## GENERAL

- G1 ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH COUNCIL'S REQUIREMENTS, BUILDING CODE OF AUSTRALIA, NSW CODE OF PRACTICE AND THE TO THE RELEVANT SERVICE CODES.
- G2 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ALL DISCREPANCIES SHALL BE REFERRED TO THE SUPERINTENDENT FOR DECISION BEFORE PROCEEDING WITH THE WORK.
- G3 ALL DIMENSIONS SHOWN ON THE DRAWINGS ARE IN MILLIMETERS IU.N.0.), DIMENSIONS SHALL NOT BE OBTAINED BY SCALING OF THESE DRAWINGS. USE FIGURED DIMENSIONS ONLY.
- G4 BENCHMARKS HAVE BEEN ESTABLISHED WHERE INDICATED IN THE DRAWINGS. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (A.H.D.). THE CONTRACTOR SHALL UNDERTAKE ALL NECESSARY SURVEY WORK TO ENSURE THAT THE WORKS ARE CONSTRUCTED TO DESIGN LINE AND LEVEL.
- G5 SETTING OUT DIMENSIONS AND LEVELS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR.
- G6 ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT AUSTRALIAN CODES AND THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES.
- G7 IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL SAFETY FENCES. WARNING SIGNS. TRAFFIC DIVERSIONS AND THE LIKE DURING CONSTRUCTION. ALL WORKS TO COMPLY WITH WORK HEALTH AND SAFETY REQUIREMENTS AND OTHER RELEVANT AUTHORITY SAFETY REQUIREMENTS.
- G8 NO TREES SHALL BE REMOVED. CUTBACK OR RELOCATED WITHOUT THE WRITTEN INSTRUCTION FROM THE SUPERINTENDENT/COUNCIL.
- G9 WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINEO.
- G10 ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS AND THESE SPECIFICATIONS.
- G11 DESIGN LEVELS GIVEN ARE TO FINISHED SURFACE LEVEL AND INCLUSIVE OF TOPSOIL. !TOPSOIL DEPTH VARIES!
- G12 THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A N.A.T.A. **REGISTERED SURVEYOR.**
- G13 CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER TELECOMMUNICATIONS OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
- G14 THE LOCATIONS OF UNDERGROUND SERVICES SHOWN ON THE DRAWING HAVE BEEN PLOTTED FROM DIAGRAMS PROVIDED BY SER VICE AUTHORITIES. THIS INFORMATION HAS BEEN PREPARED SOLELY FOR THE AUTHORITIES OWN USE AND MAY NOT NECESSARILY BE UPDATED OR ACCURATE.
- G15 THE POSITION OF SER VICES AS RECORDED BY THE AUTHORITY AT THE TIME OF INSTALLATION MAY NOT REFLECT CHANGES IN THE PHYSICAL ENVIRONMENT SUBSEQUENT TO INSTALLATION.
- G16 HORIZON CONSULTANTS DOES NOT GUARANTEE THAT THE SER VICES INFORMATION SHOWN ON THE DRAWING SHOWS MORE THAN THE PRESENCE OR ABSENCE OF SERVICES. AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SER VICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.
- G17 IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN FROM THE UTILITY SERVICES AUTHORITIES A CURRENT COPY OF UNDERGROUND SERVICES SEARCH FOR THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF ANY WORK AND NOTIFY ANY CONFLICT WITH THE DRAWINGS IMMEDIATELY. CLEARANCE SHALL BE OBTAINED FROM THE RELEVANT REGULATORY AUTHORITY. CONTRACTOR TO KEEP COPY OF UNDERGROUND SERVICES SEARCH ON SITE AT ALL TIMES. ANY DAMAGES TO SERVICES OR SER VICES ADJUSTMENTS SHALL BE CARRIED OUT BY THE CONTRACTOR OR RELEVANT AUTHORITY AT THE CONTRACTOR'S EXPENSE.
- G18 VISIT THE SITE BEFORE SUBMITTING THE FINAL TENDER PRICE TO ASSESS "ON SITE' CONDITIONS. FAILURE TO DO SO WILL FORFEIT ANY CLAIM FOR NOT BEING AWARE OF CONDITIONS AFFECTING THE TENDER.
- G19 THE CONTRACTOR SHALL PREPARE ACCURATE WORK-AS-EXECUTEO DRAWINGS FOLLOWING THE COMPLETION OF ALL WORKS.
- G20 IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE IN PLACE & MAINTAIN TRAFFIC FACILITIES AT ALL TIMES DURING CONSTRUCTION

### RESTORATION

- RI RESTORE ALL TRAFFIC AREAS TO PRE-EXISTING CONDITIONS.
- FOR ALL SURFACES OTHER THAN IN TRAFFIC AREAS RESTORE DISTURBED SURFACES TO R2 PRE-EXISTING CONDITIONS AND COMPACT AS SPECIFIED.

### **APPROVALS**

- API THE AS-BUILT WORKS SHALL BE INSPECTED BY THE ENGINEER. MINIMUM 48 HOURS NOTICE SHALL APPLY TO ALL INSPECTIONS.
- AP2 THE DESIGN PLANS HEREIN ARE SUBJECT TO LOCAL COUNCIL APPROVAL PRIOR TO CONSTRUCTION. OBTAIN EXPRESS IN WRITING ADVICE TO PROCEED FROM PROJECT SUPERINTENDENT PRIOR TO COMMENCEMENT.
- AP3 SUBMIT WORK-AS-EXECUTEO DRAWINGS IN DWG FORMAT AND HARD COPY FORMAT UNDERTAKEN BY A REGISTERED SURVEYOR. VERIFY ALL CONSTRUCTION WORKS SHOWN HEREON.
- AP4 CERTIFY THAT THE AS-BUILT SYSTEM HAS BEEN BUILT IN ACCORDANCE WITH THE APPROVED PLANS **ISSUED FOR CONSTRUCTION.**
- AP5 ALLOW FOR SUB GRADE AND PAVEMENT THICKNESS TO BE VERIFIED BY THE GEOTECHNICAL **ENGINEER AFTER INSPECTION OF PRELIMINARY BOXING.**
- AP6 ALLOW FOR ANY SUBGRADE REPLACEMENT WORK TO BE DETERMINED AS REQUIRED BY GEOTECHNICAL ENGINEER AT THE TIME OF PAVEMENT CONSTRUCTION.

- AP3 SUBMIT WORK-AS-EXECUTEO D UNDERTAKEN BY A REGISTERED SURVE
- AP4 CERTIFY THAT THE AS-BUILT SYST **ISSUED FOR CONSTRUCTION.**
- AP5 ALLOW FOR SUB GRADE AND PAVE ENGINEER AFTER INSPECTION OF PREL
- AP6 ALLOW FOR ANY SUBGRADE REPL GEOTECHNICAL ENGINEER AT THE TIM

# KERB AND GUTTE

KGI ALL KERB AND GUTTER SHALL CHANNELS-MANUALLY OR MACHINE F KG2 CONCRETE CHARACTERISTICS SH KG3 CONTROL JOINTS SHALL BE FORM

KG4 THE CONTRACTOR SHALL LIAISE REQUIREMENTS FOR THE KERBS AND GU KG5 ALL KERB & GUTTER IS TO BE MAD

#### **MISCELLANEOUS**

SUPERINTENDENT

MI GEOTEXTILE FABRIC MATERIAL TO WITH AS3TOS-1011"GEOTEXTILES - IDE

# **KERB INLET PITS**

KI COMPRESSIVE STRENGTH (F"c) FO DAYS.

- K2 100 DIA SUBSOIL DRAINAGE PIPE ON THE UPSTREAM SIDE OF PIT. ADJAC
- K3 ALL PITS SHALL BE PROVIDED WIT
- K4 PIT GRATE SHALL BE "WELDLOCK" SKIRT FOR INDUSTRIAL ROADS. WITH **RESISTANT SWING AND BICYCLE SAFE**
- K5 DURING INSTALLATION OF GRATE LINTEL & OPENED GRATE

## **STORMWATER**

SI ALL WORK SHALL BE CARRIED OUT

- S2 FOR STORMWATER DRAINAGE PIPES T **BLOCKS SHALL BE INSTALLED. ANCHOI** AS3500.3-2003 SECTION 8.10
- S3 EXISTING SERVICES SHOWN IN APPROX PRIOR TO COMMENCING WORK.
- **S4 COORDINATE THE INSTALLATION OF NE** STRUCTURAL PROVISIONS AS DETERM
- S5 ALL PIPEWORK TO BE SUPPORTED
- S6 ALL PIPEWORK IS TO BE TESTED IN AC AS3500.3-2003. ALL IN-GROUND PIPEWO CONDITIONS PRIOR TO BACKFILLING. BA
- **S7 PIPES SHALL BE TRUE TO GRADES SHO** INTERSECTS WITH THE CENTER OF THE
- S8 BED ALL PIPES FIRMLY AND EVENLY W BE 75mm IN SOIL AND 100mm IN ROCK.
- S9 LAY AND JOINT ALL PIPES IN ACCORDA AS3725-2007, "DESIGN FOR INSTALLATIO
- SIO ALLOW TO TEST ALL PIPES AND PITS
- FOR TRENCH BACKFILL. REMAINING MATERIAL TO BE REMOVED FROM SITE.
- PAVEMENT OR THE FOOTWAY SHALL BE AS FOLLOW,-UNDER ROADWAY
- 3051 OR SIMILAR.
- OTHER THAN ROADWAY
- THE ENGINEER

| No. | DESCRIPTION  | APPROVED<br>& DATE |            |
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|     |              |                    |            |
| В   | SECOND ISSUE | HN<br>04/12/20     | Horizoneng |
| А   | FIRST ISSUE  | HN<br>03/11/20     |            |

| DRAWINGS IN DWG FORMAT AND HARD COPY FORMAT<br>RVEYOR. VERIFY ALL CONSTRUCTION WORKS SHOWN HEREON.                                                    | S13 COMPACT BEDDING. EMBEDMENT AND TRENCH FILL MATERIALS AS FOLLOW,- EMBEDMENT;<br>FOR GRANULAR FILL MATERIAL (NON-COHESIVE SOILS e.g. COARSE AGGREGATE FILL, THE DENSITY                                                             | S41 SUBSOIL DRAINAGE SHALL CONSIST OF A SLOTTED IOOmm<br>DIAMETER PLASTIC PIPE WRAPPED IN GEOTEXTILE AND PLACED A                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STEM HAS BEEN BUILT IN ACCORDANCE WITH THE APPROVED PLANS                                                                                             | INDEX (ID) SHALL BE NOT LESS THAN 70%.<br>TRENCH FILL,-                                                                                                                                                                               | MINIMUM OF 650mm BELOW THE FINISHED SURFACE LEVEL AND<br>COVERED WITH 500mm OF 20mm GRAVEL. PROVIDE A MINIMUM OF<br>I50mm GRAVEL AROUND SUBSOIL PIPE. TRENCH TO BE LINED |
| AVEMENT THICKNESS TO BE VERIFIED BY THE GEOTECHNICAL<br>RELIMINARY BOXING.                                                                            | FOR GRANULAR MATERIAL (NON COHESIVE SOILS). THE DENSITY INDEX (ID) SHALL BE NOT LESS THAN 70%.                                                                                                                                        | WITH GEOTEXTILE FABRIC TYPE BIDIM A24<br>S42 GRATES TO PITS IN FOOTPATH AREAS SHALL BE HEEL SAFE                                                                         |
| EPLACEMENT WORK TO BE DETERMINED AS REQUIRED BY<br>TIME OF PAVEMENT CONSTRUCTION.                                                                     | FOR NON-GRANULAR FILL MATERIAL (COHESIVE SOILS). THE DRY DENSITY RATIO (RD) SHALL BE NOT LESS THAN 95%.                                                                                                                               | COMPLYING WITH THE DISABLED ACCESS CODE                                                                                                                                  |
|                                                                                                                                                       |                                                                                                                                                                                                                                       | EROSION CONTROL                                                                                                                                                          |
| ER                                                                                                                                                    | SI4 EXISTING SERVICES                                                                                                                                                                                                                 | ECI BEFORE EARTHWORKS CAN COMMENCE THE EROSION &<br>SEDIMENT CONTROL MEASURES MUST BE IN PLACE.                                                                          |
| L COMPLY WITH AS2876-2000,'CONCRETE KERBS AND<br>E PLACED".                                                                                           | UTILITY INFORMATION SHOWN ON THE PLANS IS NOT INTENDED TO DEPICT MORE THAN THE PRESENCE OF                                                                                                                                            | EC2 DURING THE CONSTRUCTION PERIOD, THESE CONTROL                                                                                                                        |
| SHALL BE IN ACCORDANCE WITH THE CONCRETE NOTES.                                                                                                       | ANY SERVICES. ACTUAL LOCATIONS SHOULD BE VERIFIED BY HAND EXCAVATION PRIOR TO<br>CONSTRUCTION.                                                                                                                                        | MEASURES WILL NEED TO BE INSPECTED & MAINTAINED<br>REGULARLY. ESPECIALLY AFTER STORM EVENTS. BY THE                                                                      |
| DRMED AT A MAXIMUM SPACING OF 3m.                                                                                                                     |                                                                                                                                                                                                                                       | CONTRACTOR.                                                                                                                                                              |
| ISE WITH RELEVANT AUTHORITIES TO DETERMINE THEIR<br>GUTTERS.                                                                                          | SI5 THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION AND REMOVAL (IF REQUIRED) OF ALL EXISTING SERVICES IN AREAS AFFECTED BY THE WORKS.                                                                                     | EC3 ALL WORK IS TO BE CARRIED OUT TO PREVENT EROSION.<br>CONTAMINATION & SEDIMENTATION OF THE STORAGE SITE,<br>SURROUNDING AREAS & DRAINAGE SYSTEMS.                     |
| ACHINE LAID UNLESS OTHER WISE APPROVED BY THE                                                                                                         |                                                                                                                                                                                                                                       | EC4 MINIMIZE DISTURBED AREA COVERED WITH NATURAL                                                                                                                         |
| 5                                                                                                                                                     | SI6 THE CONTRACTOR SHALL ENSURE THAT SER VICES TO ALL BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED AT ALL TIMES. THE CONTRACTOR SHALL CONSTRUCT                                                                              | VEGETATION. ONLY THOSE AREAS DIRECTLY REQUIRED FOR<br>CONSTRUCTION ARE TO BE DISTURBED.                                                                                  |
| TO BE BIDIM A14 OR APPROVED EQUIVALENT AND SHALL COMPLY IDENTIFICATION, MARKING AND GENERAL DATA'.                                                    | TEMPORARY Y SER VICES TO MAINTAIN EXISTING SUPPLY TO BUILDINGS REMAINING WHERE<br>REQUIRED. ONCE THE WORKS ARE COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL                                                                         | EC5 INSTALL EROSION/SEDIMENT CONTROL MEASURES PRIOR TO<br>COMMENCEMENT OF CONSTRUCTION OR EXCAVA!ION<br>OPERATIONS.                                                      |
|                                                                                                                                                       | REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD ALL DISTURBED AREAS.                                                                                                                                                                 | EC6 PROVIDE SILT FENCE/STRAW BAIL BARRIERS TO THE LOW SIDE                                                                                                               |
| FOR CAST IN SITU CONCRETE SHALL BE A MINIMUM 15MPa AT 18                                                                                              | S17 DRAINAGE PIPES                                                                                                                                                                                                                    | OF ALL EXPOSED EARTH EXCAVATIONS. TIE SEDIMENT FENCING<br>MATERIAL TO CYCLONE WIRE SECURITY FENCE. SEDIMENT                                                              |
|                                                                                                                                                       | EXISTING PIPES WHICH FORM NO PART OF THE DRAINAGE SYSTEM SHALL BE REMOVED OR SEALED AS                                                                                                                                                | CONTROL FABRIC SHALL BE AN APPROVED MATERIAL (EG. HUMES                                                                                                                  |
| IPE 3000mm LONG WRAPPED IN FABRIC SOCK SHALL BE PROVIDED<br>JACENT TO INLET PIPES.                                                                    | INDICATED ON THE PLANS. PIPES UP TO 300mm DIAMETER SHALL BE SEWER GRADE uPVC WITH SOLVENT                                                                                                                                             | PROPEX SILT STOP) STANDING 300mm ABOVE GROUND &<br>EXTENDING 150mm BELOW GROUND.                                                                                         |
| WITH A LOCKING CLIP.<br>CK" GULLY GRATE GGTB-SS OR EQUAL (APPROVED BY COUNCIL) WITH                                                                   | WELDED JOINTS (U.N.0.). ALL PIPE JUNCTIONS AND TAPERS SHALL BE VIA PURPOSE MADE FITTINGS.                                                                                                                                             | EC7 ISOLATE EXISTING STORMWATER PITS WITH STRAW BALES OR<br>SILT TRAPS TO FILTER ALL INCOMING FLOWS.                                                                     |
| TH 41xS EDGE BARS. GRATE TO BE CAST IRON HEAVY DUTY. THEFT<br>AFE                                                                                     | SI8 WHERE DOWNPIPES PASS UNDER FLOOR SLABS, SEWER GRADE uPVC WITH RUBBER RING JOINTS ARE                                                                                                                                              | EC8 DO NOT STOCKPILE EXCAVATED MATERIAL ON THE ROAD WAY.                                                                                                                 |
| TE & FRAME. CONTRACTOR SHALL ENSURE CLEARANCE BETWEEN                                                                                                 | TO BE USED.                                                                                                                                                                                                                           | EC9 DIVERT CLEAN WATER FROM UNDISTURBED AREAS AROUND THE<br>WORKING AREAS.                                                                                               |
|                                                                                                                                                       | SI9 MINIMUM GRADE TO DRAINAGE PIPES TO BE 1% (U.N.0.), MIN. SIZE IOOmm DIAMETER (U.N.0.).                                                                                                                                             | ECIO CONSTRUCTION ENTRY/EXIT SHALL BE VIA THE LOCATION                                                                                                                   |
|                                                                                                                                                       |                                                                                                                                                                                                                                       | NOTED ON THE DRAWING. CONTRACTOR SHALL ENSURE ALL<br>DROPPABLE SOIL & SEDIMENT IS REMOVED PRIOR TO                                                                       |
| UT IN ACCORDANCE AS3500.3-2003 'STORMWATER DRAINAGE'.                                                                                                 | S20 PIPES LARGER THAN OR EQUAL TO 300mm DIAMETER TO BE REINFORCED CONCRETE RUBBER RING<br>JOINTED TYPE (CLASS 2) MANUFACTURED TO AS4058 (U.N.O.).                                                                                     | CONSTRUCTION TRAFFIC EXITING SITE. CONTRACTOR SHALL ENSURE<br>ALL CONSTRUCTION TRAFFIC ENTERING AND LEAVING THE SITE DO<br>SO IN A FORWARD DIRECTION.                    |
| S THAT EXCEED 1:5 GRADE. REINFORCED CONCRETE ANCHOR                                                                                                   |                                                                                                                                                                                                                                       | EC11 TREAT THE STORMWATER RUNOFF WITH SUSPENDED SOLIDS                                                                                                                   |
| HOR BLOCKS TO BE CONSTRUCTED TO SPECIFICATIONS SET OUT IN                                                                                             | S21 PIPE INSTALLATION UNDER TRAFFICABLE AREAS SHALL BE IN ACCORDANCE WITH CONCRETE PIPE<br>ASSOCIATION OF AUSTRALIA PUBLICATION "CONCRETE PIPE SELECTION & INSTALLATION" TYPE HS3<br>SUPPORT.                                         | SO THE DISCHARGE WATER QUALITY TO COUNCIL STORMWATER<br>DRAINAGE SYSTEM HAS A MAXIMUM CONCENTRATION OF<br>SUSPENDED SOLIDS THAT DOES NOT EXCEED 50 MILLIGRAMS PER        |
|                                                                                                                                                       | S22 EQUIVALENT STRENGTH FRC PIPES MAY BE USED SUBJECT TO AUTHORITY APPROVAL.                                                                                                                                                          | LITTER IN ACCORDANCE WITH THE PROTECTION OF THE<br>ENVIRONMENT OPERATION ACT (POED 1997) AND SHALL BE                                                                    |
| ROXIMATE LOCATIONS ONLY. CONFIRM EXACT LOCATIONS ON SITE                                                                                              | S23 MINIMUM PIPE COVER TO BE 600mm UNDER TRAFFICABLE AREAS AND 300mm ELSEWHERE (U.N.0.).                                                                                                                                              | APPROVED BY LOCAL COUNCIL                                                                                                                                                |
|                                                                                                                                                       | S24 CONTRACTOR TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE                                                                                                                                                 | EC12 ADOPT TEMPORARY MEASURES AS MAY BE NECESSARY FOR                                                                                                                    |
| F NEW SERVICES WITH ALL NEW & EXISTING SER VICES &<br>RMINED ON SITE.                                                                                 | ADAPTORS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORKS.                                                                                                                                                                    | EROSION AND SEDIMENT CONTROL, INCLUDING BUT NOT LIMITED<br>TO THE FOLLOWING;-<br>- DRAINS: TEMPORARY DRAINS AND CATCH DRAINS                                             |
|                                                                                                                                                       | S25 STORMWATER DRAINAGE CONNECTIONS TO COUNCIL'S SYSTEM SHALL BE TO THE                                                                                                                                                               | - SPREADER BANKS OR OTHER STRUCTURES: TO DISPERSE                                                                                                                        |
| D IN ACCORDANCE WITH AS3500.3-2003.                                                                                                                   | REQUIREMENTS AND THE SATISFACTION OF LOCAL COUNCIL.                                                                                                                                                                                   | CONCENTRATED RUNOFF - SILT TRAPS: CONSTRUCTION AND MAINTENANCE OF SILT                                                                                                   |
| ACCORDANCE WITH THE REQUIREMENTS AS SET DOWN IN<br>WORK TO BE INSPECTED BY THE SUPERINTENDENT UNDER TEST<br>BACKFILLING AND BEADING TO AS3500.I-2003. | S30 BENCHING TO BE HALF OUTGOING PIPE DEPTH. CONCRETE FOR<br>BENCHING TO BE 20MPa MASS CONCRETE.                                                                                                                                      | TRAPS TO PREVENT DISCHARGE OF SCOURED MATERIAL TO DOWNSTREAM AREAS.                                                                                                      |
| SHOWN AND ALIGNED SO THAT THE CENTER OF THE INLET PIPE<br>IE OUTLET PIPE AT THE DOWNSTREAM FACE OF THE PIT.                                           | S31 APPROVED PRECAST PITS MAY BE USED.                                                                                                                                                                                                | EC13 AFTER RAIN, INSPECT, CLEAN AND REPAIR IF REQUIRED TEMPORARY EROSION<br>AND SEDIMENT CONTROL MEASURES.                                                               |
| Y WITH IMPORTED FILL ONLY. THICKNESS OF BEDDING LAYER SHALL<br>K.                                                                                     | S32 100mm DIAMETER HOLE FOR SUBSOIL DRAINAGE OUTLET TO BE<br>LOCATED 100mm ABOVE INVERT OF ALL INLET PIPES. SUBSOIL<br>DRAINAGE TO EXTEND FOR A DISTANCE OF 3m UPSTREAM OF PIT<br>(AT EACH INLET TRENCH) WITH THE UPSTREAM END SEALED | EC14 REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES WHEN THEY<br>ARE NO LONGER REQUIRED.                                                                         |
| RDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND                                                                                                    | (AT EACH INLET TRENCH) WITH THE UPSTREAM END SEALED.                                                                                                                                                                                  | EC15 COMPLY WITH THE REQUIREMENTS OF LANDCOM'S MANAGEMENT<br>URBAN STORMWATER                                                                                            |
| TION OF BURIED CONCRETE PIPES".                                                                                                                       | S33 ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE MADE<br>IN TRADESMAN-LIKE MANNER AND THE INTERNAL WALL OF THE                                                                                                                  | - SOIL AND CONSTRUCTION ' THE BLUE BOOK' LATEST EDITION                                                                                                                  |
|                                                                                                                                                       | PIT AT THE POINT OF ENTRY SHALL BE CEMENT RENDERED TO<br>ENSURE A SMOOTH FINISH.                                                                                                                                                      | EC16 THE EROSION AND SEDIMENT CONTROL PLAN PROVIDES IS ONLY INDICATIVE. THE                                                                                              |
| TS TO LOCAL AUTHORITY'S REQUIREMENTS.                                                                                                                 | S34 PIT GRATE. FRAMES AND SOLID COVERS SHALL BE CLASS B IN                                                                                                                                                                            | CONTRACTOR SHOULD PREPARE A DETAILED ESCP SUITABLE FOR THE<br>SPECIFIC SITE CONDITIONS                                                                                   |

S11 EXCAVATE TRENCHES AND STOCKPILE ALL MATERIAL FOR INSPECTION WITH REGARD TO REUSE

S12 BACKFILL PIPES WITH IMPORTED FILL. PROVIDE 200mm SIDE SUPPORT AND 150mm OVERLAY ABOVE PIPE CROWN. TRENCH FILL ABOVE THE EMBEDMENT ZONE TO THE UNDERSIDE OF THE ROAD

TRENCH FILL MATERIAL SHALL CONSIST OF IMPORTED FILL AS SPECIFIED HEREIN OF EITHER HIGH GRADE COMPACTION SAND OR APPROVED CRUSHED ROAD GRAVEL CONFORMING TO RMS QA SPECIFICATION

TRENCH MATERIAL EXCAVATED SHALL CONSIST OF SELECT FILL AS SPECIFIED HEREIN AND SHALL NOT CONTAIN MORE THAN 10% OF STONES OF SIZE BETWEEN 25mm AND 75mm AND NONE LARGER THAN 75mm. PRIOR TO USE OF THE EXCAVATED MATERIAL IT SHALL BE INSPECTED AND APPROVED BY

HORIZON

ENGINEERS

S34 PIT GRATE. FRAMES AND SOLID COVERS SHALL BE CLASS B IN NON TRAFFIC AREAS AND CLASS D IN TRAFFICABLE AREAS IN ACCORDANCE WITH AS3996.

S35 ALL GRATES SHALL BE PROVIDED WITH A LOCKING CLIP. S36 MAXIMUM FRONT ENTRY PIPE,-

STRAIGHT ENTRY - 750 DIAMETER

SKEW ENTRY 45 DEGREES ' - 525 DIAMETER

S37 PIT GRATING TO BE GALVANISED STEEL TYPE "WELDLOK" OR APPROVED EQUIVALENT.

S38 SUBSOIL DRAINAGE

SUBSOIL PIPES SHALL BE LAID AT A MIN GRADE OF 0.5% (U.N.0.).

S39 ADDITIONAL SUBSOIL DRAINAGE SHALL BE LAID TO SUIT SITE CONDITIONS AND GROUNDWATER PRESENCE AS DIRECTED.

S40 SUBSOIL PIPES SHALL BE LAID BEHIND KERBS IN CUT AREAS OF THE SITE.

#### P 9635 9890

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PROJECT STATUS CHECKED DESIGNED DATE OF ISSUE

ineers.com.au

| DRAWING SCHEDULE  |                    |  |  |  |  |
|-------------------|--------------------|--|--|--|--|
| 1 GENERAL NOTES   |                    |  |  |  |  |
| 2 STORMWATER PLAN |                    |  |  |  |  |
| 3                 | STORMWATER DETAILS |  |  |  |  |
| 4                 | RWT/OSD DETAILS    |  |  |  |  |

SPECIFIC SITE CONDITIONS

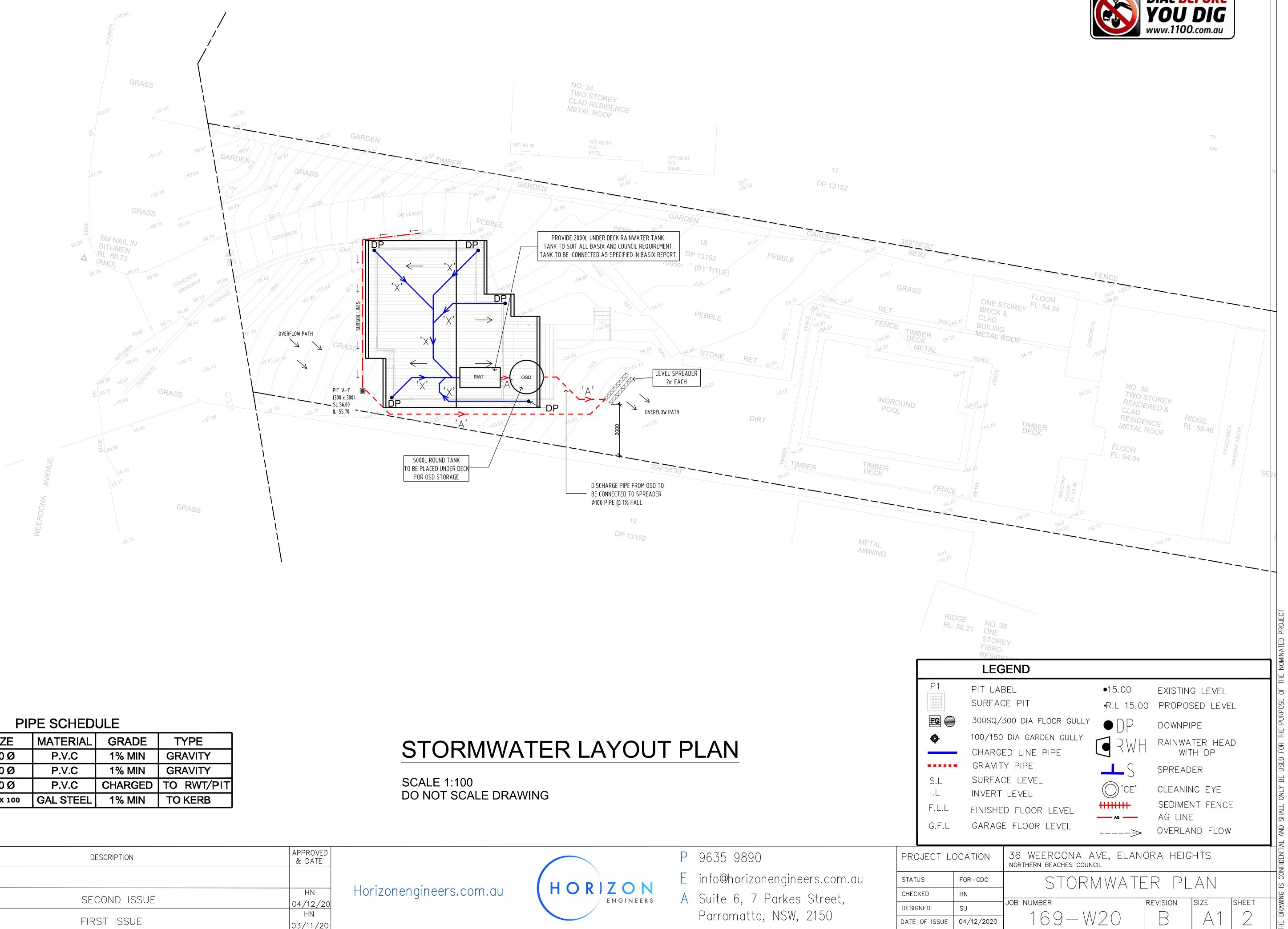
| _( | DCATION    | 36 WEEROONA AVE, ELANORA HEIGHTS NORTHERN BEACHES COUNCIL |                     |  |  |  |
|----|------------|-----------------------------------------------------------|---------------------|--|--|--|
|    | FOR-CDC    | GENERAL                                                   | NOTES               |  |  |  |
|    | HN         |                                                           |                     |  |  |  |
|    | SU         | JOB NUMBER                                                | REVISION SIZE SHEET |  |  |  |
|    | 04/12/2020 | 169 - W20                                                 |                     |  |  |  |

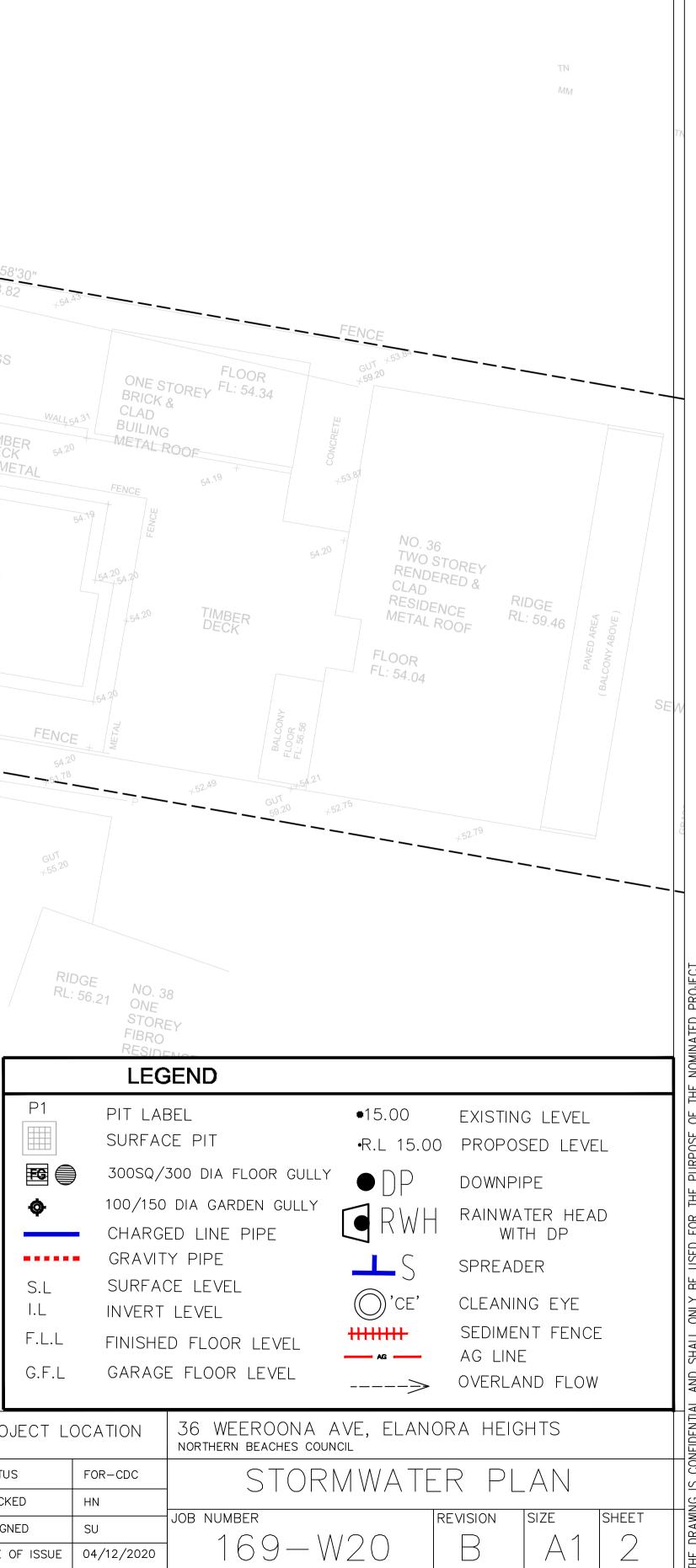
| No. | DESCRIPTION  | APPROVED<br>& DATE |            |
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|     |              |                    | 11         |
| В   | SECOND ISSUE | HN<br>04/12/20     | Horizoneng |
| A   | FIRST ISSUE  | HN<br>03/11/20     |            |

| PIPE SCHEDULE |           |           |         |            |  |  |  |
|---------------|-----------|-----------|---------|------------|--|--|--|
| TAG           | TYPE      |           |         |            |  |  |  |
| 'A'           | 100 Ø     | P.V.C     | 1% MIN  | GRAVITY    |  |  |  |
| 'B'           | 150 Ø     | P.V.C     | 1% MIN  | GRAVITY    |  |  |  |
| 'X'           | 100 Ø     | P.V.C     | CHARGED | TO RWT/PIT |  |  |  |
| 'D'           | 200 X 100 | GAL STEEL | 1% MIN  | TO KERB    |  |  |  |

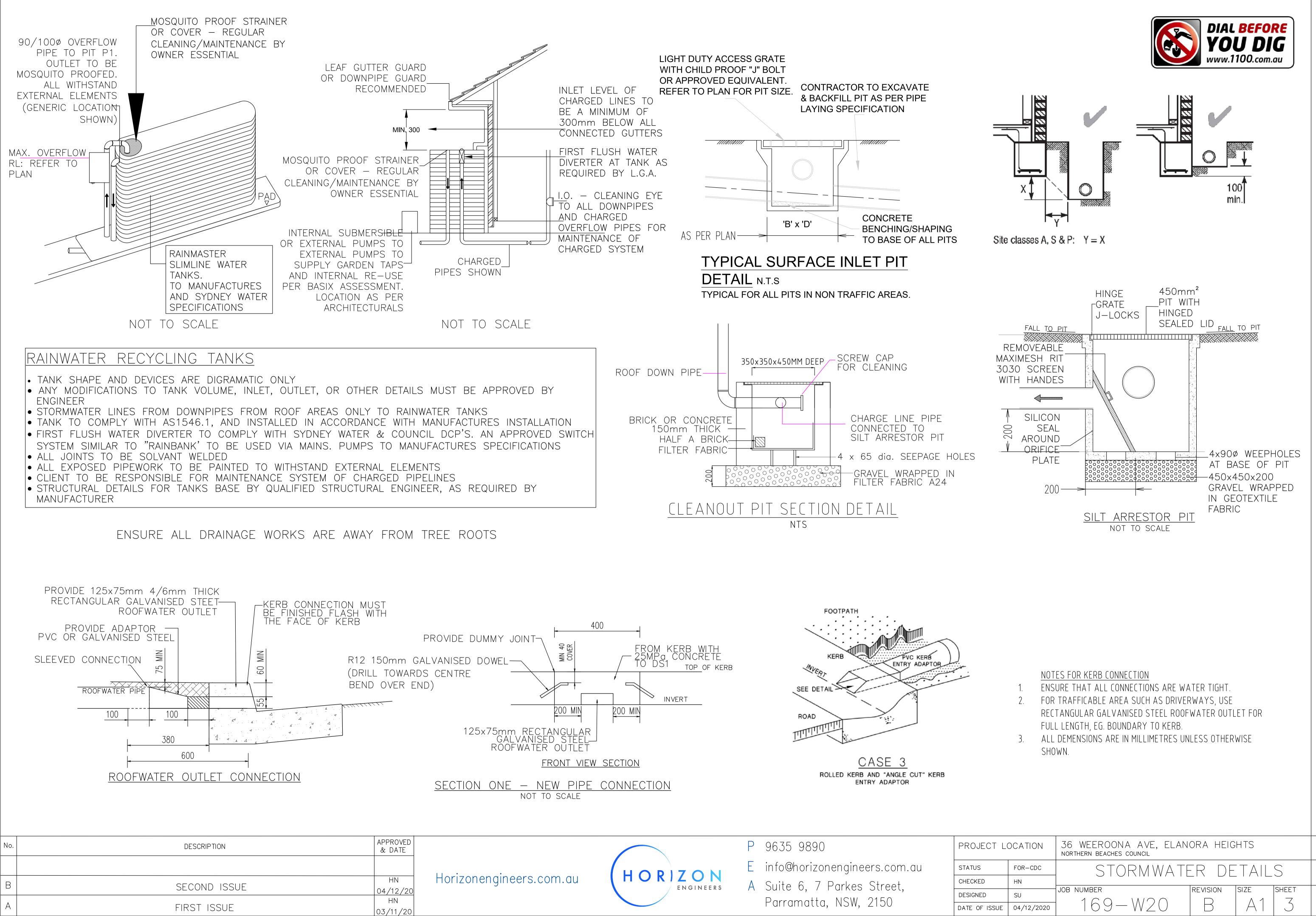
| PIPE SCHEDULE |       |          |         |            |  |  |
|---------------|-------|----------|---------|------------|--|--|
| AG            | SIZE  | MATERIAL | GRADE   | TYPE       |  |  |
| 'A'           | 100 Ø | P.V.C    | 1% MIN  | GRAVITY    |  |  |
| 'B'           | 150 Ø | P.V.C    | 1% MIN  | GRAVITY    |  |  |
| 'X'           | 100 Ø | P.V.C    | CHARGED | TO RWT/PIT |  |  |



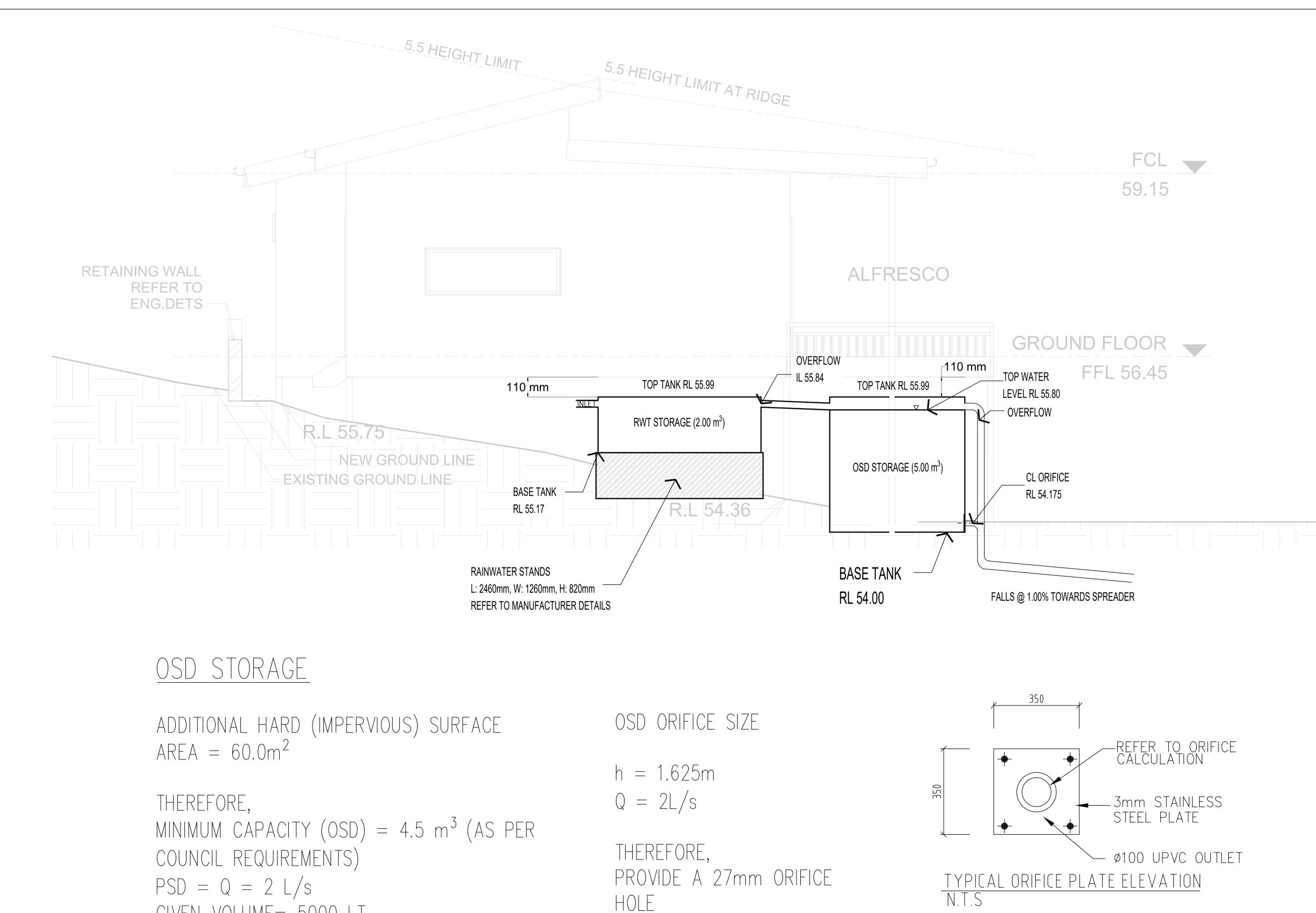








USED FOF



GIVEN VOLUME= 5000 LTTHEREFORE, VOLUME IS SATISFACTORY.

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|      |                      |                                |               |            |                                                   |            |      |       | AND               |
|------|----------------------|--------------------------------|---------------|------------|---------------------------------------------------|------------|------|-------|-------------------|
|      |                      | P 9635 9890                    | PROJECT L     | OCATION    | 36 WEEROONA AVE, ELAN<br>Northern beaches council | IORA HEIGI | HTS  |       | <b>VFIDENTIAL</b> |
|      |                      | E info@horizonengineers.com.au | STATUS        | FOR-CDC    | RWT/OSD [                                         | ) F T A II | S    |       | S COL             |
| m.au | HORJZON<br>ENGINEERS | A Suite 6, 7 Parkes Street,    | CHECKED       | HN         | /                                                 |            |      |       |                   |
|      |                      | Parramatta, NSW, 2150          | DESIGNED      | SU         |                                                   |            | SIZE | SHEET | DRAW              |
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