

Saved: 04.04.2013, By: kgao J:\700-Projects\800-Preliminary-Tender\Catherine Hill Bay\Drawings\Street

Date: 04/04/2013

Rev: A

Drawing No: SK001

Scale: 0 20 40 60 80 10

CATHERINE HILL BAY PRESSURE SEWERAGE SCHEME MASTER PLAN

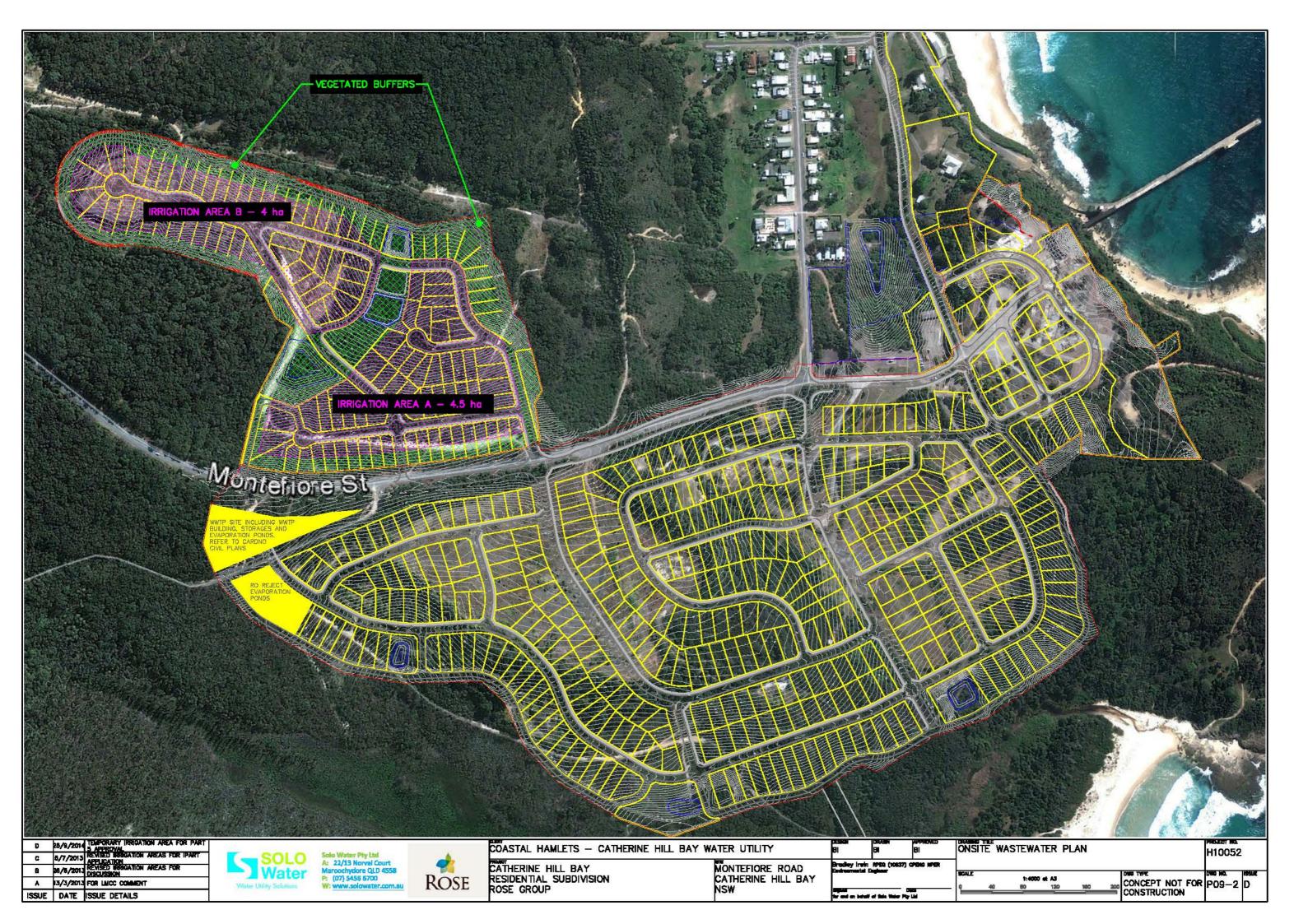
Solo Water

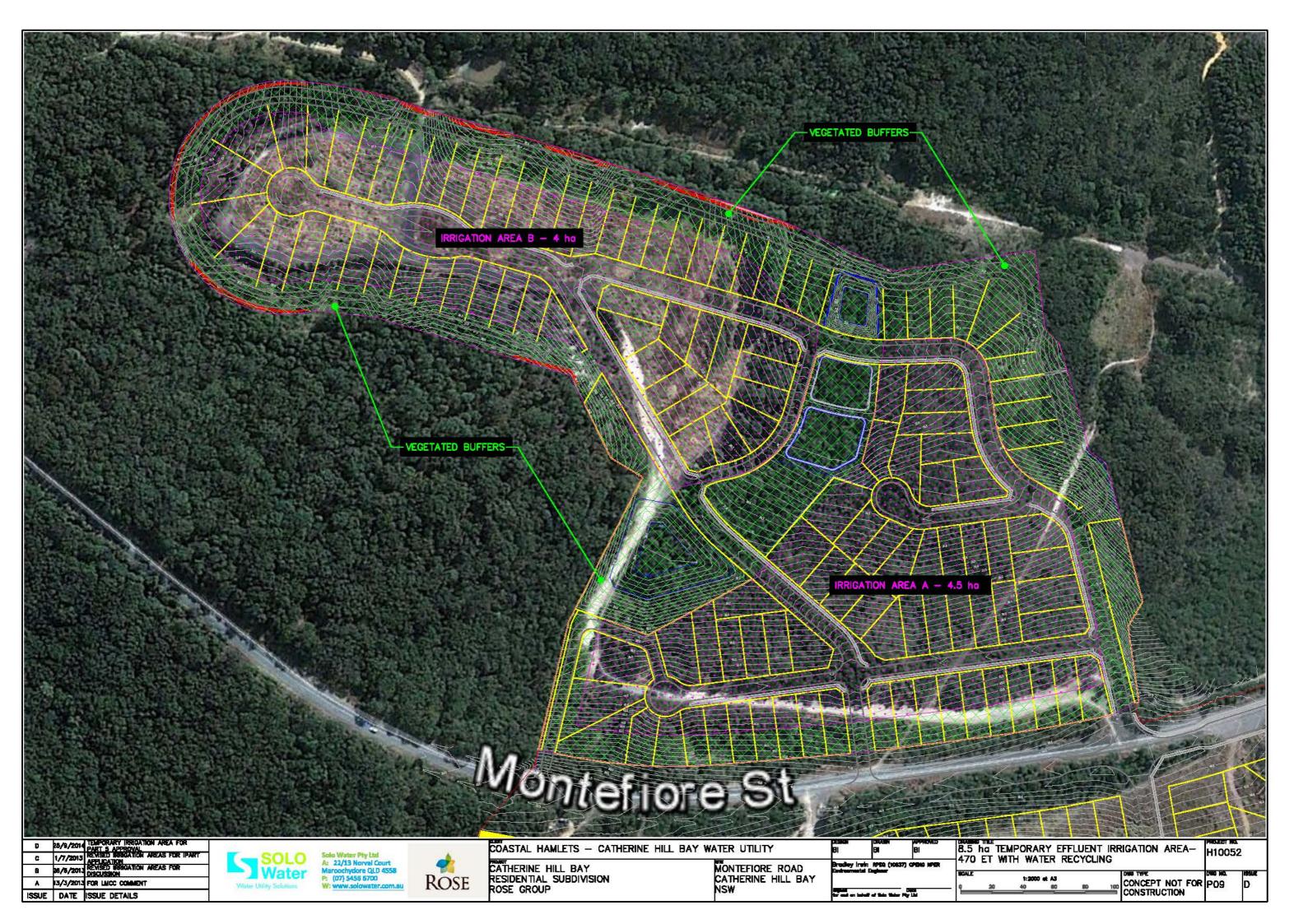


MASTER PLAN

Water

Rev: A







CATHERINE HILL BAY RESIDENTIAL SUBDIVISION - STAGE 1 WATER, RECYCLED WATER AND SEWER SERVICES



| DRAWING SCHEDULE | | | | |
|--------------------|--|--|--|--|
| DWG NO. | SHEET DESCRIPTION | | | |
| 8201405801-SW0001 | COVER SHEET AND INDEX | | | |
| 8201405801-SW0002 | GENERAL NOTES | | | |
| 8201405801-SW1001 | POTABLE WATER AND RECYCLED WATER KEY PLAN | | | |
| 8201405801-SW1002 | POTABLE WATER AND RECYCLED WATER LAYOUT PLAN, SHEET 1 OF 7 | | | |
| 8201405801-SW1003 | POTABLE WATER AND RECYCLED WATER LAYOUT PLAN, SHEET 2 OF 7 | | | |
| 8201405801-SW1004 | POTABLE WATER AND RECYCLED WATER LAYOUT PLAN, SHEET 3 OF 7 | | | |
| 8201405801-SW1005 | POTABLE WATER AND RECYCLED WATER LAYOUT PLAN, SHEET 4 OF 7 | | | |
| 8201405801-SW1006 | POTABLE WATER AND RECYCLED WATER LAYOUT PLAN, SHEET 5 OF 7 | | | |
| 8201405801-SW1007 | POTABLE WATER AND RECYCLED WATER LAYOUT PLAN, SHEET 6 OF 7 | | | |
| 8201405801-SW1008 | POTABLE WATER AND RECYCLED WATER LAYOUT PLAN, SHEET 7 OF 7 | | | |
| 8201405801-SW2001 | PRESSURE SEWER KEY PLAN | | | |
| 8201405801-SW2002 | PRESSURE SEWER LAYOUT PLAN, SHEET 1 OF 7 | | | |
| 8201405801-SW2003 | PRESSURE SEWER LAYOUT PLAN, SHEET 2 OF 7 | | | |
| 8201405801-SW2004 | PRESSURE SEWER LAYOUT PLAN, SHEET 3 OF 7 | | | |
| 8201405801-SW2005 | PRESSURE SEWER LAYOUT PLAN, SHEET 4 OF 7 | | | |
| 8201405801-SW2006 | PRESSURE SEWER LAYOUT PLAN, SHEET 5 OF 7 | | | |
| 8201405801-SW2007 | PRESSURE SEWER LAYOUT PLAN, SHEET 6 OF 7 | | | |
| 8201405801-SW2008 | PRESSURE SEWER LAYOUT PLAN, SHEET 7 OF 7 | | | |
| 8201400101-STD1001 | PROPERTY BOUNDARY SEWER CONNECTION DETAIL 1 | | | |
| 8201400101-STD1002 | PROPERTY BOUNDARY SEWER CONNECTION DETAIL 2 | | | |
| 8201400101-STD1003 | PROPERTY BOUNDARY SEWER CONNECTION DETAIL 3 | | | |
| 8201400101-STD1004 | AIR VALVE DETAIL - TYPE 1 | | | |
| 8201400101-STD1005 | AIR VALVE DETAIL - TYPE 2 | | | |
| 8201400101-STD1006 | TYPICAL FLUSHING POINT DETAIL | | | |
| 8201400101-STD1007 | MISCELLANEOUS DETAIL 1 | | | |
| 8201400101-STD1008 | MISCELLANEOUS DETAIL 2 | | | |

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| ^{awn} CBF | Date 21/03/14 | Client SOLO WATER | | | | | |
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| ecked JF | 21/03/2014 | CATHERINE HILL BAY | Status | FOR AP | | | |
| signed | Date | RESIDENTIAL SUBDIVISION | NOT TO BE | USED FOR CO | NSTRUCTION | PURPOSE | ies_ |
| LJD | 21/03/14 | STAGE 1 | Datum | Register | Scale | Size | |
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| proved JF | Date 21/03/2014 | COVER SHEET AND INDEX | 8201 | 405801- | SW0001 | 6 | ô |

GENERAL

- 1. DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
- 2. THE CONTRACTOR SHALL CARRY OUT A DIAL BEFORE YOU DIG APPLICATION AND ARRANGE A PRE-CONSTRUCTION MEETING WITH SERVICE AUTHORITIES (IF REQUIRED) TO ESTABLISH THE LOCATION OF LITHLITY SERVICES AND SPECIAL REQUIREMENTS.
- 3. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ANY UTILITY SERVICES OVER THE SITE, IF REQUIRED. THE CUNTRACTOR SHALL CONTENT THE LUCATION OF ANY OTHERTY SERVICES OVER THE SHIEL IF REQUIRED, AT TENDER STAGE, THE CONTRACTOR SHALL REQUEST TO CARRY OUT ANY POT HOLING ON SITE TO CONFIRM COSTS. THIS REQUEST IS TO BE MADE TO THE PROJECT MANAGER/ENGINEER. HOWEVER AT CONSTRUCTION STAGE THE CONTRACTOR MUST ENSURE ALL EXISTING SERVICES ARE LOCATED AND POTHOLED TO CONFIRM LOCATION AND DEPTH PRIOR TO ANY WORKS. THE CONTRACTOR MUST ALLOW FOR THE COSTS FOR ANY CO-ORDINATION WITH SERVICE PROVIDERS.
- 4. VERIFY SETOUT DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE COMMENCING WORKS.
- 5. ALL SETOUT TO BE AS PER CARDNO PTY. LTD. DIGITAL SET OUT .dwg FILE. ALIGNMENT OF SERVICES TO BE AS PER .dwg FILE WITH MINIMUM OF +/- 20mm IN HORIZONTAL AND +/- 50mm IN VERTICAL SET OUT.
- 6. THE CONTRACTOR SHALL UNDERTAKE THE NECESSARY SURVEY SETOUT FOR THE WORKS.
- 7. IF DISCREPANCIES ARE FOUND, CONSTRUCTOR MUST CONTACT CARDNO IMMEDIATELY AND RE-DESIGN OF PARTS MAY BE NECESSARY.
- 8. EXECUTE ALL WORK SHOWN ON THESE DRAWINGS IN ACCORDANCE WITH THE RELEVANT CODES, STANDARDS AND LOCAL GOVERNMENT ORDINANCES, U.N.O. STANDARDS/CODES REFERENCED SHALL BE THOSE CURRENT AT THE DATE THAT DRAWINGS WERE APPROVED.
- THE CONTRACTOR IS TO GRASS SEED ALL DISTURBED AREAS. AREAS OUTSIDE OF THE SITE EXTENTS TO BE WATERED UNTIL THERE IS ADEQUATE PLANT ESTABLISHMENT.
- 10. NO WORK TO BE UNDERTAKEN ON ADJOINING LAND WITHOUT THE WRITTEN CONFIRMATION FROM SITE
- ALL EXISTING TREES TO BE MAINTAINED DURING THE WORKS. TREE PROTECTION FENCING TO BE INSTALLED IF REQUIRED. FENCING TO CONSIST OF ATF TEMPORARY FENCE AND IS TO PREVENT ANY SITE MACHINERY OR PERSONNEL ACCESSING THE AREA AROUND THE EXISTING TREES, FENCING TO BE REMOVED WHEN THE WORKS
- 12. ANY ROCK EXCAVATION TO BE REPORTED TO THE SUPERINTENDENT PRIOR TO UNDERTAKING SUCH EXCAVATION.
- 13. ALL STRUCTURES TO BE CONSTRUCTED TO PROPOSED FINISHED SURFACE LEVELS.
- 14. THE CONTRACTOR TO SUBMIT A SAFE WORK PLAN TO SOLO WATER FOR APPROVAL PRIOR TO COMMENCING THE
- 15. THE CONTRACTOR TO SUBMIT AN ENVIRONMENTAL MANAGEMENT PLAN TO SOLO WATER FOR APPROVAL PRIOR TO COMMENCING THE WORKS.
- 16. ALL LEVELS ELECTRONICALLY GENERATED. NO LEVEL BOOK AVAILABLE.
- 17. THE MINIMUM NUMBER OF COMPACTION TESTS COMPLETED TO SATISFY SECTION 22 OF THE SEWERAGE CODE OF AUSTRALIA SYDNEY WATER EDITION ARE: PIPE EMBEDMENT ZONE: - 24
- TRENCH FILL ZONE: NON TRAFFICABLE 42 FILL ZONE: TRAFFICABLE 12 WITHIN 300mm OF MS/MH - 56
- 18. THE CONTRACTOR TO OBTAIN COUNCIL APPROVAL AND PAY FOR ANY NECESSARY ROAD OPENING PERMITS PRIOR TO
- 19. AREA COVERED BY TREE PROTECTION ORDER.
- 20. SERVICES SHOWN ARE INDICATIVE ONLY. CURRENT SERVICES SEARCH AND SITE CHECK OF ALL EXISTING SERVICES WILL BE NECESSARY PRIOR TO COMMENCEMENT OF THE WORK AND APPROPRIATE PROCEDURES AND PRECAUTIONS NEED TO BE TAKEN WHEN WORKING WITHIN CLOSE PROXIMITY OF SERVICES. THE CONTRACTOR MUST HAVE A COPY OF THE CURRENT SERVICES SEARCH ON SITE AT ALL TIMES.
- 21. THE NOMINATED CONSTRUCTION COMPANY MUST HAVE AN ACCREDITED/APPROVED PERSON ONSITE AT ALL TIMES
- 22. AREAS DOWNSLOPE OF CONSTRUCTION ACTIVITY TO BE ADEQUATELY PROTECTED FROM SEDIMENT POLLUTION ETC.

 SILT TRAP DEVICES TO BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY, EFFECTIVELY MAINTAINED AND ARE TO BE REMOVED ONLY AFTER THE AREA HAS BEEN SATISFACTORILY REVEGETATED.
- 23. ALL STORMWATER GRATES, OPEN CHANNELS, SWALES, TABLE DRAINS, GULLIES ETC. DOWNSLOPE OF CONSTRUCTION ACTIVITY TO BE ADEQUATELY PROTECTED BY STRAWBALES WRAPPED IN GEOTEXTILE FABRIC OR GEOTEXTILE FENCE.
- 24. THE EXTENT OF CLEARING OF VEGETATION TO BE KEPT TO AN ABSOLUTE MINIMUM NECESSARY TO EFFECT THE
- 25. WORK TO BE DONE IN STRICT ACCORDANCE WITH CEMP PREPARED CY CARDNO AND SUBMITTED TO DOP FOR

WORK AS EXECUTED (W.A.E.) -WATER & RECYCLED WATER

- 1. THE CONTRACTOR MUST ENSURE THAT HIS SUPERVISOR AND/OR A MEMBER OF STAFF ARE COMPETENT IN THE USE OF AN AUTOMATIC LEVEL TO ENSURE THAT ALL PIPE INVERTS ARE LAID IN ACCORDANCE WITH THE DESIGN.
- THE CONTRACTOR MUST ENSURE THAT THE PIPES ARE IN THE CORRECT POSITION PRIOR TO VERIFICATION BY A SURVEYOR DURING THE W.A.E. SURVEY.
- A REGISTERED SURVEYOR SHALL BE ENGAGED BY THE CONTRACTOR AND MUST PROVIDE CARDNO WITH A DIGITIAL FILE IN .dwg FORMAT OF THE FOLLOWING WHEN ALL THE TESTING IS COMPLETE AND DEEMED ACCEPTABLE:
- LOCATE THE CENTREPOINT AND COVER OF EACH FITTING, VALVE, HYDRANT, AND BEND.
- LOCATE THE CENTREPOINT & REDUCED LEVEL AT EACH BEND/STEP EITHER UNDER OR OVER
- LOCATE THE CENTREPOINT, WIDTH, DEPTH, REDUCED LEVEL AT TOP OF SERVICE AND TYPE OF EVERY EXISTING SERVICE THAT THE PROPOSED PIPE(S) CROSSES.
- THE SITE REGISTERED SURVEYOR IS AVAILABLE UPON REQUEST TO ASSIST IN SITE TRIANGULATION IF REQUIRED.
- 5. UPON COMPLETION OF WORKS THE FOLLOWING PROCEDURES ARE TO BE TAKEN IN PRODUCING WAE PLANS:
 - CARDNO TO ISSUE DIGITAL FILE TO CONTRACTOR'S REGISTERED SURVEYOR.
 - PLANS TO BE UPDATED AND STAMPED BY CONTRACTOR'S REGISTERED SURVEYOR. CONTRACTOR TO ISSUE WAE DRAWINGS TO SOLO WATER AND CARDNO WITH TESTING
 - RESULTS AS PART OF COMPLETION PACKAGE.

WORK AS EXECUTED (W.A.E.) - SEWER

- 1. THE CONTRACTOR MUST ENSURE THAT HIS SUPERVISOR AND/OR A MEMBER OF STAFF ARE COMPETENT IN THE USE OF AN AUTOMATIC LEVEL TO ENSURE THAT ALL PIPE INVERTS ARE LAID IN ACCORDANCE WITH THE DESIGN.
- 2. THE CONTRACTOR MUST ENSURE THAT THE PIPES ARE IN THE CORRECT POSITION PRIOR TO VERIFICATION BY A SURVEYOR DURING THE W.A.E. SURVEY.
- A REGISTERED SURVEYOR SHALL BE ENGAGED BY THE CONTRACTOR AND MUST PROVIDE CARDNO WITH A DIGITAL FILE IN .dwg FORMAT OF THE FOLLOWING WHEN ALL THE TESTING IS COMPLETE AND DEEMED ACCEPTABLE:
- LOCATE THE CENTREPOINT AND COVER OF EACH FITTING, VALVE, HYDRANT, AND BEND.
- LOCATE THE CENTREPOINT & REDUCED LEVEL AT EACH BEND/STEP EITHER UNDER OR OVER EXISTING SERVICES.

 LOCATE THE CENTREPOINT, WIDTH, DEPTH, REDUCED LEVEL AT TOP OF SERVICE AND TYPE
- OF EVERY EXISTING SERVICE THAT THE PROPOSED PIPE(S) CROSSES.
- LOCATE THE EXTENT OF THE CONCRETE ENCASEMENT.
 LOCATE CENTRES OF BOUNDARY KITS.
- LOCATE CENTRES OF TURRETS (ELECTRICAL PANELS).
- LOCATE CENTRES OF POTS.
- LOCATE CENTRES OF ELECTRICAL LINE IN EASEMENTS. LOCATION AND I.L OF
- GRAVITY SEWER CONNECTIONS TO POT.
- JUNCTIONS IN LOTS. INSPECTION OPENINGS.
- FND OF GRAVITY LINES BENDS (IF APPLICABLE)
- THE SITE REGISTERED SURVEYOR IS AVAILABLE UPON REQUEST TO ASSIST IN SITE TRIANGULATION IF REQUIRED.
- 5. UPON COMPLETION OF WORKS THE FOLLOWING PROCEDURES ARE TO BE TAKEN IN PRODUCING
 - CARDNO TO ISSUE DIGITAL FILE TO CONTRACTOR'S REGISTERED SURVEYOR.
 - PLANS TO BE UPDATED AND STAMPED BY CONTRACTOR'S REGISTERED SURVEYOR. CONTRACTOR TO ISSUE WAE DRAWINGS TO SOLO WATER AND CARDNO WITH TESTING
 - RESULTS AS PART OF COMPLETION PACKAGE.

MINE SUBSIDENCE

- 1. THE SITE IS LOCATED IN THE SWANSEA NORTH ENTRANCE MINE SUBSIDENCE DISTRICT
- 2. MINE SUBSIDENCE SPECIFICATIONS FOR THE AREA ARE:
- a. MAXIMUM SUBSIDENCE: ??mm
- b. MAXIMUM STRAIN : ??mm/m
- 3. DESIGN UNDERTAKEN IN ACCORDANCE WITH THE REQUIREMENTS OF THE MINE SUBSIDENCE BOARD
- 4. MINIMUM PIPE GRADES TO BE INCREASED BY ??%
- 5. RUBBER RING JOINTED PIPES TO HAVE LONG COLLARS

- 7. NO ULTRA RIBBED PIPE TO BE USED
- 8. DICL PIPE REQUIRES APPROVAL BY SUPERINTENDENT PRIOR TO USE

CATHERINE HILL BAY WATER UTILITY NOTIFICATION

THE 'SITE SPECIFIC' CATHERINE HILL BAY WATER REPRESENTATIVE MUST BE NOTIFIED BY EMAIL AT LEAST 5 DAYS BEFORE THE FOLLOWING MILESTONES RECYCLED WATER:

- CONSTRUCTION COMMENCEMENT PRESSURE TESTING
- DISINFECTION TESTING OF RECYCLED MAINS
- PRE-CONNECTIONS INSPECTIONS
- 6. POST-CONNECTION INSPECTIONS

THE CASE NUMBER MUST BE REFERENCED WHEN LIAISING WITH CATHERINE HILL BAY WATER. REFER TO THE TITLE BLOCK BELOW FOR CASE REFERENCE

THE SITE SPECIFIC CATHERINE HILL BAY WATER UTILITY REPRESENTATIVE IS:

EMAIL: MOBILE:

PRACTICAL COMPLETION WILL BE ISSUED BY CARDNO UNDER THE SUBDIVISION

- WATER/RECYCLED WATER NOTES

 1. THE WORKS AND MATERIALS DETAILED HEREIN TO BE CONSTRUCTED IN ACCORDANCE WITH THE WATER SUPPLY CODE OF AUSTRALIA WSA03-2002-1.0 HUNTER WATER EDITION. THE CONTRACTOR MUST HAVE A COPY OF THESE DOCUMENTS ON SITE AT ALL TIMES.
- 2. PIPES TO BE PVC WATER GRADE UNLESS NOTED OTHERWISE
- 3. ALL VALVES TO BE RESILIENT SEATED.
- 4. ALL FITTINGS TO BE POLYMERIC COATED IN ACCORDANCE WITH N.S.W. GOVERNMENT WATER
- 5. RECYCLED WATER PIPE TO CONSIST OF A PVC LILAC PIPE, MAIN TO METER TO BE LILAC
- 6. THRUST BLOCKS TO BE PROVIDED AS PER RELEVANT STANDARDS.
- ALL COVERS TO FITTINGS TO BE HEAVY DUTY CLASS D COVERS IN ROADWAYS / FOOTPATHS. CLASS B TO BE INSTALLED IF IN VERGE.
- 8. MINIMUM PRESSURE CLASSIFICATION PN16 PVC, PN35 DICL
- 9. MAINS TO BE LAID 600mm BEHIND THE BACK OF KERB AT STANDARD DEPTH BELOW KERB EXCEPT
- 10. POTABLE WATER THE MINIMUM NUMBER OF FIELD COMPACTION TESTS COMPLETED TO SATISFY SECTION 19.3.3 & 19.3.4 OF THE STANDARD SPECIFICATION.
 PIPE EMBEDMENT ZONE - TRENCH FILL ZONE - - (TRAFFICABLE)
 TRENCH FILL ZONE - - (NON-TRAFFICABLE)
- 11. RECYCLE WATER THE MINIMUM NUMBER OF FIELD COMPACTION TESTS COMPLETED TO SATISFY SECTION 19.3.3 & 19.3.4 OF THE STANDARD SPECIFICATION. PIPE EMBEDMENT ZONE - -TRENCH FILL ZONE - - (TRAFFICABLE)
- TRENCH FILL ZONE - (NON-TRAFFICABL 12. MAINLAYING NOT TO PROCEED PRIOR TO FORMATION OF FOOTWAYS TO FINISHED SURFACE LEVELS.
- 13. 1% SOLUTION OF SODIUM OR CALCIUM HYPOCHLORITE TO BE USED ON ALL JOINTS IMMEDIATELY PRIOR TO INSTALLATION DURING CONNECTION OF MAIN.
- 14. POTABLE WATER AND RECYCLED WATER MAINS TO METERS TO BE A MINIMUM OF 300mm APART AS PER THE WATER SUPPLY CODE OF AUSTRALIA.
- 15. NO PIPE FITTINGS TO BE INSTALLED UNDER ROADWAY.

SEWER NOTES

- PIPES TO BE BLACK PE100 CREAM STRIPED
- 2. MINIMUM PRESSURE CLASSIFICATION PN16
- 3. PIPES USED MUST BE POLYETHYLENE (PE) ELECTRO FUSION/BUTT WELDED
- 4. THE PROPOSED LOW PRESSURE SEWER WORKS DETAILED HEREON TO BE CONSTRUCTED IN ACCORDANCE WITH THE WSAA PRESSURE SEWERAGE CODE OF AUSTRALIA WSA07-2007 EDITION. THE CONTRACTOR MUST HAVE A COPY OF DOCUMENT ON SITE AT ALL TIMES.
- 5. THE PROPOSED GRAVITY WORKS DETAILED HEREON TO BE CONSTRUCTED IN ACCORDANCE WITH THE WSAA SEWERAGE CODE OF AUSTRALIA WSA02-2002-10 HUNTER WATER EDITION. THE CONTRACTOR MUST HAVE A COPY OF DOCUMENT ON SITE AT ALL TIMES.
- 6. MAINS TO BE LAID 1.5m BEHIND THE BACK OF KERB AT STANDARD DEPTH BELOW KERB EXCEPT WHERE OTHERWISE INDICATED.
- THE MINIMUM NUMBER OF FIELD COMPACTION TESTS COMPLETED THE HINNIOH NOVIDER OF THE DEPTH AT THAT IT STANDARD SPECIFICATION.

 PIPE EMBEDMENT ZONE -
 TRENCH FILL ZONE - - (TRAFFICABLE)

 TRENCH FILL ZONE - - (NON-TRAFFICABLE)
- 8. THE SEWERAGE NETWORKS IS NOT DESIGNED FOR THE UNCONTROLLED BACKWASH OR DISCHARGE OF SPAS AND POOLS, WERE A SPA OR POOL SINISTALLED ON A PROPERTY THE SERVICE AUTHORITY IS TO ARRANGE A METHODS OF DISCHARGE WITH THE LOT OWNER TO ENSURE THE FLOWS ARE WITHIN THE ALLOWABLE OPERATION OF THE NETWORK.

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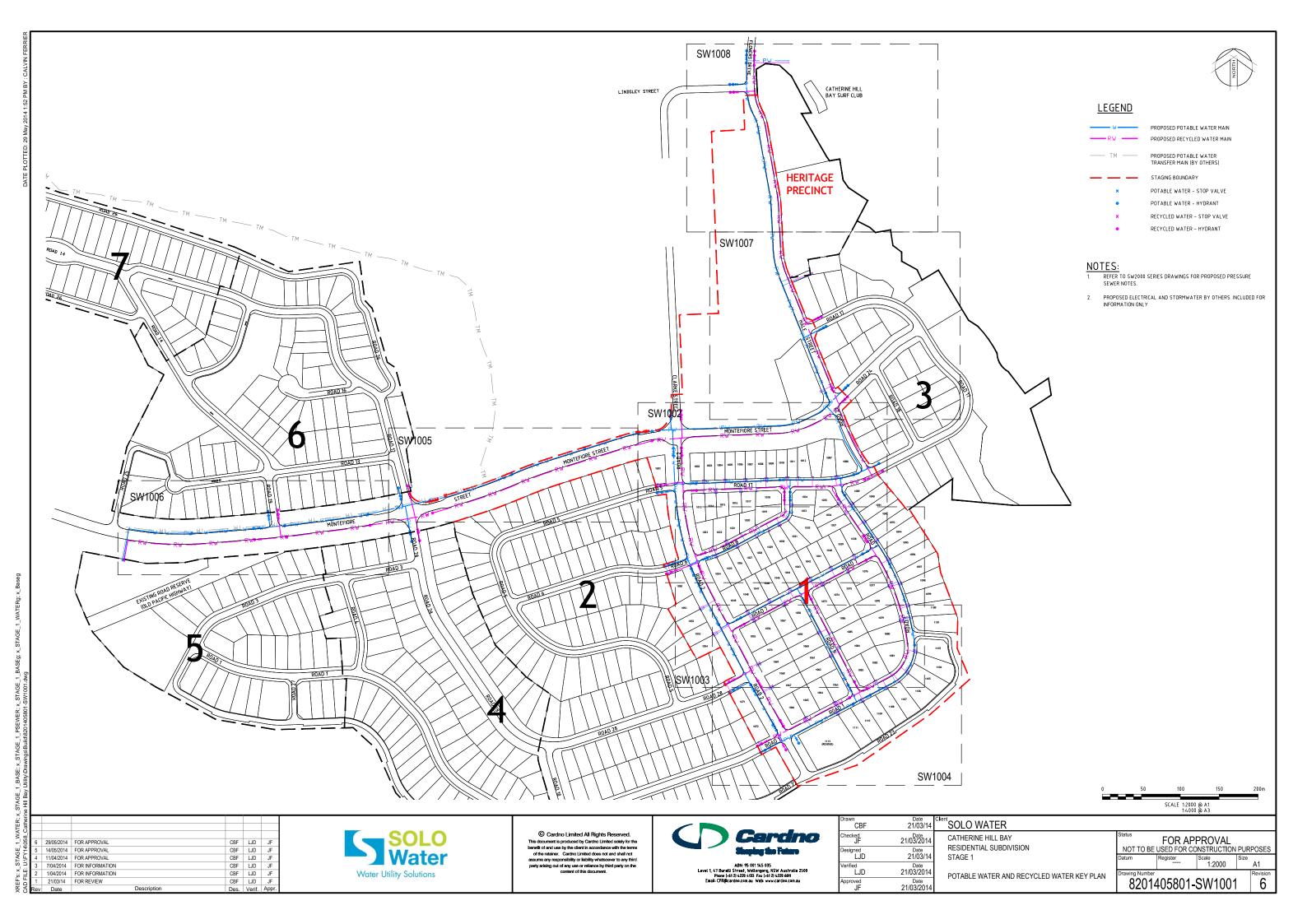
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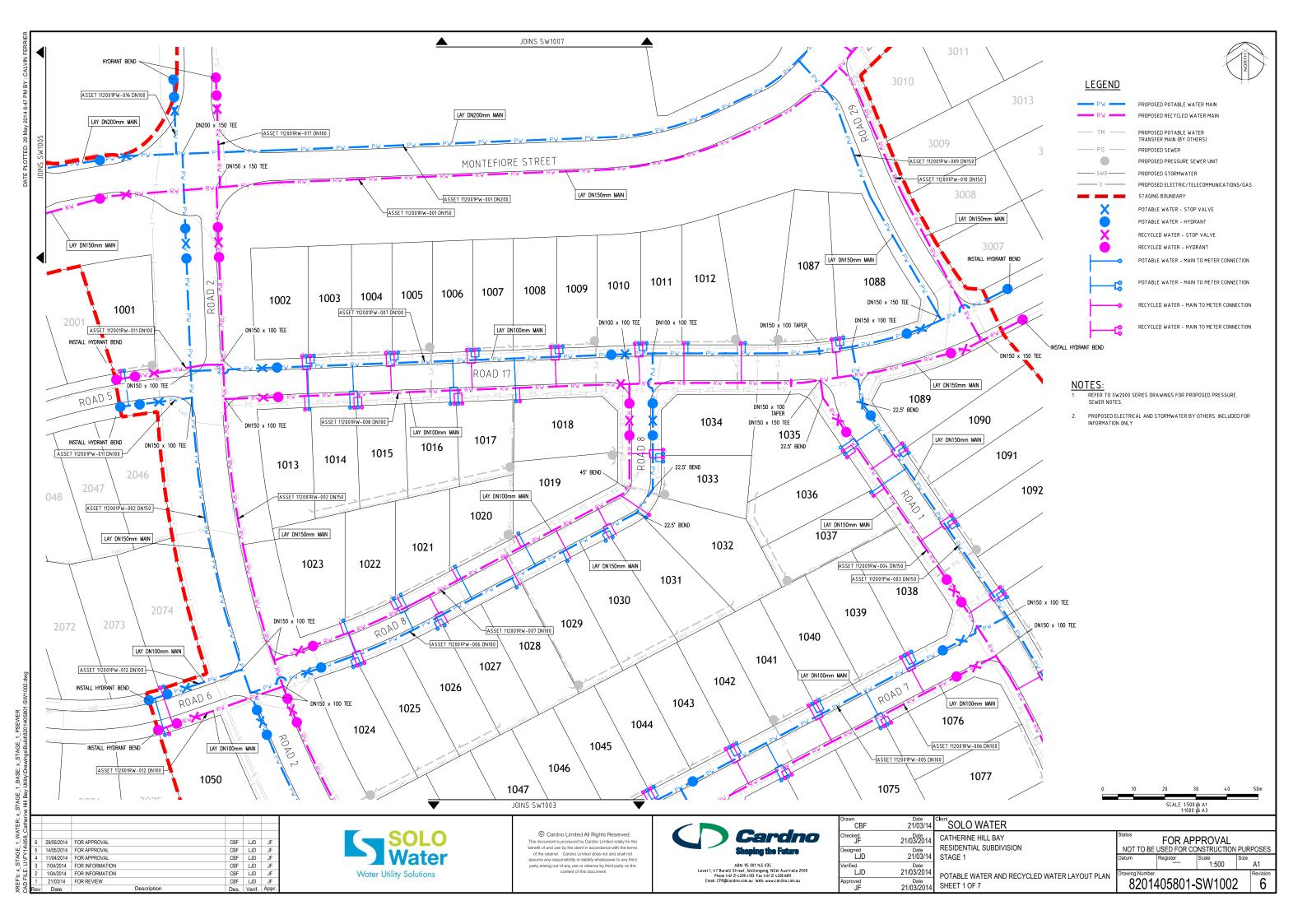
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| Designed LJD | Date 21/03/14 |
| Verified LJD | Date 21/03/2014 |
| Approved .JF | Date 21/03/2014 |

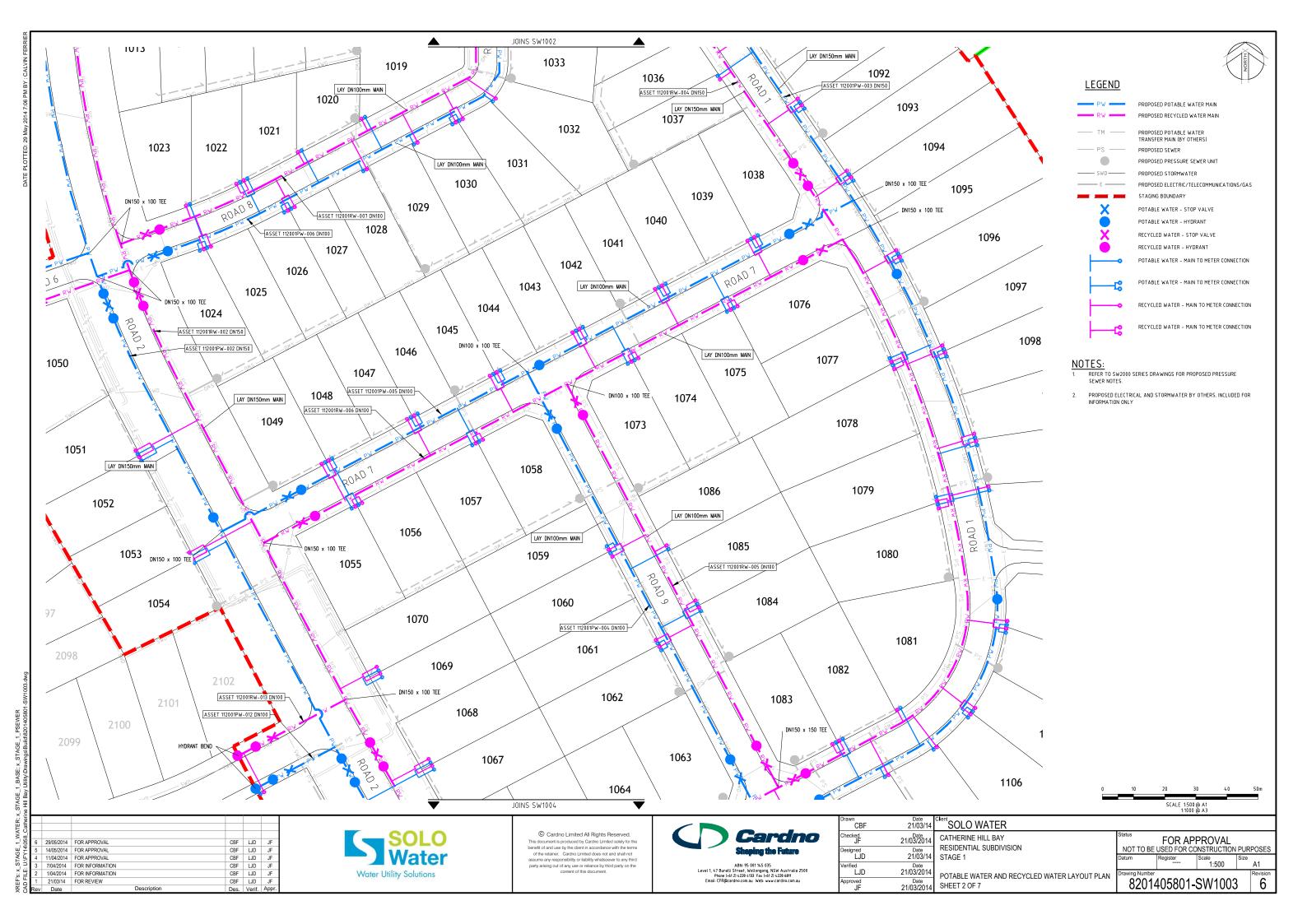
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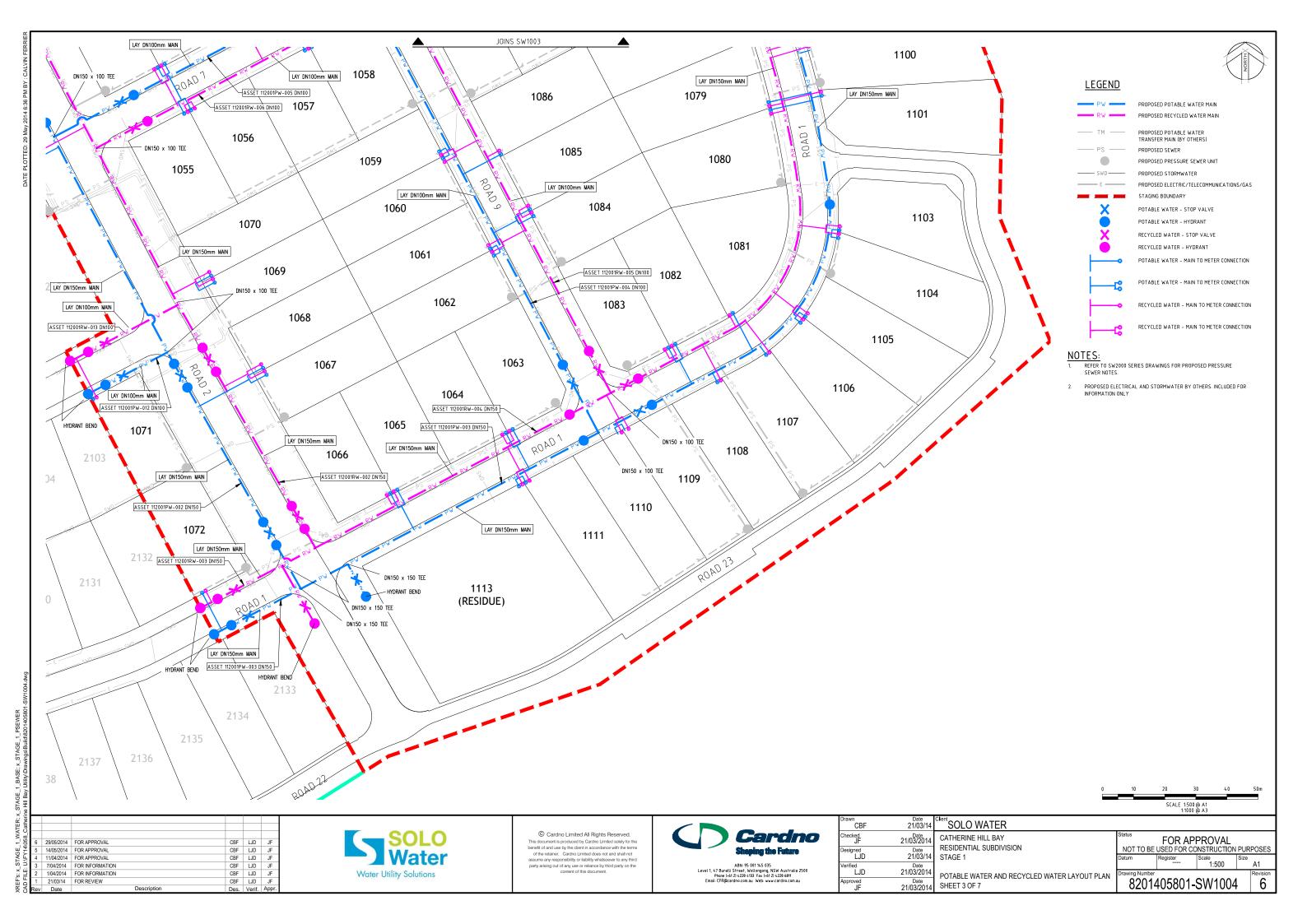
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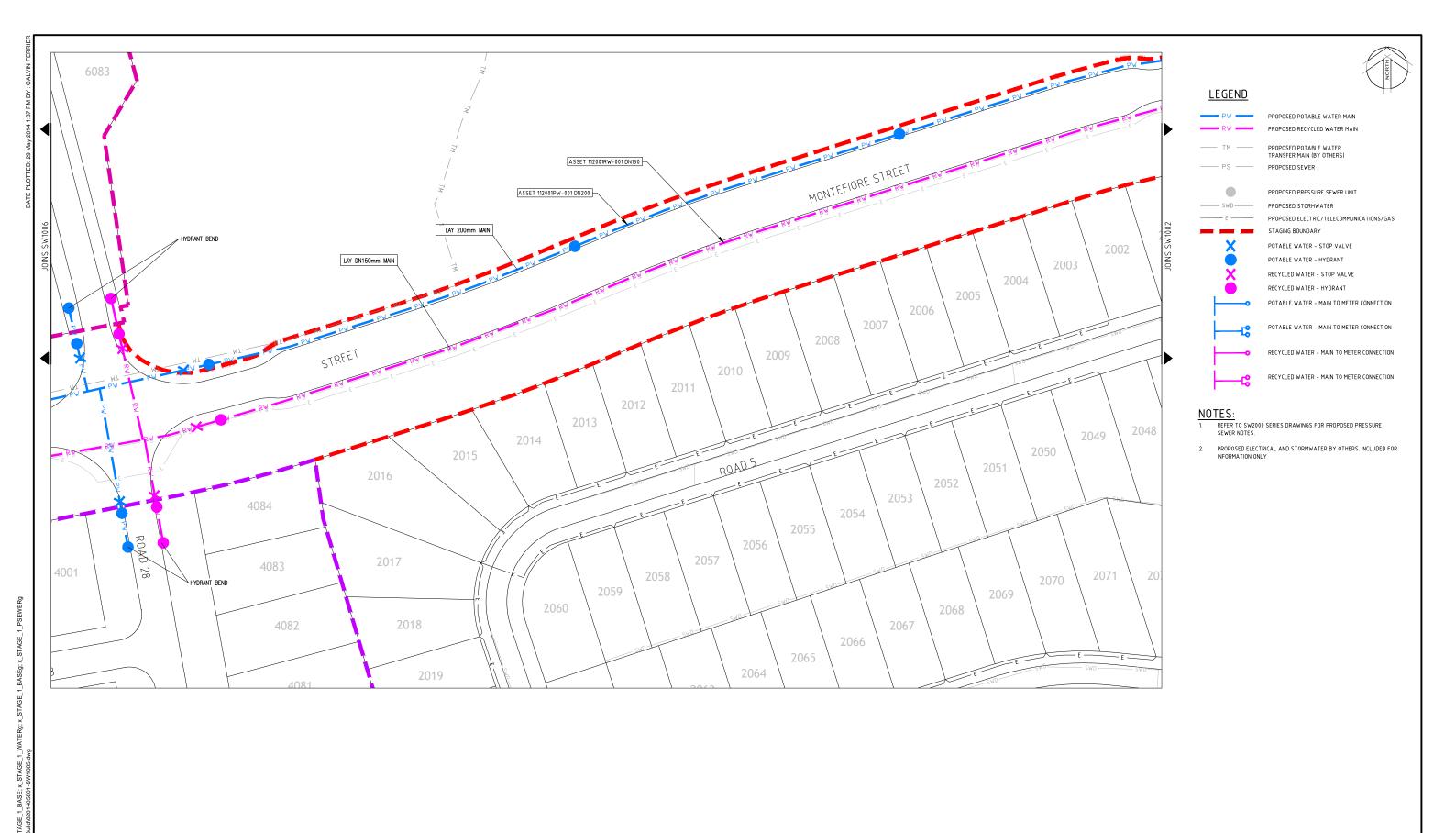
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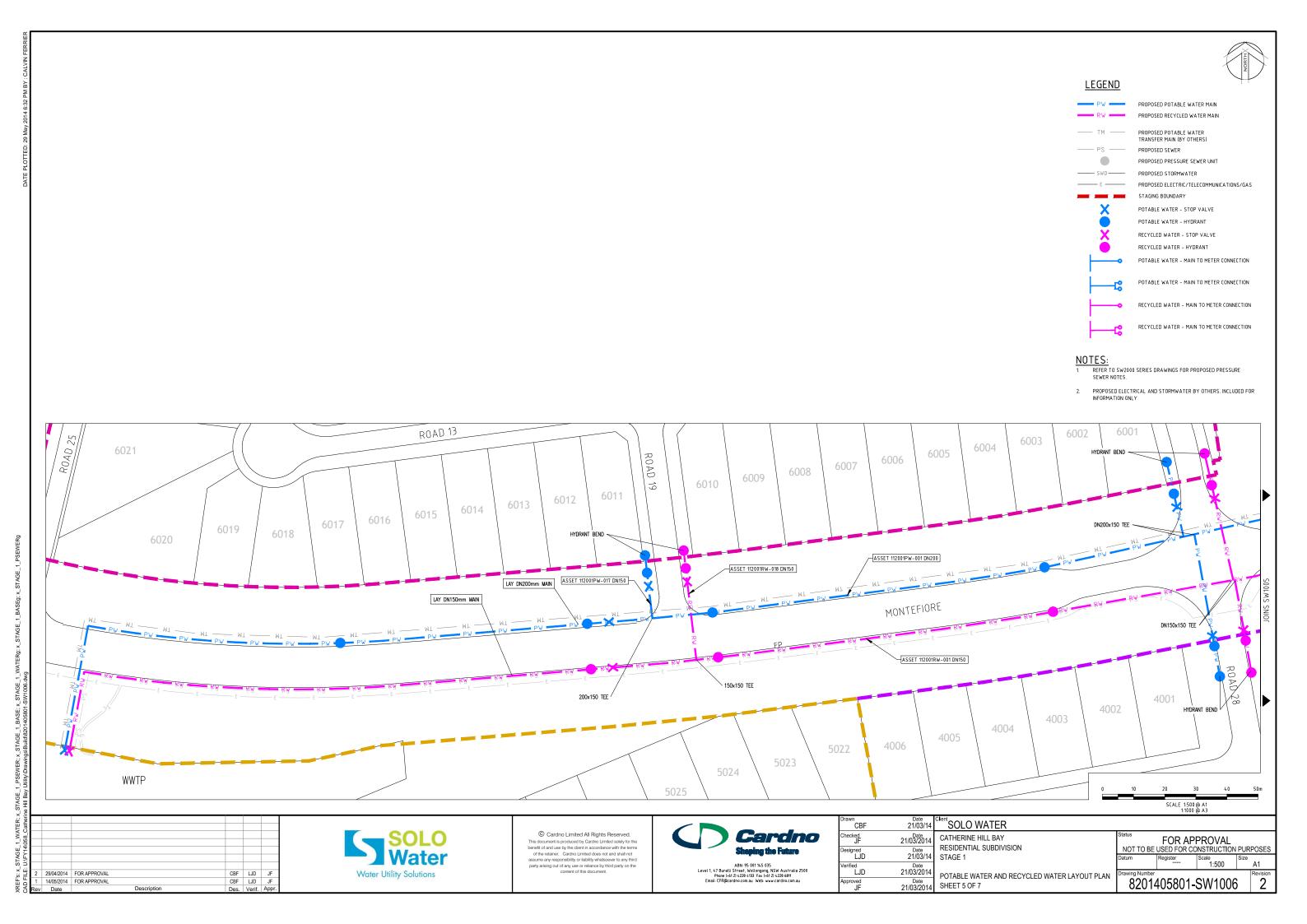
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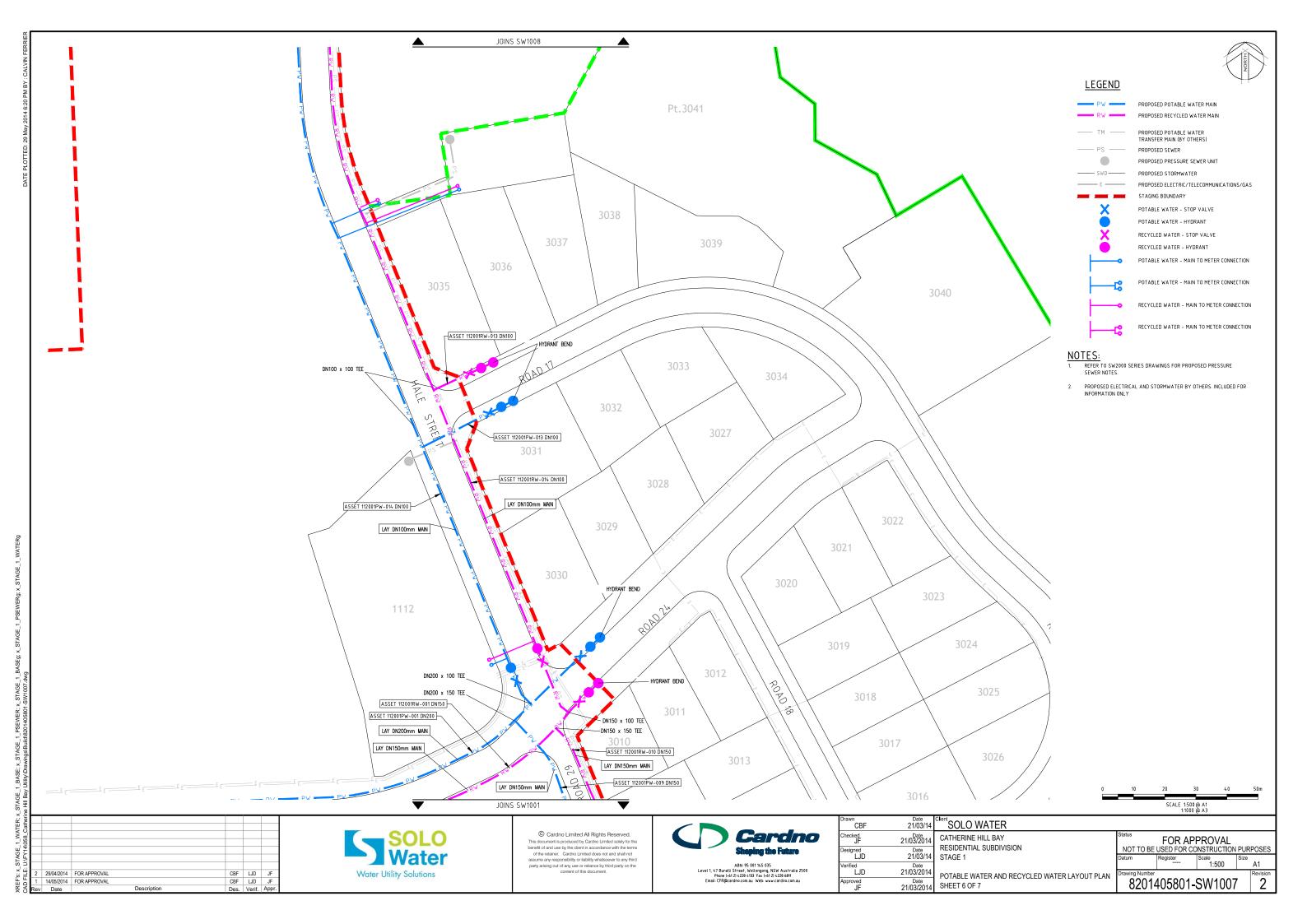


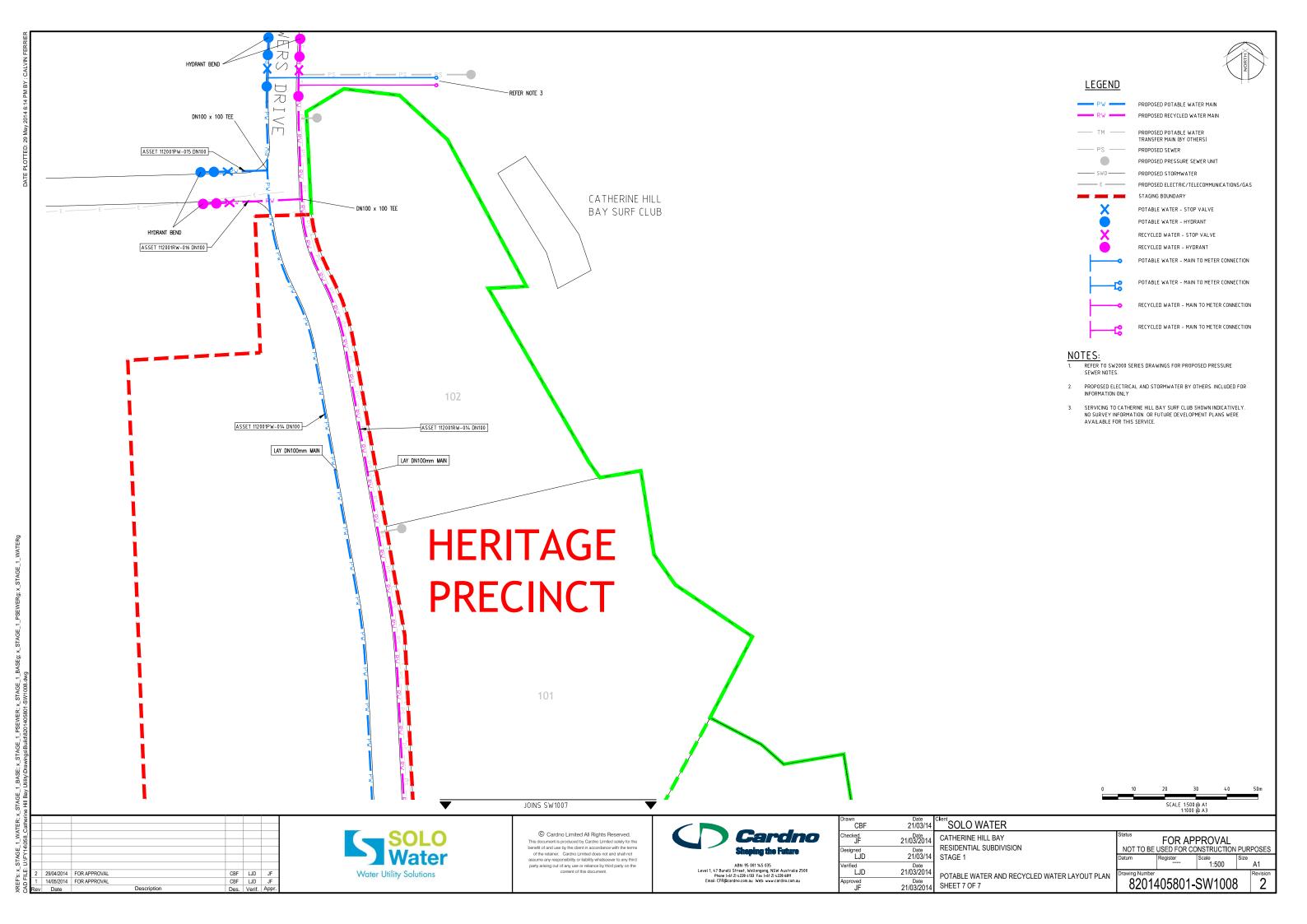
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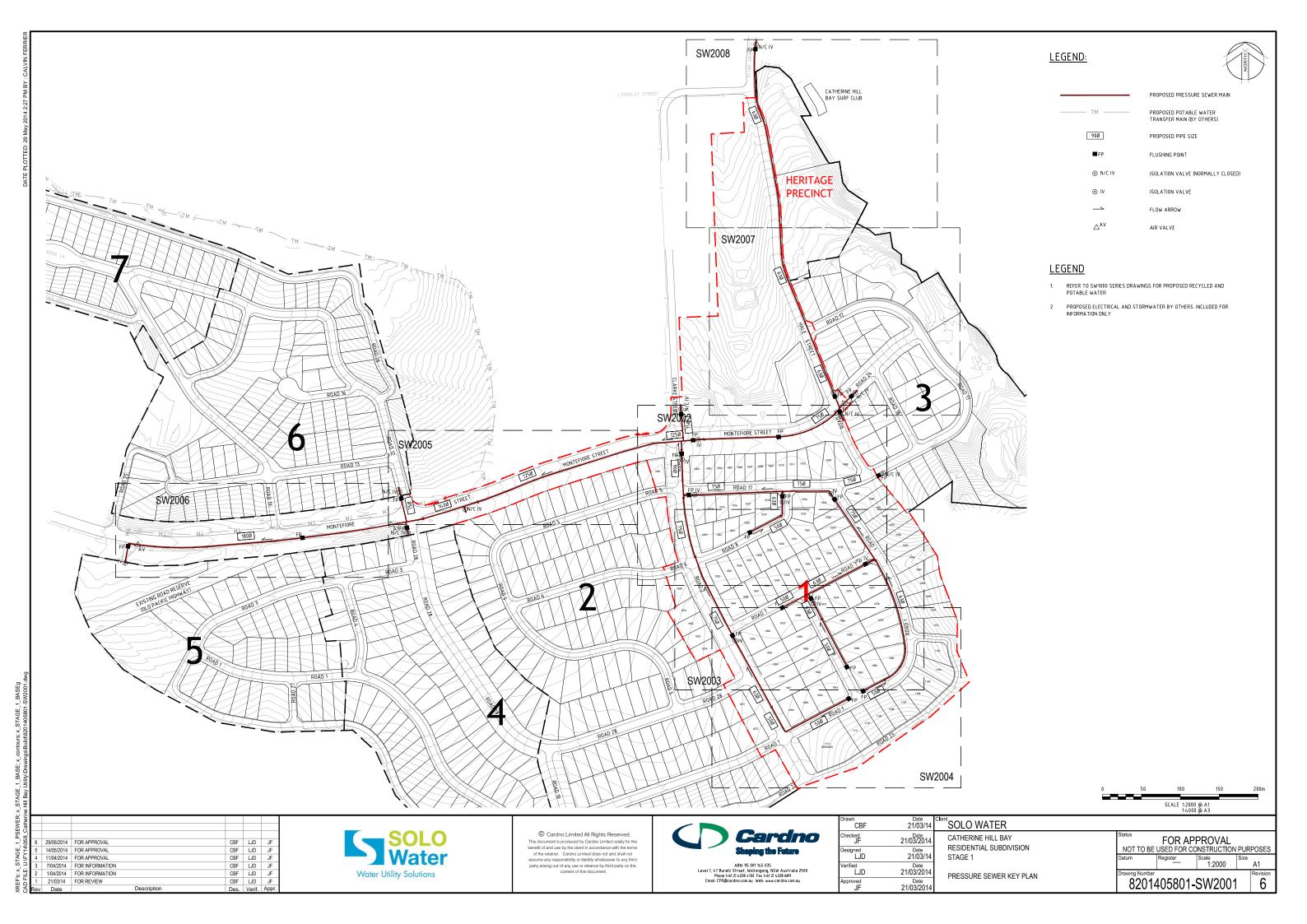
| Drawn CBF | Date 21/03/14 | Client SOLO WATER |
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| Checked JF | 21/03/2014 | CATHERINE HILL BAY |
| Designed LJD | Date 21/03/14 | RESIDENTIAL SUBDIVISION STAGE 1 |
| Verified LJD | Date 21/03/2014 | POTABLE WATER AND RECYCLED WATER LAYOUT PLAN |
| Approved JF | Date 21/03/2014 | OUEET A OF 7 |

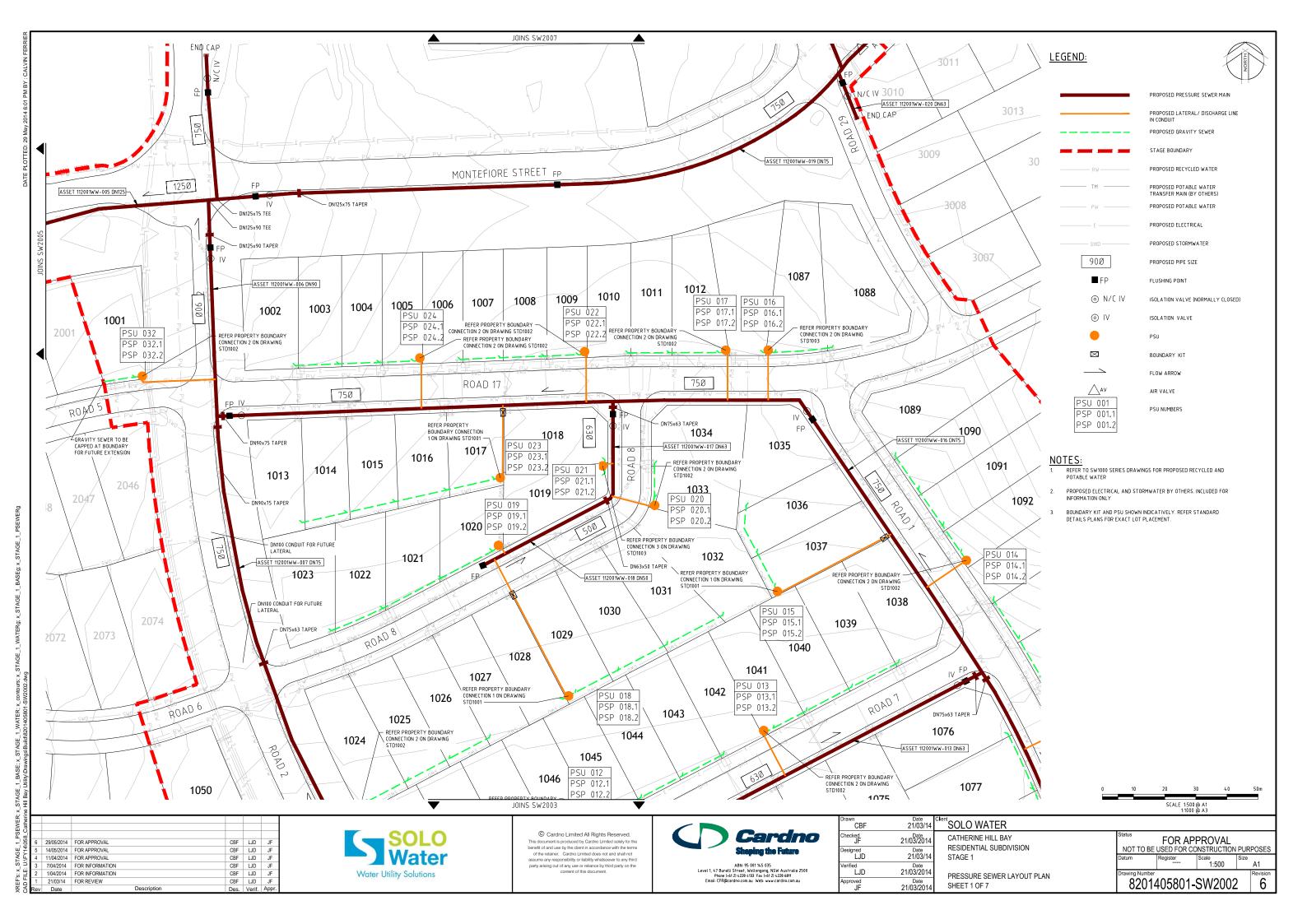
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| NOT TO BE | NOT TO BE USED FOR CONSTRUCTION PURPOSES | | | | | |
| Datum | Register | Scale 1:500 | Size | A1 | | |
| Drawing Number 8201405801-SW1005 6 | | | | | | |

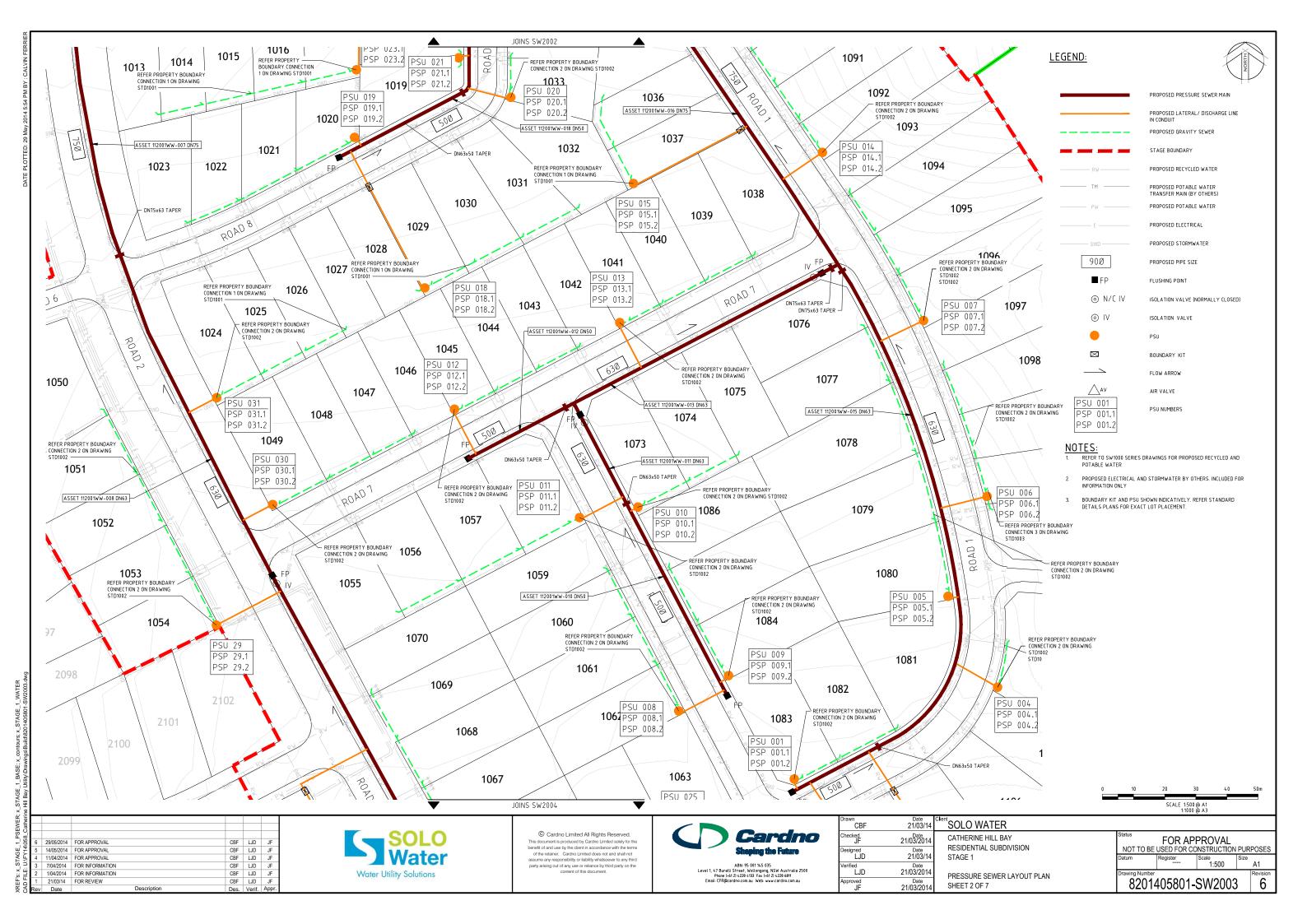


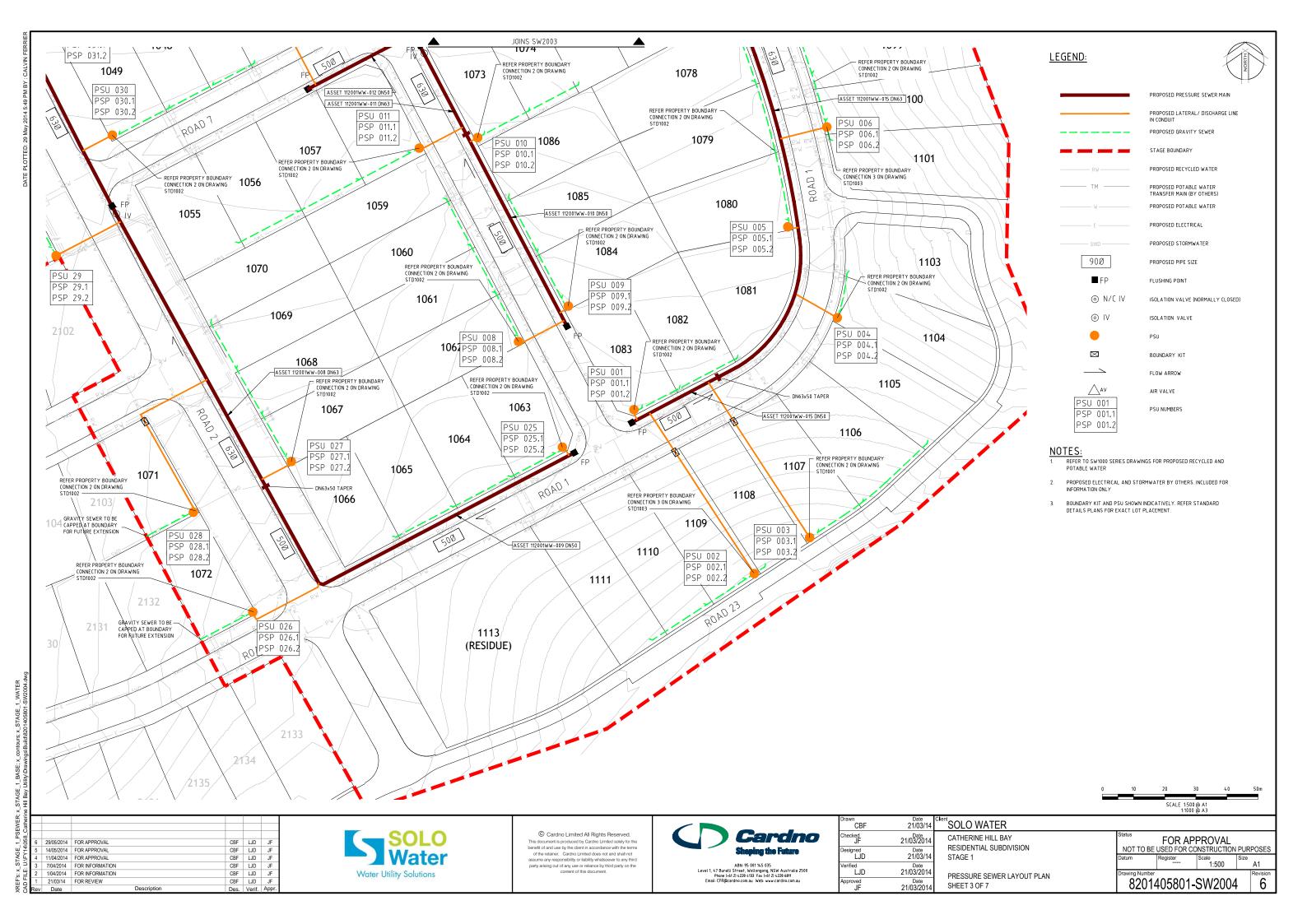


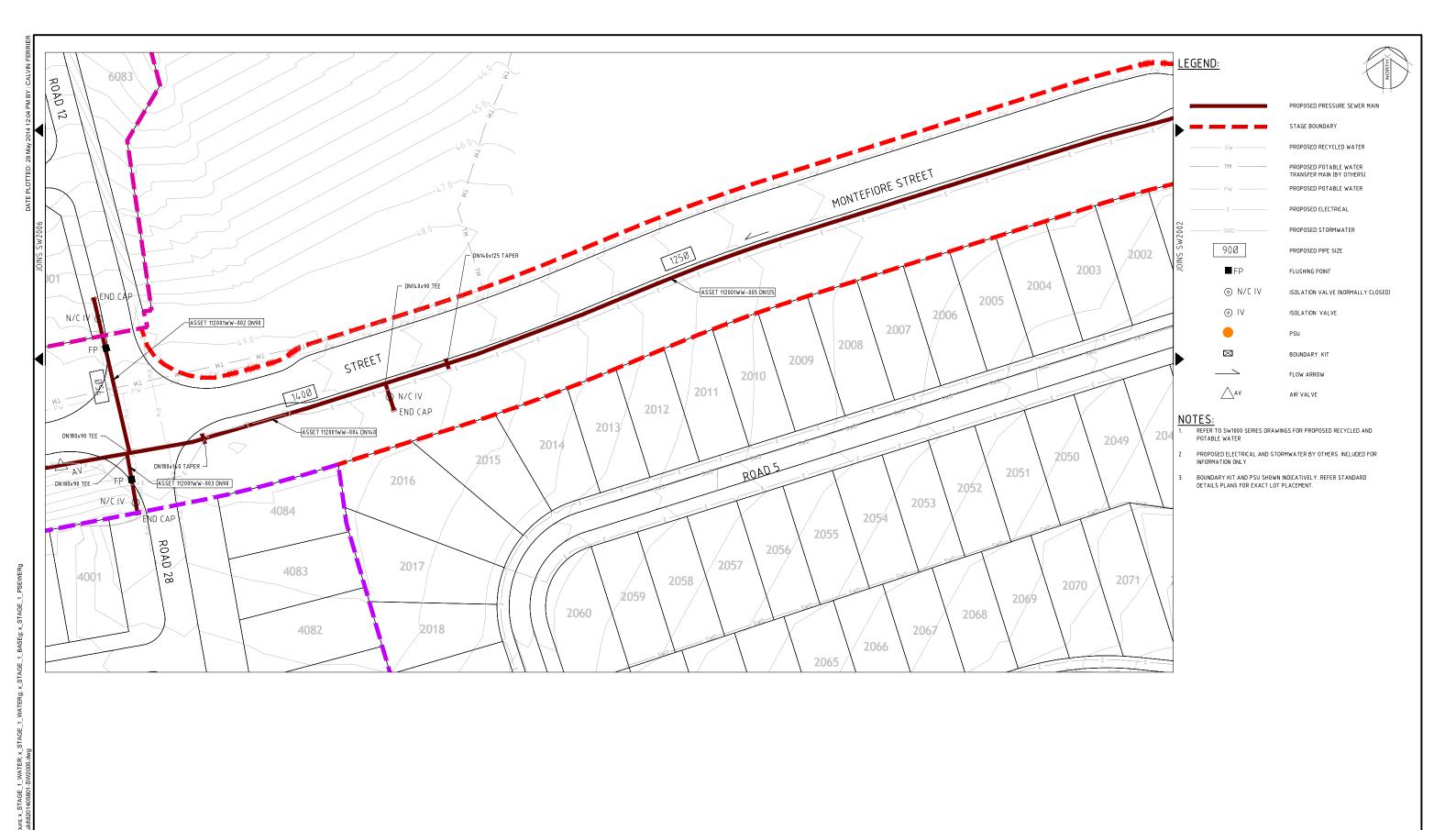












| 0 | 10 | 20 | 30 | 40 | 50m |
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| | | SCALE | 1:500 @ A1 | | |

| V X | - | | Danasiation | _ | | A |
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| 7 7 | 1 | 21/03/14 | FOR REVIEW | CBF | LJD | JF |
| ⊭ં⊒ | 2 | 1/04/2014 | FOR INFORMATION | CBF | LJD | JF |
| 11 | 3 | 7/04/2014 | FOR INFORMATION | CBF | LJD | JF |
| STAGE_1_P U:\FY14\058 | 4 | 11/04/2014 | FOR APPROVAL | CBF | LJD | JF |
| FY14 | 5 | 14/05/2014 | FOR APPROVAL | CBF | LJD | JF |
| 5 | 6 | 29/05/2014 | FOR APPROVAL | CBF | LJD | JF |
| ,, , | | | | | | |
| Cath | | | | | | |



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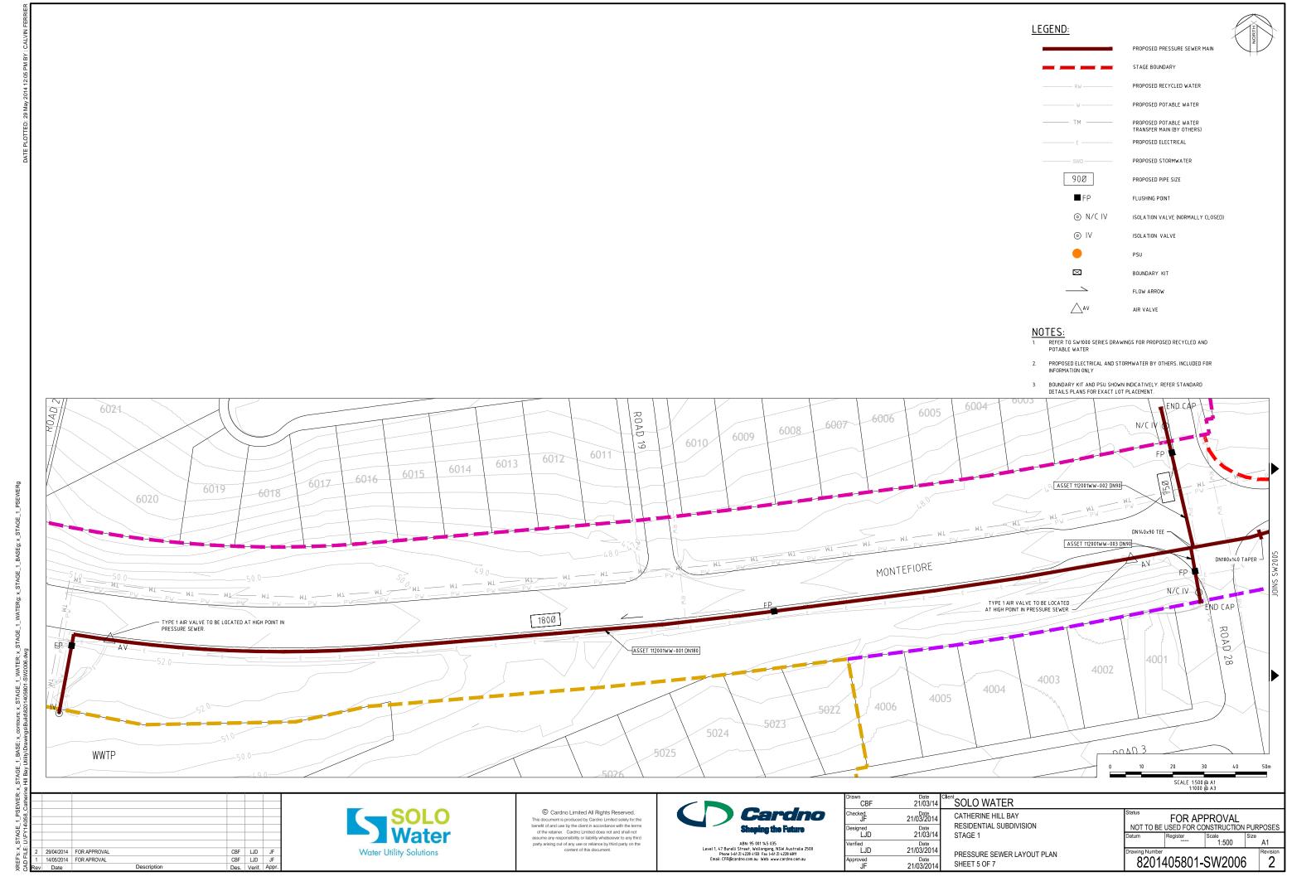
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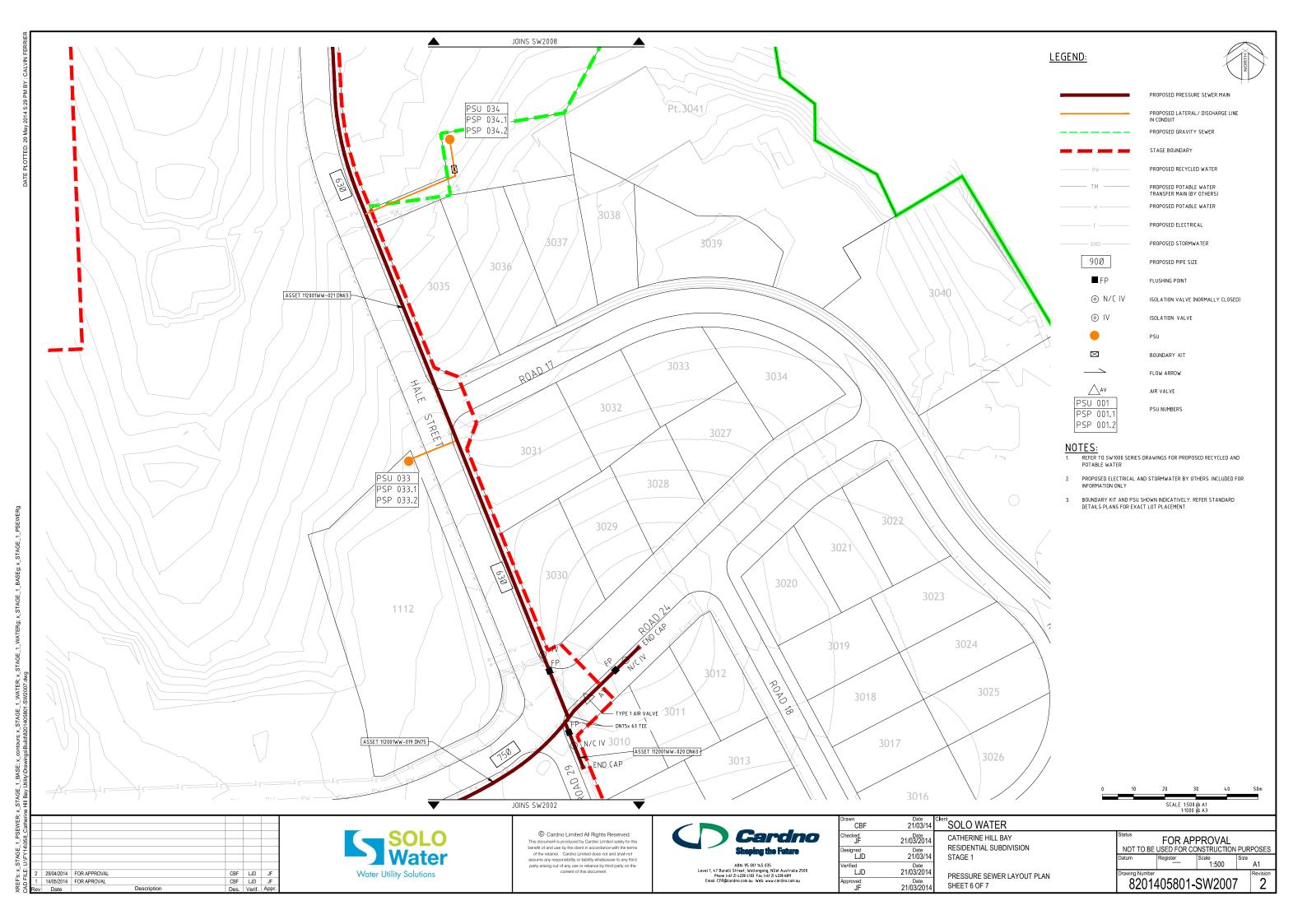


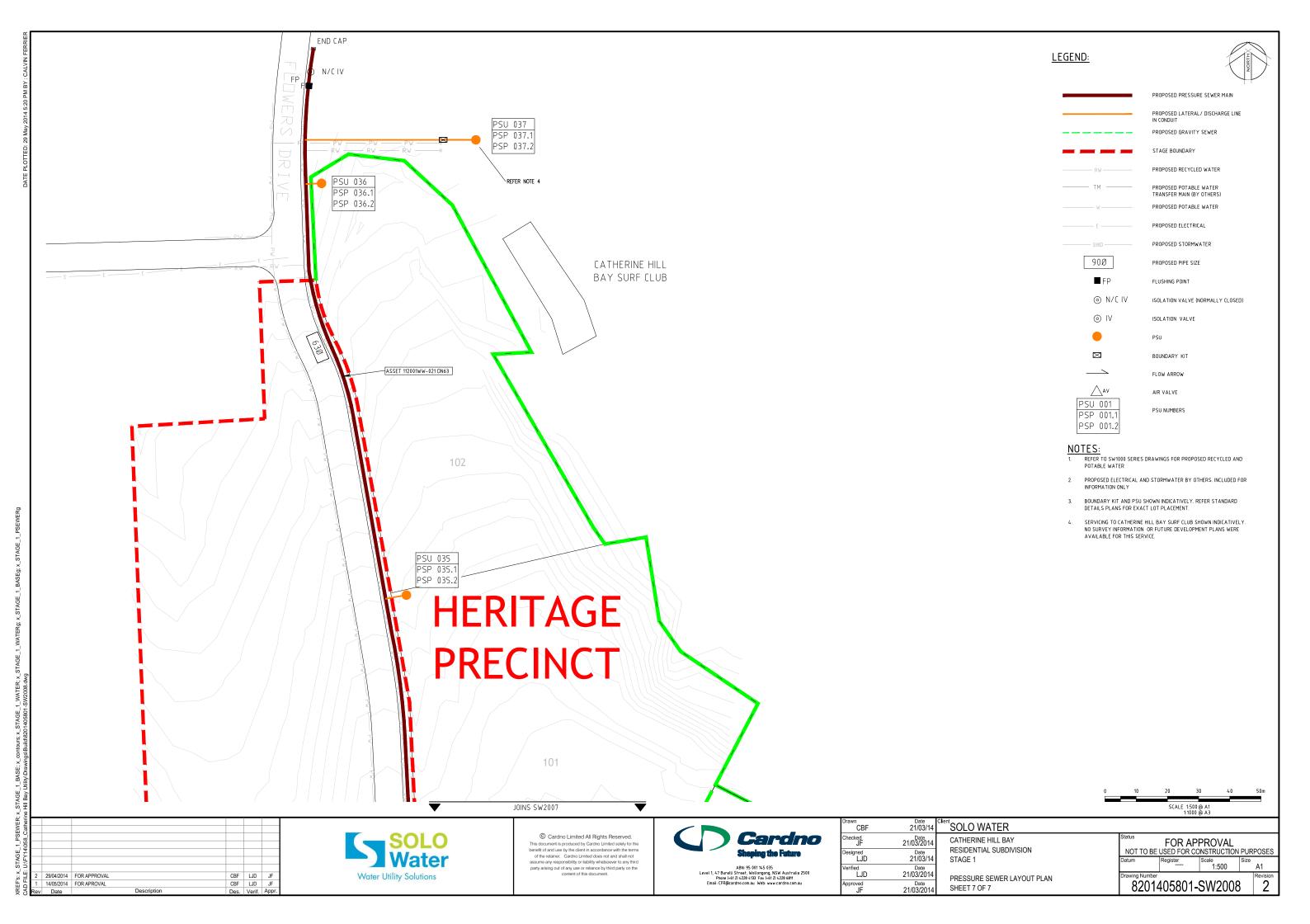
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| Email: CFR@cardno.com.au Web: www.cardno.com.au |

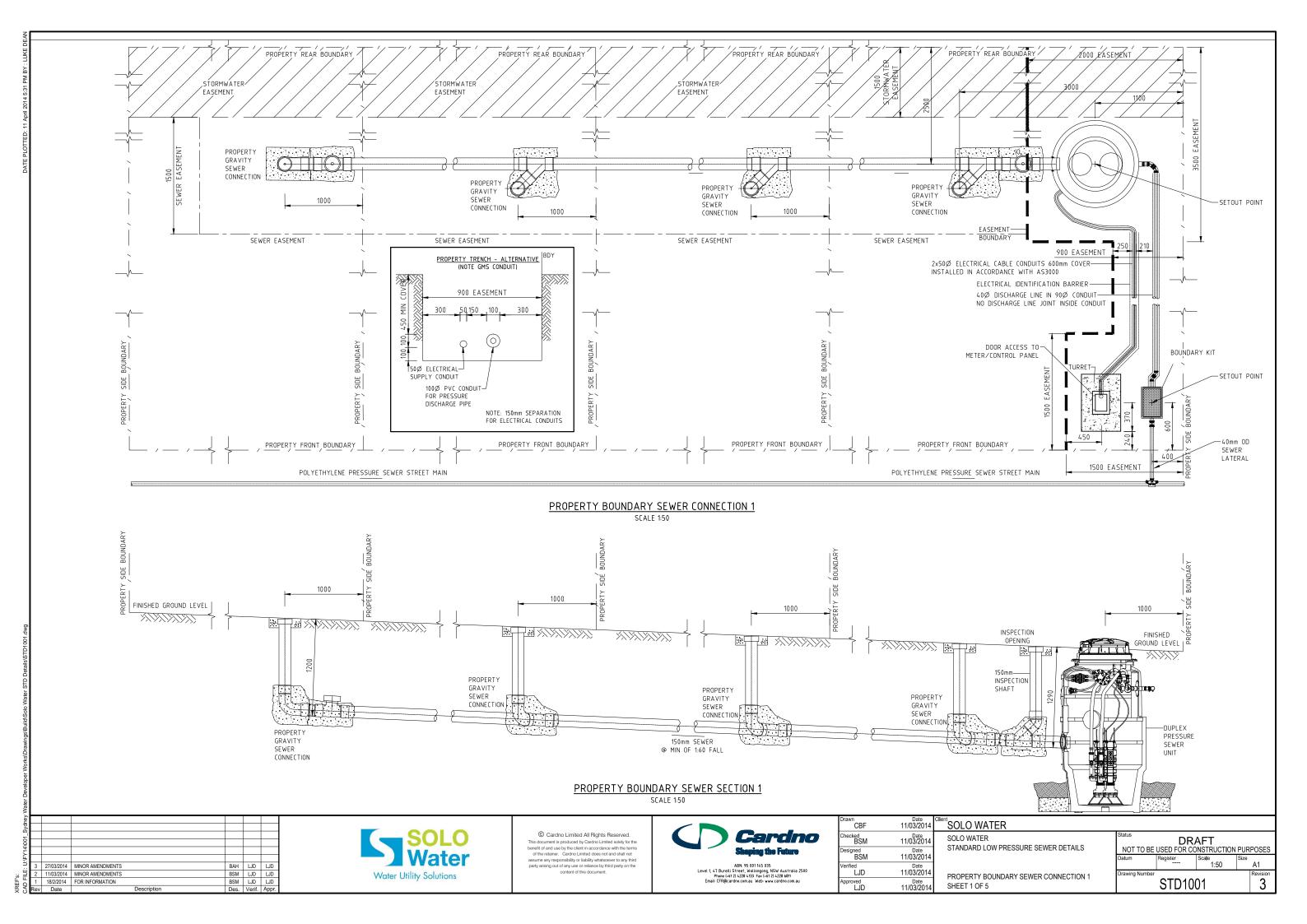
| CBF | 21/03/14 | SOLO WATER |
|---------------|--------------------|------------------------------------|
| JF | 21/03/2014 | CATHERINE HILL BAY |
| signed LJD | Date 21/03/14 | RESIDENTIAL SUBDIVISION STAGE 1 |
| ified LJD | Date 21/03/2014 | PRESSURE SEWER LAYOUT PLAN |
| roved JF | Date 21/03/2014 | SHEET 4 OF 7 |

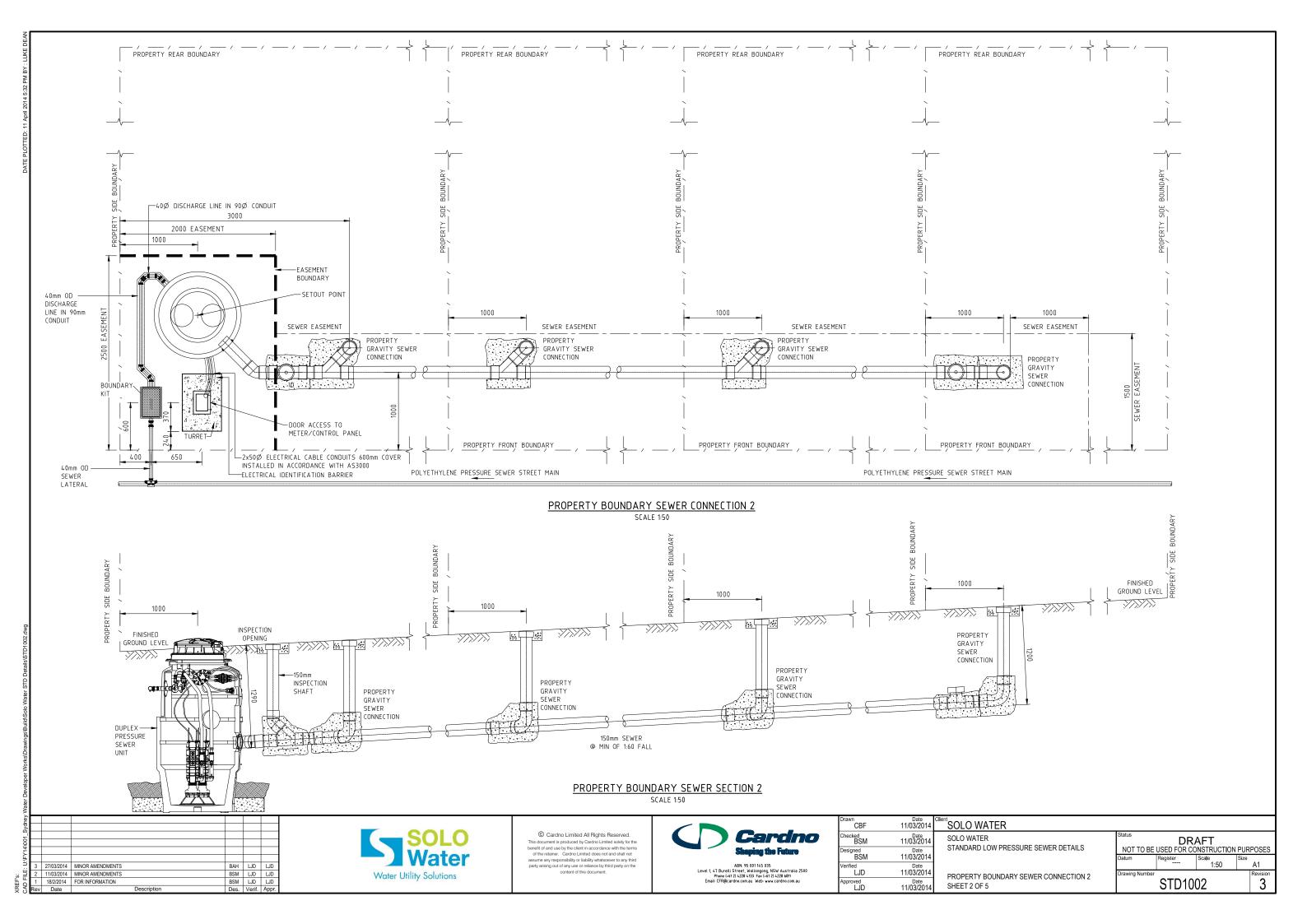
| Status | EOD AD | PROVAL | | | |
|------------------------------------|----------|----------------|------|-------|--|
| NOT TO BE | | NSTRUCTION | PUR | POSES | |
| Datum | Register | Scale 1:500 | Size | A1 | |
| Drawing Number 8201405801-SW2005 6 | | | | | |

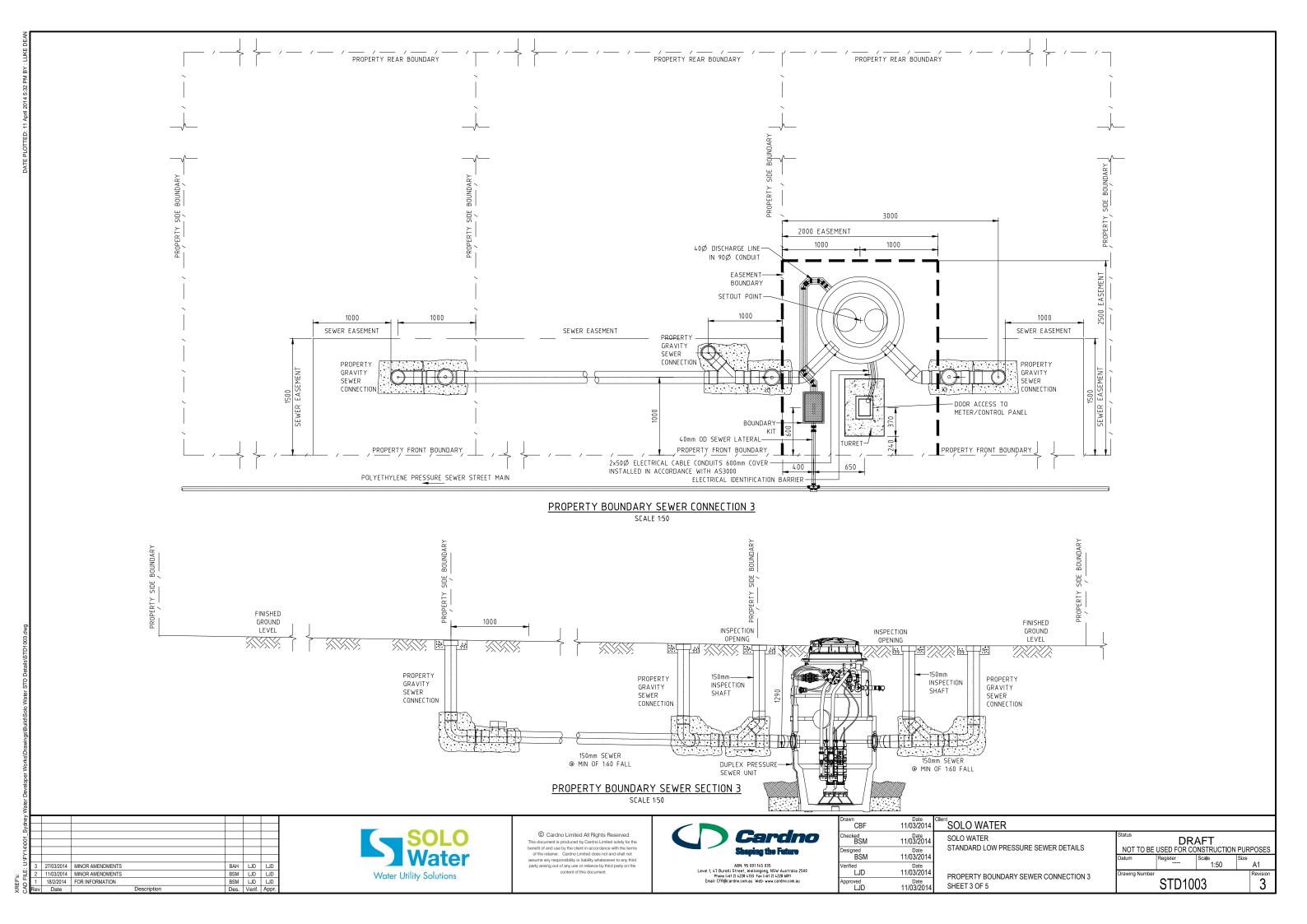












AIR VALVE - TYPE 1 (BELOW GROUND)

4 14/05/2014 MINOR AMENDMENTS BAH LJD LJD 3 27/03/2014 MINOR AMENDMENTS BAH LJD LJD LJD 11/03/2014 MINOR AMENDMENTS BSM LJD LJD 1 18/2/2014 FOR INFORMATION BSM LJD LJD LSP Nev Date Description Des Verif. Appr.



STUB FLANGE WITH BACKING RING

PRESSURE SEWER MAIN

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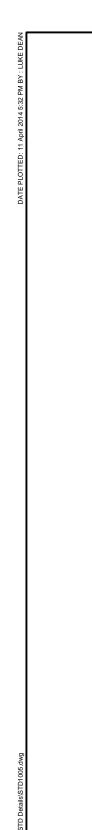
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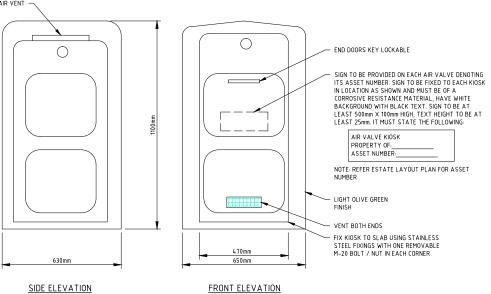
| Drawn CBF | 11/03/2014 | Clie |
|-----------------|--------------------|------|
| Checked BSM | 11/03/2014 | |
| Designed BSM | Date 11/03/2014 | |
| Verified LJD | Date 11/03/2014 | |
| Approved LJD | Date 11/03/2014 | |

| iei | SOLO WATER | |
|-----|-------------------------------------|--|
| | SOLO WATER | |
| | STANDARD LOW PRESSURE SEWER DETAILS | |
| | | |
| | AIR VAI VE DETAIL - TYPE 1 AND 1A | |
| | AIN VALVE DETAIL - TIFE TAIND TA | |

SHEET 4 OF 8

| Status | DR | | | |
|----------------|-------------|---------------|------|------------|
| NOT TO BE | USED FOR CC | NSTRUCTION | PUR | POSES |
| Datum | Register | Scale 1:50 | Size | A1 |
| Drawing Number | STD10 | 04 | | Revision 4 |

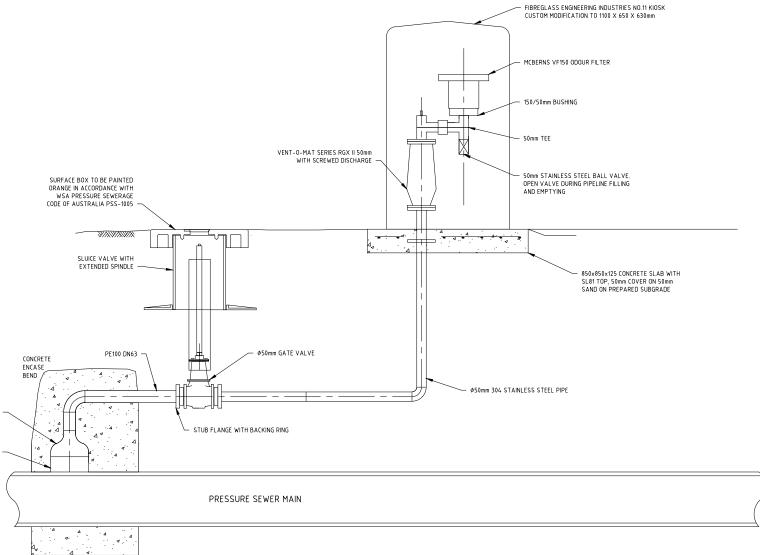




TYPICAL KIOSK ELEVATION

REDUCER SEWER MAIN DIAMETER TO DN63

TEE CONNECTION TO BE THE SAME SIZE AS PRESSURE SEWER MAIN. USE DN63 TAPPING BAND IF APPROVED BY SOLO WATER.



TYPICAL SECTION

AIR VALVE - TYPE 2

BAH LJD LJD 3 27/03/2014 MINOR AMENDMENTS 2 12/03/2014 MINOR AMENDMENTS 1 18/2/2015 FOR INFORMATION BSM LJD LJD
BSM LJD LJD
Des. Verif. Appr.

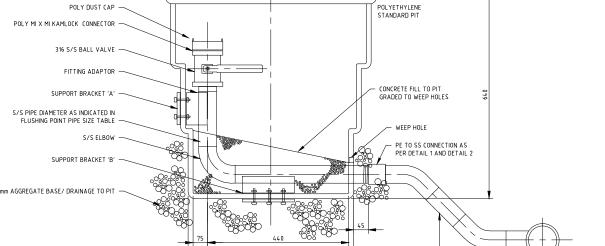


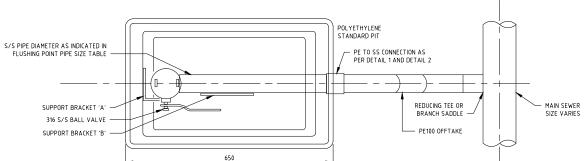
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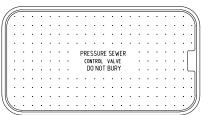
| Orawn CBF | Date 11/03/2014 | Client SOLO WATER | | | | |
|-----------------|--------------------|-------------------------------------|-------------|----------------|------------|------------|
| Checked BSM | Date 11/03/2014 | SOLO WATER | Status | | AFT | |
| Designed | Date | STANDARD LOW PRESSURE SEWER DETAILS | NOT TO | BE USED FOR CO | ONSTRUCTIO | N PURPOSES |
| BSM | 11/03/2014 | | Datum | Register | Scale | Size |
| /erified | Date | | | | 1:50 | A1 |
| LJD | 11/03/2014 | TYPICAL FLUSHING POINT DETAIL | Drawing Num | ber | | Revision |
| Approved LJD | Date | SHEET 5 OF 5 | | STD10 | 05 | 3 |
| | | | | | | |





PLAN COVER REMOVED

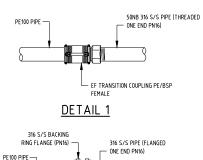
ELEVATION



COVER

FLUSHING POINT PIPE SIZES

| TEOSTHING FOUNT FIFE SIZES | | | | |
|----------------------------|-------------------|-------------------------------|--|--|
| MAIN SIZE (mm) | OFFTAKE SIZE (mm) | INTERNAL PIT PIPEWORK (mm) | | |
| 180 OD | 110 OD | 100 NB (REFER DETAIL 2) | | |
| 160 OD | 110 OD | 100 NB (REFER DETAIL 2) | | |
| 140 OD | 110 OD | 100 NB (REFER DETAIL 2) | | |
| 125 OD | 90 OD | 80 NB (REFER DETAIL 2) | | |
| 110 OD | 90 OD | 80 NB (REFER DETAIL 2) | | |
| 90 OD | 63 OD | 50 NB (REFER DETAIL 1) | | |
| 75 OD | 63 OD | 50 NB (REFER DETAIL 1) | | |
| 63 OD | 63 OD | 50 NB (REFER DETAIL 1) | | |
| 50 OD | 50 OD | 50 NB (REFER DETAIL 1) | | |
| | | | | |



PE100 LONG SPIGOT — STUB FLANGE L 316 S/S FASTENERS

DETAIL 2

- NOTE

 1. WHERE SPACE IS INSUFFICIENT FOR THE STANDARD DESIGN TO MAINTAIN CLEARANCES TO OTHER SERVICES, CONTRACTOR MAY INSTALL THE FLUSHING POINT PIT ABOVE THE MAIN PRESSURE SEWER. CONTRACTOR SHALL LAY THE MAIN PRESSURE SEWER AT SUFFICIENT DEPTH TO ALLOW ROOM FOR FITTINGS AND PIT ABOVE THE SEWER. PIT SHALL NOT BE INSTALLED ABOVE BRANCH SADDLE OR REDUCING TEE.

 2. CONTRACTOR SHALL INSTALL MAIN PRESSURE SEWER AT SUFFICIENT DEPTH TO ALLOW FOR OFFTAKE FITTINGS.

 3. FLUSHING POINT INSTALLED IN NON-TRAFFICABLE AREAS.

1 11/04/2014 FOR INFORMATION



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MINIMUM 600mm OFFSET TO ALLOW FOR DIFFERENTIAL MOVEMENT

MAIN SEWER SIZE VARIES



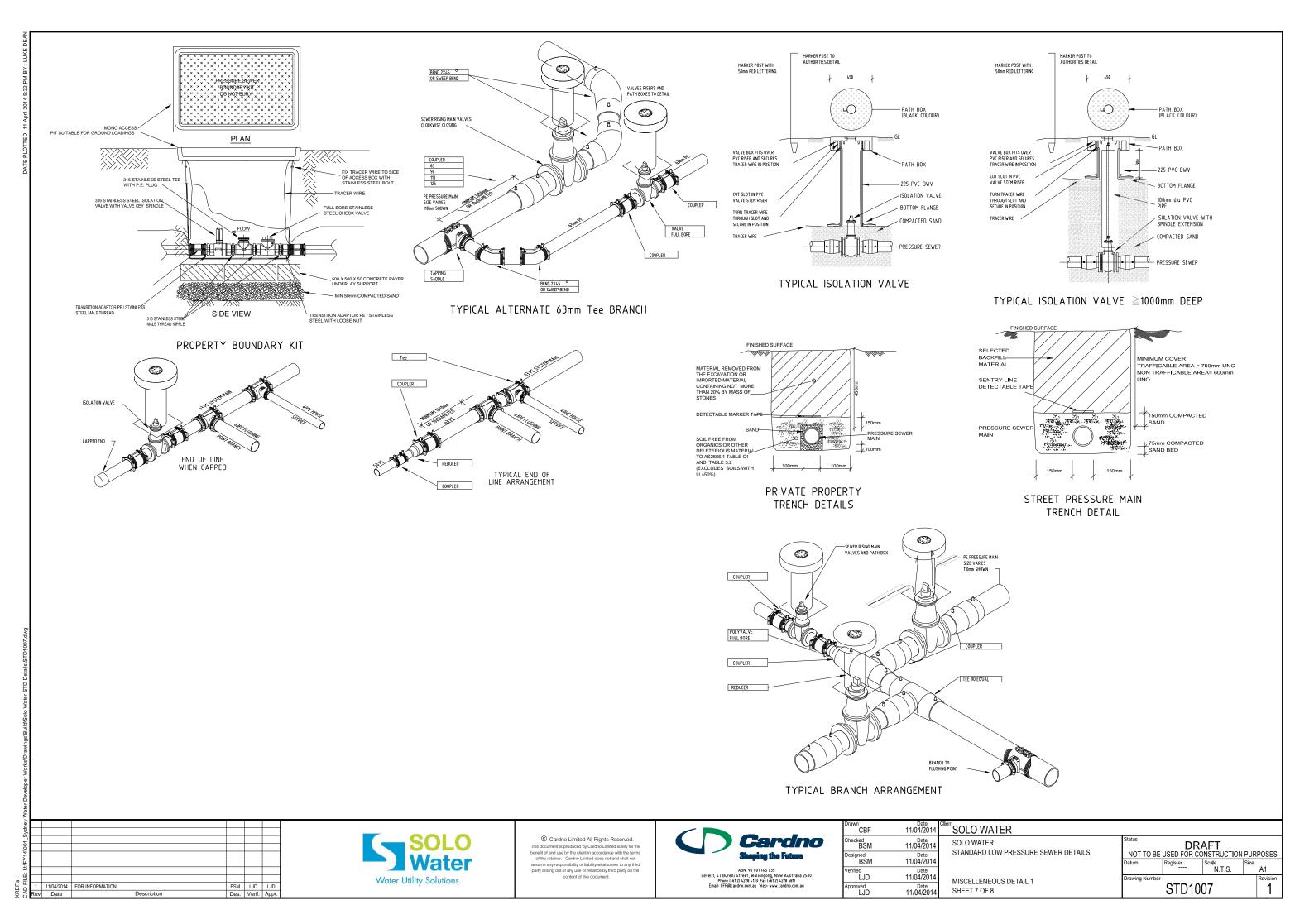
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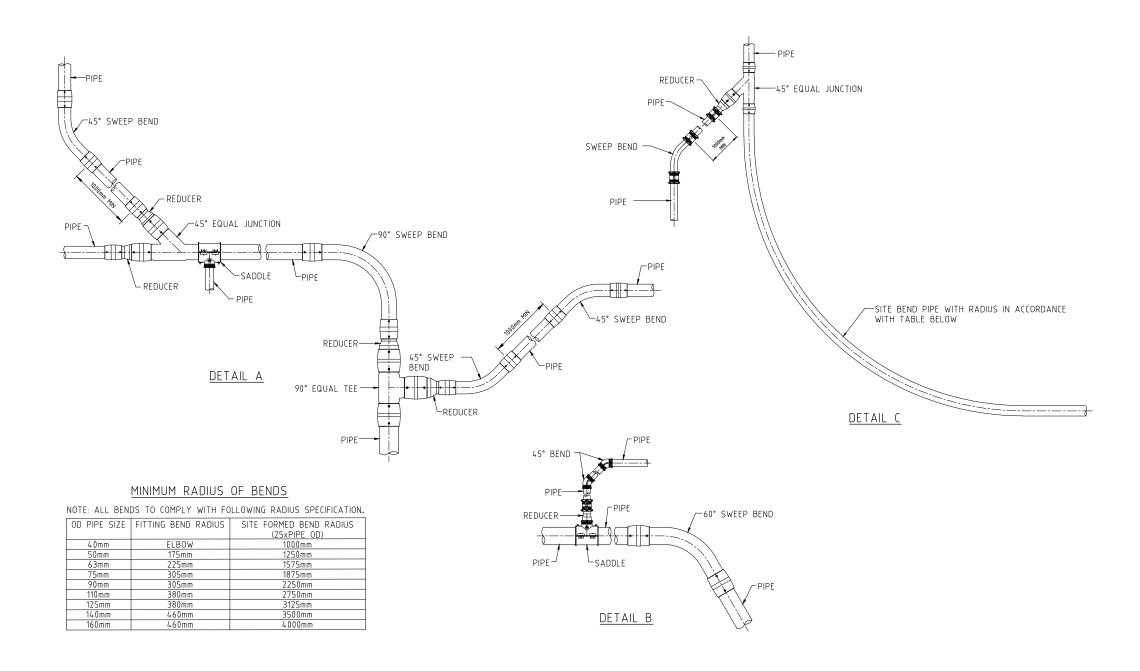
| Drawn CBF | Date 11/04/2014 | (|
|-----------------|--------------------|---|
| Checked BSM | Date 11/04/2014 | |
| Designed BSM | Date 11/04/2014 | |
| Verified LJD | Date 11/04/2014 | |
| Approved LJD | Date 11/04/2014 | |

| SOLO WATER | |
|-------------------------------------|-----------|
| SOLO WATER | Status |
| STANDARD LOW PRESSURE SEWER DETAILS | NOT |
| | Datum |
| TYPICAL FLUSHING POINT DETAIL | Drawing I |
| | |

SHEET 6 OF 8

DRAFT
TO BE USED FOR CONSTRUCTION PURPOSES Scale N.T.S. e A1 STD1006





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| CA | Rev | Date | Description | Des. | Verif. | Appr |



| awn CBF | Date 11/04/2014 | Client SOLO WATER | | | | | |
|---------------|--------------------|-------------------------------------|----------------|-------------|-------------|------|----------|
| ecked BSM | 11/04/2014 | SOLO WATER | Status DRAFT | | | | |
| signed | Date | STANDARD LOW PRESSURE SEWER DETAILS | NOT TO BE | USED FOR CO | DNSTRUCTION | PURP | POSES |
| BSM | 11/04/2014 | | Datum | Register | | Size | |
| rified | Date | | | | N.T.S. | | A1 |
| LJD | 11/04/2014 | MISCELLENEOUS DETAIL 2 | Drawing Number | | | F | Revision |
| proved LJD | Date 11/04/2014 | SHEET 8 OF 8 | l STD1008 | | | | 1 |
| | ,, | | | | | | |