

# Rancho Cordova

Case Study.

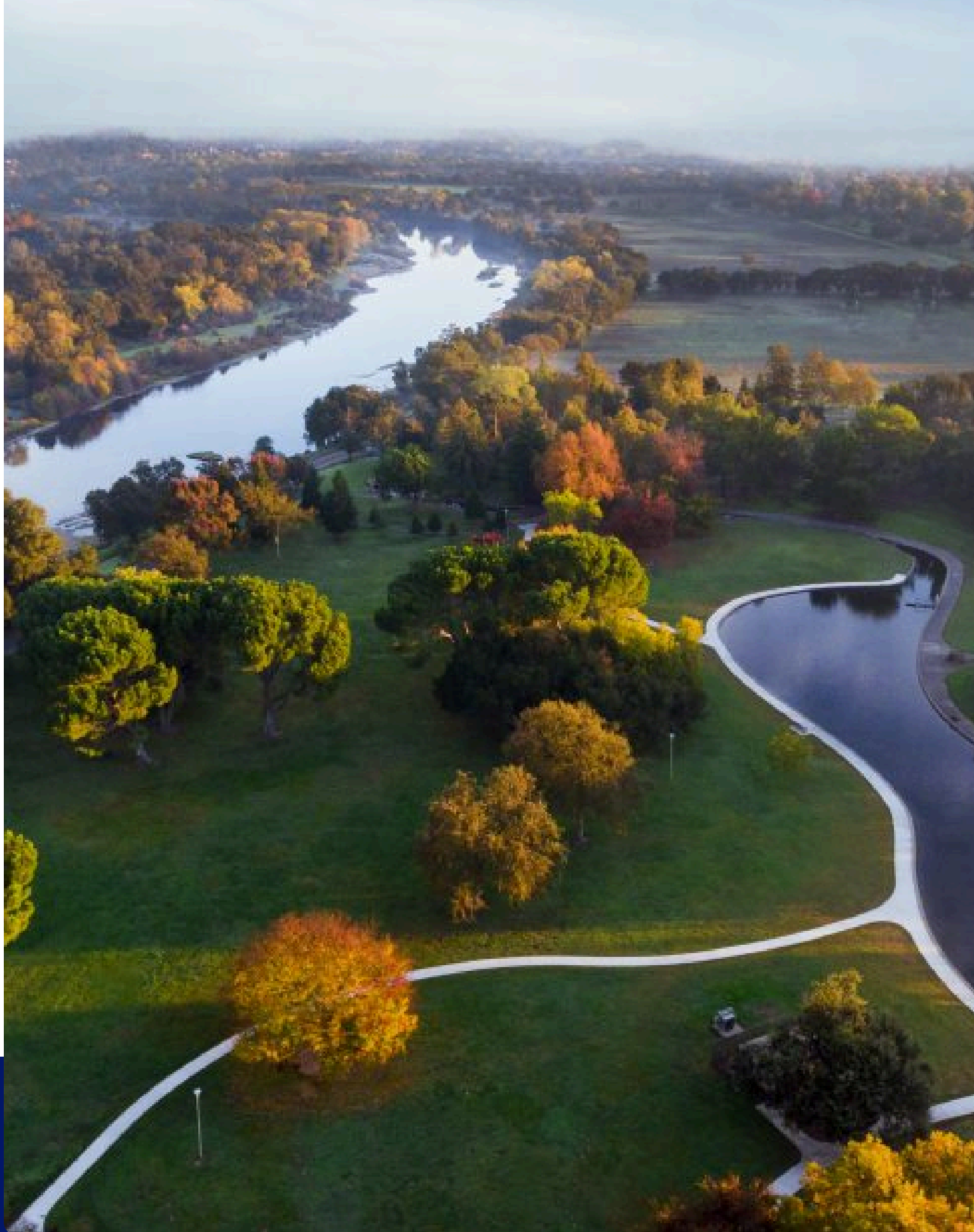
Rolling out a 10 Gig fibre city-wide network to over 80,000 people.



# Project Overview

Rancho Cordova is a city in Sacramento County, California, in the US, which was founded in 2003. It is part of the Sacramento Metropolitan Area and is forty miles North-West of Los Angeles with a population in excess of 80,000 people.

**Population:** 80,000+  
**Location:** California



# The Challenges

Given the geography, the project had several challenges. Set in a valley between two hilly and mountainous areas of brush-covered wildlands north-west of Los Angeles, the City of Rancho Cordova faces multiple risks from natural hazards including wildfires, earthquakes, and floods.

The design therefore needed to consider these natural hazards and mitigate any risks as far as possible.

Prior to this project businesses and residents had limited access to available and affordable broadband services. A new superfast fibre network was needed in order to improve the digital experiences for residents and to help generate business development and growth. This would in turn retain and attract talent that comes with increased growth opportunities.

## **Complex projects simplified**

Using a single point of contact approach and guided by Prince 2 project management methodologies, NetPMD provided vital documented confidence to the project team.

Using our experienced team of designers who had already delivered projects across other key US states, we used our tried and tested modular programme to progress the city design from initial feasibility right through to a complete engineering design – ready for construction and service integration.

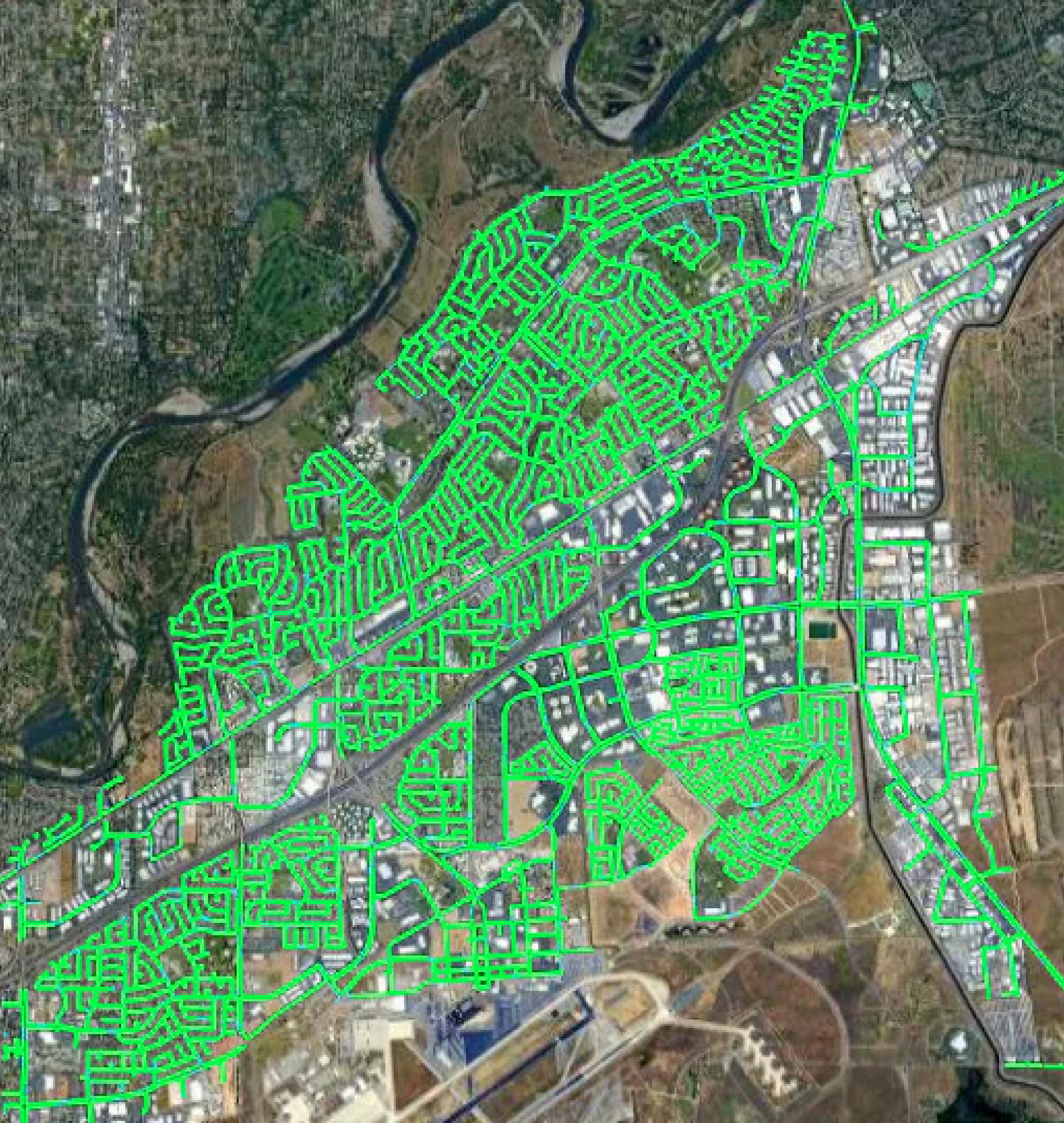
# The Solution

A future proofed 10gig fibre capable network and build, from feasibility through to integration for residences and businesses. This included an Active network infrastructure build and the handover to the network operator as part of the project.

The solution is citywide, meaning we pass every home and business, enabling households and businesses the opportunity to connect, further helping to close the digital divide.

***“The City of Rancho Cordova is thrilled to be”  
breaking ground today on the Rancho Cordova  
Fiber City project in partnership with SiFi Networks  
and GigabitNow to provide citywide access to the  
nation’s fastest internet speeds and to bring  
equitable access to broadband. This citywide fibre  
network will further build on our Smart City  
capabilities.”***

Donald Terry, Rancho Cordova’s Mayor.



Working on behalf of SiFi Networks and following their FiberCity™ blueprint, NetPMD were brought in to oversee the design and integration of the fibre network, benefitting over 35,000 homes and businesses.

From initial feasibility and design, we needed to take into consideration the day one requirements as well as future growth and city requirements for homes and businesses. A large development was being planned so the design needed to allow for this growth.

Due to the geography (being set in a valley between mountainous areas), there were a several natural hazards that influenced our design approach that needed to be mitigated. Our report also included suggested core equipment locations.



We oversaw the full design cycle from the feasibility study to the detailed engineering design of the citywide, 10 gig enabled, fibre optic network.

A rapid analysis provided an approximate construction distance serving a defined set of addresses, including 23,000+ fibre endpoints.

We also identified third-party provider carriers to provide a diverse dark fibre backhaul to connect the city network to the existing redundant data centres.

Now that the city is under construction, our integration services are configuring the active optical equipment, including full project management and handover documentation.

# The Benefits

Ben Bawtree-Jobson, CEO, SiFi Networks said, ***“Rancho Cordova’s city-wide program will provide an open access network in order to support the city’s future digital endeavours. NetPMD provided design, integration and project management Services that enabled this and were a key partner in helping us deliver against this objective”.***



**35000+**

Homes and businesses



**23000+**

Fibre endpoints



As the first open access network in Northern California and one of the first all-fibre networks in the state, this solution will futureproof the area for the next generation and bring more choice of providers. It will boost the economy and enable Smart City applications, making for a great city to live, work and play in.

The network is open access, allowing residents a range of broadband suppliers to choose from bringing competitive pricing. Residents also benefit from increased job opportunities, better access to healthcare and educational resources and a much-improved home working and learning experience.

Residents with superfast connections, benefit from simultaneous upload and download speeds. Households are now able to stream content from multiple devices at one time with no impact on individual experiences. For businesses, having solved the issues around latency, connectivity, and slow bandwidth speeds that were making video meetings impossible, the superfast connection within Rancho Cordova is really helping to attract new and retain existing businesses in the area.

