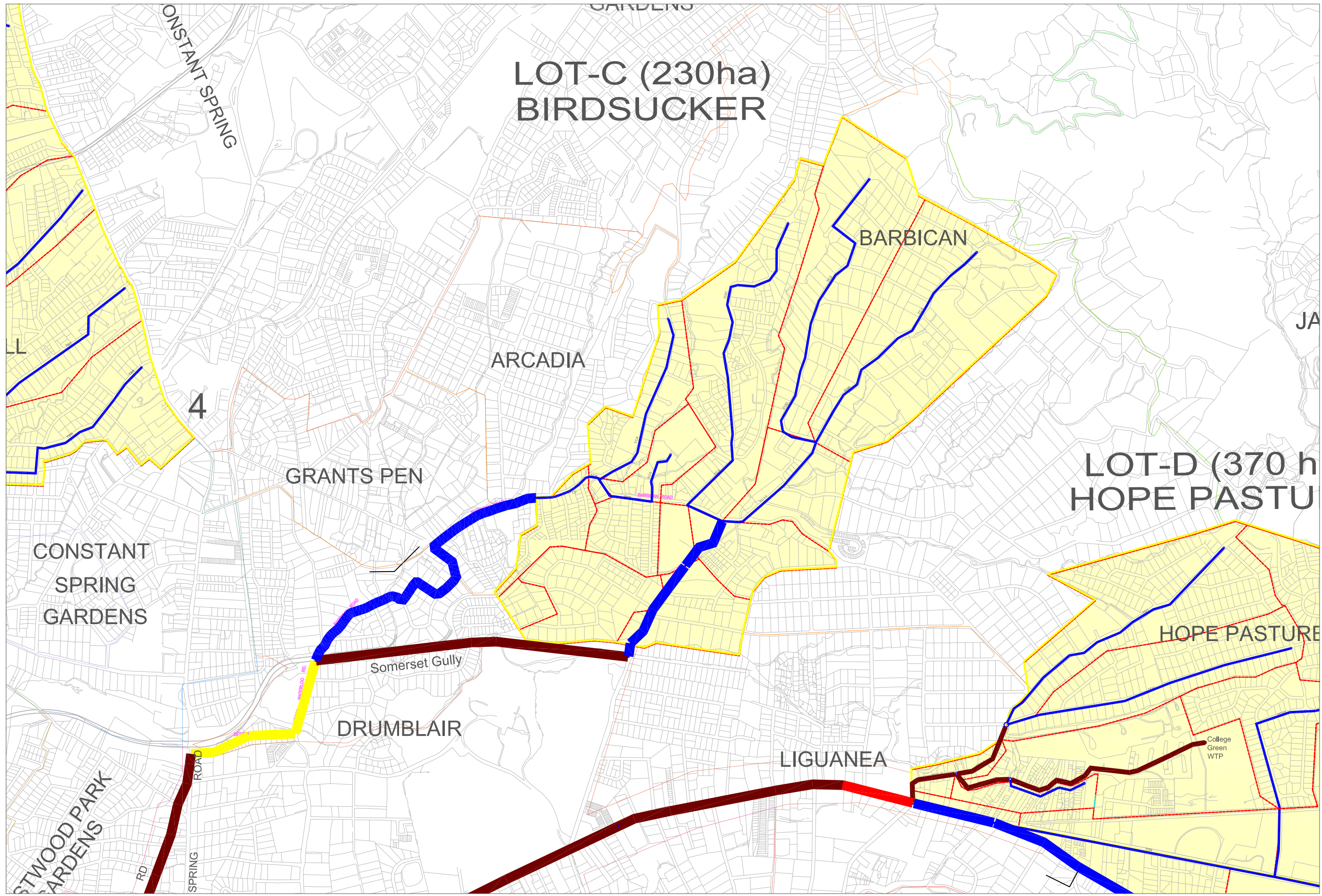


LOT - C
(BIRDSUCKER)



LOT-C (230ha)
BIRDSUCKER

LOT-D (370 h)
HOPE PASTU

DESIGNED:	
DRAWN:	Eaton Wright
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR



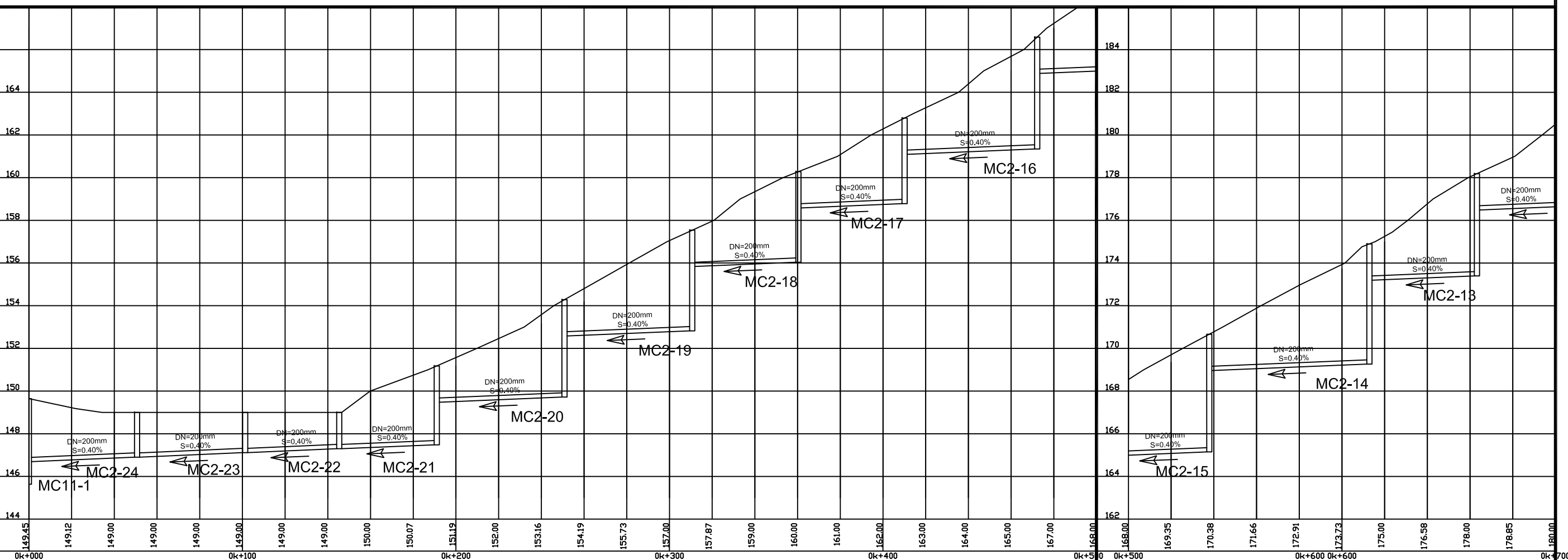
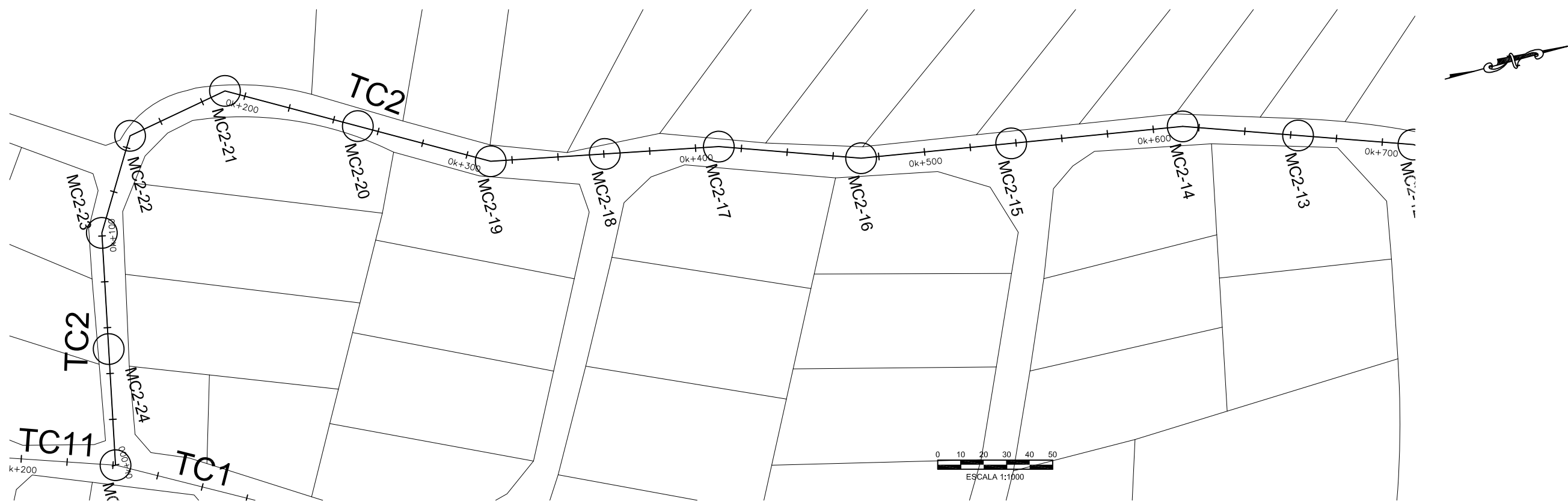
SCALE	CONTRACT:
HOR:	
VERT:	LOAN ID:
	PROJECT:
	JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR KSA
SEWERAGE LAYOUT PLAN FOR LOT-C

DATE:	
SHT:	1 OF 1
DWG:	GN.LC.01

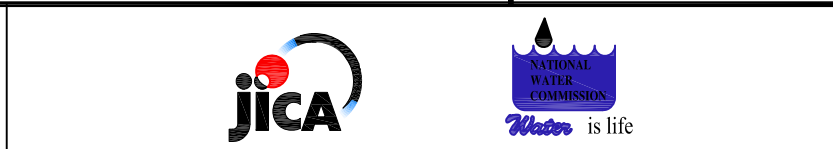


DESIGNED:	
DRAWN:	R.DACOSTA
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR



SCALE
HOR: 1000
VERT: 100

CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



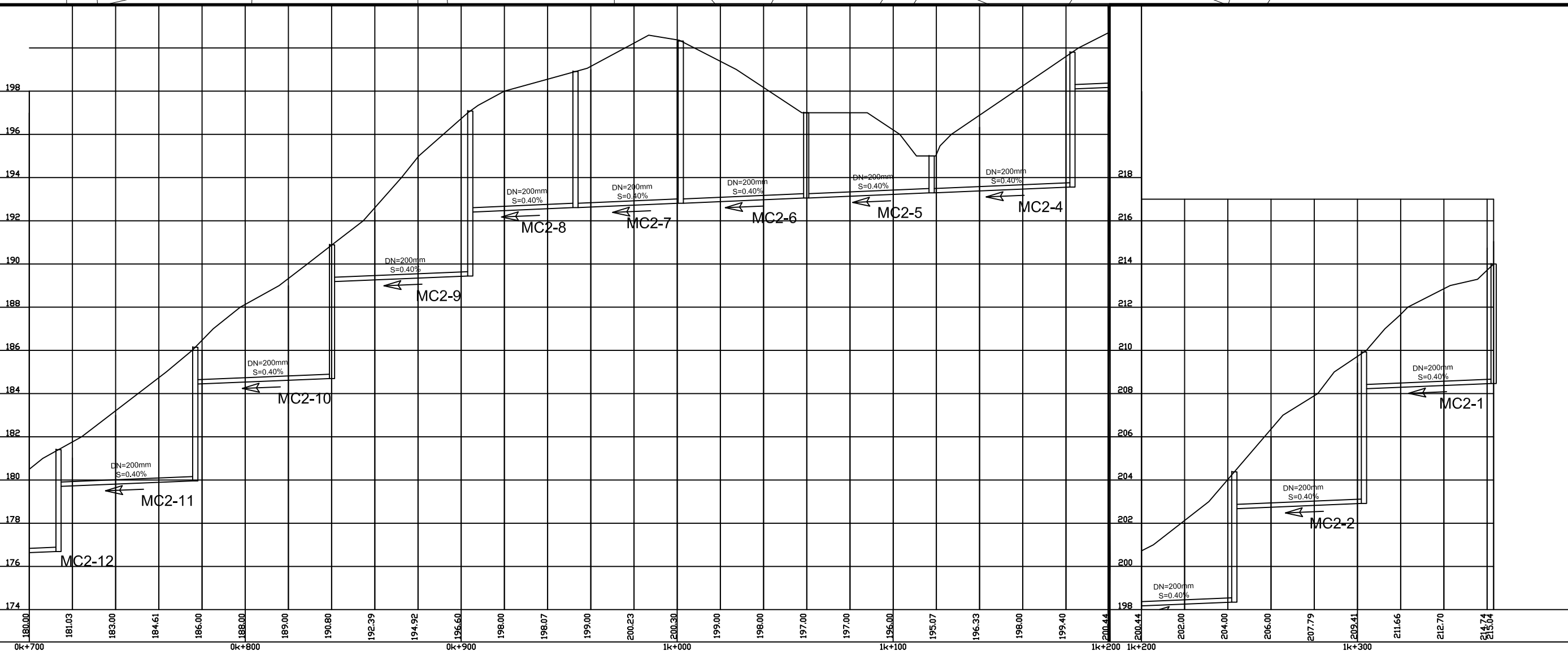
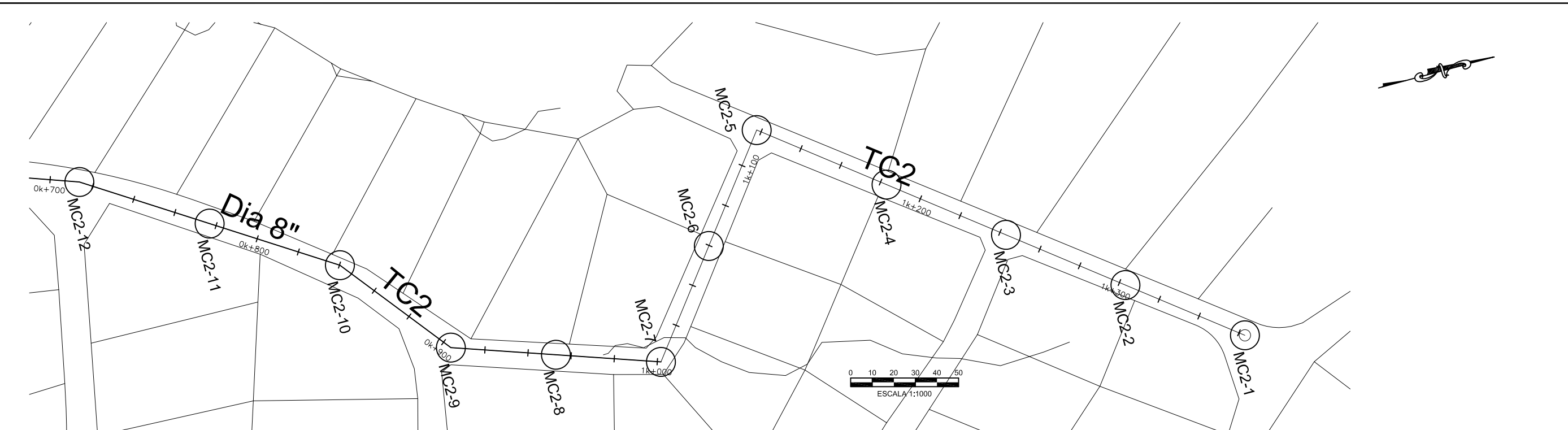
PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-C

TRUNK SEWER TC2

EST. 0k + 000 @ 0k + 700

DATE: _____
SHT: 1 OF 2
DWG: C.D3D.01



DESIGNED:	
DRAWN:	R.DACOSTA
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR



SCALE
HOR: 1000
VERT: 100

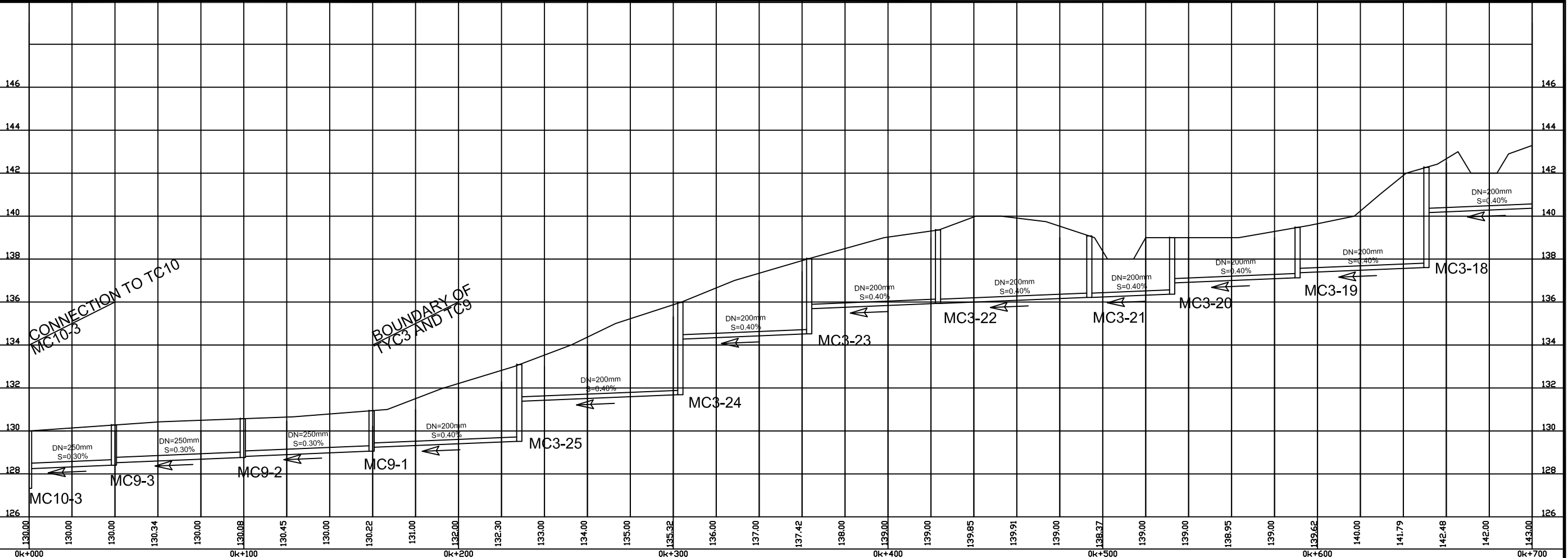
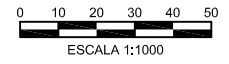
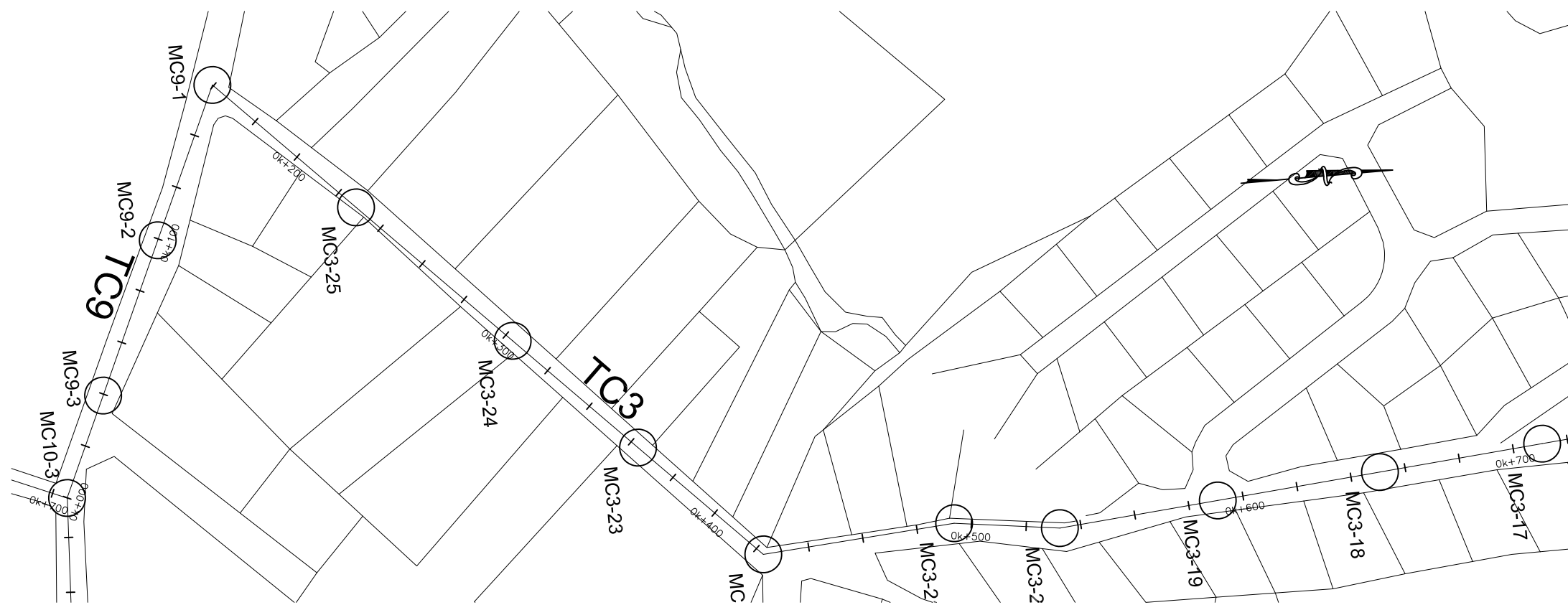
CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-C
TRUNK SEWER TC2
EST. 0k + 700 @ 1k + 363

DATE: _____
SHT: 2 OF 2
DWG: C.D3D.02



DESIGNED:		
DRAWN:	R.DACOSTA	
REVIEWED:		
ENGINEER:		
NO.	DATE	ISSUED FOR



SCALE
HOR: 1000
VERT: 100

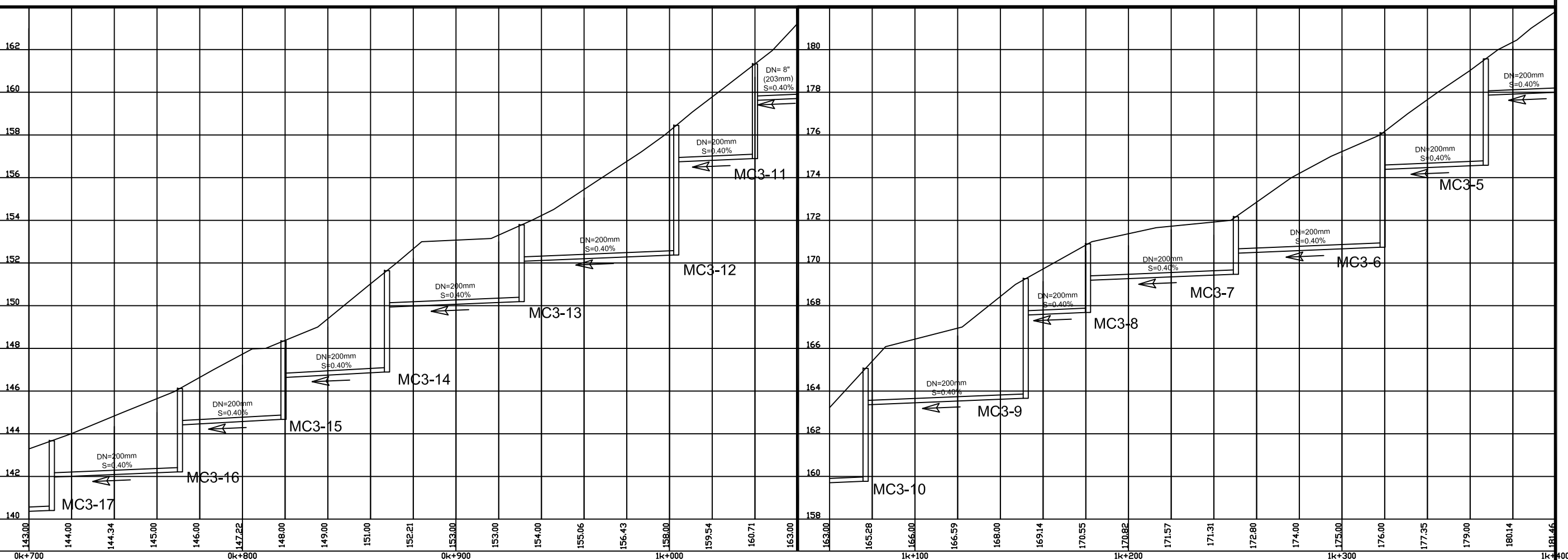
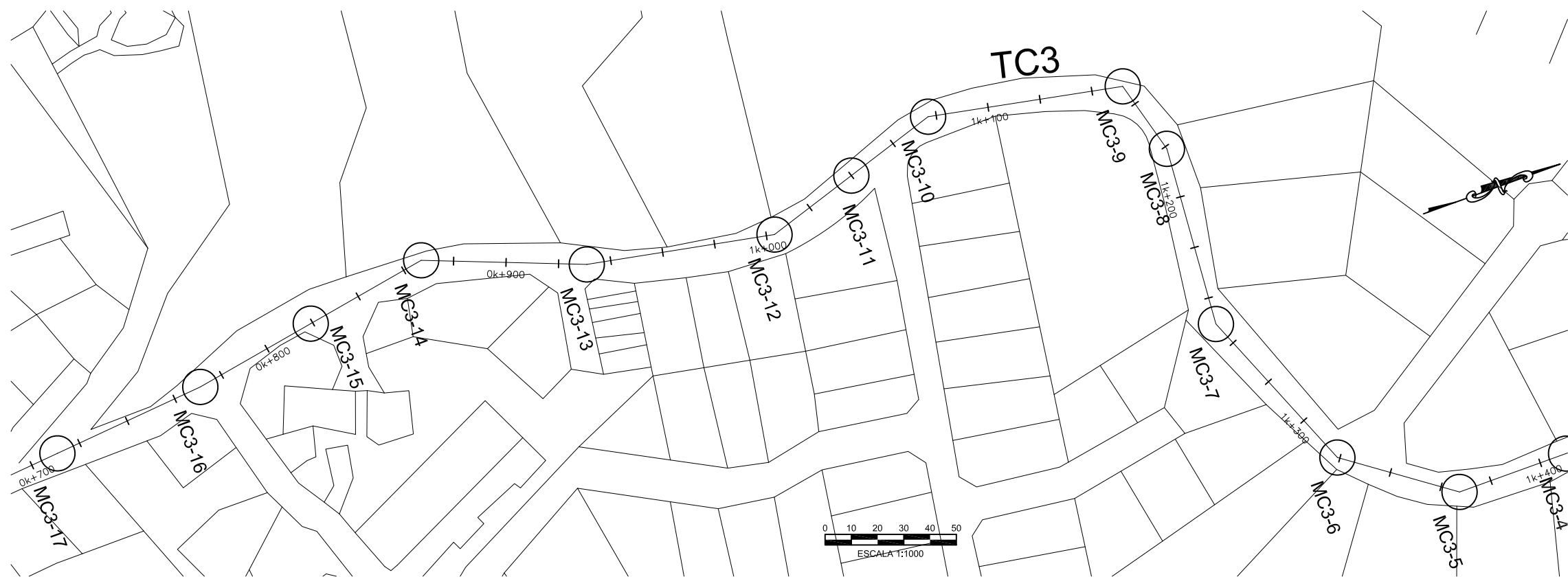
CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-C
TRUNK SEWER TC3 AND TC9
EST. 0k + 000 @ 0k + 700

DATE: _____
SHT: 1 OF 3
DWG: C.D3C.01



DESIGNED:	
DRAWN:	R.DACOSTA
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR



SCALE
HOR:
1000

VERT:
100

CONTRACT:
LOAN ID:
PROJECT:
JA09Q1009/09-069



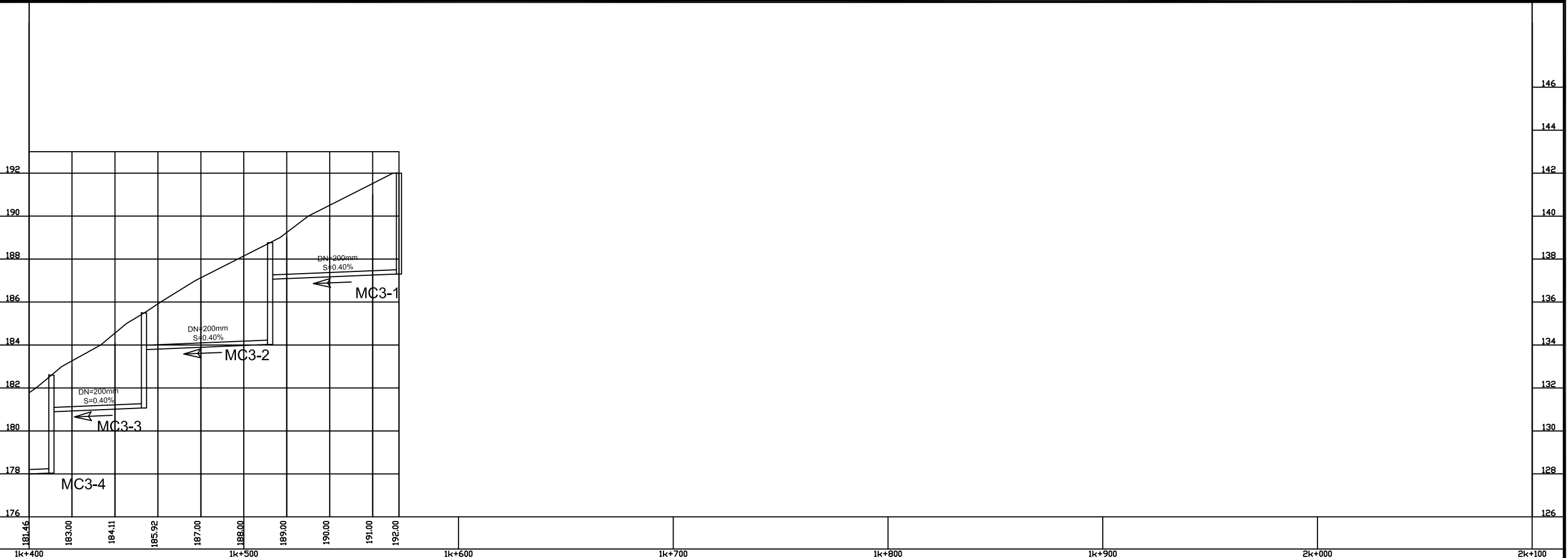
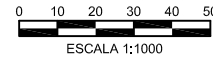
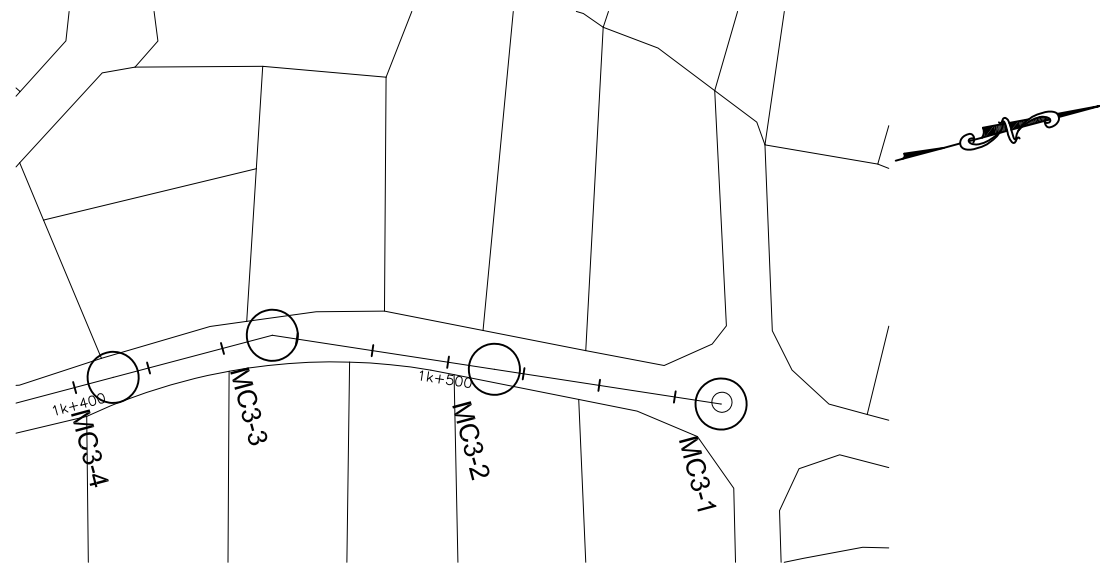
PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-C
TRUNK SEWER TC3 AND TC9
EST. 0k + 700 @ 1k + 400

DATE: _____

SHT: 2 OF 3

DWG: C.D3C.02



DESIGNED:		
DRAWN:	R.DACOSTA	
REVIEWED:		
ENGINEER:		
NO.	DATE	ISSUED FOR

NIPPON KOEI
Challenging mind, Changing dynamics

SCALE
HOR:
1000

VERT:
100

CONTRACT:

LOAN ID:

PROJECT:
JA09Q1009/09-069



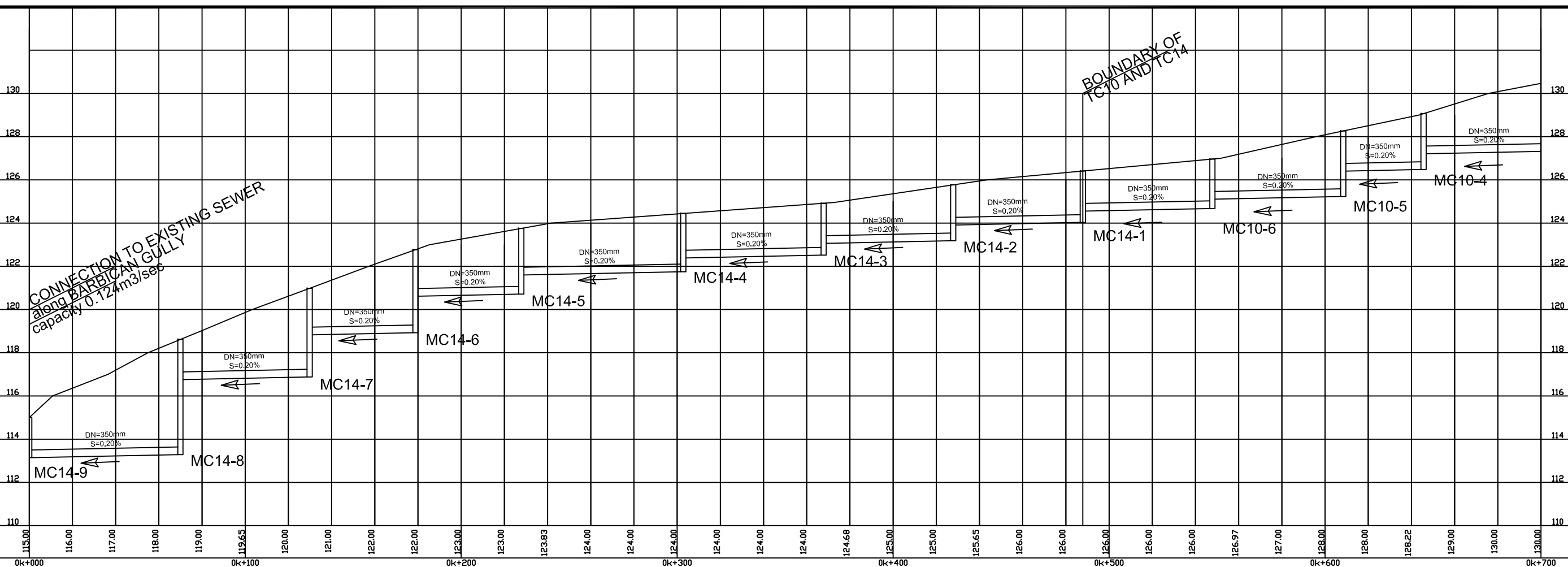
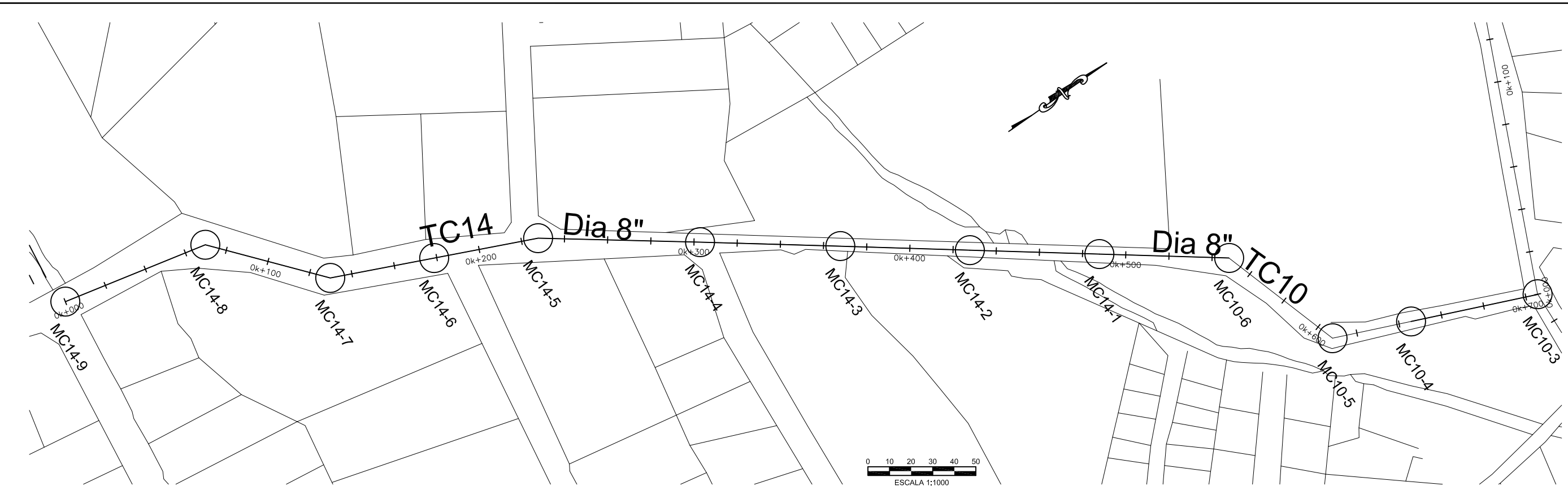
PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-C
TRUNK SEWER TC3 AND TC9
EST. 1k + 400 @ 1k + 573

DATE: _____

SHT: 3 OF 3

DWG: C.D3C.03



DESIGNED:	
DRAWN:	R.DACOSTA
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR

NIPPON KOEI
Challenging mind, Changing dynamics

SCALE
HOR: 1000
VERT: 100

CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



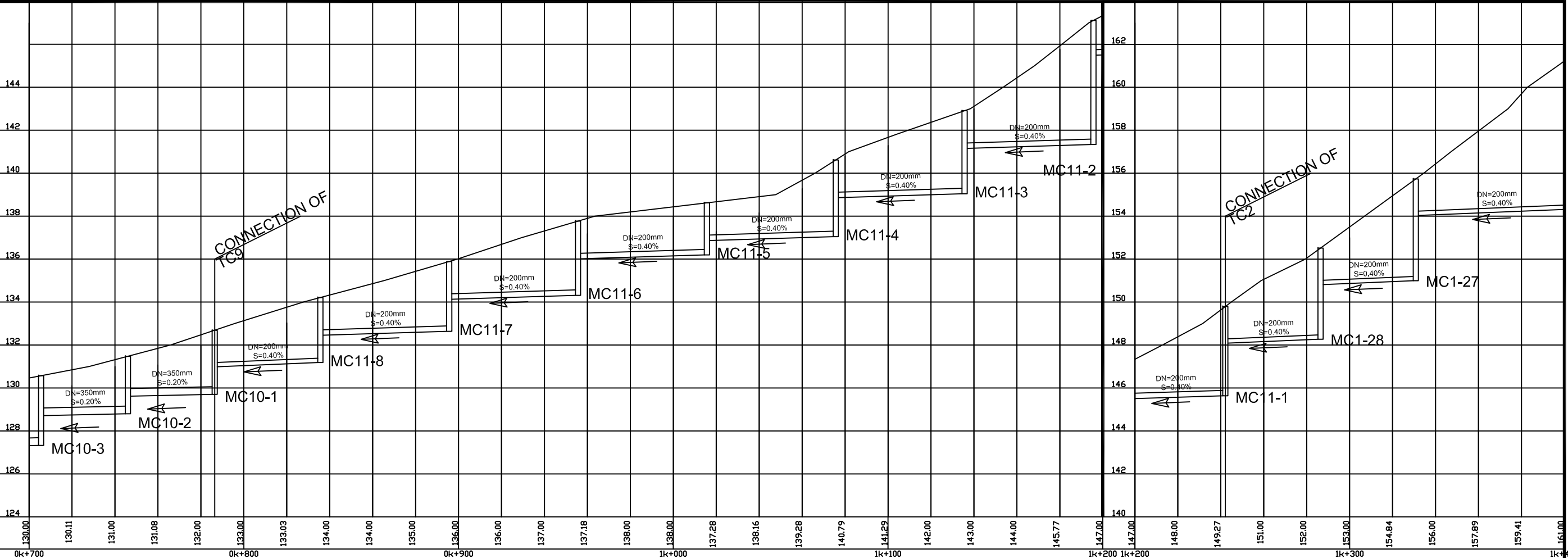
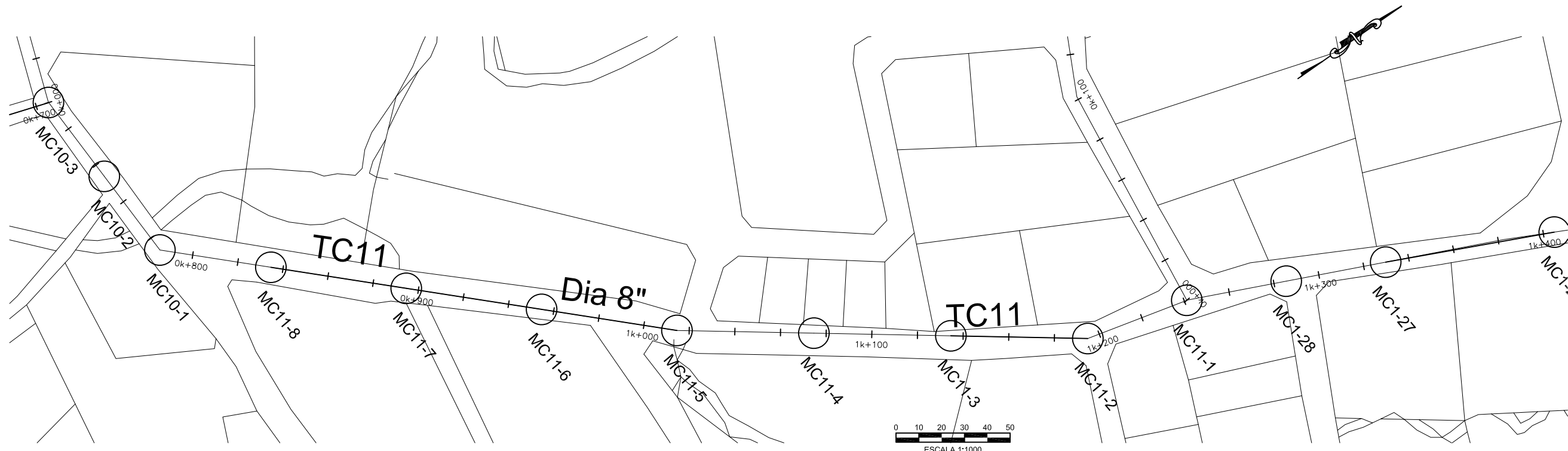
PREPARATORY SURVEY FOR KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-C

TRUNK SEWER TC1, TC11, TC10 AND TC14

EST. 0k + 000 @ 0k + 700

DATE: _____
SHT: 1 OF 4
DWG: C.D3E.01



DESIGNED:	
DRAWN:	R.DACOSTA
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR

NIPPON KOEI
Challenging mind, Changing dynamics

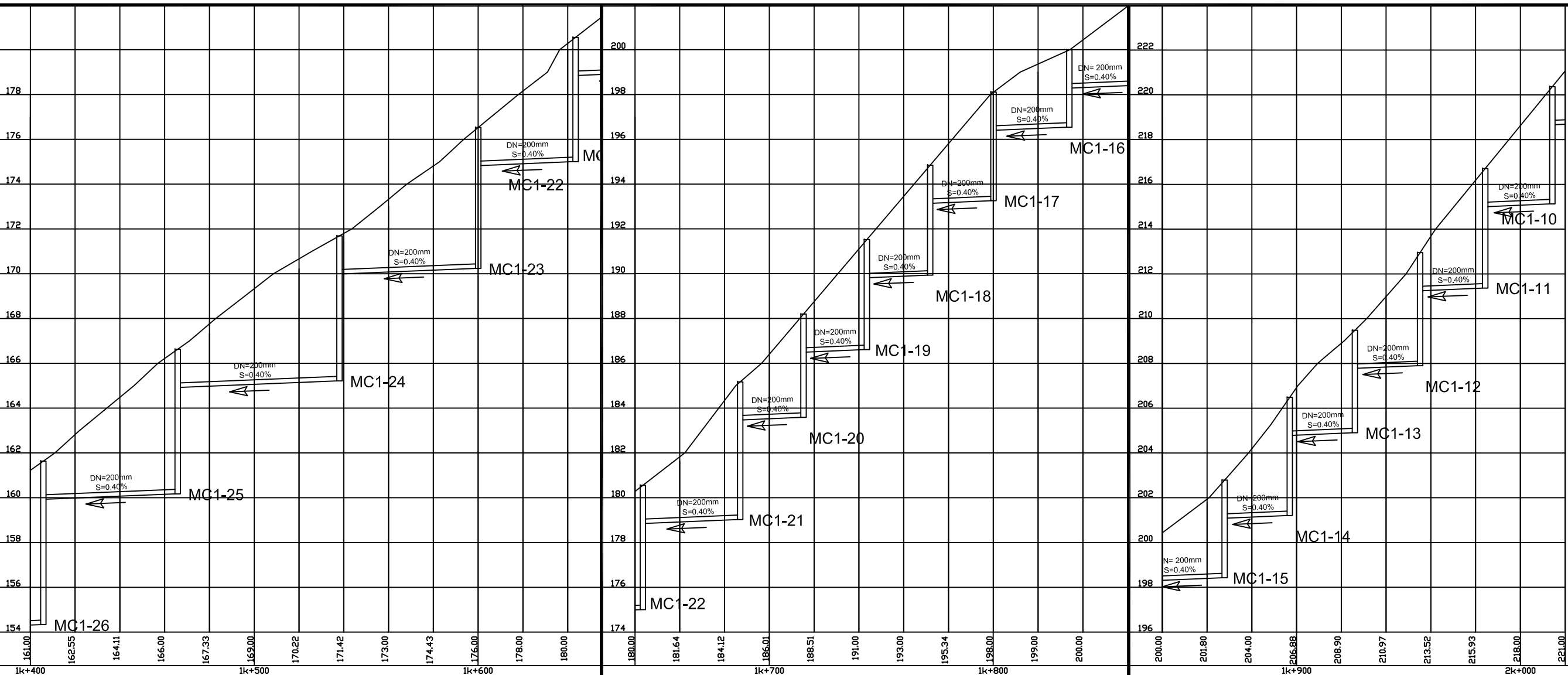
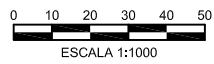
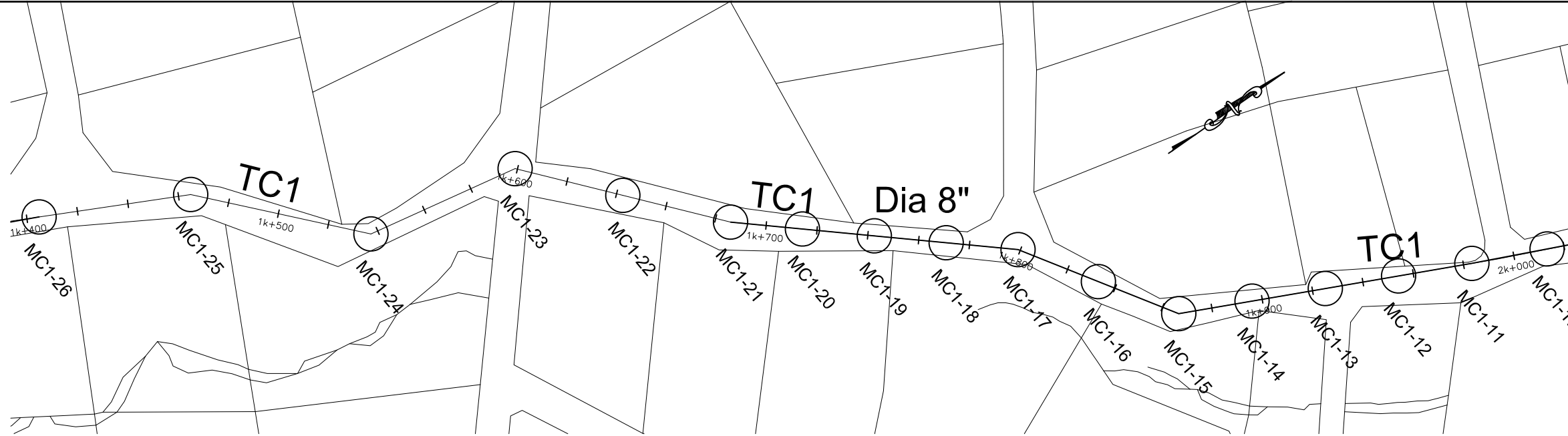
SCALE
HOR: 1000
VERT: 100

CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR KINGSTON SEWERAGE DEVELOPMENT PROJECT
PRELIMINARY DESIGN FOR LOT-C
TRUNK SEWER TC1, TC10, TC10 AND TC14
EST. 0k + 700 @ 1k + 400

DATE: _____
SHT: 2 OF 4
DWG: C.D3E.02



DESIGNED:		
DRAWN:	R.DACOSTA	
REVIEWED:		
ENGINEER:		
NO.	DATE	ISSUED FOR



SCALE
HOR: 1000
VERT: 100

CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-C

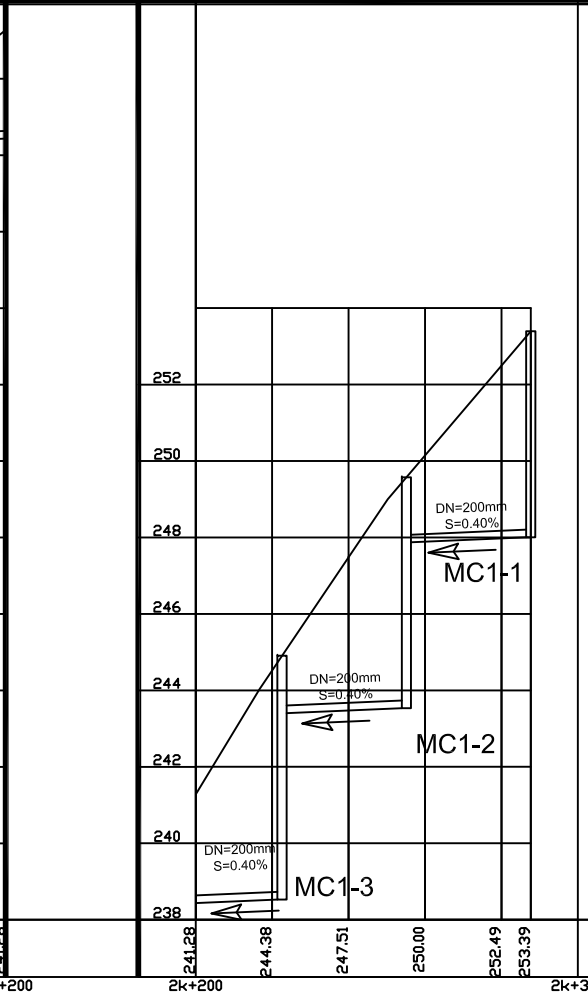
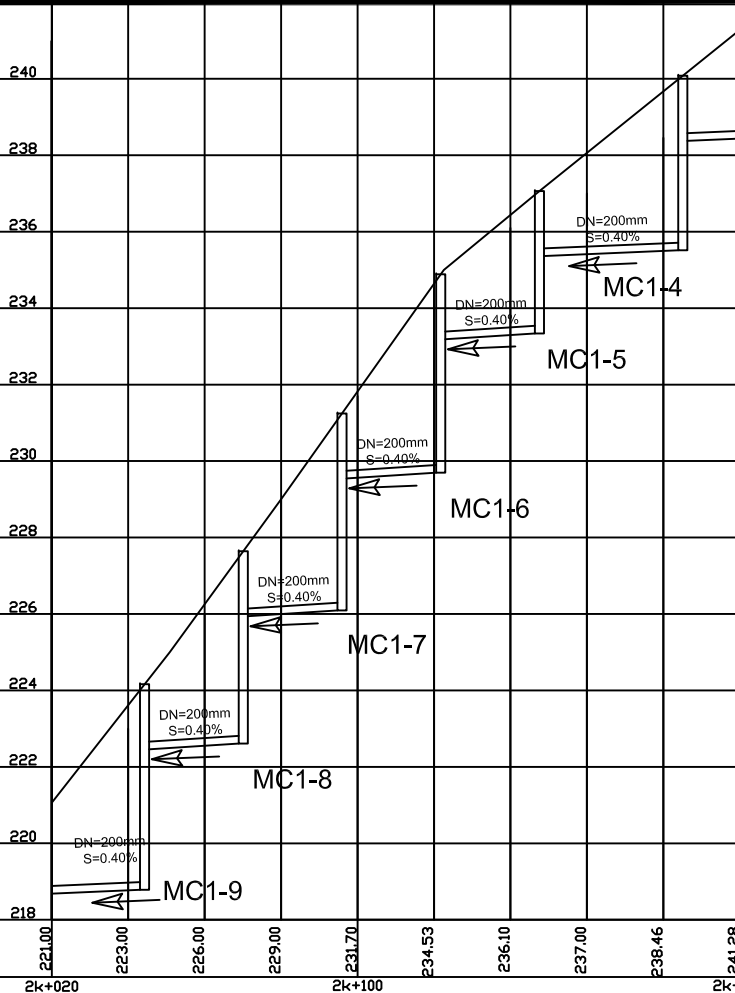
TRUNK SEWER TC1,TC10, TC11 AND TC14

EST. 1k + 400 @ 2k + 100

DATE: _____

SHT: 3 OF 4

DWG: C.D3E.03



DESIGNED:	
DRAWN:	R.DACOSTA
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR



SCALE
HOR:
1:1000
VERT:
1:100

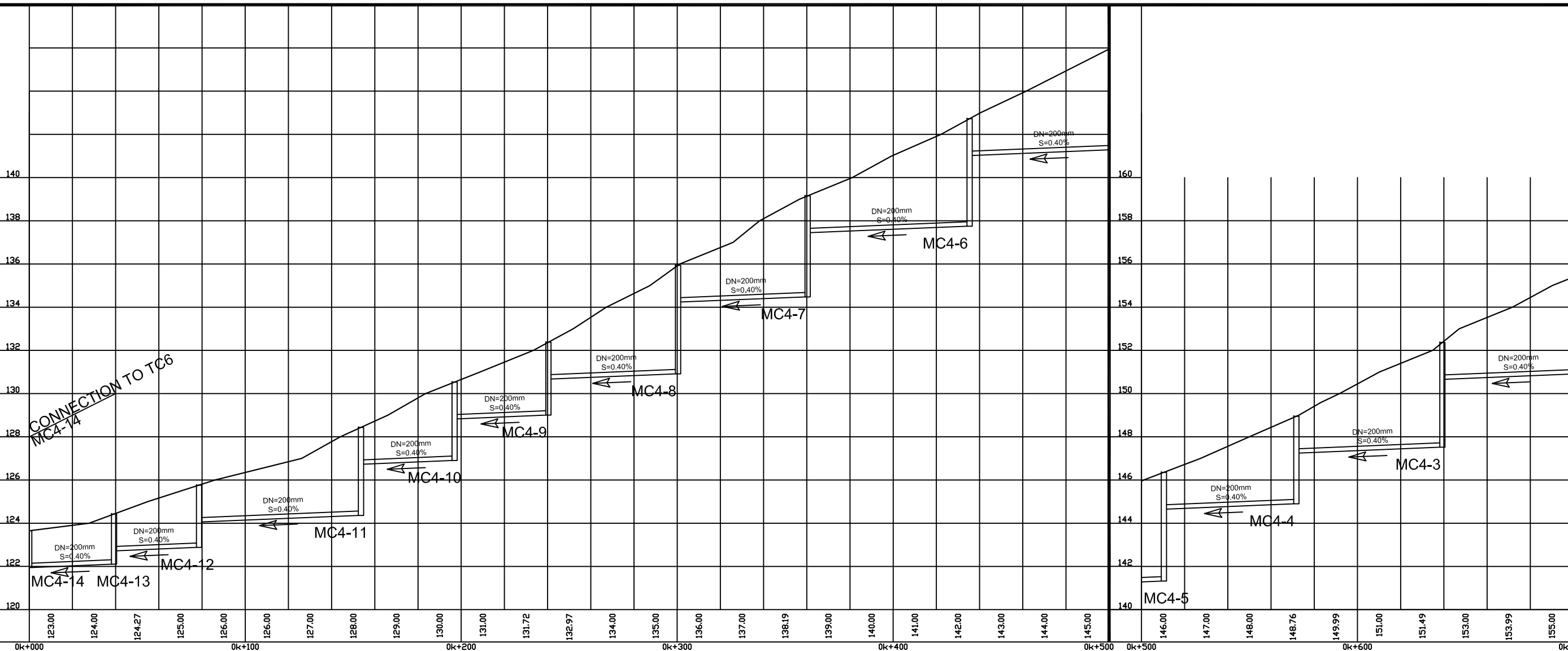
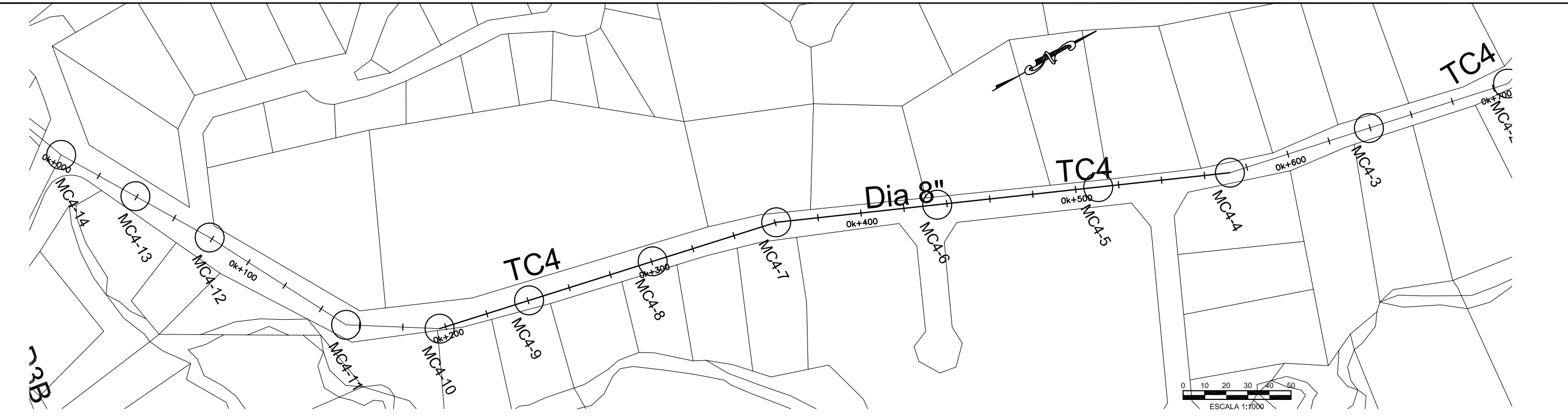
CONTRACT:
LOAN ID:
PROJECT:
JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-C
TRUNK SEWER TC1, TC10, TC11 AND TC14
EST. 2k + 100 @ 2k + 288

DATE: _____
SHT: 4 OF 4
DWG: C.D3E.04

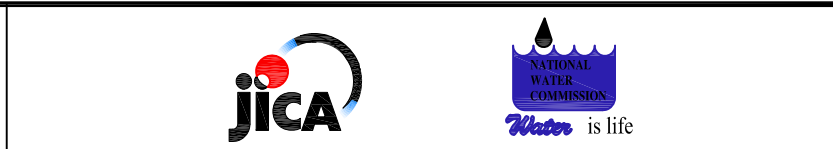


DESIGNED:		
DRAWN:	R.DACOSTA	
REVIEWED:		
ENGINEER:		
NO.	DATE	ISSUED FOR

NIPPON KOEI
Challenging mind, Changing dynamics

SCALE
HOR: 1000
VERT: 100

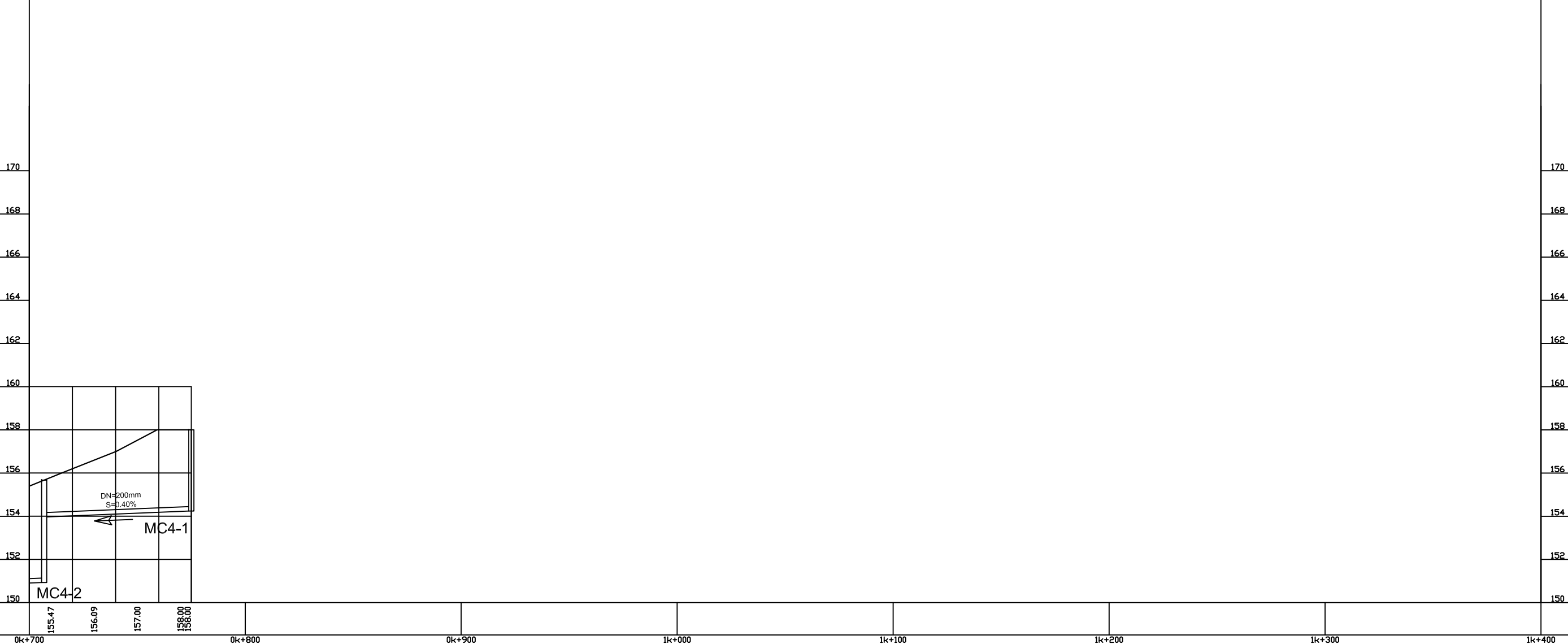
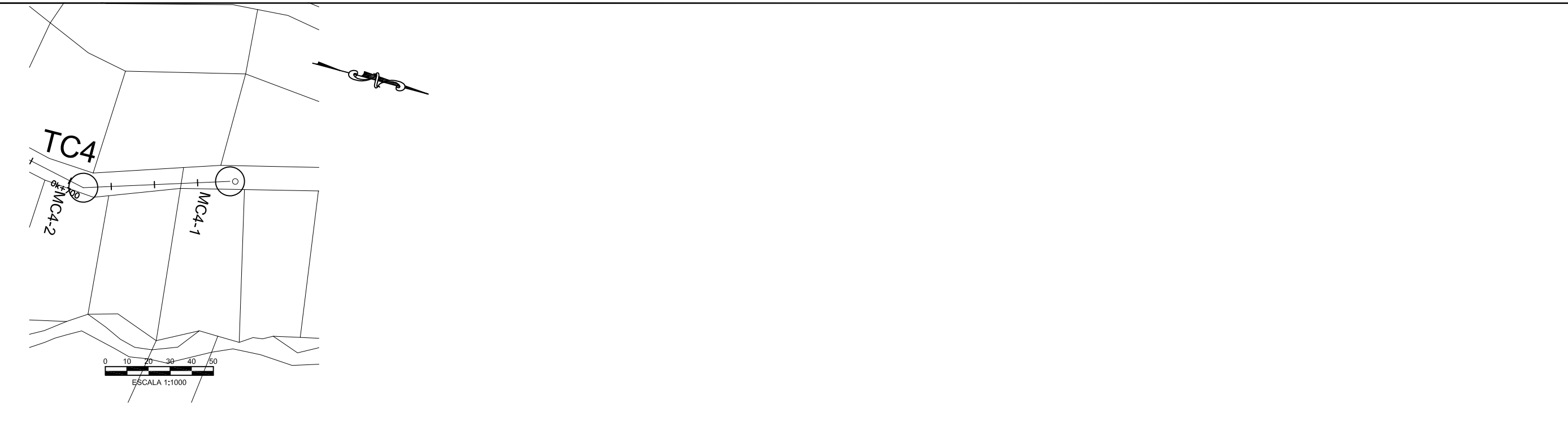
CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-C
TRUNK SEWER TC4
EST. 0k + 000 @ 0k + 700

DATE: _____
SHT: 1 OF 2
DWG: C.TC4.01



NO.	DATE	ISSUED FOR

DESIGNED: _____
 DRAWN: R.DACOSTA
 REVIEWED: _____
 ENGINEER: _____



SCALE
 HOR: 1000
 VERT: 100

CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



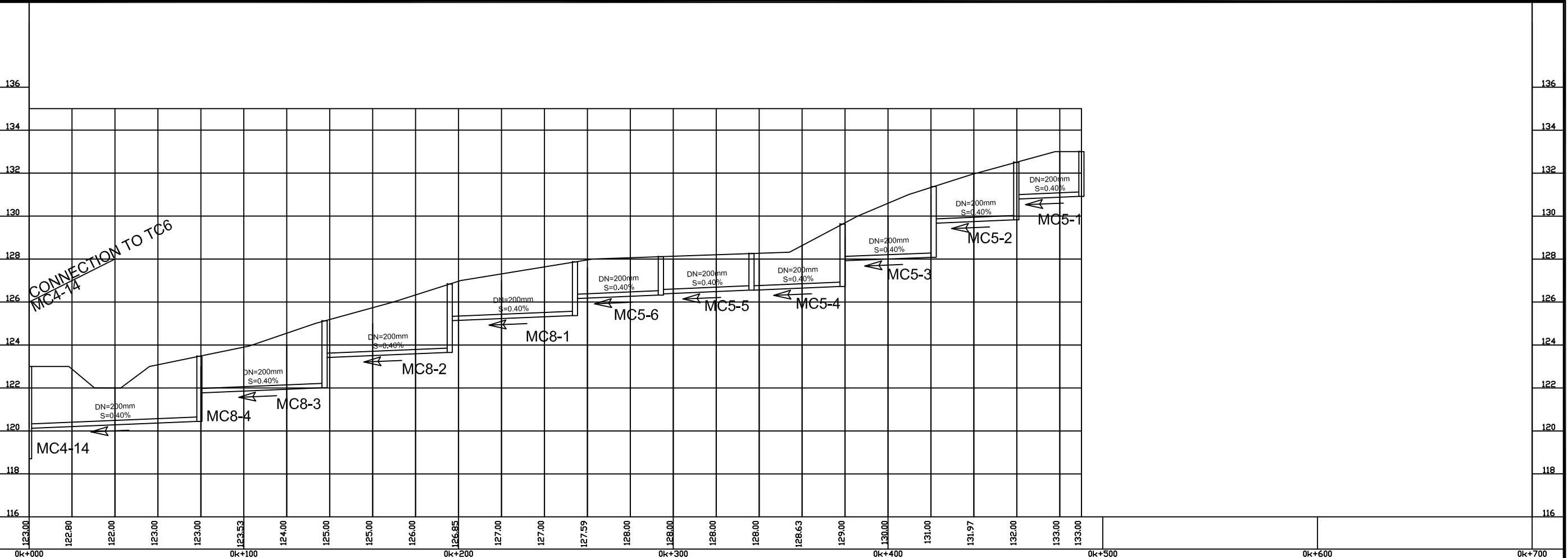
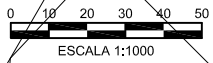
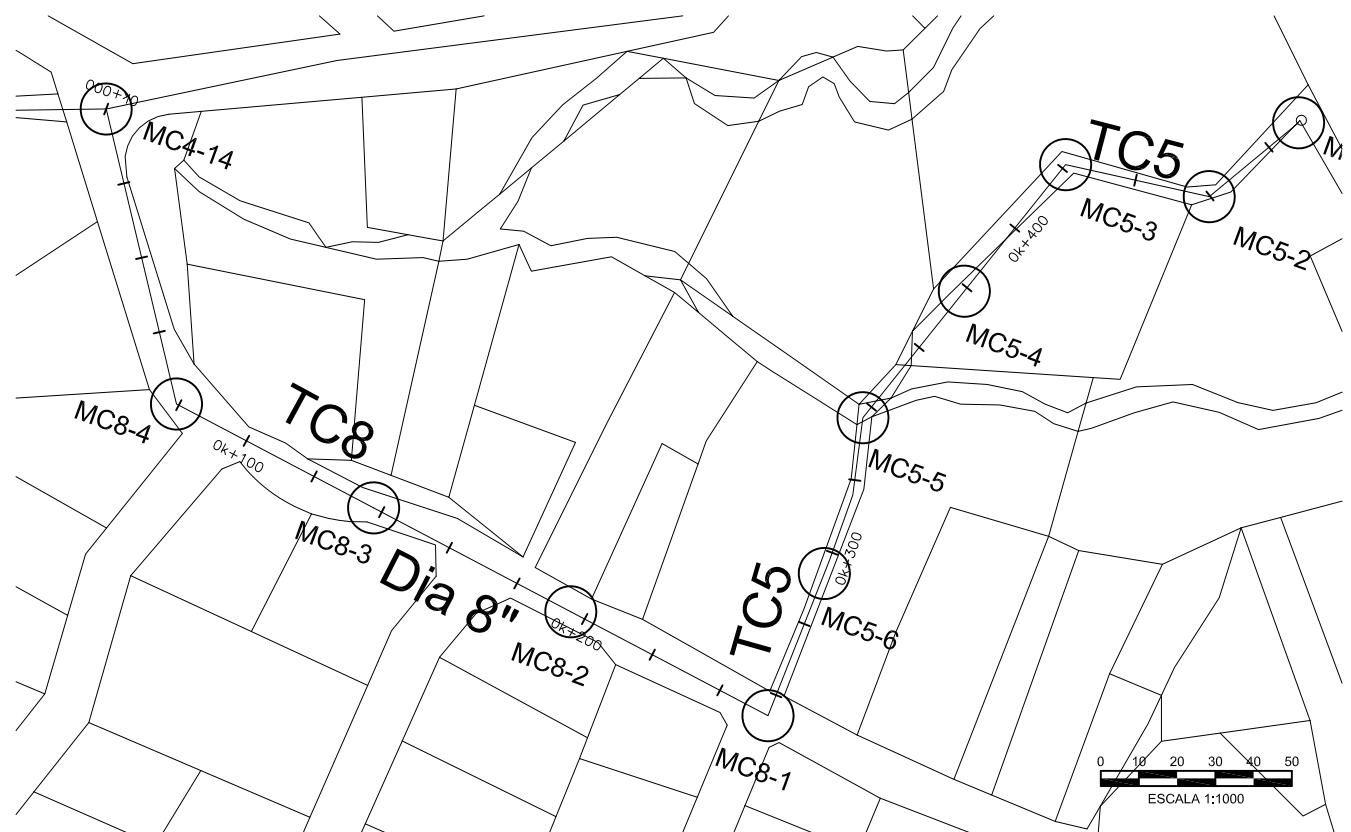
PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-C

TRUNK SEWER TC4

EST. 0k + 700 @ 0k + 775

DATE: _____
 SHT: 2 OF 2
 DWG: C.TC4.02



DESIGNED:	
DRAWN:	R.DACOSTA
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR

NIPPON KOEI
Challenging mind, Changing dynamics

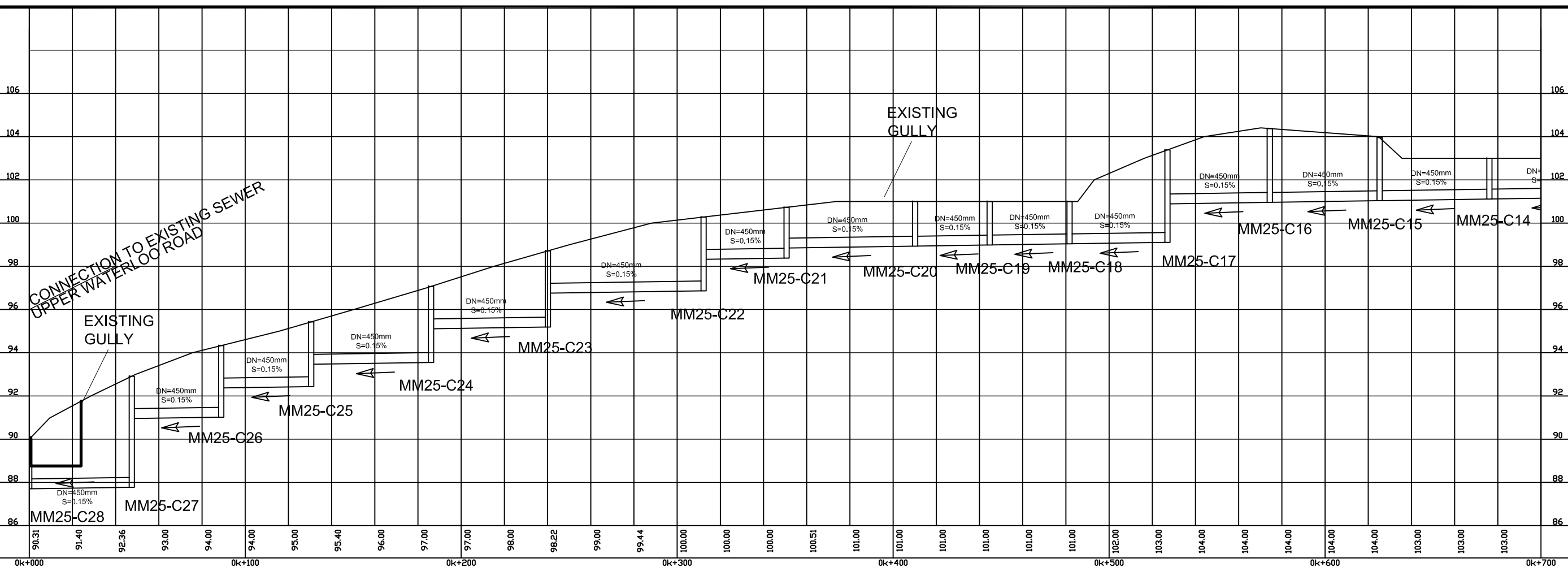
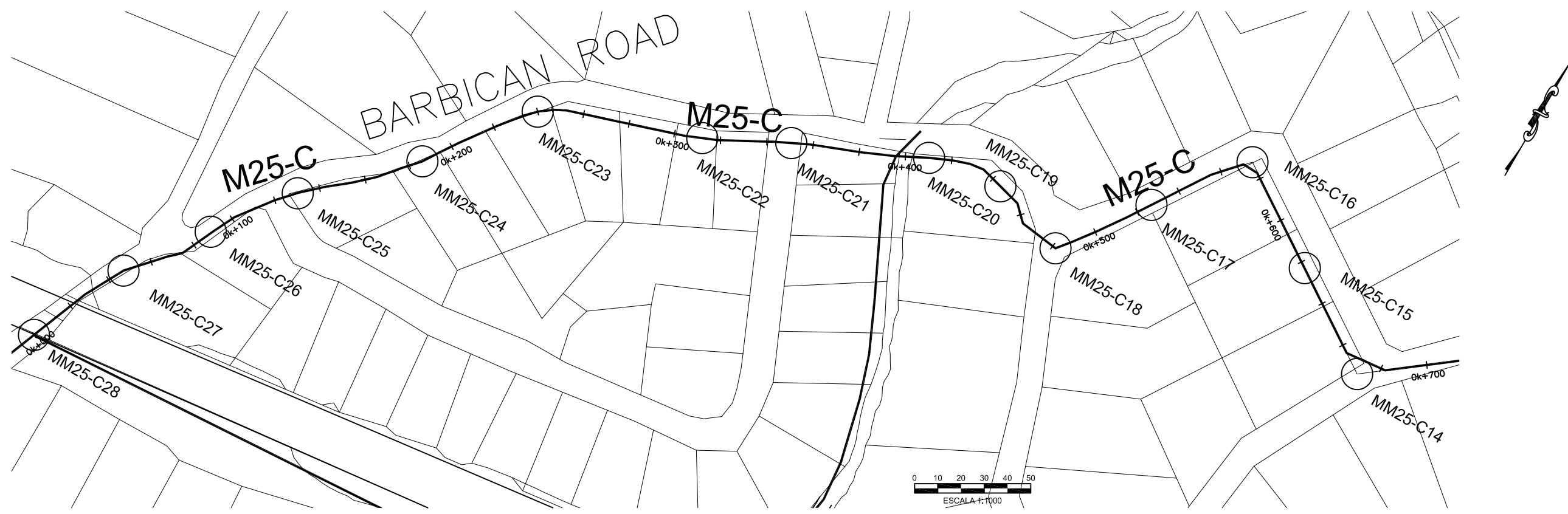
SCALE
HOR: 1000
VERT: 100

CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069

PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN
TRUNK SEWER TC5, LOT-
EST. 0k + 000 @ 0k + 490

DATE: _____
SHT: 1 OF 1
DWG: C.D3B.01



DESIGNED:	
DRAWN:	R.DACOSTA
REVIEWED:	
ENGINEER:	



SCALE
HOR: 1000
VERT: 100

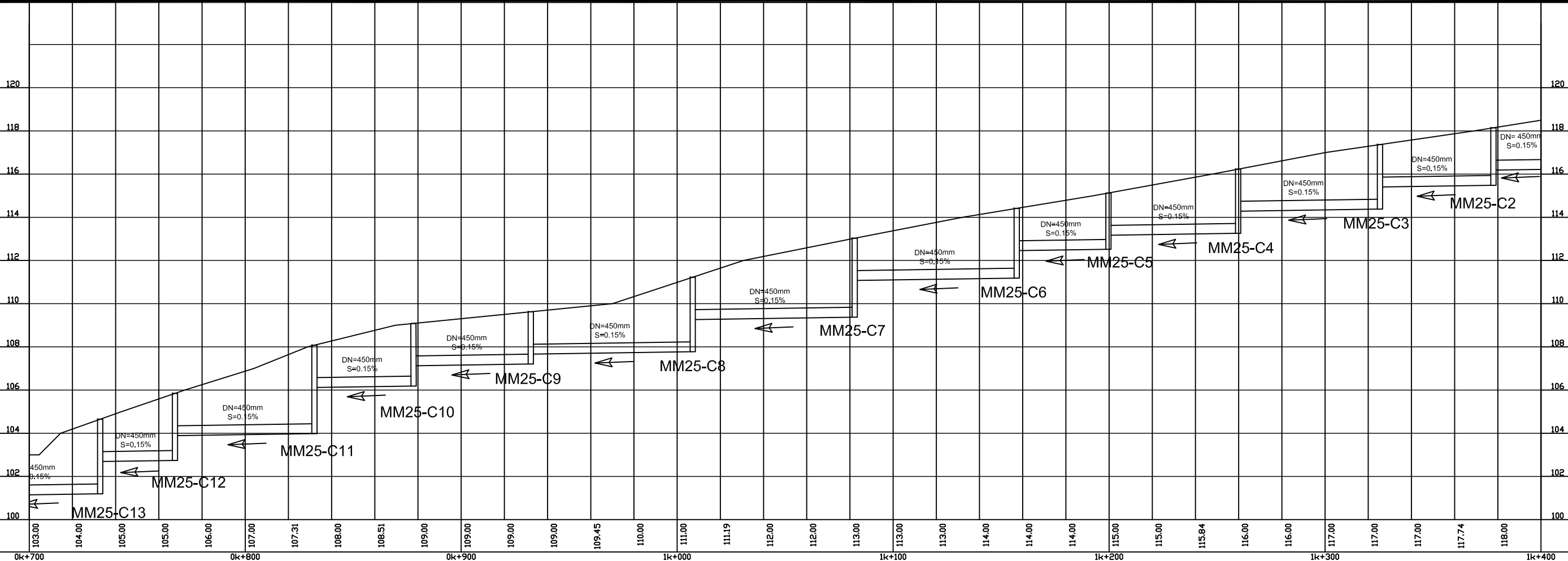
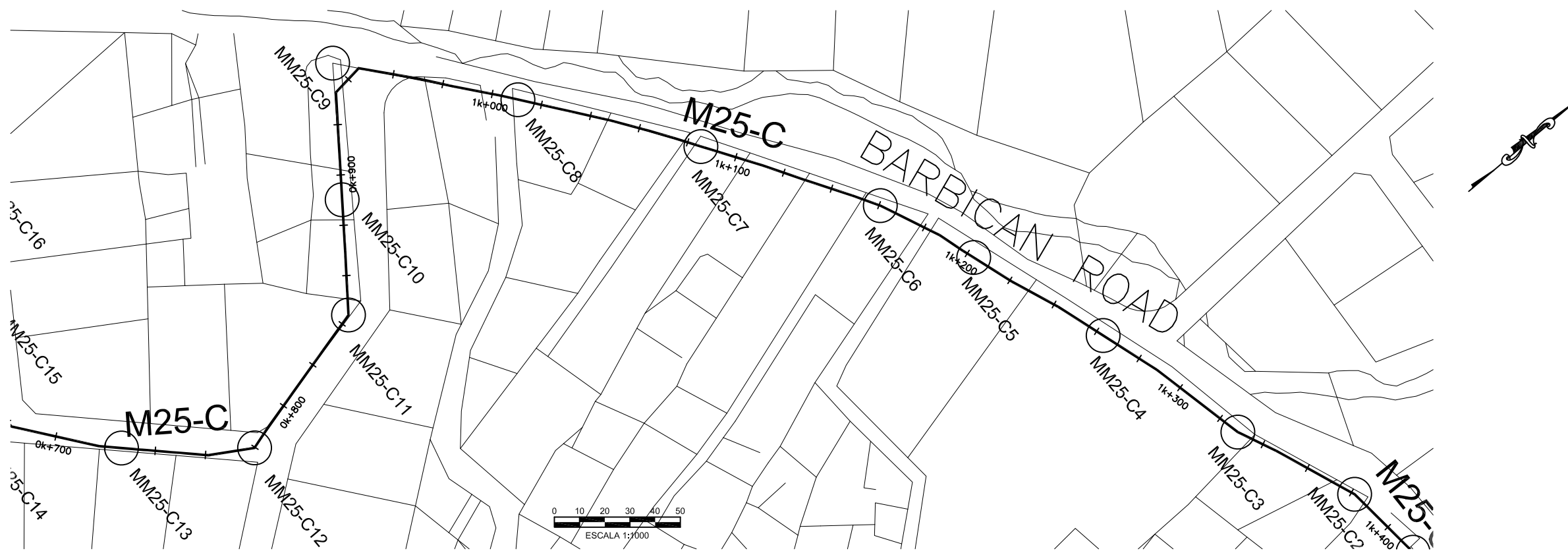
CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-C
TRUNK SEWER TC6, TC7 AND M25-C
EST. 0k + 000 @ 0k + 700

DATE: _____
SHT: 1 OF 3
DWG: C.M25-C.01



DESIGNED:	
DRAWN:	R.DACOSTA
REVIEWED:	
ENGINEER:	



SCALE
HOR: 1000
VERT: 100

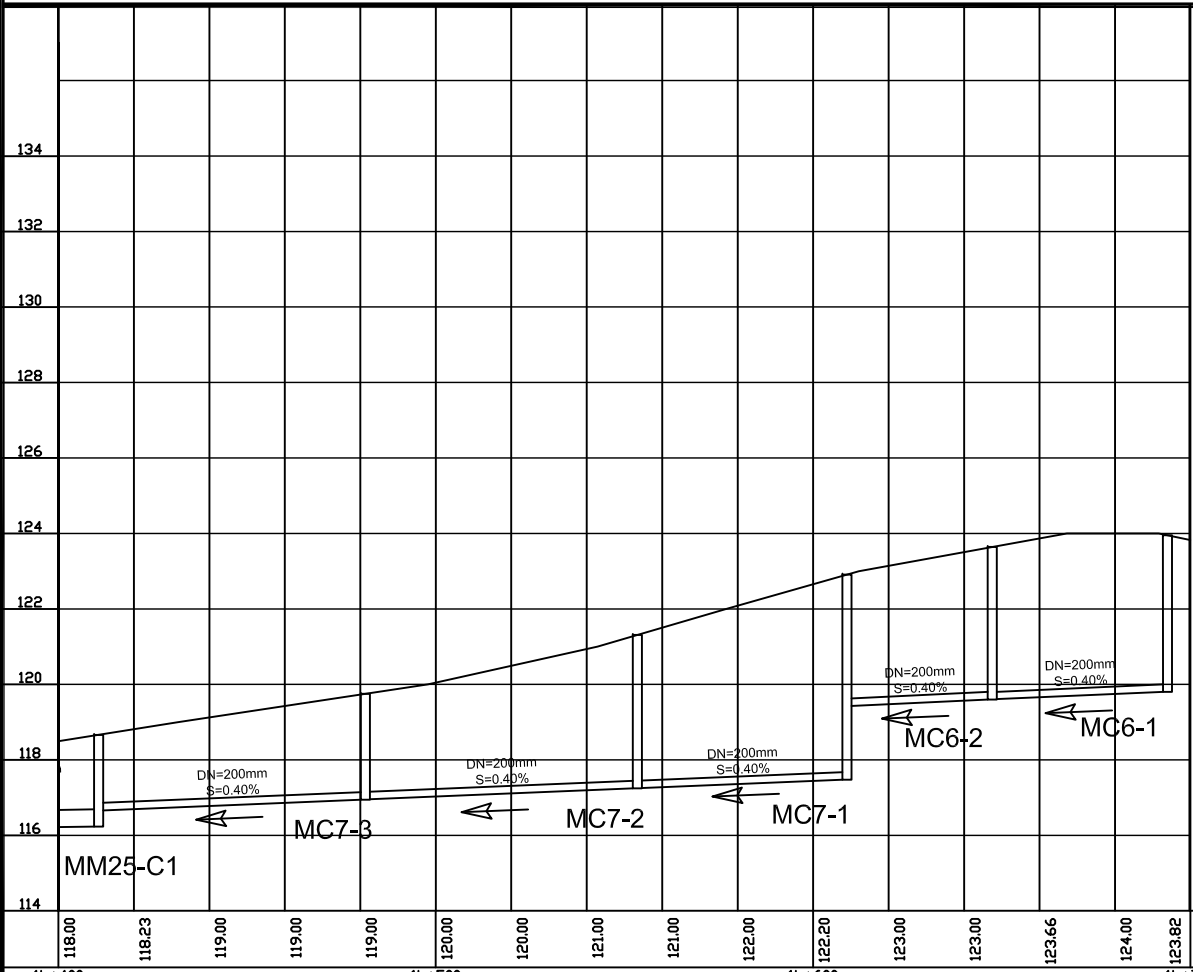
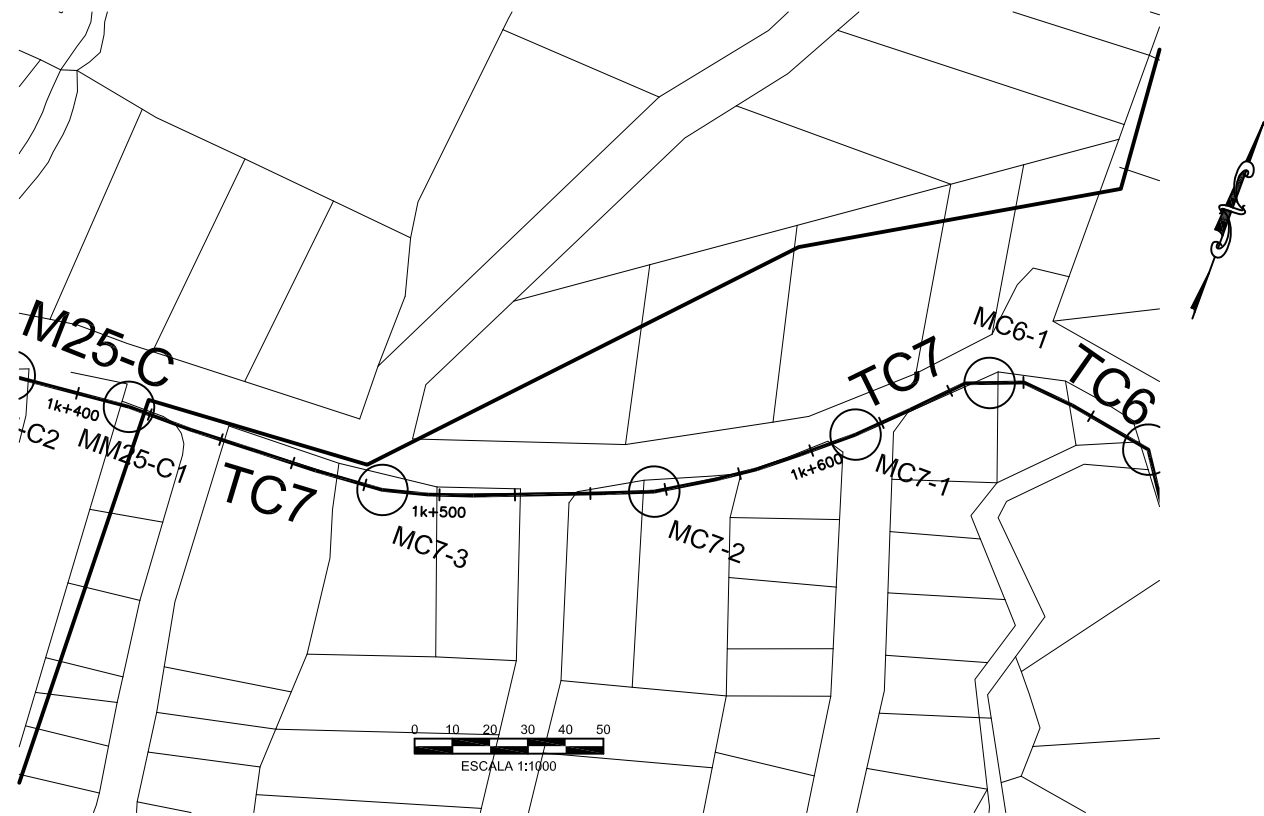
CONTRACT:
LOAN ID:
PROJECT:
JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-C
TRUNK SEWER TC6, TC7 AND M25-C
EST. 0k + 700 @ 1k + 400

DATE: _____
SHT: 2 OF 3
DWG: C.M25-C.02



NO.	DATE	ISSUED FOR

DESIGNED: _____
 DRAWN: R.DACOSTA
 REVIEWED: _____
 ENGINEER: _____



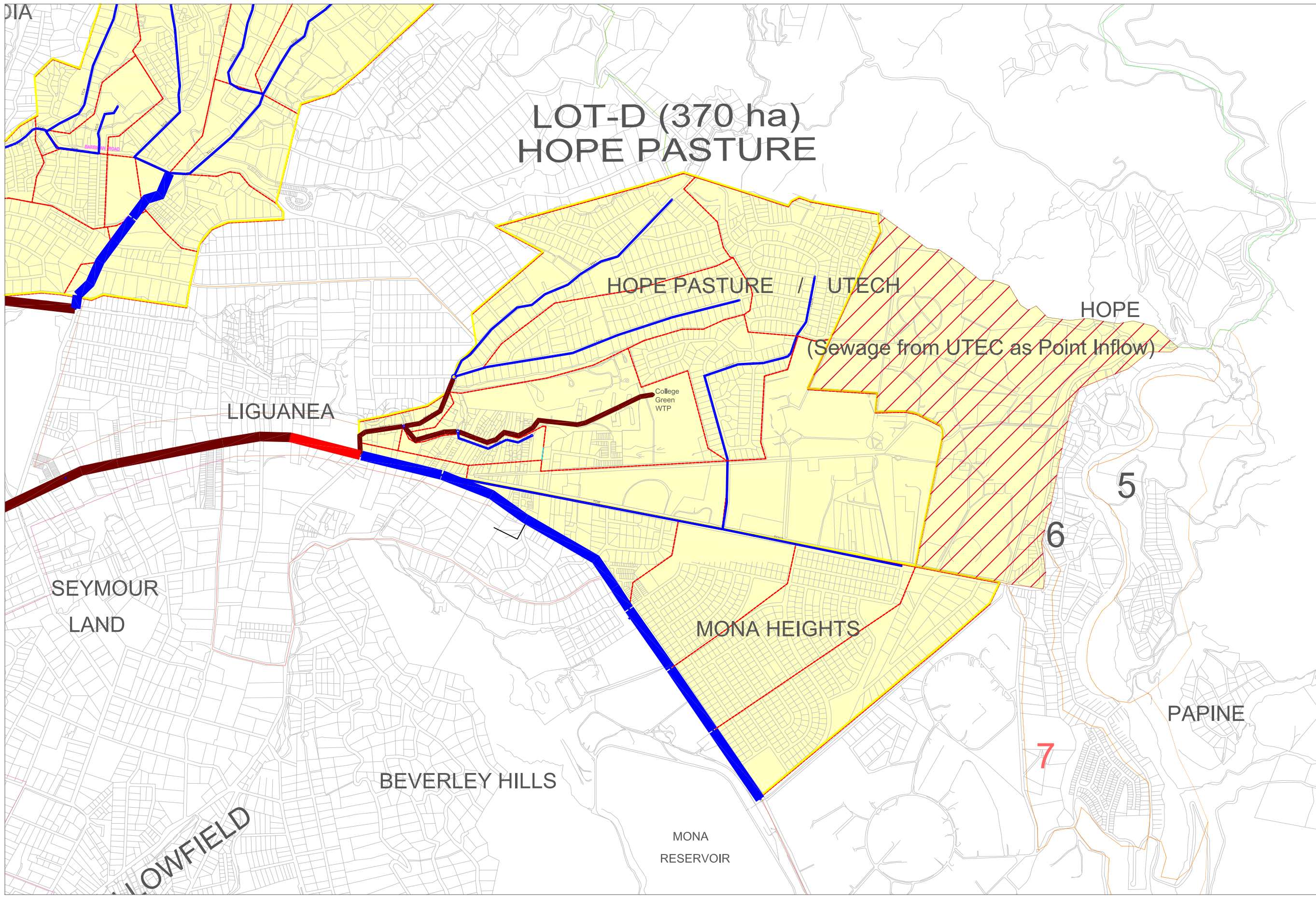
SCALE
 HOR: 1000
 VERT: 100
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PRELIMINARY DESIGN FOR LOT-C
 TRUNK SEWER TC6, TC7 AND M25
 EST. 1k + 400 @ 1k + 700

DATE: _____
 SHT: 3 OF 3
 DWG: C.M25-C.03

LOT - D
(HOPE PASTUER)



**LOT-D (370 ha)
HOPE PASTURE**

HOPE PASTURE / UTECH

HOPE
(Sewage from UTEC as Point Inflow)

LIGUANEA

College Green WTP

SEYMOUR LAND

MONA HEIGHTS

PAPINE

BEVERLEY HILLS

MONA RESERVOIR

DESIGNED:	
DRAWN:	Eaton Wright
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR

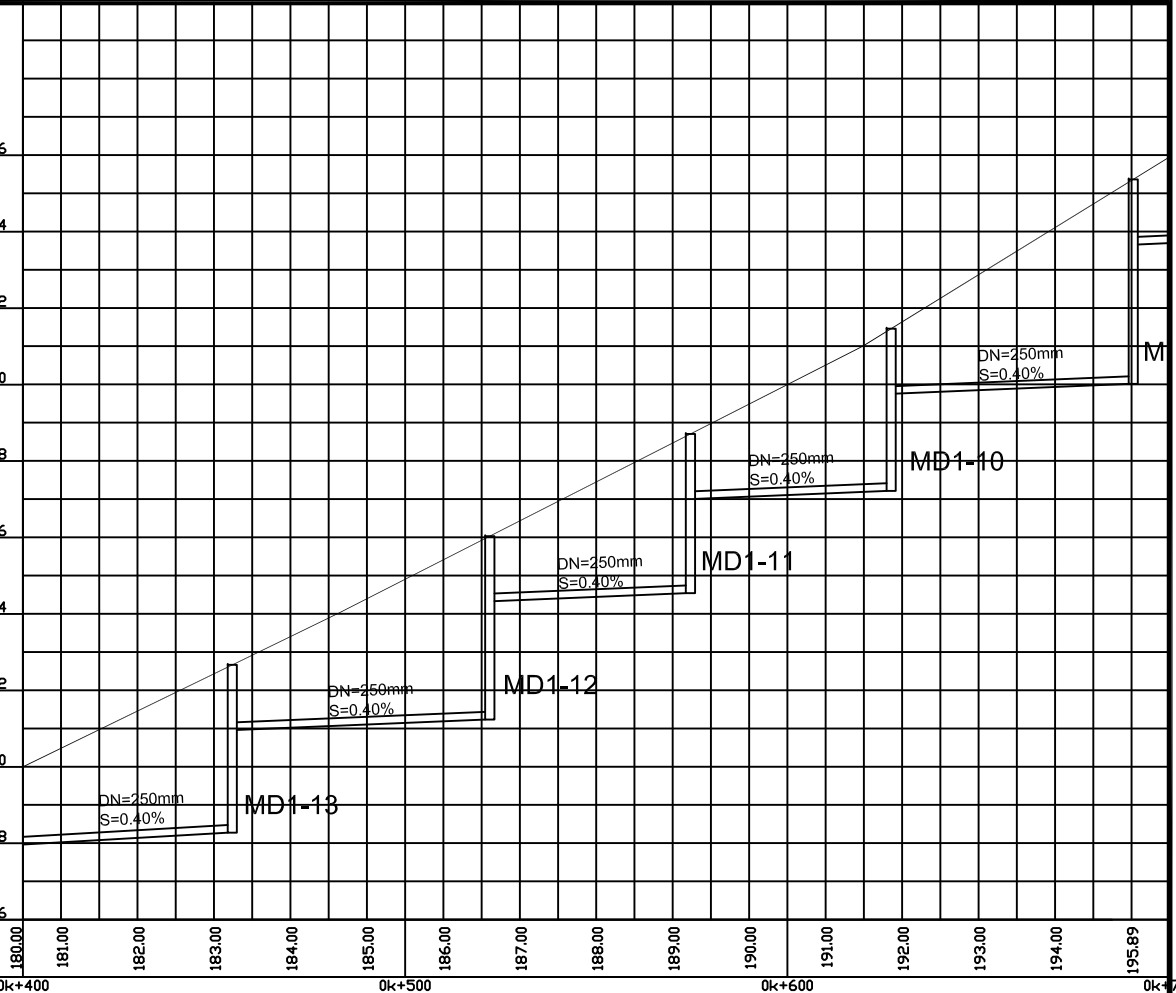
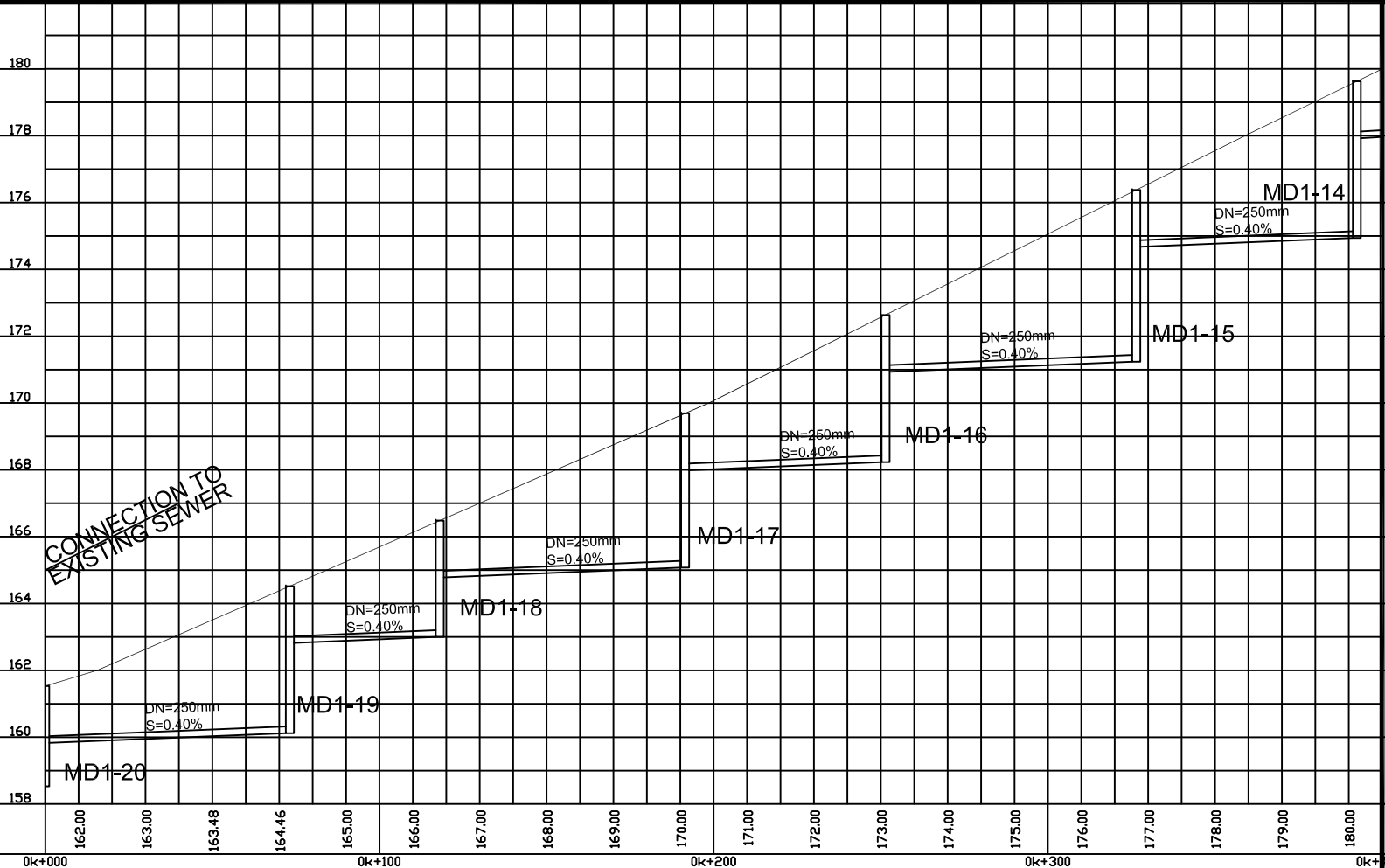
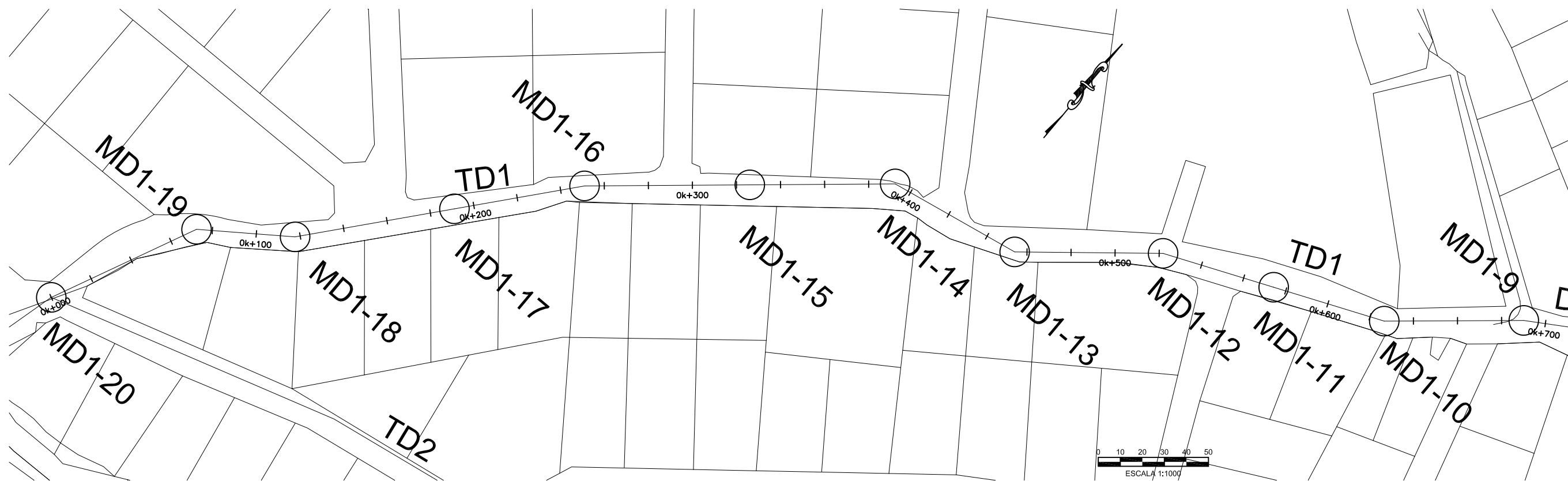


SCALE	CONTRACT:
HOR:	
VERT:	LOAN ID:
	PROJECT:
	JA09Q1009/09-069



PREPARATORY SURVEY FOR KINGSTON SEWERAGE DEVELOPMENT PROJECT
PRELIMINARY DESIGN FOR KSA
SEWERAGE LAYOUT PLAN FOR LOT-D

DATE:	
SHT:	1 OF 1
DWG:	GN.LD.01



DESIGNED: H.TSUTA		
DRAWN: E.WRIGHT		
REVIEWED: H.TSUTA		
ENGINEER: K.TYNES		
NO.	DATE	ISSUED FOR



SCALE
HOR: 1000
VERT: 100

CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-D

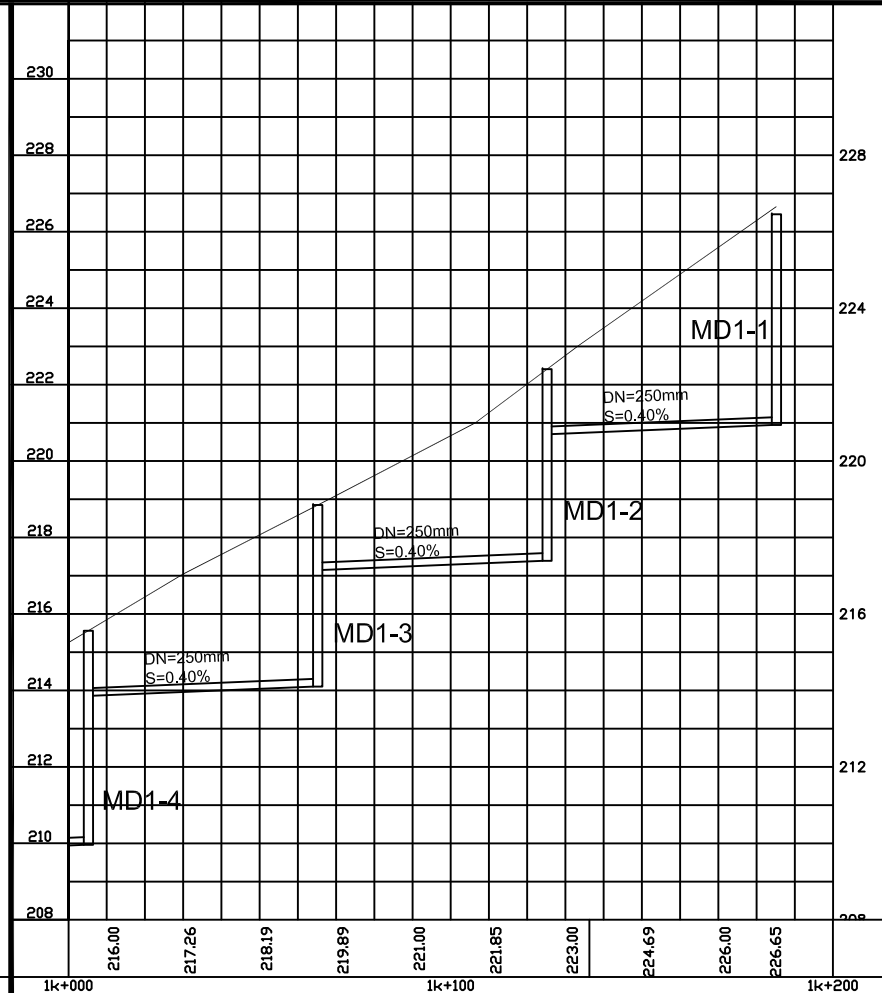
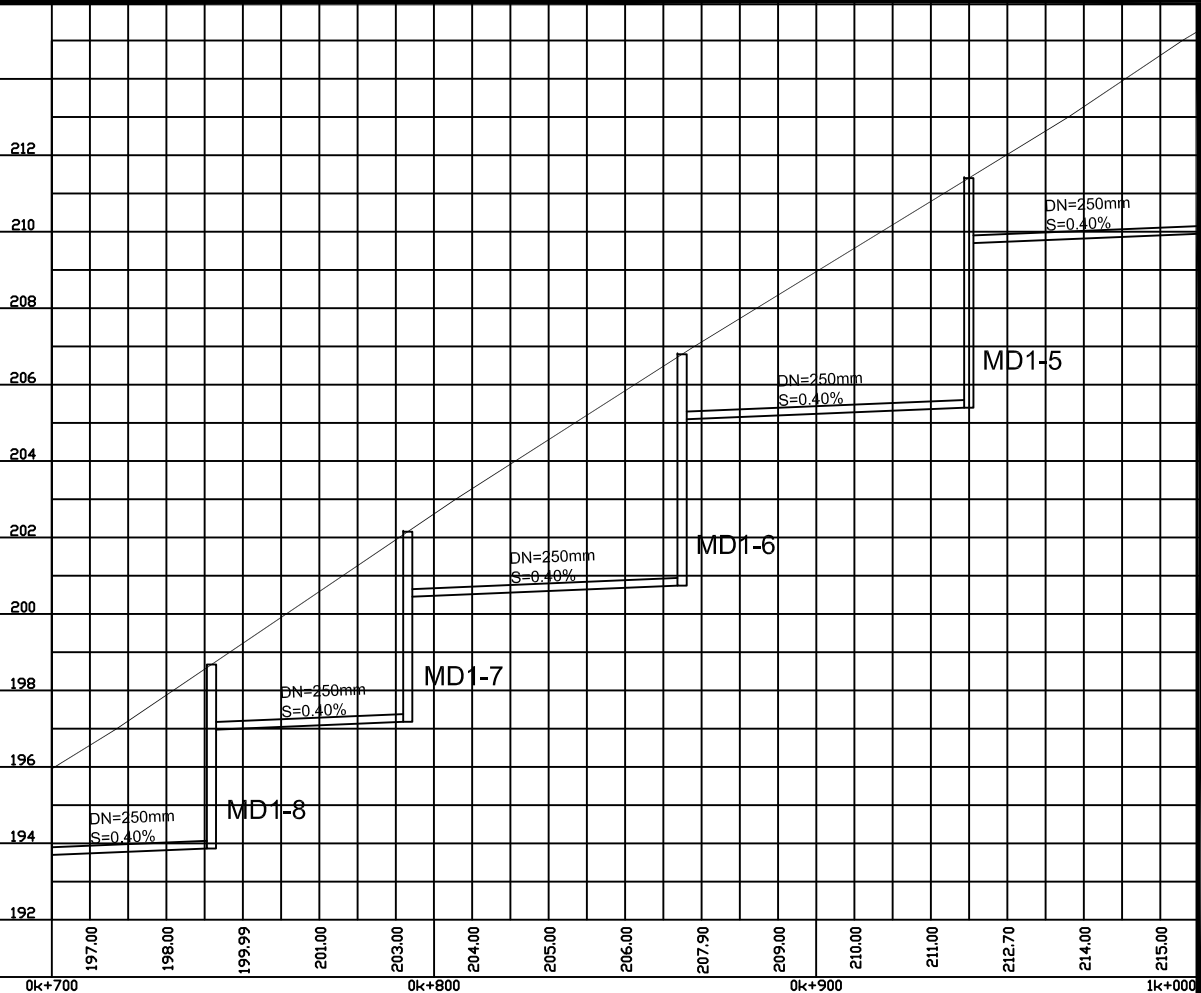
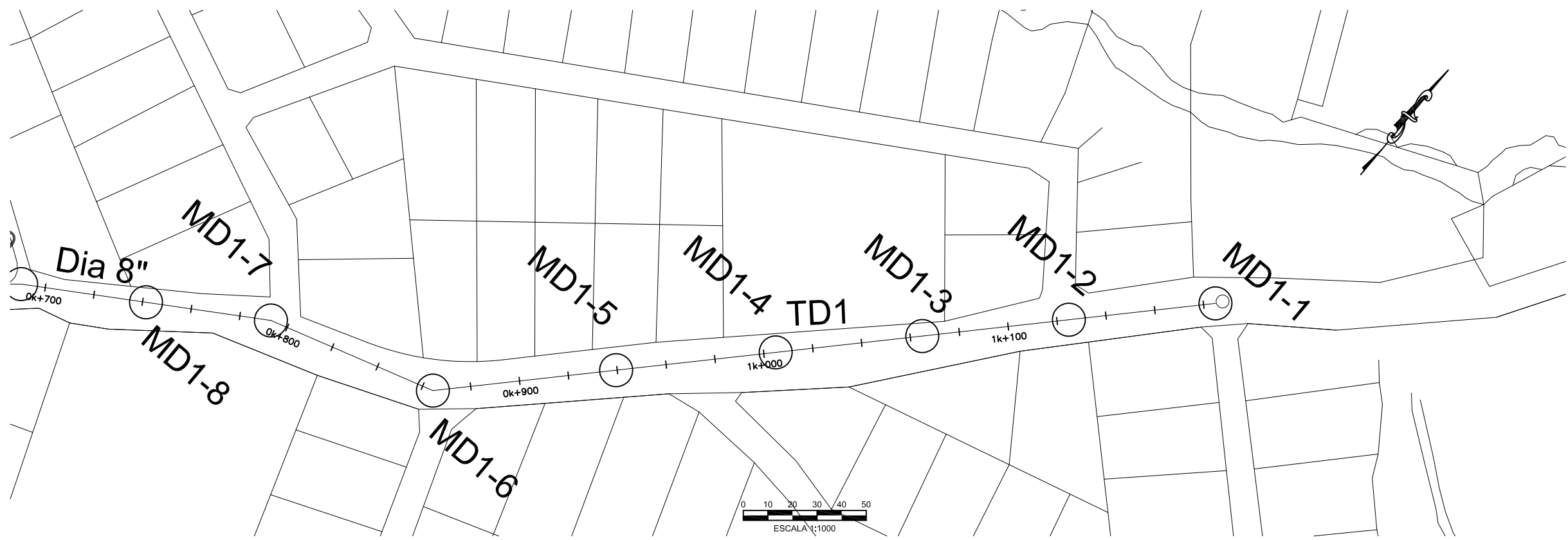
TRUNK SEWER TD1

EST. 0k + 000 @ 0k + 700

DATE: _____

SHT: 1 OF 2

DWG: C.D4A.01



NO.	DATE	ISSUED FOR

DESIGNED: H. TSUTA
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

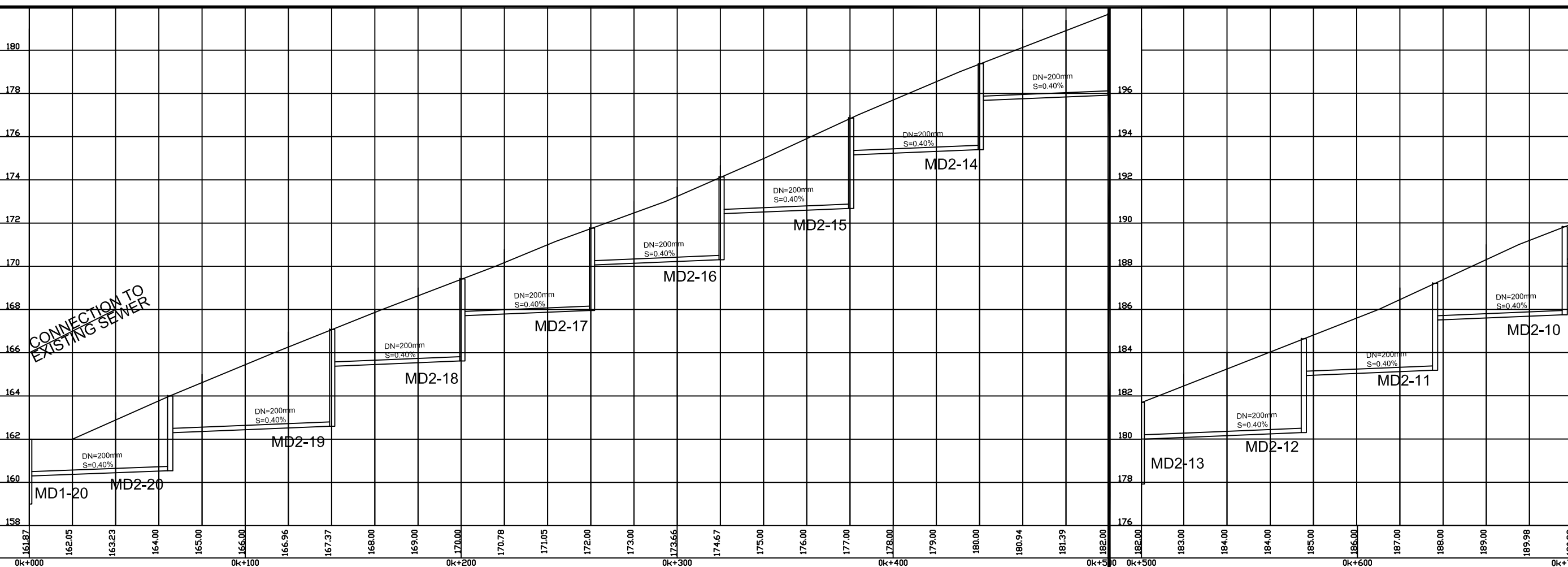
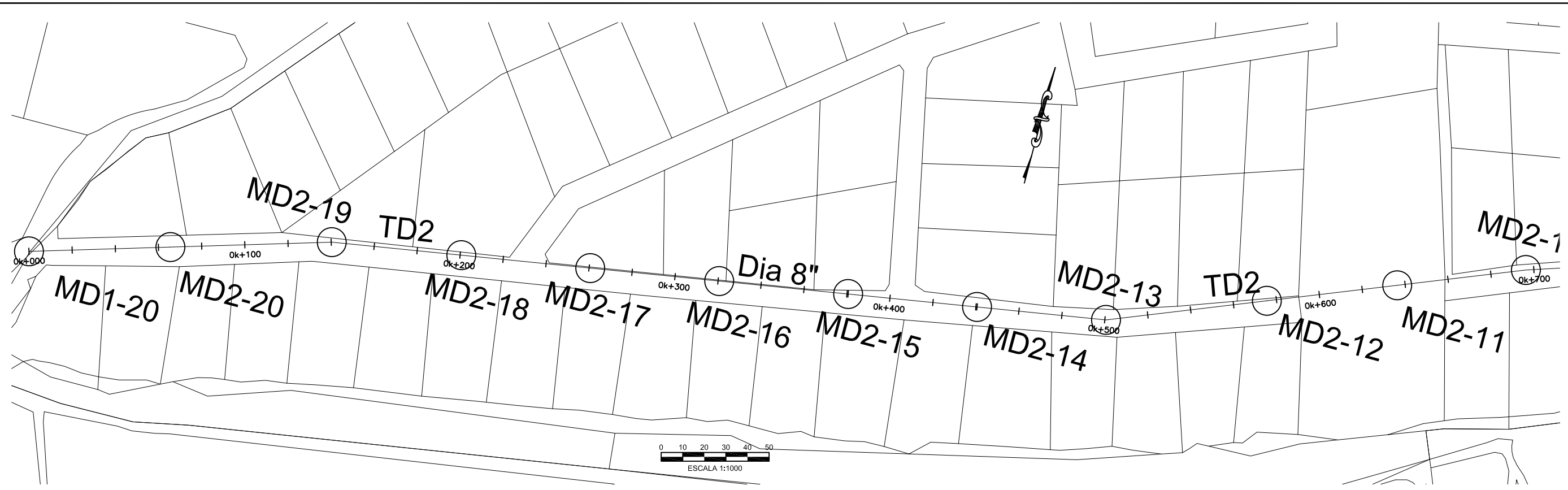


SCALE: HOR: 1000, VERT: 100
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PRELIMINARY DESIGN FOR LOT-D
 TRUNK SEWER TD1
 EST. 0k + 700 @ 1k + 200

DATE: _____
 SH: 2 OF 2
 DWG: C.D4A.02

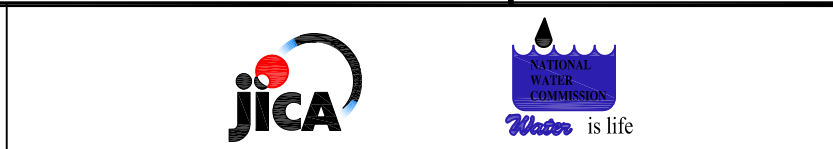


DESIGNED:	
DRAWN:	R. DACOSTA
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR



SCALE
HOR: 1000
VERT: 100

CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



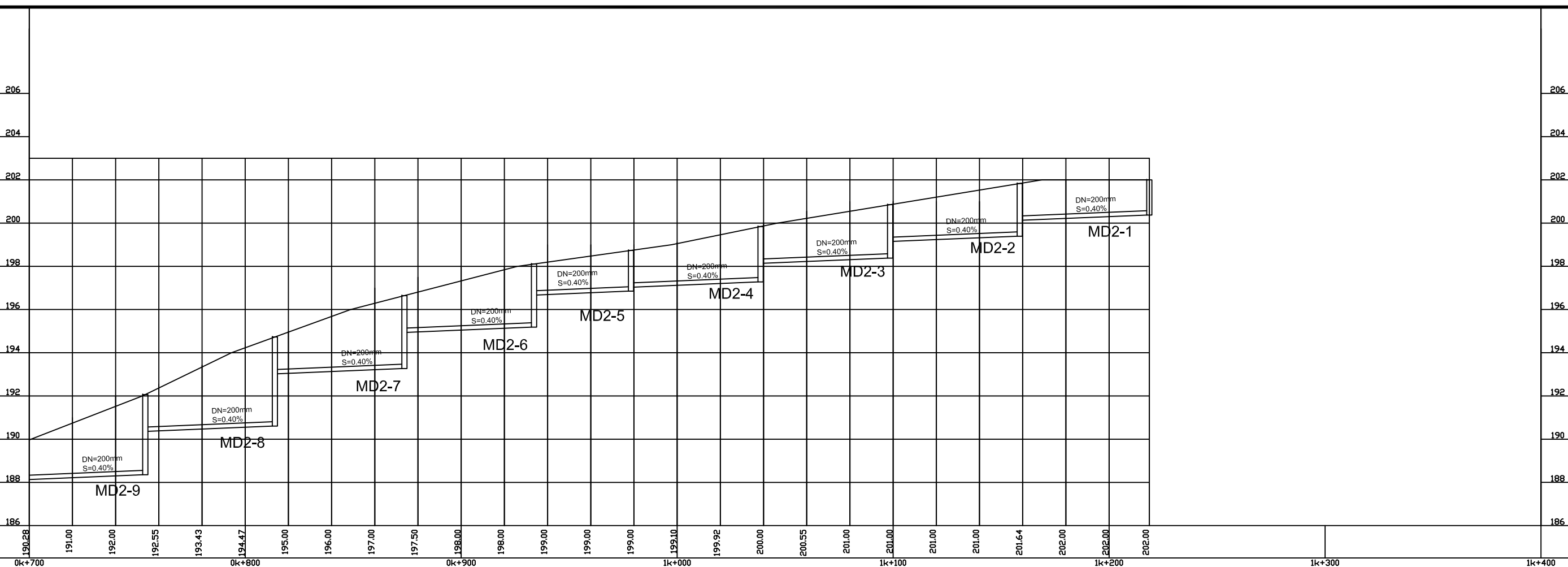
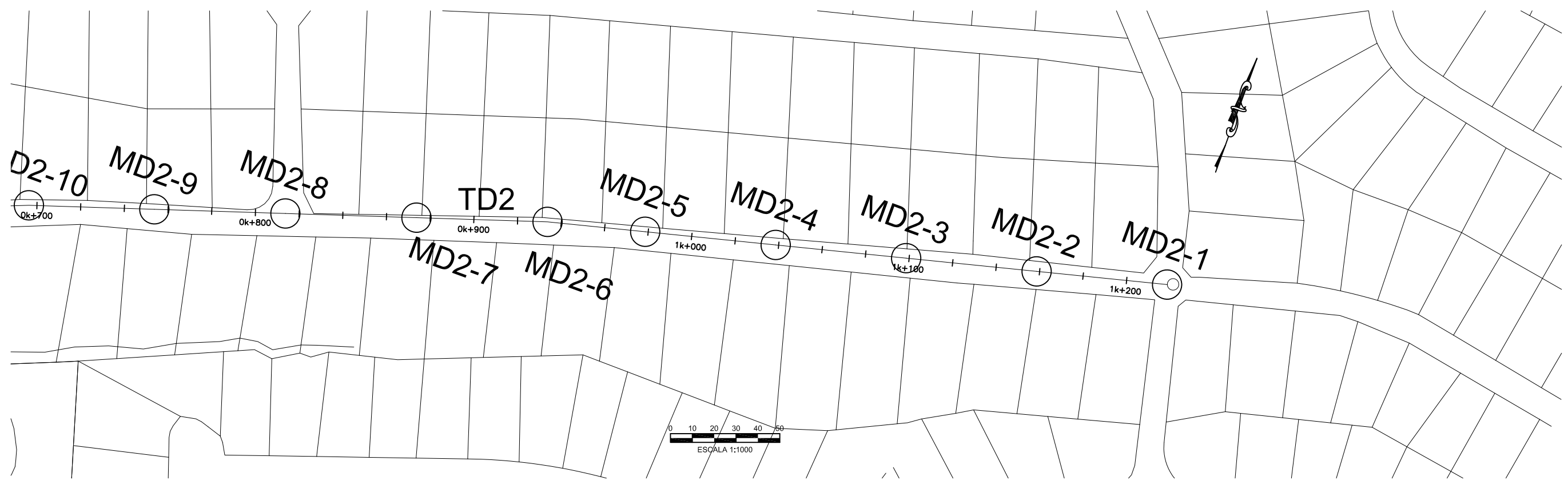
PREPARATORY SURVEY FOR KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-D

TRUNK SEWER TD2

EST. 0k + 000 @ 0k + 700

DATE: _____
SHT: 1 OF 2
DWG: C.D4B.01

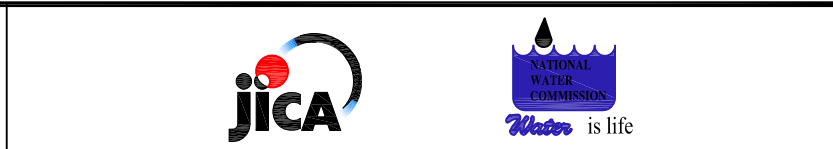


DESIGNED:	
DRAWN:	R.DACOSTA
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR



SCALE
HOR: 1000
VERT: 100

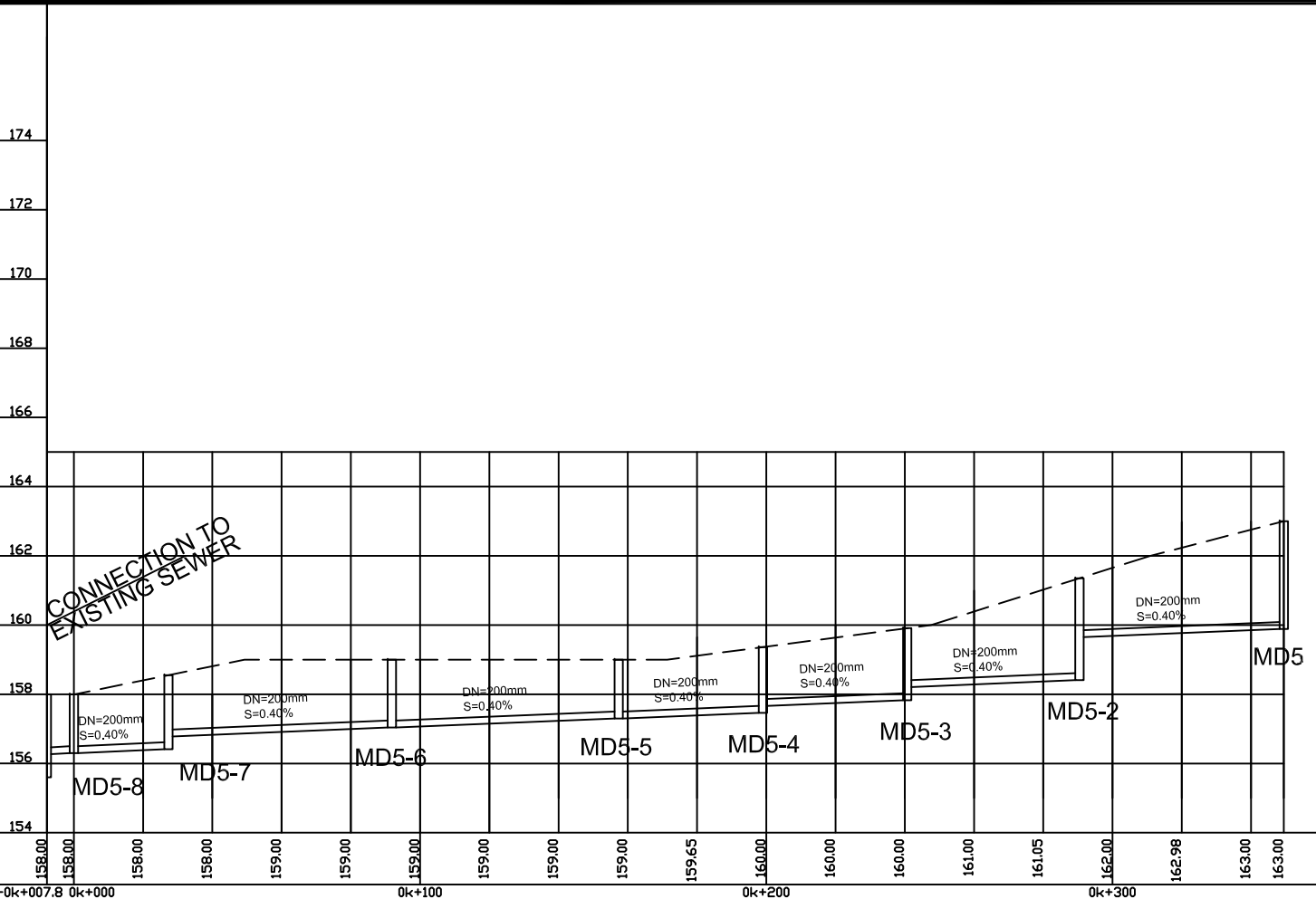
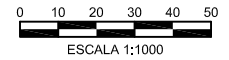
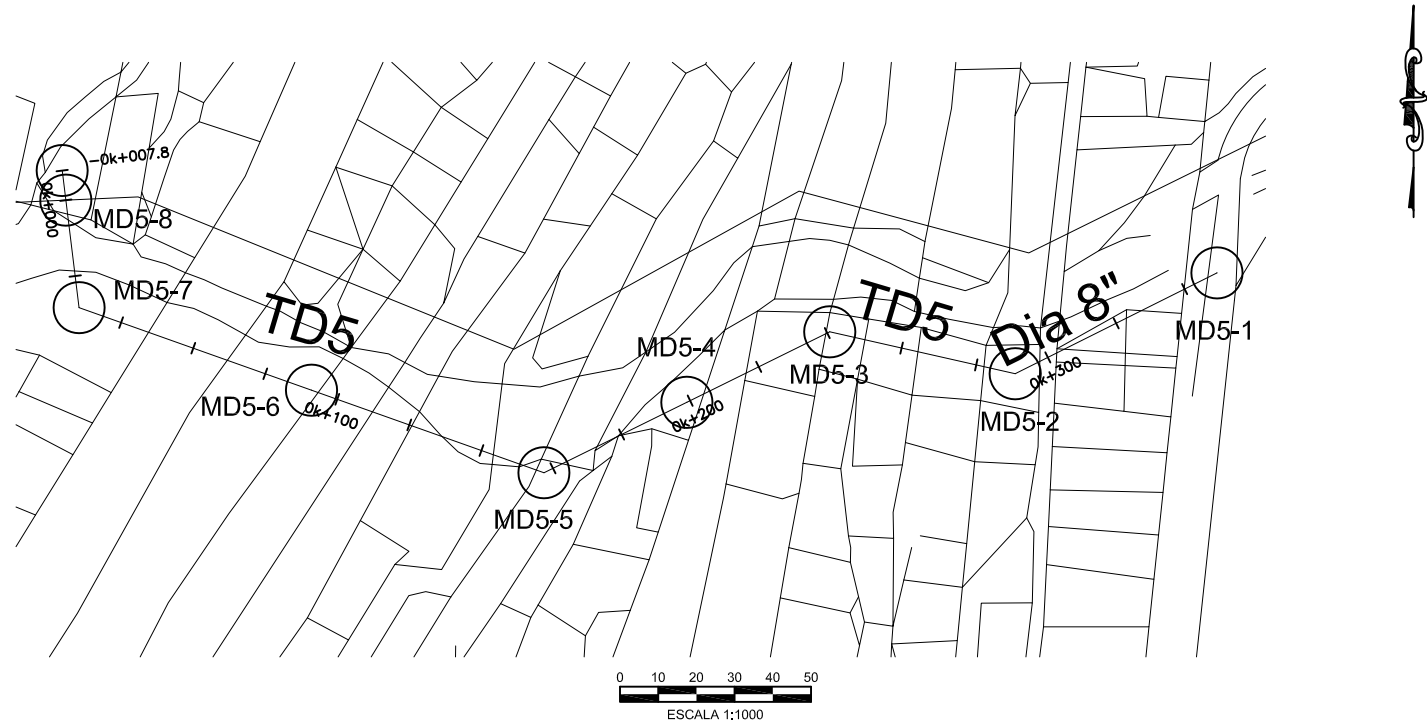
CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-D
TRUNK SEWER TD2
EST. 0k + 700 @ 1k + 219

DATE: _____
SHT: 2 OF 2
DWG: C.D4B.02



DESIGNED:		
DRAWN:	R.DACOSTA	
REVIEWED:		
ENGINEER:		
NO.	DATE	ISSUED FOR



SCALE
HOR:
1000

CONTRACT:

LOAN ID:

VERT:
100

PROJECT:
JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-D

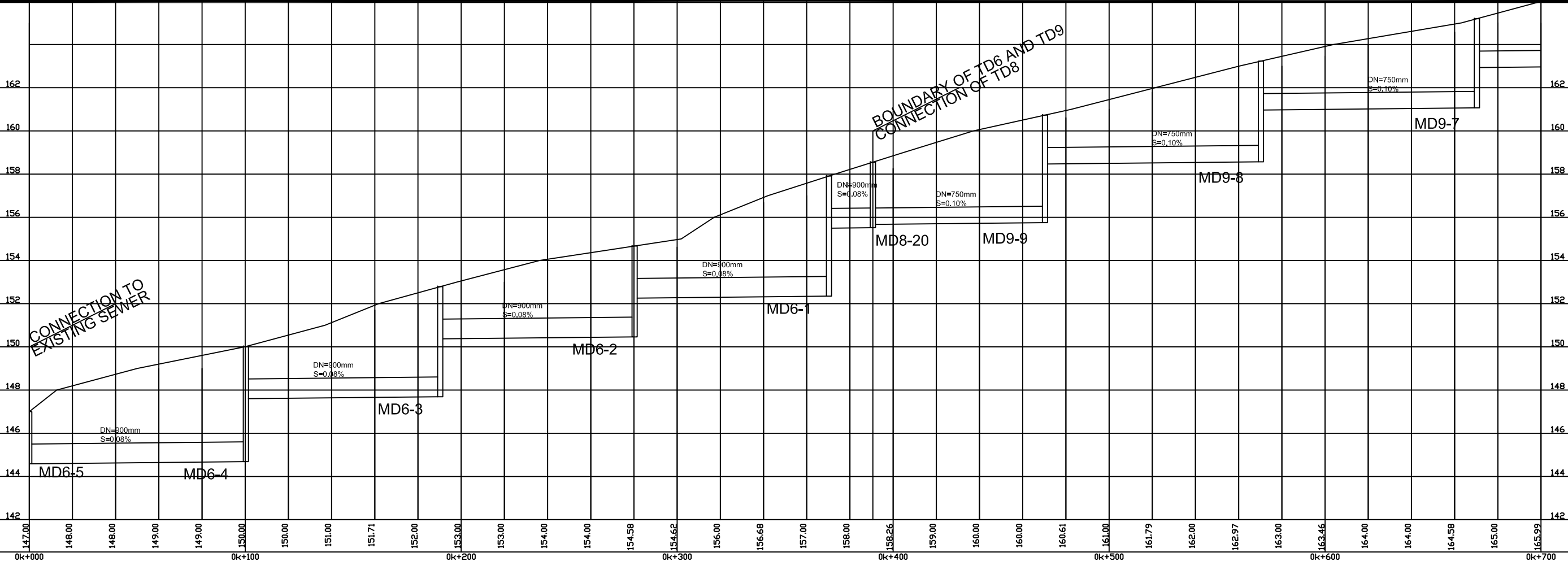
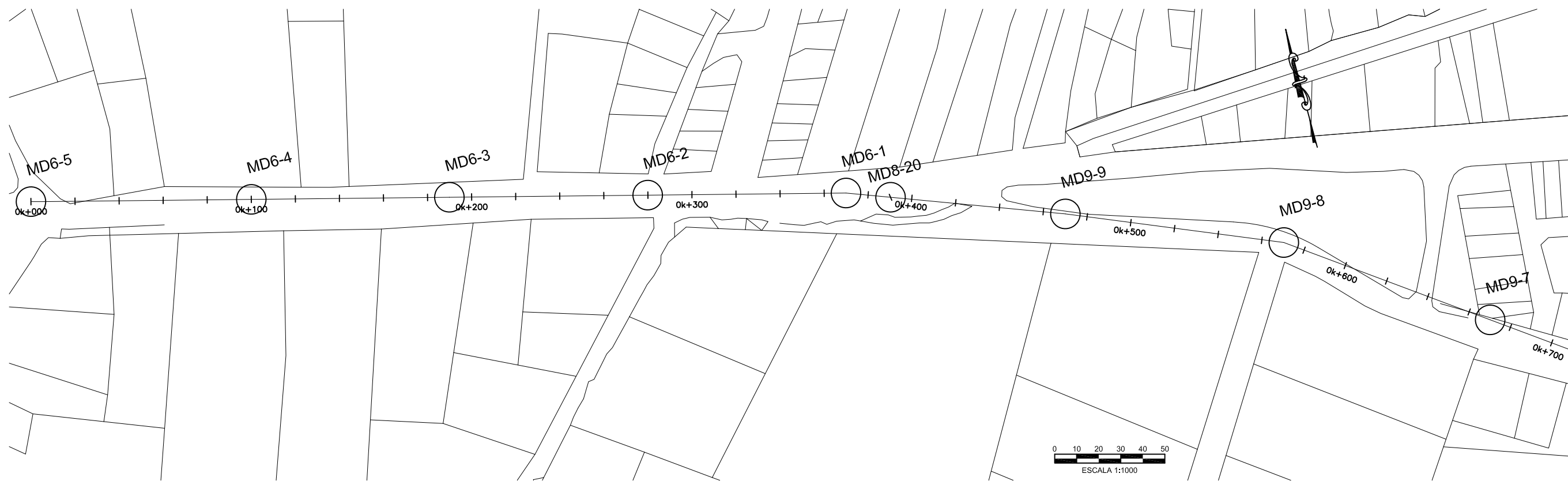
TRUNK SEWER TD5

EST. 0k + 000 @ 0k + 350

DATE: _____

SHT: 1 OF 1

DWG: C.TD5.01



DESIGNED:	
DRAWN:	R.DACOSTA
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR



SCALE
HOR: 1000
VERT: 100

CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-D

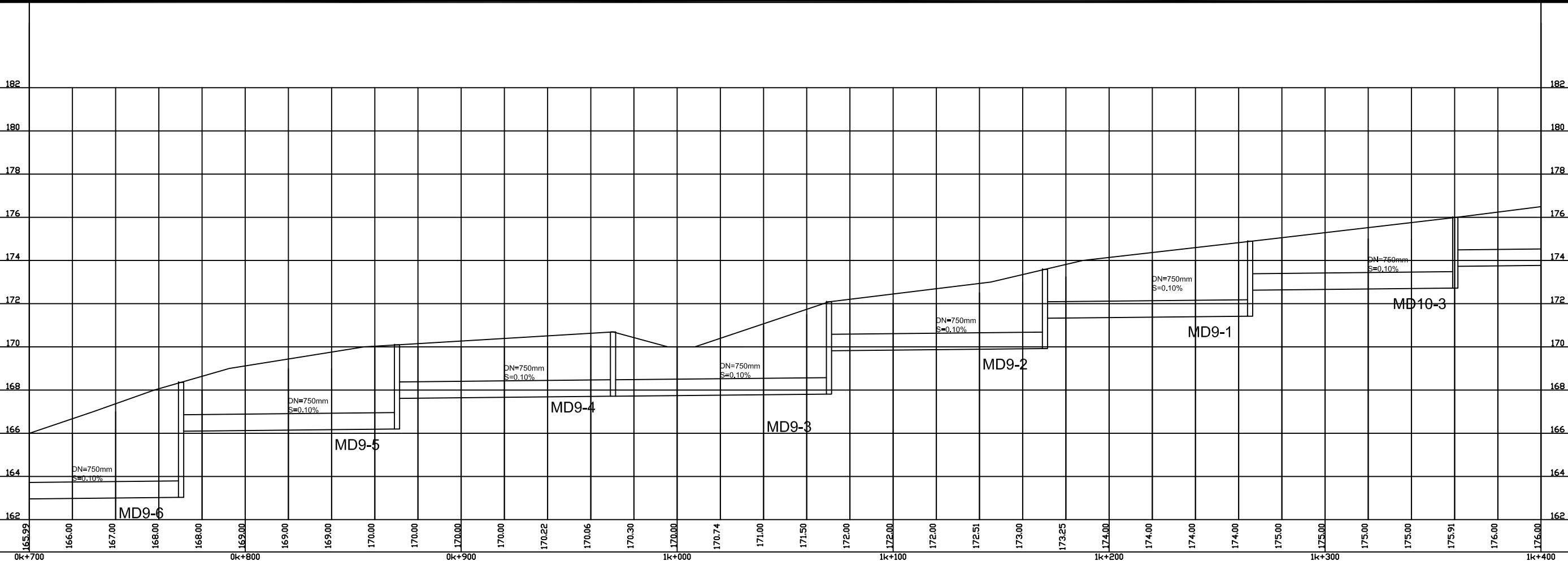
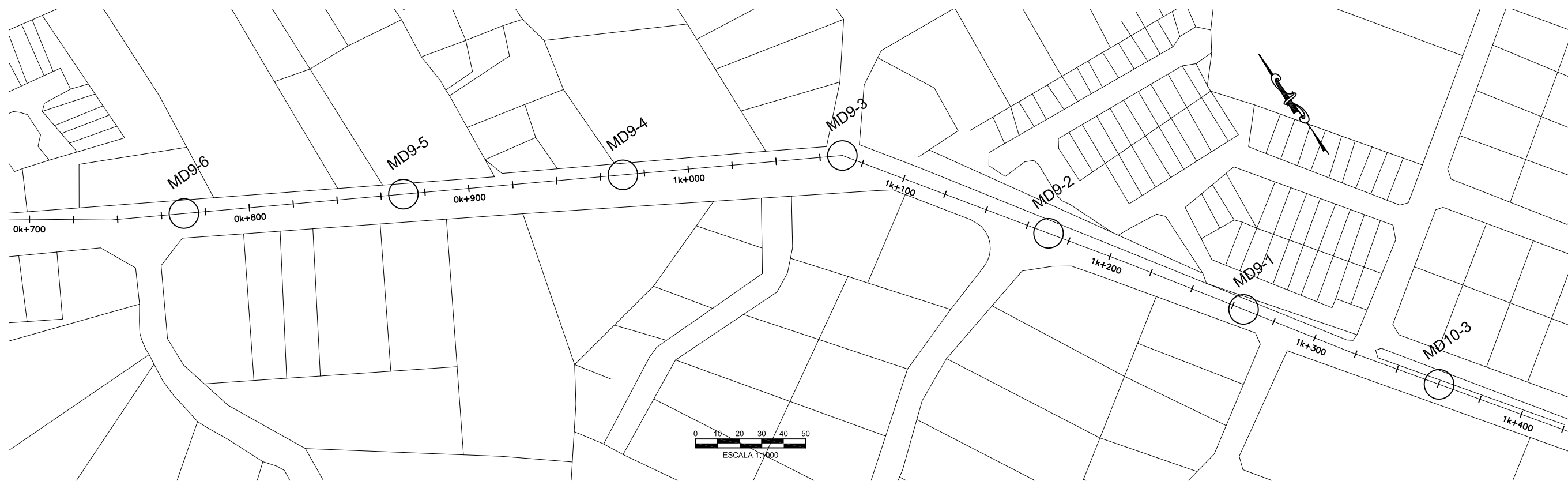
TRUNK SEWER TD6, TD9, TD10, TD11 AND TD12

EST. 0k + 000 @ 0k + 700

DATE: _____

SHT: 1 OF 4

DWG: C.TD6,9,10,11,01



DESIGNED:	
DRAWN:	R.DACOSTA
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR



SCALE
HOR: 1000
VERT: 100

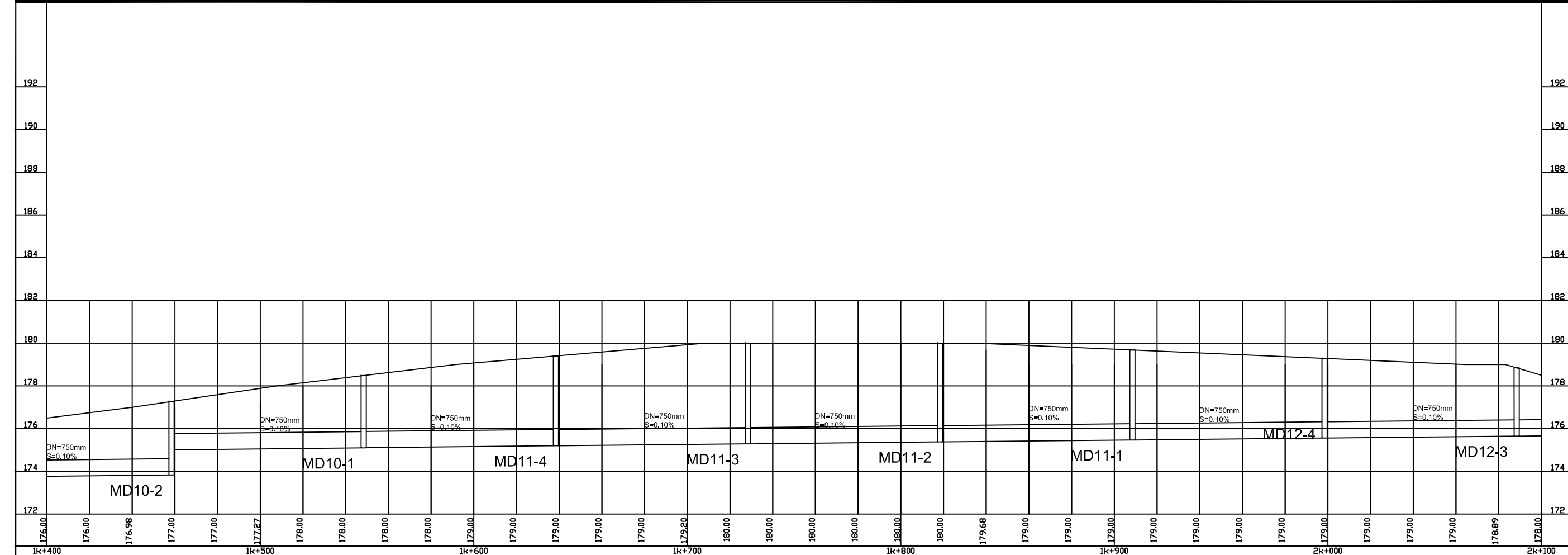
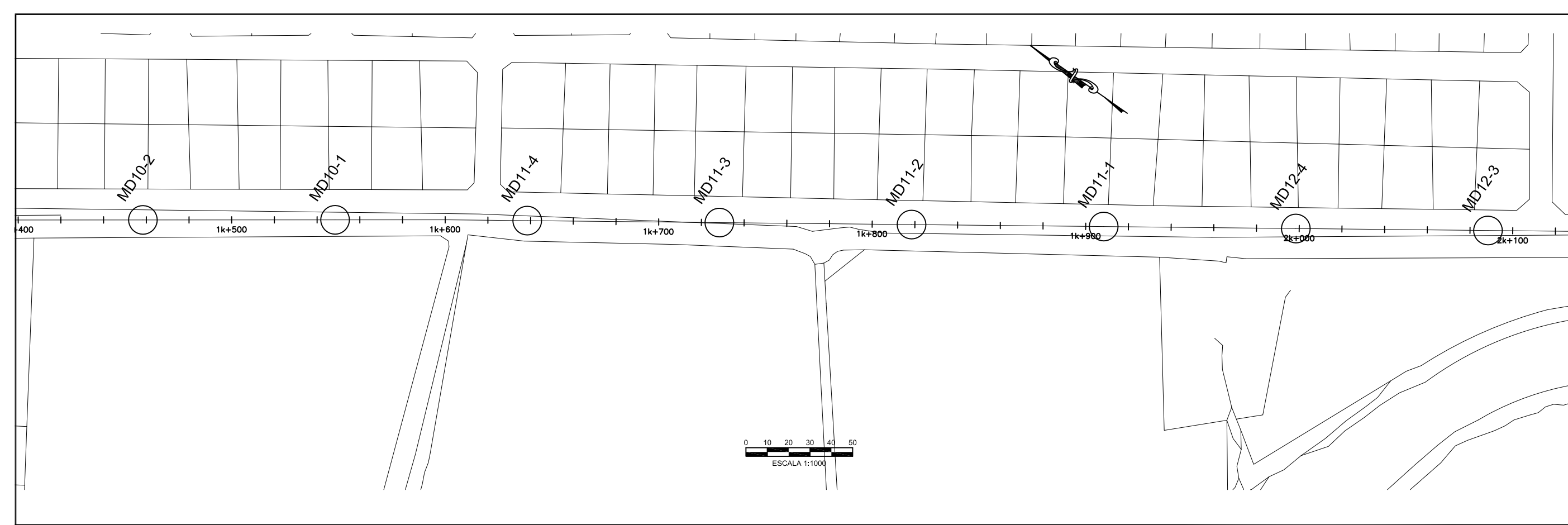
CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-D
TRUNK SEWER TD6, TD9, TD10, TD11 AND TD12
EST. 0k + 700 @ 1k + 400

DATE: _____
SHT: 2 OF 4
DWG: C.TD6,9,10,11.02



NO.	DATE	ISSUED FOR

DESIGNED: _____
 DRAWN: R.DACOSTA
 REVIEWED: _____
 ENGINEER: _____

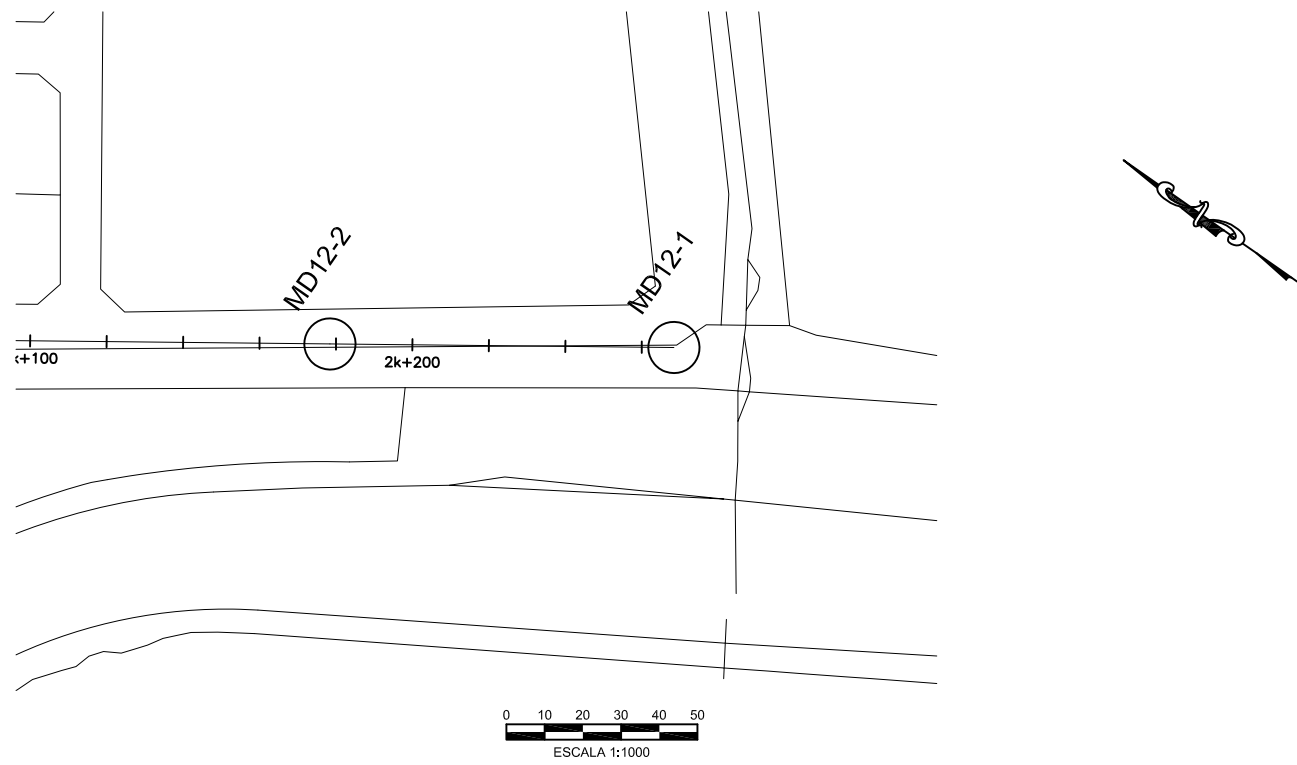


SCALE: _____
 HOR: 1000
 VERT: 100
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PRELIMINARY DESIGN FOR LOT-D
 TRUNK SEWER TD6, TD9, TD10, TD11 AND TD12
 EST. 1k + 400 @ 2k + 100

DATE: _____
 SHT: 3 OF 4
 DWG: C.TD6,9,10,11.03



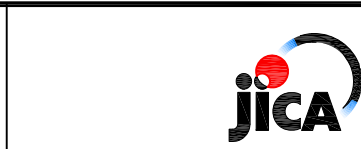
NO.	DATE	ISSUED FOR

DESIGNED: _____
 DRAWN: R.DACOSTA
 REVIEWED: _____
 ENGINEER: _____



SCALE
 HOR: 1000
 VERT: 100

CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



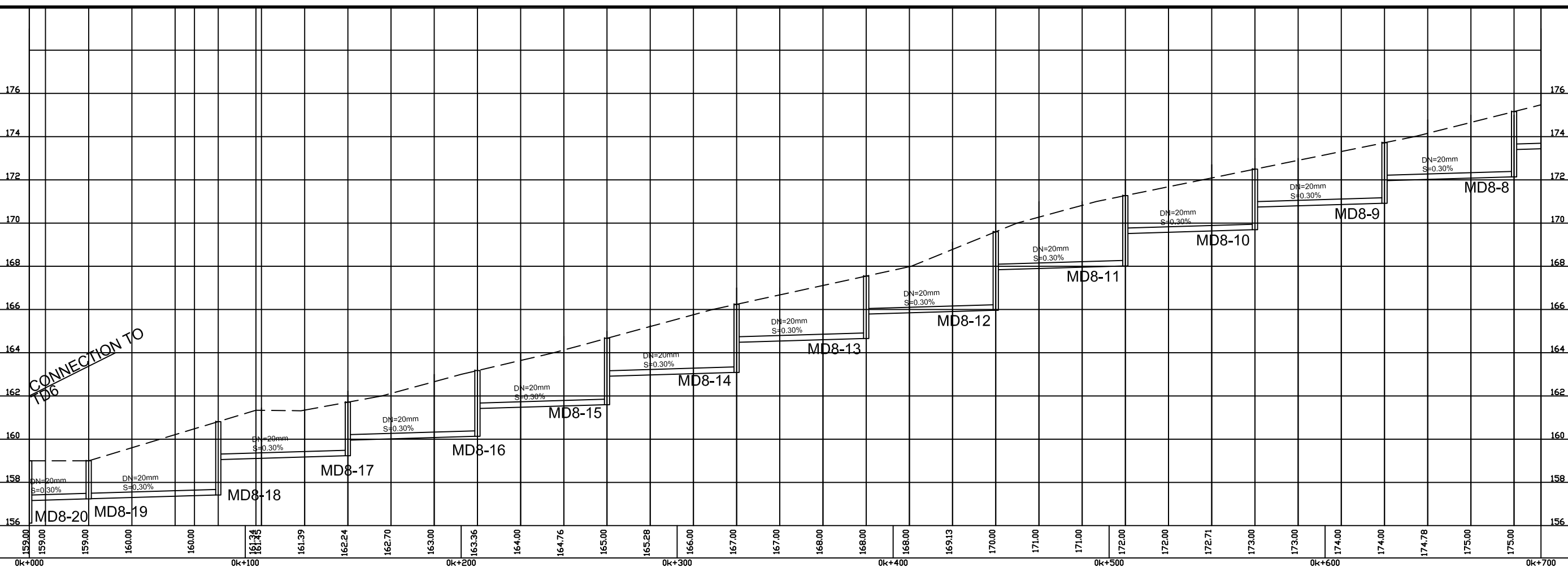
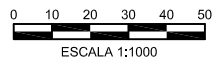
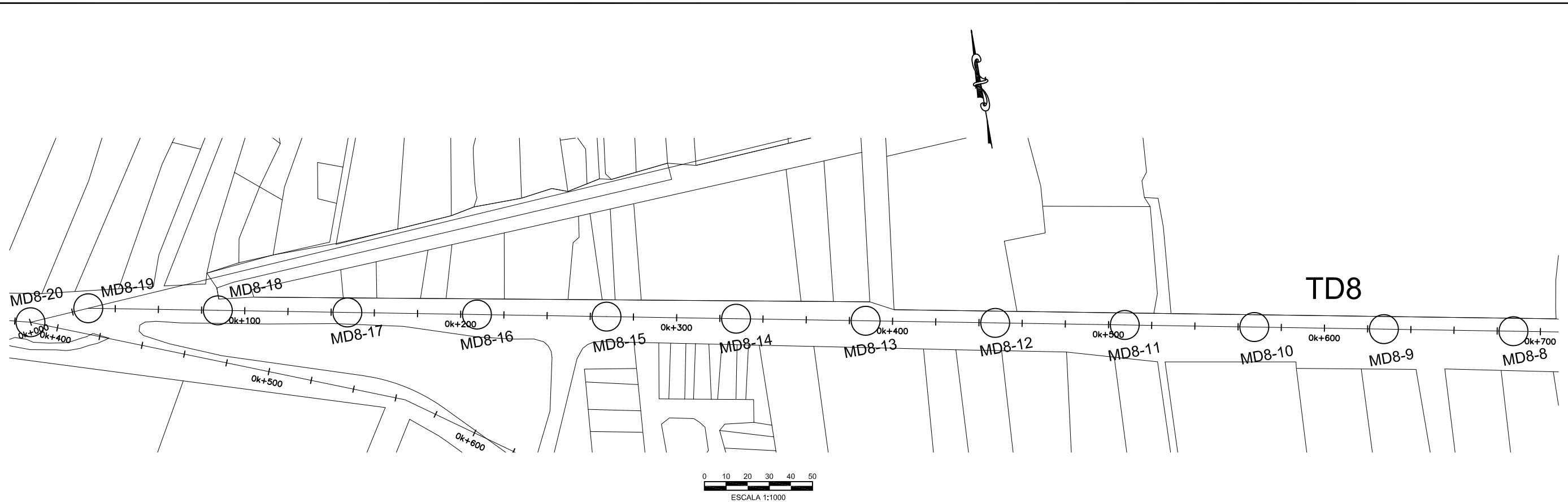
PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-D

TRUNK SEWER TD6, TD9, TD10, TD11 AND TD12

EST. 2k + 100 @ 2k + 270

DATE: _____
 SHT: 4 OF 4
 DWG: C.TD6.9.10.11.12.04

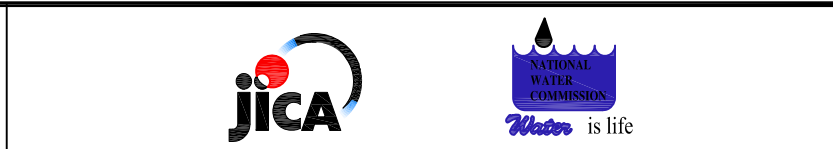


DESIGNED:	
DRAWN:	R.DACOSTA
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR

NIPPON KOEI
Challenging mind, Changing dynamics

SCALE
HOR: 1000
VERT: 100

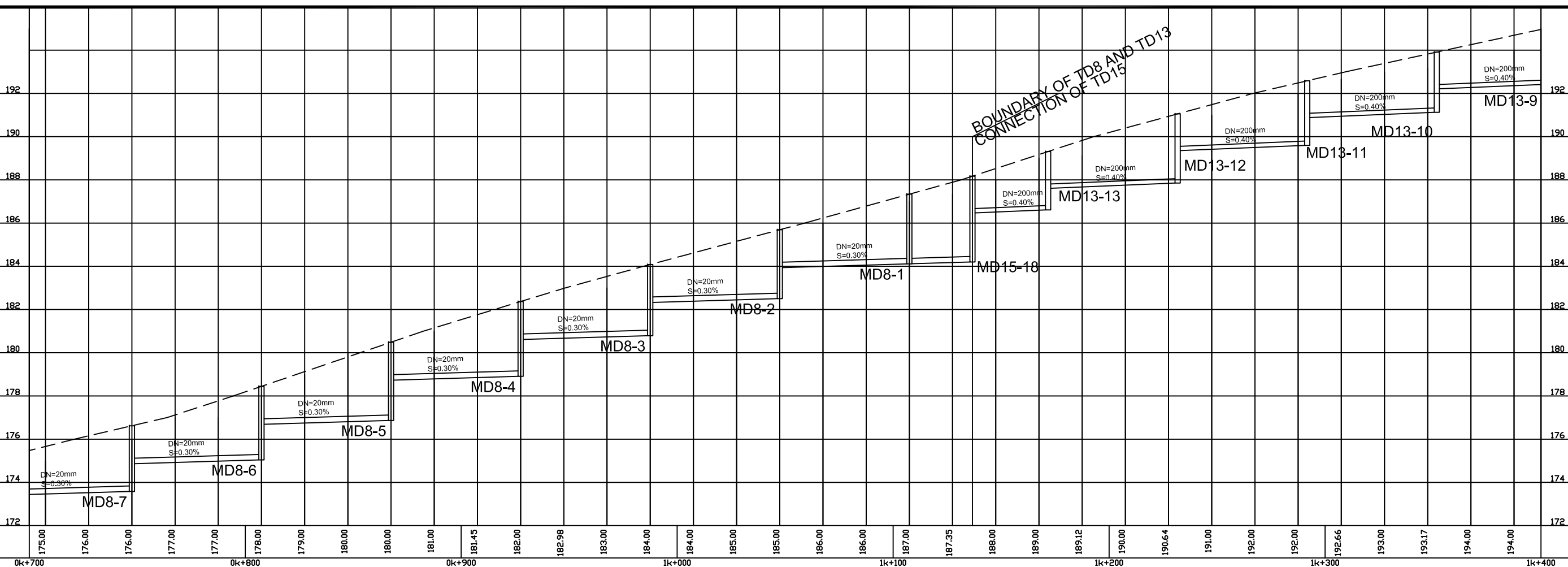
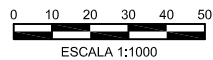
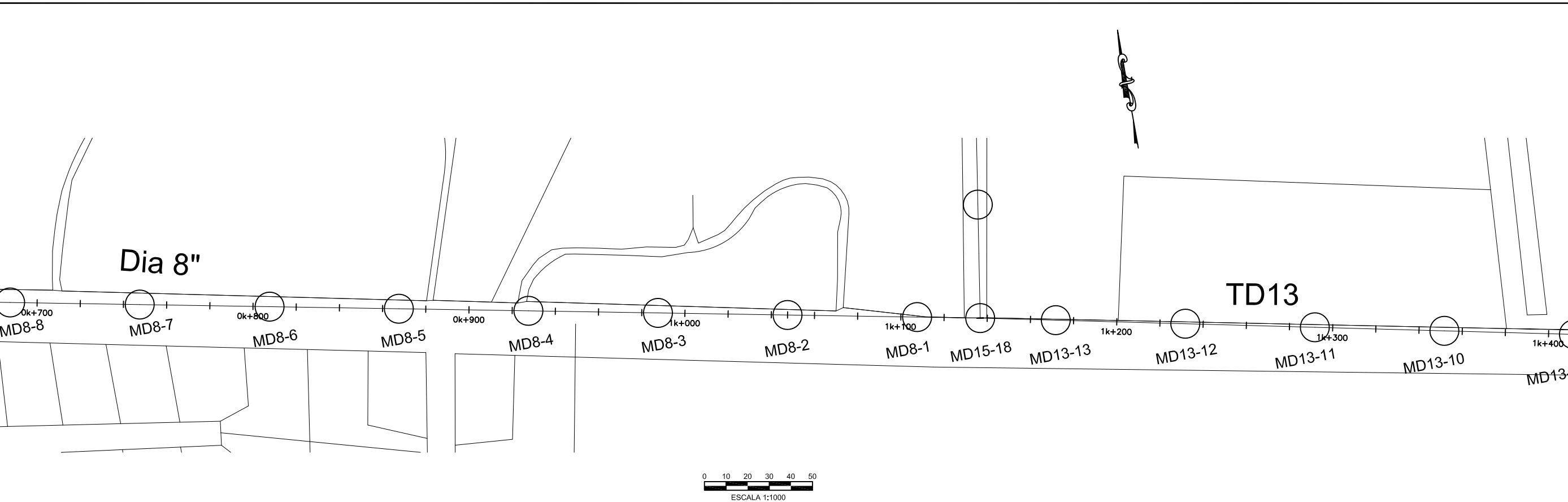
CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-D
TRUNK SEWER TD8 AND TD13
EST. 0k + 000 @ 0k + 700

DATE: _____
SHT: 1 OF 3
DWG: C.TD8.TD13.01



DESIGNED:	
DRAWN:	R.DACOSTA
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR

NIPPON KOEI
Challenging mind, Changing dynamics

SCALE
HOR: 1000
VERT: 100

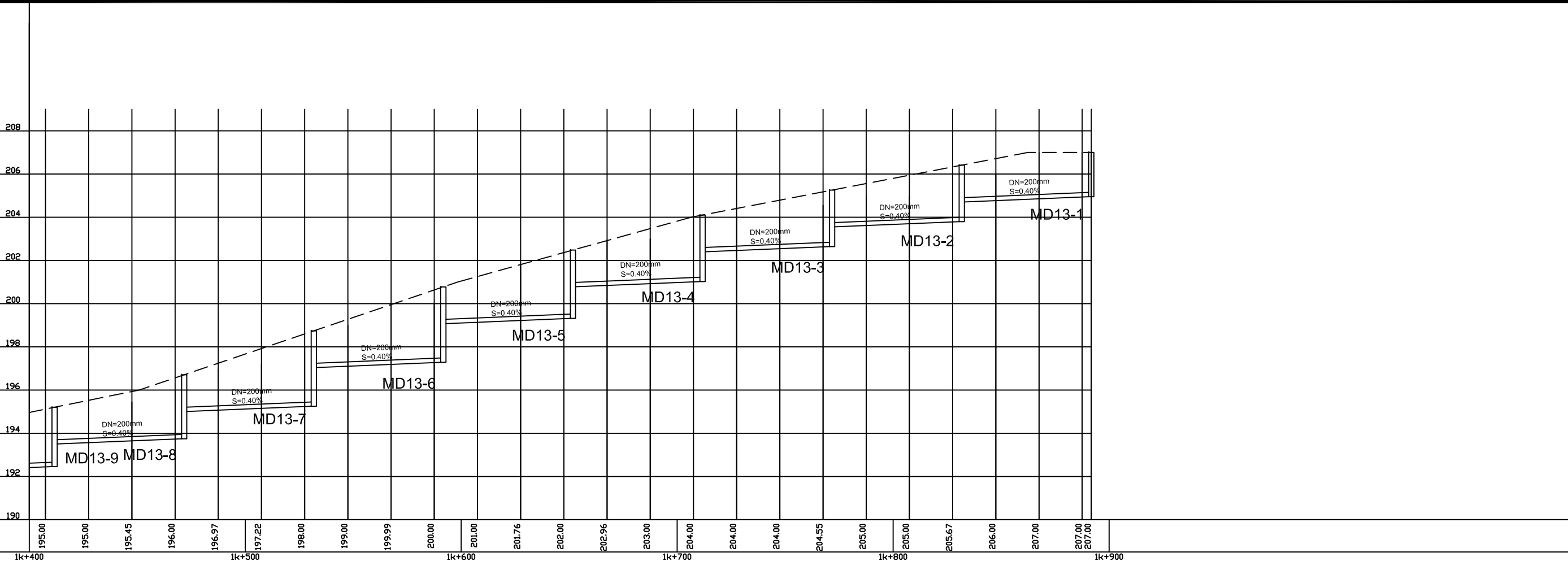
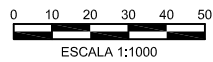
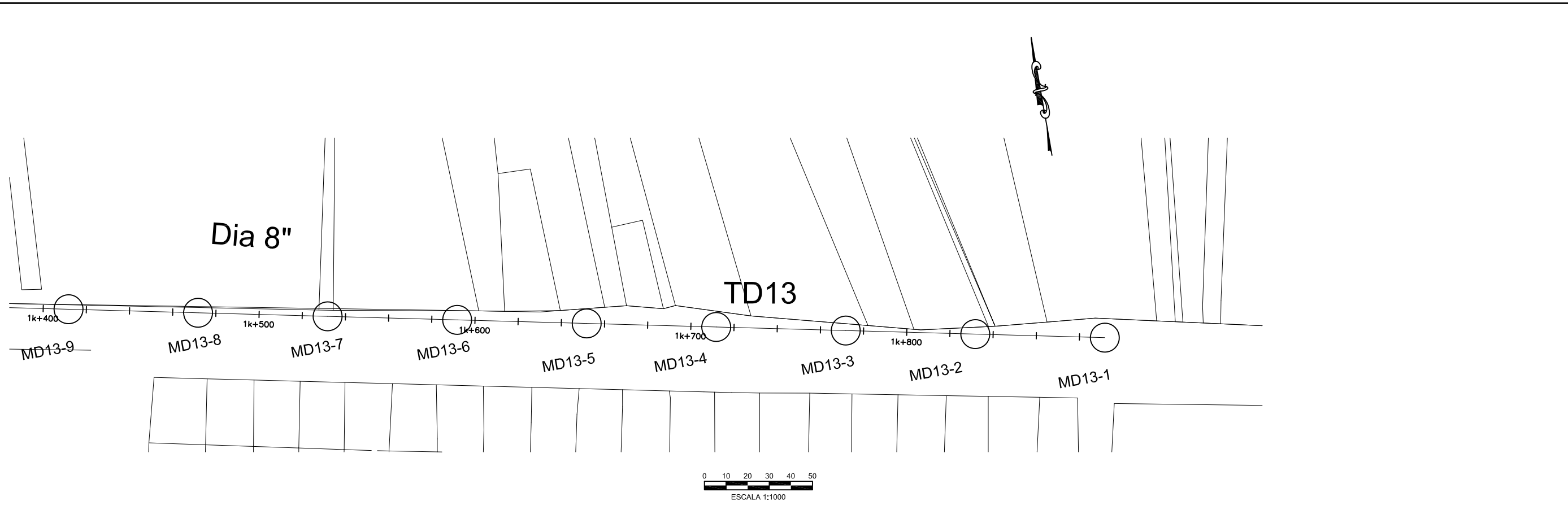
CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-D
TRUNK SEWER TD8 AND TD13
EST. 0k + 700 @ 1k + 400

DATE: _____
SHT: 2 OF 3
DWG: C.TD8.TD13.02



NO.	DATE	ISSUED FOR

DESIGNED: _____
 DRAWN: R.DACOSTA
 REVIEWED: _____
 ENGINEER: _____



SCALE
 HOR: 1000
 VERT: 100

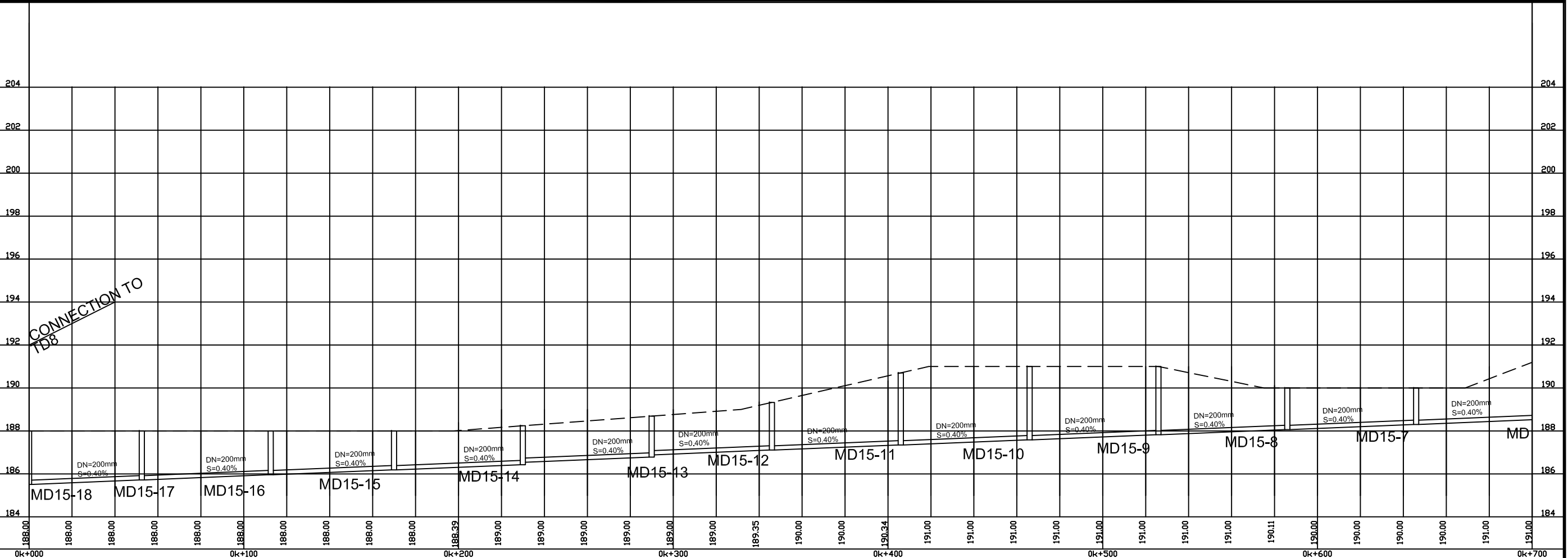
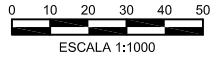
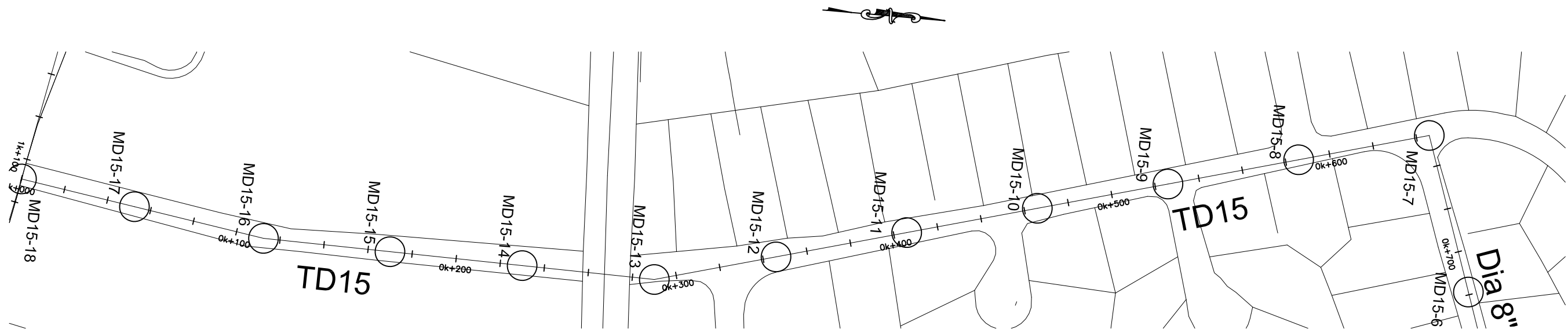
CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-D
 TRUNK SEWER TD8 AND TD13
 EST. 1k + 400 @ 1k + 892

DATE: _____
 SHT: 3 OF 3
 DWG: C.TD8.TD13.03



DESIGNED:		
DRAWN:	R.DACOSTA	
REVIEWED:		
ENGINEER:		
NO.	DATE	ISSUED FOR



SCALE
HOR:
1000

VERT:
100

CONTRACT:

LOAN ID:

PROJECT:
JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PRELIMINARY DESIGN FOR LOT-D

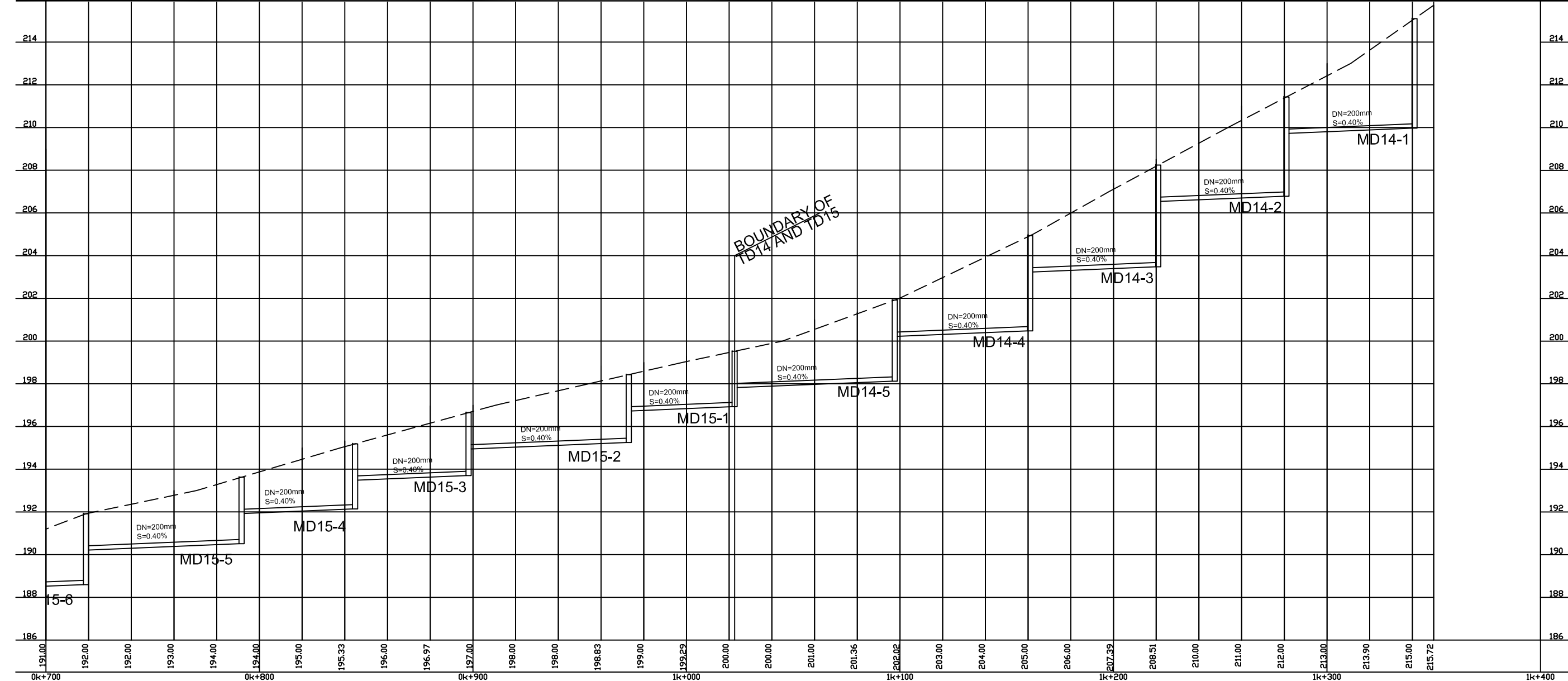
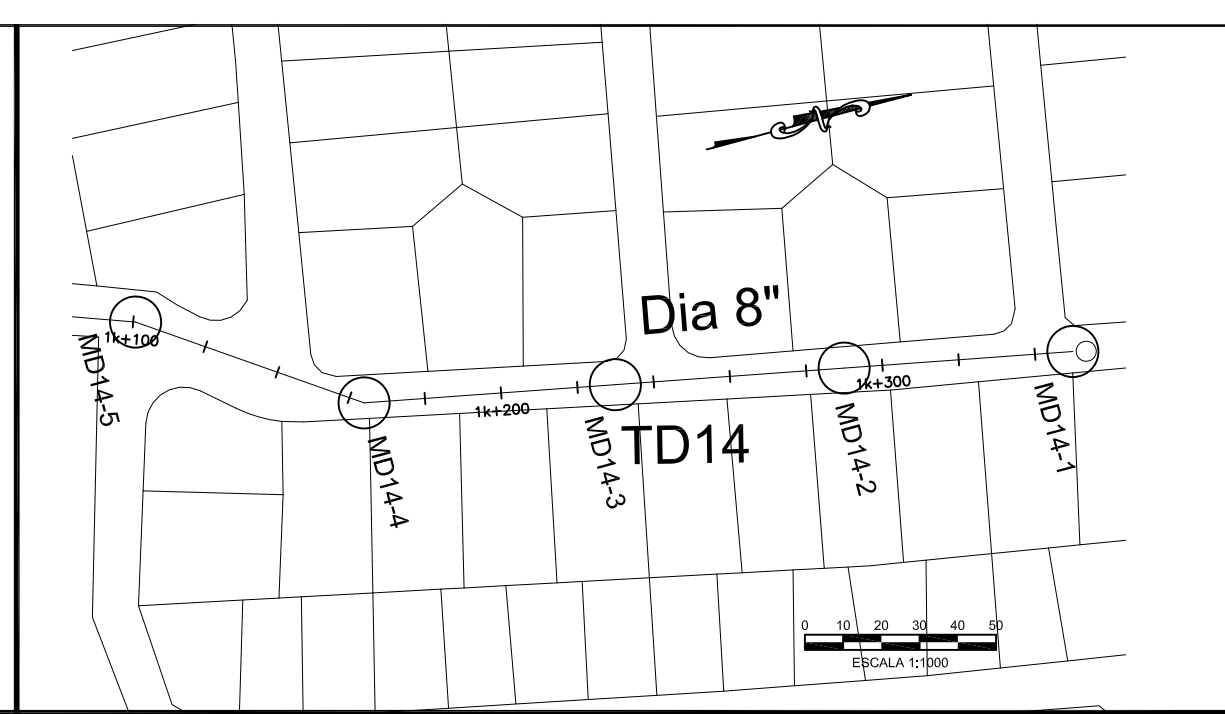
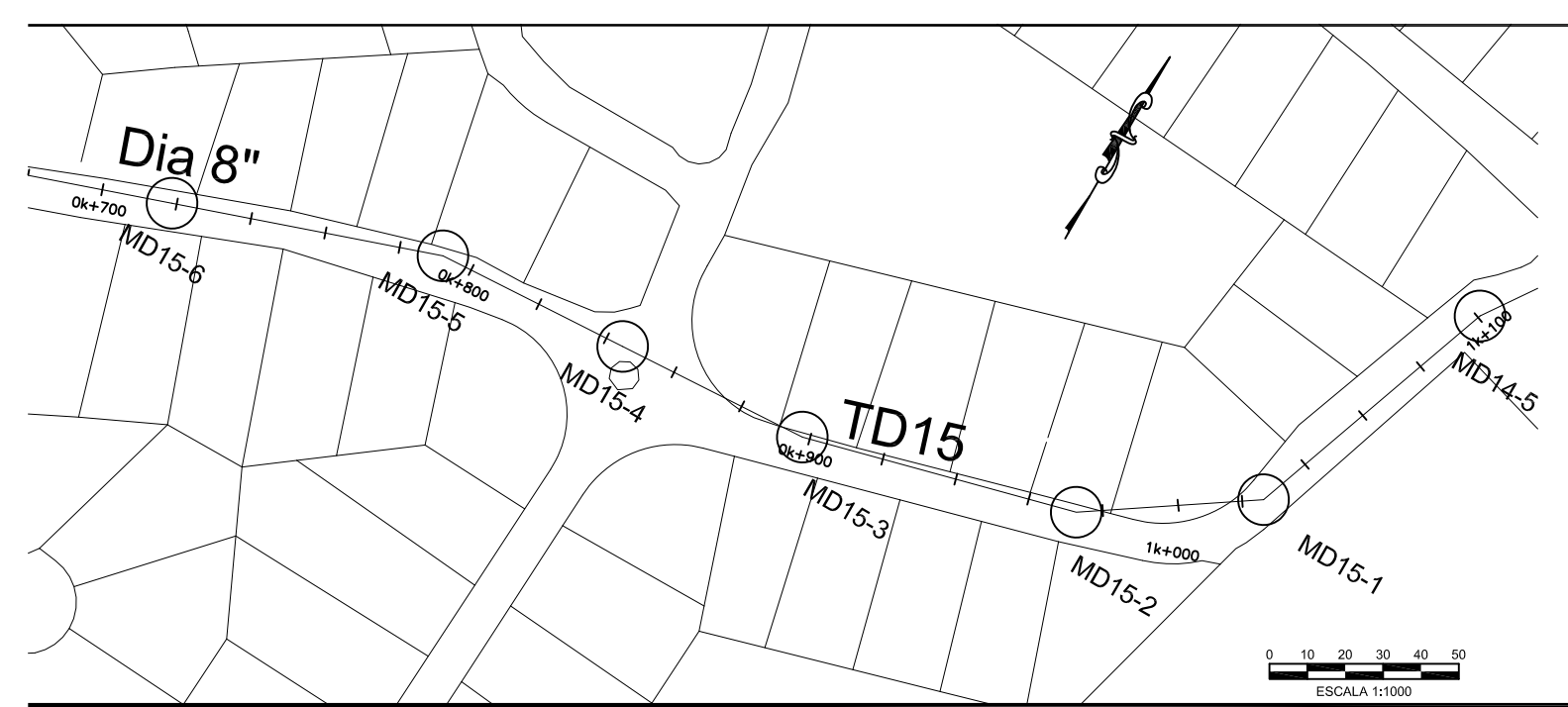
TRUNK SEWER TD14.TD15

EST. 0k + 000 @ 0k + 700

DATE: _____

SHT: 1 OF 2

DWG: C.TD15.14.01



DESIGNED:		
DRAWN:	R.DACOSTA	
REVIEWED:		
ENGINEER:		
NO.	DATE	ISSUED FOR



SCALE
HOR: 1000
VERT: 100

CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069

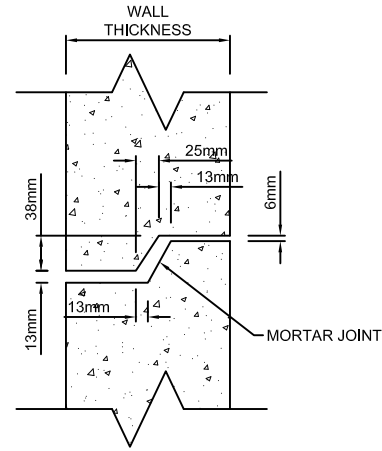


PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

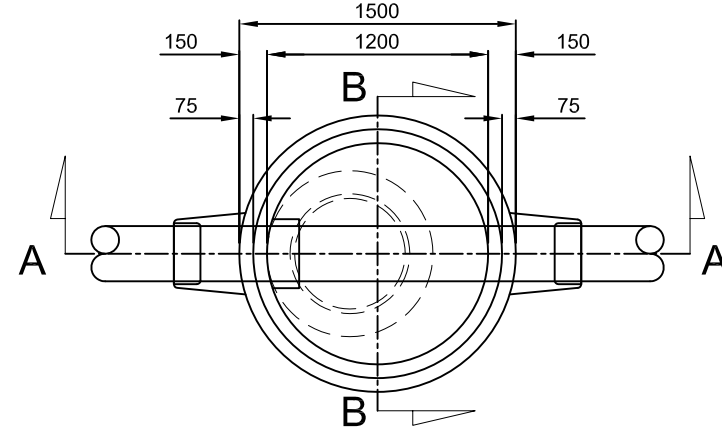
PRELIMINARY DESIGN FOR LOT-D
TRUNK SEWER TD14.TD15
EST. 0k + 700 @ 1k + 332

DATE: _____
SHT: 2 OF 2
DWG: C.TD15.14.02

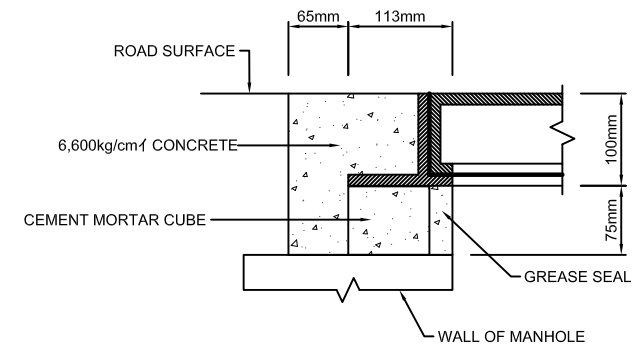
**GENERAL STRUCTURES
(TYPICAL DESIGN)**



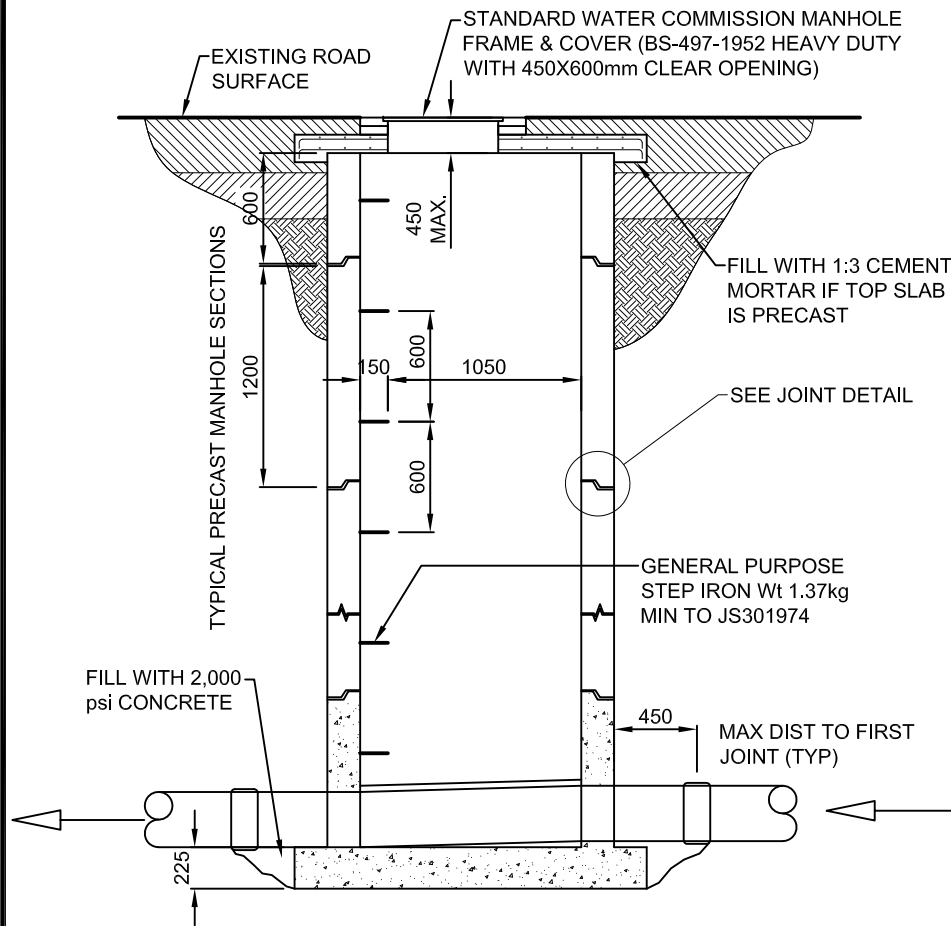
MANHOLE JOINT DETAIL
Scale: 1:4



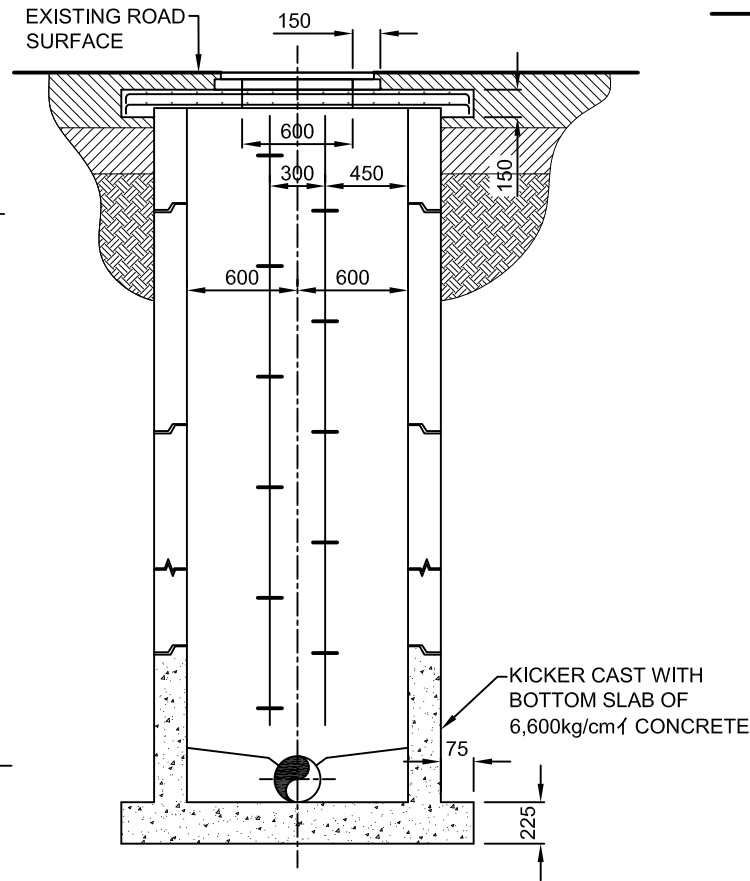
PLAN OF WALL



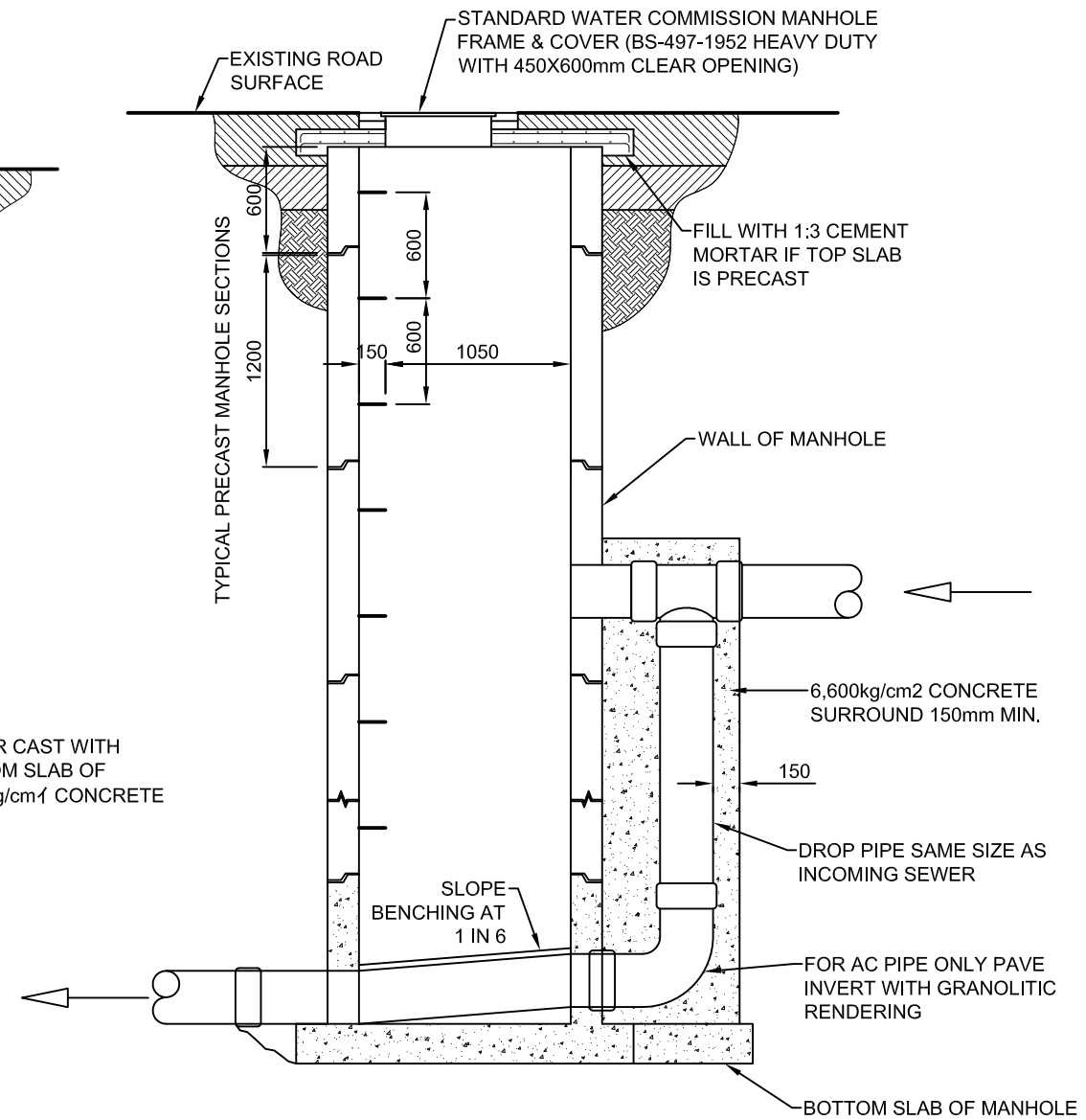
SETTING OF MANHOLE FRAME AND COVER
Scale: 1:4



SECTION A-A
Scale: 1:20



SECTION B-B
Scale: 1:20



TYPICAL SECTION OF BACKDROP MANHOLE
Scale: 1:20

DESIGNED:	
DRAWN:	Ramish Dacosta
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR

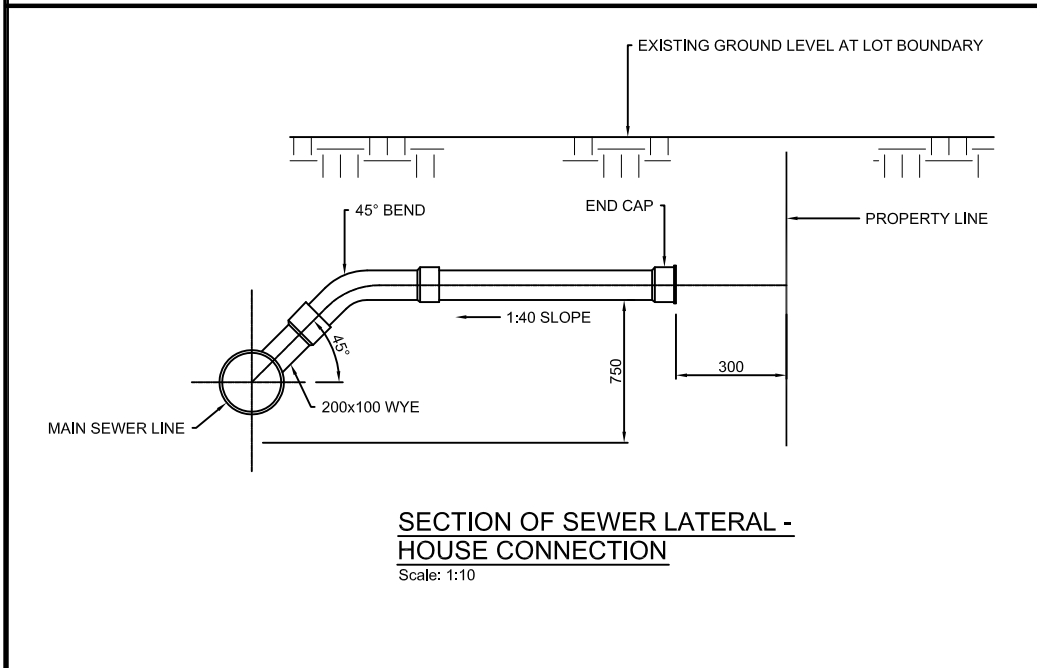
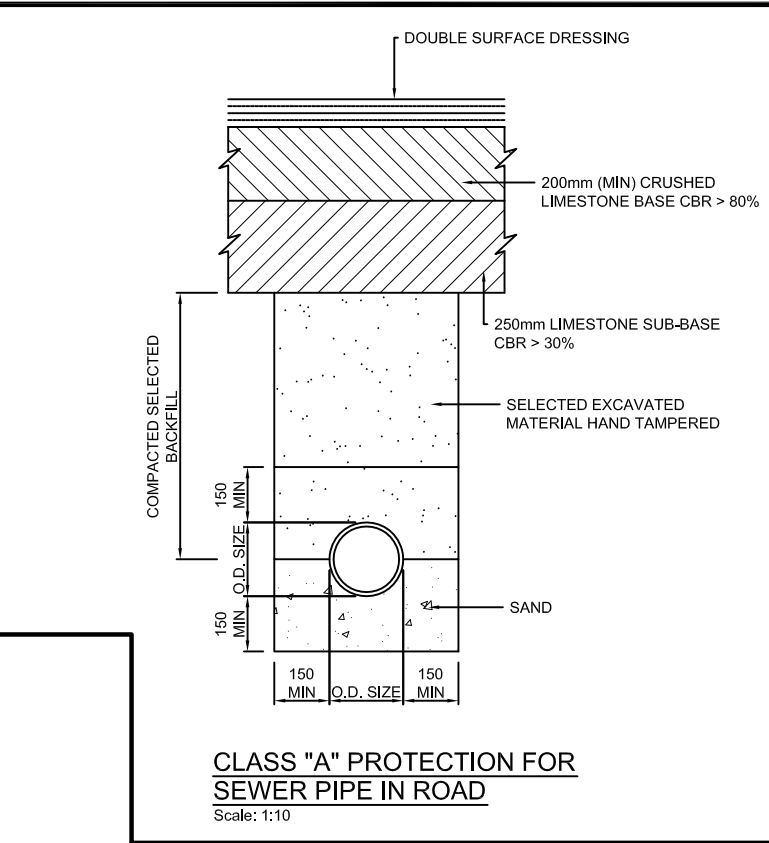
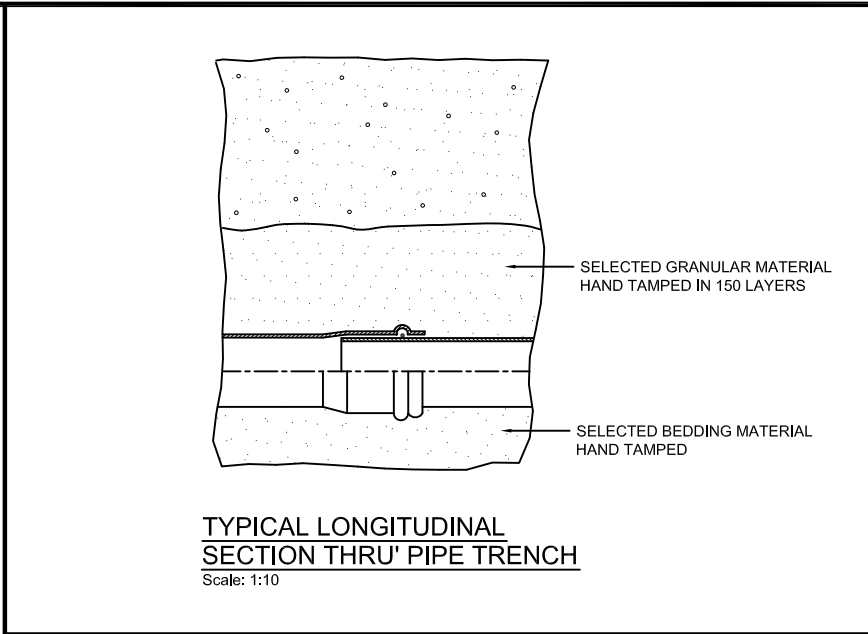
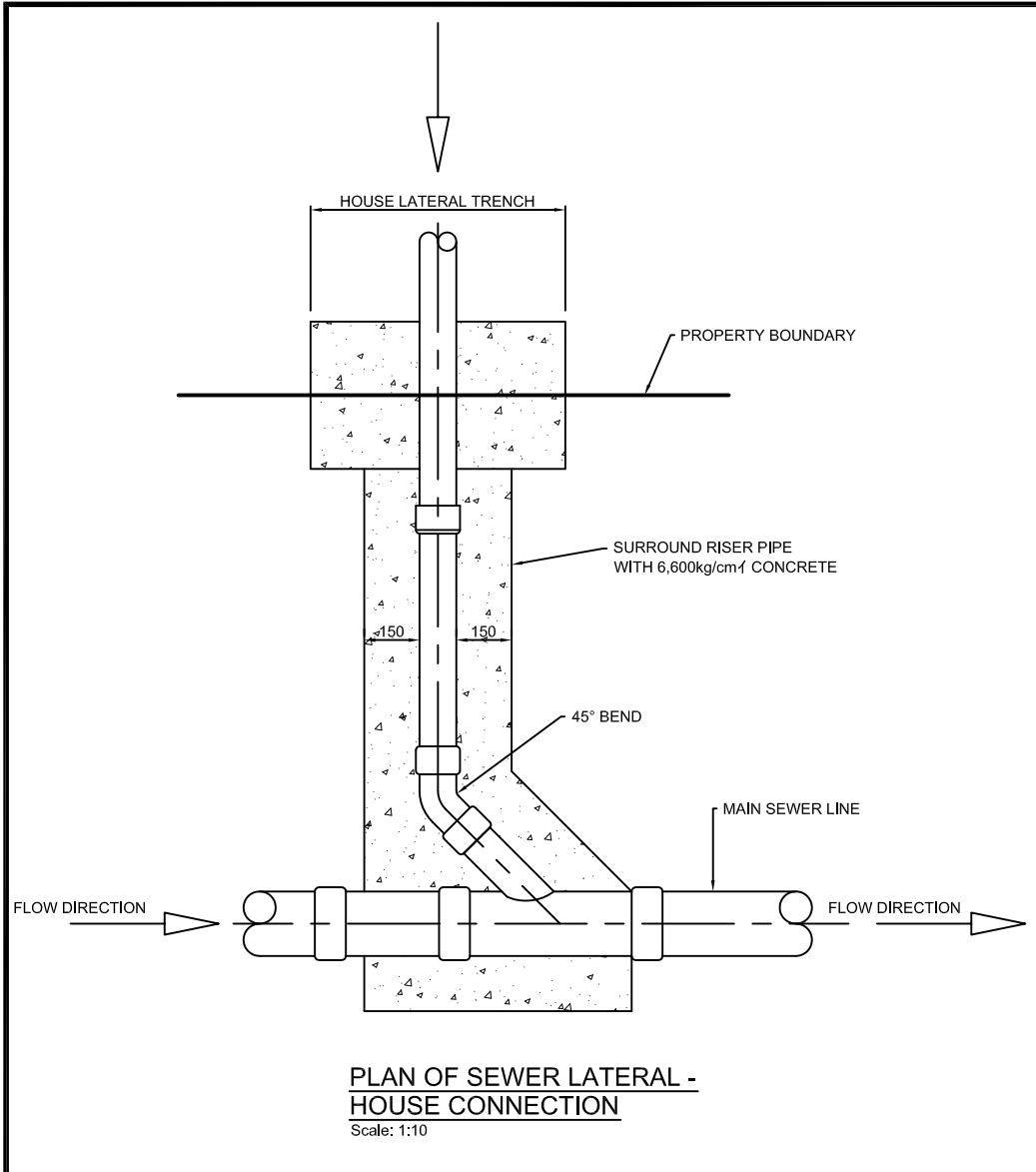
NIPPON KOEI
Challenging mind, Changing dynamics

SCALE	CONTRACT:
HOR:	
VERT:	LOAN ID:
	PROJECT:
	JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT
PRELIMINARY DESIGN
TYPICAL SEWERAGE STRUCTURES
MANHOLE, COVER AND BACKDROP

DATE:	
SHT:	1 OF 2
DWG:	TSD-GEN



NO.	DATE	ISSUED FOR

DESIGNED: _____
 DRAWN: Ramish Dacosta
 REVIEWED: _____
 ENGINEER: _____

NIPPON KOEI
Challenging mind, Changing dynamics

SCALE: _____
 HOR: _____
 VERT: _____
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



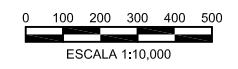
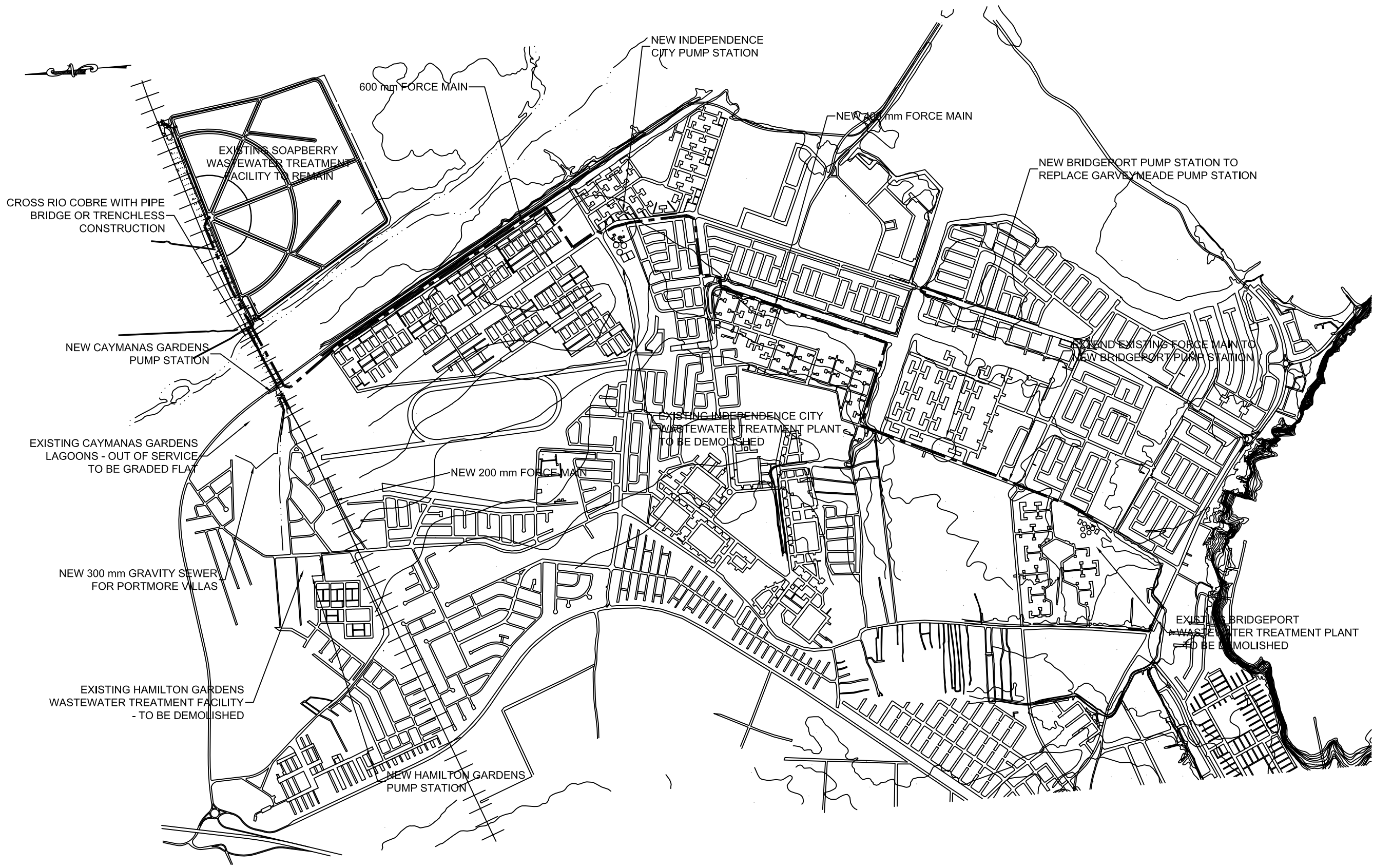
PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PRELIMINARY DESIGN
 TYPICAL SEWERAGE STRUCTURES
 LATERAL, TRENCH

DATE: _____
 SHT: 2 OF 2
 DWG: TSS-GEN

PORTMORE SCHEME

LIST OF DRAWINGS (1/1)

NO.	DWG. NO.	TITLE	NO.	DWG. NO.	TITLE
1	G.A0.01	PORTMORE ALTERNATIVE A - PUMPED SOLUTION OVERALL SCHEME PLAN	24	C.A5.10	PORTMORE ALTERNATIVE A - PUMPED SOLUTION GENERALIZED PLAN & PROFILE STATION 6k + 300 @ 6k + 600
2	C.A1.01	PORTMORE ALTERNATIVE A - PUMPED SOLUTION INDEPENDENCE CITY PUMP STATION CIVIL SITE PLAN	25	C.A6.01	PORTMORE ALTERNATIVE A & B RIO COBRE CROSSING PIPE BRIDGE PLAN AND ELEVATION
3	M.A1.01	PORTMORE ALTERNATIVE A - PUMPED SOLUTION INDEPENDENCE CITY PUMP STATION MECHANICAL PLANS	26	GB0.01	PORTMORE ALTERNATIVE B - GRAVITY SOLUTION OVERALL SCHEME PLAN
4	M.A1.02	PORTMORE ALTERNATIVE A - PUMPED SOLUTION INDEPENDENCE CITY PUMP STATION MECHANICAL SECTION	27	C.B1.01	PORTMORE ALTERNATIVE B - GRAVITY SOLUTION CAYMANAS GARDENS PUMP STATION CIVIL SITE PLAN
5	A.A1.01	PORTMORE ALTERNATIVE A - PUMPED SOLUTION INDEPENDENCE CITY PUMP STATION ARCHITECTURAL ELEVATIONS	28	M.B1.01	PORTMORE ALTERNATIVE B - GRAVITY SOLUTION CAYMANAS GARDENS PUMP STATION MECHANICAL PLANS
6	C.A2.01	PORTMORE ALTERNATIVE A - PUMPED SOLUTION BRIDGEPORT PUMP STATION CIVIL SITE PLAN	29	M.B1.02	PORTMORE ALTERNATIVE B - GRAVITY SOLUTION CAYMANAS GARDENS PUMP STATION TRANSVERSE SECTIONS
7	M.A2.01	PORTMORE ALTERNATIVE A - PUMPED SOLUTION BRIDGEPORT PUMP STATION MECHANICAL PLANS	30	M.B1.03	PORTMORE ALTERNATIVE B - GRAVITY SOLUTION CAYMANAS GARDENS PUMP STATION LONGITUDINAL SECTION
8	M.A2.02	PORTMORE ALTERNATIVE A - PUMPED SOLUTION BRIDGEPORT PUMP STATION MECHANICAL SECTION	31	A.B1.01	PORTMORE ALTERNATIVE B - GRAVITY SOLUTION CAYMANAS GARDENS PUMP STATION ARCHITECTURAL ELEVATIONS
9	A.A2.01	PORTMORE ALTERNATIVE A - PUMPED SOLUTION BRIDGEPORT PUMP STATION ARCHITECTURAL ELEVATION	32	C.B2.01	PORTMORE ALTERNATIVE B - GRAVITY SOLUTION GENERALIZED PLAN & PROFILE STATION 0k + 000 @ 0k + 700
10	C.B1.01	PORTMORE ALTERNATIVE A - PUMPED SOLUTION CAYMANAS GARDENS PUMP STATION CIVIL SITE PLAN	33	C.B2.02	PORTMORE ALTERNATIVE B - GRAVITY SOLUTION GENERALIZED PLAN & PROFILE STATION 0k + 700 @ 1k + 400
11	M.A2.02	ALTERNATIVE A RELOCATED BRIDGEPORT PUMP STATION PLAN	34	C.B2.03	PORTMORE ALTERNATIVE B - GRAVITY SOLUTION GENERALIZED PLAN & PROFILE STATION 1k + 400 @ 2k + 100
12	M.A2.03	ALTERNATIVE A RELOCATED BRIDGEPORT PUMP STATION PLAN	35	C.B2.04	PORTMORE ALTERNATIVE B - GRAVITY SOLUTION GENERALIZED PLAN & PROFILE STATION 2k + 100 @ 2k + 800
13	A.A3.01	PORTMORE ALTERNATIVE A - PUMPED SOLUTION CAYMANAS GARDENS PUMP STATION ARCHITECTURAL ELEVATIONS	36	C.B2.05	PORTMORE ALTERNATIVE B - GRAVITY SOLUTION GENERALIZED PLAN & PROFILE STATION 2k + 800 @ 3k + 500
14	C.A4.01	PORTMORE ALTERNATIVE A - PUMPED SOLUTION HAMILTON GARDENS PUMP STATION AND FORCE MAIN CIVIL PLAN	37	C.B2.06	PORTMORE ALTERNATIVE B - GRAVITY SOLUTION GENERALIZED PLAN & PROFILE STATION 3k + 500 @ 4k + 200
15	C.A5.01	PORTMORE ALTERNATIVE A - PUMPED SOLUTION GENERALIZED PLAN & PROFILE STATION 0k + 000 @ 0k + 700	38	C.B2.07	PORTMORE ALTERNATIVE B - GRAVITY SOLUTION GENERALIZED PLAN & PROFILE STATION 4k + 200 @ 4k + 900
16	C.A5.02	PORTMORE ALTERNATIVE A - PUMPED SOLUTION GENERALIZED PLAN & PROFILE STATION 7k + 000 @ 1k + 400	39	C.B2.08	PORTMORE ALTERNATIVE B - GRAVITY SOLUTION GENERALIZED PLAN & PROFILE STATION 4k + 900 @ 5k + 600
17	C.A5.03	PORTMORE ALTERNATIVE A - PUMPED SOLUTION GENERALIZED PLAN & PROFILE STATION 1k + 400 @ 2k + 100	40	C.B2.09	PORTMORE ALTERNATIVE B - GRAVITY SOLUTION GENERALIZED PLAN & PROFILE STATION 5k + 600 @ 6k + 300
18	C.A5.04	PORTMORE ALTERNATIVE A - PUMPED SOLUTION GENERALIZED PLAN & PROFILE STATION 2k + 100 @ 2k + 800	41	C.B2.09	PORTMORE ALTERNATIVE B - GRAVITY SOLUTION GENERALIZED PLAN & PROFILE STATION 6k + 300 @ 6k + 715
19	C.A5.05	PORTMORE ALTERNATIVE A - PUMPED SOLUTION GENERALIZED PLAN & PROFILE STATION 2k + 800 @ 3k + 500			
20	C.A5.06	PORTMORE ALTERNATIVE A - PUMPED SOLUTION GENERALIZED PLAN & PROFILE STATION 3k + 500 @ 4k + 200			
21	C.A5.07	PORTMORE ALTERNATIVE A - PUMPED SOLUTION GENERALIZED PLAN & PROFILE STATION 4k + 200 @ 4k + 900			
22	C.A5.08	PORTMORE ALTERNATIVE A - PUMPED SOLUTION GENERALIZED PLAN & PROFILE STATION 4k + 900 @ 5k + 600			
23	C.A5.09	PORTMORE ALTERNATIVE A - PUMPED SOLUTION GENERALIZED PLAN & PROFILE STATION 5k + 600 @ 6k + 300			



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

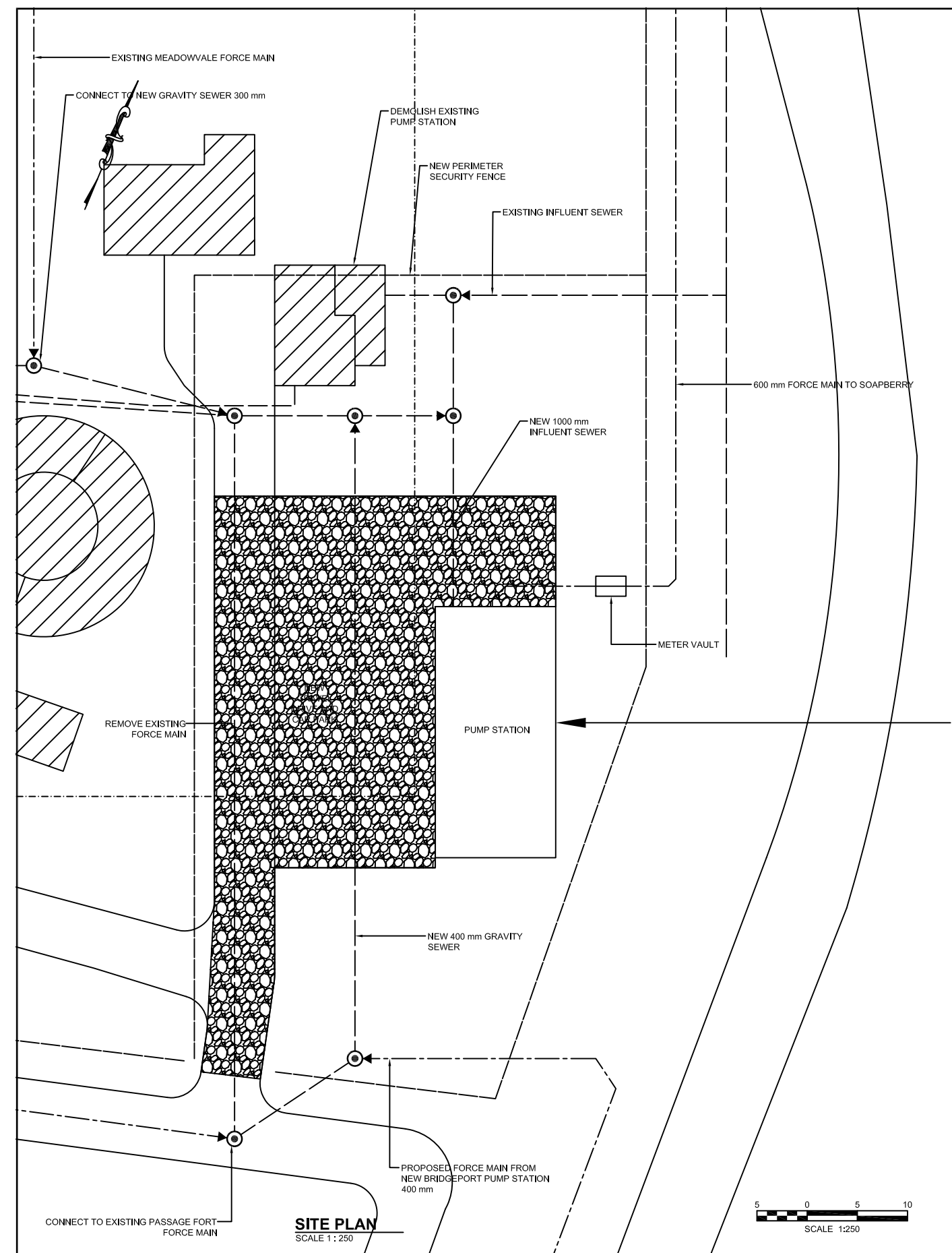


SCALE
 HOR: 1:10,000
 VERT: _____
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069

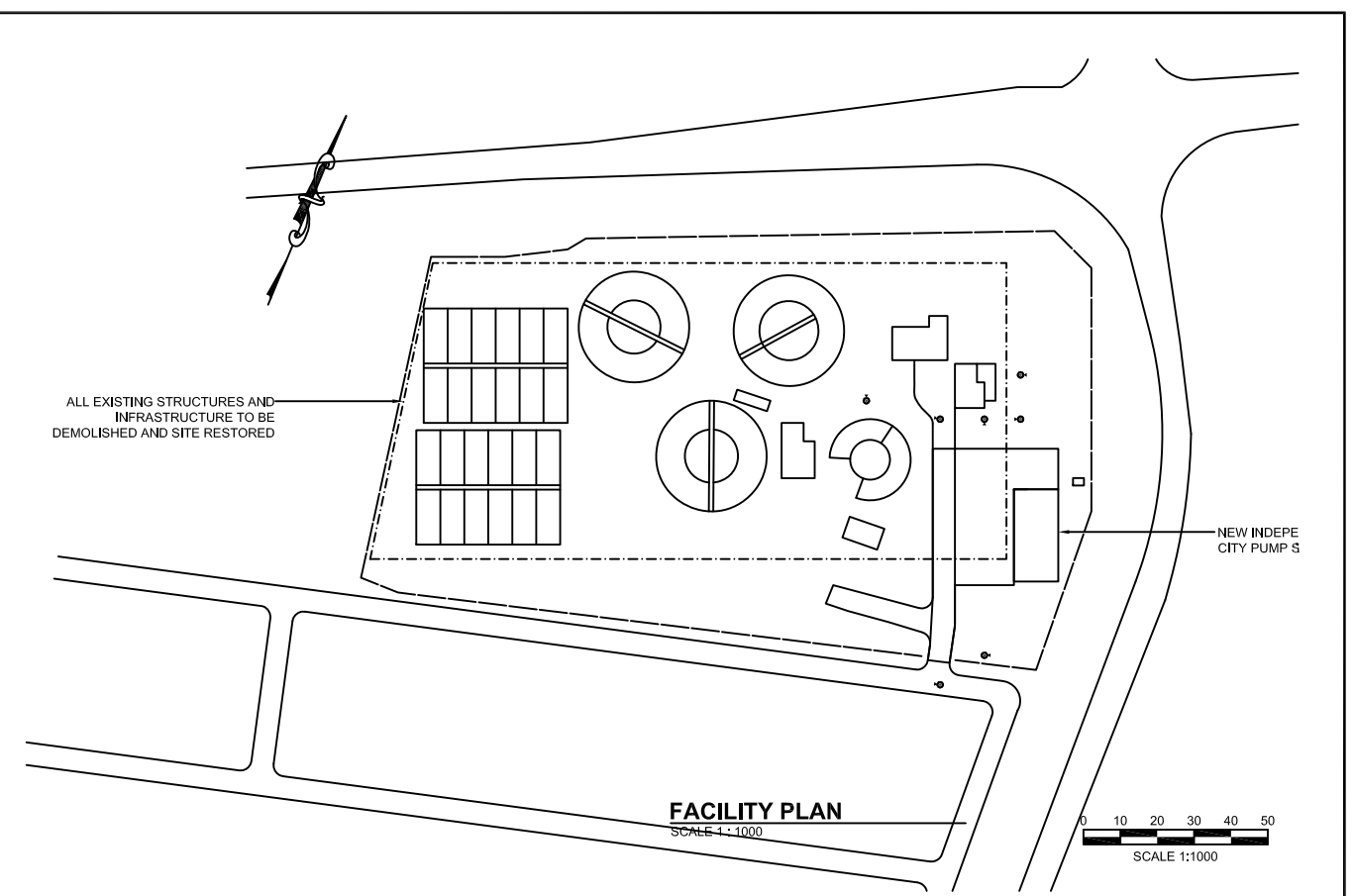


PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE A - PUMPED SOLUTION
 OVERALL SCHEME
 PLAN

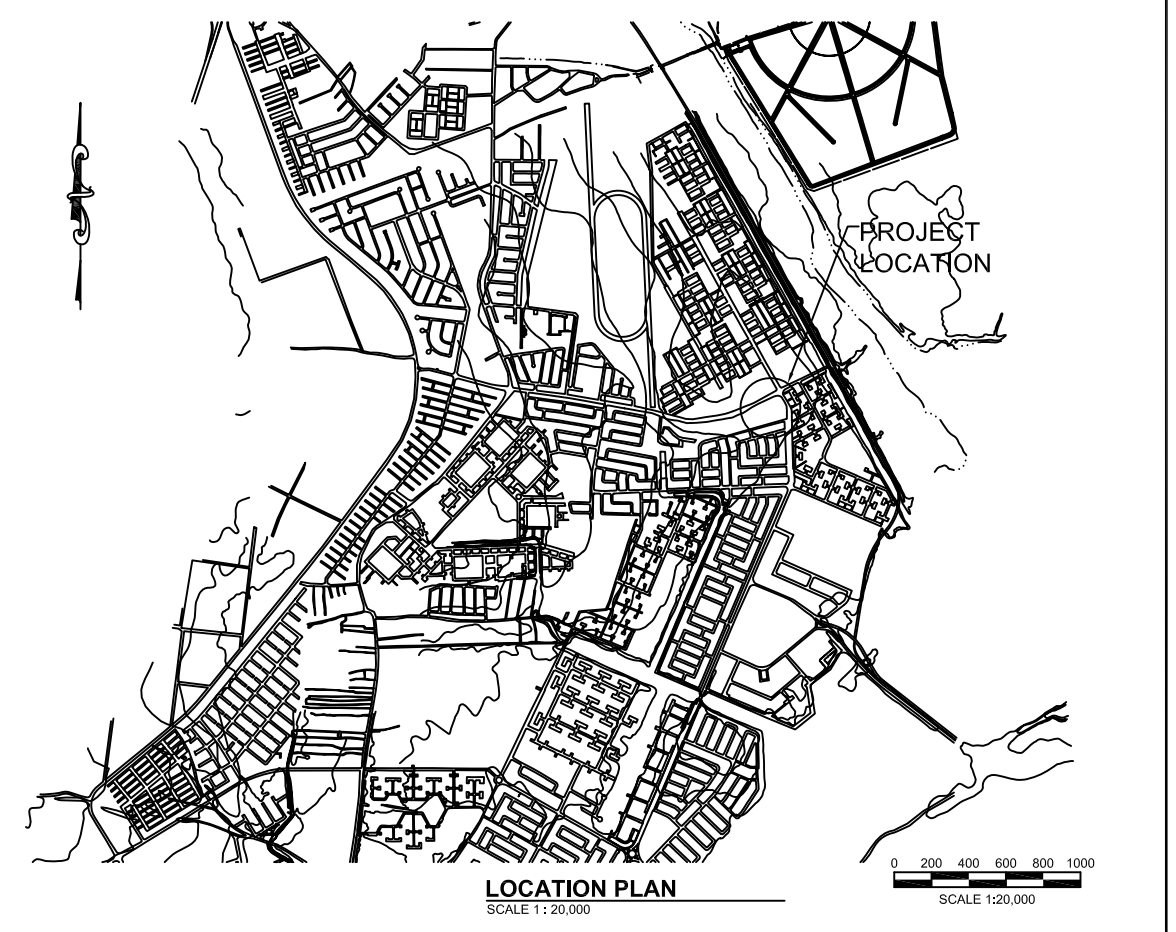
DATE: _____
 SHT: 01 OF 41
 DWG: G.A0.01



SITE PLAN
SCALE 1: 250



FACILITY PLAN
SCALE 1: 1000



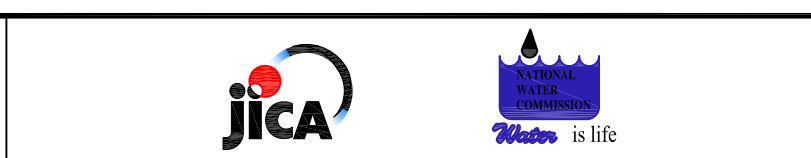
LOCATION PLAN
SCALE 1: 20,000

NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

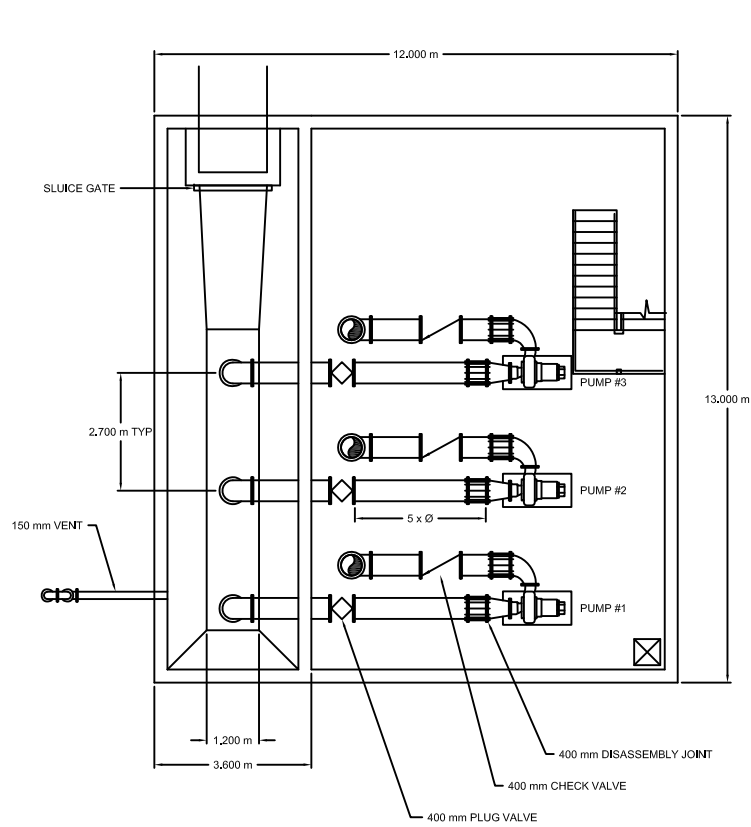


SCALE
 HOR: _____
 VERT: _____
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069

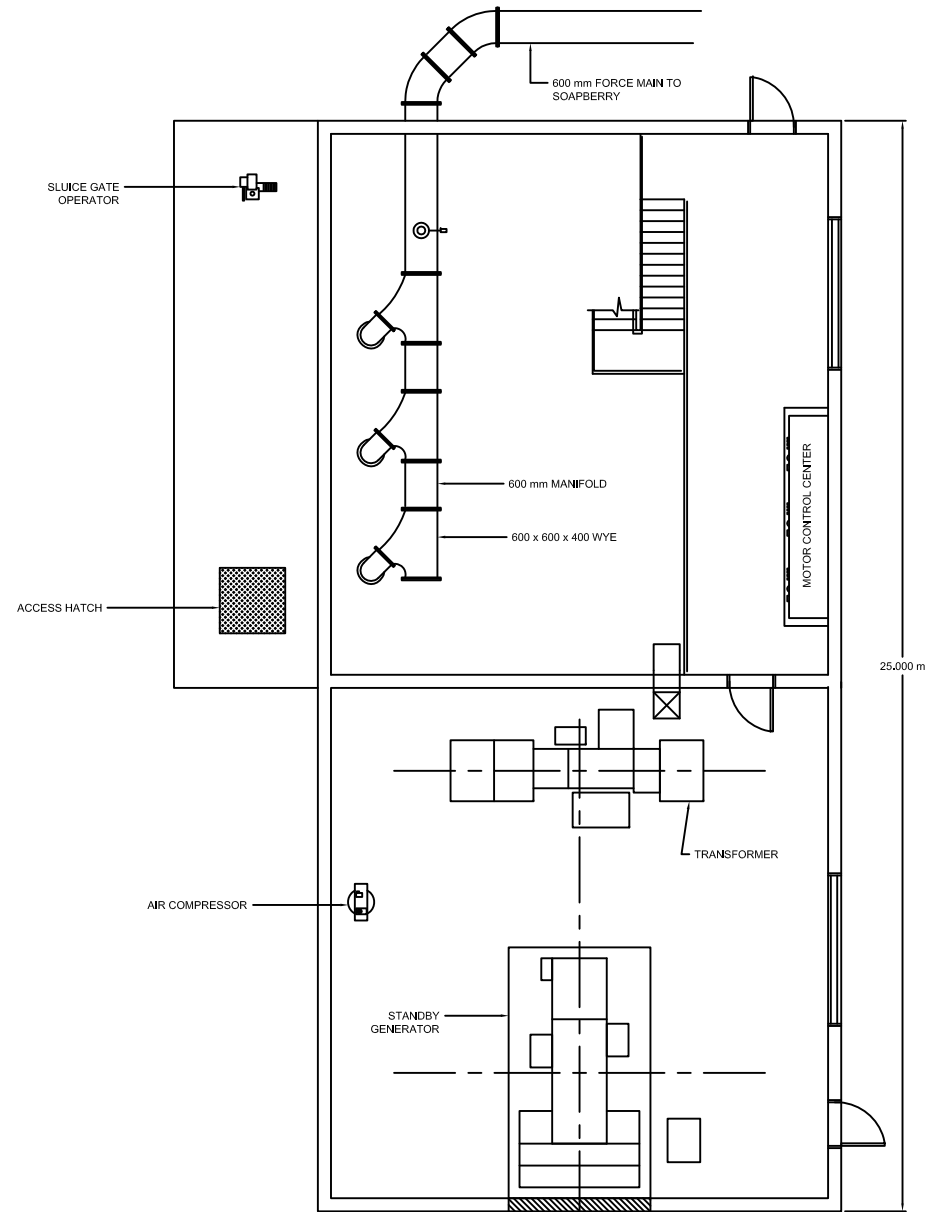


PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE A - PUMPED SOLUTION
 INDEPENDENCE CITY PUMP STATION
 CIVIL SITE PLAN

DATE: _____
 SHT: 02 OF 41
 DWG: C.A1.01



PUMP ROOM PLAN
SCALE = 1:60



MAIN FLOOR PLAN
SCALE = 1:60



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

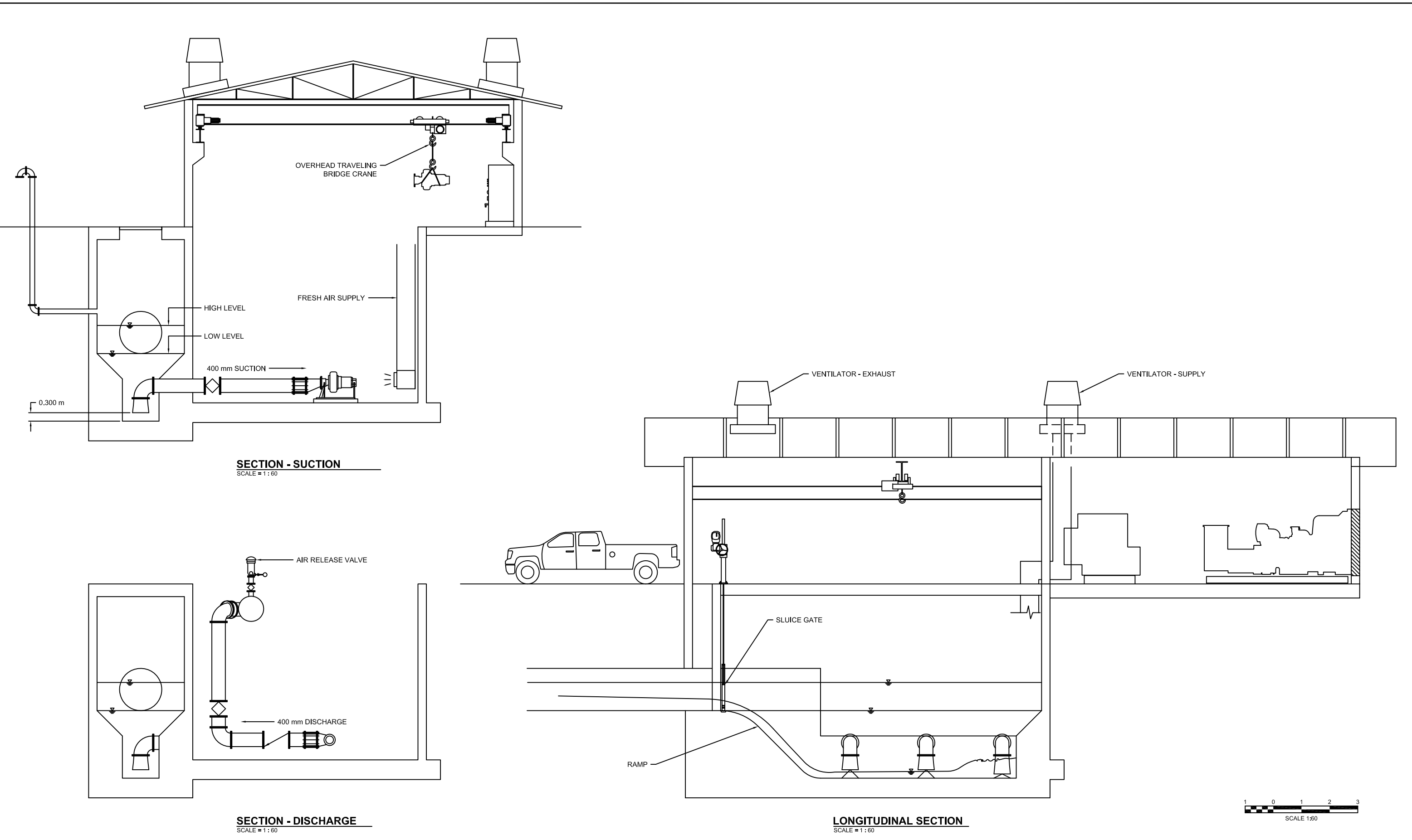


SCALE: 1:60
 CONTRACT: _____
 LOAN ID: _____
 VERT: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE A - PUMPED SOLUTION
 INDEPENDENCE CITY PUMP STATION
 MECHANICAL PLANS

DATE: _____
 SHT: 03 OF 41
 DWG: M.A1.01



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES



SCALE
HOR: 1 : 60
VERT: 1 : 60

CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



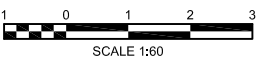
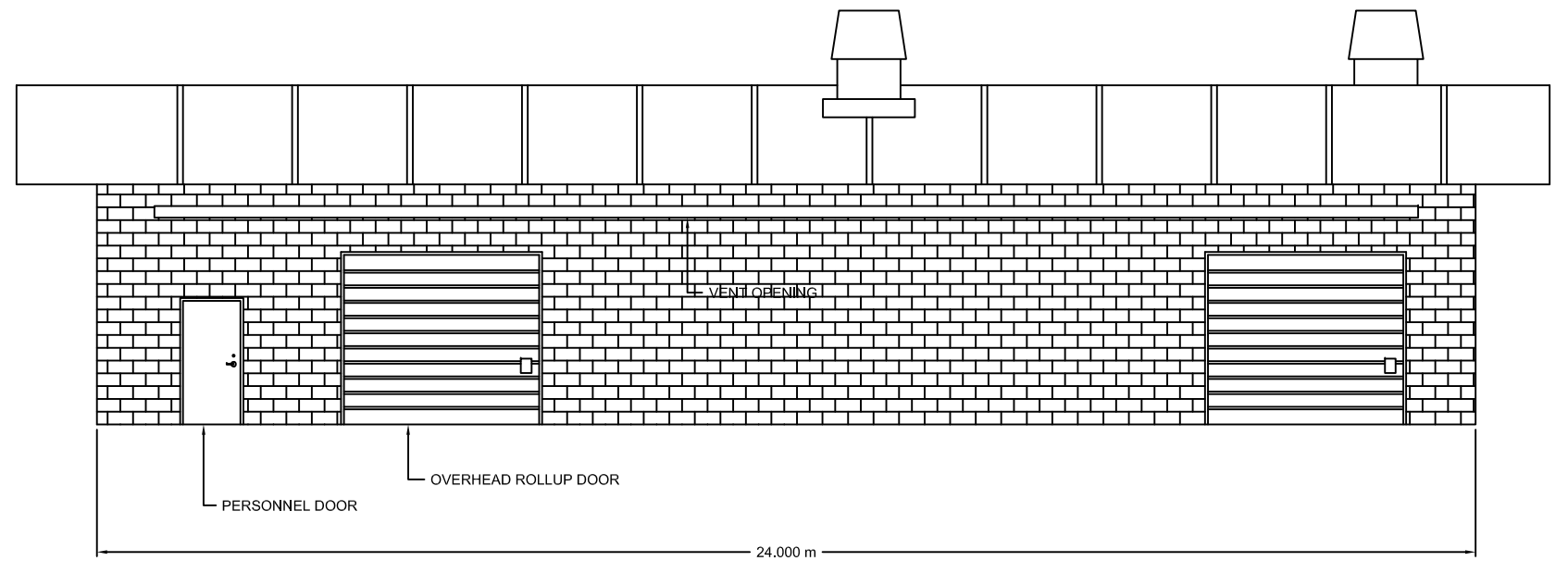
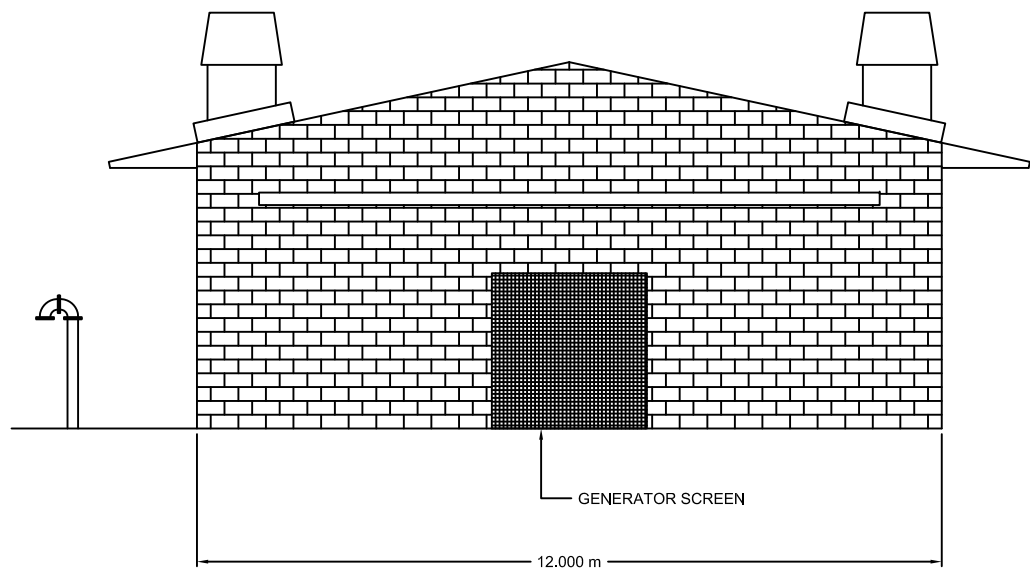
PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT

PORTMORE ALTERNATIVE A - PUMPED SOLUTION

INDEPENDENCE CITY PUMP STATION

MECHANICAL SECTION

DATE: _____
 SHT: 04 OF 41
 DWG: M.A1.02



DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

NIPPON KOEI
Challenging mind, Changing dynamics

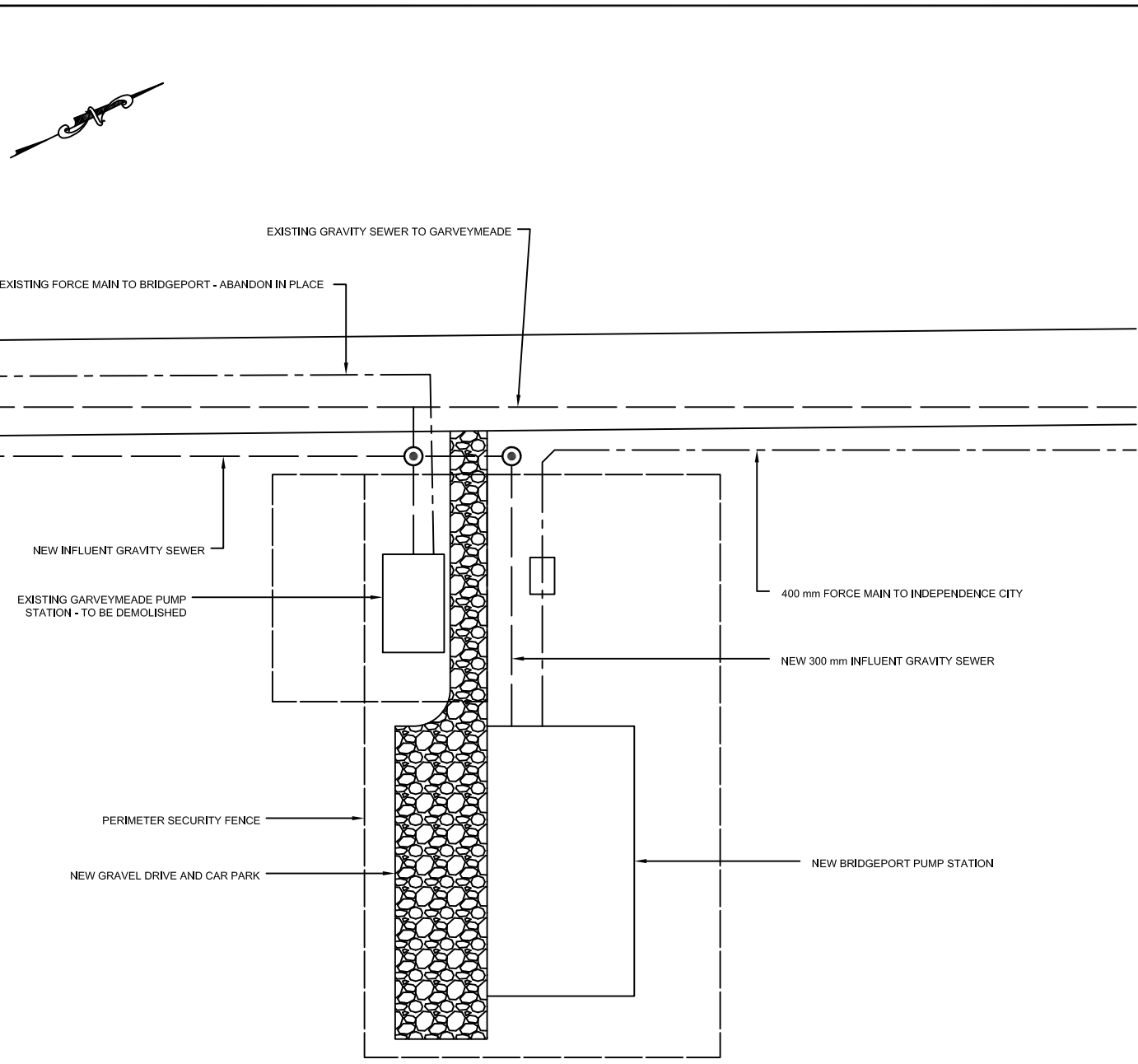
SCALE
 HOR: 1:60
 VERT:
 CONTRACT:
 LOAN ID:
 PROJECT: JA09Q1009/09-069



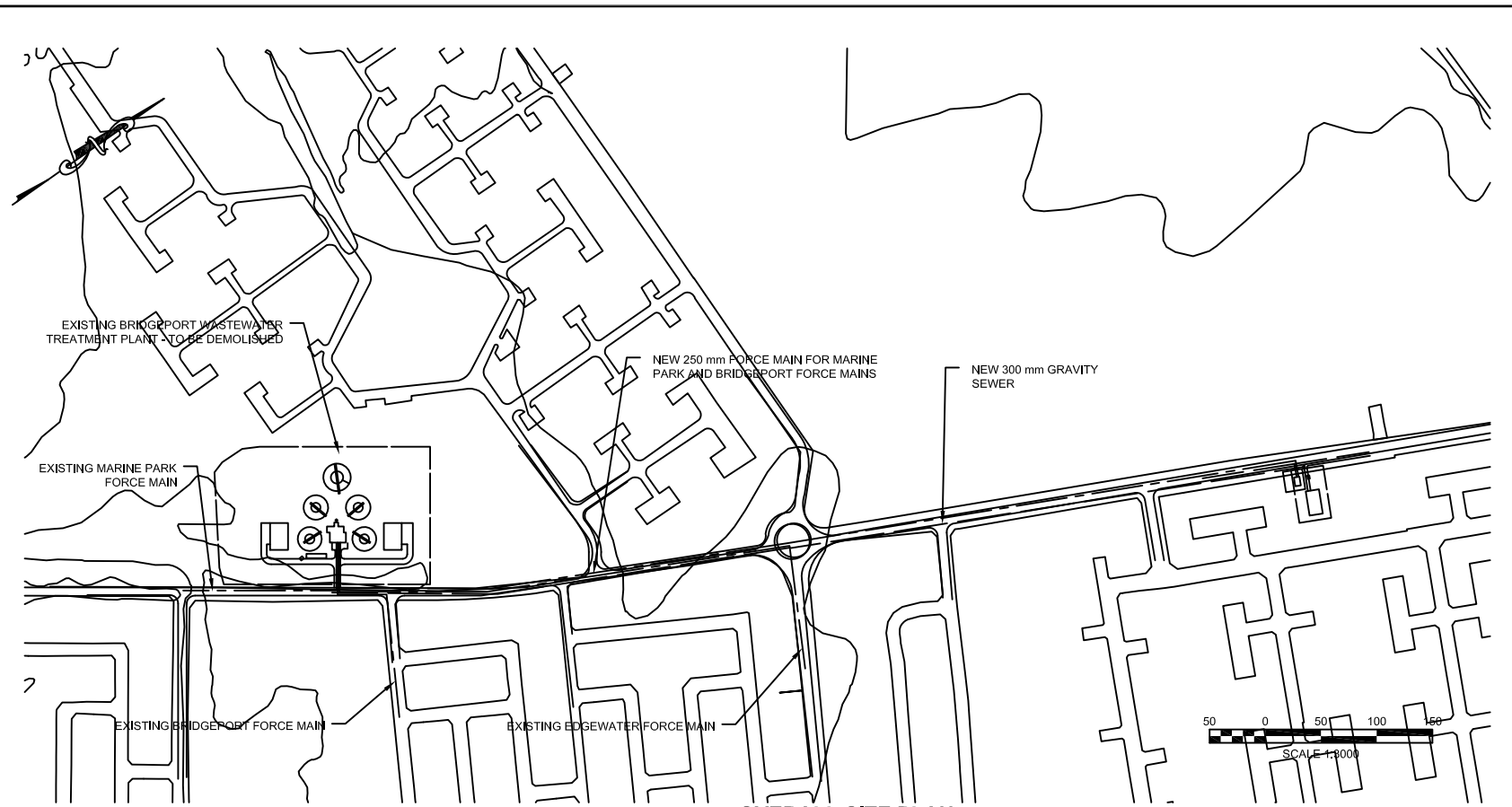
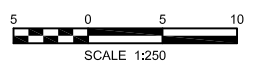
PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE A - PUMPED SOLUTION
 INDEPENDENCE CITY PUMP STATION
 ARCHITECTURAL ELEVATIONS

DATE: _____
 SHT: 05 OF 41
 DWG: A.A1.01

NO.	DATE	ISSUED FOR



SITE PLAN
SCALE 1:250



OVERALL SITE PLAN
SCALE 1:3000



LOCATION PLAN
SCALE 1:20,000

NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

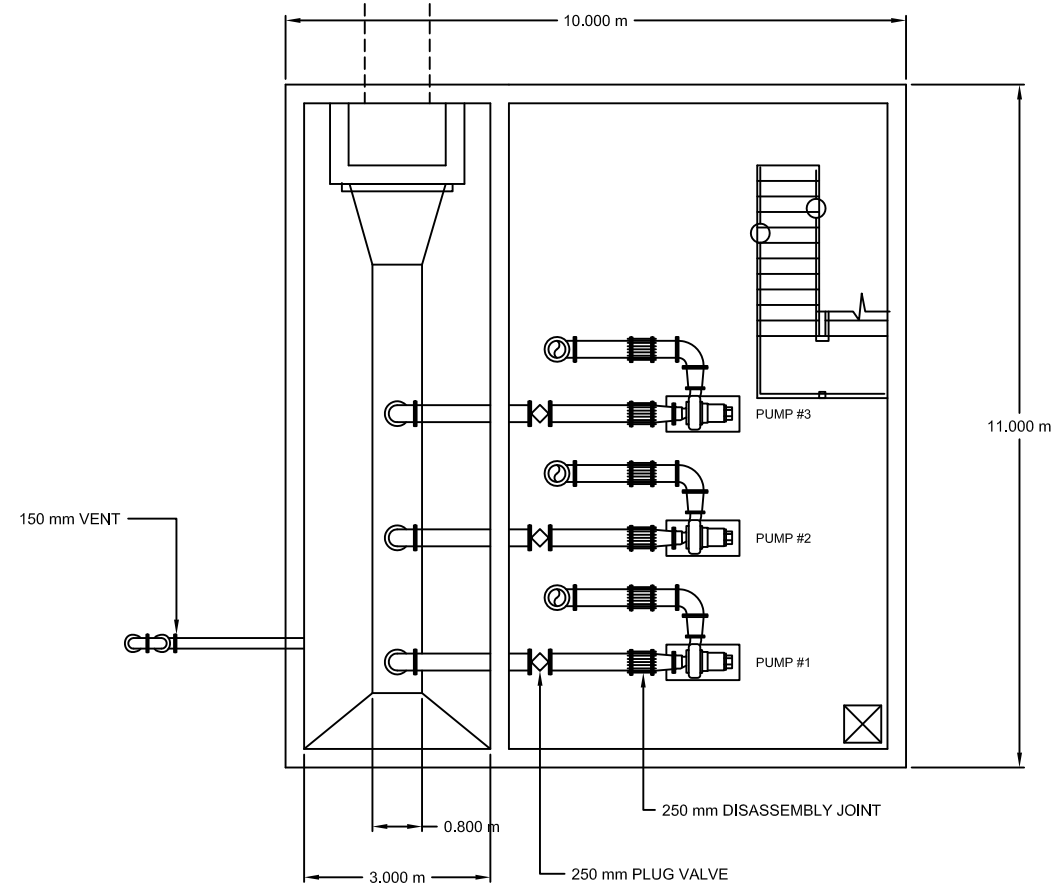


SCALE
 HOR: _____
 VERT: _____
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069

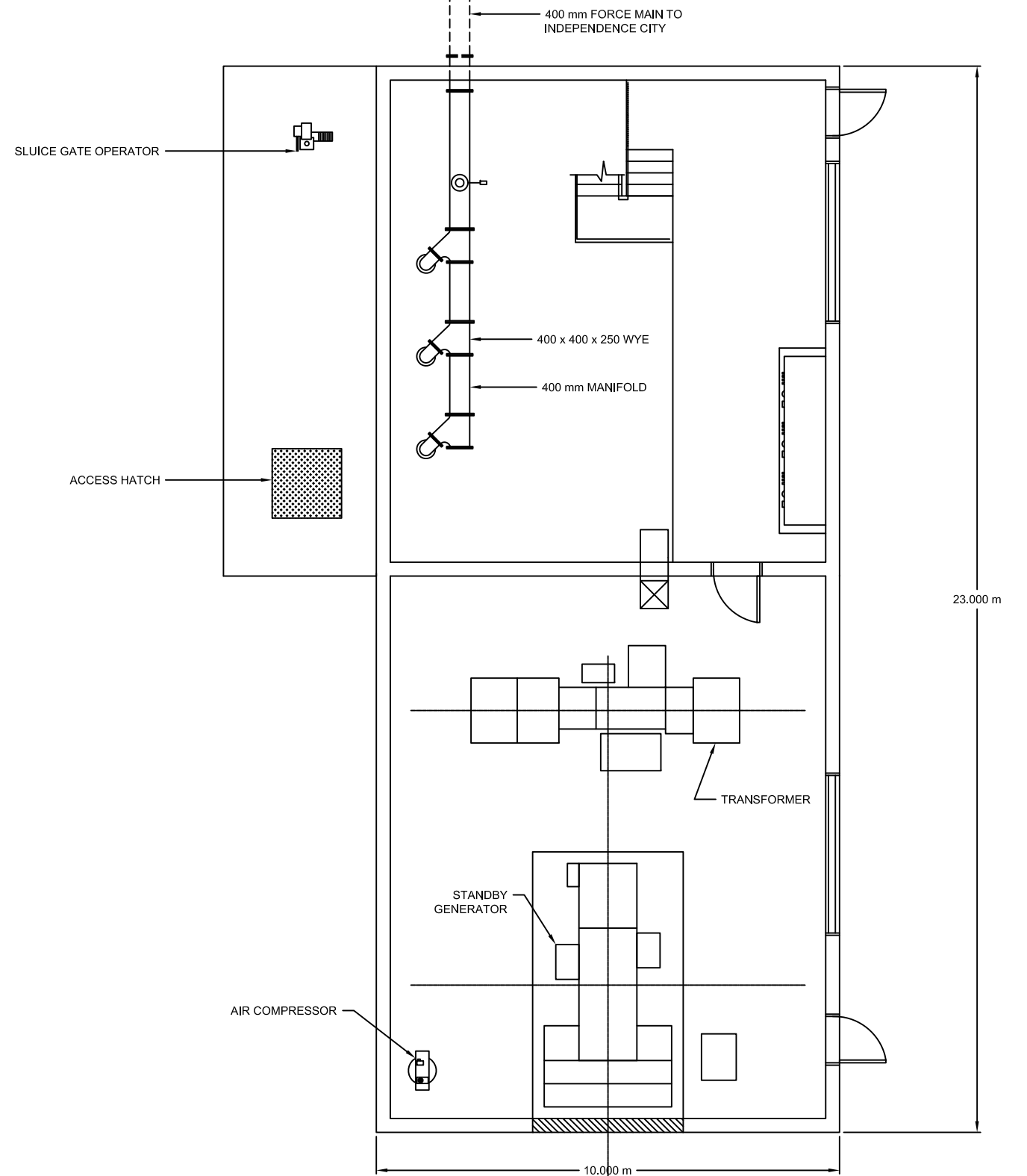


PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE A - PUMPED SOLUTION
 BRIDGEPORT PUMP STATION
 CIVIL SITE PLAN

DATE: _____
 SHT: 06 OF 41
 DWG: C.A2.01



PUMP ROOM PLAN
SCALE = 1 : 60



MAIN FLOOR PLAN
SCALE = 1 : 60



DESIGNED: T. WILSHUSEN
DRAWN: E. WRIGHT
REVIEWED: H. TSUTA
ENGINEER: K. TYNES



SCALE
HOR:
VERT:

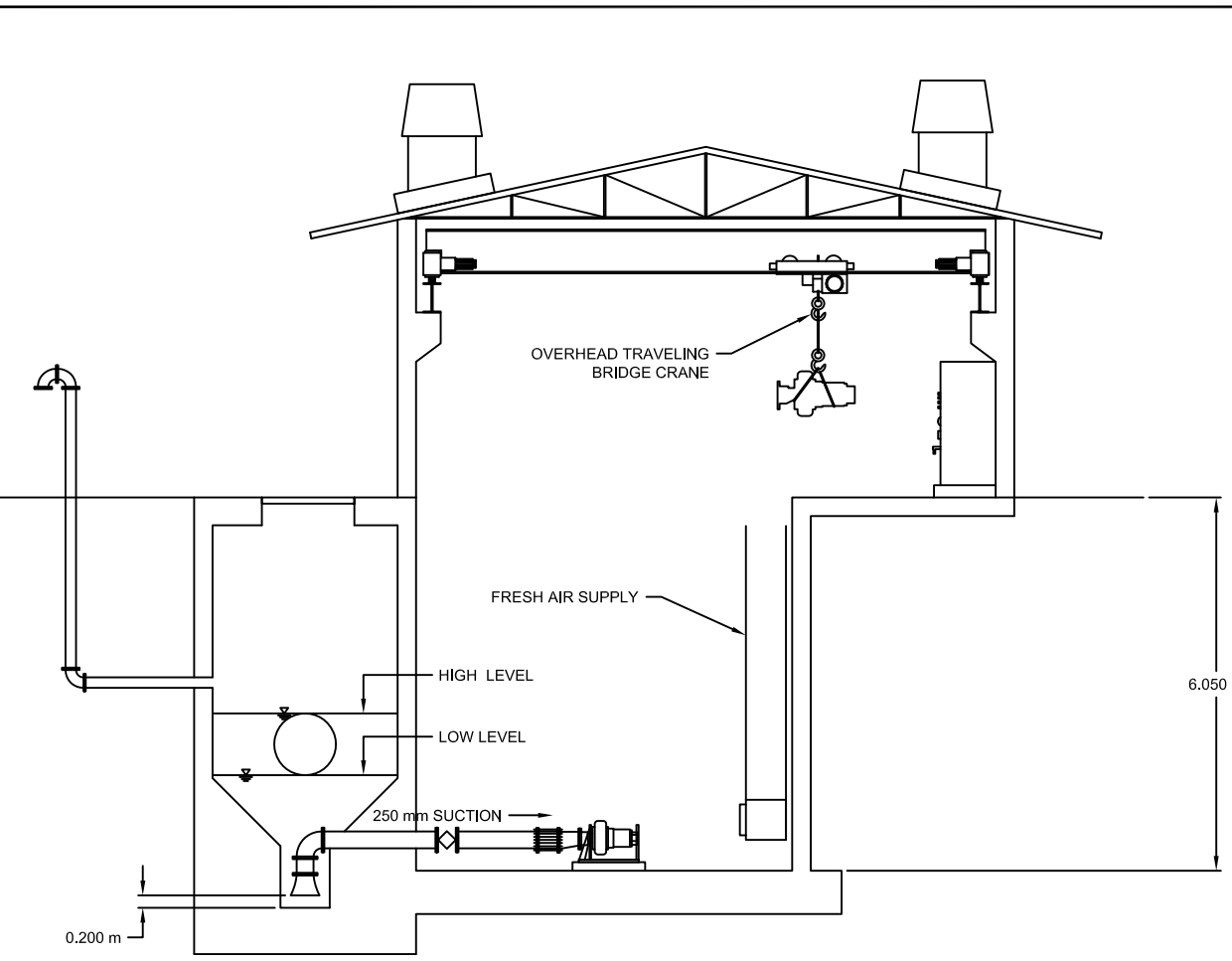
CONTRACT:
LOAN ID:
PROJECT:
JA09Q1009/09-069



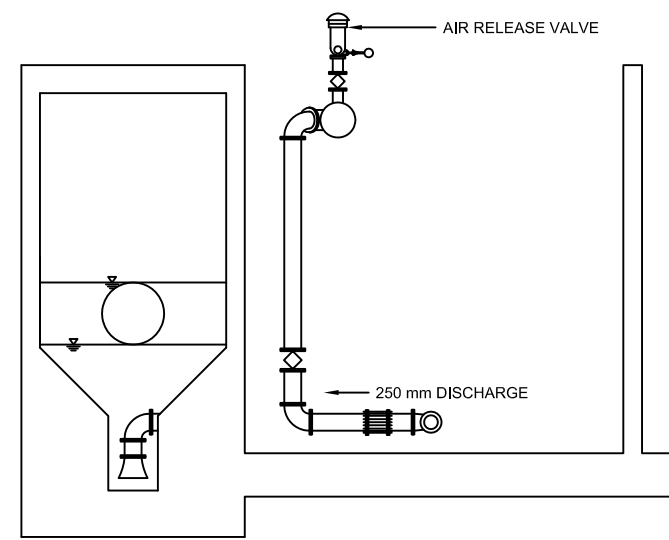
PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT
PORTMORE ALTERNATIVE A - PUMPED SOLUTION
BRIDGEPORT PUMP STATION
MECHANICAL PLANS

DATE: _____
SHT: 07 OF 41
DWG: M.A2.01

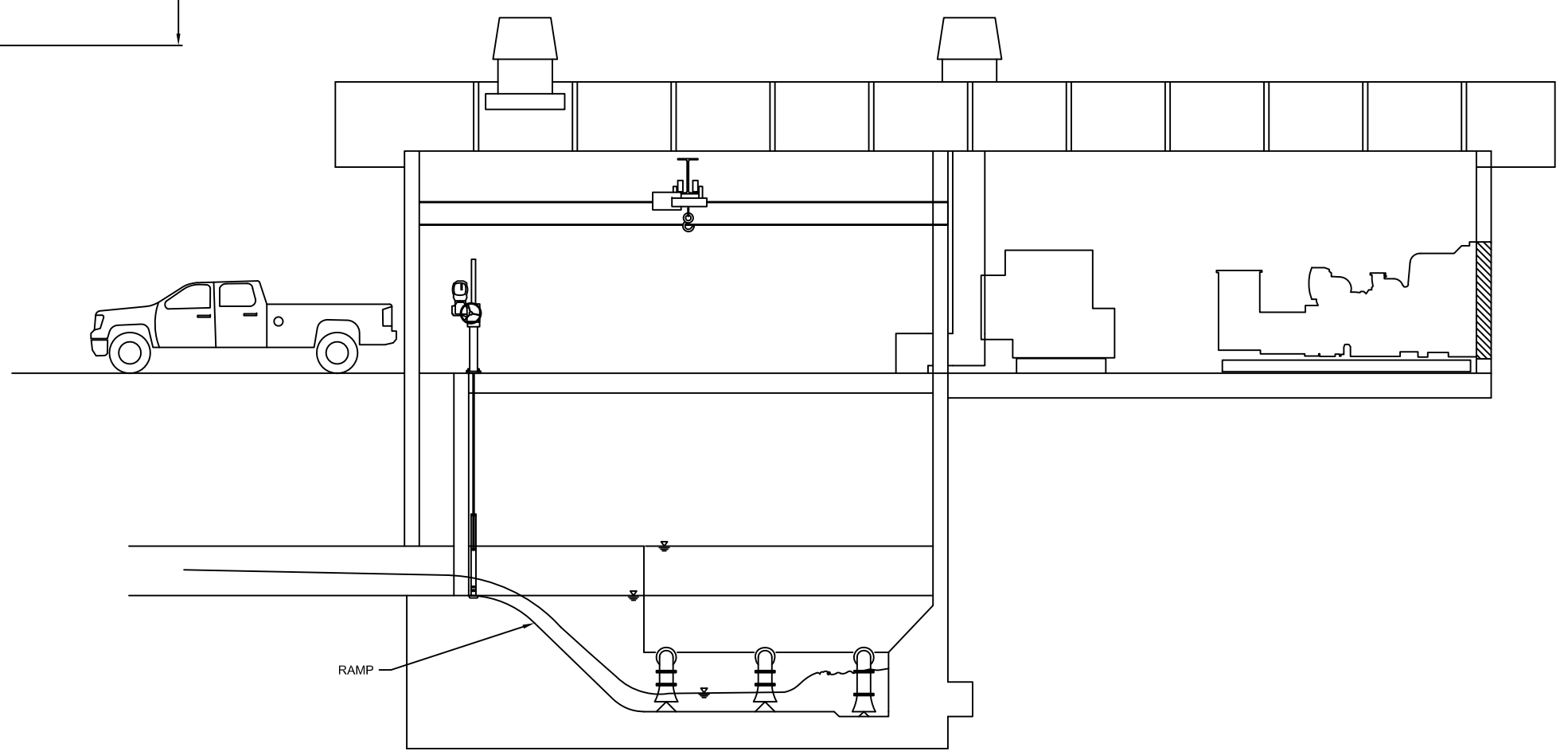
NO.	DATE	ISSUED FOR



SECTION - SUCTION
SCALE = 1 : 60



SECTION - DISCHARGE
SCALE = 1 : 60



LONGITUDINAL SECTION
SCALE = 1 : 60



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

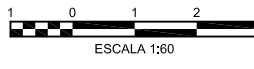
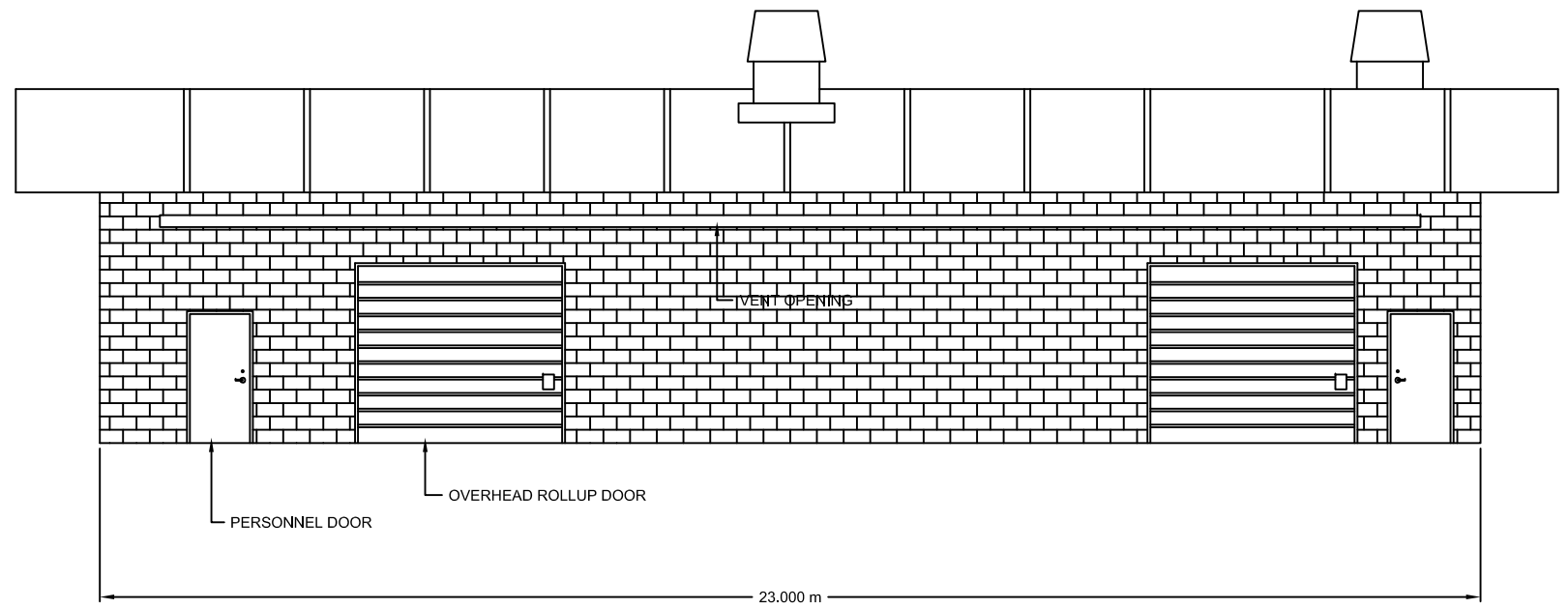
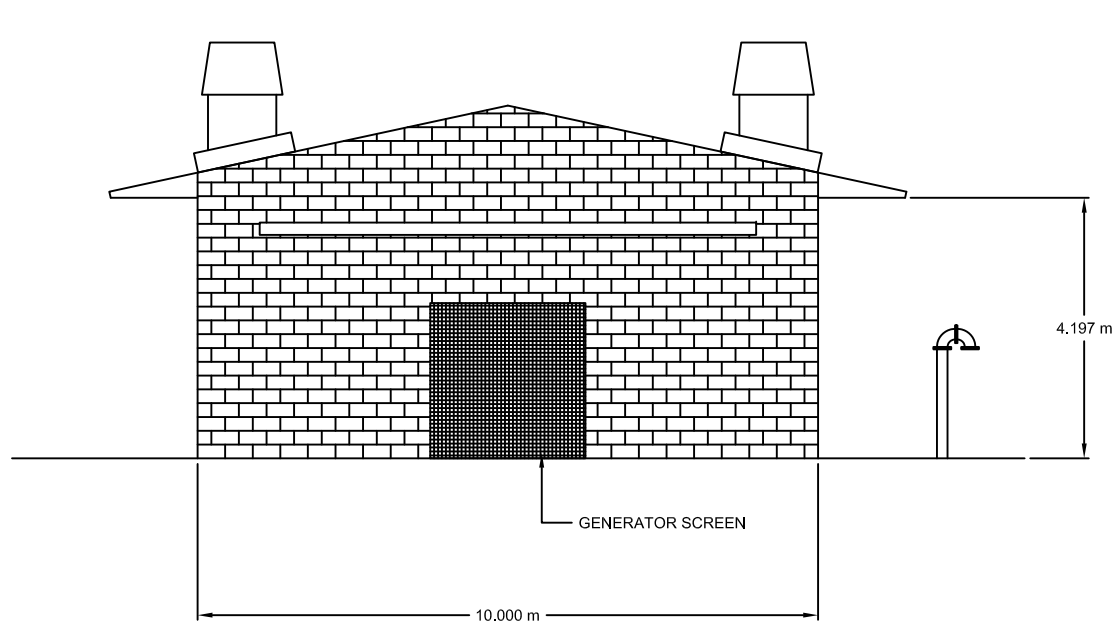


SCALE
 HOR: _____
 VERT: _____
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE A - PUMPED SOLUTION
 BRIDGEPORT PUMP STATION
 MECHANICAL SECTION

DATE: _____
 SHT: 08 OF 41
 DWG: M.A2.02



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

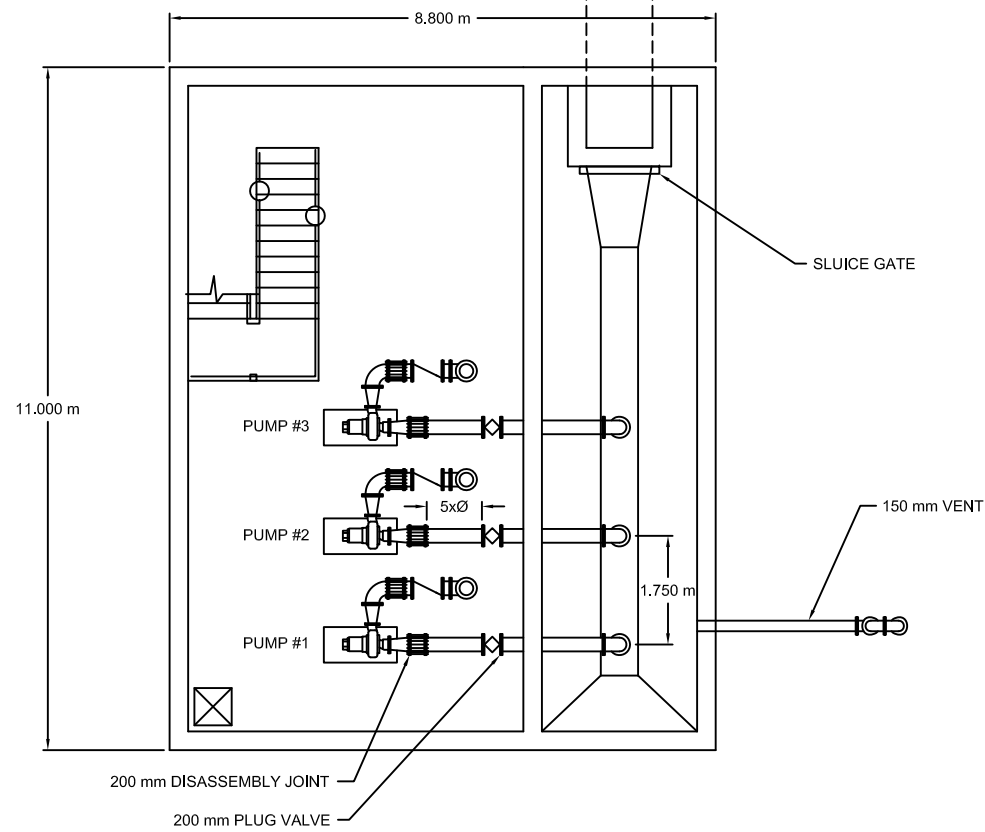


SCALE
 HOR:
 VERT:
 CONTRACT:
 LOAN ID:
 PROJECT:
 JA09Q1009/09-069

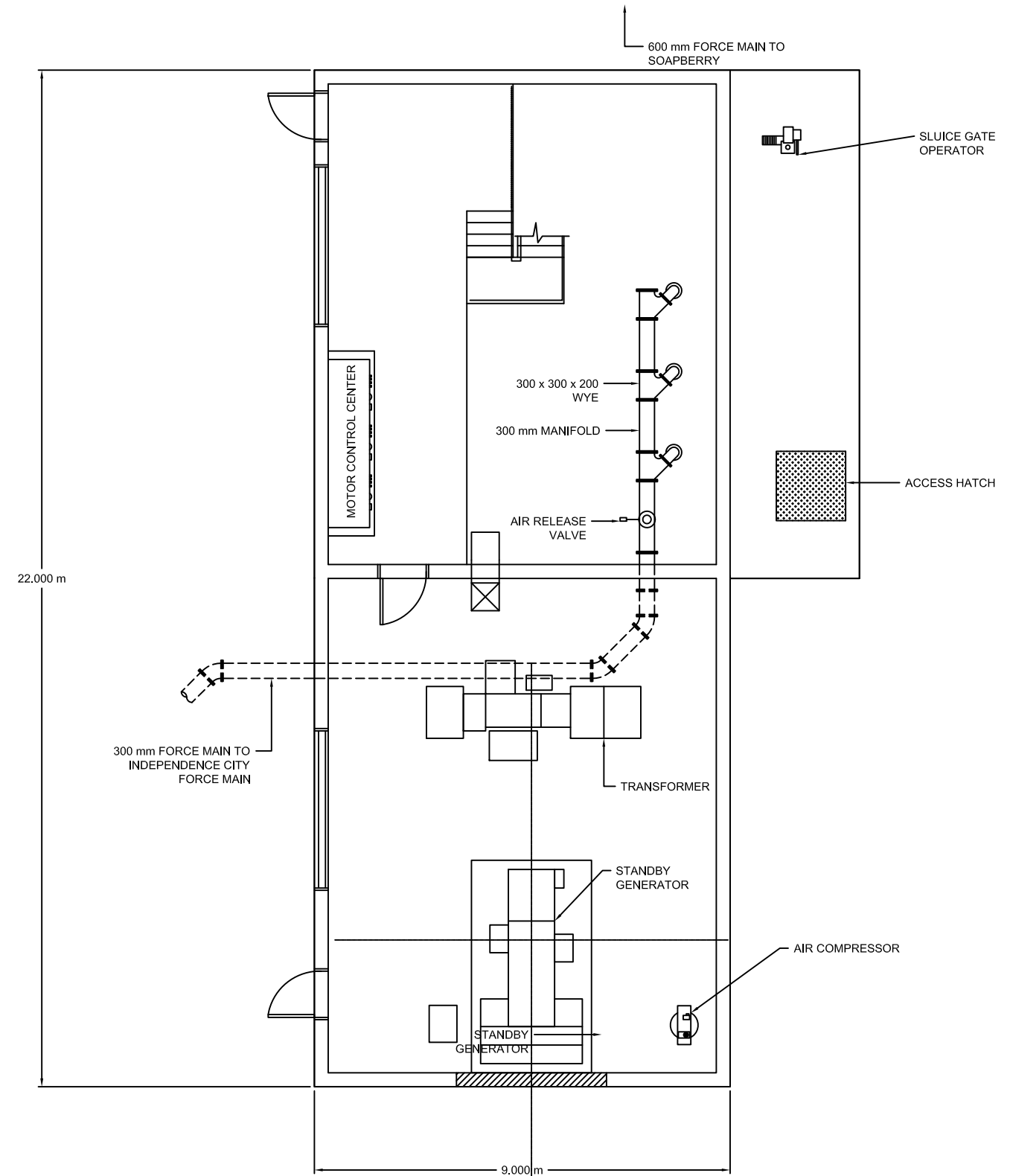


PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE A - PUMPED SOLUTION
 BRIDGEPORT PUMP STATION
 ARCHITECTURAL ELEVATIONS

DATE: _____
 SHT: 09 OF 41
 DWG: A.A2.01



PUMP ROOM PLAN
SCALE = 1 : 60



MAIN FLOOR PLAN
SCALE = 1 : 60



DESIGNED: T. WILSHUSEN
DRAWN: E. WRIGHT
REVIEWED: H. TSUTA
ENGINEER: K. TYNES



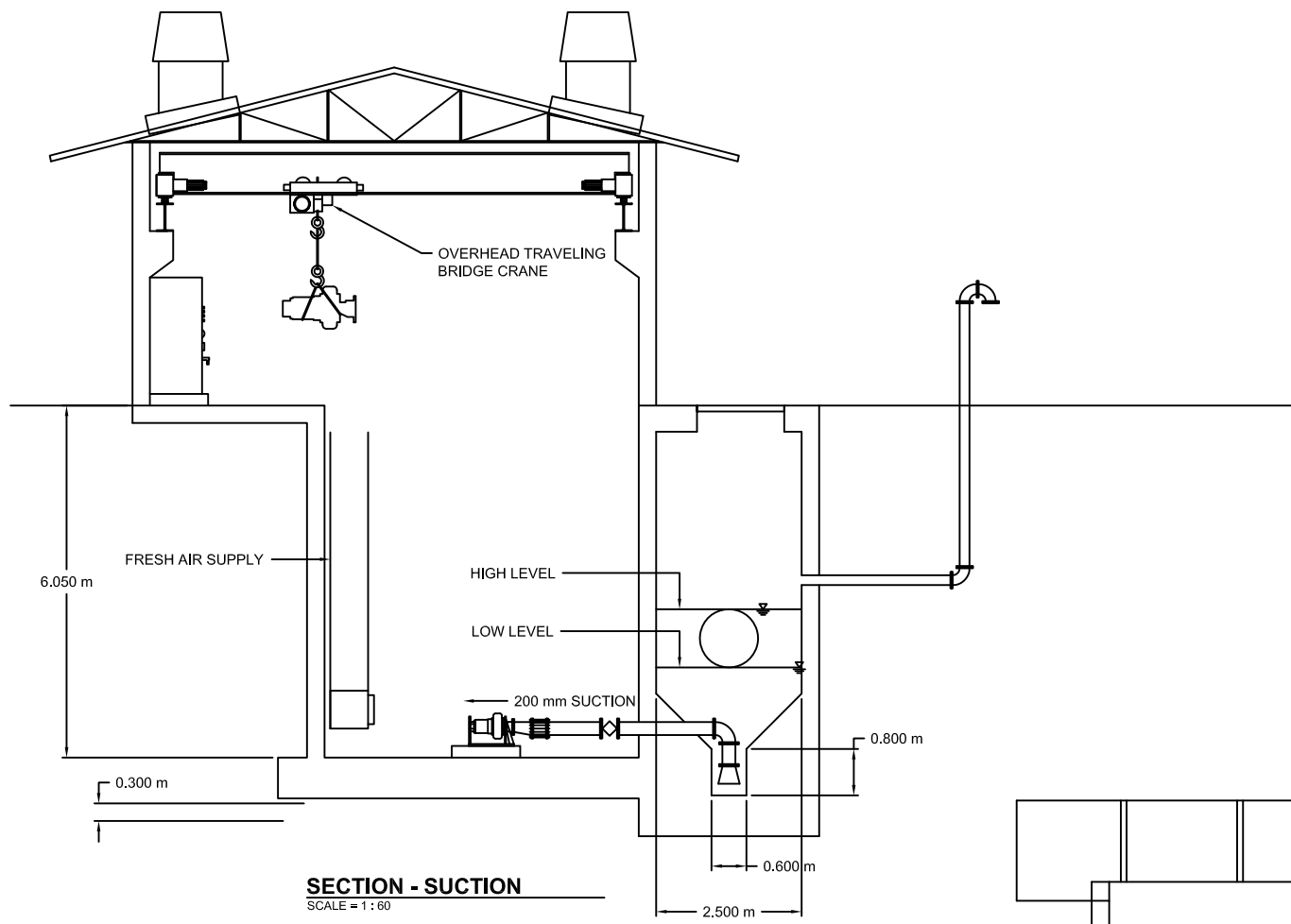
SCALE	CONTRACT:
HOR:	LOAN ID:
VERT:	PROJECT:
	JA09Q1009/09-069



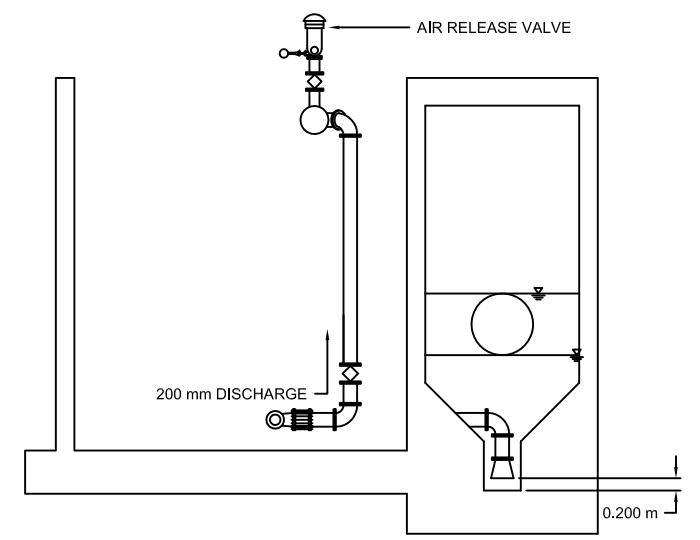
PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT
PORTMORE ALTERNATIVE A - PUMPED SOLUTION
CAYMANAS GARDENS PUMP STATION
CIVIL SITE PLAN

DATE:	
SHT:	10 OF 41
DWG:	C.B1.01

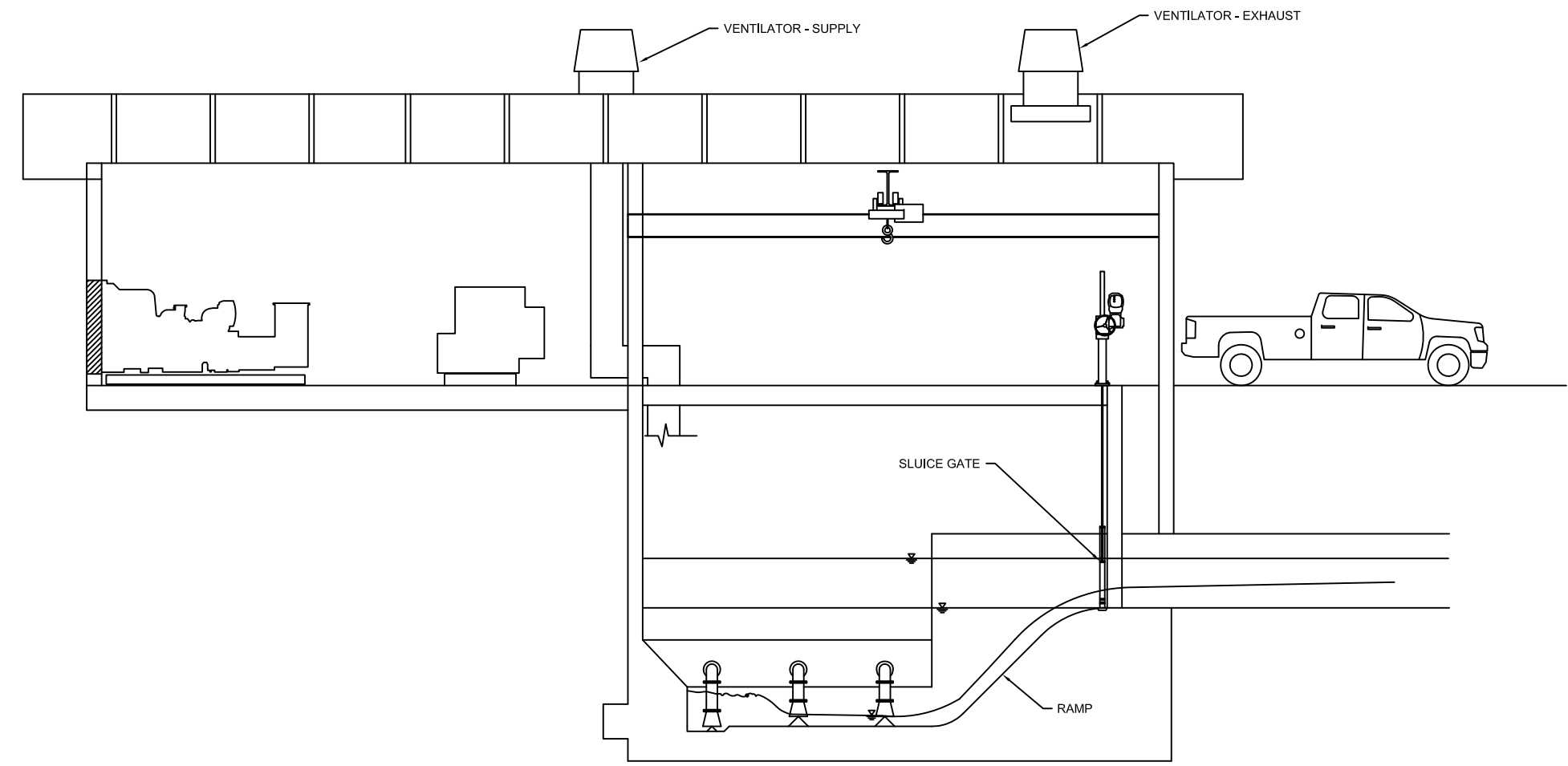
NO.	DATE	ISSUED FOR



SECTION - SUCTION
SCALE = 1 : 60



SECTION - DISCHARGE
SCALE = 1 : 60



LONGITUDINAL SECTION
SCALE = 1 : 60



DESIGNED:	
DRAWN:	
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR



SCALE
HOR:
VERT:

CONTRACT:
LOAN ID:
PROJECT:
JA09Q1009/09-069



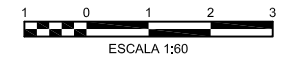
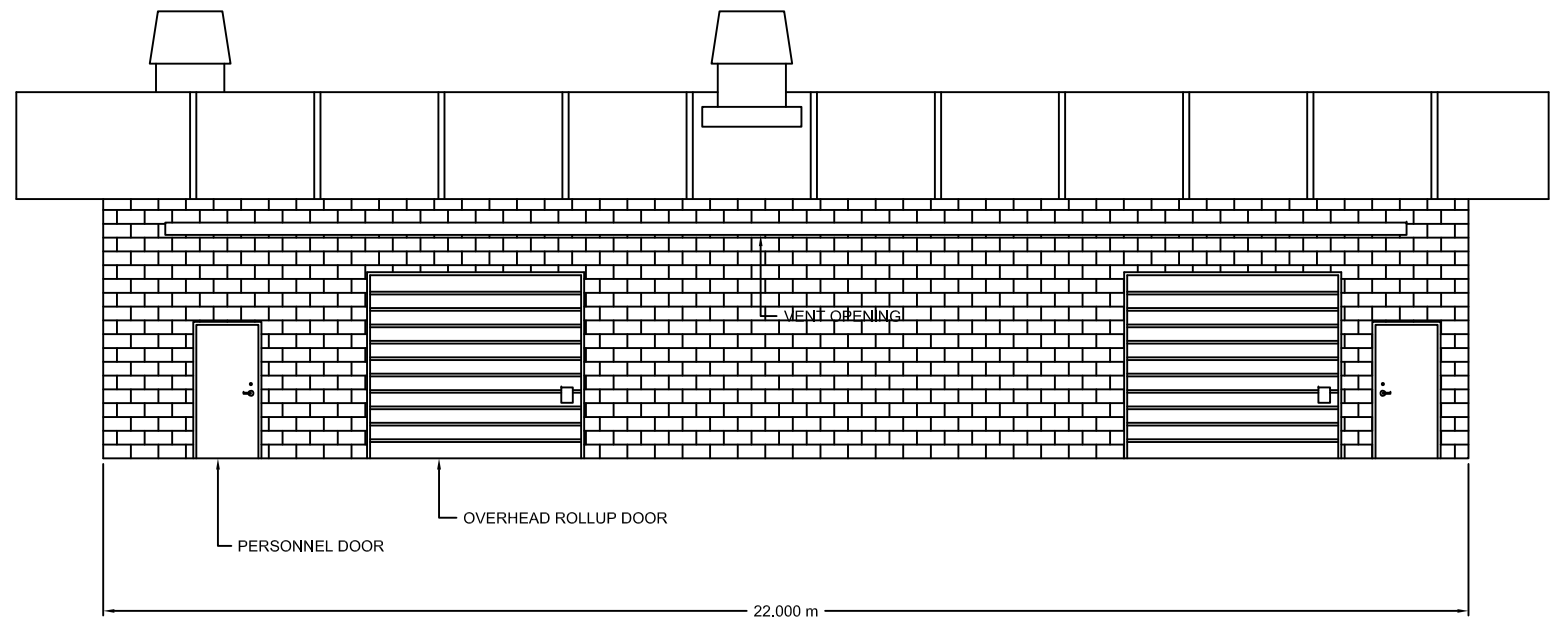
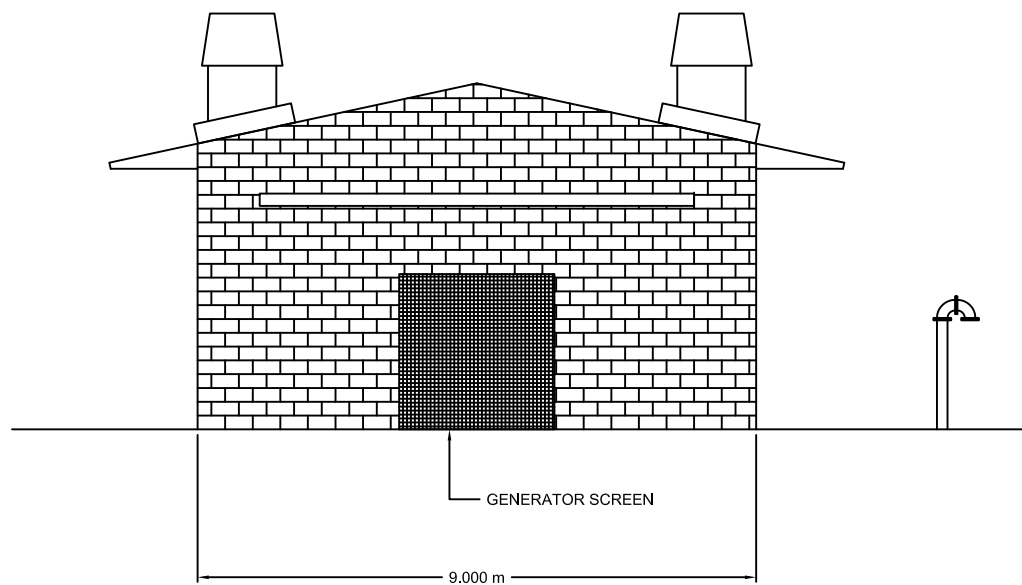
PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

ALTERNATIVE A
RELOCATED BRIDGEPORT PUMP STATION
PLAN

DATE: _____

SHT: 11 OF 41

DWG: M.A2.02

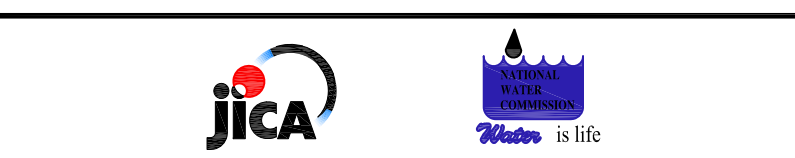


DESIGNED:	
DRAWN:	
REVIEWED:	
ENGINEER:	
NO.	DATE
	ISSUED FOR

NIPPON KOEI
Challenging mind, Changing dynamics

SCALE
HOR: _____
VERT: _____

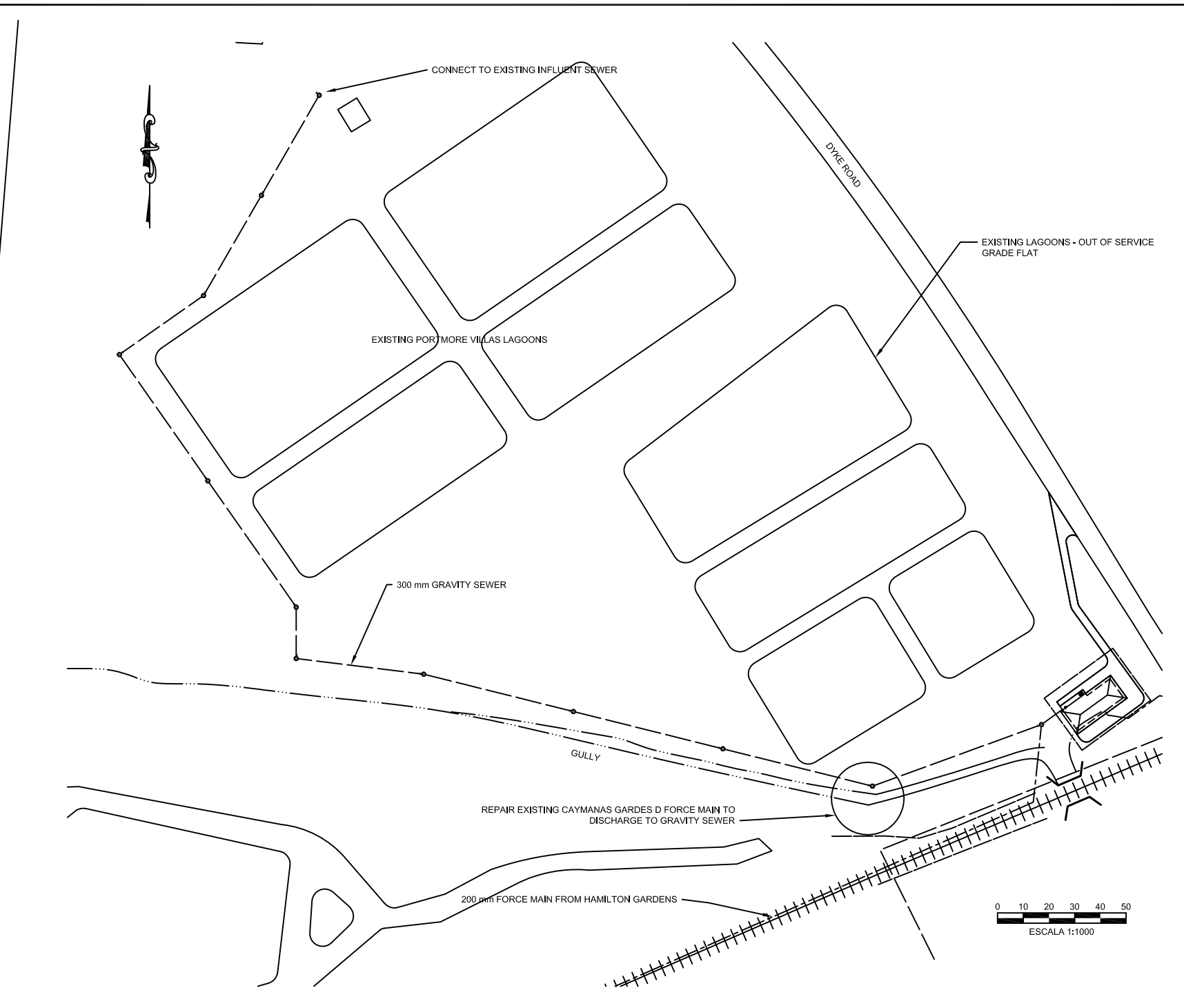
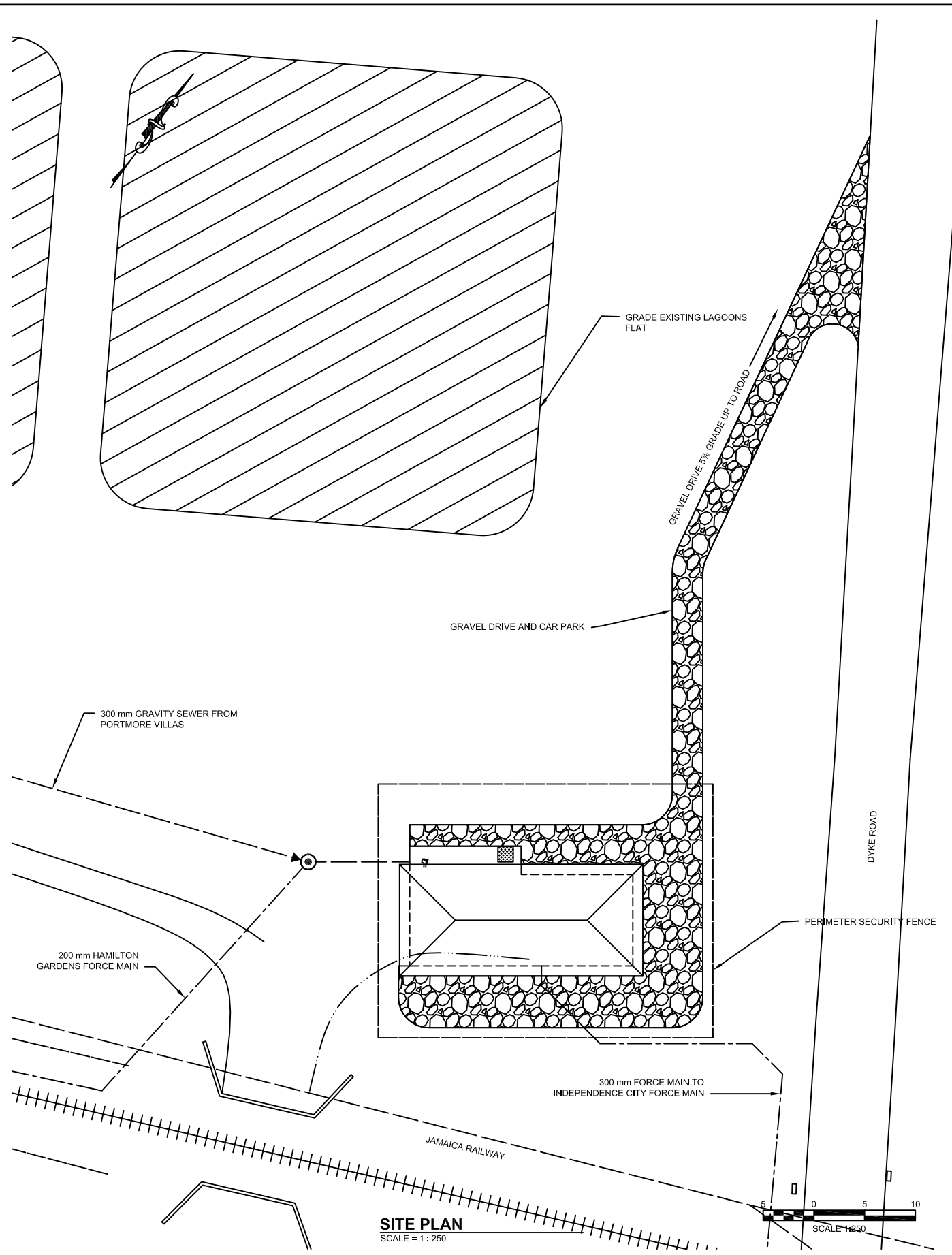
CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

ALTERNATIVE A
RELOCATED BRIDGEPORT PUMP STATION
PLAN

DATE: _____
SHT: 12 OF 41
DWG: M.A2.03



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES



SCALE
 HOR: 1 : 1000
 VERT: 1 : 250

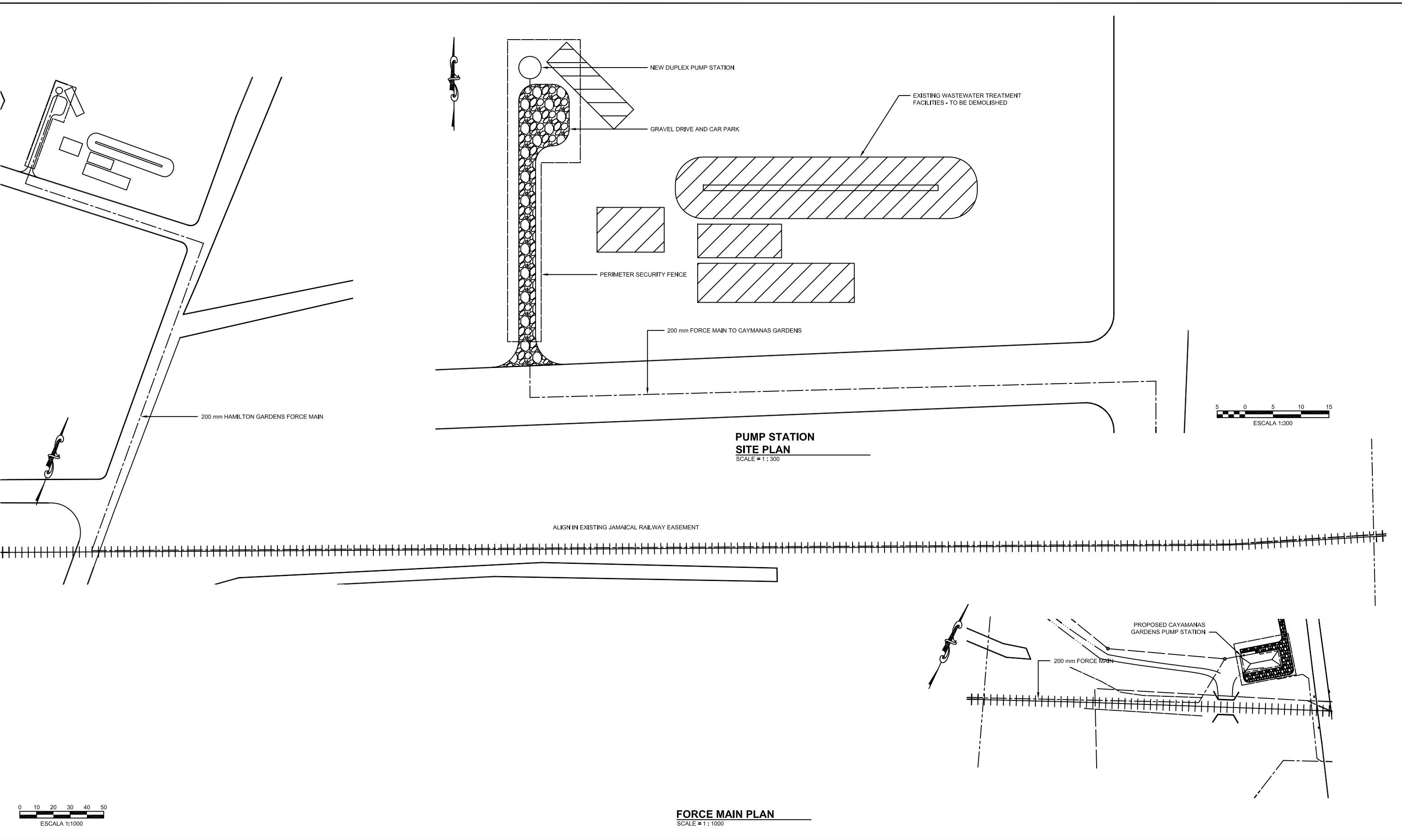
CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT

PORTMORE ALTERNATIVE A - PUMPED SOLUTION
 CAYMANAS GARDENS PUMP STATION
 ARCHITECTURAL ELEVATIONS

DATE: 22 DEC 2009
 SHT: 13 OF 41
 DWG: A.A3.01



**PUMP STATION
SITE PLAN**
SCALE = 1 : 300

FORCE MAIN PLAN
SCALE = 1 : 1000

NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

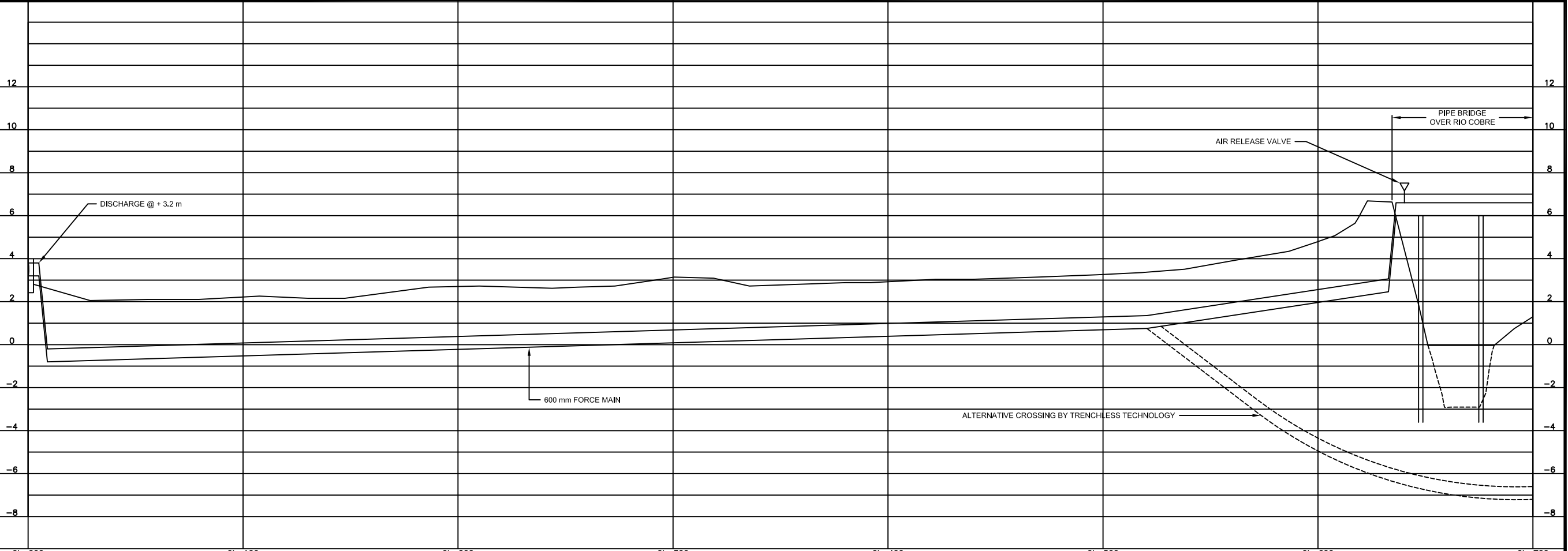
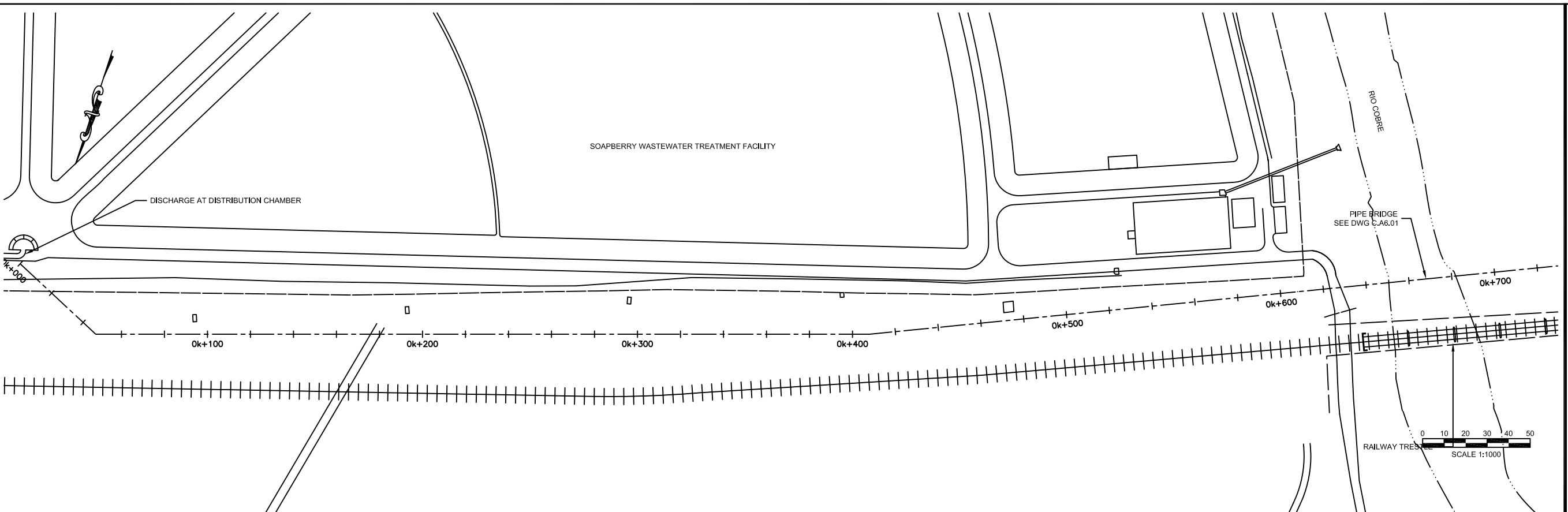


SCALE
 HOR: VARIES
 VERT: _____
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE A - PUMPED SOLUTION
 HAMILTON GARDENS PUMP STATION AND FORCE MAIN
 CIVIL PLANS

DATE: 22 DEC 2009
 SHT: 14 OF 41
 DWG: C.A4.01



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

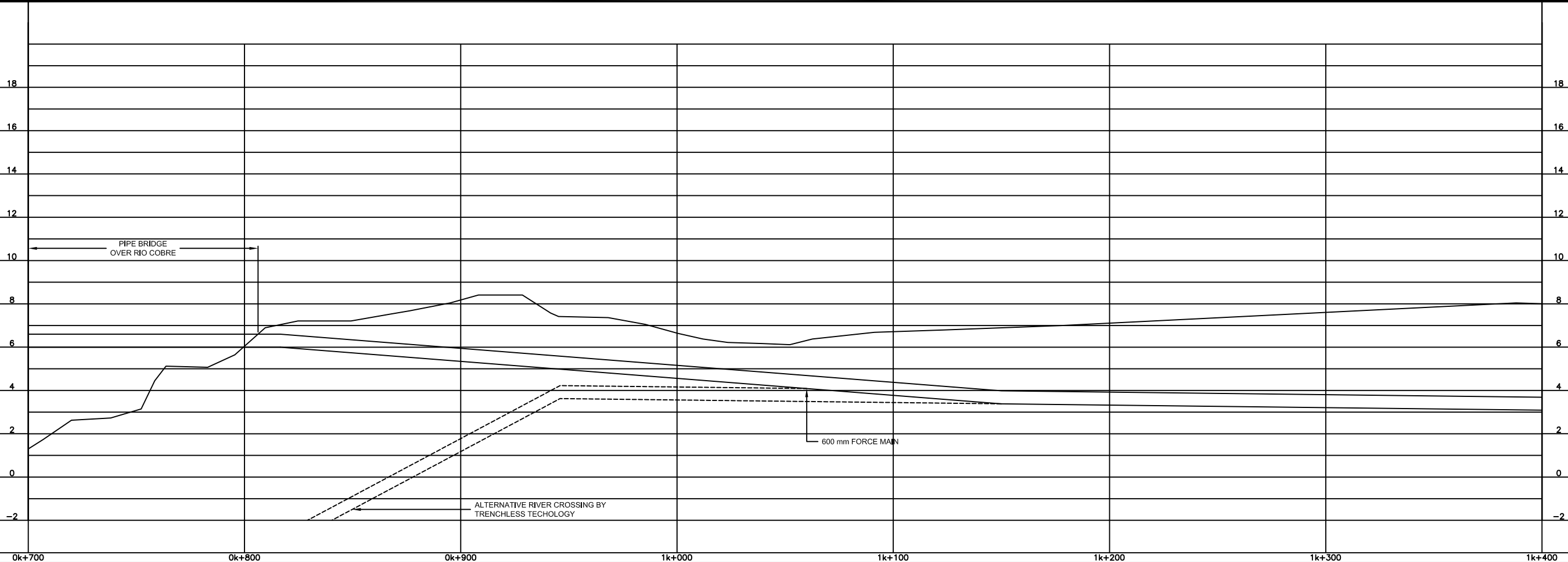
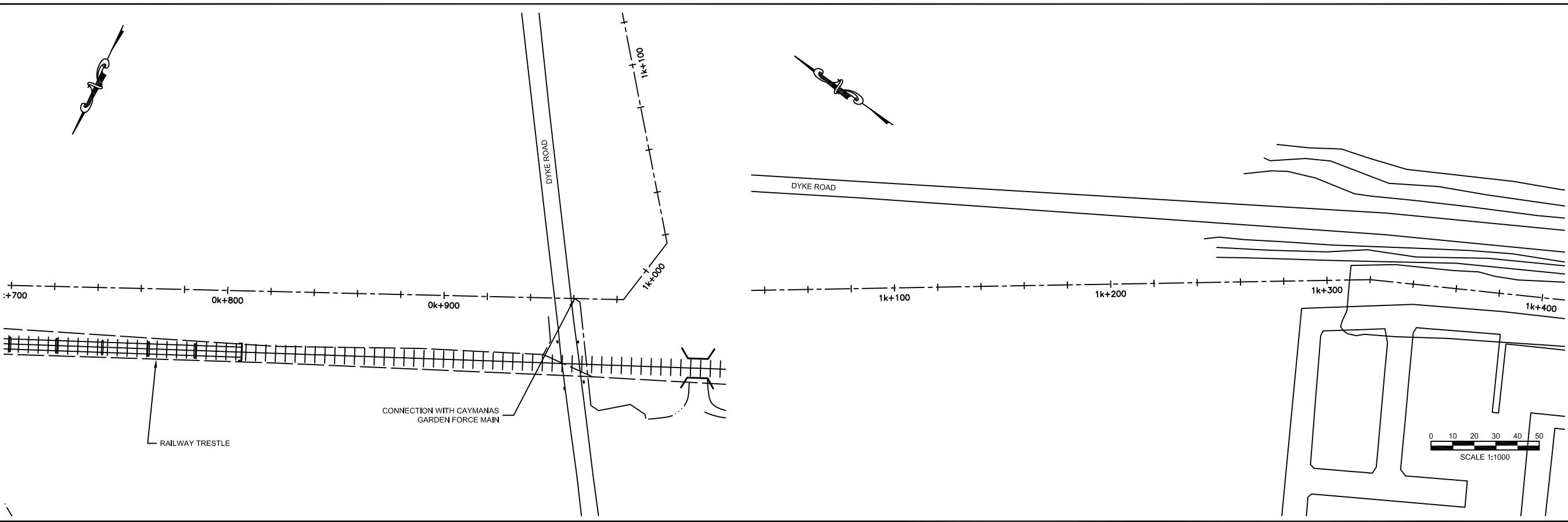


SCALE
 HOR: 1000
 VERT: 100
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE A - PUMPED SOLUTION
 GENERALIZED PLAN & PROFILE
 STATION 0K + 000 @ 0K + 700

DATE: _____
 SHT: 15 OF 41
 DWG: C.A5.01

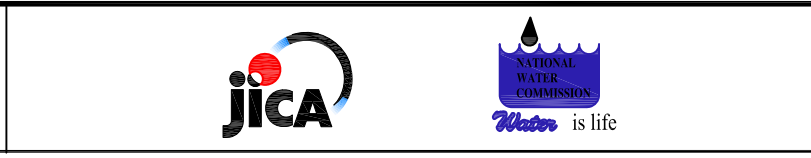


DESIGNED: T. WILSHUSEN
DRAWN: E. WRIGHT
REVIEWED: H. TSUTA
ENGINEER: K. TYNES
NO. DATE ISSUED FOR

NIPPON KOEI
Challenging mind, Changing dynamics

SCALE
HOR: 1000
VERT: 100

CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PORTMORE ALTERNATIVE A - PUMPED SOLUTION

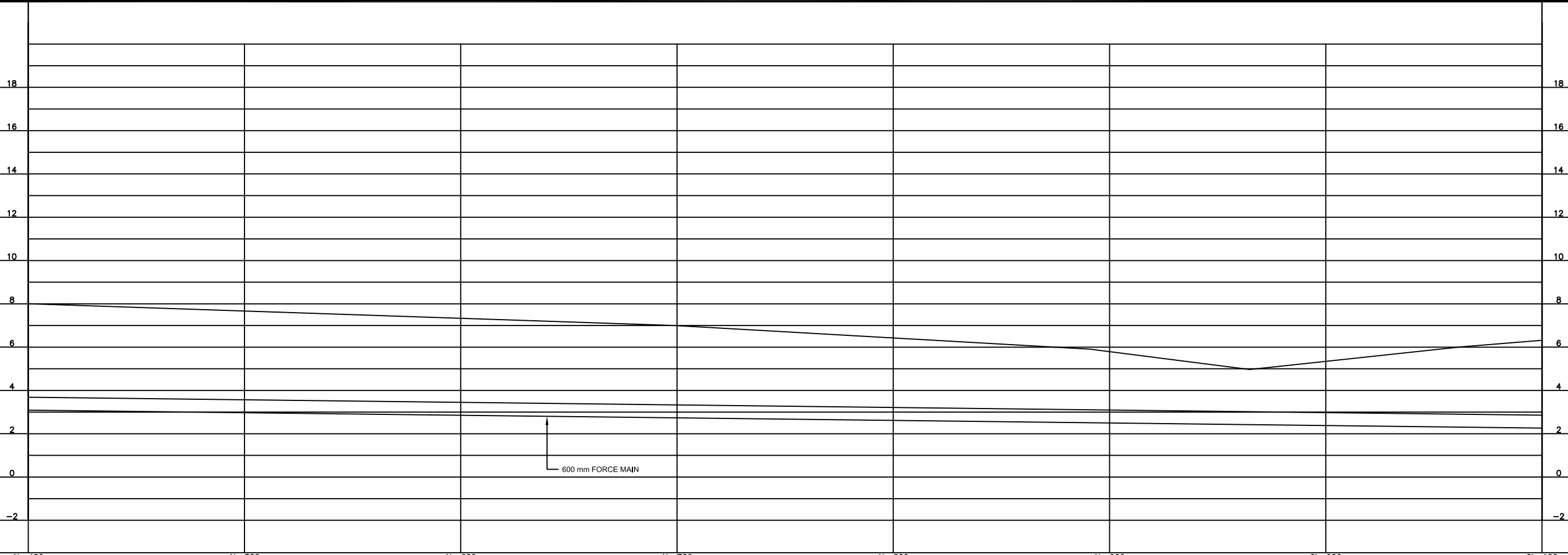
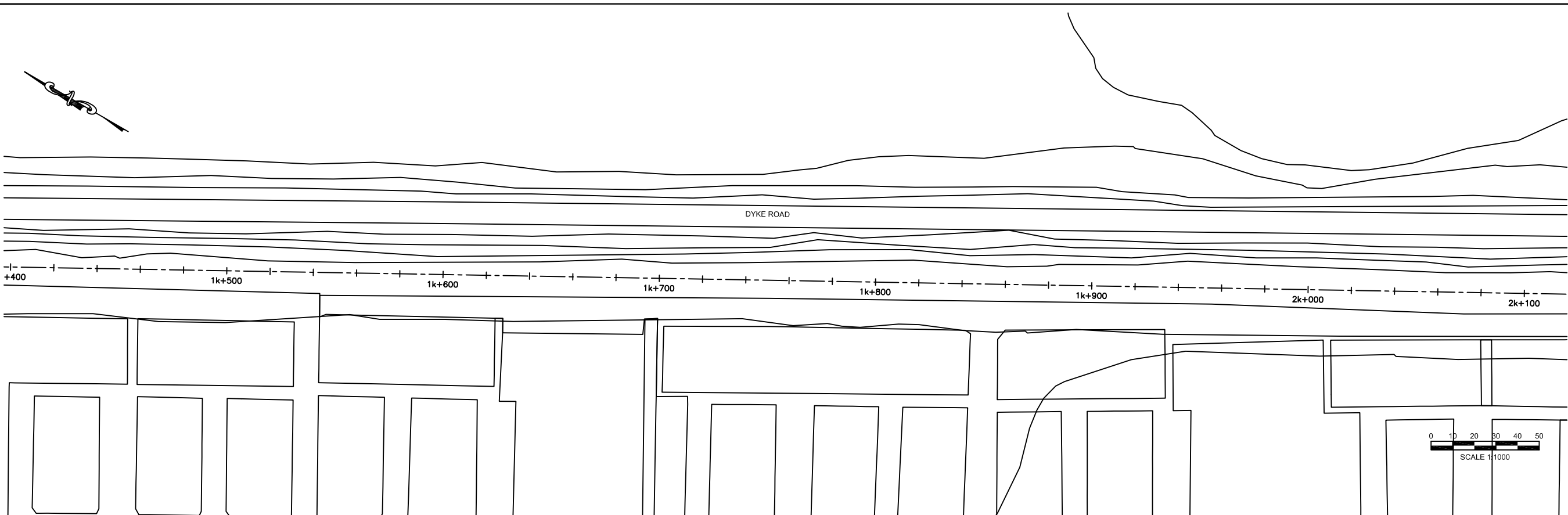
GENERALIZED PLAN & PROFILE

STATION 0K + 700 @ 1K + 400

DATE: _____

SHT: 16 OF 41

DWG: C.A5.02



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES



SCALE
 HOR: 1000
 VERT: 100

CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



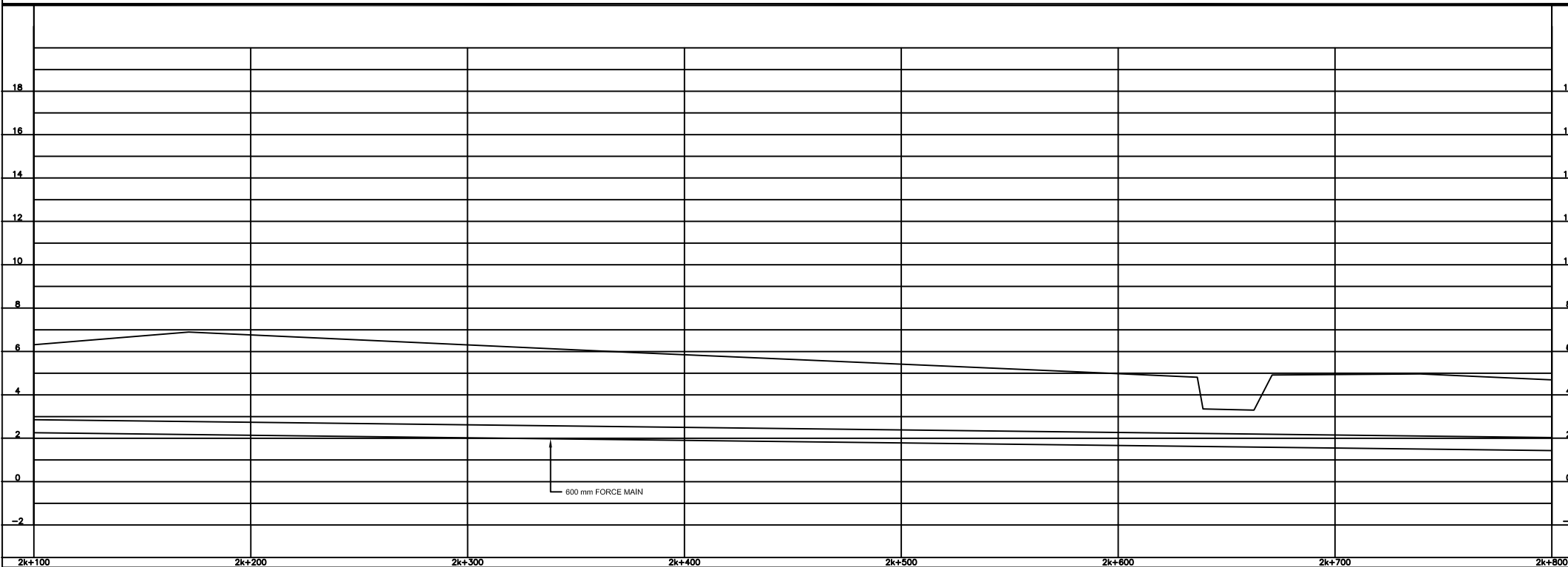
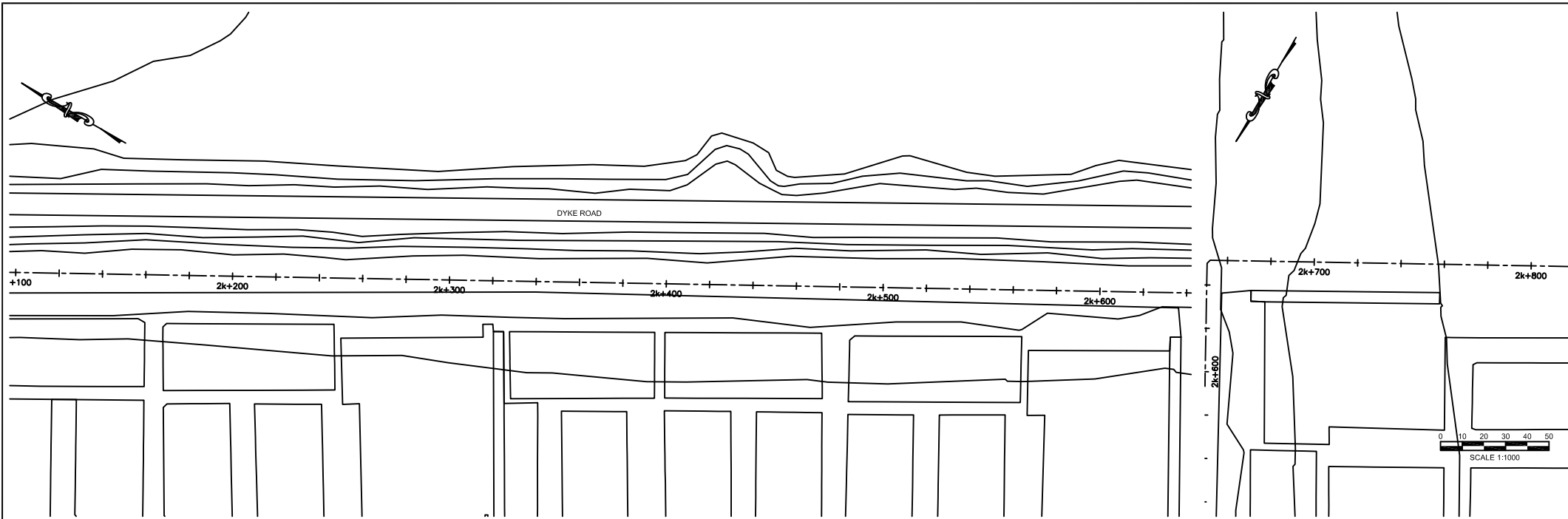
PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT

PORTMORE ALTERNATIVE A - PUMPED SOLUTION

GENERALIZED PLAN & PROFILE

STATION 1K + 400 @ 2K + 100

DATE: _____
 SHT: 17 OF 41
 DWG: C.A5.03



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES



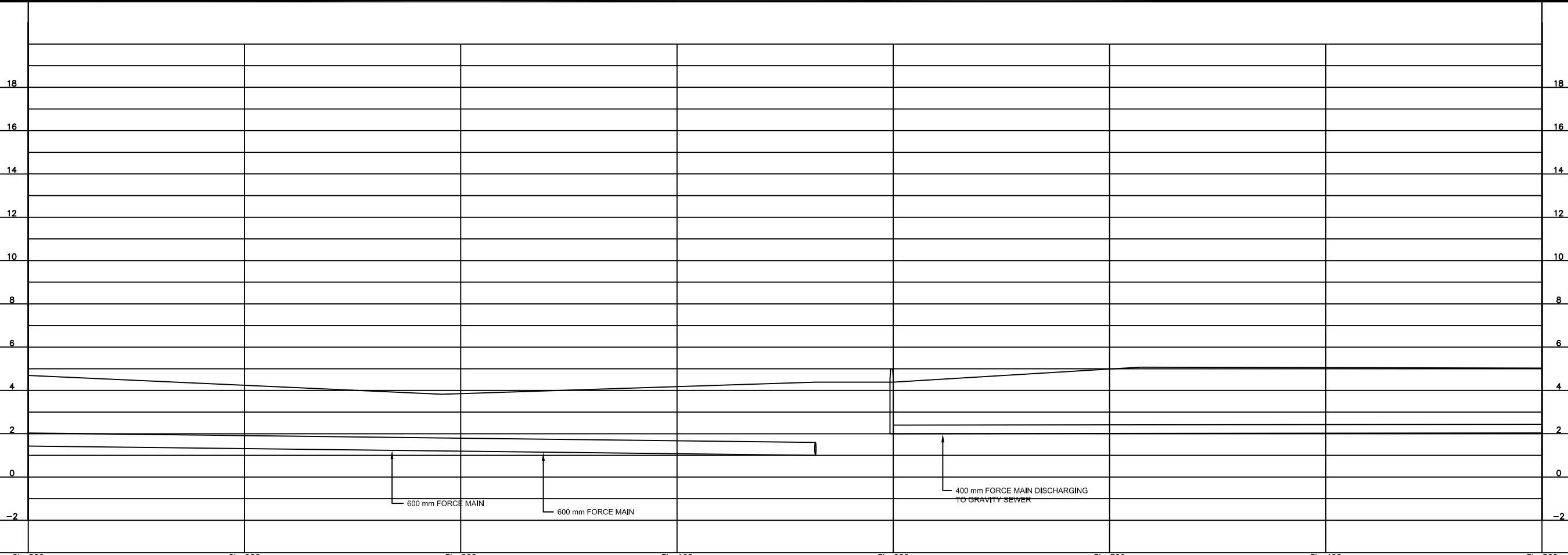
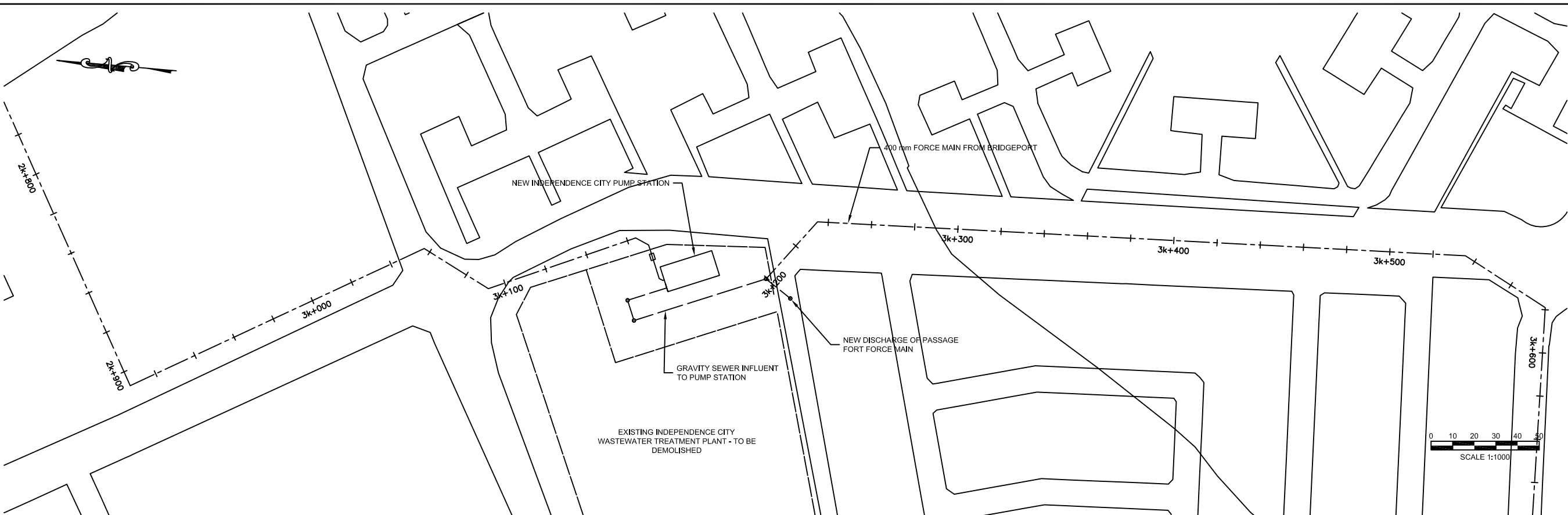
SCALE
 HOR: 1000
 VERT: 100

CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE A - PUMPED SOLUTION
 GENERALIZED PLAN & PROFILE
 STATION 2K + 100 @ 2K + 800

DATE: _____
 SH: 18 OF 41
 DWG: C.A5.04



DESIGNED: T. WILSHUSEN
DRAWN: E. WRIGHT
REVIEWED: H. TSUTA
ENGINEER: K. TYNES
NO. DATE ISSUED FOR

NIPPON KOEI
Challenging mind, Changing dynamics

SCALE
HOR: 1000
VERT: 100

CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PORTMORE ALTERNATIVE A - PUMPED SOLUTION

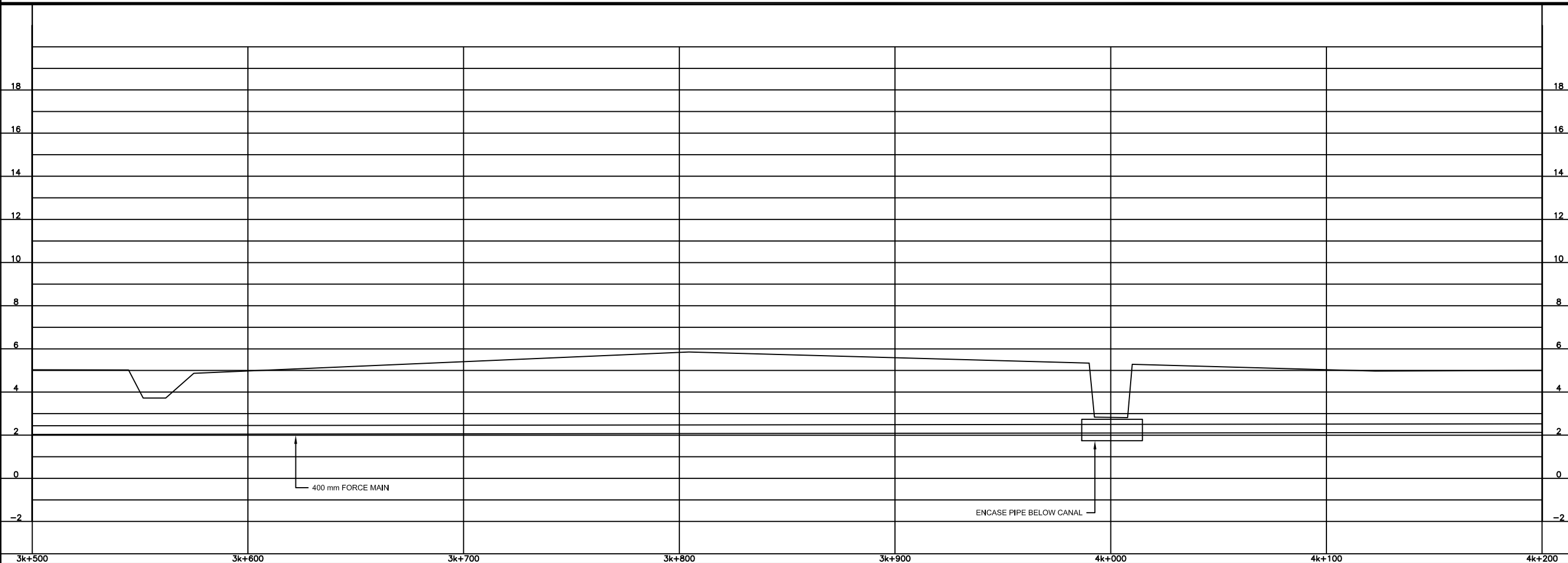
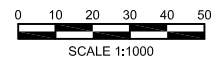
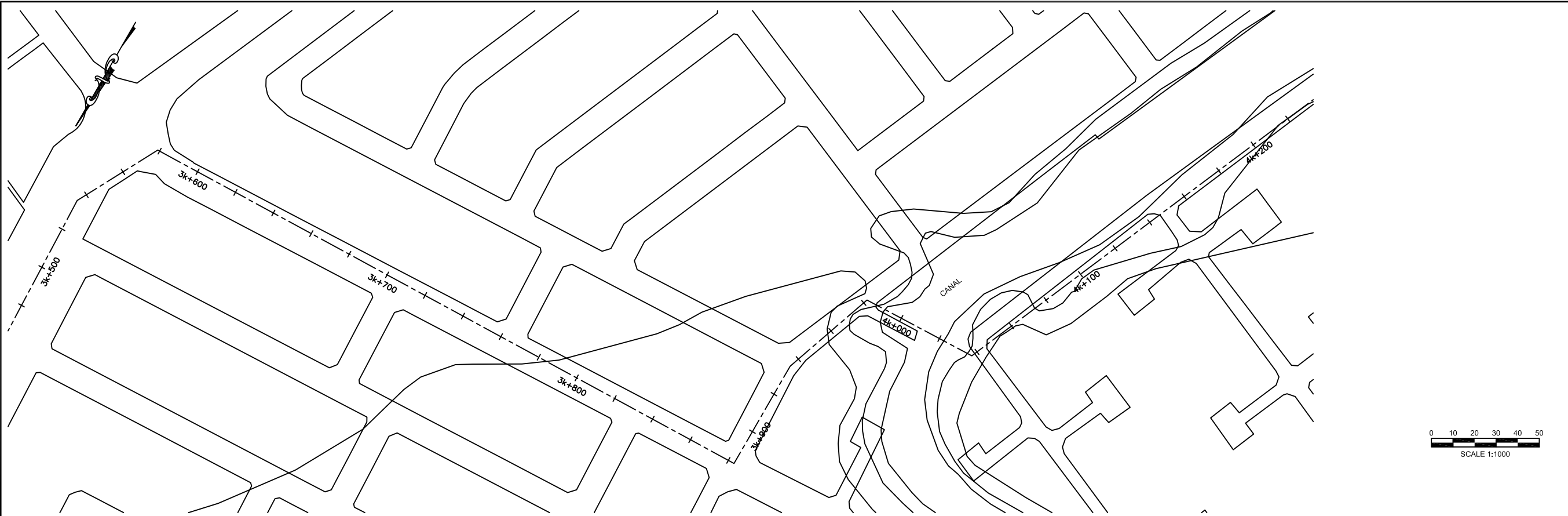
GENERALIZED PLAN & PROFILE

STATION 2K + 800 @ 3K + 500

DATE: _____

SHT: 19 OF 41

DWG: C.A5.05



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

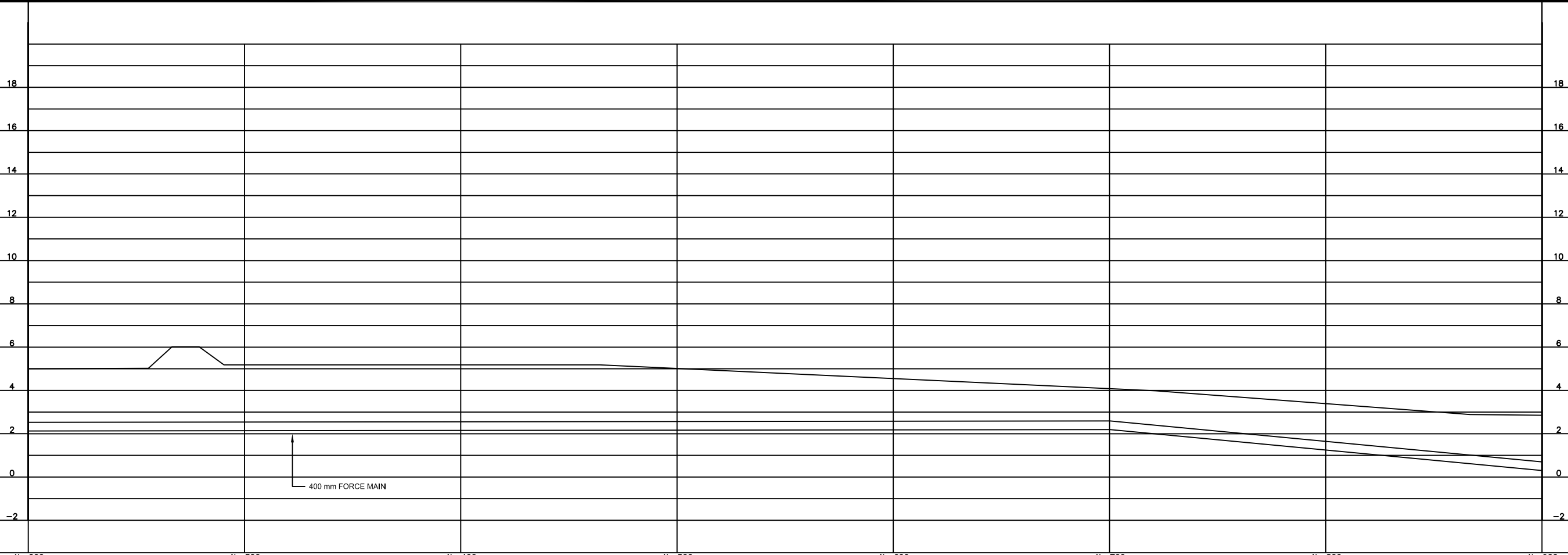
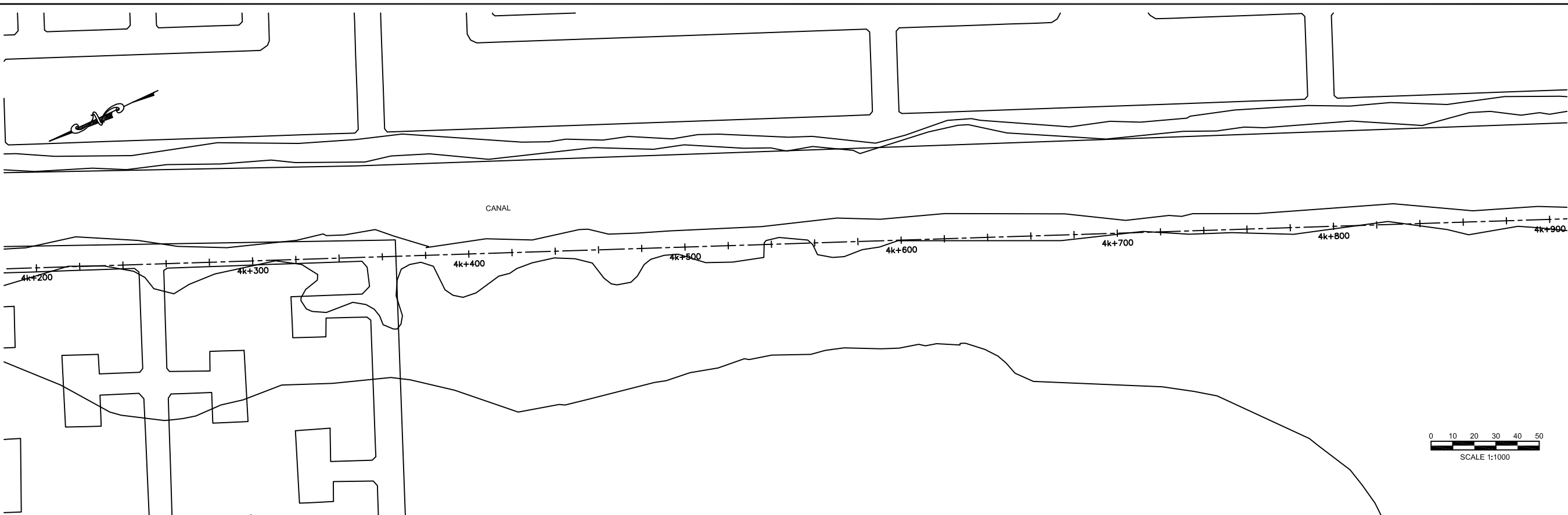


SCALE
 HOR: 1000
 VERT: 100
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE A - PUMPED SOLUTION
 GENERALIZED PLAN & PROFILE
 STATION 3K + 500 @ 4K + 200

DATE: _____
 SHT: 20 OF 41
 DWG: C.A5.06



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

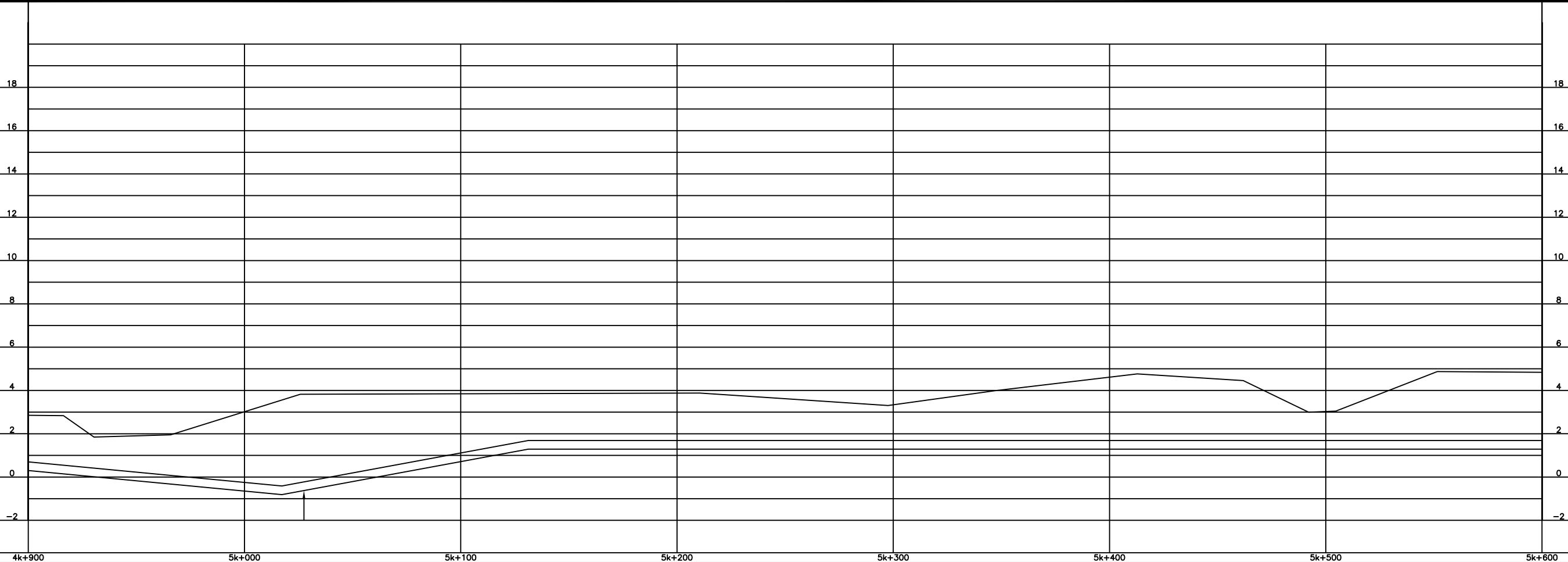
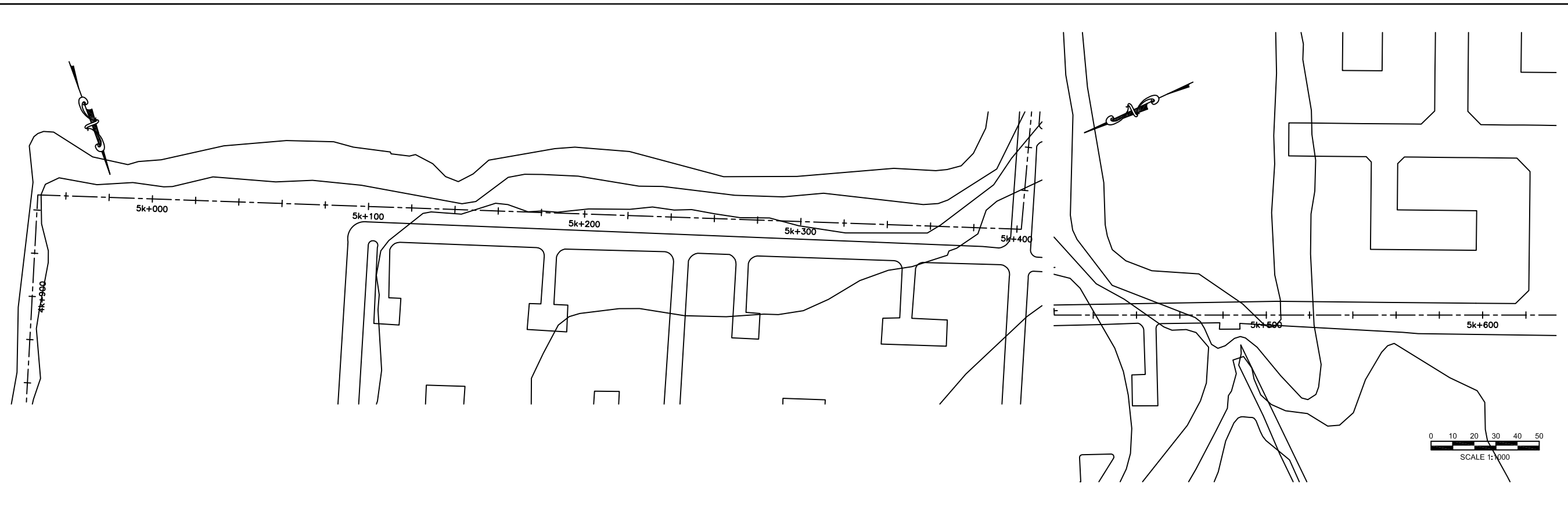


SCALE
 HOR: 1000
 VERT: 100
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE A - PUMPED SOLUTION
 GENERALIZED PLAN & PROFILE
 STATION 4K + 200 @ 4K + 900

DATE: _____
 SHT: 21 OF 41
 DWG: C.A5.07



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

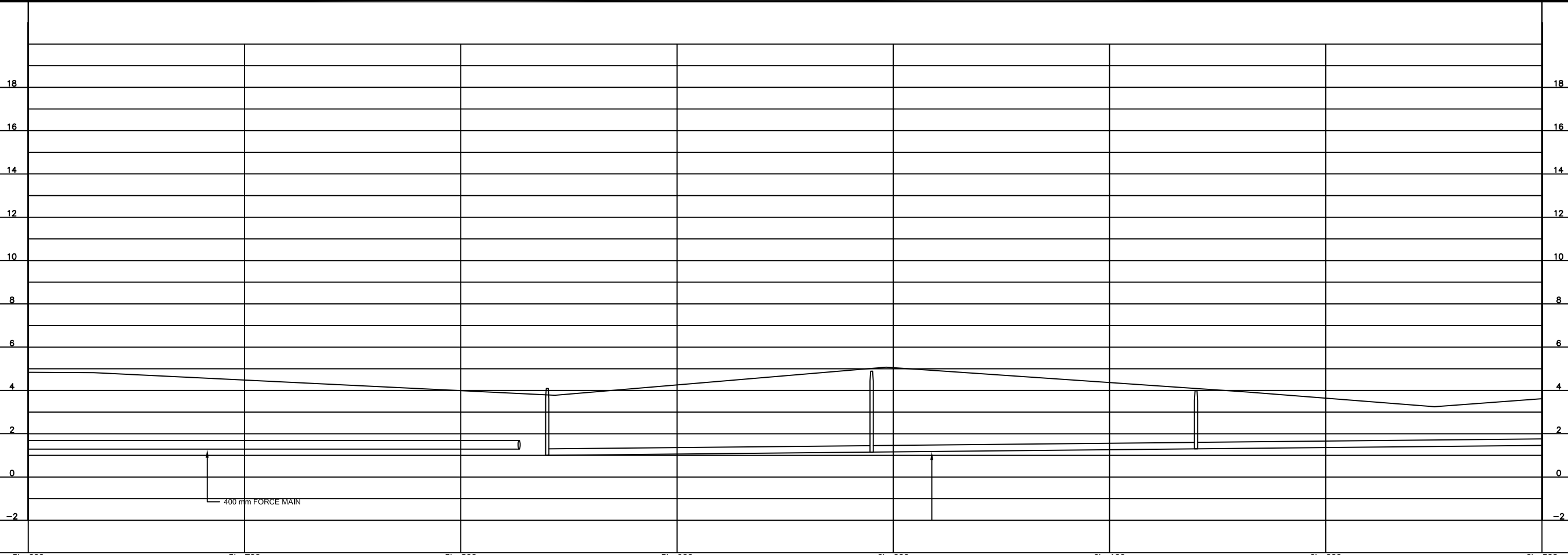
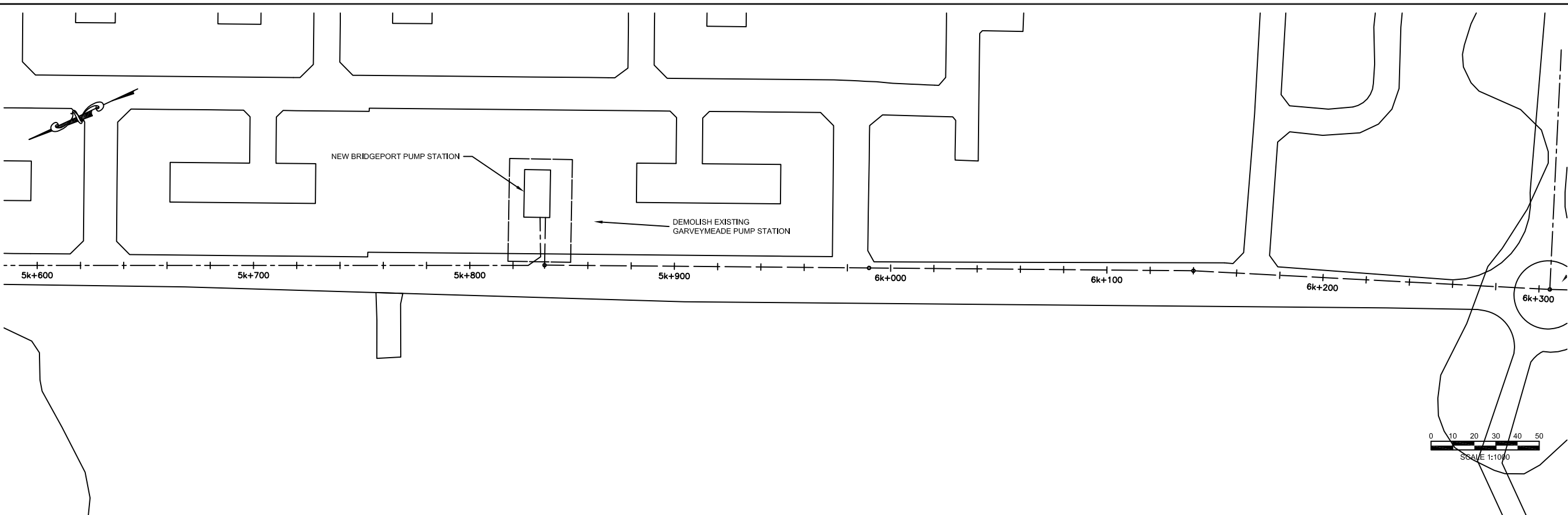


SCALE
 HOR: 1000
 VERT: 100
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE A - PUMPED SOLUTION
 GENERALIZED PLAN & PROFILE
 STATION 4K + 900 @ 5K + 600

DATE: _____
 SHT: 22 OF 41
 DWG: C.A5.08



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

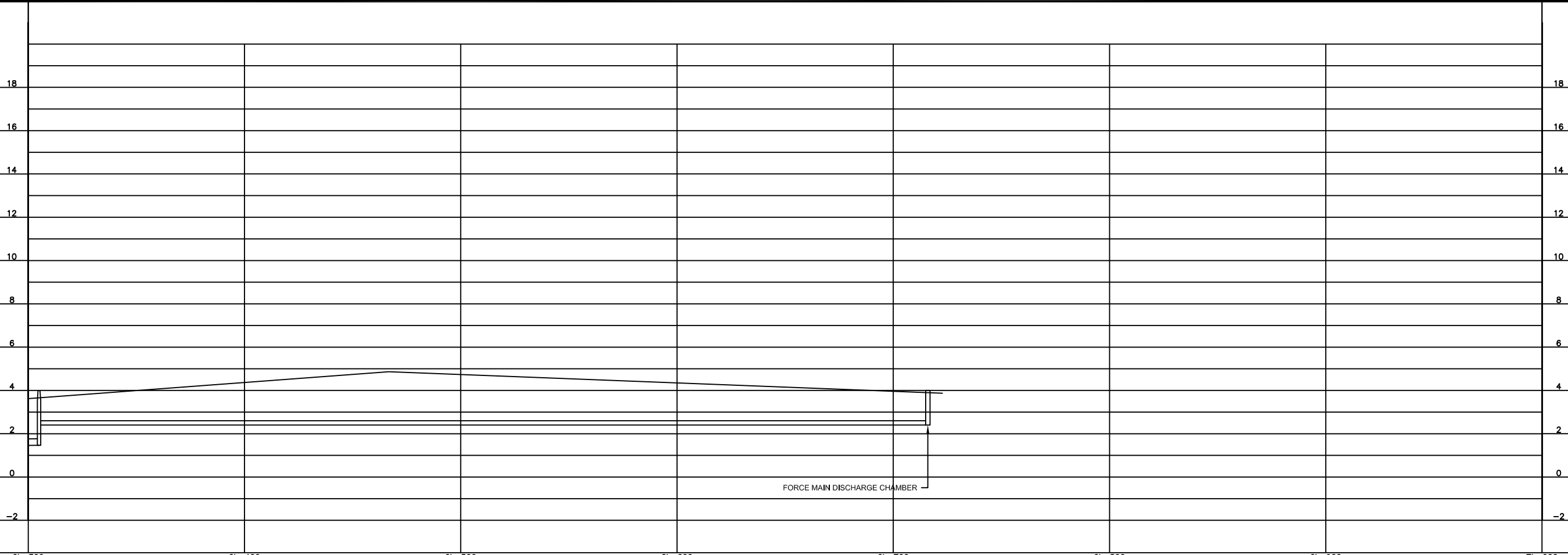
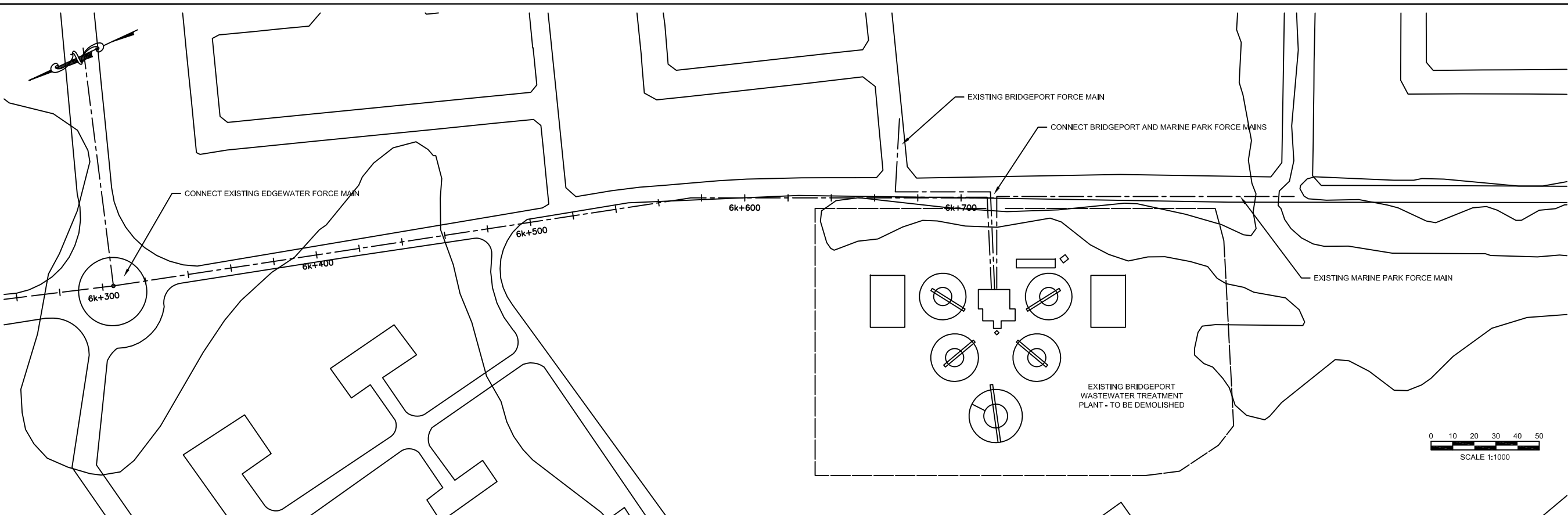


SCALE
 HOR: 1000
 VERT: 100
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE A - PUMPED SOLUTION
 GENERALIZED PLAN & PROFILE
 STATION 5K + 600 @ 6K + 300

DATE: _____
 SHT: 23 OF 41
 DWG: C.A5.09



DESIGNED: T. WILSHUSEN
DRAWN: E. WRIGHT
REVIEWED: H. TSUTA
ENGINEER: K. TYNES
NO. DATE ISSUED FOR



SCALE
HOR: 1000
VERT: 100

CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PORTMORE ALTERNATIVE A - PUMPED SOLUTION

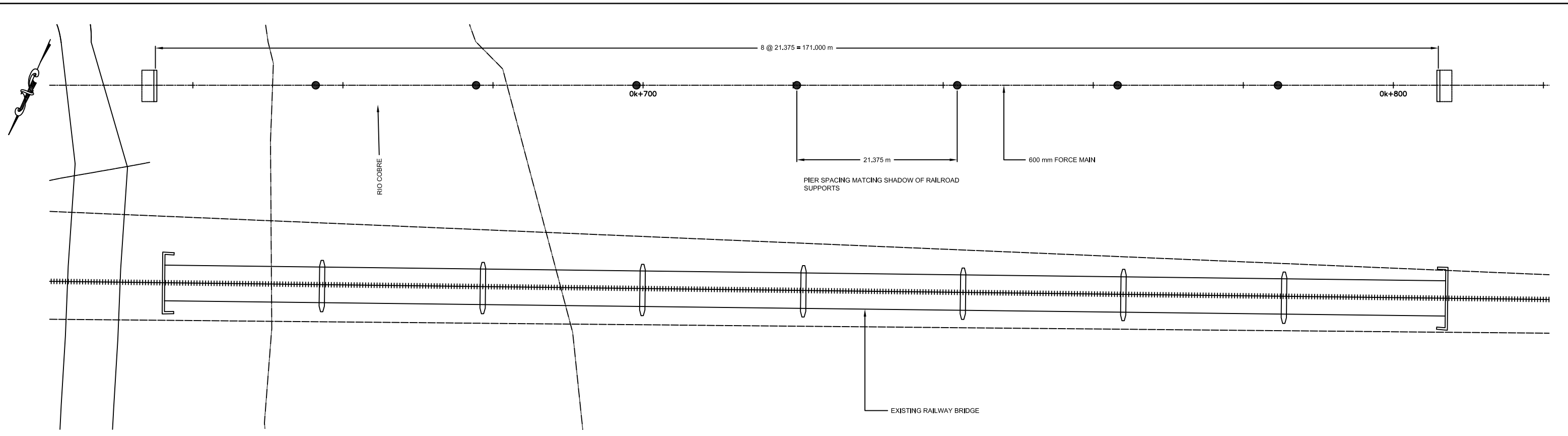
GENERALIZED PLAN & PROFILE

STATION 6K + 300 @ 6K + 600

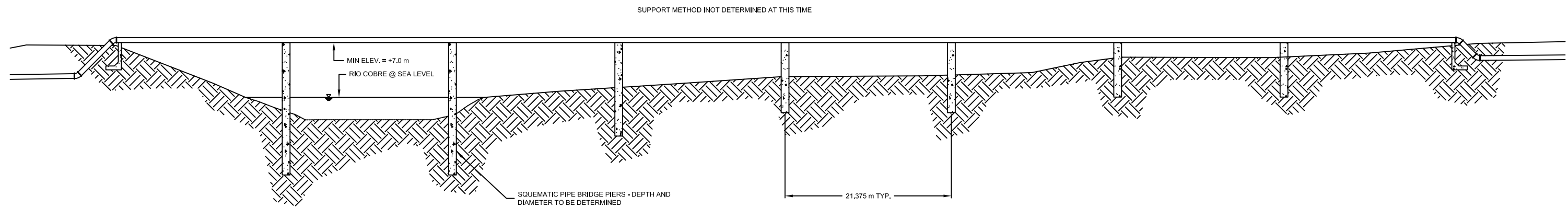
DATE: _____

SHT: 24 OF 41

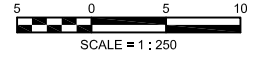
DWG: C.A5.10



PIPE BRIDGE PLAN
SCALE = 1 : 250



PIPE BRIDGE ELEVATION
SCALE = 1 : 250



DESIGNED: T. WILSHUSEN
DRAWN: E. WRIGHT
REVIEWED: H. TSUTA
ENGINEER: K. TYNES
NO. DATE ISSUED FOR

NIPPON KOEI
Challenging mind, Changing dynamics

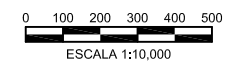
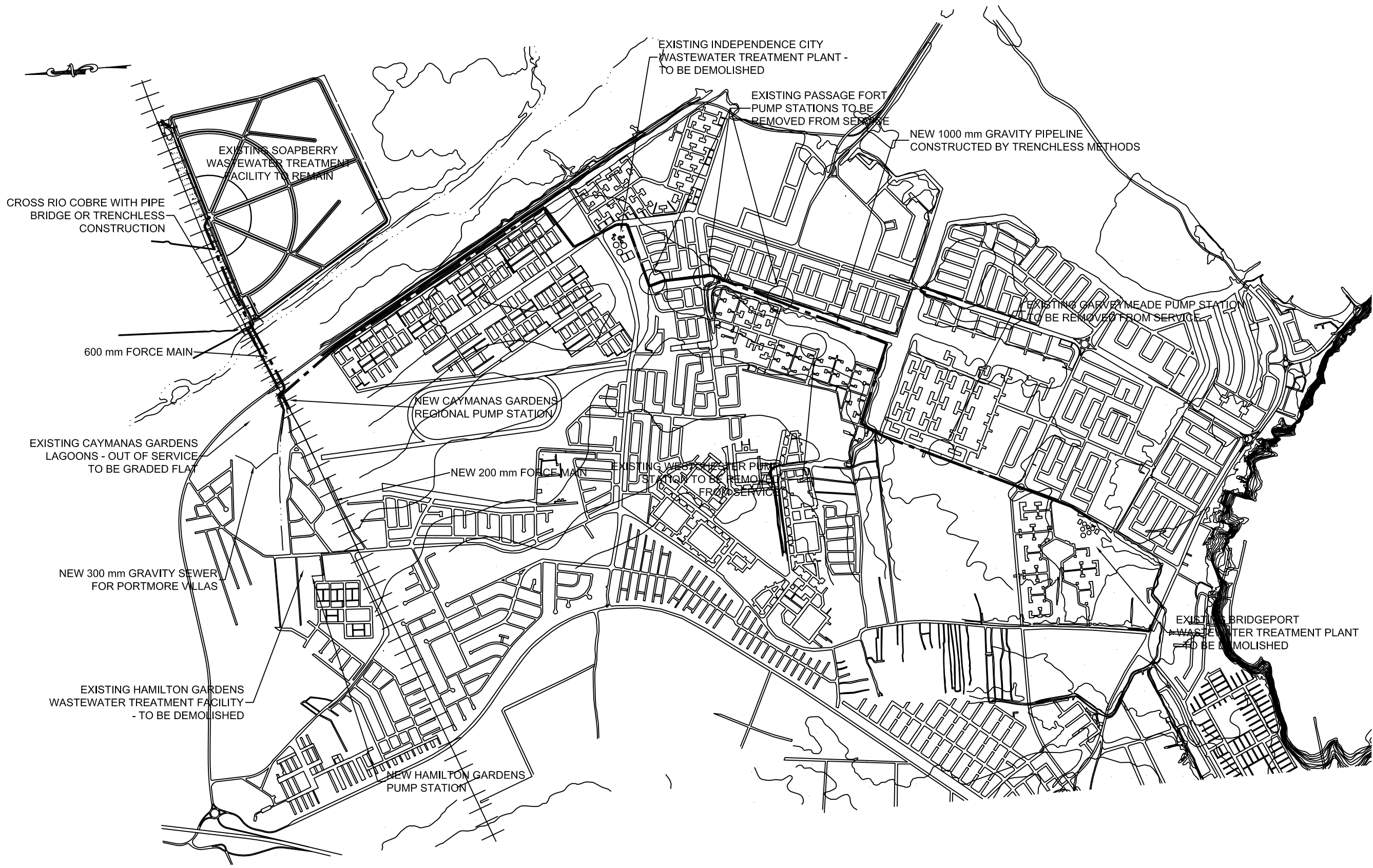
SCALE
HOR: 1000
VERT: 100

CONTRACT:
LOAN ID:
PROJECT: JA09Q1009/09-069

PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PORTMORE ALTERNATIVES A & B
RIO COBRE CROSSING PIPE BRIDGE
PLAN AND ELEVATION

DATE: _____
SHT: 25 OF 41
DWG: C.A6.01



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

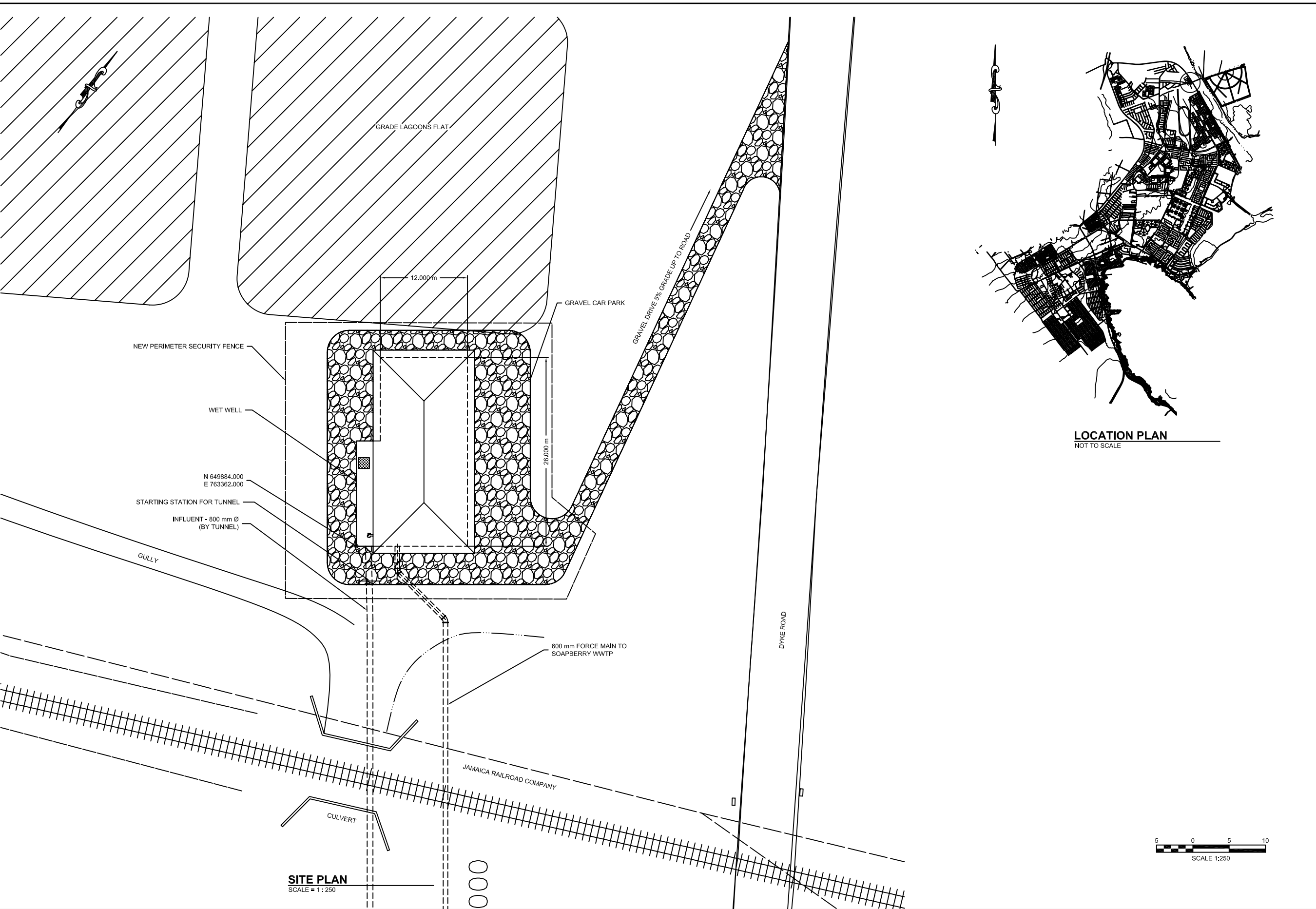


SCALE
 HOR: 1:10,000
 VERT: _____
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE B - GRAVITY SOLUTION
 OVERALL SCHEME
 PLAN

DATE: _____
 SHT: 26 OF 41
 DWG: G.B0.01



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES



SCALE
 HOR: 1 : 250
 VERT: 1 : 250

CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069

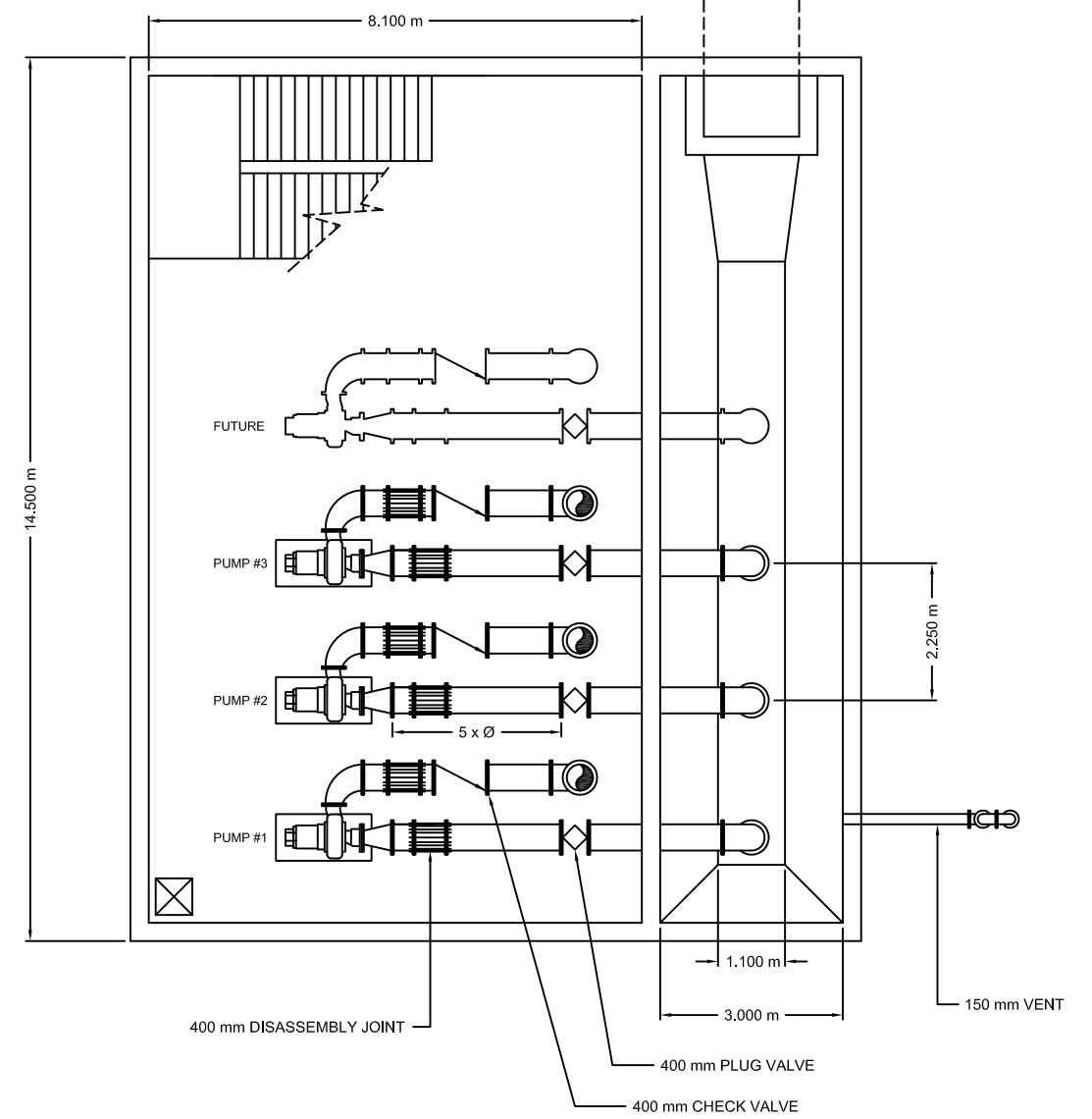
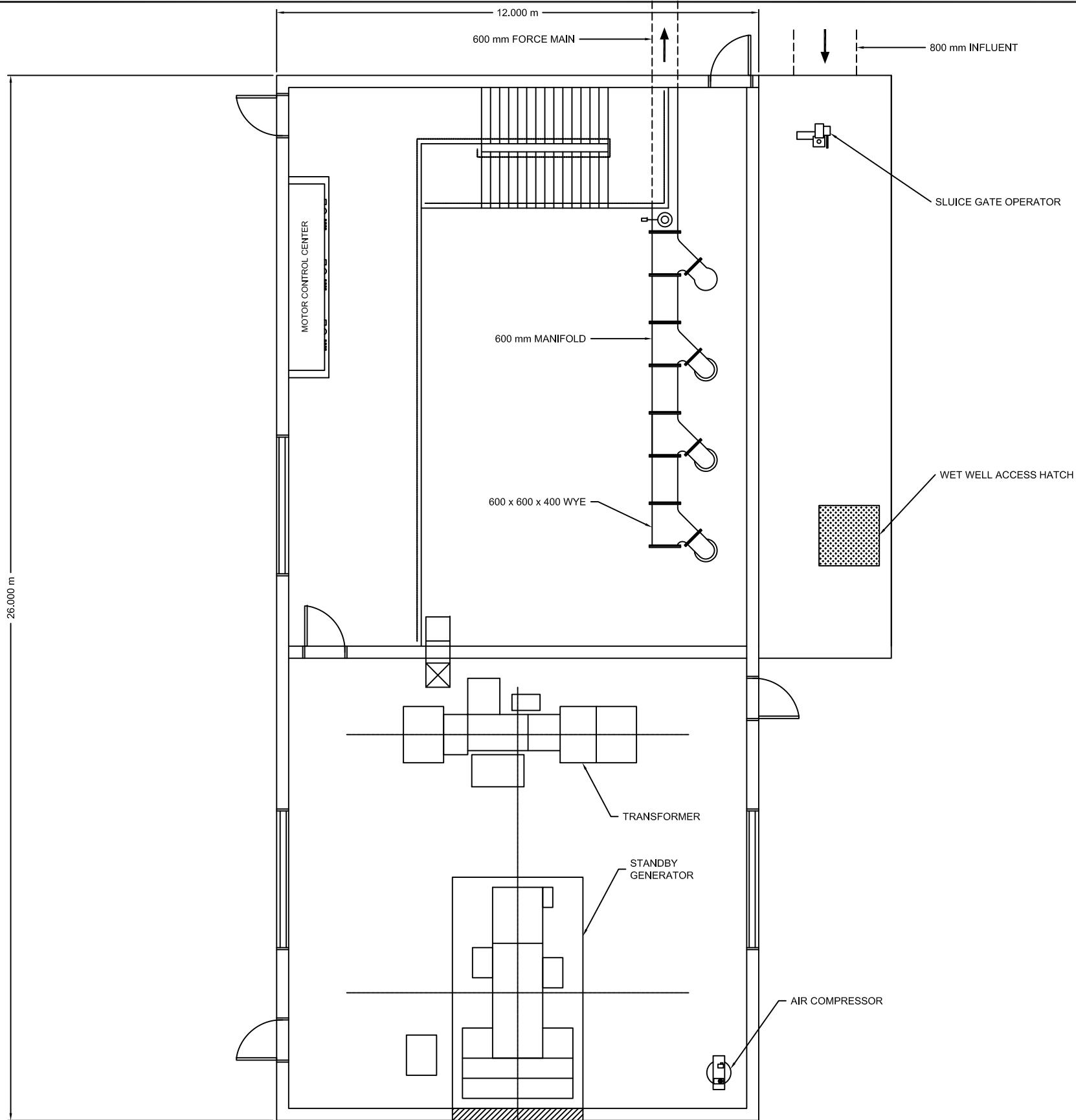


PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT

PORTMORE ALTERNATIVE B - GRAVITY SOLUTION
 CAYMANAS GARDENS PUMP STATION

CIVIL SITE PLAN

DATE: 22 DEC 2009
 SHT: 27 OF 41
 DWG: C.B1.01



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

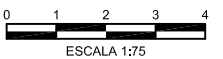
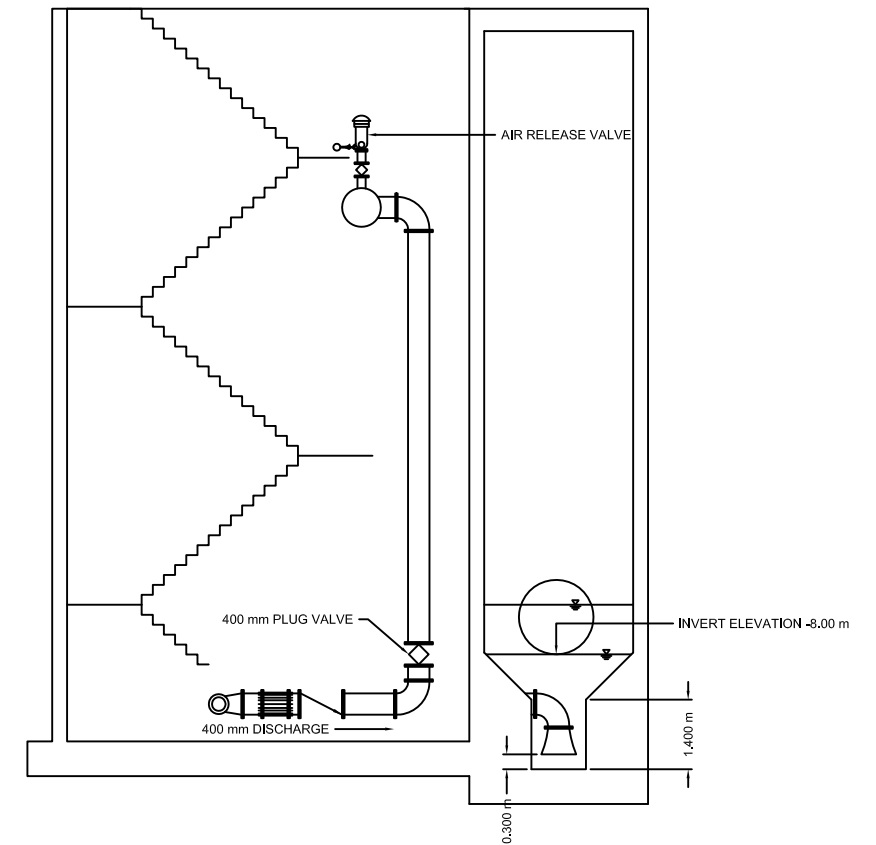
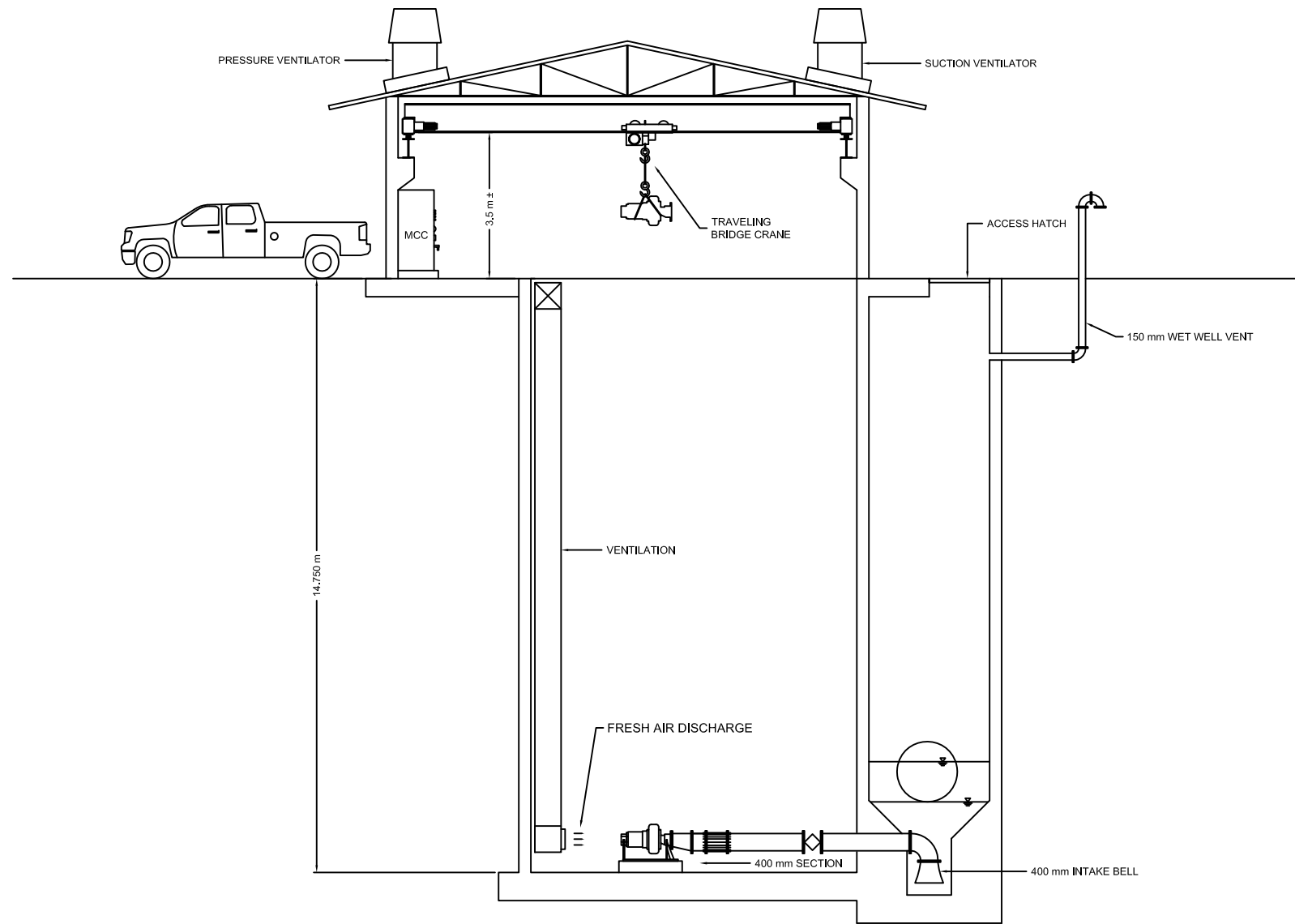


SCALE
 HOR:
 VERT:
 CONTRACT:
 LOAN ID:
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE B - GRAVITY SOLUTION
 CAYMANAS GARDENS PUMP STATION
 MECHANICAL PLANS

DATE: _____
 SHT: 28 OF 41
 DWG: M.B1.01



DESIGNED: T. WILSHUSEN
DRAWN: E. WRIGHT
REVIEWED: H. TSUTA
ENGINEER: K. TYNES

NIPPON KOEI
 Challenging mind, Changing dynamics

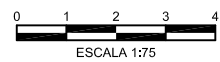
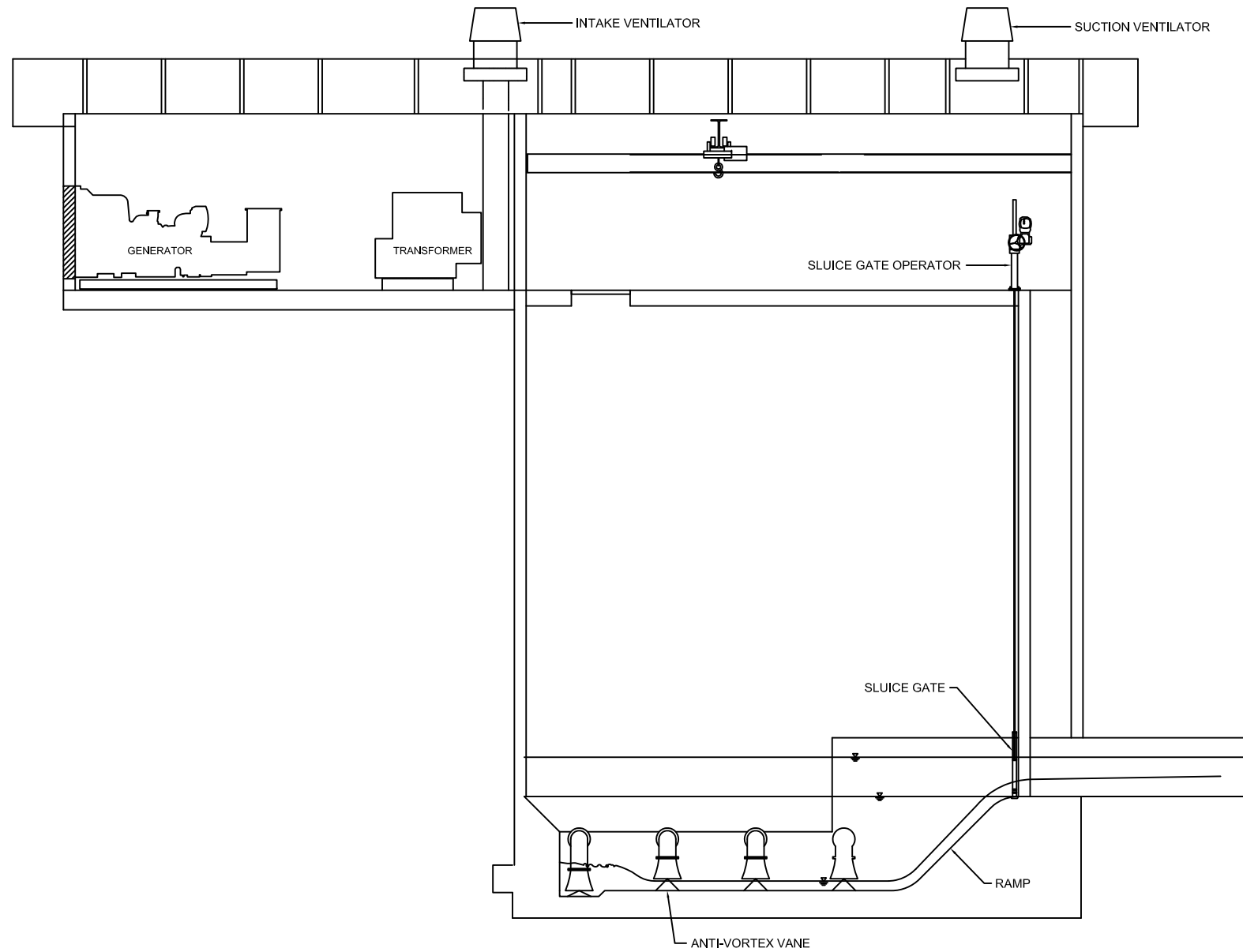
SCALE	CONTRACT:
HOR:	LOAN ID:
VERT:	PROJECT:
	JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE B - GRAVITY SOLUTION
 CAYMANAS GARDENS PUMP STATION
 TRANSVERSE SECTIONS

DATE:	
SHT: 29 OF 41	
DWG: M.B1.02	

NO.	DATE	ISSUED FOR



DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES



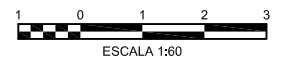
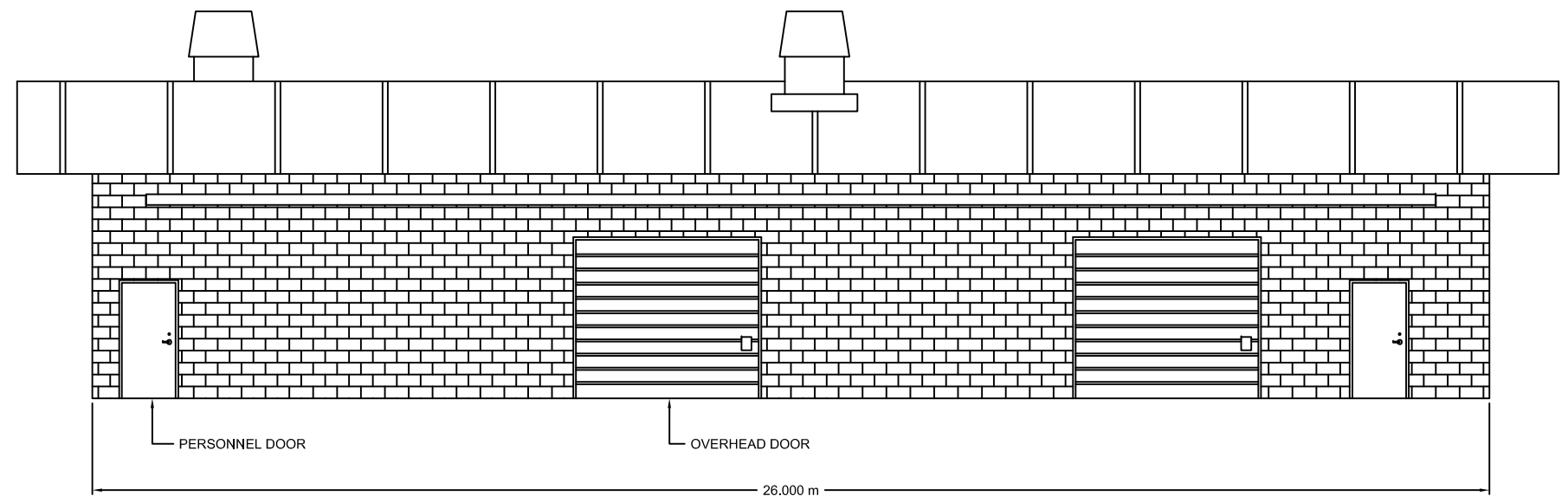
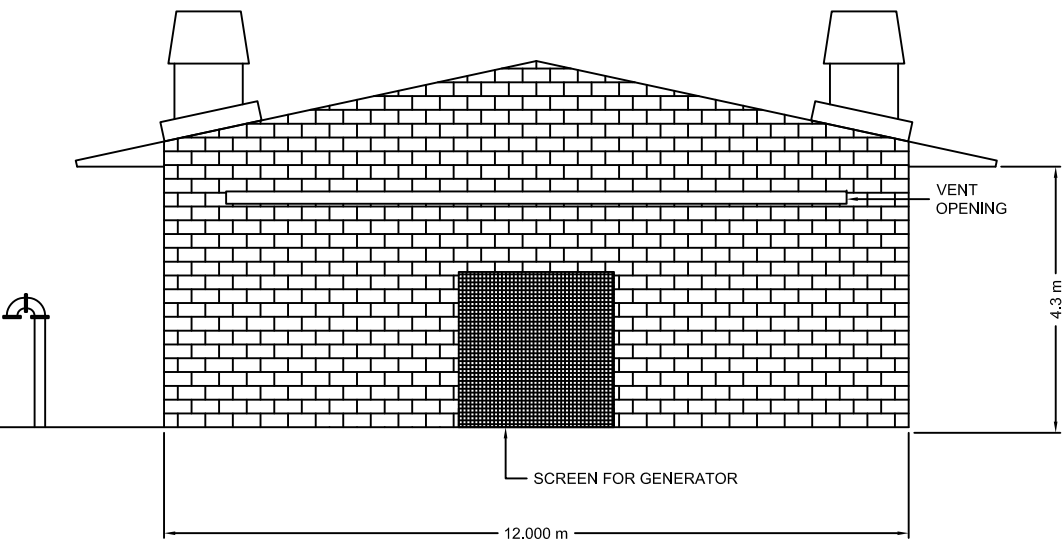
SCALE
 HOR:
 VERT:
 CONTRACT:
 LOAN ID:
 PROJECT:
 JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE B - GRAVITY SOLUTION
 CAYMANAS GARDENS PUMP STATION
 LONGITUDINAL SECTION

DATE: _____
 SHT: 30 OF 41
 DWG: M.B1.03

NO.	DATE	ISSUED FOR



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

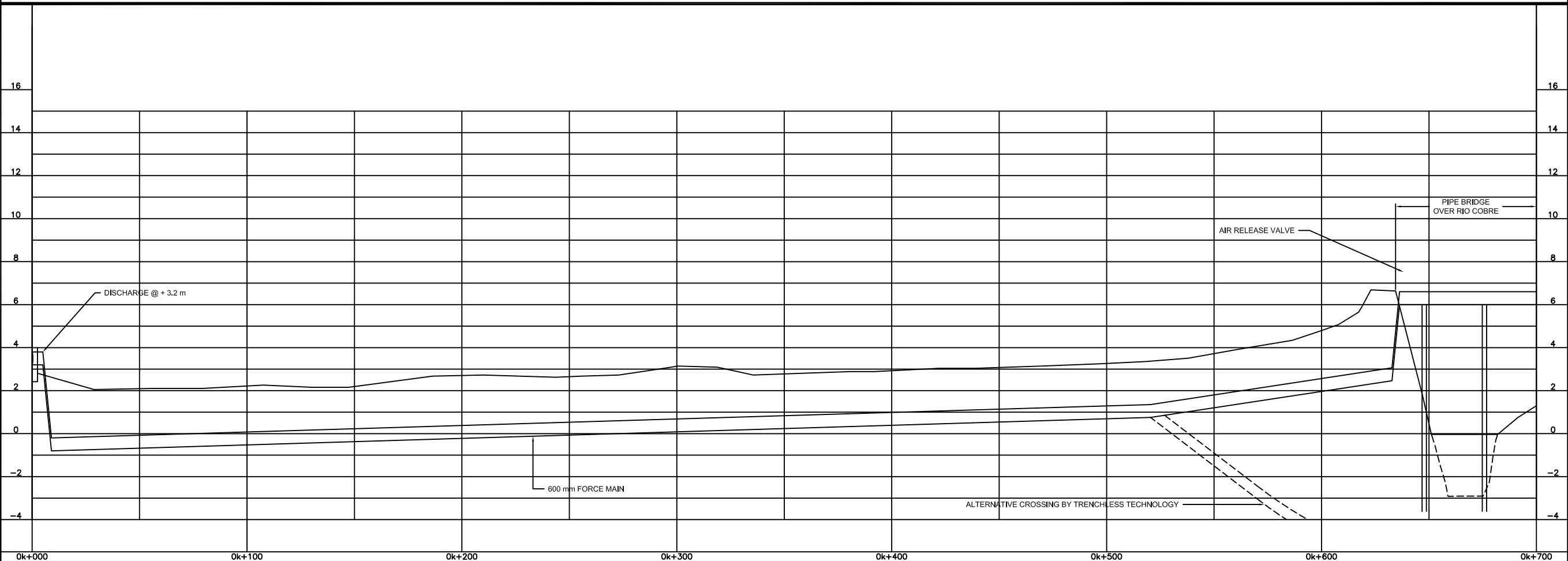
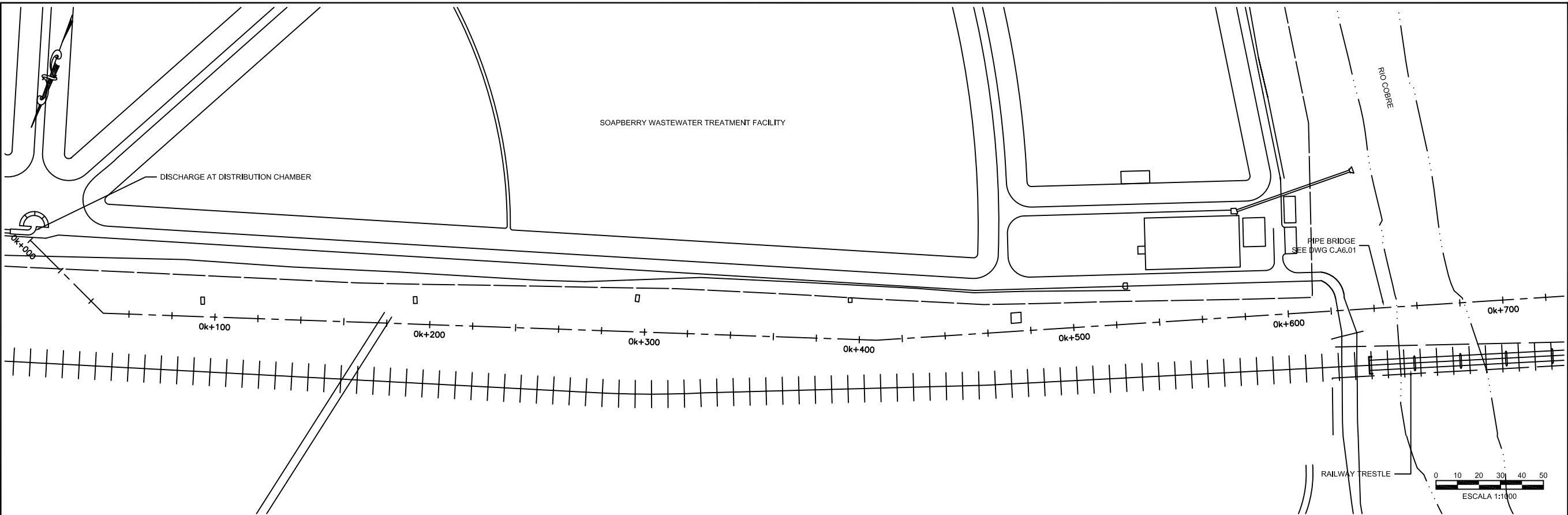


SCALE
 HOR: _____
 VERT: _____
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE B - GRAVITY SOLUTION
 CAYMANAS GARDENS PUMP STATION
 ARCHITECTURAL ELEVATIONS

DATE: _____
 SHT: 31 OF 41
 DWG: A.B1.01

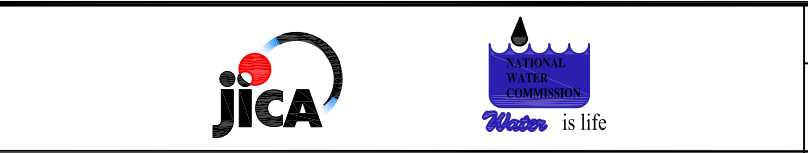


NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

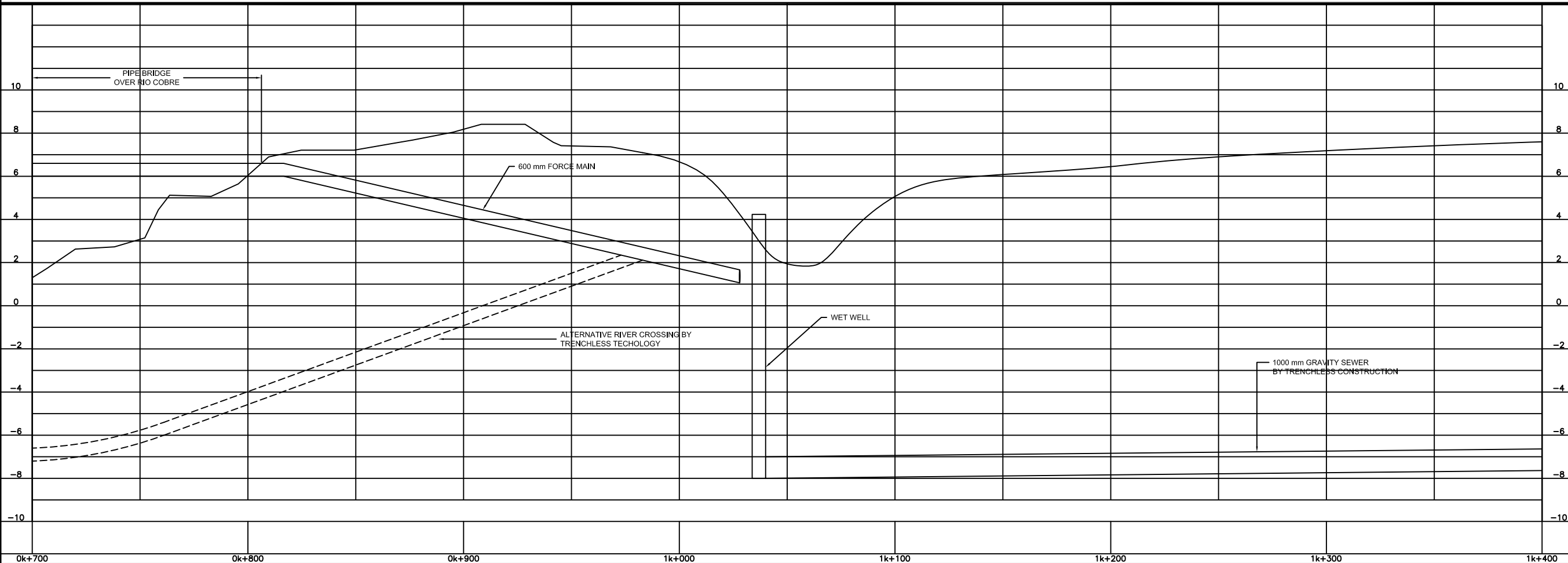
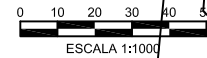
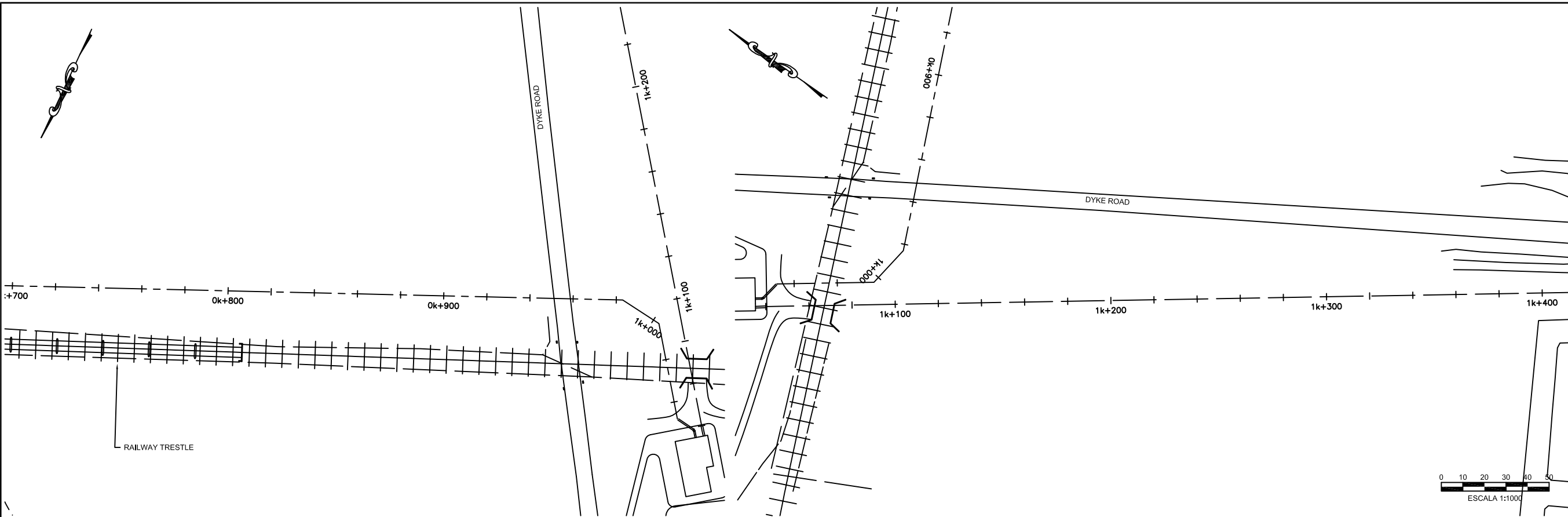


SCALE
 HOR: 1: 1000
 VERT: 1: 100
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE B - GRAVITY SOLUTION
 GENERALIZED PLAN & PROFILE
 STATION 0K + 000 @ 0K + 700

DATE: 22 DEC 2009
 SHT: 32 OF 41
 DWG: C.B2.01



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES



SCALE
 HOR: 1: 1000
 VERT: 1: 100

CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT

PORTMORE ALTERNATIVE B - GRAVITY SOLUTION

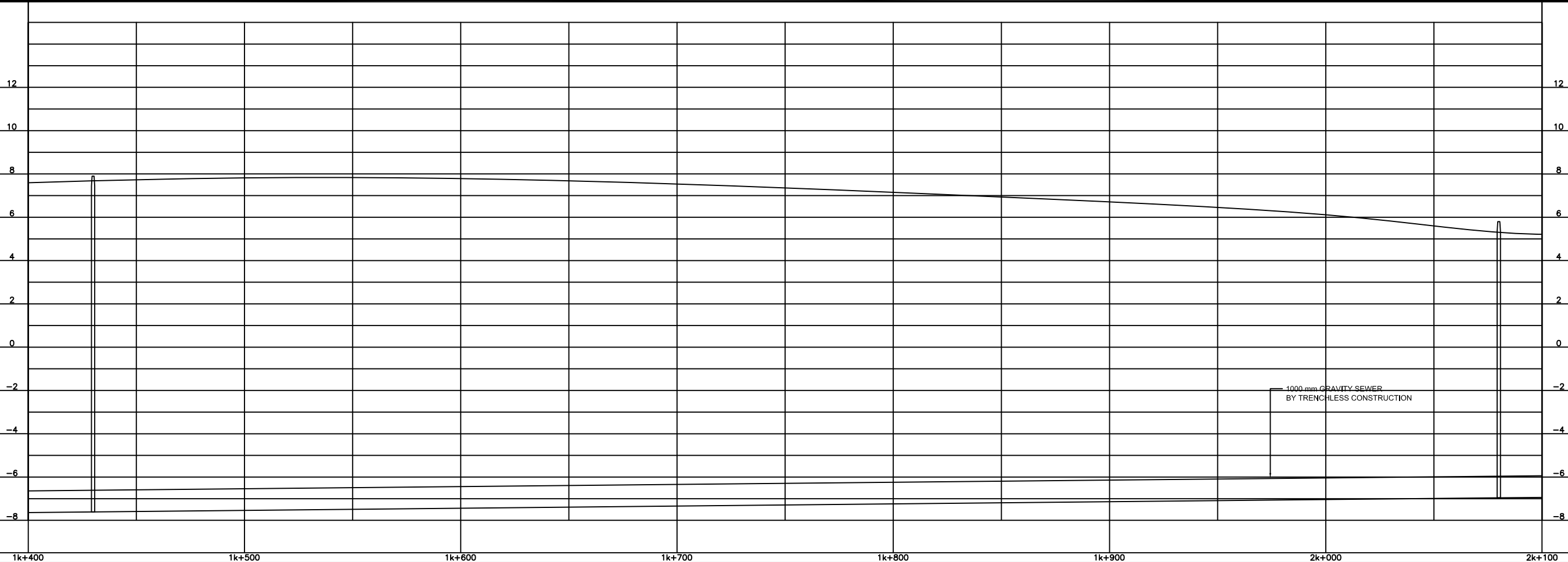
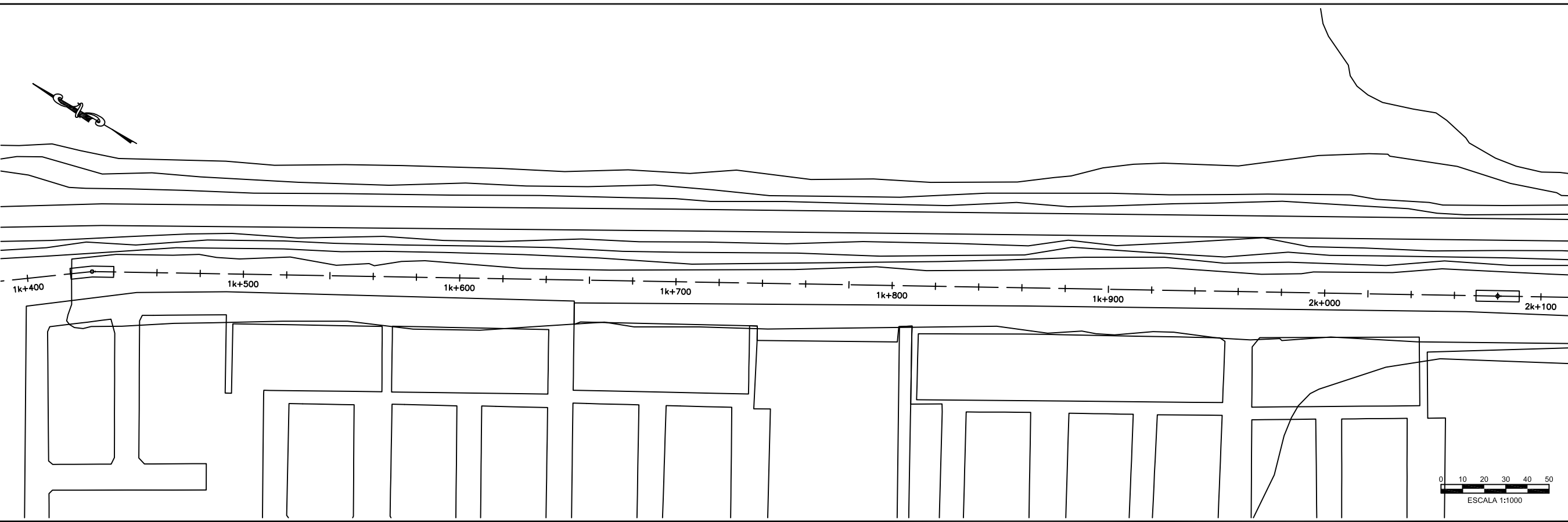
GENERALIZED PLAN & PROFILE

STATION 0K + 700 @ 1K + 400

DATE: 22 DEC 2009

SHT: 33 OF 41

DWG: C.B2.02



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

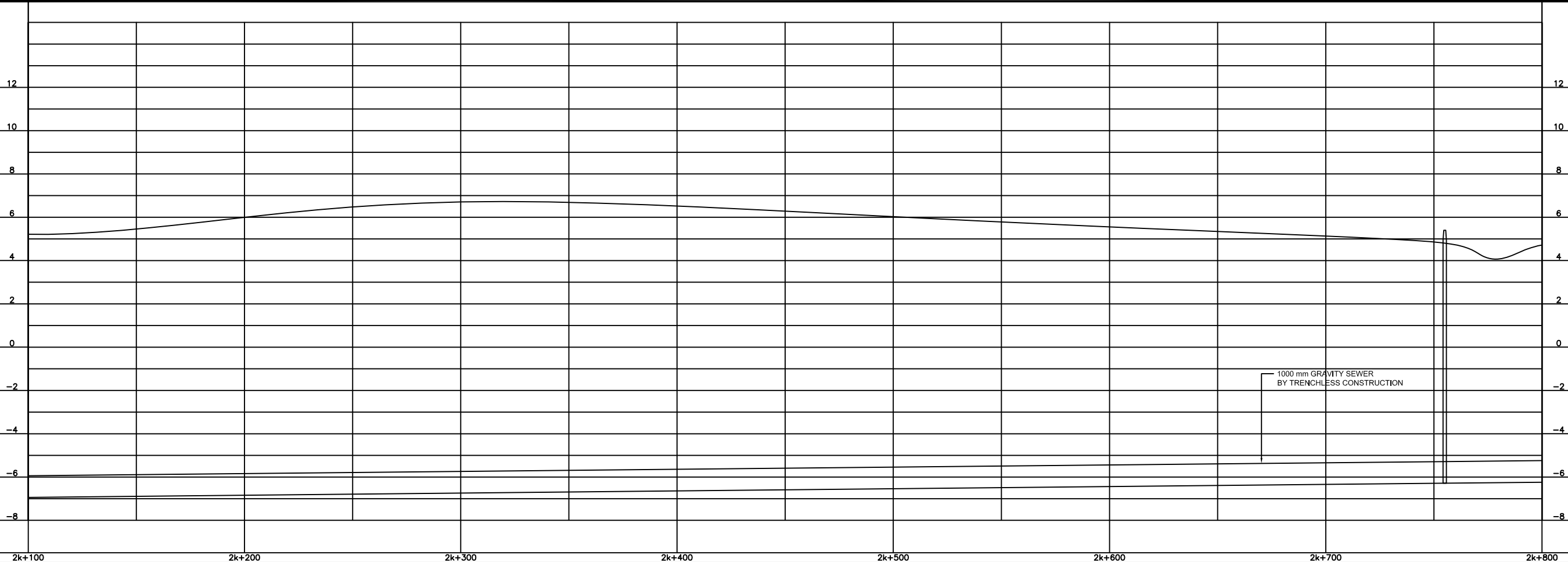


SCALE
 HOR: 1 : 1000
 VERT: 1 : 100
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE B - GRAVITY SOLUTION
 GENERALIZED PLAN & PROFILE
 STATION 1K + 400 @ 2K + 100

DATE: 22 DEC 2009
 SHT: 34 OF 41
 DWG: C.B2.03



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

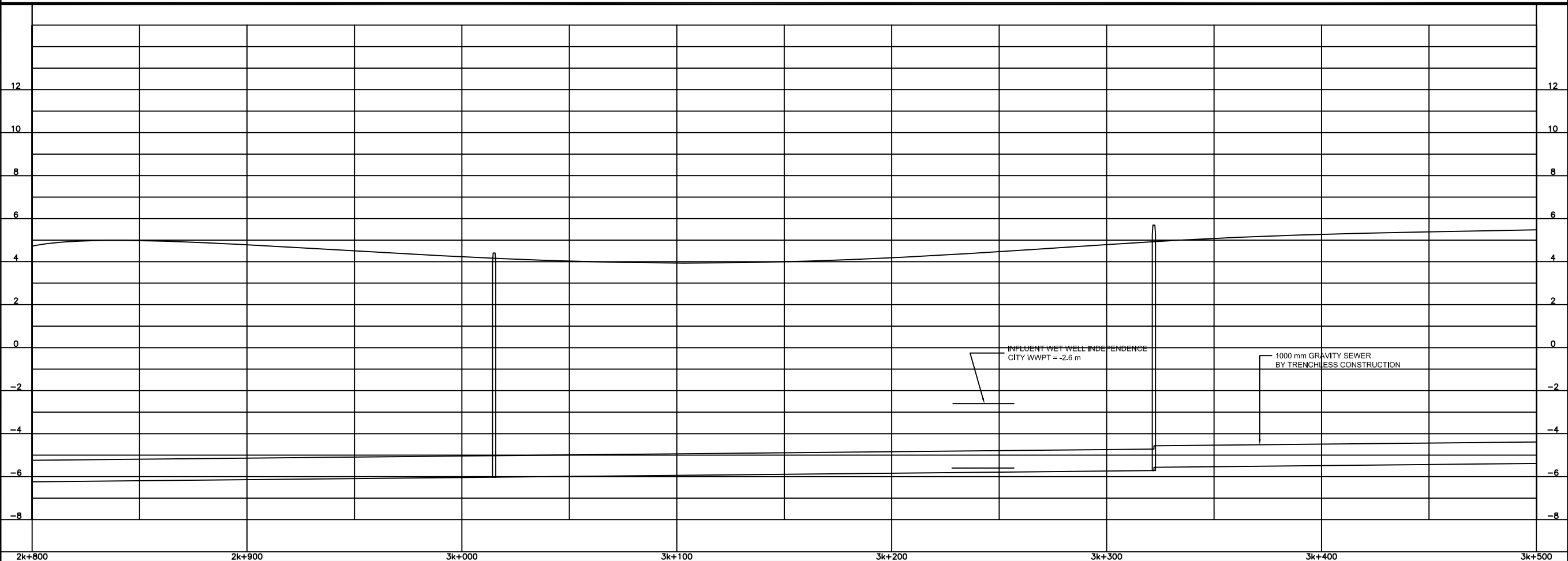
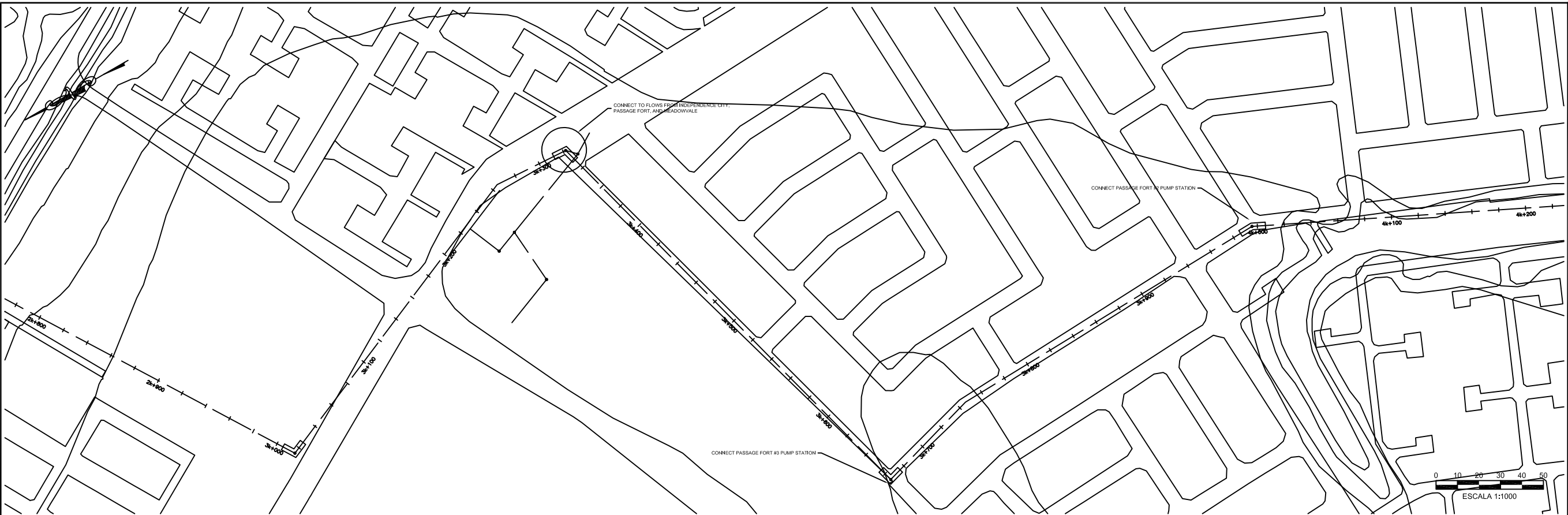


SCALE
 HOR: 1 : 1000
 VERT: 1 : 100
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-089



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE B - GRAVITY SOLUTION
 GENERALIZED PLAN & PROFILE
 STATION 2K + 100 @ 2K + 800

DATE: 22 DEC 2009
 SHT: 35 OF 41
 DWG: C.B2.04



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES



SCALE
 HOR: 1: 1000
 VERT: 1: 100

CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT

PORTMORE ALTERNATIVE B - GRAVITY SOLUTION

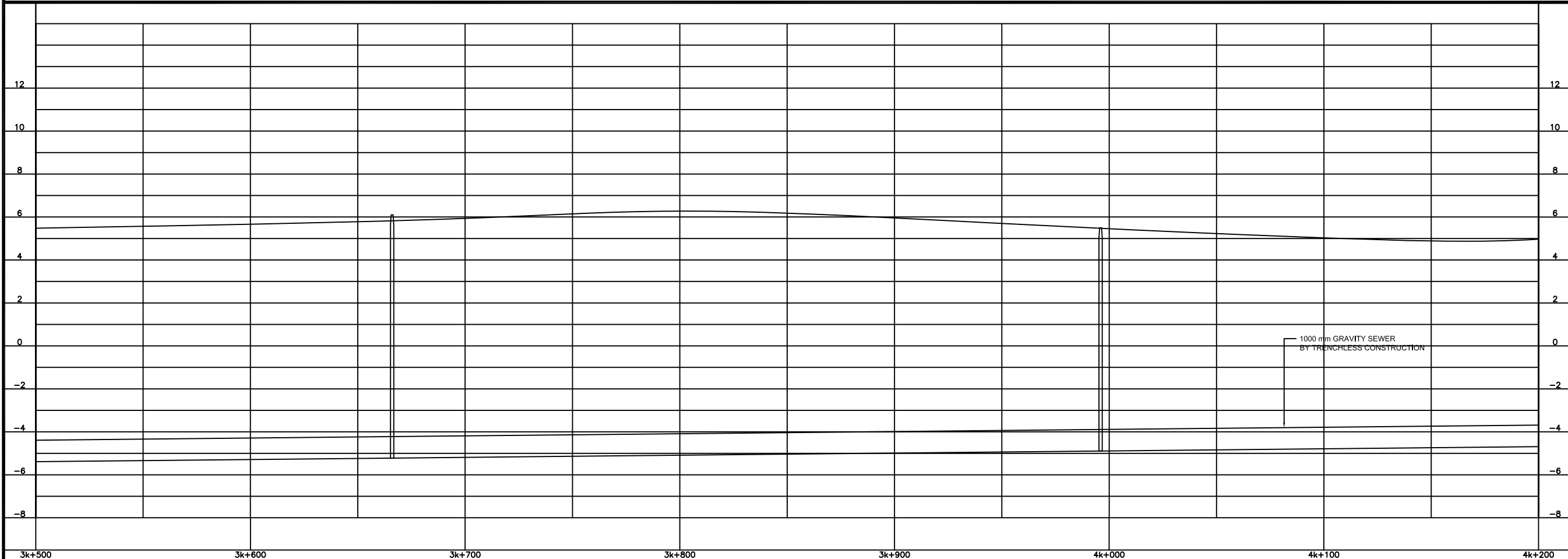
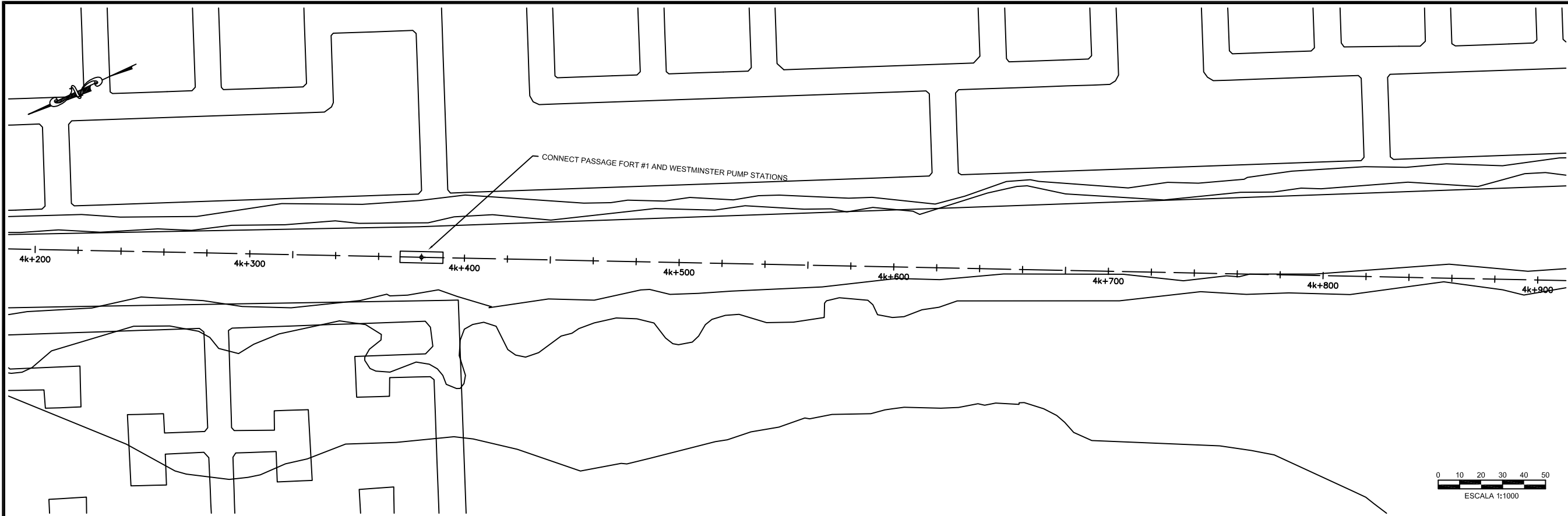
GENERALIZED PLAN & PROFILE

STATION 2K + 800 @ 3K + 500

DATE: 22 DEC 2009

SHT: 36 OF 41

DWG: C.B2.05



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

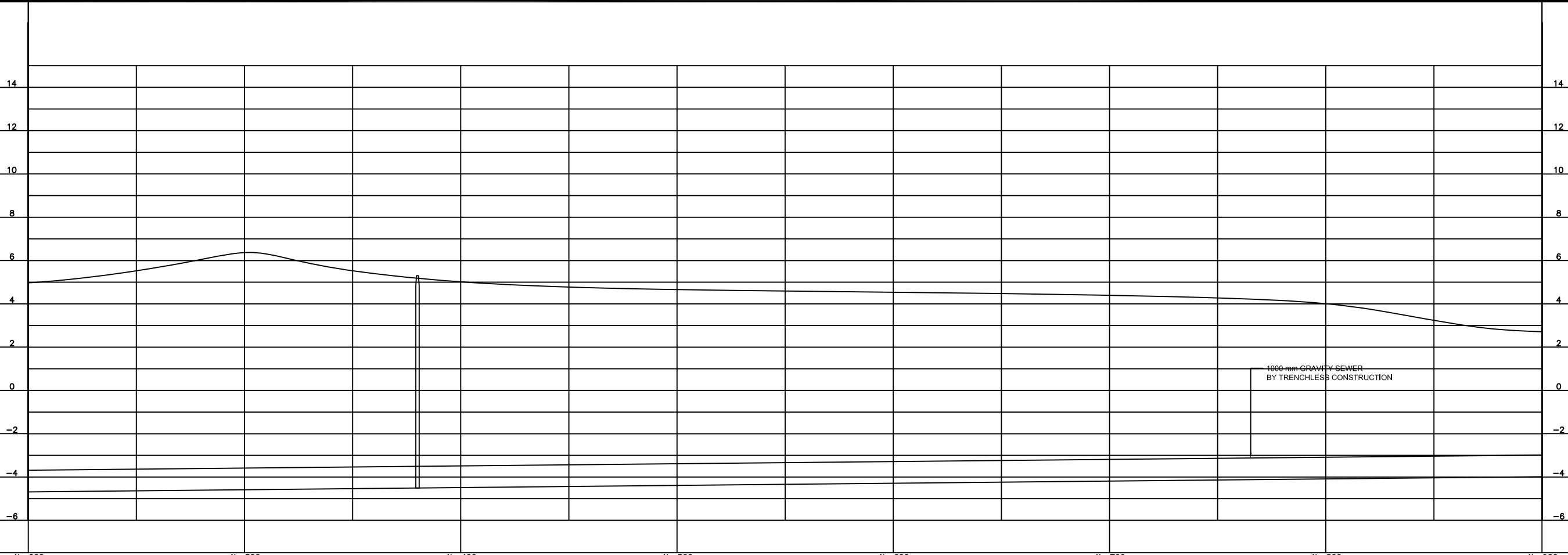
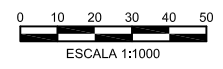
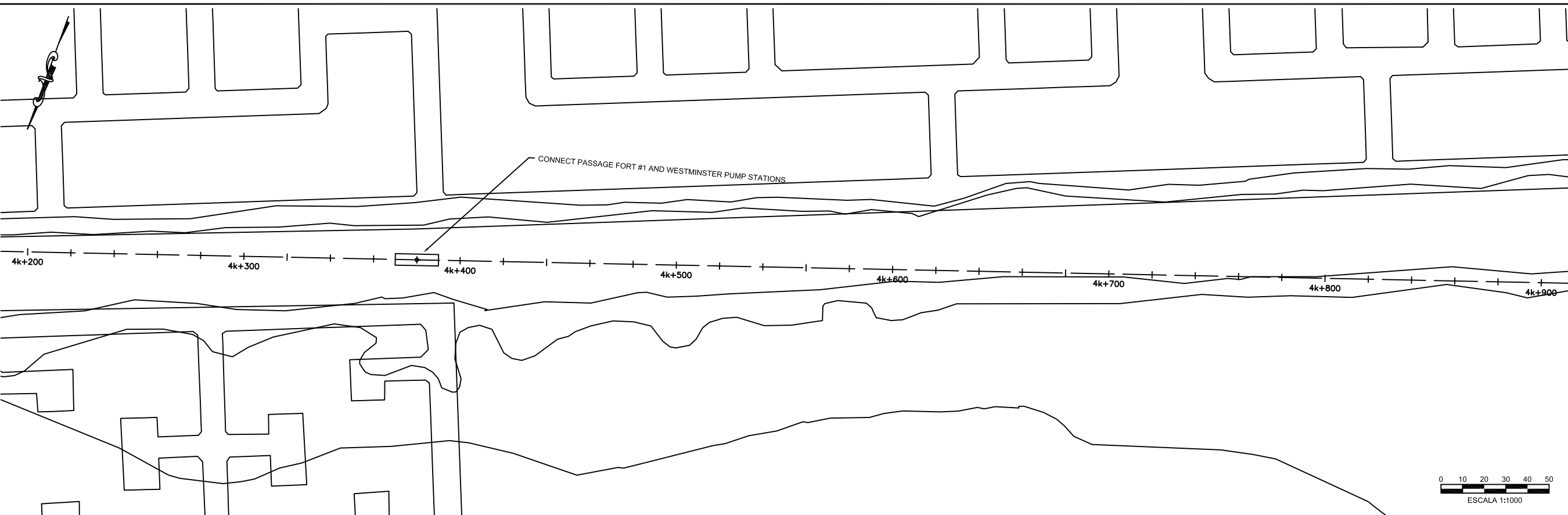
NIPPON KOEI
Challenging mind, Changing dynamics

SCALE
 HOR: 1 : 1000
 VERT: 1 : 100
 CONTRACT:
 LOAN ID:
 PROJECT:
 JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE B - GRAVITY SOLUTION
 GENERALIZED PLAN & PROFILE
 STATION 3K + 500 @ 4K + 200

DATE: 22 DEC 2009
 SHT: 37 OF 41
 DWG: C.B2.06



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

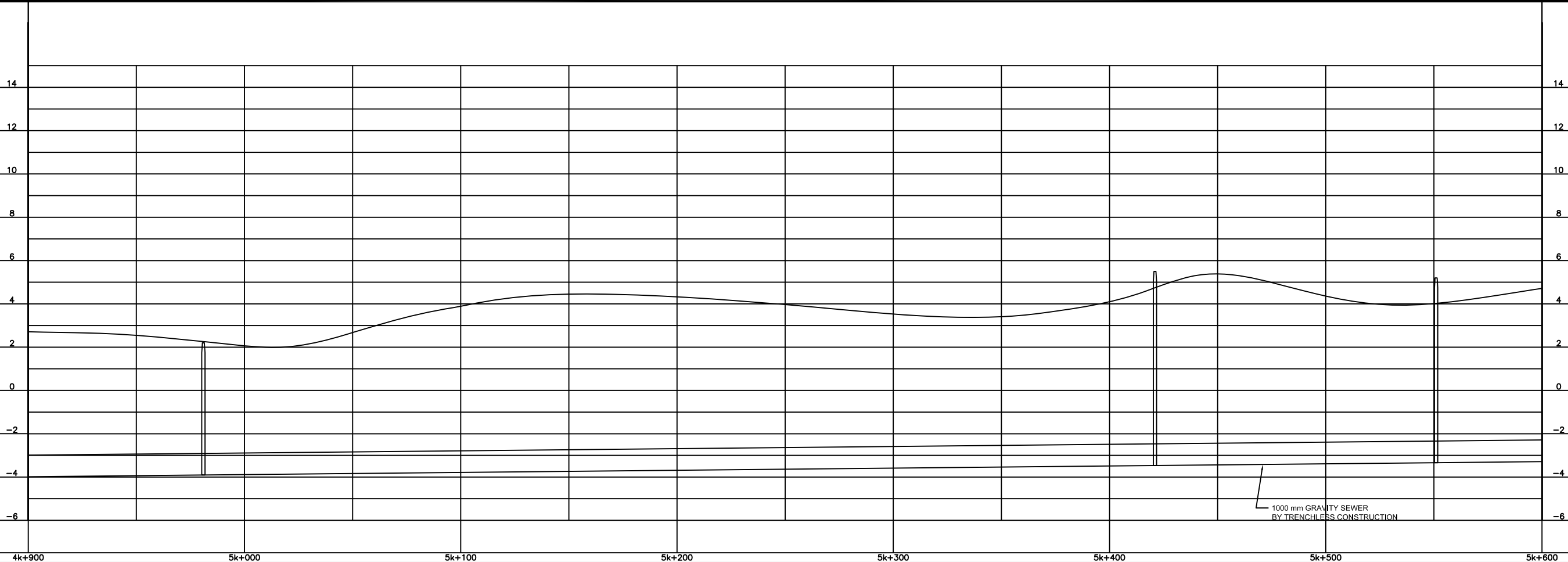
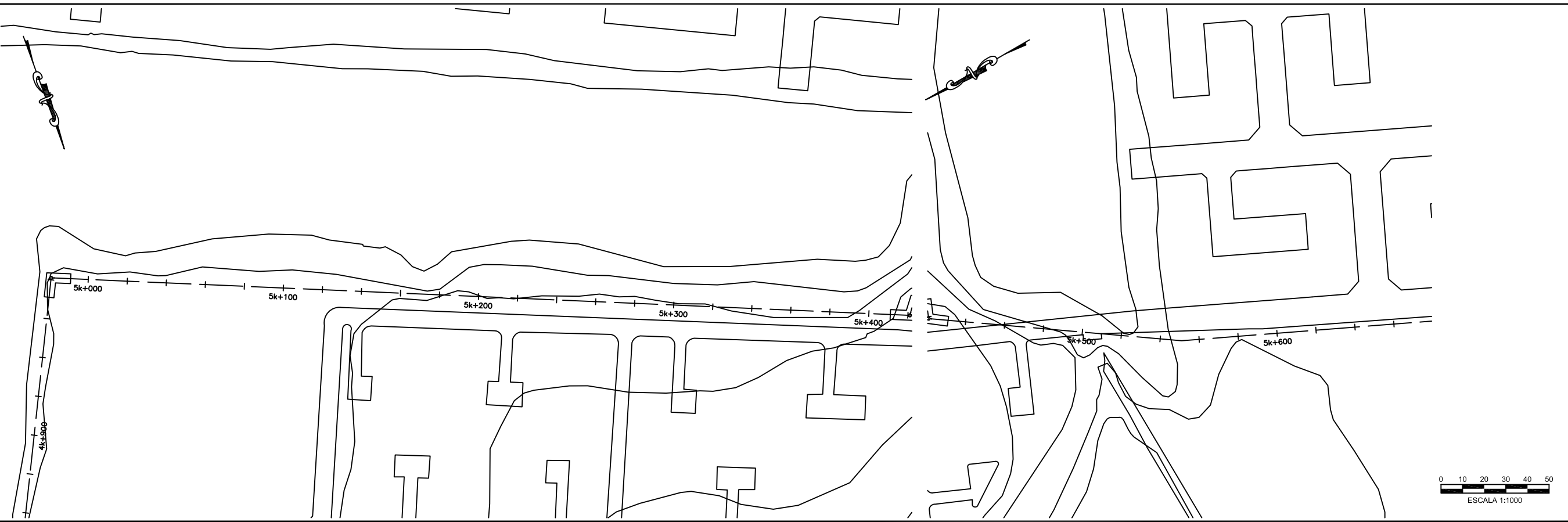


SCALE
 HOR: 1: 1000
 VERT: 1: 100
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE B - GRAVITY SOLUTION
 GENERALIZED PLAN & PROFILE
 STATION 4K + 200 @ 4K + 900

DATE: 22 DEC 2009
 SHT: 38 OF 41
 DWG: C.B2.07



DESIGNED: T. WILSHUSEN
DRAWN: E. WRIGHT
REVIEWED: H. TSUTA
ENGINEER: K. TYNES
NO. DATE ISSUED FOR

NIPPON KOEI
Challenging mind, Changing dynamics

SCALE
HOR: 1: 1000
VERT: 1: 100

CONTRACT: _____
LOAN ID: _____
PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
KINGSTON SEWERAGE DEVELOPMENT PROJECT

PORTMORE ALTERNATIVE B - GRAVITY SOLUTION

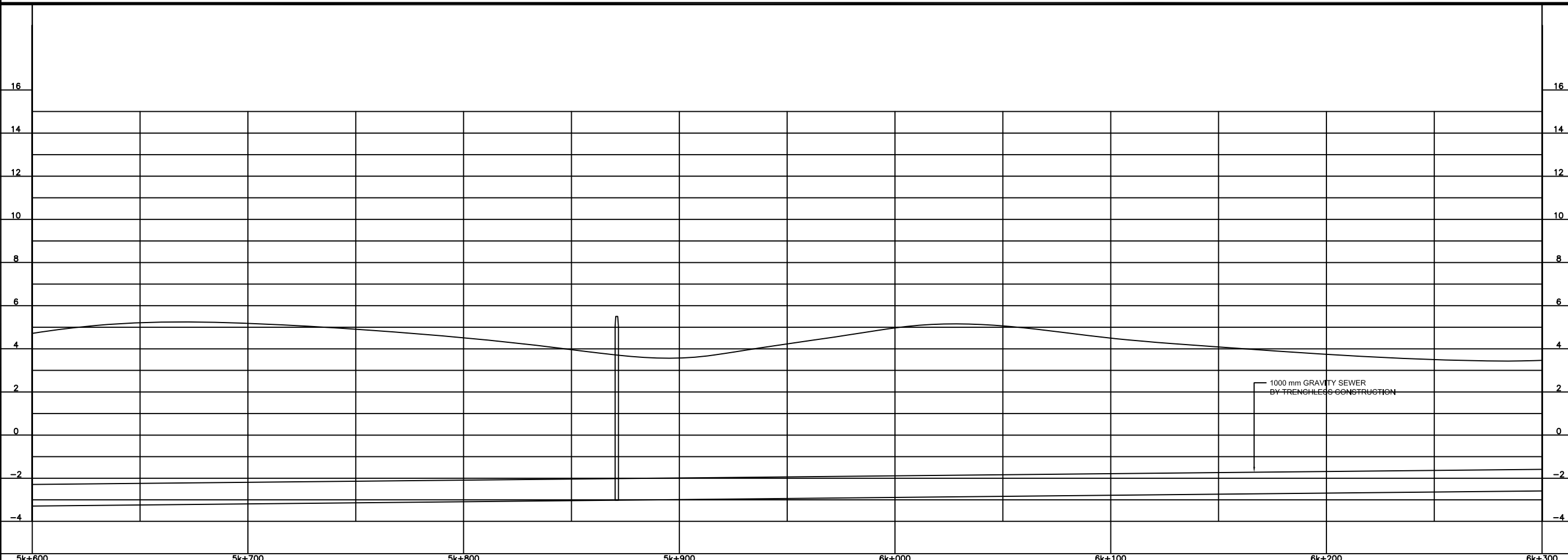
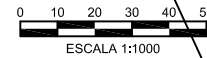
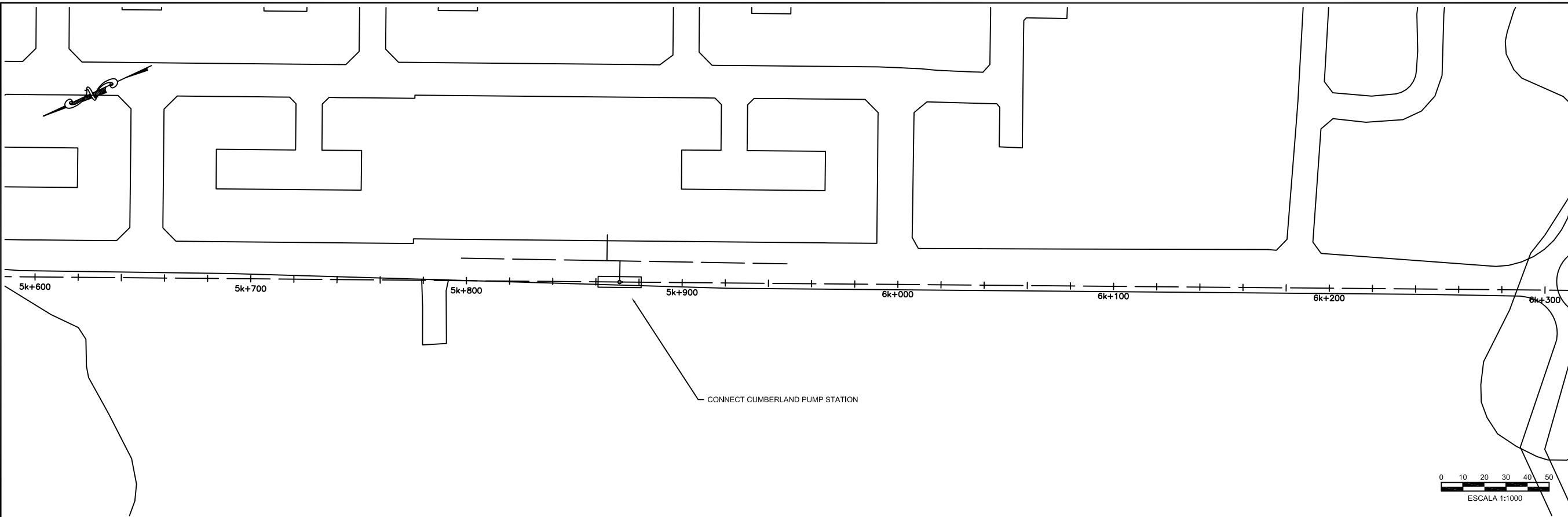
GENERALIZED PLAN & PROFILE

STATION 4K + 900 @ 5K + 600

DATE: 22 DEC 2009

SHT: 39 OF 41

DWG: C.B2.08



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES

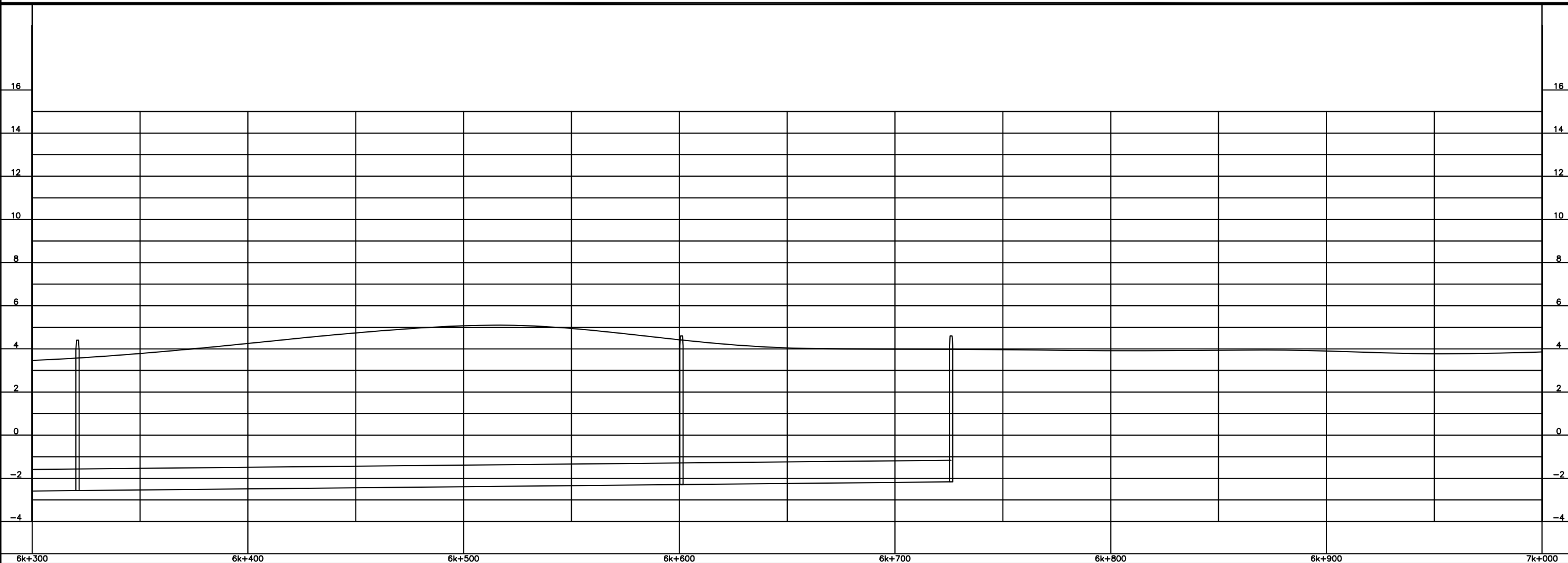
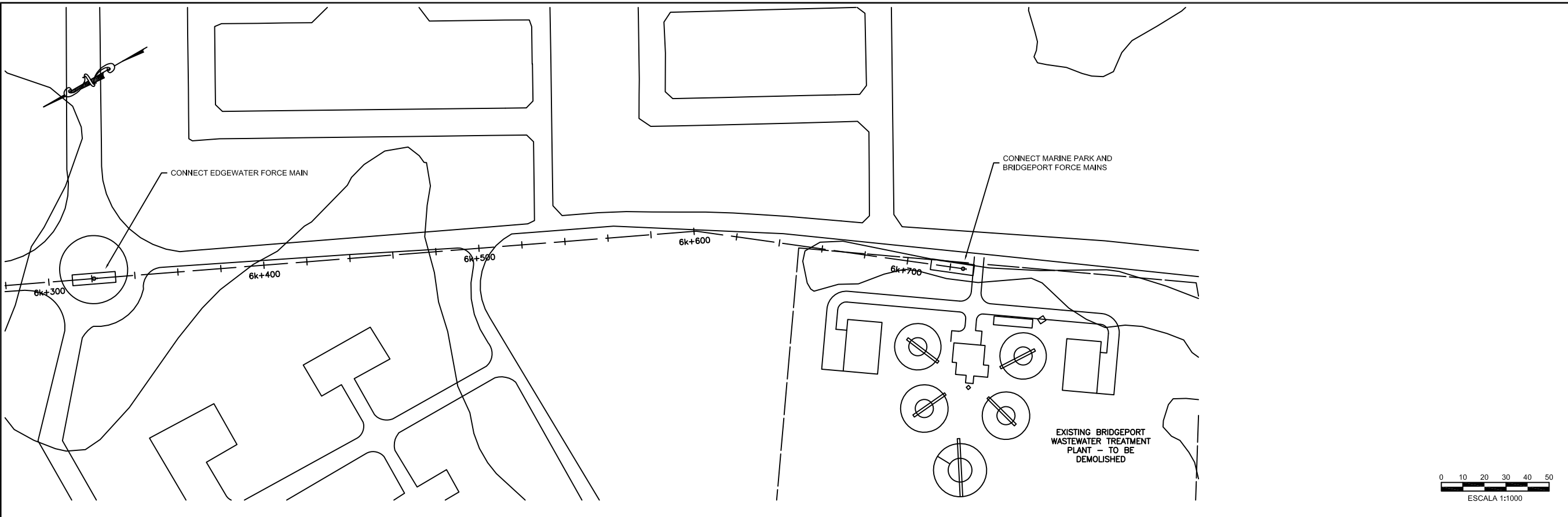


SCALE
 HOR: 1: 1000
 VERT: 1: 100
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE B - GRAVITY SOLUTION
 GENERALIZED PLAN & PROFILE
 STATION 5K + 600 @ 6K + 300

DATE: 22 DEC 2009
 SHT: 40 OF 41
 DWG: C.B2.09



NO.	DATE	ISSUED FOR

DESIGNED: T. WILSHUSEN
 DRAWN: E. WRIGHT
 REVIEWED: H. TSUTA
 ENGINEER: K. TYNES



SCALE
 HOR: 1:1000
 VERT: 1:100
 CONTRACT: _____
 LOAN ID: _____
 PROJECT: JA09Q1009/09-069



PREPARATORY SURVEY FOR
 KINGSTON SEWERAGE DEVELOPMENT PROJECT
 PORTMORE ALTERNATIVE B - GRAVITY SOLUTION
 GENERALIZED PLAN & PROFILE
 STATION 6K + 300 @ 6K + 715

DATE: 22 DEC 2009
 SHT: 41 OF 41
 DWG: C.B2.10