

## DAFTAR KUANTITAS DAN HARGA

Pekerjaan : Pembangunan WTP 500 l/dtk di Waduk Duriangkang dan Jaringan Pipa  
 Paket Pekerjaan : Pekerjaan Pembangunan di Intake  
 Lokasi Pekerjaan : Waduk Duriangkang  
 Tahun Anggaran : 2024

| No                                                    | Uraian Pekerjaan                                                                     | Satuan         | Kuantitas | Harga Satuan (Rp) | Harga Pekerjaan (Rp) |
|-------------------------------------------------------|--------------------------------------------------------------------------------------|----------------|-----------|-------------------|----------------------|
| I                                                     | 2                                                                                    | 3              | 4         | 6                 | 7 = (4 x 6)          |
| <b>II PEKERJAAN PEMBANGUNAN DI INTAKE</b>             |                                                                                      |                |           |                   |                      |
| <b>II.1 Pekerjaan Beton</b>                           |                                                                                      |                |           |                   |                      |
|                                                       | I Pondasi Support Pipa Header :                                                      |                |           |                   |                      |
|                                                       | - Galian                                                                             | m <sup>3</sup> | 9.75      |                   |                      |
|                                                       | - Buangan Tanah                                                                      | m <sup>3</sup> | 9.75      |                   |                      |
|                                                       | - Lantai Kerja                                                                       | m <sup>3</sup> | 0.27      |                   |                      |
|                                                       | - Beton K-300 Readymiks fc' 30 MPA                                                   | m <sup>3</sup> | 11.34     |                   |                      |
|                                                       | - Bekisting                                                                          | m <sup>2</sup> | 45.36     |                   |                      |
|                                                       | - Pembesian                                                                          | kg             | 1,701.00  |                   |                      |
| <b>Jumlah Sub Total II.1</b>                          |                                                                                      |                |           |                   |                      |
| <b>II.2 Pekerjaan Besi dan Baja</b>                   |                                                                                      |                |           |                   |                      |
|                                                       | I Besi Tiang Penahan Atas :                                                          |                |           |                   |                      |
|                                                       | - Pengadaan dan Pemasangan H Beam 350 x 350                                          | kg             | 4,521.00  |                   |                      |
|                                                       | - Pengadaan dan Pemasangan H Beam 300 x 300                                          | kg             | 2,726.00  |                   |                      |
|                                                       | - Pengadaan dan Pemasangan UNP 200 x 100                                             | kg             | 466.67    |                   |                      |
|                                                       | 2 Besi Tiang Penahan Pompa :                                                         |                |           |                   |                      |
|                                                       | - H Beam 350 x 350                                                                   | kg             | 15,344.00 |                   |                      |
|                                                       | - UNP 200 x 100                                                                      | kg             | 2,613.33  |                   |                      |
|                                                       | 3 Biaya Perakitan                                                                    | kg             | 25,671.00 |                   |                      |
| <b>Jumlah Sub Total II.2</b>                          |                                                                                      |                |           |                   |                      |
| <b>II.3 Pekerjaan Bangunan Panel dan Trafo Intake</b> |                                                                                      |                |           |                   |                      |
|                                                       | I Pekerjaan Tanah dan Pondasi                                                        |                |           |                   |                      |
|                                                       | - Galian Tanah                                                                       | m <sup>3</sup> | 13.50     |                   |                      |
|                                                       | - Pondasi Setempat Beton K300                                                        | m <sup>3</sup> | 2.70      |                   |                      |
|                                                       | - Pembesian                                                                          | kg             | 464.96    |                   |                      |
|                                                       | - Bekisting                                                                          | m <sup>2</sup> | 10.80     |                   |                      |
|                                                       | - Urugan Tanah Kembali                                                               | m <sup>3</sup> | 6.83      |                   |                      |
|                                                       | - Buangan Tanah                                                                      | m <sup>3</sup> | 6.67      |                   |                      |
|                                                       | 2 Pekerjaan Beton Bertulang                                                          |                |           |                   |                      |
|                                                       | - Sloof 250x400                                                                      |                |           |                   |                      |
|                                                       | Beton K-300 Readymiks fc' 30 MPA                                                     | m <sup>3</sup> | 3.00      |                   |                      |
|                                                       | Bekisting                                                                            | m <sup>2</sup> | 24.00     |                   |                      |
|                                                       | Pembesian                                                                            | kg             | 464.96    |                   |                      |
|                                                       | - Kolom 300 x 300 :                                                                  |                |           |                   |                      |
|                                                       | Beton K-300 Readymiks fc' 30 MPA                                                     | m <sup>3</sup> | 3.89      |                   |                      |
|                                                       | Bekisting                                                                            | m <sup>2</sup> | 51.84     |                   |                      |
|                                                       | Pembesian                                                                            | kg             | 679.67    |                   |                      |
|                                                       | - Ring Balok 250x400 :                                                               |                |           |                   |                      |
|                                                       | Beton K-300 Readymiks fc' 30 MPA                                                     | m <sup>3</sup> | 3.00      |                   |                      |
|                                                       | Bekisting                                                                            | m <sup>2</sup> | 31.50     |                   |                      |
|                                                       | Pembesian                                                                            | kg             | 464.96    |                   |                      |
|                                                       | - Ring Balok 250x300 :                                                               |                |           |                   |                      |
|                                                       | Beton K-300 Readymiks fc' 30 MPA                                                     | m <sup>3</sup> | 0.90      |                   |                      |
|                                                       | Bekisting                                                                            | m <sup>2</sup> | 10.20     |                   |                      |
|                                                       | Pembesian                                                                            | kg             | 156.39    |                   |                      |
|                                                       | - Lantai t =120 mm                                                                   |                |           |                   |                      |
|                                                       | Beton K-300 Readymiks fc' 30 MPA                                                     | m <sup>3</sup> | 7.44      |                   |                      |
|                                                       | Bekisting                                                                            | m <sup>2</sup> | 6.00      |                   |                      |
|                                                       | Pembesian                                                                            | kg             | 244.90    |                   |                      |
|                                                       | - Dak Lantai t =120 mm                                                               |                |           |                   |                      |
|                                                       | Beton K-300 Readymiks fc' 30 MPA                                                     | m <sup>3</sup> | 7.56      |                   |                      |
|                                                       | Bekisting                                                                            | m <sup>2</sup> | 83.72     |                   |                      |
|                                                       | Pembesian                                                                            | kg             | 1,430.41  |                   |                      |
|                                                       | 3 Pekerjaan Pasangan Bata Dinding                                                    |                |           |                   |                      |
|                                                       | - Pasangan Bata                                                                      | m <sup>2</sup> | 86.40     |                   |                      |
|                                                       | - Acian Dinding                                                                      | m <sup>2</sup> | 172.80    |                   |                      |
|                                                       | - Plesteran Dinding                                                                  | m <sup>2</sup> | 172.80    |                   |                      |
|                                                       | 4 Pekerjaan Pintu dan Jendela                                                        |                |           |                   |                      |
|                                                       | - Pintu besi plat baja tebal 3,0 mm rangkap, rangka baja siku (3,00 x 2,40 m) 3 unit | m <sup>2</sup> | 4.40      |                   |                      |
|                                                       | - Jendela Jalusi Aluminium (2.65 x 0,9 m)                                            | unit           | 6.00      |                   |                      |
|                                                       | 5 Pengecatan                                                                         | m <sup>2</sup> | 172.80    |                   |                      |
| <b>Jumlah Sub Total II.3</b>                          |                                                                                      |                |           |                   |                      |

JUMLAH TOTAL ( II.1 + II.2 + II.3 )



|      |                                                                              |                |            |  |
|------|------------------------------------------------------------------------------|----------------|------------|--|
| 4    | Pekerjaan Fasilitas Treatment                                                |                |            |  |
| 1    | Pengadaan dan Pemasangan Nozzle Filter 0,5mm                                 | pcs            | 12,000.00  |  |
| 2    | Pengadaan dan Pemasangan Media Filter                                        |                |            |  |
|      | - Pekerjaan pasir silica 1 Mess 4-6 mesh (sesuai gambar)                     | Kg             | 37,000.00  |  |
|      | - Pekerjaan pasir silica 1 Mess 16-20 mesh (sesuai gambar)                   | Kg             | 230,000.00 |  |
| 5    | Pekerjaan Pengecatan                                                         |                |            |  |
| 1    | Dalam Dengan Cat Foodgrade                                                   | M2             | 6,966.76   |  |
| 2    | Luar Dengan Cat anti karat                                                   | M2             | 4,813.02   |  |
| 6    | Pengadaan dan Pemasangan Settler SS304, $\tau=0.6\text{mm}$ (1050 x 2400 mm) | Lbr            | 3,500.00   |  |
| 7    | Pekerjaan Pipa dan Aksesoris Flokulasi                                       |                |            |  |
| 7.1. | Pekerjaan Pengadaan Pipa dan Aksesoris :                                     |                |            |  |
| 1    | Pipa BSP Kelas Medium, DN. 100 mm                                            | m'             | 68.00      |  |
| 2    | Bend 90° BSP DN. 100 mm                                                      | Pcs            | 24.00      |  |
| 3    | Wafer Butterfly Valve Flanged Connection PN 16 DN. 100 mm                    | Pcs            | 24.00      |  |
| 4    | Pneumatic Single Acting Butterfly Valve Wafer Connection DN. 100 mm          | Pcs            | 24.00      |  |
| 5    | Solenoid for Actuator DN 100 mm                                              | Pcs            | 24.00      |  |
| 6    | Loose Flange Carbon Steel PN 16 DN. 100 mm                                   | Pcs            | 48.00      |  |
| 7    | Rubber Packing $\tau=5$ mm DN. 100 mm                                        | pcs            | 24.00      |  |
| 8    | Bolt and Nut M16 x 45 mm                                                     | Pcs            | 384.00     |  |
| 7.2  | Pekerjaan Pemasangan Pipa dan Aksesoris :                                    |                |            |  |
| 1    | Pipa BSP Kelas Medium, DN 100 mm                                             | m'             | 68.00      |  |
| 2    | Bend 90° BSP DN. 100 mm                                                      | Pcs            | 24.00      |  |
| 3    | Wafer Butterfly Valve PN 16 DN 100 mm                                        | Pcs            | 24.00      |  |
| 4    | Pneumatic Single Acting Butterfly Valve Wafer Connection DN. 100 mm          | Pcs            | 24.00      |  |
| 5    | Solenoid for Actuator DN 100 mm                                              | Pcs            | 24.00      |  |
| 6    | Pengelasan                                                                   | cm             | 4,900.88   |  |
| 7    | Pengecatan Pipa                                                              |                |            |  |
|      | - Dalam Dengan Cat anti karat                                                | m <sup>2</sup> | 21.36      |  |
|      | - Luar Dengan Cat anti karat                                                 | m <sup>2</sup> | 24.42      |  |
| 8    | Pekerjaan Pipa dan Aksesoris Sedimentasi                                     |                |            |  |
| 8.1  | Pekerjaan Pengadaan Pipa dan Aksesoris :                                     |                |            |  |
| 1    | Pipa BSP Kelas Medium, DN. 150 mm                                            | m'             | 226.00     |  |
| 2    | Bend 90° BSP DN. 150 mm                                                      | Pcs            | 40.00      |  |
| 3    | Wafer Butterfly Valve Flanged Connection Pn 16 DN. 150 mm                    | Pcs            | 24.00      |  |
| 4    | Pneumatic Single Acting Valve Wafer Connection DN. 150 mm                    | Pcs            | 24.00      |  |
| 5    | Solenoid for Actuator DN 150 mm                                              | Pcs            | 24.00      |  |
| 6    | Loose Flange Carbon Steel PN 16 DN. 150 mm                                   | Pcs            | 96.00      |  |
| 7    | Rubber Packing $\tau=5$ mm DN. 150 mm                                        | pcs            | 24.00      |  |
| 8    | Bolt and Nut M20 x 60 mm                                                     | Pcs            | 384.00     |  |
| 8.2  | Pekerjaan Pemasangan Pipa dan Aksesoris :                                    |                |            |  |
| 1    | Pipa BSP Kelas Medium, DN. 150 mm                                            | m'             | 226.00     |  |
| 2    | Bend 90° BSP DN. 150 mm                                                      | Pcs            | 40.00      |  |
| 3    | Wafer Butterfly Valve Pn 16 DN. 150 mm                                       | Pcs            | 24.00      |  |
| 4    | Pneumatic Single Acting Valve Wafer Connection DN. 150 mm                    | Pcs            | 24.00      |  |
| 5    | Solenoid for Actuator DN 150 mm                                              | Pcs            | 24.00      |  |
| 6    | Pengelasan                                                                   | cm             | 14,608.41  |  |
| 7    | Pengecatan Pipa                                                              |                |            |  |
|      | - Dalam Dengan Cat anti karat                                                | m <sup>2</sup> | 106.50     |  |
|      | - Luar Dengan Cat anti karat                                                 | m <sup>2</sup> | 119.49     |  |
| 9    | Pekerjaan Pipa dan Aksesoris Transisi Floatation                             |                |            |  |
| 9.1  | Pekerjaan Pengadaan Pipa dan Aksesoris :                                     |                |            |  |
| 1    | Pipa BSP Kelas Medium, DN. 100 mm                                            | m'             | 30.00      |  |
| 2    | Pipa BSP Kelas Medium, DN. 200 mm                                            | m'             | 9.00       |  |
| 3    | Bend 90° BSP DN. 100 mm                                                      | Pcs            | 6.00       |  |
| 4    | Bend 90° BSP DN. 200 mm                                                      | Pcs            | 6.00       |  |
| 5    | Wafer Butterfly Valve Flanged Connection PN 16 DN. 100 mm                    | Pcs            | 6.00       |  |
| 6    | Pneumatic Single Acting Butterfly Valve Wafer Connection DN. 100 mm          | Pcs            | 6.00       |  |
| 7    | Solenoid for Actuator DN 100 mm                                              | Pcs            | 6.00       |  |
| 8    | Loose Flange Carbon Steel PN 16 DN. 100 mm                                   | Pcs            | 12.00      |  |
| 9    | Rubber Packing $\tau=5$ mm DN. 100 mm                                        | pcs            | 6.00       |  |
| 10   | Bolt and Nut M16 x 45 mm                                                     | Pcs            | 96.00      |  |
| 9.2  | Pekerjaan Pemasangan Pipa dan Aksesoris :                                    |                |            |  |
| 1    | Pipa BSP Kelas Medium, DN. 100 mm                                            | m'             | 30.00      |  |
| 2    | Pipa BSP Kelas Medium, DN. 200 mm                                            | m'             | 9.00       |  |
| 3    | Bend 90° BSP DN 100 mm                                                       | Pcs            | 6.00       |  |
| 4    | Bend 90° BSP DN. 200 mm                                                      | Pcs            | 6.00       |  |
| 5    | Wafer Butterfly Valve PN 16 DN. 100 mm                                       | Pcs            | 6.00       |  |
| 6    | Pneumatic Single Acting Butterfly Valve Wafer Connection DN. 100 mm          | Pcs            | 6.00       |  |
| 7    | Solenoid for Actuator DN 100 mm                                              | Pcs            | 6.00       |  |
| 8    | Pengelasan                                                                   | cm             | 2,167.70   |  |
| 9    | Pengecatan Pipa                                                              |                |            |  |
|      | - Dalam Dengan Cat anti karat                                                | m <sup>2</sup> | 15.08      |  |
|      | - Luar Dengan Cat anti karat                                                 | m <sup>2</sup> | 16.97      |  |
| 10   | Pekerjaan Pipa dan Aksesoris Inlet Filtrasi                                  |                |            |  |
| 10.1 | Pekerjaan Pengadaan Pipa dan Aksesoris :                                     |                |            |  |

|  |                                                 |                                                                    |                |          |  |
|--|-------------------------------------------------|--------------------------------------------------------------------|----------------|----------|--|
|  | 1                                               | Pipa BSP Kelas Medium, DN. 250 mm                                  | m'             | 24.00    |  |
|  | 2                                               | Bend 90° BSP DN. 250 mm                                            | Pcs            | 8.00     |  |
|  | 3                                               | Wafer Butterfly Valve Flanged Connection PN 16 DN. 250 mm          | Pcs            | 8.00     |  |
|  | 4                                               | Pneumatic Single Acting Butterfly Valve Wafer Connection DN.250 mm | Pcs            | 8.00     |  |
|  | 5                                               | Solenoid for Actuator DN 250 mm                                    | Pcs            | 8.00     |  |
|  | 5                                               | Loose Flange Carbon Steel PN 16 DN. 250 mm                         | Pcs            | 16.00    |  |
|  | 6                                               | Bolt and Nut M24 x 85 mm                                           | pcs            | 96.00    |  |
|  | 10.2 Pekerjaan Pemasangan Pipa dan Aksesoris :  |                                                                    |                |          |  |
|  | 1                                               | Pipa BSP Kelas Medium, DN. 250 mm                                  | m'             | 24.00    |  |
|  | 2                                               | Bend 90° BSP DN. 250 mm                                            | Pcs            | 8.00     |  |
|  | 3                                               | Wafer Butterfly Valve Flanged Connection PN 16 DN. 250 mm          | Pcs            | 8.00     |  |
|  | 4                                               | Pneumatic Single Acting Butterfly Valve Wafer Connection DN.250 mm | Pcs            | 8.00     |  |
|  | 5                                               | Solenoid for Actuator DN 250 mm                                    | Pcs            | 8.00     |  |
|  | 5                                               | Pengelasan                                                         | cm             | 4,084.07 |  |
|  | 7                                               | Pengecatan Pipa                                                    |                |          |  |
|  |                                                 | - Dalam Dengan Cat anti karat                                      | m <sup>2</sup> | 18.85    |  |
|  |                                                 | - Luar Dengan Cat anti karat                                       | m <sup>2</sup> | 20.59    |  |
|  | 11 Pekerjaan Pipa dan Aksesoris Drain Filter    |                                                                    |                |          |  |
|  | 11.1 Pekerjaan Pengadaan Pipa dan Aksesoris :   |                                                                    |                |          |  |
|  | 1                                               | Pipa BSP Kelas Medium, DN. 250 mm                                  | m'             | 24.00    |  |
|  | 2                                               | Bend 90° BSP DN. 250 mm                                            | Pcs            | 8.00     |  |
|  | 3                                               | Wafer Butterfly Valve Flanged Connection PN 16 DN. 250 mm          | Pcs            | 8.00     |  |
|  | 4                                               | Pneumatic Single Acting Butterfly Valve Wafer Connection DN.250 mm | Pcs            | 8.00     |  |
|  | 5                                               | Solenoid for Actuator DN 250 mm                                    | Pcs            | 8.00     |  |
|  | 5                                               | Loose Flange Carbon Steel PN 16 DN. 250 mm                         | Pcs            | 32.00    |  |
|  | 6                                               | Bolt and Nut M24 x 85 mm                                           | pcs            | 192.00   |  |
|  | 11.2 Pekerjaan Pemasangan Pipa dan Aksesoris :  |                                                                    |                |          |  |
|  | 1                                               | Pipa BSP Kelas Medium, DN. 250 mm                                  | m'             | 24.00    |  |
|  | 2                                               | Bend 90° BSP DN. 250 mm                                            | Pcs            | 8.00     |  |
|  | 3                                               | Wafer Butterfly Valve Flanged Connection PN 16 DN. 250 mm          | Pcs            | 8.00     |  |
|  | 4                                               | Pneumatic Single Acting Butterfly Valve Wafer Connection DN.250 mm | Pcs            | 8.00     |  |
|  | 5                                               | Solenoid for Actuator DN 200 mm                                    | Pcs            | 8.00     |  |
|  | 5                                               | Pengelasan                                                         | cm             | 6,597.34 |  |
|  | 7                                               | Pengecatan Pipa                                                    |                |          |  |
|  |                                                 | - Dalam Dengan Cat anti karat                                      | m <sup>2</sup> | 18.85    |  |
|  |                                                 | - Luar Dengan Cat anti karat                                       | m <sup>2</sup> | 20.59    |  |
|  | 12 Pekerjaan Pipa dan Aksesoris Outlet Filter   |                                                                    |                |          |  |
|  | 12.1 Pekerjaan Pengadaan Pipa dan Aksesoris :   |                                                                    |                |          |  |
|  | 1                                               | Pipa BSP Kelas Medium, DN. 250 mm                                  | m'             | 36.00    |  |
|  | 2                                               | Tee BSP DN. 250x250 mm                                             | Pcs            | 8.00     |  |
|  | 3                                               | Wafer Butterfly Valve Flanged Connection PN 16 DN. 250 mm          | Pcs            | 8.00     |  |
|  | 4                                               | Electro Pneumatic Positioner Rotary for Valve DN 250 mm            | Pcs            | 8.00     |  |
|  | 5                                               | Loose Flange Carbon Steel PN 16 DN. 250 mm                         | Pcs            | 32.00    |  |
|  | 6                                               | Rubber Packing τ=5 mm DN. 250 mm                                   | pcs            | 24.00    |  |
|  | 7                                               | Bolt and Nut M24 x 85 mm                                           | pcs            | 96.00    |  |
|  | 12.2 Pekerjaan Pemasangan Pipa dan Aksesoris :  |                                                                    |                |          |  |
|  | 1                                               | Pipa BSP Kelas Medium, DN. 250 mm                                  | m'             | 36.00    |  |
|  | 2                                               | Tee BSP DN. 250x250 mm                                             | Pcs            | 8.00     |  |
|  | 3                                               | Wafer Butterfly Valve Flanged Connection PN 16 DN. 250 mm          | Pcs            | 8.00     |  |
|  | 4                                               | Electro Pneumatic Positioner Rotary for Valve DN 250 mm            | Pcs            | 8.00     |  |
|  | 5                                               | Pengelasan                                                         | cm             | 7,382.74 |  |
|  | 6                                               | Pengecatan Pipa                                                    |                |          |  |
|  |                                                 | - Dalam Dengan Cat anti karat                                      | m <sup>2</sup> | 28.27    |  |
|  |                                                 | - Luar Dengan Cat anti karat                                       | m <sup>2</sup> | 30.89    |  |
|  | 13 Pekerjaan Pipa dan Aksesoris Backwash Filter |                                                                    |                |          |  |
|  | 13.1 Pekerjaan Pengadaan Pipa dan Aksesoris :   |                                                                    |                |          |  |
|  | 1                                               | Pipa BSP Kelas Medium, DN. 250 mm                                  | m'             | 12.00    |  |
|  | 3                                               | Bend 90° BSP DN. 250 mm                                            | pcs            | 1.00     |  |
|  | 4                                               | Tee BSP DN. 250x250 mm                                             | pcs            | 7.00     |  |
|  | 5                                               | Wafer Butterfly Valve Flanged Connection PN 16 DN. 250 mm          | Pcs            | 8.00     |  |
|  | 6                                               | Pneumatic Single Acting Butterfly Valve DN. 250 mm                 | Pcs            | 8.00     |  |
|  | 7                                               | Solenoid for Actuator DN 250 mm                                    | Pcs            | 8.00     |  |
|  | 8                                               | Loose Flange Carbon Steel PN 16 DN. 250 mm                         | Pcs            | 16.00    |  |
|  | 9                                               | Bolt and Nut M24 x 85 mm                                           | pcs            | 192.00   |  |
|  | 13.2 Pekerjaan Pemasangan Pipa dan Aksesoris :  |                                                                    |                |          |  |
|  | 1                                               | Pipa BSP Kelas Medium, DN. 250 mm                                  | m'             | 12.00    |  |
|  | 2                                               | Bend 90° BSP DN. 250 mm                                            | pcs            | 1.00     |  |
|  | 3                                               | Tee BSP DN. 250x250 mm                                             | pcs            | 7.00     |  |
|  | 4                                               | Wafer Butterfly Valve Flanged Connection PN 16 DN. 250 mm          | Pcs            | 8.00     |  |
|  | 5                                               | Pneumatic Single Acting Butterfly Valve DN. 250 mm                 | Pcs            | 8.00     |  |
|  | 6                                               | Solenoid for Actuator DN 200 mm                                    | Pcs            | 8.00     |  |
|  | 7                                               | Pengelasan                                                         | cm             | 4,476.77 |  |
|  | 8                                               | Pengecatan Pipa                                                    |                |          |  |
|  |                                                 | - Dalam Dengan Cat anti karat                                      | m <sup>2</sup> | 9.42     |  |
|  |                                                 | - Luar Dengan Cat anti karat                                       | m <sup>2</sup> | 10.30    |  |

|      |                                                              |                |          |  |
|------|--------------------------------------------------------------|----------------|----------|--|
| 14   | Pekerjaan Pipa dan Aksesoris Inlet Backwash Pump             |                |          |  |
| 14.1 | Pekerjaan Pengadaan Pipa dan Aksesoris :                     |                |          |  |
| 1    | Pipa BSP Kelas Medium, DN. 300 mm                            | m'             | 24.00    |  |
| 2    | Pipa BSP Kelas Medium, DN. 200 mm                            | m'             | 12.00    |  |
| 3    | Bend 90° BSP DN. 300 mm                                      | pcs            | 2.00     |  |
| 4    | Bend 45° BSP DN. 300 mm                                      | pcs            | 4.00     |  |
| 5    | Bend 45° BSP DN. 200 mm                                      | pcs            | 2.00     |  |
| 6    | Tee Y BSP DN. 200x200 mm                                     | pcs            | 2.00     |  |
| 7    | Butterfly Valve Flanged Double Connection PN 16 DN. 300 mm   | Pcs            | 1.00     |  |
| 8    | Butterfly Valve Double Eccentric PN 16 DN. 200 mm            | Pcs            | 2.00     |  |
| 9    | Flexible Joint PN 16 DN. 200 mm                              | Pcs            | 2.00     |  |
| 10   | Blind Flange BSP PN 16 DN. 300 mm                            | Pcs            | 1.00     |  |
| 11   | Loose Flange Carbon Steel PN 16 DN. 200 mm                   | Pcs            | 6.00     |  |
| 12   | Bolt and Nut M20 x 60 mm                                     | pcs            | 84.00    |  |
| 14.2 | Pekerjaan Pemasangan Pipa dan Aksesoris :                    |                |          |  |
| 1    | Pipa BSP Kelas Medium, DN. 300 mm                            | m'             | 24.00    |  |
| 2    | Pipa BSP Kelas Medium, DN. 200 mm                            | m'             | 12.00    |  |
| 3    | Bend 90° BSP DN. 300 mm                                      | pcs            | 2.00     |  |
| 4    | Bend 45° BSP DN. 300 mm                                      | pcs            | 4.00     |  |
| 5    | Bend 45° BSP DN. 200 mm                                      | pcs            | 2.00     |  |
| 6    | Tee Y BSP DN. 200x200 mm                                     | pcs            | 2.00     |  |
| 7    | Butterfly Valve Flanged Double Connection PN 16 DN. 300 mm   | Pcs            | 1.00     |  |
| 8    | Butterfly Valve Double Eccentric PN 16 DN. 200 mm            | Pcs            | 2.00     |  |
| 9    | Flexible Joint PN 16 DN. 200 mm                              | Pcs            | 2.00     |  |
| 10   | Blind Flange BSP PN 16 DN. 300 mm                            | Pcs            | 1.00     |  |
| 11   | Pengelasan                                                   | cm             | 2,387.61 |  |
| 12   | Pengecatan Pipa                                              |                |          |  |
|      | - Dalam Dengan Cat anti karat                                | m <sup>2</sup> | 30.16    |  |
|      | - Luar Dengan Cat anti karat                                 | m <sup>2</sup> | 32.68    |  |
| 15   | Pekerjaan Pipa dan Aksesoris Outlet Backwash Pump            |                |          |  |
| 15.1 | Pekerjaan Pengadaan Pipa dan Aksesoris :                     |                |          |  |
| 1    | Pipa BSP Kelas Medium, DN. 250 mm                            | m'             | 60.00    |  |
| 2    | Pipa BSP Kelas Medium, DN. 150 mm                            | m'             | 7.00     |  |
| 3    | Bend 90° BSP DN. 150 mm                                      | pcs            | 2.00     |  |
| 4    | Bend 45° BSP DN. 150 mm                                      | pcs            | 2.00     |  |
| 5    | Butterfly Valve Flanged Connection PN 16 DN. 150 mm          | Pcs            | 2.00     |  |
| 6    | Check Valve Flanged Connection PN 16 DN. 150 mm              | Pcs            | 2.00     |  |
| 7    | Flexible Joint PN 16 DN. 150 mm                              | Pcs            | 2.00     |  |
| 8    | Reducer Concentric BSP DN. 250x150 mm                        | Pcs            | 2.00     |  |
| 9    | Blind Flange BSP PN 16 DN. 250 mm                            | Pcs            | 1.00     |  |
| 10   | Loose Flange Carbon Steel PN 16 DN. 150 mm                   | Pcs            | 6.00     |  |
| 11   | Loose Flange Carbon Steel PN 16 DN. 250 mm                   | Pcs            | 3.00     |  |
| 12   | Rubber Packing $\tau=5$ mm DN. 150 mm                        | pcs            | 10.00    |  |
| 13   | Rubber Packing $\tau=5$ mm DN. 250 mm                        | pcs            | 2.00     |  |
| 14   | Bolt and Nut M20 x 60 mm                                     | pcs            | 72.00    |  |
| 15.2 | Pekerjaan Pemasangan Pipa dan Aksesoris :                    |                |          |  |
| 1    | Pipa BSP Kelas Medium, DN. 250 mm                            | m'             | 60.00    |  |
| 2    | Pipa BSP Kelas Medium, DN. 150 mm                            | m'             | 7.00     |  |
| 3    | Bend 90° BSP DN. 150 mm                                      | pcs            | 2.00     |  |
| 4    | Bend 45° BSP DN. 150 mm                                      | pcs            | 2.00     |  |
| 5    | Butterfly Valve Flanged Connection PN 16 DN. 150 mm          | Pcs            | 2.00     |  |
| 6    | Check Valve Flanged Connection PN 16 DN. 150 mm              | Pcs            | 2.00     |  |
| 7    | Flexible Joint PN 16 DN. 150 mm                              | Pcs            | 2.00     |  |
| 8    | Reducer Concentric BSP DN. 250x150 mm                        | Pcs            | 2.00     |  |
| 9    | Blind Flange BSP PN 16 DN. 250 mm                            | Pcs            | 1.00     |  |
| 10   | Pengelasan                                                   | cm             | 2,246.24 |  |
| 11   | Pengecatan Pipa                                              |                |          |  |
|      | - Dalam Dengan Cat anti karat                                | m <sup>2</sup> | 50.42    |  |
|      | - Luar Dengan Cat anti karat                                 | m <sup>2</sup> | 55.18    |  |
| 16   | Pekerjaan Pipa dan Aksesoris Compressor                      |                |          |  |
| 16.1 | Pekerjaan Pengadaan Pipa dan Aksesoris :                     |                |          |  |
| 1    | Pipa GIP Kelas Medium, DN. 25 mm                             | m'             | 360.00   |  |
| 2    | Ball Valve Kuningan drat dalam 15 mm                         | Pcs            | 96.00    |  |
| 3    | Tee Reducer GIP 25 mm x 15 mm drat dalam                     | Pcs            | 96.00    |  |
| 4    | Bend 90° GIP DN. 25 mm                                       | Pcs            | 20.00    |  |
| 5    | Watermur GIP DN. 25 mm                                       | Pcs            | 30.00    |  |
| 6    | Double Napple GIP DN.15 mm drat luar                         | Pcs            | 96.00    |  |
| 7    | Solenoid Valve Normally Open DN. 25 mm                       | Pcs            | 7.00     |  |
| 8    | Reducer Nippler DN. 15 mm x 6 mm                             | Pcs            | 96.00    |  |
| 9    | Tubbing Fitting DN. 6 mm                                     | Pcs            | 256.00   |  |
| 10   | Fitting Y Pneumatic DN. 6 mm                                 | Pcs            | 32.00    |  |
| 11   | Selang Tubing Polyuthirene DN. 6 mm ( Pressure Max : 30 Mpa) | m'             | 480.00   |  |
| 12   | Flexible Hose DN. 25mm                                       | m'             | 4.00     |  |
| 13   | Silencer DN. 6mm                                             | Pcs            | 224.00   |  |
| 14   | Speed Control Fitting DN. 6 mm                               | Pcs            | 224.00   |  |

|                                                  |                                                                     |     |          |
|--------------------------------------------------|---------------------------------------------------------------------|-----|----------|
| 16.2 Pekerjaan Pemasangan Pipa dan Aksesoris :   |                                                                     |     |          |
| 1                                                | Pipa GIP Kelas Medium, DN. 25 mm                                    | m'  | 360.00   |
| 2                                                | Ball Valve Kuningan drat dalam 15 mm                                | Pcs | 96.00    |
| 3                                                | Tee Reducer GIP 25 mm x 15 mm drat dalam                            | Pcs | 96.00    |
| 4                                                | Bend 90° GIP DN. 25 mm                                              | Pcs | 20.00    |
| 5                                                | Watermur GIP DN. 25 mm                                              | Pcs | 30.00    |
| 6                                                | Double Napple GIP DN.15 mm drat luar                                | Pcs | 96.00    |
| 7                                                | Solenoid Valve Normally Open DN. 25 mm                              | Pcs | 7.00     |
| 8                                                | Reducer Nipler DN. 15 mm x 6 mm                                     | Pcs | 96.00    |
| 9                                                | Tubbing Fitting DN. 6 mm                                            | Pcs | 256.00   |
| 10                                               | Fitting Y Pneumatic DN. 6 mm                                        | Pcs | 32.00    |
| 11                                               | Selang Tubing Polyuthirene DN. 6 mm ( Pressure Max : 30 Mpa)        | m'  | 480.00   |
| 12                                               | Flexible Hose DN. 25mm                                              | m'  | 4.00     |
| 13                                               | Silencer DN. 6mm                                                    | Pcs | 224.00   |
| 14                                               | Speed Control Fitting DN. 6 mm                                      | Pcs | 224.00   |
| 15                                               | Pengelasan                                                          | cm  | 3,047.34 |
| 16                                               | Pengecatan Pipa                                                     |     |          |
| -                                                | Luar Dengan Cat anti karat                                          | m²  | 37.77    |
| 17 Pekerjaan Pipa dan Aksesoris Blower Backwash  |                                                                     |     |          |
| 17.1 Pekerjaan Pengadaan Pipa dan Aksesoris :    |                                                                     |     |          |
| 1                                                | Flexible Joint PN 16 DN. 150 mm                                     | Pcs | 2.00     |
| 2                                                | Butterfly Valve Flanged Connection PN 16 DN. 150 mm                 | Pcs | 2.00     |
| 3                                                | Loose Flange Carbon Steel PN 16 DN. 150 mm                          | Pcs | 8.00     |
| 4                                                | Bend 90° BSP DN. 150 mm                                             | Pcs | 6.00     |
| 5                                                | Tee BSP DN 150x150 mm                                               | Pcs | 1.00     |
| 6                                                | Pipa BSP Kelas Medium, DN. 150 mm                                   | m'  | 12.00    |
| 7                                                | Bolt and Nut                                                        | pcs | 40.00    |
| 8                                                | Rubber Packing τ=5 mm DN. 150 mm                                    | pcs | 10.00    |
| 9                                                | Check Valve Flanged Connection PN 16 DN. 150 mm                     | Pcs | 2.00     |
| 10                                               | Reducer Concentric BSP DN 150x100 mm                                | Pcs | 1.00     |
| 11                                               | Wafer Butterfly Valve Flanged Connection PN 16 DN. 100 mm           | Pcs | 16.00    |
| 12                                               | Pneumatic Single Acting Butterfly Valve Wafer Connection DN. 100 mm | Pcs | 16.00    |
| 13                                               | Solenoid for Actuator DN 100 mm                                     | Pcs | 16.00    |
| 14                                               | Loose Flange Carbon Steel PN 16 DN. 100 mm                          | Pcs | 34.00    |
| 15                                               | Bend 90° BSP DN. 100 mm                                             | Pcs | 21.00    |
| 16                                               | Tee BSP DN 100x100 mm                                               | Pcs | 15.00    |
| 17                                               | Pipa BSP Kelas Medium, DN. 100 mm                                   | m'  | 60.00    |
| 18                                               | Bolt and Nut M16 x 45 mm                                            | pcs | 256.00   |
| 17.2 Pekerjaan Pemasangan Pipa dan Aksesoris :   |                                                                     |     |          |
| 1                                                | Flexible Joint PN 16 DN. 150 mm                                     | Pcs | 2.00     |
| 2                                                | Butterfly Valve Flanged Connection DN 150 mm                        | Pcs | 2.00     |
| 3                                                | Bend 90° BSP DN.150 mm                                              | Pcs | 6.00     |
| 4                                                | Tee DN 150 mm                                                       | Pcs | 1.00     |
| 5                                                | Pipa BSP Kelas Medium, DN. 150 mm                                   | m'  | 12.00    |
| 6                                                | Check Valve Flanged Connection DN 150 mm                            | Pcs | 2.00     |
| 7                                                | Reducer Cocentric DN 150x100 mm                                     | Pcs | 1.00     |
| 8                                                | Wafer Butterfly Valve DN 100 mm                                     | Pcs | 16.00    |
| 9                                                | Pneumatic Single Acting Butterfly Valve Wafer Connection DN 100 mm  | Pcs | 16.00    |
| 10                                               | Solenoid for Actuator DN 100 mm                                     | Pcs | 8.00     |
| 11                                               | Bend 90° BSP DN. 100 mm                                             | Pcs | 21.00    |
| 12                                               | Tee DN 100x100 mm                                                   | Pcs | 15.00    |
| 13                                               | Pipa BSP DN 100 mm                                                  | m'  | 60.00    |
| 14                                               | Pengelasan                                                          | cm  | 6,738.72 |
| 15                                               | Pengecatan Pipa                                                     |     |          |
| -                                                | Dalam Dengan Cat anti karat                                         | m²  | 24.50    |
| -                                                | Luar Dengan Cat anti karat                                          | m²  | 27.89    |
| 18 Pekerjaan Pipa dan Aksesoris Blower Flotation |                                                                     |     |          |
| 18.1 Pekerjaan Pengadaan Pipa dan Aksesoris :    |                                                                     |     |          |
| 1                                                | Flexible Joint PN 16 DN. 150 mm                                     | Pcs | 2.00     |
| 2                                                | Butterfly Valve Flanged Connection PN 16 DN. 150 mm                 | Pcs | 2.00     |
| 3                                                | Loose Flange Carbon Steel PN 16 DN. 150 mm                          | Pcs | 8.00     |
| 4                                                | Bend 90° BSP DN. 150 mm                                             | Pcs | 6.00     |
| 5                                                | Tee BSP DN 150x150 mm                                               | Pcs | 1.00     |
| 6                                                | Pipa BSP Kelas Medium, DN. 150 mm                                   | m'  | 12.00    |
| 7                                                | Bolt and Nut                                                        | pcs | 40.00    |
| 8                                                | Rubber Packing τ=5 mm DN. 150 mm                                    | pcs | 10.00    |
| 9                                                | Reducer Concentric BSP DN 150x100 mm                                | Pcs | 1.00     |
| 10                                               | Loose Flange Carbon Steel PN 16 DN. 100 mm                          | Pcs | 11.00    |
| 11                                               | Blind Flange BSP PN 16 DN. 100 mm                                   | Pcs | 1.00     |
| 12                                               | Bend 90° BSP DN. 100 mm                                             | Pcs | 3.00     |
| 13                                               | Bend 45° BSP DN. 100 mm                                             | Pcs | 4.00     |
| 14                                               | Pipa BSP Kelas Medium, DN. 100 mm                                   | m'  | 45.00    |
| 15                                               | Bolt and Nut M16 x 45 mm                                            | pcs | 48.00    |
| 16                                               | Socket 3000 DN 25mm                                                 | Pcs | 6.00     |
| 17                                               | Pipa GIP Kelas Medium, DN. 25 mm                                    | m'  | 30.00    |

|                                                                   |                                              |     |          |  |
|-------------------------------------------------------------------|----------------------------------------------|-----|----------|--|
| 18                                                                | Ball Valve Kuningan Drat Dalam DN 25 mm      | pcs | 6.00     |  |
| 19                                                                | Solenoid Valve Normally Open DN. 25 mm       | pcs | 6.00     |  |
| 20                                                                | Check Valve Kuningan Drat Dalam DN 25 mm     | pcs | 6.00     |  |
| 21                                                                | Tee SS Drat Dalam DN 25 mm                   | Pcs | 24.00    |  |
| 22                                                                | Socket SS Drat Dalam DN 25 mm                | Pcs | 24.00    |  |
| 23                                                                | Bend SS Drat Dalam DN 25 mm                  | Pcs | 30.00    |  |
| 24                                                                | Double Napple SS 25 mm drat luar             | Pcs | 60.00    |  |
| 25                                                                | Diffuser                                     | set | 1.00     |  |
| <b>18.2 Pekerjaan Pemasangan Pipa dan Aksesoris :</b>             |                                              |     |          |  |
| 1                                                                 | Flexible Joint PN 16 DN. 150 mm              | Pcs | 2.00     |  |
| 2                                                                 | Butterfly Valve Flanged Connection DN 150 mm | Pcs | 2.00     |  |
| 3                                                                 | Bend 90° BSP DN.150 mm                       | Pcs | 6.00     |  |
| 4                                                                 | Tee DN 150 mm                                | Pcs | 1.00     |  |
| 5                                                                 | Pipa BSP Kelas Medium, DN. 150 mm            | m'  | 12.00    |  |
| 6                                                                 | Reducer Cocentric DN 150x100 mm              | Pcs | 1.00     |  |
| 7                                                                 | Blind Flange BSP DN. 100 mm                  | Pcs | 1.00     |  |
| 8                                                                 | Bend 90° BSP DN. 100 mm                      | Pcs | 3.00     |  |
| 9                                                                 | Bend 45° BSP DN. 100 mm                      | Pcs | 4.00     |  |
| 10                                                                | Pipa BSP DN 100 mm                           | m'  | 45.00    |  |
| 11                                                                | Socket 3000 DN 25mm                          | Pcs | 6.00     |  |
| 12                                                                | Pipa BSP DN 25 mm                            | m'  | 30.00    |  |
| 13                                                                | Ball Valve Kuningan Drat Dalam DN 25 mm      | pcs | 6.00     |  |
| 14                                                                | Check Valve Kuningan Drat Dalam DN 25 mm     | pcs | 6.00     |  |
| 15                                                                | Tee SS 304 Drat Dalam DN 25 mm               | Pcs | 24.00    |  |
| 16                                                                | Socket SS 304 Drat Dalam DN 25 mm            | Pcs | 24.00    |  |
| 17                                                                | Bend SS 304 Drat Dalam DN 25 mm              | Pcs | 30.00    |  |
| 18                                                                | Double Napple SS 304 25 mm drat luar         | Pcs | 60.00    |  |
| 19                                                                | Pengelasan                                   | cm  | 3,125.88 |  |
| 20                                                                | Pengecatan Pipa                              |     |          |  |
|                                                                   | - Dalam Dengan Cat anti karat                | m²  | 22.15    |  |
|                                                                   | - Luar Dengan Cat anti karat                 | m²  | 25.65    |  |
| <b>19 Pengadaan dan Pemasangan Instalasi Perpipaan Kimia</b>      |                                              |     |          |  |
| 1                                                                 | Pipa PVC AW DN 25 mm                         | btg | 10.00    |  |
| 2                                                                 | Pipa PVC AW DN 50 mm                         | btg | 6.00     |  |
| 3                                                                 | Ball Valve PVC DN 25 mm                      | pcs | 18.00    |  |
| 4                                                                 | Ball Valve Gagang Stainless DN 50mm          | pcs | 14.00    |  |
| 5                                                                 | Tee PVC DN 25 mm                             | Pcs | 12.00    |  |
| 6                                                                 | Tee PVC DN 50 mm                             | Pcs | 6.00     |  |
| 7                                                                 | Bend PVC DN 25 mm                            | Pcs | 24.00    |  |
| 8                                                                 | Bend PVC DN 50 mm                            | Pcs | 10.00    |  |
| 9                                                                 | Watermur PVC DN 25 mm                        | Pcs | 18.00    |  |
| 10                                                                | Watermur PVC DN 50 mm                        | Pcs | 6.00     |  |
| 11                                                                | Reducer PVC DN 50x25 mm                      | Pcs | 6.00     |  |
| 12                                                                | Socket Polos PVC DN 25mm                     | Pcs | 14.00    |  |
| 13                                                                | Socket Polos PVC DN 50mm                     | Pcs | 6.00     |  |
| 14                                                                | Socket Drat Luar PVC DN 25mm                 | Pcs | 24.00    |  |
| 15                                                                | Socket 3000 DN 16mm                          | Pcs | 10.00    |  |
| 16                                                                | Socket 3000 DN 25mm                          | Pcs | 20.00    |  |
| 17                                                                | Y Strainer PVC DN 25 mm                      | Pcs | 9.00     |  |
| 18                                                                | Rotameter 1 Inchi                            | Pcs | 4.00     |  |
| <b>20 Pengadaan dan Pemasangan Instalasi Perpipaan Air Sampel</b> |                                              |     |          |  |
| 1                                                                 | Pipa HDPE PN 12.5 I Inchi                    | m'  | 355.00   |  |
|                                                                   | - Galian Tanah                               | m3  | 17.75    |  |
|                                                                   | - Urugan Tanah                               | m3  | 17.42    |  |
|                                                                   | - Buangan Tanah                              | m3  | 0.33     |  |
| 2                                                                 | Pipa PVC AWW DN 25 mm                        | btg | 10.00    |  |
| 3                                                                 | Pipa PVC AWW DN 15 mm                        | btg | 10.00    |  |
| 4                                                                 | Pipa GIP Kelas Medium, DN. 25 mm             | m'  | 6.00     |  |
| 5                                                                 | Keran 1 inchi                                | pcs | 10.00    |  |
| 6                                                                 | Ball Valve PVC DN 25 mm                      | pcs | 20.00    |  |
| 7                                                                 | Ball Valve PVC DN 16 mm                      | pcs | 20.00    |  |
| 8                                                                 | Ball Valve Union PVC DN 16 mm                | pcs | 10.00    |  |
| 9                                                                 | Ball Valve Kuningan Drat Dalam DN 25 mm      | pcs | 20.00    |  |
| 10                                                                | Ball Valve Kuningan Drat Dalam DN 16 mm      | Pcs | 20.00    |  |
| 11                                                                | Tee Reducer GIP 25 mm x 15 mm drat dalam     | Pcs | 15.00    |  |
| 12                                                                | Tee PVC DN 25 mm                             | Pcs | 15.00    |  |
| 13                                                                | Tee PVC DN 16 mm                             | Pcs | 15.00    |  |
| 14                                                                | Bend PVC DN 25 mm                            | Pcs | 20.00    |  |
| 15                                                                | Bend PVC DN 16 mm                            | Pcs | 20.00    |  |
| 16                                                                | Bend GIP Drat Dalam DN 25 mm                 | Pcs | 20.00    |  |
| 17                                                                | Watermur PVC DN 25 mm                        | Pcs | 10.00    |  |
| 18                                                                | Reducer PVC DN 25x15 mm                      | Pcs | 20.00    |  |
| 19                                                                | Socket Polos PVC DN 25mm                     | Pcs | 20.00    |  |
| 20                                                                | Socket Drat Dalam PVC DN 25mm                | Pcs | 15.00    |  |
| 21                                                                | Socket Drat Dalam PVC DN 15mm                | Pcs | 10.00    |  |





|  |                                       |                |          |                                                       |
|--|---------------------------------------|----------------|----------|-------------------------------------------------------|
|  | <b>III.5 Pekerjaan Recycling Tank</b> |                |          |                                                       |
|  | 1 Pekerjaan Tanah                     |                |          |                                                       |
|  | - Galian Tanah                        | M <sup>3</sup> | 183.51   |                                                       |
|  | - Urugan Tanah                        | M <sup>3</sup> | 5.96     |                                                       |
|  | - Buangan Tanah                       | M <sup>3</sup> | 177.56   |                                                       |
|  | 2 Pekerjaan Beton                     |                |          |                                                       |
|  | - Lantai Kerja K-125 (t=10 cm)        | M <sup>3</sup> | 3.97     |                                                       |
|  | - Beton K-300                         | M <sup>3</sup> | 24.65    |                                                       |
|  | - Pembesian                           | kg             | 3,650.05 |                                                       |
|  | - Bekisting                           | M <sup>2</sup> | 228.37   |                                                       |
|  |                                       |                |          |                                                       |
|  |                                       |                |          | <b>Jumlah Sub Total III.5</b>                         |
|  |                                       |                |          | <b>JUMLAH TOTAL ( III.1 + III.2 + ..... + III.5 )</b> |

## DAFTAR KUANTITAS DAN HARGA

Pekerjaan : Pembangunan WTP 500 l/dtk di Waduk Duriangkang dan Jaringan Pipa  
 Paket Pekerjaan : Pekerjaan Bangunan Penunjang  
 Lokasi Pekerjaan : Waduk Duriangkang  
 Tahun Anggaran : 2024

| No                        | Uraian Pekerjaan                                                                     | Satuan | Kuantitas | Harga Satuan (Rp) | Harga Pekerjaan (Rp) |
|---------------------------|--------------------------------------------------------------------------------------|--------|-----------|-------------------|----------------------|
| 1                         | 2                                                                                    | 3      | 4         | 6                 | 7 = (4 x 6)          |
| <b>IV</b>                 | <b>PEKERJAAN BANGUNAN PENUNJANG</b>                                                  |        |           |                   |                      |
| <b>IV.1</b>               | <b>Pekerjaan Bangunan Scada dan Kimia</b>                                            |        |           |                   |                      |
|                           | <b>IV.1.1 Pekerjaan Tanah dan Pondasi</b>                                            |        |           |                   |                      |
|                           | 1 Galian Tanah                                                                       | m3     | 184.00    |                   |                      |
|                           | 2 Pondasi Setempat Beton K300                                                        | m3     | 10.15     |                   |                      |
|                           | 3 Pondasi Menerus (Batu Belah)                                                       | m3     | 92.00     |                   |                      |
|                           | 4 Buangan Tanah                                                                      | m3     | 184.00    |                   |                      |
|                           | <b>IV.1.2 Pekerjaan Beton Bertulang</b>                                              |        |           |                   |                      |
|                           | 1 Sloof 300 x 300 :                                                                  |        |           |                   |                      |
|                           | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3     | 16.56     |                   |                      |
|                           | - Bekisting                                                                          | m2     | 110.40    |                   |                      |
|                           | - Pemesian                                                                           | kg     | 2,152.80  |                   |                      |
|                           | 2 Kolom 300 x 300 :                                                                  |        |           |                   |                      |
|                           | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3     | 19.08     |                   |                      |
|                           | - Bekisting                                                                          | m2     | 254.40    |                   |                      |
|                           | - Pemesian                                                                           | kg     | 2,480.40  |                   |                      |
|                           | 3 Ring Balok 300 x 300 :                                                             |        |           |                   |                      |
|                           | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3     | 25.20     |                   |                      |
|                           | - Bekisting                                                                          | m2     | 252.00    |                   |                      |
|                           | - Pemesian                                                                           | kg     | 3,276.00  |                   |                      |
|                           | 4 Lantai :                                                                           |        |           |                   |                      |
|                           | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3     | 259.20    |                   |                      |
|                           | - Bekisting                                                                          | m2     | 320.80    |                   |                      |
|                           | - Pemesian                                                                           | kg     | 38,880.00 |                   |                      |
|                           | 5 Atap :                                                                             |        |           |                   |                      |
|                           | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3     | 70.40     |                   |                      |
|                           | - Bekisting                                                                          | m2     | 443.20    |                   |                      |
|                           | - Pemesian                                                                           | kg     | 10,560.00 |                   |                      |
|                           | 6 Bak Kimia :                                                                        |        |           |                   |                      |
|                           | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3     | 27.00     |                   |                      |
|                           | - Bekisting                                                                          | m2     | 180.00    |                   |                      |
|                           | - Pemesian                                                                           | kg     | 3,510.00  |                   |                      |
|                           | <b>IV.1.3 Pekerjaan Pasangan Bata Dinding</b>                                        |        |           |                   |                      |
|                           | - Pasangan Bata                                                                      | m2     | 1,264.00  |                   |                      |
|                           | - Acian Dinding                                                                      | m2     | 2,528.00  |                   |                      |
|                           | - Plesteran Dinding                                                                  | m2     | 2,528.00  |                   |                      |
|                           | <b>IV.1.4 Pekerjaan Pintu dan Jendela</b>                                            |        |           |                   |                      |
|                           | 1 Pintu besi plat baja tebal 3,0 mm rangkap, rangka baja siku (4,00 x 2,40 m) 1 unit | m2     | 9.60      |                   |                      |
|                           | 2 Pintu besi plat baja tebal 3,0 mm rangkap, rangka baja siku (2,00 x 2,40 m) 1 unit | m2     | 4.80      |                   |                      |
|                           | 3 Jendela Jalusi Aluminium (6,0 x 0,6 m) 4 unit                                      | m'     | 52.80     |                   |                      |
|                           | 4 Jendela Jalusi Aluminium (3,0 x 0,6 m) 6 unit                                      | m'     | 43.20     |                   |                      |
|                           | <b>IV.1.5 Pengecatan</b>                                                             | m2     | 2,528.00  |                   |                      |
| <b>Jumlah Sub Total I</b> |                                                                                      |        |           |                   |                      |
| <b>IV.2</b>               | <b>Pekerjaan Bangunan Pompa Distribusi</b>                                           |        |           |                   |                      |
|                           | <b>IV.2.1 Pekerjaan Tanah dan Pondasi</b>                                            |        |           |                   |                      |
|                           | 1 Galian Tanah                                                                       | m3     | 104.00    |                   |                      |
|                           | 2 Pondasi Setempat Beton K300                                                        | m3     | 5.92      |                   |                      |
|                           | 3 Pondasi Menerus (Batu Belah)                                                       | m3     | 52.00     |                   |                      |
|                           | 4 Buangan Tanah                                                                      | m3     | 104.00    |                   |                      |
|                           | <b>IV.2.2 Pekerjaan Beton Bertulang</b>                                              |        |           |                   |                      |
|                           | 1 Sloof 300 x 300 :                                                                  |        |           |                   |                      |
|                           | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3     | 18.72     |                   |                      |
|                           | - Bekisting                                                                          | m2     | 124.80    |                   |                      |
|                           | - Pemesian                                                                           | kg     | 2,433.60  |                   |                      |
|                           | 2 Kolom 300 x 200 :                                                                  |        |           |                   |                      |
|                           | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3     | 23.04     |                   |                      |
|                           | - Bekisting                                                                          | m2     | 307.20    |                   |                      |
|                           | - Pemesian                                                                           | kg     | 2,995.20  |                   |                      |
|                           | 3 Ring Balok 300 x 300 :                                                             |        |           |                   |                      |
|                           | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3     | 18.72     |                   |                      |
|                           | - Bekisting                                                                          | m2     | 187.20    |                   |                      |
|                           | - Pemesian                                                                           | kg     | 2,433.60  |                   |                      |
|                           | 4 Lantai :                                                                           |        |           |                   |                      |
|                           | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3     | 57.60     |                   |                      |
|                           | - Bekisting                                                                          | m2     | 16.80     |                   |                      |
|                           | - Pemesian                                                                           | kg     | 8,640.00  |                   |                      |

|             |                                                                                      |    |          |                             |
|-------------|--------------------------------------------------------------------------------------|----|----------|-----------------------------|
|             | 5 Atap :                                                                             |    |          |                             |
|             | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3 | 38.40    |                             |
|             | - Bekisting                                                                          | m2 | 204.80   |                             |
|             | - Pemesian                                                                           | kg | 5,760.00 |                             |
|             | <b>IV.2.3 Pekerjaan Pasangan Bata Dinding</b>                                        |    |          |                             |
|             | 1 Pasangan Bata                                                                      | m2 | 544.00   |                             |
|             | 2 Acian Dinding                                                                      | m2 | 1,088.00 |                             |
|             | 3 Plesteran Dinding                                                                  | m2 | 1,088.00 |                             |
|             | <b>IV.2.4 Pekerjaan Pintu dan Jendela</b>                                            |    |          |                             |
|             | 1 Pintu besi plat baja tebal 3,0 mm rangkap, rangka baja siku (3,00 x 2,40 m) 3 unit | m2 | 21.60    |                             |
|             | 2 Jendela Jalusi Aluminium (3,0 x 0,6 m) 6 unit                                      | m' | 43.20    |                             |
|             | <b>IV.2.5 Pengecatan</b>                                                             | m2 | 1,088.00 |                             |
|             |                                                                                      |    |          | <b>Jumlah Sub Total II</b>  |
| <b>IV.3</b> | <b>Pekerjaan Bangunan Trafo dan Cubicle</b>                                          |    |          |                             |
|             | <b>IV.3.1 Pekerjaan Tanah dan Pondasi</b>                                            |    |          |                             |
|             | 1 Galian Tanah                                                                       | m3 | 74.00    |                             |
|             | 2 Pondasi Setempat Beton K300                                                        | m3 | 2.54     |                             |
|             | 3 Pondasi Menerus (Batu Belah)                                                       | m3 | 21.00    |                             |
|             | 4 Buangan Tanah                                                                      | m3 | 74.00    |                             |
|             | <b>IV.3.2 Pekerjaan Beton Bertulang</b>                                              |    |          |                             |
|             | 1 Sloof 300 x 300 :                                                                  |    |          |                             |
|             | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3 | 3.78     |                             |
|             | - Bekisting                                                                          | m2 | 25.20    |                             |
|             | - Pemesian                                                                           | kg | 491.40   |                             |
|             | 2 Kolom 300 x 200 :                                                                  |    |          |                             |
|             | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3 | 3.24     |                             |
|             | - Bekisting                                                                          | m2 | 43.20    |                             |
|             | - Pemesian                                                                           | kg | 421.20   |                             |
|             | 3 Ring Balok 300 x 300 :                                                             |    |          |                             |
|             | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3 | 4.59     |                             |
|             | - Bekisting                                                                          | m2 | 45.90    |                             |
|             | - Pemesian                                                                           | kg | 596.70   |                             |
|             | 4 Lantai :                                                                           |    |          |                             |
|             | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3 | 21.60    |                             |
|             | - Bekisting                                                                          | m2 | 7.80     |                             |
|             | - Pemesian                                                                           | kg | 3,240.00 |                             |
|             | 5 Atap :                                                                             |    |          |                             |
|             | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3 | 14.40    |                             |
|             | - Bekisting                                                                          | m2 | 78.80    |                             |
|             | - Pemesian                                                                           | kg | 2,160.00 |                             |
|             | <b>IV.3.3 Pekerjaan Pasangan Bata Dinding</b>                                        |    |          |                             |
|             | 1 Pasangan Bata                                                                      | m2 | 168.00   |                             |
|             | 2 Acian Dinding                                                                      | m2 | 336.00   |                             |
|             | 3 Plesteran Dinding                                                                  | m2 | 336.00   |                             |
|             | <b>IV.3.4 Pekerjaan Pintu dan Jendela</b>                                            |    |          |                             |
|             | 1 Pintu Kaca Rangka Aluminium (2 unit)                                               | m2 | 8.40     |                             |
|             | 2 Jendela Kaca Rangka Aluminium (4 unit)                                             | m2 | 7.20     |                             |
|             | <b>IV.3.5 Pengecatan</b>                                                             | m2 | 336.00   |                             |
|             |                                                                                      |    |          | <b>Jumlah Sub Total III</b> |
| <b>IV.4</b> | <b>Pekerjaan Bangunan Gardu PLN</b>                                                  |    |          |                             |
|             | <b>IV.4.1 Pekerjaan Tanah dan Pondasi</b>                                            |    |          |                             |
|             | 1 Galian Tanah                                                                       | m3 | 40.00    |                             |
|             | 2 Pondasi Setempat Beton K300                                                        | m3 | 1.69     |                             |
|             | 3 Pondasi Menerus (Batu Belah)                                                       | m3 | 10.00    |                             |
|             | 4 Buangan Tanah                                                                      | m3 | 40.00    |                             |
|             | <b>IV.4.2 Pekerjaan Beton Bertulang</b>                                              |    |          |                             |
|             | 1 Sloof 300 x 300 :                                                                  |    |          |                             |
|             | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3 | 1.80     |                             |
|             | - Bekisting                                                                          | m2 | 12.00    |                             |
|             | - Pemesian                                                                           | kg | 234.00   |                             |
|             | 2 Kolom 300 x 300 :                                                                  |    |          |                             |
|             | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3 | 2.16     |                             |
|             | - Bekisting                                                                          | m2 | 28.80    |                             |
|             | - Pemesian                                                                           | kg | 280.80   |                             |
|             | 3 Ring Balok 300 x 300 :                                                             |    |          |                             |
|             | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3 | 1.80     |                             |
|             | - Bekisting                                                                          | m2 | 18.00    |                             |
|             | - Pemesian                                                                           | kg | 234.00   |                             |
|             | 4 Lantai :                                                                           |    |          |                             |
|             | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3 | 7.20     |                             |
|             | - Bekisting                                                                          | m2 | 4.80     |                             |
|             | - Pemesian                                                                           | kg | 1,080.00 |                             |
|             | 5 Atap :                                                                             |    |          |                             |
|             | - Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3 | 4.80     |                             |
|             | - Bekisting                                                                          | m2 | 28.00    |                             |
|             | - Pemesian                                                                           | kg | 720.00   |                             |
|             | <b>IV.4.3 Pekerjaan Pasangan Bata Dinding</b>                                        |    |          |                             |
|             | 1 Pasangan Bata                                                                      | m2 | 80.00    |                             |

|             |                                                                |                                                                                    |       |           |                            |
|-------------|----------------------------------------------------------------|------------------------------------------------------------------------------------|-------|-----------|----------------------------|
|             | 2                                                              | Acian Dinding                                                                      | m2    | 160.00    |                            |
|             | 3                                                              | Plesteran Dinding                                                                  | m2    | 160.00    |                            |
|             | <b>IV.4.4 Pekerjaan Pintu dan Jendela</b>                      |                                                                                    |       |           |                            |
|             | 1                                                              | Pintu besi plat baja tebal 3,0 mm rangkap, rangka baja siku (4,00 x 2,40 m) 1 unit | m2    | 9.60      |                            |
|             | 2                                                              | Pintu besi plat baja tebal 3,0 mm rangkap, rangka baja siku (1,00 x 2,40 m) 6 unit | m2    | 14.40     |                            |
|             | 3                                                              | Jendela Jalusi Aluminium (3,0 x 0,6 m) 4 unit                                      | m2    | 43.20     |                            |
|             | <b>IV.4.5 Pengecatan</b>                                       |                                                                                    |       |           |                            |
|             |                                                                |                                                                                    | m2    | 160.00    |                            |
|             |                                                                |                                                                                    |       |           | <b>Jumlah Sub Total IV</b> |
| <b>IV.5</b> | <b>Pekerjaan Bangunan Gas Chlorine</b>                         |                                                                                    |       |           |                            |
|             | <b>IV.5.1 Pekerjaan Tanah dan Pondasi</b>                      |                                                                                    |       |           |                            |
|             | 1                                                              | Galian Tanah                                                                       | m3    | 112.80    |                            |
|             | 2                                                              | Pondasi Setempat Beton K300                                                        | m3    | 3.81      |                            |
|             | 3                                                              | Pondasi Menerus (Batu Belah)                                                       | m3    | 71.36     |                            |
|             | 4                                                              | Urugan Tanah Kembali                                                               | m3    | 22.56     |                            |
|             | 5                                                              | Buangan Tanah                                                                      | m3    | 90.24     |                            |
|             | <b>IV.5.2 Pekerjaan Beton Bertulang</b>                        |                                                                                    |       |           |                            |
|             | 1 Sloof 200 x 300 :                                            |                                                                                    |       |           |                            |
|             |                                                                | - Beton mutu f'c = 26,4 Mpa (K-300)                                                | m3    | 6.69      |                            |
|             |                                                                | - Bekisting                                                                        | m2    | 66.90     |                            |
|             |                                                                | - Pemesian                                                                         | kg    | 802.80    |                            |
|             | 2 Kolom 300 x 300 :                                            |                                                                                    |       |           |                            |
|             |                                                                | - Beton mutu f'c = 26,4 Mpa (K-300)                                                | m3    | 8.91      |                            |
|             |                                                                | - Bekisting                                                                        | m2    | 118.80    |                            |
|             |                                                                | - Pemesian                                                                         | kg    | 1,336.50  |                            |
|             | 3 Ring Balok 300 x 400 :                                       |                                                                                    |       |           |                            |
|             |                                                                | - Beton mutu f'c = 26,4 Mpa (K-300)                                                | m3    | 8.34      |                            |
|             |                                                                | - Bekisting                                                                        | m2    | 69.50     |                            |
|             |                                                                | - Pemesian                                                                         | kg    | 1,251.00  |                            |
|             | 4 Lantai :                                                     |                                                                                    |       |           |                            |
|             |                                                                | - Beton mutu f'c = 26,4 Mpa (K-300)                                                | m3    | 44.10     |                            |
|             |                                                                | - Bekisting                                                                        | m2    | 13.40     |                            |
|             |                                                                | - Pemesian                                                                         | kg    | 5,292.00  |                            |
|             | 5 Atap :                                                       |                                                                                    |       |           |                            |
|             |                                                                | - Beton mutu f'c = 26,4 Mpa (K-300)                                                | m3    | 48.68     |                            |
|             |                                                                | - Bekisting                                                                        | m2    | 318.15    |                            |
|             |                                                                | - Pemesian                                                                         | kg    | 5,354.80  |                            |
|             | 6 Dudukan Pondasi :                                            |                                                                                    |       |           |                            |
|             |                                                                | - Beton mutu f'c = 26,4 Mpa (K-300)                                                | m3    | 5.17      |                            |
|             |                                                                | - Bekisting                                                                        | m2    | 16.87     |                            |
|             |                                                                | - Pemesian                                                                         | kg    | 620.67    |                            |
|             | <b>IV.5.3 Pekerjaan Pasangan Bata Dinding</b>                  |                                                                                    |       |           |                            |
|             | 1                                                              | Pasangan Bata                                                                      | m2    | 539.00    |                            |
|             | 2                                                              | Acian Dinding                                                                      | m2    | 1,078.00  |                            |
|             | 3                                                              | Plesteran Dinding                                                                  | m2    | 1,078.00  |                            |
|             | <b>IV.5.4 Pekerjaan Pintu dan Jendela</b>                      |                                                                                    |       |           |                            |
|             | 1                                                              | Pintu besi plat baja tebal 3,0 mm rangkap, rangka baja siku (4,00 x 2,40 m) 1 unit | m2    | 9.60      |                            |
|             | 2                                                              | Pintu besi plat baja tebal 3,0 mm rangkap, rangka baja siku (1,00 x 2,40 m) 6 unit | m2    | 14.40     |                            |
|             | 3                                                              | Jendela Jalusi Aluminium (3,0 x 0,6 m) 4 unit                                      | #REF! | 43.20     |                            |
|             | <b>IV.5.5 Pengecatan</b>                                       |                                                                                    |       |           |                            |
|             |                                                                |                                                                                    | m2    | 1,078.00  |                            |
|             |                                                                |                                                                                    |       |           | <b>Jumlah Sub Total V</b>  |
| <b>IV.6</b> | <b>Fasilitas Pendukung lainnya</b>                             |                                                                                    |       |           |                            |
|             | <b>IV.6.1 Konstruksi Jalan Lingkungan Area WTP</b>             |                                                                                    |       |           |                            |
|             | 1                                                              | Pekerjaan Pemadatan serta Perataan Lahan                                           | m3    | 275.20    |                            |
|             | 2                                                              | Lps. Pond. Ag. Kls. A, CBR Min 80% (Tebal 30 cm)                                   | m3    | 412.80    |                            |
|             | 3                                                              | Timbunan dengan Tanah Pilihan (Tebal 20 cm)                                        | m3    | 275.20    |                            |
|             | 4                                                              | Beton mutu f'c = 26,4 Mpa (K-300)                                                  | m3    | 412.80    |                            |
|             | 5                                                              | Bekisting                                                                          | m2    | 208.80    |                            |
|             | 6                                                              | Pemesian                                                                           | kg    | 33,024.00 |                            |
|             | <b>IV.6.2 Pengadaan dan Pemasangan Pagar Keliling Area WTP</b> |                                                                                    |       |           |                            |
|             | 1 Pondasi Setempat                                             |                                                                                    |       |           |                            |
|             |                                                                | - Galian                                                                           | m3    | 24.00     |                            |
|             |                                                                | - Buangan Tanah                                                                    | m3    | 24.00     |                            |
|             |                                                                | - Lantai Kerja                                                                     | m3    | 2.40      |                            |
|             | 3                                                              | Beton K-100 t=0,1 m                                                                | m3    | 4.80      |                            |
|             | 4                                                              | Pondasi Beton K175 0,3x0,3x0,5 tinggi 80 cm Per Jarak 2,40 m                       | m3    | 3.02      |                            |
|             | 5                                                              | Sloop balok K175 0,2x0,3 m                                                         | m3    | 9.60      |                            |
|             | 6                                                              | Kolom antar Pagar BRC                                                              | m3    | 6.43      |                            |
|             | 7                                                              | Pagar BRC Halarag ; Tinggi = 1,50 m, Diameter 4,0 mm , spasi antar kawat 100 mm    | m'    | 160.00    |                            |
|             | <b>IV.6.3 Saluran Drainase Air Hujan</b>                       |                                                                                    |       |           |                            |
|             | 1                                                              | Galian                                                                             | m3    | 102.40    |                            |
|             | 2                                                              | Buangan Tanah                                                                      | m3    | 102.40    |                            |
|             | 3                                                              | Lantai Kerja                                                                       | m3    | 4.10      |                            |
|             | 4                                                              | Beton K-100 t=0,1 m                                                                | m3    | 0.51      |                            |
|             | 5                                                              | Saluran Terbuka U-Ditch 80 X 80 Cm                                                 | m'    | 160.00    |                            |
|             | <b>IV.6.4 Pengadaan dan Pemasangan Bioseptic Tank</b>          |                                                                                    |       |           |                            |
|             | 1                                                              | Galian                                                                             | m3    | 10.50     |                            |
|             | 2                                                              | Buangan Tanah                                                                      | m3    | 10.50     |                            |
|             | 3                                                              | Lantai Kerja                                                                       | m3    | 0.23      |                            |

|  |                                                   |                                     |      |          |                            |  |
|--|---------------------------------------------------|-------------------------------------|------|----------|----------------------------|--|
|  | 4                                                 | Beton K-100 t=0,1 m                 | m3   | 0.45     |                            |  |
|  | 5                                                 | Bioseptic Tank Kapasitas 5000 liter | unit | 1.00     |                            |  |
|  | 6                                                 | Pekerjaan Perpipaan                 | Ls   | 1.00     |                            |  |
|  | 7                                                 | Perapihan kembali                   | Ls   | 1.00     |                            |  |
|  | <b>IV.6.5 Landscaping</b>                         |                                     |      |          |                            |  |
|  | 1                                                 | Pohon dan Tanaman                   | Ls   | 1.00     |                            |  |
|  | 2                                                 | Rumput                              | m2   | 1,750.00 |                            |  |
|  |                                                   |                                     |      |          | <i>Jumlah Sub Total VI</i> |  |
|  | <b>JUMLAH TOTAL ( IV.1 + IV.2 + .... + IV.6 )</b> |                                     |      |          |                            |  |

## DAFTAR KUANTITAS DAN HARGA

Pekerjaan : Pembangunan WTP 500 l/dtk di Waduk Duriangkang dan Jaringan Pipa  
 Paket Pekerjaan : Pembangunan Reservoir Glass Steel Kapasitas 3000 m3  
 Lokasi Pekerjaan : Waduk Duriangkang  
 Tahun Anggaran : 2024

| No       | Uraian Pekerjaan                                                     | Satuan         | Kuantitas | Harga Satuan (Rp) | Harga Pekerjaan (Rp)              |
|----------|----------------------------------------------------------------------|----------------|-----------|-------------------|-----------------------------------|
| 1        | 2                                                                    | 3              | 4         | 6                 | 7 = (4 x 6)                       |
| <b>V</b> | <b>Pekerjaan Reservoir Glass Steel Kapasitas 3000 m3</b>             |                |           |                   |                                   |
|          | <b>V.1 Pekerjaan Tanah</b>                                           |                |           |                   |                                   |
|          | 1 Galian Tanah                                                       | m <sup>3</sup> | 766.35    |                   |                                   |
|          | 2 Urugan Tanah                                                       | m <sup>3</sup> | 27.68     |                   |                                   |
|          | 3 Buangan Tanah                                                      | m <sup>3</sup> | 738.67    |                   |                                   |
|          |                                                                      |                |           |                   | <i>Jumlah Sub Total V.1</i>       |
|          | <b>V.2 Pekerjaan Beton dan Tangki Glass Stell 3000 m<sup>3</sup></b> |                |           |                   |                                   |
|          | 1 BorePile Ø 60 cm, P = 4 m                                          |                |           |                   |                                   |
|          | - Pengeboran Ø 60 cm                                                 | m              | 480.00    |                   |                                   |
|          | - Beton K-350                                                        | m <sup>3</sup> | 135.65    |                   |                                   |
|          | - Pemesian                                                           | kg             | 13,423.22 |                   |                                   |
|          | - Sewa Casing Borepile Ø 60 cm                                       | m              | 480.00    |                   |                                   |
|          | 2 Pekerjaan Slab Reservoir                                           |                |           |                   |                                   |
|          | - Lantai kerja                                                       | m <sup>3</sup> | 82.07     |                   |                                   |
|          | - Beton K-300 Readymiks f'c' 30 MPA                                  | m <sup>3</sup> | 656.59    |                   |                                   |
|          | - Bekisting Lantai                                                   | m <sup>2</sup> | 81.26     |                   |                                   |
|          | - Besi Beton                                                         | kg             | 53,399.27 |                   |                                   |
|          | 3 Reservoir Glass Steel 3000 m <sup>3</sup>                          | ls             | 1.00      |                   |                                   |
|          |                                                                      |                |           |                   | <i>Jumlah Sub Total V.2</i>       |
|          |                                                                      |                |           |                   | <b>JUMLAH TOTAL ( V.1 + V.2 )</b> |

## DAFTAR KUANTITAS DAN HARGA

Pekerjaan : Pembangunan WTP 500 l/dtk di Waduk Duriangkang dan Jaringan Pipa  
 Paket Pekerjaan : Pengadaan dan Pemasangan Pipa Transmisi Air Baku Sampai Distribusi  
 Lokasi Pekerjaan : Waduk Duriangkang  
 Tahun Anggaran : 2024

| No        | Uraian Pekerjaan                                                          | Satuan         | Kuantitas | Harga Satuan<br>(Rp) | Harga Pekerjaan<br>(Rp) |
|-----------|---------------------------------------------------------------------------|----------------|-----------|----------------------|-------------------------|
| 1         | 2                                                                         | 3              | 4         | 6                    | 7 = (4 x 6)             |
| <b>VI</b> | <b>Pengadaan dan Pemasangan Pipa Transmisi Air Baku Sampai Distribusi</b> |                |           |                      |                         |
|           | <b>VI.1 Pekerjaan Pipa dan Aksesoris Intake - Header Pompa Intake</b>     |                |           |                      |                         |
|           | 1 Pekerjaan Pengadaan Pipa dan Aksesoris :                                |                |           |                      |                         |
|           | - Pipa BSP Kelas Medium, DN. 300 mm                                       | m'             | 30.00     |                      |                         |
|           | - Pipa BSP Kelas Medium, DN. 800 mm                                       | m'             | 12.00     |                      |                         |
|           | - Bend 90° BSP DN. 300 mm                                                 | Bh             | 3.00      |                      |                         |
|           | - Reducer BSP DN 800x600 mm                                               | Bh             | 1.00      |                      |                         |
|           | - Tee Y BSP DN. 800x300 mm                                                | Bh             | 3.00      |                      |                         |
|           | - Gate Valve PN 16 DN 300 mm                                              | Bh             | 3.00      |                      |                         |
|           | - Check Valve PN 16 DN. 300 mm                                            | Bh             | 3.00      |                      |                         |
|           | - Flexible Joint PN 16 DN. 300 mm                                         | Bh             | 3.00      |                      |                         |
|           | - Strainer PN 16 DN 300mm                                                 | Bh             | 3.00      |                      |                         |
|           | - Loose Flange Carbon Steel PN 16 DN. 300 mm                              | Bh             | 21.00     |                      |                         |
|           | - Loose Flange Carbon Steel PN 16 DN. 800 mm                              | Bh             | 1.00      |                      |                         |
|           | - Blind Flange BSP PN 16 DN. 800 mm                                       | Bh             | 1.00      |                      |                         |
|           | - Rubber Packing t=5 mm DN. 300 mm                                        | Bh             | 21.00     |                      |                         |
|           | - Rubber Packing t=5 mm DN. 800 mm                                        | Bh             | 1.00      |                      |                         |
|           | - Bolt and Nut M33 x 150 mm                                               | Bh             | 296.00    |                      |                         |
|           | 2 Pekerjaan Pemasangan Pipa dan Aksesoris :                               |                |           |                      |                         |
|           | - Pipa BSP Kelas Medium, DN. 300 mm                                       | m'             | 30.00     |                      |                         |
|           | - Pipa BSP Kelas Medium, DN. 800 mm                                       | m'             | 12.00     |                      |                         |
|           | - Bend 90° BSP DN. 300 mm                                                 | Bh             | 3.00      |                      |                         |
|           | - Reducer BSP DN 800x600 mm                                               | Bh             | 1.00      |                      |                         |
|           | - Tee Y BSP DN. 800x300 mm                                                | Bh             | 3.00      |                      |                         |
|           | - Gate Valve PN 16 DN 300 mm                                              | Bh             | 3.00      |                      |                         |
|           | - Check Valve PN 16 DN. 300 mm                                            | Bh             | 3.00      |                      |                         |
|           | - Flexible Joint PN 16 DN. 300 mm                                         | Bh             | 3.00      |                      |                         |
|           | - Strainer PN 16 DN 300mm                                                 | Bh             | 3.00      |                      |                         |
|           | - Pengelasan                                                              | cm             | 7,571.24  |                      |                         |
|           | - Pengecatan Pipa                                                         |                |           |                      |                         |
|           | Dalam Dengan Cat anti karat                                               | m <sup>2</sup> | 58.43     |                      |                         |
|           | Luar Dengan Cat anti karat                                                | m <sup>2</sup> | 61.18     |                      |                         |
|           | <b>Jumlah Sub Total VI.1</b>                                              |                |           |                      |                         |
|           | <b>VI.2 Pekerjaan Pipa dan Aksesoris Transmisi Intake-IPA</b>             |                |           |                      |                         |
|           | 1 Pekerjaan Pengadaan Pipa dan Aksesoris :                                |                |           |                      |                         |
|           | - Pipa BSP Kelas Medium, DN. 600 mm                                       | m'             | 6.00      |                      |                         |
|           | - Pipa HDPE PN 12.5 DN. 600 mm                                            | m'             | 342.00    |                      |                         |
|           | - Bend 45° BSP DN. 600 mm                                                 | Bh             | 4.00      |                      |                         |
|           | - Bend 90° HDPE PN 12.5 DN. 600 mm                                        | Bh             | 3.00      |                      |                         |
|           | - Loose Flange Carbon Steel PN 16 DN. 600 mm                              | Bh             | 2.00      |                      |                         |
|           | - Stub End Flange PN 12.5 DN. 600 mm                                      | pcs            | 2.00      |                      |                         |
|           | - Rubber Packing t=5 mm DN. 600 mm                                        | Bh             | 2.00      |                      |                         |
|           | 2 Pekerjaan Pemasangan Pipa dan Aksesoris :                               |                |           |                      |                         |
|           | - Pekerjaan Galian Pipa HDPE                                              |                |           |                      |                         |
|           | - Galian Tanah                                                            | m3             | 646.38    |                      |                         |
|           | - Urugan Tanah                                                            | m3             | 96.65     |                      |                         |
|           | - Buangan Tanah                                                           | m3             | 549.73    |                      |                         |
|           | - Pipa BSP Kelas Medium, DN. 600 mm                                       | m'             | 6.00      |                      |                         |
|           | - Pipa HDPE PN 12.5 DN. 600 mm                                            | m'             | 342.00    |                      |                         |
|           | - Bend 45° BSP DN. 600 mm                                                 | Bh             | 4.00      |                      |                         |
|           | - Bend 90° HDPE PN 12.5 DN. 600 mm                                        | Bh             | 3.00      |                      |                         |
|           | - Stub End Flange PN 12.5 DN. 600mm                                       | pcs            | 2.00      |                      |                         |
|           | - Pengelasan                                                              | cm             | 753.98    |                      |                         |
|           | - Pengecatan Pipa                                                         |                |           |                      |                         |
|           | Dalam Dengan Cat anti karat                                               | m <sup>2</sup> | 11.31     |                      |                         |



|                                                         |                                                              |                |           |                              |
|---------------------------------------------------------|--------------------------------------------------------------|----------------|-----------|------------------------------|
|                                                         | Luar Dengan Cat anti karat                                   | m <sup>2</sup> | 11.50     |                              |
|                                                         |                                                              |                |           | <b>Jumlah Sub Total VI.2</b> |
| <b>VI.3 Pekerjaan Pipa dan Aksesoris Inlet IPA</b>      |                                                              |                |           |                              |
| 1 Pekerjaan Pengadaan Pipa dan Aksesoris :              |                                                              |                |           |                              |
|                                                         | - Pipa BSP Kelas Medium, DN. 600 mm                          | m'             | 30.00     |                              |
|                                                         | - Pipa BSP Kelas Medium, DN. 400 mm                          | m'             | 72.00     |                              |
|                                                         | - Bend 45° BSP DN. 600 mm                                    | pcs            | 1.00      |                              |
|                                                         | - Bend 90° BSP DN. 400 mm                                    | pcs            | 30.00     |                              |
|                                                         | - Tee Y BSP DN. 600X600 mm                                   | pcs            | 2.00      |                              |
|                                                         | - Reducer BSP DN. 600x500 mm                                 | pcs            | 2.00      |                              |
|                                                         | - Butterfly Valve Flanged Connection PN 16 DN. 600 mm        | pcs            | 3.00      |                              |
|                                                         | - Butterfly Valve Double Connection PN 16 DN. 400 mm         | pcs            | 6.00      |                              |
|                                                         | - Loose Flange Carbon Steel PN 16 DN. 600 mm                 | pcs            | 6.00      |                              |
|                                                         | - Loose Flange Carbon Steel PN 16 DN. 500 mm                 | pcs            | 2.00      |                              |
|                                                         | - Loose Flange Carbon Steel PN 16 DN. 400 mm                 | pcs            | 36.00     |                              |
|                                                         | - Rubber Packing t=5 mm DN. 600 mm                           | pcs            | 6.00      |                              |
|                                                         | - Rubber Packing t=5 mm DN. 500 mm                           | pcs            | 2.00      |                              |
|                                                         | - Rubber Packing t=5 mm DN. 400 mm                           | pcs            | 24.00     |                              |
|                                                         | - Bolt and Nut M24 x 85 mm                                   | pcs            | 448.00    |                              |
| 2 Pekerjaan Pemasangan Pipa dan Aksesoris :             |                                                              |                |           |                              |
|                                                         | - Pipa BSP Kelas Medium DN. 600 mm                           | m'             | 30.00     |                              |
|                                                         | - Pipa BSP Kelas Medium, DN. 400 mm                          | m'             | 72.00     |                              |
|                                                         | - Bend 45° BSP DN. 600 mm                                    | pcs            | 1.00      |                              |
|                                                         | - Bend 90° BSP, DN. 400 mm                                   | pcs            | 30.00     |                              |
|                                                         | - Tee Y BSP DN. 600X600 mm                                   | pcs            | 2.00      |                              |
|                                                         | - Reducer BSP DN. 600x500 mm                                 | pcs            | 2.00      |                              |
|                                                         | - Butterfly Valve PN 16 DN. 600 mm                           | pcs            | 3.00      |                              |
|                                                         | - Butterfly Valve Double Connection PN 16 DN. 400 mm         | pcs            | 6.00      |                              |
|                                                         | - Pengelasan                                                 | cm             | 22,493.80 |                              |
|                                                         | - Pengecatan Pipa                                            |                |           |                              |
|                                                         | Dalam Dengan Cat anti karat                                  | m <sup>2</sup> | 147.03    |                              |
|                                                         | Luar Dengan Cat anti karat                                   | m <sup>2</sup> | 149.42    |                              |
|                                                         |                                                              |                |           | <b>Jumlah Sub Total VI.3</b> |
| <b>VI.4 Pekerjaan Pipa dan Aksesoris Sludge Pit</b>     |                                                              |                |           |                              |
| 1 an Pipa dan Aksesoris :                               |                                                              |                |           |                              |
|                                                         | - Pipa BSP Kelas Medium, DN. 100 mm                          | m'             | 18.00     |                              |
|                                                         | - Bend 45° BSP DN. 100 mm                                    | Pcs            | 3.00      |                              |
|                                                         | - Butterfly Valve Double Connection PN 16 DN. 100 mm         | Pcs            | 1.00      |                              |
|                                                         | - Check Valve Flanged Connection Pn 16 DN. 100 mm            | Pcs            | 1.00      |                              |
|                                                         | - Flexible Joint PN 16 DN. 100 mm                            | Pcs            | 1.00      |                              |
|                                                         | - Loose Flange Carbon Steel PN 16 DN. 100 mm                 | Pcs            | 5.00      |                              |
|                                                         | - Rubber Packing t=5 mm DN. 100 mm                           | pcs            | 3.00      |                              |
|                                                         | - Bolt and Nut M16 x 45 mm                                   | pcs            | 40.00     |                              |
| 2 Pekerjaan Pemasangan Pipa dan Aksesoris :             |                                                              |                |           |                              |
|                                                         | - Pipa BSP Kelas Medium, DN. 100 mm                          | m'             | 18.00     |                              |
|                                                         | - Bend 45° BSP DN. 100 mm                                    | Pcs            | 3.00      |                              |
|                                                         | - Butterfly Valve Double Connection PN 16 DN. 100 mm         | Pcs            | 1.00      |                              |
|                                                         | - Check Valve Flanged Connection Pn 16 DN. 100 mm            | Pcs            | 1.00      |                              |
|                                                         | - Flexible Joint PN 16 DN. 100 mm                            | Pcs            | 1.00      |                              |
|                                                         | - Pengelasan                                                 | cm             | 596.90    |                              |
|                                                         | - Pengecatan Pipa                                            |                |           |                              |
|                                                         | Dalam Dengan Cat anti karat                                  | m <sup>2</sup> | 5.65      |                              |
|                                                         | Luar Dengan Cat anti karat                                   | m <sup>2</sup> | 6.46      |                              |
|                                                         |                                                              |                |           | <b>Jumlah Sub Total VI.4</b> |
| <b>VI.5 Pekerjaan Pipa dan Aksesoris Recycling Tank</b> |                                                              |                |           |                              |
| 1 Pekerjaan Pengadaan Pipa dan Aksesoris :              |                                                              |                |           |                              |
|                                                         | - Pipa BSP Kelas Medium, DN. 150 mm                          | m'             | 42.00     |                              |
|                                                         | - Bend 90° BSP DN. 150 mm                                    | Pcs            | 3.00      |                              |
|                                                         | - Butterfly Valve Flanged Double Connection PN 16 DN. 150 mm | Pcs            | 1.00      |                              |
|                                                         | - Check Valve PN 16 DN. 150 mm                               | Pcs            | 1.00      |                              |
|                                                         | - Strainer PN 16 DN. 150 mm                                  | Pcs            | 1.00      |                              |
|                                                         | - Flexible Joint PN 16 DN. 150 mm                            | Pcs            | 1.00      |                              |
|                                                         | - Loose Flange Carbon Steel PN 16 DN. 150 mm                 | Pcs            | 5.00      |                              |
|                                                         | - Rubber Packing t=5 mm DN. 150 mm                           | pcs            | 3.00      |                              |
|                                                         | - Bolt and Nut M20 x 60 mm                                   | pcs            | 40.00     |                              |

|                                                                           |                                                              |                |          |  |
|---------------------------------------------------------------------------|--------------------------------------------------------------|----------------|----------|--|
| 2                                                                         | Pekerjaan Pemasangan Pipa dan Aksesoris :                    |                |          |  |
|                                                                           | - Pipa BSP Kelas Medium, DN. 150 mm                          | m'             | 42.00    |  |
|                                                                           | - Bend 90° BSP DN. 150 mm                                    | Pcs            | 3.00     |  |
|                                                                           | - Butterfly Valve Flanged Double Connection PN 16 DN. 150 mm | Pcs            | 1.00     |  |
|                                                                           | - Check Valve PN 16 DN. 150 mm                               | Pcs            | 1.00     |  |
|                                                                           | - Strainer PN 16 DN. 150 mm                                  | Pcs            | 1.00     |  |
|                                                                           | - Flexible Joint PN 16 DN. 150 mm                            | Pcs            | 1.00     |  |
|                                                                           | - Pengelasan                                                 | cm             | 1,083.85 |  |
|                                                                           | - Pengecatan Pipa                                            |                |          |  |
|                                                                           | Dalam Dengan Cat anti karat                                  | m <sup>2</sup> | 19.79    |  |
|                                                                           | Luar Dengan Cat anti karat                                   | m <sup>2</sup> | 22.21    |  |
| <b>Jumlah Sub Total VI.5</b>                                              |                                                              |                |          |  |
| <b>VI.6 Pekerjaan Pipa dan Aksesoris Outlet IPA ke Tangki</b>             |                                                              |                |          |  |
| 1                                                                         | Pekerjaan Pengadaan Pipa dan Aksesoris :                     |                |          |  |
|                                                                           | - Pipa BSP Kelas Medium, DN. 800 mm                          | m'             | 66.00    |  |
|                                                                           | - Bend 45° BSP DN. 800 mm                                    | pcs            | 1.00     |  |
|                                                                           | - Bend 90° BSP DN. 800 mm                                    | pcs            | 2.00     |  |
|                                                                           | - Blind Flange BSP PN 16 DN. 800 mm                          | pcs            | 1.00     |  |
|                                                                           | - Loose Flange Carbon Steel PN 16 DN. 800 mm                 | pcs            | 2.00     |  |
|                                                                           | - Rubber Packing t=5 mm DN. 800 mm                           | pcs            | 2.00     |  |
|                                                                           | - Bolt and Nut M33 x 150 mm                                  | pcs            | 48.00    |  |
| 2                                                                         | Pekerjaan Pemasangan Pipa dan Aksesoris :                    |                |          |  |
|                                                                           | - Pipa BSP Kelas Medium, DN. 800 mm                          | m'             | 66.00    |  |
|                                                                           | - Bend 45° BSP DN. 800 mm                                    | pcs            | 1.00     |  |
|                                                                           | - Bend 90° BSP DN. 800 mm                                    | pcs            | 2.00     |  |
|                                                                           | - Blind Flange BSP PN 16 DN. 800 mm                          | pcs            | 1.00     |  |
|                                                                           | - Pengelasan                                                 | cm             | 2,513.27 |  |
|                                                                           | - Pengecatan Pipa                                            |                |          |  |
|                                                                           | Dalam Dengan Cat Foodgrade                                   | m <sup>2</sup> | 165.88   |  |
|                                                                           | Luar Dengan Cat anti karat                                   | m <sup>2</sup> | 168.57   |  |
| <b>Jumlah Sub Total VI.6</b>                                              |                                                              |                |          |  |
| <b>VI.7 Pekerjaan Pipa dan Aksesoris Drain dan Overflow Tangki</b>        |                                                              |                |          |  |
| 1                                                                         | Pekerjaan Pengadaan Pipa dan Aksesoris :                     |                |          |  |
|                                                                           | - Pipa BSP Kelas Medium, DN. 400 mm                          | m'             | 6.00     |  |
|                                                                           | - Bend 90° BSP DN. 400 mm                                    | pcs            | 1.00     |  |
|                                                                           | - Tee BSP DN. 400x400 mm                                     | pcs            | 1.00     |  |
|                                                                           | - Butterfly Valve Flanged Double Connection PN 16 DN. 400 mm | Pcs            | 1.00     |  |
|                                                                           | - Loose Flange Carbon Steel PN 16 DN. 400 mm                 | pcs            | 2.00     |  |
|                                                                           | - Rubber Packing t=5 mm DN. 400 mm                           | pcs            | 3.00     |  |
|                                                                           | - Bolt and Nut M24 x 85 mm                                   | pcs            | 48.00    |  |
| 2                                                                         | Pekerjaan Pemasangan Pipa dan Aksesoris :                    |                |          |  |
|                                                                           | - Pipa BSP Kelas Medium, DN. 400 mm                          | m'             | 6.00     |  |
|                                                                           | - Bend 90° BSP DN. 400 mm                                    | pcs            | 1.00     |  |
|                                                                           | - Tee BSP DN. 400x400 mm                                     | pcs            | 1.00     |  |
|                                                                           | - Butterfly Valve Flanged Double Connection PN 16 DN. 400 mm | Pcs            | 1.00     |  |
|                                                                           | - Pengelasan                                                 | cm             | 1,256.64 |  |
|                                                                           | - Pengecatan Pipa                                            |                |          |  |
|                                                                           | Dalam Dengan Cat anti karat                                  | m <sup>2</sup> | 7.54     |  |
|                                                                           | Luar Dengan Cat anti karat                                   | m <sup>2</sup> | 7.66     |  |
| <b>Jumlah Sub Total VI.7</b>                                              |                                                              |                |          |  |
| <b>VI.8 Pekerjaan Pipa dan Aksesoris Tangki - Header Pompa Distribusi</b> |                                                              |                |          |  |
| 1                                                                         | Pekerjaan Pengadaan Pipa dan Aksesoris :                     |                |          |  |
|                                                                           | - Pipa BSP Kelas Medium, DN. 800 mm                          | m'             | 30.00    |  |
|                                                                           | - Bend 45° BSP DN. 800 mm                                    | Pcs            | 4.00     |  |
|                                                                           | - Tee Y BSP DN. 800x600 mm                                   | Pcs            | 3.00     |  |
|                                                                           | - Butterfly Valve Flanged Connection PN 16 DN 800 mm         | Pcs            | 1.00     |  |
|                                                                           | - Blind Flange BSP PN 16 DN. 800 mm                          | Pcs            | 1.00     |  |
|                                                                           | - Loose Flange Carbon Steel PN 16 DN. 800 mm                 | Pcs            | 3.00     |  |
|                                                                           | - Rubber Packing t=5 mm DN. 800 mm                           | pcs            | 2.00     |  |
|                                                                           | - Bolt and Nut M33 x 150 mm                                  | pcs            | 48.00    |  |
| 2                                                                         | Pekerjaan Pemasangan Pipa dan Aksesoris :                    |                |          |  |
|                                                                           | - Pipa BSP Kelas Medium, DN. 800 mm                          | m'             | 30.00    |  |
|                                                                           | - Bend 45° BSP DN. 800 mm                                    | Pcs            | 4.00     |  |
|                                                                           | - Tee Y BSP DN. 800x600 mm                                   | Pcs            | 3.00     |  |
|                                                                           | - Butterfly Valve Flanged Connection PN 16 DN 800 mm         | Pcs            | 1.00     |  |

|                                                                     |                                                       |                |          |  |  |
|---------------------------------------------------------------------|-------------------------------------------------------|----------------|----------|--|--|
|                                                                     | - Blind Flange BSP PN 16 DN. 800 mm                   | Pcs            | 1.00     |  |  |
|                                                                     | - Pengelasan                                          | cm             | 7,791.15 |  |  |
|                                                                     | - Pengecatan Pipa                                     |                |          |  |  |
|                                                                     | Dalam Dengan Cat Foodgrade                            | m <sup>2</sup> | 75.40    |  |  |
|                                                                     | Luar Dengan Cat anti karat                            | m <sup>2</sup> | 76.62    |  |  |
| <b>Jumlah Sub Total VI.8</b>                                        |                                                       |                |          |  |  |
| <b>VI.9 Pekerjaan Pipa dan Aksesoris Inlet Pompa Distribusi</b>     |                                                       |                |          |  |  |
|                                                                     | 1 Pekerjaan Pengadaan Pipa dan Aksesoris:             |                |          |  |  |
|                                                                     | - Pipa BSP Kelas Medium, DN. 600 mm                   | m'             | 12.00    |  |  |
|                                                                     | - Bend 45° BSP DN. 600 mm                             | Pcs            | 3.00     |  |  |
|                                                                     | - Butterfly Valve Flanged Connection PN 16 DN. 600 mm | Pcs            | 3.00     |  |  |
|                                                                     | - Flexible Joint PN 16 DN. 600 mm                     | Pcs            | 3.00     |  |  |
|                                                                     | - Reducer Eccentric BSP DN. 600X500 mm                | Pcs            | 3.00     |  |  |
|                                                                     | - Loose Flange Carbon Steel PN 16 DN. 500 mm          | Pcs            | 3.00     |  |  |
|                                                                     | - Loose Flange Carbon Steel PN 16 DN. 600 mm          | Pcs            | 6.00     |  |  |
|                                                                     | - Rubber Packing t=5 mm DN. 500 mm                    | pcs            | 3.00     |  |  |
|                                                                     | - Rubber Packing t=5 mm DN. 600 mm                    | pcs            | 9.00     |  |  |
|                                                                     | - Bolt and Nut M24 x 85 mm                            | pcs            | 240.00   |  |  |
|                                                                     | 2 Pekerjaan Pemasangan Pipa dan Aksesoris :           |                |          |  |  |
|                                                                     | - Pipa BSP Kelas Medium, DN. 600 mm                   | m'             | 12.00    |  |  |
|                                                                     | - Bend 45° BSP DN. 600 mm                             | Pcs            | 3.00     |  |  |
|                                                                     | - Butterfly Valve Flanged Connection PN 16 DN. 600 mm | Pcs            | 3.00     |  |  |
|                                                                     | - Flexible Joint PN 16 DN. 600 mm                     | Pcs            | 3.00     |  |  |
|                                                                     | - Reducer Eccentric BSP DN. 600X500 mm                | Pcs            | 3.00     |  |  |
|                                                                     | - Pengelasan                                          | cm             | 4,335.40 |  |  |
|                                                                     | - Pengecatan Pipa                                     |                |          |  |  |
|                                                                     | Dalam Dengan Cat Foodgrade                            | m <sup>2</sup> | 22.62    |  |  |
|                                                                     | Luar Dengan Cat anti karat                            | m <sup>2</sup> | 23.00    |  |  |
| <b>Jumlah Sub Total VI.9</b>                                        |                                                       |                |          |  |  |
| <b>VI.10 Pekerjaan Pipa dan Aksesoris Outlet Pompa Distribusi</b>   |                                                       |                |          |  |  |
|                                                                     | 1 Pekerjaan Pengadaan Pipa dan Aksesoris :            |                |          |  |  |
|                                                                     | - Pipa BSP Kelas Medium, DN. 400 mm                   | m'             | 12.00    |  |  |
|                                                                     | - Bend 45° BSP DN. 400 mm                             | Pcs            | 3.00     |  |  |
|                                                                     | - Butterfly Valve Flanged Connection PN 16 DN. 400 mm | Pcs            | 3.00     |  |  |
|                                                                     | - Check Valve Flanged Connection PN 16 DN. 400 mm     | Pcs            | 3.00     |  |  |
|                                                                     | - Flexible Joint PN 16 DN. 400 mm                     | Pcs            | 3.00     |  |  |
|                                                                     | - Reducer Eccentric BSP DN. 400X300 mm                | Pcs            | 3.00     |  |  |
|                                                                     | - Loose Flange Carbon Steel PN 16 DN. 300 mm          | Pcs            | 3.00     |  |  |
|                                                                     | - Loose Flange Carbon Steel PN 16 DN. 400 mm          | Pcs            | 6.00     |  |  |
|                                                                     | - Rubber Packing t=5 mm DN. 300 mm                    | pcs            | 3.00     |  |  |
|                                                                     | - Rubber Packing t=5 mm DN. 400 mm                    | pcs            | 12.00    |  |  |
|                                                                     | - Bolt and Nut M20 x 60 mm                            | pcs            | 300.00   |  |  |
|                                                                     | 2 Pekerjaan Pemasangan Pipa dan Aksesoris :           |                |          |  |  |
|                                                                     | - Pipa BSP Kelas Medium, DN. 400 mm                   | m'             | 12.00    |  |  |
|                                                                     | - Bend 45° BSP DN. 400 mm                             | Pcs            | 3.00     |  |  |
|                                                                     | - Butterfly Valve Flanged Connection PN 16 DN. 400 mm | Pcs            | 3.00     |  |  |
|                                                                     | - Check Valve Flanged Connection PN 16 DN. 400 mm     | Pcs            | 3.00     |  |  |
|                                                                     | - Flexible Joint PN 16 DN. 400 mm                     | Pcs            | 3.00     |  |  |
|                                                                     | - Reducer Eccentric BSP DN. 400X300 mm                | Pcs            | 3.00     |  |  |
|                                                                     | - Pengelasan                                          | cm             | 3,078.76 |  |  |
|                                                                     | - Pengecatan Pipa                                     |                |          |  |  |
|                                                                     | Dalam Dengan Cat Foodgrade                            | m <sup>2</sup> | 15.08    |  |  |
|                                                                     | Luar Dengan Cat anti karat                            | m <sup>2</sup> | 15.32    |  |  |
| <b>Jumlah Sub Total VI.10</b>                                       |                                                       |                |          |  |  |
| <b>VI.11 Pekerjaan Pipa dan Aksesoris Jaringan Distribusi Utama</b> |                                                       |                |          |  |  |
|                                                                     | 1 Pekerjaan Pengadaan Pipa dan Aksesoris :            |                |          |  |  |
|                                                                     | - Pipa HDPE PN 12.5 DN. 800 mm                        | m'             | 1,300.00 |  |  |
|                                                                     | - Pipa BSP Kelas Medium, DN. 800 mm                   | m'             | 920.00   |  |  |
|                                                                     | - Bend 45° BSP DN. 800 mm                             | Pcs            | 2.00     |  |  |
|                                                                     | - Tee Y BSP DN. 800x400 mm                            | Pcs            | 3.00     |  |  |
|                                                                     | - Stub End Flange PN 12.5 DN. 800 mm                  | pcs            | 4.00     |  |  |
|                                                                     | - Gate Valve PN 16 DN 800 mm                          | Pcs            | 1.00     |  |  |
|                                                                     | - Blind Flange BSP PN 16 DN. 800 mm                   | Pcs            | 1.00     |  |  |
|                                                                     | - Loose Flange Carbon Steel PN 16 DN. 800 mm          | Pcs            | 4.00     |  |  |
|                                                                     | - Rubber Packing t=5 mm DN. 800 mm                    | pcs            | 5.00     |  |  |

|                                                        |                |          |  |           |
|--------------------------------------------------------|----------------|----------|--|-----------|
| - Bolt and Nut M33 x 150 mm                            | pcs            | 120.00   |  |           |
| 2 Pekerjaan Pemasangan Pipa dan Aksesoris :            |                |          |  |           |
| - Pekerjaan Tanah                                      |                |          |  |           |
| - Galian Tanah                                         | m <sup>3</sup> | 3,289.00 |  |           |
| - Urugan Tanah                                         | m <sup>3</sup> | 653.12   |  |           |
| - Buangan Tanah                                        | m <sup>3</sup> | 2,635.88 |  |           |
| - Pipa HDPE PN 12.5 DN. 800 mm                         | m'             | 1,300.00 |  |           |
| - Pipa BSP Kelas Medium, DN. 800 mm                    | m'             | 920.00   |  |           |
| - Bend 45° BSP DN. 800 mm                              | Pcs            | 2.00     |  |           |
| - Tee Y BSP DN. 800x400 mm                             | Pcs            | 3.00     |  |           |
| - Stub End Flange PN 12.5 DN. 800 mm                   | pcs            | 4.00     |  |           |
| - Gate Valve PN 16 DN 800 mm                           | Pcs            | 1.00     |  |           |
| - Blind Flange BSP PN 16 DN. 800 mm                    | Pcs            | 1.00     |  |           |
| - Pengelasan                                           | cm             | 5,277.88 |  |           |
| - Pengecatan Pipa                                      |                |          |  |           |
| Dalam Dengan Cat Foodgrade                             | m <sup>2</sup> | 2,312.21 |  |           |
| Luar Dengan Cat anti karat                             | m <sup>2</sup> | 2,349.79 |  |           |
| <b>Jumlah Sub Total VI.11</b>                          |                |          |  |           |
| <b>VI.12 Pekerjaan Pipa dan Aksesoris Service Pump</b> |                |          |  |           |
| 1 Pengadaan Instalasi Service Pump                     |                |          |  |           |
| - Pipa HDPE PN 12.5 I Inchi                            | m'             | 150.00   |  |           |
| - Pipa BSP Kelas Medium, DN. 100 mm                    | m'             | 30.00    |  |           |
| - Pipa BSP Kelas Medium, DN. 80 mm                     | m'             | 24.00    |  |           |
| - Bend 90° BSP DN. 100 mm                              | Pcs            | 4.00     |  |           |
| - Bend 90° BSP DN. 80 mm                               | Pcs            | 10.00    |  |           |
| - Male Threaded Adaptor HDPE (MTA) I Inchi             | Pcs            | 10.00    |  |           |
| - Female Threaded Elbow (FTE) I Inchi                  | Pcs            | 10.00    |  |           |
| - Tee BSP DN. 80x80 mm                                 | Pcs            | 10.00    |  |           |
| - Butterfly Valve Flanged Connection PN 16 DN. 80 mm   | Pcs            | 4.00     |  |           |
| - Check Valve Flanged Connection Pn 16 DN. 100 mm      | Pcs            | 2.00     |  |           |
| - Flexible Joint PN 16 DN. 80 mm                       | Pcs            | 4.00     |  |           |
| - Reducer Eccentric BSP DN. 100x80 mm                  | Pcs            | 2.00     |  |           |
| - Blind Flange BSP PN 16 DN. 100 mm                    | Pcs            | 1.00     |  |           |
| - Blind Flange BSP PN 16 DN. 80 mm                     | Pcs            | 1.00     |  |           |
| - Loose Flange Carbon Steel PN 16 DN. 80 mm            | Pcs            | 7.00     |  |           |
| - Loose Flange Carbon Steel PN 16 DN. 100 mm           | Pcs            | 5.00     |  |           |
| - Rubber Packing t=5 mm DN. 80 mm                      | Pcs            | 13.00    |  |           |
| - Rubber Packing t=5 mm DN. 100 mm                     | Pcs            | 7.00     |  |           |
| - Bolt and Nut M16 x 45 mm                             | pcs            | 60.00    |  |           |
| - Keran I inchi                                        | pcs            | 5.00     |  |           |
| - Selang I Inchi                                       | m'             | 100.00   |  |           |
| 2 Pemasangan Instalasi Service Pump                    |                |          |  |           |
| - Pekerjaan Tanah                                      |                |          |  |           |
| - Galian Tanah                                         | m3             | 7.50     |  |           |
| - Urugan Tanah                                         | m3             | 7.36     |  |           |
| - Buangan Tanah                                        | m3             | 0.14     |  |           |
| - Pipa BSP Kelas Medium, DN. 100 mm                    | m'             | 30.00    |  |           |
| - Pipa BSP Kelas Medium, DN. 80 mm                     | m'             | 24.00    |  |           |
| - Bend 90° BSP DN. 100 mm                              | Pcs            | 4.00     |  |           |
| - Bend 90° BSP DN. 80 mm                               | Pcs            | 10.00    |  |           |
| - Tee BSP DN. 80x80 mm                                 | Pcs            | 10.00    |  |           |
| - Butterfly Valve Flanged Connection PN 16 DN. 80 mm   | Pcs            | 4.00     |  |           |
| - Check Valve Flanged Connection PN 16 DN. 100 mm      | Pcs            | 2.00     |  |           |
| - Flexible Joint PN 16 DN. 80 mm                       | Pcs            | 4.00     |  |           |
| - Reducer Eccentric DN. 100x80 mm                      | Pcs            | 2.00     |  |           |
| - Blind Flange BSP DN. 100 mm                          | Pcs            | 1.00     |  |           |
| - Blind Flange BSP DN. 80 mm                           | Pcs            | 1.00     |  |           |
| - Pengelasan                                           | cm             | 2,431.59 |  |           |
| - Pengecatan Pipa                                      |                |          |  |           |
| Dalam Dengan Cat Foodgrade                             | m <sup>2</sup> | 15.46    |  |           |
| Luar Dengan Cat anti karat                             | m <sup>2</sup> | 17.48    |  |           |
| <b>Jumlah Sub Total VI.12</b>                          |                |          |  |           |
|                                                        |                |          |  | <b>Rp</b> |
|                                                        |                |          |  | <b>-</b>  |
| <b>JUMLAH TOTAL ( VI.1 + VI.2 + ..... + VI.12 )</b>    |                |          |  |           |
|                                                        |                |          |  | <b>Rp</b> |
|                                                        |                |          |  | <b>-</b>  |

## DAFTAR KUANTITAS DAN HARGA

Pekerjaan : Pembangunan WTP 500 l/dtk di Waduk Duriangkang dan Jaringan Pipa  
 Paket Pekerjaan : Pengadaan dan Pemasangan Mekanikal dan Instrumen  
 Lokasi Pekerjaan : Waduk Duriangkang  
 Tahun Anggaran : 2024

| No                                                           | Uraian Pekerjaan                                                                         | Satuan | Kuantitas | Harga Satuan (Rp)             | Harga Pekerjaan (Rp) |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------|--------|-----------|-------------------------------|----------------------|
| 1                                                            | 2                                                                                        | 3      | 4         | 6                             | 7 = (4 x 6)          |
| <b>VII. Pengadaan dan Pemasangan Mekanikal dan Instrumen</b> |                                                                                          |        |           |                               |                      |
| <b>VII.1 Pengadaan dan Pemasangan Pompa</b>                  |                                                                                          |        |           |                               |                      |
|                                                              | 1 Pengadaan dan Pemasangan Pompa Intake                                                  | Unit   | 2.00      |                               |                      |
|                                                              | - Kapasitas 280 LPS                                                                      |        |           |                               |                      |
|                                                              | - Head 30 m                                                                              |        |           |                               |                      |
|                                                              | 2 Pengadaan dan Pemasangan Pompa Clean Water Service                                     | Unit   | 2.00      |                               |                      |
|                                                              | - Kapasitas 10 LPS                                                                       |        |           |                               |                      |
|                                                              | - Head 20 m                                                                              |        |           |                               |                      |
|                                                              | 3 Pengadaan dan Pemasangan Pompa Submersible Sludge Treatment                            | Unit   | 2.00      |                               |                      |
|                                                              | - Kapasitas 50 m3/jam                                                                    |        |           |                               |                      |
|                                                              | - Head 20 m                                                                              |        |           |                               |                      |
|                                                              | 4 Pengadaan dan Pemasangan Pompa Submersible Recycling                                   | Unit   | 2.00      |                               |                      |
|                                                              | - Kapasitas 75 LPS                                                                       |        |           |                               |                      |
|                                                              | - Head 20 m                                                                              |        |           |                               |                      |
|                                                              | 5 Pengadaan dan Pemasangan Pompa Distribusi                                              | Unit   | 2.00      |                               |                      |
|                                                              | - Kapasitas 250 l/s                                                                      |        |           |                               |                      |
|                                                              | - Head 120 m                                                                             |        |           |                               |                      |
|                                                              |                                                                                          |        |           | <b>Jumlah Sub Total VII.1</b> |                      |
| <b>VII.2 Pengadaan dan Pemasangan Instrumentasi</b>          |                                                                                          |        |           |                               |                      |
|                                                              | 1 Pengadaan dan Pemasangan Sistem SCADA                                                  |        |           |                               |                      |
|                                                              | - Pengadaan SCADA System                                                                 | Set    | 1.00      |                               |                      |
|                                                              | - Software Scada Runtime License, 4096 Tags                                              |        |           |                               |                      |
|                                                              | - Software Development Scada                                                             |        |           |                               |                      |
|                                                              | - PC Intel Processor i7-13700 , 16gb Ram DDR5 , 1tb Nvme , Original Windows 11           |        |           |                               |                      |
|                                                              | - Monitor 24" + HDTV 60"                                                                 |        |           |                               |                      |
|                                                              | - Pengadaan dan Pemasangan Streaming Current Monitor (SCM) Loop Control                  | Unit   | 1.00      |                               |                      |
|                                                              | - Pengadaan dan Pemasangan pH Analyzer (Mounting Kit dan Kalibrasi Kit)                  | Unit   | 3.00      |                               |                      |
|                                                              | - Pengadaan dan Pemasangan Turbidity Analyzer (Mounting Kit dan Kalibrasi Kit)           | Unit   | 3.00      |                               |                      |
|                                                              | - Pengadaan dan Pemasangan Turbidity Analyzer Raw Water (Mounting Kit dan Kalibrasi Kit) | Unit   | 1.00      |                               |                      |
|                                                              | - Pengadaan dan Pemasangan Chlorine Analyzer (Mounting Kit dan Kalibrasi Kit)            | Unit   | 1.00      |                               |                      |
|                                                              | - Pengadaan dan Pemasangan Colour Analyzer (Mounting Kit dan Kalibrasi Kit)              | Unit   | 2.00      |                               |                      |
|                                                              | - Pengadaan dan Pemasangan Multiparameter Controller                                     | Unit   | 6.00      |                               |                      |
|                                                              | - Jasa Pemograman Scada & PLC                                                            | Paket  | 1.00      |                               |                      |
|                                                              | - Pemograman Scada & konfigurasi Sistem komunikasi Scada dengan Main PLC                 |        |           |                               |                      |
|                                                              | - Pemograman PLC & Konfigurasi Komunikasi Dengan Remote IO                               |        |           |                               |                      |
|                                                              | - Testing & Pengujian System                                                             |        |           |                               |                      |
|                                                              | - Pengadaan dan Pemasangan Ultrasonic Level Sensor 0-10 m                                | Unit   | 1.00      |                               |                      |
|                                                              | - Pengadaan dan Pemasangan Ultrasonic Level Sensor 0-6 m                                 | Unit   | 8.00      |                               |                      |
|                                                              | - Pengadaan dan Pemasangan Jaringan Internet 20Mbps                                      | paket  | 1.00      |                               |                      |
|                                                              | - Pressure Transmitter 0-3 bar + Aksesoris                                               | Unit   | 8.00      |                               |                      |
|                                                              | - Pressure Transmitter 0-5 bar + Aksesoris                                               | Unit   | 3.00      |                               |                      |
|                                                              | - Pressure Gauge 0-5 bar + Aksesoris                                                     | Unit   | 21.00     |                               |                      |
|                                                              | - Pressure Switch 0-5 bar + Aksesoris                                                    | Unit   | 5.00      |                               |                      |
|                                                              | - Pressure Safety Valve + Aksesoris                                                      | Unit   | 2.00      |                               |                      |
|                                                              | - Pengadaan dan Pemasangan Kabel Control Instrument                                      |        |           |                               |                      |
|                                                              | - Kabel Control Panel Streaming Current Monitor (SCM) Loop ke Panel IPA                  | m      | 25.00     |                               |                      |
|                                                              | - Flokulasi LIYCY-JZ 3Cx1.5mmSq                                                          |        |           |                               |                      |
|                                                              | - Kabel Control pH Analyzer Dari Laboratorium Ke Main PLC LIYCY-JZ                       | m      | 30.00     |                               |                      |
|                                                              | - 3Cx1.5mmSq                                                                             |        |           |                               |                      |
|                                                              | - Kabel Control Turbidity Analyzer Dari Laboratorium Ke Main PLC LIYCY-JZ                | m      | 40.00     |                               |                      |
|                                                              | - 3Cx1.5mmSq                                                                             |        |           |                               |                      |
|                                                              | - Kabel Control Chlorine Analyzer Dari Laboratorium Ke Main PLC LIYCY-JZ                 | m      | 10.00     |                               |                      |
|                                                              | - 3Cx1.5mmSq                                                                             |        |           |                               |                      |
|                                                              | - Kabel Control Colour Analyzer Dari Laboratorium Ke Main PLC LIYCY-JZ                   | m      | 20.00     |                               |                      |
|                                                              | - 3Cx1.5mmSq                                                                             |        |           |                               |                      |
|                                                              | - Kabel Control Ultrasonic Level Sensor 0-10 m Dari Reservoar Ke Panel Recycle           | m      | 50.00     |                               |                      |
|                                                              | - LIYCY-JZ 3Cx1.5mmSq                                                                    |        |           |                               |                      |
|                                                              | - Kabel Control Ultrasonic Level Sensor 0-6 m Dari Filter Ke Panel Filtrasi LIYCY-       | m      | 100.00    |                               |                      |
|                                                              | - JZ 3Cx1.5mmSq                                                                          |        |           |                               |                      |
|                                                              | - Kabel Control Electromagnetic Flowmeter Dia 500 mm Dari IPA Ke                         | m      | 80.00     |                               |                      |
|                                                              | - Laboratorium LIYCY-JZ 3Cx1.5mmSq                                                       |        |           |                               |                      |

|                                                                                                               |       |          |  |  |
|---------------------------------------------------------------------------------------------------------------|-------|----------|--|--|
| - Kabel Control Electromagnetic Flowmeter Dia 500 mm Dari Distribusi Area Ke Laboratorium LIYCY-JZ 3Cx1.5mmSq | m     | 80.00    |  |  |
| - Kabel Control Electromagnetic Flowmeter Dia 150 mm Dari Service Area Ke Laboratorium LIYCY-JZ 3Cx1.5mmSq    | m     | 30.00    |  |  |
| - Kabel Control Pressure Transmitter 0-5 bar dari Pipa Intake ke Panel Intake LIYCY-JZ 3Cx1.5mmSq             | m     | 50.00    |  |  |
| - Kabel Control Pressure Transmitter 0-5 bar dari Pipa Distribusi ke Panel Distribusi LIYCY-JZ 3Cx1.5mmSq     | m     | 30.00    |  |  |
| - Kabel Control Pressure Transmitter 0-5 bar dari Pipa Water Service ke Panel Service LIYCY-JZ 3Cx1.5mmSq     | m     | 30.00    |  |  |
| - Kabel Control Pressure Transmitter 0-3 bar Dari Filtrasi Ke Panel IPA Filtrasi LIYCY-JZ 3Cx1.5mmSq          | m     | 150.00   |  |  |
| - Kabel Control Pressure Switch dari Pipa Intake ke Panel Intake LIYCY-JZ 3Cx1.5mmSq                          | m     | 50.00    |  |  |
| - Kabel Control Pressure Switch dari Pipa Distribusi ke Panel Distribusi LIYCY-JZ 3Cx1.5mmSq                  | m     | 50.00    |  |  |
| - Kabel Control Pressure Switch Di Air & Water Service LIYCY-JZ 3Cx1.5mmSq                                    | m     | 20.00    |  |  |
| - Kabel Komunikasi Serial LVMDV ke Panel MCC Distribusi LIYCY-JZ 3Cx1.5mmSq                                   | m     | 30.00    |  |  |
| - Kabel Control IO LVMDV Ke Panel MCC Distribusi LIYCY-JZ 20Cx1mmSq                                           | m     | 30.00    |  |  |
| - Kabel Control Dari tangki Recycle & Holding tank Ke panel Recycle & Holding LIYCY-JZ 3Cx1.5mmSq             | m     | 100.00   |  |  |
| - Pengadaan dan Pemasangan Kabel Control Pneumatic                                                            |       |          |  |  |
| - Kabel Control Pneumatic dari Actuator ke Panel Flokulasi , Sedimentasi & Flotasi                            | m     | 1,125.00 |  |  |
| - Kabel Control Pneumatic Filtrasi Dari Actuator ke Panel Filtrasi LIYCY-JZ 6Cx1.1mmSq                        | m     | 1,280.00 |  |  |
| - Pengadaan dan Pemasangan Kabel Komunikasi PLC & Distributed IO                                              |       |          |  |  |
| - Kabel Komunikasi PLC dan Distributed IO CAT 6                                                               | m     | 650.00   |  |  |
| - Pengadaan dan Pemasangan Kabel Fiber Optic Dari Main Panel Ke MCC Intake                                    |       |          |  |  |
| - Kabel Fiber Optic 4 core                                                                                    | m     | 350.00   |  |  |
| - Jasa tanam & Galian                                                                                         | m     | 350.00   |  |  |
| - Jasa Splicing , Terminasi & Tes OTDR                                                                        | titik | 2.00     |  |  |
| - Pengadaan Kabel Tray , Conduit & Accesoris                                                                  |       |          |  |  |
| - Kabel Tray Area IPA Kabel Tray 100x50 Type U Galvanized Complete with Cover                                 | m     | 450.00   |  |  |
| - Jasa Pemasangan Kabel Tray & Peralatan Pendukung                                                            | m     | 450.00   |  |  |
| - Pipa Conduit 20mm                                                                                           | m     | 450.00   |  |  |
| - Accesoris Pipa Conduit                                                                                      | ls    | 1.00     |  |  |
| - Pengadaan dan Pemasangan Panel Main PLC                                                                     | unit  | 1.00     |  |  |
| - Panel Box 1900(h)x1000(w)x600(d)                                                                            |       |          |  |  |
| - PLC CPU Work memory 300kb                                                                                   |       |          |  |  |
| - Expantion Digital Input 32ch 24vdc                                                                          |       |          |  |  |
| - Expantion Digital Output 32ch 24vdc                                                                         |       |          |  |  |
| - Expantion Analog Input 8ch                                                                                  |       |          |  |  |
| - Expantion Analog Output 8ch                                                                                 |       |          |  |  |
| - Estop Switch Disconnecter                                                                                   |       |          |  |  |
| - Surge Arrester                                                                                              |       |          |  |  |
| - RCBO 2P 25A 300mA                                                                                           |       |          |  |  |
| - Ethernet Switch Hub 8 Port                                                                                  |       |          |  |  |
| - MCB 1p 10a                                                                                                  |       |          |  |  |
| - Peralatan dan Accesoris Pendukung                                                                           |       |          |  |  |
| - Pengadaan dan Pemasangan Panel Remote & Lokal Flokulasi , Sedimentasi & Flotasi                             | unit  | 3.00     |  |  |
| - Panel Box 1900(h)x1500(w)x400(d)                                                                            |       |          |  |  |
| - Distributed IO Module , 2xRj45 , max32 IO card                                                              |       |          |  |  |
| - Expantion Remote IO Digital Input 16x 24vdc                                                                 |       |          |  |  |
| - Expantion Remote IO Digital Output 16x 24vdc                                                                |       |          |  |  |
| - Expantion Remote IO analog Input 8ch                                                                        |       |          |  |  |
| - Expantion Remote IO analog Output 8ch                                                                       |       |          |  |  |
| - Estop Switch Disconnecter                                                                                   |       |          |  |  |
| - Surge Arrester                                                                                              |       |          |  |  |
| - RCBO 2P 25A 300mA                                                                                           |       |          |  |  |
| - Ethernet Switch Hub 8 Port                                                                                  |       |          |  |  |
| - Relay & Socket                                                                                              |       |          |  |  |
| - PushButton & Indicator Lamp                                                                                 |       |          |  |  |
| - MCB 1p 10a                                                                                                  |       |          |  |  |
| - Peralatan dan Accesoris Pendukung                                                                           |       |          |  |  |
| - Pengadaan dan Pemasangan Panel Remote & Lokal Filtrasi                                                      | Unit  | 2.00     |  |  |
| - Panel Box 1900(h)x1500(w)x400(d)                                                                            |       |          |  |  |
| - Distributed IO Module , 2xRj45 , max32 IO card                                                              |       |          |  |  |
| - Expantion Remote IO Digital Input 16x 24vdc                                                                 |       |          |  |  |
| - Expantion Remote IO Digital Output 16x 24vdc                                                                |       |          |  |  |
| - Expantion Remote IO analog Input 8ch                                                                        |       |          |  |  |
| - Expantion Remote IO analog Output 8ch                                                                       |       |          |  |  |
| - Estop Switch Disconnecter                                                                                   |       |          |  |  |
| - Surge Arrester                                                                                              |       |          |  |  |
| - RCBO 2P 25A 300mA                                                                                           |       |          |  |  |
| - Ethernet Switch Hub 8 Port                                                                                  |       |          |  |  |

|  |                                                                         |      |       |  |                                               |
|--|-------------------------------------------------------------------------|------|-------|--|-----------------------------------------------|
|  | - Relay & Socket                                                        |      |       |  |                                               |
|  | - PushButton & Indicator Lamp                                           |      |       |  |                                               |
|  | - MCB Ip 10a                                                            |      |       |  |                                               |
|  | - Peralatan dan Accesoris Pendukung                                     |      |       |  |                                               |
|  |                                                                         |      |       |  | <b>Jumlah Sub Total VII.2</b>                 |
|  | <b>VII.3 Pengadaan dan Pemasangan Mekanikal dan Instrumen Pendukung</b> |      |       |  |                                               |
|  | 1 Pengadaan dan Pemasangan Gas Klorin + Scrubber                        | Unit | 1.00  |  |                                               |
|  | - Kapasitas 10 kg/jam                                                   |      |       |  |                                               |
|  | 2 sangon Hoist Crane 1 ton                                              | Unit | 1.00  |  |                                               |
|  | 3 sangon Hoist Crane 5 ton                                              | Unit | 1.00  |  |                                               |
|  | 4 Pengadaan dan Pemasangan Hoist Crane 10 ton                           | Unit | 2.00  |  |                                               |
|  | 5 Pemasangan CCTV                                                       | Unit | 20.00 |  |                                               |
|  | 6 Pengadaan dan Pemasangan Electromagnetic Flowmeter Dia 150 mm         | Unit | 1.00  |  |                                               |
|  | 7 Pengadaan dan Pemasangan Electromagnetic Flowmeter Dia 500 mm         | Unit | 2.00  |  |                                               |
|  | 8 Pengadaan Alat Laboratorium                                           |      |       |  |                                               |
|  | - Pengadaan Jar Test 6 Silinder                                         | Unit | 1.00  |  |                                               |
|  | - Pengadaan Imhoff Cone 1000 ml                                         | Unit | 1.00  |  |                                               |
|  | - Pengadaan Erlenmeyer 1000 ml                                          | Unit | 6.00  |  |                                               |
|  | - Pengadaan Pipet Gondok 10 ml + karet                                  | Unit | 2.00  |  |                                               |
|  | - Pengadaan Labu Ukur 1000 ml                                           | Unit | 2.00  |  |                                               |
|  | - pH portable Analyzer                                                  | Unit | 1.00  |  |                                               |
|  | - Turbidity Portable Analyzer                                           | Unit | 1.00  |  |                                               |
|  | - Color Portable Analyzer                                               | Unit | 1.00  |  |                                               |
|  | - Free Chlorine Portable Analyzer                                       | Unit | 1.00  |  |                                               |
|  | - Timbangan Analitik 500 gram                                           | Unit | 1.00  |  |                                               |
|  |                                                                         |      |       |  | <b>Jumlah Sub Total VII.3</b>                 |
|  |                                                                         |      |       |  | <b>JUMLAH TOTAL ( VII.1 + VII.2 + VII.3 )</b> |

## DAFTAR KUANTITAS DAN HARGA

Pekerjaan : Pembangunan WTP 500 l/dtk di Waduk Duriangkang dan Jaringan Pipa  
 Paket Pekerjaan : Pengadaan dan Pemasangan Penyambungan Daya dan Kelistrikan  
 Lokasi Pekerjaan : Waduk Duriangkang  
 Tahun Anggaran : 2024

| No                             | Uraian Pekerjaan                                                                       | Satuan | Kuantitas | Harga Satuan (Rp) | Harga Pekerjaan (Rp) |
|--------------------------------|----------------------------------------------------------------------------------------|--------|-----------|-------------------|----------------------|
| 1                              | 2                                                                                      | 3      | 4         | 6                 | 7 = (4 x 6)          |
| <b>VIII</b>                    | <b>Pengadaan dan Pemasangan Penyambungan Daya dan Kelistrikan</b>                      |        |           |                   |                      |
|                                | <b>VIII.1 Pengadaan dan Pemasangan Main Power LV &amp; MV</b>                          |        |           |                   |                      |
|                                | 1 Penyambungan daya PLN 2000kVA                                                        | Ls     | 1.00      |                   |                      |
|                                | - Biaya penyambungan                                                                   |        |           |                   |                      |
|                                | - Uang jaminan langganan                                                               |        |           |                   |                      |
|                                | - Jasa Sertifikat Layak Operasi                                                        |        |           |                   |                      |
|                                | - Jaminan Instalasi                                                                    |        |           |                   |                      |
|                                | - Jasa (Pengurusan dan Teknis Lapangan)                                                |        |           |                   |                      |
|                                | - Biaya Pengurusan dan Teknis Lapangan                                                 |        |           |                   |                      |
|                                | 2 Pengadaan dan pemasangan cubicle costumer (1 incoming & 2 out going)                 | Unit   | 1.00      |                   |                      |
|                                | - Unit cubicle 1in2out                                                                 |        |           |                   |                      |
|                                | - Man hours pemasangan                                                                 |        |           |                   |                      |
|                                | 3 Pengadaan dan pemasangan cubicle Trafo intake (incoming & out going)                 | Unit   | 1.00      |                   |                      |
|                                | - Unit cubicle inout                                                                   |        |           |                   |                      |
|                                | - Man hours pemasangan                                                                 |        |           |                   |                      |
|                                | 4 Pengadaan dan pemasangan trafo IPA 1600kVA, 20 kv 400/231 V, ONAN, 3ph, 50 Hz, Dyn 5 | Unit   | 1.00      |                   |                      |
|                                | - Unit Trafo                                                                           |        |           |                   |                      |
|                                | - Man hours pemasangan                                                                 |        |           |                   |                      |
|                                | 5 Pengadaan dan pemasangan trafo intake 400kva, 20 kv 400/231 V, ONAN, 3ph, 50 Hz, Dyn | Unit   | 1.00      |                   |                      |
|                                | - Unit Trafo                                                                           |        |           |                   |                      |
|                                | - Man hours pemasangan                                                                 |        |           |                   |                      |
|                                | 6 Pengadaan dan pemasangan panel LVMDP & capasitor bank                                | Unit   | 1.00      |                   |                      |
|                                | - Panel Box 3900X1900X1000                                                             |        |           |                   |                      |
|                                | - ACB Main 4P 2500A 50ka                                                               |        |           |                   |                      |
|                                | - ACB Distribusi 3P 2500A 50ka                                                         |        |           |                   |                      |
|                                | - Capacitor 512kvar 12 Step A/M                                                        |        |           |                   |                      |
|                                | - MCCB 3P 1250A 50ka                                                                   |        |           |                   |                      |
|                                | - MCCB 3P 400A 36ka                                                                    |        |           |                   |                      |
|                                | - MCCB 3P 125A 36ka                                                                    |        |           |                   |                      |
|                                | - MCCB 3P 100A 36ka                                                                    |        |           |                   |                      |
|                                | - MCCB 3P 63A 36ka                                                                     |        |           |                   |                      |
|                                | - MCCB 3P 20 A 36ka                                                                    |        |           |                   |                      |
|                                | - MCCB 3P10 A 8ka                                                                      |        |           |                   |                      |
|                                | - Indicator,busbar,accessories,etc                                                     |        |           |                   |                      |
|                                | 7 Pengadaan dan pemasangan panel SDP gas chlor                                         | Unit   | 1.00      |                   |                      |
|                                | - Panel Box                                                                            |        |           |                   |                      |
|                                | - Mccb 3P                                                                              |        |           |                   |                      |
|                                | - Remote IO PLC                                                                        |        |           |                   |                      |
|                                | - Indicator,accessories,etc                                                            |        |           |                   |                      |
|                                | 8 Pengadaan dan pemasangan panel SDP IPA                                               | Unit   | 1.00      |                   |                      |
|                                | - Panel Box                                                                            |        |           |                   |                      |
|                                | - Mccb 3P                                                                              |        |           |                   |                      |
|                                | - Indicator,accessories,etc                                                            |        |           |                   |                      |
|                                | 9 Pengadaan dan pemasangan panel SDP ruang compressor                                  | Unit   | 1.00      |                   |                      |
|                                | - Panel Box                                                                            |        |           |                   |                      |
|                                | - Mccb 3P                                                                              |        |           |                   |                      |
|                                | - Mcb 3P                                                                               |        |           |                   |                      |
|                                | - Indicator,accessories,etc                                                            |        |           |                   |                      |
|                                | 10 Pengadaan dan pemasangan panel PJU                                                  | Unit   | 1.00      |                   |                      |
|                                | - Panel Box                                                                            |        |           |                   |                      |
|                                | - Mccb 3P                                                                              |        |           |                   |                      |
|                                | - Mcb 3P                                                                               |        |           |                   |                      |
|                                | - Indicator,accessories,etc                                                            |        |           |                   |                      |
|                                | 11 Pengadaan dan Pemasangan Penerangan dan Utility IPA                                 | ls     | 1.00      |                   |                      |
|                                | 12 Pengadaan dan Pemasangan PJU                                                        | set    | 2.00      |                   |                      |
| <b>Jumlah Sub Total VIII.1</b> |                                                                                        |        |           |                   |                      |
|                                | <b>VIII.2 Pengadaan dan Pemasangan Motor Control center (MCC)</b>                      |        |           |                   |                      |
|                                | 1 Pengadaan dan pemasangan panel VSD transmisi 450kW                                   | Unit   | 2.00      |                   |                      |
|                                | - Box Panel                                                                            |        |           |                   |                      |
|                                | - Mccb 1250 A 50Ka                                                                     |        |           |                   |                      |
|                                | - Vsd 450 kw,50Hz,380400Vac,                                                           |        |           |                   |                      |
|                                | - Remote IO PLC                                                                        |        |           |                   |                      |



|                                                             |                                                                                                                  |      |        |  |  |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------|--------|--|--|
|                                                             | - Indicator,accessories,etc                                                                                      |      |        |  |  |
| 2                                                           | Pengadaan dan pemasangan panel VSD intake 3x160kW                                                                | Unit | 1.00   |  |  |
|                                                             | - Box Panel                                                                                                      |      |        |  |  |
|                                                             | - Mccb 400 A 36Ka                                                                                                |      |        |  |  |
|                                                             | - Vsd 160 kw,50Hz,380400Vac,                                                                                     |      |        |  |  |
|                                                             | - Remote IO PLC                                                                                                  |      |        |  |  |
|                                                             | - Indicator,accessories,etc                                                                                      |      |        |  |  |
| 3                                                           | Pengadaan dan Pemasangan panel dosing Pump & Agitator                                                            | Unit | 1.00   |  |  |
|                                                             | - Box Panel                                                                                                      |      |        |  |  |
|                                                             | - Mccb 30 A 25Ka                                                                                                 |      |        |  |  |
|                                                             | - Vsd 0,37 kw,50Hz,380400Vac,                                                                                    |      |        |  |  |
|                                                             | - kontaktor 0,374kw,50Hz,380400Vac,                                                                              |      |        |  |  |
|                                                             | - motor breaker 0,374kw,50Hz,380400Vac,                                                                          |      |        |  |  |
|                                                             | - Remote IO PLC                                                                                                  |      |        |  |  |
|                                                             | - Indicator,accessories,etc                                                                                      |      |        |  |  |
| 4                                                           | Pengadaan dan Pemasangan Panel pompa recycle                                                                     | Unit | 1.00   |  |  |
|                                                             | - Box Panel                                                                                                      |      |        |  |  |
|                                                             | - Mccb 70 A 25Ka                                                                                                 |      |        |  |  |
|                                                             | - Vsd 22 kw,50Hz,380400Vac,                                                                                      |      |        |  |  |
|                                                             | - Vsd 5,5 kw,50Hz,380400Vac,                                                                                     |      |        |  |  |
|                                                             | - Indicator,accessories,etc                                                                                      |      |        |  |  |
| 5                                                           | Pengadaan dan Pemasangan panel air & water service                                                               | Unit | 1.00   |  |  |
|                                                             | - Box Panel                                                                                                      |      |        |  |  |
|                                                             | - Mccb 400 A 25Ka                                                                                                |      |        |  |  |
|                                                             | - Vsd 15 kw,50Hz,380400Vac,                                                                                      |      |        |  |  |
|                                                             | - motor breaker 3p 22 kw                                                                                         |      |        |  |  |
|                                                             | - motor breaker 3p 15 kw                                                                                         |      |        |  |  |
|                                                             | - kontaktor 15kw                                                                                                 |      |        |  |  |
|                                                             | - Remote IO PLC                                                                                                  |      |        |  |  |
|                                                             | - Indicator,accessories,etc                                                                                      |      |        |  |  |
| <b>Jumlah Sub Total VIII.2</b>                              |                                                                                                                  |      |        |  |  |
| <b>VIII.3 Pengadaan dan Pemasangan Kabel Power &amp; MV</b> |                                                                                                                  |      |        |  |  |
| 1                                                           | Pengadaan dan pemasangan kabel power PLN incoming cubicle costumer N2XSEBY 1 x 3c x 150 Sqmm                     | M    | 20.00  |  |  |
| 2                                                           | Pengadaan dan pemasangan kabel power cubicle costumer outgoing 1 Trafo 1600kVA N2XSY 3 x 1c x 95 Sqmm            | M    | 10.00  |  |  |
| 3                                                           | Pengadaan dan pemasangan kabel power cubicle costumer outgoing 2 cubicle incoming intake N2XSEBY 1 x 3c x 35mm   | M    | 350.00 |  |  |
| 4                                                           | Pengadaan dan pemasangan kabel power cubicle incoming intake Trafo 315kVA N2XSY 3 x 1c x 35mm                    | M    | 10.00  |  |  |
| 5                                                           | Pengadaan dan pemasangan kabel power trafo 1600kVA LVMDP NYY 18 x 1c x 300Sqmm RST+ NYY 2 x 1c x 300Sqmm N       | M    | 15.00  |  |  |
| 6                                                           | Pengadaan dan pemasangan kabel power LVMDP SDP IPA NYFGBY 4c x 25mm                                              | M    | 100.00 |  |  |
| 7                                                           | Pengadaan dan pemasangan kabel power LVMDP SDP Air & water service NYY 4c x 16mm                                 | M    | 40.00  |  |  |
| 8                                                           | Pengadaan dan pemasangan kabel power LVMDP SDP Gas chlor NYFGBY 4c x 16mm                                        | M    | 130.00 |  |  |
| 9                                                           | Pengadaan dan pemasangan kabel power LVMDP Panel PJU NYFGBY 4c x 10mm                                            | M    | 25.00  |  |  |
| 10                                                          | Pengadaan dan pemasangan kabel power Panel PJU NYFGBY 4c x 10mm                                                  | M    | 300.00 |  |  |
| 11                                                          | Pengadaan dan pemasangan kabel power LVMDP VSD pompa transmisi 1 NYY 6 x 1c x 300mm RST + NYY 1 x 1c x 4mm N     | M    | 15.00  |  |  |
| 12                                                          | Pengadaan dan pemasangan kabel power LVMDPVSD pompa transmisi 2 NYY 6 x 1c x 300mm RST + NYY 1 x 1c x 4mm N      | M    | 12.00  |  |  |
| 13                                                          | Pengadaan dan pemasangan kabel power LVMDPVSD pompa transmisi 3 NYY 6 x 1c x 300mm RST + NYY 1 x 1c x 4mm N      | M    | 15.00  |  |  |
| 14                                                          | Pengadaan dan pemasangan kabel power Trafo 315kVA MDP intake NYY 6 x 1c x 150mm RST + NYY 1 x 1c x 150mm N       | M    | 5.00   |  |  |
| 15                                                          | Pengadaan dan pemasangan kabel power MDP intake VSD intake 3x110kW NYY 6 x 1c x 150mm RST + NYY 1 x 1c x 150mm N | M    | 20.00  |  |  |
| 16                                                          | Pengadaan dan pemasangan kabel power LVMDP panel dosing agitator NYY 4c x 10mm                                   | M    | 70.00  |  |  |
| 17                                                          | Pengadaan dan pemasangan kabel power LVMDP Panel pompa recycle NYRGBY 4c x 6mm                                   | M    | 10.00  |  |  |
| 18                                                          | Pengadaan dan pemasangan kabel power LVMDP panel air & water service NYY 1 x 4c x 95mm                           | M    | 70.00  |  |  |
| <b>Jumlah Sub Total VIII.3</b>                              |                                                                                                                  |      |        |  |  |
| <b>VIII.4 Pengadaan dan Pemasangan Kabel motor/pompa</b>    |                                                                                                                  |      |        |  |  |
| 1                                                           | Pengadaan dan pemasangan kabel motor VSD transmisi 1 pompa transmisi 1 NYY 2 x 4c x 300mm RSTG                   | M    | 30.00  |  |  |
| 2                                                           | Pengadaan dan pemasangan kabel motor VSD transmisi 2 pompa transmisi 2 NYY 2 x 4c x 300mm RSTG                   | M    | 22.00  |  |  |
| 3                                                           | Pengadaan dan pemasangan kabel motor VSD transmisi 3 pompa transmisi 3 NYY 2 x 4c x 300mm RSTG                   | M    | 15.00  |  |  |
| 4                                                           | Pengadaan dan pemasangan kabel motor VSD intake 1 pompa intake 1 NYY 4c x 150mm                                  | M    | 20.00  |  |  |

|                                                              |                                                                                                    |       |        |  |  |
|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-------|--------|--|--|
| 5                                                            | Pangadaan dan pemasangan kabel motor VSD intake 2 pompa intake 2 NYY 4c x150mm                     | M     | 20.00  |  |  |
| 6                                                            | Pangadaan dan pemasangan kabel motor VSD intake 3 pompa intake 3 NYY 4c x150mm                     | M     | 20.00  |  |  |
| 7                                                            | Pangadaan dan pemasangan kabel motor panel chemical prepararation Dosing alum 1 NYYHY 4c x1.5mm    | M     | 20.00  |  |  |
| 8                                                            | Pangadaan dan pemasangan kabel motor panel chemical prepararation Dosing alum 2 NYYHY 4c x1.5mm    | M     | 20.00  |  |  |
| 9                                                            | Pangadaan dan pemasangan kabel motor panel chemical prepararation Dosing alum 3 NYYHY 4c x1.5mm    | M     | 20.00  |  |  |
| 10                                                           | Pangadaan dan pemasangan kabel motor panel chemical prepararation Dosing kapur 1 NYYHY 4c x1.5mm   | M     | 20.00  |  |  |
| 11                                                           | Pangadaan dan pemasangan kabel motor panel chemical prepararation Dosing kapur 2 NYYHY 4c x1.5mm   | M     | 20.00  |  |  |
| 12                                                           | Pangadaan dan pemasangan kabel motor panel chemical prepararation Dosing kapur 3 NYYHY 4c x1.5mm   | M     | 20.00  |  |  |
| 13                                                           | Pangadaan dan pemasangan kabel motor panel chemical prepararation Dosing polymer 3 NYYHY 4c x1.5mm | M     | 20.00  |  |  |
| 14                                                           | Pangadaan dan pemasangan kabel motor panel chemical prepararation Dosing polymer 3 NYYHY 4c x1.5mm | M     | 20.00  |  |  |
| 15                                                           | Pangadaan dan pemasangan kabel motor panel chemical prepararation Agitator alum NYYHY 4c x2.5mm    | M     | 20.00  |  |  |
| 16                                                           | Pangadaan dan pemasangan kabel motor panel chemical prepararation Agitator kapur 1 NYYHY 4c x2.5mm | M     | 20.00  |  |  |
| 17                                                           | Pangadaan dan pemasangan kabel motor panel chemical prepararation Agitator kapur 2 NYYHY 4c x2.5mm | M     | 20.00  |  |  |
| 18                                                           | Pangadaan dan pemasangan kabel motor panel pompa recycle Pompa recycle 1 NYYHY 4c x4 mm            | M     | 15.00  |  |  |
| 19                                                           | Pangadaan dan pemasangan kabel motor panel pompa recycle Pompa recycle 2 NYYHY 4c x4 mm            | M     | 15.00  |  |  |
| 20                                                           | Pangadaan dan pemasangan kabel motor panel air & water service Pompa backwash 1 NYY 2 x 4c x 10mm  | M     | 35.00  |  |  |
| 21                                                           | Pangadaan dan pemasangan kabel motor panel air & water service Pompa backwash 2 NYY 2 x 4c x 10mm  | M     | 35.00  |  |  |
| 22                                                           | Pangadaan dan pemasangan kabel motor panel air & water service Air blower 1 NYY 2 x 4c x 6mm       | M     | 30.00  |  |  |
| 23                                                           | Pangadaan dan pemasangan kabel motor panel air & water service Air blower 2 NYY 2 x 4c x 6mm       | M     | 30.00  |  |  |
| 24                                                           | Pangadaan dan pemasangan kabel motor panel air & water service Air dryer 1 NYY 1 x 3c x 2.5mm      | M     | 20.00  |  |  |
| 25                                                           | Pangadaan dan pemasangan kabel motor panel air & water service Air dryer 2 NYY 1 x 3c x 2.5mm      | M     | 20.00  |  |  |
| 26                                                           | Pangadaan dan pemasangan kabel motor panel air & water service Pompa service 1 NYY 1 x 4c x 6mm    | M     | 30.00  |  |  |
| 27                                                           | Pangadaan dan pemasangan kabel motor panel air & water service Pompa service 2 NYY 1 x 4c x 6mm    | M     | 30.00  |  |  |
| 28                                                           | Pangadaan dan pemasangan kabel motor panel air & water service Compressor 1 NYY 2 x 4c x 6mm       | M     | 25.00  |  |  |
| 29                                                           | Pangadaan dan pemasangan kabel motor panel air & water service Compressor 2 NYY 2 x 4c x 6mm       | M     | 25.00  |  |  |
| <b>Jumlah Sub Total VIII.4</b>                               |                                                                                                    |       |        |  |  |
| <b>VIII.5 Pengadaan dan Pemasangan Pendukung Kelistrikan</b> |                                                                                                    |       |        |  |  |
| 1                                                            | Penangkal petir & Grounding                                                                        |       |        |  |  |
|                                                              | - Pangadaan dan pemasangan penangkal petir radius 100M                                             | titik | 1.00   |  |  |
|                                                              | - Pangadaan dan pemasangan titik grounding <1 ohm LVMDP                                            | lot   | 1.00   |  |  |
| 2                                                            | Kabel grounding                                                                                    |       |        |  |  |
|                                                              | - Pangadaan dan pemasangan kabel Grounding LVMDP SDP IPA NYA 1c x 10mm                             | M     | 100.00 |  |  |
| 3                                                            | Junction Box pompa                                                                                 |       |        |  |  |
|                                                              | - Pangadaan dan pemasangan junction box pompa intake 1 400mm x 200mm x 500mm                       | unit  | 1.00   |  |  |
|                                                              | - Pangadaan dan pemasangan junction box pompa intake 2 400mm x 200mm x 500mm                       | unit  | 1.00   |  |  |
|                                                              | - Pangadaan dan pemasangan junction box pompa intake 3 400mm x 200mm x 500mm                       | unit  | 1.00   |  |  |
|                                                              | - Pangadaan dan pemasangan junction box pompa recycle 200mm x 150mm x 100mm                        | unit  | 1.00   |  |  |
|                                                              | - Pangadaan dan pemasangan junction box pompa holding tank 200mm x 150mm x 100mm                   | unit  | 1.00   |  |  |
| 4                                                            | Trey & jalur kabel                                                                                 |       |        |  |  |
|                                                              | - Cable ladder galvanized 600mm x 100mm + support angle bar                                        | M     | 15.00  |  |  |
|                                                              | - Cable ladder galvanized 500mm x 100mm + support angle bar                                        | M     | 15.00  |  |  |
|                                                              | - Cable ladder galvanized 400mm x 100mm + support angle bar                                        | M     | 65.00  |  |  |
|                                                              | - Cable ladder galvanized 300mm x 100mm + support angle bar                                        | M     | 15.00  |  |  |
|                                                              | - Cable ladder galvanized 200mm x 100mm + support angle bar                                        | M     | 55.00  |  |  |
|                                                              | - Cable ladder galvanized 150mm x 100mm + support angle bar                                        | M     | 10.00  |  |  |
|                                                              | - Cable ladder Horizontal band 600mm                                                               | pcs   | 4.00   |  |  |

|  |                                                  |     |      |                                                          |  |
|--|--------------------------------------------------|-----|------|----------------------------------------------------------|--|
|  | - Cable ladder Horizontal band 300mm             | pcs | 1.00 |                                                          |  |
|  | - Cable ladder Horizontal band 200mm             | pcs | 2.00 |                                                          |  |
|  | - Cable ladder Horizontal band 150mm             | pcs | 3.00 |                                                          |  |
|  | - Cable ladder tee 600mm to 500mm                | pcs | 1.00 |                                                          |  |
|  | - Cable ladder tee 500mm to 500mm                | pcs | 1.00 |                                                          |  |
|  | - Cable ladder tee 500mm to 400mm                | pcs | 1.00 |                                                          |  |
|  | - Cable ladder tee 400mm to 300mm                | pcs | 1.00 |                                                          |  |
|  | - Cable ladder tee 300mm to 200mm                | pcs | 2.00 |                                                          |  |
|  | - Cable ladder tee 200mm to 200mm                | pcs | 2.00 |                                                          |  |
|  | - Cable ladder tee 150mm to 150mm                | pcs | 2.00 |                                                          |  |
|  | - Cable ladder right hand reducer 600mm to 400mm | pcs | 1.00 |                                                          |  |
|  | - Cable ladder right hand reducer 400mm to 200mm | pcs | 1.00 |                                                          |  |
|  | - Cable vertical band outside 600mm              | pcs | 1.00 |                                                          |  |
|  | - Cable vertical band outside 200mm              | pcs | 4.00 |                                                          |  |
|  | - Cable vertical band outside 150mm              | pcs | 1.00 |                                                          |  |
|  | - Cable vertical band inside 600mm               | pcs | 1.00 |                                                          |  |
|  | - Cable vertical band inside 200mm               | pcs | 4.00 |                                                          |  |
|  | - Cable vertical band inside 150mm               | pcs | 1.00 |                                                          |  |
|  |                                                  |     |      | <b>Jumlah Sub Total VIII.5</b>                           |  |
|  |                                                  |     |      | <b>JUMLAH TOTAL ( VIII.1 + VIII.2 + ..... + VIII.5 )</b> |  |

# DAFTAR KUANTITAS DAN HARGA

## REKAPITULASI

Paket Pekerjaan : Pembangunan IPA 230 l/dtk Waduk Tembesi (intake pipa transmisi dari Waduk Monggak)  
Lokasi Pekerjaan : Waduk Tembesi  
Tahun Anggaran : 2024

| No   | Uraian Pekerjaan                                                                                    | Harga Pekerjaan (Rp) |
|------|-----------------------------------------------------------------------------------------------------|----------------------|
| A    | B                                                                                                   | C                    |
| I    | <b>Pekerjaan Persiapan</b>                                                                          |                      |
| II   | <b>Pembangunan Intake</b>                                                                           |                      |
| III  | <b>Pengadaan dan Pemasangan Pipa Transmisi Air Baku</b>                                             |                      |
| IV   | <b>Pembangunan IPA 230 l/dtk Waduk Tembesi</b>                                                      |                      |
| V    | <b>Pembangunan Bangunan Pendukung</b>                                                               |                      |
| 1    | PEKERJAAAN BANGUNAN KANTOR                                                                          |                      |
| 2    | PEKERJAAAN BANGUNAN DAYA DAN GENSET                                                                 |                      |
| 3    | PEKERJAAAN BANGUNAN SLUDGE DRYING BED                                                               |                      |
| 4    | PEKERJAAAN BANGUNAN SCADA DAN RUANG OPERATOR                                                        |                      |
| 5    | PEKERJAAAN BANGUNAN CHLORINE                                                                        |                      |
| 6    | PEKERJAAAN BANGUNAN RUMAH POMPA                                                                     |                      |
| 7    | PEKERJAAAN BANGUNAN RUMAH POMPA BOOSTER ( 2 UNIT )                                                  |                      |
| 8    | PEKERJAAAN RUMAH JAGA                                                                               |                      |
| 9    | PEKERJAAAN PENUNJANG TAMBAHAN                                                                       |                      |
| VI   | <b>Pembangunan Reservoir Glass Fuse Steel (GFS) Kapasitas 3000 m3 dengan Rumah Pompa Distribusi</b> |                      |
| VII  | <b>Pengadaan dan Pemasangan Pipa Transmisi Air Curah</b>                                            |                      |
| VIII | <b>Pengadaan dan Pemasangan Penyambungan Daya dan Kelistrikan</b>                                   |                      |
| IX   | <b>Pengadaan dan Pemasangan SCADA System</b>                                                        |                      |
|      | <b>TOTAL HARGA PEKERJAAN</b>                                                                        |                      |
|      | <b>PEMBULATAN</b>                                                                                   |                      |

## DAFTAR Kuantitas dan Harga

Paket Pekerjaan : Pekerjaan Persiapan  
 Lokasi Pekerjaan : Waduk Tembesi  
 Tahun Anggaran : 2024

| No                    | Uraian Pekerjaan                                                 | Satuan   | Kuantitas | Pasal | Harga Satuan (Rp) | Harga Pekerjaan (Rp) |
|-----------------------|------------------------------------------------------------------|----------|-----------|-------|-------------------|----------------------|
| I                     | 2                                                                | 3        | 4         | 5     | 6                 | 7 = (4 x 6)          |
| <b>I</b>              | <b>PEKERJAAN PERSIAPAN</b>                                       |          |           |       |                   |                      |
|                       | 1 Mobilisasi                                                     | LS       | 1.00      | D.1.1 |                   |                      |
|                       | 2 SMK3                                                           | LS       | 1.00      | D.1.6 |                   |                      |
|                       | 3 Manajemen Mutu                                                 | LS       | 1.00      | D.1.7 |                   |                      |
|                       | 4 Sewa Kendaraan Operasional Direksi Double Cabin (termasuk BBM) | unit/bln | 8.00      |       |                   |                      |
| <b>JUMLAH TOTAL I</b> |                                                                  |          |           |       |                   |                      |

| No.                    | URAIAN                             | SATUAN | VOL.   | HARGA SATUAN (Rp.) | Lembar 1.2-1 JUMLAH HARGA (Rp.) |
|------------------------|------------------------------------|--------|--------|--------------------|---------------------------------|
| A.                     | Direksi Keet                       | m2     | 100.00 |                    | -                               |
| B.                     | PERALATAN<br>Periksa lembar 1.2-2  | Ls     | 1.00   |                    | -                               |
| C.                     | FASILITAS KONTRAKTOR               |        |        |                    |                                 |
| 1                      | Barak                              | M2     | 80.00  |                    | -                               |
| 2                      | Bengkel                            | M2     |        |                    | -                               |
| 3                      | Gudang, dan lain-lain              | M2     | 80.00  |                    | -                               |
| 4                      | Papan Nama Proyek                  | Unit   | 2.00   |                    | -                               |
| 5                      | Listrik Kerja                      | Bln    | 8.00   |                    | -                               |
| 6                      | Air Bersih                         | Bln    | 8.00   |                    | -                               |
| D.                     | FASILITAS LABORATORIUM             |        |        |                    |                                 |
| 1                      | Laboratorium                       | Ls     | 1.00   |                    | -                               |
| E.                     | MOBILISASI LAINNYA                 |        |        |                    |                                 |
| E.I.                   | PEKERJAAN DARURAT                  |        |        |                    |                                 |
| 1                      | Perkuatan Jembatan Lama            | LS     |        |                    | -                               |
| 2                      | Pemeliharaan Jalan Kerja / Samping | LS     |        |                    | -                               |
| 3                      | .....                              | ....   |        |                    | -                               |
| E.II.                  | LAIN-LAIN                          |        |        |                    |                                 |
| 1                      | As Built Drawing                   | Set    | 7.00   |                    | -                               |
| 2                      | .....                              | ....   |        |                    | -                               |
| F.                     | DEMOBILISASI                       | LS     | 1.00   |                    | -                               |
| Total Biaya Mobilisasi |                                    |        |        |                    | -                               |

Catatan : Jumlah yang tercantum pada masing-masing item mobilisasi di atas sudah termasuk over-head dan laba serta seluruh pajak dan bea (kecuali PPN), dan pengeluaran lainnya.

| No.                              | JENIS ALAT                | KODE ALAT | SATUAN | VOL. | HARGA SATUAN (Rp.) | Lembar 1.2-2<br>JUMLAH HARGA (Rp.) |
|----------------------------------|---------------------------|-----------|--------|------|--------------------|------------------------------------|
| B.                               | PERALATAN                 |           |        |      |                    |                                    |
| 1                                | ASPHALT MIXING PLANT      | E01       | Unit   |      |                    |                                    |
| 2                                | ASPHALT FINISHER          | E02       | Unit   |      |                    |                                    |
| 3                                | ASPHALT SPRAYER           | E03       | Unit   |      |                    |                                    |
| 4                                | BULLDOZER 100-150 HP      | E04       | Unit   |      |                    |                                    |
| 5                                | COMPRESSOR 4000-6500 L/M  | E05       | Unit   |      |                    |                                    |
| 6                                | CONCRETE MIXER 0.3-0.6 M3 | E06       | Unit   |      |                    |                                    |
| 7                                | CRANE 10-15 TON           | E07       | Unit   |      |                    |                                    |
| 8                                | DUMP TRUCK 3.5 M3         | E08       | Unit   |      |                    |                                    |
| 9                                | DUMP TRUCK                | E09       | Unit   | 5.00 |                    | -                                  |
| 10                               | EXCAVATOR 80-140 HP       | E10       | Unit   | 5.00 |                    | -                                  |
| 11                               | FLAT BED TRUCK 3-4 M3     | E11       | Unit   | 1.00 |                    | -                                  |
| 12                               | GENERATOR SET             | E12       | Unit   |      |                    |                                    |
| 13                               | MOTOR GRADER >100 HP      | E13       | Unit   |      |                    |                                    |
| 14                               | TRACK LOADER 75-100 HP    | E14       | Unit   |      |                    |                                    |
| 15                               | WHEEL LOADER 1.0-1.6 M3   | E15       | Unit   |      |                    |                                    |
| 16                               | THREE WHEEL ROLLER 6-8 T  | E16       | Unit   |      |                    |                                    |
| 17                               | TANDEM ROLLER 6-8 T.      | E17       | Unit   |      |                    |                                    |
| 18                               | TIRE ROLLER 8-10 T.       | E18       | Unit   |      |                    |                                    |
| 19                               | VIBRATORY ROLLER 5-8 T.   | E19       | Unit   |      |                    |                                    |
| 20                               | CONCRETE VIBRATOR         | E20       | Unit   | 5.00 |                    | -                                  |
| 21                               | STONE CRUSHER             | E21       | Unit   |      |                    |                                    |
| 22                               | WATER PUMP 70-100 mm      | E22       | Unit   |      |                    |                                    |
| 23                               | WATER TANKER 3000-4500 L. | E23       | Unit   | 1.00 |                    | -                                  |
| 24                               | PEDESTRIAN ROLLER         | E24       | Unit   |      |                    |                                    |
| 25                               | TAMPER                    | E25       | Unit   | 5.00 |                    | -                                  |
| 26                               | JACK HAMMER               | E26       | Unit   |      |                    |                                    |
| 27                               | FULVI MIXER               | E27       | Unit   |      |                    |                                    |
| 28                               | CONCRETE PUMP             | E28       | Unit   |      |                    |                                    |
| 29                               | TRAILER 20 TON            | E29       | Unit   |      |                    |                                    |
| 30                               | PILE DRIVER + HAMMER      | E30       | Unit   |      |                    |                                    |
| 31                               | CRANE ON TRACK 35 TON     | E31       | Unit   |      |                    |                                    |
| 32                               | WELDING SET               | E32       | Unit   |      |                    |                                    |
| 33                               | BORE PILE MACHINE         | E33       | Unit   |      |                    |                                    |
| 34                               | ASPHALT LIQUID MIXER      | E34       | Unit   |      |                    |                                    |
| 35                               | TRONTON                   | E35       | Unit   |      |                    |                                    |
| 36                               | COLD MILLING MACHINE      | E37       | Unit   |      |                    |                                    |
| 37                               | ROCK DRILL BREAKER        | E36       | Unit   |      |                    |                                    |
| 38                               | COLD RECYCLER             | E38       | Unit   |      |                    |                                    |
| 39                               | HOT RECYCLER              | E39       | Unit   |      |                    |                                    |
| 40                               | AGGREGAT (CHIP) SPREADER  | E40       | Unit   |      |                    |                                    |
| 41                               | ASPHALT DISTRIBUTOR       | E41       | Unit   |      |                    |                                    |
| 42                               | SLIP FORM PAVER           | E42       | Unit   |      |                    |                                    |
| 43                               | CONCRETE PAN MIXER        | E43       | Unit   |      |                    |                                    |
| 44                               | CONCRETE BREAKER          | E44       | Unit   |      |                    |                                    |
| 45                               | ASPAHLT TANKER            | E45       | Unit   |      |                    |                                    |
| 46                               | CEMENT TANKER             | E46       | Unit   |      |                    |                                    |
| 47                               | CONDRETE MIXER (350)      | E47       | Unit   |      |                    |                                    |
| 48                               | VIBRATING RAMMER          | E48       | Unit   |      |                    |                                    |
| 49                               | TRUK MIXER (AGITATOR)     | E49       | Unit   |      |                    |                                    |
| 50                               | BORE PILE MACHINE         | E50       | Unit   | 1.00 |                    | -                                  |
| 51                               | CRANE ON TRACK 75-100 TON | E51       | Unit   | 1.00 |                    | -                                  |
| 52                               | EXCAVATOR Breaker         | E52       | Unit   | 1.00 |                    | -                                  |
| 53                               | MESIN BUTTFUSION          |           | Unit   | 2.00 |                    | -                                  |
| Total untuk Item B pada Lembar 1 |                           |           |        |      |                    | -                                  |

**FORMULIR STANDAR UNTUK  
PEREKAMAN ANALISA MASING-MASING HARGA SATUAN**

ITEM PEMBAYARAN NO. : 1.21.  
JENIS PEKERJAAN : Manajemen Mutu  
SATUAN PEMBAYARAN : Lump Sum

| No.       | URAIAN                                                                                                    | SATUAN   | PERKIRAAN<br>KUANTITAS | HARGA<br>SATUAN<br>(Rp.) | JUMLAH<br>HARGA<br>(Rp.) |
|-----------|-----------------------------------------------------------------------------------------------------------|----------|------------------------|--------------------------|--------------------------|
| <b>A.</b> | <b>DATA DAN ASUMSI</b>                                                                                    |          |                        |                          |                          |
| 1         | Tidak ada pengadaan peralatan pengujian mutu dan perlengkapan perangkat alat tulis dan kantor             |          |                        |                          |                          |
| 2         | Hanya Jasa Pengendalian Mutu Pekerjaan dilapangan selama masa pelaksanaan pekerjaan                       |          |                        |                          |                          |
| 3         | Personil melakukan pengendalian mutu berdasarkan spesifikasi pekerjaan dan membuat laporan mutu pekerjaan |          |                        |                          |                          |
| <b>B.</b> | <b>URUTAN KERJA</b>                                                                                       |          |                        |                          |                          |
| 1         | Penyedia setelah menerima SPMK mengusulkan personil Tenaga Ahli Mutu Pekerjaan sbg Manajer Kendali Mutu   |          |                        |                          |                          |
| 2         | Tenaga Ahli dibantu oleh Asisten Kendali Mutu yang berpengalaman dibidangnya dan tenaga pendukung         |          |                        |                          |                          |
| 3         | Membuat RMK dan laporan mutu yg disetujui PPK                                                             |          |                        |                          |                          |
| 4         | Melakukan pengendalian mutu semua pekerjaan dan membuat laporan secara berkala                            |          |                        |                          |                          |
| <b>C.</b> | <b>TENAGA / PERSONIL</b>                                                                                  |          |                        |                          |                          |
|           | Masa Pelaksanaan Pekerjaan                                                                                | Bulan    | 8.00                   |                          |                          |
| 1         | Ahli Kendali Mutu                                                                                         | OB       | 8.00                   |                          | -                        |
| 2         | Staff Pendukung (supporting Staff)                                                                        | OB       | 8.00                   |                          | -                        |
| 3         | Laporan Kendali Mutu                                                                                      | Bulan    | 8.00                   |                          | -                        |
| 4         | Sewa Laptop                                                                                               | Unit/Bln | 16.00                  |                          | -                        |
| <b>D</b>  | <b>TOTAL BIAYA PENGENDALIAN MUTU</b>                                                                      |          |                        |                          | -                        |
|           |                                                                                                           |          |                        |                          |                          |
|           |                                                                                                           |          |                        |                          |                          |

Catatan : 1. Harga Satuan Personil tersebut sudah termasuk seluruh pajak dan bea (kecuali PPN), Asuransi Tenaga Kerja dan pengeluaran lainnya.

2. Biaya tersebut sudah termasuk biaya pembuatan laporan yang terkait dengan mutu pekerjaan

3. Biaya satuan tersebut sudah termasuk kebutuhan perlengkapan dan peralatan pendukung yang diperlukan pembuatan laporan mutu seperti komputer, printer, kertas dan sebagainya.



| No.       | JENIS PEMBAYARAN                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SATUAN                                                      | VOLUME                                                               | HARGA SATUAN | JUMLAH HARGA |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------|--------------|--------------|
| <b>B.</b> | <b>Keselamatan dan Kesehatan Kerja</b>                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                             |                                                                      |              |              |
| 1         | <b>Penyiapan RKK :</b><br>a Pembuatan Dokumen Rencana Keselamatan Konstruksi<br>b Pembuatan Prosedur dan Instruksi Kerja<br>c Penyiapan Formulir                                                                                                                                                                                                                                                                                                                            | Set                                                         | 3.00                                                                 |              |              |
| 2         | <b>Sosialisasi dan Promosi Dan Pelatihan:</b><br>a Induksi K3 (Safety Induction)<br>b Pengarahan K3 (Safety briefing).<br>c Pertemuan keselamatan (Safety Talk /Tool Box Meeting)<br>d Pelatihan K3<br>e P3K<br>f Bekerja Di Ketinggian<br>g Simulasi K3<br>Spanduk (Banner)                                                                                                                                                                                                | Lbr                                                         | 4.00                                                                 |              |              |
| 3         | <b>Alat Pelindung Kerja (APK) dan Alat Pelindung Diri (APD)</b><br><b>Alat Pelindung Kerja (APK)antara lain:</b><br>a Tali pembatas jalan ( <i>Safety line</i> )<br><b>Alat Pelindung Diri (APD) terdiri atas:</b><br>a Topi pelindung ( <i>Safety helmet</i> )<br>b Pelindung pernafasan dan mulut (Masker)<br>c Sepatu keselamatan (Safety)<br>d Sepatu keselamatan (Rubber)<br>e Rompi keselamatan ( <i>Safety vest</i> )<br>f Rompi Direksi<br>f Wind Breaker (Direksi) | Gulung<br>Buah<br>Box<br>Psg<br>Psg<br>Buah<br>Buah<br>Buah | 20.00<br>50.00<br>50.00<br>20.00<br>50.00<br>50.00<br>20.00<br>20.00 |              |              |
| 4         | <b>Fasilitas sarana kesehatan</b><br>Peralatan P3K (Kotak P3K, Obat Luka, Perban, Dll)<br>Mobil Patroli K3 Double Cabin                                                                                                                                                                                                                                                                                                                                                     | Ls<br>bulan                                                 | 1.00<br>8.00                                                         |              |              |
| 5         | <b>Rambu-rambu terdiri atas:</b><br>a Rambu petunjuk<br>b Rambu peringatan<br>c Kerucut lalu lintas ( <i>Traffic Cone</i> )                                                                                                                                                                                                                                                                                                                                                 | Buah<br>Buah<br>Buah                                        | 20.00<br>20.00<br>40.00                                              |              |              |
| 6         | <b>Lain-lain terkait pengendalian risiko K3</b><br>Bendera K3                                                                                                                                                                                                                                                                                                                                                                                                               | Buah                                                        | 5.00                                                                 |              |              |
|           | <b>TOTAL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                             |                                                                      |              | -            |

DAFTAR KUANTITAS DAN HARGA

DED-02

Paket Pekerjaan : Pembangunan Intake  
 Lokasi Pekerjaan : Waduk Tembesi  
 Tahun Anggaran : 2024

| No         | Uraian Pekerjaan                                  | Satuan | Kuantitas | Harga Satuan (Rp)           | Harga Pekerjaan (Rp) |
|------------|---------------------------------------------------|--------|-----------|-----------------------------|----------------------|
| A          | B                                                 | C      | D         | E                           | F                    |
| <b>I</b>   | <b>PEKERJAAN BETON</b>                            |        |           |                             |                      |
| 1          | Pondasi Support Pipa Header :                     |        |           |                             |                      |
|            | Galian                                            | m³     | 9.75      |                             |                      |
|            | Buangan Tanah                                     | m³     | 9.75      |                             |                      |
| 2          | Lantai Kerja                                      | m²     | 0.27      |                             |                      |
|            | Beton K-300 Readymiks fc' 30 MPA                  | m³     | 11.34     |                             |                      |
|            | Bekisting                                         | m²     | 45.36     |                             |                      |
|            | Pembesian                                         | kg     | 1,701.00  |                             |                      |
| 3          | Pekerjaan Intake ( Sumuran dan Open Tunnel )      |        |           |                             |                      |
|            | Galian                                            | m³     | 557.96    |                             |                      |
|            | Buangan Tanah                                     | m³     | 725.35    |                             |                      |
| 4          | Pekerjaan Lantai Kerja t = 25 cm Base bawah       |        |           |                             |                      |
|            | Beton K-300 Readymiks fc' 30 MPA                  | m³     | 28.05     |                             |                      |
|            | Bekisting                                         | m²     | 16.40     |                             |                      |
|            | Pembesian                                         | kg     | 6,309.50  |                             |                      |
| 5          | Pekerjaan Dinding t = 30 cm                       |        |           |                             |                      |
|            | Beton K-300 Readymiks fc' 30 MPA                  | m³     | 88.21     |                             |                      |
|            | Bekisting                                         | m²     | 588.08    |                             |                      |
|            | Pembesian                                         | kg     | 19,920.79 |                             |                      |
| 6          | Pekerjaan Turap Batu kali                         |        |           |                             |                      |
|            | Pembesian                                         | m³     | 198.83    |                             |                      |
| 7          | Pekerjaan Balok 30/25                             |        |           |                             |                      |
|            | Beton K-300 Readymiks fc' 30 MPA                  | m³     | 3.90      |                             |                      |
|            | Bekisting                                         | m²     | 44.20     |                             |                      |
|            | Pembesian                                         | kg     | 475.92    |                             |                      |
| 8          | Pekerjaan Plat Lantai t = 25 cm                   |        |           |                             |                      |
|            | Beton K-300 Readymiks fc' 30 MPA                  | m³     | 7.88      |                             |                      |
|            | Bekisting                                         | m²     | 31.50     |                             |                      |
|            | Pembesian                                         | kg     | 2,134.07  |                             |                      |
| 9          | Pekerjaan Kolom 30/50                             |        |           |                             |                      |
|            | Beton K-300 Readymiks fc' 30 MPA                  | m³     | 23.40     |                             |                      |
|            | Bekisting                                         | m²     | 124.80    |                             |                      |
|            | Pembesian                                         | kg     | 2,855.55  |                             |                      |
|            |                                                   |        |           | <b>Jumlah Sub Total I</b>   |                      |
| <b>II</b>  | <b>PEKERJAAN BESI DAN BAJA</b>                    |        |           |                             |                      |
| 1          | Besi Tiang Penahan Atas :                         |        |           |                             |                      |
|            | Pengadaan dan Pemasangan H Beam 350 x 350         | kg     | 4,521.00  |                             |                      |
|            | Pengadaan dan Pemasangan H Beam 300 x 300         | kg     | 2,726.00  |                             |                      |
|            | Pengadaan dan Pemasangan UNP 200 x 100            | kg     | 466.67    |                             |                      |
| 2          | Besi Tiang Penahan Pompa :                        |        |           |                             |                      |
|            | H Beam 350 x 350                                  | kg     | 15,344.00 |                             |                      |
|            | UNP 200 x 100                                     | kg     | 2,613.33  |                             |                      |
| 4          | Pekerjaan Grill                                   | unit   | 1.00      |                             |                      |
| 5          | Pekerjaan Pintu Air                               | unit   | 2.00      |                             |                      |
| 6          | Biaya Perakitan                                   | kg     | 25,671.00 |                             |                      |
|            |                                                   |        |           | <b>Jumlah Sub Total II</b>  |                      |
| <b>III</b> | <b>PEKERJAAN PERPIPAAN</b>                        |        |           |                             |                      |
| 1          | Pekerjaan Pengadaan Pipa Steel dan Acc. :         |        |           |                             |                      |
| 1.1        | Pipa Hisap, Pipa BSP Kelas Medium, DN 200 mm      | m'     | 24.00     |                             |                      |
| 1.2        | Pipa Penghantar, Pipa BSP Kelas Medium, DN 200 mm | m'     | 30.00     |                             |                      |
| 1.3        | Pipa Header, Pipa BSP Kelas Medium, DN 500 mm     | m'     | 12.00     |                             |                      |
| 1.4        | Assesories Pipa :                                 |        |           |                             |                      |
|            | Bend 90° DN. 200 mm                               | Bh     | 3.00      |                             |                      |
|            | Reducer DN 500 x 200 mm                           | Bh     | 1.00      |                             |                      |
|            | Tee Y DN. 500 x 200 mm                            | Bh     | 3.00      |                             |                      |
|            | Gate Valve DN 200 mm                              | Bh     | 3.00      |                             |                      |
|            | Check Valve DN. 200 mm                            | Bh     | 3.00      |                             |                      |
|            | Flexible Joint ND. 200 mm                         | Bh     | 3.00      |                             |                      |
|            | Loose Flange ND. 200 mm                           | Bh     | 18.00     |                             |                      |
|            | Blind Flange ND. 500 mm                           | Bh     | 1.00      |                             |                      |
|            | Packing, DN 200 mm                                | Bh     | 18.00     |                             |                      |
|            | Packing, DN 500 mm                                | Bh     | 1.00      |                             |                      |
|            | Mur dan Baut 5/8" x 3"                            | Bh     | 252.00    |                             |                      |
| 2          | Pekerjaan Pemasangan Pipa Steel dan Acc. :        |        |           |                             |                      |
| 2.1        | Pipa Hisap, Pipa BSP Kelas Medium, DN 200 mm      |        |           |                             |                      |
|            | Peletakan Pipa                                    | m'     | 24.00     |                             |                      |
|            | Pemotongan Pipa                                   | m'     | 24.00     |                             |                      |
|            | Pengelasan                                        | m'     | 24.00     |                             |                      |
| 2.2        | Pipa Penghantar, Pipa BSP Kelas Medium, DN 200 mm |        |           |                             |                      |
|            | Peletakan Pipa                                    | m'     | 30.00     |                             |                      |
|            | Pemotongan Pipa                                   | m'     | 30.00     |                             |                      |
|            | Pengelasan                                        | m'     | 30.00     |                             |                      |
| 2.3        | Pipa Header, Pipa BSP Kelas Medium, DN 500 mm     |        |           |                             |                      |
|            | Peletakan Pipa                                    | m'     | 12.00     |                             |                      |
|            | Pemotongan Pipa                                   | m'     | 12.00     |                             |                      |
|            | Pengelasan                                        | m'     | 12.00     |                             |                      |
| 2.4        | Assesories Pipa :                                 |        |           |                             |                      |
|            | Gate Valve DN 200 mm                              | Bh     | 3.00      |                             |                      |
|            | Check Valve DN. 200 mm                            | Bh     | 3.00      |                             |                      |
|            | Flexible Joint ND. 200 mm                         | Bh     | 3.00      |                             |                      |
|            |                                                   |        |           | <b>Jumlah Sub Total III</b> |                      |
| <b>2</b>   | <b>INTAKE TEMBESI KE WTP TEMBESI</b>              |        |           |                             |                      |
| <b>I</b>   | <b>PEKERJAAN BETON</b>                            |        |           |                             |                      |

|            |                                                   |                |           |  |
|------------|---------------------------------------------------|----------------|-----------|--|
|            | Pondasi Support Pipa Header :                     |                |           |  |
|            | Galian                                            | m <sup>3</sup> | 9.75      |  |
|            | Buangan Tanah                                     | m <sup>3</sup> | 9.75      |  |
|            | Lantai Kerja                                      | m <sup>3</sup> | 0.27      |  |
|            | Beton K-300 Readymiks fc' 30 MPA                  | m <sup>3</sup> | 11.34     |  |
|            | Bekisting                                         | m <sup>2</sup> | 45.36     |  |
|            | Pembesian                                         | kg             | 1,701.00  |  |
|            | Pekerjaan Lantai Kerja t = 25 cm Base bawah       |                |           |  |
|            | Beton K-300 Readymiks fc' 30 MPA                  | m <sup>3</sup> | 6.30      |  |
|            | Bekisting                                         | m <sup>2</sup> | 16.40     |  |
|            | Pembesian                                         | kg             | 945.00    |  |
|            | Pekerjaan Turap Batu kali                         | m <sup>3</sup> | 29.30     |  |
|            | Pekerjaan Balok 30/25                             |                |           |  |
|            | Beton K-300 Readymiks fc' 30 MPA                  | m <sup>3</sup> | 3.90      |  |
|            | Bekisting                                         | m <sup>2</sup> | 44.20     |  |
|            | Pembesian                                         | kg             | 475.92    |  |
|            | Pekerjaan Plat Lantai t = 25 cm                   |                |           |  |
|            | Beton K-300 Readymiks fc' 30 MPA                  | m <sup>3</sup> | 7.50      |  |
|            | Bekisting                                         | m <sup>2</sup> | 31.50     |  |
|            | Pembesian                                         | kg             | 2,134.07  |  |
|            | Pekerjaan Kolom 30/50                             |                |           |  |
|            | Beton K-300 Readymiks fc' 30 MPA                  | m <sup>3</sup> | 23.40     |  |
|            | Bekisting                                         | m <sup>2</sup> | 124.80    |  |
|            | Pembesian                                         | kg             | 2,855.55  |  |
|            | Beton Pemberat K.300                              | m <sup>3</sup> | 4.00      |  |
| <b>II</b>  | <b>PEKERJAAN BESI DAN BAJA</b>                    |                |           |  |
|            | Besi Tiang Penahan Atas :                         |                |           |  |
|            | Pengadaan dan Pemasangan H Beam 350 x 350         | kg             | 1,356.30  |  |
|            | Pengadaan dan Pemasangan H Beam 300 x 300         | kg             | 817.80    |  |
|            | Pengadaan dan Pemasangan UNP 200 x 100            | kg             | 140.00    |  |
|            | Besi Tiang Penahan Pompa :                        |                |           |  |
|            | H Beam 350 x 350                                  | kg             | 7,672.00  |  |
|            | UNP 200 x 100                                     | kg             | 784.00    |  |
|            | Pekerjaan Grill                                   | unit           | 1.00      |  |
|            | Pekerjaan Pintu Air                               | unit           | 2.00      |  |
|            | Biaya Perakitan                                   | kg             | 10,770.10 |  |
| <b>III</b> | <b>PEKERJAAN PERPIPAAN</b>                        |                |           |  |
|            | Pekerjaan Pengadaan Pipa Steel dan Acc. :         |                |           |  |
|            | Pipa Hisap, Pipa BSP Kelas Medium, DN 200 mm      | m'             | 12.00     |  |
|            | Pipa Penghantar, Pipa BSP Kelas Medium, DN 200 mm | m'             | 20.00     |  |
|            | Pipa Header, Pipa BSP Kelas Medium, DN 500 mm     | m'             | 305.00    |  |
|            | Pipa HDPE PE 100, SDR 17, PN.10 , DN 500 mm       | m'             | 48.00     |  |
|            | Assesories Pipa :                                 |                |           |  |
|            | Bend 90° DN. 500 mm                               | Bh             | 4.00      |  |
|            | Bend 45° DN. 500 mm                               | Bh             | 2.00      |  |
|            | Bend 90° DN. 200 mm                               | Bh             | 2.00      |  |
|            | Reducer DN 500 x 200 mm                           | Bh             | 1.00      |  |
|            | Tee Y DN. 500 x 200 mm                            | Bh             | 2.00      |  |
|            | Gate Valve DN 200 mm                              | Bh             | 2.00      |  |
|            | Check Valve DN. 200 mm                            | Bh             | 2.00      |  |
|            | Flexible Joint ND. 200 mm                         | Bh             | 2.00      |  |
|            | Loose Flange ND. 200 mm                           | Bh             | 18.00     |  |
|            | Blind Flange ND. 500 mm                           | Bh             | 1.00      |  |
|            | Packing, DN 200 mm                                | Bh             | 18.00     |  |
|            | Packing, DN 500 mm                                | Bh             | 1.00      |  |
|            | Mur dan Baut 5/8" x 3"                            | Bh             | 252.00    |  |
|            | Pekerjaan Pemasangan Pipa Steel dan Acc. :        |                |           |  |
|            | Pipa Hisap, Pipa BSP Kelas Medium, DN 200 mm      |                |           |  |
|            | Peletakan Pipa                                    | m'             | 24.00     |  |
|            | Pemotongan Pipa                                   | m'             | 24.00     |  |
|            | Pengelasan                                        | m'             | 24.00     |  |
|            | Pipa Penghantar, Pipa BSP Kelas Medium, DN 200 mm |                |           |  |
|            | Peletakan Pipa                                    | m'             | 30.00     |  |
|            | Pemotongan Pipa                                   | m'             | 30.00     |  |
|            | Pengelasan                                        | m'             | 30.00     |  |
|            | Pipa Header, Pipa BSP Kelas Medium, DN 500 mm     |                |           |  |
|            | Peletakan Pipa                                    | m'             | 305.00    |  |
|            | Pemotongan Pipa                                   | m'             | 305.00    |  |
|            | Pengelasan                                        | m'             | 305.00    |  |
|            | Assesories Pipa :                                 |                |           |  |
|            | Gate Valve DN 200 mm                              | Bh             | 3.00      |  |
|            | Check Valve DN. 200 mm                            | Bh             | 3.00      |  |
|            | Flexible Joint ND. 200 mm                         | Bh             | 3.00      |  |
|            | <b>Total Pekerjaan II</b>                         |                |           |  |
|            | <b>Jumlah Total</b>                               |                |           |  |

DAFTAR KUANTITAS DAN HARGA

DED-03

Paket Pekerjaan : Pengadaan dan Pemasangan Pipa Transmisi Air Baku  
 Lokasi Pekerjaan : Waduk Tembesi  
 Tahun Anggaran : 2024

| No                             | Uraian Pekerjaan                                                                         | Satuan | Kuantitas | Harga Satuan (Rp) | Harga Pekerjaan (Rp) |
|--------------------------------|------------------------------------------------------------------------------------------|--------|-----------|-------------------|----------------------|
| A                              | B                                                                                        | C      | D         | E                 | F                    |
| <b>I</b>                       | <b>PEKERJAAN PENGADAAN PIPA</b>                                                          |        |           |                   |                      |
| 1                              | Pipa HDPE PE.100, SDR.17, PN.10, DN. 355 mm                                              | m      | 27,826.00 |                   |                      |
| 2                              | Asesorries Pipa HDPE                                                                     |        |           |                   |                      |
|                                | Bend 45, DN. 350 mm                                                                      | bh     | 21.00     |                   |                      |
|                                | Bend 90, DN. 350 mm                                                                      | bh     | 2.00      |                   |                      |
|                                | Air Valve ND. 100 mm                                                                     | bh     | 21.00     |                   |                      |
|                                | Gate Valve ND. 100 mm                                                                    | bh     | 21.00     |                   |                      |
|                                | Tee DN. 350 x 100 mm                                                                     | bh     | 21.00     |                   |                      |
|                                | Stub Flange DN. 100 mm                                                                   | bh     | 21.00     |                   |                      |
|                                | Surge Anticipating Valve ND 6"                                                           | bh     | 2.00      |                   |                      |
| <b>Jumlah Sub Total I</b>      |                                                                                          |        |           |                   |                      |
| <b>II</b>                      | <b>PEKERJAAN PEMASANGAN PIPA, ACESSORIES TERMASUK FITTING VALVE DAN PENGETESAN</b>       |        |           |                   |                      |
| 1                              | Pekerjaan Sipil :                                                                        |        |           |                   |                      |
|                                | Galian Tanah Berbatu                                                                     | m3     | 26,260.79 |                   |                      |
|                                | Galian Tanah Biasa                                                                       | m3     | 26,260.79 |                   |                      |
|                                | Urugan Tanah dan Pematatan Kembali                                                       | m3     | 49,768.76 |                   |                      |
|                                | Buangan Tanah                                                                            | m3     | 2,752.82  |                   |                      |
| 2                              | Pemasangan Pipa HDPE PE.100, SDR 17, PN.10, DN. 355 mm                                   | m'     | 27,826.00 |                   |                      |
| 3                              | Pekerjaan HDD Crossing HDPE 13,6 SDR 17 DN.355 mm                                        | m'     | 120.00    |                   |                      |
| 4                              | Pengadaan Thrust Block Beton K300 (panjang x lebar x tinggi = 1.05 x 0.6 x 1.05 m)       | bh     | 25.00     |                   |                      |
|                                | Pemasangan Thrust Block Beton K300 (panjang x lebar x tinggi = 1.05 x 0.6 x 1.05 m)      | bh     | 25.00     |                   |                      |
| 5                              | Pemasangan Accessories Pipa                                                              |        |           |                   |                      |
|                                | Bend 45, DN. 350 mm                                                                      | bh     | 21.00     |                   |                      |
|                                | Bend 90, DN. 350 mm                                                                      | bh     | 2.00      |                   |                      |
|                                | Air Valve ND. 100 mm                                                                     | bh     | 21.00     |                   |                      |
|                                | Gate Valve ND. 100 mm                                                                    | bh     | 21.00     |                   |                      |
|                                | Tee DN. 350 x 100 mm                                                                     | bh     | 21.00     |                   |                      |
|                                | Stub Flange DN. 100 mm                                                                   | bh     | 21.00     |                   |                      |
|                                | Surge Anticipating Valve ND 6"                                                           | bh     | 2.00      |                   |                      |
| 6                              | Air Valve Chamber                                                                        | unit   | 21.00     |                   |                      |
| 7                              | Pengetesan Pipa HDPE, DN. 350 mm                                                         | m'     | 27,826.00 |                   |                      |
| 8                              | Pekerjaan Pembongkaran Penutup Box Utility (termasuk pengiriman material ke gudang aset) | m2     | 2,634.00  |                   |                      |
| 9                              | Pekerjaan Pemasangan Grill Grating                                                       | m2     | 2,634.00  |                   |                      |
| <b>Jumlah Sub Total II</b>     |                                                                                          |        |           |                   |                      |
| <b>JUMLAH TOTAL ( I + II )</b> |                                                                                          |        |           |                   |                      |

DAFTAR KUANTITAS DAN HARGA

DED -04

Paket Pekerjaan : Pembangunan IPA 230 l/dtk Waduk Tembesi  
 Lokasi Pekerjaan : Waduk Tembesi  
 Tahun Anggaran : 2024

| No                         | Uraian Pekerjaan                                    | Satuan | Kuantitas |  |  |
|----------------------------|-----------------------------------------------------|--------|-----------|--|--|
| <b>I</b>                   | <b>PEKERJAAN TANAH</b>                              |        |           |  |  |
| <b>I.1</b>                 | <b>Pekerjaan Land Clearing Total lahan SPAM</b>     |        |           |  |  |
| 1                          | Pekerjaan galian tanah                              | m3     | 21,922.84 |  |  |
| 2                          | Pekerjaan Pengurugan Kembali                        | m3     | 3,895.55  |  |  |
| 3                          | Pekerjaan pembuangan tanah sisa galian              | m3     | 18,027.29 |  |  |
| 4                          | Pekerjaan Pintu Gerbang BRC area SPAM               | m2     | 12.80     |  |  |
| 5                          | Pekerjaan Pagar BRC 5,5 mm tinggi = 1,5 m area SPAM | m      | 368.00    |  |  |
| <b>I.2</b>                 | <b>Pekerjaan Tanah Pada Bangunan</b>                |        |           |  |  |
| 1                          | Pekerjaan Urugan Pasir, t = 10 cm                   | m3     | 40.76     |  |  |
| 2                          | Pekerjaan Pematatan                                 | m3     | 40.76     |  |  |
| <b>Jumlah Sub Total I</b>  |                                                     |        |           |  |  |
| <b>II</b>                  | <b>PEKERJAAN PONDASI DAN LANTAI BETON</b>           |        |           |  |  |
| <b>1</b>                   | <b>Pondasi Bore Pile DN 400 mm, P= 4 m</b>          |        |           |  |  |
| -                          | Pengeboran Bore Pile 400 mm                         | m      | 216.00    |  |  |
| -                          | Beton K-350                                         | m3     | 27.14     |  |  |
| -                          | Pembesian                                           | kg     | 5,046.07  |  |  |
| -                          | Sewa Casing Bore Pile                               | m      | 216.00    |  |  |
| <b>2</b>                   | <b>Pile Cap Uk. 800 x 800 x 600 mm</b>              |        |           |  |  |
| -                          | Beton K-350                                         | m3     | 20.74     |  |  |
| -                          | Pembesian                                           | kg     | 2,965.83  |  |  |
| -                          | Bekisting                                           | m2     | 103.68    |  |  |
| <b>3</b>                   | <b>Sloof Uk. 600 x 300 mm</b>                       |        |           |  |  |
| -                          | Beton K-300                                         | m3     | 56.70     |  |  |
| -                          | Pembesian                                           | kg     | 7,969.87  |  |  |
| -                          | Bekisting                                           | m2     | 378.00    |  |  |
| <b>4</b>                   | <b>Plat Lantai t= 400 mm</b>                        |        |           |  |  |
| -                          | Beton K-300                                         | m3     | 219.86    |  |  |
| -                          | Pembesian                                           | kg     | 17,693.02 |  |  |
| -                          | Bekisting                                           | m2     | 38.72     |  |  |
| <b>Jumlah Sub Total II</b> |                                                     |        |           |  |  |
| <b>III</b>                 | <b>PEKERJAAN FASILITAS TREATMENT</b>                |        |           |  |  |
| 1                          | Pekerjaan Atap WTP                                  |        |           |  |  |
| a                          | Pondasi Bore Pile DN 300 mm, P= 4 m                 |        |           |  |  |
|                            | Pengeboran Bore Pile 300 mm                         | m      | 40.00     |  |  |
|                            | Beton K-350                                         | m3     | 2.83      |  |  |
|                            | Pembesian                                           | kg     | 519.89    |  |  |
|                            | Sewa Casing Bore Pile                               | m      | 40.00     |  |  |
| b                          | Pile Cap 600 x 600 x 300 mm                         |        |           |  |  |
|                            | Beton K-350                                         | m3     | 1.08      |  |  |
|                            | Pembesian                                           | kg     | 239.89    |  |  |
|                            | Bekisting                                           | m2     | 7.20      |  |  |
| c                          | Pekerjaan Konstruksi                                |        |           |  |  |
|                            | Pengadaan :                                         |        |           |  |  |
|                            | Tiang H-Beam 300x300x10x15                          | kg     | 8,460.00  |  |  |

|                             |                                                                |       |            |  |  |
|-----------------------------|----------------------------------------------------------------|-------|------------|--|--|
|                             | Angkur M16 x 60 cm                                             | bh    | 60.00      |  |  |
|                             | Base Plat 12 mm x 50 x 50                                      | kg    | 235.50     |  |  |
|                             | Pengaku Rafter (Regel) WF 250x125                              | kg    | 2,662.50   |  |  |
|                             | Rafter (Kuda-kuda) WF 250 x 125                                | kg    | 2,248.33   |  |  |
|                             | Gording CNP 125                                                | kg    | 2,195.10   |  |  |
|                             | Atap Zincalume Bluescope Lysaght 0,5 mm                        | m2    | 486.00     |  |  |
|                             | Nok Zincalume 0,5 mm                                           | m'    | 27.00      |  |  |
|                             | Span Skrup SS304Dia. 16 mm                                     | bh    | 64.00      |  |  |
|                             | Besi Beton Dia.16 (sebagai ikatan angin)                       | kg    | 328.64     |  |  |
| d                           | Pekerjaan Pabrikasi dan Install                                |       |            |  |  |
|                             | Cleaning dan Perakitan                                         | kg    | 15,801.43  |  |  |
|                             | Pengelasan                                                     | cm    | 2,370.22   |  |  |
|                             | Pengecatan                                                     | m2    | 201.29     |  |  |
| e                           | Pekerjaan Intaslasi Listrik                                    |       |            |  |  |
|                             | Pas. Intaslasi Titik Lampu + Fitting + Cap + Lampu LED 20 Watt | titik | 15.00      |  |  |
|                             | Pas. Lampu LED 20 Watt                                         | titik | 15.00      |  |  |
| <b>Jumlah Sub Total III</b> |                                                                |       |            |  |  |
| <b>IV</b>                   | <b>PEKERJAAN BAJA</b>                                          |       |            |  |  |
| 1                           | Unit Flokulasi                                                 |       |            |  |  |
|                             | Plate SS400 Tebal 12 mm                                        | kg    | 23,144.94  |  |  |
|                             | Plate SS400 Tebal 10 mm                                        | kg    | 22,209.42  |  |  |
| 2                           | Unit Sedimentasi dan Flotasi                                   |       |            |  |  |
|                             | Plate SS400 Tebal 12 mm                                        | kg    | 60,860.31  |  |  |
|                             | Plate SS400 Tebal 10 mm                                        | kg    | 7,601.23   |  |  |
|                             | Plate Settler SS304 t 0,6 mm                                   | lbr   | 1,312.00   |  |  |
|                             | Frame Settler                                                  | kg    | 5,245.33   |  |  |
|                             | Gutter SS400 tebal 5 mm dimensi 800 x 500 mm                   | kg    | 2,537.04   |  |  |
|                             | Gutter SS400 tebal 5 mm dimensi 800 x 500 mm                   | kg    | 845.68     |  |  |
| 3                           | Unit Filtrasi                                                  |       |            |  |  |
|                             | Plate SS400 Tebal 12 mm                                        | kg    | 36,695.61  |  |  |
|                             | Plate SS400 Tebal 10 mm                                        | kg    | 27,338.72  |  |  |
|                             | Filter Nozzle Type AJM                                         | Pcs   | 6,264.00   |  |  |
|                             | Pasir Silika mesh 4 - 8                                        | kg    | 125,685.00 |  |  |
|                             | Pasir Silika mesh 16 - 20                                      | kg    | 17,955.00  |  |  |
|                             | Gutter SS400 tebal 5 mm dimensi 400 x 400 mm                   | kg    | 2,255.15   |  |  |
| 4                           | Support Struktur Plate                                         | kg    | 54,369.89  |  |  |
| 5                           | Pekerjaan Pengelasan                                           | cm    | 34,585.45  |  |  |
| 6                           | Pekerjaan Sandblasting                                         | m2    | 3,827.32   |  |  |
| 7                           | Pekerjaan Pengecatan                                           |       |            |  |  |
| -                           | Internal (Food Grade)                                          | m2    | 2,679.12   |  |  |
| -                           | Eksternal (Non Food Grade)                                     | m2    | 1,148.20   |  |  |
| 8                           | Pipa Handrail 1 1/2 inch                                       | m     | 100.00     |  |  |
| 9                           | Walkway                                                        |       |            |  |  |
| -                           | Plate Bordes tebal 3,2 mm                                      | kg    | 1,160.54   |  |  |
| -                           | UNP 100                                                        | kg    | 464.22     |  |  |
| 10                          | Tangga                                                         | kg    | 1,165.99   |  |  |
| <b>Jumlah Sub Total IV</b>  |                                                                |       |            |  |  |
| <b>V</b>                    | <b>PEKERJAAN PERPIPAAN</b>                                     |       |            |  |  |
| 1.1                         | <b>Pipa Inlet</b>                                              |       |            |  |  |
|                             | Static Mixer Removable Element PN10 DN 500 mm                  | Unit  | 1.00       |  |  |
|                             | Pipa BSP Kelas Medium DN 500 mm                                | m     | 22.60      |  |  |
|                             | Bend 90° DN 500 mm                                             | Pcs   | 4.00       |  |  |
|                             | Bend 90° DN 400 mm                                             | Pcs   | 2.00       |  |  |
|                             | Flange PN 16 DN 500 mm                                         | Pcs   | 2.00       |  |  |
|                             | Flange PN 10 DN 500 mm                                         | Pcs   | 2.00       |  |  |
|                             | Flange PN 16 DN 300 mm                                         | Pcs   | 4.00       |  |  |
|                             | Wafer Butterfly Valve PN 16 DN 500 mm                          | Pcs   | 3.00       |  |  |

|     |                                                               |      |          |  |
|-----|---------------------------------------------------------------|------|----------|--|
|     | Double Eccentric Butterfly Valve PN 16 DN 300 mm              | Pcs  | 2.00     |  |
|     | Rubber Packing t= 5 mm DN 500 mm                              | Pcs  | 4.00     |  |
|     | Rubber Packing t= 5 mm DN 300 mm                              | Pcs  | 4.00     |  |
|     | Bolt and Nut M30 x 100mm                                      | Pcs  | 60.00    |  |
|     | Bolt and Nut M16 x 45 mm                                      | Pcs  | 48.00    |  |
|     | Pemasangan :                                                  |      |          |  |
|     | Static Mixer Removable Element PN10 DN 500 mm                 | Unit | 1.00     |  |
|     | Pipa BSP Kelas Medium DN 500 mm                               | m    | 22.60    |  |
|     | Bend 90° DN 500 mm                                            | Pcs  | 4.00     |  |
|     | Bend 90° DN 400 mm                                            | Pcs  | 2.00     |  |
|     | Flange PN 16 DN 500 mm                                        | Pcs  | 2.00     |  |
|     | Flange PN 10 DN 500 mm                                        | Pcs  | 2.00     |  |
|     | Flange PN 16 DN 300 mm                                        | Pcs  | 4.00     |  |
|     | Wafer Butterfly Valve PN 16 DN 500 mm                         | Pcs  | 3.00     |  |
|     | Double Eccentric Butterfly Valve PN 16 DN 300 mm              | Pcs  | 2.00     |  |
|     | Pengelasan                                                    | cm   | 3,141.59 |  |
|     | Pengecatan :                                                  |      |          |  |
|     | Dalam                                                         | m2   | 35.50    |  |
|     | Luar                                                          | m2   | 36.07    |  |
|     |                                                               |      |          |  |
| 1.2 | <b>Unit Flokulasi</b>                                         |      |          |  |
|     | Pipa GSP Kelas Medium DN 50 mm                                | m    | 46.80    |  |
|     | Bend 90° DN 50 mm                                             | Pcs  | 48.00    |  |
|     | Flange PN 16 DN 50 mm                                         | Pcs  | 24.00    |  |
|     | Wafer Butterfly Valve PN 16 DN 50 mm                          | Pcs  | 12.00    |  |
|     | Pneumatic Single Acting Wafer Butterfly Valve PN 16 DN 50 mm  | Pcs  | 12.00    |  |
|     | Solenoid For Actuator DN 50 mm                                | Pcs  | 12.00    |  |
|     | Rubber Packing t= 5 mm DN 50 mm                               | Pcs  | 24.00    |  |
|     | Bolt and Nut M16 x 45 mm                                      | Pcs  | 48.00    |  |
|     | Pemasangan :                                                  |      |          |  |
|     | Pipa bSP Kelas Medium DN 50 mm                                | m    | 46.80    |  |
|     | Bend 90° DN 50 mm                                             | Pcs  | 48.00    |  |
|     | Flange PN 16 DN 50 mm                                         | Pcs  | 24.00    |  |
|     | Wafer Butterfly Valve PN 16 DN 50 mm                          | Pcs  | 12.00    |  |
|     | Pneumatic Single Acting Wafer Butterfly Valve PN 16 DN 50 mm  | Pcs  | 12.00    |  |
|     | Solenoid Actuator For DN 50mm                                 | Pcs  | 12.00    |  |
|     | Pengelasan                                                    | cm   | 2,387.61 |  |
|     | Pengecatan :                                                  |      |          |  |
|     | Dalam                                                         | m2   | 7.35     |  |
|     | Luar                                                          | m2   | 8.87     |  |
|     |                                                               |      |          |  |
| 1.3 | <b>Unit Sedimentasi</b>                                       |      |          |  |
|     | Pipa BSP Kelas Medium DN 100 mm                               | m    | 129.00   |  |
|     | Bend 90° DN 100 mm                                            | Pcs  | 30.00    |  |
|     | Flange PN 16 DN 100 mm                                        | Pcs  | 72.00    |  |
|     | Wafer Butterfly Valve PN 16 DN 100 mm                         | Pcs  | 18.00    |  |
|     | Pneumatic Single Acting Wafer Butterfly Valve PN 16 DN 100 mm | Pcs  | 18.00    |  |
|     | Selenoid Valve For DN 100 mm                                  | Pcs  | 18.00    |  |
|     | Rubber Packing t= 5 mm DN 100 mm                              | Pcs  | 18.00    |  |
|     | Bolt and Nut M16 x 45 mm                                      | Pcs  | 288.00   |  |
|     | Pemasangan :                                                  |      |          |  |
|     | Pipa BSP Kelas Medium DN 100 mm                               | m    | 129.00   |  |
|     | Bend 90° DN 100 mm                                            | Pcs  | 30.00    |  |
|     | Flange PN 16 DN 100 mm                                        | Pcs  | 72.00    |  |
|     | Wafer Butterfly Valve PN 16 DN 100 mm                         | Pcs  | 18.00    |  |
|     | Pneumatic Single Acting Wafer Butterfly Valve PN 16 DN 100 mm | Pcs  | 18.00    |  |
|     | Selenoid Valve For DN 100 mm                                  | Pcs  | 18.00    |  |
|     | Pengelasan                                                    | cm   | 7,100.00 |  |

|       |                                                               |     |          |  |
|-------|---------------------------------------------------------------|-----|----------|--|
|       | Pengecatan :                                                  |     |          |  |
|       | Dalam                                                         | m2  | 40.53    |  |
|       | Luar                                                          | m2  | 46.32    |  |
|       |                                                               |     |          |  |
| 1.4   | <b>Unit Flotasi</b>                                           |     |          |  |
|       | Pipa BSP Kelas Medium DN 100 mm                               | m   | 73.80    |  |
|       | Bend 90° DN 100 mm                                            | Pcs | 48.00    |  |
|       | Flange PN 16 DN 100 mm                                        | Pcs | 16.00    |  |
|       | Wafer Butterfly Valve PN 16 DN 100 mm                         | Pcs | 4.00     |  |
|       | Pneumatic Single Acting Wafer Butterfly Valve PN 16 DN 100 mm | Pcs | 4.00     |  |
|       | Solenoid Valve For DN 100 mm                                  | Pcs | 4.00     |  |
|       | Rubber Packing t= 5 mm DN 100 mm                              | Pcs | 4.00     |  |
|       | Bolt and Nut M16 x 45 mm                                      | Pcs | 64.00    |  |
|       | Pemasangan :                                                  |     |          |  |
|       | Pipa BSP Kelas Medium DN 100 mm                               | m   | 73.80    |  |
|       | Bend 90° DN 100 mm                                            | Pcs | 48.00    |  |
|       | Flange PN 16 DN 100 mm                                        | Pcs | 16.00    |  |
|       | Wafer Butterfly Valve PN 16 DN 100 mm                         | Pcs | 4.00     |  |
|       | Pneumatic Single Acting Wafer Butterfly Valve PN 16 DN 100 mm | Pcs | 4.00     |  |
|       | Solenoid Valve For DN 100 mm                                  | Pcs | 4.00     |  |
|       | Pengelasan                                                    | cm  | 4,429.65 |  |
|       | Pengecatan :                                                  |     |          |  |
|       | Dalam                                                         | m2  | 23.18    |  |
|       | Luar                                                          | m2  | 26.50    |  |
|       |                                                               |     |          |  |
| 1.5   | <b>Unit Filtrasi</b>                                          |     |          |  |
| 1.5.1 | <b>Inlet Filtrasi</b>                                         |     |          |  |
|       | Pipa BSP Kelas Medium DN 250 mm                               | m   | 20.00    |  |
|       | Flange PN 16 DN 250 mm                                        | Pcs | 48.00    |  |
|       | Equal Tee PN 10 DN 250 mm                                     | Pcs | 8.00     |  |
|       | Wafer Butterfly Valve PN 16 DN 250 mm                         | Pcs | 8.00     |  |
|       | Pneumatic Wafer Butterfly Valve PN 16 DN 250 mm               | Pcs | 8.00     |  |
|       | Solenoid Valve For DN 250 mm                                  | Pcs | 8.00     |  |
|       | Rubber Packing t= 5 mm DN 250 mm                              | Pcs | 16.00    |  |
|       | Bolt and Nut M16 x 45 mm                                      | Pcs | 192.00   |  |
|       | Pemasangan :                                                  |     |          |  |
|       | Pipa BSP Kelas Medium DN 250 mm                               | m   | 20.00    |  |
|       | Flange PN 16 DN 250 mm                                        | Pcs | 48.00    |  |
|       | Equal Tee PN 10 DN 250 mm                                     | Pcs | 8.00     |  |
|       | Wafer Butterfly Valve PN 16 DN 250 mm                         | Pcs | 8.00     |  |
|       | Pneumatic Wafer Butterfly Valve PN 16 DN 250 mm               | Pcs | 8.00     |  |
|       | Solenoid Valve For DN 250 mm                                  | Pcs | 8.00     |  |
|       | Pengelasan                                                    | cm  | 4,429.65 |  |
|       | Pengecatan :                                                  |     |          |  |
|       | Dalam                                                         | m2  | 23.18    |  |
|       | Luar                                                          | m2  | 26.50    |  |
|       |                                                               |     |          |  |
| 1.5.2 | <b>Drain Filtrasi</b>                                         |     |          |  |
|       | Pipa BSP Kelas Medium DN 250 mm                               | m   | 16.00    |  |
|       | Flange PN 16 DN 250 mm                                        | Pcs | 16.00    |  |
|       | Bend 45° DN 250 mm                                            | Pcs | 8.00     |  |
|       | Wafer Butterfly Valve PN 16 DN 250 mm                         | Pcs | 8.00     |  |
|       | Pneumatic Wafer Butterfly Valve PN 16 DN 250 mm               | Pcs | 8.00     |  |
|       | Solenoid Valve For DN 250 mm                                  | Pcs | 8.00     |  |
|       | Rubber Packing t= 5 mm DN 250 mm                              | Pcs | 8.00     |  |
|       | Bolt and Nut M16 x 45 mm                                      | Pcs | 96.00    |  |
|       | Pemasangan :                                                  |     |          |  |
|       | Pipa BSP Kelas Medium DN 250 mm                               | m   | 16.00    |  |



|              |                                                            |       |          |  |
|--------------|------------------------------------------------------------|-------|----------|--|
|              | Flange PN 16 DN 250 mm                                     | Pcs   | 16.00    |  |
|              | Bend 45° DN 250 mm                                         | Pcs   | 8.00     |  |
|              | Wafer Butterfly Valve PN 16 DN 250 mm                      | Pcs   | 8.00     |  |
|              | Pneumatic Wafer Butterfly Valve PN 16 DN 250 mm            | Pcs   | 8.00     |  |
|              | Solenoid Valve For DN 250 mm                               | Pcs   | 8.00     |  |
|              | Pengelasan                                                 | cm    | 4,429.65 |  |
|              | Pengecatan :                                               |       |          |  |
|              | Dalam                                                      | m2    | 23.18    |  |
|              | Luar                                                       | m2    | 26.50    |  |
| <b>1.5.3</b> | <b>Backwash Filtrasi</b>                                   |       |          |  |
|              | Pipa BSP Kelas Medium DN 250 mm                            | m     | 40.00    |  |
|              | Flange PN 16 DN 250 mm                                     | Pcs   | 17.00    |  |
|              | Equal Tee PN 10 DN 250 mm                                  | Pcs   | 15.00    |  |
|              | Bend 90° DN 250 mm                                         | Pcs   | 4.00     |  |
|              | Blind Flange DN 250 mm                                     | Pcs   | 1.00     |  |
|              | Wafer Butterfly Valve PN 16 DN 250 mm                      | Pcs   | 8.00     |  |
|              | Pneumatic Wafer Butterfly Valve PN 16 DN 250 mm            | Pcs   | 8.00     |  |
|              | Solenoid Valve For DN 250 mm                               | Pcs   | 8.00     |  |
|              | Rubber Packing t= 5 mm DN 250 mm                           | Pcs   | 8.00     |  |
|              | Bolt and Nut M16 x 45 mm                                   | Pcs   | 96.00    |  |
|              | Pemasangan :                                               |       |          |  |
|              | Pipa BSP Kelas Medium DN 250 mm                            | m     | 40.00    |  |
|              | Flange PN 16 DN 250 mm                                     | Pcs   | 17.00    |  |
|              | Equal Tee PN 10 DN 250 mm                                  | Pcs   | 15.00    |  |
|              | Bend 90° DN 250 mm                                         | Pcs   | 4.00     |  |
|              | Blind Flange DN 250 mm                                     | Pcs   | 1.00     |  |
|              | Wafer Butterfly Valve PN 16 DN 250 mm                      | Pcs   | 8.00     |  |
|              | Pneumatic Wafer Butterfly Valve PN 16 DN 250 mm            | Pcs   | 8.00     |  |
|              | Solenoid Valve For DN 250 mm                               | Pcs   | 8.00     |  |
|              | Pengelasan                                                 | cm    | 4,429.65 |  |
|              | Pengecatan :                                               |       |          |  |
|              | Dalam                                                      | m2    | 23.18    |  |
|              | Luar                                                       | m2    | 26.50    |  |
| <b>1.5.4</b> | <b>Outlet Filtrasi</b>                                     |       |          |  |
|              | Pipa BSP Kelas Medium DN 500 mm                            | m     | 35.00    |  |
|              | Pipa BSP Kelas Medium DN 250 mm                            | m     | 12.00    |  |
|              | Flange PN 16 DN 500 mm                                     | Pcs   | 1.00     |  |
|              | Flange PN 16 DN 250 mm                                     | Pcs   | 32.00    |  |
|              | Blind Flange DN 500 mm                                     | Pcs   | 1.00     |  |
|              | Bend 45° DN 250 mm                                         | Pcs   | 8.00     |  |
|              | Tee-in 250 x 500 mm                                        | titik | 8.00     |  |
|              | Wafer Butterfly Valve PN 16 DN 250 mm                      | Pcs   | 8.00     |  |
|              | Pneumatic Positioner Wafer Butterfly Valve PN 16 DN 250 mm | Pcs   | 8.00     |  |
|              | Pneumatic Wafer Butterfly Valve PN 16 DN 250 mm            | Pcs   | 8.00     |  |
|              | Pressure Gauge 4 inch                                      | Pcs   | 1.00     |  |
|              | Rubber Packing t= 5 mm DN 100 mm                           | Pcs   | 16.00    |  |
|              | Bolt and Nut M16 x 45 mm                                   | Pcs   | 192.00   |  |
|              | Pemasangan :                                               |       |          |  |
|              | Pipa BSP Kelas Medium DN 500 mm                            | m     | 35.00    |  |
|              | Pipa BSP Kelas Medium DN 250 mm                            | m     | 12.00    |  |
|              | Flange PN 16 DN 500 mm                                     | Pcs   | 1.00     |  |
|              | Flange PN 16 DN 250 mm                                     | Pcs   | 32.00    |  |
|              | Blind Flange DN 500 mm                                     | Pcs   | 1.00     |  |
|              | Bend 45° DN 250 mm                                         | Pcs   | 8.00     |  |
|              | Tee-in 250 x 500 mm                                        | titik | 8.00     |  |
|              | Wafer Butterfly Valve PN 16 DN 250 mm                      | Pcs   | 8.00     |  |

|     |                                                            |       |          |  |
|-----|------------------------------------------------------------|-------|----------|--|
|     | Pneumatic Positioner Wafer Butterfly Valve PN 16 DN 250 mm | Pcs   | 8.00     |  |
|     | Pneumatic Wafer Butterfly Valve PN 16 DN 250 mm            | Pcs   | 8.00     |  |
|     | Pressure Gauge 4 inch                                      | Pcs   | 1.00     |  |
|     | Pengelasan                                                 | cm    | 4,429.65 |  |
|     | Pengecatan :                                               |       |          |  |
|     | Dalam                                                      | m2    | 23.18    |  |
|     | Luar                                                       | m2    | 26.50    |  |
| 1.6 | <b>Backwash Pump</b>                                       |       |          |  |
|     | Pipa BSP Kelas Medium DN 300 mm                            | m     | 6.00     |  |
|     | Pipa GSP Kelas Medium DN 150 mm                            | m     | 5.00     |  |
|     | Pipa GSP Kelas Medium DN 100 mm                            | m     | 3.00     |  |
|     | Flange PN 16 DN 300 mm                                     | Pcs   | 3.00     |  |
|     | Flange PN 16 DN 150 mm                                     | Pcs   | 4.00     |  |
|     | Flange PN 16 DN 125 mm                                     | Pcs   | 2.00     |  |
|     | Flange PN 16 DN 100 mm                                     | Pcs   | 4.00     |  |
|     | Blind Flange DN 300 mm                                     | Pcs   | 1.00     |  |
|     | Reducer DN 125 x 100 mm                                    | Pcs   | 2.00     |  |
|     | Check Valve DN. 100 mm                                     | Pcs   | 2.00     |  |
|     | Flexible Joint DN. 150 mm                                  | Pcs   | 2.00     |  |
|     | Flexible Joint DN. 100 mm                                  | Pcs   | 2.00     |  |
|     | Bend 90° DN 100 mm                                         | Pcs   | 2.00     |  |
|     | Tee-in 300 x 150 mm                                        | titik | 2.00     |  |
|     | Wafer Butterfly Valve PN 16 DN 100 mm                      | Pcs   | 2.00     |  |
|     | Wafer Butterfly Valve PN 16 DN 150 mm                      | Pcs   | 2.00     |  |
|     | Rubber Packing t= 5 mm DN 300 mm                           | Pcs   | 2.00     |  |
|     | Rubber Packing t= 5 mm DN 150 mm                           | Pcs   | 6.00     |  |
|     | Rubber Packing t= 5 mm DN 125 mm                           | Pcs   | 2.00     |  |
|     | Rubber Packing t= 5 mm DN 100 mm                           | Pcs   | 8.00     |  |
|     | Bolt and Nut M16 x 45 mm                                   | Pcs   | 80.00    |  |
|     | Bolt and Nut M20 x 60 mm                                   | Pcs   | 72.00    |  |
|     | Bolt and Nut M24 x 75 mm                                   | Pcs   | 24.00    |  |
|     | Pemasangan :                                               |       |          |  |
|     | Pipa GSP Kelas Medium DN 300 mm                            | m     | 6.00     |  |
|     | Pipa GSP Kelas Medium DN 150 mm                            | m     | 5.00     |  |
|     | Pipa GSP Kelas Medium DN 100 mm                            | m     | 3.00     |  |
|     | Flange PN 16 DN 300 mm                                     | Pcs   | 3.00     |  |
|     | Flange PN 16 DN 150 mm                                     | Pcs   | 4.00     |  |
|     | Flange PN 16 DN 125 mm                                     | Pcs   | 2.00     |  |
|     | Flange PN 16 DN 100 mm                                     | Pcs   | 4.00     |  |
|     | Blind Flange DN 300 mm                                     | Pcs   | 1.00     |  |
|     | Reducer DN 125 x 100 mm                                    | Pcs   | 2.00     |  |
|     | Check Valve DN. 100 mm                                     | Pcs   | 2.00     |  |
|     | Flexible Joint DN. 150 mm                                  | Pcs   | 2.00     |  |
|     | Flexible Joint DN. 100 mm                                  | Pcs   | 2.00     |  |
|     | Bend 90° DN 100 mm                                         | Pcs   | 2.00     |  |
|     | Tee-in 300 x 150 mm                                        | titik | 2.00     |  |
|     | Wafer Butterfly Valve PN 16 DN 100 mm                      | Pcs   | 2.00     |  |
|     | Wafer Butterfly Valve PN 16 DN 150 mm                      | Pcs   | 2.00     |  |
|     | Pengelasan                                                 | cm    | 4,429.65 |  |
|     | Pengecatan :                                               |       |          |  |
|     | Dalam                                                      | m2    | 23.18    |  |
|     | Luar                                                       | m2    | 26.50    |  |
| 1.7 | <b>Blower Backwash</b>                                     |       |          |  |
|     | Pipa BSP Kelas Medium DN 100 mm                            | m     | 38.00    |  |
|     | Flexible Joint DN. 100 mm                                  | Pcs   | 2.00     |  |
|     | Check Valve DN. 100 mm                                     | Pcs   | 2.00     |  |

|     |                                                                    |     |          |  |  |
|-----|--------------------------------------------------------------------|-----|----------|--|--|
|     | Wafer Butterfly Valve PN 16 DN 100 mm                              | Pcs | 10.00    |  |  |
|     | Pneumatic Single Acting Butterfly Valve Wafer Connection DN 100 mm | Pcs | 8.00     |  |  |
|     | Solenoid For Actuator DN 100 mm                                    | Pcs | 8.00     |  |  |
|     | Tee DN 100 x 100 mm                                                | Pcs | 8.00     |  |  |
|     | Bend 90° DN 100 mm                                                 | Pcs | 5.00     |  |  |
|     | Flange PN 16 DN 100 mm                                             | Pcs | 20.00    |  |  |
|     | Rubber Packing t= 5 mm DN 100 mm                                   | Pcs | 14.00    |  |  |
|     | Bolt and Nut M16 x 45 mm                                           | Pcs | 96.00    |  |  |
|     | Pemasangan :                                                       |     |          |  |  |
|     | Pipa BSP Kelas Medium DN 100 mm                                    | m   | 38.00    |  |  |
|     | Flexible Joint DN. 100 mm                                          | Pcs | 2.00     |  |  |
|     | Check Valve DN. 100 mm                                             | Pcs | 2.00     |  |  |
|     | Wafer Butterfly Valve PN 16 DN 100 mm                              | Pcs | 10.00    |  |  |
|     | Pneumatic Single Acting Butterfly Valve Wafer Connection DN 100 mm | Pcs | 8.00     |  |  |
|     | Solenoid For Actuator DN 100 mm                                    | Pcs | 8.00     |  |  |
|     | Tee DN 100 x 100 mm                                                | Pcs | 8.00     |  |  |
|     | Bend 90° DN 100 mm                                                 | Pcs | 5.00     |  |  |
|     | Flange PN 16 DN 100 mm                                             | Pcs | 20.00    |  |  |
|     | Pengelasan                                                         | cm  | 4,429.65 |  |  |
|     | Pengecatan :                                                       |     |          |  |  |
|     | Dalam                                                              | m2  | 23.18    |  |  |
|     | Luar                                                               | m2  | 26.50    |  |  |
| 1.8 | <b>Blower Flotasi</b>                                              |     |          |  |  |
|     | Pipa GSP Kelas Medium DN 50 mm                                     | m   | 46.80    |  |  |
|     | Flexible Joint DN. 50 mm                                           | Pcs | 2.00     |  |  |
|     | Check Valve DN. 50 mm                                              | Pcs | 2.00     |  |  |
|     | Wafer Butterfly Valve PN 16 DN 50 mm                               | Pcs | 12.00    |  |  |
|     | Pneumatic Single Acting Wafer Butterfly Valve PN 16 DN 50 mm       | Pcs | 12.00    |  |  |
|     | Solenoid For Actuator DN 50 mm                                     | Pcs | 12.00    |  |  |
|     | Tee DN 50 x 50 mm                                                  | Pcs | 8.00     |  |  |
|     | Bend 90° DN 50 mm                                                  | Pcs | 5.00     |  |  |
|     | Loose Flange DN 50 mm                                              | Pcs | 20.00    |  |  |
|     | Rubber Packing t= 5 mm DN 50 mm                                    | Pcs | 24.00    |  |  |
|     | Bolt and Nut M16 x 45 mm                                           | Pcs | 48.00    |  |  |
|     | Socket 3000 DN 25mm                                                | Pcs | 2.00     |  |  |
|     | Pipa GSP Kelas Medium DN 25 mm                                     | m   | 18.00    |  |  |
|     | Ball Valve Kuningan Drat Dalam DN 25 mm                            | Pcs | 4.00     |  |  |
|     | Solenoid Valve Normally Open DN. 25 mm                             | Pcs | 4.00     |  |  |
|     | Check Valve Kuningan Drat Dalam DN 25 mm                           | Pcs | 4.00     |  |  |
|     | Watermur GIP DN 25 mm                                              | Pcs | 4.00     |  |  |
|     | Socket SS Drat Dalam DN 25 mm                                      | Pcs | 4.00     |  |  |
|     | Bend SS Drat Dalam DN 25 mm                                        | Pcs | 4.00     |  |  |
|     | Double Napple SS 25 mm drat luar                                   | Pcs | 16.00    |  |  |
|     | Pemasangan :                                                       |     |          |  |  |
|     | Pipa GSP Kelas Medium DN 50 mm                                     | m   | 38.00    |  |  |
|     | Flexible Joint DN. 50 mm                                           | Pcs | 2.00     |  |  |
|     | Check Valve DN. 50 mm                                              | Pcs | 2.00     |  |  |
|     | Wafer Butterfly Valve PN 16 DN 50 mm                               | Pcs | 10.00    |  |  |
|     | Pneumatic Single Acting Butterfly Valve Wafer Connection DN 50 mm  | Pcs | 8.00     |  |  |
|     | Solenoid For Actuator DN 50 mm                                     | Pcs | 8.00     |  |  |
|     | Tee DN 50 x 50 mm                                                  | Pcs | 8.00     |  |  |
|     | Bend 90° DN 50 mm                                                  | Pcs | 5.00     |  |  |
|     | Loose Flange DN 50 mm                                              | Pcs | 20.00    |  |  |
|     | Socket 3000 DN 25mm                                                | Pcs | 2.00     |  |  |
|     | Pipa GSP Kelas Medium DN 25 mm                                     | m   | 18.00    |  |  |
|     | Ball Valve Kuningan Drat Dalam DN 25 mm                            | Pcs | 4.00     |  |  |
|     | Solenoid Valve Normally Open DN. 25 mm                             | Pcs | 4.00     |  |  |

|                                               |                                                         |                |        |  |  |
|-----------------------------------------------|---------------------------------------------------------|----------------|--------|--|--|
|                                               | Check Valve Kuningan Drat Dalam DN 25 mm                | Pcs            | 4.00   |  |  |
|                                               | Watermur GIP DN 25 mm                                   | Pcs            | 4.00   |  |  |
|                                               | Socket SS Drat Dalam DN 25 mm                           | Pcs            | 4.00   |  |  |
|                                               | Bend SS Drat Dalam DN 25 mm                             | Pcs            | 4.00   |  |  |
|                                               | Double Napple SS 25 mm drat luar                        | Pcs            | 16.00  |  |  |
| 1.9                                           | <b>Perpipaan Kimia</b>                                  |                |        |  |  |
|                                               | Pipa PVC AW DN 25 mm                                    | btg            | 10.00  |  |  |
|                                               | Pipa PVC AW DN 50 mm                                    | btg            | 6.00   |  |  |
|                                               | Ball Valve PVC DN 25 mm                                 | pcs            | 18.00  |  |  |
|                                               | Ball Valve Gagang Stainless DN 50mm                     | pcs            | 14.00  |  |  |
|                                               | Tee PVC DN 25 mm                                        | Pcs            | 12.00  |  |  |
|                                               | Tee PVC DN 50 mm                                        | Pcs            | 6.00   |  |  |
|                                               | Bend PVC DN 25 mm                                       | Pcs            | 24.00  |  |  |
|                                               | Bend PVC DN 50 mm                                       | Pcs            | 10.00  |  |  |
|                                               | Watermur PVC DN 25 mm                                   | Pcs            | 18.00  |  |  |
|                                               | Watermur PVC DN 50 mm                                   | Pcs            | 6.00   |  |  |
|                                               | Reducer PVC DN 50x25 mm                                 | Pcs            | 6.00   |  |  |
|                                               | Socket Polos PVC DN 25mm                                | Pcs            | 14.00  |  |  |
|                                               | Socket Polos PVC DN 50mm                                | Pcs            | 6.00   |  |  |
|                                               | Socket Drat Luar PVC DN 25mm                            | Pcs            | 24.00  |  |  |
|                                               | Socket 3000 DN 16mm                                     | Pcs            | 10.00  |  |  |
|                                               | Socket 3000 DN 25mm                                     | Pcs            | 20.00  |  |  |
|                                               | Y Strainer PVC DN 25 mm                                 | Pcs            | 9.00   |  |  |
|                                               | Rotameter 1 Inchi                                       | Pcs            | 4.00   |  |  |
| 1.10                                          | <b>Perpipaan Air Sampel</b>                             |                |        |  |  |
|                                               | Pipa HDPE PN 12.5 1 Inchi                               | m'             | 200.00 |  |  |
|                                               | - Galian Tanah                                          | m3             | 17.75  |  |  |
|                                               | - Urugan Tanah                                          | m3             | 17.42  |  |  |
|                                               | - Buangan Tanah                                         | m3             | 0.33   |  |  |
|                                               | Pipa PVC AW DN 25 mm                                    | btg            | 10.00  |  |  |
|                                               | Pipa PVC AW DN 15 mm                                    | btg            | 10.00  |  |  |
|                                               | Pipa GSP Kelas Medium DN 25 mm                          | m'             | 6.00   |  |  |
|                                               | Keran 1 inchi                                           | pcs            | 10.00  |  |  |
|                                               | Ball Valve PVC DN 25 mm                                 | pcs            | 20.00  |  |  |
|                                               | Ball Valve PVC DN 16 mm                                 | pcs            | 20.00  |  |  |
|                                               | Ball Valve Union PVC DN 16 mm                           | pcs            | 10.00  |  |  |
|                                               | Ball Valve Kuningan Drat Dalam DN 25 mm                 | pcs            | 20.00  |  |  |
|                                               | Ball Valve Kuningan Drat Dalam DN 16 mm                 | Pcs            | 20.00  |  |  |
|                                               | Tee Reducer GIP 25 mm x 15 mm drat dalam                | Pcs            | 15.00  |  |  |
|                                               | Tee PVC DN 25 mm                                        | Pcs            | 15.00  |  |  |
|                                               | Tee PVC DN 16 mm                                        | Pcs            | 15.00  |  |  |
|                                               | Bend PVC DN 25 mm                                       | Pcs            | 20.00  |  |  |
|                                               | Bend PVC DN 16 mm                                       | Pcs            | 20.00  |  |  |
|                                               | Bend GIP Drat Dalam DN 25 mm                            | Pcs            | 20.00  |  |  |
|                                               | Watermur PVC DN 25 mm                                   | Pcs            | 10.00  |  |  |
|                                               | Reducer PVC DN 25x15 mm                                 | Pcs            | 20.00  |  |  |
|                                               | Socket Polos PVC DN 25mm                                | Pcs            | 20.00  |  |  |
|                                               | Socket Drat Dalam PVC DN 25mm                           | Pcs            | 15.00  |  |  |
|                                               | Socket Drat Dalam PVC DN 15mm                           | Pcs            | 10.00  |  |  |
|                                               | Male Threaded Adaptor HDPE (MTA) 1 Inchi                | Pcs            | 10.00  |  |  |
|                                               | Female Threaded Elbow (FTE) 1 Inchi                     | Pcs            | 10.00  |  |  |
|                                               | Bend 90 HDPE Coupler 1 Inchi                            | Pcs            | 15.00  |  |  |
|                                               | Tee HDPE Coupler 1 Inchi                                | Pcs            | 3.00   |  |  |
|                                               | Juction Box Wall-Mount Waterproof Clear, Klip Stainless | Pcs            | 3.00   |  |  |
|                                               | Box Sample Raw Turbidity                                | Unit           | 1.00   |  |  |
|                                               | Pengelasan                                              | cm             | 675.44 |  |  |
|                                               | Pengecatan Pipa                                         |                |        |  |  |
|                                               | - Luar Dengan Cat anti karat                            | m <sup>2</sup> | 0.63   |  |  |
| <b>Jumlah Sub Total V</b>                     |                                                         |                |        |  |  |
| <b>JUMLAH TOTAL ( I + II + III + IV + V )</b> |                                                         |                |        |  |  |

DAFTAR KUANTITAS DAN HARGA

DED-05

Paket Pekerjaan : Pembangunan Bangunan Pendukung  
 Lokasi Pekerjaan : Waduk Tembesi  
 Tahun Anggaran : 2024

| No        | Uraian Pekerjaan                                                     | Satuan | Kuantitas | Harga Satuan (Rp) | Harga Pekerjaan (Rp) |
|-----------|----------------------------------------------------------------------|--------|-----------|-------------------|----------------------|
| A         | B                                                                    | C      | D         | E                 | F                    |
| <b>I</b>  | <b>PEKERJAAAN BANGUNAN KANTOR</b>                                    |        |           |                   |                      |
|           | Pekerjaan Tanah dan Pondasi                                          |        |           |                   |                      |
|           | Galian Tanah                                                         | m3     | 68.11     |                   |                      |
|           | Urugan tanah peninggian lantai                                       | m3     | 38.40     |                   |                      |
|           | Pemasangan Pondasi Batu Belah Campuran 1 SP : 3 Pasir Pasang         | m3     | 46.44     |                   |                      |
|           | Urugan Tanah Kembali                                                 | m3     | 24.24     |                   |                      |
|           | Buangan Tanah                                                        | m3     | 96.96     |                   |                      |
|           | Pekerjaan Beton Bertulang                                            |        |           |                   |                      |
|           | Sloof 150 x 200                                                      |        |           |                   |                      |
|           | Beton K-300 Readymiks fc' 30 MPA                                     | m3     | 6.45      |                   |                      |
|           | Bekisting                                                            | m2     | 51.60     |                   |                      |
|           | Pembesian                                                            | kg     | 1,796.28  |                   |                      |
|           | Kolom 200 x 200 :                                                    |        |           |                   |                      |
|           | Beton K-300 Readymiks fc' 30 MPA                                     | m3     | 8.96      |                   |                      |
|           | Bekisting                                                            | m2     | 76.80     |                   |                      |
|           | Pembesian                                                            | kg     | 1,624.01  |                   |                      |
|           | Kolom 150 x 150 :                                                    |        |           |                   |                      |
|           | Beton K-300 Readymiks fc' 30 MPA                                     | m3     | 2.16      |                   |                      |
|           | Bekisting                                                            | m2     | 28.80     |                   |                      |
|           | Pembesian                                                            | kg     | 458.95    |                   |                      |
|           | Ring Balok 150 x 300 :                                               |        |           |                   |                      |
|           | Beton K-300 Readymiks fc' 30 MPA                                     | m3     | 4.69      |                   |                      |
|           | Bekisting                                                            | m2     | 81.25     |                   |                      |
|           | Pembesian                                                            | kg     | 746.99    |                   |                      |
|           | Atap :                                                               |        |           |                   |                      |
|           | Beton K-300 Readymiks fc' 30 MPA                                     | m3     | 16.94     |                   |                      |
|           | Bekisting                                                            | m2     | 149.56    |                   |                      |
|           | Pembesian                                                            | kg     | 2,794.97  |                   |                      |
|           | Pekerjaan Pasangan Bata Dinding                                      |        |           |                   |                      |
|           | Pas. Dinding Bata Merah (5x11x22) cm Tebal ½ Batu Campuran 1SP :4 PP | m2     | 134.40    |                   |                      |
|           | Acian Dinding                                                        | m2     | 295.68    |                   |                      |
|           | Pemasangan Plesteran 1SP : 4 Pasir Pasang Tebal 15 mm                | m2     | 295.68    |                   |                      |
|           | Pekerjaan Pengecatan dinding                                         | m2     | 295.68    |                   |                      |
|           | Pekerjaan Pintu dan Jendela                                          |        |           |                   |                      |
|           | Pek. Pintu + Boven Type P1, Alumunium Frame                          | unit   | 1.00      |                   |                      |
|           | Pek. Pintu + Boven Type P2, Alumunium Frame                          | unit   | 1.00      |                   |                      |
|           | Pek. Pintu + Boven Type P3, Alumunium Frame                          | unit   | 2.00      |                   |                      |
|           | Pek. Pintu + Boven Type P4, PVC Frame                                | unit   | 1.00      |                   |                      |
|           | Pek. Jendela + Boven Type J, Alumunium Frame                         | unit   | 10.00     |                   |                      |
|           | Pekerjaan Lantai keramik                                             |        |           |                   |                      |
|           | Pek. Rabat Lantai, t=6 cm                                            | m3     | 6.00      |                   |                      |
|           | Pek. Keramik Lantai 40/40 cm                                         | m2     | 107.00    |                   |                      |
|           | Pek. Keramik Lantai Wc 25/25 cm                                      | m2     | 3.00      |                   |                      |
|           | Pek. Keramik Dinding Wc 25/40 cm                                     | m2     | 9.38      |                   |                      |
|           | Pek. Closet Jongkok, INA atau setara                                 | Bh     | 1.00      |                   |                      |
|           | Pek. Bak Air PVC                                                     | Unit   | 1.00      |                   |                      |
|           | Pek. Kran 1/2"                                                       | Bh     | 2.00      |                   |                      |
|           | Pekerjaan Floor Drain                                                | bh     | 1.00      |                   |                      |
|           | Pek. Kitchen Zink + Meja Beton                                       | Unit   | 1.00      |                   |                      |
|           | Pekerjaan Plafond                                                    |        |           |                   |                      |
|           | Pek. Rangka Plafond dgn Holo                                         | m2     | 141.16    |                   |                      |
|           | Pek. Penutup Plafond gypsum                                          | m2     | 141.16    |                   |                      |
|           | Pek. List Plafond gypsum                                             | m'     | 210.00    |                   |                      |
|           | Pek. Pengecaan Plafond                                               | m2     | 141.16    |                   |                      |
|           | <b>PEKERJAAAN LISTRIK</b>                                            |        |           |                   |                      |
|           | Pek. Instalasi Saklar Ganda ex.broco                                 | Titik  | 2.00      |                   |                      |
|           | Pek. Instalasi Saklar Tunggal ex. Broco                              | Titik  | 3.00      |                   |                      |
|           | Pek. Instalasi Stop Kontak Ganda ( 2 lubang ) ex. Broco              | Titik  | 1.00      |                   |                      |
|           | Pek. Instalasi Stop Kontak Tunggal ( 1 lubang ) ex. Broco            | Titik  | 3.00      |                   |                      |
|           | Pek. Instalasi Titik Lampu Downlight ( Ruang Dalam )                 | Titik  | 9.00      |                   |                      |
|           | Pek. Instalasi Titik Lampu ( Diluar Ruang Samping )                  | Titik  | 4.00      |                   |                      |
|           | Pek. Pengadaan KWH Meteran 1300                                      | Lot    | 1.00      |                   |                      |
|           | Pek. Pengan Lampu SL 20 Watt Philips                                 | Bh     | 9.00      |                   |                      |
| 9         | Pek. Pengan Lampu SL 10 Watt Philips                                 | BH     | 4.00      |                   |                      |
|           | <b>Jumlah Sub Total I</b>                                            |        |           |                   |                      |
| <b>II</b> | <b>PEKERJAAAN BANGUNAN DAYA DAN GENSET</b>                           |        |           |                   |                      |
|           | Pekerjaan Tanah dan Pondasi                                          |        |           |                   |                      |
|           | Galian Tanah                                                         | m3     | 72.00     |                   |                      |
|           | Pondasi Setempat Beton (K300 Besi 150 kg)                            | m3     | 2.69      |                   |                      |
|           | Pemasangan Pondasi Batu Belah Campuran 1 SP : 3 Pasir Pasang         | m3     | 38.40     |                   |                      |
|           | Urugan Tanah Kembali                                                 | m3     | 14.40     |                   |                      |
|           | Buangan Tanah                                                        | m3     | 57.60     |                   |                      |
|           | Pekerjaan Beton Bertulang                                            |        |           |                   |                      |
|           | Sloof 200 x 300 :                                                    |        |           |                   |                      |
|           | Beton K-300 Readymiks fc' 30 MPA                                     | m3     | 3.60      |                   |                      |
|           | Bekisting                                                            | m2     | 36.00     |                   |                      |
|           | Pembesian                                                            | kg     | 432.00    |                   |                      |
|           | Kolom 200 x 200 :                                                    |        |           |                   |                      |
|           | Beton K-300 Readymiks fc' 30 MPA                                     | m3     | 1.60      |                   |                      |
|           | Bekisting                                                            | m2     | 32.00     |                   |                      |
|           | Pembesian                                                            | kg     | 240.00    |                   |                      |
|           | Ring Balok 200 x 300 :                                               |        |           |                   |                      |
|           | Beton K-300 Readymiks fc' 30 MPA                                     | m3     | 3.60      |                   |                      |
|           | Bekisting                                                            | m2     | 42.00     |                   |                      |
|           | Pembesian                                                            | kg     | 540.00    |                   |                      |
|           | Lantai :                                                             |        |           |                   |                      |
|           | Beton K-300 Readymiks fc' 30 MPA                                     | m3     | 14.40     |                   |                      |
|           | Bekisting                                                            | m2     | 7.20      |                   |                      |

|            |                                                                                    |    |          |                             |  |
|------------|------------------------------------------------------------------------------------|----|----------|-----------------------------|--|
|            | Pembesian                                                                          | kg | 1,728.00 |                             |  |
|            | Atap :                                                                             |    |          |                             |  |
|            | Beton K-300 Readymiks fc' 30 MPA                                                   | m3 | 19.74    |                             |  |
|            | Bekisting                                                                          | m2 | 127.80   |                             |  |
|            | Pembesian                                                                          | kg | 2,171.40 |                             |  |
|            | Pekerjaan Pasangan Bata Dinding                                                    |    |          |                             |  |
|            | Pasangan Bata                                                                      | m2 | 204.00   |                             |  |
|            | Acian Dinding                                                                      | m2 | 408.00   |                             |  |
|            | Plesteran Dinding                                                                  | m2 | 408.00   |                             |  |
|            | Pekerjaan Pintu dan Jendela                                                        |    |          |                             |  |
|            | Pintu besi plat baja tebal 3,0 mm rangkap, rangka baja siku (3,00 x 2,40 m) 3 unit | m2 | 21.60    |                             |  |
|            | Jendela Jalusi Aluminium (3,0 x 0,6 m) 6 unit                                      | m2 | 43.20    |                             |  |
|            | Pengecatan tembok                                                                  | m2 | 408.00   |                             |  |
|            |                                                                                    |    |          | <b>Jumlah Sub Total II</b>  |  |
| <b>III</b> | <b>PEKERJAAAN BANGUNAN SLUDGE DRYING BED</b>                                       |    |          |                             |  |
|            | Pekerjaan Tanah dan Pondasi                                                        |    |          |                             |  |
|            | Galian Tanah                                                                       | m3 | 319.60   |                             |  |
|            | Pondasi Setempat Beton (K300 Besi 150 kg)                                          | m3 | 4.03     |                             |  |
|            | Pemasangan Pondasi Batu Belah Campuran 1 SP : 3 Pasir Pasang                       | m3 | 74.88    |                             |  |
|            | Urugan Tanah Kembali                                                               | m3 | 63.92    |                             |  |
|            | Buangan Tanah                                                                      | m3 | 255.68   |                             |  |
|            | Pekerjaan Beton Bertulang                                                          |    |          |                             |  |
|            | Kolam Lumpur :                                                                     |    |          |                             |  |
|            | Beton K-300 Readymiks fc' 30 MPA                                                   | m3 | 44.68    |                             |  |
|            | Bekisting                                                                          | m2 | 256.80   |                             |  |
|            | Pembesian                                                                          | kg | 5,808.40 |                             |  |
|            |                                                                                    |    |          | <b>Jumlah Sub Total III</b> |  |
| <b>IV</b>  | <b>PEKERJAAAN BANGUNAN SCADA DAN RUANG OPERATOR</b>                                |    |          |                             |  |
|            | Pekerjaan Tanah dan Pondasi                                                        |    |          |                             |  |
|            | Galian Tanah                                                                       | m3 | 57.60    |                             |  |
|            | Pondasi Setempat Beton (K300 Besi 150 kg)                                          | m3 | 1.92     |                             |  |
|            | Pemasangan Pondasi Batu Belah Campuran 1 SP : 5 Pasir Pasang                       | m3 | 30.72    |                             |  |
|            | Urugan Tanah Kembali                                                               | m3 | 11.52    |                             |  |
|            | Buangan Tanah                                                                      | m3 | 46.08    |                             |  |
|            | Pekerjaan Beton Bertulang                                                          |    |          |                             |  |
|            | Sloof 200 x 300 :                                                                  |    |          |                             |  |
|            | Beton K-300 Readymiks fc' 30 MPA                                                   | m3 | 3.84     |                             |  |
|            | Bekisting                                                                          | m2 | 28.80    |                             |  |
|            | Pembesian                                                                          | kg | 460.80   |                             |  |
|            | Kolom 200 x 200 :                                                                  |    |          |                             |  |
|            | Beton K-300 Readymiks fc' 30 MPA                                                   | m3 | 1.44     |                             |  |
|            | Bekisting                                                                          | m2 | 28.80    |                             |  |
|            | Pembesian                                                                          | kg | 216.00   |                             |  |
|            | Ring Balok 200 x 300 :                                                             |    |          |                             |  |
|            | Beton K-300 Readymiks fc' 30 MPA                                                   | m3 | 2.88     |                             |  |
|            | Bekisting                                                                          | m2 | 33.60    |                             |  |
|            | Pembesian                                                                          | kg | 432.00   |                             |  |
|            | Lantai :                                                                           |    |          |                             |  |
|            | Beton K-300 Readymiks fc' 30 MPA                                                   | m3 | 12.80    |                             |  |
|            | Bekisting                                                                          | m2 | 6.40     |                             |  |
|            | Pembesian                                                                          | kg | 1,536.00 |                             |  |
|            | Atap :                                                                             |    |          |                             |  |
|            | Beton K-300 Readymiks fc' 30 MPA                                                   | m3 | 17.68    |                             |  |
|            | Bekisting                                                                          | m2 | 114.40   |                             |  |
|            | Pembesian                                                                          | kg | 1,944.80 |                             |  |
|            | Pekerjaan Pasangan Bata Dinding                                                    |    |          |                             |  |
|            | Pasangan Bata                                                                      | m2 | 204.00   |                             |  |
|            | Acian Dinding                                                                      | m2 | 408.00   |                             |  |
|            | Plesteran Dinding                                                                  | m2 | 408.00   |                             |  |
|            | Pekerjaan Pintu dan Jendela                                                        |    |          |                             |  |
|            | Pintu Kaca Rangka Aluminium (2 unit)                                               | m2 | 8.40     |                             |  |
|            | Jendela Kaca Rangka Aluminium (4 unit)                                             | m2 | 7.20     |                             |  |
|            | Pengecatan                                                                         | m2 | 408.00   |                             |  |
|            |                                                                                    |    |          | <b>Jumlah Sub Total IV</b>  |  |
| <b>V</b>   | <b>PEKERJAAAN BANGUNAN CHLORINE</b>                                                |    |          |                             |  |
|            | Pekerjaan Tanah dan Pondasi                                                        |    |          |                             |  |
|            | Galian Tanah                                                                       | m3 | 112.80   |                             |  |
|            | Pondasi Setempat Beton (K300 Besi 150 kg)                                          | m3 | 3.81     |                             |  |
|            | Pemasangan Pondasi Batu Belah Campuran 1 SP : 5 Pasir Pasang                       | m3 | 71.36    |                             |  |
|            | Urugan Tanah Kembali                                                               | m3 | 22.56    |                             |  |
|            | Buangan Tanah                                                                      | m3 | 90.24    |                             |  |
|            | Pekerjaan Beton Bertulang                                                          |    |          |                             |  |
|            | Sloof 200 x 300 :                                                                  |    |          |                             |  |
|            | Beton K-300 Readymiks fc' 30 MPA                                                   | m3 | 6.69     |                             |  |
|            | Bekisting                                                                          | m2 | 66.90    |                             |  |
|            | Pembesian                                                                          | kg | 802.80   |                             |  |
|            | Kolom 300 x 300 :                                                                  |    |          |                             |  |
|            | Beton K-300 Readymiks fc' 30 MPA                                                   | m3 | 8.91     |                             |  |
|            | Bekisting                                                                          | m2 | 118.80   |                             |  |
|            | Pembesian                                                                          | kg | 1,336.50 |                             |  |
|            | Ring Balok 300 x 400 :                                                             |    |          |                             |  |
|            | Beton K-300 Readymiks fc' 30 MPA                                                   | m3 | 8.34     |                             |  |
|            | Bekisting                                                                          | m2 | 69.50    |                             |  |
|            | Pembesian                                                                          | kg | 1,251.00 |                             |  |
|            | Lantai :                                                                           |    |          |                             |  |
|            | Beton K-300 Readymiks fc' 30 MPA                                                   | m3 | 44.10    |                             |  |
|            | Bekisting                                                                          | m2 | 13.40    |                             |  |
|            | Pembesian                                                                          | kg | 5,292.00 |                             |  |
|            | Atap :                                                                             |    |          |                             |  |
|            | Beton K-300 Readymiks fc' 30 MPA                                                   | m3 | 48.68    |                             |  |
|            | Bekisting                                                                          | m2 | 318.15   |                             |  |
|            | Pembesian                                                                          | kg | 5,354.80 |                             |  |
|            | Dudukan Pondasi :                                                                  |    |          |                             |  |
|            | Beton K-300 Readymiks fc' 30 MPA                                                   | m3 | 5.17     |                             |  |
|            | Bekisting                                                                          | m2 | 16.87    |                             |  |
|            | Pembesian                                                                          | kg | 620.67   |                             |  |
|            | Pekerjaan Pasangan Bata Dinding                                                    |    |          |                             |  |
|            | Pasangan Bata                                                                      | m2 | 539.00   |                             |  |
|            | Acian Dinding                                                                      | m2 | 1,078.00 |                             |  |
|            | Plesteran Dinding                                                                  | m2 | 1,078.00 |                             |  |
|            | Pekerjaan Pintu dan Jendela                                                        |    |          |                             |  |

|            |                                                                                                                                                    |      |          |  |                            |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|--|----------------------------|
|            | Pintu besi plat baja tebal 3,0 mm rangkap, rangka baja siku (4,00 x 2,40 m) 1 unit                                                                 | m2   | 9.60     |  |                            |
|            | Pintu besi plat baja tebal 3,0 mm rangkap, rangka baja siku (1,00 x 2,40 m) 6 unit                                                                 | m2   | 14.40    |  |                            |
|            | Jendela Jalusi Alur z                                                                                                                              | m2   | 43.20    |  |                            |
|            | Pengecatan                                                                                                                                         | m2   | 1,078.00 |  |                            |
|            | Pengecatan Plafond                                                                                                                                 | m2   | 128.00   |  |                            |
|            | Pengadaan dan Pemasangan Peralatan Gas Chlorine                                                                                                    |      |          |  |                            |
|            | Jumlah                                                                                                                                             | unit | 1.00     |  |                            |
|            | Spesifikasi :                                                                                                                                      |      |          |  |                            |
|            | Kapasitas : 5 kg/hour                                                                                                                              |      |          |  |                            |
|            | Lengkap dengan panel, tabung dan cadangan tabung kapasitas minimal 900 kg, perpipaan, asesories perpipaan dan sistem pendukung keselamatan pekerja |      |          |  |                            |
|            |                                                                                                                                                    |      |          |  | <b>Jumlah Sub Total VI</b> |
| <b>VI</b>  | <b>PEKERJAAN BANGUNAN RUMAH POMPA</b>                                                                                                              |      |          |  |                            |
|            | Pekerjaan Tanah dan Pondasi                                                                                                                        |      |          |  |                            |
|            | Galian Tanah                                                                                                                                       | m3   | 39.55    |  |                            |
|            | Pondasi Setempat Beton (K300 Besi 150 kg) Plus Kolom chimney                                                                                       | m3   | 5.40     |  |                            |
|            | Pemasangan Pondasi Batu Belah Campuran 1 SP : 5 Pasir Pasang                                                                                       | m3   | 23.76    |  |                            |
|            | Urugan Tanah Kembali                                                                                                                               | m3   | 10.39    |  |                            |
|            | Buangan Tanah                                                                                                                                      | m3   | 26.04    |  |                            |
|            | Pekerjaan Beton Bertulang                                                                                                                          |      |          |  |                            |
|            | Sloof 200 x 300 :                                                                                                                                  |      |          |  |                            |
|            | Beton K-300 Readymix fc' 30 MPA                                                                                                                    | m3   | 2.64     |  |                            |
|            | Bekisting                                                                                                                                          | m2   | 26.40    |  |                            |
|            | Pembesian                                                                                                                                          | kg   | 368.48   |  |                            |
|            | Kolom 300 x 300 :                                                                                                                                  |      |          |  |                            |
|            | Beton K-300 Readymix fc' 30 MPA                                                                                                                    | m3   | 6.48     |  |                            |
|            | Bekisting                                                                                                                                          | m2   | 21.60    |  |                            |
|            | Pembesian                                                                                                                                          | kg   | 904.45   |  |                            |
|            | Balok 200/300                                                                                                                                      |      |          |  |                            |
|            | Beton K-300 Readymix fc' 30 MPA                                                                                                                    | m3   | 3.96     |  |                            |
|            | Bekisting                                                                                                                                          | m2   | 52.80    |  |                            |
|            | Pembesian                                                                                                                                          | kg   | 552.72   |  |                            |
|            | Lantai Dudukan Pompa 2,5 meter x 8 meter tebal 30 cm                                                                                               |      |          |  |                            |
|            | Beton K-300 Readymix fc' 30 MPA                                                                                                                    | m3   | 6.00     |  |                            |
|            | Bekisting                                                                                                                                          | m2   | 6.30     |  |                            |
|            | Pembesian                                                                                                                                          | kg   | 1,073.56 |  |                            |
|            | Atap :                                                                                                                                             |      |          |  |                            |
|            | Beton K-300 Readymix fc' 30 MPA                                                                                                                    | m3   | 8.40     |  |                            |
|            | Bekisting                                                                                                                                          | m2   | 69.96    |  |                            |
|            | Pembesian                                                                                                                                          | kg   | 2,391.15 |  |                            |
|            | Lantai Beton:                                                                                                                                      |      |          |  |                            |
|            | Beton K-300 Readymix fc' 30 MPA                                                                                                                    | m3   | 12.00    |  |                            |
|            | Bekisting                                                                                                                                          | m2   | 8.80     |  |                            |
|            | Pembesian                                                                                                                                          | kg   | 2,050.73 |  |                            |
|            | Pekerjaan Pasangan Bata Dinding                                                                                                                    |      |          |  |                            |
|            | Pasangan Bata                                                                                                                                      | m2   | 95.20    |  |                            |
|            | Acian Dinding                                                                                                                                      | m2   | 190.40   |  |                            |
|            | Plesteran Dinding                                                                                                                                  | m2   | 190.40   |  |                            |
|            | Pekerjaan Pintu dan Jendela                                                                                                                        |      |          |  |                            |
|            | Pintu besi plat baja tebal 3,0 mm rangkap, rangka baja siku (4,00 x 2,40 m) 1 unit                                                                 | unit | 9.60     |  |                            |
|            | Jendela Jalusi Aluminium (3,0 x 0,6 m) 4 unit                                                                                                      | unit | 7.20     |  |                            |
|            | Pengecatan                                                                                                                                         | m2   | 190.40   |  |                            |
|            | Pengecatan Plafond                                                                                                                                 | m2   | 69.96    |  |                            |
|            | Pengadaan Instalasi Perpipaan dan Accessories                                                                                                      |      |          |  |                            |
|            | Pipa steel dia 350                                                                                                                                 | m    | 60.00    |  |                            |
|            | Pipa steel dia 200                                                                                                                                 | m    | 12.00    |  |                            |
|            | Pipa steel dia 100                                                                                                                                 | m    | 6.00     |  |                            |
|            | Pipa steel dia 150                                                                                                                                 | m    | 12.00    |  |                            |
|            | Pipa steel dia 250                                                                                                                                 | m    | 54.00    |  |                            |
|            | Pipa steel dia 600                                                                                                                                 | m    | 18.00    |  |                            |
|            | Check valve dia 200                                                                                                                                | unit | 2.00     |  |                            |
|            | Gate Valve dia 200                                                                                                                                 | unit | 2.00     |  |                            |
|            | Check valve dia 150                                                                                                                                | unit | 2.00     |  |                            |
|            | Gate Valve dia 150                                                                                                                                 | unit | 2.00     |  |                            |
|            | Tee 350/200                                                                                                                                        | unit | 2.00     |  |                            |
|            | Tee 600/300                                                                                                                                        | unit | 2.00     |  |                            |
|            | Bend 90 dia 300                                                                                                                                    | unit | 2.00     |  |                            |
|            | Bend 90 dia 150                                                                                                                                    | unit | 2.00     |  |                            |
|            | Reducer 200/100                                                                                                                                    | unit | 2.00     |  |                            |
|            | Reducer 500/350                                                                                                                                    | unit | 2.00     |  |                            |
|            | Flexibel joint 150                                                                                                                                 | unit | 2.00     |  |                            |
|            | Flexibel joint 200                                                                                                                                 | unit | 2.00     |  |                            |
|            | Gate valve 75                                                                                                                                      | unit | 2.00     |  |                            |
|            | Flexible joint 75                                                                                                                                  | unit | 2.00     |  |                            |
|            | Tee 200/75                                                                                                                                         | unit | 2.00     |  |                            |
|            | Bend 200                                                                                                                                           | unit | 1.00     |  |                            |
|            | Tee 200/200                                                                                                                                        | unit | 1.00     |  |                            |
|            | Loose flanges dia 75                                                                                                                               | unit | 4.00     |  |                            |
|            | Loose flanges dia 100                                                                                                                              | unit | 4.00     |  |                            |
|            | Loose flanges dia 150                                                                                                                              | unit | 18.00    |  |                            |
|            | Loose flanges dia 200                                                                                                                              | unit | 18.00    |  |                            |
|            | Loose flanges dia 300                                                                                                                              | unit | 4.00     |  |                            |
|            | Loose flanges dia 350                                                                                                                              | unit | 10.00    |  |                            |
|            | Loose flanges dia 600                                                                                                                              | unit | 8.00     |  |                            |
|            | Bend 90 dia 350                                                                                                                                    | unit | 2.00     |  |                            |
|            |                                                                                                                                                    |      |          |  | <b>Jumlah Sub Total V</b>  |
| <b>VII</b> | <b>PEKERJAAN BANGUNAN RUMAH POMPA BOOSTER ( 2 UNIT )</b>                                                                                           |      |          |  |                            |
| <b>A</b>   | <b>Rumah Pompa Booster</b>                                                                                                                         |      |          |  |                            |
|            | PEKERJAAN TANAH                                                                                                                                    |      |          |  |                            |
|            | Galian Tanah                                                                                                                                       | m³   | 63.95    |  |                            |
|            | Urugan Tanah Kembali                                                                                                                               | m³   | 9.59     |  |                            |
|            | Urugan Pasir                                                                                                                                       | m³   | 19.76    |  |                            |
|            | Buangan tanah bekas galian tanah                                                                                                                   | m³   | 54.35    |  |                            |
|            | PEKERJAAN BETON                                                                                                                                    |      |          |  |                            |
|            | Lantai kerja 1 : 3 : 5 (mutu K-125)                                                                                                                | m³   | 3.09     |  |                            |
|            | Pekerjaan Beton K-250                                                                                                                              |      |          |  |                            |
|            | - Pondasi                                                                                                                                          |      |          |  |                            |
|            | Beton                                                                                                                                              | m³   | 2.70     |  |                            |
|            | Besi                                                                                                                                               | m2   | 405.00   |  |                            |
|            | Bekisting                                                                                                                                          |      | 6.90     |  |                            |
|            | - Lantai - K-250                                                                                                                                   |      |          |  |                            |
|            | Beton                                                                                                                                              | m³   | 7.20     |  |                            |

|   |                                                           |       |          |  |
|---|-----------------------------------------------------------|-------|----------|--|
|   | Besi                                                      | kg    | 1,080.00 |  |
|   | Bekisting                                                 | m2    | 7.80     |  |
|   | - Kolom 15/15 - K-250                                     |       |          |  |
|   | Beton                                                     | m³    | 4.32     |  |
|   | Besi                                                      | kg    | 648.00   |  |
|   | Bekisting                                                 | m2    | 57.60    |  |
|   | - Balok 20/25 - K-250                                     |       |          |  |
|   | Beton                                                     | m³    | 3.66     |  |
|   | Besi                                                      | kg    | 549.00   |  |
|   | Bekisting                                                 | m2    | 36.60    |  |
|   | - Ring Balk 20/15 - K-250                                 |       |          |  |
|   | Beton                                                     | m³    | 3.22     |  |
|   | Besi                                                      | kg    | 483.12   |  |
|   | Bekisting                                                 | m2    | 32.21    |  |
|   | - Pondasi Pompa                                           |       |          |  |
|   | Beton                                                     | m³    | 1.01     |  |
|   | Besi                                                      | kg    | 151.20   |  |
|   | Bekisting                                                 | m2    | 8.60     |  |
|   | - Atap beton dan Lisplank beton                           |       |          |  |
|   | Beton                                                     | m³    | 8.87     |  |
|   | Besi                                                      | kg    | 1,330.56 |  |
|   | Bekisting                                                 | m2    | 51.52    |  |
|   | <b>PEKERJAAN PASANGAN</b>                                 |       |          |  |
|   | Pekerjaan Pasangan Pondasi Batu 1 : 3                     | m³    | 35.64    |  |
|   | Pasangan 1/2 Bata 1:3                                     | m2    | 141.00   |  |
|   | Plesteran 1:3, tebal 15 mm                                | m2    | 282.00   |  |
|   | Acian                                                     | m2    | 282.00   |  |
|   | Pasangan Roster                                           | m2    | 1.60     |  |
|   | <b>PEKERJAAN PENGECATAN</b>                               |       |          |  |
|   | Pekerjaan pengecatan Dinding                              | m2    | 282.00   |  |
|   | <b>PEKERJAAN PINTU &amp; JENDELA</b>                      |       |          |  |
|   | Pek. Pintu + Boven Type P3, Alumunium Frame               | bh    | 4.00     |  |
|   | Pekerjaan Jendela Alumunium Lengkap Dengan Kaca           | bh    | 2.00     |  |
|   | <b>PEKERJAAN PENERANGAN</b>                               |       |          |  |
|   | Lampu                                                     | titik | 8.00     |  |
|   | Stop Kontak                                               | titik | 2.00     |  |
|   | Pek. Instalasi Saklar Tunggal ex. Broco                   | titik | 8.00     |  |
|   | <b>B PEKERJAAN RESERVOIR GLASS FUSE STEEL KAP. 200 M3</b> |       |          |  |
| 1 | Pondasi Tapak 1400 x 1400 x 350 mm                        |       |          |  |
|   | Lantai Kerja                                              | m³    | 3.53     |  |
|   | Beton K-300                                               | m³    | 8.23     |  |
|   | Bekisting                                                 | m²    | 23.52    |  |
|   | Pembesian                                                 | kg    | 1,363.60 |  |
| 2 | Kolom Pedestali 350 x 350 x 850 mm                        |       |          |  |
|   | Beton K-300                                               | m³    | 1.25     |  |
|   | Bekisting                                                 | m²    | 14.28    |  |
|   | Pembesian                                                 | kg    | 195.37   |  |
| 3 | Sloof 250 x 500 mm                                        |       |          |  |
|   | Beton K-300                                               | m³    | 12.90    |  |
|   | Bekisting                                                 | m²    | 103.20   |  |
|   | Pembesian                                                 | kg    | 2,478.15 |  |
| 4 | Slab Reservoir t=500 mm                                   |       |          |  |
|   | Beton K-300                                               | m³    | 69.40    |  |
|   | Bekisting                                                 | m²    | 29.53    |  |
|   | Pembesian                                                 | kg    | 3,427.58 |  |
| 5 | Reservoir Glass Steel 200 m³                              | Unit  | 2.00     |  |
|   | <b>C PEKERJAAN RUMAH JAGA</b>                             |       |          |  |
|   | <b>PEKERJAAN TANAH</b>                                    |       |          |  |
|   | Galian Tanah                                              | m³    | 63.95    |  |
|   | Urugan Tanah Kembali                                      | m³    | 9.59     |  |
|   | Urugan Pasir                                              | m³    | 19.76    |  |
|   | Buangan tanah bekas galian tanah                          | m³    | 54.35    |  |
|   | <b>PEKERJAAN BETON</b>                                    |       |          |  |
|   | Lantai kerja 1 : 3 : 5 (mutu K-125)                       | m³    | 3.09     |  |
|   | Pekerjaan Beton K-250                                     |       |          |  |
|   | - Pondasi                                                 | m³    | 2.70     |  |
|   | Beton                                                     | kg    | 405.00   |  |
|   | Besi                                                      | m2    | 6.90     |  |
|   | Bekisting                                                 |       |          |  |
|   | - Lantai - K-250                                          |       |          |  |
|   | Beton                                                     | m³    | 7.20     |  |
|   | Besi                                                      | kg    | 1,080.00 |  |
|   | Bekisting                                                 | m2    | 7.80     |  |
|   | - Kolom 15/15 - K-250                                     |       |          |  |
|   | Beton                                                     | m³    | 4.32     |  |
|   | Besi                                                      | kg    | 648.00   |  |
|   | Bekisting                                                 | m2    | 57.60    |  |
|   | - Balok 20/25 - K-250                                     |       |          |  |
|   | Beton                                                     | m³    | 3.66     |  |
|   | Besi                                                      | kg    | 549.00   |  |
|   | Bekisting                                                 | m2    | 36.60    |  |
|   | - Ring Balk 20/15 - K-250                                 |       |          |  |
|   | Beton                                                     | m³    | 3.22     |  |
|   | Besi                                                      | kg    | 483.12   |  |
|   | Bekisting                                                 | m2    | 32.21    |  |
|   | - Atap beton dan Lisplank beton                           |       |          |  |
|   | Beton                                                     | m³    | 8.87     |  |
|   | Besi                                                      | kg    | 1,330.56 |  |
|   | Bekisting                                                 | m2    | 51.52    |  |
|   | <b>PEKERJAAN PASANGAN</b>                                 |       |          |  |
|   | Pekerjaan Pasangan Pondasi Batu 1 : 5                     | m³    | 35.64    |  |
|   | Pasangan 1/2 Bata 1:3                                     | m2    | 141.00   |  |
|   | Plesteran 1:3, tebal 15 mm                                | m2    | 282.00   |  |
|   | Acian                                                     | m2    | 282.00   |  |
|   | Pasangan Roster                                           | m2    | 1.60     |  |



|                             |                                                                      |       |        |  |
|-----------------------------|----------------------------------------------------------------------|-------|--------|--|
|                             | PEKERJAAN PENGECATAN                                                 |       |        |  |
|                             | Pekerjaan Pengcatan Dinding                                          | m2    | 282.00 |  |
|                             | PEKERJAAN PINTU & JENDELA                                            |       |        |  |
|                             | Pek. Pintu + Boven Type P3, Alumunium Frame                          | bh    | 4.00   |  |
|                             | Pekerjaan Jendela Aluminium Lengkap Dengan Kaca                      | bh    | 6.00   |  |
|                             | PEKERJAAN PENERANGAN                                                 |       |        |  |
|                             | Lampu                                                                | titik | 10.00  |  |
|                             | Stop Kontak                                                          | titik | 4.00   |  |
|                             | Pek. Instalasi Saklar Tunggal ex. Broco                              | titik | 8.00   |  |
| <b>D</b>                    | <b>PEKERJAAN RUMAH GENSET</b>                                        |       |        |  |
|                             | Pekerjaan Rumah Gardu dan Genset                                     | unit  | 2.00   |  |
| <b>E</b>                    | <b>Pengadaan Instalasi Perpipaan dan Accessories</b>                 |       |        |  |
|                             | Pipa steel dia 350                                                   | m     | 120.00 |  |
|                             | Pipa steel dia 200                                                   | m     | 24.00  |  |
|                             | Pipa steel dia 100                                                   | m     | 12.00  |  |
|                             | Pipa steel dia 150                                                   | m     | 24.00  |  |
|                             | Pipa steel dia 250                                                   | m     | 108.00 |  |
|                             | Pipa steel dia 600                                                   | m     | 36.00  |  |
|                             | Check valve dia 200                                                  | unit  | 4.00   |  |
|                             | Gate Valve dia 200                                                   | unit  | 4.00   |  |
|                             | Check valve dia 150                                                  | unit  | 4.00   |  |
|                             | Gate Valve dia 150                                                   | unit  | 4.00   |  |
|                             | Tee 350/200                                                          | unit  | 4.00   |  |
|                             | Tee 600/300                                                          | unit  | 4.00   |  |
|                             | Bend 90 dia 300                                                      | unit  | 4.00   |  |
|                             | Bend 90 dia 150                                                      | unit  | 4.00   |  |
|                             | Reducer 200/100                                                      | unit  | 4.00   |  |
|                             | Reducer 500/350                                                      | unit  | 4.00   |  |
|                             | Flexibel joint 150                                                   | unit  | 4.00   |  |
|                             | Flexibel joint 200                                                   | unit  | 4.00   |  |
|                             | Gate valve 75                                                        | unit  | 4.00   |  |
|                             | Flexible joint 75                                                    | unit  | 4.00   |  |
|                             | Tee 200/75                                                           | unit  | 4.00   |  |
|                             | Bend 200                                                             | unit  | 2.00   |  |
|                             | Tee 200/200                                                          | unit  | 2.00   |  |
|                             | Loose flanges dia 75                                                 | unit  | 8.00   |  |
|                             | Loose flanges dia 100                                                | unit  | 8.00   |  |
|                             | Loose flanges dia 150                                                | unit  | 36.00  |  |
|                             | Loose flanges dia 200                                                | unit  | 36.00  |  |
|                             | Loose flanges dia 300                                                | unit  | 8.00   |  |
|                             | Loose flanges dia 350                                                | unit  | 20.00  |  |
|                             | Loose flanges dia 600                                                | unit  | 16.00  |  |
|                             | Bend 90 dia 350                                                      | unit  | 4.00   |  |
| <b>Jumlah Sub Total VII</b> |                                                                      |       |        |  |
| <b>VIII</b>                 | <b>PEKERJAAN RUMAH JAGA</b>                                          |       |        |  |
|                             | Pekerjaan Tanah dan Pondasi                                          |       |        |  |
|                             | Galian Tanah                                                         | m3    | 7.49   |  |
|                             | Urugan tanah peninggian lantai                                       | m3    | 8.00   |  |
|                             | Pemasangan Pondasi Batu Belah Campuran 1 SP : 5 Pasir Pasang         | m3    | 5.76   |  |
|                             | Urugan Tanah Kembali                                                 | m3    | 1.73   |  |
|                             | Buangan Tanah                                                        | m3    | 1.73   |  |
|                             | Pekerjaan Beton Bertulang                                            |       |        |  |
|                             | Sloof 150 x 200                                                      |       |        |  |
|                             | Beton K-300 Readymiks fc' 30 MPA                                     | m3    | 0.42   |  |
|                             | Bekisting                                                            | m2    | 5.60   |  |
|                             | Pembesian                                                            | kg    | 63.00  |  |
|                             | Kolom 200 x 200 :                                                    |       |        |  |
|                             | Beton K-300 Readymiks fc' 30 MPA                                     | m3    | 1.62   |  |
|                             | Bekisting                                                            | m2    | 21.60  |  |
|                             | Pembesian                                                            | kg    | 243.00 |  |
|                             | Kolom 150 x 150 :                                                    |       |        |  |
|                             | Beton K-300 Readymiks fc' 30 MPA                                     | m3    | 0.10   |  |
|                             | Bekisting                                                            | m2    | 2.70   |  |
|                             | Pembesian                                                            | kg    | 15.19  |  |
|                             | Ring Balok 150 x 250                                                 |       |        |  |
|                             | Beton K-300 Readymiks fc' 30 MPA                                     | m3    | 1.20   |  |
|                             | Bekisting                                                            | m2    | 16.00  |  |
|                             | Pembesian                                                            | kg    | 180.00 |  |
|                             | Atap :                                                               |       |        |  |
|                             | Beton K-300 Readymiks fc' 30 MPA                                     | m3    | 1.92   |  |
|                             | Bekisting                                                            | m2    | 16.00  |  |
|                             | Pembesian                                                            | kg    | 288.00 |  |
|                             | Pekerjaan Pasangan Bata Dinding                                      |       |        |  |
|                             | Pas. Dinding Bata Merah (5x11x22) cm Tebal ½ Batu Campuran 1SP :4 PP | m2    | 32.00  |  |
|                             | Acian Dinding                                                        | m2    | 64.00  |  |
|                             | Pemasangan Plesteran 1SP : 4 Pasir Pasang Tebal 15 mm                | m2    | 64.00  |  |
|                             | Pekerjaan Pengcatan dinding                                          | m2    | 64.00  |  |
|                             | Pekerjaan Pintu dan Jendela                                          |       |        |  |
|                             | Pek. Pintu + Boven Type P3, Alumunium Frame                          | unit  | 1.00   |  |
|                             | Pek. Pintu + Boven Type P4, PVC Frame                                | unit  | 1.00   |  |
|                             | Pekerjaan Lantai keramik                                             |       |        |  |
|                             | Pek. Rabat Lantai, t=6 cm                                            | m3    | 2.40   |  |
|                             | Pek. Keramik Lantai 40/40 cm                                         | m2    | 14.00  |  |
|                             | Pek. Keramik Lantai Wc 25/25 cm                                      | m2    | 2.00   |  |
|                             | Pek. Keramik Dinding Wc 25/40 cm                                     | m2    | 6.00   |  |
|                             | Pek. Closet Jongkok, INA atau setara                                 | Bh    | 1.00   |  |
|                             | Pek. Kran 1/2"                                                       | Bh    | 1.00   |  |
|                             | Pekerjaan Floor Drain                                                | bh    | 1.00   |  |
|                             | Pekerjaan Plafond                                                    |       |        |  |
|                             | Pek. Rangka Plafond dgn Holo                                         | m2    | 16.00  |  |
|                             | Pek. Penutup Plafond gypsum                                          | m2    | 16.00  |  |
|                             | Pek. List Plafond gypsum                                             | m'    | 16.00  |  |
|                             | Pek. Pengcaan Plafond                                                | m2    | 16.00  |  |
|                             | PEKERJAAN LISTRIK                                                    |       |        |  |

|           |                                                                                 |       |           |                              |  |
|-----------|---------------------------------------------------------------------------------|-------|-----------|------------------------------|--|
|           | Pek. Instalasi Saklar Ganda ex.broco                                            | Titik | 1.00      |                              |  |
|           | Pek. Instalasi Saklar Tunggal ex. Broco                                         | Titik | 1.00      |                              |  |
|           | Pek. Instalasi Stop Kontak Ganda ( 2 lubang ) ex. Broco                         | Titik | 1.00      |                              |  |
|           | Pek. Instalasi Stop Kontak Tunggal ( 1 lubang ) ex. Broco                       | Titik | 2.00      |                              |  |
|           | Pek. Instalasi Titik Lampu Downlight ( Ruang Dalam )                            | Titik | 1.00      |                              |  |
|           | Pek. Instalasi Titik Lampu ( Diluar Ruang Samping )                             | Titik | 2.00      |                              |  |
|           | Pek. Pengadaan KWH Meteran 1300                                                 | Lot   | 1.00      |                              |  |
|           | Pek. Pengan Lampu SL 20 Watt Philips                                            | Bh    | 3.00      |                              |  |
|           | Pek. Pengan Lampu SL 10 Watt Philips                                            | BH    | 1.00      |                              |  |
|           |                                                                                 |       |           | <b>Jumlah Sub Total VIII</b> |  |
| <b>IX</b> | <b>PEKERJAAN PENUNJANG TAMBAHAN</b>                                             |       |           |                              |  |
|           | Konstruksi Jalan Lingkungan Area WTP dan Jalan Masuk Area SPAM                  |       |           |                              |  |
|           | Pekerjaan Pematatan serta Perataan Lahan                                        | m3    | 725.20    |                              |  |
|           | Lps. Pond. Ag. Kls. A, CBR Min 80% (Tebal 30 cm)                                | m3    | 637.80    |                              |  |
|           | Timbunan dengan Tanah Pilihan (Tebal 20 cm)                                     | m3    | 470.20    |                              |  |
|           | Beton K-300 Readymix fc' 30 MPA                                                 | m3    | 637.80    |                              |  |
|           | Bekisting                                                                       | m2    | 298.80    |                              |  |
|           | Besi Beton                                                                      | kg    | 46,695.50 |                              |  |
|           | Pengadaan dan Pemasangan Pagar Keliling Area WTP                                |       |           |                              |  |
|           | Pondasi Setempat                                                                |       |           |                              |  |
|           | Galian                                                                          | m3    | 24.00     |                              |  |
|           | Timbunan tanah kembali                                                          | m3    | -         |                              |  |
|           | Buangan Tanah                                                                   | m3    | 24.00     |                              |  |
|           | Lantai Kerja                                                                    | m3    | 2.40      |                              |  |
|           | Pondasi Beton K175 0,3x0,3x0,5 tinggi 80 cm Per Jarak 2,40 m                    | m3    | 3.02      |                              |  |
|           | Sloop balok K175 0,2x0,3 m                                                      | m3    | 9.60      |                              |  |
|           | Kolom antar Pagar BRC                                                           | m3    | 6.43      |                              |  |
|           | Pagar BRC Halarag ; Tinggi = 1,50 m, Diameter 4,0 mm , spasi antar kawat 100 mm | m'    | 160.00    |                              |  |
|           | Saluran Drainase Air Hujan                                                      |       |           |                              |  |
|           | Galian                                                                          | m3    | 102.40    |                              |  |
|           | Buangan Tanah                                                                   | m3    | 102.40    |                              |  |
|           | Lantai Kerja                                                                    | m3    | 4.10      |                              |  |
|           | Saluran Terbuka U-Ditch STU 80 - 80 - 120 cm                                    | m'    | 133.33    |                              |  |
|           | Pengadaan dan Pemasangan Bioseptic Tank                                         |       |           |                              |  |
|           | Galian                                                                          | m3    | 10.50     |                              |  |
|           | Buangan Tanah                                                                   | m3    | 10.50     |                              |  |
|           | Lantai Kerja                                                                    | m3    | 0.23      |                              |  |
|           | Bioseptic Tank Kapasitas 5000 liter                                             | unit  | 1.00      |                              |  |
|           | Pekerjaan Perpipaan                                                             | Ls    | 1.00      |                              |  |
|           | Perapihan kembali                                                               | Ls    | 1.00      |                              |  |
|           | Landscaping                                                                     |       |           |                              |  |
|           | Pohon dan Tanaman                                                               | Ls    | 1.00      |                              |  |
|           | Rumput                                                                          | m2    | 1,750.00  |                              |  |
|           |                                                                                 |       |           | <b>Jumlah Sub Total IX</b>   |  |
|           |                                                                                 |       |           | <b>JUMLAH TOTAL</b>          |  |

## DAFTAR KUANTITAS DAN HARGA

DED-06

Paket Pekerjaan : Pembangunan Reservoir Glass Fuse Steel (GFS) Kapasitas 3000 m3 dengan Rumah Pompa Distribusi  
 Lokasi Pekerjaan : Waduk Tembesi  
 Tahun Anggaran : 2024

| No                                                           | Uraian Pekerjaan                                                                                          | Satuan | Kuantitas | Harga Satuan (Rp) | Harga Pekerjaan (Rp) |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------|-----------|-------------------|----------------------|
| A                                                            | B                                                                                                         | C      | D         | E                 | F                    |
| <b>I PEKERJAAN TANAH</b>                                     |                                                                                                           |        |           |                   |                      |
| 1                                                            | Pekerjaan Galian Tanah Batu                                                                               | m3     | 3,456.00  |                   |                      |
| 2                                                            | Pekerjaan Pengurangan Kembali                                                                             | m3     | 691.20    |                   |                      |
| 3                                                            | Pekerjaan pembuangan tanah sisa galian                                                                    | m3     | 2,380.80  |                   |                      |
| 4                                                            | Pekerjaan Urugan Pasir, t = 20 cm                                                                         | m3     | 230.40    |                   |                      |
| 5                                                            | Pekerjaan Pematatan Pasir                                                                                 | m3     | 230.40    |                   |                      |
| <b>Jumlah Sub Total I</b>                                    |                                                                                                           |        |           |                   |                      |
| <b>II PEKERJAAN PONDASI</b>                                  |                                                                                                           |        |           |                   |                      |
| 1                                                            | Pekerjaan Pengadaan dan Pemasangan Pondasi<br>Jenis : Ring Balok<br>Dimensi : 40,00 x 40,00 cm            | m3     | 68.22     |                   |                      |
| <b>Jumlah Sub Total II</b>                                   |                                                                                                           |        |           |                   |                      |
| <b>III PEKERJAAN RESERVOIR GLASS FUSE STEEL KAP. 3000 M3</b> |                                                                                                           |        |           |                   |                      |
| 1                                                            | BorePile Ø 60 cm, P = 4 m                                                                                 |        |           |                   |                      |
|                                                              | - Pengeboran Ø 60 cm                                                                                      | m      | 480.00    |                   |                      |
|                                                              | - Beton K-350                                                                                             | m³     | 135.65    |                   |                      |
|                                                              | - Pembesian                                                                                               | kg     | 13,423.22 |                   |                      |
|                                                              | - Sewa Casing Borepile Ø 60 cm                                                                            | m      | 480.00    |                   |                      |
| 2                                                            | Pekerjaan Slab Resevoar                                                                                   |        |           |                   |                      |
|                                                              | - Lantai kerja K-125                                                                                      | m³     | 82.07     |                   |                      |
|                                                              | - Beton K-300 Readymiks fc' 30 MPA                                                                        | m³     | 656.59    |                   |                      |
|                                                              | - Bekisting Lantai                                                                                        | m²     | 81.26     |                   |                      |
|                                                              | - Besi Beton                                                                                              | kg     | 53,399.27 |                   |                      |
| 3                                                            | Reservoir Glass Steel 3000 m³                                                                             | ls     | 1.00      |                   |                      |
| <b>Jumlah Sub Total III</b>                                  |                                                                                                           |        |           |                   |                      |
| <b>IV PEKERJAAN PERPIPAAN</b>                                |                                                                                                           |        |           |                   |                      |
| Pekerjaan Pengadaan dan Pemasangan Pipa Steel dan Acc. :     |                                                                                                           |        |           |                   |                      |
| 1                                                            | Pipa Inlet Reservoir                                                                                      |        |           |                   |                      |
|                                                              | - Pipa GSP Kelas Medium, DN 500 mm (dari IPA Ke Reservoir)                                                | m'     | 48.00     |                   |                      |
|                                                              | - Loose Flange DN. 500 mm                                                                                 | Bh     | 8.00      |                   |                      |
|                                                              | - Gate Valve DN. 500 mm                                                                                   | Bh     | 4.00      |                   |                      |
|                                                              | - Packing DN. 500 mm                                                                                      | Bh     | 4.00      |                   |                      |
|                                                              | - Baut 5/8" x 3"                                                                                          | Bh     | 144.00    |                   |                      |
|                                                              | - Pengelasan                                                                                              | cm     | 1,507.96  |                   |                      |
|                                                              | - Pekerjaan Instalasi Pipa                                                                                | ls     | 1.00      |                   |                      |
| 2                                                            | Pipa Penguras                                                                                             |        |           |                   |                      |
|                                                              | - Pipa GSP Kelas Medium, DN 250 mm                                                                        | m'     | 18.00     |                   |                      |
|                                                              | - Gate Valve, DN. 250 mm                                                                                  | Bh     | 2.00      |                   |                      |
|                                                              | - Loose Flange, DN 250 mm                                                                                 | Bh     | 4.00      |                   |                      |
|                                                              | - Strainer, DN. 250 mm                                                                                    | Bh     | 2.00      |                   |                      |
|                                                              | - Packing, DN 250 mm                                                                                      | Bh     | 2.00      |                   |                      |
|                                                              | - Baut 5/8" x 3"                                                                                          | Bh     | 12.00     |                   |                      |
|                                                              | - Pengelasan                                                                                              | cm     | 753.98    |                   |                      |
|                                                              | - Pekerjaan Instalasi Pipa                                                                                | ls     | 1.00      |                   |                      |
| 3                                                            | Pipa Over Flow                                                                                            |        |           |                   |                      |
|                                                              | - Pipa GSP Kelas Medium, DN 200 mm                                                                        | m'     | 18.00     |                   |                      |
|                                                              | - Bend All Spigot, 90° DN. 200 mm                                                                         | Bh     | 4.00      |                   |                      |
|                                                              | - Packing, DN 200 mm                                                                                      | Bh     | 8.00      |                   |                      |
|                                                              | - Baut 5/8" x 3"                                                                                          | Bh     | 48.00     |                   |                      |
|                                                              | - Pengelasan                                                                                              | cm     | 628.32    |                   |                      |
|                                                              | - Pekerjaan Instalasi Pipa                                                                                | ls     | 1.00      |                   |                      |
| 4                                                            | Pipa Outlet                                                                                               |        |           |                   |                      |
|                                                              | - Pipa GSP Kelas Medium, DN 600 mm (dari Reservoir ke Ruang Pompa Distribusi, termasuk Pipa Header Pompa) | m'     | 12.00     |                   |                      |
|                                                              | - Blind Flange, DN. 600 mm                                                                                | Bh     | 2.00      |                   |                      |
|                                                              | - Loose Flange, DN 600 mm                                                                                 | Bh     | 4.00      |                   |                      |
|                                                              | - Gate Valve, DN. 600 mm                                                                                  | Bh     | 2.00      |                   |                      |
|                                                              | - Packing, DN 600 mm                                                                                      | Bh     | 4.00      |                   |                      |
|                                                              | - Baut 1" x 7"                                                                                            | Bh     | 128.00    |                   |                      |
|                                                              | - Pengelasan                                                                                              | cm     | 2,010.62  |                   |                      |
|                                                              | - Pekerjaan Instalasi Pipa                                                                                | ls     | 1.00      |                   |                      |

|   |                                                                      |    |          |  |                                          |
|---|----------------------------------------------------------------------|----|----------|--|------------------------------------------|
| 6 | Perpipaan Pompa Distribusi                                           |    |          |  |                                          |
|   | Inlet :                                                              |    |          |  |                                          |
|   | - Pipa GSP Kelas Medium, DN 200 mm (dari Pipa Header ke Pompa)       | m' | 9.00     |  |                                          |
|   | - Loose Flange DN. 200 mm                                            | Bh | 6.00     |  |                                          |
|   | - Gate Valve DN. 200 mm                                              | Bh | 3.00     |  |                                          |
|   | - Packing DN. 200 mm                                                 | Bh | 3.00     |  |                                          |
|   | - Baut 5/8" x 3"                                                     | Bh | 54.00    |  |                                          |
|   | - Pengelasan                                                         | cm | 1,130.97 |  |                                          |
|   | - Pekerjaan Instalasi Pipa                                           | ls | 1.00     |  |                                          |
|   | Outlet :                                                             |    |          |  |                                          |
|   | - Pipa GSP Kelas Medium, DN 200 mm (dari Pompa Ke Header Distribusi) | m' | 9.00     |  |                                          |
|   | - Pipa GSP Kelas Medium, DN 600 mm (Header Distribusi)               | m' | 12.00    |  |                                          |
|   | - Gate Valve DN. 200 mm                                              | Bh | 3.00     |  |                                          |
|   | - Check Valve DN. 200 mm                                             | Bh | 3.00     |  |                                          |
|   | - Flexible Join DN. 200 mm                                           | Bh | 3.00     |  |                                          |
|   | - Loose Flange DN. 200 mm                                            | Bh | 18.00    |  |                                          |
|   | - Blind Flange, DN. 600 mm                                           | Bh | 1.00     |  |                                          |
|   | - Loose Flange, DN 600 mm                                            | Bh | 1.00     |  |                                          |
|   | - Bend 90 Steel DN. 200 mm                                           | Bh | 3.00     |  |                                          |
|   | - T Yee Steel DN. 600 x 200 mm                                       | Bh | 3.00     |  |                                          |
|   | - Pengelasan                                                         | cm | 3,392.92 |  |                                          |
|   | - Pekerjaan Instalasi Pipa                                           | ls | 1.00     |  |                                          |
|   |                                                                      |    |          |  |                                          |
|   |                                                                      |    |          |  | <b>Jumlah Sub Total IV</b>               |
|   |                                                                      |    |          |  |                                          |
|   |                                                                      |    |          |  | <b>JUMLAH TOTAL ( I + II + III + IV)</b> |

DAFTAR KUANTITAS DAN HARGA

DED-07

Paket Pekerjaan : Pengadaan dan Pemasangan Pipa Transmisi Air Curah  
 Lokasi Pekerjaan : Waduk Tembesi  
 Tahun Anggaran : 2024

| No        | Uraian Pekerjaan                                                                    | Satuan | Kuantitas | Harga Satuan (Rp)          | Harga Pekerjaan (Rp)           |
|-----------|-------------------------------------------------------------------------------------|--------|-----------|----------------------------|--------------------------------|
| A         | B                                                                                   | C      | D         | E                          | F                              |
| <b>I</b>  | <b>PEKERJAAN PENGADAAN PIPA</b>                                                     |        |           |                            |                                |
| 1         | Pipa HDPE PE.100, SDR.13.6, PN.12.5, DN. 500 mm                                     | m      | 9,169.00  |                            |                                |
| 2         | Pipa HDPE PE.100, SDR.11, PN.16, DN. 500 mm                                         | m      | 100.00    |                            |                                |
| 3         | Aesorries Pipa                                                                      |        |           |                            |                                |
|           | Bend 45, DN. 500 mm                                                                 | bh     | 11.00     |                            |                                |
|           | Bend 90, DN. 500 mm                                                                 | bh     | 3.00      |                            |                                |
|           | Tee Y DN. 500 x 500 mm                                                              | bh     | 1.00      |                            |                                |
|           | Air Valve ND. 100 mm                                                                | bh     | 6.00      |                            |                                |
|           | Gate Valve ND. 100 mm                                                               | bh     | 6.00      |                            |                                |
|           | Tee Steel DN. 500 x 100 mm                                                          | bh     | 6.00      |                            |                                |
|           | Stub Flange DN. 500 mm                                                              | bh     | 12.00     |                            |                                |
|           | Stub Flange DN. 100 mm                                                              | bh     | 12.00     |                            |                                |
|           | Loose Flange DN. 500 mm                                                             | bh     | 6.00      |                            |                                |
|           | Loose Flange DN. 100 mm                                                             | bh     | 6.00      |                            |                                |
|           | Surge Anticipating Valve ND 6"                                                      | bh     | 2.00      |                            |                                |
|           |                                                                                     |        |           | <b>Jumlah Sub Total I</b>  |                                |
| <b>II</b> | <b>PEKERJAAN PEMASANGAN PIPA, ACESSORIES TERMASUK FITTING VALVE DAN PENGETESAN</b>  |        |           |                            |                                |
| 1         | Pekerjaan Sipil :                                                                   |        |           |                            |                                |
|           | Galian Tanah Berbatu                                                                | m3     | 21,092.28 |                            |                                |
|           | Urugan Tanah dan Pematatan Kembali                                                  | m3     | 19,142.45 |                            |                                |
|           | Buangan Tanah                                                                       | m3     | 1,949.83  |                            |                                |
| 2         | Pekerjaan HDD crossing HDPE SDR 13,6 PN 12,5 DN 500 mm                              | m      | 120.00    |                            |                                |
| 3         | Pemasangan HDPE PE.100, SDR.13.6, PN.12.5, DN. 500 mm                               | m'     | 9,169.00  |                            |                                |
| 4         | Pengadaan Thrust Block Beton K300 (panjang x lebar x tinggi = 1.05 x 0.6 x 1.05 m)  | bh     | 6.00      |                            |                                |
| 5         | Pemasangan Thrust Block Beton K300 (panjang x lebar x tinggi = 1.05 x 0.6 x 1.05 m) | bh     | 6.00      |                            |                                |
| 6         | Pemasangan Accessories Pipa                                                         |        |           |                            |                                |
|           | Bend 45, DN. 500 mm                                                                 | bh     | 11.00     |                            |                                |
|           | Bend 90, DN. 500 mm                                                                 | bh     | 3.00      |                            |                                |
|           | Tee Y DN. 500 x 500 mm                                                              | bh     | 1.00      |                            |                                |
|           | Air Valve ND. 100 mm                                                                | bh     | 6.00      |                            |                                |
|           | Gate Valve ND. 100 mm                                                               | bh     | 6.00      |                            |                                |
|           | Tee Steel DN. 500 x 100 mm                                                          | bh     | 6.00      |                            |                                |
|           | Stub Flange DN. 500 mm                                                              | bh     | 12.00     |                            |                                |
|           | Stub Flange DN. 100 mm                                                              | bh     | 12.00     |                            |                                |
|           | Loose Flange DN. 500 mm                                                             | bh     | 6.00      |                            |                                |
|           | Loose Flange DN. 100 mm                                                             | bh     | 6.00      |                            |                                |
|           | Surge Anticipating Valve ND 6"                                                      | bh     | 2.00      |                            |                                |
| 5         | Air Valve Chamber                                                                   | unit   | 6.00      |                            |                                |
| 6         | Pengetesan Pipa HDPE PE.100, SDR.13.6, PN.12.5, DN. 500 mm                          | m'     | 9,169.00  |                            |                                |
|           |                                                                                     |        |           | <b>Jumlah Sub Total II</b> |                                |
|           |                                                                                     |        |           |                            | <b>JUMLAH TOTAL ( I + II )</b> |

DAFTAR KUANTITAS DAN HARGA

DED-08

Paket Pekerjaan : Pengadaan dan Pemasangan Penyambungan Daya dan Kelistrikan  
 Lokasi Pekerjaan : Waduk Tembesi  
 Tahun Anggaran : 2023 Waduk Tembesi

| No                                                                | Uraian Pekerjaan                                                                                             | Satuan | Kuantitas |  |  |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|--------|-----------|--|--|
| <b>Pengadaan dan Pemasangan Penyambungan Daya dan Kelistrikan</b> |                                                                                                              |        |           |  |  |
| <b>A Pengadaan dan Pemasangan Main Power LV &amp; MV</b>          |                                                                                                              |        |           |  |  |
| 1                                                                 | Penyambungan daya PLN 1000kVA (DAYA IPA)                                                                     | Ls     | 1.00      |  |  |
|                                                                   | - Biaya penyambungan                                                                                         |        |           |  |  |
|                                                                   | - Uang jaminan langganan                                                                                     |        |           |  |  |
|                                                                   | - Jasa Sertifikat Layak Operasi                                                                              |        |           |  |  |
|                                                                   | - Jaminan Instalasi                                                                                          |        |           |  |  |
|                                                                   | - Jasa (Pengurusan dan Teknis Lapangan)                                                                      |        |           |  |  |
|                                                                   | - Biaya Pengurusan dan Teknis Lapangan                                                                       |        |           |  |  |
| 2                                                                 | Pengadaan dan pemasangan cubicle costumer (1 incoming & 1 out going)                                         | Unit   | 1.00      |  |  |
|                                                                   | - Unit cubicle in, out                                                                                       |        |           |  |  |
|                                                                   | - Man hours pemasangan                                                                                       |        |           |  |  |
| 3                                                                 | Pengadaan dan pemasangan trafo IPA 1000kVA, 20 kv 400/231 V, ONAN, 3ph, 50 Hz, Dyn 5                         | Unit   | 1.00      |  |  |
|                                                                   | - Unit Trafo                                                                                                 |        |           |  |  |
|                                                                   | - Man hours pemasangan                                                                                       |        |           |  |  |
| 4                                                                 | Pengadaan dan pemasangan GENSET 1000kVA, 400/231 V, ONAN, 3ph, 50 Hz                                         | Unit   | 1.00      |  |  |
| 5                                                                 | Pengadaan dan pemasangan panel LVMDP & kapasitor bank                                                        | Unit   | 1.00      |  |  |
| 6                                                                 | Pengadaan dan pemasangan panel SDP gas chlor                                                                 | Unit   | 1.00      |  |  |
| 7                                                                 | Pengadaan dan pemasangan panel SDP IPA                                                                       | Unit   | 1.00      |  |  |
| 8                                                                 | Pengadaan dan pemasangan panel SDP ruang compressor                                                          | Unit   | 1.00      |  |  |
| 9                                                                 | Pengadaan dan pemasangan panel PJU                                                                           | Unit   | 1.00      |  |  |
| 10                                                                | Pengadaan dan Pemasangan Penerangan dan Utility IPA                                                          | Is     | 1.00      |  |  |
| 11                                                                | Pengadaan dan Pemasangan PJU                                                                                 | set    | 12.00     |  |  |
| <b>Jumlah Sub Total A</b>                                         |                                                                                                              |        |           |  |  |
| <b>B Pengadaan dan Pemasangan Motor Control center (MCC)</b>      |                                                                                                              |        |           |  |  |
| 1                                                                 | Pengadaan dan pemasangan panel VSD transmisi 400kW                                                           | Unit   | 2.00      |  |  |
| 2                                                                 | Pengadaan dan pemasangan panel VSD intake 2x160kW                                                            | Unit   | 1.00      |  |  |
| 3                                                                 | Pengadaan dan Pemasangan panel dosing Pump & Agitator                                                        | Unit   | 1.00      |  |  |
| 4                                                                 | Pengadaan dan Pemasangan Panel pompa recycle                                                                 | Unit   | 1.00      |  |  |
| 5                                                                 | Pengadaan dan Pemasangan panel air & water service                                                           | Unit   | 1.00      |  |  |
| <b>Jumlah Sub Total B</b>                                         |                                                                                                              |        |           |  |  |
| <b>C Pengadaan dan Pemasang Kabel Power &amp; MV</b>              |                                                                                                              |        |           |  |  |
| 1                                                                 | Pengadaan dan pemasangan kabel power PLN incoming cubicle costumer N2XSEBY 1 x 3c x 95 Sqmm                  | M      | 20.00     |  |  |
| 2                                                                 | Pengadaan dan pemasangan kabel power cubicle costumer outgoing 1 Trafo 1000kVA N2XSY 3 x 1c x 95 Sqmm        | M      | 30.00     |  |  |
| 3                                                                 | Pengadaan dan pemasangan kabel power trafo 1000kVA LVMDP NYY 15 x 1c x 150Sqmm RST+ NYY 2 x 1c x 150Sqmm N   | M      | 15.00     |  |  |
| 4                                                                 | Pengadaan dan pemasangan kabel power GENSET 1000kVA LVMDP NYY 15 x 1c x 150Sqmm RST+ NYY 2 x 1c x 150Sqmm N  | M      | 20.00     |  |  |
| 5                                                                 | Pengadaan dan pemasangan kabel power LVMDP SDP IPA NYFGBY 4c x 25mm                                          | M      | 100.00    |  |  |
| 6                                                                 | Pengadaan dan pemasangan kabel power LVMDP SDP Air & water service NYY 4c x 16mm                             | M      | 40.00     |  |  |
| 7                                                                 | Pengadaan dan pemasangan kabel power LVMDP SDP Gas chlor NYFGBY 4c x 16mm                                    | M      | 130.00    |  |  |
| 8                                                                 | Pengadaan dan pemasangan kabel power LVMDP Panel PJU NYFGBY 4c x 10mm                                        | M      | 25.00     |  |  |
| 9                                                                 | Pengadaan dan pemasangan kabel power Panel PJU PJU NYFGBY 4c x 10mm                                          | M      | 300.00    |  |  |
| 10                                                                | Pengadaan dan pemasangan kabel power LVMDP VSD pompa transmisi 1 NYY 6 x 1c x 300mm RST + NYY 1 x 1c x 4mm N | M      | 15.00     |  |  |
| 11                                                                | Pengadaan dan pemasangan kabel power LVMDP VSD pompa transmisi 2 NYY 6 x 1c x 300mm RST + NYY 1 x 1c x 4mm N | M      | 15.00     |  |  |
| 12                                                                | Pengadaan dan pemasangan kabel power LVMDP intake VSD intake 2x160kW NYFGbY 4Cx185mm                         | M      | 200.00    |  |  |
| 13                                                                | Pengadaan dan pemasangan kabel power LVMDP panel dosing agitator NYY 4c x 10mm                               | M      | 70.00     |  |  |
| 14                                                                | Pengadaan dan pemasangan kabel power LVMDP Panel pompa recycle NYRGBY 4c x 6mm                               | M      | 10.00     |  |  |
| 15                                                                | Pengadaan dan pemasangan kabel power LVMDP panel air & water service NYY 1 x 4c x 95mm                       | M      | 70.00     |  |  |
| <b>Jumlah Sub Total C</b>                                         |                                                                                                              |        |           |  |  |
| <b>D Pengadaan dan Pemasangan Kabel motor/pompa</b>               |                                                                                                              |        |           |  |  |
| 1                                                                 | Pengadaan dan pemasangan kabel motor VSD transmisi 1 pompa transmisi 1 NYY 2 x 4c x 300mm RSTG               | M      | 60.00     |  |  |
| 2                                                                 | Pengadaan dan pemasangan kabel motor VSD transmisi 2 pompa transmisi 2 NYY 2 x 4c x 300mm RSTG               | M      | 44.00     |  |  |
| 3                                                                 | Pengadaan dan pemasangan kabel motor VSD intake 1 pompa intake 1 NYY 4c x185mm                               | M      | 20.00     |  |  |
| 4                                                                 | Pengadaan dan pemasangan kabel motor VSD intake 2 pompa intake 2 NYY 4c x185mm                               | M      | 20.00     |  |  |
| 5                                                                 | Pengadaan dan pemasangan kabel motor panel chemical prepararation Dosing alum 1 NYYHY 4c x1.5mm              | M      | 20.00     |  |  |
| 6                                                                 | Pengadaan dan pemasangan kabel motor panel chemical prepararation Dosing alum 2 NYYHY 4c x1.5mm              | M      | 20.00     |  |  |
| 7                                                                 | Pengadaan dan pemasangan kabel motor panel chemical prepararation Dosing alum 3 NYYHY 4c x1.5mm              | M      | 20.00     |  |  |
| 8                                                                 | Pengadaan dan pemasangan kabel motor panel chemical prepararation Dosing kapur 1 NYYHY 4c x1.5mm             | M      | 20.00     |  |  |
| 9                                                                 | Pengadaan dan pemasangan kabel motor panel chemical prepararation Dosing kapur 2 NYYHY 4c x1.5mm             | M      | 20.00     |  |  |
| 10                                                                | Pengadaan dan pemasangan kabel motor panel chemical prepararation Dosing kapur 3 NYYHY 4c x1.5mm             | M      | 20.00     |  |  |
| 11                                                                | Pengadaan dan pemasangan kabel motor panel chemical prepararation Agitator alum NYYHY 4c x2.5mm              | M      | 20.00     |  |  |
| 12                                                                | Pengadaan dan pemasangan kabel motor panel chemical prepararation Agitator kapur 1 NYYHY 4c x2.5mm           | M      | 20.00     |  |  |
| 13                                                                | Pengadaan dan pemasangan kabel motor panel chemical prepararation Agitator kapur 2 NYYHY 4c x2.5mm           | M      | 20.00     |  |  |
| 14                                                                | Pengadaan dan pemasangan kabel motor panel pompa recycle Pompa recycle 1 NYYHY 4c x4 mm                      | M      | 15.00     |  |  |
| 15                                                                | Pengadaan dan pemasangan kabel motor panel pompa recycle Pompa recycle 2 NYYHY 4c x4 mm                      | M      | 15.00     |  |  |
| 16                                                                | Pengadaan dan pemasangan kabel motor panel air & water service Pompa backwash 1 NYY 2 x 4c x 10mm            | M      | 35.00     |  |  |
| 17                                                                | Pengadaan dan pemasangan kabel motor panel air & water service Pompa backwash 2 NYY 2 x 4c x 10mm            | M      | 35.00     |  |  |
| 18                                                                | Pengadaan dan pemasangan kabel motor panel air & water service Air blower 1 NYY 2 x 4c x 6mm                 | M      | 30.00     |  |  |
| 19                                                                | Pengadaan dan pemasangan kabel motor panel air & water service Air blower 2 NYY 2 x 4c x 6mm                 | M      | 30.00     |  |  |
| 20                                                                | Pengadaan dan pemasangan kabel motor panel air & water service Air dryer 1 NYY 1 x 3c x 2.5mm                | M      | 20.00     |  |  |
| 21                                                                | Pengadaan dan pemasangan kabel motor panel air & water service Air dryer 2 NYY 1 x 3c x 2.5mm                | M      | 20.00     |  |  |
| 22                                                                | Pengadaan dan pemasangan kabel motor panel air & water service Pompa service 1 NYY 1 x 4c x 6mm              | M      | 30.00     |  |  |
| 23                                                                | Pengadaan dan pemasangan kabel motor panel air & water service Pompa service 2 NYY 1 x 4c x 6mm              | M      | 30.00     |  |  |
| 24                                                                | Pengadaan dan pemasangan kabel motor panel air & water service Compressor 1 NYY 2 x 4c x 6mm                 | M      | 25.00     |  |  |
| 25                                                                | Pengadaan dan pemasangan kabel motor panel air & water service Compressor 2 NYY 2 x 4c x 6mm                 | M      | 25.00     |  |  |

| <b>Jumlah Sub Total D</b>                                    |                                                                                                           |       |        |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------|--------|
| <b>E Pengadaan dan Pemasangan Pendukung Kelistrikan</b>      |                                                                                                           |       |        |
| 1                                                            | Penangkal petir & Grounding                                                                               |       |        |
|                                                              | - Pengadaan dan pemasangan penangkal petir radius 100M                                                    | titik | 1.00   |
|                                                              | - Pengadaan dan pemasangan titik grounding <1 ohm MVMDP trafo 1000kVA                                     | lot   | 1.00   |
|                                                              | - Pengadaan dan pemasangan titik grounding <1 ohm Body Trafo1000 kVA                                      | lot   | 1.00   |
|                                                              | - Pengadaan dan pemasangan titik grounding <1 ohm Netral trafo 1000kVA                                    | lot   | 1.00   |
|                                                              | - Pengadaan dan pemasangan titik grounding <1 ohm LVMDP                                                   | lot   | 1.00   |
|                                                              | - Pengadaan dan pemasangan titik grounding <1 ohm Panel vsd pompa intake                                  | lot   | 1.00   |
|                                                              | - Pengadaan dan pemasangan titik grounding <1 ohm Panel vsd pompa transmisi                               | lot   | 1.00   |
|                                                              | - Pengadaan dan pemasangan titik grounding <1 ohm Instrumentasi area IPA                                  | lot   | 1.00   |
|                                                              | - Pengadaan dan pemasangan titik grounding <1 ohm Instrumentasi SCADA                                     | lot   | 1.00   |
|                                                              | - Pengadaan dan pemasangan titik grounding <1 ohm genset                                                  | lot   | 1.00   |
|                                                              | - Pengadaan dan pemasangan titik grounding <1 ohm IPA                                                     | lot   | 1.00   |
| 2                                                            | Kabel grounding                                                                                           |       |        |
|                                                              | - Pengadaan dan pemasangan kabel Grounding LVMDP SDP IPA NYA 1c x 10mm                                    | M     | 100.00 |
|                                                              | - Pengadaan dan pemasangan kabel Grounding LVMDP SDP Air & water service NYA 1c x 10mm                    | M     | 40.00  |
|                                                              | - Pengadaan dan pemasangan kabel Grounding LVMDP SDP Gas chlor NYA 1c x 10mm                              | M     | 130.00 |
|                                                              | - Pengadaan dan pemasangan kabel Grounding LVMDP Panel PJU NYA 1c x 6mm                                   | M     | 25.00  |
|                                                              | - Pengadaan dan pemasangan kabel Grounding LVMDP VSD pompa transmisi 1 NYA 1c x 50mm                      | M     | 15.00  |
|                                                              | - Pengadaan dan pemasangan kabel Grounding LVMDP VSD pompa transmisi 2 NYA 1c x 50mm                      | M     | 12.00  |
|                                                              | - Pengadaan dan pemasangan kabel Grounding LVMDP VSD pompa transmisi 3 NYA 1c x 50mm                      | M     | 15.00  |
|                                                              | - Pengadaan dan pemasangan kabel Grounding LVMDP Panel dosing agitator NYA 1c x 6mm                       | M     | 70.00  |
|                                                              | - Pengadaan dan pemasangan kabel Grounding LVMDP Panel pompa recycle NYA 1c x 4mm                         | M     | 10.00  |
|                                                              | - Pengadaan dan pemasangan kabel Grounding LVMDP panel air & water service NYA 1c x 50mm                  | M     | 70.00  |
| 3                                                            | Junction Box pompa                                                                                        |       |        |
|                                                              | - Pengadaan dan pemasangan junction box pompa intake 1 400mm x 200mm x 500mm                              | unit  | 1.00   |
|                                                              | - Pengadaan dan pemasangan junction box pompa intake 2 400mm x 200mm x 500mm                              | unit  | 1.00   |
|                                                              | - Pengadaan dan pemasangan junction box pompa recycle 200mm x 150mm x 100mm                               | unit  | 1.00   |
|                                                              | - Pengadaan dan pemasangan junction box pompa holding tank 200mm x 150mm x 100mm                          | unit  | 1.00   |
| 4                                                            | Trey & jalur kabel                                                                                        |       |        |
|                                                              | - Cable ladder galvanized 600mm x 100mm + support angle bar                                               | M     | 15.00  |
|                                                              | - Cable ladder galvanized 500mm x 100mm + support angle bar                                               | M     | 15.00  |
|                                                              | - Cable ladder galvanized 400mm x 100mm + support angle bar                                               | M     | 65.00  |
|                                                              | - Cable ladder galvanized 300mm x 100mm + support angle bar                                               | M     | 15.00  |
|                                                              | - Cable ladder galvanized 200mm x 100mm + support angle bar                                               | M     | 55.00  |
|                                                              | - Cable ladder galvanized 150mm x 100mm + support angle bar                                               | M     | 10.00  |
|                                                              | - Cable ladder Horizontal band 600mm                                                                      | pcs   | 4.00   |
|                                                              | - Cable ladder Horizontal band 300mm                                                                      | pcs   | 1.00   |
|                                                              | - Cable ladder Horizontal band 200mm                                                                      | pcs   | 2.00   |
|                                                              | - Cable ladder Horizontal band 150mm                                                                      | pcs   | 3.00   |
|                                                              | - Cable ladder tee 600mm to 500mm                                                                         | pcs   | 1.00   |
|                                                              | - Cable ladder tee 500mm to 500mm                                                                         | pcs   | 1.00   |
|                                                              | - Cable ladder tee 500mm to 400mm                                                                         | pcs   | 1.00   |
|                                                              | - Cable ladder tee 400mm to 300mm                                                                         | pcs   | 1.00   |
|                                                              | - Cable ladder tee 300mm to 200mm                                                                         | pcs   | 2.00   |
|                                                              | - Cable ladder tee 200mm to 200mm                                                                         | pcs   | 2.00   |
|                                                              | - Cable ladder tee 150mm to 150mm                                                                         | pcs   | 2.00   |
|                                                              | - Cable ladder right hand reducer 600mm to 400mm                                                          | pcs   | 1.00   |
|                                                              | - Cable ladder right hand reducer 400mm to 200mm                                                          | pcs   | 1.00   |
|                                                              | - Cable vertical band outside 600mm                                                                       | pcs   | 1.00   |
|                                                              | - Cable vertical band outside 200mm                                                                       | pcs   | 4.00   |
|                                                              | - Cable vertical band outside 150mm                                                                       | pcs   | 1.00   |
|                                                              | - Cable vertical band inside 600mm                                                                        | pcs   | 1.00   |
|                                                              | - Cable vertical band inside 200mm                                                                        | pcs   | 4.00   |
|                                                              | - Cable vertical band inside 150mm                                                                        | pcs   | 1.00   |
| <b>Jumlah Sub Total E</b>                                    |                                                                                                           |       |        |
| <b>POMPA INTAKE 110 LPS</b>                                  |                                                                                                           |       |        |
| <b>A Pengadaan dan Pemasangan Main Power LV &amp; MV</b>     |                                                                                                           |       |        |
| 1                                                            | Penyambungan daya PLN 250kVA (DAYA intake 110 lps)                                                        | Ls    | 1.00   |
|                                                              | - Biaya penyambungan                                                                                      |       |        |
|                                                              | - Uang jaminan langganan                                                                                  |       |        |
|                                                              | - Jasa Sertifikat Layak Operasi                                                                           |       |        |
|                                                              | - Jaminan Instalasi                                                                                       |       |        |
|                                                              | - Jasa (Pengurusan dan Teknis Lapangan)                                                                   |       |        |
|                                                              | - Biaya Pengurusan dan Teknis Lapangan                                                                    |       |        |
| 2                                                            | Pengadaan dan pemasangan cubicle costumer (1 incoming & 1 out going)                                      | Unit  | 1.00   |
|                                                              | - Unit cubicle in,out                                                                                     |       |        |
|                                                              | - Man hours pemasangan                                                                                    |       |        |
| 3                                                            | Pengadaan dan pemasangan trafo IPA 250kVA, 20 kv 400/231 V, ONAN, 3ph, 50 Hz, Dyn 5                       | Unit  | 1.00   |
|                                                              | - Unit Trafo                                                                                              |       |        |
|                                                              | - Man hours pemasangan                                                                                    |       |        |
| 4                                                            | Pengadaan dan pemasangan panel LVMDP (INTAKE 110 LPS)                                                     | Unit  | 1.00   |
| 5                                                            | Pengadaan dan pemasangan panel PJU                                                                        | Unit  | 1.00   |
| 6                                                            | Pengadaan dan Pemasangan Penerangan dan Utility                                                           | ls    | 1.00   |
| 7                                                            | Pengadaan dan Pemasangan PJU                                                                              | set   | 2.00   |
| <b>B Pengadaan dan Pemasangan Motor Control center (MCC)</b> |                                                                                                           |       |        |
| 1                                                            | Pengadaan dan pemasangan panel VSD intake 160kW (110 lps)                                                 | Unit  | 2.00   |
| <b>C Pengadaan dan Pemasangan Kabel Power</b>                |                                                                                                           |       |        |
| 1                                                            | Pengadaan dan pemasangan kabel power PLN incoming cubicle costumer N2XSEBY 1 x 3c x 35 Sqmm               | M     | 20.00  |
| 2                                                            | Pengadaan dan pemasangan kabel power cubicle costumer outgoing 1 Trafo 250kVA N2XSY 3 x 1c x 35 Sqmm      | M     | 10.00  |
| 3                                                            | Pengadaan dan pemasangan kabel power outgoing 1 Trafo 250kVA LVMDP NYY 4 X 1C X 185mm RSTN                | M     | 10.00  |
| 4                                                            | Pengadaan dan pemasangan kabel power LVMDP VSD pompa intake 1 NYY 3 x 1c x 150mm RST + NYY 1 x 1c x 4mm N | M     | 20.00  |
| 5                                                            | Pengadaan dan pemasangan kabel power LVMDP VSD pompa intake 2 NYY 3 x 1c x 150mm RST + NYY 1 x 1c x 4mm N | M     | 20.00  |
| 6                                                            | Pengadaan dan pemasangan kabel power LVMDP Panel PJU NYFGBY 4c x 10mm                                     | M     | 15.00  |
| 7                                                            | Pengadaan dan pemasangan kabel power Panel PJU NYFGBY 4c x 10mm                                           | M     | 12.00  |
| <b>D Pengadaan dan Pemasangan Kabel motor/pompa</b>          |                                                                                                           |       |        |
| 1                                                            | Pengadaan dan pemasangan kabel motor VSD intake 1 pompa intake 1 NYY 4 x 150mm RSTG                       | M     | 30.00  |
| 2                                                            | Pengadaan dan pemasangan kabel motor VSD intake 2 pompa intake 2 NYY 4c x 150mm RSTG                      | M     | 30.00  |

|                                         |                                                                                                           |       |       |  |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------|-------|-------|--|
| <b>E</b>                                | <b>Pengadaan dan Pemasangan Pendukung Kelistrikan</b>                                                     |       |       |  |
| 1                                       | Penangkal petir & Grounding                                                                               |       |       |  |
|                                         | - Pengadaan dan pemasangan penangkal petir radius 50M                                                     | titik | 1.00  |  |
|                                         | - Pengadaan dan pemasangan titik grounding <1 ohm MVMDP trafo 250kVA                                      | lot   | 1.00  |  |
|                                         | - Pengadaan dan pemasangan titik grounding <1 ohm Body Trafo 250 kVA                                      | lot   | 1.00  |  |
|                                         | - Pengadaan dan pemasangan titik grounding <1 ohm Netral trafo 250kVA                                     | lot   | 1.00  |  |
|                                         | - Pengadaan dan pemasangan titik grounding <1 ohm LVMDP                                                   | lot   | 1.00  |  |
| 2                                       | Kabel grounding                                                                                           |       |       |  |
|                                         | - Pengadaan dan pemasangan kabel Grounding LVMDP VSD pompa INTAKE 1 NYA 1c x 50mm                         | M     | 5.00  |  |
| 3                                       | junction Box pompa                                                                                        |       |       |  |
|                                         | 1 Pengadaan dan pemasangan junction box pompa intake 1 400mm x 200mm x 500mm                              | Unit  | 2.00  |  |
| 4                                       | Trey & jalur kabel                                                                                        | LS    | 1.00  |  |
| <b>Jumlah Sub Total intake 110 lps</b>  |                                                                                                           |       |       |  |
| <b>POMPA BOOSTER</b>                    |                                                                                                           |       |       |  |
| <b>A</b>                                | <b>Pengadaan dan Pemasangan Main Power</b>                                                                |       |       |  |
| 1                                       | Penyambungan daya PLN 160kVA (DAYA booster 110 lps)                                                       | Ls    | 1.00  |  |
|                                         | - Biaya penyambungan                                                                                      |       |       |  |
|                                         | - Uang jaminan langganan                                                                                  |       |       |  |
|                                         | - Jasa Sertifikat Layak Operasi                                                                           |       |       |  |
|                                         | - Jaminan Instalasi                                                                                       |       |       |  |
|                                         | - Jasa (Pengurusan dan Teknis Lapangan)                                                                   |       |       |  |
|                                         | - Biaya Pengurusan dan Teknis Lapangan                                                                    |       |       |  |
| 2                                       | Pengadaan dan pemasangan panel LVMDP (booster 110 LPS)                                                    | Unit  | 1.00  |  |
| 3                                       | Pengadaan dan pemasangan panel PJU                                                                        | Unit  | 1.00  |  |
| 4                                       | Pengadaan dan Pemasangan Penerangan dan Utility                                                           | ls    | 1.00  |  |
| 5                                       | Pengadaan dan Pemasangan PJU                                                                              | set   | 2.00  |  |
| <b>B</b>                                | <b>Pengadaan dan Pemasangan Motor Control center (MCC)</b>                                                |       |       |  |
| 1                                       | Pengadaan dan pemasangan panel VSD BOOSTER 2x90kW (110 lps)                                               | Unit  | 1.00  |  |
| <b>C</b>                                | <b>Pengadaan dan Pemasangan Kabel Power</b>                                                               |       |       |  |
| 1                                       | Pengadaan dan pemasangan kabel power outgoing 1 Trafo 160kVA ke panel lvmdp Nyfgby 1 x 4c x 120 Sqmm      | M     | 15.00 |  |
| 2                                       | Pengadaan dan pemasangan kabel power LVMDP VSD pompa booster 1 NYY 3 x 1c x 95mm RST + NYY 1 x 1c x 4mm N | M     | 5.00  |  |
| 3                                       | Pengadaan dan pemasangan kabel power LVMDP VSD pompa booster 2 NYY 3 x 1c x 95mm RST + NYY 1 x 1c x 4mm N | M     | 5.00  |  |
| 4                                       | Pengadaan dan pemasangan kabel power LVMDP Panel PJU NYFGBY 4c x 10mm                                     | M     | 15.00 |  |
| 5                                       | Pengadaan dan pemasangan kabel power Panel PJU NYFGBY 4c x 10mm                                           | M     | 12.00 |  |
| <b>D</b>                                | <b>Pengadaan dan Pemasangan Kabel motor/pompa</b>                                                         |       |       |  |
| 1                                       | Pengadaan dan pemasangan kabel motor VSD booster 1 pompa booster 1 NYY 4c x 95mm RSTG                     | M     | 30.00 |  |
| 2                                       | Pengadaan dan pemasangan kabel motor VSD booster 2 pompa booster 2 NYY 4c x 95mm RSTG                     | M     | 30.00 |  |
| <b>E</b>                                | <b>Pengadaan dan Pemasangan Pendukung Kelistrikan</b>                                                     |       |       |  |
| 1                                       | Penangkal petir & Grounding                                                                               |       |       |  |
|                                         | - Pengadaan dan pemasangan penangkal petir radius 50M                                                     | titik | 1.00  |  |
|                                         | - Pengadaan dan pemasangan titik grounding <1 ohm Body Trafo 160 kVA                                      | lot   | 1.00  |  |
|                                         | - Pengadaan dan pemasangan titik grounding <1 ohm Netral trafo 160kVA                                     | lot   | 1.00  |  |
|                                         | - Pengadaan dan pemasangan titik grounding <1 ohm LVMDP                                                   | lot   | 1.00  |  |
| 2                                       | Kabel grounding                                                                                           |       |       |  |
|                                         | - Pengadaan dan pemasangan kabel Grounding LVMDP VSD pompa BOOSTER 1 NYA 1c x 50mm                        | M     | 5.00  |  |
| 3                                       | Trey & jalur kabel                                                                                        | LS    | 1.00  |  |
| <b>Jumlah Sub Total booster 110 lps</b> |                                                                                                           |       |       |  |
| <b>POMPA BOOSTER 2</b>                  |                                                                                                           |       |       |  |
| <b>A</b>                                | <b>Pengadaan dan Pemasangan Main Power LV &amp; MV</b>                                                    |       |       |  |
| 1                                       | Penyambungan daya PLN 160kVA (DAYA booster 110 lps)                                                       | Ls    | 1.00  |  |
|                                         | - Biaya penyambungan                                                                                      |       |       |  |
|                                         | - Uang jaminan langganan                                                                                  |       |       |  |
|                                         | - Jasa Sertifikat Layak Operasi                                                                           |       |       |  |
|                                         | - Jaminan Instalasi                                                                                       |       |       |  |
|                                         | - Jasa (Pengurusan dan Teknis Lapangan)                                                                   |       |       |  |
|                                         | - Biaya Pengurusan dan Teknis Lapangan                                                                    |       |       |  |
| 2                                       | Pengadaan dan pemasangan panel LVMDP (booster 110 LPS)                                                    | Unit  | 1.00  |  |
| 3                                       | Pengadaan dan pemasangan panel PJU                                                                        | Unit  | 1.00  |  |
| 4                                       | Pengadaan dan Pemasangan Penerangan dan Utility                                                           | ls    | 1.00  |  |
| 5                                       | Pengadaan dan Pemasangan PJU                                                                              | set   | 2.00  |  |
| <b>B</b>                                | <b>Pengadaan dan Pemasangan Motor Control center (MCC)</b>                                                |       |       |  |
| 1                                       | Pengadaan dan pemasangan panel VSD BOOSTER 2x90kW (110 lps)                                               | Unit  | 1.00  |  |
| <b>C</b>                                | <b>Pengadaan dan Pemasangan Kabel Power</b>                                                               |       |       |  |
| 1                                       | Pengadaan dan pemasangan kabel power outgoing 1 Trafo 160kVA ke panel lvmdp Nyfgby 1 x 4c x 120 Sqmm      | M     | 15.00 |  |
| 2                                       | Pengadaan dan pemasangan kabel power LVMDP VSD pompa booster 1 NYY 3 x 1c x 95mm RST + NYY 1 x 1c x 4mm N | M     | 5.00  |  |
| 3                                       | Pengadaan dan pemasangan kabel power LVMDP VSD pompa booster 2 NYY 3 x 1c x 95mm RST + NYY 1 x 1c x 4mm N | M     | 5.00  |  |
| 4                                       | Pengadaan dan pemasangan kabel power LVMDP Panel PJU NYFGBY 4c x 10mm                                     | M     | 15.00 |  |
| 5                                       | Pengadaan dan pemasangan kabel power Panel PJU NYFGBY 4c x 10mm                                           | M     | 12.00 |  |
| <b>D</b>                                | <b>Pengadaan dan Pemasangan Kabel motor/pompa</b>                                                         |       |       |  |
| 1                                       | Pengadaan dan pemasangan kabel motor VSD booster 1 pompa booster 1 NYY 4c x 95mm RSTG                     | M     | 30.00 |  |
| 2                                       | Pengadaan dan pemasangan kabel motor VSD booster 2 pompa booster 2 NYY 4c x 95mm RSTG                     | M     | 30.00 |  |
| <b>E</b>                                | <b>Pengadaan dan Pemasangan Pendukung Kelistrikan</b>                                                     |       |       |  |
| 1                                       | Penangkal petir & Grounding                                                                               |       |       |  |
|                                         | - Pengadaan dan pemasangan penangkal petir radius 50M                                                     | titik | 1.00  |  |
|                                         | - Pengadaan dan pemasangan titik grounding <1 ohm Body Trafo 160 kVA                                      | lot   | 1.00  |  |
|                                         | - Pengadaan dan pemasangan titik grounding <1 ohm Netral trafo 160kVA                                     | lot   | 1.00  |  |
|                                         | - Pengadaan dan pemasangan titik grounding <1 ohm LVMDP                                                   | lot   | 1.00  |  |
| 2                                       | Kabel grounding                                                                                           |       |       |  |
|                                         | - Pengadaan dan pemasangan kabel Grounding LVMDP VSD pompa BOOSTER 1 NYA 1c x 50mm                        | M     | 5.00  |  |
| 3                                       | Trey & jalur kabel                                                                                        | LS    | 1.00  |  |
| <b>Jumlah Sub Total booster 110 lps</b> |                                                                                                           |       |       |  |
| <b>JUMLAH TOTAL</b>                     |                                                                                                           |       |       |  |



## DAFTAR KUANTITAS DAN HARGA

DED-09

Paket Pekerjaan : Pengadaan dan Pemasangan SCADA System  
 Lokasi Pekerjaan : Waduk Tembesi  
 Tahun Anggaran : 2024

| No                         | Uraian Pekerjaan                                                                       | Satuan | Kuantitas |  |  |
|----------------------------|----------------------------------------------------------------------------------------|--------|-----------|--|--|
| <b>I</b>                   | <b>Pengadaan dan Pemasangan Pompa</b>                                                  |        |           |  |  |
| -                          | Pompa Intake                                                                           | Unit   | 2.00      |  |  |
|                            | - Kapasitas 114 l/s                                                                    |        |           |  |  |
|                            | - Head 64.76 m                                                                         |        |           |  |  |
|                            | Pompa Intake Tembesi                                                                   | Unit   | 2.00      |  |  |
|                            | - Kapasitas 230 l/s                                                                    |        |           |  |  |
|                            | - Head 45 m                                                                            |        |           |  |  |
|                            | Pompa Clean Water Service                                                              | Unit   | 1.00      |  |  |
|                            | - Kapasitas 10 l/s                                                                     |        |           |  |  |
|                            | - Head 20 m                                                                            |        |           |  |  |
| -                          | Pompa Distribusi                                                                       | Unit   | 2.00      |  |  |
|                            | - Kapasitas 230 l/s                                                                    |        |           |  |  |
|                            | - Head 120 m                                                                           |        |           |  |  |
| -                          | Pompa Booster                                                                          | Unit   | 2.00      |  |  |
|                            | - Kapasitas 110 l/s                                                                    |        |           |  |  |
|                            | - Head 60 m                                                                            |        |           |  |  |
| -                          | Pompa Backwash                                                                         | Unit   | 1.00      |  |  |
|                            | - Kapasitas 79,12 l/s                                                                  |        |           |  |  |
|                            | - Head 15 m                                                                            |        |           |  |  |
| -                          | Pompa Dosing Koagulan                                                                  | Unit   | 3.00      |  |  |
|                            | - Diaphragm Pump                                                                       |        |           |  |  |
|                            | - Kapasitas 350 L/jam                                                                  |        |           |  |  |
|                            | - Head 5 bar                                                                           |        |           |  |  |
| -                          | Pompa Dosing Soda Ash/pH Adjustment                                                    | Unit   | 3.00      |  |  |
|                            | - Diaphragm Pump                                                                       |        |           |  |  |
|                            | - Kapasitas 100 L/jam                                                                  |        |           |  |  |
|                            | - Head 10 bar                                                                          |        |           |  |  |
| -                          | Pompa Dosing Disinfectant                                                              | Unit   | 3.00      |  |  |
|                            | - Diaphragm Pump                                                                       |        |           |  |  |
|                            | - Kapasitas 100 L/jam                                                                  |        |           |  |  |
|                            | - Head 12 bar                                                                          |        |           |  |  |
| -                          | Air Blower                                                                             | Unit   | 2.00      |  |  |
|                            | - Kapasitas 1,5 m3/min                                                                 |        |           |  |  |
|                            | - Pressure 70 kPa                                                                      |        |           |  |  |
| -                          | Air Blower                                                                             | Unit   | 2.00      |  |  |
|                            | - Root Blower                                                                          |        |           |  |  |
|                            | - Kapasitas 7,5 m3/min                                                                 |        |           |  |  |
|                            | - Pressure 50 kPa                                                                      |        |           |  |  |
|                            | Pompa Submersible Recycling                                                            | Unit   | 2.00      |  |  |
|                            | Kapasitas 50 lps                                                                       |        |           |  |  |
|                            | Head 20 m                                                                              |        |           |  |  |
| -                          | Pengadaan dan Pemasangan Agitator Koagulan                                             | Unit   | 2.00      |  |  |
| -                          | Pengadaan dan Pemasangan Agitator Soda Ash                                             | Unit   | 2.00      |  |  |
| -                          | Pengadaan dan Pemasangan Disinfectant                                                  | Unit   | 2.00      |  |  |
| -                          | Pengadaan dan Pemasangan Air Compressor (Pneumatic)                                    | Unit   | 2.00      |  |  |
|                            | Kapasitas: 2.0 m3/min                                                                  |        |           |  |  |
|                            | Motor : 20 HP                                                                          |        |           |  |  |
| -                          | Pengadaan dan Pemasangan Air Dryer                                                     | Unit   | 2.00      |  |  |
|                            | Kapasitas: 2.1 m3/min                                                                  |        |           |  |  |
|                            | Motor : 10 Bar                                                                         |        |           |  |  |
| -                          | Pengadaan dan Pemasangan Air Receiver Tank 2000 ltr                                    | Unit   | 1.00      |  |  |
| <b>Jumlah Sub Total I</b>  |                                                                                        |        |           |  |  |
| <b>II</b>                  | <b>Pengadaan dan Pemasangan Mekanikal, Instrumen, dan Instrumen Pendukung</b>          |        |           |  |  |
| 1                          | Pengadaan dan Pemasangan Streaming Current Monitor (SCM) Loop Control                  | Unit   | 1.00      |  |  |
| 2                          | Pengadaan dan Pemasangan pH Analyzer (Mounting Kit dan Kalibrasi Kit)                  | Unit   | 2.00      |  |  |
|                            | 1. Air baku                                                                            |        |           |  |  |
|                            | 2. Air Olahan                                                                          |        |           |  |  |
| 3                          | Pengadaan dan Pemasangan Turbidity Analyzer (Mounting Kit dan Kalibrasi Kit)           | Unit   | 3.00      |  |  |
|                            | 1. Air Baku                                                                            |        |           |  |  |
|                            | 2. Sedimentasi                                                                         |        |           |  |  |
|                            | 3. Air Olahan                                                                          |        |           |  |  |
| 4                          | Pengadaan dan Pemasangan Chlorine Analyzer (Mounting Kit dan Kalibrasi Kit)            | Unit   | 1.00      |  |  |
| 5                          | Pengadaan dan Pemasangan Colour Analyzer (Mounting Kit dan Kalibrasi Kit)              | Unit   | 2.00      |  |  |
| 6                          | Pengadaan dan Pemasangan Multiparameter Controller                                     | Unit   | 6.00      |  |  |
| 7                          | Pengadaan dan Pemasangan Ultrasonic Level Sensor 0-10 m                                | Unit   | 3.00      |  |  |
| 8                          | Pengadaan dan Pemasangan Ultrasonic Level Sensor 0-6 m                                 | Unit   | 8.00      |  |  |
| 9                          | Pressure Transmitter 0-3 bar + Aksesoris                                               | Unit   | 8.00      |  |  |
| 10                         | Pressure Transmitter 0-5 bar + Aksesoris                                               | Unit   | 5.00      |  |  |
| 11                         | Pressure Gauge 0-5 bar + Aksesoris                                                     | Unit   | 21.00     |  |  |
| 12                         | Pressure Switch 0-5 bar + Aksesoris                                                    | Unit   | 5.00      |  |  |
| 13                         | Pressure Safety Valve + Aksesoris                                                      | Unit   | 2.00      |  |  |
| 14                         | Pengadaan dan Pemasangan Electromagnetic Flowmeter Dia 150 mm                          | Unit   | 2.00      |  |  |
| 15                         | Pengadaan dan Pemasangan Electromagnetic Flowmeter Dia 500 mm                          | Unit   | 3.00      |  |  |
|                            | 1 Inlet                                                                                |        |           |  |  |
|                            | 2 Outlet Distribusi                                                                    |        |           |  |  |
| 16                         | Pengadaan dan Pemasangan Screwpress Kapasitas 15-90 kg/Jam                             | Unit   | 1.00      |  |  |
| 17                         | Pengadaan dan Pemasangan Hoist Crane 1 Ton                                             | Unit   | 1.00      |  |  |
| 18                         | Pengadaan dan Pemasangan Hoist Crane 3 Ton                                             | Unit   | 3.00      |  |  |
| 19                         | Pengadaan dan Pemasangan Hoist Crane 10 Ton                                            | Unit   | 1.00      |  |  |
| 20                         | Microbubble Diffuser                                                                   | Pcs    | 16.00     |  |  |
|                            | Maximum Pore 2,5 micron meter                                                          |        |           |  |  |
| 20                         | Scum Skimmer                                                                           | Set    | 2.00      |  |  |
| 21                         | Tangki Stok Kimia Koagulan FRP 30 m3                                                   | Unit   | 2.00      |  |  |
| 23                         | Tangki Kimia Koagulan FRP 7,5 m3                                                       | Unit   | 2.00      |  |  |
| 24                         | Tangki Kimia Soda FRP 3 m3                                                             | Unit   | 2.00      |  |  |
| <b>Jumlah Sub Total II</b> |                                                                                        |        |           |  |  |
| <b>III</b>                 | <b>PLC dan SCADA System</b>                                                            |        |           |  |  |
| <b>A</b>                   | <b>Hardware :</b>                                                                      |        |           |  |  |
| <b>a.0</b>                 | <b>PC &amp; Server Scada</b>                                                           | units  | 1.00      |  |  |
|                            | - PC Intel Processor i7-13700, 32 gb Ram DDR5, 1tb Nvme, Original Windows 11 Pro 64Bit |        |           |  |  |

|             |                                                        |       |      |  |  |
|-------------|--------------------------------------------------------|-------|------|--|--|
|             | - Monitor 24" & HDTV 65"                               |       |      |  |  |
|             | - RTU & Peralatan Jaringan Internet                    |       |      |  |  |
| <b>a.1</b>  | <b>Main control panel</b>                              | units | 1.00 |  |  |
|             | 1 Panel Box 1900(h)x1000(w)x600(d)                     |       |      |  |  |
|             | 2 PLC CPU Work memory 300kb                            |       |      |  |  |
|             | 3 Expantion Digital Input 32ch 24vdc                   |       |      |  |  |
|             | 4 Expantion Digital Output 32ch 24vdc                  |       |      |  |  |
|             | 5 Expantion Analog Input 8ch                           |       |      |  |  |
|             | 6 Expantion Analog Output 8ch                          |       |      |  |  |
|             | 7 Estop Switch Disconnecter                            |       |      |  |  |
|             | 8 Surge Arrester                                       |       |      |  |  |
|             | 9 RCBO 2P 25A 300mA                                    |       |      |  |  |
|             | 10 Ethernet Switch Hub 8 Port                          |       |      |  |  |
|             | 11 RTU GSM                                             |       |      |  |  |
|             | 12 Peralatan dan Accesoris Pendukung                   |       |      |  |  |
| <b>a.2</b>  | <b>Remote &amp; Local Control Panel Filtrasi</b>       | units | 1.00 |  |  |
|             | 1 Panel Box *1900(h)x1500(w)x400(d)                    |       |      |  |  |
|             | 2 Distributed IO Module , 2xRJ45 , max32 IO card       |       |      |  |  |
|             | 3 Expantion Remote IO Digital Input 16x 24vdc          |       |      |  |  |
|             | 4 Expantion Remote IO Digital Output 16x 24vdc         |       |      |  |  |
|             | 5 Expantion Remote IO analog Input 8ch                 |       |      |  |  |
|             | 6 Expantion Remote IO analog Output 8ch                |       |      |  |  |
|             | 7 Estop Switch Disconnecter                            |       |      |  |  |
|             | 8 Surge Arrester                                       |       |      |  |  |
|             | 9 RCBO 2P 25A 300mA                                    |       |      |  |  |
|             | 10 Ethernet Switch Hub 8 Port                          |       |      |  |  |
|             | 11 Relay & Socket                                      |       |      |  |  |
|             | 12 PushButton & Indicator Lamp                         |       |      |  |  |
|             | 13 MCB 1p 10a                                          |       |      |  |  |
|             | 14 Peralatan dan Accesoris Pendukung                   |       |      |  |  |
| <b>a.3</b>  | <b>Remote &amp; Local Control Panel flokulasi</b>      | units | 1.00 |  |  |
|             | 1 Panel Box *1900(h)x1500(w)x400(d)                    |       |      |  |  |
|             | 2 Distributed IO Module , 2xRJ45 , max32 IO card       |       |      |  |  |
|             | 3 Expantion Remote IO Digital Input 16x 24vdc          |       |      |  |  |
|             | 4 Expantion Remote IO Digital Output 16x 24vdc         |       |      |  |  |
|             | 5 Expantion Remote IO analog Input 8ch                 |       |      |  |  |
|             | 6 Expantion Remote IO analog Output 8ch                |       |      |  |  |
|             | 7 Estop Switch Disconnecter                            |       |      |  |  |
|             | 8 Surge Arrester                                       |       |      |  |  |
|             | 9 RCBO 2P 25A 300mA                                    |       |      |  |  |
|             | 10 Ethernet Switch Hub 8 Port                          |       |      |  |  |
|             | 11 Relay & Socket                                      |       |      |  |  |
|             | 12 PushButton & Indicator Lamp                         |       |      |  |  |
|             | 13 MCB 1p 10a                                          |       |      |  |  |
|             | 14 Peralatan dan Accesoris Pendukung                   |       |      |  |  |
| <b>a.4</b>  | <b>Remote &amp; Local Control Panel Sedimentasi</b>    | units | 1.00 |  |  |
|             | 1 Panel Box *1900(h)x1500(w)x400(d)                    |       |      |  |  |
|             | 2 Distributed IO Module , 2xRJ45 , max32 IO card       |       |      |  |  |
|             | 3 Expantion Remote IO Digital Input 16x 24vdc          |       |      |  |  |
|             | 4 Expantion Remote IO Digital Output 16x 24vdc         |       |      |  |  |
|             | 5 Expantion Remote IO analog Input 8ch                 |       |      |  |  |
|             | 6 Expantion Remote IO analog Output 8ch                |       |      |  |  |
|             | 7 Estop Switch Disconnecter                            |       |      |  |  |
|             | 8 Surge Arrester                                       |       |      |  |  |
|             | 9 RCBO 2P 25A 300mA                                    |       |      |  |  |
|             | 10 Ethernet Switch Hub 8 Port                          |       |      |  |  |
|             | 11 Relay & Socket                                      |       |      |  |  |
|             | 12 PushButton & Indicator Lamp                         |       |      |  |  |
|             | 13 MCB 1p 10a                                          |       |      |  |  |
|             | 14 Peralatan dan Accesoris Pendukung                   |       |      |  |  |
| <b>a.5</b>  | <b>Remote Control Panel Service</b>                    | units | 1.00 |  |  |
|             | 1 Distributed IO Module , 2xRJ45 , max32 IO card       |       |      |  |  |
|             | 2 Expantion Remote IO Digital Input 16x 24vdc          |       |      |  |  |
|             | 3 Expantion Remote IO Digital Output 16x 24vdc         |       |      |  |  |
|             | 4 Expantion Remote IO analog Input 8ch                 |       |      |  |  |
|             | 5 Expantion Remote IO analog Output 8ch                |       |      |  |  |
| <b>a.6</b>  | <b>Remote Control Panel Chemical</b>                   | units | 1.00 |  |  |
|             | 1 Distributed IO Module , 2xRJ45 , max32 IO card       |       |      |  |  |
|             | 2 Expantion Remote IO Digital Input 16x 24vdc          |       |      |  |  |
|             | 3 Expantion Remote IO Digital Output 16x 24vdc         |       |      |  |  |
|             | 4 Expantion Remote IO analog Input 8ch                 |       |      |  |  |
|             | 5 Expantion Remote IO analog Output 8ch                |       |      |  |  |
| <b>a.7</b>  | <b>Remote Control Panel Distribution Pump</b>          | units | 1.00 |  |  |
|             | 1 Distributed IO Module , 2xRJ45 , max32 IO card       |       |      |  |  |
|             | 2 Expantion Remote IO Digital Input 16x 24vdc          |       |      |  |  |
|             | 3 Expantion Remote IO Digital Output 16x 24vdc         |       |      |  |  |
|             | 4 Expantion Remote IO analog Input 8ch                 |       |      |  |  |
|             | 5 Expantion Remote IO analog Output 8ch                |       |      |  |  |
| <b>a.8</b>  | <b>Remote Control Panel Blower &amp; Backwash Pump</b> | units | 1.00 |  |  |
|             | 1 Distributed IO Module , 2xRJ45 , max32 IO card       |       |      |  |  |
|             | 2 Expantion Remote IO Digital Input 16x 24vdc          |       |      |  |  |
|             | 3 Expantion Remote IO Digital Output 16x 24vdc         |       |      |  |  |
|             | 4 Expantion Remote IO analog Input 8ch                 |       |      |  |  |
|             | 5 Expantion Remote IO analog Output 8ch                |       |      |  |  |
| <b>a.9</b>  | <b>Remote Control Panel Intake Pump Tembesi</b>        | units | 1.00 |  |  |
|             | 1 Distributed IO Module , 2xRJ45 , max32 IO card       |       |      |  |  |
|             | 2 Expantion Remote IO Digital Input 16x 24vdc          |       |      |  |  |
|             | 3 Expantion Remote IO Digital Output 16x 24vdc         |       |      |  |  |
|             | 4 Expantion Remote IO analog Input 8ch                 |       |      |  |  |
|             | 5 Expantion Remote IO analog Output 8ch                |       |      |  |  |
| <b>a.10</b> | <b>RTU Control Panel Intake Monggak</b>                | units | 1.00 |  |  |
|             | 1 RTU Unit GSM 2 Ch                                    |       |      |  |  |
|             | 2 CPU PLC                                              |       |      |  |  |
|             | 3 Expantion IO Digital input                           |       |      |  |  |
|             | 4 Expantion IO Digital output                          |       |      |  |  |
|             | 5 Expantion IO Analog Input                            |       |      |  |  |
|             | 6 Expantion IO Analog Output                           |       |      |  |  |
|             | 7 Power Supply                                         |       |      |  |  |
| <b>a.11</b> | <b>RTU Control Panel Pompa Booster</b>                 | units | 1.00 |  |  |
|             | 1 RTU Unit GSM 2 Ch                                    |       |      |  |  |
|             | 2 CPU PLC                                              |       |      |  |  |
|             | 3 Expantion IO Digital input                           |       |      |  |  |
|             | 4 Expantion IO Digital output                          |       |      |  |  |

|                             |                                                            |                                                                                                             |       |          |  |  |
|-----------------------------|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------|----------|--|--|
|                             | 5                                                          | Expansion IO Analog Input                                                                                   |       |          |  |  |
|                             | 6                                                          | Expansion IO Analog Output                                                                                  |       |          |  |  |
|                             | 7                                                          | Power Supply                                                                                                |       |          |  |  |
| <b>a.11</b>                 | <b>RTU Control Panel Pompa Booster 2</b>                   |                                                                                                             | units | 1.00     |  |  |
|                             | 1                                                          | RTU Unit GSM 2 Ch                                                                                           |       |          |  |  |
|                             | 2                                                          | CPU PLC                                                                                                     |       |          |  |  |
|                             | 3                                                          | Expansion IO Digital input                                                                                  |       |          |  |  |
|                             | 4                                                          | Expansion IO Digital output                                                                                 |       |          |  |  |
|                             | 5                                                          | Expansion IO Analog Input                                                                                   |       |          |  |  |
|                             | 6                                                          | Expansion IO Analog Output                                                                                  |       |          |  |  |
|                             | 7                                                          | Power Supply                                                                                                |       |          |  |  |
| <b>B</b>                    | <b>Software :</b>                                          |                                                                                                             | paket | 1.00     |  |  |
|                             | Scada Runtime Software Server 4096 tags + Scada Web Client |                                                                                                             |       |          |  |  |
|                             | Scada Development Engineering Software                     |                                                                                                             |       |          |  |  |
| <b>C</b>                    | <b>Instalasi dan Pengujian Sistem</b>                      |                                                                                                             | paket | 1.00     |  |  |
|                             | 1                                                          | Pemrograman Scada & konfigurasi Sistem komunikasi Scada dengan Main PLC                                     |       |          |  |  |
|                             | 2                                                          | Pemrograman PLC & Konfigurasi Komunikasi Dengan Remote IO                                                   |       |          |  |  |
|                             | 3                                                          | Pemrograman & Konfigurasi Jaringan RTU                                                                      |       |          |  |  |
|                             | 4                                                          | Testing & Pengujian System                                                                                  |       |          |  |  |
|                             |                                                            | - <i>Soft drawing</i>                                                                                       |       |          |  |  |
|                             |                                                            | - <i>Manual operation</i>                                                                                   |       |          |  |  |
|                             | 5                                                          | Pemasangan CCTV                                                                                             | Unit  | 20.00    |  |  |
| <b>D</b>                    | <b>Pengadaan dan Pemasangan Kabel Control Instrument</b>   |                                                                                                             |       |          |  |  |
|                             | 1                                                          | Kabel Control Panel Streaming Current Monitor (SCM) Loop ke Panel IPA Flokulasi LIYCY-JZ 3Cx1.5mmSq         | m     | 25.00    |  |  |
|                             | 2                                                          | Kabel Control pH Analyzer Dari Laboratorium Ke Main PLC LIYCY-JZ 3Cx1.5mmSq                                 | m     | 30.00    |  |  |
|                             | 3                                                          | Kabel Control Turbidity Analyzer Dari Laboratorium Ke Main PLC LIYCY-JZ 3Cx1.5mmSq                          | m     | 40.00    |  |  |
|                             | 4                                                          | Kabel Control Chlorine Analyzer Dari Laboratorium Ke Main PLC LIYCY-JZ 3Cx1.5mmSq                           | m     | 10.00    |  |  |
|                             | 5                                                          | Kabel Control Colour Analyzer Dari Laboratorium Ke Main PLC LIYCY-JZ 3Cx1.5mmSq                             | m     | 20.00    |  |  |
|                             | 6                                                          | Kabel Control Ultrasonic Level Sensor 0-10 m Dari Reservoar Ke Panel Recycle LIYCY-JZ 3Cx1.5mmSq            | m     | 50.00    |  |  |
|                             | 7                                                          | Kabel Control Ultrasonic Level Sensor 0-6 m Dari Filter Ke Panel Filtrasi LIYCY-JZ 3Cx1.5mmSq               | m     | 100.00   |  |  |
|                             | 8                                                          | Kabel Control Electromagnetic Flowmeter Dia 500 mm Dari IPA Ke Laboratorium LIYCY-JZ 3Cx1.5mmSq             | m     | 80.00    |  |  |
|                             | 9                                                          | Kabel Control Electromagnetic Flowmeter Dia 500 mm Dari Distribusi Area Ke Laboratorium LIYCY-JZ 3Cx1.5mmSq | m     | 80.00    |  |  |
|                             | 10                                                         | Kabel Control Electromagnetic Flowmeter Dia 150 mm Dari Service Area Ke Laboratorium LIYCY-JZ 3Cx1.5mmSq    | m     | 30.00    |  |  |
|                             | 11                                                         | Kabel Control Pressure Transmitter 0-5 bar dari Pipa Intake ke Panel Intake LIYCY-JZ 3Cx1.5mmSq             | m     | 50.00    |  |  |
|                             | 12                                                         | Kabel Control Pressure Transmitter 0-5 bar dari Pipa Distribusi ke Panel Distribusi LIYCY-JZ 3Cx1.5mmSq     | m     | 30.00    |  |  |
|                             | 13                                                         | Kabel Control Pressure Transmitter 0-5 bar dari Pipa Water Service ke Panel Service LIYCY-JZ 3Cx1.5mmSq     | m     | 30.00    |  |  |
|                             | 14                                                         | Kabel Control Pressure Transmitter 0-3 bar Dari Filtrasi Ke Panel IPA Filtrasi LIYCY-JZ 3Cx1.5mmSq          | m     | 150.00   |  |  |
|                             | 15                                                         | Kabel Control Pressure Switch dari Pipa Intake ke Panel Intake LIYCY-JZ 3Cx1.5mmSq                          | m     | 50.00    |  |  |
|                             | 16                                                         | Kabel Control Pressure Switch dari Pipa Distribusi ke Panel Distribusi LIYCY-JZ 3Cx1.5mmSq                  | m     | 50.00    |  |  |
|                             | 17                                                         | Kabel Control Pressure Switch Di Air & Water Service LIYCY-JZ 3Cx1.5mmSq                                    | m     | 20.00    |  |  |
|                             | 18                                                         | Kabel Komunikasi Serial LVMDV ke Panel MCC Distribusi LIYCY-JZ 3Cx1.5mmSq                                   | m     | 30.00    |  |  |
|                             | 19                                                         | Kabel Control IO LVMDV Ke Panel MCC Distribusi LIYCY-JZ 20Cx1mmSq                                           | m     | 30.00    |  |  |
|                             | -                                                          | Pengadaan dan Pemasangan Kabel Control Pneumatic                                                            |       |          |  |  |
|                             | 1                                                          | Kabel Control Pneumatic dari Actuator ke Panel Flokulasi LIYCY-JZ 6Cx1 mmSq                                 | m     | 400.00   |  |  |
|                             | 2                                                          | Kabel Control Pneumatic dari Actuator ke Panel Sedimentasi LIYCY-JZ 6Cx1 mmSq                               | m     | 250.00   |  |  |
|                             | 3                                                          | Kabel Control Pneumatic Filtrasi Dari Actuator ke Panel Filtrasi LIYCY-JZ 6Cx1.1mmSq                        | m     | 1,280.00 |  |  |
|                             | -                                                          | Pengadaan dan Pemasangan Kabel Komunikasi PLC & Distributed IO                                              |       |          |  |  |
|                             | 1                                                          | Kabel Komunikasi PLC dan Distributed IO CAT 6                                                               | m     | 650.00   |  |  |
|                             | -                                                          | Pengadaan dan Pemasangan Kabel Fiber Optic Dari Main Panel Ke MCC Intake                                    |       |          |  |  |
|                             | 1                                                          | Kabel Fiber Optic                                                                                           | m     | 300.00   |  |  |
|                             | 2                                                          | Jasa tanam & Galian                                                                                         | m     | 300.00   |  |  |
|                             | 3                                                          | Jasa Splicing , Terminasi & Tes OTDR                                                                        | titik | 2.00     |  |  |
|                             | -                                                          | Pengadaan Kabel Tray , Conduit & Accesoris                                                                  |       |          |  |  |
|                             | 1                                                          | Kabel Tray Area IPA Kabel Tray 100x50 Type U Galvanized Complete with Cover                                 | m     | 250.00   |  |  |
|                             | 2                                                          | Jasa Pemasangan Kabel Tray & Peralatan Pendukung                                                            | m     | 250.00   |  |  |
|                             | 3                                                          | Pipa Conduit 20mm                                                                                           | m     | 250.00   |  |  |
|                             | 4                                                          | Accesoris Pipa Conduit                                                                                      | ls    | 1.00     |  |  |
| <b>Jumlah Sub Total III</b> |                                                            |                                                                                                             |       |          |  |  |
| <b>Jumlah Total</b>         |                                                            |                                                                                                             |       |          |  |  |