

Palmer / Ross St Transit Corridor

IRRIGATION WORKS

ISSUE: Tender / 50% DD Issue
DATE: 2026

IRRIGATION BRIEF

- 1. Irrigation water supply shall be from potable town water at the location indicated on the Drawings.
- 2. Water supply, and potable supply to be documented and installed in other works packages.
- 3. An isolated connection point at the water source will be provided for the irrigation to connect to.

GENERAL NOTES

- 1. Prior to commencing of work, the Contractor must ensure they have all documentation associated with these drawings.
- 2. The Contractor must adhere to all local authority guidelines and regulations at all times.
- 3. Prior to commencement of works the Contractor must locate and identify all Proposed services including water, power, gas, communications, sewer, drainage, irrigation.

Services shown on the drawings are an approximate location only, failure to locate these services will result in the contractor being required to meet all associated costs of repairs.
- 4. Unless otherwise noted, the Contractor shall be responsible for coordinating all infrastructure items with the relevant trades at the appropriate stages of the project to ensure time construction schedules can be met. The Contractor must locate and confirm all infrastructure items which have been installed by other trades. The Contractor must resolve any discrepancies with the relevant trades before commencing work.

DESIGN NOTES:

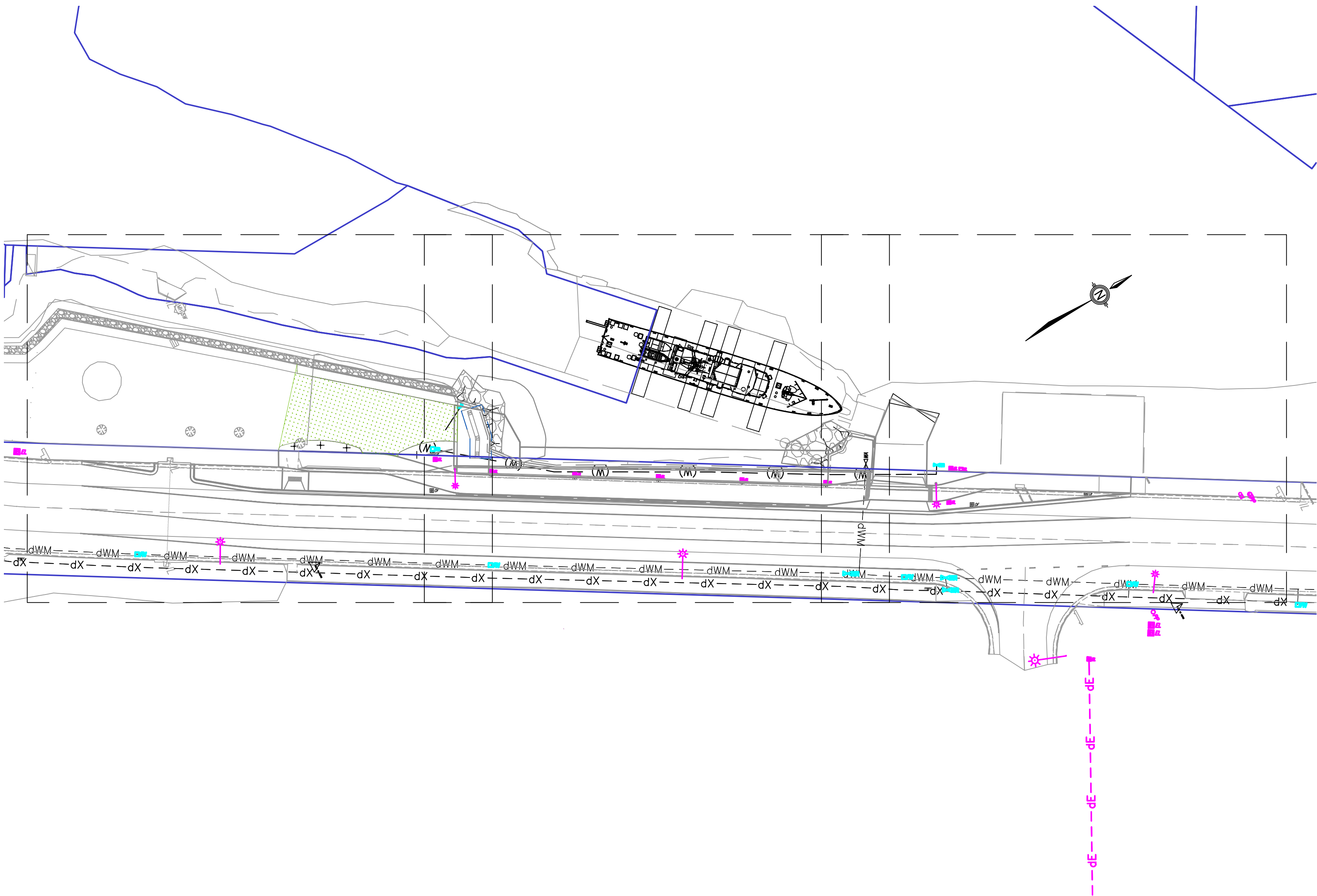
- 1. Placement of pipe work, valves and emitters shown on the drawings are diagrammatic only, the exact location shall be determined by site conditions. The detailed design drawing set shows preferred locations of valves and pipe work. If required locations can be adjusted on site to suit conditions, providing changes are approved by the client and do not compromise the operational characteristics of the design or the standards set by the design specification.
- 2. Do not scale from drawings, refer to the Specification or Drawing notes for all sprinkler spacing.
- 3. The specification and schedule of quantities (if included in package) are equally binding. The estimated quantities in the schedule of quantities document shall be confirmed by the Contractor in their submission.
- 4. The Contractor is not to undertake any redesign of the current design without written authorisation by the client.

CONSTRUCTION NOTES:

- 1. Conduits shall finish 450 clear of outside face of hard surfaces. conduits shall be finished with an end cap to prevent spoil from entering pipe. All conduits must have a draw wire installed. mark ends of conduits with 50x50x750mm marker peg.
- 2. Mainlines and laterals shall have min. cover:
General: Mainline Pipe 400-600mm General: Lateral Pipe 300-400mm
- 3. Mainlines and laterals are to be installed in a common trench where possible to minimise trenching. Valve boxes are to be located in garden areas where possible disguise from public view.
- 4. With standard Multi core cabling, each active control wire shall have a dedicated common wire.
- 5. Control wiring is to be installed in mainline trench and taped to mainline pipe work.
- 6. All irrigation pipe work under paths / hard surfaces shall be installed in conduit.
- 7. All conduits to enclose irrigation pipe shall be 100mm uPVC SWJ pipe.
- 8. Conduit crossing ends shall be sealed with expanding foam to prevent the ingress of soil material or other materials entering the conduit.

IRRIGATION DRAWING REGISTER

056-28-100	IRRIGATION COVER SHEET
056-28-300	IRRIGATION DETAIL DESIGN
056-28-301	IRRIGATION DETAIL DESIGN
056-28-302	IRRIGATION DETAIL DESIGN
056-28-400	IRRIGATION OPERATIONAL & INSTALLATION DETAILS



AMENDMENTS

ISSUE:	DESCRIPTION:	DATE:	INT:
P1	PRELIMINARY ISSUE	13.04.26	RF
2	DETAILED DESIGN 30%	20.04.26	RF
3	TENDER / DETAILED DESIGN 50%	21.04.26	RF

CLIENT DETAILS

IRRIGATION CONSULTANT DETAILS



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"It is the contractor's responsibility to ensure all supporting documentation in conjunction with this and all drawings associated with this project.
"IDA standard documentation consists of:
1. Drawing set 2. specification 3. Schedule of Quantities.
If the Contractor or any allied tradesperson commences works without reviewing all associated documentation for this project or does not review documentation from other trades which may affect the installation then IDA takes no responsibility for the outcome of this project.
"Information regarding Proposed equipment has been supplied to IDA by third party. The Contractor should check that items listed are correct and in suitable working order. Note not all new or Proposed services may be shown on these drawings.

PROJECT DETAILS

Palmer / Ross Street Section 3
Transit Corridor

DRAWING:

IRRIGATION
COVER SHEET

DRAWING DETAILS

DRAWN: SCALE:

RF N.T.S.

PROJECT # DRAWING No.
056-28- 056-28-100



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Any further questions please call Craig on 0417789108.

0 1 2 3 4 5m

SCALE 1:100 @ A1 SIZE
SCALE 1:200 @ A3 SIZE

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 2. Specification/3. S.OO's
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PROJECT DETAILS

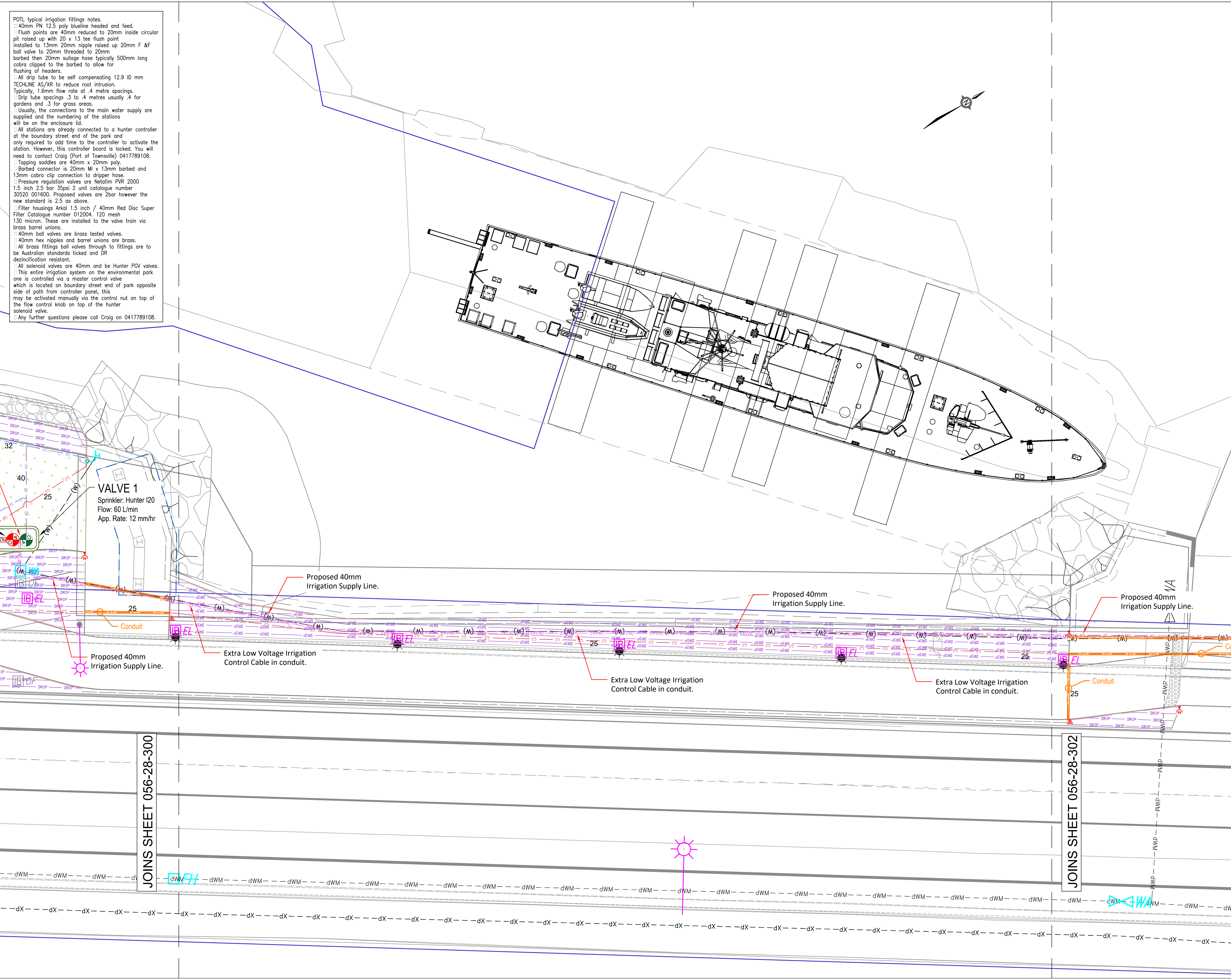
Palmer / Ross Street Section 3 Transit Corridor

IRRIGATION DETAIL DESIGN PLAN

DRAWING DETAILS

DRAWN: RF SCALE: 1:100 @ A1 SIZE

PROJECT # DRAWING No.
056-28- 056-28-300



POTL typical irrigation fittings notes.

- 40mm PN 12.5 poly blue line headed and feed.
- Flush points are 40mm reduced to 20mm inside circular pit raised up with 20 x 13 tee flush point installed to 13mm 20mm nipple raised up 20mm F & F ball valve to 20mm threaded to 20mm barbed then 20mm sullyage hose typically 500mm long cobra clipped to the barbed to allow for flushing of headers.
- All drip tube to be self compensating 12.9 ID mm TECHLINE AS/XR to reduce root intrusion. Typically, 1.6mm flow rate at .4 metre spacings.
- Drip tube spacings .3 to .4 metres usually .4 for gardens and .3 for grass areas.
- Usually, the connections to the main water supply are supplied and the numbering of the stations will be on the enclosure lid.
- All stations are already connected to a hunter controller at the boundary street end of the park and only required to add time to the controller to activate the station. However, this controller board is locked. You will need to contact Craig (Port of Townsville) 0417789108.
- Tapping saddles are 40mm x 20mm poly.
- Barbed connector is 20mm MI x 13mm barbed and 13mm cobra clip connection to dripper hose.
- Pressure regulation valves are Netafim PVR 2000 1.5 inch 2.5 bar 35psi 2 unit catalogue number 30520 001600. Proposed valves are 2bar however the new standard is 2.5 as above.
- Filter housings Arkal 1.5 inch / 40mm Red Disc Super Filter Catalogue number 012004. 120 mesh 130 micron. These are installed to the valve train via brass barrel unions.
- 40mm ball valves are brass tested valves.
- 40mm hex nipples and barrel unions are brass.
- All brass fittings ball valves through to fittings are to be Australian standards ticked and DR dezincification resistant.
- All solenoid valves are 40mm and be Hunter PGV valves.
- This entire irrigation system on the environmental park one is controlled via a master control valve which is located on boundary street end of park opposite side of path from controller panel, this may be activated manually via the control nut on top of the flow control knob on top of the hunter solenoid valve.
- Any further questions please call Craig on 0417789108.

LEGEND

CIVIL/BUILDERS WORKS:

- CONDUIT
- 100mm uPVC SWJ Pipe

ELECTRICAL WORKS:

- 240 POWER LOCATION FOR IRRIGATION CONTROLS POWER&GPO BY ELECTRICIAN CONTROLLER BY IRRIGATION

HYDRAULICS WORKS:

- IRRIGATION WATER SUPPLY

IRRIGATION WORKS:

- IRRIGATION CONTROLLER
 - 40mm MDPE PN12.5 IRRIGATION MAIN
 - IRRIGATION CONTROL CABLE (LOW VOLTAGE 24Vdc)
- HUNTER IGV SOLENOID VALVE c/w FILTER (Dr)
- HUNTER IGV SOLENOID VALVE (Spray)
- MAINLINE ISOLATION VALVE
- DRIP FLUSH VALVE (Allow minimum of 1 per Station)
- DRIP AIR VALVE
 - 25mm HDPE LATERAL PIPE
 - 32mm HDPE LATERAL PIPE
 - 40mm HDPE LATERAL PIPE
- DRIP FEEDER PIPE
- DRIP FOOTER PIPE
- NETAFIM TECHLINE AS/XR DRIPLINE
 - 13mm INLINE DRIP TUBE (GARDEN)
 - 1.6 L/HR EMITTERS @ 400CORS
 - DRIP LINES SPACED 400 APART
 - DEPTH: 50mm BELOW SOIL/MULCH
 - Application Rate =10mm/hr



AMENDMENTS			
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PROJECT DETAILS

Palmer / Ross Street Section 3
Transit Corridor

DRAWING:
IRRIGATION
DETAIL DESIGN PLAN

DRAWING DETAILS

DRAWN:	SCALE:
RF	1:100 @ A1 SIZE
PROJECT #	DRAWING No.
056-28-	056-28-301

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LEGEND

CIVIL/BUILDERS WORKS:

CONDUIT
100mm uPVC SWJ Pipe

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240 POWER LOCATION FOR IRRIGATION CONTROLS
POWER&GPO BY ELECTRICIAN
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IRRIGATION CONTROLLER

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HUNTER IGV SOLENOID VALVE c/w FILTER (Dri

HUNTER IGV SOLENOID VALVE (Spray)

MAINLINE ISOLATION VALVE

DRIP FLUSH VALVE
(Allow minimum of 1 per Station)

DRIP AIR VALVE

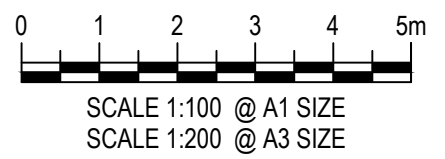
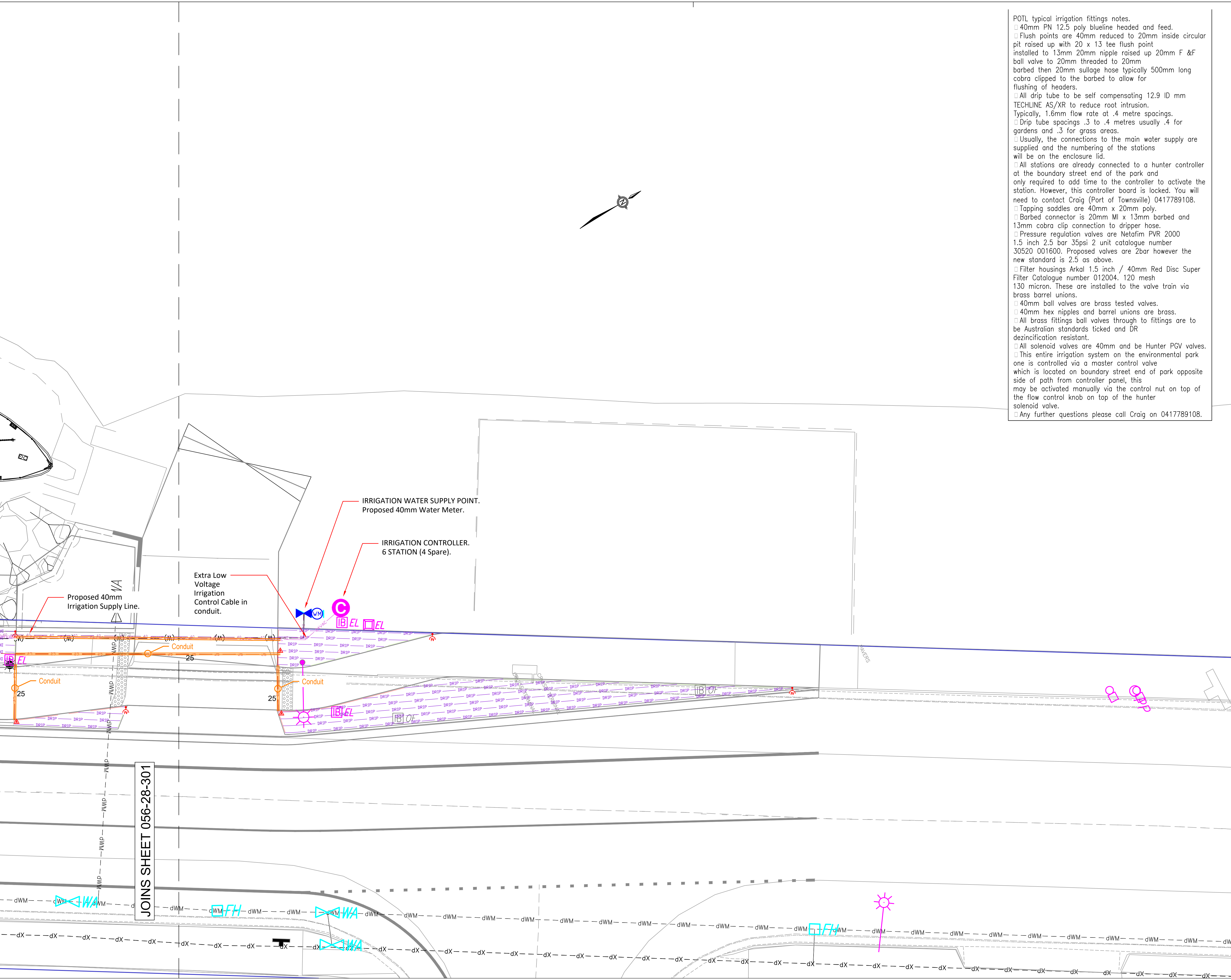
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PROJECT DETAILS

Palmer / Ross Street Section 3
Transit Corridor

DRAWING:
IRRIGATION
DETAIL DESIGN PLAN

DRAWING DETAILS

DRAWN:
RF

SCALE:
1:100 @ A1 SIZE

PROJECT #
056-28-

DRAWING No.
056-28-302

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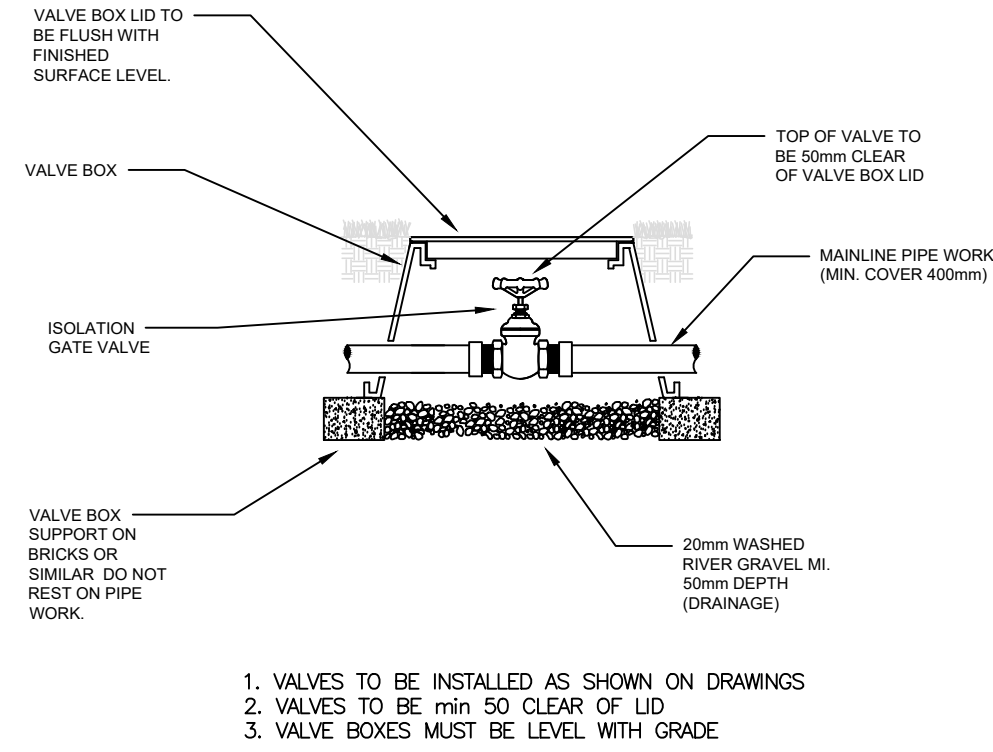
IRRIGATION DESIGN DATA- PALMER/ ROSS STREET

NOTE:- Irrigation design data below should be used as a theoretical guide and must be amended by the installation contractor relative to the actual installation quantities and flow rates

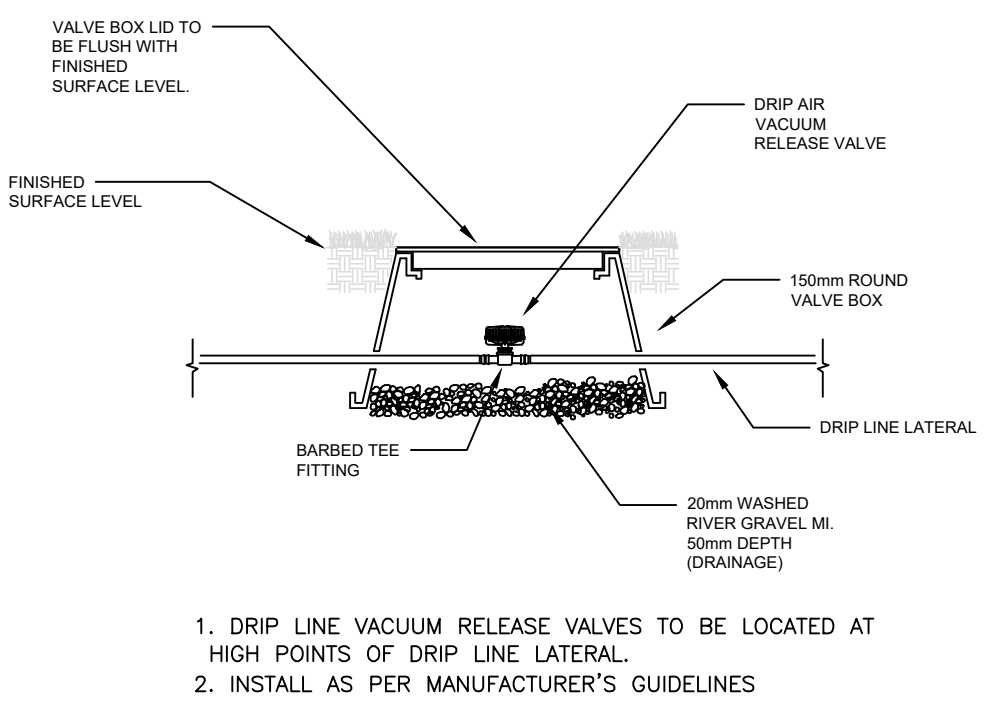
21.04.26

				210			180			120			90			RUN TIME TO APPLY 10mm	DAILY PR REQ. (MM)	Total Station Flow	VOLUME TO	
Station No.	Sprinkler Type	PRRATE	Sprinkler Qty	Nozzle	Qty	Flow	Nozzle	Qty	Flow	Nozzle	Qty	Flow	Nozzle	Qty	Flow				APPLY 10mm(L)	OP. PRESS. SPRINKLER
1	C(ADJ)	12	7.00	2	1	16.80	2	2	14.40	4	1	9.60	2	3	7.20	50	10	76.8	3840.0	300
2	DRIP 1.6lph	10	1051.5	1.6	350.5	0.2										60	10	65.5	3932.6	250
3																				
4																				

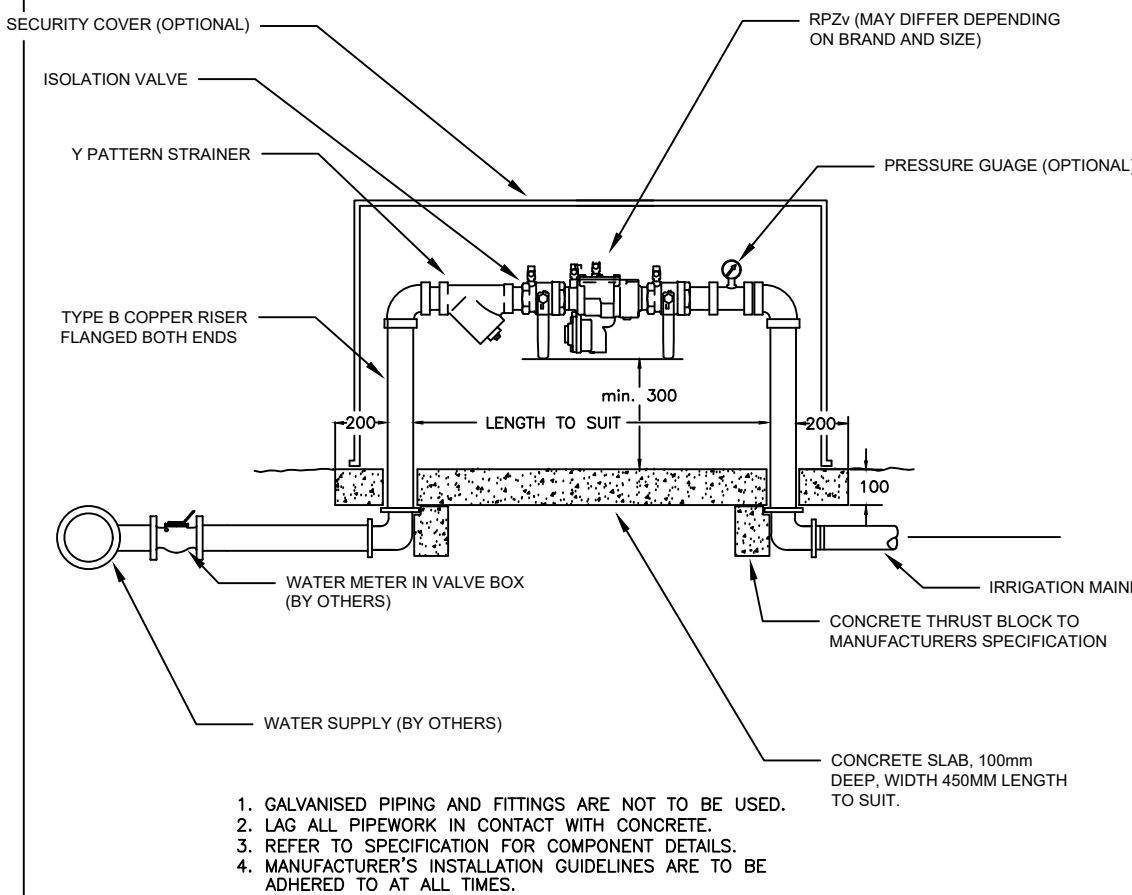
NOTE:- Irrigation application of 10mm may be required multiple times per week depending on climatic and horticultural conditions.



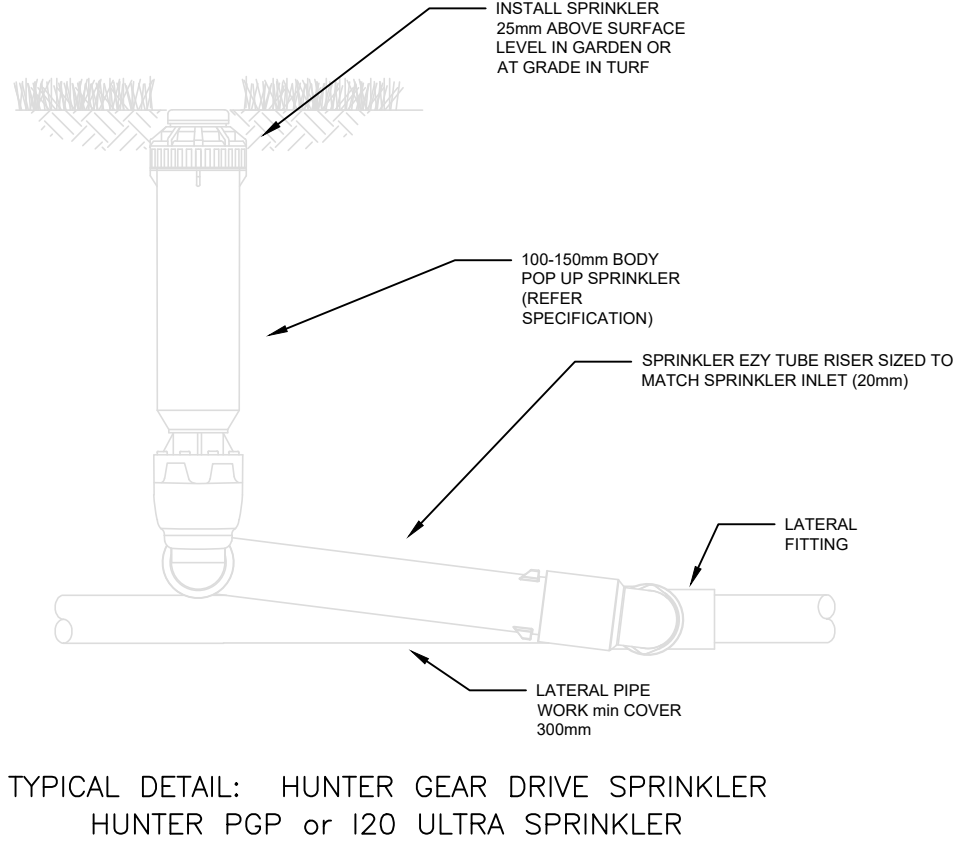
TYPICAL DETAIL: SCREWED GATE VALVE



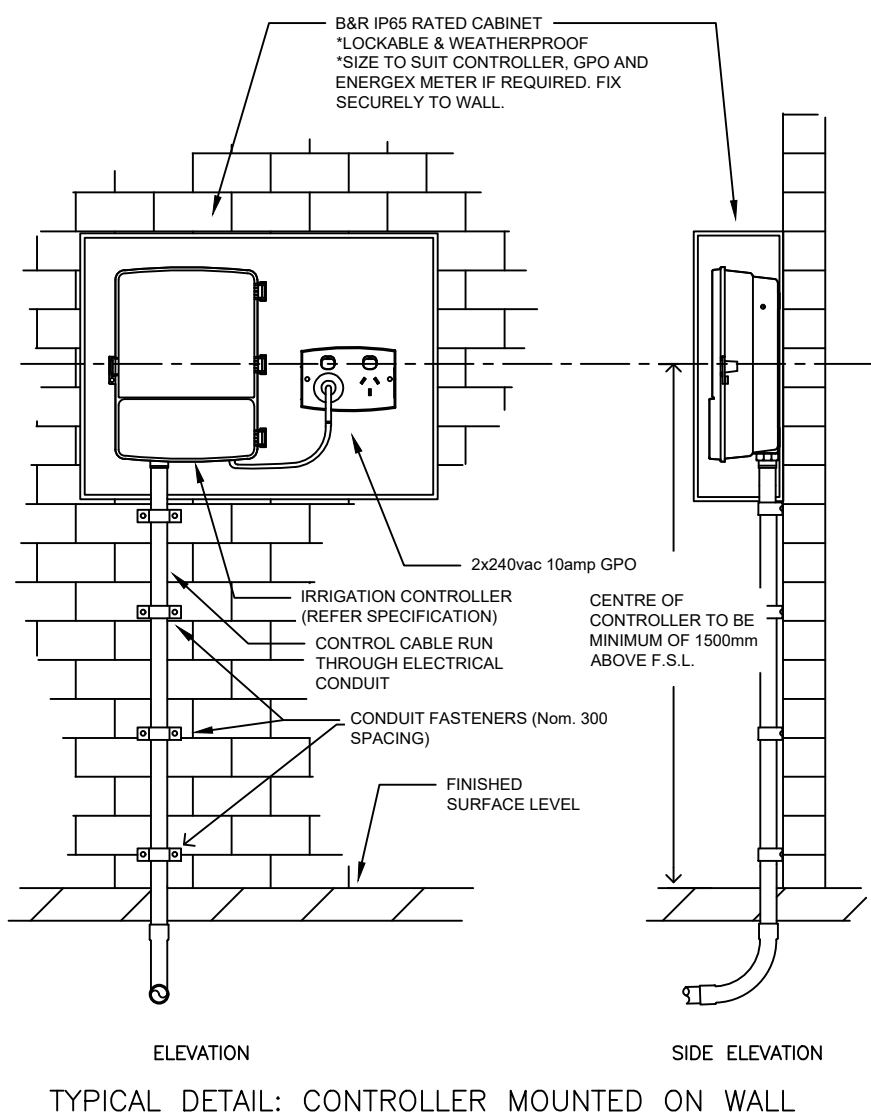
TYPICAL DETAIL: DRIP LINE VACUUM RELEASE VALVE



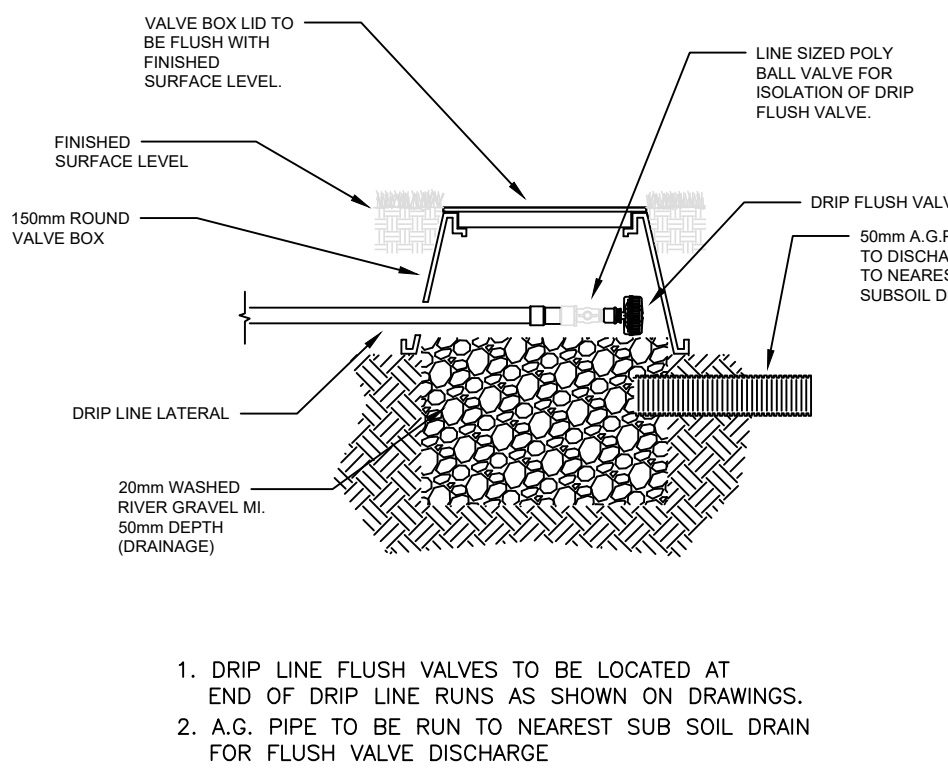
TYPICAL DETAIL: RPZV ASSEMBLY



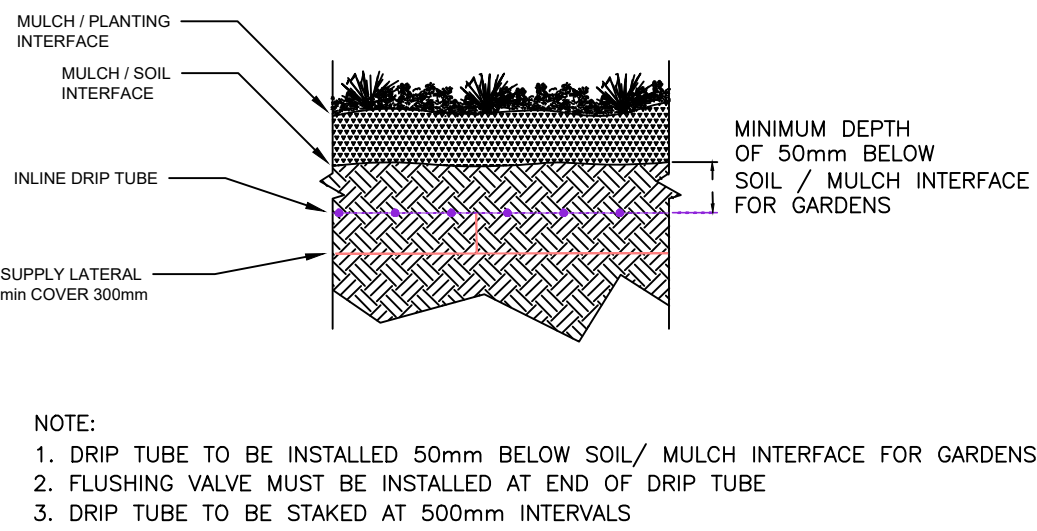
TYPICAL DETAIL: HUNTER GEAR DRIVE SPRINKLER HUNTER PGP or 120 ULTRA SPRINKLER



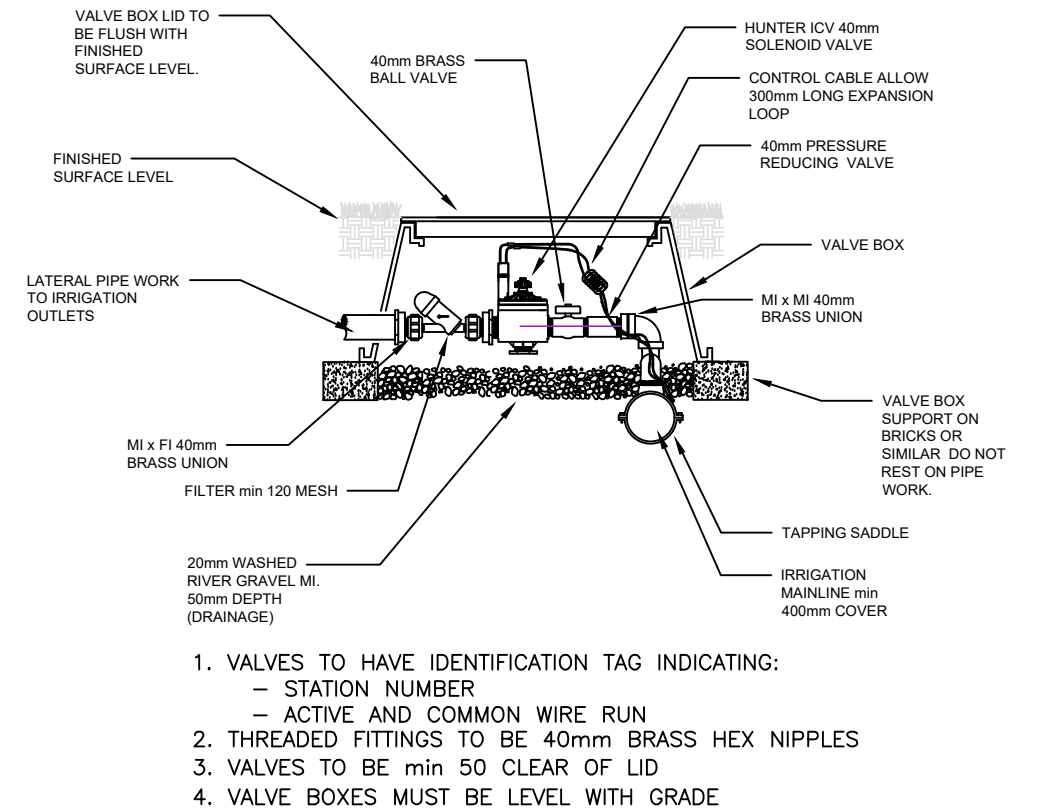
TYPICAL DETAIL: CONTROLLER MOUNTED ON WALL



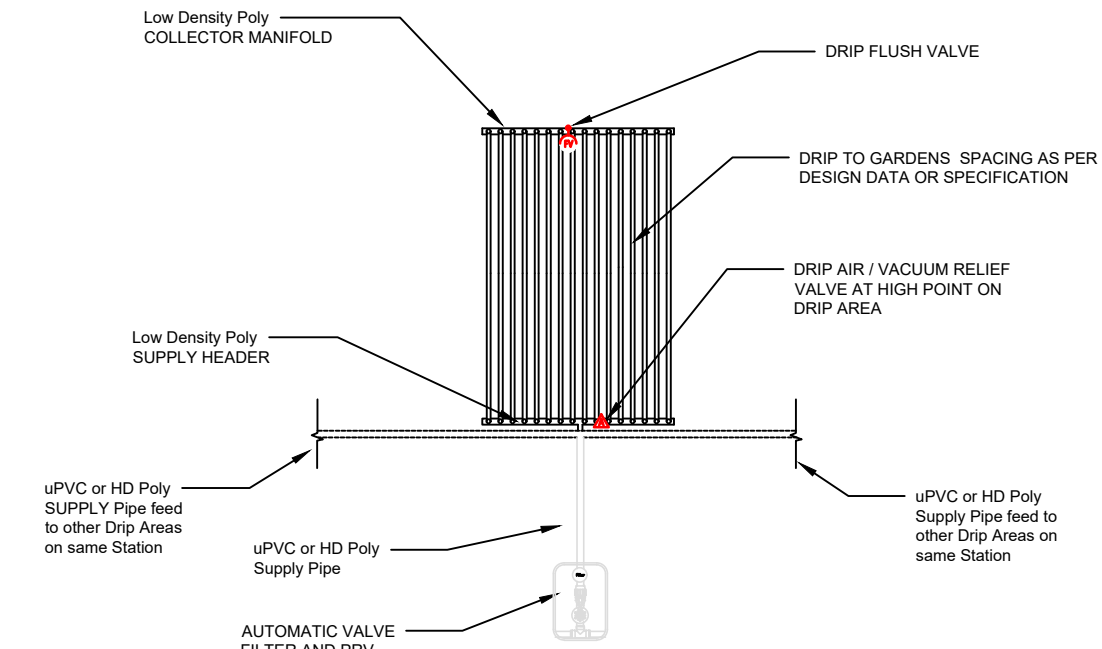
TYPICAL DETAIL: DRIP LINE FLUSH VALVE



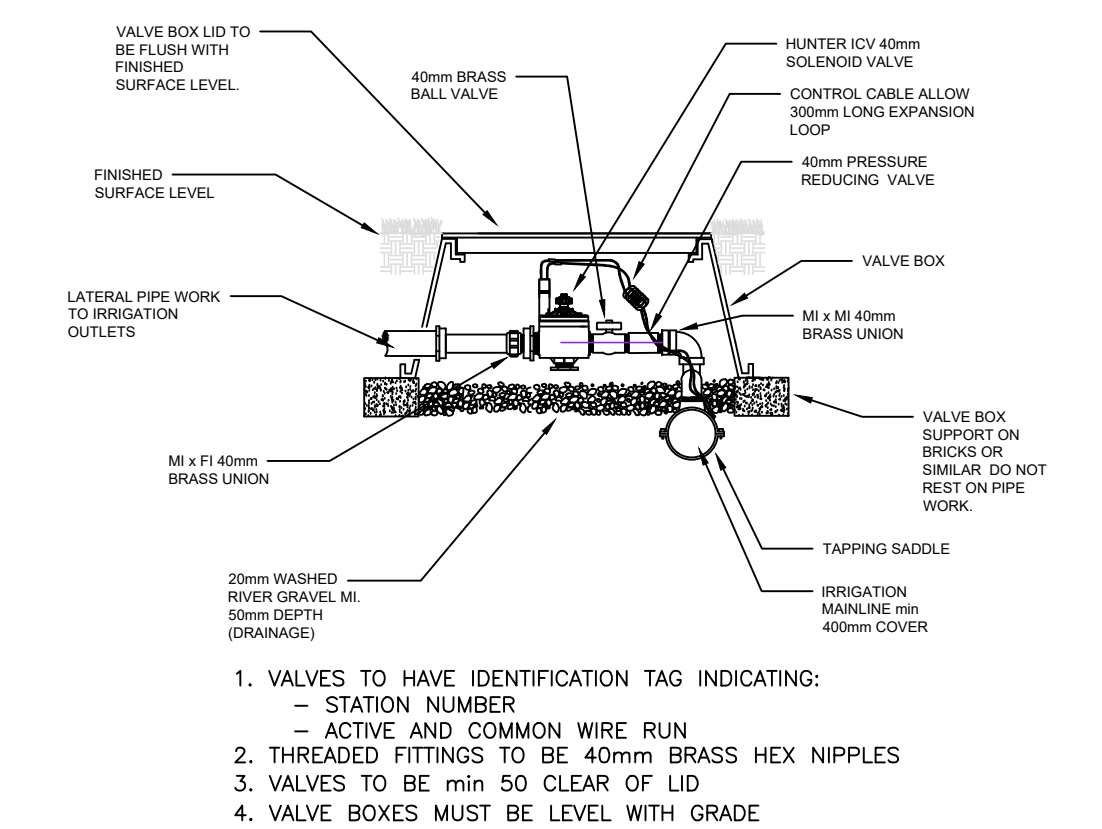
TYPICAL DETAIL: IN-LINE DRIP TUBE SECTION



TYPICAL DETAIL: SOLENOID VALVE + DRIP FILTER



TYPICAL DETAIL: IN-LINE DRIP TUBE LAYOUT



TYPICAL DETAIL: SOLENOID VALVE

AMENDMENTS

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Transit Corridor

DRAWING:

IRRIGATION OPERATIONAL & INSTALLATION DETAILS

DRAWING DETAILS

DRAWN: SCALE:

RF N.T.S.

PROJECT #

DRAWING No.

056-28- 056-28-400