Sioux City WWTP Improvements

A Long Range Vision for the Future

Safety and Odors

Operational Reliability

Growth

WWTP Reconstruction and Design Advisory Committee

October 23, 2025

Agenda

- ✓ Recap of Last Meeting
- ✓ City WWTP Update
- ✓ Emergency Repairs Project Update
- ✓ Digester Project Update
- ✓ WWTP Phase 1 Design Update
- ✓ Overview of Upcoming Meetings
- ✓ Open Discussion

Hazen BLACK & VEATCH McCLURE

Meeting 22 Recap / Follow-Up

Risk Register Build Up

	Risk Description	High Level Risk Categorization	Risk Subcategory	Cause / Impact	Discipline	Risk Owner	Status	Probability (1 to 5)	Impact (1 to 5)	Risk Score (1-25)	Assumptions/ Calculations	Total Risk Cost	Probability Cost	Retained Risk	Owner Risk $	CMR Risk $	Order of Magnitude Cost Impact	Mitigation Plan	Risk Identified	Risk Closed
8	Undisclosed Hazardous Substances uncovered or revealed	Unforseen Issue	Site Conditions	City will be responsible for all hazardous substances found on site that were not shown in drawings or in contract including Asbestos, PCBs, Petroleum, Hazardous Waste, and Radioactive Material; the hazardous material protocol will add to construction time and increase cost	General	City	Active	3	2	6	Assume cost to abate unknown materials is double the current cost of known materials. Current known mitigation costs $230K	$230,000	$138,000	$138,000	$138,000	$0	Low		8/4/2025	
28	Heavy rains cause damage and flooding to deep excavations	Construction	Site Conditions	Dewatering crew and potential for added shoring needs or fill and re-excavation	General	CMR	Active	3	3	9	6 months of 6" trash pump equipment rental 26 wks. x $5,225/Wk. equipment rent 5% of structure exc qty re-dig @ excavator crew cost of $16.46/CY for 35 CY/HR production 0.05 x 158,826CY x $16.46/CY	$266,850	$160,110	$160,110	$0	$160,110	Low	Implement and maintain appropriate measures to protect excavations. Consider having trash pumps on site for use during frequent rainstorms. Apply appropriate schedule for working days due to rain/storms at site.	8/4/2025	
												$57,672,850		$43,014,370	$16,505,960	$26,508,410				

Risk Burn Down*	
No. Active Risks	62
No. Closed Risks	0
No. Realized Risks	0
Average Risk Score	8.274193548
Total Retained Risk	$43,014,370.00

*Paste data into 'Burn Down' worksheet upon the monthly review in the middle of the quarter (Feb, April, Aug, Nov).

City WWTP Update

Emergency Repairs Project Update

North Primary Clarifier Structural Repairs

- Primary effluent channel expansion joint repairs complete
- City staff installing new clarifier equipment on NPC tank 4
  - **Equipment vendor checkout and startup week of 9/8**
    - **Minor punch list items addressed during walkthrough**
  - **Re-repairs completed for identified areas of concern**
  - **Startup planned**
- Structural repair contractor completing work on NPC tank 2
  - **City planning new equipment install next**
  - **Contractor assistance planned**
  - **Re-repairs on-going for identified areas of concern**
- Planned work
  - **Repairs to bypass channel**
  - **Structural repair to NPC tank 3**

Additional Scope Items Being Evaluated to Utilize ARPA Grant Funding

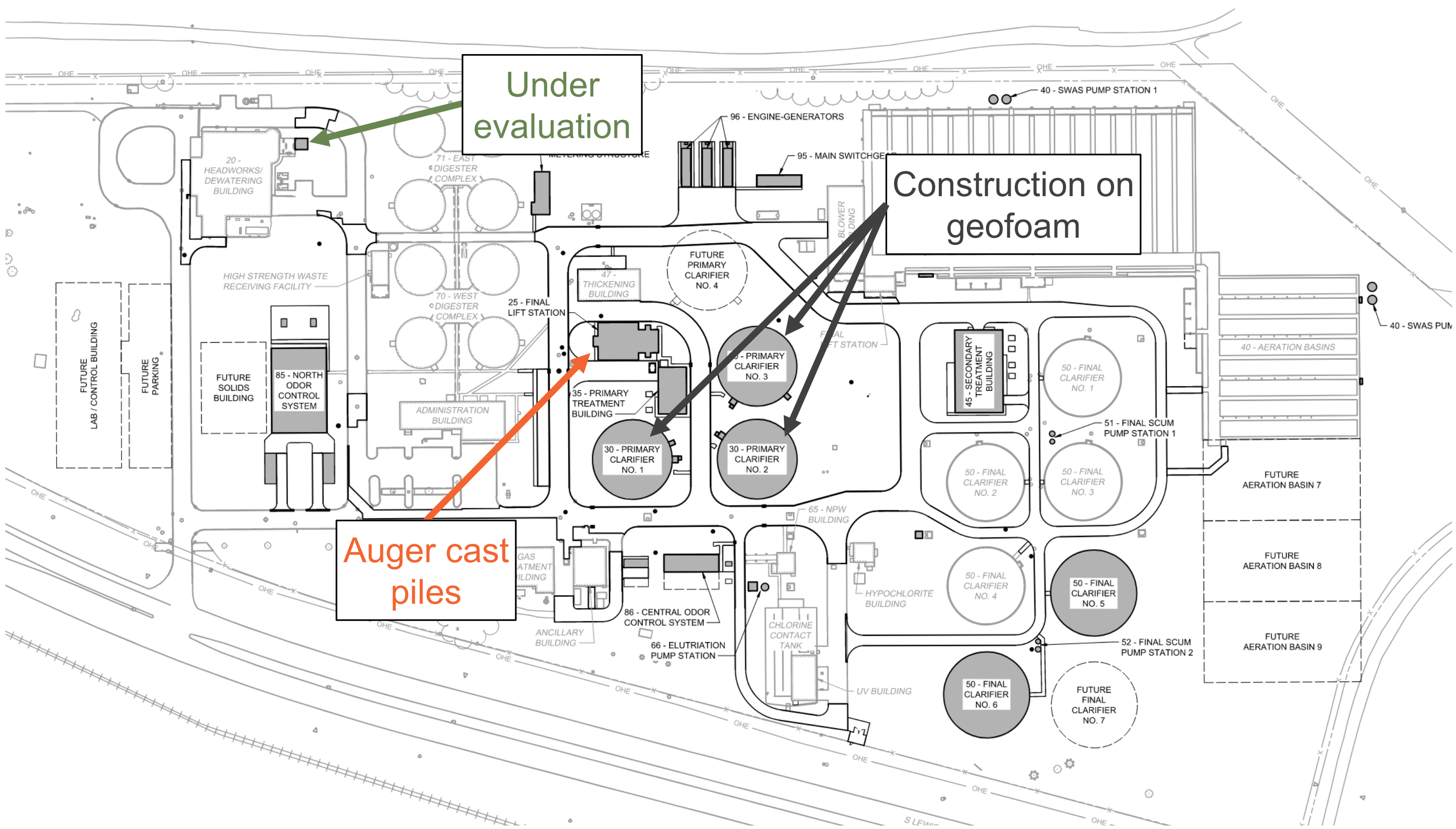
- NPC sludge line breaks
- Aeration basin structural repairs
- Aeration basin handrail replacement

Digester Project Update

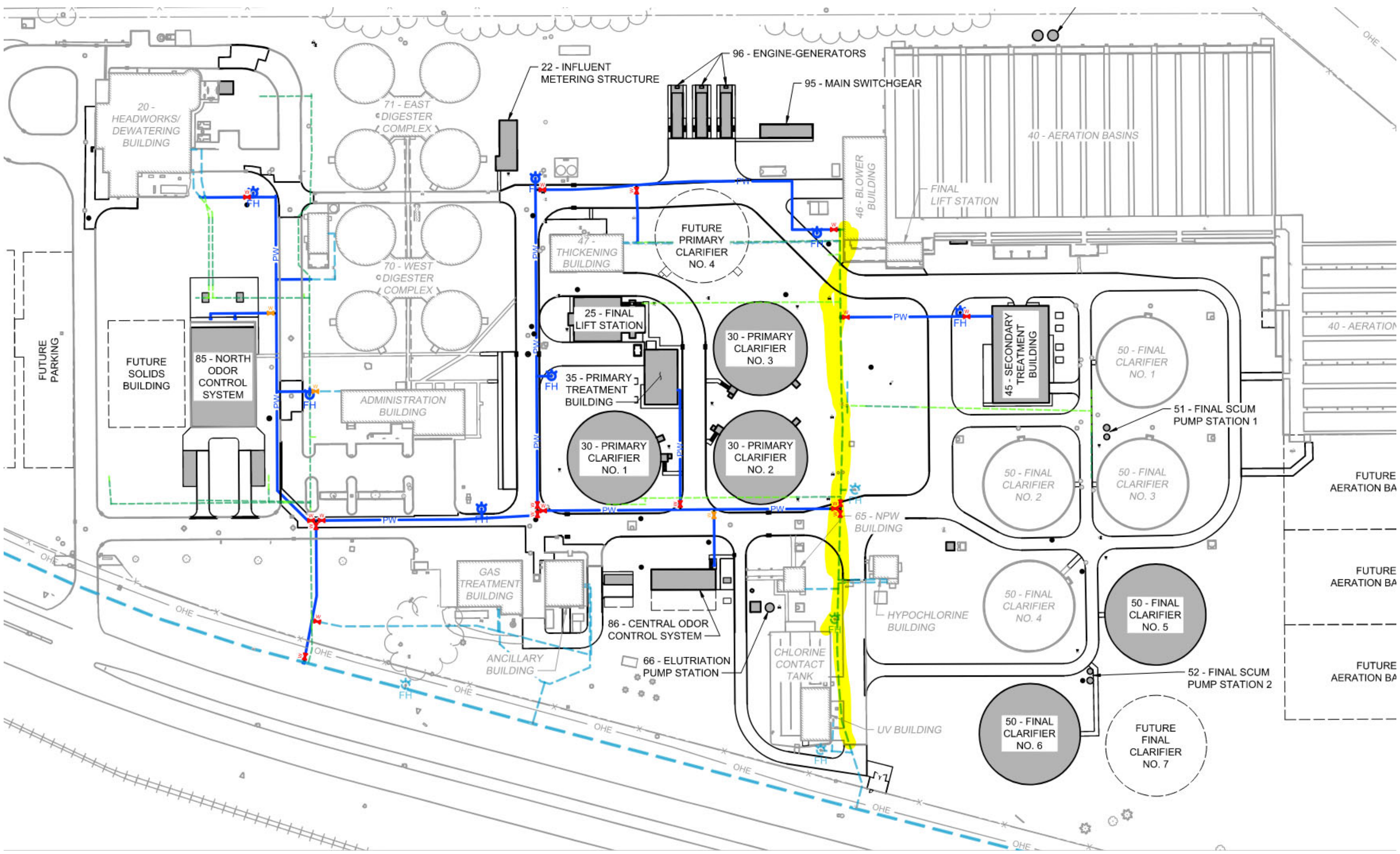
WWTP Design Update

Foundation Systems

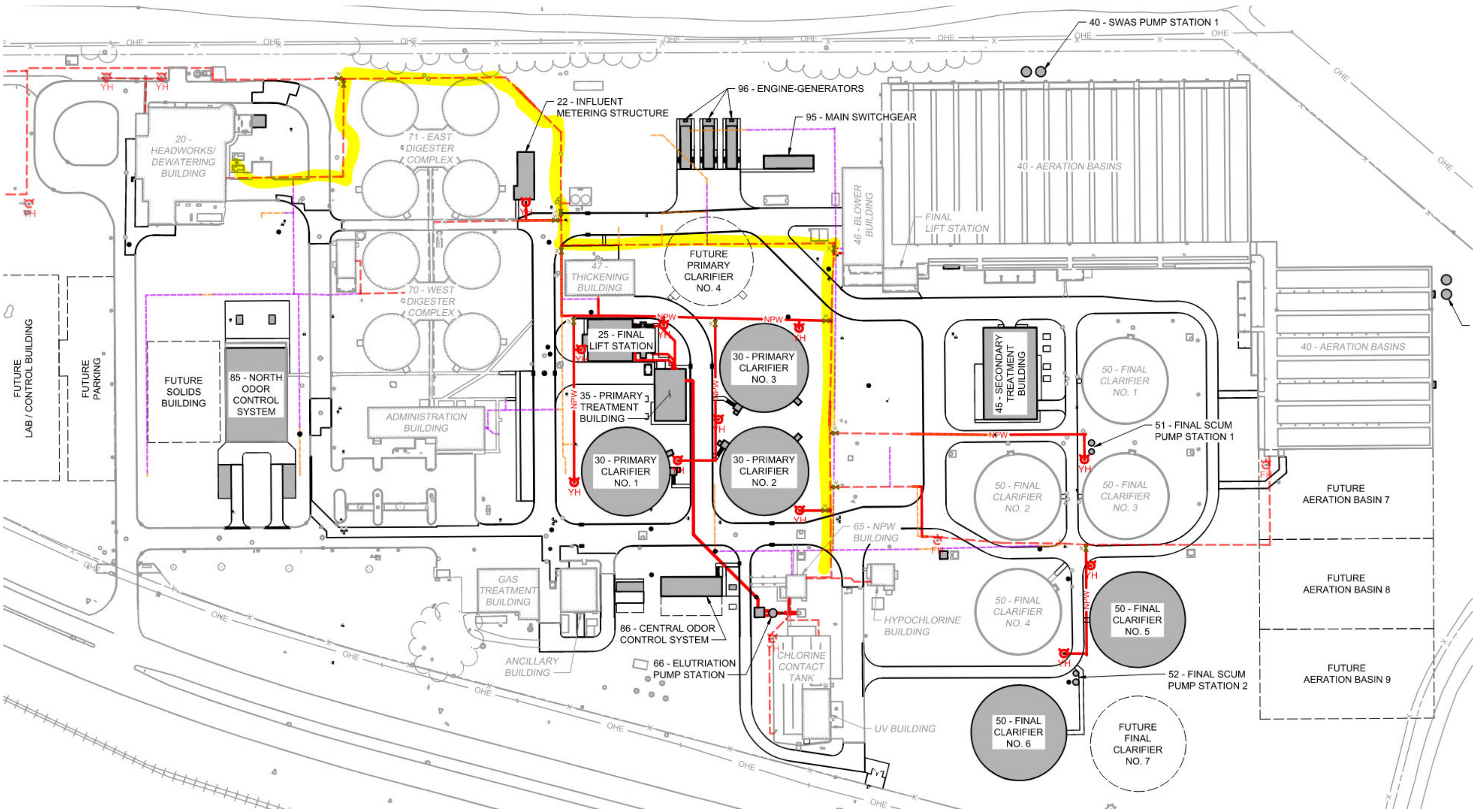
- Revised geotechnical report from Terracon (subconsultant)
- Confirmation of previously discussed approach
  - **Elimination of piles at most structures**
    - *South and east areas of site*
  - **Subgrade improvements at primary clarifiers**
  - **Pile foundations at FLPS**
  - **Headworks hydraulic structure under review**



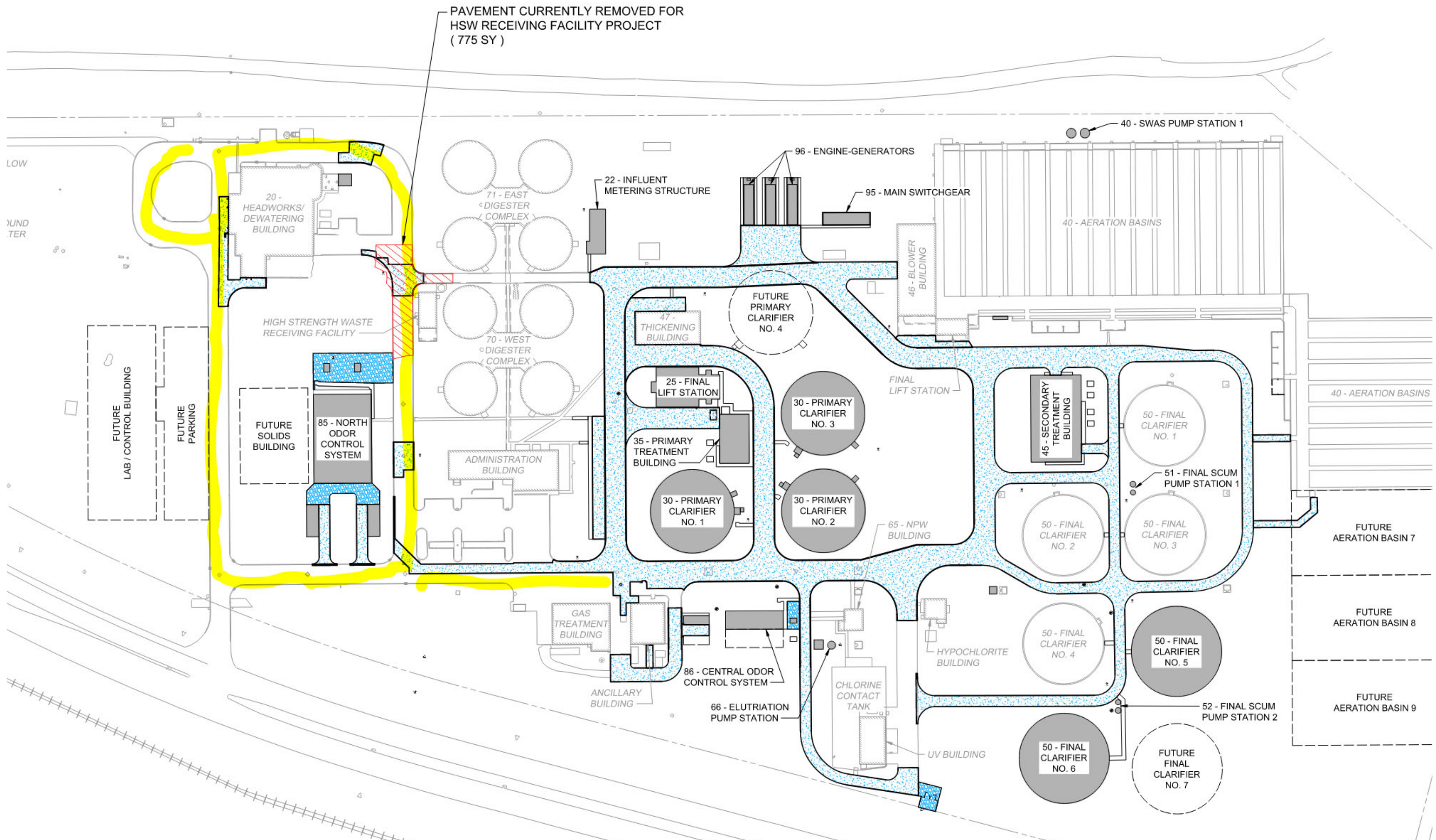
Site Updates – Potable Water Piping



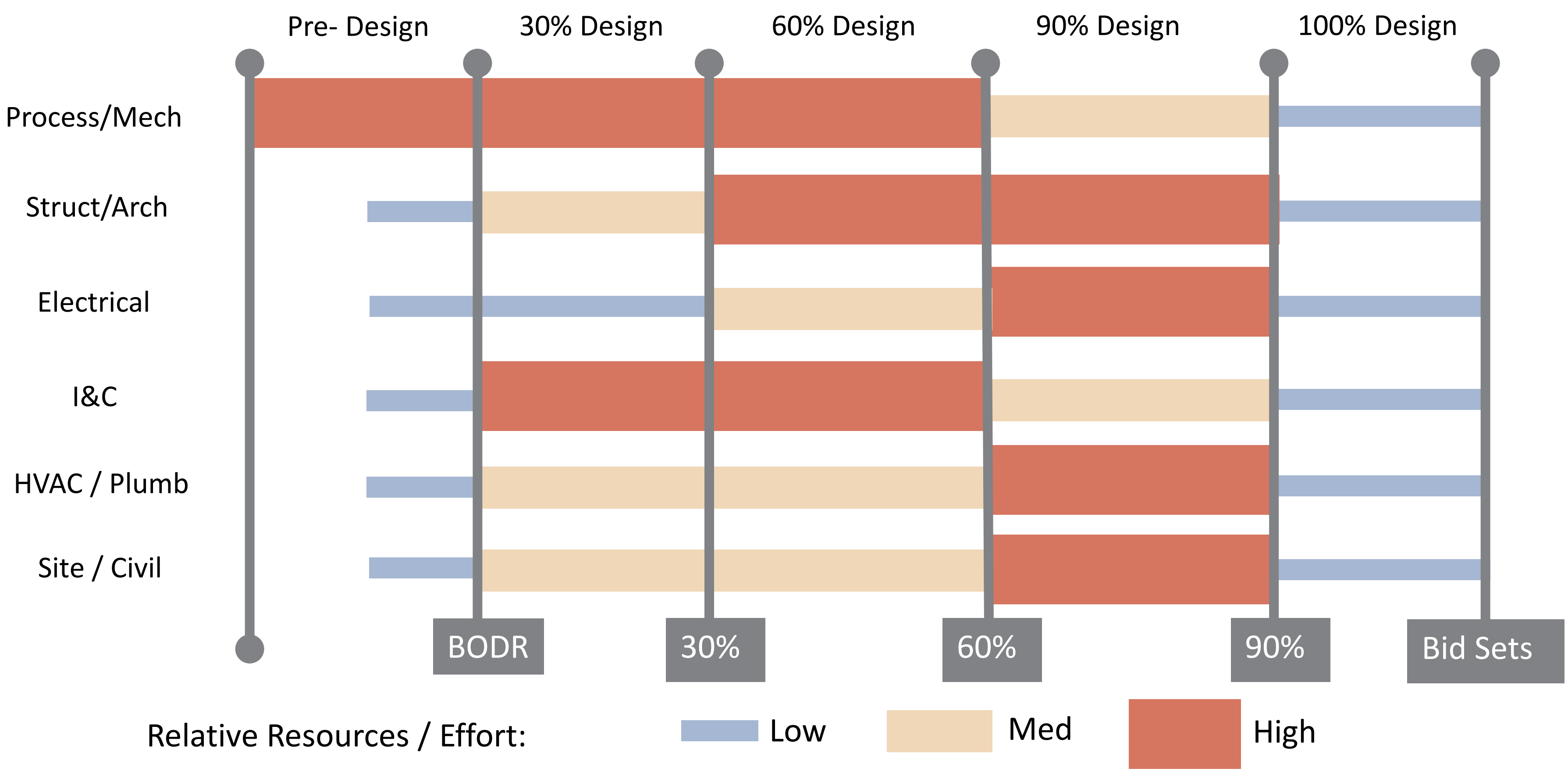
Site Updates – Non-Potable Water Piping



Site Updates – Paving



Design Progression and Next Steps



Next Meetings

Upcoming Meetings

TBD

Meeting 24
November TBD, 2025

TBD

Meeting 25
December TBD, 2025

2026?

TBD

Open Discussion