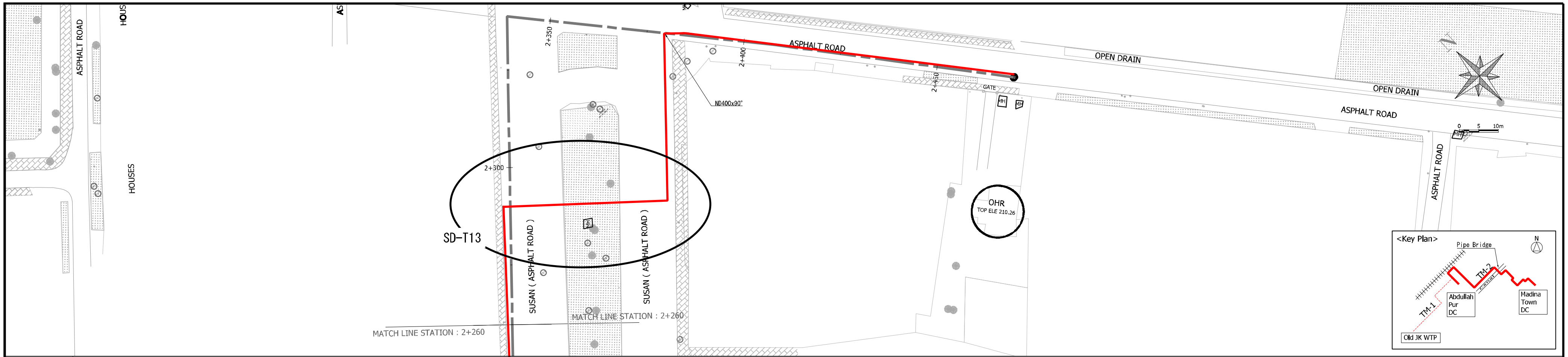
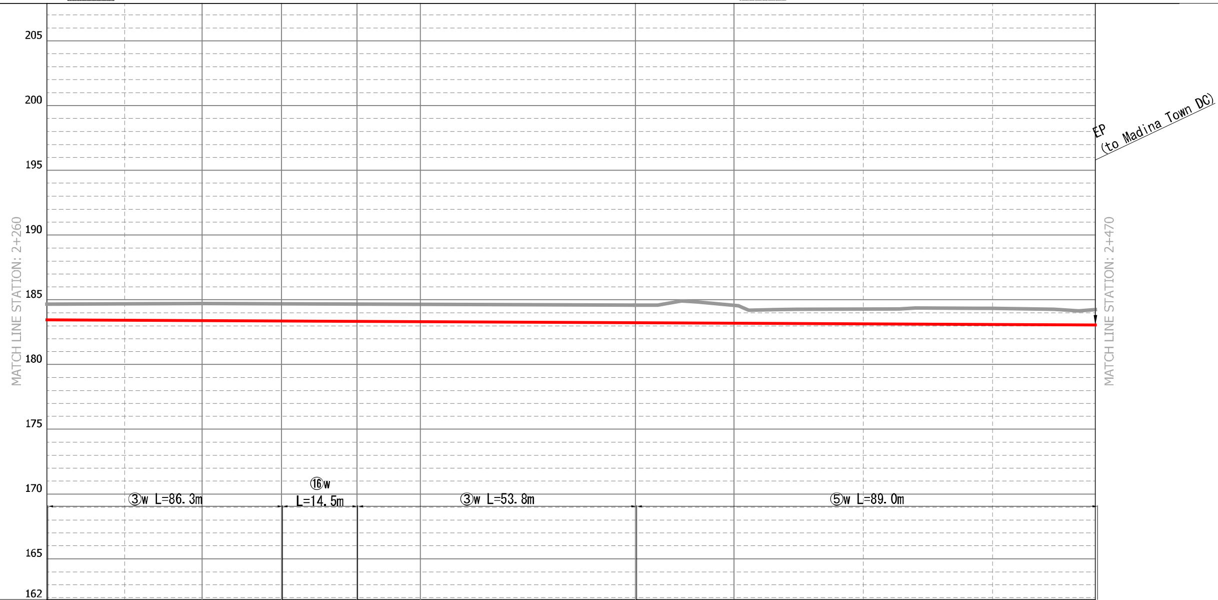


LEGEND	BUILDING	GRASS	WATER PUMP	SHELTER	CONCRETE	STEPS	FOOTPATH	STAIRS	BORE HOLE	GATE	TRANSFORMER	ROAD	SIGN BOARD	CULVERT	SIGNAL	PTCL BOX	PTCL MH	EARTHEN TRACK	GRAVE YARD	ELECTRIC POLE	LIGHT POLE	TELEPHONIC POLE	PLANT	TREE	MANHOLE	BM	ROW	NATURAL GROUND LEVEL



Water Level									
Ground Elevations	184.67	184.69	184.71	184.71	184.57	184.57	185.10	184.71	184.24
Pipe Center Level	000.000								
Pipeline (Diameter)	TM-2 HDPE ND400 L=834m								
Cumulative Distance	2260	2275	2290	2290	2381	2400	2425	2450	2470
Chainage	2+260	+75	2+290	2+290	2+381	2+400	+25	+50	2+470

PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	PLAN AND PROFILE OF TRANSMISSION MAIN (14)	1/1000,1/400	TM-014

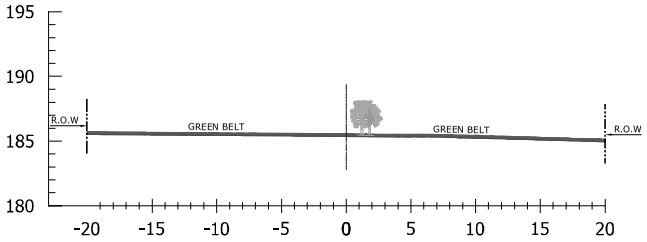
TM-14

CROSS SECTIONS OF TRANSMISSION MAIN (1)

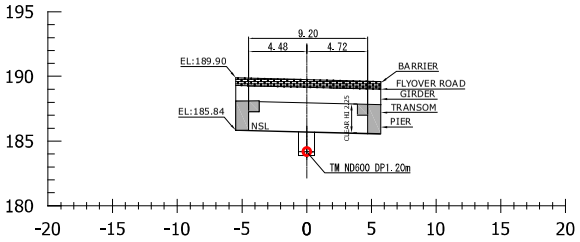
S=1/200

0+000

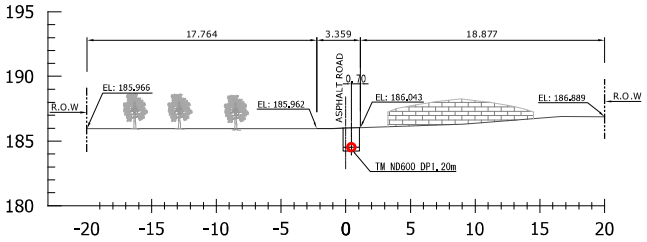
(TM-SP IN FRONT OF WTP)



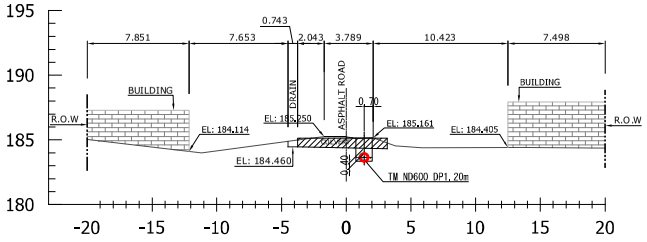
0+100



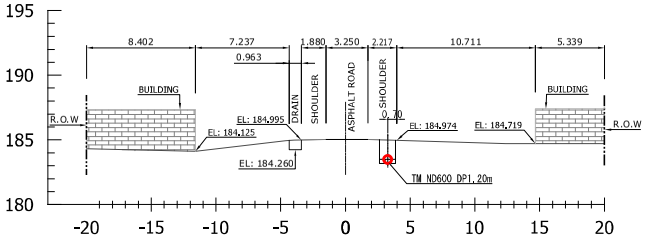
0+200



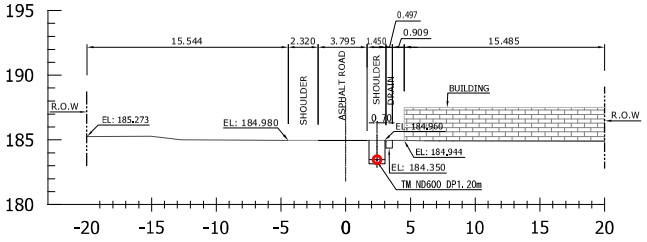
0+300



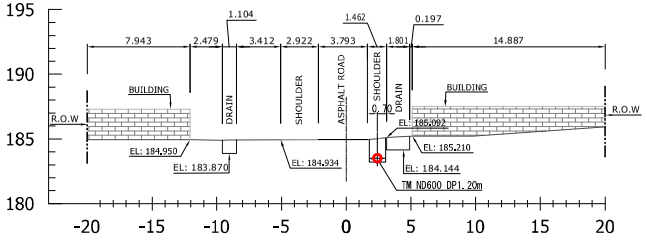
0+400



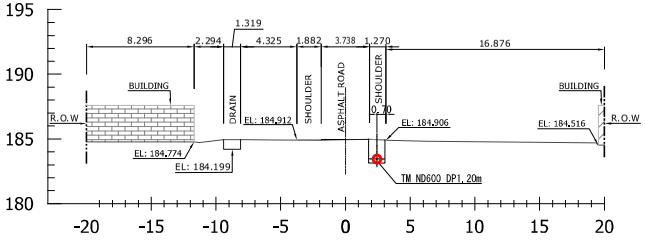
0+500



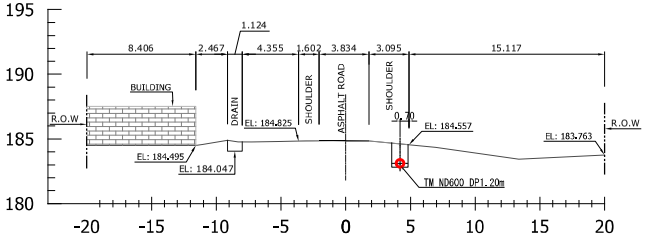
0+600



0+700



0+800

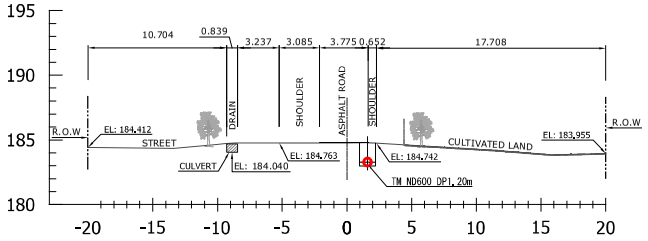


	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	CROSS SECTIONS OF TRANSMISSION MAIN (1)	1/200	TM-015

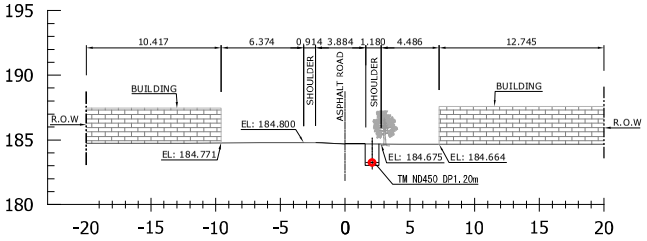
CROSS SECTIONS OF TRANSMISSION MAIN (2)

S=1/200

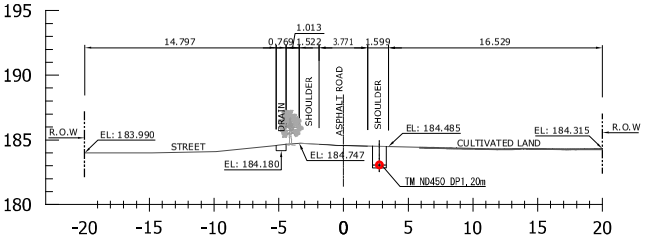
0+900



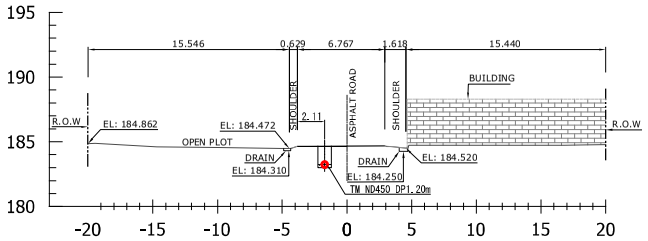
1+000



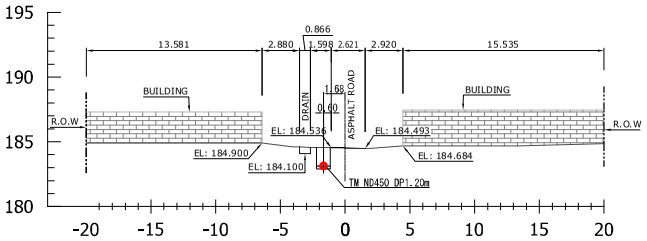
1+100



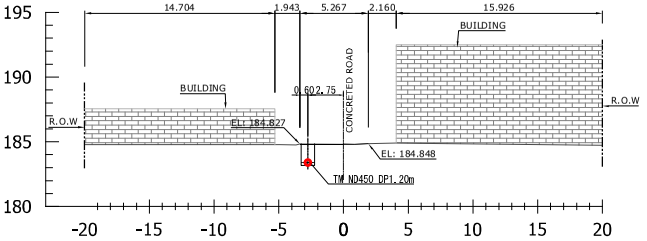
1+200



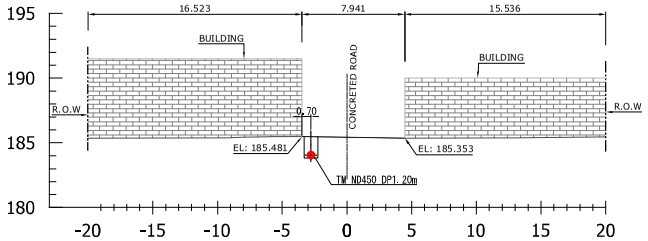
1+300



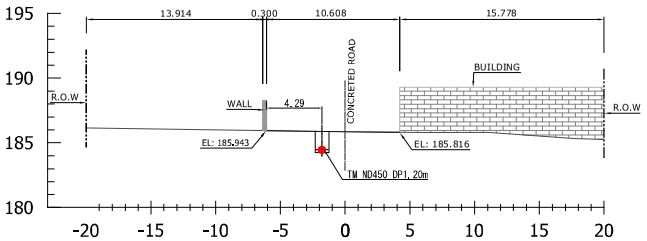
1+400



1+500

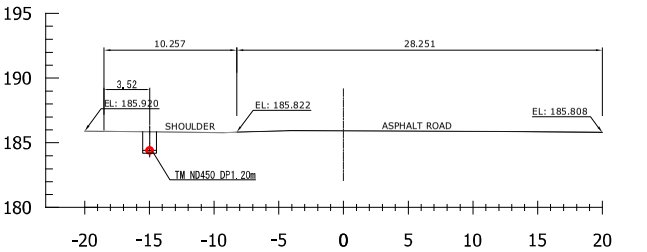


1+600



1+628

(TM-CP01)



	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	CROSS SECTIONS OF TRANSMISSION MAIN (2)	1/200	TM-016

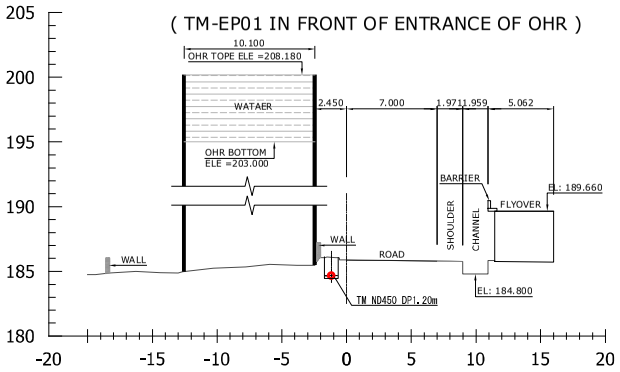
App 7(5)-55

CROSS SECTIONS OF TRANSMISSION MAIN (3)

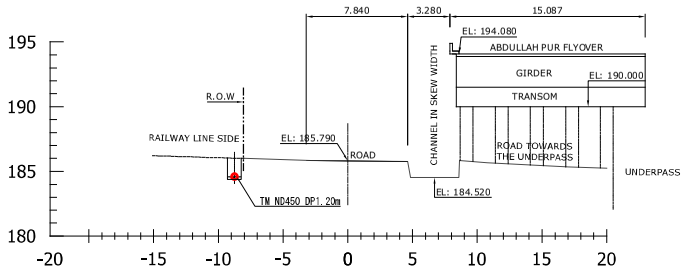
S=1/200

0+000

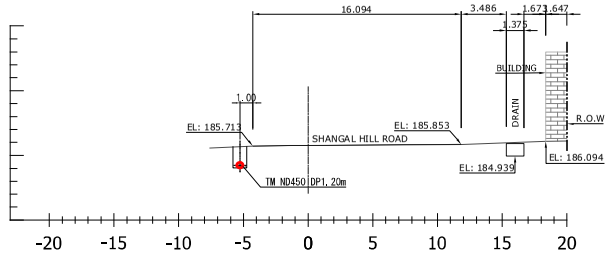
(TM-EP01 IN FRONT OF ENTRANCE OF OHR)



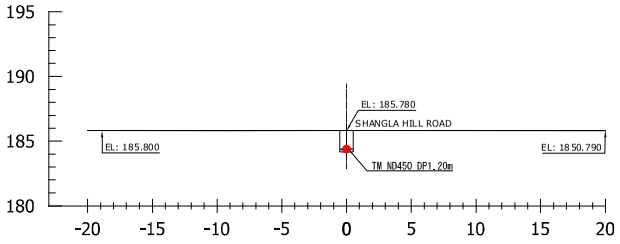
0+100



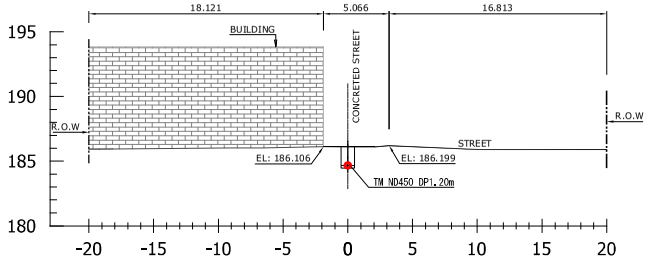
0+200



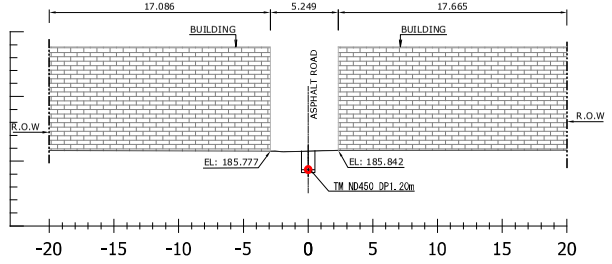
0+300



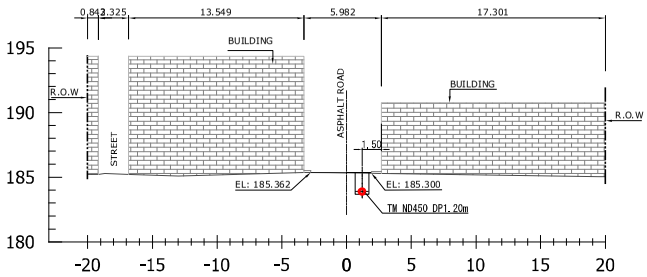
0+400



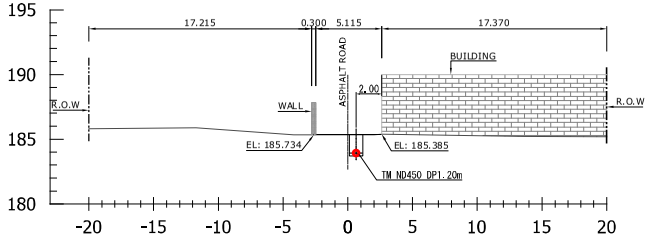
0+500



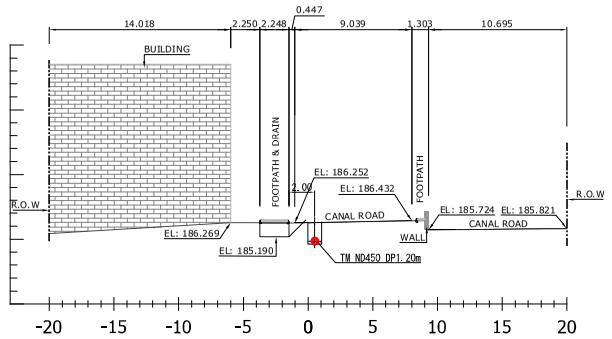
0+600



0+700



0+800



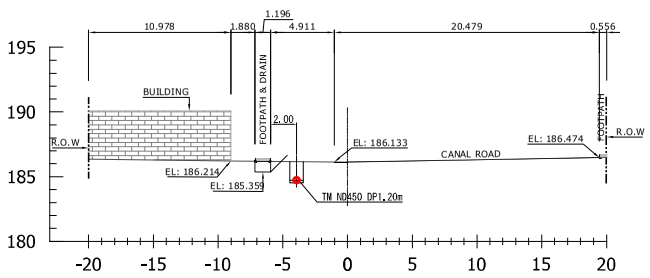
	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	CROSS SECTIONS OF TRANSMISSION MAIN (3)	1/200	TM-017

App 7(5)-56

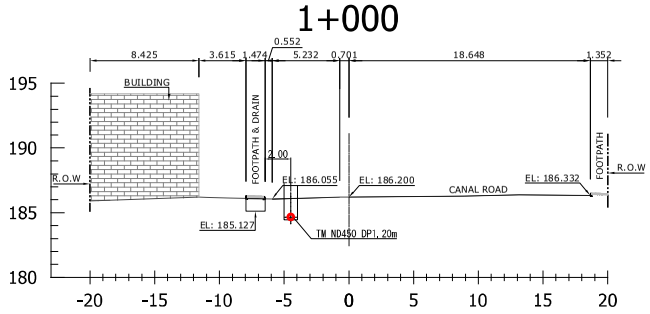
CROSS SECTIONS OF TRANSMISSION MAIN (4)

S=1/200

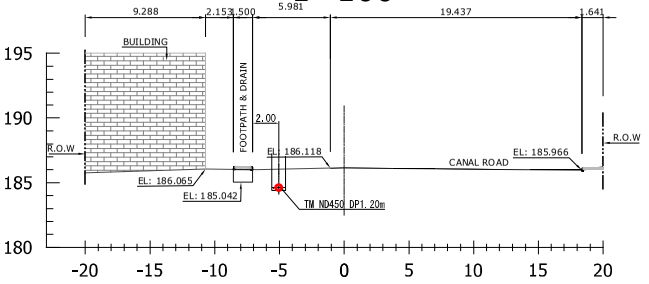
0+900



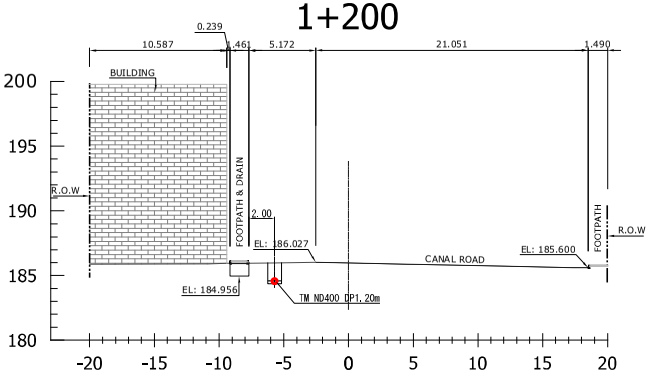
1+000



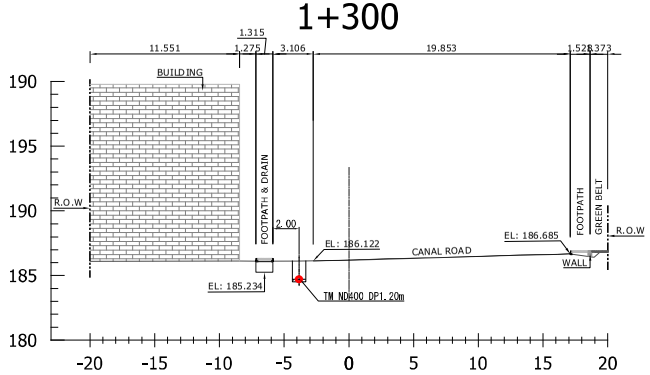
1+100



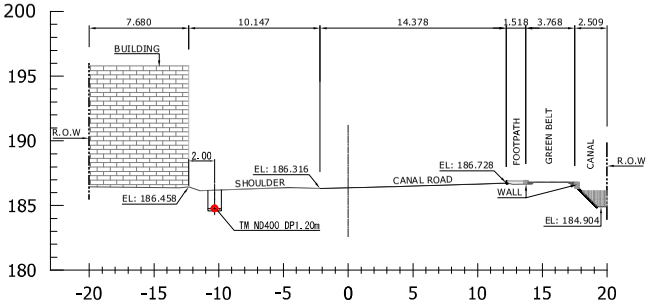
1+200



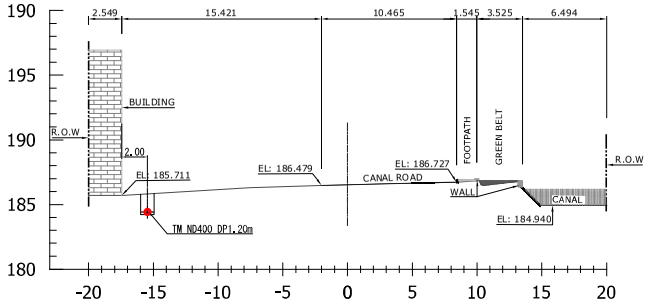
1+300



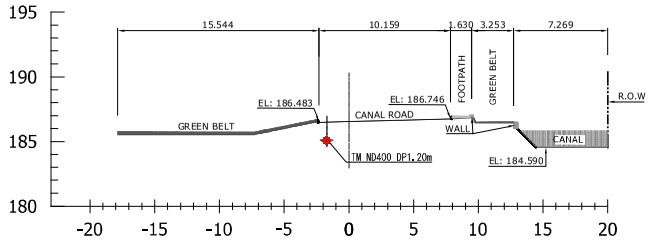
1+400



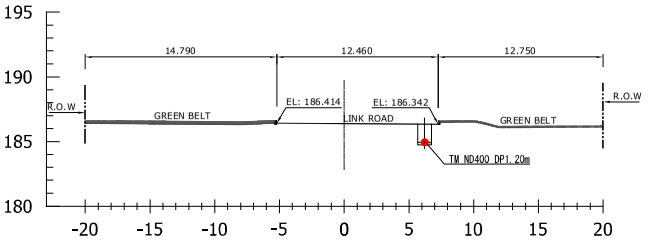
1+500



1+600



1+700



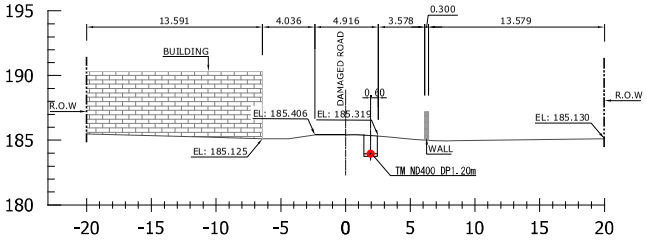
	PROJECT TITLE: THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	DRAWING TITLE: CROSS SECTIONS OF TRANSMISSION MAIN (4)	SCALE: 1/200	DRAWING NO: TM-018

App 7(5)-57

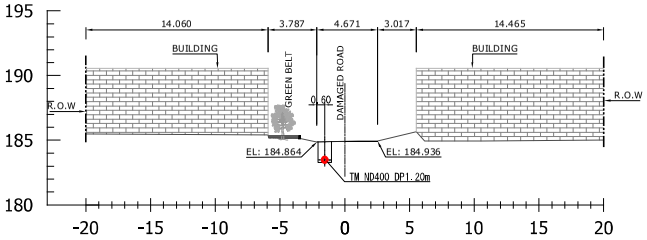
CROSS SECTIONS OF TRANSMISSION MAIN (5)

S=1/200

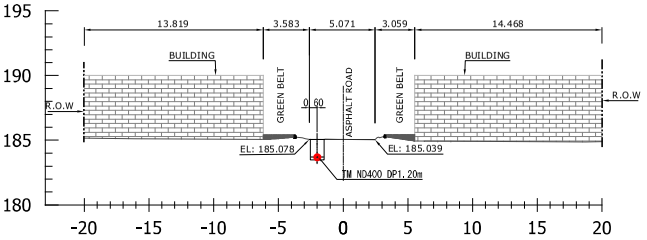
1+800



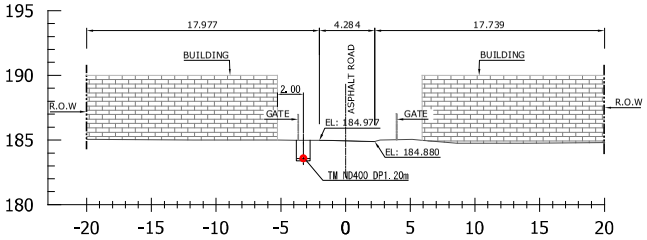
1+900



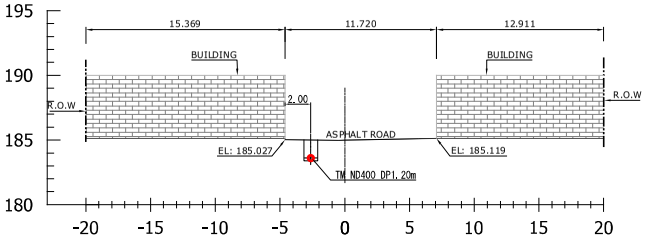
2+000



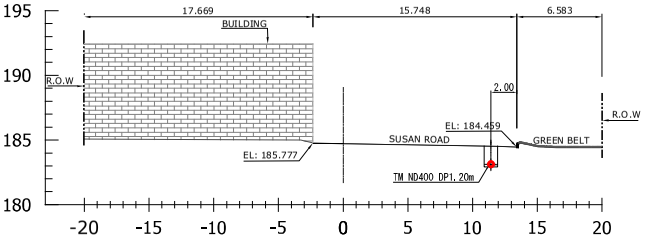
2+100



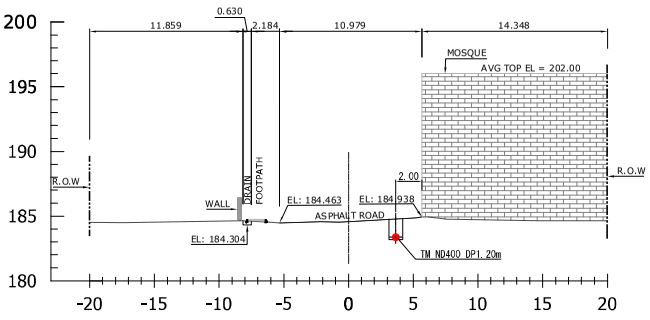
2+200



2+300

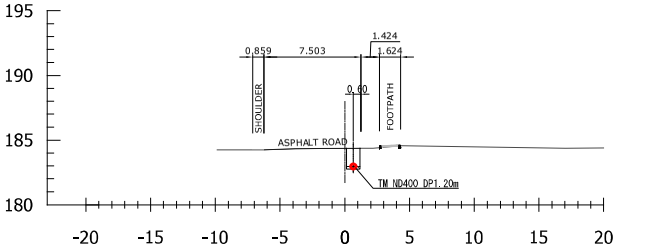


2+400



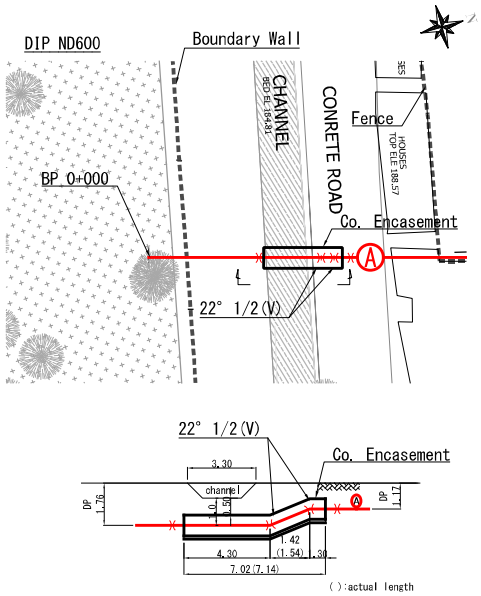
2+470

(TM-EP02 IN FRONT OF OHR)

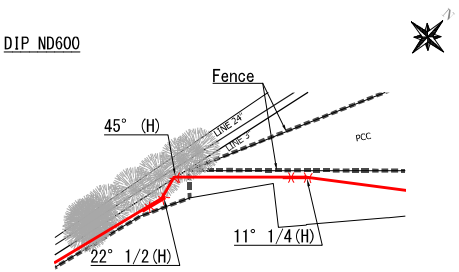


	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	CROSS SECTIONS OF TRANSMISSION MAIN (5)	1/200	TM-019

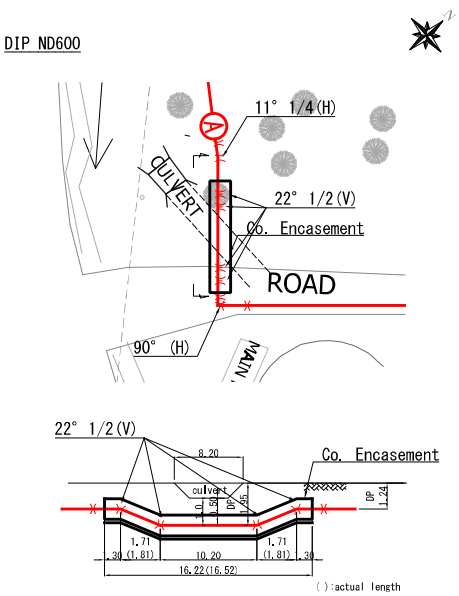
SD-T01



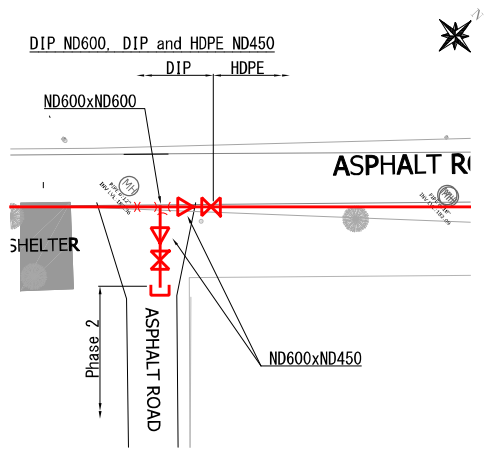
SD-T02



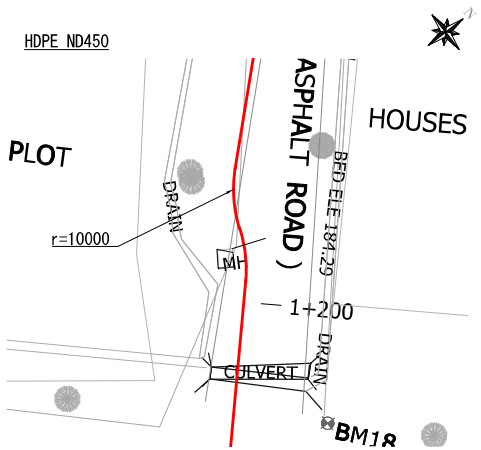
SD-T03



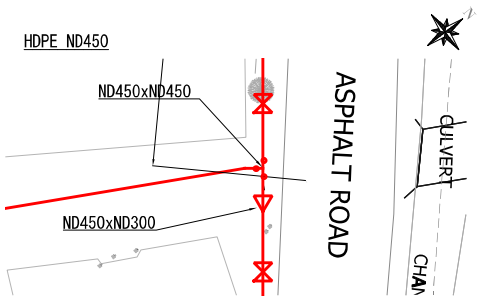
SD-T04



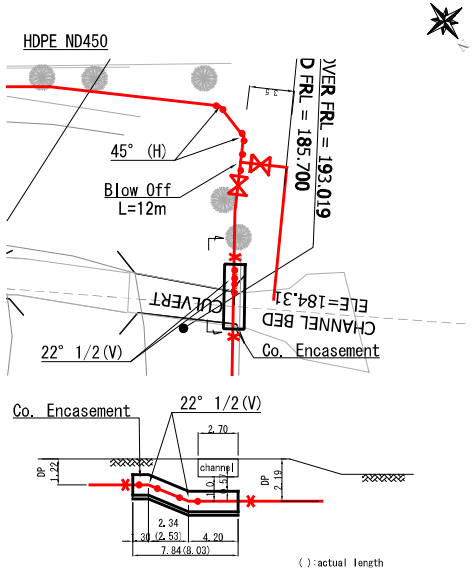
SD-T05



SD-T06



SD-T07



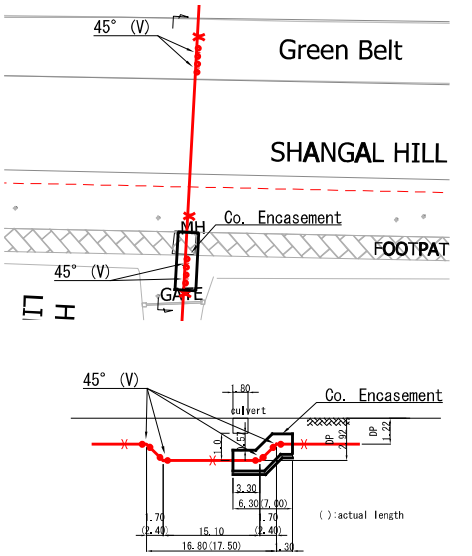
Legends

- DIP Socket Joint
- HDPE Spigot Joint
- Flange Joint
- Bend (Vertical)
- Bend (Horizonal)
- All Socket Tee
- W Socket Tee w/Flanged Branch
- Mechanical Joint Collar (DIP, HDPE)
- Reducer
- Cap
- Valve
- Air Valve

	PROJECT TITLE: THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	DRAWING TITLE: SPOT DETAILS OF TRANSMISSION MAIN (1)	SCALE: 1/200	DRAWING NO: TM-020

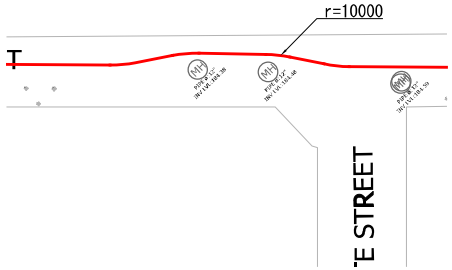
SD-T08

HDPE ND450



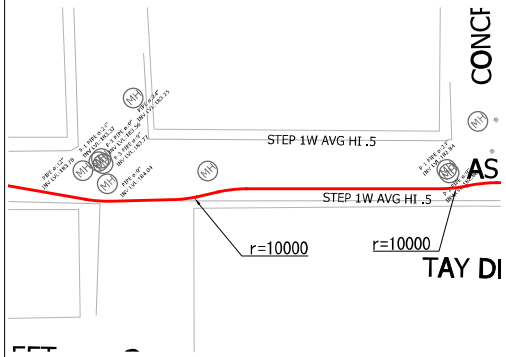
SD-T09

HDPE ND450



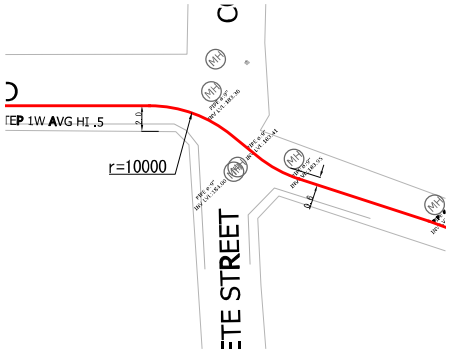
SD-T10

HDPE ND450



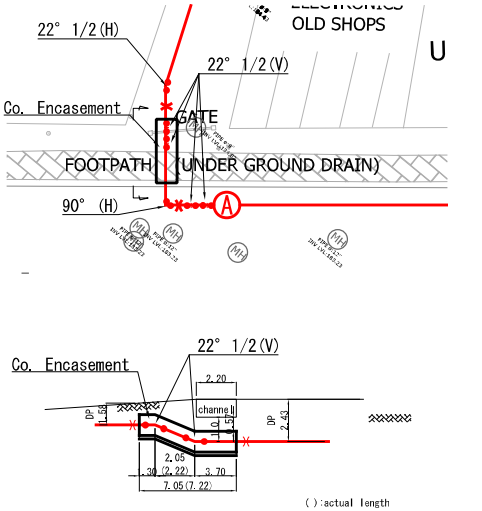
SD-T11

HDPE ND450



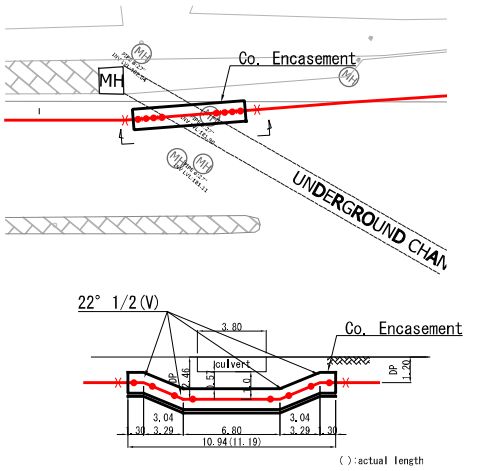
SD-T12

HDPE ND450



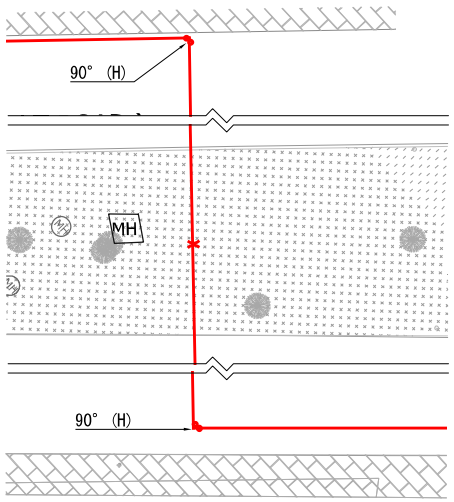
SD-T13

HDPE ND450



SD-T14

HDPE ND400



Legends

- DIP Socket Joint
- HDPE Spigot Joint
- Flange Joint
- Bend (Vertical)
- Bend (Horizonal)
- All Socket Tee
- W Socket Tee w/Flanged Branch
- Mechanical Joint Collar (DIP, HDPE)
- Reducer
- Cap
- Valve
- Air Valve

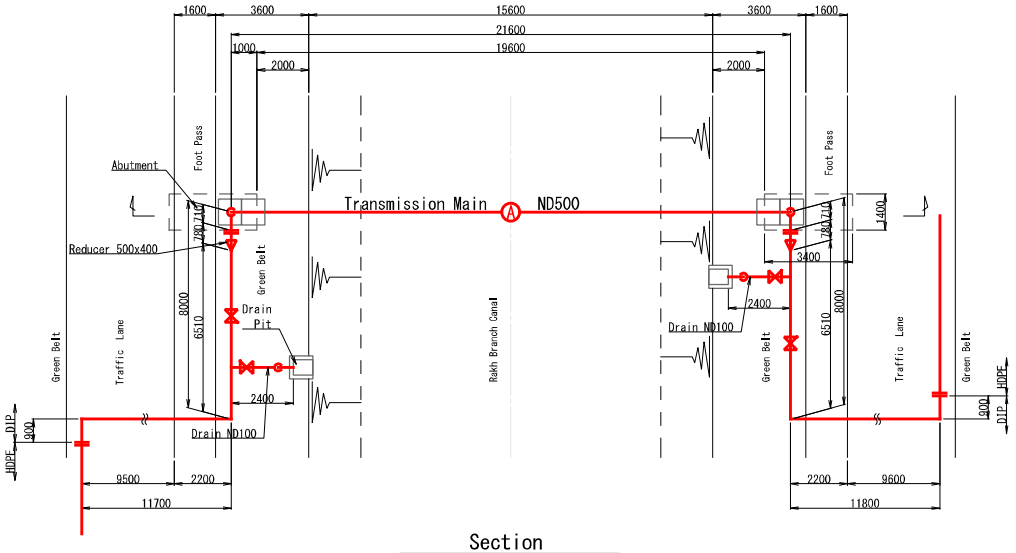
	PROJECT TITLE: THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	DRAWING TITLE: SPOT DETAILS OF TRANSMISSION MAIN (2)	SCALE: 1/200	DRAWING NO: TM-021

App 7(5)-60

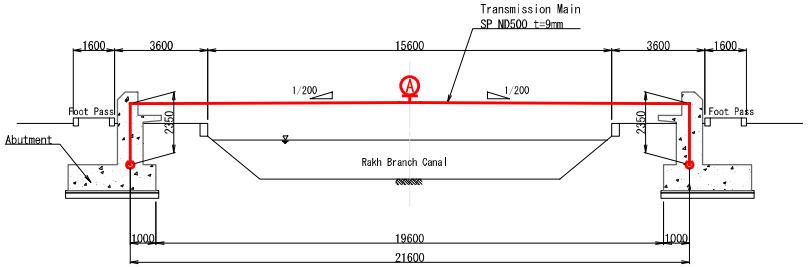
Pipe Bridge

Transmission Main

General Plan
S=1/100

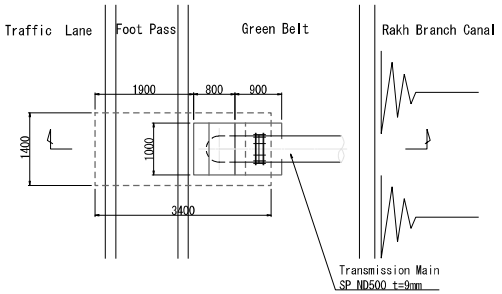


Section
S=1/100

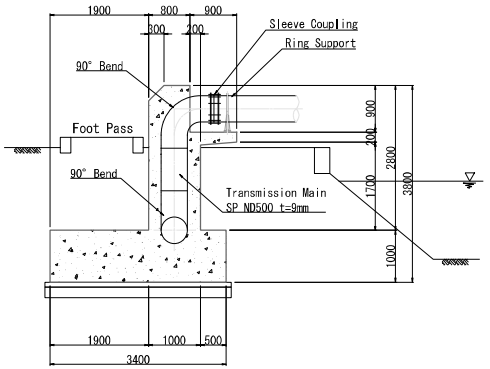


Abutment
S=1/50

Plan

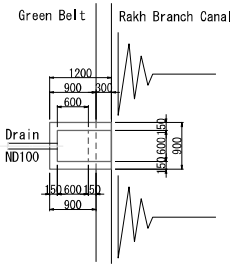


Section

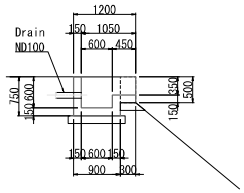


Drain Pit
S=1/50

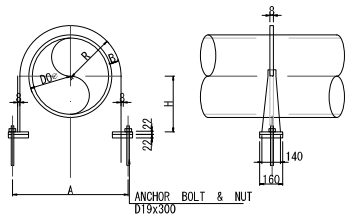
Plan

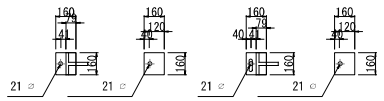


Section



Ring Support
NON SCALE

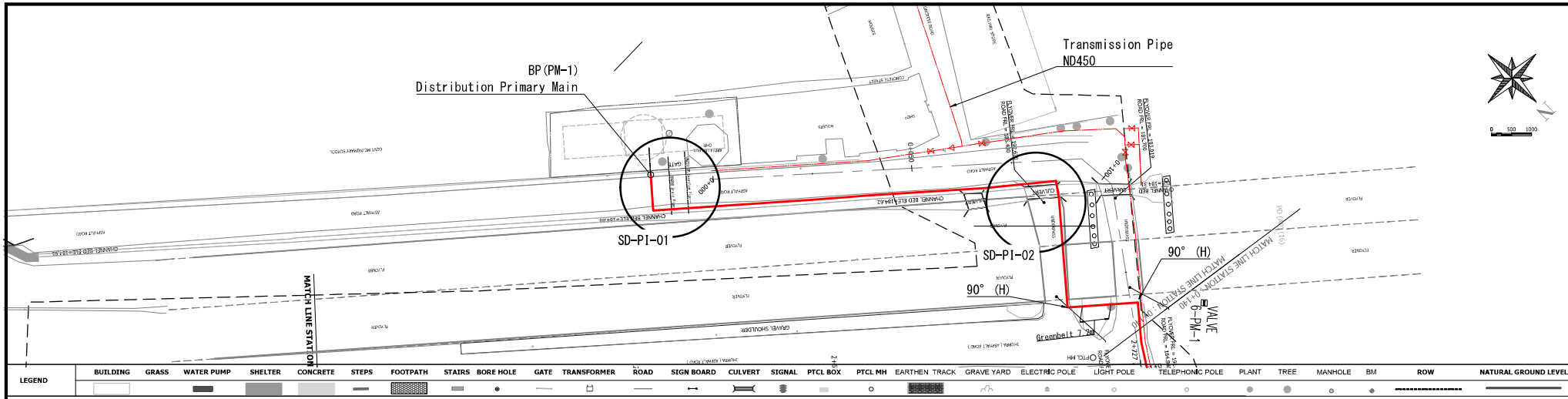




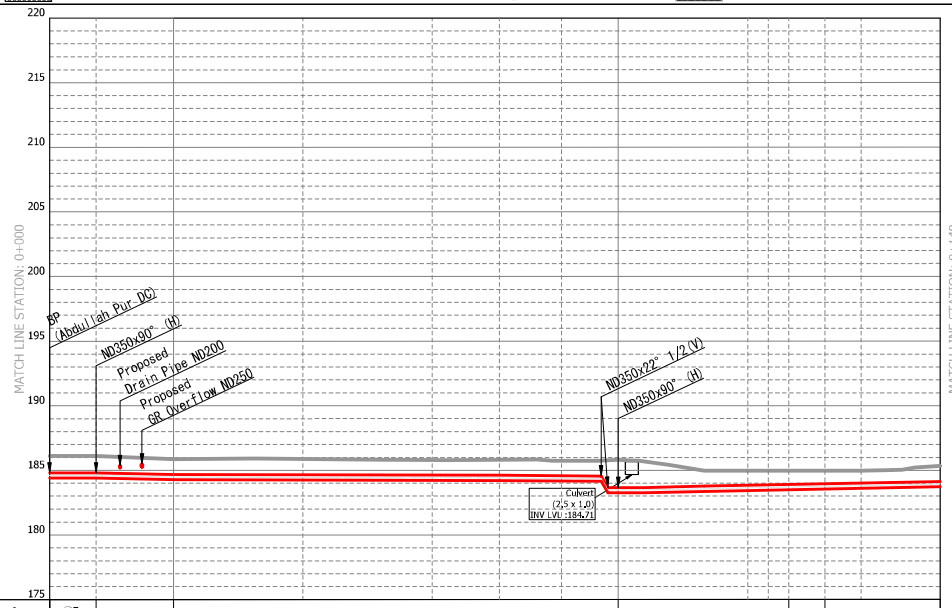
DIMENSIONS UNIT = mm

ND	DO	H	A	B	R
400	406.4	314	616.4	60	263.2

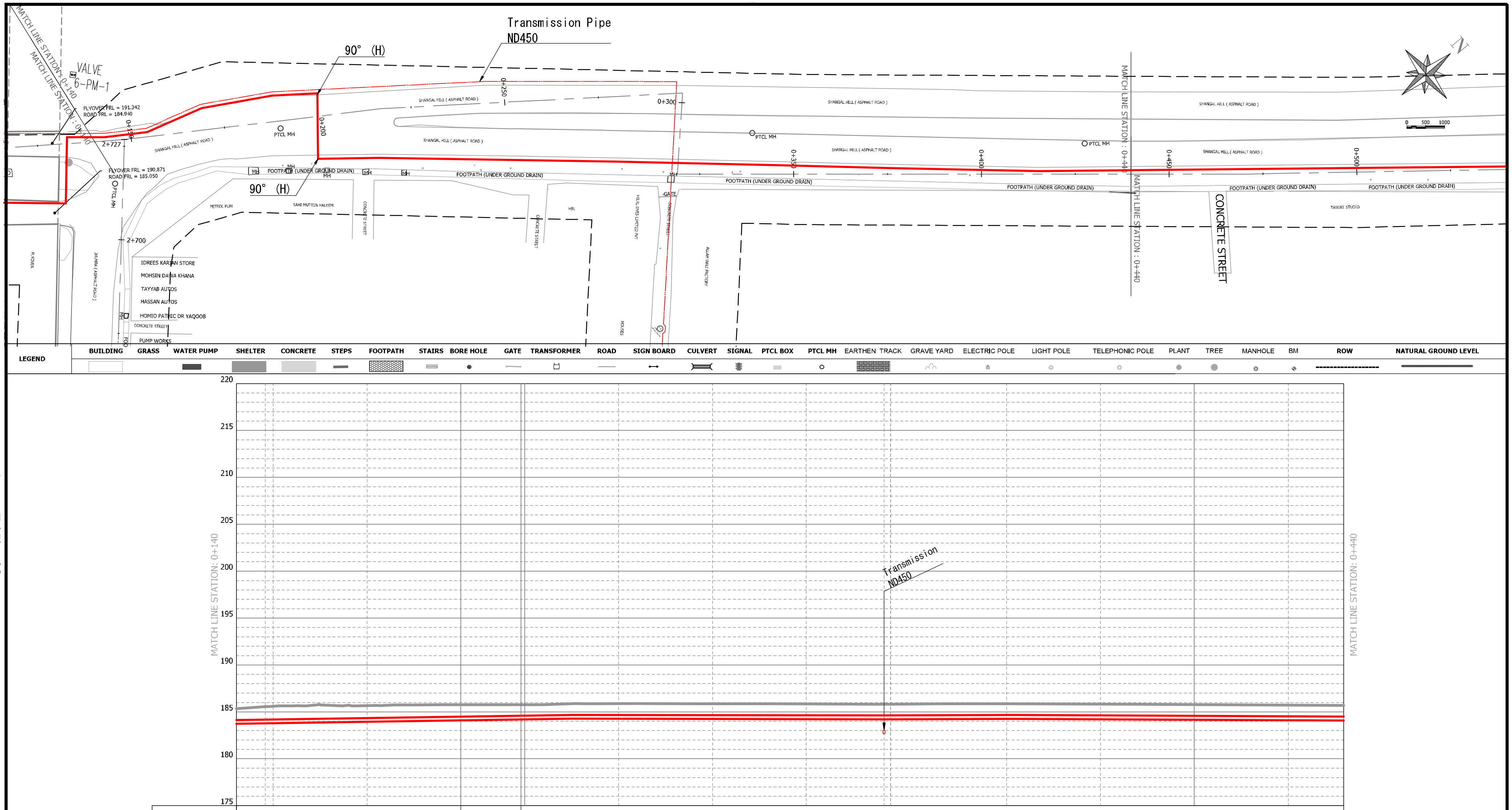
	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	Pipe Bridge (Transmission Main)	AS SHOWN	TM-022



LEGEND: BUILDING | GRASS | WATER PUMP | SHELTER | CONCRETE | STEPS | FOOTPATH | STAIRS | BORE HOLE | GATE | TRANSFORMER | ROAD | SIGN BOARD | CULVERT | SIGNAL | PTCL BOX | PTCL MH | EARTHEN TRACK | GRAVE YARD | ELECTRIC POLE | LIGHT POLE | TELEPHONIC POLE | PLANT | TREE | MANHOLE | BM | ROW | NATURAL GROUND LEVEL



| | | |



Chainage	Cumulative Distance	Ground Elevations	Pipe Center Level
0+140	172	185.34	183.939
PD-CP02 +48	180	185.55	183.984
+50	182	185.61	183.997
+75	207	185.66	184.147
0+200	232	185.77	184.296
0+200	248	185.77	184.392
0+200	249	185.77	184.398
+25	274	185.89	184.465
+50	299	185.87	184.445
+75	324	185.84	184.425
+95 +97	342	185.87	184.409
0+319	347	185.81	184.411
0+350	378	185.86	184.456
+75	403	185.82	184.411
0+400	428	185.77	184.361
+25	453	185.71	184.310
0+440	468	185.68	184.281

Earth Covering Type: ⑤I L=59.8m | ④Cs L=16.0m | ⑤I L=384.3m

Pipeline (Diameter): PM-1 HDPE ND350 L=633m

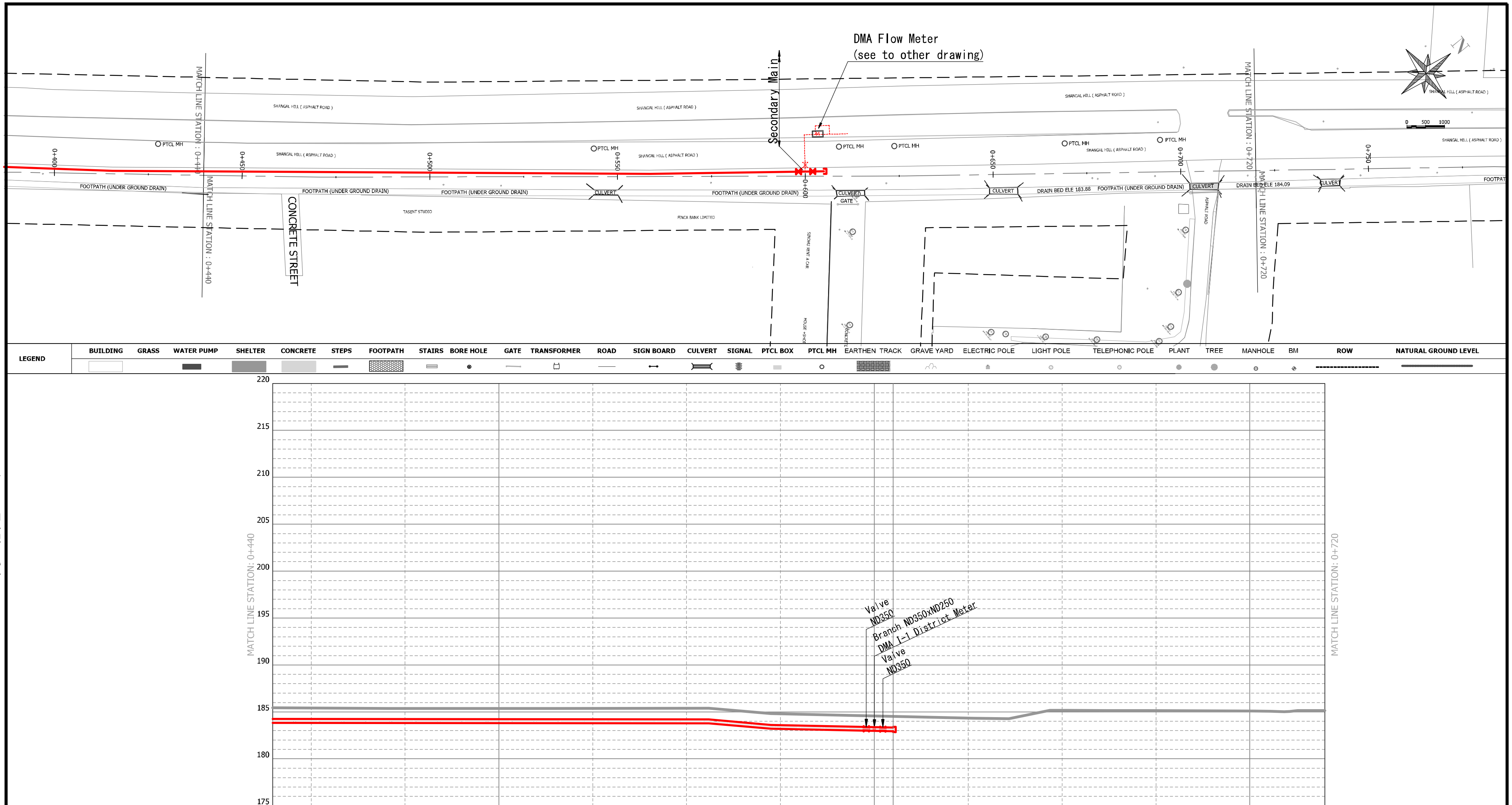
PROJECT TITLE:
THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD

DRAWING TITLE:
Plan and Profile of Distribution Primary Main, Abdullahpur (2)

SCALE: 1/1000,1/400

DRAWING NO: PM-002

PM-02



Earth Covering Type	⑮I L=384.3m													
Ground Elevations	185.44	185.41	185.36	185.36	185.37	185.38	184.79	184.56	184.51	184.33	185.17	185.13	185.11	185.15
Pipe Center Level	184.038	184.034	184.023	184.013	184.002	183.991	183.390	183.179	183.137					
Pipeline (Diameter)	PM-1 HDPE ND350 L=633m													
Cumulative Distance	468	478	503	528	553	578	603	628	633					
Chainage	0+440	+50	+75	0+500	+25	+50	+75	0+600	+5	+25	+50	+75	0+700	0+720

PROJECT TITLE:
THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD

DRAWING TITLE:
Plan and Profile of Distribution Primary Main, Abdullahpur (3)

SCALE: 1/1000,1/400

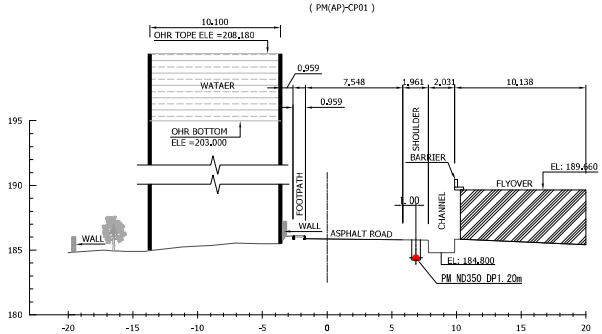
DRAWING NO: PM-003

PM-03

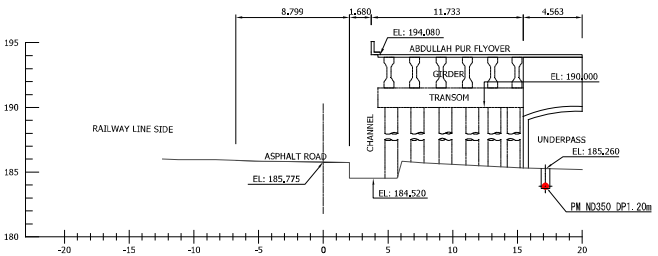
App 7(5)-65

0+000

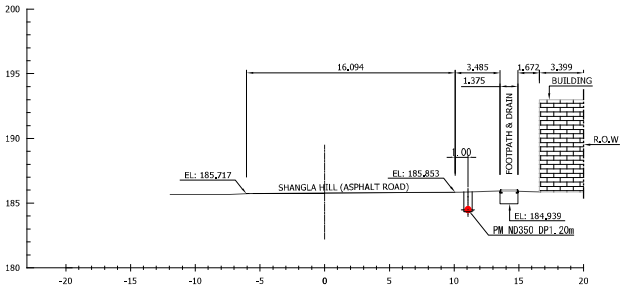
(PM(AP)-CP01)



0+100

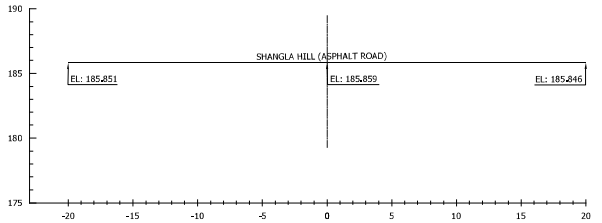


0+200

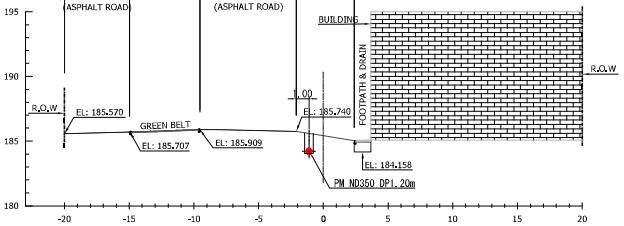


0+300

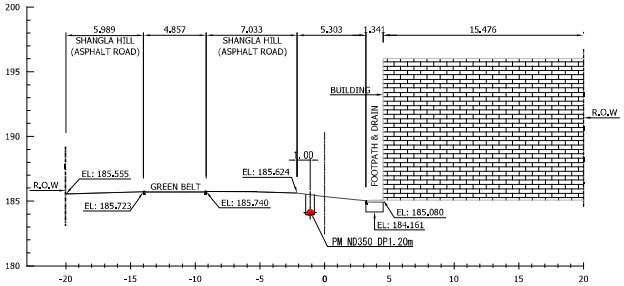
(Installation is out of this section.)



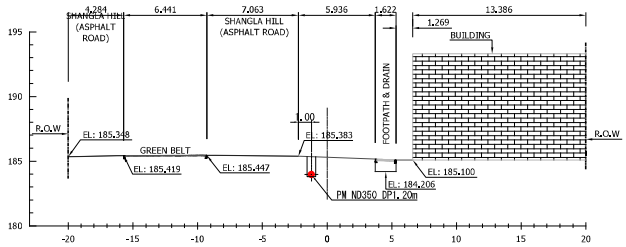
0+400



0+500

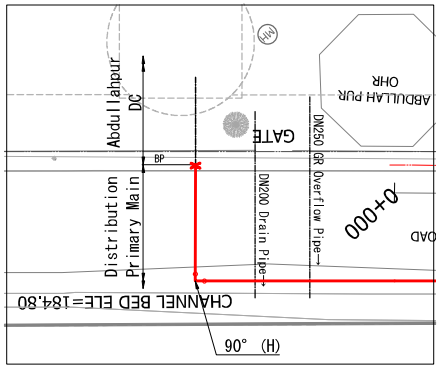


0+600

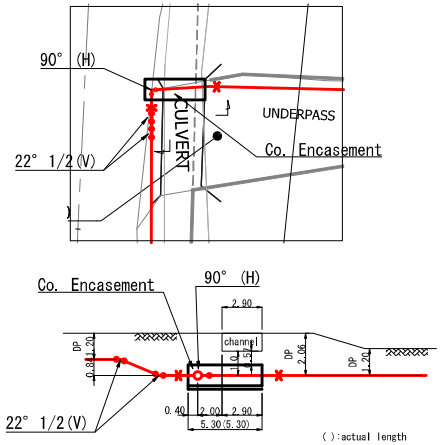


	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	Cross Section of Distribution Primary Main, Abdullahpur (1)	1/200	PM-004

SD-PI-01



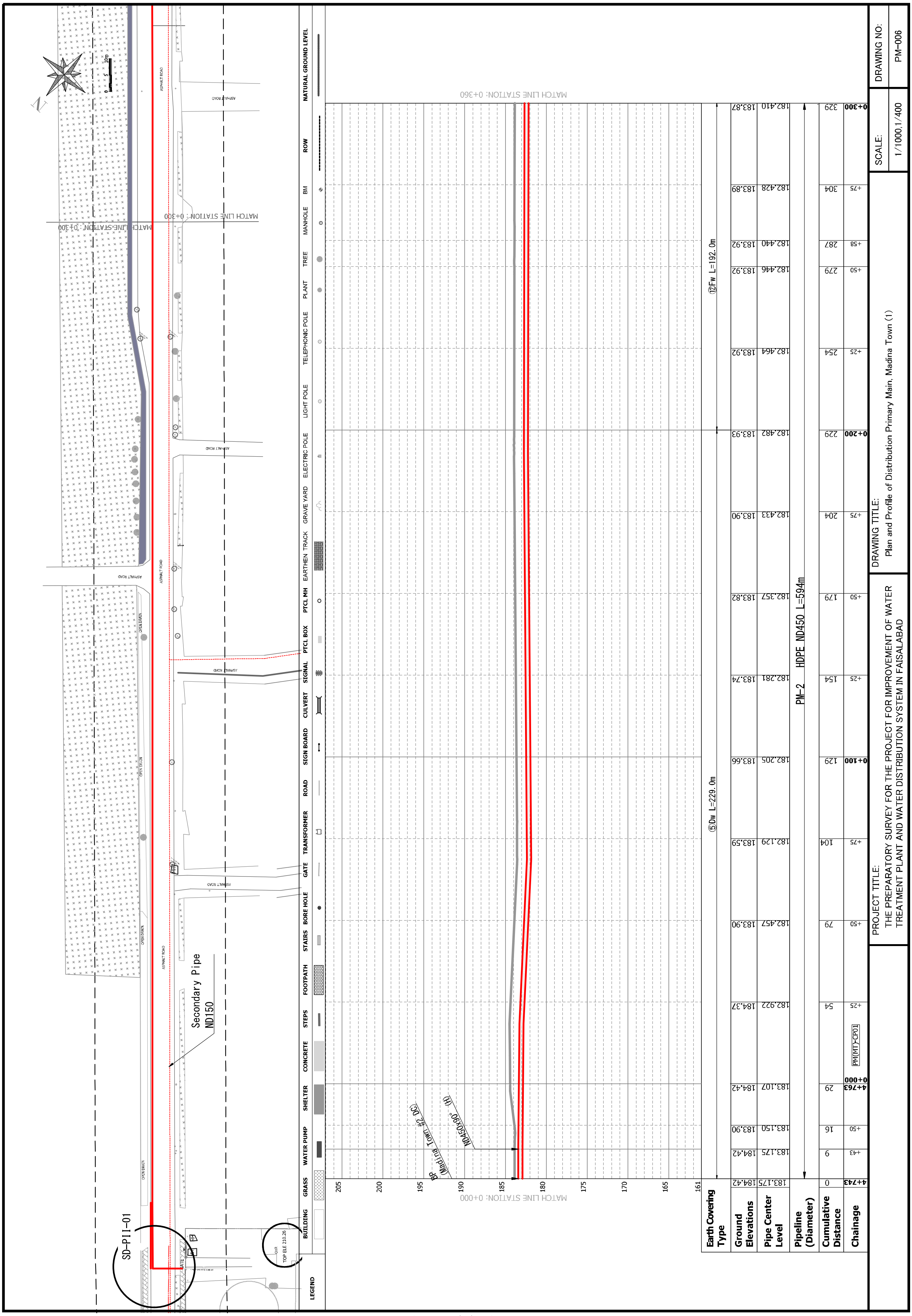
SD-PI-02



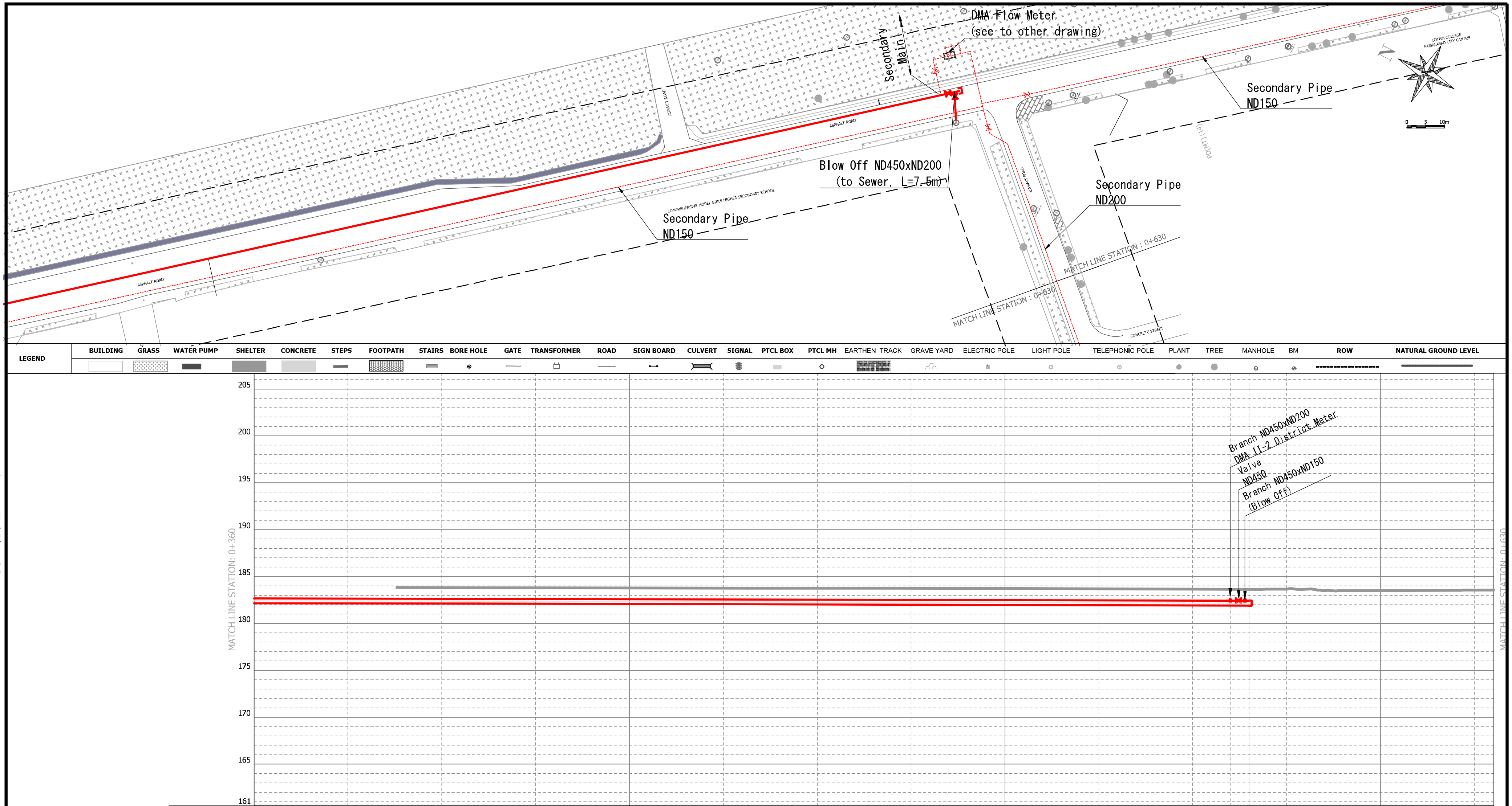
Legends

- HDPE Spigot Joint
- HDPE Mechanical Joint
- Flange Joint
- Bend (Vertical)
- Bend (Horizonal)
- All Socket Tee
- W Socket Tee w/Flanged Branch
- Mechanical Joint Collar
- Reducer
- Cap
- Valve
- Air Valve

	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	SPOT DETAILS OF TRANSMISSION MAIN (1)	1/200	PM-005



PM-06
DRAWING NO:
PM-006
SCALE:
1/1000,1/400
DRAWING TITLE:
Plan and Profile of Distribution Primary Main, Madina Town (1)
PROJECT TITLE:
THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD
SD-PI1-01
Secondary Pipe
ND150
MATCH LINE STATION : 0+300
MATCH LINE STATION: 0+000
MATCH LINE STATION: 0+360
BP (Madina Town #2 DC)
ND450X90° (H)
PM-2 HDPE ND450 L=594m
⑤Dw L=229.0m
⑫Fw L=192.0m
PM(MT)-CP01
LEGEND
BUILDING
GRASS
WATER PUMP
SHELTER
CONCRETE
STEPS
FOOTPATH
STAIRS
BORE HOLE
GATE
TRANSFORMER
ROAD
SIGN BOARD
CULVERT
SIGNAL
PTCL BOX
PTCL MH
EARTHEN TRACK
GRAVE YARD
ELECTRIC POLE
LIGHT POLE
TELEPHONIC POLE
PLANT
TREE
MANHOLE
BM
ROW
NATURAL GROUND LEVEL
Earth Covering Type
Ground Elevations: 184.42, 184.42, 183.90, 184.42, 184.37, 183.90, 183.59, 183.66, 183.74, 183.82, 183.90, 183.93, 183.92, 183.92, 183.92, 183.89, 183.87
Pipe Center Level: 183.175, 183.175, 183.150, 183.107, 182.922, 182.457, 182.129, 182.205, 182.281, 182.357, 182.433, 182.482, 182.464, 182.446, 182.440, 182.428, 182.410
Pipeline (Diameter)
Cumulative Distance: 0, 6, 16, 29, 54, 79, 104, 129, 154, 179, 204, 229, 254, 279, 287, 304, 329
Chainage: 4+743, +43, +50, 4+763 0+000, +25, +50, +75, 0+100, +25, +50, +75, 0+200, +25, +50, +58, +75, 0+300
161
165
170
175
180
185
190
195
200
205



Earth Covering Type	⑫Fw L=192.0m (0+300 – 0+400)	⑤Dw L=164.6m (0+400 – +65)

Pipeline (Diameter)	PM-2 HDPE ND450 L=594m

Chainage	Ground Elevations	Pipe Center Level	Cumulative Distance
0+300	183.87	182.410	329
+25	183.85	182.393	354
+50	183.83	182.375	379
+75	183.80	182.353	404
0+400	183.78	182.328	429
+25	183.76	182.304	454
+50	183.75	182.279	479
+75	183.75	182.254	504
0+500	183.72	182.230	529
+25	183.69	182.205	554
+50	183.65	182.181	579
+60	183.64	182.171	589
+65	183.64	182.166	594
+75	183.65		
PM(MT)-CP02			
0+600	183.51		
+25	183.56		
0+630	183.55		

PROJECT TITLE:
THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD

DRAWING TITLE:
Plan and Profile of Distribution Primary Main, Madina Town (2)

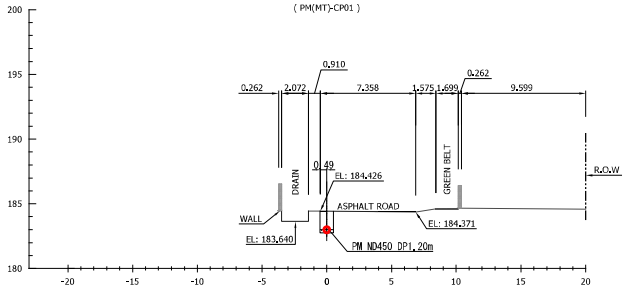
SCALE: 1/1000,1/400

DRAWING NO: PM-007

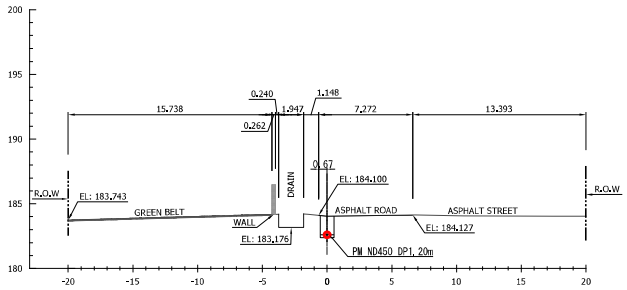
PM-07

0+000

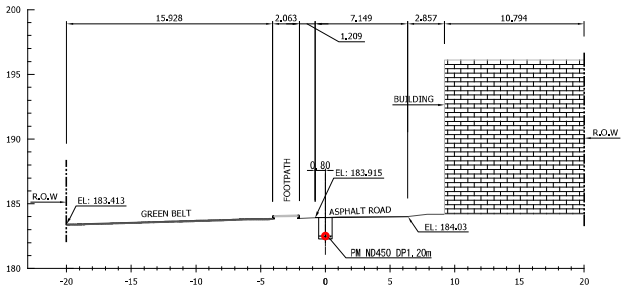
(PM(MT)-CP01)



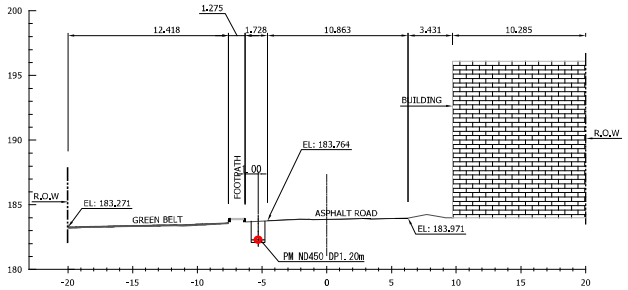
0+100



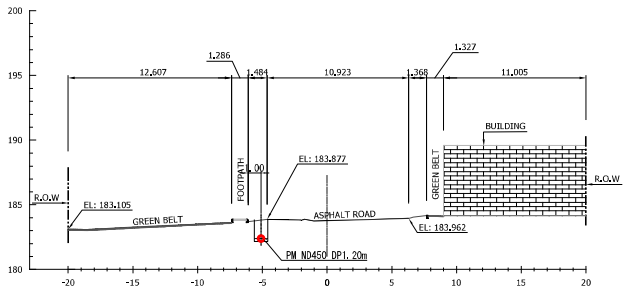
0+200



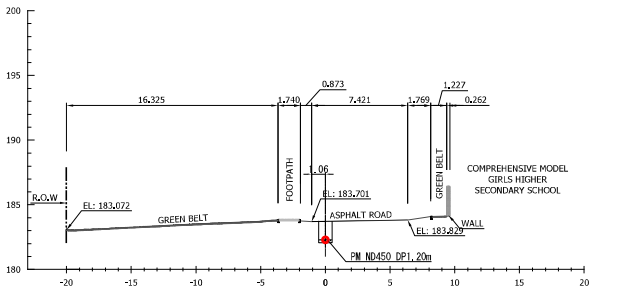
0+300



0+400

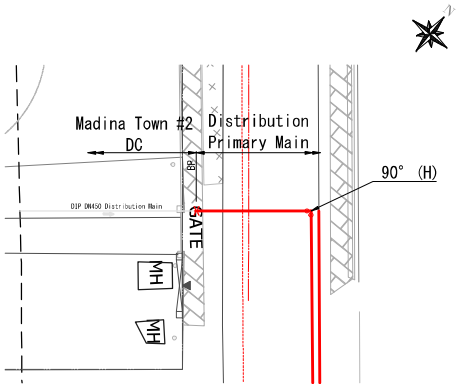


0+500



	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	Cross Section of Distribution Primary Main, Madina Town (1)	1/200	PM-008

SD-SII-01



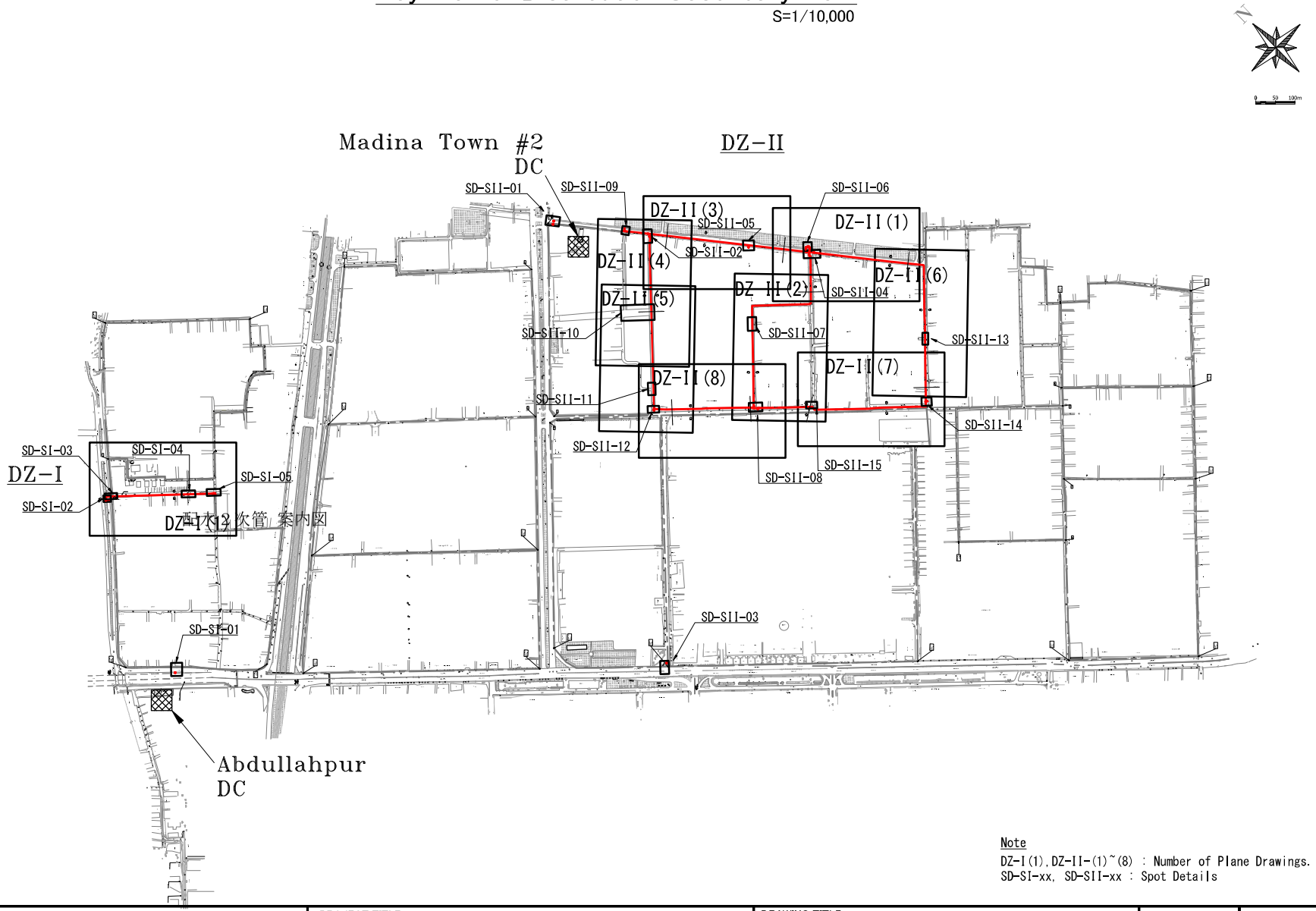
Legends

- HDPE Spigot Joint
- HDPE Mechanical Joint
- Flange Joint
- Bend (Vertical)
- Bend (Horizonal)
- All Socket Tee
- W Socket Tee w/Flanged Branch
- Mechanical Joint Collar
- Reducer
- Cap
- Valve
- Air Valve

	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	SPOT DETAILS OF TRANSMISSION MAIN (2)	1/200	PM-009

Key Plan of Distribution Secondary Main

S=1/10,000



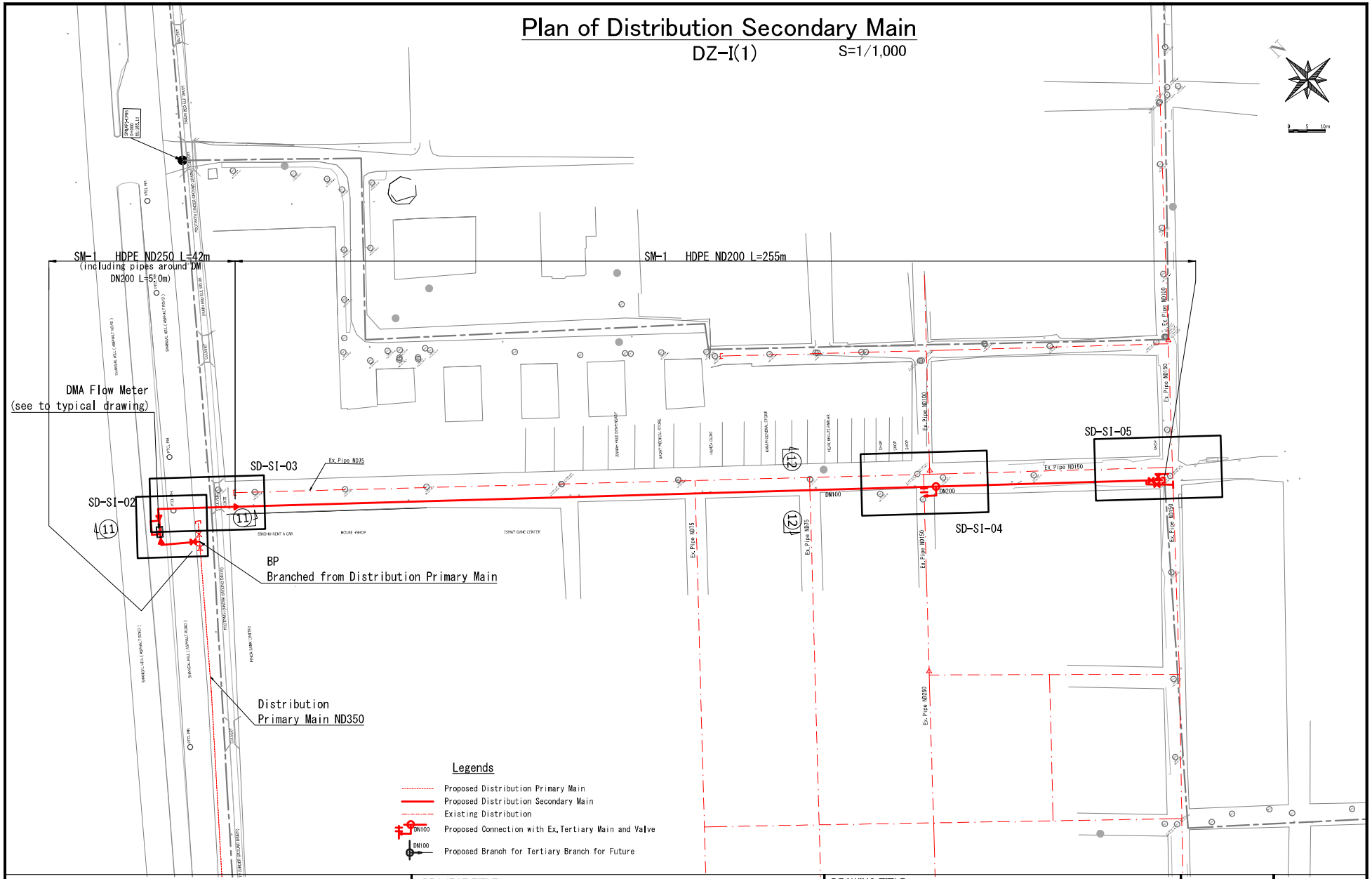
Note

DZ-I(1),DZ-II-(1)~(8) : Number of Plane Drawings.
SD-SI-xx, SD-SII-xx : Spot Details

	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	Key Plan of Distribution Secondary Main	1/10,000	SM-001

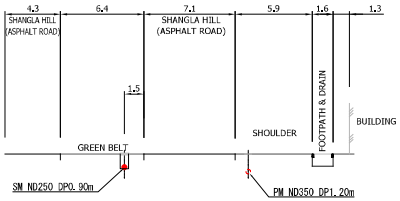
Plan of Distribution Secondary Main

DZ-I(1) S=1/1,000

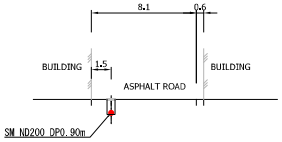


	PROJECT TITLE: THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	DRAWING TITLE: Plan of Distribution Secondary Main, Abdullahpur	SCALE: 1/1,000	DRAWING NO: SM-002

⑪-⑪



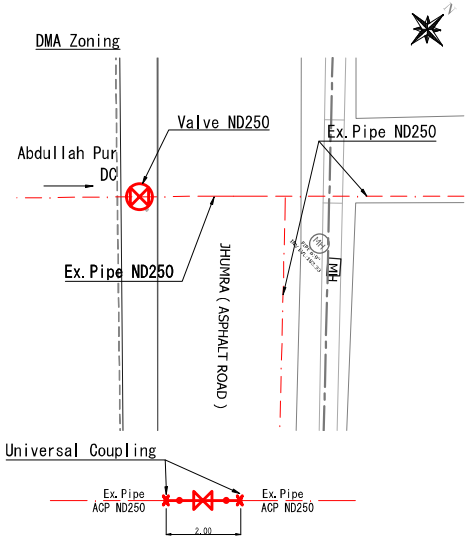
⑫-⑫



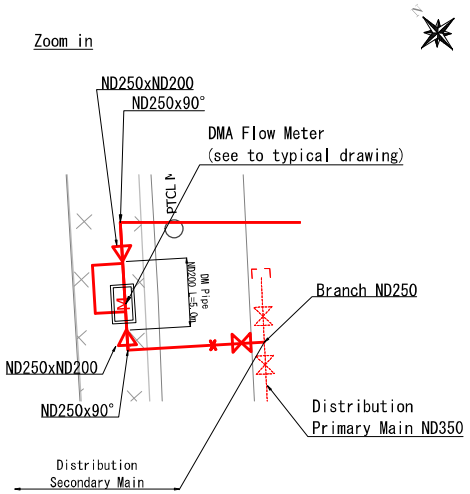
App 7(5)-73

	PROJECT TITLE: THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	DRAWING TITLE: Cross Section of Distribution Secondary Main, Abdullahpur	SCALE: 1/200	DRAWING NO: SM-003

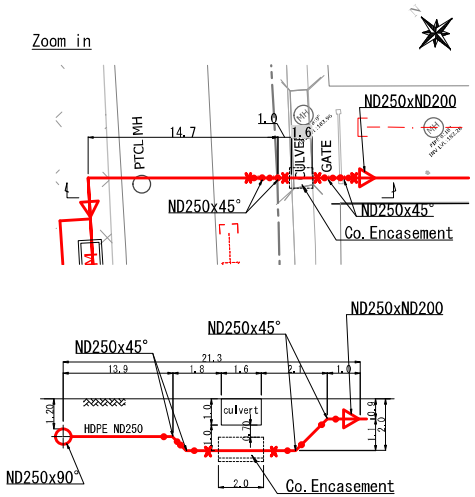
SD-SI-01



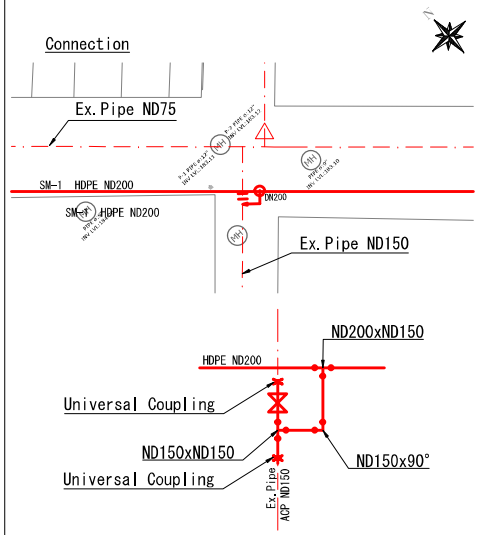
SD-SI-02



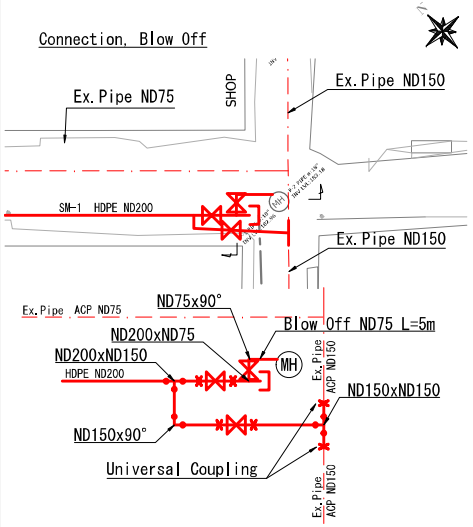
SD-SI-03

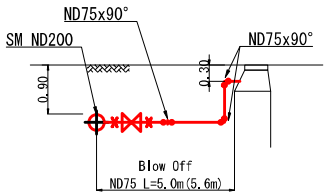


SD-SI-04



SD-SI-05





Legends

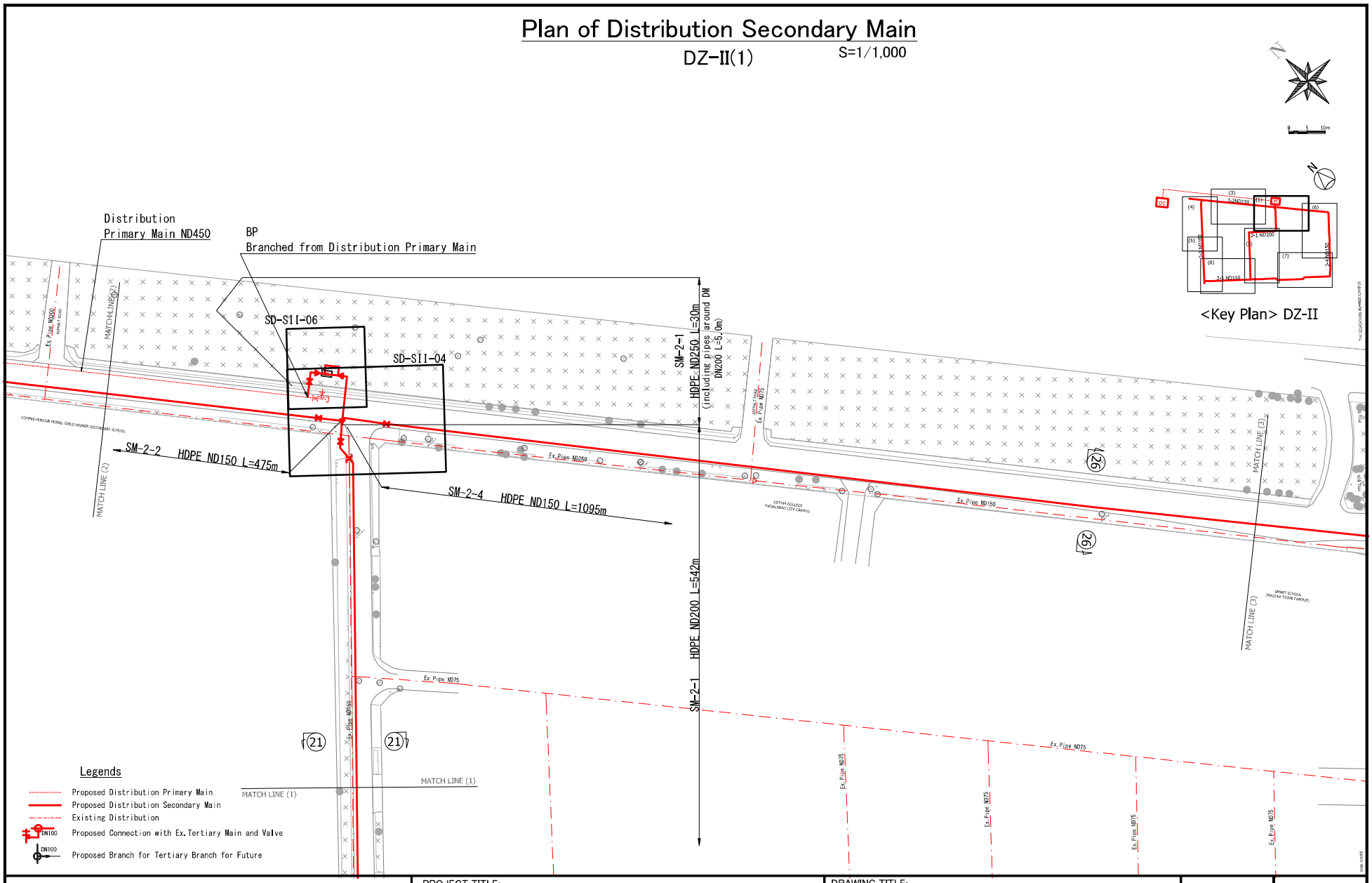
- HDPE Butt-Welding Joint
- HDPE Mechanical Joint
- Flange Joint
- Bend (Vertical)
- Bend (Horizonal)
- All Socket Tee
- W Socket Tee w/Flanged Branch
- Sleeve Coupling
- Reducer
- Cap
- Valve
- Air Valve

	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	Spot Detail of Distribution Secondary Main, Abdullahpur	NO SCALE	SM-004

Plan of Distribution Secondary Main

DZ-II(1)

S=1/1,000



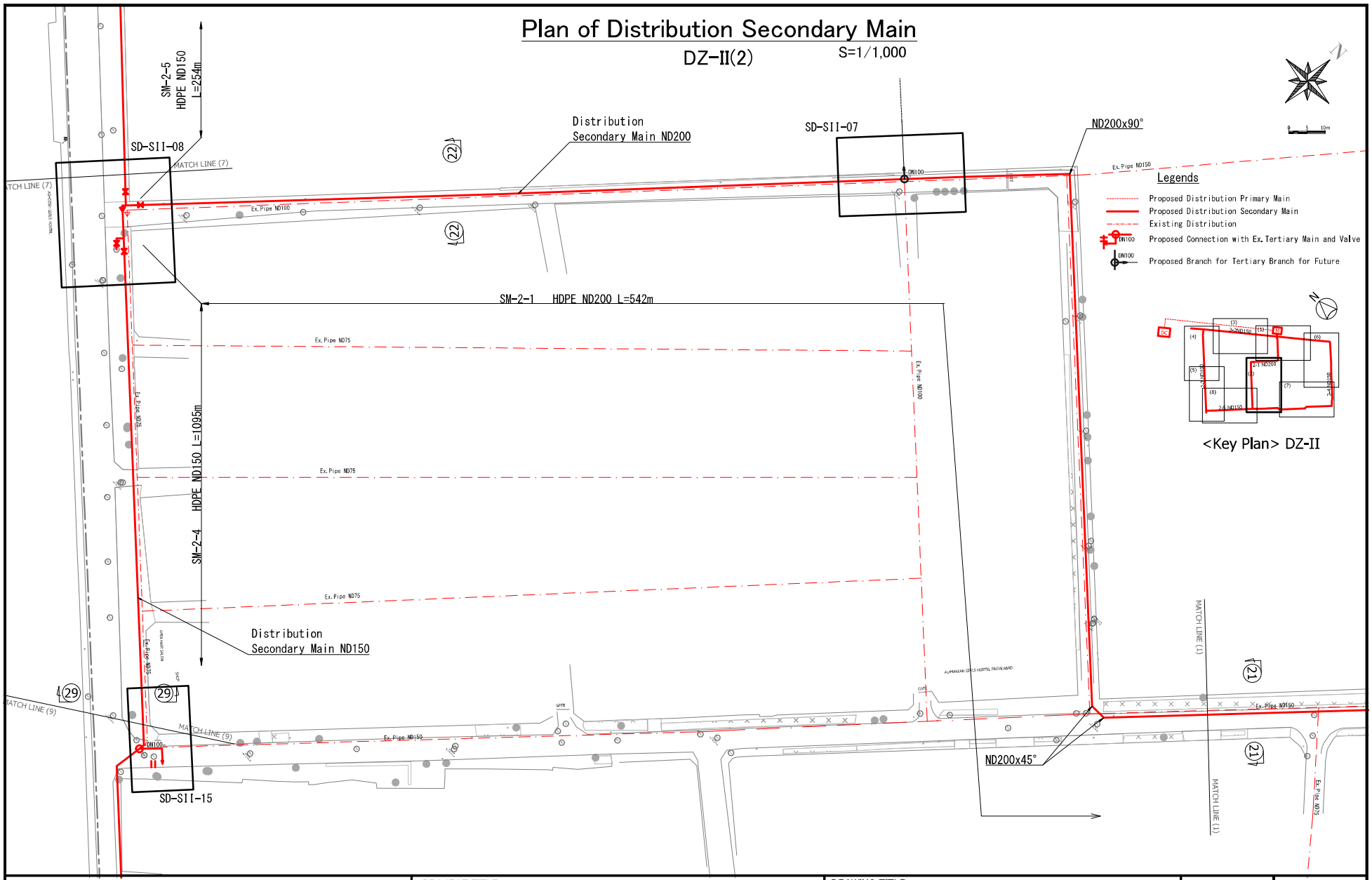
<Key Plan> DZ-II

	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	Plan of Distribution Secondary Main, Madina Town (1)	1/1,000	SM-005

Plan of Distribution Secondary Main

DZ-II(2)

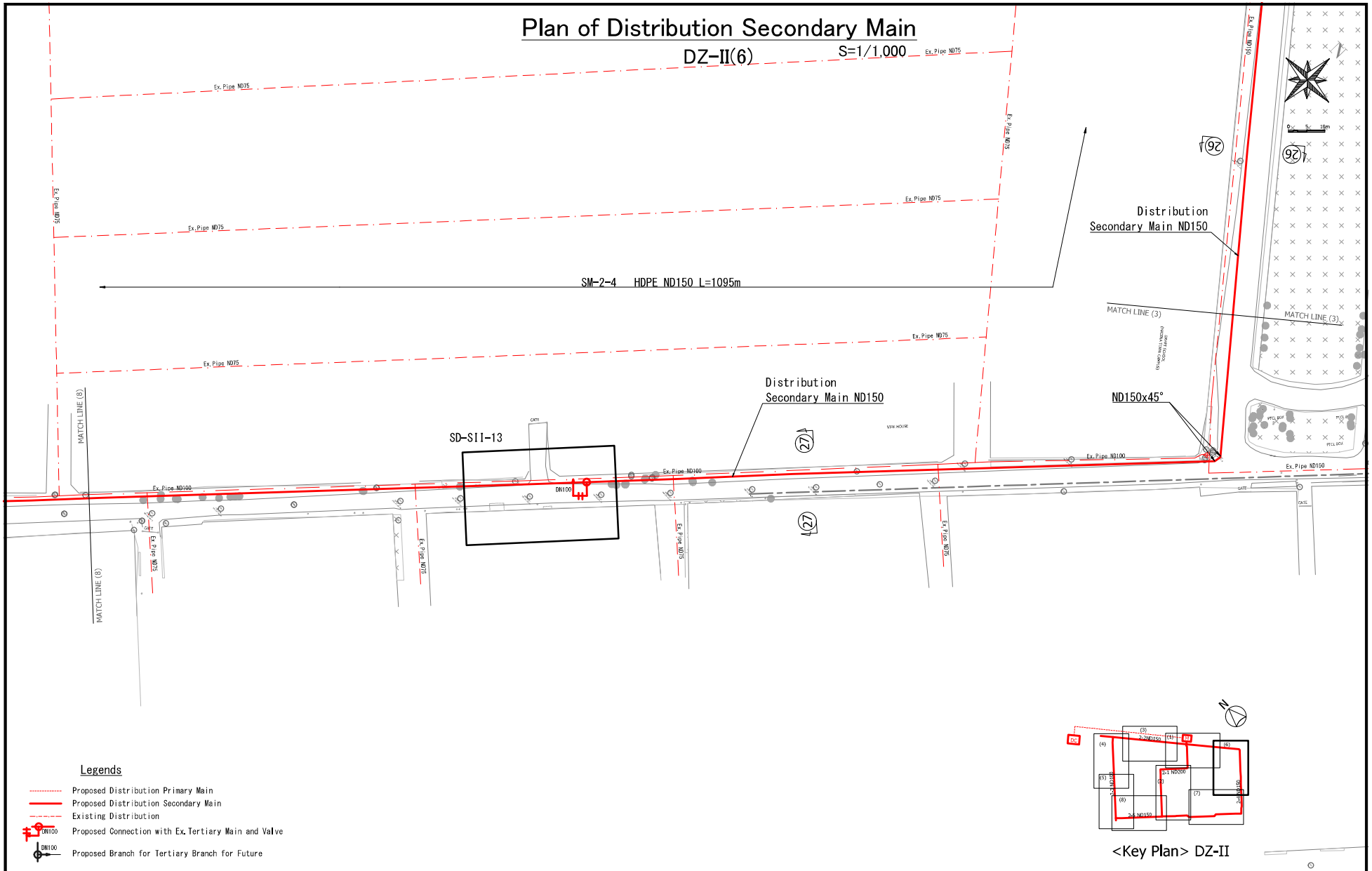
S=1/1,000



	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	Plan of Distribution Secondary Main, Madina Town (2)	1/1,000	SM-006

Plan of Distribution Secondary Main

DZ-II(6) S=1/1,000



Legends

- Proposed Distribution Primary Main
- Proposed Distribution Secondary Main
- Existing Distribution
- DN100 Proposed Connection with Ex. Tertiary Main and Valve
- DN100 Proposed Branch for Tertiary Branch for Future

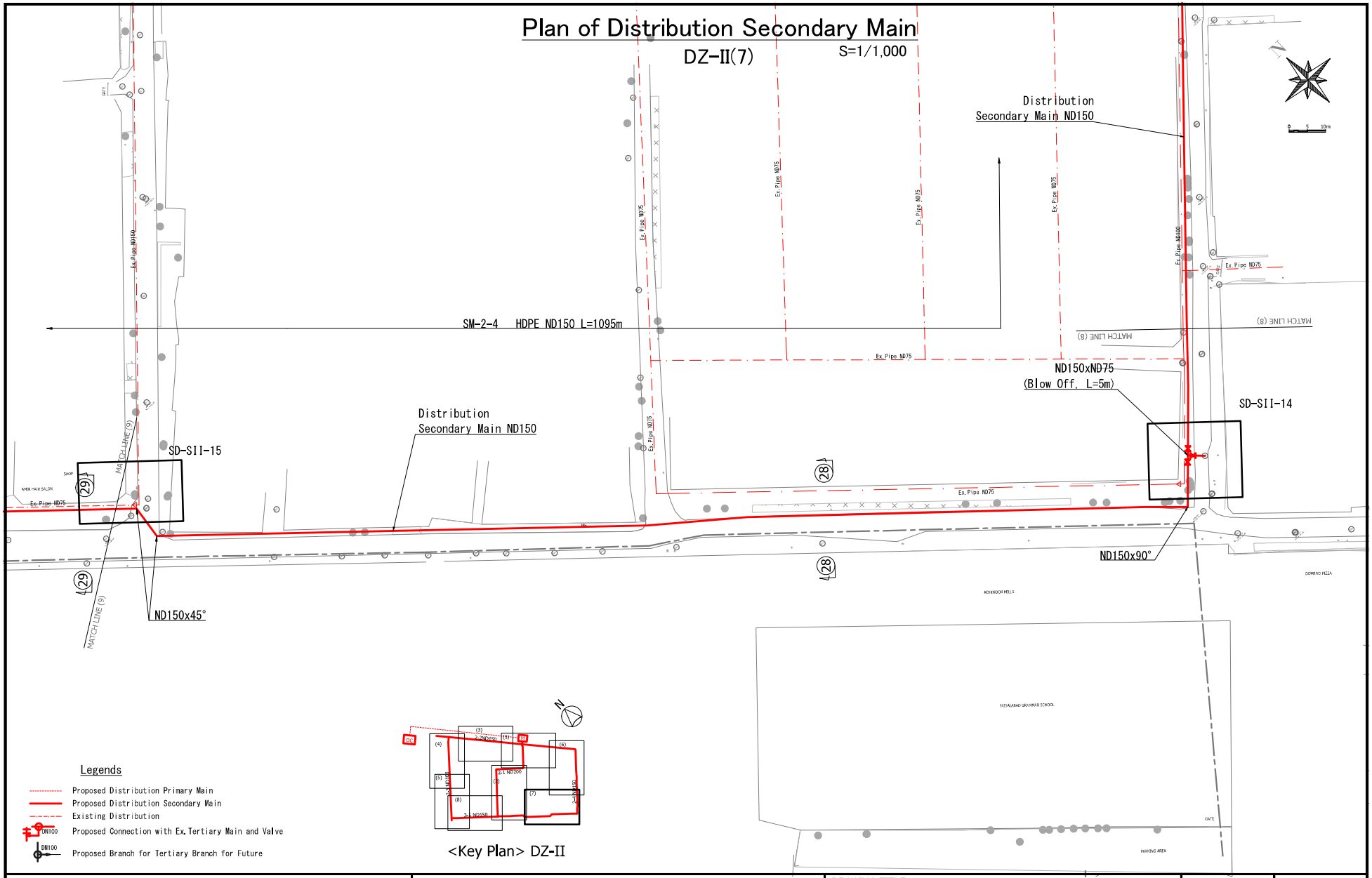
<Key Plan> DZ-II

	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	Plan of Distribution Secondary Main, Madina Town (3)	1/1,000	SM-007

Plan of Distribution Secondary Main

DZ-II(7)

S=1/1,000



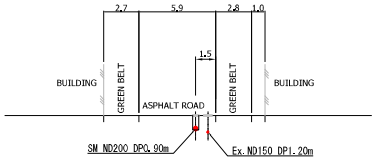
Legends

- Proposed Distribution Primary Main
- Proposed Distribution Secondary Main
- Existing Distribution
- DN100 Proposed Connection with Ex. Tertiary Main and Valve
- DN100 Proposed Branch for Tertiary Branch for Future

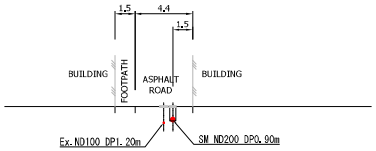
<Key Plan> DZ-II

	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	Plan of Distribution Secondary Main, Madina Town (4)	1/1,000	SM-008

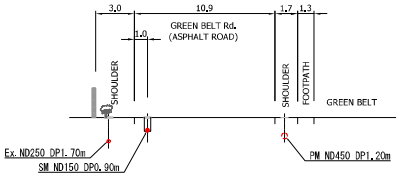
㉑-㉑



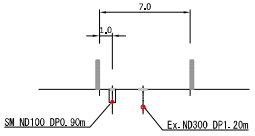
㉒-㉒



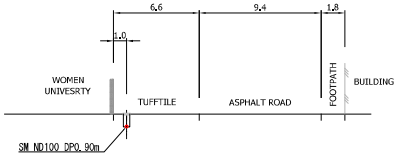
㉓-㉓



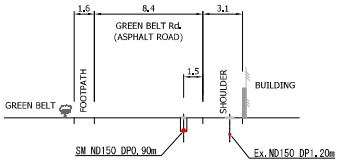
㉔-㉔



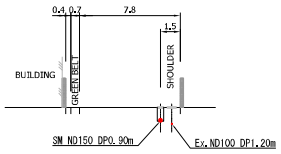
㉕-㉕



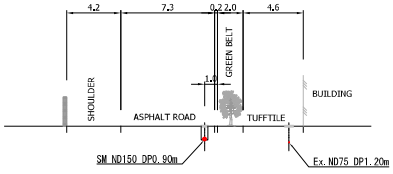
㉖-㉖



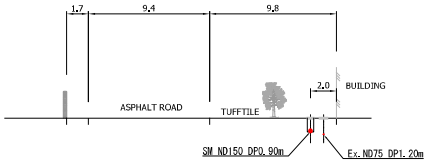
㉗-㉗



㉘-㉘

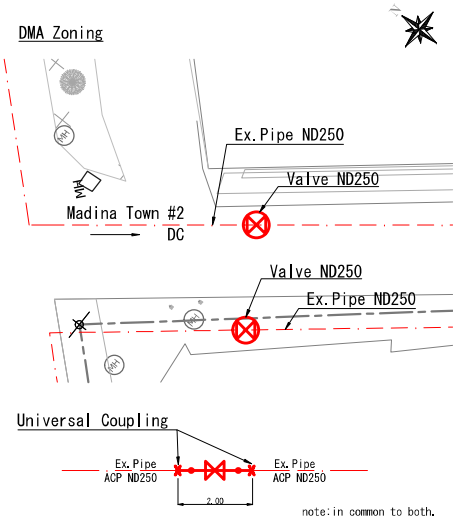


㉙-㉙

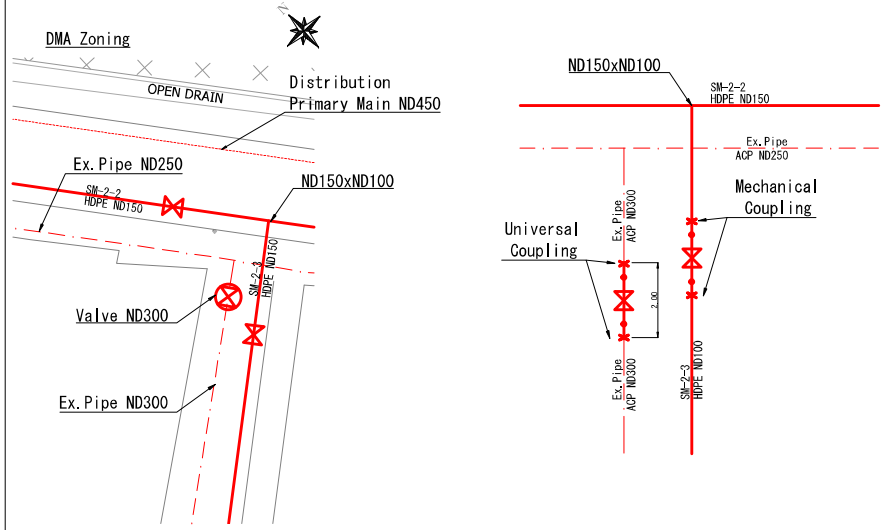


	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	Cross Section of Distribution Secondary Main, Madina Town	1/200	SM-009

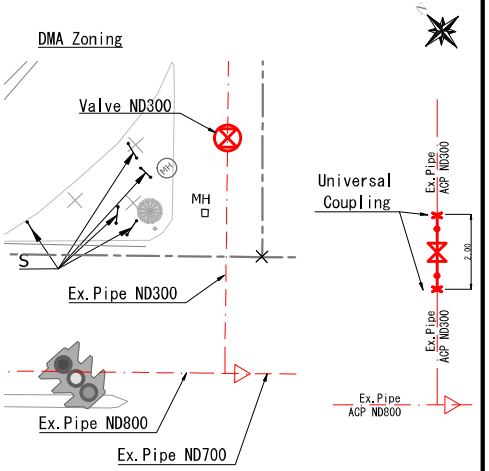
SD-SII-01



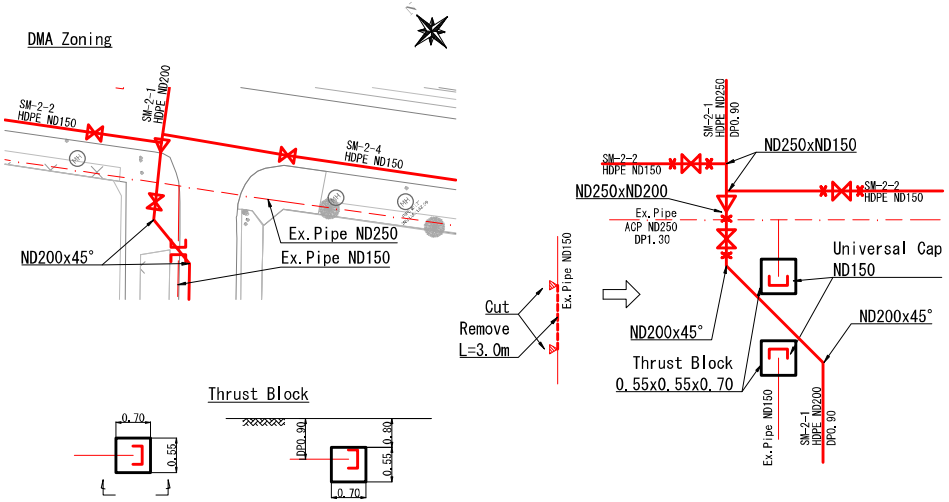
SD-SII-02



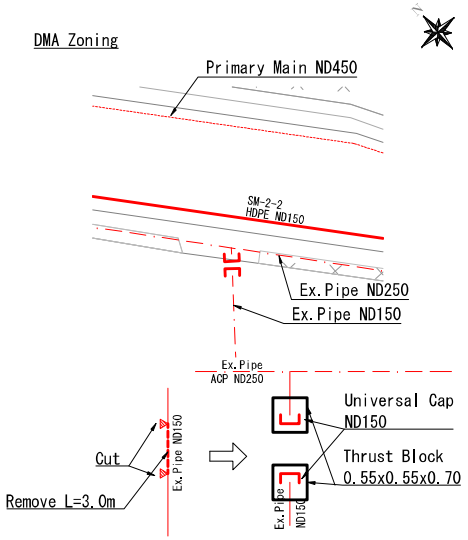
SD-SII-03



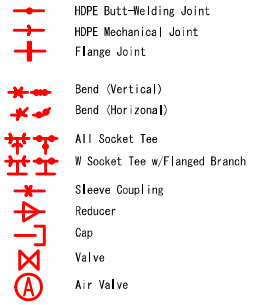
SD-SII-04



SD-SII-05



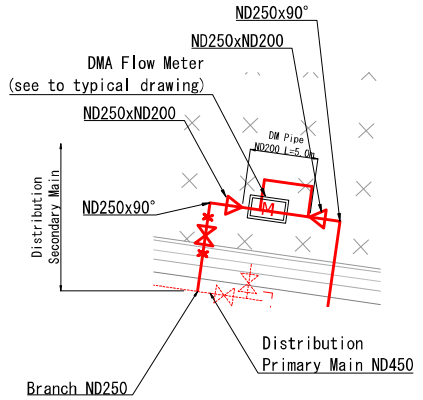
Legends



	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	Spot Detail of Distribution Secondary Main, Madina Town (1)	NO SCALE	SM-010

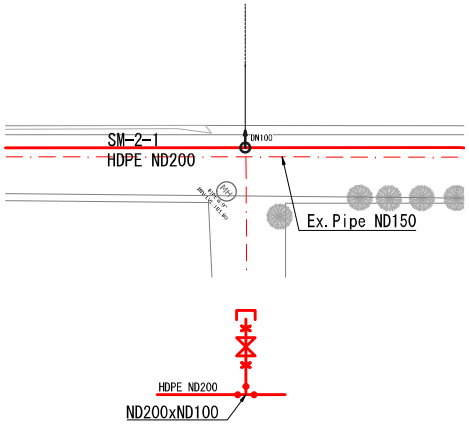
SD-SII-06

Zoom in



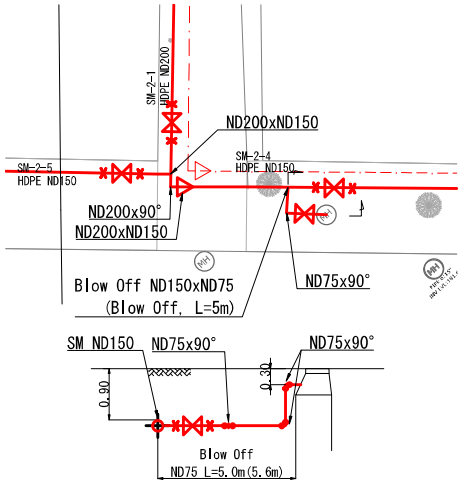
SD-SII-07

Connection(in future)



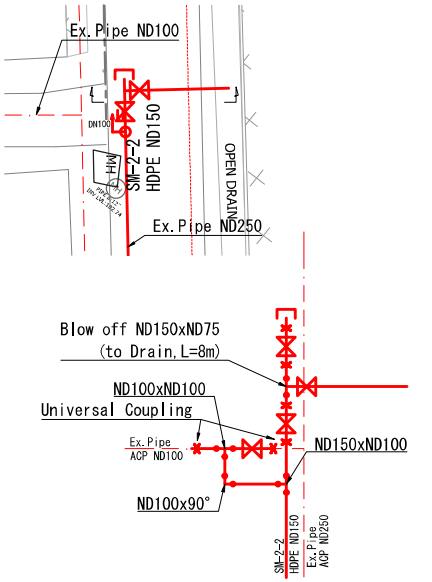
SD-SII-08

Zoom in, Blow-off



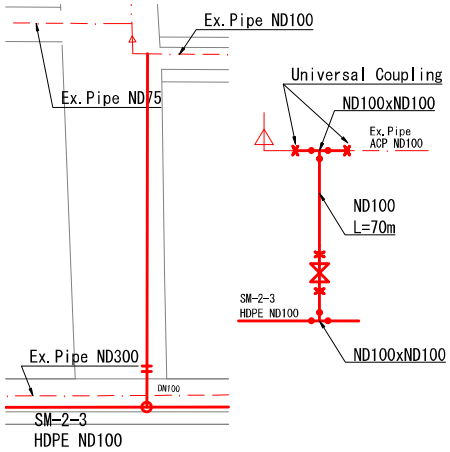
SD-SII-09

Connection, Blow-off



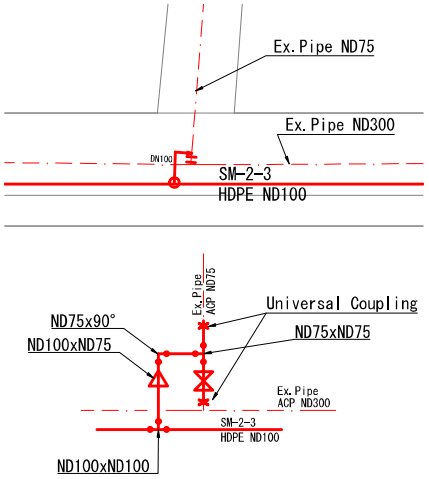
SD-SII-10

Connection

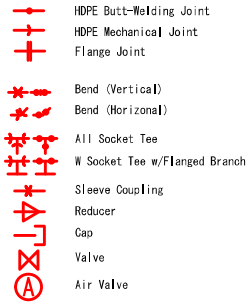


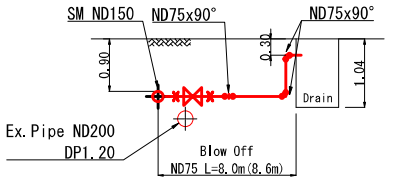
SD-SII-11

Connection



Legends

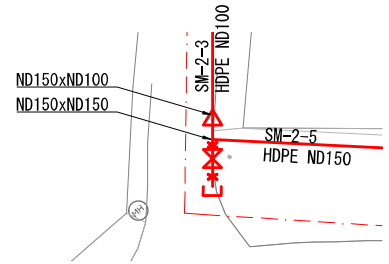




	PROJECT TITLE: THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	DRAWING TITLE: Spot Detail of Distribution Secondary Main, Madina Town (2)	SCALE: NO SCALE	DRAWING NO: SM- 011

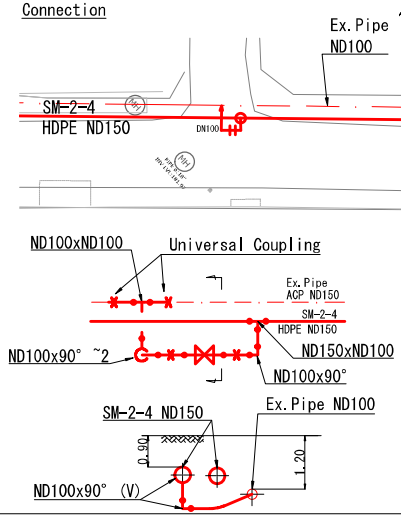
SD-SII-12

Zoom in



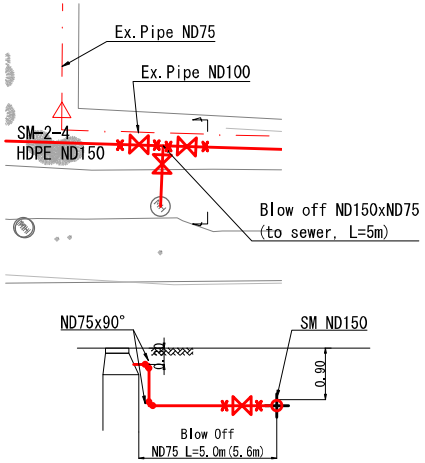
SD-SII-13

Connection



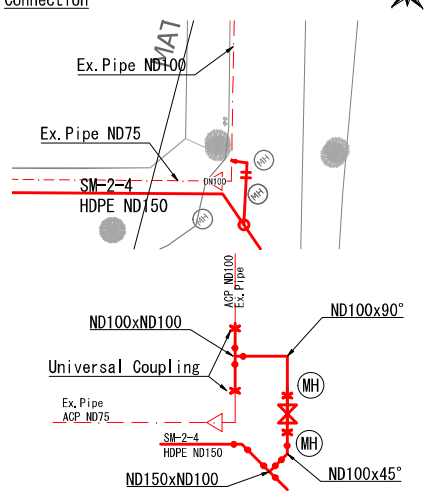
SD-SII-14

Blow off

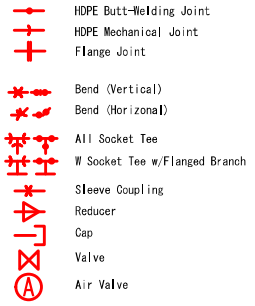


SD-SII-15

Connection



Legends



	PROJECT TITLE:	DRAWING TITLE:	SCALE:	DRAWING NO:
	THE PREPARATORY SURVEY FOR THE PROJECT FOR IMPROVEMENT OF WATER TREATMENT PLANT AND WATER DISTRIBUTION SYSTEM IN FAISALABAD	Spot Detail of Distribution Secondary Main, Madina Town (3)	NO SCALE	SM- 012