PROJECT:

OPERATIONAL WORKS CIVIL ENGINEERING

PROJECT DETAILS:

'ARCHERS WAY' ESTATE - STAGE 2 AT 22-80 CASH STREET, D'AGUILAR

PROJECT NUMBER: M2584E_2
MORETON BAY REGIONAL COUNCIL
REFERENCE: DA/38032/2019/V3RL

33 ALLOTMENTS
LOT1 ON RP230991 &
LOT2 ON RP80309
AREA - 2.46ha

LOCALITY PLAN

N.T.S.

SAFETY IN DESIGN

THE ENGINEERING DESIGN FOR THE PROPOSAL HAS BEEN DEVELOPED TO MEET THE STATED PROJECT BRIEF, AS EXPRESSED IN JFP URBAN CONSULTANTS OFFER FOR THE WORKS, AND THE DESIGN STANDARDS STIPULATED BY THE LOCAL AUTHORITY NAMED ON THIS PLAN. IT IS EXPECTED THAT A COMPETENT PRINCIPAL CONTRACTOR WILL BE APPOINTED FOR THE PROJECT AND THAT ALL 'HIGH RISK' CONSTRUCTION WORKS WILL BE ADDRESSED AS PART OF THEIR PROJECT SAFETY PLAN FOR THE SITE.

NON-STANDARD DESIGN SOLUTIONS ADOPTED IN THE PREPARATION OF THE PROPOSAL ARE LISTED AS FOLLOWS;

A HAZARD ASSESSMENT OF THESE NON-STANDARD ITEMS HAS BEEN CONDUCTED AND THE FOLLOWING HAZARDS, THEIR ASSOCIATED RISKS AND THE CONTROL MEASURES SUGGESTED ARE LISTED BELOW;

NON-STANDARD DESIGN ITEM	HAZARD IDENTIFIED	RISK ASSESSMENT	CONTROL MEASURE SUGGESTED
CONSTRUCTION OF WORKS WITHIN EXISTING ROAD RESERVE	POTENTIAL THREATS TO THE SAFETY OF THE PUBLIC USING THE EXISTING ROAD AND FOOTPATHS	MODERATE/POSSIBLE MAJOR RISK	PRINCIPAL CONTRACTOR TO INCLUDE TRAFFIC MANAGEMENT (INCLUDING PEDESTRIAN) FOR WORKS IN EXISTING ROAD RESERVE IN THEIR SAFETY PLAN
SITE ACCESS UNDER EXISTING OVERHEAD ELECTRICITY	ACCESS TO SITE UNDER OVERHEAD ELECTRICITY ALONG CASH STREET	MODERATE/POSSIBLE MAJOR RISK	IDENTIFYING MARKERS TO BE APPLIED TO EXISTING OVERHEAD ELECTRICITY THROUGHOUT CONSTRUCTION

INDEX:

STAGING & SITE SURVEY PLANS

M2584E_2	L01	A	CONSTRUCTION STAGING PLAN
M2584E_2	L02	A	EXISTING SERVICES AND SITE SURVEY PLAN

EARTHWORKS PLANS

M2584E_2	EW01	B	EARTHWORKS LAYOUT PLAN
M2584E_2	EW02	C	EARTHWORKS DETAIL LAYOUT PLAN SHEET 1 of 3
M2584E_2	EW03	B	EARTHWORKS DETAIL LAYOUT PLAN SHEET 2 of 3
M2584E_2	EW04	B	EARTHWORKS DETAIL LAYOUT PLAN SHEET 3 of 3
M2584E_2	EW05	C	EARTHWORKS DETAILS PLAN

ROADWORKS PLANS

M2584E_2	R01	A	ROADWORKS LAYOUT PLAN
M2584E_2	R02	A	ROADWORKS DETAILS PLAN
M2584E_2	R03	A	ROADWORKS INTERSECTION DETAILS PLAN
M2584E_2	R04	A	ROADWORKS LONGITUDINAL SECTION - CASH STREET
M2584E_2	R05	A	ROADWORKS CROSS SECTIONS - CASH STREET
M2584E_2	R06	A	ROADWORKS LONGITUDINAL - SECTION ROAD 2 (FLINDERS STREET)
M2584E_2	R07	A	ROADWORKS CROSS SECTIONS - ROAD 2 (FLINDERS STREET)
M2584E_2	R08	A	ROADWORKS LONGITUDINAL SECTION - ROAD 3 (MUSTER STREET & FLINDERS STREET)
M2584E_2	R09	A	ROADWORKS CROSS SECTIONS - ROAD 3 (MUSTER STREET & FLINDERS STREET)

SIGNS AND LINEMARKING PLANS

M2584E_2	SL01	A	SIGNS AND LINEMARKING LAYOUT PLAN

DRAINAGE PLANS

M2584E_2	D01	A	DRAINAGE CATCHMENT PLAN
M2584E_2	D02	A	DRAINAGE LAYOUT PLAN
M2584E_2	D03	B	DRAINAGE LONGITUDINAL SECTIONS - LINES E & H
M2584E_2	D04	A	DRAINAGE LONGITUDINAL SECTIONS - LINES 3E, 3H & I
M2584E_2	D05	A	DRAINAGE CALCULATIONS TABLES - SHEET 1 of 2
M2584E_2	D06	A	DRAINAGE CALCULATIONS TABLES - SHEET 2 of 2
M2584E_2	D07	A	DRAINAGE STRUCTURE DETAILS

EROSION & SEDIMENT CONTROL PLANS

M2584E_2	ES01	A	EROSION AND SEDIMENT CONTROL LAYOUT - BULK EARTHWORKS PHASE
M2584E_2	ES02	A	EROSION AND SEDIMENT CONTROL LAYOUT - ROADS & DRAINAGE PHASE
M2584E_2	ES03	A	EROSION AND SEDIMENT CONTROL LAYOUT - PRACTICAL COMPLETION PHASE
M2584E_2	ES04	A	EROSION AND SEDIMENT CONTROL DETAILS
M2584E_2	ES05	A	EROSION AND SEDIMENT CONTROL DETAILS - SEDIMENT BASIN 1
M2584E_2	ES06	A	EROSION AND SEDIMENT CONTROL DETAILS - SEDIMENT BASIN 2

SEWERAGE RETICULATION PLANS

M2584E_2	S01	C	SEWERAGE LAYOUT PLAN
M2584E_2	S02	C	SEWERAGE DETAIL LAYOUT PLAN - SHEET 1 of 3
M2584E_2	S03	C	SEWERAGE DETAIL LAYOUT PLAN - SHEET 2 of 3
M2584E_2	S04	C	SEWERAGE DETAIL LAYOUT PLAN - SHEET 3 of 3
M2584E_2	S05	C	SEWERAGE DETAILS PLAN
M2584E_2	S06	D	SEWERAGE LONGITUDINAL SECTIONS - LINES 6 & 9
M2584E_2	S07	C	SEWERAGE LONGITUDINAL SECTIONS - LINES 8, 12 & 2

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M2584E_2	W01	C	WATER RETICULATION LAYOUT PLAN - SHEET 1 of 3
M2584E_2	W02	C	WATER RETICULATION LAYOUT PLAN - SHEET 2 of 3
M2584E_2	W03	B	WATER RETICULATION LAYOUT PLAN - SHEET 3 of 3
M2584E_2	W04	C	WATER RETICULATION DETAILS PLAN - SHEET 1 of 2
M2584E_2	W05	B	WATER RETICULATION DETAILS PLAN - SHEET 2 of 2
M2584E_2	W06	B	WATER RETICULATION NOTES

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T209, Kon-Tiki Tower 1, 55 Plaza Parade,
Maroochydore Qld 4558
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PROJECT NUMBER
M2584E_2

FILE NAME: COVERSHEET.DWG

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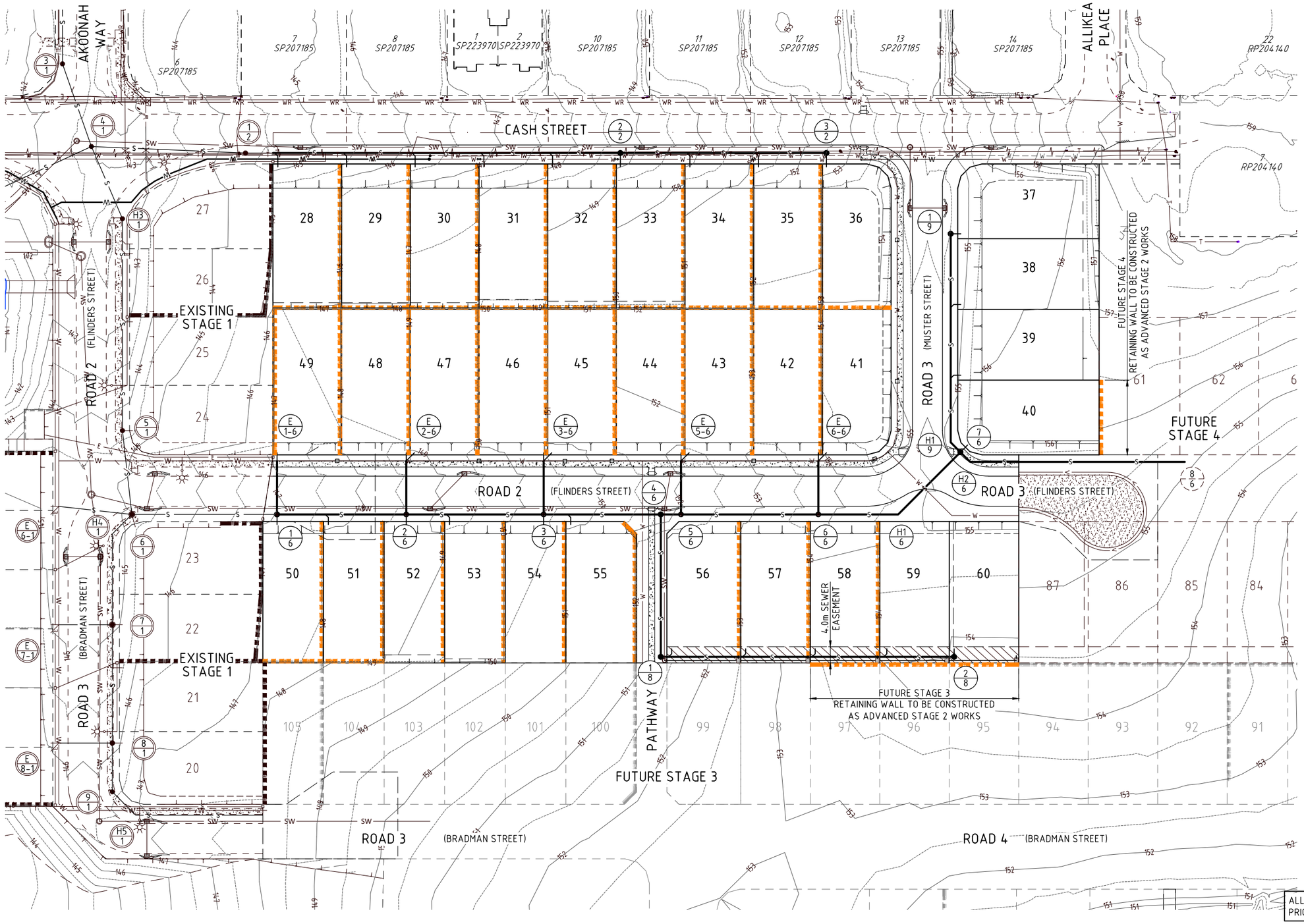
30/04/2021 N:\M2584\STAGE_2\DESIGN\WORKING DRAWINGS\COVERSHEET



NAME OF ESTATE		'ARCHERS WAY' ESTATE STAGE 2
SUBDIVIDER		DFC (PROJECT MANAGEMENT PTY LTD)
APPLICATION No.		-
UNITYWATER DELEGATE APPROVAL DATE		-
DRAWING/PLAN No.		-
No. OF ALLOTMENTS		33
AREA IN Ha.		2.460
LENGTH OF SEWERS	Ø100mm uPVC	
	Ø150mm uPVC	680.607m
	Ø225mm uPVC	

LEGEND:

- FINISHED CONTOURS
- PROPOSED SEWERAGE MAIN
- EXISTING SEWERAGE MAIN
- WATER MAIN
- ROOFWATER DRAINAGE
- STORMWATER DRAINAGE
- ELECTRICITY
- FINISHED SURFACE LEVEL AT ALLOTMENT CONTROL — × 14.50
- PROPOSED RETAINING WALL
- EXISTING RETAINING WALL
- FUTURE RETAINING WALL
- EASEMENT (ACCESS)

TREE LEGEND

- TREES TO BE RETAINED AND PROTECTED
- TREES TO BE RETAINED AND REQUIRES THE SUPERVISION OF ANY EXCAVATION OR SERVICES WORKS WITHIN THE HATCHED PROTECTION ZONE BY AN ARBORIST ON SITE.

TPZ
Tree Protection Zone
All vegetation to be protected in accordance with AS4970 - Protection of Trees on Development Sites & any conditions of approval.

THE DESIGN AND CONSTRUCTION OF THE WORKS SHALL COMPLY WITH ALL QUEENSLAND LEGISLATION. CONTACT THE DIVISION OF WORKPLACE HEALTH AND SAFETY FOR INFORMATION: 1300 362 128.

PROPERTY CONNECTIONS HAVE BEEN DESIGNED TO CONTROL THE REQUIRED SERVICE AREA OF EACH LOT AT A GRADE OF 1:60 AND A MAXIMUM DEPTH OF PROPERTY CONNECTION AT 1.500m UNLESS OTHERWISE STATED. REFER SEQ-SEW-1104-1 TO SEQ-SEW-1105-1

THE CONSTRUCTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPENCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY PIPE LAYING.

NOTE:

THE CONTRACTOR IS TO ENSURE THAT SEWERS AND ROOFWATER LINES HAVE 600mm CLEARANCE BETWEEN THE OUTSIDE OF RETAINING WALL FOOTINGS OR BORED PIERS.

ALL ENVIRONMENT PROTECTION MEASURES SHOULD BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION WORK, INCLUDING CLEARING COMMENCING.

FOR DETAILS AND FURTHER NOTES REFER TO DWG No. M2584E_2 S05

CONSULTANT: JFP URBAN CONSULTANTS PTY LTD
CONTACT: HAYDN WATSON
TELEPHONE: 0412 802 582

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NORTH: N

SCALE: 1:500 A1
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0 5 10 15 20 25 (A1) 1:500 50 Metres
(A3) 1:1000
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☐ S.MARSH RPEQ 8068 ☐

DESIGNED	CDV	
DRAWN	BJ	
CHECKED	HW	
DATUM: AHD		

ISSUE:	DETAILS:	DATE:	INIT:
C	LOTS 41 to 49 SEWER AMENDED	07/04/21	CDV
B	AMENDMENTS TO COINCIDE WITH STAGE 1 DESIGN	09/03/21	WN
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	16/06/20	BJ

TITLE:
SEWERAGE LAYOUT PLAN
DFC (PROJECT MANAGEMENT) PTY LTD
'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
PROJECT: M2584E_2 PLAN: S01 ISSUE: C
LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
COUNCIL REF: DA/38032/2019/V3RL
FILE NAME: SEWERAGE.DWG

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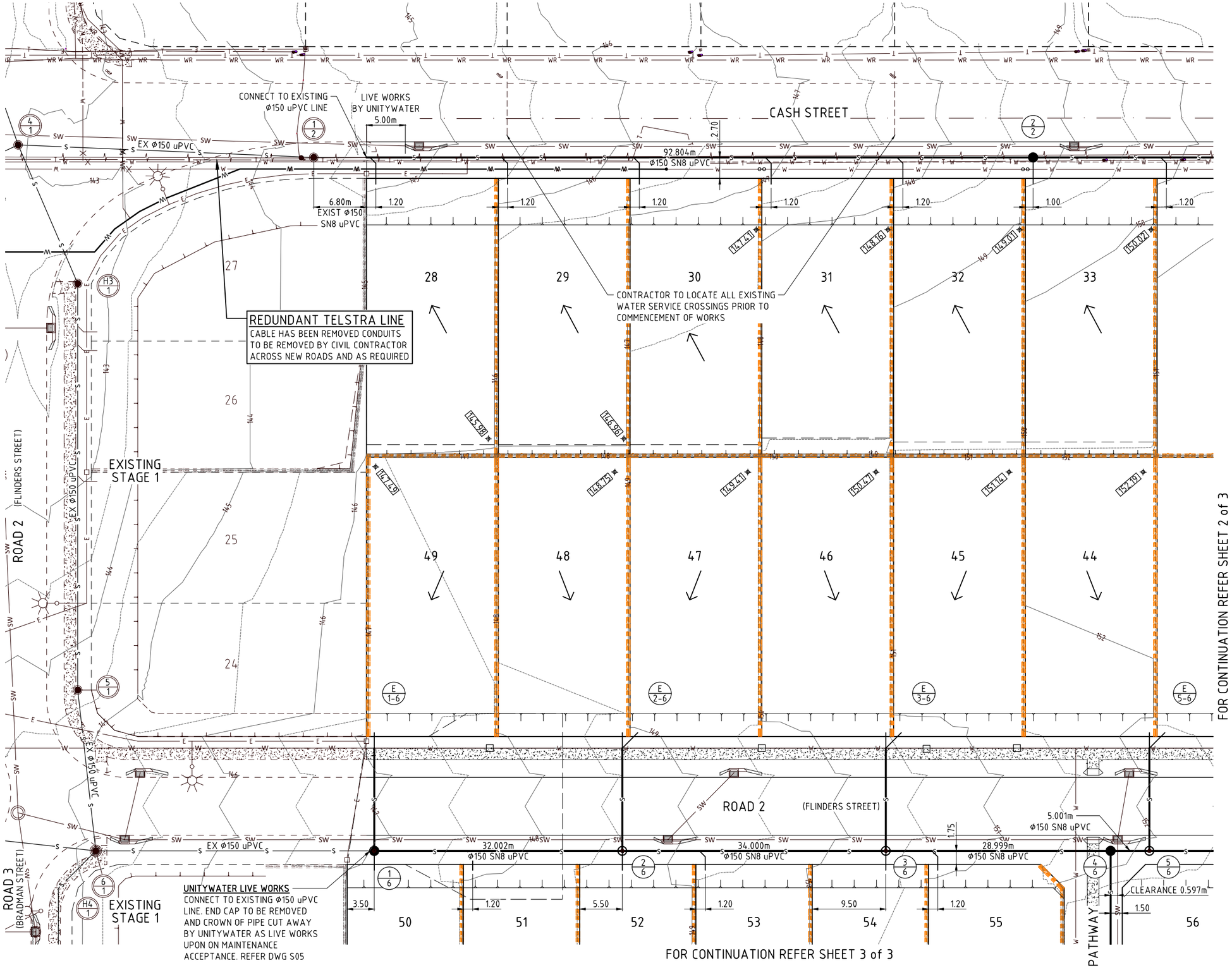

LEGEND:

- FINISHED CONTOURS
- PROPOSED SEWERAGE MAIN
- EXISTING SEWERAGE MAIN
- WATER MAIN
- ROOFWATER DRAINAGE
- STORMWATER DRAINAGE
- ELECTRICITY
- FINISHED SURFACE LEVEL AT ALLOTMENT CONTROL — × 14.50
- PROPOSED RETAINING WALL
- EXISTING RETAINING WALL
- FUTURE RETAINING WALL
- EASEMENT (ACCESS)

TREE LEGEND

- TREES TO BE RETAINED AND PROTECTED
- TREES TO BE RETAINED AND REQUIRES THE SUPERVISION OF ANY EXCAVATION OR SERVICES WORKS WITHIN THE HATCHED PROTECTION ZONE BY AN ARBORIST ON SITE.

TPZ
Tree Protection Zone
All vegetation to be protected in accordance with AS4970 - Protection of Trees on Development Sites & any conditions of approval.

FOR DETAILS AND FURTHER NOTES REFER TO DWG No. M2584E_2 S05

THE DESIGN AND CONSTRUCTION OF THE WORKS SHALL COMPLY WITH ALL QUEENSLAND LEGISLATION. CONTACT THE DIVISION OF WORKPLACE HEALTH AND SAFETY FOR INFORMATION: 1300 362 128.

PROPERTY CONNECTIONS HAVE BEEN DESIGNED TO CONTROL THE REQUIRED SERVICE AREA OF EACH LOT AT A GRADE OF 1:60 AND A MAXIMUM DEPTH OF PROPERTY CONNECTION AT 1.500m UNLESS OTHERWISE STATED. REFER SEQ-SEW-1104-1 TO SEQ-SEW-1105-1

THE CONSTRUCTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPENCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY PIPE LAYING.

NOTE:
THE CONTRACTOR IS TO ENSURE THAT SEWERS AND ROOFWATER LINES HAVE 600mm CLEARANCE BETWEEN THE OUTSIDE OF RETAINING WALL FOOTINGS OR BORED PIERS.

ALL ENVIRONMENT PROTECTION MEASURES SHOULD BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION WORK, INCLUDING CLEARING COMMENCING.

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NORTH: N

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(A3) 1:500
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DESIGNED	CDV	C	LOTS 41 to 49 SEWER AMENDED	07/04/21	CDV
DRAWN	BJ	B	AMENDMENTS TO COINCIDE WITH STAGE 1 DESIGN	09/03/21	WN
CHECKED	HW	A	ISSUE FOR OPERATIONAL WORKS APPROVAL	16/06/20	BJ
DATUM: AHD		ISSUE:	DETAILS:	DATE:	INIT:

TITLE:

SEWERAGE DETAIL LAYOUT PLAN SHEET 1 of 3

DFC (PROJECT MANAGEMENT) PTY LTD

'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
PROJECT: M2584E_2 PLAN: S02 ISSUE: C
LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
COUNCIL REF: DA/38032/2019/V3RL
FILE NAME: SEWERAGE.DWG

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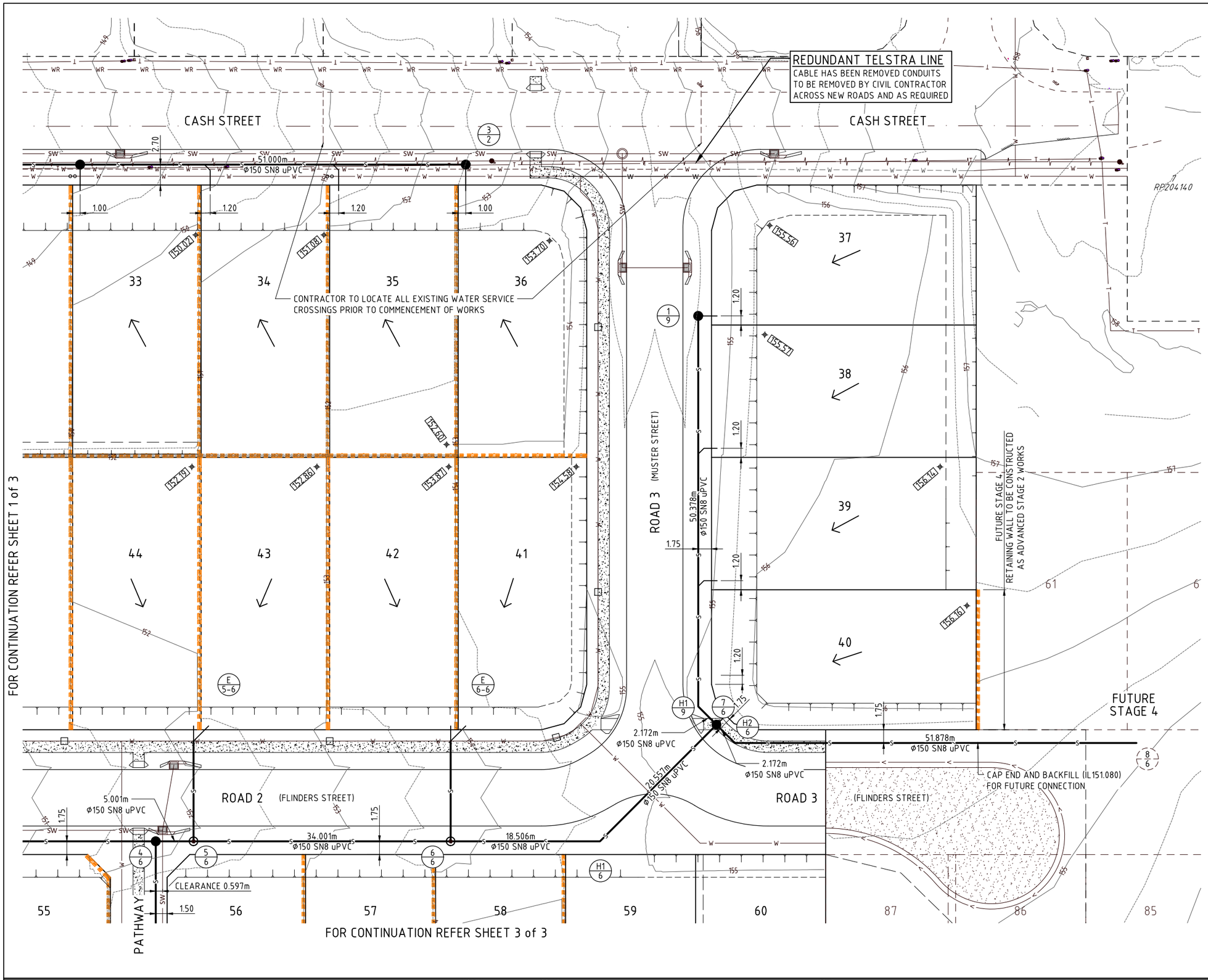

LEGEND:

- FINISHED CONTOURS
- PROPOSED SEWERAGE MAIN
- EXISTING SEWERAGE MAIN
- WATER MAIN
- ROOFWATER DRAINAGE
- STORMWATER DRAINAGE
- ELECTRICITY
- FINISHED SURFACE LEVEL AT ALLOTMENT CONTROL
- PROPOSED RETAINING WALL
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- FUTURE RETAINING WALL
- EASEMENT (ACCESS)

TREE LEGEND

- TREES TO BE RETAINED AND PROTECTED
- TREES TO BE RETAINED AND REQUIRES THE SUPERVISION OF ANY EXCAVATION OR SERVICES WORKS WITHIN THE HATCHED PROTECTION ZONE BY AN ARBORIST ON SITE.

TPZ
Tree Protection Zone
All vegetation to be protected in accordance with AS4970 - Protection of Trees on Development Sites & any conditions of approval.

FOR DETAILS AND FURTHER NOTES REFER TO DWG No. M2584E_2 S05

THE DESIGN AND CONSTRUCTION OF THE WORKS SHALL COMPLY WITH ALL QUEENSLAND LEGISLATION. CONTACT THE DIVISION OF WORKPLACE HEALTH AND SAFETY FOR INFORMATION: 1300 362 128.

PROPERTY CONNECTIONS HAVE BEEN DESIGNED TO CONTROL THE REQUIRED SERVICE AREA OF EACH LOT AT A GRADE OF 1:60 AND A MAXIMUM DEPTH OF PROPERTY CONNECTION AT 1.500m UNLESS OTHERWISE STATED. REFER SEQ-SEW-1104-1 TO SEQ-SEW-1105-1

THE CONSTRUCTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPENCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY PIPE LAYING.

NOTE:
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NORTH: N

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DESIGNED	CDV
DRAWN	BJ
CHECKED	HW
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
C	LOTS 41 to 49 SEWER AMENDED	07/04/21	CDV
B	AMENDMENTS TO COINCIDE WITH STAGE 1 DESIGN	09/03/21	WN
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	16/06/20	BJ

TITLE:
SEWERAGE DETAIL LAYOUT PLAN SHEET 2 of 3
DFC (PROJECT MANAGEMENT) PTY LTD
'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
PROJECT: M2584E_2 PLAN: S03 ISSUE: C
LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
COUNCIL REF: DA/38032/2019/V3RL
FILE NAME: SEWERAGE.DWG

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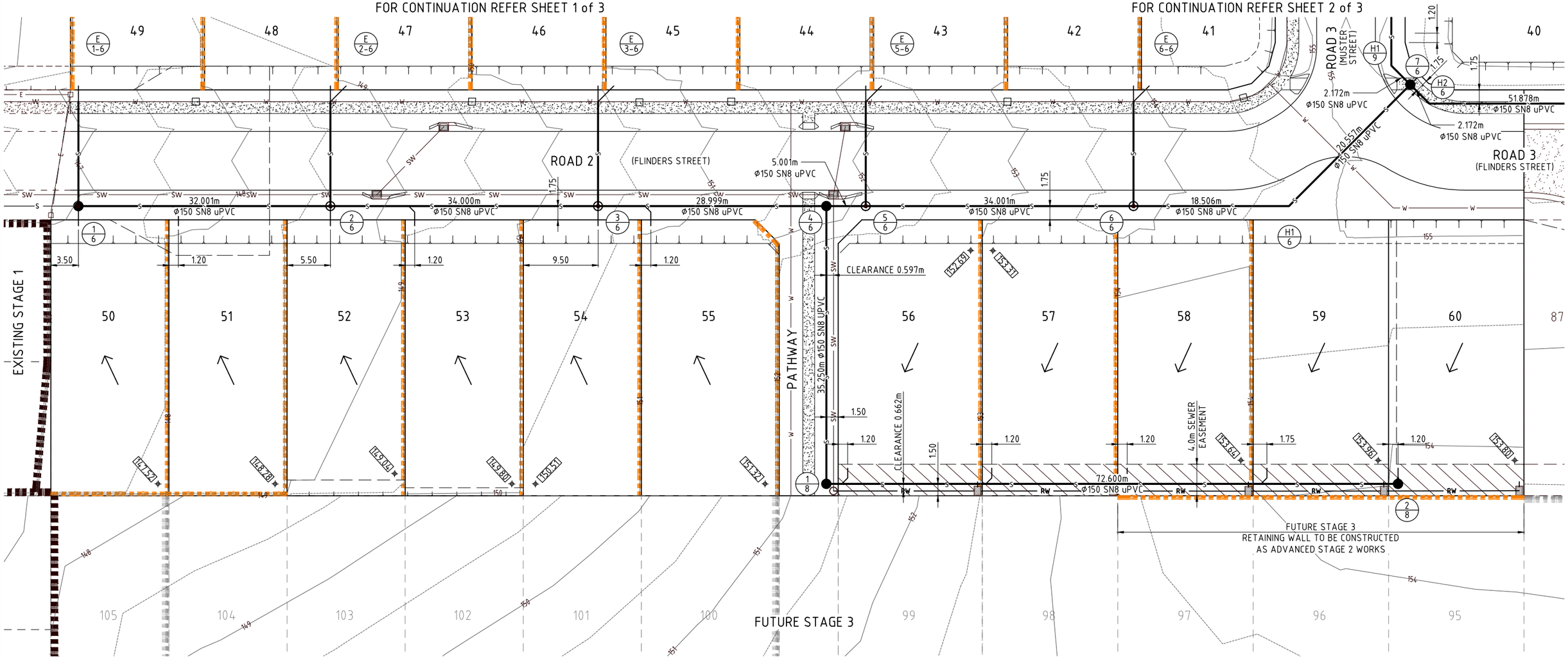

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LEGEND:

- FINISHED CONTOURS — 16
- PROPOSED SEWERAGE MAIN — S
- EXISTING SEWERAGE MAIN — S
- WATER MAIN — W
- ROOFWATER DRAINAGE — RW
- STORMWATER DRAINAGE — SW
- ELECTRICITY — E
- FINISHED SURFACE LEVEL AT ALLOTMENT CONTROL — × 14.50
- PROPOSED RETAINING WALL
- EXISTING RETAINING WALL
- FUTURE RETAINING WALL
- EASEMENT (ACCESS)

TREE LEGEND

TREES TO BE RETAINED AND PROTECTED

TREES TO BE RETAINED AND REQUIRES THE SUPERVISION OF ANY EXCAVATION OR SERVICES WORKS WITHIN THE HATCHED PROTECTION ZONE BY AN ARBORIST ON SITE.

TPZ
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All vegetation to be protected in accordance with AS4970 - Protection of Trees on Development Sites & any conditions of approval.

FOR DETAILS AND FURTHER NOTES REFER TO DWG No. M2584E_2 S05

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CONSULTANT: JFP URBAN CONSULTANTS PTY LTD
CONTACT: HAYDN WATSON
TELEPHONE: 0412 802 582

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NORTH: N

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(A3) 1:500
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☐ S.MARSH RPEQ 8068 ☐

DESIGNED	CDV
DRAWN	BJ
CHECKED	HW
DATUM: AHD	

ISSUE:	DETAILS:	DATE:	INIT:
C	LOTS 41 to 49 SEWER AMENDED	07/04/21	CDV
B	AMENDMENTS TO COINCIDE WITH STAGE 1 DESIGN	09/03/21	WN
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	16/06/20	BJ

TITLE:
SEWERAGE DETAIL LAYOUT PLAN SHEET 3 of 3
DFC (PROJECT MANAGEMENT) PTY LTD
'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
PROJECT: M2584E_2 PLAN: S04 ISSUE: C
LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
COUNCIL REF: DA/38032/2019/V3RL
FILE NAME: SEWERAGE.DWG

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30/04/2021 N:\M2584E\STAGE_2\DRAWING\WORKING DRAWINGS\SEWERAGE

SEWER RETICULATION NOTES

1. ALL WORKS AND MATERIALS MUST BE IN ACCORDANCE WITH THE CURRENT UNITYWATER SPECIFICATIONS
   GRAVITY SEWERAGE CODE OF AUSTRALIA
   SEQ SERVICE PROVIDERS EDITION V2.0 (JULY 2019)
   SEQ WS&S D&C CODE IPAM LIST
   SEQ WATER SERVICE PROVIDERS STANDARD DRAWINGS

2. A REDUCED INFILTRATION GRAVITY SEWERAGE SYSTEM (RIGSS) SHALL BE INSTALLED. IN PARTICULAR:-
   a. ALL GRAVITY SEWERS SHALL BE UPVC R.J.J. (ELASTOMERIC SEALED) TO AS 1260 IN 3.0m MAXIMUM LENGTHS (U.N.O.). DN100 TO BE SN10. DN150 AND LARGER TO BE SN8. PLAIN WALLED ONLY (NOT SANDWICH WALLED). PLAIN GREY COLOUR
   b. FITTINGS TO BE PLAIN WALLED uPVC. DN100 TO BE SN10. D150 AND LARGER TO BE SN8
   c. DUCTILE CEMENT LINED (DICL) PIPE INCORPORATED IN THE SEWER PIPELINES SHALL BE MINIMUM CLASS PN35 POLYURETHANE INTERNAL PROTECTION
   d. GRAVITY SEWERS DEEPER THAN 3m OR LESS THAN MINIMUM COVER SHALL BE uPVC PRESSURE PIPE SEWER PN12 USING STANDARD DWV FITTINGS
   e. SEWER MAINS SHALL BE TYPE 4 CONSTRUCTION IN ACCORDANCE SEQ-1200-1A TO 1205-1A UNLESS NOTED OTHERWISE INCLUDING DETECTABLE MARKING TAPE
   f. ALL EXISTING ROAD CROSSINGS WHERE NEW SEWERS ARE TO BE LAID SHALL BE TUNNEL BORED (U.N.O.) IN ACCORDANCE WITH STD DWG SEQ-SEW-1402-1A & 1403-1B. IF OPEN TRENCH EXCAVATION IS SPECIFIED, TYPE 14 TO 17 TO BE ADOPTED UNDER EXISTING ROADS. ROAD BACKFILL TO BE IN ACCORDANCE WITH STD DWG RS-170F
   g. POLYPROPYLENE PRODUCTS ARE NOT PERMITTED

3. BEDDING MATERIAL SHALL BE EITHER WASHED 5mm SCREENINGS OR NON COHESIVE GRANULAR MATERIAL FREE FROM PARTICLES WHICH MAYBE RETAINED ON A 9.5mm SIEVE. CRUSHER GRIT SHALL NOT BE USED

4. SEWER PIPE LINE BEDDING SHALL BE COMPACTED TO THE FOLLOWING DENSITY:-
   a. SCREENINGS .....65% DENSITY INDEX.

5. MINIMUM COVER TO UPVC CLASS SN8 PIPE COLLARS SHALL BE:-
   a. PRIVATE ALLOTMENTS (NO VEHICLE) 0.6M (NEW) 0.45M (EXISTING)
   b. PRIVATE ALLOTMENTS (VEHICLE LOADING) 0.75M
   c. FOOTPATHS 0.9m
   d. ROAD CROSSINGS.... 1.2m OR 0.6m IF CLASS PN18 UPVC OR DICL FROM MH TO MH.
   e. DEEP SEWERS 3M TO 4.5M CLASS PN18 UPVC FROM MH TO MH.

6. STANDARD SEWER ALIGNMENTS ARE:-
   a. FRONT (VERGE OFF RP BOUNDARY)..... 1.75m
   b. SIDE BOUNDARY .....1.50m.

7. SEWER MAINTENANCE HOLE (MH):-
   a. TO BE IN ACCORDANCE WITH NOTES ON STD DRGS SEQ-SEW-1101-4A TO 1101-6A
   b. ALL MAINTENANCE HOLES SHALL BE PROPERLY SEALED TO PREVENT INGRESS OF SUBSOIL & SURFACE WATERS
   c. MAINTENANCE HOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. DWGS. SEQ-SEW-1301-1A, 1302-1A, 1303-1B & 1307-1A.
   d. SEWER MAINTENANCE HOLE LIDS LOCATED IN NON-TRAFFICABLE AREAS SHALL BE CLASS 'B' AND LIDS LOCATED IN TRAFFICABLE AREAS SHALL BE CLASS 'D' LIDS TO BE CAST IRON, MACRO COMPOSITE OR THERMOPLASTIC. NO CONCRETE INFILL LIDS ARE PERMITTED. COVERS, FRAMES & CAST IRON LIDS SHALL COMPLY WITH AS.3996. MAINTENANCE HOLES LOCATED IN PARKS, RESERVES & OTHER AREAS SUBJECT TO FLOODING IN A Q10 ARI EVENT OR VANDALISM SHALL HAVE BOLT DOWN CAST IRON COVERS & FRAMES. MAINTENANCE HOLE COVERS & SURROUND DETAILS SHALL COMPLY WITH STD DWGS SEQ-SEW-1308-1C & 5A TO 11A.
   e. CAST IN-SITU MAINTENANCE HOLES OR APPROVED PRECAST MAINTENANCE HOLES TYPE P2 & P3 SHALL BE USED FOR MAINTENANCE HOLES UP TO AND INCLUDING Ø375mm OR SEWER DEPTHS UP TO 6.0m DEEP
   f. NO STEP IRONS OR LADDERS TO BE INSTALLED IN SEWER MAINTENANCE HOLES
   g. MAINTENANCE HOLES SHALL BE BENCHED & CHANNELS CONSTRUCTED IN ACCORDANCE WITH STD DWGS SEQ-SEW-1304-1A, 1305-1A & 1306-1A
   h. MAINTENANCE HOLE NECKS TO BE 350mm MAX
   i. MAINTENANCE HOLE OPENINGS TO BE 600mm MINIMUM FOR ALL SEWER MAINTENANCE HOLES.
   j. CONCRETE FOR MAINTENANCE HOLE CONSTRUCTION SHALL BE SPECIAL CLASS SCC40 TO WASA 114 (10mm MIN AGGREGATE SIZE. NON CHLORIDE ADD MIXTURE)

8. MAINTENANCE SHAFTS (MS) SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD DWGS SEQ-SEW-1314-1C AND 1314-2C. MS TO BE TYPE G. MINIMUM SHAFT DIAMETER 300mm

9. HOUSE CONNECTIONS:-
   a. HOUSE CONNECTIONS SHALL BE 100MM DIAMETER UPVC AND INSTALLED IN ACCORDANCE WITH STD. DWGS SEQ-SEW-1104-1C & 1105-1C
   b. HOUSE DRAIN INSPECTION OPENINGS SHALL BE INSTALLED TO 1.4m MAXIMUM DEPTH BELOW FINISHED GROUND LEVEL
   c. HOUSE DRAINS SHALL BE EXTENDED TO A MINIMUM OF 1.0M BEYOND ANY EXISTING OR PROPOSED STORMWATER PIPE CROSSINGS.
   d. ENDS OF HOUSE DRAIN CONNECTIONS SHALL BE IDENTIFIED BY A 2.0m LONG x 40mmØ LENGTH OF ORANGE CONDUIT TAPED TO & PLACED VERTICALLY ABOVE PIPE END
   e. HOUSE CONNECTION BRANCHES SHALL BE LOCATED GENERALLY 1.0M TO 1.2M UPSTREAM OF THE ALLOTMENT BOUNDARY, AT THE LOWEST PART OF THE ALLOTMENT & AT SUFFICIENT DEPTH TO SERVE THE WHOLE ALLOTMENT UNLESS SHOWN OTHERWISE
   f. UNITYWATER REQUIRES PROPERTY CONNECTION BRANCHES TO EXTEND A MINIMUM OF 0.5m AND A MAXIMUM OF 0.75m INTO THE PROPERTY BEING SERVICES.

10. HORIZONTAL AND VERTICAL BENDS ON RIGSS SHALL BE INSTALLED IN ACCORDANCE WITH STD DWGS SEQ-SEQ-1103-1A, 1314-2C & 1314-3C. NO HCB'S TO BE INSTALLED ON BENDS. MAXIMUM VERTICAL BEND 30% & MAXIMUM HORIZONTAL BEND 45%. KERBS FORMED BY JOINT DEFLECTION OF RRJ SPIGOT - SOCKET PIPES OR COLD BENDING OF PIPES IS NOT PERMITTED. BENDS TO BE MANUFACTURED AS 3m LONG RADIUS BENDS

11. TANGENT POINT SET-OUT INFORMATION FOR HORIZONTAL BENDS IS TO BE INCLUDED IN THE "AS-CONSTRUCTED DRAWINGS"

12. CONCRETE STOPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD DWGS SEQ-SEW-1206-1B

13. CLEARANCES TO SEWERS & OTHER UNDERGROUND SERVICES SHALL COMPLY WITH TABLE 5.4 FROM WSA02. SPACE BETWEEN PIPES SHALL BE BACKFILLED WITH COMPACTED SAND.

14. ALL DISTURBED AREAS MUST BE REINSTATED WITHIN 7 DAYS OF BACKFILLING TO THE SATISFACTION OF THE SUPERINTENDENT, INCLUDING GRASSING, PLANTS, STRUCTURES & SPOIL

15. THE CONSULTING ENGINEER MUST BE NOTIFIED BY PHONE AND GIVEN THE OPPORTUNITY TO WITNESS THE FOLLOWING WHERE APPLICABLE. THE CONTRACTOR SHALL CALL THE CONSULTING ENGINEER TO ARRANGE INSPECTIONS WITH UNITYWATER INSPECTORS

    MANDATORY INSPECTIONS-
    a. COMMENCEMENT OF LAYING PIPE
    b. ALL HC'S BEFORE POURING CONCRETE
    c. ALL HC'S AFTER POURING CONCRETE
    d. SAND BACKFILLING AROUND RISERS
    e. VACUUM TESTS (UNLESS CARRIED OUT BY NATA CERTIFIED TESTER - HOWEVER UNITYWATER INSPECTOR SHALL STILL BE NOTIFIED WHEN TESTING IS TO BE UNDERTAKEN AND MAY CONDUCT RANDOM INSPECTION OF NATA CERTIFIED TESTING)

16. VACUUM TEST ALL SEWER PIPES IN ACCORDANCE WITH 21.4.2.1 FROM WASA 02. PRESSURE TESTING IS NOT ACCEPTABLE. INCLUDE EXTERNAL MH DROPS, PROPERTY CONNECTION SEWERS, VERTICAL RISERS, MC'S, MS'S, TMS'S, TEP'S, RE'S, INSPECTION SHAFTS AND FITTINGS. APPLY -27kPA FOR 3 MINUTES, ALLOW TO DROP TO -24kPA AND RECORD DROP IN PRESSURE OVER TEST TIME.
    MINIMUM TIME ALLOWED:-

DIAMETER	LENGTH				
	50m	100m	150m	200m	500m
100mm	2 min.	2 min.	2 min.	2 min.	3 min.
150mm	3 min.	3 min.	3 min.	5 min.	6 min.
225mm	4 min.	5 min.	8 min.	10 min.	15 min.
300mm	6 min.	9 min.	14 min.	18 min.	29 min.
375mm	7 min.	14 min.	22 min.	29 min.	43 min.

MAINTENANCE HOLES AND SEWERS ARE NOT TO BE TESTED OR CCTV'D BEFORE ALL EARTHWORKS HAVE BEEN COMPLETED.

17. VACUUM TEST ALL MANHOLES IN ACCORDANCE WITH 21.5 FROM WASA 02. PRESSURE TESTING IS NOT ACCEPTABLE. APPLY -37kPA FOR 3 MINUTES, ALLOW TO DROP TO -34kPA AND RECORD TIME TO DROP TO -30.4kPA. ACCEPT IF:-

MH DEPTH	MH DIAMETER				
	900mm	1050mm	1200mm	1500mm	1800mm
2.4m	14 min.	17 min.	20 min.	26 min.	33 min.
3.0m	18 min.	21 min.	25 min.	33 min.	41 min.
3.7m	21 min.	25 min.	30 min.	39 min.	49 min.
4.3m	25 min.	30 min.	35 min.	46 min.	57 min.
4.9m	29 min.	34 min.	40 min.	52 min.	65 min.
5.5m	32 min.	38 min.	45 min.	59 min.	73 min.
6.1m	35 min.	42 min.	50 min.	65 min.	81 min.

18. DEFLECTION (OVALITY) TESTING (AS DIRECTED)
    TESTING SHALL BE CONDUCTED BY A NATA CERTIFIED TESTING ORGANISATION.
    a. ALL FLEXIBLE SEWER PIPES ARE TO BE DEFLECTION TESTED IN ACCORDANCE WITH WSA SEWERAGE CODE OF AUSTRALIA (WHERE SINGLE SIZED BEDDING MATERIAL IS USED NO OVALITY TESTING IS REQUIRED). TESTING SHALL BE UNDERTAKEN A MINIMUM OF 14 DAYS AFTER COMPACTION TRENCH FILL HAS OCCURRED.

19. TRENCH BACKFILL COMPACTION RESULTS TO BE IN ACCORDANCE WITH AS3798 AND MORETON BAY REGIONAL COUNCIL OPERATIONAL WORKS INSPECTION, MAINTENANCE AND BONDING PROCEDURES PLANNING SCHEME POLICY

    SEWERAGE RETICULATION:
    a. COMPACTION TO TRENCH BOTTOM - FIELD DENSITY 1 PER 40m (IF ORDERED)
    b. BACKFILL - FIELD DENSITY 1 PER 40m PER 2 LAYERS (MAX 400mm) AND 1 SET OF TESTS PER LINE (MH TO MH) FIRST TEST 750mm ABOVE OBVERT OF PIPE
    c. MANHOLE CI COVERS AND FRAMES - CERTIFICATION FROM MANUFACTURER.

    SERVICE CONDUITS:
    a. COMPACTION TO TRENCH BOTTOM - FIELD DENSITY 1 PER ROAD CROSSING TO NATURAL SUBGRADE (IF ORDERED)
    b. BEDDING - MATERIALS (SIEVE ANALYSIS) 1 PER 200m
    c. BACKFILL - FIELD DENSITY 1 PER ROAD CROSSING PER 2 LAYERS (IF NOT SAND)

20. TRENCH COMPACTION TO COMPLY WITH TABLE 21.1 FROM WSA 02

MINIMUM COMPACTION OF EMBEDMENT, TRENCH, AND OTHER FILLS

MATERIAL TYPE	MINIMUM VALUE (%)			
	TRAFFICABLE AREAS		NON-TRAFFICABLE AREAS	
	EMBEDMENT	TRENCH	EMBEDMENT	TRENCH
NON-COHESIVE	70 (REFER NOTE BELOW)	70	60	60
COHESIVE	95	95	90	90
NOTE: SINGLE SIZE COARSE AGGREGATES OF SIZES 7, 10 AND 14mm SHALL BE DEEMED "SELF COMPACTING" AND DO NOT REQUIRE COMPACTION TESTING WHEN USED FOR PIPE EMBEDMENT				

21. AS CONSTRUCTED DRAWINGS, ENGINEERING CERTIFICATION, PRESSURE TEST RESULTS, COMPACTION TEST RESULTS AND CCTV AND ASSOCIATED CONSULTANT'S REPORTS MUST BE DELIVERED AND RECEIVED 7 DAYS PRIOR TO AN ON-MAINTENANCE INSPECTION

22. A CCTV INSPECTION SHALL BE CARRIED OUT IN ACCORDANCE WITH 21.8 WSA 02 AND APPENDIX L-SPECIFICATION FOR INTERNAL INSPECTION OF NEWLY CONSTRUCTED OR REHABILITATED SEWERS AND WSA 05. THE CCTV INSPECTION SHALL MEASURE THE GRADE OF THE SEWER USING AN INCLINOMETER FITTED TO THE SCANNER OR OPTICAL 3D SCANNER WHICH IS ACCURATE TO ±1%. THE GRADE SHALL BE DISPLAYED CONTINUOUSLY ON SCREEN DURING PLAYBACK OF CCTV RECORDING.

23. DURING ANY CONSTRUCTION ACTIVITY, AT LEAST ONE PERSON ON SITE MUST HAVE COMPLETED A PIPE LAYING TRAINING COURSE APPROVED BY THE SUPPLIER AND APPROPRIATE TO THE PIPE LINE UNDER CONSTRUCTION. THE TRAINING COURSE MUST HAVE BEEN COMPLETED WITH IN THE LAST 10 YEARS. DOCUMENTARY EVIDENCE TO BE PROVIDED BY THE CONTRACTOR PRIOR TO COMMENCEMENT

24. THE CONSTRUCTION OF THE SEWER RETICULATION WORK SHOWN ON THIS DRAWING MUST BE SUPERVISED BY AN ENGINEER WHO HAS RPEQ REGISTRATION. WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT TO THE SEWER RETICULATION NETWORK

25. CONNECTION OF NEW SEWER MAINS TO THE EXISTING SEWER RETICULATION SYSTEM SHALL BE COMPLETED BY UNITYWATER AT THE DEVELOPER'S COST. ALTERNATIVELY LIVE WORKS MAY BE CARRIED OUT BY THE DEVELOPERS PRIVATE CONTRACTOR UNDER THE SUPERVISION OF UNITYWATER ON AN A&C ACCREDITED CERTIFIER

UNITYWATER AND CONSTRUCTOR LIVE SEWER WORKS

CONSULTING ENGINEERS ARE TO CONTACT UNITYWATER 24 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION TO ARRANGE FOR THIS WORK TO BE CARRIED OUT.
(EXCAVATION, SAFE SHORING & ASSOCIATED WORKS BY CONTRACTOR)

EXCAVATION WORKS CARRIED OUT BY CONSTRUCTORS AT DEPTHS OF 1.5m OR GREATER MUST PROVIDE A 'SAFE WORK PLAN' AS PER WORKPLACE HEALTH AND SAFETY LEGISLATION TO QUU PRIOR TO COMMENCING ANY WORKS.

IT IS THE DEVELOPERS RESPONSIBILITY TO ENSURE ALL LIVE SEWER WORKS ARE COMPLETE BEFORE ALLOWING PRIVATE DRAINAGE TO BE CONNECTED.

No.	DESCRIPTION	DIA SEWER	MH No.	MH/MS TYPE	COVER TYPE	LOT No.	F.S.L.	E.S.L.	I.L.	DEPTH
1a) 1b)	THE CONTRACTOR SHALL CONSTRUCT MH AND BENCHING OVER THE EXISTING PIPE; UNITYWATER SHALL REMOVE END CAP AND DEMOLISH THE CROWN OF EXISTING PIPE WITHIN THE MH AND MAKE GOOD THE BENCHING AFTER SUCCESSFUL ON MAINTENANCE.	150 SN8	1 /6	P2	D	LOT 50 FLINDERS STREET	147.029	146.070	144.763	2.266
2a) 2b)	THE CONTRACTOR SHALL CONSTRUCT NEW SEWER LINE 1/2 TO 3/2. FOLLOWING SUCCESSFUL ON MAINTENANCE INSPECTION AND TESTING OF NEW LINE 2, UNITYWATER SHALL CONNECT LINE 2 TO EXISTING STUB FROM 1/2.	150 SN8	N/A	N/A	N/A	LOT 28 CASH STREET	144.609	144.388	143.280	1.329

LOCALITY PLAN

N.T.S.

ENVIRONMENTAL NOTES

VEGETATION PROTECTION

A. TREES LOCATED ALONG THE FOOTPATH SHALL BE, TRANSPLANTED PRIOR TO CONSTRUCTION, OR REPLACED IF DESTROYED.
B. WHEN WORKING WITHIN 4m OF TREES, RUBBER OR HARDWOOD GIRDLES SHOULD BE CONSTRUCTED WITH 1.8m BATTENS CLOSELY SPACED AND ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES SHALL BE STRAPPED TO TREES PRIOR TO CONSTRUCTION AND REMAIN UNTIL COMPLETION.
C. TREE ROOTS SHALL BE TUNNELED UNDER, RATHER THAN SEVERED. IF ROOTS ARE SEVERED, THE DAMAGED AREA SHALL BE TREATED WITH A SUITABLE FUNGICIDE. CONTACT RELEVANT COUNCIL ARBORIST FOR FURTHER ADVICE.
D. ANY TREE LOPPING REQUIRED SHOULD BE UNDERTAKEN BY AN APPROVED ARBORIST.

SOIL

A. TOPSOIL AND SUBSOIL SHALL BE STOCKPILED SEPARATELY.
B. CARE SHALL BE TAKEN TO PREVENT SEDIMENT FROM ENTERING THE STORMWATER SYSTEM. THIS MAY INVOLVE PLACING APPROPRIATE SEDIMENT CONTROLS AROUND STOCKPILES.

CREEK CROSSINGS

A. SILTATION CONTROL MEASURES SHALL BE PLACED DOWNSTREAM OF ANY EXCAVATION WORK.
B. APPROPRIATE SEDIMENT CONTROLS SHALL BE USED TO PREVENT SEDIMENT FROM ENTERING THE CREEK.
C. NO SOIL SHOULD BE STOCKPILED WITHIN 5m OF THE CREEK.

REHABILITATION

A. PREDISTURBANCE SOIL PROFILES AND COMPACTION LEVELS ARE TO BE REINSTATED.
B. PREDISTURBANCE VEGETATION PATTERNS SHOULD BE RESTORED.

SAFETY

A. THE DESIGN AND CONSTRUCTION OF THE WORKS SHALL COMPLY WITH ALL QUEENSLAND LEGISLATION

CLEARANCES BETWEEN SEWER MAINS AND OTHER UNDERGROUND SERVICES

UTILITY (Existing Services)	Minimum horizontal clearance (mm) New main size NB		Minimum Vertical Clearance mm
	≤200 mm	>200 mm	
GRAVITY SEWERS ≤300 mm	300	600	150/300
GRAVITY SEWERS <300 mm	600	600	300
PRESSURE AND VACUUM SEWERS	300	600	500
GAS MAINS	300	600	150/300
TELECOMMUNICATIONS CONDUITS & CABLES	300	600	150/300
ELECTRICITY CONDUITS & CABLES	500	1000	225/300
STORMWATER DRAINS	300	600	150/300
WATER MAINS	1000/600	1000/600	500
KERBS	150	600	N/A

FOR NOTES, VARIATIONS TO CLEARANCES AND ACCEPTABLE REASONS SEE TABLE 5.4 WS03-2002 PART ONE - PLANNING AND DESIGN

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CONSULTANT: JFP URBAN CONSULTANTS PTY LTD
CONTACT: HAYDN WATSON
TELEPHONE: 0412 802 582

JFP URBAN CONSULTANTS
BRISBANE - SUNSHINE COAST - CENTRAL QLD
SUNSHINE COAST
T209, Kon-Tiki Tower 1, 55 Plaza Parade, Maroochydore Qld 4558
P 07 5450 3900 W www.jfp.com.au
JFP URBAN CONSULTANTS PTY. LTD. A.C.N. 050 414 045
PLANNERS
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NORTH: N

SCALE: NOT TO SCALE — THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
A1
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED — FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
☐ T.M^cKINNEY RPEQ 5087 ☑ A.FRASER RPEQ 5691 ☐ J.PAPPAS RPEQ 6086 ☐ S.MARSH RPEQ 8068 ☐

DESIGNED	CDV
DRAWN	BJ
CHECKED	HW
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
C	NOTES AMENDED	07/04/21	CDV
B	AMENDMENTS TO COINCIDE WITH STAGE 1 DESIGN	09/03/21	WN
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	16/06/20	BJ

TITLE:
SEWERAGE DETAILS PLAN
DFC (PROJECT MANAGEMENT) PTY LTD
'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR
DENNIS FAMILY CORPORATION

DETAILS:
PROJECT: M2584E_2 PLAN: S05 ISSUE: C
LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
COUNCIL REF: DA/38032/2019/V3RL
FILE NAME: SEWERAGE.DWG

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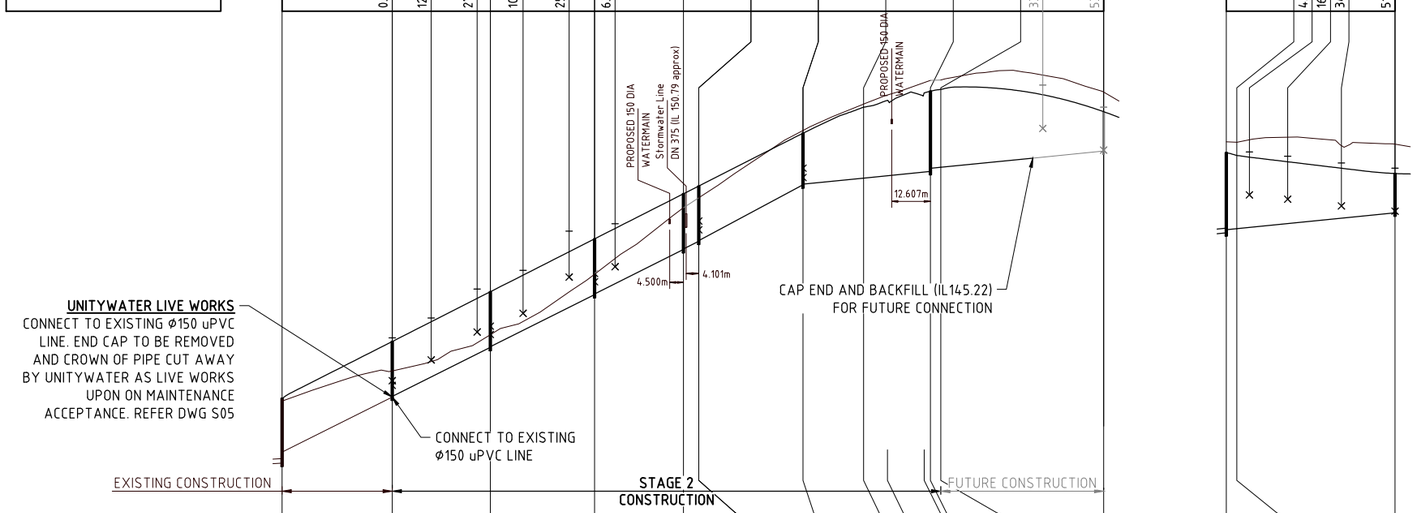
30/04/2021 N:\M2584E\STAGE_2\DESIGN\WORKING DRAWINGS\SEWERAGE

STRUCTURE No.	6/1	1/6	2/6	3/6	4/6	5/6	6/6	H1/6	7/6	H2/6	8/6
COVER TYPE	D	D	D	D	D	D	D		D		D
STRUCTURE TYPE	P2 1000	P2 1000	'J1'	'J1'	P2 1000	'J1'	P2 1000	HORIZ - IP R3.0m LRB DEF 45°	P2 1000	HORIZ - IP R3.0m LRB DEF 45°	'J1'
DROP TYPE	X	V	V	V	V	V	V		V		
JUNCTION LINE No.	6-1 1	1-6	2-6	3-6	8	5-6	6-6		9		
DEPTH TO HC		1.400	1.367	1.400	1.400	1.500	1.400				1.412	1.400
HC INVERT LEVEL		145.750	146.630	147.340	147.950	149.130	149.470				153.978	153.270
HC TYPE		B	B	B	B	B	B				B	SZ
HC LOT No		50	51	52	53	54	55				61	62
CH. FROM D/S STRUC.		0.000	12.700	27.700	10.700	25.700	6.700				33.276	53.120

STRUCTURE No.	7/6	H1/9	1/9
COVER TYPE			D
STRUCTURE TYPE	P2 1000	HORIZ - IP R3.0m LRB DEF 45°	'J1'
DROP TYPE	V		
JUNCTION LINE No.	6		
DEPTH TO HC		1.400	1.400	1.400
HC INVERT LEVEL		153.810	153.670	153.450	153.280
HC TYPE		B	B	B	SZ
HC LOT No		40	39	38	37
CH. FROM D/S STRUC.		4.121	16.621	34.121	51.622



DATUM — DATUM RL 140.0

PROP. DESCRIPTION	FOOTPATH	RD	FP	ALLOTMENT	FOOTPATH				FOOTPATH			RD	FOOTPATH	FOOTPATH
PIPE Dia, TYPE, CLASS	150 SN8 uPVC				150 SN8 uPVC									150 SN8 uPVC
GRADE (1 IN X)	1 : 20.00	1 : 20.00		1 : 20.00	1 : 20.00	1 : 20.00	1 : 20.00	1 : 20.00	1 : 18.69	1 : 100.00	1 : 100.00	1 : 100.00	1 : 100.00	1 : 100.00
LENGTH	35.920m	32.002m		34.000m	28.999m	5.001m	34.001m	19.748m	21.799m	3.415m	53.120m
EMBEDMENT TYPE	TYPE 3	TYPE 3		TYPE 3	TYPE 3	TYPE 3	TYPE 3	TYPE 3	TYPE 3	TYPE 3	TYPE 3	TYPE 3
JUNCTION INVERT LEVEL	143.102					150.180				152.675		
DEPTH TO INVERT BELOW FSL	1.751	1.809	1.789	1.812	1.792	1.815	1.795	1.816	1.796	1.799	1.779	1.681	1.661	2.313	2.615	2.515	2.537	1.283
INVERT LEVEL (IL)	143.424	**145.220**	**145.240**	**146.840**	**146.860**	**148.560**	**148.580**	**150.030**	**150.050**	**150.300**	**150.320**	**152.140**	**152.160**	**152.357**	**152.575**	**152.675**	**152.709**	153.240
FINISHED SURFACE LEVEL (FSL)	145.175	147.029		148.652		150.375		151.846		152.099		153.821		154.670	155.190		155.246	154.523
EXISTING SURFACE LEVEL (ESL)	145.089	146.070		147.252		149.224		151.391		151.716		153.909		154.771	155.541		155.557	155.162
STRUCTURE SETOUT CO-ORDINATES	E480651.235 N7014644.532	E480686.848 N7014639.844		E480718.576 N7014635.667		E480752.285 N7014631.230		E480781.036 N7014627.445		E480785.994 N7014626.792		E480819.704 N7014622.355		E480839.283 N7014619.778		E480856.578 N7014633.048		E480858.657 N7014630.339		E480911.323 N7014623.407
CHAINAGE (CH) (DISTANCE BETWEEN STRUCTURES)	0.000	35.920		88.802		122.802		151.801		156.802		190.803		210.551		232.350		235.765		288.885

LINE — 6

DATUM — 142.0

PROP. DESCRIPTION	FOOTPATH		
PIPE Dia, TYPE, CLASS	150 SN8 uPVC		
GRADE (1 IN X)	1 : 99.87	1 : 100.00	
LENGTH	3.415m	51.622m
EMBEDMENT TYPE	TYPE 3	TYPE 3
JUNCTION INVERT LEVEL	152.675		
DEPTH TO INVERT BELOW FSL	2.515	2.387	1.281
INVERT LEVEL (IL)	**152.675**	**152.709**	**153.225**
FINISHED SURFACE LEVEL (FSL)	155.190	155.096	154.506
EXISTING SURFACE LEVEL (ESL)	155.541	155.524	155.466
STRUCTURE SETOUT CO-ORDINATES	E480856.578 N7014633.048	E480854.499 N7014635.757	E480861.236 N7014686.937
CHAINAGE (CH) (DISTANCE BETWEEN STRUCTURES)	0.000	3.415	76.836

LINE — 9

STRUCTURES
- 'J'1 — MAINTENANCE SHAFT
- P2/P3 — MAINTENANCE HOLE
- LRB — LONG RADIUS BEND (3.0m RADIUS)
- Y JCT — 45° JUNCTION

PIPES
- PN12 — uPVC SERIES 12 R.R.J.
- SN8 — uPVC R.R.J.

HOUSE CONNECTIONS
- A — STANDARD CONNECTION
- B — SLOPED CONNECTION
- SV — 'J'1 MAINTENANCE SHAFT WITH VERTICAL RISER
- SZ — 'J'1 MAINTENANCE SHAFT WITH AT BASE CONNECTION
- V, W, X, Y & Z — CONNECTIONS INTO MAINTENANCE STRUCTURES (FOR DROP TYPES REFER SEQ-SEW 1303-1 & 1314-1)

FOR STANDARD DRAWINGS AND NOTES REFER M2584E_2 S05

THE DESIGN AND CONSTRUCTION OF THE WORKS SHALL COMPLY WITH ALL QUEENSLAND LEGISLATION. CONTACT THE DIVISION OF WORKPLACE HEALTH AND SAFETY FOR INFORMATION: 1300 362 128.

PROPERTY CONNECTIONS HAVE BEEN DESIGNED TO CONTROL THE REQUIRED SERVICE AREA OF EACH LOT AT A GRADE OF 1:60 AND A MAXIMUM DEPTH OF PROPERTY CONNECTION AT 1.500m UNLESS OTHERWISE STATED. REFER SEQ-SEW-1104-1 TO SEQ-SEW-1105-1

THE CONSTRUCTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPENCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY PIPE LAYING.

ALL ENVIRONMENT PROTECTION MEASURES SHOULD BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION WORK, INCLUDING CLEARING COMMENCING.

LIVE WORKS MUST BE PERFORMED UNDER UNITYWATER SUPERVISION. REFER DRAWING M2584E_2 S05, UNITYWATER AND CONSTRUCTOR LIVE SEWER WORKS INSTRUCTION AND TABLE.

FOR DETAILS AND FURTHER NOTES REFER TO DWG No. M2584E_2 S05

CONSULTANT: JFP URBAN CONSULTANTS PTY LTD
CONTACT: HAYDN WATSON
TELEPHONE: 0412 802 582

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SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH:

SCALE: Horizontal 1:1000 Vertical 1:100 — A1 — THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE (A1) 1:100 / (A1) 1:1000 — DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED — FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD — T.M^cKINNEY RPEQ 5087 — A.FRASER RPEQ 5691 — I.PAPPAS RPEQ 6086 — S.MARSH RPEQ 8068

DESIGNED	CDV	
DRAWN	BJ	
CHECKED	HW	
DATUM: AHD		

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
D	CONNECTION LOCATION AMENDED	30/4/21	WN
C	LOTS 41 to 49 SEWER AMENDED	07/04/21	CDV
B	AMENDMENTS TO COINCIDE WITH STAGE 1 DESIGN	09/03/21	WN
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	16/06/20	BJ

TITLE:

SEWERAGE LONGITUDINAL SECTIONS LINES 6 & 9

DFC (PROJECT MANAGEMENT) PTY LTD

'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
PROJECT: M2584E_2 PLAN: S06 ISSUE: D
LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
COUNCIL REF: DA/38032/2019/V3RL
FILE NAME: SEWERAGE SECTIONS.DWG

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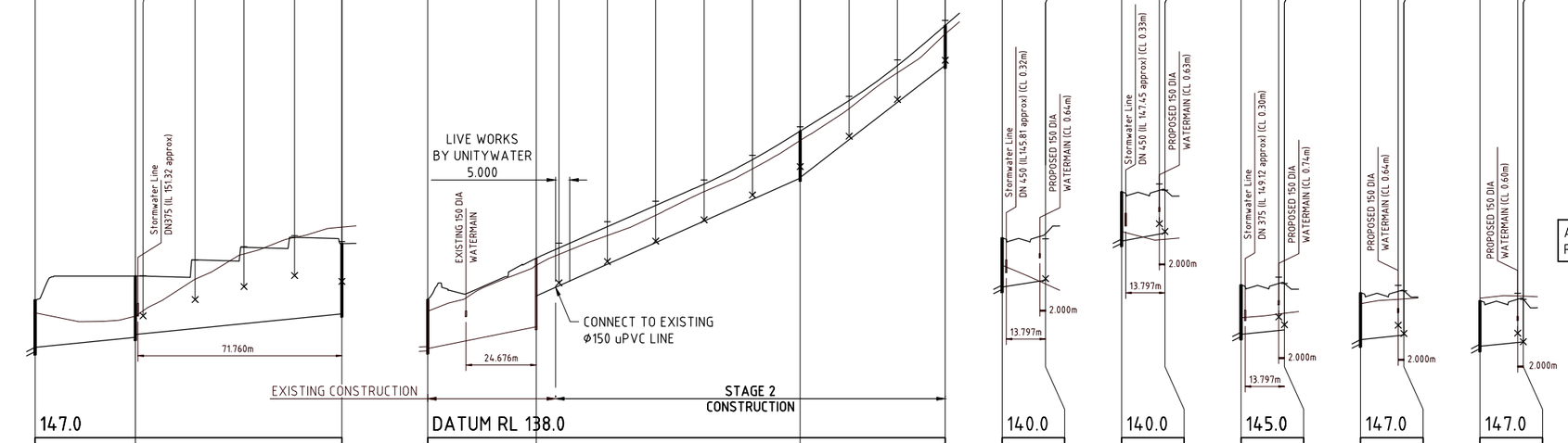
20/04/2021 N:\M2584E\STAGE_2\DESIGN\WORKING DRAWINGS\SEWERAGE SECTIONS

STRUCTURE No.	4/6	1/8				2/8	4/1	1/2					2/2		3/2
COVER TYPE		B				B		D					D		D
STRUCTURE TYPE	P2 1000	P2 1000				'J1'	P2 1000	'J1'					P2 1000		'J1'
DROP TYPE	V	V					V	V					V		V
JUNCTION LINE No.	6						3 1								
DEPTH TO HC		1.400	1.400	1.400	1.400	1.400		1.399	1.400	1.401	1.400	1.396	1.400	1.400	1.404
HC INVERT LEVEL		151.290	151.860	152.320	152.710	152.500		143.450	144.200	144.920	145.670	146.540	147.540	148.610	151.280
HC TYPE		B	B	B	B	SZ		A	A	A	A	A	B	A	SZ
HC LOT No		56	57	58	59	60		28	29	30	31	32	33	34	36
CH. FROM D/S STRUC.		2.700	21.000	38.200	55.950	72.600		8.000	25.000	42.000	59.000	76.000	0.000	17.200	34.200	51.000

STRUCTURE No.	1/6	E/1-6	2/6	E/2-6	3/6	E/3-6	5/6	E/5-6	6/6	E/6-6
COVER TYPE	D		D		D		D		D	
STRUCTURE TYPE	P2 1000	END	P2 1000	END	P2 1000	END	P2 1000	END	P2 1000	END
DROP TYPE	V		V		V		V		V	
JUNCTION LINE No.	6		6		6		6		6	
DEPTH TO HC		1.400		1.400		1.400		1.501		1.400
HC INVERT LEVEL		145.600		147.530		149.250		150.960		152.680
HC TYPE		A		B		B		B		B
HC LOT No		49		47		45		43		41
CH. FROM D/S STRUC.		15.250		13.250		13.250		13.250		13.250
				1.452		1.452				1.492
				147.258		148.978				152.378
				A		A				
				48		46				42
				15.250		15.249				15.250



DATUM	147.0		DATUM RL 138.0			140.0	140.0	145.0	147.0	147.0
PROP. DESCRIPTION	FOOTPATH	ALLOTMENT	ROAD	FOOTPATH		ROAD	ROAD	ROAD	ROAD	ROAD
PIPE Dia, TYPE, CLASS	150 SN8 uPVC		150 SN8 uPVC	150 SN8 PVC-U		150 SN8 PVC-U	150 SN8 PVC-U	150 SN8 PVC-U	150 SN8 PVC-U	150 SN8 PVC-U
GRADE (1 IN X)	1 : 100.00	1 : 100.00	1 : 50.00	1 : 22.38	1 : 12.91	1 : 62.28	1 : 53.94	1 : 100.00	1 : 93.13	1 : 100.00
LENGTH	35.250m	72.600m	38.166m	92.804m	51.000m	15.250m	15.250m	15.249m	15.250m	15.250m
EMBEDMENT TYPE	TYPE 3	TYPE 3	TYPE 3	TYPE 3	TYPE 3	TYPE 3	TYPE 3	TYPE 3	TYPE 3	TYPE 3
JUNCTION INVERT LEVEL	150.050		141.149 141.080			145.240	146.860	148.580	150.320	152.160
DEPTH TO INVERT BELOW FSL	1.666	2.154 2.054 2.473	1.722 2.413 1.329	1.655 1.635 1.400		1.729 1.633	1.732 1.510	1.735 1.636	1.649 1.555	1.601 1.500
INVERT LEVEL (IL)	**150.180**	**150.533 150.633 151.359**	141.140 141.904 142.988	**147.134 147.154 151.105**		**145.300 145.545**	**146.920 147.203**	**148.640 148.793**	**150.450 150.614**	**152.220 152.372**
FINISHED SURFACE LEVEL (FSL)	151.846	152.687 153.832	142.862 144.317	148.789 152.505		147.029 147.178	148.652 148.713	150.375 150.429	152.099 152.169	153.821 153.872
EXISTING SURFACE LEVEL (ESL)	151.391	151.278 154.409	142.450 144.070	148.459 152.210		146.070 145.413	147.252 146.982	149.224 149.377	151.716 151.883	153.909 153.983
STRUCTURE SETOUT CO-ORDINATES	E480781.036 N7014627.445	E480716.435 N7014592.497	E480653.191 N7014736.125	E480690.786 N7014729.547	E480782.796 N7014717.435	E480833.360 N7014710.779	E480686.848 N7014639.844	E480688.839 N7014654.963	E480718.576 N7014635.667	E480720.565 N7014650.787	E480752.285 N7014631.230	E480754.274 N7014646.349	E480785.994 N7014626.792	E480787.983 N7014641.912	E480819.704 N7014622.355	E480821.693 N7014637.475
CHAINAGE (CH) (DISTANCE BETWEEN STRUCTURES)	0.000	35.250 136.849	0.000	38.166 152.646	203.646	0.000 15.250	0.000 15.250	0.000 15.249	0.000 15.250	0.000 15.250
LINE	8		2			1-6	2-6	3-6	5-6	6-6

STRUCTURES
'J'1 MAINTENANCE SHAFT
P2/P3 MAINTENANCE HOLE
LRB LONG RADIUS BEND (3.0m RADIUS)
Y JCT 45° JUNCTION

PIPES
PN12 uPVC SERIES 12 R.R.J.
SN8 uPVC R.R.J.

HOUSE CONNECTIONS
A STANDARD CONNECTION
B SLOPED CONNECTION
SV 'J'1 MAINTENANCE SHAFT WITH VERTICAL RISER
SZ 'J'1 MAINTENANCE SHAFT WITH AT BASE CONNECTION
V, W, X, Y & Z CONNECTIONS INTO MAINTENANCE STRUCTURES
(FOR DROP TYPES REFER SEQ-SEW 1303-1 & 1314-1)

FOR STANDARD DRAWINGS AND NOTES REFER M2584E_2 S05

THE DESIGN AND CONSTRUCTION OF THE WORKS SHALL COMPLY WITH ALL QUEENSLAND LEGISLATION. CONTACT THE DIVISION OF WORKPLACE HEALTH AND SAFETY FOR INFORMATION: 1300 362 128.

PROPERTY CONNECTIONS HAVE BEEN DESIGNED TO CONTROL THE REQUIRED SERVICE AREA OF EACH LOT AT A GRADE OF 1:60 AND A MAXIMUM DEPTH OF PROPERTY CONNECTION AT 1.500m UNLESS OTHERWISE STATED. REFER SEQ-SEW-1104-1 TO SEQ-SEW-1105-1

THE CONSTRUCTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPENCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY PIPE LAYING.

ALL ENVIRONMENT PROTECTION MEASURES SHOULD BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION WORK, INCLUDING CLEARING COMMENCING.

LIVE WORKS MUST BE PERFORMED UNDER UNITYWATER SUPERVISION. REFER DRAWING M2584E_2 S05, UNITYWATER AND CONSTRUCTOR LIVE SEWER WORKS INSTRUCTION AND TABLE.

FOR DETAILS AND FURTHER NOTES REFER TO DWG No. M2584E_2 S05

CONSULTANT: JFP URBAN CONSULTANTS PTY LTD
CONTACT: HAYDN WATSON
TELEPHONE: 0412 802 582

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NORTH:

SCALE:
Horizontal 1:1000
Vertical 1:100
A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 1 2 3 4 5 (A1) 1:100 10 Metres
0 10 20 30 40 50 (A1) 1:1000 100
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

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☐ S.MARSH RPEQ 8068 ☐

DESIGNED	CDV
DRAWN	BJ
CHECKED	HW
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
C	LOTS 41 to 49 SEWER AMENDED	07/04/21	CDV
B	AMENDMENTS TO COINCIDE WITH STAGE 1 DESIGN	09/03/21	WN
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	16/06/20	BJ

TITLE:
SEWERAGE LONGITUDINAL SECTIONS LINES 8 & 2
DFC (PROJECT MANAGEMENT) PTY LTD
'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
PROJECT: M2584E_2 PLAN: S07 ISSUE: C
LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
COUNCIL REF: DA/38032/2019/V3RL
FILE NAME: SEWERAGE SECTIONS.DWG

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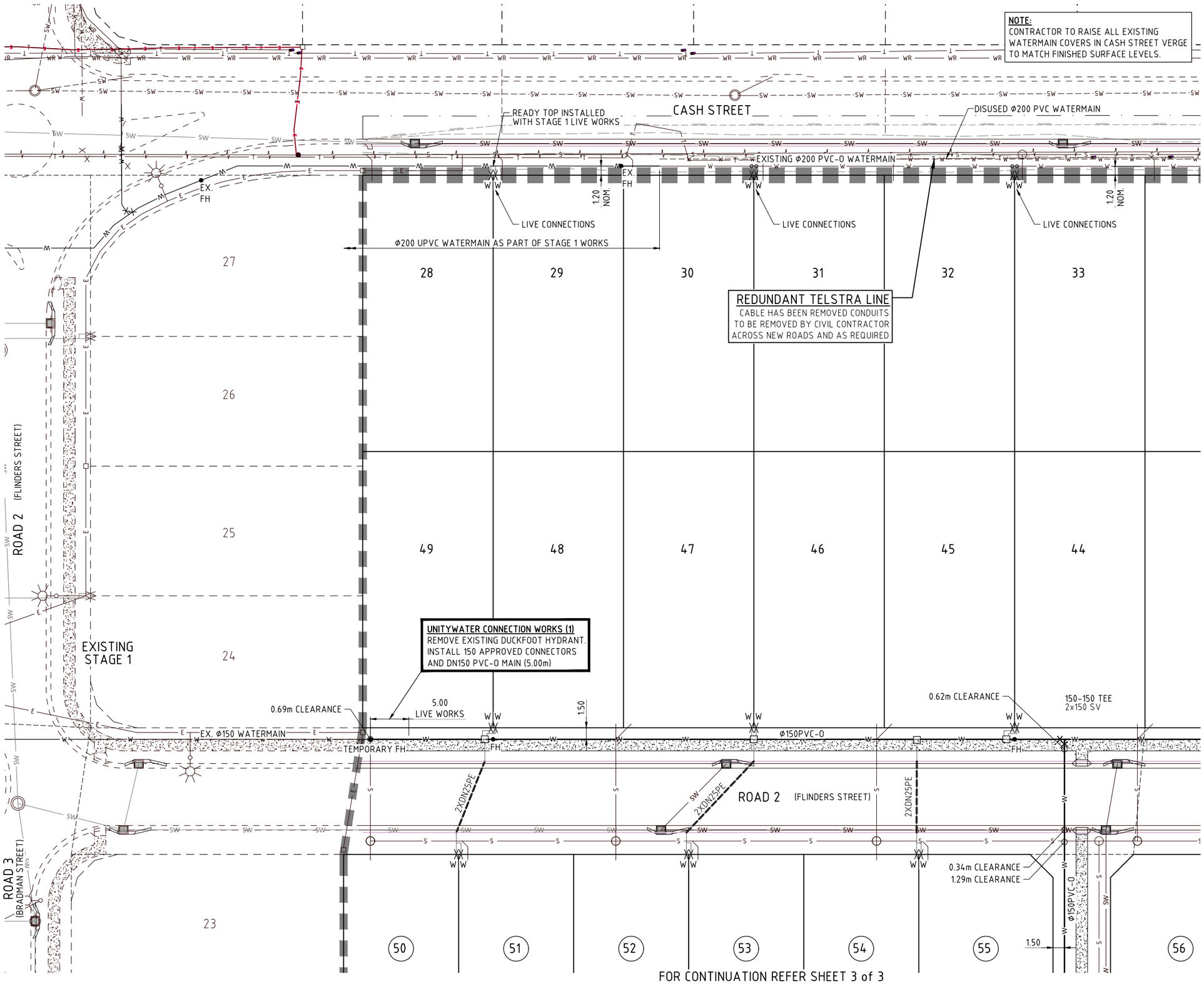
20/04/2021 N:\MASTER\STAGE_01\S05\00_WORKING DRAWINGS\SEWERAGE SECTIONS



LEGEND

- DISUSED MAIN
- EXISTING WATER MAIN
- PROPOSED MAIN
- STORMWATER DRAINAGE
- SEWERAGE
- U.G. ELECTRICITY
- ISOLATION VALVE TO REMAIN CLOSED PENDING CLEARANCE OF NEW MAIN
- PRIVATE SERVICE (FOR FUTURE INSTALLATION BY DEVELOPER) — DN32 PE
- WATER SERVICE POINT
- ISOLATION VALVE
- SCOUR VALVE
- DEAD END
- FIRE HYDRANT
- TEST/CHLORINATION POINT
- REDUCER — 150NB / 100NB
- PIPE MATERIAL CHANGE — PE100 / DICL
- TAPPING BAND
- READY TAP (PRETAPPED CONNECTOR)

SERVICE DETAILS

TYPE	SIZE	LOT NUMBERS
16	32mm	-
16	25mm	50-59, 37-40
16	20mm	28-36, 41-49, 60

THE DESIGN AND CONSTRUCTION OF THE WORKS SHALL COMPLY WITH ALL QUEENSLAND LEGISLATION. CONTACT THE DIVISION OF WORKPLACE HEALTH AND SAFETY FOR INFORMATION: 1300 362 128.

ALL LIVE WORKS ON EXISTING WATER SUPPLY MAIN SHALL BE PERFORMED BY UNITYWATER AT THE DEVELOPER'S EXPENSE

ALL ENVIRONMENTAL PROTECTION MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION WORK, INCLUDING CLEARING COMMENCING

FOR CONTINUATION REFER SHEET 2 of 3

LIVE WATER WORKS

LOT	DESCRIPTION
28	NEW METERED SERVICE
29	NEW METERED SERVICE
30	NEW METERED SERVICE
31	NEW METERED SERVICE
32	NEW METERED SERVICE
33	NEW METERED SERVICE
34	NEW METERED SERVICE
35	NEW METERED SERVICE

CONSULTANT: JFP URBAN CONSULTANTS PTY LTD
CONTACT: HAYDN WATSON
TELEPHONE: 0412 802 582

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NORTH: N

SCALE: 1:250 A1 — THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE (A1) 1:250 (A3) 1:500 Metres

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DESIGNED	CDV	C	READY TAPS & TAPPING BANDS ADDED	30/4/21	WN
DRAWN	BJ	B	AMENDMENTS TO COINCIDE WITH STAGE 1 DESIGN	09/03/21	WN
CHECKED	HW	A	ISSUE FOR OPERATIONAL WORKS APPROVAL	16/06/20	BJ
DATUM: AHD		ISSUE:	DETAILS:	DATE:	INIT:

TITLE:

WATER RETICULATION LAYOUT PLAN SHEET 1 of 3

DFC (PROJECT MANAGEMENT) PTY LTD

'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
PROJECT: M2584E_2 PLAN: W01 ISSUE: C
LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
COUNCIL REF: DA/38032/2019/V3RL
FILE NAME: WATER.DWG

30/04/2021 N:\M2584\STAGE_2\DESIGN\WORKS\DRAWINGS\WATER

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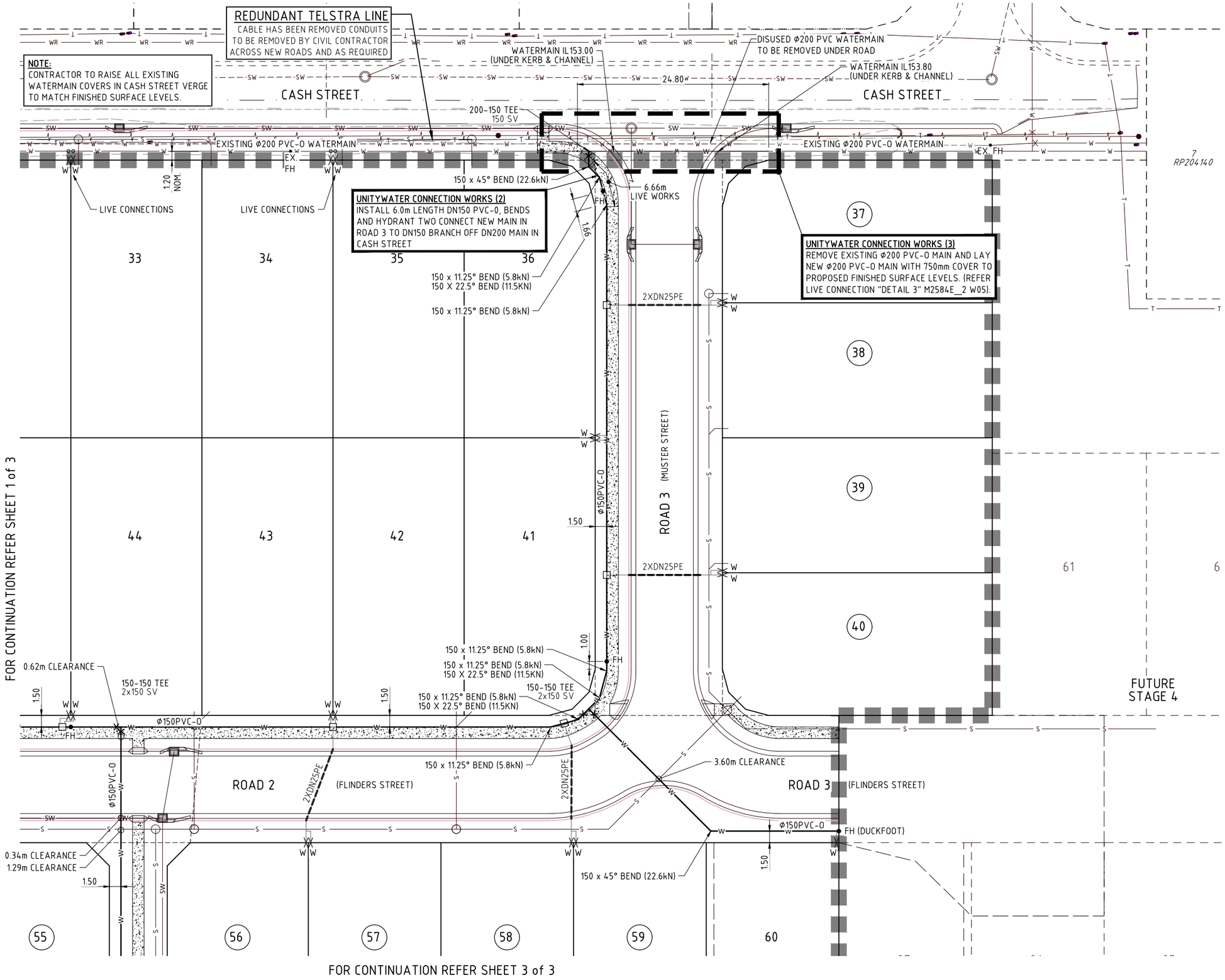

LEGEND

- DISUSED MAIN
- EXISTING WATER MAIN
- PROPOSED MAIN
- STORMWATER DRAINAGE
- SEWERAGE
- U.G. ELECTRICITY
- ISOLATION VALVE TO REMAIN CLOSED PENDING CLEARANCE OF NEW MAIN
- PRIVATE SERVICE (FOR FUTURE INSTALLATION BY DEVELOPER) — DN32 PE
- WATER SERVICE POINT
- ISOLATION VALVE
- SCOUR VALVE
- DEAD END
- FIRE HYDRANT
- TEST/CHLORINATION POINT
- REDUCER — 150NB 100NB
- PIPE MATERIAL CHANGE — PE100 DICL
- TAPPING BAND
- READY TAP (PRETAPPED CONNECTOR)

SERVICE DETAILS

TYPE	SIZE	LOT NUMBERS
16	32mm	-
16	25mm	50-59, 37-40
16	20mm	28-36, 41-49, 60

THE DESIGN AND CONSTRUCTION OF THE WORKS SHALL COMPLY WITH ALL QUEENSLAND LEGISLATION. CONTACT THE DIVISION OF WORKPLACE HEALTH AND SAFETY FOR INFORMATION: 1300 362 128.

ALL LIVE WORKS ON EXISTING WATER SUPPLY MAIN SHALL BE PERFORMED BY UNITYWATER AT THE DEVELOPER'S EXPENSE

ALL ENVIRONMENTAL PROTECTION MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION WORK, INCLUDING CLEARING COMMENCING

LIVE WATER WORKS

LOT	DESCRIPTION
28	NEW METERED SERVICE
29	NEW METERED SERVICE
30	NEW METERED SERVICE
31	NEW METERED SERVICE
32	NEW METERED SERVICE
33	NEW METERED SERVICE
34	NEW METERED SERVICE
35	NEW METERED SERVICE

CONSULTANT: JFP URBAN CONSULTANTS PTY LTD
CONTACT: HAYDN WATSON
TELEPHONE: 0412 802 582

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PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH: N

SCALE: 1:250 A1

THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 2.5 5 7.5 10 12.5 25 Metres
(A1) 1:250
(A3) 1:500
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

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FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
T.M^cKINNEY RPEQ 5087
A.FRASER RPEQ 5691
I.PAPPAS RPEQ 6086
S.MARSH RPEQ 8068

DESIGNED	CDV	C	READY TAPS & TAPPING BANDS ADDED	30/4/21	WN
DRAWN	BJ	B	AMENDMENTS TO COINCIDE WITH STAGE 1 DESIGN	09/03/21	WN
CHECKED	HW	A	ISSUE FOR OPERATIONAL WORKS APPROVAL	16/06/20	BJ
DATUM: AHD		ISSUE:	DETAILS:	DATE:	INIT:

TITLE:

WATER RETICULATION LAYOUT PLAN SHEET 2 of 3

DFC (PROJECT MANAGEMENT) PTY LTD

'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
PROJECT: M2584E_2 PLAN: W02 ISSUE: C
LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
COUNCIL REF: DA/38032/2019/V3RL
FILE NAME: WATER.DWG

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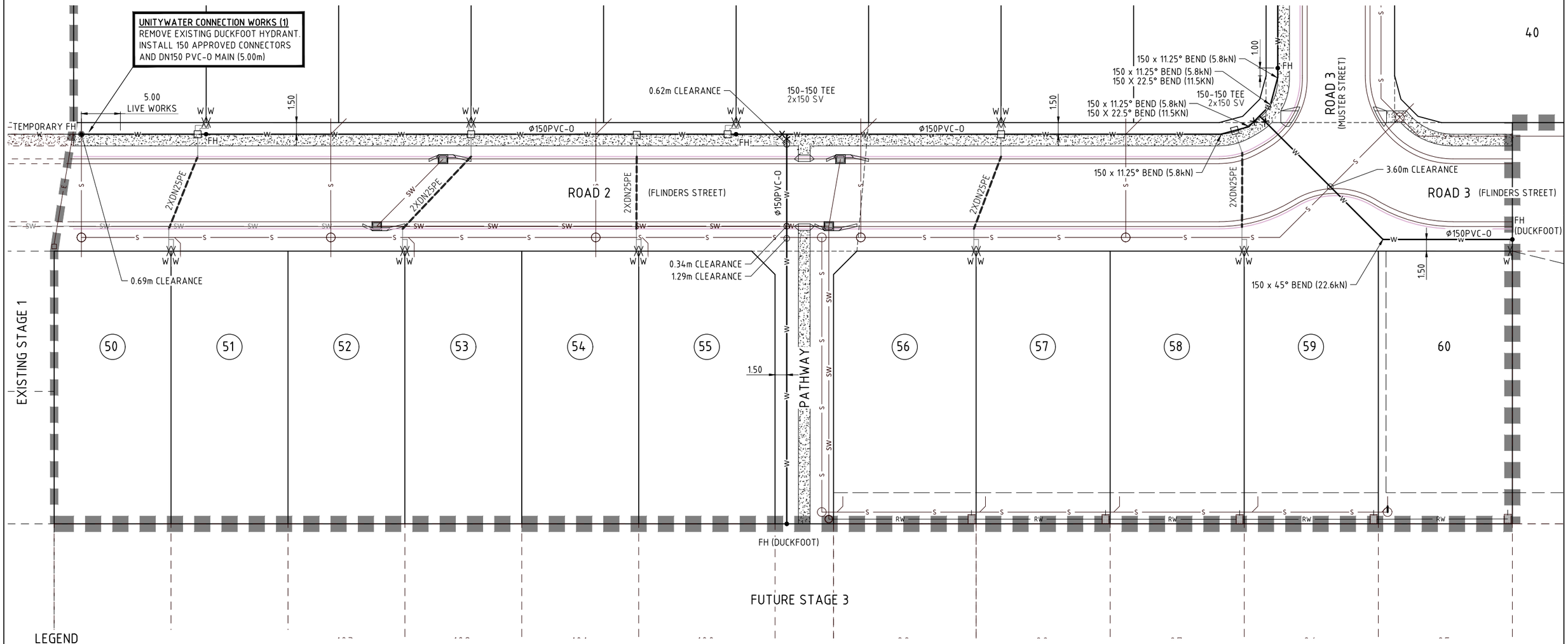
2021/04/2021 N:\M2584E\STAGE_2\DESIGN\W\DRAWING DRAWINGS\WATER



LEGEND

DISUSED MAIN	FH — W — W
EXISTING WATER MAIN	W FH
PROPOSED MAIN	W
STORMWATER DRAINAGE	SW
SEWERAGE	S
U.G. ELECTRICITY	E
ISOLATION VALVE TO REMAIN CLOSED PENDING CLEARANCE OF NEW MAIN	W
PRIVATE SERVICE (FOR FUTURE INSTALLATION BY DEVELOPER)	DN32 PE
WATER SERVICE POINT	X W
ISOLATION VALVE	W
SCOUR VALVE	W
DEAD END	W
FIRE HYDRANT	FH W
TEST/CHLORINATION POINT	W
REDUCER	150NB W 100NB
PIPE MATERIAL CHANGE	PE100 W DICL
TAPPING BAND	
READY TAP (PRETAPPED CONNECTOR)	

SERVICE DETAILS

TYPE	SIZE	LOT NUMBERS
16	32mm	-
16	25mm	50-59, 37-40
16	20mm	28-36, 41-49, 60

THE DESIGN AND CONSTRUCTION OF THE WORKS SHALL COMPLY WITH ALL QUEENSLAND LEGISLATION. CONTACT THE DIVISION OF WORKPLACE HEALTH AND SAFETY FOR INFORMATION: 1300 362 128.

NOTE: STORMWATER AND SEWERAGE LINES HAVE BEEN DESIGNED TO ALLOW FOR WATER MAINS TO HAVE 1200mm COVER AT ROAD CROSSINGS UNLESS NOTED OTHERWISE

ALL LIVE WORKS ON EXISTING WATER SUPPLY MAIN SHALL BE PERFORMED BY UNITYWATER AT THE DEVELOPER'S EXPENSE

ALL ENVIRONMENTAL PROTECTION MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION WORK, INCLUDING CLEARING COMMENCING

LIVE WATER WORKS

LOT	DESCRIPTION
28	NEW METERED SERVICE
29	NEW METERED SERVICE
30	NEW METERED SERVICE
31	NEW METERED SERVICE
32	NEW METERED SERVICE
33	NEW METERED SERVICE
34	NEW METERED SERVICE
35	NEW METERED SERVICE

CONSULTANT: JFP URBAN CONSULTANTS PTY LTD
CONTACT: HAYDN WATSON
TELEPHONE: 0412 802 582

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NORTH: N

SCALE: 1:250 A1
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0 2.5 5 7.5 10 12.5 (A1) 1:250 25 Metres
(A3) 1:500
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DESIGNED	CDV
DRAWN	BJ
CHECKED	HW
DATUM: AHD	

ISSUE:	DETAILS:	DATE:	INIT:
B	READY TAPS & TAPPING BANDS ADDED	30/4/21	WN
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	16/06/20	BJ

TITLE:
WATER RETICULATION LAYOUT PLAN SHEET 3 of 3
DFC (PROJECT MANAGEMENT) PTY LTD
'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
PROJECT: M2584E_2 PLAN: W03 ISSUE: B
LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
COUNCIL REF: DA/38032/2019/V3RL
FILE NAME: WATER.DWG

30/04/2021 \\N:\M2584 STAGE 2\DESIGN\WORKING DRAWINGS\WATER

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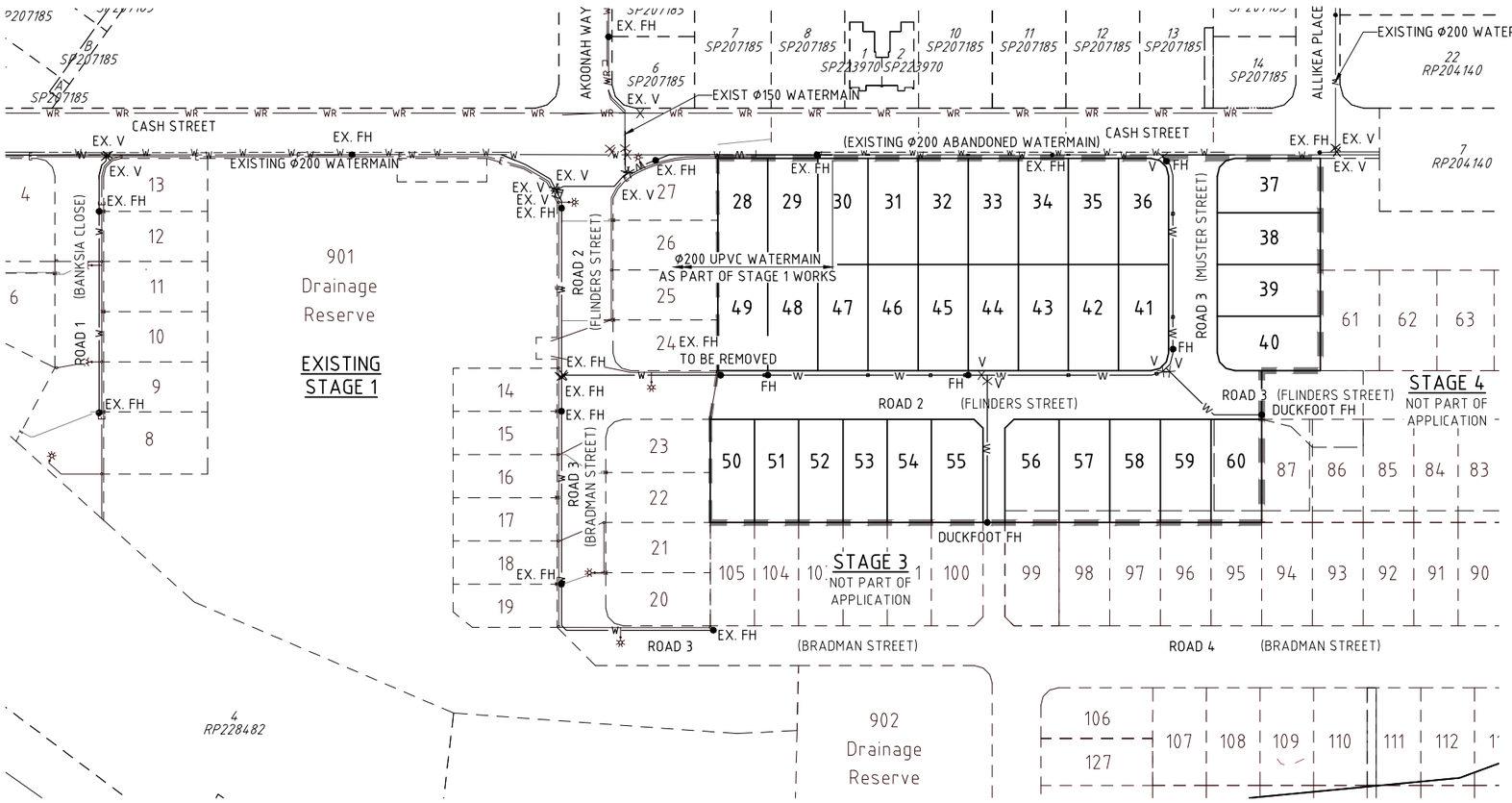
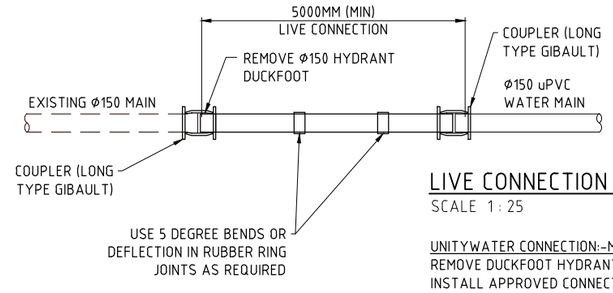
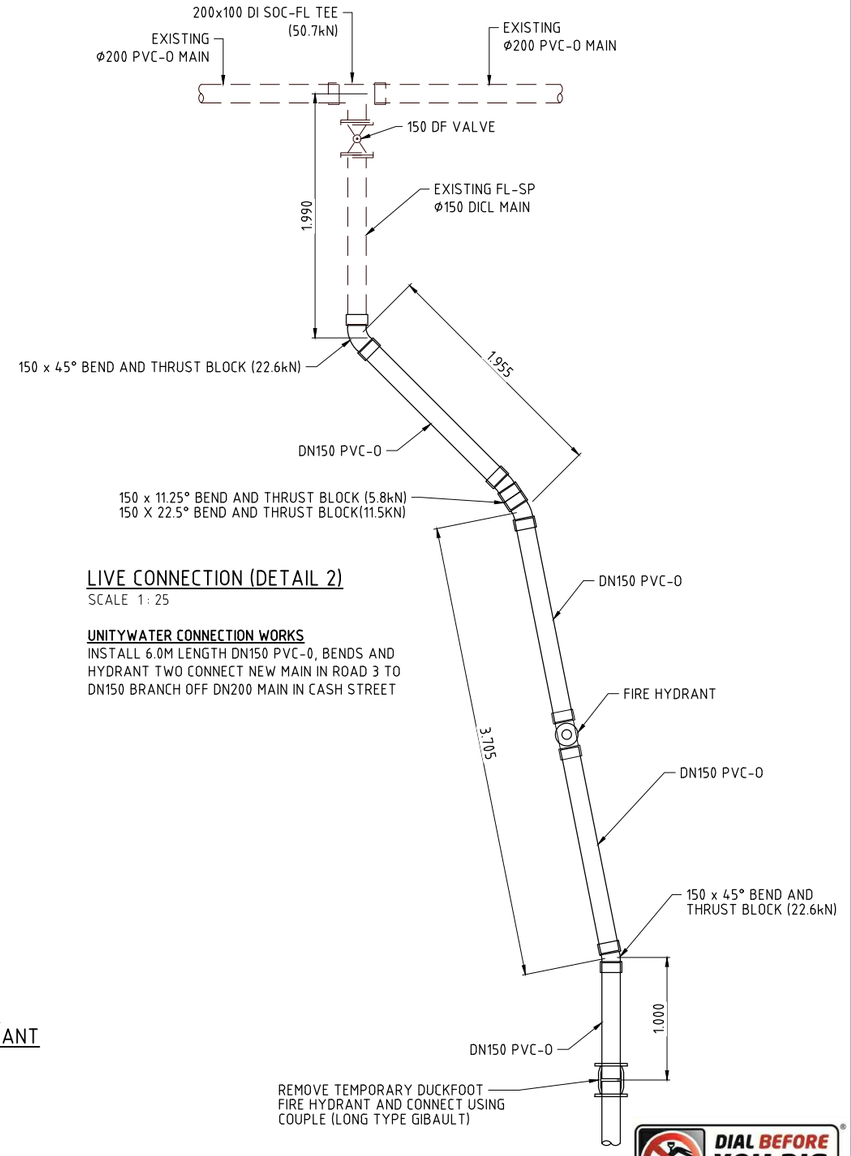


LOCALITY PLAN
SCALE 1:1000



LIVE CONNECTION (DETAIL 1)
SCALE 1 : 25

UNITYWATER CONNECTION:-MAINLINE WORKS
REMOVE DUCKFOOT HYDRANT
INSTALL APPROVED CONNECTOR

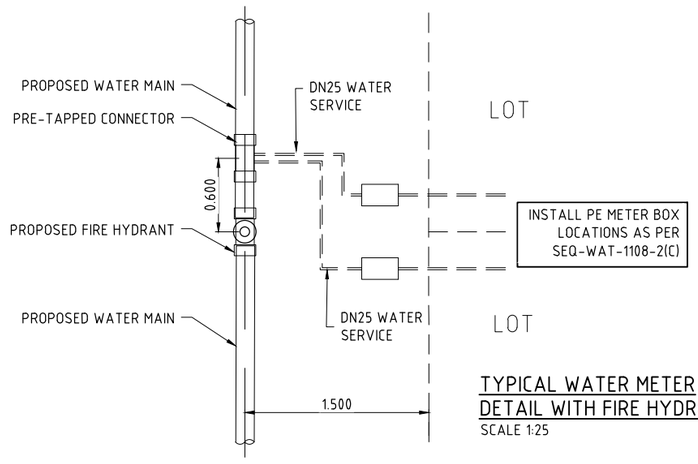


LIVE CONNECTION (DETAIL 2)
SCALE 1 : 25

UNITYWATER CONNECTION WORKS
INSTALL 6.0M LENGTH DN150 PVC-O, BENDS AND HYDRANT TWO CONNECT NEW MAIN IN ROAD 3 TO DN150 BRANCH OFF DN200 MAIN IN CASH STREET

N.T.S.

REGIONAL PLAN
N.T.S.



TYPICAL WATER METER DETAIL WITH FIRE HYDRANT
SCALE 1:25

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SUNSHINE COAST
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Maroochydore Qld 4558
P 07 5450 3900 W www.jfp.com.au
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CHECKED	HW
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
C	ADDITIONAL INFORMATION ADDED	30/4/21	WN
B	AMENDMENTS TO COINCIDE WITH STAGE 1 DESIGN	09/03/21	WN
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	16/06/20	BJ

TITLE:
WATER RETICULATION DETAILS PLAN SHEET 1 of 2
DFC (PROJECT MANAGEMENT) PTY LTD
'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
PROJECT: M2584E_2 PLAN: W04 ISSUE: C
LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
COUNCIL REF: DA/38032/2019/V3RL
FILE NAME: WATER.DWG

30/04/2021 R:\M2584E\VARIAGE_2\DESIGN\WORKING\DRAWINGS\WATER

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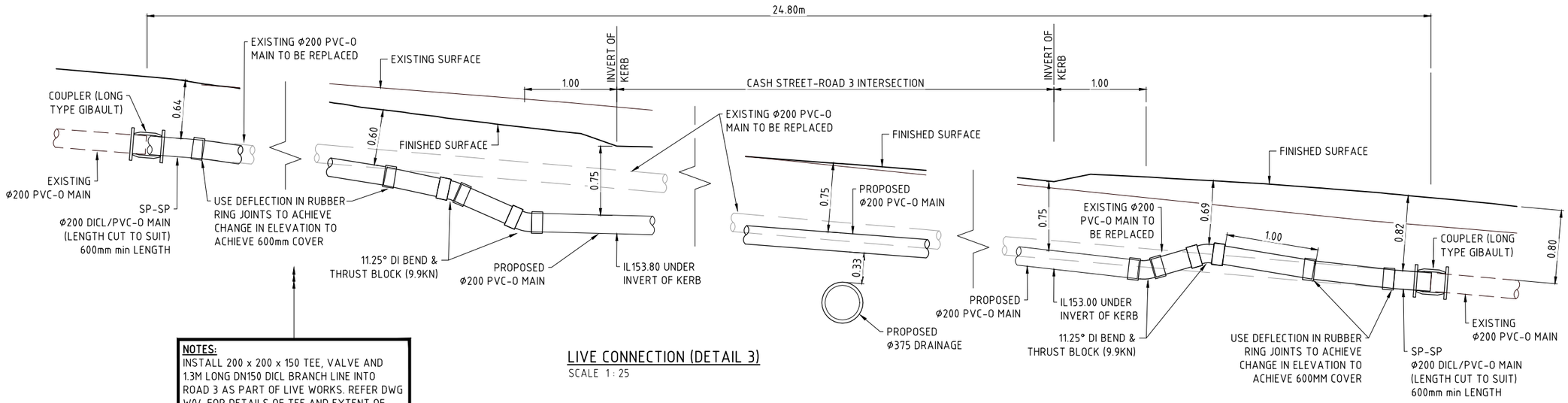

NOTES:
INSTALL 200 x 200 x 150 TEE, VALVE AND 1.3M LONG DN150 DICL BRANCH LINE INTO ROAD 3 AS PART OF LIVE WORKS. REFER DWG W04 FOR DETAILS OF TEE AND EXTENT OF DN150 BRANCH LINE.

LIVE CONNECTION (DETAIL 3)

SCALE 1 : 25

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SUNSHINE COAST
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Maroochydore Qld 4558
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CHECKED	HW
DATUM: AHD	

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ISSUE:	DETAILS:	DATE:	INIT:
B	AMENDMENTS TO COINCIDE WITH STAGE 1 DESIGN	09/03/21	WN
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	16/06/20	BJ

TITLE:

WATER RETICULATION DETAILS PLAN SHEET 2 of 2

DFC (PROJECT MANAGEMENT) PTY LTD

'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

DETAILS:
PROJECT: M2584E_2 PLAN: W05 ISSUE: B
LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
COUNCIL REF: DA/38032/2019/V3RL
FILE NAME: WATER.DWG

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WATER RETICULATION NOTES

1. ALL WORKS AND MATERIALS MUST BE IN ACCORDANCE WITH CURRENT UNITYWATER SPECIFICATIONS:

   WATER SUPPLY CODE OF AUSTRALIA (WSA 03-2011 V3.1)

   SEQ SERVICE PROVIDERS EDITION VERSION 1.3 (AUGUST 2019)

   SEQ WS&S D&C CODE STANDARD DRAWINGS

   SEQ WS&S D&C CODE CIVIL IPAM LIST

2. UNLESS NOTED OTHERWISE, WATER MAINS SHALL BE PVC-O PN16, FITTINGS TO BE DI THERMAL BONDED POLYMETRIC COATED PN16.

3. INSTALLATION OF PIPES AND FITTINGS SHALL COMPLY WITH THE FOLLOWING:
   - PVC PIPES SHALL BE CUT AND LAID IN ACCORDANCE WITH PVC MANUFACTURERS REQUIREMENTS.
   - THE MINIMUM LENGTH OF A PVC PIPE SHALL BE 600mm
   - DUCTILE IRON OR CAST IRON SPIGOTS SHALL NOT BE JOINED TO PVC SOCKETS.
   - FOR PVC-O PIPE, MINOR DEFLECTION MAY BE ACHIEVED BY CUMULATIVE DEFLECTIONS AT THE JOINT OF ELASTOMERIC RING SEAL JOINTED PIPES. LIMITS OF DEFLECTION TO BE IN ACCORDANCE WITH PIPE MANUFACTURER. TYPICAL DEFLECTION 5° FOR DN150 & DN200, 4° FOR DN200 & DN225, AND 3° FOR DN225 & DN300.
   - FBE COATED FLANGES SHALL BE JOINED BY GRADE 316 STAINLESS STEEL BOLTS, NUTS AND WASHERS. IN THIS CONFIGURATION, FLANGES DO NOT NEED TO HAVE CORROSION PROTECTION WRAPPING.
   - CURVING OF PVC PIPES IS NOT PERMITTED.
   - DISTANCE BETWEEN SOCKETED FITTINGS SHALL BE SEPARATED BY A STRAIGHT LENGTH OF MINIMUM LENGTH OF 600mm.
   - EMBEDMENT MATERIAL FOR WATER MAINS SHALL BE 5 OR 7mm NOMINAL SINGLE SIZED AGGREGATE AS PER WSA ps-351, 10mm NOMINAL SINGLE SIZED RECYCLED CONCRETE AGGREGATE AS PER WSA PS-366 OR BEDDING SAND AS PER TABLE G3 OF AS/NZS 2566.2.
   - WHERE THE WATER MAIN CROSSES OTHER SERVICES, THE SEPARATION SHALL BE FILLED WITH EMBEDMENT MATERIAL AND COMPACTED.

4. DUCTILE IRON FITTINGS SHALL BE PN16 COATED WITH A FUSION BONDED POLYMERIC COATING IN ACCORDANCE WITH AS/NZS 4158. ALL DUCTILE IRON OR CAST IRON FITTINGS SHALL BE INSTALLED IN A POLYETHYLENE SLEEVE, INCLUDING FITTINGS WITH FUSION BONDED COATINGS. PARTICULAR FITTINGS SUCH AS SLUICE VALVES, HYDRANTS AND PRE-TAPPED PROPERTY SERVICE FITTINGS SHALL BE SUPPLIED WITH AN INTERNAL AND EXTERNAL FUSION BONDED POLYMERIC COATING IN ACCORDANCE WITH AS/NZS 4158.

5. PIPES SHALL BE LAID IN TYPE C EMBEDMENT IN ACCORDANCE WITH STD. DWGS. SEQ-WAT-1200-2C AND 1201-1A UNLESS NOTED OTHERWISE.

6. ALL EXISTING ROAD CROSSINGS WHERE NEW SEWERS ARE TO BE LAID SHALL BE TUNNEL BORED (U.N.O.) IN ACCORDANCE WITH STD DWG SEQ-SEW-1402-1A & 1403-1B. IF OPEN TRENCH EXCAVATION IS SPECIFIED, TRENCHES AND BEDDING UNDER OR ALONG ROADS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. DWG. SEQ-WAT-1204-1B. DETECTABLE MARKER TAPE TO BE INSTALLED ABOVE ALL NON-METALLIC PIPES. TYPE L, M, K AND N TO BE ADOPTED UNDER EXISTING ROADS. TYPE L TO BE ADOPTED FOR NEW ROADS WITHOUT LEAN MIX LAYER. ROAD BACKFILL TO BE IN ACCORDANCE WITH STD DWG RS-170F.

7. WHERE DUCTILE IRON PIPE (SCL) IS SPECIFIED, THE PIPES SHALL BE PN35 FLANGE OR RUBBER RING JOINTED WITH POLYURETHANE OR ZN-AL ALLOY AND EPOXY COATED. PE SLEEVING IS REQUIRED ON ALL DI PIPES.
   - IN GENERAL, DUCTILE IRON PIPES SHALL NOT BE CUT WITHIN 1.5M OF THE SOCKET
   - IN GENERAL, THE MINIMUM LENGTH OF A DUCTILE IRON PIPE SHALL BE 600MM
   - FLANGE AND BOLT ARRANGEMENTS TO BE IN ACCORDANCE WITH STANDARD DRAWING NO. SEQ-WAT-1313-1

8. WHERE STEEL PIPE (SCL) IS SPECIFIED, THE NOMINAL DIAMETERS SHALL BE (OD) 114, 168, 219, 257, 273 MM WITH MINIMUM THICKNESSES OF DN100 - 4.8 MM AND >DN100 - 5 MM. PIPES AND FITTINGS SHALL BE MINIMUM 1.6MPA, LINED WITH FUSION BONDED POLYETHYLENE COATING AND ZN/AL METAL SPRAY COATING.
   - STEEL PIPES AND FITTING TO BE JOINED IN ACCORDANCE WITH STANDARD DRAWINGS NO. SEQ-WAT-1400-1, 1401-1, 1402-1 AND 1403-1
   - ALL WELDING TO BE CARRIED OUT BY A WELDER HAVING QUALIFICATIONS REQUIRED UNDER AS 1554.1, CATEGORY SP.
   - STEEL PIPES AND FITTINGS MAY BE CONCRETE ENCASED.
   - STEEL PIPELINES TO BE CONCRETE ENCASED DO NOT REQUIRE EXTERNAL COATING. UNCOATED STEEL THAT IS TO BE EXTENDED BEYOND THE THAT IS TO EXTEND BEYOND THE CONCRETE ENCASEMENT SHALL BE FULLY PROTECTED USING ZN/AL METAL SPRAY COATING OR APPROVED HEAT SHRINK POLYETHYLENE SLEEVING AND/OR BITUMASTIC TAPE. PROTECTION SHALL EXTEND FROM AT LEAST 150 MM WITHIN THE CONCRETE ENCASEMENT TO THE POSITION OF FULL PIPE PROTECTION BEYOND ENCASEMENT.
   - FLANGE AND BOLT ARRANGEMENTS TO BE IN ACCORDANCE WITH STANDARD DRAWING NO. SEQ-WAT-1313-1. FLANGES TO BE PN16, SEAL COATING FOR DN450 AND LARGER, SINTAKOTE COATING FOR ABOVE GROUND, SINTAPIPE LINING OPTION, ZN/AL METAL SPRAY COATING AND FUSION BONDED POLYETHYLENE COATING.
   - GASKETS TO BE STANDARD WITH O-RING PN16 MINIMUM, THICKNESS 3MM AT PN16 AND 1.5MM AT PN35. HARDNESS TO COMPLY WITH TABLE 2 FROM WSA 109-2011.

9. WHERE PE PIPE IS SPECIFIED, THE PIPES SHALL BE PN16 PE100 BLUE COLOUR FOR POTABLE (DRINKING) WATER. WATER SERVICE PIPESTO BE BLACK WITH BLUE STRIPS. FOR DIRECTIONAL DRILLING INSTALLATIONS, MINIMUM SDR9 (PN20 PE100) UNLESS SPECIFIED OTHERWISE AND INSTALLED WITH TRACER WIRE.
   - PIPES TO BE LAID IN ACCORDANCE WITH PIPA INDUSTRY GUIDLINES
   - COIL PIPE PERMITTED UP TO DN125
   - ELECTRO-FUSION AND FIELD BUTT WELDING OF PE PIPES SHALL BE CARRIED OUT A SUITABLY QUALIFIED WELDER
   - THE MINIMUM ALLOWABLE BEND RADIUS FOR PE100 PN16 IS 15 X PIPE OD AS PER PIPA GUIDELINES POP202

10. STANDARD WATER MAIN ALIGNMENT:-
    - FRONT: 1.5M OFFSET FROM PROPERTY BOUNDARY (IN VERGE)

11. MINIMUM PIPE COVERS DEPTHS SHALL BE AS LISTED BELOW:

LOCATION	≤ 200mm NB	> 200mmNB
NON-ROADWAYS	600mm	1000mm
SEALED ROADS	600mm	1000mm
MAJOR ROADWAYS/EMBANKMENT	750mm	1000mm
FREEWAYS	1200mm	1200mm

Partial extract from SEQ WATER SUPPLY CODE V1.3-2019, S7.4.2, TABLE 7.2

   - IN A ROAD CARRIAGEWAY, THE DEPTH OF COVER SHALL BE MEASURED FROM THE ROAD SHOULDER OR LIP OF KERB.
   - THE MAXIMUM DEPTH TO INVERT SHALL NOT EXCEED 1.5M FOR RETICULATION MAINS.

12. THRUST BLOCKS SHALL BE CONSTRUCTED ON ALL BENDS, TEES, VALVES, TAPERS, DEADENDS, DUCKFOOT HYDRANTS, AND TRANSITIONS TO UNRESTRAINED PIPEWORK IN ACCORDANCE WITH STD DWGS SEQ-WAT-1205-1A, 1206-1B AND 1207-1A.

13. PROPERTY SERVICES SHALL BE PE AND CONSTRUCTED IN ACCORDANCE WITH STD. DWG. SERIES SEQ-WAT-1108-1B,1108-2C, 1108-3C.
    - PE WATER SERVICES SHALL HAVE DETECTABLE MARKING TAPE PLACED ABOVE THE PIPE EMBEDMENT.
    - FOR PE SYSTEMS, WATER SERVICES SHALL BE CONSTRUCTED TO THE NEW MAINS WITH ELECTROFUSION FITTINGS ONLY. FOR RENEWALS, EITHER ELECTROFUSION OR MECHANICAL TAPPING FITTINGS CAN BE USED.
    - WATER SERVICES UP TO DN63 PE LOCATED UNDER EXISTING OR FUTURE ROADWAYS, CONCRETE OR PAVED DRIVEWAYS, FOOTPATHS, BIKEWAYS OR OTHER HARD STAND AREAS SHALL BE INSTALLED IN A SOLVENT WELDED DN100 PVC CONDUIT. CONDUITS SHALL NOT BE INSTALLED IN THE SAME TRENCH AS ELECTRICAL CABLES.
    - MINIMUM COVER TO WATER SERVICES IN THE FOOTWAY SHALL BE 300MM AND UNDER ROAD WAYS 600MM MEASURED FROM THE LIP OF KERB.

14. STOP VALVES AND HYDRANTS, INSPECTION BOXES, MARGIN SETS, AND MARKERS SHALL BE INSTALLED IN ACCORDANCE WITH STD. DWGS. SEQ-WAT-1300-1C, 1300-2B, 1301-1C, 1302-1C, 1303-1B,1303-2B, 1304-1B, 1305-1B AND 1306-1C
    - STOP VALVES SHALL BE RESILIENT SEATED GATE VALVES
    - FOR DICL AND PVC PIPES, STOP VALVES SHALL BE DOUBLE SOCKET TYPE ONLINE, EXCEPT WHERE THE VALVE IS CONNECTED TO A FLANGED BRANCH IN WHICH CASE THE VALVE SHALL BE OF THE FLANGE / SOCKET TYPE
    - HYDRANTS SHALL BE SWAB TYPE. 100mm FLANGES, 100mm RISERS AND SPRING HEADS
    - HYDRANT SURROUNDS TO BE LEFT 30-50mm PROUD OF TOPSOIL, 10-15mm PROUD OF TURF, OR FLUSH WITH CONCRETE SURFACE
    - PAINT VALVE BOXES WHITE AND HYDRANT BOXES YELLOW, INCORPORATING GLASS REFLECTIVE BEADING. DO NOT PAINT CONCRETE SURROUNDS
    - RRPMS FOR POTABLE WATER SUPPLY (VALVES YELLOW AND HYDRANTS BLUE) WITH DIRECTIONAL ARROW TO BE INSTALLED ON THE CENTRE LINE OF ALL ROADS UNLESS LINE MARKED. ALTERNATIVELY, RRPMS MINUS DIRECTIONAL ARROW ON THE VALVE / HYDRANT SIDE OF THE MARKER WHICH IS TO BE LOCATED ON THE CENTRE LINE OF THE ROAD UNLESS LINE MARKED
    - WATER SERVICE POINTS SHARING A BOUNDARY CORNER WITH AN ELECTRICAL PILLAR SHALL BE A MINIMUM 1M CLEAR OF THE ELECTRICAL PILLAR AND ASSOCIATED CONDUITS.
    - HYDRANT MARKER POSTS ARE ONLY REQUIRED IN RURAL RESIDENTIAL AREAS.
    - FLANGES TO BE CLASS 16 AND BE IN ACCORDANCE WITH SEQ-WAT-1313/1A. GRUB SCREWS OR SIMILAR TYPE FLANGES ARE NOT ACCEPTABLE IN THE WATER MAIN CONSTRUCTION

15. WHERE THE GRADE OF A WATER MAIN IS EQUAL TO OR GREATER THAN 5%, BULKHEADS OR TRENCH STOPS SHALL BE INSTALLED IN ACCORDANCE WITH STD DWGS 1209-1A & 1210-1A

16. CONNECTION OF NEW WATER MAINS TO THE EXISTING WATER RETICULATION SYSTEM SHALL BE COMPLETED BY UNITYWATER AT THE DEVELOPER'S COST.

17. INSPECTOR MUST BE NOTIFIED BY PHONE AND GIVEN THE OPPORTUNITY TO WITNESS THE FOLLOWING WHERE APPLICABLE :-
    - EXPOSE EXISTING WATER MAIN AT CONNECTION POINT PRIOR TO COMMENCEMENT OF LAYING PIPE.ALL UNDER ROAD WPS, TAPPING BANDS AND FITTINGS BEFORE BACKFILLING.
    - ALL CONCRETE THRUST BLOCKS BEFORE POURING CONCRETE.
    - ALL CONCRETE THRUSTER PIPE AND CONDUITS BEFORE BACKFILLING.
    - ALL READYTAT BLOCKS AFTER POURING CONCRETE.
    - ALL WATER SERVICE CONNECTION LINES BEFORE BACKFILLING.
    - WATER PRESSURE TESTS (UNLESS CARRIED OUT BY NATA CERTIFIED TESTER - HOWEVER UNITYWATER INSPECTOR SHALL STILL BE NOTIFIED WHEN TESTING IS TO BE UNDERTAKEN AND MAY CONDUCT RANDOM INSPECTION OF NATA CERTIFIED TESTING).

18. PRIOR TO THE CONNECTION OF THE NEW MAIN TO EXISTING, THE PIPEWORK SHALL BE PRESSURE TESTED
    - WHERE TESTING IS NOT CONDUCTED BY A NATA CERTIFIED TESTING ORGANISATION THE CERTIFYING ENGINEER SHALL BE PRESENT FOR THE TESTING PROCEDURE AND THE UNITYWATER INSPECTOR MUST BE NOTIFIED WITH 3 DAYS PRIOR NOTICE OF THE TEST OCCURRING. (SHALL BE DONE AFTER WATER SERVICES ARE CONNECTED AND ELECTRICAL CONDUITS INSTALLED)ALL DEAD END LINES ARE TO BE TESTED AND CHLORINATED. THIS MAY REQUIRE TEMPORARY HYDRANTS OR TAPPING BANDS. TEMPORARY TAPPING BANDS TO BE CUT OFF WHEN CONNECTION TO LIVE MAIN OCCURS.
    - PRELIMINARY PRESSURISE THE MAINS TO 75% OF THE TEST PRESSURE FOR A MINIMUM OF TWELVE (12) HOURS
    - APPLY TEST PRESSURE (1200kPA) AT THE HIGHEST POINT OF THE WATER MAIN FOR FOUR (4) HOURS
    - IDEALLY THERE SHOULD BE NO PRESSURE LOSS AFTER FOUR (4) HOURS.

19. PRIOR TO THE CONNECTION OF THE NEW MAIN TO THE EXISTING, THE PIPEWORK SHALL BE FLUSHED CHLORINATED IN ACCORDANCE WITH UNITYWATER DOCUMENT PR9032 - PROCEDURE FOR MANAGING WATER QUALITY DURING MAINS COMMISSIONING

20. A WATER METER SUPPLIED AT THE DEVELOPERS COST, IS TO BE INSTALLED AT THE SERVICE POINT OF EACH LOT.

21. THE CONSTRUCTION OF THE WATER RETICULATION WORK SHOWN ON THIS DRAWING MUST BE SUPERVISED BY AN ENGINEER WHO HAS RPEQ REGISTRATION. WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT TO THE WATER RETICULATION STEM

22. TRENCH COMPACTION RESULTS TO BE IN ACCORDANCE WITH AS3798 AND MORETON BAY REGIONAL COUNCIL OPERATIONAL WORKS INSPECTION, MAINTENANCE AND BONDING PROCEDURES PLANNING SCHEME POLICY
    a) COMPACTION TO TRENCH BOTTOM - FIELD DENSITY 1 PER 40m (IF ORDERED)
    b) BACKFILL - FIELD DENSITY 1 PER 40m

23. MINIMUM COMPACTION TO BE IN ACCORDANCE WITH THE FOLLOWING:

MINIMUM COMPACTION OF EMBEDMENT, TRENCH, AND OTHER FILLS

MATERIAL TYPE	MINIMUM VALUE (%)			
	TRAFFICABLE AREAS		NON-TRAFFICABLE AREAS	
	EMBEDMENT	TRENCH	EMBEDMENT	TRENCH
NON-COHESIVE	70 (REFER NOTE BELOW)	70	60	60
COHESIVE	95	95	90	90
NOTE: SINGLE SIZE COARSE AGGREGATES OF SIZES 5, 7, 10 AND 14mm SHALL BE DEEMED "SELF COMPACTING" AND DO NOT REQUIRE COMPACTION TESTING WHEN USED FOR PIPE EMBEDMENT				

FOR ROAD PAVEMENTS THE FOLLOWING COMPACTION SHALL BE ACHIEVED:
- NATURAL SUBGRADE - 100% STANDARD MAXIMUM DRY DENSITY (MDD)
- PAVEMENT UPPER AND LOWER SUB BASE LAYERS - 100% STANDARD MAXIMUM DRY DENSITY (MDD)
- PAVEMENT BASE LAYER - 102% STANDARD MAXIMUM DRY DENSITY (MDD)

24. DURING ANY CONSTRUCTION ACTIVITY, AT LEAST ONE PERSON ON SITE MUST HAVE COMPLETED A PIPE LAYING TRAINING COURSE APPROVED BY THE SUPPLIER AND APPROPRIATE TO THE PIPE LINE UNDER CONSTRUCTION. THE TRAINING COURSE MUST HAVE BEEN COMPLETED WITH IN THE LAST 10 YEARS. DOCUMENTARY EVIDENCE TO BE PROVIDED BY THE CONTRACTOR PRIOR TO COMMENCEMENT

25. AS CONSTRUCTED DRAWINGS, ENGINEERING CERTIFICATION, PRESSURE TEST RESULTS, COMPACTION TEST RESULTS AND ASSOCIATED CONSULTANT'S REPORTS MUST BE DELIVERED AND RECEIVED 7 DAYS PRIOR TO AN ON-MAINTENANCE INSPECTION.

CLEARANCES BETWEEN WATER MAINS AND OTHER UNDERGROUND SERVICES

UTILITY (Existing Services)	Minimum horizontal clearance (mm) New main size NB ≤200 mm	Minimum horizontal clearance (mm) New main size NB >200 mm	Minimum Vertical Clearance mm
WATER MAINS ≤375 mm	300[3]	600	150
WATER MAINS >375 mm	600	600	300
GRAVITY SEWERS ≤DN 300	1000[5]/600	1000[5]/600	500[4]
GRAVITY SEWERS >DN 300	1000[5]/600	1000[5]/600	500[4]
SEWERS - PRESSURE	1000[5]	1000[5]	500
SEWERS - VACUUM	300	600	500
GAS MAINS	300[3]	600	500[4]
TELECOMMUNICATIONS CONDUITS & CABLES	300[3]	600	300
ELECTRICITY CONDUITS & CABLES	500	1000	500[4&7]
STORMWATER DRAINS <300 mm	300[3]	600	150[4]
STORMWATER DRAINS >300 mm	300[3]	600	300[4]
KERBS	150	600[6]	150

FOR NOTES, VARIATIONS TO CLEARANCES AND ACCEPTABLE REASONS SEE TABLE 5.5

Partial extract from SEQ WATER SUPPLY CODE V1.3-2019, S5.12.5.2, TABLE 5.5

ENVIRONMENTAL NOTES

VEGETATION PROTECTION

A. TREES LOCATED ALONG THE FOOTPATH SHALL BE, TRANSPLANTED PRIOR TO CONSTRUCTION, OR REPLACED IF DESTROYED.
B. WHEN WORKING WITHIN 4m OF TREES, RUBBER OR HARDWOOD GIRDLES SHOULD BE CONSTRUCTED WITH 1.8m BATTENS CLOSELY SPACED AND ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES SHALL BE STRAPPED TO TREES PRIOR TO CONSTRUCTION AND REMAIN UNTIL COMPLETION.
C. TREE ROOTS SHALL BE TUNNELED UNDER, RATHER THAN SEVERED. IF ROOTS ARE SEVERED, THE DAMAGED AREA SHALL BE TREATED WITH A SUITABLE FUNGICIDE. CONTACT RELEVANT COUNCIL ARBORIST FOR FURTHER ADVICE.
D. ANY TREE LOPPING REQUIRED SHOULD BE UNDERTAKEN BY AN APPROVED ARBORIST.

SOIL

A. TOPSOIL AND SUBSOIL SHALL BE STOCKPILED SEPARATELY.
B. CARE SHALL BE TAKEN TO PREVENT SEDIMENT FROM ENTERING THE STORMWATER SYSTEM. THIS MAY INVOLVE PLACING APPROPRIATE SEDIMENT CONTROLS AROUND STOCKPILES.

CREEK CROSSINGS

A. FILTRATION CONTROL MEASURES SHALL BE PLACED DOWNSTREAM OF ANY EXCAVATION WORK.
B. APPROPRIATE SEDIMENT CONTROLS SHALL BE USED TO PREVENT SEDIMENT FROM ENTERING THE CREEK.
C. NO SOIL SHOULD BE STOCKPILED WITHIN 5m OF THE CREEK.

REHABILITATION

A. PREDISTURBANCE SOIL PROFILES AND COMPACTION LEVELS ARE TO BE REINSTATED.
B. PREDISTURBANCE VEGETATION PATTERNS SHOULD BE RESTORED.

SAFETY

A. THE DESIGN AND CONSTRUCTION OF THE WORKS SHALL COMPLY WITH ALL QUEENSLAND LEGISLATION

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JFP URBAN CONSULTANTS
BRISBANE - SUNSHINE COAST - CENTRAL QLD
SUNSHINE COAST
T209, Kon-Tiki Tower 1, 55 Plaza Parade, Maroochydore Qld 4558
P 07 5450 3900 W www.jfp.com.au
JFP URBAN CONSULTANTS PTY. LTD. A.C.N. 050 414 045
PLANNERS
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NORTH:

SCALE: THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
A1
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED — FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
☐ T.M.KINNEY RPEQ 5087 ☑ A.FRASER RPEQ 5691 ☐ J.PAPPAS RPEQ 6086 ☐ S.MARSH RPEQ 8068 ☐

DESIGNED	CDV
DRAWN	BJ
CHECKED	HW
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
B	AMENDMENTS TO COINCIDE WITH STAGE 1 DESIGN	09/03/21	WN
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	16/06/20	BJ

TITLE:
WATER RETICULATION NOTES
DFC (PROJECT MANAGEMENT) PTY LTD
'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR
DENNIS FAMILY CORPORATION

DETAILS:
PROJECT: M2584E_2 PLAN: W06 ISSUE: B
LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
COUNCIL REF: DA/38032/2019/V3RL
FILE NAME: WATER.DWG

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30/04/2021 N:\M2584E\STAGE_2\DESIGN\WORKING DRAWINGS\WATER