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Civil Design Documentation

Proposed Subdivision

Lots 1 & 2 in DP 1215204

90 Cox Street & 7 Henry Bayly Drive, Mudgee, NSW, 2850

SCHEDULE OF DRAWINGS

SHEET No.	DESCRIPTION
45202-C00	COVER SHEET AND DRAWING SCHEDULE
45202-C01	EXISTING SITE PLAN
45202-C02	PROPOSED SITE PLAN
45202-C10	PROPOSED STORMWATER MANAGEMENT PLAN
45202-C11	STORMWATER SPECIFICATION
45202-C20	PROPOSED SEWER RETICULATION PLAN
45202-C21	SEWER RETICULATION LONGITUDINAL SECTION & NOTES AND DETAILS
45202-C30	PROPOSED WATER RETICULATION PLAN
45202-C31	WATER RETICULATION NOTES AND DETAILS

LOCALITY PLAN
NOT TO REDUCTION RATIO

PRELIMINARY DRAWING
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Rev	Date	Description
A	04-12-2024	PRELIMINARY DRAWING

Project
PROPOSED SUBDIVISION OF LOTS 1 & 2 in DP 1215204
Site Address
90 Cox Street & 7 Henry Bayly Drive, MUDGEE, NSW, 2850
Client
ELIZABETH McLEAN

Drawing Title
COVER SHEET & NOTES

Design	LM	Original Sheet Size	A1
Drawn	AR		
Check		Revision	A

Certification

Project No 45202
Drawing No C00

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DP 1111110

LOT C
DP 130756

LOT 1
DP 565712

LOT 2
DP 565712

LOT 1
DP 1159379

DRIVE
BAYLY
HENRY
COX
STREET

EXISTING SHED
EDGE OF GARDEN
SEWER BOUNDARY RISER
WATER METER
CLOTHESLINE
RETAINING WALL
DRAINAGE GRATE ø450mm IL 474.438 ø450mm IL 474.437
STUMP
SEWER BOUNDARY RISER
DRAINAGE ø90mm IL 476.531 ø90mm IL 476.574
SEWER MANHOLE PIT INV 475.180
SEWER MANHOLE PIT INV 475.246
HYDRANT
WATER STOP VALVE
TELECOMMUNICATIONS PIT
ELECTRICITY POLE
TELECOMMUNICATIONS PITS
ELECTRICITY POLE
EXISTING SHEDS
ELECTRICITY POLE
SEWER MANHOLE PIT INV 475.632
ø525mm HEADWALL IL 477.723
SEWER MANHOLE
DRAINAGE GRATE ø525mm IL 478.639 ø525mm IL 478.592
MAILBOX
STUMPS
EXISTING BUILDING
EXISTING SHED
EXISTING SHED
EXISTING GRAVEL PAD
DRAINAGE EASEMENT ADJUSTED TO MATCH DP 1159379
EDGE OF GARDEN
WATER STOP VALVE NOT LOCATED
TELECOMMUNICATIONS PITS
ELECTRICITY POLE
SEWER MANHOLE PIT INV 477.959
HYDRANT NOT LOCATED
BENCH MARK SSM 66564 RL 480.44 (AHD)
KERB AND GUTTER
ROLL

No. 90 Cox Street
LOT 2
DP 1215204
621m² (BY TITLE)

No. 7 Henry Bayly Drive
LOT 1
DP 1215204
2302m² (BY TITLE)

18.135 (BY TITLE)
22.10 (BY TITLE)
28.145 (BY TITLE)
28.10 (BY TITLE)
35.62 (BY TITLE)
22.10 (BY TITLE)
31.70
43.72 (BY TITLE)
25.27 (BY TITLE)
17.74 (BY TITLE)
84.075 (BY TITLE)

M.G.A.

OVERALL EXISTING SITE PLAN
REDUCTION RATIO 1:200 @ A1
1:400 @ A3

SCALE 1:200(A1)
0 2 4 8 12 16 20
SCALE 1:400(A3)
0 2 4 8 12 16 20

(S) EASEMENT TO DRAIN SEWAGE 3 WIDE AND VARIABLE (VIDE DP1215204
(D) EASEMENT TO DRAIN WATER VARIABLE WIDTH (VIDE DP 1215204)
(S1) PROPOSED EASEMENT TO DRAIN SEWEAGE 3 WIDE
(A1) PROPOSED EASEMENT FOR ACCESS 3 WIDE

LEGEND (existing)

- EXISTING SUBJECT CADASTRAL BOUNDARIES
- EXISTING FENCE LINE
- EXISTING GATE
- TOP OF BANK
- BOTTOM OF BANK
- EXISTING UNDERGROUND WATER MAIN - COUNCIL APPROX.
- EXISTING UNDERGROUND SEWER PIPE - APPROX
- EXISTING UNDERGROUND ELECTRICITY CABLES - APPROX
- EXISTING OVERHEAD ELECTRICITY CABLES
- EXISTING UNDERGROUND TELECOMMUNICATIONS ASSETS - APPROX.
- EXISTING TABLE DRAIN
- DRAIN PIPE
- ELECTRICITY POWER POLE, STAY WIRE AND ANCHOR
- ELECTRICITY POWER POLE
- ELECTRIC LIGHT POLE
- FIRE HYDRANT
- HYDRANT
- WATER STOP VALVE
- SEWER MANHOLE
- EXISTING SHRUB

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A	04-12-2024	PRELIMINARY DRAWING
B	17-12-2024	EASEMENTS UPDATED

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Client
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Drawing Title
EXISTING SITE PLAN

Design LM
Drawn AR
Check

Original Sheet Size A1
Revision B

Certification

Project No 45202
Drawing No C01

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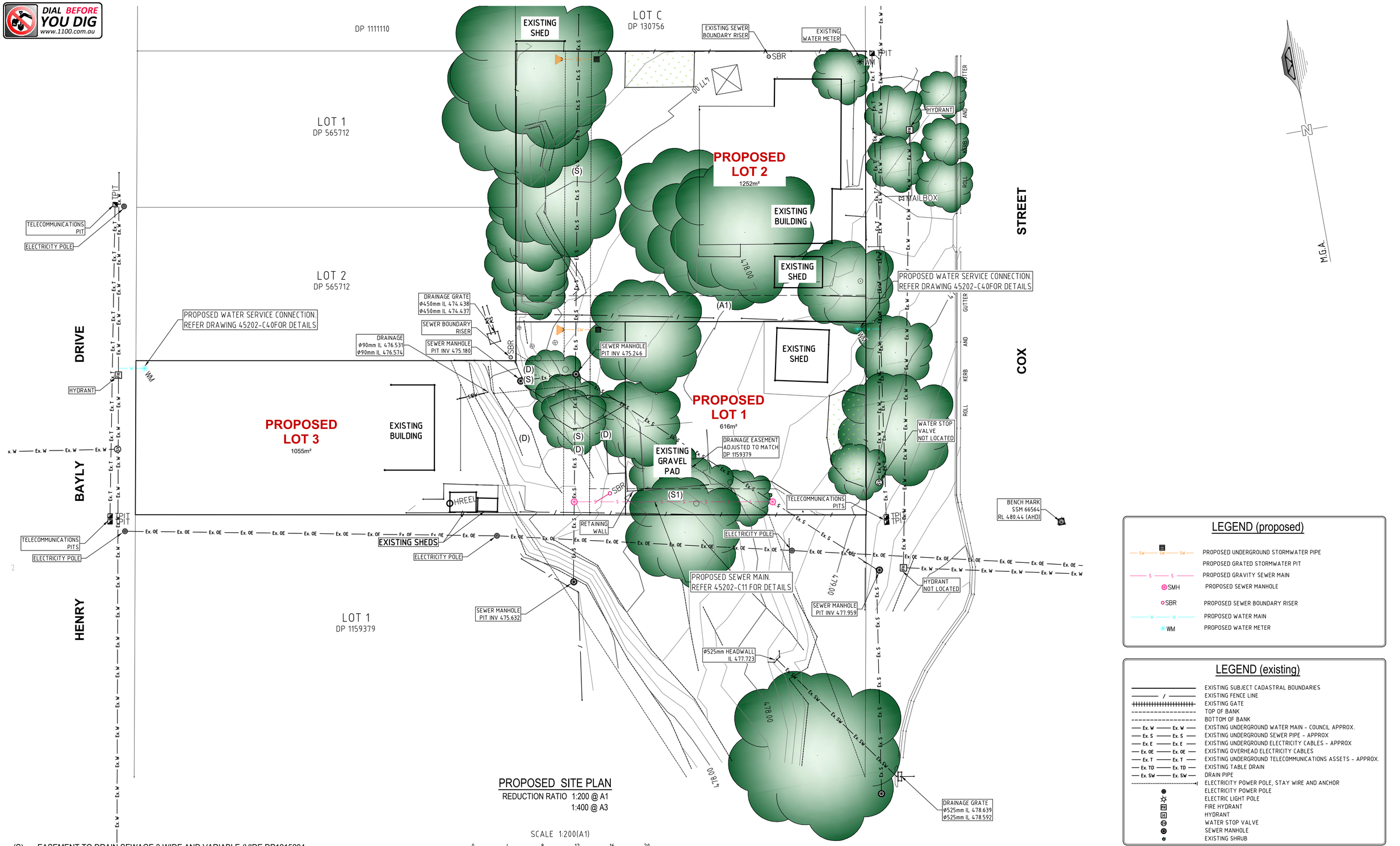

PROPOSED SITE PLAN

REDUCTION RATIO 1:200 @ A1
1:400 @ A3

SCALE 1:200(A1)

0 2 4 8 12 16 20

0 2 4 8 12 16 20

SCALE 1:400(A3)

(S) EASEMENT TO DRAIN SEWAGE 3 WIDE AND VARIABLE (VIDE DP1215204
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(S1) PROPOSED EASEMENT TO DRAIN SEWEAGE 3 WIDE
(A1) PROPOSED EASEMENT FOR ACCESS 3 WIDE

LEGEND (proposed)

- PROPOSED UNDERGROUND STORMWATER PIPE
- PROPOSED GRATED STORMWATER PIT
- PROPOSED GRAVITY SEWER MAIN
- SMH PROPOSED SEWER MANHOLE
- SBR PROPOSED SEWER BOUNDARY RISER
- PROPOSED WATER MAIN
- WM PROPOSED WATER METER

LEGEND (existing)

- EXISTING SUBJECT CADASTRAL BOUNDARIES
- EXISTING FENCE LINE
- EXISTING GATE
- TOP OF BANK
- BOTTOM OF BANK
- Ex. W EXISTING UNDERGROUND WATER MAIN - COUNCIL APPROX.
- Ex. S EXISTING UNDERGROUND SEWER PIPE - APPROX
- Ex. E EXISTING UNDERGROUND ELECTRICITY CABLES - APPROX
- Ex. OE EXISTING OVERHEAD ELECTRICITY CABLES
- Ex. T EXISTING UNDERGROUND TELECOMMUNICATIONS ASSETS - APPROX.
- Ex. TD EXISTING TABLE DRAIN
- Ex. SW DRAIN PIPE
- ELECTRICITY POWER POLE, STAY WIRE AND ANCHOR
- ELECTRICITY POWER POLE
- ELECTRIC LIGHT POLE
- FIRE HYDRANT
- HYDRANT
- WATER STOP VALVE
- SEWER MANHOLE
- EXISTING SHRUB

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Drawing Title
PROPOSED SITE PLAN

Design LM
Drawn AR
Check

Original Sheet Size A1
Revision B

Certification

Project No 45202
Drawing No C02

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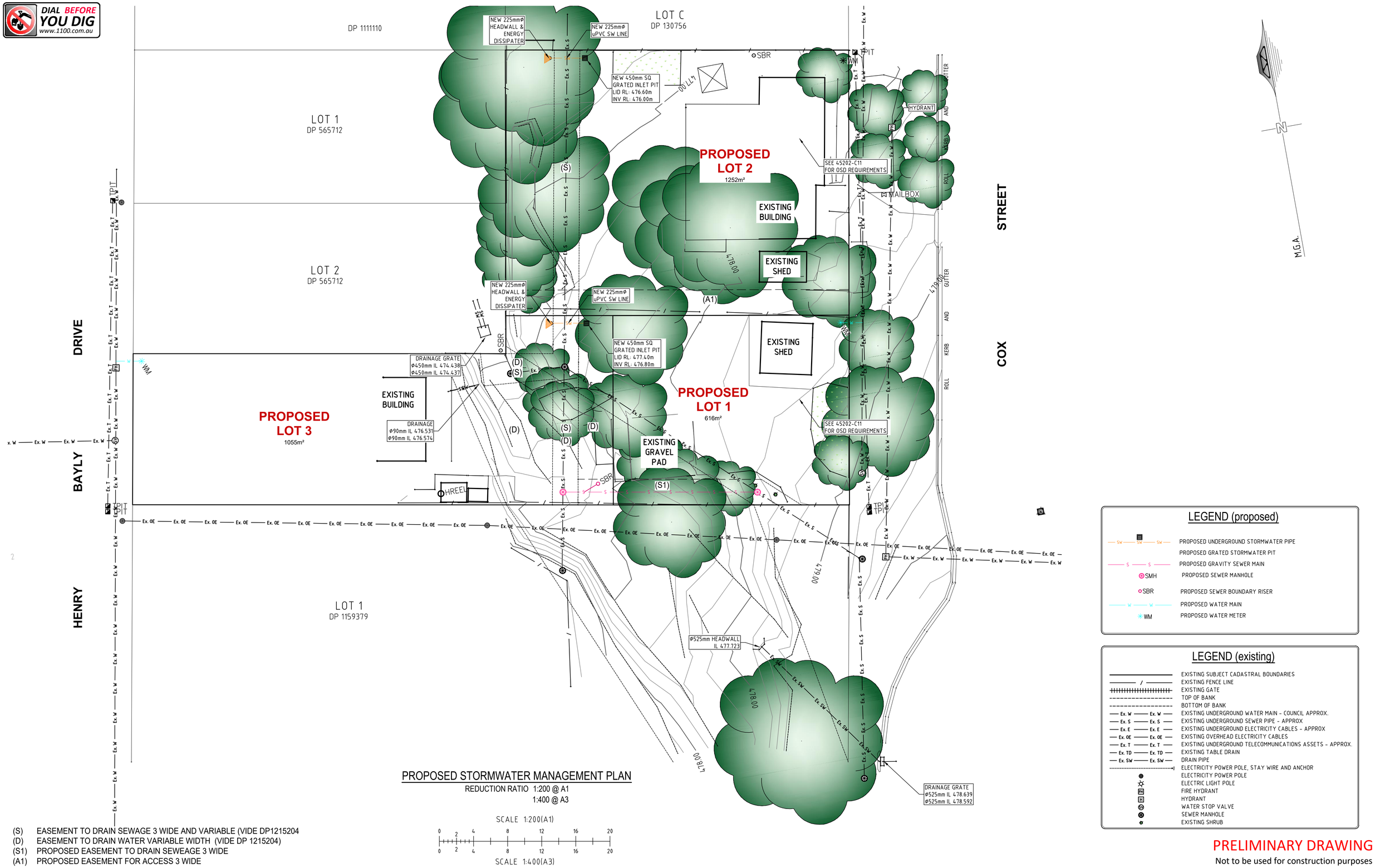

PROPOSED STORMWATER MANAGEMENT PLAN

REDUCTION RATIO 1:200 @ A1
1:400 @ A3

SCALE 1:200(A1)

0 2 4 8 12 16 20

SCALE 1:400(A3)

0 2 4 8 12 16 20

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(D) EASEMENT TO DRAIN WATER VARIABLE WIDTH (VIDE DP 1215204)
(S1) PROPOSED EASEMENT TO DRAIN SEWEAGE 3 WIDE
(A1) PROPOSED EASEMENT FOR ACCESS 3 WIDE

LEGEND (proposed)

- PROPOSED UNDERGROUND STORMWATER PIPE
- PROPOSED GRATED STORMWATER PIT
- PROPOSED GRAVITY SEWER MAIN
- SMH PROPOSED SEWER MANHOLE
- SBR PROPOSED SEWER BOUNDARY RISER
- PROPOSED WATER MAIN
- WM PROPOSED WATER METER

LEGEND (existing)

- EXISTING SUBJECT CADASTRAL BOUNDARIES
- EXISTING FENCE LINE
- EXISTING GATE
- TOP OF BANK
- BOTTOM OF BANK
- Ex. W EXISTING UNDERGROUND WATER MAIN - COUNCIL APPROX.
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- Ex. E EXISTING UNDERGROUND ELECTRICITY CABLES - APPROX
- Ex. OE EXISTING OVERHEAD ELECTRICITY CABLES
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- FIRE HYDRANT
- HYDRANT
- WATER STOP VALVE
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- EXISTING SHRUB

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Client
ELIZABETH McLEAN

Drawing Title
PROPOSED STORMWATER MANAGEMENT PLAN

Design LM
Drawn AR
Check

Original Sheet Size A1
Revision B

Certification

Project No 45202
Drawing No C10

SITEWORKS NOTES

1. ORIGIN OF LEVELS :- AHD
2. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK.
3. ALL WORK IS TO BE UNDERTAKEN IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS, THE SPECIFICATIONS AND THE DIRECTIONS OF THE SUPERINTENDENT.
4. EXISTING SERVICES HAVE BEEN OBTAINED FROM SURFACE INSPECTION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND THE 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.
5. WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.
6. THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A QUALIFIED SURVEYOR.
7. CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER TELECOM OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
8. ON COMPLETION OF CONSTRUCTION, ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AND GRASSED AREAS AND ROAD PAVEMENTS.
9. MAKE SMOOTH TRANSITION TO EXISTING AREAS.
10. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY DIVERSION DRAINS AND MOUNDS TO ENSURE THAT AT ALL TIMES EXPOSED SURFACES ARE FREE DRAINING AND WHERE NECESSARY EXCAVATE SUMPS AND PROVIDE PUMPING EQUIPMENT TO DRAIN EXPOSED AREAS. ALL WORK TO BE UNDERTAKEN WITH ADHERENCE TO THE REQUIREMENTS OF THE SOIL AND WATER MANAGEMENT PLAN.
11. THESE PLANS SHALL BE READ IN CONJUNCTION WITH APPROVED ARCHITECTURAL, STRUCTURAL, HYDRAULIC AND MECHANICAL DRAWINGS AND SPECIFICATIONS.

SURVEY NOTES

1. CONTOURS SHOWN DEPICT THE TOPOGRAPHY. EXCEPT AT SPOT LEVELS SHOWN THEY DO NOT REPRESENT THE EXACT LEVEL AT ANY PARTICULAR POINT.
2. SERVICES SHOWN HEREON HAVE BEEN DETERMINED FROM VISUAL EVIDENCE AND ARE INDICATIVE ONLY. PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON THE SITE THE RELEVANT AUTHORITY SHOULD BE CONTACTED TO ESTABLISH DETAILED LOCATION AND DEPTH.

PIPE TRENCH - FILL NOTES:

1. BEDDING SAND
   BEDDING SAND SHALL BE GRANULAR MATERIAL HAVING A LOW PERMEABILITY AND HIGH STABILITY WHEN SATURATED, CONFORMING TO THE GRADING LIMITS FOR BEDDING SAND AS INDICATED IN THE CONTRACT DOCUMENTS. BEDDING SAND SHALL BE COMPACTED TO A DENSITY INDEX OF 95% AS DETERMINED IN ACCORDANCE WITH AS1289.
2. APPROVED IMPORTED GRANULAR FILL
   ONLY IMPORTED GRANULAR FILL MATERIAL APPROVED BY THE SUPERINTENDENT SHALL BE USED. THIS FILL MATERIAL SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 300mm THICK TO A DRY DENSITY OF 100% OF THE STANDARD MAXIMUM DRY DENSITY OF THE MATERIAL AND WITH A MOISTURE CONTENT NO MORE THAN 1% ABOVE OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH AS1289.
3. ORDINARY EXCAVATED FILL MATERIAL
   ORDINARY EXCAVATED FILL MATERIAL IS EXCAVATED TRENCH MATERIAL THAT IS FREE OF VEGETABLE MATTER, HUMUS, LARGE CLAY LUMPS AND ROCK BOULDERS. THIS FILL MATERIAL SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 300mm THICK, TO A DENSITY OF 95% OF THE STANDARD MAXIMUM DRY DENSITY OF THE MATERIAL WITH A MOISTURE CONTENT OF NOT MORE THAN 1% ABOVE THE OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH AS1289.

STORMWATER NOTES

1. ALL DOWNPIPE LINES SHALL BE SEWER GRADE uPVC WITH SOLVENT WELD JOINTS (U.N.O)
2. EQUIVALENT STRENGTH VCP OR FCP PIPES MAY BE USED.
3. MINIMUM GRADE TO STORMWATER LINES TO BE 0.5% MINIMUM (U.N.O)
4. CONTRACTORS TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTORS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.
5. ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN-LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT THE POINT OF ENTRY SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH.
6. APPROVED PRECAST PITS MAY BE USED.
7. WHERE TRENCHES ARE IN ROCK, THE PIPE SHALL BE BEDDED ON A MIN. 50mm CONCRETE BED (75mm THICK BED OF 12mm BLUE METAL) UNDER THE BARREL OF THE PIPE. THE PIPE COLLAR AT NO POINT SHALL BEAR THE ROCK. IN OTHER THAN ROCK, PIPES SHALL BE LAID ON A 75mm THICK SAND BED. IN ALL CASES, BACKFILL THE TRENCH WITH THE SAND TO 200mm ABOVE THE PIPE .WHERE THE PIPE IS UNDER PAVEMENTS, BACKFILL REMAINDER OF TRENCH WITH SAND OR APPROVED GRANULAR BACKFILL COMPACTED IN 150mm LAYERS TO 98% MAX. DRY DENSITY.
8. WHERE STORMWATER LINES PASS UNDER FLOOR SLABS, SEWER GRADE RUBBER RING JOINTS ARE TO BE USED.
9. ALL PIPES IN THE ROADWAY AND FOOTPATH AREAS, WHERE THE DEPTH OF PIPE IS LESS THAN 500mm FROM THE FINISHED SURFACE LEVEL ARE TO BE CONCRETE ENCASED.

STORMWATER ANALYSIS

DESIGN CALCULATIONS AS PER AS3500.3-2021

PROPOSED LOT 1

A) PRE-DEVELOPED:
- -TOTAL APPLICABLE CATCHMENT AREA (A) = 706m^2
- -RAINFALL INTENSITY (I1) = 148 mm/hr (5min- 5% AEP)
- -Cr = RUNOFF COEFFICIENT FOR ROOFED AREA = 1.0
- -Ar = TOTAL ROOFED AREA= 0 m^2
- -Ci = RUNOFF COEFFICIENT FOR UNROOFED IMPERVIOUS AREA = 0.9
- -Ai = TOTAL UNROOFED IMPERVIOUS AREA= 0 m^2
- -Cp = RUNOFF COEFFICIENT FOR PERVIOUS AREA = 0.3
- -Ap = TOTAL PERVIOUS GRASS AREA = 706m^2
- -TOTAL FLOW Q_{PRE} = (Cr Ar +Ci Ai + Cp Ap). I1 / 3600 = 8.7 l/s

B) POST-DEVELOPED:
- -TOTAL APPLICABLE CATCHMENT AREA (A) = 706m^2
- -RAINFALL INTENSITY (I1) = 148 mm/hr (5min -5% AEP)
- -Cr = RUNOFF COEFFICIENT FOR ROOFED AREA = 1.0
- -Ar = TOTAL ROOFED AREA= 300 m^2
- -Ci = RUNOFF COEFFICIENT FOR UNROOFED IMPERVIOUS AREA = 0.9
- -Ai = TOTAL UNROOFED IMPERVIOUS AREA= 56m^2
- -Cp = RUNOFF COEFFICIENT FOR PERVIOUS AREA = 0.3
- -Ap = TOTAL PERVIOUS AREA = 350 m^2
- -TOTAL FLOW Q_{POST} = (Cr Ar +Ci Ai + Cp Ap). I1 / 3600 = 18.7 l/s

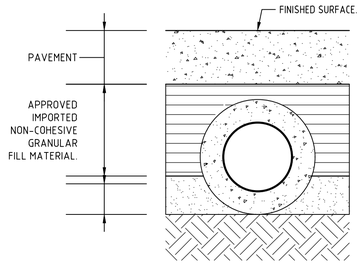
C) OSD CALCULATION
- REQUIRED OSD VOLUME = (18.7-8.7)x5x60/1000= 3.00 CUM
- PROPOSED ON-SITE DETENTION TANK REQUIRED = 3000L

PROPOSED LOT 2

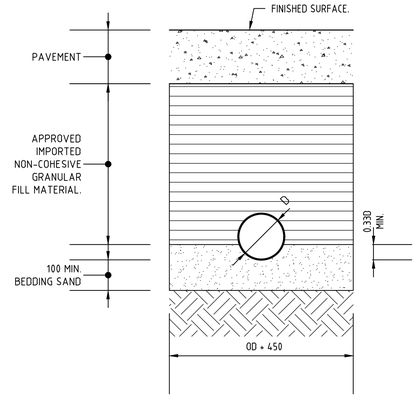
A) PRE-DEVELOPED:
- -TOTAL APPLICABLE CATCHMENT AREA (A) = 1252m^2
- -RAINFALL INTENSITY (I1) = 148 mm/hr (5min- 5% AEP)
- -Cr = RUNOFF COEFFICIENT FOR ROOFED AREA = 1.0
- -Ar = TOTAL ROOFED AREA= 0 m^2
- -Ci = RUNOFF COEFFICIENT FOR UNROOFED IMPERVIOUS AREA = 0.9
- -Ai = TOTAL UNROOFED IMPERVIOUS AREA= 0 m^2
- -Cp = RUNOFF COEFFICIENT FOR PERVIOUS AREA = 0.3
- -Ap = TOTAL PERVIOUS GRASS AREA = 1525m^2
- -TOTAL FLOW Q_{PRE} = (Cr Ar +Ci Ai + Cp Ap). I1 / 3600 = 15.4 l/s

B) POST-DEVELOPED:
- -TOTAL APPLICABLE CATCHMENT AREA (A) = 1252m^2
- -RAINFALL INTENSITY (I1) = 148 mm/hr (5min -5% AEP)
- -Cr = RUNOFF COEFFICIENT FOR ROOFED AREA = 1.0
- -Ar = TOTAL ROOFED AREA= 500 m^2
- -Ci = RUNOFF COEFFICIENT FOR UNROOFED IMPERVIOUS AREA = 0.9
- -Ai = TOTAL UNROOFED IMPERVIOUS AREA= 152m^2
- -Cp = RUNOFF COEFFICIENT FOR PERVIOUS AREA = 0.3
- -Ap = TOTAL PERVIOUS AREA = 600 m^2
- -TOTAL FLOW Q_{POST} = (Cr Ar +Ci Ai + Cp Ap). I1 / 3600 = 33.6 l/s

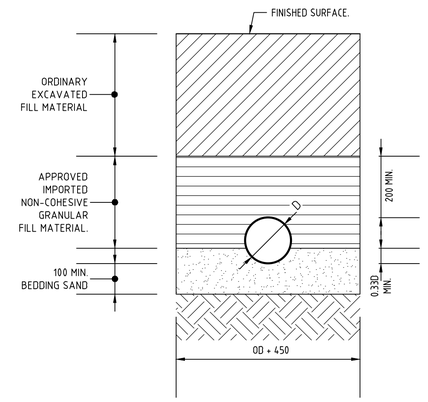
C) OSD CALCULATION
- REQUIRED OSD VOLUME = (33.6-15.4)x5x60/1000= 5.46 CUM
- PROPOSED ON-SITE DETENTION TANK REQUIRED = 5,500L



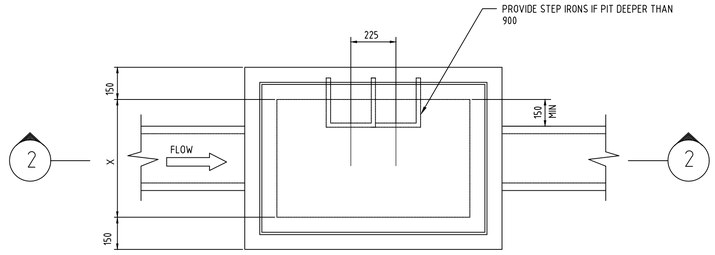
TYPICAL PIPE ENCASEMENT
SCALE 1:10
NOTE: PIPE COLLAR IS NOT TO REST ON ORIGINAL MATERIAL



TYPICAL SECTION TRENCH IN ROADWAY
SCALE 1:10
NOTE: PIPE COLLAR IS NOT TO REST ON ORIGINAL MATERIAL

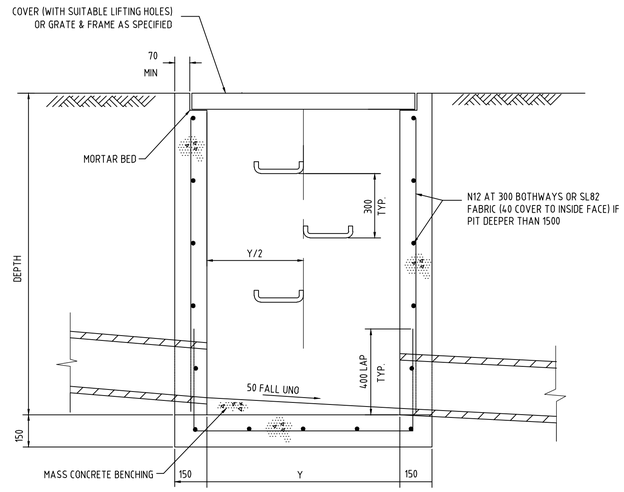


TYPICAL SECTION EARTH FOUNDATION TRENCH
SCALE 1:10
NOTE: PIPE COLLAR IS NOT TO REST ON ORIGINAL MATERIAL



PLAN
GRATED INLET PIT
N.T.S.

PIT DIMENSIONS		
DEPTH	X	Y
D<600	450	450
D<1000	600	600
D<1500	600	900
1500<D<2400	900	900
D>2400	750	1200



SECTION 2

INSPECTION HOLD POINTS

1. INSTALLATION OF SEDIMENT & EROSION CONTROL MEASURES.
2. WATER & SEWER LINE INSTALLATION PRIOR TO BACKFILL.
3. ESTABLISHMENT OF LINE & LEVEL FOR KERB & GUTTER PLACEMENT.
4. ROAD PAVEMENT CONSTRUCTION.
5. ROAD PAVEMENT SURFACING.
6. PRACTICAL COMPLETION.

SERVICES INSTALLATION

1. INSTALLATION OF ALL UNDERGROUND PIPES BE INSTALLED PRIOR TO INSTALLATION OF ROAD PAVEMENT.

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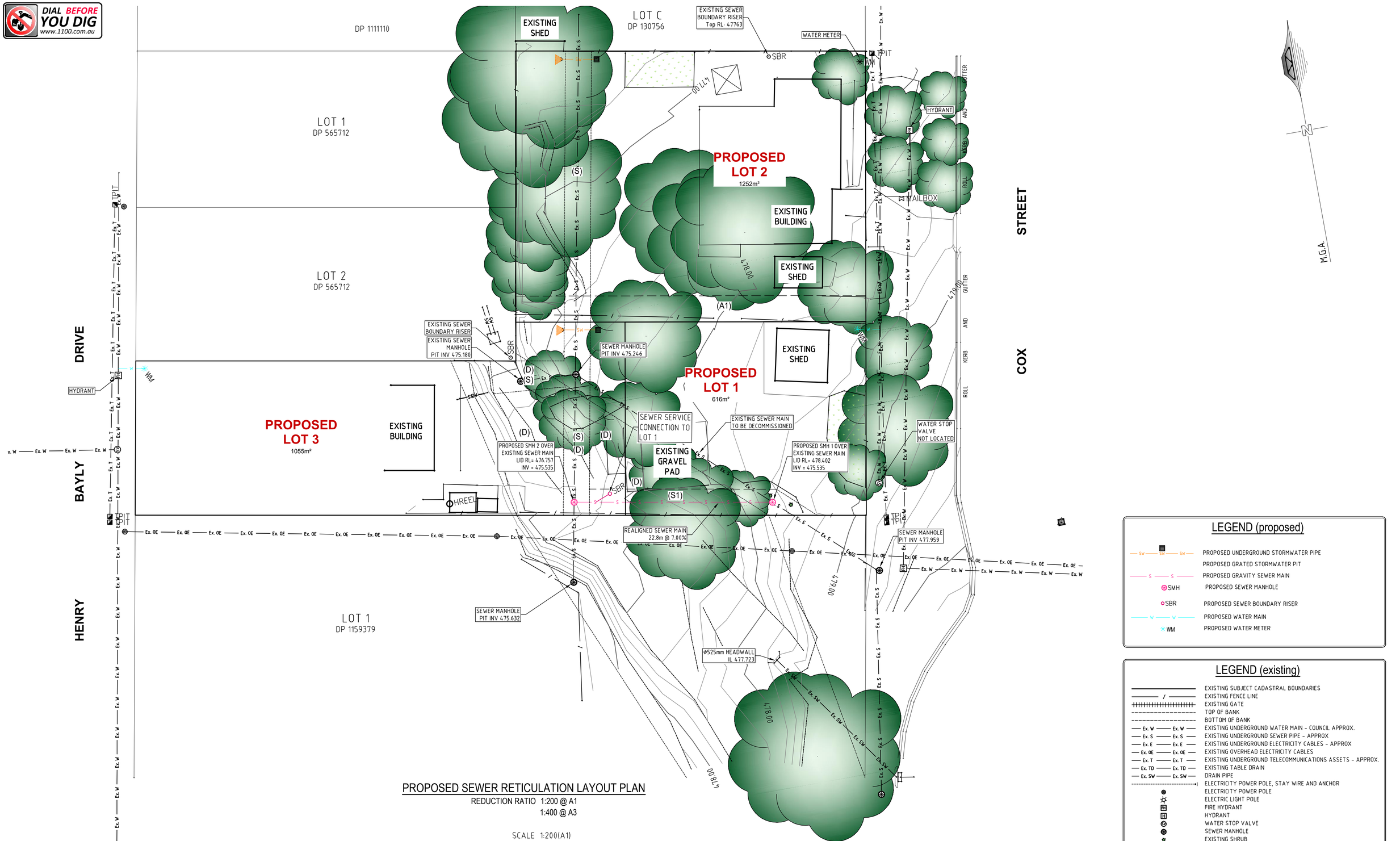

(S) EASEMENT TO DRAIN SEWAGE 3 WIDE AND VARIABLE (VIDE DP1215204)
(D) EASEMENT TO DRAIN WATER VARIABLE WIDTH (VIDE DP 1215204)
(S1) PROPOSED EASEMENT TO DRAIN SEWEAGE 3 WIDE
(A1) PROPOSED EASEMENT FOR ACCESS 3 WIDE

PROPOSED SEWER RETICULATION LAYOUT PLAN

REDUCTION RATIO 1:200 @ A1
1:400 @ A3

SCALE 1:200(A1)
0 2 4 8 12 16 20
0 2 4 8 12 16 20
SCALE 1:400(A3)

LEGEND (proposed)

- PROPOSED UNDERGROUND STORMWATER PIPE
- PROPOSED GRATED STORMWATER PIT
- PROPOSED GRAVITY SEWER MAIN
- SMH PROPOSED SEWER MANHOLE
- SBR PROPOSED SEWER BOUNDARY RISER
- PROPOSED WATER MAIN
- WM PROPOSED WATER METER

LEGEND (existing)

- EXISTING SUBJECT CADASTRAL BOUNDARIES
- EXISTING FENCE LINE
- EXISTING GATE
- TOP OF BANK
- BOTTOM OF BANK
- Ex. W — EXISTING UNDERGROUND WATER MAIN - COUNCIL APPROX.
- Ex. S — EXISTING UNDERGROUND SEWER PIPE - APPROX
- Ex. E — EXISTING UNDERGROUND ELECTRICITY CABLES - APPROX
- Ex. OE — EXISTING OVERHEAD ELECTRICITY CABLES
- Ex. T — EXISTING UNDERGROUND TELECOMMUNICATIONS ASSETS - APPROX.
- Ex. TD — EXISTING TABLE DRAIN
- Ex. SW — DRAIN PIPE
- ELECTRICITY POWER POLE, STAY WIRE AND ANCHOR
- ELECTRICITY POWER POLE
- ELECTRIC LIGHT POLE
- FH FIRE HYDRANT
- H HYDRANT
- WS WATER STOP VALVE
- SEWER MANHOLE
- EXISTING SHRUB

PRELIMINARY DRAWING
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Rev	Date	Description
A	04-12-2024	PRELIMINARY DRAWING
B	17-12-2024	EASEMENTS AND PROPOSED LOTS UPDATED

Project
PROPOSED SUBDIVISION OF LOTS 1 & 2 in DP 1215204
Site Address
90 Cox Street & 7 Henry Bayly Drive, MUDGEE, NSW, 2850
Client
ELIZABETH McLEAN

Drawing Title
PROPOSED SEWER RETICULATION LAYOUT PLAN

Design	LM	Original Sheet Size	A1
Drawn	AR		
Check		Revision	A

Certification

Project No 45202
Drawing No C20

SEWER NOTES:

1. ALL WORK TO BE IN ACCORDANCE WITH COUNCIL REQUIREMENTS AND ALL COSTS INCLUDING COUNCIL FEES AND CHARGES AT THE CONTRACTORS EXPENSE.
2. CONTRACTOR TO CONFIRM LOCATION OF ALL EXISTING SERVICE LINES INCLUDING WATER MAINS, TELSTRA CABLES AND COUNTRY ENERGY CABLES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. THE SEWER MAIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH COUNCIL REQUIREMENTS.
4. SEWER MAINS SHALL BE UPVC CLASS SN8 TO AS1260 UNO. MAINS TO BE RRJ TO AS1646.
5. DUCTILE IRON PIPE (TYTON EXTREME OR EQUIVALENT), CONFORMING WITH AS2280 SHALL BE USED UNDER ROADS WHERE THERE IS LESS THAN 1.2M COVER FROM CONSTRUCTION TRAFFIC.
6. SEWER MAINS SHALL BE LAID TRUE TO GRADE AND ALIGNMENT.
7. WATER STOPS/BULK HEADS SHALL BE PROVIDED IN ACCORDANCE WITH COUNCIL REQUIREMENTS.
8. ALL PIPES SHALL BE TESTED BY THE RELEVANT TESTING AUTHORITY AT THE PLACE OF MANUFACTURE.
9. ALL MAINS ARE TO BE TESTED IN ACCORDANCE WITH COUNCIL STANDARD PROCEDURES PRIOR TO ACCEPTANCE OF THE WORKS INTO MAINTENANCE. ALL COSTS ASSOCIATED WITH TESTING INCLUDING COUNCIL FEES AND CHARGES AT THE CONTRACTORS EXPENSE.
10. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH COUNCIL REQUIREMENTS.
11. MANHOLES SHALL BE FINISHED WITH A SMOOTH RENDERED FINISH INTERNALLY AND BE WATERTIGHT. ALL MANHOLES SHALL BE FITTED WITH STEP IRONS IN ACCORDANCE WITH COUNCIL REQUIREMENTS.
12. WHERE MANHOLE LIDS ARE LOCATED IN BATTERS THE SURROUND SHALL BE PACKED TO PROVIDE MAXIMUM PRACTICABLE CROSSFALL IN THE PLANE OF THE BATTER FACE AND THE UPPER AND LOWER EDGES OF THE SURROUND SHALL BE EQUIDISTANT FROM THE PLANE OF THE BATTER FACE.
13. U.N.O. MANHOLES LIDS SHALL BE IN ACCORDANCE WITH AS3996, AND COUNCIL REQUIREMENTS.

BEDDING NOTES:

1. THE MINIMUM DEPTH TO TOP OF PIPE SHALL BE 1000mm, EXCEPT UNDER ROAD PAVEMENT WHERE MINIMUM COVER TO TOP OF PIPE SHALL BE 1200mm MINIMUM UNLESS SHOWN OTHERWISE. PIPES WITH LESS COVER THAN THESE LIMITS TO BE CONCRETE ENCASED, AND DICL UNDER ROADS.
2. GRADES OF GRAVITY SEWER NOT TO BE FLATTER THAN 1:179 (0.55%) FOR 150mm DIAMETER PIPES AS PER WSA-2014.
3. MANHOLES SHALL BE PLACED AT EACH CHANGE IN DIRECTION OR GRADE OF THE PIPE LINE AT INTERVALS ALONG THE LINE NOT EXCEEDING 80m.

FIELD NOTES:

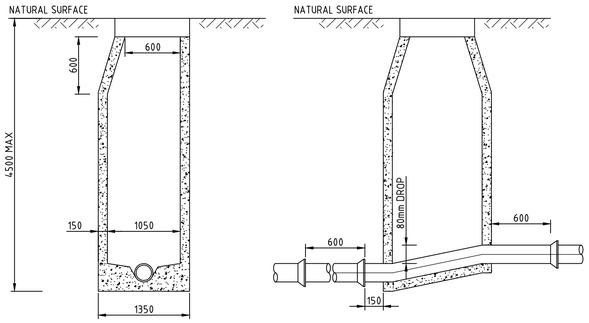
1. BEARINGS AND DISTANCES ARE BY TITLE AND/OR DEED ONLY. NO BOUNDARY INVESTIGATION HAS BEEN CARRIED OUT.
2. SERVICES SHOWN HEREON HAVE BEEN DETERMINED FROM VISUAL EVIDENCE ONLY. PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON THE SITE THE RELEVANT AUTHORITY SHOULD BE CONTACTED TO ESTABLISH DETAILED LOCATION AND DEPTH.
3. ALL HEIGHTS TO AHD (AUSTRALIAN HEIGHT DATUM).

INSPECTION HOLD POINTS

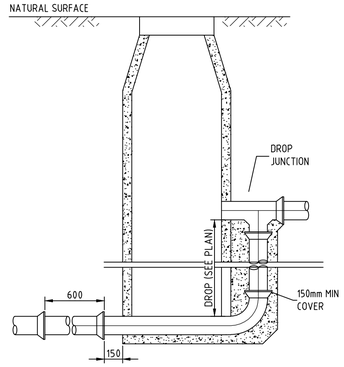
1. INSTALLATION OF SEDIMENT & EROSION CONTROL MEASURES.
2. WATER & SEWER LINE INSTALLATION PRIOR TO BACKFILL.
3. ESTABLISHMENT OF LINE & LEVEL FOR KERB & GUTTER PLACEMENT.
4. ROAD PAVEMENT CONSTRUCTION.
5. ROAD PAVEMENT SURFACING.
6. PRACTICAL COMPLETION.

SERVICES INSTALLATION

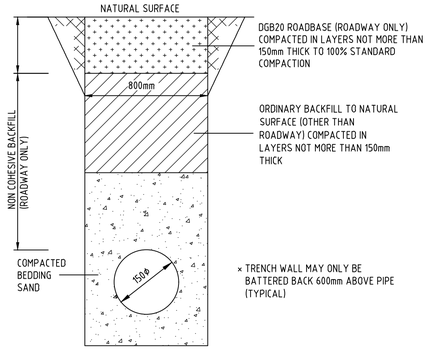
1. INSTALLATION OF ALL UUNDERGROUND PIPES BE INSTALLED PRIOR TO INSTALLATION OF ROAD PAVEMENT.



TYPICAL MANHOLE SECTION (150mmØ)
N.T.S.

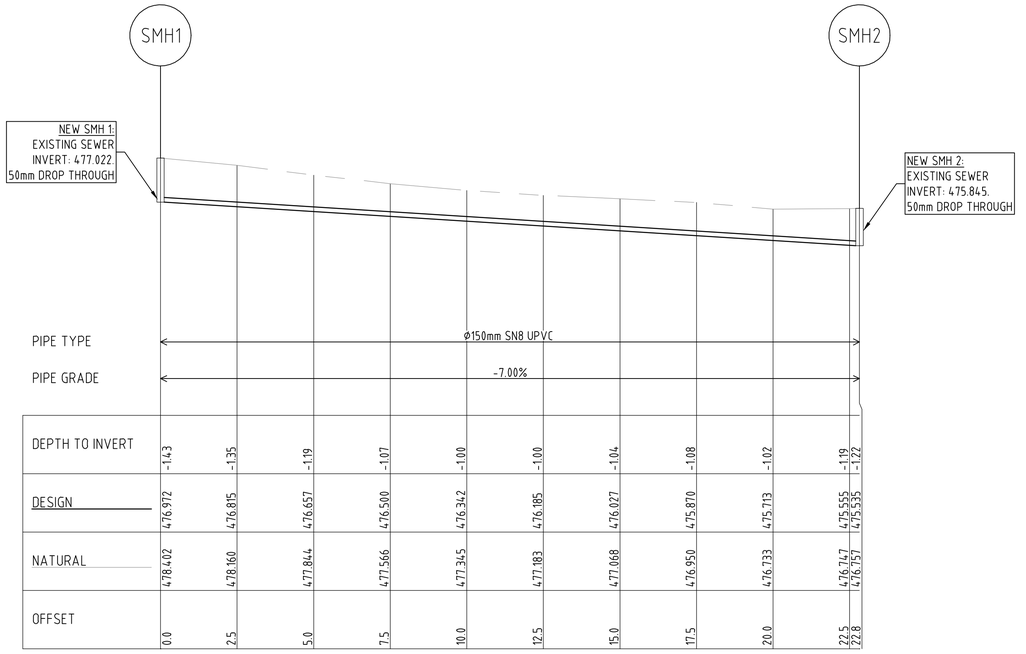


TYPICAL EXTERNAL DROP (150mmØ)
N.T.S.



TYPICAL TRENCH SECTION
N.T.S.

× INSTALLATION OF UPVC PIPES SHALL TO CONFORM TO AS2032-1977 "INSTALLATION OF UPVC PIPE SYSTEMS", AS2566-1998 "BURIED FLEXIBLE PIPELINES", WSA-02 2002 AND MANUFACTURERS INSTRUCTIONS.



DEPTH TO INVERT	-1.43	-1.35	-1.19	-1.07	-1.00	-1.00	-1.04	-1.08	-1.02	-1.19 -1.22
DESIGN	476.972	476.815	476.657	476.500	476.342	476.185	476.027	475.870	475.713	475.555 475.535
NATURAL	478.402	478.160	477.844	477.566	477.345	477.183	477.068	476.950	476.733	476.747 476.757
OFFSET	0.0	2.5	5.0	7.5	10.0	12.5	15.0	17.5	20.0	22.5 22.8

SEWER LONGSECTION
REDUCTION RATIO 1:250H 1:50V @ A1
1:500H 1:100V @ A3

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Site Address
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Client
ELIZABETH McLEAN

Drawing Title
SEWER RETICULATION LONGITDINAL SECTION & NOTES AND DETAILS

Design LM
Drawn AR
Check

Original Sheet Size A1
Revision A

Certification

Project No 45202
Drawing No C21

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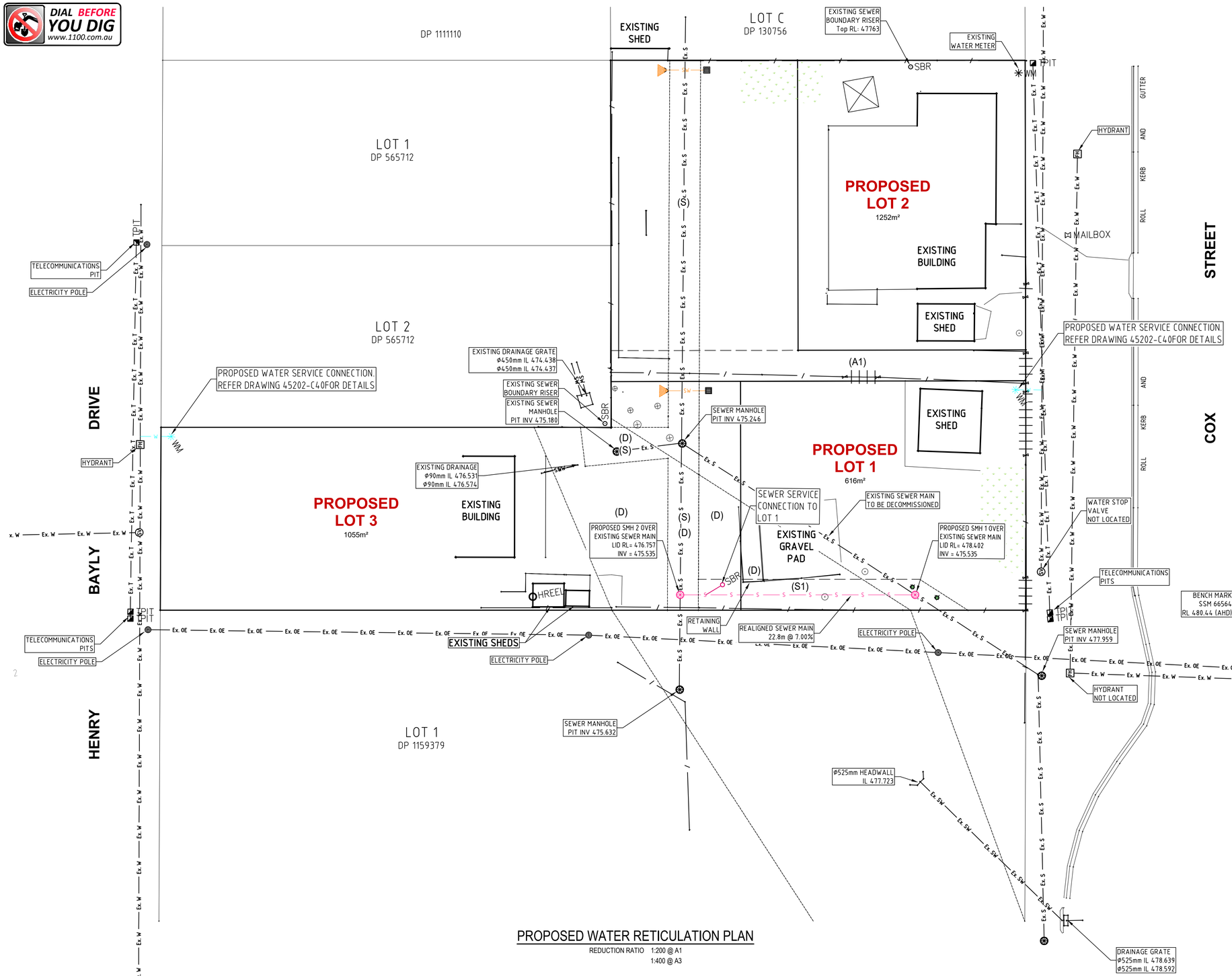

PROPOSED WATER RETICULATION PLAN

REDUCTION RATIO 1:200 @ A1
1:400 @ A3

SCALE 1:200(A1)

0 2 4 8 12 16 20

0 2 4 8 12 16 20

SCALE 1:400(A3)

(S) EASEMENT TO DRAIN SEWAGE 3 WIDE AND VARIABLE (VIDE DP1215204
(D) EASEMENT TO DRAIN WATER VARIABLE WIDTH (VIDE DP 1215204)
(S1) PROPOSED EASEMENT TO DRAIN SEWEAGE 3 WIDE
(A1) PROPOSED EASEMENT FOR ACCESS 3 WIDE

LEGEND (proposed)

- PROPOSED UNDERGROUND STORMWATER PIPE
- PROPOSED GRATED STORMWATER PIT
- PROPOSED GRAVITY SEWER MAIN
- SMH PROPOSED SEWER MANHOLE
- SBR PROPOSED SEWER BOUNDARY RISER
- PROPOSED WATER MAIN
- WM PROPOSED WATER METER

LEGEND (existing)

- EXISTING WATER MAIN
- EXISTING STOP VALVE
- EXISTING HYDRANT
- EXISTING SEWER MAIN
- SMH EXISTING SEWER MANHOLE
- EXISTING STORMWATER PIPE
- EXISTING KERB INLET PIT
- EXISTING INTERALLOTMENT PIT

PRELIMINARY DRAWING
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Site Address
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Client
ELIZABETH McLEAN

Drawing Title
PROPOSED WATER RETICULATION PLAN

Design LM
Drawn AR
Check

Original Sheet Size A1
Revision B

Certification

Project No 45202
Drawing No C30

NOTES:

1. STOP VALVE & SCOUR VALVE CHAMBERS MAY EITHER BE CONSTRUCTED USING PREFABRICATED UNITS, 375mm DIAM. PVC OR CONCRETE PIPE, INTERLOCKING POLYPROPYLENE CONCRETE BLOCKS OR BRICKS WITH SAND/CEMENT MORTAR JOINTS.

2. THE BOTTOM OF THE BRICK, INTERLOCKING CONCRETE BLOCK OR PIPE CHAMBERS SHALL NOT REST DIRECTLY ON BUT ON A COURSE OF BRICKS OR A 100mm THICK CONCRETE THE PIPE FOUNDATION.

3. MINIMUM COVER OVER PIPELINES (ALL TYPES) SHALL BE 800mm IN AREAS SUBJECT TO VEHICULAR LOADING SUCH AS ROADS & FOOTPATHS AND 800mm ELSEWHERE ALSO.

4. IN AREAS PAVED WITH BITUMEN SEALING, ASPHALT, CONCRETE OR PAVING BLOCKS THE SURFACE OF VALVE AND HYDRANT COVERS SHALL FINISH FLUSH WITH THE PAVED SURFACE.

5. FOR STOP VALVES INSTALLATION, SOCKETS SHALL BE BUTTED UP TO SPIGOTS AND TRENCH WIDTHS SHALL BE KEPT TO A MINIMUM.

6. FILL SAND SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 150mm AND COMPACTED TO ACHIEVE A MINIMUM 70 % DENSITY INDEX AND TO THE SATISFACTION OF THE SUPERINTENDENT.

7. INDICATOR POSTS SHALL BE WHITE IN COLOUR AND ONE OF THE FOLLOWING TYPES :
   - 100mm x 100mm REINFORCED CONCRETE WITH 20mm CHAMFERS.
   - POWDER COATED METAL SUCH AS "EZIDRIVE" POST OR EQUIVALENT.
   - RECYCLED PLASTIC POST WITH RECESSES FOR MARKER PLATES.
   - OTHER POSTS APPROVED BY COUNCIL.

8. DIMENSIONS OF SURFACE BOX COVERS SHOWN ON THIS DRAWING ARE NOMINAL. IF SURFACE BOX COVERS OTHER THAN THOSE SHOWN ARE SUPPLIED, THE DIMENSIONS OF THE CONCRETE SURROUNDS SHALL BE ADJUSTED ACCORDINGLY.

9. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 20 MPa AND COMPLY WITH THE AUS-SPEC SPECIFICATION FOR MINOR CONCRETE WORKS.

10. THE DIMENSION BETWEEN THE UNDERSIDE OF THE STOP VALVE SURFACE BOX LID AND THE TOP OF THE VALVE SPINDLE SHALL BE A MINIMUM OF 80mm. THE TOP OF VALVE SPINDLE SHALL BE NO MORE THAN 300mm BELOW TOP SURFACE OF SURFACE BOX LID. IF THIS CANNOT BE ATTAINED, A GALVANIZED OR EPOXY PAINTED VALVE KEY EXTENSION SECURED BY GRUB SCREWS SHALL BE FITTED. IF NECESSARY, TO ENSURE THAT THE KEY EXTENSION IS CENTERED CORRECTLY A SPIDER ASSEMBLY SHALL BE INCORPORATED IN THE EXTENSION.

CONSTRUCTION NOTES:

1. CONSTRUCTION TO BE TO COUNCIL REQUIREMENTS AND APPROVAL.

2. COUNCIL WILL CONNECT TO EXISTING WATER MAIN AT THE CONTRACTORS EXPENSE.

3. WORKS ON COUNCIL WATER MAINS SHALL BE IN ACCORDANCE WITH COUNCIL REQUIREMENTS.

4. COPPER SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH COUNCIL REQUIREMENTS TO ALL LOTS WHERE DIRECTED.

5. LAY PIPES TRUE TO GRADE WITH A MINIMUM COVER OF 600MM BELOW FINISHED SURFACE WHERE POSSIBLE. AVOID STORMWATER PIPES, PITS AND EXISTING SERVICES. PIPE BACKFILL TO BE IN ACCORDANCE WITH WSA 03-2011-3.1 T7.2.

6. D.I.C.L. PIPES & COPPER ROAD CROSSING PIPES TO EXTEND 300MM BEHIND FACE OF KERB, AND IN ACCORDANCE WITH COUNCIL REQUIREMENTS..

7. ALL PIPES SHALL BE BEDDED ON SAND OR APPROVED COHESIONLESS MATERIAL IN ACCORDANCE WITH COUNCIL REQUIREMENTS. WATER STOPS SHALL BE PROVIDED IN ACCORDANCE WITH COUNCIL REQUIREMENTS.

8. ALL PIPES SHALL BE LAID IN STRAIGHT LENGTHS AND NOT BENT TO SUIT A PARTICULAR ALIGNMENT.

9. MASS CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH COUNCIL REQUIREMENTS. BEHIND TEES, BENDS, VALVES ETC.

10. STAMP "W" IN FACE OF KERB ABOVE COPPER WATER SERVICES AND MAINS TO COUNCIL REQUIREMENTS.

11. STOP VALVES TO COUNCIL REQUIREMENTS.

12. SPRING HYDRANTS TO COUNCIL REQUIREMENTS.

13. MARKER POSTS, PLATES, PAINT, DELINEATORS TO COUNCIL REQUIREMENTS.

14. WATER CROSSINGS TO BE PLACED A MINIMUM OF 600MM FROM COUNTRY ENERGY/TELSTRA CONDUITS AND ON ALTERNATE BOUNDARIES WHERE POSSIBLE.

15. THRUST BLOCKS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH COUNCIL REQUIREMENTS.

PIPE NOTES:

1. THE FOLLOWING PIPE MATERIALS MAY BE USED FOR WATER RETICULATION MAINS:
   1a. ALL WATER MAINS LESS THAN 300mm IN DIAMETER FACTURED IN ACCORDANCE WISHALL BE CONSTRUCTED FROM CLASS K9 DUCTILE IRON CEMENT LINED (DICL), SPIGOT AND SOCKET, RUBBER RING JOINTED PIPE MANUTH AUSTRALIAN STANDARD 2280.
   1b. ALL WATER PIPES GREATER THAN 300MM IN DIAMETER SHALL BE CLASS K12 DICL. ALTERNATIVELY, CLASS 20 (MIN) "BLUE BRUTE" UPVC PIPE MAY BE USED, PROVIDED THAT OD COMPATIBILITY WITH DICL PIPING IS MAINTAINED.
   1c. POLYETHYLENE (AS/NZS4130) MINIMUM PN12.5, BLUE STRIPED FOR POTABLE SYSTEMS. LILAC STRIPED FOR RE-USE OR RAW WATER SYSTEMS. ALL JOINTING TO BE ELECTRO-FUSION OR BUTT-WELDED.

2. PRODUCTS IN CONTACT WITH POTABLE WATER SHALL BE TESTED AND COMPLY WITH THE REQUIREMENTS OF AS/NZS4020 FOR PRODUCTS IN CONTACT WITH DRINKING WATER.

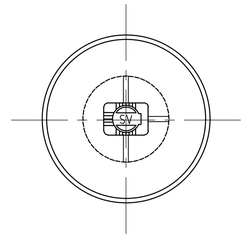
DICL NOTES:

1. ALL DUCTILE IRON CEMENT LINED PIPES TO BE IN ACCORDANCE WITH AS2280-2014.

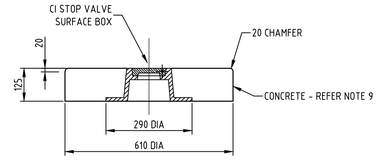
2. ALL SLUICE VALVES TO BE IN ACCORDANCE WITH AS/NZS 2638.2-2011-GATE VALVES FOR WATERWORKS PURPOSES.

3. ALL POLYETHELENE SLEEVING TO BE IN ACCORDANCE WITH AS3680-2008.

4. ALL ELASTOMETRIC SEALS TO BE IN ACCORDANCE WITH 1646-2007.

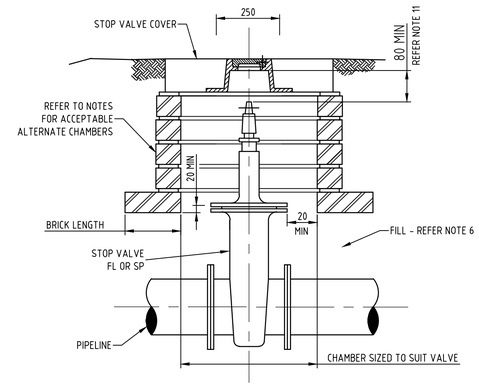


STOP VALVE COVER - PLAN
SCALE = N.T.S.



STOP VALVE COVER - SECTION
SCALE = N.T.S.

NOTE:
PROPRIETARY RECYCLED PLASTIC VALVE COVERS MAY BE USED. THEY SHALL BE GREEN IF THE VALVE IS RESILIENT SEATED.



STOP VALVE INSTALLATION
SCALE = N.T.S.

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Drawing Title
WATER RETICULATION NOTES AND DETAILS

Design LM
Drawn AR
Check

Original Sheet Size A1
Revision A

Certification

Project No 45202
Drawing No C31