Overview of Woodland Industrial Feasibility Study

Rich Gushman, PE, Project Manager

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Consultant Team

- **Gibbs & Olson** - Rich Gushman
  - Subconsultants
    - **SCJ Alliance** – Traffic Analysis
    - **BST Associates** – Market/Economic Analysis
    - **Shannon & Wilson** – Geotechnical & Hazardous Material Corridor Assessment
    - **Bob Gregory, Mike Karnofski & Bill Fashing** – Funding Alternative Input

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Feasibility Study Components

- Environmental Review
- Geotechnical Review
- Market/Economic Analysis
- Transportation Analysis
- Recommended Roadways, Water, Sewer & Storm Utilities
- Estimated Costs for Recommended Roads & Utilities
- Recommended Phase I Roads & Utilities to Increase Marketability of Project Area
- Phase I Infrastructure Estimated Cost
- Potential Funding Program Summary for Phase I Project
- Recommended Next Steps

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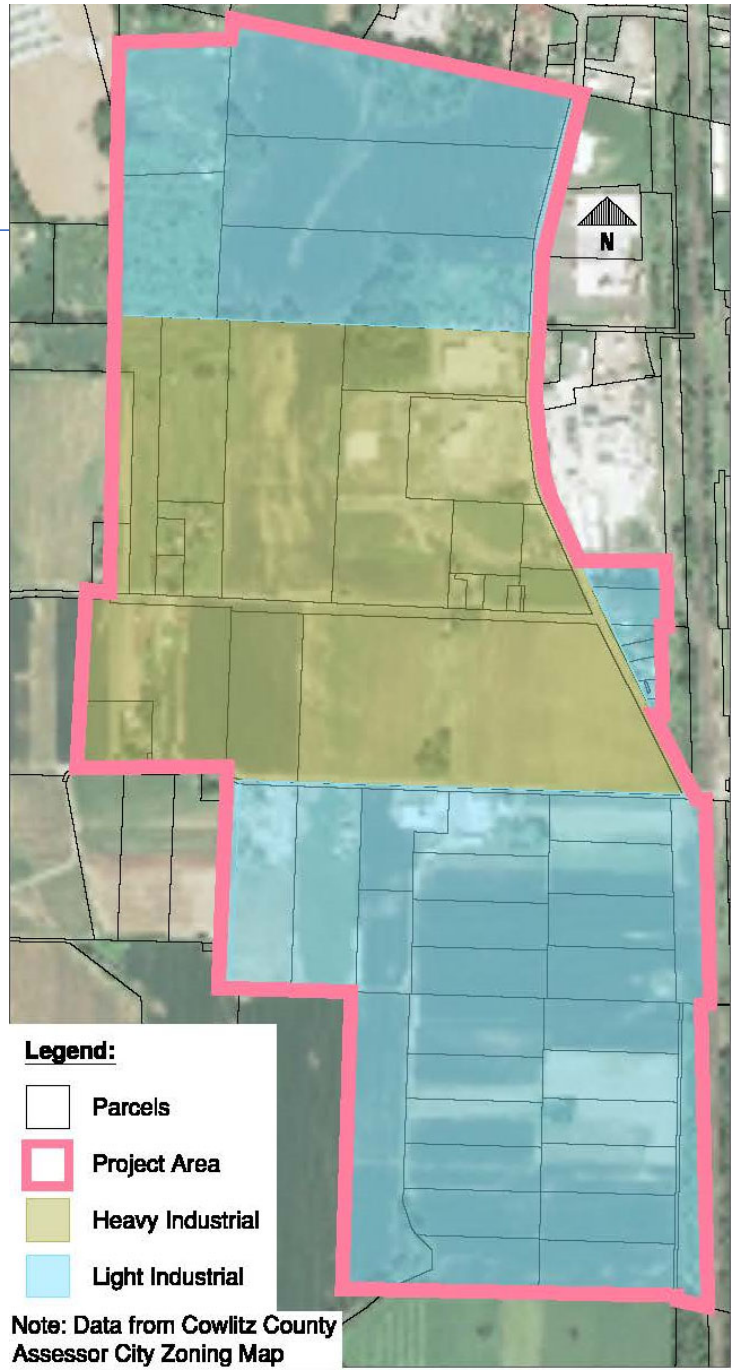
Study Purpose

- **450 Acre Land Annex**
- **Project Goals - Identify:**
  - Types of Industrial Development & Number of Jobs
  - Access & Utility Improvements Needed for Marketability
  - Required Environmental Permitting
  - Recommended Improvements & Costs, Phasing & Potential Funding



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Environmental

- **Road & Utility Construction Anticipated Permits**
  - SEPA Checklist & NEPA (required for federal funding)
  - Possible Wetland Delineation
  - Habitat Assessment & Possible Mitigation
  - City Earthwork / Fill & Grade
  - Construction Stormwater (WA Dept of Ecology)
  - Cultural Resource Evaluation (required for state/federal funding)
  - City Stormwater Compliance for Road Drainage
  - BNSF Bore Crossing Permit for Proposed Sewer Forcemain

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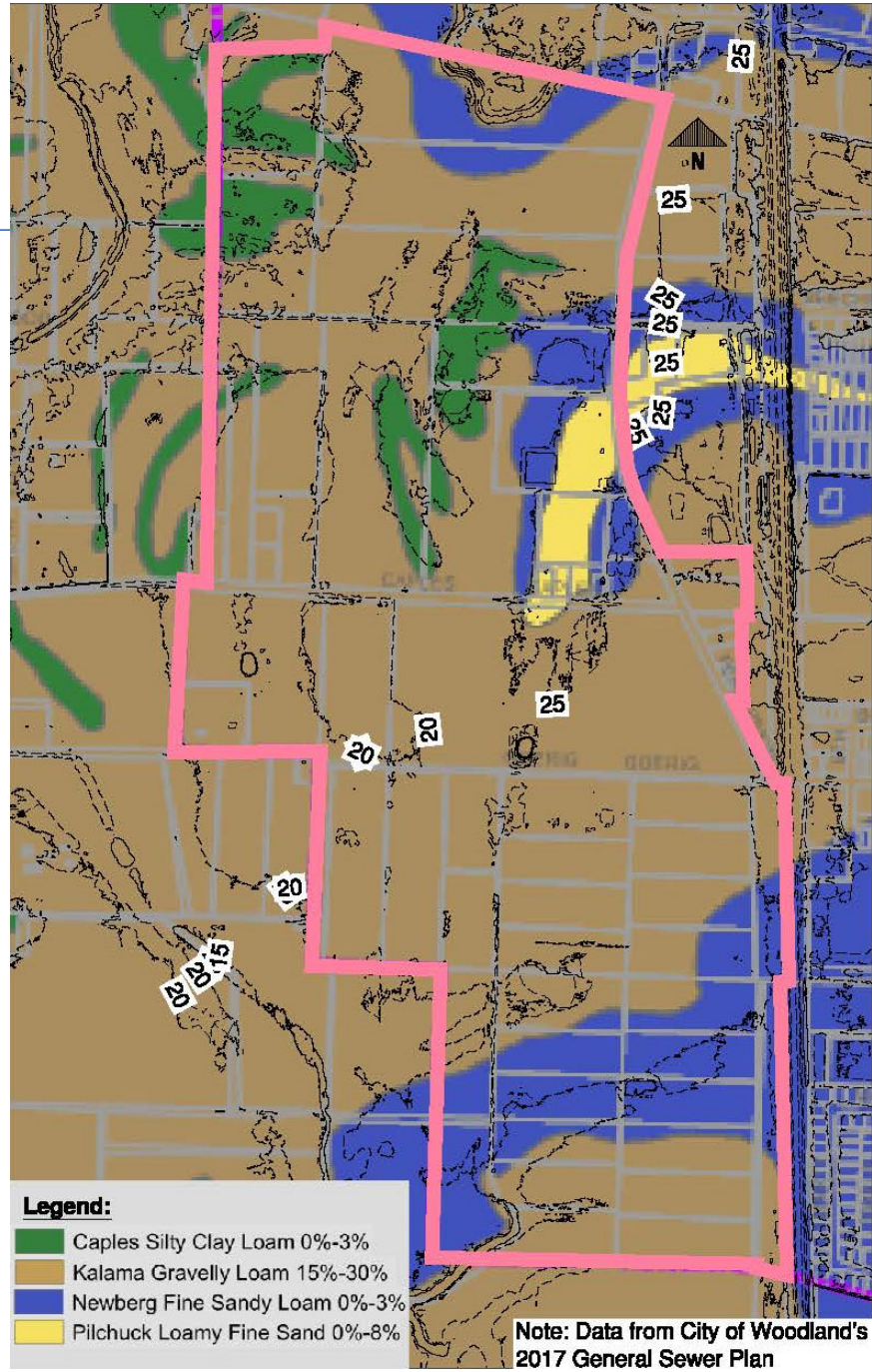
Geotechnical

- Area is flat – 10-ft +/- elevation variation across the project area
- Generally loamy sand & gravel soils
- Seasonally high groundwater – 3-4 feet below ground surface
- Geologic hazards - primarily due to liquefiable soils that could result in significant settlement in a large seismic event
- Roadways/Utilities typically designed without seismic considerations



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Market Analysis

- Woodland is strongly linked to the Greater Portland area
  - Region has a shortage of industrial properties
  - Few sites greater than 50 acres available
- Cowlitz County has an estimated 1,325 acres of other available industrial land (at all stages of development)
  - **Deep Draft Port Development:** 482 acres
  - **Industrial Development:** 843 acres
  - Study area represents a 51% increase in Cowlitz County area available for industrial development
- Industrial development is occurring to the north on Schurman Way & Guild Road

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Market Analysis

- Target industries include a diverse group of sectors
  - **Construction:** Heavy & civil construction, specialty trade contractors
  - **Manufacturing:** food, wood products, paper, chemicals, nonmetallic mineral products, fabricated metal products, machinery, furniture and related products, and miscellaneous manufacturing
  - **Wholesale Trade:** merchant wholesalers, durable goods
  - **Transportation/Warehousing:** truck transportation
  - **Other Industrial Sectors**
- Employment in Woodland has increased rapidly
  - Woodland's share of total employment in Cowlitz County increased from 6% (2002) to 10% (2015)
  - Woodland's share of industrial sector employment in Cowlitz County increased from 9% (2002) to 16% (2015)

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Economic Impacts

- At full buildout, industrial development is expected to generate total impacts in Cowlitz County of:
  - **Employment:** 2,447 to 3,670 jobs (1,363-2,045 within study area)
  - **Labor Income:** $166.5 - 249.8M ($110.5 - $165.7M within study area)
  - **Annual State & Local Taxes:** $40.5M to $60.8M
- Est. Current As-Is Land Value = $1 - 1.50/SF ($19.6 - 29.4M)*
- Est. Land Value With Phase I Impvts = $4.5 - 6/SF ($88.2 - 117.6M)*

*Source: Rodman Realty Commercial/Industrial Broker Opinion – August 2020 (not an appraisal)

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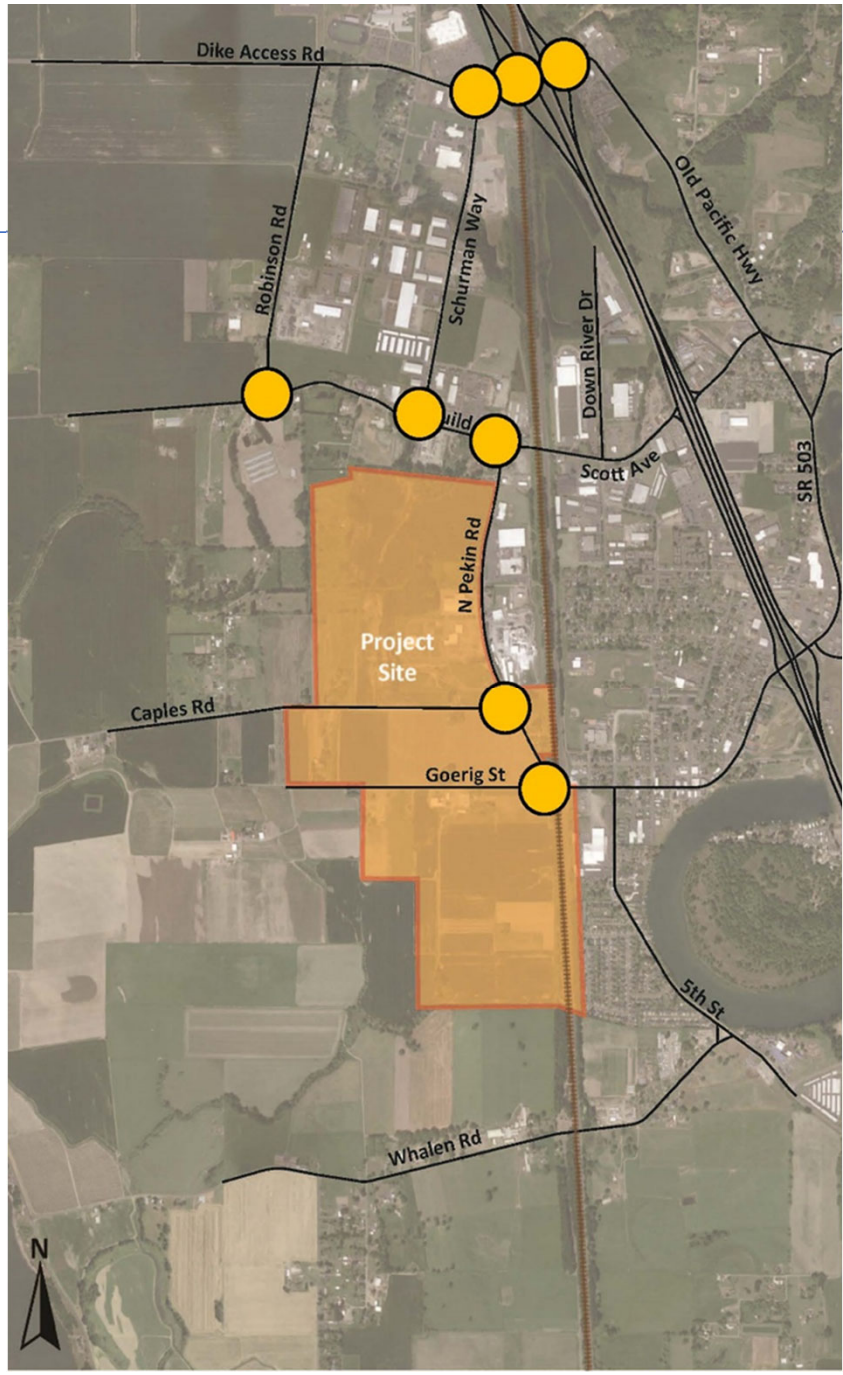
Transportation Analysis

- Based on economic study growth projections – type and amount of development expected in 20-years
- Focused on 5 adjacent intersections and 3 intersections at Exit 22
- Coordinated development assumptions with City's Exit 21 study
- Exit 21 improvements identified in a separate referenced study



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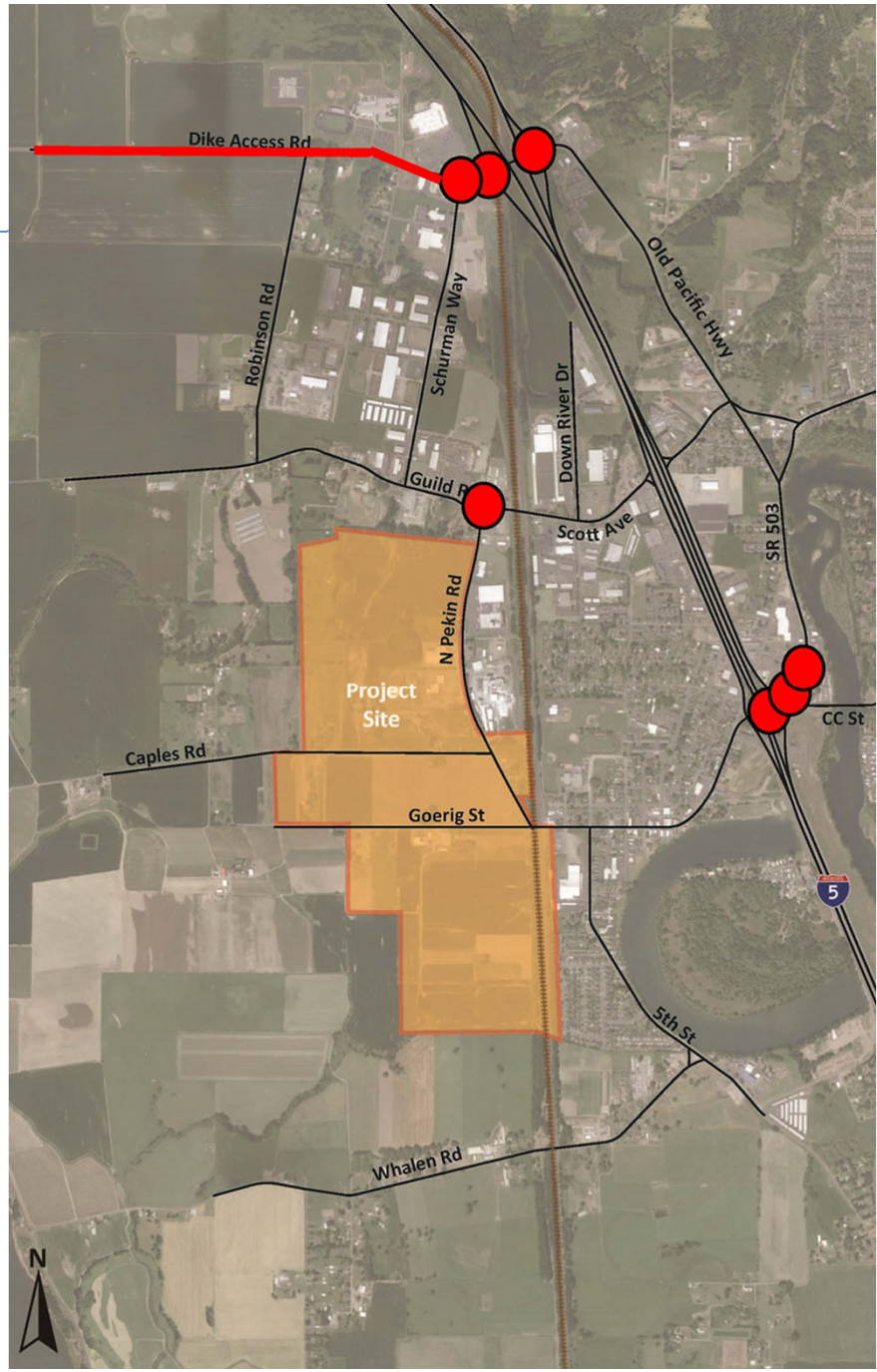
Transportation - Key Findings

2040 Build Plus Alternative

- Both interchanges fail
- Exit 21 (SR 503) improvements evaluated by others
- Exit 22 would see long queues on Dike Access Road with intersection delays. In-depth study needed to identify improvements
- Guild Road/N Pekin intersection would also need improvement



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Roadways

Proposed Roadways	Length (LF)
1 – Howard Industrial Extension	4,880
2 – Howard-Pekin Connector	1,850
3 – Caples Road	3,250
4a – Goerig Road	2,750
4b – Goerig Intersection	200
5 – Goerig Connector	1,275
6 – Goerig-Whalen Connector	2,950
Total Length of New Roadway	**17,155**

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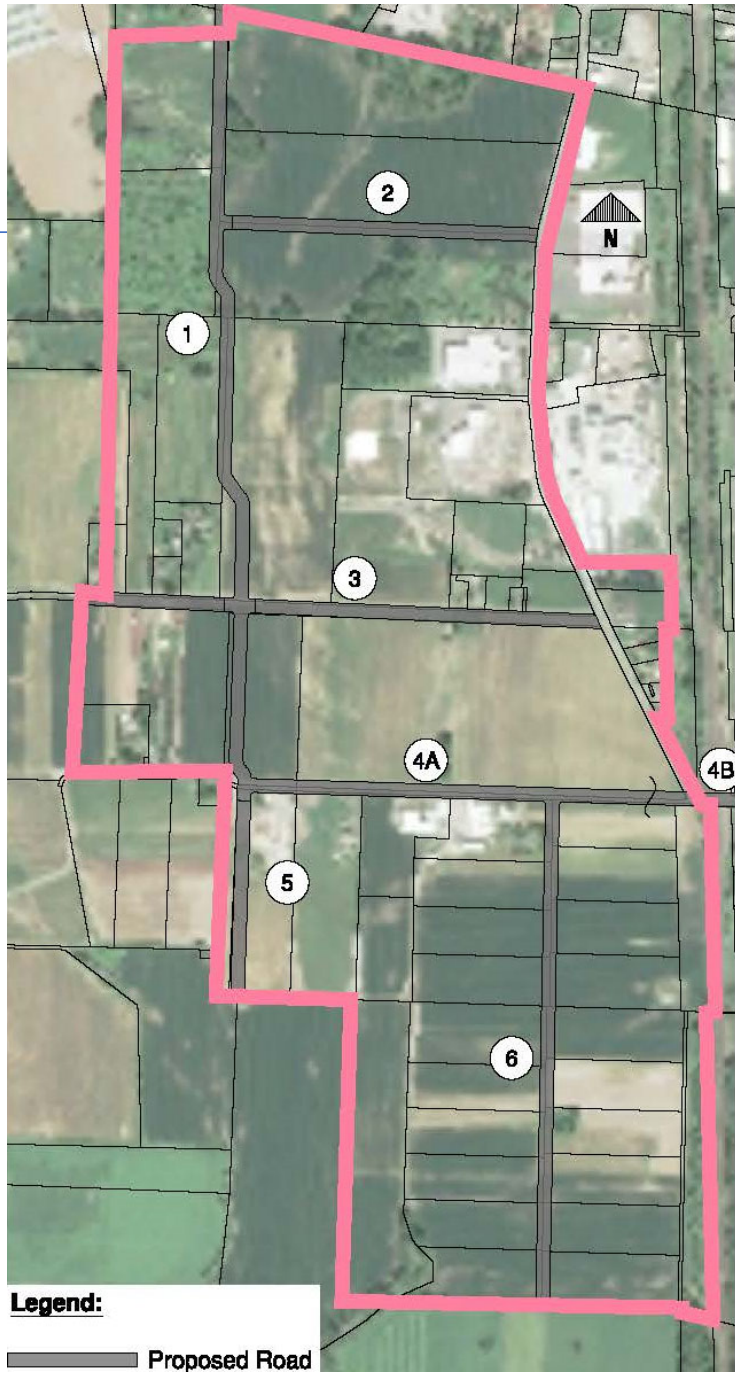
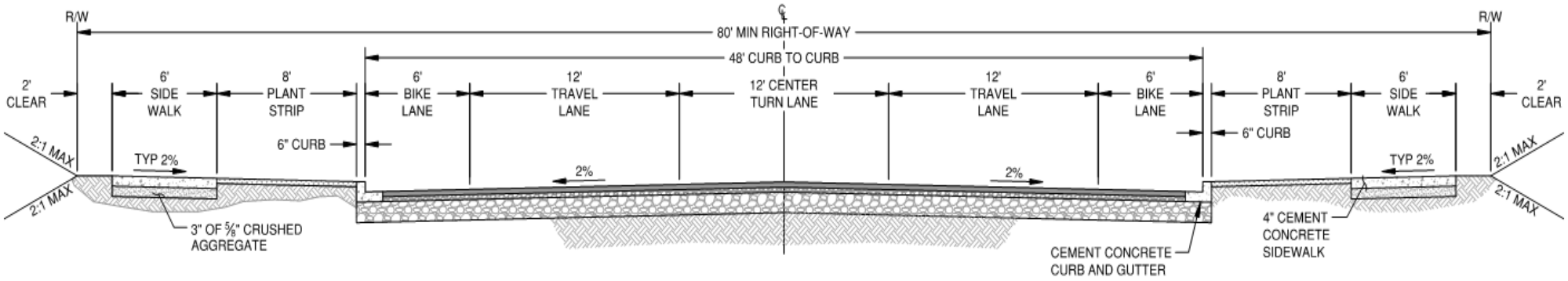


Roadway Cross Section



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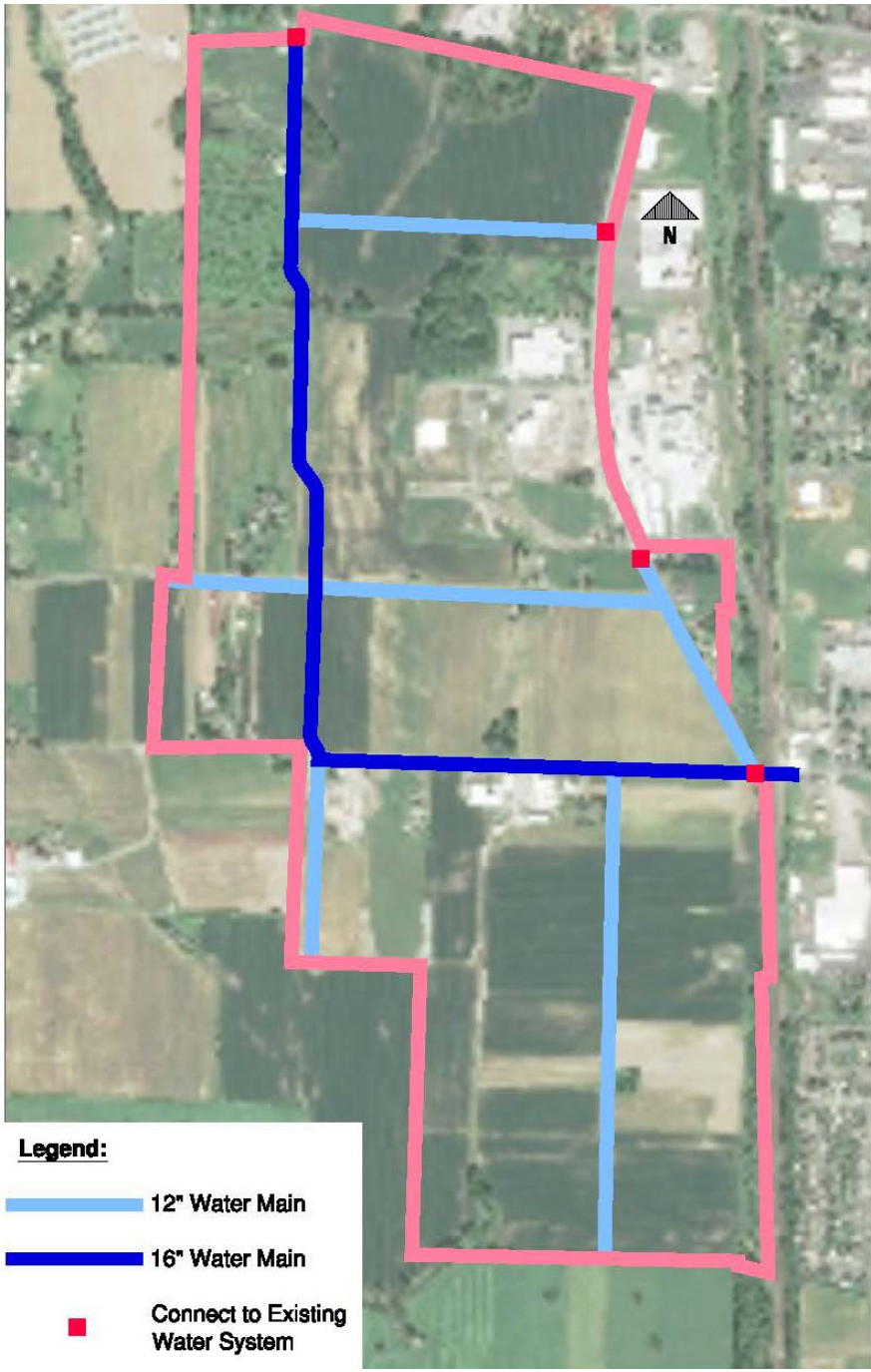
Water

- 3,000 gpm Fire Flow Required
- 12-inch Main & Service Pipe (15,755 LF)
- 16-inch Main Pipe (7,430 LF)
- 4 Connections to Existing City System
- Modeling Required to Verify Fire Flow Capacity
- Typical Hydrant Spacing – 300 Ft



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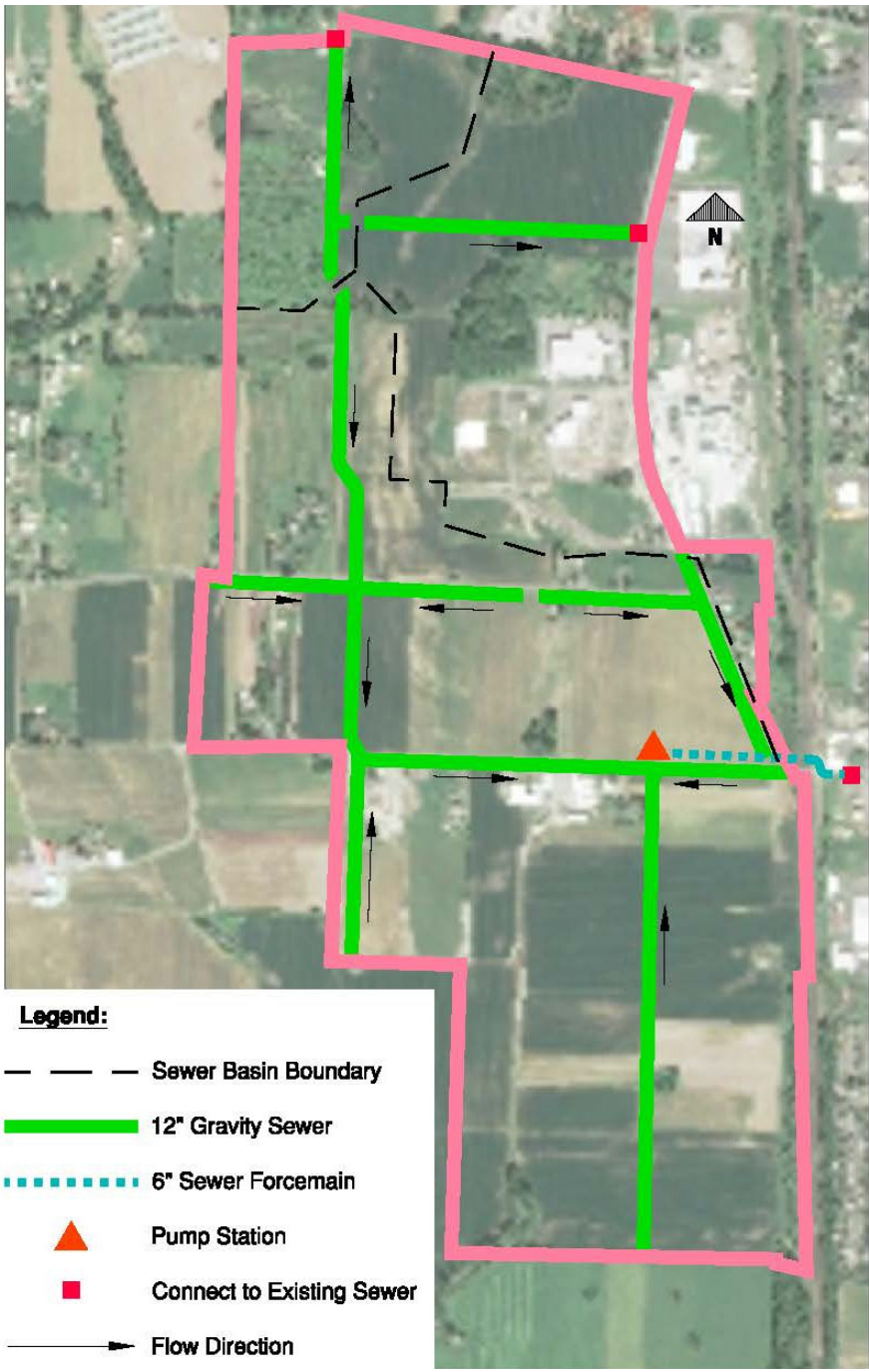
Sanitary Sewer

- 3 Sewer Basins
- Sewer Flow
  - 25 gpd/Employee – 2,045 Employees
  - Infiltration & Inflow 222 gpd/Acre
  - Process Wastewater Flow
    - 60,000 gpd
- 12-inch Gravity Main (18,305 LF)
- One Pump Station (300 gpm)
- 6-inch Forcemain (400 LF)



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Offsite Sanitary Sewer Improvements

- 4 Pump Stations Require Capacity Upgrades
  - PS 10, 4 & 3 – pump & electrical upgrades
  - PS 2 & 1 – complete replacement
- Upsizing 3,874 LF Gravity Sewer Piping
  - 1,334 LF of 8” to 10”
  - 854 LF of 8” to 12”
  - 566 LF of 10” to 12”
  - 534 LF of 12” with 12” at minimum slope
  - 586 LF of 12” to 15”

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Stormwater

- 12-inch Main & Lateral Pipe (12,215 LF)
- 18-inch Main Pipe (5,220 LF)
- 24-inch Main Pipe (4,800 LF)
- Roadway Runoff Treated in Swales & Detained
- Discharged to Conveyance System
- Two Pump Stations anticipated
- Individual Lots Treat/Detain Onsite Discharge to Conveyance
- Conveyance to CDID2 ditches to CDID2 Pump Station – more evaluation needed

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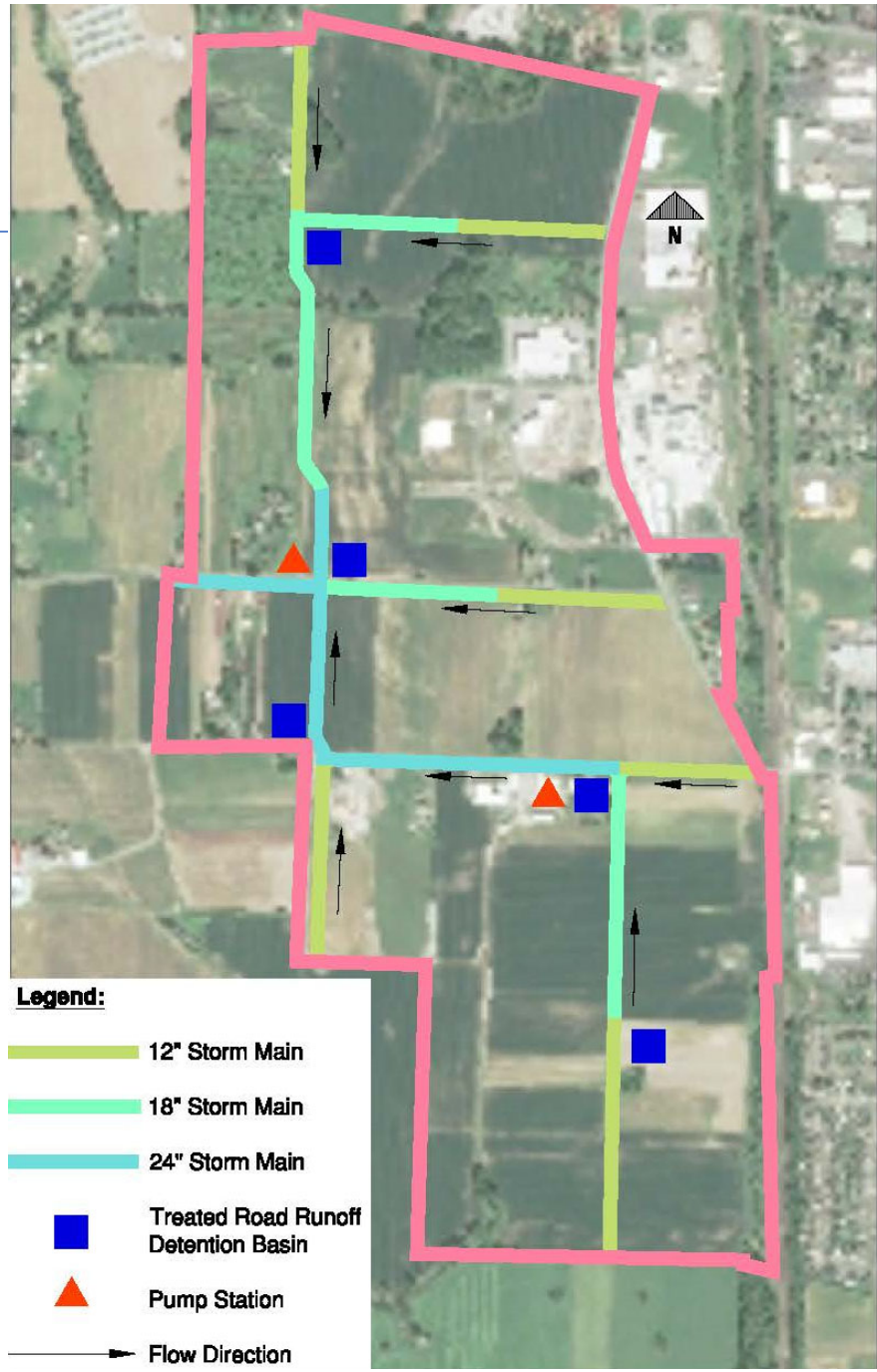

Estimated Costs

Infrastructure Type	Cost ($, million)
Roads	$28.5
Water	$7.5
Sanitary Sewer	$10.9
Offsite Sanitary Sewer Upgrades	$5.4
Stormwater	$12.1
Total	**$64.4**
Right-of-way (ROW) assumed to be provided by property owners at no cost *Goerig ROW – 24 feet, Caples ROW – 60 feet per County Assessor Map*	
Planning level costs include 30% contingency, 7.9% sales tax and 25% engineering, administration, permitting and construction management – all costs are in 2020 dollars.	

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Roadways – Phase I

Proposed Roadways	Length (LF)
1 – Howard Industrial Extension	4,880
4a – Goerig Road	2,750
4b – Goerig Road Intersection	200
6 – Goerig-Whalen Connector	2,950
Total Length of Roadway	10,780

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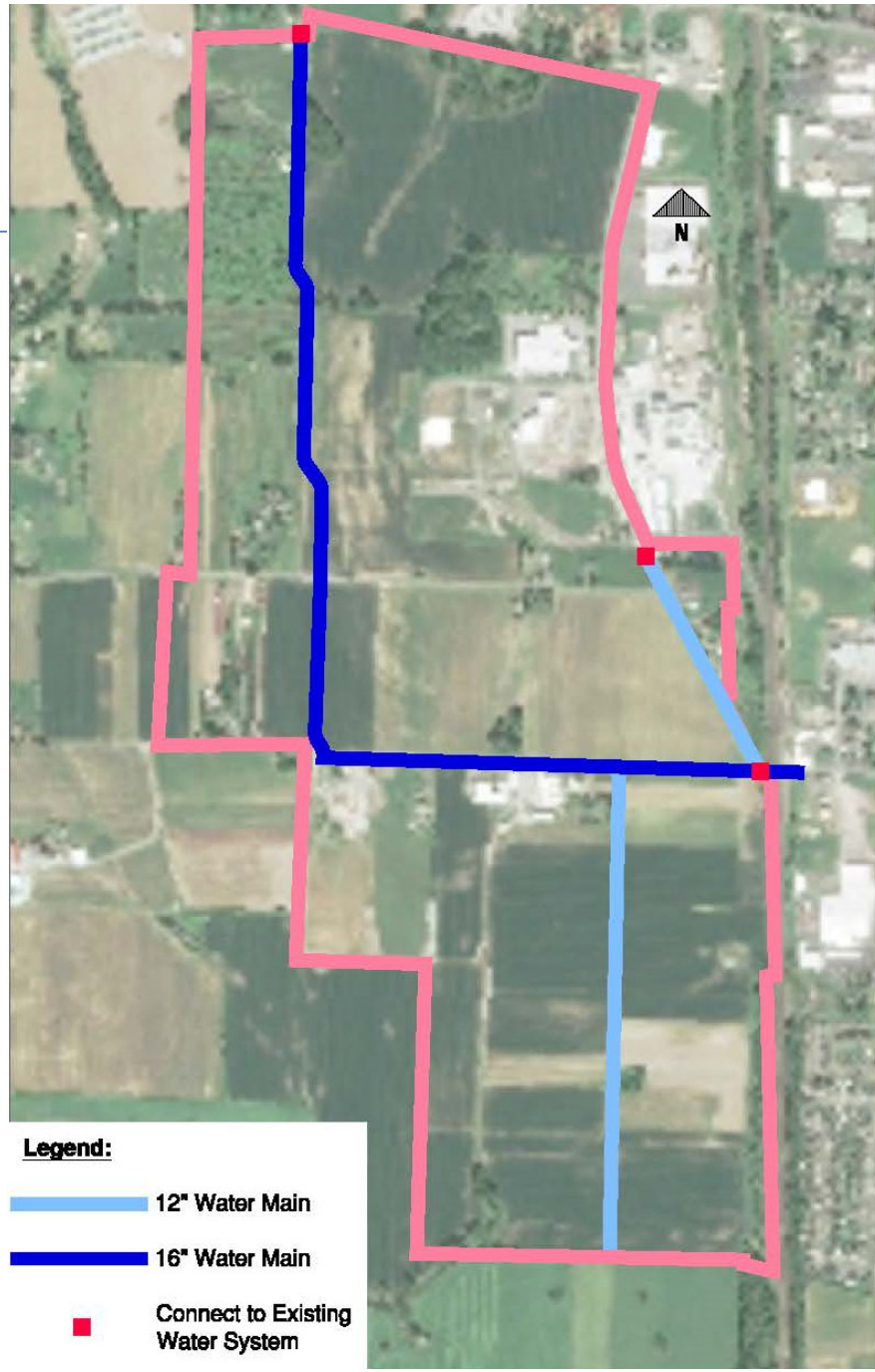
Water – Phase I

- 12-inch Main & Service Pipe (7,300 LF)
- 16-inch Pipe (7,430 LF)



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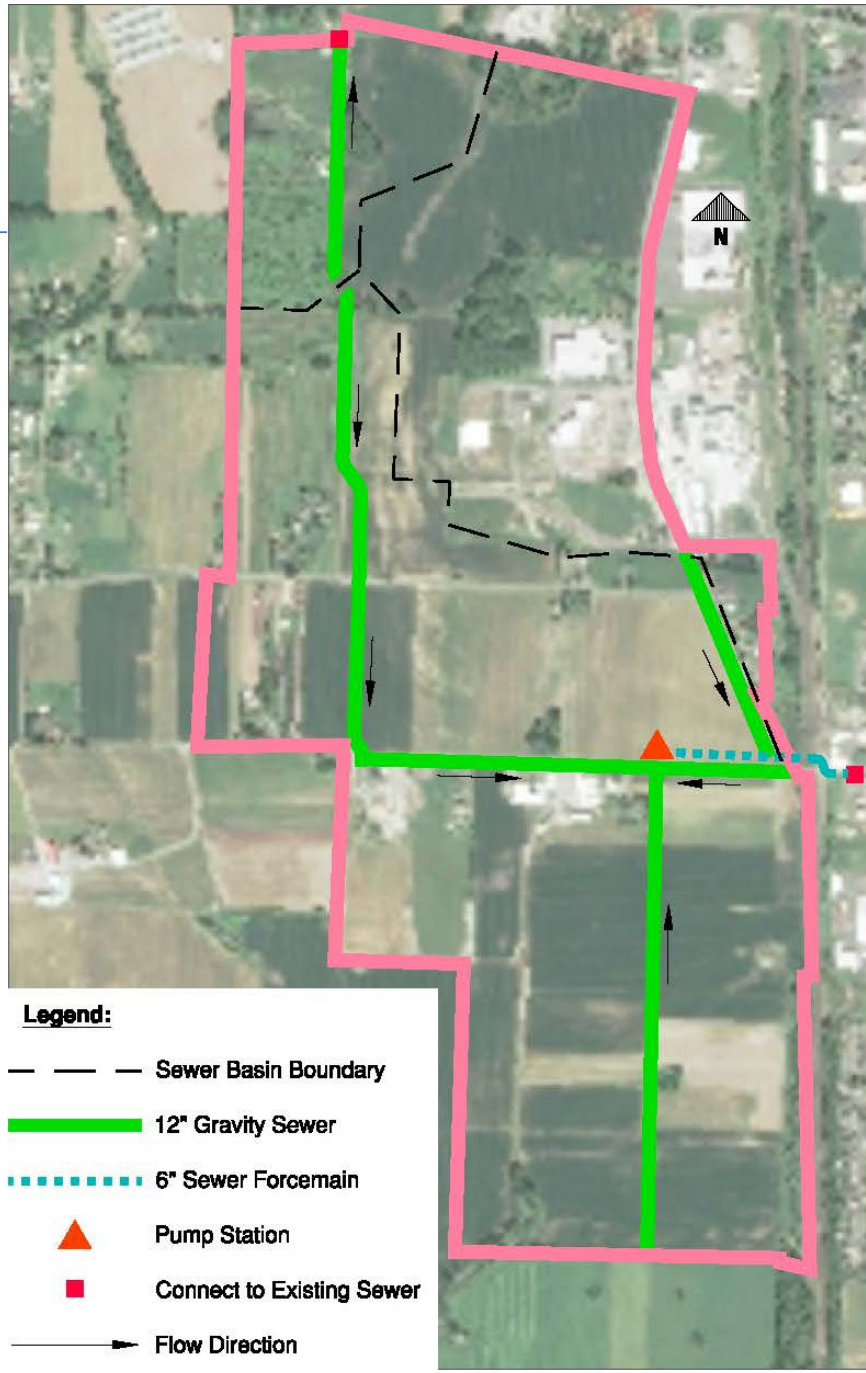
Sewer – Phase I

- 12-inch Gravity Main (11,930 LF)
- One Pump Station (300 gpm)
- 6-inch Forcemain (1,100 LF)
- Same offsite sewer capacity upgrades



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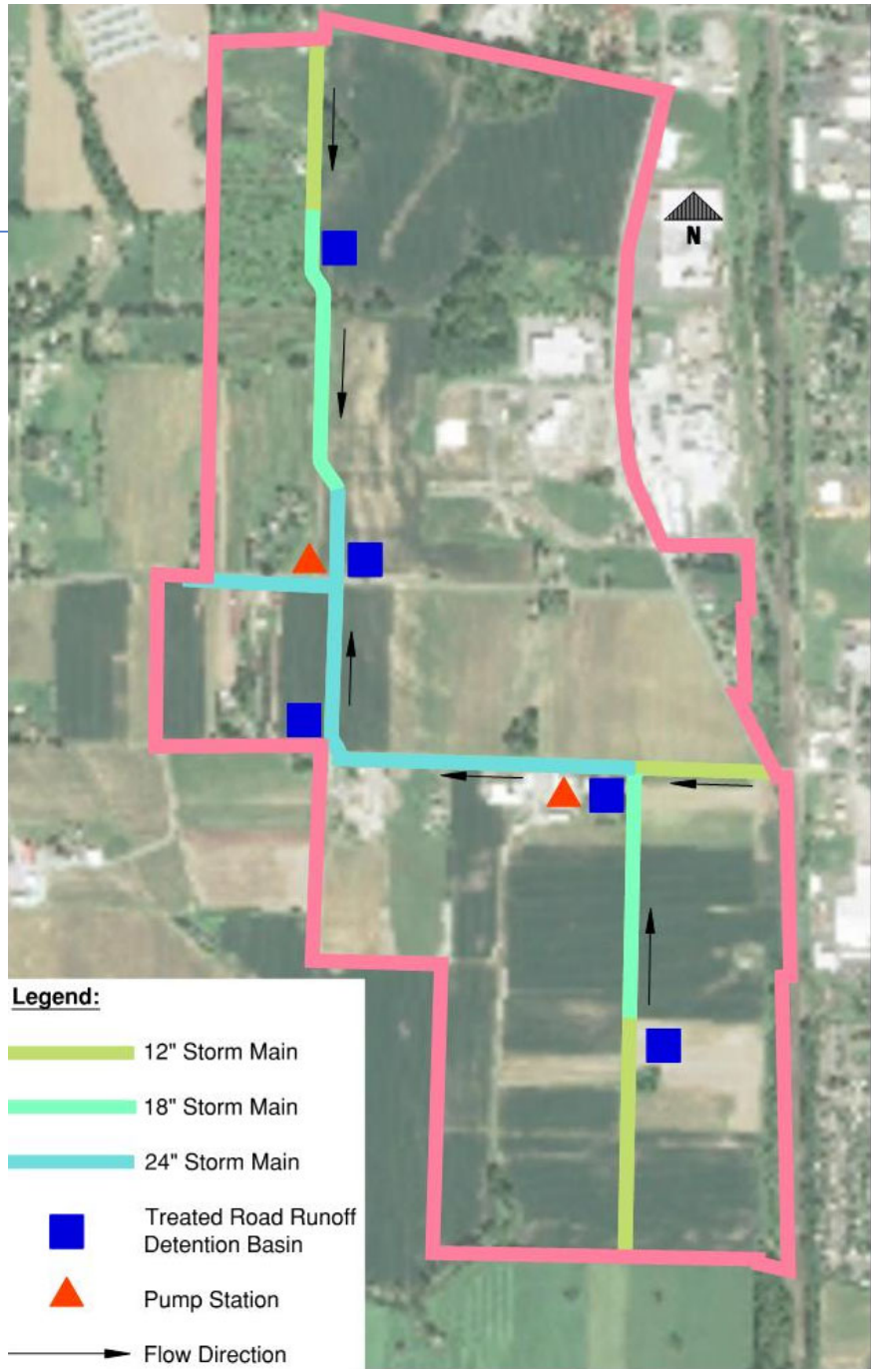
Stormwater – Phase I

- 12-inch Main & Lateral Pipe (6,420 LF)
- 18-inch Main Pipe (3,200 LF)
- 24-inch Main Pipe (4,800 LF)
- Two Pump Stations
- Discharge to CDID2 Conveyance at Goerig Road



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Estimated Phase I Improvements

Infrastructure Type	Cost ($, million)
Roads	$17.7
Water	$5.1
Sanitary Sewer	$7.7
Offsite Sanitary Sewer Upgrades	$5.4
Stormwater	$9.6
Total	**$45.5**

Right-of-way (ROW) required assumed to be provided by property owners at no cost.
Goerig ROW – 24 feet, Caples ROW – 60 feet per County Assessor Map

Planning level costs include 30% contingency, 7.9% sales tax and 25% engineering, administration, permitting and construction management – all costs in 2020 dollars

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Potential Funding – Backbone

- Will Require Cooperation Between City, Property Owners, Port, Cowlitz County & CDID2
- Assessment on property to benefit from improvements is essential for Phase I – Local Improvement District (LID) commonly utilized for this.
- Leverage Property Assessment to Apply for State/Federal Funding
  - **CERB (State):** $3M – Prospective Project – Max Grant 25%/Loan 75%
  - **EDA:** $4-5M – Extension of existing improvements
  - **County:** .09 - $1M Grant
  - **PWTF (State):** $1M – Pre-Construction Loan
  - **PWTF (State):** $5M – Construction Loan ($10M max application)
  - **Port Development District:** $4.5M – Bonds Backed By Assessment
  - **City Bond:** $5.4M – Sewer Revenue Bonds for Offsite Sewer Imprvts
  - **Non LID Funding Sources:** = $24.9M – Min. LID = $20.6M ($1.15/SF after deducting approximate total ROW area needed)

Recommended Next Steps

- LID Feasibility Study - $20-25K
- Joint Drainage Study by City & CDID2 - $100-125K
- Modeling for Proposed Water Piping to Verify Fire Flow
- Review Need for Exit 22 Study with WSDOT to Address Future Impacts to Interchange
- If LID Feasibility Study Results are Positive – Work with Property Owners to Determine Their Support
- Adopt Roadway & Utility Improvement Recommendations
  - Use to Develop Approval Requirements for Specific Parcel Development Between Now and When Phase I Improvements are Constructed

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Thank You!

Questions?

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