

Capital Project Name	Meridian Creek Culvert Replacement
Objective Addressed	Resolve culvert misalignment. Increase system capacity.
Contributing Drainage Area	75.4 acres
Statement of Need	<ul style="list-style-type: none"> Existing culverts underneath Boeckman Rd. are not aligned with the natural creek alignment, which directs flow towards the structure at 6920 SW Boeckman Rd. Per Public Works Operations staff, during peak flows, the water surface elevation is noted to be only 2-3 inches from the structure foundation. Existing culverts are undersized for future development conditions for the contributing drainage area.
Project Description	<ul style="list-style-type: none"> Remove the two existing 18-inch CMP culverts underneath Boeckman Rd. Install three 24-inch C900 culverts underneath Boeckman Rd. Install new culverts with revised alignment that avoids directing flow towards 6920 SW Boeckman Rd. by extending the culvert length beyond the property boundary. Abandon the two existing laterals and outfalls that convey roadway drainage to Meridian Creek on the southern side of Boeckman Rd. Reconnect roadway drainage to the new culverts with new laterals and manholes.
Estimated Total Project Cost	\$471,000
Design Considerations	<ul style="list-style-type: none"> Capital project sizing based on compliance with the City's Public Works Standards for culvert design. Key elements include: <ul style="list-style-type: none"> Conveyance of the 100-year, 24-hour design storm, for unmitigated future land use conditions. Minimum 1 foot of clearance between the maximum headwater elevation of the design storm event and the road subgrade. Minimum 1 foot of pipe cover for C900 pipe material. Capital project to be completed as part of the Boeckman Road Corridor Project. Road resurfacing costs assumed to be included as part of that project. Existing roadway elevations and invert elevations of culverts assumed to remain unchanged. A detailed survey of existing infrastructure, other utilities, and roadway elevations should be completed prior to final design. Oregon Department of Fish and Wildlife (ODFW) fish passage requirements assumed to be not required for this project. In-stream waterwork associated with this project may require additional permitting efforts.

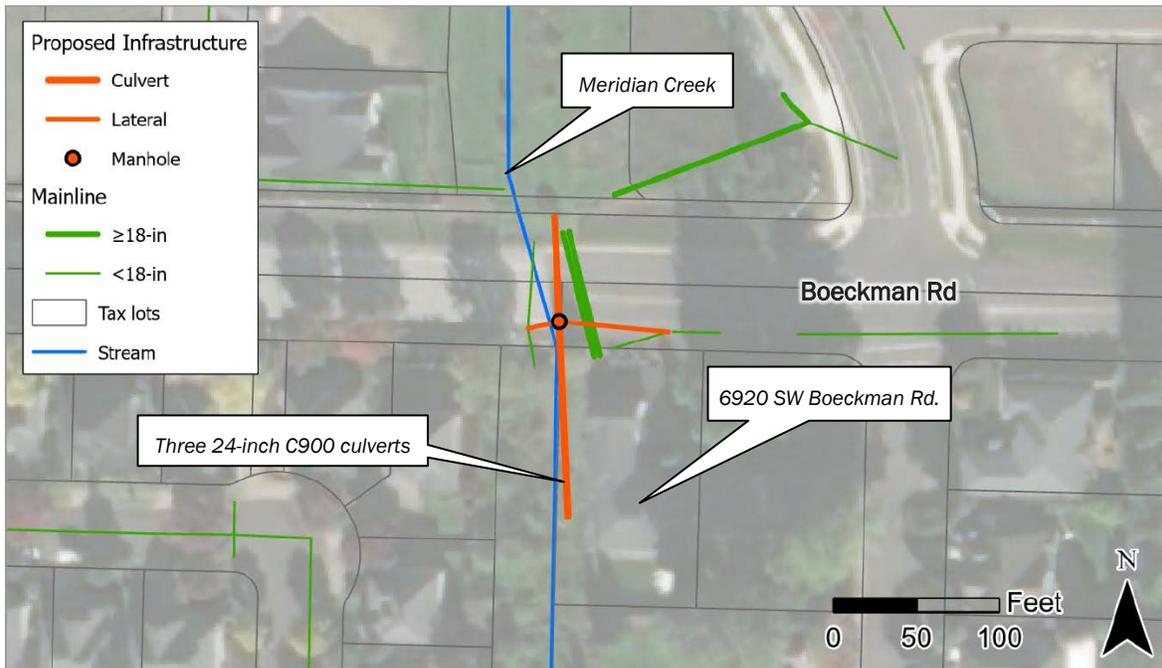


Figure X-X. Meridian Creek Culvert Replacement