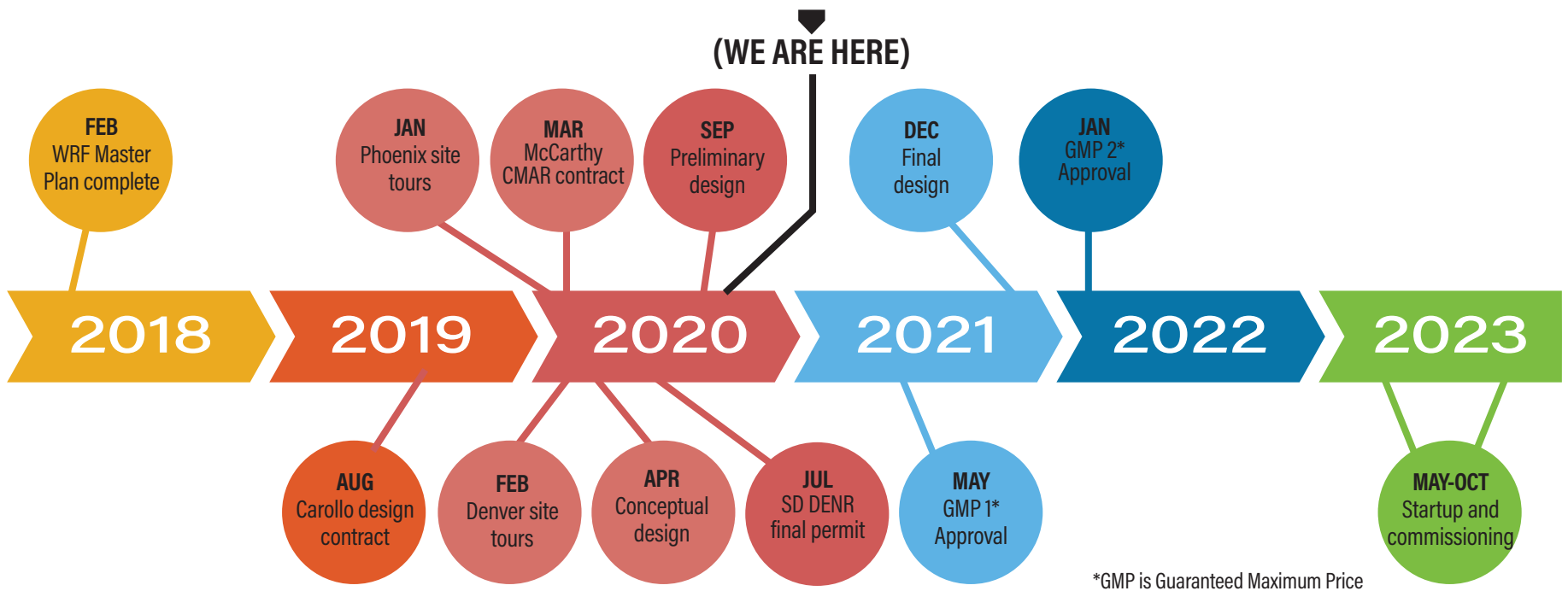


WATER RECLAMATION FACILITY Improvements and Expansion Project

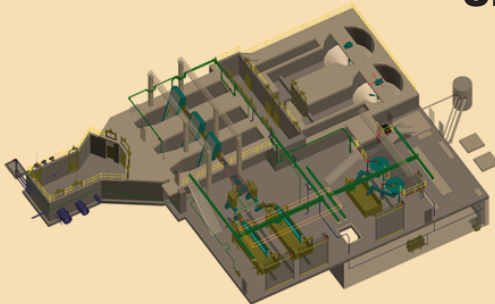


DESIGN REVIEW USING THE LATEST TECHNOLOGY

Lidar—Light Detection and Ranging

- Laser Scanning of a 360-degree field of view capable of collecting up to one million points per second.
- Converts existing buildings and infrastructure into virtual 3D models.
- Details include walls, pipes, pumps, valves, and electrical conduit to a precision of 2 mm.
- Major benefit to renovation and retrofit projects including increased accuracy and time savings compared to manual measurements or relying on as-built drawings.

3D BIM—Building Information Modeling



- A powerful tool for design and construction coordination and the iterative design and facility planning process.
- Provides a better understanding of floor and room layouts, critical areas, mechanical equipment, grading, textures, and elevations during the planning and design phases.
- Helps design engineers and other project partners identify interdependencies and conflicts and rapidly evaluate design iterations.
- Allows operations staff to tour future facilities virtually.

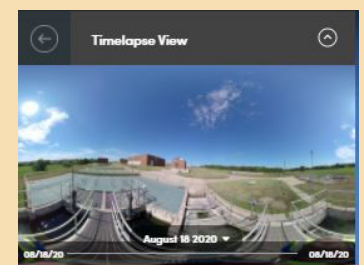
360 Degree Imaging

360 Degree Imaging provides a virtual project x-ray. Amidst the ongoing COVID-19 travel restrictions this helps our project team move forward seamlessly by:

- Providing the ability to be remote from the facility and overcome the challenge of understanding conditions not shown on the drawings.
- Proactively prepare for construction challenges of upgrading an active facility.
- Documenting progress over time as 360 degree photos are taken over the life of a project.
- Maintaining schedule during pandemic related travel restrictions.



[Aeration Basins](#)



[Chlorine Contact Basins](#)

Next Steps

- Loan ordinance presented to council, November 2020
- Anticipate final design agreement with Carollo, December, 2020.