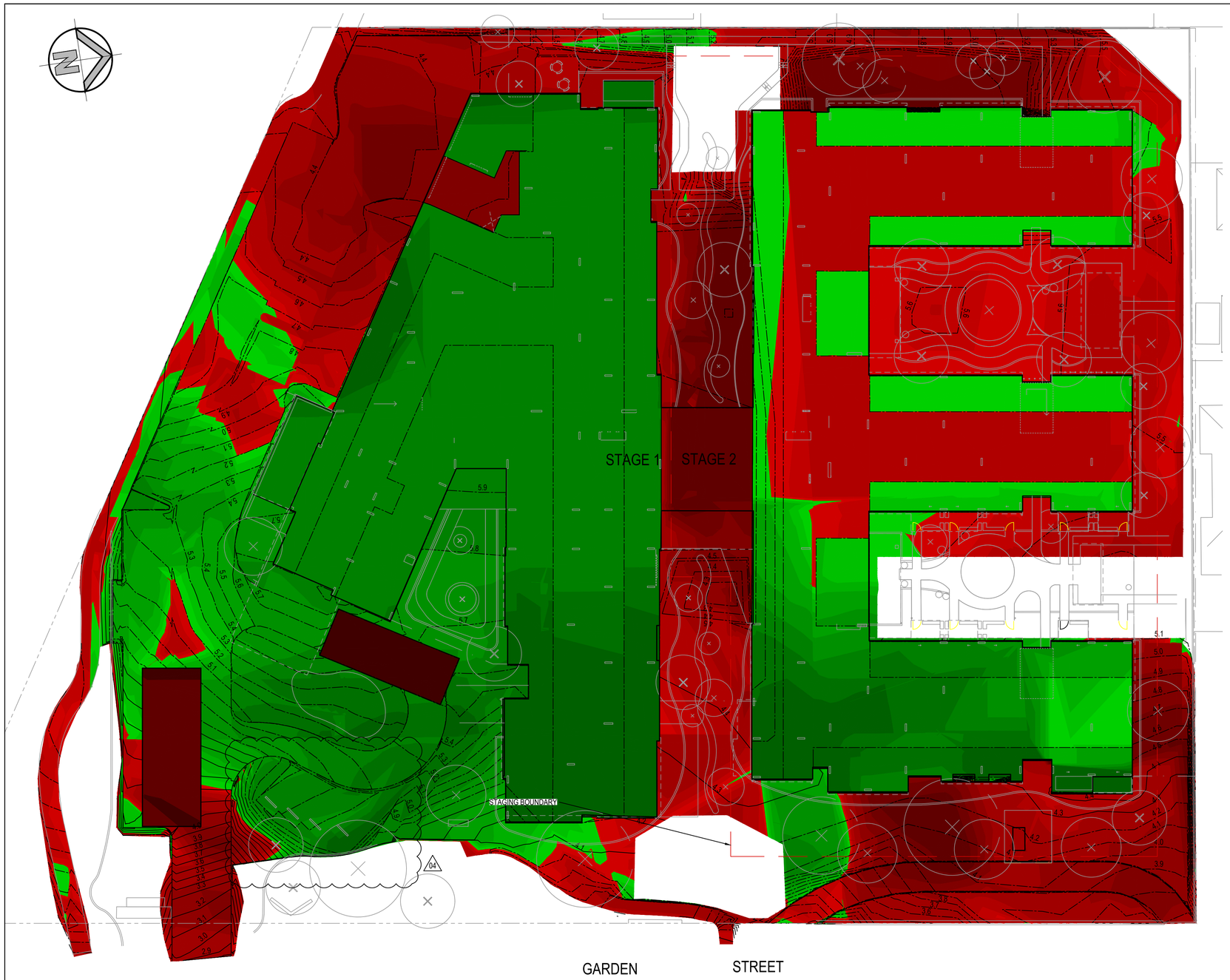

BULK EARTHWORKS PLAN

SCALE 1:250

CUT & FILL DEPTH RANGE			
Lower_value		Upper_value	Colour
-3.0	to	-2.0	m
-2.0	to	-1.8	m
-1.8	to	-1.6	m
-1.6	to	-1.4	m
-1.4	to	-1.2	m
-1.2	to	-1.0	m
-1.0	to	-0.8	m
-0.8	to	-0.6	m
-0.6	to	-0.4	m
-0.4	to	-0.2	m
-0.2	to	0.00	m
0.000	to	0.2	m
0.2	to	0.4	m
0.4	to	0.6	m
0.6	to	0.8	m
0.8	to	1.0	m
1	to	1.2	m
1.2	to	1.4	m
1.4	to	9999	m

STAGE 1 EARTHWORKS QUANTITIES WITH 275mm EXTRA CUT IN LANDSCAPE AREA	
TOTAL AREA (5418 m²)	
CUT	1,526 m³
FILL	2,558 m³
EXCESS OF FILL OVER CUT	962 m³
ASSUMED DEPTH OF 100mm EXISTING STRIPPING. TOTAL VOLUME = 542 m³	

STAGE 2 EARTHWORKS QUANTITIES WITH 275mm EXTRA CUT IN LANDSCAPE AREA	
TOTAL AREA (5279m²)	
CUT	1,343 m³
FILL	552 m³
EXCESS OF CUT OVER FILL	791 m³
ASSUMED DEPTH OF 100mm EXISTING STRIPPING. TOTAL VOLUME = 528 m³	

OVERALL EARTHWORKS QUANTITIES WITH 275mm EXTRA CUT IN LANDSCAPE AREA	
TOTAL AREA (10697 m²)	
CUT	2,869 m³
FILL	3,110 m³
EXCESS OF FILL OVER CUT	171 m³
ASSUMED DEPTH OF 100mm EXISTING STRIPPING. TOTAL VOLUME = 1,070 m³	

0 5 10 15 20 25m

5 4 3 2 1

SCALE 1:250

SITE REMEDIATION NOTES

REFER TO THE SITE REMEDIATION ACTION PLAN BY DOUGLAS PARTNERS (PROJECT 85505.01) AND JBS AND G

1. UNDERTAKE INITIAL BULK EARTHWORKS TO PREPARE THE SITE FOR PILING WORKS AND ACHIEVE LANDSCAPING BULK EARTHWORKS LEVELS.
2. IN AREAS CONTAINING ASBESTOS CONTAINING MATERIALS (ACM) THE EXCAVATED MATERIAL SHALL BE PLACED UNDER THE BUILDING SLAB AND ROAD PAVEMENT WHERE THERE IS FILL AND IN LANDSCAPE AREAS WHERE THERE IS 500mm OR MORE FILL DEPTH TO FINISHED SURFACE LEVEL.
3. INSTALL SERVICES AS REQUIRED UNDER BUILDING SLAB AND BELOW CAPPING LAYERS IN LANDSCAPED AREAS.
4. PROVIDE GEOTEXTILE MARKER LAYER (GEOFABRIC A24 OR EQUIVALENT) 275 mm BELOW THE BULK EARTHWORKS LEVEL IN AREAS CONTAINING ACM
5. MARKER LAYER TO BE PLACED IN ACCORDANCE WITH THE REMEDIATION ACTION PLAN.
6. FOR THE AREAS CONTAINING ACM , PLACE A MINIMUM 275mm THICK COMPACTED CAPPING LAYER COMPRISING VIRGIN EXCAVATED NATURAL MATERIAL (VENM) OVER A MARKER LAYER. IT IS RECOMMENDED THAT THIS COMPRISES A COHESIVE SOIL TO MINIMISE THE POTENTIAL FOR EROSION IN THE FUTURE.
7. THE VENM LAYER IS TO BE COMPLETED IN MAXIMUM 275mm THICK LIFTS AND ACHIEVE A DRY DENSITY RATION OF AT LEAST 95 % MDD RELATIVE TO STANDARD COMPACTION.
8. REFER TO STRUCTUAL DRAWINGS FOR CONSTRUCTION DETAILS OF BUILDING SLABS.
9. ENSURE THAT ALL RELEVANT INSPECTIONS, AND TESTS ARE UNDERTAKEN AS REQUIRED BY THE REMEDIATION ACTION PLAN AND ACM MANAGED AS INSTRUCTED
10. THE CONTRACTOR SHALL ENSURE THAT THE THE APPROPRIATELY QUALIFIED PERSONNEL ARE ENGAGED TO UNDERTAKE THE VARIOUS EARTHWORKS AND REMEDIATION TASKS IN ACCORDANCE WITH SITE REMEDIATION ACTION PLAN.
11. WASTE DISPOSAL SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE REQUIREMENTS OF THE REMEDIATION ACTION PLAN.
12. A VALIDATION PLAN MUST BE UNDERTAKEN IN ACCORDANCE WITH THE REQUIREMENTS OF THE REMEDIATION ACTION PLAN.
13. ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE RELEVANT REGULATORY CRITERIA SOME OF WHICH ARE LISTED IN SECTION 8 OF THE SITE REMEDIATION ACTION PLAN.

LEGEND

EXISTING BOUNDARY

4.60 CONTOURS BE

COMPACTION REQUIREMENTS

1. PREPARATION FOR PAVEMENT:
   CLEAR SITE, STRIP TOP-SOIL, CUT AND FILL AND PREPARATIONS OF SUB-GRADE SHALL BE AS DESCRIBED IN " SUBGRADE PREPARATION".
2. SUB-GRADE SHALL BE COMPACTED TO 98% STANDARD DRY DENSITY RATIO AT OPTIMUM MOISTURE CONTENT ± 2% IN ACCORDANCE WITH AS 1289 5.1.1., TOP 300MM TO 100% SDD.
3. LOWER BASE COURSE SHALL BE CONSTRUCTED FROM CRUSHED SANDSTONE COMPACTED TO 100% STANDARD DRY DENSITY RATIO AT OPTIMUM MOISTURE CONTENT ± 2% IN ACCORDANCE WITH AS 1289 5.1.1. OF THICKNESS NOTED ON DRAWINGS.
4. BASE COURSE SHALL BE CONSTRUCTED FROM FINE CRUSHED ROCK COMPACTED TO 100% STANDARD DRY DENSITY RATIO AT OPTIMUM MOISTURE CONTENT ± 2% IN ACCORDANCE WITH AS 1289 5.1.1 OF THICKNESS NOTED ON DRAWINGS.
5. WEARING SURFACE SHALL BE ASPHALTIC CONCRETE TO STANDARD SPECIFICATION, MINIMUM THICKNESS = 30mm U.N.O.
6. TESTING OF THE SUBGRADE AND PAVEMENT LAYERS SHALL BE CARRIED OUT BY APPROVED N.A.T.A. REGISTERED LABORATORY.

BULK EARTHWORKS GENERAL NOTES

REFER TO GEOTECHNICAL INVESTIGATION REPORT PREPARED BY DOUGLAS PARTNERS (REF No. 85505.00.R.001.REV 0 - 29 JULY 2016). FOR INFORMATION RELATING TO EXISTING GROUND CONDITIONS, SITE TREATMENT AND SUPERVISION.

THE LOCATIONS OF UNDERGROUND SERVICES SHOWN ON THESE DRAWINGS HAVE BEEN PLOTTED FROM SURVEY AND AUTHORITY INFORMATION. THE SERVICE INFORMATION HAS BEEN PREPARED ONLY TO SHOW THE APPROXIMATE POSITIONS OF ANY KNOWN SERVICES AND MAY NOT BE AS CONSTRUCTED OR ACCURATE.

HENRY AND HYMAS PTY LTD CANNOT GUARANTEE THAT THE SERVICES INFORMATION SHOWN ON THESE DRAWINGS ACCURATELY INDICATES THE PRESENCE OR ABSENCE OF SERVICES OR THEIR LOCATION AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN ARISING FROM ANY CAUSE WHATSOEVER.
CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION.
FOR COMMENCEMENT OF WORKS ON SITE, SEARCH RESULTS ARE TO BE KEPT ON SITE AT ALL TIMES.

ALL SERVICES ARE TO BE LOCATED AND CUT OFF PRIOR TO THE COMMENCEMENT OF EXCAVATION AND FILLING OPERATIONS.

ALL TOP SOIL, ORGANIC MATTER AND FILL MATERIAL SHALL BE REMOVED FROM ALL AREAS UNDER BUILDING AND CARPARK LOCATIONS TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER. AREAS TO BE FULLY STRIPPED OF EXISTING FILL AND DARK BROWN BLACK UPPER ORGANIC ALLUVIUM.

UPON COMPLETION OF STRIPPING AND PRIOR TO PLACEMENT OF FILL THE ENTIRE SITE SHALL BE PROOF ROLLED WITH A MINIMUM OF 6 PASSES OF A VIBRATOR PADFOOT ROLLER OF NOT LESS THEN 9 TONNE MINIMUM DEAD WEIGHT OR AS SPECIFIED IN THE GEOTECHNICAL REPORT. ANY SOFT OR HEAVING AREAS SHALL BE REMOVED TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER TO A MINIMUM DEPTH OF 500mm AND THEN BACKFILLED WITH APPROVED MATERIAL IN 200mm THICK LOOSE LAYERS COMPACTED TO 98% OF STANDARD MAX. DRY DENSITY AND TO WITHIN +/- 2% OF STANDARD OPTIMUM MOISTURE CONTENT. APPROVED BACKFILL MATERIAL MAY BE CRUSHED ROCK OR SANDY LOAM WITH A PLASTICITY INDEX LESS THAN 15%.

IMPORTED FILLING:
THE CONTRACTOR WILL IMPORT SUITABLE FILL FROM AN EXTERNAL SOURCE. EXCAVATION MATERIALS MEETING THE REQUIRED SPECIFICATION MAY BE USED AS FILL. THIS MAY INCLUDE RECYCLED MATERIALS IF THEY ARE SUITABLY BLENDED/CONDITIONED TO MEET MATERIALS SPECIFICATIONS.

NOTES:

1. PAVEMENT THICKNESS ALLOWANCE :
- BUILDING STRUCTURAL SLAB ON GROUND. REFER TO STRUCTURAL DRAWINGS FOR SLAB THICKNESS.
- CARPARK PAVEMENT. REFER TO 16940_DA_C500 FOR PAVEMENT THICKNESS.
- LANDSCAPE AREA - 225mm SETDOWN

ISSUED FOR S4.55 APPROVAL

SURVEY INFORMATION
SURVEYED BY
Bee & Lethbridge Pty Ltd
DATUM: A.H.D.
ORIGIN OF LEVELS: S.S.M. 43671 RL 3.493

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
04	ISSUED FOR S4.55 APPROVAL	JK	IA	25.06.2019
03	PRELIMINARY ISSUE	KR	AF	07.06.2019
02	PRELIMINARY ISSUE	KR	AF	24.05.2019
01	ISSUED FOR DA	MC	RP	21.02.2017

Client: OPAL AGED CARE

Architect: GROUP GSA PTY LTD

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henry&hymas

Project: PROPOSED AGED CARE FACILITY
184-194 GARDEN STREET, WARRIEWOOD NSW

Title: BULK EARTHWORKS - CUT AND FILL PLAN

Drawn	Designed	Date
K.S.Rom	I.Ahmed	JAN 2018
Checked	Approved	Scale
I.Ahmed	A.Francis	1:250 @ A1

Drawing number: 16940_DA_BE01

Revision: 04

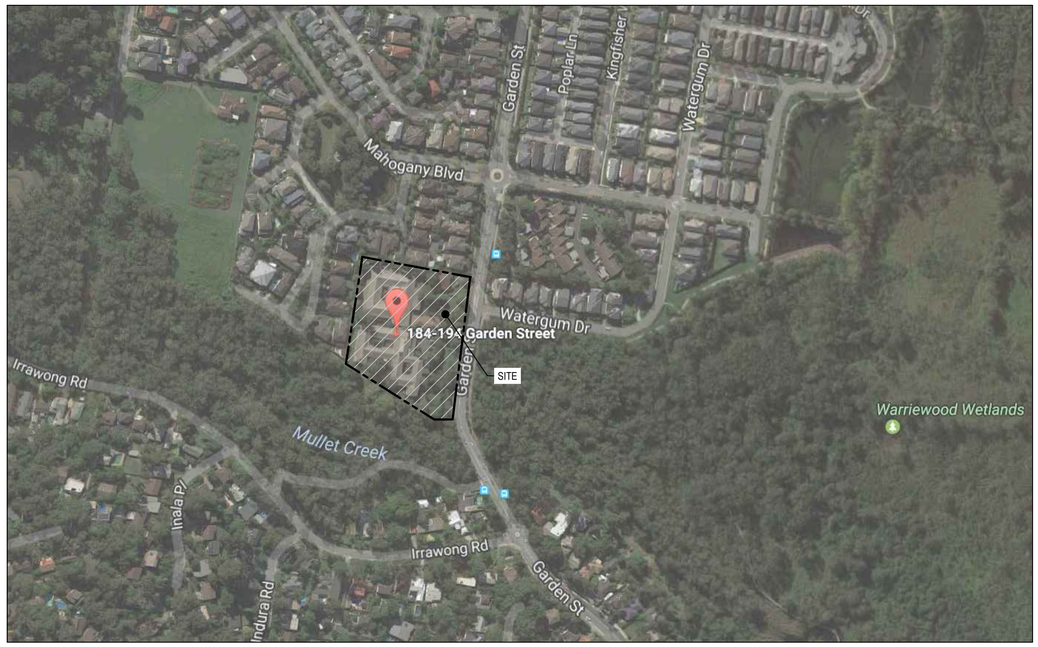
PROPOSED OPAL AGED CARE,
184 - 194 GARDEN STREET, WARRIEWOOD NSW
CIVIL ENGINEERING WORKS

GENERAL NOTES:

1. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE NORTHERN BEACHES COUNCIL'S SPECIFICATION. CONTRACTOR TO OBTAIN AND RETAIN A COPY ON SITE DURING THE COURSE OF THE WORKS.
2. ALL NEW WORKS ARE TO MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS, AND MARRY IN A 'WORKMANLIKE' MANNER.
3. THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL SERVICES WITH EACH RELEVANT AUTHORITY. ANY DAMAGE TO SERVICES SHALL BE RECTIFIED BY THE CONTRACTOR OR THE RELEVANT AUTHORITY AT THE CONTRACTOR'S EXPENSE. SERVICES SHOWN ON THESE PLANS ARE ONLY THOSE EVIDENT AT THE TIME OF SURVEY OR AS DETERMINED FROM SERVICE DIAGRAMS. HENRY AND HYMAS CONSULTING PTY. LTD. CANNOT GUARANTEE THE INFORMATION SHOWN NOR ACCEPT ANY RESPONSIBILITY FOR INACCURACIES OR INCOMPLETE DATA.
4. SERVICES & ACCESSES TO THE EXISTING PROPERTIES ARE TO BE MAINTAINED IN WORKING ORDER AT ALL TIMES DURING CONSTRUCTION.
5. ADJUST EXISTING SERVICE COVERS TO SUIT NEW FINISHED LEVELS TO RELEVANT AUTHORITY REQUIREMENTS WHERE NECESSARY.
6. REINSTATE AND STABILISE ALL DISTURBED LANDSCAPED AREAS.
7. MINIMUM GRADE OF SUBSOIL SHALL BE 0.5% (1:200) FALL TO OUTLETS.
8. ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS, EROSION AND SEDIMENTATION CONTROL PLAN AND NORTHERN BEACHES COUNCIL'S REQUIREMENTS WHERE APPLICABLE.
9. CONTRACTOR TO CHECK AND CONFIRM SITE DRAINAGE CONNECTIONS ACROSS THE VERGE PRIOR TO COMMENCEMENT OF SITE DRAINAGE WORKS.
10. PROPERTIES AFFECTED BY THE WORKS ARE TO BE NOTIFIED IN ADVANCE WHERE DISRUPTION TO EXISTING ACCESS IS LIKELY.

EXISTING SERVICES & FEATURES

- THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION AND REMOVAL (IF REQUIRED) OF ALL EXISTING SERVICES IN AREAS AFFECTED BY WORKS WITHIN THE CONTRACT AREA OR AS SHOWN ON THE DRAWINGS UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT.
- THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES SERVICES TO ALL BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED.
- PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL GAIN APPROVAL OF HIS PROGRAM FOR THE RELOCATION/ CONSTRUCTION OF TEMPORARY SERVICES.
- CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN SUPPLY TO EXISTING BUILDING REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SUPERINTENDENT. ONCE DIVERSION IS COMPLETE AND COMMISSIONED, THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT.
- INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE TO THE PRINCIPAL. CONTRACTOR TO GAIN APPROVAL FROM THE SUPERINTENDENT FOR TIME OF INTERRUPTION.
- EXISTING SERVICES, BUILDINGS, EXTERNAL STRUCTURES AND TREES SHOWN ON THESE DRAWINGS ARE EXISTING FEATURES PRIOR TO ANY DEMOLITION WORKS.
- EXISTING SERVICES UNLESS SHOWN ON SURVEY PLAN HAVE BEEN PLOTTED FROM SERVICES SEARCH PLANS AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. 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.
- ALL BRANCH GAS AND WATER SERVICES UNDER DRIVEWAYS AND BRICK PAVING SHALL BE LOCATED IN 80Ø uPVC SEWER GRADE CONDUITS EXTENDING A MINIMUM OF 500mm BEYOND EDGE OF PAVING.



LOCALITY SKETCH

SCALE: NTS

DRAWING SCHEDULE

16940_DA_C000	COVER SHEET, DRAWING SCHEDULE, NOTES & LOCALITY SKETCH
16940_DA_C100	SITE DETAIL PLAN
16940_DA_C110	TYPICAL SECTIONS
16940_DA_C200	STORMWATER MISCELLANEOUS DETAILS & PIT LID SCHEDULE
16940_DA_C201	OSD TANK 1 PLAN AND DETAILS, SHEET 1 OF 3
16940_DA_C202	OSD TANK 2 PLAN AND DETAILS, SHEET 2 OF 3
16940_DA_C203	OSD DETAILS, SHEET 3 OF 3
16940_DA_C250	STORMWATER CATCHMENT PLAN
16940_DA_C500	PAVEMENT PLAN
16940_DA_SE01	SEDIMENT & EROSION CONTROL PLAN - STAGE 1
16940_DA_SE02	SEDIMENT & EROSION CONTROL PLAN - STAGE 2
16940_DA_SE03	SEDIMENT & EROSION CONTROL TYPICAL DETAILS
16940_DA_BE01	BULK EARTHWORKS - CUT AND FILL PLAN

05

SITEWORKS NOTES

- DATUM A.H.D.
- ORIGIN OF LEVELS. REFER TO BENCH OR STATE SURVEY MARKS WHERE SHOWN ON PLAN.
- CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK.
- ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS & THE DIRECTIONS OF THE SUPERINTENDENT.
- EXISTING SERVICES UNLESS SHOWN ON SURVEY PLAN HAVE BEEN PLOTTED FROM SERVICES SEARCH PLANS AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR 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.
- WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS ACHIEVED.
- THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
- CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATION IS TO BE UNDERTAKEN OVER TELSTRA OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
- CONTRACTOR TO OBTAIN AUTHORITY APPROVALS WHERE APPLICABLE.
- MAKE SMOOTH TRANSITION TO EXISTING SURFACES AND MAKE GOOD.
- THESE PLANS SHALL BE READ IN CONJUNCTION WITH APPROVED LANDSCAPE, ARCHITECTURAL, STRUCTURAL, HYDRAULIC AND MECHANICAL DRAWINGS AND SPECIFICATIONS OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED RELATING TO DEVELOPMENT AT THE SITE.
- TRENCHES THROUGH EXISTING ROAD AND CONCRETE PAVEMENTS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MINIMUM OF 50mm IN BITUMINOUS PAVING.
- ALL BRANCH GAS AND WATER SERVICES UNDER DRIVEWAYS AND BRICK PAVING SHALL BE LOCATED IN 80Ø uPVC SEWER GRADE CONDUITS EXTENDING A MINIMUM OF 500mm BEYOND EDGE OF PAVING.
- GRADES TO PAVEMENTS TO BE AS IMPLIED BY RL'S ON PLAN . GRADE EVENLY BETWEEN NOMINATED RL'S. AREAS EXHIBITING PONDING GREATER THAN 5mm DEPTH WILL NOT BE ACCEPTED/ UNLESS IN A DESIGNATED SAG POINT.
- ALL COVERS AND GRATES ETC TO EXISTING SERVICE UTILITIES ARE TO BE ADJUSTED TO SUIT NEW FINISHED SURFACE LEVELS WHERE APPLICABLE

SURVEY NOTES

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY SURVEYOR SPECIFIED IN THE TITLE BLOCK.

THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. HENRY AND HYMAS 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 HENRY AND HYMAS PTY. LTD. THE FOLLOWING NOTES HAVE BEEN TAKEN DIRECTLY FROM ORIGINAL SURVEY DOCUMENTS.

ISSUED FOR S4.55 APPROVAL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
05	ISSUED FOR S4.55 APPROVAL	JK	IA	25.06.2019
04	PRELIMINARY ISSUE	KR	AF	07.06.2019
03	PRELIMINARY ISSUE	KR	AF	24.05.2019
02	ISSUED FOR DA	MC	IA	09.08.2017
01	ISSUED FOR DA	MC	IA	24.2.2017

Client: OPAL AGED CARE

Architect: GROUP GSA PTY LTD

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Project: PROPOSED AGED CARE FACILITY
184-194 GARDEN STREET, WARRIEWOOD NSW

Title: COVER SHEET, DRAWING SCHEDULE, NOTES & LOCALITY SKETCH

Drawn	Designed	Date
K.S.Rom	I.Ahmed	JAN 2018
Checked	**Approved**	**Scale**
I.Ahmed	A.Francis	NTS

Drawing number: 16940_DA_C000

Revision: 05

EXISTING FOOTPATH TO BE MODIFIED TO TIE IN TO PROPOSED KERB RAMP.

TREE PROTECTION ZONE

APPROXIMATE SITE BOUNADRY
SITE BOUNDARY TO BE CONFIRMED BY SURVEYORS

COUNCIL SHARED FOOTPATH IS TO BE CONSTRUCTED IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL

NOTE:
ALL PARKING SPACES ARE ALLOCATED FOR STAFF AND VISITORS. NO RESIDENT PARKING WILL BE PROVIDED ON SITE.

EDGE BEAM TYPICAL

112m³ OSD TANK 2.
REFER TO 16940_DA_C202 FOR MORE DETAILS

PROPOSED FOOTPATH AT 1 IN 20 MAX

1 IN 3 BATTER MAX

PROPOSED HEADWALLS

PROPOSED RETAINING WALLS TO FUTURE STRUCTURAL DETAILS

DOWNPIPES TO CONNECT TO IN-GROUND STORMWATER TO HYDRAULIC DETAILS

EXISTING SURFACE LEVEL TO BE MAINTAINED.

FFL 6.16

STAGE 1 STAGE 2

SLAB BETWEEN BUILDING TO BE SUSPENDED TO STRUCTURAL DETAILS

FFL 6.16

DOWNPIPES TO CONNECT TO IN-GROUND STORMWATER TO HYDRAULIC DETAILS

5KL RAINWATER TANK TO FUTURE HYDRAULIC ENGINEERS DETAILS

FALLS TO EDGE OF FOOTPATH.

5KL RAINWATER TANK TO FUTURE HYDRAULIC ENGINEERS DETAILS

COURTYARD TO LANDSCAPE ARCHITECT DETAILS

COURTYARD TO LANDSCAPE ARCHITECT DETAILS

KERB TRANSITION AREA

COURTYARD TO LANDSCAPE ARCHITECT'S DETAILS

LANDSCAPE TO LANDSCAPE ARCHITECT'S DETAILS

BIOBASIN 1

161m³ OSD TANK 1 TO COLLECT STORMWATER ROOF. REFER TO 16940_DA_C201 FOR MORE DETAILS

DOWNPIPES TO BE CONNECTED TO INGROUND DRAINAGE.

EMERGENCY TURNING ZONE

EXISTING TREE TO BE RETAINED

EXISTING SUBSTATION TO BE RETAINED

BASE OF SWALE TO HAVE MINIMUM 1% FALL TOWARDS THE PROPOSED PIT (I-1)

1 IN 3 BATTER MAX

EXISTING BUS STOP

EXISTING RETAINING WALL TO REMAIN

FOOTPATH TO TIE INTO COUNCIL FOOTPATH

HIGH LEVEL KERB OUTLET

EXISTING DRIVEWAY TO BE RETAINED

54m³ INFILTRATION TRENCH

1.1m WIDE SWALE. REFER TO SECTION C ON DRAWING 16940_DA_C203 FOR MORE DETAILS

EXISTING DRIVEWAY TO BE RETAINED

SIGNAGE TO ARCHITECT'S DETAILS

SITE BOUNDARY TO BE CONFIRMED BY SURVEYOR

COUNCIL SHARED FOOTPATH IS TO BE CONSTRUCTED IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL

FOOTPATH TO LANDSCAPE ARCHITECT'S DETAILS

LANDSCAPE TO LANDSCAPE ARCHITECT'S DETAILS

EXISTING PIT TO REMAIN

EXISTING LEVELS TO BE MAINTAINED

GARDEN STREET

LEGEND

- SITE BOUNDARY
- RL46.55 — PROPOSED SPOT LEVEL
- 32.36 — EXISTING SPOT LEVEL
- H - 0.25 — HEIGHT OF RETAINING WALL (LOWER THAN EXISTING SURFACE)
- H +0.25 — HEIGHT OF RETAINING WALL (HIGHER THAN EXISTING SURFACE)
- PROPOSED JUNCTION PITS
- PROPOSED SURFACE INLET PITS
- PROPOSED LINTEL ONGRADE & SAG PITS
- DP — PROPOSED DOWNPIPE
- PROPOSED STORMWATER PIPE
- PROPOSED STORMWATER COLLECTION LINE
- PROPOSED GRATED DRAIN
- A-1 — LINE LETTER PIT NUMBER
- SS — PROPOSED SUBSOIL DRAINAGE
- R — PROPOSED RIDGE LINE
- 40.125 Ø425RCP 20.450m 1.5% 39.818 — STORMWATER UPSTREAM INVERT RL. / STORMWATER PIPE DIAMETER & CLASS / STORMWATER PIPE LENGTH / STORMWATER PIPE GRADE / STORMWATER DOWNSTREAM INVERT RL.
- K&G — PROPOSED KERB & GUTTER
- KO — PROPOSED KERB ONLY
- IK — PROPOSED INTEGRAL KERB
- ES — PROPOSED EDGE STRIP
- DD — PROPOSED DISH DRAIN
- PROPOSED 1.1m WIDE SWALE
- KERB TRANSITION AREA
- RW — PROPOSED RETAINING WALL
- PROPOSED BATTER LINE
- 4.60 — EXISTING CONTOURS
- 4.60 — PROPOSED CONTOURS
- TREE TO BE RETAINED WITH PROTECTION ZONE
- AREA OF BUILDING TO BE SUSPENDED OVER COUTYARD
- O/F — DIRECTION OF OVERLAND FLOW
- B — PROPOSED BOLLARD

0 5 10 15 20 25m
5 4 3 2 1
SCALE 1:250

SITE DETAIL PLAN

SCALE 1:250

ISSUED FOR S4.55 APPROVAL

SURVEY INFORMATION
SURVEYED BY
Bee & Lethbridge Pty Ltd
DATUM: A.H.D.
ORIGIN OF LEVELS: S.S.M. 43671 RL 3.493

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
07	PRELIMINARY ISSUE	KR	IA	07.06.2019
06	PRELIMINARY ISSUE	KR	AF	24.05.2019
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04	ISSUED FOR DA	MC	AF	09.08.2017
03	ISSUED FOR DA	IK	AF	23.03.2017
02	ISSUED FOR DA	MC	IA	03.03.2017
01	ISSUED FOR DA	MC	IA	24.02.2017
10	ISSUED FOR S4.55 APPROVAL	MS	IA	27.06.2019
09	ISSUED FOR S4.55 APPROVAL	JK	IA	25.06.2019
08	PRELIMINARY ISSUE	KR	IA	13.06.2019

Client
OPAL AGED CARE

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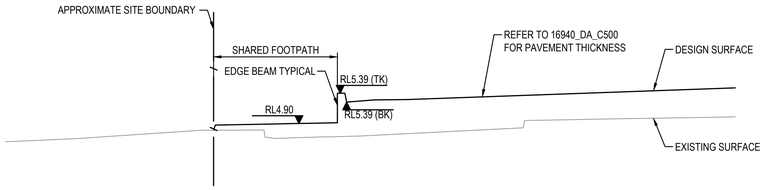
Project
PROPOSED AGED CARE FACILITY
184-194 GARDEN STREET, WARRIEWOOD NSW

Title
SITE DETAIL PLAN

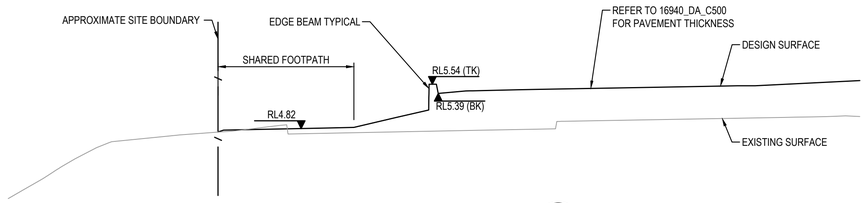
Drawn	Designed	Date
K.S.Rom	I.Ahmed	JAN 2018
Checked	Approved	Scale
I.Ahmed	A.Francis	1:250 @ A1

Drawing number
16940_DA_C100

Revision
10



SECTION 1 / C100
SCALE: 1:100 (V)
1:50 (H)



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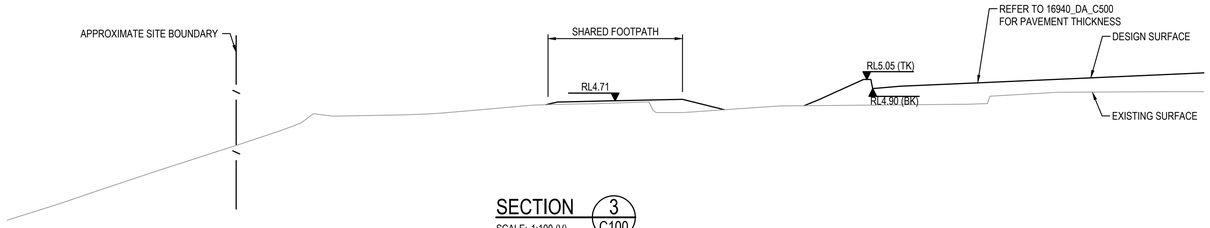
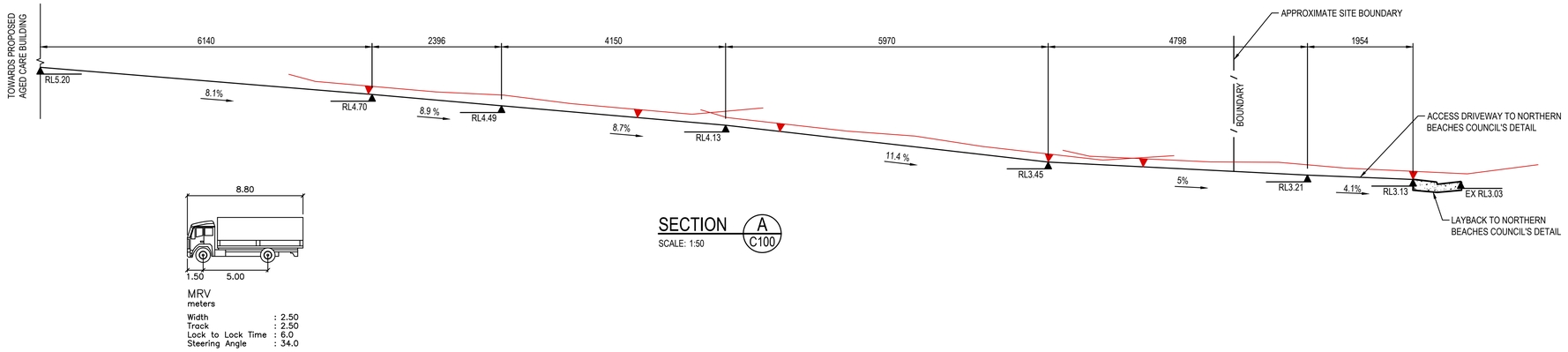
1:50 (H)



SECTION 3 / C100
SCALE: 1:100 (V)
1:50 (H)



SECTION A / C100
SCALE: 1:50

MRV
meters

Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

0 1000 2000 3000 4000 5000mm
1000 600 200
SCALE 1:50

ISSUED FOR S4.55 APPROVAL

SURVEY INFORMATION
SURVEYED BY
Bee & Lethbridge Pty Ltd
DATUM: A.H.D.
ORIGIN OF LEVELS: S.S.M. 43671 RL 3.493

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
04	ISSUED FOR S4.55 APPROVAL	JK	IA	25.06.2019
03	PRELIMINARY ISSUE	KR	AF	07.06.2019
02	PRELIMINARY ISSUE	KR	AF	24.05.2019
01	ISSUED FOR DA	IK	IA	24.02.2017

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Project
PROPOSED AGED CARE FACILITY
184-194 GARDEN STREET, WARRIEWOOD NSW

Title
TYPICAL SECTIONS

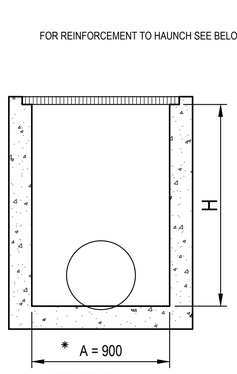
Drawn	Designed	Date
K.S.Rom	I.Ahmed	JAN 2018
Checked	Approved	Scale
I.Ahmed	A.Francis	1:50 @ A1

Drawing number
16940_DA_C110

Revision
04

TYPICAL PIT CHAMBER SIZES
IT IS THE CONTRACTORS RESPONSIBILITY TO SELECT PIT CHAMBER SIZE WITH REGARDS TO PIPE SIZE, DEPTH TO INVERT AND SKEW ANGLE. REFER SKETCHES BELOW.

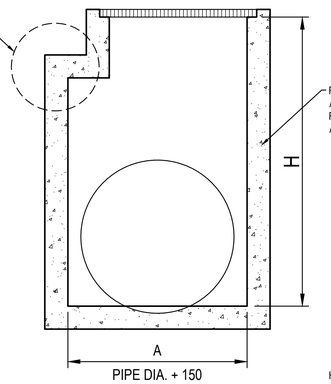
1. SELECT PIT CHAMBER USING THE STEPS BELOW:
2. SELECT PIT CHAMBER SIZE DEPENDING ON THE PIPE DIAMETERS.
3. CHECK PIT CHAMBER SIZE TO SATISFY DEPTH TO INVERT REQUIREMENTS. CHECK PIT CHAMBER DIMENSIONS TO SATISFY THE SKEW ANGLE IN THE TABLE.



SECTION
NTS

*A = 600 FOR PIPES UP TO 375 DIA.

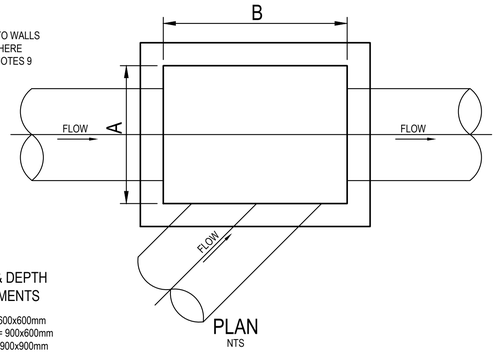
1 PIT CHAMBER DIMENSIONS FOR PIPES UP TO 600 DIA.



SECTION
NTS

1 PIT CHAMBER FOR PIPES GREATER THAN 600 DIA.

FOR B = 600mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 225mm
FOR B = 900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 375mm
FOR B = 1200mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 600mm
FOR B = 1500mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 825mm
FOR B = 1900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 1050mm

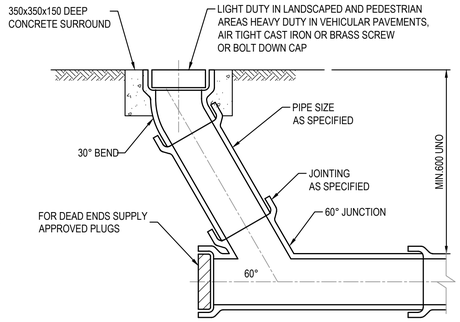


PLAN
NTS

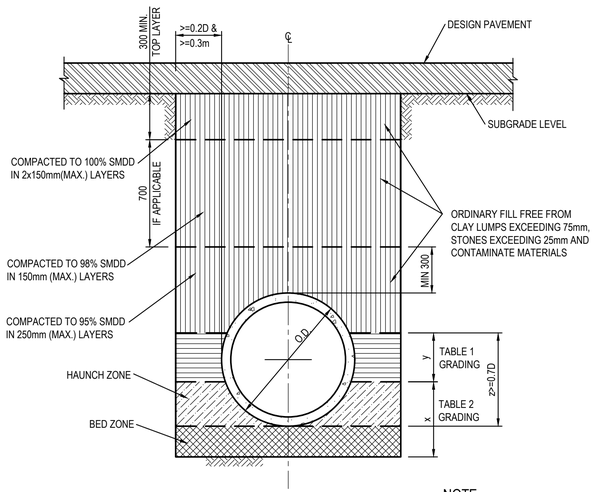
3 PIT CHAMBER FOR SIDE ENTRY ON SKEW

2 PIT SIZE & DEPTH REQUIREMENTS

H = 0-900mm - AxB = 600x600mm
H = 900-1200mm - AxB = 900x600mm
H = >1200mm - AxB = 900x900mm

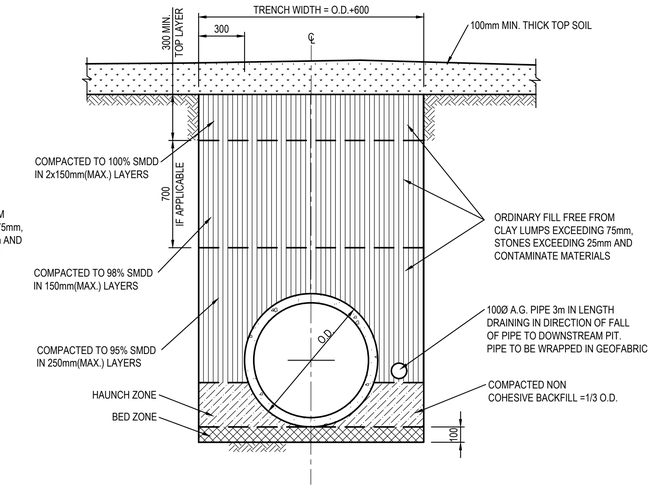


RODDING POINT AT 60° (RP2)
SCALE 1:10

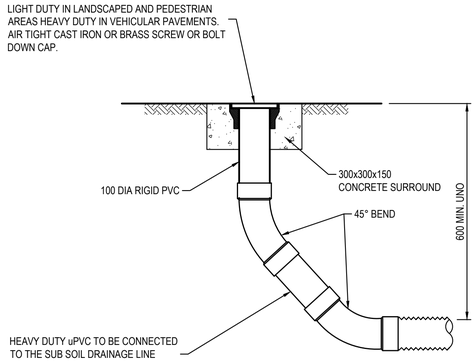


PIPE TRENCH INSTALLATION BENEATH PAVEMENT
(HS SUPPORT TO BE USED UNDER ROADWAY)
SCALE 1:20

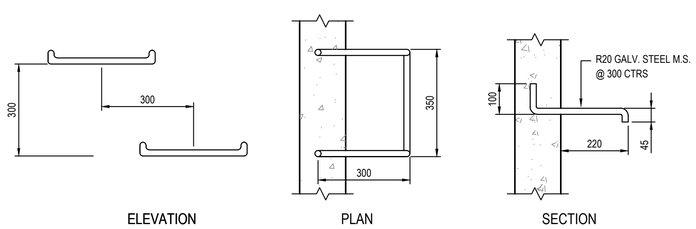
NOTE:
TYPE HS2 TO BE USED AS A TYPICAL SUPPORT FOR TRENCHES UNDER ROADWAY UNLESS SPECIFIED SEPARATELY



PIPE TRENCH INSTALLATION IN LANDSCAPE AREAS
(H1 & H2 SUPPORT)
SCALE 1:20

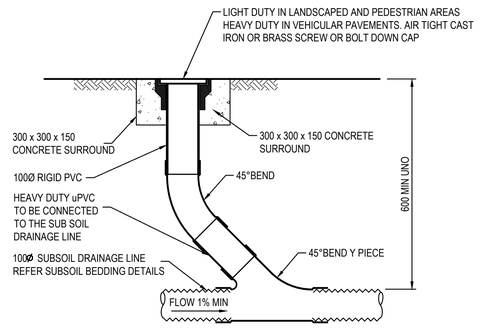


FLUSHING POINT (FP)
SCALE 1:10
NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED



ELEVATION PLAN SECTION

TYPICAL STEP IRON DETAIL
SCALE 1:10



INTERMEDIATE RISER (IR)
SCALE 1:10
NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED

PIT LID SCHEDULE	
PIT NUMBER	DESCRIPTION
A-10 A-11 B-0 F-3 F-4 I-1	HEEL PROOF INLET PIT WITH 900x900 HINGED HEAVY DUTY GRATED LID CLASS "D" IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL'S REQUIREMENT.
A-2	SAG KERB INLET PIT WITH 2.4m LINTEL AND HEAVY DUTY GRATED LID CLASS "D" IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL'S REQUIREMENT.
A-1 A-2a A-7 A-8 A-9	JUNCTION PIT WITH 900x900 HINGED HEAVY DUTYCONCRETE LID CLASS "D" IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL'S REQUIREMENT.
E-1	INLET PIT WITH 600x600 HINGED HEAVY DUTY GRATED LID CLASS "D" IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL'S REQUIREMENT.
C-1	INLET PIT WITH 900x900 HINGED MEDIUM DUTY GRATED LID CLASS "C" IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL'S REQUIREMENT.
B-1	900x900 V-GRATE INLET PIT MEDIUM DUTY GRATED LID CLASS "C" IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL'S REQUIREMENT
F-1 F-2	JUNCTION PIT WITH 900x900 HINGED MEDIUM DUTY GRATED LID CLASS "C" IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL'S REQUIREMENT.
F-5 F-6 F-7	INLET PIT WITH 600x600 HINGED MEDIUM DUTY GRATED LID CLASS "C" IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL'S REQUIREMENT.
G-1	INLET PIT WITH 450x450 HINGED LIGHT DUTY GRATED LID CLASS "B" IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL'S REQUIREMENT.
A-3 A-4 A-5 A-6 B-2 B-3	900x900 CONCRETE OSD ACCESS LID
EX-1 EX-2	EXISTING COUNCIL PITS
A-12	HEEL PROOF INLET PIT WITH 900x900 HINGED LIGHT DUTY GRATED LID CLASS "B" IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL'S REQUIREMENT.

DRAINAGE NOTES:

1. ALL STORMWATER WORK TO COMPLY WITH AS 3500 PART 3.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE MINIMUM COVER OF 600mm ON ALL PIPES. UNLESS NOTED OTHERWISE.
3. PROTECTION OF PIPES DUE TO LOADS EXCEEDING W7 WHEEL LOAD SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
4. BEDDING TYPE SHALL BE TYPE H2 FOR RCP. WHERE NECESSARY THE OVERLAY ZONE SHALL BE REDUCED TO ACCOMMODATE PAVEMENT REQUIREMENTS. REFER TO THIS DRAWING FOR DETAILS.
5. MINIMUM COVER OVER EXISTING PIPES FOR PROTECTION DURING CONSTRUCTION SHALL BE 800mm.
6. NO CONSTRUCTION LOADS SHALL BE APPLIED TO PLASTIC PIPES.
7. FINISHED SURFACE LEVELS SHOWN ON LAYOUT PLAN DRGS TAKE PRECEDENCE OVER DESIGN DRAINAGE SURFACE LEVELS.
8. ALL PIPES UP TO AND INCLUDING 300 DIA. SHALL BE SOLVENT OR RUBBER RING JOINTED PVC CLASS SH PIPE TO AS1260 ALL OTHER PIPES TO BE RCP USING CLASS 2 RUBBER RING JOINTED PIPE.
9. ALL PITS IN NON TRAFFICABLE AREAS TO BE PREFABRICATED POLYESTER CONCRETE "POLYCRETE" WITH "LIGHT DUTY" CLASS B GALV. MILD STEEL GRATING AND FRAME. ALL PITS IN TRAFFICABLE AREAS TO BE CAST IN SITU AND SHALL BE CONSTRUCTED OF 25 MPa CONCRETE HAVING 150mm THICK WALLS AND BASES, REINFORCED WITH F72 MESH HEAVY DUTY GALV MILD STEEL GRATING AND FRAME. PRECAST PITS, RECTANGULAR OR CIRCULAR IN SHAPE, MAY BE USED IN LIEU AND SHALL COMPLY WITH RELEVANT AUSTRALIAN STANDARDS.
10. ALL PITS, GRATINGS AND FRAMES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION AND TO BE IN ACCORDANCE WITH AS3500.3 AND AS3996.
11. PIT CHAMBER DIMENSIONS ARE TO BE SELECTED TO SATISFY THE FOLLOWING: - PIPE SIZE - DEPTH TO INVERT - SKEW ANGLE REFER TYPICAL PIT CHAMBER DETAILS BELOW IF PIT LID SIZE IS SMALLER THAN THE PIT CHAMBER SIZE THEN THE PIT LID IS TO BE CONSTRUCTED ON THE CORNER OF THE PIT CHAMBER WITH THE STEP IRONS DIRECTLY BELOW. ALTERNATIVELY THE PIT LID TO BE USED, IS TO BE THE SAME SIZE AS THE PIT CHAMBER.
12. FOR PIPE SIZES GREATER THAN Ø300mm, PIT FLOOR IS TO BE BENCHED TO FACILITATE FLOW.
13. GALVANISED STEP IRONS SHALL BE PROVIDED AT 300 CTRS FOR PITS HAVING A DEPTH EXCEEDING 1200mm. SUBSOIL DRAINAGE PIPE SHALL BE PROVIDED IN PIPE TRENCHES ADJACENT TO INLET PIPES. (MINIMUM LENGTH 3m)
14. ALL SUBSOIL PIPES SHALL BE 100mm SLOTTED PVC IN A FILTER SOCK, UNO, WITH 3m INSTALLED UPSTREAM OF ALL PITS.
15. ALL PIPEWORK SHALL HAVE MINIMUM DIAMETER 100.
16. MINIMUM GRADE FOR ROOFWATER DRAINAGE LINES SHALL BE 1%.
17. ALL PIPE JUNCTIONS AND TAPER UP TO AND INCLUDING 300 DIA. SHALL BE VIA PURPOSE MADE FITTINGS.
18. ALL ROOF DRAINAGE TO BE INSTALLED IN ACCORDANCE WITH AS3500, PART 3. TESTING TO BE UNDERTAKEN AND REPORTS PROVIDED TO THE SUPERINTENDENT.
19. LOCATION OF THE DIRECT DOWN PIPE CONNECTIONS MAY VARY ON SITE TO SUIT SITE CONDITIONS, WHERE CONNECTION SHOWN ON LONG SECTIONS CHAINAGES ARE INDICATIVE ONLY.
20. PITS IN EXCESS OF 1.5 m DEEP TO HAVE WALL AND FLOOR THICKNESS INCREASED TO 200mm. REINFORCED WITH N12@300 CTS CENTRALLY PLACED THROUGHOUT.
21. STORMWATER PIPES UNDER THE PUBLIC ROADWAY ARE TO BE REINFORCED CONCRETE PIPES, RUBBER RING JOINTED WITH THE APPROPRIATE CLASS STRENGTH AS SPECIFIED ON THE DRAWINGS.

0 400 800 1200 1600 2000mm
400 200
SCALE 1:20

0 200 400 600 800 1000mm
200 100
SCALE 1:10

ISSUED FOR S4.55 APPROVAL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
07	ISSUED FOR S4.55 APPROVAL	JK	IA	25.06.2019
06	PRELIMINARY ISSUE	KR	AF	07.06.2019
05	PRELIMINARY ISSUE	KR	AF	24.05.2019
04	ISSUED FOR DA	IK	IA	08.09.2017
03	ISSUED FOR DA	MC	AF	09.08.2017
02	ISSUED FOR DA	IK	AF	23.03.2017
01	ISSUED FOR DA	MC	IA	21.2.2017

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Architect: GROUP GSA PTY LTD

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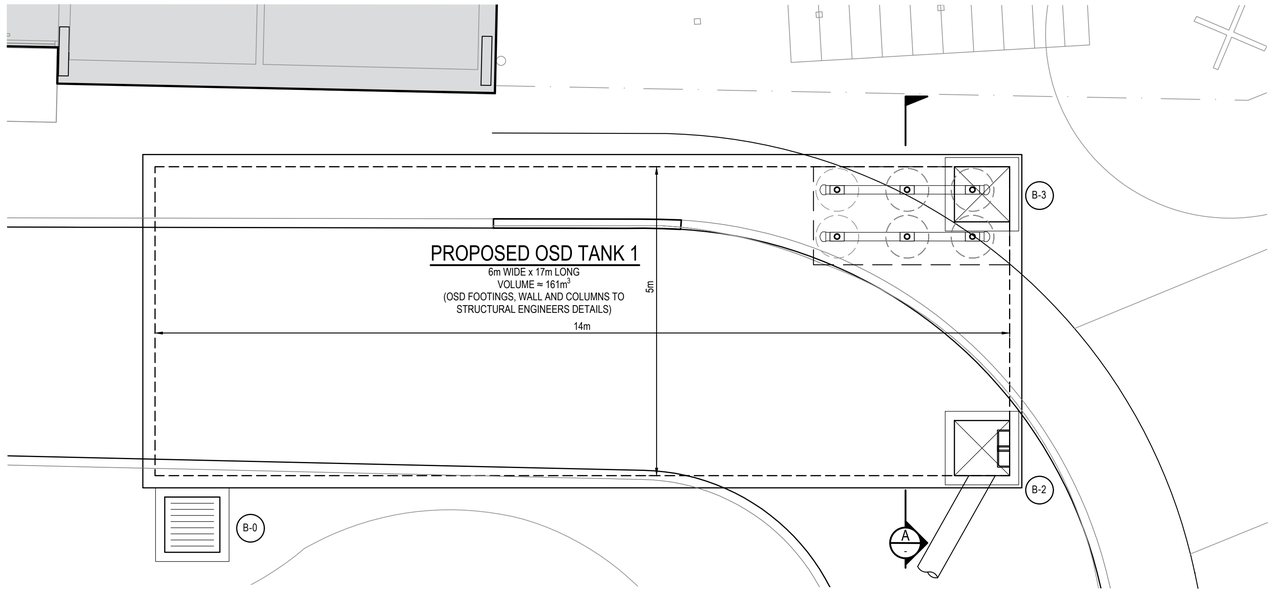
Project: PROPOSED AGED CARE FACILITY
184 - 194 GARDEN STREET, WARRIEWOOD, NSW

Title: STORMWATER MISCELLANEOUS DETAILS & PIT LID SCHEDULE

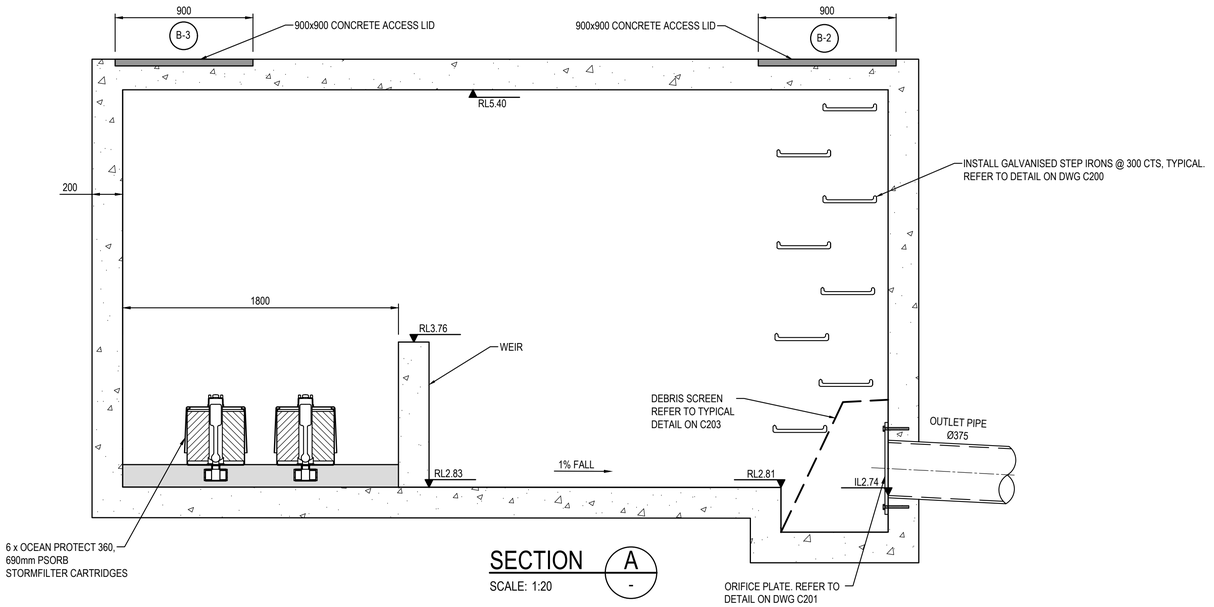
Drawn	Designed	Date
M.Cerna	I.Ahmed	JAN 2018
Checked	Approved	Scale
I.Ahmed	A.Francis	AS SHOWN @ A1

Drawing number: 16940_DA_C200
Revision: 07



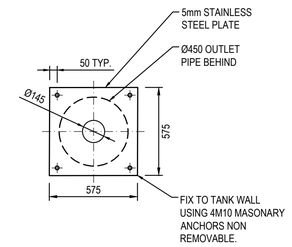
OSD TANK 1 PLAN

SCALE 1:50



SECTION A -

SCALE: 1:20



ORIFICE PLATE FOR OSD 1 DETAIL

SCALE 1:20

0 400 800 1200 1600 2000mm
400 200
SCALE 1:20

0 1000 2000 3000 4000 5000mm
1000 600 200
SCALE 1:50

ISSUED FOR S4.55 APPROVAL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
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06	PRELIMINARY ISSUE	KR	AF	07.06.2019
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04	ISSUED FOR DA	IK	IA	11.09.2017
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02	ISSUED FOR DA	IK	AF	23.03.2017
01	ISSUED FOR DA	MC	IA	21.2.2017

Client
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Architect
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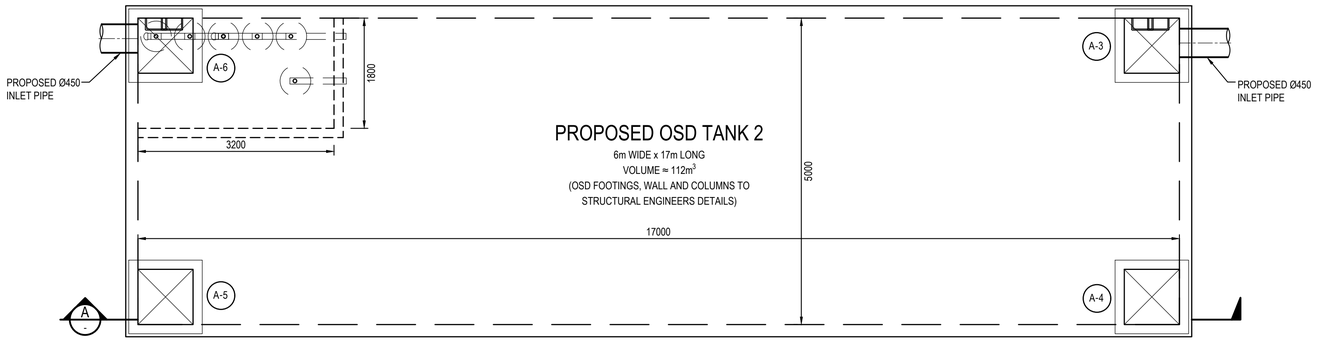
Project
PROPOSED AGED CARE FACILITY
184-194 GARDEN STREET, WARRIEWOOD NSW

Drawn: K.S.Rom | Designed: I.Ahmed | Date: JAN 2018
Checked: I.Ahmed | Approved: A.Francis | Scale: AS NOTED @ A1

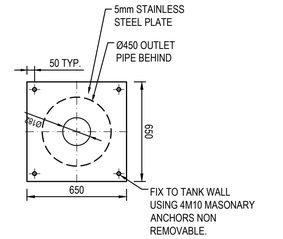
Title
OSD TANK 1 PLAN AND DETAILS
SHEET 1 OF 3

Drawing number: 16940_DA_C201 | Revision: 07



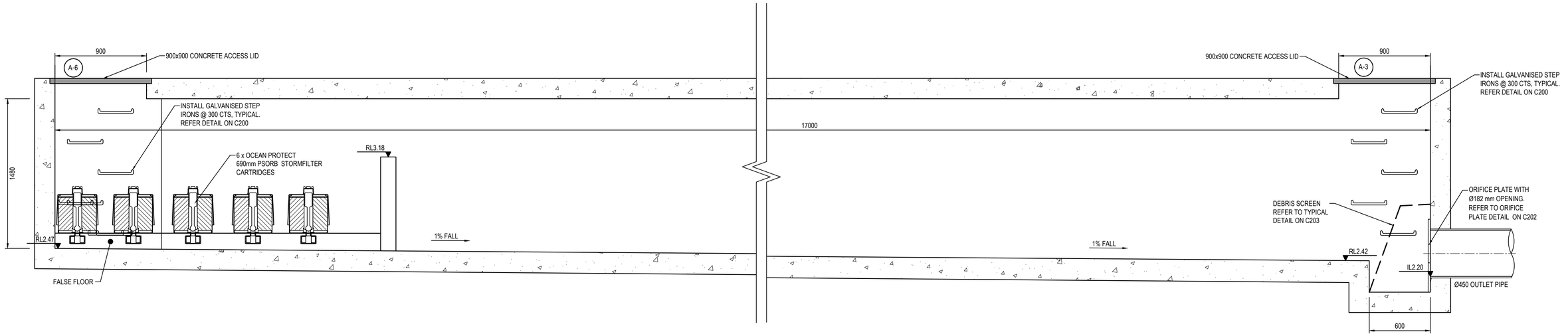
OSD TANK 2 PLAN

SCALE 1:50



ORIFICE PLATE FOR OSD 2 DETAIL

SCALE 1:20



SECTION A

SCALE: 1:20

0 400 800 1200 1600 2000mm
400 200
SCALE 1:20

0 1000 2000 3000 4000 5000mm
1000 600 200
SCALE 1:50

ISSUED FOR S4.55 APPROVAL

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Project
PROPOSED AGED CARE FACILITY
184-194 GARDEN STREET, WARRIEWOOD NSW

Title
OSD TANK 2 PLAN AND DETAILS
SHEET 2 OF 3

Drawn	Designed	Date
K.S.Rom	I.Ahmed	JAN 2018
Checked	**Approved**	**Scale**
I.Ahmed	A.Francis	AS NOTED @ A1

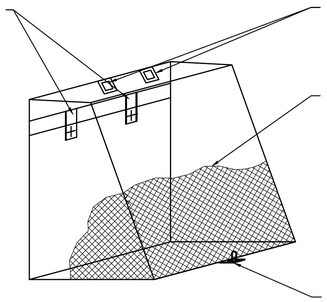
Drawing number
16940_DA_C202

Revision
05

100 x 16 MOUNTING BAR WITH BRACKETS, SCREEN TO BE ATTACHED (GENERALLY ON A SLIDING MECHANISM) TO THE WALL, BUT SHOULD BE REMOVABLE (WITHOUT THE USE OF TOOLS) TO PERMIT CLEANSING AND EASY INSPECTION OF THE OUTLET CONTROL. ALL STEEL TO BE HOT DIPPED GALVANISED.

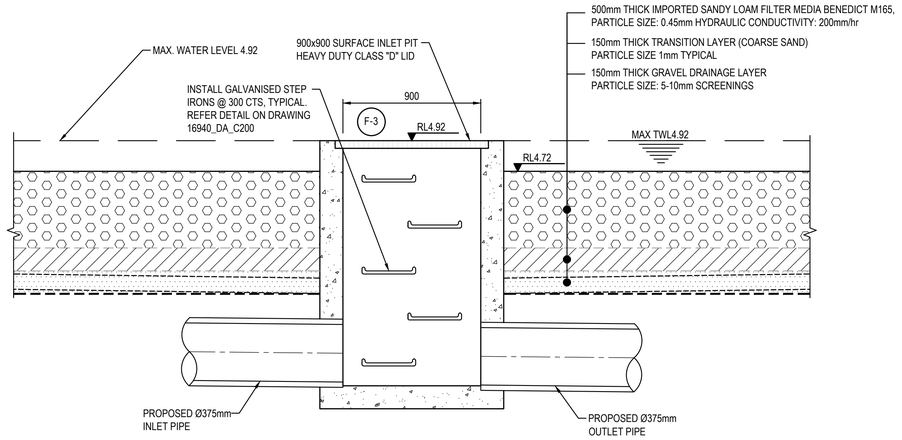
SCREEN TYPE WELDLOK A40/203 IS RECOMENDED FOR ORIFICES LARGER THAN 150mm AND SCREEN AREA 20 x THE ORIFICE AREA FOR THAT TYPE OF SCREEN - REFER UPRCT SECTION 4-13

MAXIMESH RH3030 IS RECOMMENDED FOR ORIFICES LESS THAN 150mm IN DIAMETER AND SCREEN AREA 50xTHE ORIFICE AREA REFER BURWOOD COUNCIL AND UPPER PARRAMATTA RIVER CATCHMENT TRUST HANDBOOK.



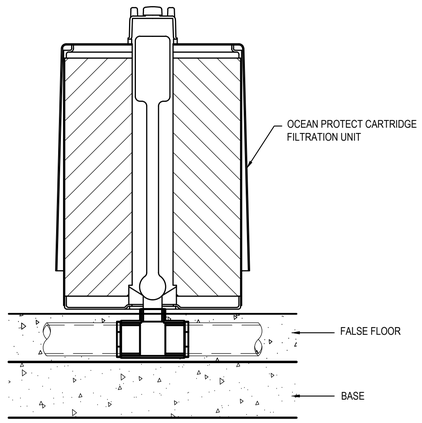
DEBRIS SCREEN DETAIL

NOT TO SCALE
ALL STEEL TO BE HOT DIPPED GALVANISED



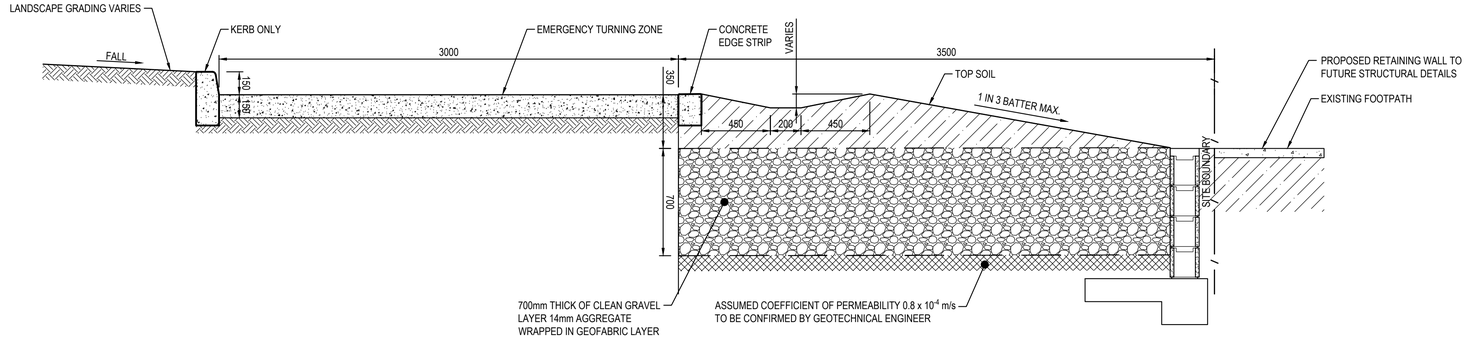
BIO -RETENTION BASIN SECTION

SECTION B / C100
SCALE: 1:20



STORMFILTER CARTRIDGE DETAIL

SCALE: 1:20



INFILTRATION TYPICAL SECTION

SECTION C / C100
SCALE: 1:20

0 400 800 1200 1600 2000mm
400 200
SCALE 1:20

ISSUED FOR S4.55 APPROVAL

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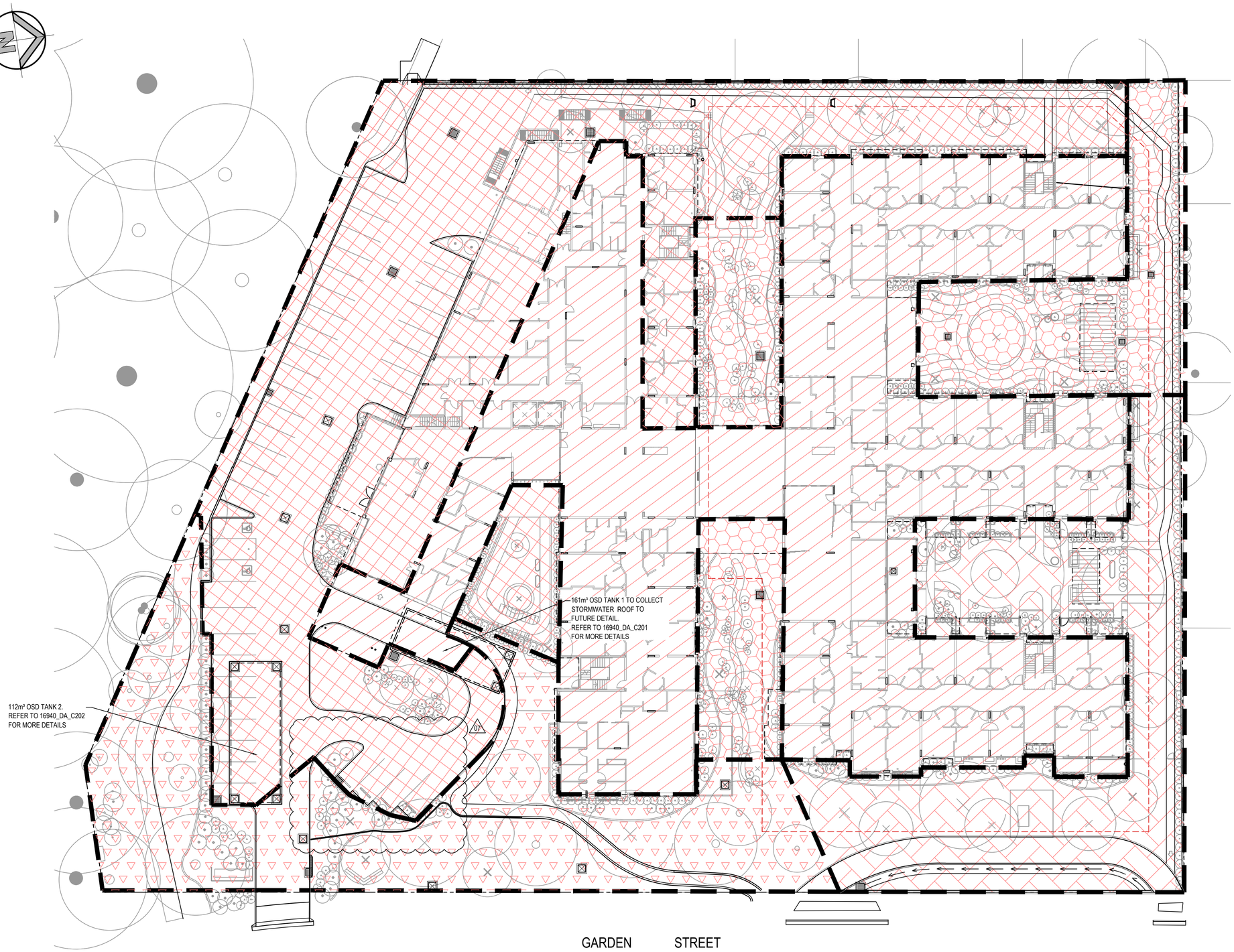
Project: PROPOSED AGED CARE FACILITY
184-194 GARDEN STREET, WARRIEWOOD NSW

Title: OSD DETAILS
SHEET 3 OF 3

Drawn	Designed	Date
K.S.Rom	I.Ahmed	JAN 2018
Checked	Approved	Scale
I.Ahmed	A.Francis	AS NOTED @ A1

Drawing number: 16940_DA_C203
Revision: 05



TOTAL CATCHMENT AREA: 11673 m²

- AREA TO OSD TANK 1 WITH STORMWATER FILTER CARTRIDGES AREA = 3,982 m²
- AREA TO OSD TANK 2 WITH STORMWATER FILTER CARTRIDGES AREA = 3,594 m²
- CATCHMENT AREA TO BYPASS STORMWATER SYSTEM AREA = 1,522 m²
- CATCHMENT AREA TO BIOBASIN 1 AREA = 1208m²
- CATCHMENT AREA TO INFILTRATION TRENCH AREA = 1367 m²

CATCHMENT PLAN

SCALE 1:250

0 5 10 15 20 25m

5 4 3 2 1

SCALE 1:250

ISSUED FOR S4.55 APPROVAL

SURVEY INFORMATION
SURVEYED BY
Bee & Lethbridge Pty Ltd
DATUM: AHD
ORIGIN OF LEVELS: S.S.M. 43671 RL. 3.493

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
07	ISSUED FOR S4.55 APPROVAL	JK	IA	25.06.2019
06	PRELIMINARY ISSUE	KR	IA	07.06.2019
05	PRELIMINARY ISSUE	KR	AF	24.05.2019
04	RE-ISSUED FOR DA	MC	AF	11.09.2017
03	RE-ISSUED FOR DA	MC	AF	09.08.2017
02	ISSUED FOR DA	IK	AF	23.02.2017
01	ISSUED FOR DA	MC	IA	21.2.2017

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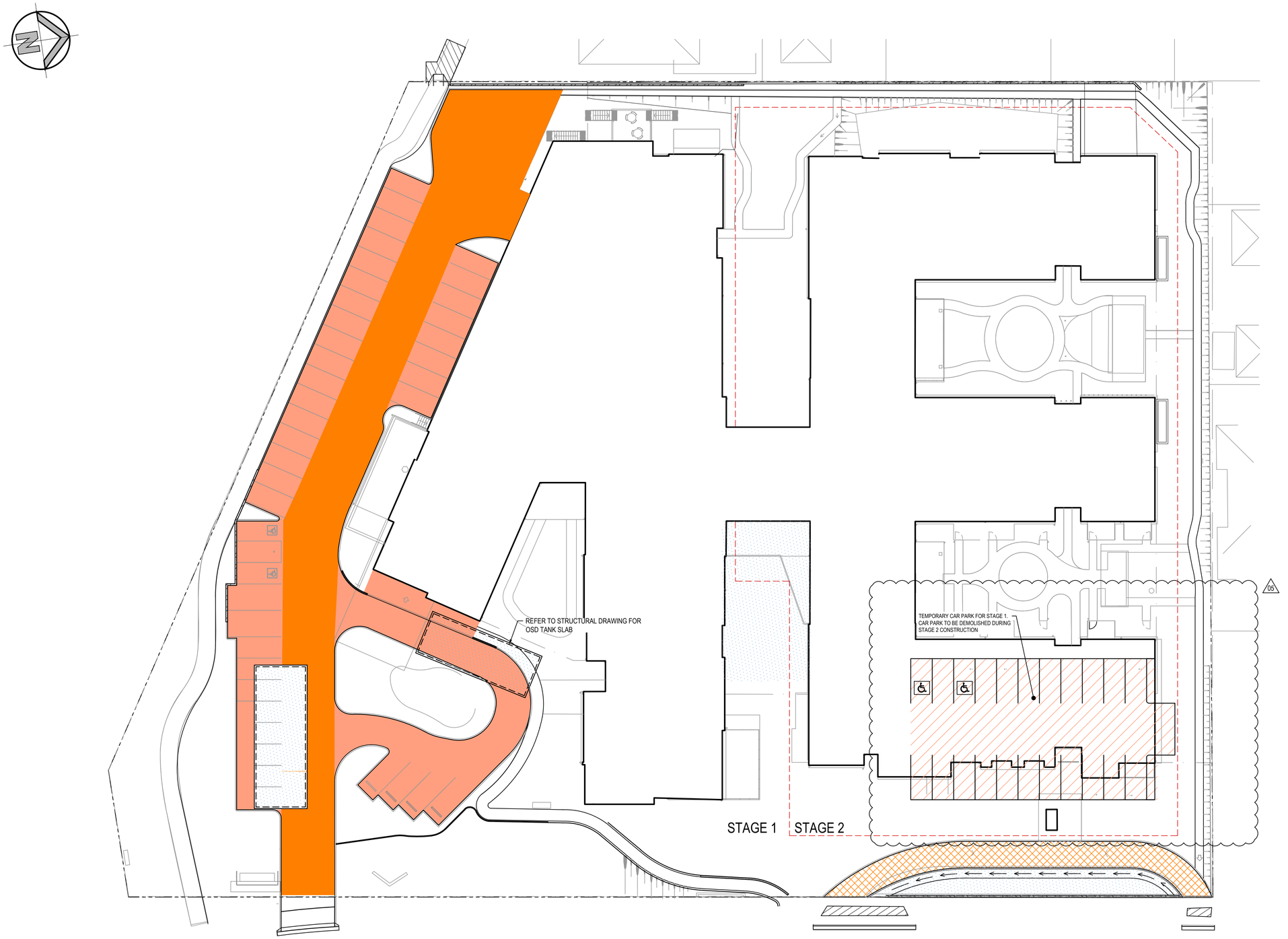
Project
OPAL SEASIDE
184 - 194 GARDEN STREET, WARRIEWOOD, NSW

Title
CATCHMENT PLAN

Drawn	Designed	Date
M.Cerna	I.Ahmed	JAN 2017
Checked	Approved	Scale
I.Ahmed	A.Francis	1:250 @ A1

Drawing number
16940_DA_C250

Revision
07



PAVEMENT PLAN

SCALE 1:250

0 5 10 15 20 25m

5 4 3 2 1

SCALE 1:250

LEGEND

EXISTING BOUNDARY

PROPOSED BUILDING FOOTPRINT

PAVEMENT TYPE LEGEND

PAVEMENT TYPE 1
MEDIUM DUTY PAVEMENT

170 mm 32 MPa CONCRETE SL72 MESH
100 mm DGB20 ON COMPACTED
SUBGRADE WITH CBR 5%

PAVEMENT TYPE 2
LIGHT DUTY PAVEMENT

150 mm 32 MPa CONCRETE SL72 MESH
100 mm DGB20 ON COMPACTED
SUBGRADE WITH CBR 5%

PAVEMENT TYPE 3
LIGHT DUTY PAVEMENT

150 mm DGB20 ON COMPACTED
SUBGRADE WITH CBR 5%

PAVEMENT TYPE 4
ROAD BASE

7mm/ 10mm DOUBLE SPRAY SEAL
150 mm DGB20

PAVEMENT TYPE 5
OSD TANK SLAB. REFER TO STRUCTURAL DRAWINGS FOR DETAILS

SUBGRADE PREPARATION - SITEWORKS.

1. THE EXISTING SURFACE IS TO BE STRIPPED OF ANY PAVEMENTS, TOPSOIL OR OBVIOUS UNSUITABLE MATERIAL.
2. EXCAVATE TO ACHIEVE SUBGRADE LEVELS WHERE NECESSARY.
3. THE EXPOSED SUBGRADE AFTER STRIPPING AND/ OR EXCAVATION IS TO BE PROOF ROLLED USING NOT FEWER THAN 5 PASSES OF A MINIMUM 8 TONNE DEAD WEIGHT STEEL SMOOTH-DRUM ROLLER UNDER THE SUPERVISION OF AN EXPERIENCED GEOTECHNICAL ENGINEER OR AN EXPERIENCED CIVIL ENGINEER. ANY AREAS ON THE SUBGRADE EXHIBITING EXCESSIVE DEFLECTION / MOVEMENT UNDER ROLLER TO BE EXCAVATED TO A MIN. DEPTH OF 0.5m AND REPLACED WITH APPROVED GRANULAR MATERIAL COMPACTED IN 250mm LOOSE LAYERS OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
4. ENGINEERED FILL FOR REPLACEMENT OF SOFT OR HEAVING AREAS OR FOR BULK FILLING TO COMPRISE ESSENTIALLY OF GRANULAR MATERIALS (EG. EXCAVATED SHALE), WITH A PARTICLE SIZE NOT GREATER THAN 75mm DIAMETER. ENGINEERED FILL TO BE PLACED IN LAYERS NOT EXCEEDING 250mm LOOSE THICKNESS AND COMPACTED TO BETWEEN 98% AND 102% OF STANDARD MAXIMUM DRY DENSITY (SMDD) WITHIN ± 2% OF OPTIMUM MOISTURE CONTENT (OMC).
5. IMPORTED FILLING (IF REQUIRED) IS TO BE TO THE APPROVAL OF THE CONTRACTOR'S GEOTECHNICAL ENGINEER. THE CONTRACTOR IS TO NOMINATE THE SOURCE AND PROVIDE A SAMPLE FOR APPROVAL PRIOR TO IMPORTATION AND PLACEMENT ON SITE.
6. ALL FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE SUPERINTENDENT AND SHALL COMPLY WITH THE FOLLOWING.
   FREE FORM ORGANIC AND PERISHABLE MATTER
   MAXIMUM PARTICLE SIZE = 75mm
   MAXIMUM PLASTICITY INDEX = 15%

COMPACTION REQUIREMENTS

1. PREPARATION FOR PAVEMENT:
   CLEAR SITE, STRIP TOP-SOIL, CUT AND FILL AND PREPARATIONS OF SUB-GRADE SHALL BE AS DESCRIBED IN " SUBGRADE PREPARATION".
2. SUB-GRADE SHALL BE COMPACTED TO 98% STANDARD DRY DENSITY RATIO AT OPTIMUM MOISTURE CONTENT ± 2% IN ACCORDANCE WITH AS 1289 5.1.1., TOP 300MM TO 100% SDD.
3. LOWER BASE COURSE SHALL BE CONSTRUCTED FROM CRUSHED SANDSTONE COMPACTED TO 100% STANDARD DRY DENSITY RATIO AT OPTIMUM MOISTURE CONTENT ± 2% IN ACCORDANCE WITH AS 1289 5.1.1. OF THICKNESS NOTED ON DRAWINGS.
4. BASE COURSE SHALL BE CONSTRUCTED FROM FINE CRUSHED ROCK COMPACTED TO 100% STANDARD DRY DENSITY RATIO AT OPTIMUM MOISTURE CONTENT ± 2% IN ACCORDANCE WITH AS 1289 5.1.1 OF THICKNESS NOTED ON DRAWINGS.
5. WEARING SURFACE SHALL BE ASPHALTIC CONCRETE TO STANDARD SPECIFICATION, MINIMUM THICKNESS = 30mm U.N.O.
6. TESTING OF THE SUBGRADE AND PAVEMENT LAYERS SHALL BE CARRIED OUT BY APPROVED N.A.T.A. REGISTERED LABORATORY.

ISSUED FOR S4.55 APPROVAL

SURVEY INFORMATION
SURVEYED BY
Bee & Lethbridge Pty Ltd
DATUM: A.H.D.
ORIGIN OF LEVELS: S.S.M. 43671 RL 3.493

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
05	ISSUED FOR S4.55 APPROVAL	JK	IA	25.06.2019
04	PRELIMINARY ISSUE	KR	IA	07.06.2019
03	PRELIMINARY ISSUE	KR	AF	24.05.2019
02	ISSUED FOR DA	MS	IA	09.08.2017
01	ISSUED FOR DA	MC	IA	21.2.2017

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Project
PROPOSED AGED CARE FACILITY
184-194 GARDEN STREET, WARRIEWOOD NSW

Title
PAVEMENT PLAN

Drawn	Designed	Date
K.S.Rom	I.Ahmed	JAN 2018
Checked	Approved	Scale
I.Ahmed	A.Francis	1:250 @ A1

Drawing number: 16940_DA_C500

Revision: 05

LEGEND

EXISTING BOUNDARY

PROPOSED BUILDING FOOTPRINT

LEVELS UNDER PMF

LEVELS ABOVE PMF

AREAS OF PROPOSED BUILDING THAT WERE PREVIOUSLY NOT CONTRIBUTING TO PMF STORAGE

FLOOD STORAGE PLAN

SCALE 1:250

0 5 10 15 20 25m

5 4 3 2 1

SCALE 1:250

FOR DA ONLY

SURVEY INFORMATION

SURVEYED BY

Bee & Lethbridge Pty Ltd

DATUM; AHD

ORIGIN OF LEVELS: S.S.M. 43671 RL. 3,493

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
03	RE-ISSUED FOR DA	MC	IA	25.06.2019
02	RE-ISSUED FOR DA	MC	IA	09.08.2017
01	ISSUED FOR DA	MC	IA	21.2.2017

Client: DPG SERVICES PTY LIMITED

Architect: GROUP GSA PTY LTD

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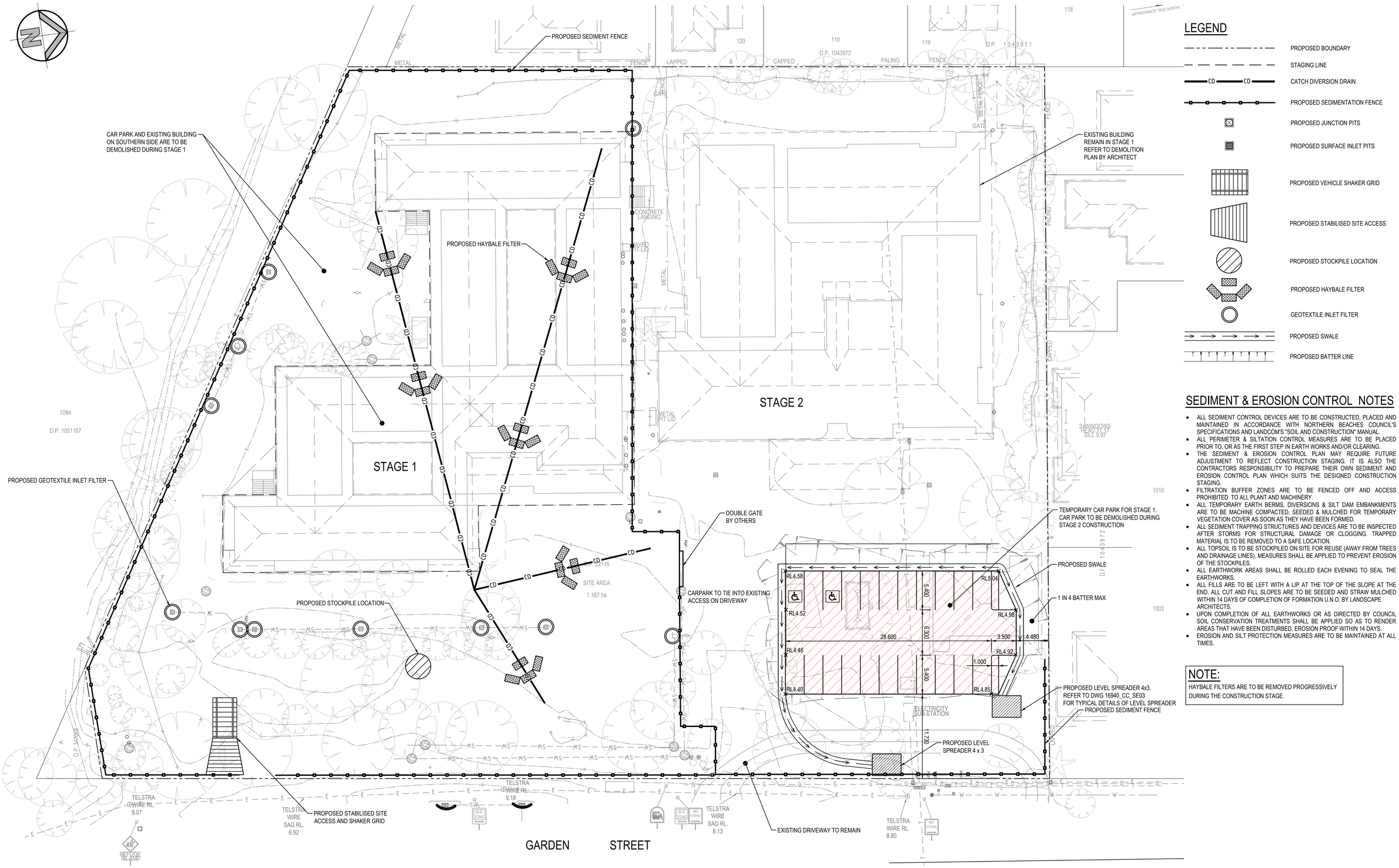
Project: OPAL SEASIDE
184 - 194 GARDEN STREET, WARRIEWOOD, NSW

Title: FLOOD STORAGE PLAN

Drawn	Designed	Date
M.Cerna	I.Ahmed	JAN 2017
Checked	**Approved**	**Scale**
I.Ahmed	A.Francis	1:250 @ A1

Drawing number: 16940_DA_C900

Revision: 03



LEGEND

- PROPOSED BOUNDARY
- STAGING LINE
- CATCH DIVERSION DRAIN
- PROPOSED SEDIMENTATION FENCE
- PROPOSED JUNCTION PITS
- PROPOSED SURFACE INLET PITS
- PROPOSED VEHICLE SHAKER GRID
- PROPOSED STABILISED SITE ACCESS
- PROPOSED STOCKPILE LOCATION
- PROPOSED HAYBALE FILTER
- GEOTEXTILE INLET FILTER
- PROPOSED SWALE
- PROPOSED BATTER LINE

SEDIMENT & EROSION CONTROL NOTES

- ALL SEDIMENT CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL'S SPECIFICATIONS AND LANDCOM'S "SOIL AND CONSTRUCTION" MANUAL.
- ALL PERIMETER & SILTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN EARTH WORKS AND/OR CLEARING.
- THE SEDIMENT & EROSION CONTROL PLAN MAY REQUIRE FUTURE ADJUSTMENT TO REFLECT CONSTRUCTION STAGING. IT IS ALSO 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 TEMPORARY EARTH BERMS, DIVERSIONS & SILT DAM EMBANKMENTS ARE TO BE MACHINE COMPACTED, SEEDED & MULCHED FOR TEMPORARY VEGETATION COVER AS SOON AS THEY HAVE BEEN FORMED.
- ALL SEDIMENT TRAPPING STRUCTURES AND DEVICES ARE TO BE INSPECTED AFTER STORMS FOR STRUCTURAL DAMAGE OR CLOGGING. TRAPPED MATERIAL IS TO BE REMOVED TO A SAFE LOCATION.
- ALL TOPSOIL IS TO BE STOCKPILED ON SITE FOR REUSE (AWAY FROM TREES AND DRAINAGE LINES). MEASURES SHALL BE APPLIED TO PREVENT EROSION OF THE STOCKPILES.
- ALL EARTHWORK AREAS SHALL BE ROLLED EACH EVENING TO SEAL THE EARTHWORKS.
- ALL FILLS ARE TO BE LEFT WITH A LIP AT THE TOP OF THE SLOPE AT THE END. 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.
- UPON COMPLETION OF ALL EARTHWORKS OR AS DIRECTED BY COUNCIL SOIL CONSERVATION TREATMENTS SHALL BE APPLIED SO AS TO RENDER AREAS THAT HAVE BEEN DISTURBED, EROSION PROOF WITHIN 14 DAYS.
- EROSION AND SILT PROTECTION MEASURES ARE TO BE MAINTAINED AT ALL TIMES.

NOTE:
HAYBALE FILTERS ARE TO BE REMOVED PROGRESSIVELY DURING THE CONSTRUCTION STAGE.

SEDIMENT & EROSION CONTROL PLAN - STAGE 1

SCALE 1:250

ISSUED FOR S4.55 APPROVAL

SURVEY INFORMATION
SURVEYED BY
Bee & Lethbridge Pty Ltd
DATUM: A.H.D.
ORIGIN OF LEVELS: S.S.M. 43671 RL 3.493

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
04	ISSUED FOR S4.55 APPROVAL	JK	IA	25.06.2019
03	PRELIMINARY ISSUE	IA	AF	07.06.2019
02	PRELIMINARY ISSUE	IA	AF	24.05.2019
01	ISSUED FOR DA	MC	IA	21.2.2017

Client: OPAL AGED CARE
Architect: GROUP GSA PTY LTD

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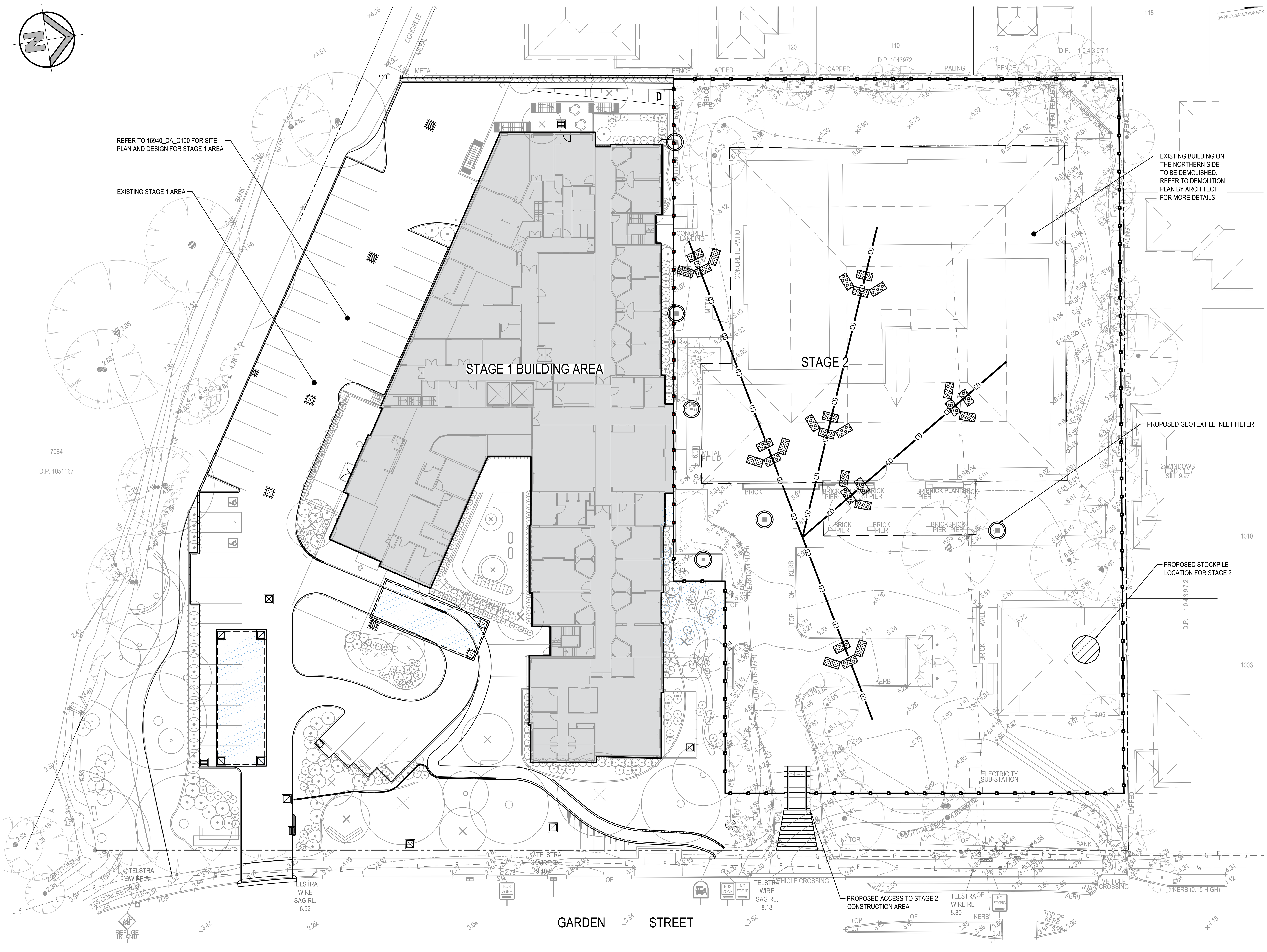
Project: PROPOSED AGED CARE FACILITY
184-194 GARDEN STREET, WARRIEWOOD NSW

Drawn	Designed	Date
K.S.Rom	I.Ahmed	JAN 2018
Checked	Approved	Scale
I.Ahmed	A.Francis	1:250 @ A1

Title: SEDIMENT & EROSION CONTROL PLAN
STAGE 1

Drawing number: 16940_DA_SE01
Revision: 04



SEDIMENT & EROSION CONTROL PLAN - STAGE 2

SCALE 1:250

0 5 10 15 20 25m

SCALE 1:250

LEGEND

- PROPOSED BOUNDARY
- STAGING LINE
- CATCH DIVERSION DRAIN (CD)
- TRAFFIC MANOEUVRING (TM)
- PROPOSED SEDIMENTATION FENCE
- PROPOSED JUNCTION PITS
- PROPOSED SURFACE INLET PITS
- PROPOSED VEHICLE SHAKER GRID
- PROPOSED STABILISED SITE ACCESS
- PROPOSED STOCKPILE LOCATION
- PROPOSED HAYBALE FILTER
- GEOTEXTILE INLET FILTER

SEDIMENT & EROSION CONTROL NOTES

- ALL SEDIMENT CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL'S SPECIFICATIONS AND LANDCOM'S "SOIL AND CONSTRUCTION" MANUAL.
- ALL PERIMETER & SILTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN EARTH WORKS AND/OR CLEARING.
- THE SEDIMENT & EROSION CONTROL PLAN MAY REQUIRE FUTURE ADJUSTMENT TO REFLECT CONSTRUCTION STAGING. IT IS ALSO 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 TEMPORARY EARTH BERMS, DIVERSIONS & SILT DAM EMBANKMENTS ARE TO BE MACHINE COMPACTED, SEEDED & MULCHED FOR TEMPORARY VEGETATION COVER AS SOON AS THEY HAVE BEEN FORMED.
- ALL SEDIMENT TRAPPING STRUCTURES AND DEVICES ARE TO BE INSPECTED AFTER STORMS FOR STRUCTURAL DAMAGE OR CLOGGING. TRAPPED MATERIAL IS TO BE REMOVED TO A SAFE LOCATION.
- ALL TOPSOIL IS TO BE STOCKPILED ON SITE FOR REUSE (AWAY FROM TREES AND DRAINAGE LINES). MEASURES SHALL BE APPLIED TO PREVENT EROSION OF THE STOCKPILES.
- ALL EARTHWORK AREAS SHALL BE ROLLED EACH EVENING TO SEAL THE EARTHWORKS.
- ALL FILLS ARE TO BE LEFT WITH A LIP AT THE TOP OF THE SLOPE AT THE END. 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.
- UPON COMPLETION OF ALL EARTHWORKS OR AS DIRECTED BY COUNCIL SOIL CONSERVATION TREATMENTS SHALL BE APPLIED SO AS TO RENDER AREAS THAT HAVE BEEN DISTURBED, EROSION PROOF WITHIN 14 DAYS.
- EROSION AND SILT PROTECTION MEASURES ARE TO BE MAINTAINED AT ALL TIMES.

NOTE:

HAYBALE FILTERS ARE TO BE REMOVED PROGRESSIVELY DURING THE CONSTRUCTION STAGE.

ISSUED FOR S4.55 APPROVAL

SURVEY INFORMATION
SURVEYED BY
Bee & Lethbridge Pty Ltd
DATUM: A.H.D.
ORIGIN OF LEVELS: S.S.M. 43671 RL 3.493

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
04	ISSUED FOR S4.55 APPROVAL	JK	IA	25.06.2019					
03	PRELIMINARY ISSUE	KR	AF	07.06.2019					
02	PRELIMINARY ISSUE	KR	AF	24.05.2019					
01	ISSUED FOR DA	MC	IA	21.2.2017					

Client: OPAL AGED CARE

Architect: GROUP GSA PTY LTD

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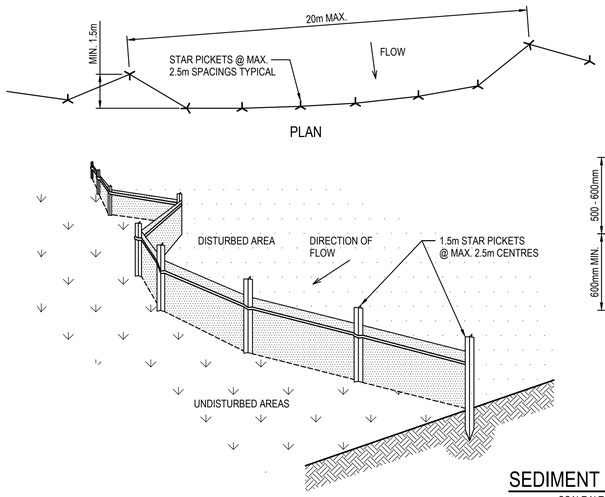
Project: PROPOSED AGED CARE FACILITY
184-194 GARDEN STREET, WARRIEWOOD NSW

Title: SEDIMENT & EROSION CONTROL PLAN
STAGE 2

Drawn	Designed	Date
K.S.Rom	I.Ahmed	JAN 2018
Checked	Approved	Scale
I.Ahmed	A.Francis	1:250 @ A1

Drawing number: 16940_DA_SE02
Revision: 04



SEDIMENT FENCE

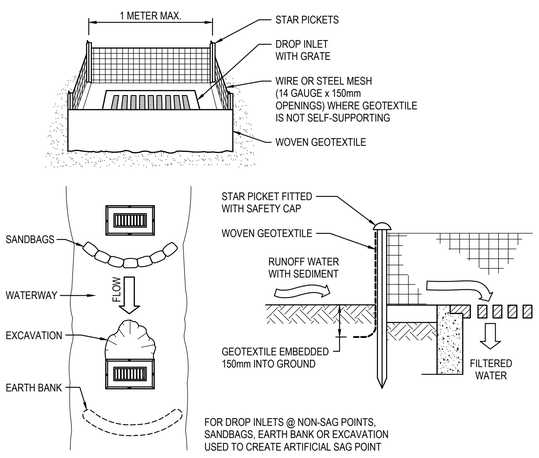
SCALE N.T.S.

SEDIMENT FENCE CONSTRUCTION NOTES:

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5m LONG STAR PICKETS INTO GROUND @ 2.5m INTERVALS (MAX.) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP. 6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

LEVEL SPREADER

SCALE 1:10

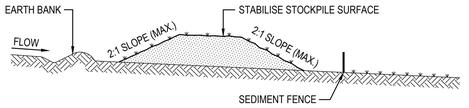


GEOTEXTILE INLET FILTER CONSTRUCTION NOTES:

1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE.
2. PICKET SPACING TO BE MAXIMUM 1.0m.
3. IN WATERWAYS, ARTIFICIAL SAG POINTS CAN BE CREATED WITH SANDBAGS OR EARTH BANKS AS SHOWN IN THE DRAWING.
4. DO NOT COVER THE INLET WITH GEOTEXTILES UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.

GEOTEXTILE INLET FILTER

SCALE N.T.S.

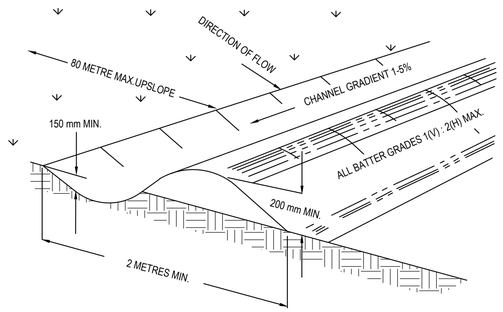


STOCKPILE CONSTRUCTION NOTES:

1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.
4. WHERE THEY ARE TO BE PLACED FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED E.S.C.P. OR S.W.M.P. TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
5. CONSTRUCT EARTH BANKS ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES 1 TO 2 METRES DOWNSLOPE.

STOCKPILES

SCALE N.T.S.



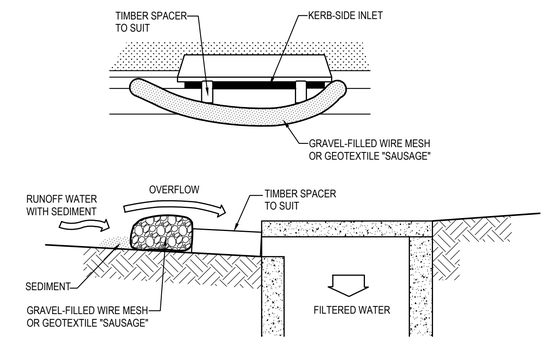
NOTE: ONLY TO BE USED AS TEMPORARY BANK WHERE MAC.UPSLOPE LENGTH IS 80 METERS.

CATCH DRAIN CONSTRUCTION NOTES:

1. CONSTRUCT ALONG GRADIENT AS SPECIFIED.
2. MAXIMUM SPACING BETWEEN BANKS SHALL BE 80 METRES.
3. DRAINS TO BE OF PARABOLIC OR TRAPEZOIDAL CROSS SECTION NOT V-SHAPED.
4. EARTH BANKS TO BE ADEQUATELY COMPACTED IN ORDER TO PREVENT FAILURE.
5. CONSTRUCTION IS OF A TEMPRORARY NATURE AND SHALL BE COMPACTED AT THE END A DAYS WORK OR IMMEDIATELY PRIOR RAIN.
6. ALL OUTLETS FROM DISTURBED LANDS ARE TO FEED INTO SEDIMENT BASIN OR SIMILAR.
7. DISCHARGE RUNOFF COLLECTED FROM UNDISTURBED LANDS ONTO EITHER A STABILISED OR AN UNDISTURBED DISPOSAL AISTE WITHIN THE SAME SUBCATCHMENT AREA FROM WHICH THE WATER ORIGINATED.
8. COMPACT WITH A SUITABLE IMPLEMENT IN SITUATIONS WHERE THEY ARE REQUIRED TO FUNCTION FOR MORE THAN FIVE DAYS.
9. EARTH BANKS TO BE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT WILL IMPEDE NORMAL FLOW.

CATCH DRAINS SD 5-8

SCALE N.T.S.

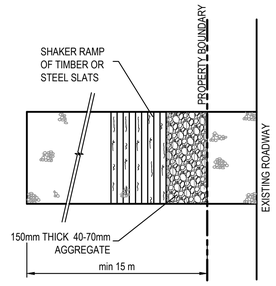


MESH & GRAVEL INLET FILTER CONSTRUCTION NOTES:

1. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
2. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH x 400mm WIDE.
3. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
4. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
5. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY CAN FIRMLY ABUT EACH OTHER AND SEDIMENT / LADEN WATERS CANNOT PASS BETWEEN.

MESH & GRAVEL INLET FILTER

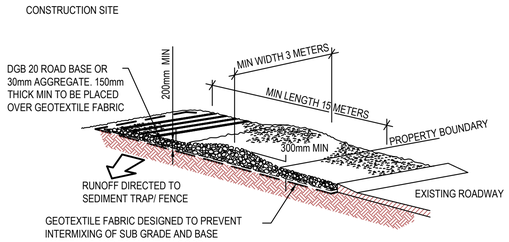
SCALE N.T.S.



PLAN

STABILISED SITE ACCESS WITH SHAKER RAMP

N.T.S.



STABILISED SITE ACCESS WITH SHAKER RAMP

N.T.S.

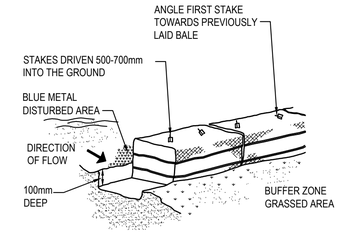
NOTES:

1. THIS DEVICE IS TO BE LOCATED AT ALL EXITS FROM CONSTRUCTION SITE.
2. THIS DEVICE IS TO BE REGULARLY CLEANED OF DEPOSITED MATERIAL SO AS TO MAINTAIN A 50mm DEEP SPACE BETWEEN PLANKS.
3. ANY UNSEALED ROAD BETWEEN THIS DEVICE AND NEAREST ROADWAY IS TO BE TOPPED WITH 100mm THICK 40-70mm SIZE AGGREGATE.
4. ALTERNATIVELY, THREE(3) PRECAST CONCRETE CATTLE GRIDS (AS MANUFACTURED BY "HUMES CONCRETE MAY BE USED. 1, 2 & 3 ABOVE ALSO APPLY.

CONSTRUCTION SEQUENCE

WORKS SHALL BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:

1. INSTALL SEDIMENT FENCING AND CUT DRAINS TO MEET THE REQUIREMENTS OF THE SEDIMENT AND EROSION CONTROL PLAN. WASTE COLLECTION BINS SHALL BE INSTALLED ADJACENT TO SITE OFFICE.
2. CONSTRUCT STABILISED SITE ACCESS IN ACCORDANCE WITH HORNSBY SHIRE COUNCIL'S REQUIREMENTS.
3. REDIRECT CLEAN WATER AROUND THE CONSTRUCTION SITE.
4. INSTALL SEDIMENT CONTROL PROTECTION MEASURES AT ALL NATURAL AND MAN-MADE DRAINAGE STRUCTURES. MAINTAIN UNTIL ALL THE DISTURBED AREAS ARE STABILISED.
5. CLEAR AND STRIP THE WORK AREAS. MINIMISE THE DAMAGE TO THE GRASS AND LOW GROUND COVER OF NON-DISTURBED AREAS.
6. ANY DISTURBED AREAS, OTHER THAN BUILDING PAD AREAS, SHALL IMMEDIATELY BE COVERED WITH SITE TOPSOIL WITHIN 7 DAYS OF CLEARING. BUILDING PAD AREAS SHALL BE COVERED WITH BITUMEN EMULSION AS SPECIFIED.
7. APPLY PERMANENT STABILISATION TO SITE (LANDSCAPING).



HAYBALE BARRIERS

N.T.S.

ISSUED FOR S4.55 APPROVAL

SURVEY INFORMATION
SURVEYED BY
Bee & Lethbridge Pty Ltd
DATUM: A.H.D.
ORIGIN OF LEVELS: S.S.M. 43671 RL 3.493

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
03	ISSUED FOR S4.55 APPROVAL	JK	IA	25.06.2019
02	PRELIMINARY ISSUE	KR	AF	07.06.2019
01	PRELIMINARY ISSUE	KR	AF	24.05.2019

Client: OPAL AGED CARE
Architect: GROUP GSA PTY LTD

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Project: PROPOSED AGED CARE FACILITY
184-194 GARDEN STREET, WARRIEWOOD NSW

Title: SEDIMENT & EROSION CONTROL TYPICAL DETAILS

Drawn	Designed	Date
K.S.Rom	I.Ahmed	JAN 2018
Checked	Approved	Scale
I.Ahmed	A.Francis	NTS

Drawing number: 16940_DA_SE03
Revision: 03