Construction of **Sewage Network and Waste Water Treatment Plant (WWTP) in the Municipality of Berane**

Volume 5 – Drawings and Designs

June 2015

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# Lot 1 - ****Design and Construction of WWTP in the Municipality of Berane****

## List of drawings

|  |  |  |
| --- | --- | --- |
| **Lot 1 – Wastewater Treatment Plant Berane** | | |
| **No** | **Name** | **Drawing No** |
|  |  |  |
| **1** | WWTP Berane - General Layout Map with Planned Land Use Information | **WWTP-01** |
| **2** | Wastewater Treatment Plant (WWTP) - Process Diagram-Wastewater Line | **WWTP-02** |
| **3** | Topographic-cadastral plan | **WWTP-03** |
| **4** | WWTP Berane - Indicative Layout of WWTP Elements | **WWTP-04** |
| **5** | Utilities: Power Supply, Sewerage, Telecommunications | **WWTP-05** |
| **6** | Utilities: Planned Water Supply Line from the Town Distribution Network | **WWTP-06** |
| **7** | WWTP Berane - Flood protection and grading of WWTP site - Layout | **WWTP-07** |
| **8** | WWTP Berane - WWTP site flood protection and grading of WWTP site - Cross sections 1 | **WWTP-08** |
| **9** | WWTP Berane - WWTP site flood protection and grading of WWTP site - Cross sections 2 | **WWTP-09** |
| **10** | WWTP Berane - WWTP site flood protection and grading of WWTP site - Cross sections 3 | **WWTP-10** |
| **11** | WWTP Berane - WWTP site flood protection and grading of WWTP site - Cross sections 4 | **WWTP-11** |
| **12** | WWTP Berane - Acess road Layout Map - Section A | **WWTP-12** |
| **13** | WWTP Berane - Acess road Layout Map - Section B | **WWTP-13** |
| **14** | WWTP Berane - Acess road Longitudinal section - Section A | **WWTP-14** |
| **15** | WWTP Berane - Acess road Longitudinal section - Section B | **WWTP-15** |
| **16** | WWTP Berane - Acess road Cross sections - Section A | **WWTP-16** |
| **17** | WWTP Berane - Acess road Cross sections - Section B - Part 1 | **WWTP-17** |
| **18** | WWTP Berane - Acess road Cross sections - Section B - Part 2 | **WWTP-18** |

## List of Relevant Documents

The following documents provide supplementary background, technical, geotechnical, hydrological and hydro-geological information for the Project area. The Contractor shall remain responsible for carrying out additional investigations and his own analysis as necessary to confirm the conclusions which may be presented in the documents provided.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Prepared by** | **Document name** | **Date** | **Language** |
| **1** | WYG International  Infrastructure Projects Facility in the Western Balkans | Final Report:  Berane Wastewater Treatment Plant Project | 2011 | English |
| **2** | Urbanprojekt, Čačak | Local Location Study for WWTP Berane | 2012 | Montenegrin |
| **3** | Urbanprojekt, Čačak | Spatial Plan of the Municipality of Berane | 2014 | Montenegrin |
| **4** | Agreco/Cijevna Komerc | Preliminary Design of WWTP Berane | 2013 | English/  Montenegrin |
| **5** | Geotehnika Plus | Geotechnical Report on WWTP site conditions – **attached in Annex A5.1** | 2013 | English |
| **6** | Lars Fire | Environmental Impact Assessment - – **attached in Annex A5.2** | 2014 | English |
| **1** | HydroGIS System | Project for arrangement of WWTP Location in Berane | 2014 | English/  Montenegrin |
| **2** | Simm Inženjering | Preliminary Design for the access road to WWTP | 2014 | Montenegrin |

For documents that are only available in the Montenegrin language the Contractor is to make his own interpretation of the information provided. The documents listed above are available for inspection from 17th August 2015 at the following address:

**Directorate of Public Works**

**Novaka Miloseva 18, 81 0000 Podgorica, Montenegro**

**Fax: +382 (0) 20 230 228**

**Email:** [**djr@gov.me**](mailto:djr@gov.me)

Please send your requests two days in advance (on the above mentioned fax or e-mail). All communication must be in official letterhead.

# LIST OF ANNEXES – Lot 1:

**(attached as separate files)**

**Annex A5.1 - Geotechnical Report on WWTP site conditions**

**Annex A5.2 - Environmental Impact Assessment Report**

# Lot 2 - ****Rehabilitation and Construction of Sewerage Network in the Municipality of Berane****

## List of relevant designs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | Prepared by | Document name | Date | Language |
| **1** | HydroGIS System | Detailed Design of the Sewerage Network in Berane ­– **attached in Annex A5.3** | 2014 | English/  Montenegrin |

## List of drawings

The drawings listed below are generally based on the existing detailed design. These drawings include additional comments and are provided for clarity.

| **Lot 2 – Construction of the Sewerage Network in Berane** | | |
| --- | --- | --- |
| **No** | **Name** | **Drawing No** |
| **01** | General Layout Map - Planned Sewerage & Stormwater Drainage Systems | **S-01** |
| **02** | Layout Map - Sewer D.0 | **S-02** |
| **03** | Layout Map - Sewer D1 (section D1-RO1 - D1-RO37) & D1.1 | **S-03** |
| **04** | Layout Map - Sewer D1 (section D1-RO37 - D1-RO72) & D1.2 | **S-04** |
| **05** | Layout Map - Sewers D1.3 and D1.3.1 | **S-05** |
| **06** | Layout Map - Sewer L1 (section L1-RO1 - L1-RO37), L1.1 & L1.2 | **S-06** |
| **07** | Layout Map - Sewer L1 (section L1-RO37 - L1-RO59), L1.4, L1.5, L1.6 & L1.7 | **S-07** |
| **08** | Layout Map - Sewers L1.3, L1.3.1, L1.3.2 and L1.3.3 | **S-08** |
| **09** | Layout Map - Sewer L2 (section L2-ROpost - L2-RO27), L2.1 and L2.1.1 | **S-09** |
| **10** | Sewer L2 (section L2-RO27 - L2-RO43) | **S-10** |
| **11** | Layout Map - Sewers L2.2, L2.2.1, L2.2.2, L2.2.3, L2.2.4, L2.2.6, L2.3, L2.3.1 | **S-11** |
| **12** | Layout Map - Sewers L3 and L4 | **S-12** |
| **13** | Layout Map - Sewer L5 | **S-13** |
| **14** | Layout Map - Sewer L6 | **S-14** |
| **15** | Layout Map - Sewer L7 | **S-15** |
| **16** | Longitudinal Profile - Sewer D0 | **S-16** |
| **17** | Longitudinal Profile - Sewer D1 (section D1-RO1 - D1-RO37) | **S-17** |
| **18** | Longitudinal Profile - Sewer D1 (section D1-RO37 - D1-RO72) | **S-18** |
| **19** | Longitudinal Profile - Sewers D1.1 and D1.2 | **S-19** |
| **20** | Longitudinal Profile - Sewer D1.3 | **S-20** |
| **21** | Longitudinal Profile - Sewer D1.3.1 | **S-21** |
| **22** | Longitudinal Profile - Sewer L1 (section L1-RO1 - L1-RO37) | **S-22** |
| **23** | Longitudinal Profile - Sewer L1 (section L1-RO37 - L1-RO59) | **S-23** |
| **24** | Longitudinal Profile - Sewers L1.1, L1.1.1 and L1.2 | **S-24** |
| **25** | Longitudinal Profile - Sewer L1.3 | **S-25** |
| **26** | Longitudinal Profile - Sewers L1.3.1, L1.3.2 i L1.3.3 | **S-26** |
| **27** | Longitudinal Profile - Sewers L1.4, L1.5, L1.6 and L1.7 | **S-27** |
| **28** | Longitudinal Profile - Sewer L2 (section L2-ROpost - L2-RO27) | **S-28** |
| **29** | Longitudinal Profile - Sewer L2 (section L2-RO27 - L2-RO43) | **S-29** |
| **30** | Longitudinal Profile - Sewers L2.1 and L2.1.1 | **S-30** |
| **31** | Longitudinal Profile - Sewer L2.2 | **S-31** |
| **32** | Longitudinal Profile - Sewers L2.2.1, L2.2.2, L2.2.3 and L2.2.4 | **S-32** |
| **33** | Longitudinal Profile - Sewer L2.2.6 | **S-33** |
| **34** | Longitudinal Profile - Sewers L2.3 and L2.3.1 | **S-34** |
| **35** | Longitudinal Profile - Sewers L3, L4, L5 and L7 | **S-35** |
| **36** | Longitudinal Profile - Sewer L6 | **S-36** |
| **37** | Layout Map - Stormwater Drainage - Sewer A1 | **A-01** |
| **38** | Layout Map - Stormwater Drainage - Sewers A1.1, A1.2 and links A2, A3, A4 & A5 | **A-02** |
| **39** | Stormwater Drainage - Sewer A1 - Longitudinal Profile | **A-03** |
| **40** | Stormwater Drainage - Sewers A1.1, A.1.2 and re-connections A2, A3, A4 and A5 - Longitudinal Profiles | **A-04** |
| **41** | Stormwater Drainage - Oil Separator - Typical Layouts and Sections | **A-05** |
|  |  |  |

## List of Relevant Documents

The following documents provide supplementary background, technical, geotechnical, hydrological and hydro-geological information for the Project area. The Contractor shall remain responsible for carrying out additional investigations and his own analysis as necessary to confirm the conclusions which may be presented in the documents provided.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Prepared by** | **Document name** | **Date** | **Language** |
| **1** | Urbanprojekt, Čačak | Spatial Plan of the Municipality of Berane | 2012 | Montenegrin |

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# LIST OF ANNEXES – Lot 2:

**(attached as separate files)**

**Annex A5.3 - Detailed Design of the Sewerage Network in Berane**