Facilitated by line supervision and the ES&H Manager, these procedure-specific compliance assessments will facilitate swift corrective action on identified non-compliance and support identification of continuous improvement opportunities.

13.10 Lesson Learned Program

Regular communications can provide critical information on issues and problems. Sharing lessons learned about programs, processes, equipment and issues such as injuries provide basic information that may result in avoidance of a repeat of a mishap. The Lessons Learned Program will be used to allow management to make informed decisions based on the information from other Project sites.

The Kosovo Motorway Project shall establish a formal Lessons Learned Program that will collect information from the project to share with other facilities.

Types of lessons learned to be collected will include:

- Findings from incident investigations
- Findings from self-assessments, independent evaluations or audits
- Successes in a program, process or equipment
- Definition and resolution of a particularly difficult safety or health issue.

13.11 Compliance Enforcement & Recognition

Violations of the ESH requirements shall be cause for disciplinary action. Deliberate violation of ESH rules and requirements may subject the violator to disciplinary action up to and including dismissal or removal from Project. See Project Disciplinary **Procedure 25939-000-HR-010-0005_00 ES&H Disciplinary Process 25939-000-HS-083-0054_00 for further reference.**

Recognition awards are determined by the recommendation or nomination of the various construction sites and or individuals by the ES&H Team during ES&H Walkdowns and daily inspections. The project ES&H recognition programme consists of three categories;

Individual Awards (Safety & Environmental); Individuals can receive an individual award for their individual performance in supporting the project's Environment Safety & Health program and for adopting the Zero Accident Philosophy as a "Value".

Department of the month; A Recognition certificate is given to a department who has demonstrated consistent safe behaviours during a given month. Both Individual and Department Awards are awarded during the Project monthly ZAT meeting by Senior Project Management. Pizza lunch will be awarded by the ES&H Department for the department of the month award.

Star Site Flags; Four flags will be awarded on site to the various construction departments for excellence in the following areas; Housekeeping, Access / Egress, Signs & Barricades and Environment. Flags will be removed if ES&H standards in this category decline.

14 ASSESSMENTS AND REVIEWS

Regular assessment of the Project's ESH Management Plan for effectiveness and suitability assures continuous improvement and the ability to meet the Pro Project's needs. This is the tenth element of the project ESH management system. Audits and reviews of the Project's work activities and physical establishment ensures that at-risk behaviour and hazards are being adequately addressed. A guidance document for this element is ESH Core Process CP111 ESH Assessment Process. The Project shall be audited on a regular basis as agreed by the Project Manger. They shall include the following:

14.1 Corporate ESH Assessment

A formal, programmed corporate ESH assessment of a Project's overall ESH Plan will be scheduled and conducted by a member of Bechtel and/or ENKA's Corporate Management. Formal and programmed ESH assessments will be performed utilizing the AuditXL software.

14.2 ESH Assessment

The ESH Self-Assessment tool will be utilized quarterly by the Bechtel-ENKA Functional ESH Management to augment the Project ESH review process. The Project Manager /Deputy Project Manager are responsible for supporting the implementation of the assessment according to the schedule as well as providing resources necessary to close-out any action items identified during the assessment. A formal documented inspection report will be generated, which will address ES&H requirements.

14.3 Project Self Assessment

The ESH Self-Assessment tool will be utilized by the Project ESH team to augment the Project ESH review process. The project shall develop a monthly core process self assessment schedule based upon the projects path of risk.

The minimum target score per is 75 percent; however, each subsequent score after the baseline should be at least as high as baseline or higher than the previous score as an indicator of Continuous ESH Improvement. Recorded actions are to be completed by the next review to improve the ESH activity and subsequent score. Publish the ESH Self-assessment score to the Project.

14.4 Inspection Requirements

Inspection by Government and or Regulatory Authorities

Government audits permitted by Applicable Law will be supported by the Project team to the maximum extent practicable. The Project Manager and the Project ESH Manager will coordinate with Project Management and Project ESH representatives to determine the terms of reference for government audits and accommodate the auditors accordingly. **See Public Relations and Communications Strategy 25939-000-PR-010-0001_00 for further information.**

14.5 Formal (Planned) Inspections

Each discipline manager will ensure that all areas are inspected with a formal planned inspection weekly. Inspections will be documented and all identified substandard acts and conditions tracked to completion using the project tracking system.

An inspection schedule will be developed to ensure all levels of management, Subcontractor management, client and craft personnel have an opportunity to attend inspection tours.

Action items will be documented, assigned to responsible parties and tracked until completion. The action item process (identifying, assigning and formal tracking until completion) will be implemented throughout the Project for inspections, incidents, audits, meeting minutes, etc.

Particular attention shall be given to cranes, lifting gear, self propelled or manual aerial work platforms, construction vehicles or equipment, electrical equipment or tools.

14.6 Management Walk-downs

Each member of line supervision will conduct regular, informal inspections of their area of responsibility and take prompt corrective action on identified non-compliance.

Areas of focus will include work practices, tools and equipment, and workplace physical conditions.

14.7 Environmental Inspections

Inspection criteria detailed in Project CECP.

14.8 Tools and Equipment Inspections

Equipment Pre-mobilization and/or utilization Inspection

All equipment brought to the site will be inspected by a qualified member of the equipment department prior to starting work. The purpose of the inspection is to verify that the equipment is in safe operating condition, free from fluid leaks and all safeguards required by the manufacturer are in place.

Equipment to be inspected includes but is not limited to cranes; vehicles; hoisting equipment; compressors; lights towers; temporary power generators; fuel storage tanks; welding machines; mobile equipment; aerial work platforms. Inspections shall be made at least daily by the operator

and shall not be placed in service if the inspection shows any condition adversely affecting the safety of the vehicle or operator. Equipment that meets project standards will be identified as "Approved for Project Use" and tagged with a sticker. Substandard equipment will not be allowed on the work site until repairs are completed. **See Core Process 200, General Safe Work Practices, 25939-000-HS-083-0018_00, Core Process 226, Electrical Equipment and assured Grounding 25939-000-HS-083-0043_00, and Project Vehicle Safety Management Plan 25939-000-HS-096-0003_00 for further reference.**

14.9 Mobile and Heavy Equipment Inspection

Heavy Equipment will be maintained and inspected in accordance with manufactures recommendations and/or Project procedures. **See Project Vehicle Safety Management Plan 25939-000-HS-096-0003_00**

14.10 Rigging Equipment Inspection

Visual inspections of rigging equipment will be conducted prior to each use. Rigging equipment will be maintained and inspected and colour coded in accordance with **Core Process 223 Cranes and Lifting Operations, 25939-000-HS-083-0040_00.**

14.11 Quarterly Tools and Small Equipment Inspection

Documented quarterly inspections of the following equipment will be conducted. Equipment will be tagged with the quarterly colour to indicate current inspection.

- Ladders
- Electrical tools, devices and their cords
- Below the hook rigging components, i.e., slings, shackles, chokers, spreader beams, chain-falls, come-a-longs, etc.
- Fall protection equipment

14.12 Pre-Use Inspections

Equipment is to be visually inspected daily by the user and log books filled out as required. **See Project Vehicle Safety Management Plan 25939-000-HS-096-0003_00 for further reference.**

14.13 WORK PERMITS

Each subcontractor within the project shall be responsible for control of the work within their own scope including the issue and management of work permits including Excavation, Hot Work, Confined Space Entry, etc. Such permits will be consistent with the requirements of the relevant Project Safe Work Permit Standard as amended to encompass construction needs and issued by a competent person authorised by the project. **See Core Process 220: Hazardous Work Permits**

25939-000-HS-083-0037_00 and Core Process 221: Lock-out/Tag-out Procedure25939-000-HS-083-0038_00 for further reference.

14.14 Lock/out - Tag/out

Lock/out procedures prevent injuries that could result if equipment is unexpectedly started or operated. No person shall lockout any electrical or mechanical system until all Project lockout requirements have been reviewed and understood by the personnel doing the isolation. **See Core Process 221: Lock-out/Tag-out Procedure25939-000-HS-083-0038_00 for further reference.**

14.15 Consequence Management

The project has implemented a RED/YELLOW card disciplinary process as outlined in CP-236. When an individual and/or group of individuals are blatantly identified as being non conformant to the ES&H program and have previously been warned of this behaviour, they will receive a Yellow Card. Should the individual receive a 2nd Yellow Card within a 6 month period he/she will be terminated from working on the project?

For serious non conformity to the ES&H program i.e. working at height without correct use of harness and lanyard; entering a confined space with no controls in place; removing hole coverings and/or safety barricade without permission or appropriate controls in place; unauthorised modifications to scaffolding etc. a RED card will be issued.

Following the issue of a RED card a pre determined team will meet to investigate and review the events that lead up to a RED card being issued. Once all the facts have been considered and it is clear that the non conformity took place, the individual will be terminated from the project and will not be re-employed in any other position or organization. **See Project Disciplinary Procedure 25939-000-HR-010-0005_00 and ES&H Disciplinary Process 25939-000-HS-083-0054_00 for further reference.**

14.16 ES&H Management Review

On an annual basis the Project management Team shall conduct a formal review of ES&H performance and the ES&H management system for the year. The process shall include a review of the following as a minimum:

- Results of any audits conducted on the project
- Results of any consultation with external parties
- Project ES&H Performance

- Comprehensive ES&H action plans have been developed and implemented to ensure compliance to the management system is being met. Periodical review shall take place every 3 months with the final review findings being included in the ES&H plan.
- Status of Incident Investigations, Corrective actions and Lessons Learned
- Overall
- Any follow-up actions from previous reviews
- Changing circumstances i.e. Changes in Kosovo's legal system
- Recommendations for Improvement

The outputs from the review will include but not be limited to:

- ES&H Performance
- Revised policy and objectives. Key objectives will be included in the ES&H Action Plan
- Resources
- Outputs shall be communicated project wide via Zero Accident Teams and Toolbox Talks

15 ACCOMMODATIONS

All accommodations provided by BEGP for Site personnel shall be equipped with appropriate fire and/or smoke detection and alarm system(s), and appropriate fire extinguishers. Accommodation methods of escape, raising of alarms, building safety requirements, and equipment requirements will be in accordance with applicable building codes. Prishtine to Hani i Elezit Kosovo Motorway Project will ensure that sufficient numbers of personnel are properly trained in the monitoring and use of such equipment and that practice fire drills are conducted on a periodic basis.

- Camp occupants will be made aware of safety and other regulations that apply to the living accommodations.
- Camp buildings will be constructed to meet the Fire Safety Guidelines outlined in appropriate Core Processes and SWPPs
- Project shall provide cleaning supplies and maintain all accommodations in a clean, hygienic, safe, tidy, and functional condition throughout the life of the Work.
- Project shall control and maintain good civil order of all housing area occupants, ensuring a peaceful, healthy, and harmonious housing area.
- Project shall ensure that each accommodation unit is supplied with general information which outlines the rules of the housing area and Emergency Evacuation and Fire Plan. This information should be displayed in clear and unambiguous terms in English and any other languages that are deemed necessary for effective communication of this information. Where possible, pictorial signs should be used.

15.1 Catering Services

All food storage, preparation activities, and distribution shall meet the requirements of all applicable hygiene laws and regulations. All such operations will be conducted in a professional manner that ensures sanitary conditions and the prevention of maladies that may be associated with improper food storage and preparation.

Consistent with local law or local fair labour practices all BEGP Contractor's employees or Subcontractor employees who handle or prepare food shall undergo a medical examination prior to commencing Work and at regular 6 month intervals during the Work. Potential employees identified as having communicable disease during the medical examination process shall not be employed for any food handling or catering services. Employees hired for these purposes shall be trained to handle food and catering equipment in a safe and hygienic manner.

15.2 Office Safety

Office environments are typically low risk, but the opportunity for injury and illness still exists. The same general requirements for health, safety and environment considerations required on the construction site are required in the office environment. **See Core Process 231: Office Facilities 25939-000-HS-083-0048_00 for further reference.**

15.3 Smoking Policy

Smoking will only be allowed in designated areas. Smoking will not be allowed in Kosovo Motorway Project offices, mess halls, tools rooms, warehouses, sleeping quarters, restroom and shower facilities, recreation facilities, medical facilities, control rooms, maintenance shops, electrical rooms or any other occupied building.

16 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

To address environmental requirements and commitments, BEGP will prepare a Construction Environmental Control Plan. The plan describes how environmental engineering/design, regulatory requirements, EIA commitments, permit conditions, and construction environmental management practices are communicated. **See Project Construction Environmental Control Plan 25939-000-HS-096-0002_00 for further reference.**

The Construction Environmental Control Plan (CECP):

- Establishes the content of environmental awareness training
- Prescribes standard practices for management of waste materials, erosion and sediment control, dust control, noise control.

- Establishes requirements for containment, clean-up, and reporting of spills and other environmental incidents; and Establishes Inspection, Self-assessment, Auditing and Reporting mechanisms for ensuring sustained execution of the plan and conformance with environmental commitments.

17 MANAGEMENT OF CHANGE

Change Management is the control process to manage changes to in a standardized way in order to optimise awareness and minimise risks. The process covers all activities from the initial request, implementation, review, and closure of a change. The initial request should be formalized with complete detail with respect to the description of the change, why it is necessary, the benefits of proceeding and whether or not the change poses additional risks. The proposed change must be forwarded to the Project ESH Manager who will then forward to the Deputy Project Manager and Project Manager for review and approval or disapproval.

The change management process is used for the following categories of change:

- Changes in policy or objectives
- Operating licenses and permits, legal and regulatory requirements
- Changes in procedures, practices and rules
- Changes to controlled documentation
- Work processes or methods
- Any change other than exact replacement in kind to equipment and/or process
- Changes to operating boundaries
- Temporary changes that specify the period of time a change will be in effect

18 ATTACHMENTS

Attachment A- ES&H Policy

Attachment B- ES&H Core Process Index

Attachment C- ES&H Organization chart

18.1 Attachment A-ES&H Policy

Kosovo Motorway Project

Environmental, Safety and Health Policy

STATEMENT OF POLICY:

One of Bechtel-ENKA's most important values is conducting business with the greatest care for the health and safety of our employees, our partners', contractors' and customers' personnel and the people in the communities where we work. Bechtel-ENKA is also dedicated to sustainable environmental protection. We are committed to achieving and sustaining "Zero Accidents" performance, prevention of pollution and to working with all appropriate stakeholders to improve ES&H effectiveness throughout the life of the Kosovo Motorway Project. We will not compromise on these values.

RESPONSIBILITIES:

ES&H is a line responsibility, requiring leadership and active participation by all managers, supervisors and employees. Through this leadership and involvement, Bechtel-ENKA will:

- Educate and coach managers and all employees on ES&H requirements and hold them accountable for compliance.
- Implement an integrated ES&H management system to identify, assess and manage ES&H risks associated with our businesses and projects.
- Perform our work with dedication to eliminating and/or mitigating potential environmental, safety and human health impacts.
- Conduct all of our activities in a manner that accounts for impact to the environment and the safety and health of our workforce and local communities.
- Comply with all applicable laws, regulations and contract requirements relating to ES&H protection including all Bechtel-ENKA ES&H standards.
- Develop, maintain and apply standards where ES&H protections do not exist.
- Promote timely open communications and consultation with employees, customers, partners, governments, government agencies, communities, and contractors on ES&H matters.
- Develop and maintain appropriate ES&H metrics to measure and continuously improve ES&H performance.
- Provide resources and training to support environmental, safety, and health protection and achievement of ES&H objectives.
- Require Project (sub) contractor compliance with our ES&H policy and standards.

Chris Jennions
Project Manager

Ozper Inal
Deputy Project Manager

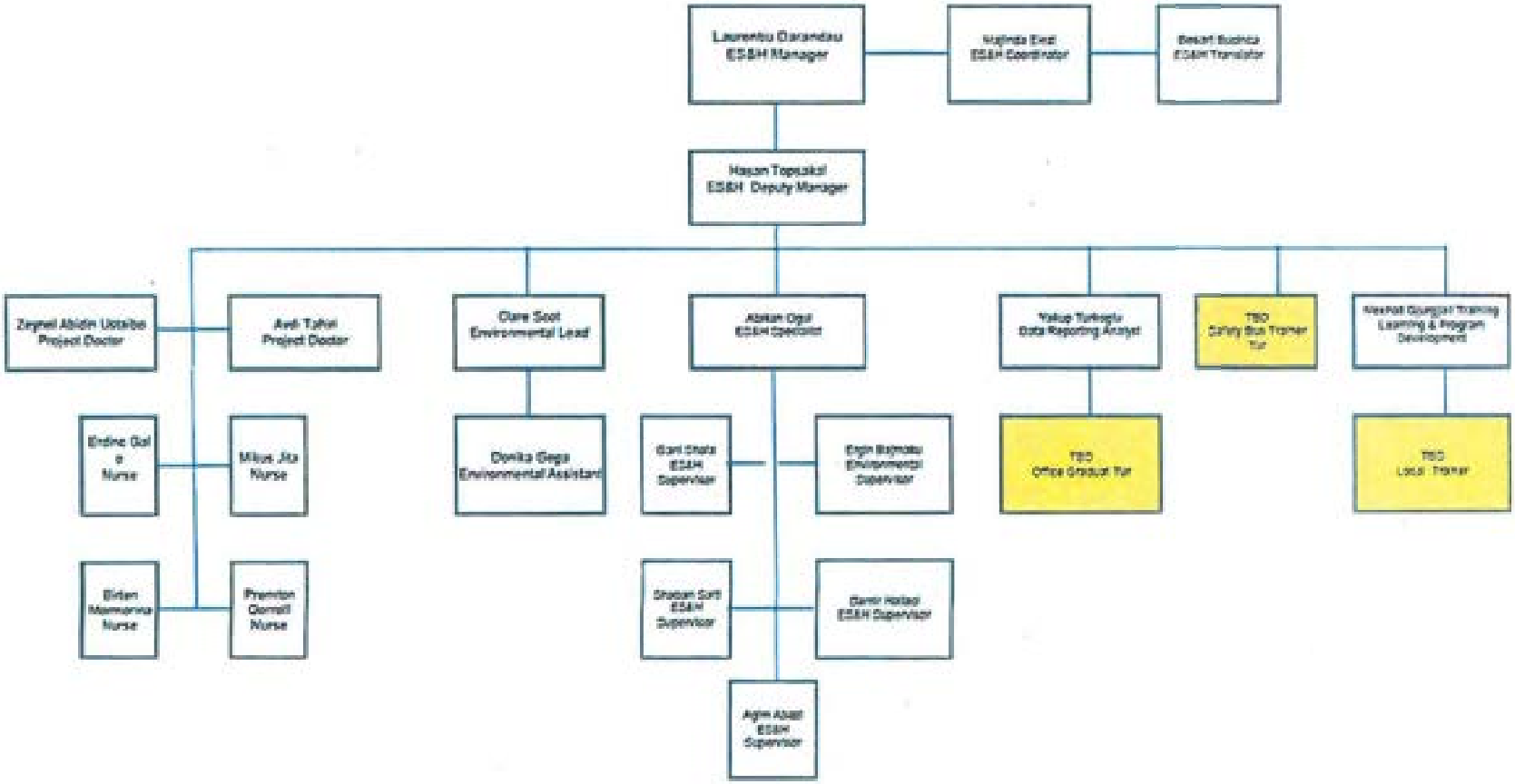
18.2 Attachment B- Core Process Index-100 Series

Policy		
	ES&H Policy	25939-000-HS-083-0953_00
Series 100: ESH Policies & Programs		
CP 100	ES&H Policy & Program	25939-000-HS-083-0001_00
CP 101	ES&H Responsibilities	25939-000-HS-083-0002_00
CP 102	Orientation, Training and Development	25939-000-HS-083-0003_00
CP 103	Project Development and Planning Process	25939-000-HS-083-0004_00
CP 105	Risk Assesments, Job Hazard Analysis and STARRT	25939-000-HS-083-0005_00
CP 106	Zero Accident Team	25939-000-HS-083-0006_00
CP 107	Reporting and Investigating Near Miss Incidents	25939-000-HS-083-0007_00
CP 108	Incident Reporting and Investigation	25939-000-HS-083-0015_00
CP 109	People Based Safety Process	25939-000-HS-083-0008_00
CP 110	Manual Material Handling	25939-000-HS-083-0009_00
CP-111	ES&H Assesment Process	25939-000-HS-083-0011_00
CP-113	Subcontractor ES&H Evaluation	25939-000-HS-083-0012_00
CP-117	Predictive Metrics	25939-000-HS-083-0010_00
CP-118	Fatigue Management	25939-000-HS-083-0057_00

18.3 Attachment C- Core Process Index 200 Series

Series 200: Safety Regulations & Standarts		
CP-200	General Safe Working Practices	25939-000-HS-083-0018_00
CP-201	Housekeeping Requirements	25939-000-HS-083-0019_00
CP-202	Hazar Communication Program	25939-000-HS-083-0020_00
CP-203	Emergency Preparedness	25939-000-HS-083-0021_00
CP 205	Personal Protective Equipment	25939-000-HS-083-0022_00
CP-206	Powder Actuated Tools	25939-000-HS-083-0023_00
CP 207	Powered Industrial Trucks	25939-000-HS-083-0024_00
CP-209	Nondestructive Examination	25939-000-HS-083-0026_00
CP-210	Temporary Labor Camps	25939-000-HS-083-0027_00
CP-211	Fire Prevention and Protection	25939-000-HS-083-0028_00
CP-212	Fall Protection	25939-000-HS-083-0029_00
CP-213	Scaffolding	25939-000-HS-083-0030_00
CP-214	Barricades and Signs	25939-000-HS-083-0031_00
CP-215	Floor and Wall Openings	25939-000-HS-083-0032_00
CP-216	Roofing Work	25939-000-HS-083-0033_00
CP-217	Confined Space Entry	25939-000-HS-083-0034_00
CP-218	Excavation, Trenching and Backfill	25939-000-HS-083-0035_00
CP-219	Suspended Personnel Platforms	25939-000-HS-083-0036_00
CP-220	Hazardous Work Permits	25939-000-HS-083-0037_00
CP-221	Lockout Tagout Procedures	25939-000-HS-083-0038_00
CP-222	Portable Ladders Inspection & Control	25939-000-HS-083-0039_00
CP-223	Cranes and Lifting Operations	25939-000-HS-083-0040_00
CP-224	Articulating Boom Platforms	25939-000-HS-083-0041_00
CP-225	Compressed Gas Cylinders	25939-000-HS-083-0042_00
CP-226	Electrical Equipment and Assured Grounding	25939-000-HS-083-0043_00
CP-227	Safety Watches	25939-000-HS-083-0044_00
CP-228	Drinking Water and Ice	25939-000-HS-083-0045_00
CP-230	Night Work	25939-000-HS-083-0047_00
CP-231	Office Facilities	25939-000-HS-083-0048_00
CP-232	Work on or Near Water	25939-000-HS-083-0049_00
CP-234	Utility Clearance	25939-000-HS-083-0050_00
CP-235	Piling Operations	25939-000-HS-083-0051_00
CP-236	ES&H Disciplinary Process	25939-000-HS-083-0054_00
CP-237	Recognition Program	25939-000-HS-083-0055_00
CP-238	Hearing Conservation Program	25939-000-HS-083-0056_00

18.4 Attachment D -ES&H Organization chart



BECHTEL ENKA GENERAL PARTNERSHIP

ROUTE 6 PRISHTINE -HANI I ELEZIT MOTORWAY PROJECT

ENGINEER, PROCURE AND CONSTRUCT (EPC) SUBCONTRACT FOR BRIDGE NO. 063

EXHIBIT "B" – SPECIAL CONDITIONS

APPENDIX B-2
QUALITY ASSURANCE

1.0 QUALITY MANAGEMENT SYSTEM

(1) SUBCONTRACTOR and its Sub-tier(s) shall implement a Project specific Quality Management System that complies with ISO 9001:2008 and is adequate for the Project's quality management needs and requirements.

(2) The Quality Management System shall cover all activities and extend to all areas of SUBCONTRACTOR's organization involved in the Work and include, as appropriate, engineering, design, procurement, fabrication, erection, installation, testing and handing over. The system shall be capable of demonstrating that all relevant requirements of the Subcontract as well as all standards, statuary regulations, applicable technical specifications, design, etc. are complied with.

(3) The Quality Management System shall be based on existing proven work routines and practices described in written SUBCONTRACTOR documents reflecting a planned and systematic approach to achieving and maintaining quality.

(4) Third party registration of assessed capability (i.e. approval of ISO 9001:2008) will not be considered sufficient to demonstrate that the Quality Management System Management requirements under the Subcontract have been met. However, such registration will be considered a significant contributing factor.

(5) SUBCONTRACTOR's documented Quality Management System shall provide for the issuance of a "stop work" order by the SUBCONTRACTOR or CONTRACTOR at any time during the Work when significant adverse quality trends and/or deviations from the approved Quality Management Systems are observed.

(6) All Quality Management System documentation supporting an activity shall be reviewed and accepted by SUBCONTRACTOR and issued to CONTRACTOR

(7) SUBCONTRACTOR shall maintain a database for the control of Quality Management System information, documents and records typically to include procedures, audits, surveillances, corrective action requests, inspection results etc.

(8) If following notification by CONTRACTOR of an ineffective Quality Management System, SUBCONTRACTOR fails to correct the Quality Management System within a reasonable time frame, not to exceed one (1) week of receipt of the notification by the SUBCONTRACTOR, CONTRACTOR may either implement its own quality management regime on the Work to correct SUBCONTRACTOR's Quality Management System at SUBCONTRACTOR's cost or instruct SUBCONTRACTOR to stop or not to start any further Work.

1.1 Quality Plan

(1) Within thirty (30) calendar days after Effective Date of the Subcontract and in any event prior to commencing Work at the Jobsite, SUBCONTRACTOR shall submit the

following for CONTRACTOR's review and approval:

(a) Corporate Quality Plan

(b) Project specific Quality Plan, covering quality assurance and quality control measures that shall be employed by SUBCONTRACTOR for executing all Work under this Subcontract including Design, Procurement and Construction works as defined in Exhibit "D" titled "Scope of Work".

(2) SUBCONTRACTOR's Quality Plan shall

(a) Describe the preparation, execution, checking/inspection and approval/acceptance of the various types of Subcontract deliverables and activities, identifying the department or discipline responsible and the documentation requirements.

(b) Address all activities relevant to the Work and shall demonstrate how all work performed by SUBCONTRACTOR or its Sub-tier(s) will conform to the Subcontract requirements.

(c) Include the controls to be applied by SUBCONTRACTOR's Sub-tier(s), both directly and by identifying the Quality Management System activities and documentation that these Sub-tier(s) are required to produce to meet the SUBCONTRACTOR's requirements.

(d) Define the documented quality system to be applied by SUBCONTRACTOR throughout the Work, in accordance with the requirements of ISO 9001:2008 and make reference to all of the SUBCONTRACTOR's relevant procedures and manuals.

(e) Address the interfaces between CONTRACTOR, SUBCONTRACTOR and Sub-tier(s) and other relevant organizational entities.

(f) Include an organization chart showing SUBCONTRACTOR's corporate and Project organization responsible for managing, performing and verifying the Work. The organization chart shall be supported with a reporting and functional description of SUBCONTRACTOR's project organization and identification of the quality related responsibilities of key positions.

(g) Be updated as necessary throughout the Subcontract, to reflect any changes to SUBCONTRACTOR's documented Quality Management System.

(h) As a minimum, address the requirements set out in ISO 10005:2005 and as appropriate cover the relevant phases of the Project (correlation and condition survey, and design, procurement, etc.)

(i) Comply with ISO 9001:2008;

(j) Incorporate comprehensive Quality Management System procedures;

(k) Describe the relationships and activities of the SUBCONTRACTOR and its Sub-tier(s) including providing organization charts;

(l) Specify the requirements of the Quality Management Systems to be operated by the SUBCONTRACTOR's Sub-tier(s)

(m) Allow for external second and third party audits to be carried out as required by CONTRACTOR and others;

(n) Incorporate comprehensive Quality Management System audit procedures

including the preparation of audit reports;

(o) Specify procedures to identify, report and rectify corrective actions and non-conformities. This includes system non-conformities raised as a result of both internal and external audits;

(p) Provide for regular management reviews of the Quality Management System;

(q) Include Subcontract completion procedures which shall provide for review and verification of records by SUBCONTRACTOR

(r) Identify quality related key performance indicators;

(s) Identify those Sub-tier(s) that are to be submitted for acceptance to BEGP;

(t) Include SUBCONTRACTOR's, Sub-tier(s) design control systems/procedures;

1.2 Personnel

(1) Titles of the personnel authorized to carry out Work under the Subcontract shall be defined and their assignment is subject to CONTRACTOR review and approval.

(2) SUBCONTRACTOR shall demonstrate that experienced and qualified resources are provided to execute the Work under this Subcontract.

(3) SUBCONTRACTOR, within thirty (30) days calendar days after the Effective Date of the Subcontract, shall submit for CONTRACTOR's approval its project specific organization chart along with resumes of all SUBCONTRACTOR's staff involved on the Project, demonstrating that its personnel assigned to Work are competent and capable of completing theirs tasks.

(4) The Quality Plan must designate a Quality Manager (QM) with sufficient experience and qualifications to be responsible for SUBCONTRACTOR's Quality Management System. Quality Manager shall be given adequate resources and authority to manage Quality Management System effectively.

(5) SUBCONTRACTOR must also have a Quality Control (QC) Representative on site at all times during working hours and sufficient alternate representatives to provide qualified QC representation in the absence of the QC Representative or when overtime work is being performed, for all scope of Works under this Subcontract.

(6) SUBCONTRACTOR's each Sub-tier shall also nominate a Quality Representative with adequate resources and appropriate authority to ensure the quality of Works under this Subcontract.

(7) SUBCONTRACTOR shall provide regular and appropriate training to all Project personnel in execution of the Quality Management System and as necessary to ensure their competence to do their tasks. SUBCONTRACTOR shall maintain records of all such trainings.

1.3 *Quality Management System Monitoring*

SUBCONTRACTOR's Quality Plan shall be the basis for CONTRACTOR's monitoring implementation of SUBCONTRACTOR's Quality Management System. Monitoring shall include, but not be limited to, reviewing engineering, procurement and construction documentation, observation of SUBCONTRACTOR performance of internal quality audits, and surveillance of engineering, procurement and construction activities. Copies of Audit Reports (along with any findings) shall be forwarded to CONTRACTOR for review to determine if there are any significant conditions adversely impacting quality.

1.4 Quality Certification

SUBCONTRACTOR shall provide CONTRACTOR with its valid ISO 9001:2008 certificate.

2.0 QUALITY OBJECTIVES

The main Project quality objectives are to ensure:

(1) CONTRACTOR's quality requirements are addressed by SUBCONTRACTOR and are incorporated into SUBCONTRACTOR's project specific Quality Plan.

(2) All SUBCONTRACTOR Sub-tiers are submitted to CONTRACTOR for review and approval prior to purchase order or subcontract award and that this review determines they will employ acceptable quality management systems.

(3) All products and services, whether supplied by SUBCONTRACTOR or its Sub-tiers, conform to specifications, standards and contractual requirements and shall be submitted to CONTRACTOR for approval prior to being used / employed on the Project.

(4) All Work is designed, constructed, installed inspected and handed over in accordance with CONTRACTOR's requirements.

(5) All the Work and Project related records as applicable to the SUBCONTRACTOR's scope of Work under the Subcontract are maintained and controlled by SUBCONTRACTOR in alignment with CONTRCTOR's requirements.

(6) All the deliverables shall be submitted and controlled in compliance with the Project's related procedures and requirements.

3.0 REQUIREMENTS

(1) To ensure quality requirements are met, CONTRACTOR shall provide overall management and selected technical reviews of the detail engineering, procurement and construction Work performed by SUBCONTRACTOR. This includes the right to audit SUBCONTRACTOR's activities to verify compliance with its Quality Plan.

(2) CONTRACTOR reserves the right to inspect, monitor, review and approve / reject any and all activities throughout conduct of the Work, which in its sole judgment, is considered necessary to maintain quality standards.

(3) SUBCONTRACTOR including its Sub-tier(s) shall complete Work in accordance with applicable design, technical specifications, standards, its Quality Plan and established procedures and CONTRACTOR's Inspection and Test Plans.

3.1 Engineering

(1) SUBCONTRACTOR shall comply with CONTRACTOR's Quality Assurance and Quality Control Plans and Design management and review procedures, ensuring an efficient traceability and control of the design submittal and review processes, in compliance with the Project schedule and requirements.

(2) SUBCONTRACTOR shall establish through its project specific Quality Plan internal procedures defining the work processes to be employed in the engineering and design activities required to meet Project requirements.

(3) These procedures shall include specific requirements describing design responsibilities, organizational and technical interfaces, design input, design output, design verification, design changes, squad checks, calculation checks, deliverables,

schedule of submittals and document control. SUBCONTRACTOR shall also establish and maintain procedures for identifying products and services from applicable drawings, specifications, or other documents, during all stages of production. Internal procedures need not be issued to CONTRACTOR, but shall be available for review. Project specific procedures shall be prepared to reflect the Project requirements.

(4) SUBCONTRACTOR shall provide to CONTRACTOR for review and/or approval copies of engineering and design products / deliverables, as required by this Subcontract.

3.2 Procurement

(1) SUBCONTRACTOR's all Sub-tiers providing engineering / design services to SUBCONTRACTOR, if any, shall have a valid ISO 9001:2008 certification and shall be subject to CONTRACTOR's approval

(2) SUBCONTACTO and, through SUBCONTRACTOR, its Sub-tiers shall develop a Quality Management System and procedures in compliance with ISO 9001:2008 requirements for carrying out check, reviews and verification activities appropriate for the services they provide. These procedures shall be subject to review and acceptance of CONTRACTOR.

(3) Adequate control of procurement resources shall be maintained to assure that SUBCONTRACTOR's Sub-tier(s) comply with specified requirements. Provisions shall be made for performance of source inspections, as necessary; to assure the products meet specified quality requirements. All purchased products shall be evaluated to assure conformity with the requirements of applicable specifications and submitted to CONTRACTOR for approval before being purchased by SUBCONTRACTOR. Adequate records shall be maintained of inspections and tests performed on purchased products and documentation shall be obtained stating that material and equipment conform to procurement requirements.

(4) SUBCONTRACTOR shall use CONTRACTOR forms or equivalent for seeking material approvals.

3.3 Construction

(1) SUBCONTRACTOR including its Sub-tier(s) shall comply with CONTRACTOR's Quality Assurance and Quality Control Plans and implement CONTRACTOR's Inspection and Test Plan (ITP) requirements for all construction Work under this Subcontract.

(2) SUBCONTRACTOR is responsible for work quality and for implementing measures necessary to achieve and document compliance with requirements including, but not limited to, those listed below.

(a) CONTRACTOR shall monitor construction and QC activities of SUBCONTRACTOR. Unless advised otherwise SUBCONTRACTOR will perform all tests, inspection, audits and surveillance of activities to include documentation review to verify data correctness, completeness of coverage, retrieval ability as filed, timeliness of scheduling, and action taken on inspection and testing results.

(b) SUBCONTRACTOR shall provide procedures to control all changes or modifications to engineering, procurement and construction documents and data.

(c) SUBCONTRACTOR shall provide procedures to control field purchasing and subcontracting activities.

(d) SUBCONTRACTOR shall provide method of statements to control all their construction methodologies for its activities and submit them to CONTRACTOR for approval prior to commencing execution of the related activity at the Jobsite.

(e) SUBCONTRACTOR shall ensure that all their construction works are in full compliance with its approved Quality Plan, method statements, material approvals and design documents and shall have full sets of updated technical documentation available at the Jobsite.

(f) All SUBCONTRACTOR's personnel must be trained with respect to CONTRACTOR's requirements and procedures.

3.4 Processes and Procedures

(1) Quality Processes/Procedures (QPPs) shall be prepared to supporting the Quality Plan. The responsibility for review and approval of QPPs is with the SUBCONTRACTOR. CONTRACTOR shall agree with the SUBCONTRACTOR which QPPs additionally require the QAM and Engineering Design Manager approvals.

(2) The primary activities addressed by QPPs and to be implemented by the SUBCONTRACTOR are to include:

(a) Preparation of QPPs for design (not including designs for CONTRACTOR's temporary works), procurement, manufacture, along with all quality control processes;

(b) Document control including preparation, checking, approval, updating, receipt and control of incoming documents, distribution, storage and maintenance of records;

(c) Design control including verification, approval and acceptance by others;

(d) Preparation of material requisitions and approval of purchase orders in accordance with accepted specifications;

(e) Performance of quality verification reviews and flow down of quality requirements to SUBCONTRACTOR's Sub-tier(s) to ensure their compliance with the Subcontract;

(f) Control and calibration of measuring and test equipment;

(g) Monitoring the activities of SUBCONTRACTOR's Sub-tier(s) to ensure their compliance with the Contract;

(h) Review of Sub-tier(s)'s Quality Management Systems and quality verification documentation;

(i) Administration of non-conformity and reporting to CONTRACTOR;

(j) Administration of design, procurement, non-conformities and concessions and reporting of them to CONTRACTOR;

(k) Production of four-weekly reports of quality issues including non-conformity records and Key Performance Indicators as deemed appropriate by CONTRACTOR.

3.5 Document Control

(1) SUBCONTRACTOR shall have and implement written procedure(s) or instruction(s) that establishes a system for receipt, control, and distribution of design and vendor documents. The procedure(s) or instruction(s) shall provide for:

a. Verification of actual documents received and their subsequent control in the field.

b. Maintenance of document control logs or registers for drawings, interim design changes, specifications and vendor prints, listing current revision of each document to preclude use of invalid and/or obsolete documents.

c. Establishing a method of identification between controlled and uncontrolled documents.

d. Removal of superseded or voided documents from the work place to prevent unintended use. All obsolete documents retained for legal and/or knowledge-preservation purposes shall be suitably identified.

e. Auditing of documents in the field to confirm the full sets of the latest approved documents are being used.

(2) SUBCONTRACTOR shall provide free and unencumbered access to all data and documentation and shall, as requested, provide copies of any required documentation to CONTRACTOR at no additional cost. Access to data shall include "electronic access".

3.6 Audits

(1) SUBCONTRACTOR shall submit with its Quality Plan a schedule of internal Sub-tier audits that are to be conducted by SUBCONTRACTOR's personnel. The schedule, scope and method of the audits are such as to enable the SUBCONTRACTOR to verify that all aspects of the Work are being conducted in accordance with the Quality Plan and all Subcontract requirements.

(2) The SUBCONTRACTOR shall allow CONTRACTOR, and authorized third parties to observe/participate in these audits and to conduct additional independent audits, as they consider appropriate to provide assurance that the Work is being conducted in accordance with Subcontract requirements. SUBCONTRACTOR shall provide the facilities and access necessary for these audits to be carried out effectively. SUBCONTRACTOR shall place similar requirements on Sub-tiers.

(3) All project related audits performed by SUBCONTRACTOR shall be shared with CONTRACTOR.

(4) CONTRACTOR and any authorized third parties including the Government of Kosovo representatives for the Project and statutory authorities and undertakers, shall have the right to conduct audits and inspections of all Work that is being executed by the SUBCONTRACTOR and its Sub-tier(s) under this Subcontract.

(5) SUBCONTRACTOR and its Sub-tier(s) shall make available for audit all records necessary to demonstrate that the Work has been executed in accordance with the Quality Management System and the Subcontract. They shall also provide CONTRACTOR with documents that demonstrate that the Work is progressing in accordance with specified requirements. These are to be provided in a timely manner as the work progresses.

3.7 Identification and Traceability of Equipment and Material

(1) SUBCONTRACTOR has responsibility for maintenance of material and equipment identification and traceability, including records, throughout all stages of construction. Procedures shall describe the methods for maintenance of material and equipment

traceability.

(2) All materials to be used for permanent works must be subject to CONTRACTOR's approval in advance of being purchased by SUBCONTRACTOR.

3.8 Inspection and Testing

(1) SUBCONTRACTOR control the inspection and testing of all construction activities, in full compliance with CONTRACTOR's Quality Assurance and Quality Control Plans and Inspection and Inspection Test Plans. These procedures shall address testing; receiving, in-progress, and final inspection; and inspection and test records.

(2) SUBCONTRACTOR shall ensure that CONTRACTOR is provided sufficient time to witness tests and inspect work performed by SUBCONTRACTOR'S suppliers or subcontractors. These shall, as a minimum, include the following:

(a) All the tests required by CONTRACTOR's Inspection and Test Plans

(b) All the inspections, surveillance and reviews required by CONTRACTOR's Inspection and Test Plans

(c) All the records to prove SUBCONTRACTOR's compliance with CONTRACTOR's Inspection and Test Plans and Subcontract requirements, including approved checklists for all the works performed by SUBCONTRACTOR.

3.9 Inspections, Measuring, and Test Equipment

(1) SUBCONTRACTOR shall provide and maintain all inspection, measuring and test devices used to verify compliance with specifications. SUBCONTRACTOR's measuring and test equipment shall be made available to CONTRACTOR for its use and for verification of accuracy and condition.

(2) SUBCONTRACTOR shall establish and implement documented procedure(s) to control measuring and testing equipment. The process shall ensure that:

(a) A controlled list of tools, instruments, and equipment requiring periodic calibration is developed and maintained, including a checkout log showing where devices have been used on the Project.

(b) M&TE is calibrated, or checked against, equipment certified to recognized standards at prescribed manufacturer's or project required intervals; where no such standards exist, the basis used for calibration shall be documented.

(c) M&TE is stored in a designated storage facility with access controlled to authorized personnel only.

(d) All M&TE has a calibration sticker affixed, when physically possible, which includes the M&TE unique ID, the calibration due date and provides traceability back to the calibration records;

(e) Calibration instructions are available and used for each type of M&TE calibrated.

(f) The handling, preservation and storage of M&TE is in accordance with manufacturers' recommendations.

(g) A calibration recall process is utilized to ensure that M&TE devices are recalled for calibration when required.

(h) A process is in place and used for evaluating the impact on completed installations for M&TE that is lost, damaged or found to be out of calibration and document any deficiencies;

(i) M&TE calibration information is documented on inspection and test records and

(j) All the M&TE that is not calibrated, demanded or not in use shall be stored separately and labeled as such

(3) SUBCONTRACTOR shall use CONTRACTOR provided forms or equivalent:

(a) Measuring and Test Equipment List
(b) M&TE Calibration Test Report
(c) Measuring and Test Equipment Checkout Log

3.10 Process Control

(1) SUBCONTRACTOR shall provide procedures to control work processes. These shall, as a minimum, include the following:

(a) Assurance of the control of records and documents to prove compliance with all the CONTRATOR's requirements

(b) Method statements to describe the construction methodology, equipment, materials and qualified personnel involved on the Project

(c) Control of QC Checklists for all the construction works performed by SUBCONTRACTOR

(d) Control of design review, interfaces and design deliverables, aligned with CONTRACTOR's design and construction milestones.

(2) SUBCONTRACTOR shall maintain a welding program as required by the applicable code(s), standard(s), and project specifications. At a minimum the welding program shall include:

(a) Documentation of field welding activities

(b) Assignment of welding procedure specifications

(c) Welder qualifications, maintenance, and welder identification

(d) Weld heat treatment

(e) Control and disbursement of welding filler materials.

(3) In the event that welding is to be performed and as applicable the following welding related documentation shall be submitted by the SUBCONTRACTOR along with the Quality Plan for review and approval not less than thirty (30) calendar days, or as directed by CONTRACTOR, before Work starts. CONTRACTOR will return comments or approval as applicable to the scope of Work:

(a) Welding Procedure Specifications (WPSs) and supporting Procedure Qualification Records (PQRs)

(b) Welder Qualification Records

(c) NDE contractor's written Practice and Procedures

(d) Project staffing plan including personnel certification records for NDE (including current visual acuity record)

(e) Project Source Utilization Plan (includes size, strength, type, and quantity of sources of X-ray units)

(f) Post Weld Heat Treatment (PWHT) Procedures, Instrument Calibration Records, Personnel Qualification/Training Records and Certification that the T/C's and wires meet the PHT-2 requirements or approved Contractor procedure.

(g) Filler Material Control Procedure

(h) Welder Qualification Procedures

(i) Weld Repair Procedures

(4) The following welding related documentation shall be submitted by the SUBCONTRACTOR, as applicable, prior to Final Acceptance.

(a) Material Test Reports (if required)

(b) Inspection Records, including Radiography film

(c) PWHT (Post Weld Heat Treatment) Charts

(d) Weld Maps or other documents that defines application of welding procedures

3.11 Inspection and Test Status

(1) SUBCONTRACTOR shall implement and fully comply with CONTRACTOR's Inspection and Test Plans (ITPs) for each activity performed. The ITP is a Contractor-generated document that outlines the specific inspection and testing requirements used by BEGP to monitor the Contractor's quality. ITPs identify the items, materials and work to be inspected or tested; by whom, and at what stage or frequency; as well as 'Hold' and 'Witness' points, and references to relevant standards.

(2) SUBCONTRACTOR shall ensure that all work complies with the Subcontract Documents and referenced design standards/criteria.

(3) SUBCONTRACTOR shall notify CONTRACTOR using the agreed means at least twenty four (24) hours in advance, (where possible), of the operation to ensure CONTRACTOR and other required attendees can attend the required witness and/or hold points.

(4) SUBCONTRACTOR shall initiate the Checklist at the beginning of each construction activity, assigning a unique document number and shall be responsible for obtaining the related signatures for all the required measurements, tests and inspections. After the completion of the works and obtaining CONTRACTOR's approval, SUBCONTRACTOR shall hand over the related Checklist to CONTRACTOR's Quality Control Representative for further processing.

(5) SUBCONTRACTOR shall maintain controlled logs with all initiated Checklists and their approval status and location until they are handed over to CONTRACTOR's Quality Control Representative for further processing

(6) SUBCONTRACTOR shall provide weekly Hold and Witness look-ahead schedules.

(7) SUBCONTRACTOR shall ensure that each item of work is inspected and accepted by its own team before CONTRACTOR's inspection.

(8) ITPs are generally required for contracts that install or provide a service on permanent materials or equipment. No work shall be allowed to take place without an approved ITP unless authorized by CONTRACTOR. ITPs shall be required for SUBCONTRACTOR welding on-site, including welding of temporary installation.

(9) Verification of work activities or sequence shall be determined in the ITP. Inspection or testing must take place in the order required to validate conformance (e.g., inspection of rebar before concrete placement).

(10) The SUBCONTRACTOR shall regularly submit completed inspection and test records to the CONTRACTOR. Original requests/reports may be maintained by the SUBCONTRACTOR.

(11) SUBCONTRACTOR shall use CONTRACTOR forms or equivalent.

3.12 Control of Nonconformance

(1) SUBCONTRACTOR shall establish and implement documented procedure(s) to ensure that nonconforming items (items that do not conform to specified requirements) are prevented from unintended use or installation. This control shall provide for identification, evaluation, segregation (when practical), disposition, disposition implementation, re-inspection, and closure of nonconforming items, and for notification to the functions concerned.

(2) SUBCONTRACTOR shall comply with CONTRACTOR's project procedure for Control of Deficient Items and perform all rework / repairs in compliance with the Engineering disposition

(3) CONTRACTOR reserves the right to correct nonconforming items and backcharge SUBCONTRACTOR for such corrections.

(4) SUBCONTRACTOR shall document and validate nonconforming conditions.

(4) CONTRACTOR also may identify and report nonconformance. In such cases, a Nonconformance Report will be delivered to SUBCONTRACTOR who shall provide appropriate closure action.

(5) SUBCONTRACTOR shall submit copies of all nonconformance reports to CONTRACTOR for information. Nonconformance reports in which the proposed disposition is "use-as-is" or "repair," shall be submitted to CONTRACTOR for concurrence prior to proceeding with the associated work.

(6) SUBCONTRACTOR shall evaluate each nonconformance for potential corrective action to prevent recurrence of the problem and implement corrective action.

(7) SUBCONTRACTOR shall use CONTRACTOR forms or equivalent.

3.13 Material and Equipment Receiving, Handling, Storage, and Maintenance

(1) SUBCONTRACTOR is responsible for the receipt and control of purchased material and equipment. SUBCONTRACTOR shall prepare procedures for material and equipment approval prior to purchase and use, receiving, checking and acceptance of delivered materials, handling, storage, and maintenance.

(2) SUBCONTRACTOR shall have a process in place to control material and equipment release for installation, including a process to control the release of nonconforming items.

(3) SUBCONTRACTOR shall establish and implement a program that will ensure that all material and equipment under its jurisdiction/control is maintained in accordance with the manufacturer's recommendation or specified requirements to ensure all warranties remain in effect, and to prevent damage or deterioration of the item.

(4) SUBCONTRACTOR's program shall identify the particular material and equipment to be maintained, the maintenance operations to be performed, and the frequency of such maintenance operations. Inspections shall be conducted and documented to ensure conformance to specified storage requirements. Upon CONTRACTOR request, SUBCONTRACTOR shall provide hard copy reports showing status of maintenance program for each included item.

(5) All materials and equipment shall be properly maintained by the SUBCONTRACTOR during the performance of the work to retain identification and not jeopardize its structural, mechanical, or electrical ability to function as designed once installed in its permanent location. Storage and maintenance requirements on permanent plant equipment shall be performed until CONTRACTOR has accepted care and custody of the component.

3.14 Quality Records

(1) SUBCONTRACTOR shall package and prepare all quality records for handover prior to Final Acceptance. Format of these packages shall be developed in conjunction with CONTRACTOR. Each turnover package to CONTRACTOR shall include as applicable:

(a) Turnover Exception Report (from Punch List Items)

(b) Other items listed in the Subcontract

(2) Acceptance of SUBCONTRACTOR'S Quality Plan by CONTRACTOR does not relieve SUBCONTRACTOR of the obligation to comply with any requirements of this Subcontract.

(3) SUBCONTRACTOR'S Quality Plans is subject to subsequent revision as directed by CONTRACTOR.

BECHTEL ENKA GENERAL PARTNERSHIP

ROUTE 6 PRISHTINE -HANI I ELEZIT MOTORWAY PROJECT

ENGINEER, PROCURE AND CONSTRUCT (EPC) SUBCONTRACT
FOR BRIDGE NO. 063

EXHIBIT "B" – SPECIAL CONDITIONS

APPENDIX B-3
TRAINING PROGRAMME

INFORMATION ON KOSOVO MOTORWAY PROJECT CRAFT COMPETENCY TRAINING PROGRAMME

1 KOSOVO MOTORWAY PROJECT CRAFT TRAINING PROGRAMME

The KMP Craft Training Programme has been developed to ensure that all new manual employees (Direct Hire or Subcontractor) on the project receive the required amount of ES&H, Quality and Job/Skill Specific training prior to commencing work on site.

2 STRATEGY

The Craft Training Programme (CTP) is a structured process that 1) turns craft workers with little or no disciplined heavy construction work experience into productive workers, and 2) assures the performance of those workers with some construction experience is brought up to the level of expectation reflecting BEGP's project requirements. Participation in this training program is a requirement for working on the Project.

The objectives of the CTP are to:

- Provide basic construction site knowledge and awareness relating to health, safety, environment and quality.
- Provide construction craft with knowledge and skills which can be documented in a training passport. The target audience is unskilled and semi-skilled labor in basic aspects of construction.
- Provide construction supervisory skills to supervisors and foremen.
- Ensure that craft have been provided with the skills necessary for their assigned tasks.

The Subcontractor CTP is divided into 2 sections;

- Level 1: ES&H Orientation and Training
- Level 2: Quality and Skill Enhancement Training

2.1 Training Requirements

The responsible Department Manager working with the ES&H, Training and Subcontracts Manager will define which training modules are to be attended by the craft of each subcontractor employed on the KMP. These training requirements will then be defined in the pre-qualification and kick off meetings. Subcontractor is to note that workers must be made available to attend the required trainings prior to commencing work at site.

2.2 Types of Training

Level 1 Training

Level 1 Trainings will be conducted by the ES&H Department. Some courses will be compulsory for all craft where as some will be Job Type specific. For example the Paving Crew does not require Working at Height Training.

The trainings will be a combination of Class Room Training and practical Trainings in the Hazard School, or on the Site. On completion of the Level 1 training program each employee will have an understanding of the KMP ES&H requirements related to their job.

Level 2 Training

Level 2 Trainings are to provide the Craft with the specific skills which they require to perform their day to day tasks safely, effectively and to the required quality. The duration of the trainings is dependent upon the complexity of the Job Type and scope of the sub-contract.

To most effectively enhance the skills of the craft the training packages will be a combination of class room and practical sessions. The practical sessions will be performed in the purpose built Craft Training Area, or on active sites.

Level 2 Trainings will be conducted by BEGP foremen or Construction Supervisors from the relevant departments, and will be assisted by the ES&H Department when required.

2.3 Training Facilities

The training facilities include;

- On site class rooms
- A training yard / center
- The site
- Project Safety Training Bus

2.4 Training Passports & Records

Training Passport

On arrival for the first day of training the Subcontractor employee will be issued their ID Badge and Training Passport. This document is the responsibility of the employee and should be kept on their person at all times when working on KMP site, it will be updated as future training is completed.

The training passport will act as proof that an individual has been through the required training for them to perform their job. If found without a training passport, or performing tasks for which they have not been trained (e.g. working at height without working at height training) disciplinary action will be taken against employee and/or supervisor and/or subcontractor. This is to be coordinated through HR, Sub-Contracts Department and the relevant Construction Department.

2.5 Arrival of New Craft Personnel at Site

On arrival at the Project, on the new hire's first day, he/she will report directly to HR. HR will then issue the ID Badge and Training Passport, and will send the employee to the ES&H Orientation. Further the new hire will receive their training schedule prepared by the Training Manager, in consultation with the manager of the Subcontractor.

Training Schedule

The training schedule will include; training modules, dates, times, locations and trainer's name and contact details. The workers will attend their initial Level 1 and 2 trainings on the designated days, and their training passports will be updated accordingly. On completion and passing of all required Level 1 and 2 trainings the worker will be authorized to work on the site.

Recognizing that subcontractors are being employed based on the knowledge and experience of their employees, the training requirements will be assessed and agreed upon between the Subcontractor's Manager and BEGP's Training Manager. The Craft Training Matrix shown in Appendix 2 of Exhibit D illustrates the four (4) compulsory ES&H modules to be attended by all subcontractor personnel, in addition to the available ES&H and Skills Based trainings. The matrix has been populated to show the trainings that BEGP craft must attend dependent upon their department and job type, as a guide for what trainings Subcontractor craft can attend.

2.6 Changing Jobs/ Responsibilities

Workers are trained to perform specific activities. If the subcontractor wants the worker to perform a different task which requires additional training, the training must be completed prior to being able to perform the new task. Compliance against this requirement can be checked by BEGP personnel reviewing the worker's training passport.

2.7 Competency Verification and Skill Enhancement

Some job types will require competency verification. Such job types include but are not limited to; Crane Operators and Equipment Operators.

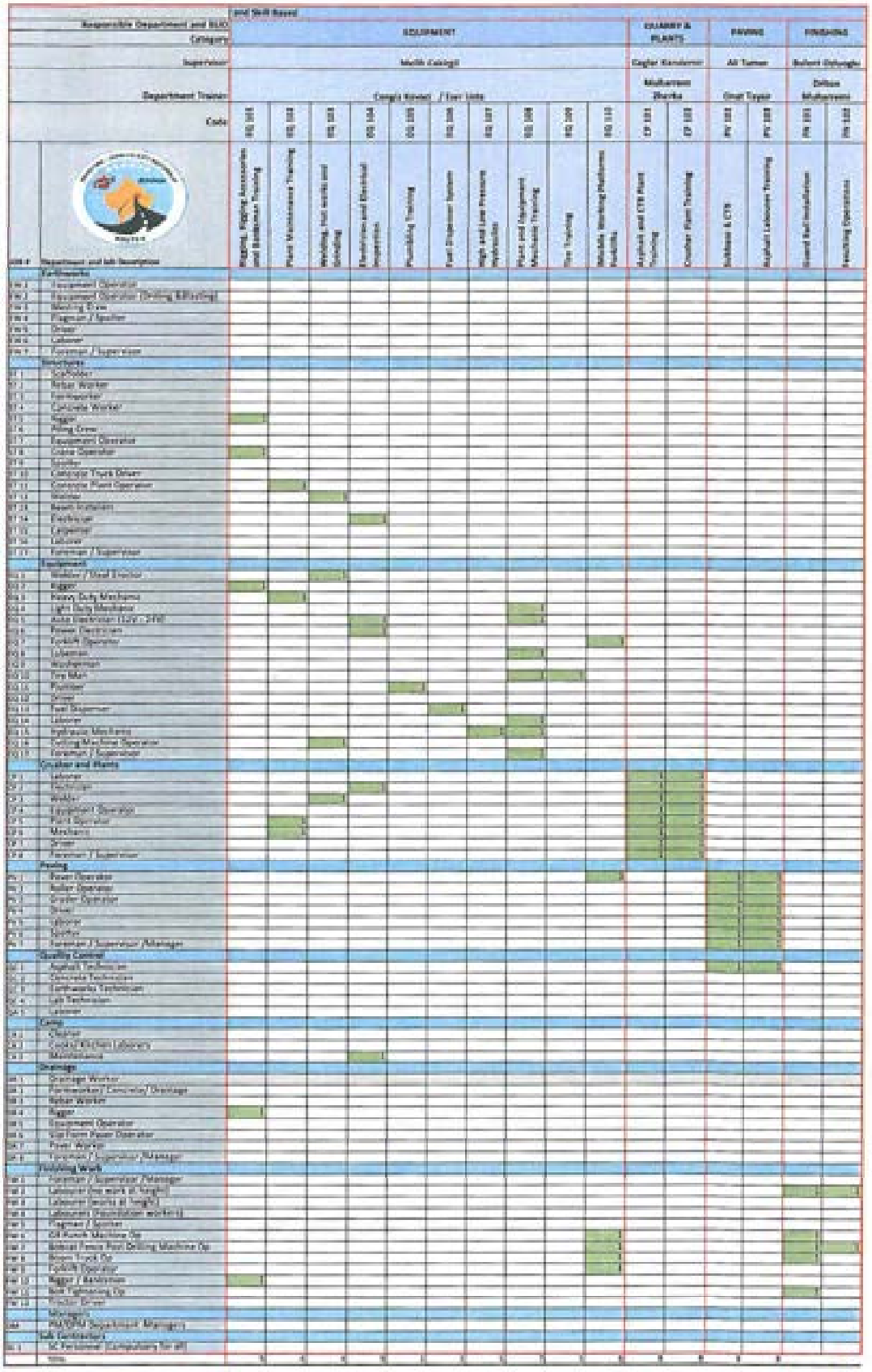
Competency verification will involve a competent BEGP person in the skill to be assessed observing the new worker at site to determine if he/she is capable of performing their work safely and to the required standard. Verification Records will be maintained by the Training Manager.

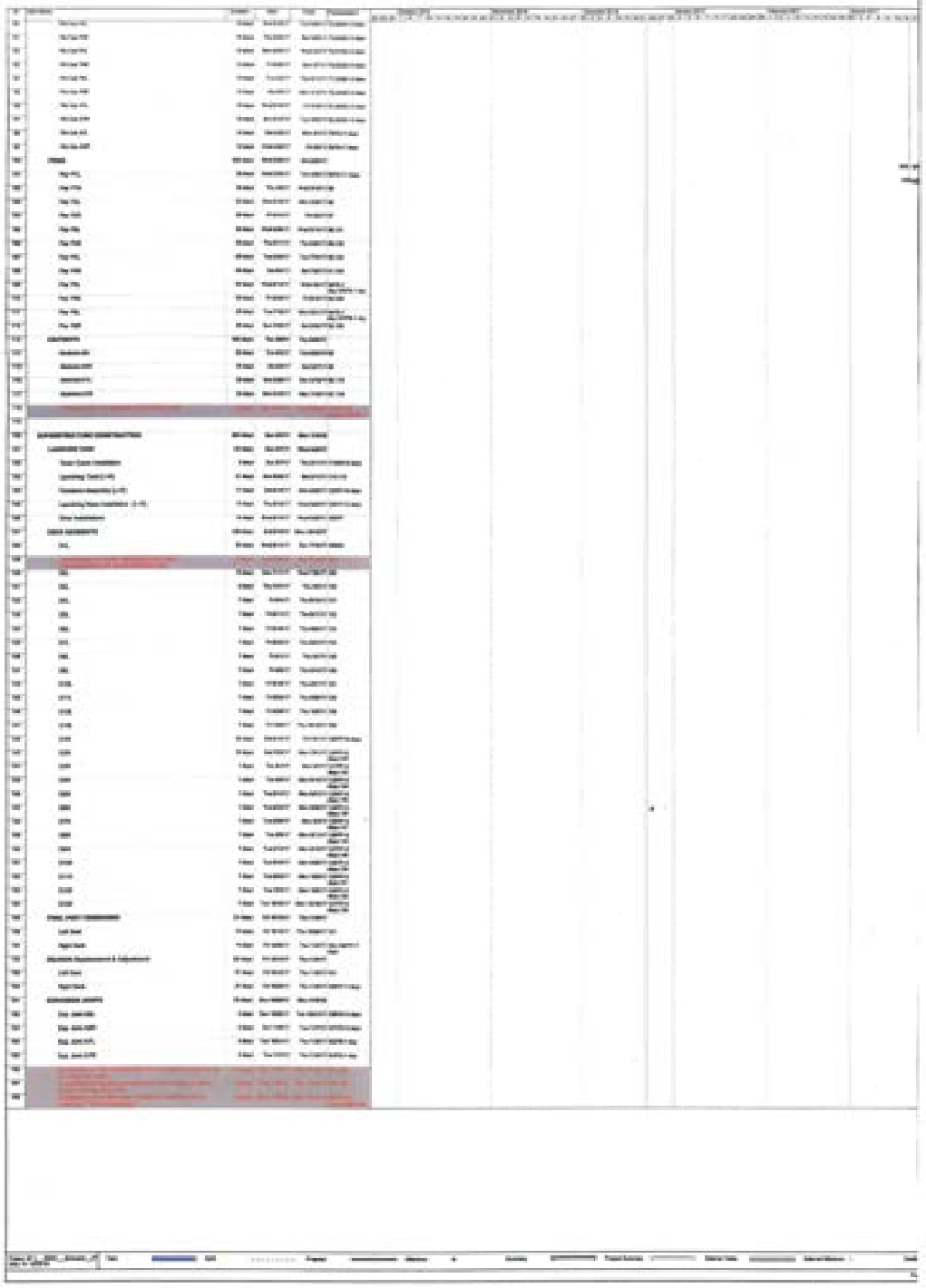
TRAINING MATRIX - PRISHTINË - HANI I ELEZIT MOTORWAY PROJECT

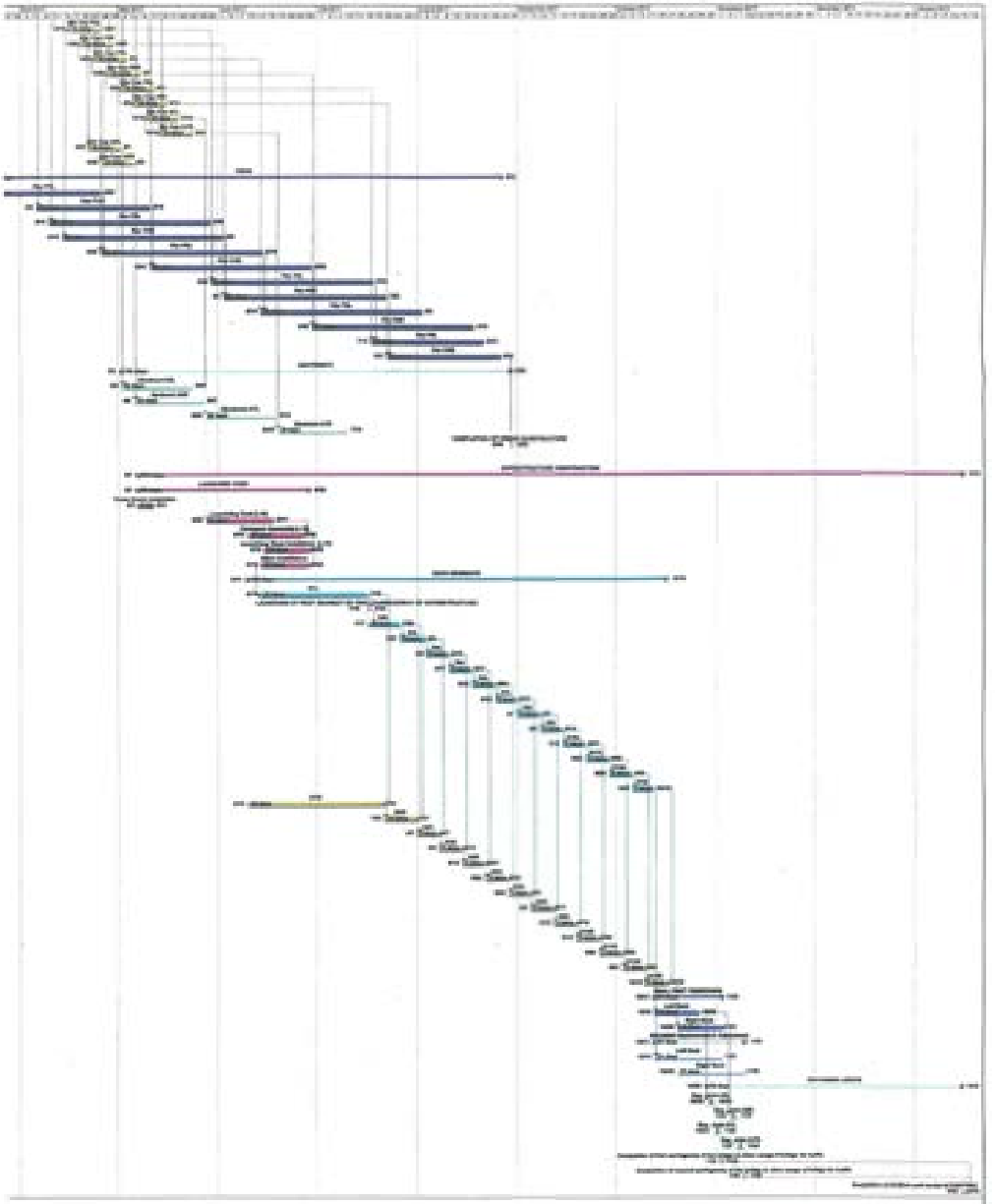



Responsible Department and (Sub) Category
QA
GATEWORKS
STRUCTURES
DRAINAGE
Supervisor
Kimo Sezai Kızıloğlu
Fatih Kurt
Hakan Bilay
Department Trainer
Andreas Dimkas
Edis Hazeri
Erkan Dalbaşı
Imran Ramadani
Code
QA 141
EW 101.2
EW 101.6
EW 103
EW 105
EW 104
EW 106
ST 108
ST 102
ST 103
ST 104
ST 105
ST 106
ST 107
DR 141
PV 141
ISKEP Quality Induction
Blasting Training
Pegman Training
Excavation & Trenching
Equipment Daily Maintenance
Truck Driver Training
Drilling and Blasting
General Formwork Installation / Systems
Concreting Operations
Rebar Operations
Working at Height / Fall Protection
Piling Operations
Concrete Plant Operations
U-Beam Operations
Discharge Installation
Channel and Gutter
Earthworks
Equipment Operator
Equipment Operator (Drilling &Blasting)
Blasting Crew
Pegman / Spotter
Driver
Labourer
Foreman / Supervisor
Structures
Scaffolder
Rebar Worker
Formworker
Concrete Worker
Rigger
Piling Crew
Equipment Operator
Crane Operator
Spotter
Concrete Truck Driver
Concrete Plant Operator
Welder
Beam Installers
Electrician
Carpenter
Laborer
Foreman / Supervisor
Equipment
Welder / Steel Erector
Rigger
Heavy Duty Mechanic
Light Duty Mechanic
Auto Electrician (12V - 24V)
Tyre Fitter
Forklift Operator
Labourer
Workerman
Tire Man
Plumber
Driver
Fuel Assessor
Labourer
Hydraulic Mechanic
Cutting Machine Operator
Foreman / Supervisor
Crusher and Plants
Labourer
Electrician
Welder
Equipment Operator
Plant Operator
Mechanic
Driver
Foreman / Supervisor
Paving
Paver Operator
Roller Operator
Grader Operator
Driver
Labourer
Spotter
Foreman / Supervisor / Manager
Quality Control
Asphalt Technician
Concrete Technician
Earthworks Technician
Lab Technician
Laborer
Camp
Cleaner
Cooks/ Kitchen Laborers
Maintenance
Drainage
Drainage Worker
Formworker/ Concrete/ Drainage
Rebar Worker
Rigger
Equipment Operator
Silo Tank Mixer Operator
Mixer Worker
Foreman / Supervisor / Manager
Drilling Work
Foreman / Supervisor / Manager
Labourer (no work at height)
Labourer (works at height)
Labourers (Foundation workers)
Pegman / Spotter
Oil Burin Machine Op.
Rotary Percussion Drill Drilling Machine Op.
Boom Truck Op.
Forklift Operator
Rigger / Banksman
Drill Tip Sharpening Op.
Tractor Driver
Managers
HSE/ENV Department Managers
Sub Contractors
HSE Personnel (Compulsory for all)
Notes

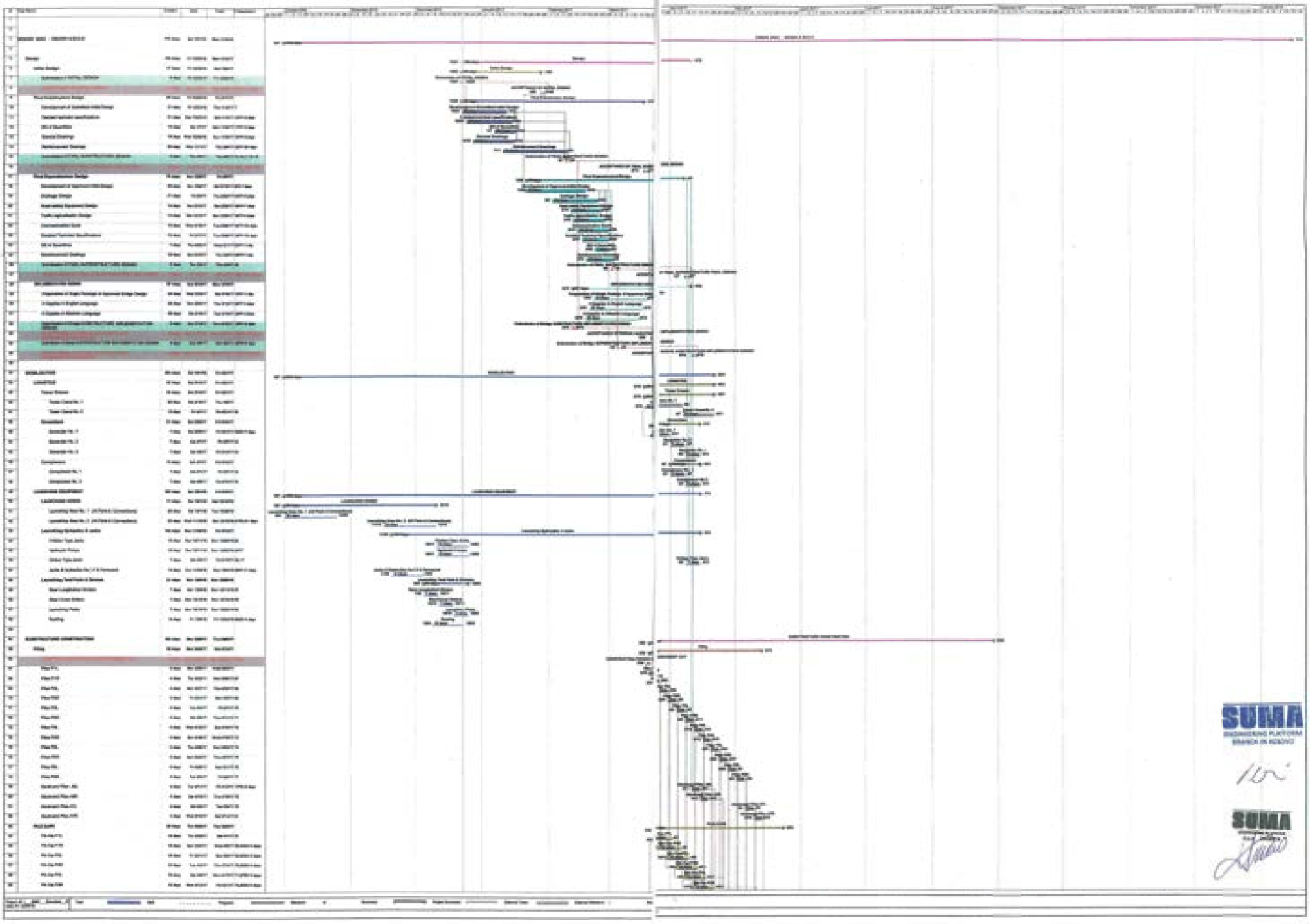



Responsible Department and SLOC
Category
Supervisor
Department Trainer
Code
Department and Job Description
Rigging, Rigging Accessories and Banksman Training
Plant Maintenance Training
Welding, Hot works and Grinding
Electrician and Electrical Inspection
Plumbing Training
Fuel Dispenser System
High and Low Pressure Hydraulics
Plant and Equipment Mechanic Training
Tire Training
Mobile Working Platforms Forklifts
Asphalt and CTB Plant Training
Crusher Plant Training
Subbase & CTB
Asphalt Labourers Training
Gravel Rollmodulation
Trenching Operations





SUMA
ENGINEERING PLATFORM


SUMA
ENGINEERING PLATFORM
BRANCH IN ROSOVO
SUMA

BECHTEL ENKA GENERAL PARTNERSHIP

ROUTE 6 PRISHTINE - HANI I ELEZIT MOTORWAY PROJECT

ENGINEER, PROCURE AND CONSTRUCT (EPC) SUBCONTRACT
FOR BRIDGE NO. 063

EXHIBIT "C" - QUANTITIES, PRICING AND DATA

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EXHIBIT "C"

1.0 WORK TO BE PERFORMED

SUBCONTRACTOR shall be paid for the Works including the performance of all required design, temporary works, procurement, construction and commissioning of Bridge No. 063 at km 306+040 in accordance with Subcontract Documents.

2.0 LUMP SUM PRICE

The Total Lump Sum Price (Subcontract Price) for performing all Work in accordance with this Subcontract is **7,748,761.00 Euros** that is **(Seven million seven hundred forty eight thousands, seven hundred sixty one Euros)** excluding VAT. The breakdown of this Lump Sum Price is detailed in the schedule of pay items below:

Item No.	Description	Total Estimated Quantity	Unit	Lump Sum (LS) Price (Euro)
1	Initial Design	1	lot	75,000.00
2	Final Substructure design	1	lot	25,000.00
3	Final Superstructure design	1	lot	25,000.00
4	Implementation Design	1	lot	25,000.00
5	Piles	1,750	lm	774,217.00
6	Foundation	2,580	m3	542,697.00
7	Elevation	4,550	m3	2,037,172.00
8	Abutment	460	m3	151,956.00
9	Deck	7,901	m3	4,092,719.00
Total Lump Sum Price:				**7,748,761.00**

Total Estimated Quantities above shall be adjusted based on SUBCONTRACTOR's design progress in accordance with the Exhibit "B" SC-14 titled "MEASUREMENT FOR PAYMENT".

3.0 ADVANCE PAYMENT

CONTRACTOR shall pay to SUBCONTRACTOR prior to Commencement Date an advance payment of five hundred thousand Euros (EUR 500,000) providing that SUBCONTRACTOR furnishes the unconditional and irrevocable Advance Payment Bond at no cost to CONTRACTOR detailed in Special Condition titled "PERFORMANCE AND PAYMENT SECURITIES". Provision and CONTRACTOR's acceptance of Advance Payment Bond shall be a prerequisite to CONTRACTOR's advance payment.

The advance payment shall be deducted from each successive invoice in ten percent (10%) increments until repaid in full. If advance payment is not repaid in full until the end of the tenth (10^{th}) month from the Construction Works Commencement Date, the remaining amount shall be deducted from SUBCONTRACTOR's subsequent invoice as such advance payment shall be paid in full no later than ten (10) months after Construction Works Commencement Date.

At the time when advance payment is repaid in full, CONTRACTOR shall return the Advance Payment Bond to SUBCONTRACTOR.

4.0 ADJUSTMENTS

All prices are fixed and firm for the duration of the Subcontract and are not subject to escalation for any cause. Payment of the Total Lump Sum Price shall constitute full payment for performance of the Work and covers all costs of whatever nature incurred by SUBCONTRACTOR in accomplishing the Work in accordance with the provisions of this Subcontract.
SUBCONTRACTOR shall maintain all Work in progress until Final Acceptance.

SUBCONTRACTOR shall repair, rework or replace as necessary any Work damaged or lost due to normal wear and tear, anticipated events, or conditions within SUBCONTRACTOR's control. No separate payment shall be made for such maintenance costs which are deemed included in the original Subcontract Price. Any failure to maintain the Work shall be considered a defect in accordance with the General Condition titled "WARRANTY."

5.0 CONTRACTOR PERFORMED WORKS

CONTRACTOR may, at its sole discretion, choose to self-perform, under supervision of SUBCONTRACTOR, any portion of the Work within the scope of this Subcontract. In such instances, CONTRACTOR will notify SUBCONTRACTOR in writing, detailing the portion of Work CONTRACTOR will perform. CONTRACTOR will then, after the execution of such works, submit its invoice to the SUBCONTRACTOR for an amount equal to the value of such works calculated based on quantities established by SUBCONTRACTOR's Implementation Design and any approved design changes thereafter, and the rates established in the following table.

Performance of any portion of Work by CONTRACTOR shall not constitute a change under GC-29 titled "CHANGES" and shall not relieve SUBCONTRACTOR from any liability under this Subcontract. SUBCONTRACTOR is required to supervise and will be responsible for the portion of Work which CONTRACTOR performs.

Item No.	Description	Unit of Measure	Rates for CONTRACTOR PERFORMED WORKS (Euro)
5	**Piles**		
5.1	Drilling	lm	112.33
5.2	Reinforcement	kg	0.93
5.3	Concrete	m3	68.68
5.4	Loading and transportation of material	m3	7.94
5.5	Breaking of Pile Heads	pcs	152.62
6	**Foundation**		
6.1	Lean concrete	m3	79.58
6.2	Reinforcement	kg	0.77
6.3	Concrete	m3	96.23
7	**Elevation**		
7.1	Reinforcement	kg	0.91
7.2	Concrete	m3	274.72
8	**Abutments**		
8.1	Concrete	m3	206.13
8.2	Reinforcement	kg	0.98
9	**Deck**		
9.1	Concrete	m3	266.73
9.2	Reinforcement	kg	0.68
9.3	Cables	kg	2.33
9.4	Gullies	pcs	147.00
9.5	Expansion Joints	pcs	24,500.00
9.6	Bearings	pcs	3,773.00

6.0 REQUIRED SUBMITTALS

CONTRACTOR's approval of SUBCONTRACTOR's following submittals is a prerequisite to payment of any of its invoice:

6.1 Subcontract Schedule
6.2 Safety and Health Program
6.3 Quality Plan
6.4 Certificates of Insurance
6.5 Performance Bond(s)
6.6 Environmental Compliances Plan

7.0 MEASUREMENT OF PAYMENT

SUBCONTRACTOR shall be compensated against the schedule of pay items set forth above in accordance with the measurement for payment provisions specified below:

No.	Description	Payment Provisions
1	Initial Design	Submission of design to Employer's Representative – 60% of Item LS Price Acceptance of design by CONTRACTOR confirmed in writing in accordance with the Design Deliverable Review Process – 40% of the LS Price
2	Final Substructure Design	
3	Final Superstructure Design	
4	Implementation Design	Submission and acceptance of design by CONTRACTOR – 100% of Item LS Price
5	Piles	100% of item LS Price shall be paid proportionally against progress percentage based on actual quantities installed on site as verified by CONTRACTOR and total estimated quantities set out in schedule of pay items.
6	Foundation	
7	Elevation	
8	Abutment	
9	Deck	85% of item LS Price shall be paid proportionally against progress percentage for casted and launched Deck segments 15% of item LS Price shall be paid proportionally upon completion of first and second carriageways including post-tensioning

8.0 MATERIALS PROVIDED BY CONTRACTOR

Upon SUBCONTRACTOR's request, the following materials may be provided to SUBCONTRACTOR by CONTRACTOR at the rates specified below. CONTRACTOR may also provide other concrete mix design not listed below upon request of SUBCONTRACTOR. Rates of such mix designs not included in the following list shall be agreed between CONTRACTOR and SUBCONTRACTOR.

Costs of any material provided by CONTRACTOR as determined based on the following unit rates shall be invoiced to SUBCONTRACTOR on a monthly basis.

No.	Item	Unit of Measurement	Unit Rate
1	Reinforcing Steel for Piles, cut and bent	kg	0.526
2	Reinforcing Steel for Foundations, Elevations, Abutments and Deck, cut and bent	kg	0.488
3	Concrete C12/15	m3	44.25
4	Concrete C25/30	m3	56.25
5	Concrete C30/37	m3	65.25
6	Concrete C35/45	m3	70.75

9.0 EQUIPMENT PROVIDED BY CONTRACTOR

Upon SUBCONTRACTOR's request, equipment stated in Appendix C-1 may be provided to SUBCONTRACTOR by CONTRACTOR at the rates specified depending on the availability of equipment. All costs of such equipment including without limitation the costs associated with provision of fuel, spare parts, maintenance, wear and tear parts, registration fees other than customs duties, any insurance required by the Republic of Kosovo laws and all other consumables required to keep the equipment operational shall be borne by SUBCONTRACTOR. CONTRACTOR is not obliged to provide any equipment under this Subcontract.

CONTRACTOR will exert every reasonable effort to make delivery of such equipment so as to avoid delay in the progress of the Work. However, should CONTRACTOR, for any reason, fail to make delivery of any such equipment and a delay results, SUBCONTRACTOR shall not claim any change, time extension or additional compensation under this Subcontract. SUBCONTRACTOR shall take all appropriate actions to mitigate the consequences of such delay.

Costs of any equipment provided by CONTRACTOR as determined based on the rental rates stated in Appendix "C-1" shall be invoiced to SUBCONTRACTOR on a monthly basis.

APPENDIX C-1 - LIST OF EQUIPMENT PROVIDED BY CONTRACTOR AND SCHEDULE OF RENTAL PRICES

No.	Group	Description	Manufacturer	Unit of Measure	Quantity	Unit Monthly Rental Rate (EUR/month)	Total Monthly Rental Rate (EUR/month)
1	Steel Girders & Profiles for Launching Yard	HEB 140/160		ea	2.00	1.22	2.44
2		HEB 220/4500		ea	2.00	6.40	12.81
3		HEB 220/10000		ea	3.00	14.93	44.78
4		HEB 220/12000		ea	4.00	16.00	63.99
5		HEB 300/3000		ea	2.00	6.30	12.60
6		HEB 300/8000		ea	1.00	16.50	16.50
7		HEB 300/9000		ea	4.00	19.25	77.00
8		HEB 300/12000		ea	16.00	24.06	384.93
9		HEB 360/10000		ea	2.00	24.30	48.60
10		HEB 360/12000		ea	2.00	31.20	62.40
11		HEB 500/2500		ea	2.00	8.40	16.81
12		HEB 500/1000		ea	4.00	3.20	12.81
13	HID	HID. Cevi 3,8" za Bet. Delavnico L=4,00 m		ea	5.00	4.00	20.00
14		HID. Cevi 3,8" za Bet. Delavnico L=5,00 m		ea	15.00	1.60	23.94
15		HID. Cevi 3,8" za Bet. Delavnico L=6,00 m		ea	15.00	1.87	28.03
16		HID. Razdelilci za Bet. Delavnico 5x		ea	2.00	16.00	32.00
17		HID. Razdelilci za Bet. Delavnico 6x		ea	2.00	18.00	36.00
18		HID. Razdelilci za Bet. Delavnico 2x		ea	2.00	20.00	40.00
19	Hydraulics	Hidravlicni Agregat TYP AV	Eberspecher	ea	1.00	165.98	165.98
20		Hidravlicna Dvigalka 75t	Eberspecher	ea	10.00	46.00	459.95
21		Hidravlicna Dvigalka 100t	Ebenspecher	ea	4.00	68.99	275.97
22		Hidravlicna Dvigalka 80T CPC2	Eberspecher	ea	12.00	51.66	619.94
23		Hidravlicni Cilinder ZERK 674,2-1KPL5 P	Eberspecher	ea	4.00	211.98	847.92
24		Hidravlicni Cilinder ZE 7117.250 S PRIBO	Eberspecher	ea	10.00	47.20	471.97
25		Hidravlicni Agregat HIDRO	Eberspecher	ea	1.00	1,169.88	1,169.88
26		Hidravlicni Agregat TYP AV 267.22	Eberspecher	ea	1.00	459.95	459.95
27		Hidravljcni Napenjalec za Dividag 32 in	Eberspecher	ea	1.00	119.99	119.99
28		Hidravljcne Dvigalke ZERK 673 400 t	Eberspecher	ea	4.00	169.98	679.93
29		Hidr. Vlec. Naprava AH 123.12 Komplet	Eberspecher	ea	1.00	565.94	565.94
30		Elektro Hidr. Agregat 380V, 3KV Komplet	Eberspecher	ea	1.00	441.96	441.96
31		Hidravlicna Rocna Crpalka	Eberspecher	ea	1.00	463.95	463.95
32		Hidravljcna Dvigalka 85TCPC1	Eberspecher	ea	16.00	40.50	648.02
33	Hydraulics for Hollow type Jacks	Hollow bar Jacks 150 t	Mekano 4	ea	4.00	0.00	0.00
34		Pump for Hollow Bar Jacks	Mekano 4	ea	2.00	219.98	439.96
35		Hoses	Mekano 4	ea	12.00	10.67	127.99
36		Small devices	Mekano 4	ea	8.00	9.50	76.03
39	Roofing	Vijaki in Razni Kov MAT		ea	6.00	22.00	131.99
40		Vitlo z Motorjem in Reduktorjem		ea	2.00	50.00	99.99
41		Nosilna Konstrukcija Opaza Steber xxxxxxx		ea	28.00	5.28	147.90
42		Nosilna Konstrukcija Opaza Steber xxxxxxx		ea	28.00	5.28	147.90
43		Nosilna Konstrukcija Opaza Steber 5,00/200		ea	1.00	65.99	65.99
44		Pomicna Streha nad Opazem 14,4 x 20 m		ea	1.00	253.97	253.97
45		Pomicna Streha nad Opazem		ea	1.00	153.98	153.98
46	Special Formwork Parts	Vozicek za Notranji Opaz		ea	1.00	65.99	65.99
47		Vozicek za Notranji Opaz		ea	1.00	65.99	65.99
48		Vozicek za Notranji Opaz		ea	1.00	65.99	65.99
49		Vozicek za Notranji Opaz		ea	1.00	65.99	65.99
50	Formwork	Konstrukcija Delavnice NOE + Doka 1. L=21 m		ea	1.00	959.90	959.90
51		Konstrukcija Delavnice NOE + Doka 1. L=21 m		ea	1.00	959.90	959.90
52	Dywidag	Dywidag F 26 L=4,00 - 5,00 m	Dywidag	ea	21.00	148.79	3,124.66
53		Dywidag F 26, L=6,00 m	Dywidag	ea	4.00	781.17	3,124.70
54		Dywidag F 32, L=2,00-3,00 m	Dywidag	ea	34.00	91.90	3,124.60
55		Dywidag F 32, L=6,00 m	Dywidag	ea	22.00	142.04	3,124.80
56		Dywidag F 36, L=2,00-3,00 m	Dywidag	ea	17.00	183.81	3,124.77
57		Dywidag F 36, L=3,00-4,00 m	Dywidag	ea	49.00	63.77	3,124.80
58		Dywidag F36, L=5,00 m	Dywidag	ea	26.00	120.19	3,124.94
59		Dywidag F 36, L=5,00-6,00 m	Dywidag	ea	27.00	115.74	3,124.87
60		Dywidag F 36, L=5,50-6,00 m	Dywidag	ea	48.00	65.10	3,125.02
61	Latheral Guides	Bocna Vodila Mala 107/50		ea	16.00	14.62	234.00
62		Bocna Vodila Velika 150/67		ea	20.00	14.40	288.05
63	Fe	Fe "Zavorno SIDLO"		ea	4.00	29.00	115.99
64		Fe Orsne Plosce za Narivanje 2000/60/20		ea	46.00	0.96	44.14
65		Fe Orsne Plosce za Narivanje 1000/580/30		ea	55.00	0.14	7.78
66		Fe Orsne Plosce za Narivanje 800/450/35		ea	20.00	0.22	4.44
67		Fe Orsne Plosce za Narivanje 800/400/35		ea	19.00	0.03	0.58
68		Fe "SKATLE" 450/900/180 za izvlacenje prveg takta		ea	6.00	25.50	153.02

APPENDIX C-1 - LIST OF EQUIPMENT PROVIDED BY CONTRACTOR AND SCHEDULE OF RENTAL PRICES

69	Launching Noses	Jekleni Kljun za Nariwanje VITO, 2 L=30,50 m	VITO	ea	1.00	2,239.78	2,239.78
70		Jekleni Kljun za Nariwanje VITO, 1 L=30,00 m	VITO	ea	1.00	2,359.76	2,359.76
71	Tower Cranes	112 EC-H	Liebherr	ea	1.00	1,349.87	1,349.87
72		185 HC	Liebherr	ea	1.00	1,949.81	1,949.81
73		Anchoring devices	Liebherr	ea	3.00	219.98	659.93
74		Segments for 90 m height erection	Liebherr	ea	16.00	109.11	1,649.77
75		Other devices		ea	5.00	89.99	449.96
76	Generators	QES 150	Atlas Copco	ea	1.00	1,049.90	1,049.90
77		QES 105	Atlas Copco	ea	2.00	419.96	839.92
78		QES 40	Atlas Copco	ea	2.00	284.97	569.94
79	Compressors	XAS 48	Atlas Copco	ea	1.00	419.96	419.96
80		XATS 186	Atlas Copco	ea	1.00	629.94	629.94
81	Light towers	B+ Hetz1 850	Atlas Copco	ea	2.00	269.97	539.95
82	Post-Tensioning & Grouting	Unitary jack type Arrow	Mekano4	ea	2.00	116.77	233.53
83		Hydraulic pump type BPT11.2	Mekano4	ea	2.00	352.76	705.53
84		Multistrand jack type GMS4	Mekano4	ea	2.00	372.37	744.73
85		Multistrand jack type GMS6	Mekano4	ea	2.00	713.93	1,427.86
86		Grouting machine type IMTY-150.2	Mekano4	ea	2.00	391.96	783.92
87		Strand pusher type UH11.2	Mekano4	ea	2.00	615.94	1,231.88
88		Hydraulic pump type OTCE	Mekano4	ea	2.00	155.35	310.70
TOTAL (EUR)							61,274.24

BECHTEL ENKA GENERAL PARTNERSHIP

ROUTE 6 PRISHTINE - HANI I ELEZIT MOTORWAY PROJECT

ENGINEER, PROCURE AND CONSTRUCT (EPC) SUBCONTRACT FOR BRIDGE NO. 063

EXHIBIT "D"

SCOPE OF WORK

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Schedules

Schedule 1	Not Used
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Schedule 11	Not Used
Schedule 12	Not Used
Schedule 13	Not Used
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Schedule 15	Design Package Content
Schedule 16	Document Submittal Control
Schedule 17	Implementation Documents

1.0 SCOPE OF WORK

SUBCONTRACTOR shall perform all required design, procurement, supply and construction works of Bridge No. 063 (the "Bridge") in accordance with Subcontract Documents, including without limitation provision of all required calculations, drawings, shop drawings, data sheets, samples, as-built drawings, construction materials, labor and equipment as detailed under Engineering, Procurement and Construction sections of this Exhibit "D".

2.0 ENGINEERING

2.1 Scope of Design Work

SUBCONTRACTOR shall provide Design Work as detailed in this section of Exhibit "D". The scope of Design Work consists of development and delivery of Design Deliverables and design site support services during construction of Bridge, which shall include without limitation the following activities:

- Structural and geotechnical design of Bridge
- All other design activities required to complete full design of Bridge including without limitation drainage design, road safety equipment design (inclusive of safety barriers), traffic signalization design and communication ducts design
- Preparation of bill of quantities for each Design Deliverable
- Coordination with CONTRACTOR and its other Sub-tiers performing design services on the Project to manage all design interfaces
- Supporting CONTRACTOR to have all Bridge designs approved by Employer's Representative by assisting CONTRACTOR with submissions of design packages to Employer's Representative, development of responses and/or revisions on design documentation in accordance with Employer's Representative's design review comments and presentation of design documentations
- Design site support services during construction of Bridge including any necessary design revisions
- Identification of any additional geotechnical investigation work required for SUBCONTRACTOR's performance of Design Work
- Verification of topographical survey information provided to SUBCONTRACTOR
- Provision of recommendations on Environmental Studies provided SUBCONTRACTOR as applicable to the Design Work

2.1.1 Design Deliverables

Design Deliverables consist of Initial Design, Final Substructure Design, Final Superstructure Design and Implementation Design of Bridge.

SUBCONTRACTOR shall first prepare Initial Design of Bridge for review and approval of CONTRACTOR and Employer's Representative. Upon both approvals, SUBCONTRACTOR shall prepare Final Substructure Design and Final Superstructure Design, meeting all requirements and standards defined in Subcontract Documents. SUBCONTRACTOR shall finally prepare Implementation Design including specifications, calculations, reinforcing schedules, quantities, design reports and 'Issued for Construction' drawings for each elements/parts of Bridge. Design Deliverables are further detailed as follows:

2.1.1.1 Initial Design

Initial Design means development of committed design of Bridge provided to SUBCONTRACTOR including preparation of structural calculation note, geotechnical report, general alignment, elevation and plan drawings, pile reinforcement design, technical specifications and indicative bill of quantities.

Initial Design deliverable shall also include the design of Temporary Facilities including provision of necessary dimensions of pre-cast yard platform and its loads as well as abutment loads to provide the necessary input to allow for design of earthworks by CONTRACTOR's other Sub-tier(s). Initial Design package will be reviewed by CONTRACTOR's design review

team and Employer's Representative. SUBCONTRACTOR will present its design and support CONTRACTOR on design review and approval process with Employer's Representative. Initial Design phase also includes obtaining any necessary permits other than construction permit and/or concurrence of third parties including local authorities, as necessary.

2.1.1.2 Final Substructure Design

Final Substructure Design means development of approved Initial Design and provision of necessary design drawings to construct Bridge Substructure. Detailed technical specifications and bill of quantities will be provided in Final Substructure Design package. General drawings and reinforcement drawings of substructure will be presented to Employer's Representative for final review and approval.

2.1.1.3 Final Superstructure Design

Final Superstructure Design means development of approved Initial Design and provision of necessary design drawings to construct Bridge Superstructure. Drainage design, road safety equipment design (inclusive of safety barriers), traffic signalization design and communication ducts design are included in Final Superstructure Design package. Detailed technical specifications and bill of quantities will be provided in Final Superstructure Design package. General drawings and reinforcement drawings of superstructure will be presented to Employer's Representative for final review and approval.

2.1.1.4 Implementation Design

Implementation Design is SUBCONTRACTOR's submission of final designs approved by CONTRACTOR in writing along with technical specifications and all other required documents in Albanian and English languages, printed in four (4) copies and stamped by SUBCONTRACTOR. Implementation design is the final and Issued for Construction (IFC) stage of design development, and consist of two (2) interim submissions: implementation design of Bridge Substructure and implementation design of Bridge Superstructure. Construction activities in relation to each interim implementation design submission shall commence only after CONTRACTOR's approval of the respective submission.

2.1.2 Content of Design Deliverables

The required content of Design Deliverables is detailed under Schedule 15 titled "Design Package Content". SUBCONTRACTOR's submissions shall include at minimum all documents specified.

2.1.3 Preparation of Drawings

SUBCONTRACTOR shall produce plans and drawings for Bridge including locations plans, foundation details, substructure and superstructure details, bar bending schedule (scale 1:100, details to scale 1:50 and 1:20). SUBCONTRACTOR shall prepare an adequate number of design/construction drawings to address every detail of the Bridge to enable construction of Bridge without the necessity for producing any further drawings.

2.1.4 Design Documentation Format

SUBCONTRACTOR shall issue for construction a complete set of drawings that shall contain all information CONTRACTOR or EMPLOYER or Employer's Representative considers necessary for completing construction of Bridge. If CONTRACTOR, EMPLOYER or Employer's Representative considers that the drawings do not contain sufficient information or are not to a suitable standard, the SUBCONTRACTOR shall modify the drawings until they are acceptable to them.

SUBCONTRACTOR shall supply to CONTRACTOR both editable electronic copies (DWG files) of all revisions of all drawings in accordance with Schedule 16 titled "Document Submittal Control" and stamped/signed hardcopies.

All documentation shall be submitted in Albanian and English languages.

2.1.2 Design Site Support

SUBCONTRACTOR shall provide continual Design Site Support staff as necessary during full Bridge construction period. Design Site Support Staff responsibilities shall include responding to Requests for Information (RFI) and Field Change Requests (FCR), and where appropriate preparation of Document Change Notices (DCN) to capture changes in the design necessitated by incorrect assumptions or unforeseen conditions, as defined in Schedule 2.

2.2 Existing Documentation and Data

CONTRACTOR has made the following documents, drawings and data available to SUBCONTRACTOR for information and reference either through Exhibit "E" or by other means to assist SUBCONTRACTOR in performance of the scope of Design Work:

- Committed design of Bridge
- Initial route alignment
- Geotechnical investigations information and factual report
- Section C3 Environmental Study (subject to review by EMPLOYER)
- Topographical survey information for Project alignment
- Cross sections and details

A list of available technical specifications, drawings, documents and data is included in Exhibit "E" of this Subcontract. Further design documentation, not referenced in Exhibit "E" may be made available to SUBCONTRACTOR as and when deemed necessary.

2.2.1 Ground Investigation Works

The Geotechnical Investigation Works have been completed by CONTRACTOR's other Sub-tier(s), and existing geotechnical data related to scope of Design Work has made available to SUBCONTRACTOR who shall make interpretations as necessary to complete scope of Design Work. It is SUBCONTRACTOR's responsibility to review the existing geotechnical data and identify any additional geotechnical investigation work required to perform the scope of Design Work.

If and/or when SUBCONTRACTOR is satisfied that all geotechnical data provided by CONTRACTOR is acceptable and sufficient to perform Design Work, SUBCONTRACTOR must verify to CONTRACTOR in writing.

The number of additional investigations proposed by SUBCONTRACTOR must satisfy the requirements of EUROCODE 7 as a minimum. It is also SUBCONTRACTOR's responsibly to ensure that the number of investigations proposed is sufficient for the performance of Design Work but not excessive as the time for completion of these additional investigations might affect the Milestone Dates under this Subcontract.

Such additional geotechnical investigation shall be communicated to CONTRACTOR through a Geotechnical Investigation Plan covering all such additional investigations required by SUBCONTRACTOR. CONTRACTOR will then review the proposed Geotechnical Investigations Plan with EMPLOYER and confirm whether the plan is acceptable and in accordance with EUROCODE 7 requirements. The plan will be revised as necessary.

Following acceptance of the plan, CONTRACTOR and/or its Sub-tier(s) will perform the required works, including investigations, sampling and testing and preparation of the Geotechnical Factual Reports.

SUBCONTRACTOR shall provide supervision of any additional geotechnical investigations and laboratory testing works undertaken by CONTRACTOR and/or its other Sub-tiers. All geotechnical factual reports resulting from the additional investigation works will also be prepared by CONTRACTOR and/or its other Sub-tier(s) and provided to the SUBCONTRACTOR. SUBCONTRACTOR shall review these factual reports for completeness

and inform CONTRACTOR, in writing, within five (5) days of receipt of the factual reports, of any omissions, mistakes or clarifications that SUBCONTRACTOR requires. Any required revisions to the reports will be incorporated and then resubmitted to the SUBCONTRACTOR, who must then, within (3) three days of receipt of resubmitted report, confirm acceptance of the report. If SUBCONTRACTOR fails to do so, resubmitted report shall be deemed to have been accepted by SUBCONTRACTOR.

The geotechnical work shall be documented by SUBCONTRACTOR through the production of a Geotechnical Design Basis Report (GDBR) and Geotechnical Design Note (GDN) which describes the geotechnical design parameters in detail. These documents shall be updated throughout the design process as and when new information becomes available.

2.2.3 Topographical Surveys

A Topographic Survey of Section C3 has been made available to SUBCONTRACTOR. SUBCONTRACTOR must check the survey information provided and verify in writing the survey information including without limitation monument coordinates and levels is sufficiently accurate and complete to be used as a basis for the performance of scope of Design Work.

Throughout the design development process SUBCONTRACTOR must inform CONTRACTOR immediately of any areas where there is insufficient topographical information available to fully develop any designs. SUBCONTRACTOR must indicate the deficient areas on plans and issue the plans to CONTRACTOR to enable CONTRACTOR to undertake the necessary additional surveys.

2.2.4 Environmental Studies

The SUBCONTRACTOR must review the existing Environmental Study Reports contained in Exhibit "E", and if any recommendations are provided that may affect the designs, SUBCONTRACTOR must obtain CONTRACTOR and EMPLOYER approvals prior to incorporating the recommendations in the Design Deliverables.

2.3 Design Standards

Design Deliverables shall be developed in accordance with the Design Standards defined in Schedule 3 titled "Design Standards". Should the provided list of design standards not cover all aspects of the designs, SUBCONTRACTOR shall propose additional standards to be applied and demonstrate that the standards do not conflict with aforementioned standards.

Such proposal for additional standards shall be reviewed and approved by CONTRACTOR in writing.

2.4 Design Review Process

2.4.1 Design Change Process

To ensure that a safe and compliant design is maintained, SUBCONTRACTOR shall strictly follow CONTRACTOR's design change processes detailed in Schedule 2. SUBCONTRACTOR shall not deviate from any Implementation Design during construction Work unless any change has been accepted by CONTRACTOR through a Field Change Request (FCR) or a Design Change Notice (DCN).

2.4.2 Constructability Reviews

CONTRACTOR in conjunction with SUBCONTRACTOR will review SUBCONTRACTOR's design submissions for constructability, compatibility with proposed construction work methods and equipment mobilizations and consistency with the CONTRACTOR's quantity tracking system. CONTRACTOR's review will in no way relieve responsibility for the design, which resides with the SUBCONTRACTOR. Reconciliation of all comments shall be obtained for each stage of the development of design documentation prior to advancing the design.

At all stages of the development of design documentation:

- The technology and design of the works shall be in conformance with CONTRACTOR requirements.
- Coordination shall be undertaken with all organizations and stakeholders concerned in order to facilitate and achieve their prompt reviews, approvals and permit issuance.

2.5 Design Offices and Site Presence

CONTRACTOR may place a full time member of its personnel in the SUBCONTRACTOR's workplace where the Design Work are performed. The purpose of placing this staff in SUBCONTRACTOR's office is to facilitate direct coordination between CONTRACTOR and SUBCONTRACTOR and to monitor performance of the design development. SUBCONTRACTOR shall provide at its own cost suitable office space, office furniture, telephone and internet connection and supplementary office facilities and support to support the said member of CONTRACTOR's staff.

SUBCONTRACTOR shall as required by CONTRACTOR or Applicable Laws, have suitable and qualified personnel available at Jobsite at all times to liaise with Project personnel on any technical issues as required. SUBCONTRACTOR's personnel shall have full authority to resolve all issues and make decisions on Jobsite on behalf of the SUBCONTRACTOR.

2.6 Design Work not included in SUBCONTRACTOR's scope

The following items are not included in SUBCONTRACTOR's scope of Design Work under this Subcontract.

- The main route design for Section C3
- Any external drainage design associated with Bridge including any river regulation
- The Geotechnical Investigation Works

3.0 PROCUREMENT

SUBCONTRACTOR shall procure all necessary materials and equipment (temporary and permanent) to execute the Work under this Subcontract as detailed in this section to the required standards and specifications, including where specified detailed material traceability..

3.1 Provision of Materials

Procurement, supply and delivery of of all materials (temporary and permanent) required to perform the Work is included in the SUBCONTRACTOR's scope of Work under this Subcontract. All materials shall be of new condition, and not second hand, used or recycled unless prior approval in writing is obtained from the CONTRACTOR

3.2 Provision of Construction Equipment

SUBCONTRACTOR shall provide all necessary construction equipment to perform the Work.

3.3 Logistics and Customs

SUBCONTRACTOR is responsible for the transport, logistics, customs and any kind od local and international permits of all materials and equipment required for the performance of the Work.

3.4 Material and Inventory Management

SUBCONTRACTOR shall provide a materials management and warehousing / storage plan, clearly identifying procedures and process for the receipt and storage of materials, including procedures for preservation or materials and handling of contaminated or quarantined materials.

CONTRACTOR may perform periodic audits of materials and equipment stored at the Jobsite and any non conformances with the approved SUBCONTRACTOR procedures shall be addressed and resolved. At no time shall any quarantined materials or equipment be incorporated into the permanent Work.

4.0 CONSTRUCTION

SUBCONTRACTOR shall perform the Construction Work in accordance with its Issued for Construction drawings approved by CONTRACTOR and specifications in this Subcontract. SUBCONTRACOR's scope of Construction Work under this Subcontract includes construction of:

- Bridge Substructure
- Bridge Superstructure
- Temporary Facilities

If CONTRACTOR chooses to self-perform any portion of the Work under this Subcontract in accordance with the provision titled "CONTRACTOR PERFORMED WORKS", SUBCONTRACTOR is still required to supervise such portion of Work performed by CONTRACTOR.

4.1 Mobilization

SUBCONTRACTOR shall start mobilization of its equipment, personnel and any kind of material required for the performance of the Construction Work on the Construction Works Commencement Date.

SUBCONTRACTOR is solely responsible for its mobilization activities including but not limited to loading, unloading, transportation of its equipment and materials (other than items listed in Article 3.1.1 titled "Materials provided by CONTRACTOR") and obtaining any kind of permits as required. CONTRACTOR will assist SUBCONTRACTOR for temporary importation customs duties into Kosovo in accordance with Special Condition titled "IMPORTATION OF EQUIPMENT, MATERIALS AND SERVICES".

4.2 Jobsite Clearance, Access to Jobsite and Preparatory Works

CONTRACTOR will provide access to the Jobsite for SUBCONTRACTOR's use. CONTRACTOR will perform the site preparation works up to the level of foundation bottom elevations limited to earthworks, leveling and slope protections both for Temporary Facilities and Bridge Substructure in accordance with SUBCONTRACTOR's applicable design, and deliver the Jobsite to SUBCONTRACTOR ready for SUBCONTRACTOR to executive all Work under this Subcontract.

4.3 Traffic Management

Traffic Management Plan will be drafted by SUBCONTRACTOR and submitted to CONTRACTOR. CONTRACTOR will gather approvals of local authorities.

4.4. Bridge Substructure

SUBCONTRACTOR shall construct Bridge Substructure in accordance with its Implementation Design defined in Engineering section of this Exhibit "D". Bridge Substructure consists of Piling, Foundation, Elevation and Abutment works. The scopes of each of these works are illustrated further below.

4.4.1 Piles

Piles means performance of all required activities to build all piles of Bridge including but not limited to drilling of the shaft for in situ pile, provision of bentonite slurry or in situations of extremely poor ground conditions casing the shaft, the provision and placement of reinforcing

cage, concreting using tremie pipe, curing as per the design, breaking of pile heads, construction of pile cap if any and, removal of all waste materials.

4.4.2 Foundation

Foundation means performance of all required activities to build all foundation of Bridge including but not limited to provision and casting of lean concrete, provision and installation / placement of formwork, accessories and all required supports, reinforcing steel, concrete and curing as required on the location of work, as specified by the design and specifications.

4.4.3 Elevation

Elevation means performance of all required activities to build all elevations of Bridge including but not limited to provision and installation / placement of formwork, accessories and all required supports, reinforcing steel, concrete and curing as required on the location of work, as specified by the design and specifications.

4.4.4 Abutment

Abutment means performance of all required activities to build all abutments of Bridge including but not limited to provision and installation / placement of formwork, accessories and all required supports, reinforcing steel, concrete and curing as required on the location of work, as specified by the design and specifications.

4.5 Bridge Superstructure

SUBCONTRACTOR shall construct Bridge Superstructure in accordance with its Implementation Design defined in Engineering section of this Exhibit "D". Bridge Superstructure consists of Deck works which is illustrated further below.

4.5.1 Deck

Deck means performance of all required activities to build the decks of Bridge including but not limited to provision and installation / placement of reinforcing steel, cables, ducts, concrete and curing as required, installation of drainage elements such as gullies, pipe hangers and pipes, grouting and post-tensioning of installed cables, launching the casted deck segment including all necessary platforms, catwalks and stair towers required for access and egress to top of piers. All necessary restrainers to control the deflections due to lateral loads caused by launching to be mitigated by necessary precautions (etc. cables fixing top of pier to nearest foundation), provision and installation of permanent bearings and expansion joints.

4.6 Temporary Facilities

SUBCONTRACTOR shall construct Temporary Facilities in accordance with its Implementation Design defined in Engineering section of this Exhibit "D". Temporary Facilities Scope also includes without limitation setup of precast yard, provision of all required equipment such as launching nose, temporary bearings, jacks, formwork, scaffolding, working platforms and post tensioning equipment, and other utilities and facilities to execute Bridge Substructure and Bridge Superstructure Work.

SUBCONTRACTOR shall submit a temporary facilities plan delineating all temporary utilities and facilities and utilities to be installed by the SUBCONTRACTOR to CONTRACTOR for review and approval. SUBCONTRACTOR shall submit plan(s) to CONTRACTOR not less than thirty (30) calendar days or as directed by CONTRACTOR before the installation starts. CONTRACTOR will return comments or approval within fifteen (15) calendar days.

SUBCONTRACTOR shall maintain an up-to-date set of as-built drawings showing the installed location of all SUBCONTRACTOR-provided temporary services. SUBCONTRACTOR shall provide updates of the drawings to CONTRACTOR within seven (7) calendar days of any changes to temporary utility installation. The drawings shall identify

and show the location of surface services and buried services, including the following (if applicable):

a. Underground electrical cables

b. Underground piping

c. Aboveground communication and electrical cables;

d. Compressed air storage and reticulation;

e. Emergency access or roads;

f. Gas storage and reticulation;

g. Sewerage facilities;

4.7 Testing

Notwithstanding anything to the contrary in this Subcontract, the division of responsibility between CONTRACTOR and SUBCONTRACTOR for performing tests required for the Work is outlined in the following table.

Test Type	Performed by
Pile Driving Analyzer Test	CONTRACTOR
Pile Integrity Test	CONTRACTOR
Concrete Test	CONTRACTOR
Cement & Grouting Test	CONTRACTOR
Roughness of Deck Slab Surface Test	CONTRACTOR
Evenness Of Deck Slab Surface Tests	CONTRACTOR
Creep & Shrinkage Test	SUBCONTRACTOR
Soil Test (if required)	CONTRACTOR
Rebar Test	CONTRACTOR
Welding Test	SUBCONTRACTOR
Strand Test	SUBCONTRACTOR
Membrane (Pull up) Test	CONTRACTOR
Bridge Load Test	SUBCONTRACTOR

4.8 Construction Works not included in SUBCONTRACTOR's scope:

Following works are not included in SUBCONTRACTOR's scope of work under this Subcontract:

- Structural excavation
- Slope protection
- Abutment and foundations backfill
- Paving works
- Safety barriers
- Handrails
- Road markings
- Traffic signalization
- Lighting and associated cabling
- Telecommunication pipes
- Communication ducts
- Waterproofing of Abutment, Foundations and Deck

5.0 SUBCONTRACTOR'S SUBMITTAL REQUIREMENTS

SUBCONTRACTOR shall submit the submittals including without limitation to the following, and have CONTRACTOR's approvals as a prerequisite to the below specified events under the Subcontract.

Plans and Commercial Submittals:

No.	Submittal Requirement	Subcontract Clause	Submittal timeframe	Prerequisite for
1	Advance Payment Bond	SC-13 titled "PERFORMANCE AND PAYMENT SECURITIES"	Within ten (10) calendar days after Subcontract Award	Advance Payment
2	Performance Bond	SC-13 titled "PERFORMANCE AND PAYMENT SECURITIES"	Within twenty (20) calendar days after Subcontract Award	Mobilization and payment of first invoice
3	Certificates of Insurances	SC-2 titled "INSURENCES"	Within twenty (20) calendar days after the Effective Date	Mobilization and payment of first invoice
4	Subcontract Schedule	SC-9 titled "SUBCONTRACT SCHEDULE"	Within thirty (30) calendar days after Subcontract award	Mobilization and payment of first invoice
5	Safety & Health Plan	SC-11 titled "SAFETY AND HEALTH REQUIREMENT"	Within thirty (30) calendar days after Subcontract award	Mobilization and payment of first invoice
6	Quality Assurance and Quality Control Plan	SC-16 titled "Quality Assurance Program	Within thirty (30) calendar days after Subcontract award	Mobilization and payment of first invoice
7	Environmental Compliances Plan	GC -12 titled "ENVIRONMENTAL REQUIREMENTS"	Within thirty (30) calendar days after Subcontract award	Mobilization and payment of first invoice
8	Security Plan	GC-11 titled "SECURITY REQUIREMENTS"	Within thirty (30) calendar days after Subcontract award	Mobilization

Quality Control and Construction and Handover Related Submittals:

No	Submittal Requirement	Submission Related to:	Required for:	Submittal timeframe	CONTRACTOR approval is prerequisite for:
1	Calculations	Design	All Design Deliverables	Along with the each Design Deliverable	Construction
2	IFC Drawings		Implementation Design	Along with the Implementation Design submissions	Construction
3	Material Approval Request	Procurement	All material procured by SUBCONTRACTOR	Twenty one (21) calendar days prior to procurement of materials	Procurement of the material
4	Test Reports		All materials provided by SUBCONTRACTOR	Along with the Material Approval Request	Procurement of the material
5	Product Certificate		All materials provided by SUBCONTRACTOR	Along with the Material Approval Request	Procurement of the material

6	Conformity Certificate		All materials provided by SUBCONTRACTOR	Along with the Material Approval Request	Procurement of the material
7	Product Data Sheets		Prefabricated Materials provided by SUBCONTRACTOR	Along with the Material Approval Request	Procurement of the material
8	Samples	Construction	All materials provided by SUBCONTRACTOR	As per applicable ITP	Installation of the material
9	Conformity Certificate		All materials provided by SUBCONTRACTOR	Along with the delivery of the material	Installation of the material
10	Test Reports		All materials provided and / or Works performed by SUBCONTRACTOR	Weekly or on an as required basis as per CONTRACTOR's Quality Control Plan	Installation of the material
11	Method Statements		Bridge Superstructure Works	Twenty one (21) calendar days prior to construction of Bridge Superstructure	Commencement of Bridge Superstructure construction
12	Job Hazard Analysis		Bridge Superstructure Works	Twenty one (21) calendar days prior to construction of Bridge Superstructure	Commencement of Bridge Superstructure construction
13	Lifting Plans		All lifting operation associated with the Subcontract	Ten (10) calendar days in advance of the lifting operation	Associated lifting operation
14	As-built survey report		All Works as applicable	As per applicable ITP	Subsequent Work activity
15	Pre / Post concreting QA / QC Checklist		All concrete works	As per applicable ITP	Each concrete works activity
16	Stream Curing Report		Bridge Superstructure Works (where applicable)	After completion of curing	Subsequent Work activity
17	Daily site diaries		All Works	After the end of shift	Certificate of Final Acceptance of the Work
18	Closed Punch List Items	Handover	All Works as applicable	After completion Works	Certificate of Final Acceptance of the Work

19	Closed NCRs		All Works as applicable	After completion Works	Certificate of Final Acceptance of the Work
20	Completed Checklists		All Works as applicable	After completion Works	Certificate of Final Acceptance of the Work
21	Test results and reports for all SUBCONTRACTOR provided tests		All Works as applicable	After completion Works	Certificate of Final Acceptance of the Work
22	Survey Reports		All Works as applicable	After completion Works	Certificate of Final Acceptance of the Work
23	Final As-built drawings		All Works as applicable	After completion Works	Certificate of Final Acceptance of the Work
24	Operation & Maintenance Manual		All Works as applicable	After completion Works	Certificate of Final Acceptance of the Work

Schedule 2

Design Deliverable Review Process

Design Deliverable Review Process

Each of the following Design Deliverable shall be prepared and submitted to CONTRACTOR in compliance with the Design Deliverable Content Matrix provided in Schedule 15.

(1) Initial Design of Bridge
(2) Final Substructure Design of Bridge
(3) Final Superstructure Design of Bridge
(4) Implementation Design of Bridge

Submissions of all Design Deliverables will be subject to Design Deliverable Review Process set out in this exhibit and all other Subcontract Documents.

The Design Deliverable Review Process shall consist of two (2) stages of review, i.e. review by CONTRACTOR and review by Employer's Representative. These review stages are defined in this Schedule as Document Review stage and Design Review stage respectively.

Design Deliverable Review Process is deemed completed when both Document Review stage and Design Review stage is completed, and when confirmed so by CONTRACTOR in writing.

SUBCONTRACTOR shall submit its Design Deliverables well in advance and support CONTRACTOR in the Design Deliverable Review Process as required to allow Design Deliverable Review Process is completed before the Milestone Dates set out in Exhibit "B", considering the review process cycle times set out in this Schedule.

Document Review Process

Unless otherwise specified, all Design Deliverables consisting of documents, drawings, technical specifications, etc. shall be submitted for review to CONTRACTOR. They shall be issued directly to CONTRACTOR's Document Control Centre (DCC) for onward transmission to the reviewing parties. The review will consider Subcontract compliance, the technical compatibilities, graphical representation, cost, constructability and the overall design package compatibility with the scope of Work.

The collated review comments will be transmitted to the SUBCONTRACTOR by means of a Document Review Comment Sheet (DRCS) and or marked up copy of the submitted document. The DRCS and or marked up document/drawing will indicate the document/drawing number and revision number and the review code.

The review code of the document/drawing will be one of the following:

Code A Comment is accepted and incorporated

Code B Comment is Open/under review

Code C Comment has been evaluated but not incorporated

Where the review code is Code C, SUBCONTRACTOR shall revise the document/drawing and resubmit it within ten (10) working days or other period as agreed with CONTRACTOR. Where the review code is Code B SUBCONTRACTOR's relevant engineer shall discuss the comment with CONTRACTOR and obtain resolution. If necessary, SUBCONTRACTOR shall revise the document/drawing and resubmit it within ten (10) working days or other period as agreed with CONTRACTOR. DRCS sheets relating to drawings shall be completed by SUBCONTRACTOR and returned to CONTRACTOR with the revised drawings.

This process shall proceed until Code A is obtained and all review comments have been incorporated and final revised drawings issued to CONTRACTOR.

When a drawing is revised any changes from the previous revision shall be clouded and marked with the drawing revision.

Upon receipt of the reviewed document, SUBCONTRACTOR shall advise CONTRACTOR within two (2) working days if any comments cannot be addressed with the reason/s and supporting documents.

If SUBCONTRACTOR considers that any comment is a design scope change then this must be communicated as such for further action by CONTRACTOR. Any other comments must be addressed in a timely manner and will not be considered as a change in scope.

SUBCONTRACTOR shall retain copies of the reviewed documents until code A is attained.

Design Review Process

Following the Document Review Process and achieving a Code A, Design Deliverables will be submitted by CONTRACTOR to Employer's Representative by transmittal for its review and acceptance.

Employer's Representative has twenty one (21) days review period for submitted Design Deliverables in accordance with the Prime Contract. Any missing documentation in a design package will cause delay to the review process. CONTRACTOR will lead the design submission process whilst the SUBCONTRACTOR is responsible for providing the required information and documentation for the complete design package by the agreed submission dates.

Employer's Representative provides design review comments in written form and these will be reviewed by CONTRACTOR. These comments shall be transferred by CONTRACTOR to SUBCONTRACTOR with direction as to how to proceed. The SUBCONTRACTOR shall review and respond as necessary in ten (10) working days or other period as agreed to CONTRACTOR.

SUBCONTRACTOR shall provide explanation or justification to any aspect of the design as necessary. The SUBCONTRACTOR shall make all documentation, including drawings, reports, GDBR's GDN's and calculations associated with designs available for examination by CONTRACTOR and Employer's Representative.

If required, SUBCONTRACTOR shall attend design review meetings to present design documentation to CONTRACTOR and Employer's Representative. CONTRACTOR will chair these design meetings.

Design Deliverables submitted by the SUBCONTRACTOR shall not be considered approved until the end of the Design Deliverable Review Process for which CONTRACTOR's written confirmation is required. For the avoidance of doubt, both CONTRACTOR and Employer's Representative shall review and accept Design Deliverable submissions of SUBCONTRACTOR so that Design Deliverables are deemed approved in accordance with the Subcontract.

Submittals and Review Procedures between CONTRACTOR and SUBCONTRACTOR

A. General

1. Review of SUBCONTRACTOR's drawings or documents by CONTRACTOR shall not relieve the SUBCONTRACTOR of any of its obligations to meet all the requirements of the Subcontract nor relieve the SUBCONTRACTOR of the responsibility for the correctness of such drawings and documents. The SUBCONTRACTOR shall, at his expense, make any changes that are necessary to make the work conform to the provisions and intent of the Subcontract.
2. CONTRACTOR shall be allowed full access to the SUBCONTRACTOR's office and those of its Sub-tier(s), for the review of all drawings and documents prepared by the SUBCONTRACTOR.
3. SUBCONTRACTOR shall upload all numbered drawings, specifications, calculations, documents and data requiring review by CONTRACTOR and the final submittals to the document transfer box. Web address and access details will be provided by CONTRACTOR.
4. The sequence of submittals for all drawings, specifications, studies or reports

shall be such that, when received, all required information is available for review. A transmittal letter in an acceptable format shall accompany each submittal.

5. Drawings and documents relating to final submittals shall be assembled in hard copy. Drawings shall be securely bound in sets with cover sheets indicating the Subcontract package, number and description.

B. Review of Drawings and Documents

1. Initial Design Stage

Initial Design deliverable shall demonstrate that the SUBCONTRACTOR has specific and viable resolutions for all major elements of the design, including road alignment, functional requirements, basic materials, structural, mechanical and electrical systems, required procurement activities and cost of installation cost. The package will consist of these main elements:

a. A Design Basis Report for each major system or component;

b. A Design Manual containing the relevant criteria required for the design;

c. All Basic Engineering Design Data (BEDD) obtained by the SUBCONTRACTOR and not previously submitted;

d. Validation of all BEDD provided by the CONTRACTOR

e. Conceptual and preliminary calculations to support the design

f. Preliminary drawings including schematics, system designs, arrangements and layouts;

g. Preliminary quantity in agreed format.

h. Evidence (correspondence) of submittal of the relevant parts of the design package to 3rd party Project stakeholders for technical concurrence with the design, if required

i. Report on the applicability of Guideline Specifications and identification of additional requirements, including 3rd party requirements;

j. Request for deviation from provisions of the Guideline Specifications (if any);

k. Preliminary studies as required;

l. Preliminary Risk / Constructability Assessments;

m. Preliminary Environmental, Safety and Health Reports including sustainable development;

n. Preliminary RFP documentation;

o. Documentation, signed and dated, that all work has been checked, reviewed, and approved by responsible persons.

2. Final Substructure and Superstructure Design Stages

The Final Package Review is required for all design projects. The package will consist of:

a. An updated Design Basis Report for each major system or component;

b. Updates to the project Environmental, Health and Safety Plan;

c. Detailed calculations to support the design;

d. Detailed drawings including arrangements, sectional details, and reinforcements;

e. Detailed quantity and cost estimates in the format of FOP Section 2 Schedule of Prices and Quantities;

f. Evidence of approval of the design package by 3rd party stakeholders including stamped drawings and permits. Failure to obtain 3rd party approvals must be addressed in the risk assessment;

g. Updated Risk/Constructability Assessment;

h. Updated Environmental, Safety and Health Reports including sustainable development;

i. All technical specifications to be included in the RFP package;

j. All RFP documentation.

k. Documentation, signed and dated, that all work has been checked, reviewed, and approved by responsible persons.

3. Issued for Construction (Implementation) Design

The IFC package must contain signed and approved drawings from all 3rd party stakeholders. Failure to obtain full 3rd party approval must be addressed in the updated risk assessment.

The IFC package must be accompanied by documentation, signed and dated, that all work has been checked, reviewed, and approved by responsible persons. All signed and dated documents shall be provided in both English and Albanian language.

Submittals and Review Procedures between Employer's Presentative and CONTRACTOR (Supported by SUBCONTRACTOR)

A. General

1. Following Document Review Process completion between CONTRACTOR and SUBCONTRACTOR, CONTRACTOR will submit design deliverables to EMPLOYER by transmittal for its design review. SUBCONTRACTOR may request a copy of the design deliverable submission and transmittal.

2. Within twenty one (21) days, EMPLOYER should review the submitted design documentation and respond to CONTRACTOR in written format. Any late response from EMPLOYER shall not relieve the SUBCONTRACTOR of any obligations to meet all the requirements of the Subcontract.

3. The SUBCONTRACTOR shall respond to design review comments of Employer's Representative via CONTRACTOR within ten (10) working days. If there is any design scope change as a result of request by Employer's Representative, CONTRACTOR shall be immediately informed.

4. SUBCONTRACOTOR shall prepare and provide to CONTRACTOR any supplementary documents necessary to confirm that the Design Deliverable submissions is in accordance with agreed design standards and Applicable Laws

5. Design Deliverable Review Process shall be deemed completed following written confirmation by CONTRACTOR.

Design Change Process

The SUBCONTRACTOR shall support CONTRACTOR's design change processes:

Requests for Information (RFI) – The SUBCONTRACTOR shall respond to RFIs from CONTRACTORs engineering and construction teams.

Field Change Notices (FCN) – The SUBCONTRACTOR shall review and respond to field change notices from CONTRACTORs engineering or construction teams.

Design Change Notices (DCN) – Where required the SUBCONTRACTOR shall prepare DCNs to capture changes to IFC designs. These may be initiated from either RFIs or FCNs.

The SUBCONTRACTOR shall not deviate from any implementation design during the construction of the works unless the change has been accepted by CONTRACTOR through a Field Change Request (FCR) or a Design Change Notice (DCN).

Schedule 3

Design Standards

Schedule 3 - Design Standards

SPECIFICATION

The Specification in each section of , designs, drawings and detailed descriptions of the Permanent Works is necessary to construct the Motorway along the Alignment in accordance with the Design and the Technical Standards, including without limitation, the calculations, samples, patterns, models, and other information of a similar nature which is essential for CONTRACTOR and EMPLOYER to obtain the Construction Permit, and for the construction of the Works, including the details of all tests to be performed during the Works by CONTRACTOR.

SUBCONTRACTOR is required to review the information given in this schedule 3 and identify any discrepancies with the specified standards for the project. Drawing list shown in this schedule shall not be considered as the full list of deliverables, SUBCONTRACTOR shall provide all drawings and construction details necessary to construct the project as required by CONTRACTOR.

1.1 Design Standards

The requirements of the "TEM Standards and Recommended Practice", Third Edition, February 2002, as specified in clauses 1.2.1 to 1.2.9 below, shall be respected and be supplemented by Croatian National Standards as of the Base Date. If there is a contradiction between the TEMs requirement as specified in clauses 1.2.1 to 1.2.9 below and Croatian National Standards, then such TEMs requirements will prevail unless otherwise agreed by the Parties. In respect of all other design requirements not specified in clauses 1.2.1 to 1.2.9 below, Croatian National Standards as of the Base Date shall apply. Furthermore, Route 7 practice will be used for the application of the above standards in Kosovo.

Bridge design should be undertaken using the following Eurocodes:

- Eurocode 1: Basis of design and actions on structures;
- Eurocode 2: Design of concrete structures; and
- Eurocode 8: Design provisions for earthquake resistance of structures.

Geotechnical design should be undertaken using Eurocode 7, Geotechnical Design.

1.2.1 Design Speed Definition – Horizontal and Vertical Alignment

1.2.1.1 The design speed is the speed which determines the layout of a new road, both in plan and in cross section, being the maximum safe speed for which the road is designed.

1.2.1.2 Possible design and construction in successive stages will have no influence upon the selection of the final design speed, but may influence the determination of the most restrictive geometric characteristics adopted in the first stage.

1.2.1.3 The motorway should have similar geometric characteristics over sufficiently long sections.

1.2.1.4 Possible variations in the geometric characteristics should occur only at points acceptable to the user (for example, in passing from urban to extra-urban zones, or where the morphology of the terrain crossed undergoes change).

1.2.1.5 If this is not possible, the variation in the geometric characteristics should occur gradually.

1.2.1.6 Horizontal and vertical alignment should be such that the user notices no unjustified breaks in continuity, and is given timely warning of the critical points along the

route, especially in the vicinity of interchanges, so that he can execute the necessary maneuvers.

1.2.1.7 In order to achieve a smooth alignment, it is suggested to observe the following recommendations:

a) avoid the use of very long straights;

b) try to maintain conformity, where possible, between the horizontal and vertical alignments;

c) insert, between two horizontal circular curves, connecting curves of variable radius (transition curves).

1.2.2 Design Speed

1.2.2.1 In general, the design speed along the whole length of the TEM is 120 km/h.

1.2.2.2 It is, however, possible to adopt a lower design speed on particular sections with difficult topography. Design speeds of 100 km/h or even 80 km/h will thus be acceptable where justified by economic and technical considerations.

Note:

- Design Speed Limit for Section C1 & C2 will be 120km/h
- Design Speed Limit for M2 Connector Road & Section C3 will be 80km/h.

1.2.2.3 Where environmental features permit, it is also possible to adopt a design speed of 140 km/h.

1.2.3 Design Speed at Interchanges and Tunnels

1.1.3.1 No reduction at all in the design speed of the motorway should be allowed at interchanges and tunnels.

1.1.3.2 Only in cases where this might be justifiable by technical and economic reasons, will it be possible to adopt lower design speed within tunnels. A reduction of no more than 25% would be accepted, and in no case may the speed drop below 80 km/h.

1.2.4 Horizontal Curves

1.2.4.1 The Minimum radii horizontal curves for each design speed are shown in Table 1a.

1.2.4.2 Table 1a gives minimum radii 7% crossfall (see paragraph 2.1.8) related to design speed.

Table 1a

Design Speed (km/h):	140	120	100	80
Minimum Horizontal Radii (m):	1000	650	450	240

1.2.5 Transition Curves

1.2.5.1 For the length (L) of the transition curves on the motorway proper, the greater of the values obtained with the following criteria should be adopted:

a)
$$L \geq \frac{v^3}{RC}\left(1 - \frac{Rg\delta}{v^2}\right)$$

where:
v = design speed (m/sec)

g = acceleration of gravity (m/sec²)

R = radius of the curve to be connected (m)

δ = superelevation (1)

C = variation of the centrifugal acceleration in time units, no greater than 0.5 m/sec³

(1) "Superelevation" is the transverse inclination given to the cross section of a carriageway throughout the length of a horizontal curve to reduce the effects of centrifugal force on a moving vehicle.

b)
$$L \geq \frac{\Delta h}{0.005}$$
where Δ h = the difference in elevation of edges 0.005 compared to axis (m).

1.2.5.2 This means that the average value of the relative gradient of the edges of the carriageway with respect to the axis of the motorway ought not to exceed 0.5%. Moreover, the rotation zone should be dimensioned so as to minimize the possibility of aquaplaning phenomena.

1.2.6 Vertical Curves

1.2.6.1 The minimum radii of convex vertical curves are given in the following table for each design speed:

Table 1b

Design Speed (km/h):		140	120	100	80
Minimum Radii for Convex Vertical Curves (m):	2 -Way Carriageway:	-	-	10,000	4,500
	1 -Way Carriageway:	27,000	12,000	6,000	3,000

1.2.6.2 The figures regarding the concave curves should be calculated for each design speed in such a way as to entail a vertical acceleration of no more than 0,25 m/sec².

1.2.6.3 The values referring to the two-way carriageway have to be used in those cases where the motorway in the first stage consists only of a single two-way carriageway.

1.2.7 Gradients

1.2.7.1 Table 1c gives for each design speed the maximum gradients necessary to ensure that passenger vehicles maintain the related design speed:

Table 1c

Design Speed (km/h)	140	120	100	80
Maximum Gradient	3%	4%	5%	6%

1.2.7.2 The length of the section with gradient higher than 3% should be limited in proportion to the gradient value.

1.2.7.3 For drainage reasons, the gradient should never be less than 0,3%.

1.2.8 Crossfall

1.2.8.1 Normal crossfall must be sufficient to facilitate the disposal of rainwater and not be less than 2%.

1.2.8.2 Normal crossfalls should be maintained on curves with radii greater than or equal to those shown in the following table:

Table 1d

Design Speed (km/h)	140	120	100	80
Radius (m)	4,500	3,500	2,500	2,000

1.2.8.3 On curves having radii less than the figures shown in the above table, crossfall should be determined in accordance with the design speed and the transversal friction coefficient, up to a maximum value of 7% corresponding to the minimum radius.

1.2.9 Sight Distance

1.2.9.1 A sight distance at least equivalent to the stopping distance has to be maintained along the whole length of the motorway.

1.2.9.2 In calculating the sight distance, account must be taken of the gradient of the motorway.

1.2.9.3 On curves, the stopping distance should be increased by 25% in the case of radii of a value of less than 5 V meters, where V is the design speed expressed in km/h.

1.2.9.4 Minimum stopping distances for level and straight conditions are given in the following table:

Table 1e

Design Speed (km/h)	140	120	100	80
Stopping Distance (m)	325	200	150	100

1.2.9.5 In case of construction by successive stages (i.e., an initial single two-way carriageway), the minimum sight distances necessary for overtaking are given in the following table for each design speed:

Table 1f

Design Speed (km/h)	140	120	100	80
Absolute Minimum Sight Distance for Overtaking (m)	-	-	400	325
Desirable Minimum Sight Distance for Overtaking (m)	-	-	600	475

1.2.9.6 These distances should be guaranteed along the route of the motorway in high percentages and distributed uniformly.

1.2.9.7 On portions of the route where these distances are not guaranteed, road markings and signs banning overtaking must be posted.

The width of the shoulders should be equal to at least 3.00 m, of which 2.50 m is paved, so as to permit emergency stops. In cases where it is impossible to provide an emergency lane, but only lay-bys, the width of the shoulder should be no less than 0.50 m. An edge marking – guideline – 0.25 m in width should be provided between the shoulder and the carriageway (RP). On the outside of the shoulder there should also be provided a verge of 0.50 m in width, where a safety fence shall be installed if required.

2.0 Technical Standards

The General Technical Requirements for Roads dated 2001 (in six volumes) as issued by the Croatian Roads Authority, which are the same as the Technical Standards as the Morinë to Pristina North Interchange Motorway.

3.0 Other Design Related Standards and Regulations

Alignment Design:

For main road where listed design standards in section 1.0 above are not sufficient, Regulation on the main requirements which the public roads outside settlements, and their elements, must fulfill with regard to traffic safety , OG 110/01 (Pravilnik o osnovnim uvjetima kojima javne ceste izvan naselja i njihovi elementi moraju udovoljavati sa stajališta sigurnosti prometa) and practice from Route 7 shall be followed.

Hydrology Report:

1. Allowable headwater level

a. The structure (or a combination of structures) must be able to discharge the flood quantity with an upstream water level or headwater level that will not pose a risk of flooding the motorway. Considering 100-year flood flows for all structures, there should be a freeboard of at least 1 m between the headwater level and the highway elevation.

b. The structure (or a combination of structures) must be able to discharge the flood quantity with an upstream water level or headwater level compatible with the setting of the project and the preservation of private property. If a specific allowable headwater level for a specific return flow is required by the Employer, it shall be ensured in the design.

2. Ratio of the headwater depth to the structure height

This ratio should not exceed 1.2 for the flow under consideration, which should ensure that the inlet will not be submerged. For pipe and multiple pipe culverts this is required for the 25-year return period, and for box or multiple box culverts this is required for the 100-year return period.

3. Hydraulic performance and freeboard within the culvert

Culverts are generally to be designed for free surface flow conditions with a sufficient freeboard within the culvert to be able to pass large floating debris.

Based on, for example, British Highways Agency Design Manual for Roads and Bridges the following minimum freeboard requirements are adopted:

a. For pipe and multiple pipe culverts, the freeboard within the culvert should be at least 30 cm for the 25-year return period.

b. For box and multiple box culverts, the freeboard within the culvert should be at least 60 cm for the 100-year return period.

4. Debris control

The width of a box culvert or the widths of individual barrels of a multiple box culvert should be determined considering the effects of potential debris accumulation on this culvert performance. Based on the relevant literature (Federal Highway Administration: Debris Control Structures, Evaluation and Countermeasures, Third Edition, Hydraulic Engineering Circular No. 9, Publication No. FHWA-IF-04-016, October 2005) (from hydraulic letter-110) it is recommended to select the width of the barrel equal or greater than the length of the „design log", which is defined by FHWA as the width of the channel at the narrowest section upstream of the site. This barrel width should be sufficient to pass even the largest debris that could reach the site.

5. Scour control

Since a culvert generally constricts the available channel area, flow velocities in the culvert may be higher than in the downstream channel. These increased velocities can cause streambed scour and bank erosion in the vicinity of the culvert outlet. Energy dissipators and outlet protection will be included as needed to avoid excessive scour at the culvert outlet. The scour control and outlet protection devices will be designed at the Detailed Design Level.

At the Preliminary Design Level, all structures shall be designed such that the outlet flow velocity does not exceed 5 m/s in order to avoid complex and costly outlet control schemes in Detailed Design and construction.

6. Internal drainage

Criteria for designing internal drainage is connected to the precipitation return period P=10yrs and to the time of concentration tc=10-15 min.

a. Standard ATV – A 118E – Hydraulic dimensioning and Vertification of Drainage Systems, November 1999, Germany

b. Živko Vuković, M. Eng. Ph. D.: Basic of Hydraulic Engineering, The first part, The second book; Akvamarine, 1995. (University of Zagreb textbooks, University of Josip Juraj Strossmayer in Osijek textbooks)

c. JUS U.C4.020 – Design And Construction of Roads – Intensity of Rainfall, 1982

d. U.S. Department of Transportation, Federal Highway Administration, Hydraulic Design Series No. 4, Introduction to Highway Hydraulics, Publication FHWA-NHI-08-090, June 2008 (from hydraulic letter-110)

e. MDOT Drainage Manual, Michigan Department of Transportation

f. R.H. McCuen: Hydrolgic Analisys and Design, R.H. McCuen, second edition, 1998, New Jersey

g. URBAN DRAINAGE DESIGN MANUAL, U.S. Department of Transportation, Federal Highway Administration, Hydraulic Engineering Circular No. 22, Second Edition, National Highway Institut

7. External drainage

Criteria for designing external drainage is connected to the precipitation return period P=10 yrs and the time of concentration is calculated by Federal Aviation Agency equation.

a. Federal Aviation Agency equation is taken from the book: R.H. McCuen: Hydrolgic Analisys and Design, R.H. McCuen, second edition, 1998, New Jersey

b. MDOT Drainage Manual, Michigan Department of Transportation

c. JUS U.C4.020 – Design And Construction of Roads – Intensity of Rainfall, 1982

d. U.S. Department of Transportation, Federal Highway Administration, Hydraulic Design Series No. 4, Introduction to Highway Hydraulics, Publication FHWA-NHI-08-090, June 2008 (chapter 2.5.3 – overland flow 130 m) (from hydraulic letter-110)

8. Sedimentation basin

a. URBAN DRAINAGE DESIGN MANUAL, U.S. Department of Transportation, Federal Highway Administration, Hydraulic Engineering Circular No. 22, Second Edition, National Highway Institut

b. Golder Associates Report „Recommended Environmental Design Principles" 6 August, 2010

Traffic Signs and Road Markings and Traffic Safety

Traffic signs, road surface markings and road safety equipment are designed according to the Ordinance on Traffic Signs, Traffic Equipment and Road Signalization (Official Gazette of the Republic of Croatia "Narodne novine" No. 33/05, Amendment in "Narodne novine" No. 64/05, Amendment in "Narodne novine" No. 155/05, 14/11) (Pravilnik o prometnim znakovima, opremi i signalizaciji na cestama (N.N.br. 33/05; Ispravak N.N.br. 64/05; izmjene i dopune N.N.br. 155/05; izmjene i dopune N.N.14/11))

Pavement markings are designed according EN 1436:2009, EN 1463-1:2009, EN 1463-2:2001, EN 1423:2012, EN 1424:2004 and the Ordinance on Traffic Signs, Traffic Equipment and Road Signalization (Official Gazette of the Republic of Croatia „Narodne novine" No. 33/2005)

Structure Design

EN 206:2013 Concrete specification, performance, production and conformity

EN 10080:2005 Steel for reinforcement of concrete – Weldable reinforcing steel – General

EN 10138:1:2005 to EN 10138:4:2005 –Prestressing steel

Structural bearings EN 1337-1:2000, EN 1337-2:2004, EN 1337-3:2005, EN 1337-4:2004, EN 1337-5:2005, EN 1337-6:2004, EN 1337-7:2004, EN 1337-8:2007

Eurocodes; EN1990,EN1991,EN1992,EN1993,EN1997,EN1998

EN 40-3-3: Lighting columns – Design and verification – Verification by calculation

ISO 12494 – Atmospheric icing of structures

EN 10025 – Hot rolled products of structural steels

EN 10210 - Hot finished structural hollow sections of non-alloy and fine grain steels

EN 10219 - Cold formed welded structural hollow sections of non-alloy and fine grain steels

Regulation of temporary technical regulations for construction in seismic areas ("Pravilnik o privremenim tehničkim propisima za građenje u seizmičkim područjima"), declared in Službeni list SFRJ 39/64.;

Amendment of Regulation of temporary technical regulations for construction in seismic areas („Pravilnik o izmjenama i dopunama Pravilnika o tehničkim normativima za izgradnju objekata visokogradnje u seizmičkim područjima"), declared in Službeni list SFRJ 52/90

nHRN ENV 1998-1-1:2004

Lighting Design

CIE No 115/95

CEN/TR 13201-1

EN 13201-2

The above parameters will be used as guidance; SUBCONTRACTOR may propose any equivalent standard and/or regulation to CONTRACTOR's approval.

Schedule 8

Surveying Requirements

FOR GEODETIC SURVEY
REQUIRED FOR DEVELOPMENT OF FINAL DESIGNS

Preliminary investigative work: CONTRACTOR will provide topographical survey with triangulation model, including, trigonometrical data, traverse and leveling network within boundary of the proposed motorway route, this is outside of the SUBCONTRACTOR scope of work. The data will be supplied in digital format compatible with CAD.

The topographical survey will be done by CONTRACTOR, undertaking the procedures below;

1. PREPARING TOPOGRAPHIC MAP 1: 1000 (1:500)

1.1. *Description of the Assignment*

1.1.1. Preliminary investigative work: collecting of data on trigonometrical, traverse and leveling network within the boundary of the proposed motorway route;

1.1.2. Establishment of required number of control points;

1.1.3. Measuring of control points, computation of coordinates and control point levels;

1.1.4. Restitution of horizontal ground data with digital record), in the belt width required for the design;

1.1.5. Restitution of vertical ground data with digital ground model (DGM);

1.1.6. Digital record for layers on magnetic media of CD, upon the request and specification of the design;

2. ESTABLISHING TRAVERSE POINTS AND BENCH LEVELS, STAKING THE CENTRE LINE

2.1. *Description of establishing traverse, staking the centre line and measuring cross-sections*

2.1.1. Preliminary investigative work: obtaining data on survey points network (trigonometrical points).

2.1.2. Design, establishment and measuring of traverse points along the proposed motorway route outside the area likely to be disturbed by construction. Traverse shall be established on one side of road, if possible. Traverse points shall be established according to the Rules on geodetic survey. In survey geodimeters shall be used.

2.1.3. Computing coordinates and levels, making of list of coordinates and position description of traverse points.

2.1.4. Computing of parameters for staking of centre line based on traverse points for all sections provided in design documents.

2.2. *Establishing Bench Levels (Bench Marks)*

2.2.1. Preliminary investigative work: obtaining of data on national bench mark network.

2.2.2. Design, recognition and location of new bench marks along the line of the proposed motorway route and at the location of bridges and grade separated structures, at intervals of approx. 250 m, and at the location of every structure. Steel Bolts 20cm in length shall be set into concrete grade C25 of minimum dimensions 0,50 m x 0,25 m x 0,25 m, in existing concrete base or into any solid objects (building, concrete bridge or similar), protruding 2cm above the concrete surface.

2.2.3. Measuring shall be made by leveling instrument of high accuracy. Computation of bench levels and position descriptions.

2.3. *Centre Line Staking Report*

Centre line staking report shall be comprised of the following:

- engineering report,
- list of coordinates and levels of traverse,
- list of bench mark levels,
- position description of traverse points and bench marks
- basic engineering parameters of the centre line including data on main points,
- parameters of centre line staking,
- list of coordinates of centre line points,
- site plan with drawn centre line, traverse points and bench marks.

Upon completion of the staking the surveyor shall furnish the following:

- two Electronic copy on CD of staking report,
- a recorded handover in the field of the data on the following:
  - horizontal control points (traverse),
  - vertical control points (bench levels),
  - staked points in the centre line.

The recorded handover shall be carried out for the purposes of further processing and designs.

3. ESTABLISHING SURVEY BASE POINTS FOR STAKING OF BRIDGES AND VIADUCTS

3.1. *Description of the Assignment*

For most objects (bridges, viaducts) along with establishment of traverse it shall be required to prepare survey base (microtriangulation, microtrilateration, GPS and other) depending on the size of the structure and technical regulation, which shall serve as a base for staking of typical points (for bridges: abutments and piers) and for monitoring of construction of the structure.

3.2. *Staking report for typical points in centre line of structure*

For each bridges, or its survey base, a survey shall be carried out including the following material:

- engineering report on methods of measurements, measuring instruments and achieved accuracy of survey base points,
- the list of coordinates and levels of survey base points,
- the list of bench mark levels,
- position description of base survey points and bench marks,
- basic engineering parameters of the typical points in the centre line of a structure,
- parameters of staking of centre line of a structure,

4. GENERAL REQUIREMENTS

Concerning the Ground Control, bench-marks suitable for controlling elevation will be selected, coordinated and leveled with distances between bench-marks not more than 1000 m. They shall be established in permanent materials.

In relation to setting out of the alignment, where the geometric characteristics of the road are situated, shall be established permanent bench-marks at intervals along the road for Design & Preparation of Works Documents for each Section One through three not exceeding 250 m and shall be established a schedule of their levels.

During topographical survey works, all topographical details and features are to be recorded. These include, but are not limited to, road pavement, hard shoulders, embankment fill, earth cuttings, bridges, cross drainage structures, side drains, open water courses, side slope protection works, irrigation channels and structures, flood protection works, retaining walls, acoustic walls, steel guard rails or concrete new-jersey barriers, trees, buildings, railway, utility services (e.g. electric power poles, telephone poles, water supply mains, sewerage reticulation, storm water drainage, Which are observed on the ground etc.), junctions with roads, footpaths, areas of ground failure and existing borrow pits. In addition all visible indications of property boundaries are to be surveyed (e.g. walls, pre-cast walls, fences, furrows, ditches and field or cultivation boundaries). The type of cultivation and/or use of land is to be recorded as well.

All readings and measurements are to be recorded in Field Books and Level Books (which may be printouts of total-station data recordings) in a form that is easily interpreted by an experienced draughtsman. Where appropriate, sketches are to be included.

Schedule 8 is describing of topographical site survey works, which is written for informative purposes.

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Schedule 15

Design Package Content

SUBCONTRACTOR's submission of Initial Design, Final Substructure Design and Final Superstructure Design shall include without limitation the following:

- Technical Description
- Structural Design Note
- Geotechnical Design Note
- Layout plan
- Longitudinal profile
- Plan view
- Longitudinal section
- Cross section
- Abutments (including foundation reinforcement, wall reinforcement, wing reinforcement and information required for construction drawings)
- Piers (including foundation reinforcement, pier reinforcement, pier cap reinforcement as required for construction drawings)
- Piling arrangement (including pile cap, pile connection details required for construction drawings)
- Beam or girder shapes (including arrangement of beams or girders, reinforcement, pre-stressed ropes, planks reinforcement)
- Deck slab and transition slab reinforcement (details, sections)
- Expansion joints
- Typical details (including guardrail, parapet, noise, barrier, drainage, arrangement of gullies, waterproofing details, communications and utilities ducts etc.)
- Topographical survey mapping
- Temporary works design to support the construction of the bridge
- A bill of quantities
- All other documentation required to perform construction of Bridge

Delivery requirements are further detailed under the following tables.

INITIAL DESIGN SUBMISSION

DOCUMENT SUBDIVISION	DOCUMENT SEQUENCE	DOCUMENT DESCRIPTION	SCALE
F	0401 - 0499	STATIC ANALYSIS	
F	0901 - 0999	GENERAL LAYOUT OR LOCATION PLAN	1:1000
F	1001 - 1099	LONGITUDINAL PROFILES	1:1000
F	1201 - 1299	PLAN VIEWS	1:50
F	1401 - 1499	LONGITUDINAL SECTIONS	1:50
F	1501 - 1599	CROSS SECTIONS	1:50
F	2501 – 2599	REINFORCEMENT OF PILES	1:50
B	0801 - 0899	GEOTECHNICAL REPORTS	
D	0801 - 0899	HYDROLOGICAL REPORTS	

FINAL SUBSTRUCTURE DESIGN SUBMISSION

DOCUMENT SUBDIVISION	DOCUMENT SEQUENCE	DOCUMENT DESCRIPTION	SCALE
F	0401 - 0499	STATIC ANALYSIS	
F	0901 - 0999	GENERAL LAYOUT OR LOCATION PLAN	1:1000
F	1001 - 1099	LONGITUDINAL PROFILES	1:1000
F	1201 - 1299	PLAN VIEWS	1:50
F	1401 - 1499	LONGITUDINAL SECTIONS	1:50
F	1501 - 1599	CROSS SECTIONS	1:50
B	0801 - 0899	GEOTECHNICAL REPORTS	
D	0801 - 0899	HYDROLOGICAL REPORTS	
F	1901 - 1999	ABUTMENTS	1:50
F	2001 - 2099	PIERS	1:50
F	2501 – 2599	REINFORCEMENT OF PILES/FOUNDATIONS	1:50
F	2601 - 2699	REINFORCEMENT OF PIERS	1:50
F	2701 - 2799	REINFORCEMENT OF ABUTMENTS	1:50
F	2701 - 2799	REINFORCEMENT OF ABUTMENTS	1:50
F	4001 - 4099	DRAINAGE	1:50

FINAL SUPERSTRUCTURE DESIGN SUBMISSION

DOCUMENT SUBDIVISION	DOCUMENT SEQUENCE	DOCUMENT DESCRIPTION	SCALE
F	0401 - 0499	STATIC ANALYSIS	
F	0901 - 0999	GENERAL LAYOUT OR LOCATION PLAN	1:1000
F	1001 - 1099	LONGITUDINAL PROFILES	1:1000
F	1201 - 1299	PLAN VIEWS	1:50
F	1401 - 1499	LONGITUDINAL SECTIONS	1:50
F	1501 - 1599	CROSS SECTIONS	1:50
F	2101 - 2199	GIRDERS	1:50
F	2201 - 2299	SLABS	1:50
F	2901 - 2999	REINFORCEMENT OF CROSS GIRDERS	1:50
F	3001 - 3099	REINFORCEMENT OF CONTINUOUS BEAMS	1:50
F	3101 - 3199	REINFORCEMENT OF DECK SLABS	1:50
F	3201 - 3299	REINFORCEMENT OF FASCIA BEAMS AND SIDEWALKS	1:50
F	3401 - 3499	REINFORCEMENT OF TRANSITION SLABS	1:50
F	3701 - 3799	RAILING AND SECURITY FENCES	1:50
F	3901 - 3999	EXPANSION JOINTS	1:50
F	4001 - 4099	DRAINAGE	1:50

Schedule 16

Document Submittal Control

DOCUMENT SUBMITTAL CONTROL

1.0 Document Submittal Schedule

The Design Consultant shall provide Drawing & Document Submittal Schedule, in the form of a log, as per FORM C-1, detailing all envisaged drawing submittals for the duration of the subontract.

The Document Submittal Schedule shall include; contractor abbreviation; road section; road sub-section; volume category; volume number; document numbers; document titles; scheduled, actual and forecast submittal dates.

2.0 Document Volumes

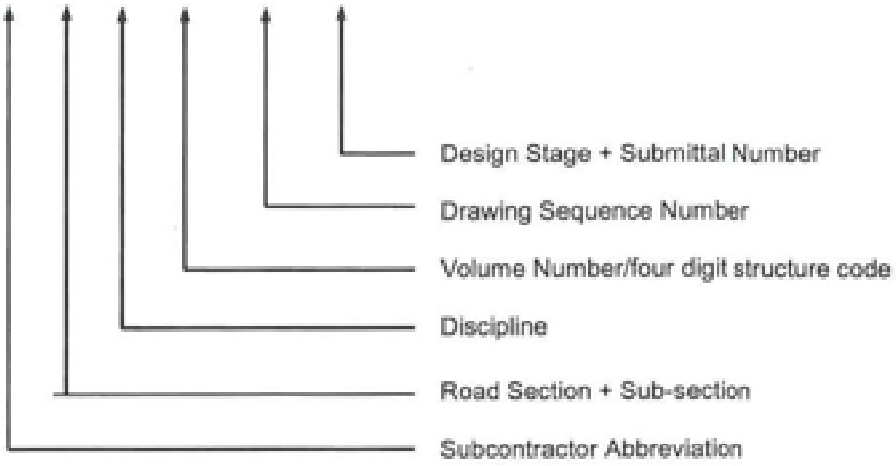
The Design Consultant shall provide to BEGP, as part of the Submittal Schedule, a detailed list of all Volumes, by category, required for each roadway Section and Sub-Section. The Design Consultant shall confirm all Standard Documents and those required in each Volume Category.

3.0 Document Numbering Method

All documents shall be numbered in the following format and method.

Example:
General Layout of Structures for Bridge on km 302+700 in Section C3, Sub-section A , at preliminary design stage and first submission

XX - C3A - F - B028 - 0901 – X0



Subcontractor Abbreviation:

Pre-determined two digit initials for Subcontractor shall be agreed upon prior to document submittal. Standard Drawings that are to be used for all sections shall be coded 00.

Road Section and Road Sub-Section:
Represent the Road Sections and Sub-Sections used in defining the location of the work. The following codes shall be used:

	C3 Chainage		Route 6 Chainage	
	Start	End	Start	End
C3A	300+000	306+550	44+537	51+087
C3B	306+550	314+622	51+087	59+159
C3C/C3D	314+622	315+522	59+159	60+069

Volume Category:
Single letter designating the Volume Category to which the document belongs. The following Volume Category Codes shall be used:

Initial	Discipline Description
A	All Road Works: Alignment, Interchanges, Road Crossings, etc.
B	Soil Mechanics Investigation Works
C	Internal Surface Drainage
D	External Water Course Control
E	Road Furniture, Signs and Road Markings
F	Structures
G	Road Lighting and Power Supply
H	Landscaping
I	LV and HV Lines Reconstruction
J	Noise Protection
K	Telecom Installations and PTT Lines Protection
L	Tunnels
M	Miscellaneous
N	Document applies to whole section

Volume number/four digit structure code:
Volume Number: Sequential number assigned to each Volume within the Volume Category. For each Volume Category in every Road Sub-Section, the Volume Number shall start at 10 and increase by a factor of 10 sequentially. The number shall consist of four (4) digits:

Example: A-0010 1st Volume of Road Main Alignment
A-0020 2nd Volume of Road Main Alignment

The four digit Structure code: will include an initial letter and three numbers covering the km of the structure. Letter codes are as follows;

Structure Code	*Description*
B	Bridge
O	Overpass
R	Retaining Wall (Concrete)
U	Underpass
V	Viaducts, Large Structures

For Structures the Volume Number shall include the Structure code and km position;
Example: F-B095 Bridge at km 9+500
F-O105 Overpass at km 10+500

Document Sequence Number:

Sequential number assigned to each Document within the Volume. The number shall consist of four (4) digits. For each Volume in every Volume Category, the Document Sequence Number shall be assigned according to the following standard groups:

DOCUMENT SEQUENCE	DOCUMENT DESCRIPTION	VOLUME CATEGORY												
		A	B	C	D	E	F	G	H	I	J	K	L	M
0101 - 0199	GENERAL PARTS	X		X	X	X	X	X	X	X	X	X	X	
0201 - 0299	TECHNICAL DESCRIPTIONS	X		X	X	X	X	X		X	X	X	X	
0301 - 0399	BILL OF QUANTITIES	X		X	X	X	X	X	X	X	X	X	X	
0401 - 0499	STATICS ANALYSIS					X	X			X				
0501 - 0599	CALCULATIONS	X		X	X	X	X	X		X	X			
0601 - 0699	TABLES				X						X			
0701 - 0799	COST ESTIMATES				X		X						X	
0801 - 0899	REPORTS		X											X
0901 - 0999	GENERAL LAYOUT OR LOCATION PLAN	X		X	X	X	X	X	X	X	X	X	X	
1001 - 1099	LONGITUDINAL PROFILES	X		X	X	X				X			X	
1101 - 1199	GENERAL DRAWINGS					X								
1201 - 1299	PLAN VIEWS	X		X		X	X	X			X		X	
1301 - 1399	ELEVATIONS	X				X		X			X			
1401 - 1499	LONGITUDINAL SECTIONS					X				X				
1501 - 1599	CROSS SECTIONS	X		X	X	X		X					X	
1601 - 1699	TYPICAL CROSS SECTIONS	X		X	X	X		X					X	
1701 - 1799	DETAILS	X		X	X	X	X	X		X		X		
1801 - 1899	TYPICAL DETAILS	X		X	X	X	X	X		X		X		
1901 - 1999	ABUTMENTS					X								
2001 - 2099	PIERS					X								
2101 - 2199	PRECAST GIRDERS					X								
2201 - 2299	DECK SLABS					X								
2301 - 2399	STAKING OUT OF FOUNDATIONS PLANS					X								
2401 - 2499	STAKING OUT OF PILES PLANS					X								
2501 - 2599	REINFORCEMENT OF PILES					X								
2601 - 2699	REINFORCEMENT OF PIERS					X								
2701 - 2799	REINFORCEMENT OF ABUTMENTS					X								
2801 - 2899	REINFORCEMENT OF PRECAST GIRDERS					X								
2901 - 2999	REINFORCEMENT OF CROSS GIRDERS					X								
3001 - 3099	REINFORCEMENT OF CONTINUOUS BEAMS					X								
3101 - 3199	REINFORCEMENT OF DECK SLABS					X								
3201 - 3299	REINFORCEMENT OF FASCIA BEAMS AND SIDEWALKS					X								
3301 - 3399	REINFORCEMENT OF HEAD BEAMS					X								
3401 - 3499	REINFORCEMENT OF TRANSITION SLABS					X								
3501 - 3599	REINFORCEMENT OF STAIRS					X								
3601 - 3699	PRESTRESS TENDON REINFORCEMENT					X								
3701 - 3799	RAILINGS AND SECURITY FENCES					X								
3801 - 3899	GUARD-RAILS					X								
3901 - 3999	EXPANSION JOINTS					X								
4001 - 4099	DRAINAGE					X								
4101 - 4199	REINFORCEMENT OF CULVERTS					X								
5201 - 5299	VERTICAL ALIGNMENT DATA FILES	X												
5301 - 5399	HORIZONTAL ALIGNMENT DATA FILES	X												
5401 - 5499	CROSS SECTIONS DATA FILES	X												

Example: 501 1st Cross Section Document in Volume A-0010

1502 2nd Cross Section Document in Volume A-0010

Design Stage + Submittal Number:

Single letter designating the Design Stage to which the document belongs. The following Design Stage Category Codes shall be used:

Design Stage Code	*Description*
X	Preliminary Design Stage
Y	Final Design Stage
Z	Implementation Design, Issue For Construction

For all Documents X and Y, the first submission shall be revision 'A'. Therein after revisions of that submittal shall be by letter A, B, C. For Z Documents the first revision shall be 1, with following revisions 2, 3..... For drawings, the Revision Number shall appear in an identified Revision Box, indicating the Revision Number and the date of the revision as well as in the Document Number (as shown in the Example under section 3.0). Other Documents shall have the Revision Number and date appear in the Document Number to be shown on the cover or title page of the document. The Volume cover or title page shall indicate the latest Revision Number and date of all documents included in the volume.

Example: -YA- Final Design Stage, 2nd submission

Schedule 17

IMPLEMENTATION DOCUMENTS

No	Title	Type	Owner Dept	Project Number	Rev	Date on doc.
1	Design Management and Approval	PP	Design	25939-000-DS-010-0001	2	27-Jun-16
2	Constructability Reviews	PP	Design	25939-000-DS-010-0002	1	14-Aug-15
3	Design Change Management	PP	Design	25939-000-DS-010-0003	2	29-Sep-15
4	Method Statements for Geotechnical Investigation Works Prishtinë to Hani I Elezit Motorway Section M2-C1-C2-C3	MS	Design	25939-000-DS-020-0001	0	24-Oct-14
5	Daily Site Diary	PP	Field Engineering	25939-000-EN-010-0001	0	6-Oct-14
6	Field Design Change Management	PP	Field Engineering	25939-000-EN-010-0002	1	24-Jan-15
7	Traffic Management Plan and Organization	PP	Field Engineering	25939-000-EN-010-0003	3	27-Apr-16
8	Quantity Reporting	PP	Field Engineering	25939-000-EN-010-0005	0	29-Sep-14
9	Control of Punch List Items	PP	Field Engineering	25939-000-EN-010-0007	0	30-Sep-14
10	As Built Records	PP	Field Engineering	25939-000-EN-010-0008	0	30-Sep-14
11	Spare Parts	PP	Equipment	25939-000-EQ-010-0001	0	16-Oct-14
12	Preventive Maintenance Procedure	PP	Equipment	25939-000-EQ-010-0002	1	10-Aug-16
13	Repair Procedure	PP	Equipment	25939-000-EQ-010-0003	1	26-May-16
14	Crane Operator Qualification	PP	Equipment	25939-000-EQ-010-0006	0	14-Nov-14
15	Competent Person Rigger Qualification	PP	Equipment	25939-000-EQ-010-0007	1	6-Apr-15
16	Cranes Use and Operation	PP	Equipment	25939-000-EQ-010-0008	0	7-Nov-14
17	Construction Rigging Work Operations	PP	Equipment	25939-000-EQ-010-0009	2	30-May-16
18	Equipment Inspection on the Project	PP	Equipment	25939-000-EQ-010-0010	0	13-Oct-14
19	Personnel Transportation & Vehicle Control (On Project)	PP	Equipment	25939-000-EQ-010-0011	0	10-Dec-14
20	Driver Testing	PP	Equipment	25939-000-EQ-010-0013	0	9-Dec-14
21	Crane Load Test	WI	Equipment	25939-000-EQ-011-0001	0	14-Nov-14
22	Fatigue Management	PP	ES&H	25939-000-HS-010-0002	1	23-Oct-15
23	CP 101 ES&H Responsibilities	CP	ES&H	25939-000-HS-083-0002	0	10-Jul-14
24	CP 102 Orientation Training and Development	CP	ES&H	25939-000-HS-083-0003	0	10-Jul-14
25	CP 103 Project Development and Planning Process	CP	ES&H	25939-000-HS-083-0004	0	10-Jul-14
26	CP 105 Risk Assessments, Job Hazard Analysis and STARRT	CP	ES&H	25939-000-HS-083-0005	1	29-Nov-14
27	CP 106 Zero Accident Team	CP	ES&H	25939-000-HS-083-0006	0	10-Jul-14
28	CP 107 Reporting and Investigating Near Miss Incidents	CP	ES&H	25939-000-HS-083-0007	0	10-Jul-14
29	CP 109 People Based Safety Process	CP	ES&H	25939-000-HS-083-0008	0	10-Jul-14
30	CP 110 Manual Material Handling (Back Injury Prevention Program)	CP	ES&H	25939-000-HS-083-0009	0	10-Jul-14
31	CP 117 Predictive Metrics	CP	ES&H	25939-000-HS-083-0010	0	10-Jul-14
32	CP 111 ES&H Assessment Process	CP	ES&H	25939-000-HS-083-0011	0	10-Jul-14
33	CP 113 Subcontractor ES&H Evaluation, Selection & Monitoring	CP	ES&H	25939-000-HS-083-0012	0	10-Jul-14
34	CP 108 Incident Reporting & Investigation	CP	ES&H	25939-000-HS-083-0015	1	18-May-15
35	CP 200 General Safe Work Practices	CP	ES&H	25939-000-HS-083-0018	0	14-Jul-14
36	CP 201 Housekeeping Requirements	CP	ES&H	25939-000-HS-083-0019	0	14-Jul-14

37	CP 202 Hazard Communication Program	CP	ES&H	25939-000-HS-083-0020	0	14-Jul-14
38	CP 203 Emergency Preparedness	CP	ES&H	25939-000-HS-083-0021	0	14-Jul-14
39	CP 205 Personal Protective Equipment	CP	ES&H	25939-000-HS-083-0022	0	14-Jul-14
40	CP 206 Powder Actuated Tools	CP	ES&H	25939-000-HS-083-0023	0	14-Jul-14
41	CP 207 Powered Industrial Trucks	CP	ES&H	25939-000-HS-083-0024	0	14-Jul-14
42	CP 209 Nondestructive Examination	CP	ES&H	25939-000-HS-083-0026	0	14-Jul-14
43	CP 210 Temporary Labor Camps	CP	ES&H	25939-000-HS-083-0027	0	14-Jul-14
44	CP 211 Fire Prevention and Protection	CP	ES&H	25939-000-HS-083-0028	0	14-Jul-14
45	CP 212 Fall Protection	CP	ES&H	25939-000-HS-083-0029	0	14-Jul-14
46	CP 213 Scaffolding	CP	ES&H	25939-000-HS-083-0030	2	4-Nov-15
47	CP 214 Barricades and Signs	CP	ES&H	25939-000-HS-083-0031	0	14-Jul-14
48	CP 215 Floor and Wall Openings	CP	ES&H	25939-000-HS-083-0032	0	14-Jul-14
49	CP 216 Roofing Work	CP	ES&H	25939-000-HS-083-0033	0	14-Jul-14
50	CP 217 Confined Space Entry	CP	ES&H	25939-000-HS-083-0034	0	14-Jul-14
51	CP 218 Excavation, Trenching & Backfill	CP	ES&H	25939-000-HS-083-0035	0	14-Jul-14
52	CP 219 Suspended Personnel Platforms	CP	ES&H	25939-000-HS-083-0036	0	14-Jul-14
53	CP 220 Hazardous Work Permits	CP	ES&H	25939-000-HS-083-0037	0	14-Jul-14
54	CP 221 Lockout/Tag out Procedure	CP	ES&H	25939-000-HS-083-0038	0	14-Jul-14
55	CP 222 Portable Ladders Inspection & Control	CP	ES&H	25939-000-HS-083-0039	0	14-Jul-14
56	CP 223 Cranes and Lifting Operations	CP	ES&H	25939-000-HS-083-0040	0	15-Oct-14
57	CP 224 Articulating Boom Platforms	CP	ES&H	25939-000-HS-083-0041	0	14-Jul-14
58	CP 225 Compressed Gas Cylinders	CP	ES&H	25939-000-HS-083-0042	0	14-Jul-14
59	CP 226 Electrical Equipment and Assured Grounding	CP	ES&H	25939-000-HS-083-0043	0	14-Jul-14
60	CP 227 Safety Watches	CP	ES&H	25939-000-HS-083-0044	0	14-Jul-14
61	CP 228 Drinking Water and Ice	CP	ES&H	25939-000-HS-083-0045	0	14-Jul-14
62	CP 230 Night Work	CP	ES&H	25939-000-HS-083-0047	0	14-Jul-14
63	CP 231 Office Facilities	CP	ES&H	25939-000-HS-083-0048	0	14-Jul-14
64	CP 232 Work on Near Water	CP	ES&H	25939-000-HS-083-0049	0	14-Jul-14
65	CP 234 Utility Clearance	CP	ES&H	25939-000-HS-083-0050	0	15-Oct-14
66	CP 235 Piling Operations	CP	ES&H	25939-000-HS-083-0051	0	14-Jul-14
67	CP 236 ES&H Disciplinary Process	CP	ES&H	25939-000-HS-083-0054	0	14-Jul-14
68	CP 237 ES&H Recognition Program	CP	ES&H	25939-000-HS-083-0055	0	15-Oct-14
69	CP 238 Hearing Conservation Program	CP	ES&H	25939-000-HS-083-0056	0	14-Jul-14
70	CP 118 Fatigue Management	CP	ES&H	25939-000-HS-083-0057	0	10-Jul-14
71	CP 239 Winter Preparedness	CP	ES&H	25939-000-HS-083-0058	0	14-Jul-14
72	CP 300 Medical Services & Medical Management	CP	ES&H	25939-000-HS-083-0059	0	3-Nov-14
73	CP 301 Medical Surveillance	CP	ES&H	25939-000-HS-083-0060	0	31-Oct-14
74	CP 302 Occupational Health and Industrial Hygiene	CP	ES&H	25939-000-HS-083-0061	0	3-Nov-14
75	CP 303 Medical Emergency Evacuations	CP	ES&H	25939-000-HS-083-0062	0	3-Nov-14
76	CP 304 Occupational Health Records Maintenance System	CP	ES&H	25939-000-HS-083-0063	0	31-Oct-14
77	CP 305 Bloodborne Pathogens	CP	ES&H	25939-000-HS-083-0064	0	3-Nov-14
78	CP 306 Occupational Exposure to Benzene	CP	ES&H	25939-000-HS-083-0065	0	31-Oct-14
79	CP 307 Occupational Exposure to Lead	CP	ES&H	25939-000-HS-083-0066	0	31-Oct-14
80	CP 308 Occupational Exposure to Cadmium	CP	ES&H	25939-000-HS-083-0067	0	31-Oct-14

81	CP 309 Radiation Protection Program	CP	ES&H	25939-000-HS-083-0068	0	31-Oct-14
82	CP 311 Respiratory Protective Equipment	CP	ES&H	25939-000-HS-083-0069	0	31-Oct-14
83	CP 312 Hearing Conservation Program	CP	ES&H	25939-000-HS-083-0070	0	3-Nov-14
84	CP 313 Air Surveillance Program	CP	ES&H	25939-000-HS-083-0071	0	15-Oct-14
85	CP 314 Heat and Cold Stress Prevention	CP	ES&H	25939-000-HS-083-0072	0	3-Nov-14
86	CP 315 Automated External Defibrillator (AED) Requirements	CP	ES&H	25939-000-HS-083-0073	0	3-Nov-14
87	CP 316 Workers' Compensation	CP	ES&H	25939-000-HS-083-0074	0	3-Nov-14
88	CP 317 Occupational Exposure to Carcinogens, Mutagens, and Teratogens	CP	ES&H	25939-000-HS-083-0075	0	3-Nov-14
89	CP 318 Drug and Alcohol Abuse Testing	CP	ES&H	25939-000-HS-083-0076	0	31-Oct-14
90	CP 208 Blasting and Explosive Ordnance Operations	CP	ES&H	25939-000-HS-083-0090	0	14-Jul-14
91	CP 115 Project Initiation and Closure	CP	ES&H	25939-000-HS-083-0091	0	25-Oct-14
92	CP 112 Government Agency ES&H Inspections and Investigations	CP	ES&H	25939-000-HS-083-0092	0	31-Oct-14
93	CP 310 Work at High Altitudes	CP	ES&H	25939-000-HS-083-0093	0	31-Oct-14
94	CP 400 General Requirements	CP	ES&H	25939-000-HS-083-0094	0	3-Nov-14
95	CP 401 Environmental Policy	CP	ES&H	25939-000-HS-083-0095	0	3-Nov-14
96	CP 402 Environmental Aspects	CP	ES&H	25939-000-HS-083-0096	0	3-Nov-14
97	CP 404 Objectives, Targets and Programs	CP	ES&H	25939-000-HS-083-0097	0	31-Oct-14
98	CP 405 Resources, Roles, Responsibility, and Authority	CP	ES&H	25939-000-HS-083-0098	0	3-Nov-14
99	CP 406 Competence, Training and Awareness	CP	ES&H	25939-000-HS-083-0099	0	3-Nov-14
100	CP 407 Communication	CP	ES&H	25939-000-HS-083-0100	0	3-Nov-14
101	CP 408 Documentation and Control of Documents	CP	ES&H	25939-000-HS-083-0101	0	3-Nov-14
102	CP 409 Operational Control	CP	ES&H	25939-000-HS-083-0102	0	3-Nov-14
103	CP 410 Emergency Environmental Preparedness	CP	ES&H	25939-000-HS-083-0103	0	3-Nov-14
104	CP 411 Monitoring and Measurement	CP	ES&H	25939-000-HS-083-0104	0	3-Nov-14
105	CP 412 Compliance Evaluation	CP	ES&H	25939-000-HS-083-0105	0	3-Nov-14
106	CP 413 Nonconformity, Corrective Action, and Preventive Action	CP	ES&H	25939-000-HS-083-0106	0	3-Nov-14
107	CP 414 Control of Records	CP	ES&H	25939-000-HS-083-0107	0	3-Nov-14
108	CP 415 Internal Audit Environmental Management System	CP	ES&H	25939-000-HS-083-0108	0	3-Nov-14
109	CP 416 Management Review	CP	ES&H	25939-000-HS-083-0109	0	3-Nov-14
110	CP 403 Legal and Other Requirements	CP	ES&H	25939-000-HS-083-0110	0	3-Nov-14
111	CP 104 Injury-Illness Reporting and Recordkeeping	CP	ES&H	25939-000-HS-083-0111	0	25-Oct-14
112	Environmental, Safety and Health Plan (ESH)	PL	ES&H	25939-000-HS-096-0001	3	2-Aug-16
113	Construction Environmental Control Plan (CECP)	PL	ES&H	25939-000-HS-096-0002	3	21-Mar-16
114	Vehicle Safety Management Plan	PL	ES&H	25939-000-HS-096-0003	2	14-Jun-16
115	Occupational Health Plan	PL	ES&H	25939-000-HS-096-0004	0	15-Oct-14
116	Industrial Hygiene Plan	PL	ES&H	25939-000-HS-096-0005	0	15-Oct-14
117	Emergency Response Plan	PL	ES&H	25939-000-HS-096-0006	3	27-Apr-16
118	ES&H Training Plan	PL	ES&H	25939-000-HS-096-0008	1	20-Oct-15
119	Blood Borne Pathogens	PL	ES&H	25939-000-HS-096-0009	0	15-Oct-14
120	ES&H Key Performance Indicators (KPI's)	PL	ES&H	25939-000-HS-096-0011	0	14-Oct-14

121	Traffic Management Plan	PL	ES&H	25939-000-HS-096-0012	3	14-Jun-16
122	Medical Services and Management Limitation of Medical Treatment by Project Medical Staff	PL	ES&H	25939-000-HS-096-0015	1	28-Oct-15
123	Hand Protection Plan	PL	ES&H	25939-000-HS-096-0016	0	2-Jun-16
124	Manpower and Work Planning for Weekends	PP	HR	25939-000-HR-010-0007	0	17-Oct-14
125	Document Numbering Procedure	PP	Document Control	25939-000-DC-010-0001	1	21-Aug-15
126	Completion and Records Turnover	PP	Document Control	25939-000-DC-010-0002	0	19-Apr-16
127	Retention of Construction Records	PP	Document Control	25939-000-DC-010-0003	1	20-Aug-15
128	Site Access	PP	Construction	25939-000-PM-010-0001	0	17-Oct-14
129	Preparation of Method Statements	PP	Quality Assurance	25939-000-PM-010-0003	1	22-Dec-14
130	Lessons Learned	PP	Quality Assurance	25939-000-PM-010-0004	0	7-Oct-14
131	Construction Project Site Closeout	PP	Construction	25939-000-PM-010-0005		
132	Craft Training Programme	PP	Training	25939-000-PM-010-0006	1	19-Oct-15
133	Project Quality Metrics	PP	Quality Assurance	25939-000-PM-010-0008	0	26-Dec-15
134	Construction Project Site Setup	PP	Construction	25939-000-PM-010-0010	0	23-Sep-14
135	Quality Audits, Corrective and Preventive Actions	PP	Quality Assurance	25939-000-QC-010-0007	0	24-Sep-14
136	Quality Assurance Plan	PL	Quality Assurance	25939-000-QC-095-0001	2	17-Apr-15
137	Control of Measuring and Testing Equipment	PP	Quality Control	25939-000-QC-010-0001	1	15-Jan-16
138	Quality Control of Concrete Works	PP	Quality Control	25939-000-QC-010-0002	1	15-Jan-16
139	Production Facility Control and Certification	PP	Quality Control	25939-000-QC-010-0011	1	20-Jan-16
140	Control of Deficient Items	PP	Quality Control	25939-000-QC-010-0014	1	10-Jan-16
141	Slump Test	WI	Quality Control	25939-000-QC-011-0001	0	24-Sep-14
142	Air Content - Pressure Method	WI	Quality Control	25939-000-QC-011-0002	0	24-Sep-14
143	Determination of Concrete Unit Weight	WI	Quality Control	25939-000-QC-011-0003	0	24-Sep-14
144	Pile Integrity Test	WI	Quality Control	25939-000-QC-011-0014	0	2-Apr-15
145	Material Delivery Check	WI	Quality Control	25939-000-QC-011-0022	0	16-Oct-14
146	Quality Control Plan	PL	Quality Control	25939-000-QC-094-0001	2	15-Jan-16
147	Security Management Plan	PL	Security	25039-000-SE-088-0001	1	23-May-15
148	Approach to Mines, Cluster Munitions and Unexploded Ordnances	PP	Security	25939-000-EW-010-0001	1	15-May-15
149	Emergency Evacuation Plan	PL	Security	25939-000-SE-096-0001	2	5-Dec-15
150	Accommodation Camp Rules	PP	Camp Management	25939-000-CA-010-0001	1	3-May-16
151	Concrete Operations	PP	Structures	25939-000-ST-010-0001	1	23-Dec-14

152	Batch Plant Operations & Concrete Supply	MS	Structures	25939-000-ST-020-0001	2	14-Apr-15
153	Scaffolding	MS	Structures	25939-000-ST-020-0002	1	14-Apr-15
154	Formwork, Reinforcement and Concrete	MS	Structures	25939-000-ST-020-0003	2	14-Apr-15
155	Pier Elevation	MS	Structures	25939-000-ST-020-0005	0	25-Mar-16
156	Concrete Repairs	MS	Structures	25939-000-ST-020-0006	1	14-Apr-15
157	Pier Head Construction	MS	Structures	25939-000-ST-020-0007	0	30-Mar-16
158	Cold Weather Concreting	MS	Structures	25939-000-ST-020-0009	1	22-Dec-14
159	Cast In-Situ Piles	MS	Structures	25939-000-ST-020-0011	1	7-Mar-15
160	Bridge Pier Head Protective Barrier	MS	Structures	25939-000-ST-020-0012	0	25-Mar-16
161	Expansion Joint Repair Works	MS	Structures	25939-000-ST-020-0014		
162	Hot Weather Concreting	MS	Structures	25939-000-ST-020-0017	1	4-Jun-15
163	F/E Type Barrier Installation	MS	Structures	25939-000-ST-020-0018	0	4-Apr-15
164	Pile Cap Breaking	MS	Structures	25939-000-ST-020-0019	0	14-Apr-15
165	Precast Concrete Element Production	MS	Structures	25939-000-ST-020-0021	1	24-Jul-15
166	Crack Repair for Concrete Structures	MS	Structures	25939-000-ST-020-0023	0	11-Jun-15
167	Expansion Joint Installation	MS	Structures	25939-000-ST-020-0025	0	28-Jul-15
168	Construction Survey Operations	PP	Survey	25939-000-SY-010-0001	0	13-Oct-14
169	Instrument Operator Training, Testing and Certification	PP	Survey	25939-000-SY-010-0002	0	13-Oct-14
170	Pre-Production Survey Works	MS	Survey	25939-000-SY-020-0002	0	13-Oct-14

BECHTEL ENKA GENERAL PARTNERSHIP

ROUTE 6 PRISHTINE - HANI I ELEZIT MOTORWAY PROJECT

ENGINEER, PROCURE AND CONSTRUCT (EPC) SUBCONTRACT FOR BRIDGE NO. 063

EXHIBIT "E"

TECHNICAL SPECIFICATIONS AND DRAWINGS

For Order of Preference there is no distinction between specifications, technical documents and drawings listed in this Exhibit "E." When these documents come in conflict customary rules of precedence under the Applicable Laws shall apply.

1.0 TECHNICAL SPECIFICATIONS

The following specifications and technical documents form a part of the Subcontract:

General Technical Requirements (GTR) for Croatian Motorways, Volumes (0-6) - 2001
EN Eurocode Standards EN1990- EN1999 EN Standards referring to execution of special works (if applicable)

2.0 DRAWINGS

The following drawings form a part of the Subcontract:

Drawing No.	Rev.	Date	Title
25939-TP-C3-A-0201	XB	01-Dec-16	Technical Description of Section C3 Alignment Design
25939-TP-C3-A-0903	XC	01-Dec-16	Layout km 304+200.00 - 306+550.00
25939-TP-C3-A-0904	XC	01-Dec-16	Layout km 306+550.00 - 309+000.00
25939-TP-C3-A-1007	XC	01-Dec-16	Longitudinal Profile km 305+600.00 - 306+600.00
25939-TP-C3-A-1505	XA	01-Dec-16	Cross Section from 305+100.00 - 306+000.00
25939-TP-C3-A-1506	XA	01-Dec-16	Cross Section from 306+100.00 - 306+900.00
IG-020-N-0002	YC	March 16	EIA report for section C2C and C3

And any additional design data (dwg, xml) for alignment design; any system details and layouts on bridge alignment interfaces will be provided upon subcontracts request.

BECHTEL ENKA GENERAL PARTNERSHIP

ROUTE 6 PRISHTINE - HANI I ELEZIT MOTORWAY PROJECT

PROCURE AND CONSTRUCT (PC) SUBCONTRACT FOR BRIDGES B402 and B405

FORM OF AGREEMENT

Subcontractor:	Suma Engineering Platform d.o.o. za uslauge – Branch in Kosovo and Dinarik d.o.o Consortium	Subcontract No.:	25939-ST1-SA-SSSC-00033
Address:	Kalabria, Blloku C1, oB.2 Nr. 23 Pristina, Kosovo and Trnska cesta 123 Siroki Brijeg, Republic of Bosnia and Herzegovina	Work Location:	Pristine - Hani i Elezit Motorway - Route 6 Project
Contact:	Antonio Tomic Juso Barucija / Milivoj Mikulic	Issuing Office:	BEGP Ferizaj Office
Telephone:	+385 91 432 1701 +385 91 222 0835		

WHEREAS:

(A): The Ministry of Infrastructure on behalf of the Government of The Republic of Kosovo (the "EMPLOYER") and the joint venture between Bechtel International, Inc. and Enka Insaat vet Sanayi A.S., also referred to as Bechtel Enka General Partnership (BEGP) or the "CONTRACTOR" have entered into a contract for the design and construction of Route 6 Prishtine – Hani i Elezit Motorway Project (the "Prime Contract")

(B) SUBCONTRACTOR is the consortium between Suma Engineering Platform d.o.o. za uslauge – Branch in Kosovo seated at Kalabria, Blloku C1, oB.2 Nr. 23 Pristina, Republic of Kosovo and Dinarik d.o.o. seated at Fra Didika Buntica 74, Siroki Brijeg, Republic of Bosnia and Herzegovina, which is represented by Suma Engineering Platform d.o.o. za uslauge – Branch in Kosovo as Lead Partner – (hereinafter jointly "the SUBCONTRACTOR")

(C) CONTRACTOR is desirous of engaging above-named SUBCONTRACTOR to perform the Work specified below and the SUBCONTRACTOR is desirous of performing these Services as a subcontractor to CONTRACTOR

NOW THEREFORE it is hereby agreed as follows:

This Subcontract is effective as of the [DATE] ("the Effective Date"), between the joint venture between Bechtel International, Inc. and Enka Insaat vet Sanayi A.S. (collectively, the "CONTRACTOR") and the above named SUBCONTRACTOR (collectively, the "Parties" and each individually, a "Party"), who hereby agrees that all Work specified below, which is a portion of the goods and services to be provided by CONTRACTOR for the EMPLOYER, shall be performed by SUBCONTRACTOR understanding that CONTRACTOR is committed to safety, health and protection of the environment as core values reflected in all aspects of its operations. SUBCONTRACTOR shall perform all activities in accordance with these principles and all the provisions of this Subcontract, consisting of the following Subcontract Documents and associated appendices and schedules contained within:

Subcontract Form of Agreement
Exhibit "A" - General Conditions
Exhibit "B" - Special Conditions
Exhibit "C" - Quantities, Pricing and Data
Exhibit "D" - Scope of Services and Technical Specifications
Exhibit "E" – Drawings

1. WORK TO BE PERFORMED: SUBCONTRACTOR shall perform all Work set out in the Exhibit "D" – Scope of Work such that the Work and the Project are Fit for Purpose, including without limitation furnishing all plant; labor; materials; tools; supplies; equipment; transportation; supervision; technical, professional, administrative and other services; supervision of all personnel; and performing all operations necessary and required to satisfactorily:

Procure and Construct Bridges B402 and B405 located in the Section C3 of the Route 6 Prishtine – Hani i Elezit Motorway Project

The Work shall include any other things of a permanent or temporary nature reasonably associated with the Work, whether the need for their provision is explicitly stated in the Subcontract or can be reasonably deduced therefrom; and shall further include all necessary supervision during and after execution of the Work, and to the extent CONTRACTOR deems necessary for the sound and accurate fulfillment of SUBCONTRACTOR's contractual commitments.

The Work is a portion of the services to be provided by CONTRACTOR to EMPLOYER at or near the Jobsite in the Republic of Kosovo. Notwithstanding anything to the contrary in this Subcontract, SUBCONTRACTOR acknowledges that any breach of this Subcontract may result in the CONTRACTOR being in breach of the Prime Contract and may, without limitation, lead to the termination of the Prime Contract for default, and/or a claim for damages for breach. Accordingly, SUBCONTRACTOR agrees that the costs, losses, expenses, and liabilities of CONTRACTOR arising in relation to such a breach are an appropriate component of CONTRACTOR's damages in any claim against SUBCONTRACTOR for breach of this Subcontract.

2. SCHEDULE: The Work shall be performed in accordance with the dates set forth in the Exhibit "B" – Special Conditions clause titled "COMMENCEMENT, PROGRESS AND COMPLETION OF THE WORK"

3. COMPENSATION: As full consideration for the satisfactory performance by SUBCONTRACTOR of the Work and fulfillment of any other obligations under this Subcontract, CONTRACTOR shall pay to SUBCONTRACTOR compensation in accordance with the prices set forth in the Exhibit "C" - Quantities, Pricing and Data and payment provisions of this Subcontract.

4. This Subcontract embodies the entire agreement between CONTRACTOR and SUBCONTRACTOR and supersedes all other writings, agreements and understandings, whether written or oral, relating to the subject matter thereof. The parties shall not be bound by or be liable for any statement, representation, promise, inducement or understanding not set forth herein.

Bechtel Enka General Partnership (CONTRACTOR)

Authorized Signature:

Print Name: Riyadh Alkhazraji

Print Title: Project Manager

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Print Title: Director

BECHTEL ENKA GENERAL PARTNERSHIP

ROUTE 6 PRISHTINE - HANI I ELEZIT MOTORWAY PROJECT

PROCURE AND CONSTRUCT (PC) SUBCONTRACT FOR BRIDGES B402 and B405

EXHIBIT "A" - GENERAL CONDITIONS

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GC-1 INDEPENDENT CONTRACTOR

1.1 SUBCONTRACTOR represents that it is fully experienced, properly qualified, registered, licensed, equipped, organized, and financed to perform the Work under this Subcontract. SUBCONTRACTOR shall act as an independent contractor and not as the agent of CONTRACTOR or EMPLOYER in performing this Subcontract, maintaining complete control over its employees and all of its associates, suppliers and subcontractors of any tier. SUBCONTRACTOR shall perform the Work using generally accepted professional design and engineering practices and perform all construction and related services in accordance with its own methods subject to compliance with the Subcontract.

1.2 SUBCONTRACTOR has represented to CONTRACTOR that it is competent, knowledgeable and has the technical expertise and experience to perform the Work in accordance with this Subcontract. SUBCONTRACTOR has also represented to CONTRACTOR that it is able to perform the Work with the highest regard to the safety of all persons and the property of third parties. SUBCONTRACTOR acknowledges that in entering into this Subcontract, CONTRACTOR relies on these representations.

GC-2 AUTHORIZED REPRESENTATIVES AND NOTICES

2.1 Immediately following the award of this Subcontract, SUBCONTRACTOR shall designate in writing an authorized representative acceptable to CONTRACTOR to represent and act for SUBCONTRACTOR and shall specify any and all limitations of such representative's authority. Such representative shall be present or be represented at the Jobsite at all times when the Work is in progress and shall be empowered to receive communications in accordance with this Subcontract on behalf of SUBCONTRACTOR. SUBCONTRACTOR's representative shall be able to speak fluently in English. SUBCONTRACTOR shall also employ, at the Jobsite at all times a supervisory individual able to speak fluently in English.

2.2. During periods when the Work is suspended, arrangements shall be made for an authorized representative acceptable to CONTRACTOR to be nominated for any emergency work that may be required. All communications given to the authorized representative by CONTRACTOR in accordance with this Subcontract shall be binding upon SUBCONTRACTOR. CONTRACTOR shall designate in writing one or more representatives to represent and act for CONTRACTOR and to receive communications from SUBCONTRACTOR. If SUBCONTRACTOR is a joint association of two or more members, such parties shall designate one authorized representative to act for them and to bind the joint association and each of its members.

2.3 Any notices required under this Subcontract shall be in writing, and effective upon receipt by the authorized representative of the receiving party and shall be delivered either personally, by facsimile, by courier or express delivery, or by certified mail to the facsimile number or address of that party as shown on the face of the Subcontract Form of Agreement or at such facsimile number or address as may have been directed by written notice.

2.4 SUBCONTRACTOR shall take instructions, directions or any other communications under this Subcontract only from CONTRACTOR's authorized representative. SUBCONTRACTOR shall not act upon any instruction, direction or communication of any kind whatsoever by, from or on behalf of EMPLOYER or Employer's Representative unless and until such instruction, direction or communication has been notified and confirmed as an instruction, direction or communication by CONTRACTOR to SUBCONTRACTOR. If SUBCONTRACTOR receives any direct instruction or communication of any kind whatsoever from EMPLOYER or Employer's Representative, it shall forthwith inform CONTRACTOR and shall supply CONTRACTOR with a copy of any such direct instruction, direction or communication, if given in writing

2.5 SUBCONTRACTOR and CONTRACTOR may each change its authorized representative(s) and contact information at any time upon prior written notice to the other party.

GC-3 SUBCONTRACT IMPLEMENTATION AND INTERPRETATION

3.1 Titles and headings are for convenience of reference only. They shall not be taken into consideration in interpreting this Subcontract.

3.2 SUBCONTRACTOR shall follow, comply with and utilize Project "Implementation Documents", copies of which are provided to or made available to SUBCONTRACTOR such as, but not limited to, Project procedures, plans, regulations, rules, report formats and forms established to implement the requirements of and transmit information required under this Subcontract, and any revisions thereto. Implementation Documents are not intended to nor shall supersede the requirements of the Subcontract Documents. Project Implementation Documents shall include without limitation all items listed in Exhibit "D" Schedule 17 and any revisions thereto.

3.3 SUBCONTRACTOR shall immediately submit to CONTRACTOR in writing for resolution:

(1) All questions concerning interpretation or clarification of the Subcontract Documents, Implementation Documents or applicable standards and codes,

(2) Conflicts or discrepancies discovered by SUBCONTRACTOR between or within the Subcontract Documents and Implementation Documents and any applicable standards, codes, laws or regulations, and

(3) Errors, inconsistencies or omissions discovered by SUBCONTRACTOR in (i) the Subcontract Documents, (ii) any CONTRACTOR-provided plans, drawings or specifications, and (iii) any CONTRATOR provided reports and recommendations relating to Jobsite soil tests.

3.4 Subject to the provisions of the General Condition titled "CHANGES", all determinations, instructions, and clarifications of CONTRACTOR shall be final and conclusive unless determined to have been fraudulent or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence. At all times SUBCONTRACTOR shall proceed with the Work in accordance with the determinations, instructions, and clarifications of CONTRACTOR. SUBCONTRACTOR shall be liable for any costs and expenses arising from its failure to comply with its obligations in this clause or furnishing any equipment or material or performing any work containing the conflict, discrepancy, error or omission prior to or inconsistent with CONTRACTOR'S written determination, instruction or clarification.

GC-4 ORDER OF PRECEDENCE

4.1 All Subcontract Documents and subsequently issued Change Notices, Change Orders and Amendments are essential parts of this Subcontract. In resolving conflicts or discrepancies between any of the Subcontract Documents the following order of precedence shall be used:

(1) Subcontract Form of Agreement
(2) Exhibit "C" - Quantities, Pricing and Data
(3) Exhibit "B" - Special Conditions
(4) Exhibit "A" - General Conditions
(5) Exhibit "D" - Scope of Work
(6) Exhibit "E" – Drawings and Technical Specifications

4.2 SUBCONTRACTOR shall have no entitlement to claim additional compensation or an extension of time arising out of a conflict, discrepancy or error in or between the Subcontract Documents to the extent that such conflict, discrepancy or error is resolved according to the order of precedence stated in this GC-4.

4.3 If CONTRACTOR directs that such conflict, discrepancy or error be resolved other than in accordance with the order of precedence stated in this GC-4, the direction shall be treated as

a Change Notice and the provisions of the General Condition titled "CHANGES" shall apply.

GC-5 STANDARDS AND CODES

5.1 Wherever references are made in this Subcontract to standards or codes in accordance with which the Work under this Subcontract is to be performed, the edition or revision of the standards or codes current on the effective date of this Subcontract shall apply unless otherwise expressly stated. In the event of changes to any referenced standards and codes during performance of the Work, SUBCONTRACTOR shall provide CONTRACTOR written notice immediately upon SUBCONTRACTOR'S knowledge of the change. In case of conflict between any referenced standards and codes and any Subcontract Documents, the General Condition titled "SUBCONTRACT IMPLEMENTATION AND INTERPRETATION" shall apply.

5.2 SUBCONTRACTOR shall, in preparation of its detail design, select the more stringent of applicable local, national and international standards or codes of practice, when not otherwise specified in the Subcontract Documents or writing by CONTRACTOR.

GC-6 LAWS AND REGULATIONS

6.1 SUBCONTRACTOR represents that it is familiar with, shall be subject to, and shall comply with all Applicable Laws. SUBCONTRACTOR shall obtain from its Sub-tiers the same representation in its lower-tier subcontracts and purchase orders. SUBCONTRACTOR shall pay any penalties, fines or assessments levied by any competent authority resulting from any breach of this clause by SUBCONTRACTOR or any of its Sub-tiers, and shall indemnify, defend and hold harmless the Indemnified Parties from and against any Liabilities resulting from such a breach.

6.2 All Applicable Laws shall apply to SUBCONTRACTOR and its employees and representatives. These shall include the orders of governmental authorities including without limitation all laws of Republic of Kosovo relating to registration to do business, to the formation of business entities under the laws of Republic of Kosovo, to the payment of taxes and to the payment of penalties, assessments, levies or other punitive charges caused by SUBCONTRACTOR's negligence, delinquency, or violation of the laws of Republic of Kosovo, and to the obtaining of permits and licenses; giving due regard to all business practices and local customs prevailing in Republic of Kosovo generally and at the site of any work under this Subcontract in particular.

6.3 If SUBCONTRACTOR discovers any discrepancy or inconsistency between this Subcontract and any Applicable Laws, SUBCONTRACTOR shall immediately notify CONTRACTOR in writing.

6.4 If during the term of this Subcontract there are changed or new Applicable Laws (but excluding changes to tax laws where such taxes are based upon SUBCONTRACTOR's inventory, income, profits/losses or cost of finance) not known or foreseeable at the time of signing this Subcontract which become effective and which affect the cost or time of performance of this Subcontract, SUBCONTRACTOR shall immediately notify CONTRACTOR and submit detailed documentation of such effect in terms of both time and cost of performing the Subcontract. If the Work is affected by such changes and CONTRACTOR concurs with their effect, an equitable adjustment will be made pursuant to the General Condition titled "CHANGES".

GC-7 PERMITS AND TAXES

7.1 Except as otherwise specified, SUBCONTRACTOR shall procure and pay for all permits, licenses, certifications and other applicable governing authority requirements and inspections, other than inspections performed by CONTRACTOR or EMPLOYER, and shall furnish any documentation, bonds, security or deposits required to permit performance of the Work. Upon request by SUBCONTRACTOR, CONTRACTOR may, at its sole discretion, assist SUBCONTRACTOR with obtaining such permits, licenses, certifications and other applicable governing authority requirements and inspections.

7.2 In the event that permits are required for the Work which can by Applicable Laws be obtained only in the name of CONTRACTOR or EMPLOYER, SUBCONTRACTOR shall identify such permits in writing to CONTRACTOR, support CONTRACTOR in the preparation and submission of applications, prepare any necessary documentation, and perform any necessary coordination to facilitate obtaining such permits in a timely manner. SUBCONTRACTOR shall be deemed to have been aware of the necessary permits and the necessary periods for their preparation, application and granting and shall not be entitled to additional compensation or an extension of time in connection with such permits.

7.3 SUBCONTRACTOR certifies that it and all associates and Sub-tier(s) are licensed, certified and registered to perform the professional and technical services required to complete the Work under this Subcontract. Such licenses, certifications and registrations shall be maintained throughout the performance of this Subcontract and failure to do so may be cause for default termination.

7.4 SUBCONTRACTOR shall pay all taxes, levies, duties and assessments of every nature due in connection with the Work under this Subcontract and shall make any and all payroll deductions and withholdings required by Applicable Laws. SUBCONTRACTOR shall defend, indemnify and hold harmless the Indemnified Parties from and against any Liabilities related to any and all such taxes, levies, duties, assessments, deductions and withholdings.

7.5 SUBCONTRACTOR shall, with the approval of CONTRACTOR, apply for and obtain for the benefit of the Project any available exemption or exclusion of applicable taxes, levies, duties or assessments of any nature.

7.6 CONTRACTOR will provide to SUBCONTRACTOR the permits listed in Exhibit "B" SC-6 titled "CONTRACTOR-FURNISHED PERMITS".

GC-8 LABOR, PERSONNEL AND WORK RULES

8.1 Procurement and Construction Activities

(1) SUBCONTRACTOR shall use only competent and skilled personnel to perform the Work. SUBCONTRACTOR shall remove from the Work any person determined to be unfit, unqualified or to be acting in violation of any obligation of SUBCONTRACTOR under this Subcontract. In addition, CONTRACTOR may, at its sole discretion, deny access to the Jobsite to any person.

In the event a person is removed from the Work or excluded from the Jobsite, SUBCONTRACTOR shall promptly replace such individual with another who is fully competent and skilled to perform the Work. All actions by SUBCONTRACTOR regarding removal and replacement of personnel shall be at SUBCONTRACTOR'S sole expense.

SUBCONTRACTOR is responsible for maintaining labor relations in such manner that there is harmony among workers and shall comply with and enforce Project and Jobsite procedures, regulations, work rules and work hours established by CONTRACTOR and EMPLOYER.

(2) SUBCONTRACTOR shall ensure that, before commencing work on any equipment, all training required by manufacturers and/or suppliers of that equipment is completed. Documentation demonstrating that such training is complete shall be made available for CONTRACTOR review on request. If there are specific competencies required for certain types of Jobsite activities under the site Safety Health and Management Plan, SUBCONTRACTOR shall provide documentation of such competencies to CONTRACTOR prior to commencement of such activities on the Jobsite.

8.2 If SUBCONTRACTOR has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of the Work under this SUBCONTRACT or any other portion of the Project, SUBCONTRACTOR shall immediately give written notice, including all relevant information, to CONTRACTOR.

8.3 Neither Party shall recruit or attempt to recruit staff and labor amongst persons in the service of the other Party.

GC-9 COMMERCIAL ACTIVITIES

9.1 Neither SUBCONTRACTOR and its employees nor its Sub-tiers and their employees shall establish any commercial activity or issue concessions or permits of any kind to third parties for establishing commercial activities on the Jobsite or any other lands owned or controlled by CONTRACTOR or EMPLOYER.

GC-10 PUBLICITY AND ADVERTISING

10.1 SUBCONTRACTOR, its employees, and SUBCONTRACTOR's Sub-tiers and their employees shall not make any announcement, take any photographs, or release any information concerning this Subcontract, or the Project, or any part thereof to any member of the public, press, business entity, or any official body unless prior written consent is obtained from CONTRACTOR.

GC-11 SECURITY REQUIREMENTS

11.1 In performance of the Work, SUBCONTRACTOR shall establish and maintain a security program, implementing and supplementing Project security requirements. This shall include a written Security Plan which shall be submitted to CONTRACTOR for review and acceptance within thirty (30) calendar days after Subcontract award and in any event prior to commencing work at the Jobsite. Such program shall include:

(1) Controlled access to office, warehouse, material and equipment sites.

(2) Physical security of office, warehouse, material and equipment sites, to include periodic security checks of all work areas assigned to SUBCONTRACTOR.

(3) Control of material and equipment packaging, transportation, and delivery to the Jobsite.

(4) Accountability procedures for storage, requisition and issue of material and equipment.

(5) Personnel security to include, but not limited to, compliance with Project work rules (access, badging, prohibited activities and items, etc.)

(6) Security communications to include, but not limited to, use of radios, satellite phones, cell phones, locating devices for vehicles.

(7) Compliance with the Project Emergency Response Plan to include, but not limited to, emergency notification lists, personnel accountability procedures, etc.

(8) Compliance with all Project security programs and the coordination measures, with CONTRACTOR, EMPLOYER and others on the Jobsite, established for that purpose.

(9) Immediate notification to CONTRACTOR of all loss, theft or vandalism and promptly followed by submission of a detailed written report

11.2 SUBCONTRACTOR shall cooperate with CONTRACTOR and EMPLOYER on all security matters and shall promptly comply with any Project security arrangements established by

CONTRACTOR or EMPLOYER. Such compliance with these security requirements shall not relieve SUBCONTRACTOR of its responsibility for maintaining proper security for the Work.

GC-12 ENVIRONMENTAL REQUIREMENTS

12.1 Throughout performance of the Work, SUBCONTRACTOR shall conduct all operations in such a way as to minimize impact upon the natural environment and prevent any spread or release of contaminated or hazardous substances/materials.

12.2 Based on the foregoing, SUBCONTRACTOR shall:

(1) Comply with all Applicable Laws, standards governing environmental requirements and conduct the Work based on the requirements of this Subcontract, including compliance with permit requirements and Project plans and approvals.

(2) Provide all documentation required by all levels of governing authority or CONTRACTOR concerning environmental requirements.

(3) Provide and maintain effective planning and field control measures for the following activities:

(a) Wastewater (domestic and industrial) discharges to land, surface water, or groundwater,
(b) Extraction/supply of water from surface and/or subsurface sources,
(c) Storm water management,
(d) Spill prevention and response,
(e) Erosion and sedimentation control,
(f) Air emissions and dust control,
(g) Noise control,
(h) Waste and hazardous waste management (domestic and industrial),
(i) Protection of areas designated as biologically / historically / archeologically / culturally significant (e.g., wetland, wildlife preserves, cultural resources, historic resources), and
(j) Work area restoration, including re-vegetation and re-contouring.

These obligations shall include obtaining certifications; conducting requisite analyses and monitoring of such activities as required by the Subcontract Documents, permit conditions or Applicable Laws; utilizing appropriate equipment for sampling, analysis and treatment; and proceeding in accordance with permit requirements.

(4) Be responsible for developing and maintaining a written Environmental Compliance Plan in accordance with SUBCONTRACTOR's established practices, including but not limited to compliance with all Applicable Laws and the requirements of the Project Construction Environmental Control Plan (CECP). SUBCONTRACTOR shall have sole responsibility for implementing and enforcing its Environmental Compliance Plan.

(5) Submit its written Environmental Compliance Plan to CONTRACTOR, as a minimum complying with CONTRACTOR's Environmental Plan provided in the Appendix A-1 titled "CONTRACTOR'S CONSTRUCTION ENVIRONMENTAL CONTROL PLAN" for review within thirty (30) calendar days after Effective Date and in any event prior to commencing work at the Jobsite or receiving payment of first invoice. CONTRACTOR's review of SUBCONTRACTOR's plan shall not relieve SUBCONTRACTOR of its obligation under this Subcontract or as imposed by Applicable Laws and permit requirements and SUBCONTRACTOR shall be solely responsible for the adequacy of its Environmental Compliance Plan.

(6) Comply with all access restrictions, including prohibitions on access to certain areas on or adjacent to the Jobsite and ensure its personnel and those of its Sub-tiers to comply with all signage and flagging related to such restricted areas. Restricted

areas may include, but are not limited to: designated wetlands; environmental mitigation study areas; protected/restricted biological/cultural/ historical/archaeological sites; and designated fish, wildlife, or vegetative habitat.

(7) Ensure that its personnel and those of its Sub-tiers do not hunt, fish, feed, capture, extract, or otherwise disturb aquatic or terrestrial, animal, or vegetative species within or near the Project boundary or on any other lands owned or controlled by CONTRACTOR, EMPLOYER, Employer's Representative or their designated representatives; OR while performing any tasks in performance of the Work.

(8) Not proceed with any renovation or demolition work until asbestos surveys and notifications have been completed, filed with, and approved by the appropriate regulatory agencies, in accordance with the division of responsibility outlined in the Project's CECP and CONTRACTOR specifically authorizes that work to proceed. Should asbestos containing materials be uncovered during SUBCONTRACTOR's Work, the provisions of GC-12.2 sub-clause (9) below shall apply.

(9) Immediately stop work in any area where contamination soil indicators (such as odor or appearance), unknown containers, piping, underground storage tanks, or similar structures are discovered; or any other materials, which are reasonably suspected to be toxic or hazardous. SUBCONTRACTOR shall then immediately notify CONTRACTOR and the stop work area shall be determined by CONTRACTOR and confirmed in writing. Activity in the stop work area shall only resume upon CONTRACTOR's written approval.

(10) Immediately stop work in any area where cultural resources or artifacts with archaeological or historical value including without limitation to fossils are discovered or suspected, and immediately notify CONTRACTOR. The stopped work shall proceed in the manner set forth in GC-12.2 subclause (9) above. No artifacts, items, or materials shall be disturbed or taken from the area of discovery by anyone unless authorized by CONTRACTOR and the governmental body responsible for such preservation/protection. Neither SUBCONTRACTOR nor any of its Sub-tiers shall have property rights to such artifacts, items, or materials, which shall be secured and guarded until turned over to CONTRACTOR or the appropriate governmental authorities. SUBCONTRACTOR shall also require that its personnel and those of its Sub-tiers comply with this provision and respect all historic and archaeological sites in the area.

(11) Manage, store, and dispose of all hazardous waste generated by SUBCONTRACTOR during its Work in accordance with the Applicable Law, national, regional, and local requirements, and as outlined in the Project CECP. This includes, but is not limited to: waste minimization; hazardous waste generator registration; hazardous materials inventory with Material Safety Data Sheets (MSDS) for each hazardous material on site; employee training; hazardous waste spill management and reporting; proper storage of hazardous waste; equipment decontamination; onsite and offsite transport of hazardous waste; and selection and use of on and offsite final disposal facilities. All transporter and disposal companies used by SUBCONTRACTOR shall be appropriately licensed by the governing authorities and SUBCONTRACTOR shall provide CONTRACTOR with proof of such licensing prior to their performance on any Work. As between CONTRACTOR and SUBCONTRACTOR, SUBCONTRACTOR shall be responsible for cleaning up or removing any hazardous waste, pollution, contamination or environmental harm arising from SUBCONTRACTOR's performance of the Work, and shall defend, indemnify and hold harmless the Indemnified Parties from and against any and all Liabilities arising out of or in connection with any such hazardous waste, pollution, contamination or environmental harm.

12.3 SUBCONTRACTOR'S obligations under the General Condition titled "INDEMNITY" apply to any liability arising in connection with or incidental to SUBCONTRACTOR's performance or failure to perform as provided in this clause.

GC-13 SITE CONDITIONS AND NATURAL RESOURCES

13.1 SUBCONTRACTOR shall have the sole responsibility for satisfying itself concerning the nature and location of the Jobsite and Work and the general and local conditions, including but not limited to the following:

(1) Transportation, access, disposal, handling and storage of materials;

(2) Availability and quality of labor, water, electric power, telecommunications and road conditions;

(3) Climatic conditions, tides, and seasons;

(4) River hydrology and river stages;

(5) Physical conditions at the Jobsite and the Project area as a whole;

(6) Topography, sub surface geology and ground surface conditions; and

(7) Equipment and facilities needed preliminary to and during the performance of the Work.

(8) And all other matters which can in any affects performance of this Subcontract or the cost or time associated with such performance.

13.2 SUBCONTRACTOR's failure to acquaint itself with these or any other applicable conditions will not relieve SUBCONTRACTOR of the responsibility for satisfactorily performing the Work or for properly estimating either the difficulties, time for or cost of performing SUBCONTRACTOR's obligations under this Subcontract, and shall not entitle SUBCONTRACTOR to any change relief or extension of time under this Subcontract.

13.3 Where CONTRACTOR or EMPLOYER has made investigations of subsurface conditions in areas where the Work will be performed, such investigations are made by CONTRACTOR or EMPLOYER for the purpose of study and design. The interpretation of such investigations provided by CONTRACTOR and/or EMPLOYER shall be the sole responsibility of SUBCONTRACTOR. Neither CONTRACTOR nor EMPLOYER assumes any responsibility whatsoever in respect to the sufficiency or accuracy of such investigations, the records thereof, or of the interpretations set forth and there is no warranty or guarantee, either express or implied, that the conditions indicated by such investigations or records thereof are representative of those existing throughout such areas, or any part thereof, or that unforeseen developments may not occur, or that materials other than or in proportions different from those indicated may not be encountered.

GC-14 DIFFERING SITE CONDITIONS

14.1 If, during the execution of the Work, SUBCONTRACTOR encounters any work which SUBCONTRACTOR believes constitutes a differing site condition SUBCONTRACTOR shall stop work with respect to the differing site condition and immediately notify CONTRACTOR in writing. Differing site conditions are defined as the following:

(1) Subsurface or latent physical conditions at the Jobsite differing materially from those indicated in the mutually approved investigations of subsurface conditions; or

(2) Previously unknown physical conditions at the Jobsite, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Subcontract.

14.2 CONTRACTOR will then make a written determination as to whether Works may continue.

14.3 Any differing site conditions shall not be subject to claims by SUBCONTRACTOR.

GC-15 TITLE TO MATERIALS FOUND

15.1 The title to water, soil, rock, gravel, sand, minerals, timber, and any other materials developed or obtained in the excavation or other operations of SUBCONTRACTOR or any of its Sub-tiers and the right to use said materials or dispose of same is hereby expressly reserved by EMPLOYER. SUBCONTRACTOR may request in writing that CONTRACTOR seeks EMPLOYER's consent for SUBCONTRACTOR to use such found materials for the purpose of the Work. If CONTRACTOR and EMPLOYER, at their sole discretion, consent to such use, SUBCONTRACTOR shall be permitted, without charge, to use in the Work any such materials, which meet the requirements of this Subcontract, subject to any restrictions on such use specified by CONTRACTOR or EMPLOYER.

GC-16 SURVEY CONTROL POINTS AND LAYOUTS

16.1 CONTRACTOR will establish the bench marks, points of origin, lines dimensions, and reference data (collectively "Survey Control Points") as shown on the drawings.

16.2 SUBCONTRACTOR shall complete the layout of all work and shall be responsible for execution of the Work in accordance with the CONTRACTOR-provided Survey Control Points, subject to such modifications as CONTRACTOR may require as work progresses.

16.3 SUBCONTRACTOR shall be responsible for providing all instruments, equipment, tools and work hands required for the purpose of executing the Work in accordance with the CONTRACTOR-provided Survey Control Points. Any failure to so execute the Work shall be corrected at SUBCONTRACTOR's expense. Any inspection carried out by the CONTRACTOR, EMPLOYER or Employer's Representative to verify the execution of the Work in accordance with the Survey Control Points shall not relieve SUBCONTRACTOR from his responsibility to ensure its correctness.

16.4 SUBCONTRACTOR shall be responsible for the maintenance of all CONTRACTOR-provided Survey Control Points. If SUBCONTRACTOR, its Sub-tiers, their representatives or employees move, destroy or render inaccurate any survey control point, such control point shall be replaced by either by SUBCONTRACTOR or CONTRACTOR at SUBCONTRACTOR'S expense. No separate payment will be made for survey work performed by SUBCONTRACTOR. In the event the Work or any work or services of CONTRACTOR or any third party must be repaired, reworked or re-performed because it was based on such a moved, destroyed or inaccurate survey control point, SUBCONTRACTOR shall be solely responsible for the costs of such repair, rework or re-performance and any associated Liabilities.

GC-17 SUBCONTRACTOR'S WORK AREA

17.1 CONTRACTOR will assign SUBCONTRACTOR work areas on the Jobsite. SUBCONTRACTOR shall confine its operations to the areas so assigned. Should SUBCONTRACTOR find it necessary or advantageous to use any additional off-site area for any purpose whatsoever, SUBCONTRACTOR shall, at its expense, provide and make its own arrangements for the use of such additional off-site areas and shall provide written notice to CONTRACTOR describing the location and identifying the operations being performed there.

GC-18 CLEANING UP

18.1 SUBCONTRACTOR shall, at all times, keep its work areas in a neat, clean and safe condition. Upon completion of any portion of the Work, SUBCONTRACTOR shall promptly remove from the work area all its equipment, construction plant, temporary structures and surplus materials not to be used at or near the same location during later stages of the Work.

18.2 Upon completion of the Work and prior to final payment, SUBCONTRACTOR shall at its

expense satisfactorily dispose of all rubbish, remove all plant, buildings, equipment and materials belonging to SUBCONTRACTOR and return to CONTRACTOR's warehouse or Jobsite storage area all salvageable CONTRACTOR or EMPLOYER supplied materials. SUBCONTRACTOR shall leave the premises in a neat, clean and safe condition.

18.3 If SUBCONTRACTOR fails to comply with the foregoing requirements, CONTRACTOR will accomplish them at SUBCONTRACTOR's expense.

GC-19 COOPERATION WITH OTHERS

19.1 CONTRACTOR, EMPLOYER or their other Sub-tiers may be working at the Jobsite during the performance of this Subcontract and SUBCONTRACTOR's work or use of certain facilities may be interfered with as a result of such concurrent activities. SUBCONTRACTOR acknowledges its obligation to coordinate its activities on the Jobsite with the work of each such party to avoid or mitigate to the greatest extent possible interference with their work. CONTRACTOR reserves the right to require SUBCONTRACTOR to schedule the order of performance of the Work to minimize interference with work of any of the parties involved.

GC-20 RESPONSIBILITY FOR WORK, SECURITY AND PROPERTY

20.1 Work in Progress, Equipment and Material.

(1) SUBCONTRACTOR shall be responsible for and shall bear any and all risk of loss or damage to work in progress and, pursuant to the Special Condition, titled "TITLE AND RISK OF LOSS", to equipment and materials.

20.2. Delivery, Unloading and Storage:

(1) SUBCONTRACTOR's responsibility for materials, plant and equipment required for the performance of this Subcontract shall include:

a. Procurement, importation and transportation to and from the Jobsite unless otherwise specified;

b. Receiving and unloading;

c. Storing in a secure place and in a manner subject to CONTRACTOR's review. Materials, plant and equipment subject to degradation by outside exposure shall be stored in weather-tight enclosures provided by SUBCONTRACTOR;

d. Delivering from storage to Jobsite any and all materials, plant and equipment required for SUBCONTRACTOR to perform the Work; and

e. Keeping and maintaining complete and accurate records for CONTRACTOR's inspection of all materials, plant and equipment received, stored and issued for use in the Work.

f. Providing the necessary measures to keep any CONTRACTOR-furnished and all SUBCONTRACTOR-furnished materials, plant and equipment secure. Neither CONTRACTOR nor EMPLOYER shall be liable for security of such materials, plant and equipment.

(2) In case of SUBCONTACTOR's failure to carry out CONTRACTOR's instructions regarding adequate storage of its own or CONTRACTOR-furnished materials, plant and equipment at the Jobsite, CONTRACTOR shall be entitled to employ other means to carry out the same and may backcharge SUBCONTRACTOR for all costs and expenses consequent thereon or incidental thereto, or may deduct such costs and expenses from any monies due or which may become due to SUBCONTRACTOR.

Security:

(1) SUBCONTRACTOR shall at all times conduct all operations under this Subcontract in a manner to avoid the risk of loss, theft, or damage by vandalism, sabotage or any other means to any equipment, materials, work or other property at the Jobsite. SUBCONTRACTOR shall continuously inspect all equipment, materials and work to discover and determine any conditions, which might involve such risks and shall be solely responsible for discovery, determination and correction of any such conditions.

(2) As part of its security obligations, SUBCONTRACTOR shall at its own expense install temporary work fences when necessary for the safety of laborers, the public or animals, or for the protection of the Work or the Project. In addition, SUBCONTRACTOR shall provide at its own expense all illumination, guarding, additional fencing and surveillance at the times and places directed by CONTRACTOR, EMPLOYER, Employer's Representative or any public authority for the protection of the Work or the Project, for ensuring public safety or security, or for any other reasonable purpose.

(3) SUBCONTRACTOR shall comply with CONTRACTOR's and EMPLOYER's security requirements for the Jobsite. SUBCONTRACTOR shall cooperate with CONTRACTOR and EMPLOYER on all security matters and shall promptly comply with any Project security arrangements established by CONTRACTOR or EMPLOYER. Such compliance with these security requirements shall not relieve SUBCONTRACTOR of its responsibility for maintaining proper security for the above noted items, nor shall it be construed as limiting in any manner SUBCONTRACTOR's obligation with respect to all applicable laws and regulations and to undertake reasonable action to establish and maintain secure conditions at the Jobsite.

20.4 Property:

(1) SUBCONTRACTOR shall plan and conduct its operations for the performance of this Subcontract, including but not limited to operation of equipment or stockpiling of materials, so as:

a. To preserve and protect lands in their natural state as well as all cultivated and planted areas and vegetation such as trees, plants, shrubs and grass, whether on or off the Jobsite, unless otherwise authorized in writing by CONTRACTOR.

b. Not to damage, close, obstruct, disrupt or otherwise interfere with any utility installation, right-of-way, highway, road, structure or other property until permits and CONTRACTOR's advance written permission have been obtained;

c. Not to damage, close, obstruct, disrupt or otherwise interfere with the operation of any pipeline, telephone, electric transmission line, ditch or structure unless otherwise specifically authorized by this Subcontract; or

d. Not to contradict with any Applicable Laws, intervene with public convenience; hinder access to or utilization of any public and private roads and pathways, or hinder entrance to or exit from any property whether belonging to CONTRACTOR, EMPLOYER, Employer's Representative or any third party.

20.5 SUBCONTRACTOR shall not be entitled to any extension of time to the Contract Milestones of Completion Date or compensation on account of SUBCONTRACTOR's failure to protect all facilities, equipment, plant, materials and other property as described herein. All costs in connection with any repairs or restoration necessary or required by reason of unauthorized obstruction, damage or use shall be borne by SUBCONTRACTOR. In addition,

SUBCONRACTOR's indemnity obligations pursuant to the General Condition titled "INDEMNITY" shall extend to any Liabilities arising as a result of or in connection with SUBCONTRACTOR's actual or allege failure to comply with its obligations under this clause GC-20.

GC-21 SUBCONTRACTOR'S PLANT, EQUIPMENT AND FACILITIES

21.1 SUBCONTRACTOR shall provide and use for the Work only such construction plant and equipment as are capable of producing the quality and quantity of work and materials required by this Subcontract and within the time or times specified in the Subcontract Schedule.

21.2 SUBCONTRACTOR shall give CONTRACTOR reasonable notice of the date on which any equipment, plant, apparatus, machinery, vehicles, material and/or other major things required for the execution and completion of the Works and/or remedying of any Defects will be delivered to the Jobsite.

21.3 Prior approval of CONTRACTOR must be obtained before SUBCONTRACTOR may use and/or install at the Jobsite any equipment, temporary utilities and facilities provided by SUBCONTRACTOR. SUBCONTRATOR is solely responsible for the safekeeping and maintenance of its equipment, utilities, facilities and materials.

21.4 Before proceeding with the Work, SUBCONTRACTOR shall furnish CONTRACTOR with information and drawings relative to such equipment, plant and facilities as CONTRACTOR may request. Upon written order of CONTRACTOR, SUBCONTRACTOR shall discontinue operation of unsatisfactory plant, equipment or facilities and shall either modify the unsatisfactory items or remove such items from the Jobsite.

21.5 SUBCONTRACTOR shall, at the time any construction equipment is moved onto the Jobsite, present to CONTRACTOR an itemized list of all construction equipment and tools, including but not limited to power tools, welding machines, pumps and compressors. Said list must include description and quantity, and serial number where applicable. It is recommended that SUBCONTRACTOR identify its equipment by color, decal and etching. SUBCONTRACTOR shall not remove construction plant, equipment or tools from the Jobsite before the Work is finally accepted, without CONTRACTOR's written approval.

GC-22 ILLUMINATION

22.1 When any work is performed at night or where daylight is obscured, SUBCONTRACTOR shall, at its expense, provide artificial light sufficient to permit work to be carried on efficiently, satisfactorily and safely, and to permit thorough inspection. During such time periods the access to the place of work shall also be clearly illuminated. All wiring for electric light and power shall be installed and maintained in a safe manner and meet all applicable codes and standards.

GC-23 USE OF COMPLETED PORTIONS OF WORK

23.1 Whenever, as determined by CONTRACTOR, any portion of the Work performed by SUBCONTRACTOR is suitable for use, CONTRACTOR or EMPLOYER may, upon written notice, occupy and use such portion. Use shall not constitute acceptance, relieve SUBCONTRACTOR of its responsibilities, or act as a waiver by CONTRACTOR or EMPLOYER of any terms of this Subcontract.

23.2 SUBCONTRACTOR shall not be liable for normal wear and tear or for repair of damage caused by any misuse during such occupancy or use by CONTRACTOR or EMPLOYER. If such use increases the cost or time of performance of remaining portions of the Work, SUBCONTRACTOR shall, pursuant to the General Condition titled "CHANGES", be entitled to an equitable adjustment in its compensation or schedule under this Subcontract.

23.3 If, as a result of SUBCONTRACTOR'S failure to comply with the provisions of this

Subcontract, such use proves to be unsatisfactory to CONTRACTOR or EMPLOYER, CONTRACTOR or EMPLOYER shall have the right to continue such use until such portion of the Work can, without injury to CONTRACTOR or EMPLOYER, be taken out of service for correction of defects, errors, omissions or replacement of unsatisfactory materials or equipment as necessary for such portion of the Work to comply with the Subcontract; provided that the period of such operation or use pending completion of appropriate remedial action shall not exceed twelve (12) months unless otherwise mutually agreed in writing between the parties.

23.4 SUBCONTRACTOR shall not use any permanently installed equipment unless such use is approved in writing by CONTRACTOR. When such use is approved, SUBCONTRACTOR shall at its expense properly use and maintain and upon completion of such use, recondition such equipment to the satisfaction of CONTRACTOR or EMPLOYER.

23.5 If CONTRACTOR, EMPLOYER or Employer's Representative furnishes an operator for such permanently installed equipment, all services performed shall be under the complete direction and control of SUBCONTRACTOR, and such operator shall be considered SUBCONTRACTOR's employee for all purposes other than payment of such operator's wages, Workers' Compensation Insurance or other benefits.

GC-24 USE OF CONTRACTOR'S CONSTRUCTION EQUIPMENT OR FACILITIES

24.1 Where SUBCONTRACTOR requests CONTRACTOR and CONTRACTOR agrees to make available to SUBCONTRACTOR certain equipment or facilities belonging to CONTRACTOR for the performance of SUBCONTRACTOR Work under the Subcontract, the following shall apply:

(1) Equipment or facilities will be charged to SUBCONTRACTOR at rental rates to be agreed. CONTRACTOR may assign and prioritize the use of CONTRACTOR's equipment and facilities amongst SUBCONTRACTOR and others;

(2) CONTRACTOR will furnish a copy of the equipment maintenance and inspection record and SUBCONTRACTOR shall maintain these records during the rental period in a form and substance satisfactory to CONTRACTOR. All maintenance and inspections performed by SUBCONTRACTOR shall be accomplished in accordance with CONTRACTOR's directions and the manufacturer's and industry standards;

(3) SUBCONTRACTOR shall assure itself of the condition of such equipment and assume all risks and responsibilities during its use;

(4) SUBCONTRACTOR shall, as part of its obligation under the General Condition titled "INDEMNITY", release, defend, indemnify and hold harmless the Indemnified Parties from and against all Liabilities arising from the use of such equipment.

(5) CONTRACTOR and SUBCONTRACTOR shall jointly inspect such equipment before its use and upon its return. Following each such inspection, CONTRACTOR shall prepare a written report describing in detail the condition of the CONTRACTOR-furnished equipment and/or facilities. The report shall be signed by CONTRACTOR and SUBCONTRACTOR, and both parties shall be entitled to retain a copy of the report. Both parties shall make a diligent effort to agree on the report, but in the event agreement cannot be reached, then CONTRACTOR's version of the report shall be deemed to be the agreed version.

(6) Upon completion of SUBCONTRACTOR's use of CONTRACTOR-furnished equipment and/or facilities, SUBCONTRACTOR shall return each item in the same conditions as received by SUBCONTRACTOR. Should the joint inspection performed upon return reveal that the equipment and/or facilities have been damaged or have deteriorated during the period of SUBCONTRACTOR's use, then the cost of all necessary repairs or replacement shall be at SUBCONTRACTOR'S expense.

(7) If such equipment is furnished with an operator, the services of such operator will be performed under the complete direction and control of SUBCONTRACTOR and such operator shall be considered SUBCONTRACTOR'S employee for all purposes other than the payment of wages, Workers' Compensation Insurance or other benefits.

GC-25 MEDICAL FACILITIES

25.1 CONTRACTOR has medical and first-aid facilities at the Project site available for the treatment of employees of SUBCONTRACTOR or its Sub-tiers, who may be injured or become ill while engaged in the performance of the Work under this Subcontract.

25.2 In consideration for the use of such facilities and the receipt of such services, SUBCONTRACTOR hereby agrees:

(1) To include as part of its obligation under the General Condition titled "INDEMNITY" the obligation to release, defend, indemnify and hold harmless the Indemnified Parties from and against all Liabilities arising from the use of such services or facilities; and

(2) In the event any of employees of SUBCONTRACTOR's employees or employees of its Sub-tiers require off-site medical services, including transportation thereto, to promptly pay for such services directly to the providers thereof.

25.3 In the event that any of SUBCONTRACTOR's employees or employees of its Sub-tiers require medical evacuation due to a serious injury happened in relation to the performance of the Work, CONTRACTOR will execute the medical evacuation for such employees. Costs incurred by CONTRACTOR as a result of the medical evacuation will be backcharged to the SUBCONTRACTOR in accordance with General Condition titled "BACKCHARGES".

GC-26 INSPECTION, TESTING AND QUALITY SURVEILLANCE

26.1 Unless otherwise specified, all material and equipment furnished and work performed shall be properly inspected by SUBCONTRACTOR at its expense, in accordance with the Subcontract requirements, and shall at all times be subject to quality surveillance and quality audit by CONTRACTOR, EMPLOYER, Employer's Representative, or their authorized representatives who, upon reasonable notice, shall be afforded full and free access to the shops, factories or other places of business of SUBCONTRACTOR and its Sub-tiers for such quality surveillance or audit.

26.2 SUBCONTRACTOR shall provide safe and adequate facilities, drawings, documents and samples as requested, and shall provide assistance and cooperation including stoppage of work to perform such inspection, testing and quality surveillance as may be necessary to determine compliance with the requirements of this Subcontract.

26.3 If CONTRACTOR or EMPLOYER incur any additional costs due to delays in SUBCONTRACTOR performing any test or due to re-testing of equipment or material that failed prior testing, then CONTRACTOR may, at its sole option, backcharge SUBCONTRACTOR such additional costs in accordance with the General Condition titled "BACKCHARGES".

26.4 Any work covered prior to any quality surveillance or test by CONTRACTOR, EMPLOYER or Employer's Representative shall be uncovered and replaced at the expense of SUBCONTRACTOR if such covering interferes with or obstructs such surveillance or test. Failure of CONTRACTOR, EMPLOYER or Employer's Representative to make such quality surveillance or to discover defective design, equipment, materials or workmanship shall not relieve SUBCONTRACTOR of its obligations under this Subcontract nor prejudice the rights of CONTRACTOR, EMPLOYER or Employer's Representative thereafter to reject or require the correction of defective work in accordance with the provisions of this Subcontract.

26.5 If any work is determined by CONTRACTOR, EMPLOYER or Employer's Representative to be defective or not in conformance with this Subcontract the provisions of the General Condition titled "WARRANTY" shall apply.

GC-27 EXPEDITING

27.1 The equipment and materials furnished and work performed under this Subcontract shall be subject to expediting by CONTRACTOR or its representatives who shall be afforded full and free access to the shops, factories and other places of business of SUBCONTRACTOR and its Sub-tiers for expediting purposes. As required by CONTRACTOR, SUBCONTRACTOR shall provide detailed schedules and progress reports for use in expediting and shall cooperate with CONTRACTOR in expediting activities.

GC-28 FORCE MAJEURE

28.1 No delay or failure in performance (except for payment obligations) by either Party shall constitute default or give rise to any claim for damages to the extent such delay or failure is caused by Force Majeure.

28.2 Force Majeure means an exceptional event or circumstance which:

(1) is beyond a Party's control

(2) such Party could not reasonably have provided against before entering into this Subcontract

(3) having arisen, such Party could not reasonably have avoided or overcome, and

(4) is not substantially attributable to the other Party

28.3 Delays attributable to and within the control of SUBCONTRACTOR's Sub-tiers shall be deemed delays within the control of SUBCONTRACTOR.

28.4 Force Majeure may include without limitation, exceptional events, circumstances or occurrences of the kind listed below so long as conditions (1) to (4) in clause 28.2 above are satisfied:

(1) war, hostilities, (weather war be declared or not), invasion, act of foreign enemies,

(2) rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war,

(3) riot, commotion, disorder, strike or lockout by persons other than employees of SUBCONTRACTOR or its Sub-tiers,

(4) munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the CONTRACTOR's use of such munitions, explosives, radiation or radioactivity, and

(5) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity

28.5 The following will not constitute Force Majeure:

(1) insufficient financial means of SUBCONTRACTOR or any of its Sub-tiers to perform any Subcontract obligations, including the insolvency or bankruptcy of any Sub-tier; any labor disturbance, strike or dispute involving SUBCONTRACTOR's personnel or any of its Sub-tier's personnel, unless such labor disturbance, strike or dispute is part of a national or regional labor disturbance, strike or dispute; and the unavailability or shortages of labor or equipment or materials.

28.6 If SUBCONTRACTOR's performance of this Subcontract is delayed by a Force Majeure occurrence, SUBCONTRACTOR shall provide CONTRACTOR written notification of the delay and its estimated duration within twenty-four (24) hours of the occurrence. During the ongoing occurrence, SUBCONTRACTOR shall take all actions to minimize and mitigate the effect of the Force Majeure occurrence. Within seven (7) calendar days after cessation of any Force Majeure occurrence, SUBCONTRACTOR shall notify CONTRACTOR in writing specifying the actual duration of the delay and describing its plan to minimize and mitigate the effect of the Force Majeure occurrence on the completion of the Work.

28.7 Failure to provide any of the above required notices or failure to submit its plan to minimize or mitigate the effect of a Force Majeure occurrence shall be sufficient ground for denial of an equitable adjustment. If SUBCONTRACTOR believes a Force Majeure occurrence causes an increase or decrease in the cost or time of performance of the Work, SUBCONTRACTOR shall, within twenty (20) calendar days after cessation of the Force Majeure occurrence, submit its proposal for an equitable adjustment and the Subcontract shall be modified in accordance with the General Condition titled "CHANGES", to the extent CONTRACTOR determines the Force Majeure event caused any such increase or decrease.

GC-29 CHANGES

29.1 CONTRACTOR may, at any time, without notice to the sureties if any, by written Change Order or Change Notice unilaterally make any change in the Work within the general scope of this Subcontract, including but not limited to changes:

(1) In the drawings, designs or specifications;

(2) In the method, manner, sequence or scope of SUBCONTRACTOR's work;

(3) In CONTRACTOR or EMPLOYER-furnished facilities, equipment, materials, services or site(s);

(4) Directing acceleration or deceleration in performance of the Work; and

(5) Modifying the Subcontract Schedule or the Subcontract Milestones.

And SUBCONTRACTOR agrees to perform such Work as changed.

29.2 In addition, in the event of an emergency, which CONTRACTOR determines endangers life or property, CONTRACTOR may use oral orders to SUBCONTRACTOR for any work required by reason of such emergency. SUBCONTRACTOR shall commence and complete such emergency work as directed by CONTRACTOR. Such orders will be confirmed by written Change Notice.

29.3 All other modifications to this Subcontract shall be by written Amendment signed by both parties.

29.4 If any change under this clause GC-29, whether or not changed by any such order, or an act or omission of CONTRACTOR or EMPLOYER, causes an increase or decrease in the cost of or in the time required to perform any part of the Work an equitable adjustment shall be made to the compensation or time(s) for completion, or both. SUBCONTRACTOR shall, within ten (10) calendar days of such change or act or omission, notify CONTRACTOR and submit a detailed claim substantiating its cost and/or schedule impact. Upon agreement as to the impact of the change or act or omission, the Subcontract shall be modified by written "Change Order".

29.5 SUBCONTRACTOR shall forward to CONTRACTOR a monthly statement showing complete and detailed information regarding all claims related to changes in the Work pursuant to this Subcontract in respect of which SUBCONTRACTOR considers it is entitled to an equitable

adjustment to the compensation or time(s) for completion, with details regarding the value of changed Work executed during the previous month. Any claims for equitable adjustment to the compensation or time(s) for completion related to such changed Work shall not be considered unless (i) SUBCONTRACTOR provides timely notice and (ii) the said amounts are included in the information detailed in the above stated monthly statement.

29.6 Notwithstanding anything to the contrary in the Subcontract, whenever the SUBCONTRACTOR considers that it is entitled to an adjustment to the compensation and/or time(s) for completion:

(1) the SUBCONTRACTOR shall, within a period of ten (10) calendar days after the occurrence of the event or circumstance giving rise to the claimed entitlement (or within such shorter period as the Subcontract may specify in respect of the relevant event or circumstance), notify the CONTRACTOR and submit a detailed claim substantiating its cost and/or schedule impact;

(2) if the SUBCONTRACTOR fails to notify the CONTRACTOR and to submit a detailed claim substantiating its cost and/or schedule impact within the period referred to in paragraph (1) immediately above then the SUBCONTRACTOR shall be conclusively deemed to have waived any entitlement it might otherwise have had to any adjustment to the compensation and/or time(s) for completion, and the CONTRACTOR shall be relieved of any liability that it might otherwise have had in connection with the relevant event or circumstance. In no case shall a claim by SUBCONTRACTOR be considered if asserted after final payment under this Subcontract; and

(3) an adjustment to the time(s) for completion shall be made only if and to the extent that (a) SUBCONTRACTOR use used reasonable efforts to eliminate or mitigate any resultant delay, and (b) notwithstanding those efforts, completion of the Work or any portion thereof by the applicable time(s) for completion is or will be delayed by the relevant event or circumstance.

29.7 Failure by CONTRACTOR and SUBCONTRACTOR to agree on any adjustment shall be a dispute within the meaning of the General Condition titled "DISPUTES".

29.8 SUBCONTRACTOR shall proceed diligently with performance of the Work, pending final resolution of any request for adjustment, dispute, claim, appeal, or action arising under the Subcontract, and comply with any decision of CONTRACTOR.

29.9 Any change in design including but limited to geometrical, structural and/or conceptual design or bill of quantities between the design documents made available to SUBCONTRACTOR in Exhibit "E" and Implementation Design (the "Design Development") shall not constitute a change under this clause. As such, SUBCONTRACTOR shall not be entitled to any equitable adjustment to the compensation and/or time(s) for completion of Works in relation to Design Development.

GC-30 PRICING OF ADJUSTMENTS

30.1 When costs are a factor in any determination of a Subcontract adjustment pursuant to the General Conditions titled "CHANGES" or "DISPUTES", SUBCONTRACTOR shall propose upward or downward price adjustments in one of the following methods as directed by CONTRACTOR:

(1) Using unit or lump sum prices from the Subcontract;

(2) Estimating new unit prices where appropriate, subject to negotiation;

(3) Estimating a lump sum price for the change, subject to negotiation; and

(4) Establishing separate cost accounting records, subject to daily end-of-the-day written approval by CONTRACTOR of all allocable costs on a Force Account basis. Reimbursement of reasonable and approved incurred costs, plus specified rates for overhead and profit, as defined below, shall be the basis for Force Account adjustment of the Subcontract Price.

30.2 When SUBCONTRACTOR is directed to propose price adjustments pursuant to GC-30.1(2) or GC-30.1(3) above, it shall provide cost breakdown information for the purpose of and in sufficient detail to permit analysis and negotiation including but not limited to lower-tier subcontracts, labor categories, job hours and rates, equipment and material quantities, sources and calculations, overhead costs and allocations, profit computations and reference data upon which estimates are based. Proposals that include work to be performed by Sub-tiers shall include a detailed description of the lower-tier subcontracted work. Pricing by Sub-tiers shall be subject to the same limitations set forth in items set out in GC-30.3(1) through GC-30.3(4) below.

30.3 If for any reason CONTRACTOR and SUBCONTRACTOR are unable to agree upon a Subcontract Price adjustment then the following provisions, which establish and define allowable costs and rates for Force Account work pursuant to 30.1(4) above, shall also define allowable costs and rates for a determination by CONTRACTOR.

(1) Direct Labor.

(a) Incurred direct labor wages for technical, craft and manual labor for all classifications through lead engineer, foreman or equivalent are allowable for the period of performance of the change. General supervision and management above lead engineer, foreman or equivalent and indirect labor, e.g., surveyors, office personnel, timekeepers and maintenance personnel, are not allowable as direct costs but are recovered in the overhead and profit rates established by this clause. Payroll additives are allowable and include taxes, insurance premiums, paid absences, and social and retirement benefits required by law, labor agreements, published company policies applying uniformly to SUBCONTRACTOR's work force or which are normal and customary.

(b) CONTRACTOR shall have access to SUBCONTRACTOR's certified payroll records for verification of labor costs.

(c) Overhead and profit on direct labor shall be calculated as follows: Fifteen percent (15%) of direct labor for changes of less than EUR 20,000, and ten percent (10%) of direct labor for changes equal to or in excess of EUR 20,000.

(2) Equipment.

(a) Approved incurred construction equipment, facilities and vehicle net rental costs plus five percent (5%) for SUBCONTRACTOR overhead and profit are allowable, except tools and equipment having original purchase prices of less than EUR 500 each, which are deemed to be covered in the overhead and profit rates established by this clause. If operating costs are not included in rental rates they are also allowable.

(b) Reasonable equipment charges for approved SUBCONTRACTOR-owned construction equipment having original purchase prices of more than EUR 500 each shall also be allowed provided such charges are:

i. Agreed upon Subcontract unit rates; or

ii. Based upon calculated values allocating ownership costs over the useful life of the equipment plus operating costs such as fuel, oil, lubricants, and maintenance and a profit of ten percent (10%) on such costs; and

(c) When the operated use of equipment is infrequent and, as determined by CONTRACTOR, such equipment need not remain at the Jobsite continuously, charges shall be limited to actual hours of use.

(d) For the cost of both rented and owned equipment to be allowable, CONTRACTOR must agree in writing, prior to their being used, that the individual pieces of equipment are needed, are appropriate for the Work, and that the mobilization and demobilization costs are allocable to the change and acceptable. This is in addition to the daily end-of-day approval of operating time for such equipment.

(3) Materials.

(a) Approved incurred costs for material incorporated into the changed Work or required for temporary construction facilities made necessary by the change shall be allowable at net cost delivered to the Jobsite plus five percent (5%) overhead and profit for SUBCONTRACTOR.

(4) Sub-tiers

(a) Approved incurred costs for lower-tier subcontracted tasks shall be allowable plus five percent (5%) overhead and profit for SUBCONTRACTOR; provided that CONTRACTOR has approved the lower-tier Subcontract pursuant to the Subcontract Form of Agreement.

30.4 No additional overhead and profit will be allowed for items set out in GC-30.3(1) through GC-30.3(4) above, and the amounts provided for such items will be deemed to be full consideration for all overhead, interest and profit, for all additional costs e.g., supervision and tools, and for all impacts of the change on all elements of the Work whether or not changed.

GC-31 DISPUTES

31.1 SUBCONTRACTOR shall not be entitled to claim and neither CONTRACTOR nor EMPLOYER shall be liable to SUBCONTRACTOR or its Sub-tiers in tort (including negligence), or contract except as specifically provided in this Subcontract.

31.2 Any claim arising out of or attributable to the interpretation or performance of this Subcontract, which cannot be resolved by negotiation, shall be considered a dispute within the meaning of this clause.

31.3 If for any reason SUBCONTRACTOR and CONTRACTOR are unable to resolve a claim for an adjustment, SUBCONTRACTOR or CONTRACTOR shall notify the other party in writing that a dispute exists and request or provide a final determination by CONTRACTOR. Any such request by SUBCONTRACTOR shall be clearly identified by reference to this clause and shall summarize the facts in dispute and SUBCONTRACTOR's proposal for resolution.

31.4 CONTRACTOR shall, within thirty (30) calendar days of any request by SUBCONTRACTOR, provide a written final determination setting forth the contractual basis for its decision and defining what Subcontract adjustments it considers equitable. Upon SUBCONTRACTOR'S written acceptance of CONTRACTOR'S determination the Subcontract will be modified and the determination implemented accordingly or, failing agreement, CONTRACTOR may in its sole discretion pay such amounts and/or revise the time for performance of the Work in accordance with CONTRACTOR's final determination.

31.5 If SUBCONTRACTOR does not accept CONTRACTOR's final determination the matter shall, within thirty (30) calendar days, be referred to senior executives of the parties who shall have designated authority to settle the dispute. The parties shall promptly prepare and exchange memoranda stating the issues in dispute and their respective positions, summarizing the negotiations that have taken place and attaching relevant documents.

31.6 The senior executives will meet for negotiations at a mutually agreed time and place. If the matter has not been resolved within thirty (30) calendar days of the commencement of such negotiations, the parties agree to consider resolution of the dispute through some form of Alternative Dispute Resolution (ADR) process, which is mutually acceptable to the parties.

31.7 Should the parties agree to pursue an ADR process each party will be responsible for its own expenses incurred to resolve the dispute during the ADR process.

31.8 If the parties do not agree to an ADR process, are unable to resolve the dispute through ADR, or at any time mutually concur in expediting this process, the parties agree to proceed in accordance with the Special Condition titled "ARBITRATION".

GC-32 RECORDS AND AUDIT

32.1 SUBCONTRACTOR shall maintain records and accounts in connection with the performance of this Subcontract which will accurately document incurred costs, both direct and indirect, of whatever nature for a period of three (3) years from the expiration of SUBCONTRACTOR's warranty unless a longer period is otherwise specified by Applicable Law. SUBCONTRACTOR shall maintain its records and accounts in standards and formats acceptable to CONTRACTOR.

32.2 CONTRACTOR, EMPLOYER, Employer's Representative, or their representatives shall have the right to examine and copy, at all reasonable times and with advance notification, such records and accounts for the purposes of confirming compliance with Subcontract provisions, verifying payments or requests for payment when costs are the basis of such payment and evaluating the reasonableness of proposed Subcontract price adjustments and claims.

32.2 If CONTRACTOR, EMPLOYER or Employer's Representative establishes uniform codes of accounts for the Project, SUBCONTRACTOR shall use such codes in identifying its records and accounts.

GC-33 WARRANTY

33.1 SUBCONTRACTOR warrants to CONTRACTOR and EMPLOYER for Warranty Period that:

(1) procurement, temporary works (and associated design) and construction (including testing) services required under this Subcontract shall be performed with the high degree of skill, current methods, sound practices and good judgment normally exercised by recognized professional firms rendering services of a similar nature;

(2) all equipment and materials incorporated into the Work shall be of the most suitable grade and condition of their respective kinds for their intended uses unless otherwise specified;

(3) all equipment and materials furnished under this Subcontract shall be OEM (Original Equipment Manufacturer) genuine and original and shall include only OEM genuine and original components, with no counterfeit items or suspect items; and

(4) all workmanship shall conform to the requirements of this Subcontract and be performed in accordance with the best industry practices, using methods acceptable to CONTRACTOR and EMPLOYER.

(5) any equipment and material furnished under this Subcontract shall be capable of producing the quality of Work required by this Subcontract within the time required for performance of the Work

(6) the Work shall be Fit for Purpose

(7) all equipment, materials and workmanship shall conform to the requirements of this Subcontract

33.2 If at any time during the Warranty Period SUBCONTRACTOR discovers any failure to comply with the above warranty ("Defect"), it shall give immediate written notice to CONTRACTOR

and shall promptly propose corrective actions to cure such Defects to meet requirements of this Subcontract. If CONTRACTOR, EMPLOYER or Employer's Representative or others discover any Defect, then SUBCONTRACTOR shall upon written notice comply with any direction given by CONTRACTOR pursuant to this clause GC-33.

33.3 CONTRACTOR, in its sole discretion, may direct SUBCONTRACTOR in writing and SUBCONTRACTOR agrees to:

(1) Rework, repair or remove and replace defective equipment or materials;

(2) Rework, remove, reinstall or reconstruct work involving defective workmanship, recognizing that immediate corrective action will be required if the Defect causes an emergency endangering life or property and in other appropriate circumstances to minimize delay or damage to the Work or other property;

(3) Correct by appropriate means, including but not limited to reengineering, replacing or reconstructing, work affected by the Defects because of access, inspection, testing, interface or other considerations;

(4) Demonstrate that additional testing or inspection has corrected the Defect;

(5) Reimburse the costs incurred by CONTRACTOR or EMPLOYER to have others accomplish any of corrective actions (1) through (5) above; or

(6) Negotiate an equitable reduction in the Subcontract Price in consideration for CONTRACTOR's and EMPLOYER's waiver or reduction of the Subcontract requirements in lieu of or for partial corrective action.

33.4 All costs incidental to such corrective action, including access, removal, disassembly, transportation, reinstallation, reconstruction, retesting and re-inspection, as may be necessary to correct the Defect or demonstrate that the previously defective work conforms to the requirements of this Subcontract shall be borne by SUBCONTRACTOR.

33.5 In performing its obligations under this Clause GC-33, SUBCONTRACTOR (a) shall perform in accordance with a schedule agreed by CONTRACTOR, and (b) shall use its best efforts to perform at times and in a manner which causes as little inconvenience as is reasonably possible to CONTRACTOR, EMPLOYER, Employer's Representative and the operators of the Project.

33.6 Notwithstanding anything to the contrary set out herein, if the failure of the Work to conform to these warranties presents a safety hazard or prevents operation of the Project, CONTRACTOR may immediately take whatever action is reasonably necessary to correct the non-conformity in order to correct the safety hazard and/or allow the continued safe operation of the Project, and the SUBCONTRACTOR will be liable to CONTRACTOR for the reasonable costs of such actions.

GC-34 BACKCHARGES

34.1 CONTRACTOR may, in addition to any other amounts to be retained hereunder, retain from any sums otherwise owing to SUBCONTRACTOR amounts sufficient to cover the full costs of any of the following:

(1) SUBCONTRACTOR'S failure to comply with any provision of this Subcontract or SUBCONTRACTOR'S acts or omissions in the performance of any part of this Subcontract, including, but not limited to, violation of any Applicable Law, including without limitation those regarding safety, hazardous materials or environmental requirements;

(2) Correction of defective or nonconforming Work by redesign, repair, rework,

replacement or other appropriate means when SUBCONTRACTOR states, or by its actions indicates, that it is unable or unwilling to proceed with corrective action in a reasonable time; and/or

(3) CONTRACTOR agrees to or is required to take action or perform Work for SUBCONTRACTOR, such as cleanup, off-loading or completion of incomplete work.

34.2 CONTRACTOR may also backcharge SUBCONTRACTOR for work done or cost incurred to remedy these or any other SUBCONTRACTOR defaults, errors, omissions or failures to perform or observe any part of this Subcontract. CONTRACTOR may, but shall not be required to, give SUBCONTRACTOR written notice before performing such actions or work or incurring such cost. Lack of written notice shall not impair CONTRACTOR's right to proceed with the action or work under this or any other provision of this Subcontract.

34.3 The cost of backcharge work shall include:

(1) Incurred labor costs (manual and non-manual) including all payroll additives, travel and subsistence;

(2) Incurred net delivered material costs;

(3) Incurred Sub-tier costs directly related to performing the corrective action;

(4) Equipment and tool rentals at prevailing rates in the Jobsite area; and

(5) A factor of twenty five percent (25 %) applied to the total of Items (1) through (4) for CONTRACTOR's overhead, supervision, administrative and other indirect costs.

34.4 CONTRACTOR shall separately invoice or deduct and retain from payments otherwise due to SUBCONTRACTOR the costs as provided herein. CONTRACTOR'S right to backcharge is in addition to any and all other rights and remedies provided in this Subcontract or by Applicable Law. The performance of backcharge work by CONTRACTOR shall not relieve SUBCONTRACTOR of any of its responsibilities under this Subcontract including but not limited to express or implied warranties, specified standards for quality, contractual liabilities and indemnifications, and meeting the Subcontract Milestones of the Special Condition titled "COMMENCEMENT, PROGRESS AND COMPLETION OF THE WORK".

GC-35 INDEMNITY

35.1 SUBCONTRACTOR hereby releases and shall indemnify, defend and hold harmless the Indemnified Parties from and against any and all Liabilities arising in connection with or incidental to the performance of this Subcontract, whether arising before or after completion of the Work hereunder and in any manner directly or indirectly caused, occasioned, or contributed to in whole or in part, or claimed to be caused, occasioned or contributed to in whole or in part, by reason of any act, omission, fault or negligence whether active or passive of SUBCONTRACTOR, its Sub-tiers or of anyone acting under its direction or control or on its behalf.

35.2 The foregoing shall include, but is not limited to, indemnity for:

(1) Property damage and injury to or death of any person, including employees of CONTRACTOR, EMPLOYER or Employer's Representative, or their designated representatives.

(2) The breach by SUBCONTRACTOR of any representation, warranty, covenant, or performance obligation of this Subcontract.

35.3 SUBCONTRACTOR's aforesaid release, indemnity and hold harmless obligations, or portions or applications thereof, shall apply even in the event of the fault or negligence, whether active or passive, or strict liability of the Indemnified Parties to the fullest extent permitted by

Applicable Law, but in no event shall they apply to liability caused by the willful misconduct or sole negligence of the party released, indemnified or held harmless.

GC-36 PATENT AND INTELLECTUAL PROPERTY INDEMNITY

36.1 SUBCONTRACTOR hereby releases and shall indemnify, defend and hold harmless the Indemnified Parties from and against any Liabilities arising from any claim, whether rightful or otherwise, that any concept, product, design, equipment, material, process, copyrighted material or confidential information, or any part thereof, furnished by SUBCONTRACTOR under this Subcontract constitutes an infringement of any patent or copyrighted material or a theft of trade secrets. If use of any part of such concept, product, design, equipment, material, process, copyrighted material or confidential information is limited or prohibited, SUBCONTRACTOR shall, at its sole expense, procure the necessary licenses to use the infringing or a modified but non-infringing concept, product, design, equipment, material, process, copyrighted material or confidential information or, with CONTRACTOR's prior written approval, replace it with substantially equal but non-infringing concepts, products, designs, equipment, materials, processes, copyrighted material or confidential information; provided, however, that:

(1) any such substituted or modified concepts, products, designs, equipment, material, processes, copyrighted material or confidential information shall meet all the requirements and be subject to all the provisions of this Subcontract; and

(2) such replacement or modification shall not modify or relieve SUBCONTRACTOR of its obligations under this Subcontract.

36.2 The foregoing obligation shall not apply to any concept, product, design, equipment, material, process, copyrighted material or confidential information the detailed design of which (excluding rating and/or performance specifications) has been furnished in writing by CONTRACTOR, EMPLOYER or Employer's Representative, or their designated representatives to SUBCONTRACTOR.

GC-37 RIGHT TO WORK TOOLS AND WORK PRODUCT

37.1 CONTRACTOR or EMPLOYER shall have, and SUBCONTRACTOR hereby grants CONTRACTOR or EMPLOYER a permanent, assignable, non-exclusive, royalty-free license to use any concept, product, process (patentable or otherwise), copyrighted material (including without limitation documents, specifications, calculations, maps, sketches, notes, reports, data, models, samples, drawings, designs, and electronic software) and confidential information owned by SUBCONTRACTOR upon commencement of the Works under this Subcontract and used by SUBCONTRACTOR or furnished or supplied to CONTRACTOR or EMPLOYER by SUBCONTRACTOR in the course of performance under this Subcontract.

37.2 Under such license CONTRACTOR or EMPLOYER may copy or reproduce any and all documents and information furnished by SUBCONTRACTOR in connection with the Subcontract and distribute such copies or reproductions to others as deemed appropriate by the licensees notwithstanding any proprietary legends or copyright notices to the contrary. SUBCONTRACTOR shall obtain necessary permission and releases from any third parties placing proprietary legends or copyright notices on such documents or information.

37.3 Any concept, product, process (patentable or otherwise), copyrightable material (including without limitation documents, specifications, calculations, maps, sketches, notes, reports, data, models, samples, drawings, designs and electronic software) or confidential information first developed, produced, acquired or reduced to practice by SUBCONTRACTOR or any of its employees or SUBCONTRACTOR's Sub-tiers, or any of their employees, in the performance of or otherwise in connection with this Subcontract (collectively, "Work Product") shall be the property of EMPLOYER upon creation, whether or not delivered to CONTRACTOR, EMPLOYER or Employer's Representative, or their designated representatives at the time of creation, and shall upon request by CONTRACTOR (but in no event later than Final Acceptance of the Works) be delivered to CONTRACTOR. Upon

request by CONTRACTOR from time to time, SUBCONTRACTOR agrees to do all things reasonably necessary, at CONTRACTOR's expense and as CONTRACTOR directs, to obtain patents or copyrights on any portion of such Work Product, to the extent the same may be patentable or copyrightable. SUBCONTRACTOR further agrees to execute and deliver or cause to be executed and delivered such documents, including in particular instruments of assignment, as CONTRACTOR may in its discretion deem necessary or desirable to assign and transfer title to such Work Product as CONTRACTOR may direct and to carry out the provisions of this clause.

37.4 Notwithstanding anything to the contrary in the Subcontract, documents produced by EMPLOYER, CONTRACTOR or Employer's Representative shall not, without CONTRACTOR's consent, be copied, used, or communicated to a third party by SUBCONTRACTOR, except as necessary for the purpose of this Subcontract.

GC-38 ASSIGNMENTS AND SUBCONTRACTS

38.1 Any SUBCONTRACTOR assignment of rights or delegation of duties or obligations under this Subcontract, in whole or part, by operation of Applicable Law or otherwise, without the prior written consent of CONTRACTOR shall be void. CONTRACTOR may provide written consent to assign monies due or to become due under this Subcontract, provided that any assignment of monies shall be subject to CONTRACTOR retaining in such assignment the remedies provided CONTRACTOR under this Subcontract, including rights to set-offs and deductions and the right to make direct payments to SUBCONTRACTOR's Sub-tiers

38.2 SUBCONTRACTOR shall not Subcontract with any third party for the performance of all or any portion of the Work without the advance written approval of CONTRACTOR. Purchase orders and subcontracts of any tier must include provisions to:

(1) Secure all rights and remedies of CONTRACTOR and EMPLOYER provided under this Subcontract, and

(2) Impose upon the Sub-tiers all of the duties and obligations required to fulfill this Subcontract as it relates to their portion of the Work.

38.3 SUBCONTRACTOR's duties, obligations and liabilities under this Subcontract shall apply in full force to all activities of each of its Sub-tiers. SUBCONTRACTOR's liability to CONTRACTOR, EMPLOYER and Employer's Representative for acts and omissions of SUBCONTRACTOR'S Sub-tiers shall be the same as SUBCONTRACTOR's liability for its own acts and omissions.

38.4 Copies of all purchase orders and subcontracts are to be provided to CONTRACTOR upon request.

38.5 No assignment, delegation or Subcontract will be approved which would relieve SUBCONTRACTOR or its sureties, if any, of their responsibilities under this Subcontract.

38.6 CONTRACTOR has the rights to assign, transfer and delegate this Subcontract and CONTRACTOR'S rights and obligations hereunder in whole or in part to EMPLOYER, Employer's Representative, or their designated representatives by novation or otherwise.

GC-39 NONDISCLOSURE

39.1 SUBCONTRACTOR agrees not to divulge to third parties, without the written consent of CONTRACTOR, any information related to the Project or obtained from or through CONTRACTOR, EMPLOYER or Employer's Representative in connection with the performance of this Subcontract.

39.2 SUBCONTRACTOR further agrees that it will not, without the prior written consent of CONTRACTOR, disclose to any third party any information developed or obtained by SUBCONTRACTOR in the performance of this Subcontract.

39.3 If so requested by CONTRACTOR, EMPLOYER or Employer's Representative, or their designated representatives, SUBCONTRACTOR further agrees to require its employees to execute a nondisclosure agreement prior to performing any Work under this Subcontract.

GC-40 SUSPENSION

40.1 CONTRACTOR may by written notice to SUBCONTRACTOR suspend at any time the performance of all or any portion of the Work to be performed under the Subcontract. Upon receipt of such notice, SUBCONTRACTOR shall, unless the notice requires otherwise:

(1) Immediately discontinue Work on the date and to the extent specified in the notice;

(2) Place no further orders or subcontracts for material, services, or facilities with respect to suspended work other than to the extent required in the notice;

(3) Promptly make every reasonable effort to obtain suspension upon terms satisfactory to CONTRACTOR of all orders, subcontracts and rental agreements to the extent they relate to performance of suspended work;

(4) Continue to protect, store, secure and maintain the Work including those portions on which Work has been suspended against any deterioration, loss or damage;

(5) Take any other reasonable steps to minimize costs associated with such suspension and;

(6) Provide CONTRACTOR with estimates of potential suspension costs.

40.2 During the term of any suspension, no less often than every two weeks, SUBCONTRACTOR shall keep CONTRACTOR informed of the costs of the suspension already incurred and the estimated costs of continuing the suspension. SUBCONTRACTOR shall provide any information reasonable requested by CONTRACTOR in relation to such costs.

40.3 Upon receipt of notice to resume suspended work, SUBCONTRACTOR shall immediately resume performance under this Subcontract to the extent required in the notice.

40.4 If SUBCONTRACTOR intends to assert a request for equitable adjustment under this clause it must, pursuant to the General Condition titled "CHANGES" and within ten (10) calendar days after receipt of notice to resume work, submit the required written notification and within twenty (20) calendar days thereafter its written proposal setting forth the impact of such suspension. If SUBCONTRACTOR fails to notify CONTRACTOR within ten (10) calendar days after receipt of notice to resume work, SUBCONTRACTOR shall not be entitled to an equitable adjustment. In no event shall SUBCONTRACTOR be entitled to an equitable adjustment where the suspension is directed as a result of an act or omission by SUBCONTRACTOR.

GC-41 TERMINATION FOR DEFAULT

41.1 Notwithstanding any other provisions of this Subcontract, SUBCONTRACTOR shall be considered in default of its contractual obligations under this Subcontract if it:

(1) Performs work which fails to conform to the requirements of this Subcontract;

(2) Fails to make progress so as to endanger timely completion of this Subcontract;

(3) Abandons or refuses to proceed with any of the Work, including modifications directed pursuant to the General Condition titled "CHANGES";

(4) Following request by CONTRACTOR, fails to timely provide adequate assurance acceptable to CONTRACTOR of SUBCONTRACTOR'S ability to meet the quality

standards, or the Subcontract Milestones of this Subcontract, or its financial capability in relation to this Subcontract, or adequate third party security acceptable to CONTRACTOR;

(5) Becomes insolvent, becomes the subject of voluntary or involuntary bankruptcy proceedings, makes an admission of inability to pay debts as due, or makes an assignment for the benefit of creditors;

(6) Fails to comply with the General Condition titled "STANDARDS OF CONDUCT";

(7) Fails to immediately after notice correct an unsafe condition for which it is responsible or cease an unsafe act, or

(8) Fails to fulfill or comply with any of the other terms of this Subcontract.

(9) CONTRACOR's Prime Contract is terminated for any reason

41.2 Upon the occurrence of any items GC-41.1(1) through GC-41.1 (3) or GC-41.1 (9) above, CONTRACTOR will notify SUBCONTRACTOR in writing of the nature of the failure and of CONTRACTOR'S intention to terminate the Subcontract or a specified portion of the Work for default. If SUBCONTRACTOR does not cure such failure within forty-eight (48) hours after receipt of notification or fails to provide satisfactory evidence that such default will be corrected within a reasonable time, CONTRACTOR may, by written notice to SUBCONTRACTOR and without notice to SUBCONTRACTOR'S sureties, if any, terminate in whole or in part SUBCONTRACTOR's right to proceed with the Work.

41.3 Upon the occurrence of any of items GC-41.1(4) through GC-41.1(7) above, CONTRACTOR may terminate the Subcontract immediately upon written notice without any cure period. In the event of termination under this clause, CONTRACTOR may complete the Work by any method deemed expedient. CONTRACTOR may utilize SUBCONTRACTOR's craft labor and may take possession of and utilize any data, designs, licenses, equipment, materials, plant, tools, and property of any kind (including intellectual property and computer software) used by SUBCONTRACTOR and necessary to complete the Work.

41.4 SUBCONTRACTOR and its sureties, if any, shall be liable for all costs in excess of the Subcontract Price for such terminated work reasonably and necessarily incurred in the completion of the Work, including but not limited to the costs set forth in the General Condition titled "BACKCHARGES", all fees and costs in exercising any remedy, and all costs incurred by CONTRACTOR for SUBCONTRACTOR'S breach of this Subcontract. SUBCONTRACTOR shall not be entitled to any payment for the terminated work. Upon termination of this Subcontract, payment of all amounts due SUBCONTRACTOR for work performed under this Subcontract may be withheld pending completion of the Work, and may be used to offset liabilities of SUBCONTRACTOR under this Subcontract.

41.5 Upon termination for default, SUBCONTRACTOR shall:

(1) Immediately discontinue work on the date and to the extent specified in the notice and place no further purchase orders or subcontracts to the extent that they relate to the performance of the terminated Work;

(2) Inventory, maintain and turn over to CONTRACTOR all Collateral and all data, designs, licenses, equipment, materials, plant, tools, and property furnished by SUBCONTRACTOR or provided by CONTRACTOR for performance of the terminated Work;

(3) Promptly obtain cancellation upon terms satisfactory to CONTRACTOR of all purchase orders, subcontracts, rentals, or any other agreements existing for performance of the terminated work or assign those agreements and SUBCONTRACTOR's rights and claims thereunder pursuant to the Special Condition titled "SECURITY INTEREST" as directed by CONTRACTOR;

(4) Cooperate with CONTRACTOR in the transfer of data, designs, licenses and information and disposition of work in progress so as to mitigate damages;

(5) Comply with other reasonable requests from CONTRACTOR regarding the terminated Work; and

(6) Continue to perform in accordance with all of the terms and conditions of this Subcontract such portion of the Work that is not terminated.

41.6 If, after termination pursuant to this clause, it is determined for any reason that SUBCONTRACTOR was not in default, the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to the General Condition titled "TERMINATION FOR CONVENIENCE".

GC-42 TERMINATION FOR CONVENIENCE

42.1 CONTRACTOR may, at its option, terminate for convenience any of the Work under this Subcontract in whole or, from time to time, in part, at any time by written notice to SUBCONTRACTOR. Such notice shall specify the extent to which the performance of the Work is terminated and the effective date of such termination. Upon receipt of such notice SUBCONTRACTOR shall:

(1) Immediately discontinue the Work on the date and to the extent specified in the notice and place no further purchase orders or subcontracts for equipment, materials, services, or facilities, other than as may be required for completion of such portion of the Work that is not terminated;

(2) Promptly obtain cancellation upon terms satisfactory to CONTRACTOR of all purchase orders, subcontracts, rentals, or any other agreements existing for the performance of the terminated work or assign those agreements as directed by CONTRACTOR;

(3) Assist CONTRACTOR in the maintenance, protection, and disposition of work in progress, plant, tools, equipment, property, and materials acquired by SUBCONTRACTOR or furnished by CONTRACTOR under this Subcontract; and

(4) Complete performance of such portion of the Work, which is not terminated.

42.2 Upon any such termination, SUBCONTRACTOR shall waive any claims for damages including loss of anticipated profits; on account thereof, but as the sole right and remedy of SUBCONTRACTOR, CONTRACTOR shall pay in accordance with the following:

(1) The Subcontract price corresponding to the Work performed in accordance with this Subcontract prior to such notice of termination;

(2) All reasonable costs for work thereafter performed as specified in such notice;

(3) Reasonable administrative costs of settling and paying claims arising out of the termination of work under purchase orders or subcontracts;

(4) Reasonable costs incurred in demobilization and the disposition of residual material, plant and equipment; and

(5) A reasonable overhead and profit on items (2) through (4) of this subclause.

42.3 SUBCONTRACTOR shall submit within thirty (30) calendar days after receipt of notice of termination, a written statement setting forth its proposal for an adjustment to the Subcontract price to include only the incurred costs described in this clause. CONTRACTOR shall review, analyze, and verify such proposal, and negotiate an equitable adjustment, and the

Subcontract shall be modified accordingly.

GC-43 ACCEPTANCE AND COMPLETION

43.1 SUBCONTRACTOR shall complete all the Work so that it shall, in every respect, be complete and ready for acceptance in accordance with the Subcontract Milestones contained in the Special Condition titled "COMMENCEMENT, PROGRESS AND COMPLETION OF THE WORK".

43.2 When SUBCONTRACTOR considers the Work, or any CONTRACTOR identified independent portion of the Work under this Subcontract to be complete and ready for inspection, SUBCONTRACTOR shall notify CONTRACTOR in writing. CONTRACTOR, EMPLOYER, Employer's Representative, or their designated representatives with SUBCONTRACTOR's cooperation will conduct such reviews, inspections and tests as may be reasonably required to satisfy CONTRACTOR, EMPLOYER, Employer's Representative, or their designated representatives that the Work, or identified portion of the Work, conforms to all requirements of this Subcontract.

43.3 During such reviews, inspections and tests, CONTRACTOR, EMPLOYER, Employer's Representative, SUBCONTRACTOR, or their designated representatives will identify outstanding or incomplete work items (punch list items), if any.

43.4 SUBCONTRACTOR shall track and complete all punch list items identified by EMPLOYER, CONTRACTOR, Employer's Representative or SUBCONTRACTOR. SUBCONTRACTOR shall provide input on punch list items to CONTRACTOR using approved forms. Data may be collected via hard copy, electronic format (Word or Excel) or direct input to CONTRACTOR's database, as determined by CONTRACTOR.

43.5 If all or any part of Work covered by SUBCONTRACTOR's notice does not conform to Subcontract requirements, CONTRACTOR shall notify SUBCONTRACTOR of such nonconformance in writing and the provisions of the General Condition titled "WARRANTY" shall apply to the nonconformance as a Defect.

43.6 When all Work is complete including Punch List Items, SUBCONTRACTOR shall notify CONTRACTOR in writing requesting Final Acceptance. CONTRACTOR will conduct a final inspection and, when satisfied that all Subcontract requirements have been met, will issue a certificate of Final Acceptance.

43.7 Prior to Final Acceptance, SUBCONTACTOR shall provide CONTRACTOR with handing over documents and records including without limitation Operation and Maintenance Manual, Final As-Built Drawings, all test results for SUBCONTRACTOR provided tests and completed checklists as required by Subcontract Documents.

43.8 CONTRACTOR's written certificate of Final Acceptance of the Work under this Subcontract shall be final and conclusive except with regard to latent defects, fraud or such gross mistakes as amount to fraud, or with regard to CONTRACTOR's and EMPLOYER's rights under the General Condition titled "WARRANTY".

43.9 Unless instructed otherwise by CONTRACTOR, within thirty (30) days of the issue of CONTRACTOR's written certificate of Final Acceptance of the Work, SUBCONTRACTOR shall clear away and remove all SUBCONTRACTOR's equipment, surplus material, wreckage, rubbish and temporary works of every kind for the execution and completion of Works. SUBCONTRACTOR shall leave the site and the Works in a clean and safe condition.

GC-44 NOT USED

GC-45 ENGINEERING AND DESIGN RESPONSIBILITIES OF SUBCONTRACTOR

45.1 CONTRACTOR shall furnish SUBCONTRACTOR, as a part of this Subcontract, the implementation design drawings and other data and information necessary to execute the

Works. SUBCONTRACTOR shall verify and check all such criteria, specifications, data and information and shall promptly notify CONTRACTOR of any errors, omissions, conflicts or discrepancies. Apparent errors or omissions in such criteria, specifications, data and information, or the mis-description of work which is necessary to carry out their intent, or which is customarily performed, shall not relieve SUBCONTRACTOR from performing such omitted or mis-described work, but such work shall be performed by SUBCONTRACTOR as if fully and correctly set forth and described therein.

GC-46 NON-WAIVER

46.1 None of the following shall operate as, or be deemed to be, a waiver or release of SUBCONTRACTOR's obligations under this Subcontract:

(1) Failure by CONTRACTOR to insist upon strict performance of any terms or conditions of this Subcontract,

(2) Failure or delay to exercise any rights or remedies provided herein or by Applicable Law,

(3) Failure to properly notify SUBCONTRACTOR in the event of breach of any obligation,

(4) The acceptance of or payment for any goods or services hereunder,

(5) The review or failure to review SUBCONTRACTOR submissions,

(6) The inspection and test by CONTRACTOR or the failure to inspect and test the Work, and

(7) The termination either in whole or in part of Work under this Subcontract.

46.2 CONTRACTOR reserves the right to insist upon strict performance hereof and to exercise any of its rights or remedies as to any prior or subsequent default hereunder. Any waiver by CONTRACTOR under this Subcontract must be in writing to be effective.

46.3 The remedies provided to CONTRACTOR are not mutually exclusive and CONTRACTOR's exercise of any remedy or remedies will not prevent CONTRACTOR from exercising any other remedy or remedies it has under the Subcontract or at Applicable Law.

GC-47 SEVERABILITY

47.1 The provisions of this Subcontract are severable. If any provision shall be determined to be illegal or unenforceable, such determination shall have no effect on any other provision hereof, and the remainder of the Subcontract shall continue in full force and effect so that the purpose and intent of this Subcontract shall still be met and satisfied.

GC-48 SURVIVAL

48.1 All terms, conditions and provisions of this Subcontract, which by their nature are independent of the period of performance, shall survive the cancellation, termination, expiration, default or abandonment of this Subcontract.

GC-49 GOVERNMENT RESTRICTED PARTIES AND COMMODITIES

49.1 SUBCONTRACTOR acknowledges that all applicable export laws, rules and regulations of the origin countries shall apply to the exports of commodities, software and technology (technical data and assistance) under this Subcontract. SUBCONTRACTOR also acknowledges that other laws, rules and regulations may restrict the use of certain parties under this Subcontract. Such laws, rules and regulations are generally described below.

(1) <u>Restricted Parties Lists</u>

The U.S. Government, foreign country governments and international organizations publish Restricted Parties Lists ("Lists") that identify parties (such as known or suspected terrorists, money launderers and drug traffickers) restricted from certain or all types of transactions. SUBCONTRACTOR shall review all applicable Lists prior to initiating transactions with any third party for the performance of all or any portion of the Work to ensure such third party is not identified on any applicable Lists. SUBCONTRACTOR shall not enter into any transactions with any third party identified on any applicable Lists.

(2) Licensing Requirements

(a) General: Each country has export regulations that control commodities, software and technology for various reasons, such as national security, foreign policy, anti-terrorism, and to avoid the proliferation of conventional weapons of mass destruction, e.g. certain nuclear, chemical or biological agents. Numerous countries have export regulations that specifically address dual-use items, meaning commercial items with the potential to be applied to military and/or weapon proliferation uses. SUBCONTRACTOR shall ensure that all necessary export licenses are obtained, or license exceptions confirmed, prior to the export of any commodity, software or technology.

(b) United States of America (USA) Export Licensing Requirements: SUBCONTRACTOR is solely responsible for obtaining any required USA export licenses for all commodities, software, and technology being supplied in the performance of the Work, except for any commodity, software or technology supplied by CONTRACTOR. A copy of the export license, or rationale as to why a license is not required, shall be provided to CONTRACTOR upon request.

49.2 SUBCONTRACTOR shall be responsible for any delay resulting from SUBCONTRACTOR's failure to comply fully and timely with any such law, rule or regulation described above.

49.3 SUBCONTRACTOR hereby agrees to indemnify, defend and hold the Indemnified Parties, harmless from and against any and all Liabilities which any of them may incur as a result of SUBCONTRACTOR'S failure to comply with its obligations under this clause GC-49.

GC-50 STANDARDS OF CONDUCT

50.1 SUBCONTRACTOR shall comply with all Applicable Laws, including without limitation the Applicable Laws of the United States of America and the Republic of Kosovo and of all other jurisdictions regarding bribery of public officials and private sector employees, including without limitation, all provisions of the United States Foreign Corrupt Practices Act and any amendments thereto (the "Act"). In addition, SUBCONTRACTOR shall:

(1) Comply with the principles of the World Economic Forum's Partnering Against Corruption Principles for Countering Bribery ("PACI Principles") set out in the World Economic Forum's 2005 publication Partnering Against Corruption Principles for Countering Bribery;

(2) Advise each of its Sub-tiers regarding the purposes and provisions of the Act and the PACI Principles; and

(3) Ensure its Sub-tiers also comply with the Act and the PACI Principles and that SUBCONTRACTOR and its Sub-tiers refrain from taking any action that would cause CONTRACTOR to be in violation of the Act.

50.2 SUBCONTRACTOR shall institute and maintain procedures to document compliance with its obligations under this clause GC-50, which shall be available at all times for inspection by

CONTRACTOR, EMPLOYER and Employer's Representative, or their designated representatives. CONTRACTOR, EMPLOYER and Employer's Representative will have the right to audit, at any time, all such procedures and relevant documents. SUBCONTRACTOR shall be required to promptly provide any and all information sought by CONTRACTOR for the purpose of such audits.

50.3 In addition, and without prejudice to any other provision of this Subcontract, SUBCONTRACTOR represents and warrants that it has not paid any money, provided any other item of value, or rendered any other benefit, nor has SUBCONTRACTOR promised to do so, for the sake of procurement of this Subcontract or the Prime Contract. Any breach this representation or any other portion of this GC-50 shall be a material breach of this Subcontract and shall entitle CONTRACTOR to terminate the Subcontract for default upon written notice, with immediate effect and without any cure period. Such termination shall proceed pursuant to the terms of the General Condition titled "TERMINATION FOR DEFAULT". Additionally, any breach of this GC-50 shall entitle CONTRACTOR to withhold from any payments due to SUBCONTRACTOR the value of payments made or benefits rendered by SUBCONTRACTOR, without prejudice to any other remedy available under Applicable Law.

50.4 SUBCONTRACTOR shall immediately notify CONTRACTOR of any violation (or alleged violation) of this clause GC-50. SUBCONTRACTOR understands that any violation of this GC-50 could result in the termination of this Subcontract and any other agreement between SUBCONTRACTOR or any of its affiliated companies and CONTRACTOR or any of its affiliated companies.

50.5 SUBCONTRACTOR agrees to include this clause in each of its Sub-tiers and to require its Sub-tiers to include this clause in their subcontracts.

GC-51 FINANCIAL REPRESENTATION

51.1 SUBCONTRACTOR represents and warrants that it is, and shall remain throughout the term of this Subcontract solvent and adequately capitalized to perform the Work (jointly referred to as "financial capability").

51.2 From time to time and at CONTRACTOR'S request, SUBCONTRACTOR shall provide CONTRACTOR with information satisfactory to CONTRACTOR to verify SUBCONTRACTOR'S financial capability and the financial capability of its Sub-tiers within five (5) calendar days of CONTRACTOR'S request.

51.3 In the event that reasonable grounds for insecurity over SUBCONTRACTOR'S financial capability or the financial capability of its Sub-tiers arise, CONTRACTOR may exercise all available remedies including without limitation making payments to Sub-tiers on SUBCONTRACTOR'S behalf, directly or as co-payee, and requiring SUBCONTRACTOR to provide adequate security from third parties in a form and from a company acceptable to CONTRACTOR, such as irrevocable and unqualified bonds, letters of credit, or guarantees in CONTRACTOR's favor. As examples only and without limitation, the parties agree that delays by SUBCONTRACTOR in placing orders for materials or equipment, delays by SUBCONTRACTOR in paying Sub-tiers and failure by SUBCONTRACTOR to timely verify its financial capability shall be deemed to be reasonable grounds for insecurity.

BECHTEL ENKA GENERAL PARTNERSHIP

ROUTE 6 PRISHTINE -HANI I ELEZIT MOTORWAY PROJECT

ENGINEER, PROCURE AND CONSTRUCT (EPC) SUBCONTRACT
FOR BRIDGE NO. 063

EXHIBIT "A" – GENERAL CONDITIONS

APPENDIX A-1
CONTRACTOR'S CONSTRUCTION ENVIRONMENTAL CONTROL PLAN

PRISHTINE TO HANI I ELEZIT KOSOVO MOTORWAY PROJECT

BECHTEL ENKA GENERAL PARTNERSHIP (BEGP)

Project Procedure

CONSTRUCTION ENVIRONMENTAL CONTROL PLAN (CECP)

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Table of Abbreviations

BEGP	Bechtel Enka General Partners
BLIO	Budget Line Item Owner
CECP	Construction Environment Control Plan
CR	Community Relations
CTB	Cement Treated Base
DPM	Deputy Project Manager
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
JHA	Job Hazard Analysis
MoESP	Ministry of Environment & Spatial Planning
MoI	Ministry of Infrastructure
MSDS	Material Safety Data Sheet
PEL	Project Environmental Lead
PM	Project Manager
SD	Sustainability Development
SS	Site Superintendents
STARRT	Safety Task Analysis Risk Reduction Talk
ZAT	Zero Accident Team

1 Introduction

The Project CECP will be reviewed and updated following any change in works which may impact the environmental requirements, a review will also be undertaken following any updates to local environmental legislation, as a result of a major (category 1&2) incident or at a minimum every six months. The CECP will be submitted to the Project Manager for review and acceptance prior to implementation.

The Prishtine–Hani I Elezit Motorway Project Route 6 Construction Environmental Control Plan (CECP) describes the environmental management program for project construction activities. This document serves as an outline of the Projects environmental management program for both Bechtel-Enka direct hire staff and subcontractors.

The CECP will include information necessary to implement a comprehensive program for managing environmental compliance during construction.

This document is developed to include the requirements established in the Environmental Impact Assessment (EIA) reports which has been prepared by Egis Eau in accordance with the environmental regulations in place in Kosovo, which has been approved by the client.

The objectives of the CECP are to:

- Define the requirements for compliance with national and local regulations, permit / consent conditions, client / contract requirements, and all other applicable environmental documents including the project Environmental Impact Assessments (EIA).
- Clearly define the responsibilities and actions required by all parties (Client, BEGP and subcontractors) during project execution to maintain compliance with the environmental requirements.
- Provide the necessary procedures for communication, documentation, and review of environmental compliance activities.

This CECP is applicable to all project construction activities.

1.1 Project & Site Description

The contractual start of the motorway in Corridor 6 is at the crossroads at Lipjan (the crossroad of the highways M2 & M25) whilst the end will be at the Macedonian border adjacent to the existing freight terminal. The total length of the project is just less than 60 km.

From Lipjan to Kacanik (approx. 45 km) through plains and low hills, where the main constraints are likened to urban development, utilities and local drainage. South of Kacanik to the Macedonian border (13km) where the project passes through a narrow valley and mountainous terrain with geotechnical and topographical constraints being the main design issues.

The work activities include:

- Construction of a 58 km carriageway between Prishtine and Hani I Elezit,
- Construction of intersections, agricultural and pedestrian underpasses and roadside facilities,
- Construction of numerous new bridges,
- Construction of technical platforms for the maintenance of the road,

- Opening operation of quarries, borrow pits and waste disposal sites during construction.
- Construction of temporary facilities such as camps, maintenance workshops, concrete plants, asphalt and CTB plants etc. that will be rehabilitated after the completion of the project.

2 Responsibilities

2.1 Client

The Kosovo Ministry of Infrastructure (MoI) responsibilities are detailed in the Prime Contract. Specific environmental responsibilities include:

- Appoint a competent third-party to develop the Supplementary Project Environmental Impact Assessments and Environmental Management Plans and submit them to the Ministry of Environment and Spatial Planning of Kosovo (MoESP) for approval and issuance of the project Environmental Permit.
- Issuance of the Construction Permit.
- Provide the site waste areas, quarry areas and borrow pits on government land free of any utilities and encumbrances.
- Treat, remove or dispose of hazardous waste or substances discovered at the project site responsibly.
- Determine the requirements for rehabilitation of the affected landscape and agree the scope with the responsible Ministries and Environmental Agencies.

2.2 Bechtel Enka General Partnership

Bechtel Enka General Partnership (BEGP)'s environmental responsibilities are detailed in section 4.18 of the Prime Contract as follows:

Take all reasonable steps to protect the environment (both on and off site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of [his] operations; and ensure that emissions, surface discharges and effluent from the site and arising from the Contractor's activities shall not exceed the values stated in the Environmental Permit, the specification or otherwise prescribed by Kosovar Law.

2.3 Project Manager and Deputy Project Manager

The Project Manager (PM) and Deputy Project Manager (DPM) are Project representatives responsible to the Client and Bechtel & Enka management for the execution of the BEGP's contractual responsibilities. Specific environmental responsibilities include:

- Enforce and promote the BEGP's commitment to continuous improvement with regard to ES&H management.
- Promote open communication, cooperation, and trust between the Project, and its employees, contractors, and customers with regard to optimizing Environmental, Safety & Health (ES&H) management.
- Communicate to the Project team that the emphasis on cost and schedule will not override the importance of ES&H requirements.
- Ensure the effective implementation of the Project ES&H Policy Statement and the ES&H Plan.
- Ensure that the Project ES&H Policy Statement and Plan are reviewed on an annual basis and to chair ES&H Management Review meetings.

- Provide clear & direct leadership and support for the project Environmental, Safety, and Health (ES&H) team.
- Allocate appropriate resources to ensure the successful implementation and maintenance of the Project ES&H commitments and requirements.
- Establish clear responsibility and accountability for the implementation of the ES&H Plan.
- Communicate with the Client regarding the status of ES&H compliance issues.
- Promote support and participation in the project "Zero Incident" philosophy to pursue and maintain a safe environment.
- Actively participate in ES&H workshops and reviews, as necessary.

2.4 Project Environmental Lead

The Project Environmental Lead (PEL) reports to the ES&H Manager and is the BEGP representative with specific responsibility for environmental coordination within the Project. The PEL will provide technical support services to the Project Management, the Construction and Engineering teams as well as field staff so that the project proceeds in accordance with environmental commitments and requirements.

The PEL will routinely communicate issues of environmental compliance to Project Management. Other ES&H duties of the PEL include:

- Ensure that the BEGP Project Management and other project personnel are informed of the potential environmental impacts of planned activities and the mitigation measures / actions necessary to maintain compliance with project permits and legislative requirements.
- Manage the project site environmental program on a day-to-day basis.
- Review the project construction plan to advise and determine that proper and required environmental controls are incorporated.
- Directly notify the PM & DPM of any circumstances that warrant regulatory notification or management action to ensure effective environmental compliance.
- Help ensure that all field construction activities are planned and conducted in accordance with applicable environmental regulations and site-specific requirements.
- Participate in periodic meetings with regulatory agencies to review environmental requirements and compliance.
- Conduct regular field inspections and audits of construction activities for compliance with existing permits and approvals and all applicable environmental regulations.
- Coordinate site inspections by regulatory agencies and agency interface during any problem resolution.
- Prepare an environmental compliance summary for Management Review for distribution and review by the Project Management and the construction team.
- Prepare Non-conformance and Corrective Action Reports following Walk Downs or CP Self Assessments on environmental issues.
- Evaluate trends in environmental compliance and communicate to the Project.
- Conduct Environmental Awareness Training for construction personnel and prepare training materials and guideline sheets.
- Participate in the development and maintenance of Project ES&H plans and procedures.
- In consultation with the Contracts department, ensure that appropriate environmental conditions and requirements are included in all tender packages.
- Review field inspections and construction activities for compliance with the existing permits and approvals, and other applicable environmental regulations.
- Use "stop-work" authority with regards to construction activities that could have, or are causing, adverse impacts to the environment.

- Distribute appropriate environmental information to direct-hire personnel and subcontractors, and monitor their compliance.

2.5 Sustainability Development and Community Relations

Sustainability Development and Community Relations (SD & CR) work with ES&H to detail the environmental management plan, which relates to the Projects Sustainability Principles and the Sustainability Management Plan.

- SD & CR work with ES&H to obtain the necessary environmental permits.
- Participate in periodic meetings with regulatory agencies to review environmental requirements and compliance.
- Attend field inspections and audits of construction activities regarding the ES&H and Sustainability Management Plan (SMP) for compliance with existing permits, approvals and all applicable environmental requirements.
- As required, participate in the development and maintenance of Project ES&H plans and procedures.
- Maintain a record of field inspections of construction activities for compliance with the existing permits, approvals, and other applicable environmental regulations.

2.6 Discipline Managers / Budget Line Item Owners

Budget Line Item Owners (BLIOs) are responsible for specific construction activities. Each of these managers will have responsibility for ES&H compliance and subcontract coordination within their assigned area of operation. The Environmental duties of BLIOs include:

- Implement and enforce ES&H commitments and mitigation within their area of responsibility.
- Work with the PEL to identify site specific mitigation needs and construction sequencing to reduce adverse environmental impacts and help ensure environmental compliance and continuous improvement.
- Effectively manage corrective actions where ES&H non-compliances are observed.
- Review of subcontractor performance and activities, and implement actions if non-compliance with permits or contract documents is observed.
- Communicate timely ES&H compliance issues to Project Management, the Construction team and the ES&H Manager.
- Explore the use of secondary and recycled materials where allowable in specifications and where they can meet appropriate performance criteria.
- Ensure appropriate waste management facilities are available on-site.
- Ensure appropriate handling and storage facilities exist on site prior to the delivery of materials such as fuel, oil, solvents and potential hazardous materials required for construction purposes.
- Track and help identify any hazardous waste issues on the work site. Help ensure that all hazardous materials present on the site have been recorded in a Material Safety Data Sheet (MSDS) and that employees are aware of the hazards present in the workplace and have access to the MSDS.

2.7 Site Superintendents

Site Superintendents (SS) work under the direction of the Discipline Managers. They will oversee direct-hire labor and subcontractor work execution. SS provide direct technical oversight of work performed and compliance with specifications and other contract documents, including environmental requirements.

SS duties include:

- Working with the PEL and the ES&H Department to identify site-specific mitigation needs and construction environmental issues to limit impacts and help ensure environmental compliance.
- Ensuring that environmental controls and materials on site are properly installed and maintained.
- Reporting to management any environmental compliance issues.
- Overseeing work performed by direct-hire personnel and subcontractors.
- Preparation of daily reports and giving direction to subcontractors regarding their activities and performance, including environmental compliance.
- Preparation of Non-Conformance Reports for subcontractors & sources when situations of environmental non-compliance occur (copied to the PEL).
- Facilitating site access to the PEL & ES&H Department.
- Tracking and helping to identify any hazardous waste issues on the work site.

2.8 Subcontractors

General ES&H responsibilities are detailed in Subcontractor contract documents. Subcontractors shall implement appropriate measures to eliminate, reduce or control relevant environmental risks as defined in this procedure. This document will be issued to all Subcontractors at the bid stage. If Subcontractors do not develop their own CECP, they will implement this document and comply with its requirements.

3 Environmental Management

The following measures will be used to assist in meeting the overall environmental management objectives for the project.

3.1 Environmental Program

The section below explains the various aspects which contribute to BEGP's environmental program.

3.2 Aspects and Impacts

The Project environmental aspects and associated impacts have been identified and listed in the Environmental Aspects and Impacts Register along with an assessment of the significance of each aspect. The environmental aspects and impacts register has been compiled by the Environmental Lead in conjunction with each construction department. The register is maintained by the Project Environment Lead and will be reviewed / updated every six months or as a result to changes to the project or environment.

Environmental aspects have been identified through discussions with construction department BLIOs regarding planned work activities, discussion of Method Statements produced for the works and historic knowledge from the previous Route 7 Project.

The significance of the aspects has been determined by assessing the consequence severity and likelihood of each individual aspect. The aspects were ranked using a high, medium, low rating. The assessment then considered the necessary mitigation required reducing the overall impact from the activity and the significance assessed again following mitigation. Significant aspects and impacts are any activity which is given a significance rating score of moderate to high (colour amber or red). The key environmental risk areas are noise nuisance, air quality, waste, water quality, ecology and visual nuisance.

The Environmental Impacts and Aspects Register can be found in Appendix B.

3.2 1 Legal Register

The Project Legal Register has been included to ensure that any legislative constraints have been considered for each aspect area. This register is updated as legislation changes and is reviewed each six months by the Project Environment Lead. This register has been put together using the Republic of Kosovo Assembly website http://www.kuvendikosoves.org and the Republic of Kosovo Ministry of Internal Affairs website http://www.mpb-ks.org/?page=2,41&ddate=2014

3.3 Environmental Awareness Training

Environmental training for BEGP personnel will be undertaken in accordance with the project ES&H CP-102 Orientation Training and Development procedure with Ref: 25939-000-HS-083-003_00 and ES&H Training Plan with Ref: 25939-000-HS-096-0008_01

BEGP direct hire staff and subcontractors will be required to attend BEGP ES&H training programs designated by the ES&H team or training matrix to ensure a consistent level of environmental knowledge for individuals working on specific tasks and to cover various environmental risks.

3.4 ES&H Compliance Meetings

ES&H compliance meetings will be held weekly. The PEL will elevate any important environmental issues from the previous week to the ES&H Manager to ensure effective communication of information and lessons learned during the meeting. Ad-hoc meetings may be necessary depending on the nature of the ES&H issue and these meetings will be arranged by the ES&H team members and will include members of other BEGP departments where appropriate.

Weekly ES&H walkdown meetings are held where items identified during weekly walkdowns are discussed by Senior Management, various construction departments and ES&H Management.

Monthly project Zero Accident Team (ZAT) meetings are held with representation form all Project Departments. Environmental trends, risks, performance and initiatives are discussed in a forum style with all participants.

3.5 Environmental Compliance Inspections and Documentation

3.5.1 Inspections and Audits

Environmental audits and inspections shall be undertaken by BEGP personnel in accordance with the Project CP-111 ES&H Assessment Process with Ref: 25939-000-HS-083-0011_00. Environmental audits and inspections will be completed on project work areas and subcontractors according to a schedule established by the ES&H team subject to approval by Project Management.

Subcontractors will be expected to participate in project audits and inspections, as required by Project and their contract requirements.

Environmental inspections and audits shall include the following:

- Daily Site Inspections

- ES&H Management Walk-down
- CP Self-Assessments
- Internal and External Audits

Daily site inspections are conducted daily by ES&H Site Supervisors. Daily site inspections are an informal site inspection. Site observations are addressed during the inspection and the relevant department informed of any corrective action which may be required, Site Supervisors monitor items raised and close out as an ongoing process during their daily site inspections.

A walk-down rota is produced by the deputy ES&H Manager and disseminated weekly amongst all departments including ES&H. A minimum of one walk-down is conducted each project working day with a total of eight walk-downs conducted per week. The ES&H representatives liaise with the Department Managers to arrange a suitable time to conduct the walk-down and all walk-downs are open for attendance by members of the Safety Leadership Team. A report is produced which contains all the findings observed during the walk-down. Findings are grouped into four categories, Critical, Elevated and Normal, Good Practice is also identified and recorded. Each item has a close out time frame allocated. The report is distributed to the relevant Department, PM and DPM. Departments submit proof of close out to the ES&H department. Items from the report are tracked by ES&H and a weekly close out meeting is held by ES&H with the PM, DPM and Department Managers.

A monthly core process self-assessments schedule has been produced by the Deputy ES&H Manager, core process assessments are chosen based on the current project risks. Each core processes self-assessment is allocated to the ES&H representative who jointly completes the assessment with the Department Managers / Supervisors. Non conformities identified are collated on a Process Improvement Form where each item is given a status; Critical, Elevated, Normal and Good Practice. Each item has a close out time frame allocated. The report is distributed to the relevant Department, PM and DPM. Departments submit proof of close out to the ES&H department.

External audits refers to the Project BESH Assessment which is conducted at 6 monthly intervals by Bechtel and Enka Corporate and Functional representatives. Non conformities identified during BESH external audits are grouped into four categories, Critical, Elevated, Normal and Good Practice. All audit reports are distributed to the relevant Department, PM and DPM. Each nonconformance item is allocated to the appropriate Department and given an item owner. Each item has a close out time frame allocated. Departments submit proof of close out to the ES&H department. Items from the report are tracked and discussed during the weekly walk-down close out meeting held by ES&H with the PM, DPM and Department Managers. Close out of items is reported to Bechtel Functions during the weekly report and Monthly Safety Performance Report.

3.5.2 Reporting and Documentation

Copies of all BEGP inspections with identified corrective actions will be maintained in accordance with the project document control procedures. Where appropriate, reports will be provided to relevant project personnel including the project management, the construction team and subcontractors. In the case of external audits such as the Project BESH Assessment close out of items will be reported to Bechtel Functions during the weekly report and Monthly Safety Performance Report.

3.5.3 Environmental Communications

Project internal environmental communications take place as detailed below;

Environmental Awareness training is conducted as part of the induction process. All project employees whether direct hire or subcontractor will attend a project new hire induction which includes the Project environmental requirements before commencing work on site. Additional environmental trainings such as Supervisor trainings are conducted as per the ES&H Training Matrix. Spill Prevention and Spill Response Training will be undertaken by all departments and is delivered by the PEL or Environmental Site Supervisor on a risk basis.

Job Hazard Analysis (JHA) briefings are held prior to work commencing and are job and location specific, a JHA briefing will take place with all personnel undertaking works and will highlight all associated environmental risks and mitigation measures to be implemented. Safety Task Analysis Risk Reduction (STARRT) briefings are held at the beginning of each shift with all personnel involved in the days works. During the briefing the site Foreman / Supervisor will identify ES&H risks and controls to be adopted during the shift.

ES&H Weekly Safety Talks are prepared by the ES&H department based on construction risk, project trends or current ES&H site issues. Weekly Safety Talks will include an environmental topic at a minimum once per month or as and when required. Weekly Safety Talks are conducted both onsite and by office personnel every Tuesday morning at 07:00am. Participants must sign an attendance register to confirm their attendance. Weekly Safety Talks are displayed on site and office notice boards.

Each month environmental trends, site issues, lessons learned, improvement opportunities and initiatives are communicated during the monthly Project ZAT meeting presentation. Representatives from all departments, including direct hire and subcontractor attended the meeting to take part in ES&H discussions during the meeting.

Environmental incidents in graph form are communicated in the weekly and monthly ES&H Dashboard, which is sent to Project Management.

An ES&H Management Review will be undertaken annually commencing one year from project inception. The Project Manager and Construction BLIOs will be in attendance of the review.

Project annual Goals & Objectives, see appendix D are discussed at a management level and quarterly progress monitored and displayed Project wide. Goals and Objectives are communicated to the project though visual posters which are displayed throughout the Project on information boards.

External communications;

Communications with local regulatory bodies will occur jointly by both the Project Sustainable Development & Community Relations (SD & CR) Team and ES&H Manager. External communications involving the press or local media will be carried out by the Project Public Relations (PR) representative.

4 Environmental Requirements

The following sections discuss a number of management techniques to control environmental impacts associated with the construction of the BEGP Project. These sections should be read in conjunction with the project Environmental Safety and Health Plan document no: 25939-000-HS-096-0001_02

4.1 Noise and Vibration Control

Noise and vibration from construction activities are often unavoidable but can generally be minimized. The following sections detail methods that will be used to reduce the impacts of noise from Prishtine – Hani I Elezit Motorway construction works.

Due to the linear nature of the project site, impact on sensitive receptors due to vibration is considered to be of low impact along the majority of the alignment.

However in such instances such as blasting during quarry operations; sufficient notice will be given to local residents informing them of the blast date and time, where practical. When blasting is to take place blasting times will be restricted during the early hours and during the evening to minimize the nuisance.

4.1.1 Noise Requirements

Noise requirements are poorly defined in Kosovo legislation. Noise mitigation values will therefore be managed through the applied use of risk assessment, site inspection and assessment with control measures implemented where necessary.

4.1.2 Noise Monitoring

Noise monitoring programs shall be employed by BEGP and subcontractors when it is deemed necessary by risk assessment. On a case by case basis, noise monitoring shall be undertaken to determine necessary mitigation measures. The ES&H team shall be responsible for carrying out noise monitoring.

BEGP is not required by the prime contract to carry out any background noise monitoring. Compliance monitoring shall be undertaken in accordance with this CECP or where deemed necessary by risk assessment.

Should noise levels onsite be found to be excessive, mitigation options shall be reviewed and where appropriate implemented.

4.1.3 Noise Mitigation

Specific noise mitigation measures are listed below and shall be implemented by BEGP personnel and subcontractors where the potential for noise nuisance has been established.

- Ensure that all plant and equipment is maintained as per the Equipment Departments plan preventative maintenance log. Ensure that engine guards are fitted. Ensure that engine guards are closed at all times.
- Plant and activities with a high noise profile shall be located away from sensitive receptors.
- Generators should have acoustic covers which should be closed during operation.
- Wherever possible, arrange deliveries to take place during times which are less sensitive.
- Keep haul roads well maintained to reduce traffic noise.
- Minimize the drop heights into hoppers, trucks and other plant where applicable.

4.2 Air Quality Management

The key impacts to air quality from construction activities are fugitive dust, emissions from vehicles / plant and odors. Mitigation measures are listed in the sections below and shall be implemented by BEGP where appropriate.

4.2.1 Air Quality Requirements

Under Kosovo Legislation it is the duty of all natural, legal, local and international individuals to keep the air clean and to protect it during the activities they conduct in the territory of Kosovo, and hence they are obliged to, monitor emissions, minimize polluting emissions and unpleasant smells and to not exceed limited values of emissions, (however the Government is unable to provide clear guidance for the emission limit values).

Kosovo legislation is generic about national regulations related to air and therefore lacks specific national air quality limits. No monitoring of background air pollutant concentrations is undertaken within Kosovo. Therefore no background monitoring of ambient air quality was included in the project Environmental Impact Assessment, although Egis Eau understands that there are a small number of recently commissioned automatic monitoring stations located within the city of Pristina. At the time of undertaking the baseline reporting no data was available from these sites.

Ongoing visual assessments of air quality associated with fugitive dust emissions will be undertaken and areas for improvement actioned where necessary see below for dust mitigation measures which will be implemented by BEGP where practical.

4.2.2 Fugitive Dust Mitigation

Dust may be generated from a number of construction activities such as use of haul roads, excavation of dry, friable, materials, handling and storing bulk materials, quarry and crushing operations, asphalt and CTB production, concrete batching and fill material stock pile storage. The following mitigation measures shall be implemented where appropriate:

- Locate haul routes away from sensitive areas where possible.
- Use wet sweeping methods on site entrances and exits with appropriate hard surfaces, consider any additional areas that may adverse by affect members of the public.
- Ensure that dust generating materials such as CTB are transported to and from site are covered by tarpaulins.
- Sprinkle the surface of the aggregate stockpiles with water without adversely affecting their moisture contents if inspection shows them to be a cause of significant dust production.
- Carry out regular (during daily site inspections /ES&H walk-downs) visual inspections of dust generating activities to identify potential additional mitigation measures.
- Carry out six monthly recorded site inspections at minimum, to monitor dust levels and record the results of the inspections in the Environmental Monitoring Plan.
- Prohibit the burning of materials project wide.
- Maintain all dust control equipment and record maintenance and servicing activities.
- Provide easily cleaned hard-standing for vehicles where practical such as the equipment yard.
- Ensure regular cleaning of hard-standings using wet sweeping methods, restrict dry sweeping.
- Provide and ensure the use of wheel wash facilities near the site exit wherever there is a potential for carrying dust or mud out of working areas onto the highway.
- Ensure there is an adequate area of hard surfaced road between wheel wash facilities and the working area/exit.

- During Spring and Summer months haul roads are regularly damped down with mobile water trucks.
- Impose and enforce a maximum speed limit on un-surfaced haul roads.
- Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.
- Mix large quantities of cement and other similar materials in designated areas which shall be enclosed or shielded.
- Store materials with the potential to produce dust away from site boundaries.
- Sand and other aggregates shall be stored in bunded areas and not left to dry out.
- Avoid double handling of materials (wherever reasonably practicable).
- Use enclosed rubble chutes and conveyors on crushing or grinding equipment or use water to suppress dust emissions such as at quarries, asphalt and CTB plants.
- Minimize drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on the equipment.
- Seal or re-vegetate completed earthworks immediately after completion, depending on landowner requirements and or design.
- Use cutting/grinding/sawing equipment fitted, or in conjunction with, suitable dust suppression techniques such as water sprays or local extraction.

4.2.3 Vehicular and Plant Emission Mitigation

Vehicles and plant emit gases and fine dust particles. The following mitigation measures shall be implemented by BEGP where appropriate:

- Ensure that all equipment and plant are serviced and maintained in accordance with manufacturers' instructions.
- Maintain a planned preventative vehicle maintenance register for all vehicles and equipment including a programme of routine servicing, dates and details of servicing completed and records for any work undertaken.
- Ensure that all pollution control devices and exhaust pipes are working correctly.
- Do not leave the engines of vehicles and equipment running unnecessarily.
- Carry out visual inspections of vehicles to ensure adequate emission levels are maintained. Where vehicles are observed to have vehicle emissions more than standard operational works the vehicle will be removed from service and additional maintenance applied and records maintained.
- Avoid the use of diesel or petrol powered generators when the use of mains electricity or battery powered equipment is available; such as grinders saws and other hand tools.
- Maintain a log of the project fuel use of vehicles, plant and equipment.
- Consider the use of alternative fuel technologies where appropriate; such as LPG at the Asphalt Plant and mains connected electricity at the Ferizaj Camp and Equipment Workshop.

4.2.4 Odor Control

No significant production of odorous materials is expected during the construction of the motorway. In the event that any odorous materials are excavated, mitigation measures will be implemented where practicable.

The following measures will be taken onsite:

- Burning of tires, waste oil, solvents or any kind of waste will not be permitted on site.

- Fixed and portable toilets and welfare facilities will be located away from public areas where practicable and cleaned daily.
- All solid sewage waste from the camps will be treated by dedicated fit-for-purpose waste treatment plant and the discharge tested monthly.
- Domestic waste will be regularly collected and disposed of in approved municipal facilities.

4.3 Water Quality Management

The Prishtine - Hani I Elezit Motorway alignment is characterized by its proximity to a number of rivers and streams. It is therefore essential that appropriate controls are employed to prevent pollution of the local watercourses. Kosovo Law on the protection or rivers and streams is outlined in Appendix C Legal Requirements Register.

4.3.1 Discharge Requirements

Wastewater includes discharges from camp waste water treatment plants, construction water surplus and surface run-off from works areas and temporary facilities. Discharges shall be managed to ensure compliance with Kosovo waste water standards.

The PEL shall ensure that discharge requirements for specific activities are communicated to the construction team prior to the commencement of activities. Compliance monitoring against Statutory and Project Permits will be undertaken at regular intervals.

4.3.2 Extraction Requirements

BEGP will extract groundwater from underground water wells. Areas where water extraction is required will be determined by project field engineering and communicated to the PEL. Permits will be sought from the appropriate municipal authority before extraction commences. Laws on Mines and Minerals in Kosovo also identifies water as a "mineral" that has a potential commercial value, See Legal Requirements Register Appendix C.

4.3.3 Water Quality Control

The following mitigation measures shall be implemented by BEGP where appropriate:

- Ensure water treatment plants are well maintained, regularly inspected and operated in accordance with the manufacturer's instructions.
- Use settlement tank or pits to control suspended sediment prior to discharge.
- Use filtration systems such as fine single sized aggregate, geotextiles or straw bales to reduce sediment load in surface run off.
- Provide spill kits at appropriate locations around the project site and ensure workers are trained in their use.
- Monitor the site drainage points as per the CECP monitoring plan in appendix E.
- Maintain and protect watercourses within the site by installing silt fences where deemed necessary.
- Any containers of contaminating substances on-site shall be:
  - Leak proof and kept in a secure building or compound from which they cannot leak, spill or be subject to vandalism.

  - Protected by impermeable bunds with a capacity of 110% of the largest container's capacity.
  - Use appropriate storage facilities for potentially polluting liquids.
- Any transfer of contaminating substances should be undertaken in protected areas with bunding available.
- All refueling, oiling and greasing should take place above drip trays or on an impermeable surface which provides protection to underground strata and watercourses, is away from drains and vehicles.
- Equipment should be turned off and not left unattended during refueling.
- All construction equipment or vehicles which are not free of oil/fuel leaks and could cause material contamination will be not be used until repaired by the Equipment department or Subcontractors notified.
- Where practical equipment such as generators and light towers will be internally bunded. Alternatively drip trays will be placed below static mechanical equipment which is not already bunded.
- All washing down of vehicles and equipment is to take place in designated areas and wash water to be prevented from passing untreated into watercourses.

Should a pollution incident occur, refer to the Project Emergency Response Plan document no: 25939-000-HS-096-0006_02

4.3.4 Water Reduction

No water reduction targets have been set however during camp installation where possible push taps for camp water supplies have been used to reduce the likelihood of taps being left on and wasting water.

4.3.5 Erosion and Sedimentation Control

Effective soil erosion and sediment control aims to reduce the contamination of local water bodies through the introduction of sediment.

Possible mitigation measures include:

- Minimize where possible erosion and soil surface disturbance.
- Reduce the introduction of contaminant loads to the water system.
- Minimize the work in sensitive areas, i.e. in river valleys.
- Avoid storage of earth and other materials near water bodies, in order to minimize the risk of siltation of the water bodies.
- Install silt fences to protect local water courses where practical.
- Storm water will be managed during the site preparation and construction phase of the Project by building temporary drainage. Efforts will be made to minimize erosion and control sedimentation.
- Minimize the risk of spills of pollutants to water bodies, by taking appropriate measures for handling of spills i.e. spill kits delivered to site locations, spill response training provided to site personnel.

4.3.6 Surface Soil Stabilization Measures

Due to the topography of natural terrain, soil stabilization techniques may be required. The following mitigation measures shall be implemented by BEGP where appropriate:

- Stabilize exposed slopes with such techniques as the use of geotextiles, hydro seeding, shot crete or other materials designed to reduce erosion as directed by the Designer.
- Native trees and shrubs may be planted in some areas such as waste areas to help minimize any potential erosion.
- Construct the waste areas to an approved design. Waste layers should be compacted to reduce material loss.
- Construct slope angles appropriate to the nature of the waste material and install drainage system to control surface flow and reduce material loss in accordance with the design.
- Ensure the existing slopes onto which waste areas are to be built are cleared of topsoil and organic material prior to construction.
- Re-vegetate and / or landscape disturbed soil as required by the design.
- When constructing the realignment of any river, ensure the channel is constructed with riverbed aggregate, and not with loose, poorly consolidated material which may erode.
- Place containment around soil stockpiles to mitigate off-site movement.

4.3.7 Sedimentation Control Measures

Where necessary, the following measures will be initiated to reduce sediment loss:

- Where practicable, prevent free flowing water across the site to reduce loss of sediment.
- Using temporary slope drains on embankments to intercept surface runoff where concentrated runoff exists. Preferentially, the external drainage system shall be constructed in parallel with earthworks operations.
- Minimize water flow where it has the potential to cause erosion.
- Control of suspended solids during dewatering operations using filtration methods, control flow rates, settling basins, and / or sedimentation tanks.
- Install silt fences, drains, settlement ponds and weirs to control sediment laden flows, where required.
- Prevent untreated waters from directly accessing watercourses.
- Prevent uncontrolled wash out of concrete mixer trucks along the alignment.
- Ongoing maintenance of sediment and erosion controls and prompt cleanup and removal of any off-site movement of soil.

4.4 Storm Water Management

The Prishtine - Hani I Elezit Motorway site is subject to heavy downpours of rain at certain times of the year, as well as spring melt waters.

Control measures are listed below and shall be implemented where appropriate:

- Manage storm-water in maintenance and lay down yards to prevent entrapped storm-water from becoming contaminated.
- Hazardous material storage areas must be sited at levels above ground water tables and in areas where any entrapped water cannot easily be released into water courses or storm drains.
- Damage to haul roads due to heavy rainfall events should be repaired as soon as practicable.
- BEGP shall train employees about potential hazards posed when traversing areas of unconsolidated cut and fill after heavy rainfall events.
- Vehicles should use only dedicated access roads on site.

4.5 Traffic Management

A significant volume of traffic will be generated onsite. Traffic management measures will be implemented as follows:

- Introduce and strictly enforce a project wide speed limit.
- Ensure adequate buses and worker transport is provided to reduce the number of vehicle movements along the alignment.
- Direct site traffic off the public access road and onto project haul roads wherever practicable.
- Maintain access roads and implement dust control measures, such as damping down.
- For traffic impacting the local community near the Ferizaj camp and work site, ES&H will work with the Sustainable Development & Community Relations (SD & CR) Team to develop a community engagement plan regarding traffic safety & education.

4.6 Ecology Management

The Prishtine - Hani I Elezit Motorway site is characterized by a scenic countryside. BEGP policy is to protect the existing environment and, where practicable, enhance the condition of the areas in which we work for the long term benefit of the community. Workers are to avoid fauna wherever possible.

4.6.1 Terrestrial Ecology

The EIA has confirmed, through ecology surveys, that the project area has an abundance and high diversity of species. The alignment does not pass through any protected areas, however care should be taken to protect special areas of interest.

4.6.2 Riverine Ecology

Riverine ecological habitats may be impacted by the close proximity of Prishtine - Hani I Elezit Motorway construction activities. Care must be taken to reduce the impact of construction activities on river wildlife by:

- Ensuring appropriate controls of oil / fuel storage on site.
- Providing spill kits and ensuring workers are trained in their use.
- Immediate actions to contain and remove any spill of oily substance, petroleum products, and hazardous substances.
- Potentially polluting material storage should be located away from watercourses (not less 10m).
- Implement good housekeeping practices to control site waste.
- Controlling access to the alignment to restrict occurrences of illegal logging in project work areas.
- Limit construction activities in the location of rivers as far as is reasonability practicable.
- Ensure that the river environment is returned to its natural state upon completion of the work.

4.6.3 Ecology Management Measures

- Prevent oil or hazardous substances from entering the ground, drainage, or local water bodies.
- Implement good housekeeping practices to control site waste.
- Take immediate actions to contain and remove any spill of oily substance, fuel products, and hazardous substances.

- Zone off and protect any protected / agricultural areas from construction activities wherever possible.

4.7 Waste Management

BEGP have adopted the principles of waste hierarchy:

1) Where possible the Environmental Lead will work with Project Controls and the Design Department to minimize the generation of material (including excavated material/waste).
2) A reuse and recycle material program will be adopted within the Project.
3) A recycling waste contractor has been initiated to reduce project waste sent to landfill.
4) Dispose of all materials at licensed sites.

In addition to adhere to the principles of waste hierarchy BEGP will endeavor to:

- Reuse excavated materials, waste shall only be disposed at landfill sites if all other options have been fully investigated.
- Manage material storage to prevent spoilage, damage and contamination.
- Avoid or reduce packaging where possible, where packaging is necessary investigate re-use options.
- Maintain records of volumes / quantities and types of surplus materials when they arise and identify potential beneficial use options.
- Where possible any contaminated material not suitable for re-use shall be transported to treatment facilities for recycling.
- Maintain the work areas to control windblown litter from the surrounding areas.
- No waste shall be disposed of onsite through burning.

4.8 Hazardous Waste

In efforts to manage hazardous waste discovered / generated on site BEGP shall, where practical implement the following control measures;

- BEGP shall report hazardous materials (including asbestos) discovered on the project to the Employer and will prevent its handling by BEGP or subcontractors.
- Manage hazardous materials generated through the course of the contractors work in accordance with the storage of potentially polluting materials and incident control and response procedures.
- Provide sufficient numbers of skips and containers for all waste. The containers should be appropriate for the waste intended.
- Domestic waste will be stored separately from metal, wood and hazardous waste.
- Contractors shall manage (i.e., handle, store, transport and dispose) hazardous and non-hazardous wastes they generate in order to comply with the BEGP waste management requirements and Kosovo laws and regulations applicable to waste management.
- Maintain Material Safety Data Sheets (MSDS) and make available to all product users.
- Use disposal sites which have appropriate permits and/or licenses.
- Periodically monitor waste vehicles leaving site to check waste is being removed to appropriately licensed disposal sites.

- Ensure that all waste is accompanied with a waste transfer note detailing the type and quantity of waste.
- No waste shall be disposed of onsite through burning.

4.9 Concrete Washout

Concrete is a highly alkaline and corrosive material. The washing out of concrete mixing plant and ready mixed trucks can cause pollution to nature and agricultural land. The following procedure will be followed to prevent such pollution:

- Bunded or impermeably lined containment ponds will be constructed at designated, controlled areas along the alignment, at or near to where concrete work is being performed. All concrete waste and washout activities will take place at these designated controlled areas.
- Workers will not be permitted to either dump waste concrete or wash out ready mix or pump trucks in uncontrolled areas on the work site.
- Consideration of site specific topography and water runoff routes will influence the siting of the concrete containment ponds.
- Concrete wash out areas will be monitored by the ES&H Department on a strict and regular basis.

4.10 Storage of Potentially Polluting Materials

Potentially polluting materials include, but are not limited to, petrol, diesel, oils, chemicals, paints and some cleaning fluids. BEGP will store potentially polluting materials in accordance with the Core Processes requirements CP-202 Hazard Communication Program.

Storage areas and storage tank requirements are as follows;

- Storage areas and tanks must be located on an area with an impermeable base e.g. a concrete base surrounded by concrete curbing (or equivalent bunded area) to form a containment area for any spills and must be elevated off the ground (for fuel tanks only).
- All drums and / or containers shall be labeled with their content.
- All storage facilities shall be labeled with the appropriate hazardous property signs and tank capacity.
- Storage areas must be located away from existing drainage paths as appropriate.
- The size of containment area will be sufficient to contain 110% of the largest container in the area.
- Mobile tanks and bowers will be double-skinned to form integral bund where practicable.
- Spill kits shall be available at all refueling points, vehicle maintenance sites, and other storage locations in case of any spill
- Drip trays shall be inspected and maintained where used, the equipment department will empty all drip trays as per a weekly schedule or as and when requested.

4.11 Incident Control and Response

ES&H department will regularly monitor and inspect all storage facilities during site visits as part of the incident control and response. The following section details mitigation measures appropriate for the management of any potential spills.

4.11.1 Spill Control

Preparation and prevention are preferred alternatives to limit small and common spills that often occur during oil changes, repairs to hydraulic lines, and the addition of coolants to the machinery.

Absorption mats, pads or geotextile should be placed on the surface under the machinery prior to each repair activity. Maintenance personnel should keep absorbent material in each piece of equipment to perform such activities responsibly.

Each facility and work area should be adequately equipped to satisfy the preparation and prevention objectives established in this plan. The storage tanks in the loading and unloading areas shall be routinely inspected. BEGP shall;

- Fuel tanks shall display the appropriate signage; tank contents, quantity and applicable hazard / warning signs.
- Bund all fuel storage tanks at a minimum of 110% capacity.
- Build an adequate maintenance and refueling facility.
- Work closely with the Equipment Department to ensure refueling crews use drip trays and geotextiles when preforming refueling activities on site.
- Ensure spill kits and / or absorbent materials are available at potential spill sites.
- Establish and maintain a Spill Response Team through regular Spill Prevention and Spill Response Training throughout the duration of the project.
- The appropriate fire precautions will be taken as necessary and Project emergency contact phone numbers shall be displayed in the area.

4.11.2 Incident Response

Environmental incident response is detailed below in Appendix F Spill / Release Emergency Response Plan. The complete ES&H incident response procedure can be found the Project Emergency Response Plan Ref: 25939-000-HS-096-0006_02.

4.12 Unanticipated Discovery

If unknown materials are encountered during a construction activity (e.g., excavation) which may have the potential to be an archaeological or cultural resource, that activity will be stopped. The HSE Manager and an Environmental Lead (PEL) will be notified, confirm the existence of the resource encountered, document the cause of the work stoppage, and notify management and the Client.

The MoI will arrange for an evaluation of the significance of the find and if necessary will contact the appropriate personnel (Minister of Culture, Sport and the Youth) to investigate the situation. Work in that specific area may only resume after specific authorization from the PM, SD&CR and ES&H Manager.

If potentially contaminated material (e.g., unusual odor, coloration) were to be encountered, work shall immediately stop in the vicinity of the contamination and the ES&H Manager and Environmental Lead is to be notified by the Supervisor. Once the Supervisor notifies the ES&H Manager and Project Environmental Lead, that person will notify the PM and the DPM. In the event that the ES&H Manager or Environmental Lead is unavailable, the PM will be notified. The potentially contaminated area will be investigated to determine the nature of the contamination, to assess if worker safety or environmental impacts will occur if excavation continues, and provide recommendations to the Client. The Client will be responsible for characterizing the potentially

contaminated material and for removal of the material, if hazardous to the workers or the environment in accordance with European requirements. Once the area has been cleaned, the Client will notify the PM in writing and the PM will authorize work to recommence. Work in that specific area may only resume after specific authorization from the PM or ES&H Manager.

4.13 Site Restoration and Handover

For the purpose of handing land back over to landowner's cleanup activities will consist of the removal and / or proper disposal of temporary buildings, equipment, tools, and excess material (e.g., construction debris, surplus materials) brought onsite during the construction period. BEGP and its subcontractors will complete the cleanup prior to demobilization from the site and return the site to a condition specified within the land agreements and according to the environmental impact assessment.

A site walk-down of the work area and associated faciilities (camps, iay down yards, etc.) will be conducted prior to completion of the Project to ensure the area is sufficiently restored. Disturbed surfaces will be stabilized as required by approved design. Temporary erosion controls may be removed and permanent control measures installed as required by approved design.

5 Environmental Incidents & Incident Reporting

An environmental incident is an undesired event which may result in environmental harm or impact and generally requires corrective actions to remediate so as to prevent future reoccurrence.

Environmental incidents may include but are not limited to; noise nuisance complaints from sensitive receptors, complaints of vibration due to BEGP works taking place, spill or release of a substance, undesignated washout of concrete trucks, contamination of waterways from erosion or other substances, visible dust nuisance generated from the alignment or crusher, complaints regarding dust from local municipality or sensitive receptors, poor waste management or housekeeping, unanticipated discovery.

BEGP will classify and record all environmental incidents as per the table below;

Level 1 Environmental Incident: A highly significant environmental incident that may result in Enforcement action or non-compliance, such as:	Notices of violation, non-compliance orders, shutdowns/ work stoppages, or other agency enforcement actions (e.g., fines, penalties, lawsuits). Customer initiated actions (e.g., shutdowns/stand-downs) for non-compliance or other environmental performance reasons. Project initiated actions (e.g., shutdowns/stand-downs) of project work for primarily environmental performance reasons. Catastrophic or emergency incident
Level 2 Environmental Incident: A significant environmental incident that requires notification to the customer or regulatory agencies or in the absence of such requirements, immediate attention at the project-level but do not result in Level 1 incidents. This includes:	Spills of hazardous substances above defined reportable quantities; greater than 100 liters. Spills of hazardous substances reaching off site areas or waterways. Other incidents that required reporting to regulatory agencies or equivalent off-project entities.

Level 3 Environmental Incident: Environmental incident that does not typically require outside notification and can be corrected by available personnel/materials. Level 3 incidents include:	Spills of hazardous substances below defined reportable quantities; less than 100 liters. Spills of hazardous substances with no environmental impact. Other incidents requiring corrective action but not resulting in environmental impact.

Following the reporting of an environmental incident the reporting department and the Project Environmental Lead will complete an Environmental Incident Report form, see Appendix G. Details of the incident, the incident cause, along with relevant photos and details of the clean up or remedial action taken will be documented. The report will be sent to the relevant department who will take the necessary corrective action outlined within the report and will confirm with the Project Environmental Lead that the item has been closed.

All environmental incidents will also be logged in the Environmental Incident Log, which shall be maintained by the Environmental Lead. All environmental incidents will be recorded on the Bechtel Web SDS data base.

6 Emergency Response

In the event of an incident with no off site impact (category 3), a properly trained employee from the area shall:

- Stop work, report the incident to Site Supervisor, Engineer or ES&H Department.
- If the incident is a spill incident, retrieve the spill kit from the closest location.
- Inform the Spill Response Team Lead: 049 931 763 (see Appendix K).
- Follow the spill cleanup procedure (see Appendix G).
- Place all clean up waste in labeled and approved containers.
- After clean up steps end, complete the report with the ES&H representative.

A catastrophic or environmental emergency incident is defined as an incident having catastrophic or irreversible impact with long term liability or irreversible damage. Environmental emergency incidents will be classed as category 1 incidents. In the event of such an incident personnel should:

- Stop work, immediately shutdown and isolate plant or energy sources if applicable. Assess the area for any immediate dangers to environment, health or safety.
- Move away from the immediate area;
  - Call the Spill Response Team Lead: 049 931 763 for environmental spill incidents
  - Call the ES&H Emergency Phone: 049 931 600 for other environment, health and safety incidents.
  - Call the Fire Warden Team Lead in case of fire: 049 771 334
  - Notify the relevant emergency response department: 112
- The ES&H Department will contact other necessary BEGP departments such as the Security Department.
- The ES&H Department will be responsible for notifying Project Management of the Incident.
- Following catastrophic or emergency environmental incidents the relevant enforcing authority will be notified by the ES&H and SD & CR departments.

See Appendix F Spill / Release Emergency Response Plan and Appendix G Spill Response Emergency Response Flowchart for more information.

7 References

Accidents / Incidents / Near Miss Reporting: 25939-000-HS-083-0015_00
Project Emergency Response Plan: 25939-000-HS-096-0006_02
ES&H Assessments: 25939-000-HS-083-0011_00
ES&H Management Plan: 25939-000-HS-096-0001_02
ES&H Orientation Training and Development: 25939-000-HS-083-0003_02
Drawings/General_Egis/Reports/) Environmental Reports/EIA
Health Certificate for the Camp (Ministry of Health) 25600-000-L-OTBE-00017/00018
Environmental Impact Assessment and Environmental Management and Monitoring Plan
Ens 04 454 B May 2010 (Egis Eau)

8 Appendices

Appendix A	Environmental Permits & Licenses
Appendix B	Environmental Impacts and Aspects Register
Appendix C	Legal Requirements Register
Appendix D	Environmental Goals & Objectives
Appendix E	Environmental Monitoring Plan
Appendix F	Spill / Release Emergency Response Plan
Appendix G	Spill Response Emergency Response Flowchart
Appendix H	Environmental Incident Report
Appendix I	Spill Response Team

Appendix A - Environmental Permit & Licenses

Environmental Impact	Detail of the Environmental Impact	Key legal & other requirements
Nuisance Noise	Emissions of smoke, steam, dust, odors and noise nuisance	BEGP Environmental Policy Law on Environmental Protection Environmental Impact Assessment
Air Pollution	Air pollution - greenhouse gas emissions, causative agents in global warming; ozone impacting air emissions causative agents in ozone depletion; toxic air emissions, respiratory impacts, nuisance to sensitive receptors	BEGP Environmental Policy Law on Environmental Protection Environmental Impact Assessment
Contamination of Land	Land contaminated by spillage of oils, fuels, lubricants, chemicals, solvents, waste water, concrete washout, admixtures; impacts to biodiversity and human contacts	BEGP Environmental Policy Law on Environmental Protection Environmental Impact Assessment
Impact to Biodiversity	Construction activites destroy habitat, interrupt breeding / hibernation cycles / direct influence on organisms.	BEGP Environmental Policy Law on Environmental Protection Environmental Impact Assessment
Air Quality	Fugitive dust emissions from road traffic, blasting, quarry, crushing & screening operations	BEGP Environmental Policy Law on Environmental Protection Environmental Impact Assessment
Controlled Waste	Solid waste to landfill can lead to visual impact, odor, indirect depletion of natural resources, impact on local community, possible impact on groundwater given miss-management of landfill in Kosovo	BEGP Environmental Policy Law on Environmental Protection Law on Waste Environmental Impact Assessment
Hazardous Waste	Disposal of hazardous waste, emissions to air, land & groundwater	BEGP Environmental Policy Law on Environmental Protection Law on Waste Environmental Impact Assessment
Resource Depletion	Depletion of natural resources and raw materials (includes water)	BEGP Environmental Policy Law on Environmental Protection Law on Water Law on Mines and Minerals Environmental Impact Assessment
Water Pollution	Emission of water polluting chemicals or agents, biological damage, reduction in quality of local water sources with the possibility of affecting human health.	BEGP Environmental Policy Law on Environmental Protection Law on Water Law on Mines and Minerals Environmental Impact Assessment

Appendix B - Environmental Aspects and Impacts Register

Location: Bechtel Enka Joint Venture, Route 6

Project Name: Prishtine - Hani I Elezit Motorway Project

Category	Score	Consequence
Insignificant	1	Negligible effect to environment or local community
Minor	2	Impact has minor short-term effect and action needs to be taken to contain the incident
Significant	3	Some impact but it is feasible to manage without external assistance
Severe	4	Major impact. Prosecution possible if impact is severe. Special management of issue is required
Very Severe	5	Major impact. Prosecution likely. Third parties expect special management of issue

Category	Score	Likelihood
Very Low	1	Not foreseen that the impact will occur on the project. Activity that is easily controlled or is taking place on a very small scale
Low	2	The impact should not occur during the project
Medium	3	Activity will be occurring regularly and impact may occur 1-2 times during the project or for a short duration
High	4	Activity required to be carried out and may result in impact occurring 3-10 times during the project
Very High	5	Unavoidable activity that may cause an impact even when controls are in place

	1 Very Low	2 Low	3 Medium	4 High	5 Very High
1 Insignificant	1	2	3	4	5
2 Minor	2	4	6	8	10
3 Significant	3	6	9	12	15
4 Severe	4	8	12	16	20
5 Very Severe	5	10	15	20	25

0	ACTIVITY	ENVIRONMENTAL ASPECT	ENVIRONMENTAL IMPACT	Consequence x Likelihood = Risk Rating			Residual Rating (Post-Control Score)			CONTROLS MEASURES
				C	L	R	C	L	R	
1 – EARTHWORKS OPERATIONS										
1-1	Clearing & grubbing	Excavation, truck movements, vegetation clearance	Air pollution, water quality, loss of habitat (Legal Register Item No: 3, 4, 5 & 7)	4	4	16	2	4	8	Restrict clearing and grubbing to areas where work alignment excavation will occur soon after. Where possible, do not leave exposed areas of colluvial soil open to precipitation. Build temporary drainages for collecting all silt in case of rain. Where possible prevent double handling of excavated material. Reseed (hydro seed), plant trees as per design requirements. If heritage items are discovered contact ES&H dept., allow access to Municipality Heritage Inspector.
1-2	Earthworks excavation	Excavation, truck movements, tipping, use of breakers	Air pollution, water quality, loss of habitat, noise pollution (Legal Register Item No: 3, 4, 5 & 7)	5	4	20	3	4	12	Ensure application of dust suppression measures, apply & control speed limits for vehicles. Access roads inside the alignment only. If water courses are intercepted by the alignment erosion control may be required and monitoring of water quality. Noise monitoring may be required for sensitive receptors. If heritage items are discovered contact ES&H dept., allow access to Municipality Heritage Inspector.
1-3	Blasting activities	Drilling, blasting, storage of explosives, mixing of explosives	Noise nuisance, dust emissions, water quality (Legal Register Item No: 3, 4 & 5)	5	3	15	1	3	3	BEGP will work with authorities from the local municipality for all blasting activities. Amend blasting pattern and charge amount / depth / timings in areas close to sensitive receptors, work with local municipality. Restrict blasting times i.e. no blasting during the night. Carry out noise monitoring as per the CECP. Work with SD & CR to notify residents of blasting times. Monitor area for river courses, water sample to be taken if water courses may be affected by work activities.