

# DOTHAN CITY CENTER

**UTILITY / SITE DEVELOPMENT** 

ASCE Winter Conference 3/20/25 Kenny Sanders, PE Poly, Inc.



#### **Utilities / Site Overview**



#### **UTILITIES**

- 1. Museum Ave.
- 2. Main St.
- 3. St. Andrews

#### **SITE**

- 1. Wiregrass Innovation Center
- 2. City Hall/Annex



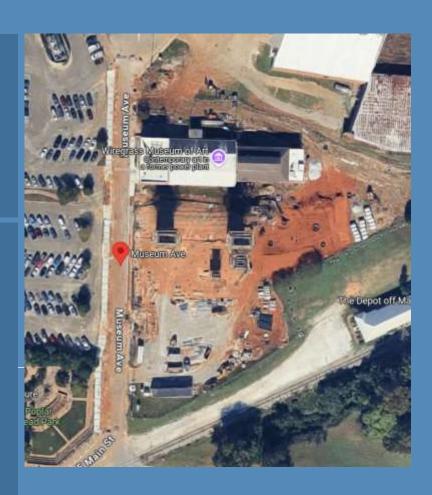


#### **SCOPE**

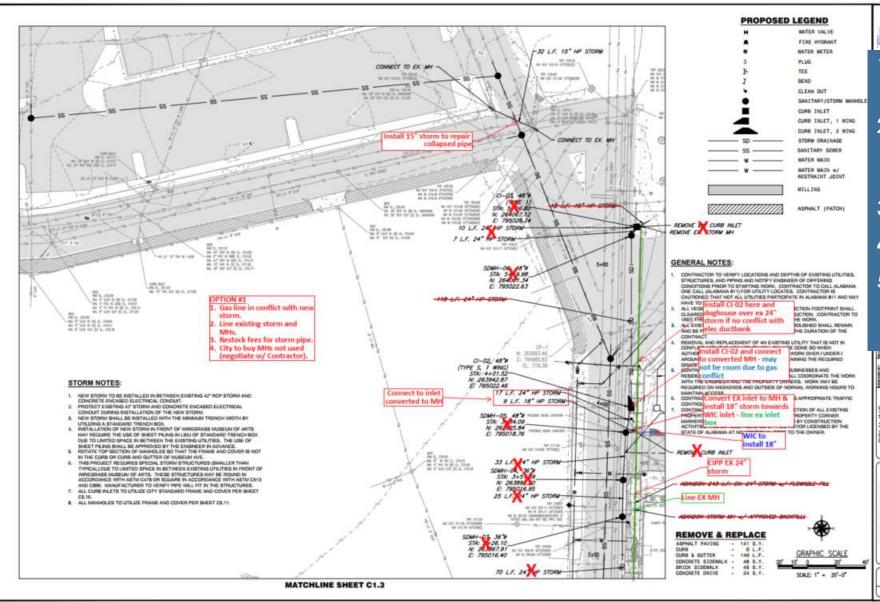
- 1. Storm replace
- 2. Water replace
- 3. Sewer replace
- 4. Patching

#### **ISSUES**

- 1. Limited room to work
- 2. Existing electrical ductbank (concrete encased)
- 3. Vibration concerns at WMA
- 4. Existing natural gas line (shallow)
- 5. Existing 24" storm underneath electrical ductbank
- 6. Existing 42" storm (center)
- 7. Other unknown utilities, unknown elevations, etc.
- Some of oldest utilities in Dothan so existing mapping not as defined

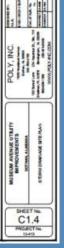








- 1. Worked w/ Owner as conflicts arose
- Existing gas line was not bored quite as deep as expected
- 3. Existing 42" storm alignment
- 4. Concrete encased ductbank
- Final result was to truncate the new storm pipe tie to existing





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#### Vibration Testing at This Site





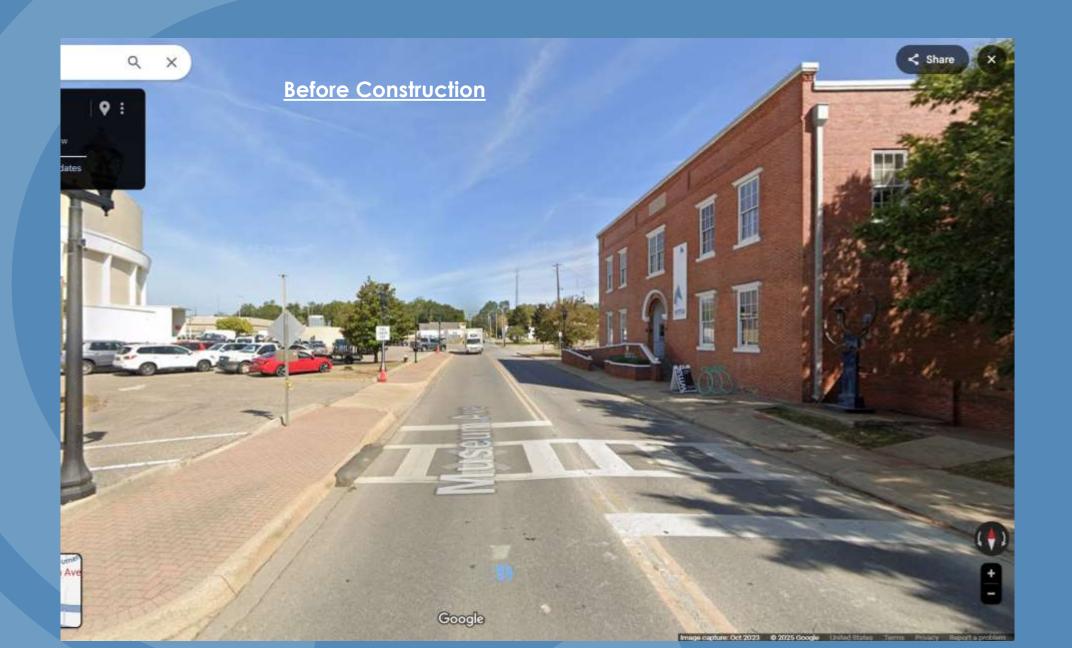






- Vibration consultant
- 2. Goal is to protect artwork in WMA building
- 3. Tested equipment to establish baseline
- 4. Established requirements for construction contract
- 5. Sensors monitored during construction
- 6. Alerts to construction team and Owner when certain vibration levels were reached
- 7. Consequences for contractor







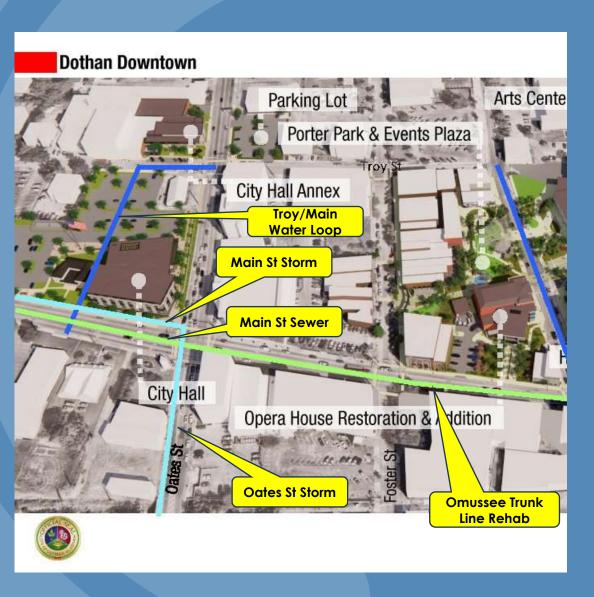








#### Utilities – Main St.



#### **UTILITIES**

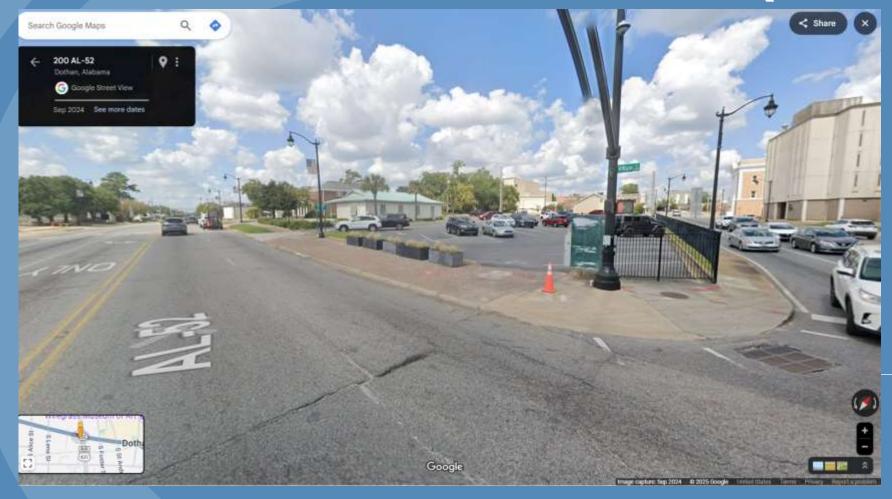
- 1. Storm add/replace
- 2. Sewer line/replace
- 3. Trunk line rehab
- 4. Troy/Main water loop

#### **ALDOT RESURFACING**

- Main St. to through downtown Dothan to be resurfaced in fall 2025
- 2. Storm and sewer work being completed in advance of planned resurfacing



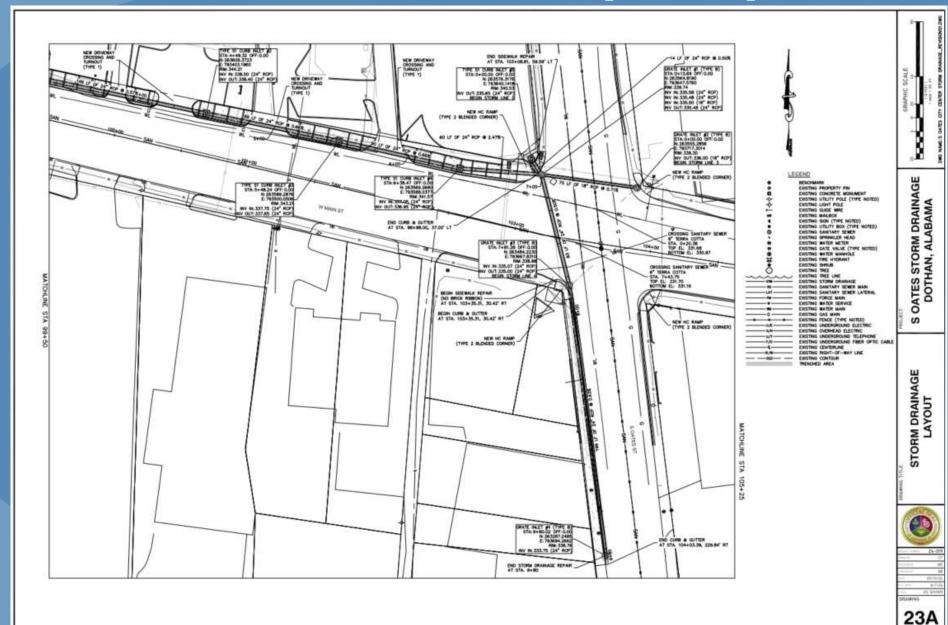
### Utilities – Main St. (Storm)



- 1. Water ponds at NW corner of intersection
- 2. Add to storm infrastructure along Main
- 3. Add to storm infrastructure along Oates
- 4. Improve drainage and safety

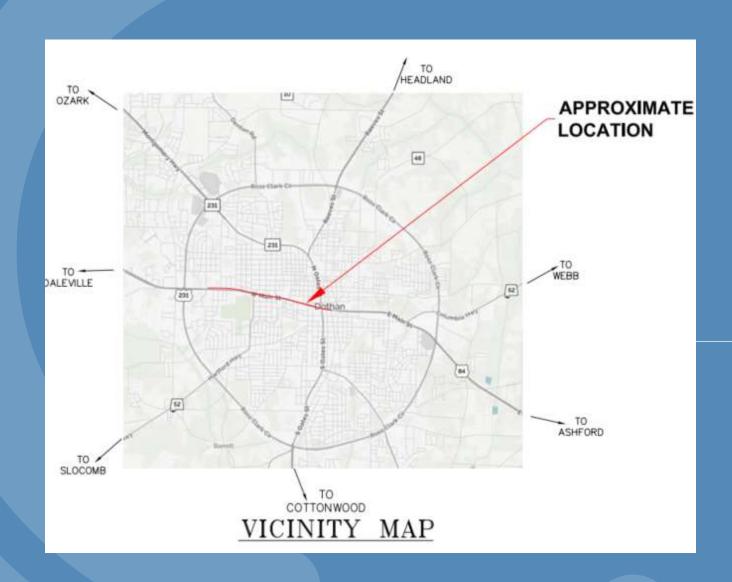


### Utilities – Main St. (Storm)





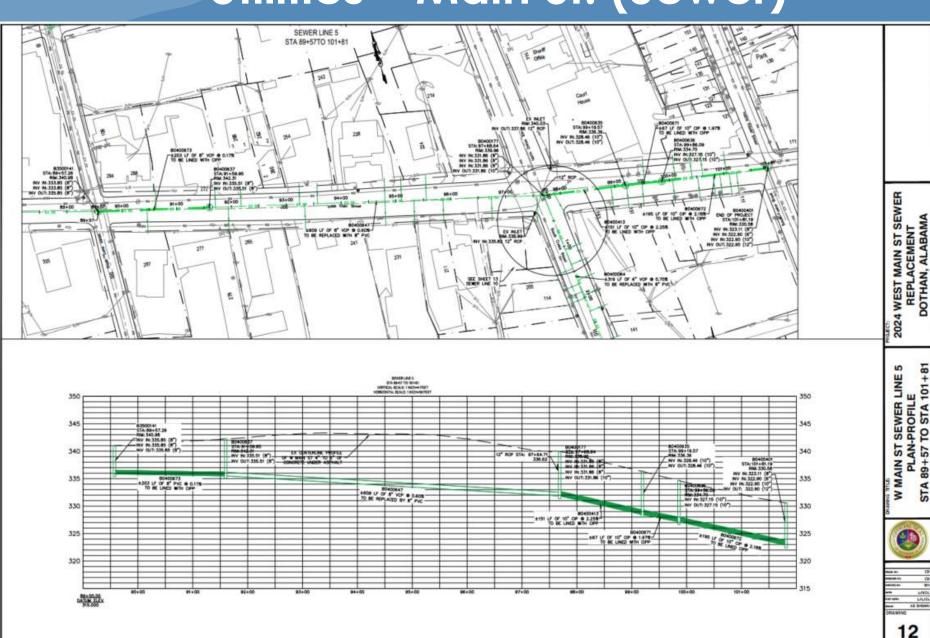
### Utilities – Main St. (Sewer)



- 1. Rehab or replace aging sewer from Jamestown Blvd. to Foster St.
- 2. Work completed at night due to heavy traffic

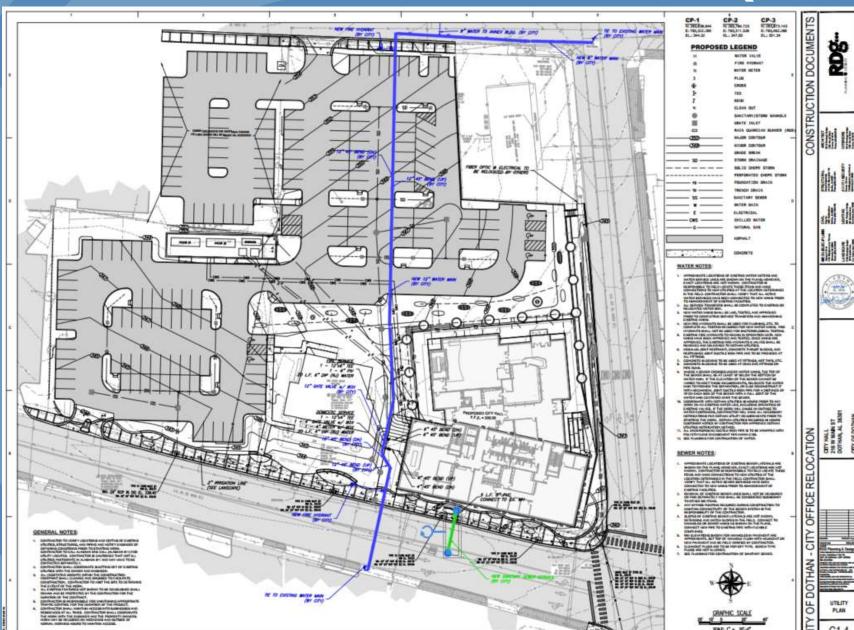


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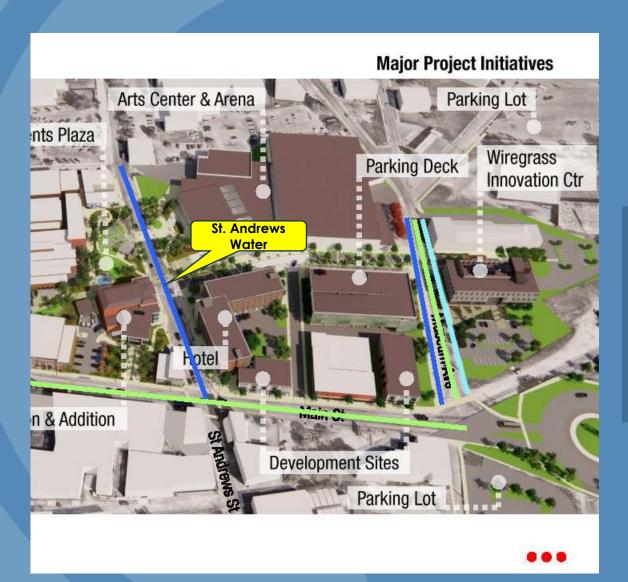
### Utilities – Main St. (Water)



- 1. New 12" DIP connection from Main to Troy
- 2. Improve pressure/flow
- 3. Water/fire service to new City Hall and Annex



#### **Utilities / St. Andrews**



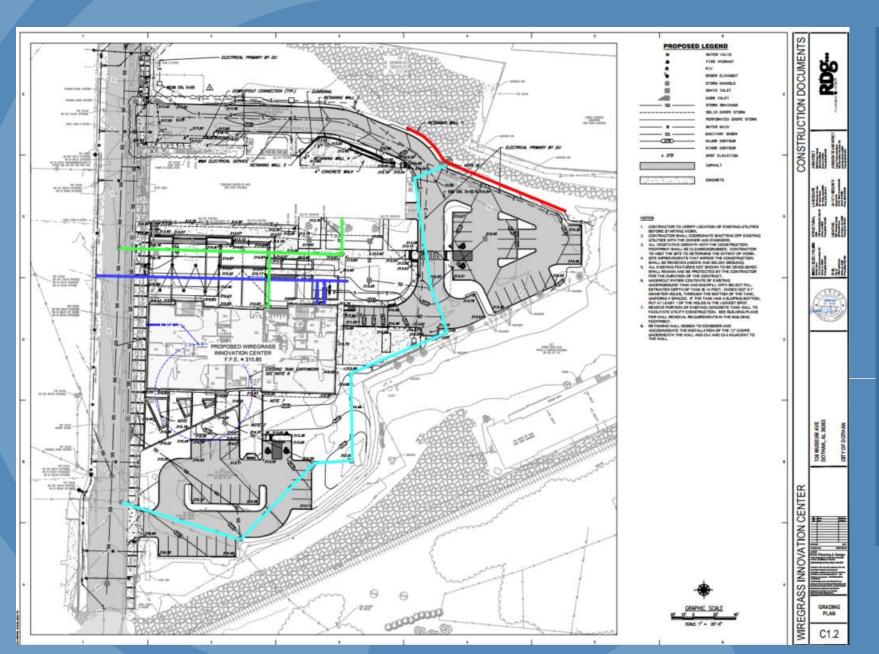
#### **UTILITIES**

- 1. Replace or line 12" water line
- 2. One of oldest water lines in downtown
- Rehab/replace while area is or will be disturbed for ongoing and future construction









- Water/sewer connections to Museum Ave. dependent on Museum Ave. project
- Sewer to WMA ran through WIC building footprint
- 3. Wall needed on north side due to proximity to existing business
- 4. WMA is old site for Dothan Utilities years ago
- 5. Underground tank in building footprint was undercut and backfilled with engineered fill
- 6. Coordinated footings and utilities through and around the tank walls
- 7. Improve drainage around WMA
- 8. Storm outfall
- 9. Vibration control

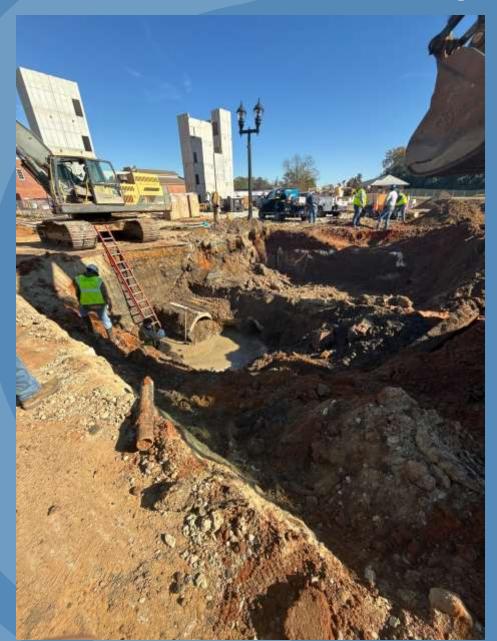




#### **DRAINAGE ISSUES**

- 1. Improve drainage around the building
- 2. Positive grading from the building
- 3. New area inlets on north side of building
- 4. New foundation drain
- 5. Connect existing foundation drain to new drainage system





#### **DRAINAGE OUTFALL**

- 1. UG spring flowing from Civic Center inlet through the project site
- 2. Bypass pumping required to work in the dry
- Large structure required in Museum Ave to connect 42" storm to new 54" storm







- 1. Buried outfall structure connected to 6'x6' tunnel
- 2. Survey data not available
- 3. City CCTV and inspected by walking in from the downstream end
- 4. Contractor had to expose and engineer a solution
- 5. Limited space to work due to proximity to property line
- 6. CIP box w/ box culvert stubbed out to connect to existing tunnel

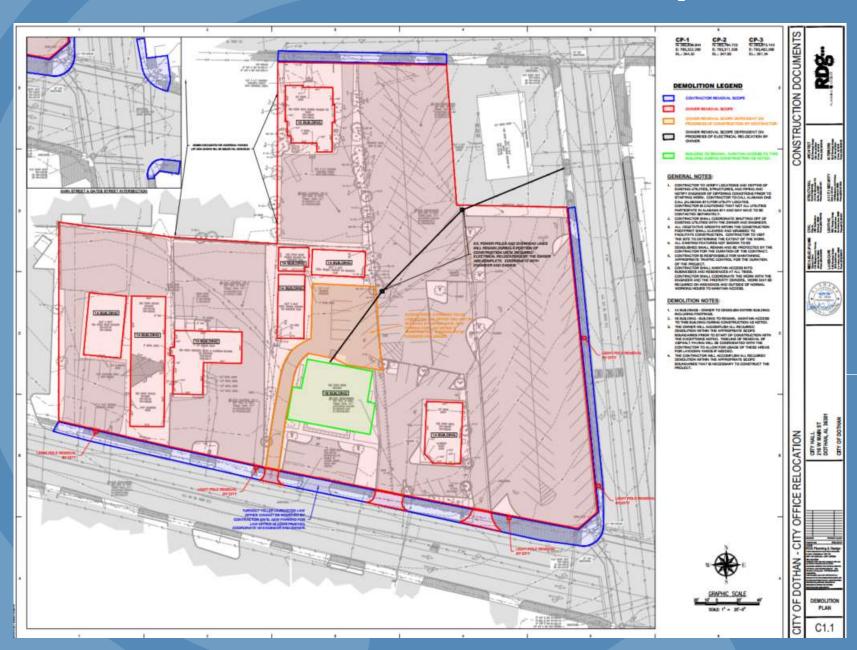


### Site - City Hall





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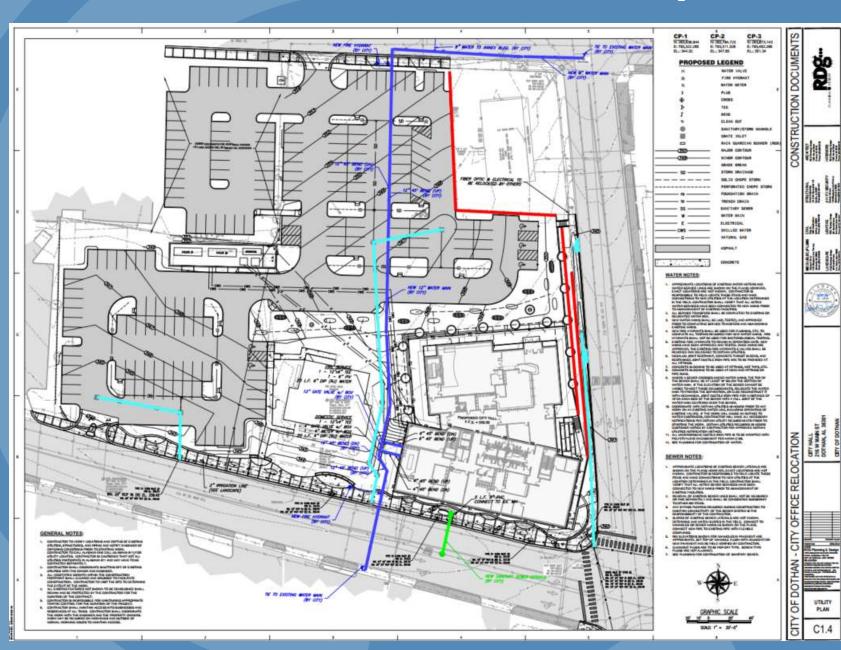


#### **DEMO**

- City to remove items in the property lines
- 2. Contractor to remove items in ROW
- 3. City negotiated the purchase of the various properties
- 4. Courthouse parking lot relocated to expanded parking lot at Troy/Oates completed prior to starting demo on this site

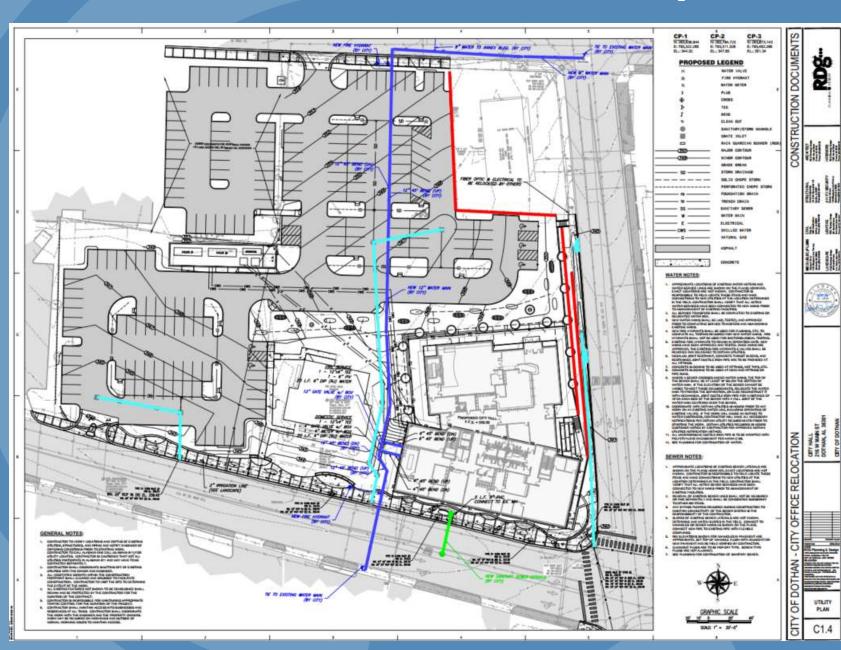


#### Site – City Hall



- Slope of road and site along Oates St. influenced grading plan
- 2. Retaining walls
- 3. Water/sewer service by City
- Drainage from both parking lots ties to new storm at Main
- 5. Bioretention cells in parking islands for LID
- 6. Curb inlets and grass swale along Oates (improve quantity/quality)
- 7. Foundation drain at basement level
- 8. Trench drain around steps at N& W side of front of bldg.
- 9. Planter drainage system
- Replace traffic signal at Oates/Main
- 11. New curb ramps at Oates/Main

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## QUESTIONS?



WWW.DOTHAN.ORG



KSANDERS@POLY-INC.COM