RO Membrane Replacement and SCADA System Upgrade Project

Guaranteed Maximum Price
The Haskell Company
McKim & Creed

Background

- The existing membranes were replaced in the 1990s and are well beyond their expected useful life. Due to the age, condition, and state of obsolescence, repair parts are difficult to procure
- Replacement of the membranes and the Supervisory Control and Data Acquisition (SCADA) system at the Water Treatment Plant was identified as a critical project
- A Progressive-Design Build process was determined to be the best method of procurement for the project
- An agreement for Phase I of the Progressive-Design Build method was approved by Council in January, 2013

To Refresh Your Memory
Why Progressive Design-Build?

Features

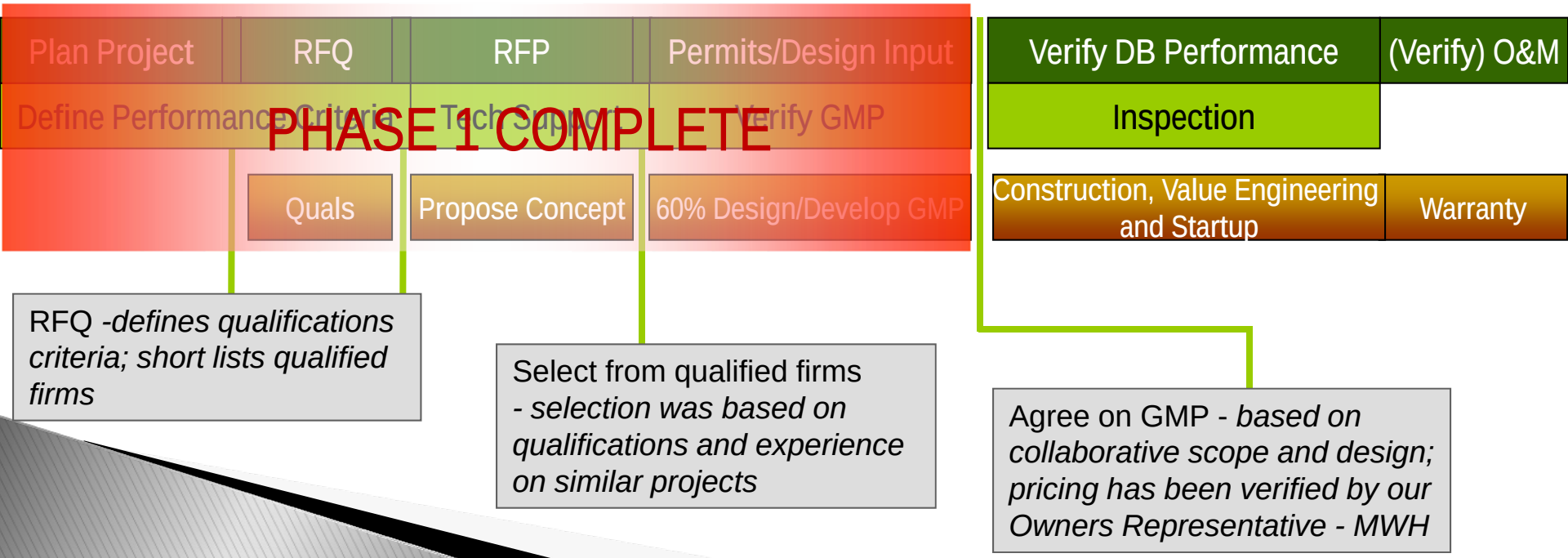
- It offers the City the maximum flexibility to collaborate on permitting, design, and construction
- Has proven to be a very successful project delivery model
- Allows for rapid delivery of project
- Establishes a Guaranteed Maximum Price at 60% Design Stage

Guaranteed Maximum Price (GMP)

- Provides for bidding, pricing, materials, and all associated construction costs unique to the facility design
- Open and transparent accounting that creates value

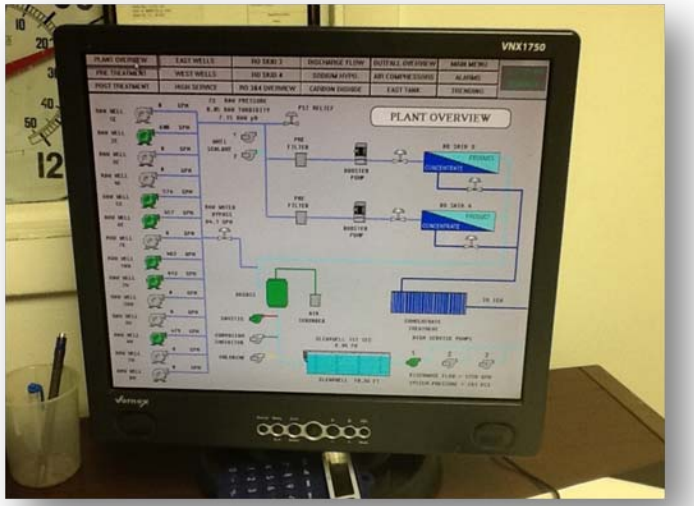
Where We Are to Date

- Selected the Haskell Company Team
- Collaborated with Builders and Design Engineers to develop design concepts, requirements and equipment
- Completed design documents to develop a Guaranteed Maximum Price
- Completed constructability, quality and value engineering reviews
- Capital costs reduced from $7.495M to $6.70M through collaboration



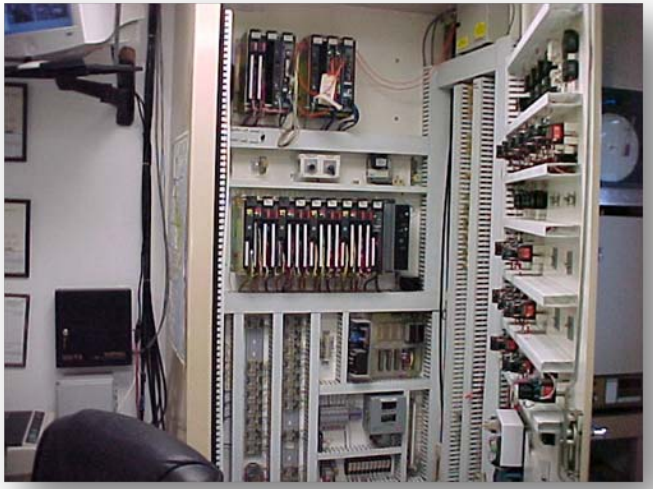
GMP Scope of Work

- Replace/upgrade the four existing RO membrane skids
- Replace in-place Programmable Logic Controllers (PLC)
- Upgrade the SCADA system hardware/software
- Replace communications network



GMP Scope of Work – continued

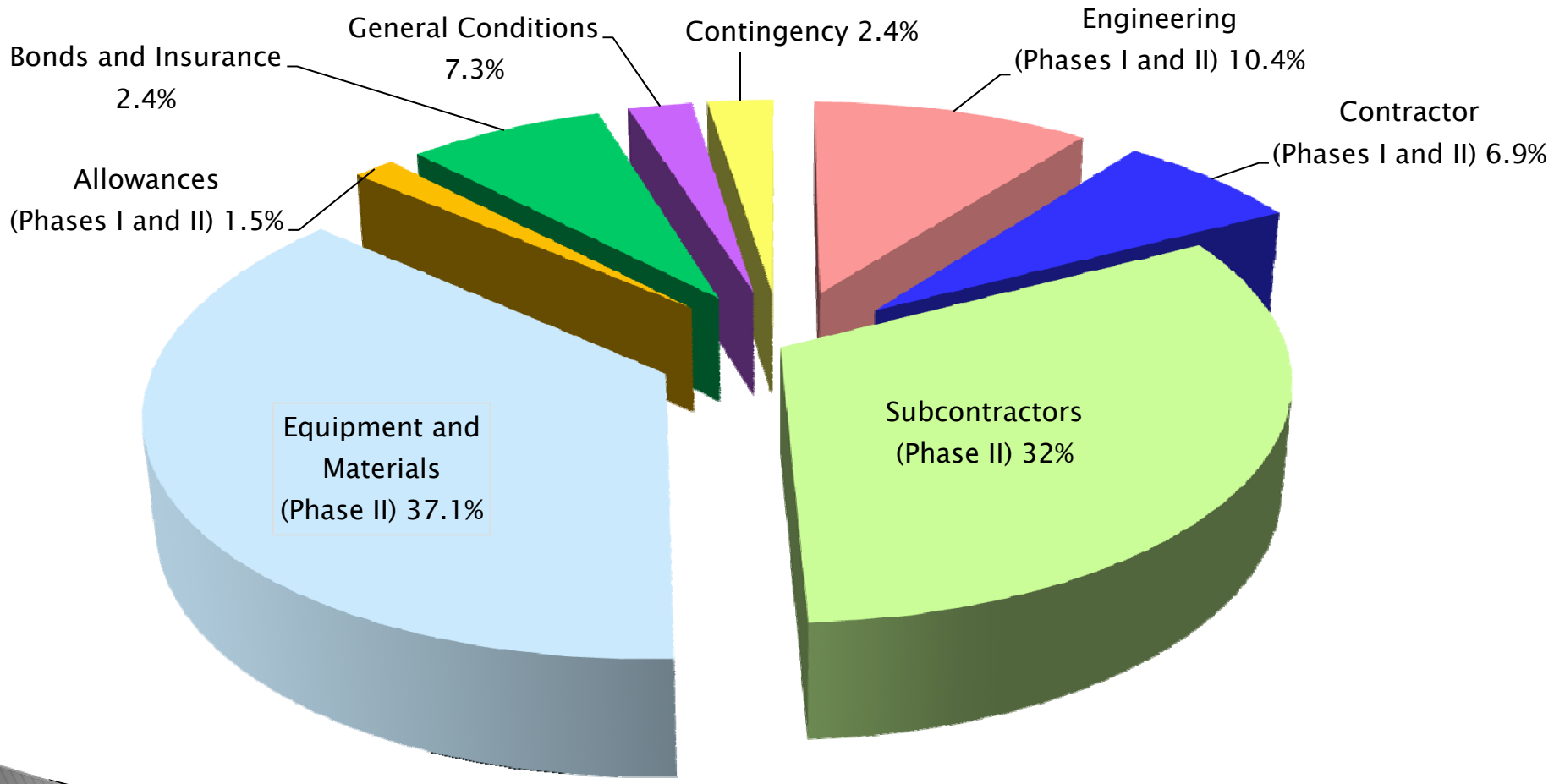
- Replace/Upgrade electrical and instrumentation systems at the WTP and associated off-site facilities
- Replace Anti-Scalant feed system
- Replace existing RO feed pumps, variable frequency drives, and cartridge filters



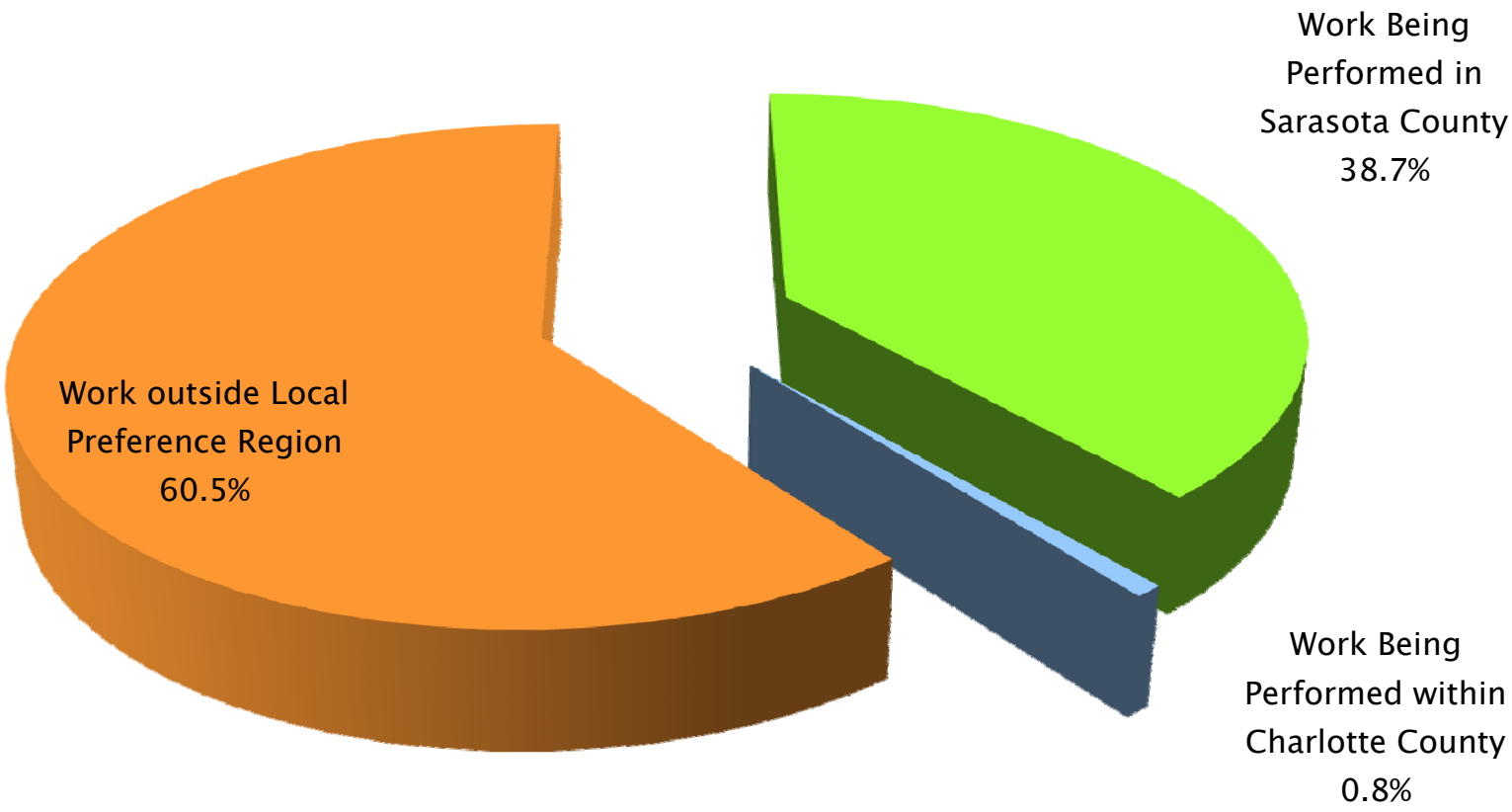
GMP Scope of Work – continued

- Replace existing sodium hypochlorite feed systems
- Replace existing process and Clean-in-Place piping
- Install new roof access hatches (Bldg. A) and overhead doors (Bldg. B) for new pumps

Division of Work – Phases I and II



Local Team Members



Time and Cost

Final Completion Date	Haskell's Guaranteed Maximum Price
July 17,2014	$6,700,108

Summary

- Through collaboration with builders and design engineers, the project has been reduced by approximately 10%.
- Replaces outdated controls and equipment that have exceeded their useful life.
- Improves reliability and operational efficiency.
- Prepares the City for future demands and regulations using minor capital expenditures.