2021878 - 24-36 LANGSTON PLACE, EPPING NSW 2121

DRAWING REGISTER AND CONSTRUCTION NOTES - CIVIL & STORMWATER

DRAWING No.	DESCRIPTION
202187801C-C001	DRAWING REGISTER AND CONSTRUCTION NOTES
202187801C-C005	SOIL AND WATER MANAGEMENT PLAN
202187801C-C006	SOIL AND WATER MANAGEMENT DETAILS
202187801C-C020	SITE STORMWATER DRAINAGE AND PUBLIC DOMAIN PLAN
202187801C-C030	STORMWATER DRAINAGE DETAILS
202187801C-C035	OSD TANK SECTIONS
202187801C-C040	PUBLIC DOMAIN DETAILS, LONGITUDINAL AND CROSS SECTIONS

GENERAL NOTES

G1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS OR SKETCHES AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE SUPERINTENDENT BEFORE PROCEEDING WITH WORK.

G2 MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE SPECIFICATION, CURRENT SAA CODES, BUILDING REGULATIONS AND THE REQUIREMENTS OF ANY OTHER RELEVANT STATUTORY AUTHORITIES.

G3 THESE DRAWINGS MUST NOT BE SCALED. ALL DIMENSIONS ARE IN METERS. ALL SET OUT DIMENSIONS AND LEVELS, INCLUDING THOSE SHOWN ON THESE DRAWINGS SHALL BE IN ACCORDANCE WITH THE ARCHITECT'S DRAWINGS AND VERIFIED ON SITE.

G4 ALL SETOUT AND DIMENSIONS OF THE STRUCTURE INCLUDING KERBS AND RETAINING WALLS, AND BULK EARTHWORKS MUST BE TAKEN FROM THE ARCHITECT'S DRAWINGS. SETOUT OF THE STORMWATER PITS BY OTHERS. CONTRACTOR TO CONFIRM SETOUT OF SERVICE TRENCHING INCLUDING SUBSOIL ON SITE.

G5 THE CONTRACTOR SHALL COMPLY WITH ALL REGULATIONS OF AUTHORITIES HAVING JURISDICTON OVER THE WORKS. REFER TO GEOTECHNICAL REPORT BY DOUGLAS PARTNERS PROJECT NO. 85829.00 DATED FEBRUARY 2017.

G6 ALL DIMENSIONS AND REDUCED LEVELS MUST BE VERIFIED ON SITE BEFORE THE COMMENCEMENT OF ANY WORK.

G7 THE APPROVAL OF A SUBSTITUTION SHALL BE SOUGHT FROM THE SUPERINTENDENT BUT IS NOT AN AUTHORISATION OF A COST VARIATION. THE SUPERINTENDENT MUST APPROVE ANY COST VARIATION INVOLVED BEFORE ANY WORK STARTS.

G8 ALL LEVELS SHOWN ARE TO THE AUSTRALIAN HEIGHT DATUM.

G9 SERVICE INFORMATION SHOWN IS APPROXIMATE ONLY. PRIOR TO COMMENCEMENT OF ANY WORKS, THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND SERVICES AND COMPLY WITH ALL REQUIREMENTS OF THOSE AUTHORITIES.

G10 EXISTING SURFACE CONTOURS, WHERE SHOWN, ARE INTERPOLATED AND MAY NOT BE ACCURATE.

G11 UNLESS NOTED OTHERWISE, ALL VEGETATION SHALL BE STRIPPED TO A MINIMUM DEPTH OF 150mm UNDER ALL PROPOSED PAVEMENT AND BUILDING AREAS.

G12 MAKE SMOOTH CONNECTION WITH ALL EXISTING WORKS.

SITEWORKS NOTES

S1 PRIOR TO THE PLACEMENT OF ANY PAVEMENTS, BUILDINGS OR DRAINS THE EXPOSED SUBGRADE SHALL BE COMPACTED TO A MINIMUM OF 98% STANDARD COMPACTION IN ACCORDANCE WITH TEST 'E1.1' OF A.S. 1289 FOR THE TOP 300mm. ANY SOFT SPOTS SHALL BE REMOVED AND REPLACED WITH GRANULAR FILL TO THE ENGINEERS APPROVAL AND COMPACTED IN ACCORDANCE WITH THE COMPACTION REQUIREMENTS SET OUT BELOW. ON HIGHLY REACTIVE CLAY AREAS SITE EXCAVATED MATERIAL MAY BE USED WITH THE PRIOR AUTHORISATION OF THE ENGINEER.

S2 ALL FILL AND PAVEMENT MATERIALS SHALL BE COMPACTED IN ACCORDANCE WITH DOUGLAS PARTNERS GEOTECHNICAL REPORT REFERENCE 85829.00, DATED FEBRUARY 2017. MOISTURE CONTENT TO BE MAINTAINED AT +/- 2% OMC. MINIMUM COMPACTION REQUIREMENTS ARE DETAILED BELOW F0R (ALL REQUIREMENTS ARE TO VERIFIED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER):

• LANDSCAPED AREAS	98% STD.
• FILL UNDER ANY FOOTINGS AND FLOOR SLABS FOR ANY STRUCTURE TO SUBGRADE LEVEL;	
- FINE CRUSHED ROCK	98% STD.
- SELECTED FILL WITHOUT CONSPICUOUS CLAY CONTENT	98% STD.
• BUILDING BASECOURSE	98% MOD
• FILL UNDER ROAD PAVEMENTS;	
- TO WITHIN 500mm OF FINISHED SUBGRADE LEVEL	98% STD.
- UP TO FINISHED SUBGRADE LEVEL	98% STD.
• ROAD PAVEMENT MATERIALS;	
- SUB BASE	98% MOD.
- BASE COURSE	8% MOD.

THE MAXIMUM COMPACTION IS TO BE NO GREAT THAN 4% ON TOP OF THE ABOVE MENTION VALUES.

S3 GRADE EVENLY BETWEEN FINISHED SURFACE SPOT LEVELS. FINISHED SURFACE CONTOURS ARE SHOWN FOR CLARITY. WHERE FINISHED SURFACE LEVELS ARE NOT SHOWN, THE SURFACE SHALL BE GRADED SMOOTHLY SO THAT IT WILL DRAIN AND MATCH ADJACENT SURFACES OR STRUCTURES.

S4 ALL DIMENSIONS GIVEN ARE TO FACE OF KERB, CENTER OF PIPE OR EXTERIOR FACE OF BUILDING UNLESS NOTED OTHERWISE.

S5 ANY STRUCTURES, PAVEMENTS OR SURFACES DAMAGED, DIRTIED OR MADE UNSERVICABLE DUE TO CONSTRUCTION WORK SHALL BE REINSTATED TO THE SATISFACTION OF THE ENGINEER.

S6 ANY FILL REQUIRED SHALL BE APPROVED BY THE ENGINEER / GEOTECHNICAL CONSULTANT

S7 CONTRACTOR IS TO ENSURE THAT ALL EXCAVATIONS ARE MAINTAINED IN A DRY CONDITION WITH NO WATER ALLOWED TO REMAIN IN THE EXCAVATIONS.

S8 ALL FINISHES AND COLOURS TO BE IN ACCORDANCE WITH ARCHITECTURAL SPECIFICATIONS.

S9 REFER TO STRUCTURAL DRAWINGS FOR CONCRETE, REINFORCEMENT AND RETAINING WALL DETAILS.

S10 GENERALLY FOR TRENCHING WORKS THE CONTRACTOR MUST:
A) COMPLY WITH THE GENERAL PROVISIONS OF PART 3.1 "MANAGING RISKS TO HEALTH AND SAFETY" OF NSW WORK AND HEALTH AND SAFETY REGULATION 2011

B) COMPLY PART 6.3 DIVISION 3 "EXCAVATION WORK" OF NSW WORK HEALTH AND SAFETY REGULATION NSW 2011

S11 PRIOR TO THE EXCAVATION OF ANY TRENCH DEEPER THAN 1.5 METRES THE CONTRACTOR MUST:
A) NOTIFY THE OCCUPATIONAL HEALTH AND SAFETY AUTHORITY ON THE APPROPRIATE FORM.

STORMWATER DRAINAGE NOTES

SW1 UNLESS NOTED OTHERWISE BY HYDRAULIC ENGINEERS DRAWINGS, ALL DOWNPIPES & GRATED INLETS SHALL BE CONNECTED TO PITS OR MAIN STORMWATER DRAINS WITH 150 DIA. UPVC PIPES LAID AT A MINIMUM GRADE OF 1 IN 100. FOR SYPHONIC ROOF DRAINAGE SYSTEMS ALL DOWNPIPES CONNECTION DRAIN SIZES TO BE CONNECTED INTO MAIN STORMWATER DRAINS SHALL BE IN ACCORDANCE WITH HYDRAULIC ENGINEERS DRAWINGS.

SW2 ALL MAIN STORMWATER DRAINS SHALL BE CONSTRUCTED USING MATERIALS AS SPECIFIED ON THE DRAWINGS IN ACCORDANCE WITH THE APPROPRIATE A.S. IF NOT SPECIFIED THEN CLASS 2 RRJ RCP SHALL BE USED FOR DIAMETERS > 225mm. SEWER CLASS SEH UPVC IN ACCORDANCE WITH AS1260 SHALL BE USED FOR Ø225mm OR SMALLER.

SW3 ALL PIPEWORK TO BE INSTALLED IN ACCORDANCE WITH AS3725 FOR RCP AND AS2032 FOR PVC. ALL BEDDING TO BE TYPE H2 UNLESS NOTED OTHERWISE.

SW4 FOR ALL PITS > 1.2m DEEP, STEP IRONS SHALL BE INSTALLED.

SW5 PRECAST PITS MAY BE USED EXTERNAL TO THE BUILDING SUBJECT TO APPROVAL BY BONACCI GROUP.

SW6 ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.

SW7 WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPE IS TO BE USED.

SW8 GRATES AND COVERS SHALL CONFORM WITH AS 3996 AND AS 1428.1 FOR ACCESS REQUIREMENTS.

SW9 CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES ARE NOT TO BE REDUCED WITHOUT APPROVAL.

SW10 AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.

SW11 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/ENGINEER FOR FURTHER DIRECTIONS.

KERBING NOTES

K1 ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 32 MPa U.N.O.

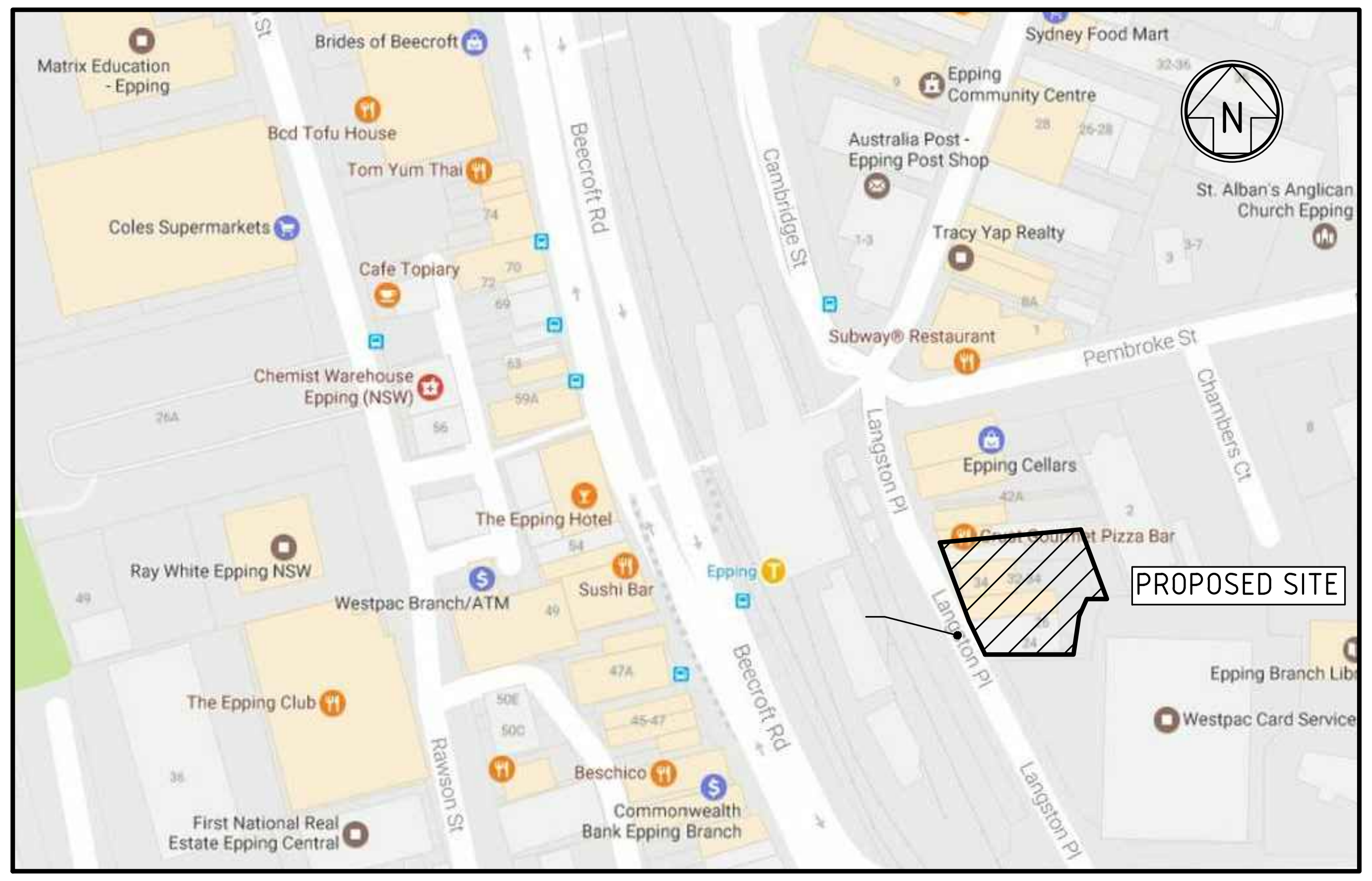
K2 ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON 75mm GRANULAR BASECOURSE COMPACTED TO A MINIMUM 98% MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS1289 5.2.1.

K3 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 MAX 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLAB.

K4 WEAKENED PLANE JOINTS TO BE MIN 3mm WIDE AND LOCATED AT 3m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLAB.

K5 BROOMED FINISH TO ALL RAMPED AND VEHICULAR CROSSINGS. ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED.

K6 IN THE REPLACEMENT OF KERBS:-
- EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm U.N.O. FROM THE LIP OF GUTTER. UPON COMPLETION OF THE NEW KERB AND GUTTER, NEW BASECOURSE AND SURFACE TO BE LAID 600mm WIDE U.N.O.
- EXISTING KERBS ARE TO BE COMPLETELY REMOVED WHERE NEW KERBS ARE SHOWN.



LOCALITY PLAN

NOT TO SCALE

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Rev	Description	Date	By	App
P3	DEVELOPMENT APPLICATION	07.12.17	CS	-
P2	DEVELOPMENT APPLICATION	16.03.17	WW	-
P1	PRELIMINARY	24.02.17	WW	-

Rev	Description	Date	By	App

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Project Name: RESIDENTIAL DEVELOPMENT
24-36 LANGSTON PLACE
EPPING, NSW, 2121

Drawing Title: DRAWING REGISTER AND CONSTRUCTION NOTES

PRELIMINARY

Designed: WW
Drawn: WW
Scale: NOTED
Date: FEB 2017
Sheet: A1

Project Director Approved
Date
North

Project Ref: 20 21878 01
Drawing No: C001
Rev: P3

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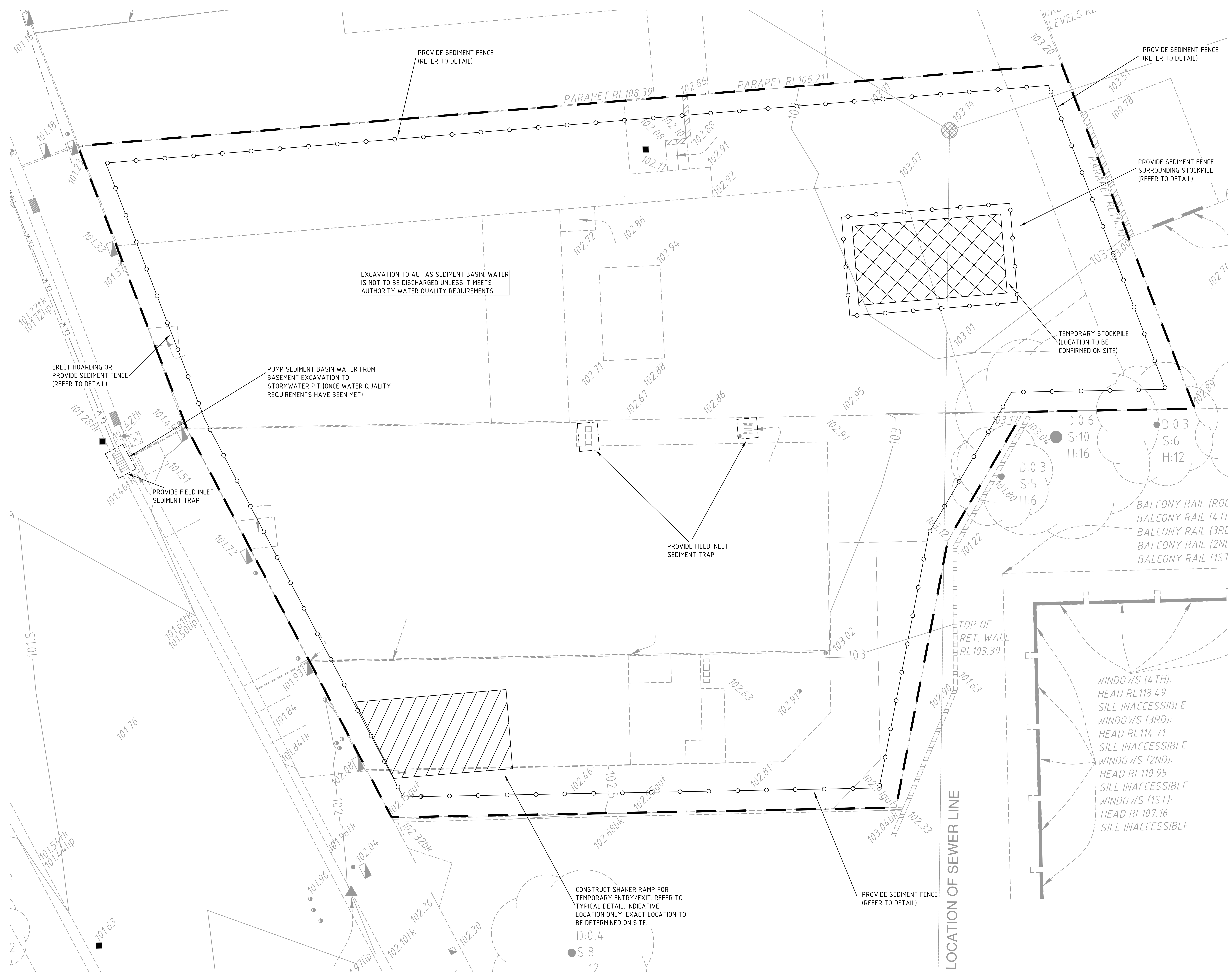

SOIL AND WATER MANAGEMNT NOTES

1. THE EXISTING SITE MOSTLY DRAINS TOWARDS WEST AND THE FOOTHPATH FRONTING THE SITE FALLS TOWARD LANGSTON PLACE. SO, NO EXTERNAL CATCHMENT FLOW PASSES THROUGH THE SITE BASED ON TOPOGRAPHICAL MAP/ SITE SURVEY.
2. ANY EXTERNAL CATCHMENT FLOWS THAT MIGHT ENTER SITE DURING CONSTRUCTION, WILL BE DIVERTED BY PROVIDING CATCH DRAIN TO THE SITE BOUNDARY.
3. DURING CONSTRUCTION, THE SITE WATER (GROUNDWATER. SEEPAGE, DEWATERING AND TRAPPED STORMWATER) SHOULD BE REMOVED USING PUMP SYSTEM TO EXISTING STORMWATER PITS ON LANGSTON PLACE (PROVIDING WATER QUALITY REQUIREMENTS OF LESS THAN 50mg PER LITER OF SUSPENDED SOLIDS ARE MET).
4. IF TEMPORARY SHAKER PAD IS UNABLE TO CAPTURE ALL THE SEDIMENTS DURING CONSTRUCTION, STREET SWEEPER SHOULD BE USED ON DAILY BASIS TO REMOVE MATERIAL THAT'S BEEN SOURCED FROM THE SITE.
5. INDICATIVE STAGING OF CONSTRUCTION WORKS ARE PROVIDED BELOW:
    - ERECT HOARDINGS/SEDIMENT FENCES TO SITE BOUNDARY TO PREVENT MATERIAL LEAVING THE SITE.
    - CONSTRUCT SEDIMENT BASIN LOCATED AT LOW POINT WITHIN THE SITE BEFORE STARTING ANY DEMOLITION OR CONSTRUCTION WORKS AND PROVIDE ANY EARTHWORKS REQUIRED TO DIVERT SITE FLOW TO SEDIMENT BASIN TO MAINTAIN WATER QUALITY BEFORE LEAVING THE SITE.
    - DEMOLITION OF THE EXISTING STRUCTURES AND STRIP TOP SOIL AS REQUIRED.
    - CONSTRUCTION OF THE PROPOSED WORKS [STRUCTURAL AND CIVIL SITE WORKS INCLUDING STORMWATER].

NOTES:

REFER TO SOIL AND WATER MANAGEMENT NOTES AND DETAILS ON SHEET C006

SOIL AND WATER MANAGEMENT LEGEND

—○—○—	SEDIMENT FENCE / HOARDING
▨	TEMPORARY SHAKER RAMP FOR ENTRY/EXIT
▩	TEMPORARY STOCKPILE (LOCATION TBC ON-SITE)
⬚	GEOTEXTILE PIT FILTER / FILTER SURROUND INSTALLED ON EXISTING PIT

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P2	DEVELOPMENT APPLICATION	16.03.17	WW	-
P1	PRELIMINARY	24.02.17	WW	-

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Drawing Title
SOIL AND WATER
MANAGEMENT PLAN

Designed WW
Drawn WW
Scale 1:100
Date FEB 2017
Sheet A1

PRELIMINARY

Project Director Approved
Date
North

Project Ref	Drawing No	Rev
20 21878 01	C005	P2

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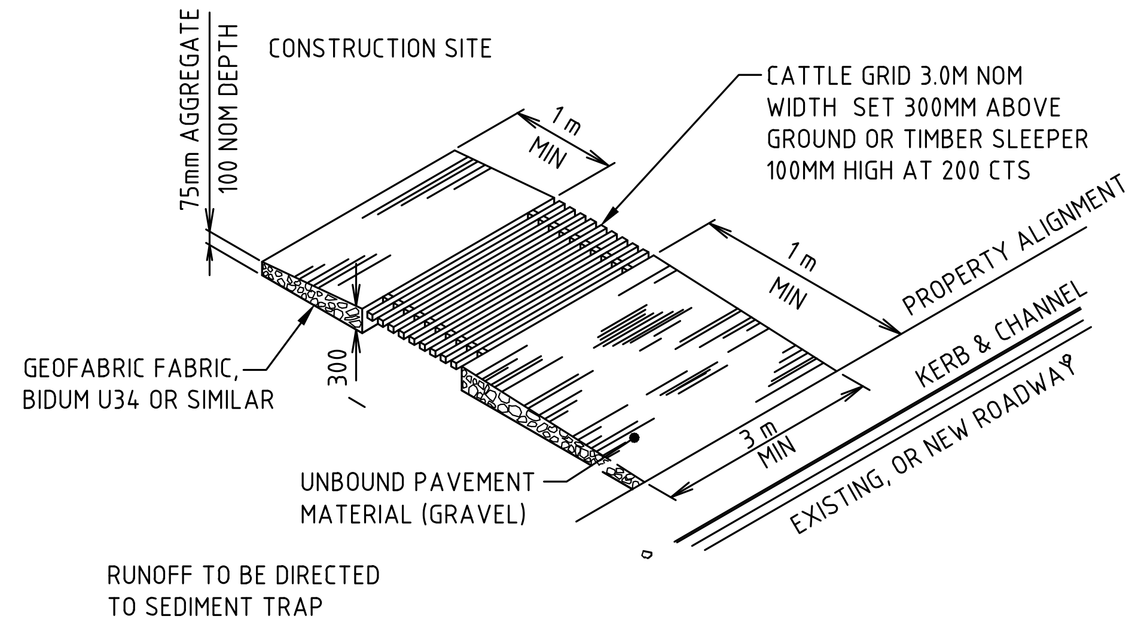

TEMPORARY CONSTRUCTION VEHICLE ENTRY/EXIT SEDIMENT TRAP

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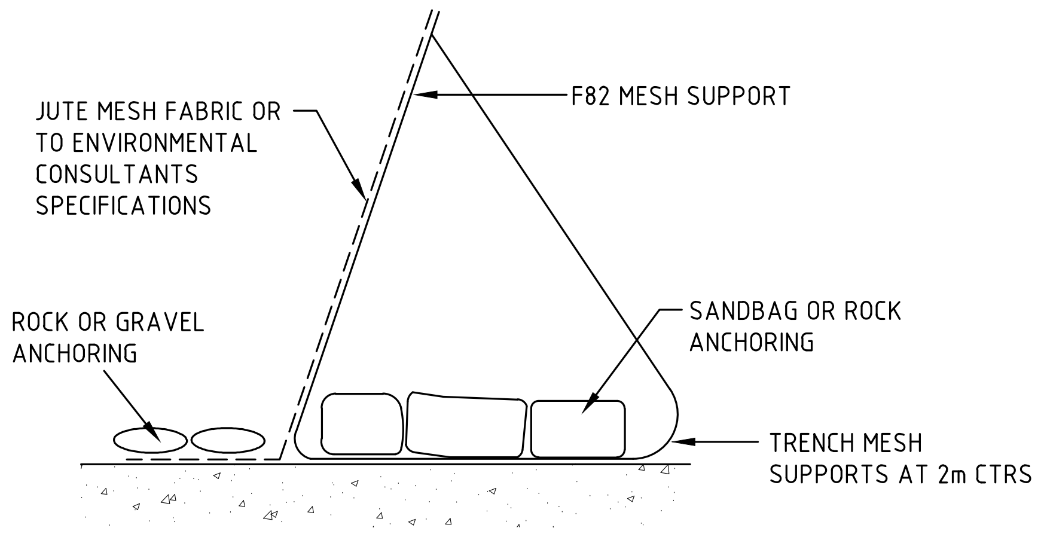
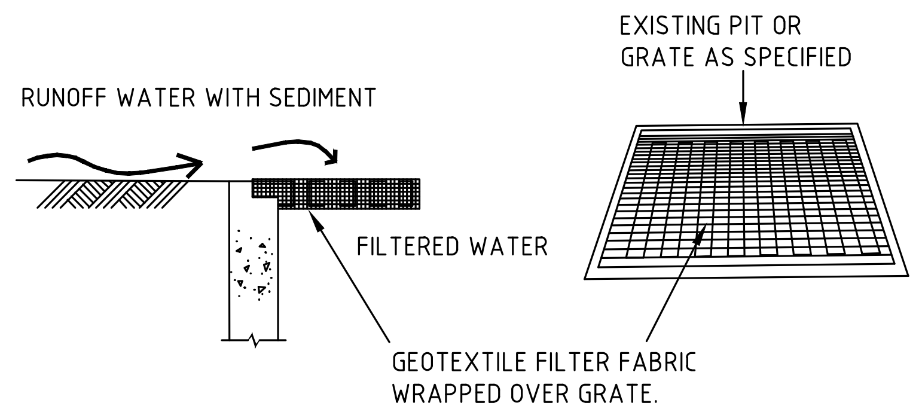


ALTERNATIVE SEDIMENT FENCE

NOT TO SCALE

ALTERNATIVE SEDIMENT FENCE NOTES

1. INSTALL THIS TYPE OF SEDIMENT FENCE WHEN USE OF SUPPORT POSTS IS NOT DESIRABLE OR NOT POSSIBLE. SUCH CONDITIONS MIGHT APPLY, FOR EXAMPLE, WHERE APPROVAL IS GRANTED FROM THE APPROPRIATE AUTHORITIES TO PLACE THESE FENCES IN HIGHLY SENSITIVE ESTUARINE AREAS.
2. USE BENT TRENCH MESH TO SUPPORT THE F82 WELDED MESH FACING AS SHOWN ON THE DRAWING ABOVE. ATTACH THE JUTE MESH TO THE WELDED MESH FACING USING UV-RESISTANT CABLE TIES.
3. STABILISE THE WHOLE STRUCTURE WITH SANDBAG OR ROCK ANCHORING OVER THE TRENCH MESH AND THE LEADING EDGE OF THE JUTE MESH. THE ANCHORING SHOULD BE SUFFICIENTLY LARGE TO ENSURE STABILITY OF THE STRUCTURE IN THE DESIGN STORM EVENT, USUALLY THE 10 YEAR EVENT.



GEOTEXTILE PIT FILTER

NOT TO SCALE

SOIL AND WATER MANAGEMENT NOTES

1. IT HAS BEEN ASSUMED THAT HOARDINGS/SILT FENCING WILL BE PROVIDED TO THE STAGE BOUNDARY SUFFICIENT TO PREVENT SEDIMENT RUNOFF FROM LEAVING SITE (EXCEPT IN THE CASE OF ENTRY/EXIT LOCATIONS WHERE TEMPORARY CONSTRUCTION ENTRY/EXIT SEDIMENT TRAP ARE PROVIDED). IF THIS IS NOT THE CASE, PROVIDE SEDIMENT FENCE TO STANDARD DETAIL BELOW AS REQUIRED TO PREVENT SEDIMENT FROM LEAVING SITE, DIRECT RUNOFF TO SEDIMENT BASIN.

2. ALL SEDIMENT CONTROL MEASURES TO BE INSTALLED IN ACCORDANCE WITH LANDCOM MANAGING URBAN STORMWATER "BLUE BOOK".

3. UPON COMPLETION OF ALL DEMOLITION WORKS, EXCAVATION TO COMMENCE AT SEDIMENT BASIN LOCATION SHOWN ON DRAWING. ONCE MINIMUM VOLUME IS ACHIEVED, THE EXCAVATION MAY ACT AS THE SEDIMENT BASIN.

SEDIMENT CONTROL CONDITIONS

1. SEDIMENT FENCES WILL BE INSTALLED AS SHOWN AND ELSEWHERE AT THE DISCRETION OF THE SITE MANAGER TO CONTAIN COARSER SEDIMENT FRACTIONS INCLUDING AGGREGATED FINES) AS NEAR AS POSSIBLE TO THEIR SOURCE.

2. SEDIMENT REMOVED FROM ANY TRAPPING DEVICE WILL BE RELOCATED WHERE FURTHER POLLUTION TO DOWNSLOPE LANDS & WATERWAYS CANNOT OCCUR.

3. STOCKPILES WILL BE PLACED WHERE SHOWN ON DRAWING OR ELSEWHERE AT THE DISCRETION OF THE SITE MANAGER AND NOT WITHIN 5m OF HAZARD AREAS INCLUDING LIKELY AREAS OF HIGH VELOCITY FLOWS SUCH AS WATERWAYS, PAVED AREAS & DRIVEWAYS.

4. WATER WILL BE PREVENTED FROM DIRECTLY ENTERING THE PERMANENT DRAINAGE SYSTEM WITH INLET FILTERS (SEE DETAILS) UNLESS IT IS SEDIMENT FREE.

5. TEMPORARY SEDIMENT TRAPS WILL BE RETAINED UNTIL AFTER THE LANDS THEY ARE PROTECTING ARE COMPLETELY REHABILITATED.

6. CONTRACTOR TO DESIGN/SIZE/CONSTRUCT TEMPORARY SEDIMENT BASIN, WATER SHOULD BE ALLOWED TO SETTLE BEFORE DISCHARGE. CONTRACTOR MUST VERIFY THAT WATER QUALITY MEETS AUTHORITIES REQUIREMENTS PRIOR TO DISCHARGE . ACCUMULATED SEDIMENT SHOULD THEN BE REMOVED & DISPOSED OF IN ACCORDANCE WITH ENVIRONMENTAL MANAGEMENT PROCEDURES.

SITE INSPECTION & MAINTENANCE CONDITIONS

THE SITE MANAGER WILL INSPECT THE SITE AT LEAST WEEKLY AND WILL:

1. ENSURE THAT DRAINS OPERATE PROPERLY & TO EFFECT ANY NECESSARY REPAIRS

2. REMOVE SPILLED SAND OR OTHER MATERIALS FROM HAZARD AREAS, INCLUDING LANDS CLOSER THAN 5m FROM AREAS OF LIKELY CONCENTRATED OR HIGH VELOCITY FLOWS ESPECIALLY WATERWAYS & PAVED AREAS.

3. REMOVE TRAPPED SEDIMENT WHENEVER LESS THAN DESIGN CAPACITY REMAINS WITHIN THE STRUCTURE

4. ENSURE REHABILITATED LANDS HAVE EFFECTIVELY REDUCED THE EROSION HAZARD AND TO INITIATE UPGRADING OR REPAIR AS APPROPRIATE.

5. CONSTRUCT ADDITIONAL EROSION AND/OR SEDIMENT CONTROL WORKS AS MIGHT BECOME NECESSARY TO ENSURE THE DESIRED PROTECTION IS GIVEN TO DOWNSLOPE LANDS AND WATERWAYS.

6. MAINTAIN EROSION & SEDIMENT CONTROL MEASURES IN A FULLY FUNCTIONING CONDITION UNTIL ALL EARTHWORK ACTIVITIES ARE COMPLETED AND THE SITE IS REHABILITATED.

7. REMOVE TEMPORARY SOIL CONSERVATION STRUCTURES AS THE LAST ACTIVITY IN THE REHABILITATION PROGRAM.

AS PART OF THE STATUTORY 'DILIGENCE OF CARE' RESPONSIBILITIES, THE SITE MANAGER WILL KEEP A LOGBOOK MAKING ENTRIES AT LEAST WEEKLY, IMMEDIATELY BEFORE FORECAST RAIN AND AFTER RAINFALL.
ENTRIES WILL INCLUDE:

1. THE VOLUME & INTENSITY OF ANY RAINFALL EVENTS

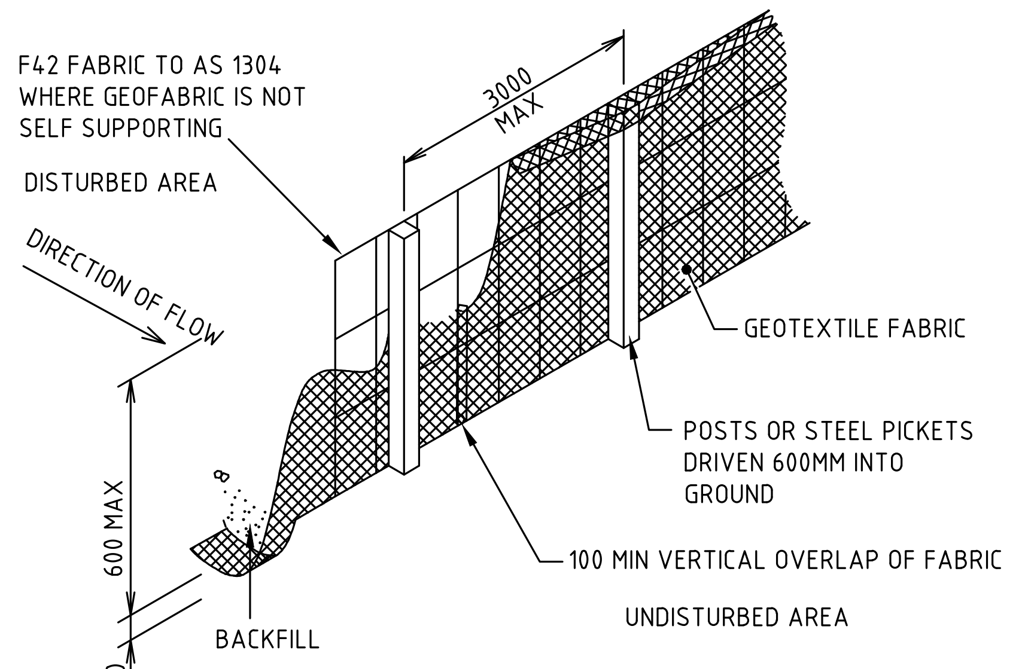
2. THE CONDITION OF ANY SOIL & WATER MANAGEMENT WORKS

3. THE CONDITION OF VEGETATION & ANY NEED TO IRRIGATE

4. THE NEED FOR DUST PREVENTION STRATEGIES

5. ANY REMEDIAL WORKS TO BE UNDERTAKEN

THE BOOK WILL BE KEPT ONSITE & MADE AVAILABLE TO ANY AUTHORISED PERSON ON REQUEST. IT WILL BE GIVEN TO THE PROJECT MANAGER AT THE CONCLUSION OF WORKS.



ELEVATION

SEDIMENT FENCE

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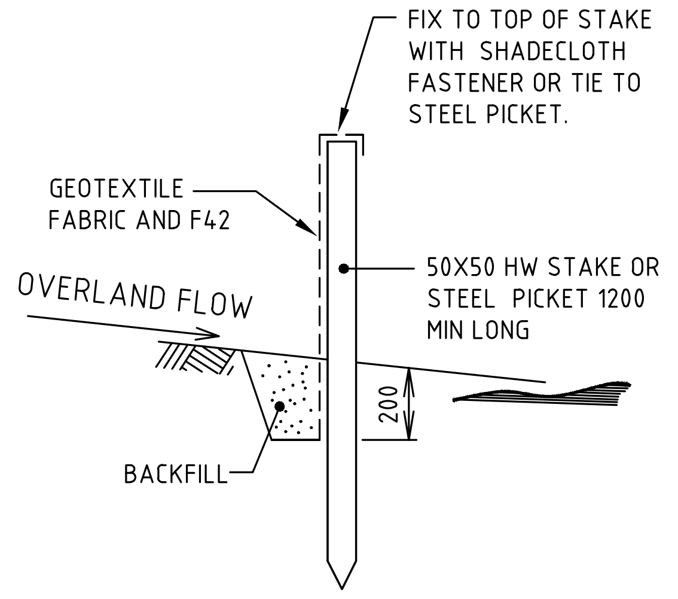
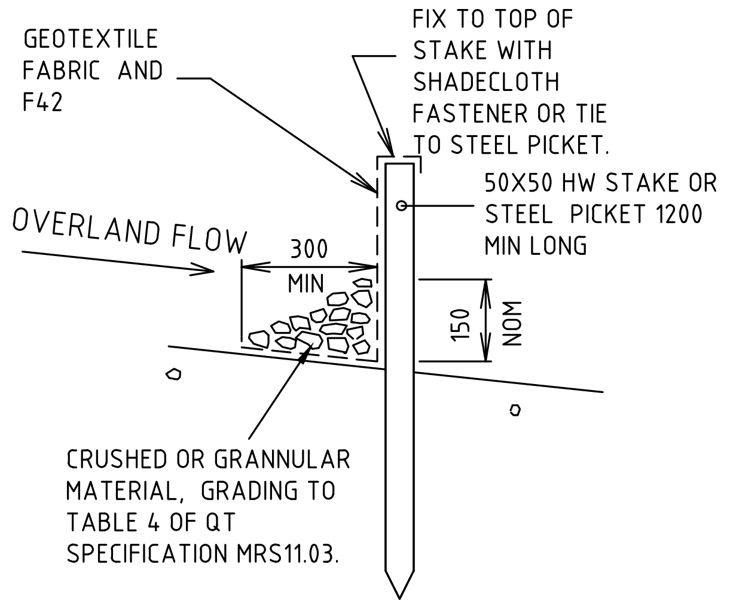


ALTERNATIVE 1



ALTERNATIVE 2

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Rev	Description	Date	By	App
P2	DEVELOPMENT APPLICATION	16.03.17	WW	-
P1	PRELIMINARY ISSUE	24.02.17	WW	-

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Project Name RESIDENTIAL DEVELOPMENT
24-36 LANGSTON PLACE
EPPING NSW 2121

Drawing Title SOIL AND WATER
MANANGEMENT DETAILS

DEVELOPMENT APPLICATION

Designed WW
Drawn WW
Scale AS SHOWN
Date FEB 2017
Sheet

Project Director Approved
Date
North

Project Ref 20 21878 01
Drawing No C006
Rev P2

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File: G:\Job\2021878- Langston Place\01_Civil\Issued\Dwg\2021878 01C-C020-CAD[P8].dwg Plotted: 07.12.17 at 8:08 PM By: Cameron Stanford

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Rev	Description	Date	By	App
P8	DEVELOPMENT APPLICATION	07.12.17	CS	-
P7	ARCHITECTURAL LAYOUT UPDATED	06.09.17	MM	-
P6	OSD TANK UPDATED	09.08.17	MM	-
P5	OSD TANK UPDATED	07.06.17	SE	-
P4	WATER QUALITY MEASURES UPDATED	22.03.17	WW	-
P3	DEVELOPMENT APPLICATION	16.03.17	WW	-
P2	DEVELOPMENT APPLICATION REVIEW	08.03.17	WW	-
P1	PRELIMINARY	24.02.17	WW	-

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Project Name
RESIDENTIAL DEVELOPMENT
24-36 LANGSTON PLACE
EPPING, NSW, 2121

Drawing Title
SITE STORMWATER
DRAINAGE AND
PUBLIC DOMAIN PLAN

PRELIMINARY

Designed WW
Drawn WW
Scale 1:100
Date FEB 2017
Sheet A1

Project Director Approved
Date
North

Project Ref 20 21878 01
Drawing No C020
Rev P8

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Rev	Description	Date	By	App
P5	OSD TANK UPDATED	07.06.17	SE	-
P4	WATER QUALITY MEASURES UPDATED	22.03.17	WW	-
P3	DEVELOPMENT APPLICATION	16.03.17	WW	-
P2	DEVELOPMENT APPLICATION REVIEW	08.03.17	WW	-
P1	PRELIMINARY	24.02.17	WW	-

Rev	Description	Date	By	App
P8	DEVELOPMENT APPLICATION	07.12.17	CS	-
P7	ARCHITECTURAL LAYOUT UPDATED	06.09.17	MM	-
P6	OSD TANK UPDATED	09.08.17	MM	-

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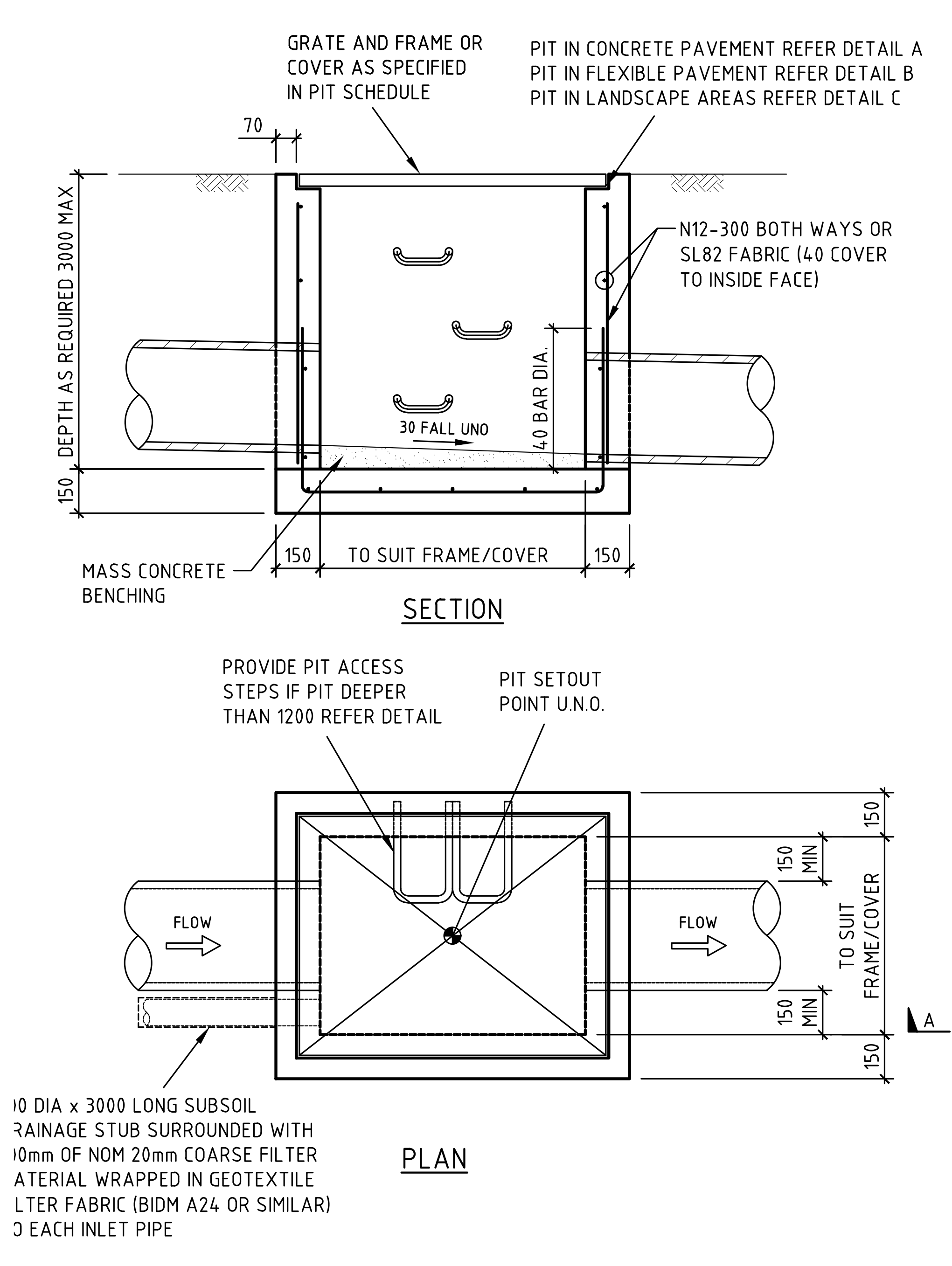
Project Name
RESIDENTIAL DEVELOPMENT
24-36 LANGSTON PLACE
EPPING, NSW, 2121

Drawing Title
SITE STORMWATER
DRAINAGE AND
PUBLIC DOMAIN PLAN

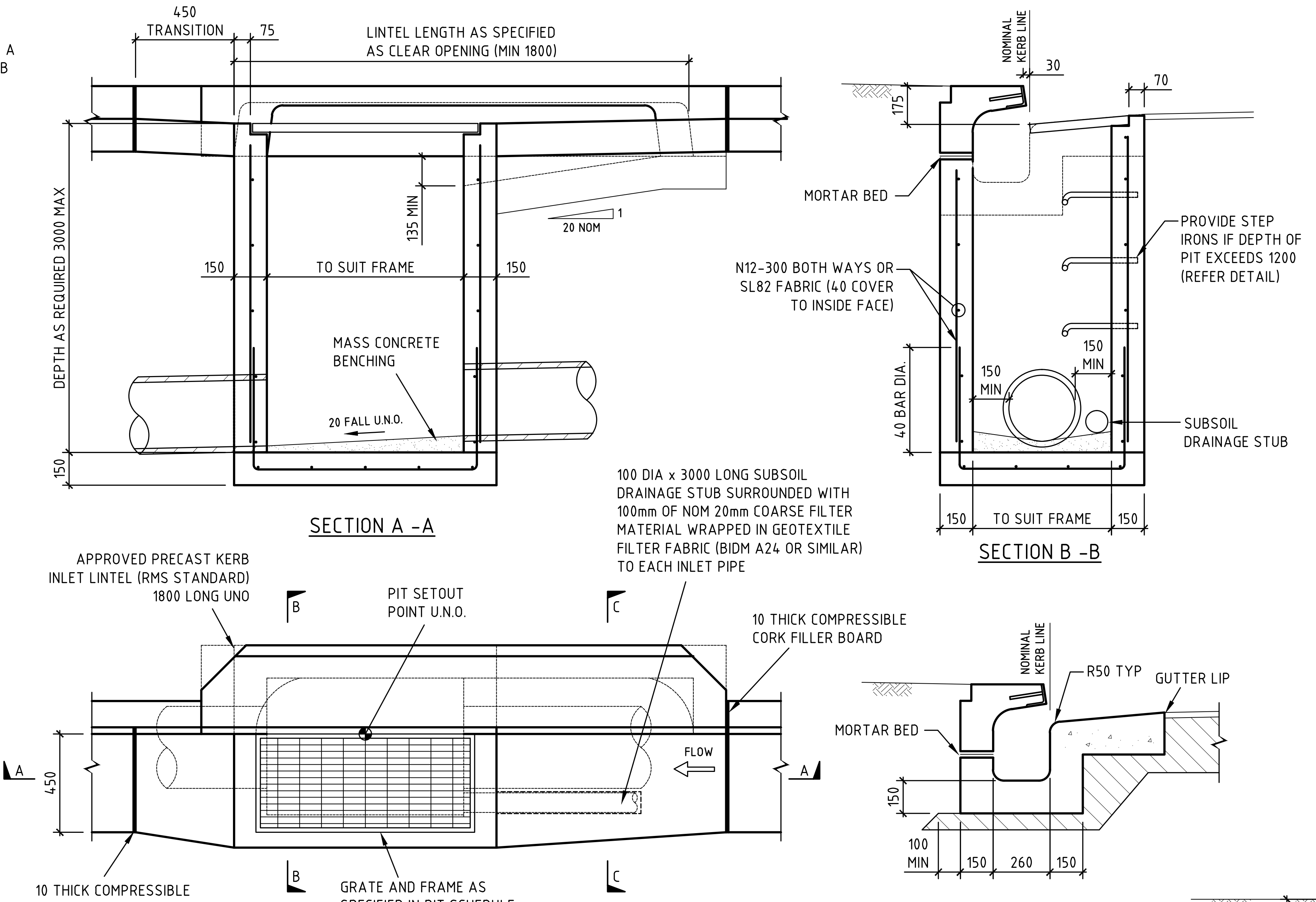
PRELIMINARY

Designed	WW	Project Director Approved		Date	North
Drawn	WW				
Scale	1:100	Project Ref		Drawing No	Rev
Date	FEB 2017	20 21878 01		C020	P8
Sheet	A1				



SURFACE INLET/JUNCTION PIT DETAIL

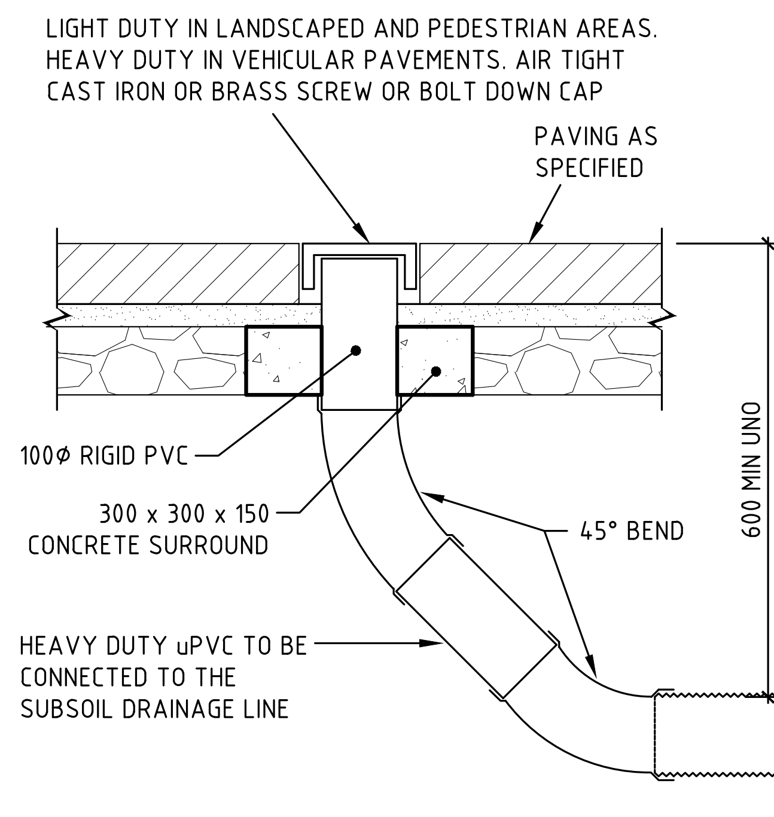
SCALE 1:20



SECTION C -C

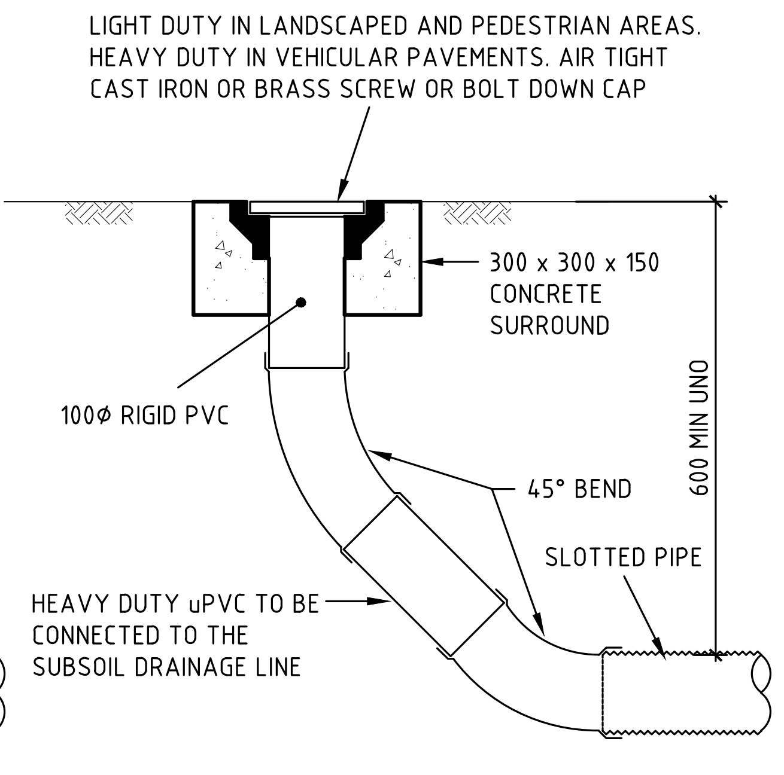
KERB INLET PIT DETAIL

SCALE 1:20



FLUSHOUT RISER (FOR) IN PAVING BRICKS

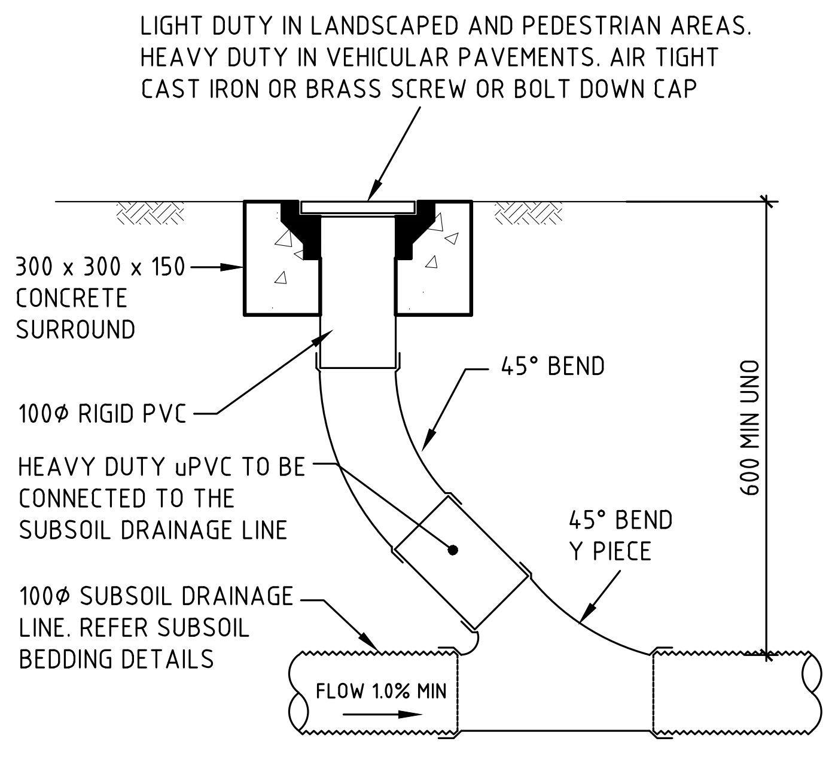
SCALE 1:10



FLUSHOUT RISER (FOR)

SCALE 1:10

NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS WITHIN DRAINAGE LAYER ONLY



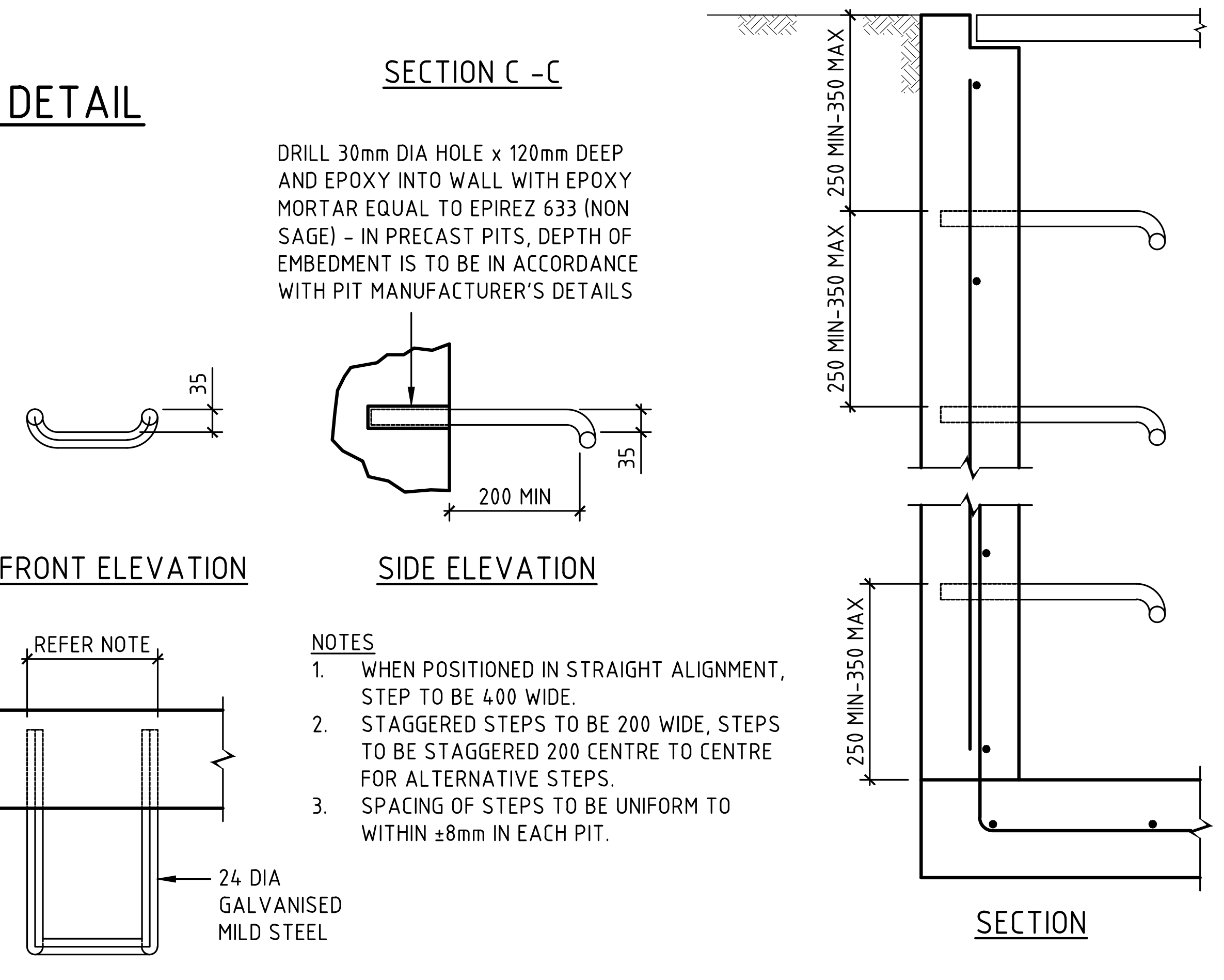
INTERMEDIATE RISER

SCALE 1:10

NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED

STORMWATER PIT NOTES

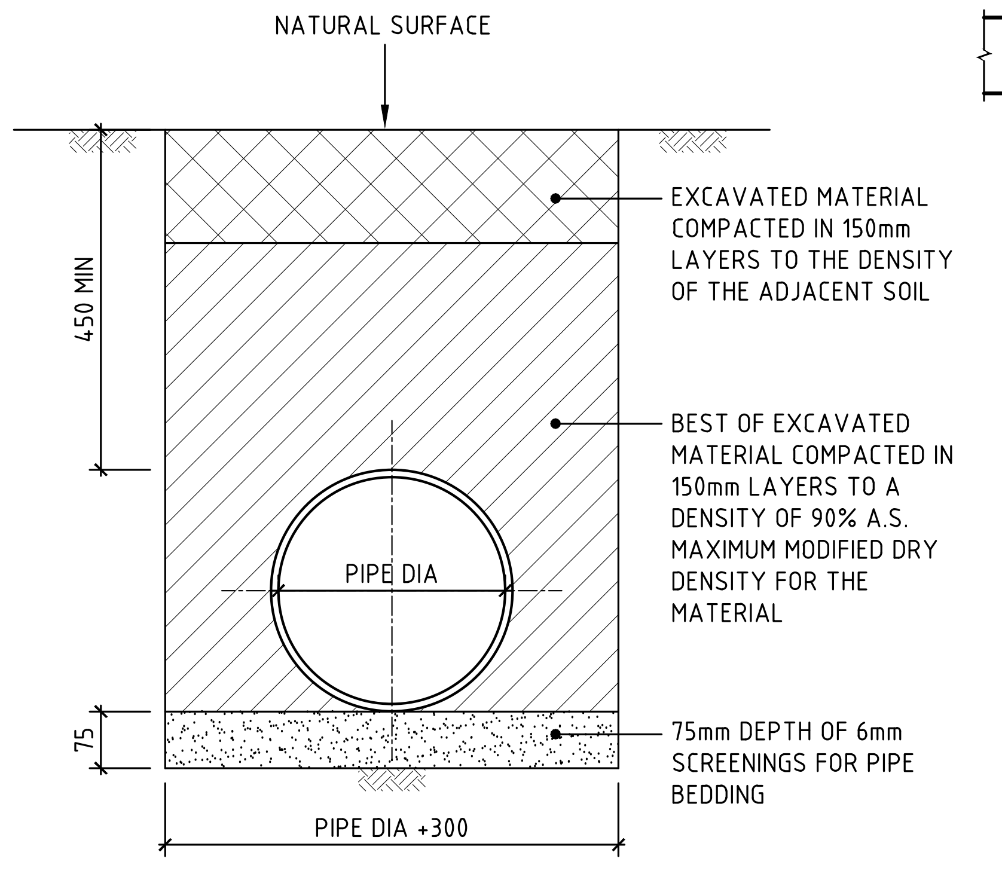
1. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH (F'c) OF 25 MPa AT 28 DAYS.
2. REINFORCEMENT NOT REQUIRED IF DEPTH OF PIT IS LESS THAN 1000mm. PITS GREATER THAN 3000mm DEEP TO HAVE WALL AND BASE 200mm THICK REINFORCED WITH N12-250 EACH WAY EACH FACE WITH CONCRETE STRENGTH F'c = 40 MPa.
3. PROVIDE STEP IRONS AT MAX 350mm CTRS IF DEPTH OF PIT EXCEEDS 1200mm.
4. IF REINFORCING FABRIC IS TO BE USED REFER TO WALL AND CORNER DETAILS
5. PRECAST PITS ARE TO GENERALLY COMPLY WITH THESE DETAILS.
6. PRECAST PIT MAY BE USED SUBJECT TO ENGINEERS APPROVAL.
7. ALL PITS TO BE LOCKABLE.
8. FINAL INTERNAL PIT DIMENSIONS ARE TO COMPLY WITH AS 3500.



NOTES
1. WHEN POSITIONED IN STRAIGHT ALIGNMENT, STEP TO BE 400 WIDE.
2. STAGGERED STEPS TO BE 200 WIDE, STEPS TO BE STAGGERED 200 CENTRE TO CENTRE FOR ALTERNATIVE STEPS.
3. SPACING OF STEPS TO BE UNIFORM TO WITHIN ±8mm IN EACH PIT.

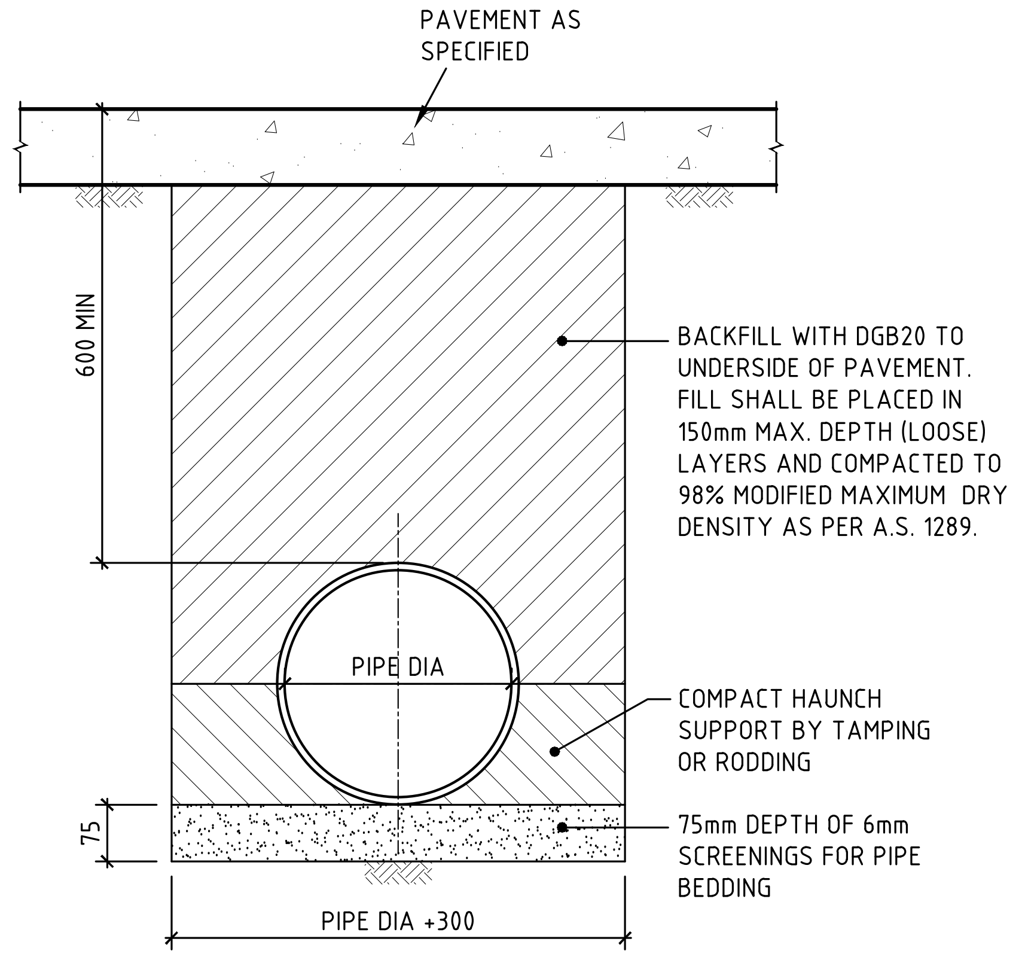
PIT ACCESS STEP DETAIL

SCALE 1:10



PIPE LAYING DETAIL (ALL PIPES) UNDER LANDSCAPED AREAS

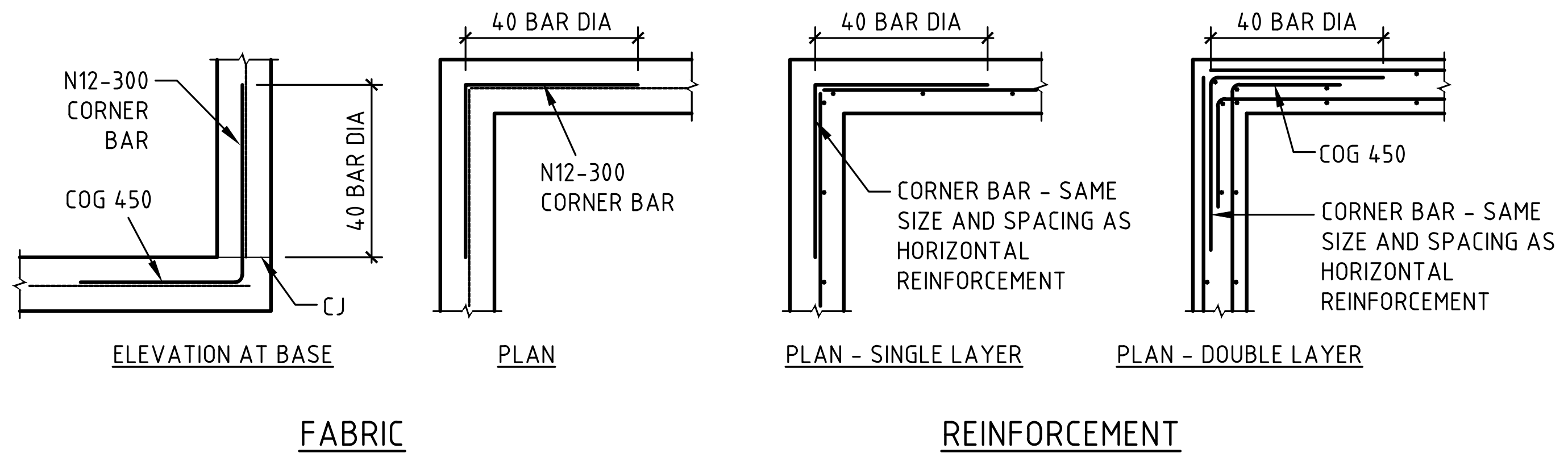
SCALE 1:10



PIPE LAYING DETAILS UNDER ALL PAVEMENTS

SCALE 1:10

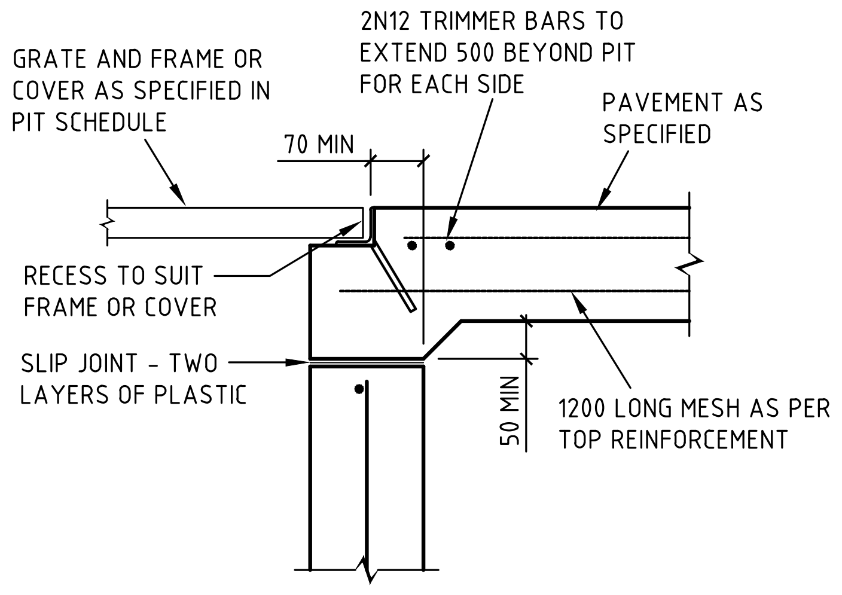
NOTE: AVOID RUNNING CONSTRUCTION EQUIPMENT OVER THE PIPES UNTIL BACKFILL MATERIAL IS 300mm MIN. ABOVE CROWN OF PIPE.



PIT CORNER DETAILS

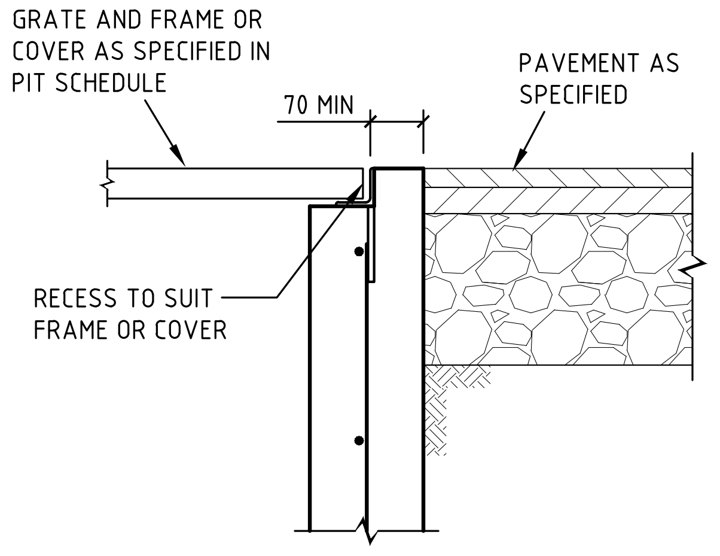
SCALE 1:20

NOTE: DESIGNER TO VERIFY EXTENT OF DETAILING



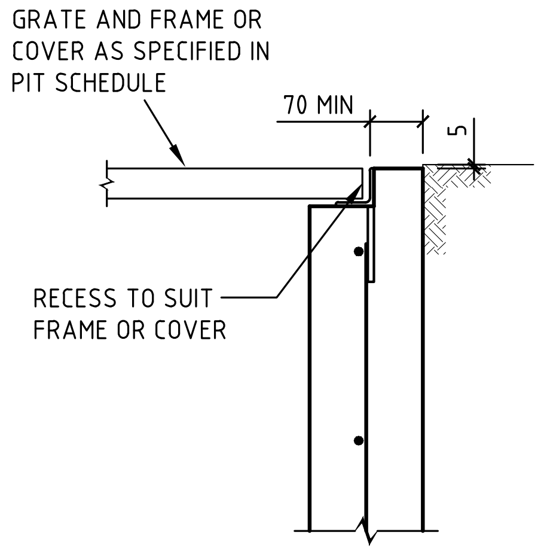
DETAIL A

SCALE 1:10



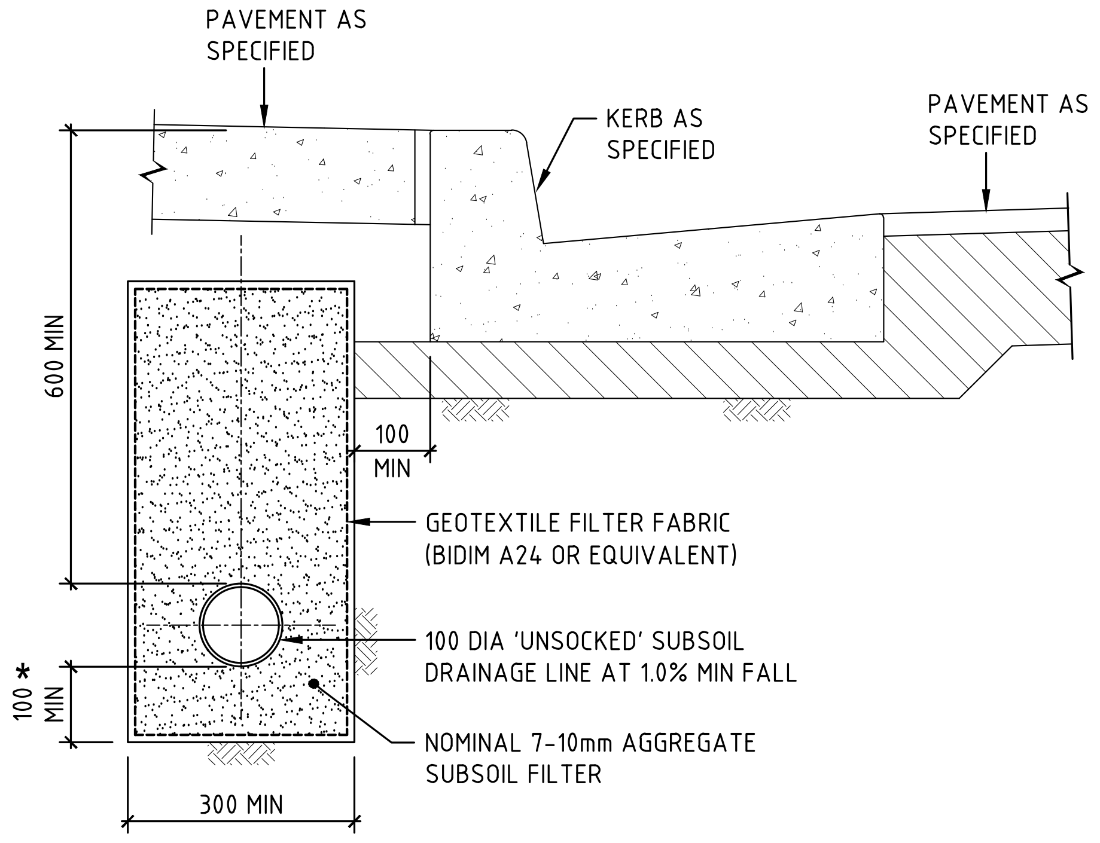
DETAIL B

SCALE 1:10



DETAIL C

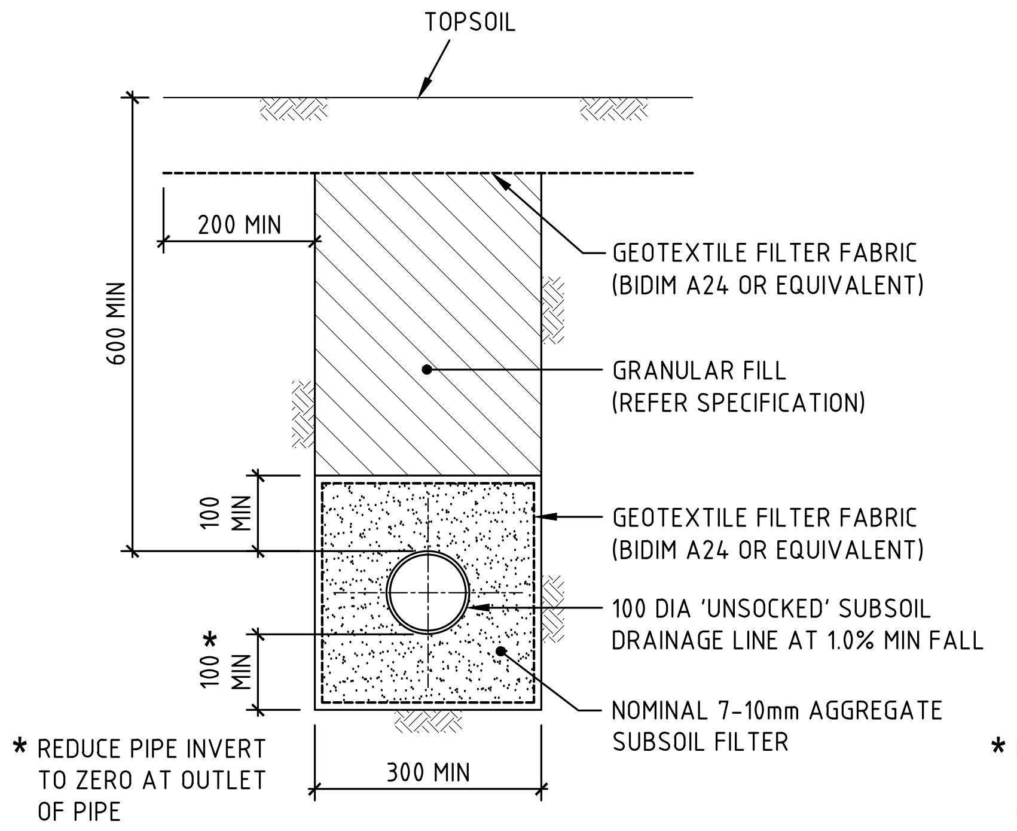
SCALE 1:10



* REDUCE PIPE INVERT TO ZERO AT OUTLET OF PIPE

SUBSOIL BEHIND KERB

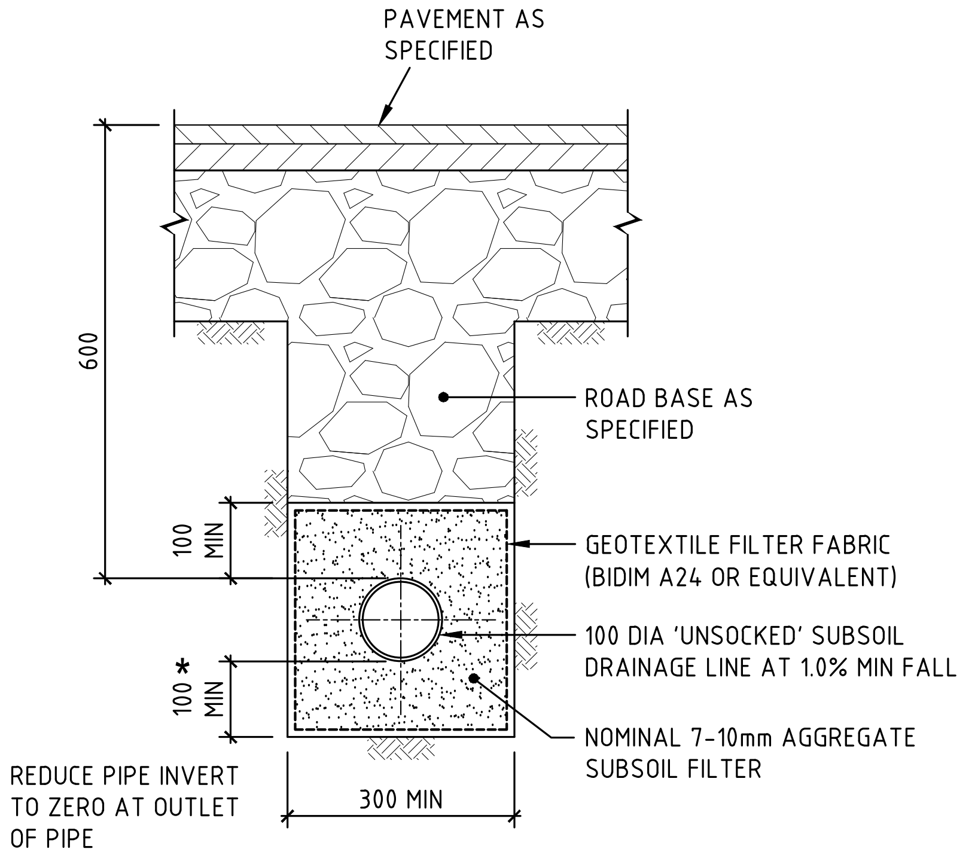
SCALE 1:10



* REDUCE PIPE INVERT TO ZERO AT OUTLET OF PIPE

SUBSOIL IN LANDSCAPED AREAS

SCALE 1:10



* REDUCE PIPE INVERT TO ZERO AT OUTLET OF PIPE

SUBSOIL IN PAVED AREAS

SCALE 1:10

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Rev	Description	Date	By	App
P1	*DEVELOPMENT APPLICATION*	*16.03.17*	*WW*	*-*

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Project Name
RESIDENTIAL DEVELOPMENT
24-36 LANGSTON PLACE
EPPING, NSW, 2121

Drawing Title
STORMWATER DRAINAGE
DETAILS

PRELIMINARY

Designed WW
Drawn WW
Scale NOTED
Date MAR 2017
Sheet A1

Project Director Approved
Date
North

Project Ref 20 21878 01
Drawing No C030
Rev P1

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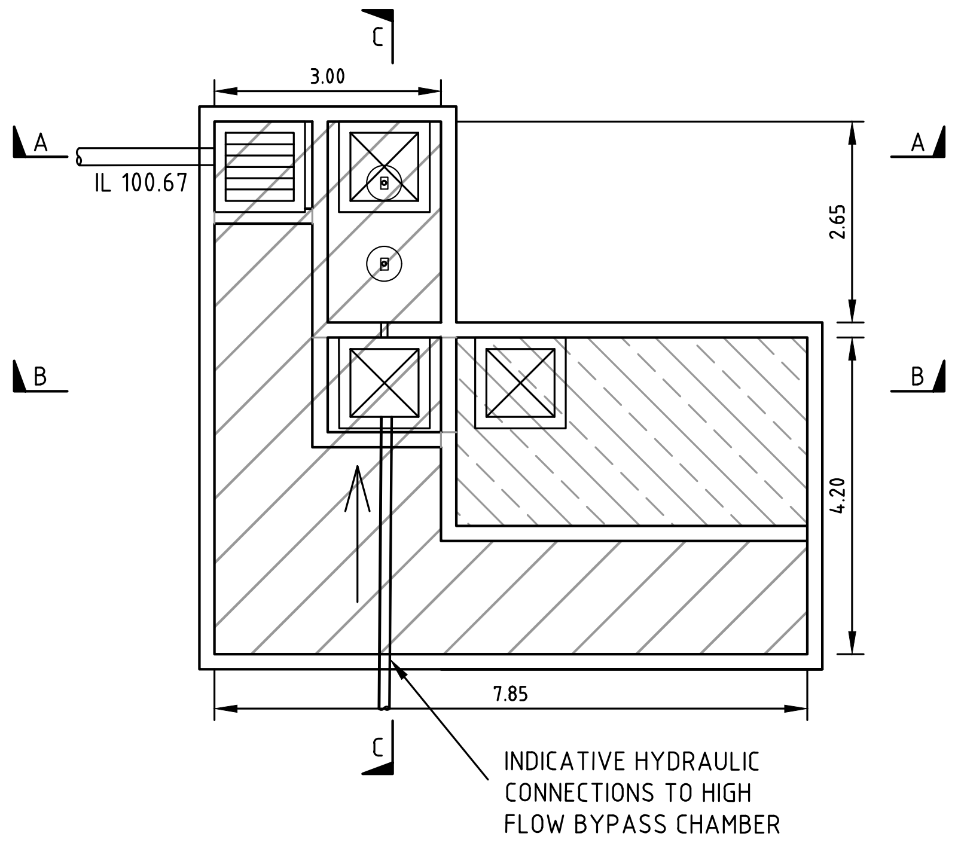
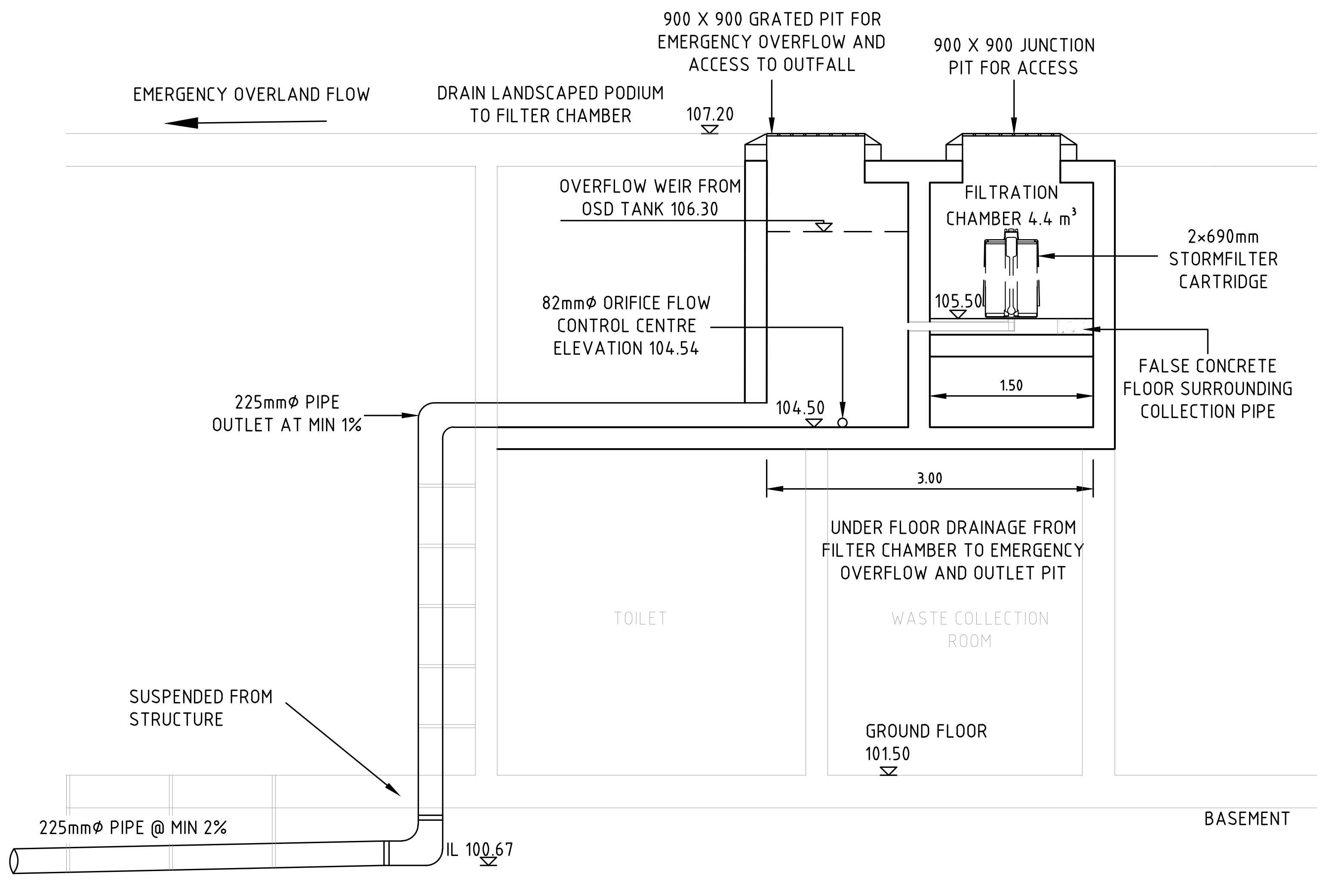


ON-SITE DETENTION TANK PLAN
1:100

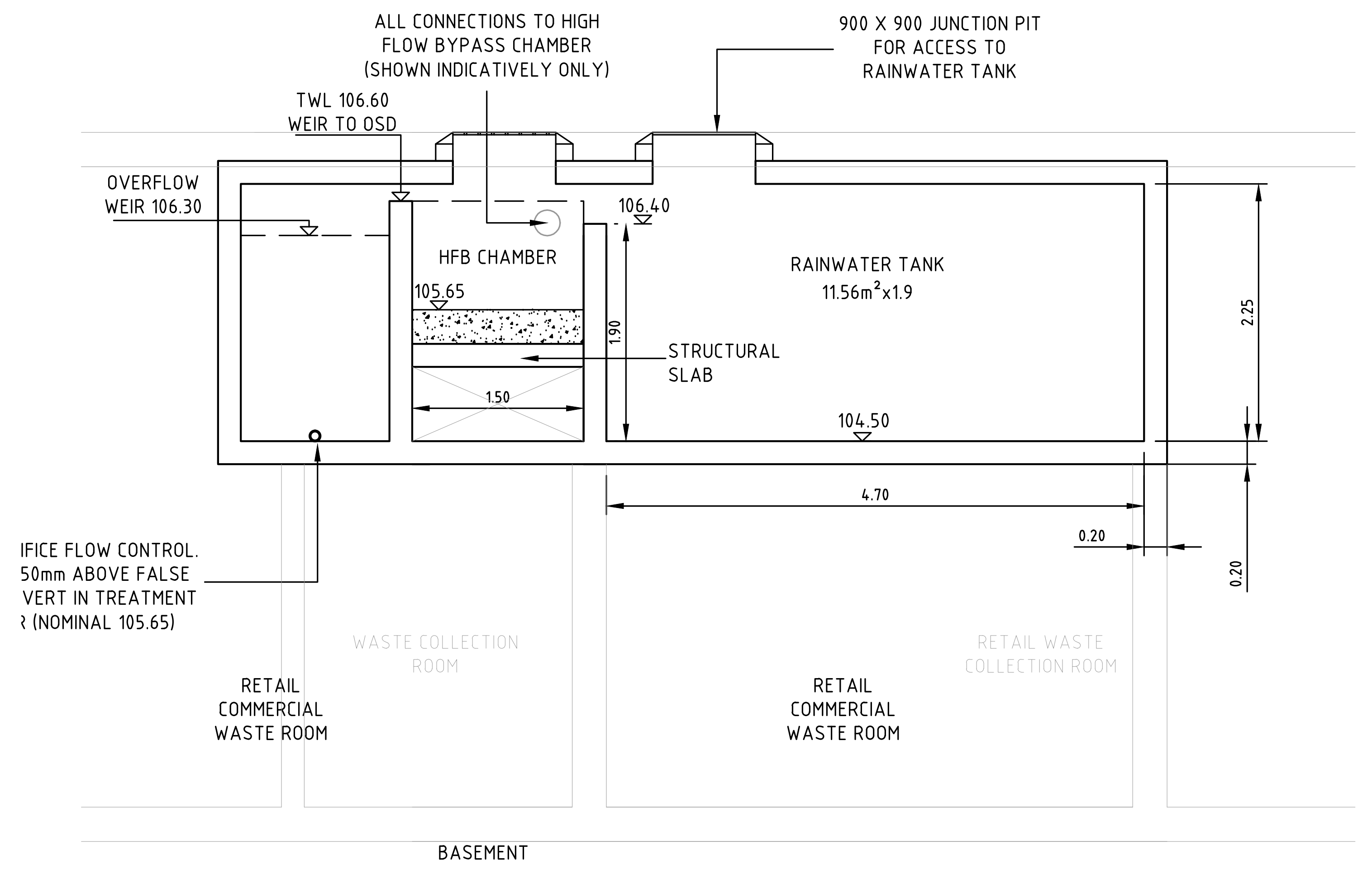
NOTE:

REFER STORMWATER 360 FOR CARTRIDGE INSTALLATION REQUIREMENTS / DETAILS.

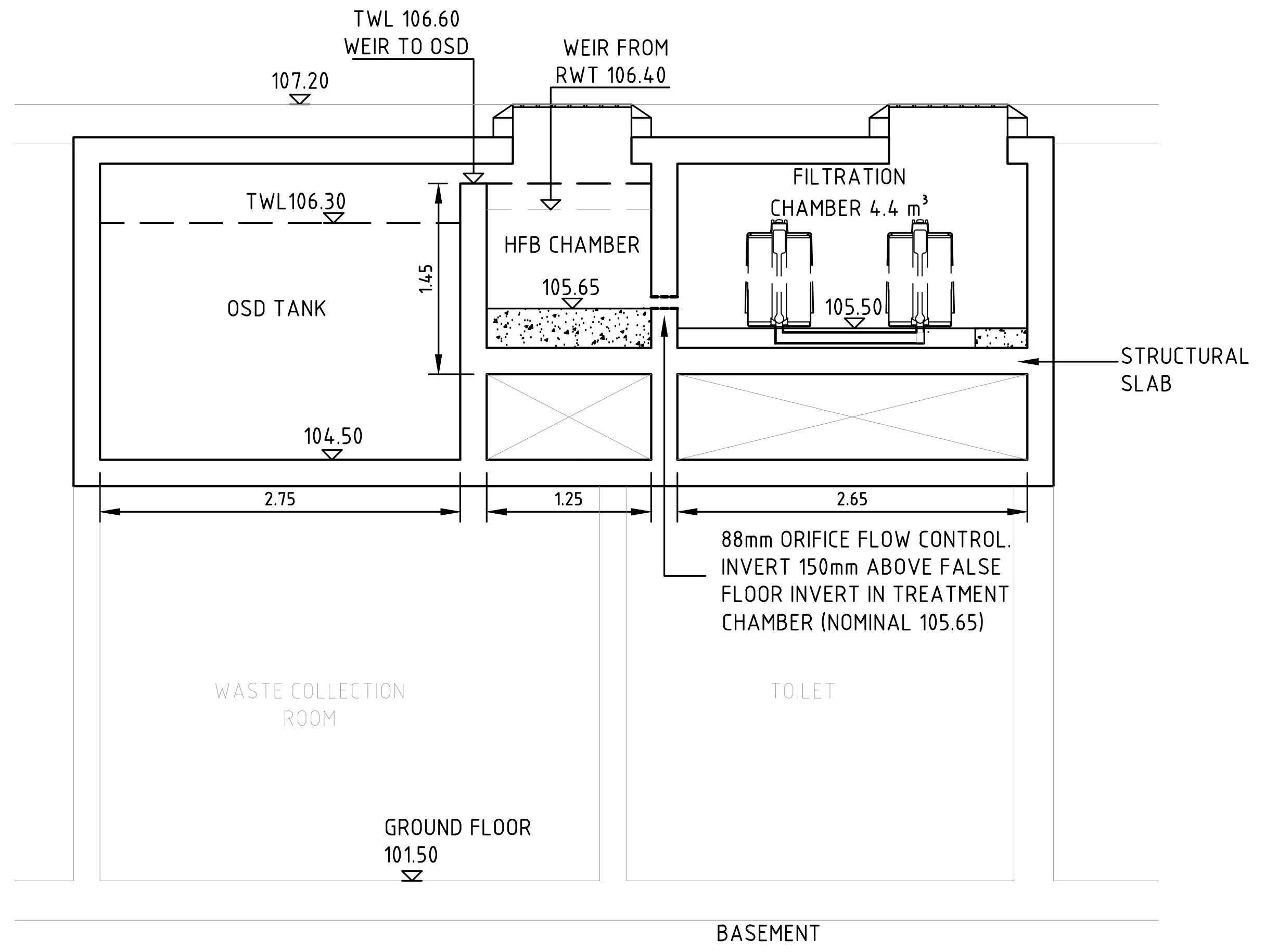


SECTION A-A
1:50

NOTE: STRUCTURE SHOWN NOMINALLY



SECTION B-B
1:50



SECTION C-C
1:50

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Rev	Description	Date	By	App
P5	DEVELOPMENT APPLICATION	06.09.17	MM	-
P4	DEVELOPMENT APPLICATION	09.08.17	MM	-
P3	DEVELOPMENT APPLICATION	07.06.17	SE	-
P2	DEVELOPMENT APPLICATION	22.03.17	WW	-
P1	DEVELOPMENT APPLICATION	16.03.17	WW	-

Rev	Description	Date	By	App

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Project Name
RESIDENTIAL DEVELOPMENT
24-36 LANGSTON PLACE
EPPING, NSW, 2121

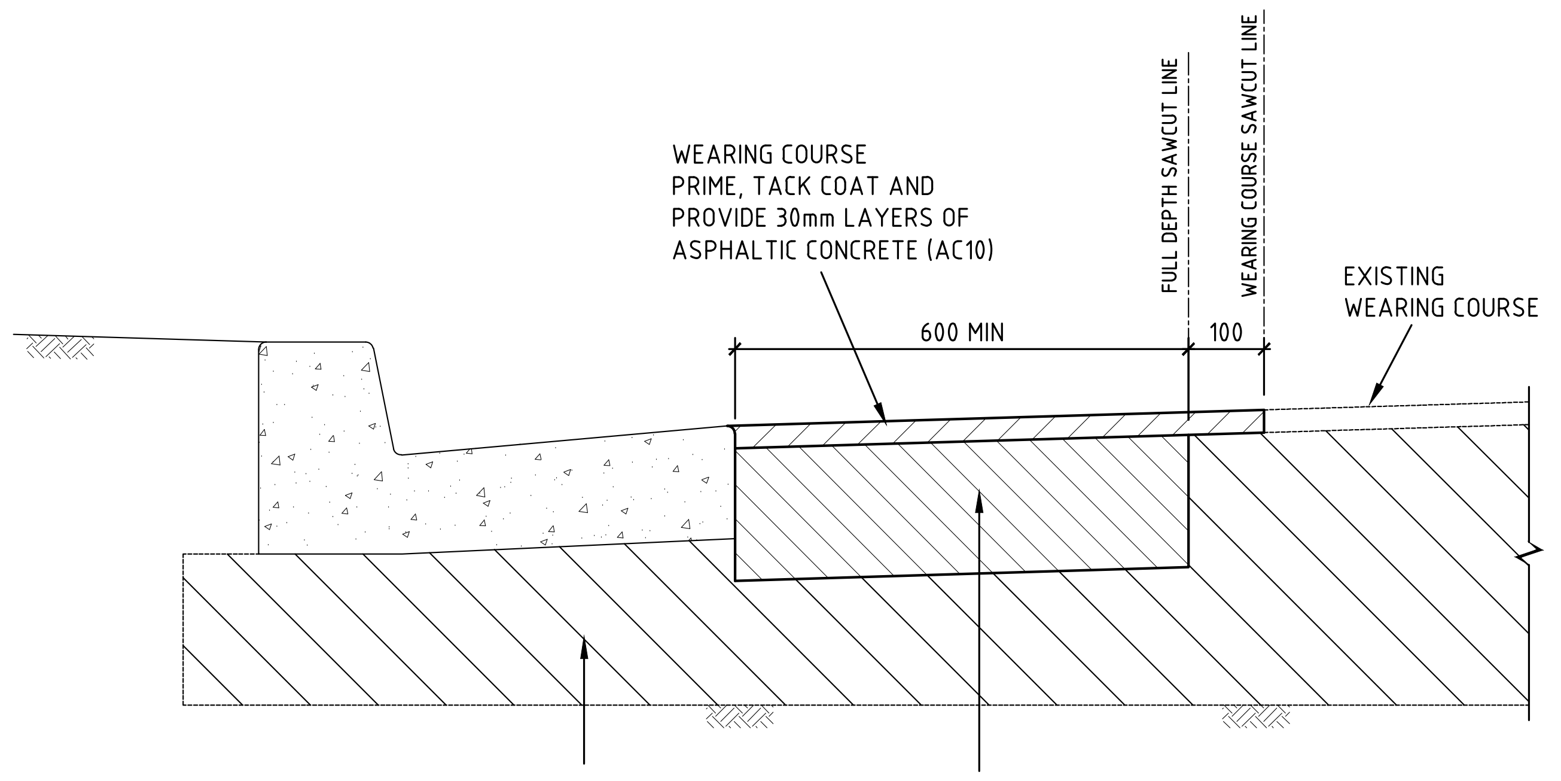
Drawing Title
OSD TANK
SECTIONS

PRELIMINARY

Designed WW
Drawn WW
Scale 1:50
Date FEB 2017
Sheet A1

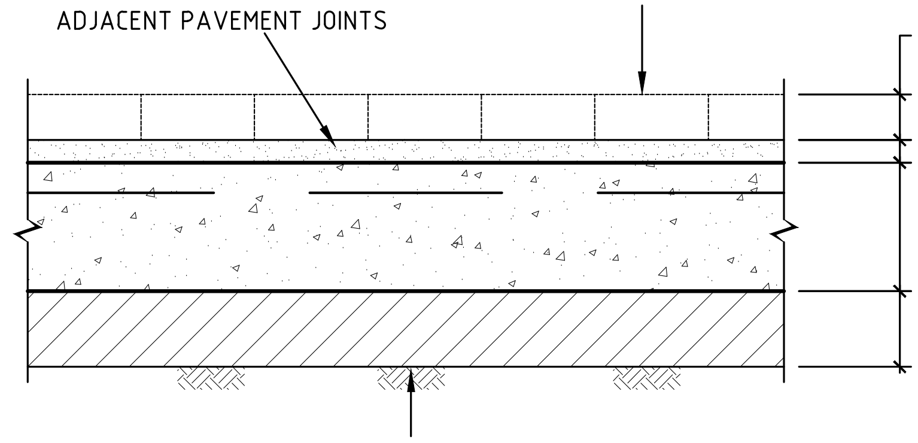
Project Director Approved
Date
North

Project Ref	Drawing No	Rev
20 21878 01	C035	P5



PAVEMENT - DEEPLIFT

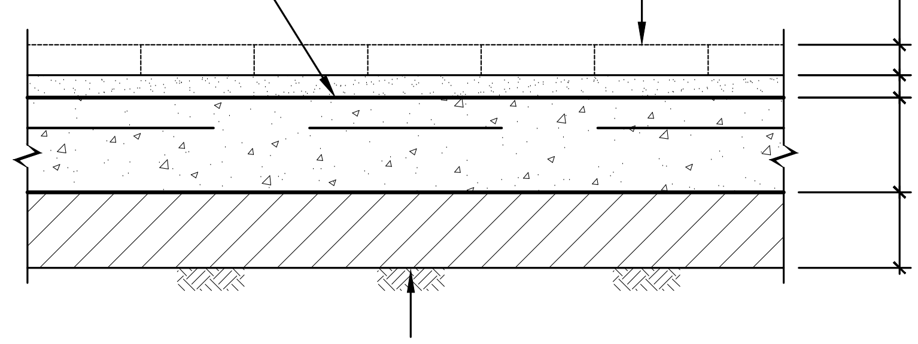
SCALE 1:10



PAVEMENT TYPE P5
HEAVY DUTY UNIT PAVERS

SCALE 1:10

🟪 DENOTED ON PLAN

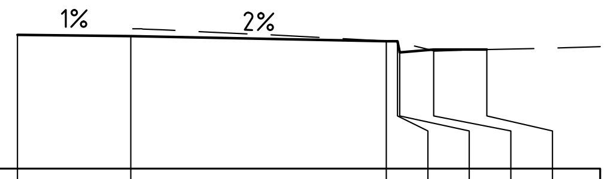


PAVEMENT TYPE P8A
LIGHT DUTY UNIT PAVERS

SCALE 1:10

🟪 DENOTED ON PLAN

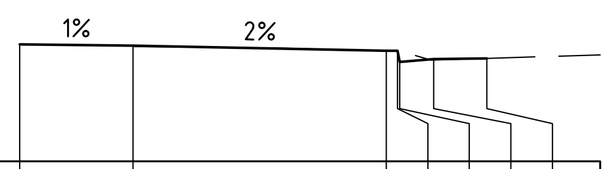
EASTING 322473.489
NORTHING 6261324.982
DATUM RL 100.000



DESIGN LEVEL	101.773	101.758	101.691	101.691	101.541	101.581	101.577
EXISTING SURFACE LEVEL			101.691	101.679	101.677	101.561	101.577
DESIGN OFFSET	-4.876	-3.376	0.000	0.150	0.180	0.630	1.330

CH 30.000

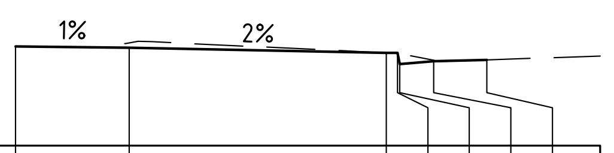
EASTING 322468.858
NORTHING 6261333.846
DATUM RL 100.000



DESIGN LEVEL	101.549	101.534	101.467	101.467	101.317	101.357	101.364
EXISTING SURFACE LEVEL			101.467	101.464	101.463	101.342	101.364
DESIGN OFFSET	-4.847	-3.347	0.000	0.150	0.180	0.630	1.330

CH 20.000

EASTING 322465.081
NORTHING 6261343.092
DATUM RL 100.000

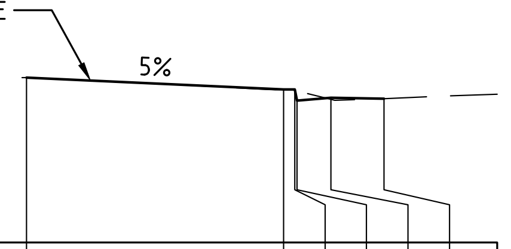


DESIGN LEVEL	101.309	101.294	101.225	101.225	101.075	101.115	101.133
EXISTING SURFACE LEVEL		101.357	101.225	101.219	101.217	101.126	101.133
DESIGN OFFSET	-4.899	-3.399	0.000	0.150	0.180	0.630	1.330

CH 10.000

STEEP GRADE
AT EXISTING
FOOTPATH INTERFACE

EASTING 322461.472
NORTHING 6261352.418
DATUM RL 99.000



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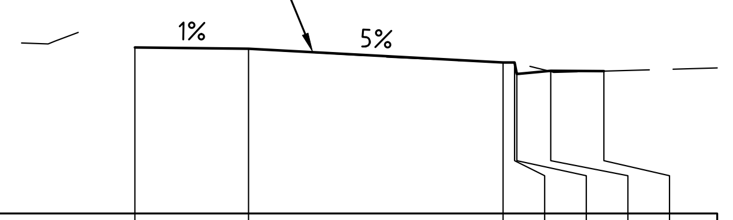
EXISTING SURFACE LEVEL	101.184	101.028	101.010	101.005	100.894	100.907
DESIGN OFFSET	-3.403	0.000	0.150	0.180	0.630	1.330

CH 0.000

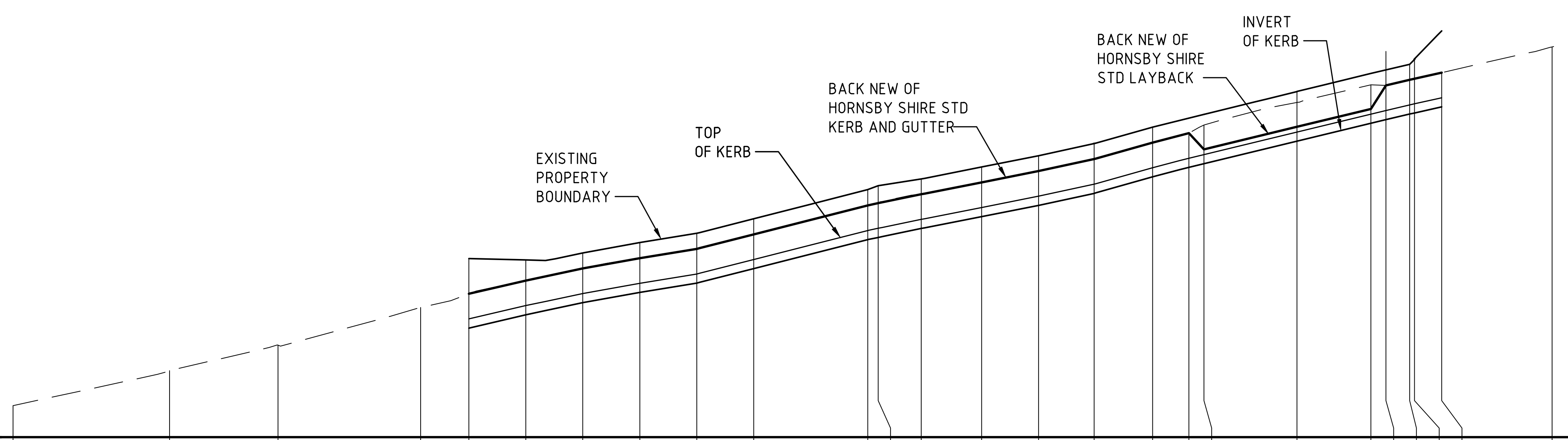
STEEP GRADE
AT EXISTING
FOOTPATH INTERFACE

EASTING 322479.345
NORTHING 6261313.873
DATUM RL 100.000



DESIGN LEVEL	102.196	102.181	101.997	101.997	101.847	101.887	101.885
EXISTING SURFACE LEVEL		102.180	101.997	101.989	101.988	101.878	101.885
DESIGN OFFSET	-4.868	-3.368	0.000	0.150	0.180	0.630	1.332

CH 42.685



DESIGN GRADELINE

HORIZONTAL GEOMETRY

DATUM 100.4

BACK OF KERB					101.028	101.087	101.140	101.185	101.225	101.289	101.416	101.425	101.465	101.516
PROPERTY BOUNDARY					101.183	101.177	101.208	101.253	101.294	101.357	101.485	101.503	101.532	101.584
KERB INVERT					100.878	100.936	100.990	101.035	101.075	101.139	101.266	101.275	101.315	101.366
EXISTING SURFACE	100.538	100.691	100.803	100.968	101.028	101.086	101.140	101.185	101.225	101.289	101.416	101.425	101.465	101.516
CHAINAGES	-20.001	-13.126	-8.374	-2.115	0.000	2.500	5.000	7.500	10.000	12.500	17.500	17.957	19.849	22.500

BACK OF KERB	101.566	101.618	101.691	101.732	101.653	101.760	101.838	101.941	101.966	101.971	101.997				
PROPERTY BOUNDARY	101.633	101.687	101.758			101.914		102.090	102.033	102.057					
KERB INVERT	101.416	101.468	101.541			101.685			101.816	101.821	101.847				
EXISTING SURFACE	101.566	101.618	101.691	101.732	101.768	101.867	101.944	101.941	101.966	101.970	101.997	102.110			
CHAINAGES	25.000	27.437	30.000	31.590	32.252	36.336	39.573	40.235	41.282	41.491	42.685	47.531	50.000	54.814	58.060

1 in 200 HORIZONTAL
1 in 20 VERTICAL

KERB BACK CL LONGITUDINAL SECTION

File: G:\Job\2021878- Langston Place\01_Civil\Issued\Dwg\202187801C-C040-CAD[P1].dwg Plotted: 07.12.17 at 8:03 PM By: Cameron Stanford

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Rev	Description	Date	By	App
P1	DEVELOPMENT APPLICATION	07.12.17	CS	-

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Project Name
RESIDENTIAL DEVELOPMENT
24-36 LANGSTON PLACE
EPPING, NSW, 2121

Drawing Title
PUBLIC DOMAIN DETAILS,
LONGITUDINAL AND
CROSS SECTIONS

PRELIMINARY

Designed WW
Drawn WW
Scale NOTED
Date FEB 2017
Sheet A1

Project Director Approved
Date
North

Project Ref	Drawing No	Rev
20 21878 01	C040	P1