REAL PROPERTY DESCRIPTION

LOT 205 & 434

on RP845844

SHEET LIST TABLE SHEET NO. SHEET TITLE WATER RETICULATION LOCALITY PLAN & NOTES C600 WATER RETICULATION LAYOUT PLAN C610 WATER LIVE CONNECTION DETAILS C620

SEO-WAT-1200-2

- 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
- 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
- 20. 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 APPROVED ARBORIST

- 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 WATER SUPERVISION AT DEVELOPERS EXPENSE AT LOCATION 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 SEQ 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 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 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 SHOWN ON THIS DRAWING MUST BE SUPERVISED BY AN 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

SEQ 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 Premise WEB: www.premise.com.au

| DESIGNED KLYNT KIWANG | |
|----------------------------------|-----------|
| CHECKED ANDREW LANGDON | |
| PROJECT MANAGER SIMON STEINHOFER | |
| PROJECT DIRECTOR | Prond |
| PATRICK BRADY | RPEQ 7112 |

| SCALE | | | |
|-------|-------------|--------------|------|
| 0 | 200 | 400 | 600n |
| | SCALE 1:1 | 0000 (A1) | |
| | ORIGINAL SI | HEET SIZE A1 | |

| | CLIENT | |
|---|-------------|----------------------------|
| m | PROJECT | EVERLEIGH PRECINCT 9.4 SUI |
| | LOCATION | TEVIOT ROAD, GREENBANK |
| | SHEET TITLE | WATER RETICULATION LOCAL |

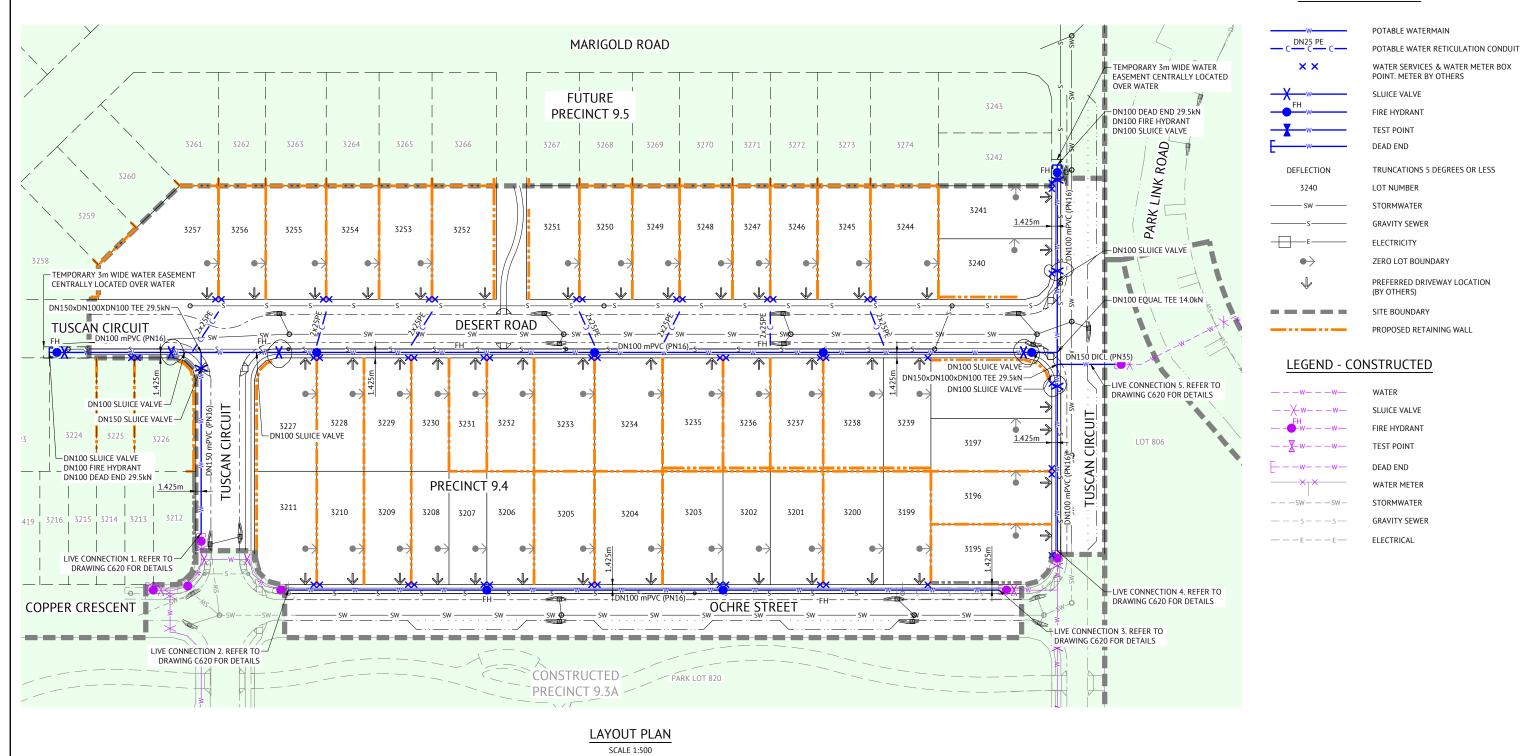
MIRVAC QLD PTY LTD IBDIVISION DEVELOPMENT

LITY PLAN & NOTES

MIR-0904



LEGEND - PROPOSED



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.

| AS CONSTRUCTED DETA | ILS FOR AMEND. |
|----------------------------|-------------------|
| I CERTIFY THAT THE "AS CON | STRUCTED" DETAILS |
| SHOWN ON THIS PLAN ARE T | |
| RECORD OF THE | WORKS |
| SIGNED | DATE: |
| NAME of SIGNATORY | |
| RPEQ No. or LICENCE | |
| COMPANY NAME | |
| START DATE | |
| <u> </u> | |
| | |

| | | FOR CONSTRUCTION | | |
|------------|-----|------------------------------------------------|-----|-----|
| | | | | |
| | | | | |
| 07/04/2022 | С | ISSUED FOR CONSTRUCTION - MOVED WATER FITTINGS | KK | PB |
| 12/11/2021 | В | MINOR DRAFTING UPDATES | VKH | PB |
| 28/10/2021 | Α | ORIGINAL ISSUE | VKH | PB |
| DATE | REV | DESCRIPTION | REC | APP |
| | | REVISIONS | | |



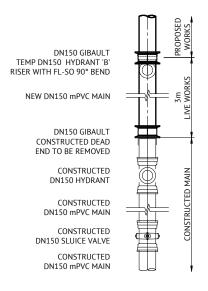
| DESIGNED KLYNT KIWANG | | SCALE | | | | (|
|---------------------------|-----------|----------|-------------|--------------|-----|----|
| CHECKED ANDREW LANGDON | | 0 | 10 | 20 | 30m | |
| PROJECT MANAGER | | <u> </u> | ے ت | - 10 | 30 | |
| SIMON STEINHOFER | | | SCALE 1: | 500 (A1) | _ | ١. |
| PROJECT DIRECTOR | Prand | | JCALL 1. | 300 (A1) | | L |
| | | | | | | 9 |
| PATRICK BRADY | RPEQ 7112 | | ORIGINAL SE | IFFT SIZE A1 | | |

| CLIENT | MIRVAC QLD PTY LTD |
|-------------|------------------------------------------------|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| LOCATION | TEVIOT ROAD, GREENBANK |
| SHEET TITLE | WATER RETICULATION LAYOUT PLAN |

MIR-0904

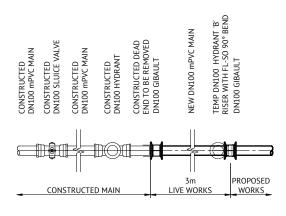
SHEET NUMBER REV C610 C

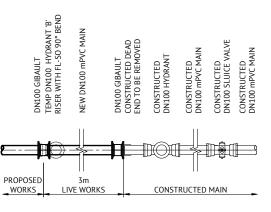


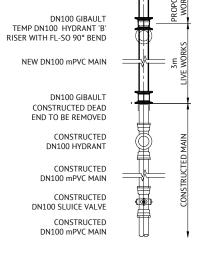


LIVE CONNECTION 1 DETAIL

SCALE 1:25





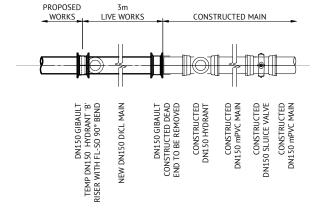


LIVE CONNECTION 2 DETAIL SCALE 1:25

LIVE CONNECTION 3 DETAIL SCALE 1:25

LIVE CONNECTION 4 DETAIL

SCALE 1:25



LIVE CONNECTION 5 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 CONSTR | UCTED DETAILS FOR AMEND. |
|------------------|------------------------------|
| I CERTIFY THAT | THE "AS CONSTRUCTED" DETAILS |
| SHOWN ON THIS | PLAN ARE TRUE AND ACCURATE |
| REC | ORD OF THE WORKS |
| SIGNED | DATE: |
| NAME of SIGNAT | ORY |
| RPEQ No. or LICE | NCE |
| COMPANY NAME | |
| START DATE | |
| | |

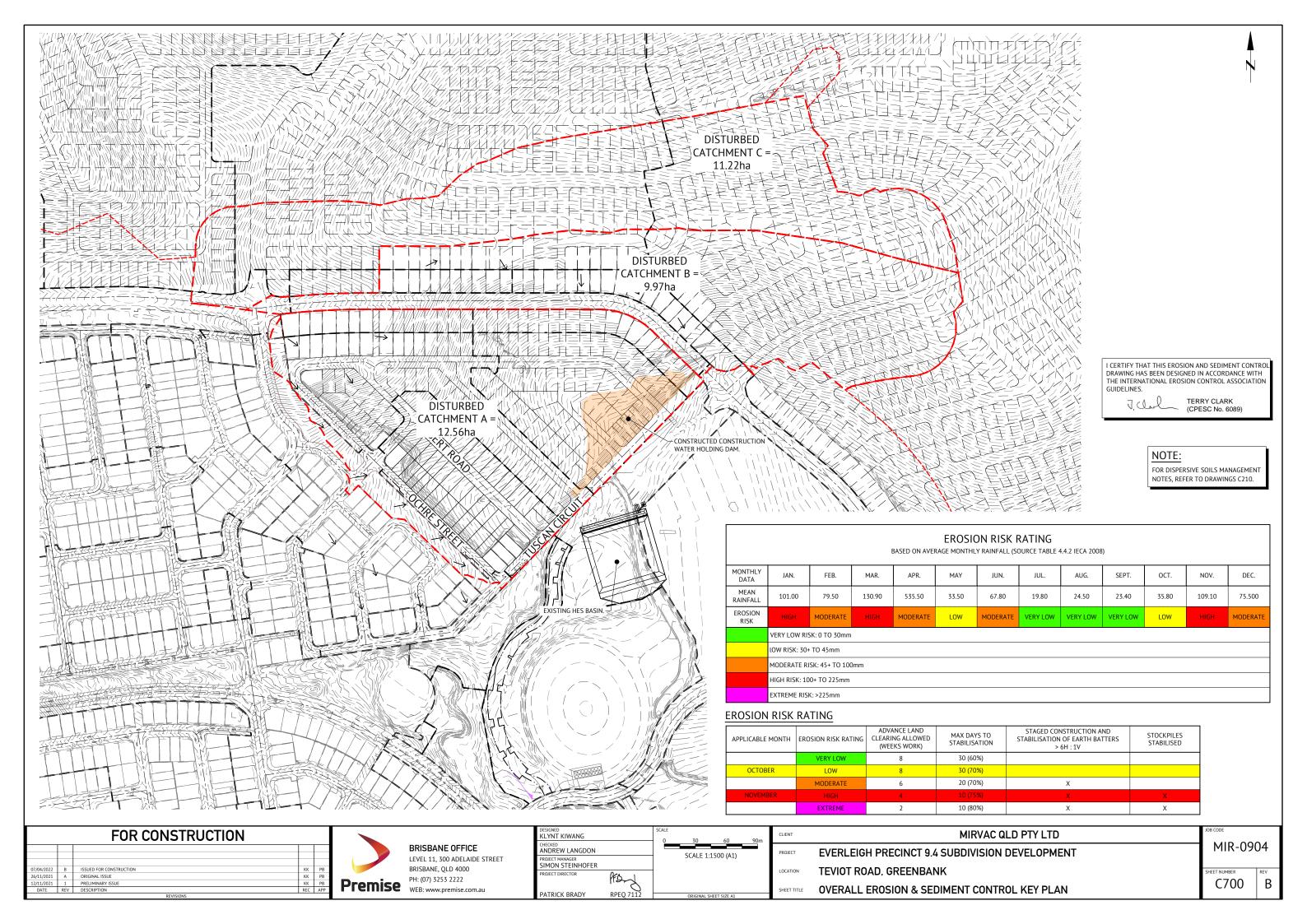
FOR CONSTRUCTION 7/04/2022 C ISSUED FOR CONSTRUCTION 2/11/2021 B UPDATED TITLES 8/10/2021 A ORIGINAL ISSUE DATE REV DESCRIPTION

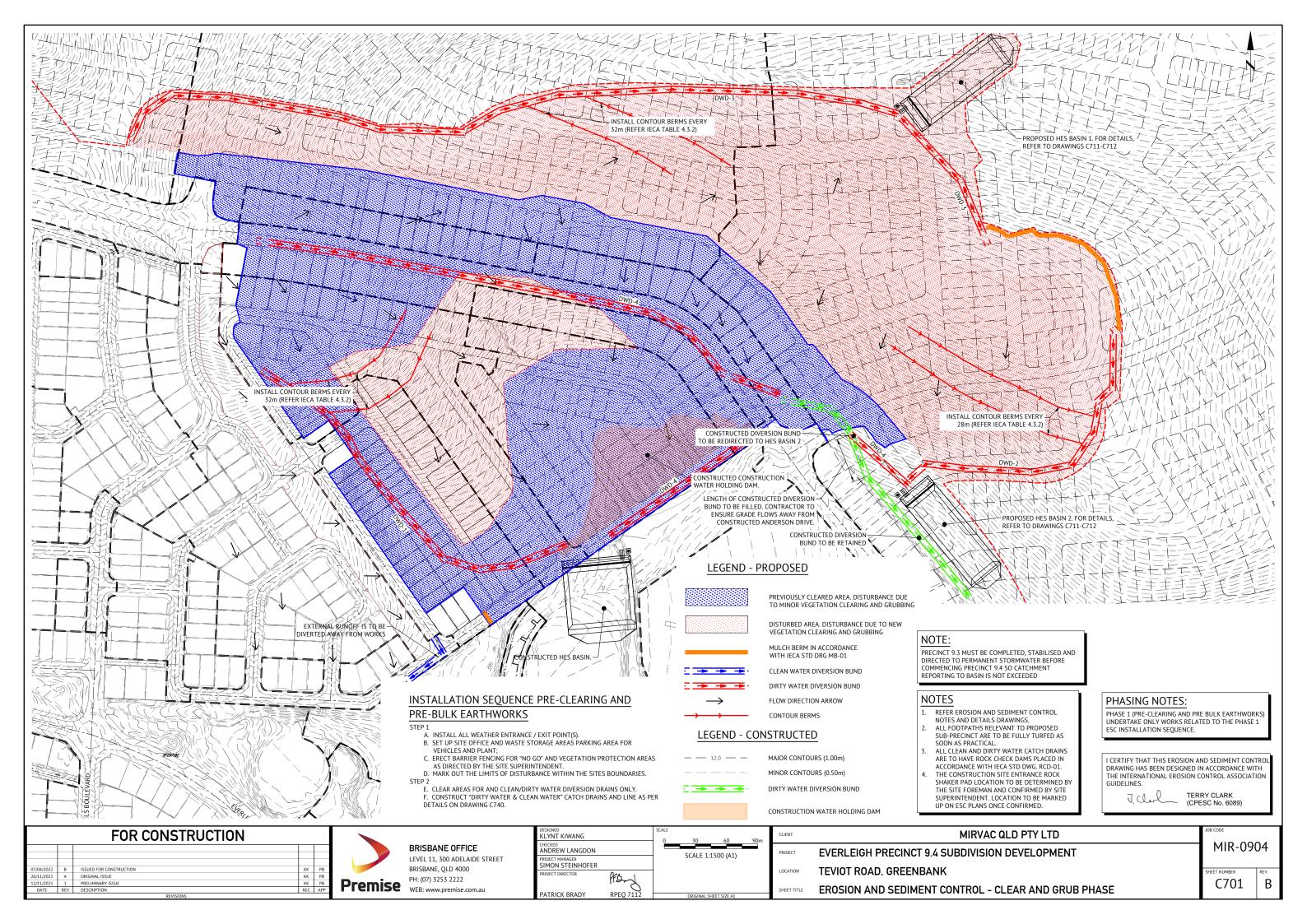


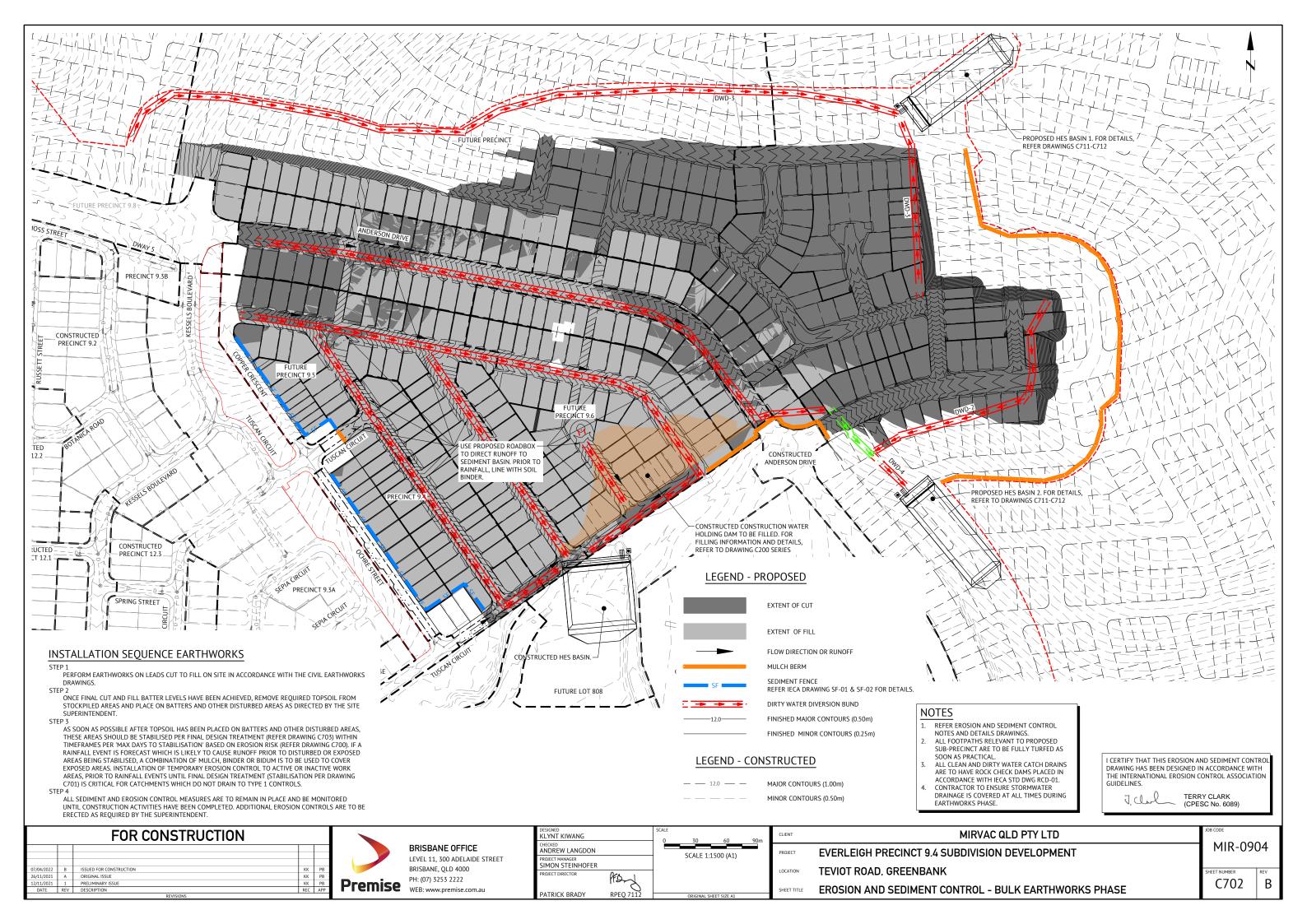
| DESIGNED KLYNT KIWANG | | SCALE | | | | CLI |
|----------------------------------|-----------|-------|-------------|-------------|------|-----|
| CHECKED ANDREW LANGDON | | 0 | 0.5 | 1.0 | 1.5m | PRI |
| PROJECT MANAGER SIMON STEINHOFER | | | SCALE 1 | ·25 (Δ1) | | |
| PROJECT DIRECTOR | PROM | | 33/122 1 | .23 ((1) | | LO |
| PATRICK BRADY | RPEQ 7112 | | ORIGINAL SH | EET SIZE A1 | | SH |

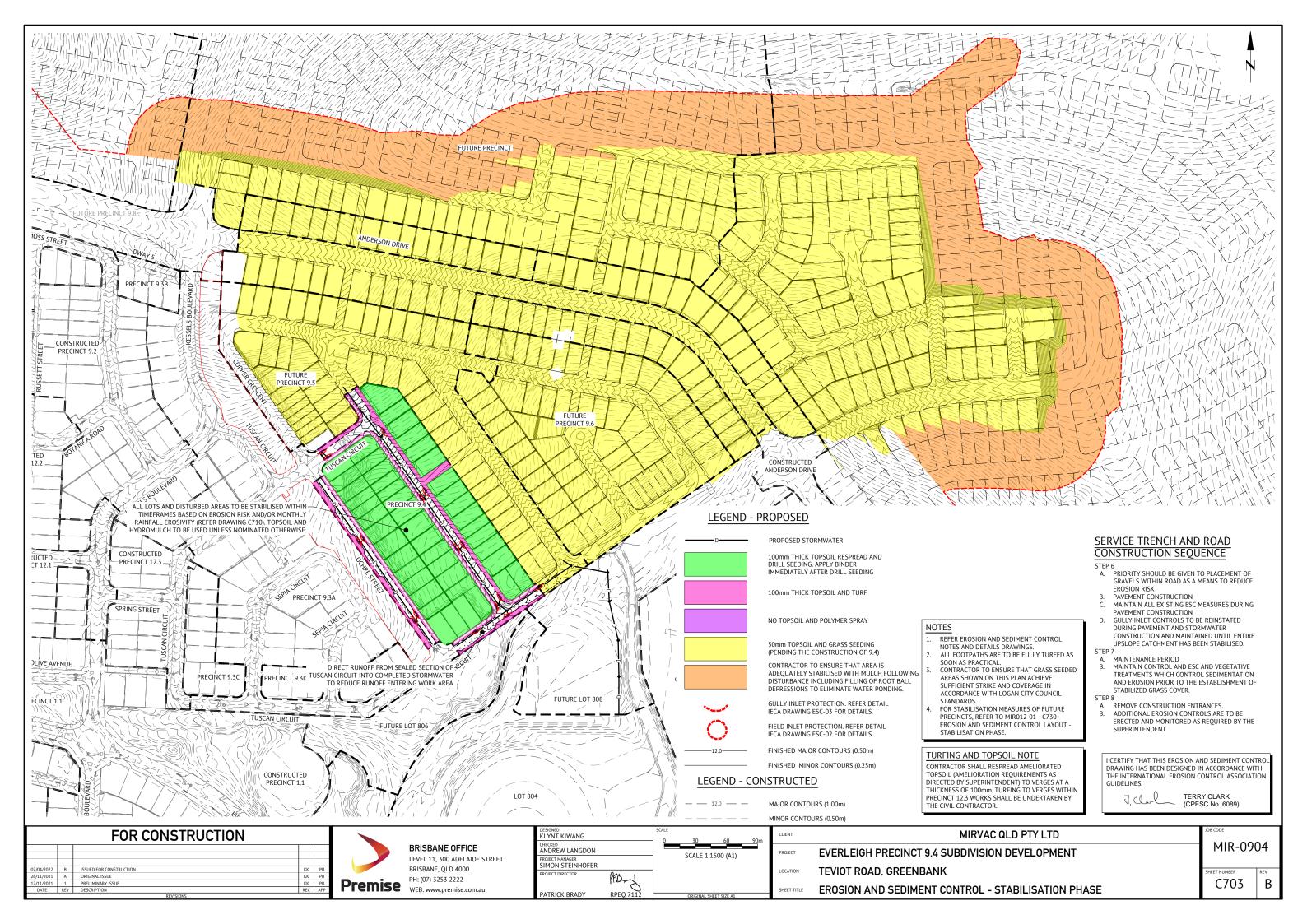
| CLIENT | MIRVAC QLD PTY LTD |
|-------------|------------------------------------------------|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| LOCATION | TEVIOT ROAD, GREENBANK |
| SHEET TITLE | WATER LIVE CONNECTION DETAILS |

MIR-0904 C620









EROSION & SEDIMENT CONTROL NOTES

- LOCATION & LEVELS OF ALL EXISTING SERVICES TO BE CONFIRMED ON SITE BY CONTRACTOR PRIOR
- 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 DISTURRED 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 BUILK

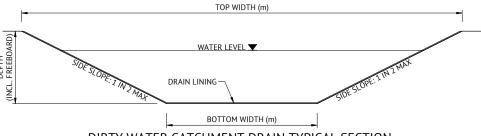
FOR CONSTRUCTION

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ORIGINAL ISSUE

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 (m³/s) OF AVERAGE RECURRENCE INTE | RVAL (ARI) OF Y YEARS | | | |
| Су | RUNOFF COEFFICIENT (DIMENSIONLESS) FOR AF | RI OF Y YEARS | | | |
| I _{tc,y} | AVERAGE RAINFALL INTENSITY (mm/hr) FOR DESIGN DURATION OF | TC HOURS AND ARI OF Y YEARS | | | |
| Α | AREA OF CATCHMENTS (ha) | | | | |
| 360 | CONVERSION FACTOR | | | | |
| FLOW I | HEIGHT IS SOLVED BY TRIAL AND ERROR USING THE THREE EQUATIONS | BELOW AS PER IECA 2008. | | | |
| | Q = 1/n * A * R ^{2/5} * 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 | S) | | | |
| Α | CROSS SECTIONAL AREA OF FLOW (m ²), REFER TO EQUATION 3 | | | | |
| R | HYDRAULIC RADIUS (m), REFER TO EQUA | TION 4 | | | |
| S | SLOPE OF ENERGY LINE, EQUAL TO SLOPE OF CHANNEL BED (m/m) | | | | |
| | A = (b + xy)y | [Equation 3 (IECA 2008)] | | | |
| where: | | | | | |
| Α | CROSS SECTIONAL AREA OF FLOW (n | n²) | | | |
| 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 0.3 | Om FREEBOARD | | | |



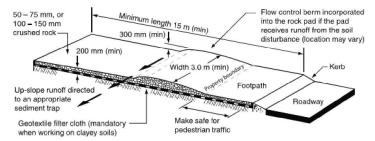
DIRTY WATER CATCHMENT DRAIN TYPICAL SECTION

DIRTY WATER CATCH DRAIN DETAILS

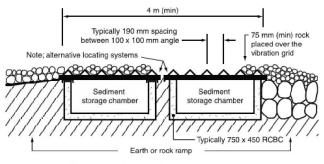
| DRAIN ID | SLOPE | LINING | BASE WIDTH (m) | TOP WIDTH (m) | DEPTH INCLUDING FREEBOARD (m) |
|----------|-------|---------------|-------------------|---------------|-------------------------------------|
| DWD-01 | 4.50% | BLACK PLASTIC | 2.000 | 3.330 | 0.330 |
| DWD-02 | 5.20% | BLACK PLASTIC | 2.000 | 3.030 | 0.260 |
| DWD-03 | 8.20% | BLACK PLASTIC | 2.000 | 3.100 | 0.280 |
| DWD-04 | 3.20% | BLACK PLASTIC | 2.000 | 3.070 | 0.270 |

REFER TYPICAL SECTION ABOVE FOR DETAILS NOTE: CATCH DRAINS SIZED FOR O2 FLOW

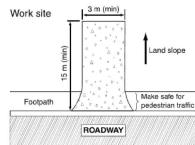




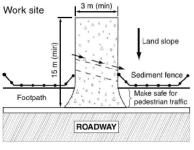
(a) Rock entry/exit pad for construction sites (refer to Standard Drawing Exit-03 for building sites)



(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

MATERIALS

REQUIREMENTS OF AS4454.

(i) WELL-DECOMPOSED 100% ORGANIC MATTER PRODUCED BY CONTROLLED AEROBIC (BIOLOGICAL) DECOMPOSITION.

(ii) MAXIMUM OF 1% OF INERT MATERIAL.

(iii) MAXIMUM SOLUBLE SALT CONCENTRATION OF 5dS/m, AND pH RANGE OF 5.0 TO 8.5.

(iv) MOISTURE CONTENT OF 30 TO 50% PRIOR TO APPLICATION.

INSTALLATION

1 REFER TO APPROVED PLANS FOR 1. REPER TO APPROVED PLANS FOR LOCATION AND EXTENT. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION, EXTENT, MATERIAL TYPE, OR METHOD OF INSTALLATION CONTACT THE ENGINEER OR RESPONSIBLE ON-SITE OFFICER FOR ASSISTANCE.

2. WHEN SELECTING THE LOCATION OF A COMPOST FILTER BERM, TO THE ENSURE THE BERM IS LOCATED:

(i) TOTALLY WITHIN THE PROPERTY BOUNDARIES; (ii) ALONG A LINE OF CONSTANT ELEVATION (PREFERRED, BUT NOT ALWAYS PRACTICAL);

(iii) AT LEAST 1m. IDEALLY 3m. FROM THE TOE OF A FILL EMBANKMENT

(iv) AWAY FROM AREAS OF CONCENTRATED FLOW.

3. ENSURE THE BERM IS INSTALLED IN A

CONCENTRATION OF FLOW ALONG THE BERM, OR THE UNDESIRABLE DISCHARGE OF WATER AROUND THE ENDS OF THE BERM.

4 ENSURE THE BERM HAS BEEN PLACED. ALONG THE CONTOUR SUCH THAT WATER WILL POND EVENLY ALONG THE

5. ENSURE BOTH ENDS OF THE BERM ARE ADEQUATELY TURNED UP THE SLOPE TO PREVENT FLOW BYPASSING PRIOR TO WATER PASSING OVER THE

6. ENSURE 100% CONTACT WITH THE SOIL SURFACE.

7. WHERE SPECIFIED, TAKE APPROPRIATE STEPS TO VEGETATE THE

MAINTENANCE

1. DURING THE CONSTRUCTION PERIOD. INSPECT THE BERM AT LEAST WEEKLY

2. REPAIR OR REPLACE ANY DAMAGED 3. WHEN MAKING REPAIRS ALWAYS

3. WHEN MANING REPAIRS, ALWAYS
RESTORE THE SYSTEM TO ITS ORIGINAL
CONFIGURATION UNLESS AN AMENDED
LAYOUT IS REQUIRED OR SPECIFIED.

4. REMOVE ACCUMULATED SEDIMENT IF THE SEDIMENT DEPOSIT EXCEEDS A DEPTH OF 100mm OR 1/3 THE HEIGHT OF THE BERM.

5. DISPOSE OF SEDIMENT IN A SUITABLE MANNER THAT WILL NOT CAUSE AN EROSION OR POLLUTION HAZARD.

REMOVAL (IF REQUIRED)

OF THE BERM ARE SUFFICIENTLY STABILISED TO RESTRAIN EROSION, THE BERM MAYBE REMOVED

2. REMOVE ANY COLLECTED SEDIMENT AND DISPOSE OF IN A SUITABLE MANNER THAT WILL NOT CAUSE AN EROSION OR POLLUTION HAZARD.

3. REHABILITATE/REVEGETATE THE DISTURBED GROUND AS NECESSARY TO MINIMISE THE EROSION HAZARD.

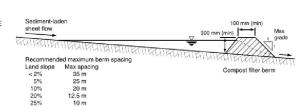


Figure 1 - Typical profile of a compost filter berm

MULCH BUND DETAIL

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

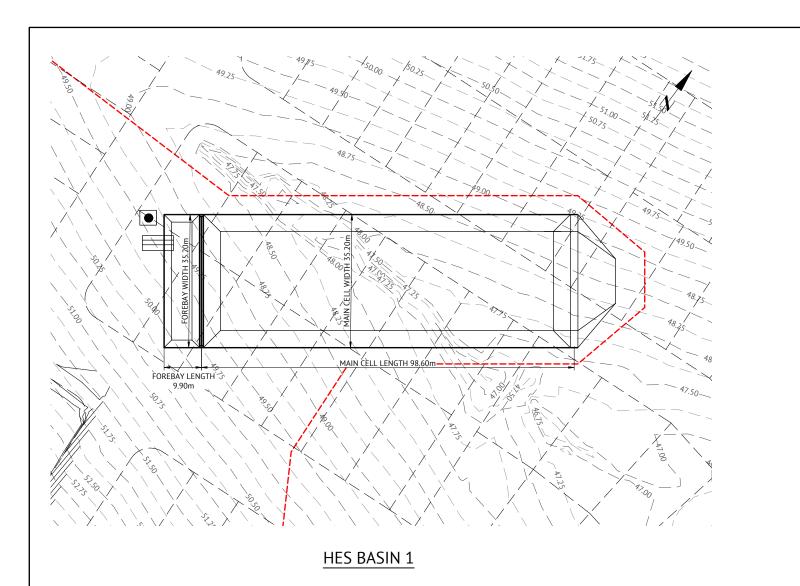


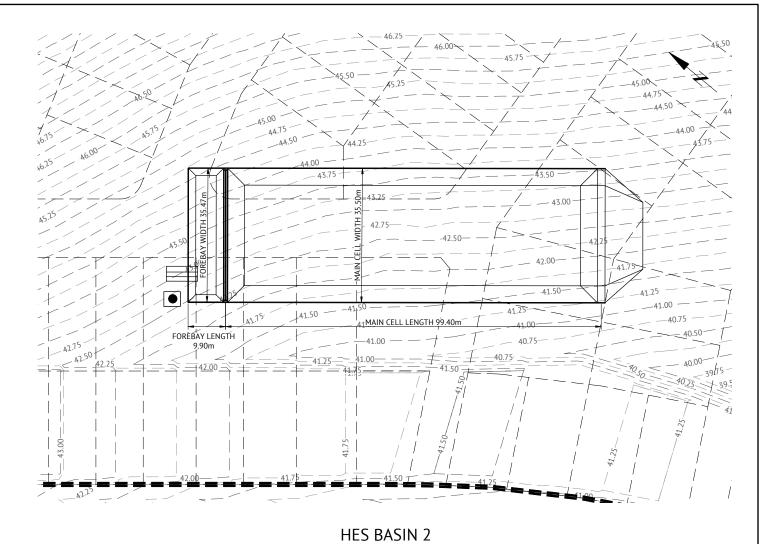
TERRY CLARK (CPESC No. 6089)

-0904

В

| CLIENT | MIRVAC QLD PTY LTD | |
|-------------|----------------------------------------------------------|--------------|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT | MIR-09 |
| LOCATION | TEVIOT ROAD, GREENBANK | SHEET NUMBER |
| SHEET TITLE | EROSION AND SEDIMENT CONTROL NOTES AND DETAILS - SHEET 1 | C710 |





HES BASIN DETAILS

| | SETTLING ZONE (INCLUDING SEDIMENT STORAGE) | | | · LUDERVA | | | HYDRAULIC CONTROLS | | | | | |
|-------------|--------------------------------------------|---------|---------|-----------|----------|--------|--------------------|--------|----------------------------|-------------------|----------------|----------------------------|
| BASIN ID | VOLUME | LENGTH | WIDTH | DEPTH | VOLUME | LENGTH | WIDTH | DEPTH | SPILLWAY CREST WIDTH | SPILLWAY CREST | EMBANKME NT | LEVEL SPREADER CREST |
| | (m³) | (m) | (m) | (m) | (m³) | (m) | (m) | (m) | (m) | RL | RL | RL |
| HES BASIN 1 | 7832.8800 | 98.600" | 35.200" | 1.000" | 429.0000 | 9.900" | 35.200" | 1.000" | 15.0000 | 49.550* | 50.200* | 49.750* |
| HES BASIN 2 | 7832.8800 | 99.400" | 35.500" | 1.000" | 429.0000 | 9.900" | 35.500# | 1.000" | 15.0000 | 43.300* | 43.800* | 43.500* |
| EXISTING | 5233.0000 | 65.000" | 66.000# | 1.500" | 429.0000 | 6.500# | 66.000# | 1.000" | 15.0000 | 44.150* | 45.050* | 44.450* |

[&]quot; - EXACT DIMENSIONS TO BE MODIFIED ON SITE TO FIT AVAILABLE SITE CONSTRAINTS.

* - ESTIMATE RL TO BE FINALISED ON-SITE BASED ON SITE CONSTRAINTS

NOTE: SEDIMENT BASIN SIZED BASED ON A SETTLEMENT RATE OF 150mm IN 15 MINUTES DUE TO THE TIME CONSTRAINTS, NO JAR TESTS HAVE BEEN UNDERTAKEN, SETTLEMENT RATE IS TO BE VERIFIED PRIOR TO CONSTRUCTION OF SEDIMENT BASINS

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

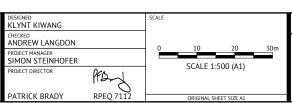
J. Clarl

TERRY CLARK (CPESC No. 6089)

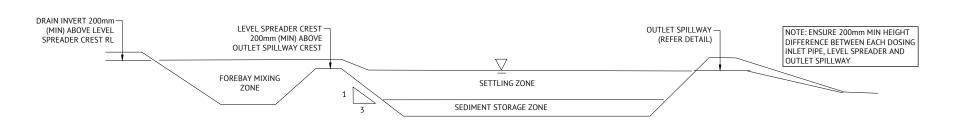
MIR-0904

| | | FOR CONSTRUCTION | | |
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| 07/04/2022 | В | ISSUED FOR CONSTRUCTION | KK | PB |
| 26/11/2021 | Α | ORIGINAL ISSUE | KK | PB |
| 12/11/2021 | 1 | PRELIMINARY ISSUE | KK | PB |
| DATE | REV | DESCRIPTION | REC | APP |
| | | REVISIONS | | |



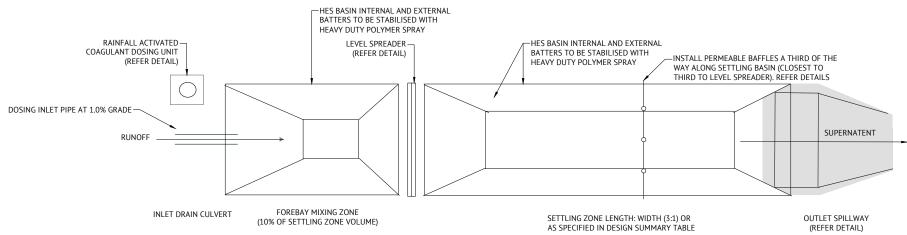


| CLIENT | MIRVAC QLD PTY LTD |
|-------------|----------------------------------------------------------|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| LOCATION | TEVIOT ROAD, GREENBANK |
| SHEET TITLE | EROSION AND SEDIMENT CONTROL NOTES AND DETAILS - SHEET 2 |



TYPE B SEDIMENT BASIN LONG SECTION

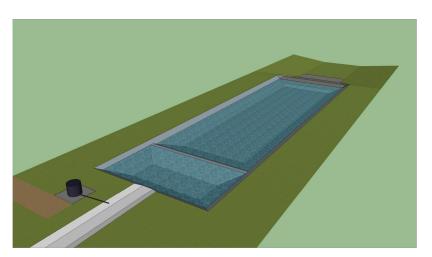
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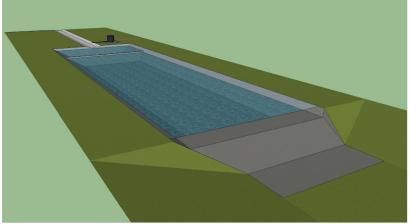




iFOD FLOW DOSING UNIT (CUSTOM BUILT)

TYPE B SEDIMENT BASIN PLAN VIEW





BASIN PERSPECTIVE (LOOKING DOWNSTREAM)

BASIN PERSPECTIVE (LOOKING UPSTREAM)

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

J. Clarl

TERRY CLARK (CPESC No. 6089)

MIR-0904

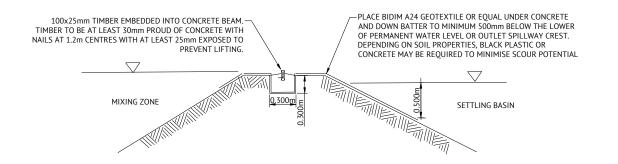
В

| | | FOR CONSTRUCTION | | |
|------------|-----|-------------------------|-----|-----|
| | | | | |
| | | | | |
| 07/04/2022 | В | ISSUED FOR CONSTRUCTION | KK | PB |
| 26/11/2021 | Α | ORIGINAL ISSUE | KK | PB |
| 12/11/2021 | 1 | PRELIMINARY ISSUE | KK | PB |
| DATE | REV | DESCRIPTION | REC | APP |
| | | REVISIONS | | |

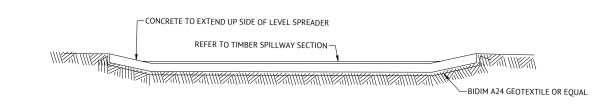


| DESIGNED KLYNT KIWANG | SCALE |
|----------------------------------|------------------------|
| CHECKED ANDREW LANGDON | |
| PROJECT MANAGER SIMON STEINHOFER | |
| PROJECT DIRECTOR | |
| PATRICK BRADY RPEQ 7112 | ORIGINAL SHEET SIZE A1 |

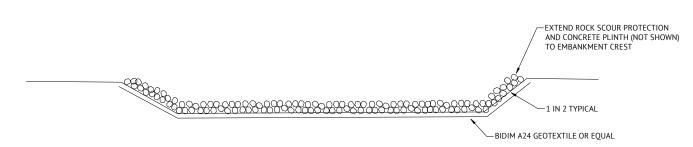
| CLIENT | MIRVAC QLD PTY LTD |
|-------------|----------------------------------------------------------|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| LOCATION | TEVIOT ROAD, GREENBANK |
| SHEET TITLE | EROSION AND SEDIMENT CONTROL NOTES AND DETAILS - SHEET 3 |



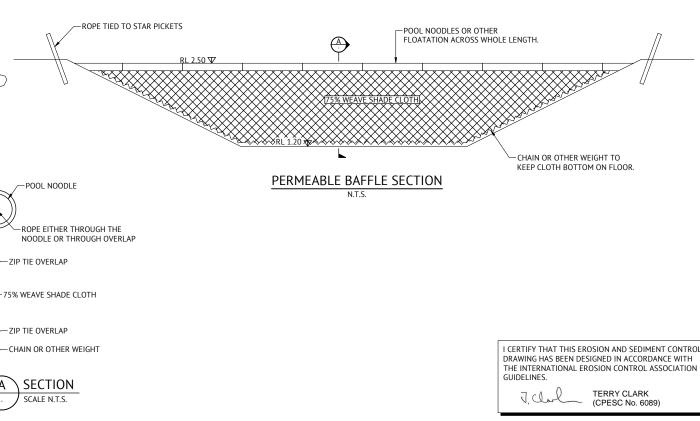
LEVEL SPREADER DETAILS - TYPICAL CROSS SECTION

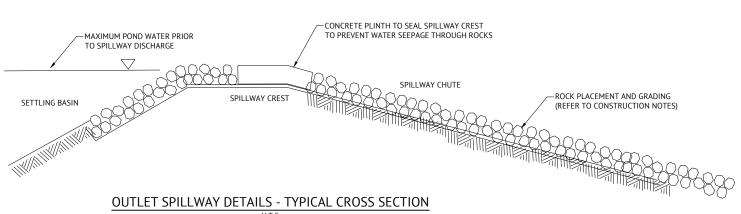


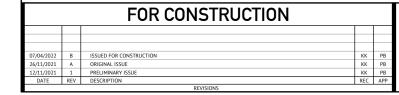
LEVEL SPREADER DETAILS - TYPICAL LONG SECTION



OUTLET SPILLWAY DETAILS - TYPICAL LONG SECTION









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| DESIGNED KLYNT KIWANG | | SCALE | |
|----------------------------------|-----------|------------------------|--|
| CHECKED ANDREW LANGDON | | | |
| PROJECT MANAGER SIMON STEINHOFER | | | |
| PROJECT DIRECTOR | PFD | | |
| PATRICK BRADY | RPEQ 7112 | ORIGINAL SHEET SIZE A1 | |
| | | | |

| CLIENT | MIRVAC QLD PTY LTD |
|-------------|----------------------------------------------------------|
| PROJECT | EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT |
| LOCATION | TEVIOT ROAD, GREENBANK |
| SHEET TITLE | EROSION AND SEDIMENT CONTROL NOTES AND DETAILS - SHEET 4 |

MIR-0904

NOTES

AUTO DOSER

- PROVIDED AS EITHER FLOC BOX OR IFOD-RAIN TO MANUFACTURES SPECIFICATION. DOSER AND SUPPLY OF FLOCCULANT TO BE PROVIDED ON LEVEL PAD 4m x 4m WITHIN
- ALL-WEATHER ACCESS TRACK TO BE PROVIDED TO DOSER.
 FLOCCULANT PROVIDED AS TURBICLEAR (ahc). IF ALTERNATIVE FLOCCULANT USED THEN THE BASIN SIZE IS TO BE INCREASED ACCORDING TO JAR SETTLEMENT TEST (REFER TO

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

BASIN CONSTRUCTION

MATERIALS

- EARTH FILL: CLEAN SOIL WITH EMERSON CLASS 2(1), 3, 4 OR 5 AND FREE OF ROOTS, WOODY VEGETATION, ROCKS AND OTHER UNSUITABLE MATERIAL. SOIL WITH EMERSION CLASS 4 AND 5 MAY NOT BE SUITABLE DEPENDING ON PARTICLE SIZE DISTRIBUTION AND DEGREE OF DISPERSION.
- CLASS 2(1) SHOULD ONLY BE USED UPON RECOMMENDATION FROM GEOTECHNICAL SPECIALIST.
- SPILLWAY ROCK: HARD, ANGULAR, DURABLE WEATHER RESISTANT AND EVENLY GRADED ROCK WITH 50% BY WEIGHT LARGER THAN THE SPECIFIED NOMINAL (d50) ROCK SIZE. LARGE ROCK SHOULD DOMINATE, WITH SUFFICIENT SMALL ROCK TO FILL THE VOIDS BETWEEN LARGER ROCK, THE DIAMETER OF THE LARGEST ROCK SHOULD BE NO LARGER THAN 1.5 TIMES THE NOMINAL ROCK SIZE. THE SPECIFIED GRAVITY SHOULD BE AT LEAST
- GEOTEXTILE FABRIC: HEAVY DUTY, NEEDLE-PUNCHED, NON-WOVEN CLOTH, MINIMUM

CONSTRUCTION

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

EMBANKMENT

- SCARIFY AREAS ON WHICH FILL IS TO BE PLACED BEFORE PLACING THE FILL
- ENSURE ALL FILL MATERIAL USED TO FORM THE EMBANKMENT MEETS THE SPECIFICATIONS CERTIFIED BY A SOIL SCIENTIST OF GEOTECHNICAL SPECIALIST.
- THE FILL MATERIAL MUST CONTAIN SUFFICIENT MOISTURE SO IT CAN BE FORMED BY HAND INTO A BALL WITHOUT CRUMBLING. IF WATER CAN BE SOUEEZED OUT OF THE BALL, IT IS TOO WET FOR PROPER COMPACTION. PLACE FILL MATERIAL IN 150mm TO 200mm CONTINUOUS LAYERS OVER THE ENTIRE LENGTH OF THE FILL AREA AND THEN COMPACT BEFORE PLACEMENT OF FURTHER FILL.
- UNLESS SPECIFIED ON THE APPROVED PLANS, COMPACT THE SOIL AT ABOUT % TO 2% WET OPTIMUM AND TO 95% MODIFIED OR 100% STANDARD COMPACTION. EMBANKMENT TO AN ELEVATION 10% HIGHER THAN THE DESIGN HEIGHT TO ALLOW FOR SETTLING.
- WHERE BOTH DISPERSIVE AND NON-DISPERSIVE CLASSIFIED EARTH-FILL MATERIALS ARE AVAILABLE, NON-DISPERSIVE FARTH-FILL MUST BE USED IN THE CORE ZONE, THE REMAINING CLASSIFIED EARTH-FILL MATERIALS MUST ONLY BE USED AS DIRECTED BY THE SITE SUPERINTENDENT. WHERE SPECIFIED, CONSTRUCT THE EMBANKMENT TO AN ELEVATION 10% HIGHER THAN
- THE DESIGN HEIGHT TO ALLOW FOR SETTLING; OTHERWISE FINISHED DIMENSION OF THE EMBANKMENT AFTER SPREADING OF TOPSOIL MUST CONFORM TO THE DRAWING WITH A TOLERANCE OF 75mm FROM SPECIFIED DIMENSIONS
- ENSURE DEBRIS AND OTHER UNSUITABLE BUILDING WASTE IS NOT PLACED WITHIN THE
- AFTER COMPLETION OF THE EMBANKMENT. ALL LOOSE UNCOMPACTED EARTH-FILLMATERIAL ON THE UPSTREAM AND DOWNSTREAM BATTER MUST BE REMOVED PRIOR TO SPREADING TOPSOIL
- TOPSOIL AND RE-VEGETATE/STABILISE ALL EXPOSED EARTH AS DIRECTED WITHIN THE APPROVED PLANS.

CUT-OFF TRENCH

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

SPILLWAY CONSTRUCTION

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

ESTABLISHING THE SETTLING POND

- THE AREA TO BE COVERED BY THE STORED WATER OUTSIDE OF THE LIMITS OF THE BORROW PITS MUST BE CLEARED RUBBISH. TREES MUST BE CUT DOWN STUMP HIGH AND REMOVED FROM THE IMMEDIATE VICINITY OF THE WORK.
- ESTABLISH ALL REQUIRED INFLOW CHUTES AND INLET BAFFLES, IF SPECIFIED, TO ENABLE WATER TO DISCHARGE INTO THE BASIN IN A MANNER THAT WILL NOT CAUSE SOIL EROSION OR THE RE-SUSPENSION OF SETTLED SEDIMENT.
 INSTALL A SEDIMENT STORAGE LEVEL MARKER POST WITH A CROSS MEMBER SET JUST BELOW
- THE TOP OF THE SEDIMENT STORAGE ZONE (AS SPECIFIED ON THE APPROVED PLANS). USE AT LEAST A 75mm WIDE POST FIRMLY SET INTO THE BASIN FLOOR.
- IF SPECIFIED, INSTALL INTERNAL SETTLING POND BAFFLES. ENSURE THE CREST OF THESE BAFFLES IS SET LEVEL WITH, OR JUST BELOW, THE ELEVATION OF THE EMERGENCY SPILLWAY
- INSTALL ALL APPROPRIATE MEASURES TO MINIMISE SAFETY RISK TO ON-SITE PERSONNEL AND THE PUBLIC CAUSED BY THE PRESENCE OF THE SETTLING POND. AVOID STEEP, SMOOTH INTERNAL SLOPES. APPROPRIATELY FENCE THE SETTLING POND AND POST WARNING SIGNS IF UNSUPERVISED PUBLIC ACCESS IS LIKELY OR THERE IS CONSIDERED TO BE AN UNACCEPTABLE

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



TERRY CLARK (CPESC No. 6089)

| FOR CONSTRUCTION | | | | | |
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| I OK CONSTRUCTION | | | | | |
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| 07/04/2022 | В | ISSUED FOR CONSTRUCTION | KK | PB | |
| 26/11/2021 | Α | ORIGINAL ISSUE | KK | PB | |
| 12/11/2021 | 1 | PRELIMINARY ISSUE | KK | PB | |
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| DESIGNED KLYNT KIWANG | | SCALE |
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| CHECKED ANDREW LANGDON | | |
| PROJECT MANAGER SIMON STEINHOFER | | |
| PROJECT DIRECTOR | Pronj | |
| PATRICK BRADY | RPEQ 7112 | ORIGINAL SHEET SIZE A1 |

EVERLEIGH PRECINCT 9.4 SUBDIVISION DEVELOPMENT TEVIOT ROAD, GREENBANK **EROSION AND SEDIMENT CONTROL NOTES AND DETAILS - SHEET 5**

MIRVAC QLD PTY LTD

MIR-0904

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.

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



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| SHEET TITLE | EROSION AND SEDIMENT CONTROL NOTES AND DETAILS - SHEET 6 | |

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