Shallow Utilities Consortium Industry Information Session

April 26, 2023

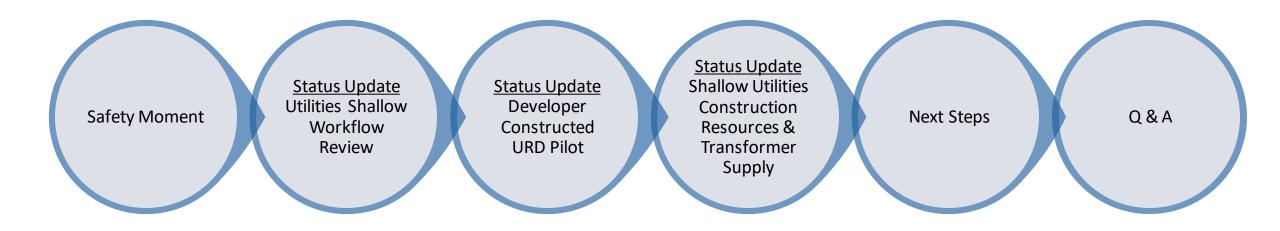








Agenda & Purpose



Purpose: Share information with our customers on the status of current Initiatives within the Underground Residential Delivery Program

Safety Moment

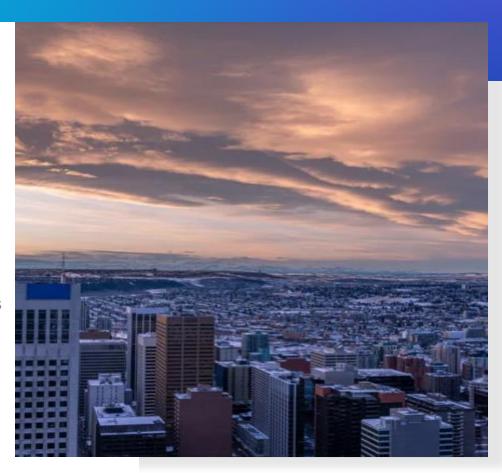
Spring Hazards – High Winds on Construction Sites

Potential hazards created by the wind

- Struck-by incidents due to objects being blown around
- Eye injuries due to small particles of flying debris and dust
- Dropped loads while completing lifts with debris and dusts
- Objects falling from elevated surfaces

Best practices to eliminate hazards

- Identify high winds as a risk during daily tailgate meetings and job hazard assessments
- Reschedule work tasks that become dangerous in excessively windy conditions
- Ensure proper use of PPE, including eye protection at all times, while on site
- Do no conduct lifting operations during high wind events
- Ensure all construction materials are properly stored and secured



Utilities Shallows Workflow (USW) Review

PHASE 1: Requirements Gathering

> Nov - Dec 2022

Identify challenges and opportunities within USW Process PHASE 2: Improvements & Alternatives Prioritization Jan - March 2023 Review Primary areas for improvement & identify potential solutions to further investigate

PHASE 3: Solutions Presentation April - May 2023

Review solutions and understand benefits

PHASE 4: Final Outcomes and Recommendation Timelines June 2023

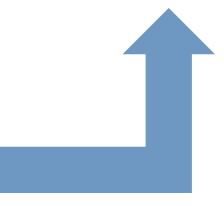
Report back to industry on opportunities and timelines

PHASE 1 OUTCOME:

- Three major areas for focused improvement:
 - USW and City approvals process disconnected in terms of timelines
 - 2. USW steps and content optimization to decrease the time for "initiate to energization"
 - URD Construction duration from the end of design to developer site ready needs to be clarified and better resourced.

PHASE 2 OUTCOME:

- Potential solutions identified within the three major areas of opportunity:
 - 1. URD Construction
 Demand Incumbent
 Crews, RFP implementation,
 and URD DC Pilot
 - 2. USW and City / BILD process alignment
 - 3. USW Step activity optimizations and Step 0 potential
- Sub-working groups created, and actions assigned meetings are underway



WE ARE HERE

MULTI-FUNCTIONAL COMMITTEE MEMBERS

- Developers
- Developer Consultants
- City Departments
- Utilities
- BILD CR

Developer-Constructed URD Pilot

Intent	Framework	Trial	Broader Adoption
 Developer to bring own contractor Hand over control over schedule Potential efficiencies of installs with Deeps installation Untangle existing model methodically 	 Gap analyses Scope split Developer and Project qualification criteria Contractor pre-qualification Utility Investment and contract Inspections Safety, Quality, Warranty Process and procedures Success criteria 	 Construct Inspect Measure benefits Share lessons learned Quantify benefits Evaluate success BYOC now 	Scale up Adopt

Target completion:
May - June

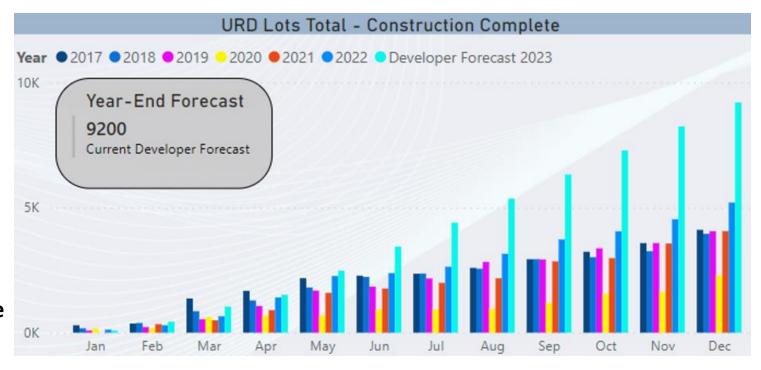
Target completion:
Aug - Oct

Target completion: Nov-Dec

Shallow Utilities Construction Resources

CHALLENGE: Forecasted lots in the construction queue in 2023 is higher than the volume construction contractors will be able to deliver.

- Discussions with developers & builders in Q1 2023, forecast 9,200 lots to be constructed this year
 - 77% more lots than previous year
 - Weather-dependent
 - Market-dependent
- To date, 7 contractors provide 13 permanent crews, and 1 temporary crew- 14 total
- Shallow Utilities Consortium working to close the gap
 - Bringing on additional resources Shallow Utilities
 Construction resources = yield 3-4 crews
 - Developer-constructed URD pilot = yield 2-3 crews



**REQUEST TO DEVELOPERS – ONGOING UPDATES FOR CURRENT INFORMATION ON PLANNED LOT DEVELOPMENT, IS ESSENTIAL TO THE SUCCESS FOR SEVERAL INTIATIVES

Shallow Utilities Construction Resource Challenge

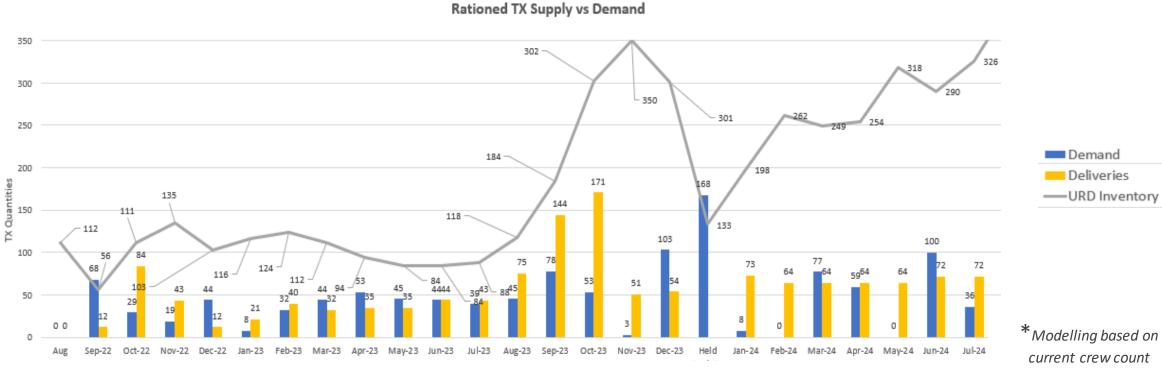
Work Completed

- Modelling for capability and lot development
- Proactive identification of challenges to collectively discuss solutions with industry
- Ongoing conversations with industry
- Exploring incentives with current contractors to increase capacity
- Open RFP available to onboard additional crews issued, evaluated and awarded
- NOTE: These resources require special skills beyond civil scope

Work Underway

- Finalizing the onboarding of successful applicants to RFP (5 successful, 1 withdrew anticipate 4 new organizations to provide 1 crew each for a total of 18)
- Industry provided suggestions on contractors that might be interested; ENMAX Power is making the RFP information available to contractors upon request
- Discussions with industry deep utilities contractors on possibility of becoming part of shallow utilities contractors. Meetings with DEEPS Contractors taking place

Transformer Supply Chain



Transformer Allocation Strategy - <u>successful</u> in avoiding a stock-out scenario

- Since October 2022, out of 42 locations w/o transformers, only 4 requests received to install remaining transformer. All requests fulfilled.
- ENMAX Power onboarded 4 new transformer suppliers in 2022 cautiously optimistic they will fulfill orders moving forward
- Target: Q4 Removal of Allocation Strategy many interdependent factors will impact modelling (additional crews, Developer-constructed pilot & implementation)
- Preparing revised modelling based on crew additions through recent RFP

Next Steps

- Shallow Utilities Consortium will send first monthly email in May to update on:
 - Shallow Utilities Workflow Review Progress
 - Developer-Constructed Pilot
 - Construction Resources
- Shallow Utilities Consortium to arrange Quarterly Meetings first to occur in July

Question & Answer Session

- What is the escalation path for URD challenges?
- What are plans to communicate on progress with industry?
- Are there construction contractor qualification differences between Fortis Alberta and ENMAX?
- Will the Shallow Utilities Consortium publish metrics to facilitate accountability?
- Does the Shallow Utilities Consortium intend to reach out to contractors who didn't respond to the RFP to understand why?
- Will ENMAX Power compensate developers if they choose to use Temporary Power for Construction?

THANK YOU FOR ATTENDING







