SE BEND SEPTIC TO SEWER

ADVISORY COMMITTEE MEETING

THURSDAY, NOVEMBER 2, 2017

WELCOME & INTRODUCTIONS

AGENDA

- Interim Policy Work Group
- Four Ingredients of Affordability
- Project Costs – What's included?
- Committee Q&A
- Ingredient #1 – Bringing Down Project Costs
- Committee Discussion
- *Look Ahead: Preliminary Engineering II*
- Public Comment

INTERIM POLICIES WORK GROUP

AN UPDATE

INTERIM POLICY SUMMARY

Current Condition	Circumstance	Action	Waiver/ Agreement to no-protest future LID and/or acknowledgement of future adopted financial strategy?*
Within Project Area, received "Stub Out" along SEI alignment	Prop owner has a failing septic system.	Prop owner applies to connect to SEI. Must decommission septic, etc.	Yes. Signs waiver, and acknowledgment of possible future financial strategy participation; alternatively, City adopts Connection Fee.*
	Prop owner wants to connect but does not have failing system.	Prop owner applies to connect to SEI. Must decommission septic, etc.	Allowed only if City adopts Connection Fee.*
Within Project Area, Within 300 ft of SEI alignment, but did not receive "Stub Out"	Prop owner has a failing system and needs repair.	Coordination needed between County/DEQ and City on specific property needs for Septic Repair.	Yes. Signs waiver, and acknowledgment of possible future financial strategy participation.
Within Study Area beyond 300 ft.	Prop owner has a failing system and needs repair.	Coordination needed between County/DEQ and City on specific property needs for Septic Repair.	Yes. Signs waiver, and acknowledgment of possible future financial strategy participation.

*Connection fee feasibility to be determined over next few weeks, and connection fee subject to adoption by City Council.

FOUR INGREDIENTS OF AFFORDABILITY

"FOUR INGREDIENTS OF AFFORDABILITY"

1. *Reducing Project Costs*
   - *How is the sewer project being designed to lessen construction costs?*
2. *Construction Timing/Phasing*
   - How does construction timing/phasing affect project costs?
   - What's the ideal timing/phasing to reduce costs?
3. *Financing*
   - How will costs be allocated (among homeowners, developers, sewer utility)?
   - Does financing public improvements over time save money – for public/private investments?
   - What financing methods (grants, loans, bonds) would help produce savings for property owners?
4. *Affordable for Whom?*
   - How much can area property owners afford?
   - What assistance could make sewers affordable?
   - Are there solutions for low income households?

OVERVIEW OF AFFORDABILITY

Defining affordability

- Difficult to measure; what is “unaffordable”?
  - ✓ No universal definition—although there are EPA and other “affordability indexes”
  - ✓ Varies from household to household

Usually a term used to measure the impacts of utility rates (water and sewer)

- Based on median household income (MHI) (e.g., 2% or $60,000 = $1,200 per year = $100 per month)

Affordability typically does not apply to System Development Charges (SDCs)

- Equity payment that reflects the cost of infrastructure, not O&M, that benefits new customers
- Exception is a policy decision by the governing body to limit the SDC level

Affordability is an important consideration of this project

- Property owner costs
- Sewer rates

FINANCING, FUNDING, AND AFFORDABILITY

Definitions

- Financing – how it's paid for
- Funding – who it's paid by

Financing of the project can influence affordability

- Rates vs. debt

Historically major capital projects are paid for with long-term financing (e.g., debt)

- Need to balance affordability of the project and impact to sewer rates and the City's financing capabilities

Homeowner contributions are a funding source for projects that benefit a specific area

All may impact the affordability of the project

SEPTIC TO SEWER FUNDING AND AFFORDABILITY SUMMARY

This project can combine several financing approaches

- Long-term debt
- Existing and future sewer rates
- Homeowner contributions

The identified financing approach will drive the funding of the project

- Who pays for what, how, and **when**

Committee will help determine and recommend what is “affordable” or what is “acceptable”

- Future discussions of costs and alternatives with project costs and supporting analyses
- What alternatives are available if there is an affordability issue
- Challenge of affordability for some customers regardless of the financing and funding approach

OVERVIEW OF THE FOUR INGREDIENTS

Managing Project Costs

- Length of pipe
- Depth of pipe
- Size of pipe

Construction Timing and Phasing

- Economies of scale
- Allow for phased financing

Financing

- Type of financing vehicle
- Phasing of funding types
- Mix of funding sources

Affordable to Whom

- Property Owners
- Sewer rate payers
- Low income households

SUMMARY OF "THE FOUR INGREDIENTS OF AFFORDABILITY"

- Each of the four ingredients plays a part in determining the affordability of the project
- Combination of these ingredients will result in alternatives for consideration
- Committee to review financing and funding alternatives to determine recommended affordable approach

1. Reducing Project Costs
2. Construction Timing/Phasing
3. Financing
4. Affordable for Whom?

PROJECT COST – WHAT'S INCLUDED

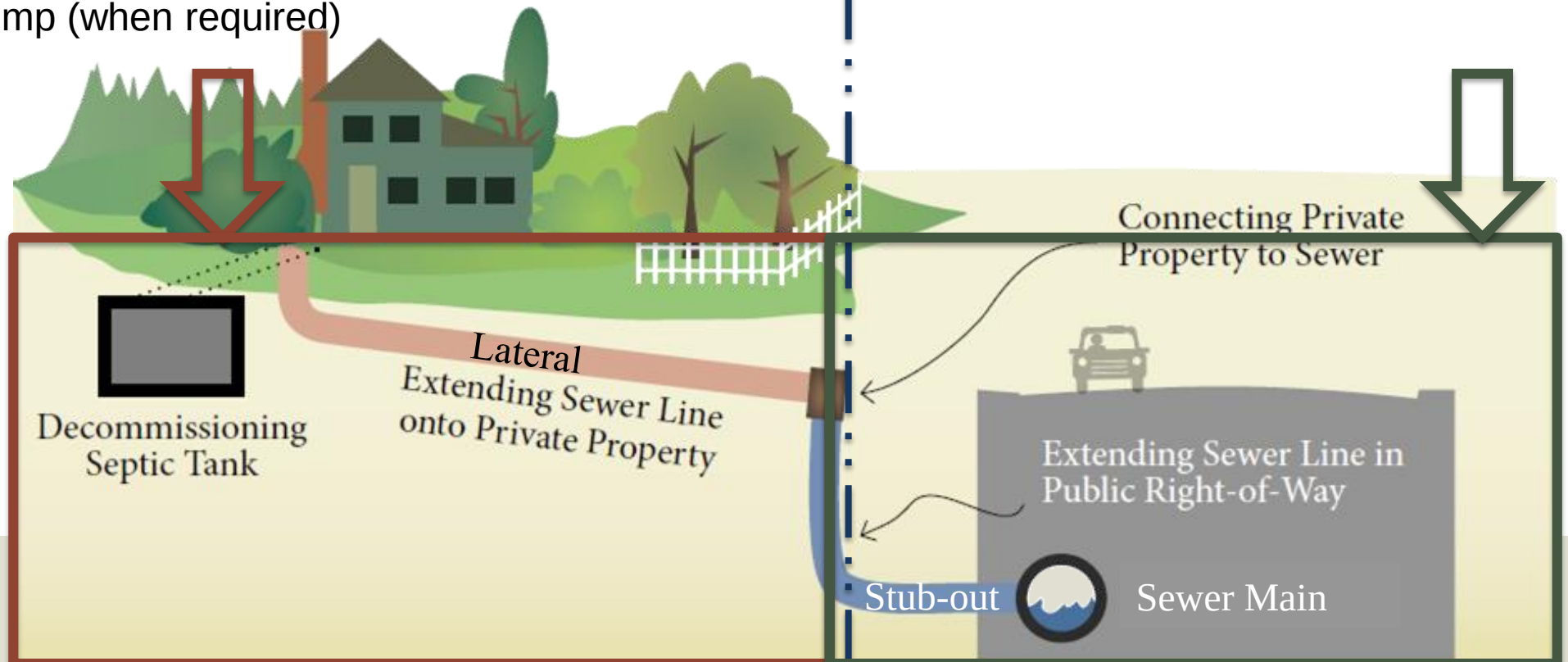
Project costs

- Construction cost estimates are the “easy” part
  - Class estimates give ranges
  - Known unit costs
  - Known units
- Cost allocation between property owners and rate payers is the “hard” part
  - “How much will this cost” vs “How much will this cost me”

PROJECT COSTS

- Private Property Construction Costs
  - Septic tank decommission
  - New service lateral to the right-of-way
  - Additional plumbing upgrades, as needed
  - System development charges (SDCs)
  - Permitting
  - “Connection fee” – Homeowner Contribution
  - Pump (when required)

- Public Construction Costs
  - Sewer main
  - Manholes
  - Sewer stub-out to the right-of-way
  - Road reconstruction
  - Right of way restoration (landscaping and gravel shoulders)



HOW COSTS ARE TRADITIONALLY PAID FOR

Sewer Rates	System Development Charges	Homeowner Contributions
• Annual O&M • Transfers • Debt Service • Rate Funded Capital	• Growth/Expansion Capital Costs • Growth/Expansion Debt Service	• Specific Area Improvements
Customer Funded	New Connection Funded	Homeowner Funded

FINANCING OF PROJECT COSTS IMPACTS THE FUNDING OF COSTS

Long-Term Debt

- Existing and future customers
- New connections (SDCs)

SDCs

- New connections

Rates

- Existing and future customers

Homeowner Contributions

- New connections
- Future customers

COMMITTEE Q&A

INGREDIENT #1 – BRINGING DOWN PROJECT COSTS

INGREDIENT #1 – REDUCING TOTAL PROJECT COST

How can we reduce the cost?

Cost Reduction Methods

- Reduce Length of Pipe Required
- Reduce Number of Manholes
- Reduced Pipe Depth
- Reduced Pipe Size
- Road Reconstruction
- Project Phasing

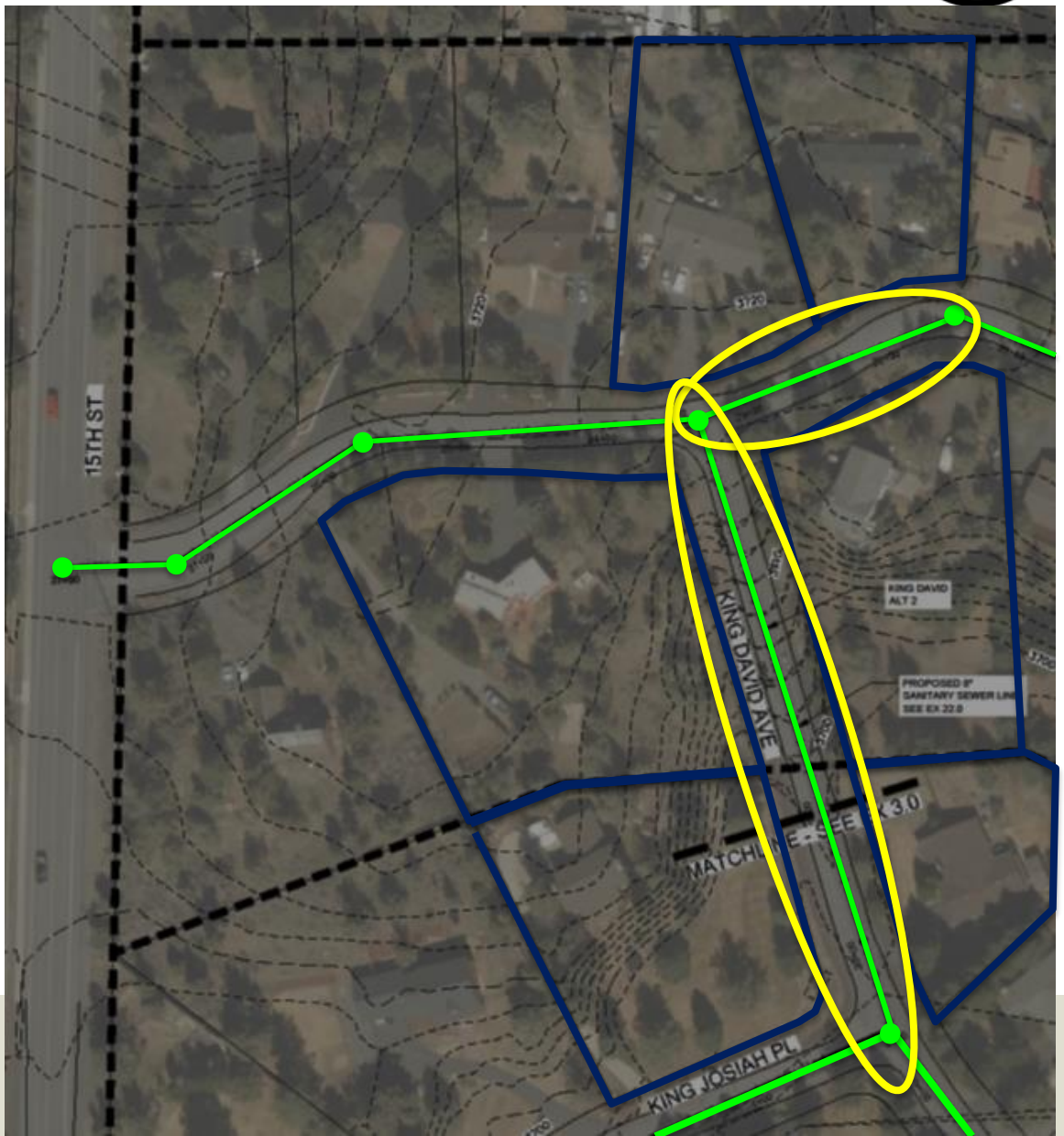
  Larger Projects

  ✓ Economy of scale

INGREDIENT #1 – REDUCING TOTAL PROJECT COST

Pipe Length

- Only where needed

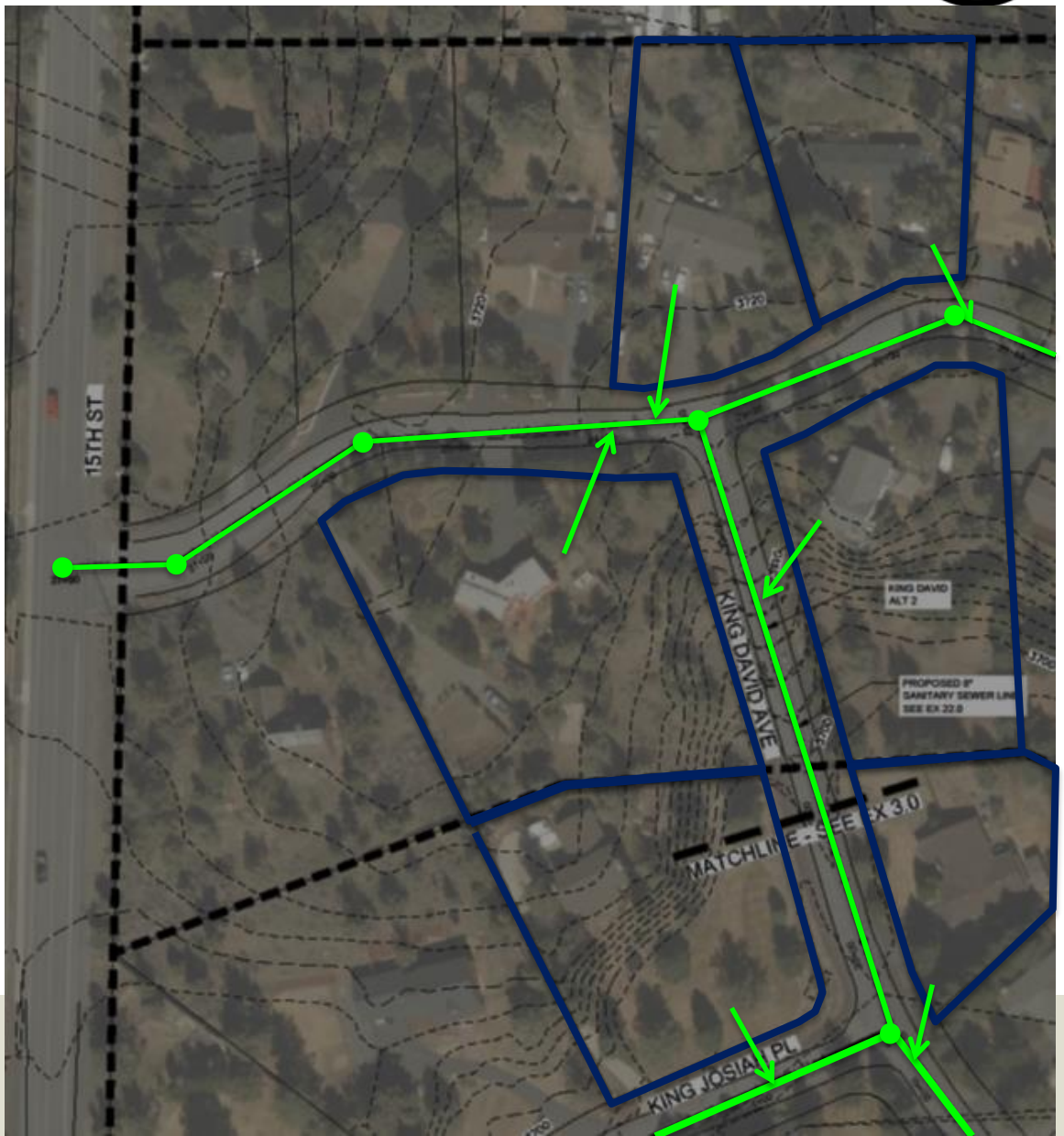


INGREDIENT #1 – REDUCING TOTAL PROJECT COST

Pipe Length

- Only where needed
- Example

  Option #1



INGREDIENT #1 – REDUCING TOTAL PROJECT COST

Pipe Length

- Only where needed
- Example

  Option #1 **(Reduced Length - +/-185')**

  – Flow from 15th Street down King David to the SEI

  – Red dashed line is not needed

INGREDIENT #1 – REDUCING TOTAL PROJECT COST

Pipe Length

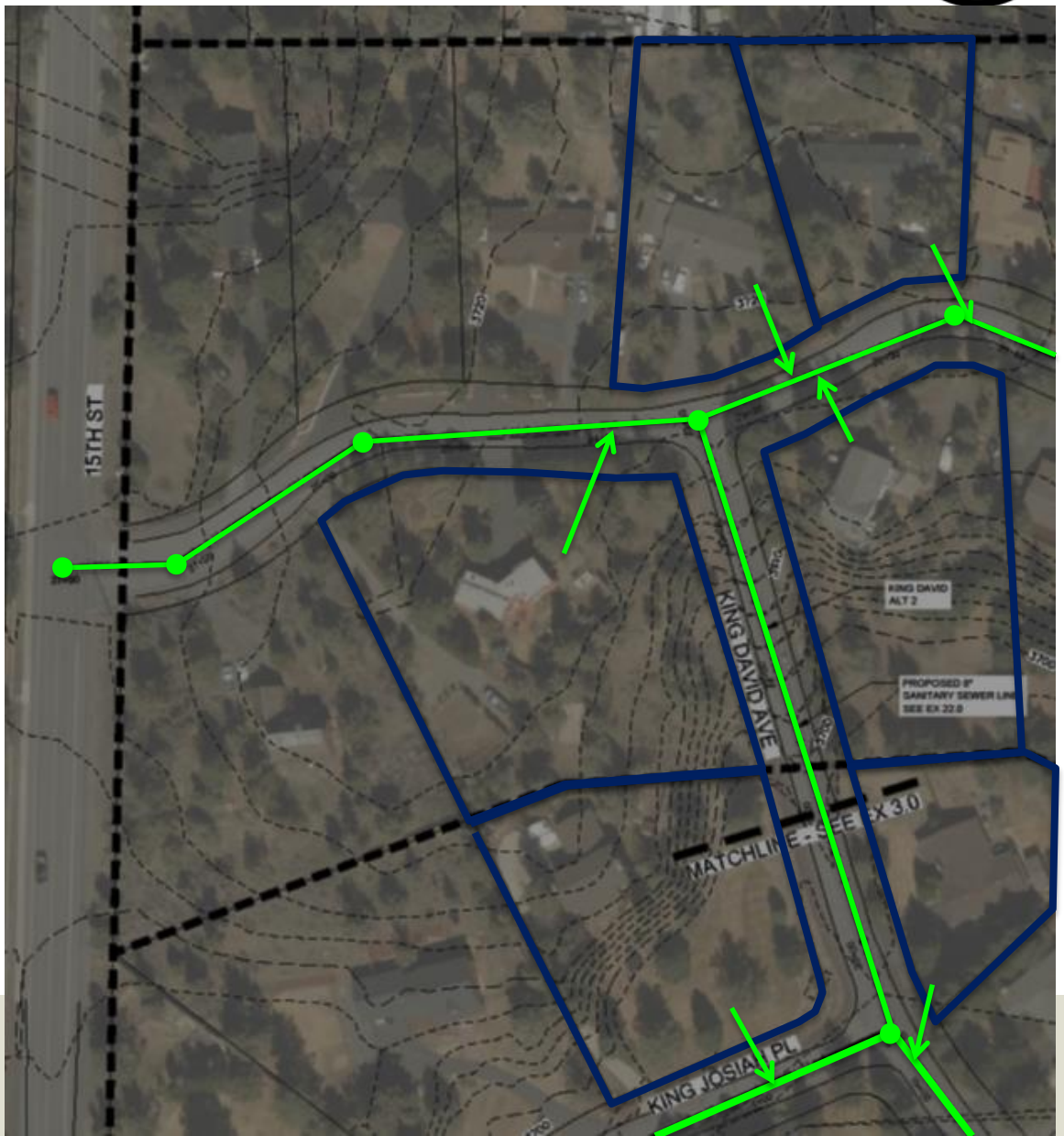
- Only where needed
- Example

  Option #1 (Reduced Length - +/-185')

  – Flow from 15th Street down King David to the SEI

  – Red dashed line is not needed

  Option #2



INGREDIENT #1 – REDUCING TOTAL PROJECT COST

Pipe Length

- Only where needed
- Example

  Option #1 (Reduced Length - +/-185')

  – Flow from 15th Street down King David to the SEI

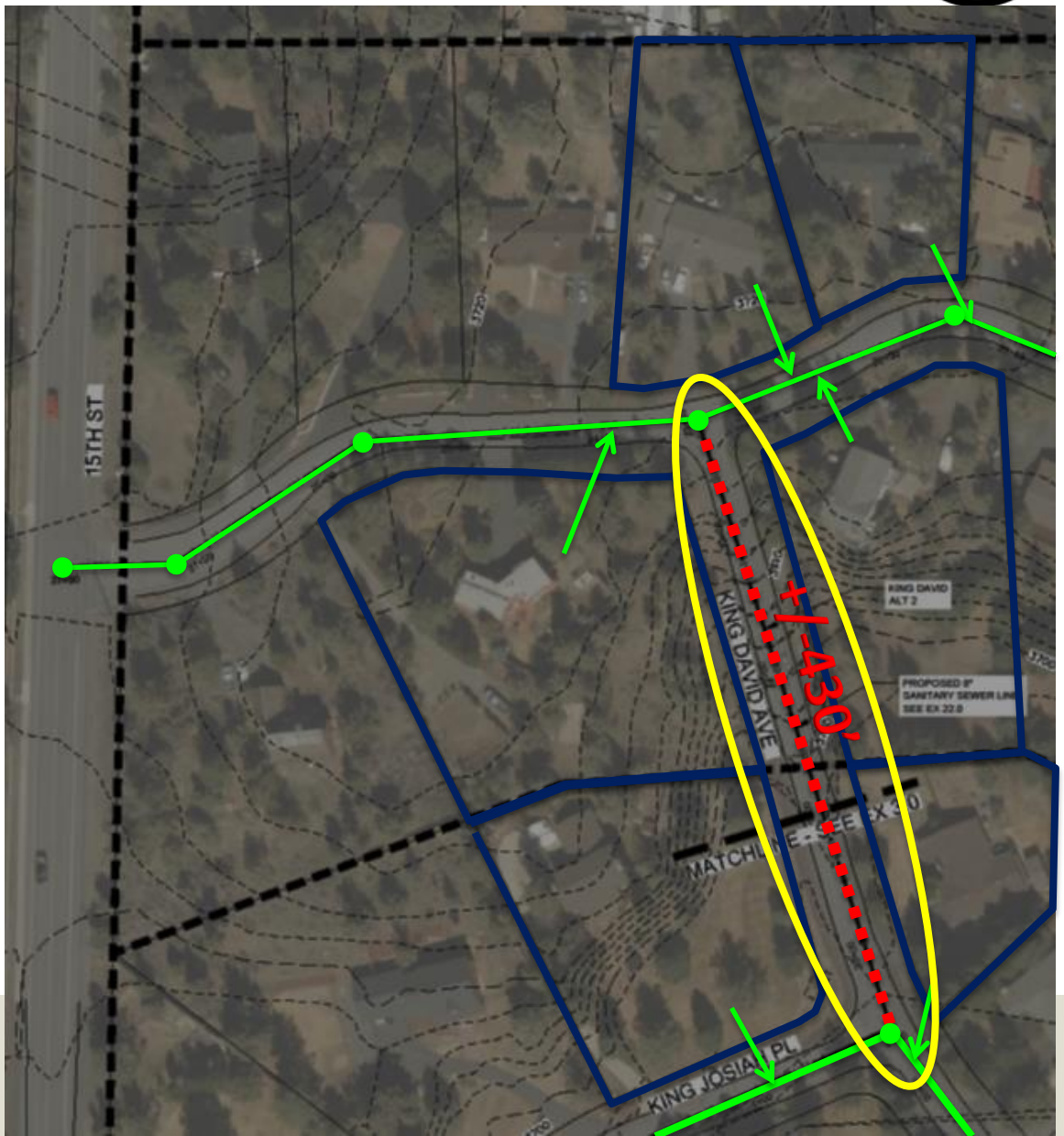
  – Red dashed line is not needed

  Option #2 (Reduced Length - +/-430')

  – Flow from 15th Street down King Hezekiah

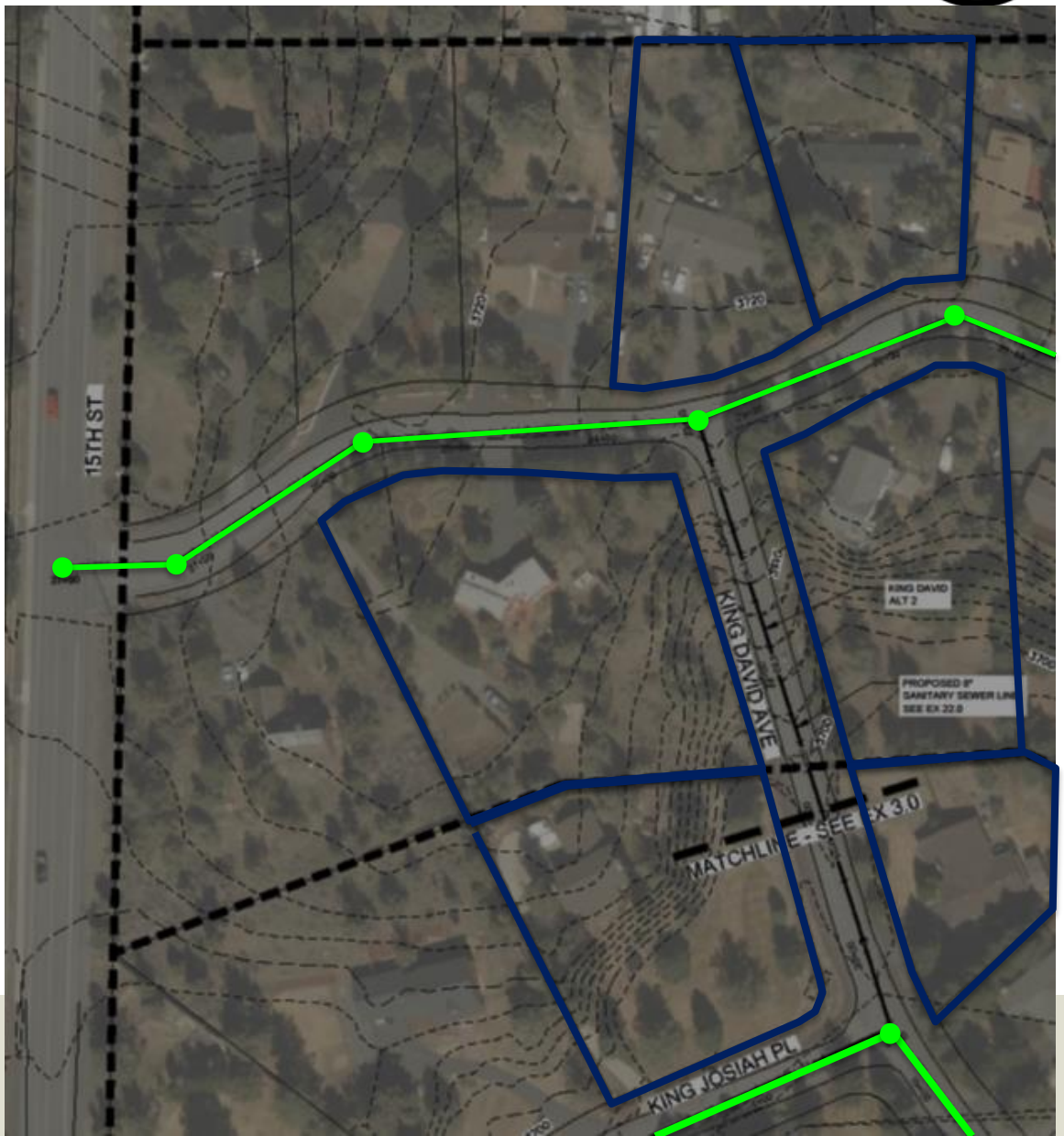
  – Red dashed line not needed

- Depth and lot service is a factor



INGREDIENT #1 – REDUCING TOTAL PROJECT COST

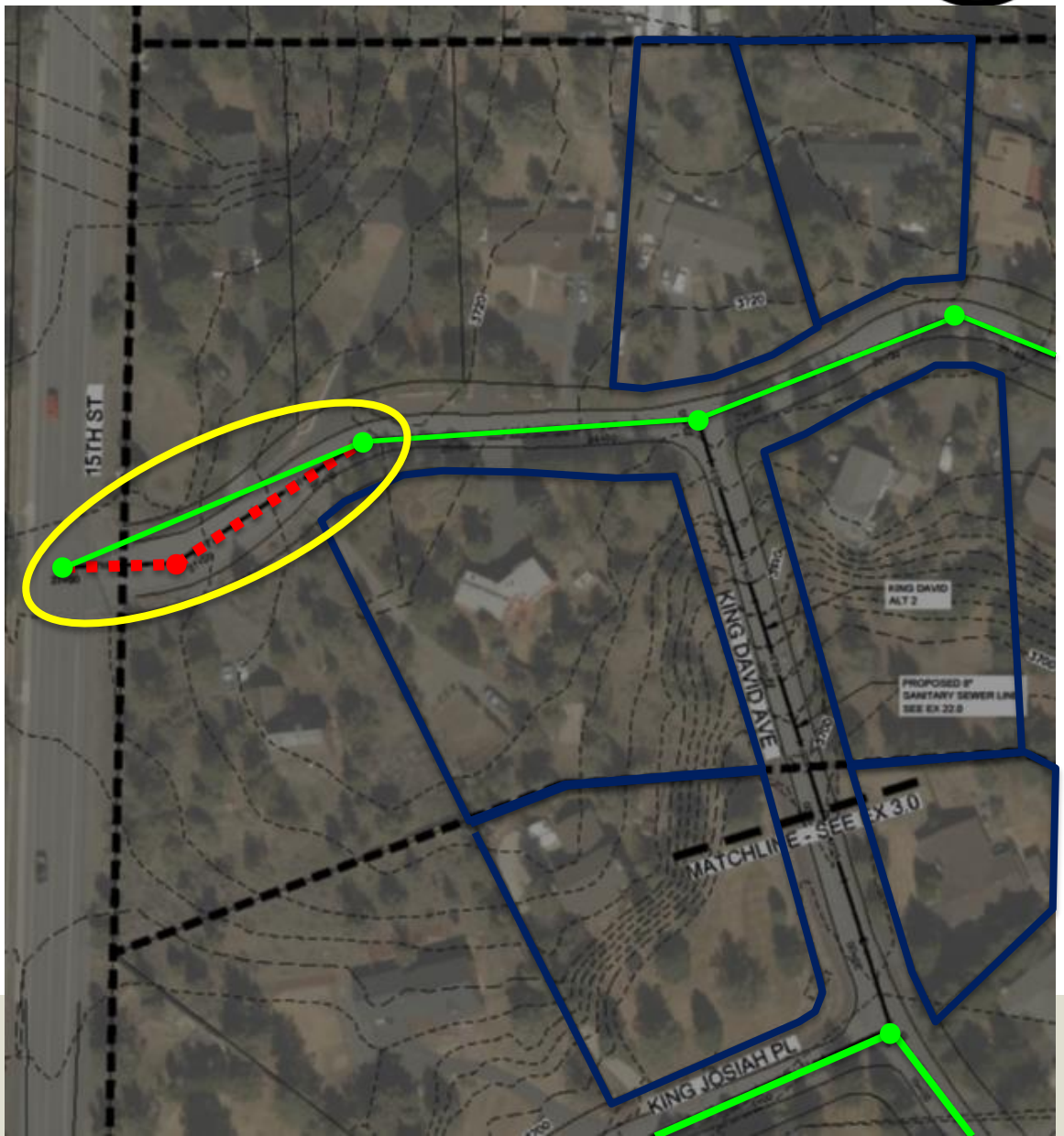
Number of Manholes



INGREDIENT #1 – REDUCING TOTAL PROJECT COST

Number of Manholes

- Vegetation and utility conflicts
- Increased right of way restoration
- Maintain maximum run length
- Elevation changes

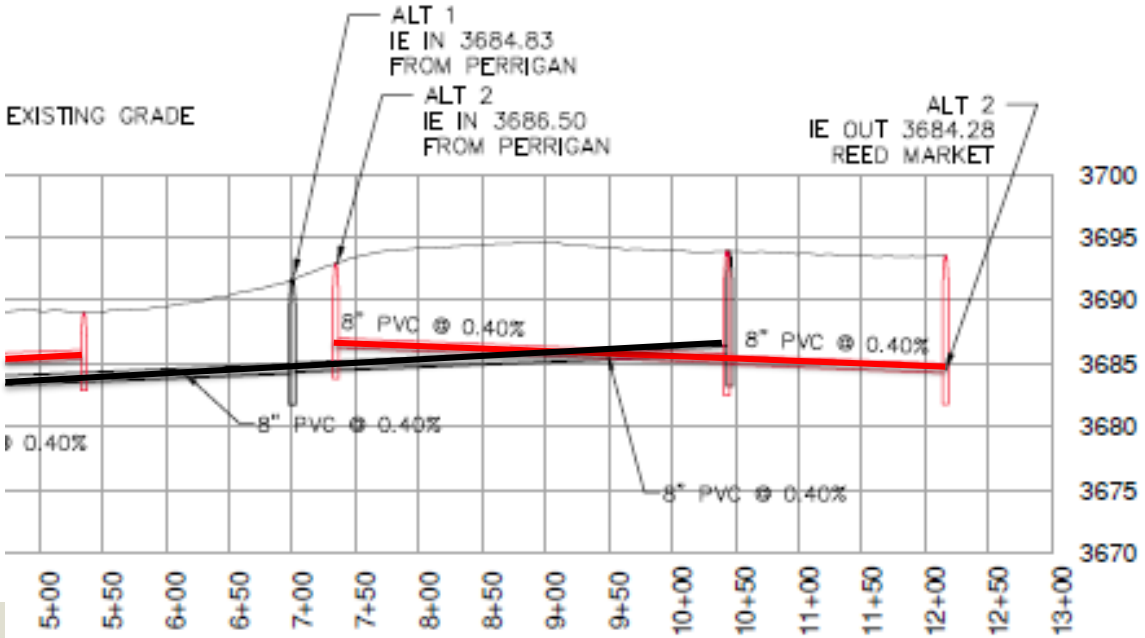


INGREDIENT #1 – REDUCING TOTAL PROJECT COST

Sewer Depth

- Routing and lot coverage impacts pipe depth
- Running too shallow can create gravity service issues to the lots
- Typically, pipe depths are in ranges
  - 0-5 ft.
  - 5-10 ft.
  - 10-15 ft.
- Costs are associated with each depth

  Example – on a recent job the increase from the 5-10 ft. and 10-15 ft. was approximately 50%



INGREDIENT #1 – REDUCING TOTAL PROJECT COST

Pipe size: Increased pipe size = minimal increased cost

- Majority of cost is in the trench construction
- 8-inch pipe is the minimum pipe size allowed by the City of Bend and Oregon Department of Environmental Quality, with one exception
  - Dead-end laterals less than 250-ft in length and having no possibility of being extended as determined by the City Engineer or designee may be 6-inches in diameter
  - Cul-de-sac locations are typical

Road Reconstruction: Trench patch vs road reconstruction

- County roads
- City of Bend requires, if "Three or more transverse trench cuts within one pavement section or block if placed from curb to center line require a full patch from curb to center line incorporating all trench cuts as one surface patch. Three or more transverse trench cuts that cross the travel way from curb to curb within a pavement section or block require a full patch from curb to curb incorporating all trench cuts as one surface patch."

COMMITTEE DISCUSSION

UPCOMING ADVISORY COMMITTEE MEETINGS

Thursday, December 7

Four Ingredients of Affordability

Thursday, January 11

Preliminary Engineering II

PUBLIC COMMENT

- 5 minutes
- Time divided among speakers
- Comment cards available

THANK YOU