Site Information & Scope of Work

Site Information

Site Name : Laksham
Site Code : 20-LAK-100M

Site Address : To be provided later.

Coordinates : N 23° 15' 04.5 " : E 91° 07' 20.6 "
** Coordinates are surveyed by handy type GPS and might be inaccurate.*

Site Type

☐	Control Center	☑	Master Telemetry Station
☐	Gas Field	☐	Operating Company Terminal (OCT)
☐	CGS (City Gas Station)	☐	Power station/Fertilizer Factory
☐	Compressor Station	☐	TBS (Town Bordering Station)
☐	Pig Station	☐	DRS (District Regulating Station)
☐	MS (Metering Station)	☐	GMS (Gas Manifold Station)
☐	VS (Valve Station)		

Site Status

☑ Originally covered by The Existing System and shall be covered by The New System.
☐ Currently not covered by The Existing System but shall be covered by The New System.
☐ Upcoming site which will be covered by The New System after the completion of the Project.

Operating Company : BGSL

Remarks : _____

Scope of Work

Works checked off hereinafter shall be carried out for the Project

1. SCADA System

■ : No SCADA System at this site.

2. Communication System

■ : Master Telemetry Station (Former Microwave Radio Station)

☑ Removal of existing communication system
Remove and dispose following existing items used for microwave transmission system:
- Microwave equipment/facilities in the radio equipment room
- Antenna mounted on the existing tower
- Cables between radio equipment room and existing tower

☑ Radio equipment to connect Master Telemetry Station with Provider's Access Point
Design, supply and install IP radio equipment at existing radio equipment room to connect Master Telemetry Station with nearest Provider's Access Point (BTCL's AP), including all necessary cables, accessories and the antenna to be mounted on the existing tower.

☑ Master telemetry equipment
Design, supply and install master telemetry equipment at existing radio equipment room to connect with slave telemetry equipment, including all necessary cables, accessories and the antenna to be mounted on the existing tower.

☐ Radio equipment to connect Master Telemetry Station with OCT
Design, supply and install IP radio equipment at radio equipment room to connect Master Telemetry Station with Operating Company Terminal (OCT) at another site, including all necessary cables, accessories and the antenna to be mounted on the existing tower.

☐ Radio equipment to connect Provider's Access Point with Master Telemetry Station
Design, supply and install IP radio equipment at nearest BTCL's access point to connect BTCL's AP with Master Telemetry Station, including all necessary cables, accessories and the antenna with monopole.

☑ Network equipment
Design, supply and install all necessary Network equipment at radio equipment room of Master telemetry station as well as at nearest BTCL's access point.

☐ Network cable to OCT
Design, supply and install network cable between Master Telemetry Station and OCT which shall be installed within the same site.

■ : IP PBX System

☐ IP PBX main unit
Design, supply and install IP PBX main unit with necessary accessories and spare parts.

☑ Extension telephone set Q'ty
Design, supply and install extension telephone set(s) with required cables. [2]

3. Electrical Works

■ : Backup Batteries for Radio Equipment at Master Station

☑ Remove and dispose existing backup batteries for radio equipment.
Supply & install new backup batteries with charger suitable to backup new radio equipment for 48 hours.

■ : Replacement of Emergency Generator

☑ Remove and dispose existing emergency generator.
Supply & install new emergency generator suitable for power supply to related equipment and facilities.

■ : Replacement of Air conditioner at Radio room of Master Station

☑ Remove and dispose existing window type air conditioner at raido room, and Supply & install new air conditioner suitably selected to maintain the specified temperature and humidity of radio room.

4. Civil Works

■ : Refurbishment of Existing Radio Building/Radio Equipment Room

☑ Refurbishment of Radio Building
Examin the condition of the whole existing radio building and repair the defects if any.
Clean and touch-up the external and internal finish of the whole existing radio building.

☐ Refurbishment of Radio Equipment Room
Examine the condition of existing rooms where radio equipment and backup batteries are installed and repair the defects if any.
Clean and touch-up the internal finish of the said rooms.

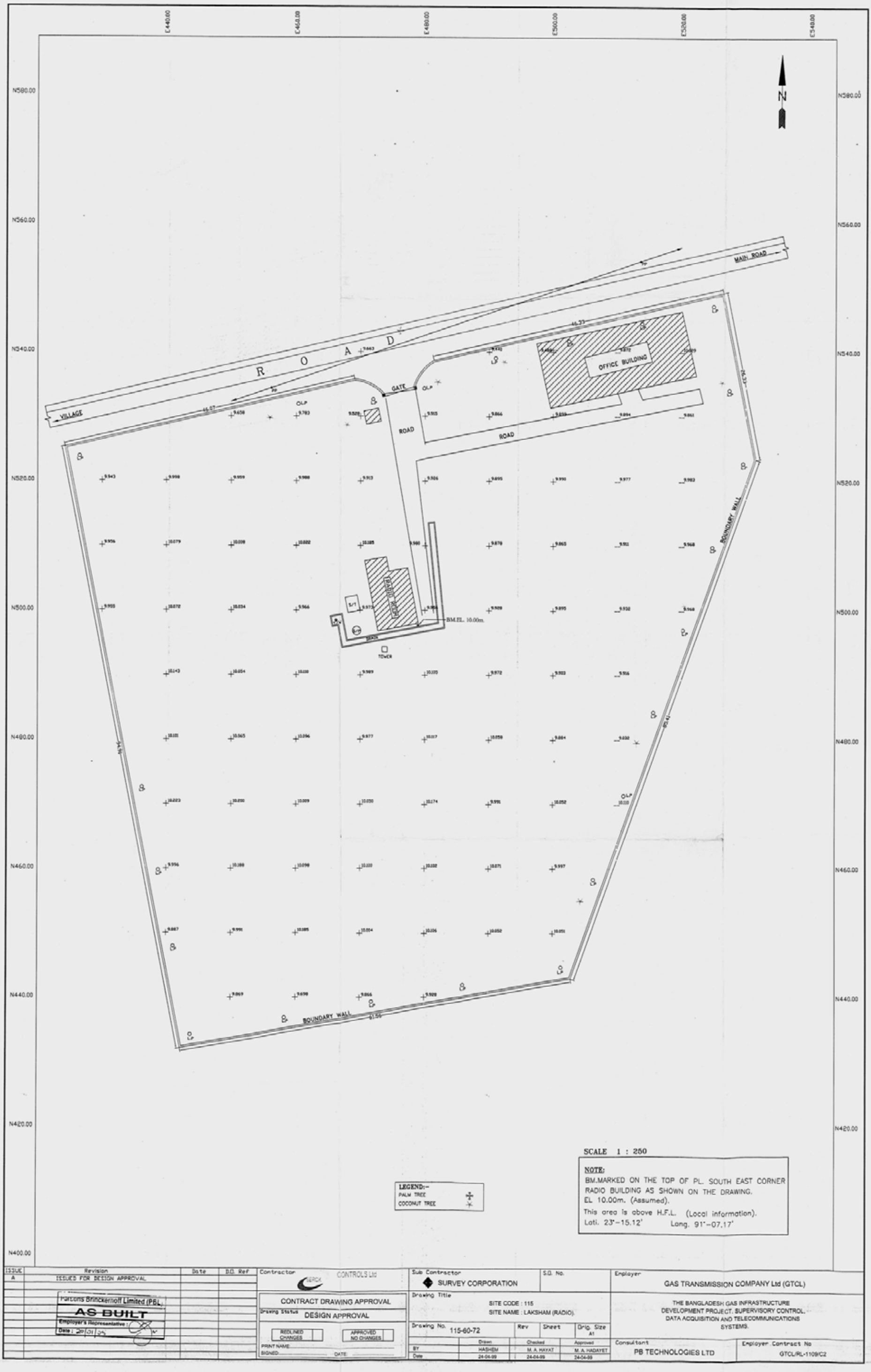
☐ Cleaning of Radio Equipment Room
Clean and tidy up the existing rooms where radio equipment and backup batteries are installed.

5. Site Photo

Existing Radio Building

6. Site Layout

See attached Layout Plan.



ISSUE	Revision	Date	B.O. Ref
A	ISSUED FOR DESIGN APPROVAL		

Parsons Brinckerhoff Limited (PBL)
AS BUILT
Employer's Representative :
Date : 29/01/99

Contractor: CONTROLS Ltd

CONTRACT DRAWING APPROVAL
Drawing Status: DESIGN APPROVAL
REDLINED CHANGES | APPROVED NO CHANGES
PRINT NAME:
SIGNED: DATE:

Sub Contractor: SURVEY CORPORATION
S.O. No.

Drawing Title
SITE CODE : 115
SITE NAME : LAKSHAM (RADIO).

Drawing No.	Rev	Sheet	Drig. Size
115-60-72			A1

	Drawn	Checked	Approved
BY	HASHEM	M. A. HAYAT	M. A. HADAYET
Date	24-04-99	24-04-99	24-04-99

Employer: GAS TRANSMISSION COMPANY Ltd (GTCL)

THE BANGLADESH GAS INFRASTRUCTURE DEVELOPMENT PROJECT, SUPERVISORY CONTROL, DATA ACQUISITION AND TELECOMMUNICATIONS SYSTEMS.

Consultant: PB TECHNOLOGIES LTD

Employer Contract No: GTCL/RL-1109/C2

Site Information & Scope of Work

Site Information

Site Name : Laksham TBS
Site Code : 10-LAK-101

Site Address : To be provided later.

Coordinates : N 23° 16' 18.6 " : E 91° 07' 21.8 "
** Coordinates are surveyed by handy type GPS and might be inaccurate.*

Site Type

☐	Control Center	☐	Master Telemetry Station
☐	Gas Field	☐	Operating Company Terminal (OCT)
☐	CGS (City Gas Station)	☐	Power station/Fertilizer Factory
☐	Compressor Station	☑	TBS (Town Bordering Station)
☐	Pig Station	☐	DRS (District Regulating Station)
☐	MS (Metering Station)	☐	GMS (Gas Manifold Station)
☐	VS (Valve Station)		

Site Status
- ☑ Originally covered by The Existing System and shall be covered by The New System.
- ☐ Currently not covered by The Existing System but shall be covered by The New System.
- ☐ Upcoming site which will be covered by The New System after the completion of the Project.

Operating Company : BGSL

Remarks : _____

Scope of Work

Works checked off hereinafter shall be carried out for the Project

1. SCADA System

■ : RTU

☑ RTU without display monitor
Design, supply and install a self-standing IP65 enclosure equipped with following items:
- RTU
- Instrumentation and communication equipment
- Backup battery system with charger for 24 hours
- Lighting
- Anti-condensation heater
- Earthing and lightning p

☐ RTU with display monitor
Design, supply and install a self-standing IP65 enclosure equipped with following items:
- RTU
- Display monitor
- Instrumentation and communication equipment
- Backup battery system with charger for 24 hours
- Lighting
- Anti-condensation heater
- Earthi

☐ RTU (design & supply only)
Design and supply self-standing IP65 enclosure equipped with following items:
- RTU
- Instrumentation and communication equipment
- Backup battery system with charger for 24 hours
- Lighting
- Anti-condensation heater
- Earthing and lightning protection
-

☐ Interface with flow computer
Make provision for:
- Installation of the flow computer which shall be prepared by GTCL in the enclosure
- Interface between RTU and the said flow computer

☐ Interface with receiver for turbine meter
Install the existing receiver for turbine meter(s) in the RTU enclosure and interface it (them) via communication (MODBUS) cable.

☐ Interface with other system
Provide the interface between RTU and other system such as PLC or PC operated by the operating company including all communication cables between RTU and other system.

☐ Cable between RTU and Master Telemetry Station
Design, supply and install the cable between RTU and Master Telemetry Station in case RTU and Master Telemetry Station are located in the same site.

■ : Instruments

☑ Existing instruments
Re-use the existing instruments and cables.

Note:
Existing instruments and cables shall be serviced by the Employer.

☐ New Instruments
Design, supply and install the following instruments.
Output signals from instruments are to be cabled via field junction box to the RTU.

■ : Pressure transmitters Q'ty

☐ Design, supply and intall:
- Pressure transmitter on the existing spare tapping point
- Tubing between tapping point and transmitter

☐ Prepare the tapping point for the pressure transmitter, and design, supply and install:
- Pressure transmitter on the prepared tapping point
- Tubing between tapping point and transmitter

■ : Differential pressure transmitters Q'ty

☐ Design, supply and install:
- Differential pressure transmitter on the existing spare tapping point
- Tubing between tapping point and transmitter

☐ Prepare the tapping point for the differential pressure transmitter, and design, supply and install:
- Differential pressure transmitter on the tapping point
- Tubing between tapping point and transmitter

■ : Temprature transmitters Q'ty

☐ Design, supply and install:
- Thermowell in the spare boss on the pipe
- Resistance temperature detector complete with a head mounted transmitter into the thermowell

■ : Limit switch Q'ty

☐ Design, supply and install the limit switch on the existing shutdown valve for valve position monitoring.

☐ Pick up Signal from the Existing Turbine Meter Q'ty
Supply and install a dual pulse output pickup head in place of the single pulse output pickup in the existing turbine flowmeter sensor head. The output signal from the existing turbine flowmeter to be cabled via junction box to RTU.

☐ Local Field Instrument Junction Box Q'ty
Design, supply and install an Intrinsic safety junction box. The junction box to be suitable for glanding appropriate cables.

☐ Instrument Cables
Design, supply, install the instrument cables from the field instruments to RTU via junction box including each cable termination with gland.

2. Communication System

■ : Slave Telemetry System

☑ Removal of existing slave telemetry equipment
Remove and dispose the existing slave telemetry system including antenna and cable.

☑ Slave Telemetry Equipment
Design, supply and install new slave telemetry equipment in the RTU enclosure, including cables and antenna.

☐ Slave Telemetry Equipment (design & supply only)
Design and supply new slave telemetry equipment in the RTU enclosure, including cables and antenna.

☑ Existing monopole
Re-use existing monople to mount new antenna.

☐ New monopole
Design, supply and install new monopole with foundation to mount new antenna.

☐ New monopole (design & supply only)
Design and supply new monopole to mount new antenna.

3. Electrical Works

■ : Power Supply to RTU

☑ Electrical power shall be supplied to RTU from existing PDB, and existing power cable shall be re-used.

☐ Design, supply and install MCB box for the power supply to RTU including all cables from existing PDB to MCB box and from MCB box to RTU.

☐ Design, supply and intall power controller and power cable to RTU at remote site where electrical power is supplied from existing solar panel.

☐ Design, supply and install new solar panel, power controller and power cable to RTU.

4. Civil Works

■ : Foundation & Sunshade for RTU

☑ Re-use existing foundation & sunshade for RTU
Examine the condition of existing foundation and sunshade for RTU and repair the defects, if any.

☐ Provide new foundation & sunshade for RTU
Design and construct the foundation and sunshade for new RTU at suitable location. The foundation and sunshade should be designed to suitably accommodate new RTU.

■ : Instrument Stand with Foundation & Sunshade

☑ Re-use existing Instrument stand(s) with foundation & sunshade
Examine the condition of existing Instrument stand(s) with foundation & sunshade and repair the defects, if any.

☐ Provide new Instrument stand(s) with foundation & sunshade
Design and construct the Instrument stand(s) with foundation & sunshade at suitable location. It should be designed to suitably accommodate the required number of instruments and explosion proof instrument field junction box.

5. Site Photo

Existing RTU

Existing Instrument Stand

6. Site Layout

See attached Layout Plan.

E160.00 E180.00 E190.00 E200.00 E210.00 E220.00 E230.00 E240.00 E250.00

N230.00 N220.00 N210.00 N200.00 N190.00 N180.00 N170.00

BOUNDARY WIRE FENCE 30.69

7.795 7.925 7.929 7.975 7.945

SOAK PIT

SEPTIC TANK

TUBE-WELL

L.P

RTU CB

7.785 9.711 9.601 7.950

7.00

BM.EL. 10.00m.

OFFICE

STEEL BASE TANK TANK

9.86

SEPTIC TANK

7.901 9.684 9.762 7.969

SOAK PIT

MONO-POLE BASE

C.C. BASE

RTU

59.89

BOUNDARY WIRE FENCE

7.793 9.645 9.713 9.811

Pipe ø100mm.

H.B.B. ROAD

GATE

61.15

GUARD ROOM

10.107

H. B. B. ROAD

7.28

7.776 9.683 9.703 9.789

Pipe ø170mm.

INST. STAND

1080

Pipe ø220mm.

Pipe ø500mm.

STEEL BASE

7.754 9.679 9.698 9.715

C.C. BASE

WIRE FENCE

Pipe ø120mm

GATE

TO HIGHWAY ROAD

9.699 9.711 9.721

BOUNDARY WIRE FENCE 30.80

DITCH

PN MN

SCALE : 1 : 150

NOTE:

BM. MARKED ON THE STAIR OF THE OFFICE BUILDING AS SHOWN ON THE DRAWING.
EL=10.00m. (Assumed).
H.F.L. 8.934m. in the year 1998 (Local information).
LATITUDE 23°-16.35' LONGITUDE 91°-07.40'

Mott MacDonald Brinckerhoff Limited (PBL)
AS BUILT
Employer's Representative
Date 05-12-2009

ISSUE	Revision	Date	D.O. Ref
A	ISSUED FOR DESIGN APPROVAL		-
B	ISSUED FOR DESIGN APPROVAL	25-09-04	-

Contractor: SERCK CONTROLS Ltd

CONTRACT DRAWING APPROVAL
Drawing Status: DESIGN APPROVAL
REDLINED CHANGES | APPROVED NO CHANGES
PRINT NAME:
SIGNED: DATE:

Sub Contractor: SURVEY CORPORATION

S.O. No.

Drawing Title: SITE CODE : 101 SITE NAME : LAKSHAM

Drawing No. 101-60-72 | Rev B | Sheet | Drlg. Size A1

BY	Drawn	Checked	Approved
	HASHEM	M. A. HAYAT	M. A. HADAYET

Employer: GAS TRANSMISSION COMPANY Ltd (GTCL)

THE BANGLADESH GAS INFRASTRUCTURE DEVELOPMENT PROJECT. SUPERVISORY CONTROL, DATA ACQUISITION AND TELECOMMUNICATIONS SYSTEMS.

Consultant: PB Technologies Ltd.

Employer Contract No: GTCL/RL-1109/C2

Site Information & Scope of Work

Site Information

Site Name : Chandpur
Site Code : 20-CHA-100M

Site Address : To be provided later.

Coordinates : N 23° 14' 02.8 " : E 90° 41' 00.6 "
** Coordinates are surveyed by handy type GPS and might be inaccurate.*

Site Type
- ☐ Control Center
- ☐ Gas Field
- ☐ CGS (City Gas Station)
- ☐ Compressor Station
- ☐ Pig Station
- ☐ MS (Metering Station)
- ☐ VS (Valve Station)
- ☑ Master Telemetry Station
- ☐ Operating Company Terminal (OCT)
- ☐ Power station/Fertilizer Factory
- ☐ TBS (Town Bordering Station)
- ☐ DRS (District Regulating Station)
- ☐ GMS (Gas Manifold Station)

Site Status
- ☑ Originally covered by The Existing System and shall be covered by The New System.
- ☐ Currently not covered by The Existing System but shall be covered by The New System.
- ☐ Upcoming site which will be covered by The New System after the completion of the Project.

Operating Company : BGSL

Remarks :

Scope of Work

Works checked off hereinafter shall be carried out for the Project

1. SCADA System

■ : No SCADA System at this site.

2. Communication System

■ : Master Telemetry Station (Former Microwave Radio Station)

☑ Removal of existing communication system
Remove and dispose following existing items used for microwave transmission system:
- Microwave equipment/facilities in the radio equipment room
- Antenna mounted on the existing tower
- Cables between radio equipment room and existing tower

☑ Radio equipment to connect Master Telemetry Station with Provider's Access Point
Design, supply and install IP radio equipment at existing radio equipment room to connect Master Telemetry Station with nearest Provider's Access Point (BTCL's AP), including all necessary cables, accessories and the antenna to be mounted on the existing tower.

☑ Master telemetry equipment
Design, supply and install master telemetry equipment at existing radio equipment room to connect with slave telemetry equipment, including all necessary cables, accessories and the antenna to be mounted on the existing tower.

☐ Radio equipment to connect Master Telemetry Station with OCT
Design, supply and install IP radio equipment at radio equipment room to connect Master Telemetry Station with Operating Company Terminal (OCT) at another site, including all necessary cables, accessories and the antenna to be mounted on the existing tower.

☑ Radio equipment to connect Provider's Access Point with Master Telemetry Station
Design, supply and install IP radio equipment at nearest BTCL's access point to connect BTCL's AP with Master Telemetry Station, including all necessary cables, accessories and the antenna with monopole.

☑ Network equipment
Design, supply and install all necessary Network equipment at radio equipment room of Master telemetry station as well as at nearest BTCL's access point.

☐ Network cable to OCT
Design, supply and install network cable between Master Telemetry Station and OCT which shall be installed within the same site.

■ : IP PBX System

☐ IP PBX main unit
Design, supply and install IP PBX main unit with necessary accessories and spare parts.

☑ Extension telephone set Q'ty
Design, supply and install extension telephone set(s) with required cables. [2]

3. Electrical Works

■ : Backup Batteries for Radio Equipment at Master Station

☑ Remove and dispose existing backup batteries for radio equipment.
Supply & install new backup batteries with charger suitable to backup new radio equipment for 48 hours.

■ : Replacement of Emergency Generator

☑ Remove and dispose existing emergency generator.
Supply & install new emergency generator suitable for power supply to related equipment and facilities.

■ : Replacement of Air conditioner at Radio room of Master Station

☑ Remove and dispose existing window type air conditioner at raido room, and Supply & install new air conditioner suitably selected to maintain the specified temperature and humidity of radio room.

4. Civil Works

■ : Refurbishment of Existing Radio Building/Radio Equipment Room

☑ Refurbishment of Radio Building
Examin the condition of the whole existing radio building and repair the defects if any.
Clean and touch-up the external and internal finish of the whole existing radio building.

☐ Refurbishment of Radio Equipment Room
Examine the condition of existing rooms where radio equipment and backup batteries are installed and repair the defects if any.
Clean and touch-up the internal finish of the said rooms.

☐ Cleaning of Radio Equipment Room
Clean and tidy up the existing rooms where radio equipment and backup batteries are installed.

5. Site Photo

Existing Radio Building

6. Site Layout

See attached Layout Plan.

E920.00 E940.00 E960.00 E980.00 E1000.00 E1020.00 E1040.00

N1120.00 N1100.00 N1080.00 N1060.00 N1040.00 N1020.00 N1000.00 N980.00 N960.00 N940.00 N920.00

N

OFFICE BUILDING

BAZAR ROAD

ROAD

BOUNDARY WALL

BOUNDARY WALL

BM EL 10.00m

TOWER

EARTH PIT

SCALE 1 : 300

LEGEND:-

OTHER TREE

COCONUT TREE

NOTE:
BM. MARKED ON THE TOP OF TOWER BASE AS SHOWN ON THE DROWING.
EL=10.00m. (Assumed).
THIS AREA IS ABOVE H.F.L. (Local information).
LATITUDE 23°14.09' LONGITUDE 90°40.84'

ISSUE	Revision	Date	D.O. Ref
A	ISSUED FOR DESIGN APPROVAL		–
B	ISSUED FOR DESIGN APPROVAL	25-09-04	–

Parsons Brinckerhoff Limited (PBL)
AS BUILT
Employer's Representative
Date 20/11/05

Contractor CONTROLS Ltd

CONTRACT DRAWING APPROVAL
Drawing Status DESIGN APPROVAL
RECLINED CHANGES | APPROVED NO CHANGES
PRINT NAME:
SIGNED: DATE:

Sub Contractor SURVEY CORPORATION

S.O. No.

Drawing Title
SITE CODE : 116
SITE NAME : CHANDPUR (RADIO).

Drawing No.	Rev	Sheet	Orig. Size
116-60-72			A1

	Drawn	Checked	Approved
BY	HASHEM	M. A. HAYAT	M. A. HADAYET
Date	24-04-99	24-04-99	24-04-99

Employer
GAS TRANSMISSION COMPANY Ltd (GTCL)

THE BANGLADESH GAS INFRASTRUCTURE DEVELOPMENT PROJECT. SUPERVISORY CONTROL, DATA ACQUISITION AND TELECOMMUNICATIONS SYSTEMS.

Consultant
PB TECHNOLOGIES LTD.

Employer Contract No
GTCL/RL-1109/C2

Site Information & Scope of Work

Site Information

Site Name : Chandpur TBS
Site Code : 20-CHA-101

Site Address : To be provided later.

Coordinates : N 23° 14' 22.9 " : E 90° 40' 55.6 "
** Coordinates are surveyed by handy type GPS and might be inaccurate.*

Site Type

☐	Control Center	☐	Master Telemetry Station
☐	Gas Field	☐	Operating Company Terminal (OCT)
☐	CGS (City Gas Station)	☐	Power station/Fertilizer Factory
☐	Compressor Station	☑	TBS (Town Bordering Station)
☐	Pig Station	☐	DRS (District Regulating Station)
☐	MS (Metering Station)	☐	GMS (Gas Manifold Station)
☐	VS (Valve Station)		

Site Status
- ☑ Originally covered by The Existing System and shall be covered by The New System.
- ☐ Currently not covered by The Existing System but shall be covered by The New System.
- ☐ Upcoming site which will be covered by The New System after the completion of the Project.

Operating Company : BGSL

Remarks : Additional instruments are required at this site.

Scope of Work

Works checked off hereinafter shall be carried out for the Project

1. SCADA System

■ : RTU

☑ RTU without display monitor
Design, supply and install a self-standing IP65 enclosure equipped with following items:
- RTU
- Instrumentation and communication equipment
- Backup battery system with charger for 24 hours
- Lighting
- Anti-condensation heater
- Earthing and lightning p

☐ RTU with display monitor
Design, supply and install a self-standing IP65 enclosure equipped with following items:
- RTU
- Display monitor
- Instrumentation and communication equipment
- Backup battery system with charger for 24 hours
- Lighting
- Anti-condensation heater
- Earthi

☐ RTU (design & supply only)
Design and supply self-standing IP65 enclosure equipped with following items:
- RTU
- Instrumentation and communication equipment
- Backup battery system with charger for 24 hours
- Lighting
- Anti-condensation heater
- Earthing and lightning protection
-

☐ Interface with flow computer
Make provision for:
- Installation of the flow computer which shall be prepared by GTCL in the enclosure
- Interface between RTU and the said flow computer

☐ Interface with receiver for turbine meter
Install the existing receiver for turbine meter(s) in the RTU enclosure and interface it (them) via communication (MODBUS) cable.

☐ Interface with other system
Provide the interface between RTU and other system such as PLC or PC operated by the operating company including all communication cables between RTU and other system.

☐ Cable between RTU and Master Telemetry Station
Design, supply and install the cable between RTU and Master Telemetry Station in case RTU and Master Telemetry Station are located in the same site.

■ : Instruments

☑ Existing instruments
Re-use the existing instruments and cables.

Note:
Existing instruments and cables shall be serviced by the Employer.

☑ New Instruments
Design, supply and install the following instruments.
Output signals from instruments are to be cabled via field junction box to the RTU.

■ : Pressure transmitters Q'ty

☐ Design, supply and intall:
- Pressure transmitter on the existing spare tapping point
- Tubing between tapping point and transmitter

☑ Prepare the tapping point for the pressure transmitter, and design, supply and install: [2]
- Pressure transmitter on the prepared tapping point
- Tubing between tapping point and transmitter

■ : Differential pressure transmitters Q'ty

☐ Design, supply and install:
- Differential pressure transmitter on the existing spare tapping point
- Tubing between tapping point and transmitter

☑ Prepare the tapping point for the differential pressure transmitter, and design, supply and install: [4]
- Differential pressure transmitter on the tapping point
- Tubing between tapping point and transmitter

■ : Temprature transmitters Q'ty

☑ Design, supply and install: [2]
- Thermowell in the spare boss on the pipe
- Resistance temperature detector complete with a head mounted transmitter into the thermowell

■ : Limit switch Q'ty

☐ Design, supply and install the limit switch on the existing shutdown valve for valve position monitoring.

☐ Pick up Signal from the Existing Turbine Meter Q'ty
Supply and install a dual pulse output pickup head in place of the single pulse output pickup in the existing turbine flowmeter sensor head. The output signal from the existing turbine flowmeter to be cabled via junction box to RTU.

☑ Local Field Instrument Junction Box Q'ty
Design, supply and install an Intrinsic safety junction box. The junction box to be suitable for glanding appropriate cables. [1]

☑ Instrument Cables
Design, supply, install the instrument cables from the field instruments to RTU via junction box including each cable termination with gland.

2. Communication System

■ : Slave Telemetry System

☐ Removal of existing slave telemetry equipment
Remove and dispose the existing slave telemetry system including antenna and cable.

☐ Slave Telemetry Equipment
Design, supply and install new slave telemetry equipment in the RTU enclosure, including cables and antenna.

☐ Slave Telemetry Equipment (design & supply only)
Design and supply new slave telemetry equipment in the RTU enclosure, including cables and antenna.

☐ Existing monopole
Re-use existing monople to mount new antenna.

☐ New monopole
Design, supply and install new monopole with foundation to mount new antenna.

☐ New monopole (design & supply only)
Design and supply new monopole to mount new antenna.

3. Electrical Works

■ : Power Supply to RTU

☑ Electrical power shall be supplied to RTU from existing PDB, and existing power cable shall be re-used.

☐ Design, supply and install MCB box for the power supply to RTU including all cables from existing PDB to MCB box and from MCB box to RTU.

☐ Design, supply and intall power controller and power cable to RTU at remote site where electrical power is supplied from existing solar panel.

☐ Design, supply and install new solar panel, power controller and power cable to RTU.

4. Civil Works

■ : Foundation & Sunshade for RTU

☑ Re-use existing foundation & sunshade for RTU
Examine the condition of existing foundation and sunshade for RTU and repair the defects, if any.

☐ Provide new foundation & sunshade for RTU
Design and construct the foundation and sunshade for new RTU at suitable location. The foundation and sunshade should be designed to suitably accommodate new RTU.

■ : Instrument Stand with Foundation & Sunshade

☑ Re-use existing Instrument stand(s) with foundation & sunshade
Examine the condition of existing Instrument stand(s) with foundation & sunshade and repair the defects, if any.

☑ Provide new Instrument stand(s) with foundation & sunshade
Design and construct the Instrument stand(s) with foundation & sunshade at suitable location. It should be designed to suitably accommodate the required number of instruments and explosion proof instrument field junction box.

5. Site Photo

Existing RTU

Existing Instrument Stand

6. Site Layout

See attached Layout Plan.

E180.00 E200.00 E220.00 E240.00

N240.00 N220.00 N200.00 N180.00 N160.00

CHANDPUR

COMILLA

APPROX. 60m.

GATE

50.18

9.339

9.325 L.P

L.P 9.654 9.265 9.351 9.985 10.074 9.992

GUARD ROOM

L.P 9.425

10.019

STEEL BASE

OPEN SPACE

C.C.BASE

STEEL BASE

INST. STAND

L.P 9.350 9.773 9.798 9.876 9.869

P.P

L.P 9752 9.821 9.835 9.842

9.492

60.17

H.B.B. ROAD

OFFICE BUILDING

RTU

S/P 9.825

S/T

M/H

BM.EL=10.00m.

S/P

9.732 9.910 9.869 9.535

9.787 S/P 9.530

S/T

L.P

60.96

9.468 9.438 L.P 9.380

59.46

L.P

SCALE : 1 : 150

NOTE:

BM. MARKED ON THE TOP OF PL. S/W CORNER OF THE TIN SHED AS SHOWN ON THE DRAWING.

EL=10.00m. (Assumed).

H.F.L.=10.376m. in the year 1998 (Local Information).

LATITUDE 23°-14.13" LONGITUDE 90°-40.93"

Parsons Brinckerhoff Limited (PBL)
AS BUILT
Employer's Representative
Date: 02/12/2004

ISSUE	Revision	Date	S.O. Ref
A	ISSUED FOR DESIGN APPROVAL		-
A	ISSUED FOR DESIGN APPROVAL	25-09-04	-

Contractor: CONTROLS Ltd

CONTRACT DRAWING APPROVAL
Drawing Status: DESIGN APPROVAL
REDLINED CHANGES | APPROVED NO CHANGES
PRINT NAME:
SIGNED: DATE:

Sub Contractor: SURVEY CORPORATION

S.O. No.

Employer: GAS TRANSMISSION COMPANY Ltd (GTCL)

Drawing Title: RTU & CABLE LAY-OUT PLAN
SITE CODE : 112
SITE NAME : CHANDPUR

THE BANGLADESH GAS INFRASTRUCTURE DEVELOPMENT PROJECT. SUPERVISORY CONTROL, DATA ACQUISITION AND TELECOMMUNICATIONS SYSTEMS.

Drawing No.	Rev	Sheet	Orig. Size
112-60-74	B		A1

	Drawn	Checked	Approved
BY	HASHEM	M. A. HAYAT	M. A. HADAYET
Date	17-03-99	20-03-99	20-03-99

Consultant: PB Technologies Ltd.

Employer Contract No: GTCL/RL-1109/C2

Site Information & Scope of Work

Site Information

Site Name : Feni
Site Code : 20-FEN-100/100M

Site Address : To be provided later.

Coordinates : N 23° 01' 02.0 " : E 91° 22' 10.5 "
** Coordinates are surveyed by handy type GPS and might be inaccurate.*

Site Type

☐	Control Center	☑	Master Telemetry Station
☐	Gas Field	☐	Operating Company Terminal (OCT)
☐	CGS (City Gas Station)	☐	Power station/Fertilizer Factory
☐	Compressor Station	☑	TBS (Town Bordering Station)
☐	Pig Station	☐	DRS (District Regulating Station)
☐	MS (Metering Station)	☐	GMS (Gas Manifold Station)
☐	VS (Valve Station)		

Site Status
- ☑ Originally covered by The Existing System and shall be covered by The New System.
- ☐ Currently not covered by The Existing System but shall be covered by The New System.
- ☐ Upcoming site which will be covered by The New System after the completion of the Project.

Operating Company : BGSL

Remarks :

Scope of Work

Works checked off hereinafter shall be carried out for the Project

1. SCADA System

■ : RTU

☑ RTU without display monitor
Design, supply and install a self-standing IP65 enclosure equipped with following items:
- RTU
- Instrumentation and communication equipment
- Backup battery system with charger for 24 hours
- Lighting
- Anti-condensation heater
- Earthing and lightning protection
- All internal wiring
- Other equipment to satisfy the functional requirements

☐ RTU with display monitor
Design, supply and install a self-standing IP65 enclosure equipped with following items:
- RTU
- Display monitor
- Instrumentation and communication equipment
- Backup battery system with charger for 24 hours
- Lighting
- Anti-condensation heater
- Earthing and lightning protection
- All internal wiring
- Other equipment to satisfy the functional requirements

☐ RTU (design & supply only)
Design and supply self-standing IP65 enclosure equipped with following items:
- RTU
- Instrumentation and communication equipment
- Backup battery system with charger for 24 hours
- Lighting
- Anti-condensation heater
- Earthing and lightning protection
- All internal wiring
- Other equipment to satisfy the functional requirements

☑ Interface with flow computer
Make provision for:
- Installation of the flow computer which shall be prepared by GTCL in the enclosure
- Interface between RTU and the said flow computer

☐ Interface with receiver for turbine meter
Install the existing receiver for turbine meter(s) in the RTU enclosure and interface it (them) via communication (MODBUS) cable.

☐ Interface with other system
Provide the interface between RTU and other system such as PLC or PC operated by the operating company including all communication cables between RTU and other system.

☐ Cable between RTU and Master Telemetry Station
Design, supply and install the cable between RTU and Master Telemetry Station in case RTU and Master Telemetry Station are located in the same site.

■ : Instruments

☑ Existing instruments
Re-use the existing instruments and cables.

Note:
Existing instruments and cables shall be serviced by the Employer.

☐ New Instruments
Design, supply and install the following instruments.
Output signals from instruments are to be cabled via field junction box to the RTU.

■ : Pressure transmitters Q'ty

☐ Design, supply and intall:
- Pressure transmitter on the existing spare tapping point
- Tubing between tapping point and transmitter

☐ Prepare the tapping point for the pressure transmitter, and design, supply and install:
- Pressure transmitter on the prepared tapping point
- Tubing between tapping point and transmitter

■ : Differential pressure transmitters Q'ty

☐ Design, supply and install:
- Differential pressure transmitter on the existing spare tapping point
- Tubing between tapping point and transmitter

☐ Prepare the tapping point for the differential pressure transmitter, and design, supply and install:
- Differential pressure transmitter on the tapping point
- Tubing between tapping point and transmitter

■ : Temprature transmitters Q'ty

☐ Design, supply and install:
- Thermowell in the spare boss on the pipe
- Resistance temperature detector complete with a head mounted transmitter into the thermowell

■ : Limit switch Q'ty

☐ Design, supply and install the limit switch on the existing shutdown valve for valve position monitoring.

☐ Pick up Signal from the Existing Turbine Meter Q'ty
Supply and install a dual pulse output pickup head in place of the single pulse output pickup in the existing turbine flowmeter sensor head. The output signal from the existing turbine flowmeter to be cabled via junction box to RTU.

☐ Local Field Instrument Junction Box Q'ty
Design, supply and install an Intrinsic safety junction box. The junction box to be suitable for glanding appropriate cables.

☐ Instrument Cables
Design, supply, install the instrument cables from the field instruments to RTU via junction box including each cable termination with gland.

2. Communication System

■ : Master Telemetry Station (Former Microwave Radio Station)

☑ Removal of existing communication system
Remove and dispose following existing items used for microwave transmission system:
- Microwave equipment/facilities in the radio equipment room
- Antenna mounted on the existing tower
- Cables between radio equipment room and existing tower

☑ Radio equipment to connect Master Telemetry Station with Provider's Access Point
Design, supply and install IP radio equipment at existing radio equipment room to connect Master Telemetry Station with nearest Provider's Access Point (BTCL's AP), including all necessary cables, accessories and the antenna to be mounted on the existing tower.

☑ Master telemetry equipment
Design, supply and install master telemetry equipment at existing radio equipment room to connect with slave telemetry equipment, including all necessary cables, accessories and the antenna to be mounted on the existing tower.

☐ Radio equipment to connect Master Telemetry Station with OCT
Design, supply and install IP radio equipment at radio equipment room to connect Master Telemetry Station with Operating Company Terminal (OCT) at another site, including all necessary cables, accessories and the antenna to be mounted on the existing tower.

☑ Radio equipment to connect Provider's Access Point with Master Telemetry Station
Design, supply and install IP radio equipment at nearest BTCL's access point to connect BTCL's AP with Master Telemetry Station, including all necessary cables, accessories and the antenna with monopole.

☑ Network equipment
Design, supply and install all necessary Network equipment at radio equipment room of Master telemetry station as well as at nearest BTCL's access point.

☐ Network cable to OCT
Design, supply and install network cable between Master Telemetry Station and OCT which shall be installed within the same site.

■ : IP PBX System

☐ IP PBX main unit
Design, supply and install IP PBX main unit with necessary accessories and spare parts.

☑ Extension telephone set Q'ty
Design, supply and install extension telephone set(s) with required cables. [2]

3. Electrical Works

■ : Power Supply to RTU

☑ Electrical power shall be supplied to RTU from existing PDB, and existing power cable shall be re-used.

☐ Design, supply and install MCB box for the power supply to RTU including all cables from existing PDB to MCB box and from MCB box to RTU.

☐ Design, supply and intall power controller and power cable to RTU at remote site where electrical power is supplied from existing solar panel.

☐ Design, supply and install new solar panel, power controller and power cable to RTU.

■ : Backup Batteries for Radio Equipment at Master Station

☑ Remove and dispose existing backup batteries for radio equipment.
Supply & install new backup batteries with charger suitable to backup new radio equipment for 48 hours.

■ : Replacement of Emergency Generator

☑ Remove and dispose existing emergency generator.
Supply & install new emergency generator suitable for power supply to related equipment and facilities.

■ : Replacement of Air conditioner at Radio room of Master Station

☑ Remove and dispose existing window type air conditioner at raido room, and Supply & install new air conditioner suitably selected to maintain the specified temperature and humidity of radio room.

4. Civil Works

■ : Foundation & Sunshade for RTU

☑ Re-use existing foundation & sunshade for RTU
Examine the condition of existing foundation and sunshade for RTU and repair the defects, if any.

☐ Provide new foundation & sunshade for RTU
Design and construct the foundation and sunshade for new RTU at suitable location. The foundation and sunshade should be designed to suitably accommodate new RTU.

■ : Instrument Stand with Foundation & Sunshade

☑ Re-use existing Instrument stand(s) with foundation & sunshade
Examine the condition of existing Instrument stand(s) with foundation & sunshade and repair the defects, if any.

☐ Provide new Instrument stand(s) with foundation & sunshade
Design and construct the Instrument stand(s) with foundation & sunshade at suitable location. It should be designed to suitably accommodate the required number of instruments and explosion proof instrument field junction box.

■ : Refurbishment of Existing Radio Building/Radio Equipment Room

☑ Refurbishment of Radio Building
Examin the condition of the whole existing radio building and repair the defects if any.
Clean and touch-up the external and internal finish of the whole existing radio building.

☐ Refurbishment of Radio Equipment Room
Examine the condition of existing rooms where radio equipment and backup batteries are installed and repair the defects if any.
Clean and touch-up the internal finish of the said rooms.

☐ Cleaning of Radio Equipment Room
Clean and tidy up the existing rooms where radio equipment and backup batteries are installed.

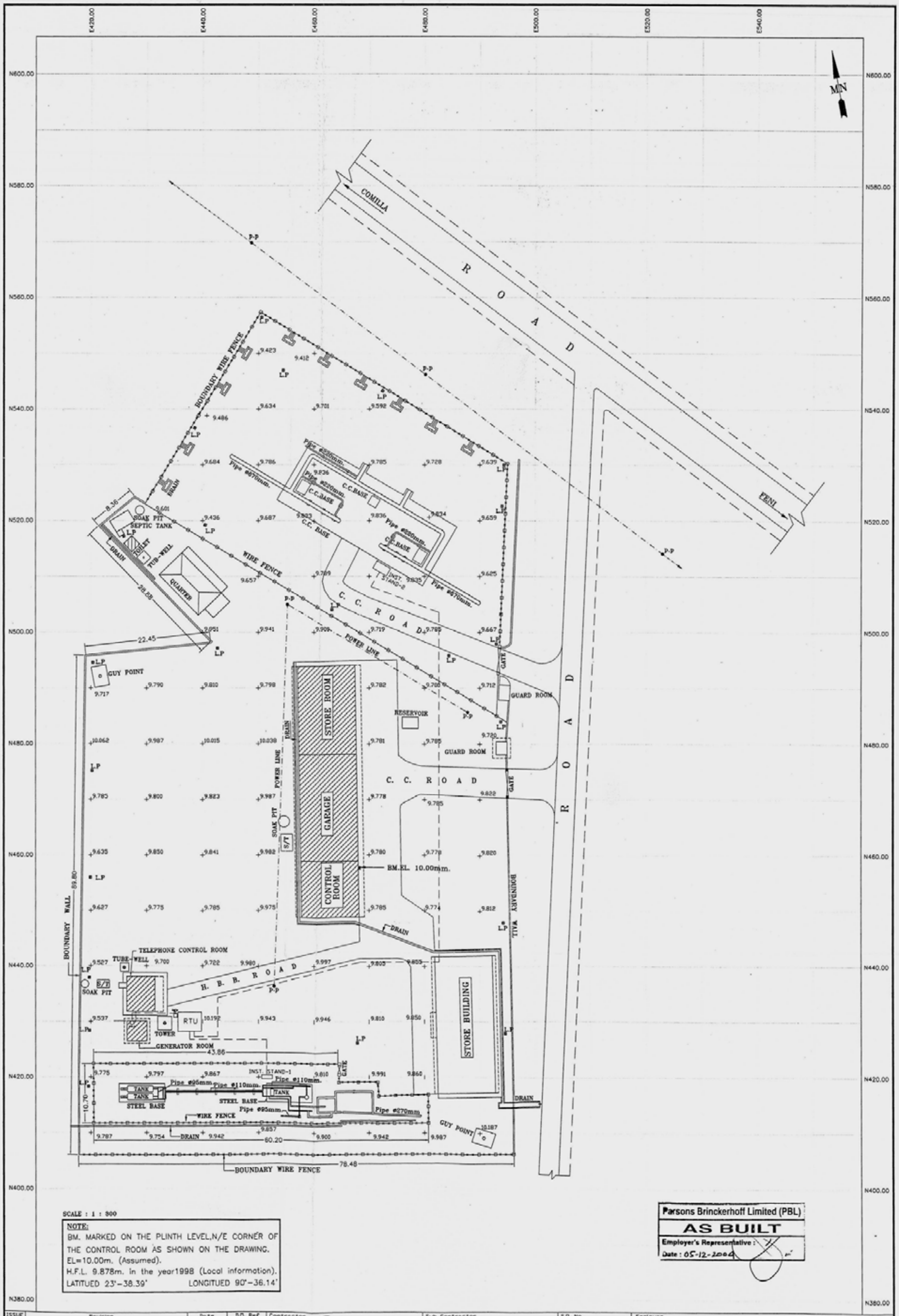
5. Site Photo

Existing Radio Building & Generator Room

Existing RTU (cable link)

6. Site Layout

See attached Layout Plan.



SCALE : 1 : 300

NOTE:

BM. MARKED ON THE PLINTH LEVEL,N/E CORNER OF THE CONTROL ROOM AS SHOWN ON THE DRAWING.
EL=10.00m. (Assumed).
H.F.L. 9.878m. in the year1998 (Local information).
LATITUED 23°-38.39' LONGITUED 90°-36.14'

Parsons Brinckerhoff Limited (PBL)

AS BUILT

Employer's Representative :

Date : 05-12-2004

ISSUE	Revision	Date	S.O. Ref
A	ISSUED FOR DESIGN APROVAL		-
A	ISSUED FOR DESIGN APROVAL	25-09-04	-

Contractor: CONTROL DYNAMICS

CONTRACT DRAWING APROVAL

Drawing Status: DESIGN APPROVAL

REDLINED CHANGES | APPROVED NO CHANGES

PRINT NAME:

SIGNED: DATE:

Sub Contractor: SURVEY CORPORATION

S.O. No.

Employer: GAS TRANSMISSION COMPANY Ltd (GTCL)

Drawing Title: SITE CODE : 102 SITE NAME : FENI

THE BANGLADESH GAS INFRASTRUCTURE DEVELOPMENT PROJECT. SUPERVISORY CONTROL, DATA ACQUISITION AND TELECOMMUNICATIONS SYSTEMS.

Drawing No.	Rev	Sheet	Orig. Size
102-60-72	C		A1

	Drawn	Checked	Approved
BY	MH	RA	MJG
Date	26.07.04	26.07.04	27.07.04

Consultant: PB Technologies Ltd.

Employer Contract No: GTCL/RL-1109/C2

Site Information & Scope of Work

Site Information

Site Name : Feni Gas Field
Site Code : 20-FEN-701

Site Address : To be provided later.

Coordinates : N 22° 56' 29.3 " : E 91° 24' 08.0 "
** Coordinates are surveyed by handy type GPS and might be inaccurate.*

Site Type

☐	Control Center	☐	Master Telemetry Station
☑	Gas Field	☐	Operating Company Terminal (OCT)
☐	CGS (City Gas Station)	☐	Power station/Fertilizer Factory
☐	Compressor Station	☐	TBS (Town Bordering Station)
☐	Pig Station	☐	DRS (District Regulating Station)
☐	MS (Metering Station)	☐	GMS (Gas Manifold Station)
☐	VS (Valve Station)		

Site Status
- ☐ Originally covered by The Existing System and shall be covered by The New System.
- ☑ Currently not covered by The Existing System but shall be covered by The New System.
- ☐ Upcoming site which will be covered by The New System after the completion of the Project.

Operating Company : NIKO

Remarks : _____

Scope of Work

Works checked off hereinafter shall be carried out for the Project

1. SCADA System

■ : RTU

☑ RTU without display monitor
Design, supply and install a self-standing IP65 enclosure equipped with following items:
- RTU
- Instrumentation and communication equipment
- Backup battery system with charger for 24 hours
- Lighting
- Anti-condensation heater
- Earthing and lightning protection
- All internal wiring
- Other equipment to satisfy the functional requirements

☐ RTU with display monitor
Design, supply and install a self-standing IP65 enclosure equipped with following items:
- RTU
- Display monitor
- Instrumentation and communication equipment
- Backup battery system with charger for 24 hours
- Lighting
- Anti-condensation heater
- Earthing and lightning protection
- All internal wiring
- Other equipment to satisfy the functional requirements

☐ RTU (design & supply only)
Design and supply self-standing IP65 enclosure equipped with following items:
- RTU
- Instrumentation and communication equipment
- Backup battery system with charger for 24 hours
- Lighting
- Anti-condensation heater
- Earthing and lightning protection
- All internal wiring
- Other equipment to satisfy the functional requirements

☐ Interface with flow computer
Make provision for:
- Installation of the flow computer which shall be prepared by GTCL in the enclosure
- Interface between RTU and the said flow computer

☐ Interface with receiver for turbine meter
Install the existing receiver for turbine meter(s) in the RTU enclosure and interface it (them) via communication (MODBUS) cable.

☐ Interface with other system
Provide the interface between RTU and other system such as PLC or PC operated by the operating company including all communication cables between RTU and other system.

☐ Cable between RTU and Master Telemetry Station
Design, supply and install the cable between RTU and Master Telemetry Station in case RTU and Master Telemetry Station are located in the same site.

■ : Instruments

☐ Existing instruments
Re-use the existing instruments and cables.

Note:
Existing instruments and cables shall be serviced by the Employer.

☑ New Instruments
Design, supply and install the following instruments.
Output signals from instruments are to be cabled via field junction box to the RTU.

■ : Pressure transmitters Q'ty

☐ Design, supply and intall:
- Pressure transmitter on the existing spare tapping point
- Tubing between tapping point and transmitter

☑ Prepare the tapping point for the pressure transmitter, and design, supply and install: [1]
- Pressure transmitter on the prepared tapping point
- Tubing between tapping point and transmitter

■ : Differential pressure transmitters Q'ty

☐ Design, supply and install:
- Differential pressure transmitter on the existing spare tapping point
- Tubing between tapping point and transmitter

☑ Prepare the tapping point for the differential pressure transmitter, and design, supply and install: [2]
- Differential pressure transmitter on the tapping point
- Tubing between tapping point and transmitter

■ : Temprature transmitters Q'ty

☑ Design, supply and install: [1]
- Thermowell in the spare boss on the pipe
- Resistance temperature detector complete with a head mounted transmitter into the thermowell

■ : Limit switch Q'ty

☐ Design, supply and install the limit switch on the existing shutdown valve for valve position monitoring.

☐ Pick up Signal from the Existing Turbine Meter Q'ty
Supply and install a dual pulse output pickup head in place of the single pulse output pickup in the existing turbine flowmeter sensor head. The output signal from the existing turbine flowmeter to be cabled via junction box to RTU.

☑ Local Field Instrument Junction Box Q'ty
Design, supply and install an Intrinsic safety junction box. The junction box to be suitable for glanding appropriate cables. [1]

☑ Instrument Cables
Design, supply, install the instrument cables from the field instruments to RTU via junction box including each cable termination with gland.

2. Communication System

■ : Slave Telemetry System

☐ Removal of existing slave telemetry equipment
Remove and dispose the existing slave telemetry system including antenna and cable.

☑ Slave Telemetry Equipment
Design, supply and install new slave telemetry equipment in the RTU enclosure, including cables and antenna.

☐ Slave Telemetry Equipment (design & supply only)
Design and supply new slave telemetry equipment in the RTU enclosure, including cables and antenna.

☐ Existing monopole
Re-use existing monople to mount new antenna.

☑ New monopole
Design, supply and install new monopole with foundation to mount new antenna.

☐ New monopole (design & supply only)
Design and supply new monopole to mount new antenna.

3. Electrical Works

■ : Power Supply to RTU

☐ Electrical power shall be supplied to RTU from existing PDB, and existing power cable shall be re-used.

☑ Design, supply and install MCB box for the power supply to RTU including all cables from existing PDB to MCB box and from MCB box to RTU.

☐ Design, supply and intall power controller and power cable to RTU at remote site where electrical power is supplied from existing solar panel.

☐ Design, supply and install new solar panel, power controller and power cable to RTU.

4. Civil Works

■ : Foundation & Sunshade for RTU

☐ Re-use existing foundation & sunshade for RTU
Examine the condition of existing foundation and sunshade for RTU and repair the defects, if any.

☑ Provide new foundation & sunshade for RTU
Design and construct the foundation and sunshade for new RTU at suitable location. The foundation and sunshade should be designed to suitably accommodate new RTU.

■ : Instrument Stand with Foundation & Sunshade

☐ Re-use existing Instrument stand(s) with foundation & sunshade
Examine the condition of existing Instrument stand(s) with foundation & sunshade and repair the defects, if any.

☑ Provide new Instrument stand(s) with foundation & sunshade
Design and construct the Instrument stand(s) with foundation & sunshade at suitable location. It should be designed to suitably accommodate the required number of instruments and explosion proof instrument field junction box.

5. Site Photo

Site view

6. Site Layout

Site layout shall be provided later.

Site Information & Scope of Work

Site Information

Site Name : Sundalpur Gas Field
Site Code : 20-FEN-702

Site Address : To be provided later.

Coordinates : N 22° 51' 28.4 " : E 91° 14' 39.0 "
** Coordinates are surveyed by handy type GPS and might be inaccurate.*

Site Type

☐	Control Center	☐	Master Telemetry Station
☑	Gas Field	☐	Operating Company Terminal (OCT)
☐	CGS (City Gas Station)	☐	Power station/Fertilizer Factory
☐	Compressor Station	☐	TBS (Town Bordering Station)
☐	Pig Station	☐	DRS (District Regulating Station)
☐	MS (Metering Station)	☐	GMS (Gas Manifold Station)
☐	VS (Valve Station)		

Site Status
- ☐ Originally covered by The Existing System and shall be covered by The New System.
- ☐ Currently not covered by The Existing System but shall be covered by The New System.
- ☑ Upcoming site which will be covered by The New System after the completion of the Project.

Operating Company : BAPEX

Remarks :

Scope of Work

Works checked off hereinafter shall be carried out for the Project

1. SCADA System

■ : RTU

☐ RTU without display monitor
Design, supply and install a self-standing IP65 enclosure equipped with following items:
- RTU
- Instrumentation and communication equipment
- Backup battery system with charger for 24 hours
- Lighting
- Anti-condensation heater
- Earthing and lightning protection
- All internal wiring
- Other equipment to satisfy the functional requirements

☐ RTU with display monitor
Design, supply and install a self-standing IP65 enclosure equipped with following items:
- RTU
- Display monitor
- Instrumentation and communication equipment
- Backup battery system with charger for 24 hours
- Lighting
- Anti-condensation heater
- Earthing and lightning protection
- All internal wiring
- Other equipment to satisfy the functional requirements

☑ RTU (design & supply only)
Design and supply self-standing IP65 enclosure equipped with following items:
- RTU
- Instrumentation and communication equipment
- Backup battery system with charger for 24 hours
- Lighting
- Anti-condensation heater
- Earthing and lightning protection
- All internal wiring
- Other equipment to satisfy the functional requirements

☐ Interface with flow computer
Make provision for:
- Installation of the flow computer which shall be prepared by GTCL in the enclosure
- Interface between RTU and the said flow computer

☐ Interface with receiver for turbine meter
Install the existing receiver for turbine meter(s) in the RTU enclosure and interface it (them) via communication (MODBUS) cable.

☐ Interface with other system
Provide the interface between RTU and other system such as PLC or PC operated by the operating company including all communication cables between RTU and other system.

☐ Cable between RTU and Master Telemetry Station
Design, supply and install the cable between RTU and Master Telemetry Station in case RTU and Master Telemetry Station are located in the same site.

2. Communication System

■ : Slave Telemetry System

☐ Removal of existing slave telemetry equipment
Remove and dispose the existing slave telemetry system including antenna and cable.

☐ Slave Telemetry Equipment
Design, supply and install new slave telemetry equipment in the RTU enclosure, including cables and antenna.

☑ Slave Telemetry Equipment (design & supply only)
Design and supply new slave telemetry equipment in the RTU enclosure, including cables and antenna.

☐ Existing monopole
Re-use existing monople to mount new antenna.

☐ New monopole
Design, supply and install new monopole with foundation to mount new antenna.

☑ New monopole (design & supply only)
Design and supply new monopole to mount new antenna.

3. Electrical Works

■ : No electrical works at this site.

4. Civil Works

■ : No civil works at this site.

5. Site Photo

Not Available

6. Site Layout

Not Available

Site Information & Scope of Work

Site Information

Site Name : Begumgonj Gas Field
Site Code : 20-FEN-703

Site Address : To be provided later.

Coordinates : N 22° 59' 17.0 " : E 91° 10' 03.0 "
** Coordinates are surveyed by handy type GPS and might be inaccurate.*

Site Type

☐	Control Center	☐	Master Telemetry Station
☑	Gas Field	☐	Operating Company Terminal (OCT)
☐	CGS (City Gas Station)	☐	Power station/Fertilizer Factory
☐	Compressor Station	☐	TBS (Town Bordering Station)
☐	Pig Station	☐	DRS (District Regulating Station)
☐	MS (Metering Station)	☐	GMS (Gas Manifold Station)
☐	VS (Valve Station)		

Site Status
- ☐ Originally covered by The Existing System and shall be covered by The New System.
- ☐ Currently not covered by The Existing System but shall be covered by The New System.
- ☑ Upcoming site which will be covered by The New System after the completion of the Project.

Operating Company : BAPEX

Remarks : _____

Scope of Work

Works checked off hereinafter shall be carried out for the Project

1. SCADA System

■ : RTU

☐ RTU without display monitor
Design, supply and install a self-standing IP65 enclosure equipped with following items:
- RTU
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- Lighting
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- All internal wiring
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- Instrumentation and communication equipment
- Backup battery system with charger for 24 hours
- Lighting
- Anti-condensation heater
- Earthing and lightning protection
- All internal wiring
- Other equipment to satisfy the functional requirements

☑ RTU (design & supply only)
Design and supply self-standing IP65 enclosure equipped with following items:
- RTU
- Instrumentation and communication equipment
- Backup battery system with charger for 24 hours
- Lighting
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- Earthing and lightning protection
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- Other equipment to satisfy the functional requirements

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- Interface between RTU and the said flow computer

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Provide the interface between RTU and other system such as PLC or PC operated by the operating company including all communication cables between RTU and other system.

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Design, supply and install the cable between RTU and Master Telemetry Station in case RTU and Master Telemetry Station are located in the same site.

2. Communication System

■ : Slave Telemetry System

☐ Removal of existing slave telemetry equipment
Remove and dispose the existing slave telemetry system including antenna and cable.

☐ Slave Telemetry Equipment
Design, supply and install new slave telemetry equipment in the RTU enclosure, including cables and antenna.

☑ Slave Telemetry Equipment (design & supply only)
Design and supply new slave telemetry equipment in the RTU enclosure, including cables and antenna.

☐ Existing monopole
Re-use existing monople to mount new antenna.

☐ New monopole
Design, supply and install new monopole with foundation to mount new antenna.

☑ New monopole (design & supply only)
Design and supply new monopole to mount new antenna.

3. Electrical Works

■ : No electrical works at this site.

4. Civil Works

■ : No civil works at this site.

5. Site Photo

Not Available

6. Site Layout

Not Available