



## **REQUEST FOR PROPOSALS**

### **CONTRACTOR FOR IRRIGATION SYSTEM UPGRADE AT QE PARK PITCH AND PUTT**

**RFP No. PS20210282**

**Issue Date: April 23, 2021**

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CONTRACTOR FOR IRRIGATION SYSTEM UPGRADE AT QE PARK PITCH AND PUTT  
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**PART A - INFORMATION AND INSTRUCTIONS**

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**SUMMARY**

The City of Vancouver as represented by the Vancouver Park Board, requires contractor services for the irrigation system upgrade of the Queen Elizabeth Park Pitch & Putt golf course. Details of the City's objectives and requirements to which the RFP relates are set out in Part B of the RFP

**PART A – INFORMATION AND INSTRUCTIONS**

**1.0 THE RFP**

- 1.1 Except where expressly stated otherwise in Appendix 1 of Part C of the Request for Proposals ("RFP"): (i) no part of the RFP consists of an offer by the city to enter into any contractual relationship; and (ii) no part of the RFP is legally binding on the city.
- 1.2 The City is interested in selecting an entity, which is not, by the terms hereof, barred from submitting a Proposal, and which does submit a Proposal (each such entity, a "**Proponent**") with the capability and experience to efficiently and cost-effectively meet the objectives and requirements described in the RFP. The City currently expects to select such a Proponent and then enter into negotiations with that Proponent, which will conclude in the execution of a contract between the Proponent and the City (such a contract, an "**Agreement**"). However, the City may: (i) decline to select any Proponent; (ii) decline to enter into any Agreement; (iii) select multiple Proponents for negotiation; or (iv) enter into one or more agreements respecting the subject matter of the RFP with one or more Proponents or other entities at any time. The City may also terminate the RFP at any time.
- 1.3 The City currently intends that Proposals will be evaluated by the City in relation to their overall value, which will be assessed in the City's sole and absolute discretion. In assessing value, the City expects to consider the factors described in Section 8.0 below, among others.
- 1.4 No bid security is required from Proponents in connection with the submission of Proposals because no Proposal will be deemed to be an irrevocable or otherwise binding legal offer by a Proponent to the City. The legal obligations of a Proponent that will arise upon the submission of its Proposal will be limited to the terms and conditions stated under the heading "Legal Terms & Conditions" in Appendix 1 to the Part C - Form of Proposal.
- 1.5 The execution of an Agreement may be contingent on funding being approved, and the relevant Proposal being approved, by the Vancouver City Council.
- 1.6 The RFP consists of four parts, plus appendices:
  - (a) **PART A - INFORMATION AND INSTRUCTIONS:** This part is intended to serve as a guide to the RFP process for Proponents.
  - (b) **PART B - SCOPE OF WORK:** This part describes the subject matter of the RFP, in respect of which the City invites Proposals.
  - (c) **PART C - FORM OF PROPOSAL:** This is the form in which the Proposal should be submitted.
  - (d) **PART D - FORM OF AGREEMENT:** This part contains a model Agreement (the "**Form of Agreement**"). Any Agreement resulting from the RFP is expected to be substantially in the form of the Form of Agreement.

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**2.0 KEY DATES**

2.1 Potential Proponents should note the following key dates:

Event	Time and Date
Deadline for Enquiries	3:00pm on May 6, 2021
Closing Time	3:00pm on May 13, 2021

2.2 All references to time in the RFP are references to the time in the City of Vancouver, as indicated in the electronic timestamp the Proposal receives upon delivery to the email address specified herein, which is in turn synchronized to Network Time Protocol (NTP) provided by the National Research Council of Canada adjusted to local Pacific Time Zone.

**3.0 CONTACT PERSON**

3.1 All enquiries regarding the RFP must be addressed to:

Jessica Li, Buyer  
[jessica.li@vancouver.ca](mailto:jessica.li@vancouver.ca)

3.2 All enquiries must be made in writing and are to be directed only to the above contact person. In-person or telephone enquiries are not permitted. Any communication from potential Proponents to City staff other than the contact person regarding the content of this RFP may lead to disqualification of the Proponent from this RFP process, at the City's sole discretion.

3.3 **IF A POTENTIAL PROPONENT BELIEVES THAT THE CITY MAY BE UNABLE TO SELECT IT DUE TO A CONFLICT OF INTEREST, BUT IS UNCERTAIN ABOUT THIS, THE POTENTIAL PROPONENT IS URGED TO CONTACT THE ABOVE-MENTIONED INDIVIDUAL AS SOON AS POSSIBLE WITH THE RELEVANT INFORMATION SO THAT THE CITY MAY ADVISE THE POTENTIAL PROPONENT REGARDING THE MATTER.**

**4.0 SUBMISSION OF PROPOSALS**

4.1 Proponents should submit their Proposals on or before the time and date specified in the bottom row of the table in Section 2.1 above (the "**Closing Time**").

4.2 Each Proponent should submit its Proposal by email in accordance with the following:

- Subject of the file to be: PS# - Title - Vendor name.
- Document format for submissions:
  - RFP Part C in PDF format - 1 combined PDF file,
  - Appendix 3 (pricing tab) in Excel format, and;
  - Any other attachments if necessary
- Zip the files to reduce the size or email separately if needed.



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**PART A - INFORMATION AND INSTRUCTIONS**

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- Send your submissions to [Bids@vancouver.ca](mailto:Bids@vancouver.ca); do not deliver a physical copy to the City of Vancouver.
  - Submitting the files via Drop box, FTP, or similar programs, is not acceptable.
  - Due to cybersecurity concerns, the City of Vancouver will quarantine any inbound email with attachments not in PDF or Microsoft Office formats which will result in non-delivery to Supply Chain Management and will be deemed not submitted. Non-compliant file formats will be detected and quarantined even if they are compressed, zipped, renamed, and include password protected zipped files.
  - The maximum number of attachments allowed in an email message is 250 attachments.
  - The maximum size limit for an email message, including all attachments, is 20MB per message
- 4.3 To be considered by the City, a Proposal must be submitted in the form set out in Part C (the “**Form of Proposal**”), completed and duly executed by the relevant Proponent.
- 4.4 Amendments to a Proposal may be submitted via the same methods, at any time prior to the Closing Time.
- 4.5 Proposals are revocable and may be withdrawn at any time before or after the Closing Time.
- 4.6 All costs associated with the preparation and submission of a Proposal, including any costs incurred by a Proponent after the Closing Time, will be borne solely by the Proponent.
- 4.7 Unnecessarily elaborate Proposals are discouraged. Proposals should be limited to the items specified in Part C of the RFP.
- 4.8 The City is willing to consider any Proposal from two or more Proponents that wish to form a consortium for the purpose of responding to the RFP, provided that they disclose the names of all members of the consortium and all members complete and sign the first page of the Form of Proposal. Nonetheless, the City has a strong preference for Proposals submitted by a single Proponent, including a Proponent that would act as a general contractor and use subcontractors as required.
- 4.9 Proposals that are submitted after the Closing Time or that otherwise do not comply in full with the terms hereof may or may not be considered by the City and may or may not be returned to the Proponent, in the City’s sole discretion.
- 5.0 **CHANGES TO THE RFP AND FURTHER INFORMATION**
- 5.1 The City may amend the RFP or make additions to it at any time.
- 5.2 It is the sole responsibility of Proponents to check the City’s website at: <http://vancouver.ca/doing-business/open-bids.aspx> regularly for amendments, addenda, and questions and answers in relation to the RFP.
- 5.3 Proponents must not rely on any information purported to be given on behalf of the City that contradicts the RFP, as amended or supplemented in accordance with the foregoing Section 5.2.

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**PART A - INFORMATION AND INSTRUCTIONS**

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**6.0 PROPOSED TERM OF ENGAGEMENT**

- 6.1 The term of any Agreement, and is expected to be a 1-year period, with the possibility for two one-year extensions upon approval by the City, until the completion of the project.

**7.0 PRICING**

- 7.1 All prices quoted in any Proposal are to be exclusive of applicable sales taxes calculated upon such prices, but inclusive of all other costs.
- 7.2 Prices must be quoted in Canadian currency and fixed prices must be quoted for the full term of the Proponent's proposed agreement.

**8.0 EVALUATION OF PROPOSALS**

- 8.1 The City may open or decline to open Proposals in such manner and at such times and places as are determined by the City.
- 8.2 The City currently intends that all Proposals submitted to it in accordance with the RFP will be evaluated by City representatives, using quantitative and qualitative tools and assessments, as appropriate, to determine which Proposal or Proposals offer the overall best value to the City. In so doing, the City expects to examine:

Evaluation Criteria	Evaluation Weighting
Technical	50%
Financial	45%
Sustainability (Environmental and/or Social)	5%
Total	100%

- 8.3 The City will retain complete control over the RFP process at all times until the execution and delivery of an Agreement or Agreements, if any. The City is not legally obligated to review, consider or evaluate Proposals, or any particular Proposal, and need not necessarily review, consider or evaluate Proposals, or any particular Proposal in accordance with the procedures set out in the RFP. The City may continue, interrupt, cease or modify its review, evaluation and negotiation process in respect of any or all Proposals at any time without further explanation or notification to any Proponents.
- 8.4 The City may, at any time prior to signing an Agreement, discuss or negotiate changes to the scope of the RFP with any one or more of the Proponents without having any duty or obligation to advise the other Proponents or to allow the other Proponents to vary their Proposals as a result of such discussions or negotiations.
- 8.5 The City may elect to short-list Proponents and evaluate Proposals in stages. Short-listed Proponents may be asked to provide additional information or details for clarification, including by attending interviews, making presentations, supplying samples, performing demonstrations, furnishing technical data or proposing amendments to the Form of Agreement.

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The City will be at liberty to negotiate in parallel with one or more short-listed Proponents, or in sequence, or in any combination, and may at any time terminate any or all negotiations.

8.6 The City may also require that any proposed subcontractors undergo evaluation by the City.

8.7 For the avoidance of doubt, notwithstanding any other provision in the RFP, the City has in its sole discretion, the unfettered right to: (a) accept any Proposal; (b) reject any Proposal; (c) reject all Proposals; (d) accept a Proposal which is not the lowest-price proposal; (e) accept a Proposal that deviates from the requirements or the conditions specified in the RFP; (f) reject a Proposal even if it is the only Proposal received by the City; (g) accept all or any part of a Proposal; (h) split the scope of work between one or more Proponents; and (i) enter into one or more agreements respecting the subject matter of the RFP with any entity or entities at any time. Without limiting the foregoing, the City may reject any Proposal by a Proponent that has a conflict of interest, has engaged in collusion with another Proponent or has otherwise attempted to influence the outcome of the RFP other than through the submission of its Proposal.

**9.0 CITY POLICIES**

9.1 The City's Procurement Policy, Ethical Purchasing Policy and related Supplier Code of Conduct found at <http://vancouver.ca/doing-business/selling-to-and-buying-from-the-city.aspx> align the City's approach to procurement with its corporate social, environmental and economic sustainability values and goals. They evidence the City's commitment to maximize benefits to the environment and the community through product and service selection, and to ensure safe and healthy workplaces, where human and civil rights are respected. Each Proponent is expected to adhere to the supplier performance standards set forth in the Supplier Code of Conduct. The Ethical Purchasing Policy shall be referred to in the evaluation of Proposals, to the extent applicable.

9.2 The City's Alcohol, Controlled Drugs and Medications Policy applies to all contractors doing work on behalf of the City and can be found at <https://policy.vancouver.ca/ADMIN011.pdf>. The policy is intended to set expectations regarding the use of alcohol, medication and controlled drugs that may render an employee unfit for work, impair performance or cause risk of harm to health and safety. The successful Proponent will be required to ensure compliance with the policy by its employees when doing work for the City.

**10.0 CERTAIN APPLICABLE LEGISLATION**

10.1 Proponents should note that the City of Vancouver is subject to the *Freedom of Information and Protection of Privacy Act* (British Columbia), which imposes significant obligations on the City's consultants or contractors to protect all personal information acquired from the City in the course of providing any service to the City.

10.2 Proponents should note that the *Income Tax Act* (Canada) requires that certain payments to non-residents be subject to tax withholding. Proponents are responsible for informing themselves regarding the requirements of the *Income Tax Act* (Canada), including the requirements to qualify for any available exemptions from withholding.

**11.0 LEGAL TERMS AND CONDITIONS**

11.1 The legal obligations of a Proponent that will arise upon the submission of its Proposal are stated in this Appendix 1 to the Form of Proposal. Except where expressly stated in these

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PART A - INFORMATION AND INSTRUCTIONS**

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Legal Terms and Conditions: (i) no part of the RFP consists of an offer by the City to enter into any contractual relationship; and (ii) no part of the RFP is legally binding on the City.

**POTENTIAL PROPONENTS MUST REVIEW THESE LEGAL TERMS AND CONDITIONS CAREFULLY BEFORE SUBMITTING A PROPOSAL.**

## PART B – SCOPE OF WORK

The scope of work stated in this Part B (collectively, the “**Scope of Work**”) IS current as of the date hereof, but may change or be refined in the course of the evaluation of Proposals or otherwise.

Unless otherwise stated, if, and wherever, the Scope of Work states a brand name, a make, the name of a manufacturer, a trade name or a vendor catalogue number, it is for the purpose of establishing a grade or quality of materials, goods or equipment only. It is not intended to rule out the use of other equivalent materials, goods or equipment. If, however, products other than those specified are proposed in any Proposal, the Proposal must explicitly include under the heading “Alternative Solutions” the names of such products and their manufacturers, any trade names and any applicable vendor catalogue numbers, and the City may request that the Proponent provide specific evidence of equivalency. Evidence of quality in the form of samples may also be requested.

To the extent that the Scope of Work expresses estimates of quantities or volumes of goods or services expected to be required by the City, the City cannot offer any assurances that such quantities or volumes will in fact be required.

### 1.0 BACKGROUND

The City of Vancouver (COV) as represented by the Vancouver Park Board (VPB), requires irrigation contractor services for the upgrade of the QE Pitch & Putt irrigation system. QE Park will be the last of the three VPB Pitch & Putt courses to receive an automated irrigation system. The new system will reduce water usage and be more efficient with the irrigating that is currently being performed by City staff. Additionally, it will enable proper water management on the site and the ability to grow turf efficiently on the course.

### 2.0 SCOPE OF WORK

#### General Requirements:

- Supply and installation of the irrigation system in accordance with the design drawings and specifications as provided by the City
  - work on this pitch and putt site is on a smaller scale than a regular sized golf course
  - existing irrigation system will remain on site and buried
- Permit application
- Quality control will be in tandem with the City’s Irrigation Department and Golf Superintendent
- Provide as-built drawings to the City upon completed installation
- Park Board/City staff will work with the successful vendor to determine if the site needs requires partial or full closure
- Start-up, calibration, commissioning, training of city staff, and manuals
- Provide as-built drawings to the City upon completed installation
- Warranty for any product or workmanship deficiencies for minimum one year

Note: The old existing irrigation pipe may contain asbestos; during installation the old irrigation system will be shut off and left in the ground. The contractor, to the best of their ability is not to disturb the old existing pipe and will leave this product in the ground.

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**PART B - CITY REQUIREMENTS**

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### **3.0 QUALIFICATIONS:**

The successful contractor will have a minimum of (5) five years of experience installing irrigation systems and have attained certification by the Irrigation Association as a Certified Irrigation Contractor. The proponent must provide recent examples of installations of similar systems. Proponents with experience in golf course irrigation experience is preferred.

### **4.0 ATTACHMENTS:**

#### **Drawings:**

- IR-100 COVER SHEET
- IR-101 IRRIGATION DESIGN
- IR-102 IRRIGATION DESIGN
- IR-103 IRRIGATION DESIGN
- IR-104 IRRIGATION DESIGN
- IR-105 IRRIGATION DETAILS
- IR-106 IRRIGATION LAYOUT - SPRAY PATTERN
- 10-01 BACKFLOW PREVENTOR
- 10-02 IRRIGATION AND SPRAY PARK KIOSK
- 10-03 STEEL CONTROLLER KIOSK
- 10-04 QUICK COUPLER IN VALVE BOX
- 10-05.1 IRRIGATION VAULT - PAGE 1 OF 2
- 10-05.2 IRRIGATION VAULT - PAGE 2 OF 2
- 10-06 1.5M SERVICE VAULT
- 10-07 LATERAL END CAP / FLUSH VALVE
- 10-08 IRRIGATION MAINLINE ISOLATION VALVE
- 10-09 IRRIGATION TRENCHING
- 10-10 THRUST BLOCKS
- 10-11 AIR RELEASE VALVE
- 10-12 SLEEVE AT STREET OR PARKING
- 10-13 SLEEVE AT PATH
- 10-14 ROTOR SPRAY HEAD
- 10-15 POP-UP SPRAY HEAD
- 10-16 REMOTE CONTROL VALVE ASSEMBLY
- 10-17 FLOW SENSOR ASSEMBLY
- 10-17 MASTER VALVE ASSEMBLY
- 10-18 FLOW SENSOR ASSEMBLY
- 10-18 MASTER VALVE ASSEMBLY

#### **Specifications:**

- 32 80 00 - Irrigation System

### **5.0 OWNERS LIST OF KNOWN WORKPLACE HAZARDS:**

(see attached)

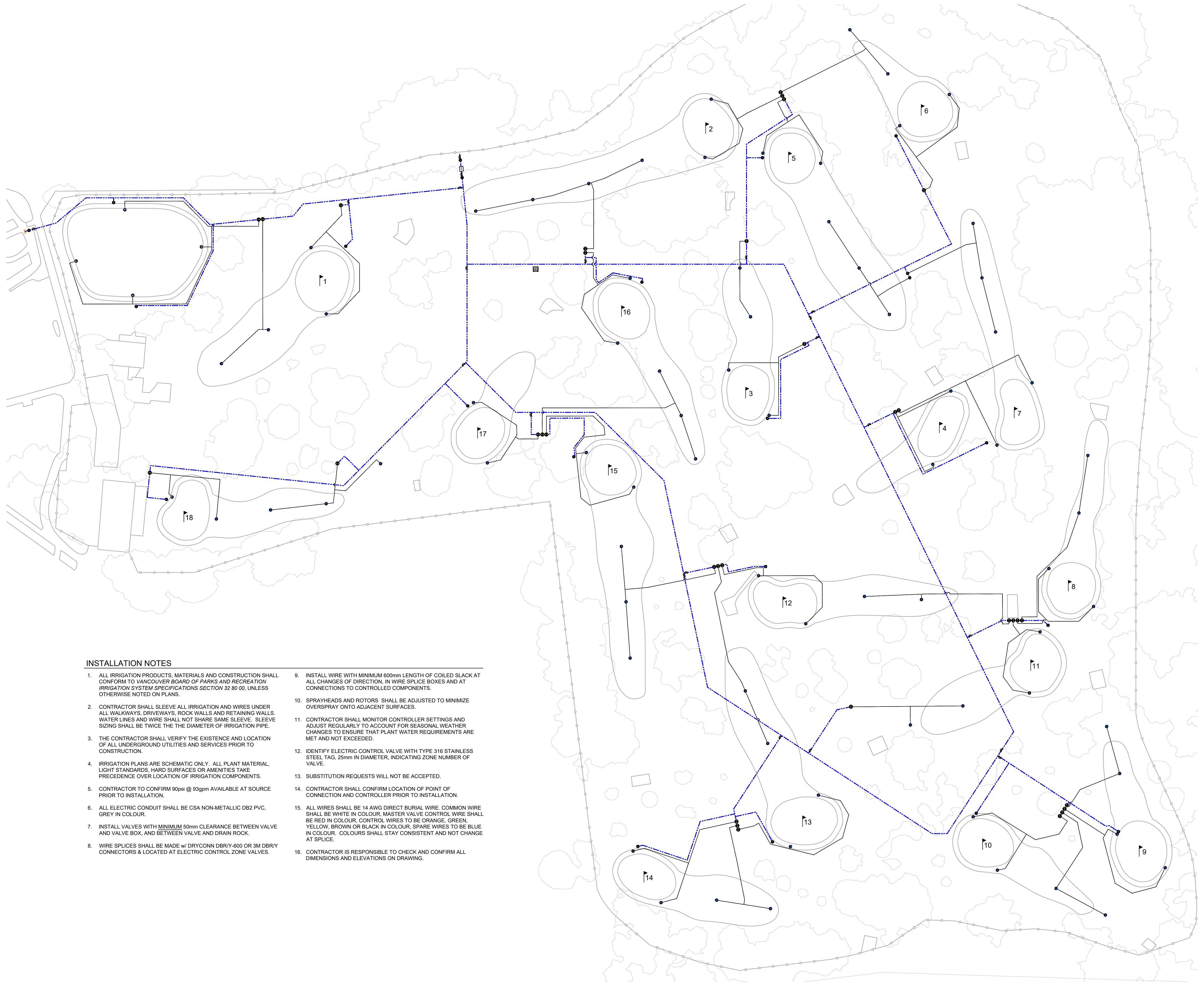


# VANCOUVER BOARD OF PARKS AND RECREATION

## QUEEN ELIZABETH PITCH & PUTT IRRIGATION SYSTEM

### LIST OF DRAWINGS

IR-100	COVER SHEET
IR-101	IRRIGATION DESIGN
IR-102	IRRIGATION DESIGN
IR-103	IRRIGATION DESIGN
IR-104	IRRIGATION DESIGN
IR-105	IRRIGATION DETAILS
IR-106	IRRIGATION LAYOUT - SPRAY PATTERN



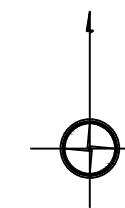
#### INSTALLATION NOTES

1. ALL IRRIGATION PRODUCTS, MATERIALS AND CONSTRUCTION SHALL CONFORM TO VANCOUVER BOARD OF PARKS AND RECREATION IRRIGATION SYSTEM SPECIFICATIONS SECTION 32.80.00, UNLESS OTHERWISE NOTED ON PLANS.
2. CONTRACTOR SHALL SLEEVE ALL IRRIGATION AND WIRES UNDER ALL WALKWAYS, DRIVEWAYS, ROCK WALLS AND RETAINING WALLS. WATER LINES AND WIRE SHALL NOT SHARE SAME SLEEVE. SLEEVE SIZING SHALL BE TWICE THE DIAMETER OF IRRIGATION PIPE.
3. THE CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES AND SERVICES PRIOR TO CONSTRUCTION.
4. IRRIGATION PLANS ARE SCHEMATIC ONLY. ALL PLANT MATERIAL, LIGHT STANDARDS, HARD SURFACES OR AMENITIES TAKE PRECEDENCE OVER LOCATION OF IRRIGATION COMPONENTS.
5. CONTRACTOR TO CONFIRM 90psi @ 93gpm AVAILABLE AT SOURCE PRIOR TO INSTALLATION.
6. ALL ELECTRIC CONDUIT SHALL BE CSA NON-METALLIC DB2 PVC, GREY IN COLOUR.
7. INSTALL VALVES WITH MINIMUM 50mm CLEARANCE BETWEEN VALVE AND VALVE BOX, AND BETWEEN VALVE AND DRAIN ROCK.
8. WIRE SPLICES SHALL BE MADE w/ DRYCONN DBRY-600 OR 3M DBRY CONNECTORS & LOCATED AT ELECTRIC CONTROL ZONE VALVES.
9. INSTALL WIRE WITH MINIMUM 600mm LENGTH OF COILED SLACK AT ALL CHANGES OF DIRECTION, IN WIRE SPLICE BOXES AND AT CONNECTIONS TO CONTROLLED COMPONENTS.
10. SPRAYHEADS AND ROTORS SHALL BE ADJUSTED TO MINIMIZE OVERSPRAY ONTO ADJACENT SURFACES.
11. CONTRACTOR SHALL MONITOR CONTROLLER SETTINGS AND ADJUST REGULARLY TO ACCOUNT FOR SEASONAL WEATHER CHANGES TO ENSURE THAT PLANT WATER REQUIREMENTS ARE MET AND NOT EXCEEDED.
12. IDENTIFY ELECTRIC CONTROL VALVE WITH TYPE 316 STAINLESS STEEL TAG, 25mm IN DIAMETER, INDICATING ZONE NUMBER OF VALVE.
13. SUBSTITUTION REQUESTS WILL NOT BE ACCEPTED.
14. CONTRACTOR SHALL CONFIRM LOCATION OF POINT OF CONNECTION AND CONTROLLER PRIOR TO INSTALLATION.
15. ALL WIRES SHALL BE 14 AWG DIRECT BURIAL WIRE. COMMON WIRE SHALL BE WHITE IN COLOUR. MASTER VALVE CONTROL WIRE SHALL BE RED IN COLOUR. CONTROL WIRES TO BE ORANGE, GREEN, YELLOW, BROWN OR BLACK IN COLOUR. SPARE WIRES TO BE BLUE IN COLOUR. COLOURS SHALL STAY CONSISTENT AND NOT CHANGE AT SPLICE.
16. CONTRACTOR IS RESPONSIBLE TO CHECK AND CONFIRM ALL DIMENSIONS AND ELEVATIONS ON DRAWING.

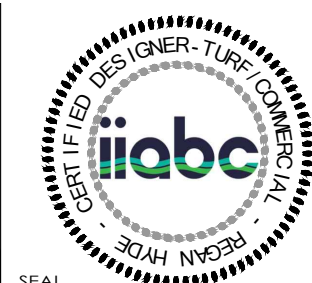


REVISIONS / ISSUED			REVISIONS / ISSUED		
1	DEC 03/20	ISSUED FOR 100% REVIEW			
NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION

PROJECT  
QUEEN ELIZABETH PARK PITCH & PUTT  
CLIENT  
CITY OF VANCOUVER  
CONSULTANT  
WATER PLAN IT IRRIGATION LTD.



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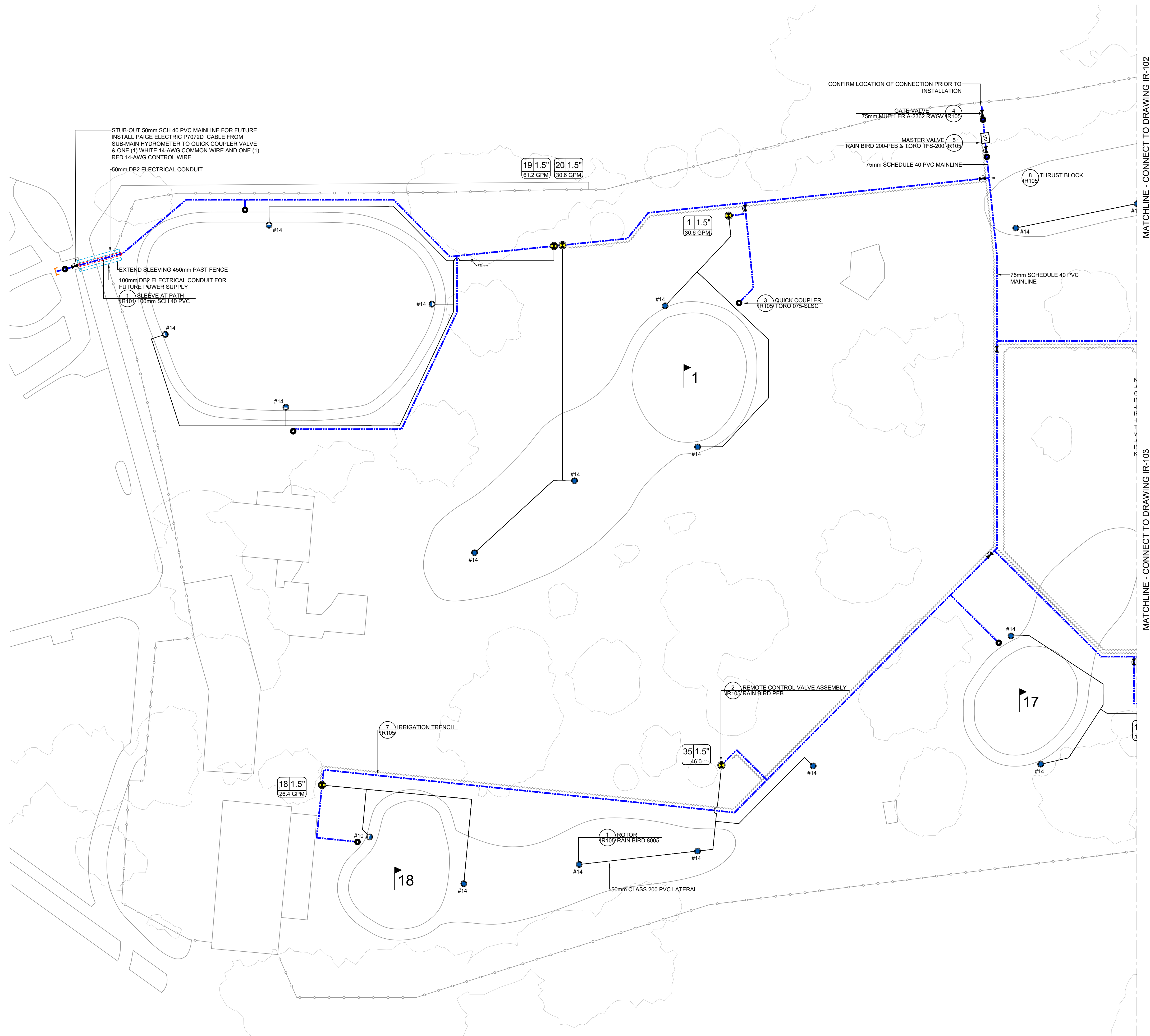


**WATERPLANIT**  
IRRIGATION LTD.

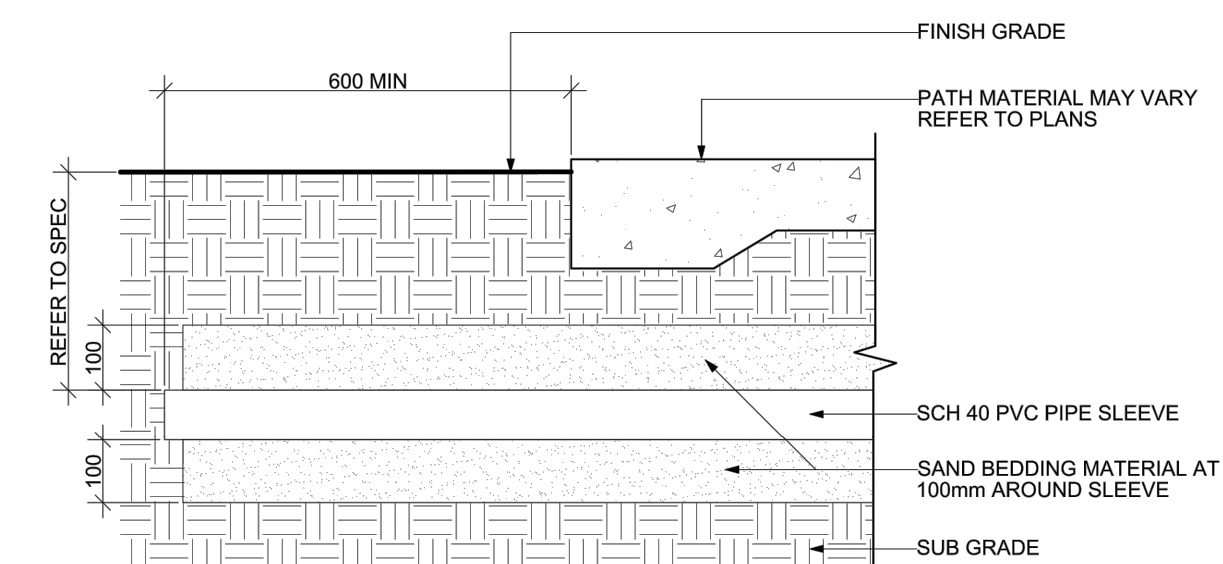
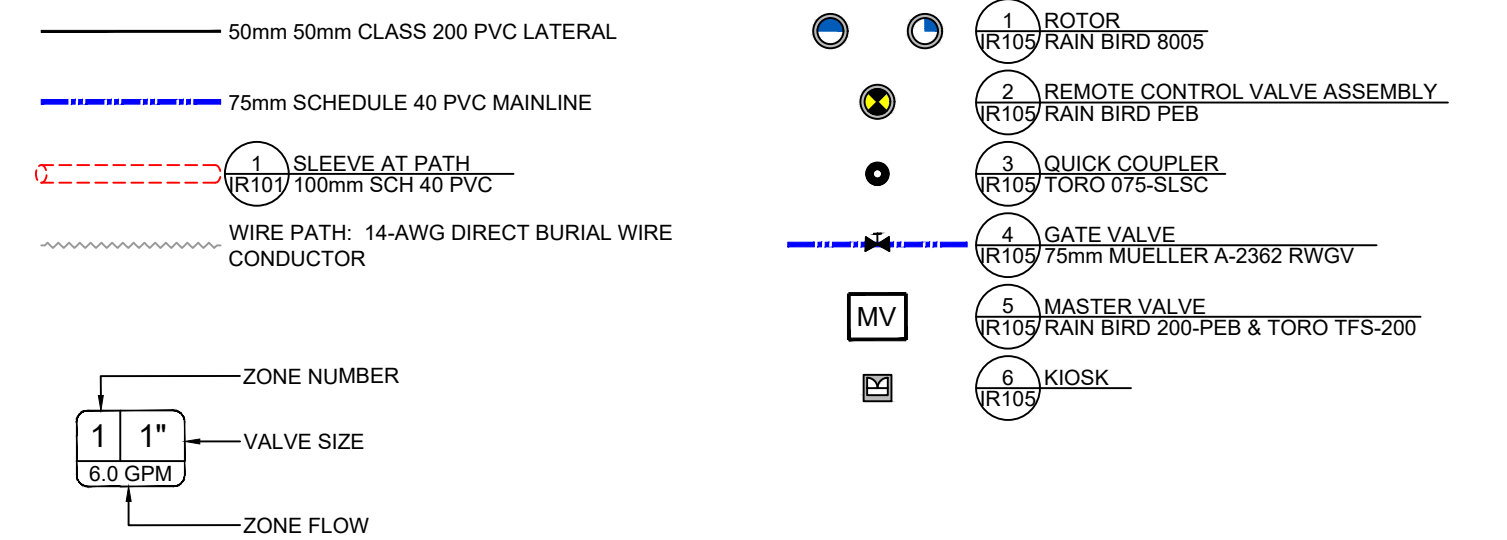
IRRIGATION DESIGN [CONSULTING] [PLANNING] EFFICIENCY  
10-1021 Ambrose Rd Kelowna BC, V1Y 4B8 | 1-250-878-5178 | www.waterplanit.ca

DESIGN BY RH	SHEET TITLE COVER SHEET
DRAWN BY RH	
CHECKED BY RH	
PROJECT NO. 20-086	SHEET NO. IR-100
SCALE 1:300	





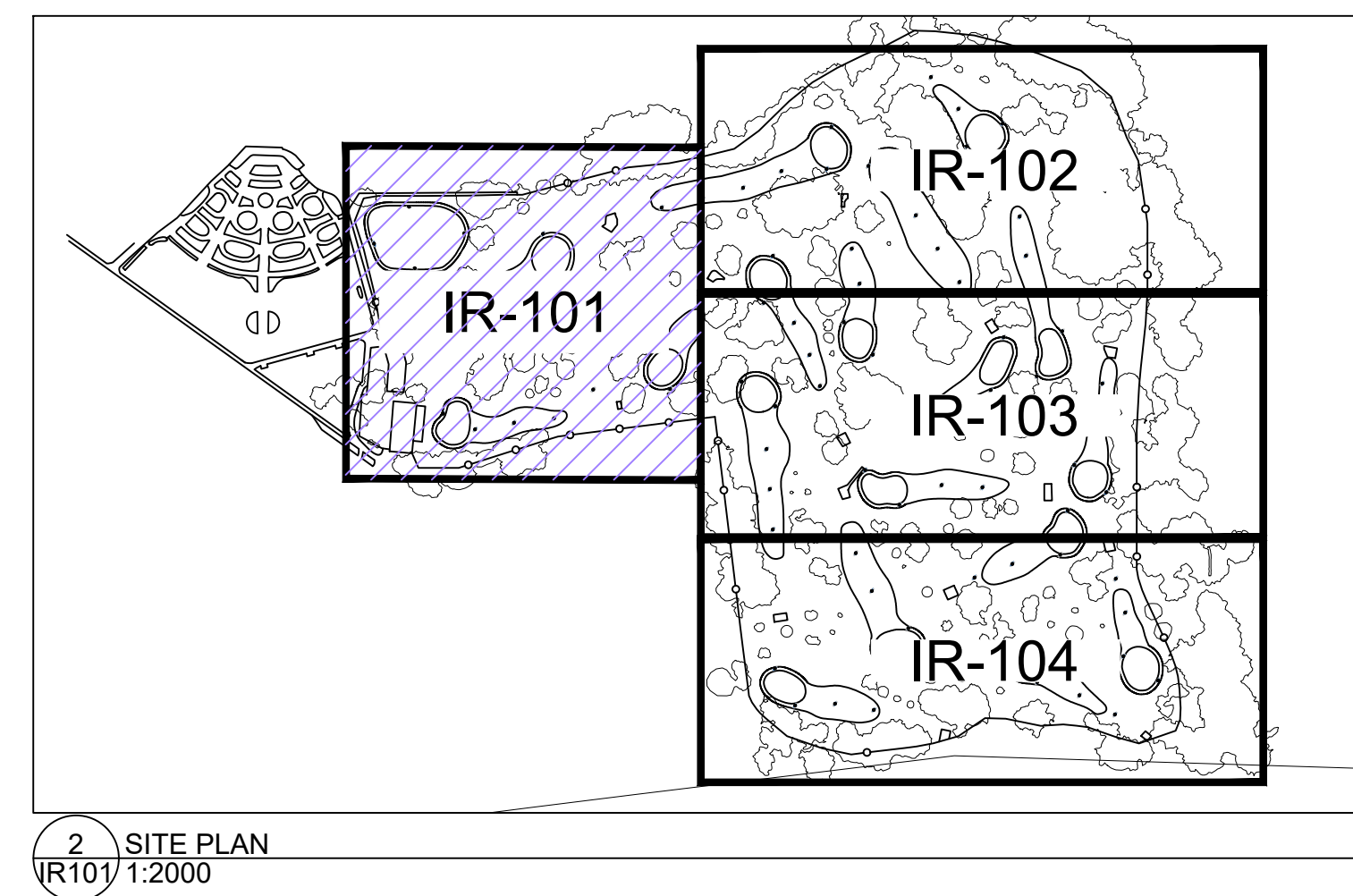
## IRRIGATION LEGEND



## NOTE:

1. DIAMETER OF SLEEVE PIPE TO BE 2X LARGER THAN DIAMETER OF IRRIGATION PIPE.
2. IF SLEEVING MULTIPLE PIPES, SLEEVE DIAMETER TO BE 25mm LARGER THAN THE COMBINED TOTAL OF ALL PIPES.
3. WIRES TO BE LOCATED IN SEPARATE CONDUIT
4. PVC SLEEVING IS ACCEPTABLE, EXCEPT IN VEHICULAR PATHWAYS

1 SLEEVE AT PATH  
IR101/N.T.S.

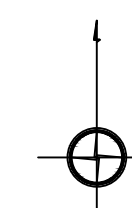


REVISIONS / ISSUED			REVISIONS / ISSUED		
1	DEC 03/20	ISSUED FOR 100% REVIEW			
NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION

PROJECT  
QUEEN ELIZABETH PARK PITCH & PUTT

CLIENT  
CITY OF VANCOUVER

CONSULTANT  
WATER PLAN IT IRRIGATION LTD.



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ANY DAMAGE OR LOSS.

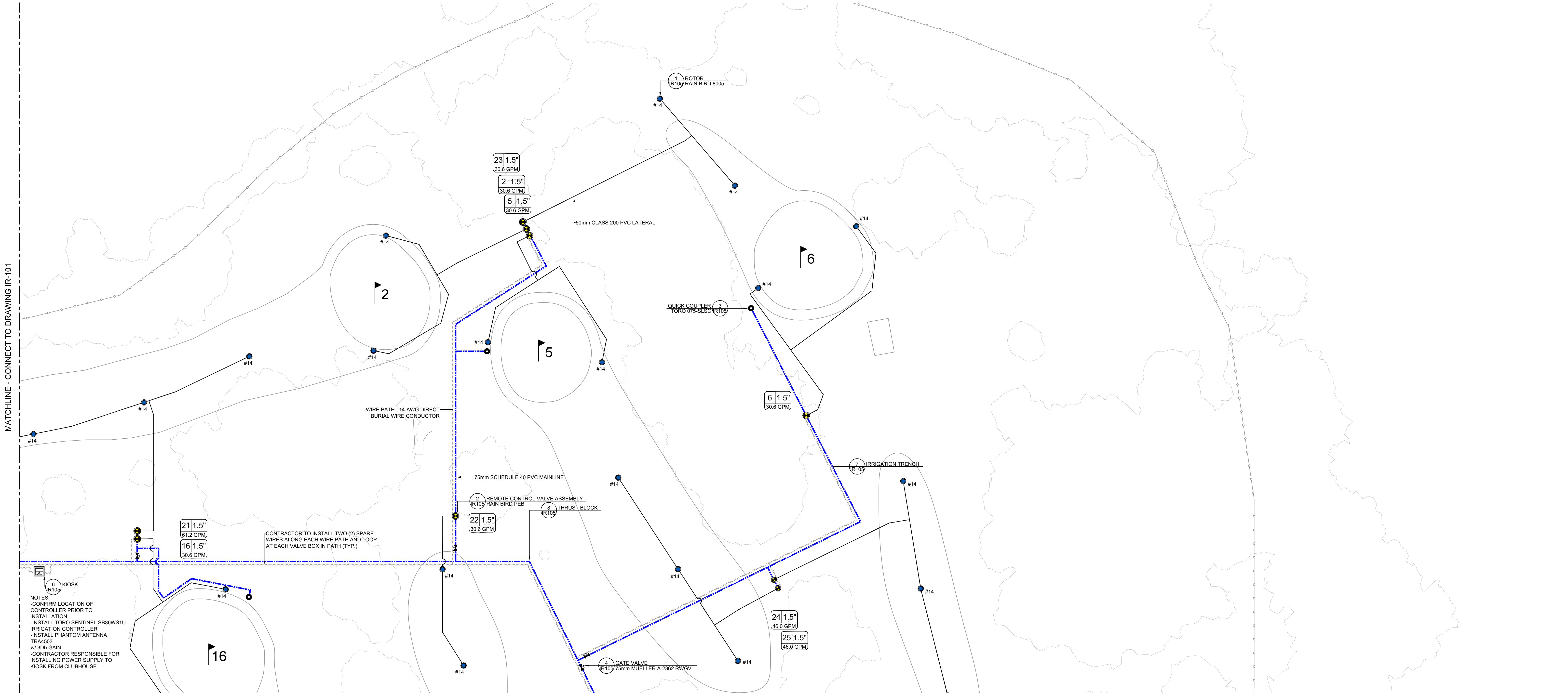


**WATERPLANIT**  
IRRIGATION LTD.

IRRIGATION DESIGN [CONSULTING] [PLANNING] [EFFICIENCY]  
10-1021 Ardmore Rd. Kelowna BC, V1Y 4B8 | 250.878.5178 | www.waterplanit.ca

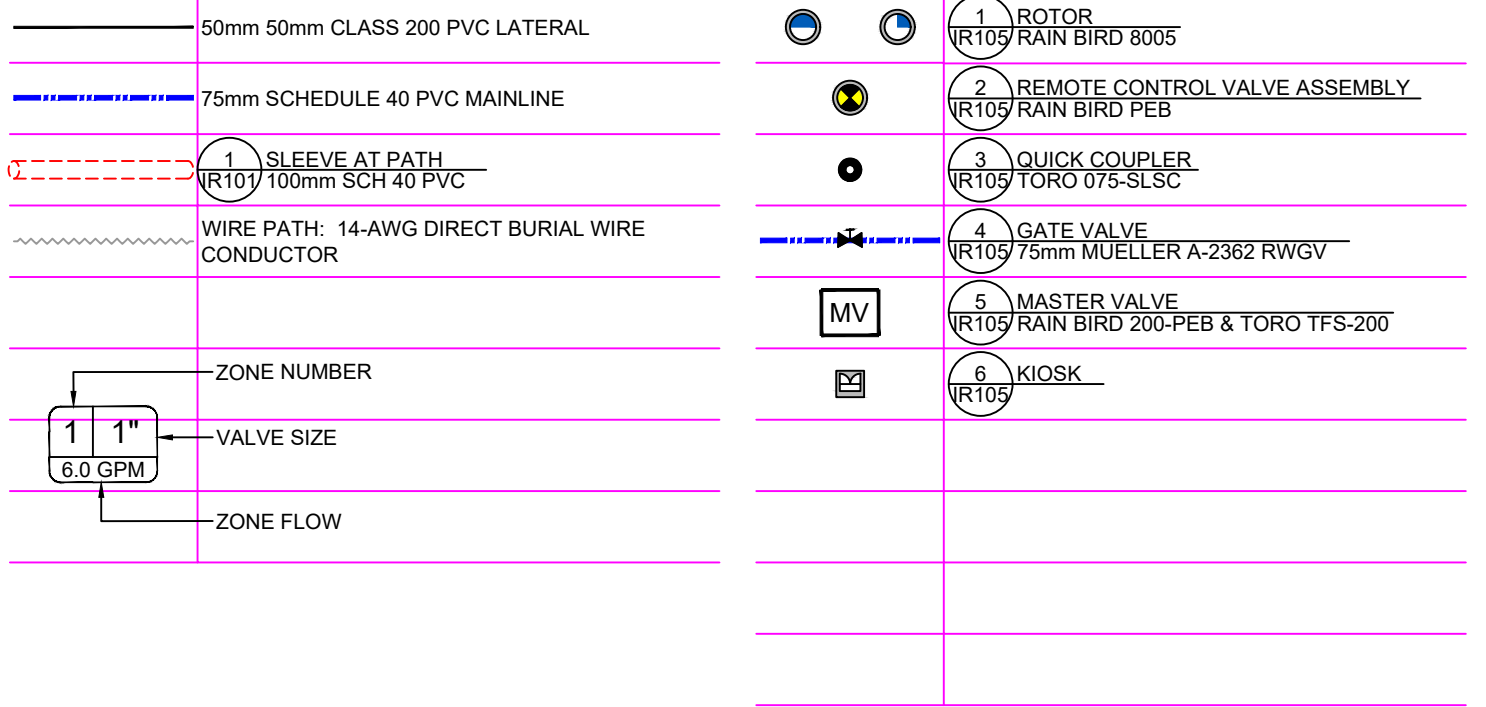
DESIGN BY	RH	SHEET TITLE	IRRIGATION DESIGN
DRAWN BY	RH		
CHECKED BY	RH		
PROJECT NO.	20-086	SHEET NO.	IR-101
SCALE	1:300		





MATCHLINE - CONNECT TO DRAWING IR-103

IRRIGATION LEGEND



IRRIGATION SCHEDULE

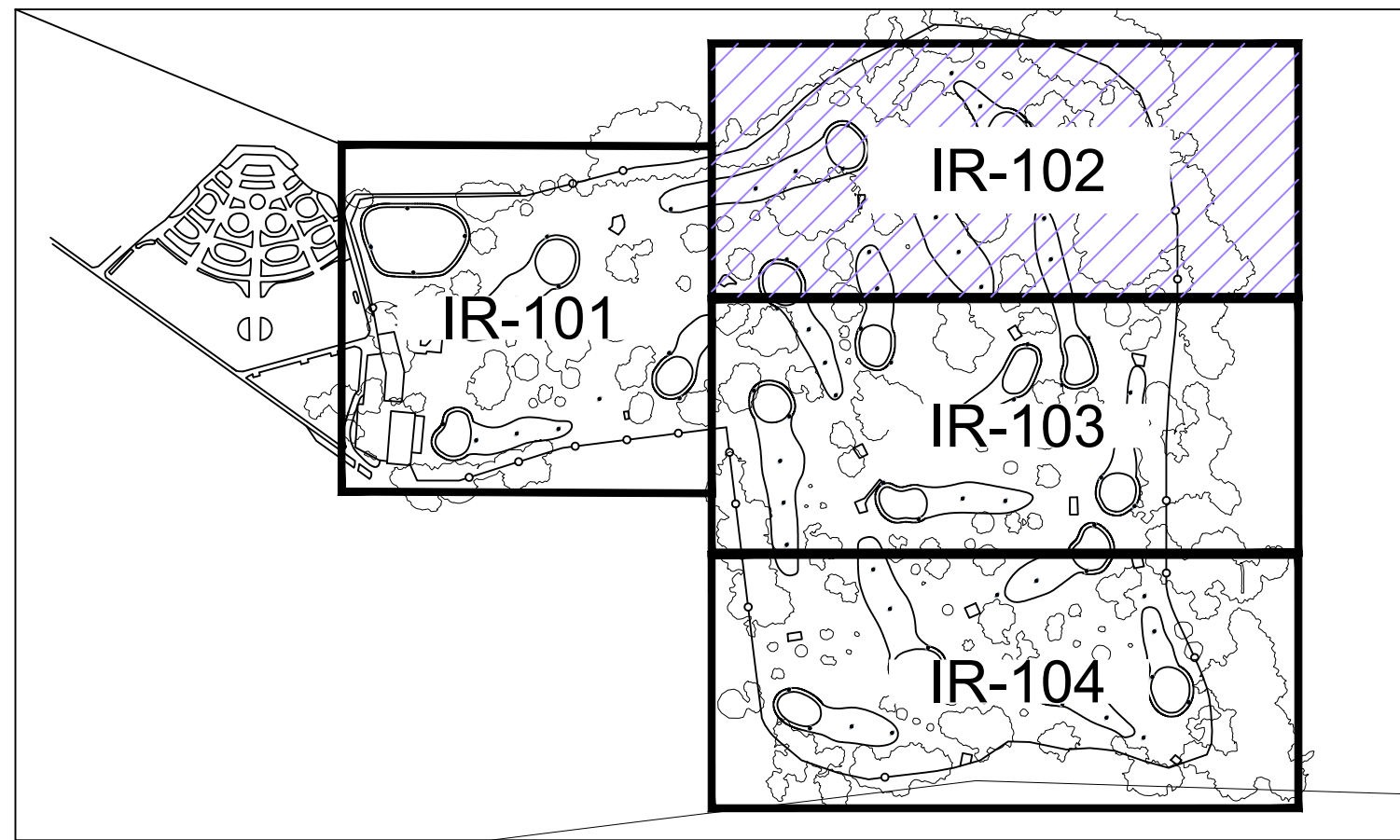
GREENS			BASED ON PEAK DEMAND FOR MONTH OF JULY (ET=0.13"/DAY)						
ZONE	VALVE SIZE	DESIGN FLOW (GPM)	DESIGN PRESSURE (PSI)	PRECIPITATION RATE (IN/HR)	SOIL TYPE	INTERVAL DAYS	CYCLES PER RUN TIME	RUN TIME (PER CYCLE)	
1	38mm	30.6	70	0.20	SAND	1	1	38	
2	38mm	30.6	70	0.20	SAND	1	1	38	
3	38mm	30.6	70	0.20	SAND	1	1	38	
4	38mm	30.6	70	0.20	SAND	1	1	38	
5	38mm	30.6	70	0.20	SAND	1	1	38	
6	38mm	30.6	70	0.20	SAND	1	1	38	
7	38mm	30.6	70	0.20	SAND	1	1	38	
8	38mm	30.6	70	0.20	SAND	1	1	38	
9	38mm	30.6	70	0.20	SAND	1	1	38	
10	38mm	30.6	70	0.20	SAND	1	1	38	
11	38mm	30.6	70	0.20	SAND	1	1	38	
12	38mm	30.6	70	0.20	SAND	1	1	38	
13	38mm	30.6	70	0.20	SAND	1	1	38	
14	38mm	30.6	70	0.20	SAND	1	1	38	
15	38mm	30.6	70	0.20	SAND	1	1	38	
16	38mm	30.6	70	0.20	SAND	1	1	38	
17	38mm	30.6	70	0.20	SAND	1	1	38	
18	38mm	30.6	70	0.20	SAND	1	1	38	
19	38mm	26.4	70	0.20	SAND	1	1	38	
TOTAL RUN TIME PER CYCLE								722	

NOTE: IRRIGATION RUN TIMES ARE FOR ESTABLISHED PLANT MATERIAL ONLY. SET CONTROLLER TO RUN 2 ZONES SIMULTANEOUSLY.

IRRIGATION SCHEDULE

FAIRWAYS				BASED ON PEAK DEMAND FOR MONTH OF JULY (ET=0.13"/DAY)				
ZONE	VALVE SIZE	DESIGN FLOW (GPM)	DESIGN PRESSURE (PSI)	PRECIPITATION RATE (IN/HR)	SOIL TYPE	INTERVAL DAYS	CYCLES PER RUN TIME	RUN TIME (PER CYCLE)
19	38mm	61.2	70	0.37	SANDY LOAM	2	1	21
20	38mm	30.6	70	0.22	SANDY LOAM	2	1	35
21	38mm	61.2	70	0.22	SANDY LOAM	2	1	35
22	38mm	30.6	70	0.22	SANDY LOAM	2	1	35
23	38mm	30.6	70	0.22	SANDY LOAM	2	1	35
24	38mm	46.0	70	0.22	SANDY LOAM	2	1	35
25	38mm	46.0	70	0.22	SANDY LOAM	2	1	35
26	38mm	30.6	70	0.22	SANDY LOAM	2	1	35
27	38mm	30.6	70	0.22	SANDY LOAM	2	1	35
28	38mm	30.6	70	0.22	SANDY LOAM	2	1	35
29	38mm	30.6	70	0.22	SANDY LOAM	2	1	35
30	38mm	30.6	70	0.22	SANDY LOAM	2	1	35
31	38mm	30.6	70	0.22	SANDY LOAM	2	1	35
32	38mm	46.0	70	0.22	SANDY LOAM	2	1	35
33	38mm	30.6	70	0.22	SANDY LOAM	2	1	35
34	38mm	46.0	70	0.25	SANDY LOAM	2	1	31
35	38mm	46.0	70	0.22	SANDY LOAM	2	1	35
TOTAL RUN TIME PER CYCLE								577
NOTE: IRRIGATION RUN TIMES ARE FOR ESTABLISHED PLANT MATERIAL ONLY. SET CONTROLLER TO RUN 2								

NOTE: IRRIGATION RUN TIMES ARE FOR ESTABLISHED PLANT MATERIAL ONLY. SET CONTROLLER TO RUN 2 ZONES SIMULTANEOUSLY.



1 SITE PLAN  
IR102 1:3000

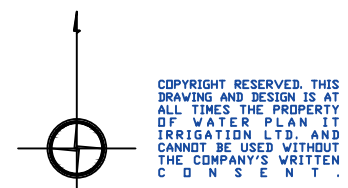


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PROJECT  
QUEEN ELIZABETH PARK PITCH & PUTT

CLIENT  
CITY OF VANCOUVER

CONSULTANT  
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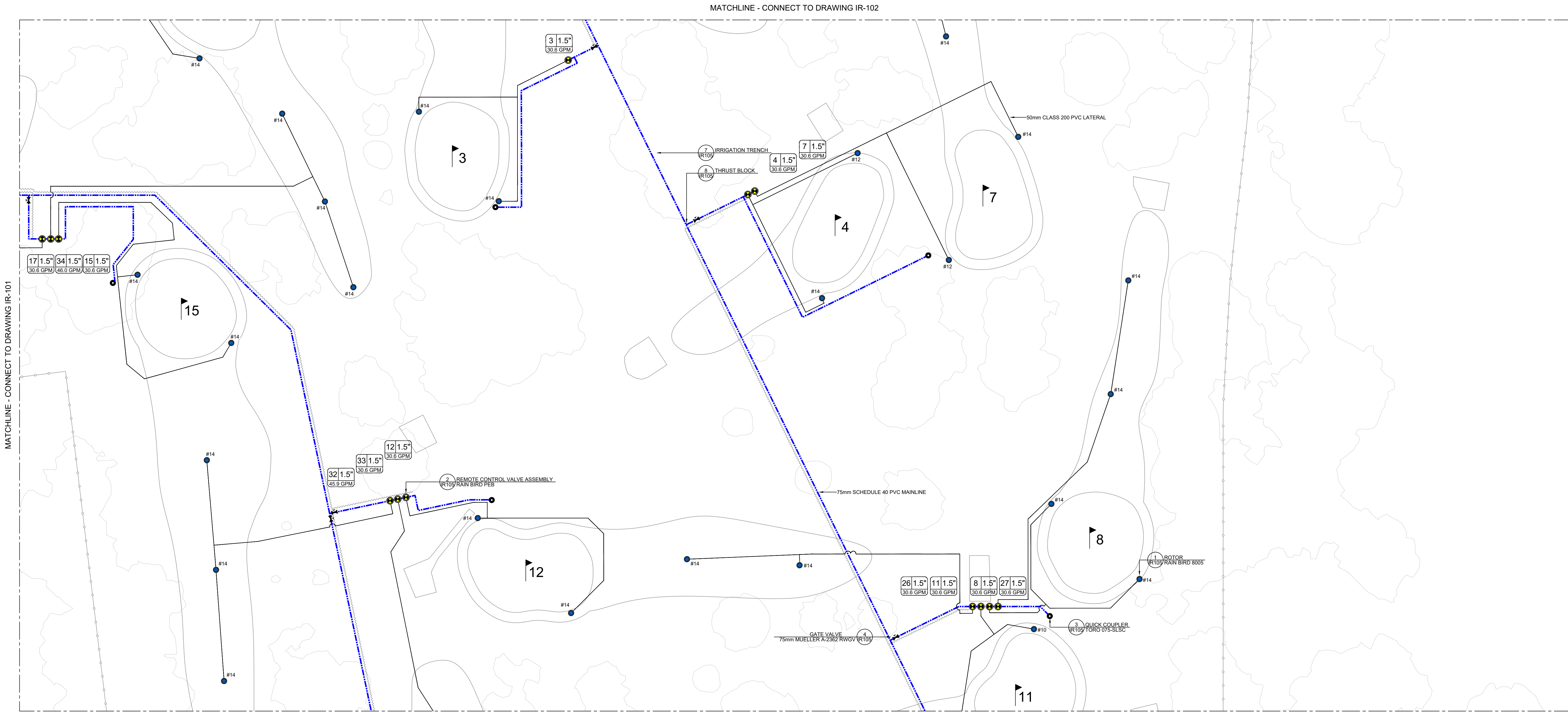


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IRRIGATION LTD.

IRRIGATION DESIGN [CONSULTING] [PLANNING] [EFFICIENCY]  
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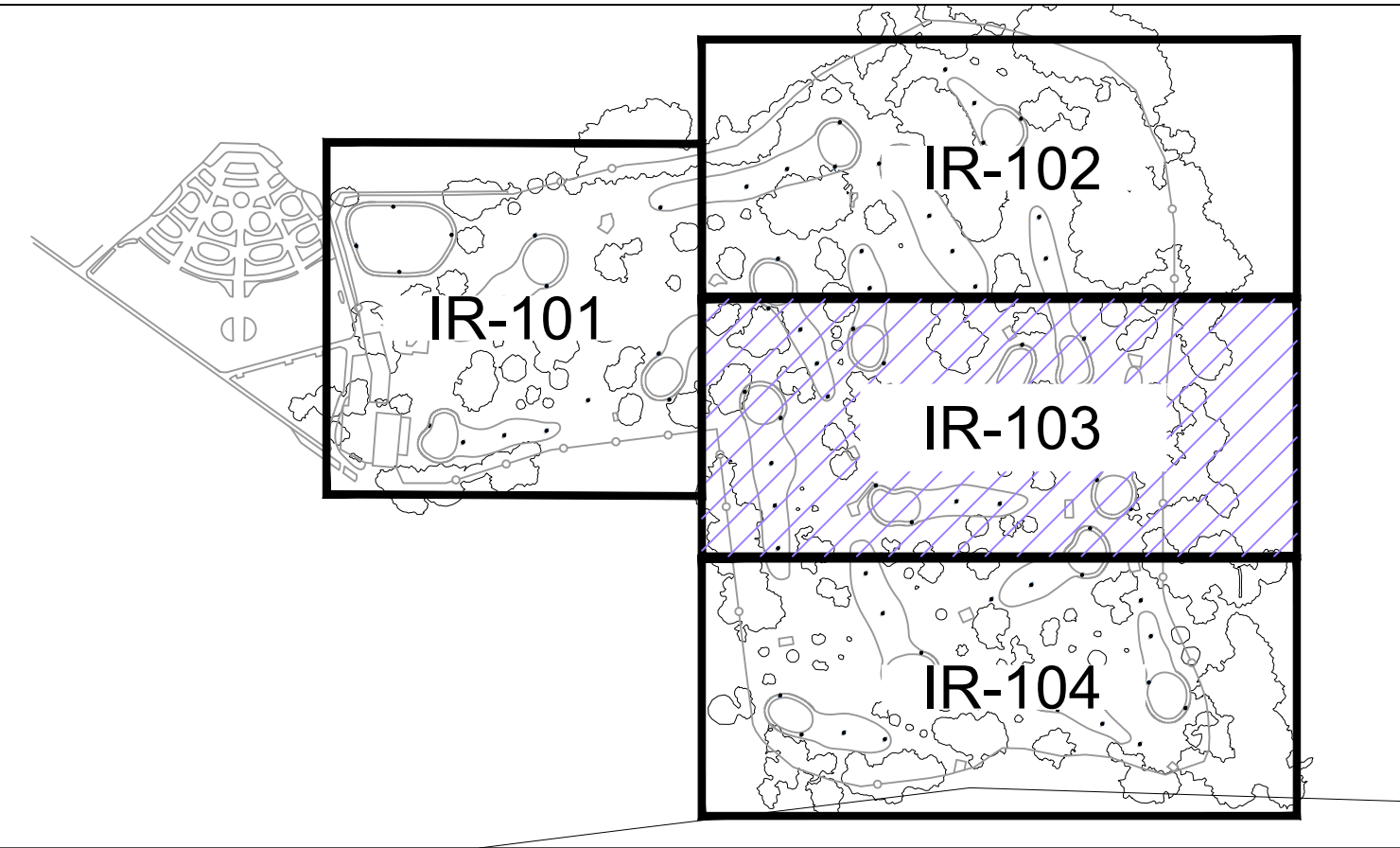
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DRAWN BY	RH		
CHECKED BY	RH		
PROJECT NO.	20-086	SHEET NO.	IR-102
SCALE	1:300		





IRRIGATION LEGEND

50mm 50mm CLASS 200 PVC LATERAL		1 ROTOR
75mm SCHEDULE 40 PVC MAINLINE		2 REMOTE CONTROL VALVE ASSEMBLY
SLEEVE AT PATH		3 QUICK COUPLER
100mm SCH 40 PVC		4 GATE VALVE
WIRE PATH: 14-AWG DIRECT BURIAL WIRE CONDUCTOR		5 MASTER VALVE
ZONE NUMBER		6 KIOSK
VALVE SIZE		
ZONE FLOW		



1 SITE PLAN  
IR103 1:3000

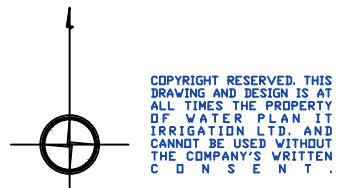


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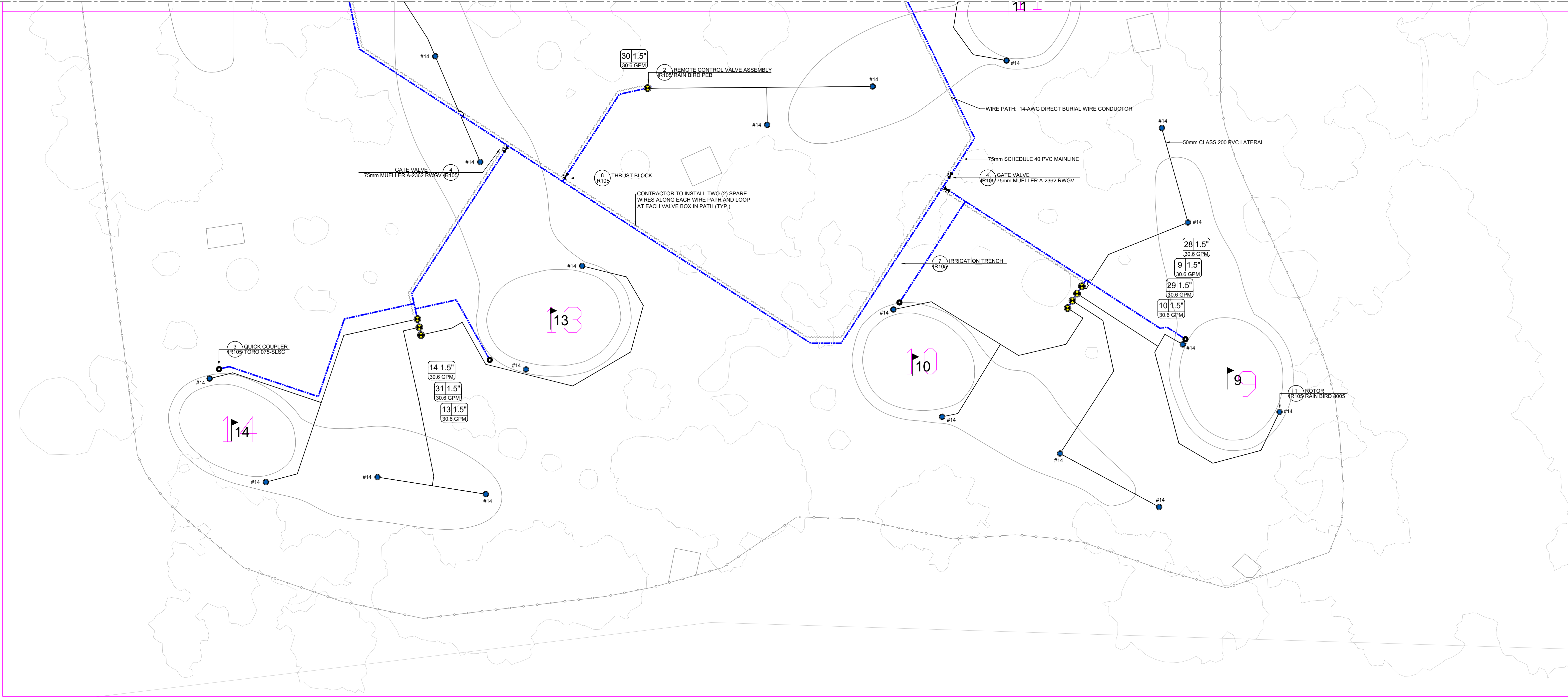
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IRRIGATION LTD.

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10-1021 Ardmore Rd Kelowna BC, V1Y 4B9 | 1-250-878-5178 | www.waterplanit.ca

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CHECKED BY	RH		
PROJECT NO.	20-086	SHEET NO.	IR-103
SCALE	1:300		

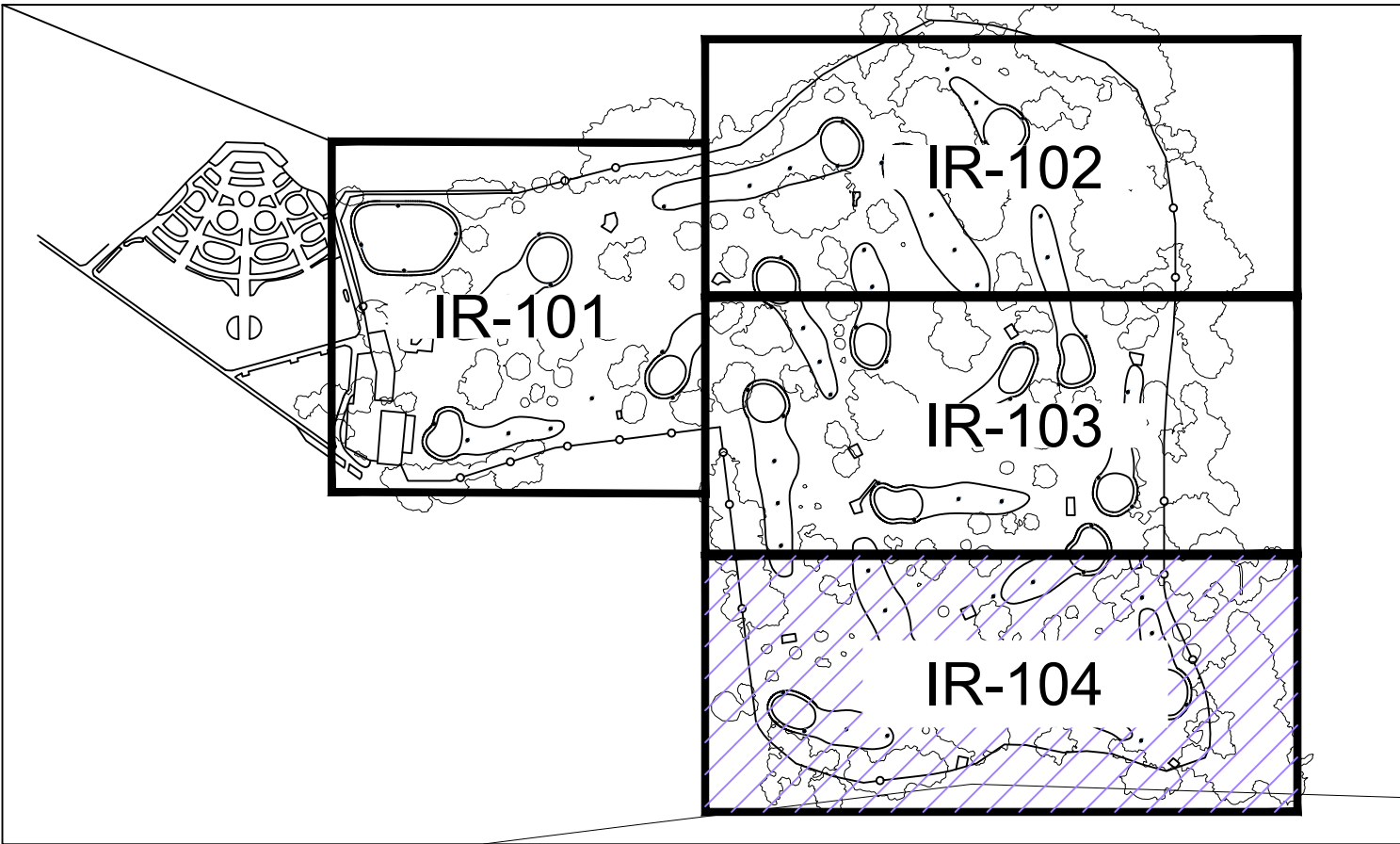


MATCHLINE - CONNECT TO DRAWING IR-103



IRRIGATION LEGEND

50mm 50mm CLASS 200 PVC LATERAL		1 ROTOR
75mm SCHEDULE 40 PVC MAINLINE		2 REMOTE CONTROL VALVE ASSEMBLY
1 SLEEVE AT PATH		3 QUICK COUPLER
100mm SCH 40 PVC		4 GATE VALVE
WIRE PATH: 14-AWG DIRECT BURIAL WIRE CONDUCTOR		5 MASTER VALVE
ZONE NUMBER		6 KIOSK
1 1" 6.0 GPM		
VALVE SIZE		
ZONE FLOW		

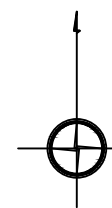


1 SITE PLAN  
IR104 1:3000



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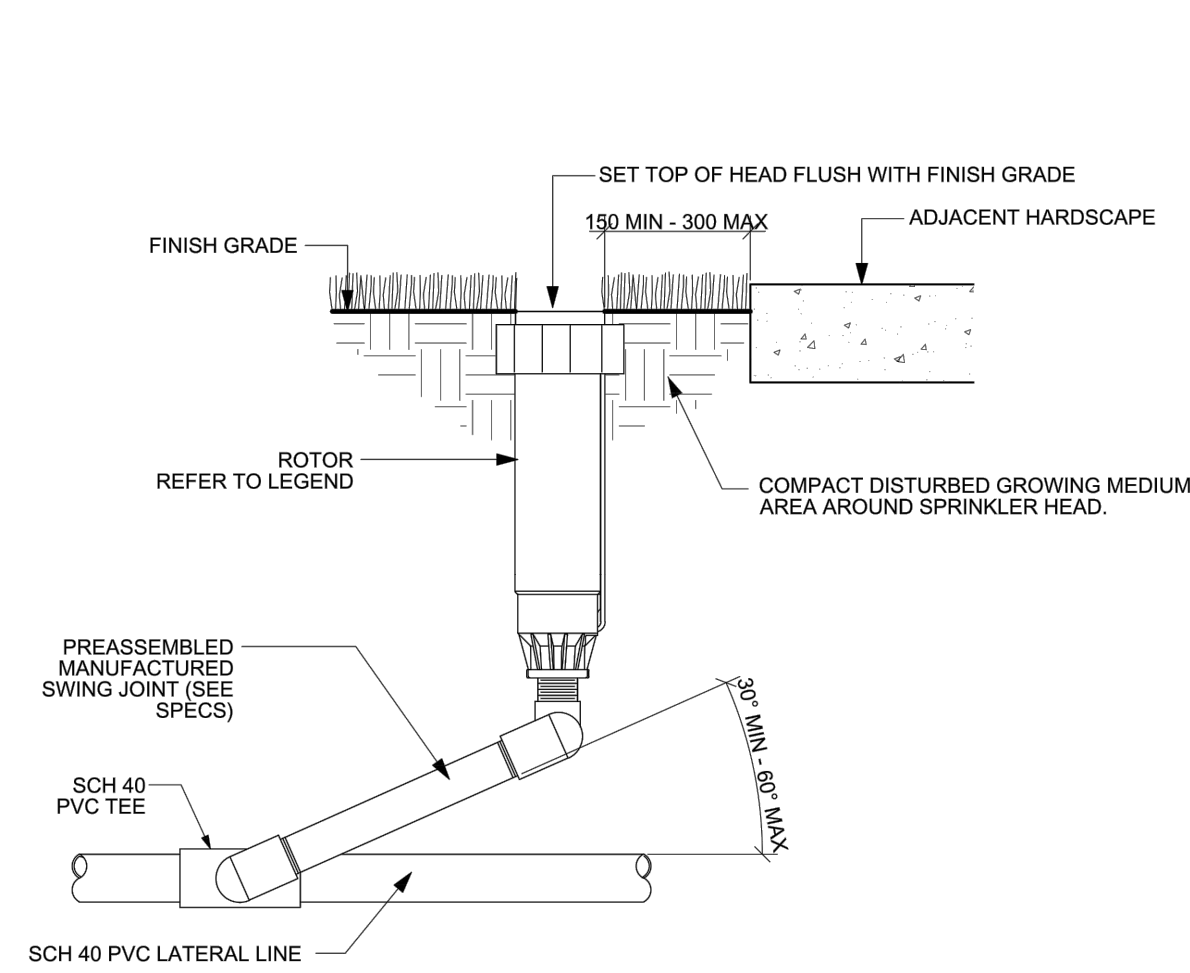


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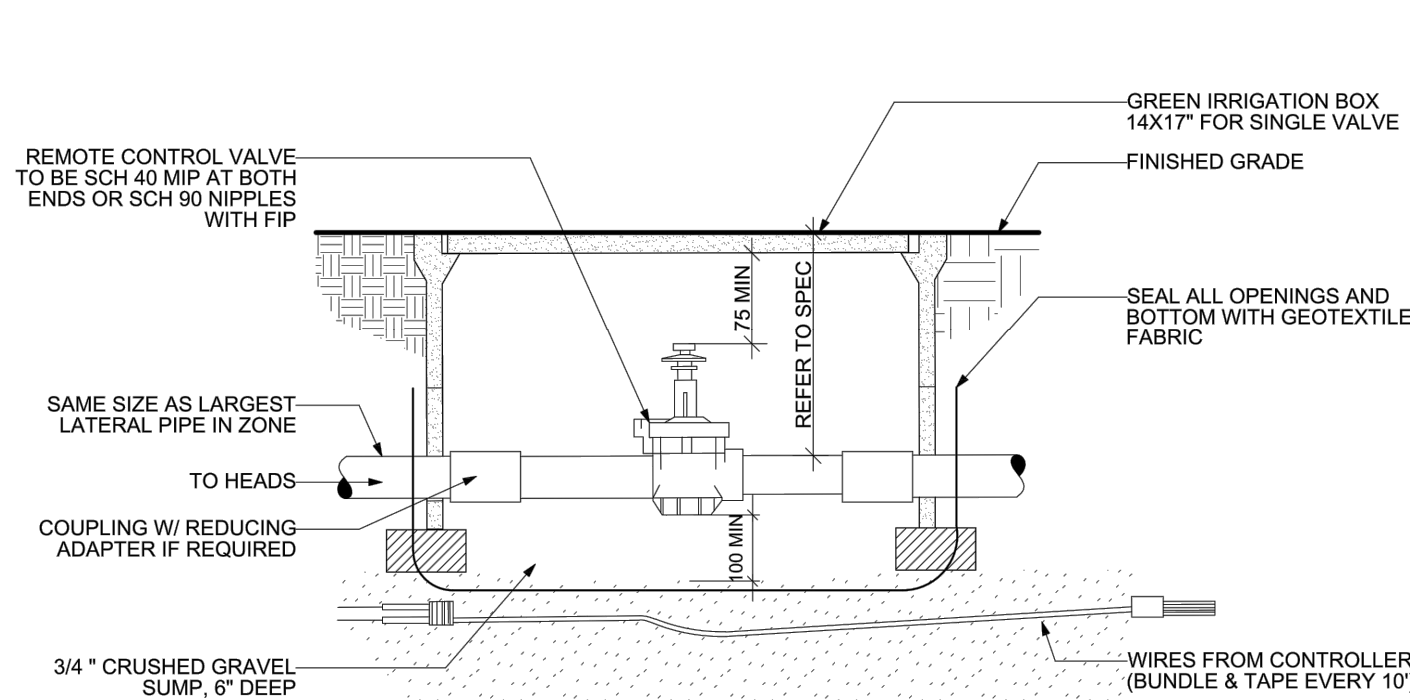
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DESIGN BY	RH	SHEET TITLE	IRRIGATION DESIGN
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CHECKED BY	RH		
PROJECT NO.	20-086	SHEET NO.	IR-104
SCALE	1:300		





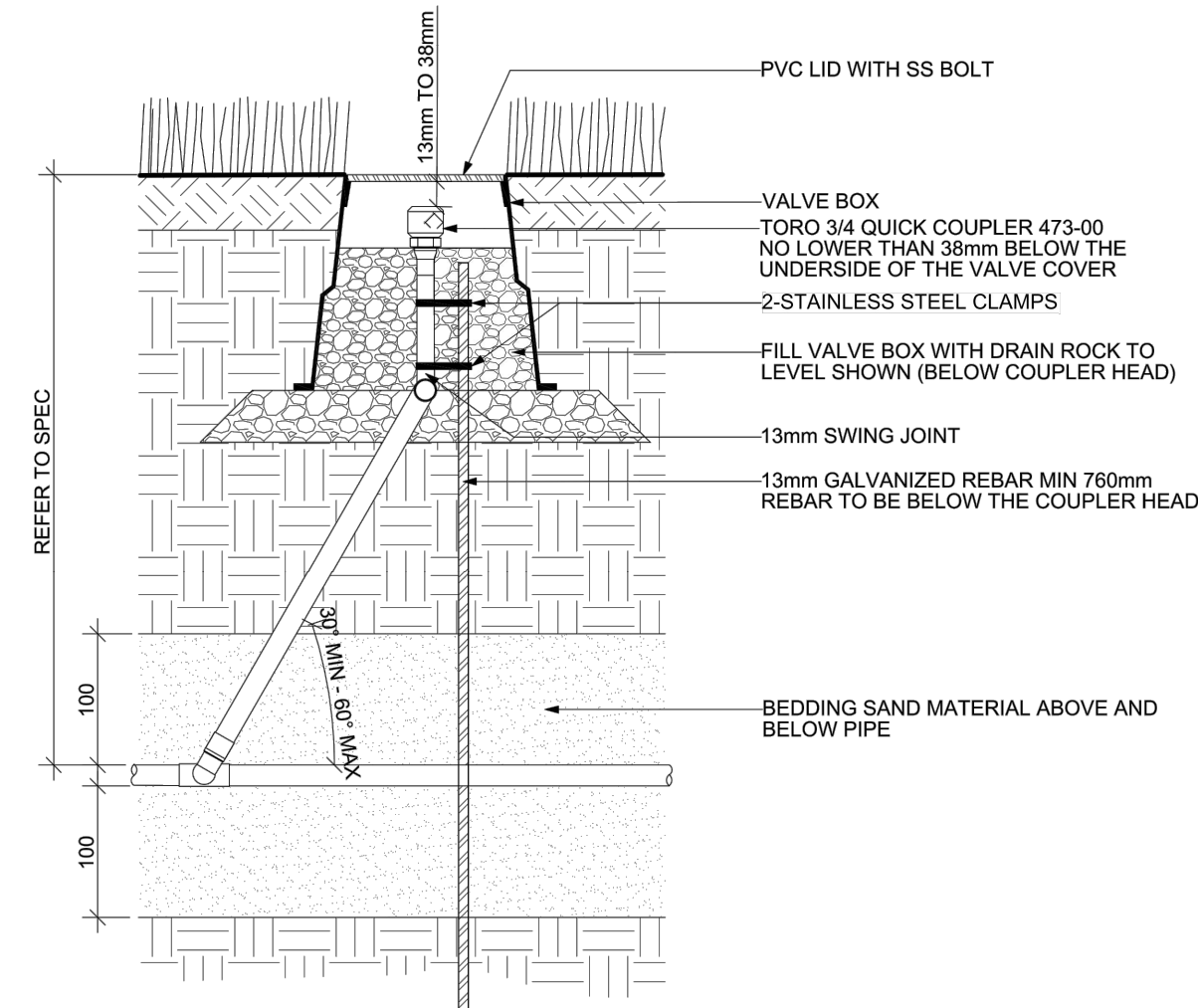
1 ROTOR  
IR105 / N.T.S.



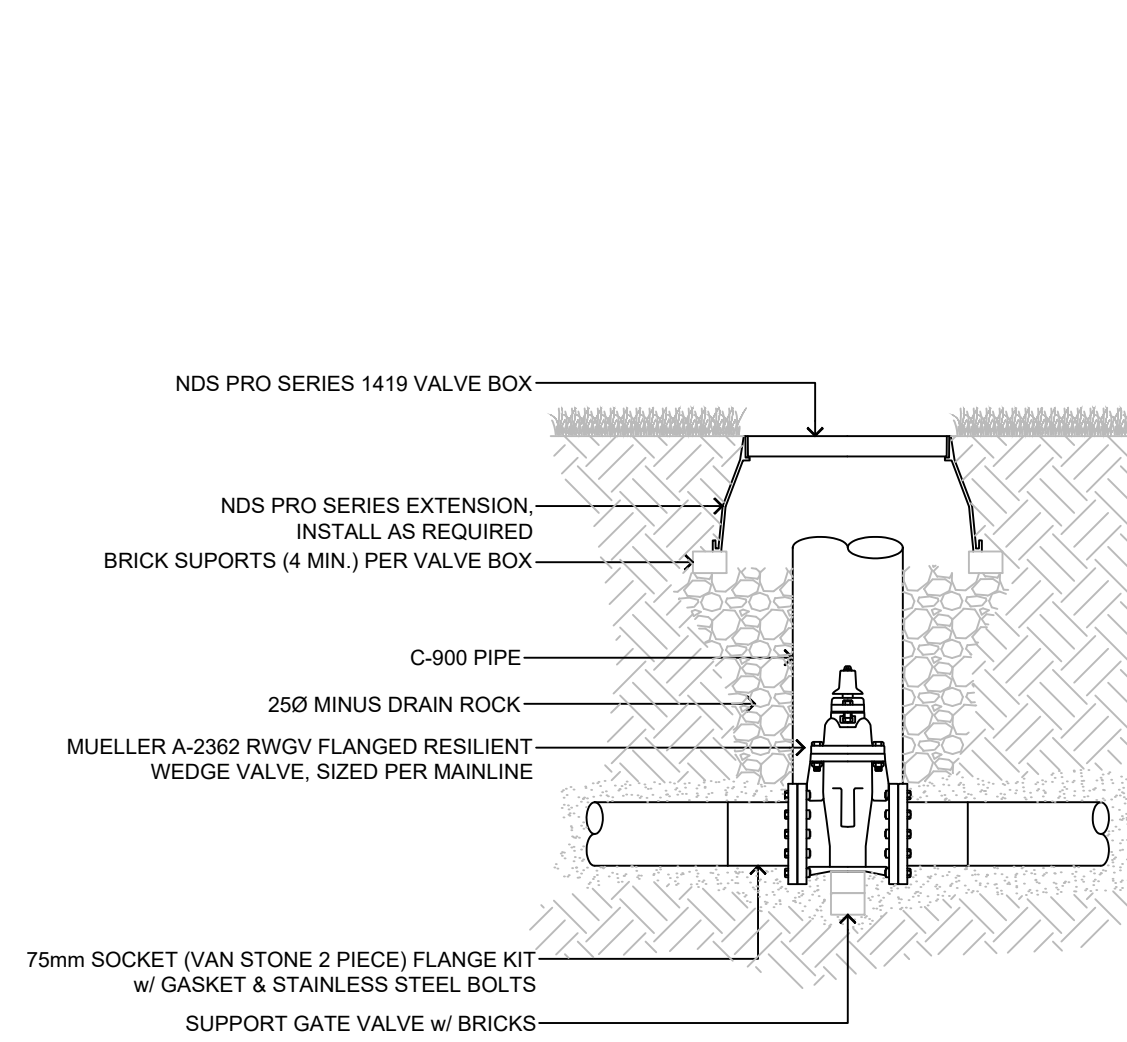
## NOTES:

1. ALL WIRE TO BE INSTALLED & SUPPLIED PER LOCAL CODE.
2. PROVIDE EXPANSION COIL AT EACH CONNECTION IN VALVE BOX (COIL WIRE AROUND 1/2" PIPE 10 TIMES).
3. DIAMETER OF FITTINGS LEADING TO AND FROM VALVE SHALL EQUAL CONTROL VALVE DIAMETER.

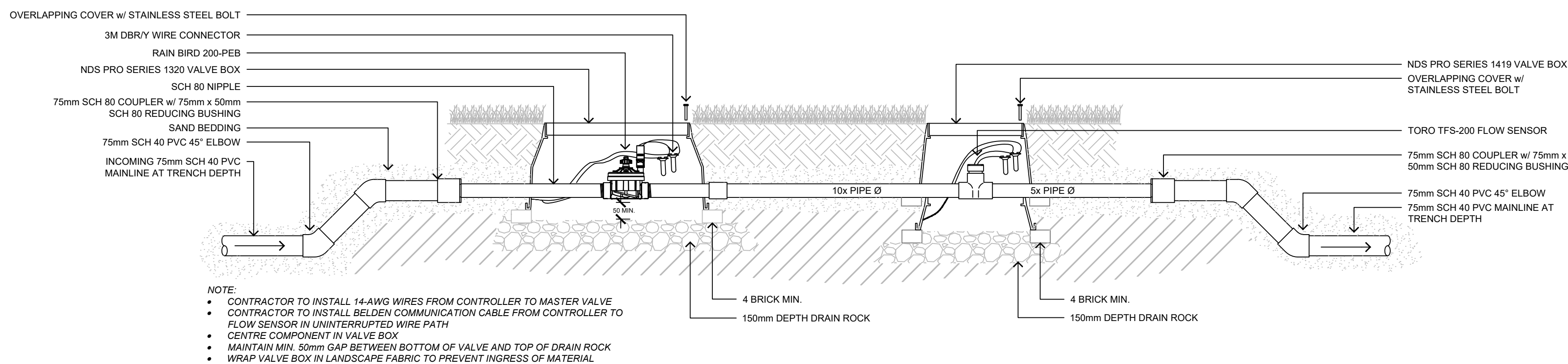
2 REMOTE CONTROL VALVE ASSEMBLY  
IR105 / N.T.S.



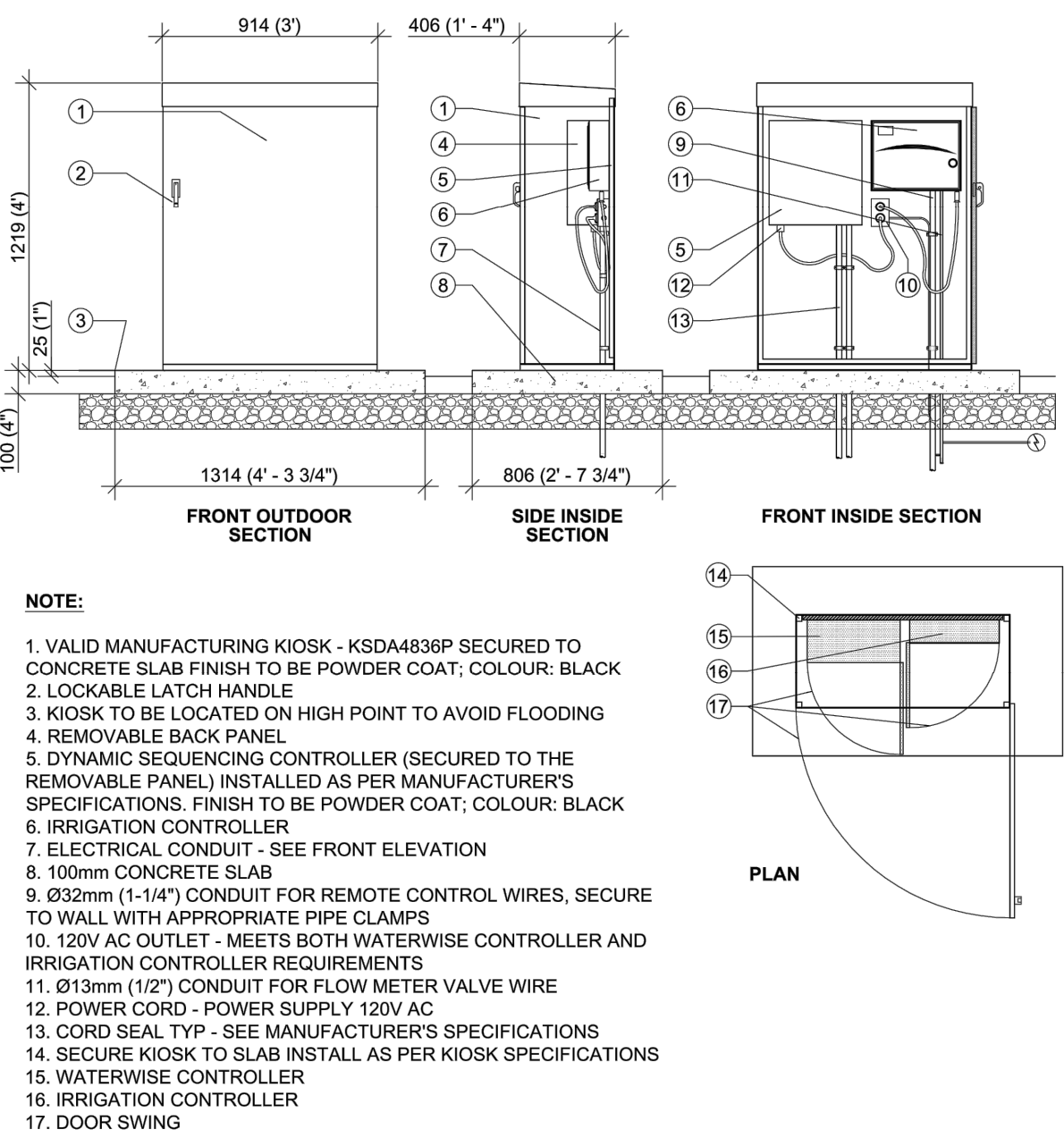
3 QUICK COUPLER  
IR105 / N.T.S.



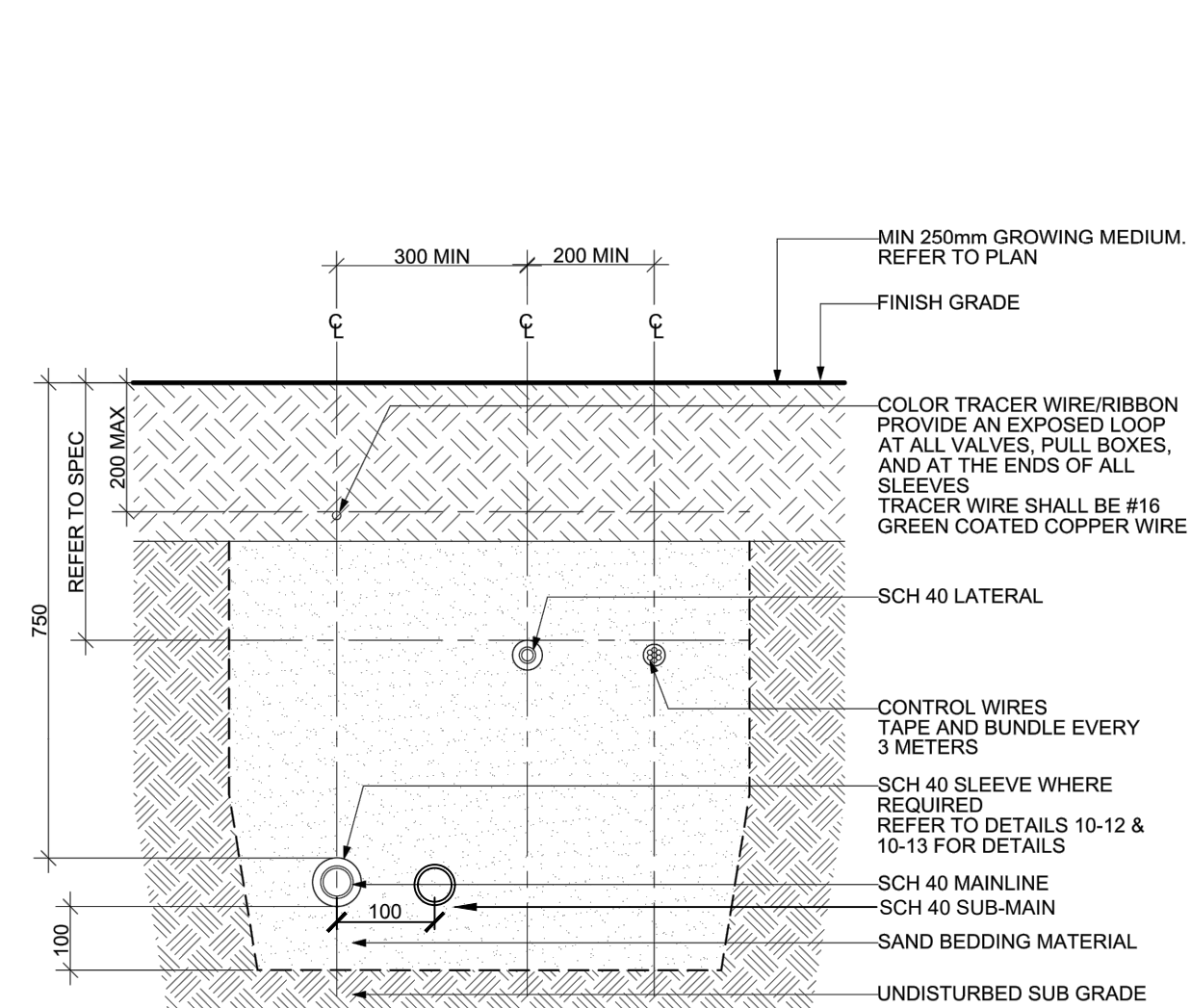
4 GATE VALVE  
IR105 / N.T.S.



5 MASTER VALVE  
IR105 / N.T.S.



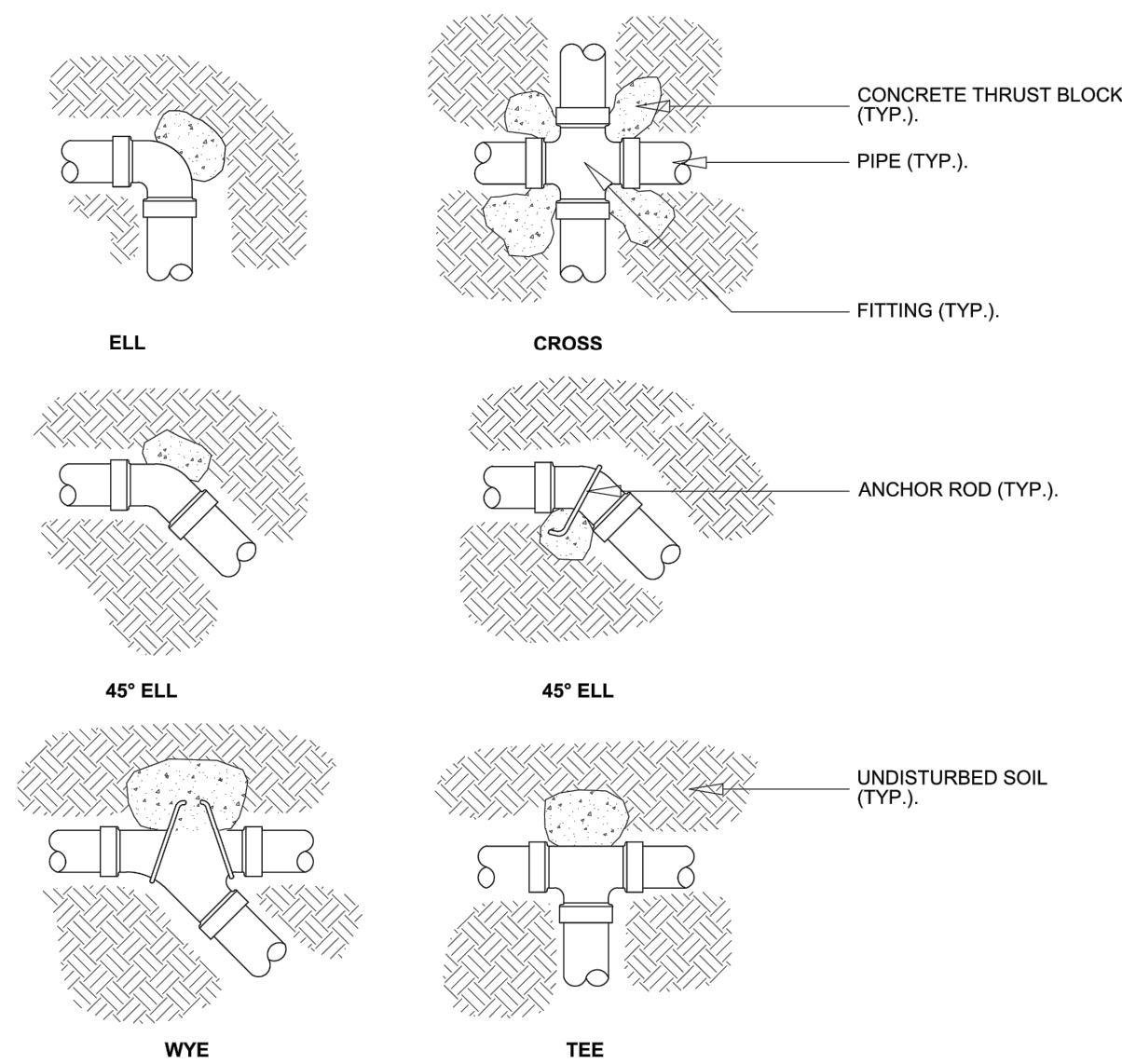
6 KIOSK  
105 / N.T.S.



## NOTES:

1. ALL PIPE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. IRRIGATION PIPING TO BE SLEEVED AT ALL LOCATIONS WHERE INSTALLED UNDER PAVED SURFACES. REFER TO DETAILS 10-12 & 10-13 FOR SLEEVING DETAILS.

7 TRENCH SECTION  
105 / N.T.S.



## NOTES:

1. PLASTIC PIPE SHALL BE INSTALLED ACCORDING TO THESE DETAILS, UNLESS OTHERWISE NOTED ON THE PLANS.
2. SUPPLY LINES 50mm OR LARGER SHALL RECEIVE CONCRETE THRUST BLOCKS.
3. ALL ANCHOR RODS SHALL BE GALVANIZED STEEL, MIN. 12mm Ø.
4. SIZE OF THRUST BLOCK: 50mm-75mm PIPE = 4 CU. FT., 100mm PIPE = 5 CU. FT., 150mm PIPE = 6 CU. FT.
5. WRAP ALL EPOXY COATED FITTING W/ 6 MIL PLASTIC PRIOR TO POURING THRUST BLOCK.
6. ALL THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED SOIL.

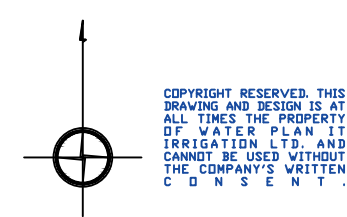
8 THRUST BLOCKS  
105 / N.T.S.

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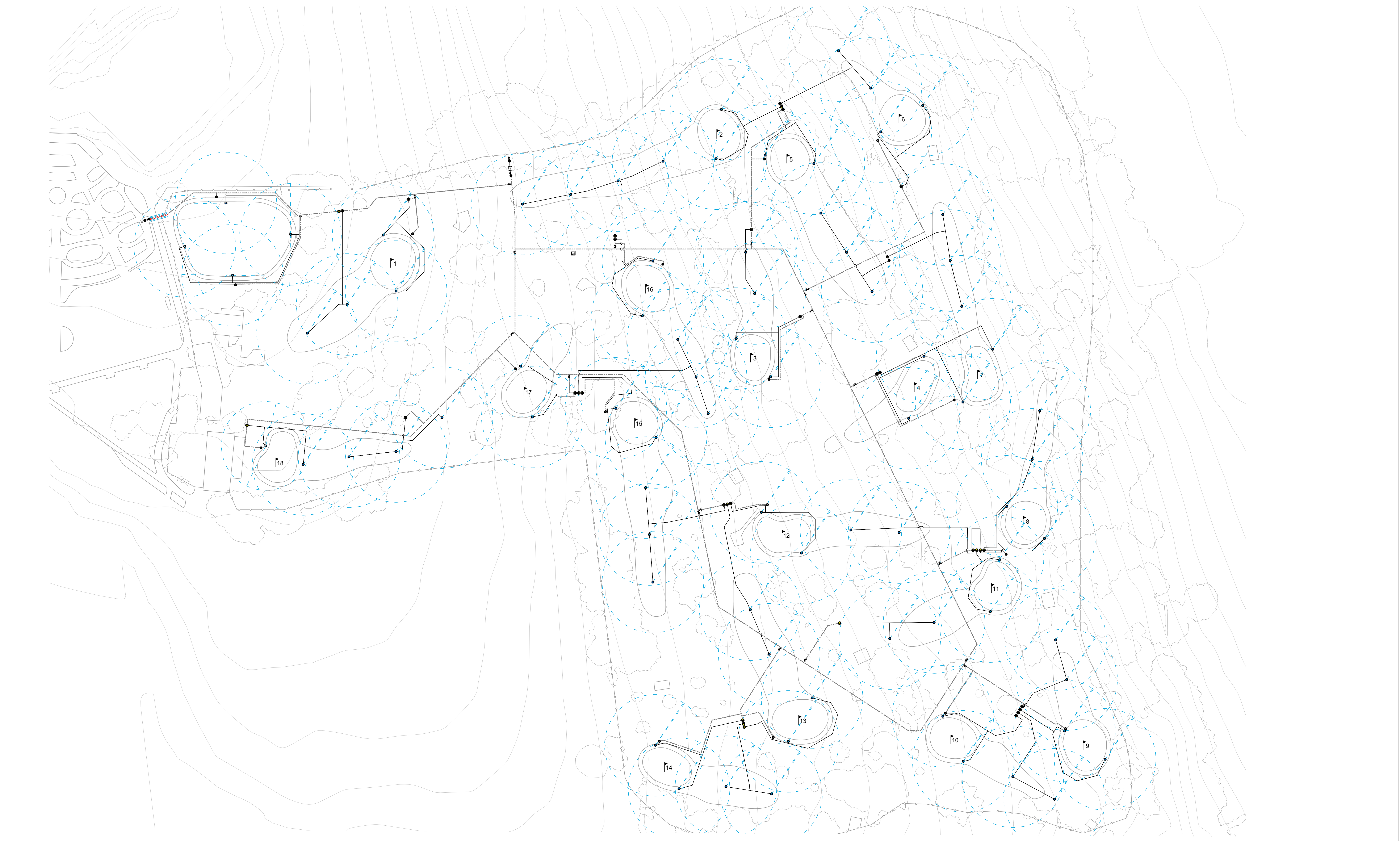
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CHECKED BY	RH		
PROJECT NO.	20-086	SHEET NO.	IR-105
SCALE			



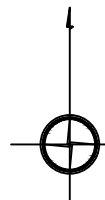


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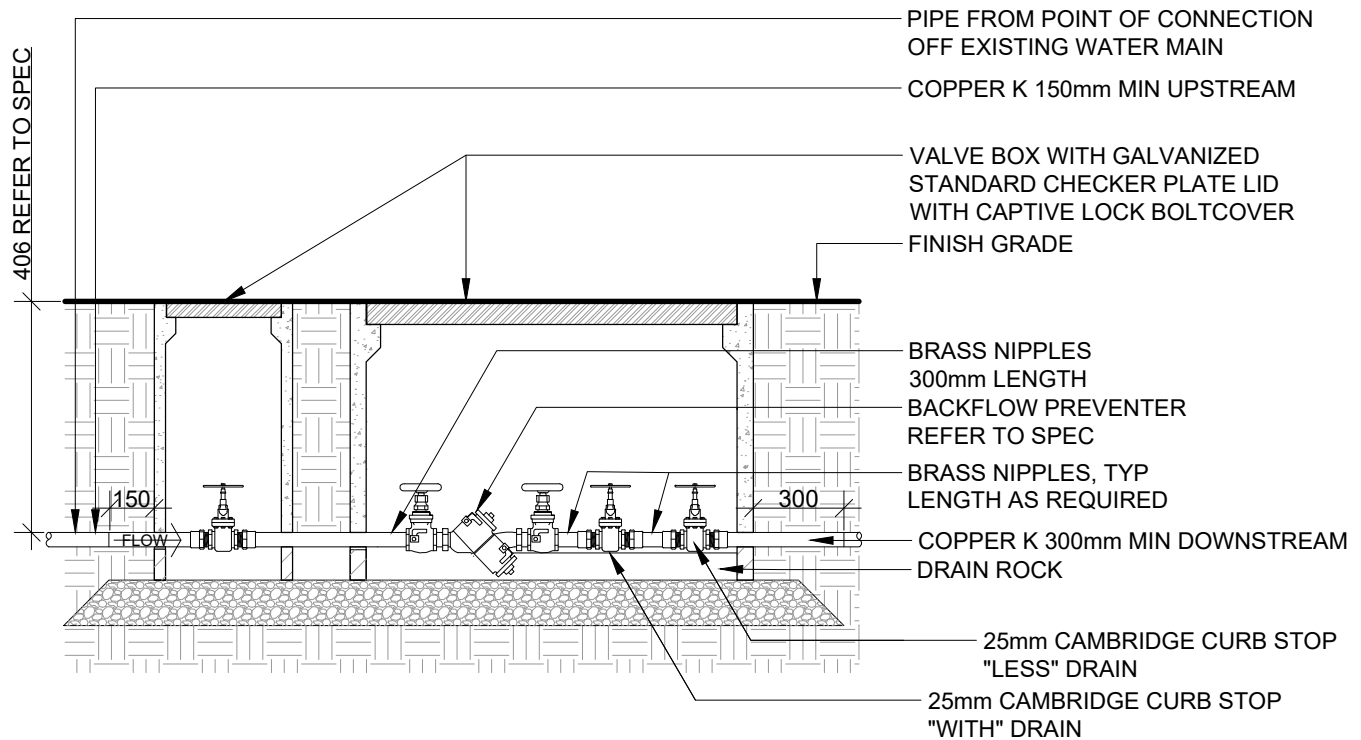
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PROJECT NO.	20-086
SCALE	1:600

SHEET TITLE  
IRRIGATION LAYOUT  
SPRAY PATTERN

SHEET NO.  
IR-106



**NOTE:**

1. ENSURE ALL DIMENSIONS AND CLEARANCES COMPLY WITH MANUFACTURER'S INSTALLATION RECOMMENDATIONS
2. INSTALLATION MUST BE APPROVED BY LOCAL PLUMBING INSPECTOR
3. ALL MATERIALS TO BE IN ACCORDANCE WITH CURRENT BC PLUMBING CODES
4. UTILITY BOX SHOWN FOR BACK FLOW PREVENTER IS DIAGRAMMATIC
5. PROVISIONS FOR FREEZING WINTER CONDITIONS ARE NOT SHOWN. WHERE CLIMATE REQUIRES, THEY SHALL BE ADDED TO MEET THE REQUIREMENTS OF THE CITY ENGINEER
6. INCLUDE WATTS PRESSURE REDUCING VALVE FOR 25mm LINE
7. RISERS (IF NEEDED, BY AE CONCRETE OR PRE-APPROVED EQUAL)



DRAWING TITLE:

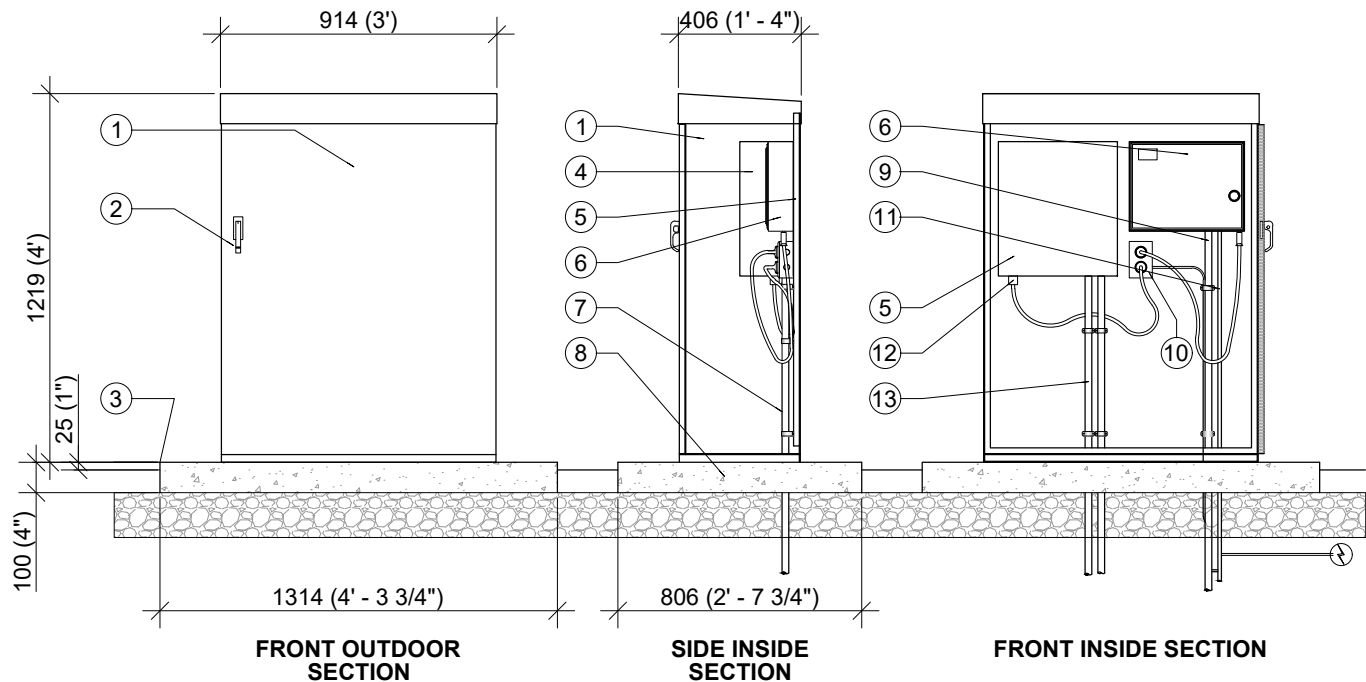
**BACKFLOW PREVENTER**

DATE: NOV 2020

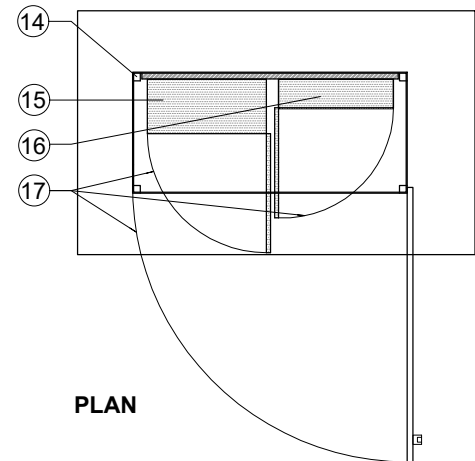
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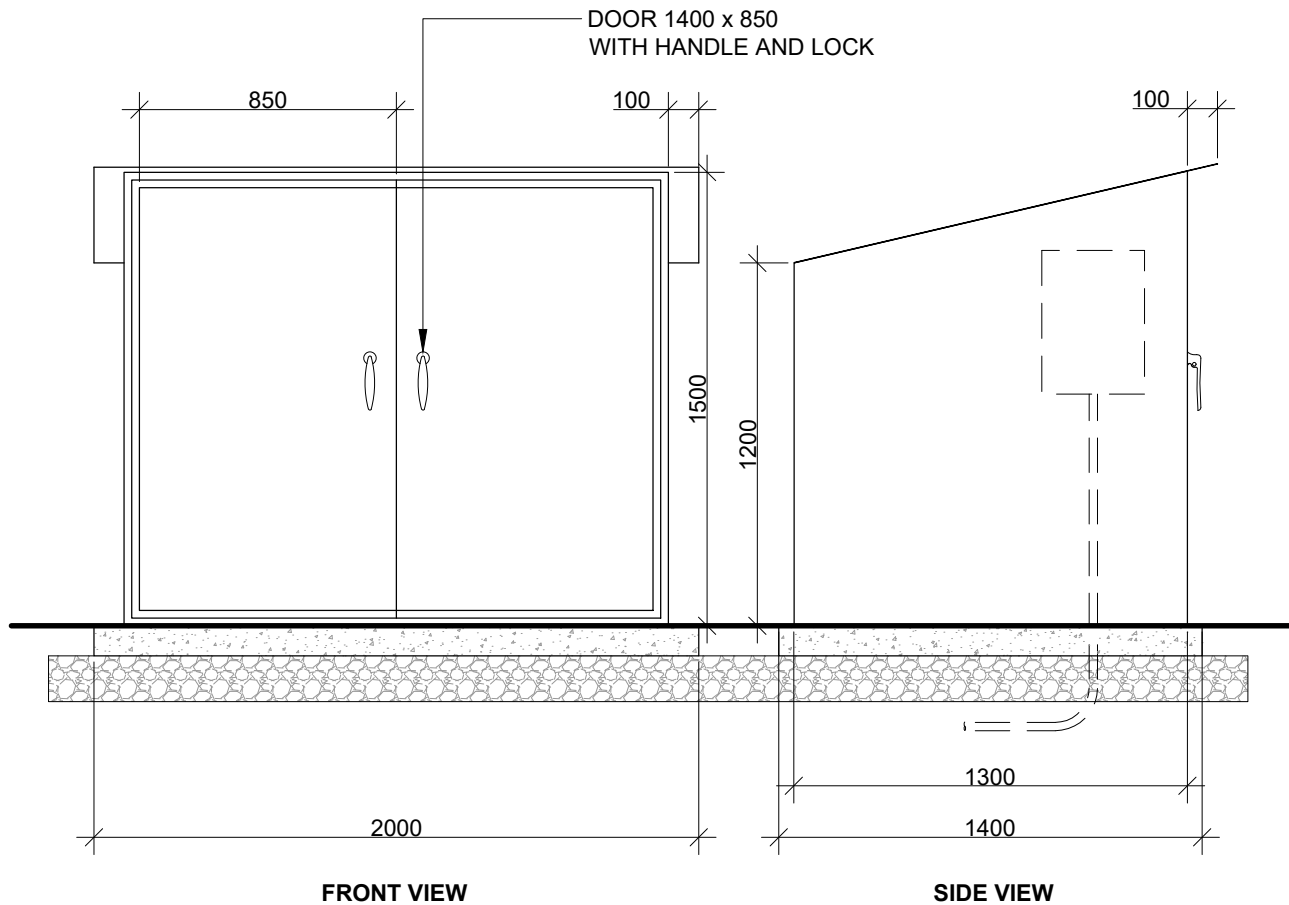
STD. DETAIL NO.

**10-01**

**NOTE:**

1. VALID MANUFACTURING KIOSK - KSDA4836P SECURED TO CONCRETE SLAB FINISH TO BE POWDER COAT; COLOUR: BLACK
2. LOCKABLE LATCH HANDLE
3. KIOSK TO BE LOCATED ON HIGH POINT TO AVOID FLOODING
4. REMOVABLE BACK PANEL
5. DYNAMIC SEQUENCING CONTROLLER (SECURED TO THE REMOVABLE PANEL) INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS. FINISH TO BE POWDER COAT; COLOUR: BLACK
6. IRRIGATION CONTROLLER
7. ELECTRICAL CONDUIT - SEE FRONT ELEVATION
8. 100mm CONCRETE SLAB
9. Ø32mm (1-1/4") CONDUIT FOR REMOTE CONTROL WIRES, SECURE TO WALL WITH APPROPRIATE PIPE CLAMPS
10. 120V AC OUTLET - MEETS BOTH WATERWISE CONTROLLER AND IRRIGATION CONTROLLER REQUIREMENTS
11. Ø13mm (1/2") CONDUIT FOR FLOW METER VALVE WIRE
12. POWER CORD - POWER SUPPLY 120V AC
13. CORD SEAL TYP - SEE MANUFACTURER'S SPECIFICATIONS
14. SECURE KIOSK TO SLAB INSTALL AS PER KIOSK SPECIFICATIONS
15. WATERWISE CONTROLLER
16. IRRIGATION CONTROLLER
17. DOOR SWING





DRAWING TITLE:

STEEL CONTROLLER KIOSK

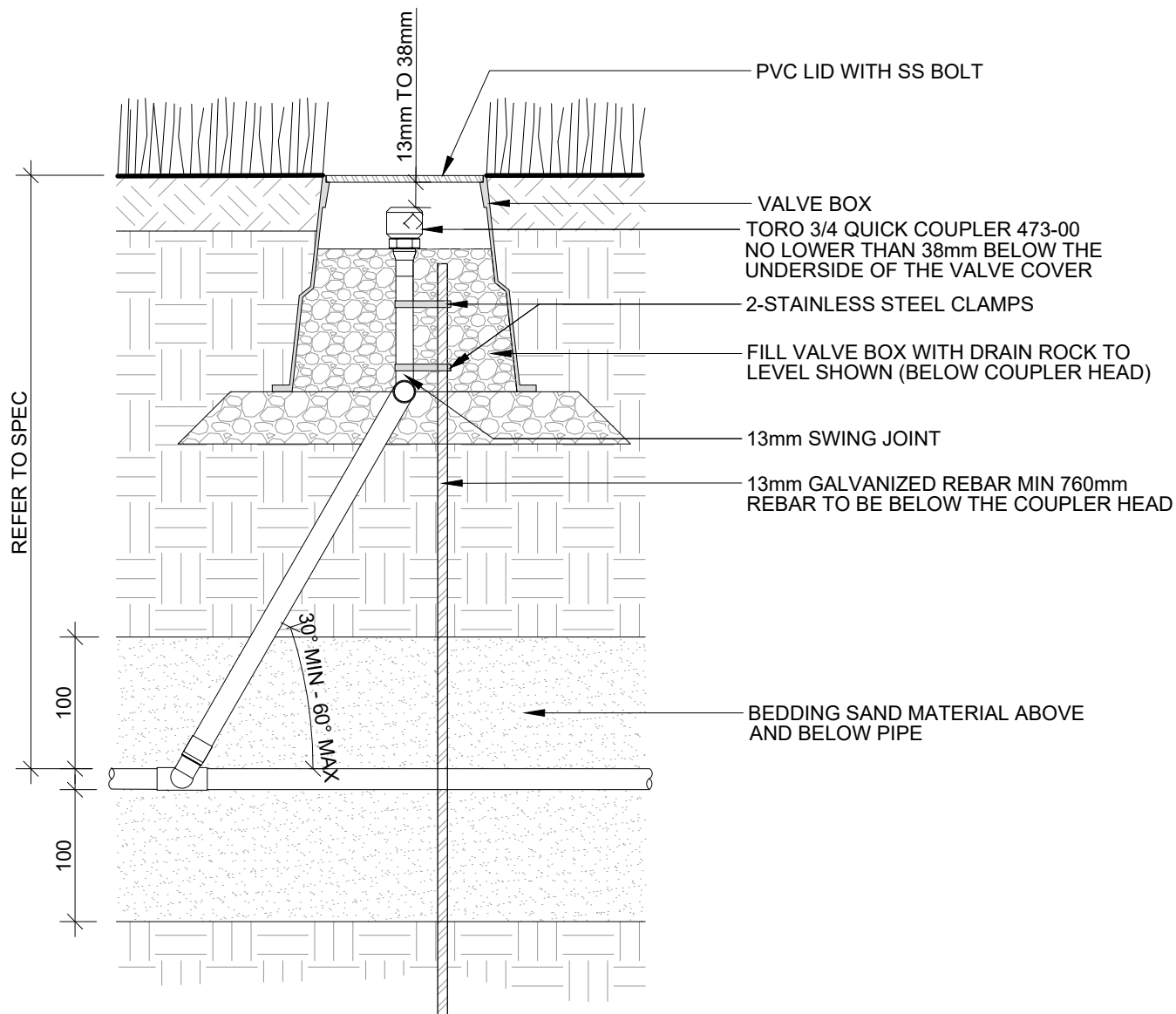
DATE: NOV 2020

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STD. DETAIL NO.

10-03

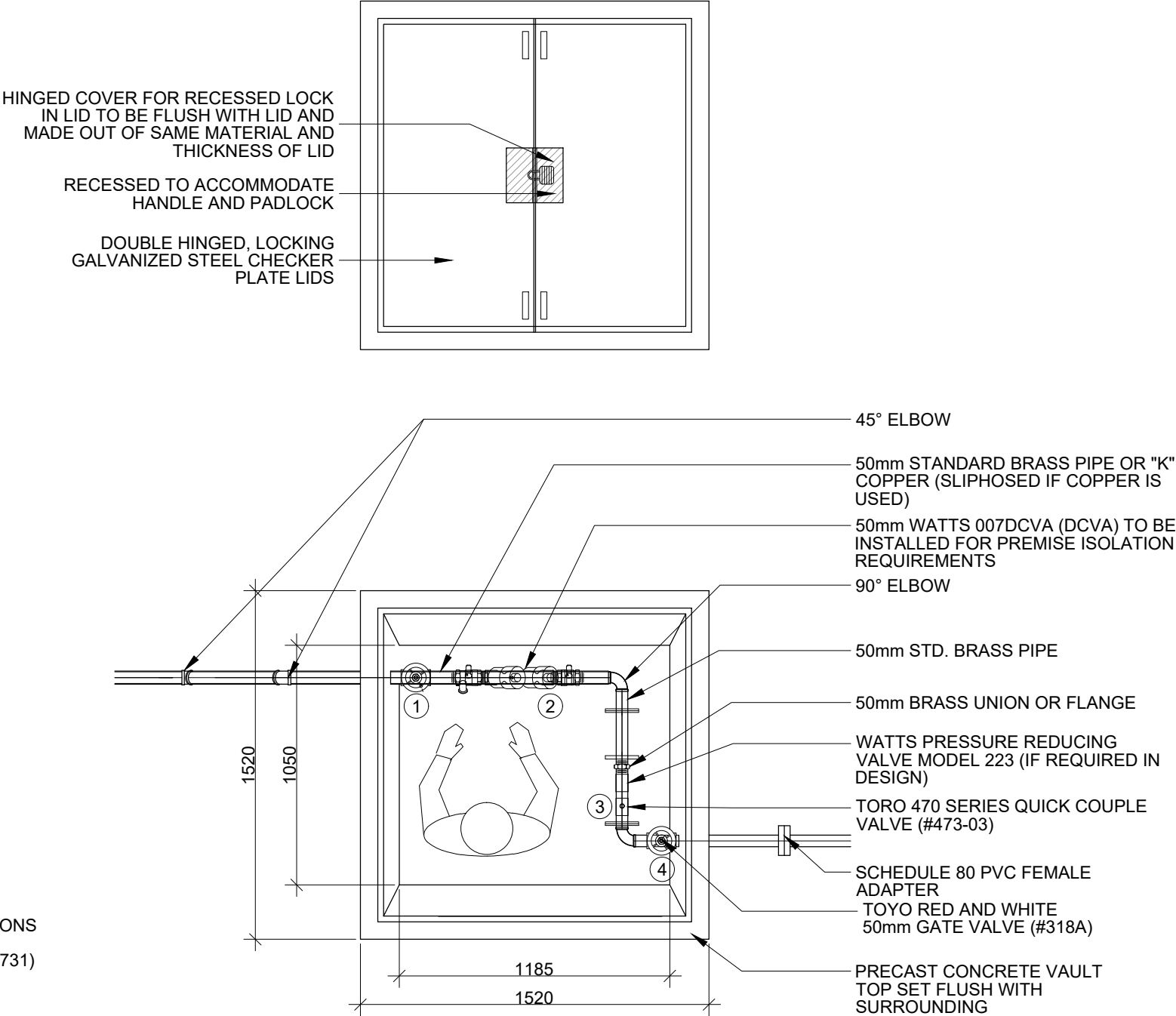




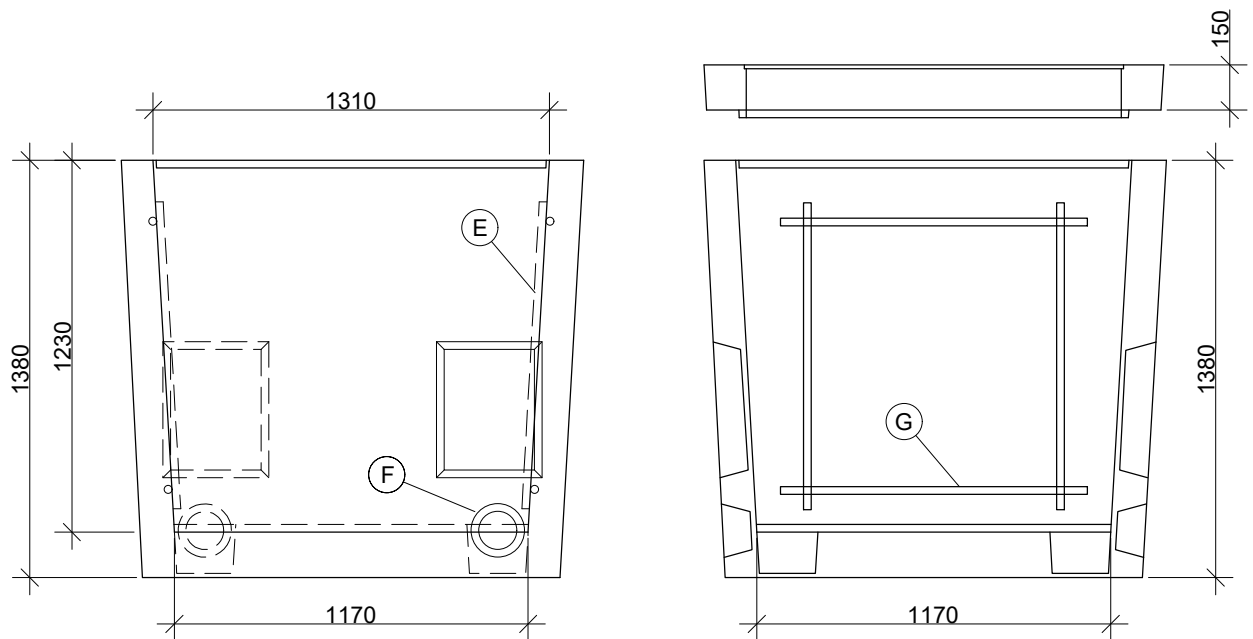
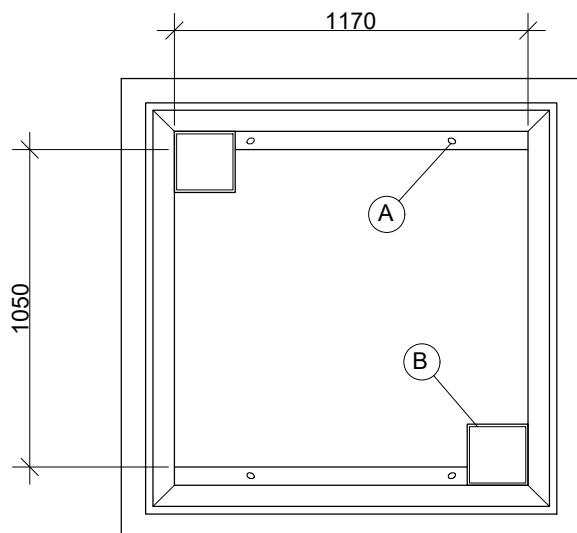
BILL OF MATERIALS			COMPONENT MODEL NUMBER FOR REQUIRED PIPE SIZES		
ITEM	QTY	DESCRIPTION	38mm	50mm	76mm
1	2	45 ° ELBOW	-	-	-
2	-	50mm STANDARD BRASS PIPE	-	-	-
3	1	WATTS 007 (DCVA) 50mm DOUBLE CHECK VALVE ASSEMBLY	950 XLT	950 XLT	350
4	1	OR "ALTERNATIVE ACCEPTABLE WILKINS (DCVA)" 90° ELBOW	-	-	-
5	1	1.5m SERVICE VAULT - K/O (A.E.CONCRETE PRECAST PRODUCTS)	-	-	*
6	1	RAINBIRD PEB	910P	910P	910P
7	1	TORO 470 SERIES QUICK COUPLE VALVE	473-03	473-03	473-03
8	2	TOYO RED AND WHITE 50mm GATE VALVE	318A	318A	272A
9	1	SCHEDULE 80 PVC FEMALE ADAPTER	-	-	-
10	2	PIPE SUPPORTS TO BE BOLTED TO BASE	-	-	-
11	1	MAINLINE BACKFLOW TERMINAL VALVE AND ASSEMBLY	4963P -	49663P	4963P
12	1	WATTS PRESSURE REDUCING VALVE (IF REQUIRED IN DESIGN)	223	223	N223B
13	1	470 QUICK COUPLER WITH TRIPLE SWING JOINT.	-	-	-
14	2	UNISTRUTS AND CLAMPS	-	-	-
15	1	IPEX DWV HUB # 017494	-	-	-

**NOTE:**

- 1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE INDICATED
- 2. VAULT SIZE MAY VARY DUE TO PIPE SIZE AND COMPONENTS REQUIRED
- 3. SITE MEASURED CONCRETE VAULT TO CONFIRM DIMENSIONS PRIOR TO FABRICATION
- 4. WIRING TO BE #12AWG, COPPER STANDARD, COLOR CODED IN ACCORDANCE WITH SPECIFICATIONS
- 5. RIGID PVC TO BE CONTINUOUS BETWEEN KIOSK AND VAULT
- 6. 50mm METER TO BE INSTALLED (CALL DAN WALKER TO ARRANGE METER INSTALLATION 604-873-731)
- 7. ALL BREAKS OR IN CONCRETE TO BE PARGED WITH GROUT. VAULT TO BE MASTIC COATED
- 8. PADLOCK POCKET TO BE WELDED TO FRAME
- 9. ALL PIPING ENTERING AND EXITING THE VAULT SHOULD BE COPPER OR BRASS



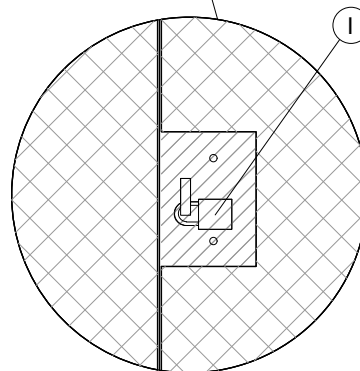


**SECTION****PLAN**

- A. 25mm INSERT TYP OF 4
- B. SUMP
- C. GALVANIZED STEEL CHECKER PLATE COVER
- D. LIFTING HANDLE
- E. 4 PIECES CABLE RACKING (1015mm LONG)
- K. K/OUT
- G. 4 PIECES UNISTRUT P-3270 (1015mm LONG)
- H. BOLT DOWN COVER AND RECESSED LOCK CONFIGURATION TO BE DETERMINED BY VPB
- I. OPTIONAL RECESSED PADLOCK WITH GALVANIZED STEEL COVER PLATE

**NOTE:**

1. SUPPLIER: AE CONCRETE PRECAST PRODUCTS LTD.



DRAWING TITLE:

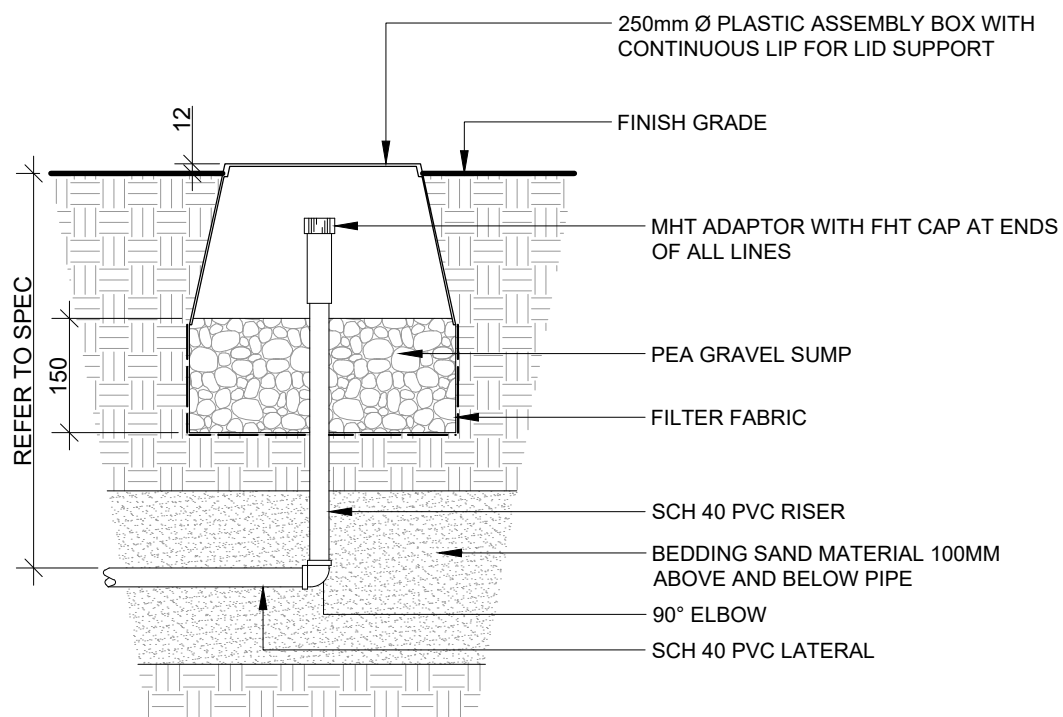
**1.5M SERVICE VAULT**

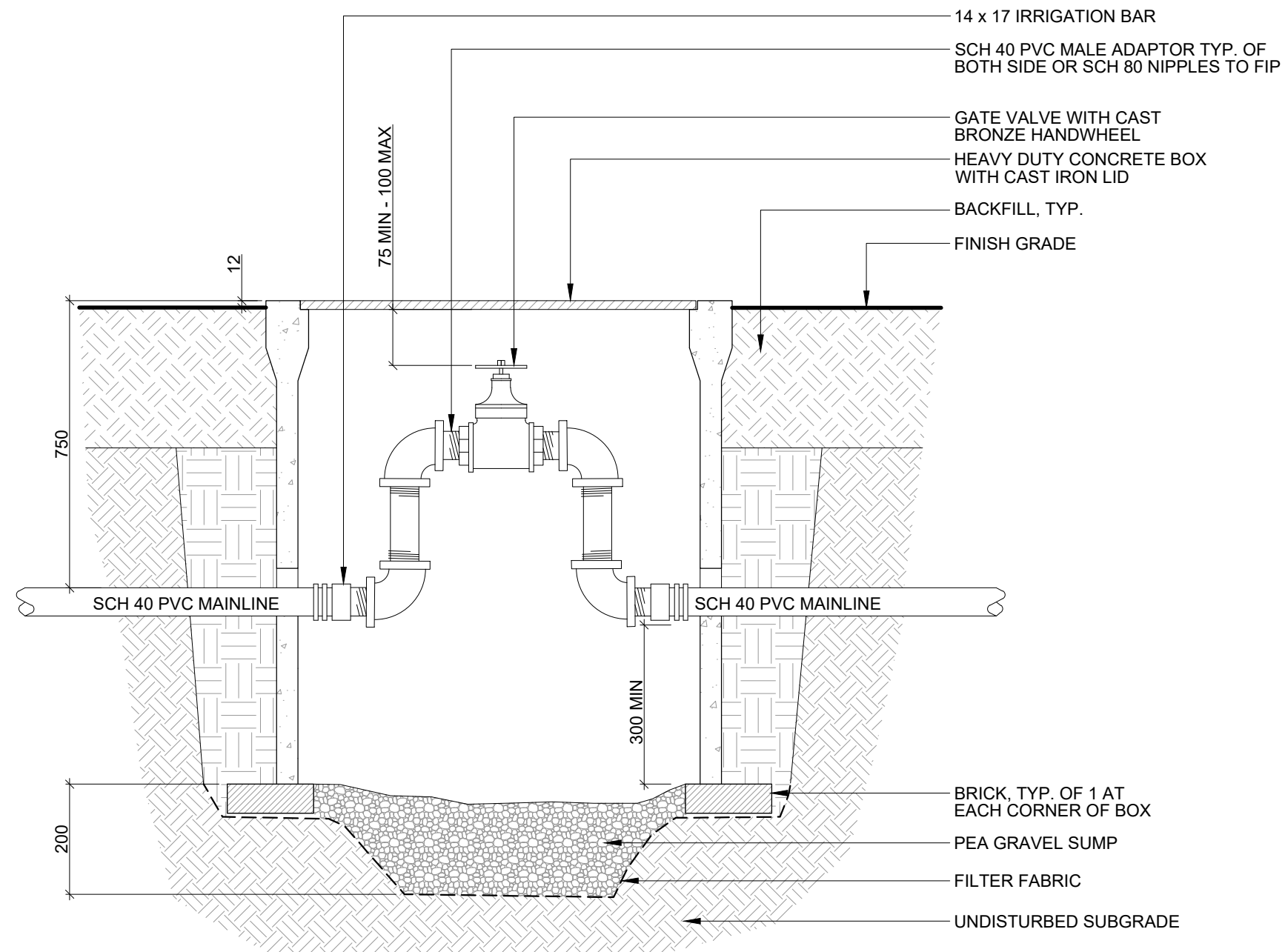
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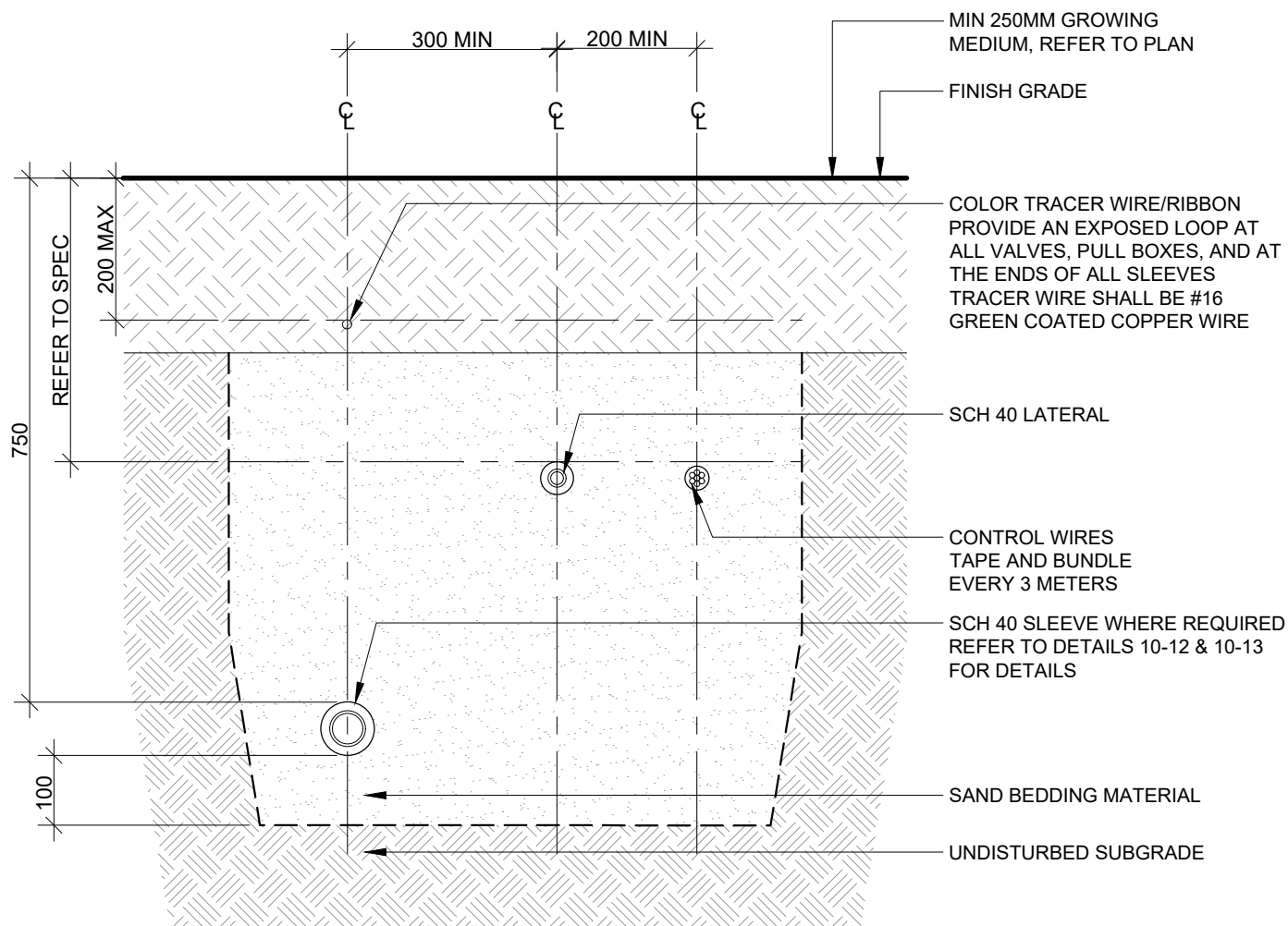
SCALE: 1:25

STD. DETAIL NO.

**10-06**





**NOTES:**

1. ALL PIPE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. IRRIGATION PIPING TO BE SLEEVED AT ALL LOCATIONS WHERE INSTALLED UNDER PAVED SURFACES. REFER TO DETAILS 10-12 & 10-13 FOR SLEEVING DETAILS.



DRAWING TITLE:

**IRRIGATION TRENCHING**

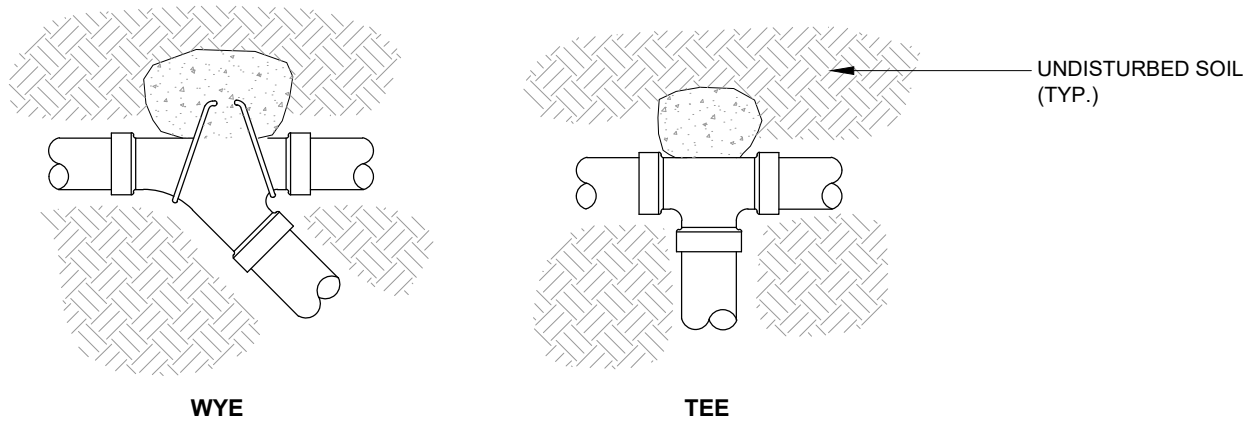
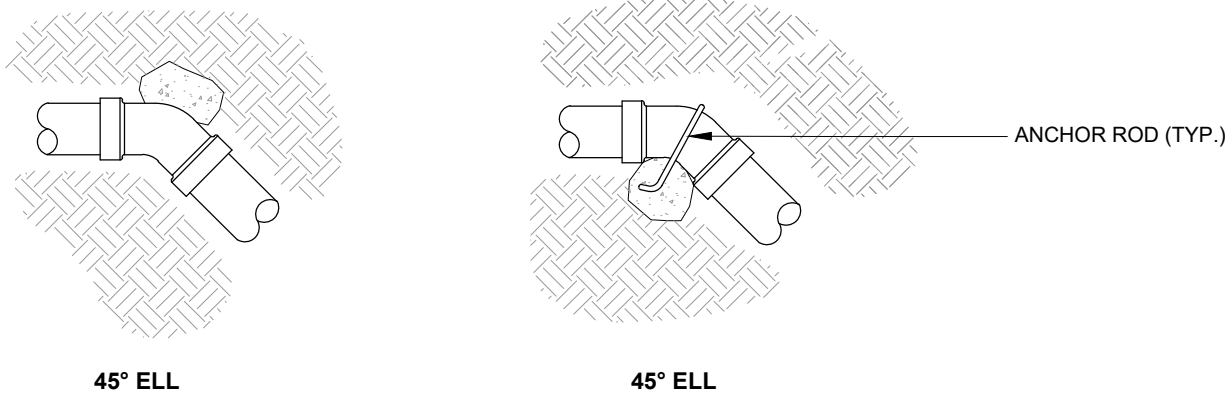
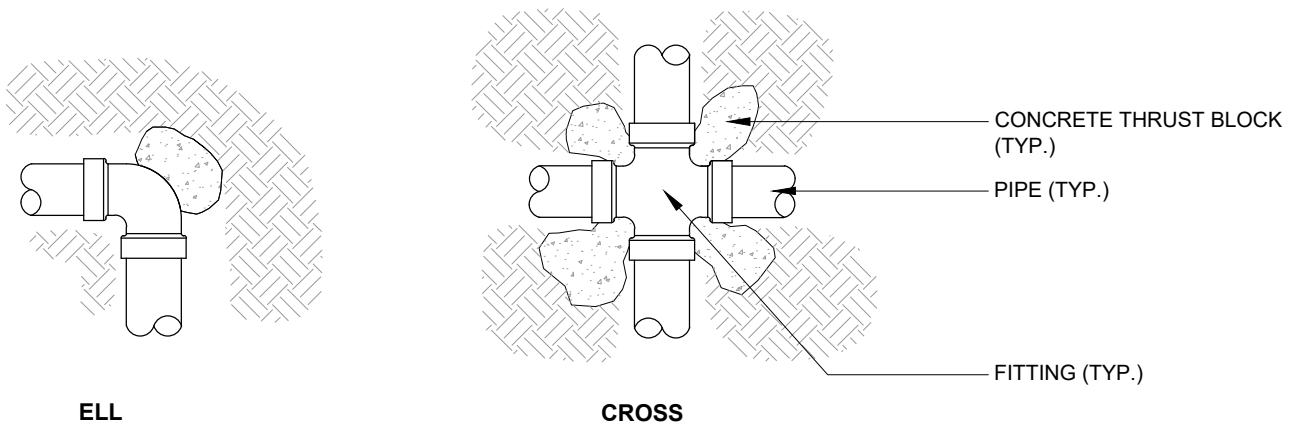
DATE: NOV 2020

SCALE: 1:10

STD. DETAIL NO.

**10-09**



**NOTES:**

1. PLASTIC PIPE SHALL BE INSTALLED ACCORDING TO THESE DETAILS, UNLESS OTHERWISE NOTED ON THE PLANS.
2. SUPPLY LINES 50mm OR LARGER SHALL RECEIVE CONCRETE THRUST BLOCKS.
3. ALL ANCHOR RODS SHALL BE GALVANIZED STEEL, MIN. 12mm Ø.
4. SIZE OF THRUST BLOCK: 50mm-75mm PIPE = 4 CU. FT., 100mm PIPE = 5 CU. FT., 150mm PIPE = 6 CU. FT.
5. WRAP ALL EPOXY COATED FITTING W/ 6 MIL PLASTIC PRIOR TO POURING THRUST BLOCK.
6. ALL THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED SOIL.



DRAWING TITLE:

**THRUST BLOCKS**

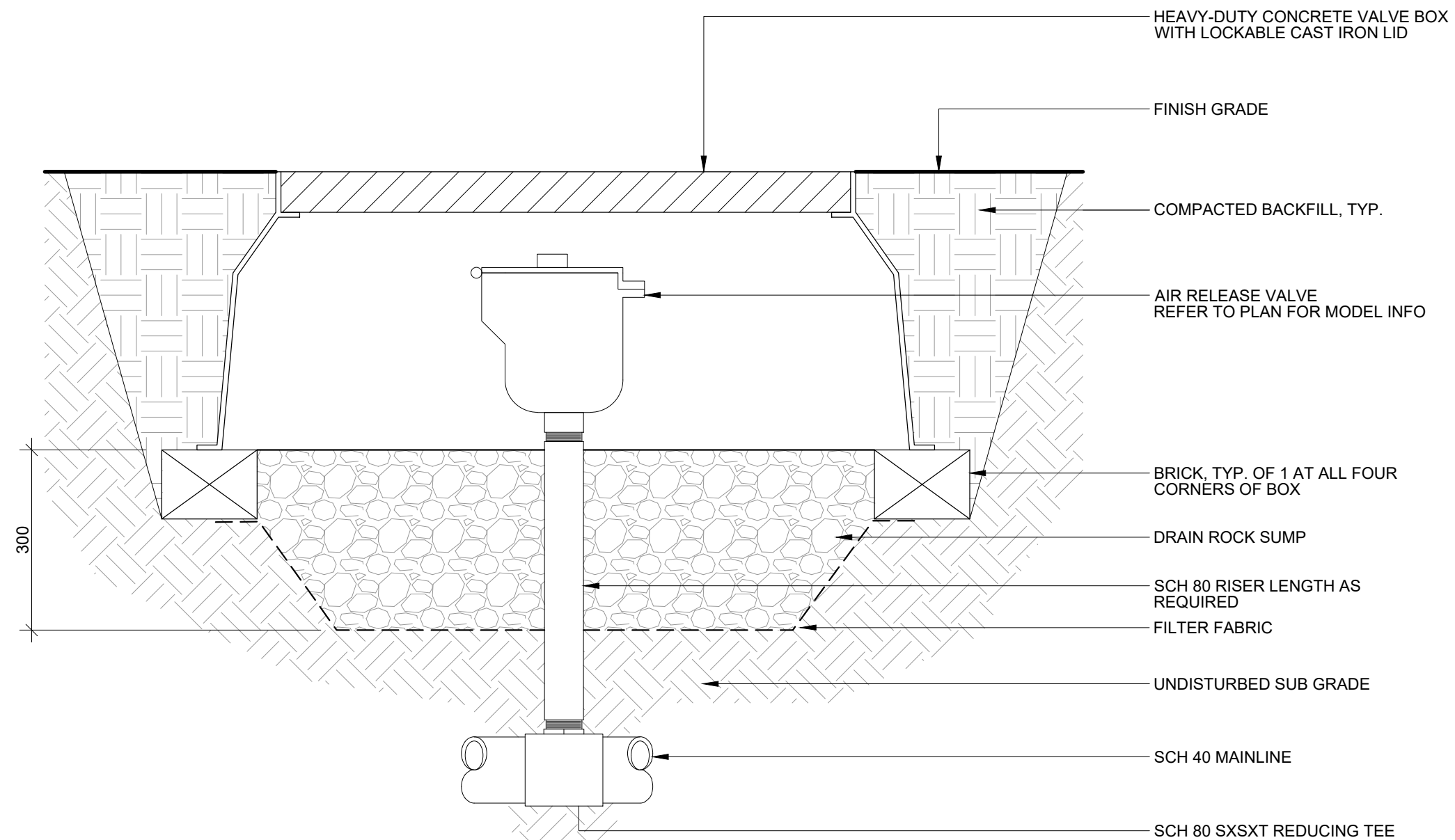
DATE: NOV 2020

SCALE: 1:5

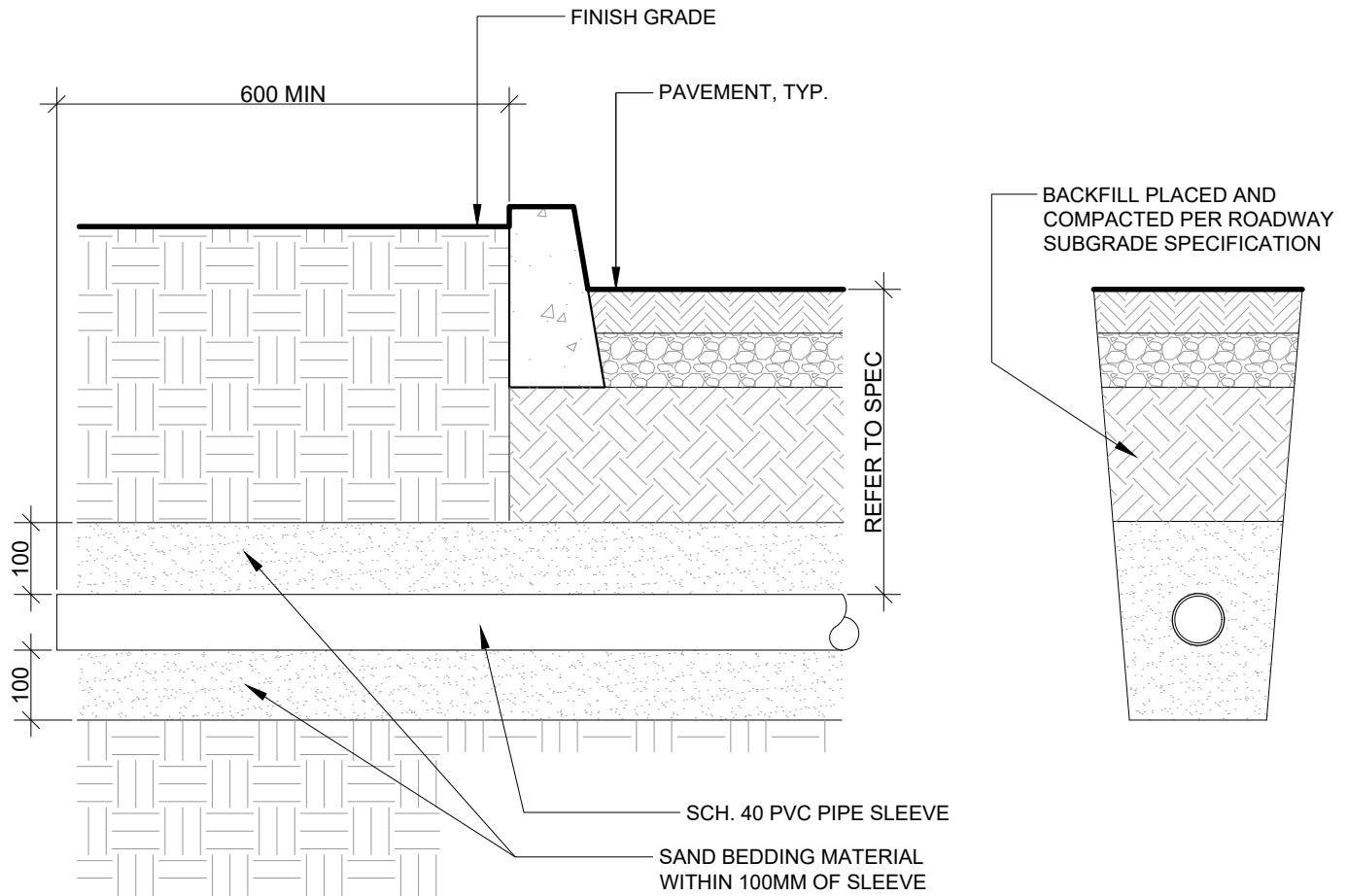
STD. DETAIL NO.

**10-10**



**NOTES:**

1. AIR RELEASE VALVE TO BE INSTALLED AT HIGH POINT OF MAINLINE.
2. INSTALL AS PER MANUFACTURER'S SPECIFICATIONS.
3. APPLY RECTO SEAL #5 OR TEFLON TAPE TO ALL PIPE JOINTS & THREAD CONNECTIONS, OR APPROVED EQUAL.
4. COMPACT SOIL AROUND PIPING AND VALVE BOX TO SAME DENSITY AS ADJACENT UNDISTURBED SOIL.
5. REFER TO SPECIFICATIONS FOR PIPING MATERIAL.

**NOTE:**

1. DIAMETER OF SLEEVE PIPE TO BE 25mm LARGER THAN DIAMETER OF IRRIGATION PIPE. IF SLEEVING MULTIPLE PIPES, SLEEVE DIAMETER TO BE 25mm LARGER THAN THE COMBINED TOTAL OF ALL PIPES.



DRAWING TITLE:

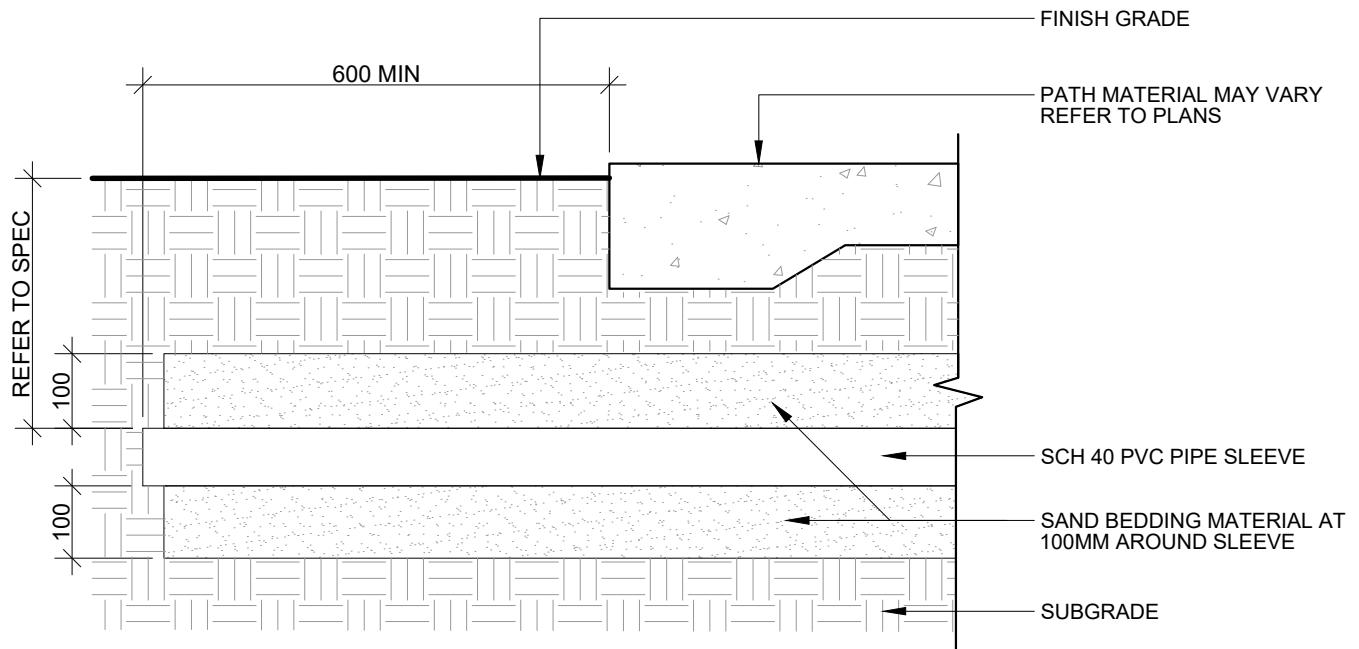
SLEEVE AT STREET OR PARKING

DATE: NOV 2020

SCALE: 1:10

STD. DETAIL NO.

10-12

**NOTE:**

1. DIAMETER OF SLEEVE PIPE TO BE 2X LARGER THAN DIAMETER OF IRRIGATION PIPE.
2. IF SLEEVING MULTIPLE PIPES, SLEEVE DIAMETER TO BE 25mm LARGER THAN THE COMBINED TOTAL OF ALL PIPES.
3. WIRES TO BE LOCATED IN SEPARATE CONDUIT
4. PVC SLEEVING IS ACCEPTABLE, EXCEPT IN VEHICULAR PATHWAYS



DRAWING TITLE:

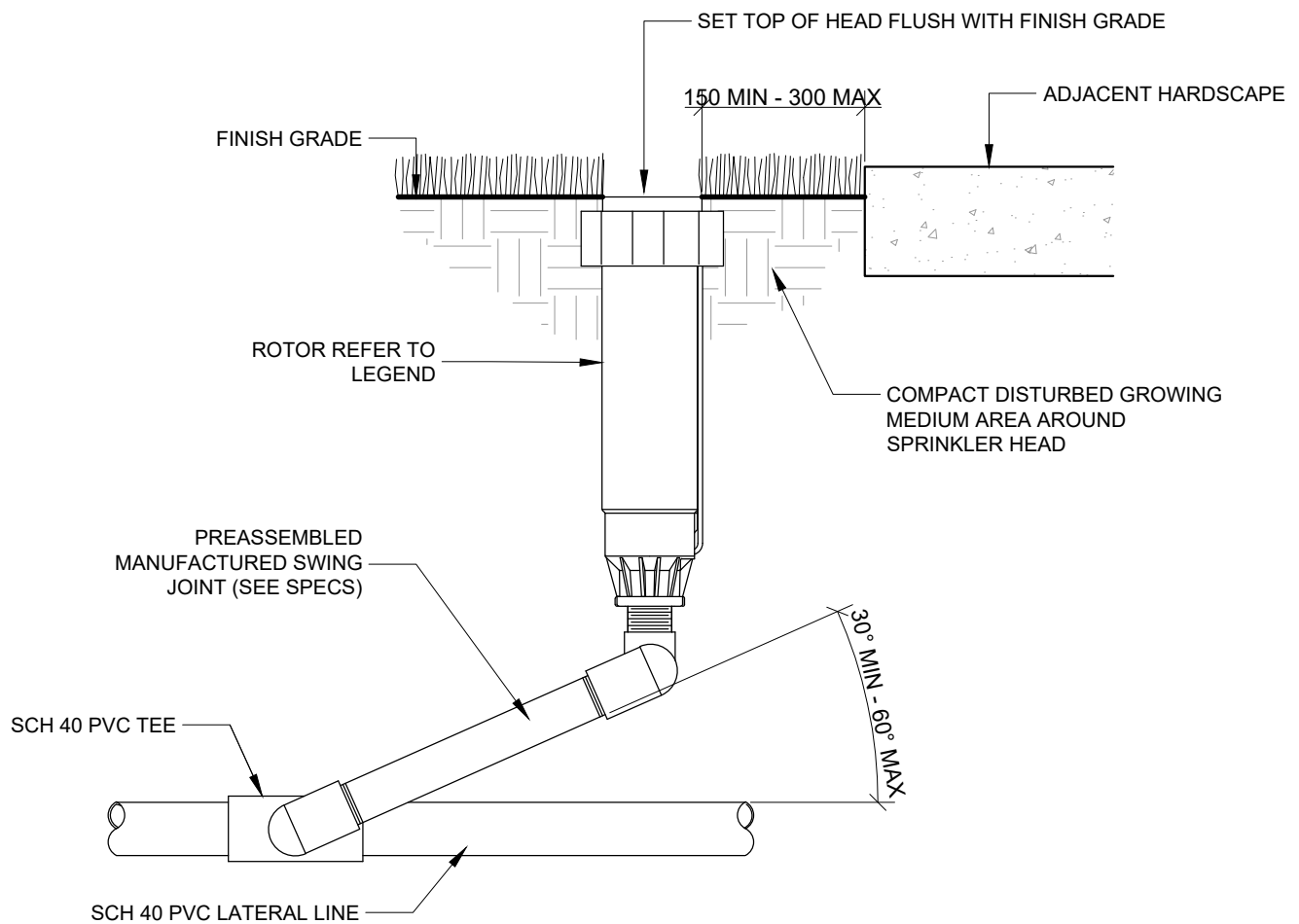
SLEEVE AT PATH

DATE: NOV 2020

SCALE: 1:10

STD. DETAIL NO.

10-13



**NOTE:** STREET ELBOW SIZE TO INLET OF SPRAY HEAD



DRAWING TITLE:

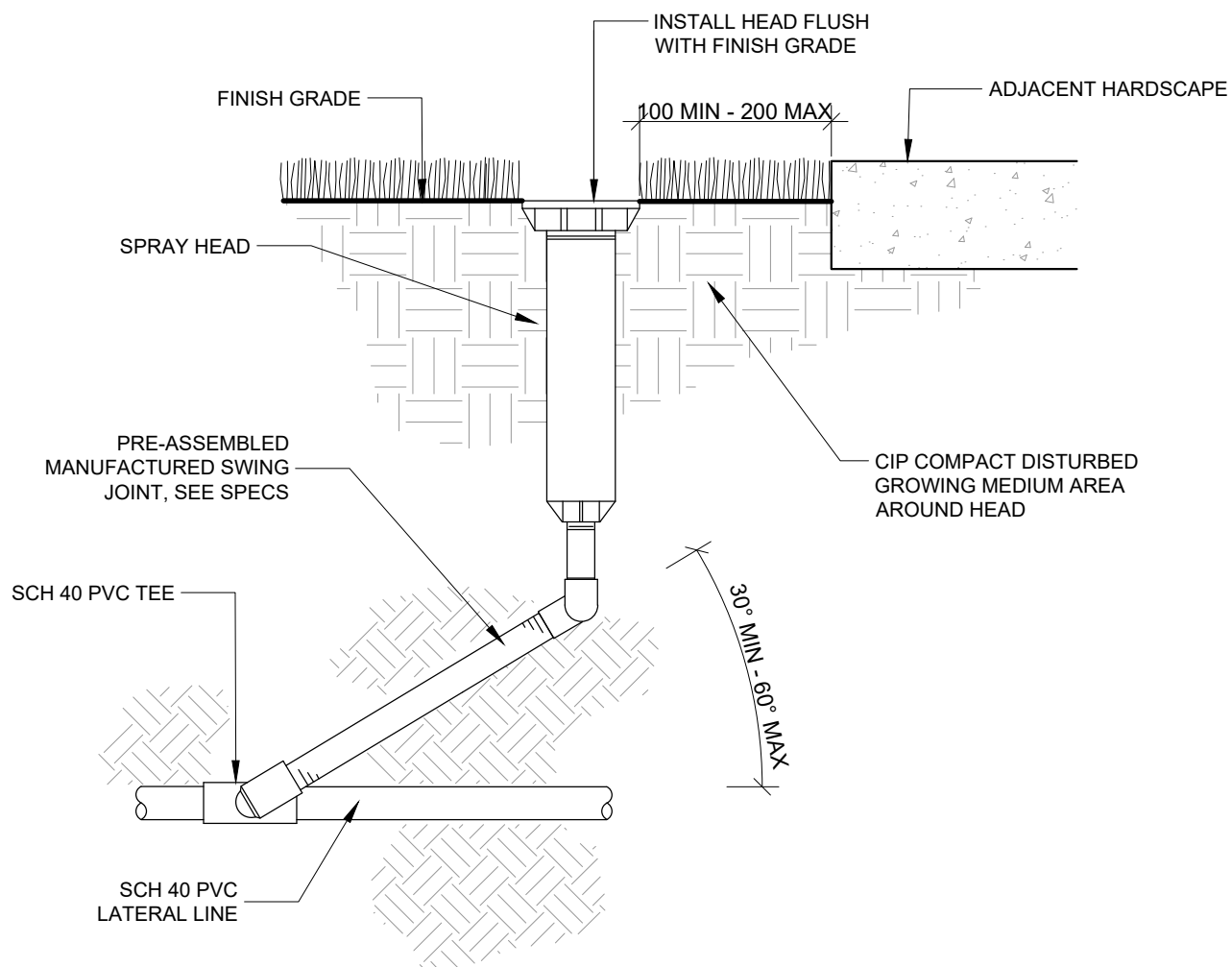
ROTOR SPRAY HEAD

DATE: NOV 2020

SCALE: 1:10

STD. DETAIL NO.

10-14



**NOTE:** STREET ELBOW SIZE TO INLET OF SPRAY HEAD



DRAWING TITLE:

POP-UP SPRAY HEAD

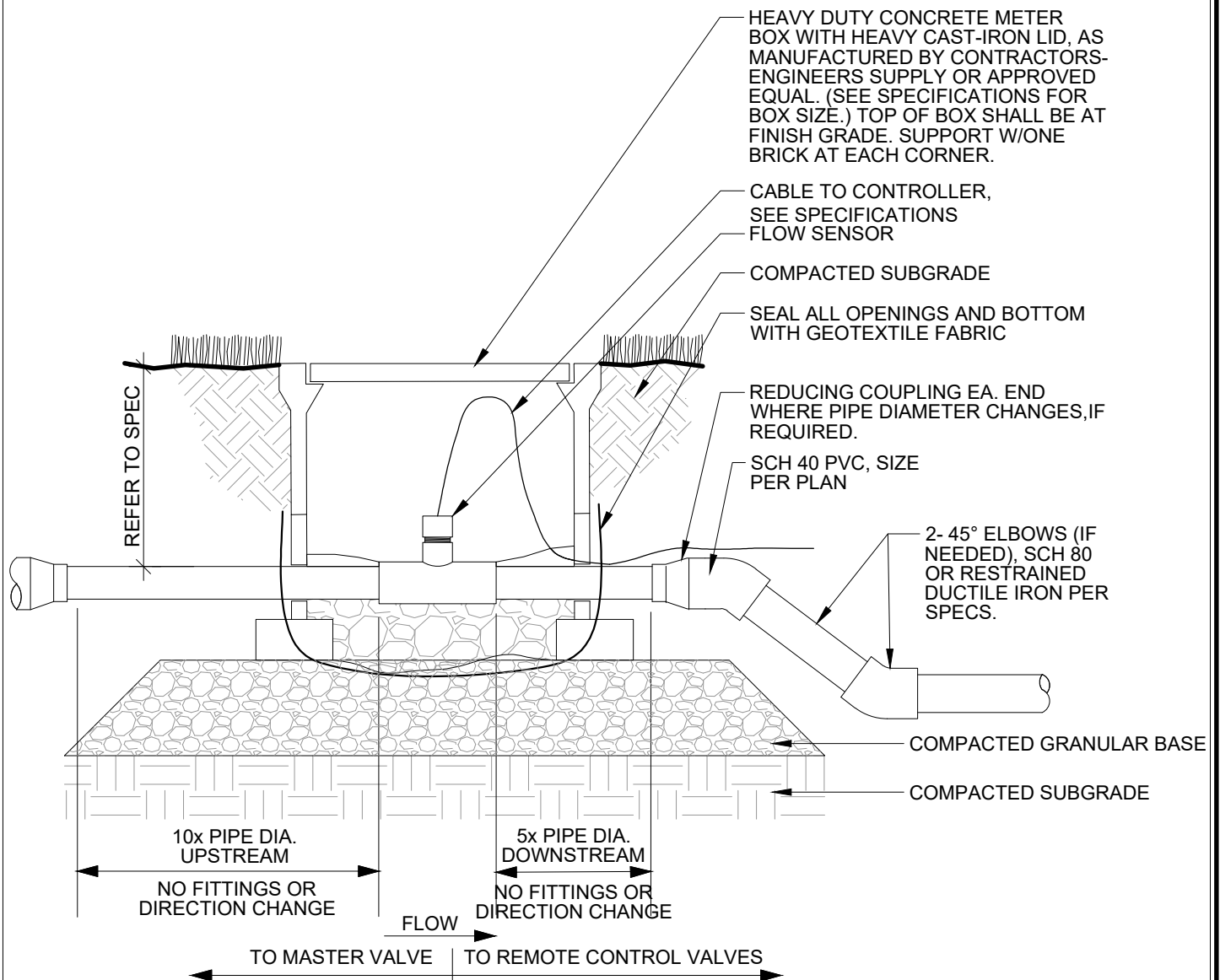
DATE: NOV 2020

SCALE: 1:10

STD. DETAIL NO.

10-15





**NOTE:** STREET ELBOW SIZE TO INLET OF SPRAY HEAD



DRAWING TITLE:

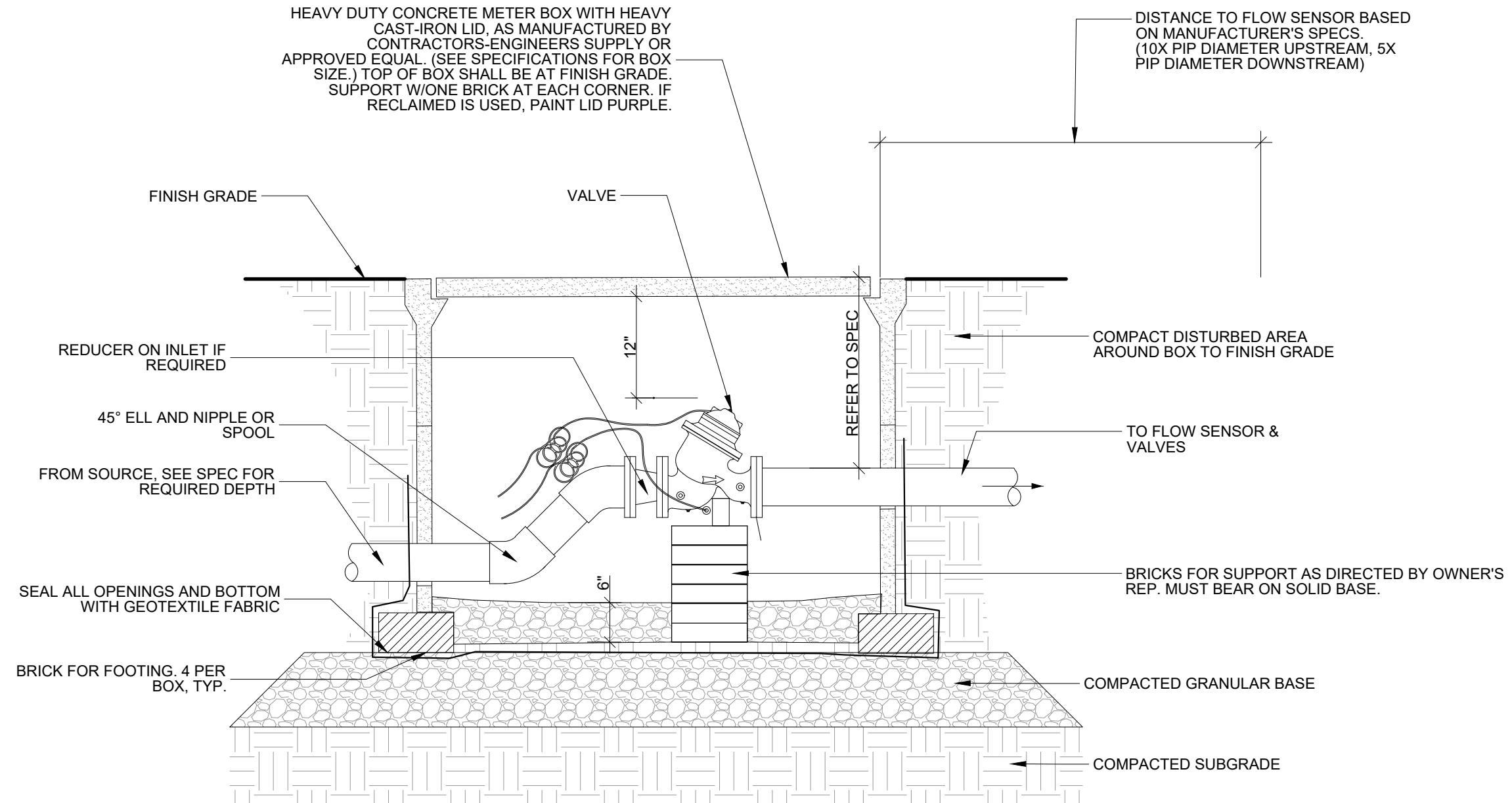
## FLOW SENSOR ASSEMBLY

DATE: NOV 2020

SCALE: 1:5

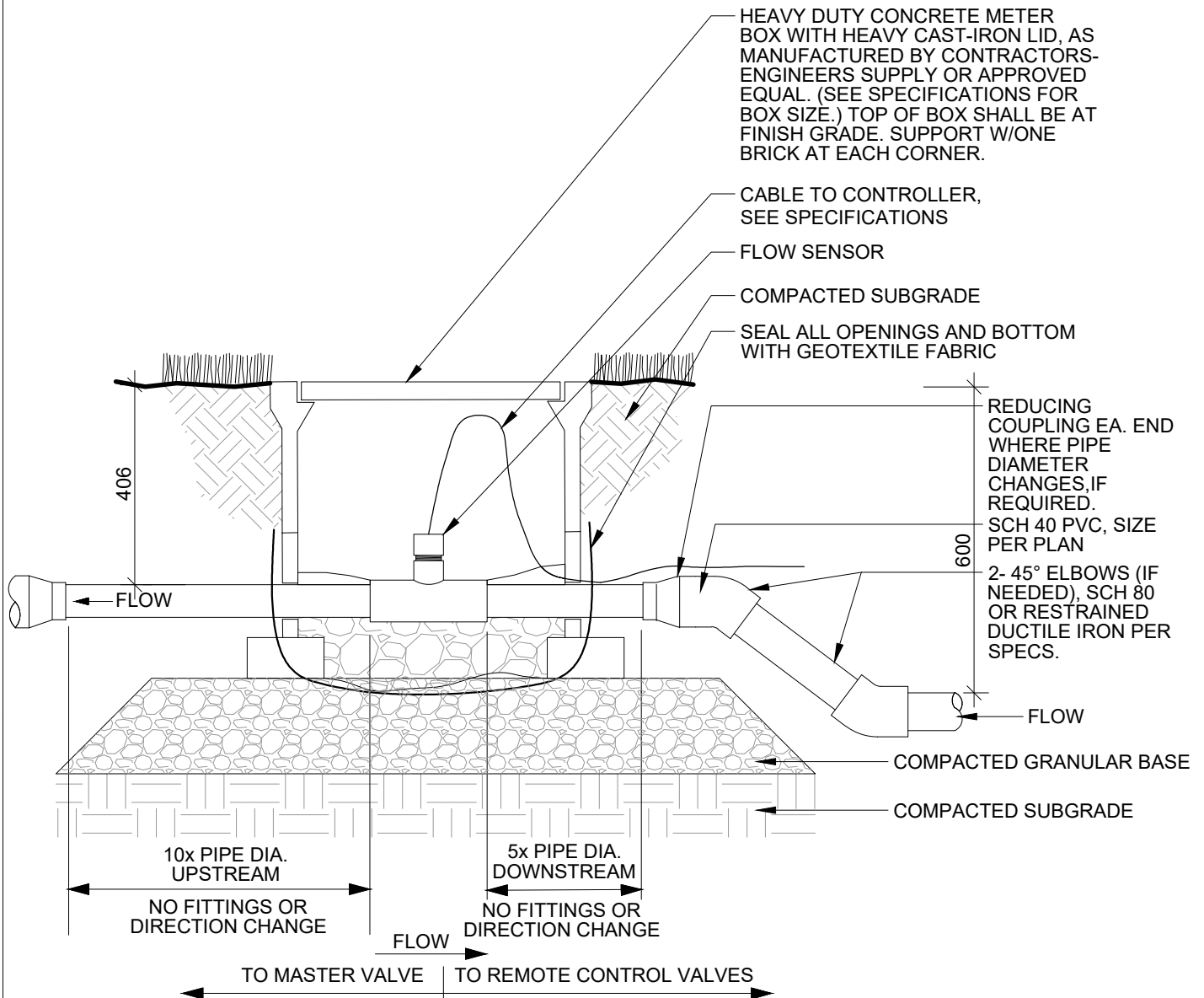
STD. DETAIL NO.

# 10-17

**NOTES:**

1. SEE PLAN & SPECIFICATIONS FOR OPTIONS REQUIRED ON VALVE APPLICATIONS (SUCH AS, N.O./N.C./PRESS. REG., LOW WATT SOLENOIDS)
2. FOR VALVES 3" AND LARGER USE FLANGED MASTER VALVE IRON FITTINGS INCLUDING 45° ELLS AND REDUCERS. FOR VALVES 2 1/2" AND SMALLER USE THREADED MASTER VALVE AND SCH. 80 PVC FITTINGS. 45° ELLS TO BE SxS.





**NOTE:** STREET ELBOW SIZE TO INLET OF SPRAY HEAD



DRAWING TITLE:

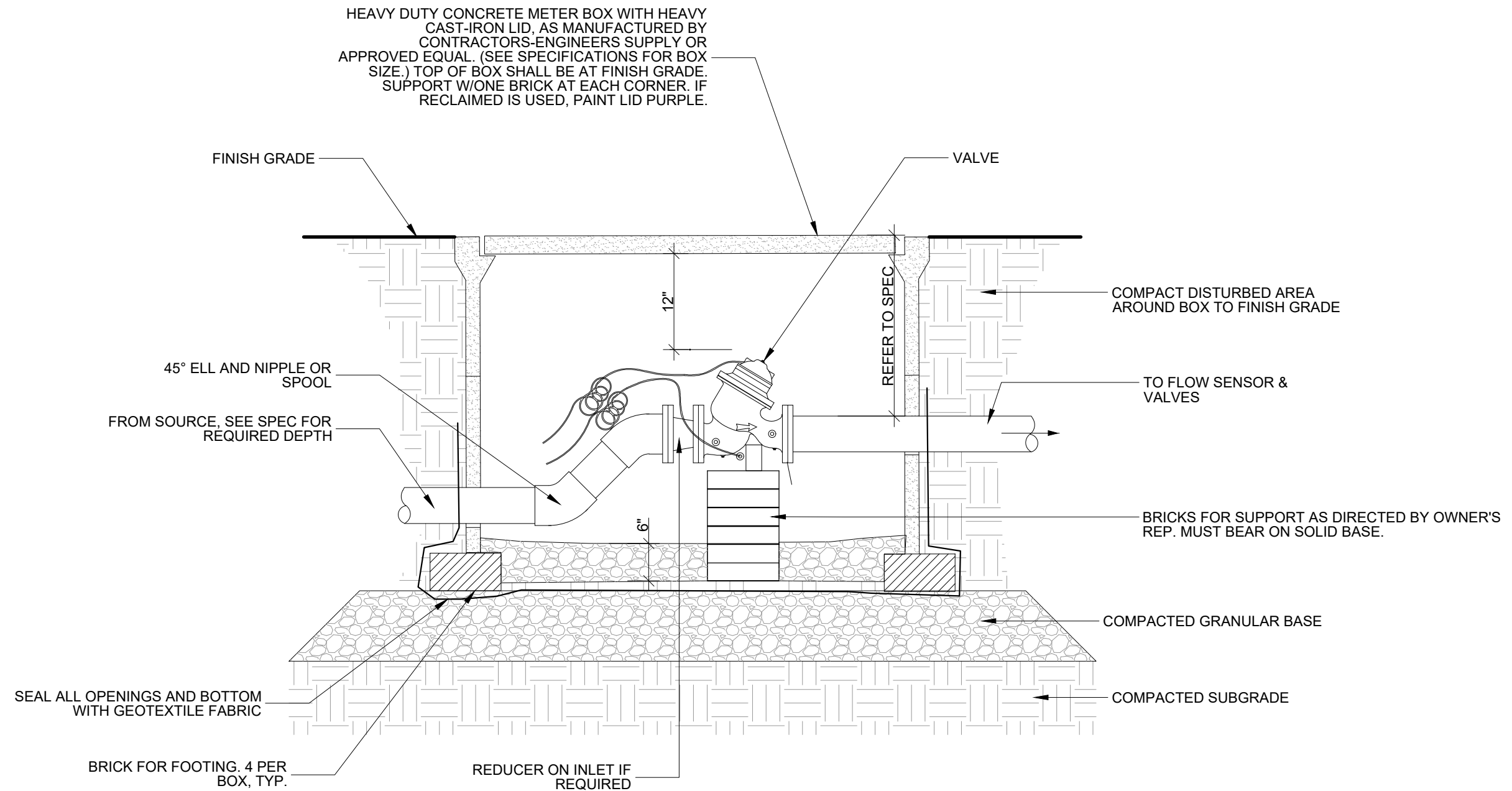
## FLOW SENSOR ASSEMBLY

DATE: NOV 2020

SCALE: 1:5

STD. DETAIL NO.

# 10-18

**NOTES:**

1. SEE PLAN & SPECIFICATIONS FOR OPTIONS REQUIRED ON VALVE APPLICATIONS (SUCH AS, N.O./N.C./PRESS. REG., LOW WATT SOLENOIDS)
2. FOR VALVES 3" AND LARGER USE FLANGED MASTER VALVE IRON FITTINGS INCLUDING 45° ELLS AND REDUCERS. FOR VALVES 2 1/2" AND SMALLER USE THREADED MASTER VALVE AND SCH. 80 PVC FITTINGS. 45° ELLS TO BE SxS.

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**32 80 00****Irrigation System**

***INSTRUCTIONS FOR CONSULTANTS: Edit this document in Microsoft Word using 'TRACK CHANGES'. Text in bold and italics is to be edited to suit the project specific conditions. Turn off bold and italic formatting for the final approved document and delete this note.***

**PART 1: GENERAL****1.1 General Requirements**

- .1 Refer to Division 1, General Requirements.
- .2 This section of the specification forms an integral part of the Contract Documents and is to be read, interpreted and coordinated with all other parts.

**1.2 Description**

- .1 Supply all products, labour, equipment, and services necessary to install a complete automatic irrigation system as indicated in the contract documents.
- .2 The work shall but is not limited to supply, installation, testing and commissioning;
  - .1 System piping, valves, conduit, control wiring, controls, control boxes and miscellaneous equipment
  - .2 Supply of water (potable) to the irrigation system
  - .3 Moisture sensor(s), controls and miscellaneous equipment.
  - .4 Complete winterization of Irrigation system
  - .5 Complete spring start up of Irrigation system
  - .6 Complete computer control system, hardware and software
  - .7 Complete system maintenance and operation for one year from Substantial Performance

**1.3 Related Work**

- |    |  |                  |
|----|--|------------------|
| .1 | Plumbing Specification                   | Section 22 00 00 |
| 2  | Water Utilities                          | Section 33 10 00 |
| .3 | Electrical Specification                 | Section 26 00    |
| .4 | Growing Medium Preparation and Placement | Section 32 91 13 |
| .5 | Plants and Planting                      | Section 32 93 10 |

**1.4 Codes and Regulations**

- .1 All work shall be installed in accordance with the requirements of local and applicable provincial and federal regulations. Any work shown on the drawings or described in the specifications that is at variance with current regulations shall be changed to comply with the requisite authority at no cost to the Owner.

- .2 Work Safe BC regulations shall be followed.

#### **1.4 Quality Assurance**

- .1 The Contractor is responsible for the coordination with the mechanical and electrical Owner's Representative and sub-contractors as well as for coordination of all required sleeves under paved areas and through planter walls as specified.
- .2 The Contractor is to verify site measurements and irrigation coverage, and unless deficiencies are identified by the contractor and an amendment is made to the Contract Document prior to the quotation date, the Contractor accepts full responsibility to deliver the intended performance of the system at no additional cost to the Owner. If any conditions are subsequently observed on site that will impair proper and intended uniform irrigation coverage, notify the Owner's Representative as soon as possible, and inform what the impairment is and its resolution. Do not proceed with any work that would yield unsatisfactory coverage as it will not be accepted.

#### **1.5 Qualifications**

- .1 All irrigation work shall be done by an experienced and competent Irrigation Contractor having the capabilities and personnel necessary for all phases of the work specified.
- .2 The Irrigation Contractor shall be a member in good standing of the Irrigation Industry Association of British Columbia (IIABC) and have met the qualification standards currently applied to contractors by that organization. The Contractor must provide proof of membership, and shall provide proof of having worked in the industry for a minimum of five (5) years and provide a list of clients for whom similar sized irrigation projects have been satisfactorily completed. The acceptance of experience and work history rests solely with the Owner.

#### **1.6 Submittals**

- .1 Maintenance Data and Operation Instructions/Manual: Prior to and as a condition of Substantial Performance, submit to the Owner's Representative three (3) copies of an operating and maintenance manual containing operational information for all operating components, cleaning and lubrication schedules, overhaul/adjustment schedules and similar maintenance operations. Each manual shall be bound in a three ring binder.
- .2 As-Built Drawings: As a condition of Substantial Performance, submit with the operating and maintenance manuals, a suitably scaled reproducible copy of the "as-constructed" installation of the system. This drawing shall be accurately drawn, showing all components of the irrigation system as installed, with clear measurements provided from identifiable reference points (in metric). As-built drawings shall include invert depths and offset measurements; all such measurements must be taken during construction.

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- .3 A plasticized site plan shall be installed in the controller showing the location of each and every solenoid valve, type of valve, with identified zone number, location of the controller, DCVA, control and flow meter valve, pressure regulating valve, booster pump if installed, isolating valves and water supply – with a north reference point  
All solenoid valves are to have a type 316 stainless steel tag attached, 25 mm in diameter, indicating the number of the operating zone, and all zone conductors in the controller shall be correlated with the controller program and numbered in adherence thereto.
- .4 Maintenance Devices: Submit to Owner's Representative two (2) sets of all special tools, keys, and equipment that is required to commission the system or as otherwise specified in the Contract Documents.
- .5 Commissioning: Instruct Owner's Representative in the complete operating and maintenance procedures for this system. This instruction shall include but not be limited to showing the relative timing differences between zones of different precipitation rates and a schedule of run times suggested for various weather conditions.

**1.8 Site Conditions**

- .1 Existing Conditions/Underground Services: The Contractor is to verify all existing services, locate all on-site utilities and underground services by hand digging or by use of an electronic toning device or M-Scope. Mark the location of all buried cables, conduits, pipes etc, prior to any trenching. Cooperate with the Owner and utility companies to keep their respective utilities in operation. Notify Owner's Representative immediately for directions as to the procedure should any piping utilities be affected during excavation.
- .2 Site Preparation: Prior to the work of this Section, the Contractor is to carefully inspect any installed work of other trades or contractors and verify all such work is complete to the extent that this work may properly begin.
- .3 Field Measurements: Make all measurements in the field to confirm that the design meets the on site conditions to ensure the precise fit of items in accordance with the original design and performance criteria.
- .4 Discrepancies: In the event of major discrepancies, errors or conflicts between the drawings and the actual site conditions, immediately notify Owner's Representative as to procedure before proceeding with work.
- .5 Repair to Underground Services: Repair or replace all damage to underground services caused by the work of this Contract. Damage to services that are shown on the drawings or have been brought to the Contractor's attention in the field prior to commencement or during construction of the work shall be repaired in its entirety at the Contractor's expense. (Damage to services that were clearly unforeseen/unknown of existence (provided that all reasonable measures were undertaken by the Contractor to ascertain the existence of these services) shall be repaired in accordance with the Changes clause of the General Conditions). Notify Owner's Representative of damage immediately and co-ordinate replacement or repairs through her/him

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**1.9 Protection**

- .1 Protect existing buildings, equipment, sidewalks, landscape reference points, monuments, markers and other completed work. Make good any damage resulting from work of this Contract at no expense to the Owner.
- .2 Do not park vehicles on the site in areas where the work will be undertaken without express written consent of the Owner's Representative. Utilize only such equipment/vehicles essential for construction of the system.
- .3 Protect the work and material of all other trades from damage. Make good all damages from work of this Contract at no expense to the Owner.
- .4 The Contractor shall be responsible for work and equipment until finally reviewed, tested, and accepted by Owner's Representative.
- .5 Store materials and equipment received on site that is not immediately installed in a secure location.
- .6 Close open ends of work with temporary covers or plugs during construction to prevent entry of obstructive material.
- .7 Trenching and other excavations for vaults, valve boxes etc. are not to be left open during non-work hours of operation unless they are protected to current WorkSafeBC Standards. Cover, mark, and/or protect as necessary all open excavations to ensure worker and public safety.

**1.10 Guarantee**

- .1 Provide a written Guarantee for all workmanship and materials for one year from date of Substantial Performance. Make all corrections, adjustments and maintenance operations required as a result of failure of the irrigation system to perform due to the work of this Section.
- .2 Manufactured products, including but not limited to irrigation heads, quick couplers, controllers, valve boxes and valves, shall be warranted as per the manufacturers' standard guarantee period or a minimum of one year, whichever is greater.

**1.11 Sequence**

- .1 Coordinate and ensure the installation of all sleeves and irrigation piping as required under all paved surfaces and through planter walls as noted on the drawings.
- .2 The Contractor is to verify the location of the municipal water supply connection point for the automatic irrigation system. Coordinate as necessary.
- .3 The Contractor is to verify the location of the control cabinet and install a minimum 50mm PVC electrical conduit for the low voltage wires from the control cabinet to a point a minimum of 600mm below grade to the top of the PVC conduit and 1.5 meters horizontal from the control cabinet. There shall not be an in-grade junction box below the control cabinet.

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- .1 Prior to commencement of any work related to this irrigation project, the contractor is required to make contact with the designated Owner's Representative authorized to make project decisions.
- .2 All work is to remain uncovered for inspection of workmanship and materials. Notify Owner's Representative a minimum of forty-eight (48) hours prior to required inspections. Failure to provide such notice and closing in of un-inspected work is sufficient grounds for withholding any payments due to the Contractor. All buried work that has not been inspected and approved will have to be totally uncovered.

**PART 2: PRODUCTS****2.1 General**

- .1 Product Handling
  - .1 Deliver and store materials in new condition, in unopened containers and protect until installed. Deliver, handle and store pipe and fittings so as to avoid gouging, bending or cracking.

**2.2 Pipe and Fittings**

- .1 Plastic Pipe: Pipe shall be Schedule 40 polyvinyl chloride (PVC) conforming to ASTM D1784-97, D1785-96B and/or CSA B137.3-93 standards.(ASTM F441/441M-97 or CSA B137.6-96 for CPVC). It shall be extruded, virgin, high impact pipe conforming to Cell Class 12454-B, solvent weldable with belled ends, and continually and permanently marked showing manufacturer's name or trademark, type of material, pipe size and pressure rating.

Size and Classes as follows:

<u>Size</u>	<u>Class</u>
19 - 25 mm. diameter	Schedule 40 PVC
31 -100 mm. diameter	Schedule 40 PVC
Mainlines, any size	Schedule 40 PVC

- .2 Plastic Pipe Fittings:
  - .1 GSR Schedule 40 PVC conforming to ASTM D-2466-97 (and F438-97 for CPVC) standards and be of the same material as the pipe. Fittings shall be designed for solvent welding to PVC pipe except where valves, risers, etc. require threaded joints.
  - .2 Fittings for PVC pipe shall be 2/3 to full interference fit to ensure a fully sealed joint. Provide a minimum two (2) times depth of insert of fitting clearance between fittings to allow for repair. No exception.

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- .3 All threaded connections shall be joined with minimum three (3) wraps Teflon Tape: no substitutions accepted.
- .4 Threaded nipples shall be Schedule 80 PVC and be manufactured from the same material specified for the pipe.
- .5 Threaded connections of PVC to metal shall have female threads on the PVC and male threads on the metal (Schedule 80 FMI adapter)
- .3 Primers and Pipe Solvents: CSA approved type as recommended by pipe manufacturer for the temperature and conditions under which the work is being performed. Deliver in sealed containers clearly marked with name of manufacturer and lot number. Use of non- CSA approved specialty primers or solvents such as "Wet R Dry" are not acceptable.
- .4 Sleeves: In locations noted on the drawings and sized a minimum of two (2) nominal pipe sizes larger than any irrigation lateral line to be carried and a minimum of three (3) minimal pipe sizes larger if carrying a mainline:
  - .1 Shall be cast iron piping under all designated vehicular access routes.
  - .2 Shall be Schedule 40 PVC under all other paved surfaces, through walls, and through or underneath footing walls.

**2.3 Valves and Valve Boxes**

- .1 Solenoid Valves: New, pristine quality valves manufactured by Toro or pre-approved equivalent of the types indicated on the drawings, and sized the same diameter as the pipe they control. Integrally Regulated solenoid valves are not acceptable unless site topography deems their use necessary and specific approval by Owner's Representative has been given. Integrally regulated solenoid valves will not be considered as pre-approved equals.
- .2 Quick Coupler Valves: Brass, 19 mm. installed with schedule 80 nipples, couplings (if used) and triple threaded swing joints. Install Q.C. at location shown on drawings. Accommodate Q.C. in valve box or separate enclosure, as required, and install in active, non-solenoid valved line d solenoid valved line. Ensure top of Q.C. valve is installed a maximum of 50 mm. below lid of valve box to allow easy key operation.
- .3 Isolation Valves: Cast Bronze gate valves with non-rising stems: R&W Model 280 or pre-approved alternative for 13 mm up to and including 63 mm diameter and R&W non-rising, cast iron flanges, Model 415 for 75 mm and larger diameter.
- .4 Bronze Ball Valves: Threaded hubs, Cambridge, 50mm, Model #202 NL-H7F7 or appropriate model number to suit specified diameter of Shut-Off curb stop type or pre-approved alternative.
- .5 Valve Boxes: Shall be green plastic irrigation boxes complete with captive lock bolt cove complete with S.S. bolts, sized to suit valves and other components with adequate room for operating and maintenance access:
  - NDS - 113 BC (14" x 19") 1-2 valves or Carson 1419 (14" x 19") 1-2 valves
  - NDS - 117 BC (17" 20") 3 valves or Carson 1320 (13" x 20") 3 valves



**2.4 Sprinkler Heads**

- .1 New pristine quality heads manufactured by Toro or pre-approved equivalent of the types and sizes indicated on drawings.
  - .1 Sports field/Playfield Heads:
    - .1 The full or part-circle sprinklers shall be gear driven rotary types. The sprinkler shall be of a pop-up design with an overall height of 225 mm (or 263 mm for Valve in Head). Body diameter of 88 mm, a cap diameter of 63 mm a pop-up stroke of 60 mm. The top sprinkler shall be mounted at 13 mm below the final finished grade and shall have a 25 mm NPT or BSP female threaded inlet.
    - .2 The sprinkler shall be capable of covering designed radius at designed kilo Pascal pressure with a discharge rate of designed litres per minute. Water distribution shall be via two (2) nozzles mounted in a 38 mm diameter stainless steel nozzle turret. The dual nozzles shall elevate 60 mm when in operation. Radius reduction shall be adjustable up to 25%, by means of a stainless steel radius adjustment screw accessible from the top of the nozzle when the sprinkler is properly installed. The body and cap of the sprinkler shall be injection moulded from ABS, a non-corrosive, impact-resistant, UV-resistant, heavy-duty plastic material. The sprinkler shall have a plastic filter screen sized to prevent entry of foreign material into the nozzle. All components shall be removable from the top of the sprinkler case. Retraction shall be achieved by a heavy-duty stainless steel spring. The sprinkler shall have a riser seal and a wiper. A sealed, oil-packed gear-drive assembly isolated from the water supply shall accomplish rotation. The drive assembly gear mechanism shall be constructed of brass and stainless steel gears. The sprinkler shall have a standard rubber cover available in black or lavender for effluent water use applications. Various arc patterns shall be achieved with any one of twelve fixed arc gear drive assemblies.
  - .2 Large Open Area/Passive Lawn Heads:
    - .1 The full or part-circle sprinklers shall be gear driven rotary types. Part-circle models shall be adjustable from 40 degrees to 330 degrees. The sprinkler shall be capable of covering designed radius at x pounds per square inch pressure with a discharge rate of designed litres per second. Water distribution shall be via one modular nozzle mounted and locked onto a 35 mm diameter nozzle turret.

- .2 The dual nozzles shall elevate 60 mm when in operation. Radius reduction shall be adjustable up to 25%, by means of a stainless steel radius adjustment screw accessible from the top of the nozzle when the sprinkler is properly installed. The body and cap of the sprinkler shall be injection moulded from ABS, a non-corrosive, impact-resistant, UV-resistant, heavy-duty plastic material. The sprinkler shall have a plastic filter screen sized to prevent entry of foreign material to the nozzle. All components shall be removable from the top of the sprinkler case
- .3 The sprinkler shall have a single piece riser/body seal that regulates flushing during pop-up and retraction to clear any debris from around the riser, and a heavy-duty stainless steel spring to ensure positive retraction. The seal shall be a single piece injection moulded from Santoprene, a synthetic rubber.
- .4 The sprinkler shall be capable of accepting any one of 24 nozzles. The nozzles shall be colour-coded and available in three trajectories. Rotation shall be accomplished by a sealed, oil-packed gear-drive assembly isolated from the water supply and driven by a variable stator that maintains a constant speed of rotation with all nozzles. The variable stator shall require no adjustments when changing nozzles. The sprinkler shall employ a modular, interchangeable nozzle technology. Any individual nozzle shall be easily removed, installed and locked if field adjustment is required. A standard pop-up model shall be available with a check valve that shall maintain 3000 mm of elevation change.
- .5 A lavender effluent water use indicator must be available and able to be fitted into the nozzle. A 19 mm NPT plug shall be provided with all side inlet models to plug the unused inlet.

**Hi-Pop Version:**

The sprinkler shall be of a pop-up design with an overall height of 413 mm, a body diameter of 60 mm and a pop-up stroke of 263 mm. The sprinkler shall be capable of installation at grade level and shall have a 19 mm NPT female inlet.

**Lawn Version:**

The sprinkler shall be of a pop-up design with an overall height of 175 mm, a body diameter of 75 mm and a pop-up stroke of 75 mm. The sprinkler shall be capable of installation at grade level and shall have a 19 mm NPT female inlet.

**Commercial Version:**

The sprinkler shall be of a pop-up design with an overall height of 175 mm, a body diameter of 75mm and a pop-up stroke of 75mm. The sprinkler shall have a standard locking cap to provide vandal resistance. It shall be supplied with a standard check valve that shall hold 3000 mm of elevation change. The riser assembly shall be encased in stainless steel for increased vandal resistance and durability. The sprinkler shall be capable of installation at grade level and shall have a 19 mm NPT female inlet.

**Shrub Version:**

The sprinkler shall be of shrub design with an overall height of 128 mm and a base diameter of 44 mm. The sprinkler shall be capable of mounting above grade and shall have a 13 mm or 19 mm NPT female threaded inlet.

.3 Small Lawn Areas/Shrub Bed Areas:

- .1 The nozzles shall be the fixed spray type designed to provide matched precipitation rates from 1500 mm to 4500 mm radius. The nozzles shall have a colour-coded base that provides easy identification of the radius and/or type of nozzle in use. The nozzle top shall provide an alphanumeric indication of the radius and arc of the nozzle as well as a graphical indication of the arc. The nozzle shall be available with a pressure-compensating device capable of maintaining 207 KPa with operating pressures from 207 KPa to 470 KPa. Non-pressure compensating nozzles shall be capable of accepting a compensating device to provide this feature at any time. The nozzle shall be capable of 25% radius reduction and complete shut-off via a stainless steel screw accessible from the top of the nozzle. The nozzle shall have male threads. A colour-coded screen appropriately sized to prevent entry of foreign materials into the nozzle shall accompany the nozzles. A secondary 200-mesh stainless steel screen shall accompany all nozzles with a 207 KPa flow rate less than 1.89 litres per minute. The nozzle shall be injection moulded from ABS, a non-corrosive, impact resistant, UV-resistant heavy-duty plastic material. The accompanying primary screen shall be injection moulded from polyethylene, a non-corrosive plastic material. The accompanying secondary screen shall be stainless steel.

## 2.5 Control and Common Ground Wiring

- .1 Obtain Electrical Permit for the work from Permits and Licenses, City of Vancouver.
- .2 Use insulated solid copper wire, minimum #14 AWG, TWU insulation of a type approved by the governing electrical authority and by CSA for direct underground burial, sized to suit loads, and distances. Maximum voltage loss shall be three percent (3%). Insulation colour for control/signal conductors shall be consistently applied throughout the system, and white conductor shall always be the common wire.

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- .3 Confirm control wire size with the manufacturer of zone control valves to ensure wire is sized to the length of its run and in compliance with the current Canadian Electrical Code, as amended by the Province of British Columbia and the City of Vancouver.
- .4 Wire, breakers, conduits and related materials that comprise the electrical supply to the controller shall be CSA approved, and installation shall be pursuant to the Canadian Electrical Code, as amended by the province of British Columbia and the City of Vancouver. Underground installation of electrical wiring must comply with Table 53 of the CEC, Part 1.

**2.6 Miscellaneous Materials**

- .1 Electrical Tape: All weather, black plastic 19 mm wide, a minimum 0.1778 mm thick, or use approved equal.
- .2 Electrical Wire Splices shall be made watertight with CSA approved watertight connectors. No splicing of wires shall occur unless located in an accessible box and shown on the As-Built Drawings.
- .3 Thread Lubricant: Type manufactured for plastic to metal connections such as Teflon tape or Permatex 2.
- .4 Conductors in the Control Cabinet must all be terminated on terminal strips suitable for wire size.

**2.7 Automatic Controller**

- .1 Scorpio Controller with UHF radio, or Motorola compatible controller.
  - .1 Capable of manual and automatic operation.
  - .2 Independent stand-alone operation with 16 programs
  - .3 Ready for central control via radio communication.
  - .4 Must be capable of supporting 1 flow meter input to monitor real time flow rates, alarming for:
    - .1 High flow, shutdown station(s)
    - .2 Low flow, shutdown station(s)
    - .3 Unopened, shutdown station(s)
    - .4 Burst main, shutdown station(s)
    - .5 Main leak, shutdown station(s)
  - .5 Must be capable of supporting a connection of any digital sensor to force a "wait response".
  - .6 Electrical surge protection.
  - .7 Independent and remote station programming.
  - .8 Water adjustment factor by using percentage scale, 0-99% in 1% steps.
  - .9 Selective station operation, sequential station operation, single station operation.
  - .10 Stop time prevents irrigation past a specific deadline entered.
  - .11 Program by time, volume or time and flow

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- .12 Cycles per program 1-98.
- .13 Electrical characteristics:
  - .1 CSA approved, 120/240 VAC, 50-60 Hz @ 30 VA.
  - .2 Capable of not less than STATED independent stations; allowing for variation due to size of system, spares and future expansion of the system/or requirements of proposed system as requested by Owner.
- .14 Options to include: Rain Sensor Capability.
- .15 Operational key pad(s) shall be supplied with each controller.
- .16 Controller to be radio controlled.
- .17 Controller must provide a minimum allowance for one (1) extra output for activation of the hydrometer (when specifying number of stations on controller one station must be designated for activation of the hydrometer).

**2.8 Cabinet for Controller**

- .1 Two (2) electrical circuits rated at 15 amps 120 volts shall be installed to the Control Cabinet, one circuit shall supply the duplex receptacles for the Scorpio Controllers- one duplex receptacle for each controller; the other circuit shall supply a duplex receptacle for general purposes. All conductors shall be a minimum of 12 AWG, RW90 insulation, solid copper, and run in an electrical PVC conduit.
- .2 The Control Cabinet shall be CSA approved and of the type specified on the drawings, complete with approved weather proof lockable metal door and grounded by means of ground rods or plates. It must be large enough and capable of providing all necessary features for programming equipment for the irrigation system as designed.

**2.9 Back Flow Preventer**

- .1 Wilkins Zurn or Watts Series 007M1QT double check Backflow Prevention Assembly, complete with gate valves, or pre-approved equal.
- .2 All back flow preventers larger than 50 mm shall be the approved type or pre-approved equal.
- .3 All back flow prevention devices to be CSA and BCWWA approved and conform to all current Municipal cross connection control standards as applicable.

**2.10 Service Vault**

- .1 All back flow prevention devices to be located in precast concrete vaults complete with concrete bottom that shall be sized as shown on the drawings,
- .2 The vault shall be supplied by AE Precast Concrete Products or shall be a pre-approved alternative.

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- .3 Vaults shall be supplied complete with double hinged, galvanize steel checker plate locking covers, with lock and hasp assembly which shall be recessed below top of lid. Lids are to extend the full length of the service vault to allow for unimpeded access into the vault. Each lid is to be a maximum weight of 27 kg each. Install service vault flush with finished grade.
- .4 The piping and valve assembly within the vault must be adequately supported and braced (minimum two (2) riser type supports and two (2) side wall supports), with adjustable supports, complete with riser, pipe clamps, galvanized metal and stainless steel bolts. Install as per provided schematic drawing.
- .5 All piping inside the vault is to be brass or type, and is to extend a minimum of 300 mm outside the vault on the downstream side and a minimum of 150 mm on the upstream side.
- .6 The top of the piping shall be 600 mm from the top of the lid. The service vault shall be filled with 25 mm drain rock to within 300 mm of the bottom of the pipe. Contractor shall install a 100 mm PVC drainpipe, complete with a backwater valve. The vertical section of the drainpipe is to be perforated and terminating with a grate that is flush with the surface of the drain rock. The drainpipe is to run (minimum of .5% slope) into a catch basin or an approved drainage system.
- .7 PVC connections to brass outside the vault on the downstream side are to be made with schedule 80 PVC female adapters.
- .8 Inside vault piping shall be brass including the triple threaded swing joints for blow down quick coupler, or pre-approved alternative.
- .9 All piping to vault from the city service is to be type K copper or pre-approved alternative.

**2.11 Pressure Reducing Valve**

- .1 If required, Watts Series 223 sized to system: Range 173 KPa to 470 KPa or pre-approved alternative.

**2.12 Blow Out Tee**

- .1 Brass, 19 mm in size on triple brass threaded swing joint.

**2.13 Flow Meter**

- .1 Hydrometer: Bermad Model No. 910-P or pre-approved equal.
- .2 Shall combine a turbine type water meter and a diaphragm actuated, solenoid controlled valve mounted in a single globe style valve body.
- .3 The meter shall power a gear mechanism which activates a reed switch that transmits a pulse at a pre-determined amount of flow.
- .4 The unit shall include integral flow guides to eliminate the need for straight pipe allowances before and after the valve.
- .5 The hydrometer shall be capable of sending electronic flow data to a compatible irrigation controller to enable it to be integrated within an overall computer controlled system.

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- .6 Three different coloured wires shall be installed to the controller from the Bermad, two of which must be a white common.
- .7 Flow meter must have a manual override to bypass meter.
- .8 Three way actuator must be of brass construction and must have a solenoid. Plastic materials are not acceptable.

**2.14 Approved Equals**

- .1 All items as specified or pre-approved equivalents.
- .2 Proposed equivalents shall meet or exceed the specifications in performance, flow, pressure loss and all other important characteristics of the original equipment specified.
- .3 The alternative equipment shall be of good quality construction, with a proven record of trouble free performance and low maintenance, on projects of similar size and scope.
- .4 The proposed equivalent must be available from a local distributor with a well-stocked inventory of all readily available spare parts.
- .5 The alternative equipment must have an equivalent warranty to the original equipment specified.
- .6 Alternative equipment must be compatible with all other remaining system components and must be agreed upon by both parties to the contract.
- .7 Submission guidelines for approval of equal products must be strictly adhered to or no consideration for approval as equals will be considered.

**PART 3: EXECUTION****3.1 Irrigation System Layout**

- .1 Establish and coordinate exact locations of lines, valves and heads, with planting locations to avoid conflicts and damage to plants during installation. Stake locations for approval by Owner's Representative. The Contractor is to verify grades for all components.
- .2 Layout the piping and sprinkler locations with flags or short lengths of pipe, in accordance with the drawings, and obtain the approval of the Owner's Representative before proceeding. The layout shall be in accordance with the drawing. The Owner's Representative must approve alternative layouts.

**3.2 Installation of Piping**

- .1 The Contractor is to verify that all pipe, fittings, primers and cements are compatible for proper installation.
- .2 Obtain field assistance from pipe manufacturer/supplier as necessary to ensure correct installation and adhesive techniques are used on joints.
- .3 Do not cement pipe and fittings under wet or muddy conditions, and follow the manufacturer's recommendations.

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- .4 Layout the piping system in accordance with drawings. Route piping to take into account site elevation changes and to minimize low head weeping subsequent to shutdown.
  - .5 No irrigation line shall be directly over and parallel to another irrigation line or any other service line. Ensure minimum horizontal and vertical clearance requirements as dictated by Canadian Electrical Code for all piping installations near any electrical conduit/service.
  - .6 Where possible, main supply lines may occupy the same trench as lateral sprinkler lines, provided that a minimum horizontal clearance of 150mm is maintained. Multiple lateral lines may occupy the same trench provided that a minimum of 50mm horizontal clearance is maintained and the pipes are all on the same plane.
  - .7 Install pipes in long 'S' curves to allow for expansion and contraction.
  - .8 Comply with all the manufacturer's printed data and recommendations regarding pipe cutting, cleaning, bevelling, deburring, fitting preparation, primer and cement application and correct joining techniques. Ensure that all joints are properly fused and bonded and that all curing times given site climatic conditions are fully observed prior to testing or charging of piping system.
  - .9 Install yellow warning tape approximately 250mm above all mainline runs with low voltage wiring located below piping. Warning tape on lateral lines is not required.
  - .10 Trenching:
    - .1 All excavation shall be undertaken in accordance with the City of Vancouver's Policy and Standard Operating Procedure- Soil and Excavation Water Contamination Management.
    - .2 Open excavation shall be carried out in a safe and orderly manner and in accordance with the requirements of the Workers' Compensation Act of B.C. Approved shoring shall be used where required for safe working conditions.
    - .3 All trenches are to be hand or machine excavated. Pulling pipes is not acceptable. All trenches shall be dug on the alignment and to the depth required as shown on the drawings and as stated herein. In any event, the water main service pipe shall be buried to a depth of at least 750 mm below ground. The irrigation main and zone lines shall be buried to a depth of at least 406 mm below the surface measured to top of pipe. Trenches are to be straight with uniform slopes to the bottom of all trenches.
    - .4 Where the pipes are to be laid in sub-surface material the trench shall be excavated to a depth at least 100 mm below the bottom of the pipe elevation. The trench shall be backfilled with at least 100 mm of sand passing a 5 mm sieve and be carefully compacted by hand.
    - .5 Prior to backfilling, all lines, valves and fittings shall be inspected by Owner's Representative , where required.
    - .6 Trenches shall be at least 300 mm away from paving stones or other hard surfaces to avoid undermining such surface or its edge retention.
-



- .7 Backfilling shall take place in an orderly fashion. Where the line is within an enclosed planting bed or sod lawn area and does not penetrate below the growing medium, the growing medium shall be carefully placed over the pipe and be carefully tamped by hand to achieve compaction equivalent to the surrounding area. Where the lines penetrate the native soil or sub-surface fill, backfilling to a depth of 100mm over the top of the pipe shall be carried out with sand passing a 5 mm sieve and be carefully compacted by hand.  
 The remainder of the backfill to finish grade shall be with suitable material, free of any rocks over 25mm in diameter and other similar materials that could damage the pipe or create unusual settling conditions.
- .8 Compact the growing medium to the same density as the native material in the trench sidewalls to prevent differential settlement.
- .9 Fill piping with water at approx. 0.172 MPa during backfill operations.
- .10 Contractor is responsible to repair all trenches which have settled below the adjacent grade for a period of one(1) year from date of Substantial Performance.
- .11 Material refuse such as pipe pieces, excess wire, rags, fittings or PVC cement canisters shall not be left as a part of backfill in any of the trenches.

### **3.3 Installation of Equipment**

- .1 General: Install all equipment as shown in plans and details, using specified and appropriate pipes, connectors, cements, lubricants, solvents for each type of joint.
- .2 Valve Boxes: Install valves in valve boxes, allowing adequate space within boxes for proper operation/servicing of each component. Keep the valve box clean and clear of all debris that may fall into it during construction/installation. Ensure a minimum 150 mm of 19 mm drain gravel is placed in the bottom of each valve box. Additionally, ensure the following:
  - .1 The top of the valve box is to be level and flush with grade, and located in shrub areas where possible.
  - .2 Valves are to be installed vertical and centred.
  - .3 Valve boxes are to be blocked (with brick or concrete pavers) so that neither blocking nor valve box rest on lateral or mainlines when supporting the weight of expected forces on the top of the box.
  - .4 Quick coupler valves to be installed within valve boxes in active, non-solenoid valved line or in specified designated solenoid valved line.
- .3 Automatic Controllers: Ensure controller(s) are located to allow for maximum viewing of the system operation. Install in location shown on drawing. If not shown coordinate location with Project Manager prior to starting work. Install at 1500 mm height to the centre of the Cabinet or as otherwise detailed at location shown. Make all connections to optimize the operation and sequencing station valves in a logical manner to expedite proper testing of all system operations.

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- .4 Control Wiring: Protect control and common wiring by installing beneath irrigation mainline. Obtain approval from Owner's Representative for all wiring to be installed in separate trenching and protect with Yellow Buried Wire Warning Tape that shall be 200 mm above the wires. Leave additional 600 mm of each wire at each valve and neatly coil and wrap excess. Wrap conductors with electrical tape at 900 mm intervals. Make wire splices only in accessible valve boxes. Minimize the number of splices. As much as possible ensure that wire runs are continuous without interruption. Run control wiring from valves and connect to automatic controller. Install control wiring in a conduit that extend 1500 mm horizontally from the vertical connection point of the controller, with the horizontal portion 600 mm below grade to the top of the pipe. Electrical conduit to be a 50 mm diameter PVC with a sweep elbow from below grade to bottom of controller cabinet location. Ensure that conduit is clamped to mounting surfaces with conduit pipe clamps at 250 mm on centre spacing or as detailed.
- .5 Quick Coupler Valves: Install in valve box to allow for easy insertion and rotation of quick coupler keys, with the top of the Quick Coupler installed a maximum of 50 mm below the lid of the valve box, on Schedule 80, triple threaded swing joints and nipples to provide sufficient "give" should a hose or line be pulled.
- .6 Irrigation Heads: Install all heads on triple swing joint assemblies of the same size as the sprinkler inlet. Adjust all heads to 12 mm below finished grade for sodded lawn areas once sodded lawn has been approved by Owner's Representative.
  - .1 All sprinkler heads to be installed a minimum 50 mm away from any hard surface.

**3.4 Testing**

- .1 Closing in Work:
  - .1 Obtain approval from the Electrical Inspector before backfilling any section of the underground electrical installation.
  - .2 Obtain approval of Owner's Representative before backfilling any sections of the irrigation system.
  - .3 Any work closed in before inspection will be required to be re-exposed for inspection at no extra cost to the Owner. Provide 48 hours minimum notice to Owner's Representative to arrange inspections and review of pressure testing.
- .2 Testing: Upon completion of the irrigation system, arrange with the Owner's Representative to be present to observe pressure testing. Test all plastic pipe and sprinklers as follows:
  - .1 After the pipe is in place in the bottom of the trench with risers in place, cap the risers where the sprinklers will be attached and insure that all pipe, couplings and fittings are exposed.

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- .2 Apply a pressure of 0.551 MPa (80 psi) to each section, using a test pump and calibrated container. Inspect visually for leaks at couplings and fittings, cut out and replace any that leak. Maintain test pressure for two (2) hours. After replacing any defective sections, pressure test for two (2) hours and note any pressure loss.
- .3 After approval by the Owner's Representative , backfill the pipe maintaining pressure in the line, noting any sudden drop in pressure. If there is any indication of a leak, locate the defective section and replace. Leaks shall not be repaired by patching.
- .4 Provide written documentation that pressure testing has been completed satisfactorily, including re-testing (for 2 hours) of all defective sections. Written notice shall state the date, parties present, pressures applied and duration of pressure tests.
- .3 Flushing: after testing and prior to attaching sprinklers, flush out each section to remove any dirt accumulated.
- .4 Adjustment: Adjust the irrigation heads for optimum coverage and rate of flow, including minor adjustment in actual head locations. Set the controller operation times as dictated by Owner's Representative . The Contractor is required to balance and adjust the various components of the system to ensure the efficient operation of the system. This includes the adjustment of any pressure regulators, full and part circle radius heads, valves and adjustments to controllers.
- .5 Systems that are Substantially Complete on or after September 15th, shall be left in a winterized state as per Item 3.5. This contractor is responsible to return the following Spring at a time dictated by the Project Manger and start-up the system and perform all maintenance functions necessary to provide a fully operating system.
- .6 Coverage Test: When the irrigation system has been completed, a coverage test shall be completed in the presence of the Owner's Representative to determine if coverage of water on planted areas is complete and determine if any adjustments are required.
- .7 Controller Test: As part of the above, and prior to Final Acceptance by the Owner's Representative , the automatic controller(s) shall be set in sequence and thoroughly tested through each zone to determine if any adjustments are required.
- .8 Submit Certificate of Double Check Valve Assembly Test and Pass at the time of Substantial Completion.

**3.5 Winterizing**

- .1 Winterize the system for the first time with the Owner's Representative and Owner's Representative observing. Winterizing shall include all operations necessary to protect the system from freezing temperatures, including manual and solenoid valve operations to isolate vulnerable parts of the system and draining components and pipes and/or blowing water out of all pipes with compressed air.

**3.6 Site Maintenance/Clean Up**

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- .1 The job site shall be kept in a neat, clean and orderly condition at all times during the installation process.
- .2 Trenching, laying pipe and backfilling shall be continuous so that the amount of open trenching at the end of each workday is minimized. Any open trench or other excavations shall be barricaded and marked with high visibility marking tape to current WorkSafeBC requirements.
- .3 Any damage to paving, planting or any other structures/elements due to settlement of improperly compacted trenches shall be immediately repaired at the Contractor's expense to satisfaction of the Owner's Representative.
- .4 Remove and dispose from the site any and all surplus material, excess excavated materials, trash, debris and waste material arising from the work of this Section.

**END OF SECTION 32 80 00**

## CITY PRE-CONTRACT HAZARD ASSESSMENT FORM

Contract Title PS20210282 Irrigation installation Queen Elizabeth Pitch n PuttProject Manager (City employee) Peter Rodrigues / Andrew DreverContract Name and No. (if known) Irrigation Installation Queen Elizabeth Pitch n Putt**PURPOSE**

This document shall be completed by the City's designated project manager, who shall list all the known worksite hazards and all the existing work process hazards associated with the upcoming contract. The completed document shall then be provided to all potential contractors, as part of the tender package, so the project can be bid appropriately based on the known worksite hazards.

**DEFINITIONS**

"Project Manager" means the City employee designated to be the liaison with the contractor for the purpose of managing, overseeing, coordinating or in any other way administering the contract.

**INSTRUCTIONS FOR COMPLETION**

The document must be completed in full. Choices for each entry are:

**Yes (Y)** the known worksite hazard or existing work process hazard does exist

**No (N)** the known worksite hazard or existing work process hazard does not exist\*, or, a third party (environmental consultant) will address the issue (usually for a hazardous materials assessment)

\* based on reasonable estimation from all input by persons with expertise or relevant knowledge and understanding

**Not Applicable (NA)** the worksite hazard or existing work process is not applicable for this contract type

**INFORMATION FROM HAZARDOUS MATERIALS ASSESSMENTS PROVIDED BY A THIRD PARTY**

A hazardous materials assessment may be completed prior to the Project Manager completing the City's List of Known Workplace Hazards. Any such assessment should be referenced by the Project Manager in this document and provided with the tender package. Hazardous materials may include asbestos, lead, crystalline silica, ammonia, PCBs, CFCs, moulds, mercury, ozone depleting substances (ODSs), radioactive substances.

**ASSISTANCE IN COMPLETING THIS DOCUMENT**

If you have questions while completing this document, or are unsure if the listed hazards apply, please seek assistance from Health and Safety (604.871.6078 or [healthandsafety@vancouver.ca](mailto:healthandsafety@vancouver.ca)).

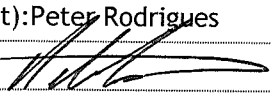
Hazard or Issue	Project Manager		
	<i>Yes (Y), No (N) or Not Applicable (NA)</i>		
1. <b>Asbestos-containing Materials.</b> Disturbance or penetrations of flooring, walls, ceiling tiles, pipe lagging, ac pipe, transite siding, particularly in older facilities; e.g., furniture/fixture installation, carpeting/flooring services and boiler repair/tune-up services			
(a) Asbestos containing materials (ACM) will be encountered	(Y)	N	NA
(b) A hazardous materials assessment for asbestos is provided in the tender package	Y	(N)	NA
(c) A hazardous materials assessment for asbestos is the responsibility of the contractor	(Y)	N	NA
2. <b>Lead-containing Materials.</b> Disturbance of lead-based paint, particularly in older facilities. Also present in certain electrical circuitry and metal alloys; e.g., overhead bridge crane maintenance/repair, high-voltage cable splicing services, boiler repair/tune-up services, fixture installation services, and chiller maintenance/repair services			
(a) Inorganic lead-containing materials may be encountered	Y	N	(NA)
(b) A hazardous materials assessment for lead is provided in the tender package	Y	N	(NA)
(c) A hazardous materials assessment for lead is the responsibility of the contractor	Y	N	(NA)
3. <b>Other hazardous materials.</b> May include ammonia, pcb's, cfc's, moulds, mercury, ozone depleting substances (ods), radioactive substances, sewage, unknown contaminated materials, other (list other here)  _____ _____ _____			
(a) A hazardous materials assessment for ammonia is provided in the tender package	Y	(N)	NA
(b) a hazardous materials assessment for (list the specific hazardous material) will be provided in the tender package;	Y	(N)	NA
(c) a hazardous materials assessment for (list the specific hazardous materials) will be the contractors responsibility	Y	(N)	NA
4. <b>Confined Spaces.</b> Working in vaults, chambers, pits, tanks, etc.; e.g., construction, inspection and testing services, water/fuel storage tank clean-out services, and utility corrosion inspection services:			
(a) a hazard assessment (for entry and inspection only) from the City of Vancouver is provided in the tender package;	Y	N	(NA)
(b) the City of Vancouver shall provide procedures to isolate adjacent piping, or to lock out equipment (complicated systems only);	(Y)	N	NA
(c) the contractor shall be responsible for isolation and lockout procedures.	(Y)	N	NA

Hazard or Issue	Project Manager
	Yes (Y), No (N) or Not Applicable (NA)
5. <b>Lock Out.</b> Industrial equipment maintenance, power machinery repair services, pump maintenance/repair services, mechanical refrigeration systems, elevator repair, overhead bridge crane maintenance/repair services, cathodic protection services, hydraulic test systems repair/service, and air compressor rebuilding services:	
(a) lockout will be required to isolate or prevent the unexpected release of energy (electrical, mechanical, hydraulic, chemical, thermal, kinetic, gravitational, pneumatic);	(Y) N NA
(b) work will be performed on or near energized equipment, lines, or circuits	(Y) N NA
If yes to (a) or (b) describe: BC One call required _____ _____ _____	
6. <b>Fall Protection.</b> Tree pruning, window and ledge cleaning, window replacement, overhead bridge crane maintenance/repair services, roll-up door replacement, tent installation, awning/canopy installation, overhead air exchange installation, construction inspection and testing services	
(a) Workers will be exposed to a potential fall in excess of 3 m (10 feet), or to a fall of less than 3 m which would likely result in a serious injury (ex. impalement on rebar)	Y (N) NA
(b) Scaffolding or ladders will be required to be secured to a building or structure	Y (N) NA
7. <b>Overhead and Underground Utilities.</b> Tree pruning services, tree removal, utility relocation or replacement, underground utility identification (digging with powered equipment), concrete sawing services, pole painting	
(a) There will be electrical hazards associated with overhead power lines such as limits of approach and contact	Y N (NA)
(b) Necessary assurances (in writing) have (or will be) obtained by the City, through the utility company, for any work where minimum limits of approach cannot be maintained (provide documentation and review at pre job meeting with the successful contractor candidate)	Y N (NA)
(c) Necessary assurances must be obtained (in writing) by the successful contractor, through the utility company, for any work where minimum limits of approach will not be able to be maintained	Y N (NA)
(d) Underground or hidden utilities are located on the job site and any excavation or drilling work in proximity to an underground utility service must be undertaken in conformity with the requirements of the owner of that utility service	(Y) N NA

Hazard or Issue	Project Manager
	Yes (Y), No (N) or Not Applicable (NA)
If yes to (c), and the specific physical locations where minimum limits of approach will not be able to be maintained are known, how will this information be provided to the contractor? _____ _____ _____	
<b>8. Construction, Excavation, Shoring and Demolition</b>	
(a) As "prime contractor", the City of Vancouver project manager will submit the Notice of Project	Y (N) NA
(b) Workers will be required to enter an excavation over 1.2m (4 ft) in depth	Y N (NA)
<b>9. Chemicals, Solvents, Fumes, Vapours, And/Or Dusts</b> (existing work processes or known worksite hazard only) - ice rinks, swimming pools, cleaning solvents, adhesives, paints, coatings, binders; e.g., storage tank clean-out services, countertop installation (epoxies), and flooring	
(a) The worksite has chemicals solvents, fumes, vapours or dusts that may affect the contractor	Y (N) NA
(b) Material Safety Data Sheets for chemicals currently in use at the worksite will be available, on request, to the contractor	Y (N) NA
If yes to (a), list the work processes and/or chemicals in use: _____ _____ _____	
<b>10. Noise</b> (existing work processes only)	
Employees will be exposed to noise levels above 85dbA	Y (N) NA

OTHER HAZARDS (NOT IDENTIFIED ABOVE)	
(a)	<u>All existing pipe that may contain asbestos will stay in the ground and is not to be disturbed to the best of the contractors ability.</u> _____ _____
(b)	_____ _____
(c)	_____ _____



<b>KNOWN WORKPLACE HAZARDS LIST COMPLETED BY</b>	
Project Manager Name (print): Peter Rodrigues	
Project Manager Signature: 	Date: April 23/2021
Title: Superintendent	Phone: 604 761 1720

REQUEST FOR PROPOSALS NO. PS20210282  
CONTRACTOR FOR IRRIGATION SYSTEM UPGRADE AT QE PARK PITCH AND PUTT  
PART C - FORM OF PROPOSAL

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**PART C – FORM OF PROPOSAL**

RFP No. PS20210282, Contractor for Irrigation System Upgrade at QE Park Pitch and Putt  
(the “RFP”)

Proponent’s Full Legal Name: \_\_\_\_\_

“Proponent”

Address: \_\_\_\_\_

Jurisdiction of Legal Organization: \_\_\_\_\_

Key Contact Person: \_\_\_\_\_

Telephone: \_\_\_\_\_

E-mail: \_\_\_\_\_

The Proponent, having carefully examined and read the RFP, including all amendments and addenda thereto, if any, and all other related information published on the City’s website, hereby acknowledges that it has understood all of the foregoing, and in response thereto hereby submits the enclosed Proposal.

The Proponent further acknowledges that it has read and agrees to the Legal Terms & Conditions attached as Appendix 1 to this Form of Proposal.

IN WITNESS WHEREOF the Proponent has executed this Proposal Form:

\_\_\_\_\_  
Signature of Authorized Signatory for the Proponent

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Signature of Authorized Signatory for the Proponent

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name and Title

**REQUEST FOR PROPOSALS NO. PS20210282  
CONTRACTOR FOR IRRIGATION SYSTEM UPGRADE AT QE PARK PITCH AND PUTT  
PART C - FORM OF PROPOSAL**

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**APPENDICES**

The Form of Proposal includes the following attached Appendices:

- APPENDIX 1      Legal Terms and Conditions of RFP
- APPENDIX 2      Questionnaire
- APPENDIX 3      Commercial Proposal
- APPENDIX 4      Proponents References
- APPENDIX 5      Certificate of Insurance
- 0              Declaration of Supplier Code of Conduct Compliance
- APPENDIX 6      Personal Information Consent Form(s)
- APPENDIX 7      Subcontractors
- APPENDIX 8      Proposed Amendments to Form of Agreement
- APPENDIX 9      Conflicts; Collusion; Lobbying
- APPENDIX 9      Proof of WorkSafeBC Registration

**APPENDIX 1**  
***LEGAL TERMS AND CONDITIONS OF RFP***

**1 APPLICATION OF THESE LEGAL TERMS AND CONDITIONS**

These legal terms and conditions set out the City's and the Proponent's legal rights and obligations only with respect to the RFP proposal process and any evaluation, selection, negotiation or other related process. In no event will the legal terms and conditions of this Appendix 1 apply to, or have the effect of supplementing, any Contract formed between the City and the Proponent, or otherwise apply as between the Proponent and the City following the signing of any such Contract.

**2 DEFINITIONS**

In this Appendix 1, the following terms have the following meanings:

- (a) "City" means the City of Vancouver, a municipal corporation continued pursuant to the Vancouver Charter.
- (b) "Contract" means a legal agreement, if any, entered into between the City and the Proponent following and as a result of the Proponent's selection by the City in the City's RFP process.
- (c) "Losses" means, in respect of any matter, all direct or indirect, as well as consequential: claims, demands, proceedings, losses, damages, liabilities, deficiencies, costs and expenses (including without limitation all legal and other professional fees and disbursements, interest, penalties and amounts paid in settlement whether from a third person or otherwise).
- (d) "Proponent" means the legal entity which has signed the Proposal Form, and "proponent" means any proponent responding to the RFP, excluding or including the Proponent, as the context requires.
- (e) "Proposal" means the package of documents consisting of the Proposal Form (including this Appendix 1), the Proponent's proposal submitted under cover of the Proposal Form, and all schedules, appendices and accompanying documents, and "proposal" means any proposal submitted by any proponent, excluding or including the Proponent, as the context requires.
- (f) "Proposal Form" means that certain Part C of the RFP, completed and executed by the Proponent, to which this Appendix 1 is appended.
- (g) "RFP" means the document issued by the City as Request for Proposals No. PS20210282, as amended from time to time and including all addenda.

**3 NO LEGAL OBLIGATION ASSUMED BY THE CITY**

Despite any other term of the RFP or the Proposal Form, including this Appendix 1 (except only Sections 7, 8.2 and 10 of this Appendix 1, in each case to the extent applicable), the City assumes no legal duty or obligation to the Proponent or to any proposed subcontractor in respect of the RFP, its subject matter or the Proposal unless and until the City enters into a Contract, which the City may decline to do in the City's sole discretion.

**REQUEST FOR PROPOSALS NO. PS20210282**  
**CONTRACTOR FOR IRRIGATION SYSTEM UPGRADE AT QE PARK PITCH AND PUTT**  
**PART C - FORM OF PROPOSAL**

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**4 NO DUTY OF CARE OR FAIRNESS TO THE PROPONENT**

The City is a public body required by law to act in the public interest. In no event, however, does the City owe *to the Proponent or to any of the Proponent's proposed subcontractors* (as opposed to the public) any contract or tort law duty of care, fairness, impartiality or procedural fairness in the RFP process, or any contract or tort law duty to preserve the integrity of the RFP process. The Proponent hereby waives and releases the City from any and all such duties and expressly assumes the risk of all Losses arising from participating in the RFP process on this basis.

**5 EVALUATION OF PROPOSALS**

**5.1 Compliance / Non-Compliance**

Any proposal which contains an error, omission or misstatement, which contains qualifying conditions, which does not fully address all of the requirements or expectations of the RFP, or which otherwise fails to conform to the RFP may or may not be rejected by the City at the City's sole discretion. The City may also invite a proponent to adjust its proposal to remedy any such problem, without providing the other proponents an opportunity to amend their proposals.

**5.2 Reservation of Complete Control over Process**

The City reserves the right to retain complete control over the RFP and proposal processes at all times. Accordingly, the City is not legally obligated to review, consider or evaluate the proposals, or any particular proposal, and need not necessarily review, consider or evaluate the proposals, or any particular proposal, in accordance with the procedures set out in the RFP, and the City reserves the right to continue, interrupt, cease or modify its review, evaluation and negotiation processes in respect of any or all proposals at any time without further explanation or notification to any proponents.

**5.3 Discussions/Negotiations**

The City may, at any time prior to signing a Contract, discuss or negotiate changes to the scope of the RFP, any proposal or any proposed agreement with any one or more of the proponents without having any duty or obligation to advise the Proponent or to allow the Proponent to vary its Proposal as a result of such discussions or negotiations with other proponents or changes to the RFP or such proposals or proposed agreements, and, without limiting the general scope of Section 6 of this Appendix 1, the City will have no liability to the Proponent as a result of such discussions, negotiations or changes.

**5.4 Acceptance or Rejection of Proposals**

The City has in its sole discretion, the unfettered right to: accept any proposal; reject any proposal; reject all proposals; accept a proposal which is not the lowest-price proposal; accept a proposal that deviates from the requirements of the RFP or the conditions specified in the RFP; reject a proposal even if it is the only proposal received by the City; accept all or any part of a proposal; enter into agreements respecting the subject matter of the RFP with one or more proponents; or enter into one or more agreements respecting the subject matter of the RFP with any other person at any time.

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**6 PROTECTION OF CITY AGAINST LAWSUITS**

**6.1 Release by the Proponent**

Except only and to the extent that the City is in breach of Section 8.2 of this Appendix 1, the Proponent now releases the City, its officials, its agents and its employees from all liability for any Losses incurred in connection with the RFP or the Proposal, including any Losses in connection with:

- (a) any alleged (or judicially determined) breach by the City or its officials, agents or employees of the RFP (it being agreed that, to the best of the parties' knowledge, the City has no obligation or duty under the RFP which it could breach (other than wholly unanticipated obligations or duties merely alleged or actually imposed judicially));
- (b) any unintentional tort of the City or its officials or employees occurring in the course of conducting the RFP process;
- (c) the Proponent preparing and submitting the Proposal;
- (d) the City accepting or rejecting the Proposal or any other submission; or
- (e) the manner in which the City: reviews, considers, evaluates or negotiates any proposal; addresses or fails to address any proposal or proposals; resolves to enter into a Contract or not enter into a Contract or any similar agreement; or the identity of the proponent(s) or other persons, if any, with whom the City enters any agreement respecting the subject matter of the RFP.

**6.2 Indemnity by the Proponent**

Except only and to the extent that the City breaches Section 8.2 of this Appendix 1, the Proponent indemnifies and will protect, save and hold harmless the City, its officials, its agents and its employees from and against all Losses, in respect of any claim or threatened claim by the Proponent or any of its proposed subcontractors or agents alleging or pleading:

- (a) any alleged (or judicially determined) breach by the City or its officials or employees of the RFP (it being agreed that, to the best of the parties' knowledge, the City has no obligation or duty under the RFP which it could breach (other than wholly unanticipated obligations or duties merely alleged or actually imposed judicially));
- (b) any unintentional tort of the City or its officials or employees occurring in the course of conducting the RFP process, or
- (c) liability on any other basis related to the RFP or the proposal process.

**6.3 Limitation of City Liability**

In the event that, with respect to anything relating to the RFP or this proposal process (except only and to the extent that the City breaches Section 8.2 of this Appendix 1), the City or its officials, agents or employees are found to have breached (including fundamentally breached) any duty or obligation of any kind to the Proponent or its subcontractors or agents whether at law or in equity or in contract or in tort, or are found liable to the Proponent or its subcontractors or agents on any basis or legal

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principle of any kind, the City's liability is limited to a maximum of \$100, despite any other term or agreement to the contrary.

## **7 DISPUTE RESOLUTION**

Any dispute relating in any manner to the RFP or the proposal process (except to the extent that the City breaches this Section 7 or Section 8.2 of this Appendix 1, and also excepting any disputes arising between the City and the Proponent under a Contract (or a similar contract between the City and a proponent other than the Proponent)) will be resolved by arbitration in accordance with the *Commercial Arbitration Act* (British Columbia), amended as follows:

- (a) The arbitrator will be selected by the City's Director of Legal Services;
- (b) Section 6 of this Appendix 1 will: (i) bind the City, the Proponent and the arbitrator; and (ii) survive any and all awards made by the arbitrator; and
- (c) The Proponent will bear all costs of the arbitration.

## **8 PROTECTION AND OWNERSHIP OF INFORMATION**

### **8.1 RFP and Proposal Documents City's Property**

- (a) All RFP-related documents provided to the Proponent by the City remain the property of the City and must be returned to the City, or destroyed, upon request by the City.
- (b) The documentation containing the Proposal, once submitted to the City, becomes the property of the City, and the City is under no obligation to return the Proposal to the Proponent.

### **8.2 Proponent's Submission Confidential**

Subject to the applicable provisions of the *Freedom of Information and Protection of Privacy Act* (British Columbia), other applicable legal requirements, and the City's right to publicly disclose information about or from the Proposal, including without limitation names and prices, in the course of publicly reporting to the Vancouver City Council about the RFP, the City will treat the Proposal (and the City's evaluation of it), in confidence in substantially the same manner as it treats its own confidential material and information.

### **8.3 All City Information Confidential**

- (a) The Proponent will not divulge or disclose to any third parties any non-public documents or information concerning the affairs of the City which have been or are in the future provided or communicated to the Proponent at any time (whether before, during or after the RFP process). Furthermore, the Proponent agrees that it has not and must not use or exploit any such non-public documents or information in any manner, including in submitting its Proposal.
- (b) The Proponent now irrevocably waives all rights it may have by statute, at law or in equity, to obtain any records produced or kept by the City in evaluating its Proposal (and any other submissions) and now agrees that under no circumstances will it make any application to the City or any court for disclosure of any records pertaining to the receipt, evaluation or selection of its Proposal (or any other submissions) including, without limitation, records relating only to the Proponent.

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**9 NO CONFLICT OF INTEREST / NO COLLUSION / NO LOBBYING**

**9.1 Declaration as to no Conflict of Interest in RFP Process**

- (a) The Proponent confirms and warrants that there is no officer, director, shareholder, partner, employee or contractor of the Proponent or of any of its proposed subcontractors, or any other person related to the Proponent's or any proposed subcontractor's organization (a "person having an interest") or any spouse, business associate, friend or relative of a person having an interest who is: (i) an official or employee of the City; or (ii) related to or has any business or family relationship with an elected official or employee of the City, in each case, such that there could be any conflict of interest or any appearance of conflict of interest in the evaluation or consideration of the Proposal by the City, and, in each case, except as set out, in all material detail, in a separate section titled "Conflicts; Collusion; Lobbying" in the Proposal in accordance with the form set out in Part C - APPENDIX 9.
- (b) The Proponent confirms and warrants that there is no person having an interest (as defined above) who is a former official, former employee or former contractor of the City and who has non-public information relevant to the RFP obtained during his or her employment or engagement by the City, except as set out, in all material detail, in a separate section titled "Conflicts; Collusion; Lobbying" in the Proposal in accordance with the form set out in Part C - APPENDIX 9.

**9.2 Declaration as to No Conflict of Interest Respecting Proposed Supply**

The Proponent confirms and warrants that neither the Proponent nor any of its proposed subcontractors is currently engaged in supplying (or is proposing to supply) goods or services to a third party such that entering into an agreement with the City in relation to the subject matter of the RFP would create a conflict of interest or the appearance of a conflict of interest between the Proponent's duties to the City and the Proponent's or its subcontractors' duties to such third party, except as set out, in all material detail, in a separate section titled "Conflicts; Collusion; Lobbying" in the Proposal in accordance with the form set out in Part C - APPENDIX 9.

**9.3 Declaration as to No Collusion**

The Proponent confirms and warrants that:

- (a) the Proponent is not competing within the RFP process with any entity with which it is legally or financially associated or affiliated, and
- (b) the Proponent is not cooperating in any manner in relation to the RFP with any other proponent responding to the RFP,

in each case, except as set out, in all material detail, in a separate section titled "Conflicts, Collusion, Lobbying" in the Proposal in accordance with the form set out in Part C - APPENDIX 9.

**9.4 Declaration as to No Lobbying**

The Proponent confirms and warrants that:



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- (a) neither it nor any officer, director, shareholder, partner, employee or agent of the Proponent or any of its proposed subcontractors is registered as a lobbyist under any lobbyist legislation in any jurisdiction in Canada or in the United States of America; and
- (b) neither it nor any officer, director, shareholder, partner, employee or agent of the Proponent or any of its proposed subcontractors has engaged in any form of political or other lobbying whatsoever with respect to the RFP or sought, other than through the submission of the Proposal, to influence the outcome of the RFP process,

in each case, except as set out, in all material detail, in a separate section titled “Conflicts, Collusion, Lobbying” in the Proposal in accordance with the form set out in Part C - APPENDIX 9.

**10 GENERAL**

- (a) All of the terms of this Appendix 1 to this Proposal Form which by their nature require performance or fulfillment following the conclusion of the proposal process will survive the conclusion of such process and will remain legally enforceable by and against the Proponent and the City.
- (b) The legal invalidity or unenforceability of any provision of this Appendix 1 will not affect the validity or enforceability of any other provision of this Appendix 1, which will remain in full force and effect.
- (c) The Proponent now assumes and agrees to bear all costs and expenses incurred by the Proponent in preparing its Proposal and participating in the RFP process.

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**APPENDIX 2**  
**QUESTIONNAIRE**

Complete this Appendix 2 - Questionnaire in the form set out below. (Attach additional pages as required).

**Executive Summary:**

In the space below, provide a brief executive summary of your Proposal.

**Proponent Overview:**

In the space below, provide a description of the Proponent's company, number of employees, purpose and history of successes. If the head office of the Proponent is located within the City of Vancouver or if the Proponent is to perform any work at a site located within the City of Vancouver, this section should also indicate whether the Proponent has a valid City of Vancouver business license (or, if available, a Metro West Inter-municipal Business License).

Please show recent examples of installations of similar systems. Proponents with experience in golf course irrigation experience is preferred.

**Scope of Work:**

In the space below, describe how your Proposal is responsive to the Scope of Work.

**Key Personnel:**

In the space below, identify and provide professional biographical information for the key personnel that would perform the Proponent's work, outlining their intended roles in performing the Scope of Work. If appropriate, also attach to this Form of Proposal as an additional Appendix CVs and a complete organization chart, identifying all roles and areas of responsibility.

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**Work Plan and Project Timeline:**

In the space below (or attached to this Form of Proposal as an additional Appendix clearly titled "Work Plan"), detail the sequential process by which the Proponent proposes to undertake the work, including a timeline as necessary. The Proponent's work plan should make reference to the Scope of Work as appropriate.

The Work is expected to begin upon award and is estimated to take 8 to 12 weeks to completion. If this timeline is not achievable, the Proponent shall provide a suggested timeline. (Earlier start/completion time is preferred).

**Technical Support:**

In the space below, describe available technical support, including resources and response time, during and after regular working hours, and availability of replacement parts.

**Warranty:**

In the space below, provide warranty information including duration, parts and labour, and any specific components where warranty terms may vary. During the warranty period, all the parts and services will be supplied and performed by the vendor at no cost to the City.

**Innovation:**

Notwithstanding any other provision hereof, the City welcomes Proposals respecting innovative or novel approaches to the City's objectives and requirements and may consider value-creating Proposals that derogate from the Scope of Work. In the space below, note any proposed innovative approaches to meeting the City's requirements.

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**Alternative Solutions:**

If, in addition to proposing services which meet the Scope of Work, the Proponent wishes to offer an alternative or alternatives, the alternative solution(s) should be described in the space provided below. Any pricing impact of the alternative solution(s) should also be provided.

**Social Sustainability:**

**SUPPLIER DIVERSITY**

Please note for the Supplier Diversity, Vendors' are required to answer to the following question, which will be kept confidential in accordance with the Legal Terms and Conditions of this RFP.

In the space below, indicate the vendor's company profile with regards to social value and economic inclusion including recognized certifications and/or if owned/controlled by an equity-seeking demographic (including but not limited to non-profit, cooperative, Women, Indigenous Peoples, Ethno-cultural People (minorities, newcomers, immigrants), persons with disabilities or LGBTQ2+ people).

<b>Majority owned/controlled/ by:</b> <ul style="list-style-type: none"><li><input type="checkbox"/> Women</li><li><input type="checkbox"/> Indigenous Peoples</li><li><input type="checkbox"/> Non-Profit/Charity (Social Enterprise)</li><li><input type="checkbox"/> Coop</li><li><input type="checkbox"/> Community Contribution Corporation (3C/CCC)</li><li><input type="checkbox"/> Ethno-cultural Persons</li><li><input type="checkbox"/> People with Disabilities</li><li><input type="checkbox"/> LGBTQ2+</li><li><input type="checkbox"/> Other: please indicate</li></ul>	<b>Social / Diverse Certifications</b> <ul style="list-style-type: none"><li><input type="checkbox"/> <a href="#">BCorp</a></li><li><input type="checkbox"/> Supplier Diversity Certification</li></ul> <hr/> <b>Enviro / Other Certifications</b> <ul style="list-style-type: none"><li><input type="checkbox"/> <a href="#">BuySocial</a></li><li><input type="checkbox"/> <a href="#">Living Wage</a></li><li><input type="checkbox"/> Fairtrade</li><li><input type="checkbox"/> Green Business Certification (ie. LEED, ClimateSmart)</li><li><input type="checkbox"/> Other: please indicate</li></ul>
<input type="checkbox"/> <b>None of the above</b>	<input type="checkbox"/> <b>None of the above</b>

Do you have a Supplier Diversity program to include/consider equity-seeking businesses as your vendors/suppliers/sub-contractors? Y/N

- a. Please provide information on how you invest in economic development of small/social/diverse businesses as your suppliers or sub-contractors

**INDIGENOUS PARTICIPATION**

Do you have any business relationships, partnerships or joint-ventures with First Nations and/or Indigenous peoples or organizations? Y/N

- a. If yes, please describe in detail:

What % or \$ of work from this contract will be directed to sub-contractors that identify as social/diverse based on certification and/or ownership/control by equity seeking demographic?)

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Category of Social Value Businesses (Majority owned/controlled/certified by)	# of Businesses	\$/% of contract	Name of the Businesses being Sub-contracted
Indigenous Peoples			
Women			
Ethno-cultural			
People with Disabilities			
LGBTQ2+			
<a href="#">Non-Profit/Charity</a> (Social Enterprise)			
3C/CCC; <a href="#">Coop</a> ; <a href="#">BCorp</a>			
Other			

**EMPLOYMENT EQUITY & WORKFORCE DIVERSITY**

1. In addition to being an equal opportunity employer, please describe any policies/programs or how you advance employee equity, diversity and inclusion for under-represented populations (such as Women, Indigenous People, People with Disabilities)
2. Do you regularly conduct an employee equity “survey” or similar information/data collection on workforce diversity? Y/N
  - a. Please describe how you track/monitor your workforce diversity including frequency
3. Do you source/hire from Workforce Development and/or Skill Training programs, including pre-employment support, apprenticeships or ongoing employment support, for people who are under-represented and/or face barriers to traditional employment (such as Indigenous persons, Women, youth, Minorities, People with Disabilities including mental health)? Y/N
  - a. Please describe and/or use the table below

Category of Partnership Organizations	Name of the Partnership Organization(s)	# of staff (optional if makes sense)
Indigenous Peoples		
Women		
Ethno-Cultural Peoples		
People with Disabilities		

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LGBTQ2+		
Youth/Seniors		
Other		

4. Do you support training for career advancement and/or skills development?  
a. If yes, please describe
5. Do you compensate at or above a Living Wage (currently \$20.91/hr) Y/N  
Do you provide non-mandatory benefits (i.e. extended health) to your employees? Y/N, if yes, please describe

**WORKFORCE DIVERSITY (for information)**

Vendors' are required to answer to the following question, which is for information gathering purposes only, and will be kept confidential in accordance with the Legal Terms and Conditions.

As best known, in the space below, indicate the vendor's company profile with regards to economic inclusion supporting employment equity, [diversity, inclusion](#) and reconciliation by an equity-seeking demographic (including but not limited to Women, Indigenous Peoples, Ethno-cultural People (minorities, newcomers, immigrants), persons with disabilities or LGBTQ2+ people). *Confidential & for information only*

<p><b><u>Overall Workforce Diversity:</u></b></p> <p>% Women</p> <p>% Indigenous Peoples</p> <p>% Ethno-cultural People</p> <p>% People with Disabilities</p> <p>% LGBTQ2+</p> <p>% Other: please indicate</p>	<p><b><u>Leadership/Management/Executive Diversity:</u></b></p> <p>% Women</p> <p>% Indigenous Peoples</p> <p>% Ethno-cultural People</p> <p>% People with Disabilities</p> <p>% LGBTQ2+</p> <p>% Other: please indicate</p>	<p><b>Workforce Diversity:</b></p>
<p><b><u>If you choose not to respond please indicate why:</u></b></p> <p><input type="checkbox"/> <b><u>Do not track this information</u></b></p> <p><input type="checkbox"/> <b><u>Do not want to share this information</u></b></p>		

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**APPENDIX 3**  
**COMMERCIAL PROPOSAL**

Complete this Appendix 3 - Commercial Proposal in the form set out below.

Proponent to provide proposed pricing and payment terms, which should be in accordance with Part A, Section 7.0 of the RFP (as well as any other sections of the RFP imposing requirements as to pricing).

When submitting its Proposal by email, please ensure Appendix 3 - Commercial Proposal is provided as a separate file to the entire Proposal.

**Table A: SCHEDULE OF PRICES (REFER TO PART B - SCOPE OF WORK)**

Item	Description	Amount (including PST)
1.	Supply and delivery of irrigation system	\$
2.	Installation of irrigation system, including permit application	\$
3	Start-up, calibration, commissioning, training of city staff, manuals and as built drawings	\$
4.	Subtotal (including all PST)	\$
5.	GST (5%)	\$
6.	Total Price (including all costs, taxes and fees)	\$  (including PST and GST)

Proponents shall provide Charge Out Rates applicable to the project set out in Table A. Proponents should complete the following tables setting out the all-inclusive proposed hourly rates for all applicable categories of labour.

**Table B: SCHEDULE OF LABOUR RATES**

Job Classification	Regular Rate	Overtime Rate
	\$	\$
	\$	\$
	\$	\$
	\$	\$
	\$	\$
	\$	\$

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**List of Unit Prices for Any Additional Work**

The prices should include (i) all labour, material and other costs, (ii) overhead and profit, (iii) PST, and (iv) all other taxes, duties, assessments, charges and fees, *except for GST*. (Installation as per COV Park Board current Irrigation Specifications).

Table C: UNIT PRICES

Item	Description	Unit of Measure	Unit Price (including PST)
1.	2" Class 200 PVC Latearl	m	\$
2.	3" Schedule 40 PVC Mainline	m	\$
3.	100mm Schedule 40 Sleeving	m	\$
4.	14 awg wire - Paige P7072D, 14/2 jacketed cable	l.s.	\$
5.	Rain Bird 8005	each	\$
6.	Rain Bird 150PEB	each	\$
7.	Toro 075 - SLSC	each	\$
8.	3" Mueller A2362 RWGV	each	\$
9.	Rain Bird 200-PEB Master Valve & Toro TFS200	each	\$
10.	Irrigation Kiosk & Controller - SBAWS1U (C/W radio and antenna)	each	\$
11.	2" DB2 Electrical Conduit	m	\$
12.	SB-DAC-1 (1 stn AC two wire decoder)	each	\$
13.	SB-DAC-2 (2 stn SC two wire decoder)	each	\$
14.	SB-DAC-4 (4 stn two wire AC decoder)	each	\$
15.	SB-BLA (Sentinel two wire AC inline surge protection installed as per mfg. spec.)	each	\$
16.	Toro Sentinel Hand Held Radio	each	\$
17.	Radio and Antenna to be mounted at maintenance facility	each	\$
18.	Cypress CTM-200 modem with power supply and antenna	each	\$



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APPENDIX 4  
***PROPONENT'S REFERENCES***

Complete this Appendix 4 - Proponents References in the form set out below with references that are relevant to the Scope of Work set out in this RFP.

Client Name # 1	
Address (City and Country)	
Contact Name	
Title of Contact	
Telephone No.	
E-mail Address	
Length of Relationship	
Type of Goods and/or Services provided to this Client	

Client Name # 2	
Address (City and Country)	
Contact Name	
Title of Contact	
Telephone No.	
E-mail Address	
Length of Relationship	
Type of Goods and/or Services provided to this Client	

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<b>Client Name # 3</b>	
<b>Address (City and Country)</b>	
<b>Contact Name</b>	
<b>Title of Contact</b>	
<b>Telephone No.</b>	
<b>E-mail Address</b>	
<b>Length of Relationship</b>	
<b>Type of Goods and/or Services provided to this Client</b>	

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APPENDIX 5  
***CERTIFICATE OF INSURANCE***

Appendix 5 is to be duly completed and signed by the Proponent's insurance agent or broker as evidence of its existing insurance, along with a letter from its insurance broker or agent indicating whether or not (and, if not, then to what extent) it will be able to comply with the insurance requirements set out in the Form of Agreement, should the Proponent be selected as a successful Proponent. (Any successful Proponent will also be required to provide proof of the satisfaction of all insurance requirements prior to or concurrently with the City entering into any Agreement.)

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**CERTIFICATE OF EXISTING INSURANCE**  
**TO BE COMPLETED AND APPENDED TO THE PROPOSAL/TENDER**

Section 2 through 8 – to be completed and executed by the Insurer or its Authorized Representative

1. **THIS CERTIFICATE IS ISSUED TO:** City of Vancouver, 453 W 12<sup>th</sup> Avenue, Vancouver, BC, V5Y 1V4  
*and certifies that the insurance policy (policies) as listed herein has/have been issued to the Named Insured and is/are in full force and effect.*

**NAMED INSURED** *(must be the same name as the proponent/bidder and is either an individual or a legally incorporated company)*

**BUSINESS TRADE NAME or DOING BUSINESS AS**

**BUSINESS ADDRESS**

**DESCRIPTION OF OPERATION**

3. **PROPERTY INSURANCE (All Risks Coverage including Earthquake and Flood)**

INSURER _____	<b>Insured Values (Replacement Cost) -</b>
TYPE OF COVERAGE _____	Building and Tenants' Improvements \$ _____
POLICY NUMBER _____	Contents and Equipment \$ _____
POLICY PERIOD From _____ to _____	Deductible Per Loss \$ _____

4. **COMMERCIAL GENERAL LIABILITY INSURANCE (Occurrence Form)**

Including the following extensions:	INSURER _____
✓ Personal Injury	POLICY NUMBER _____
✓ Property Damage including Loss of Use	POLICY PERIOD From _____ to _____
✓ Products and Completed Operations	<b>Limits of Liability (Bodily Injury and Property Damage Inclusive) -</b>
✓ Cross Liability or Severability of Interest	Per Occurrence \$ _____
✓ Employees as Additional Insureds	Aggregate \$ _____
✓ Blanket Contractual Liability	All Risk Tenants' Legal Liability \$ _____
✓ Non-Owned Auto Liability	Deductible Per Occurrence \$ _____

5. **AUTOMOBILE LIABILITY INSURANCE** for operation of owned and/or leased vehicles

INSURER _____	<b>Limits of Liability -</b>
POLICY NUMBER _____	Combined Single Limit \$ _____
POLICY PERIOD From _____ to _____	<i>If vehicles are insured by ICBC, complete and provide Form APV-47.</i>

6. ☐ **UMBRELLA OR** ☐ **EXCESS LIABILITY INSURANCE** **Limits of Liability (Bodily Injury and Property Damage Inclusive) -**

INSURER _____	Per Occurrence \$ _____
POLICY NUMBER _____	Aggregate \$ _____
POLICY PERIOD From _____ to _____	Self-Insured Retention \$ _____

7. **PROFESSIONAL LIABILITY INSURANCE**

INSURER _____	<b>Limits of Liability</b>
POLICY NUMBER _____	Per Occurrence/Claim \$ _____
POLICY PERIOD From _____ to _____	Aggregate \$ _____
	Deductible Per Occurrence/Claim \$ _____

*If the policy is in a "CLAIMS MADE" form, please specify the applicable Retroactive Date: \_\_\_\_\_*

8. **OTHER INSURANCE**

TYPE OF INSURANCE _____	<b>Limits of Liability</b>
INSURER _____	Per Occurrence \$ _____
POLICY NUMBER _____	Aggregate \$ _____
POLICY PERIOD From _____ to _____	Deductible Per Loss \$ _____
TYPE OF INSURANCE _____	<b>Limits of Liability</b>
INSURER _____	Per Occurrence \$ _____
POLICY NUMBER _____	Aggregate \$ _____
POLICY PERIOD From _____ to _____	Deductible Per Loss \$ _____

**SIGNED BY THE INSURER OR ITS AUTHORIZED REPRESENTATIVE**

\_\_\_\_\_  
**PRINT NAME OF INSURER OR ITS AUTHORIZED REPRESENTATIVE, ADDRESS AND PHONE NUMBER**

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## **DECLARATION OF SUPPLIER CODE OF CONDUCT COMPLIANCE**

Complete this 0 - Declaration of Supplier Code of Conduct Compliance in the form set out below.

**All proposed suppliers are to complete and submit this form to certify compliance with the supplier performance standards set out in the Supplier Code of Conduct.**

The City of Vancouver expects each supplier of goods and services to the City to comply with the supplier performance standards set out in the City's Supplier Code of Conduct (SCC) <<https://policy.vancouver.ca/AF01401P1.pdf>>. The SCC defines minimum labour and environmental standards for City suppliers and their subcontractors.

Suppliers are expected to comply with the aforementioned standards upon submitting a tender, proposal, application, expression of interest or quotation to the City, or have a plan in place to comply within a specific period of time. The City reserves the right to determine an appropriate timeframe in which suppliers must come into compliance with these standards. To give effect to these requirements, an authorized signatory of each proposed vendor must complete the following declaration and include this declaration with its submission:

As an authorized signatory of \_\_\_\_\_ (vendor name), I declare that I have reviewed the SCC and to the best of my knowledge, \_\_\_\_\_ (vendor name) and its proposed subcontractors have not been and are not currently in violation of the SCC or convicted of an offence under national and other applicable laws referred to in the SCC, other than as noted in the table below (include all violations/convictions that have occurred in the past three years as well as plans for corrective action).

Section of SCC / title of law	Date of violation /conviction	Description of violation / conviction	Regulatory / adjudication body and document file number	Corrective action plan

I understand that a false declaration and/or lack of a corrective action plan may result in no further consideration being given to the submission of \_\_\_\_\_ (vendor name).

Signature: \_\_\_\_\_

Name and Title: \_\_\_\_\_

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APPENDIX 6  
***PERSONAL INFORMATION CONSENT FORM(S)***

Complete one copy of this Appendix 6 - Personal Information Consent Form(s), in the form set out below, for each key personnel for whom a CV or other information regarding employment history and qualifications has been included in the Proposal.

**PERSONAL INFORMATION CONSENT FORM**

**Reference #PS20210282**

**Title:** Contractor for Irrigation System Upgrade at QE Park Pitch and Putt

With the provision of my signature at the foot of this statement I, \_\_\_\_\_

\_\_\_\_\_ (Print Name)

consent to the indirect collection from \_\_\_\_\_

\_\_\_\_\_ (Print Name of Proponent) of

my personal information in the form of a work history, resume or summary of qualifications.

In consenting to this indirect collection, I understand that my personal information, so collected, will be used by the City for the sole purpose of evaluating the submitted response to the above-noted procurement process. I understand further that my personal information, once collected by the City, will be handled by the City in accordance with the provisions of the (BC) *Freedom of Information and Protection of Privacy Act*.

\_\_\_\_\_

Signature

\_\_\_\_\_

Date

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**APPENDIX 7**  
***SUBCONTRACTORS***

Complete this Appendix 7 - Subcontractors in the form set out below by listing all of the subcontractors that the Proponent proposes to use in carrying out its work under an Agreement, or state that the Proponent does not propose to use any subcontractors.

If selected to enter into an Agreement with the City, the Proponent may be limited to using subcontractors listed in its Proposal. If the City objects to a subcontractor listed in a Proposal, the City may permit a Proponent to propose a substitute Subcontractor acceptable to the City.

Subcontracted Scope		
Subcontractor		
Contact (name, title, email, telephone no.)		
Approximate Percent of the Work to be Subcontracted		
Social Value Business - shall mean a business that has a recognized environmental or social certification and/or is majority owned/controlled by an equity-seeking demographic (including but not limited to non-profit, cooperative, Women, Indigenous Peoples, Ethno-cultural People (minorities, newcomers, immigrants), persons with disabilities or LGBTQ+ people).	In the space below, detail the Proponent's proposed use of Social Value Businesses as sub-contractors/consultants (if any) and provide brief company profiles of those Social Value Businesses and descriptions of how they qualify as Social Value Businesses.	
The Subcontractor's Relevant Experience (identify at least three similar projects within the last five years, including the client)	1. Project Name:	
	Client:	
	Nature of Work:	

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	Value:	
	Client Contact:	
	2. Project Name:	
	Client:	
	Nature of Work:	
	Value:	
	Client Contact:	
	3. Project Name:	
	Client:	
	Nature of Work:	
	Value:	
	Client Contact:	



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**APPENDIX 8**  
***PROPOSED AMENDMENTS TO FORM OF AGREEMENT***

Complete this Appendix 8 - Proposed Amendments to Form of Agreement in the form set out below by detailing any proposed amendments to the Form of Agreement attached as Part D. If no amendments to the Form of Agreement are proposed, state "none". It is at the City's sole discretion whether or not these proposed amendments will be considered for the Form of Agreement.

Section / General Condition	Proposed Amendment	Rationale and Benefit

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APPENDIX 9  
**CONFLICTS; COLLUSION; LOBBYING**

Complete this APPENDIX 9 - Conflicts; Collusion; Lobbying in the form set out below by setting out any exceptions to the declarations in Section 9 of the Legal Terms and Conditions attached as Appendix 1 to this Part C - Form of Proposal or indicate that there are no exceptions, as applicable.

Exceptions to Declaration as to no Conflict of Interest in RFP Process (Section 9.1 of Legal Terms and Conditions)	
Exceptions to Declaration as to No Conflict of Interest Respecting Proposed Supply (Section 9.2 of Legal Terms and Conditions)	
Exceptions to Declaration as to No Collusion (Section 9.3 of Legal Terms and Conditions)	
Exceptions to Declarations as to No Lobbying (Section 9.4 of Legal Terms and Conditions)	

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APPENDIX 10  
***PROOF OF WORKSAFEBC REGISTRATION***

Attached as APPENDIX 10 to this Form of Proposal proof of valid WorkSafeBC registration.

**PART D**  
**FORM OF AGREEMENT**

See attached.