

Parcs Canada  
Parks Canada

# STRUCTURAL REHABILITATION PROJECT FOR CULVERT STRUCTURES

TERRA NOVA NATIONAL PARK,  
NEWFOUNDLAND AND LABRADOR

PROJECT NO. 1099



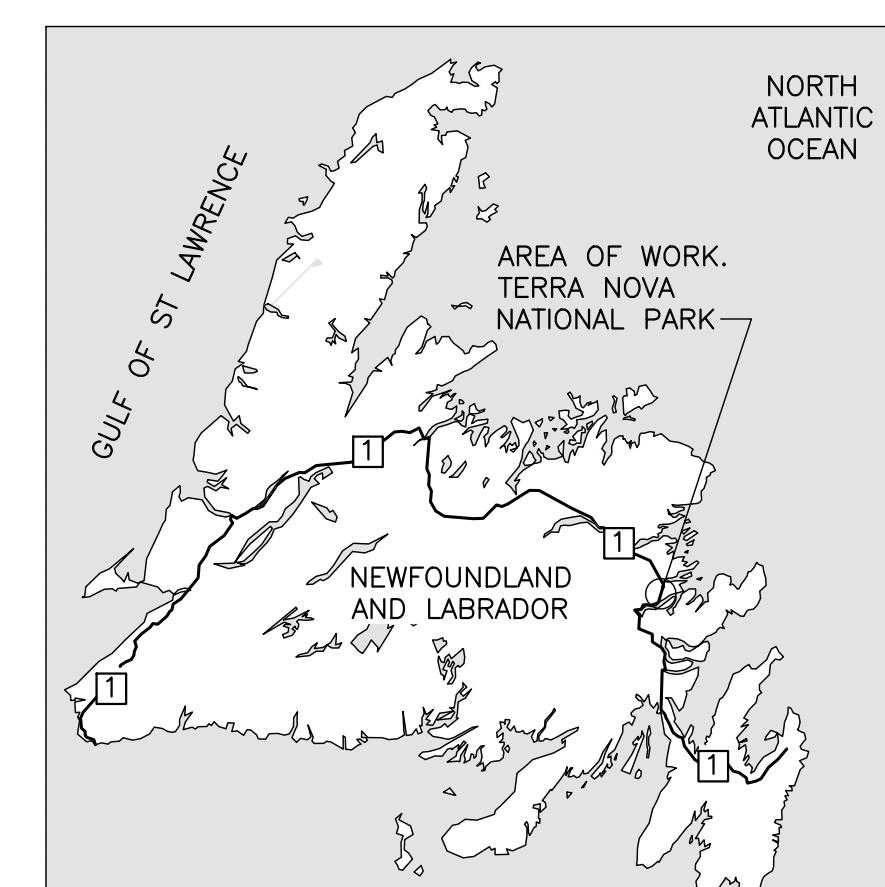
WSP Canada Inc.  
195 MacEwen Road  
Summerside, Prince Edward Island, Canada C1N 5Y4  
T 902-436-2669 F 902-436-8601 www.wsp.com

## STRUCTURES LIST

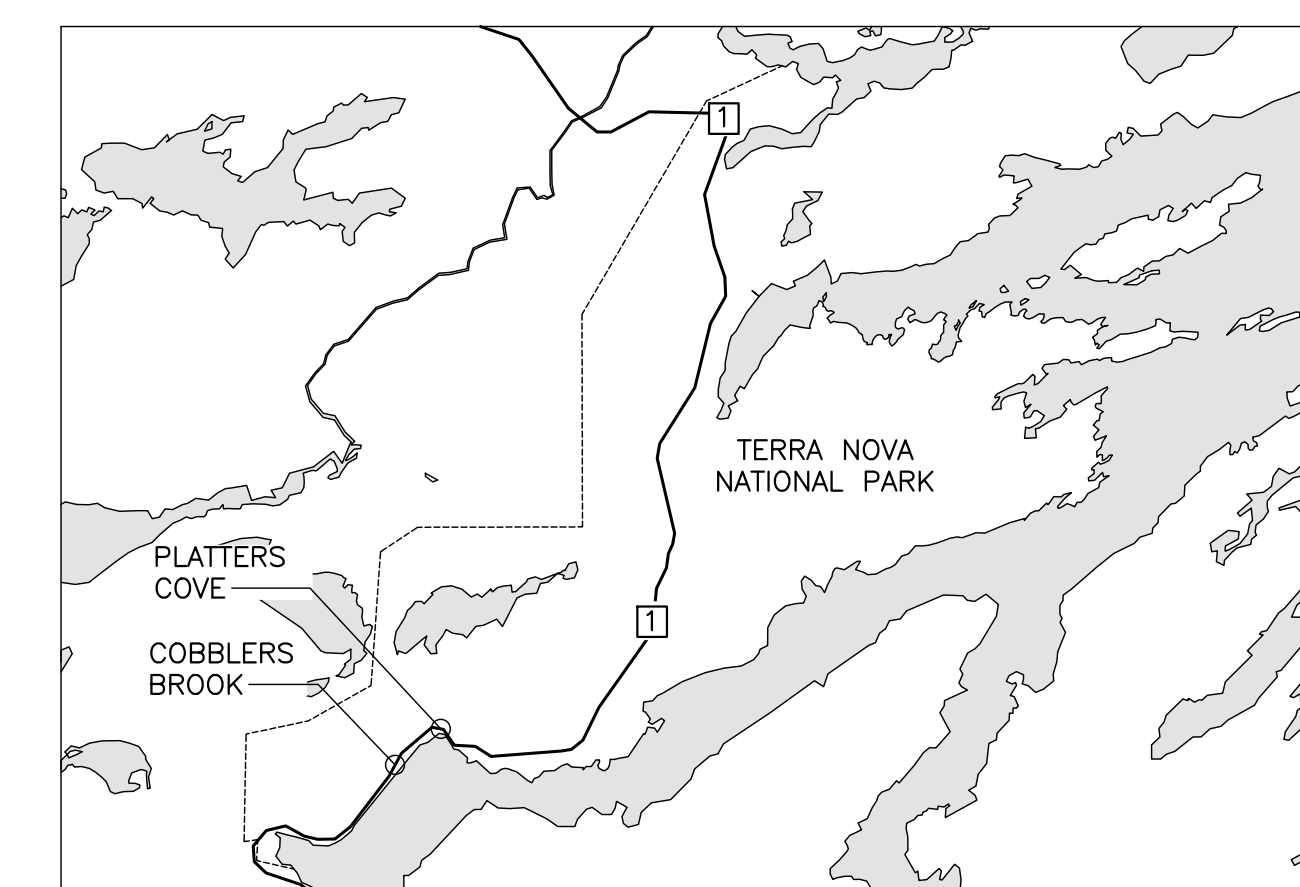
PLATTERS COVE CULVERT  
COBBLERS BROOK CULVERT

## DRAWING LIST

DRAWING NO.	TITLE
S01	PLATTERS COVE CULVERT REPAIR SITE PLAN LAYOUT AND PROFILE
S02	PLATTERS COVE CULVERT REPAIR DETAILS
S03	COBBLERS BROOK CULVERT REPAIR SITE PLAN LAYOUT AND PROFILE
S04	COBBLERS BROOK CULVERT REPAIR DETAILS



KEY PLAN  
NOT TO SCALE



KEY PLAN  
NOT TO SCALE

Canada

NOTES:

- VOIDS TO BE FILLED WITH CLSM. INJECTION PLAN SHALL BE APPROVED BY THE ENGINEER. BOTH VISUAL AND BCT VOIDS TO BE INJECTED.
- INJECTION LOCATION TO BE CONFIRMED BY CONTRACTOR ON SITE.
- MINIMUM TEMPORARY WATER CONTROL FLOW = 0.43m<sup>3</sup>/s.
- SUPPLY AND INSTALL TEMPORARY WATER CONTROL PIPE (MINIMUM  $\phi$  = 650mm)

1	ISSUED FOR FINAL REVIEW	APR 08/22
0	ISSUED FOR 66% REVIEW	MAR 01/22

revisions		date
-----------	--	------

project		project
---------	--	---------

STRUCTURAL  
REHABILITATION  
TERRA NOVA  
NATIONAL PARK  
NEWFOUNDLAND

drawing	dessin
---------	--------

PLATTERS COVE  
CULVERT REPAIR  
SITE PLAN  
LAYOUT AND PROFILE

designed	K. GALLANT	conçu
----------	------------	-------

date	2022/03/18	
------	------------	--

drawn	C. MUNN	dessiné
-------	---------	---------

date	2022/03/18	
------	------------	--

approved	K. GALLANT	approuvé
----------	------------	----------

date		
------	--	--

Tender		Soumission
--------	--	------------

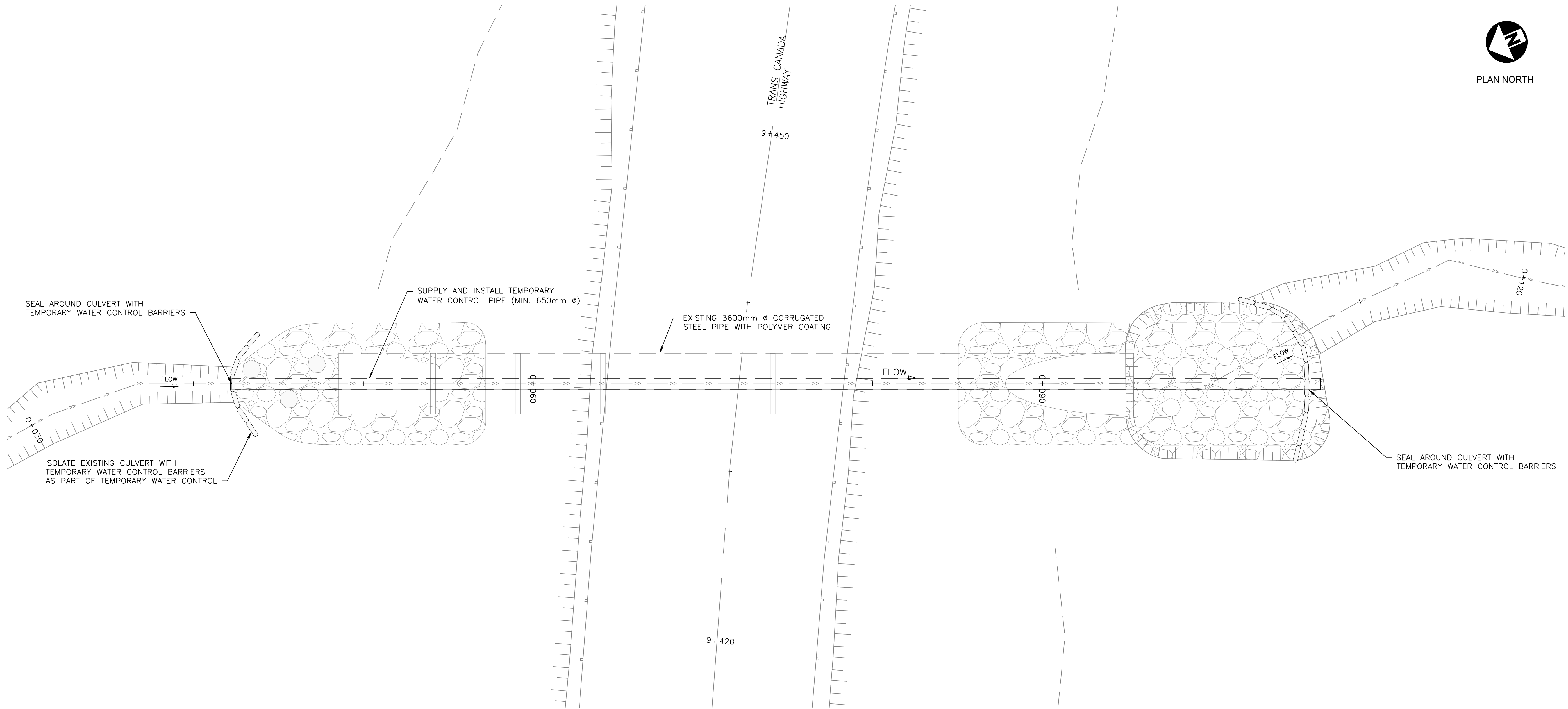
Project Manager	Administrateur de projets	
-----------------	---------------------------	--

project number	no. du projet	
----------------	---------------	--

1099

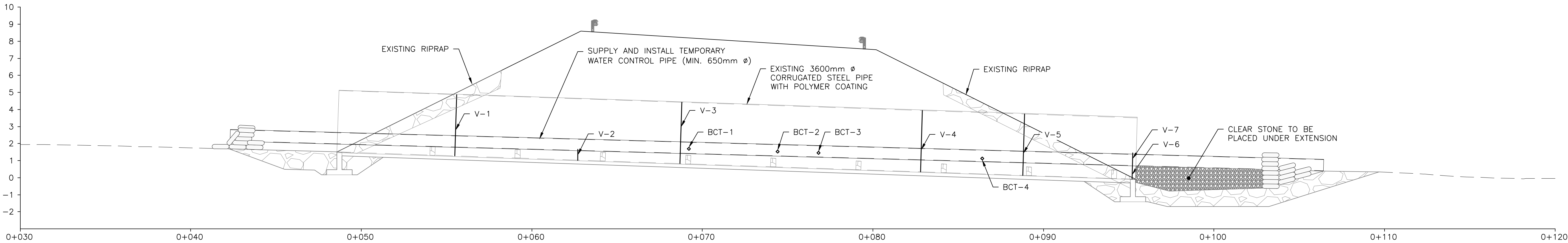
drawing no.	no. du dessin	
-------------	---------------	--

S01

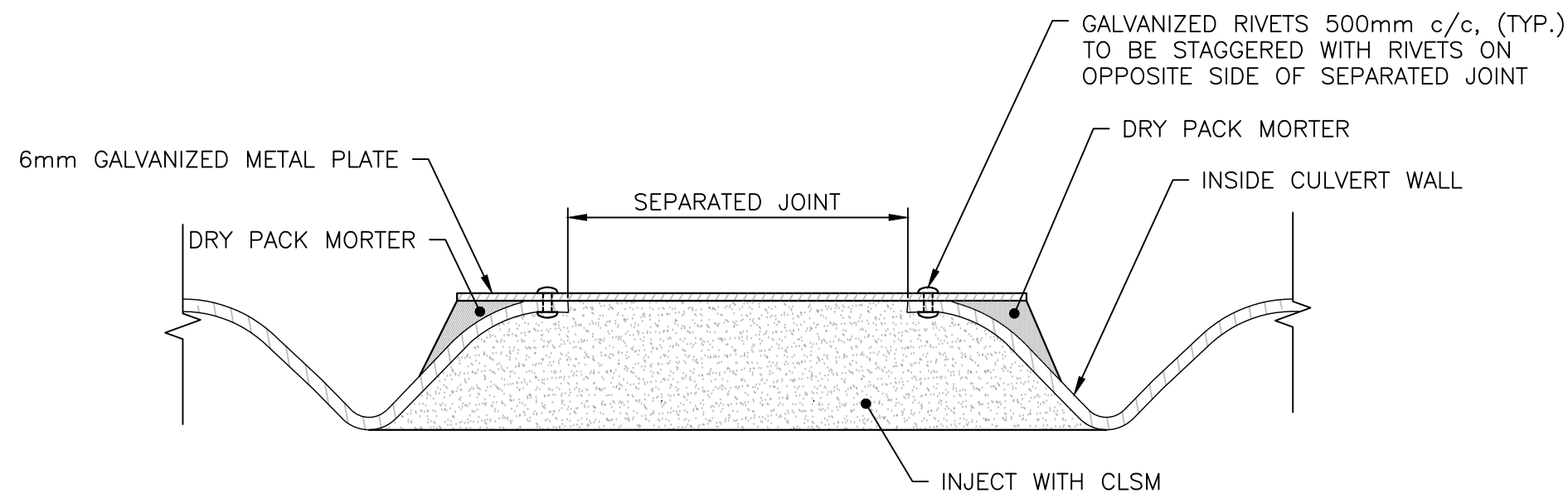


PLAN VIEW  
SCALE: 1:125

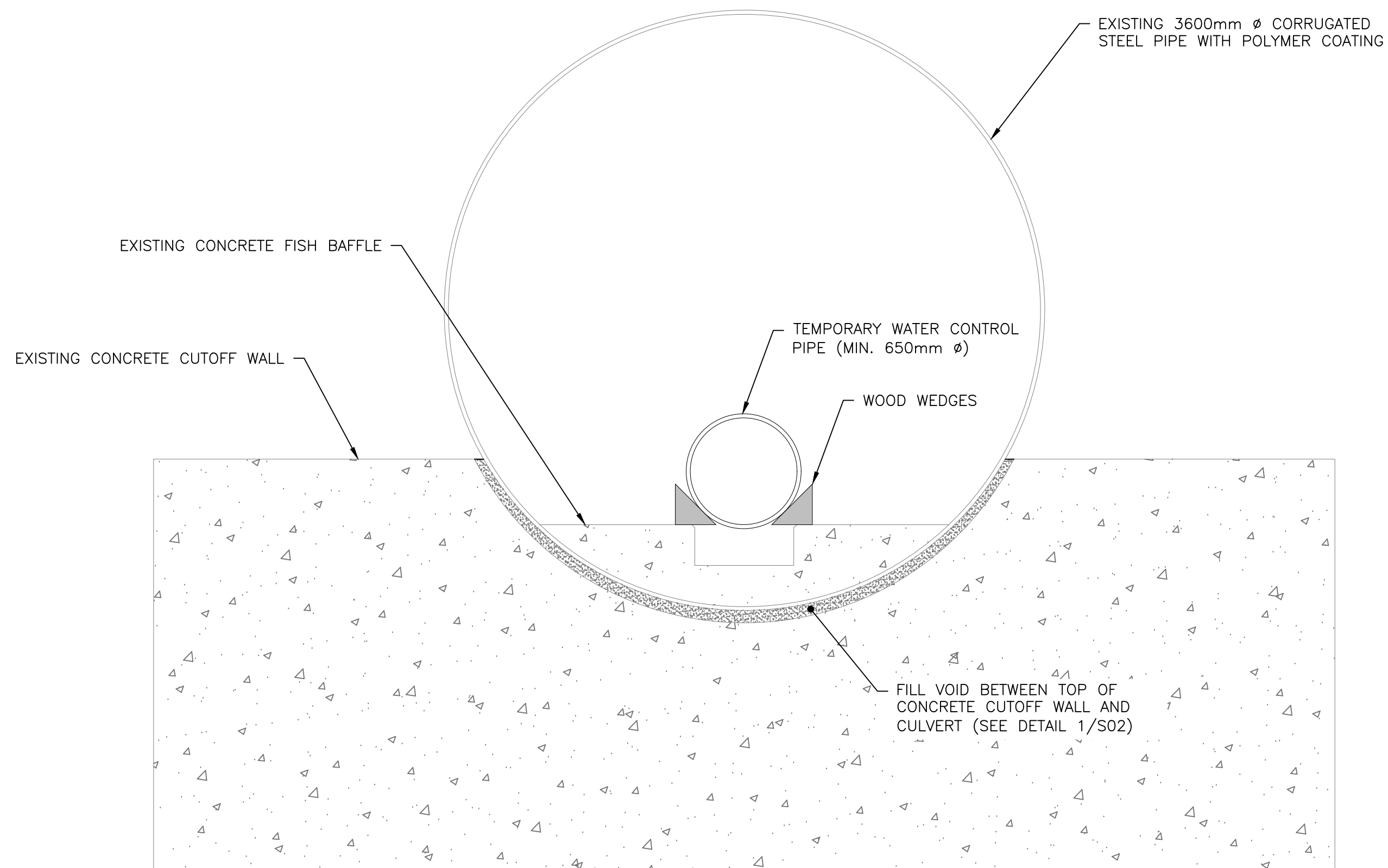
PLATTERS COVE PIPE CONDITION - VISUAL VOIDS				
VOID	X (RELATIVE TO INLET)	Y (RELATIVE TO PIPE BOTTOM)	PIPE WALL	TYPE OF ANOMALY AND DESCRIPTION
V-1	6.90m	-	-	OFFSET JOINT BY APPROX. 40mm WITH VISIBLE COUPLER
V-2	14.10m	275mm	WEST EAST	OFFSET JOINT BY APPROX. 50mm
V-3	20.10m	-	-	OFFSET JOINT BY APPROX. 30mm WITH VISIBLE COUPLER AND LVL 3 WATER INFILTRATION EVIDENT
V-4	34.20m	-	-	OFFSET JOINT BY APPROX. 60mm WITH VISIBLE COUPLER
V-5	40.20m	-	-	OFFSET JOINT BY APPROX. 50mm WITH VISIBLE COUPLER
V-6	46.80m	275mm	WEST	LVL 3 WATER INFILTRATION AT BOLT
V-7	46.80m	550mm	EAST	LVL 3 WATER INFILTRATION AT BOLT
PLATTERS COVE PIPE CONDITION - BCT VOIDS				
BCT-1	20.60m	825mm	WEST	LVL 3 WATER INFILTRATION AT SEAM
BCT-2	25.80m	825mm	EAST	LVL 3 WATER INFILTRATION AT BOLT
BCT-3	28.20m	825mm	WEST	LVL 3 WATER INFILTRATION AT BOLT
BCT-4	37.80m	825mm	WEST	LVL 2 WATER INFILTRATION AT SEAM



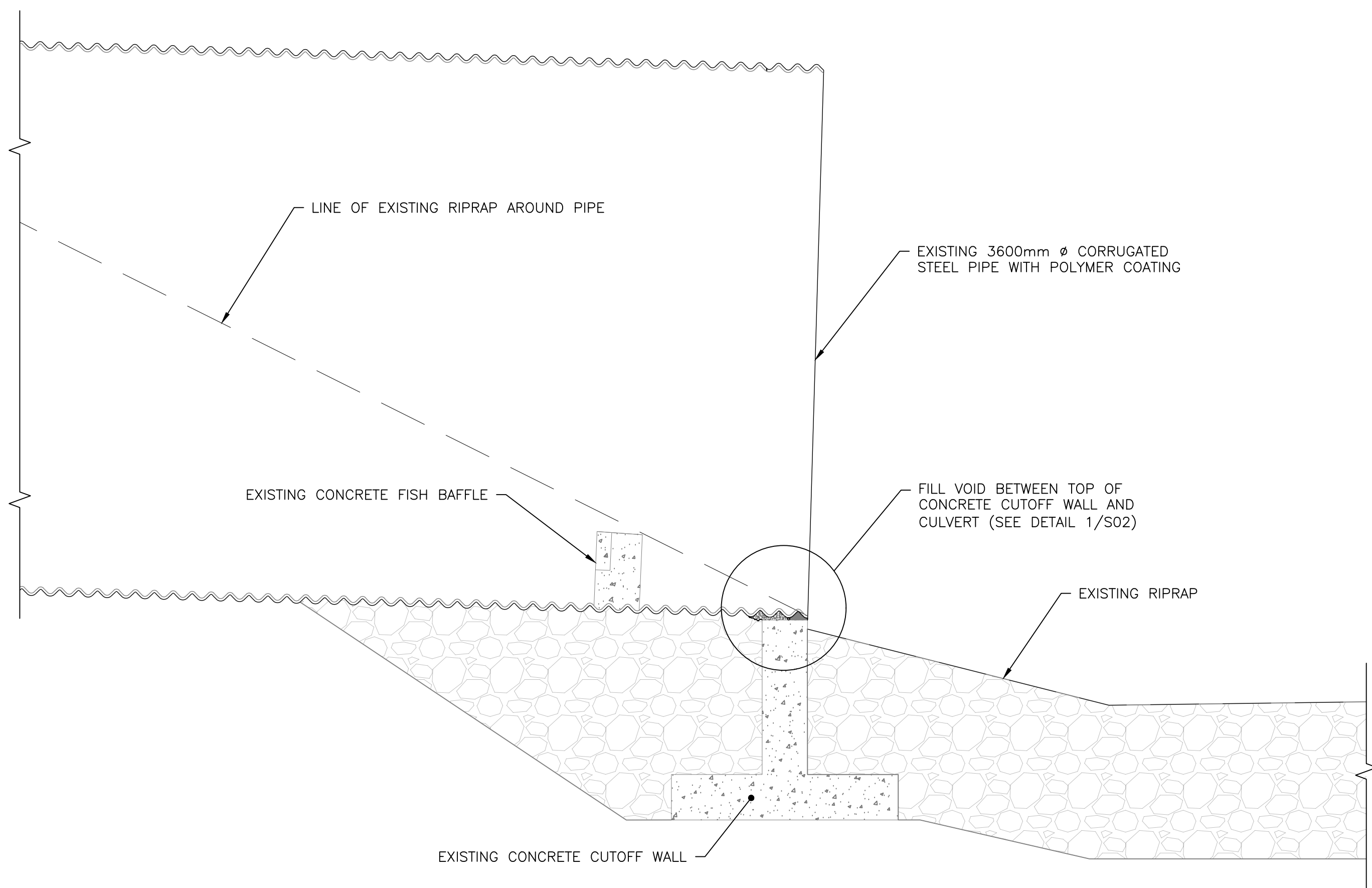
PROFILE VIEW  
SCALE: 1:125



TYPICAL CULVERT OFFSET JOINT REPAIR  
SCALE: 1:5



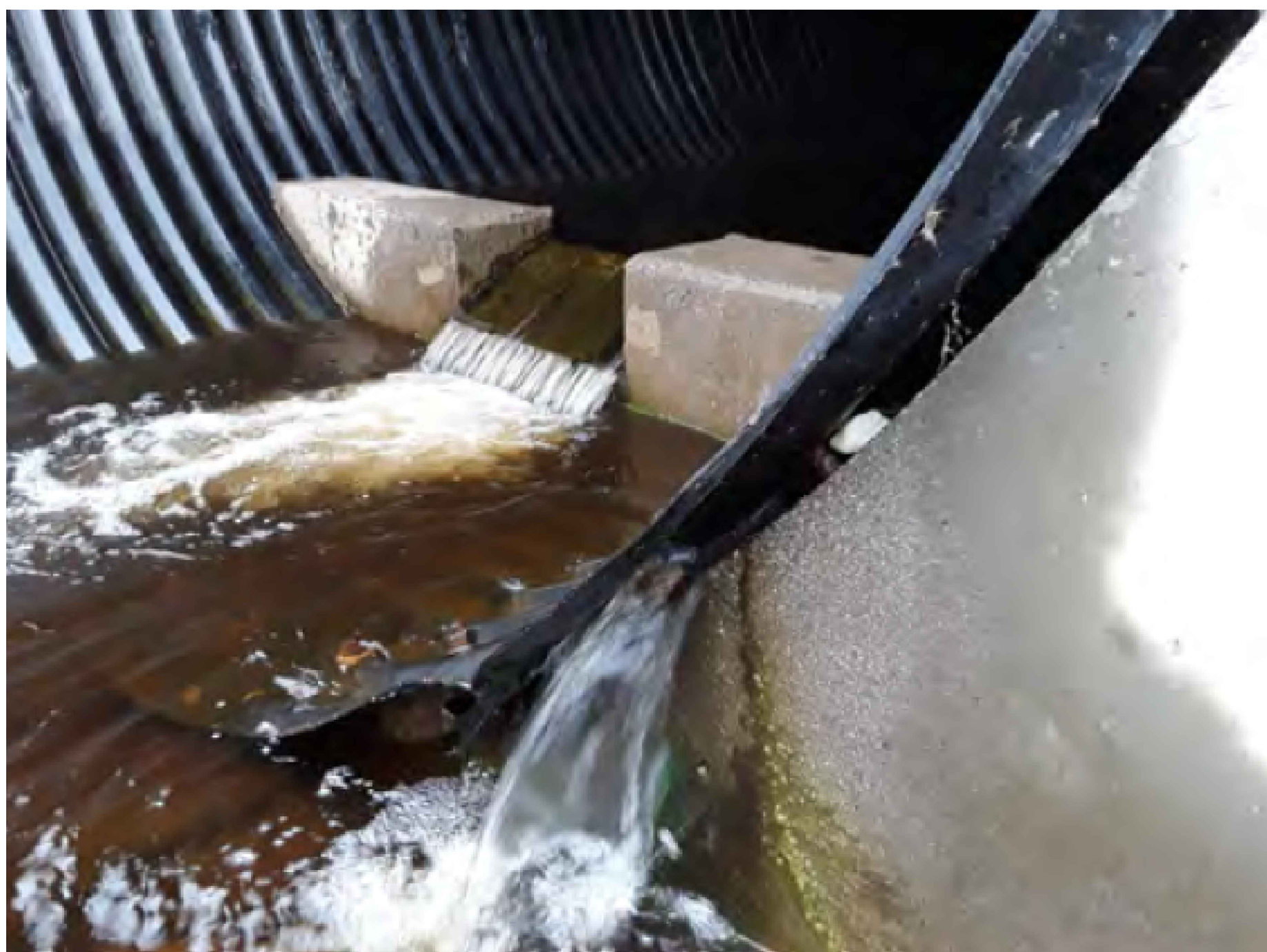
CULVERT HEADWALL REPAIR — CROSS SECTION VIEW  
SCALE: 1:25



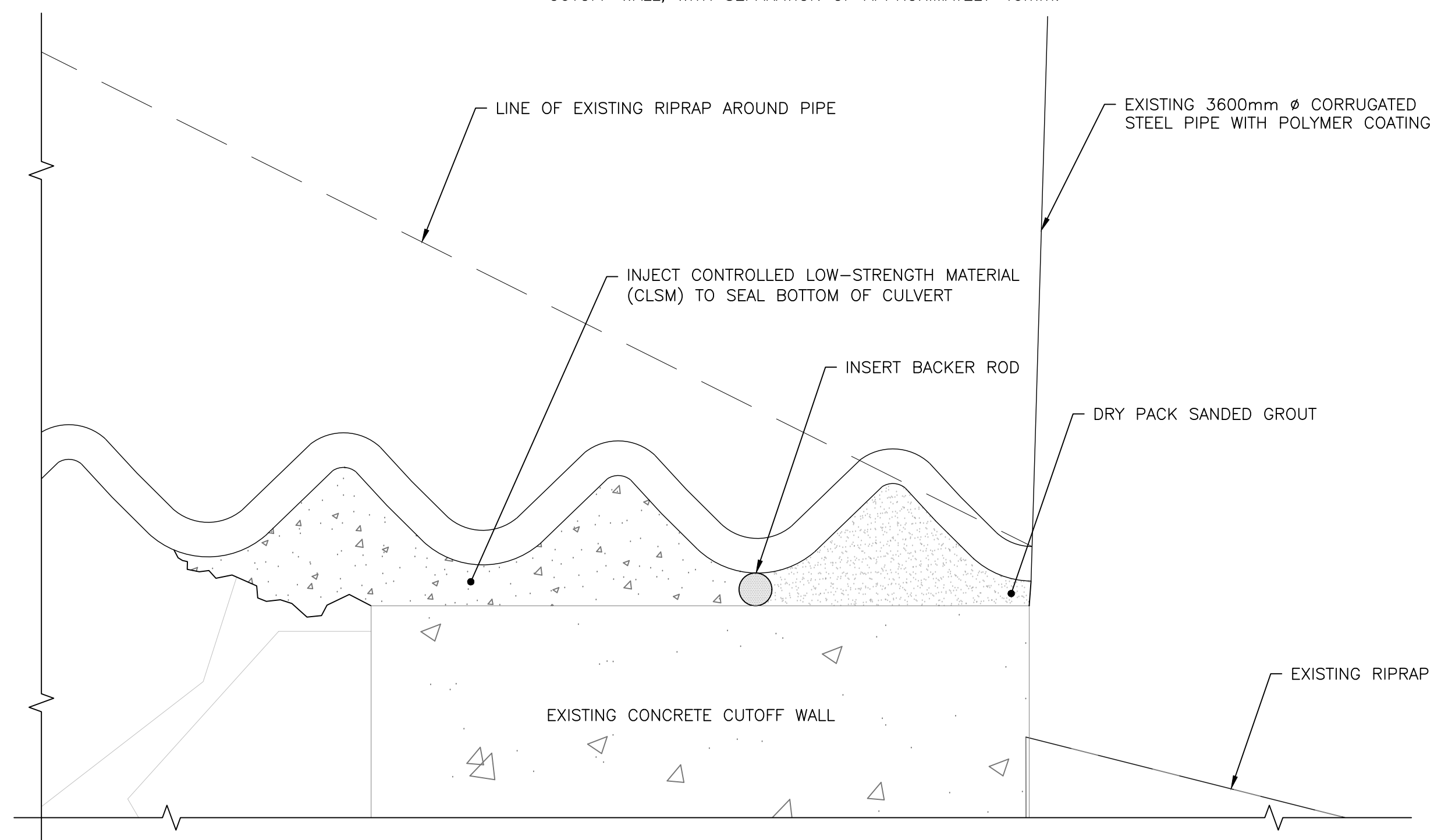
OUTLET HEADWALL REPAIR — PROFILE VIEW  
SCALE: 1:25



EXAMPLE PHOTO:  
V-3 OFFSET JOINT BY APPROXIMATELY 30mm WITH A VISIBLE COUPLER AND LEVEL 3 WATER INFILTRATION EVIDENT.



EXAMPLE PHOTO:  
ACTIVE WATER FLOWING BETWEEN PIPE WALL AND OUTLET CUTOFF WALL, WITH SEPARATION OF APPROXIMATELY 40mm.



1  
S02  
OUTLET HEADWALL REPAIR DETAIL  
SCALE: 1:2

1	ISSUED FOR FINAL REVIEW	APR 08/22
0	ISSUED FOR 66% REVIEW	MAR 01/22
revisions		date
project	STRUCTURAL REHABILITATION TERRA NOVA NATIONAL PARK NEWFOUNDLAND	
project		

drawing	desin
PLATTERS COVE CULVERT REPAIR DETAILS	

designed	K. GALLANT	conçu
date	2022/03/18	
drawn	C. MUNN	dessiné
date	2022/03/18	
approved	K. GALLANT	approuvé
date		
Tender	Soumission	
Project Manager	Administrateur de projets	
project number	no. du projet	
	1099	
drawing no.	no. du dessin	
	S02	



PLAN NORTH

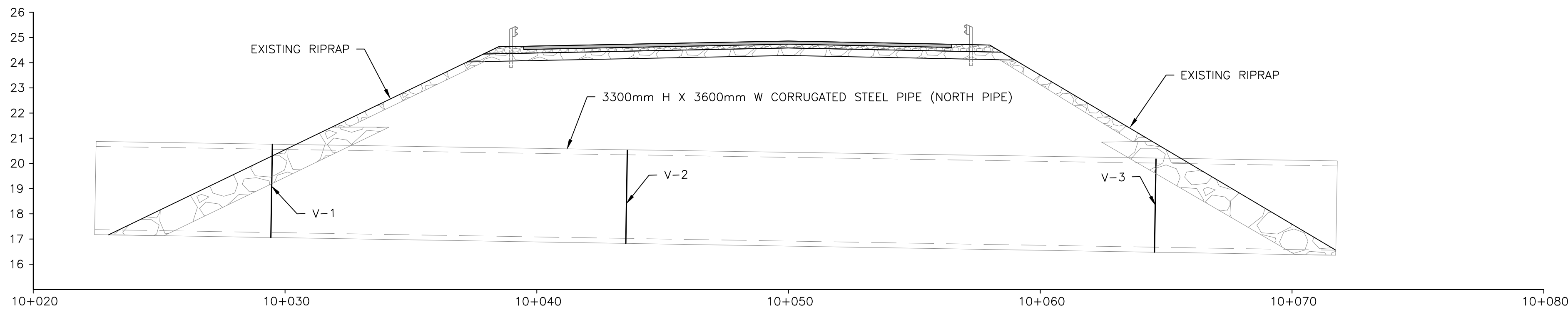


**WSP Canada Inc.**  
195 MacEwen Road  
Summerside, Prince Edward Island, Canada C1N 5Y4  
T 902-436-2669 F 902-436-8601 www.wsp.com

NOTES:

- VOIDS TO BE FILLED WITH CLSM. INJECTION PLAN SHALL BE APPROVED BY THE ENGINEER. BOTH VISUAL AND BCT VOIDS TO BE INJECTED.
- INJECTION LOCATION TO BE CONFIRMED BY CONTRACTOR ON SITE.
- MINIMUM TEMPORARY WATER CONTROL FLOW = 1.09m<sup>3</sup>/s
- REPAIR OFFSET JOINTS IN NORTH PIPE BEFORE IMPLEMENTING TEMPORARY WATER CONTROL WORKS.
- TEMPORARY WATER CONTROL LOCATION TO BE CONFIRMED BY CONTRACTOR ON SITE.

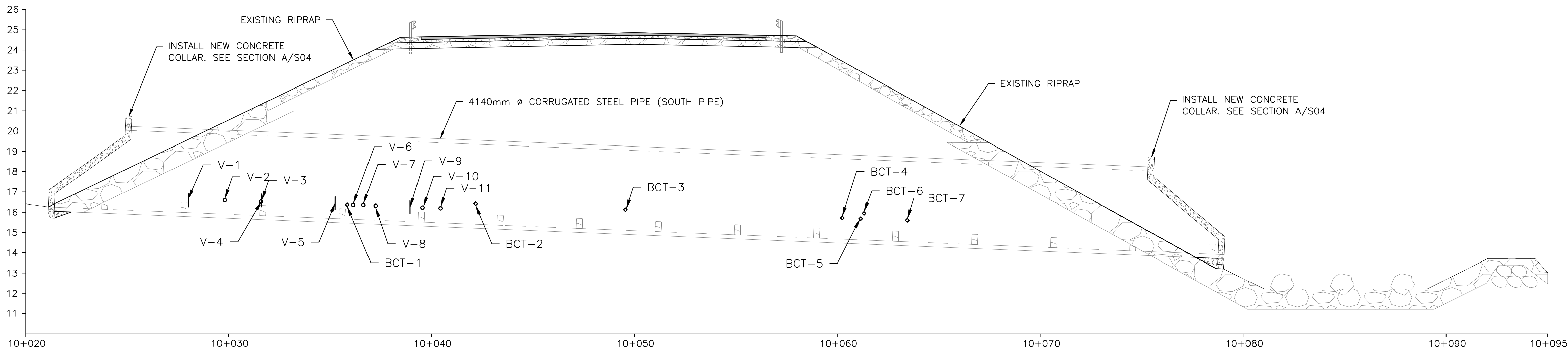
COBBLER'S BROOK NORTH PIPE CONDITION		
VISUAL ANOMOLIES		
ANOMALY	X (RELATIVE TO INLET)	TYPE OF ANOMALY AND DESCRIPTION
V-1	7.00m	SEPARATED AND OFFSET JOINT BY APPROX. 120mm WITH VISIBLE BACKFILL MATERIAL PRESENT AND SURFACE CORROSION AT JOINT CONNECTION
V-2	21.10m	SEPARATED AND OFFSET JOINT BY APPROX. 110mm WITH VISIBLE FILTER FABRIC AND BACKFILL MATERIAL PRESENT
V-3	42.10m	SEPARATED JOINT BY APPROX. 120mm WITH VISIBLE COUPLER



NORTH PIPE PROFILE VIEW

SCALE: 1:125

COBBLER'S BROOK SOUTH PIPE CONDITION - VISUAL VOIDS				
VOID	X (RELATIVE TO INLET)	Y (RELATIVE TO PIPE BOTTOM)	PIPE WALL	TYPE OF ANOMALY AND DESCRIPTION
V-1	6.90m	690mm	SOUTH	LVL 3 WATER INFILTRATION AT SEAM
V-2	8.70m	690mm	SOUTH	LVL 3 WATER INFILTRATION AT BOLT
V-3	10.50m	690mm	NORTH	LVL 3 WATER INFILTRATION AT BOLT
V-4	10.50m	690mm	SOUTH	LVL 2 WATER INFILTRATION AT SEAM
V-5	14.10m	690mm	SOUTH	LVL 3 WATER INFILTRATION AT SEAM
V-6	15.00m	690mm	SOUTH	LVL 3 WATER INFILTRATION AT BOLT
V-7	15.50m	690mm	SOUTH	LVL 3 WATER INFILTRATION AT BOLT
V-8	16.10m	690mm	SOUTH	LVL 2 WATER INFILTRATION AT BOLT
V-9	17.80m	690mm	SOUTH	LVL 3 WATER INFILTRATION AT BOLT & SEAM
V-10	18.40m	690mm	SOUTH	LVL 3 WATER INFILTRATION AT BOLT
V-11	19.30m	690mm	SOUTH	LVL 3 WATER INFILTRATION AT BOLT
COBBLER'S BROOK SOUTH PIPE CONDITION - BCT VOIDS				
BCT-1	14.70m	690mm	SOUTH	LVL 3 WATER INFILTRATION AT SEAM
BCT-2	21.00m	1035mm	SOUTH	LVL 3 WATER INFILTRATION AT BOLT
BCT-3	28.40m	1035mm	NORTH	LVL 3 WATER INFILTRATION AT BOLT
BCT-4	39.10m	1035mm	SOUTH	LVL 2 WATER INFILTRATION AT SEAM
BCT-5	40.00m	1035mm	SOUTH	LVL 3 WATER INFILTRATION AT SEAM
BCT-6	40.15m	1380mm	SOUTH	LVL 3 WATER INFILTRATION AT BOLT
BCT-7	42.30m	1035mm	SOUTH	LVL 3 WATER INFILTRATION AT BOLT



SOUTH PIPE PROFILE VIEW

SCALE: 1:125

1	ISSUED FOR FINAL REVIEW	APR 08/22
0	ISSUED FOR 66% REVIEW	MAR 01/22
revisions		date

project  
**STRUCTURAL  
REHABILITATION  
TERRA NOVA  
NATIONAL PARK  
NEWFOUNDLAND**  
project

drawing  
**COBBLERS BROOK  
CULVERT REPAIR**  
SITE PLAN  
LAYOUT AND PROFILE  
dessin

designed K. GALLANT  
date 2022/03/18  
drawn C. MUNN  
date 2022/03/18  
approved K. GALLANT  
date  
Tender  
Project Manager  
project number  
drawing no.

conçu

dessiné

approuvé

Soumission

Administrateur de projets

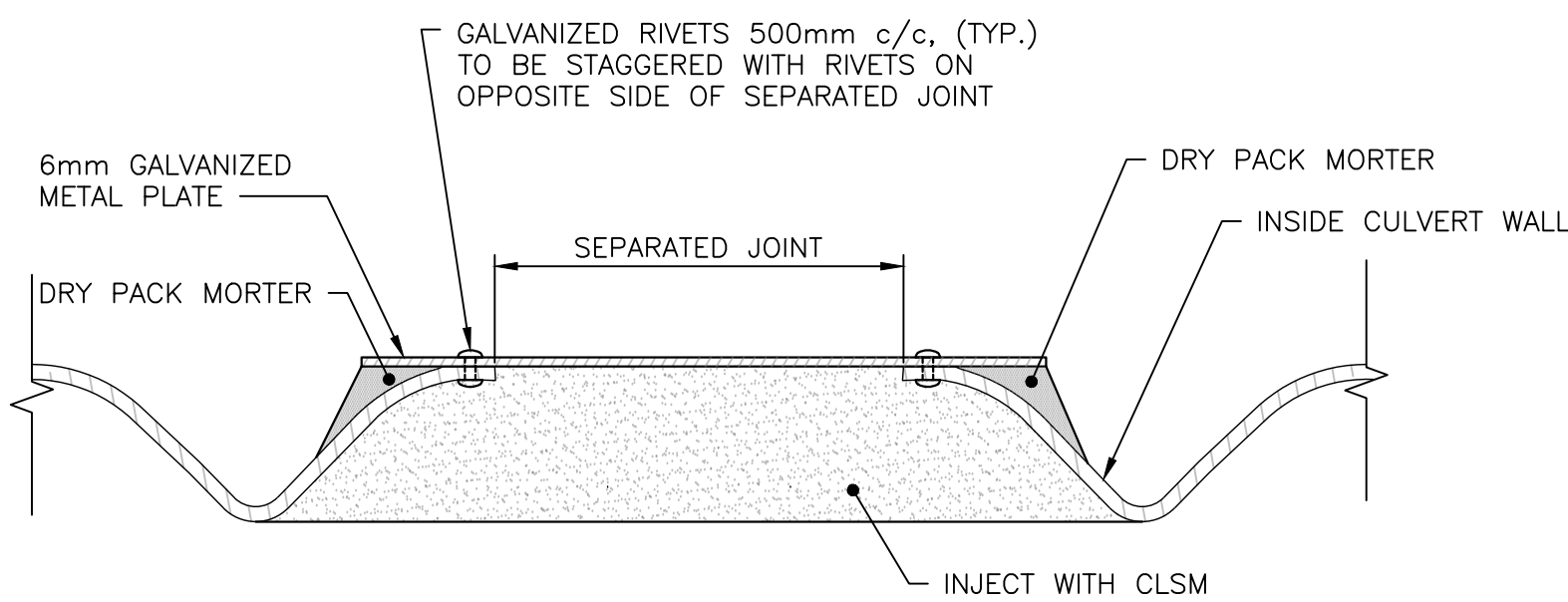
no. du projet

no. du dessin

1099

S03

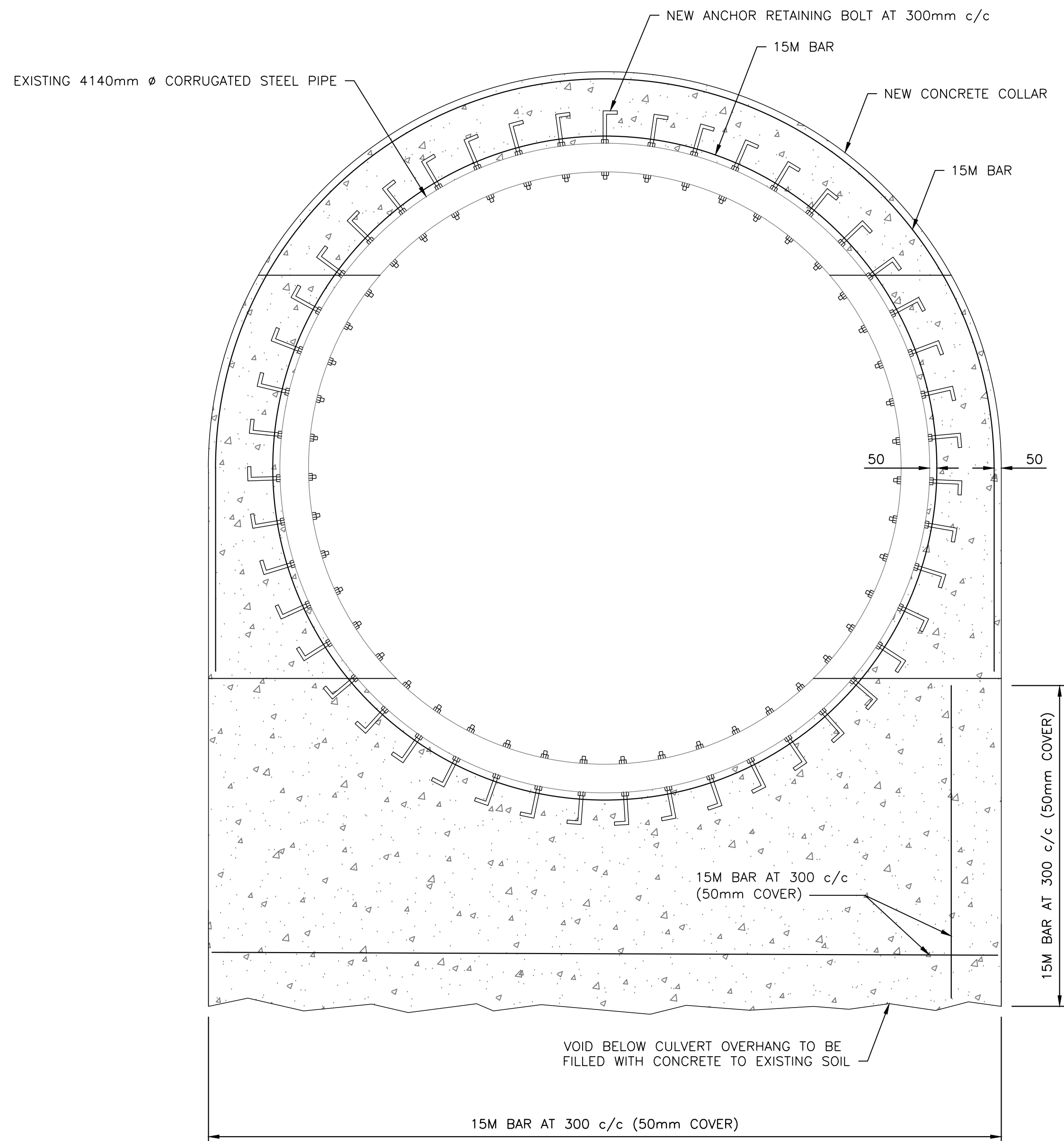
c



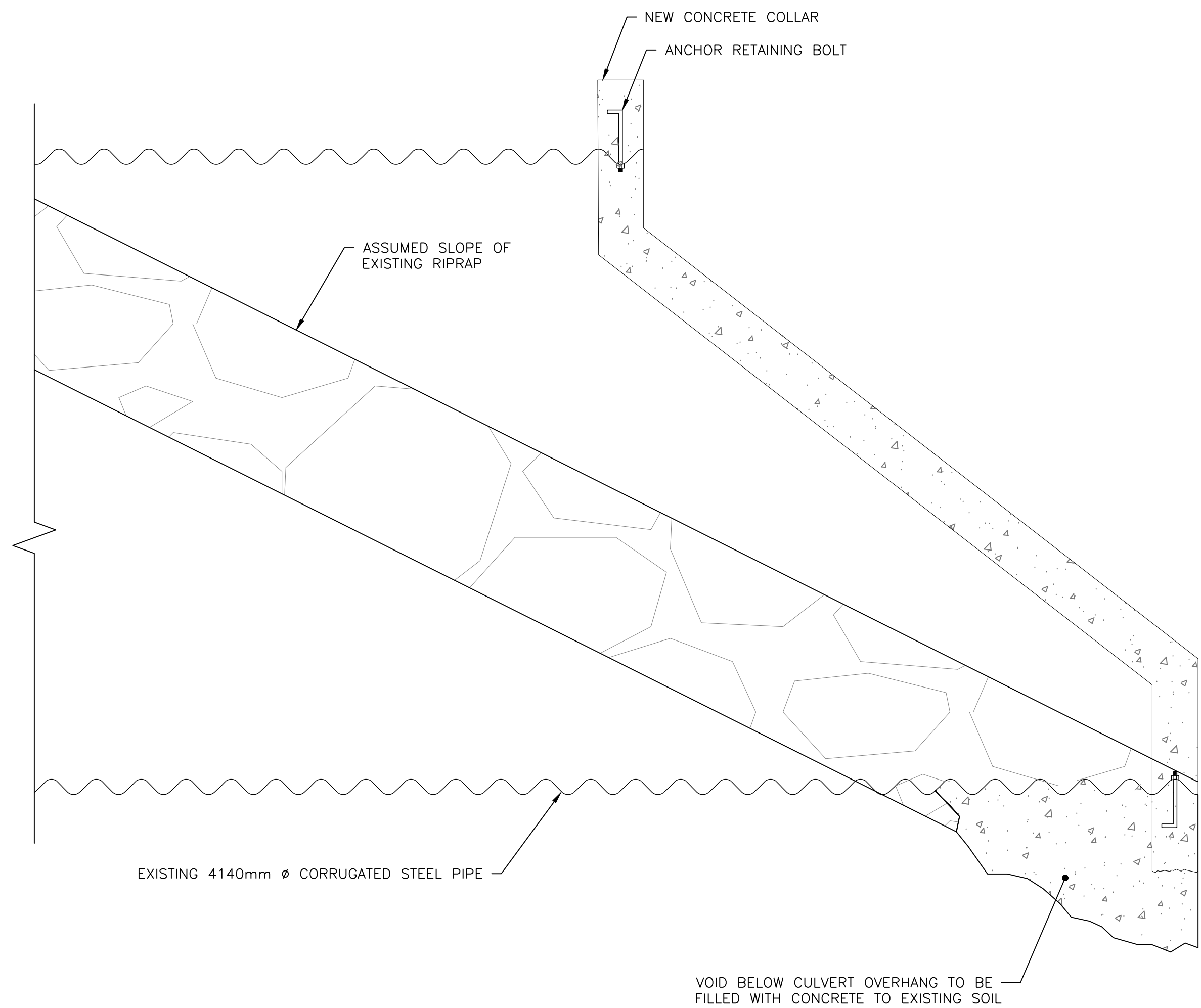
CULVERT OFFSET JOINT REPAIR  
SCALE: 1:5



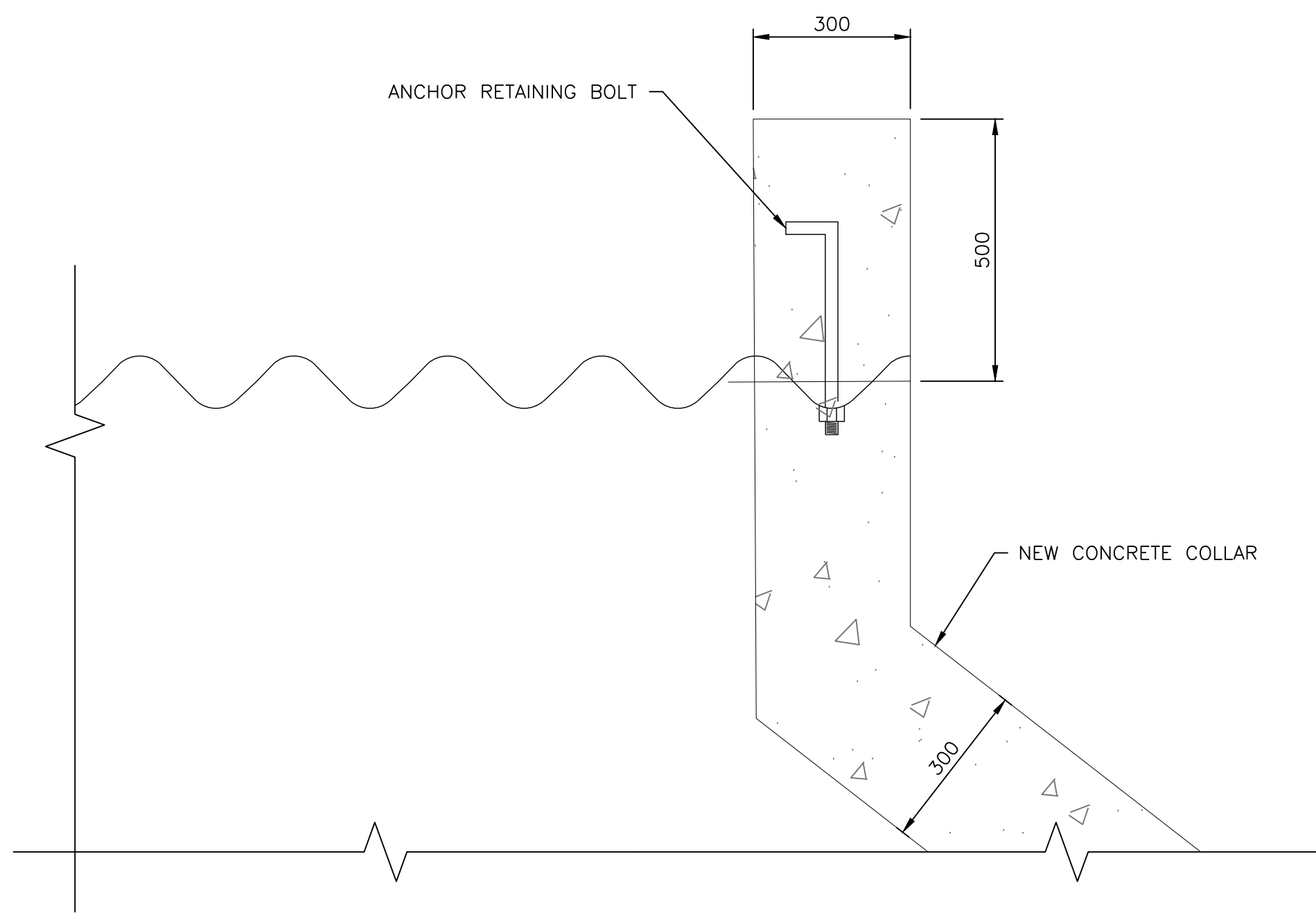
EXAMPLE PHOTO:  
V-J SEPARATED AND OFFSET JOINT BY APPROX. 120mm WITH VISIBLE  
BACKFILL MATERIAL AS WELL AS SURFACE CORROSION AT JOINT CONNECTION



END TREATMENT ELEVATION  
SCALE: 1:25



A  
S04 CONCRETE COLLAR SECTION (TYP. BOTH ENDS)  
SCALE: 1:25



CONCRETE COLLAR AND RETAINING BOLT  
SCALE: 1:10

1	ISSUED FOR FINAL REVIEW	APR 08/22
0	ISSUED FOR 66% REVIEW	MAR 01/22
revisions		date
project	STRUCTURAL REHABILITATION TERRA NOVA NATIONAL PARK NEWFOUNDLAND	
project		

drawing  
desain  
COBBLERS BROOK  
CULVERT REPAIR  
DETAILS

designed K. GALLANT conçu  
date 2022/03/18  
drawn C. MUNN dessiné  
date 2022/03/18  
approved K. GALLANT approuvé  
date

Tender Soumission

Project Manager Administrateur de projets  
project number no. du projet

1099

drawing no. no. du dessin

S04

c