CITY OF GOSNELLS
CENTRAL MADDINGTON ODP

CENTRAL MADDINGTON ODP DRAWING LIST		CENTRAL MADDINGTON ODP DRAWING LIST		CENTRAL MADDINGTON ODP DRAWING LIST		CENTRAL MADDINGTON ODP DRAWING LIST		CITY OF GOSNELLS STANDARD DETAILS	
DRAWING TITLE	DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE	DRAWING NO.
INDEX	E2-17-800	DRAINAGE PLAN -MALBEC STREET	E2-17-401	SIGNS AND PAVEMENT MARKING ALDINGTON ST AND TENUTA ST	E2-17-607	WATER RETICULATION -SHEET 9 OF 11	1702006-417	PIT BASES	ES-19-1
KEY PLAN - 500 SCALE	E2-17-801	DRAINAGE PLAN -BAUME STREET AND BRUT WAY	E2-17-402	ROAD CROSS SECTIONS -MALBEC STREET	E2-17-701	WATER RETICULATION -SHEET 10 OF 11	1702006-418	SIDE ENTRY PIT	ES-19-3
KEY PLAN - 1000 SCALE	E2-17-802	DRAINAGE PLAN -WYALONG ROAD	E2-17-403	ROAD CROSS SECTIONS -BAUME STREET	E2-17-702	WATER RETICULATION -SHEET 11 OF 11	1702006-419	GRATED GULLY	ES-19-7
GENERAL ARRANGEMENT SHEET 1 OF 8	E2-17-803	DRAINAGE PLAN -BRABOURNE STREET	E2-17-404	ROAD CROSS SECTIONS -BRUT WAY	E2-17-703	GAS MAIN LAYOUT SHEET 1 OF 8	1702006-429	JUNCTION PIT DETAIL	ES-19-8
GENERAL ARRANGEMENT SHEET 2 OF 8	E2-17-804	DRAINAGE PLAN -CLARET STREET	E2-17-405	ROAD CROSS SECTIONS -WYALONG ROAD SHEET 1 OF 2	E2-17-704	GAS MAIN LAYOUT SHEET 2 OF 8	1702006-430	JUNCTION PIT FOOTPATH DETAIL	ES-19-10
GENERAL ARRANGEMENT SHEET 3 OF 8	E2-17-805	DRAINAGE PLAN -MERLOT STREET	E2-17-406	ROAD CROSS SECTIONS -WYALONG ROAD SHEET 2 OF 2	E2-17-705	GAS MAIN LAYOUT SHEET 3 OF 8	1702006-431	STEP IRON DETAIL	ES-19-12
GENERAL ARRANGEMENT SHEET 4 OF 8	E2-17-806	DRAINAGE PLAN -TENUTA AND ALDINGTON STREET	E2-17-407	ROAD CROSS SECTIONS -BRABOURNE STREET SHEET 1 OF 2	E2-17-706	GAS MAIN LAYOUT SHEET 4 OF 8	1702006-432	PIPE BEDDING DETAIL	ES-19-13
GENERAL ARRANGEMENT SHEET 5 OF 8	E2-17-807	DRAINAGE PLAN -NEWENDEN STREET	E2-17-408	ROAD CROSS SECTIONS -BRABOURNE STREET SHEET 2 OF 2	E2-17-707	GAS MAIN LAYOUT SHEET 5 OF 8	1702006-433	KERB RAMPS TYPE A	ES-20-1
GENERAL ARRANGEMENT SHEET 6 OF 8	E2-17-808	DRAINAGE PLAN -VERMOUTH PROMENADE	E2-17-409	ROAD CROSS SECTIONS -CLARET STREET SHEET 1 OF 3	E2-17-708	GAS MAIN LAYOUT SHEET 6 OF 8	1702006-434	KERB RAMPS TYPE B	ES-20-2
GENERAL ARRANGEMENT SHEET 7 OF 8	E2-17-809	DRAINAGE PLAN -HARVEST STREET	E2-17-410	ROAD CROSS SECTIONS -CLARET STREET SHEET 2 OF 3	E2-17-709	GAS MAIN LAYOUT SHEET 7 OF 8	1702006-435	KERB RAMPS TYPE C	ES-20-3
GENERAL ARRANGEMENT SHEET 8 OF 8	E2-17-810	DRAINAGE PLAN -PINOT STREET	E2-17-411	ROAD CROSS SECTIONS -CLARET STREET SHEET 3 OF 3	E2-17-710	GAS MAIN LAYOUT SHEET 8 OF 8	1702006-436	SEMI MOUNTABLE KERBS	ES-35-2
PLAN AND PROFILE -MALBEC STREET	E2-17-201	DRAINAGE PLAN -GRENACHE WAY	E2-17-412	ROAD CROSS SECTIONS -MERLOT ENTRANCE	E2-17-711	ELECTRICAL WORKS -LEGEND, OVERVIEW, DUCTS AND DETAILS	ECMN-17-800	MOUNTABLE KERBS	ES-35-3
PLAN AND PROFILE -BAUME STREET	E2-17-202	DRAINAGE LONGSECTIONS SHEET 1 OF 19	E2-17-413	ROAD CROSS SECTIONS -TENUTA STREET	E2-17-712			KERB DETAIL	ES-35-4
PLAN AND PROFILE -BRUT WAY	E2-17-203	DRAINAGE LONGSECTIONS SHEET 2 OF 19	E2-17-414	ROAD CROSS SECTIONS -ALDINGTON STREET	E2-17-713	ELECTRICAL WORKS -SHEET 1 OF 8	ECMN-17-801	PATH DETAIL	ES-49
PLAN AND PROFILE -WYALONG ROAD SHEET 1 OF 2	E2-17-204	DRAINAGE LONGSECTIONS SHEET 3 OF 19	E2-17-415	ROAD CROSS SECTIONS -PUNT ROAD	E2-17-714	ELECTRICAL WORKS -SHEET 2 OF 8	ECMN-17-802	WATER CORPORATION STANDARD DRAWINGS	
PLAN AND PROFILE -WYALONG ROAD SHEET 2 OF 2	E2-17-205	DRAINAGE LONGSECTIONS SHEET 4 OF 19	E2-17-416	ROAD CROSS SECTIONS -NEWENDEN STREET	E2-17-715	ELECTRICAL WORKS -SHEET 3 OF 8	ECMN-17-803	DRAWING TITLE	DRAWING NO.
PLAN AND PROFILE -BRABOURNE STREET SHEET 1 OF 2	E2-17-206	DRAINAGE LONGSECTIONS SHEET 5 OF 19	E2-17-417	ROAD CROSS SECTIONS -VERMOUTH PROMENADE	E2-17-716	ELECTRICAL WORKS -SHEET 4 OF 8	ECMN-17-804	CONCRETE THRUST SUPPORTS - DN100 & DN150	BD62-002-004-01F
PLAN AND PROFILE -BRABOURNE STREET SHEET 2 OF 2	E2-17-207	DRAINAGE LONGSECTIONS SHEET 6 OF 19	E2-17-418	ROAD CROSS SECTIONS -HARVEST STREET	E2-17-717	ELECTRICAL WORKS -SHEET 5 OF 8	ECMS-17-801	CONCRETE THRUST SUPPORTS - DN200 & DN250	BD62-002-005-01E
PLAN AND PROFILE -CLARET STREET SHEET 1 OF 2	E2-17-208	DRAINAGE LONGSECTIONS SHEET 7 OF 19	E2-17-419	ROAD CROSS SECTIONS -DELLAVENZO STREET	E2-17-718	ELECTRICAL WORKS -SHEET 6 OF 8	ECMS-17-802	THRUST SUPPORTS FOR WASHOUT BEND WITH HYDRANT	BD62-002-006-01F
PLAN AND PROFILE -CLARET STREET SHEET 2 OF 2	E2-17-209	DRAINAGE LONGSECTIONS SHEET 8 OF 19	E2-17-420	ROAD CROSS SECTIONS -PINOT STREET	E2-17-719	ELECTRICAL WORKS -SHEET 7 OF 8	ECMS-17-803	CONCRETE THRUST SUPPORTS FOR TAPERS	BD62-002-007-01C
PLAN AND PROFILE -MERLOT ENTRANCE	E2-17-210	DRAINAGE LONGSECTIONS SHEET 9 OF 19	E2-17-421	ROAD CROSS SECTIONS -GRENACHE WAY	E2-17-720	ELECTRICAL WORKS -SHEET 8 OF 8	ECMS-17-804	INTERPRETATION OF RETICULATION PLANS	AA01-004-001-01F
PLAN AND PROFILE -TENUTA STREET	E2-17-211	DRAINAGE LONGSECTIONS SHEET 10 OF 19	E2-17-422	TYPICAL CROSS SECTION	E2-17-721	TELECOMMUNICATIONS -OVERVIEW	ECMN-17-810	BEDDING AND BACKFILLING FOR DN100 TO DN375	AA01-011-001-01C
PLAN AND PROFILE -ALDINGTON STREET	E2-17-212	DRAINAGE LONGSECTIONS SHEET 11 OF 19	E2-17-423	SEWER RETICULATION -SHEET 1 OF 8	1702006-401	TELECOMMUNICATIONS -NETWORK LAYOUT 1	ECMN-17-811	CIRCULAR PRECAST CONCRETE ACCESS CHAMBERS SHT 1	AA01-027-001-01J
PLAN AND PROFILE -PUNT ROAD	E2-17-213	DRAINAGE LONGSECTIONS SHEET 12 OF 19	E2-17-424	SEWER RETICULATION -SHEET 2 OF 8	1702006-402	TELECOMMUNICATIONS -NETWORK LAYOUT 2	ECMN-17-812	CIRCULAR PRECAST CONCRETE ACCESS CHAMBERS SHT 2	AA01-027-002-01C
PLAN AND PROFILE -NEWENDEN STREET	E2-17-214	DRAINAGE LONGSECTIONS SHEET 13 OF 19	E2-17-425	SEWER RETICULATION -SHEET 3 OF 8	1702006-403	TELECOMMUNICATIONS -NETWORK LAYOUT 3	ECMN-17-813	PVC PROPERTY CONNECTIONS - SEWER INSIDE PROPERTY	AA01-061-001-01F
PLAN AND PROFILE -VERMOUTH PROMENADE	E2-17-215	DRAINAGE LONGSECTIONS SHEET 14 OF 19	E2-17-426	SEWER RETICULATION -SHEET 4 OF 8	1702006-404	TELECOMMUNICATIONS -NETWORK LAYOUT 4	ECMN-17-814	PVC PROPERTY CONNECTIONS - RUNNING TRAP TYPE	AA01-061-002-01D
PLAN AND PROFILE -HARVEST STREET	E2-17-216	DRAINAGE LONGSECTIONS SHEET 15 OF 19	E2-17-427	SEWER RETICULATION -SHEET 5 OF 8	1702006-405	TELECOMMUNICATIONS -NETWORK LAYOUT 5	ECMS-17-811	PROPERTY CONNECTION PIPE INDICATOR AND MARKER TAPE	AA01-081-001-01G
PLAN AND PROFILE -DELLAVENZO STREET	E2-17-217	DRAINAGE LONGSECTIONS SHEET 16 OF 19	E2-17-428	SEWER RETICULATION -SHEET 6 OF 8	1702006-406	TELECOMMUNICATIONS -NETWORK LAYOUT 6	ECMS-17-812	DN150 AND DN225 PVC INSPECTION SHAFT	AA01-086-001-01L
PLAN AND PROFILE -PINOT STREET	E2-17-218	DRAINAGE LONGSECTIONS SHEET 17 OF 19	E2-17-429	SEWER RETICULATION -SHEET 7 OF 8	1702006-407	TELECOMMUNICATIONS -NETWORK LAYOUT 7	ECMS-17-813		
PLAN AND PROFILE -GRENACHE WAY	E2-17-219	DRAINAGE LONGSECTIONS SHEET 18 OF 19	E2-17-430	SEWER RETICULATION -SHEET 8 OF 8	1702006-408	TELECOMMUNICATIONS -NETWORK LAYOUT 8	ECMS-17-814		
INTERSECTION DETAILS -SHEET 1 OF 8	E2-17-301	DRAINAGE LONGSECTIONS SHEET 19 OF 19	E2-17-431	WATER RETICULATION -SHEET 1 OF 11	1702006-409				
INTERSECTION DETAILS -SHEET 2 OF 8	E2-17-302	RAINGARDEN DETAILS	E2-17-432	WATER RETICULATION -SHEET 2 OF 11	1702006-410				
INTERSECTION DETAILS -SHEET 3 OF 8	E2-17-303	SIGNS AND PAVEMENT MARKING KELVIN ROAD/MERLOT ENT	E2-17-601	WATER RETICULATION -SHEET 3 OF 11	1702006-411				
INTERSECTION DETAILS -SHEET 4 OF 8	E2-17-304	SIGNS AND PAVEMENT MARKING MERLOT ENT/BAUME ST	E2-17-602	WATER RETICULATION -SHEET 4 OF 11	1702006-412				
INTERSECTION DETAILS -SHEET 5 OF 8	E2-17-305	SIGNS AND PAVEMENT MARKING WYALONG RD/BARFORD ST	E2-17-603	WATER RETICULATION -SHEET 5 OF 11	1702006-413				
INTERSECTION DETAILS -SHEET 6 OF 8	E2-17-306	SIGNS AND PAVEMENT MARKING WESTFIELD ST/MALBEC ST	E2-17-604	WATER RETICULATION -SHEET 6 OF 11	1702006-414				
INTERSECTION DETAILS -SHEET 7 OF 8	E2-17-307	SIGNS AND PAVEMENT MARKING MALBEC ST/HAFFNER CT	E2-17-605	WATER RETICULATION -SHEET 7 OF 11	1702006-415				
INTERSECTION DETAILS -SHEET 8 OF 8	E2-17-308	SIGNS AND PAVEMENT MARKING NEWENDEN ST AND PINOT ST	E2-17-606	WATER RETICULATION -SHEET 8 OF 11	1702006-416				

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	12.04.18	FINAL 100%	RN		RN
D	05.02.18	ISSUED TO CITY FOR 100% DESIGN REVIEW	RN		
C	04.10.17	ISSUED TO CITY FOR 85% DESIGN REVIEW	TR	RN	RN
B	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
A	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	FEB 2017	HORIZ. NTS VERT.
DRAWN		DATUM
TR	APRIL 2017	AHD
CHECKED		GRID SYSTEM
RN	APRIL 2017	PCG
SURVEY		JOB NUMBER
AERIAL LASER		

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
DRAWING INDEX

PLAN No E2-17-800 REV E

PRELIMINARY ONLY | A1

CHIEF ENGINEER

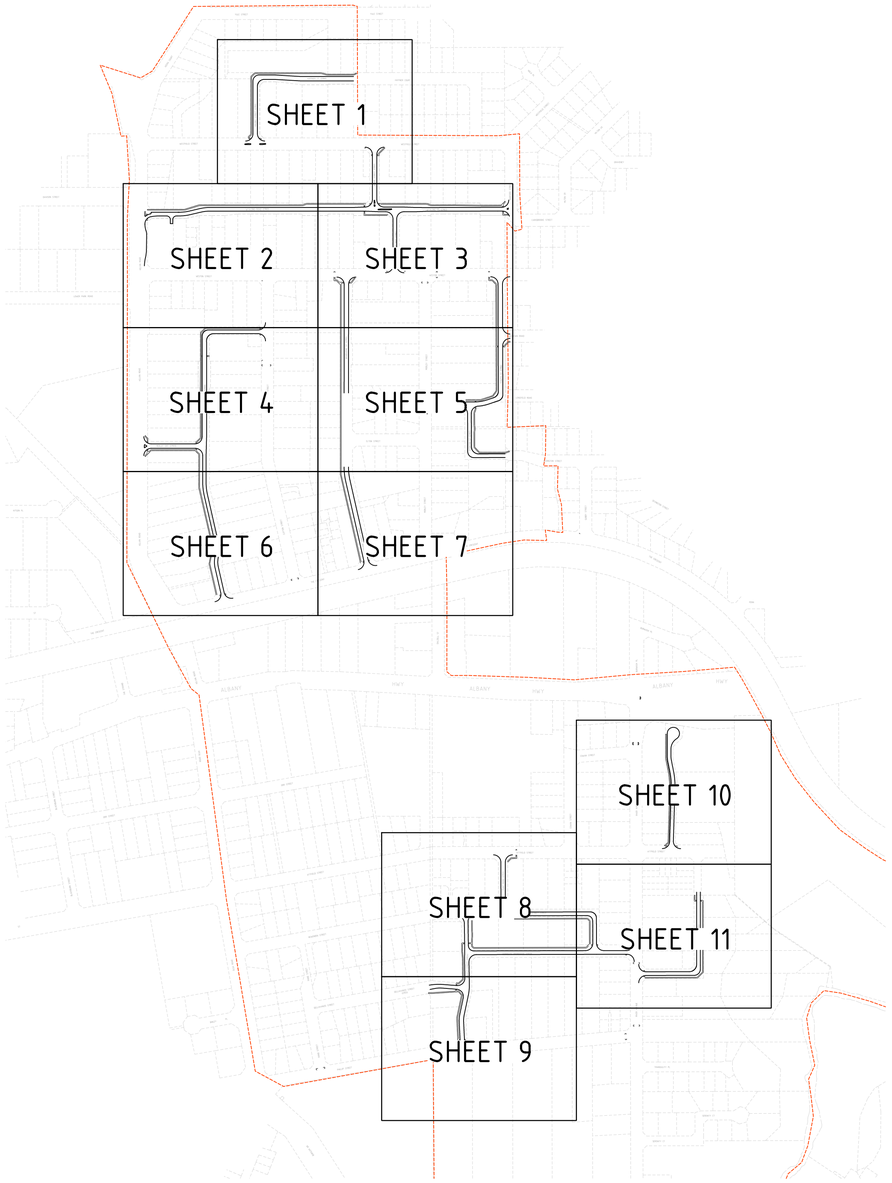
S.ASMUS DATE

17/04/2018 1:30:17 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-101 INDEX.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.



PLAN
1:5000

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
D	13.04.18	FINAL 100%	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	17-Jul	HORIZ. AS SHOWN VERT.
DRAWN		DATUM
GB	17-Jul	AHD
CHECKED		GRID SYSTEM
IB	17-Jul	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
KEY PLAN - 500 SCALE

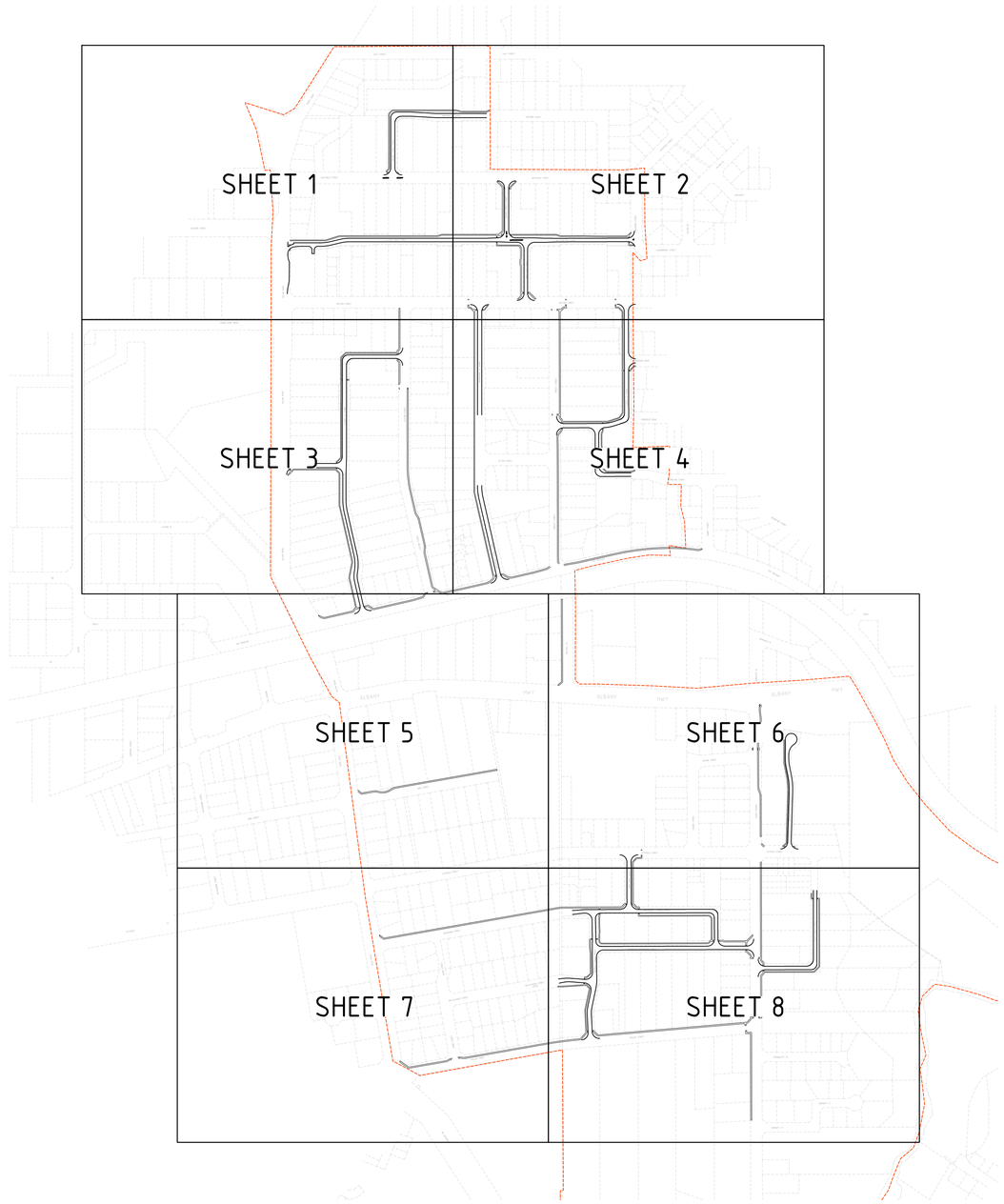
PLAN No E2-17-801 REV D

PRELIMINARY ONLY | A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



PLAN
1:1000

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
D	13.04.18	FINAL 100%	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Jul	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
KEY PLAN - 1000 SCALE

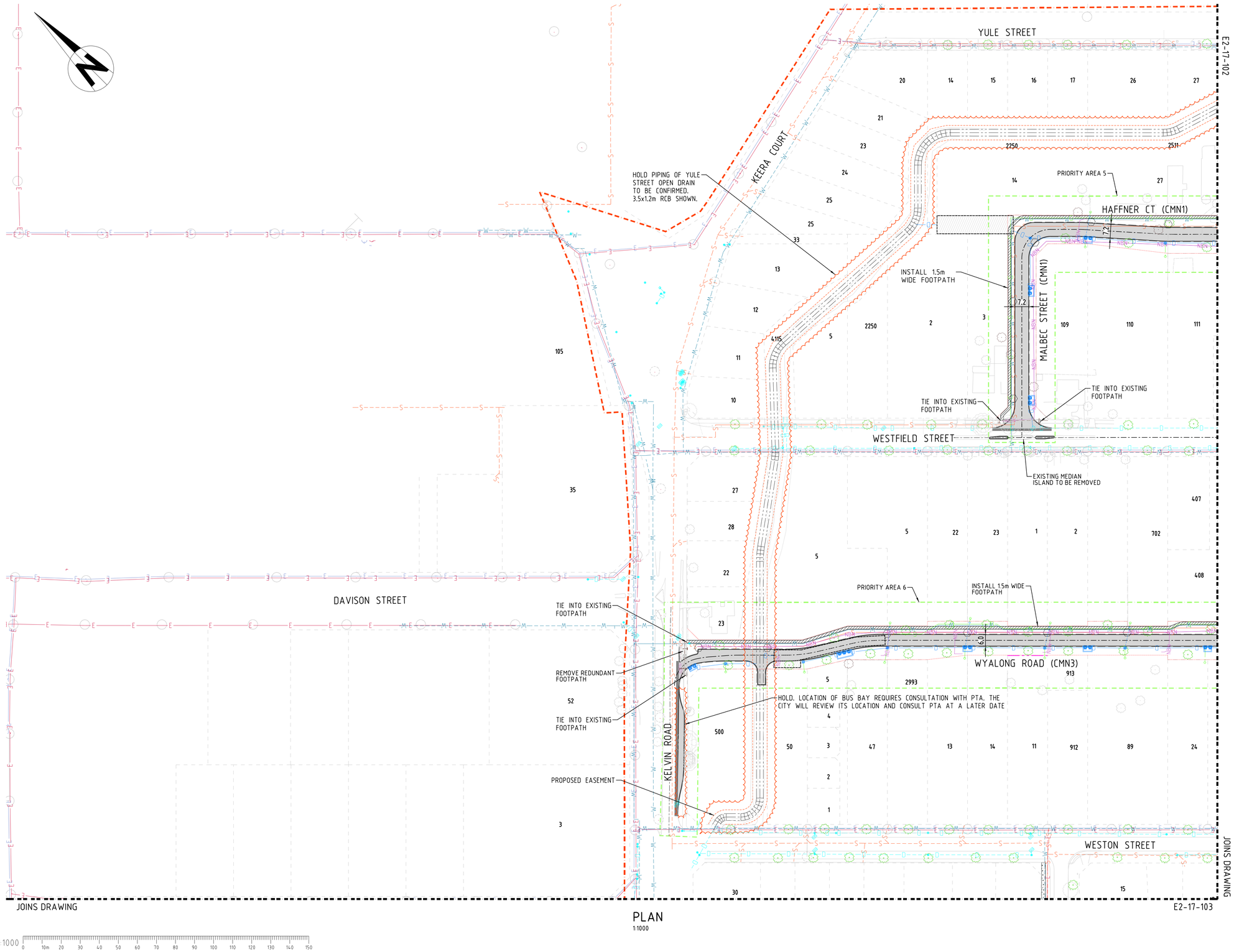
PLAN No E2-17-802 REV D

PRELIMINARY ONLY | A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



PLAN
1:1000

1:1000 0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY?S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.
7. ALL U/G SERVICES IN EXISTING VERGES TO BE INSTALLED VIA DIRECTIONAL DRILLING.
8. LOCATIONS OF PROPOSED TREES ARE INDICATIVE ONLY.
9. ALL SERVICE INSTALLATIONS IN EXISTING VERGES TO BE DIRECTIONALLY DRILLED.
10. ENSURE THAT UNDER PRUNING IS CARRIED OUT AS NECESSARY TO PROVIDE APPROPRIATE VERTICAL CLEARANCE BETWEEN PATH AND TREES.
11. THE EXACT LOCATION OF EACH TREE WILL NEED TO BE DETERMINED IN CONJUNCTION WITH INDIVIDUAL DEVELOPMENT PLANS.

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP. AND PRAM RAMP (COG TYPE 2)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- INDICATIVE POS FOOTPATH (BY OTHERS)
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING REDSTONE" WITH "LIMESTONE" HEADER REINFORCED 100mm THICK WITH HERRINGBONE PATTERN
- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- EXISTING DRAINAGE
- FUTURE CULVERT
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS SHOWN AS INDICATIVE ONLY
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- EXISTING SEWERAGE
- EXISTING WATER
- EXISTING GAS
- EXISTING POWER
- EXISTING COMMS
- PROPOSED ROAD RESERVE BOUNDARY
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- RETAINING WALL LOCATION
- EXISTING FENCE
- EXISTING BITUMEN
- EXISTING KERB
- EXISTING TREES

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	17-Jul	HORIZ. AS SHOWN VERT.
DRAWN		DATUM
GB	17-Jul	AHD
CHECKED		GRID SYSTEM
IB	17-Jul	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
GENERAL ARRANGEMENT
SHEET 1 OF 8

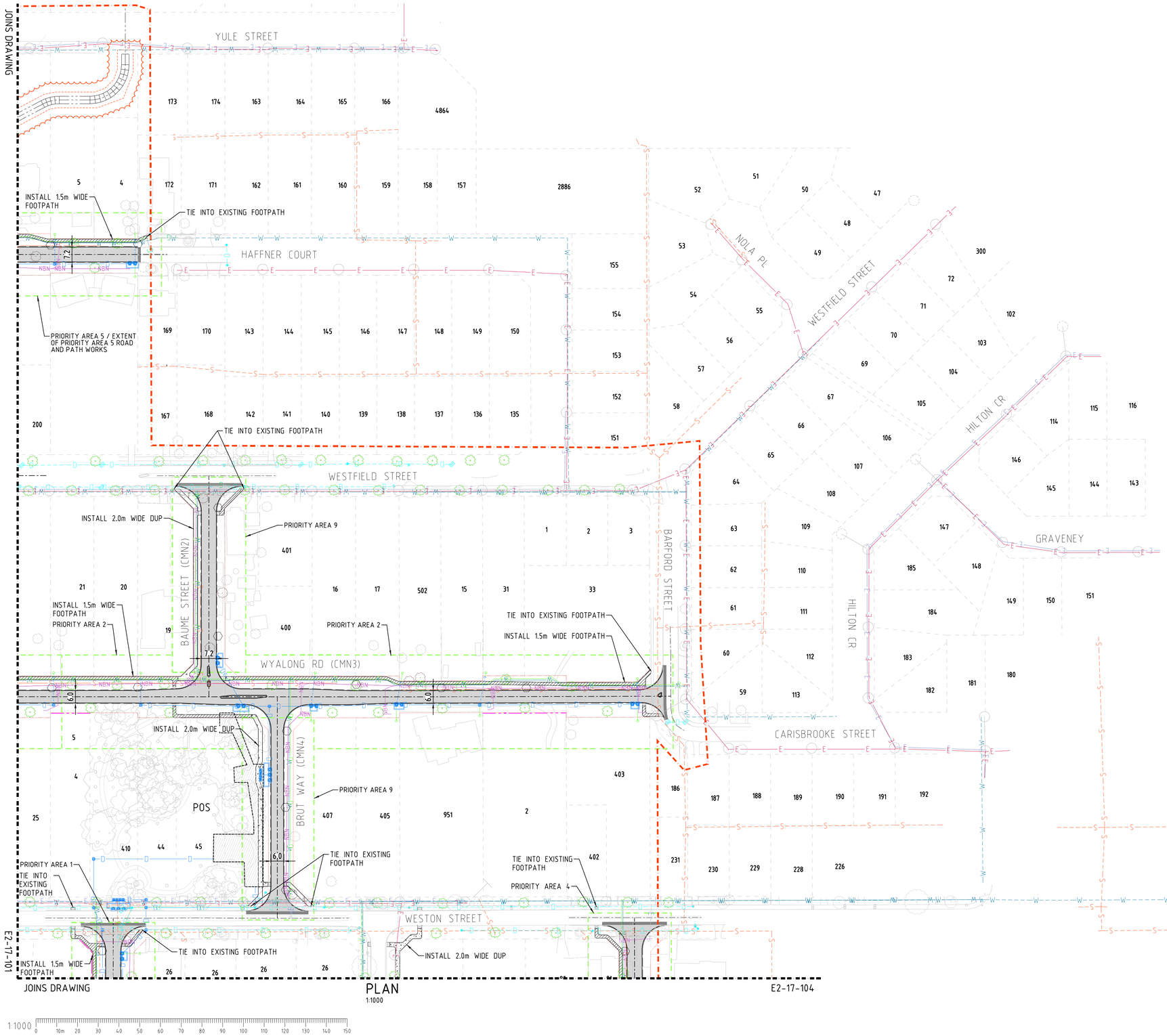
PLAN No E2-17-803 REV E

PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



PLAN
1:1000

1:1000 0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.
7. ALL U/G SERVICES IN EXISTING VERGES TO BE INSTALLED VIA DIRECTIONAL DRILLING.
8. LOCATIONS OF PROPOSED TREES ARE INDICATIVE ONLY.
9. ALL SERVICE INSTALLATIONS IN EXISTING VERGES TO BE DIRECTIONALLY DRILLED.
10. ENSURE THAT UNDER PRUNING IS CARRIED OUT AS NECESSARY TO PROVIDE APPROPRIATE VERTICAL CLEARANCE BETWEEN PATH AND TREES.
11. THE EXACT LOCATION OF EACH TREE WILL NEED TO BE DETERMINED IN CONJUNCTION WITH INDIVIDUAL DEVELOPMENT PLANS.

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP. AND PRAM RAMP (COG TYPE 2)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- INDICATIVE POS FOOTPATH (BY OTHERS)
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING 'REDSTONE' WITH "LIMESTONE" HEADER REINFORCED 100mm THICK WITH HERRINGBONE PATTERN
- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- EXISTING DRAINAGE
- FUTURE CULVERT
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS SHOWN AS INDICATIVE ONLY
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- EXISTING SEWERAGE
- EXISTING WATER
- EXISTING GAS
- EXISTING POWER
- EXISTING COMMS
- PROPOSED ROAD RESERVE BOUNDARY
- CMOOP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- RETAINING WALL LOCATION
- EXISTING FENCE
- EXISTING BITUMEN
- EXISTING KERB
- EXISTING TREES

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Jul	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
GENERAL ARRANGEMENT
SHEET 2 OF 8

PLAN No E2-17-804 REV E

PRELIMINARY ONLY | A1

CHEIF ENGINEER TECHNICAL SERVICES
S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

JOINS DRAWING

E2-17-101

E2-17-104

LOWER PARK ROAD

KITSON PL

KELVIN ROAD

CLARET ST (CMN9)

CLIFTON STREET

MERLOT ENT (CMN10)

REMOVE EXISTING 1800DIA DRAINAGE PIPE AND EXTEND NEW CULVERT. MAINTAIN ALL EXISTING CONNECTIONS.

PROPOSED EASEMENT

INSTALL 1.5m WIDE FOOTPATH

INSTALL 1.5m WIDE FOOTPATH

INSTALL 1.5m WIDE FOOTPATH

INSTALL 2.0m WIDE DUP

PRIORITY AREA 8

MEDIAN OPENING TO BE CLOSED

POS

6.0

7.2

7.2

35 31 32 33 3 26 27 16 14 13 12 11 89 90 85 38 36 40 68 16 15 2 1 3 2 13 3 12 4 11 5 10 6 7 8 9 6 7 6 7 541 700 132 3847 1 34 135 136 706 2 24 25 741 29 28 73 70 704 71 18 19 20 23 101 37 36

JOINS DRAWING

JOINS DRAWING

E2-17-105

PLAN
1:1000

1:1000 0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY?S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.
7. ALL U/G SERVICES IN EXISTING VERGES TO BE INSTALLED VIA DIRECTIONAL DRILLING.
8. LOCATIONS OF PROPOSED TREES ARE INDICATIVE ONLY.
9. ALL SERVICE INSTALLATIONS IN EXISTING VERGES TO BE DIRECTIONALLY DRILLED.
10. ENSURE THAT UNDER PRUNING IS CARRIED OUT AS NECESSARY TO PROVIDE APPROPRIATE VERTICAL CLEARANCE BETWEEN PATH AND TREES.
11. THE EXACT LOCATION OF EACH TREE WILL NEED TO BE DETERMINED IN CONJUNCTION WITH INDIVIDUAL DEVELOPMENT PLANS.

N

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP AND PRAM RAMP (COG TYPE 2)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- INDICATIVE POS FOOTPATH (BY OTHERS)
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING REDSTONE WITH "LIMESTONE" HEADER REINFORCED 100mm THICK WITH HERRINGBONE PATTERN
- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- EXISTING DRAINAGE
- FUTURE CULVERT
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS SHOWN AS INDICATIVE ONLY
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- EXISTING SEWERAGE
- EXISTING WATER
- EXISTING GAS
- EXISTING POWER
- EXISTING COMMS
- PROPOSED ROAD RESERVE BOUNDARY
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- RETAINING WALL LOCATION
- EXISTING FENCE
- EXISTING BITUMEN
- EXISTING KERB
- EXISTING TREES

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Jul	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
GENERAL ARRANGEMENT
SHEET 3 OF 8

PLAN No E2-17-805 REV E

PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

JOINS DRAWING

E2-17-102

E2-17-103

BRABOURNE ST (CMN5)

MORLEY STREET

TENUTA ST (CMN6)

ALDINGTON ST (CMN7)

BRABOURNE STREET (CMN8)

KINGSDOWN ROAD

LONGFIELD ROAD

ELTON STREET

ALDINGTON STREET

GUNBY STREET

THE CRESCENT

THE CRESCENT

POS

PRIORITY AREA 1

PRIORITY AREA 1

PRIORITY AREA 4

INSTALL 2.0m WIDE DUP

INSTALL 2.0m WIDE DUP

INSTALL 1.5m WIDE FOOTPATH

INSTALL NEW DUP ALONG KERB LINE

REMOVE EXISTING FOOTPATH AND INSTALL 2.0m WIDE DUP

TIE INTO EXISTING FOOTPATH

JOINS DRAWING

E2-17-106

PLAN

1:1000

1:1000 0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.
7. ALL U/G SERVICES IN EXISTING VERGES TO BE INSTALLED VIA DIRECTIONAL DRILLING.
8. LOCATIONS OF PROPOSED TREES ARE INDICATIVE ONLY.
9. ALL SERVICE INSTALLATIONS IN EXISTING VERGES TO BE DIRECTIONALLY DRILLED.
10. ENSURE THAT UNDER PRUNING IS CARRIED OUT AS NECESSARY TO PROVIDE APPROPRIATE VERTICAL CLEARANCE BETWEEN PATH AND TREES.
11. THE EXACT LOCATION OF EACH TREE WILL NEED TO BE DETERMINED IN CONJUNCTION WITH INDIVIDUAL DEVELOPMENT PLANS.

N

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP. AND PRAM RAMP (COG TYPE 2)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- INDICATIVE POS FOOTPATH (BY OTHERS)
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING REI WITH "LIMESTONE" HEADER REINFORCED 100mm WITH HERRINGBONE PATTERN
- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- EXISTING DRAINAGE
- FUTURE CULVERT
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS SHOWN AS INDICATIVE ONLY
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- EXISTING SEWERAGE
- EXISTING WATER
- EXISTING GAS
- EXISTING POWER
- EXISTING COMMS
- PROPOSED ROAD RESERVE BOUNDARY
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- RETAINING WALL LOCATION
- EXISTING FENCE
- EXISTING BITUMEN
- EXISTING KERB
- EXISTING TREES

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Jul	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
GENERAL ARRANGEMENT
SHEET 4 OF 8

PLAN No E2-17-806 REV E

PRELIMINARY ONLY A1

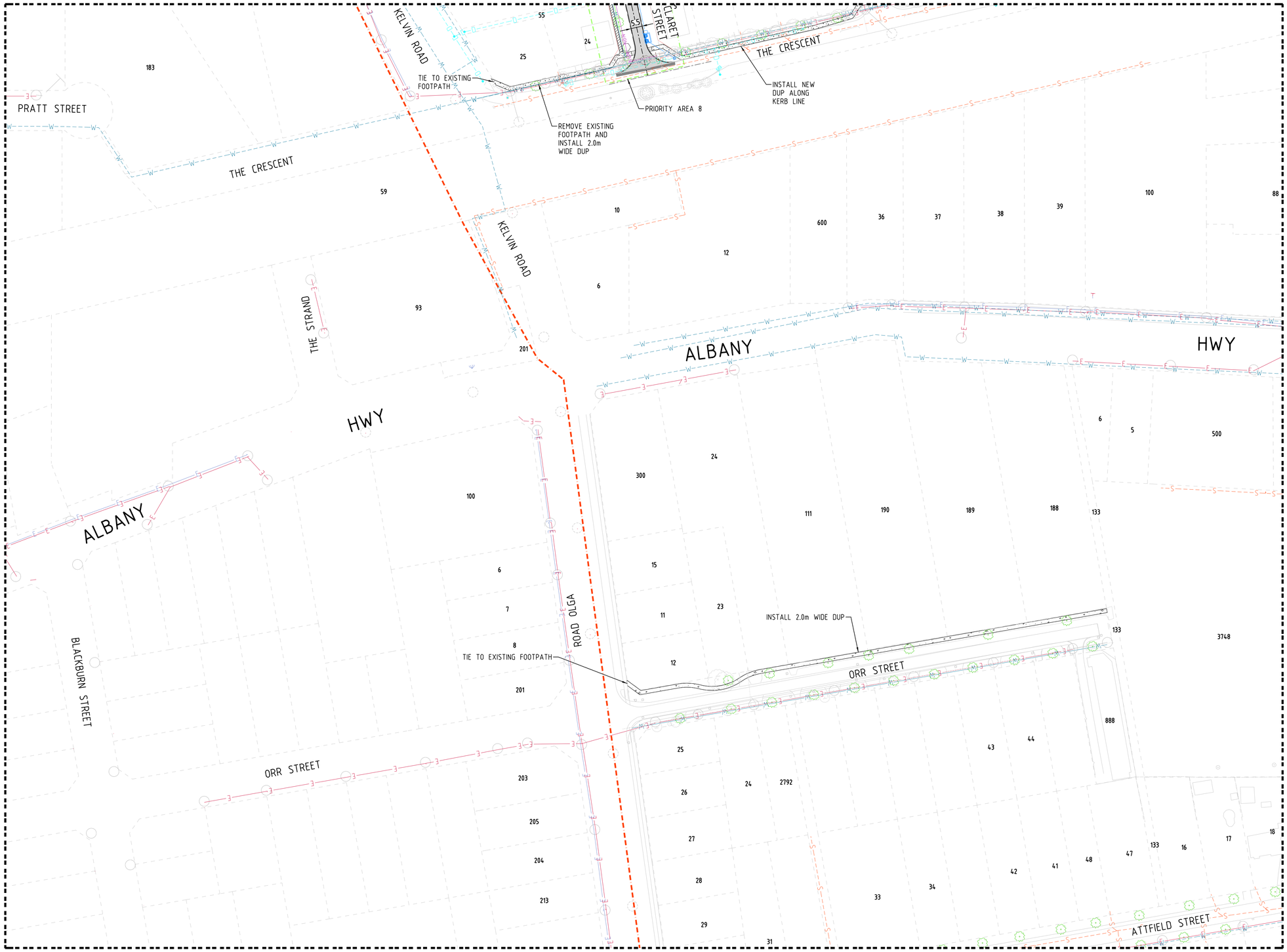
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

JOINS DRAWING

E2-17-103



JOINS DRAWING

PLAN
1:1000

1:1000 0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.
7. ALL U/G SERVICES IN EXISTING VERGES TO BE INSTALLED VIA DIRECTIONAL DRILLING.
8. LOCATIONS OF PROPOSED TREES ARE INDICATIVE ONLY.
9. ALL SERVICE INSTALLATIONS IN EXISTING VERGES TO BE DIRECTIONALLY DRILLED.
10. ENSURE THAT UNDER PRUNING IS CARRIED OUT AS NECESSARY TO PROVIDE APPROPRIATE VERTICAL CLEARANCE BETWEEN PATH AND TREES.
11. THE EXACT LOCATION OF EACH TREE WILL NEED TO BE DETERMINED IN CONJUNCTION WITH INDIVIDUAL DEVELOPMENT PLANS.

N

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP. AND PRAM RAMP (COG TYPE 2)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- INDICATIVE POS FOOTPATH (BY OTHERS)
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING REDSTONE" WITH "LIMESTONE" HEADER REINFORCED 100mm THICK WITH HERRINGBONE PATTERN
- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- EXISTING DRAINAGE
- FUTURE CULVERT
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS SHOWN AS INDICATIVE ONLY
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- EXISTING SEWERAGE
- EXISTING WATER
- EXISTING GAS
- EXISTING POWER
- EXISTING COMMS
- PROPOSED ROAD RESERVE BOUNDARY
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- RETAINING WALL LOCATION
- EXISTING FENCE
- EXISTING BITUMEN
- EXISTING KERB
- EXISTING TREES

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Jul	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
GENERAL ARRANGEMENT
SHEET 5 OF 8

PLAN No E2-17-807 REV E

PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

JOINS DRAWING

E2-17-104

JOINS DRAWING

DALZIELL ST

PENN STREET

THE CRESCENT

BURWASH PL

BURWASH PL

INSTALL 2.0m WIDE DUP

TIE INTO EXISTING FOOTPATH

ALBANY

HWY

INSTALL 2.0m WIDE DUP

COWAN STREET

RIVER AVENUE

COWAN STREET

PRIORITY AREA 10

INSTALL 1.5m WIDE FOOTPATH

INSTALL 2.0m WIDE DUP

GRENACHE WAY (CMS8)

TIE TO EXISTING FOOTPATH

ATTFIELD STREET

TIE INTO EXISTING FOOTPATH

PRIORITY AREA 3

PUNT RD

7.2

INSTALL 2.0m WIDE DUP

ATTFIELD STREET

JOINS DRAWING

E2-17-105

E2-17-108

PLAN

1:1000

1:1000 0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.
7. ALL U/G SERVICES IN EXISTING VERGES TO BE INSTALLED VIA DIRECTIONAL DRILLING.
8. LOCATIONS OF PROPOSED TREES ARE INDICATIVE ONLY.
9. ALL SERVICE INSTALLATIONS IN EXISTING VERGES TO BE DIRECTIONALLY DRILLED.
10. ENSURE THAT UNDER PRUNING IS CARRIED OUT AS NECESSARY TO PROVIDE APPROPRIATE VERTICAL CLEARANCE BETWEEN PATH AND TREES.
11. THE EXACT LOCATION OF EACH TREE WILL NEED TO BE DETERMINED IN CONJUNCTION WITH INDIVIDUAL DEVELOPMENT PLANS.

N

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP. AND PRAM RAMP (COG TYPE 2)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- INDICATIVE POS FOOTPATH (BY OTHERS)
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING REDSTONE" WITH "LIMESTONE" HEADER REINFORCED 100mm THICK WITH HERRINGBONE PATTERN
- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- EXISTING DRAINAGE
- FUTURE CULVERT
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS SHOWN AS INDICATIVE ONLY
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- EXISTING SEWERAGE
- EXISTING WATER
- EXISTING GAS
- EXISTING POWER
- EXISTING COMMS
- PROPOSED ROAD RESERVE BOUNDARY
- CMOOP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- RETAINING WALL LOCATION
- EXISTING FENCE
- EXISTING BITUMEN
- EXISTING KERB
- EXISTING TREES

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Jul	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
GENERAL ARRANGEMENT
SHEET 6 OF 8

PLAN No E2-17-808 REV E

PRELIMINARY ONLY | A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

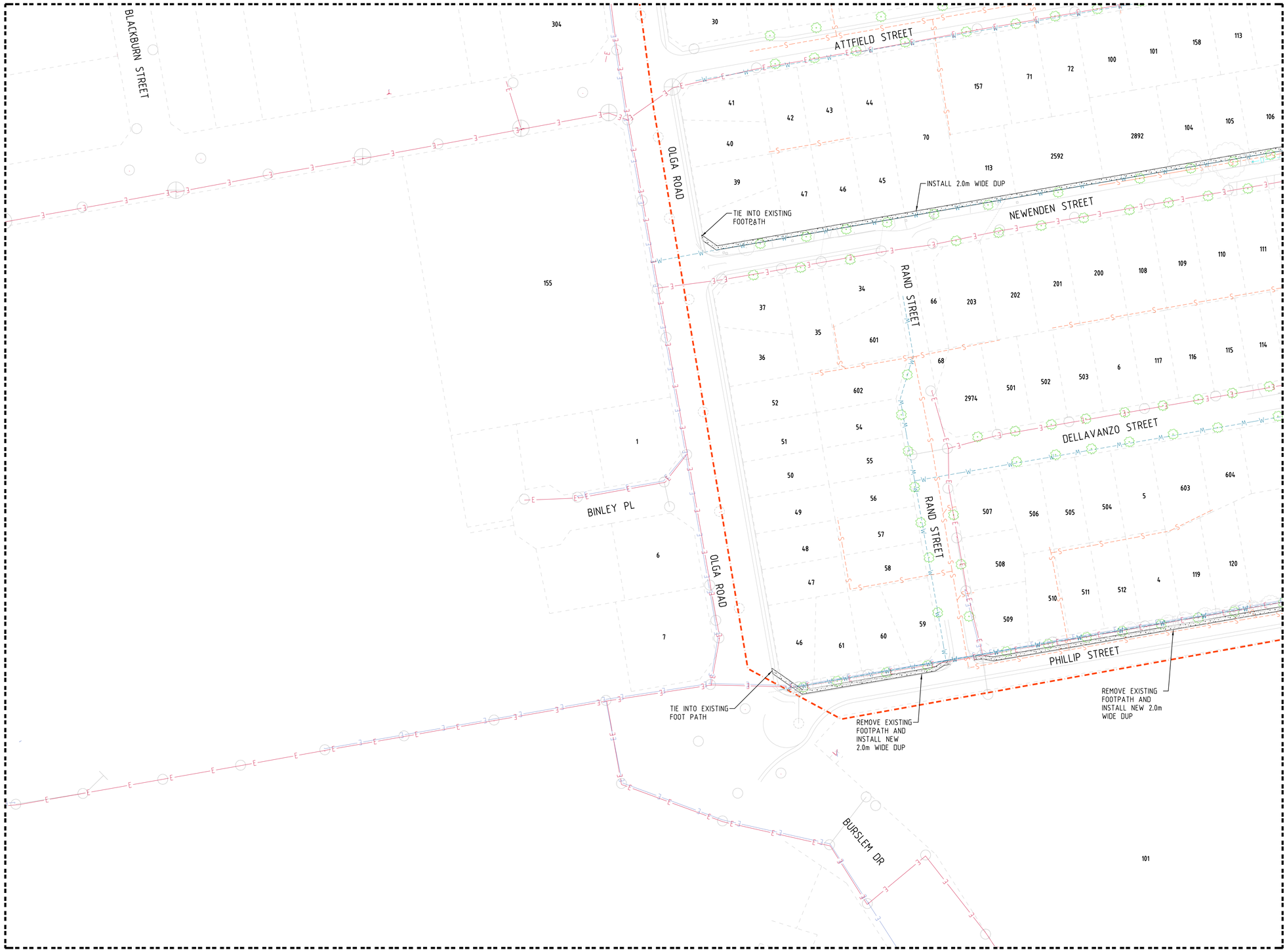
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

JOINS DRAWING

E2-17-105

E2-17-108

JOINS DRAWING



PLAN
1:1000

1:1000 0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.
7. ALL U/G SERVICES IN EXISTING VERGES TO BE INSTALLED VIA DIRECTIONAL DRILLING.
8. LOCATIONS OF PROPOSED TREES ARE INDICATIVE ONLY.
9. ALL SERVICE INSTALLATIONS IN EXISTING VERGES TO BE DIRECTIONALLY DRILLED.
10. ENSURE THAT UNDER PRUNING IS CARRIED OUT AS NECESSARY TO PROVIDE APPROPRIATE VERTICAL CLEARANCE BETWEEN PATH AND TREES.
11. THE EXACT LOCATION OF EACH TREE WILL NEED TO BE DETERMINED IN CONJUNCTION WITH INDIVIDUAL DEVELOPMENT PLANS.

N

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP. AND PRAM RAMP (COG TYPE 2)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- INDICATIVE POS FOOTPATH (BY OTHERS)
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING REDSTONE WITH "LIMESTONE" HEADER REINFORCED 100mm THICK WITH HERRINGBONE PATTERN
- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- EXISTING DRAINAGE
- FUTURE CULVERT
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS SHOWN AS INDICATIVE ONLY
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- EXISTING SEWERAGE
- EXISTING WATER
- EXISTING GAS
- EXISTING POWER
- EXISTING COMMS
- PROPOSED ROAD RESERVE BOUNDARY
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- RETAINING WALL LOCATION
- EXISTING FENCE
- EXISTING BITUMEN
- EXISTING KERB
- EXISTING TREES

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Jul	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
GENERAL ARRANGEMENT
SHEET 7 OF 8

PLAN No E2-17-809 REV E

PRELIMINARY ONLY A1

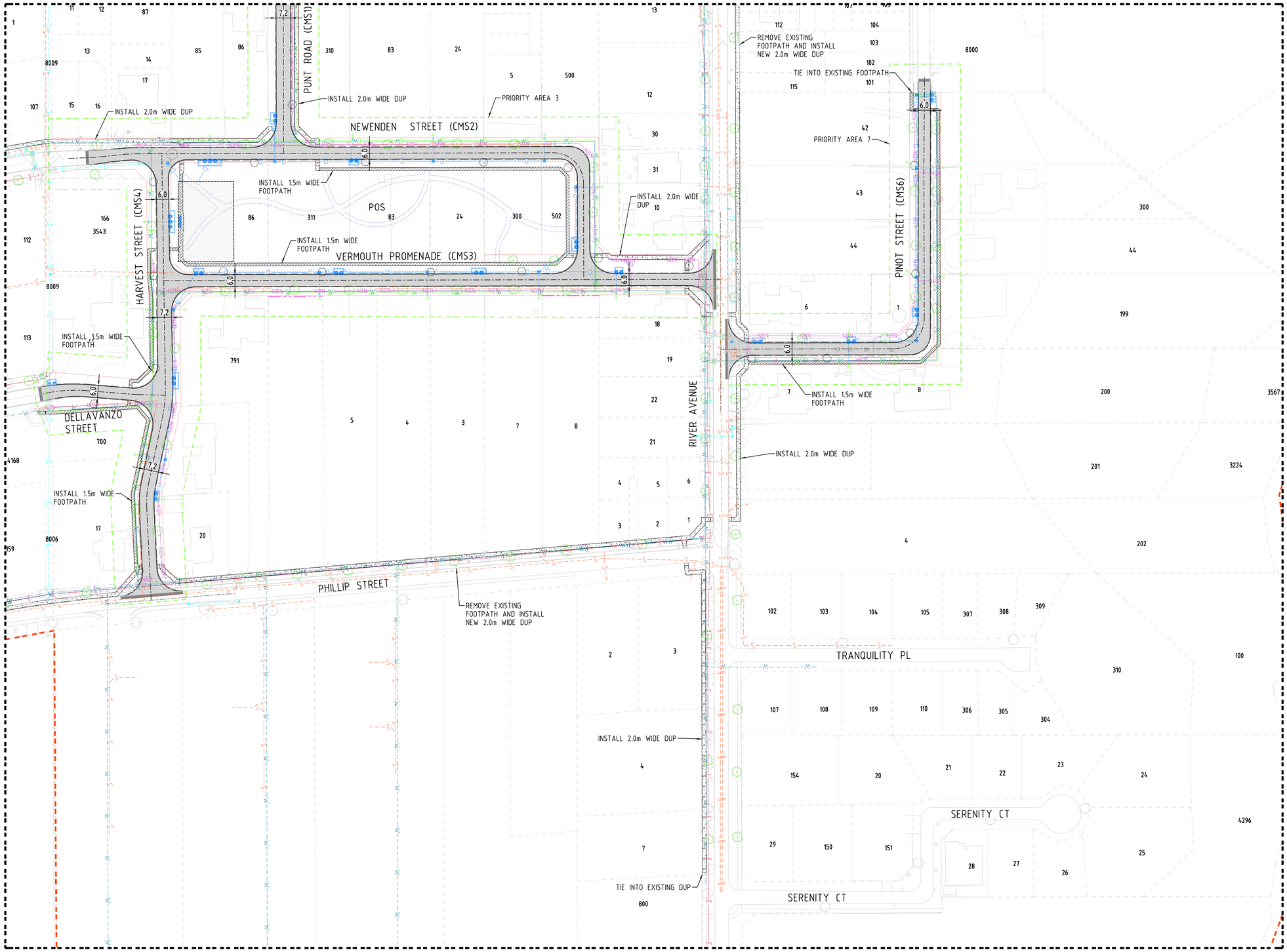
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

JOINS DRAWING

E2-17-106



JOINS DRAWING

E2-17-107

PLAN

1:1000

1:1000 0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.
7. ALL U/G SERVICES IN EXISTING VERGES TO BE INSTALLED VIA DIRECTIONAL DRILLING.
8. LOCATIONS OF PROPOSED TREES ARE INDICATIVE ONLY.
9. ALL SERVICE INSTALLATIONS IN EXISTING VERGES TO BE DIRECTIONALLY DRILLED.
10. ENSURE THAT UNDER PRUNING IS CARRIED OUT AS NECESSARY TO PROVIDE APPROPRIATE VERTICAL CLEARANCE BETWEEN PATH AND TREES.
11. THE EXACT LOCATION OF EACH TREE WILL NEED TO BE DETERMINED IN CONJUNCTION WITH INDIVIDUAL DEVELOPMENT PLANS.

N

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP AND PRAM RAMP (COG TYPE 2)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- INDICATIVE POS FOOTPATH (BY OTHERS)
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING REDSTONE WITH "LIMESTONE" HEADER REINFORCED 100mm THICK WITH HERRINGBONE PATTERN
- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- EXISTING DRAINAGE
- FUTURE CULVERT
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS SHOWN AS INDICATIVE ONLY
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- EXISTING SEWERAGE
- EXISTING WATER
- EXISTING GAS
- EXISTING POWER
- EXISTING COMMS
- PROPOSED ROAD RESERVE BOUNDARY
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- RETAINING WALL LOCATION
- EXISTING FENCE
- EXISTING BITUMEN
- EXISTING KERB
- EXISTING TREES

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	17-Jul	HORIZ. AS SHOWN VERT.
DRAWN		DATUM
GB	17-Jul	AHD
CHECKED		GRID SYSTEM
IB	17-Jul	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
GENERAL ARRANGEMENT
SHEET 8 OF 8

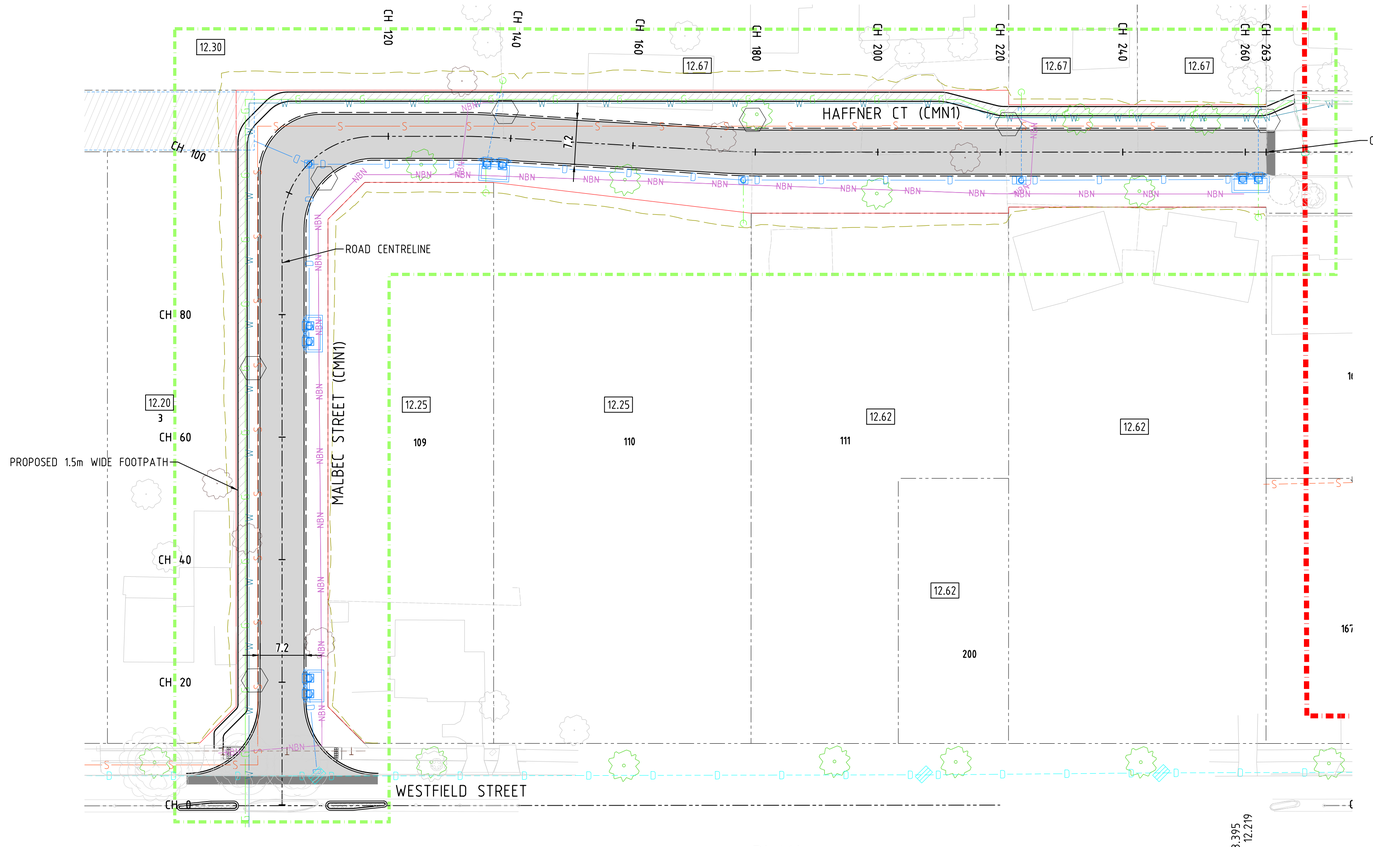
PLAN No E2-17-810 REV E

PRELIMINARY ONLY A1

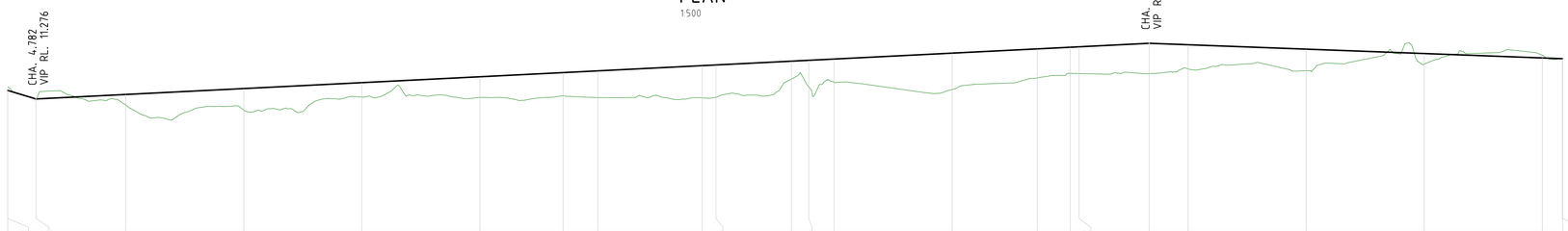
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

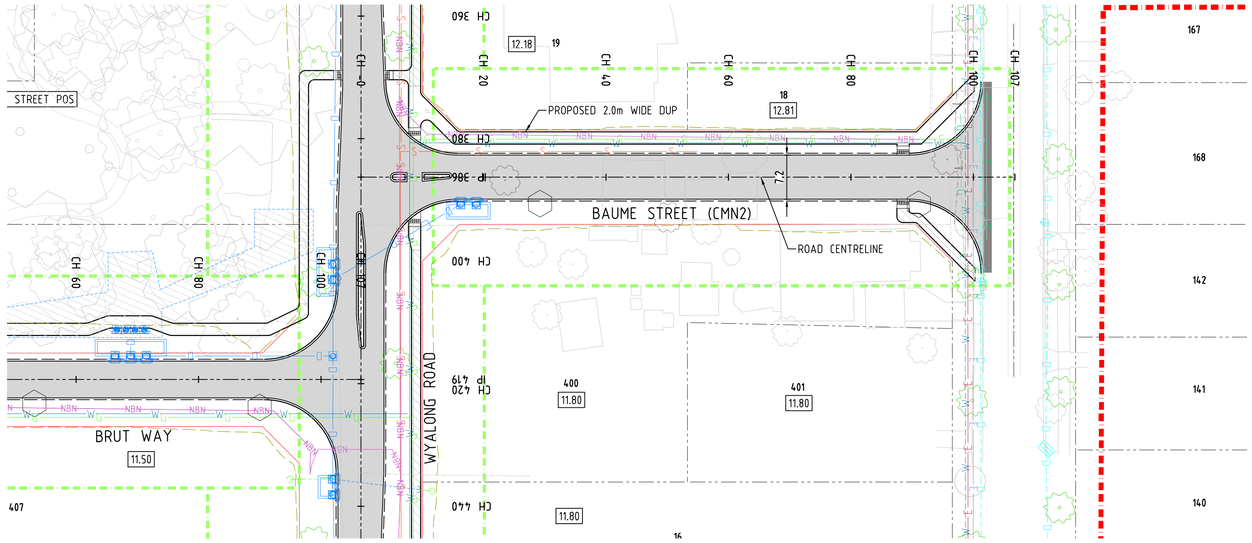


PLAN
1:500

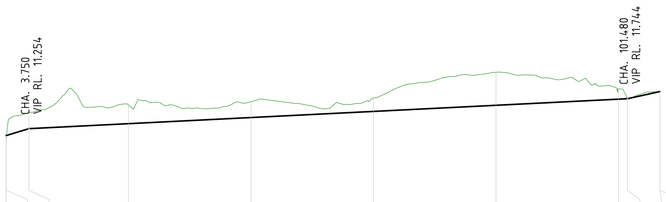


Datum R.L. 9.000

| | | |

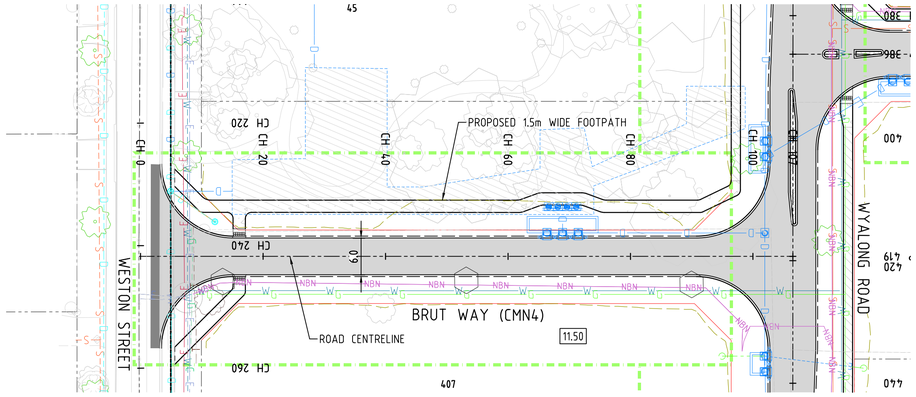


PLAN
1:500

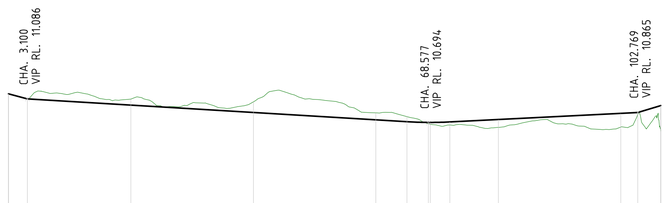


Datum R.L. 10.000

| | | |

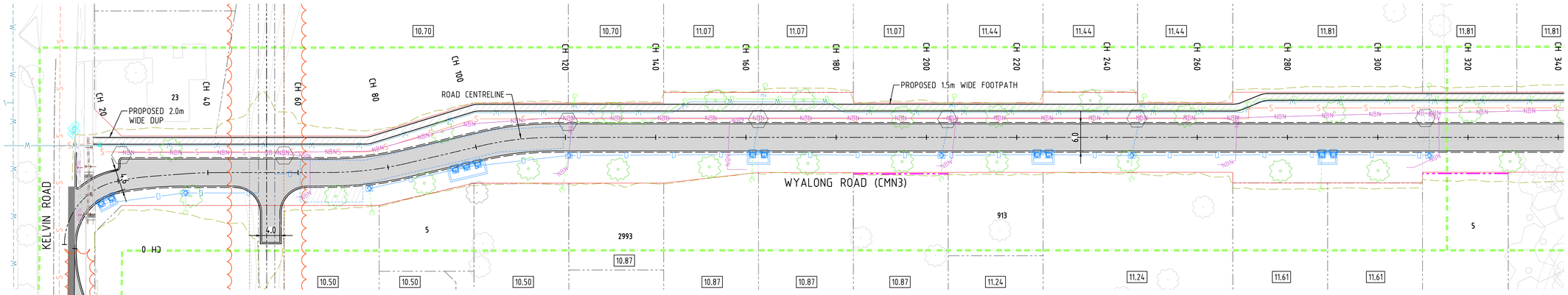


PLAN
1:500



Datum R.L. 9.000

| | | |



PLAN
1:500

LEGEND

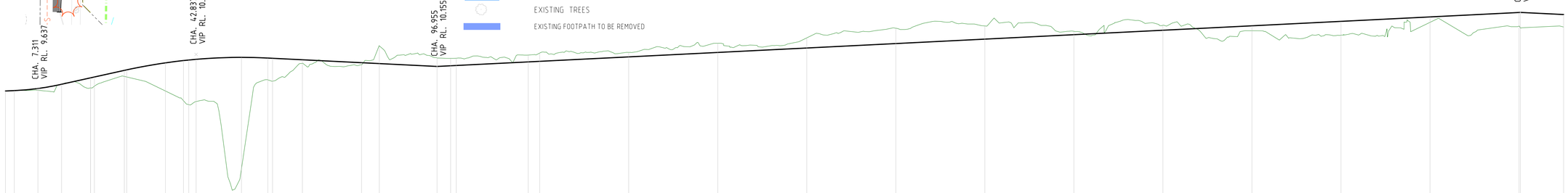
- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP AND PRAM RAMP (COG TYPE 2)
- INDICATIVE POS FOOTPATH (BY OTHERS)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING REDSTONE" WITH "LIMESTONE" HEADER REINFORCED 100mm THICK WITH HERRINGBONE PATTERN
- 12.47 PROPOSED PAD LEVEL
- RETAINING WALL LOCATION
- PROPOSED EXTENT OF BATTER
- PROPOSED ROAD RESERVE BOUNDARY
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- PROPOSED DRAINAGE EASEMENT
- HOLD CLOUD
- PROPOSED DRAINAGE
- PROPOSED RAIN GARDEN
- EXISTING TREES
- EXISTING FOOTPATH TO BE REMOVED

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. LOCATIONS OF PROPOSED TREES ARE INDICATIVE ONLY
7. ALL SERVICE INSTALLATIONS IN EXISTING VERGES TO BE DIRECTIONALLY DRILLED.
8. PROPOSED PAD LEVELS ARE INDICATIVE ONLY.
9. ALL VEGETATION WITHIN NEW ROAD RESERVE AREAS TO BE REMOVED U.O.N.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.

RETAINING WALLS

11. THE REQUIREMENT OF INSTALLATION OF RETAINING WALLS ARE TO BE DETERMINED DURING CONSTRUCTION STAGE.
12. LAND OWNERS' CONSENT ARE REQUIRED PRIOR TO CONSTRUCTION IF FILL OR CUT ENCROACH INTO PRIVATE PROPERTIES. OTHERWISE RETAINING WALL OPTION SHALL BE ADOPTED.



Datum R.L. 6.000

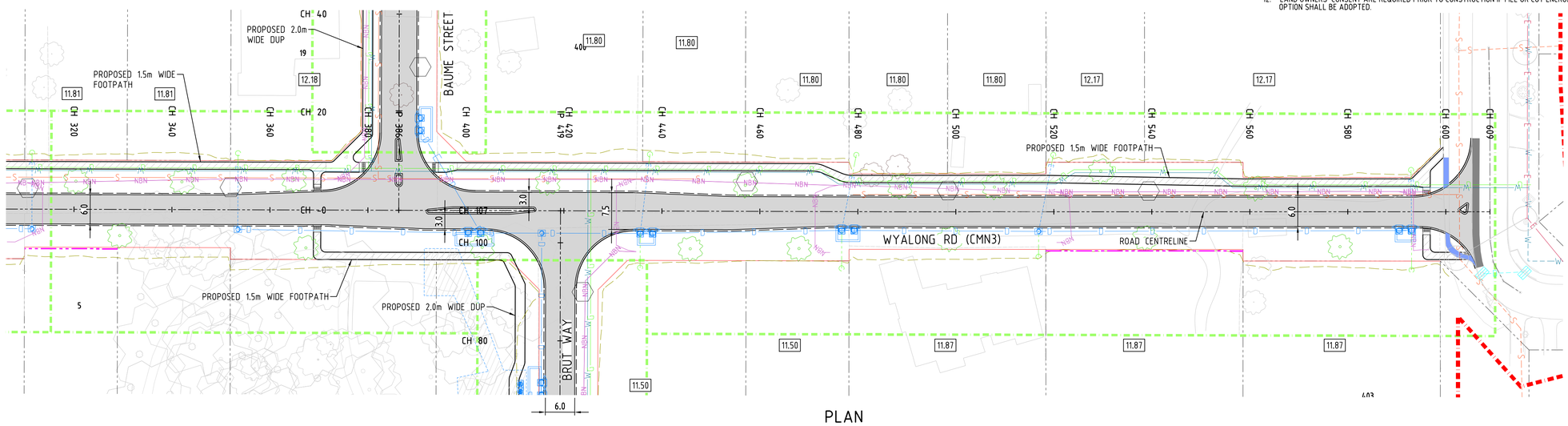
| | | |

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. LOCATIONS OF PROPOSED TREES ARE INDICATIVE ONLY.
7. ALL SERVICE INSTALLATIONS IN EXISTING VERGES TO BE DIRECTIONALLY DRILLED.
8. PROPOSED PAD LEVELS ARE INDICATIVE ONLY.
9. ALL VEGETATION WITHIN NEW ROAD RESERVE AREAS TO BE REMOVED U.O.N.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.

RETAINING WALLS

11. THE REQUIREMENT OF INSTALLATION OF RETAINING WALLS ARE TO BE DETERMINED DURING CONSTRUCTION STAGE.
12. LAND OWNERS' CONSENT ARE REQUIRED PRIOR TO CONSTRUCTION IF FILL OR CUT ENCROACH INTO PRIVATE PROPERTIES. OTHERWISE RETAINING WALL OPTION SHALL BE ADOPTED.

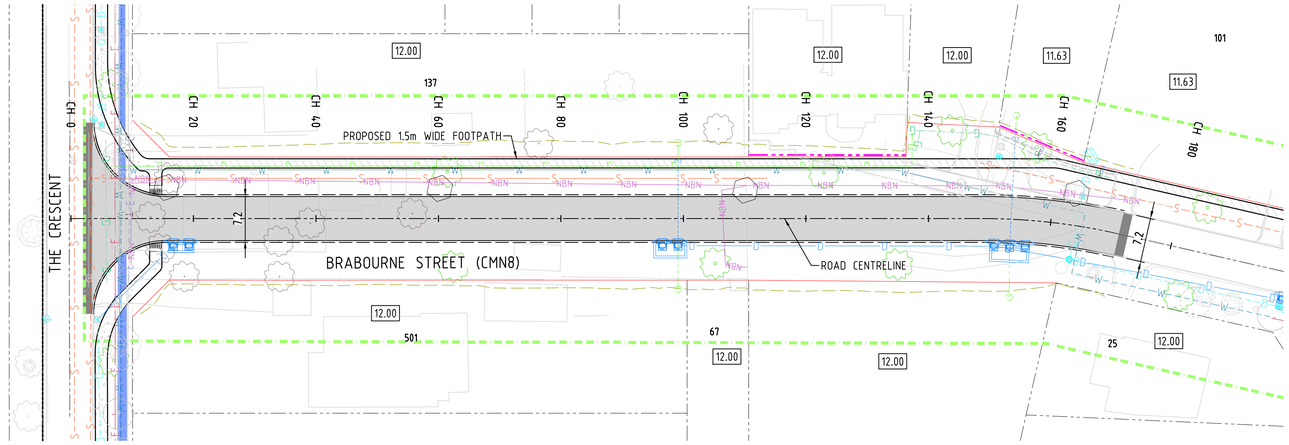


PLAN
1:500

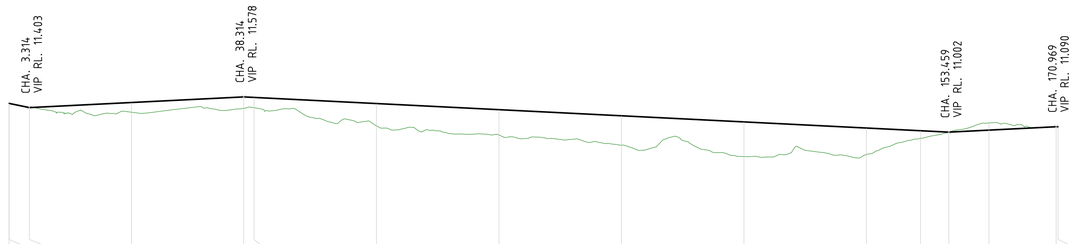


Datum R.L. 9.000

| | | |

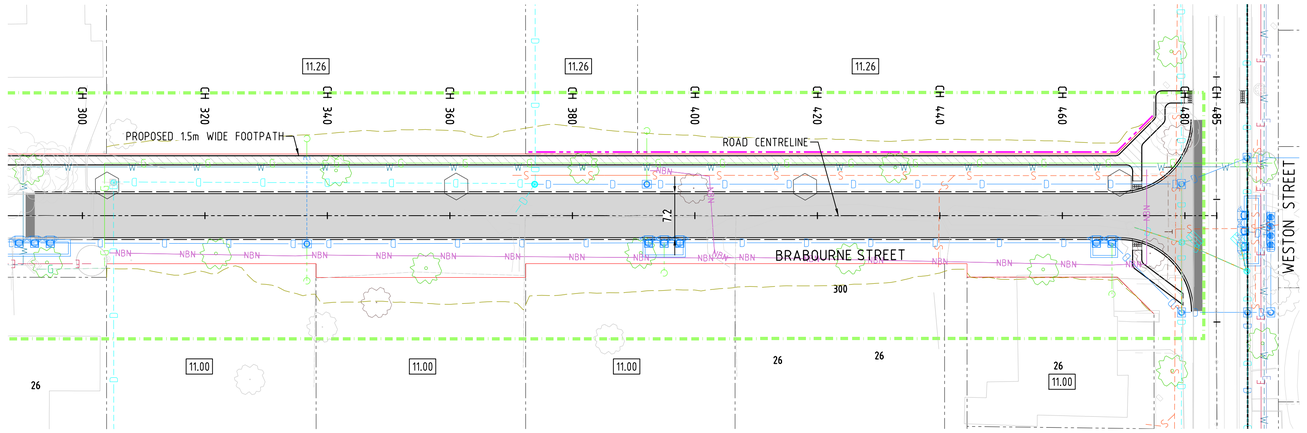


PLAN
1:500

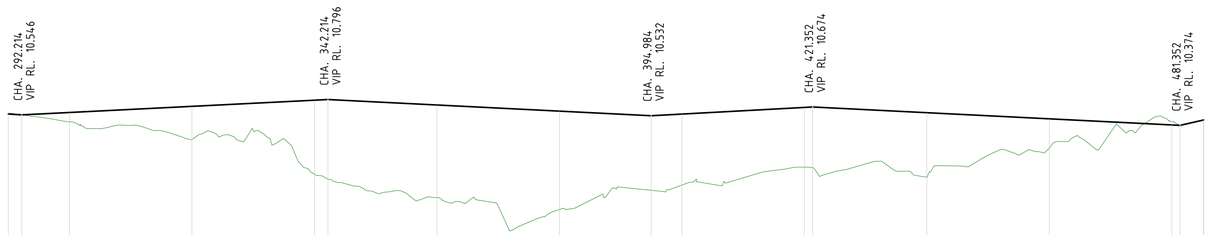


Datum R.L. 9.000

| | | |

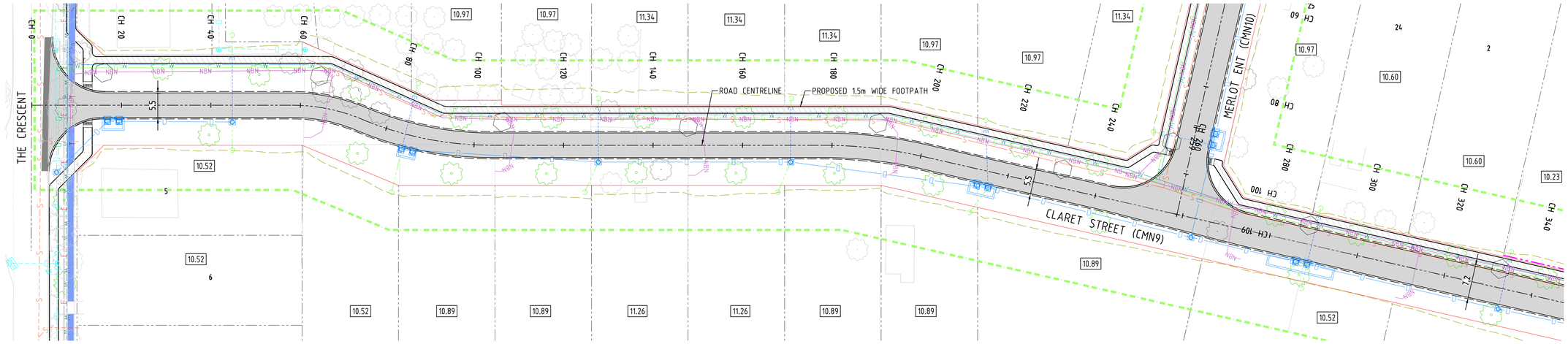


PLAN
1:500



Datum R.L. 7.000

| | | |



PLAN
1:500

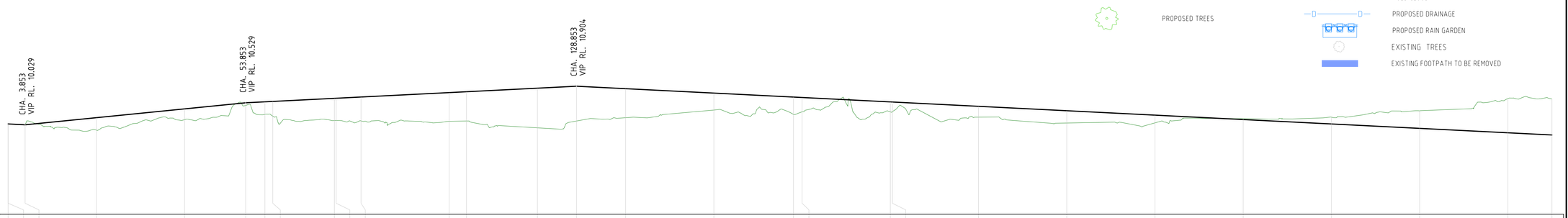
GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. LOCATIONS OF PROPOSED TREES ARE INDICATIVE ONLY.
7. ALL SERVICE INSTALLATIONS IN EXISTING VERGES TO BE DIRECTIONALLY DRILLED.
8. PROPOSED PAD LEVELS ARE INDICATIVE ONLY.
9. ALL VEGETATION WITHIN NEW ROAD RESERVE AREAS TO BE REMOVED U.O.N.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.

RETAINING WALLS
11. THE REQUIREMENT OF INSTALLATION OF RETAINING WALLS ARE TO BE DETERMINED DURING CONSTRUCTION STAGE.
12. LAND OWNERS' CONSENT ARE REQUIRED PRIOR TO CONSTRUCTION IF FILL OR CUT ENCROACH INTO PRIVATE PROPERTIES. OTHERWISE RETAINING WALL OPTION SHALL BE ADOPTED.

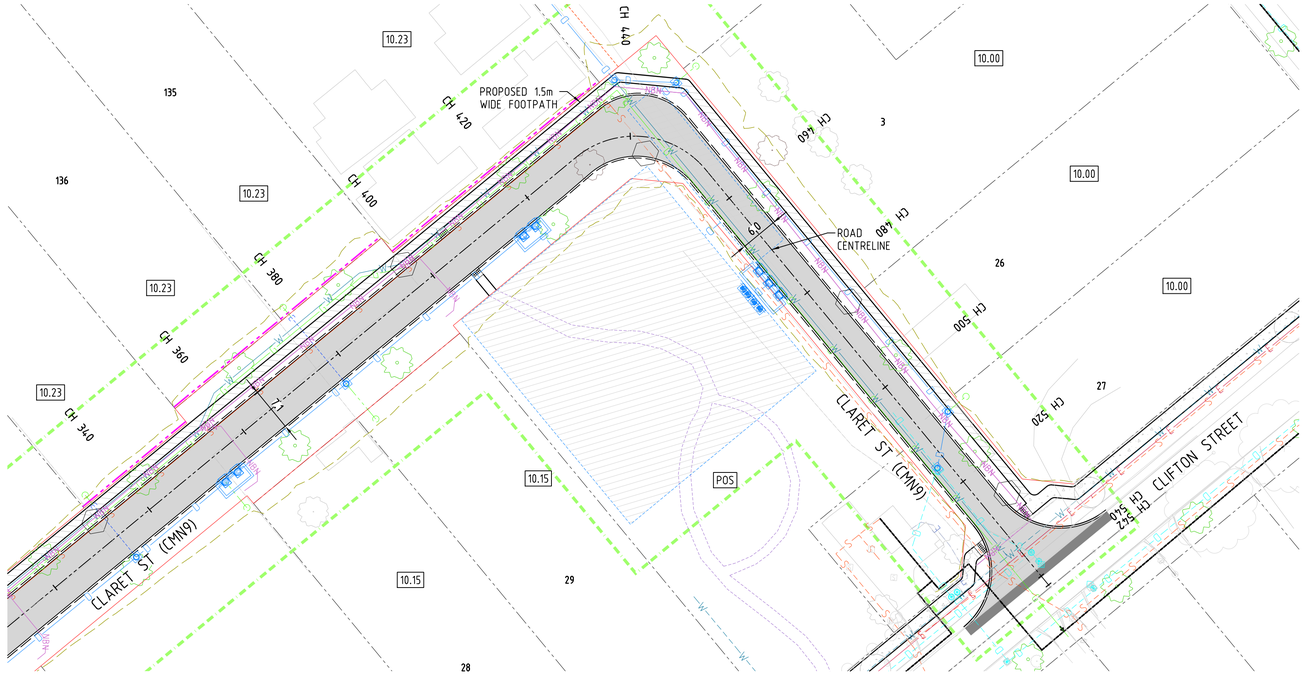
LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP. AND PRAM RAMP (COG TYPE 2)
- INDICATIVE POS FOOTPATH (BY OTHER
- PROPOSED STREET LIGHT AND F
- PROPOSED TREES
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVI WITH "LIMESTONE" HEADER REINFORCED WITH HERRINGBONE PATTERN
- 12.47 PROPOSED PAD LEVEL
- RETAINING WALL LOCATION
- PROPOSED EXTENT OF BATTER
- PROPOSED ROAD RESERVE BOUND
- CMDP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- PROPOSED DRAINAGE EASEMENT
- HOLD CLOUD
- PROPOSED DRAINAGE
- PROPOSED RAIN GARDEN
- EXISTING TREES
- EXISTING FOOTPATH TO BE REMOVED

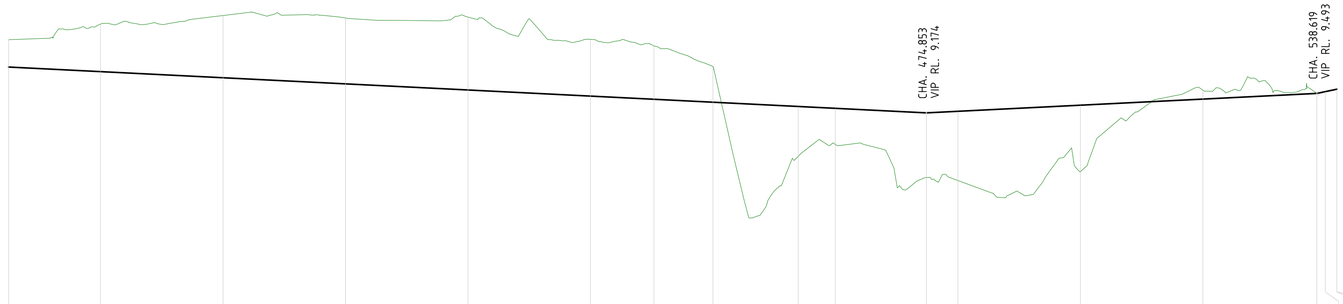


Datum R.L. 8.000

| | | |

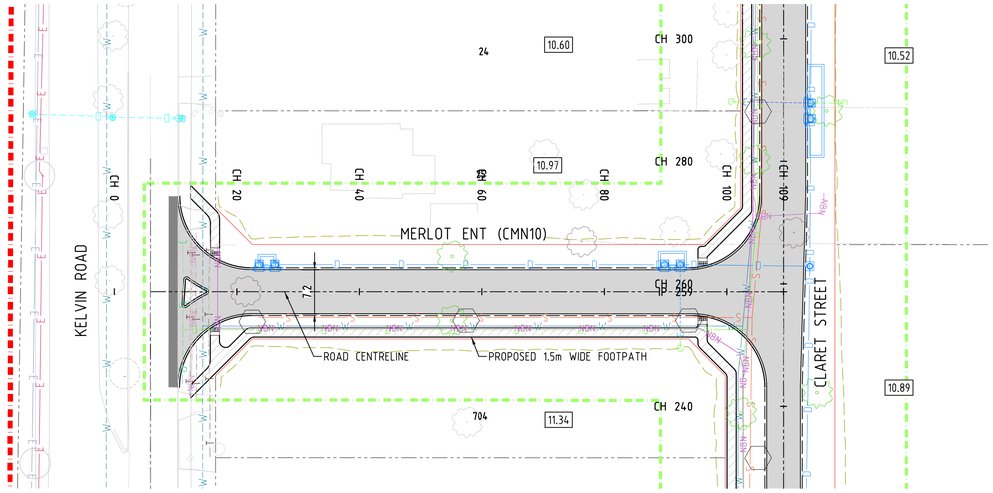


PLAN
1:500

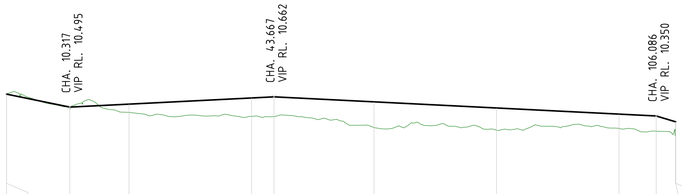


Datum R.L. 6.000

| | | |



PLAN
1:500



Datum R.L. 9.000

VERTICAL GRADE		-2.04%			0.5%				-0.5%				-3%	
VERTICAL CURVE LENGTH (VCL)		L=10.317			L=33.350				L=62.419				L=3.175	
RADIUS (m)														
K VALUE														
HORIZONTAL ALIGNMENT (m)														
DESIGN ROAD LEVEL R.L. (m)	10.706	10.706	10.495	10.544		10.644	10.662	10.580		10.480		10.380	10.350	10.255	10.255
EARTHWORKS (+FILL, -CUT)	0.000	0.000	0.000	0.136		0.300	0.322	0.420		0.362		0.234	0.248	0.218	0.218
EXISTING GROUND LEVEL	10.706	10.706	10.495	10.408		10.344	10.340	10.160		10.118		10.146	10.102	10.036	10.036
CHAINAGE (m)	0.000	0.000	10.317	20.000		40.000	43.667	60.000		80.000		100.000	106.086	109.261	109.261
SUPER ELEVATION					LHS -3%										

07 MERLOT ENTRANCE
SCALE H:500 V:50

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. LOCATIONS OF PROPOSED TREES ARE INDICATIVE ONLY.
7. ALL SERVICE INSTALLATIONS IN EXISTING VERGES TO BE DIRECTIONALLY DRILLED.
8. PROPOSED PAD LEVELS ARE INDICATIVE ONLY.
9. ALL VEGETATION WITHIN NEW ROAD RESERVE AREAS TO BE REMOVED U.O.N.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.

RETAINING WALLS
11. THE REQUIREMENT OF INSTALLATION OF RETAINING WALLS ARE TO BE DETERMINED DURING CONSTRUCTION STAGE.
12. LAND OWNERS' CONSENT ARE REQUIRED PRIOR TO CONSTRUCTION IF FILL OR CUT ENCROACH INTO PRIVATE PROPERTIES. OTHERWISE RETAINING WALL OPTION SHALL BE ADOPTED.

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP AND PRAM RAMP (COG TYPE 2)
- INDICATIVE POS FOOTPATH (BY OTHERS)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING REDSTOI WITH "LIMESTONE" HEADER REINFORCED 100mm THICI WITH HERRINGBONE PATTERN
- 12.47 PROPOSED PAD LEVEL
- RETAINING WALL LOCATION
- PROPOSED EXTENT OF BATTER
- PROPOSED ROAD RESERVE BOUNDARY
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- PROPOSED DRAINAGE EASEMENT
- HOLD CLOUD
- PROPOSED DRAINAGE
- PROPOSED RAIN GARDEN
- EXISTING TREES
- EXISTING FOOTPATH TO BE REMOVED

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC
ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS
TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	17-Jul	HORIZ. AS SHOWN VERT.
DRAWN		DATUM
GB	17-Jul	AHD
CHECKED		GRID SYSTEM
IB	17-Jul	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

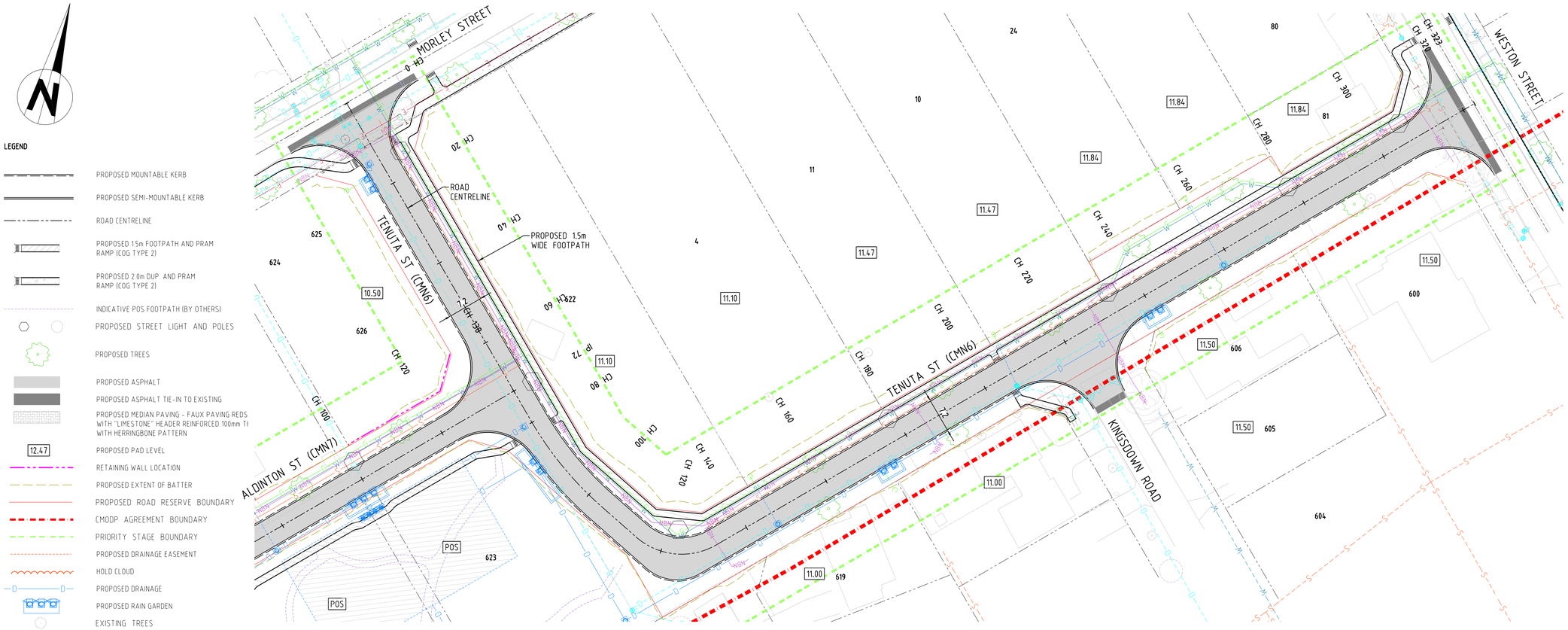
DRAWING TITLE
PLAN AND PLOFILE
MERLOT STREET

PLAN No E2-17-210 REV E

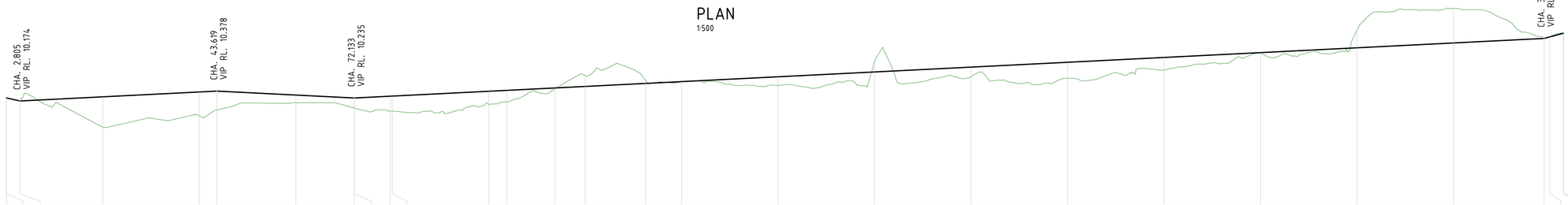
PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES
S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

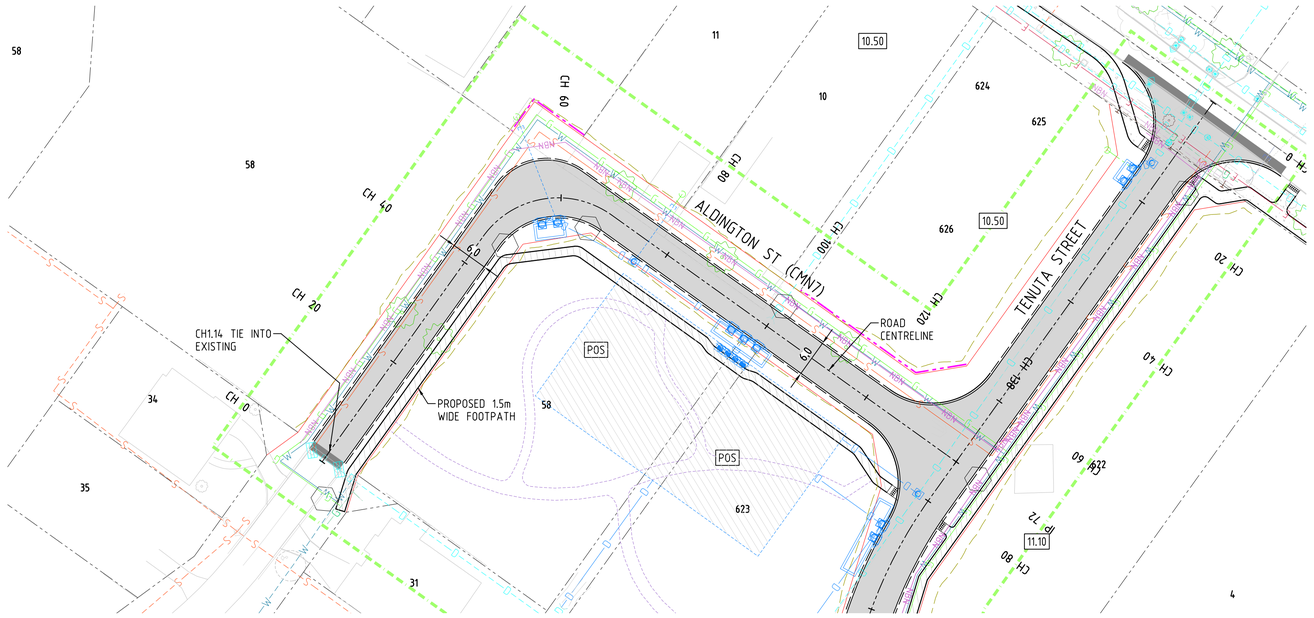


PLAN
1:500

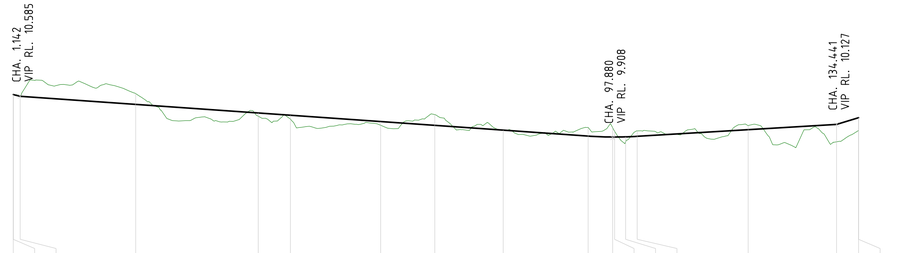


Datum R.L. 8.000

| | | |

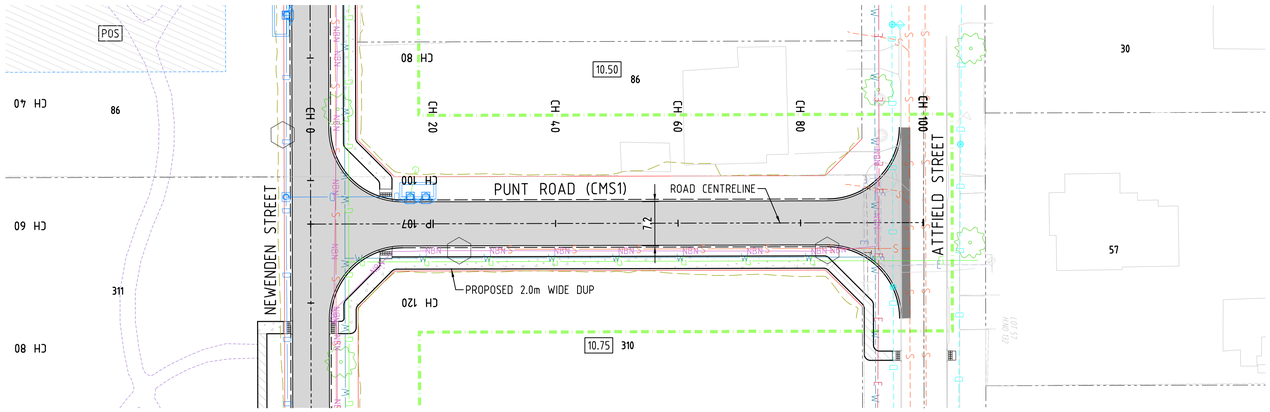


PLAN
1:500

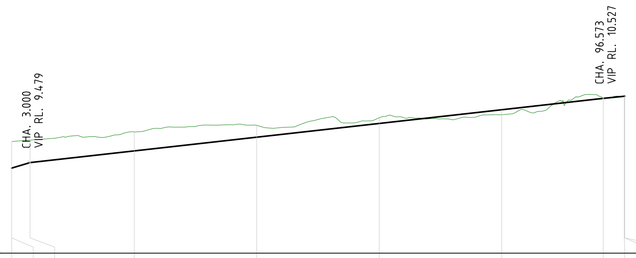


Datum R.L. 8.000

| | | |



PLAN
1:500



Datum R.L. 8.000

VERTICAL GRADE	3%			1.12%								1%		
VERTICAL CURVE LENGTH (VCL)	L=3.000						L=93.573					L=3.523		
RADIUS (m)														
K VALUE														
HORIZONTAL ALIGNMENT (m)														
DESIGN ROAD LEVEL R.L. (m)	9.389	9.389	9.479	9.669	9.893	10.117	10.341	10.527	10.561	10.562	10.562			
EARTHWORKS (+FILL, -CUT)	-0.435	-0.435	-0.367	-0.309	-0.194	-0.094	0.082	-0.000	-0.001	-0.000	-0.000			
EXISTING GROUND LEVEL	9.824	9.824	9.846	9.978	10.088	10.212	10.259	10.527	10.562	10.562	10.562			
CHAINAGE (m)	0.000	0.000	3.000	20.000	40.000	60.000	80.000	96.573	100.000	100.096	100.096			
SUPER ELEVATION				LHS -3%										

10 PUNT ROAD
SCALE H:500 V:50

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. LOCATIONS OF PROPOSED TREES ARE INDICATIVE ONLY.
7. ALL SERVICE INSTALLATIONS IN EXISTING VERGES TO BE DIRECTIONALLY DRILLED.
8. PROPOSED PAD LEVELS ARE INDICATIVE ONLY.
9. ALL VEGETATION WITHIN NEW ROAD RESERVE AREAS TO BE REMOVED U.O.N.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.

RETAINING WALLS

11. THE REQUIREMENT OF INSTALLATION OF RETAINING WALLS ARE TO BE DETERMINED DURING CONSTRUCTION STAGE.
12. LAND OWNERS' CONSENT ARE REQUIRED PRIOR TO CONSTRUCTION IF FILL OR CUT ENCROACH INTO PRIVATE PROPERTIES. OTHERWISE RETAINING WALL OPTION SHALL BE ADOPTED.

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP AND PRAM RAMP (COG TYPE 2)
- INDICATIVE POS FOOTPATH (BY OTHERS)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING REDSTONE" WITH "LIMESTONE" HEADER REINFORCED 100mm THICK WITH HERRINGBONE PATTERN
- 12.47 PROPOSED PAD LEVEL
- RETAINING WALL LOCATION
- PROPOSED EXTENT OF BATTER
- PROPOSED ROAD RESERVE BOUNDARY
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- PROPOSED DRAINAGE EASEMENT
- HOLD CLOUD
- PROPOSED DRAINAGE
- PROPOSED RAIN GARDEN
- EXISTING TREES
- EXISTING FOOTPATH TO BE REMOVED

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Jul	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
PLAN AND PROFILE
PUNT ROAD

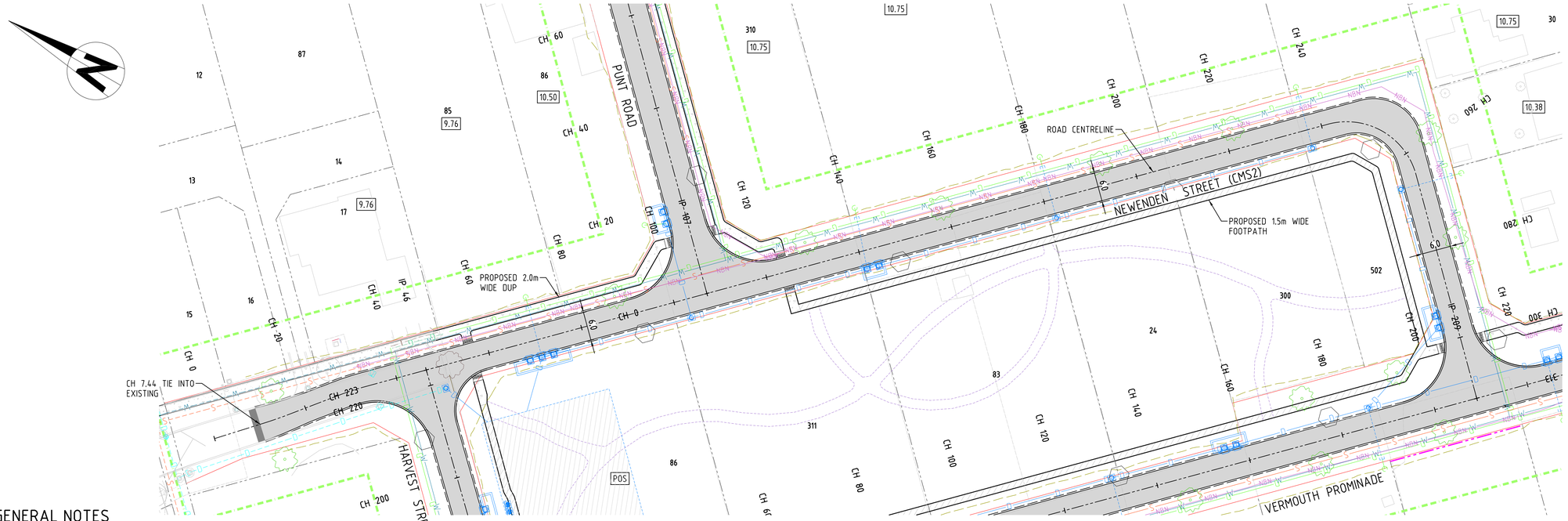
PLAN No E2-17-213 REV E

PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

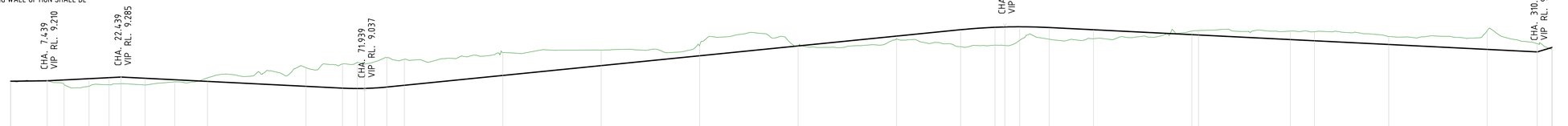


PLAN
1:500

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. LOCATIONS OF PROPOSED TREES ARE INDICATIVE ONLY.
7. ALL SERVICE INSTALLATIONS IN EXISTING VERGES TO BE DIRECTIONALLY DRILLED.
8. PROPOSED PAD LEVELS ARE INDICATIVE ONLY.
9. ALL VEGETATION WITHIN NEW ROAD RESERVE AREAS TO BE REMOVED U.O.N.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.

RETAINING WALLS
11. THE REQUIREMENT OF INSTALLATION OF RETAINING WALLS ARE TO BE DETERMINED DURING CONSTRUCTION STAGE.
12. LAND OWNERS' CONSENT ARE REQUIRED PRIOR TO CONSTRUCTION IF FILL OR CUT ENCROACH INTO PRIVATE PROPERTIES. OTHERWISE RETAINING WALL OPTION SHALL BE ADOPTED.



Datum R.L. 8.000

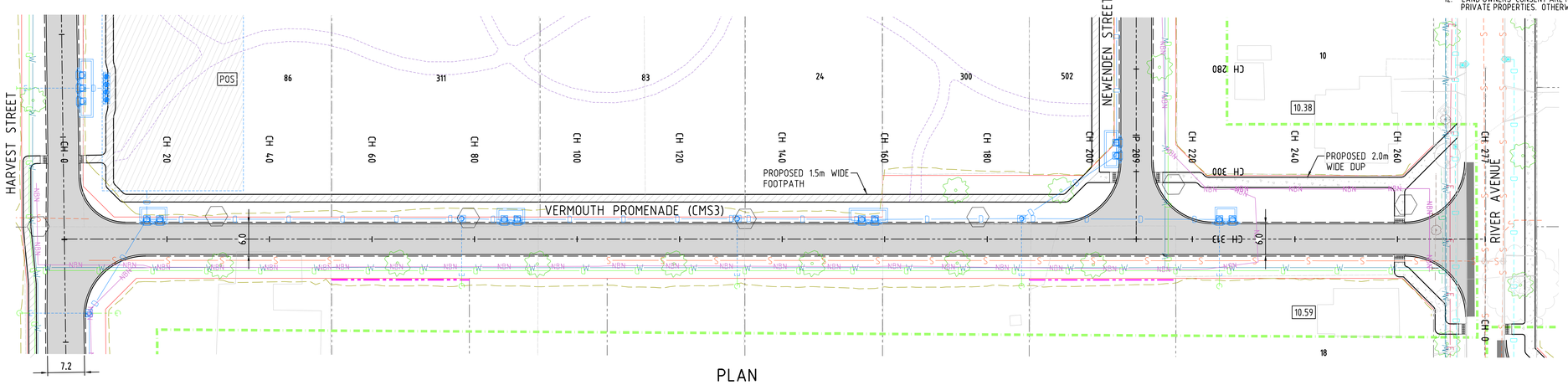
| | | |

GENERAL NOTES

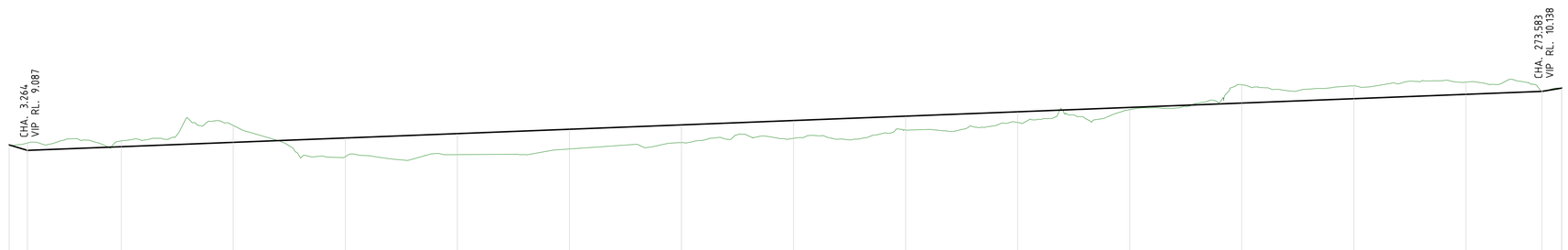
1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. LOCATIONS OF PROPOSED TREES ARE INDICATIVE ONLY.
7. ALL SERVICE INSTALLATIONS IN EXISTING VERGES TO BE DIRECTIONALLY DRILLED.
8. PROPOSED PAD LEVELS ARE INDICATIVE ONLY.
9. ALL VEGETATION WITHIN NEW ROAD RESERVE AREAS TO BE REMOVED U.O.N.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.

RETAINING WALLS

11. THE REQUIREMENT OF INSTALLATION OF RETAINING WALLS ARE TO BE DETERMINED DURING CONSTRUCTION STAGE.
12. LAND OWNERS' CONSENT ARE REQUIRED PRIOR TO CONSTRUCTION IF FILL OR CUT ENCROACH INTO PRIVATE PROPERTIES. OTHERWISE RETAINING WALL OPTION SHALL BE ADOPTED.

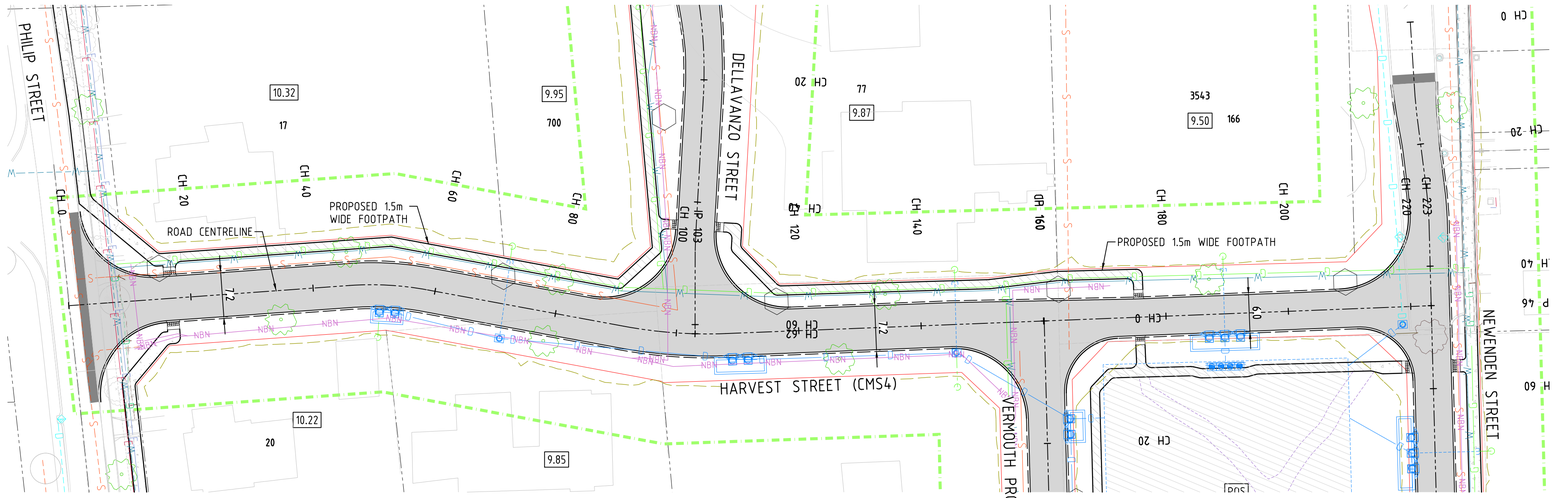


PLAN
1:500

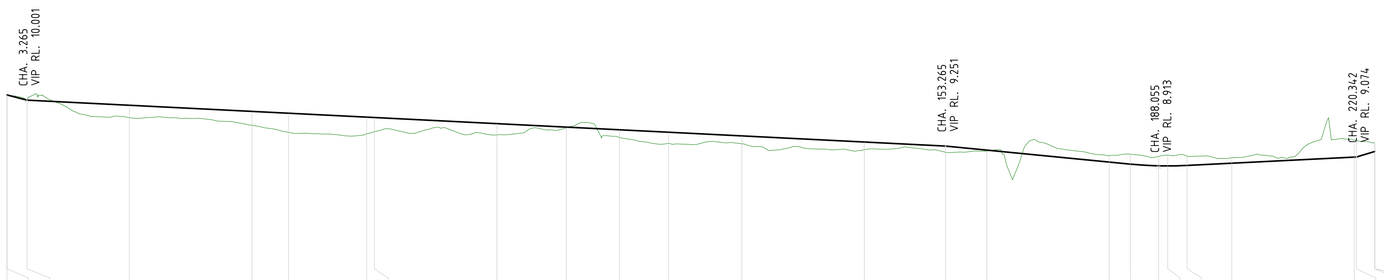


Datum R.L. 7.000

| | | |



PLAN
1:500



Datum R.L. 7.000

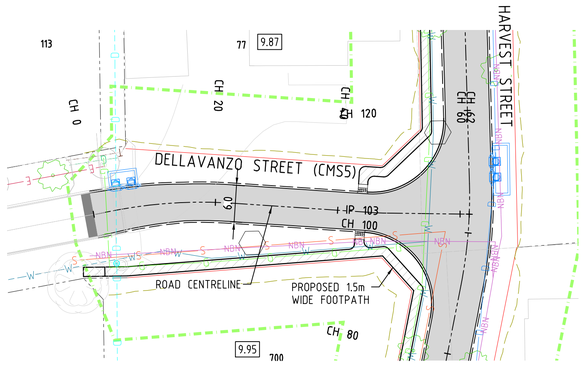
| | | |

GENERAL NOTES

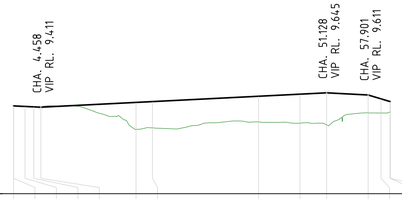
1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. LOCATIONS OF PROPOSED TREES ARE INDICATIVE ONLY.
7. ALL SERVICE INSTALLATIONS IN EXISTING VERGES TO BE DIRECTIONALLY DRILLED.
8. PROPOSED PAD LEVELS ARE INDICATIVE ONLY.
9. ALL VEGETATION WITHIN NEW ROAD RESERVE AREAS TO BE REMOVED U.O.N.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.

RETAINING WALLS

11. THE REQUIREMENT OF INSTALLATION OF RETAINING WALLS ARE TO BE DETERMINED DURING CONSTRUCTION STAGE.
12. LAND OWNERS' CONSENT ARE REQUIRED PRIOR TO CONSTRUCTION IF FILL OR CUT ENCROACH INTO PRIVATE PROPERTIES. OTHERWISE RETAINING WALL OPTION SHALL BE ADOPTED.

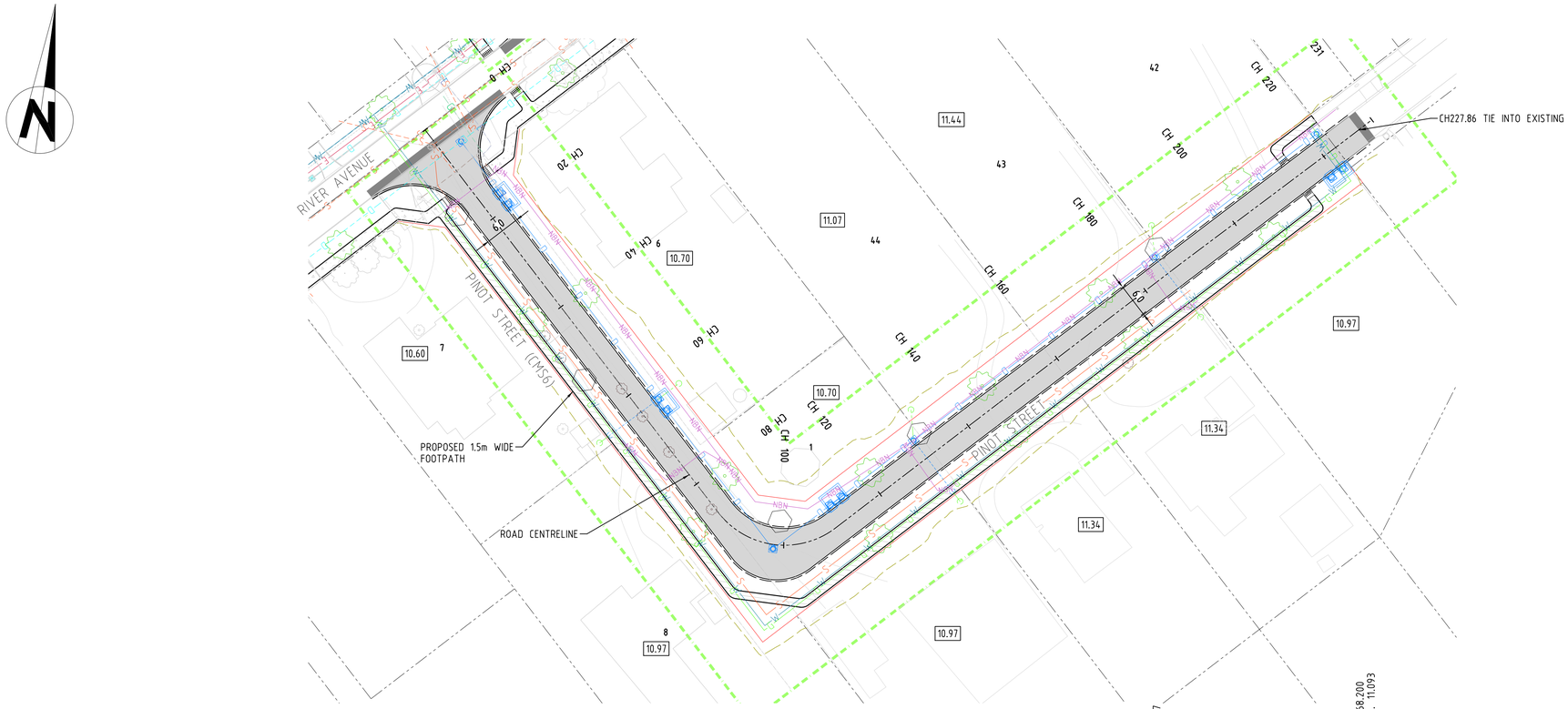


PLAN
1:500

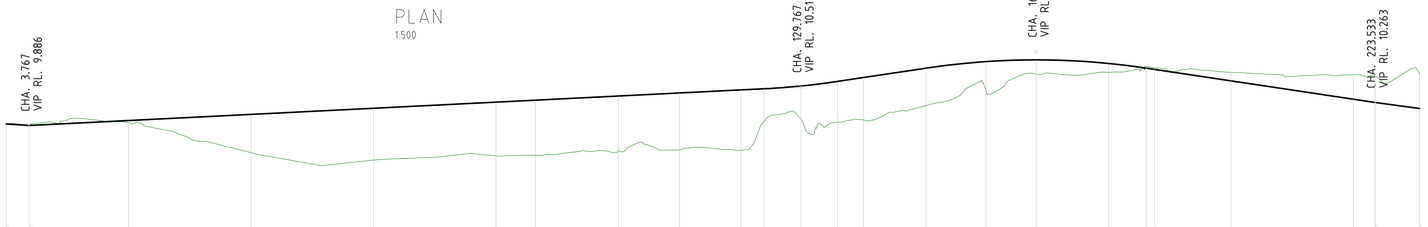


Datum R.L. 8.000

| | | |

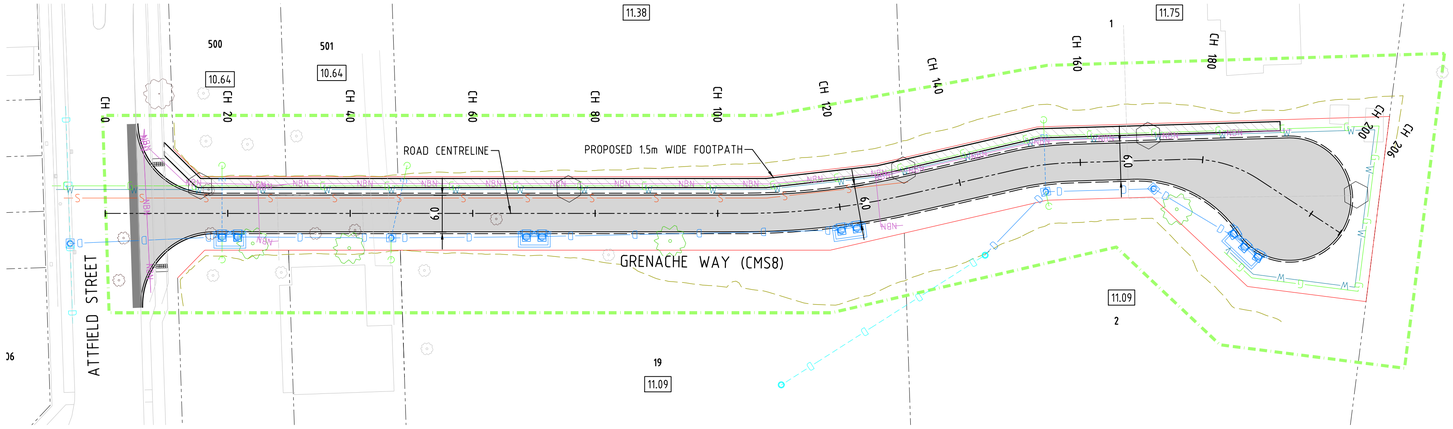


PLAN
1500

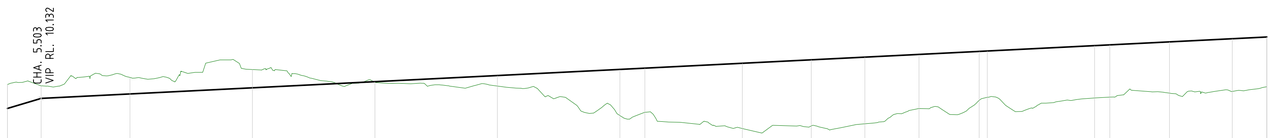


Datum R.L. 8.000

| | | |



PLAN
1:500

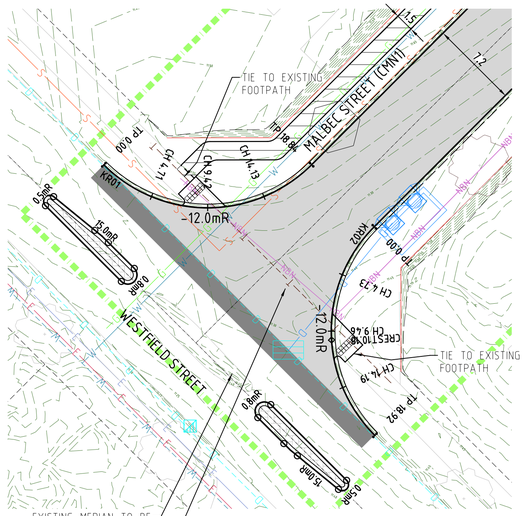


Datum R.L. 8.000

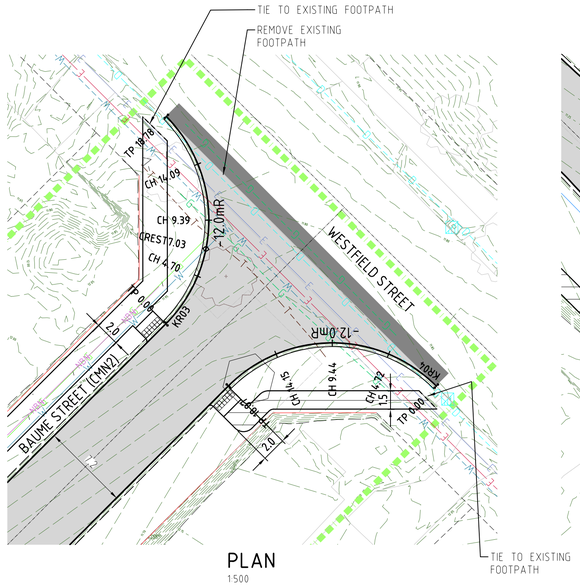
| | | |

GENERAL NOTES

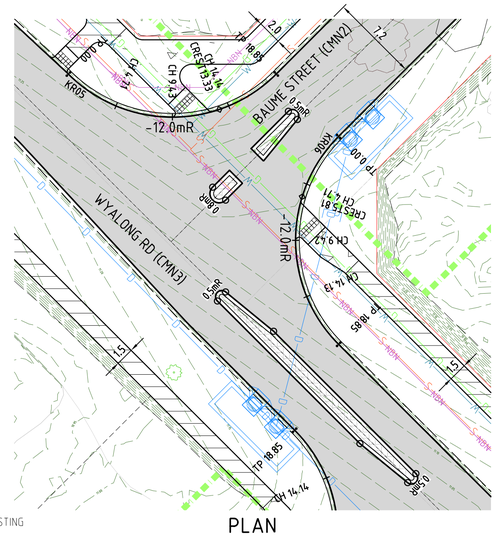
1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.
7. REFER TO ELECTRICAL/COMMS DRAWINGS FOR FURTHER RELOCATION DETAILS.



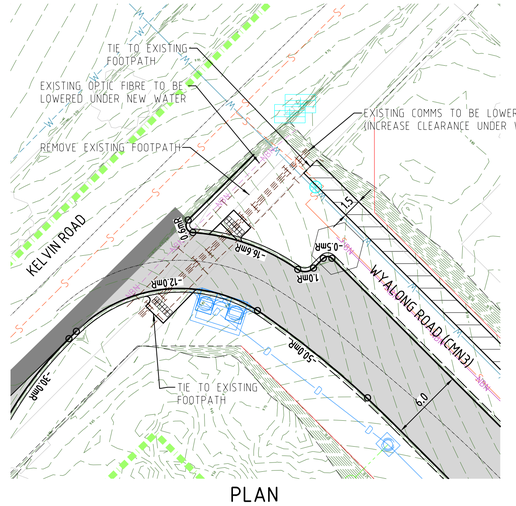
PLAN
1:500



PLAN
1:500

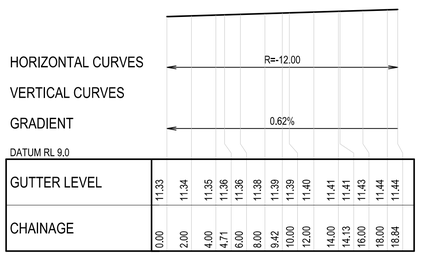


PLAN
1:500

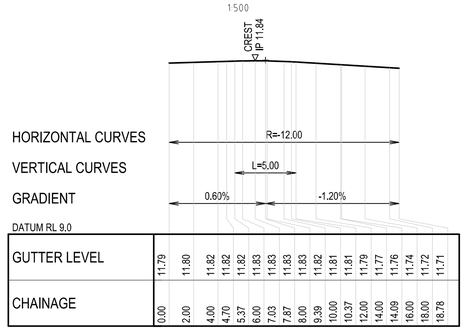


PLAN
1:500

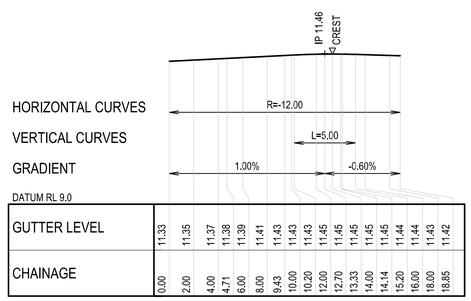




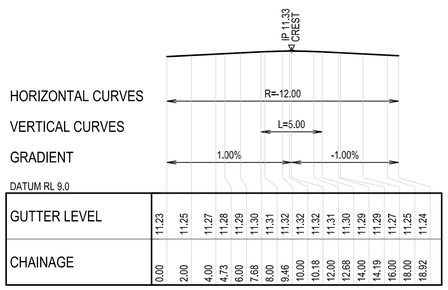
KR01 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



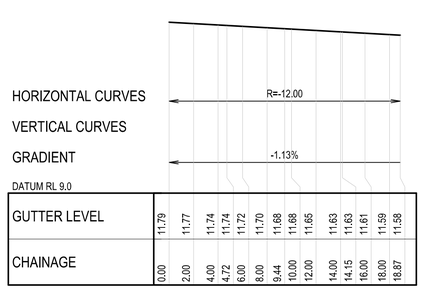
KR03 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



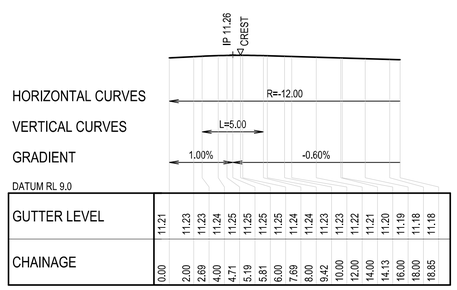
KR05 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



KR02 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



KR04 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



KR06 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- CONTOURS
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING REDSTONE" WITH "LIMESTONE" HEADER REINFORCED 100mm THICK WITH HERRINGBONE PATTERN
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP AND PRAM RAMP (COG TYPE 2)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- PROPOSED ROAD RESERVE BOUNDARY
- PRIORITY STAGE BOUNDARY
- EXISTING DRAINAGE
- DRAINAGE TO BE REMOMED
- EXISTING SEWERAGE
- EXISTING WATER
- EXISTING GAS
- EXISTING POWER
- EXISTING COMMS
- RETAINING WALL LOCATION

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Sep	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
INTERSECTION DETAILS
SHEET 1 OF 8

PLAN No E2-17-301 REV E

PRELIMINARY ONLY | A1

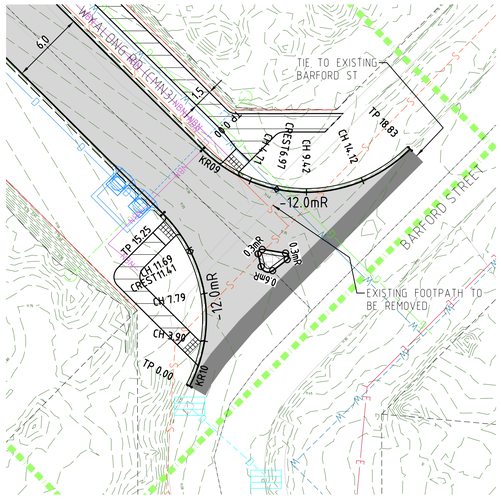
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

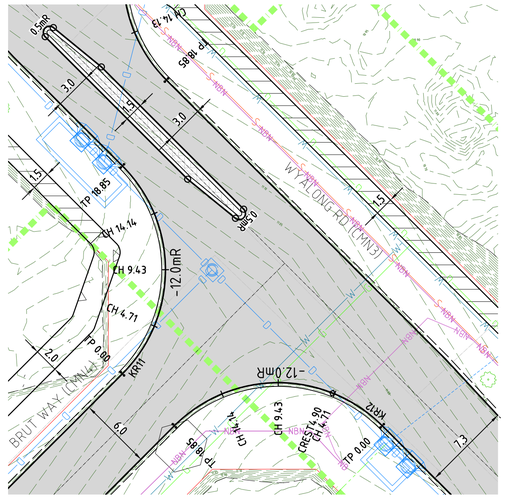
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

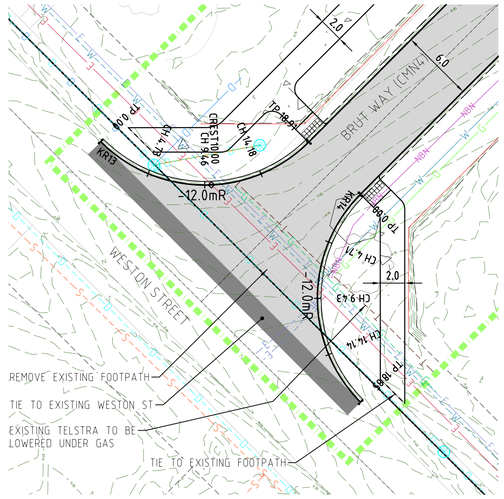
1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.
7. REFER TO ELECTRICAL/COMMS DRAWINGS FOR FURTHER RELOCATION DETAILS.



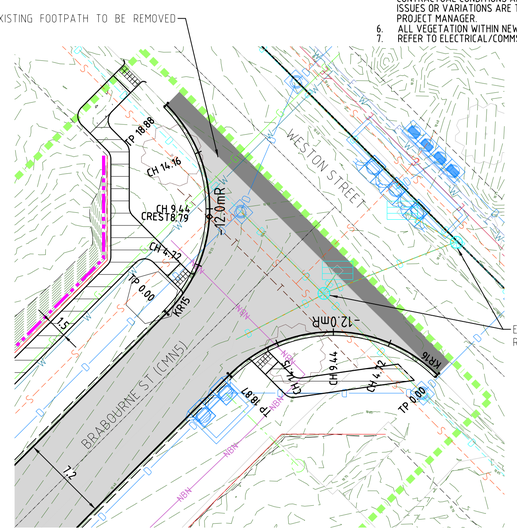
PLAN
1:250



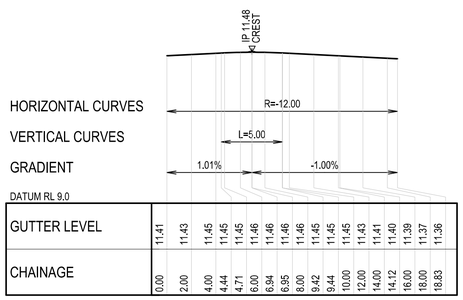
PLAN
1:250



PLAN
1:250



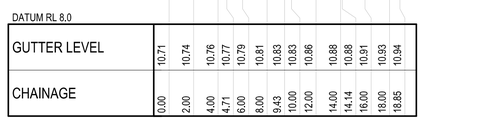
PLAN
1:250



DATUM RL 9.0

GUTTER LEVEL	11.41	11.43	11.45	11.45	11.45	11.46	11.46	11.46	11.45	11.45	11.45	11.43	11.41	11.40	11.39	11.37	11.36
CHAINAGE	0.00	2.00	4.00	4.44	4.71	6.00	6.94	6.95	8.00	9.42	9.44	10.00	12.00	14.00	14.12	16.00	18.00	18.83

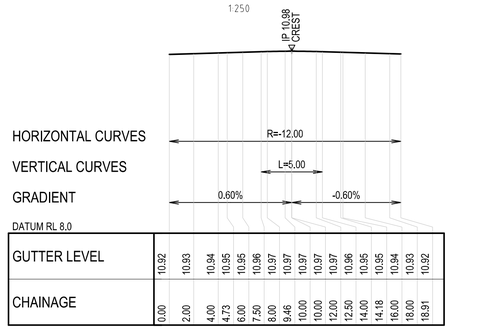
KR09 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 8.0

GUTTER LEVEL	10.71	10.74	10.76	10.77	10.79	10.81	10.83	10.83	10.86	10.88	10.88	10.91	10.93	10.94
CHAINAGE	0.00	2.00	4.00	4.71	6.00	8.00	9.43	10.00	12.00	14.00	14.14	16.00	18.00	18.85

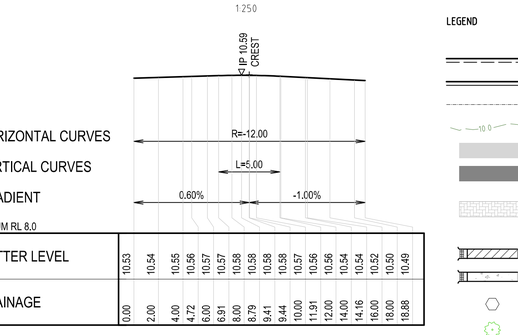
KR11 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 8.0

GUTTER LEVEL	10.92	10.93	10.94	10.95	10.95	10.96	10.97	10.97	10.97	10.97	10.97	10.97	10.96	10.95	10.95	10.94	10.93	10.92
CHAINAGE	0.00	2.00	4.00	4.73	6.00	7.50	8.00	9.46	10.00	10.00	12.00	12.50	14.00	14.18	16.00	18.00	18.91	

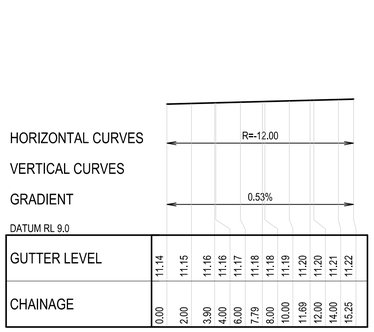
KR13 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 8.0

GUTTER LEVEL	10.53	10.54	10.55	10.56	10.57	10.57	10.58	10.58	10.58	10.57	10.56	10.56	10.54	10.54	10.52	10.50	10.49
CHAINAGE	0.00	2.00	4.00	4.72	6.00	6.91	8.00	8.79	9.41	9.44	10.00	11.91	12.00	14.00	14.16	16.00	18.00	18.88

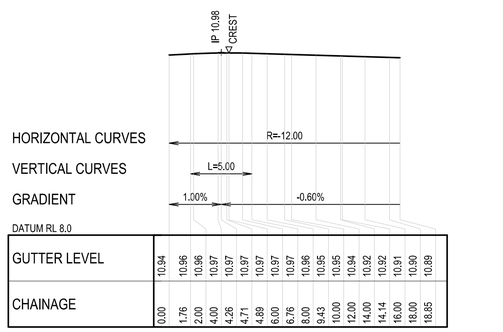
KR15 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 9.0

GUTTER LEVEL	11.14	11.15	11.16	11.16	11.17	11.18	11.18	11.19	11.20	11.20	11.21	11.22
CHAINAGE	0.00	2.00	3.90	4.00	6.00	7.79	8.00	10.00	11.69	12.00	14.00	15.25

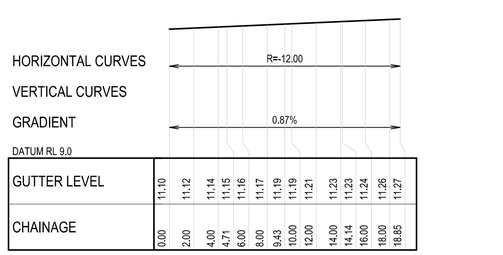
KR10 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 8.0

GUTTER LEVEL	10.94	10.96	10.96	10.97	10.97	10.97	10.97	10.97	10.96	10.96	10.95	10.95	10.94	10.92	10.92	10.91	10.90	10.89
CHAINAGE	0.00	1.76	2.00	4.00	4.26	4.71	4.89	6.00	6.76	8.00	9.43	10.00	12.00	14.00	14.14	16.00	18.00	18.85

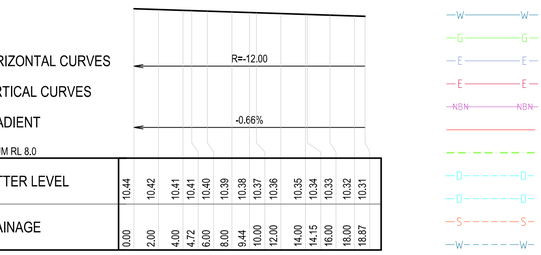
KR12 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 9.0

GUTTER LEVEL	11.10	11.12	11.14	11.15	11.16	11.17	11.19	11.19	11.21	11.23	11.23	11.24	11.26	11.27
CHAINAGE	0.00	2.00	4.00	4.71	6.00	8.00	9.43	10.00	12.00	14.00	14.14	16.00	18.00	18.85

KR14 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 8.0

GUTTER LEVEL	10.44	10.42	10.41	10.41	10.40	10.39	10.38	10.37	10.36	10.35	10.34	10.33	10.32	10.31
CHAINAGE	0.00	2.00	4.00	4.72	6.00	8.00	9.44	10.00	12.00	14.00	14.15	16.00	18.00	18.87

KR16 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- CONTOURS
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING RED WITH "LIMESTONE" HEADER REINFORCED 100mm WITH HERRINGBONE PATTERN
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (CC
- PROPOSED 2.0m DUP AND PRAM RAMP (COG TY
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- PROPOSED ROAD RESERVE BOUNDARY
- PRIORITY STAGE BOUNDARY
- EXISTING DRAINAGE
- DRAINAGE TO BE REMOMED
- EXISTING SEWERAGE
- EXISTING WATER
- EXISTING GAS
- EXISTING POWER
- EXISTING COMMS
- RETAINING WALL LOCATION

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	17-Jul	HORIZ. AS SHOWN
DRAWN		VERT.
GB	17-Jul	DATUM
		AHD
CHECKED		GRID SYSTEM
IB	17-Sep	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
INTERSECTION DETAILS
SHEET 2 OF 8

PLAN No E2-17-302 REV E

PRELIMINARY ONLY | A1

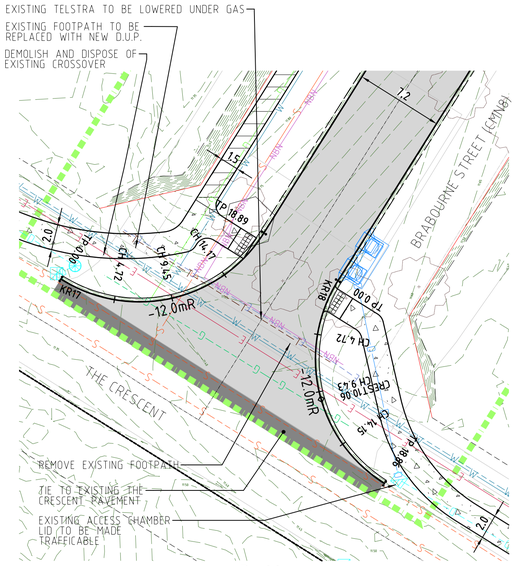
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

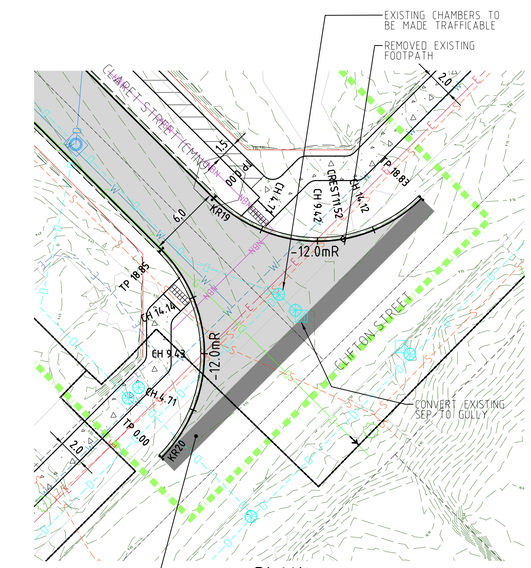
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

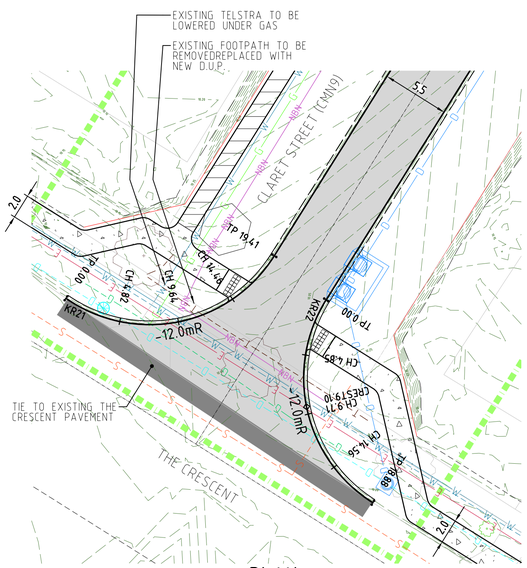
1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.
7. REFER TO ELECTRICAL/COMMS DRAWINGS FOR FURTHER RELOCATION DETAILS.



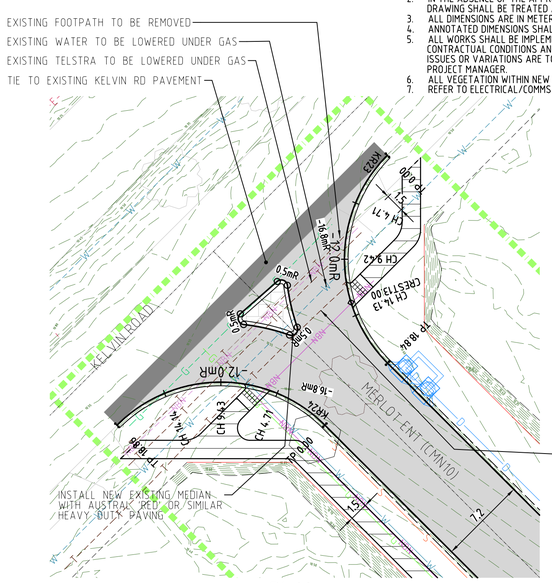
PLAN
1:500



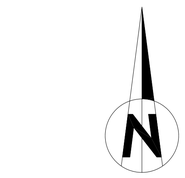
PLAN
1:500

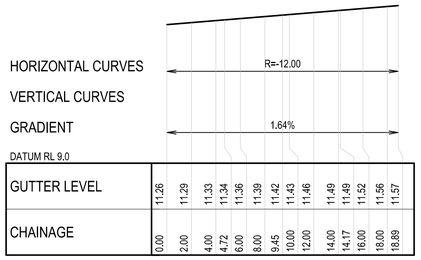


PLAN
1:500



PLAN
1:500

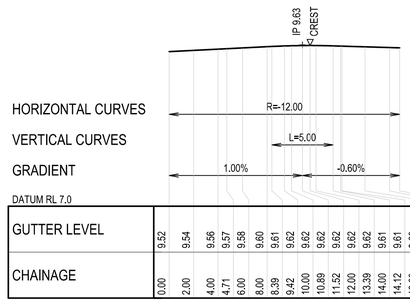




DATUM RL 9.0

GUTTER LEVEL	11.26	11.29	11.33	11.34	11.36	11.39	11.42	11.43	11.46	11.49	11.49	11.52	11.56	11.57
CHAINAGE	0.00	2.00	4.00	4.72	6.00	8.00	9.45	10.00	12.00	14.00	14.17	16.00	18.00	18.89

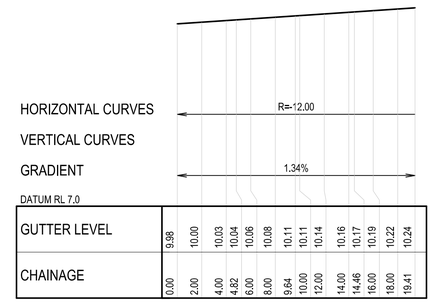
KR17 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 7.0

GUTTER LEVEL	9.52	9.54	9.56	9.57	9.58	9.60	9.61	9.62	9.62	9.62	9.62	9.62	9.61	9.61	9.60	9.59	9.58
CHAINAGE	0.00	2.00	4.00	4.71	6.00	8.00	8.39	9.42	10.00	10.89	11.52	12.00	13.39	14.00	14.12	16.00	18.00	18.83

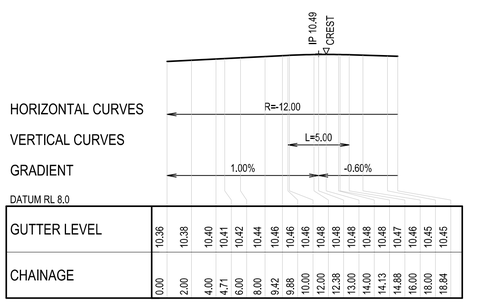
KR19 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 7.0

GUTTER LEVEL	9.98	10.00	10.03	10.04	10.06	10.08	10.11	10.11	10.14	10.16	10.17	10.19	10.22	10.24
CHAINAGE	0.00	2.00	4.00	4.82	6.00	8.00	9.64	10.00	12.00	14.00	14.46	16.00	18.00	19.41

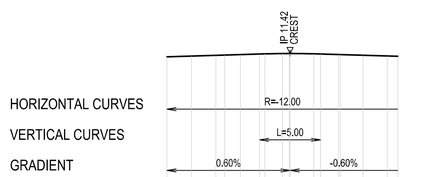
KR21 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 8.0

GUTTER LEVEL	10.36	10.38	10.40	10.41	10.42	10.44	10.46	10.46	10.46	10.48	10.48	10.48	10.48	10.47	10.46	10.45	10.45
CHAINAGE	0.00	2.00	4.00	4.71	6.00	8.00	9.42	9.88	10.00	12.00	12.38	13.00	14.00	14.13	14.88	16.00	18.00	18.84

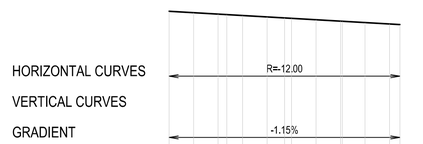
KR23 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 9.0

GUTTER LEVEL	11.36	11.37	11.38	11.38	11.39	11.40	11.40	11.41	11.41	11.40	11.40	11.39	11.39	11.38	11.37	11.36
CHAINAGE	0.00	2.00	4.00	4.72	6.00	7.56	8.00	9.43	10.00	10.06	12.00	12.56	14.00	14.15	16.00	18.00	18.86

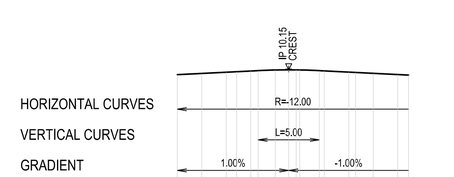
KR18 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 7.0

GUTTER LEVEL	9.56	9.54	9.51	9.51	9.49	9.47	9.45	9.44	9.42	9.40	9.40	9.38	9.35	9.34
CHAINAGE	0.00	2.00	4.00	4.71	6.00	8.00	9.43	10.00	12.00	14.00	14.14	16.00	18.00	18.85

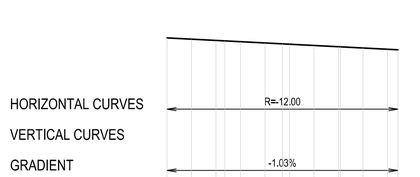
KR20 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 8.0

GUTTER LEVEL	10.06	10.08	10.10	10.11	10.12	10.13	10.14	10.14	10.14	10.14	10.13	10.13	10.11	10.10	10.09	10.07	10.06
CHAINAGE	0.00	2.00	4.00	4.85	6.00	6.60	8.00	8.00	9.10	9.71	10.00	11.60	12.00	14.00	14.56	16.00	18.00	18.88

KR22 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 8.0

GUTTER LEVEL	10.66	10.64	10.62	10.62	10.60	10.58	10.57	10.56	10.54	10.52	10.52	10.50	10.48	10.47
CHAINAGE	0.00	2.00	4.00	4.71	6.00	8.00	9.43	10.00	12.00	14.00	14.14	16.00	18.00	18.86

KR24 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- CONTOURS (10.0)
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING RED STONE" WITH "LIMESTONE" HEADER REINFORCED 100mm THICK WITH HERRINGBONE PATTERN
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP AND PRAM RAMP (COG TYPE 2)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- PROPOSED ROAD RESERVE BOUNDARY
- PRIORITY STAGE BOUNDARY
- EXISTING DRAINAGE
- DRAINAGE TO BE REMOMED
- EXISTING SEWERAGE
- EXISTING WATER
- EXISTING GAS
- EXISTING POWER
- EXISTING COMMS
- RETAINING WALL LOCATION

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	GB	DATE	17-Jul
DRAWN	GB		17-Jul
CHECKED	IB		17-Sep
SURVEY			

SCALE	HORIZ. AS SHOWN VERT.
DATUM	AHD
GRID SYSTEM	PCG
JOB NUMBER	

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
INTERSECTION DETAILS
SHEET 3 OF 8

PLAN No E2-17-303 REV E

PRELIMINARY ONLY | A1

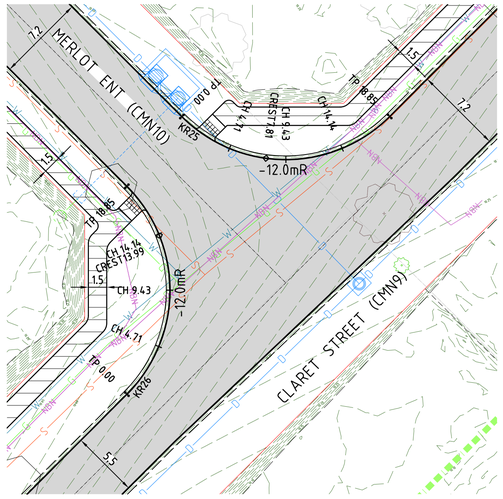
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

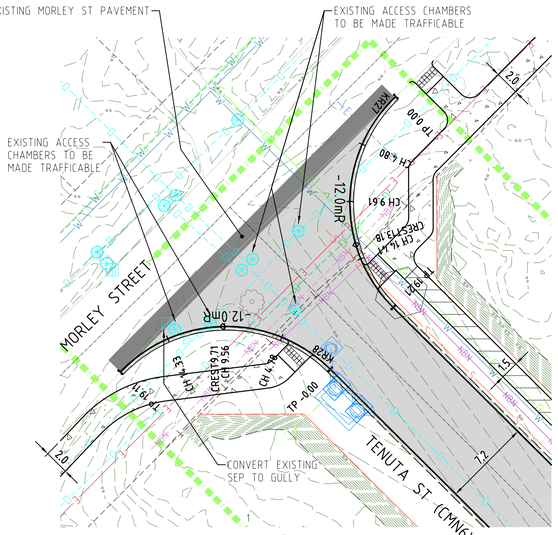
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

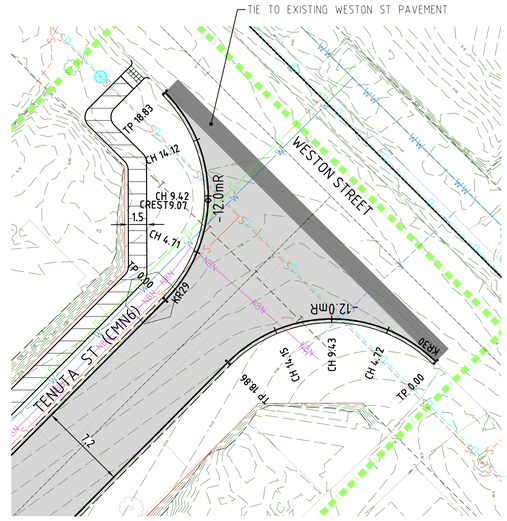
1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.
7. REFER TO ELECTRICAL/COMMS DRAWINGS FOR FURTHER RELOCATION DETAILS.



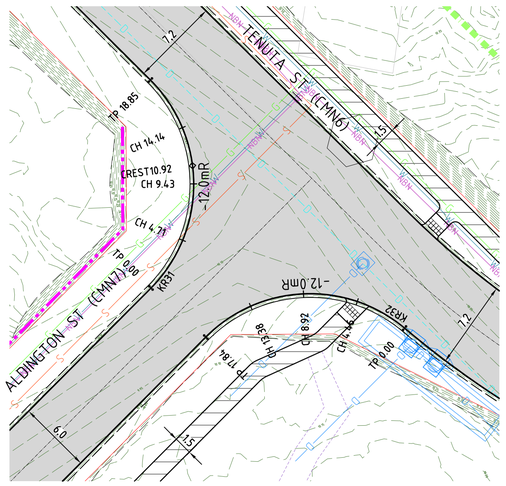
PLAN
1:500



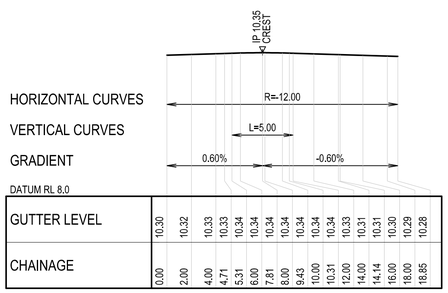
PLAN
1:500



PLAN
1:500



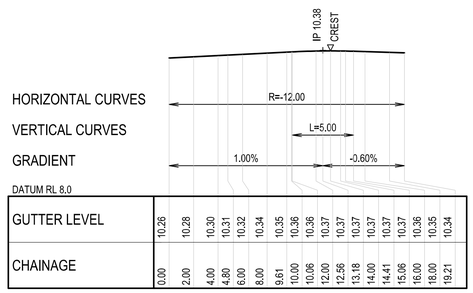
PLAN
1:500



DATUM RL 8.0

CHAINAGE	GUTTER LEVEL
0.00	10.30
2.00	10.32
4.00	10.33
4.71	10.33
5.31	10.34
6.00	10.34
7.81	10.34
8.00	10.34
9.43	10.34
10.00	10.34
10.31	10.34
12.00	10.33
14.00	10.31
14.14	10.31
16.00	10.30
18.00	10.29
18.85	10.28

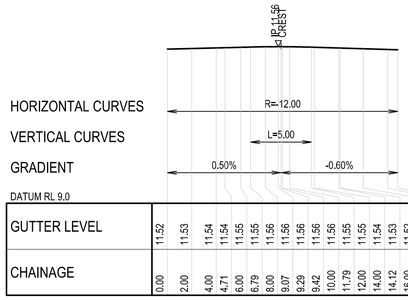
KR25 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 8.0

CHAINAGE	GUTTER LEVEL
0.00	10.26
2.00	10.28
4.00	10.30
4.80	10.31
6.00	10.32
8.00	10.34
9.61	10.35
10.00	10.36
10.06	10.36
12.00	10.37
12.56	10.37
13.18	10.37
14.00	10.37
14.41	10.37
15.06	10.37
16.00	10.36
18.00	10.35
19.21	10.34

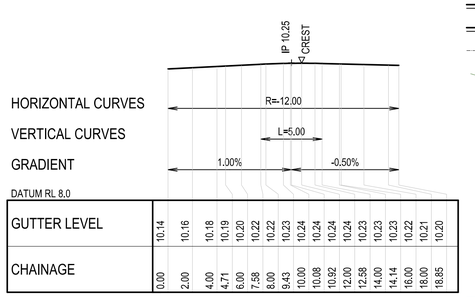
KR27 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 9.0

CHAINAGE	GUTTER LEVEL
0.00	11.52
2.00	11.53
4.00	11.54
4.71	11.54
6.00	11.55
6.79	11.55
8.00	11.56
9.07	11.56
9.29	11.56
9.42	11.56
10.00	11.56
11.79	11.55
12.00	11.55
14.00	11.54
14.12	11.53
16.00	11.52
18.00	11.51
18.83	11.51

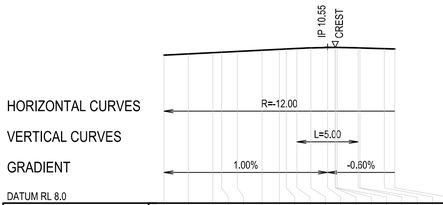
KR29 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 8.0

CHAINAGE	GUTTER LEVEL
0.00	10.14
2.00	10.16
4.00	10.18
4.71	10.19
6.00	10.20
7.58	10.22
8.00	10.22
9.43	10.23
10.00	10.24
10.08	10.24
10.92	10.24
12.00	10.24
12.58	10.23
14.00	10.23
14.14	10.23
16.00	10.22
18.00	10.21
18.85	10.20

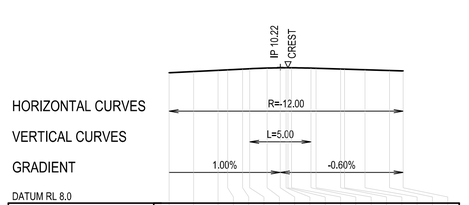
KR31 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 8.0

CHAINAGE	GUTTER LEVEL
0.00	10.42
2.00	10.44
4.00	10.46
4.71	10.46
6.00	10.48
8.00	10.50
9.43	10.51
10.00	10.52
10.86	10.52
12.00	10.53
13.36	10.54
13.99	10.54
14.00	10.54
14.14	10.54
15.86	10.54
16.00	10.53
18.00	10.52
18.85	10.52

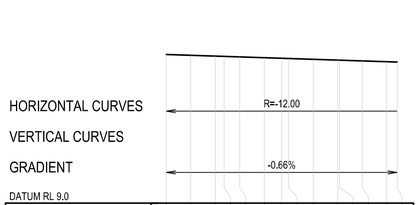
KR26 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 8.0

CHAINAGE	GUTTER LEVEL
0.00	10.13
2.00	10.15
4.00	10.17
4.78	10.17
6.00	10.19
6.58	10.19
8.00	10.20
9.08	10.21
9.56	10.21
9.71	10.21
10.00	10.21
11.58	10.20
12.00	10.20
14.00	10.19
14.33	10.19
16.00	10.18
18.00	10.16
19.11	10.16

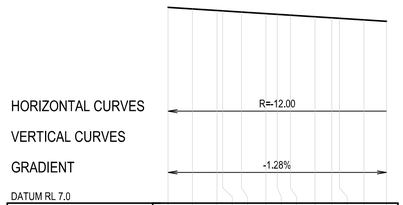
KR28 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 9.0

CHAINAGE	GUTTER LEVEL
0.00	11.43
2.00	11.41
4.00	11.40
4.72	11.39
6.00	11.39
8.00	11.37
9.43	11.36
10.00	11.36
12.00	11.35
14.00	11.33
14.15	11.33
16.00	11.32
18.00	11.31
18.86	11.30

KR30 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



DATUM RL 7.0

CHAINAGE	GUTTER LEVEL
0.00	10.20
2.00	10.17
4.00	10.14
4.46	10.14
6.00	10.12
8.00	10.09
8.92	10.08
10.00	10.07
12.00	10.04
13.38	10.02
14.00	10.02
16.00	9.99
17.84	9.97

KR32 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- CONTOURS
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING REDSTONE WITH "LIMESTONE" HEADER REINFORCED 100mm THICK WITH HERRINGBONE PATTERN
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP. AND PRAM RAMP (COG TYPE 2)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- PROPOSED ROAD RESERVE BOUNDARY
- PRIORITY STAGE BOUNDARY
- EXISTING DRAINAGE
- DRAINAGE TO BE REMOMED
- EXISTING SEWERAGE
- EXISTING WATER
- EXISTING GAS
- EXISTING POWER
- EXISTING COMMS
- RETAINING WALL LOCATION

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	GB	17-Jul
DRAWN	GB	17-Jul
CHECKED	IB	17-Sep
SURVEY		

SCALE	HORIZ. AS SHOWN VERT.
DATUM	AHD
GRID SYSTEM	PCG
JOB NUMBER	

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
INTERSECTION DETAILS
SHEET 4 OF 8

PLAN No E2-17-304 REV E

PRELIMINARY ONLY | A1

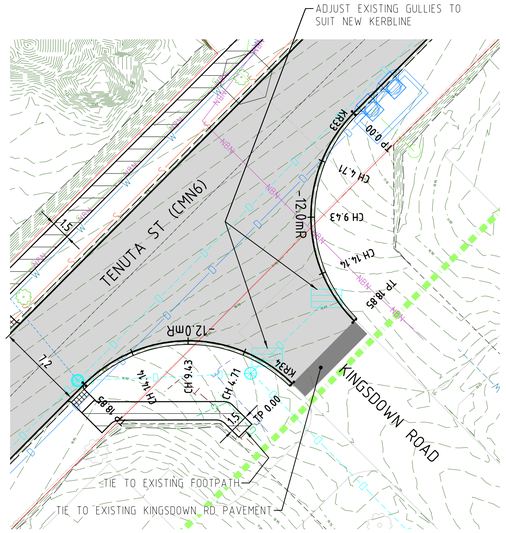
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

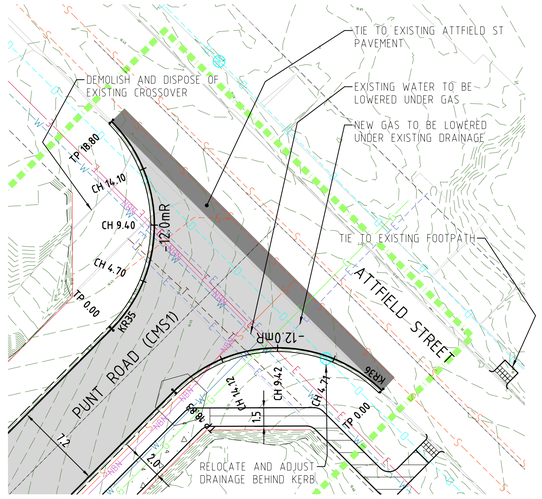
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

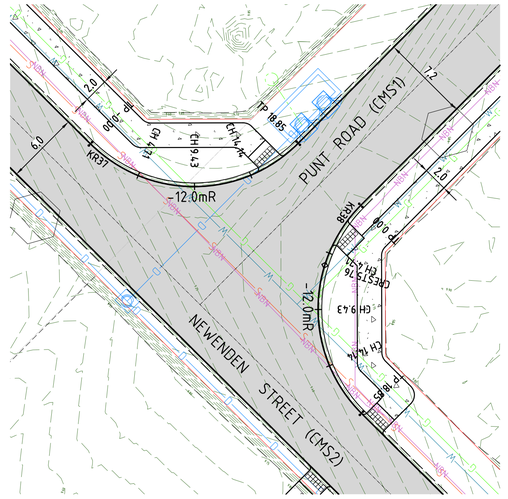
1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.
7. REFER TO ELECTRICAL/COMMS DRAWINGS FOR FURTHER RELOCATION DETAILS.



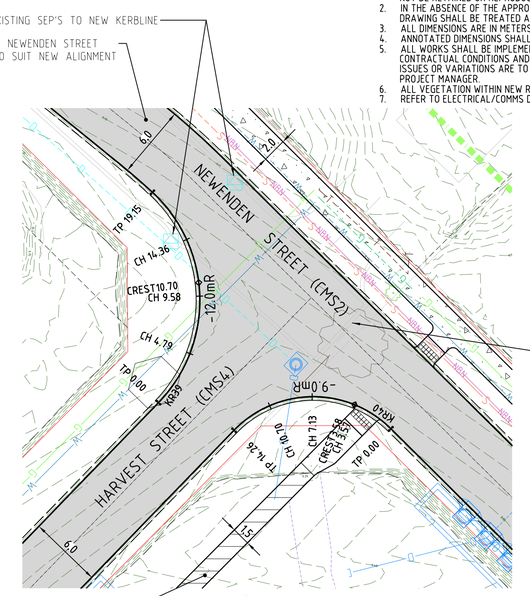
PLAN
1:500



PLAN
1:500



PLAN
1:500



PLAN
1:500

HORIZONTAL CURVES R=-12.00
VERTICAL CURVES
GRADIENT -2.09%
DATUM RL 8.0

GUTTER LEVEL	10.95	10.91	10.87	10.85	10.83	10.79	10.76	10.74	10.70	10.66	10.66	10.62	10.58	10.56
CHAINAGE	0.00	2.00	4.00	4.71	6.00	8.00	9.43	10.00	12.00	14.00	14.14	16.00	18.00	18.85

KR33 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

HORIZONTAL CURVES R=-12.00
VERTICAL CURVES
GRADIENT 0.62%
DATUM RL 8.0

GUTTER LEVEL	10.26	10.28	10.29	10.29	10.30	10.31	10.32	10.33	10.34	10.35	10.36	10.36	10.38	10.38
CHAINAGE	0.00	2.00	4.00	4.70	6.00	8.00	9.40	10.00	12.00	14.00	14.10	16.00	18.00	18.80

KR35 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

HORIZONTAL CURVES R=-12.00
VERTICAL CURVES
GRADIENT 0.97%
DATUM RL 7.0

GUTTER LEVEL	9.32	9.34	9.36	9.37	9.38	9.40	9.41	9.42	9.44	9.46	9.46	9.48	9.50	9.51
CHAINAGE	0.00	2.00	4.00	4.71	6.00	8.00	9.43	10.00	12.00	14.00	14.14	16.00	18.00	18.85

KR37 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

HORIZONTAL CURVES R=-12.00
VERTICAL CURVES L=5.00
GRADIENT 1.00% -0.60%
DATUM RL 7.0

GUTTER LEVEL	9.11	9.13	9.15	9.15	9.17	9.18	9.19	9.20	9.20	9.20	9.19	9.19	9.18	9.18	9.17	9.16	9.15
CHAINAGE	0.00	2.00	4.00	4.79	6.00	7.57	8.00	9.58	10.00	10.07	10.70	12.00	12.57	14.00	14.36	16.00	19.15

KR39 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

HORIZONTAL CURVES R=-12.00
VERTICAL CURVES
GRADIENT 1.58%
DATUM RL 8.0

GUTTER LEVEL	10.50	10.53	10.56	10.57	10.59	10.63	10.65	10.66	10.69	10.72	10.72	10.75	10.78	10.80
CHAINAGE	0.00	2.00	4.00	4.71	6.00	8.00	9.43	10.00	12.00	14.00	14.14	16.00	18.00	18.85

KR34 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

HORIZONTAL CURVES R=-12.00
VERTICAL CURVES
GRADIENT -0.64%
DATUM RL 8.0

GUTTER LEVEL	10.64	10.62	10.60	10.60	10.59	10.57	10.56	10.55	10.54	10.52	10.52	10.50	10.49	10.48
CHAINAGE	0.00	2.00	4.00	4.71	6.00	8.00	9.42	10.00	12.00	14.00	14.12	16.00	18.00	18.83

KR36 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

HORIZONTAL CURVES R=-12.00
VERTICAL CURVES L=5.00
GRADIENT 0.60% -1.00%
DATUM RL 7.0

GUTTER LEVEL	9.72	9.73	9.74	9.75	9.75	9.75	9.75	9.74	9.73	9.73	9.72	9.70	9.68	9.68	9.66	9.64	9.63
CHAINAGE	0.00	2.00	3.88	4.00	4.71	5.76	6.00	6.38	8.00	8.88	9.43	10.00	12.00	14.00	14.14	16.00	18.85

KR38 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

HORIZONTAL CURVES R=-9.00
VERTICAL CURVES L=5.00
GRADIENT 0.60% -1.00%
DATUM RL 6.0

GUTTER LEVEL	9.01	9.02	9.03	9.03	9.03	9.03	9.02	9.01	9.01	9.00	8.98	8.97	8.96	8.94	8.94
CHAINAGE	0.00	1.71	2.00	3.57	3.58	4.00	4.21	6.00	6.71	7.13	8.00	10.00	10.70	12.00	14.00	14.26

KR40 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- CONTOURS
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING REDSTONE" WITH "LIMESTONE" HEADER REINFORCED 100mm THICK WITH HERRINGBONE PATTERN
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP. AND PRAM RAMP (COG TYPE 2)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- PROPOSED ROAD RESERVE BOUNDARY
- PRIORITY STAGE BOUNDARY
- EXISTING DRAINAGE
- DRAINAGE TO BE REMOMED
- EXISTING SEWERAGE
- EXISTING WATER
- EXISTING GAS
- EXISTING POWER
- EXISTING COMMS
- RETAINING WALL LOCATION

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

AMENDMENTS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	GB	DATE	17-Jul
DRAWN	GB		17-Jul
CHECKED	IB		17-Sep
SURVEY			

SCALE HORIZ. AS SHOWN VERT.
DATUM AHD
GRID SYSTEM PCG
JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
INTERSECTION DETAILS
SHEET 5 OF 8

PLAN No E2-17-305 REV E

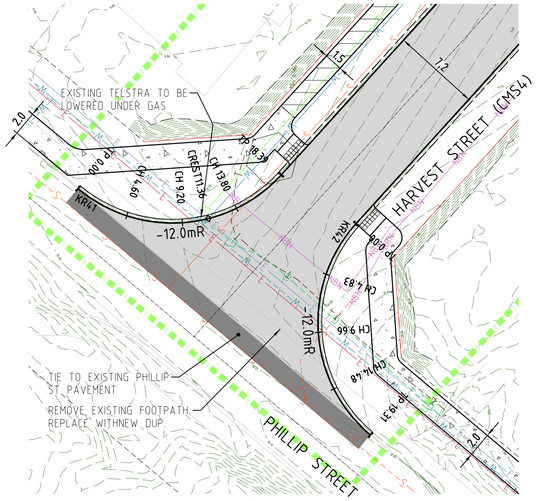
PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES
S.ASMUS DATE

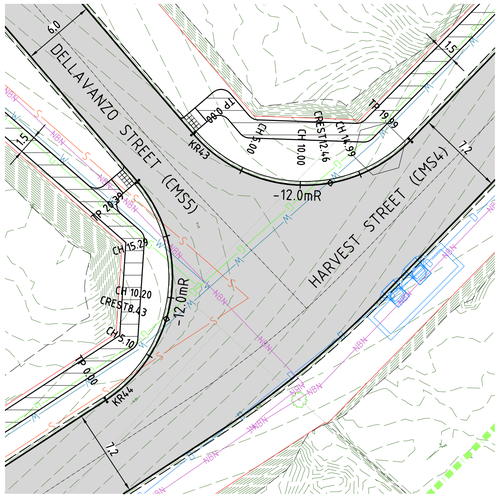
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

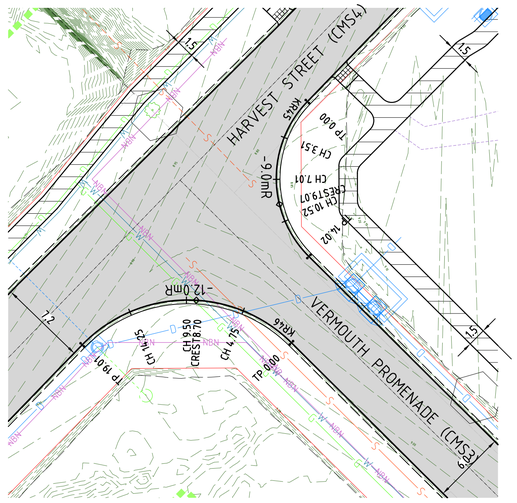
1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.
7. REFER TO ELECTRICAL/COMMS DRAWINGS FOR FURTHER RELOCATION DETAILS.



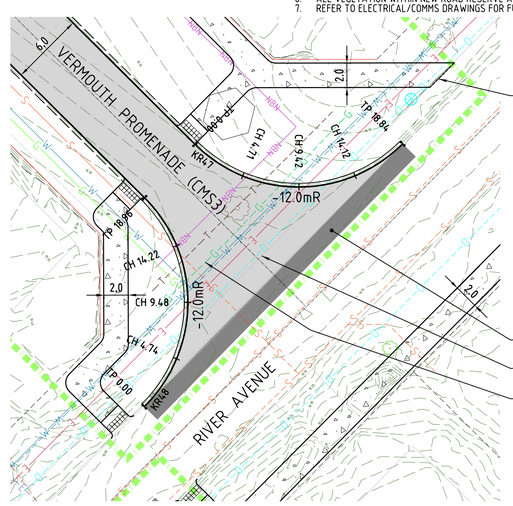
PLAN
1:500



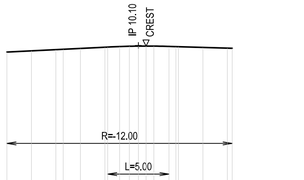
PLAN
1:500



PLAN
1:500



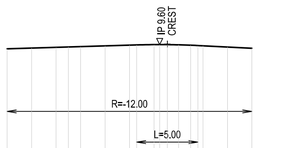
PLAN
1:500



HORIZONTAL CURVES
VERTICAL CURVES
GRADIENT
DATUM RL 7.0

GUTTER LEVEL	9.99	10.01	10.03	10.04	10.05	10.07	10.07	10.08	10.09	10.09	10.09	10.08	10.08	10.08	10.07	10.05	10.05
CHAINAGE	0.00	2.00	4.00	4.60	6.00	8.00	8.23	9.20	10.00	10.73	11.36	12.00	13.23	13.80	14.00	16.00	18.00	18.39

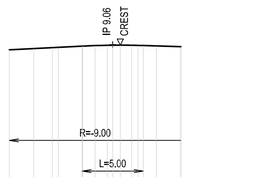
KR41 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



HORIZONTAL CURVES
VERTICAL CURVES
GRADIENT
DATUM RL 7.0

GUTTER LEVEL	9.52	9.53	9.55	9.55	9.56	9.56	9.57	9.58	9.59	9.59	9.59	9.59	9.58	9.58	9.57	9.55	9.53
CHAINAGE	0.00	2.00	4.00	5.00	6.00	8.00	8.00	10.00	10.58	12.00	12.46	13.08	14.00	14.99	15.58	16.00	18.00	19.99

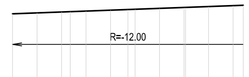
KR43 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



HORIZONTAL CURVES
VERTICAL CURVES
GRADIENT
DATUM RL 6.0

GUTTER LEVEL	8.98	9.00	9.01	9.02	9.04	9.04	9.05	9.05	9.05	9.05	9.05	9.05	9.05	9.04	9.03	9.03
CHAINAGE	0.00	2.00	3.51	4.00	5.84	6.00	7.01	8.00	8.44	9.07	10.00	10.52	10.94	12.00	14.00	14.02

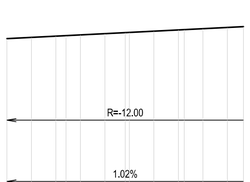
KR45 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



HORIZONTAL CURVES
VERTICAL CURVES
GRADIENT
DATUM RL 8.0

GUTTER LEVEL	10.00	10.02	10.03	10.04	10.06	10.07	10.07	10.09	10.10	10.10	10.12	10.13	10.14
CHAINAGE	0.00	2.00	4.00	4.71	6.00	8.00	8.42	10.00	12.00	14.00	14.12	16.00	18.84

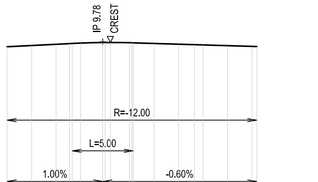
KR47 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



HORIZONTAL CURVES
VERTICAL CURVES
GRADIENT
DATUM RL 7.0

GUTTER LEVEL	9.83	9.85	9.87	9.88	9.89	9.91	9.93	9.93	9.95	9.97	9.98	9.99	10.01	10.03
CHAINAGE	0.00	2.00	4.00	4.83	6.00	8.00	9.66	10.00	12.00	14.00	14.48	16.00	18.00	19.31

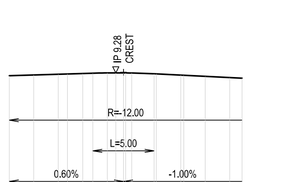
KR42 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



HORIZONTAL CURVES
VERTICAL CURVES
GRADIENT
DATUM RL 7.0

GUTTER LEVEL	9.70	9.72	9.74	9.75	9.75	9.76	9.77	9.77	9.76	9.76	9.76	9.75	9.74	9.73	9.73	9.72	9.70	9.70
CHAINAGE	0.00	2.00	4.00	5.10	5.31	6.00	7.81	8.00	8.43	10.00	10.20	10.31	12.00	14.00	15.29	16.00	18.00	20.00	20.39

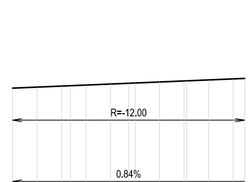
KR44 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



HORIZONTAL CURVES
VERTICAL CURVES
GRADIENT
DATUM RL 7.0

GUTTER LEVEL	9.23	9.24	9.25	9.25	9.26	9.27	9.27	9.27	9.27	9.27	9.27	9.26	9.26	9.24	9.23	9.22	9.20	9.19
CHAINAGE	0.00	2.00	4.00	4.75	6.00	6.82	8.00	8.70	9.32	9.50	10.00	11.82	12.00	14.00	14.25	16.00	18.00	19.01

KR46 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



HORIZONTAL CURVES
VERTICAL CURVES
GRADIENT
DATUM RL 8.0

GUTTER LEVEL	10.02	10.04	10.06	10.06	10.07	10.09	10.10	10.11	10.12	10.14	10.14	10.16	10.17	10.18
CHAINAGE	0.00	2.00	4.00	4.74	6.00	8.00	9.48	10.00	12.00	14.00	14.22	16.00	18.00	18.96

KR48 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- CONTOURS
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING REDSTONE" WITH "LIMESTONE" HEADER REINFORCED 100mm THICK WITH HERRINGBONE PATTERN
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP. AND PRAM RAMP (COG TYPE 2)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- PROPOSED ROAD RESERVE BOUNDARY
- PRIORITY STAGE BOUNDARY
- EXISTING DRAINAGE
- DRAINAGE TO BE REMOMED
- EXISTING SEWERAGE
- EXISTING WATER
- EXISTING GAS
- EXISTING POWER
- EXISTING COMMS
- RETAINING WALL LOCATION

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC
ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS
TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	GB	17-Jul
DRAWN	GB	17-Jul
CHECKED	IB	17-Sep
SURVEY		

SCALE: HORIZ. AS SHOWN VERT.
DATUM: AHD
GRID SYSTEM: PCG
JOB NUMBER:

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
INTERSECTION DETAILS
SHEET 6 OF 8

PLAN No E2-17-306 REV E

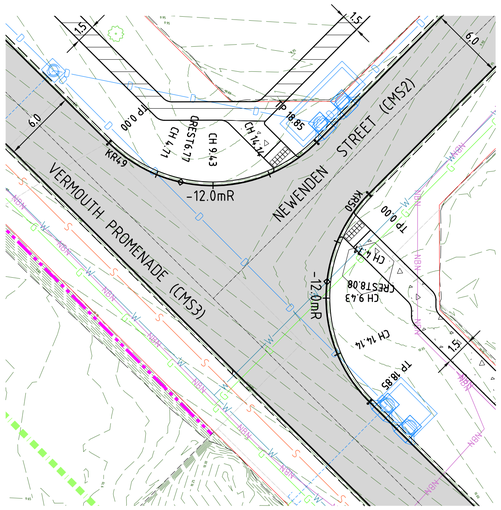
PRELIMINARY ONLY | A1

CHEIF ENGINEER TECHNICAL SERVICES
S.ASMUS DATE

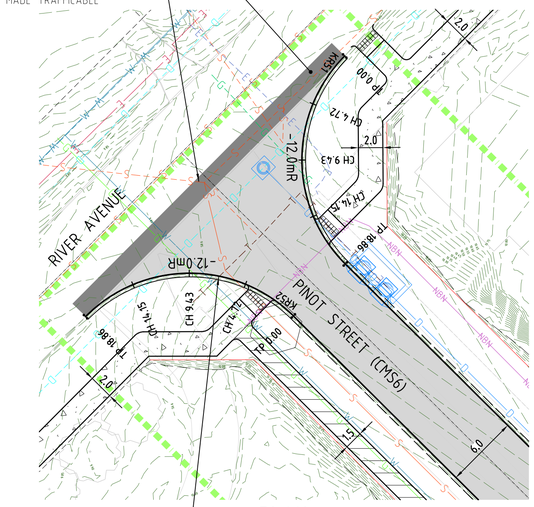
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

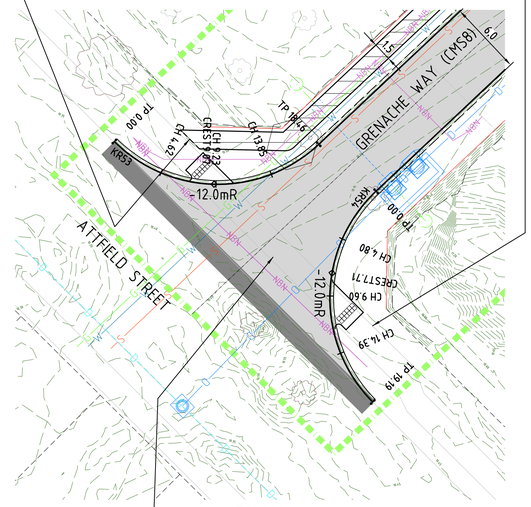
1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.
7. REFER TO ELECTRICAL/COMMS DRAWINGS FOR FURTHER RELOCATION DETAILS.



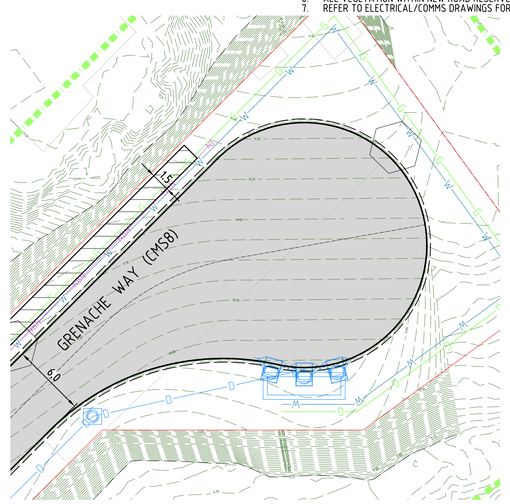
PLAN
1:500



PLAN
1:500

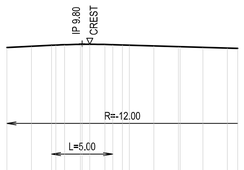


PLAN
1:500



PLAN
1:500



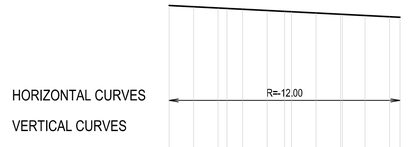


HORIZONTAL CURVES
VERTICAL CURVES
GRADIENT

DATUM RL 7.0

GUTTER LEVEL	9.74	9.76	9.78	9.78	9.78	9.79	9.79	9.79	9.79	9.78	9.78	9.77	9.75	9.74	9.73	9.72
CHAINAGE	0.00	2.00	3.64	4.00	4.71	6.00	6.14	6.77	8.00	8.64	9.43	10.00	12.00	14.00	16.00	18.85

KR49 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

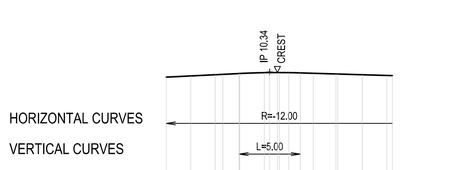


HORIZONTAL CURVES
VERTICAL CURVES
GRADIENT

DATUM RL 7.0

GUTTER LEVEL	10.05	10.03	10.01	10.00	9.99	9.97	9.95	9.95	9.93	9.91	9.90	9.89	9.87	9.86
CHAINAGE	0.00	2.00	4.00	4.72	6.00	8.00	9.43	10.00	12.00	14.00	14.15	16.00	18.00	18.86

KR51 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

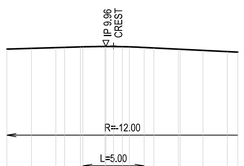


HORIZONTAL CURVES
VERTICAL CURVES
GRADIENT

DATUM RL 8.0

GUTTER LEVEL	10.26	10.28	10.30	10.30	10.31	10.32	10.33	10.33	10.33	10.33	10.32	10.31	10.29	10.28	10.28
CHAINAGE	0.00	2.00	4.00	4.62	5.95	6.00	8.00	8.45	9.07	9.23	10.00	10.95	12.00	13.85	16.00	18.00	18.46

KR53 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

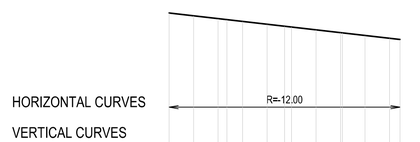


HORIZONTAL CURVES
VERTICAL CURVES
GRADIENT

DATUM RL 7.0

GUTTER LEVEL	9.90	9.92	9.93	9.93	9.94	9.94	9.95	9.95	9.94	9.94	9.93	9.92	9.90	9.90	9.88	9.86	9.86
CHAINAGE	0.00	2.00	4.00	4.71	6.00	6.21	8.00	8.08	8.71	9.43	10.00	11.21	12.00	14.00	16.00	18.00	18.85

KR50 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

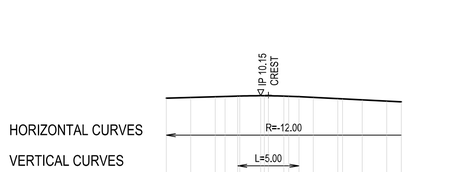


HORIZONTAL CURVES
VERTICAL CURVES
GRADIENT

DATUM RL 7.0

GUTTER LEVEL	10.04	9.99	9.95	9.93	9.90	9.85	9.82	9.81	9.76	9.72	9.71	9.67	9.62	9.60
CHAINAGE	0.00	2.00	4.00	4.72	6.00	8.00	9.43	10.00	12.00	14.00	14.15	16.00	18.00	18.86

KR52 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50



HORIZONTAL CURVES
VERTICAL CURVES
GRADIENT

DATUM RL 8.0

GUTTER LEVEL	10.10	10.12	10.13	10.13	10.14	10.14	10.14	10.14	10.14	10.14	10.13	10.12	10.10	10.09	10.08	10.06	10.04
CHAINAGE	0.00	2.00	4.00	4.80	5.84	6.00	7.71	8.00	8.34	9.60	10.00	10.84	12.00	14.00	14.39	16.00	18.00	19.19

KR54 - KERB RETURN PROFILE
SCALE: HORIZONTAL - 1:250
VERTICAL - 1:50

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- CONTOURS
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING REDSTONE" WITH "LIMESTONE" HEADER REINFORCED 100mm THICK WITH HERRINGBONE PATTERN
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP AND PRAM RAMP (COG TYPE 2)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- PROPOSED ROAD RESERVE BOUNDARY
- PRIORITY STAGE BOUNDARY
- EXISTING DRAINAGE
- DRAINAGE TO BE REMOMED
- EXISTING SEWERAGE
- EXISTING WATER
- EXISTING GAS
- EXISTING POWER
- EXISTING COMMS
- RETAINING WALL LOCATION

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	17-Jul	HORIZ. AS SHOWN VERT.
DRAWN		DATUM
GB	17-Jul	AHD
CHECKED		GRID SYSTEM
IB	17-Sep	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
INTERSECTION DETAILS
SHEET 7 OF 8

PLAN No E2-17-307 REV E

PRELIMINARY ONLY | A1

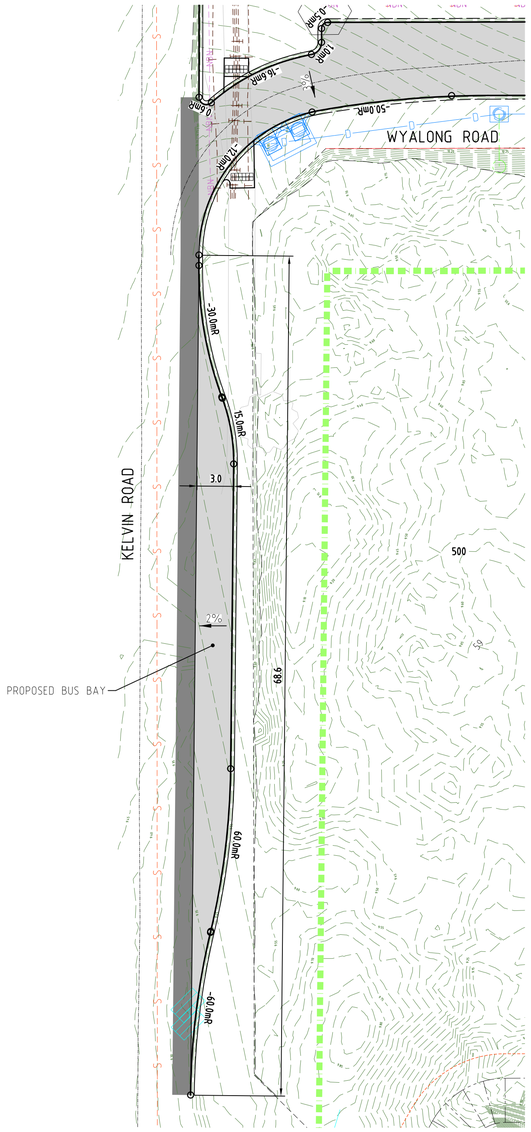
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

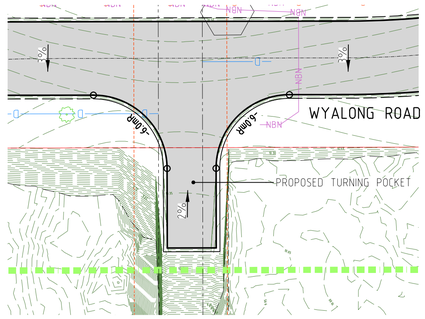
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.
7. REFER TO ELECTRICAL/COMMS DRAWINGS FOR FURTHER RELOCATION DETAILS.



PLAN
1:500



PLAN
1:500

LEGEND

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI-MOUNTABLE KERB
- ROAD CENTRELINE
- CONTOURS
- PROPOSED ASPHALT
- PROPOSED ASPHALT TIE-IN TO EXISTING
- PROPOSED MEDIAN PAVING - FAUX PAVING REDSTONE" WITH "LIMESTONE" HEADER REINFORCED 100mm THICK WITH HERRINGBONE PATTERN
- PROPOSED 1.5m FOOTPATH AND PRAM RAMP (COG TYPE 2)
- PROPOSED 2.0m DUP. AND PRAM RAMP (COG TYPE 2)
- PROPOSED STREET LIGHT AND POLES
- PROPOSED TREES
- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- PROPOSED ROAD RESERVE BOUNDARY
- PRIORITY STAGE BOUNDARY
- EXISTING DRAINAGE
- DRAINAGE TO BE REMOMED
- EXISTING SEWERAGE
- EXISTING WATER
- EXISTING GAS
- EXISTING POWER
- EXISTING COMMS
- RETAINING WALL LOCATION

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
C	31.01.18	FINAL 100%	GB	AM	IB
B	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
A	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	18-Jan	HORIZ. AS SHOWN VERT.
DRAWN		DATUM
GB	18-Jul	AHD
CHECKED		GRID SYSTEM
IB	18-Sep	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
INTERSECTION DETAILS
SHEET 8 OF 8

PLAN No E2-17-308 REV C

PRELIMINARY ONLY | A1

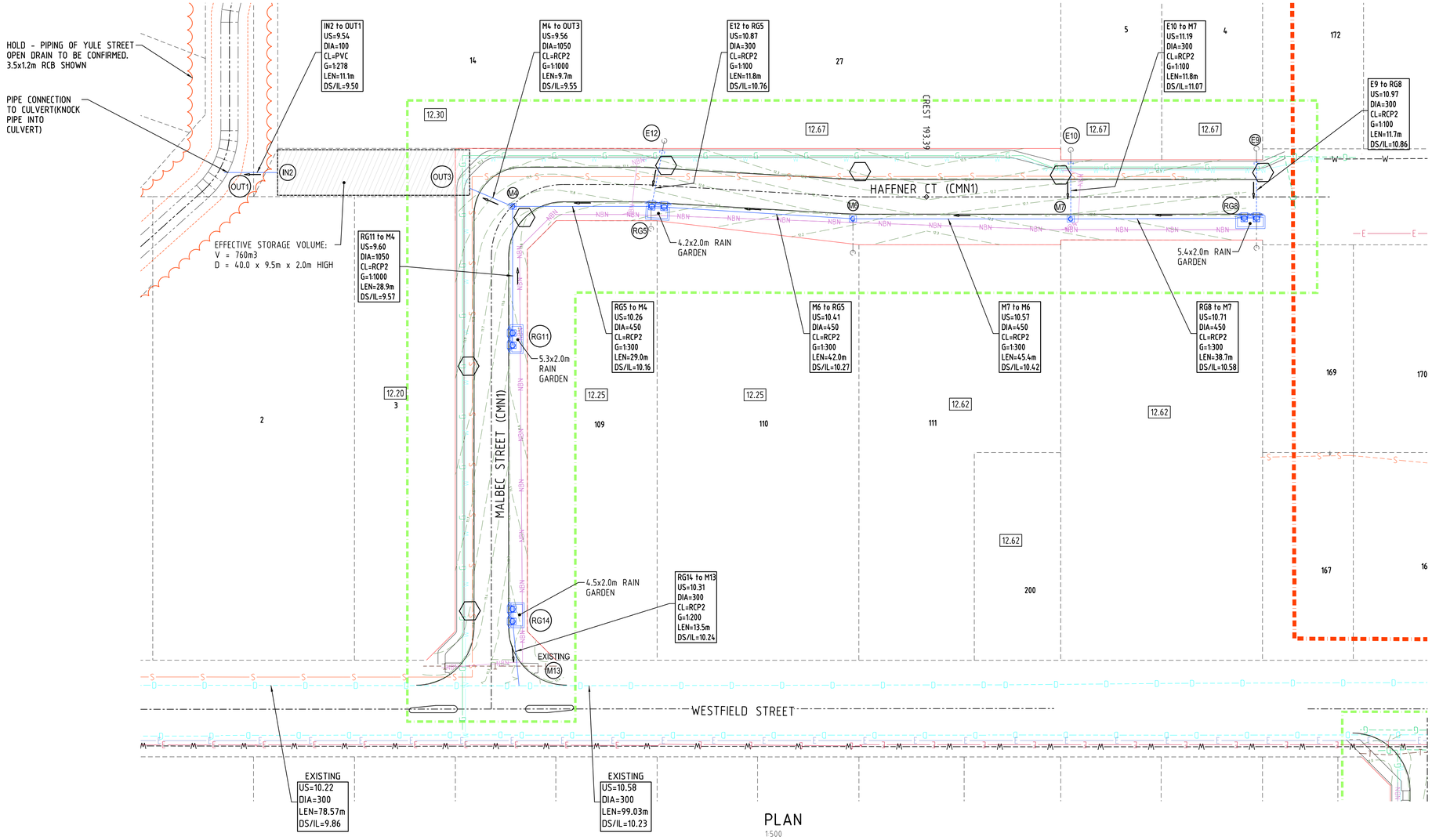
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. RAINGARDEN LOCATIONS INDICATIVE ONLY AND NOT TO SCALE. REFER TO DRAWING E2-17-800 FOR RAINGARDEN SIZES AND DETAILS.
7. ALL STORMWATER PIPES TO BE RC CLASS 4 RRJ U.O.N.
8. MINIMUM COVER TO DRAINAGE PIPES TO BE 400mm. CLEARANCE TO OTHER SERVICES TO BE 150mm.
9. THE DRAINAGE DRAWINGS SHALL BE READ IN CONJUNCTION WITH COG STANDARD DRAWINGS.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.
11. PROPERTY CONNECTION PIT LOCATIONS ARE INDICATIVE ONLY.



PLAN
1:500

1:500 0 5m 10 15 20 25 30 35 40 45 50 55 60 65 70 75

PIT DESCRIPTION
M = MANHOLE
E = ENDCAP
RG = RAIN GARDEN
RGS = RAIN GARDEN SAG LOCATION
T = TANK
IN = INTAKE
OUT = OUTFALL

LEGEND:

- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- FUTURE CULVERT
- EXISTING DRAINAGE
- EXISTING DRAINAGE PITS
- EXISTING SEWERAGE
- EXISTING WATER
- PROPOSED ROAD
- ROAD CENTRELINE
- PROPOSED FOOTPATH AND PRAM RAMP
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS S
- PROPOSED ROAD RESERVE BOUNDARY
- PROPOSED DRAINAGE EASEMENT
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- 12.47 PROPOSED PAD LEVEL
- RETAINING WALL LOCATION
- CONTOURS
- PROPOSED STREET LIGHT AND POLES
- INDICATIVE POS FOOTPATH (BY OTHERS)

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.	
DRAWN GB	17-Jul	DATUM AHD	
CHECKED IB	17-Jul	GRID SYSTEM PCG	
SURVEY		JOB NUMBER	

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
DRAINAGE PLAN
SHEET 1 OF 12
MALBEC STREET

PLAN No E2-17-401 REV E

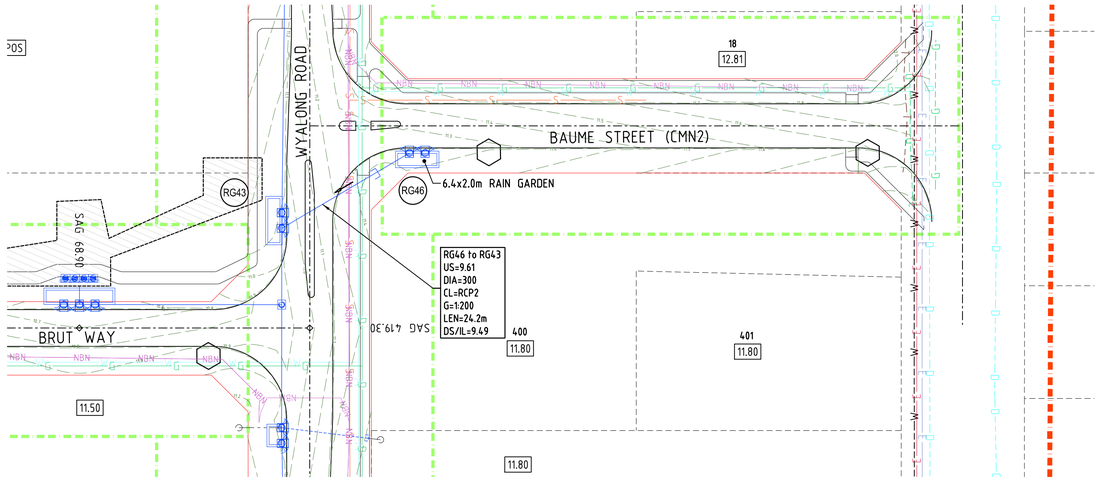
PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES
S.ASMUS DATE

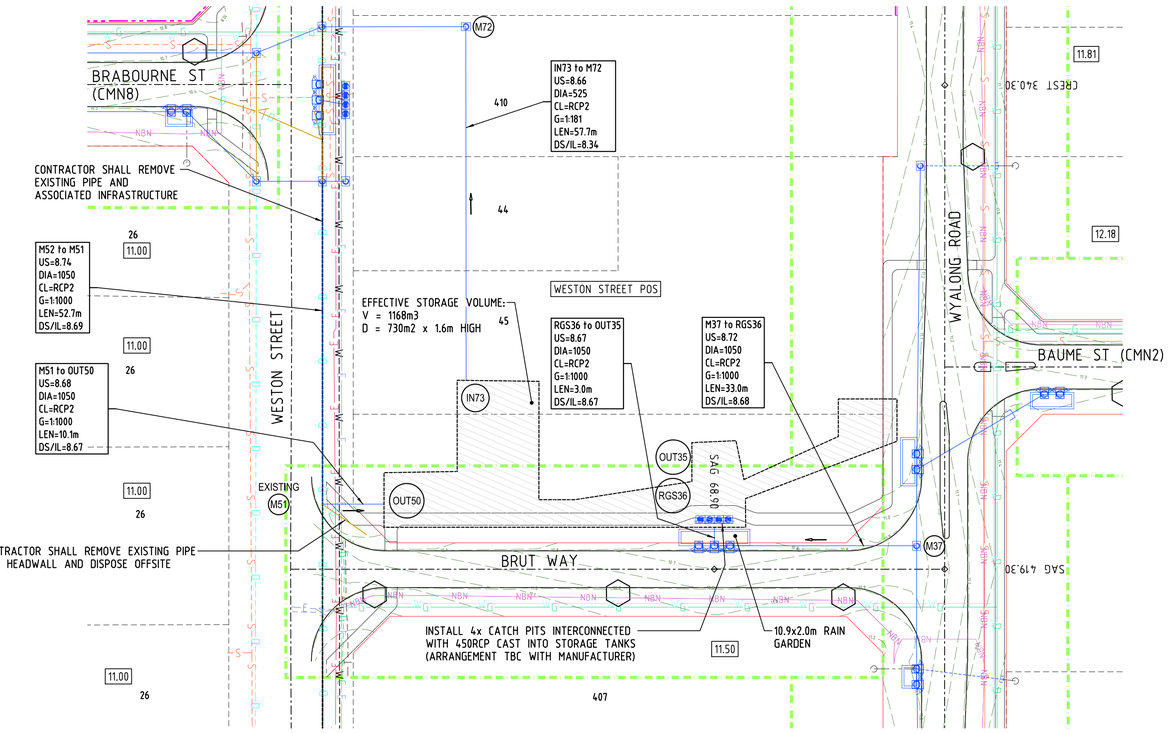
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. RAINGARDEN LOCATIONS INDICATIVE ONLY AND NOT TO SCALE. REFER TO DRAWING E2-17-800 FOR RAINGARDEN SIZES AND DETAILS.
7. ALL STORMWATER PIPES TO BE RC CLASS 4 RRJ U.O.N.
8. MINIMUM COVER TO DRAINAGE PIPES TO BE 400mm. CLEARANCE TO OTHER SERVICES TO BE 150mm.
9. THE DRAINAGE DRAWINGS SHALL BE READ IN CONJUNCTION WITH COG STANDARD DRAWINGS.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.
11. PROPERTY CONNECTION PIT LOCATIONS ARE INDICATIVE ONLY.



PLAN
1:500



PLAN
1:500

1:500
0 5m 10 15 20 25 30 35 40 45 50 55 60 65 70 75

PIT DESCRIPTION:
M : MANHOLE
E : ENDCAP
RG : RAIN GARDEN
RGS : RAIN GARDEN SAG LOCATION
T : TANK
IN : INTAKE
OUT : OUTFALL

LEGEND:

- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- FUTURE CULVERT
- EXISTING DRAINAGE
- EXISTING DRAINAGE PITS
- EXISTING SEWERAGE
- EXISTING WATER
- PROPOSED ROAD
- ROAD CENTRELINE
- PROPOSED FOOTPATH AND PRAM RAMP
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- CULVERT TO BE CONSTRUCTED IN FUTURE WOR
- PROPOSED ROAD RESERVE BOUNDARY
- PROPOSED DRAINAGE EASEMENT
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- 12.47 PROPOSED PAD LEVEL
- RETAINING WALL LOCATION
- CONTOURS
- PROPOSED STREET LIGHT AND POLES
- INDICATIVE POS FOOTPATH (BY OTHERS)

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.	
DRAWN GB	17-Jul	DATUM AHD	
CHECKED	17-Jul	GRID SYSTEM PCG	
SURVEY		JOB NUMBER	

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

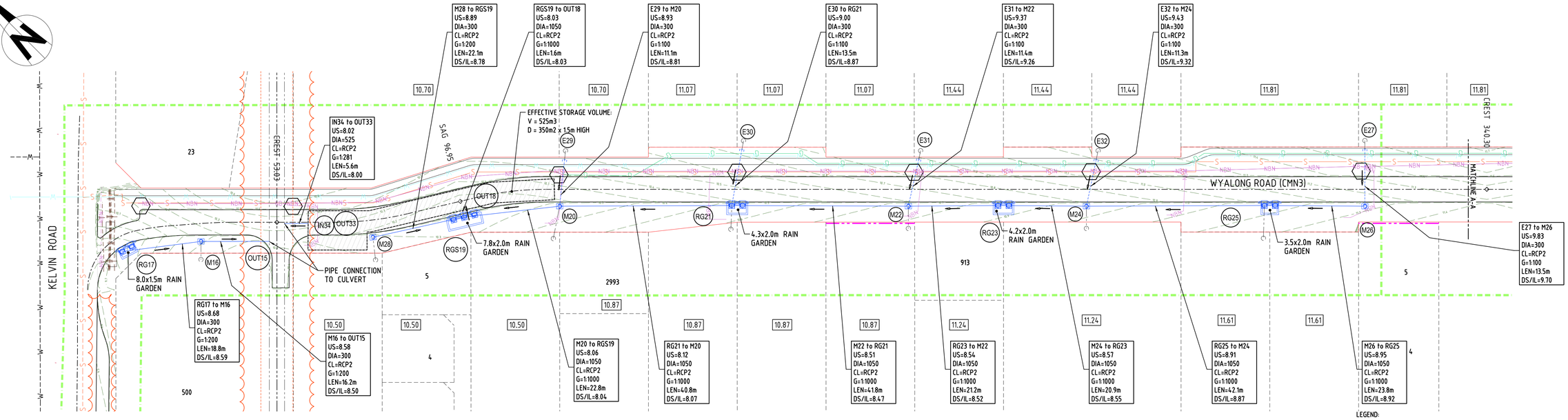
DRAWING TITLE
DRAINAGE PLAN
SHEET 2 OF 12
BAUME STREET AND BRUT WAY

PLAN No E2-17-402 REV E

PRELIMINARY ONLY | A1

CHEIF ENGINEER TECHNICAL SERVICES
S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



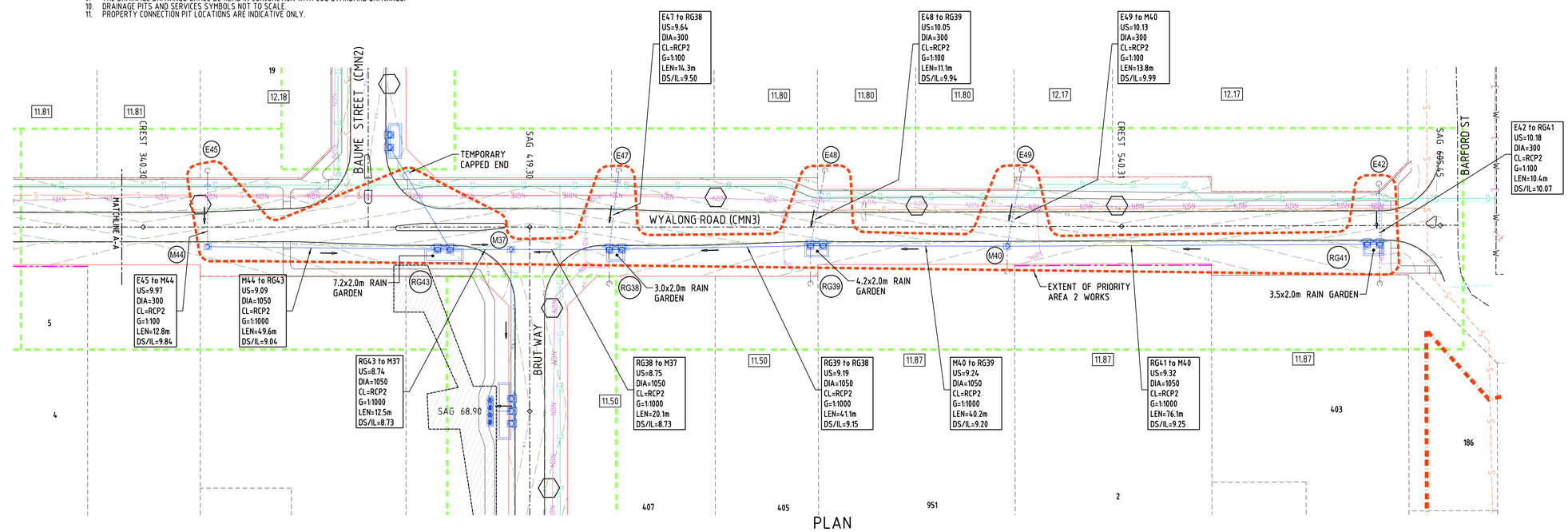
PLAN
1:500

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. RAINGARDEN LOCATIONS INDICATIVE ONLY AND NOT TO SCALE. REFER TO DRAWING E2-17-800 FOR RAINGARDEN SIZES AND DETAILS.
7. ALL STORMWATER PIPES TO BE RC CLASS 4 RRJ U.O.N.
8. MINIMUM COVER TO DRAINAGE PIPES TO BE 400mm. CLEARANCE TO OTHER SERVICES TO BE 150mm.
9. THE DRAINAGE DRAWINGS SHALL BE READ IN CONJUNCTION WITH COG STANDARD DRAWINGS.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.
11. PROPERTY CONNECTION PIT LOCATIONS ARE INDICATIVE ONLY.

PIT DESCRIPTION:

M	: MANHOLE
E	: ENDCAP
RG	: RAIN GARDEN
RGS	: RAIN GARDEN SAG LOCATION
T	: TANK
IN	: INTAKE
OUT	: OUTFALL



PLAN
1:500

1:500 0 5m 10 15 20 25 30 35 40 45 50 55 60 65 70 75

LEGEND:

- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- FUTURE CULVERT
- EXISTING DRAINAGE
- EXISTING DRAINAGE PITS
- EXISTING SEWERAGE
- EXISTING WATER
- PROPOSED ROAD
- ROAD CENTRELINE
- PROPOSED FOOTPATH AND PRAM RAMP
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS SHO
- PROPOSED ROAD RESERVE BOUNDARY
- PROPOSED DRAINAGE EASEMENT
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- 12.47 PROPOSED PAD LEVEL
- RETAINING WALL LOCATION
- CONTOURS
- PROPOSED STREET LIGHT AND POLES
- INDICATIVE POS FOOTPATH (BY OTHERS)

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Jul	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
DRAINAGE PLAN
SHEET 3 OF 12
WYLONG ROAD

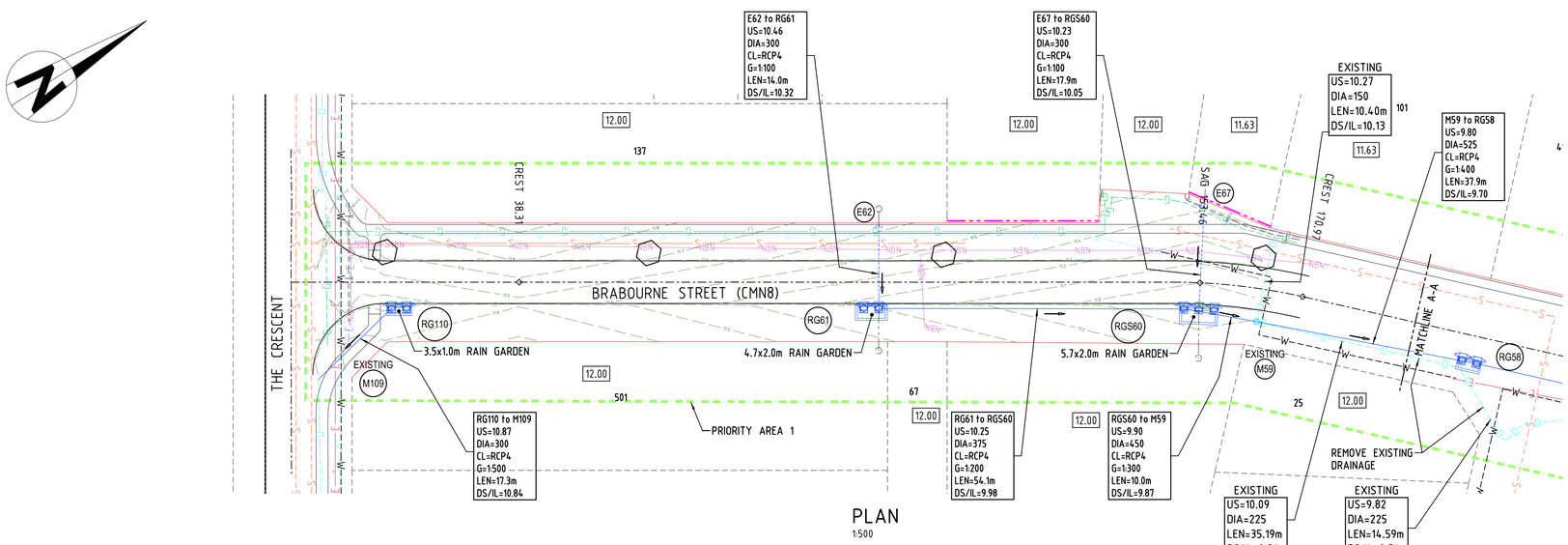
PLAN No E2-17-403 REV E

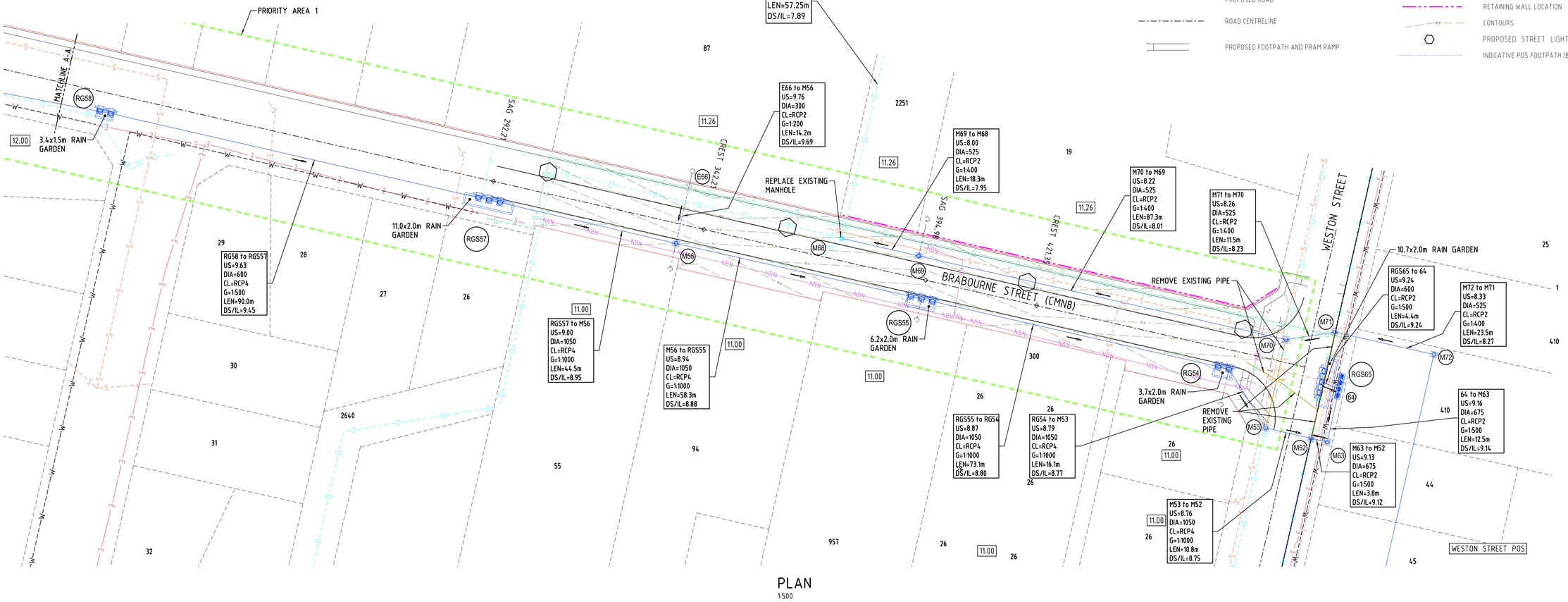
PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021





1:500 0 5m 10 15 20 25 30 35 40 45 50 55 60 65 70 75

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. RAINGARDEN LOCATIONS INDICATIVE ONLY AND NOT TO SCALE. REFER TO DRAWING E2-17-800 FOR RAINGARDEN SIZES AND DETAILS.
7. ALL STORMWATER PIPES TO BE RC CLASS 4 RRJ U.O.N.
8. MINIMUM COVER TO DRAINAGE PIPES TO BE 400mm. CLEARANCE TO OTHER SERVICES TO BE 150mm.
9. THE DRAINAGE DRAWINGS SHALL BE READ IN CONJUNCTION WITH COG STANDARD DRAWINGS.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.
11. PROPERTY CONNECTION PIT LOCATIONS ARE INDICATIVE ONLY.

PIT DESCRIPTION:

M	= MANHOLE
E	= ENDCAP
RG	= RAIN GARDEN
RGS	= RAIN GARDEN SAG LOCATION
T	= TANK
IN	= INTAKE
OUT	= OUTFALL

LEGEND:

- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- FUTURE CULVERT
- EXISTING DRAINAGE
- EXISTING DRAINAGE PITS
- EXISTING SEWERAGE
- EXISTING WATER
- PROPOSED ROAD
- ROAD CENTRELINE
- PROPOSED FOOTPATH AND PRAM RAMP
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS S
- PROPOSED ROAD RESERVE BOUNDARY
- PROPOSED DRAINAGE EASEMENT
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- 12.47 PROPOSED PAD LEVEL
- RETAINING WALL LOCATION
- CONTOURS
- PROPOSED STREET LIGHT AND POLES
- INDICATIVE POS FOOTPATH (BY OTHERS)

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	GB	17-Jul
DRAWN	GB	17-Jul
CHECKED	IB	17-Jul
SURVEY		

SCALE HORIZ. AS SHOWN VERT.
DATUM AHD
GRID SYSTEM PCG
JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
DRAINAGE PLAN
SHEET 4 OF 12
BRABOURNE STREET

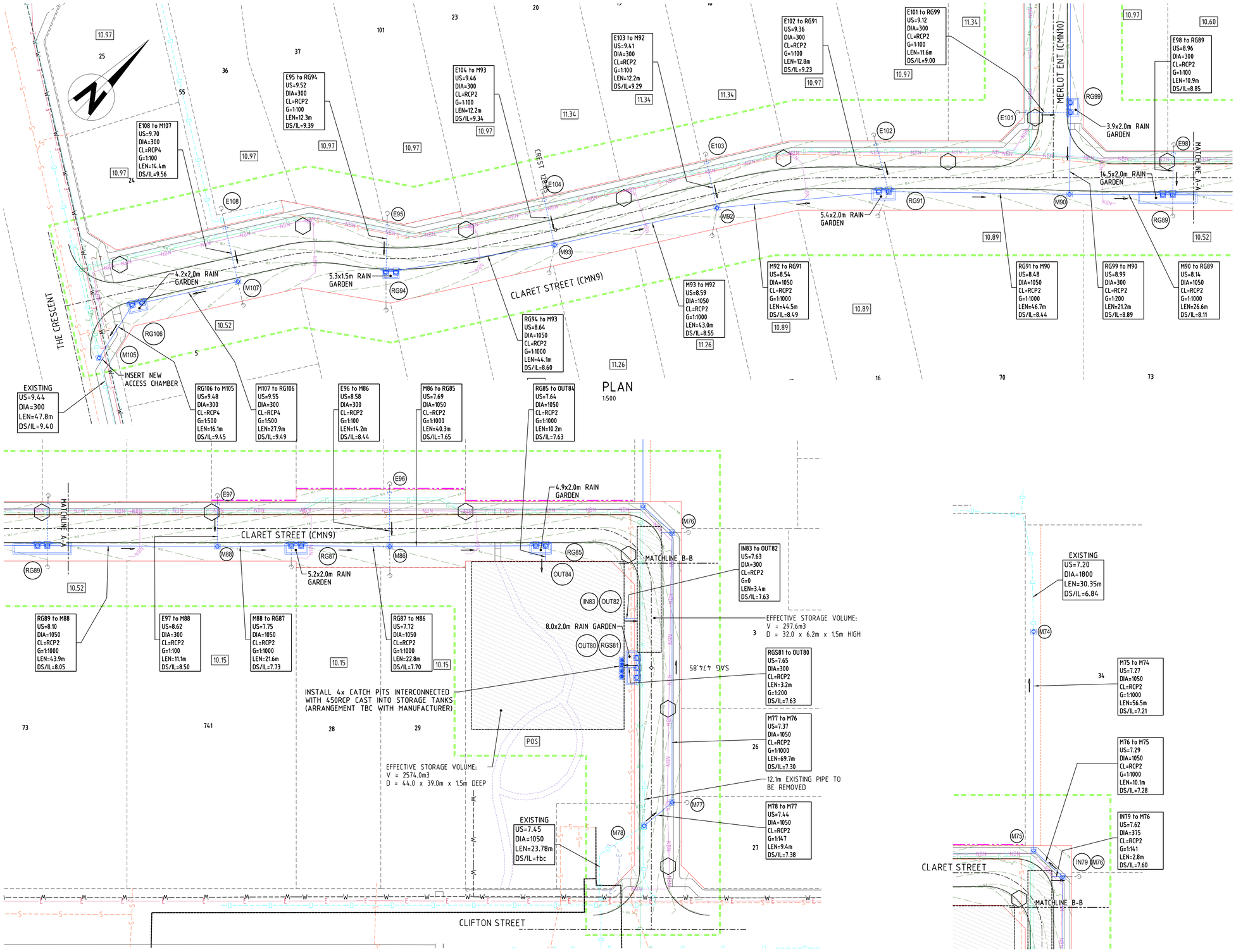
PLAN No E2-17-404 REV E

PRELIMINARY ONLY | A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. RAINGARDEN LOCATIONS INDICATIVE ONLY AND NOT TO SCALE. REFER TO DRAWING E2-17-800 FOR RAINGARDEN SIZES AND DETAILS.
7. ALL STORMWATER PIPES TO BE RC CLASS 4 RRJ U.O.N.
8. MINIMUM COVER TO DRAINAGE PIPES TO BE 400mm. CLEARANCE TO OTHER SERVICES TO BE 150mm.
9. THE DRAINAGE DRAWINGS SHALL BE READ IN CONJUNCTION WITH COG STANDARD DRAWINGS.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.
11. PROPERTY CONNECTION PIT LOCATIONS ARE INDICATIVE ONLY.

PIT DESCRIPTION:

M	= MANHOLE
E	= ENDCAP
RG	= RAIN GARDEN
RGS	= RAIN GARDEN SAG LOCATION
T	= TANK
IN	= INTAKE
OUT	= OUTFALL

LEGEND:

- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- FUTURE CULVERT
- EXISTING DRAINAGE
- EXISTING DRAINAGE PITS
- EXISTING SEWERAGE
- EXISTING WATER
- PROPOSED ROAD
- ROAD CENTRELINE
- PROPOSED FOOTPATH AND PRAM RAMP
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS SHO
- PROPOSED ROAD RESERVE BOUNDARY
- PROPOSED DRAINAGE EASEMENT
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- 12.47 PROPOSED PAD LEVEL
- RETAINING WALL LOCATION
- CONTOURS
- PROPOSED STREET LIGHT AND POLES
- INDICATIVE POS FOOTPATH (BY OTHERS)

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	17-Jul	HORIZ. AS SHOWN VERT.
DRAWN		DATUM
GB	17-Jul	AHD
CHECKED		GRID SYSTEM
IB	17-Jul	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
DRAINAGE PLAN
SHEET 5 OF 12
CLARET STREET

PLAN No E2-17-405 REV E

PRELIMINARY ONLY | A1

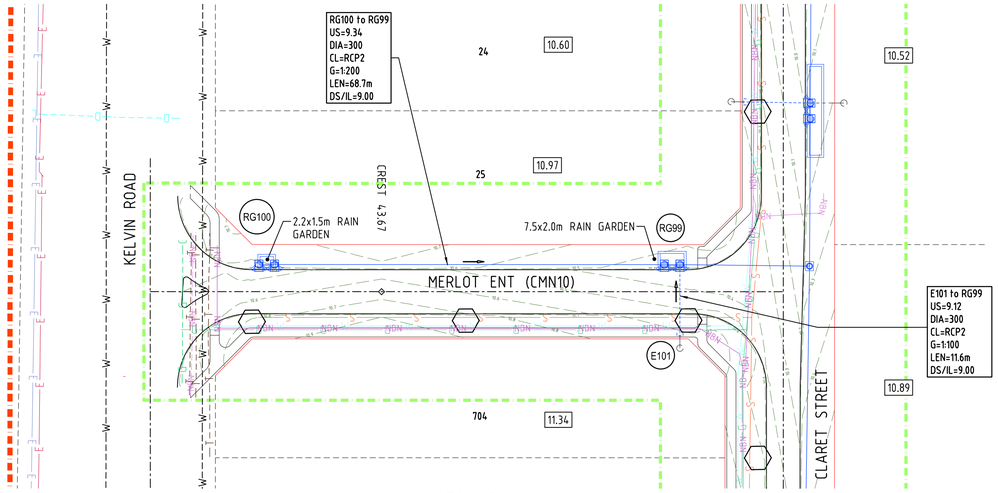
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. RAINGARDEN LOCATIONS INDICATIVE ONLY AND NOT TO SCALE. REFER TO DRAWING E2-17-800 FOR RAINGARDEN SIZES AND DETAILS.
7. ALL STORMWATER PIPES TO BE RC CLASS 4 RRJ U.O.N.
8. MINIMUM COVER TO DRAINAGE PIPES TO BE 400mm. CLEARANCE TO OTHER SERVICES TO BE 150mm.
9. THE DRAINAGE DRAWINGS SHALL BE READ IN CONJUNCTION WITH COG STANDARD DRAWINGS.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.
11. PROPERTY CONNECTION PIT LOCATIONS ARE INDICATIVE ONLY.



PLAN
1:500

PIT DESCRIPTION:
M : MANHOLE
E : ENDCAP
RG : RAIN GARDEN
RGS : RAIN GARDEN SAG LOCATION
T : TANK
IN : INTAKE
OUT : OUTFALL

LEGEND:

- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- FUTURE CULVERT
- EXISTING DRAINAGE
- EXISTING DRAINAGE PITS
- EXISTING SEWERAGE
- EXISTING WATER
- PROPOSED ROAD
- ROAD CENTRELINE
- PROPOSED FOOTPATH AND PRAM RAMP
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS *
- PROPOSED ROAD RESERVE BOUNDARY
- PROPOSED DRAINAGE EASEMENT
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- 12.47 PROPOSED PAD LEVEL
- RETAINING WALL LOCATION
- CONTOURS
- PROPOSED STREET LIGHT AND POLES
- INDICATIVE POS FOOTPATH (BY OTHERS)

1:500 0 5m 10 15 20 25 30 35 40 45 50 55 60 65 70 75

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Jul	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
DRAINAGE PLAN
SHEET 6 OF 12
MERLOT STREET

PLAN No E2-17-406 REV E

PRELIMINARY ONLY A1

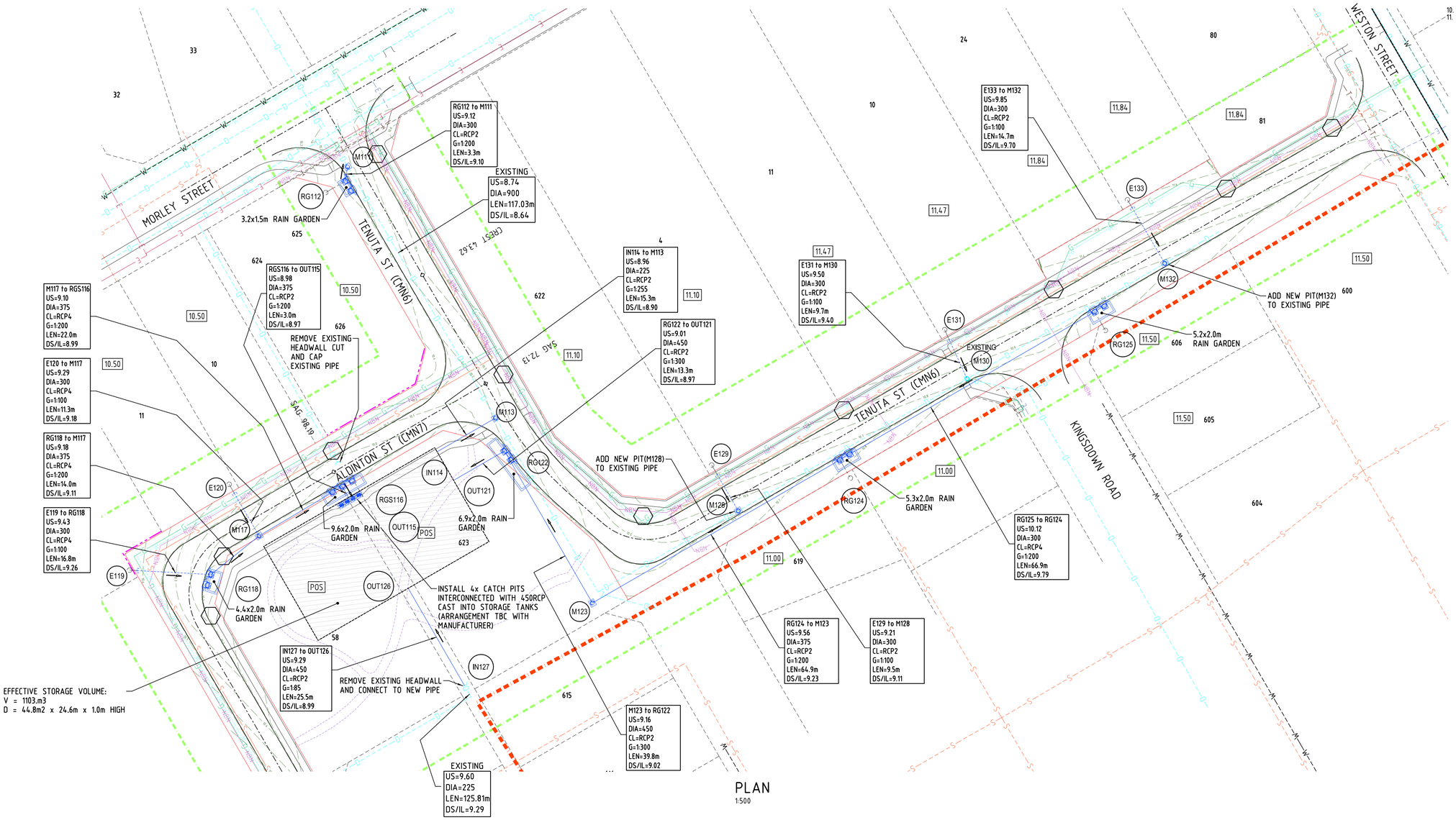
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. RAINGARDEN LOCATIONS INDICATIVE ONLY AND NOT TO SCALE. REFER TO DRAWING E2-17-800 FOR RAINGARDEN SIZES AND DETAILS.
7. ALL STORMWATER PIPES TO BE RC CLASS 4 RRJ U.O.N.
8. MINIMUM COVER TO DRAINAGE PIPES TO BE 400mm. CLEARANCE TO OTHER SERVICES TO BE 150mm
9. THE DRAINAGE DRAWINGS SHALL BE READ IN CONJUNCTION WITH COG STANDARD DRAWINGS.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.
11. PROPERTY CONNECTION PIT LOCATIONS ARE INDICATIVE ONLY.



PLAN
1:500

1:500 0 5m 10 15 20 25 30 35 40 45 50 55 60 65 70 75

PIT DESCRIPTION:
M = MANHOLE
E = ENDCAP
RG = RAIN GARDEN
RGS = RAIN GARDEN SAG LOCATION
T = TANK
IN = INTAKE
OUT = OUTFALL

LEGEND:

- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- FUTURE CULVERT
- EXISTING DRAINAGE
- EXISTING DRAINAGE PITS
- EXISTING SEWERAGE
- EXISTING WATER
- PROPOSED ROAD
- ROAD CENTRELINE
- PROPOSED FOOTPATH AND PRAM RAMP
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- CULVERT TO BE CONSTRUCTED IN FUTURE WORK
- PROPOSED ROAD RESERVE BOUNDARY
- PROPOSED DRAINAGE EASEMENT
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- 12.47 PROPOSED PAD LEVEL
- RETAINING WALL LOCATION
- CONTOURS
- PROPOSED STREET LIGHT AND POLES
- INDICATIVE POS FOOTPATH (BY OTHERS)

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	17-Jul	HORIZ. AS SHOWN VERT.
DRAWN		DATUM
GB	17-Jul	AHD
CHECKED		GRID SYSTEM
IB	17-Jul	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
DRAINAGE PLAN
SHEET 7 OF 12
TENUTA & ALDINGTON STREET

PLAN No E2-17-407 REV E

PRELIMINARY ONLY A1

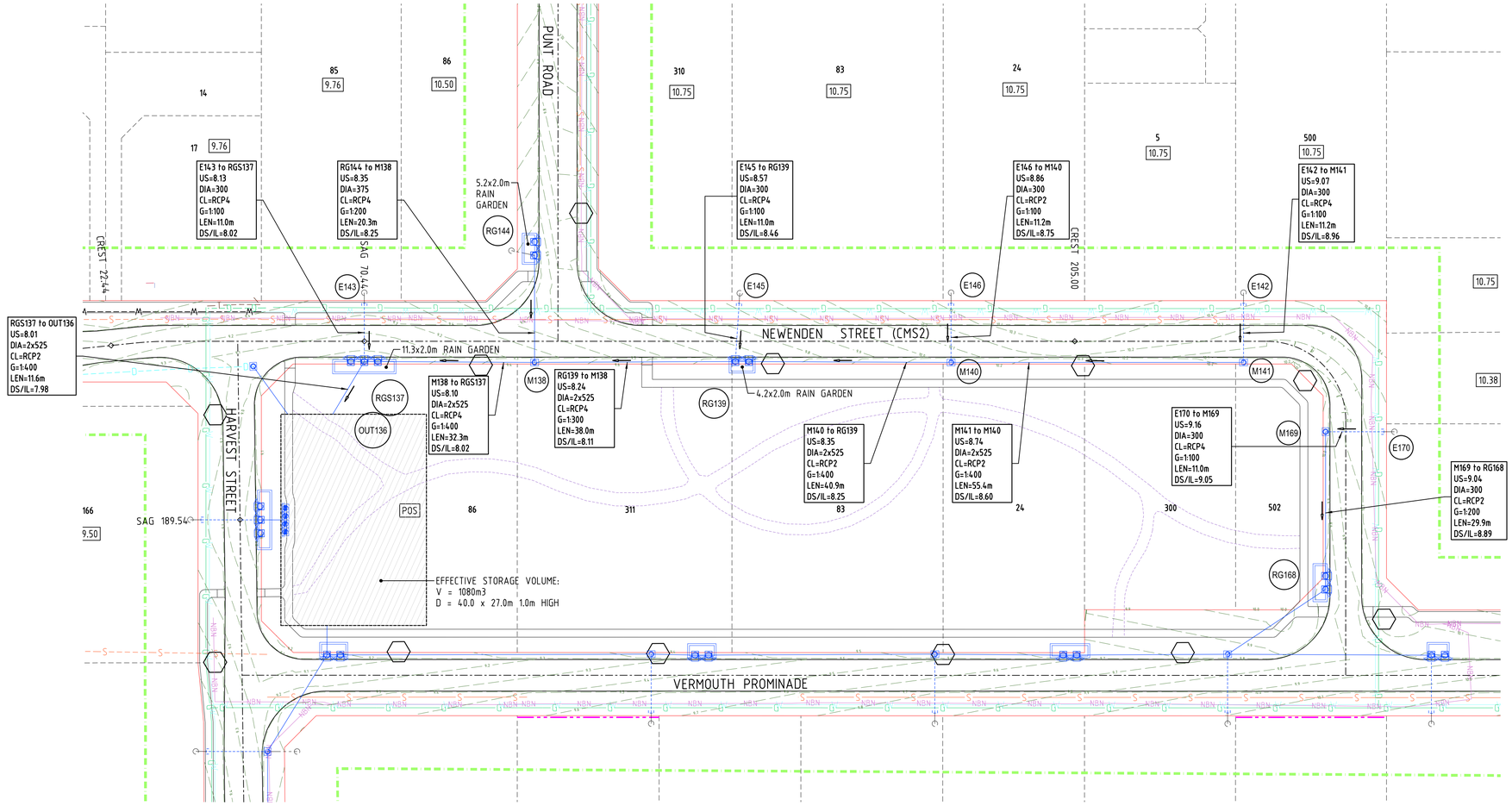
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. RAINGARDEN LOCATIONS INDICATIVE ONLY AND NOT TO SCALE. REFER TO DRAWING E2-17-800 FOR RAINGARDEN SIZES AND DETAILS.
7. ALL STORMWATER PIPES TO BE RC CLASS 4 RRJ U.O.N.
8. MINIMUM COVER TO DRAINAGE PIPES TO BE 400mm. CLEARANCE TO OTHER SERVICES TO BE 150mm.
9. THE DRAINAGE DRAWINGS SHALL BE READ IN CONJUNCTION WITH COG STANDARD DRAWINGS.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.
11. PROPERTY CONNECTION PIT LOCATIONS ARE INDICATIVE ONLY.



PLAN
1:500

1:500 0 5m 10 15 20 25 30 35 40 45 50 55 60 65 70 75

PIT DESCRIPTION
M = MANHOLE
E = ENDCAP
RG = RAIN GARDEN
RGS = RAIN GARDEN SAG LOCATION
T = TANK
IN = INTAKE
OUT = OUTFALL

LEGEND:

- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- FUTURE CULVERT
- EXISTING DRAINAGE
- EXISTING DRAINAGE PITS
- EXISTING SEWERAGE
- EXISTING WATER
- PROPOSED ROAD
- ROAD CENTRELINE
- PROPOSED FOOTPATH AND PRAM RAMP
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS *
- PROPOSED ROAD RESERVE BOUNDARY
- PROPOSED DRAINAGE EASEMENT
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- 12.47 PROPOSED PAD LEVEL
- RETAINING WALL LOCATION
- CONTOURS
- PROPOSED STREET LIGHT AND POLES
- INDICATIVE POS FOOTPATH (BY OTHERS)

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Jul	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
DRAINAGE PLAN
SHEET 8 OF 12
NEWENDEN STREET

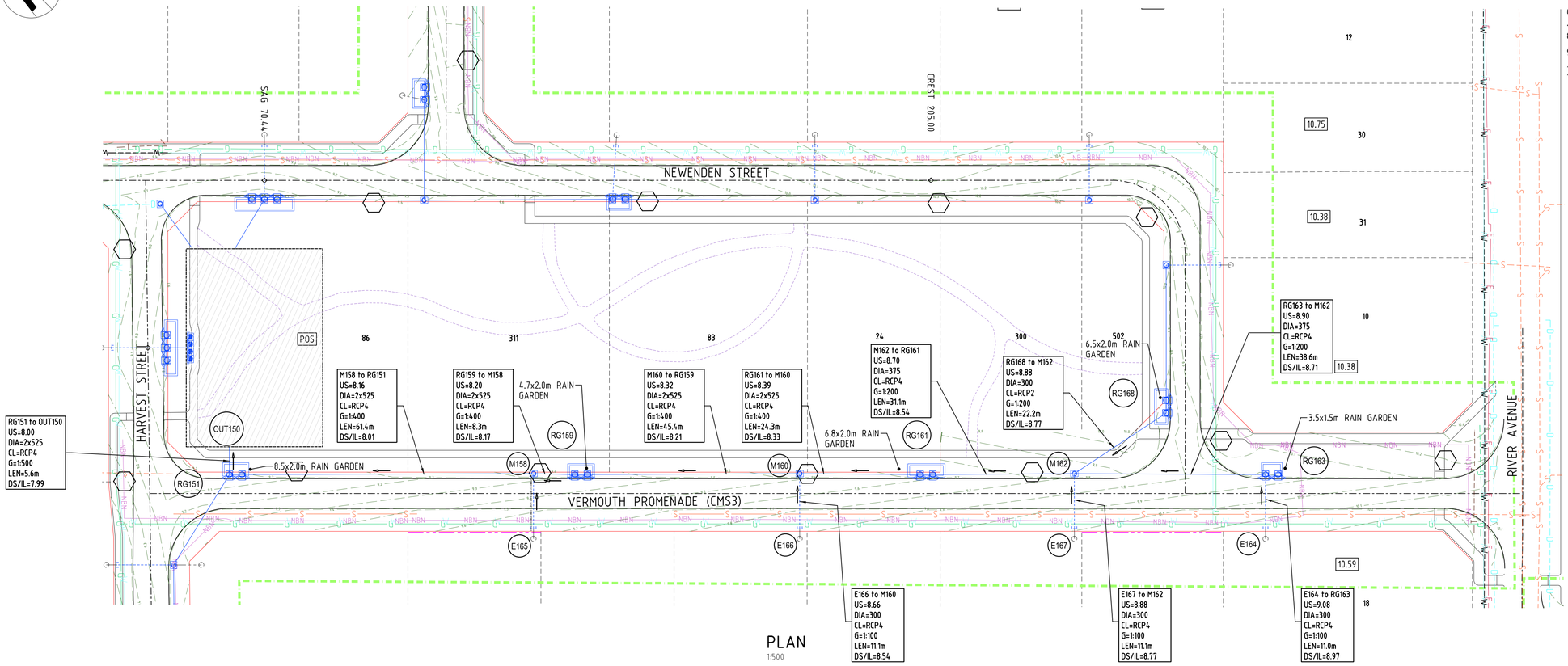
PLAN No E2-17-408 REV E

PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



PLAN
1:500

1:500
0 5m 10 15 20 25 30 35 40 45 50 55 60 65 70 75

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. RAINGARDEN LOCATIONS INDICATIVE ONLY AND NOT TO SCALE. REFER TO DRAWING E2-17-800 FOR RAINGARDEN SIZES AND DETAILS.
7. ALL STORMWATER PIPES TO BE RC CLASS 4 RRJ U.O.N.
8. MINIMUM COVER TO DRAINAGE PIPES TO BE 400mm. CLEARANCE TO OTHER SERVICES TO BE 150mm.
9. THE DRAINAGE DRAWINGS SHALL BE READ IN CONJUNCTION WITH COG STANDARD DRAWINGS.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.
11. PROPERTY CONNECTION PIT LOCATIONS ARE INDICATIVE ONLY.

PIT DESCRIPTION:
- M : MANHOLE
- E : ENDCAP
- RG : RAIN GARDEN
- RGS : RAIN GARDEN SAG LOCATION
- T : TANK
- IN : INTAKE
- OUT : OUTFALL

LEGEND:

- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- FUTURE CULVERT
- EXISTING DRAINAGE
- EXISTING DRAINAGE PITS
- EXISTING SEWERAGE
- EXISTING WATER
- PROPOSED ROAD
- ROAD CENTRELINE
- PROPOSED FOOTPATH AND PRAM RAMP
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS
- PROPOSED ROAD RESERVE BOUNDARY
- PROPOSED DRAINAGE EASEMENT
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- 12.47 PROPOSED PAD LEVEL
- RETAINING WALL LOCATION
- CONTOURS
- PROPOSED STREET LIGHT AND POLES
- INDICATIVE POS FOOTPATH (BY OTHERS)

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE HORIZ. AS SHOWN VERT.
DRAWN		DATUM AHD
CHECKED IB	17-Jul	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
SHEET 9 OF 12
VERMOUTH PROMENADE

PLAN No E2-17-409 REV E

PRELIMINARY ONLY | A1

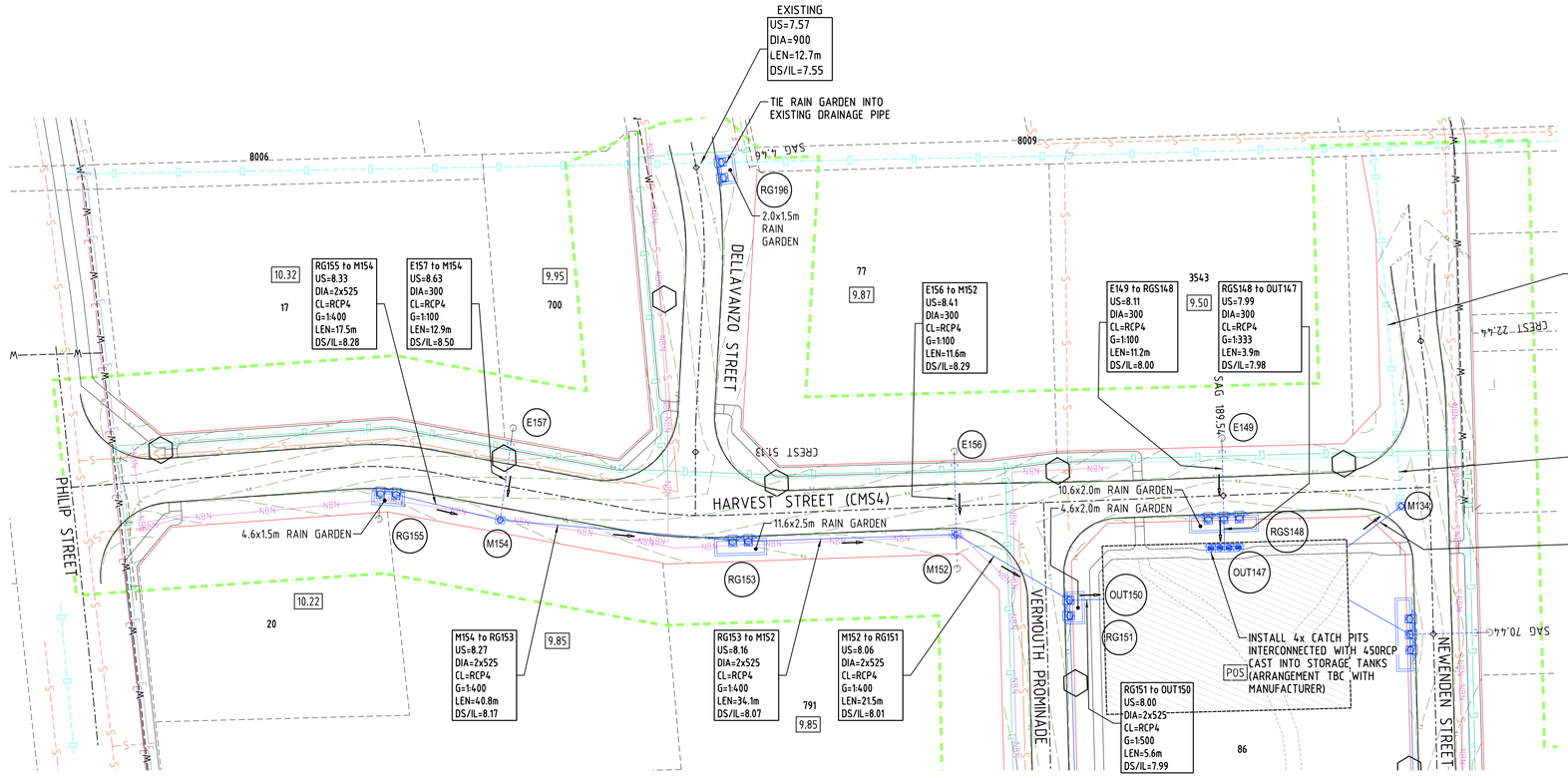
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. RAINGARDEN LOCATIONS INDICATIVE ONLY AND NOT TO SCALE. REFER TO DRAWING E2-17-800 FOR RAINGARDEN SIZES AND DETAILS.
7. ALL STORMWATER PIPES TO BE RC CLASS 4 RRJ U.O.N.
8. MINIMUM COVER TO DRAINAGE PIPES TO BE 400mm. CLEARANCE TO OTHER SERVICES TO BE 150mm.
9. THE DRAINAGE DRAWINGS SHALL BE READ IN CONJUNCTION WITH COG STANDARD DRAWINGS.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.
11. PROPERTY CONNECTION PIT LOCATIONS ARE INDICATIVE ONLY.



PLAN
1:500

PIT DESCRIPTION
M = MANHOLE
E = ENDCAP
RG = RAIN GARDEN
RGS = RAIN GARDEN SAG LOCATION
T = TANK
IN = INTAKE
OUT = OUTFALL

LEGEND:

- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- FUTURE CULVERT
- EXISTING DRAINAGE
- EXISTING DRAINAGE PITS
- EXISTING SEWERAGE
- EXISTING WATER
- PROPOSED ROAD
- ROAD CENTRELINE
- PROPOSED FOOTPATH AND PRAM RAMP
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS
- PROPOSED ROAD RESERVE BOUNDARY
- PROPOSED DRAINAGE EASEMENT
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- 12.47 PROPOSED PAD LEVEL
- RETAINING WALL LOCATION
- CONTOURS
- PROPOSED STREET LIGHT AND POLES
- INDICATIVE POS FOOTPATH (BY OTHERS)

1:500 0 5m 10 15 20 25 30 35 40 45 50 55 60 65 70 75

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC
ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS
TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Jul	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
DRAINAGE PLAN
SHEET 10 OF 12
HARVEST STREET

PLAN No E2-17-410 REV E

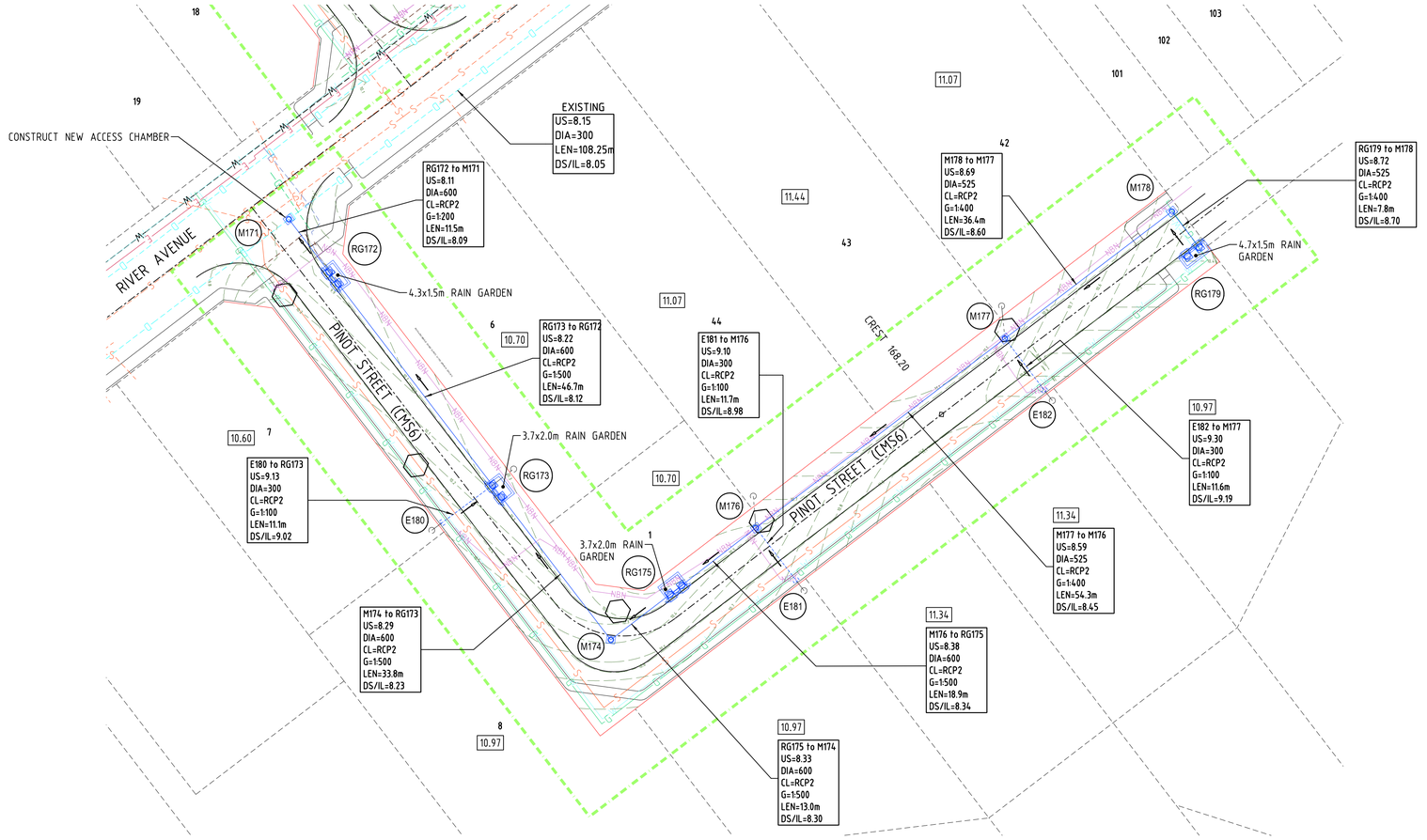
PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES
S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. RAINGARDEN LOCATIONS INDICATIVE ONLY AND NOT TO SCALE. REFER TO DRAWING E2-17-800 FOR RAINGARDEN SIZES AND DETAILS.
7. ALL STORMWATER PIPES TO BE RC CLASS 4 RRJ U.O.N.
8. MINIMUM COVER TO DRAINAGE PIPES TO BE 400mm. CLEARANCE TO OTHER SERVICES TO BE 150mm.
9. THE DRAINAGE DRAWINGS SHALL BE READ IN CONJUNCTION WITH COG STANDARD DRAWINGS.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.
11. PROPERTY CONNECTION PIT LOCATIONS ARE INDICATIVE ONLY.



PLAN
1:500

PIT DESCRIPTION
M : MANHOLE
E : ENDCAP
RG : RAIN GARDEN
RGS : RAIN GARDEN SAG LOCATION
T : TANK
IN : INTAKE
OUT : OUTFALL

LEGEND:

- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- FUTURE CULVERT
- EXISTING DRAINAGE
- EXISTING DRAINAGE PITS
- EXISTING SEWERAGE
- EXISTING WATER
- PROPOSED ROAD
- ROAD CENTRELINE
- PROPOSED FOOTPATH AND PRAM RAMP
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS
- PROPOSED ROAD RESERVE BOUNDARY
- PROPOSED DRAINAGE EASEMENT
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- 12.47 PROPOSED PAD LEVEL
- RETAINING WALL LOCATION
- CONTOURS
- PROPOSED STREET LIGHT AND POLES
- INDICATIVE POS FOOTPATH (BY OTHERS)

1:500 0 5m 10 15 20 25 30 35 40 45 50 55 60 65 70 75

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Jul	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
DRAINAGE PLAN
SHEET 11 OF 12
PINOT STREET

PLAN No E2-17-411 REV E

PRELIMINARY ONLY A1

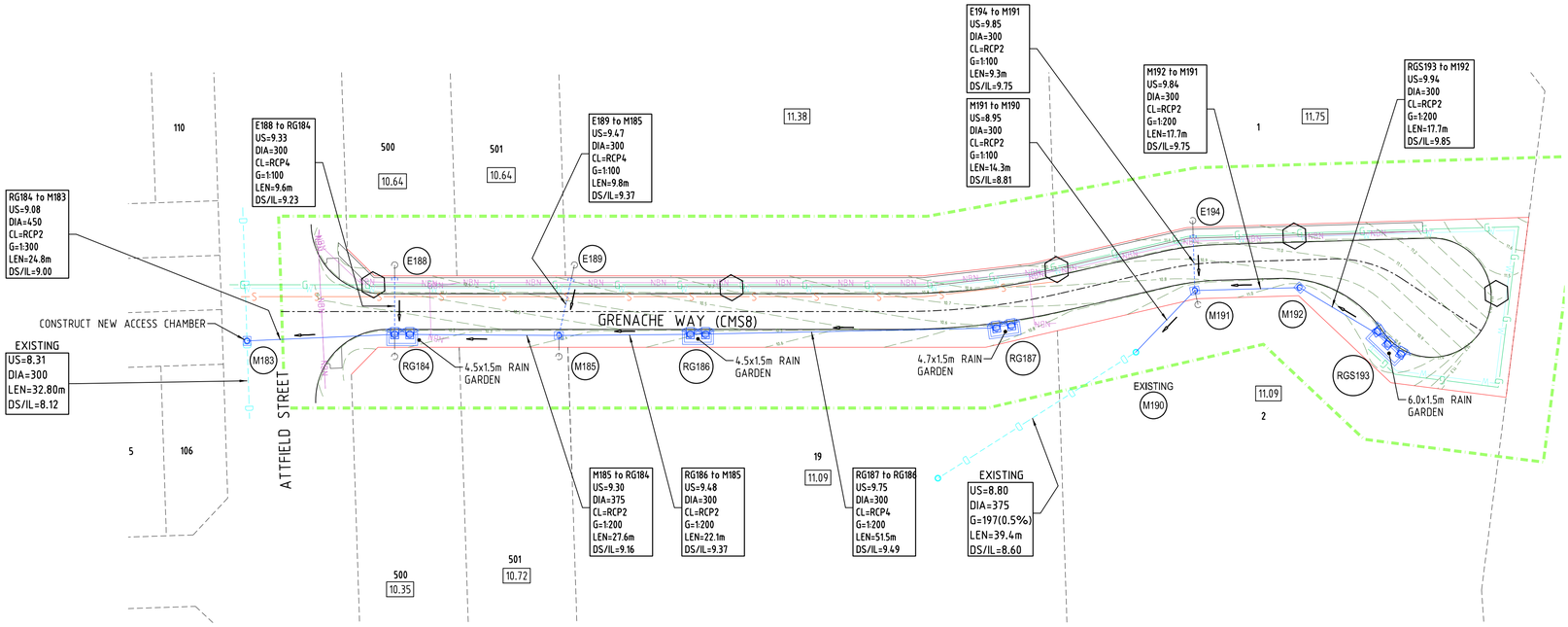
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.
6. RAINGARDEN LOCATIONS INDICATIVE ONLY AND NOT TO SCALE. REFER TO DRAWING E2-17-800 FOR RAINGARDEN SIZES AND DETAILS.
7. ALL STORMWATER PIPES TO BE RC CLASS 4 RRJ U.O.N.
8. MINIMUM COVER TO DRAINAGE PIPES TO BE 400mm. CLEARANCE TO OTHER SERVICES TO BE 150mm.
9. THE DRAINAGE DRAWINGS SHALL BE READ IN CONJUNCTION WITH COG STANDARD DRAWINGS.
10. DRAINAGE PITS AND SERVICES SYMBOLS NOT TO SCALE.
11. PROPERTY CONNECTION PIT LOCATIONS ARE INDICATIVE ONLY.



PLAN
1:500

1:500 0 5m 10 15 20 25 30 35 40 45 50 55 60 65 70 75

PIT DESCRIPTION:
M = MANHOLE
E = ENDCAP
RG = RAIN GARDEN
RGS = RAIN GARDEN SAG LOCATION
T = TANK
IN = INTAKE
OUT = OUTFALL

LEGEND:

- PROPOSED DRAINAGE
- PROPOSED HOUSE CROSSING WITH END CAP
- FUTURE HOUSE CONNECTION PIT
- PROPOSED RAIN GARDEN
- PROPOSED MANHOLE
- PROPOSED STORAGE TANK
- FUTURE CULVERT
- EXISTING DRAINAGE
- EXISTING DRAINAGE PITS
- EXISTING SEWERAGE
- EXISTING WATER
- PROPOSED ROAD
- ROAD CENTRELINE
- PROPOSED FOOTPATH AND PRAM RAMP
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED POWER HV
- PROPOSED POWER LV
- PROPOSED COMMS
- CULVERT TO BE CONSTRUCTED IN FUTURE WORKS SHOW
- PROPOSED ROAD RESERVE BOUNDARY
- PROPOSED DRAINAGE EASEMENT
- CMODP AGREEMENT BOUNDARY
- PRIORITY STAGE BOUNDARY
- 12.47 PROPOSED PAD LEVEL
- RETAINING WALL LOCATION
- CONTOURS
- PROPOSED STREET LIGHT AND POLES
- INDICATIVE POS FOOTPATH (BY OTHERS)

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
E	13.04.18	FINAL 100%	GB	AM	IB
D	27.02.18	STREET LIGHTING AND COMMS UPDATED	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE	HORIZ. AS SHOWN VERT.
GB	17-Jul		
DRAWN		DATUM	AHD
GB	17-Jul		
CHECKED		GRID SYSTEM	PCG
IB	17-Jul		
SURVEY		JOB NUMBER	

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

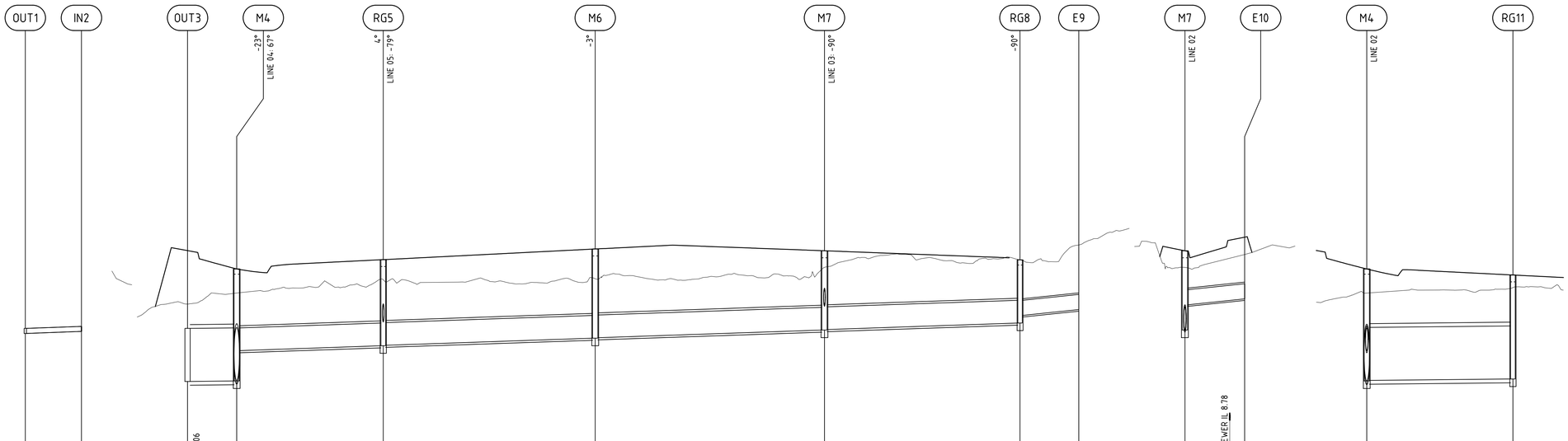
DRAWING TITLE
DRAINAGE PLAN
SHEET 12 OF 12
GRENACHE WAY

PLAN No E2-17-412 REV E

PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES
S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



LINE 01

DATUM RL		4.00
FINISHED SURFACE LEVEL	9.60	9.64
INVERT LEVEL	9.50	9.54
DEPTH TO INVERT	0.10	0.10
CHAINAGE	0.00	11.12
PIPE LENGTH		L=11.12
PIPE SIZE		Ø100
PIPE GRADE (%)		0.36%
PIPE GRADE (1 in)		1 in 278
PIPE TYPE		PVC
PIT TYPE	HW OUT	HW IN
PIT SETOUT	E 66544.61 N 253153.96	E 66552.47 N 253146.10

LINE 02

DATUM RL		5.00										
FINISHED SURFACE LEVEL	12.14		11.78	11.96		12.17		12.14		11.96		11.27
INVERT LEVEL	9.55	9.55	9.56	10.16	10.26	10.27	10.41	10.42	10.57	10.58	10.71	10.86	10.97
DEPTH TO INVERT	1.05		2.22	1.62	1.70	1.69	1.77	1.76	1.57	1.56	1.25	1.10	0.30
CHAINAGE	0.00	0.58	9.73	38.74		80.70		126.09		164.79		176.44	
PIPE LENGTH		L=9.73		L=29.01		L=41.96		L=45.38		L=38.70		L=11.65	
PIPE SIZE		Ø1050		Ø450		Ø450		Ø450		Ø450		Ø300	
PIPE GRADE (%)		0.1%		0.33%		0.33%		0.33%		0.33%		1%	
PIPE GRADE (1 in)		1 in 1000		1 in 300.3		1 in 300.3		1 in 300.3		1 in 300.3		1 in 100	
PIPE TYPE		RCP2		RCP2		RCP2		RCP2		RCP2		RCP2	
PIT TYPE	HW OUT	MH		1050SEP		MH		MH		1050SEP		END	
PIT SETOUT	E 66578.46 N 253115.53	E 66582.12 N 253106.51		E 66602.64 N 253086.00		E 66630.45 N 253054.58		E 66662.52 N 253022.47		E 66690.02 N 252995.24		E 66698.26 N 253003.48	

LINE 03

DATUM RL		5.00		
FINISHED SURFACE LEVEL	12.14		12.41	
INVERT LEVEL	10.57	11.07	11.15	11.19
DEPTH TO INVERT	1.57	1.07		0.30
CHAINAGE	0.00	8.88		11.83
PIPE LENGTH		L=11.83		
PIPE SIZE		Ø300		
PIPE GRADE (%)		1%		
PIPE GRADE (1 in)		1 in 100		
PIPE TYPE		RCP2		
PIT TYPE	MH	END		
PIT SETOUT	E 66662.52 N 253022.47	E 66670.88 N 253030.84		

LINE 04

DATUM RL		5.00	
FINISHED SURFACE LEVEL	11.78		11.66
INVERT LEVEL	9.56	9.57	9.60
DEPTH TO INVERT	2.22	2.21	2.06
CHAINAGE	0.00		28.93
PIPE LENGTH		L=28.93	
PIPE SIZE		Ø1050	
PIPE GRADE (%)		0.1%	
PIPE GRADE (1 in)		1 in 1000	
PIPE TYPE		RCP2	
PIT TYPE	MH	1050SEP	
PIT SETOUT	E 66582.12 N 253106.51	E 66561.67 N 253086.04	

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
C	13.04.18	FINAL 100%	GB	AM	IB
B	09.04.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
A	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	18-Jan	HORIZ. VERT. 1:50
DRAWN		DATUM
GB	18-Jan	AHD
CHECKED		GRID SYSTEM
IB	18-Jan	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
DRAINAGE LONGSECTIONS
SHEET 1 OF 19

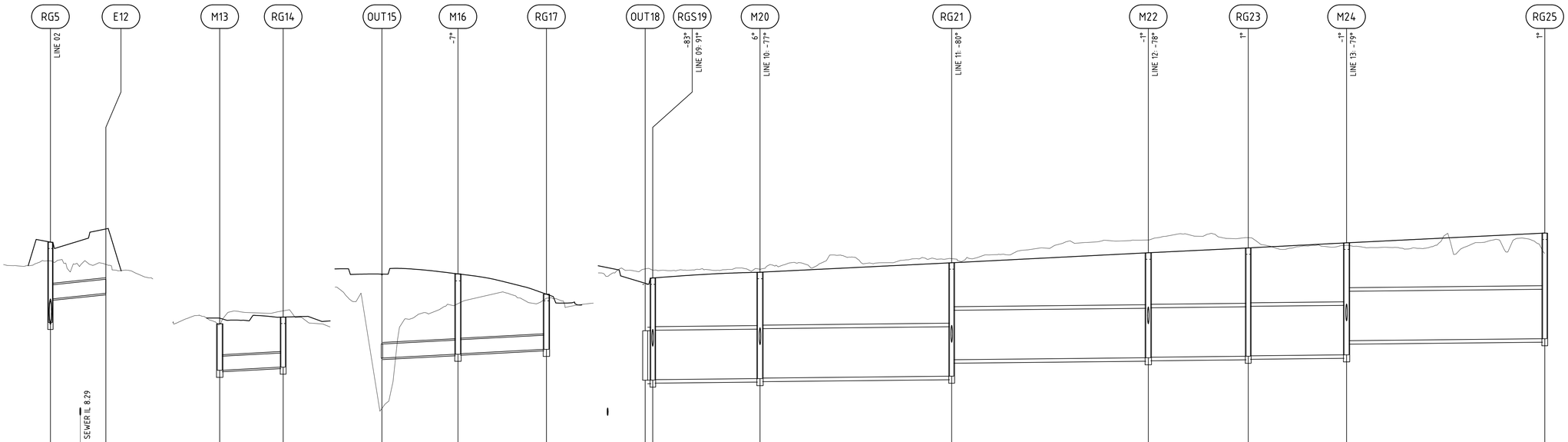
PLAN No E2-17-413 REV C

PRELIMINARY ONLY | A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



DATUM RL		5.00		6.00		4.00			4.00							
FINISHED SURFACE LEVEL	11.96		12.24	11.35	11.37	10.28	10.29	9.86	10.09	10.20	10.32	10.52	10.74	10.84	10.95	11.15
INVERT LEVEL	10.26	10.76	10.82	10.87	10.24	10.31	8.50	8.58	8.59	8.68	8.03	8.03	8.04	8.06	8.07	8.12	8.47	8.51	8.52	8.54	8.55	8.57	8.87	8.91
DEPTH TO INVERT	1.70	1.20		0.30	0.99	1.06	0.30	1.71	1.70	1.17	1.05	2.17	2.16	2.26	2.25	2.41	2.06	2.23	2.22	2.30	2.29	2.38	2.08	2.24
CHAINAGE	0.00	6.35		11.79	0.00	13.49	0.00	16.17		34.98	0.00	1.61	24.42		65.17		106.98		128.23		149.14		191.29	
PIPE LENGTH		L=11.79				L=13.49		L=16.17		L=18.81		L=1.61		L=22.81		L=40.76		L=41.81		L=21.25		L=20.91		L=42.15
PIPE SIZE		Ø300				Ø300		Ø300		Ø300		Ø1050		Ø1050		Ø1050		Ø1050		Ø1050		Ø1050		Ø1050
PIPE GRADE (%)		1%				0.5%		0.5%		0.5%		0.1%		0.1%		0.1%		0.1%		0.1%		0.1%		0.1%
PIPE GRADE (1 in)		1 in 100				1 in 200		1 in 200		1 in 200		1 in 1000		1 in 1000		1 in 1000		1 in 1000		1 in 1000		1 in 1000		1 in 1000
PIPE TYPE		RCP2				RCP2		RCP2		RCP2		RCP2		RCP2		RCP2		RCP2		RCP2		RCP2		RCP2
PIT TYPE	1050SEP		END		MH	1050SEP	HW OUT	MH		1050SEP	HW OUT	1050SEP SAG		MH		1050SEP		MH		1050SEP		MH		1050SEP
PIT SETOUT	E 66602.64 N 253086.00		E 66612.38 N 253092.64		E 66512.49 N 253034.91	E 66521.02 N 253045.36	E 66322.50 N 253050.03	E 66311.06 N 253061.46		E 66296.17 N 253072.96	E 66360.02 N 253022.87	E 66359.17 N 253021.50		E 66377.02 N 253007.30		E 66405.96 N 252978.60		E 66435.40 N 252948.92		E 66450.55 N 252934.02		E 66465.22 N 252919.11		E 66495.14 N 252889.44

LINE 05 LINE 06 LINE 07 LINE 08

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
C	13.04.18	FINAL 100%	GB	AM	IB
B	09.04.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
A	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	GB	DATE	18-Jan
DRAWN	GB		18-Jan
CHECKED	IB		18-Jan
SURVEY			

SCALE HORIZ.
VERT. 1:50

DATUM AHD

GRID SYSTEM PCG

JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
DRAINAGE LONGSECTIONS
SHEET 2 OF 19

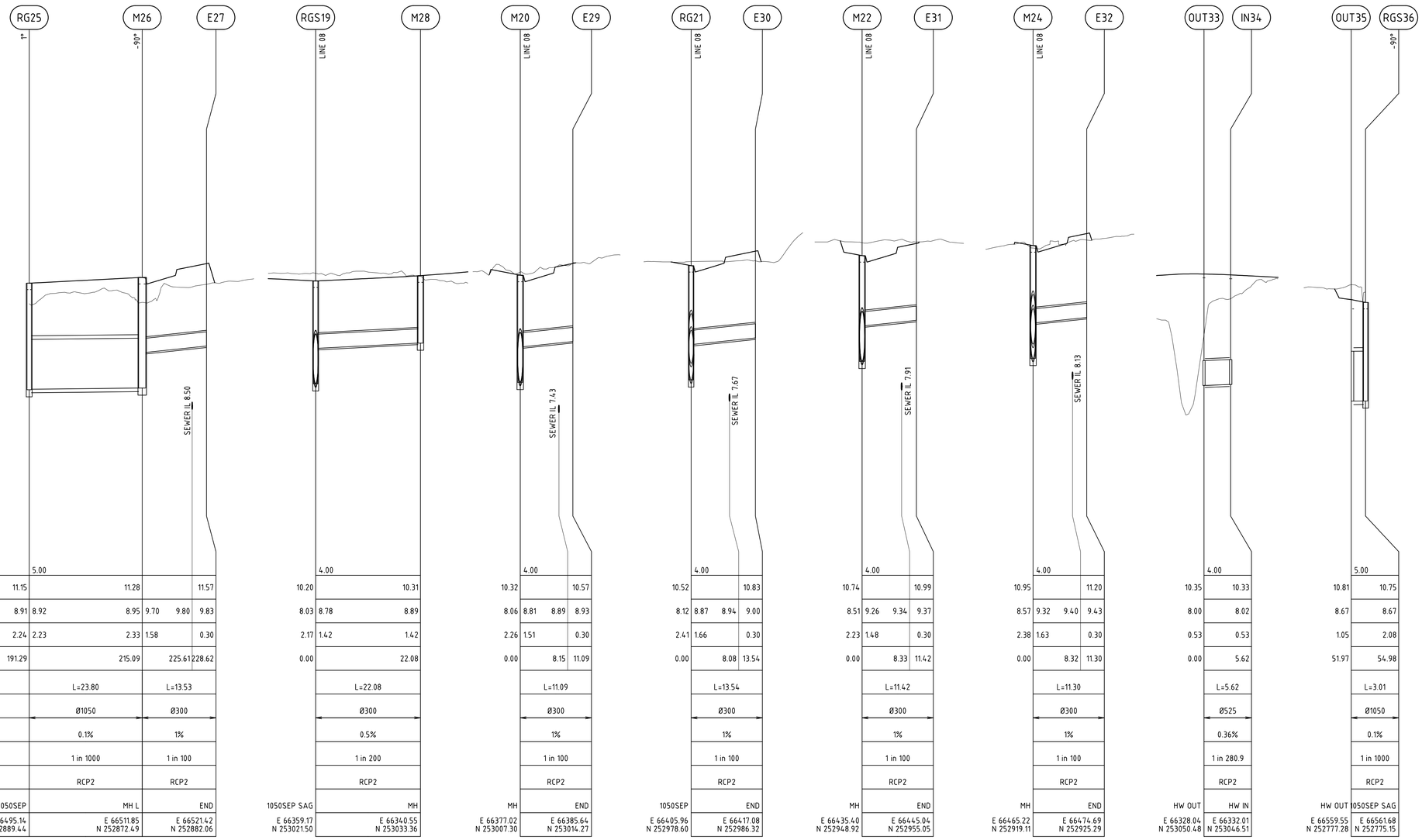
PLAN No E2-17-414 REV C

PRELIMINARY ONLY A1

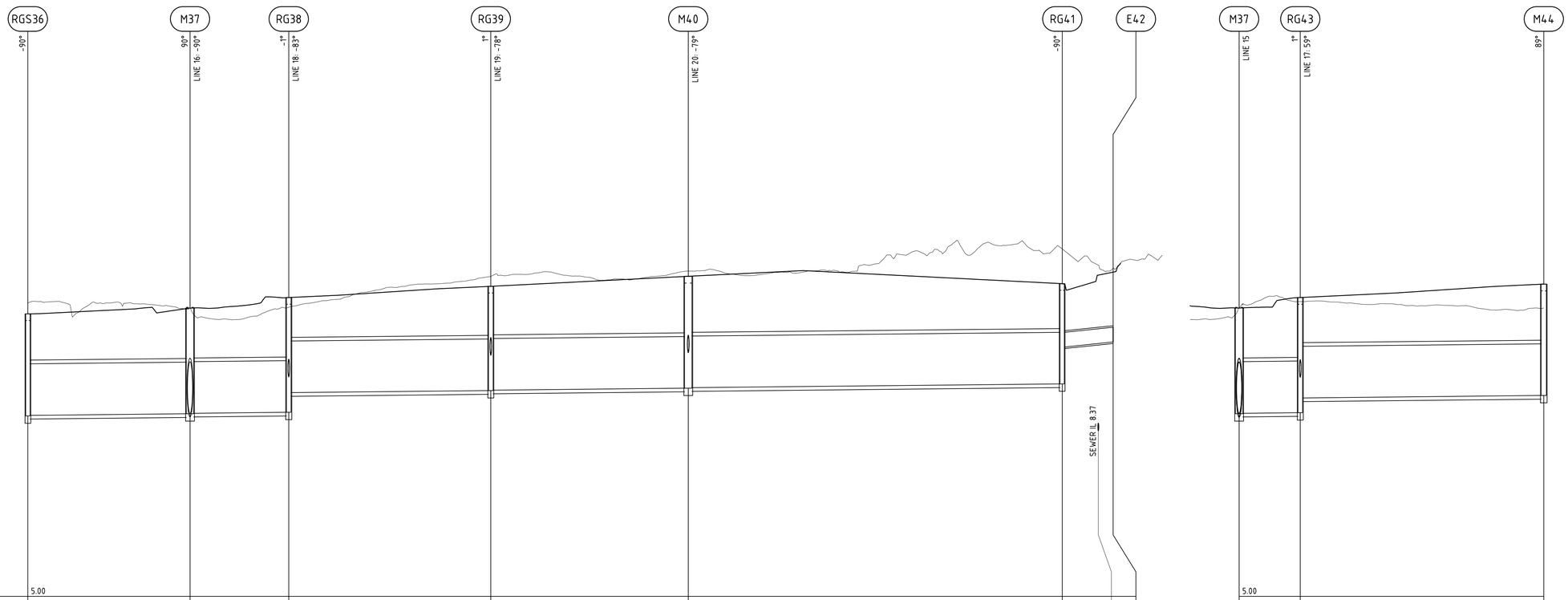
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

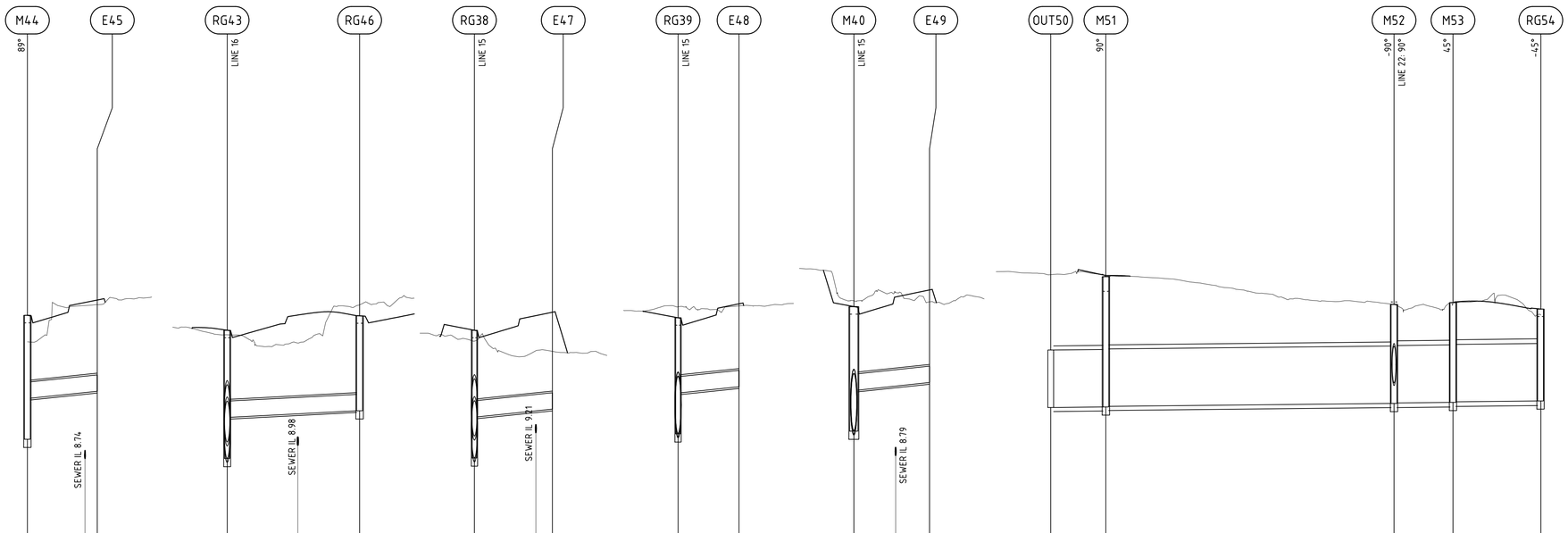
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021


RG25
1°
M26
-90°
E27
SEWER IL 8.50
RGS19
LINE 08
M28
M20
LINE 08
E29
SEWER IL 7.43
RG21
LINE 08
E30
SEWER IL 7.67
M22
LINE 08
E31
SEWER IL 7.91
M24
LINE 08
E32
SEWER IL 8.13
OUT33
IN34
OUT35
RGS36
-90°

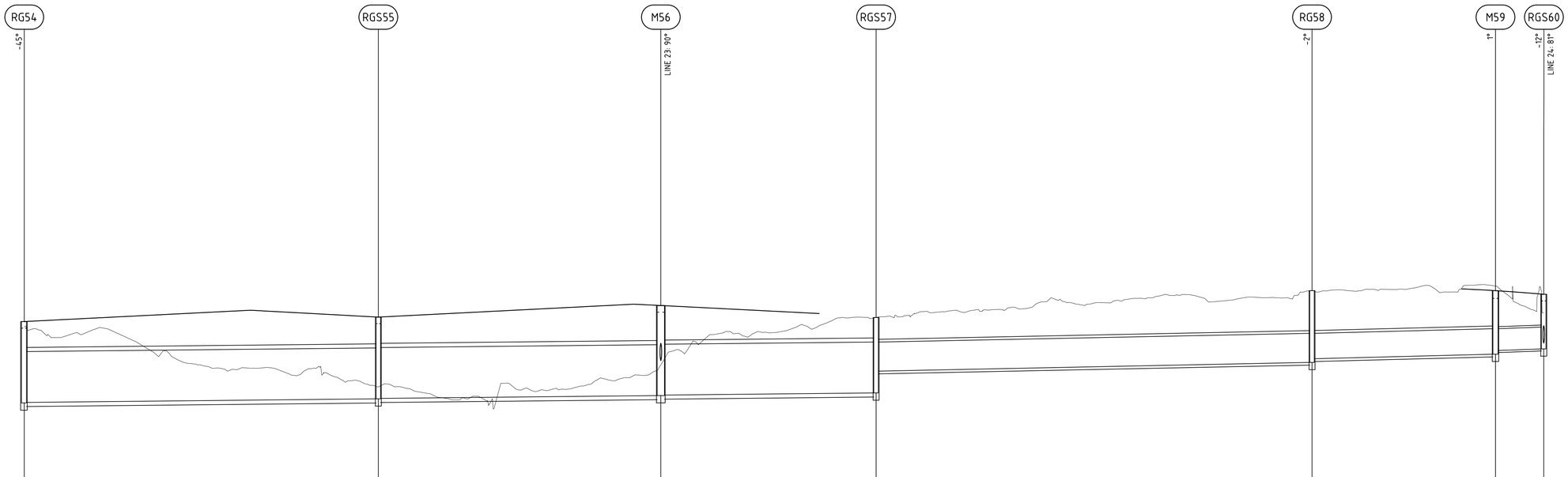
| | | |


RGS36
-90°
M37
90°
LINE 16 -90°
RG38
-1°
LINE 18 -83°
RG39
1°
LINE 19 -78°
M40
LINE 20 -79°
RG41
-90°
E42
SEWER IL 8.37
M37
LINE 15
RG43
1°
LINE 17 59°
M44
89°

| | | |


M44
E45
RG43
RG46
RG38
E47
RG39
E48
M40
E49
OUT50
M51
M52
M53
RG54
89°
LINE 16
LINE 15
LINE 15
LINE 15
90°
-90°
LINE 22 90°
45°
-45°
SEWER IL 8.74
SEWER IL 8.98
SEWER IL 9.21
SEWER IL 8.79

| | | |



DATUM RL		5.00						
FINISHED SURFACE LEVEL	10.47	10.56	10.80	10.55	11.11	11.11	11.03	
INVERT LEVEL	8.79	8.80 8.87	8.88 8.94	8.95 9.00	9.45 9.63	9.70 9.80	9.87 9.90	
DEPTH TO INVERT	1.68	1.67 1.69	1.68 1.86	1.85 1.56	1.11 1.48	1.41 1.31	1.24 1.13	
CHAINAGE	89.63	162.74	221.08	265.53	355.55	393.43	403.40	
PIPE LENGTH		L=73.12	L=58.34	L=44.45	L=90.02	L=37.88	L=9.97	
PIPE SIZE		Ø1050	Ø1050	Ø1050	Ø600	Ø525	Ø450	
PIPE GRADE (%)		0.1%	0.1%	0.1%	0.2%	0.25%	0.33%	
PIPE GRADE (1 in)		1 in 1000	1 in 1000	1 in 1000	1 in 500	1 in 400	1 in 300.3	
PIPE TYPE		RCP4	RCP4	RCP4	RCP4	RCP4	RCP4	
PIT TYPE	1050SEP	1050SEP SAG	MH L	1050SEP SAG	1050SEP	MH	1050SEP SAG	
PIT SETOUT	E 66450.67 N 252764.29	E 66398.97 N 252712.59	E 66357.84 N 252671.22	E 66326.31 N 252639.88	E 66262.68 N 252576.21	E 66236.89 N 252548.46	E 66229.95 N 252541.30	

LINE 21

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
C	13.04.18	FINAL 100%	GB	AM	IB
B	09.04.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
A	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	GB	18-Jan	SCALE HORIZ. VERT. 1:50
DRAWN	GB	18-Jan	DATUM AHD
CHECKED	IB	18-Jan	GRID SYSTEM PCG
SURVEY			JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
DRAINAGE LONGSECTIONS
SHEET 6 OF 19

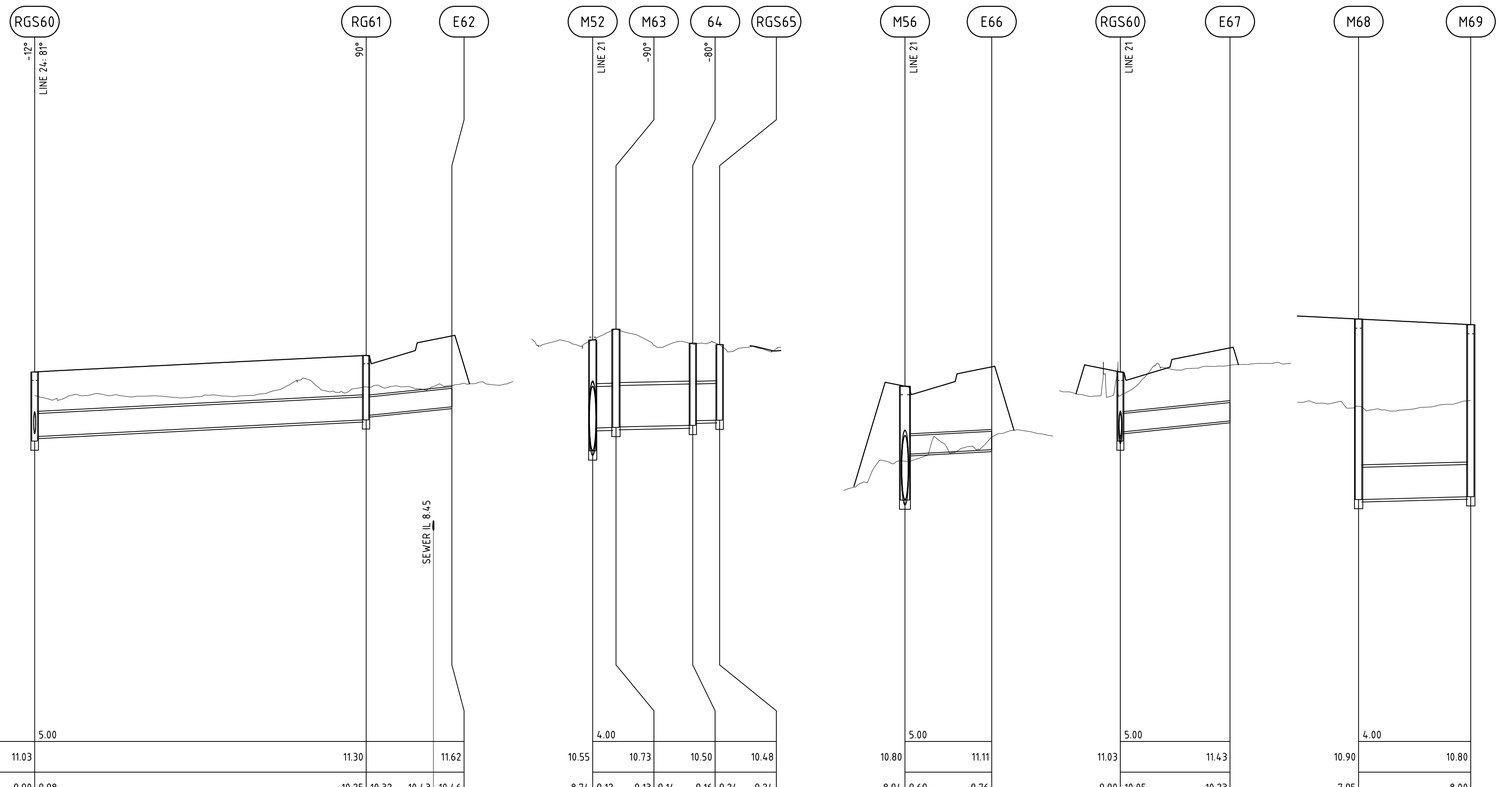
PLAN No E2-17-418 REV C

PRELIMINARY ONLY A1

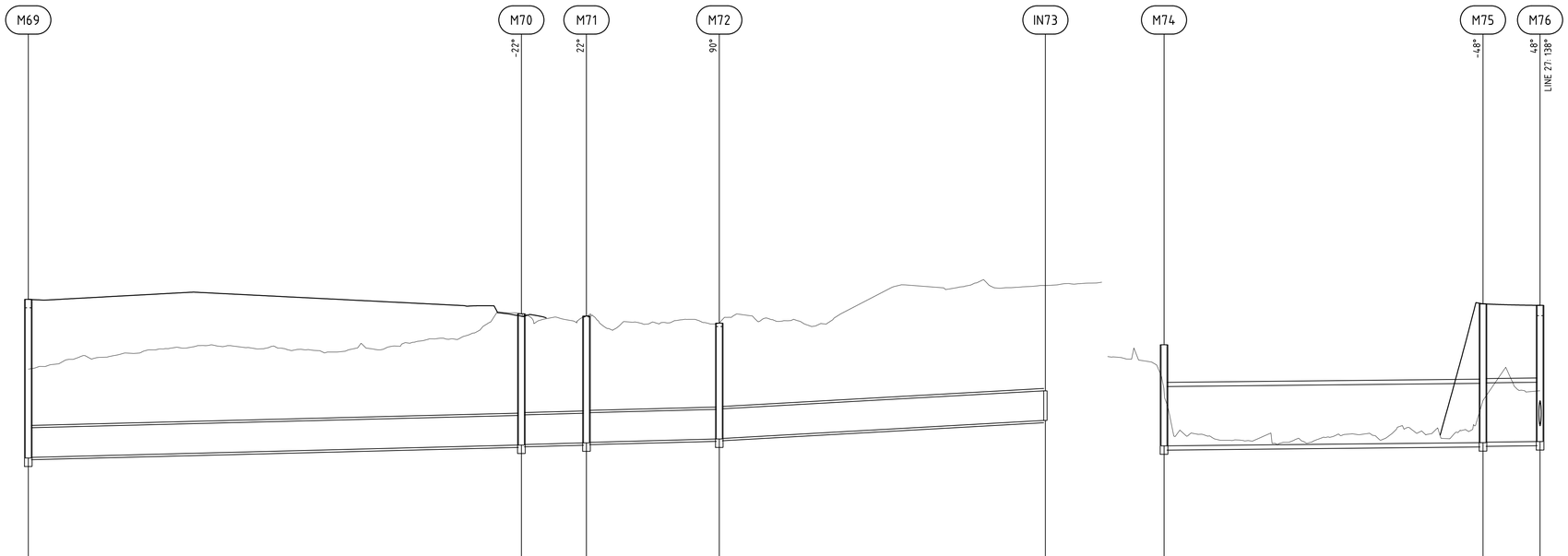
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021


RGS60
-12°
LINE 24
81°
RG61
90°
E62
SEWER IL 8.45
M52
LINE 21
M63
-90°
64
-80°
RGS65
M56
LINE 21
E66
RGS60
LINE 21
E67
M68
M69

| | | |



DATUM RL		4.00							3.00		
FINISHED SURFACE LEVEL	10.80	10.51		10.51		10.38		9.19	9.00	9.72	9.70
INVERT LEVEL	8.00	8.01	8.22	8.23	8.26	8.27	8.33	8.34	7.21	7.27	7.28 7.29
DEPTH TO INVERT	2.81	2.80	2.32	2.31	2.25	2.24	2.05	2.04	1.79	2.46	2.45 2.41
CHAINAGE	18.31	105.61		117.13		140.64		198.38	0.00	56.46	66.57
PIPE LENGTH		L=87.29		L=11.52		L=23.51		L=57.74		L=56.46	L=10.10
PIPE SIZE		Ø525		Ø525		Ø525		Ø525		Ø1050	Ø1050
PIPE GRADE (%)		0.25%		0.25%		0.25%		0.55%		0.1%	0.1%
PIPE GRADE (1 in)		1 in 400		1 in 400		1 in 400		1 in 181.3		1 in 1000	1 in 1000
PIPE TYPE		RCP2		RCP2		RCP2		RCP2		RCP2	RCP2
PIT TYPE	MH	MH		MH		MH		HW IN	MH	MH	MH
PIT SETOUT	E 66390.22 N 252717.34	E 66451.91 N 252779.10		E 66456.46 N 252789.68		E 66473.06 N 252806.33		E 66513.94 N 252765.54	E 66184.26 N 252919.88	E 66224.19 N 252879.97	E 66234.28 N 252880.52

LINE 25

LINE 26

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
C	13.04.18	FINAL 100%	GB	AM	IB
B	09.04.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
A	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	GB	18-Jan	SCALE HORIZ. VERT. 1:50
DRAWN	GB	18-Jan	DATUM AHD
CHECKED	IB	18-Jan	GRID SYSTEM PCG
SURVEY			JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
DRAINAGE LONGSECTIONS
SHEET 8 OF 19

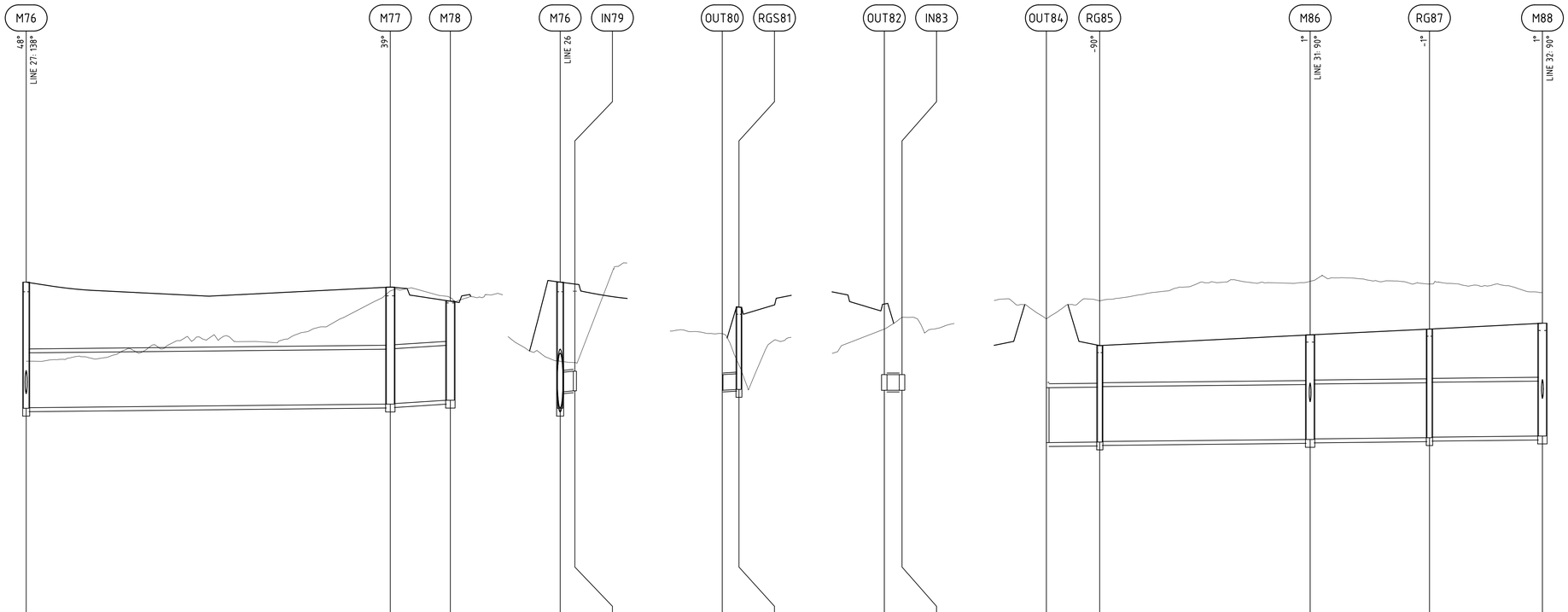
PLAN No E2-17-420 REV C

PRELIMINARY ONLY A1

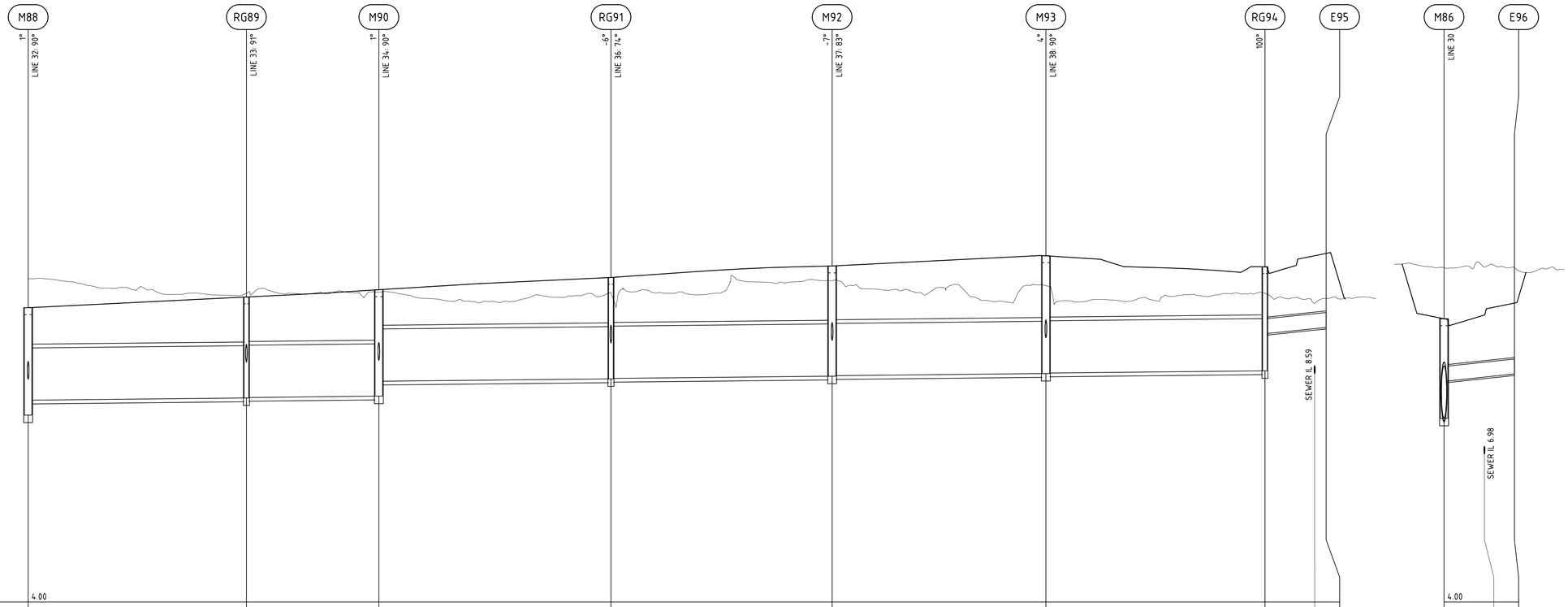
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021


M76
48°
LINE 27: 138°
M77
39°
M78
M76
LINE 26
IN79
OUT80
RGS81
OUT82
IN83
OUT84
RG85
-90°
M86
1°
LINE 31: 90°
RG87
-1°
M88
1°
LINE 32: 90°

| | | |



DATUM RL		4.00																4.00		
FINISHED SURFACE LEVEL	9.91		10.13		10.27		10.52		10.75		10.95		10.73			11.00	9.69			10.01
INVERT LEVEL	7.75	8.05	8.10	8.11	8.14	8.44	8.48	8.49	8.54	8.55	8.59	8.60	8.64	9.39	9.49	9.52	7.69	8.44	8.52	8.58
DEPTH TO INVERT	2.16	1.86	2.03	2.02	2.14	1.84	2.04	2.03	2.21	2.20	2.37	2.36	2.09	1.34		0.30	2.00	1.25		0.30
CHAINAGE	97.01		140.91		167.53		214.21		258.68		301.67		345.73		355.71	358.02	0.00		8.12	14.16
PIPE LENGTH			L=43.89		L=26.62		L=46.68		L=44.47		L=42.99		L=44.06		L=12.29				L=14.16	
PIPE SIZE			Ø1050		Ø1050		Ø1050		Ø1050		Ø1050		Ø1050		Ø300				Ø300	
PIPE GRADE (%)			0.1%		0.1%		0.1%		0.1%		0.1%		0.1%		1%				1%	
PIPE GRADE (1 in)			1 in 1000		1 in 1000		1 in 1000		1 in 1000		1 in 1000		1 in 1000		1 in 100				1 in 100	
PIPE TYPE			RCP2		RCP2		RCP2		RCP2		RCP2		RCP2		RCP2				RCP2	
PIT TYPE	MH L		1050SEP		MH L		1050SEP		MH L		MH L		1050SEP		END		MH L		END	
PIT SETOUT	E 66153.91 N 252795.00		E 66122.76 N 252764.08		E 66103.84 N 252745.34		E 66070.34 N 252712.84		E 66042.02 N 252678.55		E 66019.16 N 252642.15		E 65993.38 N 252606.42		E 65984.89 N 252615.30		E 66185.32 N 252826.43		E 66175.30 N 252836.44	

LINE 30

LINE 31

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
C	13.04.18	FINAL 100%	GB	AM	IB
B	09.04.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
A	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	18-Jan	HORIZ. VERT. 1:50
DRAWN		DATUM
GB	18-Jan	AHD
CHECKED		GRID SYSTEM
IB	18-Jan	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
DRAINAGE LONGSECTIONS
SHEET 10 OF 19

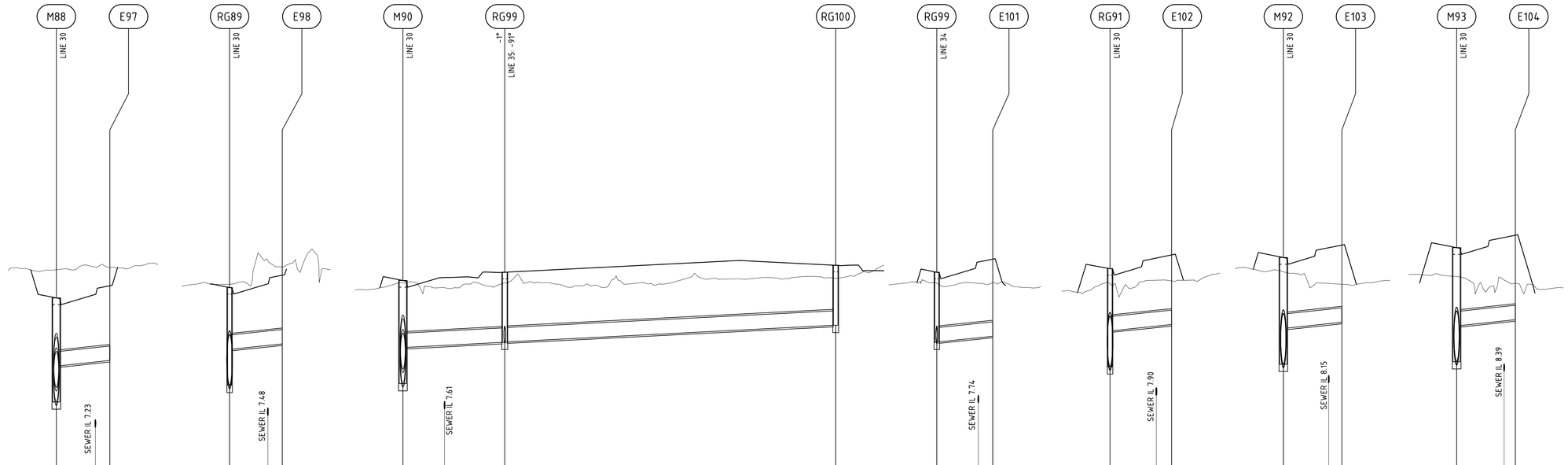
PLAN No E2-17-422 REV C

PRELIMINARY ONLY A1

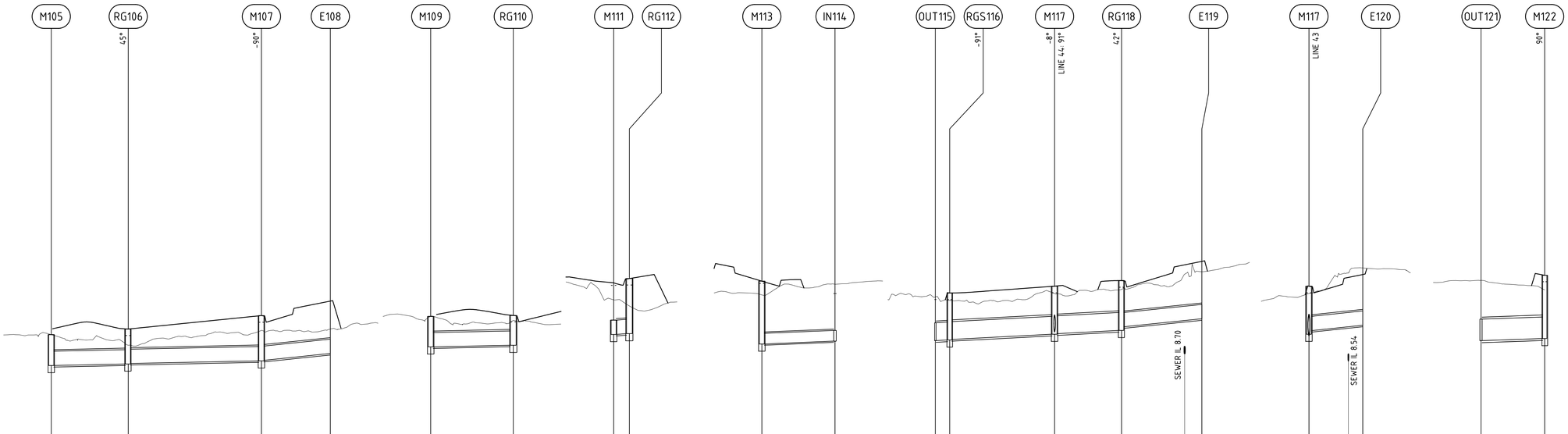
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

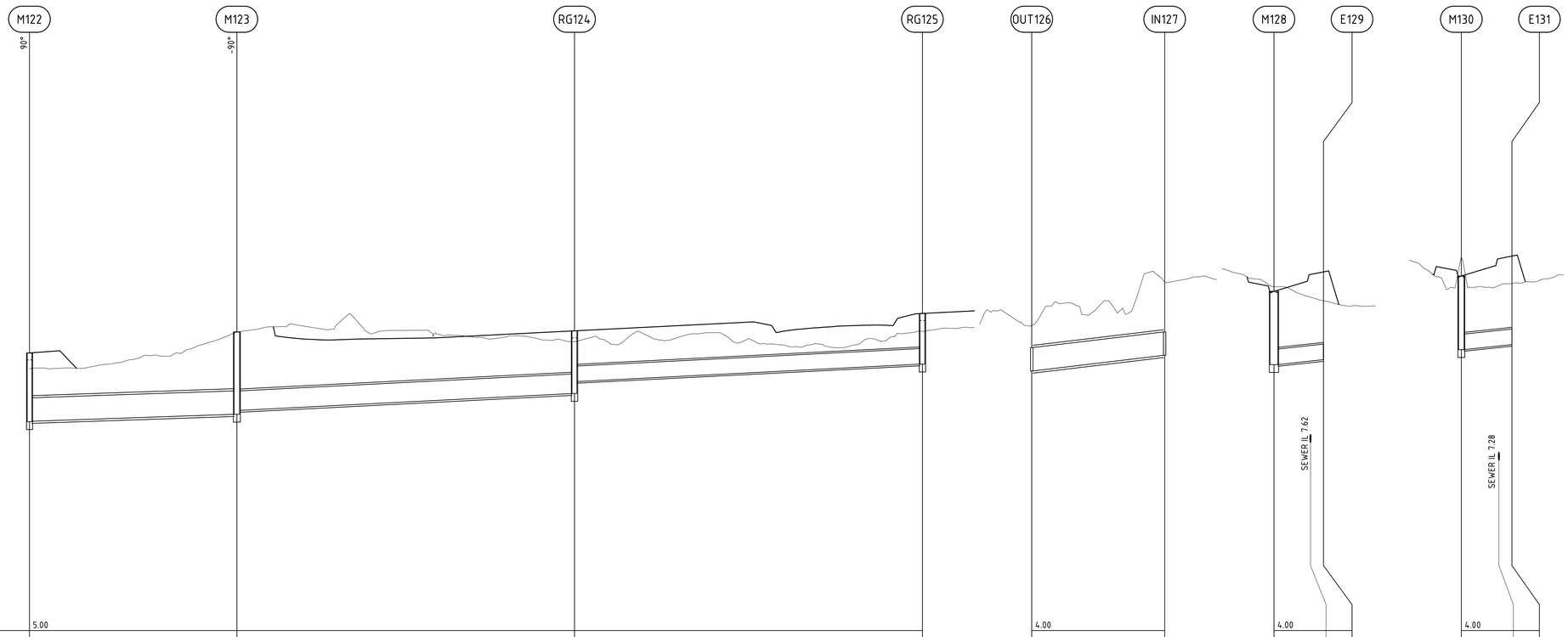
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021


M88
E97
LINE 30
SEWER IL 7.23
M90
RG89
E98
LINE 30
SEWER IL 7.48
RG99
-1°
LINE 35: -91°
SEWER IL 7.61
RG100
RG99
E101
LINE 34
SEWER IL 7.74
RG91
E102
LINE 30
SEWER IL 7.90
M92
E103
LINE 30
SEWER IL 8.15
M93
E104
LINE 30
SEWER IL 8.39

| | | |


M105
RG106
M107
E108
M109
RG110
M111
RG112
M113
IN114
OUT115
RGS116
M117
RG118
E119
M117
E120
OUT121
M122
45°
90°
91°
8°
LINE 44, 91°
42°
LINE 43
SEWER II, 870
SEWER II, 854

| | | |



DATUM RL		5.00					4.00			4.00		4.00
FINISHED SURFACE LEVEL	10.34	10.74	10.76	11.10	9.44	9.74	10.52	10.89		10.81	11.20	
INVERT LEVEL	9.01	9.02	9.16	9.23	9.56	9.79	10.12	8.99	9.29	9.11	9.18	9.21	9.40	9.47	9.50
DEPTH TO INVERT	1.32	1.31	1.58	1.51	1.21	0.98	0.97	0.45	0.45	1.41		0.30	1.41		0.30
CHAINAGE	13.31		53.16		118.02		184.87	0.00	25.54	0.00	7.02	9.51	0.00	7.22	9.73
PIPE LENGTH		L=39.85		L=64.86		L=66.85			L=25.54		L=9.51			L=9.73	
PIPE SIZE		Ø450		Ø375		Ø300			Ø450		Ø300			Ø300	
PIPE GRADE (%)		0.33%		0.5%		0.5%			1.17%		1%			1%	
PIPE GRADE (1 in)		1 in 300		1 in 200		1 in 200			1 in 85.1		1 in 100			1 in 100	
PIPE TYPE		RCP2		RCP2		RCP4			RCP2		RCP2			RCP2	
PIT TYPE	1050SEP	MH		1050SEP		1050SEP		HW OUT	HW IN	MH L	END		MH	END	
PIT SETOUT	E 66460.47 N 252474.32	E 66488.66 N 252446.16		E 66534.50 N 252492.05		E 66581.62 N 252539.47		E 66447.44 N 252438.59	E 66465.51 N 252420.54	E 66515.21 N 252474.92	E 66508.49 N 252481.64		E 66557.56 N 252517.29	E 66551.42 N 252524.83	

LINE 45 | LINE 46 | LINE 47 | LINE 48

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
C	13.04.18	FINAL 100%	GB	AM	IB
B	09.04.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
A	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 18-Jan	SCALE HORIZ. VERT. 1:50
DRAWN GB	18-Jan	DATUM AHD
CHECKED IB	18-Jan	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
DRAINAGE LONGSECTIONS
SHEET 13 OF 19

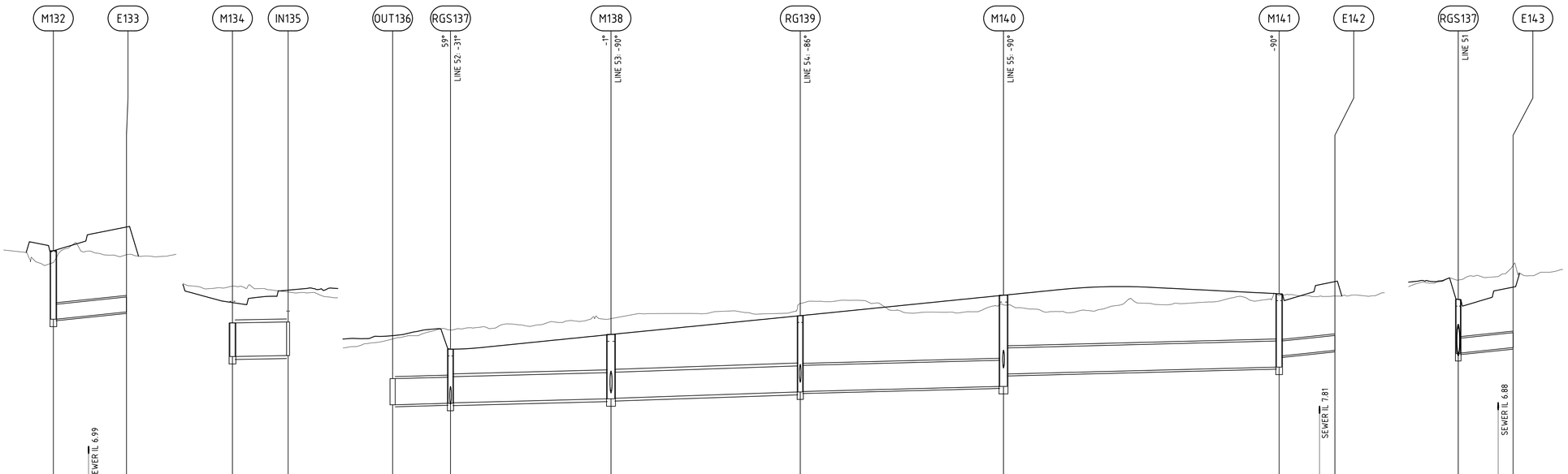
PLAN No E2-17-425 REV C

PRELIMINARY ONLY | A1

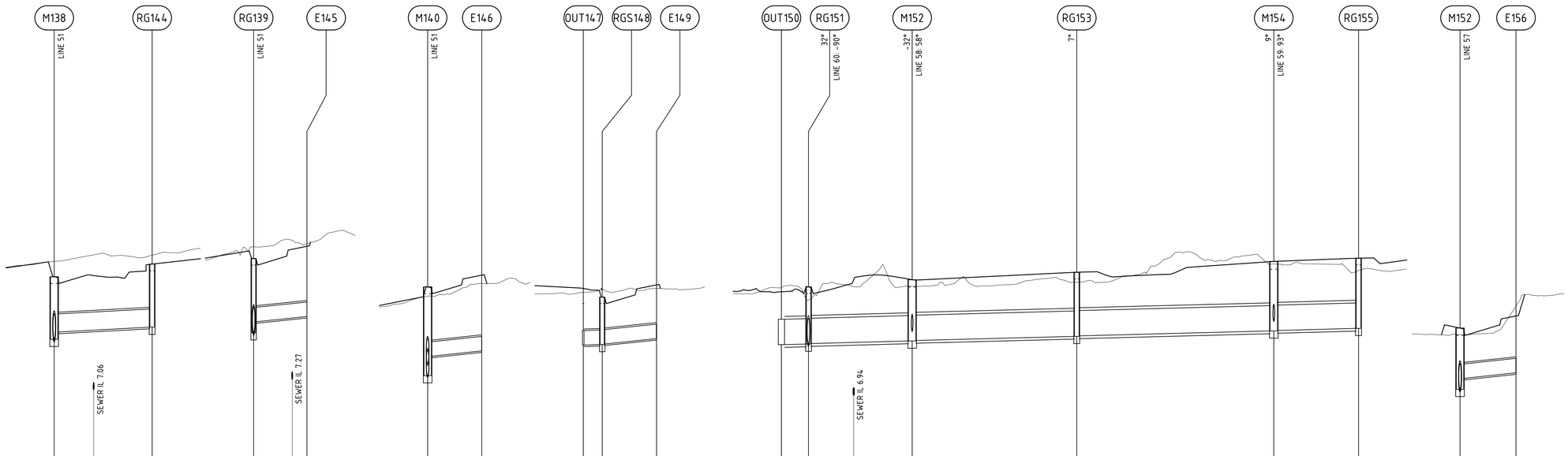
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021


M132
E133
M134
IN135
OUT136
RGS137
59°
LINE 52 -31°
M138
-1°
LINE 53 -90°
RG139
LINE 54 -86°
M140
LINE 55 -90°
M141
-90°
E142
RGS137
LINE 51
E143
SEWER IL 6.99
SEWER IL 7.81
SEWER IL 6.88

| | | |



DATUM RL		3.00		3.00		4.00		3.00		3.00						4.00	
FINISHED SURFACE LEVEL	9.39		9.66	9.77	10.02	10.18	10.43	9.15	8.97	9.23	9.08	9.18	9.33	9.49	9.71	9.78	9.33	9.58
INVERT LEVEL	8.10	8.25	8.29 8.35	8.24	8.46 8.54 8.57	8.35	8.75 8.86	7.98	7.99	8.00 8.11	7.99	8.00	8.01 8.03 8.06	8.07 8.16	8.17 8.27	8.28 8.33	8.06	8.29 8.41
DEPTH TO INVERT	1.29	1.14	1.30	1.53	1.31 0.30	1.83	1.43 0.30	0.30	0.98	0.97 0.30	0.53	1.18	1.17 1.27	1.26 1.33	1.32 1.44	1.43 1.45	1.27	1.04 0.30
CHAINAGE	0.00	8.16	20.27	0.00	7.98 11.03	0.00	11.20	0.00	3.92	15.16	0.00	5.59	14.96 27.05	61.12	101.88	119.42	0.00	11.58
PIPE LENGTH		L=20.27			L=11.03		L=11.20		L=3.92	L=11.23		L=5.59	L=21.46	L=34.06	L=40.76	L=17.54		L=11.58
PIPE SIZE		Ø375			Ø300		Ø300		Ø300	Ø300		2x Ø525	2x Ø525	2x Ø525	2x Ø525	2x Ø525		Ø300
PIPE GRADE (%)		0.5%			1%		1%		0.3%	1%		0.2%	0.25%	0.25%	0.25%	0.25%		1%
PIPE GRADE (1 in)		1 in 200			1 in 100		1 in 100		1 in 333.3	1 in 100		1 in 500	1 in 400	1 in 400	1 in 400	1 in 400		1 in 100
PIPE TYPE		RCP4			RCP4		RCP2		RCP4	RCP4		RCP4	RCP4	RCP4	RCP4	RCP4		RCP4
PIT TYPE	MH L	1050SEP		1050SEP	END	MH L	END	HW OUT	1050SEP SAG	END	HW OUT	1050SEP	MH L	1050SEP	MH L	1050SEP	MH L	END
PIT SETOUT	E 65897.30 N 251860.63	E 65911.59 N 251875.01		E 65924.40 N 251833.94	E 65932.65 N 251841.25	E 65953.25 N 251805.02	E 65961.15 N 251812.96	E 65842.21 N 251873.35	E 65839.43 N 251876.11	E 65831.47 N 251884.05	E 65834.29 N 251853.02	E 65830.35 N 251849.06	E 65809.48 N 251844.04	E 65785.65 N 251819.70	E 65753.85 N 251794.20	E 65738.68 N 251785.41	E 65809.48 N 251844.04	E 65801.28 N 251852.22

LINE 53 LINE 54 LINE 55 LINE 56 LINE 57 LINE 58

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
C	13.04.18	FINAL 100%	GB	AM	IB
B	09.04.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
A	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	18-Jan	HORIZ. VERT. 1:50
DRAWN		DATUM
GB	18-Jan	AHD
CHECKED		GRID SYSTEM
IB	18-Jan	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
DRAINAGE LONGSECTIONS
SHEET 15 OF 19

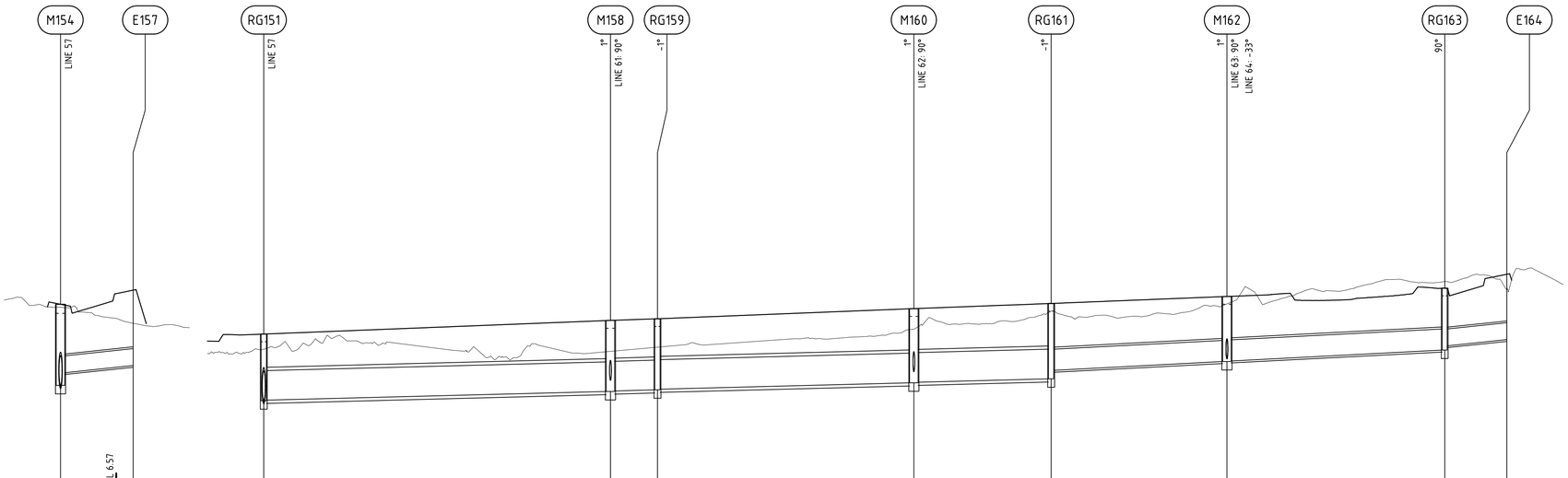
PLAN No E2-17-427 REV C

PRELIMINARY ONLY A1

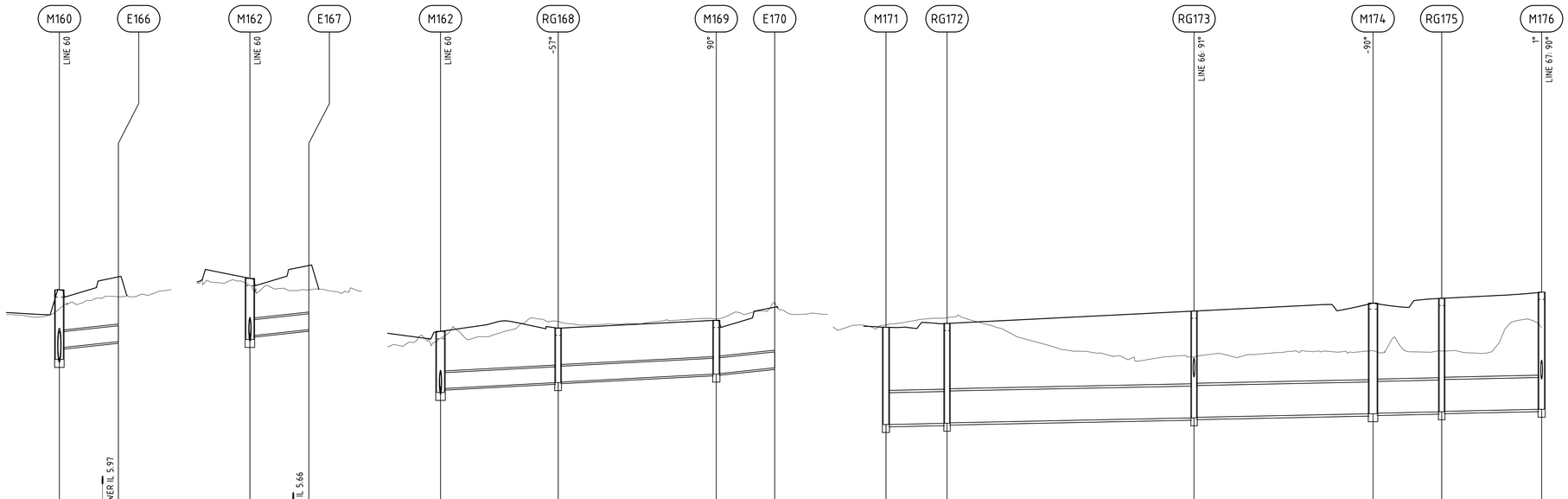
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021


M154
E157
RG151
M158
RG159
M160
RG161
M162
RG163
E164
M158
E165
LINE 57
LINE 57
1°
LINE 61: 90°
-1°
1°
LINE 62: 90°
-1°
1°
LINE 63: 90°
LINE 64: -33°
90°
LINE 60
LINE 60
SEWER IL 6.57
SEWER IL 5.44

| | | |



DATUM RL		3.00		3.00		4.00			4.00				
FINISHED SURFACE LEVEL	9.63		9.88	9.85	10.09	9.85	9.91	10.06	10.31	9.93	10.00	10.23	10.38	10.47	10.59
INVERT LEVEL	8.32	8.54	8.66	8.70	8.77 8.85	8.70	8.77 8.88	8.89 9.04	9.05 9.16	8.09	8.11	8.12 8.22	8.23 8.29	8.30 8.33	8.34 8.38
DEPTH TO INVERT	1.31	1.09	0.30	1.15	1.08	1.15	1.08 1.03	1.02 1.02	1.01 0.30	1.84	1.89	1.88 2.02	2.01 2.09	2.08 2.14	2.13 2.21
CHAINAGE	0.00	8.16	11.15	0.00	8.19	0.00	22.24	52.10	63.14	0.00	11.55	58.20	92.02	104.99	123.86
PIPE LENGTH		L=11.15			L=11.12		L=22.24	L=29.86	L=11.04		L=11.55	L=46.66	L=33.82	L=12.97	L=18.87
PIPE SIZE		Ø300			Ø300		Ø300	Ø300	Ø300		Ø600	Ø600	Ø600	Ø600	Ø600
PIPE GRADE (%)		1%			1%		0.5%	0.5%	1%		0.2%	0.2%	0.2%	0.2%	0.2%
PIPE GRADE (1 in)		1 in 100			1 in 100		1 in 200	1 in 200	1 in 100		1 in 500	1 in 500	1 in 500	1 in 500	1 in 500
PIPE TYPE		RCP4			RCP4		RCP2	RCP2	RCP4		RCP2	RCP2	RCP2	RCP2	RCP2
PIT TYPE	MH L		END	MH L	END	MH L	1050SEP	MH	END	MH	1050SEP	1050SEP	MH L	1050SEP	MH
PIT SETOUT	E 65912.13 N 251768.00		E 65904.27 N 251760.09	E 65951.46 N 251728.90	E 65943.62 N 251721.01	E 65951.46 N 251728.90	E 65973.26 N 251724.53	E 65994.31 N 251745.71	E 66002.14 N 251737.92	E 65994.93 N 251636.48	E 66003.11 N 251628.32	E 66036.21 N 251595.44	E 66060.17 N 251571.58	E 66069.31 N 251580.78	E 66082.54 N 251594.24

LINE 62 LINE 63 LINE 64 LINE 65

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
C	13.04.18	FINAL 100%	GB	AM	IB
B	09.04.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
A	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 18-Jan	SCALE HORIZ. VERT. 1:50
DRAWN GB	18-Jan	DATUM AHD
CHECKED IB	18-Jan	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
DRAINAGE LONGSECTIONS
SHEET 17 OF 19

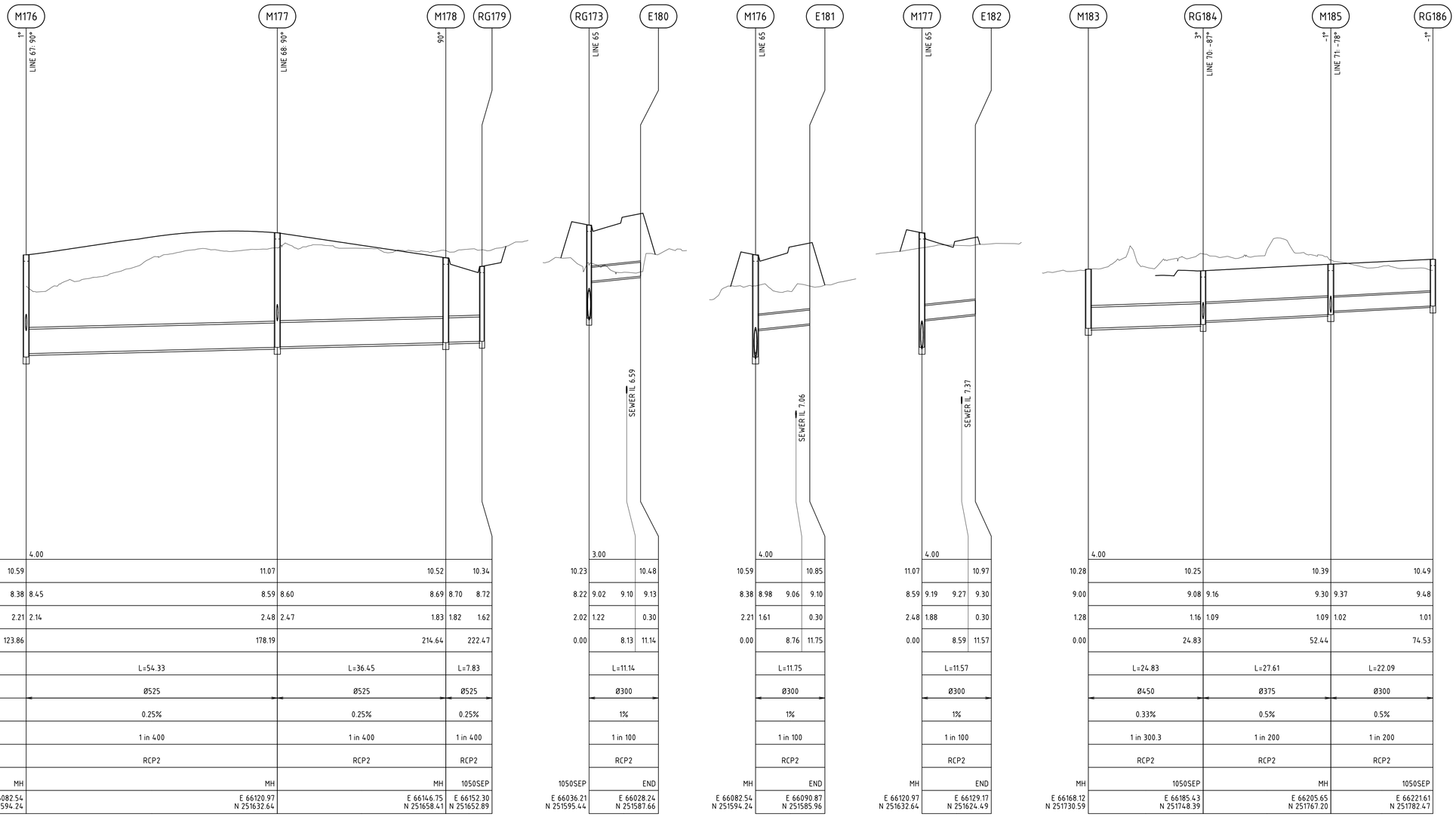
PLAN No E2-17-429 REV C

PRELIMINARY ONLY A1

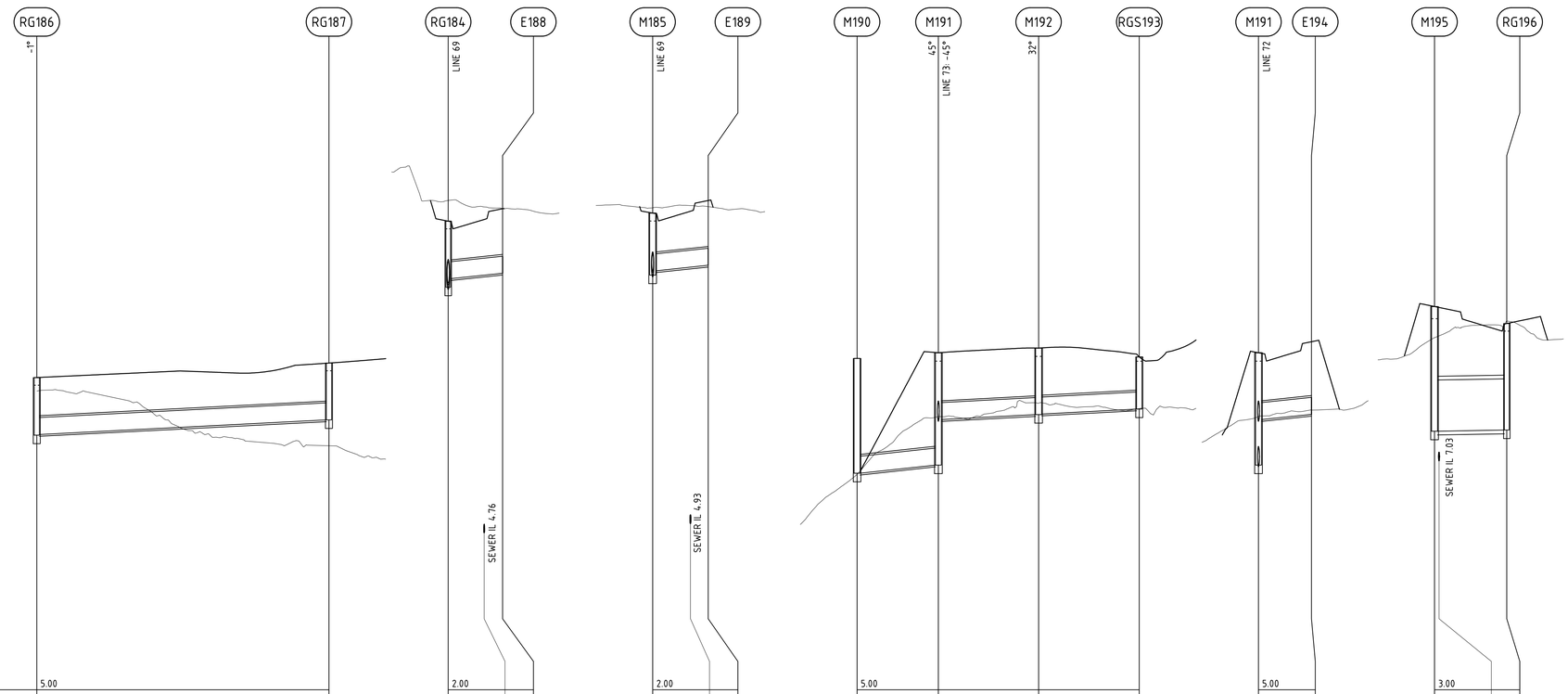
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

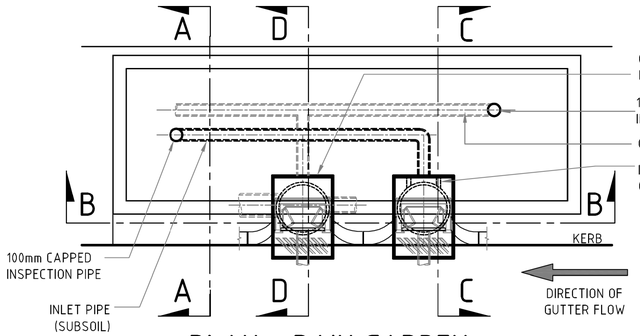
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021


M176
1°
LINE 67 90°
M177
LINE 68 90°
M178
90°
RG179
RG173
LINE 65
E180
SEWER IL 6.59
M176
LINE 65
E181
SEWER IL 7.06
M177
LINE 65
E182
SEWER IL 7.37
M183
RG184
3°
LINE 70 -87°
M185
-1°
LINE 71: -78°
RG186
-1°

| | | |


RG186
-1°
RG187
RG184
LINE 69
SEWER IL 4.76
E188
M185
LINE 69
SEWER IL 4.93
E189
M190
M191
45°
LINE 73: -45°
M192
32°
RGS193
M191
LINE 72
E194
M195
SEWER IL 7.03
RG196

| | | |



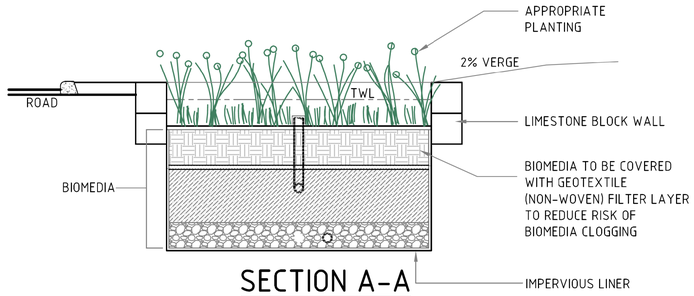
PLAN - RAIN GARDEN
SCALE 1:100

LEGEND

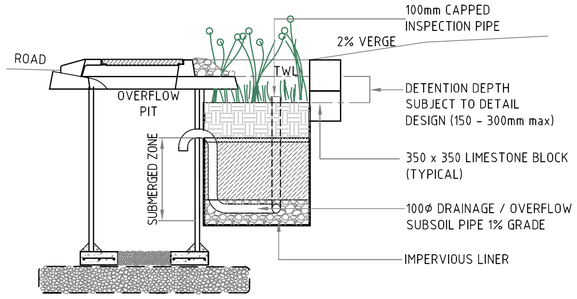
	300- 500mm FILTER MEDIA
	50mm TRANSITION LAYER
	400 - 800mm SAND AND CARBON SOURCE (SUBMERGED LAYER)
	200mm DRAINAGE LAYER (WASHED GRAVEL) MIN. 50mm PIPE COVER
TWL	TOP WATER LEVEL

DESIGN TO BE COMPLIANT WITH CURRENT BEST PRACTICE AND THE ADOPTION GUIDELINES FOR STORMWATER BIOFILTRATION SYSTEMS (VERSION 2, CRC FOR WATER SENSITIVE CITIES, 2015)

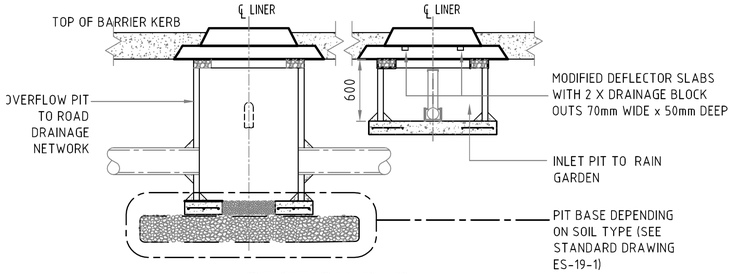
PLANTING TO BE COMPLIANT CURRENT BEST PRACTICE AND THE VEGETATION GUIDELINES FOR STORMWATER BIOFILTERS IN SOUTH-WEST OF WESTERN AUSTRALIA (MONASH UNIVERSITY, 2014)



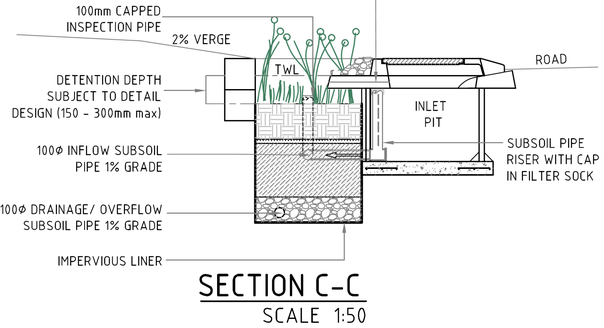
SECTION A-A
SCALE 1:50



SECTION D-D
SCALE 1:50



SECTION B-B
SCALE 1:50



SECTION C-C
SCALE 1:50

NOTES:

1. FILTER MEDIA (TYPICAL)

   FILTER MEDIA TO BE USED SHOULD BE LOAMY SAND WITH A HYDRAULIC CONDUCTIVITY OF BETWEEN 100 - 300mm/HR e.g. LOCAL NATIVE SAND MIXED WITH GIN GIN LOAM. THE GIN GIN LOAM SHOULD HAVE ALL PARTICLE SIZE RANGES PRESENT FROM THE 0.075mm - 4.75mm SIEVE (AS DEFINED BY AS1289.3.6.1 - 1995) WITH A CLAY AND SILT FRACTION (<0.05mm) AT NO MORE THAN 3%. THE GIN GIN LOAM SHOULD ALSO HAVE LESS THAN 5% ORGANIC MATTER.

2. TRANSITION LAYER (TYPICAL)

   THE TRANSITION LAYER WILL BE 50mm THICK AND WILL BE SITUATED BETWEEN THE FILTER MEDIA AND THE SUBMERGED ZONE. IT WILL CONSIST OF CLEAN WELL-GRADED COURSE SAND MATERIAL (<4mm) CONTAINING <2% FINES. TO AVOID MIGRATION OF THE FILTER MEDIA INTO THE TRANSITION LAYER, THE PARTICLE SIZE DISTRIBUTION OF THE SAND SHOULD BE ASSESSED TO ENSURE IT MEETS 'BRIDGING CRITERIA', THAT IS, THE SMALLEST 15% OF THE SAND PARTICLES BRIDGE WITH THE LARGEST 15% OF THE FILTER MEDIA PARTICLES.

3. SUBMERGED ZONE (TYPICAL)

   THE SUBMERGED ZONE SHOULD CONSIST OF A MIX OF MEDIUM-TO-COURSE SAND (0.25-1mm) AND 5% HARDWOOD CHIPS BY VOLUME (JARRAH OR EQUIVALENT - APPROXIMATELY 6mm GRADINGS) AND 5% MULCH BY VOLUME (SUGAR CANE MULCH OR EQUIVALENT).

4. IMPERVIOUS LINER (TYPICAL)

   BENTONITE IMPREGNATED GEOTEXTILE OR SIMILAR (UNLESS CLAY SUBGRADE). IF GROUNDWATER IS OF SUITABLE QUALITY AND WITHIN THE ROOT ZONE THE BIOFILTER MAY BE LEFT UNLINED AT THE BASE TO UTILISE THIS WATER SOURCE OVER DRY PERIODS.

5. DRAINAGE LAYER (TYPICAL)

   THE DRAINAGE LAYER WILL SURROUND THE DRAINAGE PIPE TO PROTECT IT FROM SOIL INFILTRATING THE PIPE. IT SHOULD BE MADE UP OF CLEAN, FINE GRAVEL (2-5mm WASHED SCREENINGS) AND WILL HAVE A DEPTH OF 200mm ENGULFING PERFORATED DRAINAGE PIPE.

6. AFFECTED EXISTING RETICULATION AND EXISTING TURF TO BE REPLACED AFTER WORKS ARE COMPLETED.

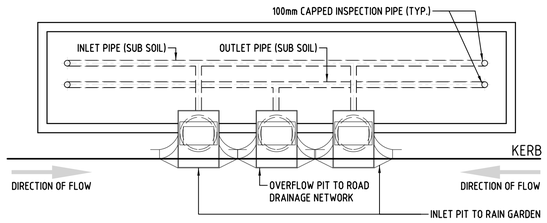
7. LOCATION OF INLET PITS, WIDTH AND LENGTH OF RAIN GARDENS MAY VARY.

8. RAIN GARDENS TO BE SIZED ACCORDING TO CATCHMENTS.

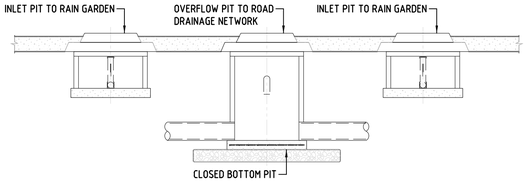
9. THE RAIN GARDEN REQUIRES SUBSOIL DRAINAGE AND A SUBMERGED ZONE.

10. MODIFIED DEFLECTOR SLAB ONLY REQUIRED FOR THE INLET PIT TO THE RAIN GARDEN.

THIS IS THE CITY OF GOSNELLS' STANDARD DESIGN. TO FOSTER INNOVATION THE CITY IS OPEN TO CONSIDER ALTERNATIVE WATER QUALITY TREATMENT SOLUTIONS BASED ON FUNCTIONALITY AND LONG TERM ASSET MANAGEMENT LIFE CYCLE CONSIDERATIONS. ACCEPTANCE SUBJECT TO SUBMISSION OF A DETAILED DESIGN AND INFORMATION DEMONSTRATING COMPLIANCE WITH CURRENT BEST PRACTICE TO CITY'S SATISFACTION.



PLAN - RAIN GARDEN SAG LOCATION
1:100



ELEVATION
1:50

RAIN GARDEN GENERAL ARRANGEMENT FOR SAG LOCATIONS DIFFERS FROM CITY?S STANDARDS, HOWEVER, NOTES AND DETAILS REMAIN UNCHANGED

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
D	13.04.18	FINAL 100%	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE	HORIZ. AS SHOWN VERT.
GB	17-Jul		
DRAWN		DATUM	
GB	17-Jul	AHD	
CHECKED		GRID SYSTEM	
IB	17-Sep	PCG	
SURVEY		JOB NUMBER	

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
RAIN GARDEN DETAILS

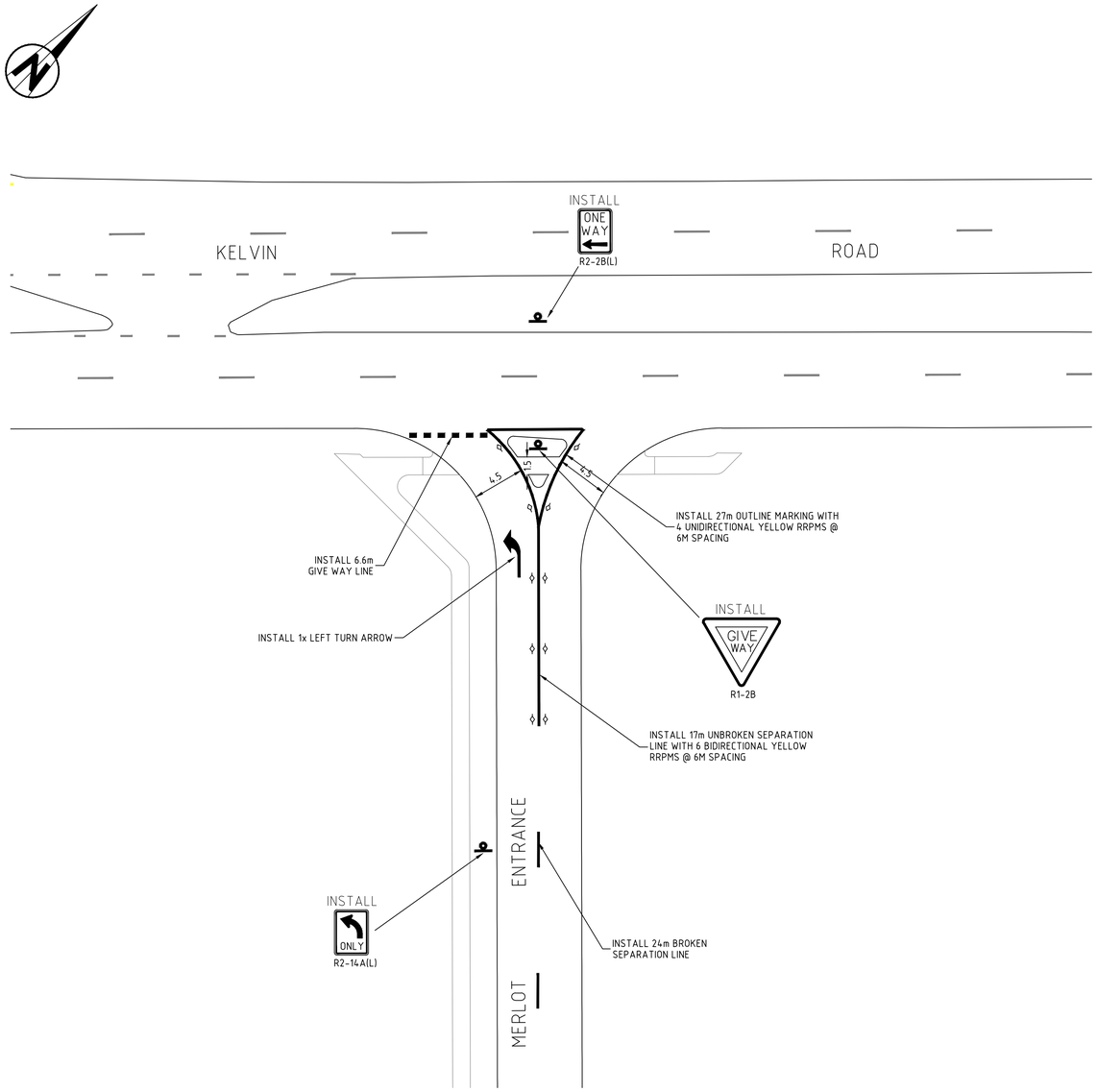
PLAN No E2-17-432 REV D

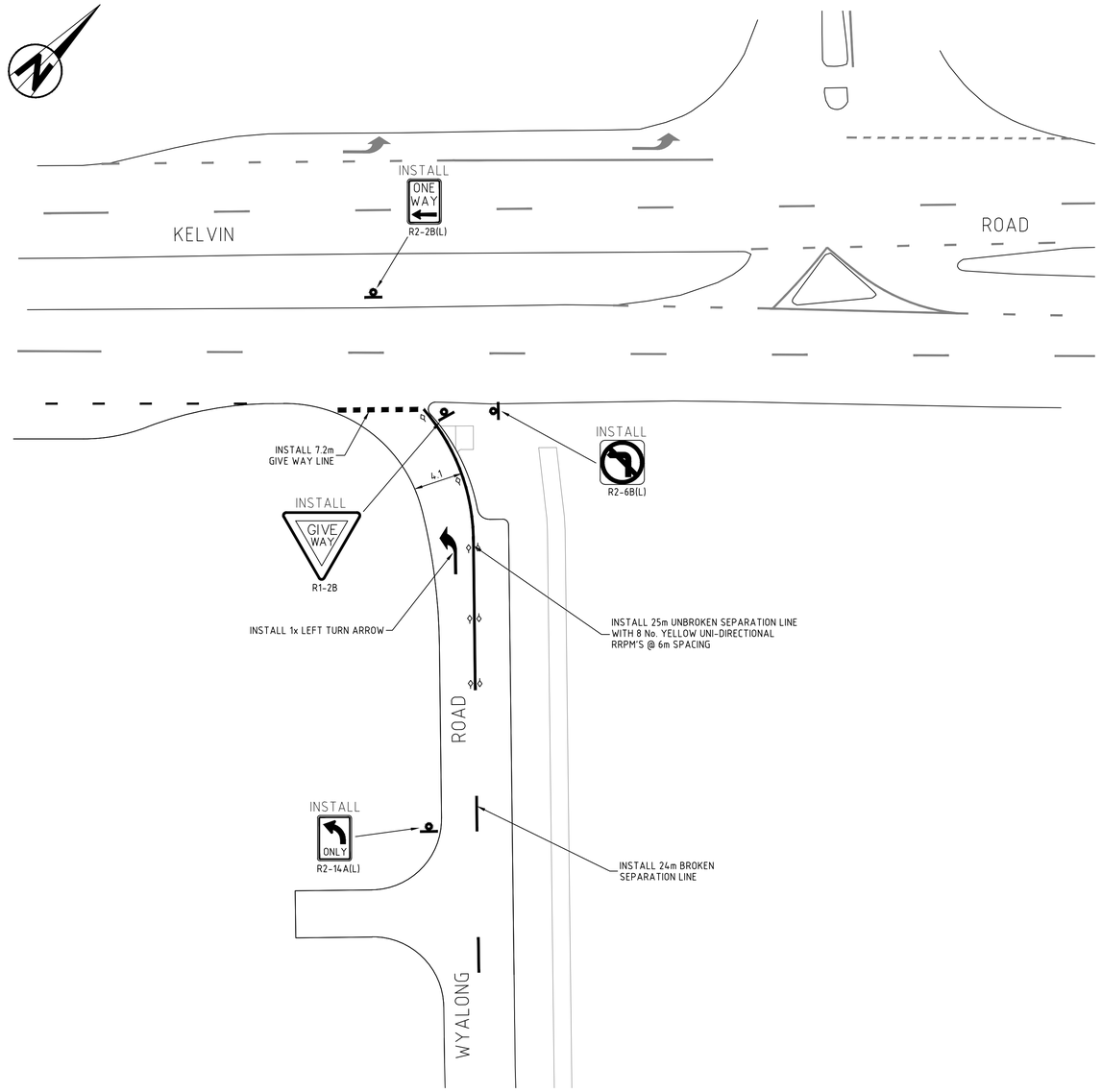
PRELIMINARY ONLY | A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021





PAVEMENT MARKING LINE TYPES

- BROKEN SEPARATION LINE (80mm WIDE) — 3.0, 9.0
- DOUBLE ONE WAY BARRIER LINE (80mm WIDE LINES, 80mm GAP) — 3.0, 9.0
- EDGE LINE (120mm WIDE)
- DOUBLE TWO WAY BARRIER LINE (80mm WIDE LINES, 80mm GAP)
- CONTINUITY LINE (120mm WIDE) — 1, 3.0
- GIVE WAY LINE (300mm WIDE) — 0.6, 0.6
- STOP LINE (300mm WIDE)

LEGEND

- EXISTING LINE TO BE REMOVED
- NEW PAINTED LINE
- NEW PAVEMENT ARROW
- EXISTING ONE POLE SIGN
- EXISTING TWO POLE SIGN
- NEW ONE POLE SIGN
- NEW TWO POLE SIGN
- NEW YELLOW UNIDIRECTIONAL RRPM
- NEW YELLOW BIDIRECTIONAL RRPM
- NEW WHITE UNIDIRECTIONAL RRPM
- NEW RED UNIDIRECTIONAL RRPM
- NEW RED GUIDEPOST

1:250 — 0, 2.5m, 5, 7.5, 10, 12.5, 15, 17.5, 20, 22.5, 25, 27.5, 30, 32.5, 35, 37.5

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
C	12.04.18	FINAL 100%	RN		RN
B	25.01.18	100% DESIGN FOR CITY REVIEW	CRF	RN	RN
A	20.09.17	FOR CITY APPROVAL	TH	RN	RN

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	SEP 2017	HORIZ. 1:250 VERT.
DRAWN		DATUM
TH	SEP 2017	AHD
CHECKED		GRID SYSTEM
RN	SEP 2017	PCG
SURVEY		JOB NUMBER
AERIAL LASER		

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
NORTHERN AREA
SIGNS & PAVEMENT MARKINGS
KELVIN ROAD/MERLOT ENTRANCE INTERSECTION
& KELVIN ROAD/WYALONG ROAD INTERSECTION

PLAN No E2-17-601 REV C

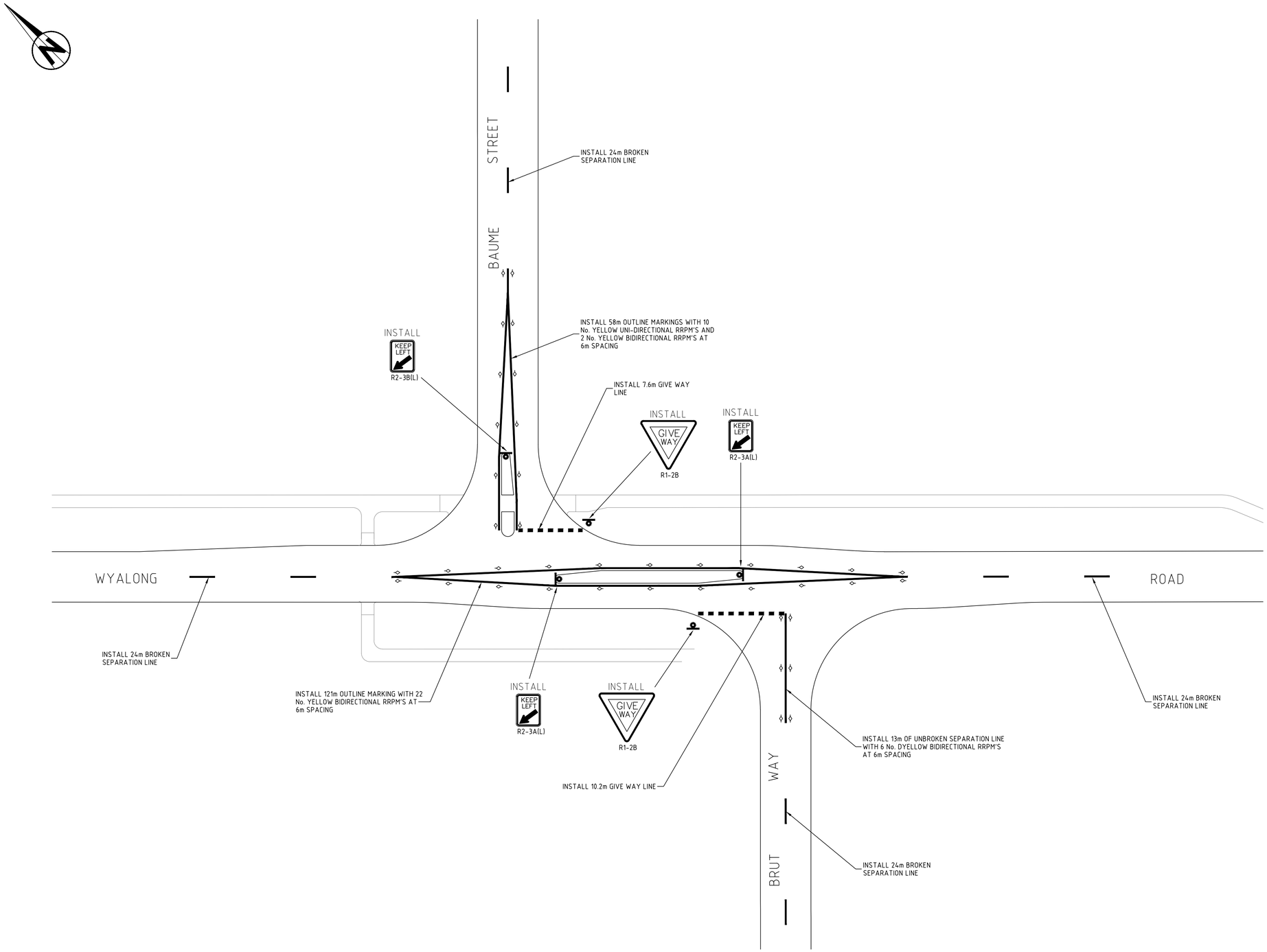
PRELIMINARY ONLY A1

CHIEF ENGINEER

S.ASMUS DATE

12/04/2018 4:15:53 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-813 SIGNS AND LINES.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



1:250 0 2.5m 5 7.5 10 12.5 15 17.5 20 22.5 25 27.5 30 32.5 35 37.5

PAVEMENT MARKING LINE TYPES

- BROKEN SEPARATION LINE (80mm WIDE)
- DOUBLE ONE WAY BARRIER LINE (80mm WIDE LINES, 80mm GAP)
- EDGE LINE (120mm WIDE)
- DOUBLE TWO WAY BARRIER LINE (80mm WIDE LINES, 80mm GAP)
- CONTINUITY LINE (120mm WIDE)
- GIVE WAY LINE (300mm WIDE)
- STOP LINE (300mm WIDE)

LEGEND

- EXISTING LINE TO BE REMOVED
- NEW PAINTED LINE
- NEW PAVEMENT ARROW
- EXISTING ONE POLE SIGN
- EXISTING TWO POLE SIGN
- NEW ONE POLE SIGN
- NEW TWO POLE SIGN
- NEW YELLOW UNIDIRECTIONAL RRPM
- NEW YELLOW BIDIRECTIONAL RRPM
- NEW WHITE UNIDIRECTIONAL RRPM
- NEW RED UNIDIRECTIONAL RRPM
- NEW RED GUIDEPOST

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
C	12.04.18	FINAL 100%	RN		RN
B	08.02.18	MINOR AMENDMENT, ISSUED FOR CITY 100% DESIGN REVIEW	RN	RN	RN
A	25.01.18	100% DESIGN FOR CITY REVIEW	CRF	RN	RN

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE SEP 2017	SCALE HORIZ. 1:250 VERT.	
DRAWN TH	SEP 2017	DATUM AHD	
CHECKED RN	SEP 2017	GRID SYSTEM PCG	
SURVEY AERIAL LASER		JOB NUMBER	

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
NORTHERN AREA
SIGNS & PAVEMENT MARKINGS
MERLOT ENTRANCE/BAUME STREET INTERSECTION
& MERLOT ENTRANCE/BRUT WAY INTERSECTION

PLAN No E2-17-602 REV C

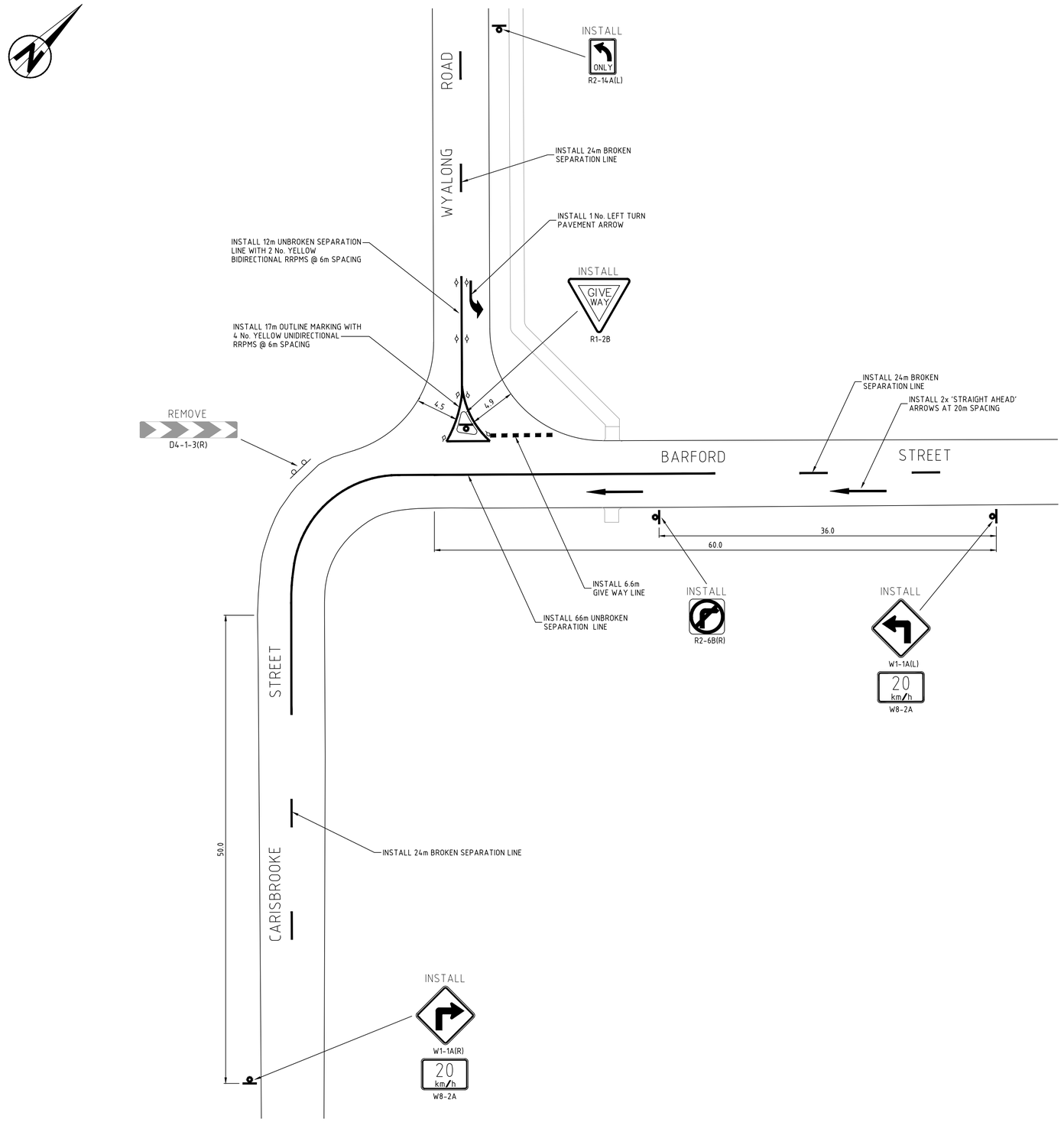
PRELIMINARY ONLY | A1

CHIEF ENGINEER

S.ASMUS DATE

12/04/2018 4:16:15 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_170206\DRAWINGS\170206 803 SIGNS AND LINES.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



1:250 0 2.5m 5 7.5 10 12.5 15 17.5 20 22.5 25 27.5 30 32.5 35 37.5

PAVEMENT MARKING LINE TYPES

- BROKEN SEPARATION LINE (80mm WIDE) — 3.0, 9.0
- DOUBLE ONE WAY BARRIER LINE (80mm WIDE LINES, 80mm GAP) — 3.0, 9.0
- EDGE LINE (120mm WIDE)
- DOUBLE TWO WAY BARRIER LINE (80mm WIDE LINES, 80mm GAP)
- CONTINUITY LINE (120mm WIDE) — 3.0
- GIVE WAY LINE (300mm WIDE) — 0.6, 0.6
- STOP LINE (300mm WIDE)

LEGEND

- EXISTING LINE TO BE REMOVED
- NEW PAINTED LINE
- NEW PAVEMENT ARROW
- EXISTING ONE POLE SIGN
- EXISTING TWO POLE SIGN
- NEW ONE POLE SIGN
- NEW TWO POLE SIGN
- NEW YELLOW UNIDIRECTIONAL RRPM
- NEW YELLOW BIDIRECTIONAL RRPM
- NEW WHITE UNIDIRECTIONAL RRPM
- NEW RED UNIDIRECTIONAL RRPM
- NEW RED GUIDEPOST

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
B	12.04.18	FINAL 100%	RN		RN
A	25.01.18	100% DESIGN FOR CITY REVIEW	CRF	RN	RN

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	SEP 2017	HORIZ. 1:250 VERT.
DRAWN		DATUM
TH	SEP 2017	AHD
CHECKED		GRID SYSTEM
RN	SEP 2017	PCG
SURVEY		JOB NUMBER
AERIAL LASER		

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
NORTHERN AREA
SIGNS & PAVEMENT MARKINGS
WYALONG ROAD/BARFORD STREET/CARISBROOKE STREET INTERSECTIONS

PLAN No E2-17-603 REV B

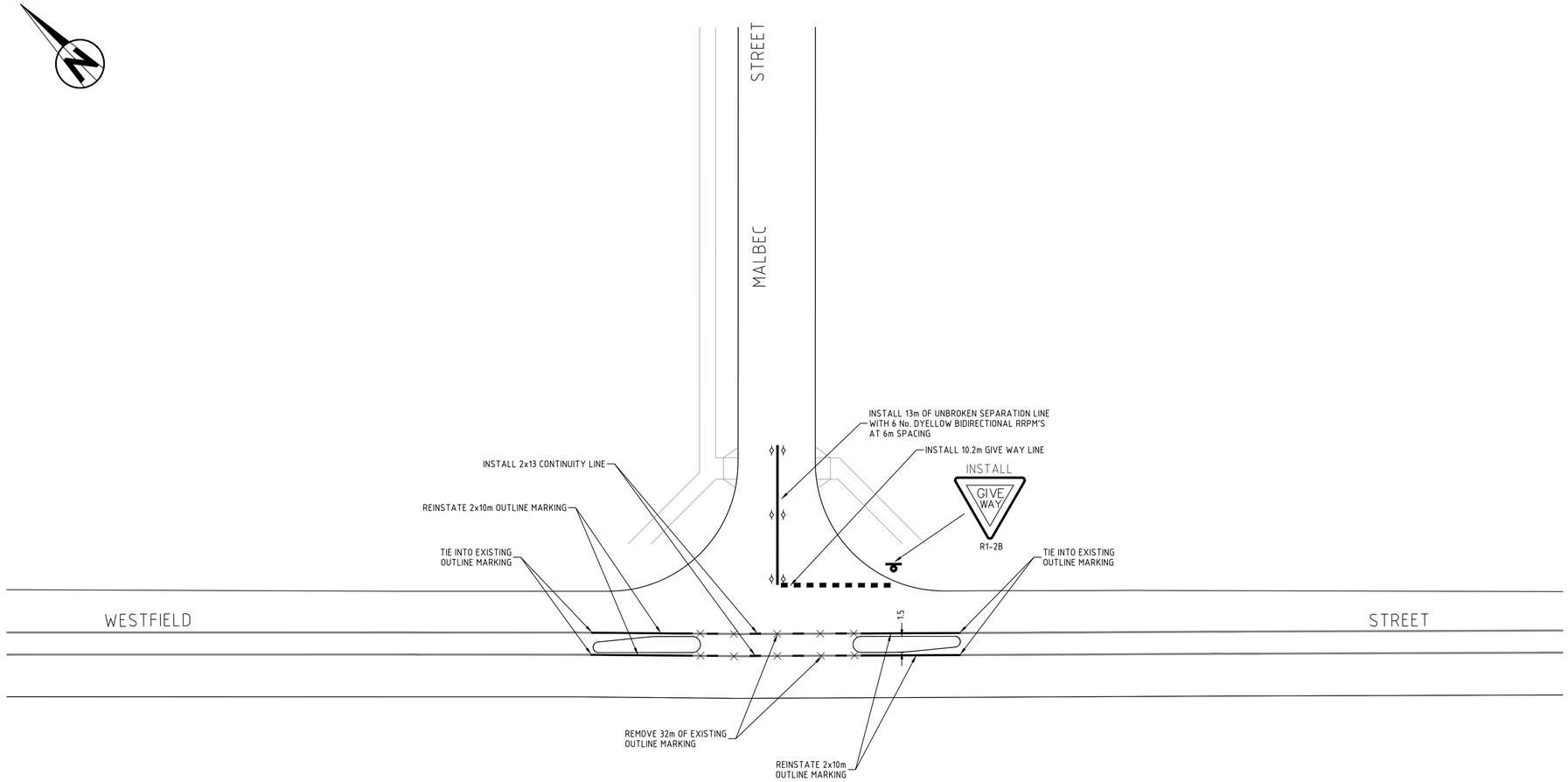
PRELIMINARY ONLY | A1

CHIEF ENGINEER

S.ASMUS DATE

22/04/2018 4:20:11 PM X:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_170206\DRAWINGS\170206 813 SIGNS AND LINES.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



PAVEMENT MARKING LINE TYPES

- BROKEN SEPARATION LINE (80mm WIDE)
- DOUBLE ONE WAY BARRIER LINE (80mm WIDE LINES, 80mm GAP)
- EDGE LINE (120mm WIDE)
- DOUBLE TWO WAY BARRIER LINE (80mm WIDE LINES, 80mm GAP)
- CONTINUITY LINE (120mm WIDE)
- GIVE WAY LINE (300mm WIDE)
- STOP LINE (300mm WIDE)

LEGEND

- EXISTING LINE TO BE REMOVED
- NEW PAINTED LINE
- NEW PAVEMENT ARROW
- EXISTING ONE POLE SIGN
- EXISTING TWO POLE SIGN
- NEW ONE POLE SIGN
- NEW TWO POLE SIGN
- NEW YELLOW UNIDIRECTIONAL RRPM
- NEW YELLOW BIDIRECTIONAL RRPM
- NEW WHITE UNIDIRECTIONAL RRPM
- NEW RED UNIDIRECTIONAL RRPM
- NEW RED GUIDEPOST

1:250 0 2.5m 5 7.5 10 12.5 15 17.5 20 22.5 25 27.5 30 32.5 35 37.5

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
B	12.04.18	FINAL 100%	RN		RN
A	25.01.18	100% DESIGN FOR CITY REVIEW	CRF	RN	RN

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	SEP 2017	HORIZ. 1:250 VERT.
DRAWN		DATUM
TH	SEP 2017	AHD
CHECKED		GRID SYSTEM
RN	SEP 2017	PCG
SURVEY		JOB NUMBER
AERIAL LASER		

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
NORTHERN AREA
SIGNS & PAVEMENT MARKINGS
WESTFIELD STREET/MALBEC STREET INTERSECTION

PLAN No E2-17-604 REV B

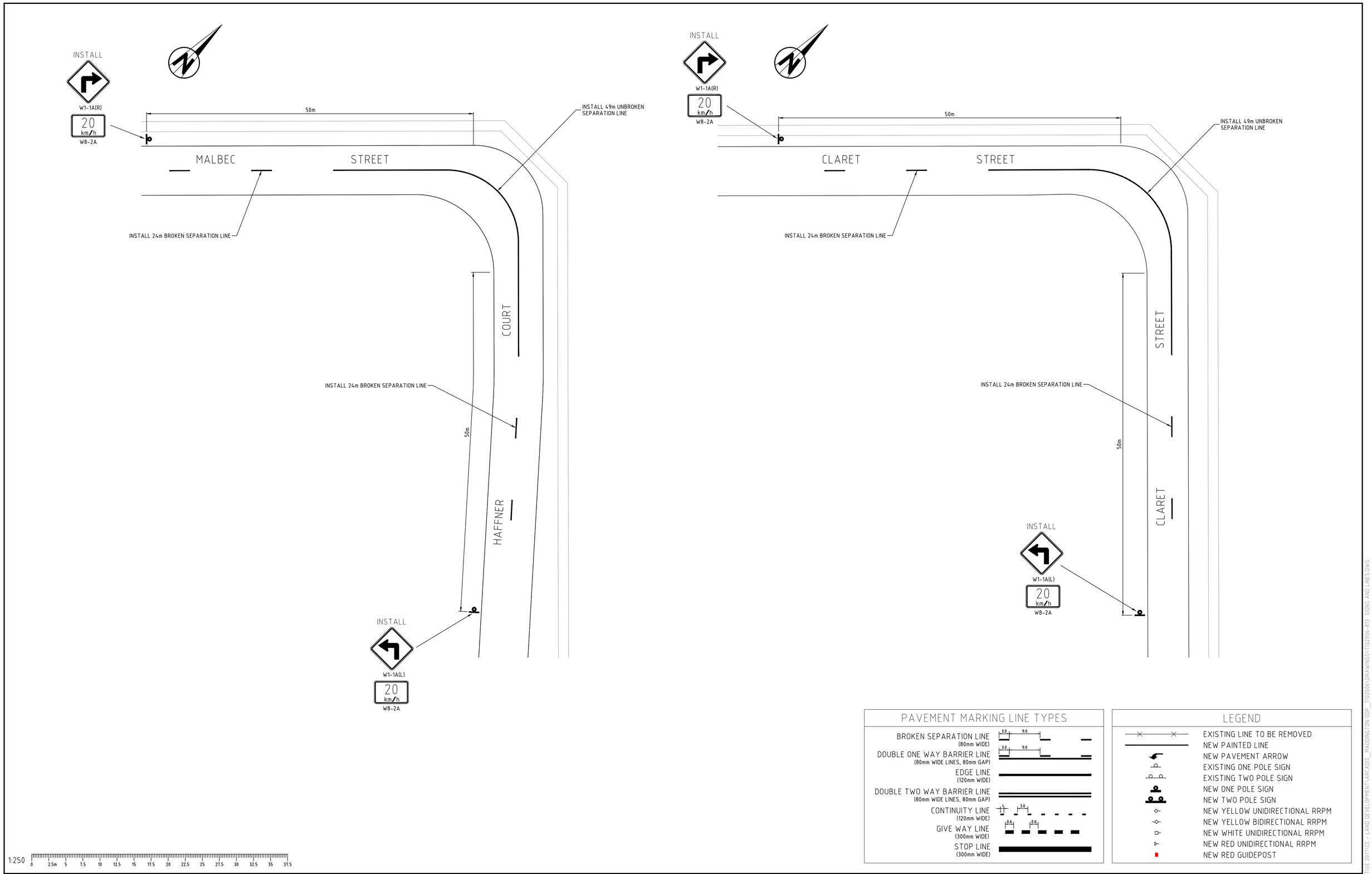
PRELIMINARY ONLY | A1

CHIEF ENGINEER

S.ASMUS DATE

12/04/2018 - 2:53:31 PM Y:\JOBS ACTIVE 2017\LE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_171020610\DRAWINGS\171020610-813 - SIGNS AND LINES.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
B	12.04.18	FINAL 100%	RN		RN
A	25.01.18	100% DESIGN FOR CITY REVIEW	CRF	RN	RN

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	SEP 2017	HORIZ. 1:250 VERT.
DRAWN		DATUM
TH	SEP 2017	AHD
CHECKED		GRID SYSTEM
RN	SEP 2017	PCG
SURVEY		JOB NUMBER
AERIAL LASER		

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
NORTHERN AREA
SIGNS & PAVEMENT MARKINGS
MALBEC STREET/HAFFNER COURT CORNER
& CLARET STREET CORNER

PLAN No E2-17-605 REV B

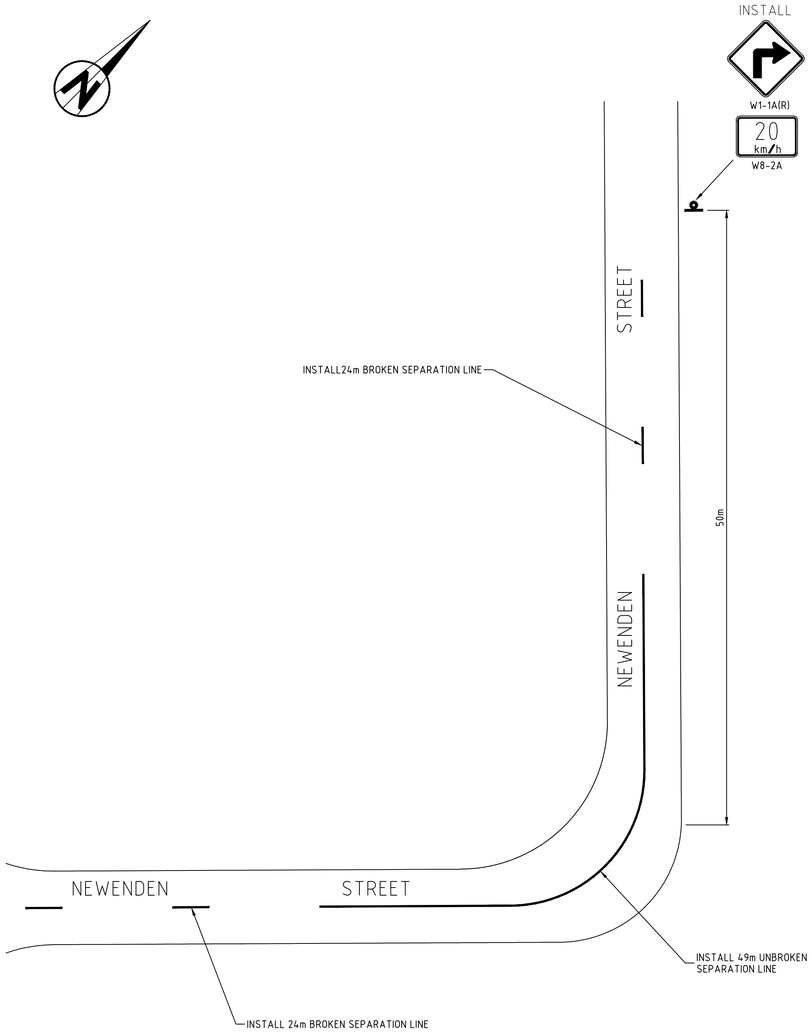
PRELIMINARY ONLY A1

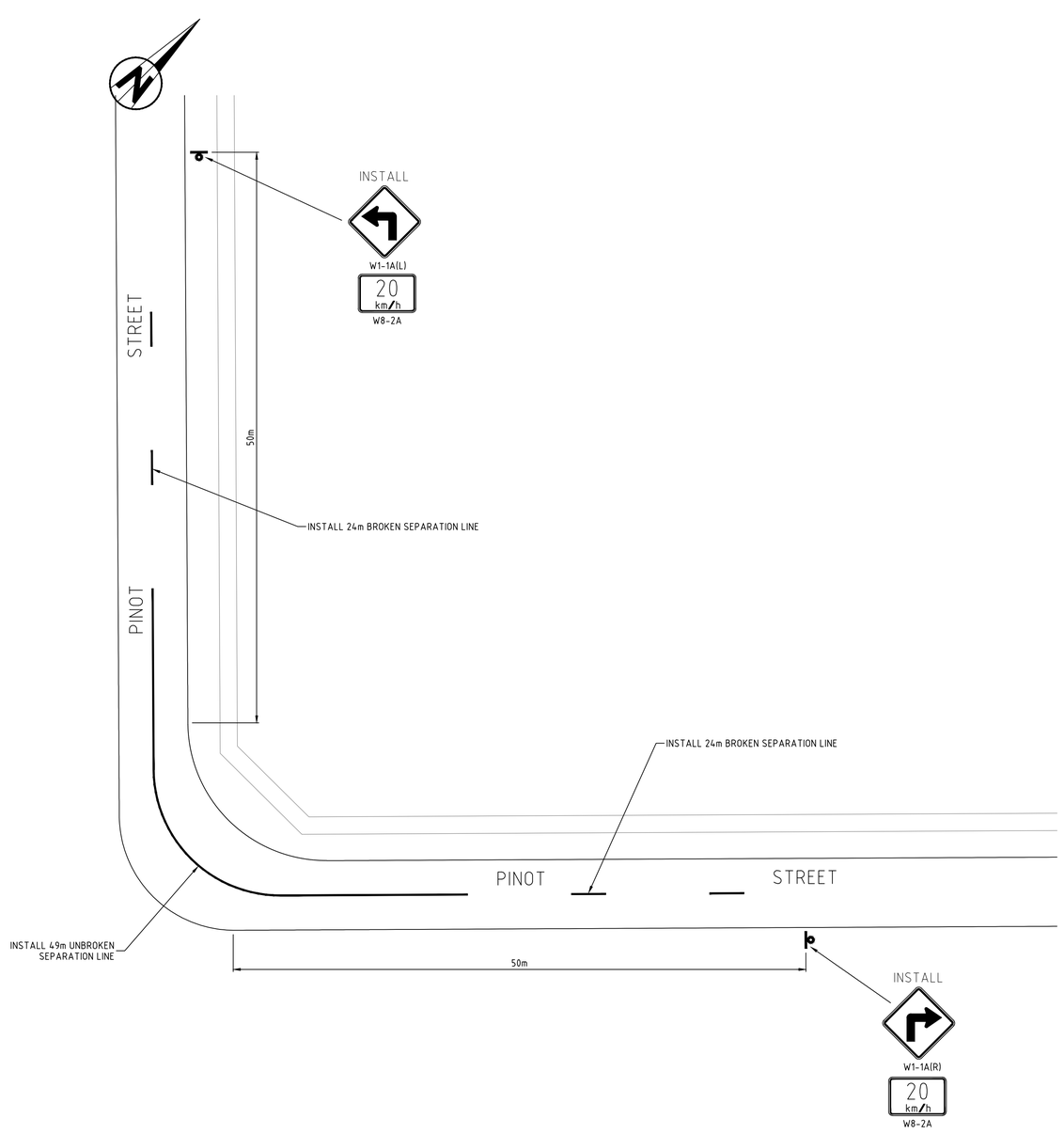
CHIEF ENGINEER

S.ASMUS DATE

12/04/2018 4:17:10 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-813 SIGNS AND LINES.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021





PAVEMENT MARKING LINE TYPES

- BROKEN SEPARATION LINE (80mm WIDE) — 3.0, 9.0
- DOUBLE ONE WAY BARRIER LINE (80mm WIDE LINES, 80mm GAP) — 3.0, 9.0
- EDGE LINE (120mm WIDE)
- DOUBLE TWO WAY BARRIER LINE (80mm WIDE LINES, 80mm GAP)
- CONTINUITY LINE (120mm WIDE) — 1, 3.0
- GIVE WAY LINE (300mm WIDE) — 0.6, 0.6
- STOP LINE (300mm WIDE)

LEGEND

- EXISTING LINE TO BE REMOVED
- NEW PAINTED LINE
- NEW PAVEMENT ARROW
- EXISTING ONE POLE SIGN
- EXISTING TWO POLE SIGN
- NEW ONE POLE SIGN
- NEW TWO POLE SIGN
- NEW YELLOW UNIDIRECTIONAL RRPM
- NEW YELLOW BIDIRECTIONAL RRPM
- NEW WHITE UNIDIRECTIONAL RRPM
- NEW RED UNIDIRECTIONAL RRPM
- NEW RED GUIDEPOST

1:250 0 2.5m 5 7.5 10 12.5 15 17.5 20 22.5 25 27.5 30 32.5 35 37.5

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
B	12.04.18	FINAL 100%	RN		RN
A	25.01.18	100% DESIGN FOR CITY REVIEW	CRF	RN	RN

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	SEP 2017	HORIZ. 1:250 VERT.
DRAWN		DATUM
TH	SEP 2017	AHD
CHECKED		GRID SYSTEM
RN	SEP 2017	PCG
SURVEY		JOB NUMBER
AERIAL LASER		

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
NORTHERN AREA
SIGNS & PAVEMENT MARKINGS
NEWENDEN STREET CORNER
& PINOT STREET CORNER

PLAN No E2-17-606 REV B

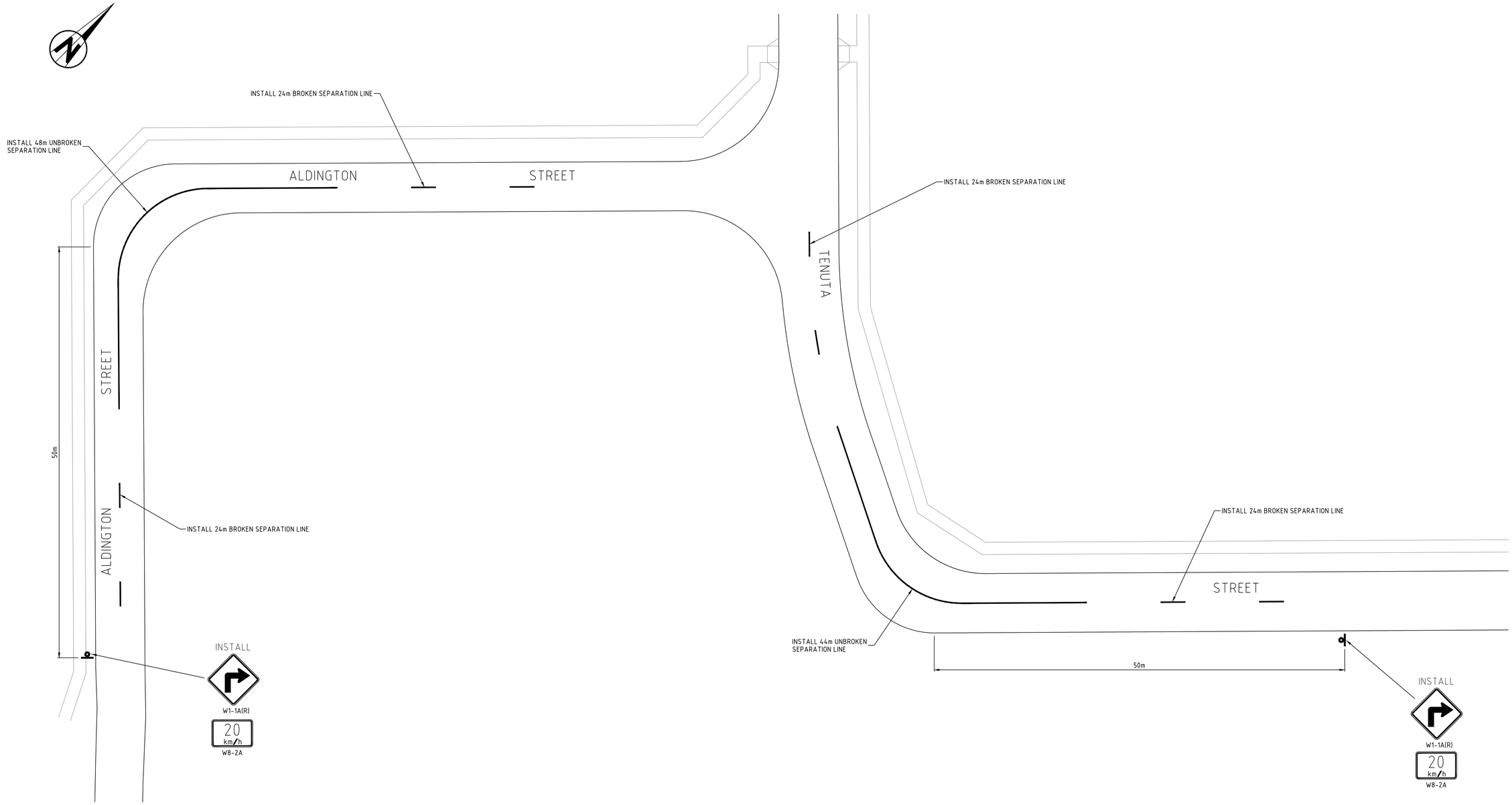
PRELIMINARY ONLY A1

CHIEF ENGINEER

S.ASMUS DATE

12/04/2018 4:17:27 PM X:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_170206\DRAWINGS\170206-813 SIGNS AND LINES.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



PAVEMENT MARKING LINE TYPES

- BROKEN SEPARATION LINE (80mm WIDE)
- DOUBLE ONE WAY BARRIER LINE (80mm WIDE LINES, 80mm GAP)
- EDGE LINE (120mm WIDE)
- DOUBLE TWO WAY BARRIER LINE (80mm WIDE LINES, 80mm GAP)
- CONTINUITY LINE (120mm WIDE)
- GIVE WAY LINE (300mm WIDE)
- STOP LINE (300mm WIDE)

LEGEND

- EXISTING LINE TO BE REMOVED
- NEW PAINTED LINE
- NEW PAVEMENT ARROW
- EXISTING ONE POLE SIGN
- EXISTING TWO POLE SIGN
- NEW ONE POLE SIGN
- NEW TWO POLE SIGN
- NEW YELLOW UNIDIRECTIONAL RRPM
- NEW YELLOW BIDIRECTIONAL RRPM
- NEW WHITE UNIDIRECTIONAL RRPM
- NEW RED UNIDIRECTIONAL RRPM
- NEW RED GUIDEPOST

1:250 0 2.5m 5 7.5 10 12.5 15 17.5 20 22.5 25 27.5 30 32.5 35 37.5

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
B	12.04.18	FINAL 100%	RN		RN
A	25.01.18	100% DESIGN FOR CITY REVIEW	CRF	RN	RN

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	SEP 2017	HORIZ. 1:250 VERT.
DRAWN		DATUM
TH	SEP 2017	AHD
CHECKED		GRID SYSTEM
RN	SEP 2017	PCG
SURVEY		JOB NUMBER
AERIAL LASER		

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
NORTHERN AREA
SIGNS & PAVEMENT MARKINGS
ALDINGTON STREET CORNER
& TENUTA STREET CORNER

PLAN No E2-17-607 REV B

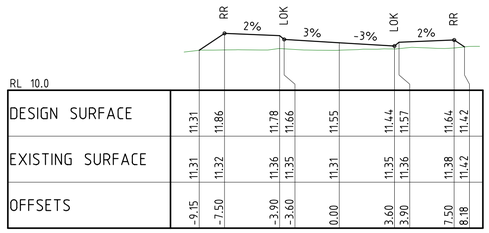
PRELIMINARY ONLY | A1

CHIEF ENGINEER

S.ASMUS DATE

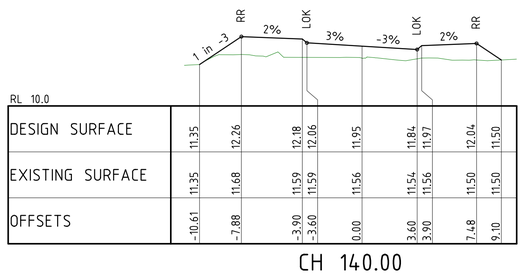
27/04/2018 4:17:43 PM N:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_170206\DRAWINGS\170206-813 SIGNS AND LINES.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



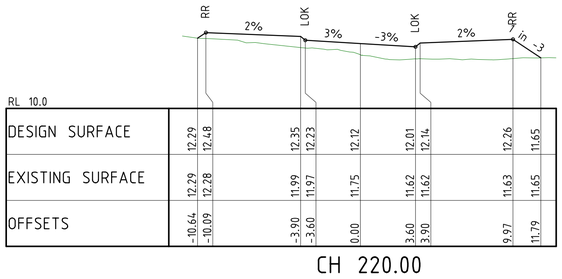
RL 10.0												
DESIGN SURFACE	11.31	11.86		11.78	11.66	11.55		11.44	11.57		11.64	11.42
EXISTING SURFACE	11.31	11.32		11.36	11.35	11.31		11.35	11.36		11.38	11.42
OFFSETS	-9.15	-7.50		-3.90	-3.60	0.00		3.60	3.90		7.50	8.18

CH 60.00



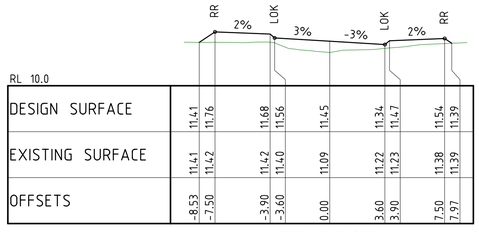
RL 10.0												
DESIGN SURFACE	11.35	12.26		12.18	12.06	11.95		11.84	11.97		12.04	11.50
EXISTING SURFACE	11.35	11.68		11.59	11.59	11.56		11.54	11.56		11.50	11.50
OFFSETS	-10.61	-7.88		-3.90	-3.60	0.00		3.60	3.90		7.48	9.10

CH 140.00



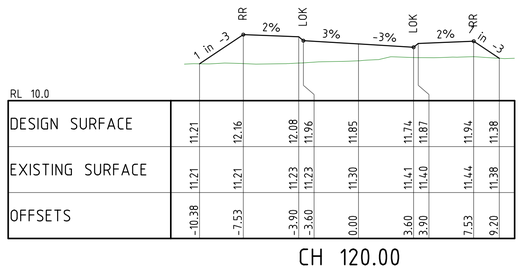
RL 10.0												
DESIGN SURFACE	12.29	12.48		12.35	12.23	12.12		12.01	12.14		12.26	11.65
EXISTING SURFACE	12.29	12.28		11.99	11.97	11.75		11.62	11.62		11.63	11.65
OFFSETS	-10.64	-10.09		-3.90	-3.60	0.00		3.60	3.90		9.97	11.79

CH 220.00



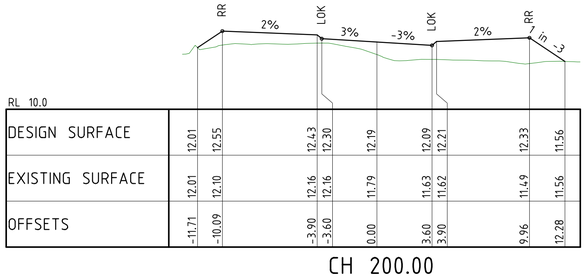
RL 10.0												
DESIGN SURFACE	11.41	11.76		11.68	11.56	11.45		11.34	11.47		11.54	11.39
EXISTING SURFACE	11.41	11.42		11.42	11.40	11.09		11.22	11.23		11.38	11.39
OFFSETS	-8.53	-7.50		-3.90	-3.60	0.00		3.60	3.90		7.50	7.97

CH 40.00



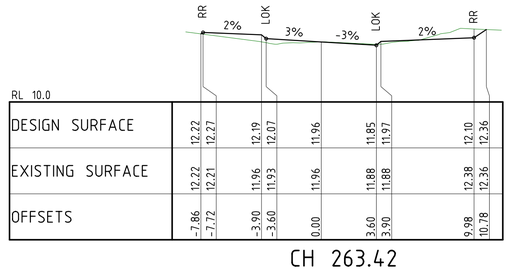
RL 10.0												
DESIGN SURFACE	11.21	12.16		12.08	11.96	11.85		11.74	11.87		11.94	11.38
EXISTING SURFACE	11.21	11.21		11.23	11.23	11.30		11.41	11.40		11.44	11.38
OFFSETS	-10.38	-7.53		-3.90	-3.60	0.00		3.60	3.90		7.53	9.20

CH 120.00



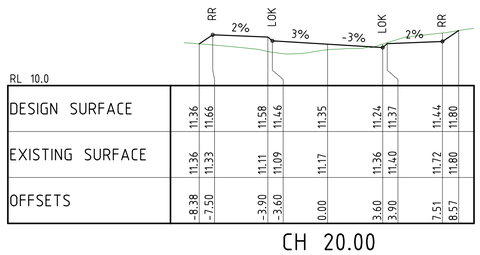
RL 10.0												
DESIGN SURFACE	12.01	12.55		12.43	12.30	12.19		12.09	12.21		12.33	11.56
EXISTING SURFACE	12.01	12.10		12.16	12.16	11.79		11.63	11.62		11.49	11.56
OFFSETS	-11.71	-10.09		-3.90	-3.60	0.00		3.60	3.90		9.96	12.28

CH 200.00



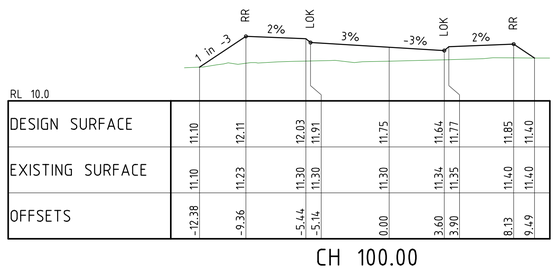
RL 10.0												
DESIGN SURFACE	12.22	12.27		12.19	12.07	11.96		11.85	11.97		12.10	12.36
EXISTING SURFACE	12.22	12.21		11.96	11.93	11.96		11.88	11.88		12.38	12.36
OFFSETS	-7.86	-7.72		-3.90	-3.60	0.00		3.60	3.90		9.98	10.78

CH 263.42



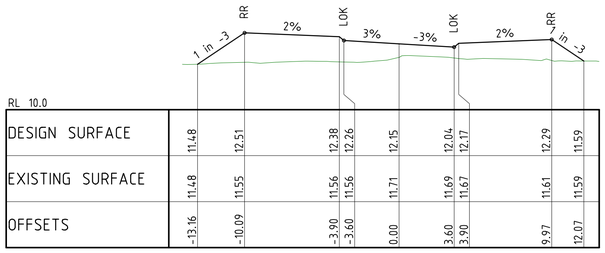
RL 10.0												
DESIGN SURFACE	11.36	11.66		11.58	11.46	11.35		11.24	11.37		11.44	11.80
EXISTING SURFACE	11.36	11.33		11.11	11.09	11.17		11.36	11.40		11.72	11.80
OFFSETS	-8.38	-7.50		-3.90	-3.60	0.00		3.60	3.90		7.51	8.57

CH 20.00



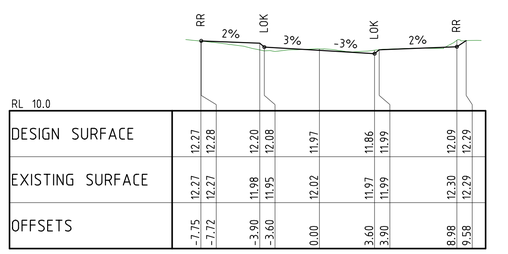
RL 10.0												
DESIGN SURFACE	11.10	12.11		12.03	11.91	11.75		11.64	11.77		11.85	11.40
EXISTING SURFACE	11.10	11.23		11.30	11.30	11.30		11.34	11.35		11.40	11.40
OFFSETS	-12.38	-9.36		-5.44	-5.14	0.00		3.60	3.90		8.13	9.49

CH 100.00



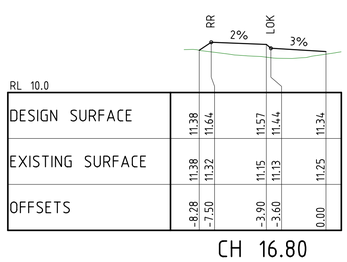
RL 10.0												
DESIGN SURFACE	11.48	12.51		12.38	12.26	12.15		12.04	12.17		12.29	11.59
EXISTING SURFACE	11.48	11.55		11.56	11.56	11.71		11.69	11.67		11.61	11.59
OFFSETS	-13.16	-10.09		-3.90	-3.60	0.00		3.60	3.90		9.97	12.07

CH 180.00



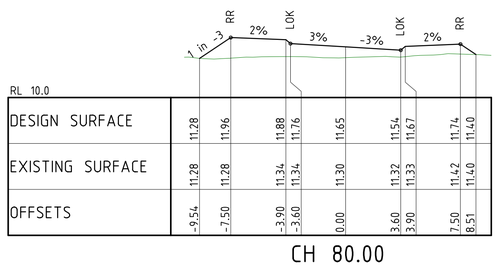
RL 10.0												
DESIGN SURFACE	12.27	12.28		12.20	12.08	11.97		11.86	11.99		12.09	12.29
EXISTING SURFACE	12.27	12.27		11.98	11.95	12.02		11.97	11.99		12.30	12.29
OFFSETS	-7.75	-7.72		-3.90	-3.60	0.00		3.60	3.90		8.98	9.58

CH 260.00



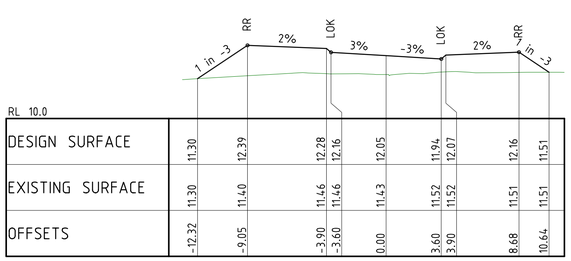
RL 10.0					
DESIGN SURFACE	11.38	11.64		11.57	11.44	11.34
EXISTING SURFACE	11.38	11.32		11.15	11.13	11.25
OFFSETS	-8.28	-7.50		-3.90	-3.60	0.00

CH 16.80



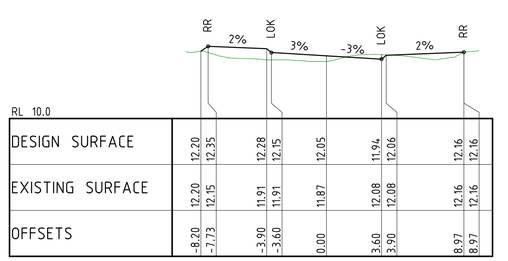
RL 10.0												
DESIGN SURFACE	11.28	11.96		11.88	11.76	11.65		11.54	11.67		11.74	11.40
EXISTING SURFACE	11.28	11.28		11.34	11.34	11.30		11.32	11.33		11.42	11.40
OFFSETS	-9.54	-7.50		-3.90	-3.60	0.00		3.60	3.90		7.50	8.51

CH 80.00



RL 10.0												
DESIGN SURFACE	11.30	12.39		12.28	12.16	12.05		11.94	12.07		12.16	11.51
EXISTING SURFACE	11.30	11.40		11.46	11.46	11.43		11.52	11.52		11.51	11.51
OFFSETS	-12.32	-9.05		-3.90	-3.60	0.00		3.60	3.90		8.68	10.64

CH 160.00



RL 10.0												
DESIGN SURFACE	12.20	12.35		12.28	12.15	12.05		11.94	12.06		12.16	12.16
EXISTING SURFACE	12.20	12.15		11.91	11.91	11.87		12.08	12.08		12.16	12.16
OFFSETS	-8.20	-7.73		-3.90	-3.60	0.00		3.60	3.90		8.97	8.97

CH 240.00

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	D	13.04.18	FINAL 100%	GB	AM	IB
	C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
	B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
	A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	GB	17-Jul
DRAWN	GB	17-Jul
CHECKED	IB	17-Sep
SURVEY		

SCALE	HORIZ. AS SHOWN VERT.
DATUM	AHD
GRID SYSTEM	PCG
JOB NUMBER	

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
ROAD CROSS SECTIONS
MALBEC STREET

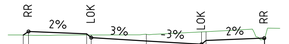
PLAN No E2-17-701 REV D

PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



RL 10.0

DESIGN SURFACE	11.73	11.85		11.77	11.64	11.54		11.43	11.55		11.63	11.62
EXISTING SURFACE	11.73	11.72		11.73	11.73	11.76		11.83	11.84		11.61	11.62
OFFSETS	-8.04	-7.70		-3.90	-3.60	0.00		3.60	3.90		7.70	7.73

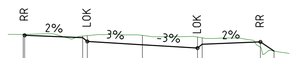
CH 60.00



RL 10.0

DESIGN SURFACE	11.63	11.74		11.67	11.54	11.44		11.33	11.45		11.53	11.44
EXISTING SURFACE	11.63	11.64		11.70	11.70	11.69		11.73	11.72		11.31	11.44
OFFSETS	-8.03	-7.69		-3.90	-3.60	0.00		3.60	3.90		7.71	7.98

CH 40.00



RL 10.0

DESIGN SURFACE	11.68	11.64		11.57	11.44	11.34		11.23	11.35		11.43	11.13
EXISTING SURFACE	11.68	11.68		11.62	11.63	11.64		11.59	11.56		11.26	11.13
OFFSETS	-7.79	-7.69		-3.90	-3.60	0.00		3.60	3.90		7.71	8.60

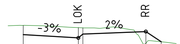
CH 20.00



RL 10.0

DESIGN SURFACE	11.68	11.58	11.70	11.78	12.14
EXISTING SURFACE	12.06	12.14	12.15	12.11	12.14
OFFSETS	0.00	3.60	3.90	7.70	8.78

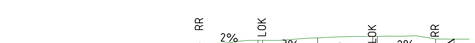
CH 89.55



RL 9.0

DESIGN SURFACE	11.31	11.21	11.33	11.41	11.08
EXISTING SURFACE	11.62	11.54	11.54	11.02	11.08
OFFSETS	0.00	3.60	3.90	8.01	9.01

CH 15.75



RL 10.0

DESIGN SURFACE	11.98	11.95	11.87	11.74	11.64	11.53	11.65	11.73	12.13
EXISTING SURFACE	11.98	11.98	12.09	12.10	12.17	12.22	12.22	12.13	12.13
OFFSETS	-7.81	-7.70	-3.90	-3.60	0.00	3.60	3.90	7.70	8.91

CH 80.00

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
D	13.04.18	FINAL 100%	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE	HORIZ. AS SHOWN VERT.
GB	17-Jul		
DRAWN		DATUM	
GB	17-Jul	AHD	
CHECKED		GRID SYSTEM	
IB	17-Sep	PCG	
SURVEY		JOB NUMBER	

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
ROAD CROSS SECTIONS
BAUME STREET

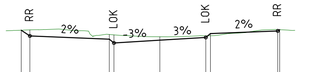
PLAN No E2-17-702 REV D

PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

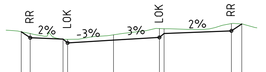
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



RL 9.0

DESIGN SURFACE	11.07	10.88		10.78	10.66	10.75		10.84	10.96		11.05	11.09
EXISTING SURFACE	11.07	11.08		10.93	10.92	10.86		10.89	10.89		11.09	11.09
OFFSETS	-9.06	-8.49		-3.30	-3.00	0.00		3.00	3.30		7.70	7.83

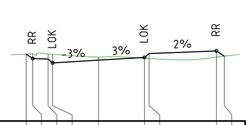
CH 60.00



RL 9.0

DESIGN SURFACE	11.14	10.94		10.90	10.78	10.87		10.96	11.08		11.17	11.39
EXISTING SURFACE	11.14	11.08		10.90	10.89	11.04		11.24	11.24		11.41	11.39
OFFSETS	-6.03	-5.44		-3.30	-3.00	0.00		3.00	3.30		7.70	8.37

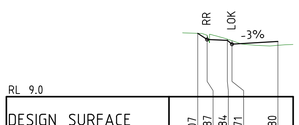
CH 40.00



RL 9.0

DESIGN SURFACE	11.18	11.04		11.02	10.90	10.99		11.08	11.20		11.29	11.12
EXISTING SURFACE	11.18	11.19		11.19	11.17	11.08		11.05	11.04		11.09	11.12
OFFSETS	-4.72	-4.30		-3.30	-3.00	0.00		3.00	3.30		7.70	8.21

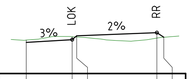
CH 20.00



RL 9.0

DESIGN SURFACE	11.07	10.87	10.84	10.71	10.80
EXISTING SURFACE	11.07	11.00	10.88	10.83	10.68
OFFSETS	-5.24	-4.62	-3.30	-3.00	0.00

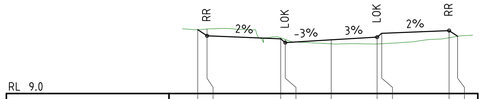
CH 90.77



RL 10.0

DESIGN SURFACE	11.01	11.10	11.23	11.33	11.18	
EXISTING SURFACE	11.09	11.20	11.19	11.16	11.18	
OFFSETS	0.00	3.00	3.30	8.53	8.99	

CH 15.10



RL 9.0

DESIGN SURFACE	11.08	10.88		10.79	10.66	10.75		10.84	10.97		11.05	10.87
EXISTING SURFACE	11.08	11.11		10.82	10.76	10.62		10.62	10.62		10.82	10.87
OFFSETS	-8.72	-8.11		-3.30	-3.00	0.00		3.00	3.30		7.70	8.25

CH 80.00

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
D	13.04.18	FINAL 100%	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE	HORIZ. AS SHOWN VERT.
GB	17-Jul		
DRAWN		DATUM	
GB	17-Jul	AHD	
CHECKED		GRID SYSTEM	
IB	17-Sep	PCG	
SURVEY		JOB NUMBER	

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
ROAD CROSS SECTIONS
BRUT WAY

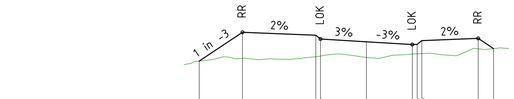
PLAN No E2-17-703 REV D

PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

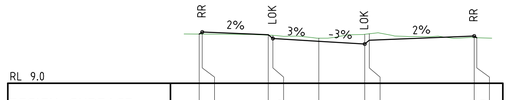
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



RL 8.0

DESIGN SURFACE	9.71		10.65		10.55	10.43	10.34		10.25	10.25	10.38		10.45	10.12
EXISTING SURFACE	9.71	9.80		9.85	9.87		9.83	9.94	9.95	9.95		10.11	10.12	
OFFSETS	-10.92		-8.10	-3.30	-3.00		0.00	3.00	3.32	3.62		7.30	8.31	

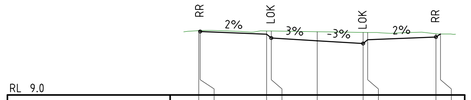
CH 60.00



RL 9.0

DESIGN SURFACE	10.61		10.67		10.59	10.46	10.37		10.28	10.41			10.54	10.49
EXISTING SURFACE	10.61	10.60		10.57	10.57		10.47	10.60	10.62			10.49	10.49	
OFFSETS	-7.81		-7.61	-3.30	-3.00		0.00	3.00	3.30			10.15	10.32	

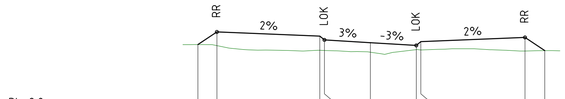
CH 140.00



RL 9.0

DESIGN SURFACE	11.10		11.07		10.99	10.86	10.77		10.68	10.81		10.89		10.99
EXISTING SURFACE	11.10	11.10		11.09	11.09		11.07	11.05	11.04			11.00	10.99	
OFFSETS	-7.73		-7.64	-3.30	-3.00		0.00	3.00	3.30			7.76	8.05	

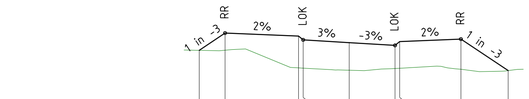
CH 220.00



RL 9.0

DESIGN SURFACE	11.11		11.52		11.39	11.26	11.17		11.08	11.21			11.34	10.91
EXISTING SURFACE	11.11	11.07		10.92	10.92		10.86	10.94	10.93			10.90	10.91	
OFFSETS	-11.26		-10.02	-3.30	-3.00		0.00	3.00	3.30			10.10	11.39	

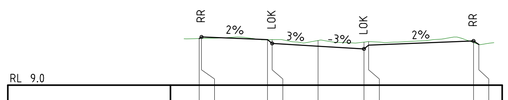
CH 300.00



RL 8.0

DESIGN SURFACE	10.04		10.60		10.50	10.38	10.29		10.20	10.32		10.40		9.37
EXISTING SURFACE	10.04	10.04		9.46	9.46		9.39	9.44	9.45			9.42	9.37	
OFFSETS	-9.80		-8.11	-3.31	-3.01		0.00	2.99	3.29			7.29	10.38	

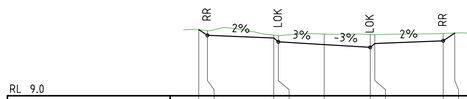
CH 40.00



RL 9.0

DESIGN SURFACE	10.52		10.57		10.49	10.36	10.27		10.18	10.31			10.44	10.33
EXISTING SURFACE	10.52	10.52		10.48	10.49		10.46	10.40	10.42			10.39	10.33	
OFFSETS	-7.76		-7.61	-3.30	-3.00		0.00	3.00	3.30			10.15	10.50	

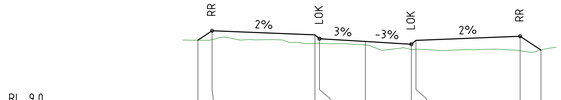
CH 120.00



RL 9.0

DESIGN SURFACE	11.16		10.97		10.89	10.76	10.67		10.58	10.71		10.79		11.05
EXISTING SURFACE	11.16	11.12		10.98	10.96		11.02	11.00	11.00			11.03	11.05	
OFFSETS	-8.19		-7.83	-3.30	-3.00		0.00	3.00	3.30			7.77	8.52	

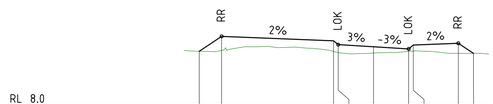
CH 200.00



RL 9.0

DESIGN SURFACE	11.11		11.42		11.29	11.16	11.07		10.98	11.11			11.24	10.79
EXISTING SURFACE	11.11	11.13		11.01	11.01		10.96	10.81	10.82			10.76	10.79	
OFFSETS	-10.94		-10.02	-3.30	-3.00		0.00	3.00	3.30			10.11	11.47	

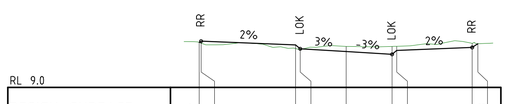
CH 280.00



RL 8.0

DESIGN SURFACE	9.77		10.26		10.11	9.99	9.92		9.85	9.98		10.03		9.70
EXISTING SURFACE	9.77	9.80		9.77	9.73		9.71	9.77	9.78			9.70	9.70	
OFFSETS	-11.38		-9.92	-2.61	-2.31		0.00	2.30	2.60			5.54	6.53	

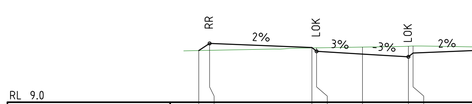
CH 20.00



RL 9.0

DESIGN SURFACE	10.47		10.51		10.39	10.26	10.17		10.08	10.21			10.30	10.43
EXISTING SURFACE	10.47	10.44		10.27	10.24		10.34	10.34	10.34			10.44	10.43	
OFFSETS	-9.60		-9.47	-3.30	-3.00		0.00	3.00	3.30			8.23	8.60	

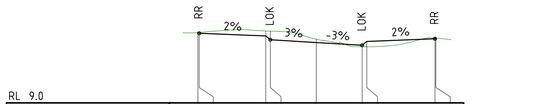
CH 100.00



RL 9.0

DESIGN SURFACE	10.68		10.92		10.79	10.66	10.57		10.48	10.61		10.69		10.79
EXISTING SURFACE	10.68	10.69		10.77	10.77		10.80	10.83	10.83			10.80	10.79	
OFFSETS	-10.69		-9.99	-3.30	-3.00		0.00	3.00	3.30			7.78	8.06	

CH 180.00



RL 9.0

DESIGN SURFACE	11.30		11.27		11.19	11.06	10.97		10.88	11.01			11.09	11.11
EXISTING SURFACE	11.30	11.30		11.35	11.34		11.08	10.83	10.83			11.12	11.11	
OFFSETS	-7.73		-7.65	-3.30	-3.00		0.00	3.00	3.30			7.75	7.81	

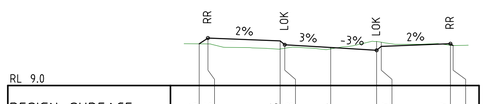
CH 260.00



RL 8.0

DESIGN SURFACE	9.60	9.51	9.64	9.71	9.74
EXISTING SURFACE	9.60	9.56	9.56	9.74	9.74
OFFSETS	0.00	3.00	3.30	6.67	6.77

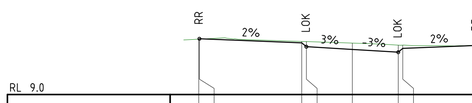
CH 0.00



RL 9.0

DESIGN SURFACE	10.36		10.55		10.45	10.33	10.24		10.15	10.27			10.37	10.31
EXISTING SURFACE	10.36	10.36		10.19	10.22		10.19	10.44	10.41			10.31	10.31	
OFFSETS	-8.59		-8.02	-3.30	-3.00		0.00	3.00	3.30			7.82	8.00	

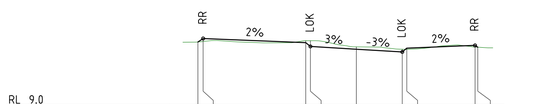
CH 80.00



RL 9.0

DESIGN SURFACE	10.81		10.82		10.69	10.56	10.47		10.38	10.51			10.60	10.60
EXISTING SURFACE	10.81	10.81		10.73	10.73		10.68	10.61	10.61			10.60	10.60	
OFFSETS	-10.02		-9.98	-3.30	-3.00		0.00	3.00	3.30			8.09	8.09	

CH 160.00



RL 9.0

DESIGN SURFACE	11.11		11.22		11.09	10.96	10.87		10.78	10.91			10.99	10.94
EXISTING SURFACE	11.11	11.12		11.15	11.15		10.95	10.87	10.87			10.94	10.94	
OFFSETS	-10.34		-10.00	-3.30	-3.00		0.00	3.00	3.30			7.75	7.93	

CH 240.00

AMENDMENTS						
D	13.04.18	FINAL 100%	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB
REV	DATE	DESCRIPTION	BY	CHK'D	APP'D

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Sep	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
ROAD CROSS SECTIONS
WYALONG ROAD
SHEET 1 OF 2

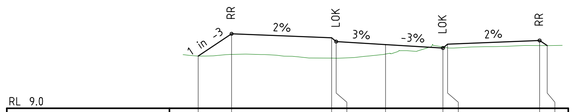
PLAN No E2-17-704 REV D

PRELIMINARY ONLY | A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

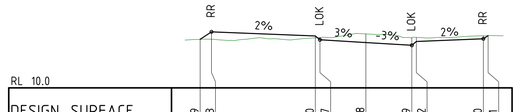
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



RL 9.0

DESIGN SURFACE	10.71	11.43			11.30	11.18	11.08		10.97	11.09		11.21	11.05
EXISTING SURFACE	10.71	10.76			10.64	10.64	10.77		11.00	10.97		11.05	11.05
OFFSETS	-12.24	-10.06			-3.52	-3.22	0.00		3.75	4.05		10.06	10.55

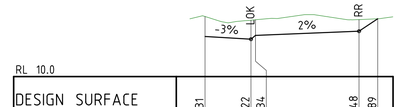
CH 440.00



RL 10.0

DESIGN SURFACE	11.59	11.83			11.70	11.57	11.48		11.39	11.52		11.60	11.71
EXISTING SURFACE	11.59	11.59			11.63	11.64	11.76		11.64	11.65		11.70	11.71
OFFSETS	-10.82	-10.08			-3.30	-3.00	0.00		3.00	3.30		7.67	7.99

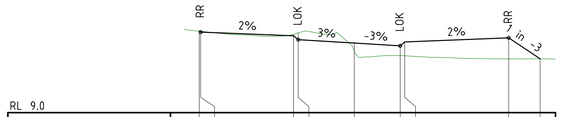
CH 520.00



RL 10.0

DESIGN SURFACE	11.31	11.22	11.34									11.48	11.89
EXISTING SURFACE	11.96	11.84	11.85									11.86	11.89
OFFSETS	0.00	3.00	3.30									10.06	11.28

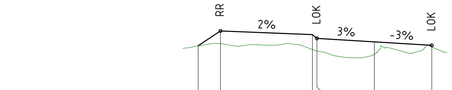
CH 594.83



RL 9.0

DESIGN SURFACE	11.66	11.63			11.51	11.38	11.27		11.18	11.31		11.44	10.76
EXISTING SURFACE	11.66	11.66			11.56	11.60	10.99		10.86	10.86		10.75	10.76
OFFSETS	-10.13	-10.03			-3.96	-3.66	0.00		3.00	3.30		10.08	12.14

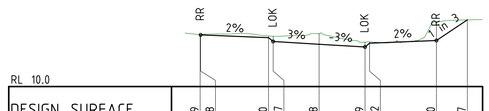
CH 360.00



RL 9.0

DESIGN SURFACE	10.85	11.34			11.22	11.09	10.98		10.87				
EXISTING SURFACE	10.85	10.92			10.73	10.68	10.58		10.82				
OFFSETS	-11.51	-10.06			-4.05	-3.75	0.00		3.75				

CH 420.00



RL 10.0

DESIGN SURFACE	11.69	11.68			11.60	11.47	11.38		11.29	11.42		11.50	12.17
EXISTING SURFACE	11.69	11.70			11.65	11.64	11.73		11.45	11.46		12.12	12.17
OFFSETS	-7.77	-7.73			-3.30	-3.00	0.00		3.00	3.30		7.67	9.68

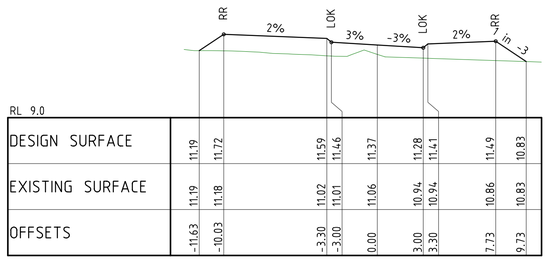
CH 500.00



RL 10.0

DESIGN SURFACE	11.85	11.67	11.60	11.47	11.38		11.29	11.42		11.55	11.98		
EXISTING SURFACE	11.85	11.86	11.82	11.82	11.94		12.12	12.13		12.02	11.98		
OFFSETS	-7.53	-7.01	-3.30	-3.00	0.00		3.00	3.30		10.06	11.35		

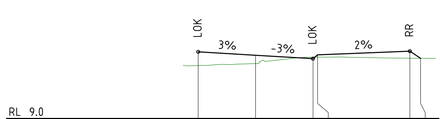
CH 580.00



RL 9.0

DESIGN SURFACE	11.19	11.72			11.59	11.46	11.37		11.28	11.41		11.49	10.83
EXISTING SURFACE	11.19	11.18			11.02	11.01	11.06		10.94	10.94		10.86	10.83
OFFSETS	-11.63	-10.03			-3.30	-3.00	0.00		3.00	3.30		7.73	9.73

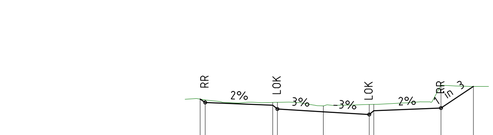
CH 340.00



RL 9.0

DESIGN SURFACE	11.19	11.07			10.96	11.09			11.21	10.97			
EXISTING SURFACE	10.74	10.80			11.01	11.01			10.98	10.97			
OFFSETS	-3.75	0.00			3.75	4.05			10.08	10.78			

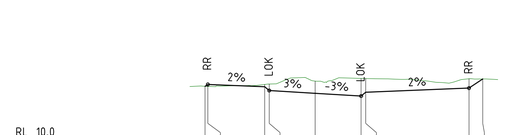
CH 400.00



RL 10.0

DESIGN SURFACE	11.69	11.58			11.50	11.37	11.28		11.19	11.32		11.40	12.11
EXISTING SURFACE	11.69	11.67			11.58	11.59	11.47		11.52	11.52		12.15	12.11
OFFSETS	-8.04	-7.71			-3.30	-3.00	0.00		3.00	3.30		7.69	9.81

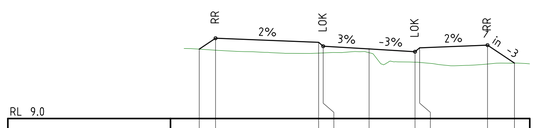
CH 480.00



RL 10.0

DESIGN SURFACE	11.71	11.77	11.70	11.57	11.48		11.39	11.52		11.65	11.95		
EXISTING SURFACE	11.71	11.71	11.77	11.79	11.88		11.97	11.97		11.96	11.95		
OFFSETS	-7.20	-7.01	-3.30	-3.00	0.00		3.00	3.30		10.05	10.94		

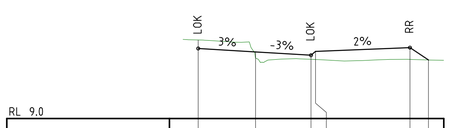
CH 560.00



RL 9.0

DESIGN SURFACE	11.26	11.62			11.49	11.36	11.27		11.18	11.31		11.39	10.81
EXISTING SURFACE	11.26	11.23			11.13	11.14	11.15		10.84	10.83		10.78	10.81
OFFSETS	-11.10	-10.03			-3.30	-3.00	0.00		3.00	3.30		7.73	9.49

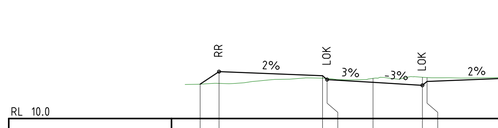
CH 320.00



RL 9.0

DESIGN SURFACE	11.29	11.17			11.06	11.19			11.31	10.91			
EXISTING SURFACE	11.56	10.98			10.93	10.93			10.93	10.91			
OFFSETS	-3.75	0.00			3.62	3.92			10.08	11.29			

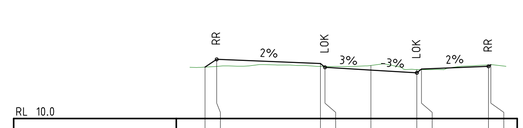
CH 380.00



RL 10.0

DESIGN SURFACE	11.12	11.53			11.40	11.27	11.18		11.08	11.21		11.34	11.34
EXISTING SURFACE	11.12	11.14			11.32	11.31	11.31		11.35	11.34		11.34	11.34
OFFSETS	-11.29	-10.06			-3.30	-3.00	0.00		3.22	3.52		10.05	10.05

CH 460.00



RL 10.0

DESIGN SURFACE	11.68	11.93			11.80	11.67	11.58		11.49	11.62		11.70	11.75
EXISTING SURFACE	11.68	11.70			11.70	11.70	11.73		11.60	11.59		11.75	11.75
OFFSETS	-10.84	-10.08			-3.30	-3.00	0.00		3.00	3.30		7.68	7.83

CH 540.00

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
D	13.04.18	FINAL 100%	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE	
GB	17-Jul	HORIZ. AS SHOWN VERT.	
DRAWN		DATUM	
GB	17-Jul	AHD	
CHECKED		GRID SYSTEM	
IB	17-Sep	PCG	
SURVEY		JOB NUMBER	

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
ROAD CROSS SECTIONS
WYALONG ROAD
SHEET 2 OF 2

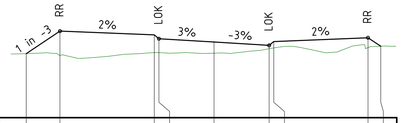
PLAN No E2-17-705 REV D

PRELIMINARY ONLY | A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

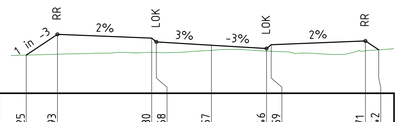
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



RL 9.0

DESIGN SURFACE	11.09	11.83		11.70	11.58	11.47	11.36	11.49		11.61	11.33
EXISTING SURFACE	11.09	11.04		11.13	11.12	11.10	11.25	11.28		11.29	11.33
OFFSETS	-12.27	-10.06		-3.90	-3.60	0.00	3.60	3.90		10.06	10.89

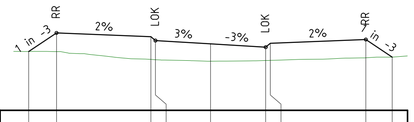
CH 60.00



RL 10.0

DESIGN SURFACE	11.25	11.93		11.80	11.68	11.57	11.46	11.59		11.71	11.42
EXISTING SURFACE	11.25	11.28		11.34	11.33	11.40	11.38	11.37		11.39	11.42
OFFSETS	-12.10	-10.06		-3.90	-3.60	0.00	3.60	3.90		10.06	10.93

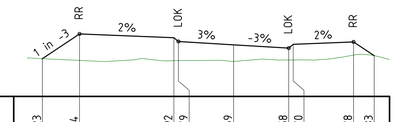
CH 40.00



RL 9.0

DESIGN SURFACE	10.92	11.53		11.40	11.28	11.17	11.06	11.19		11.31	10.74
EXISTING SURFACE	10.92	10.92		10.66	10.65	10.60	10.63	10.63		10.71	10.74
OFFSETS	-11.88	-10.06		-3.90	-3.60	0.00	3.60	3.90		10.14	11.86

CH 120.00



RL 9.0

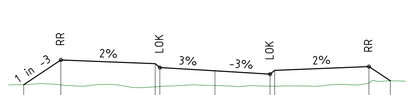
DESIGN SURFACE	10.23	11.04		10.92	10.79	10.69	10.58	10.70		10.78	10.33
EXISTING SURFACE	10.23	10.18		10.17	10.17	10.15	10.19	10.19		10.35	10.33
OFFSETS	-12.49	-10.06		-3.90	-3.60	0.00	3.60	3.90		7.84	9.19

CH 320.00

RL 10.0

DESIGN SURFACE	11.33	11.84		11.72	11.59	11.49	11.38	11.50		11.63	11.41
EXISTING SURFACE	11.33	11.35		11.28	11.26	11.33	11.38	11.38		11.41	11.41
OFFSETS	-11.61	-10.06		-3.90	-3.60	0.00	3.60	3.90		10.05	10.70

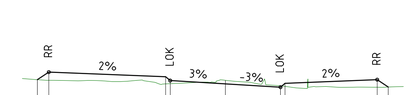
CH 20.00



RL 9.0

DESIGN SURFACE	10.82	11.63		11.50	11.38	11.27	11.16	11.29		11.41	10.95
EXISTING SURFACE	10.82	10.81		10.75	10.76	10.79	10.77	10.77		10.88	10.95
OFFSETS	-12.49	-10.06		-3.90	-3.60	0.00	3.60	3.90		10.06	11.45

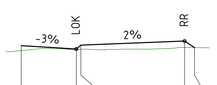
CH 100.00



RL 9.0

DESIGN SURFACE	11.17	11.42		11.27	11.14	11.04	10.93	11.05		11.17	10.93
EXISTING SURFACE	11.17	11.15		11.04	11.04	11.15	10.97	10.95		10.92	10.93
OFFSETS	-12.28	-11.53		-3.90	-3.60	0.00	3.60	3.90		9.92	10.64

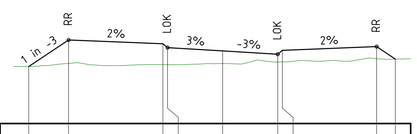
CH 160.00



RL 10.0

DESIGN SURFACE	11.46	11.36		11.62	11.40								
EXISTING SURFACE	11.30	11.33		11.41	11.40								
OFFSETS	0.00	3.60		10.67	11.32								

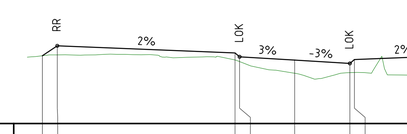
CH 15.43



RL 9.0

DESIGN SURFACE	10.86	11.73		11.60	11.48	11.37	11.26	11.39		11.51	11.10
EXISTING SURFACE	10.86	10.96		10.92	10.92	10.96	11.01	11.01		11.12	11.10
OFFSETS	-12.66	-10.06		-3.90	-3.60	0.00	3.60	3.90		10.06	11.28

CH 80.00



RL 9.0

DESIGN SURFACE	11.21	11.53		11.30	11.18	11.07	10.96	11.09		11.21	10.67
EXISTING SURFACE	11.21	11.24		11.08	11.02	10.64	10.66	10.67		10.66	10.67
OFFSETS	-16.48	-15.51		-3.90	-3.60	0.00	3.60	3.90		10.31	11.95

CH 140.00

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
D	13.04.18	FINAL 100%	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	GB	DATE	17-Jul
DRAWN	GB	17-Jul	
CHECKED	IB	17-Sep	
SURVEY			

SCALE HORIZ. AS SHOWN VERT.
DATUM AHD
GRID SYSTEM PCG
JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
ROAD CROSS SECTIONS
BRABOURNE STREET
SHEET 1 OF 2

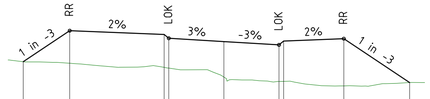
PLAN No E2-17-706 REV D

PRELIMINARY ONLY | A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

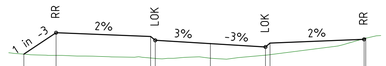
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



RL 8.0

DESIGN SURFACE	9.90	10.92		10.79	10.67	10.56	10.45	10.58	10.65		9.22
EXISTING SURFACE	9.90	9.85		9.72	9.69	9.40	9.26	9.26	9.11		9.22
OFFSETS	-13.11	-10.07		-3.90	-3.60	0.00	3.60	3.90	7.83		12.13

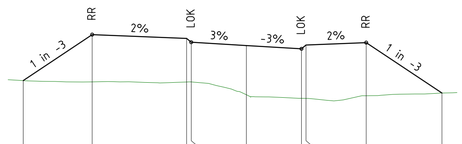
CH 400.00



RL 8.0

DESIGN SURFACE	10.14	10.84		10.71	10.59	10.48	10.37	10.50			10.62	10.66
EXISTING SURFACE	10.14	10.10		10.01	10.00	10.01	10.10	10.12			10.64	10.66
OFFSETS	-12.18	-10.08		-3.90	-3.60	0.00	3.60	3.90			10.04	10.15

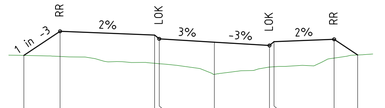
CH 460.00



RL 7.0

DESIGN SURFACE	9.46	10.96		10.84	10.72	10.61	10.50	10.62	10.70		9.06
EXISTING SURFACE	9.46	9.42		9.42	9.42	9.00	8.88	8.88	8.97		9.06
OFFSETS	-14.57	-10.07		-3.90	-3.60	0.00	3.60	3.90	7.83		12.77

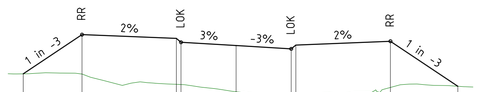
CH 380.00



RL 8.0

DESIGN SURFACE	10.15	10.94		10.81	10.69	10.58	10.47	10.60			10.68	10.16
EXISTING SURFACE	10.15	10.11		9.89	9.88	9.53	9.77	9.78			10.06	10.16
OFFSETS	-12.44	-10.07		-3.90	-3.60	0.00	3.60	3.90			7.83	9.36

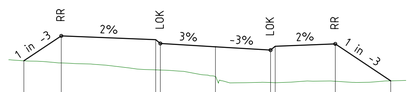
CH 440.00



RL 8.0

DESIGN SURFACE	9.78	11.06		10.94	10.82	10.71	10.60	10.72			10.85	9.38
EXISTING SURFACE	9.78	9.78		9.44	9.43	9.20	9.04	9.04			9.34	9.38
OFFSETS	-13.90	-10.07		-3.90	-3.60	0.00	3.60	3.90			10.08	14.48

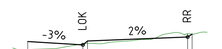
CH 360.00



RL 8.0

DESIGN SURFACE	10.21	11.02		10.90	10.78	10.67	10.56	10.68			10.76	9.56
EXISTING SURFACE	10.21	10.14		9.91	9.91	9.69	9.50	9.50			9.54	9.56
OFFSETS	-12.51	-10.07		-3.90	-3.60	0.00	3.60	3.90			7.83	11.45

CH 420.00



RL 9.0

DESIGN SURFACE	10.43	10.33		10.45							10.58	10.68
EXISTING SURFACE	10.17	10.36		10.38							10.69	10.68
OFFSETS	0.00	3.60		3.90							10.44	10.73

CH 469.37

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	D	13.04.18	FINAL 100%	GB	AM	IB
	C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
	B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
	A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	17-Jul	HORIZ. AS SHOWN VERT.
DRAWN		DATUM
GB	17-Jul	AHD
CHECKED		GRID SYSTEM
IB	17-Sep	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
ROAD CROSS SECTIONS
BRABOURNE STREET
SHEET 2 OF 2

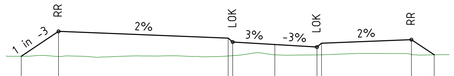
PLAN No E2-17-707 REV D

PRELIMINARY ONLY | A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

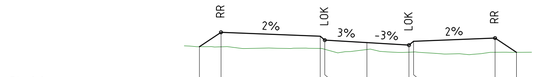
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



RL 9.0

DESIGN SURFACE	10.18	10.99				10.77	10.64	10.56	10.48	10.60		10.72	10.22
EXISTING SURFACE	10.18	10.17				10.18	10.20	10.23	10.22	10.22		10.23	10.22
OFFSETS	-16.56	-14.13				-3.05	-2.75	0.00	2.75	3.05		8.92	10.41

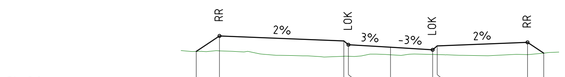
CH 60.00



RL 9.0

DESIGN SURFACE	10.42	10.89				10.76	10.63	10.55	10.47	10.59		10.70	10.23
EXISTING SURFACE	10.42	10.41				10.36	10.33	10.32	10.24	10.24		10.23	10.23
OFFSETS	-10.94	-9.53				-3.05	-2.75	0.00	2.75	3.05		8.37	9.77

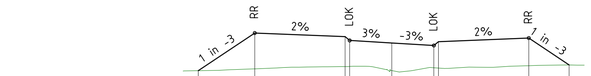
CH 200.00



RL 9.0

DESIGN SURFACE	10.25	10.76			10.60	10.47	10.39		10.31	10.43		10.55	10.20
EXISTING SURFACE	10.25	10.27			10.10	10.10	10.14		10.15	10.15		10.15	10.20
OFFSETS	-12.69	-11.17			-3.05	-2.75	0.00		2.75	3.05		8.95	10.01

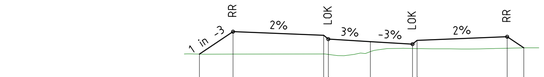
CH 40.00



RL 8.0

DESIGN SURFACE	9.95	11.19			11.07	10.94	10.86		10.78	10.90		11.02	10.14
EXISTING SURFACE	9.95	10.02			10.09	10.09	9.96		10.05	10.04		10.12	10.14
OFFSETS	-12.64	-8.95			-3.05	-2.75	0.00		2.75	3.05		8.95	11.58

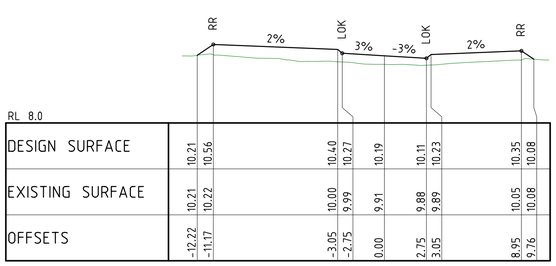
CH 120.00



RL 9.0

DESIGN SURFACE	10.24	10.97			10.86	10.73	10.65		10.57	10.69		10.81	10.45
EXISTING SURFACE	10.24	10.24			10.25	10.23	10.32		10.42	10.42		10.43	10.45
OFFSETS	-11.17	-8.97			-3.05	-2.75	0.00		2.75	3.05		8.93	10.02

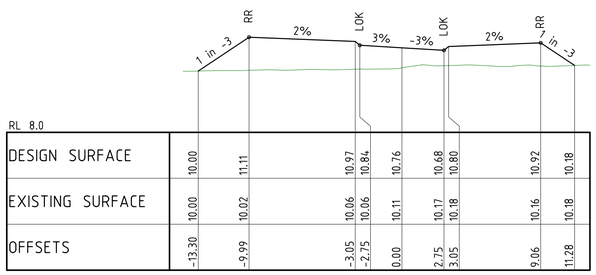
CH 180.00



RL 8.0

DESIGN SURFACE	10.21	10.56			10.40	10.27	10.19		10.11	10.23		10.35	10.08
EXISTING SURFACE	10.21	10.22			10.00	9.99	9.91		9.88	9.89		10.05	10.08
OFFSETS	-12.22	-11.17			-3.05	-2.75	0.00		2.75	3.05		8.95	9.76

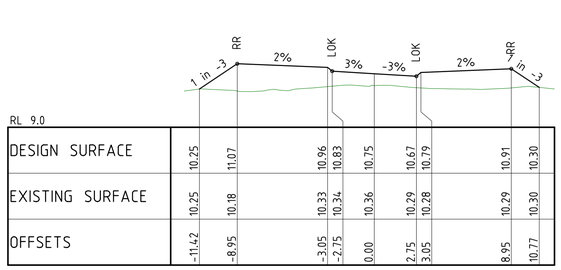
CH 20.00



RL 8.0

DESIGN SURFACE	10.00	11.11			10.97	10.84	10.76		10.68	10.80		10.92	10.18
EXISTING SURFACE	10.00	10.02			10.06	10.06	10.11		10.17	10.18		10.16	10.18
OFFSETS	-13.30	-9.99			-3.05	-2.75	0.00		2.75	3.05		9.06	11.28

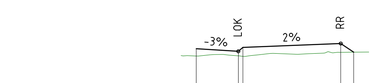
CH 100.00



RL 9.0

DESIGN SURFACE	10.25	11.07			10.96	10.83	10.75		10.67	10.79		10.91	10.30
EXISTING SURFACE	10.25	10.18			10.33	10.34	10.36		10.29	10.28		10.29	10.30
OFFSETS	-11.42	-8.95			-3.05	-2.75	0.00		2.75	3.05		8.95	10.77

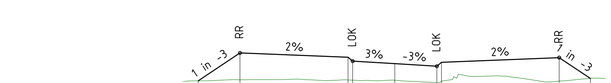
CH 160.00



RL 8.0

DESIGN SURFACE	10.15	10.06	10.19				10.32	10.03					
EXISTING SURFACE	9.91	9.91	9.90				10.03	10.03					
OFFSETS	0.00	2.75	3.05				9.44	10.28					

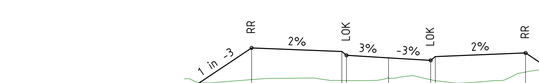
CH 15.58



RL 9.0

DESIGN SURFACE	10.10	11.01			10.87	10.74	10.66		10.58	10.70		10.86	10.18
EXISTING SURFACE	10.10	10.13			10.13	10.12	10.12		10.04	10.08		10.09	10.18
OFFSETS	-12.84	-10.11			-3.05	-2.75	0.00		2.75	3.05		10.74	12.78

CH 80.00



RL 9.0

DESIGN SURFACE	10.04	11.17			11.06	10.93	10.85		10.77	10.89		11.01	10.47
EXISTING SURFACE	10.04	10.14			10.11	10.11	10.19		10.14	10.11		10.39	10.47
OFFSETS	-12.36	-8.95			-3.05	-2.75	0.00		2.75	3.05		8.95	10.57

CH 140.00

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
D	13.04.18	FINAL 100%	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
GB	17-Jul	HORIZ. AS SHOWN VERT.
DRAWN		DATUM
GB	17-Jul	AHD
CHECKED		GRID SYSTEM
IB	17-Sep	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

PLAN No E2-17-708 REV D

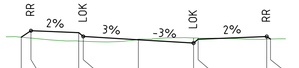
DRAWING TITLE
ROAD CROSS SECTIONS
CLARET STREET
SHEET 1 OF 2

PRELIMINARY ONLY | A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

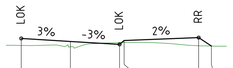
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



RL 9.0

DESIGN SURFACE	10.23	10.44		10.38	10.26	10.15		10.04	10.17		10.25	10.17
EXISTING SURFACE	10.23	10.20		10.11	10.10	10.17		10.21	10.20		10.17	10.17
OFFSETS	-7.65	-7.02		-3.90	-3.60	0.00		3.60	3.90		8.38	8.63

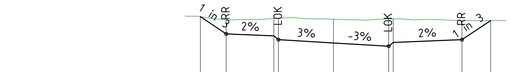
CH 280.00



RL 9.0

DESIGN SURFACE	10.34		10.25		10.15	10.28			10.37	10.10		
EXISTING SURFACE	10.11		10.07		10.21	10.21			10.11	10.10		
OFFSETS	-3.21		0.00		3.21	3.51			8.38	9.21		

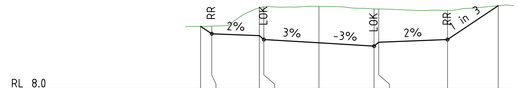
CH 260.00



RL 8.0

DESIGN SURFACE	10.71	10.14		10.08	9.96		9.85		9.74	9.87	9.95	10.58
EXISTING SURFACE	10.71	10.60		10.65	10.66		10.62		10.63	10.63	10.58	10.58
OFFSETS	-8.70	-7.01		-3.90	-3.60		0.00		3.60	3.90	8.39	10.26

CH 340.00



RL 8.0

DESIGN SURFACE	10.09	9.84		9.78	9.66		9.55		9.44	9.57	9.66	10.76
EXISTING SURFACE	10.09	10.09		10.69	10.72		10.74		10.66	10.65	10.60	10.76
OFFSETS	-7.73	-7.00		-3.90	-3.60		0.00		3.60	3.90	8.40	11.71

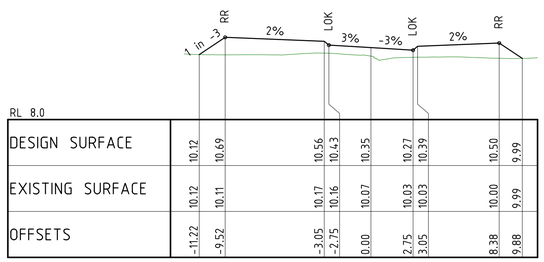
CH 400.00



RL 7.0

DESIGN SURFACE	8.46	9.55				9.46	9.34		9.25		9.16	9.28	9.30	9.01
EXISTING SURFACE	8.46	8.38				8.51	8.52		8.66		8.83	8.85	8.93	9.01
OFFSETS	-10.97	-7.70				-3.30	-3.00		0.00		3.00	3.30	4.30	5.19

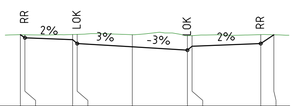
CH 460.00



RL 8.0

DESIGN SURFACE	10.12	10.69			10.56	10.43	10.35		10.27	10.39		10.50	9.99
EXISTING SURFACE	10.12	10.11			10.17	10.16	10.07		10.03	10.03		10.00	9.99
OFFSETS	-11.22	-9.52			-3.05	-2.75	0.00		2.75	3.05		8.38	9.88

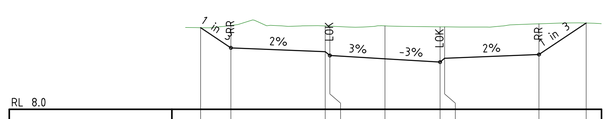
CH 240.00



RL 8.0

DESIGN SURFACE	10.34	10.24		10.18	10.06	9.95		9.84	9.97		10.05	10.34
EXISTING SURFACE	10.24	10.34		10.35	10.36	10.35		10.31	10.31		10.35	10.34
OFFSETS	-7.32	-7.01		-3.90	-3.60	0.00		3.60	3.90		8.39	9.25

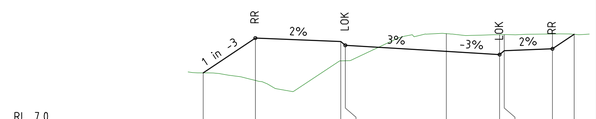
CH 320.00



RL 8.0

DESIGN SURFACE	10.66	10.00		9.88	9.76	9.65		9.54	9.67		9.79	10.82
EXISTING SURFACE	10.66	10.74		10.72	10.71	10.72		10.69	10.69		10.79	10.82
OFFSETS	-12.04	-10.06		-3.90	-3.60	0.00		3.60	3.90		10.06	13.14

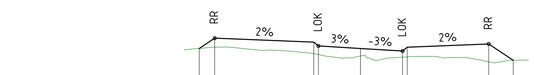
CH 380.00



RL 7.0

DESIGN SURFACE	8.65	9.78			9.67	9.55		9.35		9.24	9.37	9.43	9.91
EXISTING SURFACE	8.65	8.40			9.04	9.04		9.93		9.89	9.90	9.92	9.91
OFFSETS	-15.88	-12.48			-6.90	-6.60		0.00		3.48	3.78	6.93	8.35

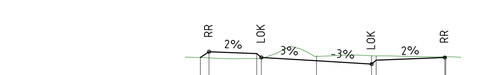
CH 440.00



RL 8.0

DESIGN SURFACE	10.45	10.79		10.66	10.53	10.45	10.37	10.49		10.60	10.06	
EXISTING SURFACE	10.45	10.49		10.28	10.25	10.20	10.16	10.17		10.01	10.06	
OFFSETS	-10.53	-9.53		-3.05	-2.75	0.00	2.75	3.05		8.37	9.98	

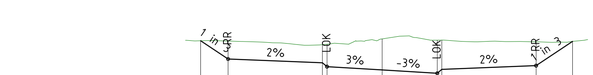
CH 220.00



RL 8.0

DESIGN SURFACE	10.15	10.34		10.28	10.16	10.05		9.94	10.07		10.15	10.18
EXISTING SURFACE	10.15	10.14		10.12	10.12	10.20		10.21	10.21		10.18	10.18
OFFSETS	-7.59	-7.02		-3.90	-3.60	0.00		3.60	3.90		8.38	8.45

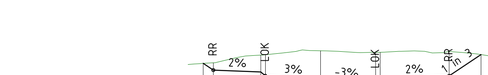
CH 300.00



RL 8.0

DESIGN SURFACE	10.70	10.10		9.98	9.86	9.75		9.64	9.77		9.89	10.68
EXISTING SURFACE	10.70	10.69		10.57	10.59	10.76		10.72	10.72		10.66	10.68
OFFSETS	-11.85	-10.06		-3.90	-3.60	0.00		3.60	3.90		10.06	12.44

CH 360.00



RL 8.0

DESIGN SURFACE	9.96	9.74		9.68	9.56	9.45		9.34	9.47		9.56	10.25
EXISTING SURFACE	9.96	9.98		10.23	10.24	10.37		10.32	10.33		10.35	10.25
OFFSETS	-7.66	-7.00		-3.90	-3.60	0.00		3.60	3.90		8.40	10.48

CH 420.00

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	D	13.04.18	FINAL 100%	GB	AM	IB
	C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
	B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
	A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Sep	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
ROAD CROSS SECTIONS
CLARET STREET
SHEET 2 OF 2

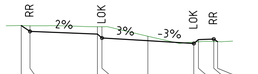
PLAN No E2-17-709 REV D

PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

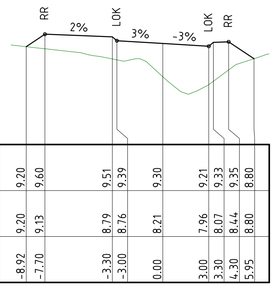
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



RL 8.0

DESIGN SURFACE	9.89	9.70		9.61	9.49	9.40	9.31	9.43	9.45	9.37
EXISTING SURFACE	9.89	9.89		9.86	9.86	9.55	9.36	9.37	9.37	9.37
OFFSETS	-8.27	-7.70		-3.30	-3.00	0.00	3.00	3.30	4.30	4.55

CH 520.00



RL 6.0

DESIGN SURFACE	9.20	9.60		9.51	9.39	9.30	9.21	9.33	9.35	8.80
EXISTING SURFACE	9.20	9.13		8.79	8.76	8.21	7.96	8.07	8.44	8.80
OFFSETS	-8.92	-7.70		-3.30	-3.00	0.00	3.00	3.30	4.30	5.95

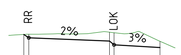
CH 500.00



RL 6.0

DESIGN SURFACE	8.63	9.50		9.41	9.29	9.20	9.11	9.23	9.25	8.65
EXISTING SURFACE	8.63	8.61		8.50	8.48	8.07	7.94	8.01	8.23	8.65
OFFSETS	-10.32	-7.70		-3.30	-3.00	0.00	3.00	3.30	4.30	6.10

CH 480.00



RL 8.0

DESIGN SURFACE	9.86	9.75		9.65	9.43
EXISTING SURFACE	9.86	9.87		9.94	9.92	9.64
OFFSETS	-8.90	-8.57		-3.30	-3.00	0.00

CH 526.70

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
A	13.04.18	FINAL 100%	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Sep	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
ROAD CROSS SECTIONS
CLARET STREET
SHEET 3 OF 3

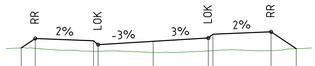
PLAN No E2-17-710 REV A

PRELIMINARY ONLY | A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

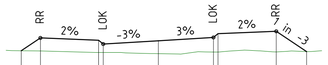
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



RL 9.0

DESIGN SURFACE	10.27	10.57	10.50	10.37	10.48	10.59	10.71	10.79	10.24
EXISTING SURFACE	10.27	10.25	10.16	10.15	10.12	10.17	10.18	10.18	10.24
OFFSETS	-8.62	-7.70	-3.90	-3.60	0.00	3.60	3.90	7.70	9.34

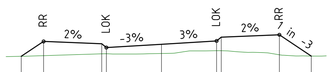
CH 80.00



RL 9.0

DESIGN SURFACE	10.26	10.67	10.60	10.47	10.58	10.69	10.81	10.89	10.23
EXISTING SURFACE	10.26	10.25	10.20	10.20	10.16	10.21	10.21	10.22	10.23
OFFSETS	-8.95	-7.70	-3.90	-3.60	0.00	3.60	3.90	7.70	9.68

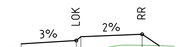
CH 60.00



RL 9.0

DESIGN SURFACE	10.25	10.74	10.66	10.54	10.64	10.75	10.88	10.95	10.26
EXISTING SURFACE	10.25	10.27	10.33	10.34	10.34	10.44	10.44	10.30	10.26
OFFSETS	-9.16	-7.70	-3.90	-3.60	0.00	3.60	3.90	7.70	9.78

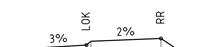
CH 40.00



RL 9.0

DESIGN SURFACE	10.56	10.66	10.79	10.87	10.50
EXISTING SURFACE	10.38	10.40	10.40	10.51	10.50
OFFSETS	0.00	3.60	3.90	7.90	9.01

CH 22.33



RL 9.0

DESIGN SURFACE	10.41	10.52	10.64	10.73	10.23
EXISTING SURFACE	10.19	10.17	10.16	10.29	10.23
OFFSETS	0.00	3.60	3.90	8.47	9.97

CH 94.51

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
D	13.04.18	FINAL 100%	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE	HORIZ. AS SHOWN VERT.
GB	17-Jul		
DRAWN		DATUM	
GB	17-Jul	AHD	
CHECKED		GRID SYSTEM	
IB	17-Sep	PCG	
SURVEY		JOB NUMBER	

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
ROAD CROSS SECTIONS
MERLOT ENT

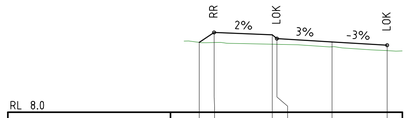
PLAN No E2-17-711 REV D

PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

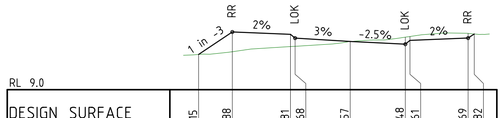
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



RL 8.0

DESIGN SURFACE	10.28	10.60	10.53	10.40	10.30	10.19
EXISTING SURFACE	10.28	10.28	10.22	10.22	10.14	10.01
OFFSETS	-8.67	-7.70	-3.90	-3.60	0.00	3.60

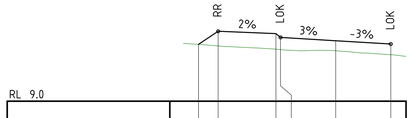
CH 60.00



RL 9.0

DESIGN SURFACE	10.15	10.88	10.81	10.68	10.57	10.48	10.61	10.69	10.82
EXISTING SURFACE	10.15	10.24	10.41	10.42	10.57	10.71	10.74	10.84	10.82
OFFSETS	-9.90	-7.70	-3.90	-3.60	0.00	3.60	3.90	7.70	8.10

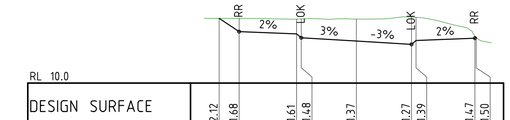
CH 140.00



RL 9.0

DESIGN SURFACE	10.86	11.28	11.21	11.08	10.97	10.87
EXISTING SURFACE	10.86	10.80	10.70	10.68	10.65	10.52
OFFSETS	-8.95	-7.68	-3.90	-3.60	0.00	3.60

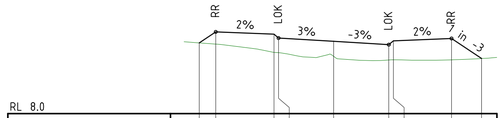
CH 220.00



RL 10.0

DESIGN SURFACE	12.12	11.68	11.61	11.48	11.37	11.27	11.39	11.47	11.50
EXISTING SURFACE	12.12	12.11	12.09	12.10	12.09	12.16	12.15	11.54	11.50
OFFSETS	-8.96	-7.66	-3.90	-3.60	0.00	3.60	3.90	7.74	7.83

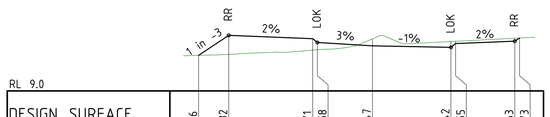
CH 300.00



RL 8.0

DESIGN SURFACE	10.31	10.67	10.59	10.47	10.36	10.25	10.38	10.45	9.80
EXISTING SURFACE	10.31	10.27	10.00	9.99	9.87	9.75	9.76	9.76	9.80
OFFSETS	-8.78	-7.70	-3.90	-3.60	0.00	3.60	3.90	7.70	9.66

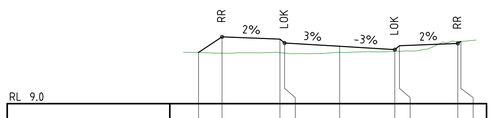
CH 40.00



RL 9.0

DESIGN SURFACE	10.16	10.82	10.71	10.58	10.47	10.42	10.55	10.63	10.73
EXISTING SURFACE	10.16	10.19	10.33	10.35	10.70	10.61	10.62	10.72	10.73
OFFSETS	-11.36	-9.39	-3.90	-3.60	0.00	5.13	5.43	9.30	9.61

CH 120.00



RL 9.0

DESIGN SURFACE	10.67	11.18	11.11	10.98	10.87	10.77	10.89	10.97	11.03
EXISTING SURFACE	10.67	10.65	10.67	10.65	10.68	10.71	10.71	11.03	11.03
OFFSETS	-9.22	-7.69	-3.90	-3.60	0.00	3.60	3.90	7.71	7.92

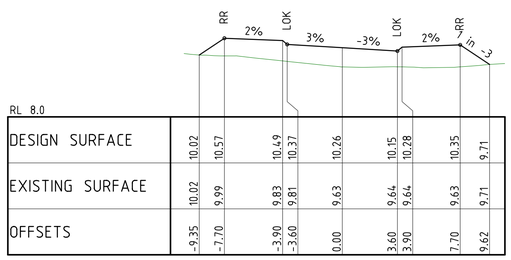
CH 200.00



RL 10.0

DESIGN SURFACE	11.85	11.58	11.51	11.38	11.27	11.17	11.29	11.37	11.23
EXISTING SURFACE	11.85	11.85	11.76	11.75	11.63	11.69	11.66	11.23	11.23
OFFSETS	-8.46	-7.66	-3.90	-3.60	0.00	3.60	3.90	7.74	8.14

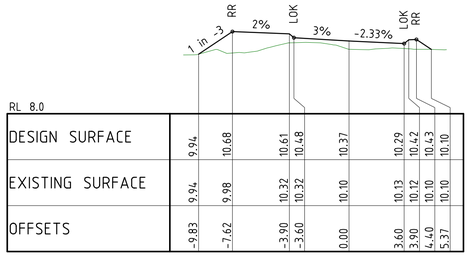
CH 280.00



RL 8.0

DESIGN SURFACE	10.02	10.57	10.49	10.37	10.26	10.15	10.28	10.35	9.71
EXISTING SURFACE	10.02	9.99	9.83	9.81	9.63	9.64	9.64	9.63	9.71
OFFSETS	-9.35	-7.70	-3.90	-3.60	0.00	3.60	3.90	7.70	9.62

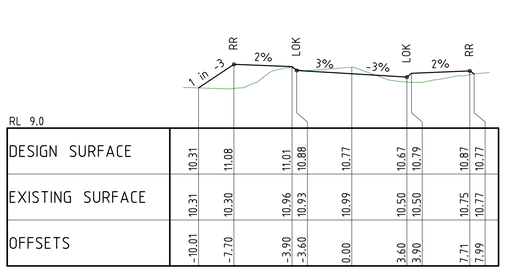
CH 20.00



RL 8.0

DESIGN SURFACE	9.94	10.68	10.61	10.48	10.37	10.29	10.42	10.43	10.10
EXISTING SURFACE	9.94	9.98	10.32	10.32	10.10	10.13	10.12	10.10	10.10
OFFSETS	-9.83	-7.62	-3.90	-3.60	0.00	3.60	3.90	4.40	5.37

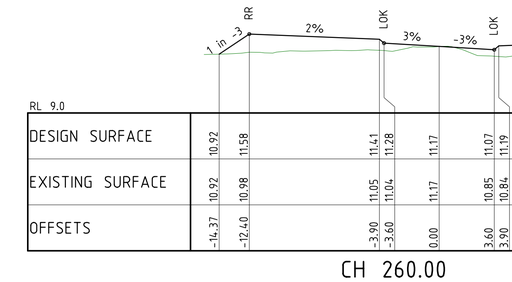
CH 100.00



RL 9.0

DESIGN SURFACE	10.31	11.08	11.01	10.88	10.77	10.67	10.79	10.87	10.77
EXISTING SURFACE	10.31	10.30	10.96	10.93	10.99	10.50	10.50	10.75	10.77
OFFSETS	-10.01	-7.70	-3.90	-3.60	0.00	3.60	3.90	7.71	7.99

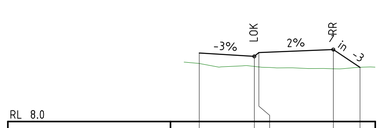
CH 180.00



RL 9.0

DESIGN SURFACE	10.92	11.58	11.41	11.28	11.17	11.07	11.19	11.27	11.03
EXISTING SURFACE	10.92	10.98	11.05	11.04	11.17	10.85	10.84	10.95	11.03
OFFSETS	-14.37	-12.40	-3.90	-3.60	0.00	3.60	3.90	7.73	8.43

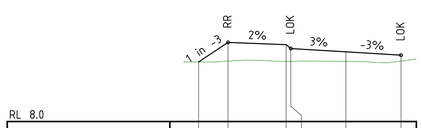
CH 260.00



RL 8.0

DESIGN SURFACE	10.23	10.13	10.25	10.35	9.77
EXISTING SURFACE	9.89	9.80	9.78	9.72	9.77
OFFSETS	0.00	3.60	3.90	8.76	10.50

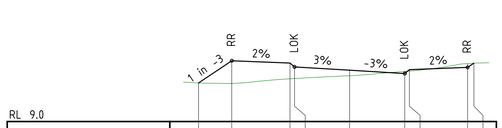
CH 15.00



RL 8.0

DESIGN SURFACE	9.94	10.58	10.51	10.38	10.27	10.17
EXISTING SURFACE	9.94	9.97	9.96	9.96	9.96	9.97
OFFSETS	-9.62	-7.70	-3.90	-3.60	0.00	3.60

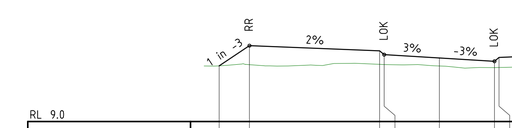
CH 80.00



RL 9.0

DESIGN SURFACE	10.26	10.98	10.91	10.78	10.67	10.57	10.69	10.77	10.90
EXISTING SURFACE	10.26	10.24	10.39	10.40	10.49	10.63	10.65	10.89	10.90
OFFSETS	-9.87	-7.70	-3.90	-3.60	0.00	3.60	3.90	7.70	8.11

CH 160.00



RL 9.0

DESIGN SURFACE	10.82	11.48	11.31	11.18	11.07	10.97	11.09	11.17	10.84
EXISTING SURFACE	10.82	10.85	10.87	10.86	10.81	10.76	10.76	10.85	10.84
OFFSETS	-14.38	-12.40	-3.90	-3.60	0.00	3.60	3.90	7.73	8.73

CH 240.00

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
D	13.04.18	FINAL 100%	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Sep	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
ROAD CROSS SECTIONS
TENUTA STREET

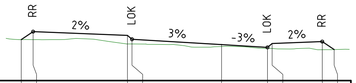
PLAN No E2-17-712 REV D

PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



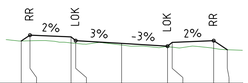
RL 9.0												
DESIGN SURFACE	10.34	10.60			10.47	10.35		10.17		10.08	10.21	10.27	10.01
EXISTING SURFACE	10.34	10.34			10.19	10.19		10.11		10.05	10.05	10.01	10.01
OFFSETS	-13.09	-12.31			-6.15	-5.85		0.00		3.00	3.30	6.57	7.36

CH 60.00



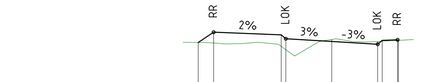
RL 8.0						
DESIGN SURFACE	10.06		9.97	10.09	10.11	10.09
EXISTING SURFACE	10.01		10.09	10.10	10.09	10.09
OFFSETS	0.00		3.00	3.30	4.30	4.37

CH 122.76



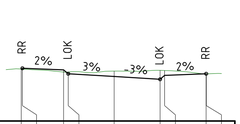
RL 9.0												
DESIGN SURFACE	10.39	10.58		10.53	10.40	10.31		10.22	10.35	10.40	10.11	
EXISTING SURFACE	10.39	10.40		10.33	10.31	10.26		10.20	10.19	10.15	10.11	
OFFSETS	-6.56	-5.98		-3.30	-3.00	0.00		3.00	3.30	6.02	6.90	

CH 40.00



RL 8.0												
DESIGN SURFACE	10.01	10.34			10.26	10.13		10.04		9.95	10.08	10.08
EXISTING SURFACE	10.01	9.99			9.88	9.77		10.11		10.04	10.05	10.07	10.10	10.08
OFFSETS	-8.72	-7.71			-3.30	-3.00		0.00		3.00	3.30	4.30	4.36

CH 120.00



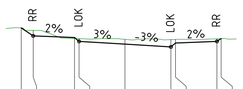
RL 9.0												
DESIGN SURFACE	10.70	10.72		10.67	10.54	10.45		10.36	10.49	10.54	10.54	
EXISTING SURFACE	10.70	10.69		10.60	10.60	10.63		10.65	10.65	10.54	10.54	
OFFSETS	-6.07	-5.99		-3.30	-3.00	0.00		3.00	3.30	6.01	6.02	

CH 20.00



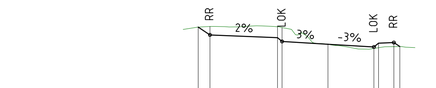
RL 8.0												
DESIGN SURFACE	10.23	10.23		10.14	10.01	9.92		9.83	9.96	9.98	9.99	
EXISTING SURFACE	10.23	10.23		10.25	10.25	9.84		9.95	9.97	10.00	9.99	
OFFSETS	-7.13	-7.71		-3.30	-3.00	0.00		3.00	3.30	4.30	4.33	

CH 100.00



RL 9.0												
DESIGN SURFACE	11.11	10.85		10.79	10.67	10.58		10.49	10.61	10.67	10.76	
EXISTING SURFACE	11.11	11.03		10.76	10.76	10.74		10.73	10.73	10.75	10.76	
OFFSETS	-6.78	-6.00		-3.30	-3.00	0.00		3.00	3.30	6.00	6.28	

CH 2.00



RL 8.0												
DESIGN SURFACE	10.59	10.34			10.25	10.12		10.03		9.94	10.07	10.09	9.96
EXISTING SURFACE	10.59	10.61			10.60	10.58		10.03		9.89	9.92	9.95	9.96
OFFSETS	-8.48	-7.71			-3.30	-3.00		0.00		3.00	3.30	4.30	4.69

CH 80.00

AMENDMENTS						
D	13.04.18	FINAL 100%	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB
REV	DATE	DESCRIPTION	BY	CHK'D	APP'D

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	GB	
DRAWN	GB	17-Jul
CHECKED	IB	17-Sep
SURVEY		

DATE	17-Jul
SCALE	HORIZ. AS SHOWN VERT.
DATUM	AHD
GRID SYSTEM	PCG
JOB NUMBER	

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
ROAD CROSS SECTIONS
ALDINGTON STREET

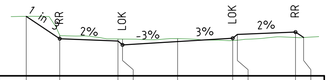
PLAN No E2-17-713 REV D

PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

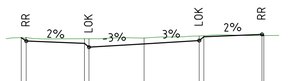
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



RL 9.0

DESIGN SURFACE	10.94	10.21		10.13	10.01	10.12		10.23	10.35		10.43	10.25
EXISTING SURFACE	10.94	10.32		10.20	10.20	10.21		10.15	10.16		10.25	10.25
OFFSETS	-9.89	-7.70		-3.90	-3.60	0.00		3.60	3.90		7.70	8.23

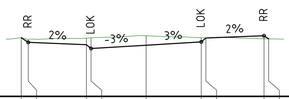
CH 60.00



RL 8.0

DESIGN SURFACE	10.10	9.99		9.91	9.79	9.89		10.00	10.13		10.20	10.16
EXISTING SURFACE	10.10	10.11		10.06	10.06	10.09		10.15	10.16		10.16	10.16
OFFSETS	-8.03	-7.70		-3.90	-3.60	0.00		3.60	3.90		7.70	7.81

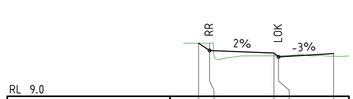
CH 40.00



RL 8.0

DESIGN SURFACE	9.92	9.76		9.69	9.56	9.67		9.78	9.90		9.98	9.88
EXISTING SURFACE	9.92	9.86		9.90	9.91	9.98		9.91	9.91		9.88	9.88
OFFSETS	-8.16	-7.70		-3.90	-3.60	0.00		3.60	3.90		7.70	8.01

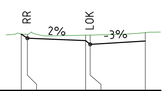
CH 20.00



RL 9.0

DESIGN SURFACE	10.73	10.49		10.41	10.28	10.39						
EXISTING SURFACE	10.73	10.73		10.32	10.32	10.31						
OFFSETS	-8.82	-8.10		-3.90	-3.60	0.00						

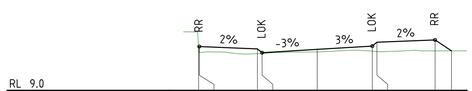
CH 84.47



RL 8.0

DESIGN SURFACE	9.84	9.71		9.63	9.51	9.61						
EXISTING SURFACE	9.84	9.83		9.81	9.81	9.89						
OFFSETS	-8.11	-7.70		-3.90	-3.60	0.00						

CH 15.00



RL 9.0

DESIGN SURFACE	10.42	10.43		10.36	10.23	10.34		10.45	10.57		10.65	10.29
EXISTING SURFACE	10.42	10.24		10.20	10.21	10.26		10.28	10.27		10.29	10.29
OFFSETS	-7.74	-7.70		-3.90	-3.60	0.00		3.60	3.90		7.70	8.77

CH 80.00

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
D	13.04.18	FINAL 100%	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE	HORIZ. AS SHOWN VERT.
GB	17-Jul	DATUM	
DRAWN			
GB	17-Jul	AHD	
CHECKED		GRID SYSTEM	
IB	17-Sep	PCG	
SURVEY		JOB NUMBER	

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
ROAD CROSS SECTIONS
PUNT ROAD

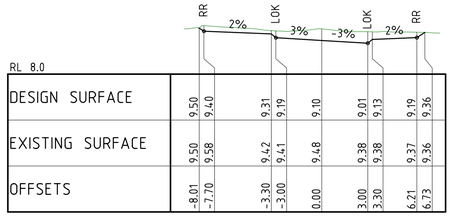
PLAN No E2-17-714 REV D

PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES

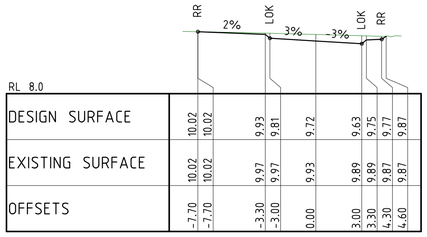
S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



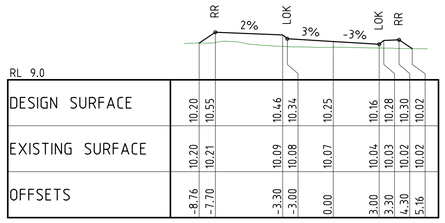
RL 8.0										
DESIGN SURFACE	9.50	9.40		9.31	9.19	9.10	9.01	9.13	9.19	9.36
EXISTING SURFACE	9.50	9.58		9.42	9.41	9.48	9.38	9.38	9.37	9.36
OFFSETS	-8.01	-7.70		-3.30	-3.00	0.00	3.00	3.30	6.21	6.73

CH 60.00



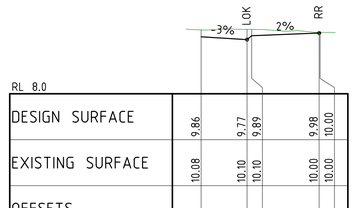
RL 8.0										
DESIGN SURFACE	10.02	10.02		9.93	9.81	9.72	9.63	9.75	9.77	9.87
EXISTING SURFACE	10.02	10.02		9.97	9.97	9.93	9.89	9.89	9.87	9.87
OFFSETS	-7.70	-7.70		-3.30	-3.00	0.00	3.00	3.30	4.30	4.60

CH 140.00



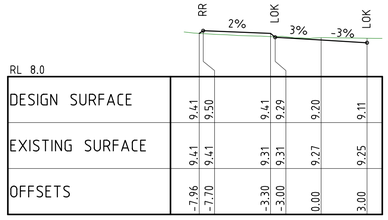
RL 9.0										
DESIGN SURFACE	10.20	10.55		10.46	10.34	10.25	10.16	10.28	10.30	10.02
EXISTING SURFACE	10.20	10.21		10.09	10.08	10.07	10.04	10.03	10.02	10.02
OFFSETS	-8.76	-7.70		-3.30	-3.00	0.00	3.00	3.30	4.30	5.16

CH 220.00



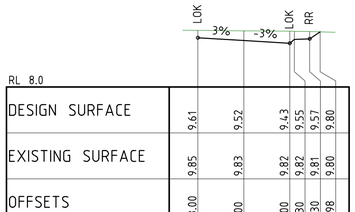
RL 8.0						
DESIGN SURFACE	9.86		9.77		9.98	10.00
EXISTING SURFACE	10.08		10.10	9.89	10.00	10.00
OFFSETS	0.00		3.00	3.30	7.71	7.77

CH 298.17



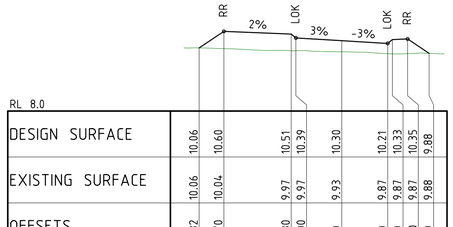
RL 8.0						
DESIGN SURFACE	9.41	9.50		9.41	9.29	9.20	9.11
EXISTING SURFACE	9.41	9.41		9.31	9.31	9.27	9.25
OFFSETS	-7.96	-7.70		-3.30	-3.00	0.00	3.00

CH 40.00



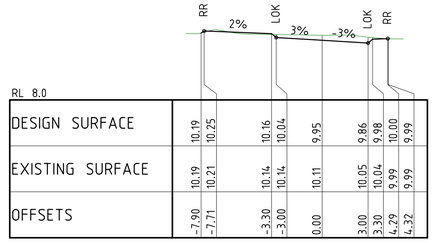
RL 8.0						
DESIGN SURFACE	9.61	9.52		9.43	9.55	9.57	9.80
EXISTING SURFACE	9.85	9.83		9.82	9.82	9.81	9.80
OFFSETS	-3.00	0.00		3.00	3.30	4.30	4.98

CH 120.00



RL 8.0										
DESIGN SURFACE	10.06	10.60		10.51	10.39	10.30	10.21	10.33	10.35	9.88
EXISTING SURFACE	10.06	10.04		9.97	9.97	9.93	9.87	9.87	9.87	9.88
OFFSETS	-9.32	-7.70		-3.30	-3.00	0.00	3.00	3.30	4.30	5.70

CH 200.00

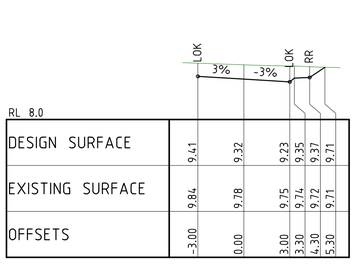


RL 8.0										
DESIGN SURFACE	10.19	10.25		10.16	10.04	9.95	9.86	9.98	10.00	9.99
EXISTING SURFACE	10.19	10.21		10.14	10.14	10.11	10.05	10.04	9.99	9.99
OFFSETS	-7.90	-7.71		-3.30	-3.00	0.00	3.00	3.30	4.29	4.32

CH 280.00

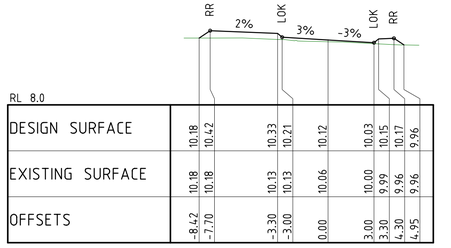
RL 7.0										
DESIGN SURFACE	9.20	9.60		9.49	9.36	9.27	9.18	9.31	9.38	9.04
EXISTING SURFACE	9.20	9.19		9.12	9.12	9.13	9.17	9.17	9.06	9.04
OFFSETS	-9.96	-8.78		-3.30	-3.00	0.00	3.00	3.30	6.70	7.72

CH 20.00



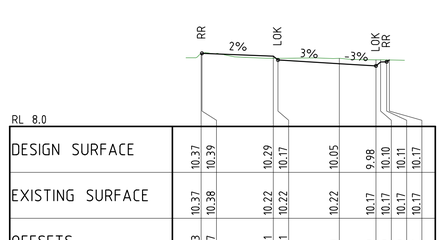
RL 8.0						
DESIGN SURFACE	9.41	9.32		9.23	9.35	9.37	9.71
EXISTING SURFACE	9.84	9.78		9.75	9.74	9.72	9.71
OFFSETS	-3.00	0.00		3.00	3.30	4.30	5.30

CH 100.00



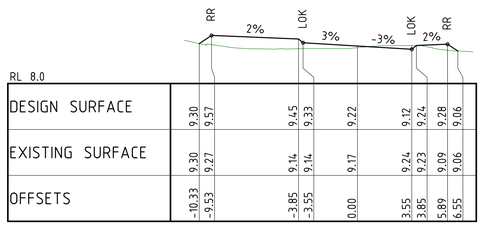
RL 8.0										
DESIGN SURFACE	10.18	10.42		10.33	10.21	10.12	10.03	10.15	10.17	9.96
EXISTING SURFACE	10.18	10.18		10.13	10.13	10.06	10.00	9.99	9.96	9.96
OFFSETS	-8.42	-7.70		-3.30	-3.00	0.00	3.00	3.30	4.30	4.95

CH 180.00



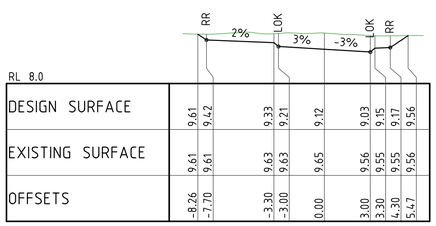
RL 8.0										
DESIGN SURFACE	10.37	10.39		10.29	10.17	10.05	9.98	10.10	10.11	10.17
EXISTING SURFACE	10.37	10.38		10.22	10.22	10.22	10.17	10.17	10.17	10.17
OFFSETS	-9.03	-8.97		-4.31	-4.01	0.00	2.39	2.69	3.09	3.27

CH 260.00



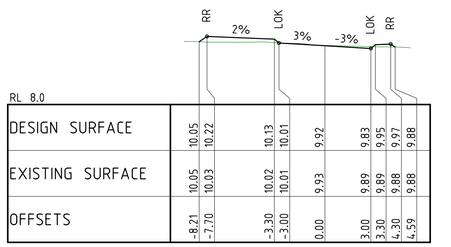
RL 8.0										
DESIGN SURFACE	9.30	9.57		9.45	9.33	9.22	9.12	9.24	9.28	9.06
EXISTING SURFACE	9.30	9.27		9.14	9.14	9.17	9.24	9.23	9.09	9.06
OFFSETS	-10.33	-9.53		-3.85	-3.55	0.00	3.55	3.85	5.89	6.55

CH 10.00



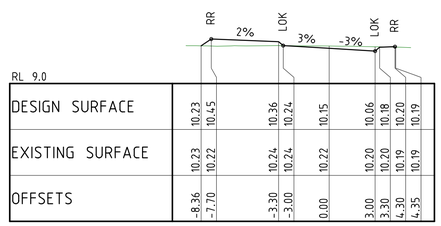
RL 8.0										
DESIGN SURFACE	9.61	9.42		9.33	9.21	9.12	9.03	9.15	9.17	9.56
EXISTING SURFACE	9.61	9.61		9.63	9.63	9.65	9.56	9.55	9.55	9.56
OFFSETS	-8.26	-7.70		-3.30	-3.00	0.00	3.00	3.30	4.30	5.47

CH 80.00



RL 8.0										
DESIGN SURFACE	10.05	10.22		10.13	10.01	9.92	9.83	9.95	9.97	9.88
EXISTING SURFACE	10.05	10.03		10.02	10.01	9.93	9.89	9.89	9.88	9.88
OFFSETS	-8.21	-7.70		-3.30	-3.00	0.00	3.00	3.30	4.30	4.59

CH 160.00



RL 9.0										
DESIGN SURFACE	10.23	10.45		10.36	10.24	10.15	10.06	10.18	10.20	10.19
EXISTING SURFACE	10.23	10.22		10.24	10.24	10.22	10.20	10.20	10.19	10.19
OFFSETS	-8.36	-7.70		-3.30	-3.00	0.00	3.00	3.30	4.30	4.35

CH 240.00

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
D	13.04.18	FINAL 100%	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Sep	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
ROAD CROSS SECTIONS
NEWENDEN STREET

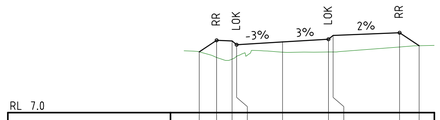
PLAN No E2-17-715 REV D

PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES

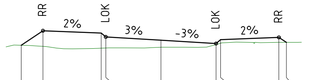
S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



RL 7.0

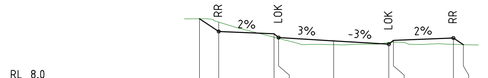
| | | |



RL 8.0

DESIGN SURFACE	9.55	10.03		9.95	9.83	9.72		9.61	9.73		9.81	9.65
EXISTING SURFACE	9.55	9.52		9.46	9.46	9.49		9.57	9.62		9.65	9.65
OFFSETS	-9.12	-7.71		-3.90	-3.60	0.00		3.60	3.90		7.70	8.19

CH 60.00



RL 8.0

DESIGN SURFACE	10.04	9.62		9.55	9.43	9.32		9.21	9.33		9.41	9.19
EXISTING SURFACE	10.04	9.93		9.44	9.40	9.19		9.27	9.28		9.20	9.19
OFFSETS	-8.76	-7.51		-3.90	-3.60	0.00		3.60	3.90		7.81	8.47

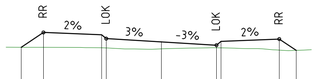
CH 140.00



RL 7.0

DESIGN SURFACE	9.03			8.94	9.06			9.16	9.27				
EXISTING SURFACE	9.17			9.27	9.32			9.27	9.27				
OFFSETS	0.00			3.00	3.30			7.97	8.31				

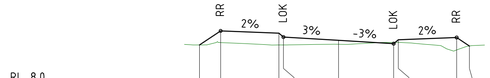
CH 211.18



RL 8.0

DESIGN SURFACE	9.64	10.13		10.05	9.93	9.82		9.71	9.83		9.91	9.54
EXISTING SURFACE	9.64	9.64		9.63	9.62	9.59		9.63	9.62		9.55	9.54
OFFSETS	-9.15	-7.70		-3.90	-3.60	0.00		3.60	3.90		7.70	8.81

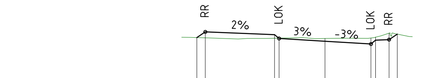
CH 40.00



RL 8.0

DESIGN SURFACE	9.27	9.73		9.65	9.53	9.42		9.31	9.43		9.51	9.23
EXISTING SURFACE	9.27	9.34		9.27	9.27	9.29		9.35	9.35		9.10	9.23
OFFSETS	-9.08	-7.70		-3.90	-3.60	0.00		3.60	3.90		7.71	8.55

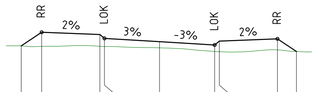
CH 120.00



RL 7.0

DESIGN SURFACE	9.09	9.28		9.19	9.06	8.97		8.88	9.01		9.03	9.20
EXISTING SURFACE	9.09	9.08		9.07	9.07	9.06		9.08	9.11		9.24	9.20
OFFSETS	-8.37	-7.82		-3.30	-3.00	0.00		3.00	3.30		4.18	4.72

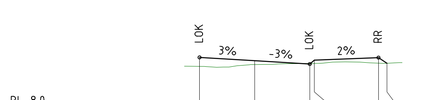
CH 200.00



RL 8.0

DESIGN SURFACE	9.78	10.23		10.15	10.03	9.92		9.81	9.93		10.01	9.60
EXISTING SURFACE	9.78	9.76		9.77	9.76	9.72		9.60	9.59		9.65	9.60
OFFSETS	-9.04	-7.70		-3.90	-3.60	0.00		3.60	3.90		7.70	8.94

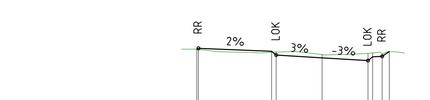
CH 20.00



RL 8.0

DESIGN SURFACE	9.63			9.52				9.41	9.53		9.62	9.43
EXISTING SURFACE	9.33			9.39				9.43	9.43		9.44	9.43
OFFSETS	-3.60			0.00				3.60	3.90		8.09	8.64

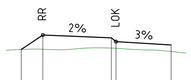
CH 100.00



RL 7.0

DESIGN SURFACE	9.27	9.30		9.21	9.08	8.99		8.90	9.03		9.04	9.19
EXISTING SURFACE	9.27	9.26		9.17	9.18	9.10		9.14	9.15		9.11	9.19
OFFSETS	-8.18	-8.08		-3.30	-3.00	0.00		3.00	3.30		3.92	4.39

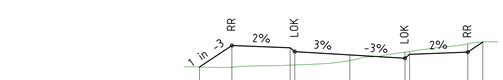
CH 180.00



RL 8.0

DESIGN SURFACE	9.80	10.27		10.18	10.05	9.94							
EXISTING SURFACE	9.80	9.80		9.84	9.84	9.73							
OFFSETS	-9.79	-8.38		-3.90	-3.60	0.00							

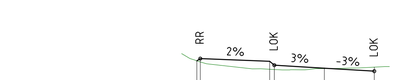
CH 14.65



RL 8.0

DESIGN SURFACE	9.22	9.93		9.85	9.73	9.62		9.51	9.63		9.71	10.04
EXISTING SURFACE	9.22	9.22		9.28	9.29	9.43		9.71	9.73		9.98	10.04
OFFSETS	-9.82	-7.70		-3.90	-3.60	0.00		3.60	3.90		7.70	8.68

CH 80.00



RL 8.0

DESIGN SURFACE	9.42	9.50		9.41	9.28	9.19		9.09					
EXISTING SURFACE	9.42	9.39		9.15	9.14	9.17		9.22					
OFFSETS	-8.32	-8.10		-3.56	-3.26	0.00		3.26					

CH 160.00

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
D	13.04.18	FINAL 100%	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	GB	DATE	17-Jul
DRAWN	GB		17-Jul
CHECKED	IB		17-Sep
SURVEY			
SCALE	HORIZ. AS SHOWN VERT.		
DATUM	AHD		
GRID SYSTEM	PCG		
JOB NUMBER			

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
ROAD CROSS SECTIONS
HARVEST STREET

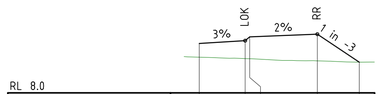
PLAN No E2-17-717 REV D

PRELIMINARY ONLY A1

CHEIF ENGINEER TECHNICAL SERVICES

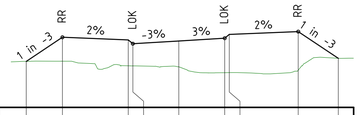
S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



RL 8.0

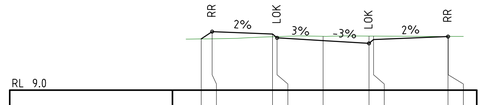
| | | |



RL 8.0

DESIGN SURFACE	9.50		10.29		10.20	10.08	10.17	10.26	10.38		10.47		9.60	
EXISTING SURFACE	9.50		9.51		9.36	9.36	9.32	9.13	9.14		9.21		9.60	
OFFSETS	-9.96		-7.60		-3.30	-3.00	0.00	3.00	3.30		7.80		10.42	

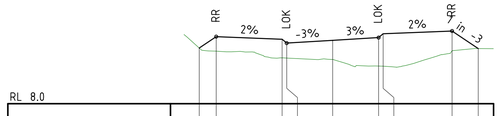
CH 60.00



RL 9.0

DESIGN SURFACE	10.67		10.91		10.83	10.71	10.62	10.53	10.65		10.75		10.75	
EXISTING SURFACE	10.67		10.68		10.74	10.75	10.76	10.77	10.76		10.75		10.75	
OFFSETS	-7.96		-7.24		-3.30	-3.00	0.00	3.00	3.30		8.16		8.18	

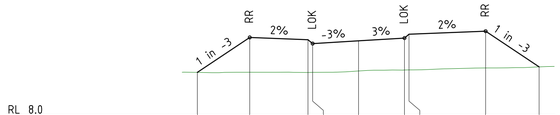
CH 200.00



RL 8.0

DESIGN SURFACE	9.82		10.19		10.10	9.98	10.07	10.16	10.28		10.37		9.80	
EXISTING SURFACE	9.82		9.71		9.50	9.49	9.44	9.23	9.22		9.72		9.80	
OFFSETS	-8.71		-7.60		-3.30	-3.00	0.00	3.00	3.30		7.80		9.51	

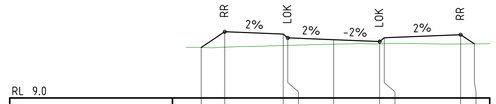
CH 40.00



RL 8.0

DESIGN SURFACE	9.44		10.58		10.50	10.38	10.47	10.56	10.68		10.78		9.62	
EXISTING SURFACE	9.44		9.44		9.44	9.44	9.48	9.51	9.52		9.58		9.62	
OFFSETS	-10.53		-7.11		-3.30	-3.00	0.00	3.00	3.30		8.30		11.80	

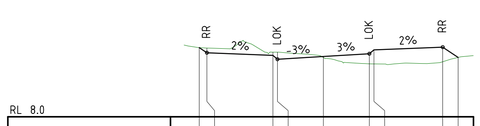
CH 120.00



RL 9.0

DESIGN SURFACE	10.65		11.16		11.08	10.96	10.90	10.84	10.96		11.06		10.77	
EXISTING SURFACE	10.65		10.66		10.71	10.72	10.75	10.77	10.77		10.76		10.77	
OFFSETS	-8.66		-7.12		-3.30	-3.00	0.00	3.00	3.30		8.29		9.19	

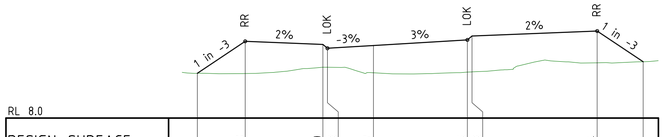
CH 180.00



RL 8.0

DESIGN SURFACE	10.26		10.09		10.00	9.88	9.97	10.06	10.18		10.27		9.94	
EXISTING SURFACE	10.26		10.24		10.11	10.11	9.93	9.73	9.72		9.80		9.94	
OFFSETS	-8.11		-7.61		-3.30	-3.00	0.00	3.00	3.30		7.79		8.80	

CH 20.00



RL 8.0

DESIGN SURFACE	9.46		10.50		10.40	10.28	10.37	10.55	10.68		10.84		9.84	
EXISTING SURFACE	9.46		9.45		9.66	9.66	9.48	9.50	9.51		9.80		9.84	
OFFSETS	-11.50		-8.37		-3.30	-3.00	0.00	6.14	6.44		14.62		17.62	

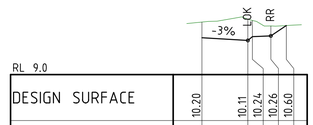
CH 100.00



RL 9.0

DESIGN SURFACE	10.49		11.07		10.99	10.87	10.93	10.99	11.11		11.21		10.71	
EXISTING SURFACE	10.49		10.50		10.58	10.59	10.46	10.65	10.65		10.68		10.71	
OFFSETS	-8.85		-7.11		-3.30	-3.00	0.00	3.00	3.30		8.29		9.81	

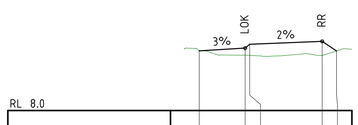
CH 160.00



RL 9.0

DESIGN SURFACE	10.20				10.11	10.24	10.26	10.60						
EXISTING SURFACE	10.72				10.81	10.77	10.59	10.60						
OFFSETS	0.00				3.00	3.30	4.50	5.51						

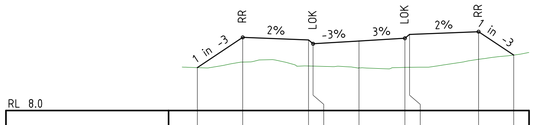
CH 227.87



RL 8.0

DESIGN SURFACE	9.95		10.04	10.16							10.26		9.94	
EXISTING SURFACE	9.96		9.80	9.80							9.80		9.94	
OFFSETS	0.00		3.00	3.30							8.03		8.97	

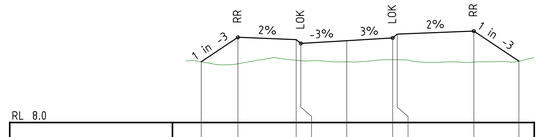
CH 15.82



RL 8.0

DESIGN SURFACE	9.40		10.39		10.30	10.18	10.27	10.36	10.48		10.57		9.81	
EXISTING SURFACE	9.40		9.58		9.45	9.45	9.39	9.41	9.41		9.67		9.81	
OFFSETS	-10.56		-7.59		-3.30	-3.00	0.00	3.00	3.30		7.81		10.11	

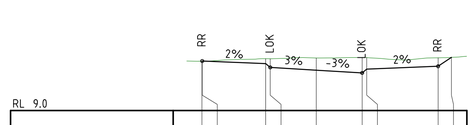
CH 80.00



RL 8.0

DESIGN SURFACE	9.98		10.78		10.70	10.58	10.67	10.76	10.88		10.98		10.00	
EXISTING SURFACE	9.98		9.92		10.03	10.02	9.98	10.05	10.05		9.97		10.00	
OFFSETS	-9.51		-7.11		-3.30	-3.00	0.00	3.00	3.30		8.30		11.24	

CH 140.00



RL 9.0

DESIGN SURFACE	10.61		10.61		10.53	10.41	10.32	10.23	10.35		10.44		10.73	
EXISTING SURFACE	10.61		10.61		10.69	10.69	10.71	10.73	10.73		10.72		10.73	
OFFSETS	-7.46		-7.44		-3.30	-3.00	0.00	3.00	3.30		7.96		8.83	

CH 220.00

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	D	13.04.18	FINAL 100%	GB	AM	IB
	C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
	B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
	A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	GB	DATE	17-Jul
DRAWN	GB		17-Jul
CHECKED	IB		17-Sep
SURVEY			

SCALE	HORIZ. AS SHOWN VERT.
DATUM	AHD
GRID SYSTEM	PCG
JOB NUMBER	

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
ROAD CROSS SECTIONS
PINOT STREET

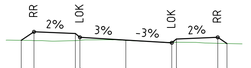
PLAN No E2-17-719 REV D

PRELIMINARY ONLY | A1

CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

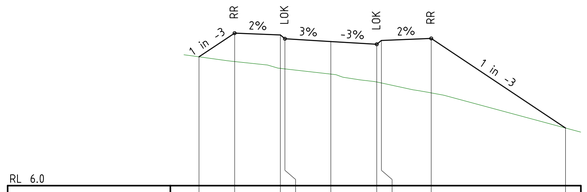
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



RL 9.0

DESIGN SURFACE	10.40	10.67	10.62	10.49	10.40	10.31	10.44	10.49	10.29
EXISTING SURFACE	10.40	10.39	10.39	10.40	10.39	10.33	10.33	10.30	10.29
OFFSETS	-6.83	-6.00	-3.30	-3.00	0.00	3.00	3.30	6.00	6.61

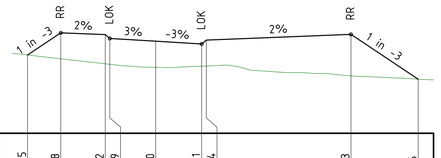
CH 60.00



RL 6.0

DESIGN SURFACE	10.20	10.98	10.92	10.79	10.70	10.61	10.74	10.80	7.88
EXISTING SURFACE	10.20	10.05	9.83	9.81	9.64	9.38	9.35	9.03	7.88
OFFSETS	-8.61	-6.28	-3.30	-3.00	0.00	3.00	3.30	6.56	15.33

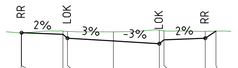
CH 120.00



RL 8.0

DESIGN SURFACE	10.55	11.28	11.22	11.09	11.00	10.91	11.04	11.23	9.76
EXISTING SURFACE	10.55	10.43	10.27	10.25	10.15	10.19	10.19	9.87	9.76
OFFSETS	-8.37	-6.20	-3.30	-3.00	0.00	3.00	3.30	12.75	17.14

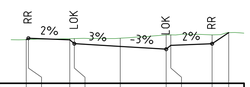
CH 180.00



RL 9.0

DESIGN SURFACE	10.57	10.57	10.52	10.39	10.30	10.21	10.34	10.39	10.62
EXISTING SURFACE	10.57	10.57	10.63	10.61	10.60	10.66	10.64	10.62	10.62
OFFSETS	-6.02	-6.00	-3.30	-3.00	0.00	3.00	3.30	6.00	6.69

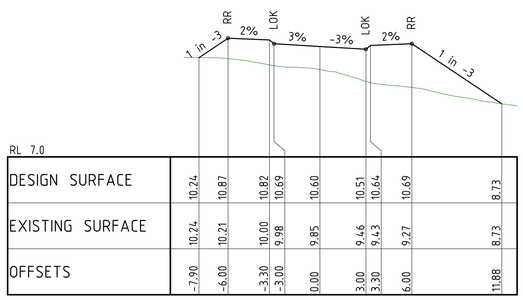
CH 40.00



RL 9.0

DESIGN SURFACE	10.43	10.47	10.42	10.29	10.20	10.11	10.24	10.29	10.66
EXISTING SURFACE	10.43	10.43	10.46	10.46	10.47	10.58	10.58	10.58	10.66
OFFSETS	-6.14	-6.00	-3.30	-3.00	0.00	3.00	3.30	6.00	7.09

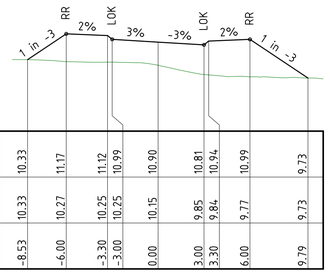
CH 20.00



RL 7.0

DESIGN SURFACE	10.24	10.87	10.82	10.69	10.60	10.51	10.64	10.69	8.73
EXISTING SURFACE	10.24	10.21	10.00	9.98	9.85	9.46	9.43	9.27	8.73
OFFSETS	-7.90	-6.00	-3.30	-3.00	0.00	3.00	3.30	6.00	11.88

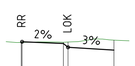
CH 100.00



RL 8.0

DESIGN SURFACE	10.33	11.17	11.12	10.99	10.90	10.81	10.94	10.99	9.73
EXISTING SURFACE	10.33	10.27	10.25	10.25	10.15	9.85	9.84	9.77	9.73
OFFSETS	-8.53	-6.00	-3.30	-3.00	0.00	3.00	3.30	6.00	9.79

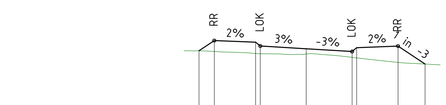
CH 160.00



RL 9.0

DESIGN SURFACE	10.44	10.46	10.40	10.28	10.19
EXISTING SURFACE	10.44	10.44	10.44	10.45	10.51
OFFSETS	-6.05	-6.00	-3.30	-3.00	0.00

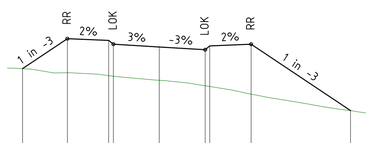
CH 17.02



RL 8.0

DESIGN SURFACE	10.44	10.77	10.72	10.59	10.50	10.41	10.54	10.59	10.00
EXISTING SURFACE	10.44	10.42	10.35	10.34	10.33	10.22	10.21	10.06	10.00
OFFSETS	-7.00	-6.00	-3.30	-3.00	0.00	3.00	3.30	6.00	7.77

CH 80.00



RL 7.0

DESIGN SURFACE	10.10	11.07	11.02	10.89	10.80	10.71	10.84	10.89	8.73
EXISTING SURFACE	10.10	9.96	9.87	9.85	9.72	9.54	9.51	9.26	8.73
OFFSETS	-8.93	-6.00	-3.30	-3.00	0.00	3.00	3.30	6.00	12.49

CH 140.00

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
D	13.04.18	FINAL 100%	GB	AM	IB
C	31.01.18	ISSUED TO CITY FOR 100% REVIEW	GB	AM	IB
B	05.10.17	ISSUED TO CITY FOR 85% REVIEW	RG	AM	IB
A	7.07.17	FOR CITY APPROVAL	GB	AM	IB

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN GB	DATE 17-Jul	SCALE HORIZ. AS SHOWN VERT.
DRAWN GB	17-Jul	DATUM AHD
CHECKED IB	17-Sep	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON O.D.P
MADDINGTON

DRAWING TITLE
ROAD CROSS SECTIONS
GRENACHE WAY

PLAN No E2-17-720 REV D

PRELIMINARY ONLY A1

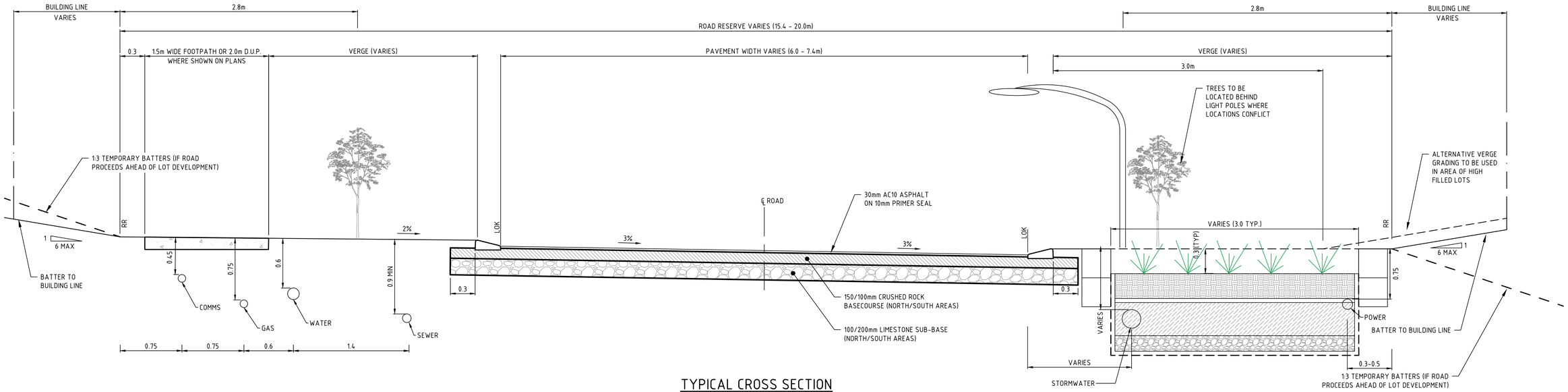
CHEIF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER.
6. ALL VEGETATION WITHIN NEW ROAD RESERVE AREA TO BE REMOVED U.O.N.
7. STREET TREES TO BE LOCATED BEHIND POLES WHERE TO AVOID CONFLICTS.



TYPICAL CROSS SECTION

1:25

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	G	13.04.18	FINAL 100%	RN		RN
	F	07.02.18	ISSUED TO CITY FOR 100% DESIGN REVIEW	RN	RN	RN
	E	02.10.17	ISSUED TO CITY FOR 85% DESIGN REVIEW	TR	RN	RN
	D	21.09.17	DRAFT 85% TO AQUENTA	TR	RN	TS
	B	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
	A	22.03.17	ISSUED FOR CLIENT REVIEW	CRF	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	GB	DATE FEB 2017
DRAWN	CRF	DATE MARCH 2017
CHECKED	RN	DATE MARCH 2017
SURVEY	AERIAL LASER	

SCALE HORIZ. 1:25 VERT.
DATUM AHD
GRID SYSTEM PCG
JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
SOUTHERN AREA / NORTHERN AREA
TYPICAL CROSS SECTION

PLAN No E2-17-721 REV G

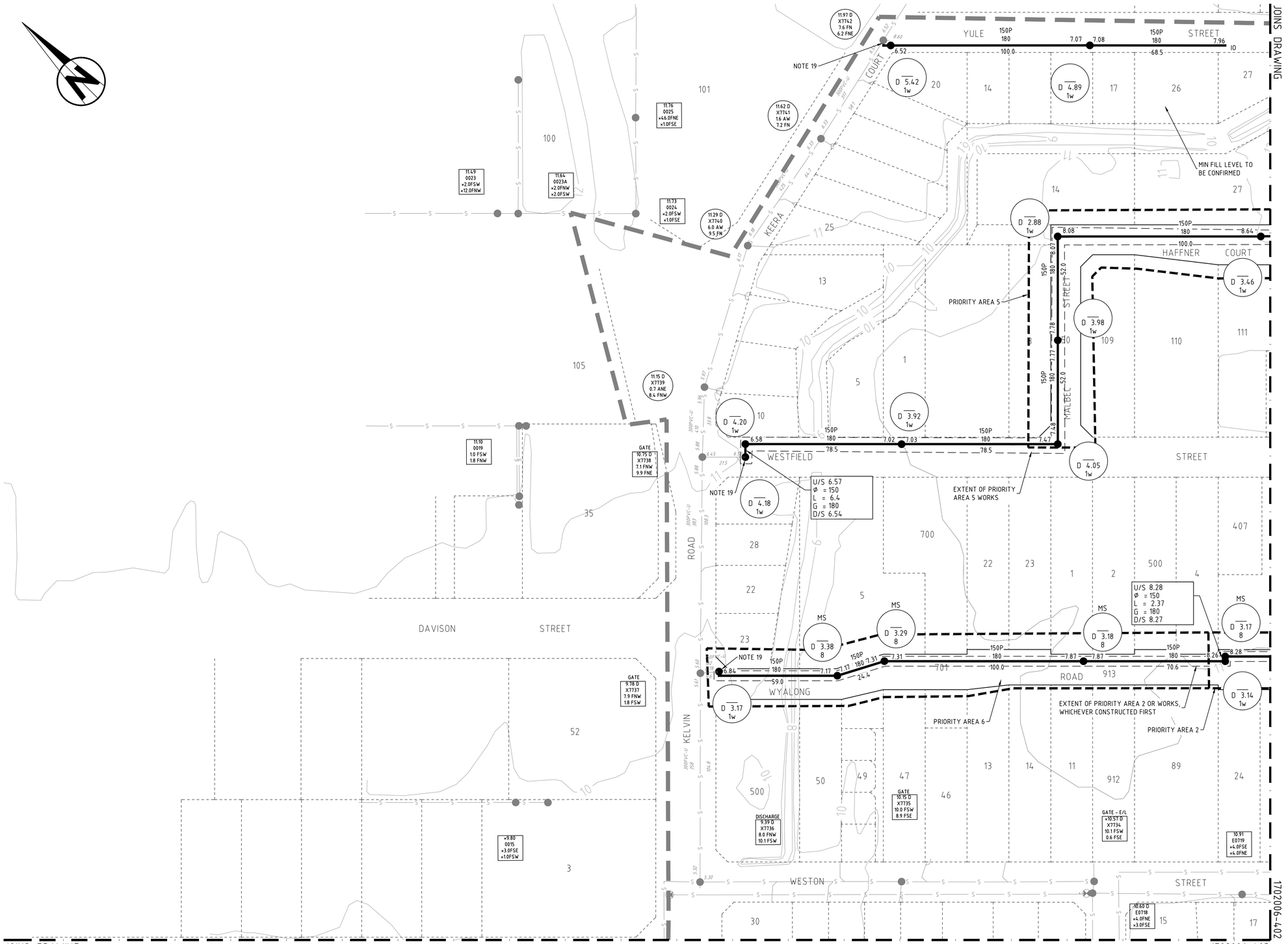
PRELIMINARY ONLY | A1

CHIEF ENGINEER

S.ASMUS DATE

17/04/2018 1:31:20 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_170206\DRAWINGS\170206-500 TYPICALS.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD)
2. ALL GRAVITY SEWER PIPES AND FITTINGS SHALL BE U.P.V.C. TO WATER CORPORATION SPECIFICATIONS UNLESS SHOWN OTHERWISE. 150DIA PIPES SHALL BE CLASS S.E.H. AND THE FITTINGS SHALL BE CLASS S.H WITH SOLVENT JOINTS.
3. ALIGNMENT OF THE SEWERS SHALL BE ON THE 3.5M ALIGNMENT UNLESS SHOWN OTHERWISE AND SHALL BE TO THE PIPE OR MANHOLE CENTRELINE.
4. UNLESS NOTED OTHERWISE, MINIMUM COVER TO SEWERS SHALL BE:-
   A) 0.9 METRES WHERE UNDER ROADS OR ROW'S.
   B) 0.75 METRES LOWER THAN THE CROWN OF THE ROAD OPPOSITE WHERE LOCATED IN AND PARALLEL TO THE ROAD VERGE
   C) 0.75 METRES ELSEWHERE UNLESS APPROPRIATELY PROTECTED.
5. FUTURE INLETS AND INSPECTION OPENINGS (IO'S) TO BE SEALED WITH APPROVED SEALING PLUGS OR CAPS.
6. BEFORE CONSTRUCTION COMMENCES THE CONTRACTOR SHALL:
   A) CHECK ONSITE THE LOCATION OF EXISTING SERVICES WITH APPROPRIATE AUTHORITIES.
   B) ARRANGE FOR THE LOCATION AND LEVEL OF THE CONNECTION POINT TO BE VERIFIED BY A SURVEYOR.
   C) MEET ON SITE WITH THE ENGINEER & THE WATER CORPORATION INSPECTOR. NOTE THE CONTRACTOR SHALL BE REQUIRED TO KEEP THE WATER CORPORATION INSPECTOR INFORMED OF PROGRESS.
   D) CONTACT RESIDENTS AFFECTED BY THE WORKS AND INFORM THEM OF THE PROPOSED WORKS PROGRAM.
   E) ENSURE A PERMIT IS OBTAINED FROM THE LOCAL AUTHORITY WHERE WORKS ARE WITHIN THE ROAD RESERVE.
7. RESIDENTS SHALL BE KEPT INFORMED THROUGHOUT AND SITE SECURITY MAINTAINED.
8. ALL EXCAVATIONS SHALL BE SECURED AND MADE SAFE IN ACCORDANCE WITH THE CONSTRUCTION SAFETY ACT AND ANY OTHER STATUTORY REQUIREMENT.
9. PROPERTIES THAT HAVE BEEN EXCAVATED SHALL BE RETURNED TO A SIMILAR CONDITION TO THAT WHICH EXISTED PRIOR TO EXCAVATION.
10. TRENCH BACKFILL SHALL BE CLEAN GRANULAR MATERIAL, COMPACTED TO A DENSITY NOT LESS THAN THAT OF THE SURROUNDING UNDISTURBED GROUND FOR THE FULL DEPTH OF THE EXCAVATION. BACKFILL UNDER ROADS SHALL BE COMPACTED TO THE REQUIREMENTS OF THE LOCAL AUTHORITY.
11. THE CONTRACTOR SHALL PROVIDE 'AS CONSTRUCTED' JUNCTION POSITIONS AND IN / UP DETAILS TO THE SUPERVISOR WHO SHALL ENSURE THE SURVEYOR IS GIVEN SUITABLE NOTICE TO ENSURE THE PICK UP OF 'AS CONSTRUCTED' DETAILS.
12. REFERENCE DRAWINGS (WATER CORPORATION STANDARD DRAWINGS):

AA01-4	INTERPRETATION OF RETICULATION DRAWINGS
AA01-11	BEDDING AND BACKFILLING OF SEWERS.
AA01-27-1 & 2	PRECAST CONCRETE MANHOLES.
AA01-61 & 62	PVC PROPERTY CONNECTIONS.
AA01-81	PROPERTY CONNECTION LOCATION TAPE.
AA01-86	INSPECTION SHAFT SEWERS.

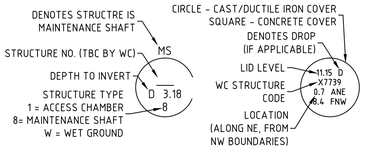
13. CONNECTION TO EXISTING SEWER BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
14. PIPE MATERIAL:
    DN100 TO DN 375 PIPES AND FITTINGS SHALL BE PLASTICISED POLYVINYL CHLORIDE TO AS/NZ1260.
    DN150 TO DN375 PIPES SHALL BE CLASS SN8 (LESS THAN 7M COVER)
    DN150 TO DN375 FITTINGS SHALL BE CLASS SN6 (LESS THAN 7M COVER)
    PIPE JOINT WORK SHALL BE IN ACCORDANCE WITH AS2032 PART 3.
    DN150 TO DN300 PIPES WORK SHALL BE SOLVENT CEMENT JOINTED.
15. ALL CONNECTIONS TO EXISTING SEWER MAINS ARE TO BE ISOLATED OR CONNECTED TO BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
16. ALL EXCAVATION IS TO BE BY OPEN CUT METHOD UNLESS SHOWN OTHERWISE.
17. CONNECTION TO EXISTING SEWER IS TO BE BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
18. MINIMUM FILL LEVELS SHOWN ARE INDICATIVE ONLY AND ARE TO BE CONFIRMED WITH DETAILED DESIGN
19. CONNECTION BY WC AT CONTRACTORS EXPENSE
20. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE

HOLD

1. SEWER EXTENSION SUBJECT TO FUTURE DEVELOPMENT TYPE & CONFIGURATION. DESIGN ASSUMES NO FLOW TO THESE EXTENSIONS

LEGEND

- CMODPAREA
- EXISTING CADASTRAL
- EXISTING SEWER MAIN, MANHOLE & VALVE
- EXISTING CONTOURS (1m INTERVAL)
- PROPOSED CADASTRAL
- PROPOSED SEWER MAIN, MANHOLE
- FILL REQUIRED
- 22.7 MINIMUM FILL LEVEL



PROPOSED STRUCTURES EXISTING STRUCTURES

WATER CORPORATION
EXISTING CONTOURS (1m INTERVALS)

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	I	12.04.18	FINAL 100%	RN		RN
	H	22.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
	G	02.10.17	ISSUED TO CITY FOR 85% REVIEW	TH	RM	RN
	F	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN
	E	13.06.17	ISSUED TO WATERCORP FOR INFORMATION	TR	RN	RN
	D	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
	C	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
	B	31.03.17	ISSUED TO WATERCORP FOR INFORMATION	CRF	RN	TS
	A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE	
TR	MARCH 2017	HORIZ. 1:1000 VERT.	
DRAWN		DATUM	
TR	MARCH 2017	AHD	
CHECKED		GRID SYSTEM	
RN	MARCH 2017	PCG	
SURVEY		JOB NUMBER	

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
SEWER RETICULATION PLAN
SHEET 1 OF 8

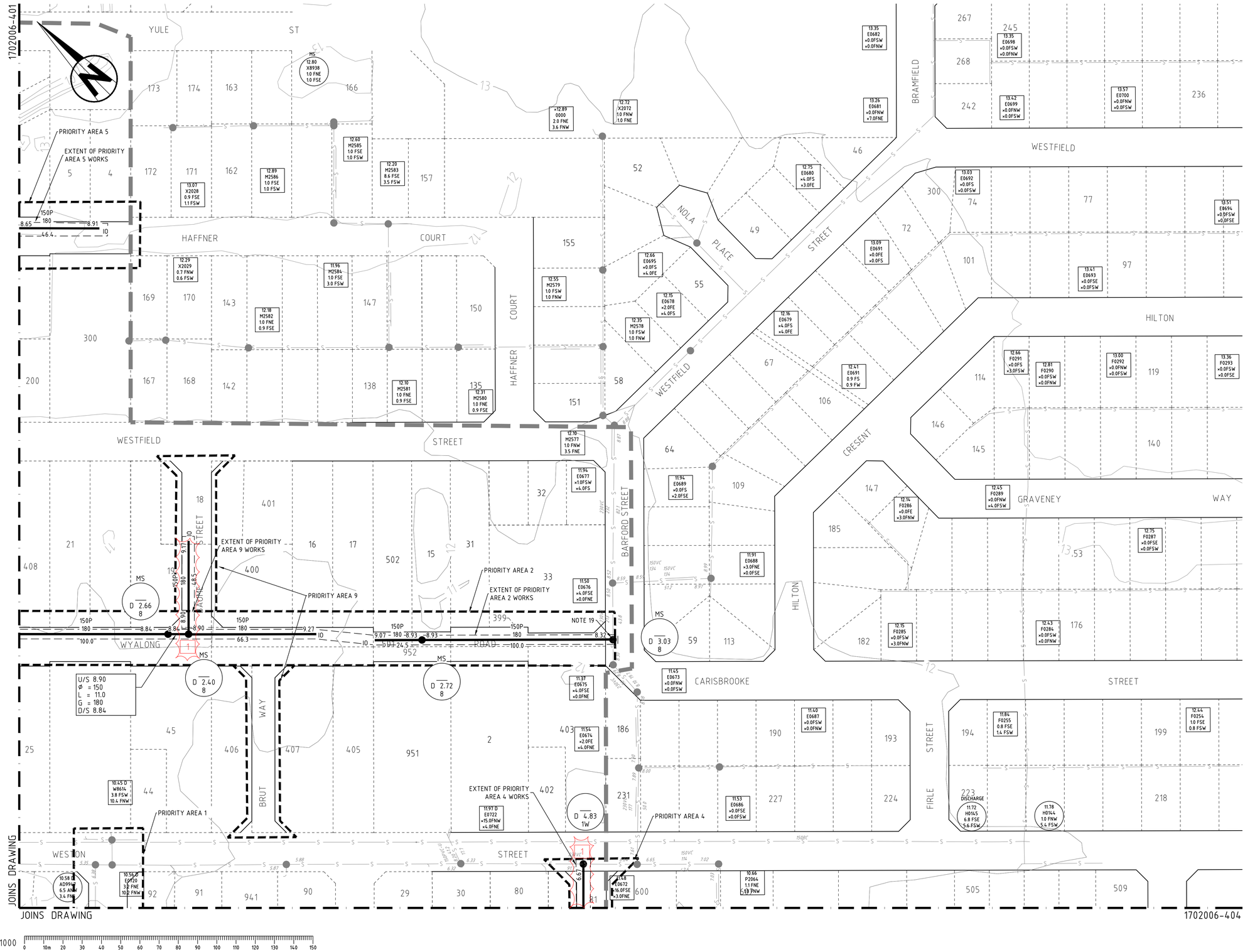
PLAN No 1702006-401 REV I

PRELIMINARY ONLY | A1

CHIEF ENGINEER
S. ASMUS DATE

12/04/2018 12:23:55 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-401 TO 408 SEWER RETICULATION.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD)
2. ALL GRAVITY SEWER PIPES AND FITTINGS SHALL BE U.P.V.C. TO WATER CORPORATION SPECIFICATIONS UNLESS SHOWN OTHERWISE. 150DIA PIPES SHALL BE CLASS S.E.H. AND THE FITTINGS SHALL BE CLASS S.H WITH SOLVENT JOINTS.
3. ALIGNMENT OF THE SEWERS SHALL BE ON THE 3.5M ALIGNMENT UNLESS SHOWN OTHERWISE AND SHALL BE TO THE PIPE OR MANHOLE CENTRELINE.
4. UNLESS NOTED OTHERWISE, MINIMUM COVER TO SEWERS SHALL BE:-
   A) 0.9 METRES WHERE UNDER ROADS OR ROW'S.
   B) 0.75 METRES LOWER THAN THE CROWN OF THE ROAD OPPOSITE WHERE LOCATED IN AND PARALLEL TO THE ROAD VERGE
   C) 0.75 METRES ELSEWHERE UNLESS APPROPRIATELY PROTECTED.
5. FUTURE INLETS AND INSPECTION OPENINGS (IO'S) TO BE SEALED WITH APPROVED SEALING PLUGS OR CAPS.
6. BEFORE CONSTRUCTION COMMENCES THE CONTRACTOR SHALL:
   A) CHECK ONSITE THE LOCATION OF EXISTING SERVICES WITH APPROPRIATE AUTHORITIES.
   B) ARRANGE FOR THE LOCATION AND LEVEL OF THE CONNECTION POINT TO BE VERIFIED BY A SURVEYOR.
   C) MEET ON SITE WITH THE ENGINEER & THE WATER CORPORATION INSPECTOR. NOTE THE CONTRACTOR SHALL BE REQUIRED TO KEEP THE WATER CORPORATION INSPECTOR INFORMED OF PROGRESS.
   D) CONTACT RESIDENTS AFFECTED BY THE WORKS AND INFORM THEM OF THE PROPOSED WORKS PROGRAM.
   E) ENSURE A PERMIT IS OBTAINED FROM THE LOCAL AUTHORITY WHERE WORKS ARE WITHIN THE ROAD RESERVE.
7. RESIDENTS SHALL BE KEPT INFORMED THROUGHOUT AND SITE SECURITY MAINTAINED.
8. ALL EXCAVATIONS SHALL BE SECURED AND MADE SAFE IN ACCORDANCE WITH THE CONSTRUCTION SAFETY ACT AND ANY OTHER STATUTORY REQUIREMENT.
9. PROPERTIES THAT HAVE BEEN EXCAVATED SHALL BE RETURNED TO A SIMILAR CONDITION TO THAT WHICH EXISTED PRIOR TO EXCAVATION.
10. TRENCH BACKFILL SHALL BE CLEAN GRANULAR MATERIAL, COMPACTED TO A DENSITY NOT LESS THAN THAT OF THE SURROUNDING UNDISTURBED GROUND FOR THE FULL DEPTH OF THE EXCAVATION. BACKFILL UNDER ROADS SHALL BE COMPACTED TO THE REQUIREMENTS OF THE LOCAL AUTHORITY.
11. THE CONTRACTOR SHALL PROVIDE 'AS CONSTRUCTED' JUNCTION POSITIONS AND IN / UP DETAILS TO THE SUPERVISOR WHO SHALL ENSURE THE SURVEYOR IS GIVEN SUITABLE NOTICE TO ENSURE THE PICK UP OF 'AS CONSTRUCTED' DETAILS.
12. REFERENCE DRAWINGS (WATER CORPORATION STANDARD DRAWINGS):

AA01-4	INTERPRETATION OF RETICULATION DRAWINGS
AA01-11	BEDDING AND BACKFILLING OF SEWERS.
AA01-27-1 & 2	PRECAST CONCRETE MANHOLES.
AA01-61 & 62	PVC PROPERTY CONNECTIONS.
AA01-81	PROPERTY CONNECTION LOCATION TAPE.
AA01-86	INSPECTION SHAFT SEWERS.

13. CONNECTION TO EXISTING SEWER BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
14. PIPE MATERIAL:
    DN100 TO DN 375 PIPES AND FITTINGS SHALL BE PLASTICISED POLYVINYL CHLORIDE TO AS/NZ1260.
    DN150 TO DN375 PIPES SHALL BE CLASS SN8 (LESS THAN 7M COVER)
    DN150 TO DN375 FITTINGS SHALL BE CLASS SN6 (LESS THAN 7M COVER)
    PIPE JOINT WORK SHALL BE IN ACCORDANCE WITH AS2032 PART 3.
    DN150 TO DN300 PIPES WORK SHALL BE SOLVENT CEMENT JOINTED.
15. ALL CONNECTIONS TO EXISTING SEWER MAINS ARE TO BE ISOLATED OR CONNECTED TO BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
16. ALL EXCAVATION IS TO BE BY OPEN CUT METHOD UNLESS SHOWN OTHERWISE.
17. CONNECTION TO EXISTING SEWER IS TO BE BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
18. MINIMUM FILL LEVELS SHOWN ARE INDICATIVE ONLY AND ARE TO BE CONFIRMED WITH DETAILED DESIGN
19. CONNECTION BY WC AT CONTRACTORS EXPENSE
20. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE

HOLD

1. SEWER EXTENSION SUBJECT TO FUTURE DEVELOPMENT TYPE & CONFIGURATION. DESIGN ASSUMES NO FLOW TO THESE EXTENSIONS

LEGEND

- CMODPAREA
- EXISTING CADASTRAL
- EXISTING SEWER MAIN, MANHOLE & VALVE
- EXISTING CONTOURS (1m INTERVAL)
- PROPOSED CADASTRAL
- PROPOSED SEWER MAIN, MANHOLE
- FILL REQUIRED
- 22.7 MINIMUM FILL LEVEL

DENOTES STRUCTRE IS MAINTENANCE SHAFT
STRUCTURE NO. (TBC BY WC)
DEPTH TO INVERT
STRUCTURE TYPE
1 = ACCESS CHAMBER
8= MAINTENANCE SHAFT
W = WET GROUND
CIRCLE - CAST/DUCTILE IRON COVER
SQUARE - CONCRETE COVER
DENOTES DROP (IF APPLICABLE)
LID LEVEL
WC STRUCTURE CODE
LOCATION (ALONG NE, FROM NW BOUNDARIES)

PROPOSED STRUCTURES
EXISTING STRUCTURES

WATER CORPORATION PLAN SET NO.

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
I	12.04.18	FINAL 100%	RN		RN
H	22.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
G	02.10.17	ISSUED TO CITY FOR 85% REVIEW	TH	RM	RN
F	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN
E	13.06.17	ISSUED TO WATERCORP FOR INFORMATION	TR	RN	RN
D	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
C	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
B	31.03.17	ISSUED TO WATERCORP FOR INFORMATION	CRF	RN	TS
A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

AMENDMENTS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN TR	DATE MARCH 2017	SCALE HORIZ. 1:1000 VERT.
DRAWN TR	MARCH 2017	DATUM AHD
CHECKED RN	MARCH 2017	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
SEWER RETICULATION PLAN
SHEET 2 OF 8

PLAN No 1702006-402 REV I

PRELIMINARY ONLY | A1

CHIEF ENGINEER

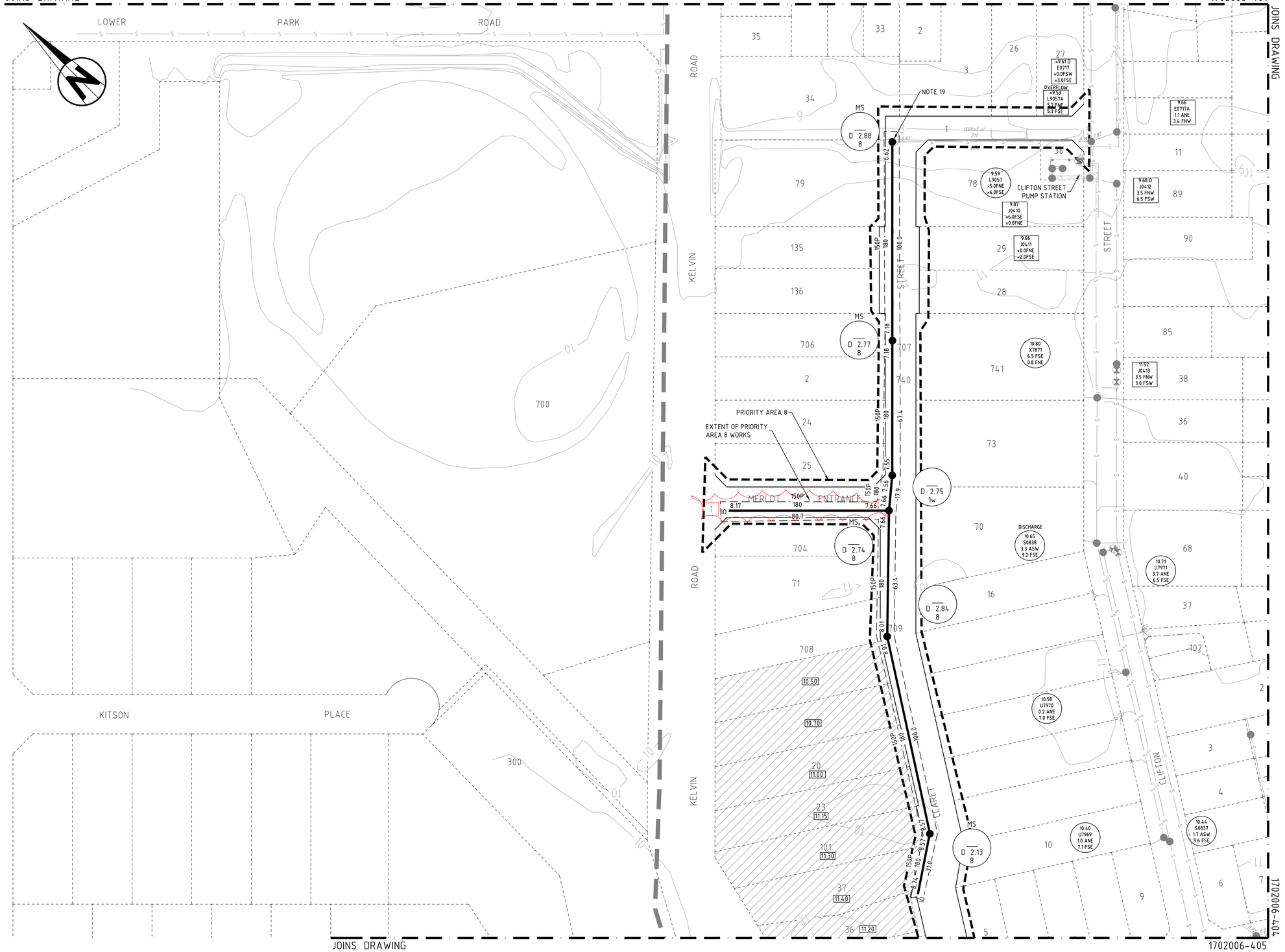
S. ASMUS DATE

12/04/2018 12:20:16 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-401 TO 408 SEWER RETICULATION.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

JOINS DRAWING

1702006-401



1:1000 0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD)
2. ALL GRAVITY SEWER PIPES AND FITTINGS SHALL BE U.P.V.C. TO WATER CORPORATION SPECIFICATIONS UNLESS SHOWN OTHERWISE. 150DIA PIPES SHALL BE CLASS S.E.H. AND THE FITTINGS SHALL BE CLASS S.H WITH SOLVENT JOINTS.
3. ALIGNMENT OF THE SEWERS SHALL BE ON THE 3.5M ALIGNMENT UNLESS SHOWN OTHERWISE AND SHALL BE TO THE PIPE OR MANHOLE CENTRELINE.
4. UNLESS NOTED OTHERWISE, MINIMUM COVER TO SEWERS SHALL BE:-
   A) 0.9 METRES WHERE UNDER ROADS OR ROW'S.
   B) 0.75 METRES LOWER THAN THE CROWN OF THE ROAD OPPOSITE WHERE LOCATED IN AND PARALLEL TO THE ROAD VERGE
   C) 0.75 METRES ELSEWHERE UNLESS APPROPRIATELY PROTECTED.
5. FUTURE INLETS AND INSPECTION OPENINGS (IO'S) TO BE SEALED WITH APPROVED SEALING PLUGS OR CAPS.
6. BEFORE CONSTRUCTION COMMENCES THE CONTRACTOR SHALL:
   A) CHECK ONSITE THE LOCATION OF EXISTING SERVICES WITH APPROPRIATE AUTHORITIES.
   B) ARRANGE FOR THE LOCATION AND LEVEL OF THE CONNECTION POINT TO BE VERIFIED BY A SURVEYOR.
   C) MEET ON SITE WITH THE ENGINEER & THE WATER CORPORATION INSPECTOR. NOTE THE CONTRACTOR SHALL BE REQUIRED TO KEEP THE WATER CORPORATION INSPECTOR INFORMED OF PROGRESS.
   D) CONTACT RESIDENTS AFFECTED BY THE WORKS AND INFORM THEM OF THE PROPOSED WORKS PROGRAM.
   E) ENSURE A PERMIT IS OBTAINED FROM THE LOCAL AUTHORITY WHERE WORKS ARE WITHIN THE ROAD RESERVE.
7. RESIDENTS SHALL BE KEPT INFORMED THROUGHOUT AND SITE SECURITY MAINTAINED.
8. ALL EXCAVATIONS SHALL BE SECURED AND MADE SAFE IN ACCORDANCE WITH THE CONSTRUCTION SAFETY ACT AND ANY OTHER STATUTORY REQUIREMENT.
9. PROPERTIES THAT HAVE BEEN EXCAVATED SHALL BE RETURNED TO A SIMILAR CONDITION TO THAT WHICH EXISTED PRIOR TO EXCAVATION.
10. TRENCH BACKFILL SHALL BE CLEAN GRANULAR MATERIAL, COMPACTED TO A DENSITY NOT LESS THAN THAT OF THE SURROUNDING UNDISTURBED GROUND FOR THE FULL DEPTH OF THE EXCAVATION. BACKFILL UNDER ROADS SHALL BE COMPACTED TO THE REQUIREMENTS OF THE LOCAL AUTHORITY.
11. THE CONTRACTOR SHALL PROVIDE 'AS CONSTRUCTED' JUNCTION POSITIONS AND IN / UP DETAILS TO THE SUPERVISOR WHO SHALL ENSURE THE SURVEYOR IS GIVEN SUITABLE NOTICE TO ENSURE THE PICK UP OF 'AS CONSTRUCTED' DETAILS.
12. REFERENCE DRAWINGS (WATER CORPORATION STANDARD DRAWINGS):

AA01-4	INTERPRETATION OF RETICULATION DRAWINGS
AA01-11	BEDDING AND BACKFILLING OF SEWERS.
AA01-27-1 & 2	PRECAST CONCRETE MANHOLES.
AA01-61 & 62	PVC PROPERTY CONNECTIONS.
AA01-81	PROPERTY CONNECTION LOCATION TAPE.
AA01-86	INSPECTION SHAFT SEWERS.

13. CONNECTION TO EXISTING SEWER BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
14. PIPE MATERIAL:
    DN100 TO DN 375 PIPES AND FITTINGS SHALL BE PLASTICISED POLYVINYL CHLORIDE TO AS/NZ1260.
    DN150 TO DN375 PIPES SHALL BE CLASS SN8 (LESS THAN 7M COVER)
    DN150 TO DN375 FITTINGS SHALL BE CLASS SN6 (LESS THAN 7M COVER)
    PIPE JOINT WORK SHALL BE IN ACCORDANCE WITH AS2032 PART 3.
    DN150 TO DN300 PIPES WORK SHALL BE SOLVENT CEMENT JOINTED.
15. ALL CONNECTIONS TO EXISTING SEWER MAINS ARE TO BE ISOLATED OR CONNECTED TO BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
16. ALL EXCAVATION IS TO BE BY OPEN CUT METHOD UNLESS SHOWN OTHERWISE.
17. CONNECTION TO EXISTING SEWER IS TO BE BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
18. MINIMUM FILL LEVELS SHOWN ARE INDICATIVE ONLY AND ARE TO BE CONFIRMED WITH DETAILED DESIGN
19. CONNECTION BY WC AT CONTRACTORS EXPENSE
20. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE

HOLD

1. SEWER EXTENSION SUBJECT TO FUTURE DEVELOPMENT TYPE & CONFIGURATION. DESIGN ASSUMES NO FLOW TO THESE EXTENSIONS

LEGEND

- CMODPAREA
- EXISTING CADASTRAL
- EXISTING SEWER MAIN, MANHOLE & VALVE
- EXISTING CONTOURS (1m INTERVAL)
- PROPOSED CADASTRAL
- PROPOSED SEWER MAIN, MANHOLE
- FILL REQUIRED
- 22.7 MINIMUM FILL LEVEL

DENOTES STRUCTRE IS MAINTENANCE SHAFT
STRUCTURE NO. (TBC BY WC)
DEPTH TO INVERT
STRUCTURE TYPE 1 = ACCESS CHAMBER 8= MAINTENANCE SHAFT W = WET GROUND
CIRCLE - CAST/DUCTILE IRON COVER SQUARE - CONCRETE COVER
DENOTES DROP (IF APPLICABLE)
LID LEVEL
WC STRUCTURE CODE
LOCATION (ALONG NE, FROM NW BOUNDARIES)

PROPOSED STRUCTURES EXISTING STRUCTURES

WATER CORPORATION PLAN SET NO.

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	I	12.04.18	FINAL 100%	RN		RN
	H	22.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
	G	02.10.17	ISSUED TO CITY FOR 85% REVIEW	TH	RM	RN
	F	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN
	E	13.06.17	ISSUED TO WATERCORP FOR INFORMATION	TR	RN	RN
	D	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
	C	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
	B	31.03.17	ISSUED TO WATERCORP FOR INFORMATION	CRF	RN	TS
	A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN TR	DATE MARCH 2017	SCALE HORIZ. 1:1000 VERT.
DRAWN TR	DATE MARCH 2017	DATUM AHD
CHECKED RN	DATE MARCH 2017	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
SEWER RETICULATION PLAN
SHEET 3 OF 8

PLAN No 1702006-403 REV I

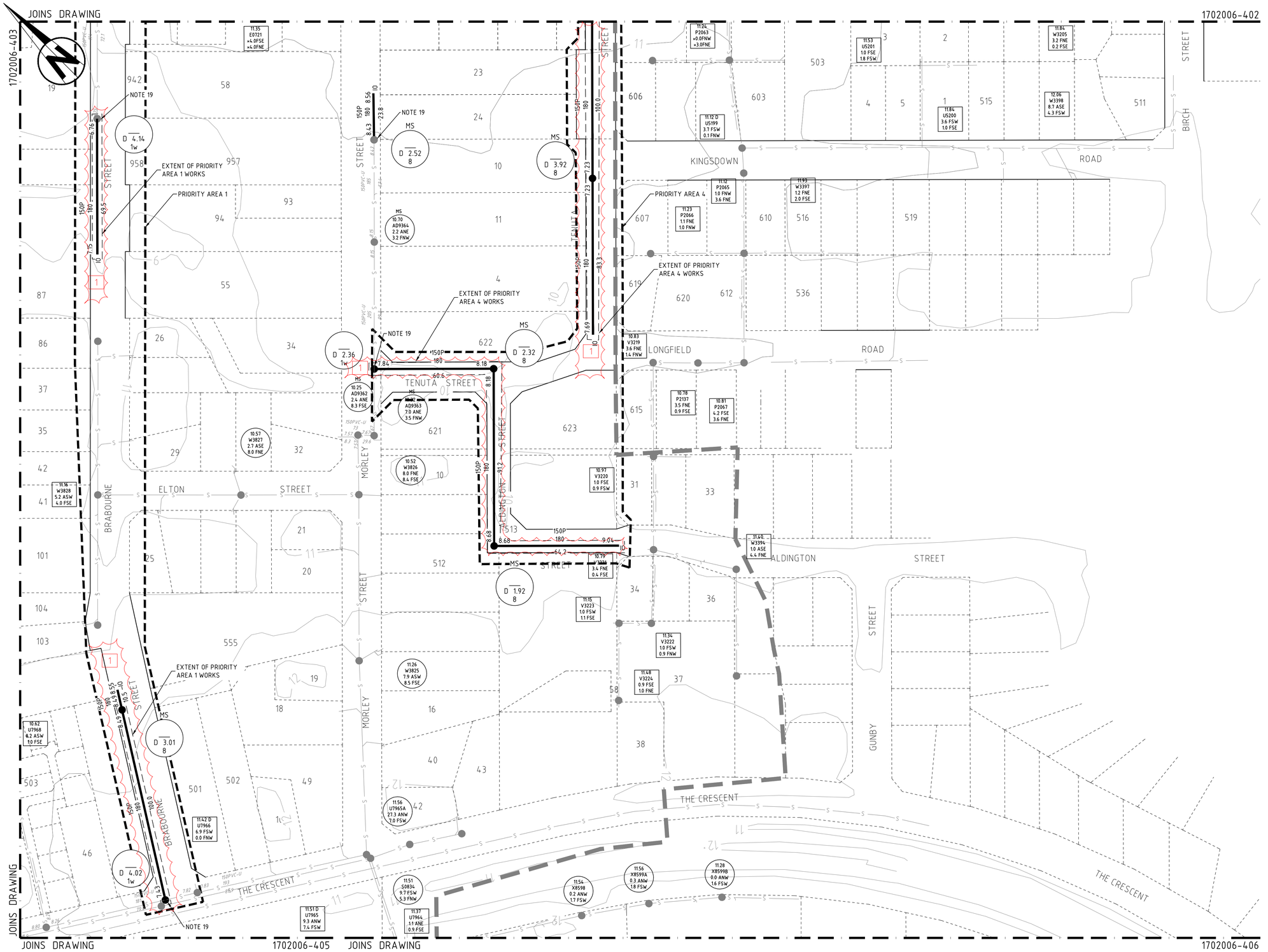
PRELIMINARY ONLY | A1

CHIEF ENGINEER

S. ASMUS DATE

12/04/2018 12:20:44 PM H:\JOBS ACTIVE\2017\E - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-401 TO 408 SEWER RETICULATION.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD)
2. ALL GRAVITY SEWER PIPES AND FITTINGS SHALL BE U.P.V.C. TO WATER CORPORATION SPECIFICATIONS UNLESS SHOWN OTHERWISE. 150DIA PIPES SHALL BE CLASS S.E.H. AND THE FITTINGS SHALL BE CLASS S.H WITH SOLVENT JOINTS.
3. ALIGNMENT OF THE SEWERS SHALL BE ON THE 3.5M ALIGNMENT UNLESS SHOWN OTHERWISE AND SHALL BE TO THE PIPE OR MANHOLE CENTRELINE.
4. UNLESS NOTED OTHERWISE, MINIMUM COVER TO SEWERS SHALL BE:-
   A) 0.9 METRES WHERE UNDER ROADS OR ROW'S.
   B) 0.75 METRES LOWER THAN THE CROWN OF THE ROAD OPPOSITE WHERE LOCATED IN AND PARALLEL TO THE ROAD VERGE
   C) 0.75 METRES ELSEWHERE UNLESS APPROPRIATELY PROTECTED.
5. FUTURE INLETS AND INSPECTION OPENINGS (IO'S) TO BE SEALED WITH APPROVED SEALING PLUGS OR CAPS.
6. BEFORE CONSTRUCTION COMMENCES THE CONTRACTOR SHALL:
   A) CHECK ONSITE THE LOCATION OF EXISTING SERVICES WITH APPROPRIATE AUTHORITIES.
   B) ARRANGE FOR THE LOCATION AND LEVEL OF THE CONNECTION POINT TO BE VERIFIED BY A SURVEYOR.
   C) MEET ON SITE WITH THE ENGINEER & THE WATER CORPORATION INSPECTOR. NOTE THE CONTRACTOR SHALL BE REQUIRED TO KEEP THE WATER CORPORATION INSPECTOR INFORMED OF PROGRESS.
   D) CONTACT RESIDENTS AFFECTED BY THE WORKS AND INFORM THEM OF THE PROPOSED WORKS PROGRAM.
   E) ENSURE A PERMIT IS OBTAINED FROM THE LOCAL AUTHORITY WHERE WORKS ARE WITHIN THE ROAD RESERVE.
7. RESIDENTS SHALL BE KEPT INFORMED THROUGHOUT AND SITE SECURITY MAINTAINED.
8. ALL EXCAVATIONS SHALL BE SECURED AND MADE SAFE IN ACCORDANCE WITH THE CONSTRUCTION SAFETY ACT AND ANY OTHER STATUTORY REQUIREMENT.
9. PROPERTIES THAT HAVE BEEN EXCAVATED SHALL BE RETURNED TO A SIMILAR CONDITION TO THAT WHICH EXISTED PRIOR TO EXCAVATION.
10. TRENCH BACKFILL SHALL BE CLEAN GRANULAR MATERIAL, COMPACTED TO A DENSITY NOT LESS THAN THAT OF THE SURROUNDING UNDISTURBED GROUND FOR THE FULL DEPTH OF THE EXCAVATION. BACKFILL UNDER ROADS SHALL BE COMPACTED TO THE REQUIREMENTS OF THE LOCAL AUTHORITY.
11. THE CONTRACTOR SHALL PROVIDE 'AS CONSTRUCTED' JUNCTION POSITIONS AND IN / UP DETAILS TO THE SUPERVISOR WHO SHALL ENSURE THE SURVEYOR IS GIVEN SUITABLE NOTICE TO ENSURE THE PICK UP OF 'AS CONSTRUCTED' DETAILS.
12. REFERENCE DRAWINGS (WATER CORPORATION STANDARD DRAWINGS):

AA01-4	INTERPRETATION OF RETICULATION DRAWINGS
AA01-11	BEDDING AND BACKFILLING OF SEWERS.
AA01-27-1 & 2	PRECAST CONCRETE MANHOLES.
AA01-61 & 62	PVC PROPERTY CONNECTIONS.
AA01-81	PROPERTY CONNECTION LOCATION TAPE.
AA01-86	INSPECTION SHAFT SEWERS.

13. CONNECTION TO EXISTING SEWER BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
14. PIPE MATERIAL:
    DN100 TO DN 375 PIPES AND FITTINGS SHALL BE PLASTICISED POLYVINYL CHLORIDE TO AS/NZ1260.
    DN150 TO DN375 PIPES SHALL BE CLASS SN8 (LESS THAN 7M COVER)
    DN150 TO DN375 FITTINGS SHALL BE CLASS SN6 (LESS THAN 7M COVER)
    PIPE JOINT WORK SHALL BE IN ACCORDANCE WITH AS2032 PART 3.
    DN150 TO DN300 PIPES WORK SHALL BE SOLVENT CEMENT JOINTED.
15. ALL CONNECTIONS TO EXISTING SEWER MAINS ARE TO BE ISOLATED OR CONNECTED TO BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
16. ALL EXCAVATION IS TO BE BY OPEN CUT METHOD UNLESS SHOWN OTHERWISE.
17. CONNECTION TO EXISTING SEWER IS TO BE BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
18. MINIMUM FILL LEVELS SHOWN ARE INDICATIVE ONLY AND ARE TO BE CONFIRMED WITH DETAILED DESIGN
19. CONNECTION BY WC AT CONTRACTORS EXPENSE
20. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE

HOLD

1. SEWER EXTENSION SUBJECT TO FUTURE DEVELOPMENT TYPE & CONFIGURATION. DESIGN ASSUMES NO FLOW TO THESE EXTENSIONS

LEGEND

- CMODPAREA
- EXISTING CADASTRAL
- EXISTING SEWER MAIN, MANHOLE & VALVE
- EXISTING CONTOURS (1m INTERVAL)
- PROPOSED CADASTRAL
- PROPOSED SEWER MAIN, MANHOLE
- FILL REQUIRED
- 22.7 MINIMUM FILL LEVEL

PROPOSED STRUCTURES: DENOTES STRUCTRE IS MAINTENANCE SHAFT; STRUCTURE NO. (TBC BY WC); DEPTH TO INVERT; STRUCTURE TYPE 1 = ACCESS CHAMBER 8= MAINTENANCE SHAFT W = WET GROUND

EXISTING STRUCTURES: CIRCLE - CAST/DUCTILE IRON COVER; SQUARE - CONCRETE COVER; DENOTES DROP (IF APPLICABLE); LID LEVEL; WC STRUCTURE CODE; LOCATION (ALONG NE, FROM NW BOUNDARIES)

WATER CORPORATION PLAN SET NO.	
SUBDIVISION FILE NO.	
MAIN EXTENSION FILE No.	
WAPC No.	

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
I	12.04.18	FINAL 100%	RN		RN
H	22.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
G	02.10.17	ISSUED TO CITY FOR 85% REVIEW	TH	RM	RN
F	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN
E	13.06.17	ISSUED TO WATERCORP FOR INFORMATION	TR	RN	RN
D	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
C	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
B	31.03.17	ISSUED TO WATERCORP FOR INFORMATION	CRF	RN	TS
A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

AMENDMENTS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN TR	DATE MARCH 2017	SCALE HORIZ. 1:1000 VERT.	
DRAWN TR	MARCH 2017	DATUM AHD	
CHECKED RN	MARCH 2017	GRID SYSTEM PCG	
SURVEY		JOB NUMBER	

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
SEWER RETICULATION PLAN
SHEET 4 OF 8

PLAN No 1702006-404 REV I

PRELIMINARY ONLY | A1

CHIEF ENGINEER

S. ASMUS DATE

12/04/2018 12:21:11PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-401 TO 408 SEWER RETICULATION.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



1:1000

0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD)
2. ALL GRAVITY SEWER PIPES AND FITTINGS SHALL BE U.P.V.C. TO WATER CORPORATION SPECIFICATIONS UNLESS SHOWN OTHERWISE. 150DIA PIPES SHALL BE CLASS S.E.H. AND THE FITTINGS SHALL BE CLASS S.H WITH SOLVENT JOINTS.
3. ALIGNMENT OF THE SEWERS SHALL BE ON THE 3.5M ALIGNMENT UNLESS SHOWN OTHERWISE AND SHALL BE TO THE PIPE OR MANHOLE CENTRELINE.
4. UNLESS NOTED OTHERWISE, MINIMUM COVER TO SEWERS SHALL BE:-
   A) 0.9 METRES WHERE UNDER ROADS OR ROW'S.
   B) 0.75 METRES LOWER THAN THE CROWN OF THE ROAD OPPOSITE WHERE LOCATED IN AND PARALLEL TO THE ROAD VERGE
   C) 0.75 METRES ELSEWHERE UNLESS APPROPRIATELY PROTECTED.
5. FUTURE INLETS AND INSPECTION OPENINGS (IO'S) TO BE SEALED WITH APPROVED SEALING PLUGS OR CAPS.
6. BEFORE CONSTRUCTION COMMENCES THE CONTRACTOR SHALL:
   A) CHECK ONSITE THE LOCATION OF EXISTING SERVICES WITH APPROPRIATE AUTHORITIES.
   B) ARRANGE FOR THE LOCATION AND LEVEL OF THE CONNECTION POINT TO BE VERIFIED BY A SURVEYOR.
   C) MEET ON SITE WITH THE ENGINEER & THE WATER CORPORATION INSPECTOR. NOTE THE CONTRACTOR SHALL BE REQUIRED TO KEEP THE WATER CORPORATION INSPECTOR INFORMED OF PROGRESS.
   D) CONTACT RESIDENTS AFFECTED BY THE WORKS AND INFORM THEM OF THE PROPOSED WORKS PROGRAM.
   E) ENSURE A PERMIT IS OBTAINED FROM THE LOCAL AUTHORITY WHERE WORKS ARE WITHIN THE ROAD RESERVE.
7. RESIDENTS SHALL BE KEPT INFORMED THROUGHOUT AND SITE SECURITY MAINTAINED.
8. ALL EXCAVATIONS SHALL BE SECURED AND MADE SAFE IN ACCORDANCE WITH THE CONSTRUCTION SAFETY ACT AND ANY OTHER STATUTORY REQUIREMENT.
9. PROPERTIES THAT HAVE BEEN EXCAVATED SHALL BE RETURNED TO A SIMILAR CONDITION TO THAT WHICH EXISTED PRIOR TO EXCAVATION.
10. TRENCH BACKFILL SHALL BE CLEAN GRANULAR MATERIAL, COMPACTED TO A DENSITY NOT LESS THAN THAT OF THE SURROUNDING UNDISTURBED GROUND FOR THE FULL DEPTH OF THE EXCAVATION. BACKFILL UNDER ROADS SHALL BE COMPACTED TO THE REQUIREMENTS OF THE LOCAL AUTHORITY.
11. THE CONTRACTOR SHALL PROVIDE 'AS CONSTRUCTED' JUNCTION POSITIONS AND IN / UP DETAILS TO THE SUPERVISOR WHO SHALL ENSURE THE SURVEYOR IS GIVEN SUITABLE NOTICE TO ENSURE THE PICK UP OF 'AS CONSTRUCTED' DETAILS.
12. REFERENCE DRAWINGS (WATER CORPORATION STANDARD DRAWINGS):

AA01-4	INTERPRETATION OF RETICULATION DRAWINGS
AA01-11	BEDDING AND BACKFILLING OF SEWERS.
AA01-27-1 & 2	PRECAST CONCRETE MANHOLES.
AA01-61 & 62	PVC PROPERTY CONNECTIONS.
AA01-81	PROPERTY CONNECTION LOCATION TAPE.
AA01-86	INSPECTION SHAFT SEWERS.

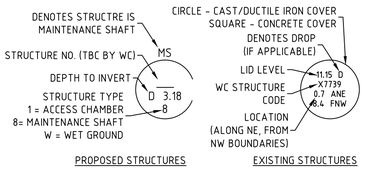
13. CONNECTION TO EXISTING SEWER BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
14. PIPE MATERIAL:
    DN100 TO DN 375 PIPES AND FITTINGS SHALL BE PLASTICISED POLYVINYL CHLORIDE TO AS/NZ1260.
    DN150 TO DN375 PIPES SHALL BE CLASS SN8 (LESS THAN 7M COVER)
    DN150 TO DN375 FITTINGS SHALL BE CLASS SN6 (LESS THAN 7M COVER)
    PIPE JOINT WORK SHALL BE IN ACCORDANCE WITH AS2032 PART 3.
    DN150 TO DN300 PIPES WORK SHALL BE SOLVENT CEMENT JOINTED.
15. ALL CONNECTIONS TO EXISTING SEWER MAINS ARE TO BE ISOLATED OR CONNECTED TO BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
16. ALL EXCAVATION IS TO BE BY OPEN CUT METHOD UNLESS SHOWN OTHERWISE.
17. CONNECTION TO EXISTING SEWER IS TO BE BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
18. MINIMUM FILL LEVELS SHOWN ARE INDICATIVE ONLY AND ARE TO BE CONFIRMED WITH DETAILED DESIGN
19. CONNECTION BY WC AT CONTRACTORS EXPENSE
20. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE

HOLD

1. SEWER EXTENSION SUBJECT TO FUTURE DEVELOPMENT TYPE & CONFIGURATION. DESIGN ASSUMES NO FLOW TO THESE EXTENSIONS

LEGEND

- CMODPAREA
- EXISTING CADASTRAL
- EXISTING SEWER MAIN, MANHOLE & VALVE
- EXISTING CONTOURS (1m INTERVAL)
- PROPOSED CADASTRAL
- PROPOSED SEWER MAIN, MANHOLE
- FILL REQUIRED
- 22.7 MINIMUM FILL LEVEL



WATER CORPORATION PLAN SET NO.

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	I	12.04.18	FINAL 100%	RN		RN
	H	22.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
	G	02.10.17	ISSUED TO CITY FOR 85% REVIEW	TH	RM	RN
	F	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN
	E	13.06.17	ISSUED TO WATERCORP FOR INFORMATION	TR	RN	RN
	D	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
	C	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
	B	31.03.17	ISSUED TO WATERCORP FOR INFORMATION	CRF	RN	TS
	A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN TR	DATE MARCH 2017	SCALE HORIZ. 1:1000 VERT.
DRAWN TR	MARCH 2017	DATUM AHD
CHECKED RN	MARCH 2017	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
SEWER RETICULATION PLAN
SHEET 5 OF 8

PLAN No 1702006-405 I

PRELIMINARY ONLY | A1

CHIEF ENGINEER

S. ASMUS DATE

12/04/2018 12:22:13 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-401 TO 408 SEWER RETICULATION.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

JOINS DRAWING

1702006-404

1702006-405

JOINS DRAWING

1702006-408

STREET

DALZIELL

ALBANY HIGHWAY

BURWASH PLACE

AVENUE

RIVER

PENN

ALBANY HIGHWAY

ATTFIELD STREET

COWAN STREET

AVENUE

RIVER

GRENACHE WAY

11.26 U7963 12.4 ANW 1.0 FNE

11.42 X8598A 2.5 ASE 1.7 FSW

11.29 S0833 3.0 ASW 9.6 FNW

OVERSIZE 11.33 S0832 2.9 ANE 9.8 FNW

10.58 S0831 1.3 FSW 2.8 FNW

11.19 Y6540 1.0 FNW 0.4 FSW

10.41 W3833 1.0 ANE 2.0 FSE

10.99 D W3832 1.8 ANE 10.0 FNW

10.64 Y6541 1.0 FNW 1.5 FNE

10.92 U7957A 0.6 ASW 1.8 FNW

10.74 W3831 16.2 ASW 10.0 FNW

10.76 U7958 4.6 ASE 1.8 FNE

9.82 S0830 6.2 FNW 1.6 FNE

11.15 U7957 3.6 ANE 1.8 FNW

11.01 D U7954A 2.1 ASW 14.6 FSE

10.52 W3830 6.4 ANE 8.5 FNW

10.79 S0827 10.4 ASW 10.9 FNW

10.18 S0829 5.7 ANW 10.2 FSW

10.90 U7956 1.6 ANW 3.2 FSW

10.01 W3834 1.0 FSE 2.6 FSW

10.96 D U7953 1.4 ANW 7.7 FNE

10.71 D U7952 10.4 ASW 6.6 FNW

10.20 D AE5230 9.1 ANW 3.3 FNE

10.52 S0827 10.4 ASW 10.9 FNW

10.45 D U7952 10.4 ASW 6.6 FNW

9.56 D AE5231 9.7 ASE 3.3 FNE

D 2.53 1w

D 2.24 1w

D 2.29 1w

D 2.28 1w

NOTE 19

NOTE 19

EXTENT OF PRIORITY AREA 3 WORKS

PRIORITY AREA 3

EXTENT OF PRIORITY AREA 10 WORKS

PRIORITY AREA 10

1:1000

0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD)
2. ALL GRAVITY SEWER PIPES AND FITTINGS SHALL BE U.P.V.C. TO WATER CORPORATION SPECIFICATIONS UNLESS SHOWN OTHERWISE. 150DIA PIPES SHALL BE CLASS S.E.H. AND THE FITTINGS SHALL BE CLASS S.H WITH SOLVENT JOINTS.
3. ALIGNMENT OF THE SEWERS SHALL BE ON THE 3.5M ALIGNMENT UNLESS SHOWN OTHERWISE AND SHALL BE TO THE PIPE OR MANHOLE CENTRELINE.
4. UNLESS NOTED OTHERWISE, MINIMUM COVER TO SEWERS SHALL BE:-
   A) 0.9 METRES WHERE UNDER ROADS OR ROW'S.
   B) 0.75 METRES LOWER THAN THE CROWN OF THE ROAD OPPOSITE WHERE LOCATED IN AND PARALLEL TO THE ROAD VERGE
   C) 0.75 METRES ELSEWHERE UNLESS APPROPRIATELY PROTECTED.
5. FUTURE INLETS AND INSPECTION OPENINGS (IO'S) TO BE SEALED WITH APPROVED SEALING PLUGS OR CAPS.
6. BEFORE CONSTRUCTION COMMENCES THE CONTRACTOR SHALL:
   A) CHECK ONSITE THE LOCATION OF EXISTING SERVICES WITH APPROPRIATE AUTHORITIES.
   B) ARRANGE FOR THE LOCATION AND LEVEL OF THE CONNECTION POINT TO BE VERIFIED BY A SURVEYOR.
   C) MEET ON SITE WITH THE ENGINEER & THE WATER CORPORATION INSPECTOR. NOTE THE CONTRACTOR SHALL BE REQUIRED TO KEEP THE WATER CORPORATION INSPECTOR INFORMED OF PROGRESS.
   D) CONTACT RESIDENTS AFFECTED BY THE WORKS AND INFORM THEM OF THE PROPOSED WORKS PROGRAM.
   E) ENSURE A PERMIT IS OBTAINED FROM THE LOCAL AUTHORITY WHERE WORKS ARE WITHIN THE ROAD RESERVE.
7. RESIDENTS SHALL BE KEPT INFORMED THROUGHOUT AND SITE SECURITY MAINTAINED.
8. ALL EXCAVATIONS SHALL BE SECURED AND MADE SAFE IN ACCORDANCE WITH THE CONSTRUCTION SAFETY ACT AND ANY OTHER STATUTORY REQUIREMENT.
9. PROPERTIES THAT HAVE BEEN EXCAVATED SHALL BE RETURNED TO A SIMILAR CONDITION TO THAT WHICH EXISTED PRIOR TO EXCAVATION.
10. TRENCH BACKFILL SHALL BE CLEAN GRANULAR MATERIAL, COMPACTED TO A DENSITY NOT LESS THAN THAT OF THE SURROUNDING UNDISTURBED GROUND FOR THE FULL DEPTH OF THE EXCAVATION. BACKFILL UNDER ROADS SHALL BE COMPACTED TO THE REQUIREMENTS OF THE LOCAL AUTHORITY.
11. THE CONTRACTOR SHALL PROVIDE 'AS CONSTRUCTED' JUNCTION POSITIONS AND IN / UP DETAILS TO THE SUPERVISOR WHO SHALL ENSURE THE SURVEYOR IS GIVEN SUITABLE NOTICE TO ENSURE THE PICK UP OF 'AS CONSTRUCTED' DETAILS.
12. REFERENCE DRAWINGS (WATER CORPORATION STANDARD DRAWINGS):

AA01-4	INTERPRETATION OF RETICULATION DRAWINGS
AA01-11	BEDDING AND BACKFILLING OF SEWERS.
AA01-27-1 & 2	PRECAST CONCRETE MANHOLES.
AA01-61 & 62	PVC PROPERTY CONNECTIONS.
AA01-81	PROPERTY CONNECTION LOCATION TAPE.
AA01-86	INSPECTION SHAFT SEWERS.

13. CONNECTION TO EXISTING SEWER BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
14. PIPE MATERIAL:
    DN100 TO DN 375 PIPES AND FITTINGS SHALL BE PLASTICISED POLYVINYL CHLORIDE TO AS/NZ1260.
    DN150 TO DN375 PIPES SHALL BE CLASS SN8 (LESS THAN 7M COVER)
    DN150 TO DN375 FITTINGS SHALL BE CLASS SN6 (LESS THAN 7M COVER)
    PIPE JOINT WORK SHALL BE IN ACCORDANCE WITH AS2032 PART 3.
    DN150 TO DN300 PIPES WORK SHALL BE SOLVENT CEMENT JOINTED.
15. ALL CONNECTIONS TO EXISTING SEWER MAINS ARE TO BE ISOLATED OR CONNECTED TO BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
16. ALL EXCAVATION IS TO BE BY OPEN CUT METHOD UNLESS SHOWN OTHERWISE.
17. CONNECTION TO EXISTING SEWER IS TO BE BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
18. MINIMUM FILL LEVELS SHOWN ARE INDICATIVE ONLY AND ARE TO BE CONFIRMED WITH DETAILED DESIGN
19. CONNECTION BY WC AT CONTRACTORS EXPENSE
20. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE

HOLD

1. SEWER EXTENSION SUBJECT TO FUTURE DEVELOPMENT TYPE & CONFIGURATION. DESIGN ASSUMES NO FLOW TO THESE EXTENSIONS

LEGEND

- CMODPAREA
- EXISTING CADASTRAL
- EXISTING SEWER MAIN, MANHOLE & VALVE
- EXISTING CONTOURS (1m INTERVAL)
- PROPOSED CADASTRAL
- PROPOSED SEWER MAIN, MANHOLE
- FILL REQUIRED
- 22.7 MINIMUM FILL LEVEL

PROPOSED STRUCTURES

DENOTES STRUCTRE IS MAINTENANCE SHAFT

STRUCTURE NO. (TBC BY WC)

DEPTH TO INVERT

STRUCTURE TYPE
1 = ACCESS CHAMBER
8= MAINTENANCE SHAFT
W = WET GROUND

MS

D 3.18 8

EXISTING STRUCTURES

CIRCLE - CAST/DUCTILE IRON COVER
SQUARE - CONCRETE COVER
DENOTES DROP (IF APPLICABLE)
LID LEVEL
WC STRUCTURE CODE
LOCATION (ALONG NE, FROM NW BOUNDARIES)

11.15 D X7739 0.7 ANE 9.4 FNW

WATER CORPORATION PLAN SET NO.

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
I	12.04.18	FINAL 100%	RN		RN
H	22.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
G	02.10.17	ISSUED TO CITY FOR 85% REVIEW	TH	RM	RN
F	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN
E	13.06.17	ISSUED TO WATERCORP FOR INFORMATION	TR	RN	RN
D	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
C	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
B	31.03.17	ISSUED TO WATERCORP FOR INFORMATION	CRF	RN	TS
A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

AMENDMENTS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE	
TR	MARCH 2017	HORIZ. 1:1000 VERT.	
DRAWN		DATUM	
TR	MARCH 2017	AHD	
CHECKED		GRID SYSTEM	
RN	MARCH 2017	PCG	
SURVEY		JOB NUMBER	

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
SEWER RETICULATION PLAN
SHEET 6 OF 8

PLAN No 1702006-406 REV I

PRELIMINARY ONLY | A1

CHIEF ENGINEER

S. ASMUS DATE

12/04/2018 12:22:33 PM Y:\JOBS ACTIVE 2017\LE - LAND DEVELOPMENT\ARCADIS_ MADDINGTON ODP_ 1702006\DRAWINGS\1702006-401 TO 408 SEWER RETICULATION.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

JOINS DRAWING

1702006-405



1:1000 0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD)
2. ALL GRAVITY SEWER PIPES AND FITTINGS SHALL BE U.P.V.C. TO WATER CORPORATION SPECIFICATIONS UNLESS SHOWN OTHERWISE. 150DIA PIPES SHALL BE CLASS S.E.H. AND THE FITTINGS SHALL BE CLASS S.H WITH SOLVENT JOINTS.
3. ALIGNMENT OF THE SEWERS SHALL BE ON THE 3.5M ALIGNMENT UNLESS SHOWN OTHERWISE AND SHALL BE TO THE PIPE OR MANHOLE CENTRELINE.
4. UNLESS NOTED OTHERWISE, MINIMUM COVER TO SEWERS SHALL BE:-
   A) 0.9 METRES WHERE UNDER ROADS OR ROW'S.
   B) 0.75 METRES LOWER THAN THE CROWN OF THE ROAD OPPOSITE WHERE LOCATED IN AND PARALLEL TO THE ROAD VERGE
   C) 0.75 METRES ELSEWHERE UNLESS APPROPRIATELY PROTECTED.
5. FUTURE INLETS AND INSPECTION OPENINGS (IO'S) TO BE SEALED WITH APPROVED SEALING PLUGS OR CAPS.
6. BEFORE CONSTRUCTION COMMENCES THE CONTRACTOR SHALL:
   A) CHECK ONSITE THE LOCATION OF EXISTING SERVICES WITH APPROPRIATE AUTHORITIES.
   B) ARRANGE FOR THE LOCATION AND LEVEL OF THE CONNECTION POINT TO BE VERIFIED BY A SURVEYOR.
   C) MEET ON SITE WITH THE ENGINEER & THE WATER CORPORATION INSPECTOR. NOTE THE CONTRACTOR SHALL BE REQUIRED TO KEEP THE WATER CORPORATION INSPECTOR INFORMED OF PROGRESS.
   D) CONTACT RESIDENTS AFFECTED BY THE WORKS AND INFORM THEM OF THE PROPOSED WORKS PROGRAM.
   E) ENSURE A PERMIT IS OBTAINED FROM THE LOCAL AUTHORITY WHERE WORKS ARE WITHIN THE ROAD RESERVE.
7. RESIDENTS SHALL BE KEPT INFORMED THROUGHOUT AND SITE SECURITY MAINTAINED.
8. ALL EXCAVATIONS SHALL BE SECURED AND MADE SAFE IN ACCORDANCE WITH THE CONSTRUCTION SAFETY ACT AND ANY OTHER STATUTORY REQUIREMENT.
9. PROPERTIES THAT HAVE BEEN EXCAVATED SHALL BE RETURNED TO A SIMILAR CONDITION TO THAT WHICH EXISTED PRIOR TO EXCAVATION.
10. TRENCH BACKFILL SHALL BE CLEAN GRANULAR MATERIAL, COMPACTED TO A DENSITY NOT LESS THAN THAT OF THE SURROUNDING UNDISTURBED GROUND FOR THE FULL DEPTH OF THE EXCAVATION. BACKFILL UNDER ROADS SHALL BE COMPACTED TO THE REQUIREMENTS OF THE LOCAL AUTHORITY.
11. THE CONTRACTOR SHALL PROVIDE 'AS CONSTRUCTED' JUNCTION POSITIONS AND IN / UP DETAILS TO THE SUPERVISOR WHO SHALL ENSURE THE SURVEYOR IS GIVEN SUITABLE NOTICE TO ENSURE THE PICK UP OF 'AS CONSTRUCTED' DETAILS.
12. REFERENCE DRAWINGS (WATER CORPORATION STANDARD DRAWINGS):

AA01-4	INTERPRETATION OF RETICULATION DRAWINGS
AA01-11	BEDDING AND BACKFILLING OF SEWERS.
AA01-27-1 & 2	PRECAST CONCRETE MANHOLES.
AA01-61 & 62	PVC PROPERTY CONNECTIONS.
AA01-81	PROPERTY CONNECTION LOCATION TAPE.
AA01-86	INSPECTION SHAFT SEWERS.

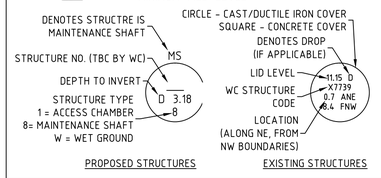
13. CONNECTION TO EXISTING SEWER BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
14. PIPE MATERIAL:
    DN100 TO DN 375 PIPES AND FITTINGS SHALL BE PLASTICISED POLYVINYL CHLORIDE TO AS/NZZ1260.
    DN150 TO DN375 PIPES SHALL BE CLASS SN8 (LESS THAN 7M COVER)
    DN150 TO DN375 FITTINGS SHALL BE CLASS SN6 (LESS THAN 7M COVER)
    PIPE JOINT WORK SHALL BE IN ACCORDANCE WITH AS2032 PART 3.
    DN150 TO DN300 PIPES WORK SHALL BE SOLVENT CEMENT JOINTED.
15. ALL CONNECTIONS TO EXISTING SEWER MAINS ARE TO BE ISOLATED OR CONNECTED TO BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
16. ALL EXCAVATION IS TO BE BY OPEN CUT METHOD UNLESS SHOWN OTHERWISE.
17. CONNECTION TO EXISTING SEWER IS TO BE BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
18. MINIMUM FILL LEVELS SHOWN ARE INDICATIVE ONLY AND ARE TO BE CONFIRMED WITH DETAILED DESIGN
19. CONNECTION BY WC AT CONTRACTORS EXPENSE
20. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE

HOLD

1. SEWER EXTENSION SUBJECT TO FUTURE DEVELOPMENT TYPE & CONFIGURATION. DESIGN ASSUMES NO FLOW TO THESE EXTENSIONS

LEGEND

- CMODPAREA
- EXISTING CADASTRAL
- EXISTING SEWER MAIN, MANHOLE & VALVE
- EXISTING CONTOURS (1m INTERVAL)
- PROPOSED CADASTRAL
- PROPOSED SEWER MAIN, MANHOLE
- FILL REQUIRED
- 22.7 MINIMUM FILL LEVEL



WATER CORPORATION PLAN SET NO.

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	I	12.04.18	FINAL 100%	RN		RN
	H	22.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
	G	02.10.17	ISSUED TO CITY FOR 85% REVIEW	TH	RM	RN
	F	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN
	E	13.06.17	ISSUED TO WATERCORP FOR INFORMATION	TR	RN	RN
	D	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
	C	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
	B	31.03.17	ISSUED TO WATERCORP FOR INFORMATION	CRF	RN	TS
	A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN TR	DATE MARCH 2017	SCALE HORIZ. 1:1000 VERT.
DRAWN TR	MARCH 2017	DATUM AHD
CHECKED RN	MARCH 2017	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
SEWER RETICULATION PLAN
SHEET 7 OF 8

PLAN No 1702006-407 I REV

PRELIMINARY ONLY | A1

CHIEF ENGINEER

S. ASMUS DATE

12/04/2018 12:22:48 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-401 TO 408 SEWER RETICULATION.DWG

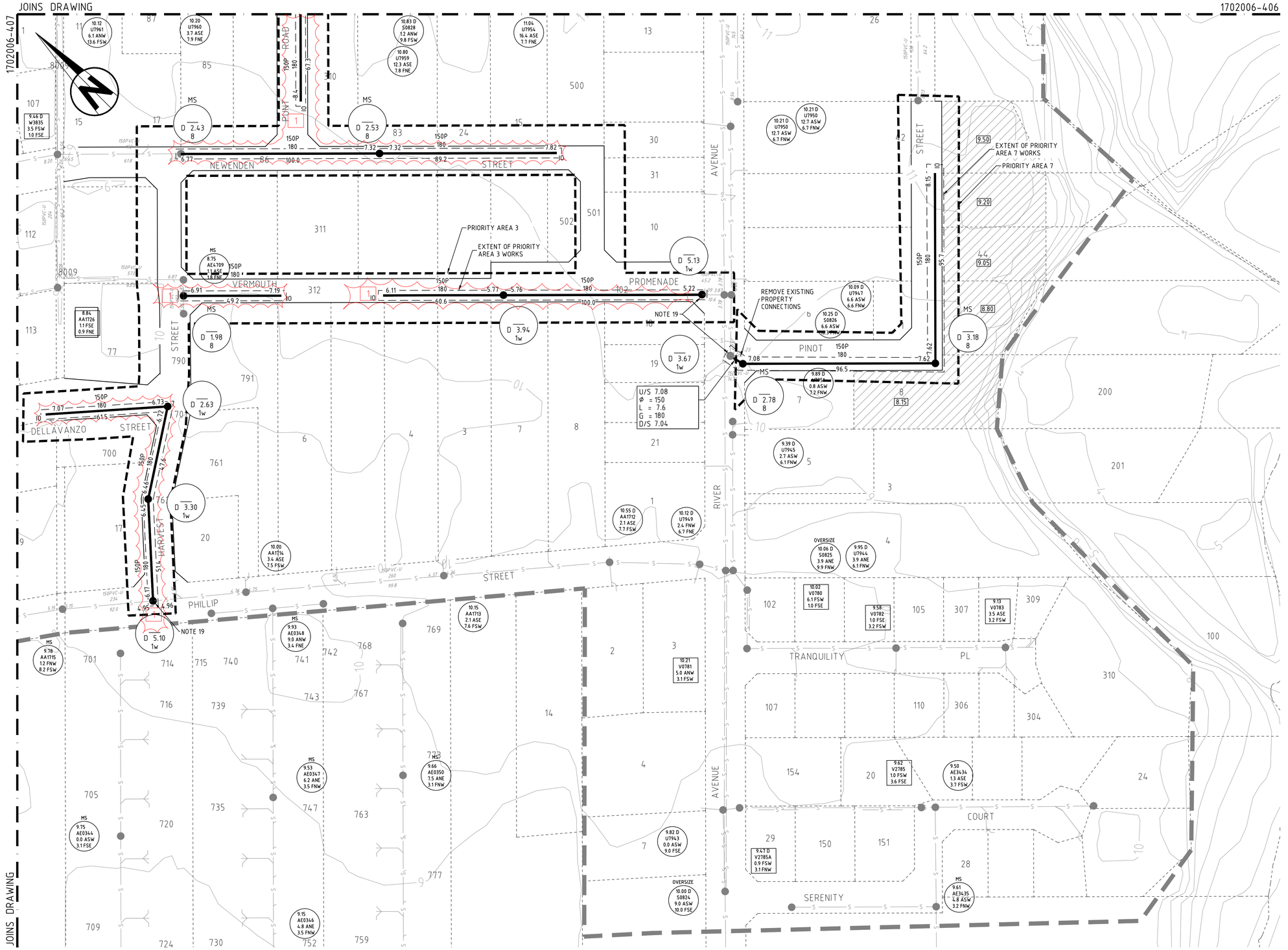
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

JOINS DRAWING

1702006-406

1702006-407

JOINS DRAWING



1:1000

0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD)
2. ALL GRAVITY SEWER PIPES AND FITTINGS SHALL BE U.P.V.C. TO WATER CORPORATION SPECIFICATIONS UNLESS SHOWN OTHERWISE. 150DIA PIPES SHALL BE CLASS S.E.H. AND THE FITTINGS SHALL BE CLASS S.H WITH SOLVENT JOINTS.
3. ALIGNMENT OF THE SEWERS SHALL BE ON THE 3.5M ALIGNMENT UNLESS SHOWN OTHERWISE AND SHALL BE TO THE PIPE OR MANHOLE CENTRELINE.
4. UNLESS NOTED OTHERWISE, MINIMUM COVER TO SEWERS SHALL BE:-
   A) 0.9 METRES WHERE UNDER ROADS OR ROW'S.
   B) 0.75 METRES LOWER THAN THE CROWN OF THE ROAD OPPOSITE WHERE LOCATED IN AND PARALLEL TO THE ROAD VERGE
   C) 0.75 METRES ELSEWHERE UNLESS APPROPRIATELY PROTECTED.
5. FUTURE INLETS AND INSPECTION OPENINGS (IO'S) TO BE SEALED WITH APPROVED SEALING PLUGS OR CAPS.
6. BEFORE CONSTRUCTION COMMENCES THE CONTRACTOR SHALL:
   A) CHECK ONSITE THE LOCATION OF EXISTING SERVICES WITH APPROPRIATE AUTHORITIES.
   B) ARRANGE FOR THE LOCATION AND LEVEL OF THE CONNECTION POINT TO BE VERIFIED BY A SURVEYOR.
   C) MEET ON SITE WITH THE ENGINEER & THE WATER CORPORATION INSPECTOR. NOTE THE CONTRACTOR SHALL BE REQUIRED TO KEEP THE WATER CORPORATION INSPECTOR INFORMED OF PROGRESS.
   D) CONTACT RESIDENTS AFFECTED BY THE WORKS AND INFORM THEM OF THE PROPOSED WORKS PROGRAM.
   E) ENSURE A PERMIT IS OBTAINED FROM THE LOCAL AUTHORITY WHERE WORKS ARE WITHIN THE ROAD RESERVE.
7. RESIDENTS SHALL BE KEPT INFORMED THROUGHOUT AND SITE SECURITY MAINTAINED.
8. ALL EXCAVATIONS SHALL BE SECURED AND MADE SAFE IN ACCORDANCE WITH THE CONSTRUCTION SAFETY ACT AND ANY OTHER STATUTORY REQUIREMENT.
9. PROPERTIES THAT HAVE BEEN EXCAVATED SHALL BE RETURNED TO A SIMILAR CONDITION TO THAT WHICH EXISTED PRIOR TO EXCAVATION.
10. TRENCH BACKFILL SHALL BE CLEAN GRANULAR MATERIAL, COMPACTED TO A DENSITY NOT LESS THAN THAT OF THE SURROUNDING UNDISTURBED GROUND FOR THE FULL DEPTH OF THE EXCAVATION. BACKFILL UNDER ROADS SHALL BE COMPACTED TO THE REQUIREMENTS OF THE LOCAL AUTHORITY.
11. THE CONTRACTOR SHALL PROVIDE 'AS CONSTRUCTED' JUNCTION POSITIONS AND IN / UP DETAILS TO THE SUPERVISOR WHO SHALL ENSURE THE SURVEYOR IS GIVEN SUITABLE NOTICE TO ENSURE THE PICK UP OF 'AS CONSTRUCTED' DETAILS.
12. REFERENCE DRAWINGS (WATER CORPORATION STANDARD DRAWINGS):

AA01-4	INTERPRETATION OF RETICULATION DRAWINGS
AA01-11	BEDDING AND BACKFILLING OF SEWERS.
AA01-27-1 & 2	PRECAST CONCRETE MANHOLES.
AA01-61 & 62	PVC PROPERTY CONNECTIONS.
AA01-81	PROPERTY CONNECTION LOCATION TAPE.
AA01-86	INSPECTION SHAFT SEWERS.

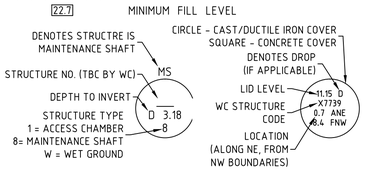
13. CONNECTION TO EXISTING SEWER BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
14. PIPE MATERIAL:
    DN100 TO DN 375 PIPES AND FITTINGS SHALL BE PLASTICISED POLYVINYL CHLORIDE TO AS/NZ1260.
    DN150 TO DN375 PIPES SHALL BE CLASS SN8 (LESS THAN 7M COVER)
    DN150 TO DN375 FITTINGS SHALL BE CLASS SN6 (LESS THAN 7M COVER)
    PIPE JOINT WORK SHALL BE IN ACCORDANCE WITH AS2032 PART 3.
    DN150 TO DN300 PIPES WORK SHALL BE SOLVENT CEMENT JOINTED.
15. ALL CONNECTIONS TO EXISTING SEWER MAINS ARE TO BE ISOLATED OR CONNECTED TO BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
16. ALL EXCAVATION IS TO BE BY OPEN CUT METHOD UNLESS SHOWN OTHERWISE.
17. CONNECTION TO EXISTING SEWER IS TO BE BY WATER CORPORATION AT CONTRACTOR'S EXPENSE.
18. MINIMUM FILL LEVELS SHOWN ARE INDICATIVE ONLY AND ARE TO BE CONFIRMED WITH DETAILED DESIGN
19. CONNECTION BY WC AT CONTRACTORS EXPENSE
20. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE

HOLD

1. SEWER EXTENSION SUBJECT TO FUTURE DEVELOPMENT TYPE & CONFIGURATION. DESIGN ASSUMES NO FLOW TO THESE EXTENSIONS

LEGEND

- CMODPAREA
- EXISTING CADASTRAL
- EXISTING SEWER MAIN, MANHOLE & VALVE
- EXISTING CONTOURS (1m INTERVAL)
- PROPOSED CADASTRAL
- PROPOSED SEWER MAIN, MANHOLE
- FILL REQUIRED
- 22.7 MINIMUM FILL LEVEL



PROPOSED STRUCTURES EXISTING STRUCTURES

WATER CORPORATION PLAN SET NO.

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	I	12.04.18	FINAL 100%	RN		RN
	H	22.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
	G	02.10.17	ISSUED TO CITY FOR 85% REVIEW	TH	RM	RN
	F	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN
	E	13.06.17	ISSUED TO WATERCORP FOR INFORMATION	TR	RN	RN
	D	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
	C	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
	B	31.03.17	ISSUED TO WATERCORP FOR INFORMATION	CRF	RN	TS
	A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN TR	DATE MARCH 2017	SCALE HORIZ. 1:1000 VERT.
DRAWN TR	MARCH 2017	DATUM AHD
CHECKED RN	MARCH 2017	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
SEWER RETICULATION PLAN
SHEET 8 OF 8

PLAN No 1702006-408 REV I

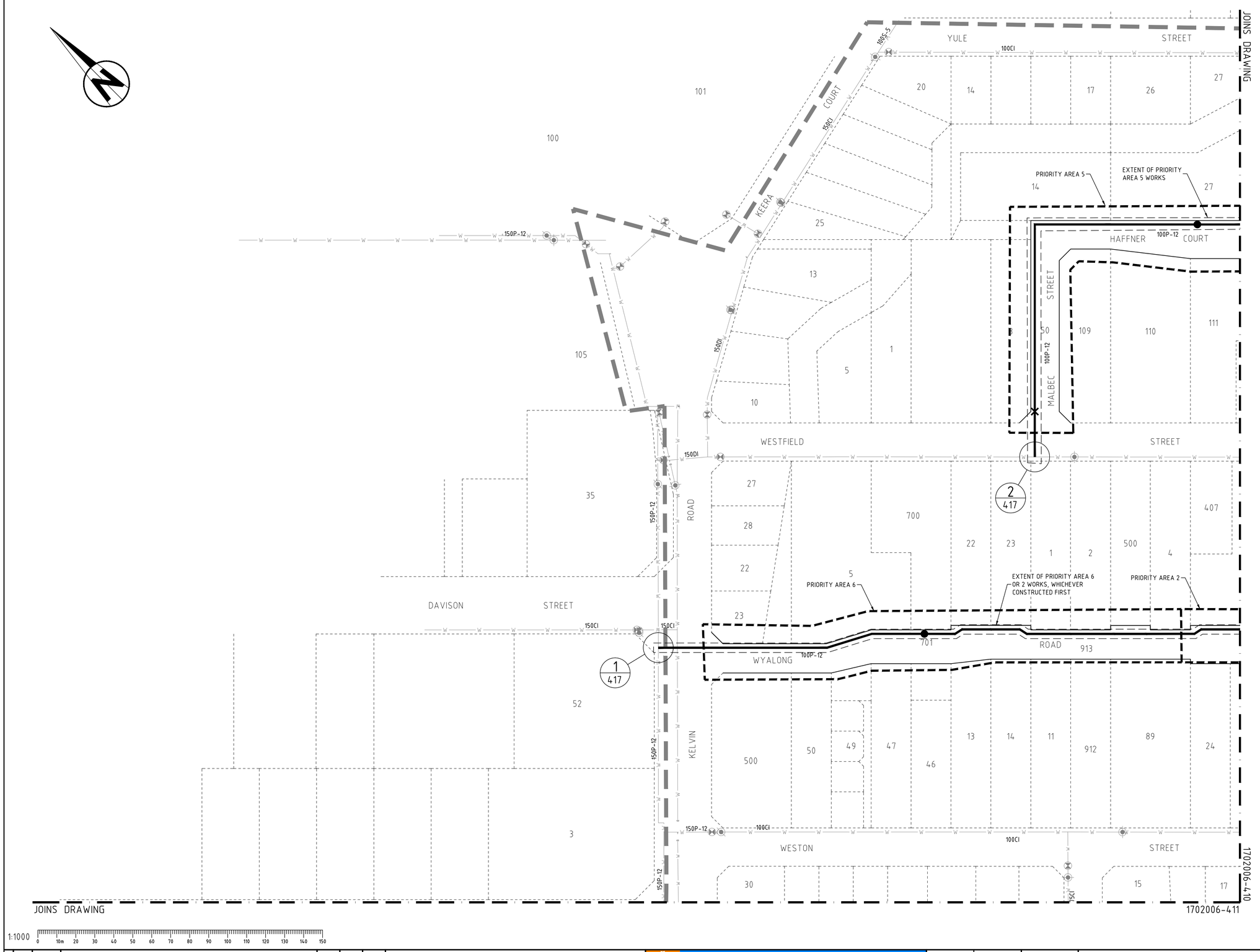
PRELIMINARY ONLY | A1

CHIEF ENGINEER

S. ASMUS DATE

12/04/2018 12:23:07 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-401 TO 408 SEWER RETICULATION.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



1:1000 0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. REFERENCE DRAWINGS:
   WATER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT WATER CORPORATION STANDARD DRAWINGS.
2. WATER ALIGNMENT:
   ALL WATER MAINS SHALL BE INSTALLED ON A 2.1m ALIGNMENT UNLESS OTHERWISE SHOWN.
3. PUBLIC UTILITIES:
   ALL SERVICES TO BE LOCATED PRIOR TO ANY MECHANICAL EXCAVATION WITHIN EXISTING ROAD RESERVE. ANY CLASHES WITH PROPOSED ALIGNMENTS OR LEVELS TO BE REPORTED TO THE SUPERINTENDENT.
4. EXISTING WORKS:
   THE LOCATION AND LEVEL OF POINTS OF CONNECTION TO EXISTING WATER MAINS SHALL BE VERIFIED BY A SURVEYOR BEFORE COMMENCING CONSTRUCTION. PROPOSED WATER MAINS ARE TO REMAIN 3.0m AWAY FROM EXISTING WATER MAINS UNLESS OTHERWISE DIRECTED.
5. MATERIALS:
   ALL WATER RETICULATION MATERIALS AND COMPONENTS SHALL BE NEW AND COMPLY WITH THE WATER CORPORATIONS APPROVED MATERIALS AND MANUFACTURERS LIST.
6. ALL CHANGES ARE IN METER AND PIPES DIAMETERS IN DESIGNED DN SIZE.
7. WHERE NO PIPELINE BENDS ARE SHOWN, PIPES MAY BE DEFLECTED AT ELECTROMETRIC JOINTS.
8. CONNECTIONS:
   CONNECTION TO BE LAID BY THE WATER CORPORATION AT CONTRACTORS EXPENSE
9. ALL EXCAVATION BY OPEN CUT METHODS UNLESS SHOWN OTHERWISE.
10. CONCRETE THRUST SUPPORT TO BE IN ACCORDANCE WITH WATER CORPORATION STANDARD DRAWINGS BD62-2-4, BD62-2-5, BD62-2-6 & BD62-2-7
11. THE CONTRACTOR SHALL NOT PROCEED WITH FURTHER WORKS UNTIL THE FOLLOWING HOLD POINTS ARE WITNESSED AND APPROVED BY THE SUPERINTENDENT.
    TRENCH PRIOR TO BACKFILL
    THRUST BLOCKS PRIOR TO BACKFILL
    PRELIMINARY PRESSURE TEST PRIOR TO FINAL BACKFILL
    AS CONSTRUCTED PRIOR TO FINAL BACKFILL
    OFFICIAL PRESSURE TEST PRIOR TO FINAL BACKFILL
12. EXISTING MAIN TO BE UPGRADED TO MAIN TYPE & SIZE AS SHOWN. CONTRACTOR TO SUPPLY & LAY NEW & TEMPORARY MAIN. WATERCORP TO CUT & CAP EXISTING MAIN & PROVIDE CONNECTIONS TO ALL EXISTING SERVICES.
13. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE.

LEGEND

- CMODP BOUNDARY
- EXISTING CADASTRAL
- EXISTING WATER MAIN, HYDRANT, VALVE
- PROPOSED CADASTRAL
- PROPOSED WATER MAIN, HYDRANT, VALVE
- 100P-12 PROPOSED PIPE DIA., MATERIAL, CLASS (1200kPa)
- 701 EXISTING LOT NO'S
- 100P DENOTES PVC PIPE
- 63MDPE/PE DENOTES POLYETHYLENE PIPE
- 100CI DENOTES CAST IRON PIPE
- 100DI DENOTES DUCTILE IRON PIPE

This plan is accepted as complying with overall Scheme planning.
Compliance with relevant manuals remains the responsibility of the Consulting Engineer.
No works are to commence on site until startup arrangements have been made with the relevant works inspector. See Developer's Manual for contact details.

For Manager Land Servicing

WATER CORPORATION
PLAN SET NO.

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	G	12.04.18	FINAL 100%	RN		RN
	F	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
	E	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN
	D	25.05.17	AMENDED FOLLOWING WATER CORPORATION REVIEW	TR	RN	RN
	C	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
	B	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
	A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN TR	DATE MARCH 2017	SCALE HORIZ. 1:1000 VERT.
DRAWN TR	MARCH 2017	DATUM AHD
CHECKED RN	MARCH 2017	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
WATER RETICULATION PLAN
SHEET 1 OF 8

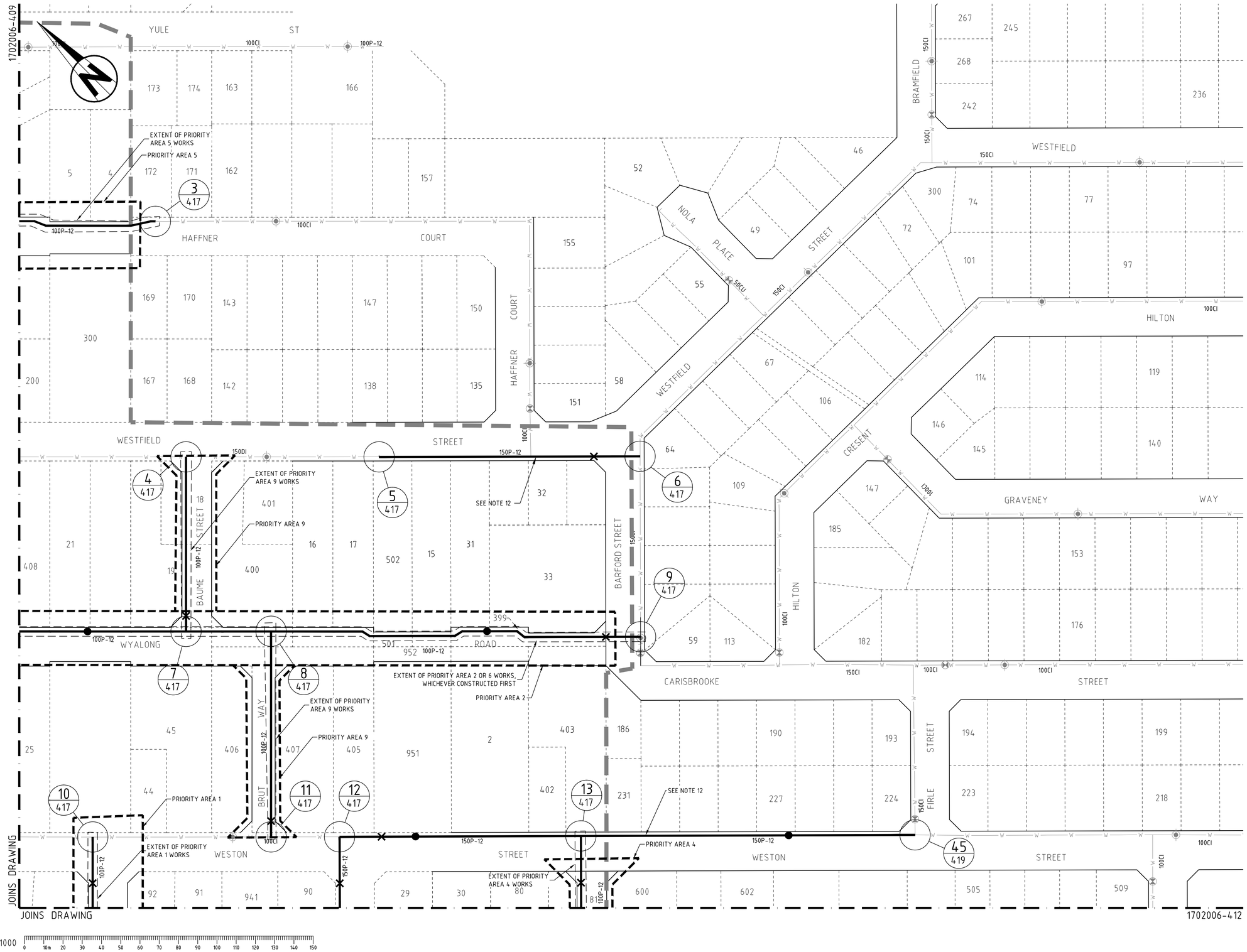
PLAN No 1702006-409 REV G

PRELIMINARY ONLY | A1

CHIEF ENGINEER
S.ASMUS DATE

12/04/2018 1:43:20 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-409 TO 419 WATER.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



1:1000 0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. REFERENCE DRAWINGS:
   WATER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT WATER CORPORATION STANDARD DRAWINGS.
2. WATER ALIGNMENT:
   ALL WATER MAINS SHALL BE INSTALLED ON A 2.1m ALIGNMENT UNLESS OTHERWISE SHOWN.
3. PUBLIC UTILITIES:
   ALL SERVICES TO BE LOCATED PRIOR TO ANY MECHANICAL EXCAVATION WITHIN EXISTING ROAD RESERVE. ANY CLASHES WITH PROPOSED ALIGNMENTS OR LEVELS TO BE REPORTED TO THE SUPERINTENDENT.
4. EXISTING WORKS:
   THE LOCATION AND LEVEL OF POINTS OF CONNECTION TO EXISTING WATER MAINS SHALL BE VERIFIED BY A SURVEYOR BEFORE COMMENCING CONSTRUCTION. PROPOSED WATER MAINS ARE TO REMAIN 3.0m AWAY FROM EXISTING WATER MAINS UNLESS OTHERWISE DIRECTED.
5. MATERIALS:
   ALL WATER RETICULATION MATERIALS AND COMPONENTS SHALL BE NEW AND COMPLY WITH THE WATER CORPORATIONS APPROVED MATERIALS AND MANUFACTURERS LIST.
6. ALL CHANGES ARE IN METER AND PIPES DIAMETERS IN DESIGNED DN SIZE.
7. WHERE NO PIPELINE BENDS ARE SHOWN, PIPES MAY BE DEFLECTED AT ELECTROMETRIC JOINTS.
8. CONNECTIONS:
   CONNECTION TO BE LAID BY THE WATER CORPORATION AT CONTRACTORS EXPENSE
9. ALL EXCAVATION BY OPEN CUT METHODS UNLESS SHOWN OTHERWISE.
10. CONCRETE THRUST SUPPORT TO BE IN ACCORDANCE WITH WATER CORPORATION STANDARD DRAWINGS BD62-2-4, BD62-2-5, BD62-2-6 & BD62-2-7
11. THE CONTRACTOR SHALL NOT PROCEED WITH FURTHER WORKS UNTIL THE FOLLOWING HOLD POINTS ARE WITNESSED AND APPROVED BY THE SUPERINTENDENT.
    TRENCH PRIOR TO BACKFILL
    THRUST BLOCKS PRIOR TO BACKFILL
    PRELIMINARY PRESSURE TEST PRIOR TO FINAL BACKFILL
    AS CONSTRUCTED PRIOR TO FINAL BACKFILL
    OFFICIAL PRESSURE TEST PRIOR TO FINAL BACKFILL
12. EXISTING MAIN TO BE UPGRADED TO MAIN TYPE & SIZE AS SHOWN. CONTRACTOR TO SUPPLY & LAY NEW & TEMPORARY MAIN. WATERCORP TO CUT & CAP EXISTING MAIN & PROVIDE CONNECTIONS TO ALL EXISTING SERVICES.
13. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE.

LEGEND

	CMODP BOUNDARY
	EXISTING CADASTRAL
W W	EXISTING WATER MAIN, HYDRANT, VALVE
	PROPOSED CADASTRAL
	PROPOSED WATER MAIN, HYDRANT, VALVE
100P-12	PROPOSED PIPE DIA., MATERIAL, CLASS (1200kPa)
701	EXISTING LOT NO'S
100P	DENOTES PVC PIPE
63MDPE/PE	DENOTES POLYETHYLENE PIPE
100CI	DENOTES CAST IRON PIPE
100DI	DENOTES DUCTILE IRON PIPE

This plan is accepted as complying with overall Scheme planning.
Compliance with relevant manuals remains the responsibility of the Consulting Engineer.
No works are to commence on site until startup arrangements have been made with the relevant works inspector. See Developer's Manual for contact details.

For Manager Land Servicing

WATER CORPORATION PLAN SET NO.

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	G	12.04.18	FINAL 100%	RN		RN
	F	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
	E	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN
	D	25.05.17	AMENDED FOLLOWING WATER CORPORATION REVIEW	TR	RN	RN
	C	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
	B	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
	A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN TR	DATE MARCH 2017	SCALE HORIZ. 1:1000 VERT.
DRAWN TR	MARCH 2017	DATUM AHD
CHECKED RN	MARCH 2017	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
WATER RETICULATION PLAN
SHEET 2 OF 8

PLAN No 1702006-410 REV G

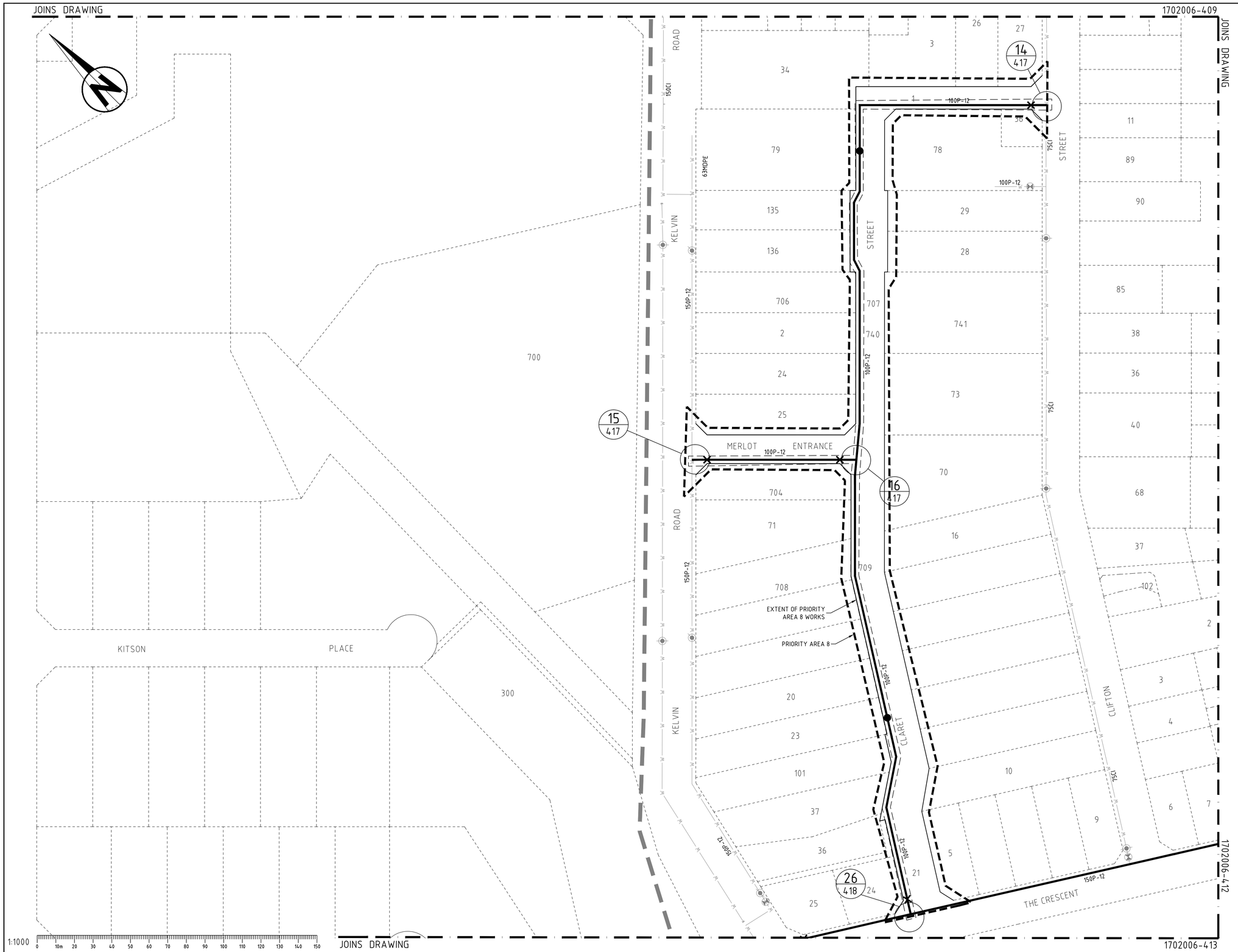
PRELIMINARY ONLY | A1

CHIEF ENGINEER

S.ASMUS DATE

12/04/2018 14:58 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-409 TO 419 WATER.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. REFERENCE DRAWINGS:
   WATER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT WATER CORPORATION STANDARD DRAWINGS.
2. WATER ALIGNMENT:
   ALL WATER MAINS SHALL BE INSTALLED ON A 2.1m ALIGNMENT UNLESS OTHERWISE SHOWN.
3. PUBLIC UTILITIES:
   ALL SERVICES TO BE LOCATED PRIOR TO ANY MECHANICAL EXCAVATION WITHIN EXISTING ROAD RESERVE. ANY CLASHES WITH PROPOSED ALIGNMENTS OR LEVELS TO BE REPORTED TO THE SUPERINTENDENT.
4. EXISTING WORKS:
   THE LOCATION AND LEVEL OF POINTS OF CONNECTION TO EXISTING WATER MAINS SHALL BE VERIFIED BY A SURVEYOR BEFORE COMMENCING CONSTRUCTION. PROPOSED WATER MAINS ARE TO REMAIN 3.0m AWAY FROM EXISTING WATER MAINS UNLESS OTHERWISE DIRECTED.
5. MATERIALS:
   ALL WATER RETICULATION MATERIALS AND COMPONENTS SHALL BE NEW AND COMPLY WITH THE WATER CORPORATIONS APPROVED MATERIALS AND MANUFACTURERS LIST.
6. ALL CHANGES ARE IN METER AND PIPES DIAMETERS IN DESIGNED ON SIZE.
7. WHERE NO PIPELINE BENDS ARE SHOWN, PIPES MAY BE DEFLECTED AT ELECTROMETRIC JOINTS.
8. CONNECTIONS:
   CONNECTION TO BE LAID BY THE WATER CORPORATION AT CONTRACTORS EXPENSE
9. ALL EXCAVATION BY OPEN CUT METHODS UNLESS SHOWN OTHERWISE.
10. CONCRETE THRUST SUPPORT TO BE IN ACCORDANCE WITH WATER CORPORATION STANDARD DRAWINGS BD62-2-4, BD62-2-5, BD62-2-6 & BD62-2-7
11. THE CONTRACTOR SHALL NOT PROCEED WITH FURTHER WORKS UNTIL THE FOLLOWING HOLD POINTS ARE WITNESSED AND APPROVED BY THE SUPERINTENDENT.
    TRENCH PRIOR TO BACKFILL
    THRUST BLOCKS PRIOR TO BACKFILL
    PRELIMINARY PRESSURE TEST PRIOR TO FINAL BACKFILL
    AS CONSTRUCTED PRIOR TO FINAL BACKFILL
    OFFICIAL PRESSURE TEST PRIOR TO FINAL BACKFILL
12. EXISTING MAIN TO BE UPGRADED TO MAIN TYPE & SIZE AS SHOWN. CONTRACTOR TO SUPPLY & LAY NEW & TEMPORARY MAIN. WATERCORP TO CUT & CAP EXISTING MAIN & PROVIDE CONNECTIONS TO ALL EXISTING SERVICES.
13. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE.

LEGEND

	CMODP BOUNDARY
	EXISTING CADASTRAL
W W	EXISTING WATER MAIN, HYDRANT, VALVE
	PROPOSED CADASTRAL
	PROPOSED WATER MAIN, HYDRANT, VALVE
100P-12	PROPOSED PIPE DIA., MATERIAL, CLASS (1200kPa)
701	EXISTING LOT NO'S
100P	DENOTES PVC PIPE
63MDPE/PE	DENOTES POLYETHYLENE PIPE
100CI	DENOTES CAST IRON PIPE
100DI	DENOTES DUCTILE IRON PIPE

This plan is accepted as complying with overall Scheme planning.
Compliance with relevant manuals remains the responsibility of the Consulting Engineer.
No works are to commence on site until startup arrangements have been made with the relevant works inspector. See Developer's Manual for contact details.

For Manager Land Servicing

WATER CORPORATION
PLAN SET NO.

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	G	12.04.18	FINAL 100%	RN		RN
	F	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
	E	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN
	D	25.05.17	AMENDED FOLLOWING WATER CORPORATION REVIEW	TR	RN	RN
	C	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
	B	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
	A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE	
TR	MARCH 2017	HORIZ. 1:1000 VERT.	
DRAWN		DATUM	
TR	MARCH 2017	AHD	
CHECKED		GRID SYSTEM	
RN	MARCH 2017	PCG	
SURVEY		JOB NUMBER	

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
WATER RETICULATION PLAN
SHEET 3 OF 8

PLAN No 1702006-411 REV G

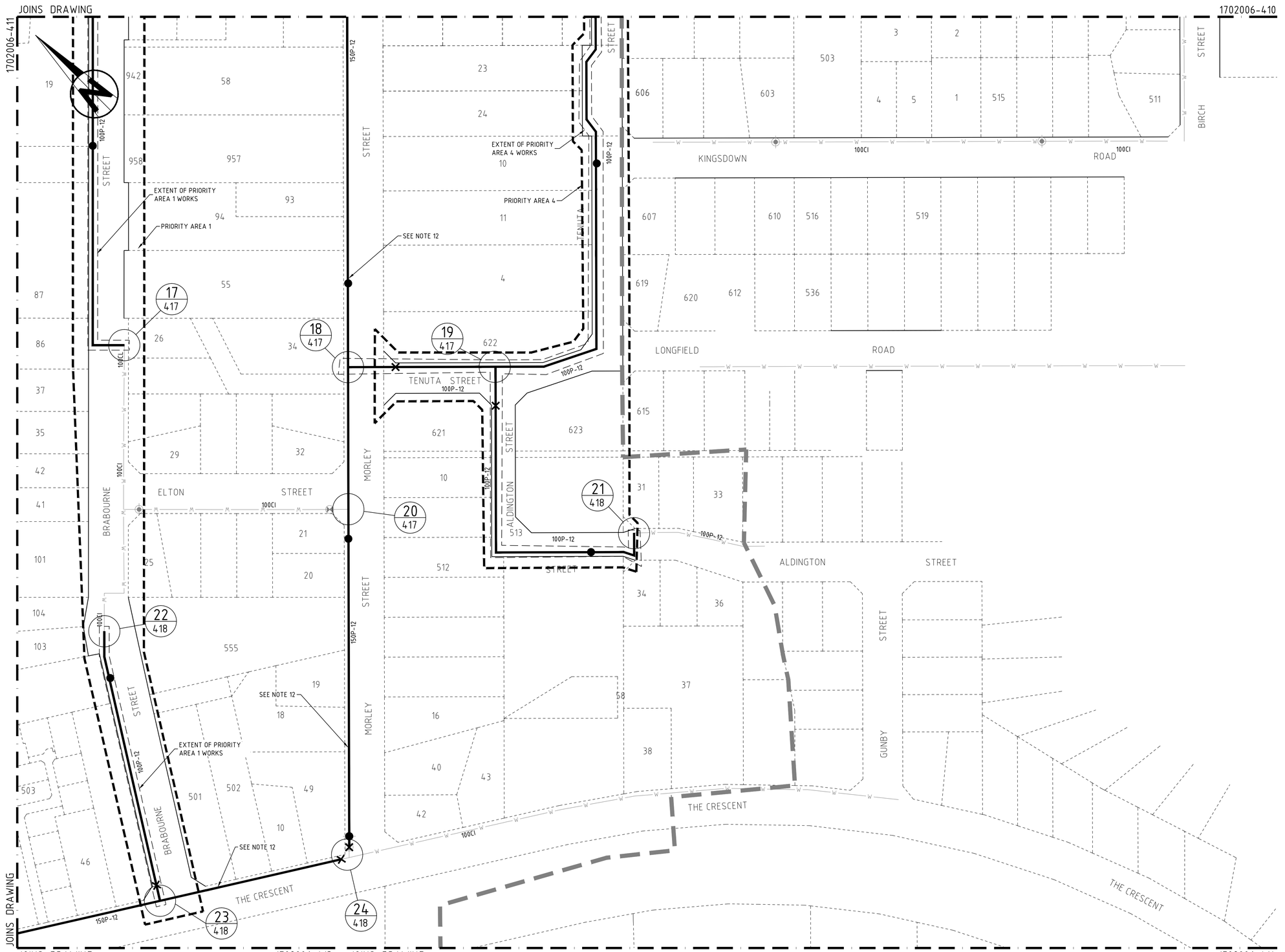
PRELIMINARY ONLY | A1

CHIEF ENGINEER

S.ASMUS DATE

12/04/2018 1:45:59 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-409 TO 419 WATER.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. REFERENCE DRAWINGS:
   WATER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT WATER CORPORATION STANDARD DRAWINGS.
2. WATER ALIGNMENT:
   ALL WATER MAINS SHALL BE INSTALLED ON A 2.1m ALIGNMENT UNLESS OTHERWISE SHOWN.
3. PUBLIC UTILITIES:
   ALL SERVICES TO BE LOCATED PRIOR TO ANY MECHANICAL EXCAVATION WITHIN EXISTING ROAD RESERVE. ANY CLASHES WITH PROPOSED ALIGNMENTS OR LEVELS TO BE REPORTED TO THE SUPERINTENDENT.
4. EXISTING WORKS:
   THE LOCATION AND LEVEL OF POINTS OF CONNECTION TO EXISTING WATER MAINS SHALL BE VERIFIED BY A SURVEYOR BEFORE COMMENCING CONSTRUCTION. PROPOSED WATER MAINS ARE TO REMAIN 3.0m AWAY FROM EXISTING WATER MAINS UNLESS OTHERWISE DIRECTED.
5. MATERIALS:
   ALL WATER RETICULATION MATERIALS AND COMPONENTS SHALL BE NEW AND COMPLY WITH THE WATER CORPORATIONS APPROVED MATERIALS AND MANUFACTURERS LIST.
6. ALL CHANGES ARE IN METER AND PIPES DIAMETERS IN DESIGNED DN SIZE.
7. WHERE NO PIPELINE BENDS ARE SHOWN, PIPES MAY BE DEFLECTED AT ELECTROMETRIC JOINTS.
8. CONNECTIONS:
   CONNECTION TO BE LAID BY THE WATER CORPORATION AT CONTRACTORS EXPENSE
9. ALL EXCAVATION BY OPEN CUT METHODS UNLESS SHOWN OTHERWISE.
10. CONCRETE THRUST SUPPORT TO BE IN ACCORDANCE WITH WATER CORPORATION STANDARD DRAWINGS BD62-2-4, BD62-2-5, BD62-2-6 & BD62-2-7
11. THE CONTRACTOR SHALL NOT PROCEED WITH FURTHER WORKS UNTIL THE FOLLOWING HOLD POINTS ARE WITNESSED AND APPROVED BY THE SUPERINTENDENT.
    TRENCH PRIOR TO BACKFILL
    THRUST BLOCKS PRIOR TO BACKFILL
    PRELIMINARY PRESSURE TEST PRIOR TO FINAL BACKFILL
    AS CONSTRUCTED PRIOR TO FINAL BACKFILL
    OFFICIAL PRESSURE TEST PRIOR TO FINAL BACKFILL
12. EXISTING MAIN TO BE UPGRADED TO MAIN TYPE & SIZE AS SHOWN. CONTRACTOR TO SUPPLY & LAY NEW & TEMPORARY MAIN. WATERCORP TO CUT & CAP EXISTING MAIN & PROVIDE CONNECTIONS TO ALL EXISTING SERVICES.
13. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE.

LEGEND

	CMODP BOUNDARY
	EXISTING CADASTRAL
W W	EXISTING WATER MAIN, HYDRANT, VALVE
	PROPOSED CADASTRAL
	PROPOSED WATER MAIN, HYDRANT, VALVE
100P-12	PROPOSED PIPE DIA., MATERIAL, CLASS (1200kPa)
701	EXISTING LOT NO'S
100P	DENOTES PVC PIPE
63MDPE/PE	DENOTES POLYETHYLENE PIPE
100CI	DENOTES CAST IRON PIPE
100DI	DENOTES DUCTILE IRON PIPE

This plan is accepted as complying with overall Scheme planning.
Compliance with relevant manuals remains the responsibility of the Consulting Engineer.
No works are to commence on site until startup arrangements have been made with the relevant works inspector. See Developer's Manual for contact details.

For Manager Land Servicing

WATER CORPORATION
PLAN SET NO.

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	G	12.04.18	FINAL 100%	RN		RN
	F	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
	E	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN
	D	25.05.17	AMENDED FOLLOWING WATER CORPORATION REVIEW	TR	RN	RN
	C	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
	B	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
	A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS
TECHNICAL SERVICES
2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	TR	MARCH 2017
DRAWN	TR	MARCH 2017
CHECKED	RN	MARCH 2017
SURVEY		

SCALE HORIZ. 1:1000 VERT.
DATUM AHD
GRID SYSTEM PCG
JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
WATER RETICULATION PLAN
SHEET 4 OF 8

PLAN No 1702006-412 REV G

PRELIMINARY ONLY | A1

CHIEF ENGINEER
S.ASMUS DATE

12/04/2018 14:54 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-409 TO 419 WATER.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

JOINS DRAWING 1702006-411

JOINS DRAWING 1702006-412

JOINS DRAWING 1702006-414

JOINS DRAWING 1702006-415

PRATT ST

THE CRESCENT

150CI

150P-12

EXISTING 75CI TO BE UPGRADED TO 150P-12.
CONTRACTOR TO SUPPLY & LAY 150P-12
TEMPORARY MAIN. WATERCORP TO CUT &
CAP EXISTING MAIN & PROVIDE CONNECTIONS
TO ALL EXISTING SERVICES

25/418

26/418

27/418

KELVIN ROAD

THE STRAND

ALBANY HIGHWAY

1065S-10

915S-10

200S

100P-12

150S-5

150S

100CI

150CI

OLGA ROAD

BLACKBURN STREET

ORR STREET

SEE NOTE 12

TEMPORARY BLANK END
WITH FLUSHING POINT

200P-12

150P-12

1:1000

0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. REFERENCE DRAWINGS:
   WATER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT WATER CORPORATION STANDARD DRAWINGS.
2. WATER ALIGNMENT:
   ALL WATER MAINS SHALL BE INSTALLED ON A 2.1m ALIGNMENT UNLESS OTHERWISE SHOWN.
3. PUBLIC UTILITIES:
   ALL SERVICES TO BE LOCATED PRIOR TO ANY MECHANICAL EXCAVATION WITHIN EXISTING ROAD RESERVE. ANY CLASHES WITH PROPOSED ALIGNMENTS OR LEVELS TO BE REPORTED TO THE SUPERINTENDENT.
4. EXISTING WORKS:
   THE LOCATION AND LEVEL OF POINTS OF CONNECTION TO EXISTING WATER MAINS SHALL BE VERIFIED BY A SURVEYOR BEFORE COMMENCING CONSTRUCTION. PROPOSED WATER MAINS ARE TO REMAIN 3.0m AWAY FROM EXISTING WATER MAINS UNLESS OTHERWISE DIRECTED.
5. MATERIALS:
   ALL WATER RETICULATION MATERIALS AND COMPONENTS SHALL BE NEW AND COMPLY WITH THE WATER CORPORATIONS APPROVED MATERIALS AND MANUFACTURERS LIST.
6. ALL CHANGES ARE IN METER AND PIPES DIAMETERS IN DESIGNED ON SIZE.
7. WHERE NO PIPELINE BENDS ARE SHOWN, PIPES MAY BE DEFLECTED AT ELECTROMETRIC JOINTS.
8. CONNECTIONS:
   CONNECTION TO BE LAID BY THE WATER CORPORATION AT CONTRACTORS EXPENSE
9. ALL EXCAVATION BY OPEN CUT METHODS UNLESS SHOWN OTHERWISE.
10. CONCRETE THRUST SUPPORT TO BE IN ACCORDANCE WITH WATER CORPORATION STANDARD DRAWINGS BD62-2-4, BD62-2-5, BD62-2-6 & BD62-2-7
11. THE CONTRACTOR SHALL NOT PROCEED WITH FURTHER WORKS UNTIL THE FOLLOWING HOLD POINTS ARE WITNESSED AND APPROVED BY THE SUPERINTENDENT.
    TRENCH PRIOR TO BACKFILL
    THRUST BLOCKS PRIOR TO BACKFILL
    PRELIMINARY PRESSURE TEST PRIOR TO FINAL BACKFILL
    AS CONSTRUCTED PRIOR TO FINAL BACKFILL
    OFFICIAL PRESSURE TEST PRIOR TO FINAL BACKFILL
12. EXISTING MAIN TO BE UPGRADED TO MAIN TYPE & SIZE AS SHOWN. CONTRACTOR TO SUPPLY & LAY NEW & TEMPORARY MAIN. WATERCORP TO CUT & CAP EXISTING MAIN & PROVIDE CONNECTIONS TO ALL EXISTING SERVICES.
13. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE.

LEGEND

	CMODP BOUNDARY
	EXISTING CADASTRAL
W W	EXISTING WATER MAIN, HYDRANT, VALVE
	PROPOSED CADASTRAL
	PROPOSED WATER MAIN, HYDRANT, VALVE
100P-12	PROPOSED PIPE DIA., MATERIAL, CLASS (1200kPa)
701	EXISTING LOT NO'S
100P	DENOTES PVC PIPE
63MDPE/PE	DENOTES POLYETHYLENE PIPE
100CI	DENOTES CAST IRON PIPE
100DI	DENOTES DUCTILE IRON PIPE

This plan is accepted as complying with overall Scheme planning.
Compliance with relevant manuals remains the responsibility of the Consulting Engineer.
No works are to commence on site until startup arrangements have been made with the relevant works inspector. See Developer's Manual for contact details.

For Manager Land Servicing

WATER CORPORATION
PLAN SET NO.

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	G	12.04.18	FINAL 100%	RN		RN
	F	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
	E	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN
	D	25.05.17	AMENDED FOLLOWING WATER CORPORATION REVIEW	TR	RN	RN
	C	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
	B	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
	A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE	
TR	MARCH 2017	HORIZ. 1:1000 VERT.	
DRAWN		DATUM	
TR	MARCH 2017	AHD	
CHECKED		GRID SYSTEM	
RN	MARCH 2017	PCG	
SURVEY		JOB NUMBER	

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
WATER RETICULATION PLAN
SHEET 5 OF 8

PLAN No 1702006-413 REV G

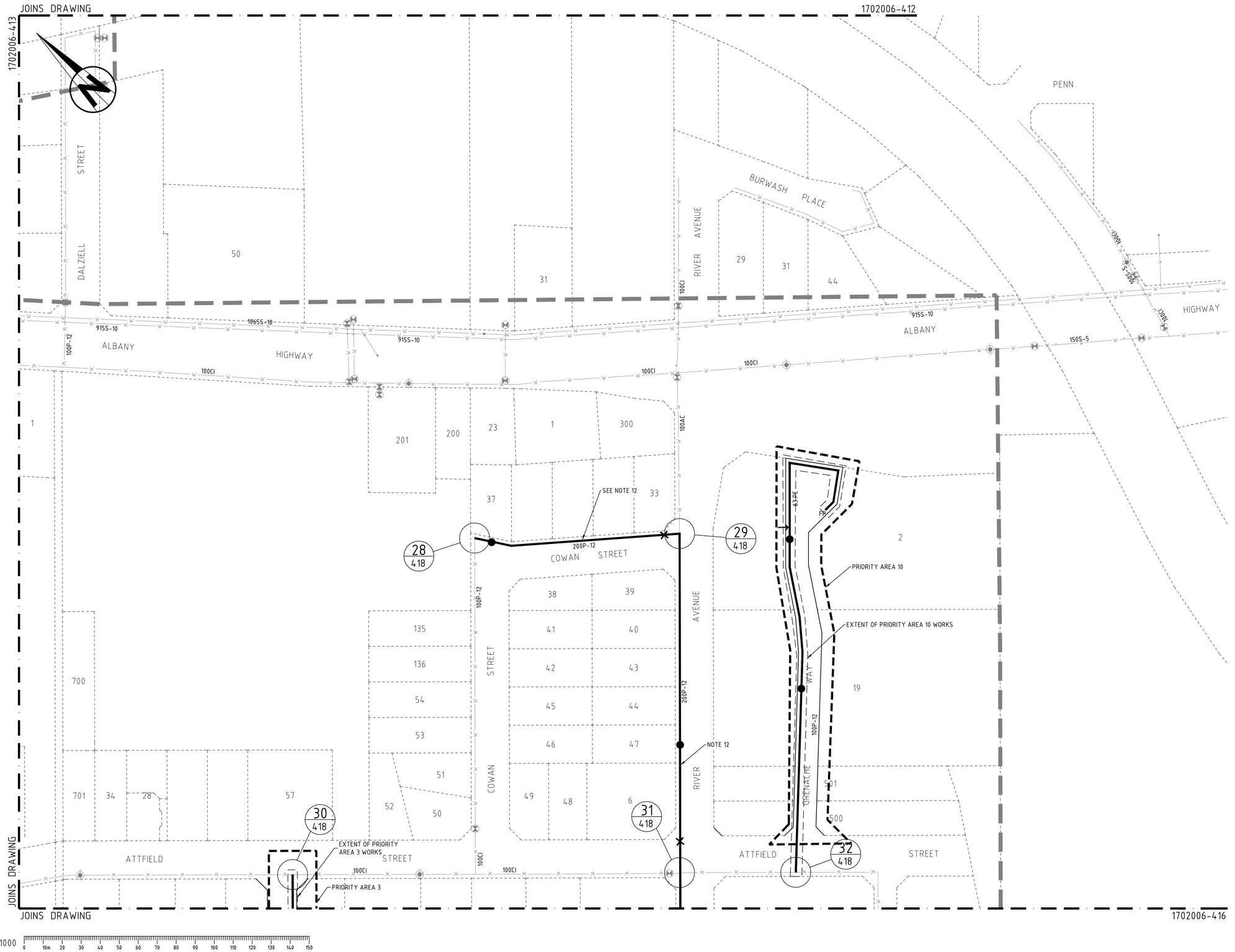
PRELIMINARY ONLY | A1

CHIEF ENGINEER

S.ASMUS DATE

12/04/2018 1:49:25 PM Y:\JOBS ACTIVE 2017\LE - LAND DEVELOPMENT\ARCADIS_ MADDINGTON ODP_ 1702006\DRAWINGS\1702006-409 TO 419 WATER.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



1:1000

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. REFERENCE DRAWINGS:
   WATER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT WATER CORPORATION STANDARD DRAWINGS.
2. WATER ALIGNMENT:
   ALL WATER MAINS SHALL BE INSTALLED ON A 2.1m ALIGNMENT UNLESS OTHERWISE SHOWN.
3. PUBLIC UTILITIES:
   ALL SERVICES TO BE LOCATED PRIOR TO ANY MECHANICAL EXCAVATION WITHIN EXISTING ROAD RESERVE. ANY CLASHES WITH PROPOSED ALIGNMENTS OR LEVELS TO BE REPORTED TO THE SUPERINTENDENT.
4. EXISTING WORKS:
   THE LOCATION AND LEVEL OF POINTS OF CONNECTION TO EXISTING WATER MAINS SHALL BE VERIFIED BY A SURVEYOR BEFORE COMMENCING CONSTRUCTION. PROPOSED WATER MAINS ARE TO REMAIN 3.0m AWAY FROM EXISTING WATER MAINS UNLESS OTHERWISE DIRECTED.
5. MATERIALS:
   ALL WATER RETICULATION MATERIALS AND COMPONENTS SHALL BE NEW AND COMPLY WITH THE WATER CORPORATIONS APPROVED MATERIALS AND MANUFACTURERS LIST.
6. ALL CHANGES ARE IN METER AND PIPES DIAMETERS IN DESIGNED DN SIZE.
7. WHERE NO PIPELINE BENDS ARE SHOWN, PIPES MAY BE DEFLECTED AT ELECTROMETRIC JOINTS.
8. CONNECTIONS:
   CONNECTION TO BE LAID BY THE WATER CORPORATION AT CONTRACTORS EXPENSE
9. ALL EXCAVATION BY OPEN CUT METHODS UNLESS SHOWN OTHERWISE.
10. CONCRETE THRUST SUPPORT TO BE IN ACCORDANCE WITH WATER CORPORATION STANDARD DRAWINGS BD62-2-4, BD62-2-5, BD62-2-6 & BD62-2-7
11. THE CONTRACTOR SHALL NOT PROCEED WITH FURTHER WORKS UNTIL THE FOLLOWING HOLD POINTS ARE WITNESSED AND APPROVED BY THE SUPERINTENDENT.
    TRENCH PRIOR TO BACKFILL
    THRUST BLOCKS PRIOR TO BACKFILL
    PRELIMINARY PRESSURE TEST PRIOR TO FINAL BACKFILL
    AS CONSTRUCTED PRIOR TO FINAL BACKFILL
    OFFICIAL PRESSURE TEST PRIOR TO FINAL BACKFILL
12. EXISTING MAIN TO BE UPGRADED TO MAIN TYPE & SIZE AS SHOWN. CONTRACTOR TO SUPPLY & LAY NEW & TEMPORARY MAIN. WATERCORP TO CUT & CAP EXISTING MAIN & PROVIDE CONNECTIONS TO ALL EXISTING SERVICES.
13. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE.

LEGEND

	CMODP BOUNDARY
	EXISTING CADASTRAL
W W	EXISTING WATER MAIN, HYDRANT, VALVE
	PROPOSED CADASTRAL
	PROPOSED WATER MAIN, HYDRANT, VALVE
100P-12	PROPOSED PIPE DIA., MATERIAL, CLASS (1200kPa)
701	EXISTING LOT NO'S
100P	DENOTES PVC PIPE
63MDPE/PE	DENOTES POLYETHYLENE PIPE
100CI	DENOTES CAST IRON PIPE
100DI	DENOTES DUCTILE IRON PIPE

This plan is accepted as complying with overall Scheme planning.
Compliance with relevant manuals remains the responsibility of the Consulting Engineer.
No works are to commence on site until startup arrangements have been made with the relevant works inspector. See Developer's Manual for contact details.

For Manager Land Servicing

WATER CORPORATION
PLAN SET NO.

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	G	12.04.18	FINAL 100%	RN		RN
	F	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
	E	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN
	D	25.05.17	AMENDED FOLLOWING WATER CORPORATION REVIEW	TR	RN	RN
	C	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
	B	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
	A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC
ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
TR	MARCH 2017	HORIZ. 1:1000 VERT.
DRAWN		DATUM
TR	MARCH 2017	AHD
CHECKED		GRID SYSTEM
RN	MARCH 2017	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
WATER RETICULATION PLAN
SHEET 6 OF 8

PLAN No 1702006-414 REV G

PRELIMINARY ONLY | A1

CHIEF ENGINEER

S.ASMUS DATE

12/04/2018 1:49:55 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-409 TO 419 WATER.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



1:1000 0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. REFERENCE DRAWINGS:
   WATER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT WATER CORPORATION STANDARD DRAWINGS.
2. WATER ALIGNMENT:
   ALL WATER MAINS SHALL BE INSTALLED ON A 2.1m ALIGNMENT UNLESS OTHERWISE SHOWN.
3. PUBLIC UTILITIES:
   ALL SERVICES TO BE LOCATED PRIOR TO ANY MECHANICAL EXCAVATION WITHIN EXISTING ROAD RESERVE. ANY CLASHES WITH PROPOSED ALIGNMENTS OR LEVELS TO BE REPORTED TO THE SUPERINTENDENT.
4. EXISTING WORKS:
   THE LOCATION AND LEVEL OF POINTS OF CONNECTION TO EXISTING WATER MAINS SHALL BE VERIFIED BY A SURVEYOR BEFORE COMMENCING CONSTRUCTION. PROPOSED WATER MAINS ARE TO REMAIN 3.0m AWAY FROM EXISTING WATER MAINS UNLESS OTHERWISE DIRECTED.
5. MATERIALS:
   ALL WATER RETICULATION MATERIALS AND COMPONENTS SHALL BE NEW AND COMPLY WITH THE WATER CORPORATIONS APPROVED MATERIALS AND MANUFACTURERS LIST.
6. ALL CHANGES ARE IN METER AND PIPES DIAMETERS IN DESIGNED DN SIZE.
7. WHERE NO PIPELINE BENDS ARE SHOWN, PIPES MAY BE DEFLECTED AT ELECTROMETRIC JOINTS.
8. CONNECTIONS:
   CONNECTION TO BE LAID BY THE WATER CORPORATION AT CONTRACTORS EXPENSE
9. ALL EXCAVATION BY OPEN CUT METHODS UNLESS SHOWN OTHERWISE.
10. CONCRETE THRUST SUPPORT TO BE IN ACCORDANCE WITH WATER CORPORATION STANDARD DRAWINGS BD62-2-4, BD62-2-5, BD62-2-6 & BD62-2-7
11. THE CONTRACTOR SHALL NOT PROCEED WITH FURTHER WORKS UNTIL THE FOLLOWING HOLD POINTS ARE WITNESSED AND APPROVED BY THE SUPERINTENDENT.
    TRENCH PRIOR TO BACKFILL
    THRUST BLOCKS PRIOR TO BACKFILL
    PRELIMINARY PRESSURE TEST PRIOR TO FINAL BACKFILL
    AS CONSTRUCTED PRIOR TO FINAL BACKFILL
    OFFICIAL PRESSURE TEST PRIOR TO FINAL BACKFILL
12. EXISTING MAIN TO BE UPGRADED TO MAIN TYPE & SIZE AS SHOWN. CONTRACTOR TO SUPPLY & LAY NEW & TEMPORARY MAIN. WATERCORP TO CUT & CAP EXISTING MAIN & PROVIDE CONNECTIONS TO ALL EXISTING SERVICES.
13. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE.

LEGEND

	CMODP BOUNDARY
	EXISTING CADASTRAL
W W	EXISTING WATER MAIN, HYDRANT, VALVE
	PROPOSED CADASTRAL
	PROPOSED WATER MAIN, HYDRANT, VALVE
100P-12	PROPOSED PIPE DIA., MATERIAL, CLASS (1200kPa)
701	EXISTING LOT NO'S
100P	DENOTES PVC PIPE
63MDPE/PE	DENOTES POLYETHYLENE PIPE
100CI	DENOTES CAST IRON PIPE
100DI	DENOTES DUCTILE IRON PIPE

This plan is accepted as complying with overall Scheme planning.
Compliance with relevant manuals remains the responsibility of the Consulting Engineer.
No works are to commence on site until startup arrangements have been made with the relevant works inspector. See Developer's Manual for contact details.

For Manager Land Servicing

WATER CORPORATION
PLAN SET NO.

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	G	12.04.18	FINAL 100%	RN		RN
	F	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
	E	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN
	D	25.05.17	AMENDED FOLLOWING WATER CORPORATION REVIEW	TR	RN	RN
	C	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
	B	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
	A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS
TECHNICAL SERVICES
2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	TR	DATE	MARCH 2017
DRAWN	TR		MARCH 2017
CHECKED	RN		MARCH 2017
SURVEY			

SCALE HORIZ. 1:1000 VERT.
DATUM AHD
GRID SYSTEM PCG
JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
WATER RETICULATION PLAN
SHEET 7 OF 8

PLAN No 1702006-415 REV G

PRELIMINARY ONLY | A1

CHIEF ENGINEER
S.ASMUS DATE

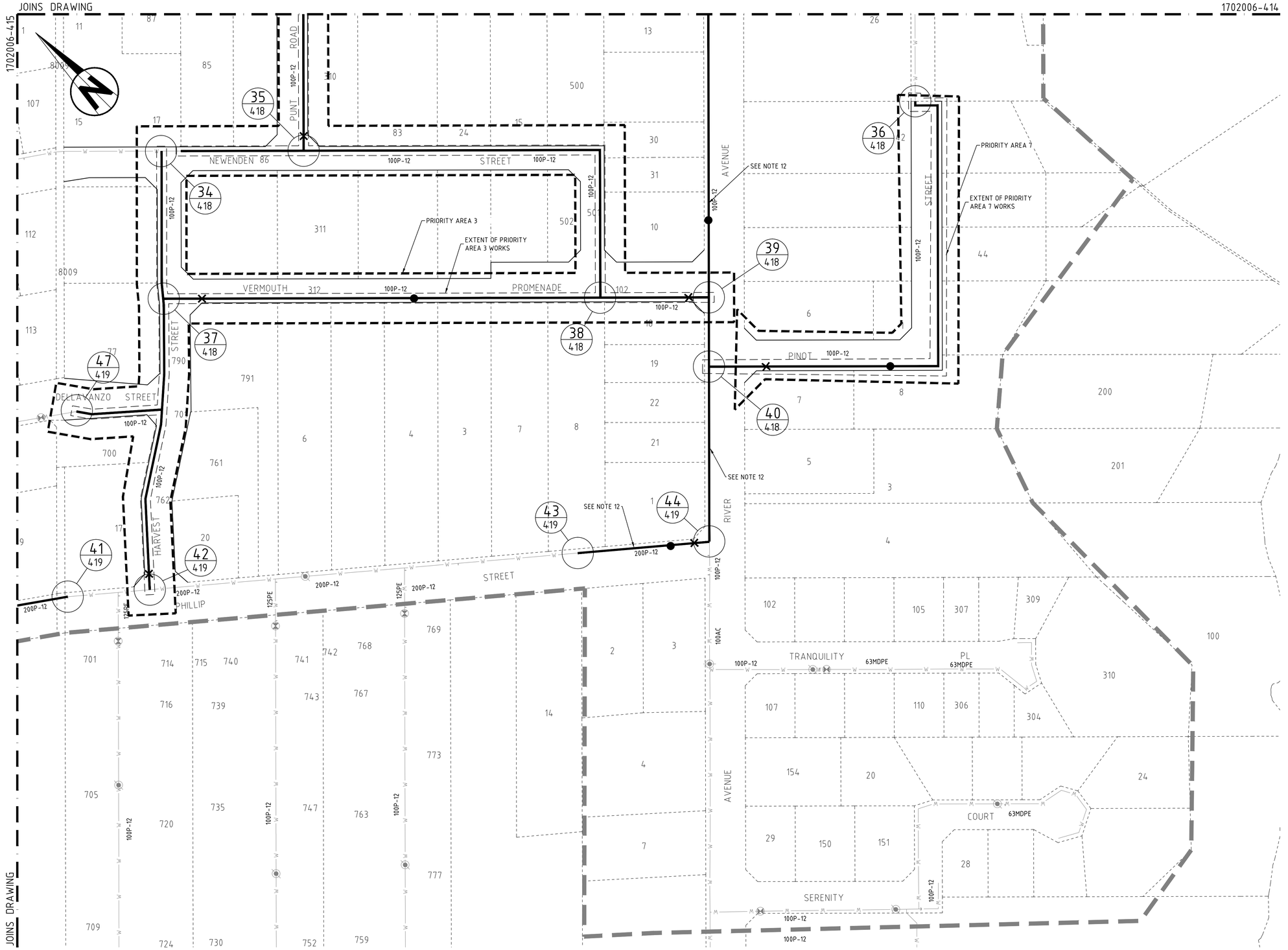
12/04/2018 1:50:25 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-409 TO 419 WATER.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

JOINS DRAWING 1702006-414

1702006-415

JOINS DRAWING



1:1000 0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. REFERENCE DRAWINGS:
   WATER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT WATER CORPORATION STANDARD DRAWINGS.
2. WATER ALIGNMENT:
   ALL WATER MAINS SHALL BE INSTALLED ON A 2.1m ALIGNMENT UNLESS OTHERWISE SHOWN.
3. PUBLIC UTILITIES:
   ALL SERVICES TO BE LOCATED PRIOR TO ANY MECHANICAL EXCAVATION WITHIN EXISTING ROAD RESERVE. ANY CLASHES WITH PROPOSED ALIGNMENTS OR LEVELS TO BE REPORTED TO THE SUPERINTENDENT.
4. EXISTING WORKS:
   THE LOCATION AND LEVEL OF POINTS OF CONNECTION TO EXISTING WATER MAINS SHALL BE VERIFIED BY A SURVEYOR BEFORE COMMENCING CONSTRUCTION. PROPOSED WATER MAINS ARE TO REMAIN 3.0m AWAY FROM EXISTING WATER MAINS UNLESS OTHERWISE DIRECTED.
5. MATERIALS:
   ALL WATER RETICULATION MATERIALS AND COMPONENTS SHALL BE NEW AND COMPLY WITH THE WATER CORPORATIONS APPROVED MATERIALS AND MANUFACTURERS LIST.
6. ALL CHANGES ARE IN METER AND PIPES DIAMETERS IN DESIGNED DN SIZE.
7. WHERE NO PIPELINE BENDS ARE SHOWN, PIPES MAY BE DEFLECTED AT ELECTROMETRIC JOINTS.
8. CONNECTIONS:
   CONNECTION TO BE LAID BY THE WATER CORPORATION AT CONTRACTORS EXPENSE
9. ALL EXCAVATION BY OPEN CUT METHODS UNLESS SHOWN OTHERWISE.
10. CONCRETE THRUST SUPPORT TO BE IN ACCORDANCE WITH WATER CORPORATION STANDARD DRAWINGS BD62-2-4, BD62-2-5, BD62-2-6 & BD62-2-7
11. THE CONTRACTOR SHALL NOT PROCEED WITH FURTHER WORKS UNTIL THE FOLLOWING HOLD POINTS ARE WITNESSED AND APPROVED BY THE SUPERINTENDENT.
    TRENCH PRIOR TO BACKFILL
    THRUST BLOCKS PRIOR TO BACKFILL
    PRELIMINARY PRESSURE TEST PRIOR TO FINAL BACKFILL
    AS CONSTRUCTED PRIOR TO FINAL BACKFILL
    OFFICIAL PRESSURE TEST PRIOR TO FINAL BACKFILL
12. EXISTING MAIN TO BE UPGRADED TO MAIN TYPE & SIZE AS SHOWN. CONTRACTOR TO SUPPLY & LAY NEW & TEMPORARY MAIN. WATERCORP TO CUT & CAP EXISTING MAIN & PROVIDE CONNECTIONS TO ALL EXISTING SERVICES.
13. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE.

LEGEND

	CMODP BOUNDARY
	EXISTING CADASTRAL
W W W	EXISTING WATER MAIN, HYDRANT, VALVE
	PROPOSED CADASTRAL
	PROPOSED WATER MAIN, HYDRANT, VALVE
100P-12	PROPOSED PIPE DIA., MATERIAL, CLASS (1200kPa)
701	EXISTING LOT NO'S
100P	DENOTES PVC PIPE
63MDPE/PE	DENOTES POLYETHYLENE PIPE
100CI	DENOTES CAST IRON PIPE
100DI	DENOTES DUCTILE IRON PIPE

This plan is accepted as complying with overall Scheme planning.
Compliance with relevant manuals remains the responsibility of the Consulting Engineer.
No works are to commence on site until startup arrangements have been made with the relevant works inspector. See Developer's Manual for contact details.

For Manager Land Servicing

WATER CORPORATION
PLAN SET NO.

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	G	12.04.18	FINAL 100%	RN	RN	
	F	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
	E	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN
	D	25.05.17	AMENDED FOLLOWING WATER CORPORATION REVIEW	TR	RN	RN
	C	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
	B	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
	A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN TR	DATE MARCH 2017	SCALE HORIZ. 1:1000 VERT.
DRAWN TR	MARCH 2017	DATUM AHD
CHECKED RN	MARCH 2017	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
WATER RETICULATION PLAN
SHEET 8 OF 8

PLAN No 1702006-416 REV G

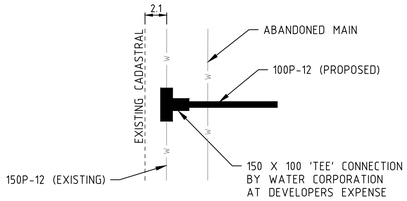
PRELIMINARY ONLY | A1

CHIEF ENGINEER

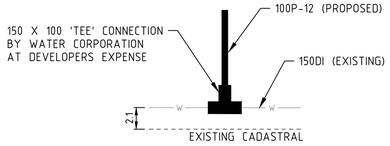
S.ASMUS DATE

12/04/2018 1:51:30 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-409 TO 419 WATER.DWG

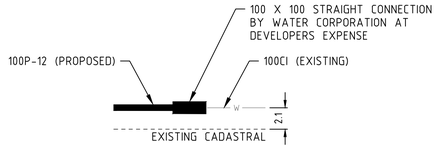
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



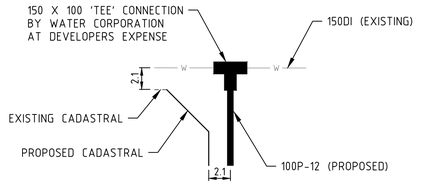
DETAIL 1 — NTS — 409



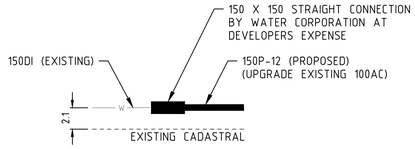
DETAIL 2 — NTS — 409



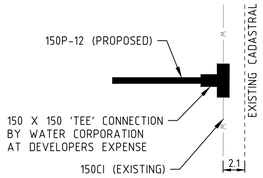
DETAIL 3 — NTS — 410



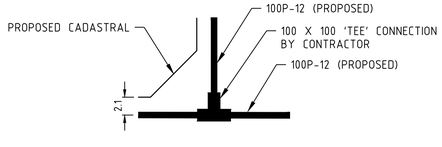
DETAIL 4 — NTS — 410



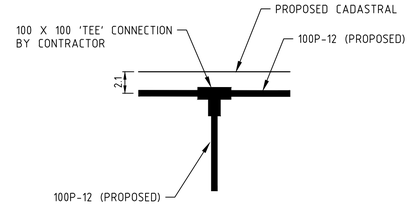
DETAIL 5 — NTS — 410



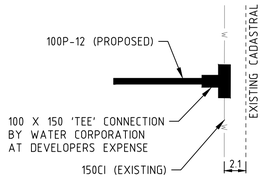
DETAIL 6 — NTS — 410



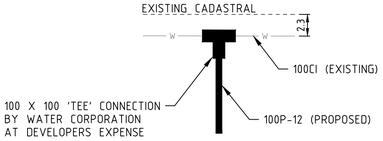
DETAIL 7 — NTS — 410



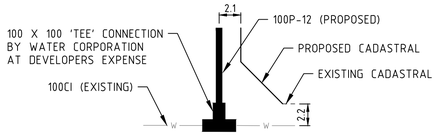
DETAIL 8 — NTS — 410



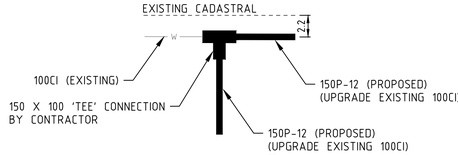
DETAIL 9 — NTS — 410



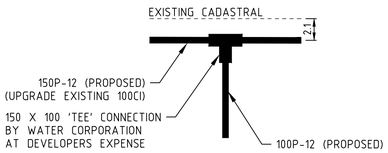
DETAIL 10 — NTS — 410



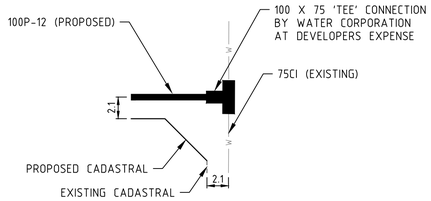
DETAIL 11 — NTS — 410



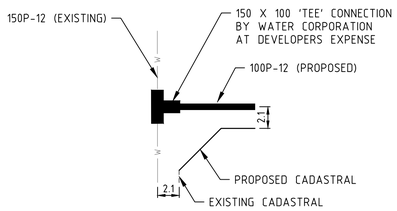
DETAIL 12 — NTS — 410



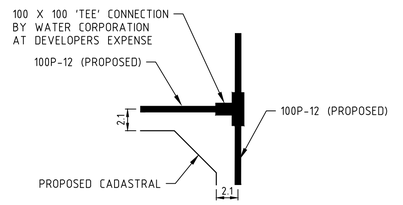
DETAIL 13 — NTS — 410



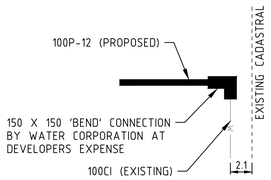
DETAIL 14 — NTS — 411



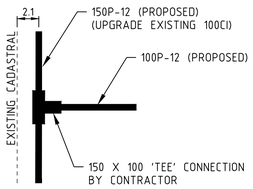
DETAIL 15 — NTS — 411



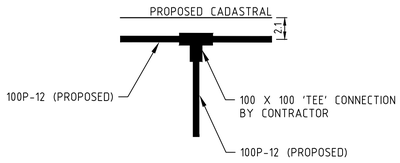
DETAIL 16 — NTS — 411



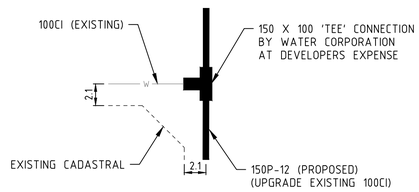
DETAIL 17 — NTS — 412



DETAIL 18 — NTS — 412



DETAIL 19 — NTS — 412



DETAIL 20 — NTS — 412

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. REFERENCE DRAWINGS:
   WATER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT WATER CORPORATION STANDARD DRAWINGS.
2. WATER ALIGNMENT:
   ALL WATER MAINS SHALL BE INSTALLED ON A 2.1m ALIGNMENT UNLESS OTHERWISE SHOWN.
3. PUBLIC UTILITIES:
   ALL SERVICES TO BE LOCATED PRIOR TO ANY MECHANICAL EXCAVATION WITHIN EXISTING ROAD RESERVE. ANY CLASHES WITH PROPOSED ALIGNMENTS OR LEVELS TO BE REPORTED TO THE SUPERINTENDENT.
4. EXISTING WORKS:
   THE LOCATION AND LEVEL OF POINTS OF CONNECTION TO EXISTING WATER MAINS SHALL BE VERIFIED BY A SURVEYOR BEFORE COMMENCING CONSTRUCTION. PROPOSED WATER MAINS ARE TO REMAIN 3.0m AWAY FROM EXISTING WATER MAINS UNLESS OTHERWISE DIRECTED.
5. MATERIALS:
   ALL WATER RETICULATION MATERIALS AND COMPONENTS SHALL BE NEW AND COMPLY WITH THE WATER CORPORATIONS APPROVED MATERIALS AND MANUFACTURERS LIST.
6. ALL CHANGES ARE IN METER AND PIPES DIAMETERS IN DESIGNED ON SIZE.
7. WHERE NO PIPELINE BENDS ARE SHOWN, PIPES MAY BE DEFLECTED AT ELECTROMETRIC JOINTS.
8. CONNECTIONS:
   CONNECTION TO BE LAID BY THE WATER CORPORATION AT CONTRACTORS EXPENSE
9. ALL EXCAVATION BY OPEN CUT METHODS UNLESS SHOWN OTHERWISE.
10. CONCRETE THRUST SUPPORT TO BE IN ACCORDANCE WITH WATER CORPORATION STANDARD DRAWINGS BD62-2-4, BD62-2-5, BD62-2-6 & BD62-2-7
11. THE CONTRACTOR SHALL NOT PROCEED WITH FURTHER WORKS UNTIL THE FOLLOWING HOLD POINTS ARE WITNESSED AND APPROVED BY THE SUPERINTENDENT.
    TRENCH PRIOR TO BACKFILL
    THRUST BLOCKS PRIOR TO BACKFILL
    PRELIMINARY PRESSURE TEST PRIOR TO FINAL BACKFILL
    AS CONSTRUCTED PRIOR TO FINAL BACKFILL
    OFFICIAL PRESSURE TEST PRIOR TO FINAL BACKFILL
12. EXISTING MAIN TO BE UPGRADED TO MAIN TYPE & SIZE AS SHOWN. CONTRACTOR TO SUPPLY & LAY NEW & TEMPORARY MAIN. WATERCORP TO CUT & CAP EXISTING MAIN & PROVIDE CONNECTIONS TO ALL EXISTING SERVICES.
13. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE.

LEGEND

	CMODP BOUNDARY
	EXISTING CADASTRAL
W W	EXISTING WATER MAIN, HYDRANT, VALVE
	PROPOSED CADASTRAL
	PROPOSED WATER MAIN, HYDRANT, VALVE
100P-12	PROPOSED PIPE DIA., MATERIAL, CLASS (1200kPa)
701	EXISTING LOT NO'S
100P	DENOTES PVC PIPE
63MDPE/PE	DENOTES POLYETHYLENE PIPE
100CI	DENOTES CAST IRON PIPE
100DI	DENOTES DUCTILE IRON PIPE

This plan is accepted as complying with overall Scheme planning.
Compliance with relevant manuals remains the responsibility of the Consulting Engineer.
No works are to commence on site until startup arrangements have been made with the relevant works inspector. See Developer's Manual for contact details.

For Manager Land Servicing

WATER CORPORATION
PLAN SET NO.

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	C	12.04.18	FINAL 100%	RN		RN
	B	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
	A	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN TR	DATE MARCH 2017	SCALE HORIZ. NTS VERT.
DRAWN TR	MARCH 2017	DATUM AHD
CHECKED RN	MARCH 2017	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
WATER RETICULATION DETAIL
SHEET 1 OF 3

PLAN No 1702006-417 REV C

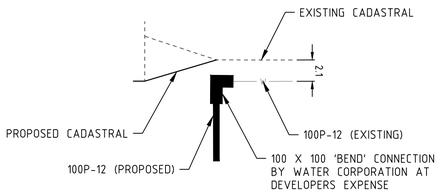
PRELIMINARY ONLY | A1

CHIEF ENGINEER

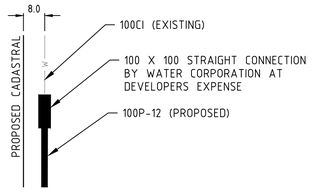
S.ASMUS DATE

12/04/2018 15:53:53 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-609 TO 419 WATER.DWG

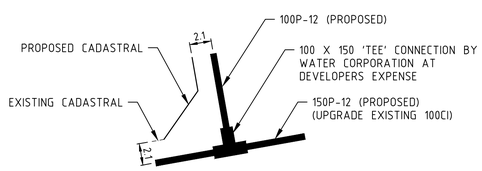
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



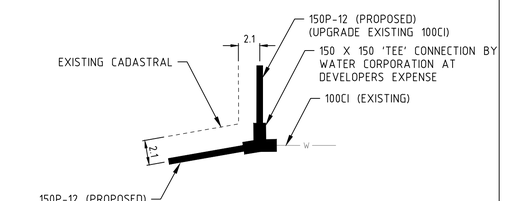
DETAIL 21 / 412 — NTS



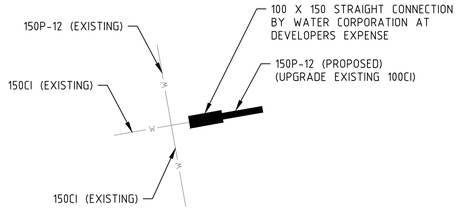
DETAIL 22 / 412 — NTS



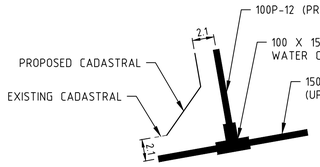
DETAIL 23 / 412 — NTS



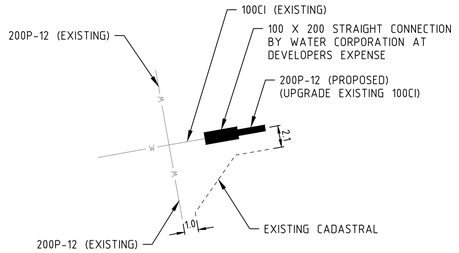
DETAIL 24 / 412 — NTS



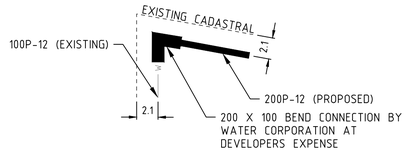
DETAIL 25 / 413 — NTS



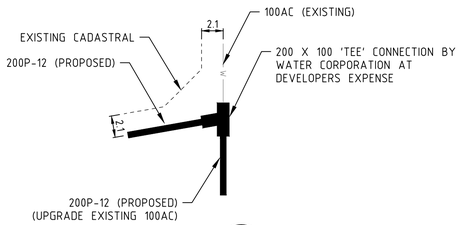
DETAIL 26 / 413 — NTS



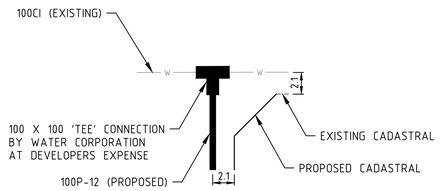
DETAIL 27 / 413 — NTS



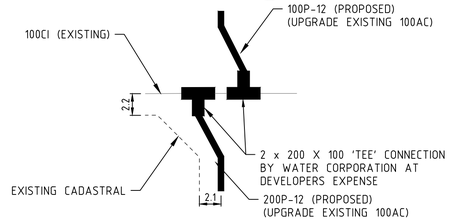
DETAIL 28 / 414 — NTS



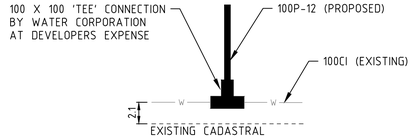
DETAIL 29 / 414 — NTS



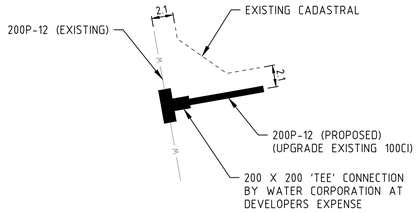
DETAIL 30 / 414 — NTS



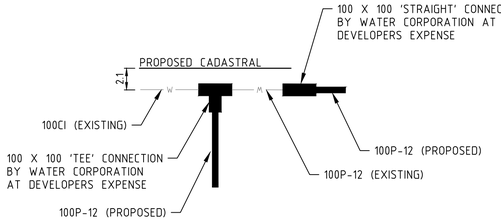
DETAIL 31 / 414 — NTS



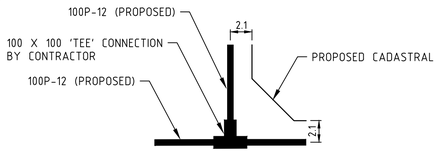
DETAIL 32 / 414 — NTS



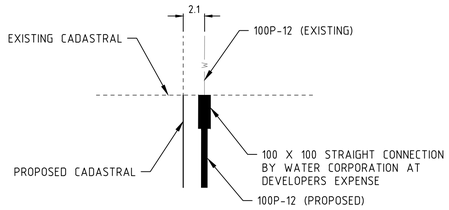
DETAIL 33 / 415 — NTS



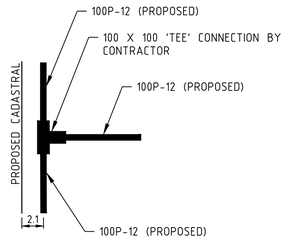
DETAIL 34 / 416 — NTS



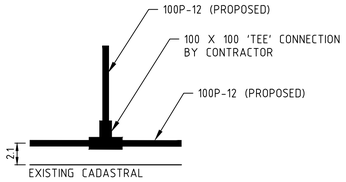
DETAIL 35 / 416 — NTS



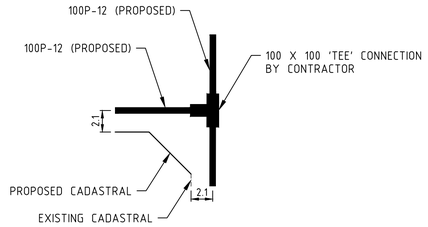
DETAIL 36 / 416 — NTS



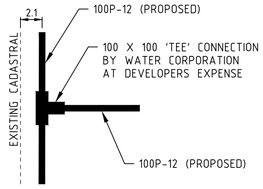
DETAIL 37 / 416 — NTS



DETAIL 38 / 416 — NTS



DETAIL 39 / 416 — NTS



DETAIL 40 / 416 — NTS

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. REFERENCE DRAWINGS:
   WATER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT WATER CORPORATION STANDARD DRAWINGS.
2. WATER ALIGNMENT:
   ALL WATER MAINS SHALL BE INSTALLED ON A 2.1m ALIGNMENT UNLESS OTHERWISE SHOWN.
3. PUBLIC UTILITIES:
   ALL SERVICES TO BE LOCATED PRIOR TO ANY MECHANICAL EXCAVATION WITHIN EXISTING ROAD RESERVE. ANY CLASHES WITH PROPOSED ALIGNMENTS OR LEVELS TO BE REPORTED TO THE SUPERINTENDENT.
4. EXISTING WORKS:
   THE LOCATION AND LEVEL OF POINTS OF CONNECTION TO EXISTING WATER MAINS SHALL BE VERIFIED BY A SURVEYOR BEFORE COMMENCING CONSTRUCTION. PROPOSED WATER MAINS ARE TO REMAIN 3.0m AWAY FROM EXISTING WATER MAINS UNLESS OTHERWISE DIRECTED.
5. MATERIALS:
   ALL WATER RETICULATION MATERIALS AND COMPONENTS SHALL BE NEW AND COMPLY WITH THE WATER CORPORATIONS APPROVED MATERIALS AND MANUFACTURERS LIST.
6. ALL CHANGES ARE IN METER AND PIPES DIAMETERS IN DESIGNED DN SIZE.
7. WHERE NO PIPELINE BENDS ARE SHOWN, PIPES MAY BE DEFLECTED AT ELECTROMETRIC JOINTS.
8. CONNECTIONS:
   CONNECTION TO BE LAID BY THE WATER CORPORATION AT CONTRACTORS EXPENSE
9. ALL EXCAVATION BY OPEN CUT METHODS UNLESS SHOWN OTHERWISE.
10. CONCRETE THRUST SUPPORT TO BE IN ACCORDANCE WITH WATER CORPORATION STANDARD DRAWINGS BD62-2-4, BD62-2-5, BD62-2-6 & BD62-2-7
11. THE CONTRACTOR SHALL NOT PROCEED WITH FURTHER WORKS UNTIL THE FOLLOWING HOLD POINTS ARE WITNESSED AND APPROVED BY THE SUPERINTENDENT.
    TRENCH PRIOR TO BACKFILL
    THRUST BLOCKS PRIOR TO BACKFILL
    PRELIMINARY PRESSURE TEST PRIOR TO FINAL BACKFILL
    AS CONSTRUCTED PRIOR TO FINAL BACKFILL
    OFFICIAL PRESSURE TEST PRIOR TO FINAL BACKFILL
12. EXISTING MAIN TO BE UPGRADED TO MAIN TYPE & SIZE AS SHOWN. CONTRACTOR TO SUPPLY & LAY NEW & TEMPORARY MAIN. WATERCORP TO CUT & CAP EXISTING MAIN & PROVIDE CONNECTIONS TO ALL EXISTING SERVICES.
13. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE.

LEGEND

	CMODP BOUNDARY
	EXISTING CADASTRAL
W W	EXISTING WATER MAIN, HYDRANT, VALVE
	PROPOSED CADASTRAL
	PROPOSED WATER MAIN, HYDRANT, VALVE
100P-12	PROPOSED PIPE DIA., MATERIAL, CLASS (1200kPa)
701	EXISTING LOT NO'S
100P	DENOTES PVC PIPE
63MDPE/PE	DENOTES POLYETHYLENE PIPE
100CI	DENOTES CAST IRON PIPE
100DI	DENOTES DUCTILE IRON PIPE

This plan is accepted as complying with overall Scheme planning.
Compliance with relevant manuals remains the responsibility of the Consulting Engineer.
No works are to commence on site until startup arrangements have been made with the relevant works inspector. See Developer's Manual for contact details.

For Manager Land Servicing

WATER CORPORATION
PLAN SET NO.

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	C	12.04.18	FINAL 100%	RN		RN
	B	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
	A	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN

SHAWMAC — ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS
TECHNICAL SERVICES
2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
TR	MARCH 2017	HORIZ. NTS VERT.
DRAWN		DATUM
TR	MARCH 2017	AHD
CHECKED		GRID SYSTEM
RN	MARCH 2017	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
WATER RETICULATION DETAIL
SHEET 2 OF 3

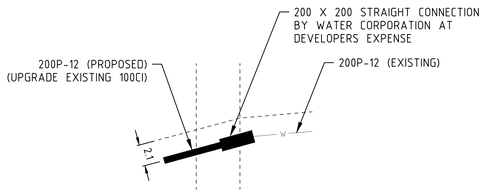
PLAN No 1702006-418 REV C

PRELIMINARY ONLY | A1

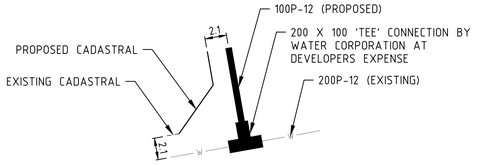
CHIEF ENGINEER
S.ASMUS DATE

12/04/2018 1:52:11 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-409 TO 419 WATER.DWG

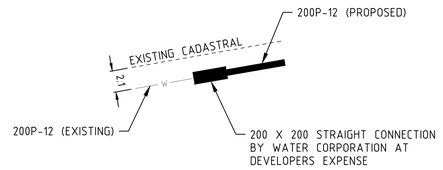
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



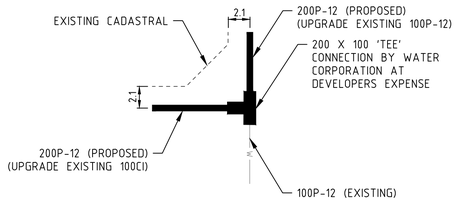
DETAIL 41 / 416
NTS



DETAIL 42 / 416
NTS



DETAIL 43 / 416
NTS



DETAIL 44 / 416
NTS

DETAIL 45 / 410
NTS

DETAIL 46 / 415
NTS

DETAIL 47 / 416
NTS

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DISTANCES.
5. ALL WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. ANY CONFLICTS, OMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

NOTES

1. REFERENCE DRAWINGS:
   WATER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT WATER CORPORATION STANDARD DRAWINGS.
2. WATER ALIGNMENT:
   ALL WATER MAINS SHALL BE INSTALLED ON A 2.1m ALIGNMENT UNLESS OTHERWISE SHOWN.
3. PUBLIC UTILITIES:
   ALL SERVICES TO BE LOCATED PRIOR TO ANY MECHANICAL EXCAVATION WITHIN EXISTING ROAD RESERVE. ANY CLASHES WITH PROPOSED ALIGNMENTS OR LEVELS TO BE REPORTED TO THE SUPERINTENDENT.
4. EXISTING WORKS:
   THE LOCATION AND LEVEL OF POINTS OF CONNECTION TO EXISTING WATER MAINS SHALL BE VERIFIED BY A SURVEYOR BEFORE COMMENCING CONSTRUCTION. PROPOSED WATER MAINS ARE TO REMAIN 3.0m AWAY FROM EXISTING WATER MAINS UNLESS OTHERWISE DIRECTED.
5. MATERIALS:
   ALL WATER RETICULATION MATERIALS AND COMPONENTS SHALL BE NEW AND COMPLY WITH THE WATER CORPORATIONS APPROVED MATERIALS AND MANUFACTURERS LIST.
6. ALL CHANGES ARE IN METER AND PIPES DIAMETERS IN DESIGNED DN SIZE.
7. WHERE NO PIPELINE BENDS ARE SHOWN, PIPES MAY BE DEFLECTED AT ELECTROMETRIC JOINTS.
8. CONNECTIONS:
   CONNECTION TO BE LAID BY THE WATER CORPORATION AT CONTRACTORS EXPENSE
9. ALL EXCAVATION BY OPEN CUT METHODS UNLESS SHOWN OTHERWISE.
10. CONCRETE THRUST SUPPORT TO BE IN ACCORDANCE WITH WATER CORPORATION STANDARD DRAWINGS BD62-2-4, BD62-2-5, BD62-2-6 & BD62-2-7
11. THE CONTRACTOR SHALL NOT PROCEED WITH FURTHER WORKS UNTIL THE FOLLOWING HOLD POINTS ARE WITNESSED AND APPROVED BY THE SUPERINTENDENT.
    TRENCH PRIOR TO BACKFILL
    THRUST BLOCKS PRIOR TO BACKFILL
    PRELIMINARY PRESSURE TEST PRIOR TO FINAL BACKFILL
    AS CONSTRUCTED PRIOR TO FINAL BACKFILL
    OFFICIAL PRESSURE TEST PRIOR TO FINAL BACKFILL
12. EXISTING MAIN TO BE UPGRADED TO MAIN TYPE & SIZE AS SHOWN. CONTRACTOR TO SUPPLY & LAY NEW & TEMPORARY MAIN. WATERCORP TO CUT & CAP EXISTING MAIN & PROVIDE CONNECTIONS TO ALL EXISTING SERVICES.
13. ALL MAINS IN EXISTING VERGES TO BE INSTALLED BY DIRECTIONAL DRILLING UNLESS NOTED OTHERWISE.

LEGEND

	CMODP BOUNDARY
	EXISTING CADASTRAL
W W	EXISTING WATER MAIN, HYDRANT, VALVE
	PROPOSED CADASTRAL
	PROPOSED WATER MAIN, HYDRANT, VALVE
100P-12	PROPOSED PIPE DIA., MATERIAL, CLASS (1200kPa
701	EXISTING LOT NO'S
100P	DENOTES PVC PIPE
63MDPE/PE	DENOTES POLYETHYLENE PIPE
100CI	DENOTES CAST IRON PIPE
100DI	DENOTES DUCTILE IRON PIPE

This plan is accepted as complying with overall Scheme planning.
Compliance with relevant manuals remains the responsibility of the Consulting Engineer.
No works are to commence on site until startup arrangements have been made with the relevant works inspector. See Developer's Manual for contact details.

For Manager Land Servicing

WATER CORPORATION
PLAN SET NO.

SUBDIVISION FILE NO.

MAIN EXTENSION FILE No.

WAPC No.

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
C	12.04.18	FINAL 100%	RN		RN
B	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
A	04.09.17	ISSUED TO WATER CORP FOR REVIEW	TH	RN	RN

SHAWMAC
ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS
TECHNICAL SERVICES
2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN TR	DATE MARCH 2017	SCALE HORIZ. NTS VERT.
DRAWN TR	MARCH 2017	DATUM AHD
CHECKED RN	MARCH 2017	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
WATER RETICULATION DETAIL
SHEET 3 OF 3

PLAN No 1702006-419 REV C

PRELIMINARY ONLY | A1

CHIEF ENGINEER
S.ASMUS DATE

12/04/2018 15:22:27 PM Y:\JOBS ACTIVE 2017\LE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-409 TO 419 WATER.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

GENERAL NOTES

1. GAS MAIN DIMENSIONS AND DETAILS ARE INDICATIVE ONLY AND SUBJECT TO ATCO DETAILED DESIGN.
2. GAS MAIN TO BE INSTALLED ON 1.5m ALIGNMENT UNLESS NOTED OTHERWISE.



1:1000

0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

LEGEND

- CMODP BOUNDARY
- EXISTING CADASTRAL
- EXISTING GAS MAIN
- PROPOSED CADASTRAL
- PROPOSED GAS MAIN

DENOTES ALIGNMENT (1.5m)
DENOTES PIPE DIA. (150mm)
150PVC 1.5MP
DENOTES PIPE MATERIAL (PVC)
DENOTES PRESSURE RATING (MEDIUM PRESSURE)

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
F	12.14.18	FINAL 100%	RN		RN
E	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
D	04.09.17	ISSUED FOR 85% REVIEW	TH	RN	RN
C	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
B	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

AMENDMENTS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN TR	DATE MARCH 2017	SCALE HORIZ. 1:1000 VERT.
DRAWN TR	MARCH 2017	DATUM AHD
CHECKED RN	MARCH 2017	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
GAS MAIN LAYOUT
SHEET 1 OF 8

PLAN No 1702006-429 REV F

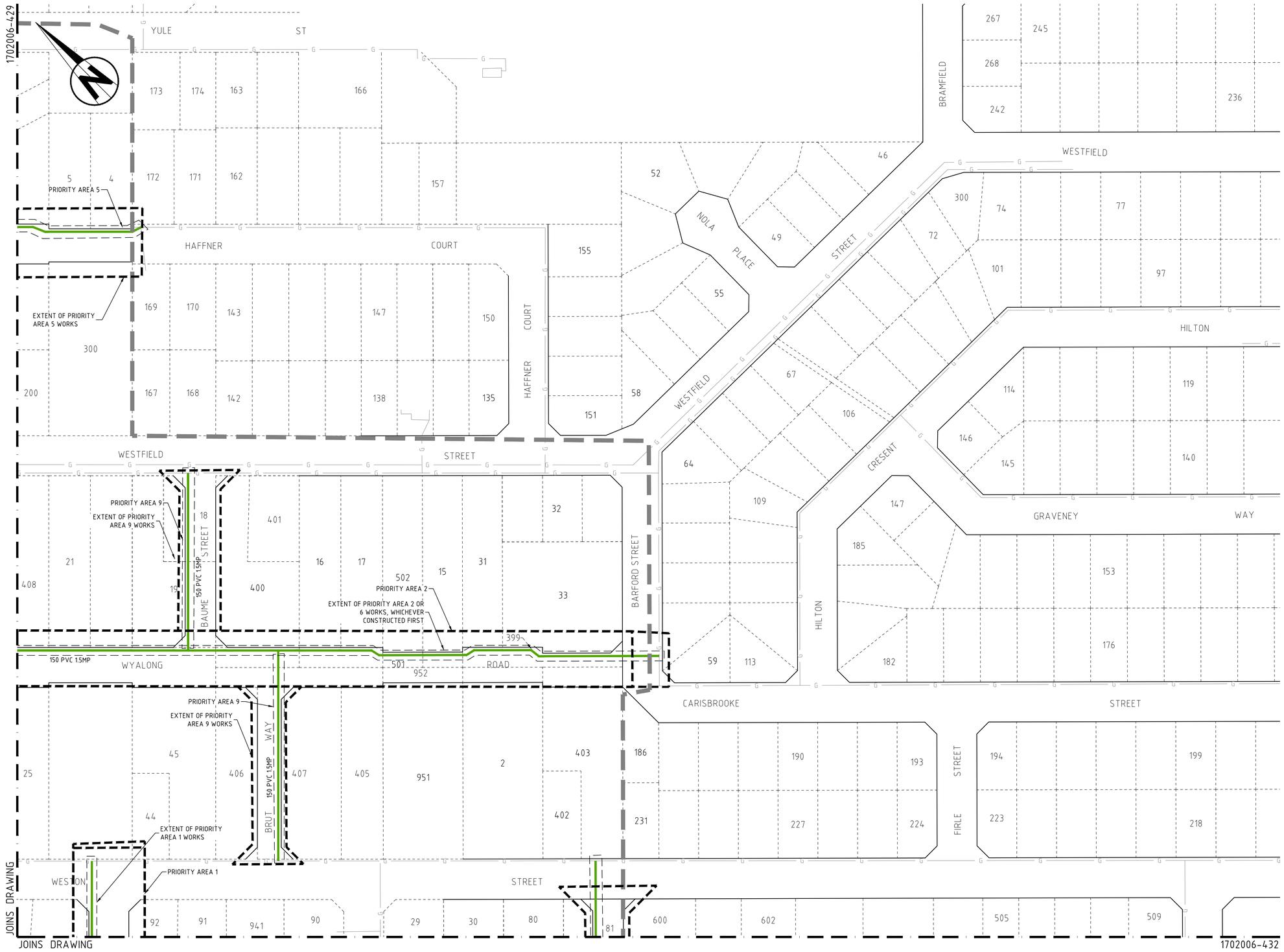
PRELIMINARY ONLY | A1

CHIEF ENGINEER

S.ASMUS DATE

12/04/2018 2:05:04 PM Y:\JOBS ACTIVE 2017\LE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-429 TO 436 GAS MAIN.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



GENERAL NOTES

1. GAS MAIN DIMENSIONS AND DETAILS ARE INDICATIVE ONLY AND SUBJECT TO ATCO DETAILED DESIGN.
2. GAS MAIN TO BE INSTALLED ON 1.5m ALIGNMENT UNLESS NOTED OTHERWISE.

LEGEND

- CMODP BOUNDARY
- EXISTING CADASTRAL
- EXISTING GAS MAIN
- PROPOSED CADASTRAL
- PROPOSED GAS MAIN

DENOTES ALIGNMENT (1.5m)
DENOTES PIPE DIA. (150mm)
150PVC 1.5MP
DENOTES PIPE MATERIAL (PVC)
DENOTES PRESSURE RATING (MEDIUM PRESSURE)

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
F	12.04.18	FINAL 100%	RN		RN
E	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
D	04.09.17	ISSUED FOR 85% REVIEW	TH	RN	RN
C	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
B	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
TR	MARCH 2017	HORIZ. 1:1000 VERT.
DRAWN		DATUM
TR	MARCH 2017	AHD
CHECKED		GRID SYSTEM
RN	MARCH 2017	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
GAS MAIN LAYOUT
SHEET 2 OF 8

PLAN No 1702006-430 REV F

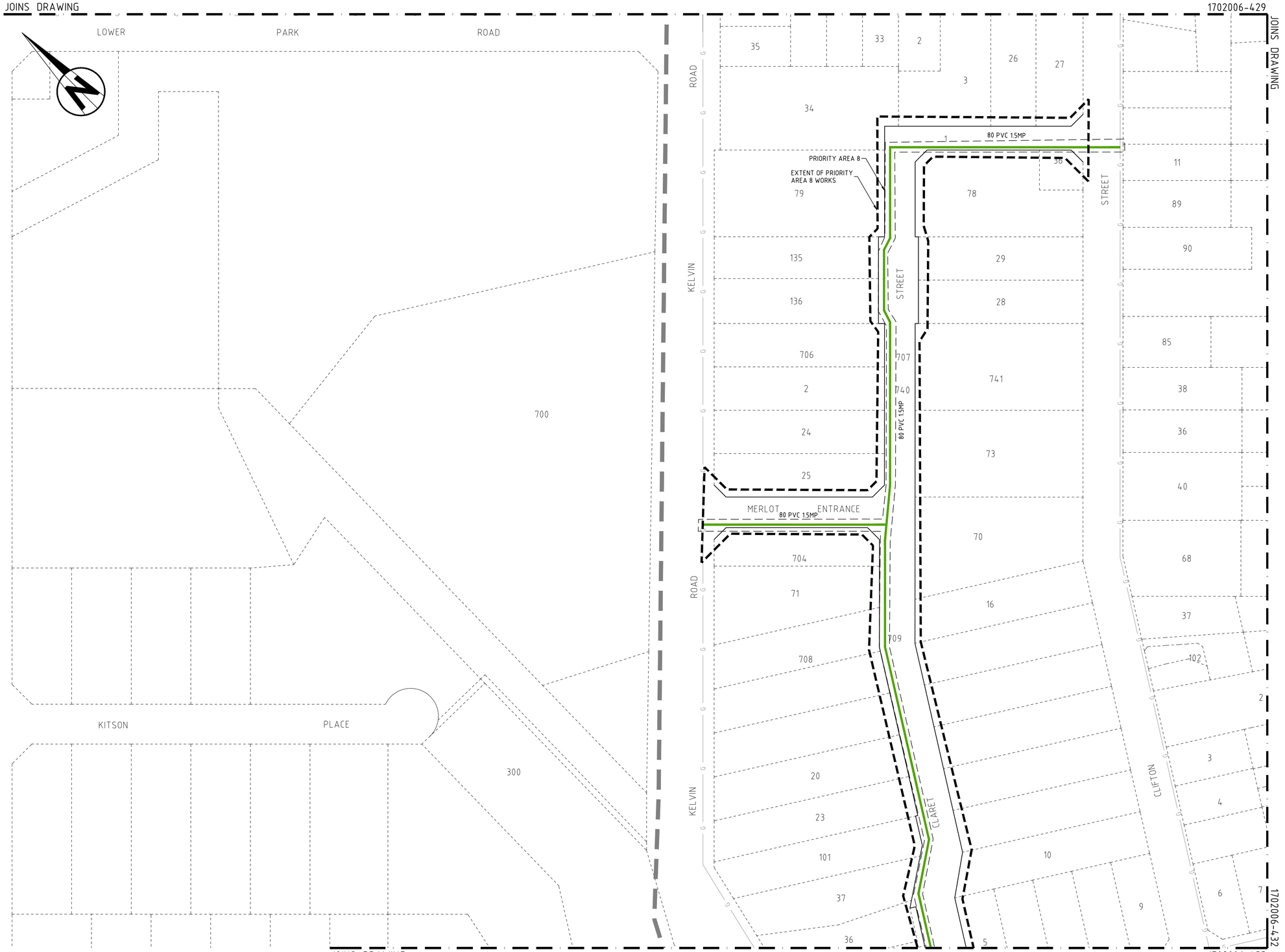
PRELIMINARY ONLY A1

CHIEF ENGINEER

S.ASMUS DATE

12/04/2018 2:05:29 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-429 TO 436 GAS MAIN.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



GENERAL NOTES

1. GAS MAIN DIMENSIONS AND DETAILS ARE INDICATIVE ONLY AND SUBJECT TO ATCO DETAILED DESIGN.
2. GAS MAIN TO BE INSTALLED ON 1.5m ALIGNMENT UNLESS NOTED OTHERWISE.

LEGEND

- CMODP BOUNDARY
- EXISTING CADASTRAL
- EXISTING GAS MAIN
- PROPOSED CADASTRAL
- PROPOSED GAS MAIN

DENOTES ALIGNMENT (1.5m)
DENOTES PIPE DIA. (150mm)
150PVC 1.5MP
DENOTES PIPE MATERIAL (PVC)
DENOTES PRESSURE RATING (MEDIUM PRESSURE)

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
F	12.04.18	FINAL 100%	RN		RN
E	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
D	04.09.17	ISSUED FOR 85% REVIEW	TH	RN	RN
C	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
B	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC
ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS
TECHNICAL SERVICES
2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN TR	DATE MARCH 2017	SCALE HORIZ. 1:1000 VERT.
DRAWN TR	MARCH 2017	DATUM AHD
CHECKED RN	MARCH 2017	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
GAS MAIN LAYOUT
SHEET 3 OF 8

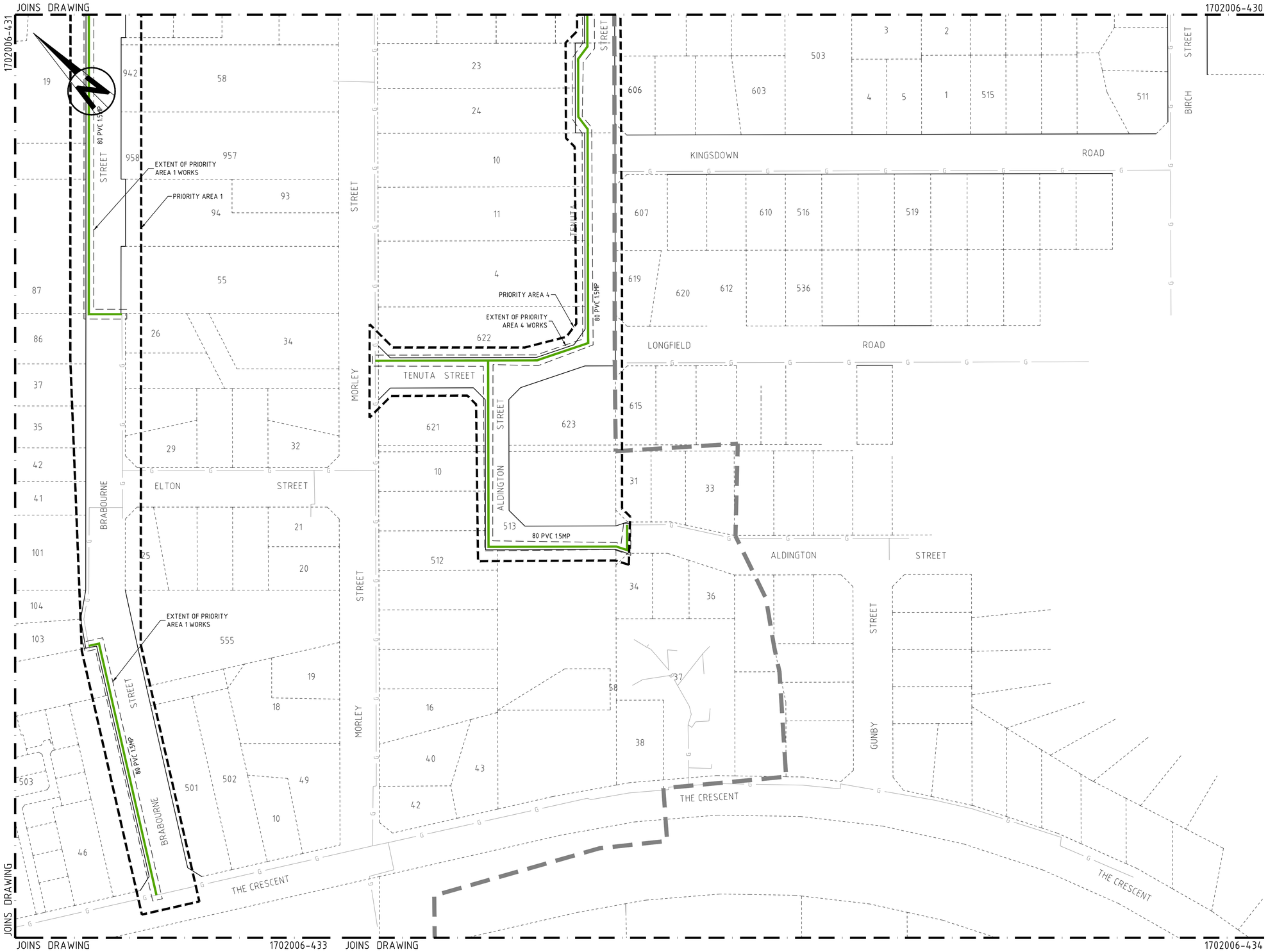
PLAN No 1702006-431 REV F

PRELIMINARY ONLY | A1

CHIEF ENGINEER
S.ASMUS DATE

12/04/2018 2:05:46 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_ MADDINGTON ODP_ 1702006\DRAWINGS\1702006-429 TO 436 GAS MAIN.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



GENERAL NOTES

1. GAS MAIN DIMENSIONS AND DETAILS ARE INDICATIVE ONLY AND SUBJECT TO ATCO DETAILED DESIGN.
2. GAS MAIN TO BE INSTALLED ON 1.5m ALIGNMENT UNLESS NOTED OTHERWISE.

LEGEND

- CMODP BOUNDARY
- EXISTING CADASTRAL
- EXISTING GAS MAIN
- PROPOSED CADASTRAL
- PROPOSED GAS MAIN

DENOTES ALIGNMENT (1.5m)
DENOTES PIPE DIA. (150mm)
150PVC 1.5MP
DENOTES PIPE MATERIAL (PVC)
DENOTES PRESSURE RATING (MEDIUM PRESSURE)

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
F	12.04.18	FINAL 100%	RN		RN
E	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
D	04.09.17	ISSUED FOR 85% REVIEW	TH	RN	RN
C	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
B	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

AMENDMENTS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
TR	MARCH 2017	HORIZ. 1:1000 VERT.
DRAWN		DATUM
TR	MARCH 2017	AHD
CHECKED		GRID SYSTEM
RN	MARCH 2017	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
GAS MAIN LAYOUT
SHEET 4 OF 8

PLAN No 1702006-432 REV F

PRELIMINARY ONLY A1

CHIEF ENGINEER

S.ASMUS DATE

12/04/2018 2:06:07 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-429 TO 436 GAS MAIN.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

JOINS DRAWING 1702006-431 JOINS DRAWING 1702006-432

JOINS DRAWING

PRATT ST

THE CRESCENT

PRIORITY AREA 8

EXTENT OF PRIORITY AREA 8 WORKS

KELVIN ROAD

THE STRAND

ALBANY HIGHWAY

OLGA ROAD

BLACKBURN STREET

ORR STREET

JOINS DRAWING 1702006-434

JOINS DRAWING 1702006-435

1:1000 0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. GAS MAIN DIMENSIONS AND DETAILS ARE INDICATIVE ONLY AND SUBJECT TO ATCO DETAILED DESIGN.
2. GAS MAIN TO BE INSTALLED ON 1.5m ALIGNMENT UNLESS NOTED OTHERWISE.

LEGEND

- CMODP BOUNDARY
- EXISTING CADASTRAL
- EXISTING GAS MAIN
- PROPOSED CADASTRAL
- PROPOSED GAS MAIN

DENOTES ALIGNMENT (1.5m) — DENOTES PIPE DIA. (150mm) — 150PVC 1.5MP — DENOTES PIPE MATERIAL (PVC) — DENOTES PRESSURE RATING (MEDIUM PRESSURE)

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
F	12.04.18	FINAL 100%	RN		RN
E	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
D	04.09.17	ISSUED FOR 85% REVIEW	TH	RN	RN
C	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
B	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN TR	DATE MARCH 2017	SCALE HORIZ. 1:1000 VERT.
DRAWN TR	MARCH 2017	DATUM AHD
CHECKED RN	MARCH 2017	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
GAS MAIN LAYOUT
SHEET 5 OF 8

PLAN No 1702006-433 REV F

PRELIMINARY ONLY | A1

CHIEF ENGINEER

S.ASMUS DATE

12/04/2018 2:06:32 PM Y:\JOBS ACTIVE 2017\LE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-429 TO 436 GAS MAIN.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

JOINS DRAWING

1702006-433

1702006-432

JOINS DRAWING

1702006-436

PENN

HIGHWAY

ALBANY

HIGHWAY

ALBANY

DALZIELL STREET

RIVER AVENUE

BURWASH PLACE

COWAN STREET

COWAN STREET

RIVER AVENUE

GRENACHE WAY

ATTFIELD STREET

ATTFIELD STREET

50

31

29

31

44

1

201

200

23

1

300

37

33

2

38

39

41

40

42

43

45

44

46

47

49

48

6

135

136

54

53

51

52

50

700

701

34

28

57

19

501

500

PRIORITY AREA 10

EXTENT OF PRIORITY AREA 10 WORKS

80 PVC 1.5MP

EXTENT OF PRIORITY AREA 3 WORKS

PRIORITY AREA 3

1:1000

0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. GAS MAIN DIMENSIONS AND DETAILS ARE INDICATIVE ONLY AND SUBJECT TO ATCO DETAILED DESIGN.
2. GAS MAIN TO BE INSTALLED ON 1.5m ALIGNMENT UNLESS NOTED OTHERWISE.

LEGEND

- CMODP BOUNDARY
- EXISTING CADASTRAL
- EXISTING GAS MAIN
- PROPOSED CADASTRAL
- PROPOSED GAS MAIN

DENOTES ALIGNMENT (1.5m)
DENOTES PIPE DIA. (150mm)
DENOTES PIPE MATERIAL (PVC)
DENOTES PRESSURE RATING (MEDIUM PRESSURE)

150PVC 1.5MP

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	F	12.04.18	FINAL 100%	RN		RN
	E	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
	D	04.09.17	ISSUED FOR 85% REVIEW	TH	RN	RN
	C	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
	B	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
	A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN TR	DATE MARCH 2017	SCALE HORIZ. 1:1000 VERT.
DRAWN TR	MARCH 2017	DATUM AHD
CHECKED RN	MARCH 2017	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
GAS MAIN LAYOUT
SHEET 6 OF 8

PLAN No 1702006-434 REV F

PRELIMINARY ONLY | A1

CHIEF ENGINEER

S.ASMUS DATE

12/04/2018 2:09:58 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-429 TO 436 GAS MAIN.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



GENERAL NOTES

1. GAS MAIN DIMENSIONS AND DETAILS ARE INDICATIVE ONLY AND SUBJECT TO ATCO DETAILED DESIGN.
2. GAS MAIN TO BE INSTALLED ON 1.5m ALIGNMENT UNLESS NOTED OTHERWISE.

LEGEND

- CMODP BOUNDARY
- EXISTING CADASTRAL
- EXISTING GAS MAIN
- PROPOSED CADASTRAL
- PROPOSED GAS MAIN

DENOTES ALIGNMENT (1.5m)
DENOTES PIPE DIA. (150mm)
150PVC 1.5MP
DENOTES PIPE MATERIAL (PVC)
DENOTES PRESSURE RATING (MEDIUM PRESSURE)

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
F	12.04.18	FINAL 100%	RN		RN
E	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
D	04.09.17	ISSUED FOR 85% REVIEW	TH	RN	RN
C	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
B	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN	DATE	SCALE
TR	MARCH 2017	HORIZ. 1:1000 VERT.
DRAWN		DATUM
TR	MARCH 2017	AHD
CHECKED		GRID SYSTEM
RN	MARCH 2017	PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
GAS MAIN LAYOUT
SHEET 7 OF 8

PLAN No 1702006-435 REV F

PRELIMINARY ONLY A1

CHIEF ENGINEER

S.ASMUS DATE

12/04/2018 2:07:18 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-429 TO 436 GAS MAIN.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

JOINS DRAWING

1702006-434

1702006-435

JOINS DRAWING

PRIORITY AREA 7

EXTENT OF PRIORITY AREA 7 WORKS

PRIORITY AREA 3

EXTENT OF PRIORITY AREA 3 WORKS

NEWENDEN STREET

VERMOUTH STREET

PROMENADE

PUNT ROAD

AVENUE

PINOT STREET

DELLAVANZO STREET

HARVEST STREET

PHILLIP STREET

RIVER AVENUE

TRANQUILITY PL

SERENITY COURT

80 PVC 1.5MP

63 PE 1.5MP

1:1000

0 10m 20 30 40 50 60 70 80 90 100 110 120 130 140 150

GENERAL NOTES

1. GAS MAIN DIMENSIONS AND DETAILS ARE INDICATIVE ONLY AND SUBJECT TO ATCO DETAILED DESIGN.
2. GAS MAIN TO BE INSTALLED ON 1.5m ALIGNMENT UNLESS NOTED OTHERWISE.

LEGEND

- CMODP BOUNDARY
- EXISTING CADASTRAL
- EXISTING GAS MAIN
- PROPOSED CADASTRAL
- PROPOSED GAS MAIN

DENOTES ALIGNMENT (1.5m)
DENOTES PIPE DIA. (150mm)
150PVC 1.5MP
DENOTES PIPE MATERIAL (PVC)
DENOTES PRESSURE RATING (MEDIUM PRESSURE)

AMENDMENTS	REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
	F	12.04.18	FINAL 100%	RN		RN
	E	18.01.18	100% DESIGN ISSUED FOR PRICING	CRF	RN	RN
	D	04.09.17	ISSUED FOR 85% REVIEW	TH	RN	RN
	C	15.05.17	ISSUED FOR CITY REVIEW	TR	RN	TS
	B	28.04.17	15% DESIGN FOR INTERNAL REVIEW	TR	RN	TS
	A	22.03.17	ISSUED FOR CLIENT REVIEW	TR	RN	TS

SHAWMAC

ARCADIS Design & Consultancy for natural and built assets

CITY OF GOSNELLS

TECHNICAL SERVICES

2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

DESIGN TR	DATE MARCH 2017	SCALE HORIZ. 1:1000 VERT.
DRAWN TR	MARCH 2017	DATUM AHD
CHECKED RN	MARCH 2017	GRID SYSTEM PCG
SURVEY		JOB NUMBER

PROJECT
CENTRAL MADDINGTON ODP
MADDINGTON

DRAWING TITLE
GAS MAIN LAYOUT
SHEET 8 OF 8

PLAN No 1702006-436 REV F

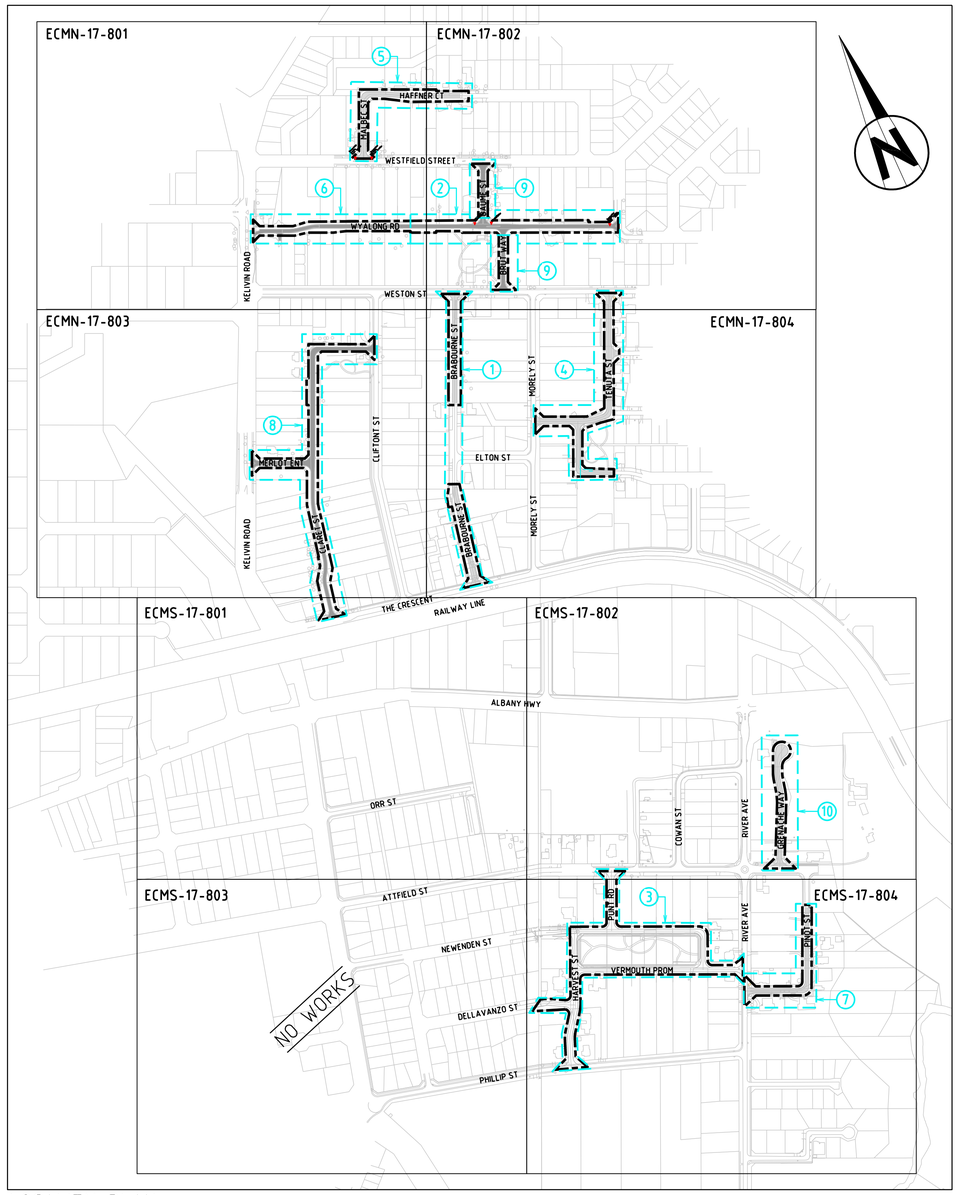
PRELIMINARY ONLY | A1

CHIEF ENGINEER

S.ASMUS DATE

12/04/2018 2:09:19 PM Y:\JOBS ACTIVE 2017\CE - LAND DEVELOPMENT\ARCADIS_MADDINGTON ODP_1702006\DRAWINGS\1702006-429 TO 436 GAS MAIN.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



LOCALITY PLAN

1:5000

EXTENT OF WORKS

STAGING

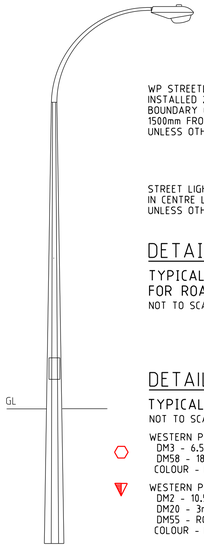
(10) STAGING PRIORITY

WESTERN POWER, TELSTRA & STREET LIGHTING DRAWING INDEX

DRAWING No.	TITLE
ECMN-17-800	LEGEND, OVERVIEW, AND DETAILS
ECMN-17-801	SHEET 1 OF 8
ECMN-17-802	SHEET 2 OF 8
ECMN-17-803	SHEET 3 OF 8
ECMN-17-804	SHEET 4 OF 8
ECMS-17-801	SHEET 5 OF 8
ECMS-17-802	SHEET 6 OF 8
ECMS-17-803	SHEET 7 OF 8
ECMS-17-804	SHEET 8 OF 8

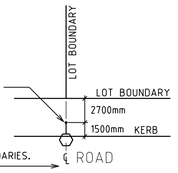
NBN PIT & PRE PROVISIONS DRAWING INDEX

DRAWING No.	TITLE
ECMN-17-810	OVERVIEW
ECMN-17-811	PIT & CONDUIT LAYOUT - SHEET 1 OF 8
ECMN-17-812	PIT & CONDUIT LAYOUT - SHEET 2 OF 8
ECMN-17-813	PIT & CONDUIT LAYOUT - SHEET 3 OF 8
ECMN-17-814	PIT & CONDUIT LAYOUT - SHEET 4 OF 8
ECMS-17-811	PIT & CONDUIT LAYOUT - SHEET 5 OF 8
ECMS-17-812	PIT & CONDUIT LAYOUT - SHEET 6 OF 8
ECMS-17-813	PIT & CONDUIT LAYOUT - SHEET 7 OF 8
ECMS-17-814	PIT & CONDUIT LAYOUT - SHEET 8 OF 8



WP STREETLIGHTS TO BE INSTALLED 2700mm FROM BOUNDARY OR NO LESS THAN 1500mm FROM FACE OF KERB. UNLESS OTHERWISE INDICATED

STREET LIGHT TO BE LOCATED IN CENTRE LINE OF LOT BOUNDARIES. UNLESS OTHERWISE INDICATED



DETAIL 'A'

TYPICAL STREETLIGHT SETBACK FOR ROAD WITH KERB

NOT TO SCALE

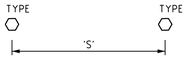
DETAIL 'B'

TYPICAL STREETLIGHT DETAIL

NOT TO SCALE

WESTERN POWER DECORATIVE STREETLIGHT
DM3 - 6.5m STANDARD POLE WITH 1.5m OUTREACH
DM58 - 18W LED LUMINAIRE
COLOUR - HERITAGE RED

WESTERN POWER DECORATIVE STREETLIGHT
DM2 - 10.5m STANDARD POLE
DM20 - 3m STANDARD OUTREACH
DM55 - ROADSTER FITTING WITH 150W MH LAMP
COLOUR - HERITAGE RED

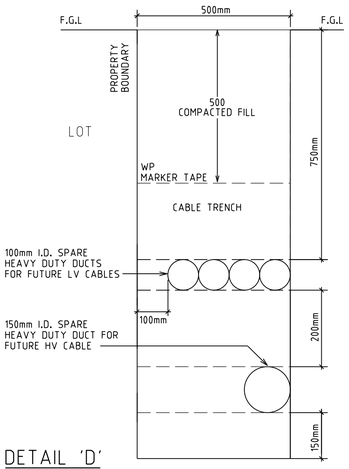


DETAIL 'C'

TYPICAL STREETLIGHT SPACING

NOT TO SCALE

TYPICAL SPACING 'S' (m) TO AS/NZS 1158.3.1		
TYPE	ROAD RESERVE WIDTH	P4
SL8-18	12m	66m
	16m	65m
	20m	53m

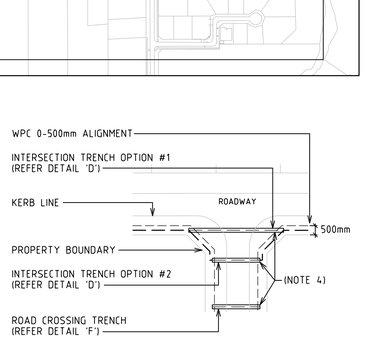


DETAIL 'D'

TYPICAL INTERSECTION CROSSING CABLE TRENCH DETAIL

(NOTE 2, 3 & 4)

NOT TO SCALE

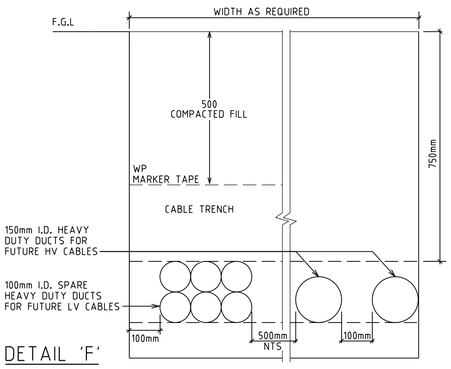


DETAIL 'E'

CABLE DUCT CROSSING PLACEMENT

NOT TO SCALE

(REPRODUCED FROM WESTERN POWER DRAWING No. UDS-6-3 REV A)



DETAIL 'F'

TYPICAL ROAD CROSSING CABLE TRENCH DETAIL

(NOT TO BE USED AT INTERSECTIONS)

(NOTE 2, 3 & 4)

NOT TO SCALE

PROJECT NOTES:

1. LIGHTING TO ALL NEW ROADS TO AS/NZS 1158, CATEGORY P4.
2. DUCT CROSSING DETAIL TYPICAL ONLY. MODIFY TO SUIT DUCT QUANTITIES AS SHOWN ON THE PLAN DRAWINGS.
3. DUCTS TO BE INSTALLED TO SPECIFICATION & WESTERN POWER REQUIREMENTS. REFER TO SPECIFICATION, UDS MANUAL AND WESTERN POWER UNDERGROUND CABLE INSTALLATION MANUAL FOR REQUIREMENTS.
4. DUCTS SHALL EXTEND A MINIMUM OF 1000mm INTO THE ROADSIDE VERGE FROM THE KERB LINE. REFER WESTERN POWER UNDERGROUND CABLE INSTALLATION MANUAL.
5. SOME OR ALL OF TELSTRA SCOPE OF WORK MAY BECOME NBN Co. SCOPE OF WORK FOLLOWING NBN ROLLOUT TO AREA DUE 2019, THERE MAY BE ADDITIONALRELOCATION SCOPE ON COMPLETION OF NBN ROLLOUT SHOULD THE ROLLOUT OCCUR BEFOREROADS ARE CONSTRUCTED AS PART OF THE CMODP PROJECT.

CITY OF GOSNELLS SCOPE OF WORK

1. SUPPLY AND INSTALL ROAD CROSSING ELECTRICAL DUCTS FOR FUTURE WESTERN POWER USE, TO WESTERN POWER REQUIREMENTS (TYPICAL). REFER PROJECT NOTE 3.
2. EXISTING ELECTRICAL/TELECOM UTILITY PROVIDER SERVICES, CROSSING NEW INTERSECTIONS TO BE PROTECTED AND MAINTAINED DURING CONSTRUCTION. VERIFY EXISTING DEPTH OF COVER PRIOR TO INTERSECTION WORKS AND CONFIRM NEW LEVEL RESULTS IN COMPLIANT DEPTH OF COVER.

WESTERN POWER SCOPE OF WORK

NOTE: APPLICATIONS FOR WESTERN POWER SCOPE OF WORK NOT COMPLETED. ALL WESTERN POWER SCOPE TO BE INITIATED VIA APPLICATION BY CITY OF GOSNELLS.

1. SUPPLY AND INSTALLATION OF NEW STREET LIGHTING POLES AND FITTINGS.
2. DESIGN, SUPPLY AND INSTALLATION OF POWER SUPPLIES TO NEW STREET LIGHTING.
3. UNDERGROUND EXISTING HV/LV AERIALS ACROSS NEW BAUME ST / WESTFIELD ST INTERSECTION AND REMOVE POWER POLE ID 114796. EXISTING THREE (3) LV AERIAL POAs FROM REMOVED POLE ID 114796 TO LOT 400, LOT 168 AND LOT 142 TO BE REPLACED WITH NEW UNDERGROUND SUPPLIES. NOTE: EXISTING LIGHT FITTING ON THIS POLE. ADDITIONAL LIGHTING MAY BE REQUIRED TO WESTERN POWER ASSESSMENT.
4. UNDERGROUND EXISTING HV/LV AERIALS ACROSS NEW BRUT WY / WESTON ST INTERSECTION AND REMOVE POWER POLE ID 114917. EXISTING TWO (2) UNDERGROUND SUPPLIES FROM REMOVED POLE ID 114917 TO LOT 941 AND TO MORLEY ST TO BE JOINTED AND RE-SUPPLIED.
5. UNDERGROUND EXISTING LV AERIALS ACROSS NEW CLARET ST / CLIFTON ST INTERSECTION.
6. UNDERGROUND EXISTING LV AERIALS ACROSS NEW CLARET ST / THE CRESCENT INTERSECTION AND REMOVE POWER POLE ID 114931, EXISTING) LV AERIAL POA FROM REMOVED POLE ID 114931 TO LOT 24 TO BE REPLACED WITH NEW UNDERGROUND SUPPLY.
7. UNDERGROUND EXISTING LV AERIALS ACROSS NEW BRABOURNE ST / THE CRESCENT INTERSECTION AND REMOVE POWER POLE ID 114739, EXISTING) LV AERIAL POA FROM REMOVED POLE ID 114931 TO LOT 137 TO BE REPLACED WITH NEW UNDERGROUND SUPPLY.
8. UNDERGROUND EXISTING LV AERIALS ACROSS NEW TENUTA ST / MORLEY ST INTERSECTION AND REMOVE POWER POLE ID 114904. EXISTING UNDERGROUND SUPPLY FROM POLE ID 114904 TO LOT L33 TO BE JOINTED AND RE-SUPPLIED. EXISTING) LV AERIAL POA FROM REMOVED POLE ID 114904 TO LOT 126 TO BE REPLACED WITH NEW UNDERGROUND SUPPLY.
9. RELOCATE EXISTING WESTERN POWER MINI PILLAR (GREEN DOME) AT NEW TENUTA ST / WESTON STREET INTERSECTION TO SUIT NEW LOT ARRANGEMENT.
10. PROVIDE NEW UNDERGROUND POWER SUPPLY TO NEW LOT FORMED DUE TO NEW ROAD AT TENUTA ST / WESTON STREET INTERSECTION.
11. REMOVE EXISTING STAY-POLE AND INSTALL NEW STAY AT NEW WYALONG RD / BARFORD ST INTERSECTION.
12. RELOCATE EXISTING 6.5m LIGHT POLE TO SUIT NEW TENUTA ST / KINGSDOWN RD INTERSECTION.
13. UNDERGROUND EXISTING LV AERIALS ACROSS NEW VERMOUTH PROM / RIVER AVE INTERSECTION.
14. UNDERGROUND EXISTING HV/LV AERIALS ACROSS NEW HARVEST ST / PHILLIP ST INTERSECTION AND REMOVE POWER POLE ID 86974, EXISTING AERIAL POA TO LOT 17 TO BE REMOVED AND REPLACED WITH NEW UNDERGROUND SUPPLY.
15. EXISTING POWER POLE STAY IN HAFFNER ST TO BE RELOCATED TO ALLOW NEW DRAIN AAND RAIN GARDEN INSTALLATION.
16. UNDERGROUND EXISTING LV AERIALS ACROSS NEW PUNT RD / ATTFIELD ST INTERSECTION AND REMOVE POWER POLE ID 113375, EXISTING TWO (2) UNDERGROUND SUPPLIES FROM POLE ID 113375 TO LOT 57 AND LOT 131 TO BE JOINTED AND RE-SUPPLIED.
17. RELOCATE EXISTING 6.5m LIGHT POLE TO SUIT NEW TENUTA ST / KINGSDOWN RD INTERSECTION.
18. RELOCATE EXISTING WESTERN POWER MINI PILLAR (GREEN DOME) AND UNDERGROUND SUPPLY AT NEW PINOT ST / RIVER AVE INTERSECTION TO SUIT NEW INTERSECTION AND LOT BOUNDARIES. ADDITIONAL PILLAR MAY BE NECESSARY.
19. RELOCATE EXISTING HV/LV POWER POLE AT NEW WESTON ST/ BRADBOURNE ST TEE-INTERSECTION TO ALLOW NEW DRAIN AND RAIN GARDEN INSTALLATION. DISCONNECT & RECONNECT EXISTING 1xPROPERTY LV CONNECTION.
20. RELOCATE EXISTING LV POWER POLE IN EXISTING BRADBOURNE ST TO ALLOW NEW DRAIN AND RAIN GARDEN INSTALLATION.DISCONNECT & RECONNECT EXISTING 3xPROPERTY LV CONNECTION AND STAY WIRE.
21. RELOCATE EXISTING LV POWER POLE IN EXISTING DELLAVANZO ST TO ALLOW NEW DRAIN AND RAIN GARDEN INSTALLATION. DISCONNECT & RECONNECT EXISTING 1xPROPERTY LV CONNECTION AND STAY WIRE.

TELSTRA SCOPE OF WORK

(SEE PROJECT NOTE 5)

NOTE: APPLICATIONS FOR TELSTRA SCOPE OF WORK NOT COMPLETED. ALL WESTERN POWER SCOPE TO BE INITIATED VIA APPLICATION BY CITY OF GOSNELLS.

1. EXISTING TELSTRA PIT AT NEW WYALONG RD / KELVIN RD INTERSECTION TO BE RELOCATED TO SUIT THE NEW INTERSECTION WORKS. NOTE: NUMEROUS COPPER AND FIBRE SERVICES EXIST. EXISTING CUSTOMER SERVICE DROPS (IF ANY) TO BE RE-CONNECTED AS DETERMINED BY TELSTRA.
2. EXISTING TELSTRA PIT AT NEW MALBAC ST / WESTFIELD ST INTERSECTION TO BE RELOCATED TO SUIT THE NEW INTERSECTION WORKS. TWO (2) OFF EXISTING CUSTOMER SERVICE DROPS TO BE RE-CONNECTED AS DETERMINED BY TELSTRA.
3. EXISTING TELSTRA PIT AT NEW BAUME ST / WESTFIELD ST INTERSECTION TO BE RELOCATED TO SUIT THE NEW INTERSECTION WORKS. TWO (2) OFF EXISTING CUSTOMER SERVICE DROPS TO BE RE-CONNECTED AS DETERMINED BY TELSTRA.
4. EXISTING TELSTRA PIT AT NEW BRUT WT / WESTON ST INTERSECTION TO BE RELOCATED TO SUIT THE NEW INTERSECTION WORKS. EXISTING CUSTOMER SERVICE DROPS (IF ANY) TO BE RE-CONNECTED AS DETERMINED BY TELSTRA.
5. EXISTING TELSTRA PIT AT NEW TENUTA ST / WESTON ST INTERSECTION TO BE RELOCATED TO SUIT THE NEW INTERSECTION WORKS. EXISTING CUSTOMER SERVICE DROPS (IF ANY) TO BE RE-CONNECTED AS DETERMINED BY TELSTRA.
6. EXISTING TELSTRA PIT AT NEW CLARET ST / CLIFTON ST INTERSECTION TO BE RELOCATED TO SUIT THE NEW INTERSECTION WORKS. EXISTING CUSTOMER SERVICE DROPS (IF ANY) TO BE RE-CONNECTED AS DETERMINED BY TELSTRA.
7. EXISTING TELSTRA PIT AT NEW TENUTA ST / MORLEY ST INTERSECTION TO BE RELOCATED TO SUIT THE NEW INTERSECTION WORKS. NOTE: EXISTING 4X100 DUCTS AND NUMEROUS SERVICES. EXISTING CUSTOMER SERVICE DROPS (IF ANY) TO BE RE-CONNECTED AS DETERMINED BY TELSTRA.
8. EXISTING TELSTRA PIT AT NEW BRABOURNE ST / THE CRESCENT INTERSECTION TO BE RELOCATED TO SUIT THE NEW INTERSECTION WORKS. EXISTING CUSTOMER SERVICE DROPS (IF ANY) TO BE RE-CONNECTED AS DETERMINED BY TELSTRA.
9. EXISTING TELSTRA PIT AT NEW TENUTA ST / KINGSDOWN RD INTERSECTION TO BE RELOCATED TO SUIT THE NEW INTERSECTION WORKS. EXISTING CUSTOMER SERVICE DROPS (IF ANY) TO BE RE-CONNECTED AS DETERMINED BY TELSTRA.
10. EXISTING TELSTRA PIT AT NEW CLARET ST / THE CRESCENT INTERSECTION TO BE RELOCATED TO SUIT THE NEW INTERSECTION WORKS. EXISTING TWO (2) CUSTOMER SERVICE DROPS TO BE RE-CONNECTED AS DETERMINED BY TELSTRA.
11. EXISTING TELSTRA PIT AT NEW PUNT RD / ATTFIELD ST INTERSECTION TO BE RELOCATED TO SUIT THE NEW INTERSECTION WORKS. EXISTING CUSTOMER SERVICE DROPS (IF ANY) TO BE RE-CONNECTED AS DETERMINED BY TELSTRA.
12. EXISTING TELSTRA PIT AT NEW HARVEST ST / PHILLIP ST INTERSECTION TO BE RELOCATED TO SUIT THE NEW INTERSECTION WORKS. EXISTING CUSTOMER SERVICE DROPS (IF ANY) TO BE RE-CONNECTED AS DETERMINED BY TELSTRA.
13. EXISTING TWO (2) TELSTRA PITS AT NEW PINOT ST / RIVER INTERSECTION TO BE RELOCATED TO SUIT THE NEW INTERSECTION WORKS. EXISTING THREE (3) CUSTOMER SERVICE DROPS TO BE RE-CONNECTED AS DETERMINED BY TELSTRA.

ALL WORKS ON EXISTING WESTERN POWER ASSETS ARE TO BE UNDERTAKEN BY WESTERN POWER

ALL WORKS IN THE VICINITY (WIV) OF EXISTING WESTERN POWER ASSETS ARE TO BE UNDETAKEN IN ACCORDANCE WITH OCCUPATIONAL SAFETY AND HEALTH (OHS), WORKSAFE AND WESTERN POWER ELECTRICAL SYSTEM SAFETY RULES (ESSR) REQUIREMENTS AS PER WORKING NEAR ELECTRICITY SECTION OF THE WESTERN POWER WEBSITE



IF WORKING IN THE VICINITY OF EXISTING OVERHEAD DISTRIBUTION OR TRANSMISSION LINES.

REFER TO "WORKSAFE" REGULATION 3.64



THE LOCATION OF EXISTING SERVICES IS APPROXIMATE ONLY. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. ALWAYS REFER TO CURRENT DBYD DRAWINGS. CONFIRM ASSET LOCATIONS ON SITE BEFORE COMMENCEMENT OF WORK.

REFER TO WORKSAFE REGULATION 3.21

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVAD SIGNATURE (ie. MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSION ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECENDENCE OVER SCALED DISTANCES.

NOTE

ALL WORKS SHALL BE IMPLIMENTED IN ACCORDANCE WITH THE CITYS SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSRTY BEST PRACTICE. BUT WHERE NO DETAILS HAVE BEEN PROVIDED TO THE REQUIREMENTS OF THE PROJECT DESIGNER. ANY CONFLICTS, OMMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

METRES (1:5000)

250 0 250 500

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
G	12.04.18	FINAL ISSUE	BM	DP	KM
F	19.02.18	REVISED FOR NEW BASE PLAN	BM	DP	KM
E	30.11.17	ISSUED FOR 100% DESIGN	BM	DP	KM
D	02.10.17	ISSUED FOR 85% DESIGN	BM	DP	KM
C	08.09.17	ISSUED FOR QS	BM	DP	KM
B	12.05.17	EXISTING ROAD LIGHTING REMOVED	BM	DP	KM
A	17.03.17	ISSUED FOR 15% DESIGN	TH	DP	KM

ETC
ETC REF: 8036
Engineering Technology Consultants / etc
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500

DESIGN DP	DATE FEB 2017	SCALE HORIZ VERT
DRAWN BM		DATUM
CHECKED KM		GRID SYSTEM
SURVEY		JOB NUMBER

CITY OF GOSNELLS
TECHNICAL SERVICES
2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

PROJECT: CENTRAL MADDINGTON ODP

DRAWING TITLE: WESTERN POWER, TELSTRA & STREET LIGHTING LEGEND, OVERVIEW AND DETAILS

PLAN No ECMN-17-800 REV G

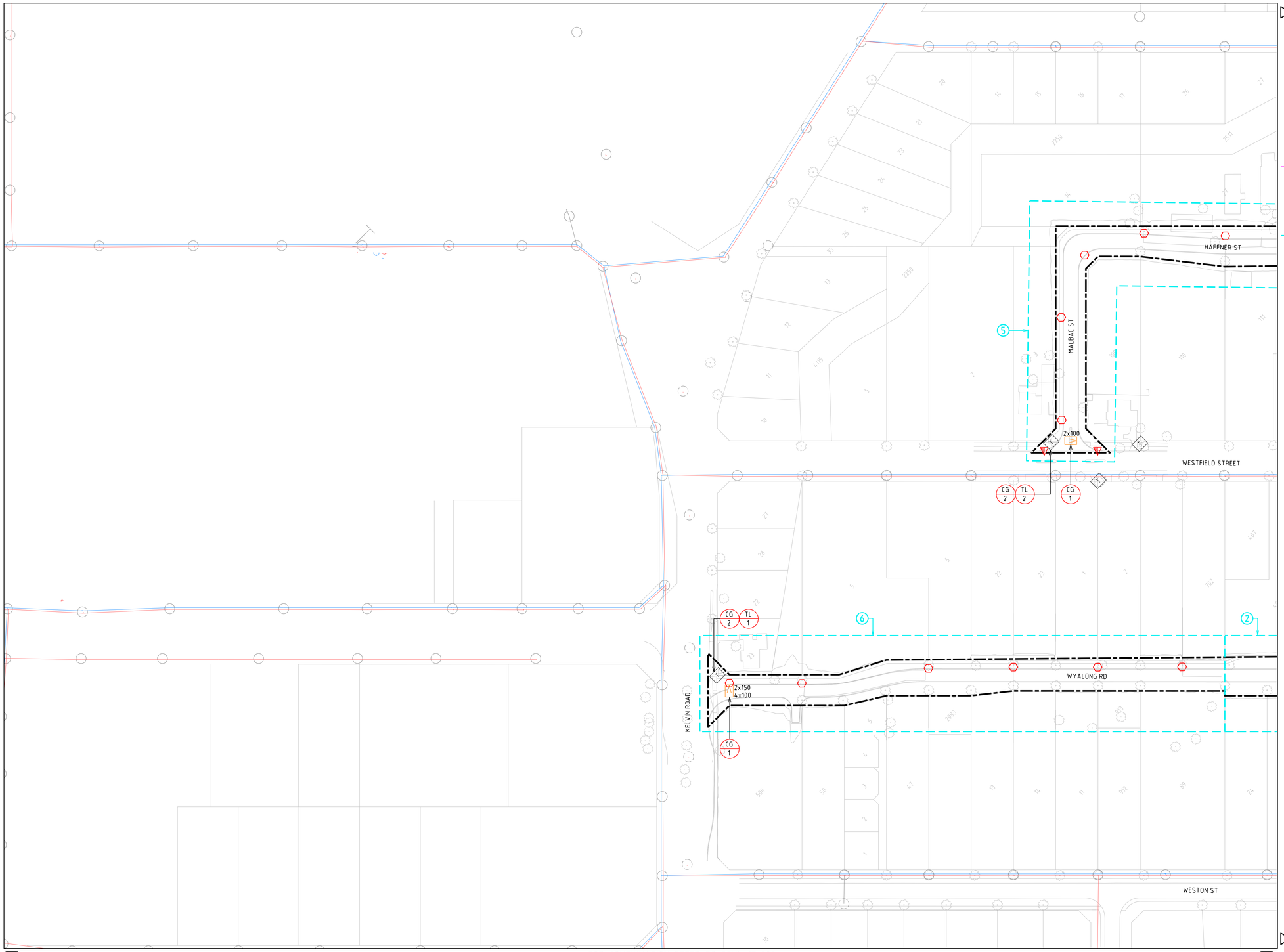
PRELIMINARY A1

CHIEF ENGINEER TECHNICAL SERVICES

S ASMUS DATE

28-Feb-17 3:45:38 PM K:\8036\XREFS\A1-TITLE_CONSULTANT.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



PLAN
1:1000

FOR CONTINUATION REFER TO ECMN-17-802

PART LEGEND

- WP 1 — WESTERN POWER SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- CG 1 — CITY OF GOSNELLS SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- TL 1 — TELSTRA SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- ℄ — INDICATES CENTRELINE OF TRUNCATION CORNER AND PROPERTY BOUNDARY
- DENOTES EXISTING EQUIPMENT/ CABLE/CONDUIT TO BE REMOVED
- T — DENOTES EXISTING TELSTRA PIT
- ARROW DENOTES DIRECTION TO PEG WITH WHICH DUCTS ARE TO BE ALLIGNED
- STAGING
- 10 — STAGING PRIORITY

LEGEND

SCHEME BDY.
RETAINING WALL

HV CABLES
- CN53 - 400mm2 (3X1c)
- CN49 - 240mm2 (3X1c)
- CN48 - 185mm2 (3X1c)
- CN50 - 95mm2 (3X1c)
- CN51 - 50mm2 (3c)
- CN51 - 50mm2 (1c)
- CN46 - 35mm2 (3X1c)
- CN47 - 35mm2 (1c)
- EXISTING HV CABLES (SIZE AND TYPE INDICATED)

LV-SL CABLES
- CN45 - 240mm2 (1x3c)
- CN44 - 185mm2 (1x3c)
- CN43 - 120mm2 (1x3c)
- CN42 - 25mm2 (1x3c)
- CN41 - 16mm2 SL (1c)
- 40 C PILOT
- EXISTING LV CABLES (SIZE AND TYPE INDICATED)

STREET LIGHTS: 80w MV; 125w MV; 70w HPS; 18w LED; 250w HPS
EXISTING: 70/75w MH; 150w MH; 250w MH
LEGEND DEFINES TYPE & WATTAGE - NOT COLOUR

PILLARS / PITS / ETC
- MINI (WORKING END)
- UNIVERSAL
- MINI
- LINK
- CABLE MARKER U/G
- UMS PIT
- UTILITIES PIT
- 100/200AMP CUTOUT
- CONDUIT / POLY PIPE

TRANSFORMER (T) EXISTING SWITCHGEAR (S)

AERIAL CONDUCTORS AND POLES
- NEW POLE (ANY TYPE AS INDICATED)
- EXISTING POLE (ANY TYPE AS INDICATED)
- HV LV — EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED)

NOTES:

1. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT CONTRACT DOCUMENTS, SPECIFICATIONS AND DRAWINGS.
2. ALL STREET LIGHTS ARE TO BE INSTALLED ON THE CENTRELINE BETWEEN EACH LOT AT NOMINALLY 2700 OUT FROM PROPERTY BOUNDARIES AND NOT LESS THAN 1000 FROM THE KERB LINE UNLESS OTHERWISE SHOWN ON THE DRAWING. POLES SHALL BE INSTALLED CLEAR OF ANY PEDESTRIAN FOOTPATHS AND RAMPS.
3. ALL CABLES TO BE INSTALLED IN CONDUIT IF OUTSIDE WESTERN POWER 0-500 ALIGNMENT.
4. LOCATIONS OF THE EXISTING CABLES, JOINTS & EQUIPMENT SHOWN ON THE DRAWING ARE INDICATIVE ONLY.
5. ROAD CROSSING CONDUITS SHALL BE INSTALLED IN ROAD RESERVE BETWEEN WESTERN STANDARD 0-500 ALIGNMENT ON BOTH SIDE OF ROAD. REFER TO DETAILS ON EMCN-17-800.
6. THE CONTRACTOR MUST COMPLY WITH WESTERN POWER RULES AND PROCEDURES INCLUDED IN THE ELECTRICAL SYSTEM SAFETY RULES (ESSR) FOR ALL WORKS ON OR NEAR WESTERN POWERS HV & LV NETWORK. THE CONTRACTOR MUST EMPLOY AUTHORISED PERSONNEL RECIPIENT/S IN CHARGE (RIC/S) WHO SHALL BE RESPONSIBLE FOR ALL PERMITS AS REQUIRED AND MANAGING ALL WORKS TO COMPLY WITH THE REQUIREMENTS OF THE ESSR.

ALL WORKS ON EXISTING WESTERN POWER ASSETS ARE TO BE UNDERTAKEN BY WESTERN POWER

ALL WORKS IN THE VICINITY (WIV) OF EXISTING WESTERN POWER ASSETS ARE TO BE UNDETAKEN IN ACCORDANCE WITH OCCUPATIONAL SAFETY AND HEALTH (OHS), WORKSAFE AND WESTERN POWER ELECTRICAL SYSTEM SAFETY RULES (ESSR) REQUIREMENTS AS PER WORKING NEAR ELECTRICITY SECTION OF THE WESTERN POWER WEBSITE



IF WORKING IN THE VICINITY OF EXISTING OVERHEAD DISTRIBUTION OR TRANSMISSION LINES.

REFER TO "WORKSAFE" REGULATION 3.64



THE LOCATION OF EXISTING SERVICES IS APPROXIMATE ONLY. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. ALWAYS REFER TO CURRENT DBYD DRAWINGS. CONFIRM ASSET LOCATIONS ON SITE BEFORE COMMENCEMENT OF WORK.

REFER TO WORKSAFE REGULATION 3.21



METRES (1:1000)
50 0 50 100

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVAD SIGNATURE (ie. MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSION ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECENDENCE OVER SCALED DISTANCES.

NOTE

ALL WORKS SHALL BE IMPLIMENTED IN ACCORDANCE WITH THE CITYS SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. BUT WHERE NO DETAILS HAVE BEEN PROVIDED TO THE REQUIREMENTS OF THE PROJECT DESIGNER. ANY CONFLICTS, OMMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
G	12.04.18	FINAL ISSUE	BM	DP	KM
F	19.02.18	REVISED FOR NEW BASE PLAN	BM	DP	KM
E	30.11.17	ISSUED FOR 100% DESIGN	BM	DP	KM
D	02.10.17	ISSUED FOR 85% DESIGN	BM	DP	KM
C	08.09.17	ISSUED FOR QS	BM	DP	KM
B	17.03.17	EXISTING ROAD LIGHTING REMOVED	BM	DP	KM
A	17.03.17	ISSUED FOR 15% DESIGN	TH	DP	KM

ETC
ETC REF: 8036
Engineering Technology Consultants / ETC
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500

DESIGN	DATE	SCALE
DP	FEB 2017	HORIZ
		VERT
DRAWN BM		DATUM
CHECKED KM		GRID SYSTEM
SURVEY		JOB NUMBER

CITY OF GOSNELLS
TECHNICAL SERVICES
2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

PROJECT
CENTRAL MADDINGTON ODP

DRAWING TITLE
WESTERN POWER, TELSTRA & STREET LIGHTING
SHEET 1 OF 8

PLAN No ECMN-17-801
PLAN No REV G
PRELIMINARY
A1
CHIEF ENGINEER TECHNICAL SERVICES
S ASMUS
DATE

28-Feb-17 3:45:38 PM K:\8036\XREF\A1-TITLE_CONSULTANT.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

FOR CONTINUATION REFER TO ECMN-17-801

HAFFNER ST

WESTFIELD STREET

BAUME ST

WYALONG RD

BRUT WAY

WESTON ST

EXISTING STREET LIGHT POLES

FOR CONTINUATION REFER TO ECMN-17-804

PLAN
1:1000

METRES (1:1000)
50 0 50 100

NOTES:

1. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT CONTRACT DOCUMENTS, SPECIFICATIONS AND DRAWINGS.
2. ALL STREET LIGHTS ARE TO BE INSTALLED ON THE CENTRELINE BETWEEN EACH LOT AT NOMINALLY 2700 OUT FROM PROPERTY BOUNDARIES AND NOT LESS THAN 1000 FROM THE KERB LINE UNLESS OTHERWISE SHOWN ON THE DRAWING. POLES SHALL BE INSTALLED CLEAR OF ANY PEDESTRIAN FOOTPATHS AND RAMPS.
3. ALL CABLES TO BE INSTALLED IN CONDUIT IF OUTSIDE WESTERN POWER 0-500 ALIGNMENT.
4. LOCATIONS OF THE EXISTING CABLES, JOINTS & EQUIPMENT SHOWN ON THE DRAWING ARE INDICATIVE ONLY.
5. ROAD CROSSING CONDUITS SHALL BE INSTALLED IN ROAD RESERVE BETWEEN WESTERN STANDARD 0-500 ALIGNMENT ON BOTH SIDE OF ROAD. REFER TO DETAILS ON EMCN-17-800.
6. THE CONTRACTOR MUST COMPLY WITH WESTERN POWER RULES AND PROCEDURES INCLUDED IN THE ELECTRICAL SYSTEM SAFETY RULES (ESSR) FOR ALL WORKS ON OR NEAR WESTERN POWERS HV & LV NETWORK. THE CONTRACTOR MUST EMPLOY AUTHORISED PERSONNEL RECIPIENT/S IN CHARGE (RIC/S) WHO SHALL BE RESPONSIBLE FOR ALL PERMITS AS REQUIRED AND MANAGING ALL WORKS TO COMPLY WITH THE REQUIREMENTS OF THE ESSR.

LEGEND

SCHEME BDY.
RETAINING WALL

HV CABLES
- CN53 - 400mm2 (3X1c)
- CN49 - 240mm2 (3X1c)
- CN48 - 185mm2 (3X1c)
- CN50 - 95mm2 (3X1c)
- CN51 - 50mm2 (3X1c)
- CN51 - 50mm2 (1c)
- CN46 - 35mm2 (3X1c)
- CN47 - 35mm2 (1c)
- EXISTING HV CABLES (SIZE AND TYPE INDICATED)

LV-SL CABLES
- CN45 - 240mm2 (1x3c)
- CN44 - 185mm2 (1x3c)
- CN43 - 120mm2 (1x3c)
- CN42 - 25mm2 (1x3c)
- CN41 - 16mm2 SL (1c)
- 40 C PILOT
- EXISTING LV CABLES (SIZE AND TYPE INDICATED)

STREET LIGHTS — EXISTING
- 80w MV
- 125w MV
- 70w HPS
- 18w LED
- 250w HPS
- 70/75w MH
- 150w MH
- 250w MH

LEGEND DEFINES TYPE & WATTAGE - NOT COLOUR

PILLARS / PITS / ETC
- MINI (WORKING END)
- UNIVERSAL
- MINI
- LINK
- CABLE MARKER U/G
- UMS PIT
- UTILITIES PIT
- 100/200AMP CUTOUT
- CONDUIT / POLY PIPE

TRANSFORMER (T) — EXISTING — SWITCHGEAR (S)

AERIAL CONDUCTORS AND POLES
- NEW POLE (ANY TYPE AS INDICATED)
- EXISTING POLE (ANY TYPE AS INDICATED)
- HV LV EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED)

PART LEGEND

- WP 1 — WESTERN POWER SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- CG 1 — CITY OF GOSNELLS SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- TL 1 — TELSTRA SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- INDICATES CENTRELINE OF TRUNCATION CORNER AND PROPERTY BOUNDARY
- DENOTES EXISTING EQUIPMENT/ CABLE/CONDUIT TO BE REMOVED
- T — DENOTES EXISTING TELSTRA PIT
- ARROW DENOTES DIRECTION TO PEG WITH WHICH DUCTS ARE TO BE ALLIGNED
- STAGING
- 10 — STAGING PRIORITY

ALL WORKS ON EXISTING WESTERN POWER ASSETS ARE TO BE UNDERTAKEN BY WESTERN POWER

ALL WORKS IN THE VICINITY (WIV) OF EXISTING WESTERN POWER ASSETS ARE TO BE UNDETAKEN IN ACCORDANCE WITH OCCUPATIONAL SAFETY AND HEALTH (OHS), WORKSAFE AND WESTERN POWER ELECTRICAL SYSTEM SAFETY RULES (ESSR) REQUIREMENTS AS PER WORKING NEAR ELECTRICITY SECTION OF THE WESTERN POWER WEBSITE



IF WORKING IN THE VICINITY OF EXISTING OVERHEAD DISTRIBUTION OR TRANSMISSION LINES.

REFER TO "WORKSAFE" REGULATION 3.64



THE LOCATION OF EXISTING SERVICES IS APPROXIMATE ONLY. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. ALWAYS REFER TO CURRENT DBYD DRAWINGS. CONFIRM ASSET LOCATIONS ON SITE BEFORE COMMENCEMENT OF WORK.

REFER TO WORKSAFE REGULATION 3.21

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVAD SIGNATURE (ie. MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSION ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECENDENCE OVER SCALED DISTANCES.

NOTE

ALL WORKS SHALL BE IMPLIMENTED IN ACCORDANCE WITH THE CITYS SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. BUT WHERE NO DETAILS HAVE BEEN PROVIDED TO THE REQUIREMENTS OF THE PROJECT DESIGNER. ANY CONFLICTS, OMMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
G	12.04.18	FINAL ISSUE	BM	DP	KM
F	19.02.18	REVISED FOR NEW BASE PLAN	BM	DP	KM
E	30.11.17	ISSUED FOR 100% DESIGN	BM	DP	KM
D	02.10.17	ISSUED FOR 85% DESIGN	BM	DP	KM
C	08.09.17	ISSUED FOR QS	BM	DP	KM
B	12.05.17	EXISTING ROAD LIGHTING REMOVED	BM	DP	KM
A	17.03.17	ISSUED FOR 15% DESIGN	TH	DP	KM

ETC
Engineering Technology Consultants / ETC
ETC REF: 8036
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500

DESIGN	DATE	SCALE HORIZ VERT
DP	FEB 2017	
DRAWN BM		DATUM
CHECKED KM		GRID SYSTEM
SURVEY		JOB NUMBER

CITY OF GOSNELLS
TECHNICAL SERVICES
2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

PROJECT
CENTRAL MADDINGTON ODP

DRAWING TITLE
WESTERN POWER, TELSTRA & STREET LIGHTING
SHEET 2 OF 8

PLAN No	PLAN No	REV
ECMN-17-802		G
PRELIMINARY		A1

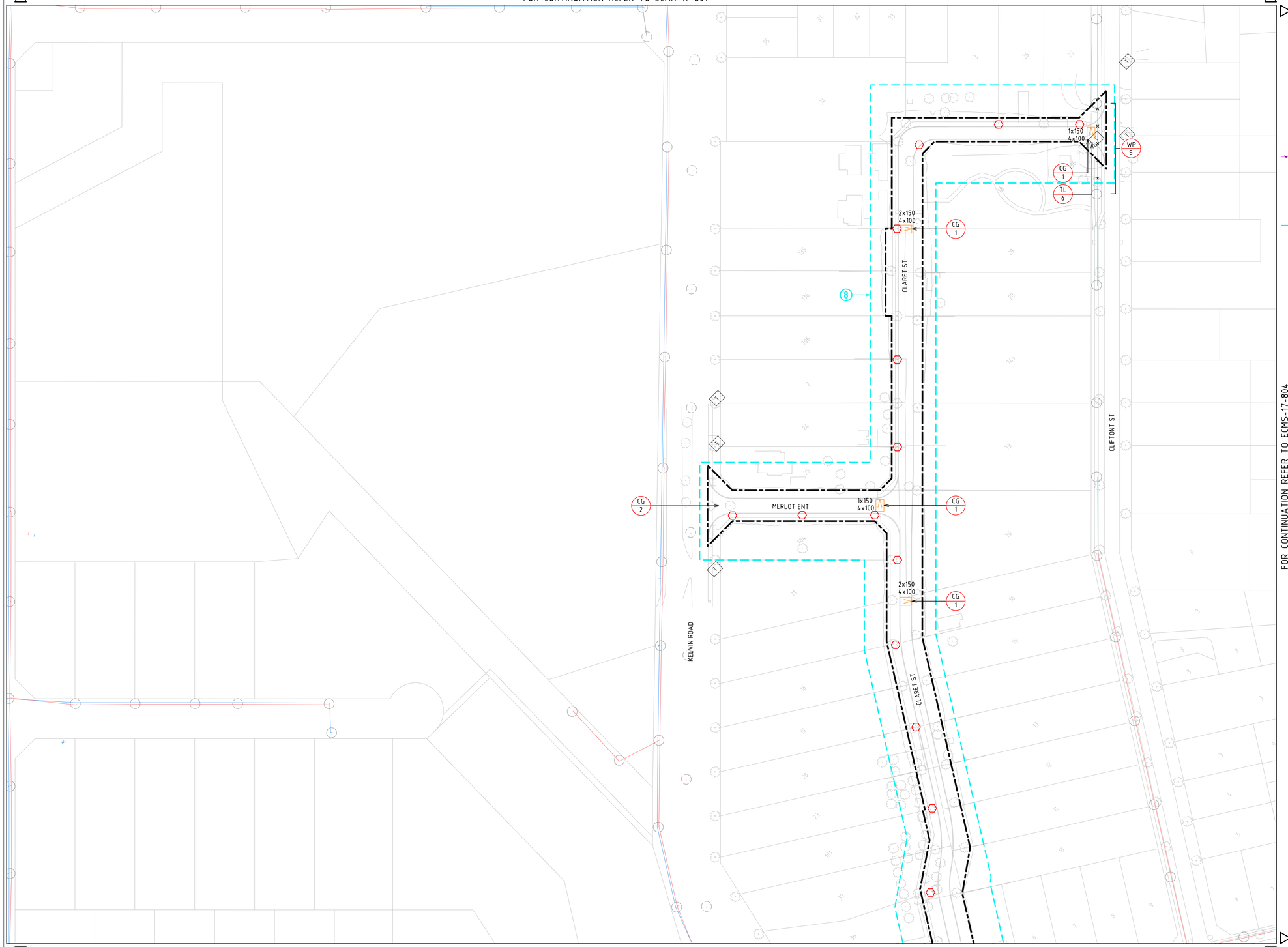
CHIEF ENGINEER TECHNICAL SERVICES

S ASMUS DATE

28-Feb-17 3:45:38 PM K:\8036\XREFS\A1-TITLE_CONSULTANT.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

FOR CONTINUATION REFER TO ECMN-17-801



FOR CONTINUATION REFER TO ECMS-17-801

PLAN
1:1000

METRES (1:1000)
50 0 50 100

FOR CONTINUATION REFER TO ECMS-17-804

PART LEGEND

- WP 1 — WESTERN POWER SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- CG 1 — CITY OF GOSNELLS SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- TL 1 — TELSTRA SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- INDICATES CENTRELINE OF TRUNCATION CORNER AND PROPERTY BOUNDARY
- DENOTES EXISTING EQUIPMENT/ CABLE/CONDUIT TO BE REMOVED
- T — DENOTES EXISTING TELSTRA PIT
- ARROW DENOTES DIRECTION TO PEG WITH WHICH DUCTS ARE TO BE ALLIGNED
- STAGING
- 10 — STAGING PRIORITY

LEGEND

SCHEME BDY.
RETAINING WALL

HV CABLES
- CN53 - 400mm2 (3X1c)
- CN49 - 240mm2 (3X1c)
- CN48 - 185mm2 (3X1c)
- CN50 - 95mm2 (3X1c)
- CN51 - 50mm2 (3c)
- CN51 - 50mm2 (1c)
- CN46 - 35mm2 (3X1c)
- CN47 - 35mm2 (1c)
- EXISTING HV CABLES (SIZE AND TYPE INDICATED)

LV-SL CABLES
- CN45 - 240mm2 (1x3c)
- CN44 - 185mm2 (1x3c)
- CN43 - 120mm2 (1x3c)
- CN42 - 25mm2 (1x3c)
- CN41 - 16mm2 SL (1c)
- 40 C PILOT
- EXISTING LV CABLES (SIZE AND TYPE INDICATED)

STREET LIGHTS — EXISTING
- 80w MV
- 125w MV
- 70w HPS
- 18w LED
- 250w HPS
- 70/75w MH
- 150w MH
- 250w MH

LEGEND DEFINES TYPE & WATTAGE - NOT COLOUR

PILLARS / PITS / ETC
- MINI (WORKING END)
- UNIVERSAL
- MINI
- LINK
- CABLE MARKER U/G
- UMS PIT
- UTILITIES PIT
- 100/200AMP CUTOUT
- CONDUIT / POLY PIPE

TRANSFORMER (T) — EXISTING — SWITCHGEAR (S)

AERIAL CONDUCTORS AND POLES
- NEW POLE (ANY TYPE AS INDICATED)
- EXISTING POLE (ANY TYPE AS INDICATED)
- HV LV — EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED)

NOTES:

1. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT CONTRACT DOCUMENTS, SPECIFICATIONS AND DRAWINGS.
2. ALL STREET LIGHTS ARE TO BE INSTALLED ON THE CENTRELINE BETWEEN EACH LOT AT NOMINALLY 2700 OUT FROM PROPERTY BOUNDARIES AND NOT LESS THAN 1000 FROM THE KERB LINE UNLESS OTHERWISE SHOWN ON THE DRAWING. POLES SHALL BE INSTALLED CLEAR OF ANY PEDESTRIAN FOOTPATHS AND RAMPS.
3. ALL CABLES TO BE INSTALLED IN CONDUIT IF OUTSIDE WESTERN POWER 0-500 ALIGNMENT.
4. LOCATIONS OF THE EXISTING CABLES, JOINTS & EQUIPMENT SHOWN ON THE DRAWING ARE INDICATIVE ONLY.
5. ROAD CROSSING CONDUITS SHALL BE INSTALLED IN ROAD RESERVE BETWEEN WESTERN STANDARD 0-500 ALIGNMENT ON BOTH SIDE OF ROAD. REFER TO DETAILS ON EMCN-17-800.
6. THE CONTRACTOR MUST COMPLY WITH WESTERN POWER RULES AND PROCEDURES INCLUDED IN THE ELECTRICAL SYSTEM SAFETY RULES (ESSR) FOR ALL WORKS ON OR NEAR WESTERN POWERS HV & LV NETWORK. THE CONTRACTOR MUST EMPLOY AUTHORISED PERSONNEL RECIPIENT/S IN CHARGE (RIC/S) WHO SHALL BE RESPONSIBLE FOR ALL PERMITS AS REQUIRED AND MANAGING ALL WORKS TO COMPLY WITH THE REQUIREMENTS OF THE ESSR.

ALL WORKS ON EXISTING WESTERN POWER ASSETS ARE TO BE UNDERTAKEN BY WESTERN POWER

ALL WORKS IN THE VICINITY (WIV) OF EXISTING WESTERN POWER ASSETS ARE TO BE UNDETAKEN IN ACCORDANCE WITH OCCUPATIONAL SAFETY AND HEALTH (OHS), WORKSAFE AND WESTERN POWER ELECTRICAL SYSTEM SAFETY RULES (ESSR) REQUIREMENTS AS PER WORKING NEAR ELECTRICITY SECTION OF THE WESTERN POWER WEBSITE



IF WORKING IN THE VICINITY OF EXISTING OVERHEAD DISTRIBUTION OR TRANSMISSION LINES.

REFER TO "WORKSAFE" REGULATION 3.64



THE LOCATION OF EXISTING SERVICES IS APPROXIMATE ONLY. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. ALWAYS REFER TO CURRENT DBYD DRAWINGS. CONFIRM ASSET LOCATIONS ON SITE BEFORE COMMENCEMENT OF WORK.

REFER TO WORKSAFE REGULATION 3.21



GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVAD SIGNATURE (ie. MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSION ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECENDENCE OVER SCALED DISTANCES.

NOTE

ALL WORKS SHALL BE IMPLIMENTED IN ACCORDANCE WITH THE CITYS SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSRTY BEST PRACTICE, BUT WHERE NO DETAILS HAVE BEEN PROVIDED TO THE REQUIREMENTS OF THE PROJECT DESIGNER, ANY CONFLICTS, OMMSSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
G	12.04.18	FINAL ISSUE	BM	DP	KM
F	19.02.18	REVISED FOR NEW BASE PLAN	BM	DP	KM
E	30.11.17	ISSUED FOR 100% DESIGN	BM	DP	KM
D	02.10.17	ISSUED FOR 85% DESIGN	BM	DP	KM
C	08.09.17	ISSUED FOR QS	BM	DP	KM
B	12.05.17	EXISTING ROAD LIGHTING REMOVED	BM	DP	KM
A	17.03.17	ISSUED FOR 15% DESIGN	TH	DP	KM

ETC REF: 8036
Engineering Technology Consultants / ETC
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500

DESIGN	DATE	SCALE HORIZ VERT
DP	FEB 2017	
DRAWN TH		DATUM
CHECKED KM		GRID SYSTEM
SURVEY		JOB NUMBER

CITY OF GOSNELLS
TECHNICAL SERVICES
2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

PROJECT
CENTRAL MADDINGTON ODP

DRAWING TITLE
WESTERN POWER, TELSTRA & STREET LIGHTING
SHEET 3 OF 8

PLAN No ECMN-17-803 REV G

PRELIMINARY A1

CHIEF ENGINEER TECHNICAL SERVICES

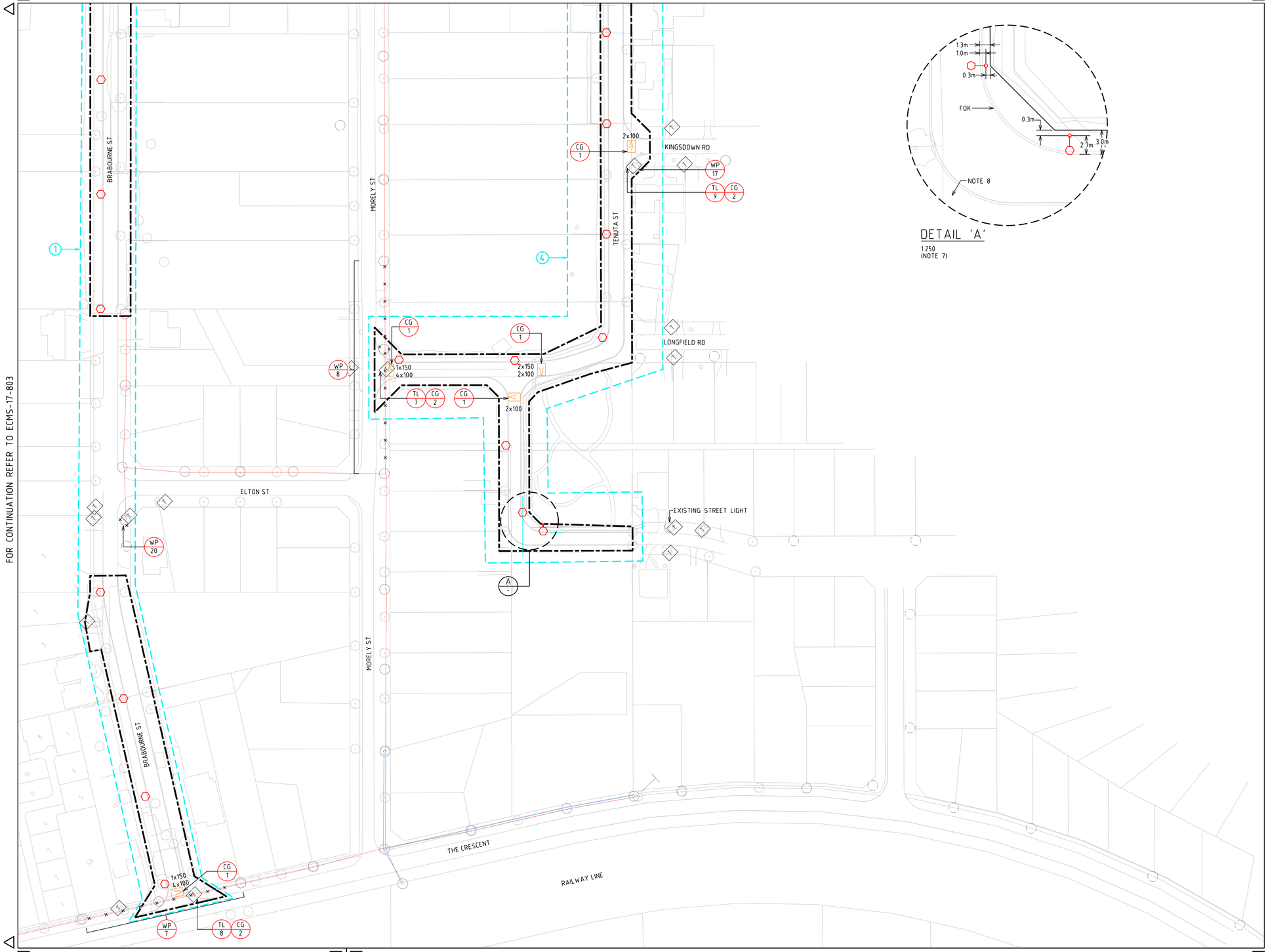
S ASMUS DATE

K:\8036\XREF\A1-TITLE_CONSULTANT.DWG 28-Feb-17 3:45:38 PM

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

FOR CONTINUATION REFER TO ECMN-17-802

FOR CONTINUATION REFER TO ECMS-17-803



FOR CONTINUATION REFER TO ECMS-17-801

FOR CONTINUATION REFER TO ECMS-17-802

PLAN
1:1000

DETAIL 'A'
1:250
(NOTE 7)

METRES (1:1000)
50 0 50 100

PART LEGEND

- WP 1 — WESTERN POWER SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- CG 1 — CITY OF GOSNELLS SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- TL 1 — TELSTRA SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- INDICATES CENTRELINE OF TRUNCATION CORNER AND PROPERTY BOUNDARY
- DENOTES EXISTING EQUIPMENT/ CABLE/CONDUIT TO BE REMOVED
- T — DENOTES EXISTING TELSTRA PIT
- ARROW DENOTES DIRECTION TO PEG WITH WHICH DUCTS ARE TO BE ALLIGNED
- STAGING
- 10 — STAGING PRIORITY

LEGEND

SCHEME BDY.
RETAINING WALL

HV CABLES
- CN53 - 400mm2 (3X1c)
- CN49 - 240mm2 (3X1c)
- CN48 - 185mm2 (3X1c)
- CN50 - 95mm2 (3X1c)
- CN51 - 50mm2 (3X1c)
- CN51 - 50mm2 (1c)
- CN46 - 35mm2 (3X1c)
- CN47 - 35mm2 (1c)
- EXISTING HV CABLES (SIZE AND TYPE INDICATED)

LV-SL CABLES
- CN45 - 240mm2 (1x3c)
- CN44 - 185mm2 (1x3c)
- CN43 - 120mm2 (1x3c)
- CN42 - 25mm2 (1x3c)
- CN41 - 16mm2 SL (1c)
- 40 C PILOT
- EXISTING LV CABLES (SIZE AND TYPE INDICATED)

STREET LIGHTS — EXISTING
- 18w LED
- 80w MV
- 125w MV
- 70w HPS
- 150w HPS
- 250w HPS
- 70/75w MH
- 150w MH
- 250w MH

LEGEND DEFINES TYPE & WATTAGE - NOT COLOUR

PILLARS / PITS / ETC
- MINI (WORKING END)
- UNIVERSAL
- MINI
- LINK
- CABLE MARKER U/G
- UMS PIT
- UTILITIES PIT
- 100/200AMP CUTOUT
- CONDUIT / POLY PIPE

TRANSFORMER — EXISTING — SWITCHGEAR

AERIAL CONDUCTORS AND POLES
- NEW POLE (ANY TYPE AS INDICATED)
- EXISTING POLE (ANY TYPE AS INDICATED)
- HV LV — EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED)

NOTES:

1. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT CONTRACT DOCUMENTS, SPECIFICATIONS AND DRAWINGS.
2. ALL STREET LIGHTS ARE TO BE INSTALLED ON THE CENTRELINE BETWEEN EACH LOT AT NOMINALLY 2700 OUT FROM PROPERTY BOUNDARIES AND NOT LESS THAN 1000 FROM THE KERB LINE UNLESS OTHERWISE SHOWN ON THE DRAWING. POLES SHALL BE INSTALLED CLEAR OF ANY PEDESTRIAN FOOTPATHS AND RAMPS.
3. ALL CABLES TO BE INSTALLED IN CONDUIT IF OUTSIDE WESTERN POWER 0-500 ALIGNMENT.
4. LOCATIONS OF THE EXISTING CABLES, JOINTS & EQUIPMENT SHOWN ON THE DRAWING ARE INDICATIVE ONLY.
5. ROAD CROSSING CONDUITS SHALL BE INSTALLED IN ROAD RESERVE BETWEEN WESTERN STANDARD 0-500 ALIGNMENT ON BOTH SIDE OF ROAD. REFER TO DETAILS ON EMCN-17-800.
6. THE CONTRACTOR MUST COMPLY WITH WESTERN POWER RULES AND PROCEDURES INCLUDED IN THE ELECTRICAL SYSTEM SAFETY RULES (ESSR) FOR ALL WORKS ON OR NEAR WESTERN POWERS HV & LV NETWORK. THE CONTRACTOR MUST EMPLOY AUTHORISED PERSONNEL RECIPIENT/S IN CHARGE (RIC/S) WHO SHALL BE RESPONSIBLE FOR ALL PERMITS AS REQUIRED AND MANAGING ALL WORKS TO COMPLY WITH THE REQUIREMENTS OF THE ESSR.
7. LIGHT POLE NOT IN STANDARD ALIGNMENT DUE TO NARROW VERGE ON BOTH SIDES. POLE LOCATION PROPOSED N WESTERN POWER 0-0.5m ALIGNMENT, TO APPROVAL OF WESTERN POWER ON APPLICATION.
8. POLE LOCATION ON OUTSIDE OF BEND NOT PERMITTED BY CITY OF GOSNELLS FOR DRIVER SAFETY REASONS.

ALL WORKS ON EXISTING WESTERN POWER ASSETS ARE TO BE UNDERTAKEN BY WESTERN POWER

ALL WORKS IN THE VICINITY (WIV) OF EXISTING WESTERN POWER ASSETS ARE TO BE UNDETAKEN IN ACCORDANCE WITH OCCUPATIONAL SAFETY AND HEALTH (OHS), WORKSAFE AND WESTERN POWER ELECTRICAL SYSTEM SAFETY RULES (ESSR) REQUIREMENTS AS PER WORKING NEAR ELECTRICITY SECTION OF THE WESTERN POWER WEBSITE



IF WORKING IN THE VICINITY OF EXISTING OVERHEAD DISTRIBUTION OR TRANSMISSION LINES.

REFER TO "WORKSAFE" REGULATION 3.64



THE LOCATION OF EXISTING SERVICES IS APPROXIMATE ONLY. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. ALWAYS REFER TO CURRENT DBYD DRAWINGS. CONFIRM ASSET LOCATIONS ON SITE BEFORE COMMENCEMENT OF WORK.

REFER TO WORKSAFE REGULATION 3.21

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVAD SIGNATURE (ie. MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSION ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECENDENCE OVER SCALED DISTANCES.

NOTE

ALL WORKS SHALL BE IMPLIMENTED IN ACCORDANCE WITH THE CITYS SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. BUT WHERE NO DETAILS HAVE BEEN PROVIDED TO THE REQUIREMENTS OF THE PROJECT DESIGNER, ANY CONFLICTS, OMMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
G	16.04.18	FINAL ISSUE	BM	DP	KM
F	19.02.18	REVISED FOR NEW BASE PLAN	BM	DP	KM
E	30.11.17	ISSUED FOR 100% DESIGN	BM	DP	KM
D	02.10.17	ISSUED FOR 85% DESIGN	BM	DP	KM
C	08.09.17	ISSUED FOR QS	BM	DP	KM
B	12.05.17	EXISTING ROAD LIGHTING REMOVED	BM	DP	KM
A	17.03.17	ISSUED FOR 15% DESIGN	TH	DP	KM

ETC REF: 8036
Engineering Technology Consultants / ETC
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500

DESIGN	DATE	SCALE HORIZ VERT
DP	FEB 2017	
DRAWN BM		DATUM
CHECKED KM		GRID SYSTEM
SURVEY		JOB NUMBER

CITY OF GOSNELLS
TECHNICAL SERVICES
2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

PROJECT
CENTRAL MADDINGTON ODP

DRAWING TITLE
WESTERN POWER, TELSTRA & STREET LIGHTING
SHEET 4 OF 8

PLAN No ECMN-17-804 REV G

PRELIMINARY A1

CHIEF ENGINEER TECHNICAL SERVICES

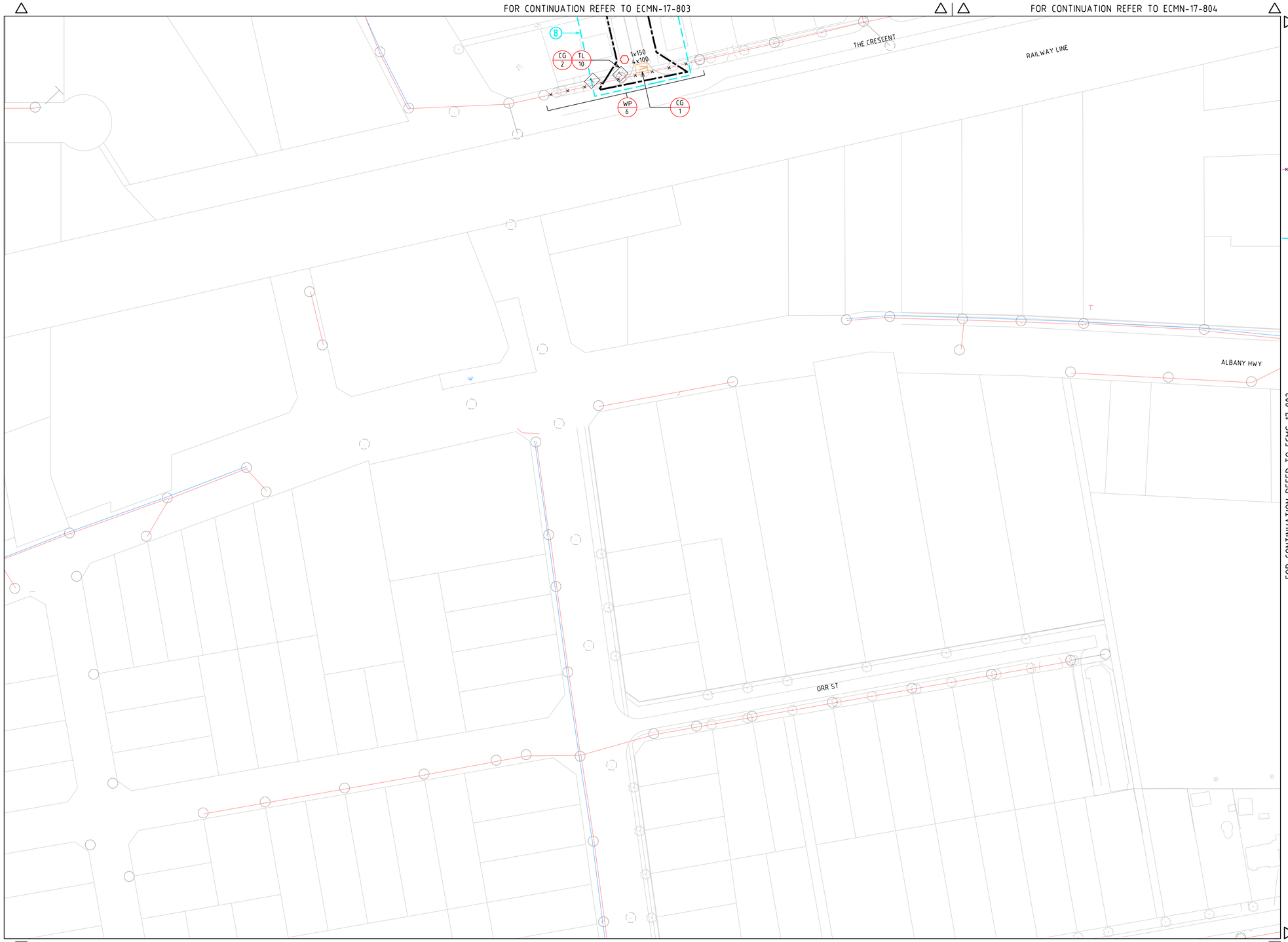
S ASMUS DATE

28-Feb-17 3:45:38 PM K:\8036\XREF\A1-TITLE_CONSULTANT.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

FOR CONTINUATION REFER TO ECMN-17-803

FOR CONTINUATION REFER TO ECMN-17-804



FOR CONTINUATION REFER TO ECMS-17-802

FOR CONTINUATION REFER TO ECMS-17-803

PLAN
1:1000

METRES (1:1000)
50 0 50 100

PART LEGEND

- WP 1 — WESTERN POWER SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- CG 1 — CITY OF GOSNELLS SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- TL 1 — TELSTRA SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- ℄ — INDICATES CENTRELINE OF TRUNCATION CORNER AND PROPERTY BOUNDARY
- DENOTES EXISTING EQUIPMENT/ CABLE/CONDUIT TO BE REMOVED
- T — DENOTES EXISTING TELSTRA PIT
- ARROW DENOTES DIRECTION TO PEG WITH WHICH DUCTS ARE TO BE ALLIGNED
- STAGING
- 10 — STAGING PRIORITY

LEGEND

SCHEME BDY.
RETAINING WALL

HV CABLES
- CN53 - 400mm2 (3X1c)
- CN49 - 240mm2 (3X1c)
- CN48 - 185mm2 (3X1c)
- CN50 - 95mm2 (3X1c)
- CN51 - 50mm2 (3c)
- CN51 - 50mm2 (1c)
- CN46 - 35mm2 (3X1c)
- CN47 - 35mm2 (1c)
- EXISTING HV CABLES (SIZE AND TYPE INDICATED)

LV-SL CABLES
- CN45 - 240mm2 (1x3c)
- CN44 - 185mm2 (1x3c)
- CN43 - 120mm2 (1x3c)
- CN42 - 25mm2 (1x3c)
- CN41 - 16mm2 SL (1c)
- 40 C PILOT
- EXISTING LV CABLES (SIZE AND TYPE INDICATED)

STREET LIGHTS — EXISTING
- 80w MV
- 125w MV
- 70w HPS
- 18w LED
- 250w HPS
- 70/75w MH
- 150w MH
- 250w MH

LEGEND DEFINES TYPE & WATTAGE - NOT COLOUR

PILLARS / PITS / ETC
- MINI (WORKING END)
- UNIVERSAL
- MINI
- LINK
- CABLE MARKER U/G
- UMS PIT
- UTILITIES PIT
- 100/200AMP CUTOUT
- CONDUIT / POLY PIPE

TRANSFORMER — EXISTING — SWITCHGEAR

AERIAL CONDUCTORS AND POLES
- NEW POLE (ANY TYPE AS INDICATED)
- EXISTING POLE (ANY TYPE AS INDICATED)
- HV LV — EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED)

NOTES:

1. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT CONTRACT DOCUMENTS, SPECIFICATIONS AND DRAWINGS.
2. ALL STREET LIGHTS ARE TO BE INSTALLED ON THE CENTRELINE BETWEEN EACH LOT AT NOMINALLY 2700 OUT FROM PROPERTY BOUNDARIES AND NOT LESS THAN 1000 FROM THE KERB LINE UNLESS OTHERWISE SHOWN ON THE DRAWING. POLES SHALL BE INSTALLED CLEAR OF ANY PEDESTRIAN FOOTPATHS AND RAMPS.
3. ALL CABLES TO BE INSTALLED IN CONDUIT IF OUTSIDE WESTERN POWER 0-500 ALIGNMENT.
4. LOCATIONS OF THE EXISTING CABLES, JOINTS & EQUIPMENT SHOWN ON THE DRAWING ARE INDICATIVE ONLY.
5. ROAD CROSSING CONDUITS SHALL BE INSTALLED IN ROAD RESERVE BETWEEN WESTERN STANDARD 0-500 ALIGNMENT ON BOTH SIDE OF ROAD. REFER TO DETAILS ON EMCN-17-800.
6. THE CONTRACTOR MUST COMPLY WITH WESTERN POWER RULES AND PROCEDURES INCLUDED IN THE ELECTRICAL SYSTEM SAFETY RULES (ESSR) FOR ALL WORKS ON OR NEAR WESTERN POWERS HV & LV NETWORK. THE CONTRACTOR MUST EMPLOY AUTHORISED PERSONNEL RECIPIENT/S IN CHARGE (RIC/S) WHO SHALL BE RESPONSIBLE FOR ALL PERMITS AS REQUIRED AND MANAGING ALL WORKS TO COMPLY WITH THE REQUIREMENTS OF THE ESSR.

ALL WORKS ON EXISTING WESTERN POWER ASSETS ARE TO BE UNDERTAKEN BY WESTERN POWER

ALL WORKS IN THE VICINITY (WIV) OF EXISTING WESTERN POWER ASSETS ARE TO BE UNDETAKEN IN ACCORDANCE WITH OCCUPATIONAL SAFETY AND HEALTH (OHS), WORKSAFE AND WESTERN POWER ELECTRICAL SYSTEM SAFETY RULES (ESSR) REQUIREMENTS AS PER WORKING NEAR ELECTRICITY SECTION OF THE WESTERN POWER WEBSITE



IF WORKING IN THE VICINITY OF EXISTING OVERHEAD DISTRIBUTION OR TRANSMISSION LINES.

REFER TO "WORKSAFE" REGULATION 3.64



THE LOCATION OF EXISTING SERVICES IS APPROXIMATE ONLY. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. ALWAYS REFER TO CURRENT DBYD DRAWINGS. CONFIRM ASSET LOCATIONS ON SITE BEFORE COMMENCEMENT OF WORK.

REFER TO WORKSAFE REGULATION 3.21

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVAD SIGNATURE (ie. MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSION ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECENDENCE OVER SCALED DISTANCES.

NOTE

ALL WORKS SHALL BE IMPLIMENTED IN ACCORDANCE WITH THE CITYS SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSTRY BEST PRACTICE. BUT WHERE NO DETAILS HAVE BEEN PROVIDED TO THE REQUIREMENTS OF THE PROJECT DESIGNER. ANY CONFLICTS, OMMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
G	12.04.18	FINAL ISSUE	BM	DP	KM
F	19.02.18	REVISED FOR NEW BASE PLAN	BM	DP	KM
E	30.11.17	ISSUED FOR 100% DESIGN	BM	DP	KM
D	02.10.17	ISSUED FOR 85% DESIGN	BM	DP	KM
C	08.09.17	ISSUED FOR QS	BM	DP	KM
B	12.05.17	EXISTING ROAD LIGHTING REMOVED	BM	DP	KM
A	17.03.17	ISSUED FOR 15% DESIGN	TH	DP	KM

ETC REF: 8036
Engineering Technology Consultants / ETC
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500

DESIGN	DATE	SCALE HORIZ VERT
DP	FEB 2017	
DRAWN BM		DATUM
CHECKED KM		GRID SYSTEM
SURVEY		JOB NUMBER

CITY OF GOSNELLS
TECHNICAL SERVICES
2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

PROJECT
CENTRAL MADDINGTON ODP

DRAWING TITLE
WESTERN POWER, TELSTRA & STREET LIGHTING
SHEET 5 OF 8

PLAN No ECMS-17-801 — REV G

PRELIMINARY — A1

CHIEF ENGINEER TECHNICAL SERVICES

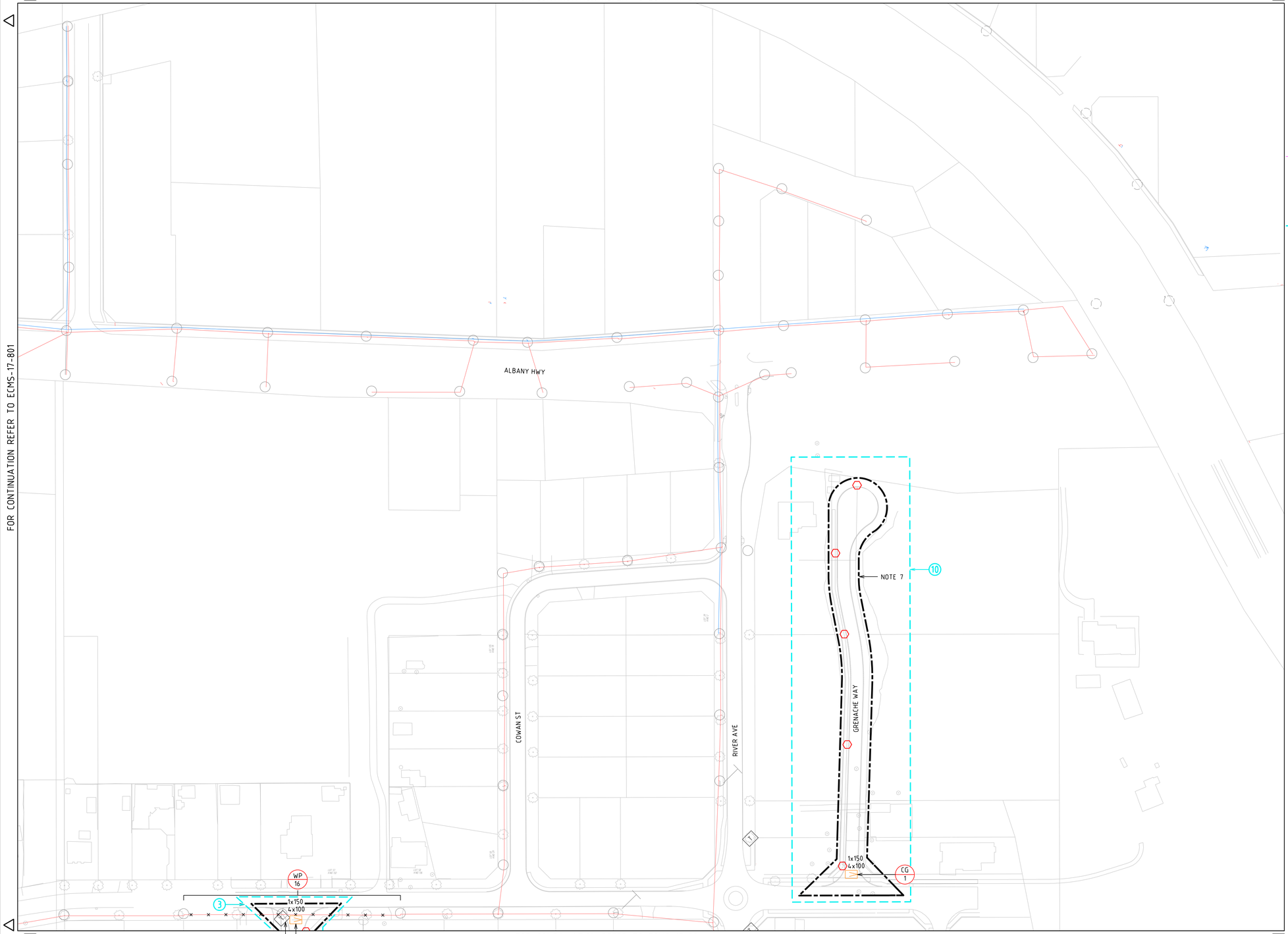
S.ASMUS — DATE

28-Feb-17 3:45:38 PM K:\8036\XREFS\A1-TITLE_CONSULTANT.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

FOR CONTINUATION REFER TO ECMN-17-804

FOR CONTINUATION REFER TO ECMS-17-801



FOR CONTINUATION REFER TO ECMS-17-804

PLAN
1:1000

METRES (1:1000)
50 0 50 100

PART LEGEND

- WP 1 — WESTERN POWER SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- CG 1 — CITY OF GOSNELLS SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- TL 1 — TELSTRA SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- ℄ — INDICATES CENTRELINE OF TRUNCATION CORNER AND PROPERTY BOUNDARY
- DENOTES EXISTING EQUIPMENT/ CABLE/CONDUIT TO BE REMOVED
- T — DENOTES EXISTING TELSTRA PIT
- ARROW DENOTES DIRECTION TO PEG WITH WHICH DUCTS ARE TO BE ALLIGNED
- STAGING
- 10 — STAGING PRIORITY

LEGEND

SCHEME BDY.
RETAINING WALL

HV CABLES
- CN53 - 400mm2 (3X1c)
- CN49 - 240mm2 (3X1c)
- CN48 - 185mm2 (3X1c)
- CN50 - 95mm2 (3X1c)
- CN51 - 50mm2 (3X1c)
- CN51 - 50mm2 (1c)
- CN46 - 35mm2 (3X1c)
- CN47 - 35mm2 (1c)
- EXISTING HV CABLES (SIZE AND TYPE INDICATED)

LV-SL CABLES
- CN45 - 240mm2 (1x3c)
- CN44 - 185mm2 (1x3c)
- CN43 - 120mm2 (1x3c)
- CN42 - 25mm2 (1x3c)
- CN41 - 16mm2 SL (1c)
- 40 C PILOT
- EXISTING LV CABLES (SIZE AND TYPE INDICATED)

STREET LIGHTS — EXISTING
- 70w HPS — 70/75w MH
- 80w MV — 18w LED — 150w MH
- 125w MV — 250w HPS — 250w MH

LEGEND DEFINES TYPE & WATTAGE - NOT COLOUR

PILLARS / PITS / ETC
- MINI (WORKING END) — UMS PIT
- UNIVERSAL — UTILITIES PIT
- MINI — 100/200AMP CUTOUT
- LINK — CONDUIT / POLY PIPE
- CABLE MARKER U/G

TRANSFORMER — EXISTING — SWITCHGEAR

AERIAL CONDUCTORS AND POLES
- NEW POLE (ANY TYPE AS INDICATED)
- EXISTING POLE (ANY TYPE AS INDICATED)
- HV LV — EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED)

NOTES:

1. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT CONTRACT DOCUMENTS, SPECIFICATIONS AND DRAWINGS.
2. ALL STREET LIGHTS ARE TO BE INSTALLED ON THE CENTRELINE BETWEEN EACH LOT AT NOMINALLY 2700 OUT FROM PROPERTY BOUNDARIES AND NOT LESS THAN 1000 FROM THE KERB LINE UNLESS OTHERWISE SHOWN ON THE DRAWING. POLES SHALL BE INSTALLED CLEAR OF ANY PEDESTRIAN FOOTPATHS AND RAMPS.
3. ALL CABLES TO BE INSTALLED IN CONDUIT IF OUTSIDE WESTERN POWER 0-500 ALIGNMENT.
4. LOCATIONS OF THE EXISTING CABLES, JOINTS & EQUIPMENT SHOWN ON THE DRAWING ARE INDICATIVE ONLY.
5. ROAD CROSSING CONDUITS SHALL BE INSTALLED IN ROAD RESERVE BETWEEN WESTERN STANDARD 0-500 ALIGNMENT ON BOTH SIDE OF ROAD. REFER TO DETAILS ON EMCN-17-800.
6. THE CONTRACTOR MUST COMPLY WITH WESTERN POWER RULES AND PROCEDURES INCLUDED IN THE ELECTRICAL SYSTEM SAFETY RULES (ESSR) FOR ALL WORKS ON OR NEAR WESTERN POWERS HV & LV NETWORK. THE CONTRACTOR MUST EMPLOY AUTHORISED PERSONNEL RECIPIENT/S IN CHARGE (RIC/S) WHO SHALL BE RESPONSIBLE FOR ALL PERMITS AS REQUIRED AND MANAGING ALL WORKS TO COMPLY WITH THE REQUIREMENTS OF THE ESSR.
7. LIGHT POLES IN GRENACHE WAY IN NON-STANDARD ALIGNMENT DUE TO NARROW VERGES. EXACT ALIGNMENT TO BE CONFIRMED AND APPROVED BY WESTERN POWER FOLLOWING APPLICATION.

ALL WORKS ON EXISTING WESTERN POWER ASSETS ARE TO BE UNDERTAKEN BY WESTERN POWER

ALL WORKS IN THE VICINITY (WIV) OF EXISTING WESTERN POWER ASSETS ARE TO BE UNDETAKEN IN ACCORDANCE WITH OCCUPATIONAL SAFETY AND HEALTH (OHS), WORKSAFE AND WESTERN POWER ELECTRICAL SYSTEM SAFETY RULES (ESSR) REQUIREMENTS AS PER WORKING NEAR ELECTRICITY SECTION OF THE WESTERN POWER WEBSITE



IF WORKING IN THE VICINITY OF EXISTING OVERHEAD DISTRIBUTION OR TRANSMISSION LINES.

REFER TO "WORKSAFE" REGULATION 3.64



THE LOCATION OF EXISTING SERVICES IS APPROXIMATE ONLY. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. ALWAYS REFER TO CURRENT DBYD DRAWINGS. CONFIRM ASSET LOCATIONS ON SITE BEFORE COMMENCEMENT OF WORK.

REFER TO WORKSAFE REGULATION 3.21

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVAD SIGNATURE (ie. MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSION ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECENDENCE OVER SCALED DISTANCES.

NOTE

ALL WORKS SHALL BE IMPLIMENTED IN ACCORDANCE WITH THE CITYS SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSRTY BEST PRACTICE. BUT WHERE NO DETAILS HAVE BEEN PROVIDED TO THE REQUIREMENTS OF THE PROJECT DESIGNER. ANY CONFLICTS, OMMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
G	12.04.18	FINAL ISSUE	BM	DP	KM
F	19.02.18	REVISED FOR NEW BASE PLAN	BM	DP	KM
E	30.11.17	ISSUED FOR 100% DESIGN	BM	DP	KM
D	02.10.17	ISSUED FOR 85% DESIGN	BM	DP	KM
C	08.09.17	ISSUED FOR QS	BM	DP	KM
B	12.05.17	EXISTING ROAD LIGHTING REMOVED	BM	DP	KM
A	17.03.17	ISSUED FOR 15% DESIGN	TH	DP	KM

ETC REF: 8036
Engineering Technology Consultants / ETC
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500

DESIGN	DATE	SCALE HORIZ VERT
DP	FEB 2017	
DRAWN BM		DATUM
CHECKED KM		GRID SYSTEM
SURVEY		JOB NUMBER

CITY OF GOSNELLS
TECHNICAL SERVICES
2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

PROJECT
CENTRAL MADDINGTON ODP

DRAWING TITLE
WESTERN POWER, TELSTRA & STREET LIGHTING
SHEET 6 OF 8

PLAN No	PLAN No	REV
ECMS-17-802		G
PRELIMINARY		A1

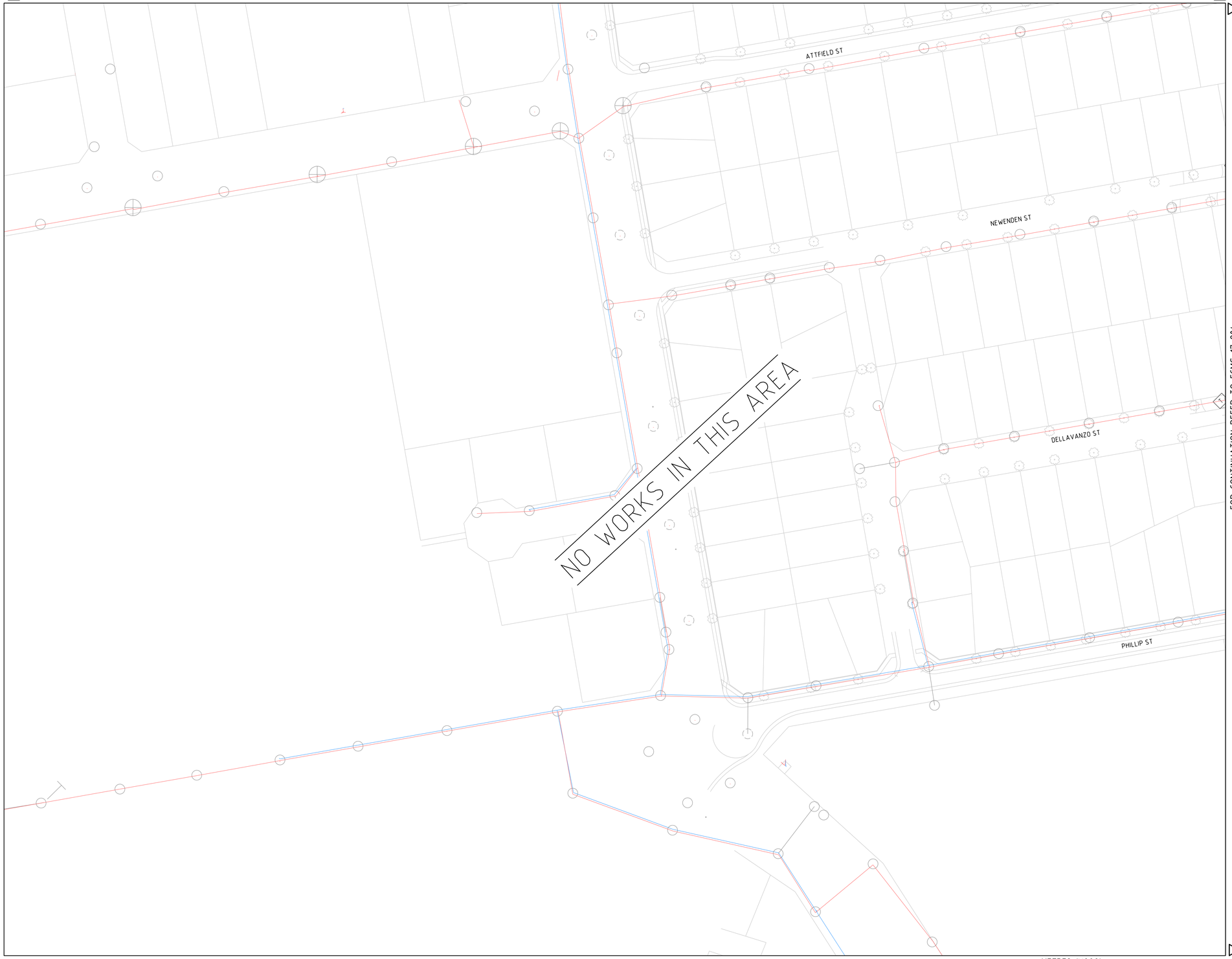
CHIEF ENGINEER TECHNICAL SERVICES

S.ASMUS DATE

K:\8036\XREF\AT-TITLE_CONSULTANT.DWG
28-Feb-17 3:45:38 PM

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

FOR CONTINUATION REFER TO ECMS-17-801



PLAN
1:1000

FOR CONTINUATION REFER TO ECMS-17-804

PART LEGEND

- WP 1 — WESTERN POWER SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- CG 1 — CITY OF GOSNELLS SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- TL 1 — TELSTRA SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- ℄ — INDICATES CENTRELINE OF TRUNCATION CORNER AND PROPERTY BOUNDARY
- DENOTES EXISTING EQUIPMENT/ CABLE/CONDUIT TO BE REMOVED
- T — DENOTES EXISTING TELSTRA PIT
- ARROW DENOTES DIRECTION TO PEG WITH WHICH DUCTS ARE TO BE ALLIGNED
- STAGING
- 10 — STAGING PRIORITY

LEGEND

SCHEME BDY.
RETAINING WALL

HV CABLES
- CN53 - 400mm2 (3X1c)
- CN49 - 240mm2 (3X1c)
- CN48 - 185mm2 (3X1c)
- CN50 - 95mm2 (3X1c)
- CN51 - 50mm2 (3c)
- CN51 - 50mm2 (1c)
- CN46 - 35mm2 (3X1c)
- CN47 - 35mm2 (1c)
- EXISTING HV CABLES (SIZE AND TYPE INDICATED)

LV-SL CABLES
- CN45 - 240mm2 (1x3c)
- CN44 - 185mm2 (1x3c)
- CN43 - 120mm2 (1x3c)
- CN42 - 25mm2 (1x3c)
- CN41 - 16mm2 SL (1c)
- 40 C PILOT
- EXISTING LV CABLES (SIZE AND TYPE INDICATED)

STREET LIGHTS — EXISTING
- 80w MV
- 125w MV
- 70w HPS
- 18w LED
- 250w HPS
- 70/75w MH
- 150w MH
- 250w MH

LEGEND DEFINES TYPE & WATTAGE - NOT COLOUR

PILLARS / PITS / ETC
- MINI (WORKING END)
- UNIVERSAL
- MINI
- LINK
- CABLE MARKER U/G
- UMS PIT
- UTILITIES PIT
- 100/200AMP CUTOUT
- CONDUIT / POLY PIPE

TRANSFORMER — EXISTING — SWITCHGEAR

AERIAL CONDUCTORS AND POLES
- NEW POLE (ANY TYPE AS INDICATED)
- EXISTING POLE (ANY TYPE AS INDICATED)
- HV LV — EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED)

NOTES:

1. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT CONTRACT DOCUMENTS, SPECIFICATIONS AND DRAWINGS.
2. ALL STREET LIGHTS ARE TO BE INSTALLED ON THE CENTRELINE BETWEEN EACH LOT AT NOMINALLY 2700 OUT FROM PROPERTY BOUNDARIES AND NOT LESS THAN 1000 FROM THE KERB LINE UNLESS OTHERWISE SHOWN ON THE DRAWING. POLES SHALL BE INSTALLED CLEAR OF ANY PEDESTRIAN FOOTPATHS AND RAMPS.
3. ALL CABLES TO BE INSTALLED IN CONDUIT IF OUTSIDE WESTERN POWER 0-500 ALIGNMENT.
4. LOCATIONS OF THE EXISTING CABLES, JOINTS & EQUIPMENT SHOWN ON THE DRAWING ARE INDICATIVE ONLY.
5. ROAD CROSSING CONDUITS SHALL BE INSTALLED IN ROAD RESERVE BETWEEN WESTERN STANDARD 0-500 ALIGNMENT ON BOTH SIDE OF ROAD. REFER TO DETAILS ON EMCN-17-800.
6. THE CONTRACTOR MUST COMPLY WITH WESTERN POWER RULES AND PROCEDURES INCLUDED IN THE ELECTRICAL SYSTEM SAFETY RULES (ESSR) FOR ALL WORKS ON OR NEAR WESTERN POWERS HV & LV NETWORK. THE CONTRACTOR MUST EMPLOY AUTHORISED PERSONNEL RECIPIENT/S IN CHARGE (RIC/S) WHO SHALL BE RESPONSIBLE FOR ALL PERMITS AS REQUIRED AND MANAGING ALL WORKS TO COMPLY WITH THE REQUIREMENTS OF THE ESSR.

ALL WORKS ON EXISTING WESTERN POWER ASSETS ARE TO BE UNDERTAKEN BY WESTERN POWER

ALL WORKS IN THE VICINITY (WIV) OF EXISTING WESTERN POWER ASSETS ARE TO BE UNDETAKEN IN ACCORDANCE WITH OCCUPATIONAL SAFETY AND HEALTH (OHS), WORKSAFE AND WESTERN POWER ELECTRICAL SYSTEM SAFETY RULES (ESSR) REQUIREMENTS AS PER WORKING NEAR ELECTRICITY SECTION OF THE WESTERN POWER WEBSITE



IF WORKING IN THE VICINITY OF EXISTING OVERHEAD DISTRIBUTION OR TRANSMISSION LINES.

REFER TO "WORKSAFE" REGULATION 3.64



THE LOCATION OF EXISTING SERVICES IS APPROXIMATE ONLY. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. ALWAYS REFER TO CURRENT DBYD DRAWINGS. CONFIRM ASSET LOCATIONS ON SITE BEFORE COMMENCEMENT OF WORK.

REFER TO WORKSAFE REGULATION 3.21



GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVAD SIGNATURE (ie. MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSION ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECENDENCE OVER SCALED DISTANCES.

NOTE

ALL WORKS SHALL BE IMPLIMENTED IN ACCORDANCE WITH THE CITYS SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSRTY BEST PRACTICE. BUT WHERE NO DETAILS HAVE BEEN PROVIDED TO THE REQUIREMENTS OF THE PROJECT DESIGNER, ANY CONFLICTS, OMMSSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
G	12.04.18	FINAL ISSUE	BM	DP	KM
F	19.02.18	REVISED FOR NEW BASE PLAN	BM	DP	KM
E	30.11.17	ISSUED FOR 100% DESIGN	BM	DP	KM
D	02.10.17	ISSUED FOR 85% DESIGN	BM	DP	KM
C	08.09.17	ISSUED FOR QS	BM	DP	KM
B	12.05.17	EXISTING ROAD LIGHTING REMOVED	BM	DP	KM
A	17.03.17	ISSUED FOR 15% DESIGN	TH	DP	KM

ETC
Engineering Technology Consultants ETC
ETC REF: 8036
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500

DESIGN DP	DATE FEB 2017	SCALE HORIZ VERT
DRAWN BM		DATUM
CHECKED KM		GRID SYSTEM
SURVEY		JOB NUMBER

CITY OF GOSNELLS
TECHNICAL SERVICES
2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

PROJECT
CENTRAL MADDINGTON ODP

DRAWING TITLE
WESTERN POWER, TELSTRA & STREET LIGHTING
SHEET 7 OF 8

PLAN No ECMS-17-803 — REV G

PRELIMINARY — A1

CHIEF ENGINEER TECHNICAL SERVICES

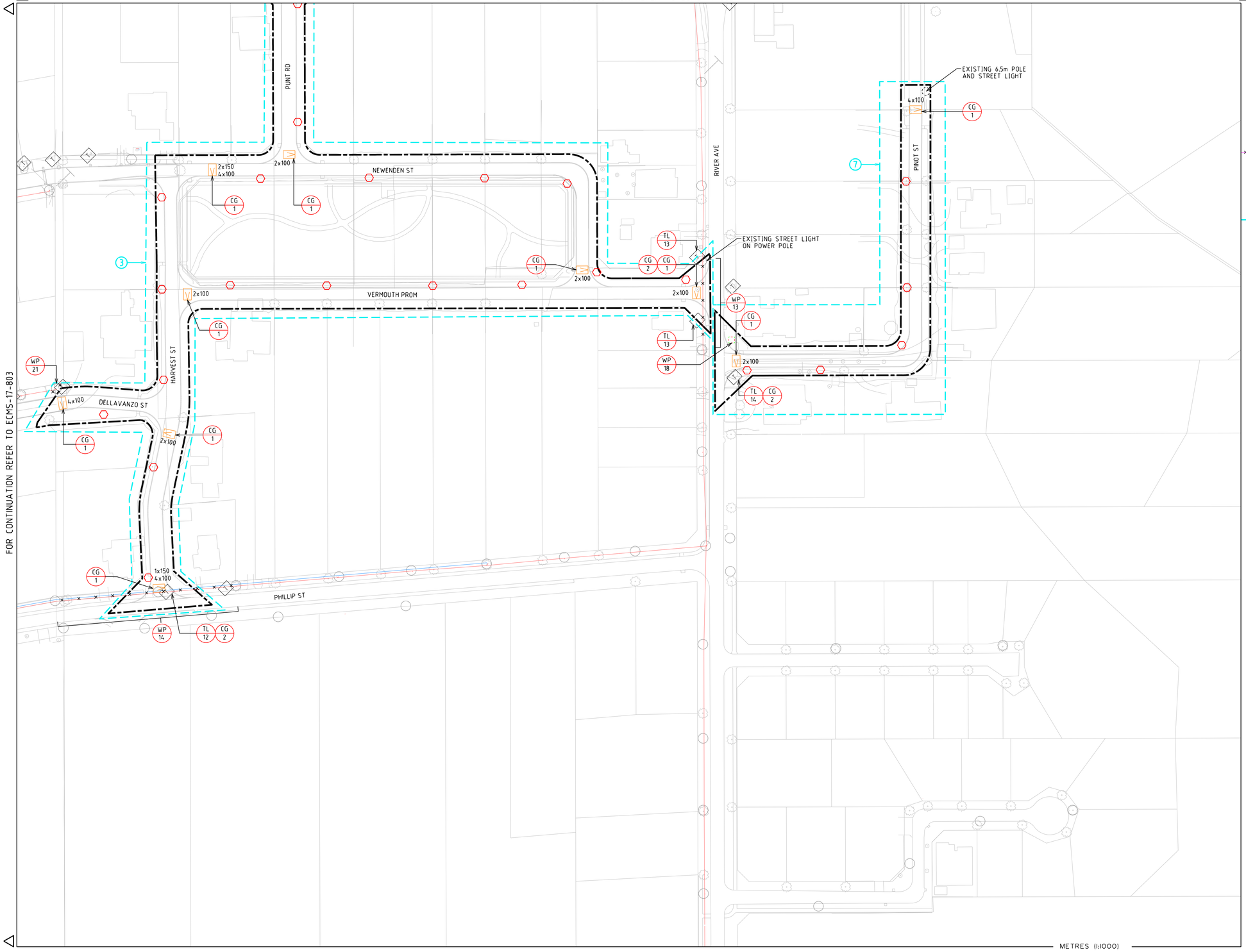
S.ASMUS — DATE

28-Feb-17 3:45:38 PM K:\18036\XREFs\A1-TITLE_CONSULTANT.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

FOR CONTINUATION REFER TO ECMS-17-802

FOR CONTINUATION REFER TO ECMS-17-803



PLAN
1:1000

METRES (1:1000)
50 0 50 100

PART LEGEND

- WP 1 — WESTERN POWER SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- CG 1 — CITY OF GOSNELLS SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- TL 1 — TELSTRA SCOPE OF WORKS REFERENCE REFER TO DWG ECMN-17-800
- INDICATES CENTRELINE OF TRUNCATION CORNER AND PROPERTY BOUNDARY
- DENOTES EXISTING EQUIPMENT/ CABLE/CONDUIT TO BE REMOVED
- T — DENOTES EXISTING TELSTRA PIT
- ARROW DENOTES DIRECTION TO PEG WITH WHICH DUCTS ARE TO BE ALLIGNED
- STAGING
- 10 — STAGING PRIORITY

LEGEND

SCHEME BDY.
RETAINING WALL

HV CABLES
- CN53 - 400mm2 (3X1c)
- CN49 - 240mm2 (3X1c)
- CN48 - 185mm2 (3X1c)
- CN50 - 95mm2 (3X1c)
- CN51 - 50mm2 (3c)
- CN51 - 50mm2 (1c)
- CN46 - 35mm2 (3X1c)
- CN47 - 35mm2 (1c)
- EXISTING HV CABLES (SIZE AND TYPE INDICATED)

LV-SL CABLES
- CN45 - 240mm2 (1x3c)
- CN44 - 185mm2 (1x3c)
- CN43 - 120mm2 (1x3c)
- CN42 - 25mm2 (1x3c)
- CN41 - 16mm2 SL (1c)
- 40 C PILOT
- EXISTING LV CABLES (SIZE AND TYPE INDICATED)

STREET LIGHTS — EXISTING
- 80w MV
- 125w MV
- 70w HPS
- 18w LED
- 250w HPS
- 70/75w MH
- 150w MH
- 250w MH

LEGEND DEFINES TYPE & WATTAGE - NOT COLOUR

PILLARS / PITS / ETC
- MINI (WORKING END)
- UNIVERSAL
- MINI
- LINK
- CABLE MARKER U/G
- UMS PIT
- UTILITIES PIT
- 100/200AMP CUTOUT
- CONDUIT / POLY PIPE

TRANSFORMER — EXISTING — SWITCHGEAR

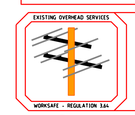
AERIAL CONDUCTORS AND POLES
- NEW POLE (ANY TYPE AS INDICATED)
- EXISTING POLE (ANY TYPE AS INDICATED)
- HV LV — EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED)

NOTES

1. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT CONTRACT DOCUMENTS, SPECIFICATIONS AND DRAWINGS.
2. ALL STREET LIGHTS ARE TO BE INSTALLED ON THE CENTRELINE BETWEEN EACH LOT AT NOMINALLY 2700 OUT FROM PROPERTY BOUNDARIES AND NOT LESS THAN 1000 FROM THE KERB LINE UNLESS OTHERWISE SHOWN ON THE DRAWING. POLES SHALL BE INSTALLED CLEAR OF ANY PEDESTRIAN FOOTPATHS AND RAMPS.
3. ALL CABLES TO BE INSTALLED IN CONDUIT IF OUTSIDE WESTERN POWER 0-500 ALIGNMENT.
4. LOCATIONS OF THE EXISTING CABLES, JOINTS & EQUIPMENT SHOWN ON THE DRAWING ARE INDICATIVE ONLY.
5. ROAD CROSSING CONDUITS SHALL BE INSTALLED IN ROAD RESERVE BETWEEN WESTERN STANDARD 0-500 ALIGNMENT ON BOTH SIDE OF ROAD. REFER TO DETAILS ON EMCN-17-800.
6. THE CONTRACTOR MUST COMPLY WITH WESTERN POWER RULES AND PROCEDURES INCLUDED IN THE ELECTRICAL SYSTEM SAFETY RULES (ESSR) FOR ALL WORKS ON OR NEAR WESTERN POWERS HV & LV NETWORK. THE CONTRACTOR MUST EMPLOY AUTHORISED PERSONNEL RECIPIENT/S IN CHARGE (RIC/S) WHO SHALL BE RESPONSIBLE FOR ALL PERMITS AS REQUIRED AND MANAGING ALL WORKS TO COMPLY WITH THE REQUIREMENTS OF THE ESSR.

ALL WORKS ON EXISTING WESTERN POWER ASSETS ARE TO BE UNDERTAKEN BY WESTERN POWER

ALL WORKS IN THE VICINITY (WIV) OF EXISTING WESTERN POWER ASSETS ARE TO BE UNDETAKEN IN ACCORDANCE WITH OCCUPATIONAL SAFETY AND HEALTH (OHS), WORKSAFE AND WESTERN POWER ELECTRICAL SYSTEM SAFETY RULES (ESSR) REQUIREMENTS AS PER WORKING NEAR ELECTRICITY SECTION OF THE WESTERN POWER WEBSITE



IF WORKING IN THE VICINITY OF EXISTING OVERHEAD DISTRIBUTION OR TRANSMISSION LINES.

REFER TO "WORKSAFE" REGULATION 3.64



THE LOCATION OF EXISTING SERVICES IS APPROXIMATE ONLY. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. ALWAYS REFER TO CURRENT DBYD DRAWINGS. CONFIRM ASSET LOCATIONS ON SITE BEFORE COMMENCEMENT OF WORK.

REFER TO WORKSAFE REGULATION 3.21

GENERAL NOTES

1. THIS DRAWING ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION.
2. IN THE ABSENCE OF THE APPROVAD SIGNATURE (ie, MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY.
3. ALL DIMENSION ARE IN METERS UNLESS NOTED OTHERWISE.
4. ANNOTATED DIMENSIONS SHALL ALWAYS TAKE PRECENDENCE OVER SCALED DISTANCES.

NOTE

ALL WORKS SHALL BE IMPLIMENTED IN ACCORDANCE WITH THE CITYS SPECIFICATIONS, CONTRACTUAL CONDITIONS AND INDUSRTY BEST PRACTICE. BUT WHERE NO DETAILS HAVE BEEN PROVIDED TO THE REQUIREMENTS OF THE PROJECT DESIGNER. ANY CONFLICTS, OMMISSIONS, ISSUES OR VARIATIONS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROJECT DESIGNER.

AMENDMENTS

REV	DATE	DESCRIPTION	BY	CHK'D	APP'D
G	12.04.18	FINAL ISSUE	BM	DP	KM
F	19.02.18	REVISED FOR NEW BASE PLAN	BM	DP	KM
E	30.11.17	ISSUED FOR 100% DESIGN	BM	DP	KM
D	02.10.17	ISSUED FOR 85% DESIGN	BM	DP	KM
C	08.09.17	ISSUED FOR QS	BM	DP	KM
B	12.05.17	EXISTING ROAD LIGHTING REMOVED	BM	DP	KM
A	17.03.17	ISSUED FOR 15% DESIGN	TH	DP	KM

ETC
Engineering Technology Consultants ETC
ETC REF: 8036
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500

DESIGN DP	DATE FEB 2017	SCALE HORIZ VERT
DRAWN BM		DATUM
CHECKED KM		GRID SYSTEM
SURVEY		JOB NUMBER

CITY OF GOSNELLS
TECHNICAL SERVICES
2120 Albany Highway Gosnells 6110
PO Box 662 Gosnells 6990
Western Australia
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

PROJECT
CENTRAL MADDINGTON ODP

DRAWING TITLE
WESTERN POWER, TELSTRA & STREET LIGHTING
SHEET 8 OF 8

PLAN No ECMS-17-804 REV G

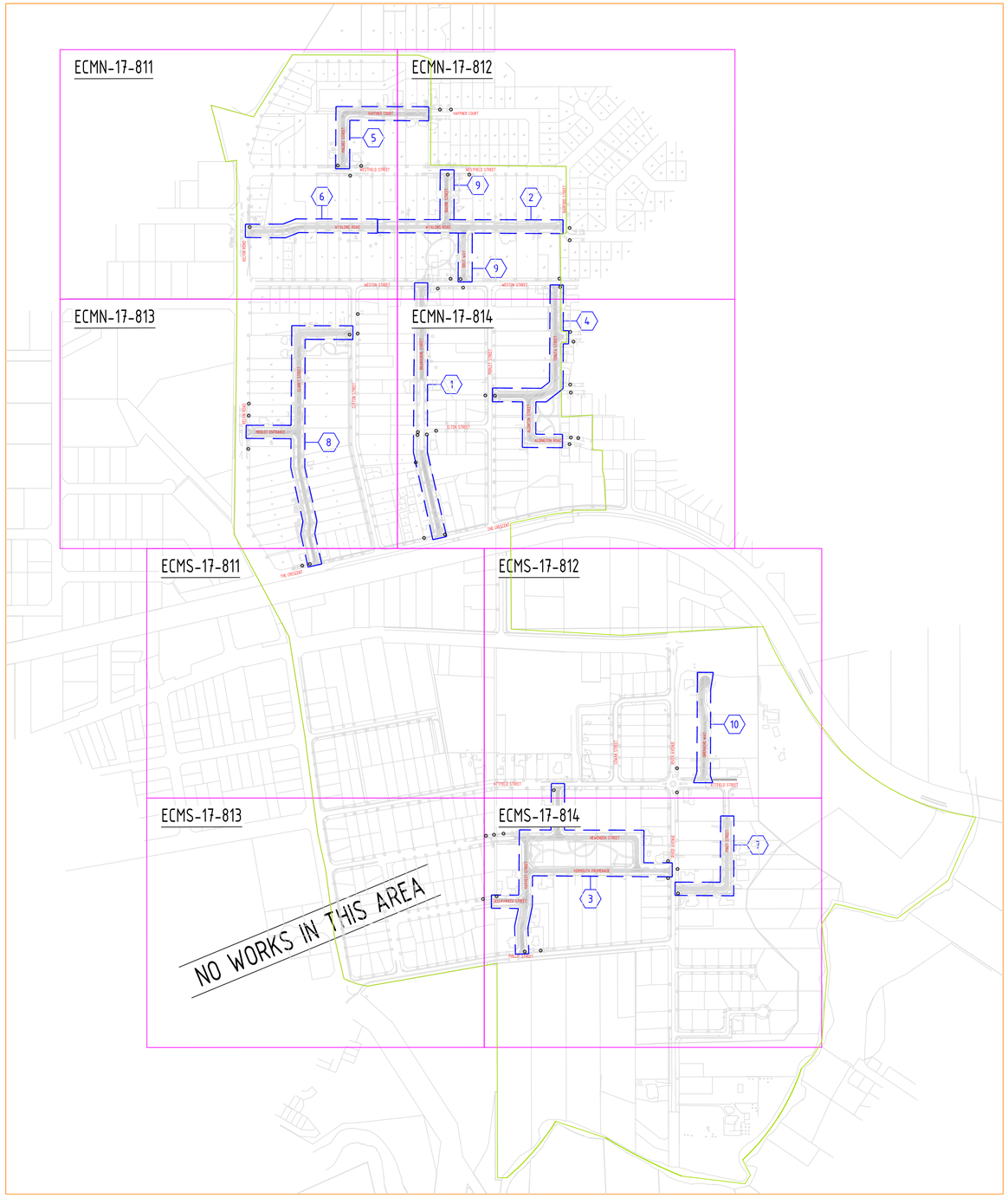
PRELIMINARY A1

CHIEF ENGINEER TECHNICAL SERVICES

S ASMUS DATE

28-Feb-17 3:45:38 PM K:\8036\XREFS\A1-TITLE_CONSULTANT.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

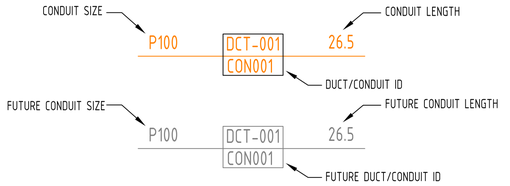


CONDUIT CONFIGURATION

CONDUITS AND DUCTS ARE IN LAYER :
< L460 NBN Support - Underground >
AND TERMINOLOGY CATEGORIZED INTO TWO GROUPS IN THE DRAWING AS PER BELOW:

1- DUCT — USED WITH LOCAL NETWORK
2-CONDUIT — USED WITH LEAD-IN DROPS

ATTRIBUTES ATTACHED TO CONDUITS ARE AS SHOWN



LEGEND

- PWR — TRANSFORMER / KIOSK / PAD MOUNT SUB-STATION / POLE MOUNT TRANSFORMER
- TRL — TRANSMISSION LINE PYLON/TOWER >66KV
- PIT-ID 2 — SERVICE DROP ACCESS PIT 650mmX280mmX565mm
- PIT-ID 5 — NETWORK BOUNDARY/LOCAL NETWORK PIT 700mmX450mmX650mm
- PIT-ID 8 — DISTRIBUTION/LOCAL NETWORK CONNECTION PIT 1360mmX555mmX860mm
- PIT-ID 9 — FIBRE DISTRIBUTION HUB (FDH) PIT 2000mmX555mmX900mm
- FDH-ID — FIBRE DISTRIBUTION HUB-FDH CABINET
- EXISTING TELSTRA MANHOLE
- (5) — EXISTING TELSTRA PIT (2,3,4,5,6,7,8,9) T - DENOTES UNKNOWN TYPE
- DEVELOPMENT BOUNDARY
- STAGING BOUNDARY
- (2) — DENOTES STAGING PRIORITY

BILL OF MATERIAL

NO OF LOTS: 0

PITS		DUCTS		
SIZE	QTY	SIZE	QTY	MTRS
2	23	P100	151	6184.4
5	32	P50	17	300
6	0	P23	2	65.6
8	51			
9	0			

TOTAL NUMBER OF PITS: 106
TOTAL NUMBER OF MANHOLES: 0
TOTAL NUMBER OF CONDUITS: 170
TOTAL LENGTH OF CONDUITS: 6550

Development Information

Development Name:
MADDINGTON ODP

Developer Company:
CITY OF GOSNELLS

Development Adress:
MADDINGTON

Authorised Rep:
D.PHELPS
Phone: (08) 9328 5500
E-Mail: dphelps@etcpl.com.au

CRM ID:	Stage Number:
AYCA-47VTUI	1

DIAL BEFORE YOU DIG www.1100.com.au

REV	DATE	DRAFTER	DESCRIPTION	APPROVED
-				
G	12.04.18	T.HUGHES	FINAL ISSUE	D.PHELPS
F	19.02.18	T.HUGHES	REVISED 100% DESIGN	D.PHELPS
E	30.11.17	T.HUGHES	ISSUED FOR 100% DESIGN	D.PHELPS
D	17.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHELPS
C	02.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHELPS
B	08.09.17	T.HUGHES	ISSUED FOR QS	D.PHELPS
A	17.03.17	T.HUGHES	ISSUED FOR 15% DESGIN	D.PHELPS

STRICTLY CONFIDENTIAL

NBNCO APPROVAL RECORD:

	SIGNATURE	DATE
DD		
WD		
AB		

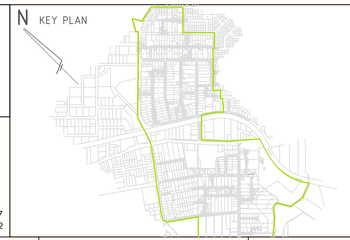
QUALITY RECORD :

NBNCO DISCLAIMER
THIS DOCUMENT HAS BEEN PREPARED SOLELY FOR THE USE OF NBNCO LIMITED (ABN 86 136 533 741) FOR USE IN MAINTAINING NBNCO FACILITIES. IT HAS NOT BEEN CREATED FOR ANY OTHER USE. IT SHOULD NOT BE SCALED TO LOCATE NBNCO ASSETS. NO WARRANTY IS GIVEN THAT THE INFORMATION IS ACCURATE OR COMPLETE.

Australia's broadband network

ETC REF: 8036
Engineering Technology Consultants etc
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500 Facsimile: (08) 9328 5522

KEY PLAN



NBN CO.

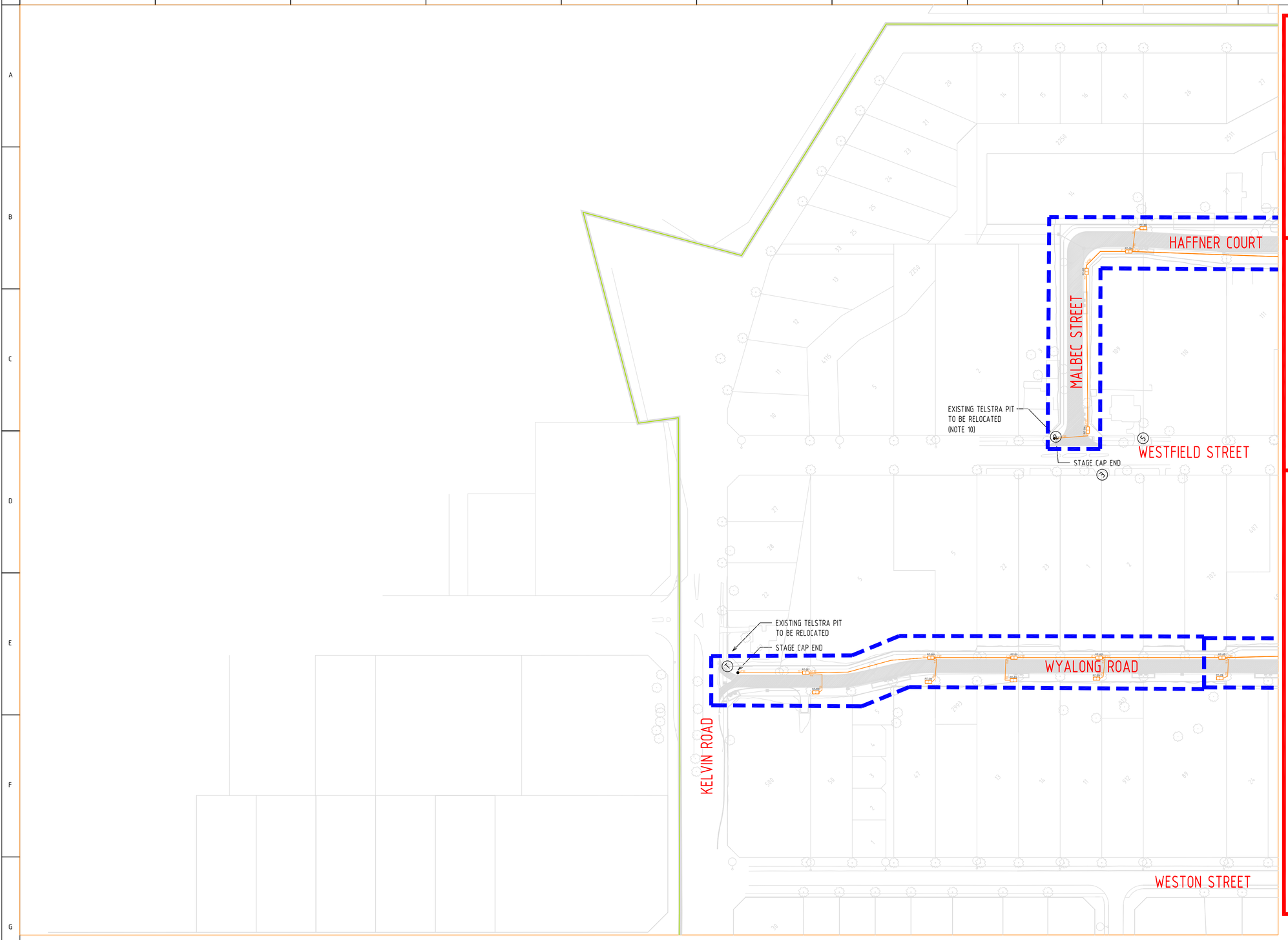
PRELIMINARY ISSUE
CURRENTLY UNDER REVISION

CITY OF GOSNELLS

DRAWING TITLE:
MADDINGTON ODP
NEW ROAD PROVISIONING
OVERVIEW

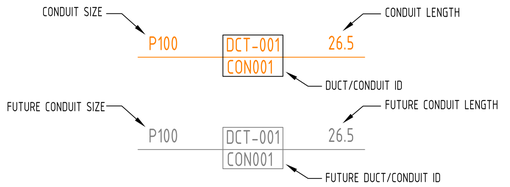
STATE: WA	REGION: MADDINGTON	
FSA:	SAM:	ADA:
PROJECT No: AYCA-47VTUI		
CADREF No: ECMN-17-810		
SCALE 1:5000 @ A1	SHEET No. 1 OF 9	REV. G

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



CONDUIT CONFIGURATION

CONDUITS AND DUCTS ARE IN LAYER :
< L460 NBN Support + Underground >
AND TERMINOLOGY CATEGORIZED INTO TWO GROUPS IN THE DRAWING AS PER BELOW:
1- DUCT — USED WITH LOCAL NETWORK
2-CONDUIT — USED WITH LEAD-IN DROPS
ATTRIBUTES ATTACHED TO CONDUITS ARE AS SHOWN



LEGEND

- PWR — TRANSFORMER / KIOSK / PAD MOUNT SUB-STATION / POLE MOUNT TRANSFORMER
- TRL — TRANSMISSION LINE PYLON/TOWER >66KV
- PIT-ID 2 — SERVICE DROP ACCESS PIT 650mmX280mmX565mm
- PIT-ID 5 — NETWORK BOUNDARY/LOCAL NETWORK PIT 700mmX450mmX650mm
- PIT-ID 8 — DISTRIBUTION/LOCAL NETWORK CONNECTION PIT 1360mmX555mmX860mm
- PIT-ID 9 — FIBRE DISTRIBUTION HUB (FDH) PIT 2000mmX555mmX900mm
- FDH-ID — FIBRE DISTRIBUTION HUB-FDH CABINET
- EXISTING TELSTRA MANHOLE
- (5) — EXISTING TELSTRA PIT (2,3,4,5,6,7,8,9) T - DENOTES UNKNOWN TYPE
- DEVELOPMENT BOUNDARY
- STAGING BOUNDARY
- (2) — DENOTES STAGING PRIORITY

NOTES:

1. DRAWINGS TO BE READ IN CONJUNCTION WITH PROJECT SPECIFICATION AND ALL CONTRACT DRAWINGS.
2. ALL COMMUNICATIONS WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH NBN Co GUIDELINES AND REQUIREMENTS INCLUDED IN NBN-TE-CTO-194 AVAILABLE ON NBN Co WEB SITE.
3. MEASUREMENTS BETWEEN PITS SHALL BE USED AS A GUIDE ONLY.
4. CONDUITS TO ENTER AND EXIT AT ENDS OF PITS ONLY. LOCATE CONDUITS AS CENTRALLY IN PIT END WALLS AS POSSIBLE. MINIMUM SEPARATION BETWEEN CONDUITS TO BE 25mm. REFER TO THE PIT END WALL DETAILS FOR ADDITIONAL REQUIREMENTS.
5. MINIMUM COVER TO BE; 300mm FOR SERVICE DROP CONDUITS, 450mm IN VERGE, 600mm UNDER LOCAL ROADS, AND 800mm UNDER MAIN ROADS.
6. CONDUITS ARE TO BE CLEANED AND PROVEN USING A MANDREL. AFTER TESTING INSTALL A SUITABLE DRAW ROPE AND CAP CONDUIT ENDS. SEAL CONDUITS AT PITS TO PREVENT ENTRY OF DUST AND MOISTURE.
7. INSTALL NON CONDUCTIVE (METAL FREE) MARKER TAPE ABOVE ALL NBNCo CONDUITS, 300m BELOW FINISHED GROUND LEVEL.
8. GRADE TOP OF PIT TO MATCH VERGE/FOOTPATH.
9. SUPPLY AND INSTALL ADDITIONAL DEVIATING CONDUIT BENDS TO ACHIEVE THE INCREASED/DECREASED BURIAL DEPTH REQUIRED TO AVOID CLASH WITH OTHER SERVICES.
10. EXISTING TELSTRA SERVICES TO BE MODIFIED AND/OR REMOVED BY TELSTRA AT TELSTRA'S DISCRETION. EXACT TELSTRA SCOPE OF WORKS TO BE DETERMINED AND ADVISED BY TELSTRA FOLLOWING APPLICATION TO TELSTRA BY CITY OF GOSNELLS AND TELSTRA SITE INSPECTION ONCE ALL NEW BOUNDARIES AND EXISTING SERVICES ARE SURVEYED AND PEGGED. REFER TELSTRA RELOCATION MINIMUM SCOPE ON DRAWING ECMN-17-800.
11. SERVICE DROP P23 CONDUITS NOT INSTALLED AS PART OF THESE ROAD PROVISIONING WORKS. THESE CONDUITS SHALL BE INSTALLED BY INDIVIDUAL DEVELOPERS TO SERVICE THEIR DEVELOPMENT.

PRELIMINARY ISSUE
CURRENTLY UNDER REVISION

CITY OF GOSNELLS

DIAL BEFORE YOU DIG www.1100.com.au

REV	DATE	DRAFTER	DESCRIPTION	APPROVED
-				
G	12.04.18	T.HUGHES	FINAL ISSUE	D.PHELPS
F	19.02.18	T.HUGHES	REVISED 100% DESIGN	D.PHELPS
E	30.11.17	T.HUGHES	ISSUED FOR 100% DESIGN	D.PHELPS
D	17.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHELPS
C	02.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHELPS
B	08.09.17	T.HUGHES	ISSUED FOR QS	D.PHELPS
A	17.03.17	T.HUGHES	ISSUED FOR 15% DESIGN	D.PHELPS

STRICTLY CONFIDENTIAL

NBNCO APPROVAL RECORD:

	SIGNATURE	DATE
☐ DD		
☐ WD		
☐ AB		

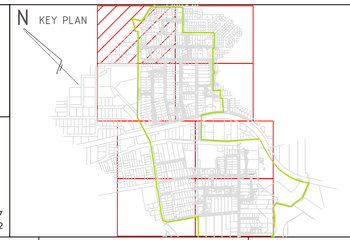
QUALITY RECORD :

NBNCO DISCLAIMER
THIS DOCUMENT HAS BEEN PREPARED SOLELY FOR THE USE OF NBNCO LIMITED (ABN 86 136 533 741) FOR USE IN MAINTAINING NBNCO FACILITIES. IT HAS NOT BEEN CREATED FOR ANY OTHER USE. IT SHOULD NOT BE SCALED TO LOCATE NBNCO ASSETS. NO WARRANTY IS GIVEN THAT THE INFORMATION IS ACCURATE OR COMPLETE.

Australia's broadband network

ETC
ETC REF: 8036
Engineering Technology Consultants / ETC
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500 Facsimile: (08) 9328 5522

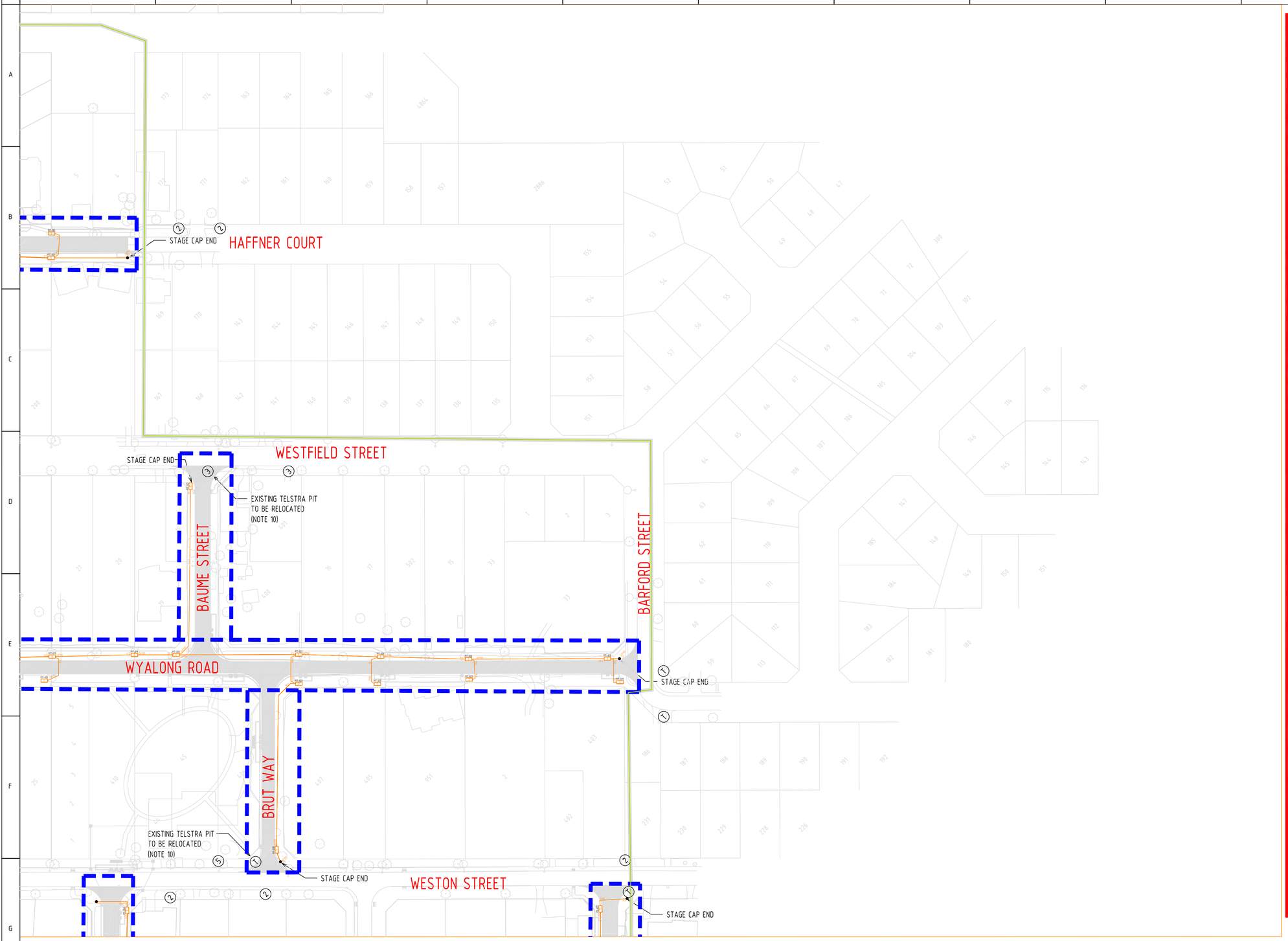
N KEY PLAN



DRAWING TITLE:
MADDINGTON ODP
NEW ROAD PROVISIONING
NBN PIT AND CONDUIT LAYOUT
SHEET 1 OF 8

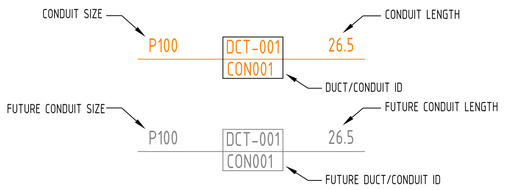
STATE: WA		REGION: MADDINGTON
FSA:	SAM:	ADA:
PROJECT No: AYCA-47VTUI		
CADREF No: ECMN-17-811		
SCALE 1:1000 @ A1	SHEET No. 2 OF 9	REV. G

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



CONDUIT CONFIGURATION

CONDUITS AND DUCTS ARE IN LAYER :
< L460 NBN Support + Underground >
AND TERMINOLOGY CATEGORIZED INTO TWO GROUPS IN THE DRAWING AS PER BELOW:
1- DUCT USED WITH LOCAL NETWORK
2-CONDUIT USED WITH LEAD-IN DROPS
ATTRIBUTES ATTACHED TO CONDUITS ARE AS SHOWN



LEGEND

- PWR — TRANSFORMER / KIOSK / PAD MOUNT SUB-STATION / POLE MOUNT TRANSFORMER
- TRL — TRANSMISSION LINE PYLON/TOWER >66KV
- PIT-ID 2 — SERVICE DROP ACCESS PIT 650mmX280mmX565mm
- PIT-ID 5 — NETWORK BOUNDARY/LOCAL NETWORK PIT 700mmX450mmX650mm
- PIT-ID 8 — DISTRIBUTION/LOCAL NETWORK CONNECTION PIT 1360mmX555mmX860mm
- PIT-ID 9 — FIBRE DISTRIBUTION HUB (FDH) PIT 2000mmX555mmX900mm
- FDH-ID — FIBRE DISTRIBUTION HUB-FDH CABINET
- EXISTING TELSTRA MANHOLE
- (5) — EXISTING TELSTRA PIT (2,3,4,5,6,7,8,9) T - DENOTES UNKNOWN TYPE
- DEVELOPMENT BOUNDARY
- STAGING BOUNDARY
- (2) — DENOTES STAGING PRIORITY

1. DRAWINGS TO BE READ IN CONJUNCTION WITH PROJECT SPECIFICATION AND ALL CONTRACT DRAWINGS.
2. ALL COMMUNICATIONS WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH NBN Co GUIDELINES AND REQUIREMENTS INCLUDED IN NBN-TE-CTO-194 AVAILABLE ON NBN Co WEB SITE.
3. MEASUREMENTS BETWEEN PITS SHALL BE USED AS A GUIDE ONLY.
4. CONDUITS TO ENTER AND EXIT AT ENDS OF PITS ONLY. LOCATE CONDUITS AS CENTRALLY IN PIT END WALLS AS POSSIBLE. MINIMUM SEPARATION BETWEEN CONDUITS TO BE 25mm. REFER TO THE PIT END WALL DETAILS FOR ADDITIONAL REQUIREMENTS.
5. MINIMUM COVER TO BE; 300mm FOR SERVICE DROP CONDUITS, 450mm IN VERGE, 600mm UNDER LOCAL ROADS, AND 800mm UNDER MAIN ROADS.
6. CONDUITS ARE TO BE CLEANED AND PROVEN USING A MANDREL. AFTER TESTING INSTALL A SUITABLE DRAW ROPE AND CAP CONDUIT ENDS. SEAL CONDUITS AT PITS TO PREVENT ENTRY OF DUST AND MOISTURE.
7. INSTALL NON CONDUCTIVE (METAL FREE) MARKER TAPE ABOVE ALL NBNCo CONDUITS, 300m BELOW FINISHED GROUND LEVEL.
8. GRADE TOP OF PIT TO MATCH VERGE/FOOTPATH.
9. SUPPLY AND INSTALL ADDITIONAL DEVIATING CONDUIT BENDS TO ACHIEVE THE INCREASED/DECREASED BURIAL DEPTH REQUIRED TO AVOID CLASH WITH OTHER SERVICES.
10. EXISTING TELSTRA SERVICES TO BE MODIFIED AND/OR REMOVED BY TELSTRA AT TELSTRA'S DISCRETION. EXACT TELSTRA SCOPE OF WORKS TO BE DETERMINED AND ADVISED BY TELSTRA FOLLOWING APPLICATION TO TELSTRA BY CITY OF GOSNELLS AND TELSTRA SITE INSPECTION ONCE ALL NEW BOUNDARIES AND EXISTING SERVICES ARE SURVEYED AND PEGGED. REFER TELSTRA RELOCATION MINIMUM SCOPE ON DRAWING ECMN-17-800.
11. SERVICE DROP P23 CONDUITS NOT INSTALLED AS PART OF THESE ROAD PROVISIONING WORKS. THESE CONDUITS SHALL BE INSTALLED BY INDIVIDUAL DEVELOPERS TO SERVICE THEIR DEVELOPMENT.

PRELIMINARY ISSUE
CURRENTLY UNDER REVISION

CITY OF GOSNELLS

DIAL BEFORE YOU DIG www.1100.com.au

REV	DATE	DRAFTER	DESCRIPTION	APPROVED
-				
G	12.04.18	T.HUGHES	FINAL ISSUE	D.PHELPS
F	19.02.18	T.HUGHES	REVISED 100% DESIGN	D.PHELPS
E	30.11.17	T.HUGHES	ISSUED FOR 100% DESIGN	D.PHELPS
D	17.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHELPS
C	02.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHELPS
B	08.09.17	T.HUGHES	ISSUED FOR QS	D.PHELPS
A	17.03.17	T.HUGHES	ISSUED FOR 15% DESIGN	D.PHELPS

STRICTLY CONFIDENTIAL

NBNCO APPROVAL RECORD:

	SIGNATURE	DATE
DD		
WD		
AB		

QUALITY RECORD :

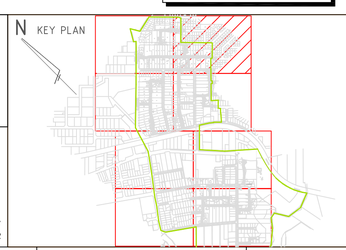
NBNCO DISCLAIMER

THIS DOCUMENT HAS BEEN PREPARED SOLELY FOR THE USE OF NBNCO LIMITED (ABN 86 136 533 741) FOR USE IN MAINTAINING NBNCO FACILITIES. IT HAS NOT BEEN CREATED FOR ANY OTHER USE. IT SHOULD NOT BE SCALED TO LOCATE NBNCO ASSETS. NO WARRANTY IS GIVEN THAT THE INFORMATION IS ACCURATE OR COMPLETE.

Australia's broadband network

ETC REF: 8036
Engineering Technology Consultants ETC
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500 Facsimile: (08) 9328 5522

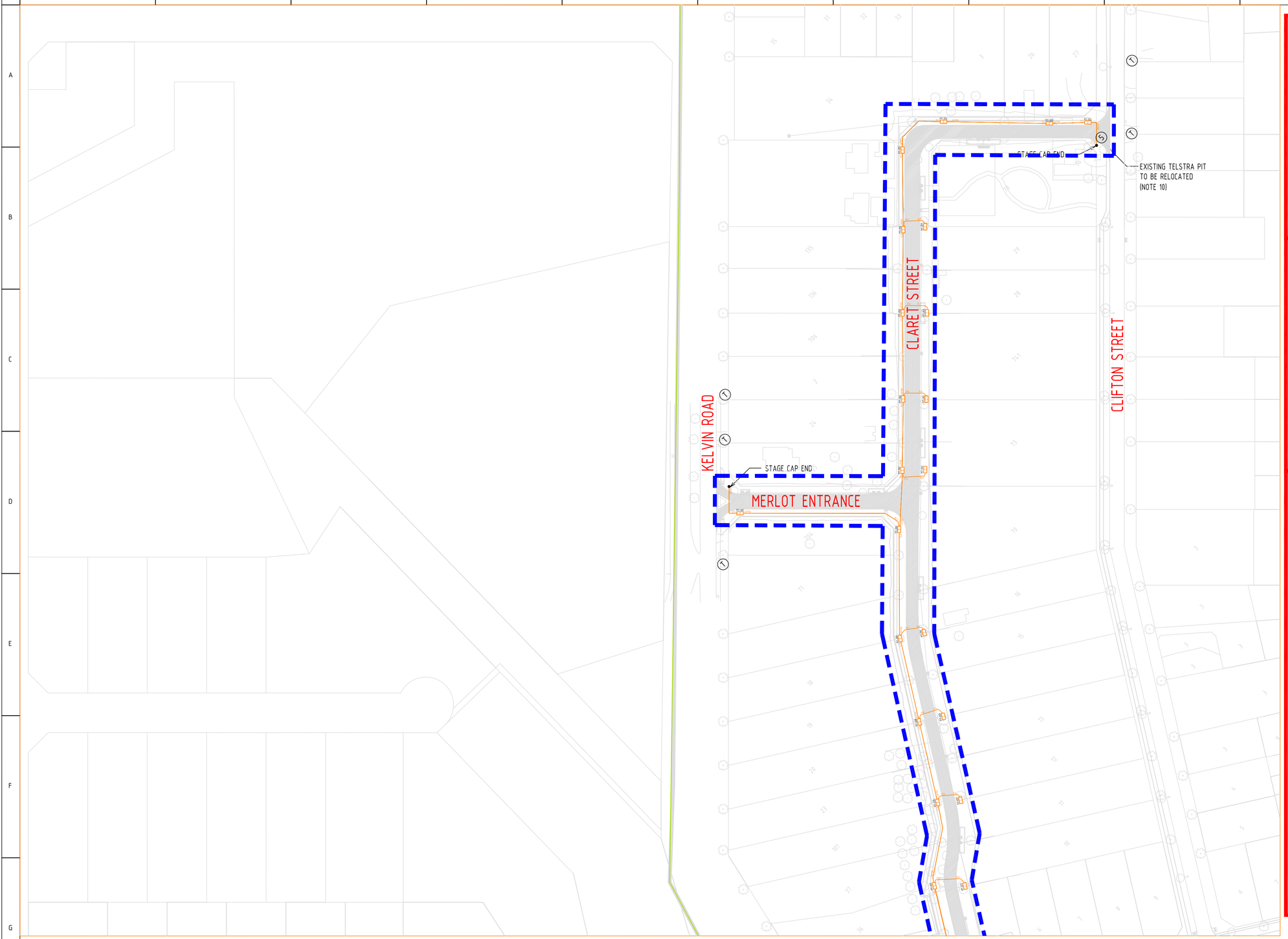
N KEY PLAN



DRAWING TITLE:
MADDINGTON ODP
NEW ROAD PROVISIONING
NBN PIT AND CONDUIT LAYOUT
SHEET 2 OF 8

STATE: WA		REGION: MADDINGTON
FSA:	SAM:	ADA:
PROJECT No: AYCA-47VTUI		
CADREF No: ECMN-17-812		
SCALE 1:1000 @ A1	SHEET No. 3 OF 9	REV. G

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



CONDUIT CONFIGURATION

CONDUITS AND DUCTS ARE IN LAYER :
< L460 NBN Support - Underground >
AND TERMINOLOGY CATEGORIZED INTO TWO GROUPS IN THE DRAWING AS PER BELOW:
1- DUCT USED WITH LOCAL NETWORK
2-CONDUIT USED WITH LEAD-IN DROPS
ATTRIBUTES ATTACHED TO CONDUITS ARE AS SHOWN

CONDUIT SIZE — P100 | DCT-001 / CON001 | 26.5 — CONDUIT LENGTH
DUCT/CONDUIT ID
FUTURE CONDUIT SIZE — P100 | DCT-001 / CON001 | 26.5 — FUTURE CONDUIT LENGTH
FUTURE DUCT/CONDUIT ID

LEGEND

- PWR — TRANSFORMER / KIOSK / PAD MOUNT SUB-STATION / POLE MOUNT TRANSFORMER
- TRL — TRANSMISSION LINE PYLON/TOWER >66KV
- PIT-ID 2 — SERVICE DROP ACCESS PIT 650mmX280mmX565mm
- PIT-ID 5 — NETWORK BOUNDARY/LOCAL NETWORK PIT 700mmX450mmX650mm
- PIT-ID 8 — DISTRIBUTION/LOCAL NETWORK CONNECTION PIT 1360mmX555mmX860mm
- PIT-ID 9 — FIBRE DISTRIBUTION HUB (FDH) PIT 2000mmX555mmX900mm
- FDH-ID — FIBRE DISTRIBUTION HUB-FDH CABINET
- EXISTING TELSTRA MANHOLE
- (5) — EXISTING TELSTRA PIT (2,3,4,5,6,7,8,9) T - DENOTES UNKNOWN TYPE
- DEVELOPMENT BOUNDARY
- STAGING BOUNDARY
- (2) — DENOTES STAGING PRIORITY

1. DRAWINGS TO BE READ IN CONJUNCTION WITH PROJECT SPECIFICATION AND ALL CONTRACT DRAWINGS.
2. ALL COMMUNICATIONS WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH NBN Co GUIDELINES AND REQUIREMENTS INCLUDED IN NBN-TE-CTO-194 AVAILABLE ON NBN Co WEB SITE.
3. MEASUREMENTS BETWEEN PITS SHALL BE USED AS A GUIDE ONLY.
4. CONDUITS TO ENTER AND EXIT AT ENDS OF PITS ONLY. LOCATE CONDUITS AS CENTRALLY IN PIT END WALLS AS POSSIBLE. MINIMUM SEPARATION BETWEEN CONDUITS TO BE 25mm. REFER TO THE PIT END WALL DETAILS FOR ADDITIONAL REQUIREMENTS.
5. MINIMUM COVER TO BE; 300mm FOR SERVICE DROP CONDUITS, 450mm IN VERGE, 600mm UNDER LOCAL ROADS, AND 800mm UNDER MAIN ROADS.
6. CONDUITS ARE TO BE CLEANED AND PROVEN USING A MANDREL. AFTER TESTING INSTALL A SUITABLE DRAW ROPE AND CAP CONDUIT ENDS. SEAL CONDUITS AT PITS TO PREVENT ENTRY OF DUST AND MOISTURE.
7. INSTALL NON CONDUCTIVE (METAL FREE) MARKER TAPE ABOVE ALL NBNCo CONDUITS, 300m BELOW FINISHED GROUND LEVEL.
8. GRADE TOP OF PIT TO MATCH VERGE/FOOTPATH.
9. SUPPLY AND INSTALL ADDITIONAL DEVIATING CONDUIT BENDS TO ACHIEVE THE INCREASED/DECREASED BURIAL DEPTH REQUIRED TO AVOID CLASH WITH OTHER SERVICES.
10. EXISTING TELSTRA SERVICES TO BE MODIFIED AND/OR REMOVED BY TELSTRA AT TELSTRA'S DISCRETION. EXACT TELSTRA SCOPE OF WORKS TO BE DETERMINED AND ADVISED BY TELSTRA FOLLOWING APPLICATION TO TELSTRA BY CITY OF GOSNELLS AND TELSTRA SITE INSPECTION ONCE ALL NEW BOUNDARIES AND EXISTING SERVICES ARE SURVEYED AND PEGGED. REFER TELSTRA RELOCATION MINIMUM SCOPE ON DRAWING ECMN-17-800.
11. SERVICE DROP P23 CONDUITS NOT INSTALLED AS PART OF THESE ROAD PROVISIONING WORKS. THESE CONDUITS SHALL BE INSTALLED BY INDIVIDUAL DEVELOPERS TO SERVICE THEIR DEVELOPMENT.

PRELIMINARY ISSUE
CURRENTLY UNDER REVISION

CITY OF GOSNELLS

DIAL BEFORE YOU DIG www.1100.com.au

REV	DATE	DRAFTER	DESCRIPTION	APPROVED
-				
G	12.04.18	T.HUGHES	FINAL ISSUE	D.PHELPS
F	19.02.18	T.HUGHES	REVISED 100% DESIGN	D.PHELPS
E	30.11.17	T.HUGHES	ISSUED FOR 100% DESIGN	D.PHELPS
D	17.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHELPS
C	02.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHELPS
B	08.09.17	T.HUGHES	ISSUED FOR QS	D.PHELPS
A	17.03.17	T.HUGHES	ISSUED FOR 15% DESIGN	D.PHELPS

STRICTLY CONFIDENTIAL

NBNCO APPROVAL RECORD:

	SIGNATURE	DATE
☐ DD		
☐ WD		
☐ AB		

QUALITY RECORD :

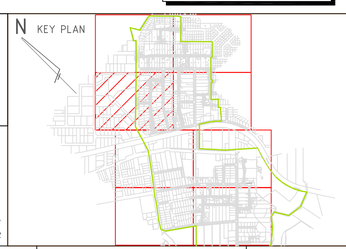
NBNCO DISCLAIMER

THIS DOCUMENT HAS BEEN PREPARED SOLELY FOR THE USE OF NBNCO LIMITED (ABN 86 136 533 741) FOR USE IN MAINTAINING NBNCO FACILITIES. IT HAS NOT BEEN CREATED FOR ANY OTHER USE. IT SHOULD NOT BE SCALED TO LOCATE NBNCO ASSETS. NO WARRANTY IS GIVEN THAT THE INFORMATION IS ACCURATE OR COMPLETE.

Australia's broadband network

ETC REF: 8036
Engineering Technology Consultants
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500 Facsimile: (08) 9328 5522

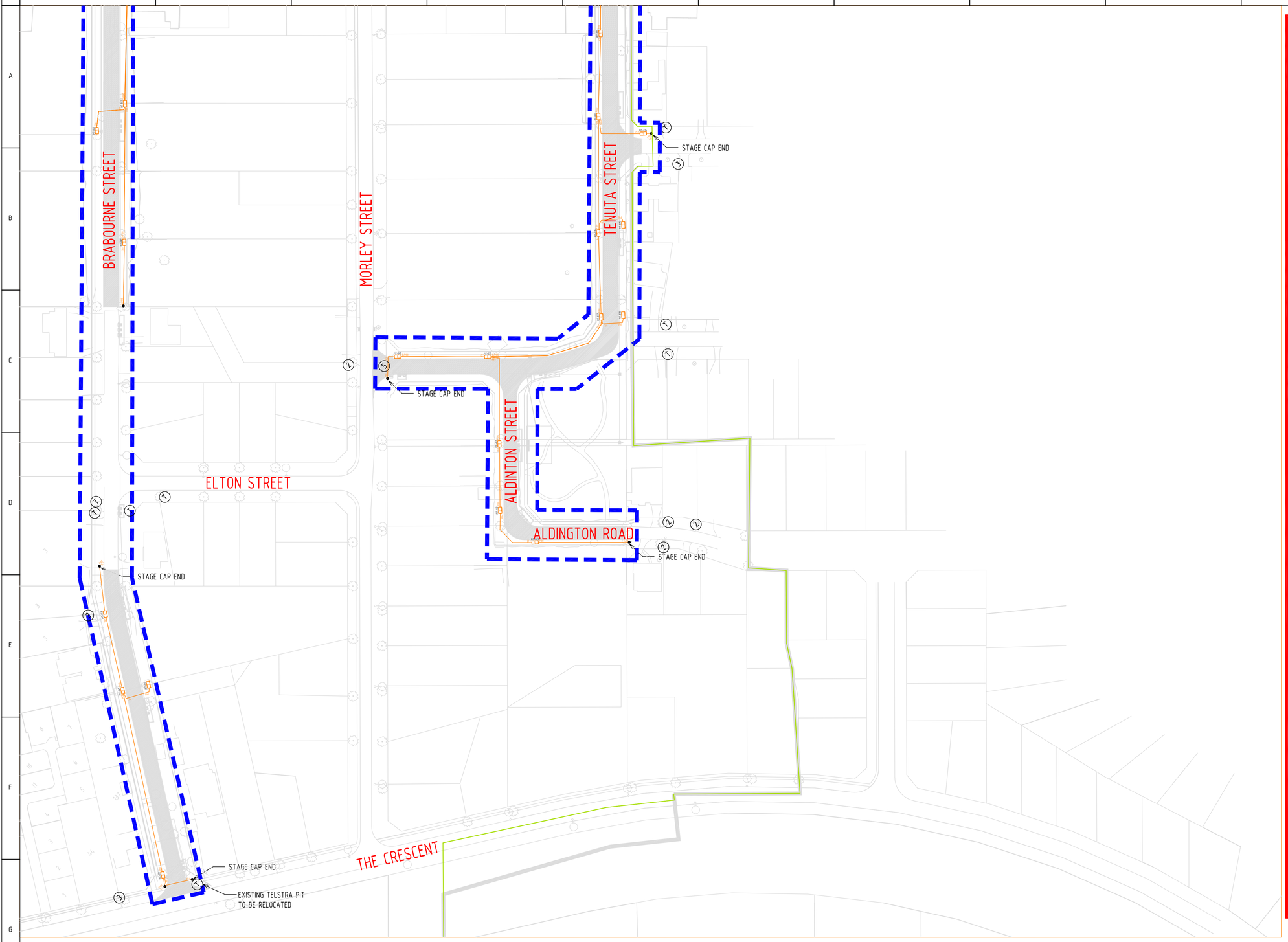
N KEY PLAN



DRAWING TITLE:
MADDINGTON ODP
NEW ROAD PROVISIONING
NBN PIT AND CONDUIT LAYOUT
SHEET 3 OF 8

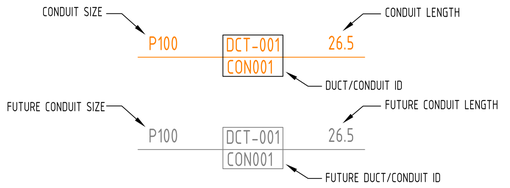
STATE: WA	REGION: MADDINGTON	
FSA:	SAM:	ADA:
PROJECT No: AYCA-47VTUI		
CADREF No: ECMN-17-813		
SCALE 1:1000 @ A1	SHEET No. 4 OF 9	REV. G

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



CONDUIT CONFIGURATION

CONDUITS AND DUCTS ARE IN LAYER :
< L460 NBN Support - Underground >
AND TERMINOLOGY CATEGORIZED INTO TWO GROUPS IN
THE DRAWING AS PER BELOW:
1- DUCT USED WITH LOCAL NETWORK
2-CONDUIT USED WITH LEAD-IN DROPS
ATTRIBUTES ATTACHED TO CONDUITS ARE AS SHOWN



LEGEND

- PWR — TRANSFORMER / KIOSK / PAD MOUNT SUB-STATION / POLE MOUNT TRANSFORMER
- TRL — TRANSMISSION LINE PYLON/TOWER >66KV
- PIT-ID 2 — SERVICE DROP ACCESS PIT 650mmX280mmX565mm
- PIT-ID 5 — NETWORK BOUNDARY/LOCAL NETWORK PIT 700mmX450mmX650mm
- PIT-ID 8 — DISTRIBUTION/LOCAL NETWORK CONNECTION PIT 1360mmX555mmX860mm
- PIT-ID 9 — FIBRE DISTRIBUTION HUB (FDH) PIT 2000mmX555mmX900mm
- FDH-ID — FIBRE DISTRIBUTION HUB-FDH CABINET
- EXISTING TELSTRA MANHOLE
- (5) — EXISTING TELSTRA PIT (2,3,4,5,6,7,8,9) T - DENOTES UNKNOWN TYPE
- DEVELOPMENT BOUNDARY
- STAGING BOUNDARY
- (2) — DENOTES STAGING PRIORITY

1. DRAWINGS TO BE READ IN CONJUNCTION WITH PROJECT SPECIFICATION AND ALL CONTRACT DRAWINGS.
2. ALL COMMUNICATIONS WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH NBN Co GUIDELINES AND REQUIREMENTS INCLUDED IN NBN-TE-CTO-194 AVAILABLE ON NBN Co WEB SITE.
3. MEASUREMENTS BETWEEN PITS SHALL BE USED AS A GUIDE ONLY.
4. CONDUITS TO ENTER AND EXIT AT ENDS OF PITS ONLY. LOCATE CONDUITS AS CENTRALLY IN PIT END WALLS AS POSSIBLE. MINIMUM SEPARATION BETWEEN CONDUITS TO BE 25mm. REFER TO THE PIT END WALL DETAILS FOR ADDITIONAL REQUIREMENTS.
5. MINIMUM COVER TO BE; 300mm FOR SERVICE DROP CONDUITS, 450mm IN VERGE, 600mm UNDER LOCAL ROADS, AND 800mm UNDER MAIN ROADS.
6. CONDUITS ARE TO BE CLEANED AND PROVEN USING A MANDREL. AFTER TESTING INSTALL A SUITABLE DRAW ROPE AND CAP CONDUIT ENDS. SEAL CONDUITS AT PITS TO PREVENT ENTRY OF DUST AND MOISTURE.
7. INSTALL NON CONDUCTIVE (METAL FREE) MARKER TAPE ABOVE ALL NBNCo CONDUITS, 300m BELOW FINISHED GROUND LEVEL.
8. GRADE TOP OF PIT TO MATCH VERGE/FOOTPATH.
9. SUPPLY AND INSTALL ADDITIONAL DEVIATING CONDUIT BENDS TO ACHIEVE THE INCREASED/DECREASED BURIAL DEPTH REQUIRED TO AVOID CLASH WITH OTHER SERVICES.
10. EXISTING TELSTRA SERVICES TO BE MODIFIED AND/OR REMOVED BY TELSTRA AT TELSTRA'S DISCRETION. EXACT TELSTRA SCOPE OF WORKS TO BE DETERMINED AND ADVISED BY TELSTRA FOLLOWING APPLICATION TO TELSTRA BY CITY OF GOSNELLS AND TELSTRA SITE INSPECTION ONCE ALL NEW BOUNDARIES AND EXISTING SERVICES ARE SURVEYED AND PEGGED. REFER TELSTRA RELOCATION MINIMUM SCOPE ON DRAWING ECMN-17-800.
11. SERVICE DROP P23 CONDUITS NOT INSTALLED AS PART OF THESE ROAD PROVISIONING WORKS. THESE CONDUITS SHALL BE INSTALLED BY INDIVIDUAL DEVELOPERS TO SERVICE THEIR DEVELOPMENT.

PRELIMINARY ISSUE
CURRENTLY UNDER REVISION

CITY OF GOSNELLS

DIAL BEFORE YOU DIG
www.1100.com.au

REV	DATE	DRAFTER	DESCRIPTION	APPROVED
-				
G	12.04.18	T.HUGHES	FINAL ISSUE	D.PHELPS
F	19.02.18	T.HUGHES	REVISED 100% DESIGN	D.PHELPS
E	30.11.17	T.HUGHES	ISSUED FOR 100% DESIGN	D.PHELPS
D	17.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHELPS
C	02.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHELPS
B	08.09.17	T.HUGHES	ISSUED FOR QS	D.PHELPS
A	17.03.17	T.HUGHES	ISSUED FOR 15% DESIGN	D.PHELPS

STRICTLY CONFIDENTIAL

NBNCO APPROVAL RECORD:

	SIGNATURE	DATE
☐ DD		
☐ WD		
☐ AB		

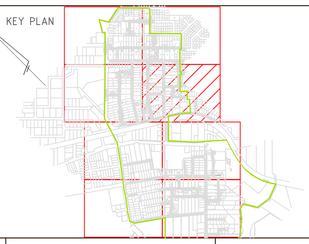
QUALITY RECORD :

NBNCO DISCLAIMER
THIS DOCUMENT HAS BEEN PREPARED SOLELY FOR THE USE OF NBNCO LIMITED (ABN 86 136 533 741) FOR USE IN MAINTAINING NBNCO FACILITIES. IT HAS NOT BEEN CREATED FOR ANY OTHER USE. IT SHOULD NOT BE SCALED TO LOCATE NBNCO ASSETS. NO WARRANTY IS GIVEN THAT THE INFORMATION IS ACCURATE OR COMPLETE.

Australia's broadband network

ETC
ETC REF: 8036
Engineering Technology Consultants
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500 Facsimile: (08) 9328 5522

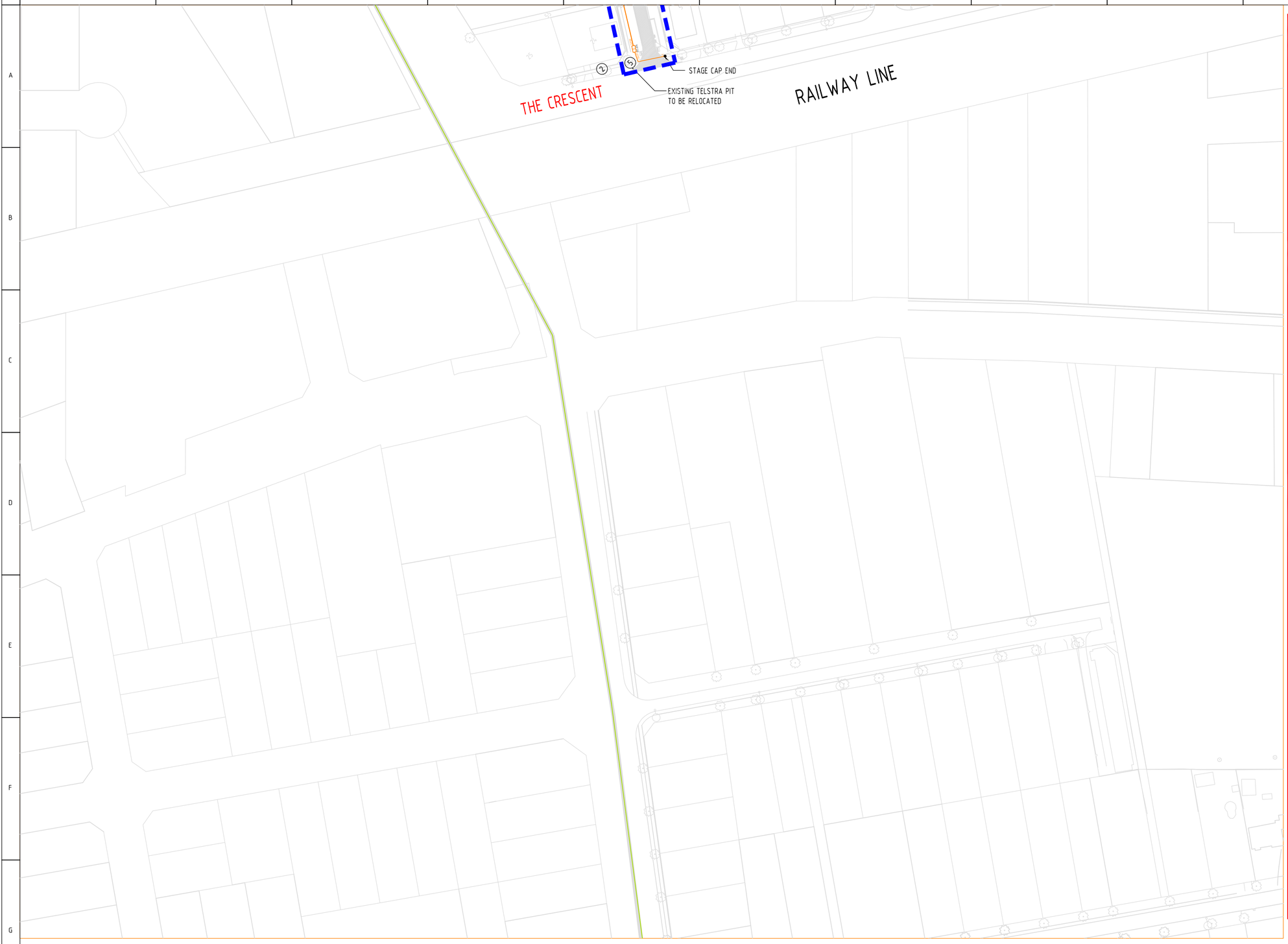
N KEY PLAN



DRAWING TITLE:
MADDINGTON ODP
NEW ROAD PROVISIONING
NBN PIT AND CONDUIT LAYOUT
SHEET 4 OF 8

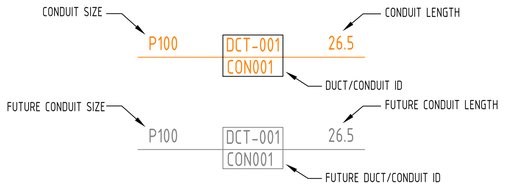
STATE: WA	REGION: MADDINGTON	
FSA:	SAM:	ADA:
PROJECT No: AYCA-47VTUI		
CADREF No: ECMN-17-814		
SCALE 1:1000 @ A1	SHEET No. 5 OF 9	REV. G

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



CONDUIT CONFIGURATION

CONDUITS AND DUCTS ARE IN LAYER :
< L460 NBN Support - Underground >
AND TERMINOLOGY CATEGORIZED INTO TWO GROUPS IN THE DRAWING AS PER BELOW:
1- DUCT USED WITH LOCAL NETWORK
2-CONDUIT USED WITH LEAD-IN DROPS
ATTRIBUTES ATTACHED TO CONDUITS ARE AS SHOWN



LEGEND

- PWR — TRANSFORMER / KIOSK / PAD MOUNT SUB-STATION / POLE MOUNT TRANSFORMER
- TRL — TRANSMISSION LINE PYLON/TOWER >66KV
- PIT-ID 2 — SERVICE DROP ACCESS PIT 650mmX280mmX565mm
- PIT-ID 5 — NETWORK BOUNDARY/LOCAL NETWORK PIT 700mmX450mmX650mm
- PIT-ID 8 — DISTRIBUTION/LOCAL NETWORK CONNECTION PIT 1360mmX555mmX860mm
- PIT-ID 9 — FIBRE DISTRIBUTION HUB (FDH) PIT 2000mmX555mmX900mm
- FDH-ID — FIBRE DISTRIBUTION HUB-FDH CABINET
- EXISTING TELSTRA MANHOLE
- (5) — EXISTING TELSTRA PIT (2,3,4,5,6,7,8,9) T - DENOTES UNKNOWN TYPE
- DEVELOPMENT BOUNDARY
- STAGING BOUNDARY
- (2) — DENOTES STAGING PRIORITY

1. DRAWINGS TO BE READ IN CONJUNCTION WITH PROJECT SPECIFICATION AND ALL CONTRACT DRAWINGS.
2. ALL COMMUNICATIONS WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH NBN Co GUIDELINES AND REQUIREMENTS INCLUDED IN NBN-TE-CTO-194 AVAILABLE ON NBN Co WEB SITE.
3. MEASUREMENTS BETWEEN PITS SHALL BE USED AS A GUIDE ONLY.
4. CONDUITS TO ENTER AND EXIT AT ENDS OF PITS ONLY. LOCATE CONDUITS AS CENTRALLY IN PIT END WALLS AS POSSIBLE. MINIMUM SEPARATION BETWEEN CONDUITS TO BE 25mm. REFER TO THE PIT END WALL DETAILS FOR ADDITIONAL REQUIREMENTS.
5. MINIMUM COVER TO BE; 300mm FOR SERVICE DROP CONDUITS, 450mm IN VERGE, 600mm UNDER LOCAL ROADS, AND 800mm UNDER MAIN ROADS.
6. CONDUITS ARE TO BE CLEANED AND PROVEN USING A MANDREL. AFTER TESTING INSTALL A SUITABLE DRAW ROPE AND CAP CONDUIT ENDS. SEAL CONDUITS AT PITS TO PREVENT ENTRY OF DUST AND MOISTURE.
7. INSTALL NON CONDUCTIVE (METAL FREE) MARKER TAPE ABOVE ALL NBNCo CONDUITS, 300m BELOW FINISHED GROUND LEVEL.
8. GRADE TOP OF PIT TO MATCH VERGE/FOOTPATH.
9. SUPPLY AND INSTALL ADDITIONAL DEVIATING CONDUIT BENDS TO ACHIEVE THE INCREASED/DECREASED BURIAL DEPTH REQUIRED TO AVOID CLASH WITH OTHER SERVICES.
10. EXISTING TELSTRA SERVICES TO BE MODIFIED AND/OR REMOVED BY TELSTRA AT TELSTRA'S DISCRETION. EXACT TELSTRA SCOPE OF WORKS TO BE DETERMINED AND ADVISED BY TELSTRA FOLLOWING APPLICATION TO TELSTRA BY CITY OF GOSNELLS AND TELSTRA SITE INSPECTION ONCE ALL NEW BOUNDARIES AND EXISTING SERVICES ARE SURVEYED AND PEGGED. REFER TELSTRA RELOCATION MINIMUM SCOPE ON DRAWING ECMN-17-800.
11. SERVICE DROP P23 CONDUITS NOT INSTALLED AS PART OF THESE ROAD PROVISIONING WORKS. THESE CONDUITS SHALL BE INSTALLED BY INDIVIDUAL DEVELOPERS TO SERVICE THEIR DEVELOPMENT.

PRELIMINARY ISSUE
CURRENTLY UNDER REVISION

CITY OF GOSNELLS

DIAL BEFORE YOU DIG www.1100.com.au

REV	DATE	DRAFTER	DESCRIPTION	APPROVED
-				
G	12.04.18	T.HUGHES	FINAL ISSUE	D.PHELPS
F	19.02.18	T.HUGHES	REVISED 100% DESIGN	D.PHELPS
E	30.11.17	T.HUGHES	ISSUED FOR 100% DESIGN	D.PHELPS
D	17.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHELPS
C	02.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHELPS
B	08.09.17	T.HUGHES	ISSUED FOR QS	D.PHELPS
A	17.03.17	T.HUGHES	ISSUED FOR 15% DESIGN	D.PHELPS

STRICTLY CONFIDENTIAL

NBNCO APPROVAL RECORD:

	SIGNATURE	DATE
☐ DD		
☐ WD		
☐ AB		

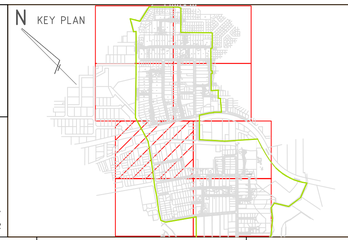
QUALITY RECORD :

NBNCO DISCLAIMER
THIS DOCUMENT HAS BEEN PREPARED SOLELY FOR THE USE OF NBNCO LIMITED (ABN 86 136 533 741) FOR USE IN MAINTAINING NBNCO FACILITIES. IT HAS NOT BEEN CREATED FOR ANY OTHER USE. IT SHOULD NOT BE SCALED TO LOCATE NBNCO ASSETS. NO WARRANTY IS GIVEN THAT THE INFORMATION IS ACCURATE OR COMPLETE.

Australia's broadband network

ETC
ETC REF: 8036
Engineering Technology Consultants / ETC
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500 Facsimile: (08) 9328 5522

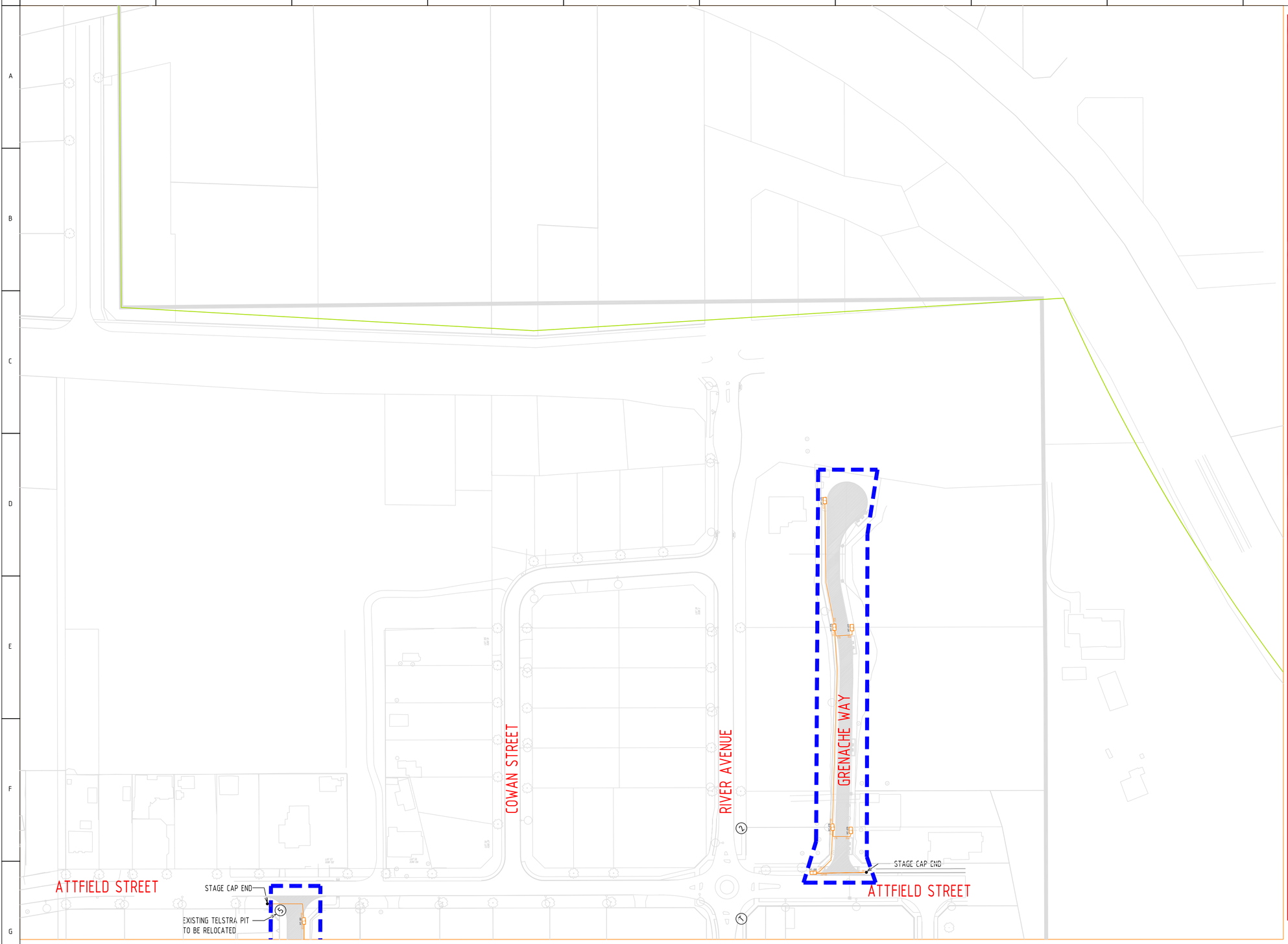
N KEY PLAN



DRAWING TITLE:
MADDINGTON ODP
NEW ROAD PROVISIONING
NBN PIT AND CONDUIT LAYOUT
SHEET 5 OF 8

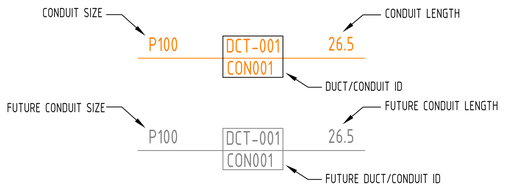
STATE: WA		REGION: MADDINGTON
FSA:	SAM:	ADA:
PROJECT No: AYCA-47VTUI		
CADREF No: ECMS-17-811		
SCALE 1:1000 @ A1	SHEET No. 6 OF 9	REV. G

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



CONDUIT CONFIGURATION

CONDUITS AND DUCTS ARE IN LAYER :
< L460 NBN Support + Underground >
AND TERMINOLOGY CATEGORIZED INTO TWO GROUPS IN THE DRAWING AS PER BELOW:
1- DUCT USED WITH LOCAL NETWORK
2-CONDUIT USED WITH LEAD-IN DROPS
ATTRIBUTES ATTACHED TO CONDUITS ARE AS SHOWN



LEGEND

- PWR — TRANSFORMER / KIOSK / PAD MOUNT SUB-STATION / POLE MOUNT TRANSFORMER
- TRL — TRANSMISSION LINE PYLON/TOWER >66KV
- PIT-ID 2 — SERVICE DROP ACCESS PIT 650mmX280mmX565mm
- PIT-ID 5 — NETWORK BOUNDARY/LOCAL NETWORK PIT 700mmX450mmX650mm
- PIT-ID 8 — DISTRIBUTION/LOCAL NETWORK CONNECTION PIT 1360mmX555mmX860mm
- PIT-ID 9 — FIBRE DISTRIBUTION HUB (FDH) PIT 2000mmX555mmX900mm
- FDH-ID — FIBRE DISTRIBUTION HUB-FDH CABINET
- EXISTING TELSTRA MANHOLE
- (5) — EXISTING TELSTRA PIT (2,3,4,5,6,7,8,9) T - DENOTES UNKNOWN TYPE
- DEVELOPMENT BOUNDARY
- STAGING BOUNDARY
- (2) — DENOTES STAGING PRIORITY

1. DRAWINGS TO BE READ IN CONJUNCTION WITH PROJECT SPECIFICATION AND ALL CONTRACT DRAWINGS.
2. ALL COMMUNICATIONS WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH NBN Co GUIDELINES AND REQUIREMENTS INCLUDED IN NBN-TE-CTO-194 AVAILABLE ON NBN Co WEB SITE.
3. MEASUREMENTS BETWEEN PITS SHALL BE USED AS A GUIDE ONLY.
4. CONDUITS TO ENTER AND EXIT AT ENDS OF PITS ONLY. LOCATE CONDUITS AS CENTRALLY IN PIT END WALLS AS POSSIBLE. MINIMUM SEPARATION BETWEEN CONDUITS TO BE 25mm. REFER TO THE PIT END WALL DETAILS FOR ADDITIONAL REQUIREMENTS.
5. MINIMUM COVER TO BE; 300mm FOR SERVICE DROP CONDUITS, 450mm IN VERGE, 600mm UNDER LOCAL ROADS, AND 800mm UNDER MAIN ROADS.
6. CONDUITS ARE TO BE CLEANED AND PROVEN USING A MANDREL. AFTER TESTING INSTALL A SUITABLE DRAW ROPE AND CAP CONDUIT ENDS. SEAL CONDUITS AT PITS TO PREVENT ENTRY OF DUST AND MOISTURE.
7. INSTALL NON CONDUCTIVE (METAL FREE) MARKER TAPE ABOVE ALL NBNCo CONDUITS, 300m BELOW FINISHED GROUND LEVEL.
8. GRADE TOP OF PIT TO MATCH VERGE/FOOTPATH.
9. SUPPLY AND INSTALL ADDITIONAL DEVIATING CONDUIT BENDS TO ACHIEVE THE INCREASED/DECREASED BURIAL DEPTH REQUIRED TO AVOID CLASH WITH OTHER SERVICES.
10. EXISTING TELSTRA SERVICES TO BE MODIFIED AND/OR REMOVED BY TELSTRA AT TELSTRA'S DISCRETION. EXACT TELSTRA SCOPE OF WORKS TO BE DETERMINED AND ADVISED BY TELSTRA FOLLOWING APPLICATION TO TELSTRA BY CITY OF GOSNELLS AND TELSTRA SITE INSPECTION ONCE ALL NEW BOUNDARIES AND EXISTING SERVICES ARE SURVEYED AND PEGGED. REFER TELSTRA RELOCATION MINIMUM SCOPE ON DRAWING ECMN-17-800.
11. SERVICE DROP P23 CONDUITS NOT INSTALLED AS PART OF THESE ROAD PROVISIONING WORKS. THESE CONDUITS SHALL BE INSTALLED BY INDIVIDUAL DEVELOPERS TO SERVICE THEIR DEVELOPMENT.

PRELIMINARY ISSUE
CURRENTLY UNDER REVISION

CITY OF GOSNELLS

DIAL BEFORE YOU DIG www.1100.com.au

REV	DATE	DRAFTER	DESCRIPTION	APPROVED
-				
G	12.04.18	T.HUGHES	FINAL ISSUE	D.PHELPS
F	19.02.18	T.HUGHES	REVISED 100% DESIGN	D.PHELPS
E	30.11.17	T.HUGHES	ISSUED FOR 100% DESIGN	D.PHELPS
D	17.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHELPS
C	02.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHELPS
B	08.09.17	T.HUGHES	ISSUED FOR QS	D.PHELPS
A	17.03.17	T.HUGHES	ISSUED FOR 15% DESIGN	D.PHELPS

STRICTLY CONFIDENTIAL

NBNCO APPROVAL RECORD:

	SIGNATURE	DATE
☐ DD		
☐ WD		
☐ AB		

QUALITY RECORD :

NBNCO DISCLAIMER
THIS DOCUMENT HAS BEEN PREPARED SOLELY FOR THE USE OF NBNCO LIMITED (ABN 86 136 533 741) FOR USE IN MAINTAINING NBNCO FACILITIES. IT HAS NOT BEEN CREATED FOR ANY OTHER USE. IT SHOULD NOT BE SCALED TO LOCATE NBNCO ASSETS. NO WARRANTY IS GIVEN THAT THE INFORMATION IS ACCURATE OR COMPLETE.

Australia's broadband network

ETC REF: 8036
Engineering Technology Consultants /etc
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500 Facsimile: (08) 9328 5522

N KEY PLAN



DRAWING TITLE:
MADDINGTON ODP
NEW ROAD PROVISIONING
NBN PIT AND CONDUIT LAYOUT
SHEET 6 OF 8

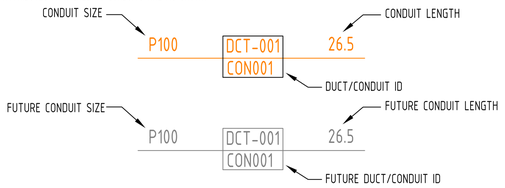
STATE: WA	REGION: MADDINGTON	
FSA:	SAM:	ADA:
PROJECT No: AYCA-47VTUI		
CADREF No: ECMS-17-812		
SCALE 1:1000 @ A1	SHEET No. 7 OF 9	REV. G

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

NO WORKS IN THIS AREA

CONDUIT CONFIGURATION

CONDUITS AND DUCTS ARE IN LAYER :
< L460 NBN Support - Underground >
AND TERMINOLOGY CATEGORIZED INTO TWO GROUPS IN THE DRAWING AS PER BELOW:
1- DUCT USED WITH LOCAL NETWORK
2-CONDUIT USED WITH LEAD-IN DROPS
ATTRIBUTES ATTACHED TO CONDUITS ARE AS SHOWN



LEGEND

- PWR — TRANSFORMER / KIOSK / PAD MOUNT SUB-STATION / POLE MOUNT TRANSFORMER
- TRL — TRANSMISSION LINE PYLON/TOWER >66KV
- PIT-ID 2 — SERVICE DROP ACCESS PIT 650mmX280mmX565mm
- PIT-ID 5 — NETWORK BOUNDARY/LOCAL NETWORK PIT 700mmX450mmX650mm
- PIT-ID 8 — DISTRIBUTION/LOCAL NETWORK CONNECTION PIT 1360mmX555mmX860mm
- PIT-ID 9 — FIBRE DISTRIBUTION HUB (FDH) PIT 2000mmX555mmX900mm
- FDH-ID — FIBRE DISTRIBUTION HUB-FDH CABINET
- EXISTING TELSTRA MANHOLE
- (5) — EXISTING TELSTRA PIT (2,3,4,5,6,7,8,9) T - DENOTES UNKNOWN TYPE
- DEVELOPMENT BOUNDARY
- STAGING BOUNDARY
- (2) — DENOTES STAGING PRIORITY

1. DRAWINGS TO BE READ IN CONJUNCTION WITH PROJECT SPECIFICATION AND ALL CONTRACT DRAWINGS.
2. ALL COMMUNICATIONS WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH NBN Co GUIDELINES AND REQUIREMENTS INCLUDED IN NBN-TE-CTO-194 AVAILABLE ON NBN Co WEB SITE.
3. MEASUREMENTS BETWEEN PITS SHALL BE USED AS A GUIDE ONLY.
4. CONDUITS TO ENTER AND EXIT AT ENDS OF PITS ONLY. LOCATE CONDUITS AS CENTRALLY IN PIT END WALLS AS POSSIBLE. MINIMUM SEPARATION BETWEEN CONDUITS TO BE 25mm. REFER TO THE PIT END WALL DETAILS FOR ADDITIONAL REQUIREMENTS.
5. MINIMUM COVER TO BE; 300mm FOR SERVICE DROP CONDUITS, 450mm IN VERGE, 600mm UNDER LOCAL ROADS, AND 800mm UNDER MAIN ROADS.
6. CONDUITS ARE TO BE CLEANED AND PROVEN USING A MANDREL. AFTER TESTING INSTALL A SUITABLE DRAW ROPE AND CAP CONDUIT ENDS. SEAL CONDUITS AT PITS TO PREVENT ENTRY OF DUST AND MOISTURE.
7. INSTALL NON CONDUCTIVE (METAL FREE) MARKER TAPE ABOVE ALL NBNCo CONDUITS, 300m BELOW FINISHED GROUND LEVEL.
8. GRADE TOP OF PIT TO MATCH VERGE/FOOTPATH.
9. SUPPLY AND INSTALL ADDITIONAL DEVIATING CONDUIT BENDS TO ACHIEVE THE INCREASED/DECREASED BURIAL DEPTH REQUIRED TO AVOID CLASH WITH OTHER SERVICES.
10. EXISTING TELSTRA SERVICES TO BE MODIFIED AND/OR REMOVED BY TELSTRA AT TELSTRA'S DISCRETION. EXACT TELSTRA SCOPE OF WORKS TO BE DETERMINED AND ADVISED BY TELSTRA FOLLOWING APPLICATION TO TELSTRA BY CITY OF GOSNELLS AND TELSTRA SITE INSPECTION ONCE ALL NEW BOUNDARIES AND EXISTING SERVICES ARE SURVEYED AND PEGGED. REFER TELSTRA RELOCATION MINIMUM SCOPE ON DRAWING ECMN-17-800.
11. SERVICE DROP P23 CONDUITS NOT INSTALLED AS PART OF THESE ROAD PROVISIONING WORKS. THESE CONDUITS SHALL BE INSTALLED BY INDIVIDUAL DEVELOPERS TO SERVICE THEIR DEVELOPMENT.

PRELIMINARY ISSUE
CURRENTLY UNDER REVISION

CITY OF GOSNELLS

DIAL BEFORE YOU DIG www.1100.com.au

REV	DATE	DRAFTER	DESCRIPTION	APPROVED
-				
G	12.04.18	T.HUGHES	FINAL ISSUE	D.PHELPS
F	19.02.18	T.HUGHES	REVISED 100% DESIGN	D.PHELPS
E	30.11.17	T.HUGHES	ISSUED FOR 100% DESIGN	D.PHELPS
D	17.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHLEPS
C	02.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHELPS
B	08.09.17	T.HUGHES	ISSUED FOR QD	D.PHELPS
A	17.03.17	T.HUGHES	ISSUED FOR 15% DESIGN	D.PHELPS

STRICTLY CONFIDENTIAL

NBNCO APPROVAL RECORD:

	SIGNATURE	DATE
☐ DD		
☐ WD		
☐ AB		

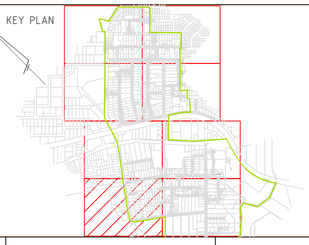
QUALITY RECORD :

NBNCO DISCLAIMER
THIS DOCUMENT HAS BEEN PREPARED SOLELY FOR THE USE OF NBNCO LIMITED (ABN 86 136 533 741) FOR USE IN MAINTAINING NBNCO FACILITIES. IT HAS NOT BEEN CREATED FOR ANY OTHER USE. IT SHOULD NOT BE SCALED TO LOCATE NBNCO ASSETS. NO WARRANTY IS GIVEN THAT THE INFORMATION IS ACCURATE OR COMPLETE.

Australia's broadband network

ETC REF: 8036
Engineering Technology Consultants / etc
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500 Facsimile: (08) 9328 5522

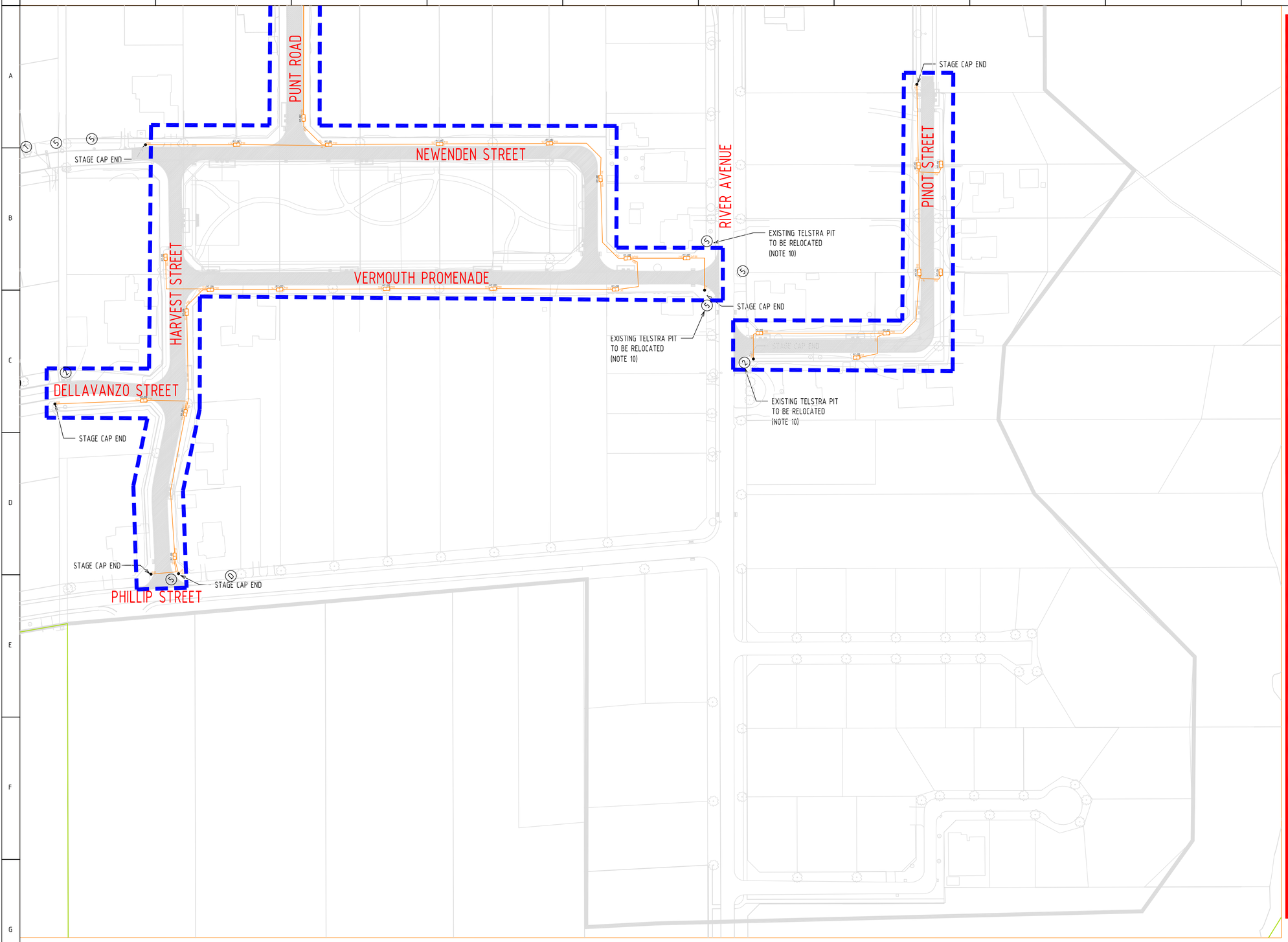
N KEY PLAN



DRAWING TITLE:
MADDINGTON ODP
NEW ROAD PROVISIONING
NBN PIT AND CONDUIT LAYOUT
SHEET 7 OF 8

STATE: WA	REGION: MADDINGTON	
FSA:	SAM:	ADA:
PROJECT No: AYCA-47VTUI		
CADREF No: ECMS-17-813		
SCALE 1:1000 @ A1	SHEET No. 8 OF 9	REV. G

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

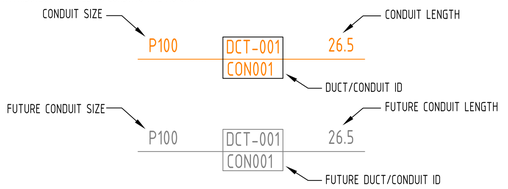


CONDUIT CONFIGURATION

CONDUITS AND DUCTS ARE IN LAYER :
< L460 NBN Support + Underground >
AND TERMINOLOGY CATEGORIZED INTO TWO GROUPS IN THE DRAWING AS PER BELOW:

1- DUCT — USED WITH LOCAL NETWORK
2-CONDUIT — USED WITH LEAD-IN DROPS

ATTRIBUTES ATTACHED TO CONDUITS ARE AS SHOWN



LEGEND

- PWR — TRANSFORMER / KIOSK / PAD MOUNT SUB-STATION / POLE MOUNT TRANSFORMER
- TRL — TRANSMISSION LINE PYLON/TOWER >66KV
- PIT-ID 2 — SERVICE DROP ACCESS PIT 650mmX280mmX565mm
- PIT-ID 5 — NETWORK BOUNDARY/LOCAL NETWORK PIT 700mmX450mmX650mm
- PIT-ID 8 — DISTRIBUTION/LOCAL NETWORK CONNECTION PIT 1360mmX555mmX860mm
- PIT-ID 9 — FIBRE DISTRIBUTION HUB (FDH) PIT 2000mmX555mmX900mm
- FDH-ID — FIBRE DISTRIBUTION HUB-FDH CABINET
- EXISTING TELSTRA MANHOLE
- (5) — EXISTING TELSTRA PIT (2,3,4,5,6,7,8,9) T - DENOTES UNKNOWN TYPE
- DEVELOPMENT BOUNDARY
- STAGING BOUNDARY
- (2) — DENOTES STAGING PRIORITY

1. DRAWINGS TO BE READ IN CONJUNCTION WITH PROJECT SPECIFICATION AND ALL CONTRACT DRAWINGS.
2. ALL COMMUNICATIONS WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH NBN Co GUIDELINES AND REQUIREMENTS INCLUDED IN NBN-TE-CTO-194 AVAILABLE ON NBN Co WEB SITE.
3. MEASUREMENTS BETWEEN PITS SHALL BE USED AS A GUIDE ONLY.
4. CONDUITS TO ENTER AND EXIT AT ENDS OF PITS ONLY. LOCATE CONDUITS AS CENTRALLY IN PIT END WALLS AS POSSIBLE. MINIMUM SEPARATION BETWEEN CONDUITS TO BE 25mm. REFER TO THE PIT END WALL DETAILS FOR ADDITIONAL REQUIREMENTS.
5. MINIMUM COVER TO BE; 300mm FOR SERVICE DROP CONDUITS, 450mm IN VERGE, 600mm UNDER LOCAL ROADS, AND 800mm UNDER MAIN ROADS.
6. CONDUITS ARE TO BE CLEANED AND PROVEN USING A MANDREL. AFTER TESTING INSTALL A SUITABLE DRAW ROPE AND CAP CONDUIT ENDS. SEAL CONDUITS AT PITS TO PREVENT ENTRY OF DUST AND MOISTURE.
7. INSTALL NON CONDUCTIVE (METAL FREE) MARKER TAPE ABOVE ALL NBNCo CONDUITS, 300m BELOW FINISHED GROUND LEVEL.
8. GRADE TOP OF PIT TO MATCH VERGE/FOOTPATH.
9. SUPPLY AND INSTALL ADDITIONAL DEVIATING CONDUIT BENDS TO ACHIEVE THE INCREASED/DECREASED BURIAL DEPTH REQUIRED TO AVOID CLASH WITH OTHER SERVICES.
10. EXISTING TELSTRA SERVICES TO BE MODIFIED AND/OR REMOVED BY TELSTRA AT TELSTRA'S DISCRETION. EXACT TELSTRA SCOPE OF WORKS TO BE DETERMINED AND ADVISED BY TELSTRA FOLLOWING APPLICATION TO TELSTRA BY CITY OF GOSNELLS AND TELSTRA SITE INSPECTION ONCE ALL NEW BOUNDARIES AND EXISTING SERVICES ARE SURVEYED AND PEGGED. REFER TELSTRA RELOCATION MINIMUM SCOPE ON DRAWING ECMN-17-800.
11. SERVICE DROP P23 CONDUITS NOT INSTALLED AS PART OF THESE ROAD PROVISIONING WORKS. THESE CONDUITS SHALL BE INSTALLED BY INDIVIDUAL DEVELOPERS TO SERVICE THEIR DEVELOPMENT.

PRELIMINARY ISSUE
CURRENTLY UNDER REVISION

CITY OF GOSNELLS

DIAL BEFORE YOU DIG www.1100.com.au

REV	DATE	DRAFTER	DESCRIPTION	APPROVED
-				
G	12.04.18	T.HUGHES	FINAL ISSUE	D.PHELPS
F	19.02.18	T.HUGHES	REVISED 100% DESIGN	D.PHELPS
E	30.11.17	T.HUGHES	ISSUED FOR 100% DESIGN	D.PHELPS
D	17.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHLEPS
C	02.10.17	T.HUGHES	SUBMISSION TO NBN Co	D.PHELPS
B	08.09.17	T.HUGHES	ISSUED FOR QS	D.PHELPS
A	17.03.17	T.HUGHES	ISSUED FOR 15% DESIGN	D.PHELPS

STRICTLY CONFIDENTIAL

NBNCO APPROVAL RECORD:

	SIGNATURE	DATE
☐ DD		
☐ WD		
☐ AB		

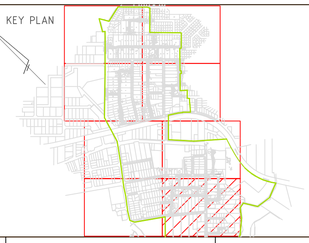
QUALITY RECORD :

NBNCO DISCLAIMER
THIS DOCUMENT HAS BEEN PREPARED SOLELY FOR THE USE OF NBNCO LIMITED (ABN 86 136 533 741) FOR USE IN MAINTAINING NBNCO FACILITIES. IT HAS NOT BEEN CREATED FOR ANY OTHER USE. IT SHOULD NOT BE SCALED TO LOCATE NBNCO ASSETS. NO WARRANTY IS GIVEN THAT THE INFORMATION IS ACCURATE OR COMPLETE.

Australia's broadband network

ETC REF: 8036
Engineering Technology Consultants /etc
ACN 009 146 829 61 Loftus Street, Leederville Western Australia 6007
Email: etc@etcpl.com.au Phone: (08) 9328 5500 Facsimile: (08) 9328 5522

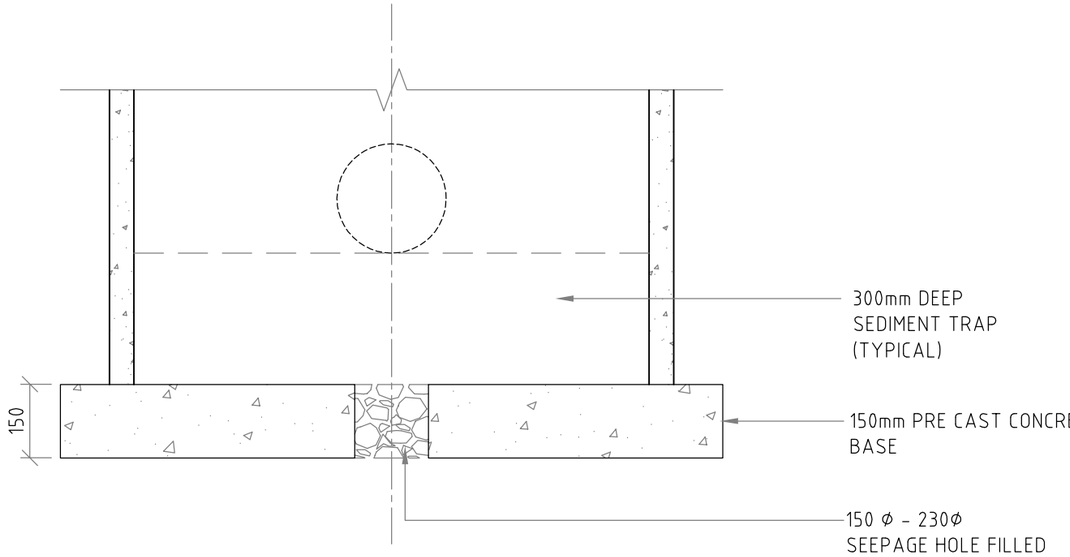
N KEY PLAN



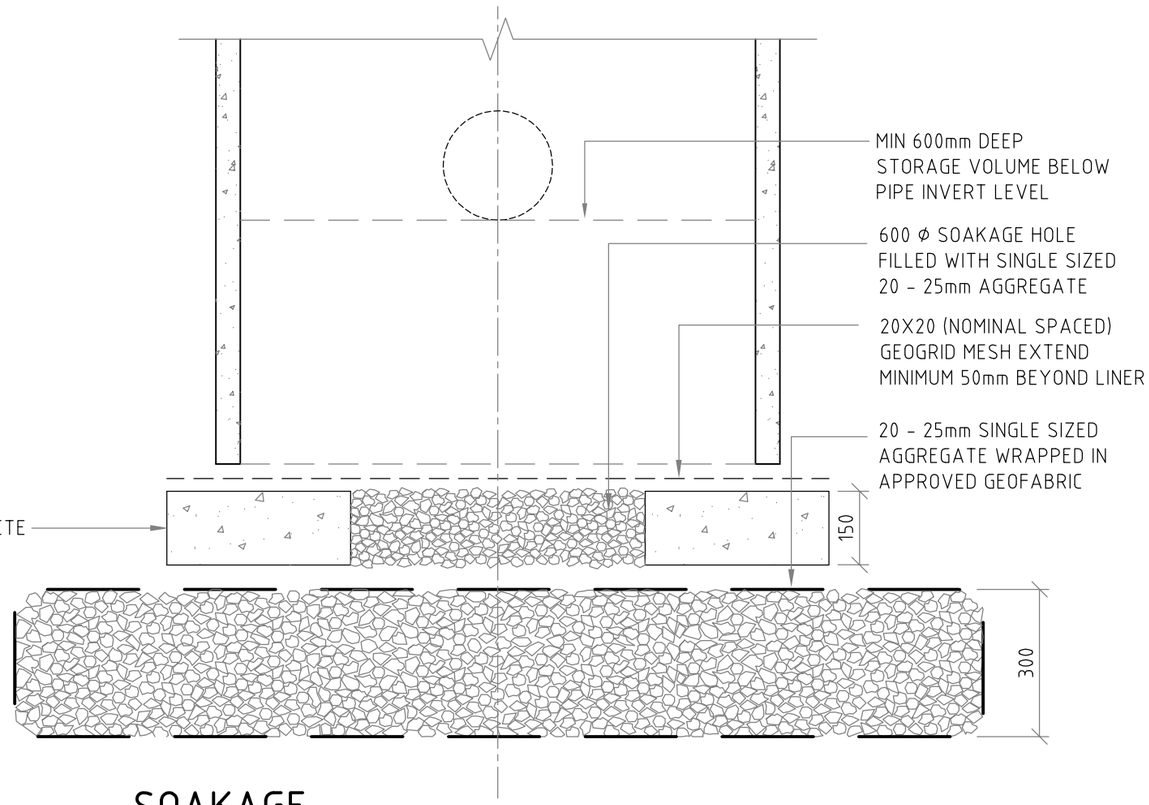
DRAWING TITLE:
MADDINGTON ODP
NEW ROAD PROVISIONING
NBN PIT AND CONDUIT LAYOUT
SHEET 8 OF 8

STATE: WA	REGION: MADDINGTON	
FSA:	SAM:	ADA:
PROJECT No: AYCA-47VTUI		
CADREF No: ECMS-17-814		
SCALE 1:1000 @ A1	SHEET No. 9 OF 9	REV. G

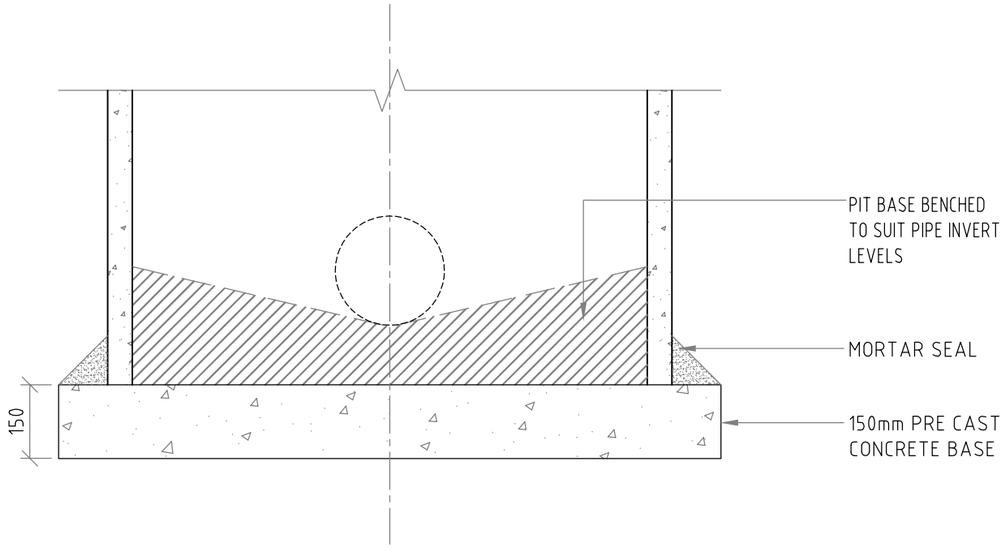
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



SEEPAGE
SCALE N.T.S



SOAKAGE
SCALE N.T.S



SEALED
SCALE N.T.S

NOTES:

1. SELECTION OF PRE CAST BASE TYPE IS DETERMINED BY:
   - DEPTH FROM UNDERSIDE OF COVER TO TOP OF BASE
   - DIAMETER OF LARGEST PIPE
2. CONCRETE TO BE 20mm NOMINAL AGGREGATE AND HAVE A MINIMUM STRENGTH AT 28 DAYS OF:
   - PRE CAST UNIT: 40 MPa
   - INSITU BASE: 20 MPa
3. STEP IRONS TO BE INSTALLED IN ACCORDANCE WITH THE CITY OF GOSNELLS' REQUIREMENTS
4. ALL PIT, BASE AND PIPE JOINTS TO BE SEALED WITH MORTAR AS SHOWN
5. SUBGRADE TO BASE SHALL BE COMPACTED TO 95% MMDD BEFORE PLACING BASE
6. IN HIGH GROUNDWATER AREAS THE BASE AND PIT MUST BE SEALED
7. ALL PIPES TO BE FINISHED FLUSH WITH INSIDE OF LINER AND MADE GOOD WITH MORTAR (MAX 50mm PROTRUSION)
8. CONCRETE SEAL ALL ROUND PIPES A MAXIMUM OF 50mm INSIDE AND MINIMUM OF 100mm OUTSIDE
9. BASES TO BE SET 300mm BELOW THE INVERT OF THE LOWEST PIPE
10. SIDE ENTRY PITS WITH SOAKAGE, GEOGRID TO BE SIZED TO EXTEND BEYOND THE LINER EXTERIOR
11. MINIMUM LINER SIZE TO BE 1050mm, UNLESS OTHERWISE APPROVED
12. PRE CAST COVERS, FRAMES AND SLABS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS GUIDELINES

AMENDMENTS

REVISION	DATE	DESCRIPTION	BY	CHECKED	APPROVED
1	4/2/2015	LAYERS & DRAWING NO'S UPDATED	SA	MB	MB

GENERAL NOTES
1. THIS DRAWINGS ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

CITY OF GOSNELLS
2120 Albany Highway Gosnells 6110
PO Box 662, GOSNELLS 6990
WESTERN AUSTRALIA
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

STANDARD DRAWING
PIT BASES

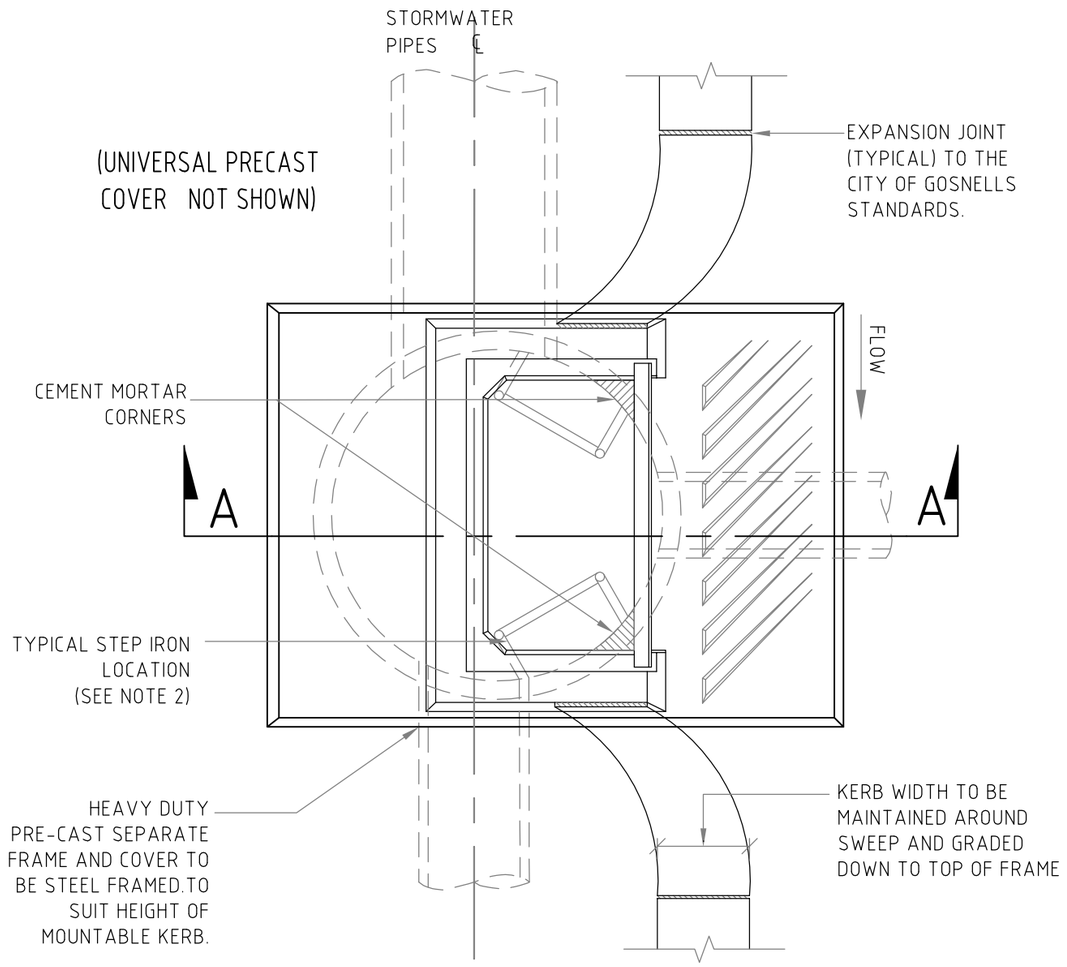
DESIGN JG	DRAWN GL	DRAWING A3	
SCALE AS SHOWN	CHECKED MB	DATE 29/02/12	

STANDARD DRAWING NUMBER
ES-19-1

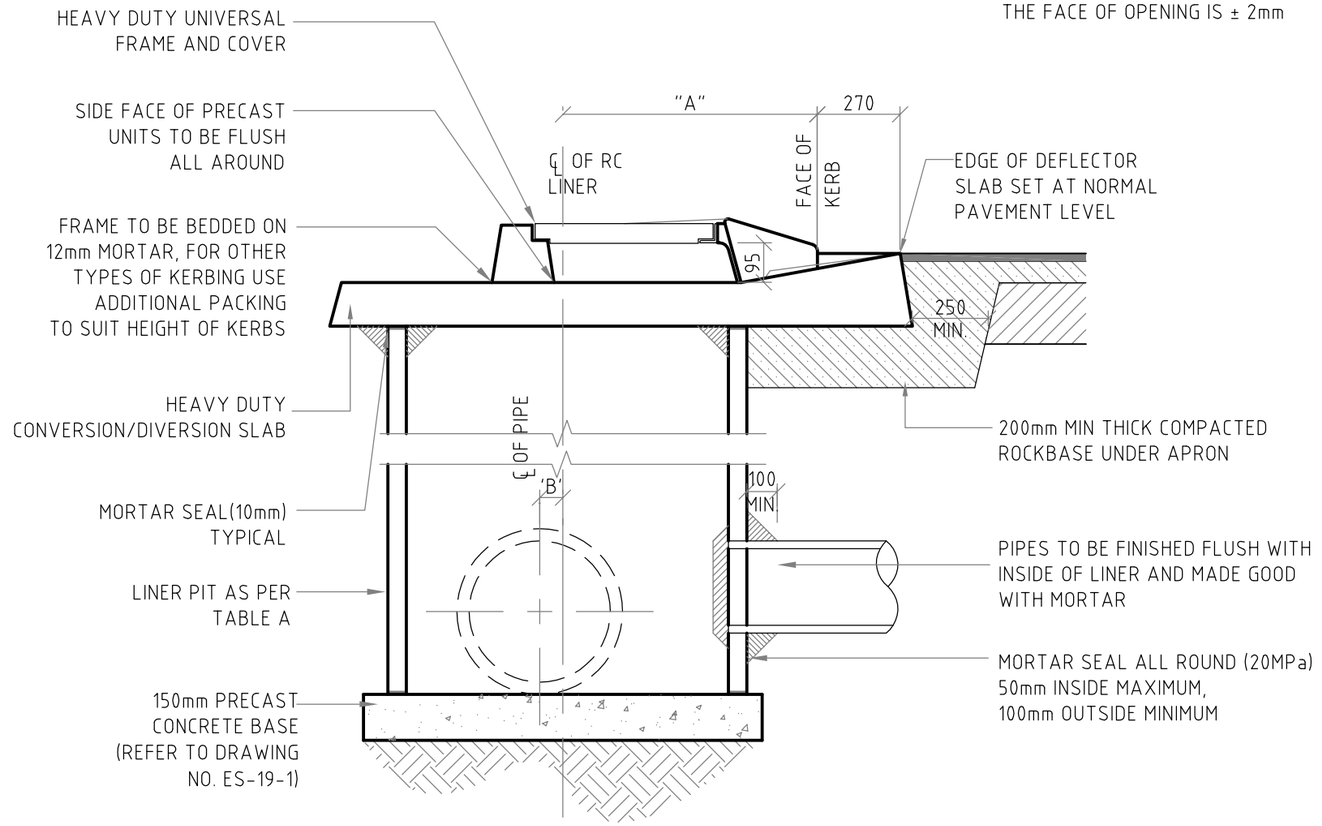
MANAGER TECHNICAL SERVICES
M.BOTTE 4/2/15
M. BOTTE

23/05/2017 10:14:36 AM S:\STANDARD DRAWINGS\ES-19-1 PIT BASES.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



PLAN
SCALE 1:20



NOTES:
(A) THE CLEAR OPENING IS 95 ±15mm
(B) THE MAX. DEVIATION ACROSS THE FACE OF OPENING IS ± 2mm

SECTION A
SCALE 1:20

TABLE A

PIPE SIZE	NOMINAL ⌀ CLASS "2" RC LINER	DIMENSION 'A'	DIMENSION 'B'	PIPE ALIGNMENT (A&B)
300-450	1050	830	70	900
525-675	1200	900	0	900
750	1050 #	830	220	1050
900-1050	1050 #	830	370	1200
1200	1050 #	830	520	1350

NOTES:

1. CONCRETE TO BE 20mm NOMINAL AGGREGATE AND HAVE A MINIMUM STRENGTH AT 28 DAYS OF:
   PRE CAST UNIT: 40MPa
   INSITU BASE : 20MPa U.O.N.
2. STEP IRONS TO BE INSTALLED IN ACCORDANCE WITH CITY OF GOSNELLS' REQUIREMENTS
3. SUBGRADE TO BASE SHALL BE COMPACTED TO 95% MMDD BEFORE PLACING BASE
4. WHERE SPECIFIED BY THE CITY, UNBENCHED MANHOLE BASE TO BE 600mm BELOW LOWEST INVERT LEVEL
5. A HEADER COURSE SHALL BE LAID EVERY 5 COURSES ON BRICKWORK
6. WHERE MULTIPLE PIPES ARE TO BE INSTALLED CONSIDER BRICK CHAMBER
7. IN HIGH GROUNDWATER AREAS THE BASE AND PIT MUST BE SEALED

AMENDMENTS

REVISION	DATE	DESCRIPTION	BY	CHECKED	APPROVED
5	23/5/2017	UPDATE TABLE A	SA	GL	

GENERAL NOTES
1. THIS DRAWINGS ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

CITY OF GOSNELLS
2120 Albany Highway Gosnells 6110
PO Box 662, GOSNELLS 6990
WESTERN AUSTRALIA
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

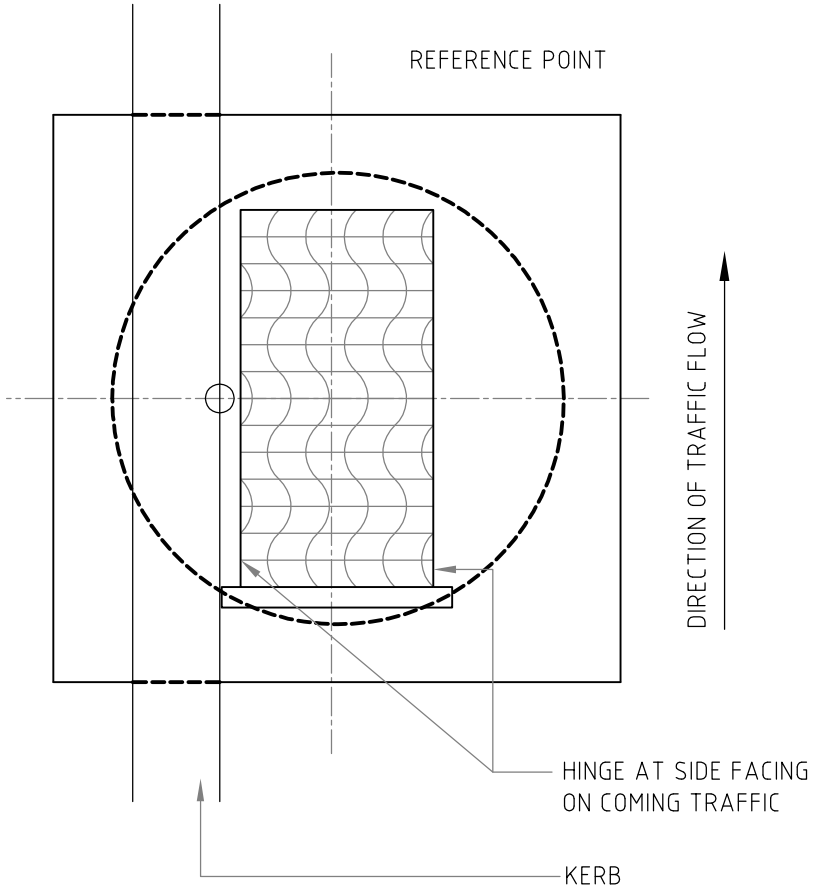
STANDARD DRAWING
SIDE ENTRY PITS

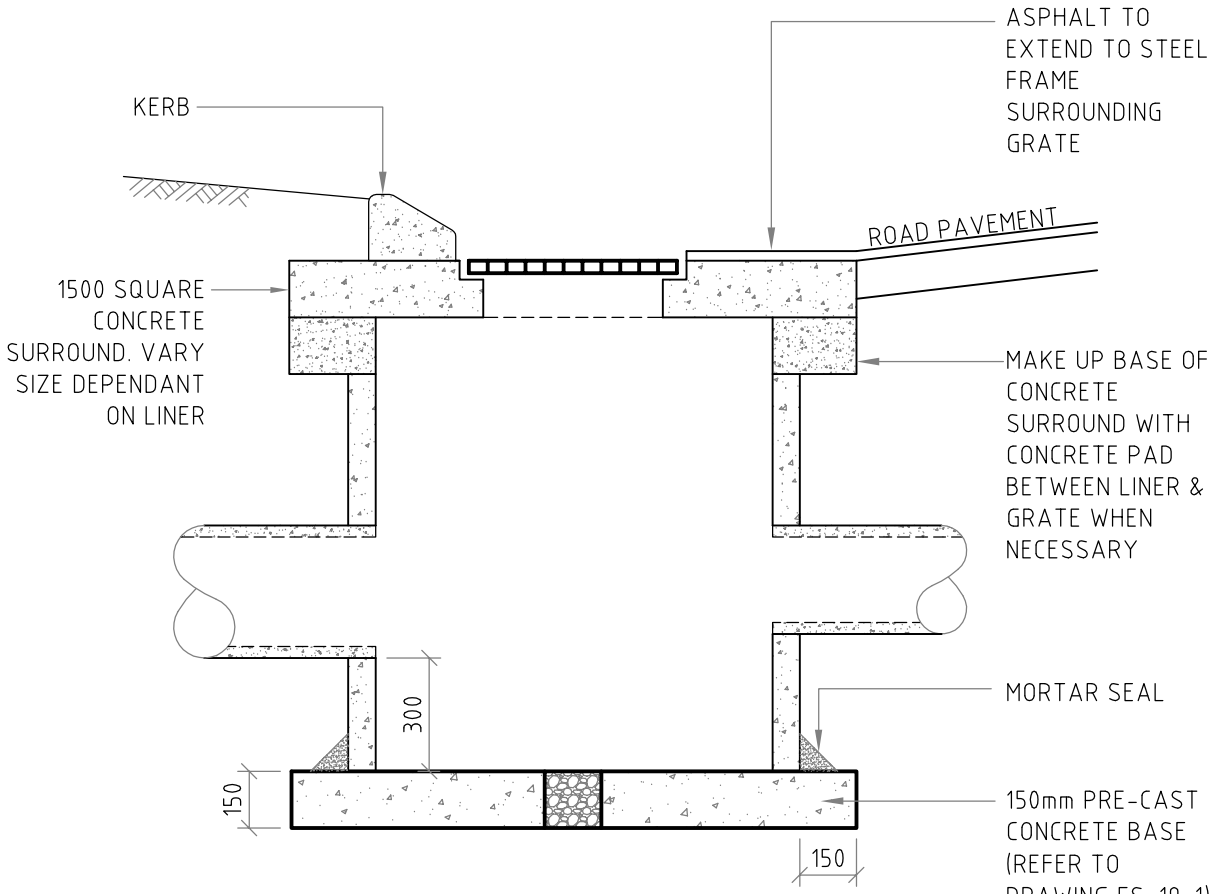
DESIGN	VM	DRAWN	GL	DRAWING	A3
SCALE	1:20	CHECKED	MB	DATE	26/07/06

STANDARD DRAWING NUMBER
ES-19-3
MANAGER TECHNICAL SERVICES
M.BOTTE 4/2/15
M. BOTTE

23/05/2017 12:02:27 PM S:\STANDARD DRAWINGS\ES-19-3 SIDE ENTRY PIT.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021





NOTE:

IN HIGH GROUNDWATER AREAS THE BASE AND PIT MUST BE SEALED

AMENDMENTS						
1	4/2/2015	LAYERS& DWG NO'S UPDATED	SA	MB	MB
REVISION	DATE	DESCRIPTION	BY	CHECKED	APPROVED

GENERAL NOTES

1. THIS DRAWINGS ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

CITY OF GOSNELLS
2120 Albany Highway Gosnells 6110
PO Box 662, GOSNELLS 6990
WESTERN AUSTRALIA
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

STANDARD DRAWING

GRATED ENTRY PIT

DESIGN	TL	DRAWN GL	DRAWING A4
SCALE	1:20	CHECKED AT	DATE 01/02/2012

STANDARD DRAWING NUMBER
ES-19-7

MANAGER TECHNICAL SERVICES
M.BOTTE 4/2/15
M. BOTTE

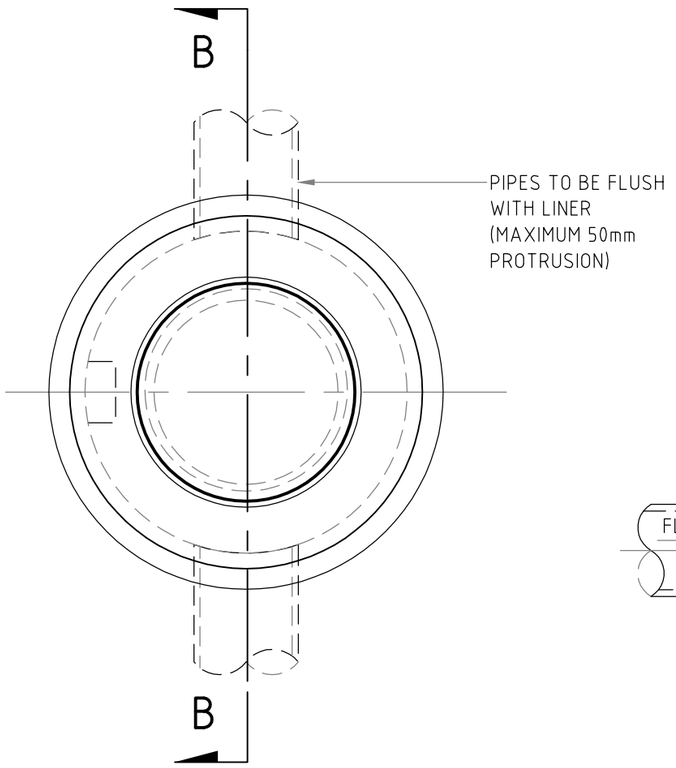
23/05/2017 10:16:15 AM S:\STANDARD DRAWINGS\ES-19-7 GRATED GULLY.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

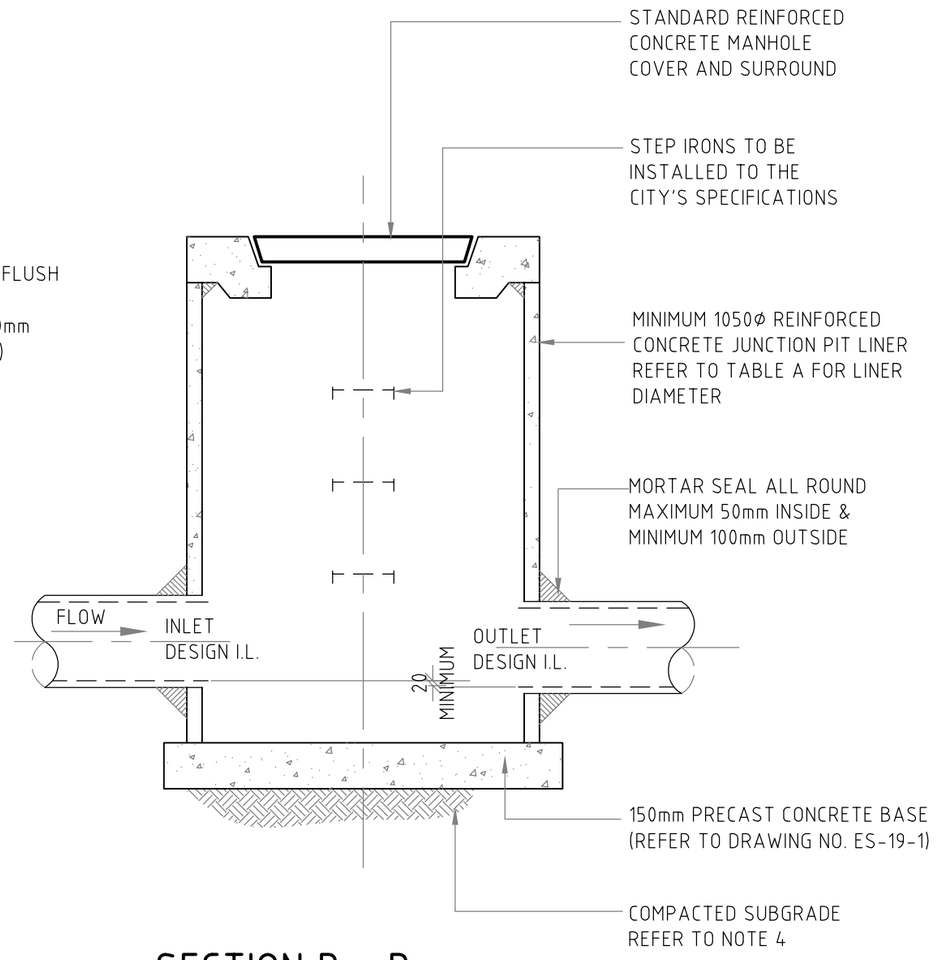
PIT ϕ (mm)	PIPE A (mm)	PIPE B (mm)	PIPE C (mm)
1050	-	-	600
1050	-	-	750
1050	750	-	750
1050	600	225	750
1050	600	450	600
1200	-	-	900
1200	750	450	750
1500	750	300	900
1800#	900	-	900

OPENINGS IN LINER MUST BE DIAMOND SAW CUT TO ENSURE WALL INTEGRITY

PLAN VIEW



PLAN
SCALE 1:20



SECTION B - B
SCALE 1:20

NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH OTHER CITY OF GOSNELLS' CONSTRUCTION DRAWINGS
2. STEP IRONS ARE TO BE INSTALLED TO THE CITY OF GOSNELLS' STANDARDS
3. ALL COMPONENTS SHALL BE DESIGNED TO ACCEPT LOADINGS IN ACCORDANCE WITH AS3725 AND MANUFACTURERS' GUIDELINES
4. SUBGRADE TO BASE SHALL BE COMPACTED TO 95% MMDD BEFORE PLACING BASE
5. IN HIGH GROUNDWATER AREAS THE BASE AND PIT MUST BE SEALED
6. MORTAR TO BE 3:1, SAND:CEMENT MIX
7. PRECAST CONCRETE TO BE 20mm NOMINAL AGGREGATE AND HAVE A MINIMUM 28 DAY STRENGTH OF 40MPa
8. INSITU CONCRETE SHALL HAVE MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 20MPa
9. LINERS SHALL BE INTERLOCKING JOINT AND SPUN REINFORCED CONCRETE LINER TO AS 4058
10. A MAXIMUM OF THREE PIPE OPENINGS ARE ALLOWED IN ANY ONE JUNCTION PIT
11. A MINIMUM WALL WIDTH OF 250mm IS ALLOWED BETWEEN HOLES CUT FOR PIPE OPENINGS
12. THE MAXIMUM OUTSIDE DIAMETER OF A PIPE CONNECTED TO THE JUNCTION PIT SHALL NOT EXCEED 30% OF THE INTERNAL DIAMETER OF THE JUNCTION PIT
13. HOLES FOR PIPES ENTERING JUNCTION PIT WALLS ARE TO BE MACHINE CUT OR MADE BY DRILLING 10mm HOLES AT 20mm CENTRES AROUND A CIRCLE MARKED ON THE INSIDE WALL AND THEN BREAKING OUT THE CONCRETE
14. RUBBER RING JOINTS TO BE INSTALLED IN ACCORDANCE WITH AS3500
15. PIPES TO BE FINISHED FLUSH WITH THE INSIDE OF THE LINER AND MADE GOOD WITH MORTAR (MAXIMUM PROTRUSION OF 50mm)
16. MINIMUM PIPE DIAMETER 300mm
17. LINER DIAMETER TO BE A MINIMUM 1050mm.

AMENDMENTS

REVISION	DATE	DESCRIPTION	BY	CHECKED	APPROVED
2	4/2/2015	LAYERS& DWG NO'S UPDATED	SA	MB	MB
1	12.09.2012	INCLUDE TABLE A AND CHANGE NOTES	GL	JG	MB

GENERAL NOTES

1. THIS DRAWINGS ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

CITY OF GOSNELLS
2120 Albany Highway Gosnells 6110
PO Box 662, GOSNELLS 6990
WESTERN AUSTRALIA
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

STANDARD DRAWING

JUNCTION PIT DETAIL

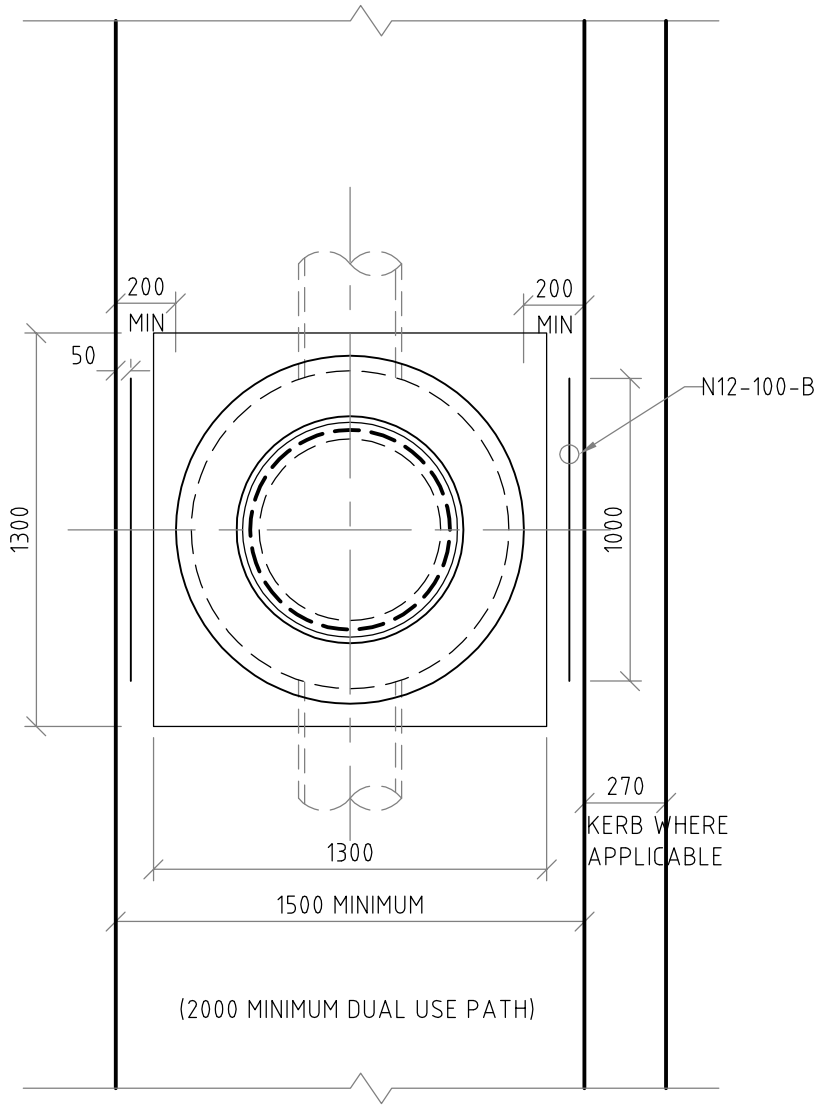
DESIGN	AT	DRAWN	GL	DRAWING	A3
SCALE	1:20	CHECKED	MB	DATE	24/04/12

STANDARD DRAWING NUMBER
ES-19-8

MANAGER TECHNICAL SERVICES
M.BOTTE 4/2/15
M. BOTTE

23/05/2017 10:16:47 AM S:\STANDARD DRAWINGS\ES-19-8 JUNCTION PIT DETAIL.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



PLAN

SCALE 1:25

NOTES:

1. REINFORCEMENT STEEL TO BE MINIMUM 1 METRE LENGTH N12
2. MINIMUM OF 200mm PATH EITHER SIDE OF THE JUNCTION PIT COVER
3. CONCRETE COVER TO REINFORCEMENT STEEL TO BE MINIMUM 50mm
4. INCREASE THICKNESS OF FOOTPATH PANEL FOR 1 METRE EITHER SIDE OF THE JUNCTION PIT TO 150mm
5. SQUARE JUNCTION PIT LIDS PREFERRED IN ALL PATHS
6. CONTRACTION JOINTS TO USED IN THE INSTALLATION OF COVERS IN ALL PATHS

AMENDMENTS

REVISION	DATE	DESCRIPTION	BY	CHECKED	APPROVED
1	4/2/2015	LAYERS& DWG NO'S UPDATED	SA	MB	MB

GENERAL NOTES

1. THIS DRAWINGS ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

CITY OF GOSNELLS
2120 Albany Highway Gosnells 6110
PO Box 662, GOSNELLS 6990
WESTERN AUSTRALIA
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

STANDARD DRAWING

JUNCTION PIT/ FOOTPATH DETAIL

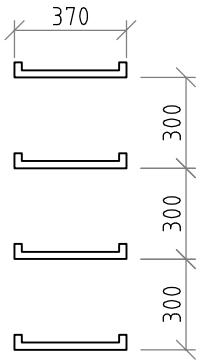
DESIGN MB	DRAWN GL	DRAWING A4	
SCALE 1:25	CHECKED AT	DATE 30/07/10	

STANDARD DRAWING NUMBER
ES-19-10

MANAGER TECHNICAL SERVICES
M.BOTTE 4/2/15
M. BOTTE

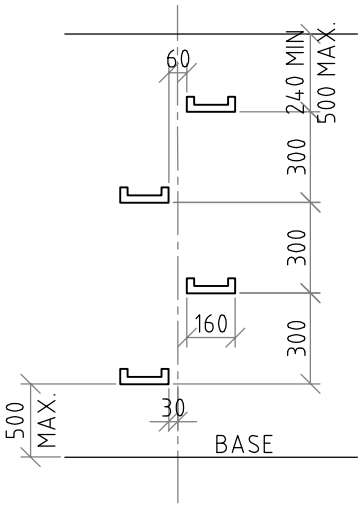
23/05/2017 10:17:58 AM S:\STANDARD DRAWINGS\ES-19-10 JUNCTION PIT FOOTPATH DETAIL.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



SPACING

SCALE 1:25

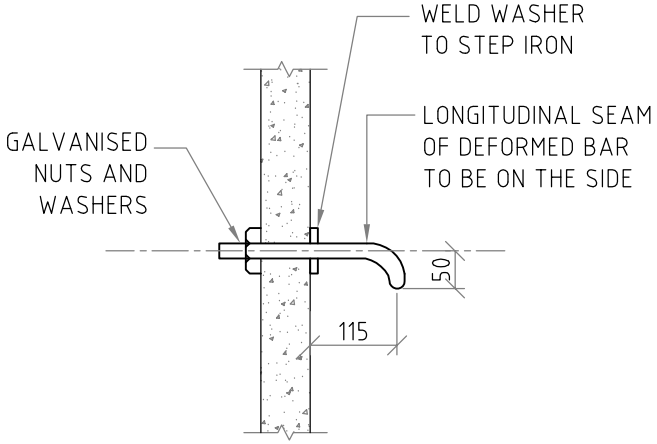


SPACING

SCALE 1:25

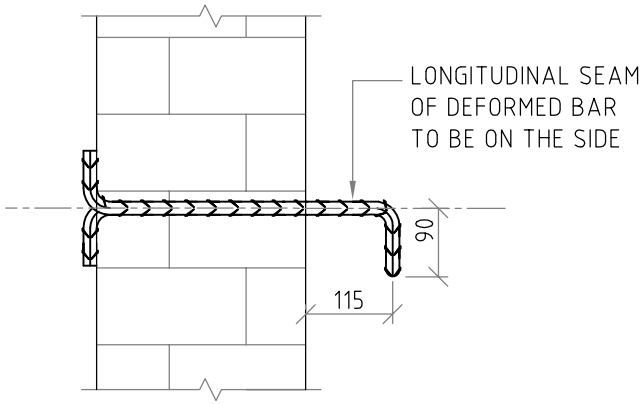
NOTES:

1. ALL DRAINAGE STRUCTURES DEEPER THAN 1200mm SHALL BE FITTED WITH STEP IRONS
2. STEP IRONS TO CONFORM TO AS1657
3. STEP IRONS TO BE LOCATED ON THE SIDE WITH LEAST INTERFERENCE FROM PIPES IN ALL JUNCTION PITS, GULLY'S, SIDE ENTRY AND/OR COMBINATION PITS
4. LINERS TO BE MADE GOOD EXTERNALLY USING CEMENT MORTAR FOLLOWING STEP IRON INSTALLATION
5. STEP IRONS TO BE 24ϕ HOT DIPPED GALVANIZED DEFORMED BARS OR ALTERNATIVE FOR LINERS WITH PRE-CAST HOLES USE PARTIALLY ENCAPSULATED KNOCK-IN STEP IRONS THAT CONFORM TO AS1657 OR ALTERNATIVE STEP IRONS APPROVED BY THE CITY OF GOSNELLS



SIDE ENTRY PITS AND PRE-CAST STEP IRON

SCALE 1:10



SIDE ENTRY PITS AND BRICK STEP IRON

SCALE 1:10

AMENDMENTS						
1	4/2/2015	LAYERS& DWG NO'S UPDATED	SA	MB	MB
REVISION	DATE	DESCRIPTION	BY	CHECKED	APPROVED

GENERAL NOTES

1. THIS DRAWINGS ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

CITY OF GOSNELLS

2120 Albany Highway Gosnells 6110
PO Box 662, GOSNELLS 6990
WESTERN AUSTRALIA

Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

STANDARD DRAWING

STEP IRONS

DESIGN	MB	DRAWN	GL	DRAWING	A4
SCALE	AS SHOWN	CHECKED	MB	DATE	12/09/12

STANDARD DRAWING NUMBER

ES-19-12

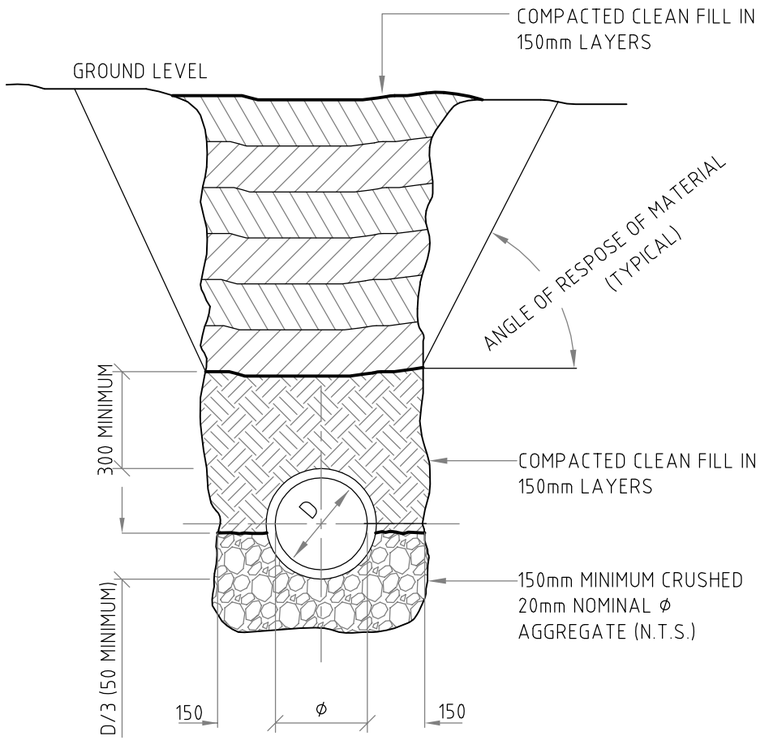
MANAGER TECHNICAL SERVICES

M.BOTTE 4/2/15

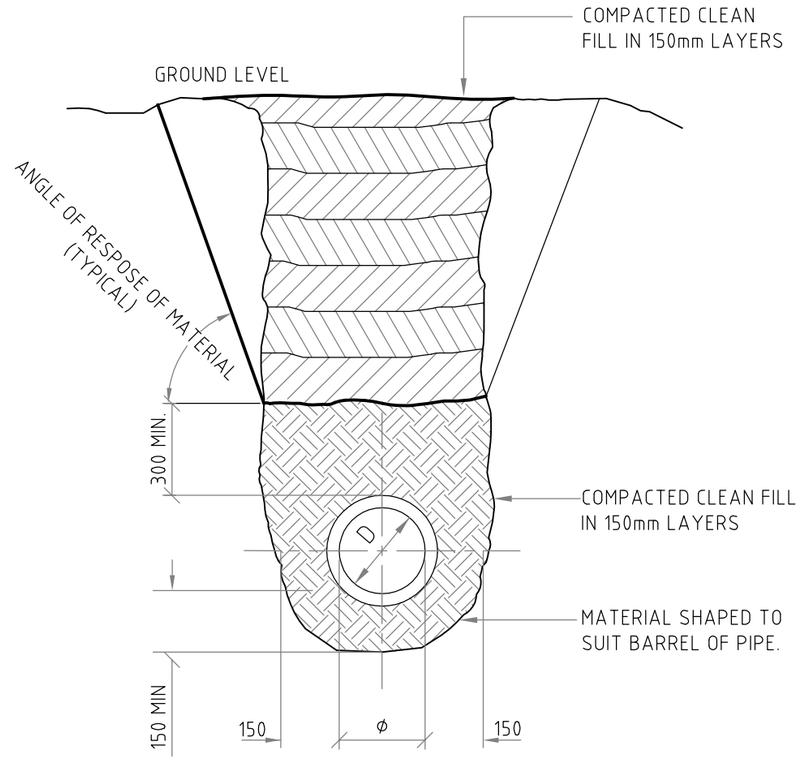
M. BOTTE

23/05/2017 10:26:51 AM S:\STANDARD DRAWINGS\ES-19-12 STEP IRON DETAIL.DWG

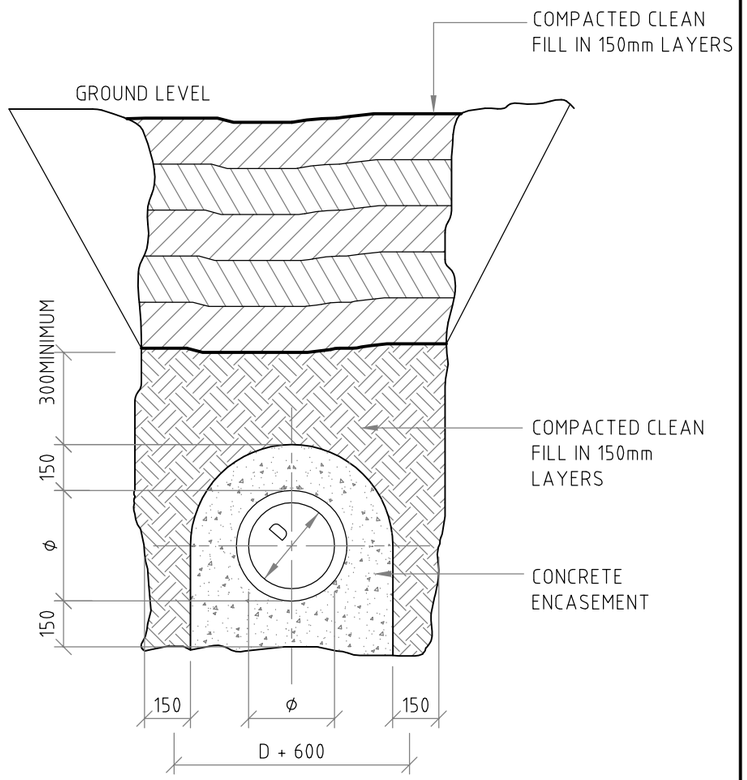
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



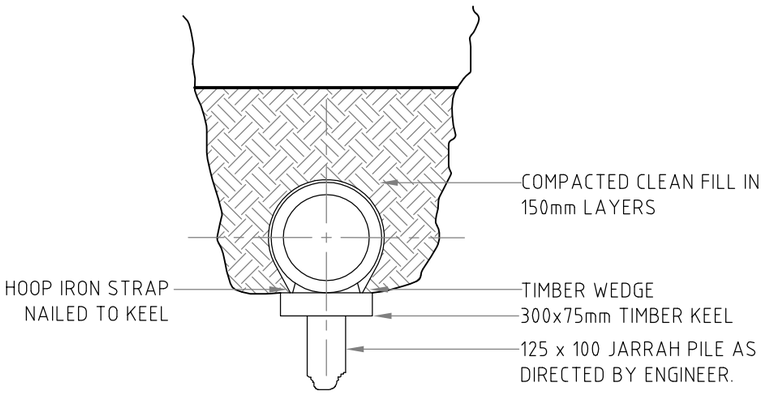
WET GROUND BEDDING
SCALE 1:200



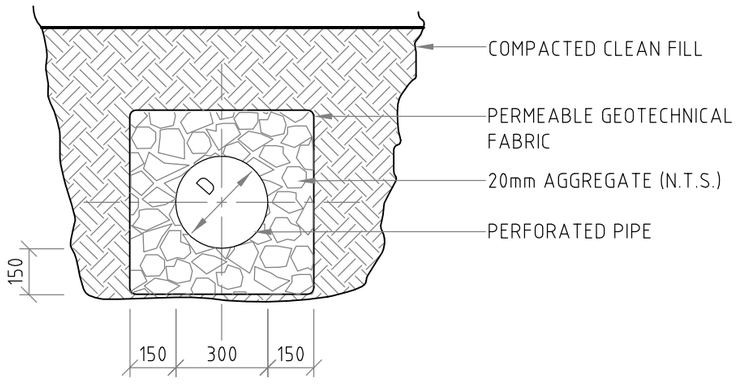
DRY GROUND BEDDING
SCALE 1:200



CONCRETE ENCASEMENT
SCALE 1:200



PILED BEDDING
SCALE 1:200



INFILTRATION PIPE BEDDING
SCALE 1:200

NOTES:

1. FILL SHALL BE COMPACTED TO MINIMUM 98% MMDD UNDER ROADS AND MINIMUM 95% MMDD FOR VERGES
2. WET GROUND BEDDING TO BE USED AS NECESSARY OR WHEN DIRECTED BY ENGINEER AND WHEN WATER IS ENCOUNTERED IN TRENCHES
3. CONCRETE ENCASEMENT TO BE USED AS NECESSARY OR WHEN DIRECTED BY ENGINEER
4. PILED BEDDING TO BE USED AS NECESSARY OR WHERE DIRECTED BY ENGINEER

AMENDMENTS

REVISION	DATE	DESCRIPTION	BY	CHECKED	APPROVED
4	4/2/2015	LAYERS & DWG NO'S UPDATED	SA	MB	MB
3	12/09/12	CHANGE TO NOTES AND DRY GROUND BEDDING DETAIL	GL	AT	MB
2	18/02/12	INCLUDE INFILTRATION PIPE DETAIL	GL	AT	MB
1	18/02/11	UPDATE OF TITLE BLOCK	GL	MB	MB

GENERAL NOTES

1. THIS DRAWINGS ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

CITY OF GOSNELLS
2120 Albany Highway Gosnells 6110
PO Box 662, GOSNELLS 6990
WESTERN AUSTRALIA
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

STANDARD DRAWING

PIPE BEDDING DETAILS

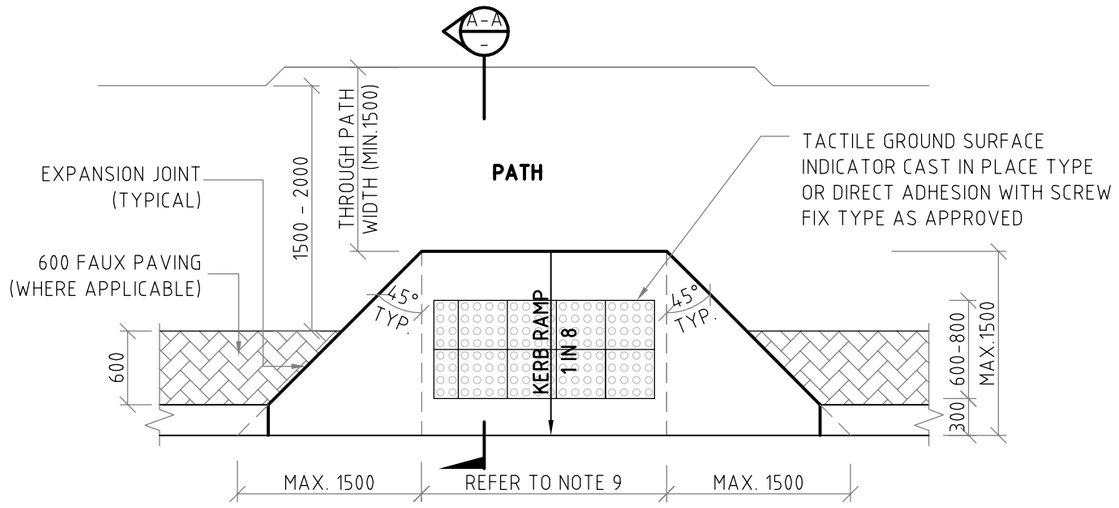
DESIGN VM	DRAWN GL	DRAWING A3
SCALE 1: 200	CHECKED MB	DATE 21/07/10

STANDARD DRAWING NUMBER
ES-19-13

MANAGER TECHNICAL SERVICES
M.BOTTE 4/2/15
M. BOTTE

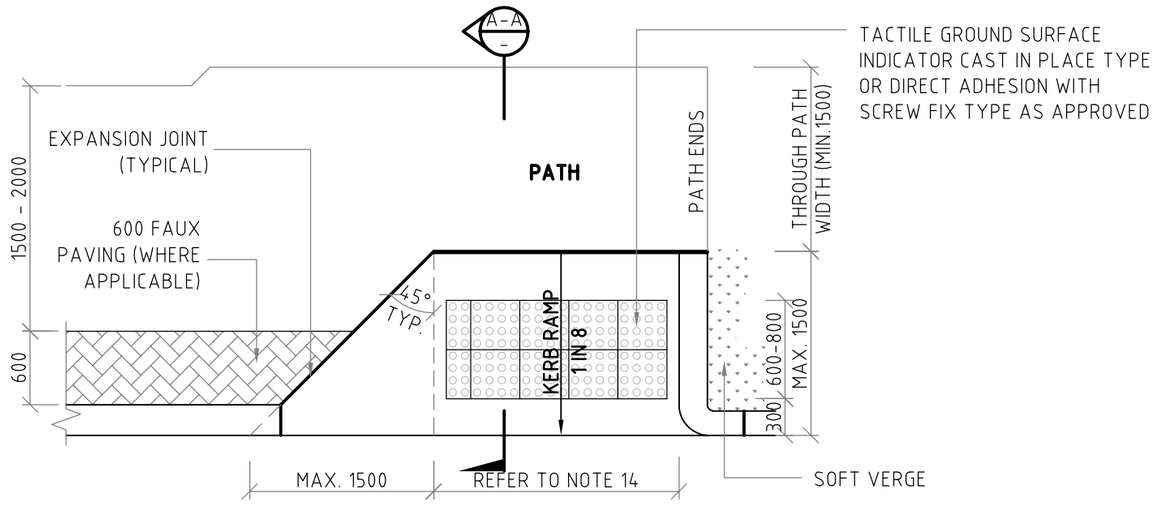
23/05/2017 10:27:28 AM S:\STANDARD DRAWINGS\ES-19-13 PIPE BEDDING DETAILS.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



PLAN - TYPICAL KERB RAMP TYPE A

SCALE 1:50

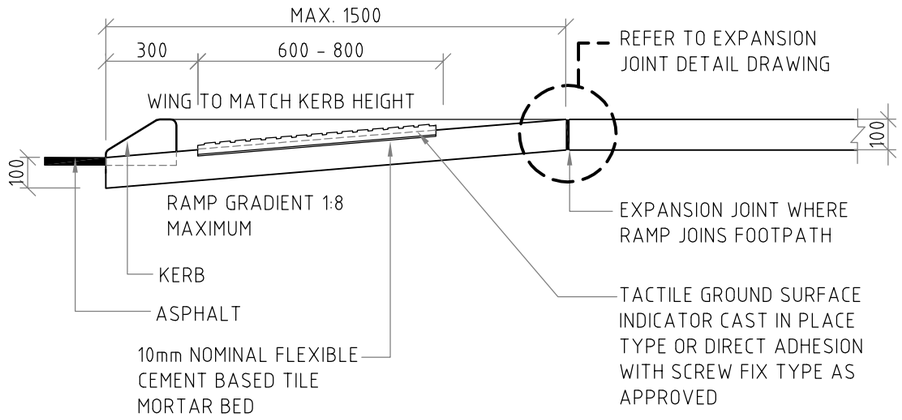


PLAN - KERB RAMP TYPE A (MODIFIED)

SCALE 1:50

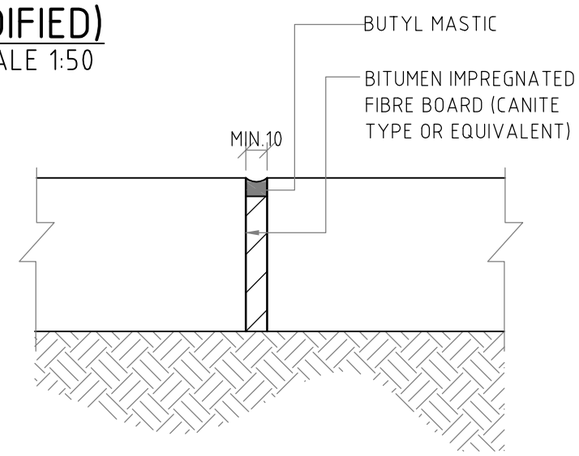
NOTES:

1. THIS RAMP TO BE USED ON ALL PATHS BEHIND KERB. FOR ALL PATHS THAT ARE OFFSET FROM BACK OF KERB REFER TO STANDARD DRAWING ES20-2. FOR KERB RAMPS SKEWED TO MATCH THE DIRECTION OF THE ROAD CROSSING REFER TO STANDARD DRAWING ES-20-3.
2. DIRECTIONAL AND TACTILE GROUND SURFACE INDICATORS TO BE PROVIDED AS PER AUSTRALIAN STANDARD AS 1428.
3. EDGE OF RAMP SHALL BE FLUSH WITH ROAD PAVEMENT (ASPHALT OR SEAL).
4. CONCRETE FOR KERB RAMP SHALL BE A MINIMUM 25MPa. FOR KERB SPECIFICATIONS REFER TO STANDARD DRAWINGS ES-35-1 TO ES-35-4
5. ALL CONCRETE SHALL BE BROOM FINISHED ACROSS THE DIRECTION OF PEDESTRIAN TRAFFIC TO PROVIDE A NON-SLIP SURFACE IN ACCORDANCE WITH AUSTRALIAN STANDARD AS 4586.
6. A MINIMUM OF 500mm OF KERB SHALL BE PROVIDED BETWEEN ADJACENT RAMPS. WHERE THE MINIMUM CANNOT BE ACHIEVED A SINGLE WIDE RAMP SHALL BE PROVIDED.
7. WHERE HANDRAILS ARE REQUIRED OR/AND ARE SPECIFIED BY DESIGNER, THEY SHALL BE IN ACCORDANCE WITH DRAWING ES-47.
8. CENTRE-LINE OF KERB RAMPS TO ALIGN ACROSS THE ROAD OR MIDDLE OF ISLAND PEDESTRIAN GAP.
9. KERB RAMP WIDTH (NOM. 1.5m OR 2.0m) IS TO BE NO LESS THAN THE WIDTH OF ANY ADJOINING CONNECTING PATHS.
10. KERB RAMP WIDTH MUST MATCH ANY EXISTING OPPOSING KERB RAMP WIDTH (ROAD CROSSING), UNLESS THAT OPPOSING KERB RAMP IS NOT COMPLAINT WITH THIS STANDARD, IN WHICH CASE IT IS TO BE UPGRADED TO MEET SPECIFICATIONS.
11. ALL JOINTS ON RAMP TO BE TROWELLED WITH A STANDARD GROOVING TOOL.



TYPICAL SECTION A-A

SCALE 1:20



EXPANSION JOINT DETAIL

SCALE 1:4

TYPE	APPLICATION
TYPE A & TYPE A (MODIFIED)	DISTRICT DISTRIBUTOR A AND B, INTERSECTIONS
TYPE B & TYPE B (MODIFIED)	DISTRICT DISTRIBUTOR A AND B LOCAL ROADS, INTERSECTIONS
TYPE C & TYPE C (MODIFIED)	DISTRICT DISTRIBUTOR A AND B LOCAL ROADS, INTERSECTIONS

AMENDMENTS

REVISION	DATE	DESCRIPTION	BY	CHECKED	APPROVED
9	28/9/2016	NOTES AMENDED - PATH CLARIFICATION	SB	AT	MB

GENERAL NOTES

1. THIS DRAWINGS ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

CITY OF GOSNELLS
2120 Albany Highway Gosnells 6110
PO Box 662, GOSNELLS 6990
WESTERN AUSTRALIA
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

STANDARD DRAWING

KERB RAMP - TYPE A
FOR PATH BEHIND KERB

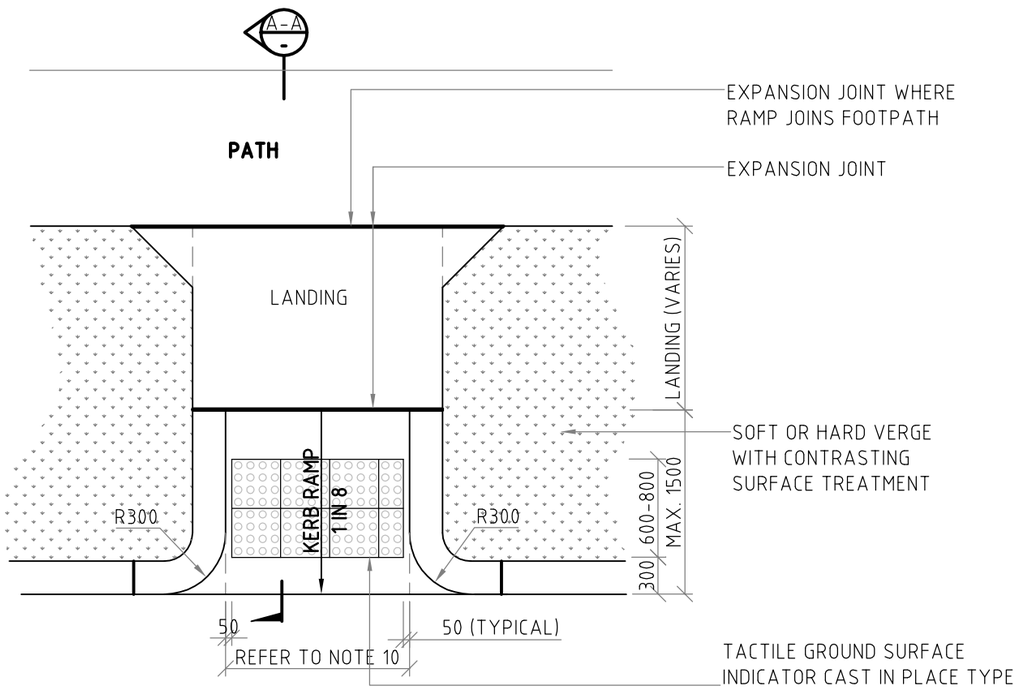
DESIGN JG	DRAWN GL	DRAWING A3
SCALE AS SHOWN	CHECKED MB	DATE 07/12/10

STANDARD DRAWING NUMBER
ES-20-1

MANAGER TECHNICAL SERVICES
M.BOTTE 4/2/15
M. BOTTE

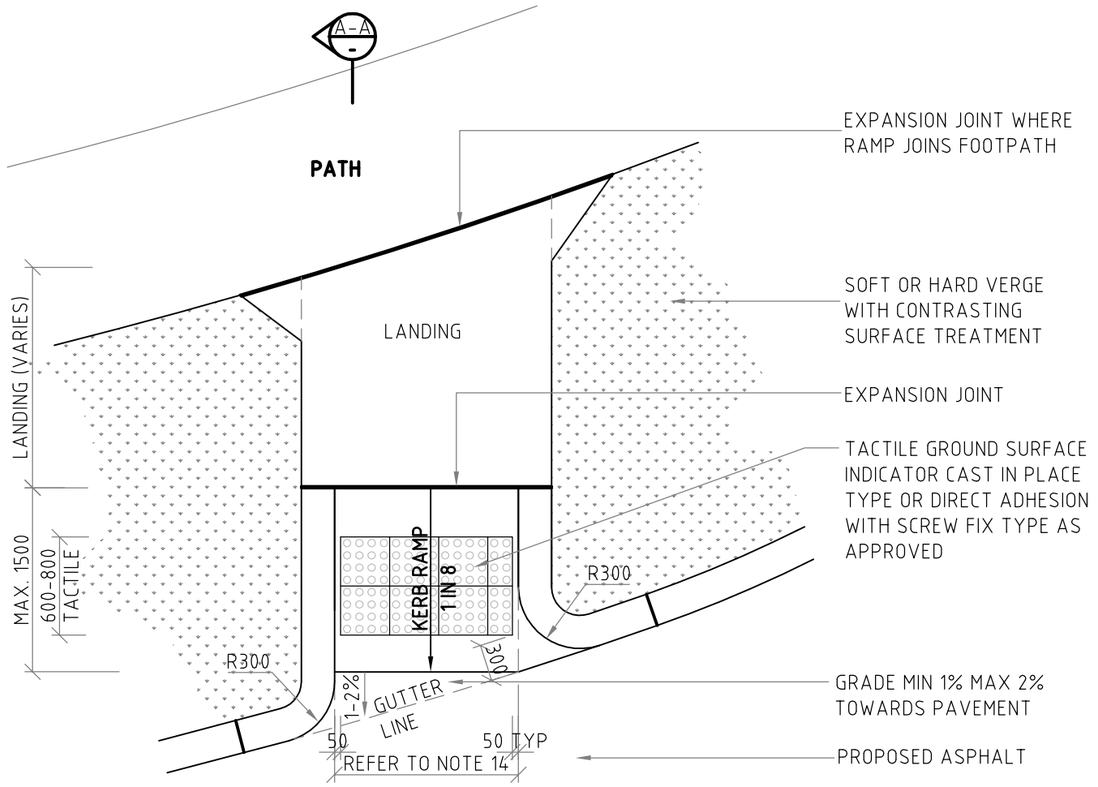
23/05/2017 10:29:04 AM S:\STANDARD DRAWINGS\ES-20-1 KERB RAMPS TYPE A.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



PLAN -TYPICAL KERB RAMP TYPE B

SOFT VERGE SCALE 1:50

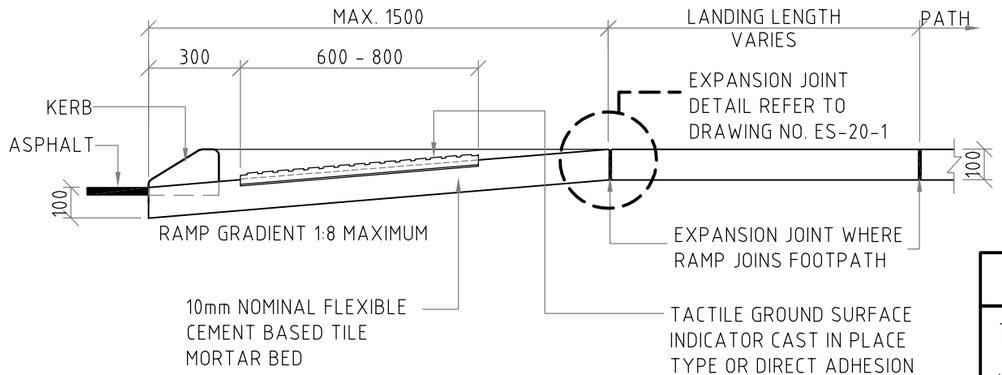


PLAN -TYPICAL KERB RAMP TYPE B (MODIFIED)

SOFT VERGE SCALE 1:50

NOTES:

1. THIS RAMP TO BE USED ON ALL PATHS BEHIND KERB. FOR ALL PATHS THAT ARE OFFSET FROM BACK OF KERB REFER TO STANDARD DRAWING ES20-2. FOR KERB RAMPS SKEWED TO MATCH THE DIRECTION OF THE ROAD CROSSING REFER TO STANDARD DRAWING ES-20-3.
2. DIRECTIONAL AND TACTILE GROUND SURFACE INDICATORS TO BE PROVIDED AS PER AUSTRALIAN STANDARD AS 1428.
3. EDGE OF RAMP SHALL BE FLUSH WITH ROAD PAVEMENT (ASPHALT OR SEAL).
4. CONCRETE FOR KERB RAMP SHALL BE A MINIMUM 25MPa. FOR KERB SPECIFICATIONS REFER TO STANDARD DRAWINGS ES-35-1 TO ES-35-4
5. ALL CONCRETE SHALL BE BROOM FINISHED ACROSS THE DIRECTION OF PEDESTRIAN TRAFFIC TO PROVIDE A NON-SLIP SURFACE IN ACCORDANCE WITH AUSTRALIAN STANDARD AS 4586.
6. A MINIMUM OF 500mm OF KERB SHALL BE PROVIDED BETWEEN ADJACENT RAMPS. WHERE THE MINIMUM CANNOT BE ACHIEVED A SINGLE WIDE RAMP SHALL BE PROVIDED.
7. WHERE HANDRAILS ARE REQUIRED OR/AND ARE SPECIFIED BY DESIGNER, THEY SHALL BE IN ACCORDANCE WITH DRAWING ES-47.
8. CENTRE-LINE OF KERB RAMPS TO ALIGN ACROSS THE ROAD OR MIDDLE OF ISLAND PEDESTRIAN GAP.
9. WHERE PATH AND KERB RAMP MEET, PROVIDE A 500mm X 500mm MINIMUM WEDGE.
10. KERB RAMP WIDTH (NOM. 1.5m OR 2.0m) IS TO BE NO LESS THAN THE WIDTH OF ANY ADJOINING CONNECTING PATHS.
11. KERB RAMP WIDTH MUST MATCH ANY EXISTING OPPOSING KERB RAMP WIDTH (ROAD CROSSING), UNLESS THAT OPPOSING KERB RAMP IS NOT COMPLAINT WITH THIS STANDARD, IN WHICH CASE IT IS TO BE UPGRADED TO MEET SPECIFICATIONS.
12. ALL JOINTS ON RAMP TO BE TROWELLED WITH A STANDARD GROOVING TOOL.



TYPICAL SECTION A-A

SCALE 1:20

TYPE	APPLICATION
TYPE A & TYPE A (MODIFIED)	DISTRICT DISTRIBUTOR A AND B, INTERSECTIONS
TYPE B & TYPE B (MODIFIED)	DISTRICT DISTRIBUTOR A AND B LOCAL ROADS, INTERSECTIONS
TYPE C & TYPE C (MODIFIED)	DISTRICT DISTRIBUTOR A AND B LOCAL ROADS, INTERSECTIONS

AMENDMENTS

REVISION	DATE	DESCRIPTION	BY	CHECKED	APPROVED
8	28/9/2016	NOTES AMENDED - PATH CLARIFICATION	SB	AT	MB
7	10/3/2016	TACTILE SPECIFICATION AND NOTES UPDATED	SA	AT	MB
6	17/9/2015	TACTILE SPECIFICATION UPDATED	SA	MB	MB
5	4/2/2015	RADIUS UPDATED	SA	MB	MB

GENERAL NOTES

1. THIS DRAWINGS ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

CITY OF GOSNELLS
2120 Albany Highway Gosnells 6110
PO Box 662, GOSNELLS 6990
WESTERN AUSTRALIA
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

STANDARD DRAWING

KERB RAMP - TYPE B

FOR PATH OFFSET FROM BACK OF KERB

DESIGN JG	DRAWN GL	DRAWING A3	
SCALE AS SHOWN	CHECKED MB	DATE 07/12/10	

STANDARD DRAWING NUMBER

ES-20-2

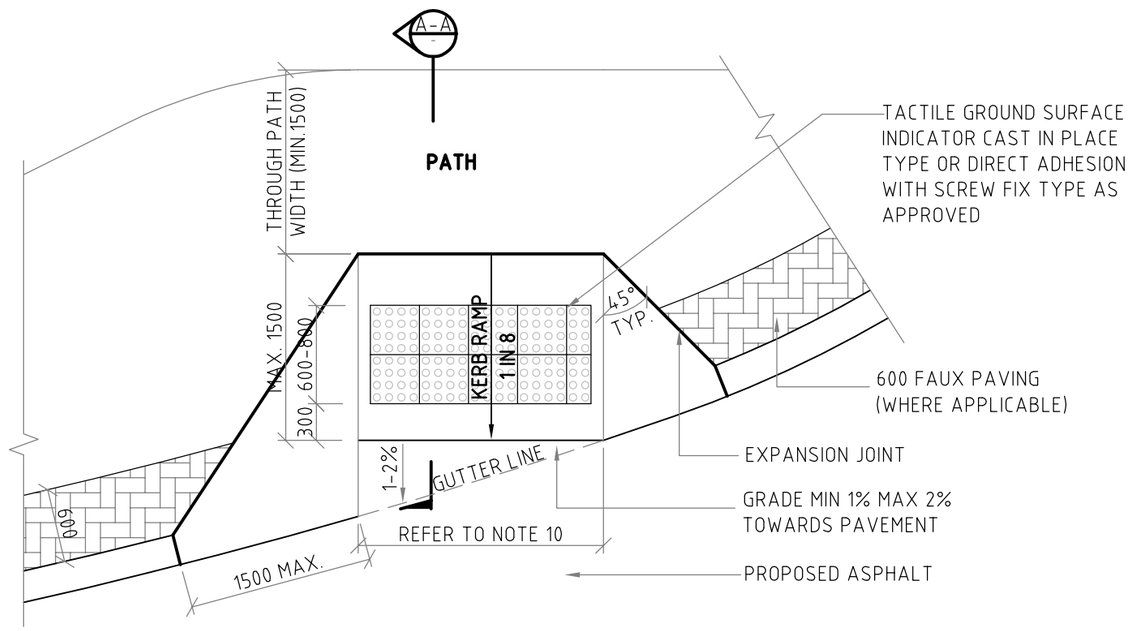
MANAGER TECHNICAL SERVICES

M.BOTTE 4/2/15

M. BOTTE

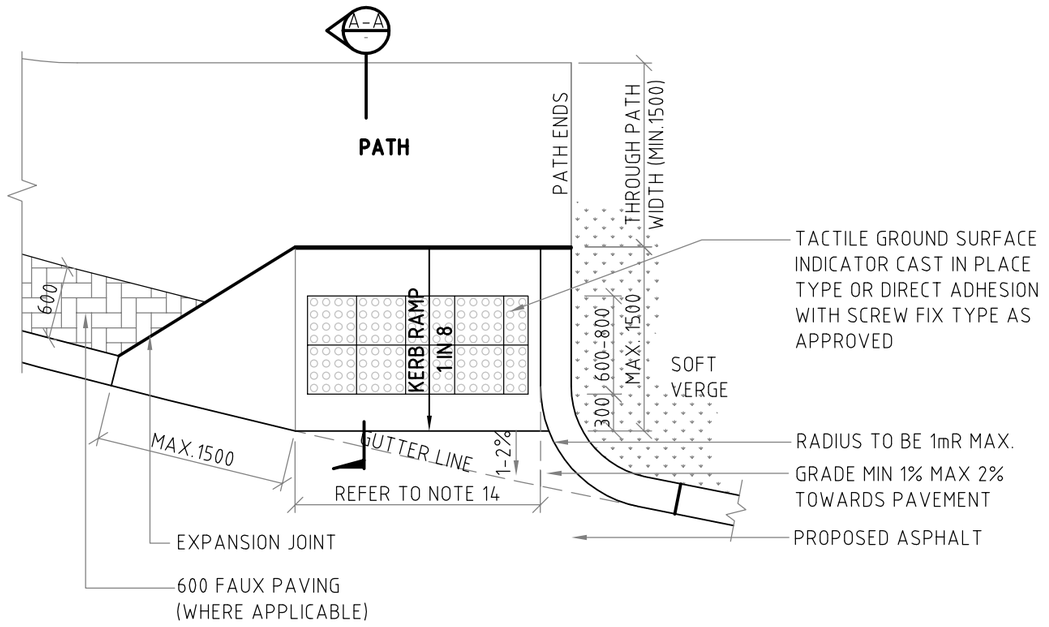
23/05/2017 10:30:21 AM S:\STANDARD DRAWINGS\ES-20-2 KERB RAMP TYPE B.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



PLAN - TYPICAL KERB RAMP TYPE C

SCALE 1:50

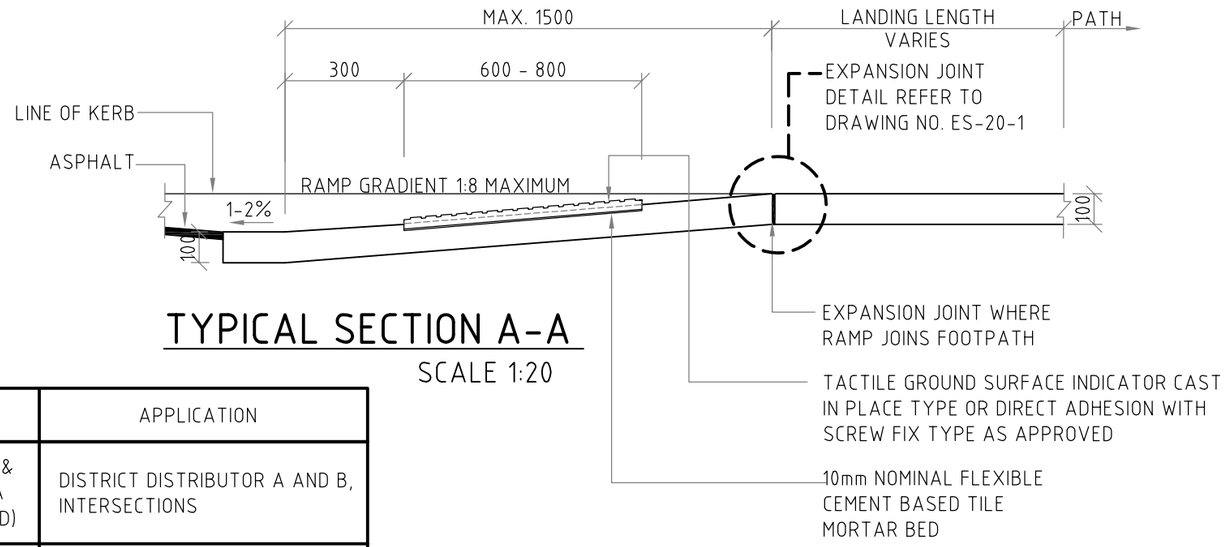


PLAN - TYPICAL KERB RAMP TYPE C (MODIFIED)

SCALE 1:50

NOTES:

1. THIS RAMP TO BE USED ON ALL PATHS BEHIND KERB. FOR ALL PATHS THAT ARE OFFSET FROM BACK OF KERB REFER TO STANDARD DRAWING ES20-2. FOR KERB RAMPS SKEWED TO MATCH THE DIRECTION OF THE ROAD CROSSING REFER TO STANDARD DRAWING ES-20-3.
2. DIRECTIONAL AND TACTILE GROUND SURFACE INDICATORS TO BE PROVIDED AS PER AUSTRALIAN STANDARD AS 1428.
3. EDGE OF RAMP SHALL BE FLUSH WITH ROAD PAVEMENT (ASPHALT OR SEAL).
4. CONCRETE FOR KERB RAMP SHALL BE A MINIMUM 25MPa. FOR KERB SPECIFICATIONS REFER TO STANDARD DRAWINGS ES-35-1 TO ES-35-4
5. ALL CONCRETE SHALL BE BROOM FINISHED ACROSS THE DIRECTION OF PEDESTRIAN TRAFFIC TO PROVIDE A NON-SLIP SURFACE IN ACCORDANCE WITH AUSTRALIAN STANDARD AS 4586.
6. A MINIMUM OF 500mm OF KERB SHALL BE PROVIDED BETWEEN ADJACENT RAMPS. WHERE THE MINIMUM CANNOT BE ACHIEVED A SINGLE WIDE RAMP SHALL BE PROVIDED.
7. WHERE HANDRAILS ARE REQUIRED OR/AND ARE SPECIFIED BY DESIGNER, THEY SHALL BE IN ACCORDANCE WITH DRAWING ES-47.
8. CENTRE-LINE OF KERB RAMPS TO ALIGN ACROSS THE ROAD OR MIDDLE OF ISLAND PEDESTRIAN GAP.
9. WHERE PATH AND KERB RAMP MEET, PROVIDE A 500mm X 500mm MINIMUM WEDGE.
10. KERB RAMP WIDTH (NOM. 1.5m OR 2.0m) IS TO BE NO LESS THAN THE WIDTH OF ANY ADJOINING CONNECTING PATHS.
11. KERB RAMP WIDTH MUST MATCH ANY EXISTING OPPOSING KERB RAMP WIDTH (ROAD CROSSING), UNLESS THAT OPPOSING KERB RAMP IS NOT COMPLAINT WITH THIS STANDARD, IN WHICH CASE IT IS TO BE UPGRADED TO MEET SPECIFICATIONS.
12. ALL JOINTS ON RAMP TO BE TROWELLED WITH A STANDARD GROOVING TOOL.



TYPICAL SECTION A-A

SCALE 1:20

TYPE	APPLICATION
TYPE A & TYPE A (MODIFIED)	DISTRICT DISTRIBUTOR A AND B, INTERSECTIONS
TYPE B & TYPE B (MODIFIED)	DISTRICT DISTRIBUTOR A AND B LOCAL ROADS, INTERSECTIONS
TYPE C & TYPE C (MODIFIED)	DISTRICT DISTRIBUTOR A AND B LOCAL ROADS, INTERSECTIONS

AMENDMENTS

REVISION	DATE	DESCRIPTION	BY	CHECKED	APPROVED
4	28/9/2016	NOTES AMENDED - PATH CLARIFICATION	SB	AT	MB
3	10/3/2016	TACTILE SPECIFICATION AND NOTES UPDATED	SA	AT	MB
2	17/9/2015	TACTILE SPECIFICATION UPDATED	SA	MB	MB
1	4/2/2015	DWG UPDATED	SA	MB	MB

GENERAL NOTES

1. THIS DRAWINGS ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

CITY OF GOSNELLS
2120 Albany Highway Gosnells 6110
PO Box 662, GOSNELLS 6990
WESTERN AUSTRALIA
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

STANDARD DRAWING

KERB RAMP - TYPE C

FOR KERB RAMPS SKEWED THROUGH KERB, WITH PATH BEHIND

DESIGN	MJJ/AT	DRAWN SA	DRAWING A3
SCALE	AS SHOWN	CHECKED MB	DATE 03/02/14

STANDARD DRAWING NUMBER

ES-20-3

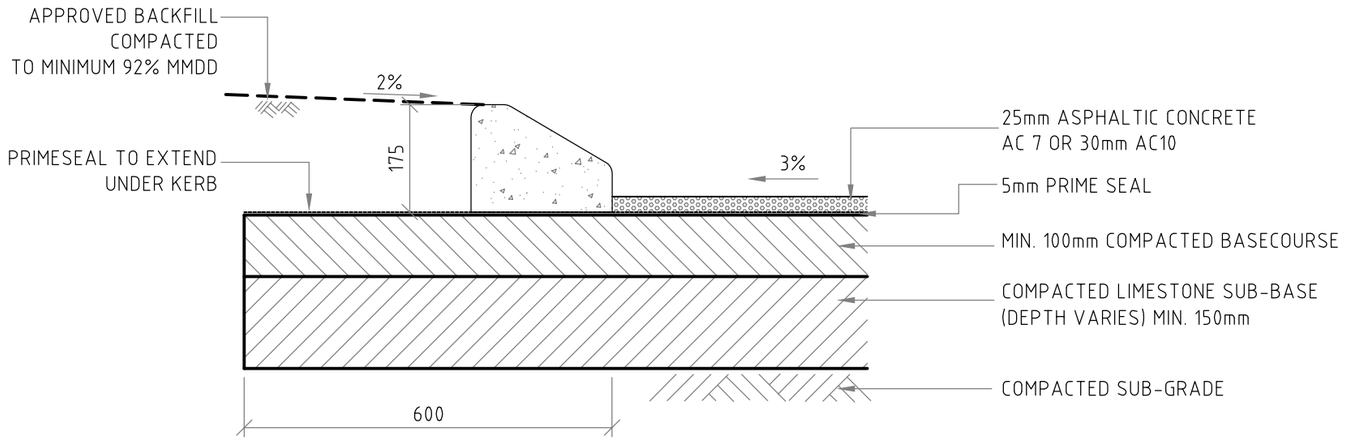
MANAGER TECHNICAL SERVICES

M.BOTTE 4/2/15

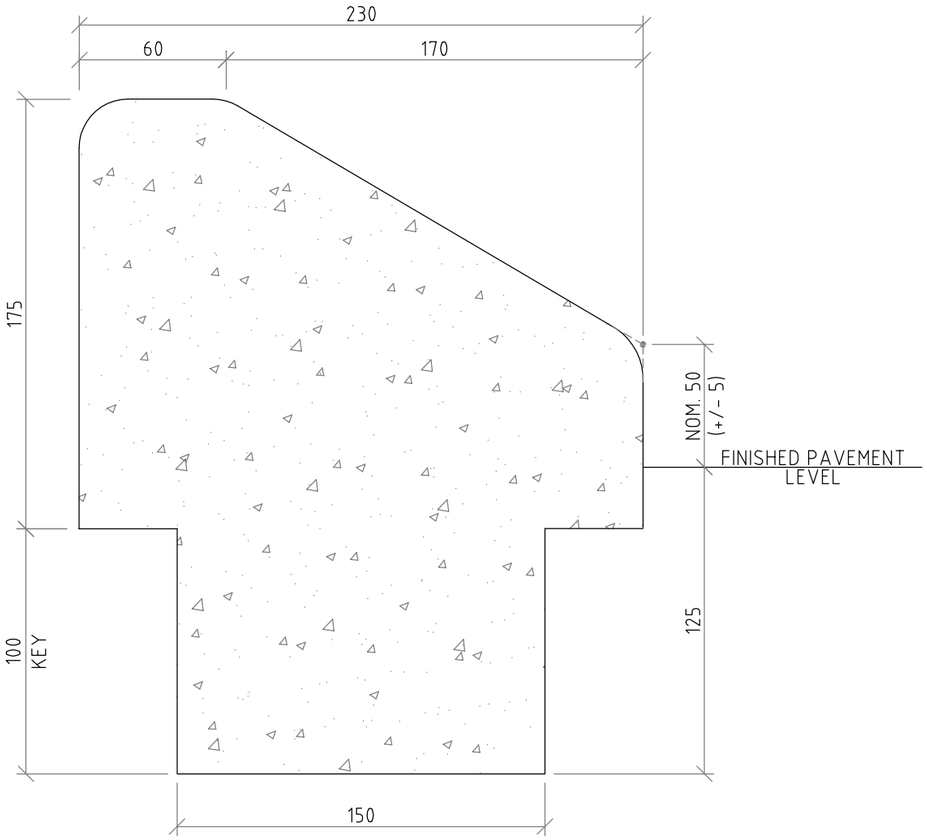
M. BOTTE

23/05/2017 10:31:33 AM S:\STANDARD DRAWINGS\ES-20-3 KERB RAMP TYPE C.DWG

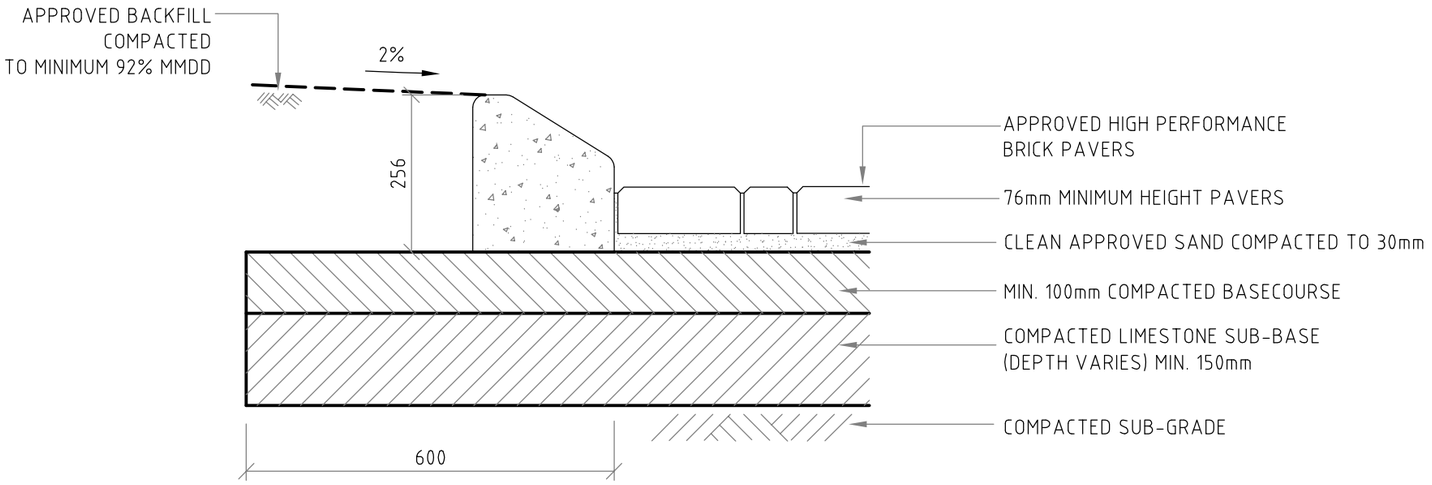
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



SEMI MOUNTABLE KERB DETAIL
SCALE 1:10



SEMI MOUNTABLE KERB DETAIL (KEYED)
SEE NOTE 8
SCALE 1:250



SEMI MOUNTABLE KERB FOR BRICK PAVING
SCALE 1:10

NOTES:

1. CONTRACTION JOINTS AT MAXIMUM 2.5m CENTRES
2. EXPANSION JOINTS AT 5m CENTRES
3. KERB JOINTS TO COINCIDE WITH FOOTPATH JOINTS WHERE POSSIBLE (REFER TO ES-49)
4. ALL KERB PROFILE RADII ARE 20mm UNLESS OTHERWISE ADVISED
5. KERBING TO BE EXTRUDED USING 32MPa GRADE CONCRETE IN ACCORDANCE WITH AS1379 WITH MICRO SYNTHETIC FIBRE REINFORCEMENT AT A MIXING RATE OF 0.8kg/m^3
6. WHERE KERB TO BE BOXED IN AFTER PRIME SEAL, BOXED EDGES TO BE RESEALED AFTER KERBING HAS BEEN PLACED
7. ALL KERBING ON A KERB ALIGNMENT RADIUS OF LESS THAN 40m SHALL BE KEYED EXCEPT WHERE CONCRETE PATH IS INSTALLED BACK OF KERB
8. ENSURE REAR PROFILE OF KERB IS VERTICAL & ALL EXCESS MATERIALS ARE REMOVED
9. PAVEMENT DESIGN SUBJECT TO CITY OF GOSNELLS APPROVAL

AMENDMENTS

REVISION	DATE	DESCRIPTION	BY	CHECKED	APPROVED
4	6/7/2015	ANNOTATION UPDATED FOR CONSISTENCY	SA	AT	MB
3	5/12/2014	LAYERS & DWG NO'S UPDATED	SA	MB	MB
2	28/02/11	CHANGE EXPANSION JOINT DETAIL	GL	BM	MB
1	22/12/10	CHANGE INCORRECT DIMENSION	GL	JG	MB

GENERAL NOTES

1. THIS DRAWINGS ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

CITY OF GOSNELLS
2120 Albany Highway Gosnells 6110
PO Box 662, GOSNELLS 6990
WESTERN AUSTRALIA
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

STANDARD DRAWING
SEMI MOUNTABLE KERB

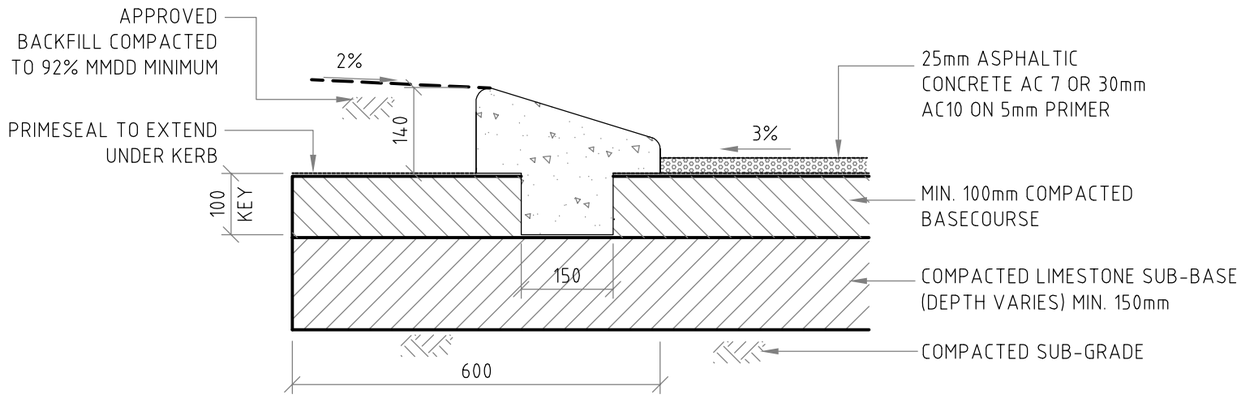
DESIGN	DRAWN YS	DRAWING A3
SCALE AS SHOWN	CHECKED MB	DATE 22/08/07

STANDARD DRAWING NUMBER
ES-35-2

MANAGER TECHNICAL SERVICES
M.BOTTE 5/12/14
M. BOTTE

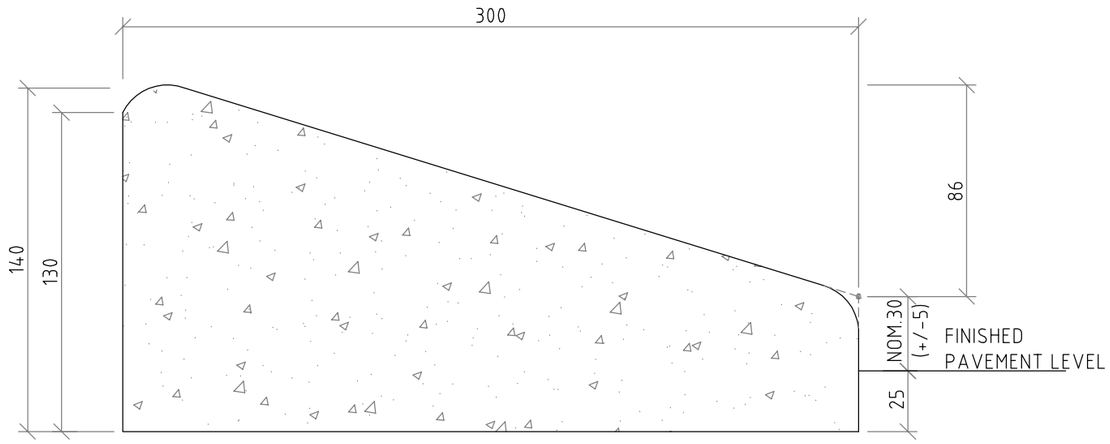
23/05/2017 10:45:11 AM S:\STANDARD DRAWINGS\ES-35-2 SEMI MOUNTABLE KERBS.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



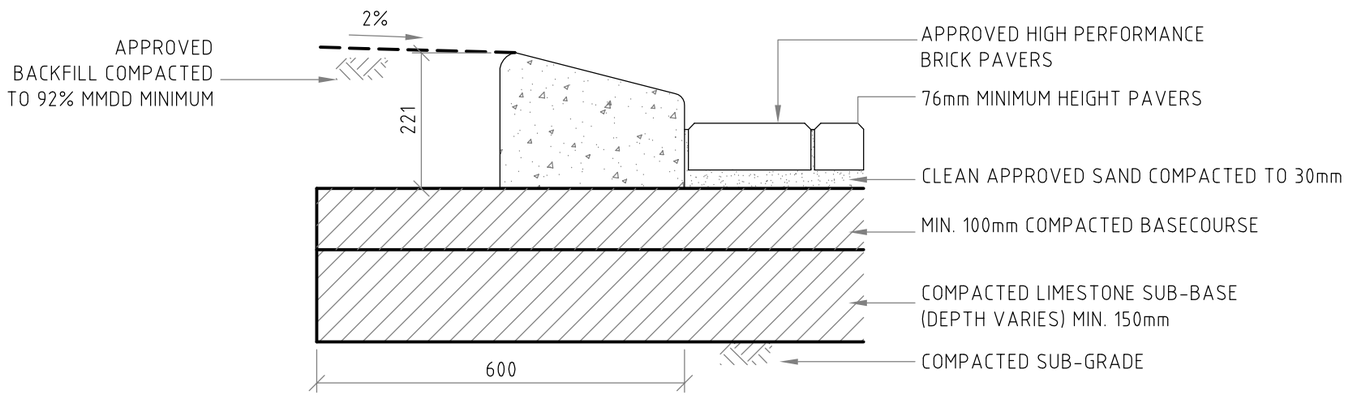
MOUNTABLE KERB (KEYED)

SCALE 1:10



STANDARD MOUNTABLE KERB DETAIL

SCALE 1:250



MOUNTABLE KERB FOR BRICK PAVING

SCALE 1:10

NOTES:

1. CONTRACTION JOINTS AT MAXIMUM 2.5m CENTRES
2. EXPANSION JOINTS AT 5m CENTRES
3. KERB JOINTS TO COINCIDE WITH FOOTPATH JOINTS WHERE POSSIBLE (REFER TO ES-49)
4. ALL KERB PROFILE RADII ARE 20mm UNLESS OTHERWISE ADVISED
5. KERBING TO BE EXTRUDED USING 32MPa GRADE CONCRETE IN ACCORDANCE WITH AS1379 WITH MICRO SYNTHETIC FIBRE REINFORCEMENT AT A MIXING RATE OF 0.8kg/m^3
6. WHERE KERB TO BE BOXED IN AFTER PRIME SEAL, BOXED EDGES TO BE RESEALED AFTER KERBING HAS BEEN PLACED
7. ALL KERBING ON A KERB ALIGNMENT RADIUS LESS THAN 40m TO BE KEYED EXCEPT WHEN CONCRETE PATH IS INSTALLED BACK OF KERB
8. ENSURE REAR PROFILE OF KERB IS VERTICAL AND ALL EXCESS MATERIALS ARE REMOVED
9. PAVEMENT DESIGN SUBJECT TO CITY OF GOSNELLS APPROVAL

AMENDMENTS

REVISION	DATE	DESCRIPTION	BY	CHECKED	APPROVED
5	6/7/2015	ANNOTATION UPDATED FOR CONSISTENCY	SA	AT	MB

GENERAL NOTES

1. THIS DRAWINGS ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

CITY OF GOSNELLS
2120 Albany Highway Gosnells 6110
PO Box 662, GOSNELLS 6990
WESTERN AUSTRALIA
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

STANDARD DRAWING

MOUNTABLE KERB DETAIL

DESIGN		DRAWN YS	DRAWING A3
SCALE	AS SHOWN	CHECKED MB	DATE 22/08/07

STANDARD DRAWING NUMBER

ES-35-3

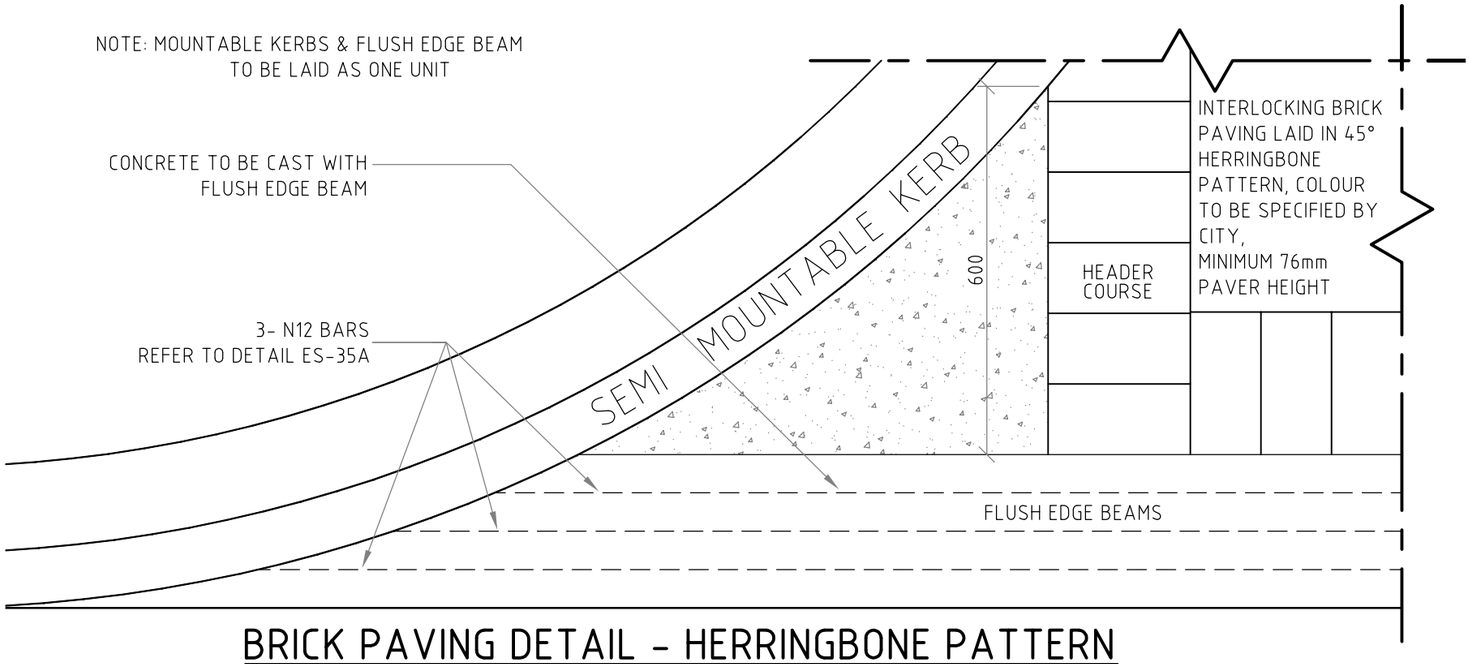
MANAGER TECHNICAL SERVICES

M.BOTTE 5/12/14

M. BOTTE

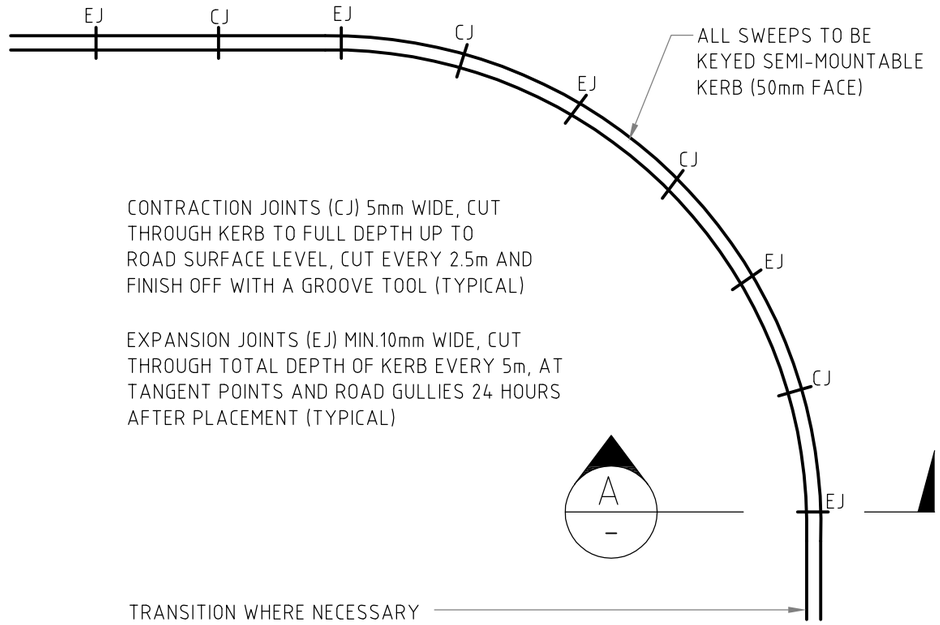
23/05/2017 10:46:34 AM S:\STANDARD DRAWINGS\ES-35-3 MOUNTABLE KERBS.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



BRICK PAVING DETAIL - HERRINGBONE PATTERN

SCALE 1:100

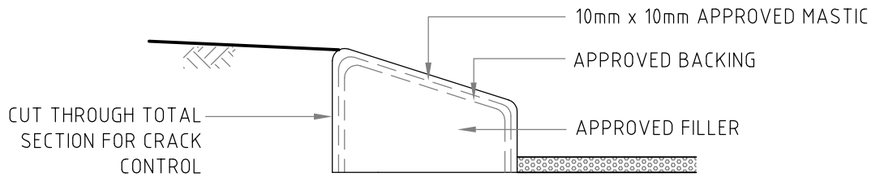


CONTRACTION JOINTS (CJ) 5mm WIDE, CUT THROUGH KERB TO FULL DEPTH UP TO ROAD SURFACE LEVEL, CUT EVERY 2.5m AND FINISH OFF WITH A GROOVE TOOL (TYPICAL)

EXPANSION JOINTS (EJ) MIN.10mm WIDE, CUT THROUGH TOTAL DEPTH OF KERB EVERY 5m, AT TANGENT POINTS AND ROAD GULLIES 24 HOURS AFTER PLACEMENT (TYPICAL)

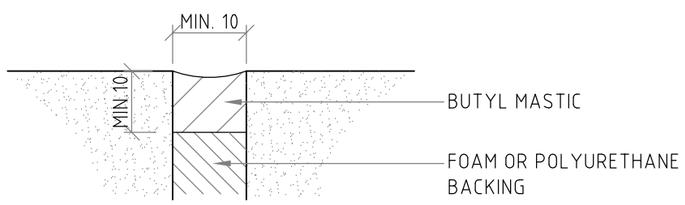
PLAN OF EXPANSION JOINT DETAIL

N.T.S.



SECTION A-A EXPANSION JOINT

SCALE 1:10



KERB EXPANSION JOINT DETAIL

N.T.S.

NOTES:

KERBING

1. EXPANSION JOINTS AND CONTRACTION JOINTS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS
2. APPROVED BACKFILL BEHIND KERB SHALL BE COMPACTED TO A MINIMUM 92% MMDD
3. KERBING ALONG WITH EXPANSION AND CONTRACTION JOINTS SHALL BE CONSTRUCTED PRIOR TO LAYING OF BRICK PAVING
4. ALL KERB PROFILE RADII ARE 20mm UNLESS ADVISED OTHERWISE
5. ALL KERBING ON A KERB ALIGNMENT RADIUS OF LESS THAN 40m SHALL BE KEYED
6. KERBING TO BE EXTRUDED USING 32MPa GRADE CONCRETE IN ACCORDANCE WITH AS 1379 WITH FIBRE MICRO SYNTHETIC FIBRE REINFORCEMENT AT A MIXING RATE OF 0.8kg/m^3

BRICK PAVING

1. 76mm MINIMUM HIGH PERFORMANCE BRICK PAVERS LAID IN HERRINGBONE PATTERN TO CENTRELINE OF ROAD PAVEMENT WITH HEADER COURSE
2. COLOUR TO BE DETERMINED BY THE CITY
3. CUT BRICKS SHALL BE NO SMALLER THAN 1/3 OF THE FULL ORIGINAL BRICK (SURFACE)
4. CONSTRUCTION TO BE CARRIED OUT IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS AND REQUIREMENTS

AMENDMENTS

REVISION	DATE	DESCRIPTION	BY	CHECKED	APPROVED
6	15/04/2016	NOTES AMENEDED	SA	AT	MB
5	16/03/2015	ANNOTATION AMENDED	SA	AT	MB

GENERAL NOTES

1. THIS DRAWINGS ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

CITY OF GOSNELLS
2120 Albany Highway Gosnells 6110
PO Box 662, GOSNELLS 6990
WESTERN AUSTRALIA
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

STANDARD DRAWING

KERB DETAIL

DESIGN	DRAWN YS	DRAWING A3
SCALE AS SHOWN	CHECKED MB	DATE 22/08/07

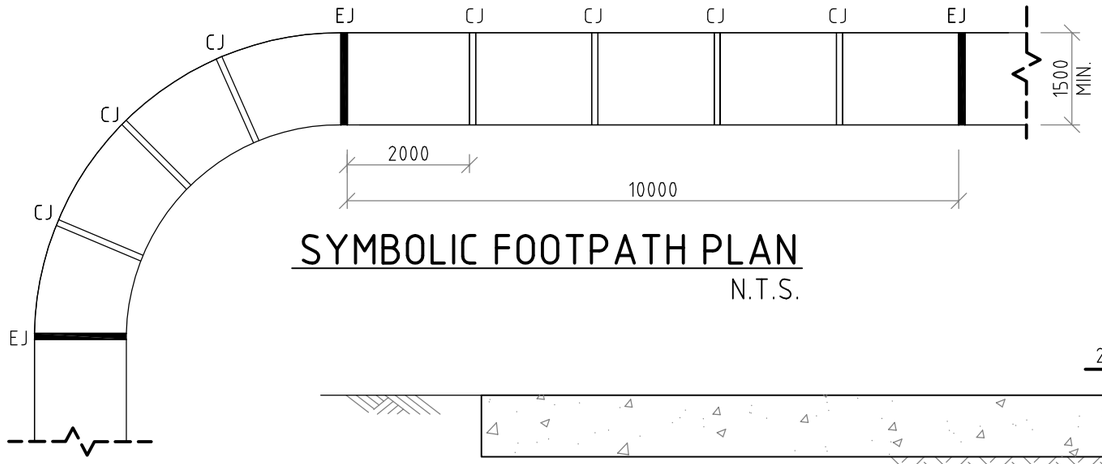
STANDARD DRAWING NUMBER
ES-35-4

MANAGER TECHNICAL SERVICES
M.BOTTE 5/12/14
M. BOTTE

23/05/2017 10:47:04 AM S:\STANDARD DRAWINGS\ES-35-4 KERB DETAIL.DWG

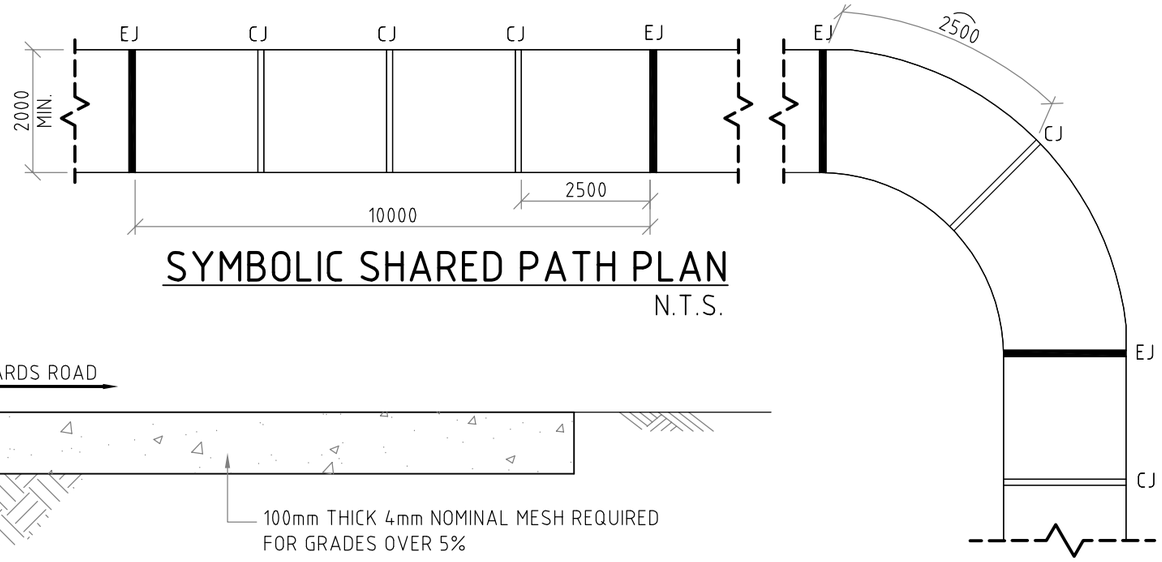
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

EXPANSION JOINTS (EJ)
CONTRACTION JOINTS (CJ)

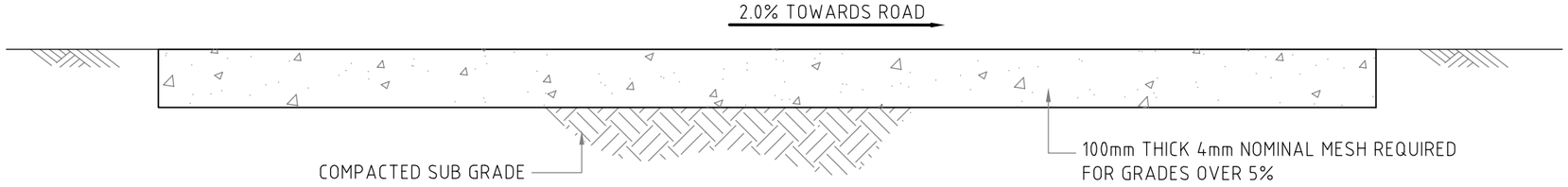


SYMBOLIC FOOTPATH PLAN
N.T.S.

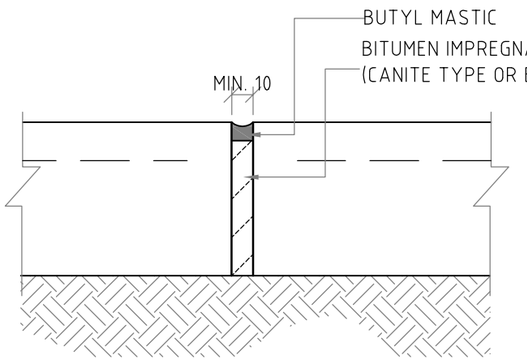
EXPANSION JOINTS (EJ)
CONTRACTION JOINTS (CJ)

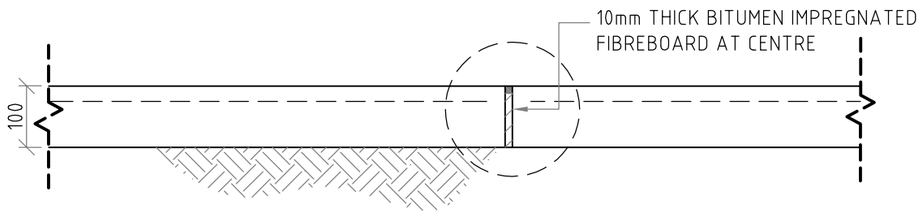


SYMBOLIC SHARED PATH PLAN
N.T.S.



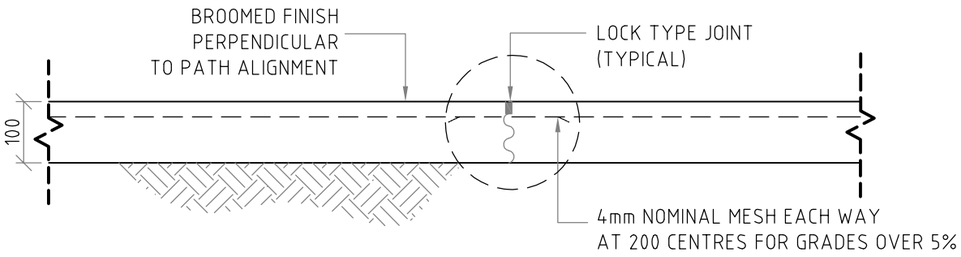
TYPICAL PATH DETAIL
SCALE 1 : 10



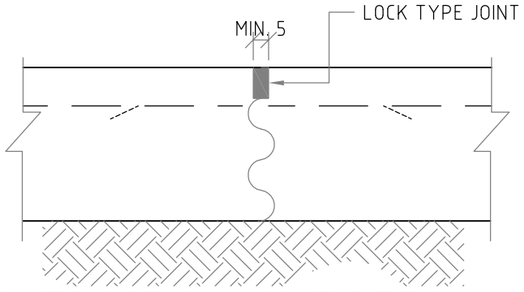


EXPANSION JOINT
SCALE 1 : 10

EXPANSION JOINT DETAIL
SCALE 1:4



CONTRACTION JOINT
SCALE 1 : 10



CONTRACTION JOINT DETAIL
SCALE 1:4

NOTES:

1. ALL FOOTPATHS TO BE 1.5m WIDE AND ALL SHARED PATHS TO BE A MINIMUM 2.0m WIDE UNLESS ADVISED OTHERWISE BY THE CITY. REFER TO THE CITY'S CURRENT POLICY DOCUMENT 2.4.11
2. CONTRACTION JOINTS TO BE LOCK JOINT TYPE OR AS OTHERWISE APPROVED BY THE CITY. GROOVING OF CONCRETE IS NOT ALLOWED
3. EXPANSION JOINTS TO BE PLACED AT: 10m INTERVALS, TANGENT POINTS, END OF DAY WORKS AND AROUND ALL SERVICES AND WHERE THE PATH JOINS KERB RAMPS AND VEHICLE CROSSINGS
4. CONCRETE TO ACHIEVE A MINIMUM 25MPa COMPRESSIVE STRENGTH AT 28 DAYS. A MINIMUM NOMINAL SIZE AGGREGATE OF 14mm, A MAXIMUM OF 20mm AND A SLUMP OF 75mm
5. FOOTPATH THICKNESS TO BE 100mm MINIMUM
6. KERB ALIGNED PATH JOINTS TO MATCH KERB JOINTS - WHERE POSSIBLE
7. STANDARD FOOTPATH ALIGNMENT IS 300mm OFF PROPERTY BOUNDARY. REFER TO THE CITY'S CURRENT POLICY DOCUMENT 2.4.11

AMENDMENTS

REVISION	DATE	DESCRIPTION	BY	CHECKED	APPROVED
4	09/04/2015	EJ INTERVAL AMENDED FROM 5m TO 10m	SA	MB	MB
3	10/03/2015	DRAWING NO'S UPDATED, DWG AMENDED	SA	AT	MB
2	02/03/11	CHANGE EXPANSION DETAIL	GL	RM	MB
1	29/07/10	CHANGE FRAME	GL	RM	MB

GENERAL NOTES

1. THIS DRAWINGS ALWAYS REMAINS THE PROPERTY OF THE CITY OF GOSNELLS AND MUST NOT BE RETAINED OR REPRODUCED WITHOUT PERMISSION
2. IN THE ABSENCE OF THE APPROVED SIGNATURE (ie MANAGER TECHNICAL SERVICES) THIS DRAWING SHALL BE TREATED AS PRELIMINARY
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

CITY OF GOSNELLS
2120 Albany Highway Gosnells 6110
PO Box 662, GOSNELLS 6990
WESTERN AUSTRALIA
Telephone 08 9397 3000
Facsimile 08 9397 3333
Online www.gosnells.wa.gov.au

STANDARD DRAWING
PATH DETAIL

DESIGN MB	DRAWN GL	DRAWING A3	
SCALE AS SHOWN	CHECKED MB	DATE 16/02/09	

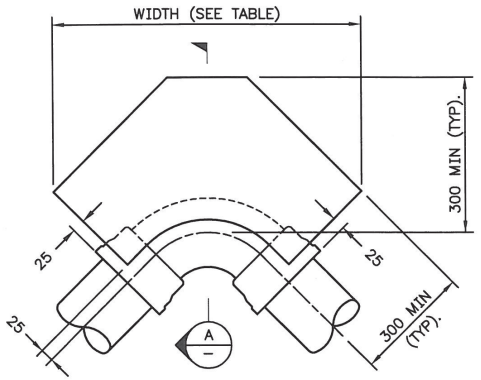
STANDARD DRAWING NUMBER
ES-49

MANAGER TECHNICAL SERVICES
M.BOTTE 10/03/15
M. BOTTE

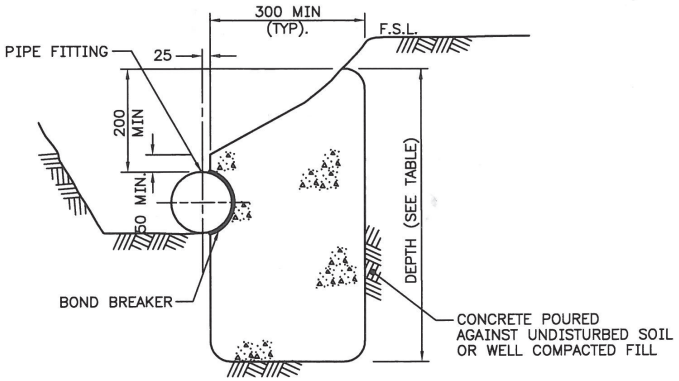
23/05/2017 10:52:21 AM S:\STANDARD DRAWINGS\ES-49 PATH DETAIL.DWG

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

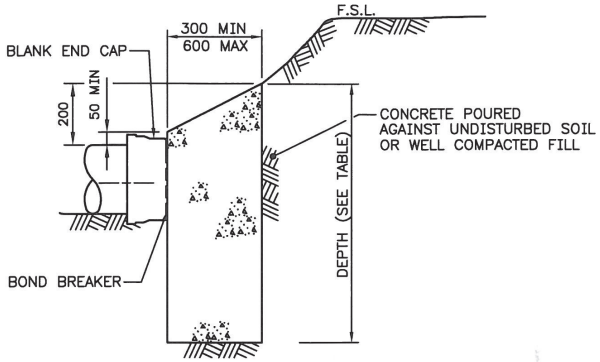
Note: This product is not GDA compliant.



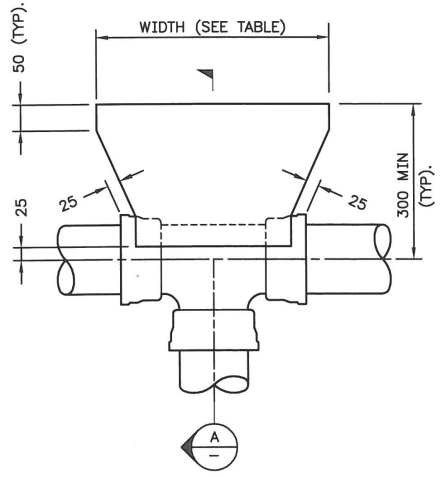
PLAN – 90° BENDS



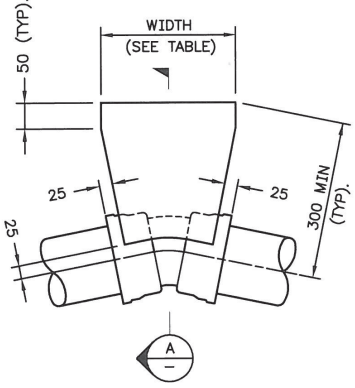
SECTION A



SECTION B

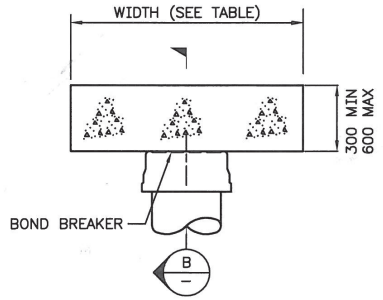


PLAN – TEES



PLAN – 11.25° TO 45° BENDS

NOMINAL DIAMETER	TYPE OF FITTING	WIDTH MIN.	DEPTH MIN.
100	90° BEND	500	600
	45° BEND	300	600
	22.5° BEND	300	600
	11.25° BEND	300	400
	TEE & BL. END	400	600
150	90° BEND	900	750
	45° BEND	500	750
	22.5° BEND	400	750
	11.25° BEND	300	600
	TEE & BL. END	600	750



BLANK ENDS

WIDTH OF THRUST SUPPORT BLOCK SHALL BE DESIGNED FOR BRANCH DIAMETER. REFER TO BD62–2–5 FOR BRANCH DIA LARGER THAN DN150

SCALE : DIAGRAMMATIC

NOTES :

1. JUSTIFICATION FOR THRUST SUPPORT BLOCKS LARGER THAN SHOWN IN THE TABLE SHALL BE SUBMITTED FOR RECORD PURPOSES PRIOR TO ISSUE OF DESIGN DRAWINGS
2. POLYETHYLENE SLEEVING SHALL BE INSTALLED ON DI PIPELINES TO AS3680
3. THRUST SUPPORTS ARE INTENDED TO RESIST AN ASSUMED 1200 KPA (120m) MAXIMUM THRUST AGAINST COMPACT UNDISTURBED SOIL OR WELL COMPACTED FILL MATERIAL
4. WELL COMPACTED FILL SHALL PROVIDE A FILL PENETRATION RESISTANCE OF AT LEAST 7 BLOWS PER 300MM OF PENETRATION, WHEN TESTED IN ACCORDANCE WITH AS1289.6.3.3
5. PIPELINE FITTINGS TO BE PROVIDED WITH CONCRETE THRUST SUPPORT SHALL BE OVER–WRAPPED WITH A BOND–BREAKING MEMBRANE OF ACCEPTABLE DESIGN PRIOR TO CONCRETING
6. PIPELINE JOINTS SHALL NOT BE WHOLLY OR PARTIALLY ENCASED IN CONCRETE
7. CONCRETE SHALL BE GRADE N25
8. BEARING CAPACITY CALCULATIONS OF SOIL MATERIAL (CLAYEY SAND) TAKEN TO BE 92kPa

ISSUE	DATE	GRID	REVISION	DRN	REC	APPD
F	05/2012		THRUST SUPPORTS AMENDED	AC	CW	HF.
E	11/2000	–	DRAWING NOTES REVISED	PAM	K.R.	K.R.

DES CALC W 7087
J.DAVIES
DES CHD 2/94

DRN
C.BAGSHAW

Q.C. CHD
P.WINFIELD

RECOMMENDED 01/07/1994
J. DAVIES (SIGNED)
FOR SUPERVISING ENGINEER

APPROVED 01/07/1994
D.S. BROOKS (SIGNED)
FOR MANAGER W.S.P. & DESIGN

WATER CORPORATION

WATER RETICULATION
STANDARD DRAWINGS
CONCRETE THRUST SUPPORTS – DN100 & DN150
BENDS, TEES & BLANK ENDS – PVC & DI PIPELINES

ORIGINAL SHEET SIZE A3

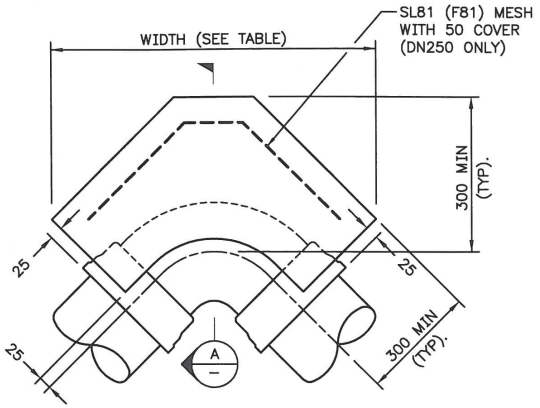
FILE
PROJECT
PLAN BD62–2–4
CAD ISSUE F
MF

283
394

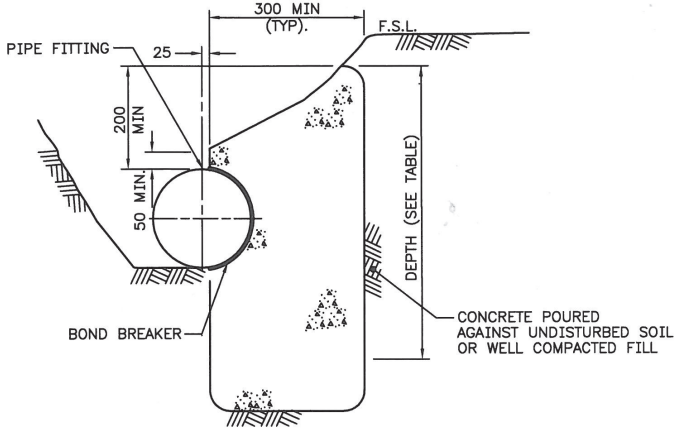
© THIS DRAWING IS THE PROPERTY OF THE WATER CORPORATION. IT SHALL NOT BE COPIED WITHOUT PERMISSION.
CAD MANAGEMENT – FOR READ ONLY \WDCS\STANDARD DRAWINGS\WATER RETICULATION\BD62–002–004–01F 11:53 23/07/2012 cleavea0/WS17935

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

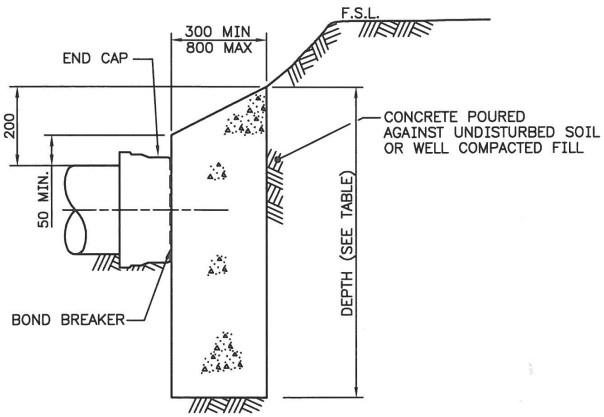
Note: This product is not GDA compliant.



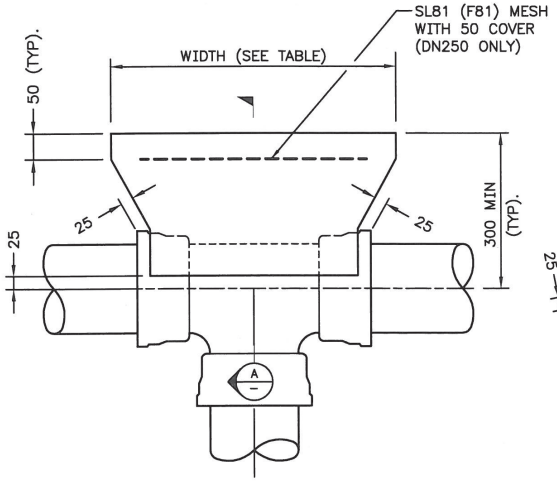
PLAN – 90° BENDS



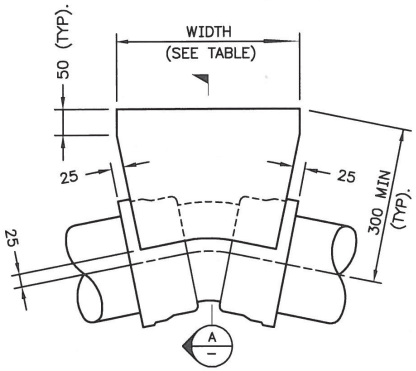
SECTION A



SECTION B



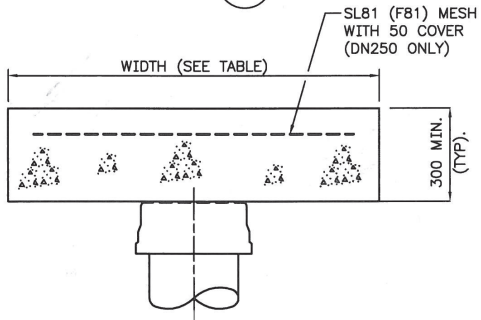
PLAN – TEES



PLAN – 11.25° TO 45° BENDS

NOMINAL DIAMETER	TYPE OF FITTING	WIDTH MIN.	DEPTH MIN.
200	90° BEND	1100	1000
	45° BEND	700	900
	22.5° BEND	400	900
	11.25° BEND	300	700
	TEE & BL. END	900	900
250	90° BEND *	1100	1300
	45° BEND	900	1000
	22.5° BEND	500	1000
	11.25° BEND	400	750
	TEE & BL. END	1200	1000

* THRUST SUPPORT SHOULD BE REINFORCED CONCRETE



BLANK ENDS

WIDTH OF THRUST SUPPORT BLOCK SHALL BE DESIGNED FOR BRANCH DIAMETER. REFER TO BD62–2–5 FOR BRANCH DIA SMALLER THAN 200mm

SCALE : DIAGRAMMATIC

NOTES :

1. JUSTIFICATION FOR THRUST SUPPORT BLOCKS LARGER THAN SHOWN IN THE TABLE SHALL BE SUBMITTED FOR RECORD PURPOSES PRIOR TO ISSUE OF DESIGN DRAWINGS
2. POLYETHYLENE SLEEVING SHALL BE INSTALLED ON DI PIPELINES TO AS3680
3. THRUST SUPPORTS ARE INTENDED TO RESIST AN ASSUMED 1200 KPA (120m) MAXIMUM THRUST AGAINST COMPACT UNDISTURBED SOIL OR WELL COMPACTED FILL MATERIAL
4. WELL COMPACTED FILL SHALL PROVIDE A FILL PENETRATION RESISTANCE OF AT LEAST 7 BLOWS PER 300MM OF PENETRATION, WHEN TESTED IN ACCORDANCE WITH AS1289.6.3.3
5. PIPELINE FITTINGS TO BE PROVIDED WITH CONCRETE THRUST SUPPORT SHALL BE OVER–WRAPPED WITH A BOND–BREAKING MEMBRANE OF ACCEPTABLE DESIGN PRIOR TO CONCRETING
6. PIPELINE JOINTS SHALL NOT BE WHOLLY OR PARTIALLY ENCASED IN CONCRETE
7. CONCRETE SHALL BE GRADE N25
8. BEARING CAPACITY CALCULATIONS OF SOIL MATERIAL (CLAYEY SAND) TAKEN TO BE 92kPa

ISSUE	DATE	GRID	REVISION	DRN	REC	APPD
E	05/2012		THRUST SUPPORTS AMENDED	AC	CW	MF
D	11/2000	–	DRAWING NOTES REVISED	PAM	K.R.	K.R.

DES CALC W 7087
J.DAVIES
DES CHD 6/94

DRN
C.BAGSHAW
Q.C. CHD
P.WINFIELD
394

RECOMMENDED 01/07/1994
J. DAVIES (SIGNED)
FOR SUPERVISING ENGINEER

APPROVED 01/07/1994
D.S. BROOKS (SIGNED)
FOR MANAGER W.S.P. & DESIGN

WATER CORPORATION

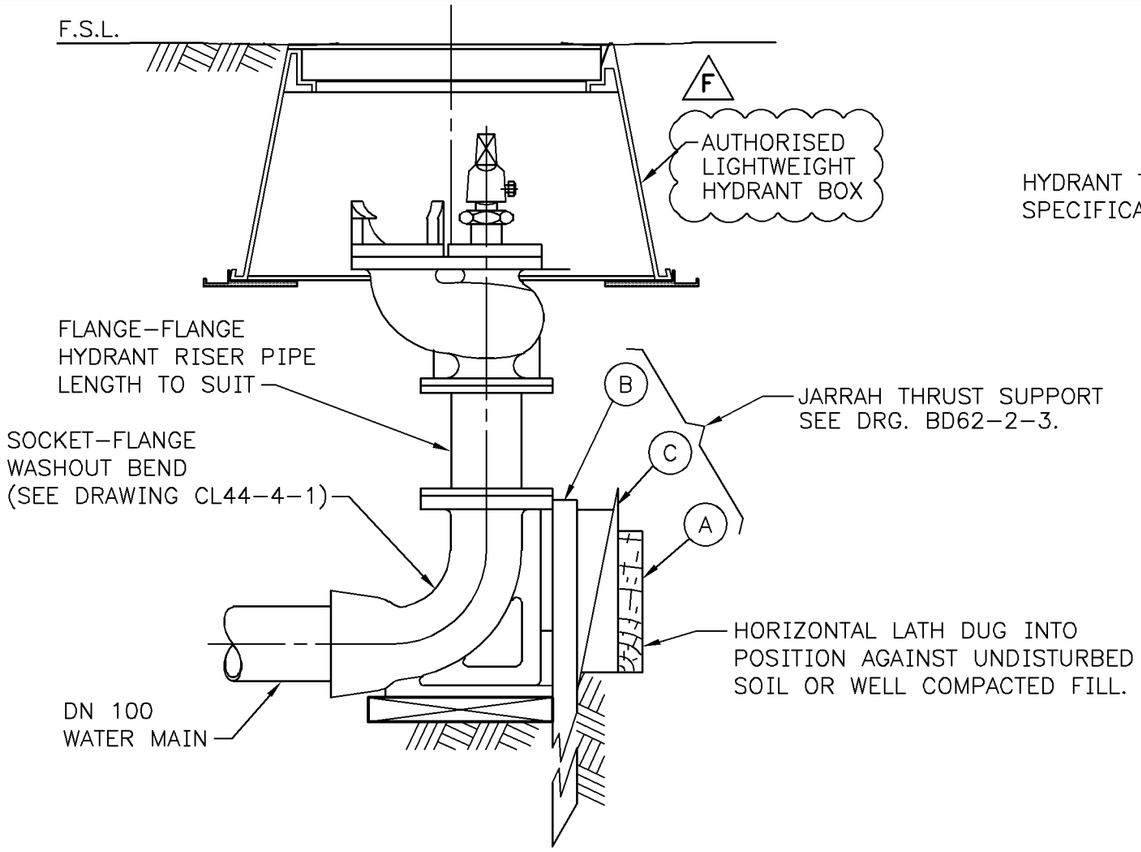
WATER RETICULATION
STANDARD DRAWINGS
CONCRETE THRUST SUPPORTS – DN200 & DN250
BENDS, TEES & BLANK ENDS – PVC & DI PIPELINES

ORIGINAL SHEET SIZE A3

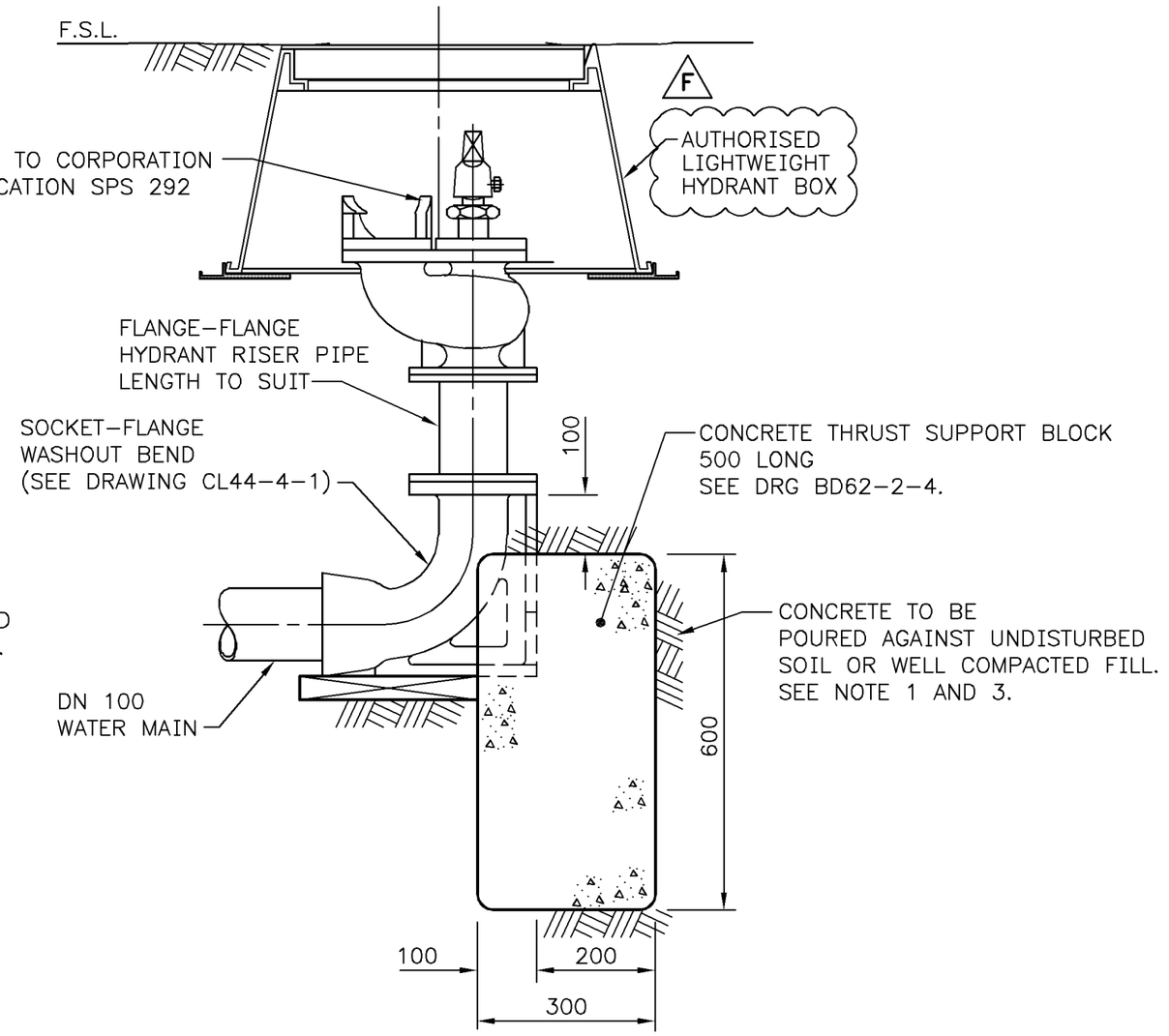
FILE
PROJECT
PLAN BD62–2–5
CAD ISSUE E
MF

283

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021
© THIS DRAWING IS THE PROPERTY OF THE WATER CORPORATION. IT SHALL NOT BE COPIED WITHOUT PERMISSION.
CAD MANAGEMENT – NOT READ ONLY \WDCS\STANDARD DRAWINGS\WATER RETICULATION\BD62–002–005–01E 11:53 23/07/2012 cleavea0/WS17935



ALTERNATIVE 1: TIMBER THRUST SUPPORT



ALTERNATIVE 2: CONCRETE THRUST SUPPORT

NOTES :

1. THE EXCAVATED TRENCH WITHIN 500MM OF AN INSTALLED WASHOUT BEND SHALL BE FILLED WITH SAND IN 150MM LAYERS AND EACH LAYER SHALL BE WELL COMPACTED.
2. POLYETHYLENE SLEEVING SHALL BE INSTALLED ON DI PIPELINES TO AS3680
3. THRUST SUPPORTS ARE INTENDED TO RESIST AN ASSUMED 1200 KPA MAXIMUM THRUST AGAINST COMPACT UNDISTURBED SOIL OR WELL COMPACTED FILL MATERIAL
4. WELL COMPACTED FILL SHALL PROVIDE A FILL PENETRATION RESISTANCE OF AT LEAST 7 BLOWS PER 300MM OF PENETRATION, WHEN TESTED IN ACCORDANCE WITH AS1289.6.3.3
5. PIPELINE FITTINGS TO BE PROVIDED WITH CONCRETE THRUST SUPPORT SHALL BE OVER–WRAPPED WITH A BOND–BREAKING MEMBRANE OF ACCEPTABLE DESIGN PRIOR TO CONCRETING
6. PIPELINE JOINTS SHALL NOT BE WHOLLY OR PARTIALLY ENCASED IN CONCRETE
7. CONCRETE SHALL BE GRADE N25
8. SLUICE VALVE, HYDRANT, METER AND STOP TAP SERVICE CHAMBERS SHALL BE SUPPORTED ON A LEVEL BED OF BRICKS WHICH HAVE BEEN FIRMLY SET ON AND INTO WELL COMPACTED

ISSUE	DATE	GRID	REVISION	DRN	REC	APPD
F	12/2006		'APPROVED LIGHTWEIGHT HYDRANT BOX' REVISED TO 'AUTHORISED LIGHTWEIGHT HYDRANT BOX'	AC	MM	JD
E	11/2006		HYDRANT CHAMBER/COVER REPLACED WITH LIGHTWEIGHT HYDRANT BOX	AC	MM	JD
D	11/2000	–	DRAWING NOTES REVISED	PAM	K.R.	K.R.

SCALE: DIAGRAMATIC

DES CALC W 7087

DES CHD 6/94

DRN F. RACCUIA

Q.C. CHD P. WINFIELD

RECOMMENDED 30/06/1994
P.M. WINFIELD (SIGNED)
FOR SUPERVISING ENGINEER

APPROVED 30/06/1994
D.S. BROOKS (SIGNED)
FOR MANAGER W.S.P. & DESIGN

WATER CORPORATION

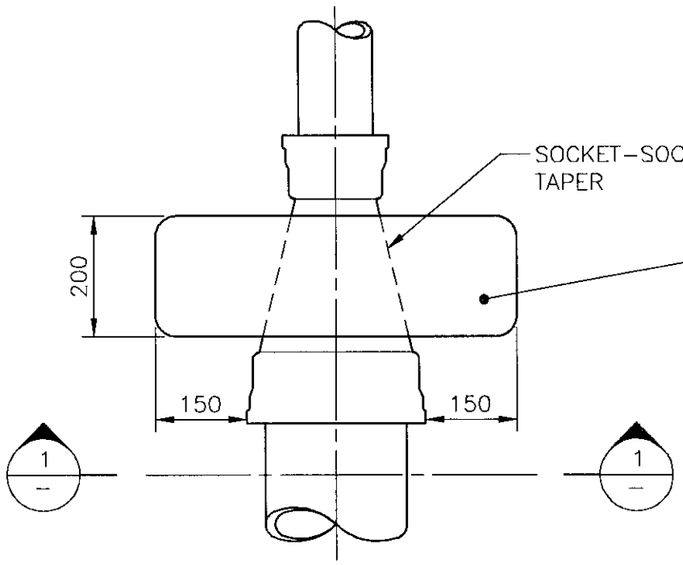
WATER RETICULATION
STANDARD DRAWINGS
THRUST SUPPORTS FOR WASHOUT BEND WITH HYDRANT
TYPICAL INSTALLATION DETAILS

FILE	PLAN	CAD	ISSUE	ORIGINAL SHEET SIZE
PROJECT	BD62–2–6		F	A3 MF

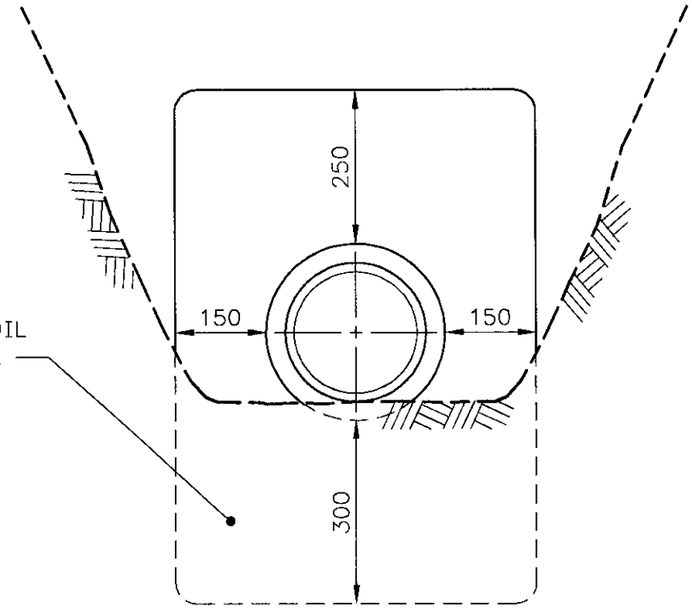
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021
© THIS DRAWING IS THE PROPERTY OF THE WATER CORPORATION. IT SHALL NOT BE COPIED WITHOUT PERMISSION.

WDCS\MANUALS\WATER RETICULATION\DRAWINGS\BD62002006O1F 07:48 12/12/2006 cleavea0/WS11263

WATER CORPORATION Note: This product is not GDA compliant.



PLAN



SECTION 1 / –

NOTES :

1. THE EXCAVATED TRENCH WITHIN 500MM OF THE INSTALLED TAPER SHALL BE FILLED WITH SAND IN 150MM LAYERS AND EACH LAYER SHALL BE WELL COMPACTED.
2. POLYETHYLENE SLEEVING SHALL BE INSTALLED ON DI PIPELINES TO AS3680
3. THRUST SUPPORTS ARE INTENDED TO RESIST AN ASSUMED 1200 KPA MAXIMUM THRUST AGAINST COMPACT UNDISTURBED SOIL OR WELL COMPACTED FILL MATERIAL
4. WELL COMPACTED FILL SHALL PROVIDE A FILL PENETRATION RESISTANCE OF AT LEAST 7 BLOWS PER 300MM OF PENETRATION, WHEN TESTED IN ACCORDANCE WITH AS1289.6.3.3
5. PIPELINE FITTINGS TO BE PROVIDED WITH CONCRETE THRUST SUPPORT SHALL BE OVER–WRAPPED WITH A BOND–BREAKING MEMBRANE OF ACCEPTABLE DESIGN PRIOR TO CONCRETING
6. PIPELINE JOINTS SHALL NOT BE WHOLLY OR PARTIALLY ENCASED IN CONCRETE
7. CONCRETE SHALL BE GRADE N25

SCALE: DIAGRAMATIC

ISSUE	DATE	GRID	REVISION	DRN	REC	APPD
C	11/00	–	DRAWING NOTES REVISED	PAM	AR	AR

DES CALC W 7087
J.DAVIES
DES CHD 6/94

DRN
F. RACCUIA
Q.C. CHD
P.WINEFIELD

RECOMMENDED 30/6/94
J. DAVIES (SIGNED)
SUPERVISING ENGINEER

APPROVED 30/6/94
D.S. BROOKS (SIGNEDO
MANAGER W.S. PLANNING & DESIGN

WATER CORPORATION

WATER RETICULATION
STANDARD DRAWINGS
CONCRETE THRUST SUPPORTS FOR TAPERS
TYPICAL INSTALLATION DETAILS

FILE	PLAN	CAD	ISSUE
PROJECT	BD62–2–7		C

ORIGINAL SHEET SIZE A3

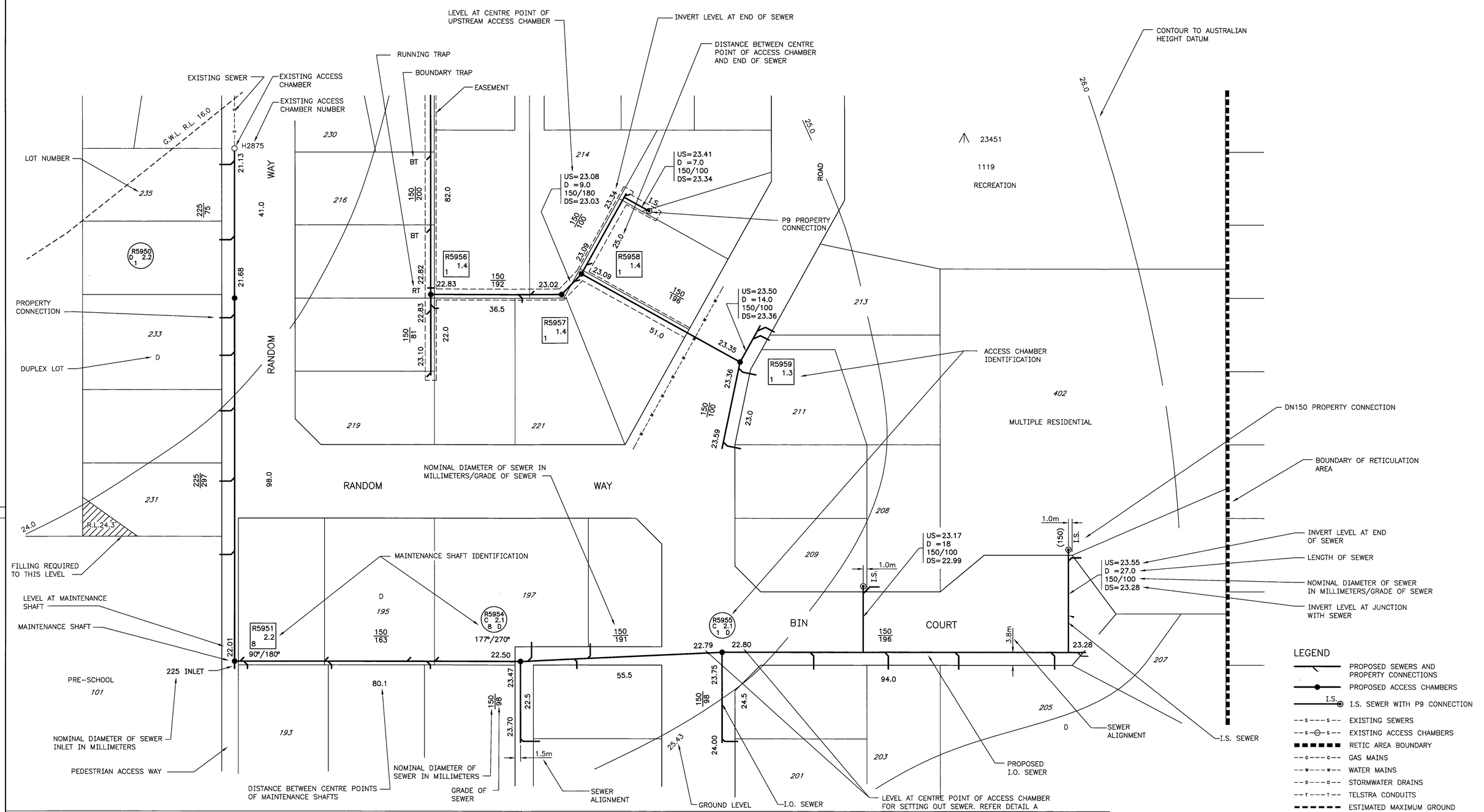
MF 27/11/00

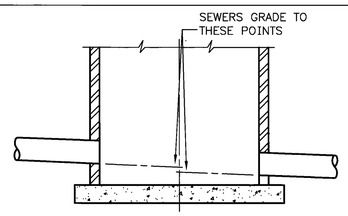
283
794

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

© THIS DRAWING IS THE PROPERTY OF THE WATER CORPORATION. IT SHALL NOT BE COPIED WITHOUT PERMISSION.

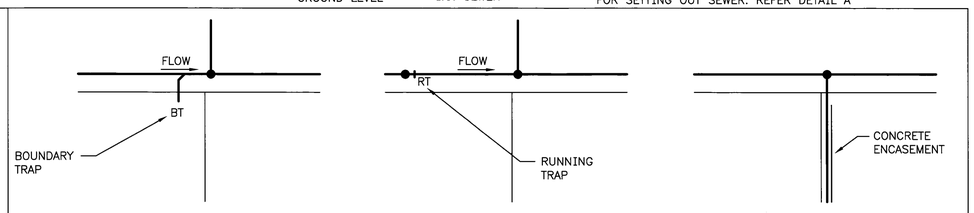
WDCS\MANUALS\RETIC\DRAWINGS\BD6200200701B 21/11/2000





WHERE MORE THAN ONE LEVEL IS SHOWN AT AN ACCESS CHAMBER, SEWERS GRADE TO AND FROM THEIR RESPECTIVE LEVELS AT THE CENTRE POINT OF THE ACCESS CHAMBER.

LEVELS AT ACCESS CHAMBERS – DETAIL A



ADDITIONAL INTERPRETATIONS

GENERAL NOTES

1. PIPE MATERIAL
   UNLESS OTHERWISE SHOWN ON THE RETICULATION DRAWINGS:
   (a) SOLVENT CEMENT JOINTED PVC PIPE SHALL BE USED FOR DN100 TO DN300 SEWERS
   (b) FLEXIBLY JOINTED (RUBBER RING) PVC PIPES SHALL BE USED FOR DN375 SEWERS

   PIPE MATERIAL FOR SEWERS LARGER THAN DN375 SHALL BE AS SHOWN ON THE RETICULATION DRAWINGS FOR INDIVIDUAL PROJECTS.
2. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWINGS AA01–3–1 AND AA01–4–2.

ISSUE	DATE	GRID	REVISION	DRN	REC	APPD
F	11/2011		GENERAL REVISION	KLM	[illegible]	[illegible]
E	06/2006		IS CONNECTIONS CHANGED	KLM	VF	JCB
D	09/2003		GENERAL REVISION	WS	VF	JCB
C	10/1999		ISSUE UPDATED	KB	PRM	JCB
B	06/1999		GENERAL REVISION	KB	PRM	JCB

566
810

DESIGN SURVEY: NONE
ASCON SURVEY: NONE
VERTICAL DATUM: AHD
COORDINATE SYS: UNKNOWN
DES REF
DES CALC
DES CHD
DRN: K BERG
Q.C. CHD: P MOORE

NORTH POINT

ENDORSED 14/07/1999
P R MOORE (SIGNED)
DESIGN CO-ORDINATOR – STANDARDS

RECOMMENDED 28/07/1999
J C BOND (SIGNED)
PRINCIPAL ENGINEER

SCALE: DIAGRAMMATIC

APPROVED 03/08/1999
E J MURPHY (SIGNED)
MANAGER I.D. BRANCH

WATER CORPORATION

WASTEWATER – STANDARD AND EXAMPLE DRAWINGS
GRAVITY SEWERS DN150 TO DN600
INTERPRETATION OF RETICULATION PLANS
FOR CONSTRUCTION OF SEWERS

FILE
PROJECT
PLAN AA01–4–1
CAD
ISSUE F

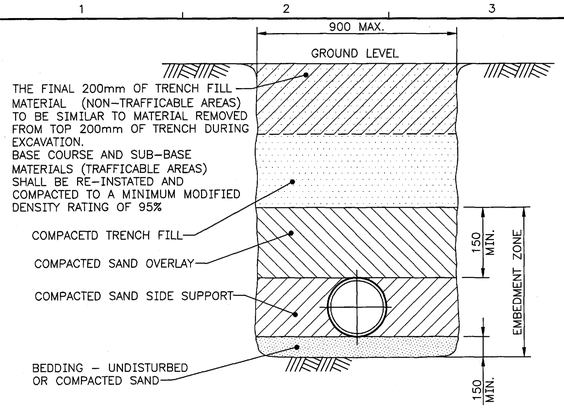
ORIGINAL SHEET SIZE A1

MF 24 NOV 2011

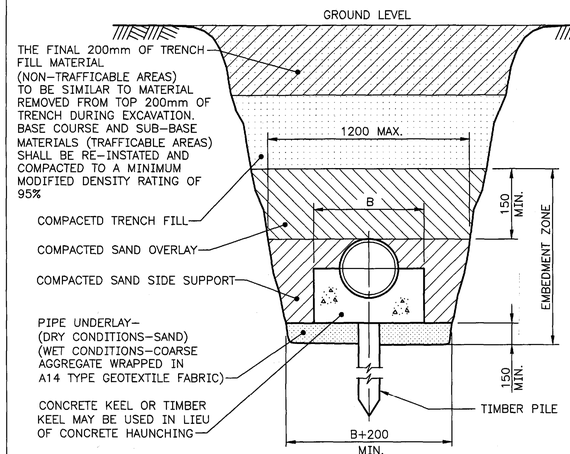
© THIS DRAWING IS THE PROPERTY OF THE WATER CORPORATION. IT SHALL NOT BE COPIED WITHOUT PERMISSION.

CAD MANAGEMENT_NOT READ ONLY\WWCS\STANDARD DRAWINGS\GRAVITY SEWERS\AA01-004-001-01F 14:03 23/11/2011 mcgregk0/WS17933

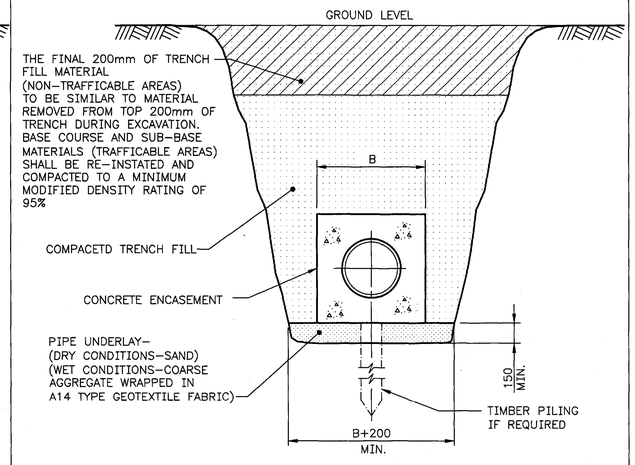
Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



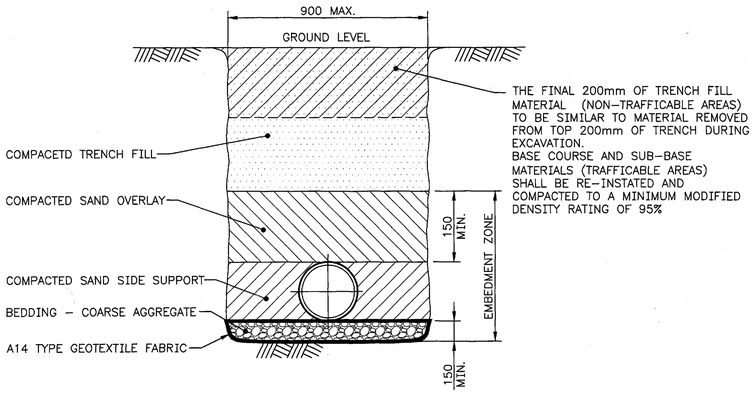
EMBEDMENT & TRENCH FILL DETAIL DRY CONDITIONS



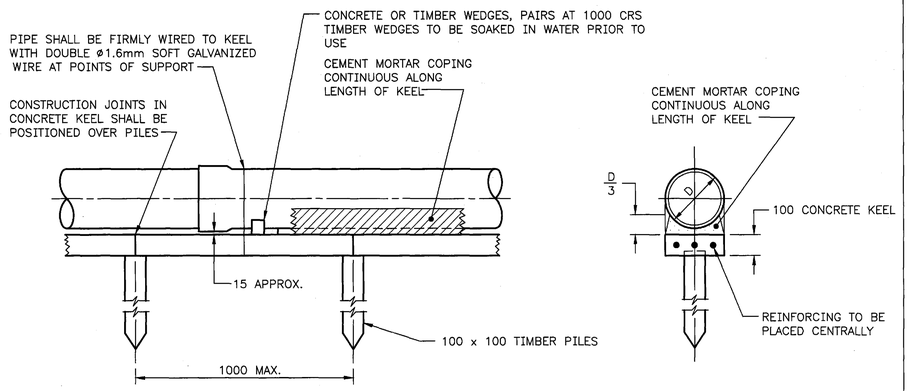
EMBEDMENT & TRENCH FILL DETAIL UNSTABLE CONDITIONS



CONCRETE ENCASEMENT



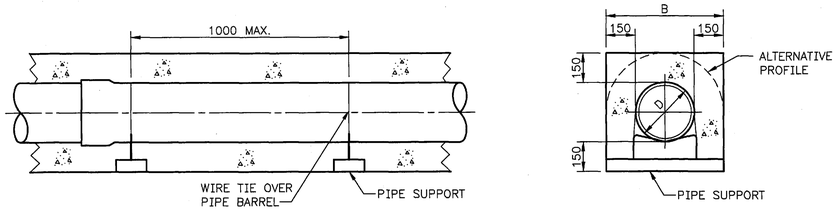
EMBEDMENT & TRENCH FILL DETAIL WET CONDITIONS



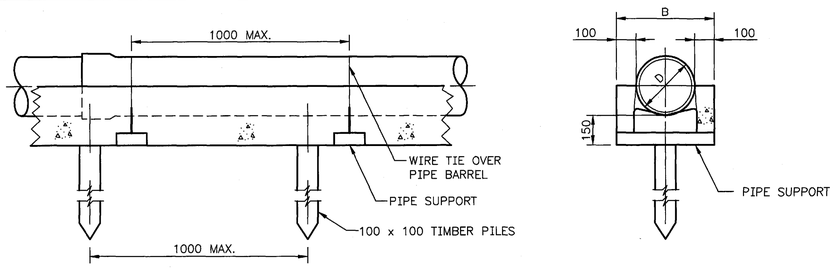
NOTE: TIE BARS TO BE N12 BARS AT 250 CRS.

TIMBER PILE AND CONCRETE KEEL

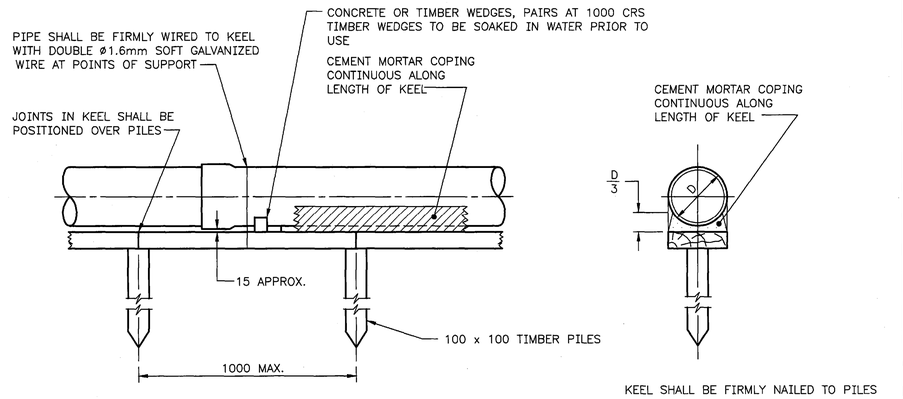
DIAMETER OF PIPE	KEEL SIZE	REINFORCING STEEL
100, 150, 225	250 x 100	3/N12 BARS AT 60 CRS.
300, 375	375 x 100	3/N12 BARS AT 75 CRS.



CONCRETE ENCASEMENT DETAIL



TIMBER PILE AND CONCRETE HAUNCHING



KEEL SHALL BE FIRMLY NAILED TO PILES

DIAMETER OF PIPE	KEEL SIZE
100, 150	230 x 50
225	250 x 50
300, 375	375 x 50

TIMBER PILE AND TIMBER KEEL

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. PIPE MATERIAL, PRESSURE OR STIFFNESS CLASSIFICATION SHALL BE AS SHOWN ON DESIGN DRAWINGS.
3. WHERE AVAILABLE CLASS SN6 MOULDED FITTINGS SHALL BE USED ON DN100 TO DN375 SEWERS WHERE THE DEPTH OF COVER TO THE TOP OF THE PIPE DOES NOT EXCEED 7.0m. WHERE MOULDED FITTINGS ARE NOT AVAILABLE FITTINGS SHALL BE FABRICATED FROM CLASS SN8 PIPE AND FIBREGLASS WRAPPED. WHERE THE DEPTH OF COVER TO THE TOP OF THE PIPE DOES EXCEED 7.0m FITTINGS SHALL BE EITHER CLASS SN6 MOULDED FITTINGS FIBREGLASS WRAPPED OR FITTINGS FABRICATED FROM CLASS SN16 PIPE AND FIBREGLASS WRAPPED.
4. PIPE INSTALLATION SHALL BE TO AS/NZS 2032 UNLESS SHOWN OTHERWISE.
5. PVC SEWER PIPES SHALL NOT BE RESTRAINED BY RIGID CONNECTIONS OR COVERED WITH TRENCH FILL UNTIL THE PIPE TEMPERATURE IS WITHIN THE OPERATING RANGE OF WASTEWATER TEMPERATURES FOR THE AREA.
6. PIPES SHALL BE CONSTRUCTED WITH THE SOCKET FACING UPSTREAM.
7. OVER EXCAVATION OF THE TRENCH BOTTOM SHALL BE BACKFILLED WITH APPROVED UNDERLAY MATERIAL AND COMPACTED TO THE EQUIVALENT OF THE SURROUNDING UNDISTURBED SOIL.
8. EMBEDMENT AND TRENCH FILL WORK:
   (a) DRY TRENCH CONDITIONS:
   EMBEDMENT SHALL BE UNDISTURBED NATURAL SAND OR COMPACTED NATURAL SAND FREE FROM ROCK OR OTHER HARD OR SHARP OBJECTS, SHALL NOT CONTAIN PARTICLES LARGER THAN 7mm AND SHALL NOT CONTAIN MORE THAN 12% FINES BY WEIGHT.
   (b) WET TRENCH CONDITIONS:
   BEDDING SHALL BE 14mm NOMINAL SIZE COARSE AGGREGATE UNIFORMLY GRADED TO AS 2758.1 AND SHALL APPLY WHEN TRENCH BOTTOM IS STABLE BUT NOT FREE FROM STANDING OR RUNNING WATER. AGGREGATE BEDDING SHALL BE WRAPPED IN A14 TYPE GEOTEXTILE FABRIC WITH 500mm OVERLAP OF THE EDGES OF THE GEOTEXTILE. SIDE SUPPORT AND OVERLAY MATERIALS SHALL BE THE SAME AS 8(a).
   (c) TRENCH FILL MATERIAL SHALL BE AS SPECIFIED IN DS50.
9. COMPACTION:
   (a) PIPE EMBEDMENT MATERIALS SHALL BE COMPACTED TO A DENSITY RATIO OF NOT LESS THAN 92% OF MAXIMUM MODIFIED DRY DENSITY AS DETERMINED BY AS 1289.5.2.1, AS 1289.5.8.1 AND AS 1289.5.4.1.
   (b) TRENCH FILL (TRAFFICABLE AREAS) SHALL BE PLACED IN LOOSE LAYERS NOT EXCEEDING 250mm THICKNESS AND SHALL BE COMPACTED TO A DENSITY RATIO OF NOT LESS THAN 95% OF MAXIMUM MODIFIED DRY DENSITY AS DETERMINED BY AS 1289.5.2.1, AS 1289.5.8.1 AND AS 1289.5.4.1.
   (c) TRENCH FILL (NON TRAFFICABLE AREAS) SHALL BE PLACED IN LOOSE LAYERS NOT EXCEEDING 300mm THICKNESS FOR CLAY/COHESIVE MATERIALS OR 400mm LOOSE THICKNESS FOR SAND/GRAVEL/COHESIONLESS MATERIAL AND SHALL BE COMPACTED TO A MINIMUM DENSITY RATIO OF 92% OF MAXIMUM DRY DENSITY AS DETERMINED BY AS 1289.5.2.1, AS 1289.5.8.1 AND AS 1289.5.4.1.
10. CONCRETE ENCASEMENT:
    PIPES SHALL BE ENCASED WHERE SHOWN ON THE RETICULATION PLANS.
11. TIMBER FOR PILES AND KEEL SHALL BE F8 JARRAH TO A.S. 2082.
12. CONCRETE SHALL BE GRADE N25 TO AS 1379 PLACED IN ACCORDANCE WITH AS 3600.
13. REINFORCING STEEL SHALL BE TO AS/NZS 4671.
14. 'D' IS THE OUTSIDE DIAMETER OF THE PIPE BARREL.
15. CEMENT MORTAR BY VOLUME SHALL BE: 1 PART CEMENT TO 3 PARTS SAND.
16. VOIDS IN COARSE AGGREGATE UNDERLAY SHALL BE FILLED WITH SAND.
17. PILES SHALL BE DRIVEN TO 600 MIN. DEPTH BELOW EXCAVATION LINE AND TO A MAXIMUM SET OF 25mm WITH 14 BLOWS OF A 32kg DOLLY FREE FALLING 1.0m.

ISSUE	DATE	GRID	REVISION	DRN	REC	APPD
D	05/2017		TRENCH FILL DETAILS AND NOTES AMENDED	LM	PRM	JCB
C	01/2000		GENERAL NOTES AND TITLE AMENDED	PAM	PRM	JCB
B	05/1999		GENERAL REVISION	J.L.S.	PRM	JCB

SURVEY BOOKS

DATUM AHD

DES REF M901

DES CALC

DES CHD

DRN M.S.D.

Q.C. CHD P MOORE

NORTH POINT

ENDORSED 14/07/1999
P R MOORE (SIGNED)
DESIGN CO-ORDINATOR - STANDARDS

RECOMMENDED 28/07/1999
J C BOND (SIGNED)
PRINCIPAL ENGINEER

SCALE DIAGRAMMATIC

APPROVED 03/08/1999
E J MURPHY (SIGNED)
MANAGER I.D. BRANCH

WATER CORPORATION

SEWERAGE - STANDARD AND EXAMPLE DRAWINGS
GRAVITY SEWERS DN150 TO DN600
BEDDING AND BACKFILLING FOR DN100 TO DN375 PVC SEWERS

FILE B19925 | PROJECT | PLAN AA01-11-1 | CAD | ISSUE D

ORIGINAL SHEET SIZE A1

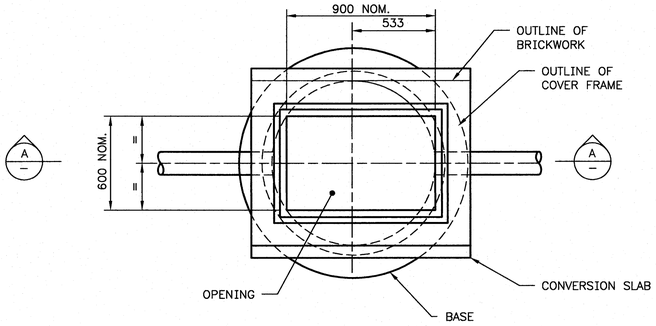
MF 09 JUN 2017

566 810

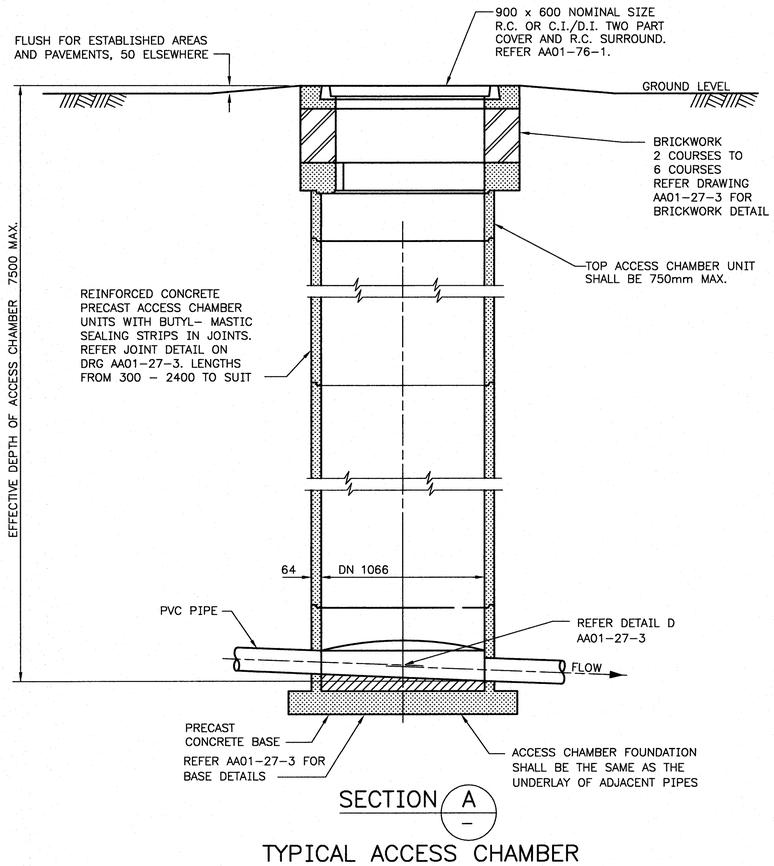
© THIS DRAWING IS THE PROPERTY OF THE WATER CORPORATION. IT SHALL NOT BE COPIED WITHOUT PERMISSION.

CAD MANAGEMENT_NOT READ ONLY\WWCS\STANDARD DRAWINGS\GRAVITY SEWERS\REVISION\AS AT MAY 2017\AA01-011-001-01D 12:33 07/06/2017 madetkl0/WS27107

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



PLAN

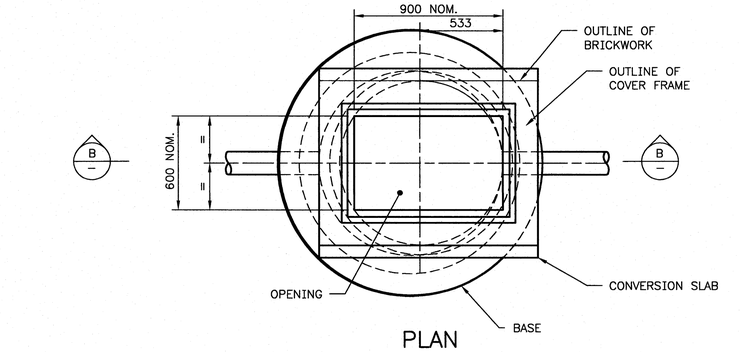


TYPICAL ACCESS CHAMBER

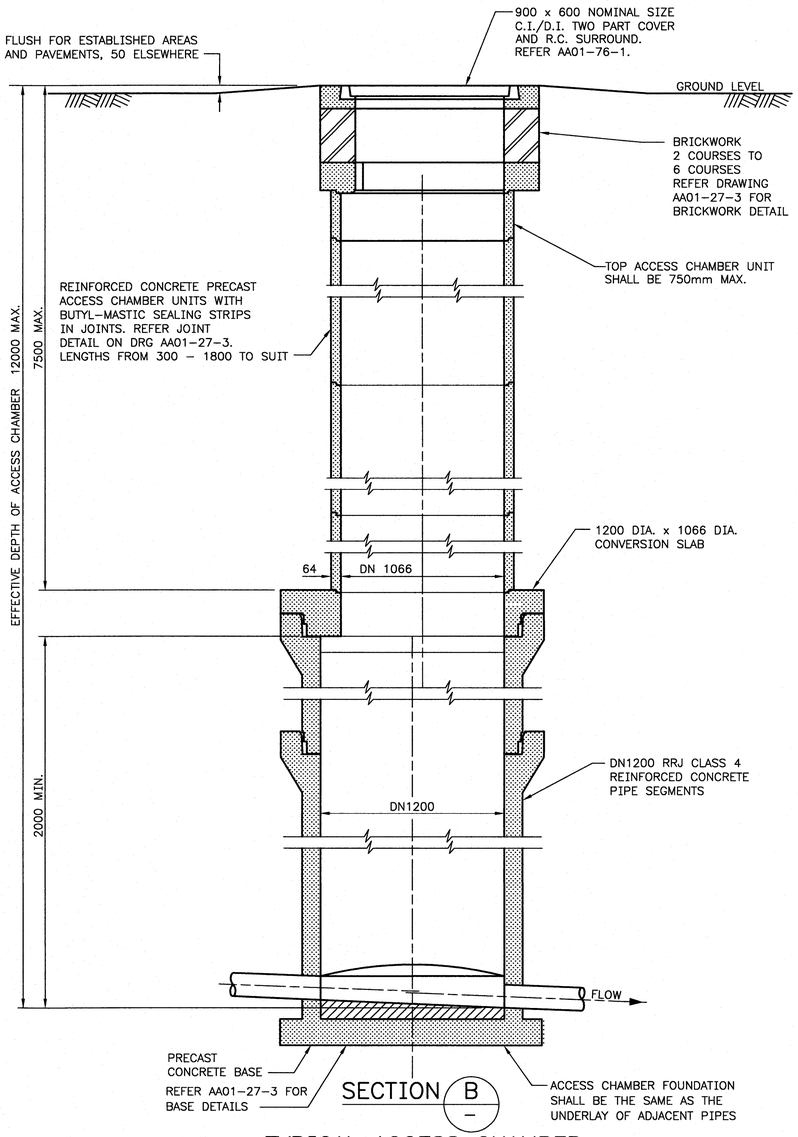
(1.5m TO 7.5m EFFECTIVE DEPTH)

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. FOR SHALLOW ACCESS CHAMBERS, COVERS LOCATED CLOSE TO A KERB SHALL BE SQUARE TO THE KERB, ACCESS CHAMBER COVERS LOCATED CLOSE TO A BOUNDARY SHALL BE SQUARE TO THE BOUNDARY. ELSEWHERE ACCESS CHAMBER COVERS SHALL BE SQUARE TO THE LONGEST UPSTREAM SEWER. ACCESS CHAMBER COVERS SHALL OPEN AWAY FROM KERBS, FENCES AND OTHER OBSTRUCTIONS WHICH MAY HINDER OPENING.
3. CEMENT MORTAR BY VOLUME SHALL BE: 1 PART CEMENT & 3 PARTS SAND.
4. CENTRE POINT OF ACCESS CHAMBERS SHOULD GENERALLY BE ON THE INTERSECTION POINT OF SEWERS.
5. ACCESS CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
6. ACCESS CHAMBERS SHALL BE MARKED TO IDENTIFY MANUFACTURER, MARK SHALL BE VISIBLE AFTER ACCESS CHAMBER IS CONSTRUCTED.
7. ONLY ACCESS CHAMBERS AND ACCESS CHAMBER COMPONENTS WHOSE STRUCTURAL, JOINTING AND FLOTATION RESISTANCE CHARACTERISTICS HAVE BEEN AUTHORISED BY THE WATER CORPORATION AND SELECTED BY THE DESIGNER TO MATCH ASSESSED SITE CONDITIONS SHALL BE PERMISSIBLE. THIS DRAWING IS AN EXAMPLE DRAWING, THE DETAILS OF SOME ACCESS CHAMBERS MAY VARY FROM THOSE SHOWN ON THE DRAWINGS.
8. ALL HOLES IN ACCESS CHAMBERS FOR DN150 AND DN225 PVC PIPE INLETS AND OUTLETS SHALL BE EITHER BORED OR CORED UNLESS SHOWN OTHERWISE.
9. THE DISTANCE BETWEEN ANY PRECAST SYSTEM COMPONENT EDGE OR JOINT AND ANY CORED HOLE OR STRUCTURAL PENETRATION SHALL BE NOT LESS THAN THAT ACCEPTABLE TO THE MANUFACTURER'S ENGINEER.
10. ALL ACCESS CHAMBER SEGMENTS CONSTRUCTED LESS THAN 7.5m DEEP SHALL BE MANUFACTURED AND TESTED IN ACCORDANCE WITH AS4198. ACCESS CHAMBER SEGMENTS CONSTRUCTED DEEPER THAN 7.5m SHALL BE MANUFACTURED AND TESTED IN ACCORDANCE WITH AS4058.

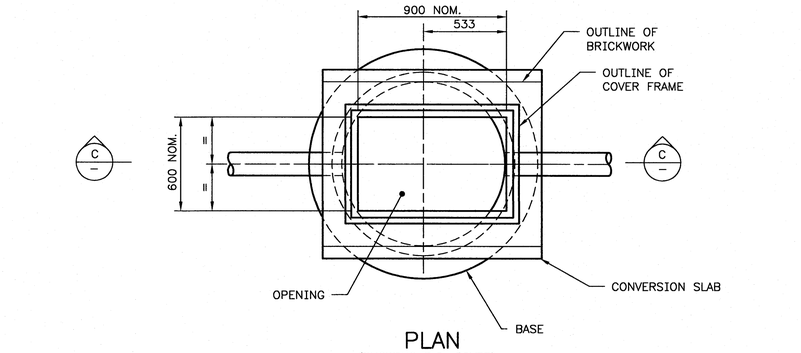


PLAN

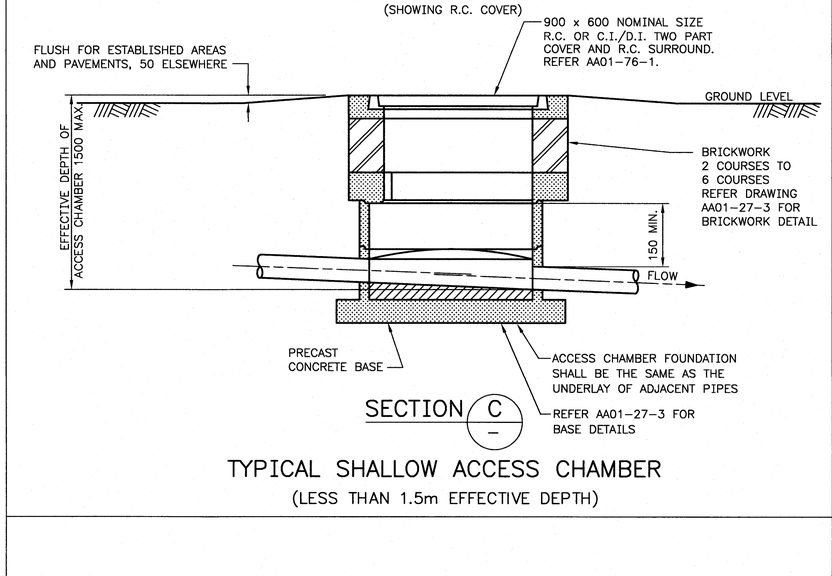


TYPICAL ACCESS CHAMBER

(7.5m TO 12.0m EFFECTIVE DEPTH)



PLAN
(SHOWING R.C. COVER)



TYPICAL SHALLOW ACCESS CHAMBER

(LESS THAN 1.5m EFFECTIVE DEPTH)

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS AA01–27–2 AND 27–3

ISSUE	DATE	GRID	MODIFIED REVISION	DRN	REC	APPD
J	09/2016		NOTE 7 AMENDED AND NOTE 9 ADDED	BJ	ML	KP
I	10/2014		NOTE ADDED	BJ	HA	DM
H	07/2012		LADDERS AND CIRCULAR COVERS REMOVED	KLM	CS	DJMc
G	06/2007		DISTANCE TO LADDER FROM BASE OF ACCESS CHAMBER AMENDED	KLM	VF	JCB
F	12/2005		CHANGES TO MAKEUP RING LENGTHS & TOP RUNG OF LADDER SPACING	KLM	JCB	AK

DESIGN SURVEY NONE	VERTICAL DATUM NONE	DES CALC	
	COORDINATE SYS NONE	DES CHD	
ASCON SURVEY NONE	DES REF	DRN K BERG	
		Q.C. CHD PRM	

NORTH POINT

SCALE: DIAGRAMMATIC

ENDORSED 15/03/2002 P R MOORE (SIGNED) DESIGN CO–ORDINATOR STANDARDS

RECOMMENDED 15/03/2002 J C BOND (SIGNED) PRINCIPAL ENGINEER

APPROVED 15/03/2002 E MURPHY (SIGNED) MANAGER I.D. BRANCH

WATER CORPORATION

WASTEWATER – STANDARD AND EXAMPLE DRAWINGS
GRAVITY SEWERS DN150 TO DN600
CIRCULAR PRECAST CONCRETE ACCESS CHAMBERS
FOR DN150 & DN225 SEWERS UP TO 12m DEEP SHT 1 OF 3

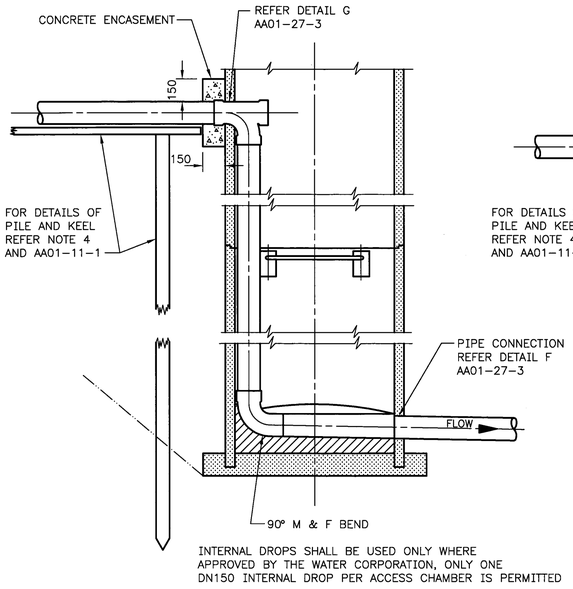
FILE
PROJECT
PLAN AA01–27–1
CAD
ISSUE J
ORIGINAL SHEET SIZE A1
MF 12 SEP 2016

566 810

© THIS DRAWING IS THE PROPERTY OF THE WATER CORPORATION. IT SHALL NOT BE COPIED WITHOUT PERMISSION.

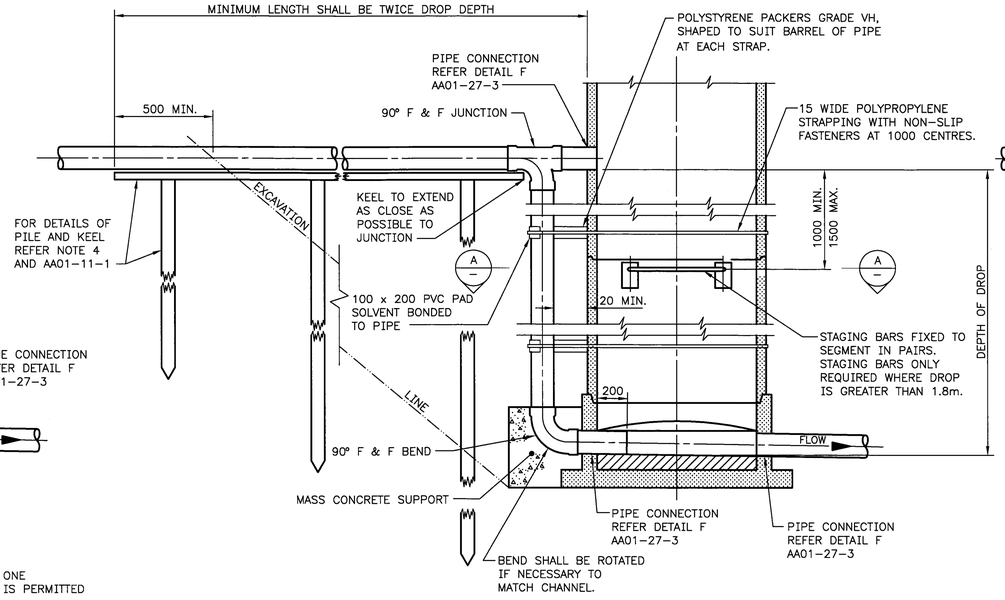
CAD MANAGEMENT_NOT READ ONLY\WWCS\STANDARD DRAWINGS\PUMP STATIONS\RPZ_BOLLARDS\AA01–027–001–01J 14:34 07/09/2016 lewiss0/WS18841

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

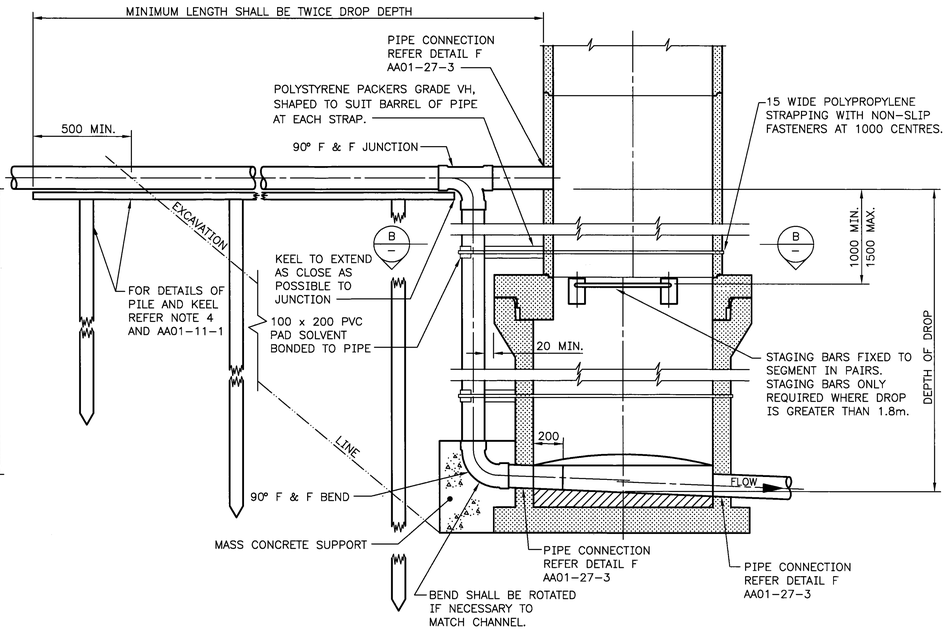


INTERNAL DROPS SHALL BE USED ONLY WHERE APPROVED BY THE WATER CORPORATION, ONLY ONE DN150 INTERNAL DROP PER ACCESS CHAMBER IS PERMITTED

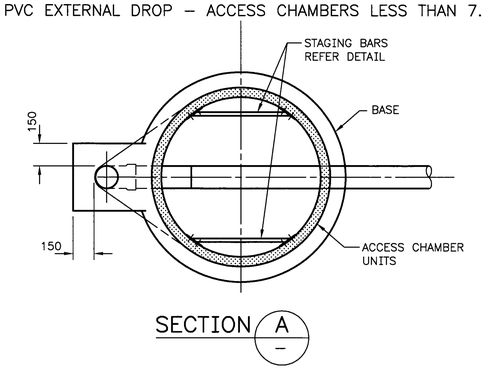
DN150 PVC INTERNAL DROP



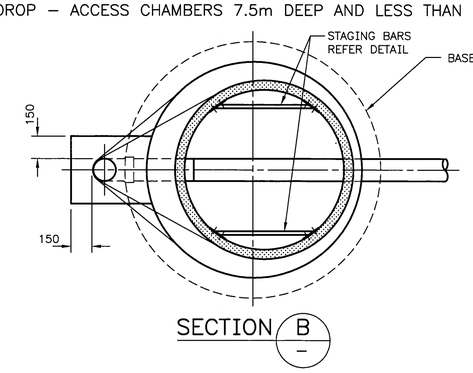
DN150, DN225 PVC EXTERNAL DROP – ACCESS CHAMBERS LESS THAN 7.5m DEEP



DN150, DN225 PVC EXTERNAL DROP – ACCESS CHAMBERS 7.5m DEEP AND LESS THAN 12m DEEP

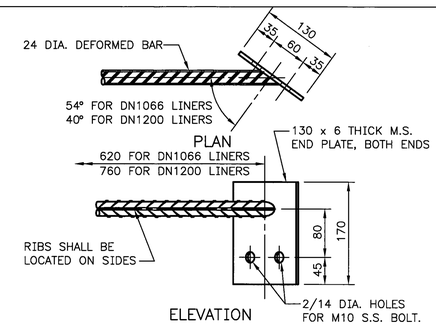


SECTION A



SECTION B

TYPICAL DROP ACCESS CHAMBERS



STAGING BAR DETAIL

GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. WELDING TO COMPLY WITH AS 1554 PART 1.
3. FABRICATED MILD STEELWORK SHALL BE HOT DIP GALVANIZED TO AS/NZS 4680. COATING MASS SHALL BE IN ACCORDANCE WITH TABLE 6.1. ALL DAMAGE TO HOT DIP GALVANIZING SHALL BE REPAIRED IN ACCORDANCE WITH APPENDIX E OF AS/NZS 4680 USING 'DIMET ZEDEN' OR APPROVED SIMILAR PRODUCT.
4. PILING IS NOT REQUIRED IF THE TRENCH BACKFILL/UNDERLAY PRIOR TO SEWER CONSTRUCTION IS COMPACTED TO 95% DRY DENSITY RATIO TO AS1289.5.4.1 AND COMPACTION CERTIFICATES PROVIDED.

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS AA01-27-1 AND 27-3

ISSUE	DATE	GRID	REVISION	DRN	REC	APPD
C	07/2012		LADDERS REMOVED	KLM	JCB	JCB
B	09/2005		FIXING RINGS REMOVED, LADDERS AND STAGING BAR FIXING NOTE AMENDED	KLM	VF	JCB

DESIGN SURVEY NONE | VERTICAL DATUM NONE | DES CALC
ASCON SURVEY NONE | COORDINATE SYS UNKNOWN | DES CHD
DES REF | DRN K BERG | Q.C. CHD P.R.M.

NORTH POINT

DIAGRAMMATIC

ENDORSED 15/03/2002
P R MOORE (SIGNED)
DESIGN CO-ORDINATOR – STANDARDS

RECOMMENDED 15/03/2002
J C BOND (SIGNED)
PRINCIPAL ENGINEER

APPROVED 15/03/2002
E MURPHY (SIGNED)
MANAGER I.D. BRANCH

WATER CORPORATION

WASTEWATER – STANDARD AND EXAMPLE DRAWINGS
GRAVITY SEWERS DN150 TO DN600
CIRCULAR PRECAST CONCRETE ACCESS CHAMBERS
FOR DN150 & DN225 SEWERS UP TO 12m DEEP SHT 2 OF 3

FILE | PROJECT | PLAN AA01-27-2 | CAD | ISSUE C

ORIGINAL SHEET SIZE A1

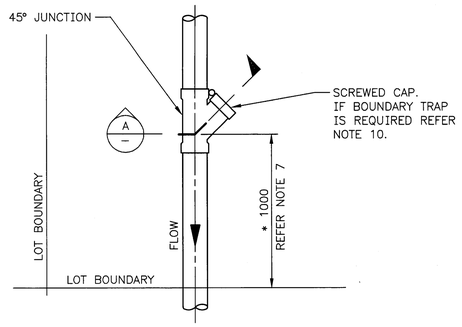
MF17 JUL 2012

566
810

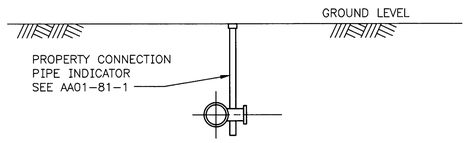
© THIS DRAWING IS THE PROPERTY OF THE WATER CORPORATION. IT SHALL NOT BE COPIED WITHOUT PERMISSION.

CAD MANAGEMENT_NOT READ ONLY\WWCS\STANDARD DRAWINGS\GRAVITY SEWERS\REVISION\AA01-027-002-01C 16:15 12/07/2012 mcgregk0/WS17933

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

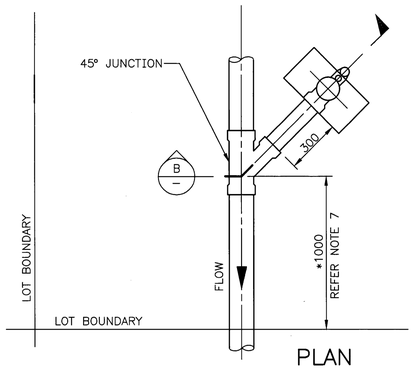


PLAN

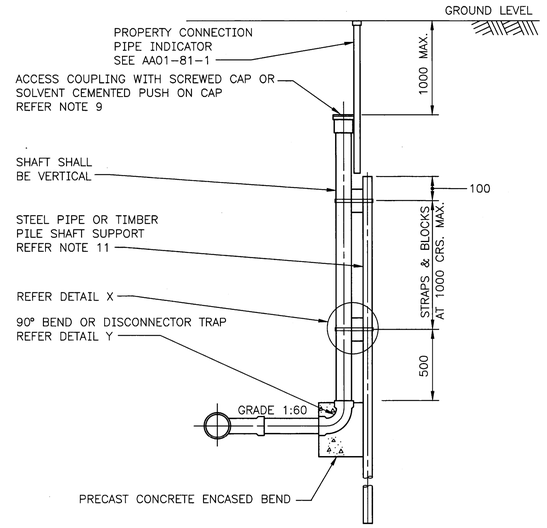


SECTION A

TYPE P1
SHALLOW CONNECTION

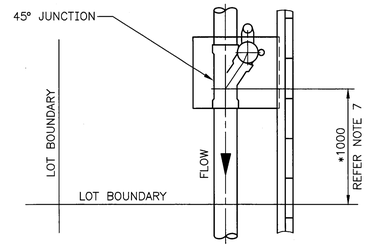


PLAN

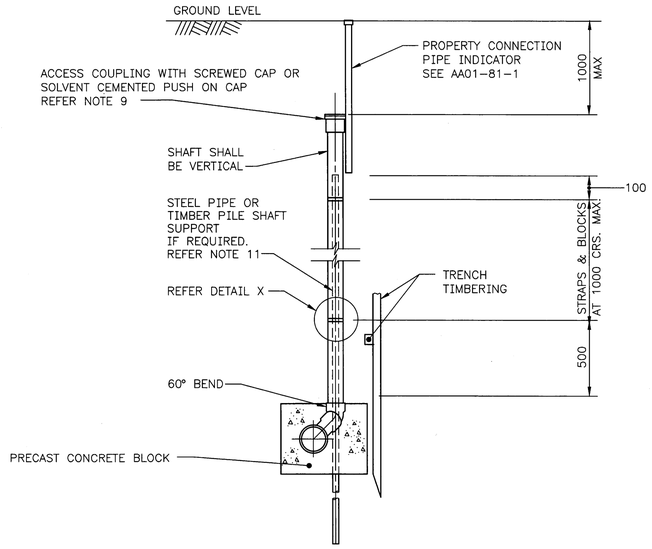


SECTION B

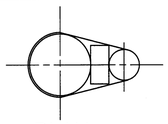
TYPE P2
RISING SHAFT CONNECTION



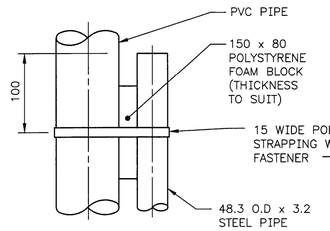
PLAN



ELEVATION
TYPE P3
RISING SHAFT CONNECTION
IN SHORED OR ROCK TRENCHES

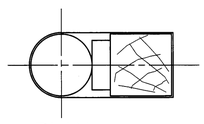


PLAN

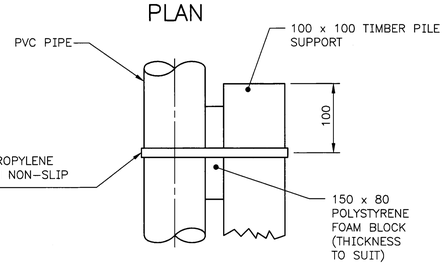


ELEVATION

STEEL PILE SUPPORT



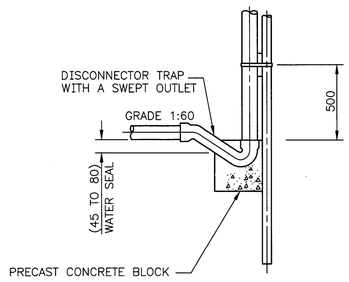
PLAN



ELEVATION

TIMBER PILE SUPPORT

DETAIL X – RISING SHAFT SUPPORT



DETAIL Y – BOUNDARY TRAP

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. PVC PIPES AND FITTINGS SHALL BE AS SPECIFIED ON DRAWING AA01–3–1.
3. JOINTS SHALL BE SOLVENT CEMENT JOINTS TO AS/NZS 2032.
4. BEDDING FOR PROPERTY CONNECTIONS SHALL BE THE SAME AS FOR SEWERS.
5. ALL PROPERTY CONNECTIONS SHALL BE BROUGHT UP TO WITHIN 1m OF THE SURFACE.
6. ALL FITTINGS SHALL HAVE SOCKET JOINTS AT ALL CONNECTIONS AND THE MINIMUM DISTANCE BETWEEN THE FACES OF THE SOCKETS SHALL BE 100mm UNLESS SHOWN OTHERWISE.
7. DIMENSION * SHALL BE 1.0m UNLESS SHOWN OTHERWISE ON RETICULATION PLANS.
8. JUNCTIONS SHALL BE 2.0m MINIMUM APART EXCEPT AT THE END OF I.O. SEWERS AND I.S. SEWERS WHERE THEY SHALL BE 1m MINIMUM APART UNLESS SHOWN OTHERWISE.
9. PUSH ON CAPS MAY BE REQUIRED TO BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE FOR INSPECTION PURPOSES.
10. IF PROPERTY CONNECTION IS LESS THAN 1m DEEP TO INVERT USE RUNNING TRAP TYPE BOUNDARY TRAP, REFER DRAWING AA01–61–2.
11. SHAFT SUPPORT MAY BE OMITTED BUT THE MAXIMUM LENGTH OF UNSUPPORTED RISING SHAFT SHALL NOT EXCEED 3.0m.
12 THE DESIGN ENGINEER SHALL CONSULT WITH THE CORPORATION FOR SEWERS DEEPER THAN 3.0m INSIDE PRIVATE PROPERTY.

ISSUE	DATE	GRID	REVISION	DRN	REC	APPD
G	05/2017		GENERAL NOTES UPDATED	LM	CS	WE
F	03/2009		PROPERTY CONNECTION PIPE INDICATOR ADDED	KLM	CS	WE
E	10/2005		INSPECTION TEES REMOVED	KLM	VF	JCB
D	01/2000		GENERAL NOTE 2 AMENDED	PAM	PRM	JCB
C	06/1999		GENERAL REVISION	KB	PRM	JCB

DESIGN SURVEY NONE
ASCON SURVEY NONE
VERTICAL DATUM NONE
COORDINATE SYS UNKNOWN
DES REF
DES CALC
DES CHD
DRN K BERG
Q.C. CHD P MOORE
NORTH POINT

ENDORSED 28/07/1999
P R MOORE (SIGNED)
DESIGN CO–ORDINATOR – STANDARDS
SCALE
DIAGRAMMATIC

RECOMMENDED 28/07/1999
J C BOND (SIGNED)
PRINCIPAL ENGINEER
APPROVED 03/08/1999
E J MURPHY (SIGNED)
MANAGER I.D. BRANCH

WATER CORPORATION

WASTEWATER – STANDARD AND EXAMPLE DRAWINGS
GRAVITY SEWERS DN150 TO DN600
PVC PROPERTY CONNECTIONS
SEWER INSIDE SERVED PROPERTY

FILE
PROJECT
PLAN AA01–61–1
CAD
ISSUE G

ORIGINAL SHEET SIZE A1

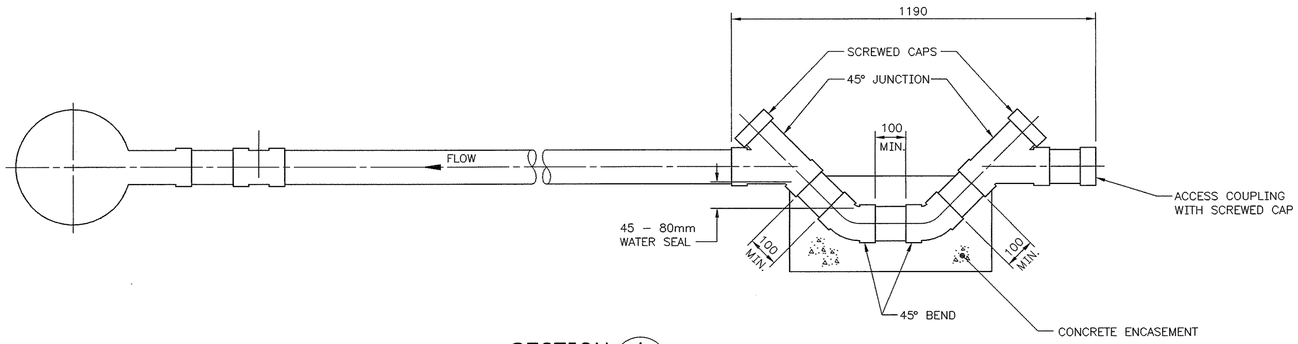
MF 09 JUN 2017

566
810

© THIS DRAWING IS THE PROPERTY OF THE WATER CORPORATION. IT SHALL NOT BE COPIED WITHOUT PERMISSION.

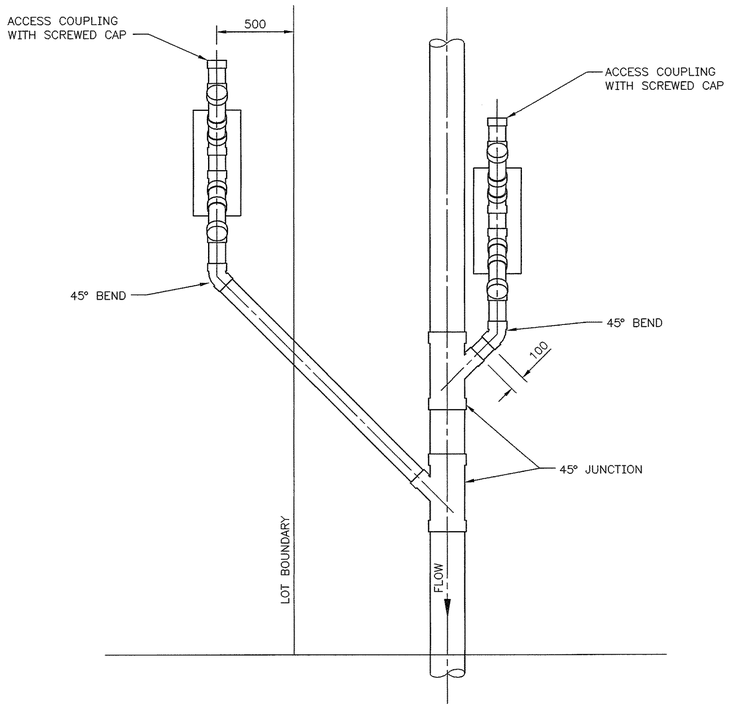
CAD MANAGEMENT_NOT READ ONLY\WWCS\STANDARD DRAWINGS\GRAVITY SEWERS\REVISION\AS AT MAY 2017\AA01–061–001–01G 13:25 07/06/2017 madetkl0/WS27107

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



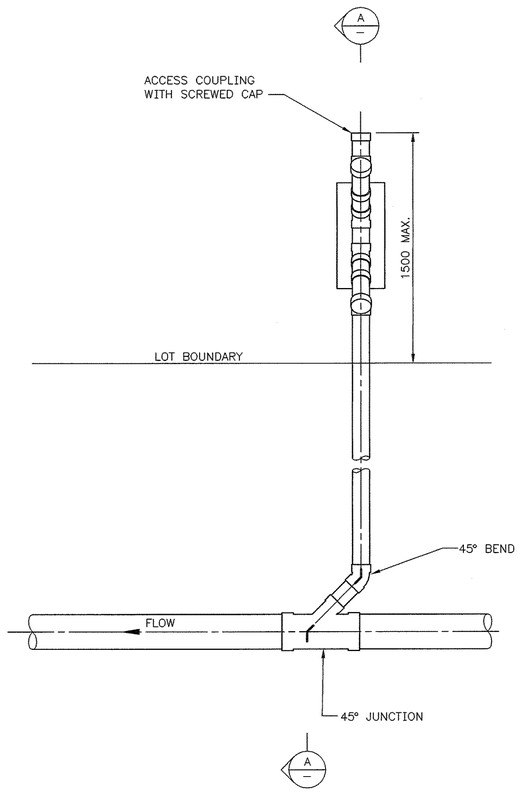
SECTION A

SCALE (2)



SEWER LOCATED WITHIN PROPERTY

SCALE (1)



SEWER LOCATED WITHIN ROAD RESERVE

SCALE (1)

GENERAL NOTES

1. RUNNING TRAP TO BE LOCATED WITHIN PROPERTY BEING SERVED.

500 0 500 1000 mm (1)

100 50 0 100 200 300 400 500 600 700 mm (2)

THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWINGS AA01–61–1 & AA01–62–1

ISSUE	DATE	GRID	REVISION	DRN	REC	APPD
D	10/2005		INSPECTION TEES REMOVED	KLM	PRM	JCB
C	06/1999		GENERAL REVISION	KB	PRM	JCB

DESIGN SURVEY: NONE
VERTICAL DATUM: NONE
COORDINATE SYS: UNKNOWN
ASCON SURVEY: NONE
DES REF
DES CALC
DES CHD
DRN
M.S.D.
Q.C. CHD
P.R.M.
NORTH POINT

ENDORSED 28/07/1999
P R MOORE (SIGNED)
DESIGN CO-ORDINATOR – STANDARDS

RECOMMENDED 28/07/1999
J C BOND (SIGNED)
PRINCIPAL ENGINEER

APPROVED 03/08/1999
E J MURPHY (SIGNED)
MANAGER I.D. BRANCH

WATER CORPORATION

WASTEWATER – STANDARD AND EXAMPLE DRAWINGS
GRAVITY SEWERS DN150 TO DN600
PVC PROPERTY CONNECTIONS
BOUNDARY TRAP – RUNNING TRAP TYPE

ORIGINAL SHEET SIZE: A1

FILE
PROJECT
PLAN: AA01–61–2
CAD
ISSUE: D

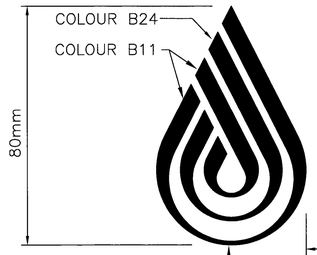
MF 25 OCT 2005

566
810

© THIS DRAWING IS THE PROPERTY OF THE WATER CORPORATION. IT SHALL NOT BE COPIED WITHOUT PERMISSION.

WWCS\STANDARDS\STANDARD DRAWINGS\GRAVITY SEWERS\AA0106100201D 09:48 25/10/2005 mcgregk0/WS11254

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021



SEWER CONNECTION

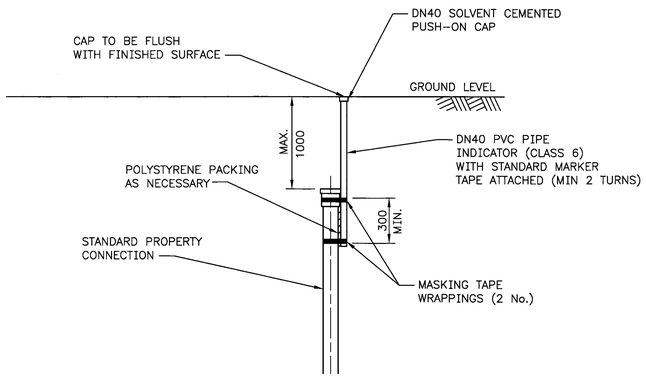


WORDS AND SYMBOLS TO BE CONTINUOUS

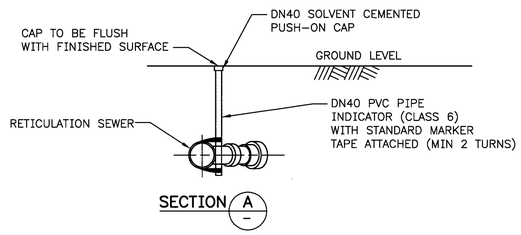
MARKER TAPE SPECIFICATION

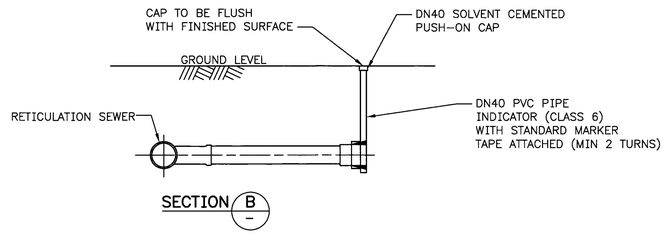
1. THICKNESS : 0.125mm
2. MATERIAL : POLYETHYLENE FILM
3. COLOURS : BACKGROUND – WHITE
   : LETTERING – B11 DARK BLUE PMS 286 A.S. 2700
   : LOGO – B11 DARK BLUE PMS 286 A.S. 2700
   B24 LIGHT BLUE PMS 307 A.S. 2700
4. WIDTH : 100mm

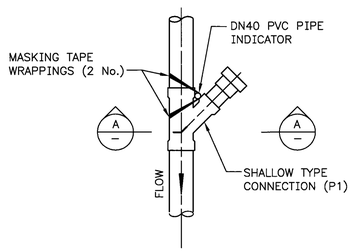
TAPE AVAILABLE FROM 'ELEC TECHNIQUE'



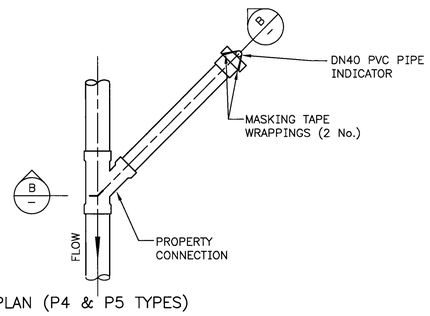
ALL CONNECTIONS WITH RISING SHAFTS







PLAN (P1 TYPE)



PLAN (P4 & P5 TYPES)

PROPERTY CONNECTION PIPE INDICATOR

ISSUE	DATE	GRID	REVISION	DRN	REC	APPD
G	11/2011		REFERENCE TO CORPORATE IDENTITY STYLE GUIDE ADDED	KLM	J.C.B.	JR
F	03/2009		PROPERTY CONNECTION PIPE INDICATOR ADDED	KLM	CS	WE
E	06/1999		GENERAL REVISION	KB	PRM	JCB
D	05/1998		UPDATED TO WATER CORPORATION STANDARDS	K.B.	P.R.M.	J.C.B.
C	7/94		SIZE OF LETTERING AMENDED	E.A.S.	P.R.M.	J.C.B.

566
810

DESIGN SURVEY NONE
VERTICAL DATUM NONE
COORDINATE SYS NONE
ASCON SURVEY NONE
DES REF
DES CALC
DES CHD
DRN K BERG
Q.C. CHD P MOORE

NORTH POINT

ENDORSED 28/07/1999
P R MOORE (SIGNED)
DESIGN CO-ORDINATOR – STANDARDS

RECOMMENDED 16/06/1994
J.C. BOND (SIGNED)
PRINCIPAL ENGINEER

SCALE
DIAGRAMMATIC

APPROVED 16/06/1994
E.J. MURPHY (SIGNED)
MANAGER I.D. BRANCH

WATER CORPORATION

WASTEWATER – STANDARD AND EXAMPLE DRAWINGS
GRAVITY SEWERS DN150 TO DN600
PROPERTY CONNECTION PIPE INDICATOR AND MARKER TAPE

FILE
PROJECT
PLAN AA01–81–1
CAD
ISSUE G

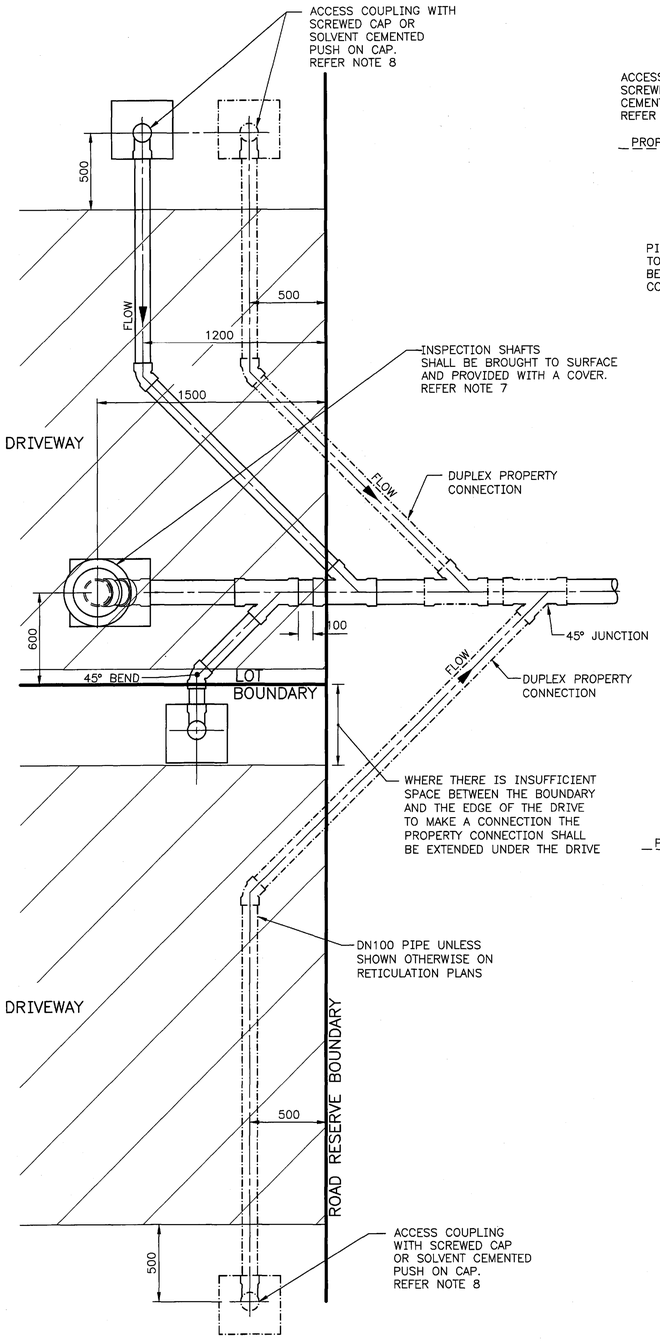
ORIGINAL SHEET SIZE A1

MF 24 NOV 2011

© THIS DRAWING IS THE PROPERTY OF THE WATER CORPORATION. IT SHALL NOT BE COPIED WITHOUT PERMISSION.

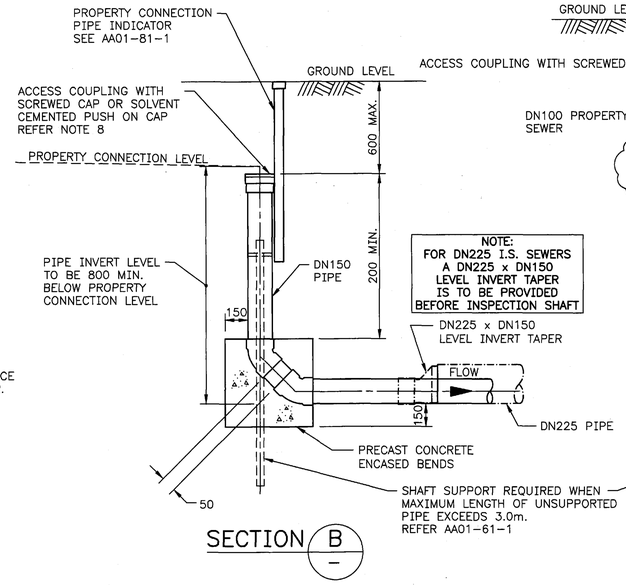
CAD MANAGEMENT_NOT READ ONLY\WWCS\STANDARD DRAWINGS\GRAVITY SEWERS\AA01-081-001-01G 14:04 23/11/2011 mcgregkO/WS17933

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021

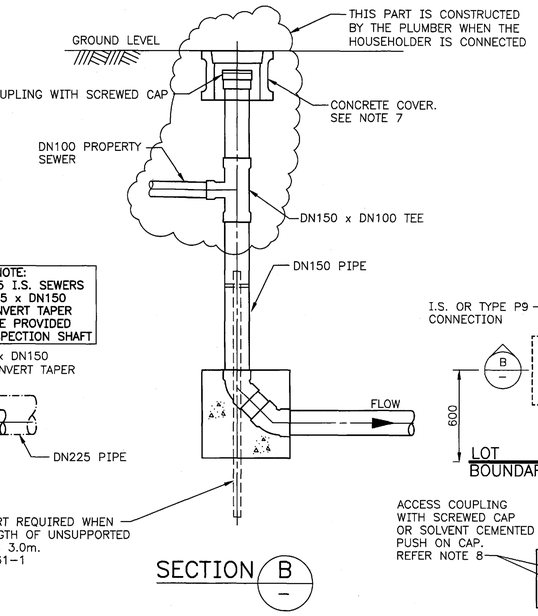


PLAN

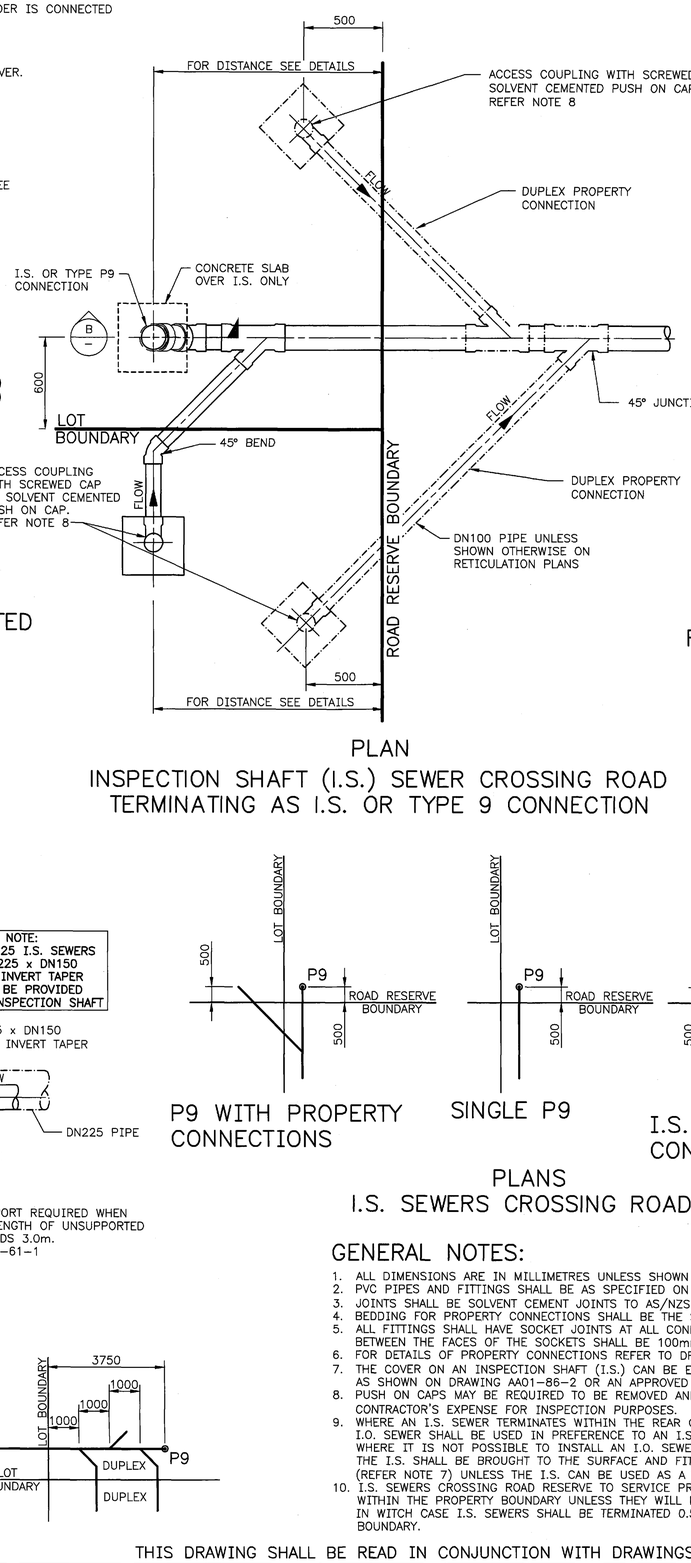
INSPECTION SHAFT (I.S.) SEWER WITH I.S. SHAFT LOCATED IN DRIVEWAY OR PAVED AREA



TYPE P9 CONNECTION

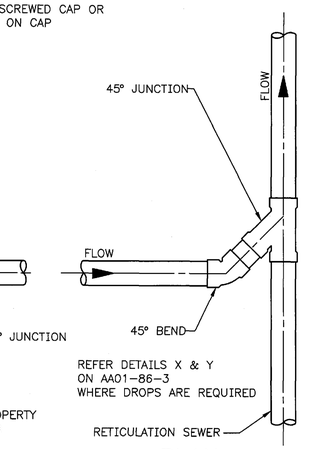


TYPE P9 CONNECTION AFTER PROPERTY IS CONNECTED



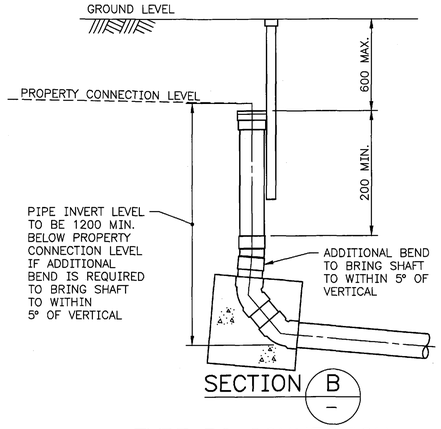
PLAN

INSPECTION SHAFT (I.S.) SEWER CROSSING ROAD TERMINATING AS I.S. OR TYPE 9 CONNECTION

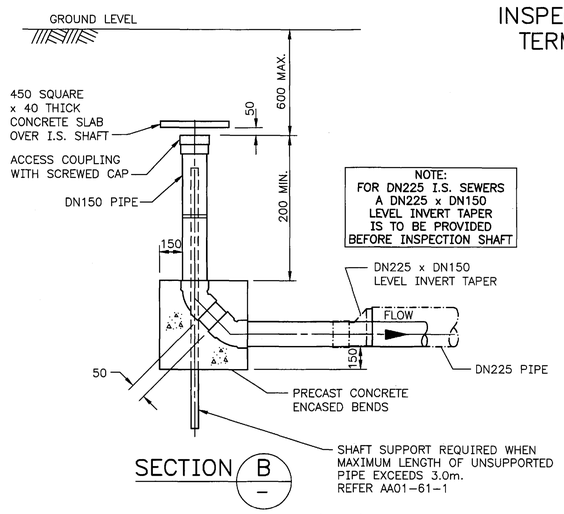


PLAN

INSPECTION SHAFT (I.S) SEWER CONNECTION TO RETICULATION SEWERS



TYPE P9 CONNECTION WITH ADDITIONAL BEND TO BRING SHAFT TO WITHIN 5° OF VERTICAL



INSPECTION SHAFT (I.S.)

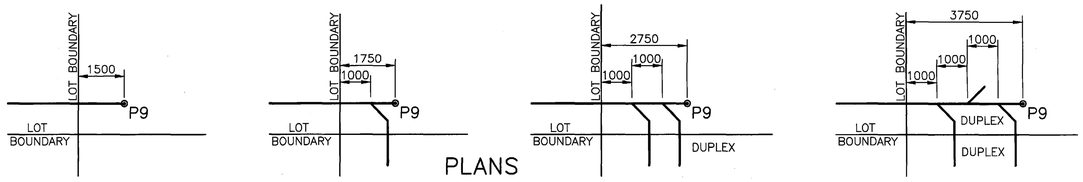
P9 WITH PROPERTY CONNECTIONS

SINGLE P9

I.S. WITH PROPERTY CONNECTIONS

PLANS

I.S. SEWERS CROSSING ROADS



PLANS

I.S. SEWERS INSIDE PROPERTIES

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. PVC PIPES AND FITTINGS SHALL BE AS SPECIFIED ON DRAWING AA01–3–1.
3. JOINTS SHALL BE SOLVENT CEMENT JOINTS TO AS/NZS 2032.
4. BEDDING FOR PROPERTY CONNECTIONS SHALL BE THE SAME AS FOR SEWERS.
5. ALL FITTINGS SHALL HAVE SOCKET JOINTS AT ALL CONNECTIONS AND THE MINIMUM DISTANCE BETWEEN THE FACES OF THE SOCKETS SHALL BE 100mm UNLESS SHOWN OTHERWISE.
6. FOR DETAILS OF PROPERTY CONNECTIONS REFER TO DRAWINGS AA01–61–1 AND AA01–62–1.
7. THE COVER ON AN INSPECTION SHAFT (I.S.) CAN BE EITHER A CONCRETE COVER AS SHOWN ON DRAWING AA01–86–2 OR AN APPROVED EQUIVALENT.
8. PUSH ON CAPS MAY BE REQUIRED TO BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE FOR INSPECTION PURPOSES.
9. WHERE AN I.S. SEWER TERMINATES WITHIN THE REAR OR SIDE OF A PROPERTY THEN AN I.O. SEWER SHALL BE USED IN PREFERENCE TO AN I.S. SEWER. WHERE IT IS NOT POSSIBLE TO INSTALL AN I.O. SEWER IN LIEU OF AN I.S. SEWER THE I.S. SHALL BE BROUGHT TO THE SURFACE AND FITTED WITH A COVER (REFER NOTE 7) UNLESS THE I.S. CAN BE USED AS A TYPE P9 CONNECTION.
10. I.S. SEWERS CROSSING ROAD RESERVE TO SERVICE PROPERTIES SHALL BE TERMINATED 1.5m WITHIN THE PROPERTY BOUNDARY UNLESS THEY WILL BE USED AS TYPE P9 CONNECTIONS IN WITCH CASE I.S. SEWERS SHALL BE TERMINATED 0.5m WITHIN THE PROPERTY BOUNDARY.

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS AA01–86–2 AND AA01–86–3

ISSUE	DATE	GRID	REVISION	BY	CHK	APP
M	05/2017		SECTION B INSPECTION SHAFT ADDED AND GENERAL NOTES AMENDED	LM		
L	11/2011		P9 CONNECTION DETAILS AMENDED	KLM	CS	DM
K	03/2009		I.S. BROUGHT UP NOTE AND CONNECTION AMENDED	KLM	CS	WE
J	03/2006		IS SEWER CROSSING ROADS & IN POS DETAILS ADDED	KLM	VF	JCB
I	01/2005		INSPECTION TEES REMOVED AND TYPE P9 CONNECTION ADDED	KLM	VF	JCB
H	03/2002		GENERAL REVISION	WS	PRM	JCB
G	01/2000		INSPECTION TEE RELOCATED GENERAL NOTES AMENDED	RAM	PRM	JCB
F	06/1999		GENERAL REVISION	KB	PRM	JCB

DESIGN SURVEY NONE	VERTICAL DATUM NONE	DES CALC	NORTH POINT
	COORDINATE SYS NONE	DES CHD	
ASCON SURVEY NONE	DES REF	DRN S.J.W.	
		Q.C. CHD P MOORE	

ENDORSED 28/07/1999 P R MOORE (SIGNED) DESIGN CO-ORDINATOR – STANDARDS	RECOMMENDED 28/07/1999 J C BOND (SIGNED) PRINCIPAL ENGINEER
SCALE DIAGRAMMATIC	APPROVED 03/08/1999 E J MURPHY (SIGNED) MANAGER I.D. BRANCH

WATER CORPORATION

WASTEWATER – STANDARD AND EXAMPLE DRAWINGS
GRAVITY SEWERS DN150 TO DN600
DN150 AND DN225 PVC INSPECTION SHAFT (I.S.) SEWER AND P9 CONNECTION – I.S. SEWERS INSIDE SERVED PROPERTY & CROSSING ROAD

FILE	PLAN	CAD	ISSUE	ORIGINAL SHEET SIZE
PROJECT	AA01–86–1		M	A1

MF 09 JUN 2017

566
810

© THIS DRAWING IS THE PROPERTY OF THE WATER CORPORATION. IT SHALL NOT BE COPIED WITHOUT PERMISSION.

CAD MANAGEMENT_NOT READ ONLY\WWCS\STANDARD DRAWINGS\GRAVITY SEWERS\REVISION\AS AT MAY 2017\AA01–086–001–01M 14:45 07/06/2017 madetkl0/WS27107

Document Set ID: 7258205
Version: 1, Version Date: 09/12/2021