

# OR 66 Green Springs Highway IAMP

Project Team Meeting #4  
ODOT District 11 Offices  
May 14<sup>th</sup>, 2012



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# Meeting Overview

- Introductions
- Overview of Land Use Approach
- Future Conditions
- Concept Development
  - Background
  - Interchange form
  - West of interchange options
  - East of interchange options
- Concept Discussion
  - Pros and cons for each concept
  - Preferred concepts for further evaluation
- Next Steps



# Overview of Land Use Approach

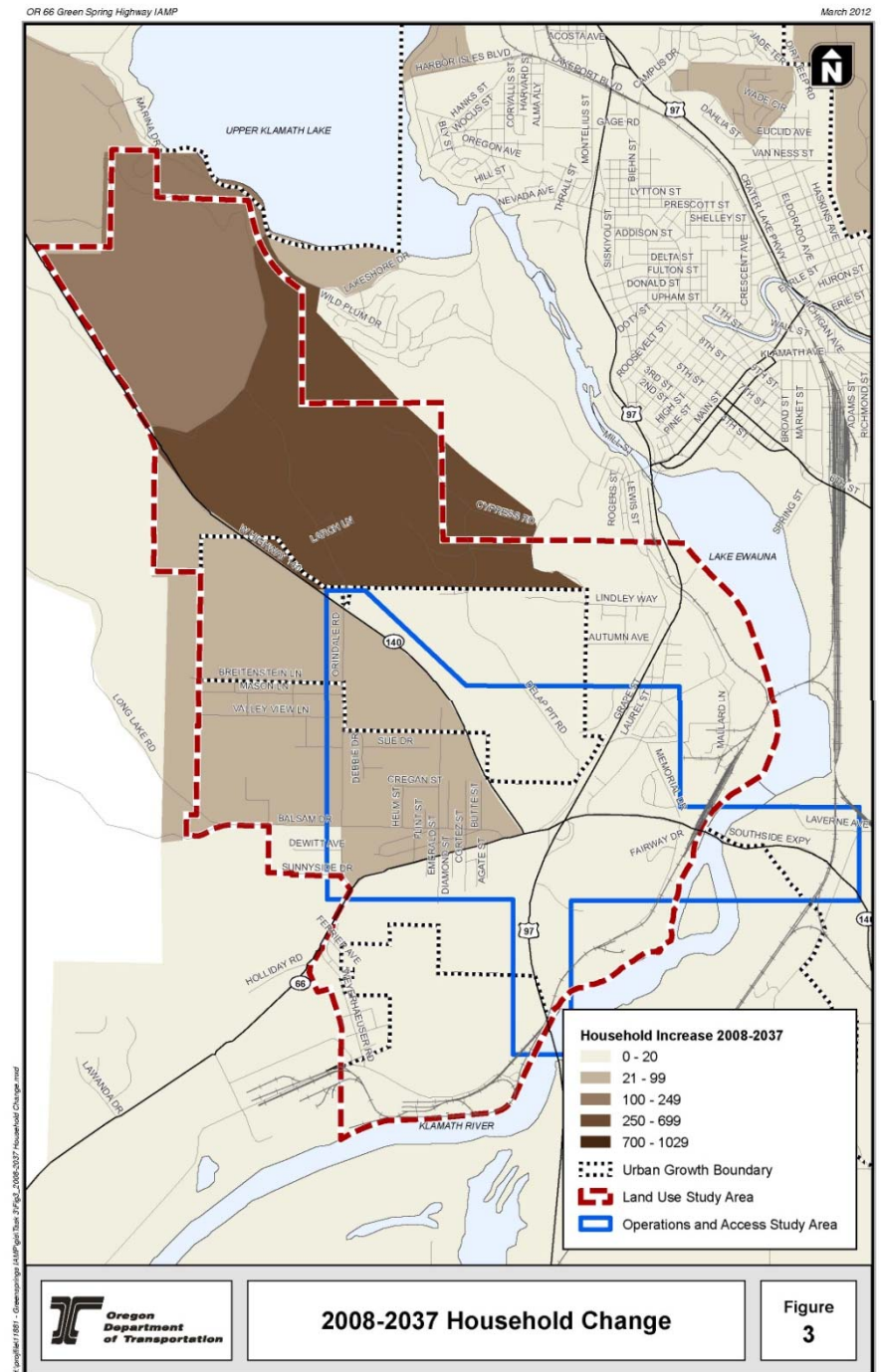
## > 25-year Horizon

- Land use assumed in the Klamath Falls Urban Area Travel Demand Model
- Model recently updated in collaboration with:
  - ODOT
  - Klamath County
  - City of Klamath Falls

	Klamath Falls Urban Area				IAMP Area
	2008	2037	Change	% Change	Change
Households	18,800	22,900	4,100	22	1,000
Jobs	19,950	24,000	4,100	20	440

# Model Land Use Assumptions - Households

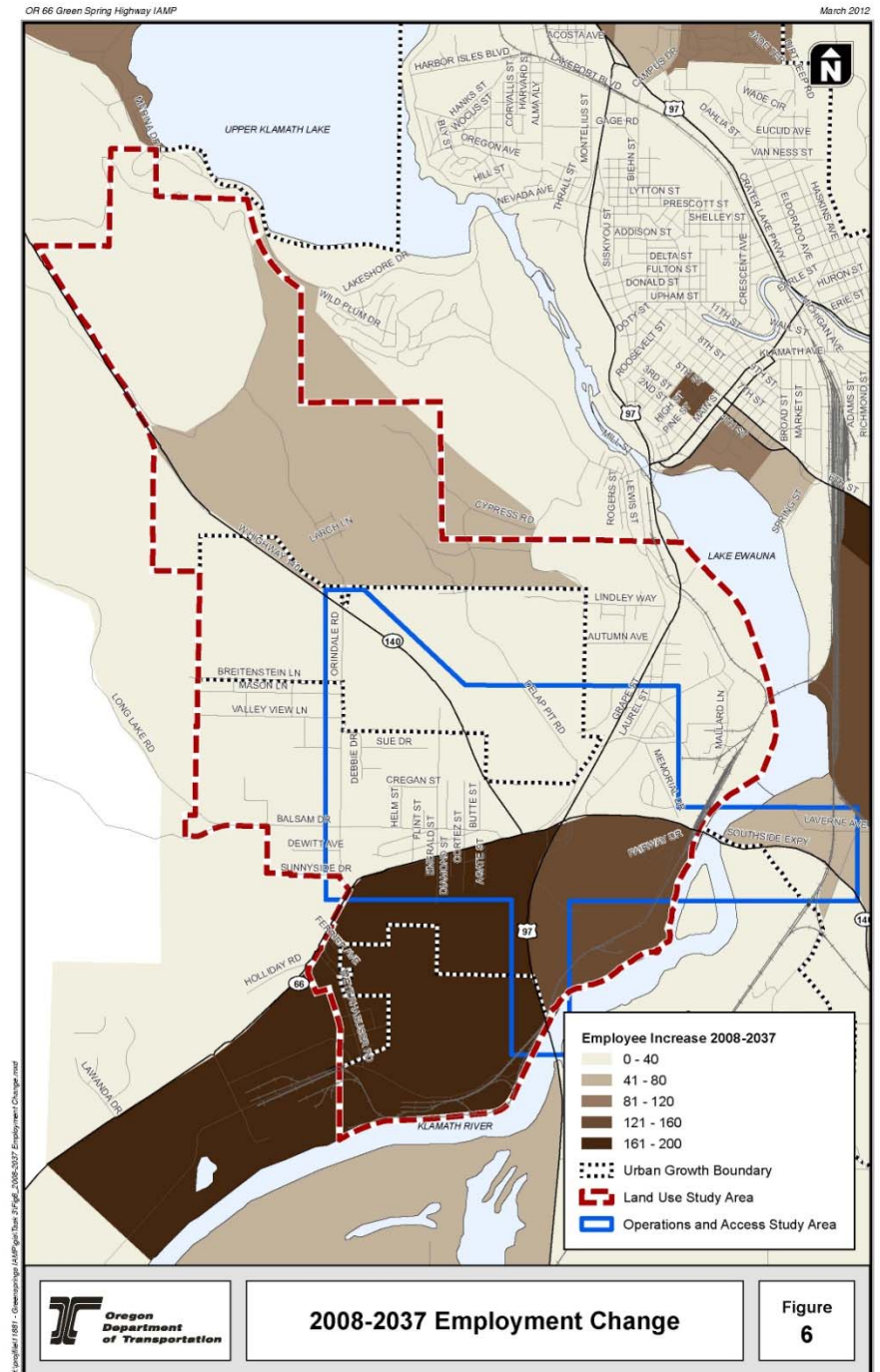
- Assume the addition of ~1,000 households within the IAMP area





# Model Land Use Assumptions - Employment

- Assume the addition of ~440 additional jobs within the IAMP area



# Future Volume Conditions – PM Model Demand





# Future Volume Conditions – Assumed AM Demand



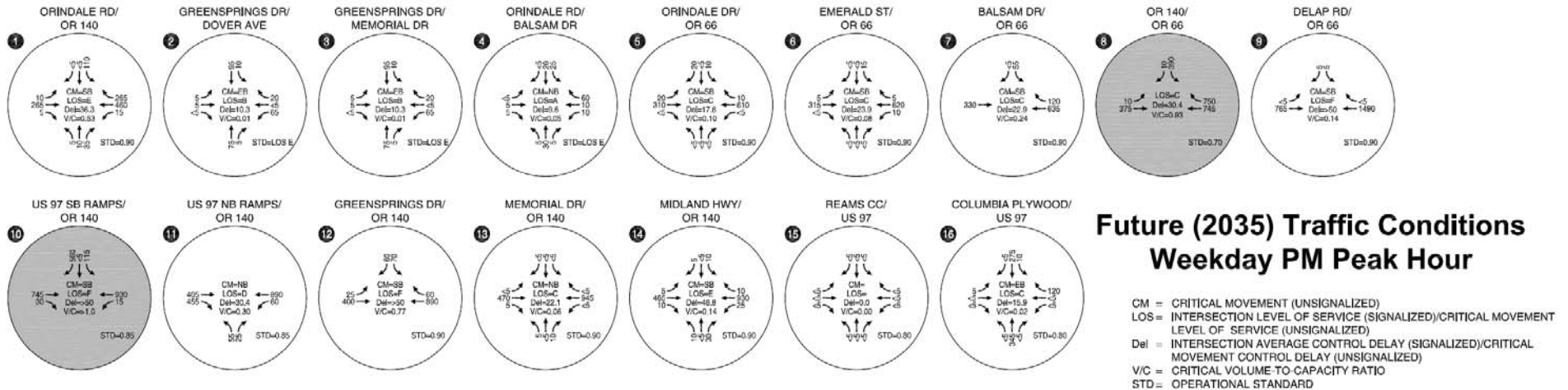
# Future Demand Summary

- Future demand is expected to increase along OR 140
- A result of increases in residential developments along the corridor, including large increase at Running Y Ranch
- Travel patterns follow typical commuter trends





# Future Conditions Operational Analysis



- Two (2) intersections are expected to operate beyond mobility thresholds under future conditions
- These deficiencies are directly related to the forecasted increasing OR 140 demand

# Concept Development - Background

- The following slides summarize the input received to-date
  - From public and PT members
- The concepts presented are a starting point for the development of alternatives to evaluate
- Study area is divided into three areas to simplify our approach
  - Interchange form
  - West of interchange
  - East of interchange
- The concepts can be “mixed & matched” to some degree





# Concept Development - Background

- Sketches represented major roadway facilities (e.g., arterials and up)
- The starting point for intersection location was to locate them as possible to current access spacing standards
- The potential impact to the following roadways are not addressed in these initial concepts
  - Balsam Drive
  - Delap Road
  - Greensprings Drive



# Concept Development - Background

- Intersection control is NOT addressed as part of these concepts
- Intersection control can affect concept details
  - Signals:
    - Require turn lanes
    - Signal coordination along corridor
    - Approaching the first signal from a high-speed environment (rural) needs additional cross sectional treatments to slow traffic
  - Roundabouts:
    - Narrow cross section
    - More impact at intersections
    - Allow intersections and/or driveways between roundabouts to be converted to right-in/right-out with U-turns at roundabouts



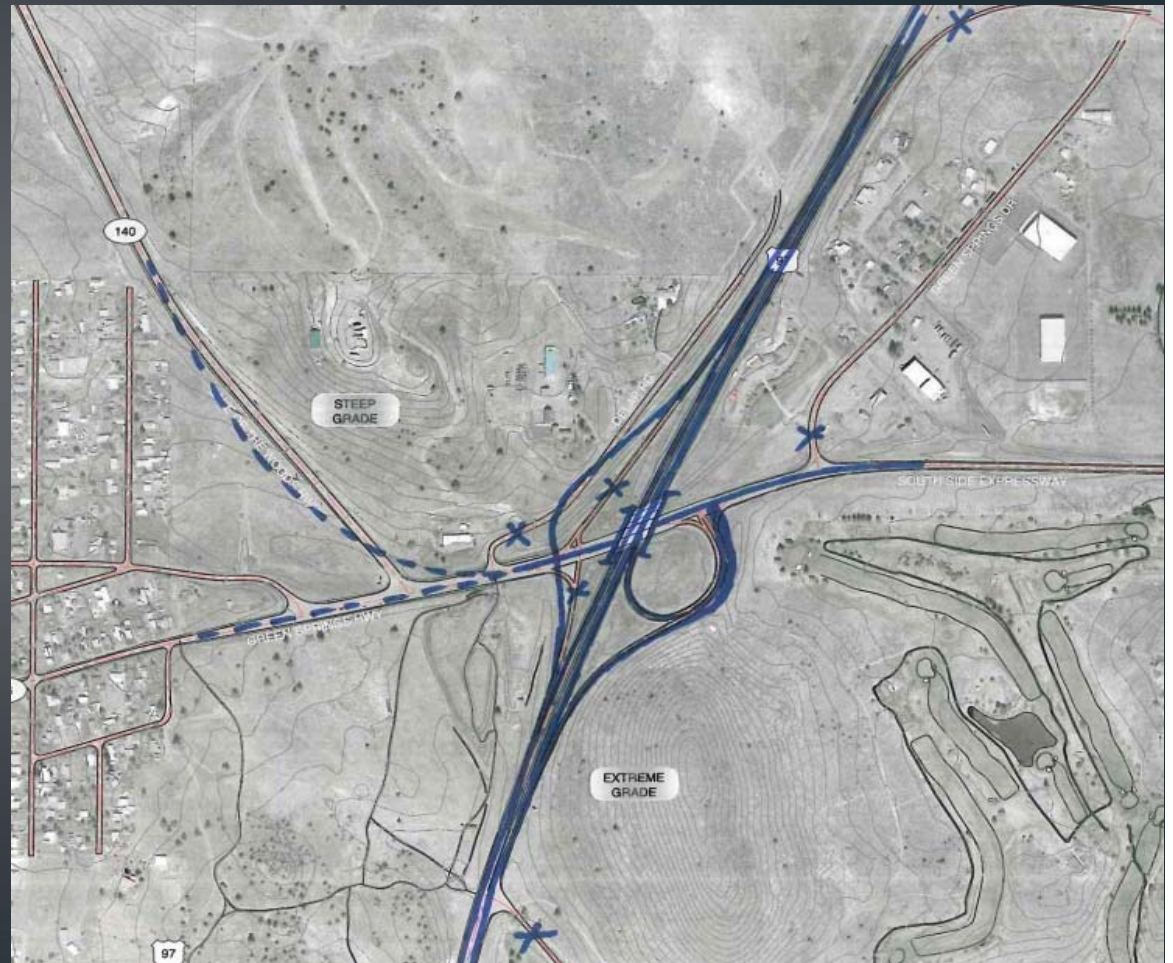
# Interchange Concepts



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# Interchange Concept 3A– Existing Interchange

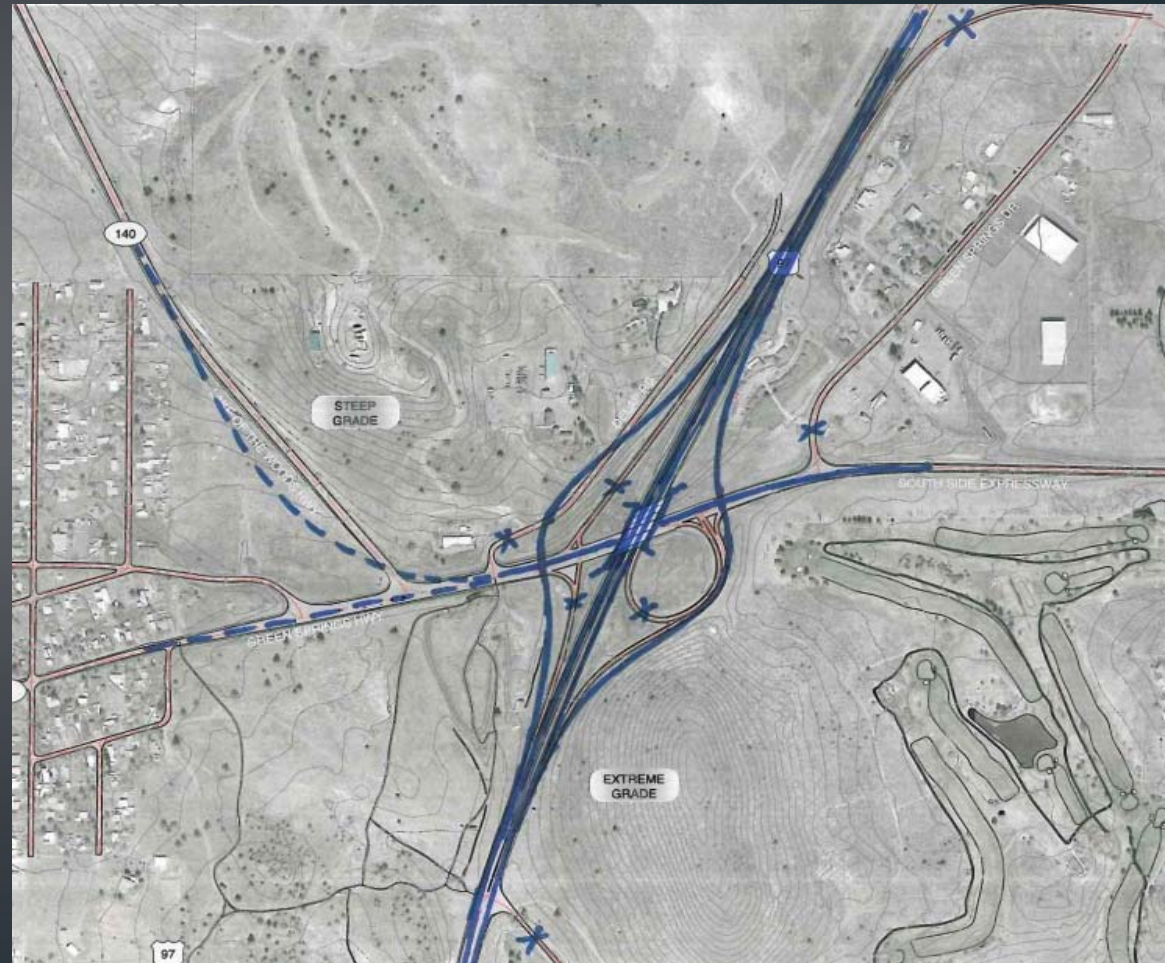
- Maintain the existing configuration
- Realign the US 97 SB off-ramp
- Improve the US 97 SB ramp terminal intersection angle
- Well suited to accommodate future demand scenario





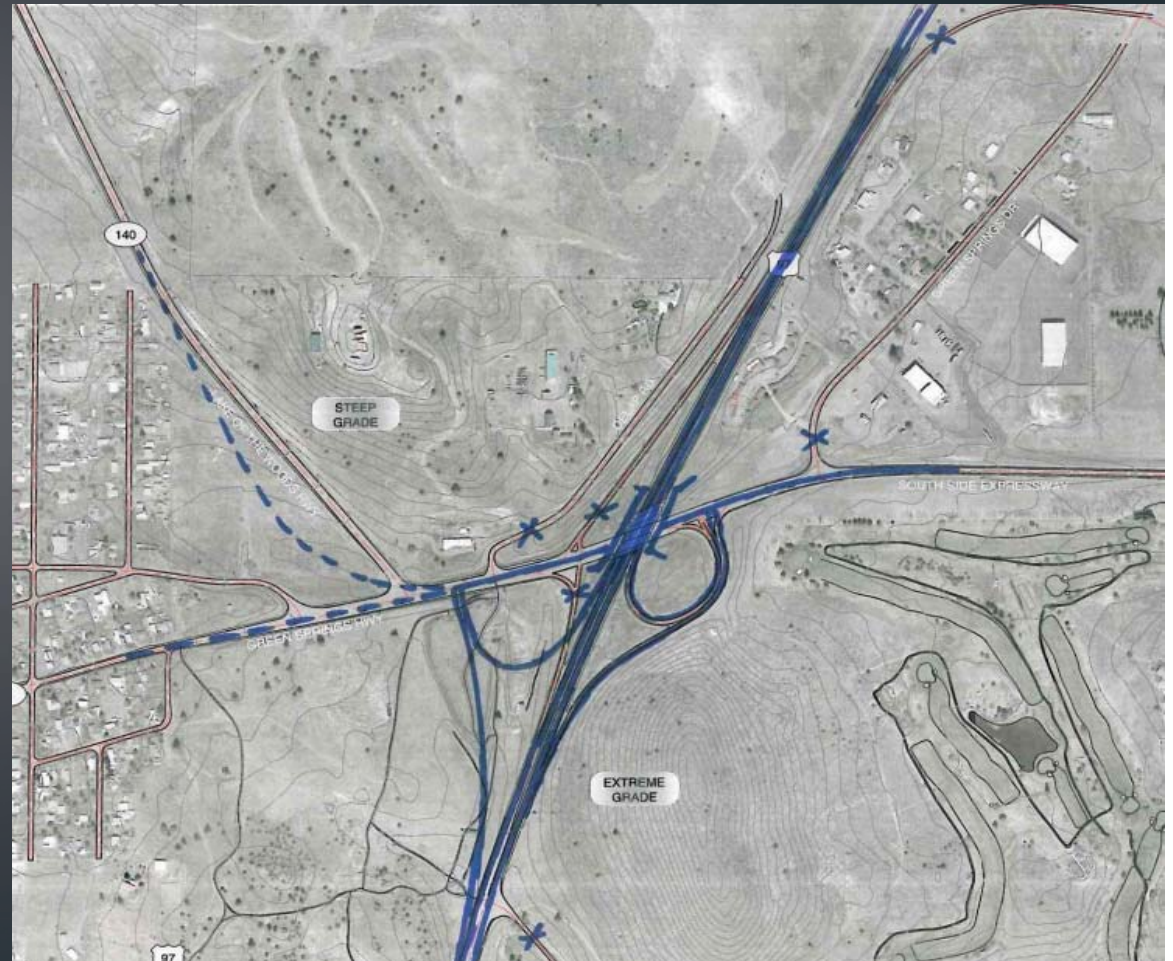
# Interchange Concept 3B– Diamond

- Convert to diamond interchange
- Replace US 97 NB loop on-ramp with conventional on-ramp
- Negatively impact traffic operations at the US 97 NB Ramp terminal
  - EB free right-turn will become EB left-turn



# Interchange Concept 3C– Partial Cloverleaf

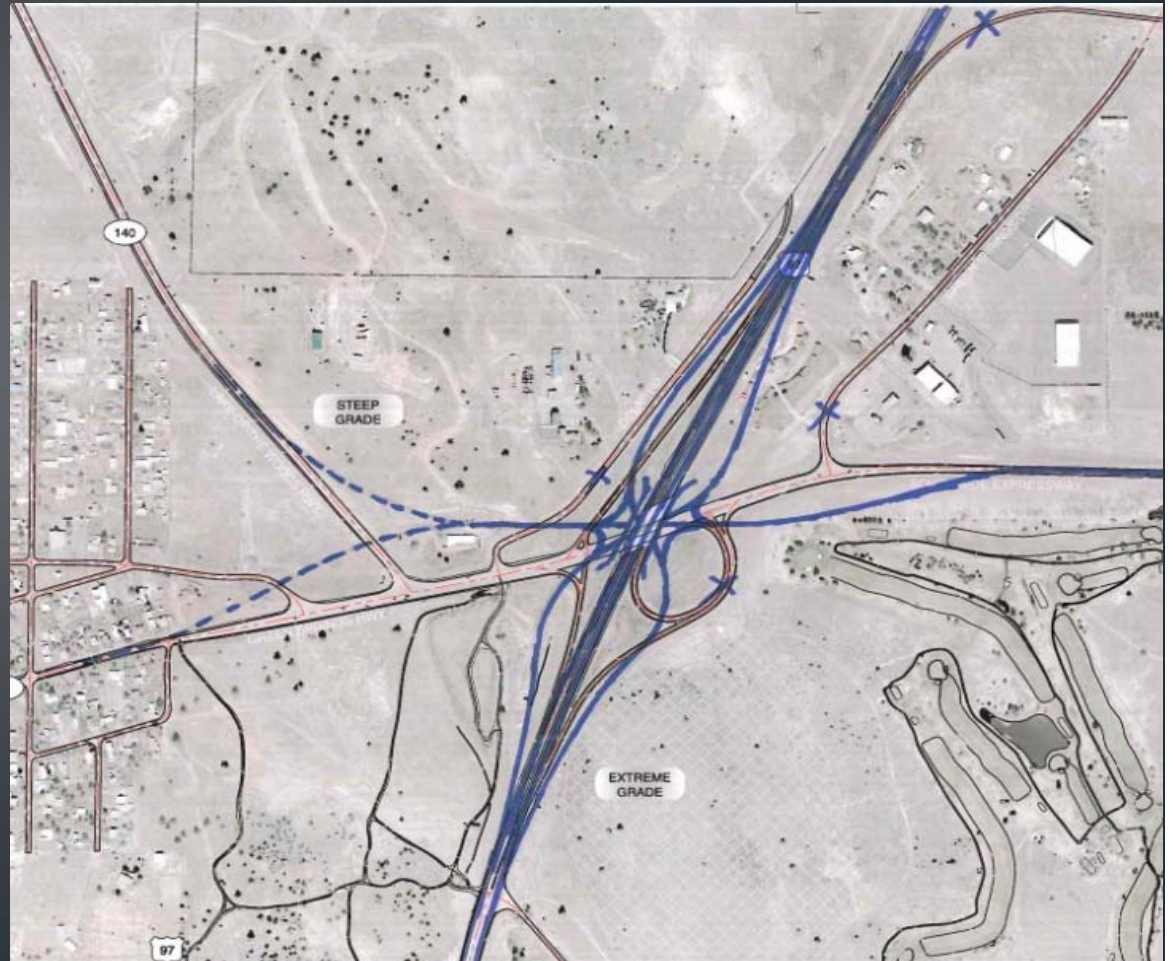
- Convert to a partial cloverleaf
- Convert conventional US 97 SB off-ramp to loop off-ramp
- Negatively impact traffic operations at the US97 SB Ramp terminal
  - SB right-turn becomes NB left-turn





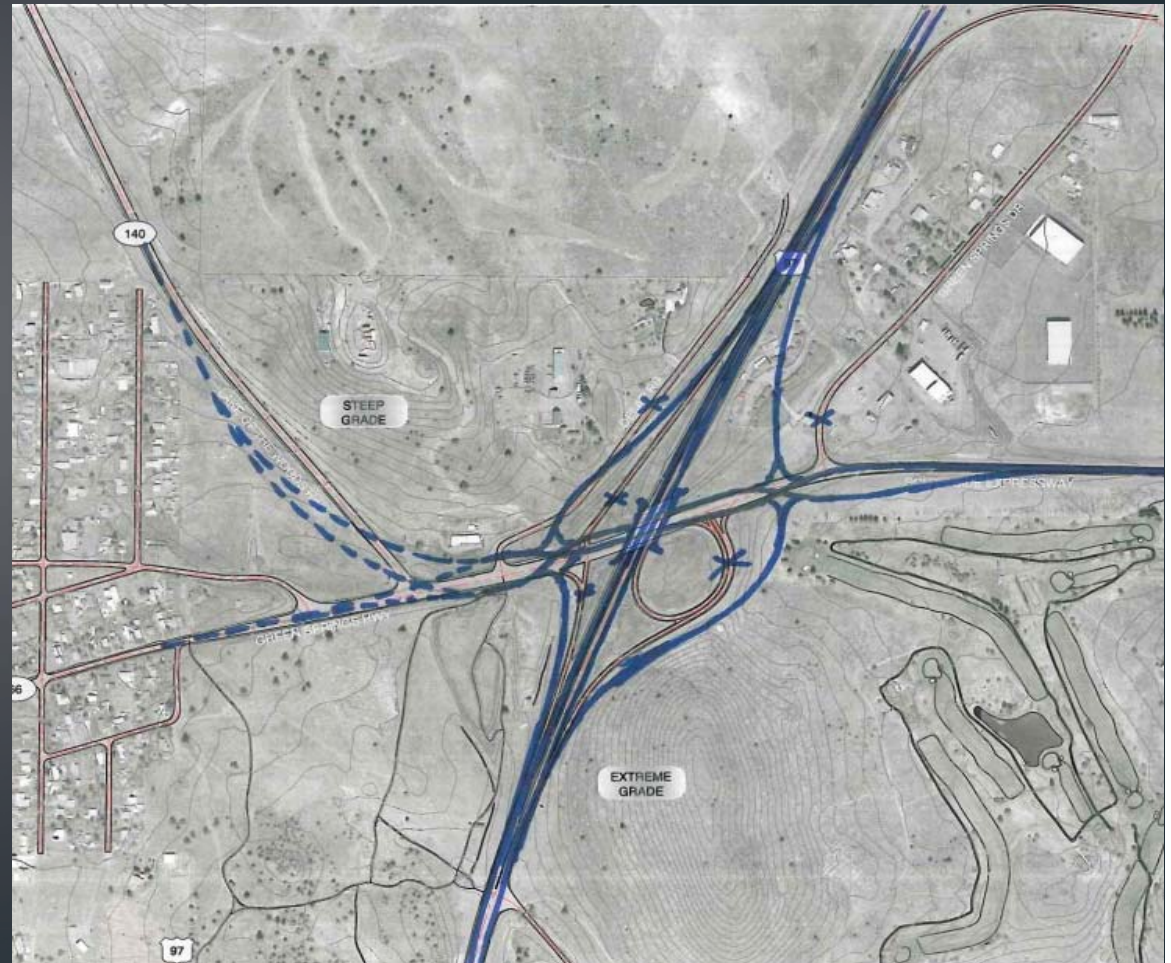
# Interchange Concept 3D – SPUI

- Convert to a single-point urban interchange (SPUI)
- SPUI accommodates high volume demands
- Seen as pedestrian and bike unfriendly compared to typical diamond interchanges



# Interchange Concept 3E– Diverging Diamond

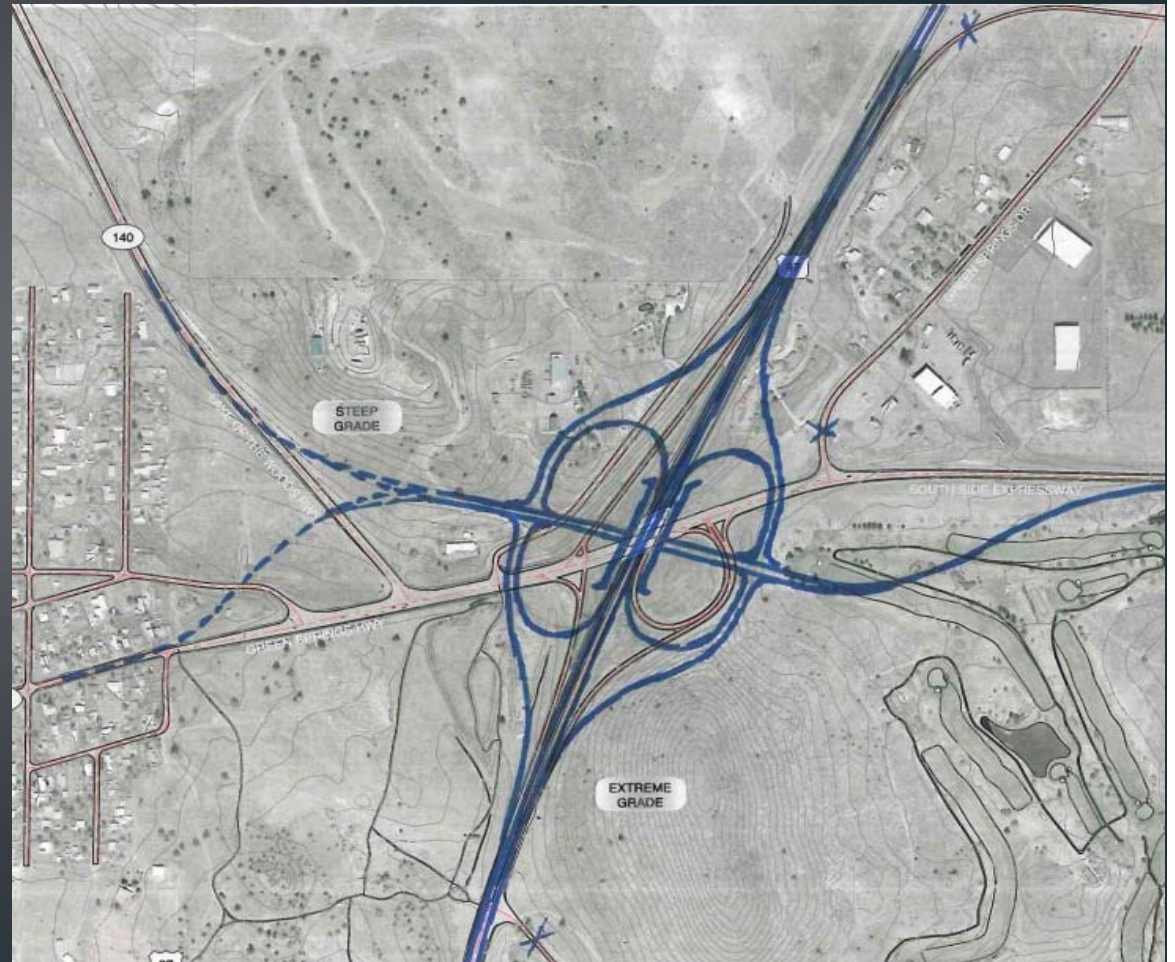
- Convert to a diverging diamond interchange (DDI) form
- Creates “cross-over” movement between the ramp terminals
- Typically applied as retrofit to existing diamond interchanges with bridge constraints





# Interchange Concept 3F – Full Cloverleaf

- Convert to a full cloverleaf interchange form
- All movements at the ramp terminals intersections converted to right-in/right-out
- Large footprint with topographical challenges in the NW and SE quadrants





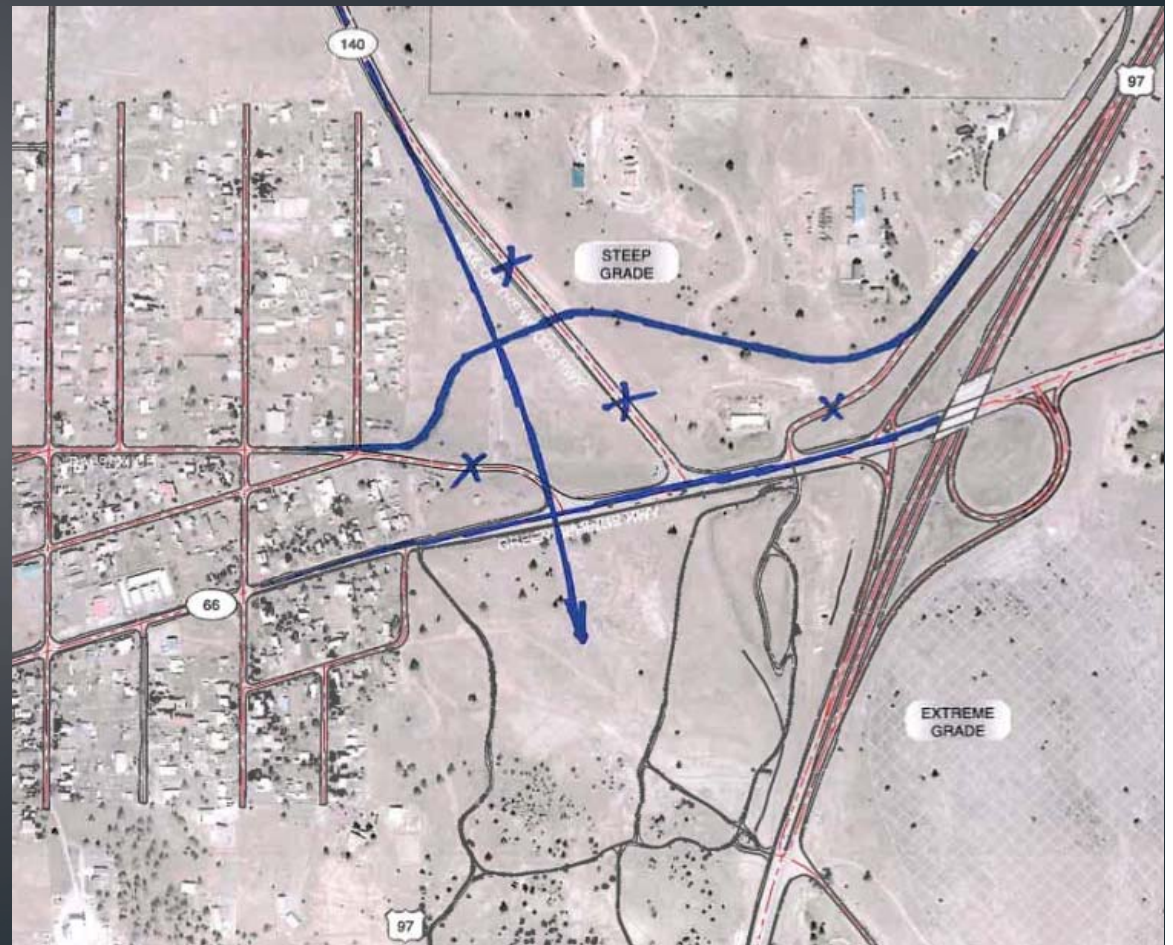
# West of Interchange Concepts



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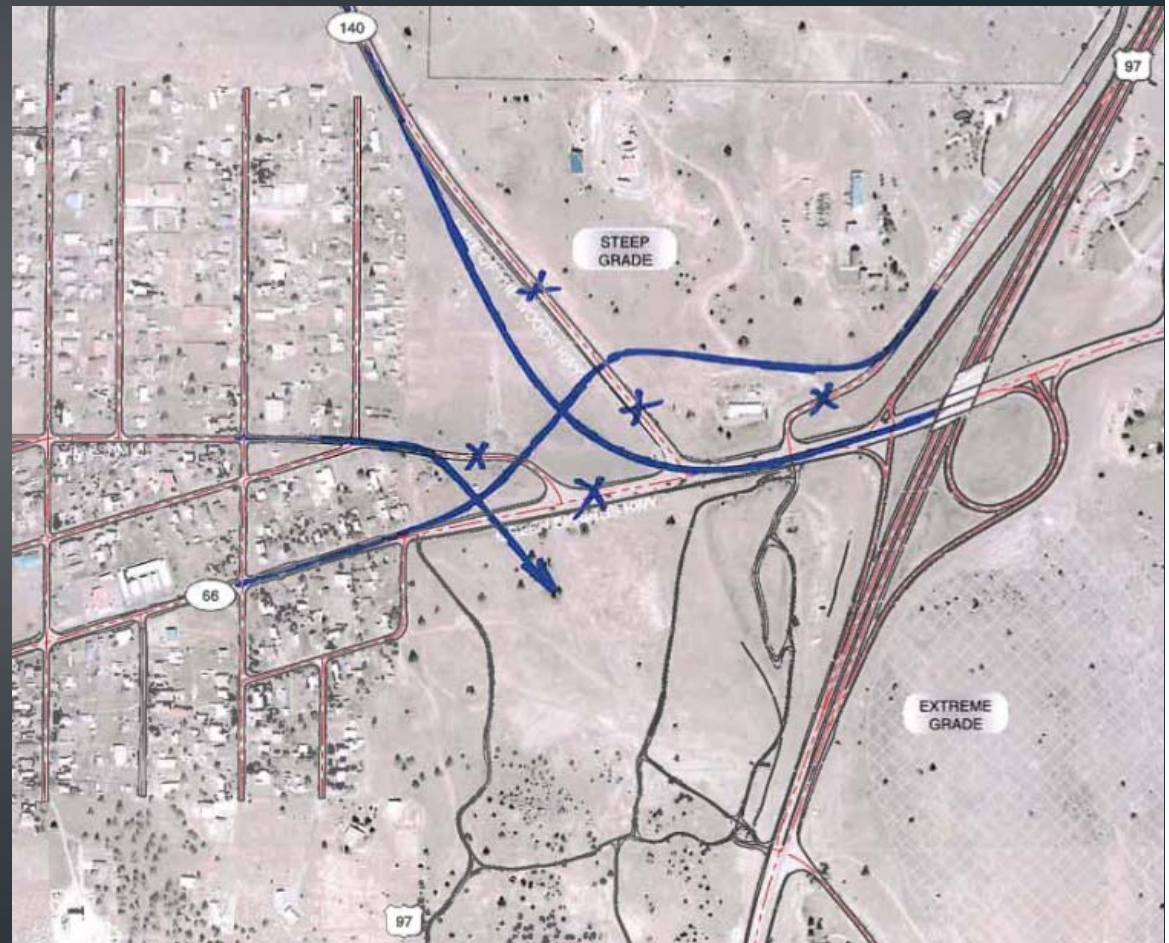
# West Side Concept 1A – Realign OR 140

- Increase intersection spacing and provide sufficient segment length for future anticipated queues and lane positioning
- Retains OR 66 as the through movement



# West Side Concept 1A – Orient OR 140 as Through Movement

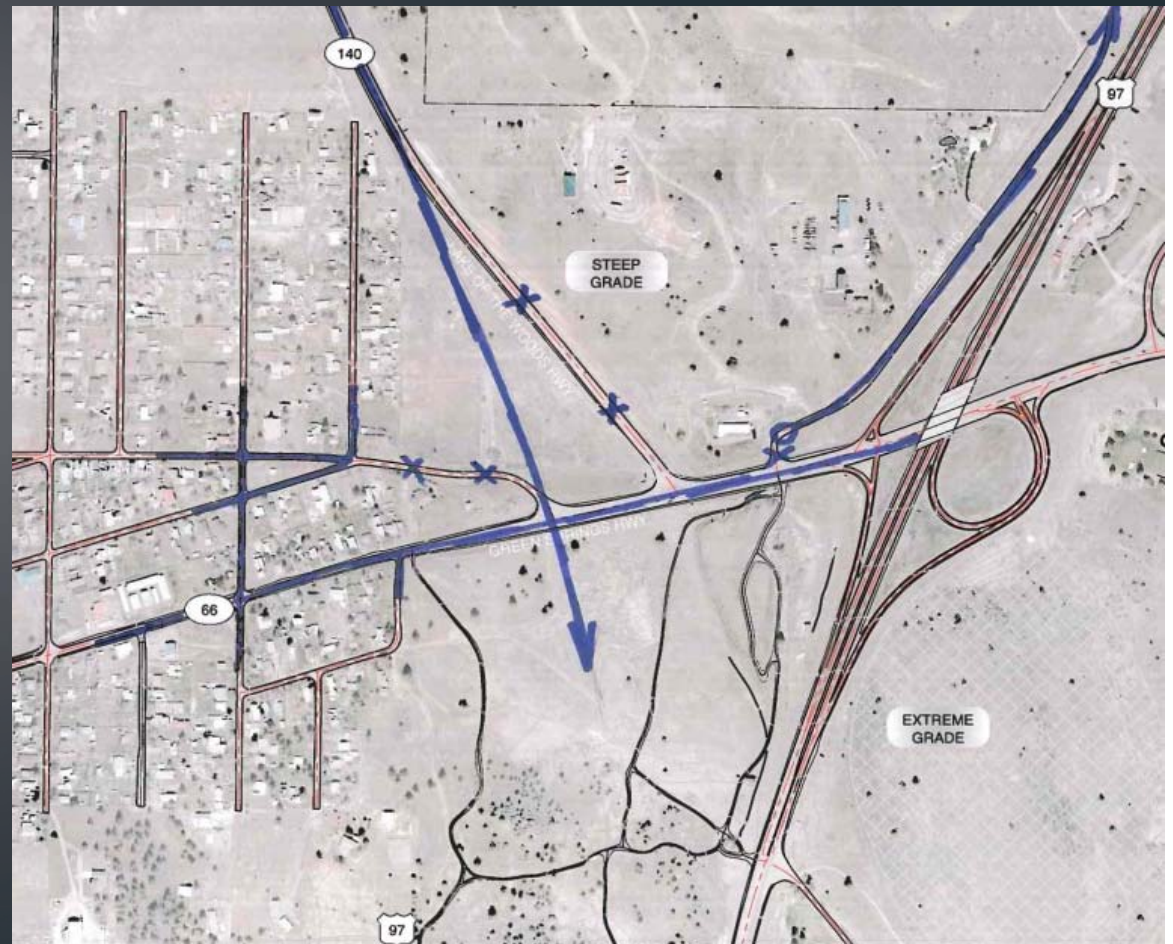
- Realign OR 140 to form a continuous alignment with OR 140 to the east of the interchange
- Realign OR 66 to form a new intersection with the realigned OR 140





# West Side Concept 1C – Realign OR 140 & Disconnect Delap & Balsam

- Increase intersection spacing and provide sufficient segment length for future anticipated queues and lane positioning
- Retains OR 66 as the through movement
- Disconnect Delap Road & Balsam Drive



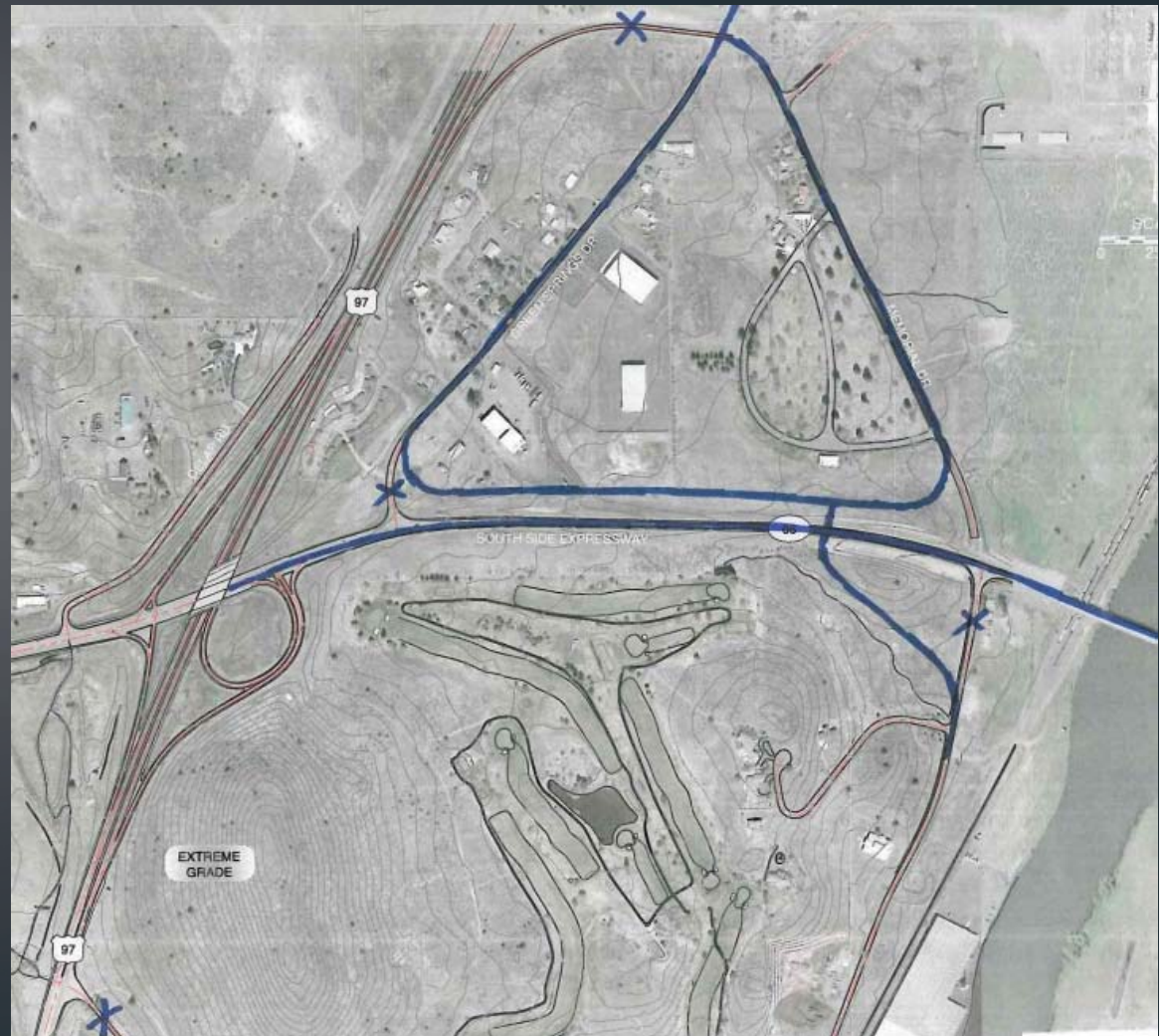
# East of Interchange Concepts



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# East Side Concept 2A – Greensprings-Memorial Frontage Road

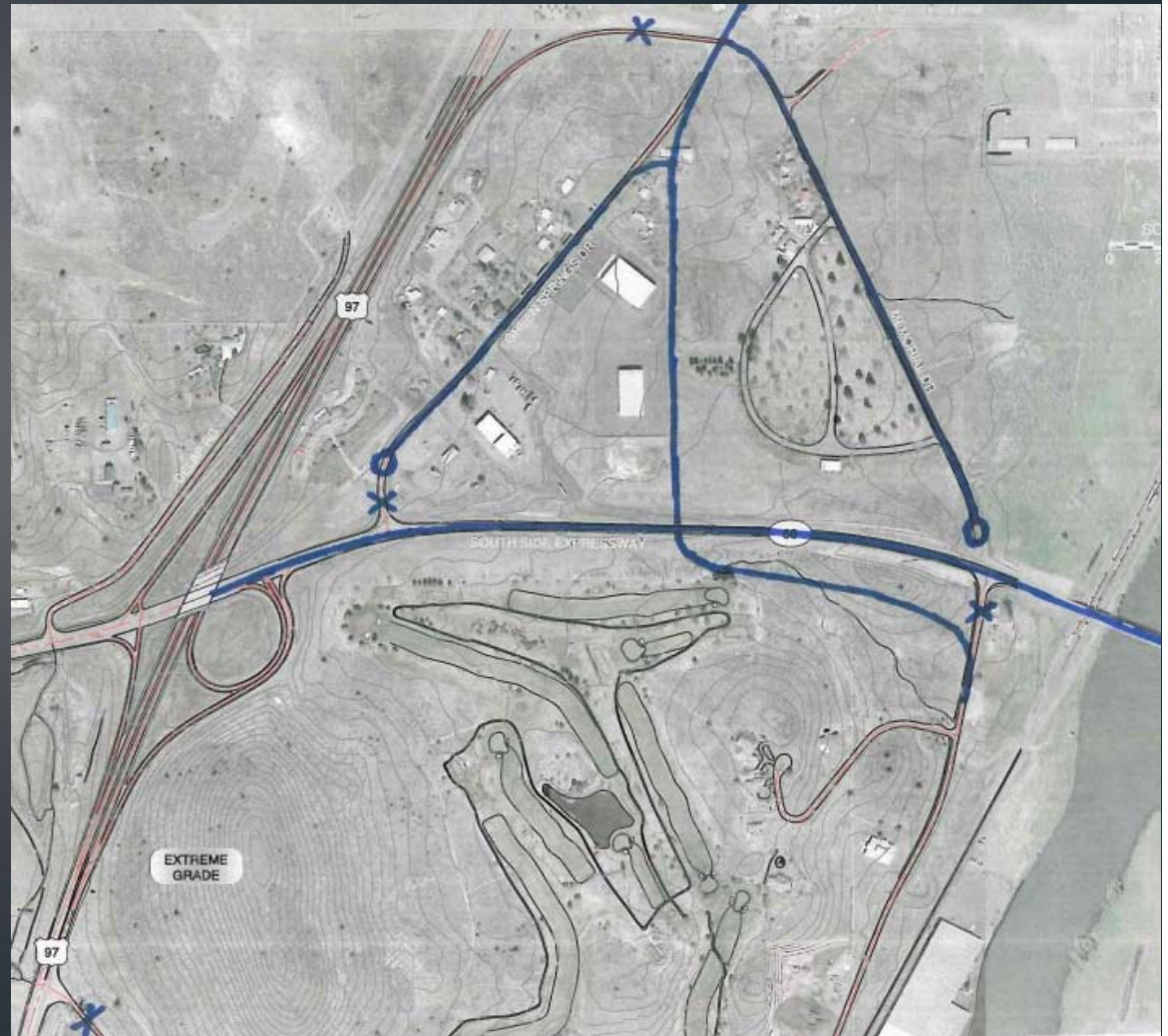
- Form a new frontage road north of OR 140 and introduce a new intersection farther to the east away from the interchange
- The longitudinal grade on OR 140 in the vicinity of the new intersection location could be a problem





# East Side Concept 2B – Realign Greensprings & Memorial

- Realign Greensprings Drive along property line and introduce a new intersection farther to the east
- Realign Memorial Drive to connect to the south
- The longitudinal grade on OR 140 in the vicinity of the new intersection location could be a problem



# East Side Concept 2C – Improve Memorial Intersection

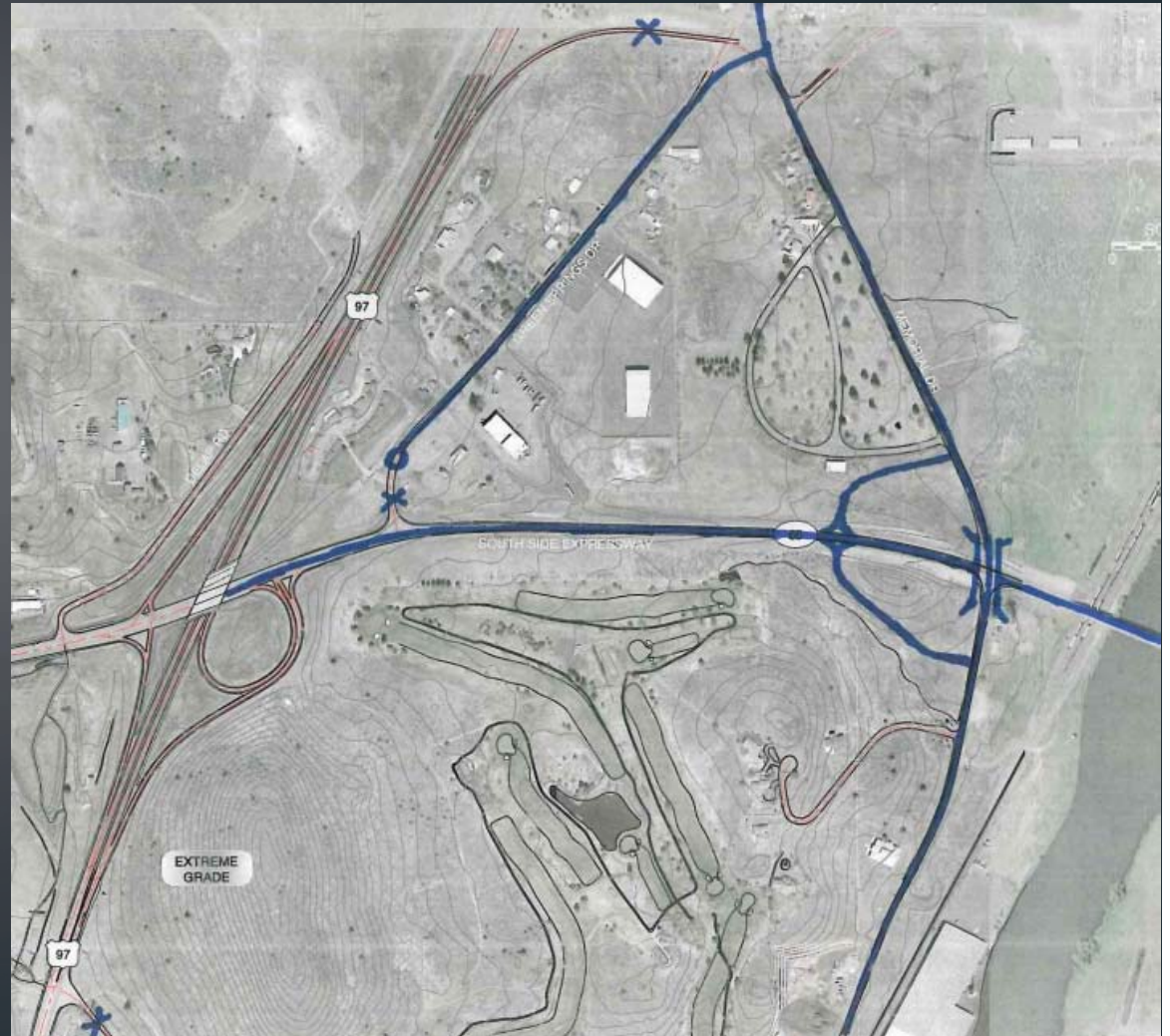
- Cul-de-sac Greensprings Drive in its current location, while opening Memorial Drive from the north on OR 140
- Will require the widening of the existing bridge on OR 140 over the river
- Meets expressway spacing standards





# East Side Concept 2D – Jughandle Interchange

- Provide a grade-separated crossing of Memorial Drive on OR140 immediately west of the river bridge
  - Right-in/right-outs on OR140
- Provide a typical expressway facility from the US97 interchange through the Washburn Way interchange to the east





# Evaluation Criteria

- Transportation Operations
- Multimodal Accessibility
- Land Use
- Economic Development
- Environmental, Social, and Equity factors
- Accessibility and Connectivity
- Cost
- Implementation



# Discussion of Concepts



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# What are we missing?

- Is there a concept we should be evaluating that we haven't included here?

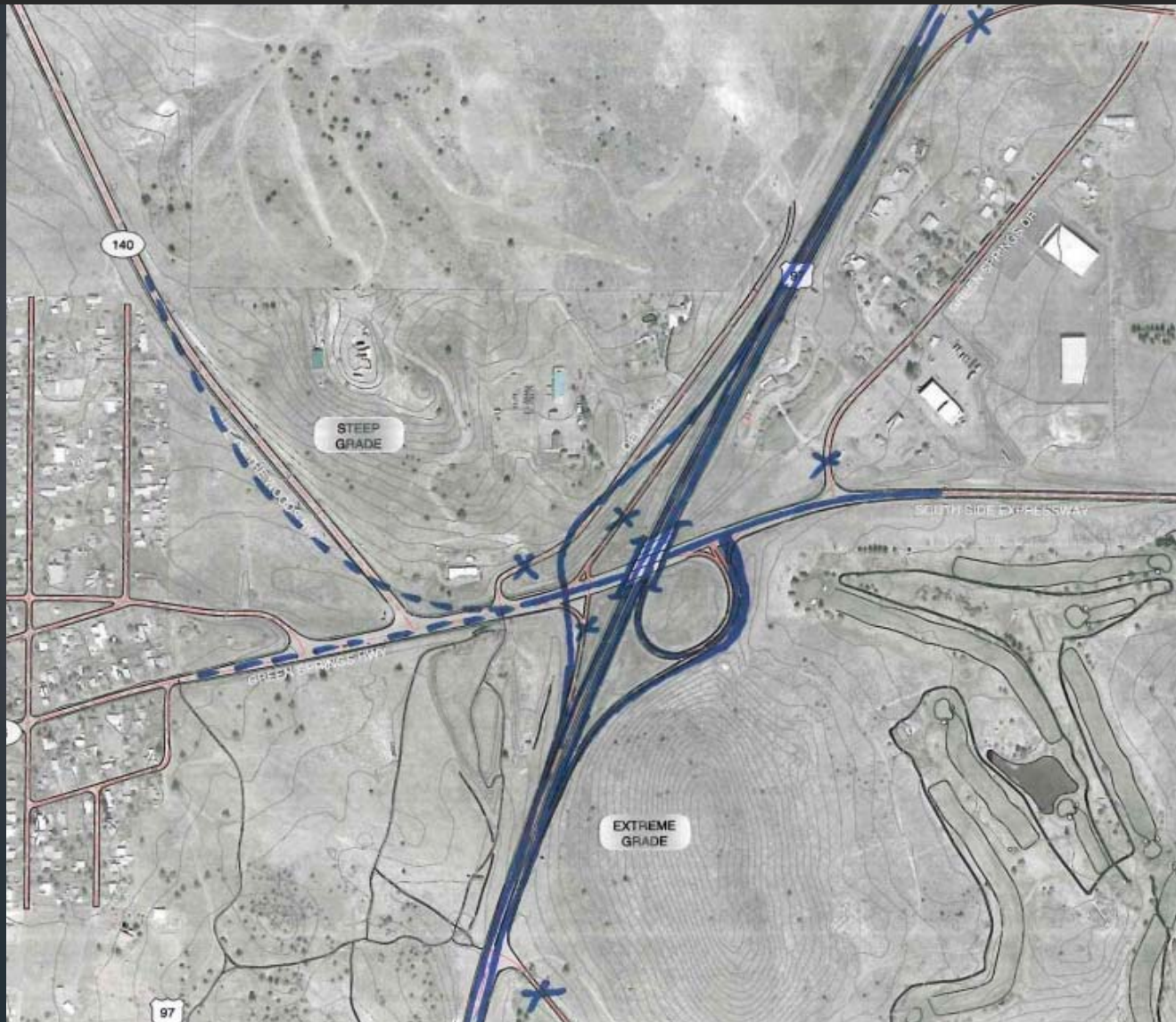


# Interchange Concepts



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# Interchange Concept 3A– Existing Interchange



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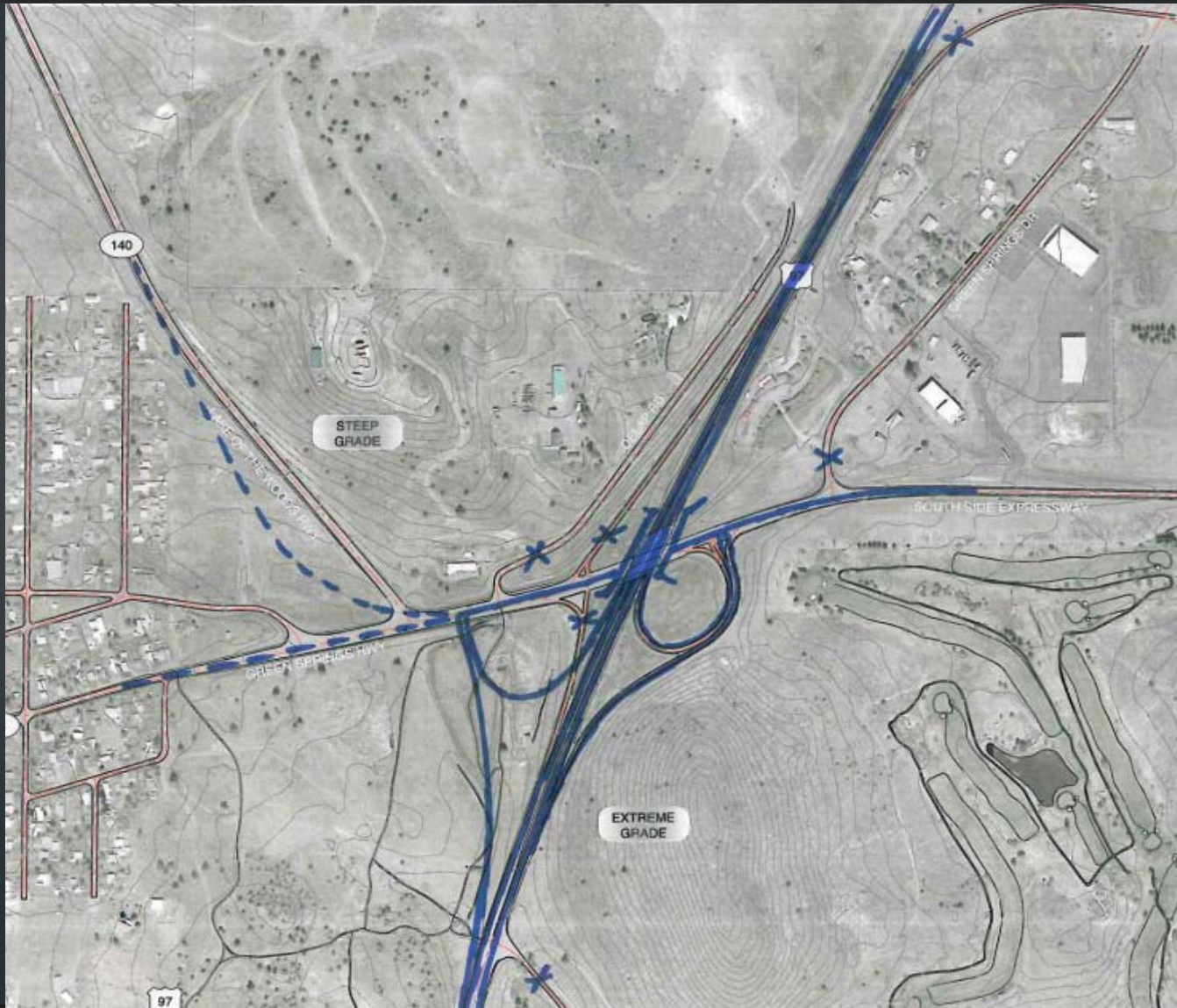
# Interchange Concept 3B– Diamond



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# Interchange Concept 3C– Partial Cloverleaf



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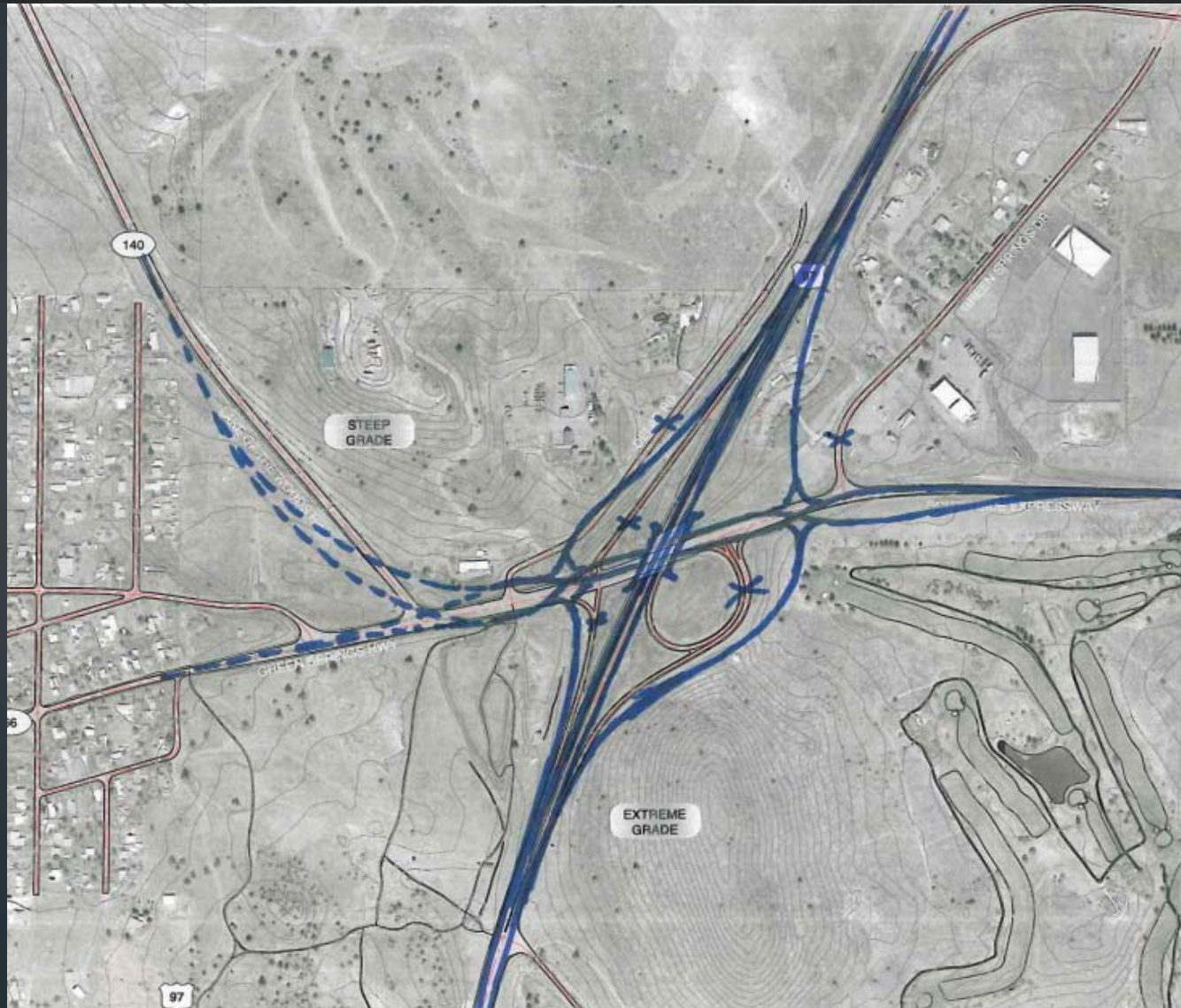
# Interchange Concept 3D – SPUI



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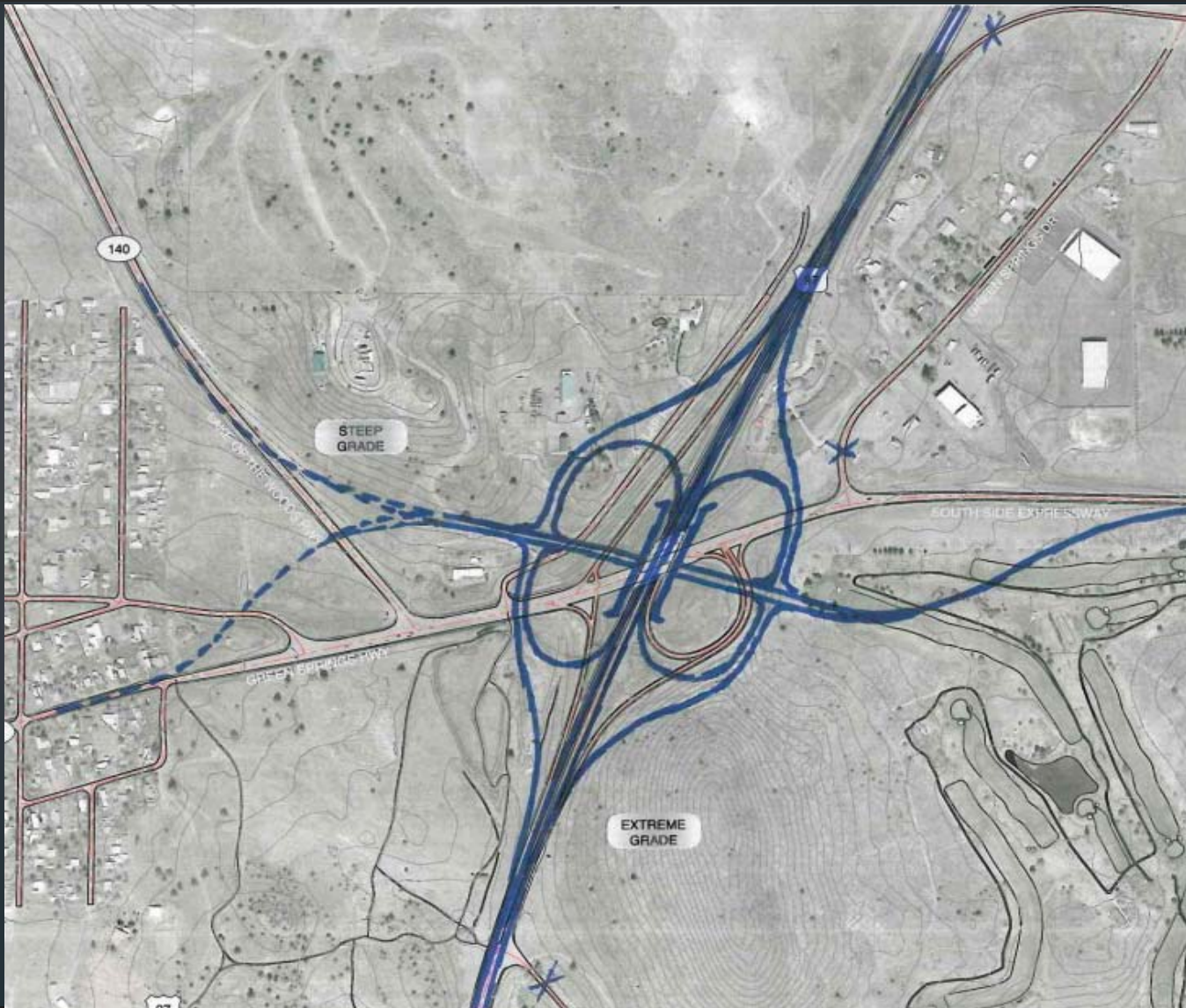
# Interchange Concept 3E– Diverging Diamond



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# Interchange Concept 3F – Full Cloverleaf



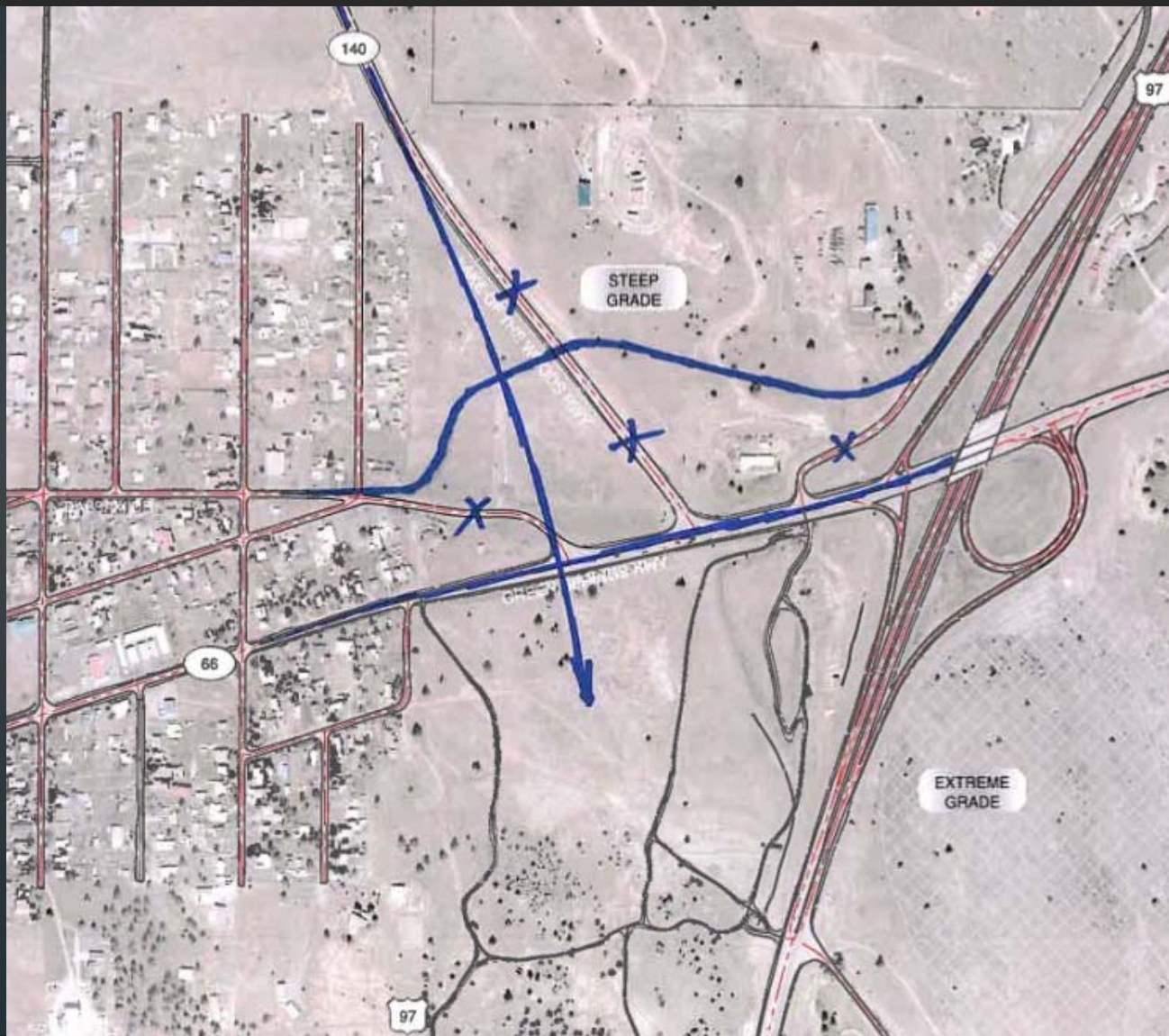
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# West of Interchange Concepts



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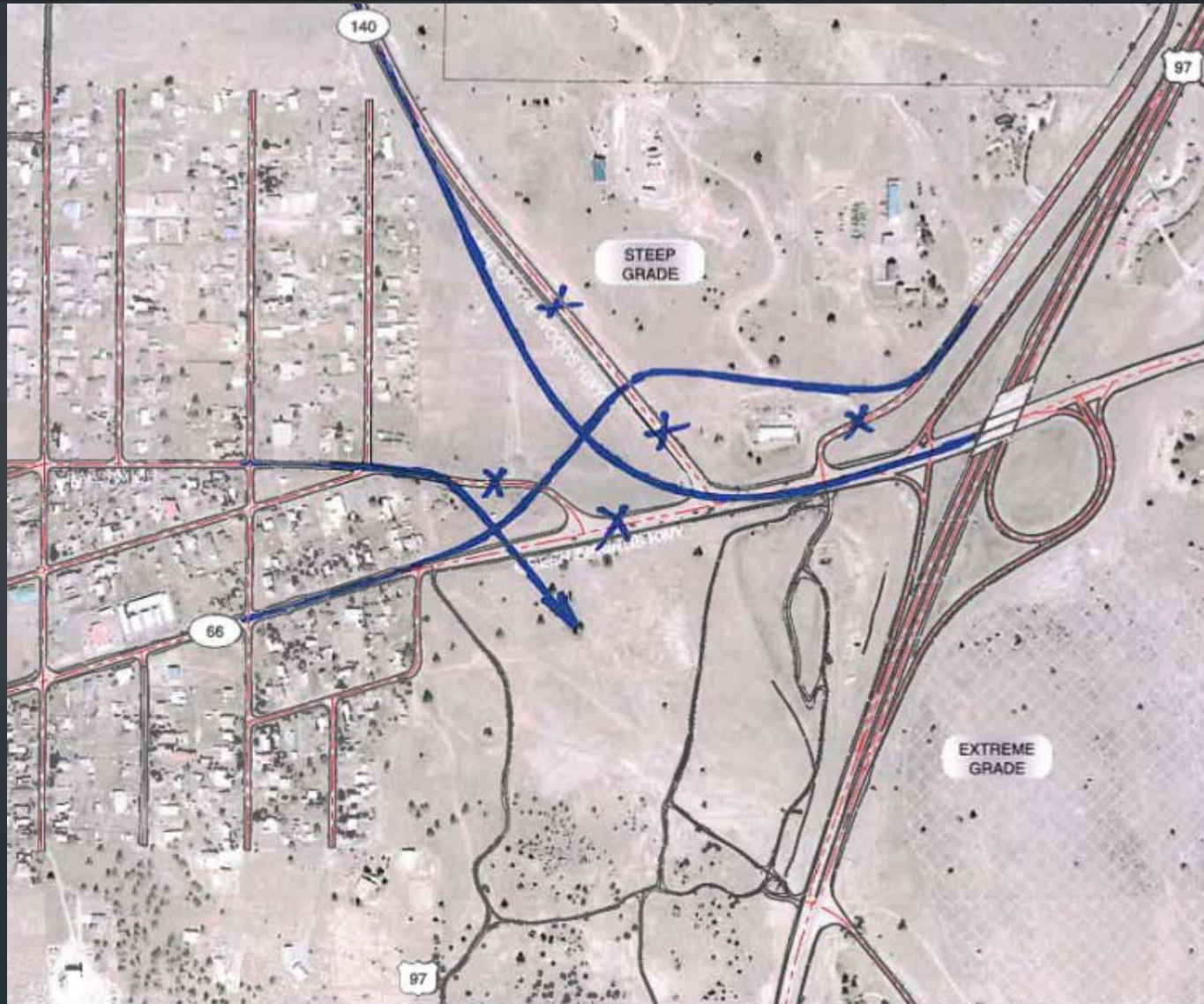
# West Side Concept 1A – Realign OR 140



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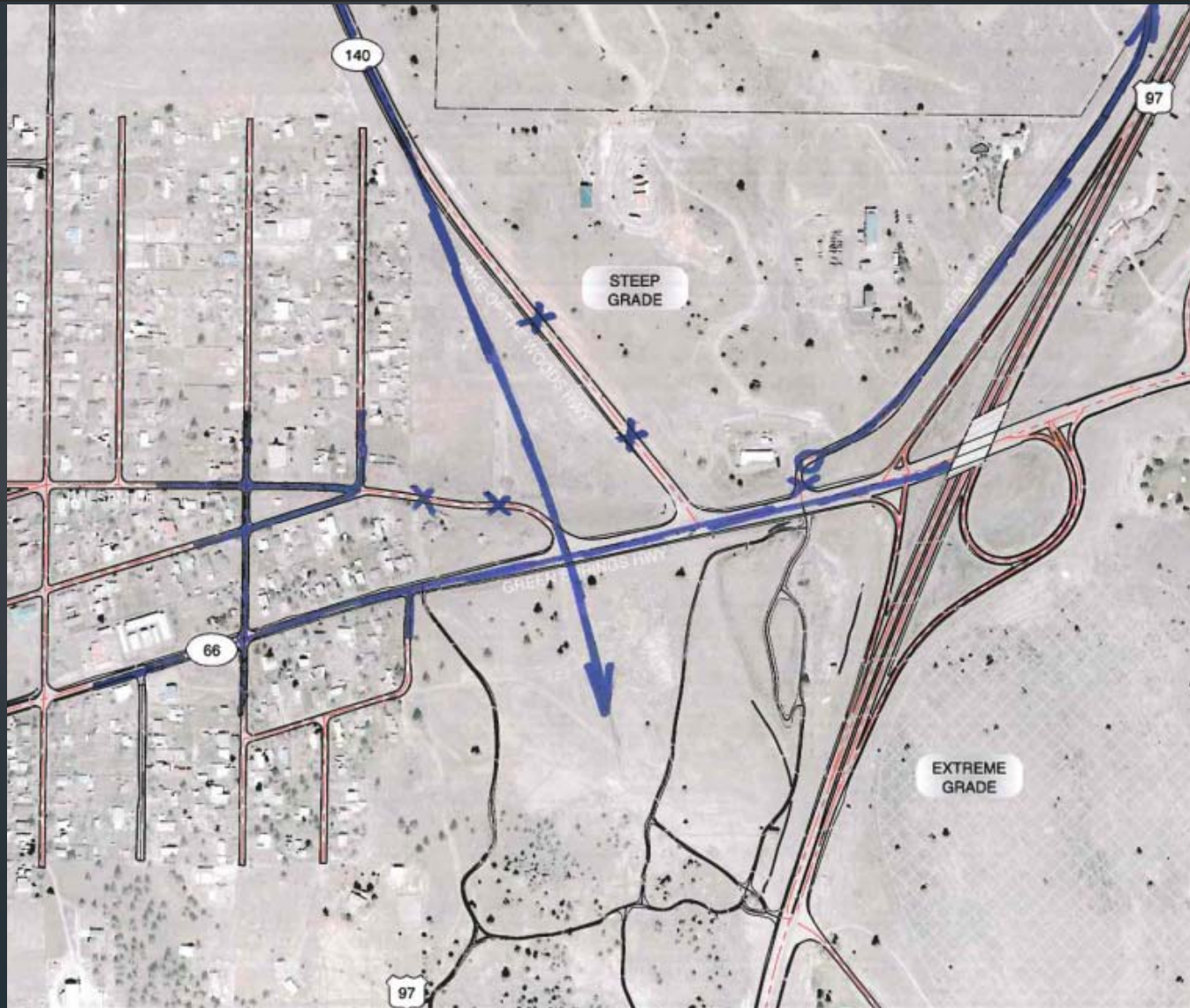


# West Side Concept 1A – Orient OR 140 as Through Movement



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# West Side Concept 1C – Realign OR 140 & Disconnect Delap & Balsam



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# East of Interchange Concepts



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# East Side Concept 2B – Realign Greensprings & Memorial



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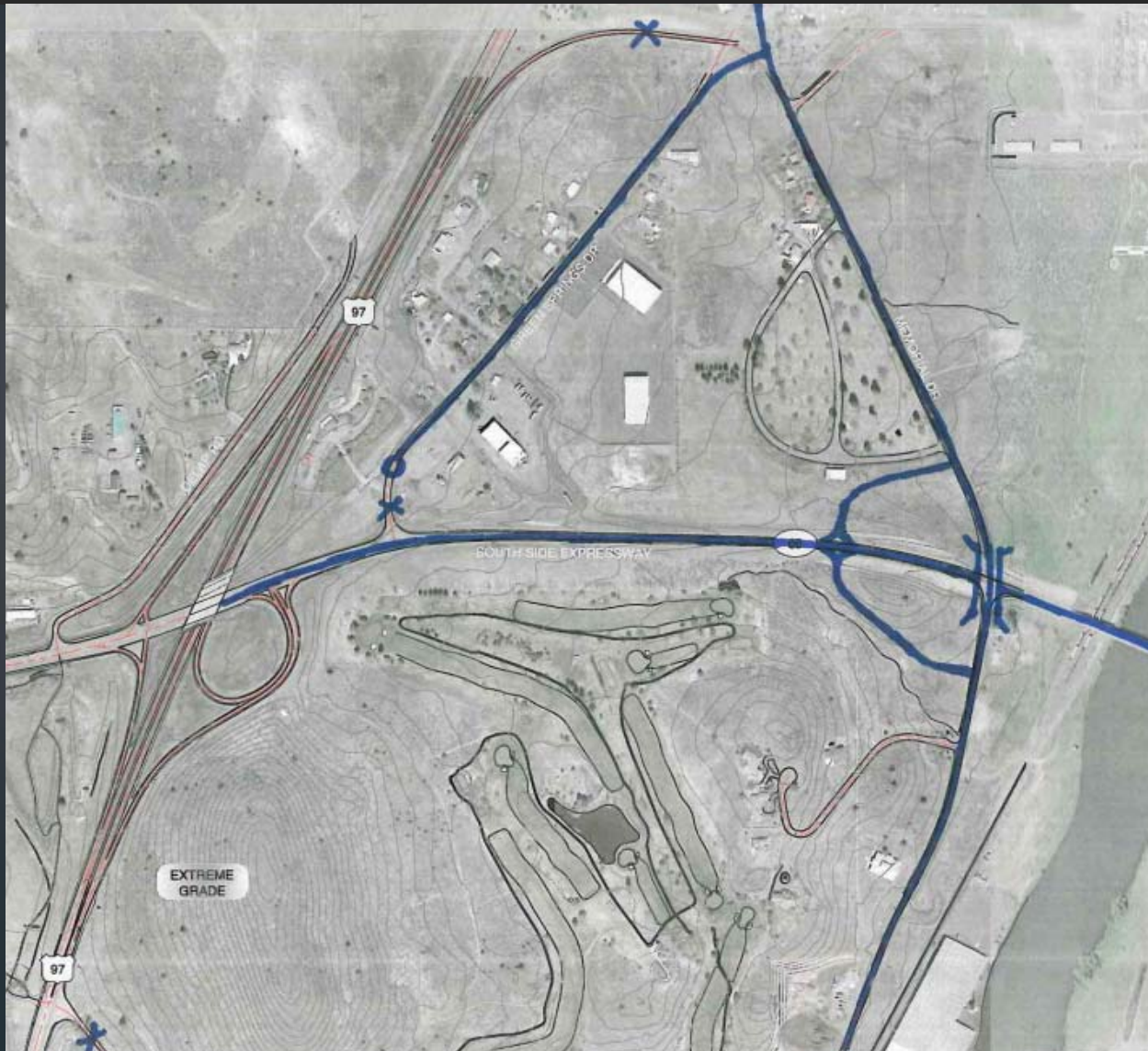


This aerial map illustrates the proposed and existing road network for the South Side Expressway interchange area in San Francisco. The map includes the following features:

- Proposed Roadways:** Indicated by thick blue lines, showing the main alignment of the South Side Expressway and its connections to existing infrastructure.
- Existing Roadways:** Indicated by thin red lines, showing the current road network and interchange structures.
- Stationing:** Numerical markers (e.g., 1+00, 2+00, 3+00) are placed along the proposed road alignment to indicate specific locations.
- Topographic Features:** Contour lines are overlaid on the map to show the terrain's elevation and slope.
- Key Labels:**
  - SOUTH SIDE EXPRESSWAY:** The primary project name, centered horizontally across the middle of the map.
  - EXTREME GRADE:** A label in a white box pointing to a specific area of the terrain, likely indicating a challenging construction site.
  - San Francisco:** The city name is visible in the upper right quadrant of the map.
  - Highway Markers:** Shields for Highway 97 are visible on the left side of the map.
- Other Features:** The map shows various land uses, including residential areas with houses, commercial buildings, and a golf course in the lower right quadrant.



# East Side Concept 2D – Jughandle Interchange



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# Next Steps

- Upcoming Meetings
  - PT Meeting #5 – July
  - Public Workshop #2 – July
- Will discuss alternatives analysis and select preferred IAMP alternative





# Questions/Comments?

