- Design calculations for Piperack/bridges/structure and foundations
- Demolition drawings for Fence, Lighting poles, Road, Redundant structure and foundations, etc.
- General Notes for Concrete Works
- General Notes for Steel Works
- Road Crossing Duct Bank Details
- Traffic Signs and Road Marking Details
- Layout of Road and Paving including Standard drawing
- Fence and Gate Drawing
- Steel Crash Barrier, Protective Barrier and Height Barrier Details
- Bollard and RC Crash Barrier Details
- Ladder Details
- Stairway Details
- Handrail Details
- Grating and Chequered Plate Details
- Anchor Bolt Details
- Ladder and Stairway Concrete Foundation Details
- Typical E&I Cable Trenches in Paved Areas
- Typical Fire proof Details
- Typical Concrete reinforcement Details
- Typical Details of Protection Slab to Protect Exis UG Pipe at Road-Truck / Rig Crossing
- Civil GA drawings and layouts
- Road & Fence layouts and sections
- Grading Plans and sections
- Miscellaneous foundation details
- Signage Layout Plans
- STAAD Pro

Please elaborate updating? Define stage document are only for reference

This is construction related document - Why is it in Piping??

Include all the documents required as per Scope of work under respective

7.2 MATERIAL APPROVAL REQUESTS (MAR)

- MAR requirement shall be mutually discussed case by case with Company and Company approval to proceed with MAR shall be obtained prior to using MAR process. EPC CONTRACTOR shall submit MAR to COMPANY for approval prior to purchase of the material.
- The MAR Nos will be allocated and EPC CONTRACTOR will maintain the MAR in the register.
- Technical evaluation sheet, Material catalogues / brochures and /or samples will be forwarded to COMPANY along with MAR, as and when applicable, with a request to review and approve the MAR and Samples.
- COMPANY's AVL compliance shall be adhered strictly wherever applicable.

ENGINEERING SUB-CONTRACTOR will provide procurement support to EPC CONTRACTOR as outlined in the Division of Responsibilities Matrix given in Appendix 1. In summary, the level of input that ENGINEERING SUB-CONTRACTOR will have to the procurement scope for the Project is:

- Preparation of relevant engineering deliverables to support issuance of Material Requisitions (datasheets, specification etc.);
- Preparation of Material Requisitions;

Please elaborate the work share / scope split between EPC Contractor and Engineering Sub-Contractor and the responsibilities of each party

- Review of Vendor bids and Technical Bid Evaluations;
- Review and approval of Vendor Data (post Purchase Order placement by EPC CONTRACTOR)
- Incorporation of Vendor Data into the design.

Procurement services, including issuing Material Requisitions / Request for Quotations, Commercial Bid Evaluations, Purchase Order Placement, Expediting, Delivery etc. will be by EPC CONTRACTOR.

7.3 PIPING TIE-IN

- Typical tie-in locations are identified on the engineering drawings developed. ENGINEERING SUBCONTRACTOR shall check the feasibility of the locations and fully design the tie-in details on layouts and isometrics. Final locations and details must be agreed with COMPANY and approved during detailed engineering phase.
- EPC-CONTRACTOR shall identify any other required Tie-Ins and develop and issue a detailed methodology for each Tie-In activity of this work for COMPANY's review and

THIS IS PART OF H5???

6.9.4 Inherent HSE Performance by Design

The following methods of risk reduction shall be used to ensure basic HSE aspects in the Residual Engineering Design stage of the Project:

- Optimization of Plot plan
- Keeping the design and intended operating activities effective
- Using well proven engineering controls for all high risks
- Minimizing human intervention requirements & manual activities in high risk operation & area zones
- Reduction or if possible, elimination of hazardous material inventories in the project.
- Attenuation i.e., using a hazardous material at less hazardous process conditions
- Limitation of effects i.e., limits the severity of failure.
- Risk Acceptability Criteria and Impairment Criteria

Include all the documents by RCC team, under the RSME document in the appendix.

7. PROCUREMENT SUPPORT

Please specify the stakeholders of these DESIGNS

7.1 PROCUREMENT AND MATERIAL MANAGEMENT

- The term "procurement" as used in this document shall include all activities to perform purchasing, expediting, inspection, quality assurance, transportation, payment, importation, customs, delivery to site, storage, material control and related activities in connection with goods, spare parts and Vendor specialist services required for the Project.
- The terms "Materials" and "Goods" as used in this document are synonymous.
- The term "SPIR" as used in this document means Spare Parts Interchangeability Record.
- EPC CONTRACTOR's Procurement Team will also be responsible for all Expediting activities and, together with QA/QC personnel. Inspection visits will be conducted as per the Inspection &Test Plan requirements for scheduled inspection points and to witness Factory Acceptance Test at the relevant Vendor's plant. Once any materials, good and equipment have become the object of an Inspection Release Note, EPC CONTRACTOR's Transport/Logistics team will organize the logistics (Land/Sea/Air Transportation) for the timely delivery of the ordered goods within UAE and from outside of the UAE.
- EPC CONTRACTOR will procure all required materials, goods and equipment for the Project in full accordance with COMPANY Procurement Guidelines and Procedures, and shall purchase from those on the COMPANY Approved Vendor/Manufacturer List.

WHAT COMPANY??