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# Certificate of Controlled Fill

**Date:** **18 April 2018**

**Site:** **Virginia Grove Stage 4A**
**Lot 587 Edmund Avenue**
**VIRGINIA SA 5120**

**Job No:** **259323 - S38780**

*The work carried out in the preparation of this report has been performed in accordance with the requirements of FMG Engineering's Quality Management System which is certified by NCS International Pty Ltd to comply with the requirements of ISO9001*

## Site Preparation

Site preparation within the area certified as being controlled fill [the extent of which is defined by the area hatched in red on Tonkin Consulting General Construction Plan – Sheet 1 of 7 Job Number.20160000 Sheet Number 53 Revision 0], filling was placed and compacted under the supervision of FMG Research House. The topsoil, vegetation, and any existing filling was removed. The surface was confirmed to be 'natural ground' then proof rolled to achieve a firm stable base prior to filling. Levels and area of filling placed have been taken and recorded.

## Certification

The Filling (consisting of Sandy Clay imported from Clay and mineral sales) was placed, compacted and tested under the supervision of FMG Research House in accordance with the requirements for Level 1 Supervision set out in AS3798 (2007) 'Guidelines on Earthworks for Commercial and Residential Developments'.

Field density tests have been carried out and have reached a minimum compacted density of 95% in accordance with AS1289 5.1.1 (Standard Compaction).

The filling placed and compacted within the area certified as being controlled fill [the extent of which is defined by the area hatched in red on Tonkin Consulting General Construction Plan – Sheet 1 of 7 Job Number.20160000 Sheet Number 53 Revision 0], meeting the requirements of AS2870 (2011) 'Residential Slabs and Footings' from the natural surface up to the levels recorded on the plans held at FMG Research House as above. Any filling discovered outside the defined area or to a depth significantly greater than shown on the plan and any topsoil/ landscaping fill placed is not included in this certification.

## Retaining Wall Note

Any adjacent retaining wall must not be loaded by proposed structures. Footings for structures must be founded such that if a 45 degree line is drawn from the base of the footing system or a supporting pier, it must not intersect with the rear face of any retaining wall.

**Steve Clarke**
**MIEAust, CPEng, NER**
**FMG Engineering**

Attached:

1. Tonkin Consulting General Construction Plan – Sheet 1 of 7 Job Number.20160000 Sheet Number 53 Revision 0

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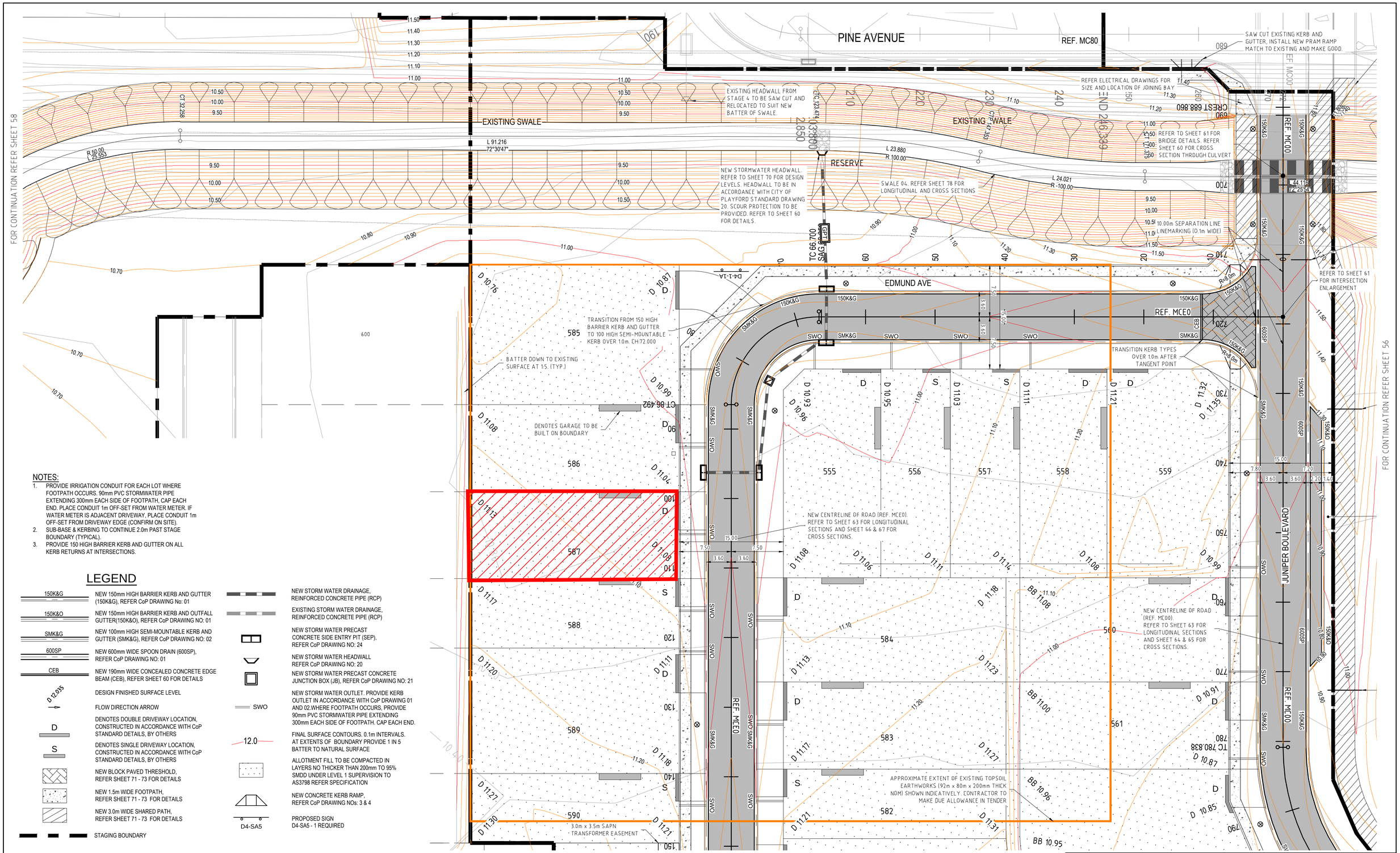


## NOTES:

1. PROVIDE IRRIGATION CONDUIT FOR EACH LOT WHERE FOOTPATH OCCURS. 90mm PVC STORMWATER PIPE EXTENDING 300mm EACH SIDE OF FOOTPATH, CAP EACH END. PLACE CONDUIT 1m OFF-SET FROM WATER METER. IF WATER METER IS ADJACENT DRIVEWAY, PLACE CONDUIT 1m OFF-SET FROM DRIVEWAY EDGE (CONFIRM ON SITE).
2. SUB-BASE & KERBING TO CONTINUE 2.0m PAST STAGE BOUNDARY (TYPICAL).
3. PROVIDE 150 HIGH BARRIER KERB AND GUTTER ON ALL KERB RETURNS AT INTERSECTIONS.

## LEGEND

| | |
|---|---|
| 150K&G | NEW 150mm HIGH BARRIER KERB AND GUTTER (150K&G), REFER CoP DRAWING No: 01 |
| 150K&O | NEW 150mm HIGH BARRIER KERB AND OUTFALL GUTTER(150K&O), REFER CoP DRAWING NO: 01 |
| SMK&G | NEW 100mm HIGH SEMI-MOUNTABLE KERB AND GUTTER (SMK&G), REFER CoP DRAWING NO: 02 |
| 600SP | NEW 600mm WIDE SPOON DRAIN (600SP), REFER CoP DRAWING NO: 01 |
| CEB | NEW 190mm WIDE CONCEALED CONCRETE EDGE BEAM (CEB), REFER SHEET 60 FOR DETAILS |
| D 12.035 | DESIGN FINISHED SURFACE LEVEL |
| | FLOW DIRECTION ARROW |
| D | DENOTES DOUBLE DRIVEWAY LOCATION, CONSTRUCTED IN ACCORDANCE WITH CoP STANDARD DETAILS, BY OTHERS |
| S | DENOTES SINGLE DRIVEWAY LOCATION, CONSTRUCTED IN ACCORDANCE WITH CoP STANDARD DETAILS, BY OTHERS |
| | NEW BLOCK PAVED THRESHOLD, REFER SHEET 71 - 73 FOR DETAILS |
| | NEW 1.5m WIDE FOOTPATH, REFER SHEET 71 - 73 FOR DETAILS |
| | NEW 3.0m WIDE SHARED PATH, REFER SHEET 71 - 73 FOR DETAILS |
| | STAGING BOUNDARY |
| | NEW STORM WATER DRAINAGE, REINFORCED CONCRETE PIPE (RCP) |
| | EXISTING STORM WATER DRAINAGE, REINFORCED CONCRETE PIPE (RCP) |
| | NEW STORM WATER PRECAST CONCRETE SIDE ENTRY PIT (SEP), REFER CoP DRAWING NO: 24 |
| | NEW STORM WATER HEADWALL REFER CoP DRAWING NO: 20 |
| | NEW STORM WATER PRECAST CONCRETE JUNCTION BOX (JB), REFER CoP DRAWING NO: 21 |
| SWO | NEW STORM WATER OUTLET. PROVIDE KERB OUTLET IN ACCORDANCE WITH CoP DRAWING 01 AND 02.WHERE FOOTPATH OCCURS, PROVIDE 90mm PVC STORMWATER PIPE EXTENDING 300mm EACH SIDE OF FOOTPATH. CAP EACH END. |
| 12.0 | FINAL SURFACE CONTOURS. 0.1m INTERVALS. AT EXTENTS OF BOUNDARY PROVIDE 1 IN 5 BATTER TO NATURAL SURFACE |
| | ALLOTMENT FILL TO BE COMPACTED IN LAYERS NO THICKER THAN 200mm TO 95% SMDD UNDER LEVEL 1 SUPERVISION TO AS3798 REFER SPECIFICATION |
| | NEW CONCRETE KERB RAMP, REFER CoP DRAWING NOs: 3 & 4 |
| D4-SA5 | PROPOSED SIGN D4-SA5 - 1 REQUIRED |

ISSUED FOR CONSTRUCTION

| REV | AMENDMENT / REASON FOR ISSUE | DATE | DES. | DWN. | DWGCHK. | VERIFIED | APPROVED |
|---|---|---|---|---|---|---|---|
| 0 | ISSUED FOR CONSTRUCTION | 11.17.11 | PMD | RIH | PMD | BEM | JCT |

SCALE 1:250 — 5 0 5 10 15 20 Metres

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THE SERVICES SHOWN ARE DERIVED FROM PLANS OBTAINED FROM THE RELEVANT SERVICE AUTHORITIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ARRANGE WITH THE RELEVANT SERVICE AUTHORITIES FOR CONFIRMATION OF SERVICES AND THEIR LOCATION BEFORE EXCAVATION WORK COMMENCES.

100mm ON ORIGINAL DRAWING - DO NOT SCALE DRAWING

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a better approach

SHEET SIZE A1
SCALE: 1 : 250 @ A1
ORIGINAL SURVEY BY ALEXANDER & SYMONDS
SURVEY DATE: 15/01/23
COORDS & DATUM
COORDS TO (MGA 54)
ALL LEVELS TO A.H.D.

ASTRAD PTY LTD
VIRGINIA GROVE DEVELOPMENT - STAGE 4A
SHEEDY ROAD, VIRIGINIA
GENERAL CONSTRUCTION PLAN - SHEET 1 OF 7

| FILENAME: | JOB NUMBER | SHEET NUMBER | REVISION |
|---|---|---|---|
| 20160000__4A_GEN_CONSTRUCTION.DWG | 20160000 | 53 | 0 |

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