1.0 GENERAL

- 1. TECHNICAL SPECIFICATIONS OR SPECIFIC INSTRUCTIONS ON DRAWINGS TAKE PRECEDENCE OVER THESE NOTES.
- 2. DO NOT DEPART FROM THE DESIGN UNLESS AUTHORISED IN WRITING BY THE DESIGN ENGINEER
- 3. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH ANY OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK, CONSTRUCTION FROM THESE DRAWINGS. AND THEIR ASSOCIATED CONSULTANTS' DRAWINGS IS NOT TO COMMENCE UNTIL APPROVED BY THE RELEVANT AUTHORITIES.
- 4. REFER TO ALL NOTES ON THESE DRAWINGS AND PREVIOUSLY MENTIONED DOCUMENTATION BEFORE BEGINNING CIVIL WORKS.
- 5. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT SPECIFIED STANDARDS AND WITH THE BY-LAWS AND ORDINANCES OF THE RELEVANT APPROVAL AUTHORITIES EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATION AND/OR DRAWINGS.
- 6. THE RELEVANT AUTHORITIES OCCUPATIONAL HEALTH AND SAFETY PRACTICES MUST BE COMPLIED
- ALL DIMENSIONS AND LEVELS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR ON SITE, CIVIL DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS, REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND SETOUT. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- 8. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE IN METRES (m) AND ALL LEVELS ARE IN METRES (m) TO AUSTRALIAN HEIGHT DATUM (AHD).
- 9. IF THERE IS DOUBT REGARDING THE CIVIL DESIGN, CONTACT THE ENGINEER FOR CLARIFICATION.
- 10. ALL ABBREVIATIONS ARE AS FOLLOWS:
- EXISTING GROUND LEVEL FINISHED FLOOR LEVEL REDUCED LEVEL EASTING COORDINATE NORTHING COORDINATE AUSTRALIAN HEIGHT DATUM AHDU.N.O.
- UNLESS NOTED OTHERWISE UNPLASTICISED POLYVINYL CHLORIDE uPVC RRJ2 REINFORCED CONCRETE PIPE WITH CLASS VITRIFIED CLAY PIPE
- VCP FRC FIBRE REINFORCED COMPOSITE FSL FINISHED SURFACE LEVEL
- K&G KERB AND GUTTER ΚO KERB ONLY
- NFK NOMINAL FACE OF KERB
- FLUSH KERB TOK TOP OF KERB
- BACK OF KERB DISH DRAIN
- MK MOUNTABLE KERB MIK MOUNTABLE INTEGRAL KERB
- INTEGRAL KERB INVERT LEVEL
- OBVERT LEVEL GRATED DRAIN
- TWL TOP WATER LEVEL GALV. GALVANISED
- THICKENED EDGE FLUSHING POINT
- DOWN PIPE RETAINING WALL
- ISOLATION JOINT
- DOWELLED EXPANSION JOINT SAWN JOINT
- ΚJ KEYED JOINT
- TROWELED WEAKENED PLANE JOINT
- EXPANSION JOINT
- ΤW TOP OF WALL LEVEL BOTTOM OF WALL LEVEL BW
- VEHICLE CROSSING

2.0 SURVEY NOTES

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN DERIVED FROM SURVEY INFORMATION SUPPLIED FROM:

DENNY LINKER & CO SURRY HILLS NSW 2010 9212 4655

THE FOLLOWING SURVEY INFORMATION HAS BEEN TAKEN DIRECTLY FROM ORIGINAL SURVEY

DOCUMENTS. DATE 08.07.14 DATUM AHD REFERENCE 140632

- THE ABOVE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. BG&E PTY LTD DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.
- SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT BG&E PTY LIMITED.
- THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
- BENCH MARK, SURVEY PEGS, LEVEL PEGS OR SUPPLEMENTARY REFERENCE MARKS SHALL NOT BE ADJUSTED OR MOVED WITHOUT WRITTEN APPROVAL FROM THE SUPERINTENDENT. THE CONTRACTOR SHALL TRANSFER ANY PEGS AFFECTED BY THE PROPOSED WORKS TO SIDE POSITIONS CLEAR OF OPERATIONS AND SHALL NOTE THE EXTENT OF THE MOVEMENT IN DISTANCE

3.0 EXISTING SERVICES AND FEATURES

- 1. THE CONTRACTOR MUST CONFIRM THE EXACT LOCATION AND EXTENT OF EXISTING SERVICES PRIOR TO CONSTRUCTION AND NOTIFY ANY CONFLICT WITH THE DRAWINGS IMMEDIATELY TO THE
- 2. EXISTING SERVICES UNLESS SHOWN ON SURVEY PLAN HAVE BEEN PLOTTED FROM SERVICES SEARCH PLANS AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED.
- 3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE A 'DIAL BEFORE YOU DIG' SEARCH AND TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY. SEARCH RESULTS ARE TO BE KEPT ON SITE AT ALL TIMES.
- 4. THE CONTRACTOR HAS A DUTY OF CARE WHEN EXCAVATING NEAR SERVICES. DO NOT ASSUME DEPTHS OR ALIGNMENTS OF CABLES OR PLANT AS THESE MAY VARY SIGNIFICANTLY. THE CONTRACTOR MUST ACCEPT ALL RESPONSIBILITY TO DAMAGES TO EXISTING SERVICES AS SERVICE AUTHORITIES MAY SEEK COMPENSATION FOR DAMAGES CAUSED TO THEIR PROPERTY AND SUBSEQUENT LOSSES CAUSED.
- 5. THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION AND REMOVAL OR RELOCATION 5. (IF REQUIRED) TO RELEVANT AUTHORITIES GUIDELINES OF ALL EXISTING SERVICES IN AREAS AFFECTED BY WORKS WITHIN THE CONTRACT AREA OR AS SHOWN ON THE DRAWINGS UNLESS DIRECTED OTHERWISE BY THE ENGINEER/SUPERINTENDENT.
- 6. INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE TO SURROUNDING ALLOTMENTS. CONTRACTOR TO GAIN APPROVAL FROM THE RELEVANT AUTHORITIES FOR TIME OF INTERRUPTION.
- 7. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN SUPPLY TO EXISTING BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF ANY RELEVANT AUTHORITIES. ONCE DIVERSION IS COMPLETE AND COMMISSIONED, THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE RELEVANT AUTHORITY/SUPERINTENDENT.
- 8. EXISTING SERVICES, BUILDINGS, EXTERNAL STRUCTURES AND TREES SHOWN ON THESE DRAWINGS ARE EXISTING FEATURES PRIOR TO ANY DEMOLITION WORKS.
- 9. ALL BRANCH GAS AND WATER SERVICES UNDER DRIVEWAYS, BRICK PAVING AND CONSTRUCTION TRAFFIC MANOEUVRING AREAS SHALL BE PROTECTED TO RELEVANT AUTHORITIES GUIDELINES.
- 10. ALL EXISTING SERVICE UTILITIES COVERS AND GRATES ARE TO BE ADJUSTED (TO RELEVANT AUTHORITY GUIDELINES) TO SUIT NEW FINISHED SURFACE LEVELS WHERE APPLICABLE.
- 11. IF EXISTING SERVICE UTILITY COVERS AND GRATES OR SURROUNDING SURFACE LEVELS ARE TO BE LOWERED, THE CONTRACTOR IS TO MAKE CERTAIN THAT MINIMUM COVERS (TO RELEVANT SERVICE AUTHORITY GUIDELINES) TO SERVICES ARE MAINTAINED. IF MINIMUM COVERS AREN'T MAINTAINED THE CONTRACTOR IS TO LOWER OR PROTECT SERVICES TO THE SATISFACTION OF THE RELEVANT SERVICE 3 AUTHORITY/SUPERINTENDENT.

4.0 STORMWATER DRAINAGE NOTES

- 1. THE STORMWATER DESIGN SHOWN ON THESE DRAWINGS HAS BEEN CARRIED OUT IN ACCORDANCE WITH SOPA REQUIREMENTS, AUSTRALIAN RAINFALL AND RUNOFF (AR&R) GUIDELINES AND RELEVANT AUTHORITIES GUIDELINES.
- 2. ALL STORMWATER WORK IS TO COMPLY WITH AS3500 PART 3.
- 3. PROTECTION OF PIPES EXPOSED TO LOADS EXCEEDING THE W7 WHEEL LOAD OF 70kN SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- 4. NO CONSTRUCTION LOADS SHALL BE APPLIED TO uPVC PIPES.
- EXISTING STORMWATER PIPE LOCATIONS AND INVERT LEVELS TO BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 6. GALVANIZED STEP IRONS SHALL BE PROVIDED AT 300 CTRS FOR PITS HAVING A DEPTH EXCEEDING 1200mm.
- 7. PIPES 300 DIA. AND LARGER TO BE REINFORCED CONCRETE PIPES (RCP) CLASS '2' APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS U.N.O.
- 8. PIPES UP TO 300 DIA. SHALL BE SEWER GRADE uPVC WITH SOLVENT WELDED JOINTS.
- 9. EQUIVALENT STRENGTH VCP OR FRC PIPES MAY BE USED IF RELEVANT APPROVAL AUTHORITY AND SUPERINTENDENT PERMITS.
- 10. BEDDING TYPE SHALL BE TYPE H2 FOR RCP. AND TYPE HS2 FOR uPVC. WHERE NECESSARY THE OVERLAY ZONE SHALL BE REDUCED TO ACCOMMODATE PAVEMENT REQUIREMENTS.
- 11. PIPES SHALL BE LAID ON A 75mm THICK SAND BED. IN ALL CASES BACKFILL TRENCH WITH SAND TO 200mm ABOVE THE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1 (OR A DENSITY INDEX OF NOT LESS THAN 75).
- 12. WHERE TRENCHES ARE IN ROCK THE PIPE SHALL BE BEDDED ON A MINIMUM OF 50mm CONCRETE BED (OR 75mm BED OF 12mm BLUE METAL) UNDER THE BARREL OF THE PIPE.
- 13. ENLARGERS, CONNECTORS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.

14. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE

- REDUCED WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER. 15. GRATES AND COVERS SHALL CONFORM TO AS3996 AND AS1428.1 AT ALL TIMES DURING CONSTRUCTION OF THE STORMWATER PITS.
- 16. ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT AND ENGINEER FOR FURTHER DIRECTIONS.

5.0 KERBING NOTES

INCLUDES ALL KERBS, GUTTERS, DISH DRAINS, CROSSINGS AND EDGES.

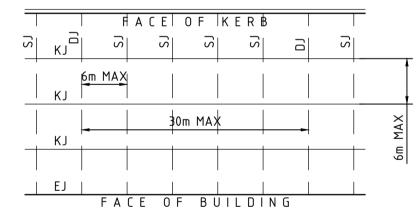
- ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON MINIMUM 75mm GRANULAR BASE COURSE MATERIAL COMPACTED TO A MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 6.2.1.
- EXPANSION JOINTS (EJ) TO BE FORMED FROM 10MM COMPRESSIBLE CORK FILLER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PITS, ON TANGENT POINTS OF CURVES AND ELSEWHERE AT 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN SLABS.
- WEAKENED PLANE JOINTS (WPJ) ARE TO BE LOCATED AT A MAX 1.5 x WIDTH OF THE PAVEMENT, WEAKENED PLANE JOINTS (WPJ) ARE TO BE A MINIMUM 3mm WIDE WITH A JOINT DEPTH TO BE A MINIMUM OF 1/4 THE TOTAL DEPTH OF THE
- 4. ALL KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED.
- WHEN CONSTRUCTING NEW KERB TO EXISTING AND IN THE REPLACEMENT OF KERBS, EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm FROM LIP OF GUTTER. UPON COMPLETION OF NEW KERBS, NEW BASE COURSE AND SURFACE IS TO BE LAID 900mm WIDE TO MATCH EXISTING MATERIALS AND THICKNESS.
- EXISTING ALLOTMENT DRAINAGE PIPES ARE TO BE BUILT INTO THE NEW KERB WITH A 125 x 75 GALVANISED RHS.
- 7. EXISTING KERBS ARE TO BE COMPLETELY REMOVED WHERE NEW KERBS ARE SHOWN.
- ALL KERBING TO BE IN ACCORDANCE SOPA REQUIREMENTS.

6.0 PEDESTRIAN FOOTPATH JOINTING

- EXPANSION JOINTS (EJ) ARE TO BE LOCATED WHERE POSSIBLE AT TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX 7.0M CENTRES.
- WEAKENED PLANE JOINTS (WPJ) ARE TO BE LOCATED AT A MAX 1.5 x WIDTH OF THE PAVEMENT. WEAKENED PLANE JOINTS (WPJ) ARE TO BE A MINIMUM 3mm WIDE WITH A JOINT DEPTH TO BE A MINIMUM OF 1/4 THE TOTAL DEPTH OF THE SECTION.
- WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBING AND / OR ADJACENT PAVEMENT JOINTS.
- ALL PEDESTRIAN FOOTPATH JOINTING IN ACCORDANCE WITH SOPA REQUIREMENTS.

7.0 VEHICULAR PAVEMENT JOINTING

- KEYED CONSTRUCTION JOINTS (KJ) SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 6M CENTRES.
- SAWN JOINTS (SJ) SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 6M CENTRES OR 1.5 x THE SPACING OF KEYED JOINTS (KJ), WHERE KEY JOINT SPACING IS LESS THAN 4m, PROVIDE DOWELED EXPANSION JOINTS (DEJ) AT MAXIMUM OF 30m CENTRES.
- 3. PROVIDE 10mm WIDE EXPANSION JOINTS (EJ) BETWEEN STRUCTURES AND ALL CONCRETE OR UNIT PAVER INTERFACES.
- 4. VEHICULAR PAVEMENT JOINTING AS FOLLOWS.



8.0 ASPHALT SURFACING NOTES

- 1. ASPHALT (HOT MIXED) TO AS2150. BITUMEN EMULSION: TO AS1160
- BEFORE SURFACING ENSURE THAT THE BASE COURSE SURFACE IS FIRM, FREE OF SURFACE WATER, OILS, GREASE, RETARDERS, LOOSE MATERIAL AND DUST. APPLY TACK COAT IMMEDIATELY BEFORE PLACING ASPHALT
- TACK COAT: BITUMINOUS EMULSION SPRAY TO THE RECOMMENDATION OF AS2150.
- ASPHALT: MIXING LAYING AND COMPACTION TO THE RECOMMENDATION OF AS2150.
- AC10 10MM NOMINAL MAXIMUM AGGREGATE SIZE
- AC7 7MM NOMINAL MAXIMUM AGGREGATE SIZE AC5 – 5MM NOMINAL MAXIMUM AGGREGATE SIZE
- BITUMEN BINDER CLASS: 170.
- 8. SURFACE FINISH: DENSE, SMOOTH, FREE OF ROLLER MARKS AND LOOSE MATERIAL
- COMPACTION:
- WHILST THE MIX TEMPERATURE IS ABOVE 140°C. SITE DENSITY (MINIMUM): 95% OF THE 50 BELOW MARSHALL DENSITY OF THE LABORATORY COMPACTED MIX.
- THE NUMBER OF JOINTS, BOTH LONGITUDINAL AND TRANSVERSE, SHALL BE KEPT
- TO A MINIMUM.
- THE DENSITY AND SURFACE FINISH AT JOINTS SHALL BE SIMILAR TO THOSE OF THE REMAINDER OF THE LAYER.
- FORM JOINTS AND STAGGER 300MM MINIMUM IN SUCCESSIVE LAYERS.
- 11. FINISHED PAVEMENT PROPERTIES: FINISHED SURFACES SHALL BE SMOOTH. DENSE AND TRUE TO SHAPE AND SHALL NOT VARY MORE THAN 10MM FROM SPECIFIED PLAN LEVEL AT ANY POINT AND SHALL NOT DEVIATE FROM THE BOTTOM OF A 3M STRAIGHT EDGE LAID IN ANY DIRECTION BY MORE THAN 5MM.

9.0 SEDIMENT AND EROSION CONTROL

- ALL SEDIMENT CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH RELEVANT AUTHORITY GUIDELINES AND ANY DETAILS SHOWN ON THESE DRAWINGS.
- ALL PERIMETER AND SILTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN EARTHWORKS AND/OR CLEARING.
- THE SEDIMENT AND EROSION CONTROL PLAN MAY REQUIRE FUTURE ADJUSTMENT TO REFLECT CONSTRUCTION STAGING. IT IS THE CONTRACTORS RESPONSIBILITY TO PREPARE THEIR OWN SEDIMENT AND EROSION CONTROL PLAN WHICH SUITS THE DESIGNED CONSTRUCTION STAGING.
- FILTRATION BUFFER ZONES ARE TO BE FENCED OFF AND ACCESS PROHIBITED TO ALL PLANT AND MACHINERY.
- ALL SEDIMENT TRAPPING STRUCTURES AND DEVICES ARE TO BE INSPECTED AFTER STORMS FOR STRUCTURAL DAMAGE OR CLOGGING. DAMAGED SEDIMENT TRAPPING STRUCTURES ARE TO BE REPAIRED AND ANY TRAPPED MATERIAL IS TO BE REMOVED TO A SAFE LOCATION.
- ALL TOPSOIL IS TO BE STOCKPILED ON SITE (AWAY FROM TREES AND DRAINAGE LINES) IN ACCORDANCE WITH DETAILS PROVIDED AND WITH RELEVANT AUTHORITY GUIDELINES. MEASURES SHALL BE APPLIED TO PREVENT EROSION OF THE STOCKPILES.
- ALL EARTHWORK AREAS SHALL BE ROLLED EACH EVENING TO SEAL THE EARTHWORKS. DUST SUPPRESSION SHALL BE CARRIED OUT IN ACCORDANCE WITH RELEVANT AUTHORITIES GUIDELINES.
- UPON COMPLETION OF ALL EARTHWORKS OR AS DIRECTED BY RELEVANT AUTHORITY SOIL CONSERVATION TREATMENTS SHALL BE APPLIED SO AS TO RENDER AREAS THAT HAVE BEEN DISTURBED, EROSION PROOF WITHIN 14 DAYS.
- ALL CUT AND FILL SLOPES ARE TO BE SEEDED AND STRAW MULCHED WITHIN 14 DAYS OF COMPLETION OF FORMATION U.N.O. BY LANDSCAPE ARCHITECTS.
- EROSION AND SILT PROTECTION MEASURES ARE TO BE MAINTAINED AT ALL TIMES.
- ALL CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE VIA THE TEMPORARY CONSTRUCTION ENTRY/EXIT AS PER DETAILS PROVIDED OR WITH RELEVANT AUTHORITY GUIDELINES.
- ALL VEHICLES LEAVING THE SITE SHALL BE CLEANED AND INSPECTED BEFORE LEAVING SITE TO LIMIT SEDIMENT TRACKING TO ROADWAYS.

04.05.17 ISSUED FOR TENDER REV DATE DESCRIPTION RVD REV DATE DESCRIPTION REVISIONS REVISIONS



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2 FIGTREE DRIVE SYDNEY OLYMPIC PARK (SITE 53)

ISSUED FOR TENDER GENERAL NOTES NOT TO BE USED FOR CONSTRUCTION LA LM TW TW S16017 AHD MGA NTS AT A1 SIZE