HIGHER RELATIONSHIPS

10 Years in the Making - 33rd Street Outfall

Complexity
- New installation ties into an existing 100-year-old brick system
- Outfall takes pressure off old system and prevents flooding in flat, expanding neighborhoods
- Tunneled portion of the outfall includes a 10-foot diameter pipe
- Depths of 30 feet below ground requiring a slide rail trench system

Social, Economic, and Sustainable Development Considerations
- Public meetings to gather insight from the neighborhood
- Weekly construction communication updates
- Trash screened from flow prior to discharge to the South Platte River
- Outfall configuration allows base flow to divert to 36th Street for ultraviolet disinfection for water quality

Uniqueness and/or Innovative Applications of New or Existing Techniques
- Box culvert configuration includes standard manhole risers on openings in the top of the box for both access and connection of laterals at a shallower elevation than would be required for a direct connection to the box, saving time and reducing costs

Successful Fulfillment of Client/Owner Needs
- Outfall provides flood relief to neighborhoods
- Packaged as four segments to meet the City’s goals for delivery
- Team adapted to the ever changing project corridor in this active re-development area

Future Value to the Engineering Profession and Enhanced Public Awareness/Enthusiasm of the Role of Engineering
- Scale of tunneling will inspire engineers as one of the first Hobas pipes of this size installed in Colorado
- Time-lapse video was taken during construction for engineers to learn from
- Long-term benefit for a safer community involving flood relief and protection

One of the First 10-Foot Diameter Hobas Pipes Installed in Colorado