PRIMARY SLUDGE P/S

Mechanical
-Decommission and Remove all existing Primary Sludge Pumps.
-Replace pumps with specified Gorman Rupp.
-Replacement to include new baseplates,new motors,new control panel ,variable speed drive and provision for incorportation to SCADA.
-Accompanying pipe work and fittings primarily isolation valves and non return valves must also be replaced for a complete commissioned and functional plantroom.
-Supply and install a continous duty leakage drainage pump including piping and fittings.
-Supply and install a heavy duty emergency sludge submissible pump complete with flood controls and alarm system for activation in emergency scenarios.
-Replace/Refurbish all corroded sections of piping between the pumpstaion and the anaerobic tanks.

PS-01 To PS-03
Gorman Rupp Sludge Pumps x 3 Off
Model T4A3-B
N + 1 Configuration
Power kw = 71.425
Speed = 1500
10.0kW,12.1A
1500/1/PN/50Hz

Duty Leakage Drain Pump
Model 3CP3-50M1
0.37kW @ 0.5A
220V/1/PN/50Hz

Heavy Duty Submissible
10.0kW,12.1A
1500/1/PN/50Hz

PRIMARY SLUDGE

ANAEROBIC DIGESTERS/HUMUS TANKS

RETURN ACTIVATED SLUDGE

RETURN ACTIVATED SLUDGE(RAS)/INTERNAL CIRCULATION P/S

Mechanical
-Decommission and Remove all existing RAS Pumps
-Replace pumps with specified Gorman Rupp.
-Replacement to include new baseplates,new motors,new control panel ,variable speed drive and provision for incorportation to SCADA.
-Accompanying pipe work and fittings ,primarily isolation valves and non return valves must be replaced for a complete commissioned and functional plantroom as per COT Specification.
-Replace Refurbish all corroded sections of piping between Pumpstation and Anaerobic Digestors.

PSR-01 To PSR-02
Gorman Rupp Sludge Pumps x 3 Off
Model T4A3-B
N + 1 Configuration
18.5kW,28.0A
1800/3/PN/50Hz

Mechanical
-Supply and Install Tank level indication.
-Incorporate Level Indication to SCADA.
-Supply ,install and Commission new biogas collection system complete with new piping,safeties moisture removal and desulfurisation and any other necessary hardware.
-Incorporate system to the SCADA .
-Replace all the Anaerobic Digester Inlet and Outlet Isolation valves as per specification and COT Standards

DIGESTED SLUDGE/RAS SOLIDS

RETURN ACTIVATED SLUDGE

TO THE SLUDGE DAMS

DIGESTERS HUMUS/ SLUDGE PUMPSTATION

DIGESTED SLUDGE/RAS SOLIDS

Mechanical
-Decommission and Remove all existing Primary Sludge Pumps.
-Replace pumps with specified Gorman Rupp.
-Replacement to include new baseplates,new motors,new control panel ,variable speed drive and provision for incorportation to SCADA.
-Accompanying pipe work and fittings primarily isolation valves and non return valves must also be replaced for a complete commissioned and functional plantroom.
-Supply and install a continous duty leakage drainage pump including piping and fittings.
-Supply and install a heavy duty emergency sludge submissible pump complete with flood controls and alarm system for activation in emergency scenarios.

DP-01 To DP-03
Gorman Rupp Sludge Pumps x 3 Off
Model T4A3-B
N + 1 Configuration
18.5kW,28.0A
1800/3/PN/50Hz

Duty Leakage Drain Pump
Model 3CP3-50M1
0.37kW @ 2.0A
220V/1/PN/50Hz

Heavy Duty Submissible
18.5kW,28.0A
1800/3/PN/50Hz

RWWTW-Rooiwal East-Primary Sludge,Anaerobic Tanks and Digested Sludge Pumpstation
1 : 100

Drawing Notes

No	Date	Revision Description	By

DWG.No	ASSOCIATED DRAWING DESCRIPTION

Client

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Discipline
MECHANICAL

Service
CITY OF TSHWANE

Drawing Title
ROOIWAL WASTE WATER

Section
ROOIWAL EAST-PRIMARY SLUDGE,ANAE & DIGESTED

Ref No:	Design: D.M
Scale: NTS	Drawn: D.G
Date: 01-08-2024	Checked: V.N

Type Number:
PRELIMINARY

Drawing Number:	Rev No:
RWWTW-RE-M-AN-01	00