The following provides examples of the components in a 30%, 50%, 90%, and 100% Design Documents.

30% Or Basis of Design Components

Introduction

- Discussion of purpose/intent of document
- Discussion of report organization
- Discussion of project organization structure /roles and responsibilities
- Discussion of general site history
- Discussion of other components of overall remediation that will be submitted separately
- Discussion of document structure and separation if more than one design process is included in the document
- Discussion of design process, such as:
  - 30% Design Components
  - 50% Design Components
  - 90% Design Components
  - 100% Design Components

Summary of ROD

- Description of remedies outlined in the Record of Decision (ROD)

Basis of Design

- Discussion of work to be undertaken
- Discussion of permitting and regulatory requirements
- Summary of previous investigations and results; examples include but not limited to:
  - Soil contamination and soil vapor data
  - Groundwater data
  - Vapor intrusion data and sub-slab vapor monitoring results
  - Previous history of SVE system operations
  - Previous pilot testing monitoring results
- Discussion of design considerations, including:
  - Existing conditions (structures, utilities, systems, etc.; with figures)
  - Property ownership
  - Subsurface conditions
  - Surface conditions
  - Analysis of data and identification of data gaps
  - Planned pilot testing and/or treatability testing and significance to design considerations
  - Design assumptions
• Discussion of media/areas to be remediated
• Discussion of COCs for each media
• Discussion of cleanup levels/remedial action objectives/performance criteria
• Discussion of estimated extent of system/describe target
• Discussion of design approach
• Discussion of evaluation of treatment methods

Additional Investigation

• Discussion of data collection needed to fill data gaps, if needed

50% Design Components

Addresses DEQ comments on the 30% Design and may include:

• Discussion of of investigation results, including results and analysis of data
• Pilot test work plan (including a description of the pilot test methods and procedure for data collection)
• Discussion of pilot test well construction details (e.g., well locations, pilot test equipment details)
• Discussion of all required treatment during pilot testing (e.g. off gasses, waste water)
• Discussion of all required permitting requirements
• Discussion of how data from pilot test will be used to finalize system design
• Discussion of preliminary system layout
• Discussion of preliminary system construction details
• Discussion of calculations to be used for system design
• List of construction specification to be provided in the 90% Design
• Preliminary operations and maintenance (O&M) and performance monitoring plan
• Preliminary cost estimates
• Preliminary schedule

90% Design Components

Addresses DEQ comments on the 50% Design and may include:

• Discussion of pilot test results and analysis of data
• Discussion of how data from pilot test will be used to finalize system design
• Presentation of final system calculations for system design
• Final system construction drawings
• Final system plans and specifications
• Permits or permit applications
• Final O&M and performance monitoring plan
• Final cost estimates
• Final schedule

100% Design Components

• Addresses DEQ comments on the 90% Design submittal
• Once DEQ approves, implementation begins