

Parks
Canada

Parcs
Canada

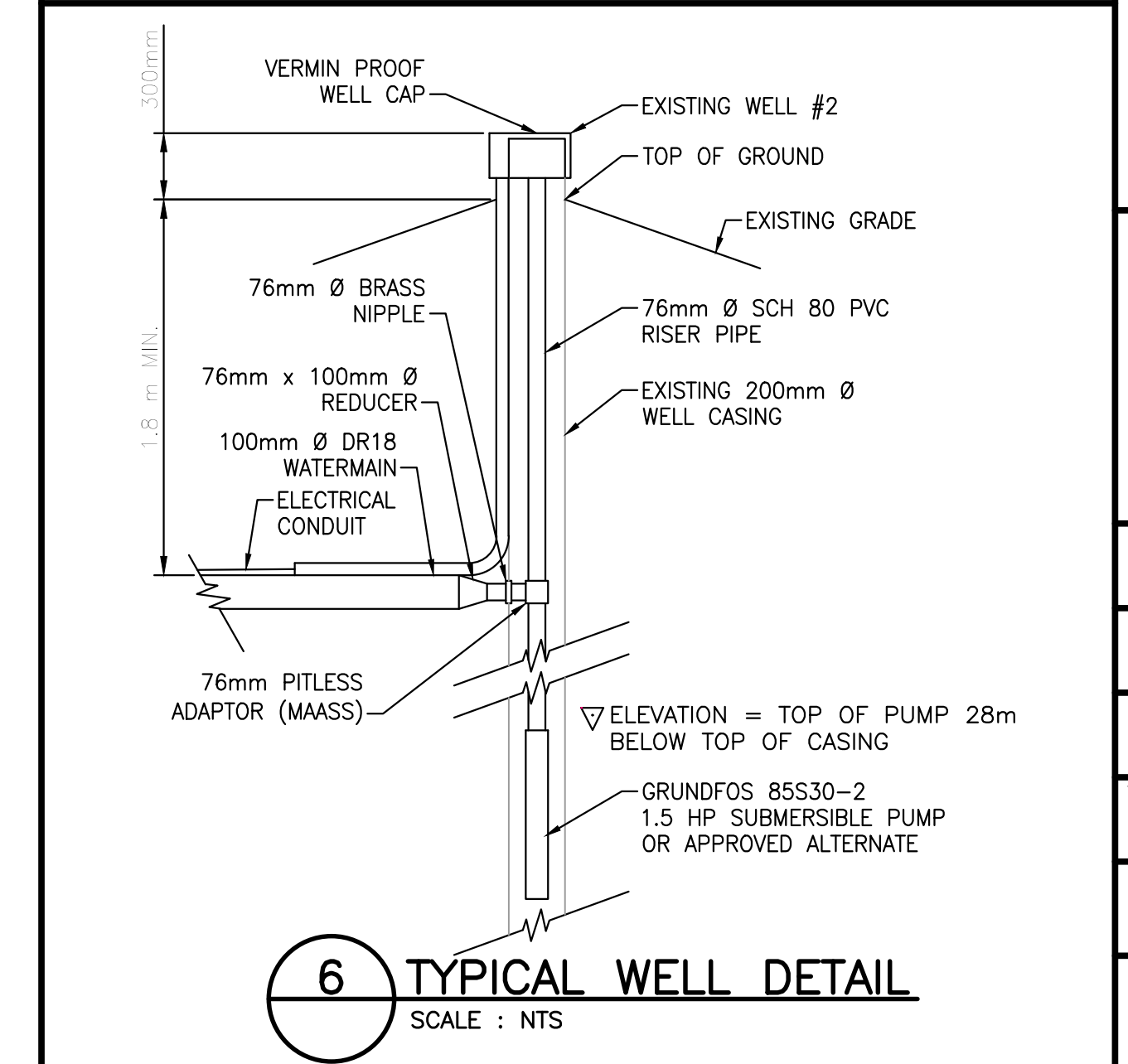
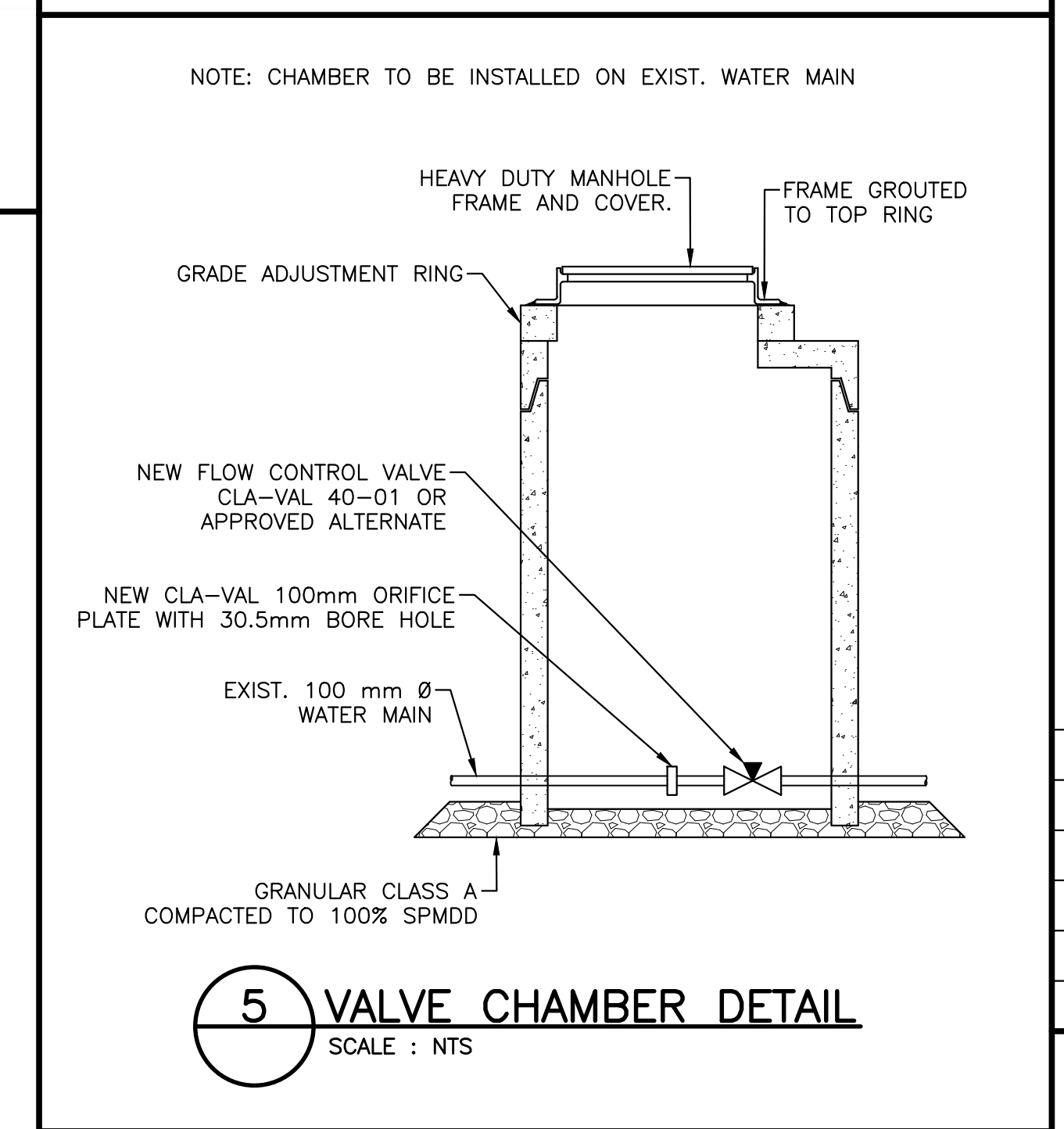
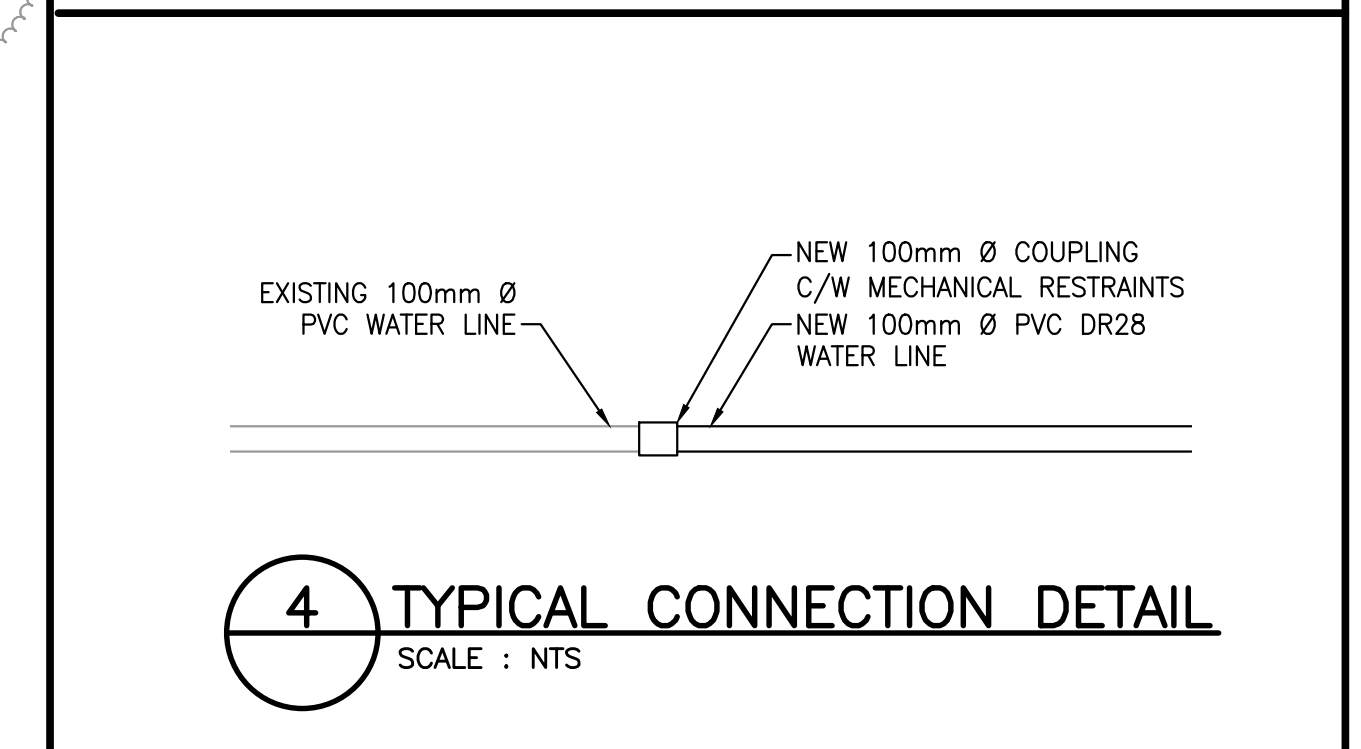
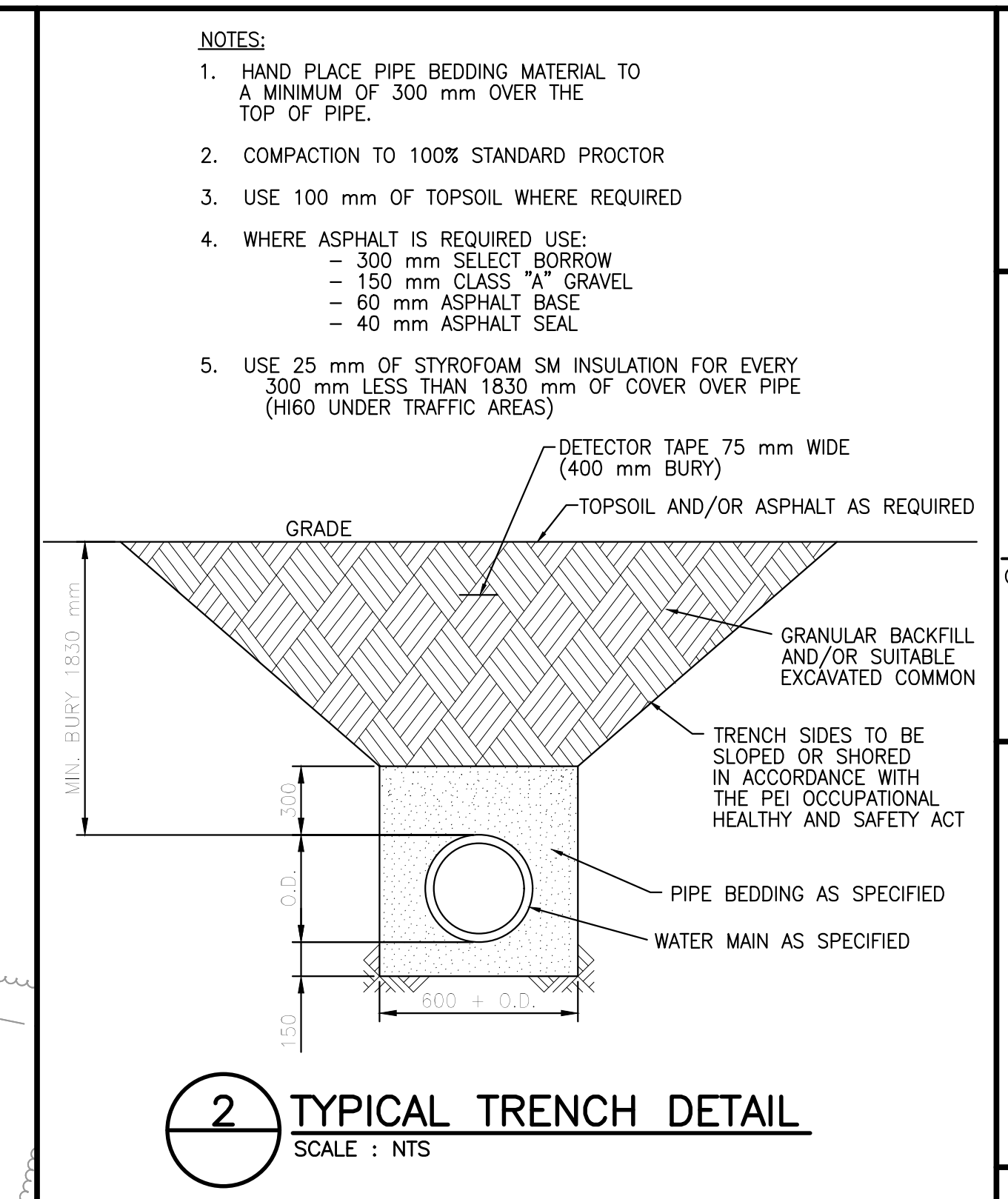
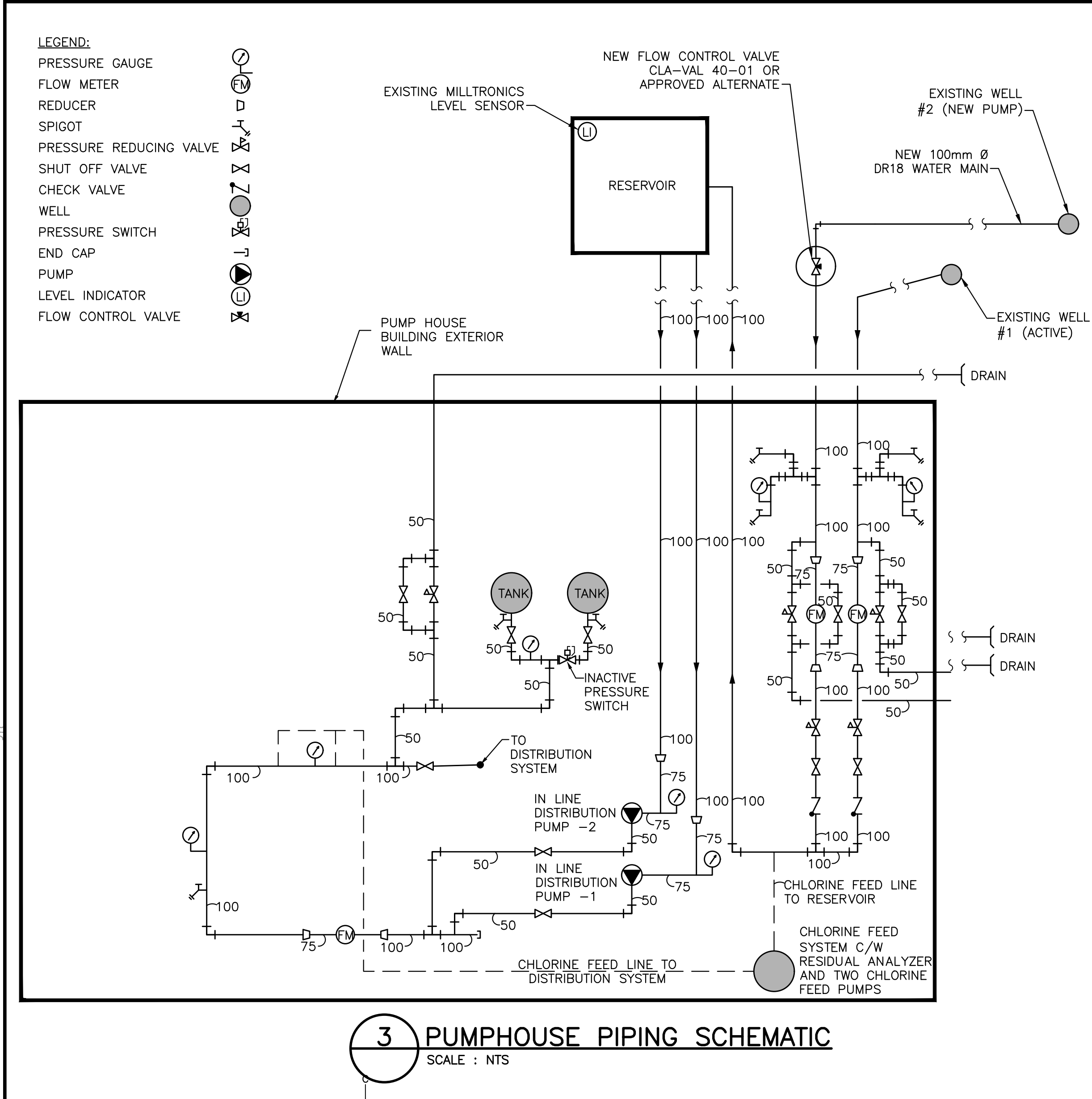
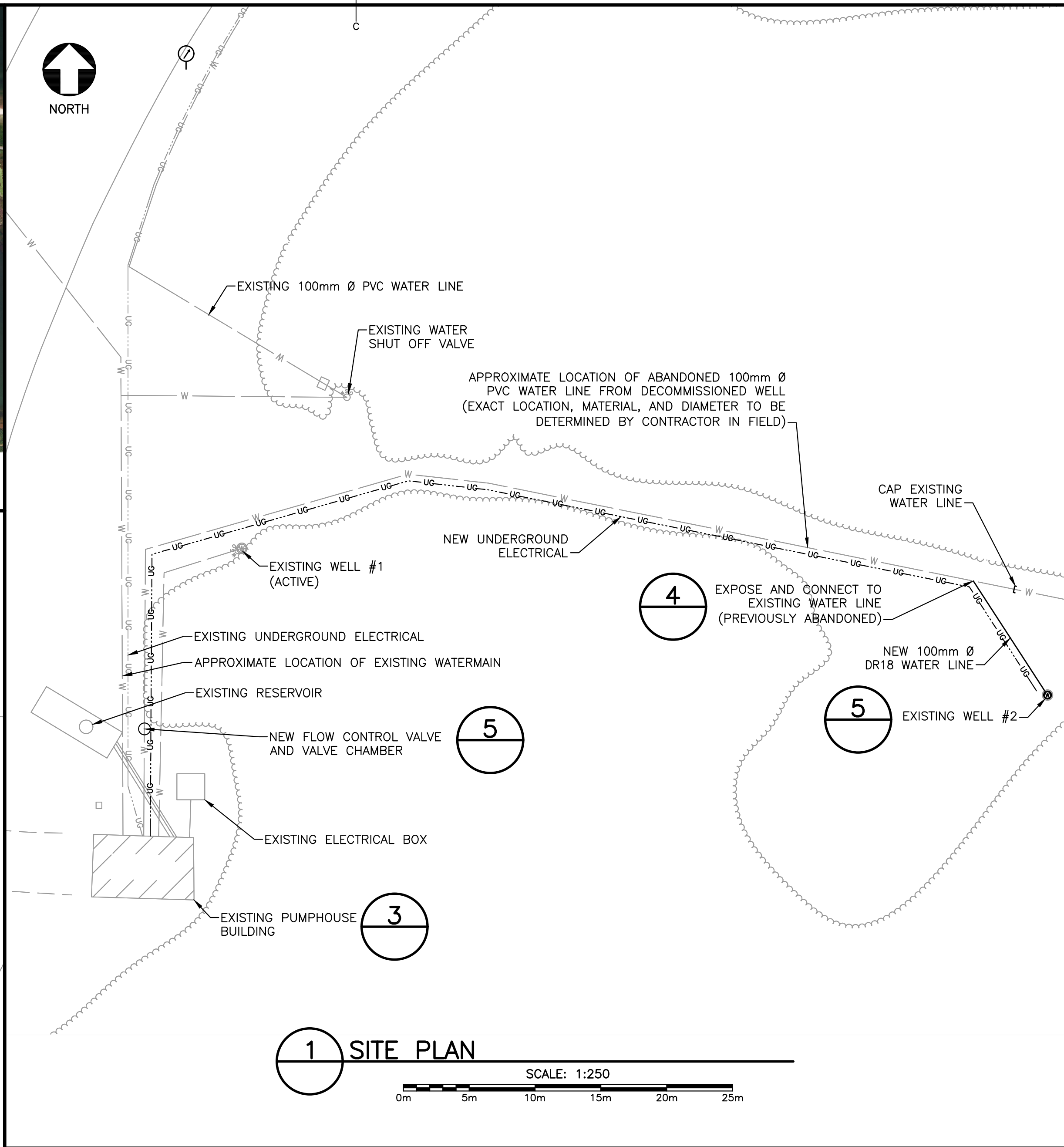
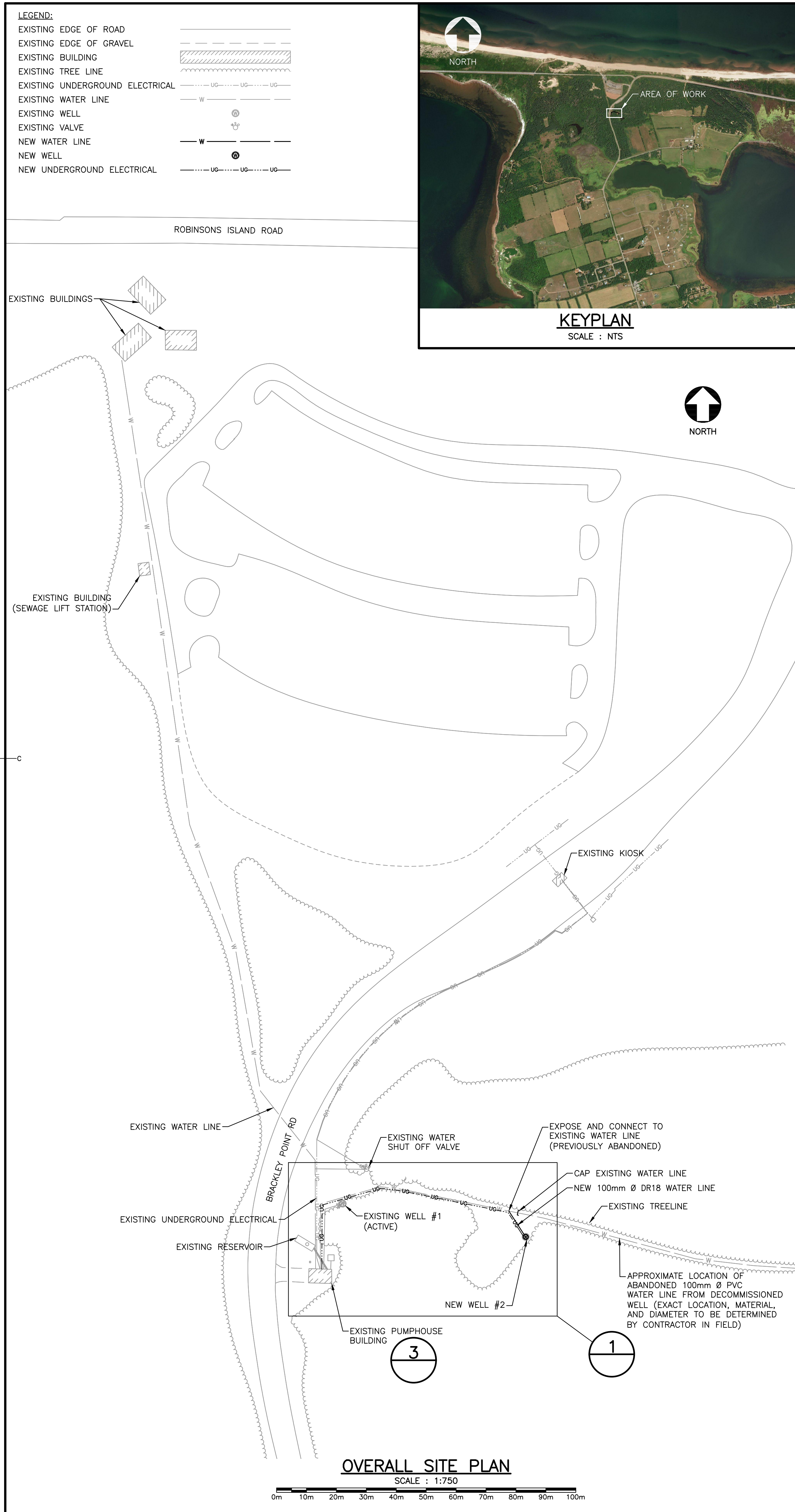
PARKS CANADA SYSTEM ASSESSMENT AND REHABILITATION INFRASTRUCTURE UPGRADES PRINCE EDWARD ISLAND NATIONAL PARK QUEENS COUNTY, PEI

PROJECT NO. 1427



KEYPLAN
SCALE : 1:100,000
0m 5,000m 10,000m

Canada



Parcs Canada

Stantec

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THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND
 VALID FOR THE YEAR 2018
 Daniel F. Fisher
 No. 463
 DATE: 2019-Oct-11
 LICENSED PROFESSIONAL ENGINEER
 Province of Prince Edward Island

4	RE-ISSUED FOR TENDER	OCT/11/2019
3	ISSUED FOR TENDER	SEPT/6/2019
2	100% REVIEW	AUG/30/2019
1	99% REVIEW	JUL/24/2019
0	50% REVIEW	JUN/25/2019

revisions: date

project: project

PARKS CANADA SYSTEM ASSESSMENT AND REHABILITATION INFRASTRUCTURE UPGRADES

drawing: dessin

BRACKLEY SITE PLAN AND DETAILS

designed C. FLANAGAN conçu

date OCTOBER 11, 2019

drawn M. O'HALLORAN dessiné

date OCTOBER 11, 2019

approved D. FISHER approuvé

date OCTOBER 11, 2019

Tender Soumission

PWSC Project Manager Administrateur de projets IPWOC

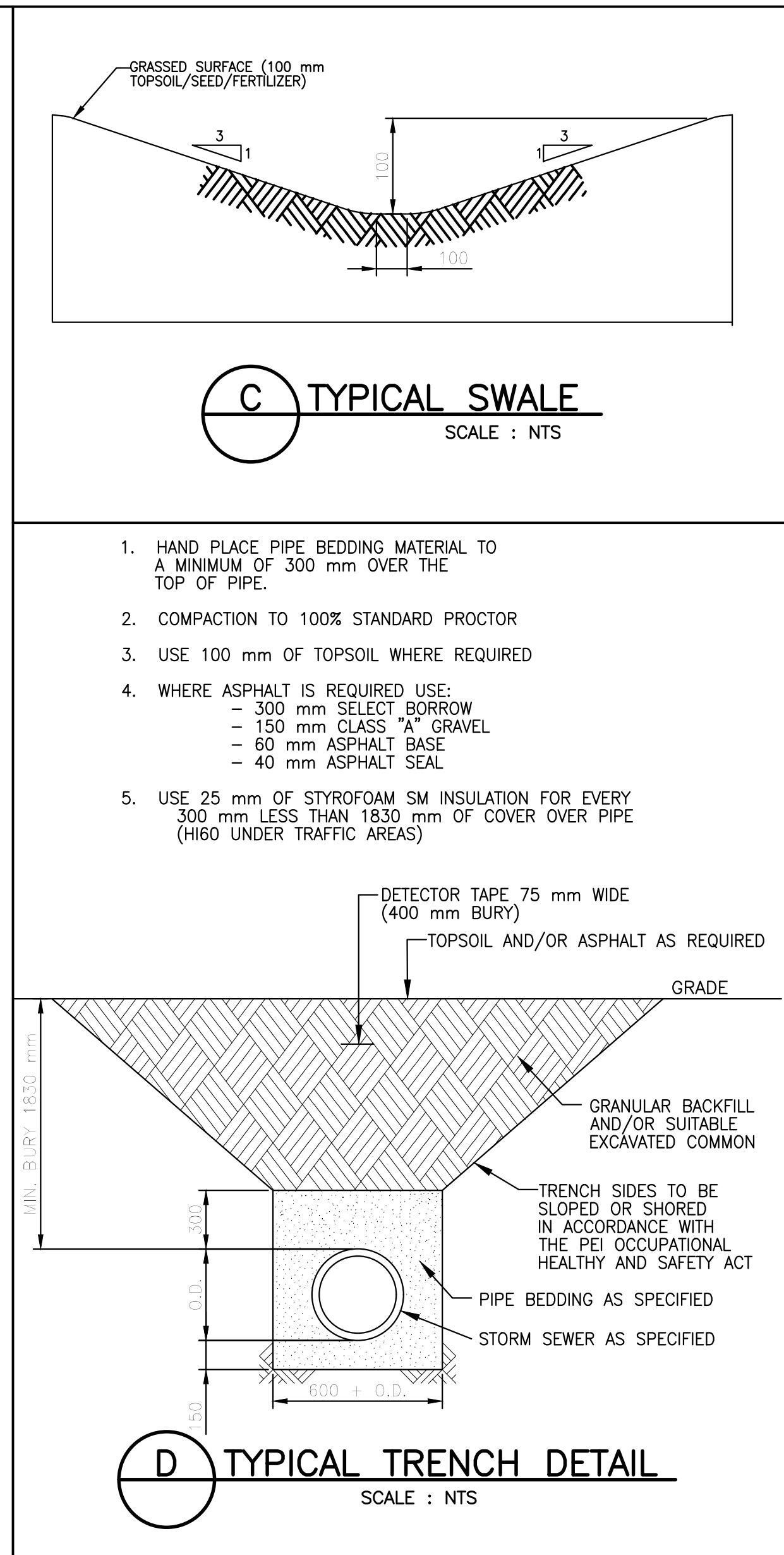
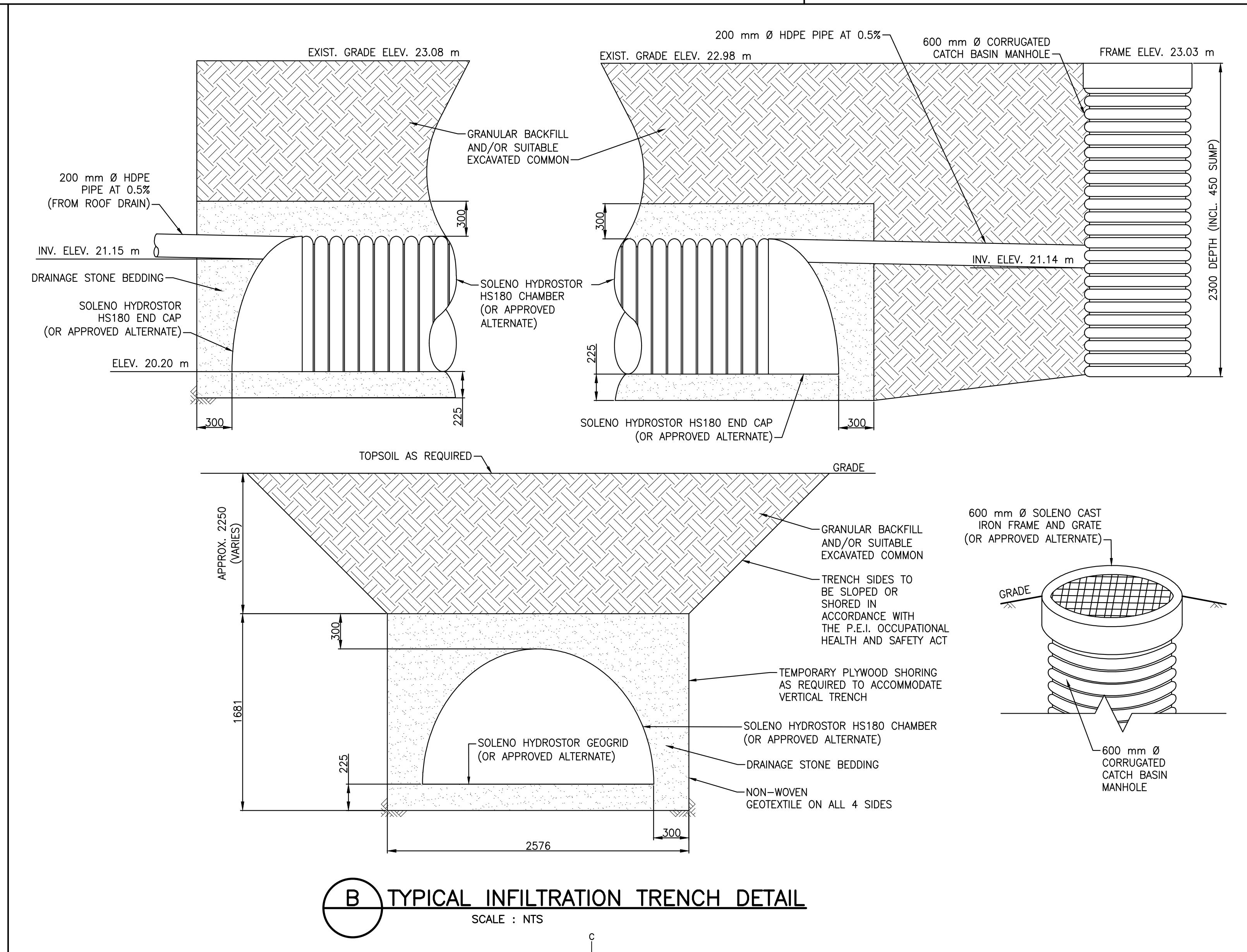
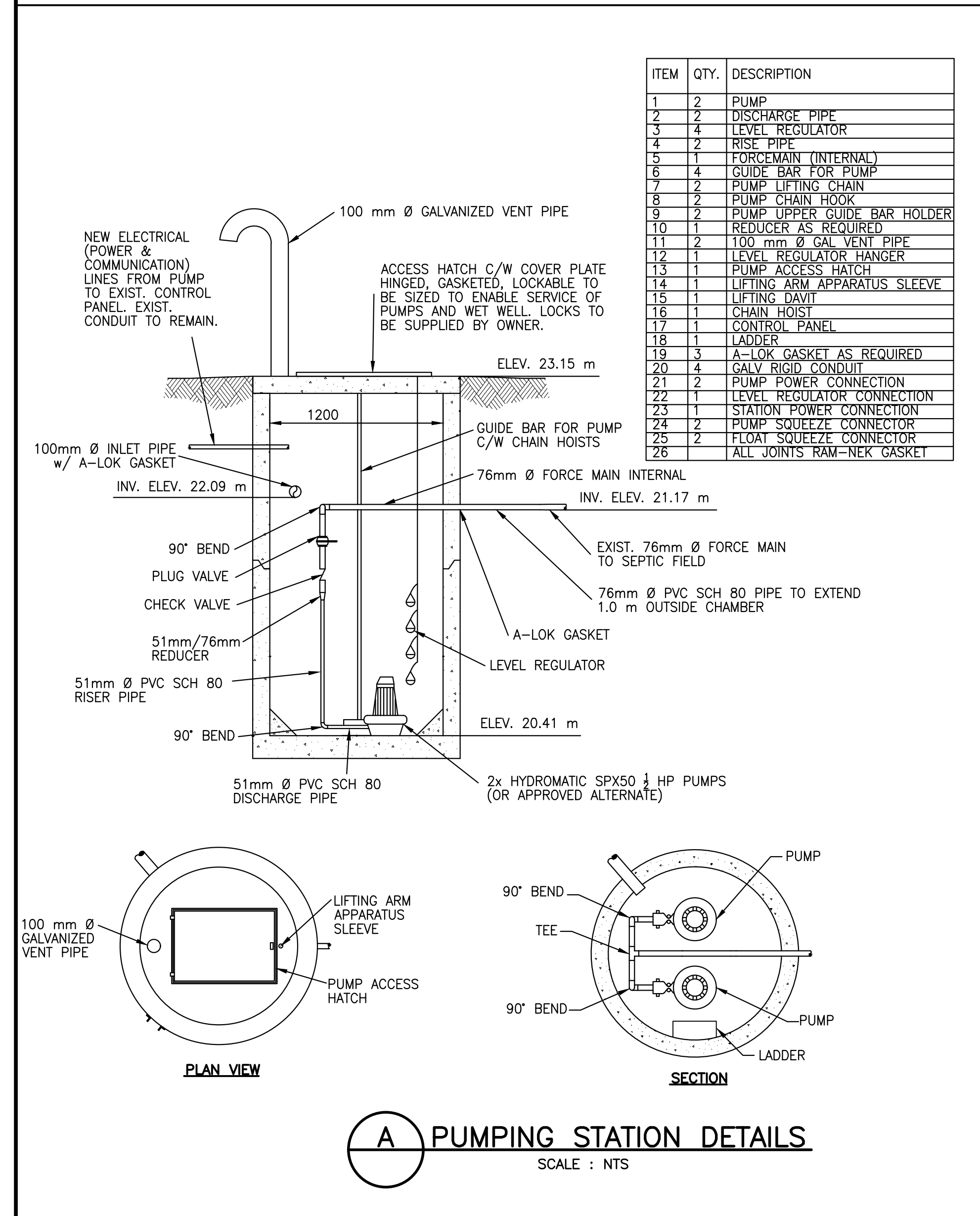
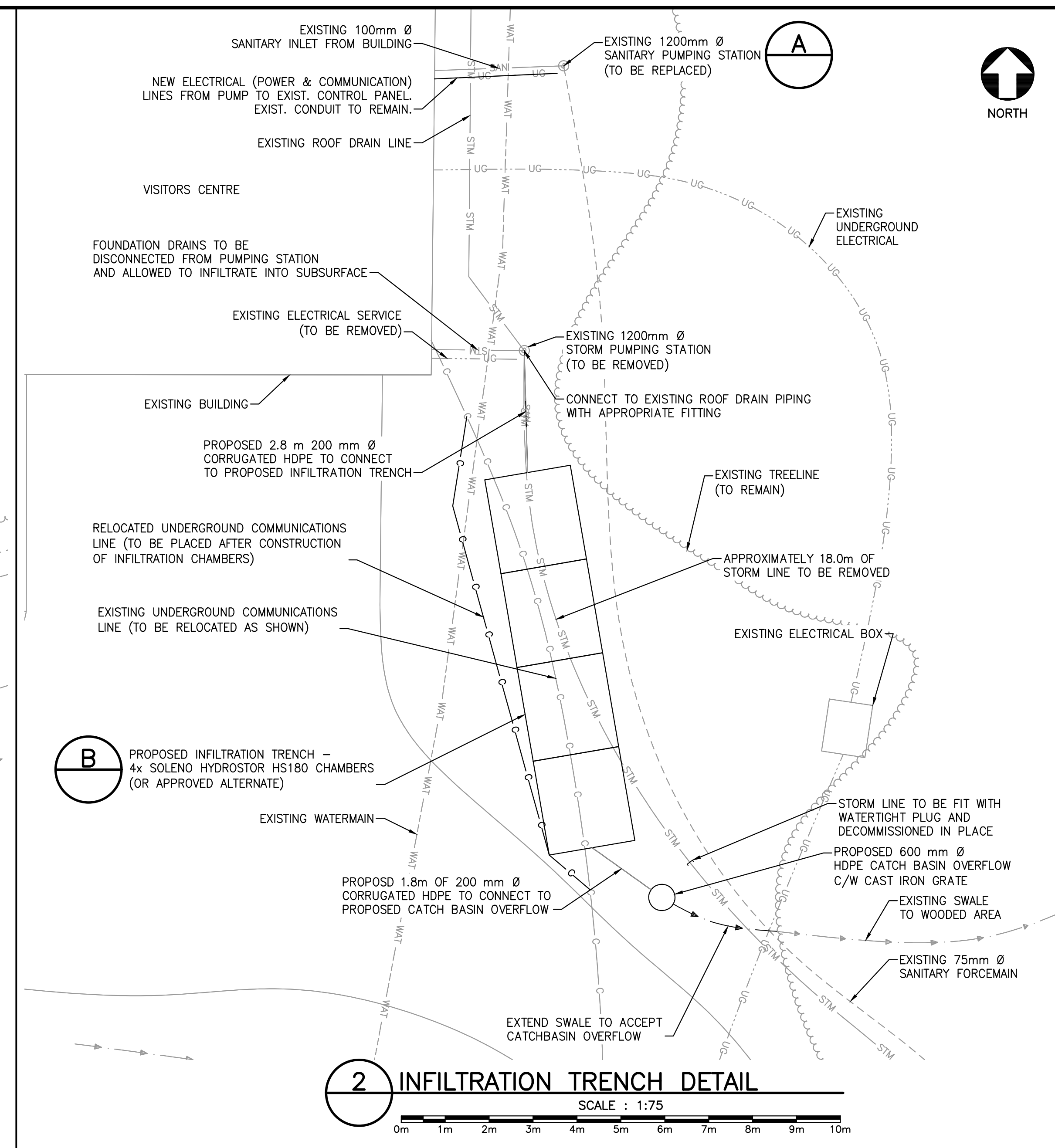
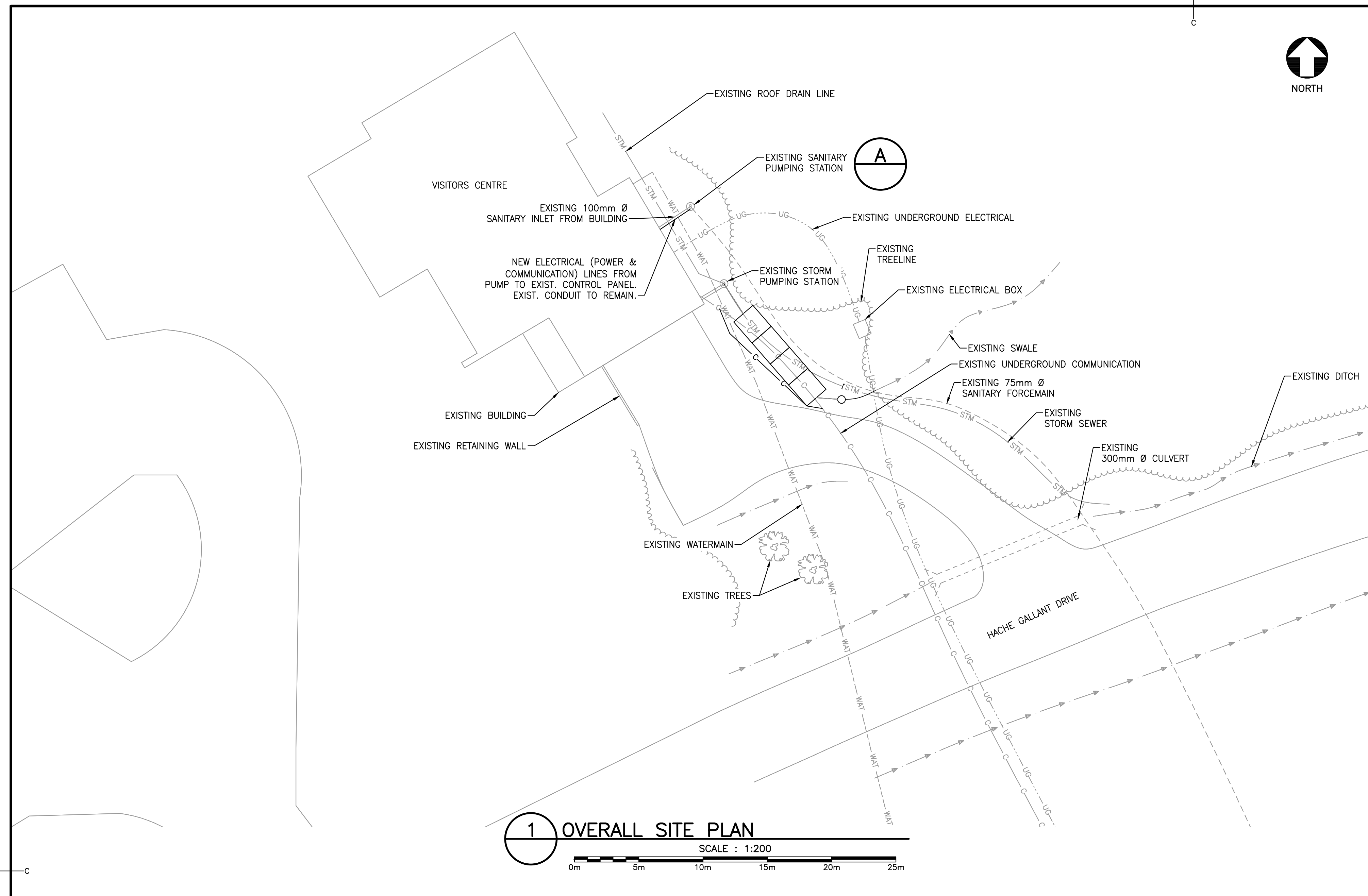
project number no. du projet

133347759

drawing no. no. du dessin

C-101

E-DRM/00D-E



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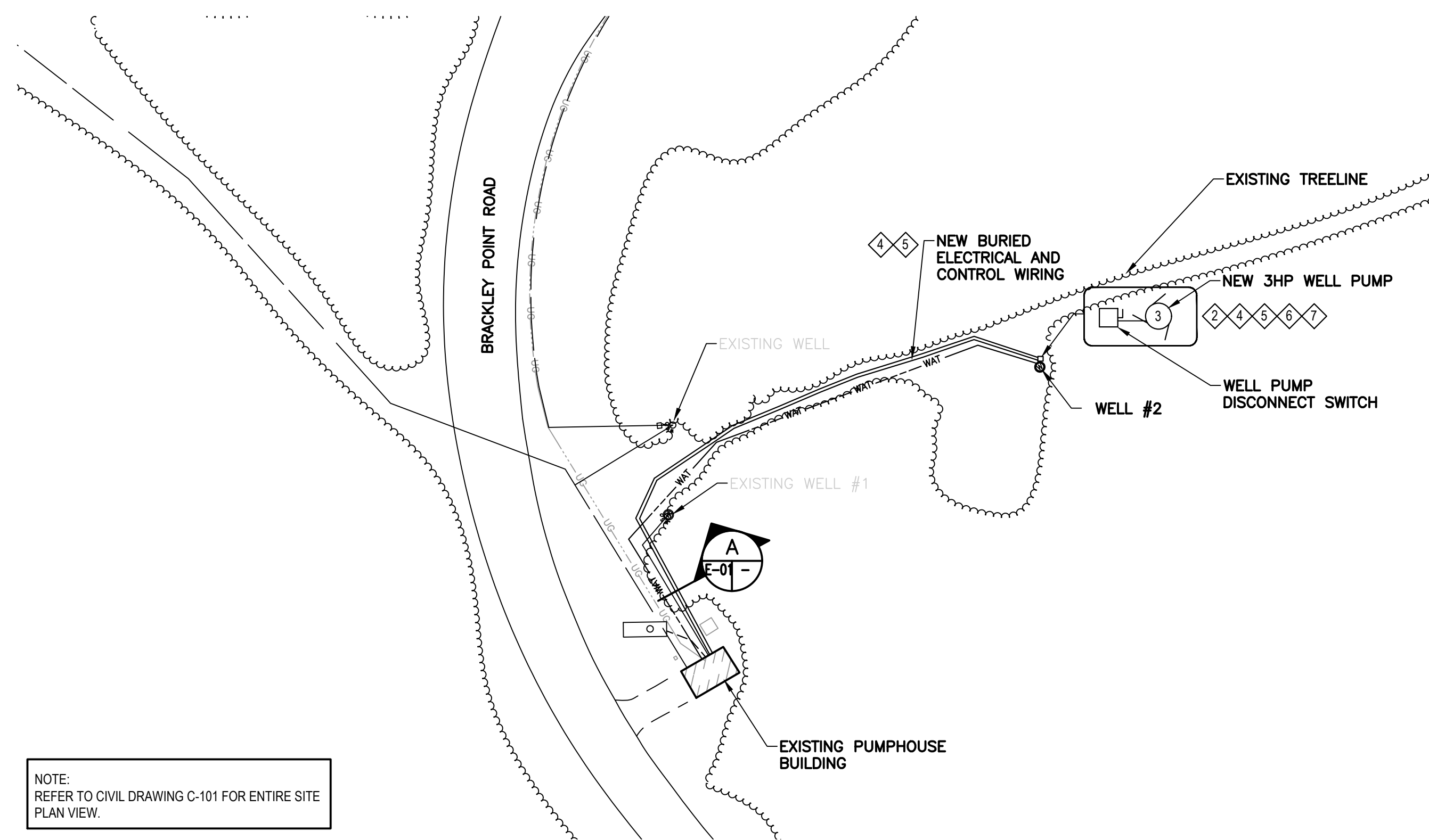
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THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND
DARRELL F. FISHER
No. 483
DATE: 2019-Oct-11
LICENSED PROFESSIONAL ENGINEER
Province of Prince Edward Island

4	RE-ISSUED FOR TENDER	OCT/11/2019
3	ISSUED FOR TENDER	SEPT/6/2019
2	100% CLIENT REVIEW	AUG/30/2019
1	99% CLIENT REVIEW	AUG/7/2019
0	50% CLIENT REVIEW	JUL/18/2019

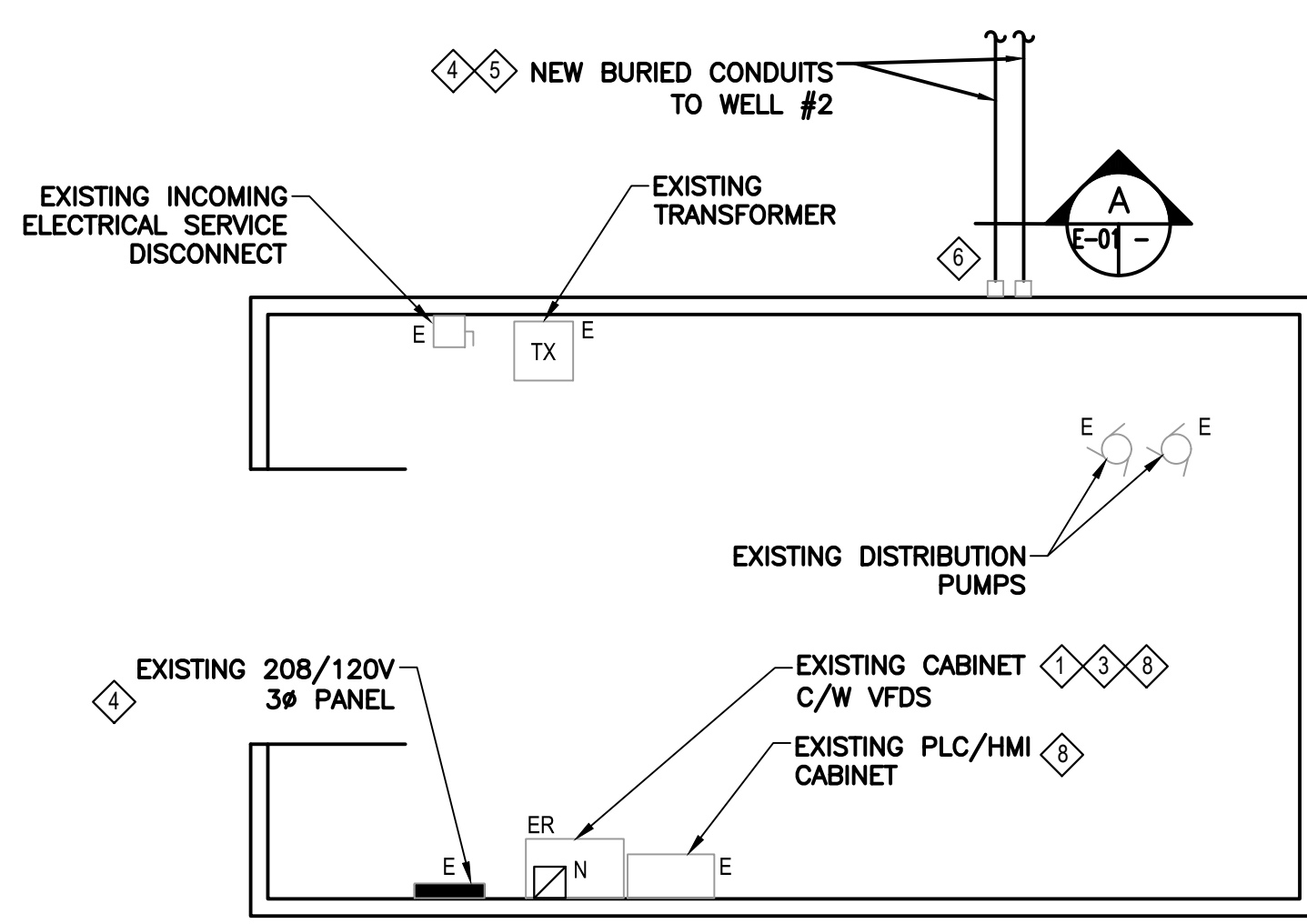
project: **PARKS CANADA SYSTEM ASSESSMENT AND REHABILITATION INFRASTRUCTURE UPGRADES**

designed: C. FLANAGAN
date: OCTOBER 11, 2019
drawn: M. O'HALLORAN
date: OCTOBER 11, 2019
approved: D. FISHER
date: OCTOBER 11, 2019
Tender: Submission
PWSC Project Manager: Administrateur de projets TPSC
project number: 133347759
drawing no.: C102



PUMP HOUSE SITE DETAILS (1)
 SCALE : N.T.S.

NOTE:
 REFER TO CIVIL DRAWING C-101 FOR ENTIRE SITE
 PLAN VIEW.



PUMP HOUSE LAYOUT (2)
 SCALE : N.T.S.

ELECTRICAL KEY NOTES

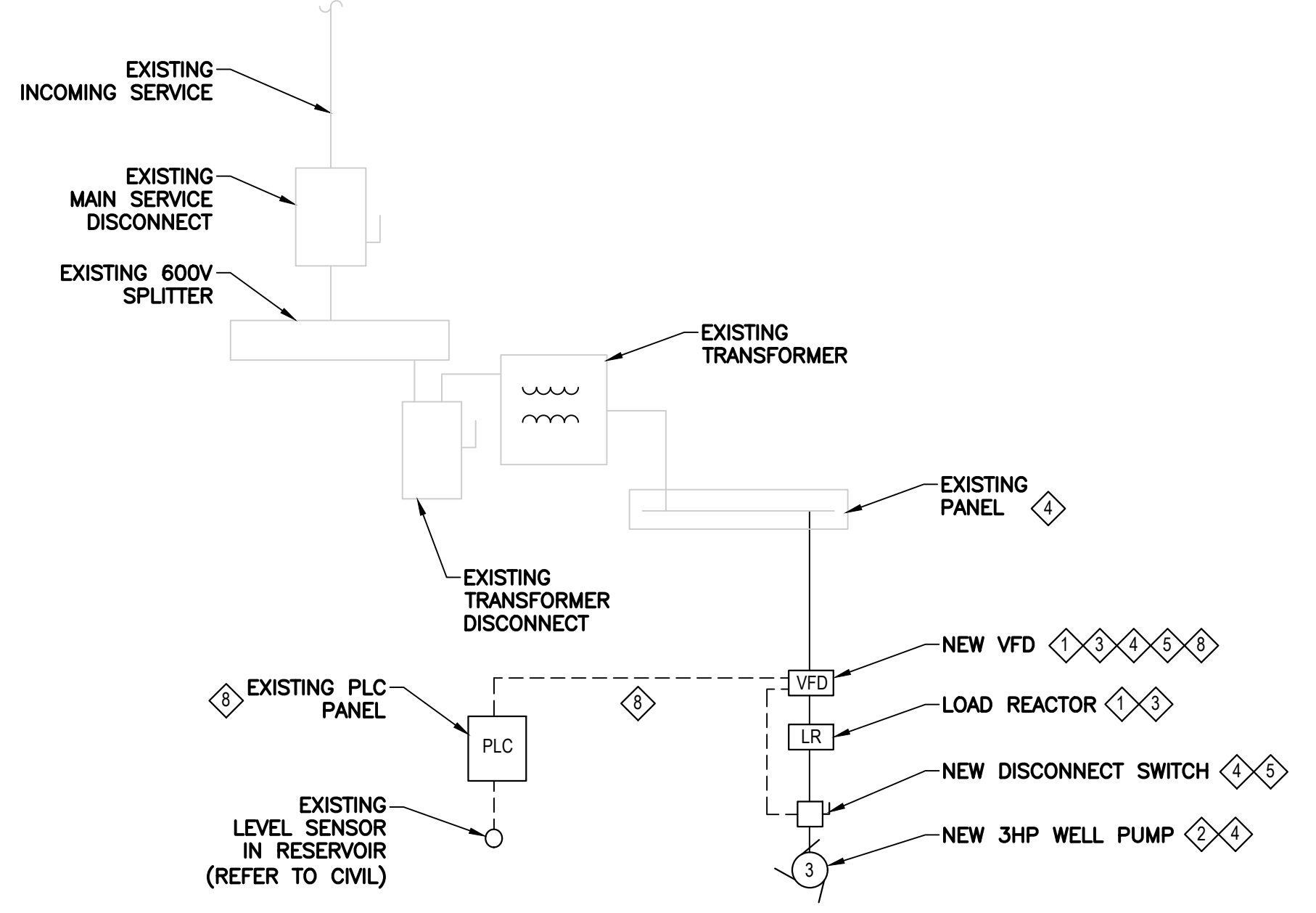
- 1. PROVIDE NEW VENTED ENCLOSURE SIZED TO REPLACE EXISTING ENCLOSURE AND ACCOMMODATE EXISTING VFDs AND NEW EQUIPMENT INDICATED FOR PUMP #2. ENCLOSURE TO BE CSA TYPE 3R RATED WITH LOCKING DOORS. TEMPORARILY REMOVE EXISTING VFDs. REINSTALL AND RECONNECT VFDs. EXTEND OR MODIFY FEEDERS AS REQUIRED. INSTALL NEW ENCLOSURE IN THE SAME LOCATION AS EXISTING ENCLOSURE.
- 2. PUMP TERMINATIONS SHALL BE COORDINATED WITH PUMP SUPPLIER. INSTALLATION AND CONNECTION OF ELECTRICAL CONDUCTORS BY CONTRACTOR. COORDINATE TO TERMINATE POWER FEEDER AT PUMP LOCATION.
- 3. PROVIDE A NEW VFD C/W LOAD REACTOR FOR NEW WELL PUMP AND INSTALL IN NEW VFD CABINET.
- 4. PROVIDE AND INSTALL NEW 30A 3 POLE BREAKER IN EXISTING 208/120V PANEL AND PROVIDE AND INSTALL NEW 3 #8 - #10 BOND AWG IN DIRECT BURIED 53mm RIGID PVC CONDUIT FROM NEW BREAKER TO NEW VFD AND ADDITIONALLY TO NEW WELL PUMP. CONDUIT SIZE SHALL BE 27mm PVC WITHIN BUILDING. ALSO PROVIDE A NEW POST MOUNTED 30A 3 POLE DISCONNECT SWITCH WITH AUXILIARY CONTACT AND CSA TYPE 4X ENCLOSURE.
- 5. PROVIDE A STATUS CONTACT IN DISCONNECT SWITCH AND CONTROL INTERCONNECTION FROM DISCONNECT SWITCH TO VFD USING NEW 53mm BURIED CONDUIT. PROGRAM INTERCONNECTION TO SIGNAL VFD WHEN DISCONNECT SWITCH DE-ENERGIZES PUMP MOTOR SO THAT VFD OUTPUT SHALL BE DISABLED. CONDUIT SIZE SHALL BE 27mm PVC WITHIN BUILDING.
- 6. EXPANSION JOINTS SHALL BE USED FOR ALL CONDUITS WHEN PENETRATING GROUND SURFACE.
- 7. PROVIDE 6x6 WOLMANIZED POST FOR MOUNTING OF WELL PUMP DISCONNECT SWITCH. COORDINATE FINAL INSTALLED POSITION ON SITE WITH CLIENT'S REPRESENTATIVE.
- 8. PROVIDE NEW CONTROL INTERCONNECTION BETWEEN EXISTING PLC AND NEW VFD FOR WELL #2. PLC SHALL BE REPROGRAMMED TO ALTERNATE PUMPING DUTY BETWEEN WELL #1 AND WELL #2. CONTRACTOR SHALL ENLIST OWNER'S PREFERRED VENDOR ON SITE FOR PROGRAMMING CHANGES.

ELECTRICAL GENERAL NOTES

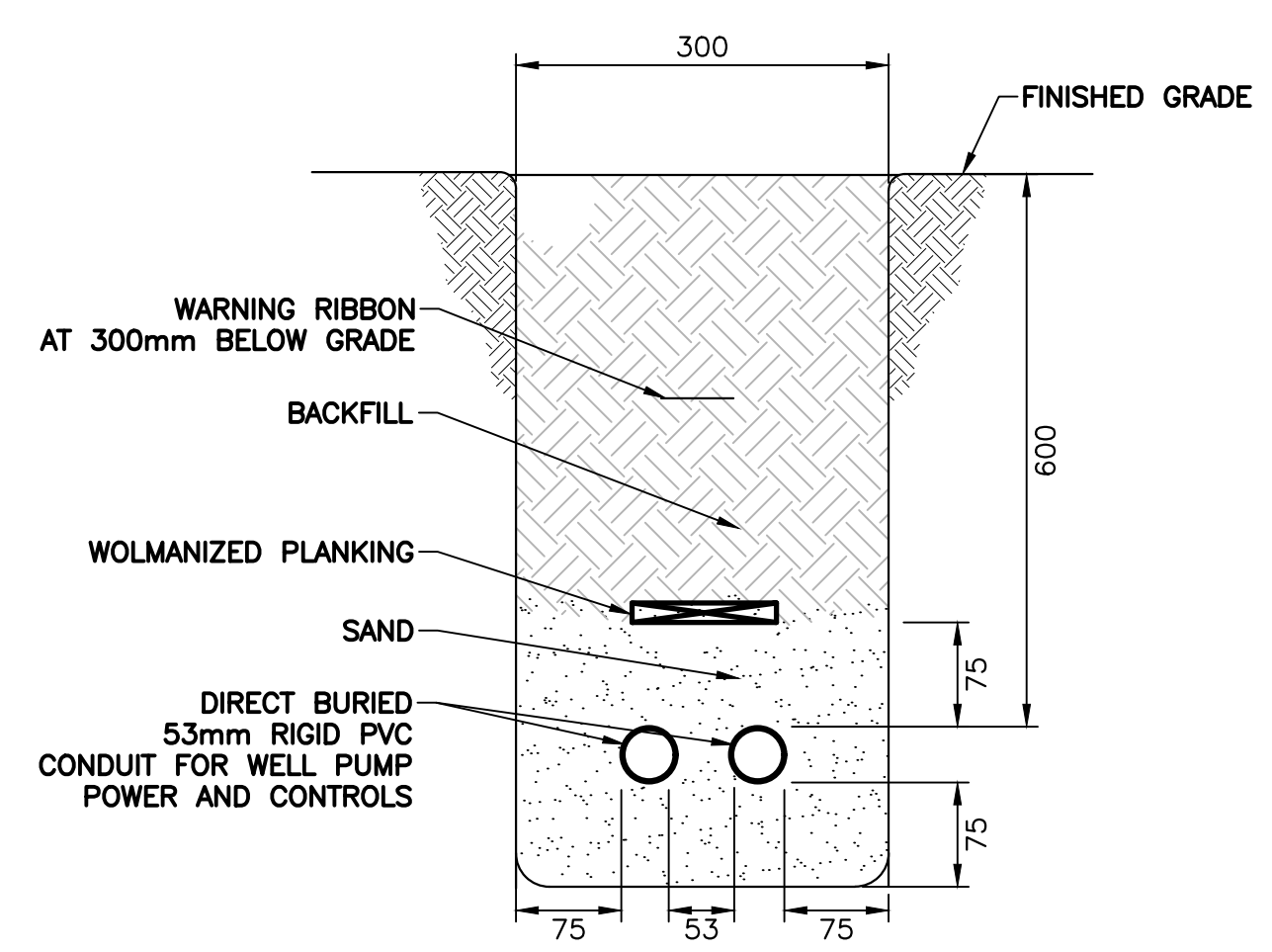
1. ALL ELECTRICAL TRENCHES ARE TO BE CREATED C/W CONDUITS AS INDICATED UNDER THIS CONTRACT. UNDERGROUND ELECTRICAL SERVICES INDICATED ON DRAWINGS ARE DIAGRAMMATIC TO INDICATE GENERAL TRENCHING AND CABLE ROUTING DIRECTION. FINAL LOCATIONS FOR TRENCHING AND INSTALLATION OF CABLES SHALL BE DETERMINED ON SITE TO MEET SITE SPECIFIC REQUIREMENTS AND TO AVOID CONFLICT WITH OTHER SERVICES. REFER TO SECTION DETAILS IN THIS DRAWING PACKAGE FOR TRENCHING DEPTHS AND REQUIRED SPACING OF FEEDERS WITHIN.
2. COORDINATE FINAL INSTALLATION LOCATION OF ELECTRICAL EQUIPMENT AND DEVICES ON SITE WITH DEPARTMENTAL REPRESENTATIVE AND ALL OTHER ASSOCIATED TRADES.
3. ALL DRAWINGS IN THIS PACKAGE ARE TO BE READ IN CONJUNCTION WITH THE DRAWINGS AND SPECIFICATIONS OF ALL TRADES.

ELECTRICAL LEGEND

- ELECTRICAL PANEL - VOLTAGE AND CONFIGURATION AS INDICATED.
 - TX TRANSFORMER - CAPACITY AS INDICATED - PLAN VIEW
 - DISCONNECT SWITCH - AMPACITY # OF POLES AND ENCLOSURE TYPE AS NOTED
 - ◻ VARIABLE FREQUENCY DRIVE
 - ⊗ PUMP - 'X' INDICATES HORSEPOWER RATING
 - ⊞ TRANSFORMER - SIZE AS AND VOLTAGES AS INDICATED - SCHEMATIC VIEW
 - VFD VARIABLE FREQUENCY DRIVE
 - LR LOAD REACTOR
 - CONTROL WIRING
 - WAT - WATERLINES
- ABBREVIATIONS:
 'E' INDICATES EXISTING TO REMAIN
 'ER' INDICATES EXISTING TO BE REPLACED
 'N' INDICATES NEW
 'VFD' INDICATES VARIABLE FREQUENCY DRIVE
 'HP' INDICATES HORSEPOWER
 'PLC' INDICATES PROGRAMMABLE LOGIC CONTROLLER
 'HMI' INDICATES HUMAN - MACHINE INTERFACE



PARTIAL POWER & CONTROL DIAGRAM (3)
 SCALE : N.T.S.

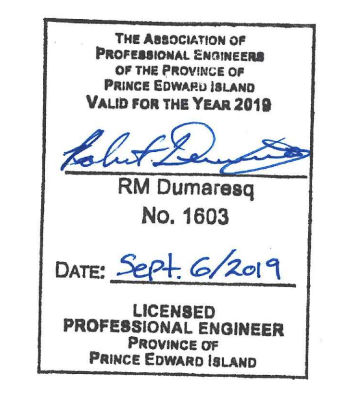


ELECTRICAL TRENCH SECTION (A)
 SCALE : N.T.S.

EXISTING PANEL - 200 AMP - 208/120V 3ph 4 WIRE												
FED FROM EXISTING TRANSFORMER					200A RATED MAIN CIRCUIT BREAKER							
WIRE	DESCRIPTION	LOAD	BRKR	POLES	CCT NO.	PHASE	CCT NO.	POLES	BRKR	LOAD	DESCRIPTION	WIRE
	CHEMICAL PUMP		15	1	1	A	2	1	15		PLUG	
	LIGHTS		15	1	3	B	4	1	15		FLOW METERS	
	BOOSTER PUMP #1		30	3	5	C	6	1	15		FLASHING LIGHTS	
		7			A	8	1	15		220V PLC		
		9			B	10	1	15		220V PLC		
	BOOSTER PUMP #2		30	3	11	C	12	2	15		HEATER #1	
		13			A	14						
		15			B	16	2	15		HEATER #2		
	WELL PUMP #1		30	3	17	C	18					
		19			A	20	1	15		SPACE		
		21			B	22	1	15		SPACE		
	#8 NEW WELL 3HP PUMP #2	4300	30	3	23	C	24				SPACE	
					25	A	26	1	15		SPACE	
					27	B	28	1	15		SPACE	
	SPACE		15	1	29	C	30	1	15		SPACE	

SHADED CELL INDICATES EXISTING

NOTES



revisions	date	description
3	ISSUED FOR TENDER	SEPT/6 2019
2	100% REVIEW	AUG/30 2019
1	99% REVIEW	JUL/24 2019
0	50% REVIEW	JUN/21 2019

project: **PARKS CANADA SYSTEM ASSESSMENT AND REHABILITATION INFRASTRUCTURE UPGRADES**

drawing: **BRACKLEY ELECTRICAL DETAILS**

designed J.W. conq
 date JUN. 19, 2019
 drawn A.C. dessin
 date JUN. 19, 2019
 approved R.D. approuv
 date JUN. 19 2019
 Tender Soumission
 PWSC Project Manager Administrateur de projets TPSGC
 project number no. du projet
133347759
 drawing no. no. du dessin
E-101