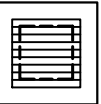
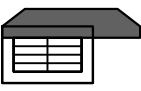
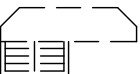
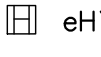
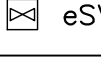
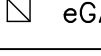
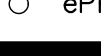


PROPOSED ALTERATIONS AND ADDITIONS AT 174 HUDSON PARADE CLAREVILLE NSW

LEGEND	
DP ●	DOWNPIPE
—>>>—	STORMWATER LINE
—>>>—	STORMWATER LINE DRAINING TO RWT
— OF —	OVER FLOW PIPE
— SSD —	SUBSOIL LINE
— SWRM —	STORMWATER RISING MAIN
— e —	EXISTING STORMWATER LINE
— SW — SW —	AUTHORITY STORMWATER LINE
— HL — HL —	HIGH LEVEL STORMWATER LINE
— S —	AUTHORITY SEWER LINE
— W —	AUTHORITY WATER LINE
— G — G —	AUTHORITY GAS LINE
— E —	AUTHORITY ELECTRICITY LINE
— FO — FO — FO —	AUTHORITY FIBRE OPTIC LINE
— TEL —	AUTHORITY COMMS LINE
— / — / —	FENCE LINE
	GRATED SURFACE INLET PIT
	GRATED SURFACE INLET PIT WITH ENVIROPOD INSERT
	JUNCTION PIT
	KERB INLET PIT
	EXISTING GRATED SURFACE INLET PIT
	GRATED TRENCH DRAIN
	EXISTING JUNCTION PIT
	EXISTING KERB INLET PIT
 eTEL	EXISTING TELSTRA PIT
 eHYD	EXISTING HYDRANT
 eSV	EXISTING STOP VALVE
 eGAS	EXISTING GAS VALVE
 ePP	EXISTING POWER POLE

LEGEND	
FF ○	FIRST FLUSH
 eSMH	EXISTING SEWER MANHOLE
OFF →	OVERLAND FLOW PATH
RWO ○	RAINWATER OUTLET
PS ●	PIPE STAND
CO ○	CLEAR OUT POINT
DDO ○	DISH DRAIN OUTLET
PD ○	PLANTER DRAIN
]	CAPPING
(1.0)	PIT TAG/NUMBER
RH ☒	RAINHEAD
	DOWNPIPE DROP
	NON RETURN VALVE
	WALL PENETRATION
DP ● —	DOWNPIPE SPREADER
	WARNING LIGHT
0.00 ●	SPOT LEVELS
▲	BENCHMARK

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DRAWING REGISTER		
NUMBER	NAME	REVISION
SW001	COVER SHEET	C
SW010	STORMWATER LAYOUT PLAN & DETAILS	C
SW011	FIRST FLOOR AND ROOF PLAN	C
ER001	EROSION AND SEDIMENT CONTROL PLAN	C

DRAINAGE NOTES:

ALL PIPES TO BE LAID ON 75mm SAND BED WITH THE BARRELS FULLY SUPPORTED

100mm AND 150mm DIAMETER PIPES TO BE LAID ON MINIMUM 1% GRADE

MINIMUM DEPTH OF COVER FOR PIPES NOT SUBJECT TO VEHICULAR LOADING TO BE 300mm

ALL DRAINAGE PIPES LAID UNDER PAVEMENT SHALL BE REINFORCED CONCRETE WITH RUBBER RING JOINTS

BACKFILL TRENCHES WITH COMPACTED SAND OR APPROVED AGGREGATE MATERIAL

ALL PITS TO HAVE 600x600mm INTERNAL DIMENSIONS (U.N.O.)

SILT ARRESTORS TO HAVE 900x900mm INTERNAL DIMENSIONS

HEAVY DUTY GRATES AND COVERS ARE TO BE PROVIDED IN TRAFFICABLE AREAS

PIT GRATE TO BE TYPE WELDLOK OR APPROVED EQUIVALENT

ALL PITS SHALL BE PROVIDED WITH A LOCKING CLIP

ALL PITS SHALL BE MAINTAINED REGULARLY

TOP OF BENCHING SHALL BE TO THE HALF OF THE OUTLET PIPE DIAMETER

MAXIMUM FRONT ENTRY PIPE: –
STRAIGHT ENTRY – ø750
SKEW ENTRY 45° – ø525

ø100 SUBSOIL DRAINAGE PIPE 3000mm LONG WRAPPED IN FABRIC SOCK TO BE PROVIDED ADJACENT TO INLET PIPES

COMPRESSIVE STRENGTH f_c FOR CAST IN SITU CONCRETE TO BE A MINIMUM OF 20MPa AT 28 DAYS

PROVIDE CLEANING EYES TO ALL DOWNPIPES NOT DIRECTLY CONNECTED TO PITS

ISOLATED JOINTS TO BE PROVIDED TO ISOLATE CONCRETE PAVEMENTS FROM PITS

ALL TRENCH GRATES PROVIDED SHALL HAVE A MINIMUM CLEAR WIDTH OF 200mm

STORMWATER DRAINAGE CONNECTIONS TO THE MAIN SYSTEM SHALL BE TO THE REQUIREMENTS AND THE SATISFACTION OF LOCAL COUNCIL

ABBREVIATIONS:

ø or DIA	DIAMETER
CBR	CALIFORNIA BEARING RATIO
CH	CHAINAGE
CL	CENTER LINE
CO	CLEAR OUT
DD	DISH DRAIN
DDO	DISH DRAIN OUTLET
DEJ	DOWELLED EXPANSION JOINT
DGB	DENSE GRADED BASECOURSE
DGS	DENSE GRADED SUB-BASE
DP	DOWNPIPE
e	EXISTING
FFL	FINISHED FLOOR LEVEL
GTD	GRATED TRENCH DRAIN
GSIP	GRATED SURFACE INLET PIT
HYD	HYDRANT
IJ	ISOLATING JOINT
IK	INTEGRAL KERB
IL	INVERT LEVEL
IP	INTERSECTION POINT
KIP	KERB INLET PIT
KO	KERB ONLY
K&G	KERB & GUTTER
KR	KERB RETURN
LS	LONGITUDINAL SECTION
NGL	NATURAL GROUND LEVEL
OPF	OVERLAND FLOW PATH
OSD	ON-SITE DETENTION
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RK	ROLL KERB & GUTTER
RL	REDUCED LEVEL
RW	RETAINING WALL
RWT	RAINWATER TANK
SJ	SAWN CONTROL JOINT
SMH	SEWER MAN HOLE
SW	STORMWATER
SWP	STORMWATER PIT
SWRM	STORMWATER RISING MAIN
SWS	STORMWATER SUMP
SV	STOP VALVE
TOK	TOP OF KERB
TOW	TOP OF WALL
TWL	TOP WATER LEVEL
TP	TANGENT POINT
UPVC	UNPLASTICISED POLYVINYL CHLORIDE
UNO	UNLESS NOTED OTHERWISE
WPJ	WEAKENED PLANE JOINT
FF	FIRST FLUSH DEVICE
TYP	TYPICAL
BM	BENCH MARK

STORMWATER PIPE BEDDING/PAVING NOTES:

WHERE TRENCH BASE IS ROCK A MINIMUM OF 75mm BEDDING TO BE PROVIDED UNDER PIPE COLLARS.

STORMWATER PIPE BEDDING DETAIL TO BE IN ACCORDANCE WITH LOCAL COUNCIL REQUIREMENTS. BEDDING DETAILS TO BE CONFIRMED UPON EXCAVATION & PRIOR TO INSTALLATION OF PIPEWORK.

FOOTPATH REINSTATEMENT NOTES:

REMOVE ALL SAND FILL WITHIN THE FOOTPATH AREA TO THE EXISTING SUBGRADE.

SUPPORT ALL AUTHORITY SERVICES TO STRUCTURAL ENGINEERS DETAILS DURING EXCAVATION.

REINSTATE FOOTPATH SUBGRADE.

THE CONTRACTOR SHALL PROVIDE CERTIFICATION OF COMPACTION FROM A NATA REGISTERED TESTING AUTHORITY. MINIMUM THREE TESTS PER LAYER AS FOLLOWS:

SELECT FILL	95% MODIFIED
SELECT FILL (LESS THAN 300mm BELOW BASE COURSE)	98% MODIFIED
BASE COURSE	100% MODIFIED

EROSION & SEDIMENT CONTROL NOTES:

PROVIDE SILT FENCE/HAY BAIL BARRIERS TO THE LOW SIDE OF ALL EXPOSED EARTH EXCAVATIONS (TYPICAL).

ISOLATE EXISTING STORMWATER PITS WITH HAY BALES TO FILTER ALL INCOMING FLOWS.

DO NOT STOCK PILE EXCAVATED MATERIAL ON THE ROAD WAY.

SURVEY

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY REGISTERED SURVEYORS. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. CAPITAL ENGINEERING CONSULTANTS DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAW.

SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT CAPITAL ENGINEERING CONSULTANTS.

ADOPT DATUM ---- RL:---- (A.H.D)

SERVICES SHOWN ON PLAN ARE INDICATIVE, EXACT DEPTH AND LOCATION TO BE CONFIRMED ONSITE. CONTRACTOR TO CARRY OUT DIAL BEFORE YOU DIG APPLICATION AND ENGAGE A REGISTERED SURVEYOR TO PEG OUT ALL EXISTING SERVICES PRIOR TO ANY WORK COMMENCING ONSITE.

IT IS THE BUILDERS RESPONSIBILITY TO MAKE SURE ALL SURVEY MARKS TO BE PRESERVED AT ALL COST.

Rev.	Description	By.	Chk.	App.	Date
C	ISSUED FOR DEVELOPMENT APPLICATION	T.P.	M.W.	P.E.	26.08.2021
B	ISSUED FOR DEVELOPMENT APPLICATION	T.P.	M.W.	P.E.	24.08.2021
A	ISSUED FOR DEVELOPMENT APPLICATION	T.P.	M.W.	P.E.	24.08.2021

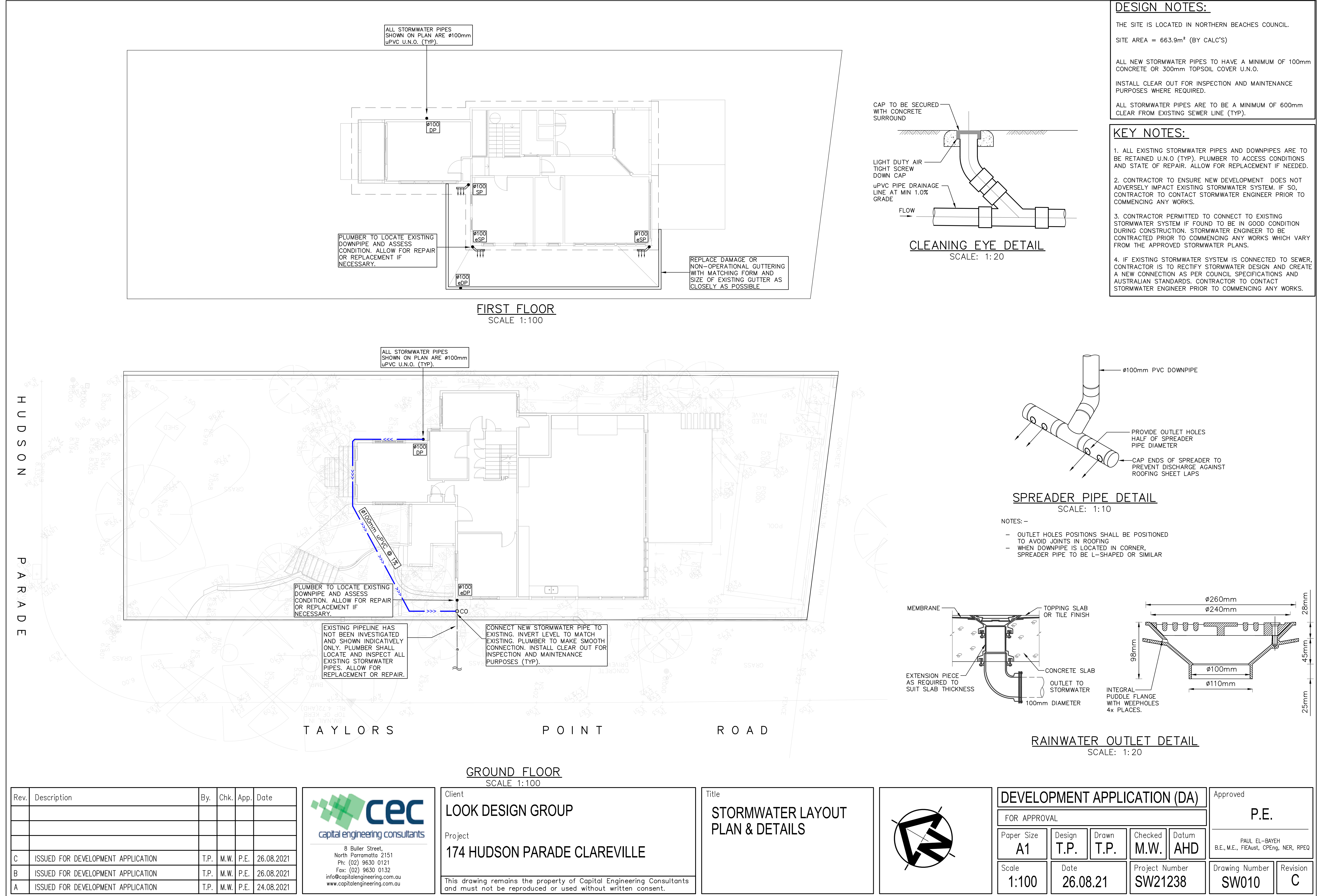

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Client LOOK DESIGN GROUP
Project 174 HUDSON PARADE CLAREVILLE
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Title COVER SHEET

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DEVELOPMENT APPLICATION (DA)					Approved	
FOR APPROVAL					P.E.	
Paper Size A1	Design T.P.	Drawn T.P.	Checked M.W.	Datum AHD	PAUL EL-BAYEH B.E., M.E., FIEAust, CPEng, NER, RPEQ	
Scale 1:100	Date 26.08.21	Project Number SW21238		Drawing Number SW001	Revision C	



DESIGN NOTES:

THE SITE IS LOCATED IN NORTHERN BEACHES COUNCIL.

SITE AREA = 663.9m² (BY CALC'S)

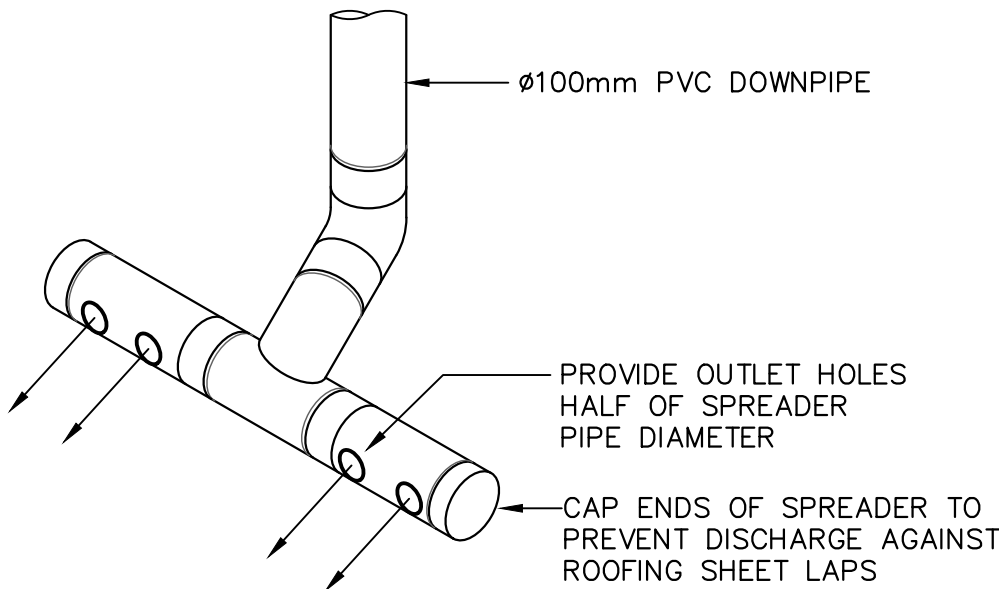
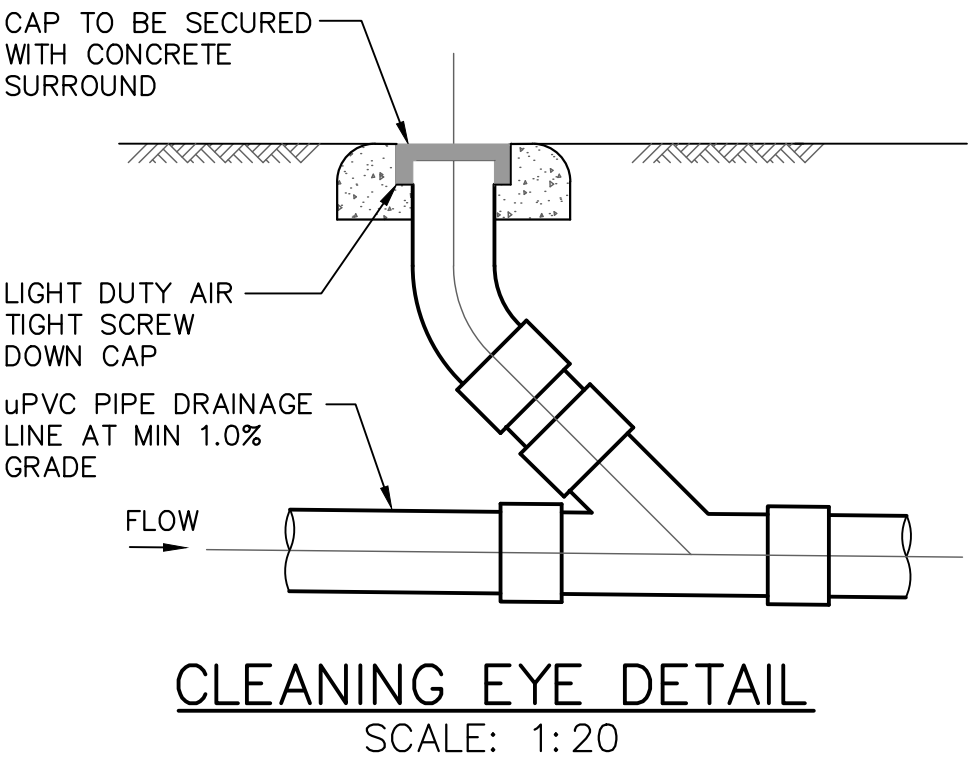
ALL NEW STORMWATER PIPES TO HAVE A MINIMUM OF 100mm CONCRETE OR 300mm TOPSOIL COVER U.N.O.

INSTALL CLEAR OUT FOR INSPECTION AND MAINTENANCE PURPOSES WHERE REQUIRED.

ALL STORMWATER PIPES ARE TO BE A MINIMUM OF 600mm CLEAR FROM EXISTING SEWER LINE (TYP).

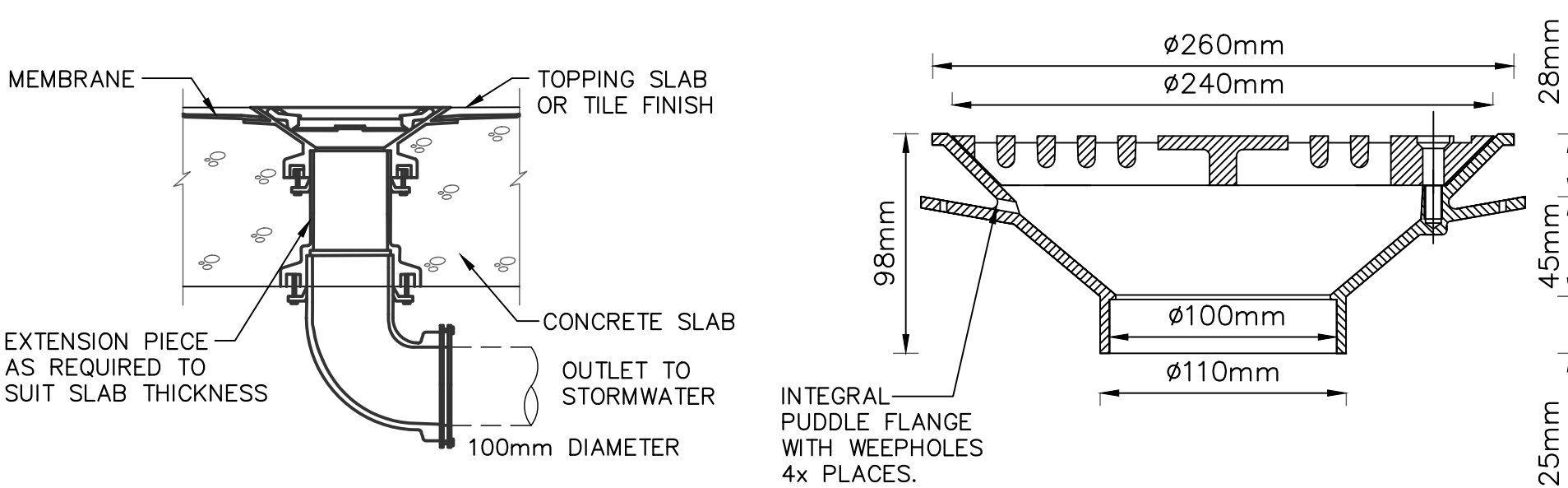
KEY NOTES:

1. ALL EXISTING STORMWATER PIPES AND DOWNPIPES ARE TO BE RETAINED U.N.O (TYP). PLUMBER TO ACCESS CONDITIONS AND STATE OF REPAIR. ALLOW FOR REPLACEMENT IF NEEDED.
2. CONTRACTOR TO ENSURE NEW DEVELOPMENT DOES NOT ADVERSELY IMPACT EXISTING STORMWATER SYSTEM. IF SO, CONTRACTOR TO CONTACT STORMWATER ENGINEER PRIOR TO COMMENCING ANY WORKS.
3. CONTRACTOR PERMITTED TO CONNECT TO EXISTING STORMWATER SYSTEM IF FOUND TO BE IN GOOD CONDITION DURING CONSTRUCTION. STORMWATER ENGINEER TO BE CONTRACTED PRIOR TO COMMENCING ANY WORKS WHICH VARY FROM THE APPROVED STORMWATER PLANS.
4. IF EXISTING STORMWATER SYSTEM IS CONNECTED TO SEWER, CONTRACTOR IS TO RECTIFY STORMWATER DESIGN AND CREATE A NEW CONNECTION AS PER COUNCIL SPECIFICATIONS AND AUSTRALIAN STANDARDS. CONTRACTOR TO CONTACT STORMWATER ENGINEER PRIOR TO COMMENCING ANY WORKS.



SPREADER PIPE DETAIL
SCALE: 1:10

- NOTES: -
- OUTLET HOLES POSITIONS SHALL BE POSITIONED TO AVOID JOINTS IN ROOFING
 - WHEN DOWNPIPE IS LOCATED IN CORNER, SPREADER PIPE TO BE L-SHAPED OR SIMILAR



RAINWATER OUTLET DETAIL
SCALE: 1:20

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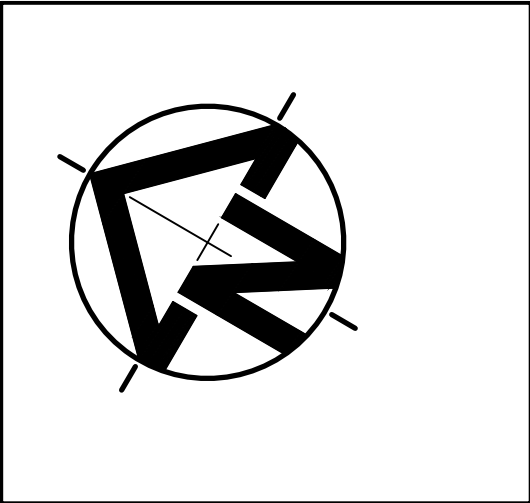
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Title
STORMWATER LAYOUT PLAN & DETAILS



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Scale 1:100	Date 26.08.21	Project Number SW21238		

Approved P.E.	
PAUL EL-BAYEH B.E., M.E., FIEAust, CPEng, NER, RPEQ	
Drawing Number SW010	Revision C

EROSION CONTROL

BEFORE EARTHWORKS CAN COMMENCE THE EROSION & SEDIMENT CONTROL MEASURES MUST BE IN PLACE.

DURING THE CONSTRUCTION PERIOD, THESE CONTROL MEASURES WILL NEED TO BE INSPECTED & MAINTAINED REGULARLY, ESPECIALLY AFTER STORM EVENTS, BY THE CONTRACTOR.

ALL WORK IS TO BE CARRIED OUT TO PREVENT EROSION, CONTAMINATION & SEDIMENTATION OF THE STORAGE SITE, SURROUNDING AREAS & DRAINAGE SYSTEMS.

MINIMIZE DISTURBED AREA COVERED WITH NATURAL VEGETATION. ONLY THOSE AREAS DIRECTLY REQUIRED FOR CONSTRUCTION ARE TO BE DISTURBED.

ISOLATE EXISTING STORMWATER PITS WITH STRAW BALES OR SILT TRAPS TO FILTER ALL INCOMING FLOWS.

DO NOT STOCKPILE EXCAVATED MATERIAL ON THE ROAD WAY.

DIVERT CLEAN WATER FROM UNDISTURBED AREAS AROUND THE WORKING AREAS.

CONSTRUCTION ENTRY/EXIT SHALL BE VIA THE LOCATION NOTED ON THE DRAWING. CONTRACTOR SHALL ENSURE ALL DROPPABLE SOIL & SEDIMENT IS REMOVED PRIOR TO CONSTRUCTION TRAFFIC EXITING SITE. CONTRACTOR SHALL ENSURE ALL CONSTRUCTION TRAFFIC ENTERING AND LEAVING THE SITE DO SO IN A FORWARD DIRECTION.

ADOPT TEMPORARY MEASURES AS MAY BE NECESSARY FOR EROSION & SEDIMENT CONTROL, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

- DRAINS: TEMPORARY DRAINS AND CATCH DRAINS.
- SPREADER BANKS OR OTHER STRUCTURES: TO DISPERSE CONCENTRATED RUNOFF.
- SILT TRAPS: CONSTRUCTION AND MAINTENANCE OF SILT TRAPS TO PREVENT DISCHARGE OF SCOURED MATERIAL TO DOWNSTREAM AREAS.

AFTER RAIN, INSPECT, CLEAN, AND REPAIR IF REQUIRED, TEMPORARY EROSION & SEDIMENT CONTROL MEASURES.

REMOVE TEMPORARY EROSION & SEDIMENT CONTROL MEASURES WHEN THEY ARE NO LONGER REQUIRED.

COMPLY WITH THE REQUIREMENTS OF LANDCOM'S MANAGING URBAN STORMWATER - SOIL AND CONSTRUCTION 'THE BLUE BOOK' LATEST EDITION

THE EROSION & SEDIMENT CONTROL PLAN PROVIDED IS ONLY INDICATIVE. THE CONTRACTOR SHOULD PREPARE A DETAILED ESCP SUITABLE FOR THE SPECIFIC SITE CONDITIONS

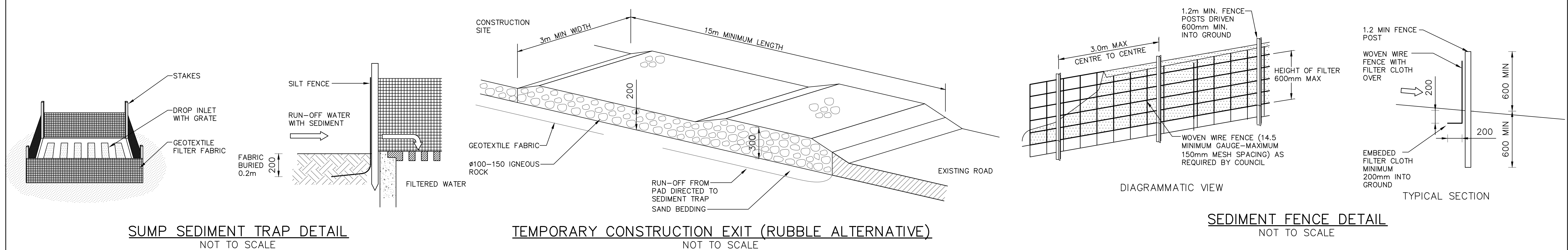
CONTRACTOR TO ENSURE THAT HUDSON PARADE STAYS CLEAN FROM SEDIMENT AND DEBRIS AT ALL TIMES (TYP).

CONSTRUCT SEDIMENT FENCE WHOLLY WITHIN SITE AT THE LOWER SIDES OF PROPERTY BOUNDARY TO PREVENT SITE RUNOFF FROM ENTERING DOWNSTREAM PROPERTIES (SHOWN OUTSIDE BOUNDARY FOR CLARITY).

CONTRACTOR TO ENSURE THAT TAYLORS POINT AVENUE STAYS CLEAN FROM SEDIMENT AND DEBRIS AT ALL TIMES (TYP).

EROSION & SEDIMENT CONTROL PLAN

SCALE 1:100



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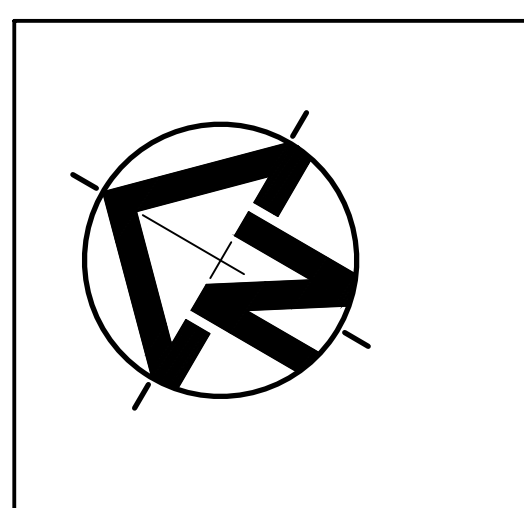
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Title
EROSION AND SEDIMENT CONTROL PLAN



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Scale 1:100	Date 26.08.21	Project Number SW21238		Drawing Number ER001	Revision C	