COS Sustainability & SmartCOS

Ryan Trujillo
Director of Support Services

A little about me

Message from Mayor Suthers

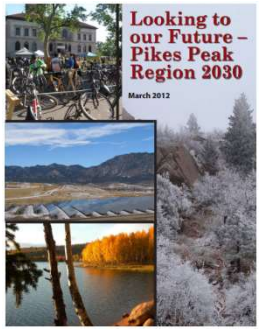
https://www.facebook.com/MayorofCOS/videos/711998809263214/

COS Sustainability Overview

Jan 2016

Re-launched COS Sustainability

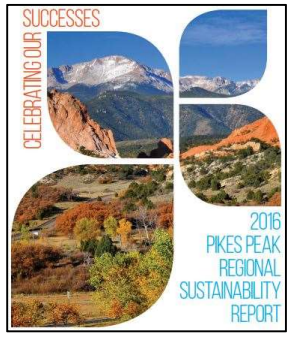
Jun 2016



City Adopts PPR 2030

Sep 2016

PPR 2030 Report



Apr 2017

Inaugural Event

May 2017

Sustainacenter Ribbon Cutting

Nov 2017

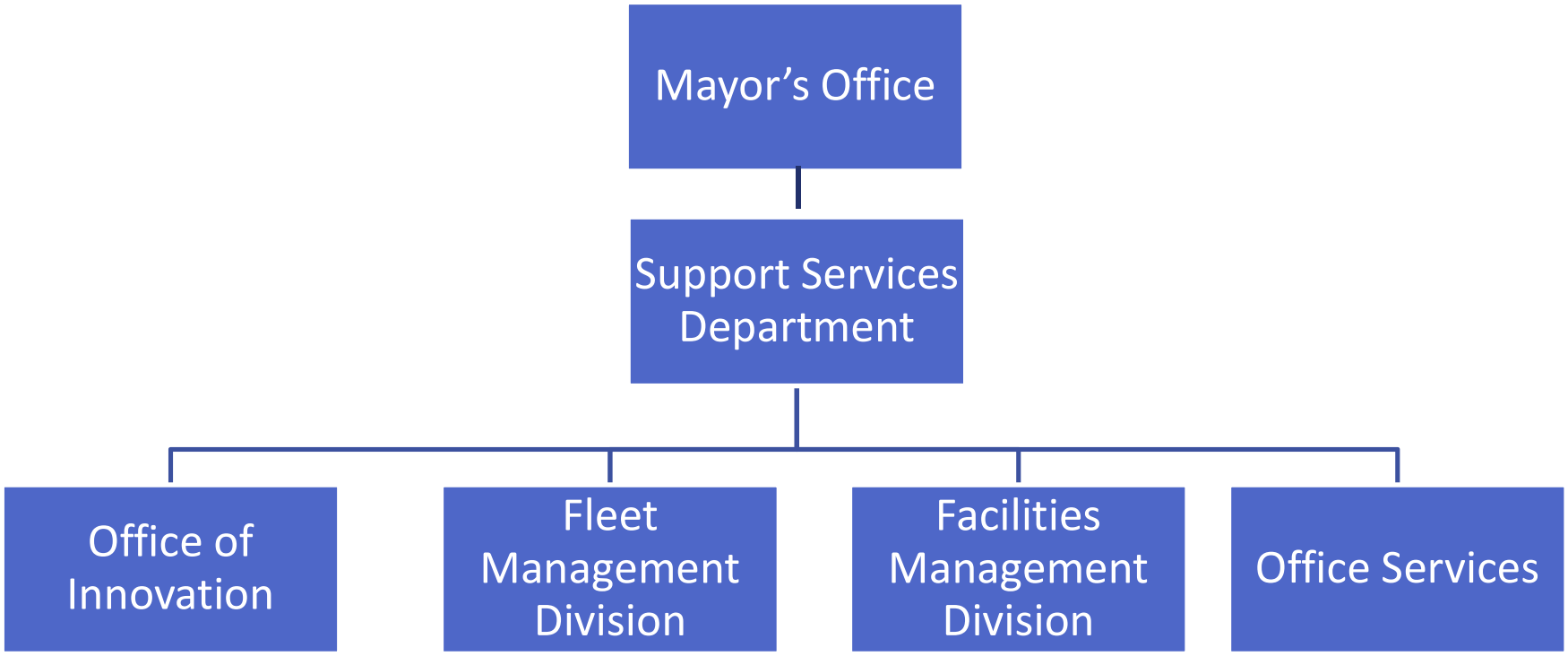
Launched SmartCOS

Apr 2018

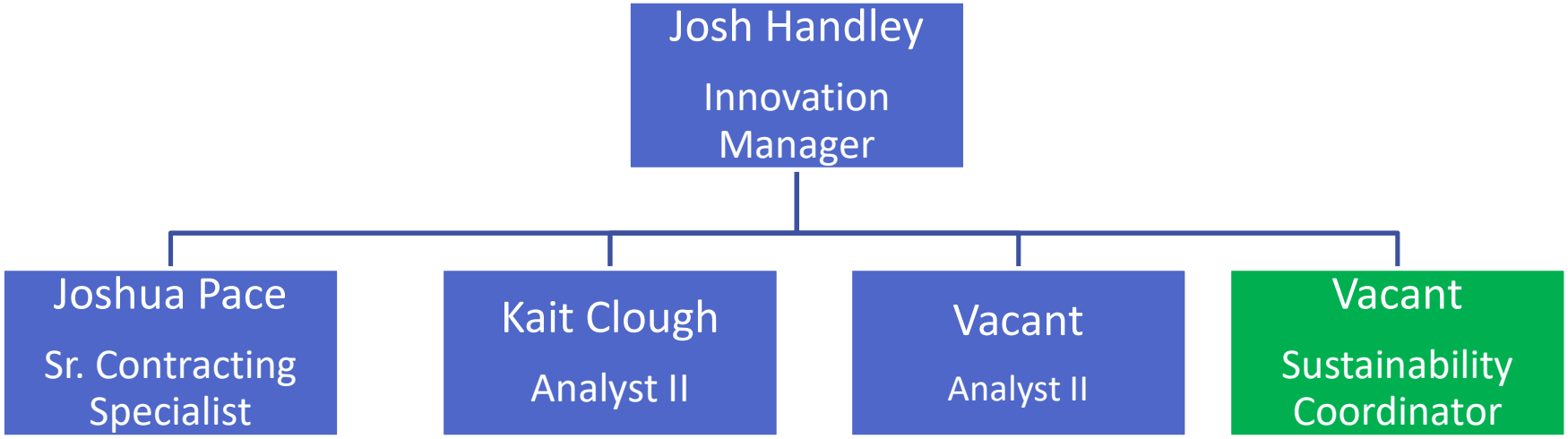
Apr 2018

Mid-Shooks Run Community Garden

Organizational Structure



Office of Innovation & Sustainability



Key Functions:

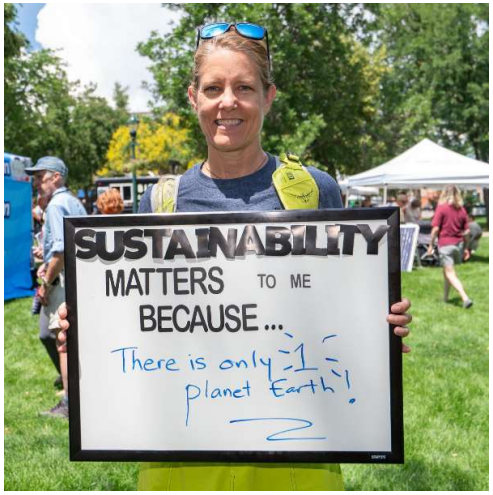
– COS Sustainability Program

– SmartCOS – Smart Communities Program

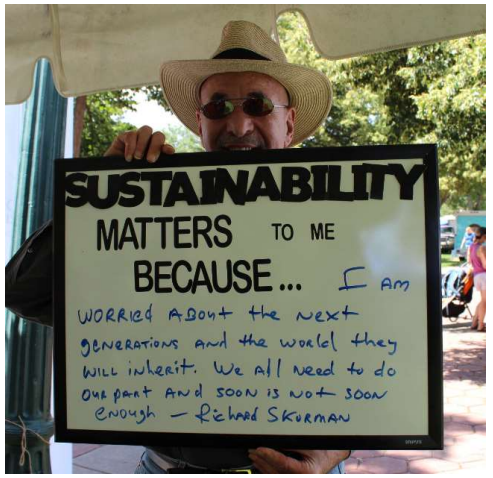
– Telecommunications

SUSTAIN-A-FEST

COLORADO SPRINGS
OLYMPIC CITY USA



- Over 4,000 attendees
- 55 participating organizations
- Live, local music
- Kid Zone



SUSTAIN-A-FEST

COLORADO SPRINGS
OLYMPIC CITY USA

SUSTAIN-A-FEST

COLORADO SPRINGS
OLYMPIC CITY USA

2019 Photo Challenge

COLORADO SPRINGS
OLYMPIC CITY USA

City Hall Water Wise Landscaping Demonstration

https://youtu.be/f0CC3cp8Ydw

Sesquicentennial Tree Challenge

- Founded in 1871
- City turns 150 years old on July 31, 2021
- Challenge: 18,071 New Trees Planted

https://coloradosprings.gov/tree150

https://youtu.be/xhrbzF69P8E

Community Education & Engagement

COLORADO SPRINGS
OLYMPIC CITY USA

PlanCOS

- **Chapter 3 – Sustainable & Resilient Places (Goal 5)**
  - Develop and support unique places and centers as models of resilience and sustainability

- **Chapter 4 – Embrace Sustainability (Goal 4)**
  - Focus on productively developing and redeveloping areas already in, nearby, or surrounded by the city in order to preserve open spaces, maximize investments in existing infrastructure, limit future maintenance costs, and reduce the impacts of disinvestment in blighted areas.

Mountain Metro Transit Electric Buses

COLORADO SPRINGS
OLYMPIC CITY USA

- 100% low or no-emissions fleet by 2035
- Awarded grant to purchase their first of three electric buses in 2021

Great American Clean-up & Storm Drain Art

COLORADO SPRINGS
OLYMPIC CITY USA

KEEP AMERICA BEAUTIFUL

GREAT AMERICAN CLEANUP

KAB.ORG

https://youtu.be/3FHjkKzbcZE

https://youtu.be/HO1NbRH5tPE

Public Arts Master Plan

– *"Cities gain value through public art – cultural, social, and economic value. Public art is a distinguishing part of our public history and our evolving culture. It provides an intersection between past, present and future, between disciplines, and between ideas. Public art is freely accessible."*

https://coloradosprings.gov/publicartcos

City Nature Challenge

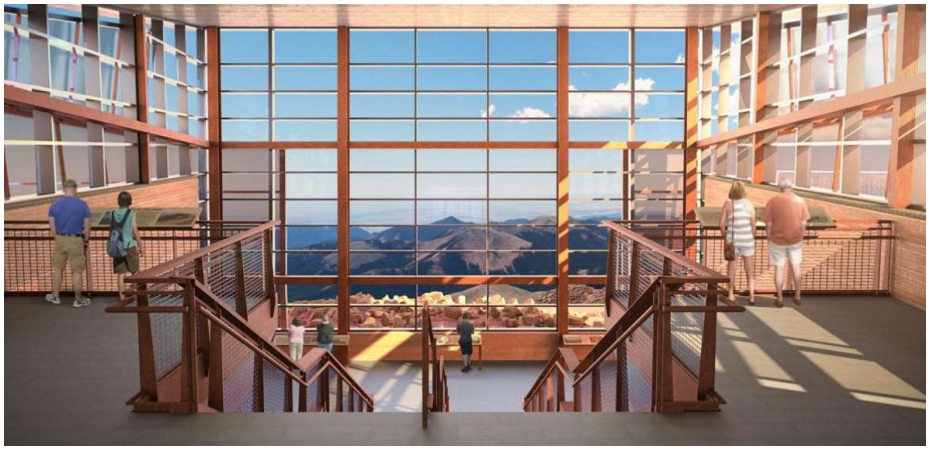
- Global City Challenge to see who can make the most observations of nature, find the most species and engage the most people
- Find Wildlife -> Take a Picture -> Share

https://youtu.be/yxb5nisiY8w

Pikes Peak Summit House

COLORADO SPRINGS
OLYMPIC CITY USA

– Living Building Challenge – Prestigious Sustainability Design



Energy Vision / EIRP

“Provide resilient, reliable and cost-effective energy that is environmentally sustainable, reduces our carbon footprint and uses proven state of the art technologies to enhance our quality of life for generations to come”

KOAA.COM

New solar energy facility to supply power for Colorado Springs Utilities

The Plan Ahead

– Pikes Peak Region 2030 Action Plan

- Supplemental plan to PPR 2030
- Review, validate, update focus areas goals
- Regional plan that solicits commitments from organizations throughout the region (public & private)
- Ways to get involved coming soon

Fort Carson Autonomous Vehicle Pilot Project

Fort Carson soldiers could catch a drone bus to the barracks next year

Fort Carson troops will be able to ride around the post on a pair of robotic buses next year under a first-of …

The Gazette · 11d

SmartCOS

SmartCOS: A Smart Community Program focused on developing and implementing emerging technology projects to improve city services, drive economic development and improve quality of life

Government / Public Partners

Non-Profit Partners

Colorado Springs Utilities

COLORADO SPRINGS
OLYMPIC CITY USA

Colorado Communications and Utility Alliance

usignite

UNITED STATES OLYMPIC & PARALYMPIC MUSEUM

NCC NATIONAL CYBERSECURITY CENTER

COLORADO SMART CITIES ALLIANCE

DOWNTOWN COLORADO SPRINGS

CATALYST CAMPUS FOR TECHNOLOGY & INNOVATION

Colorado Springs CHAMBER & EDC™

Private Sector Partners

NOR'WOOD

SmartCOS Overview

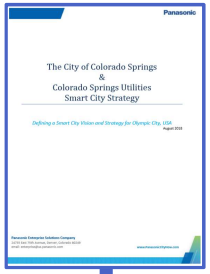
Strategy Development

Pilot Implementation Phase

November 2017
Ideation Summit

January 2018
Proclamation

August 2018
Smart City Strategy



November 2018
Smart District Tech Options

Q4 2019
Smart Streetlights

Q4 2019
FirstNet

Q1 2020
EV Readiness Plan

Q2 2020
Micro-grid

2020
Smart District

Smart Streetlight Pilot Project

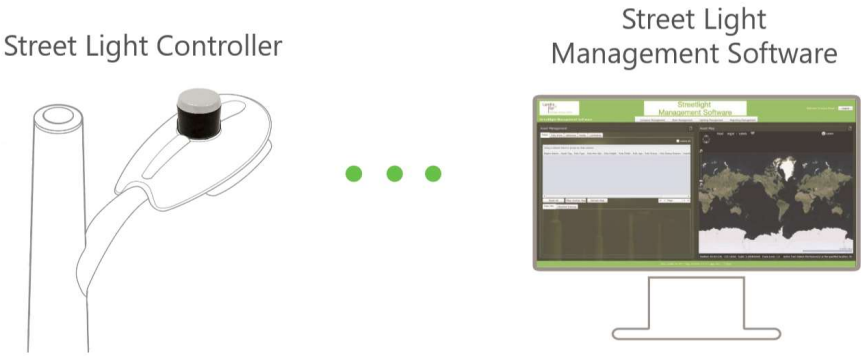
- Partnership between Colorado Springs Utilities, Panasonic CityNOW, Landis & Gyr, Verizon, Campbell Scientific
  - Includes controllable sensors, IoT devices, wireless network(s), project oversight
- This project has two key components
  - Controllable Streetlights
  - Snow Depth Sensors (IoT devices)

Smart Streetlight Pilot Project

Colorado Springs Utilities

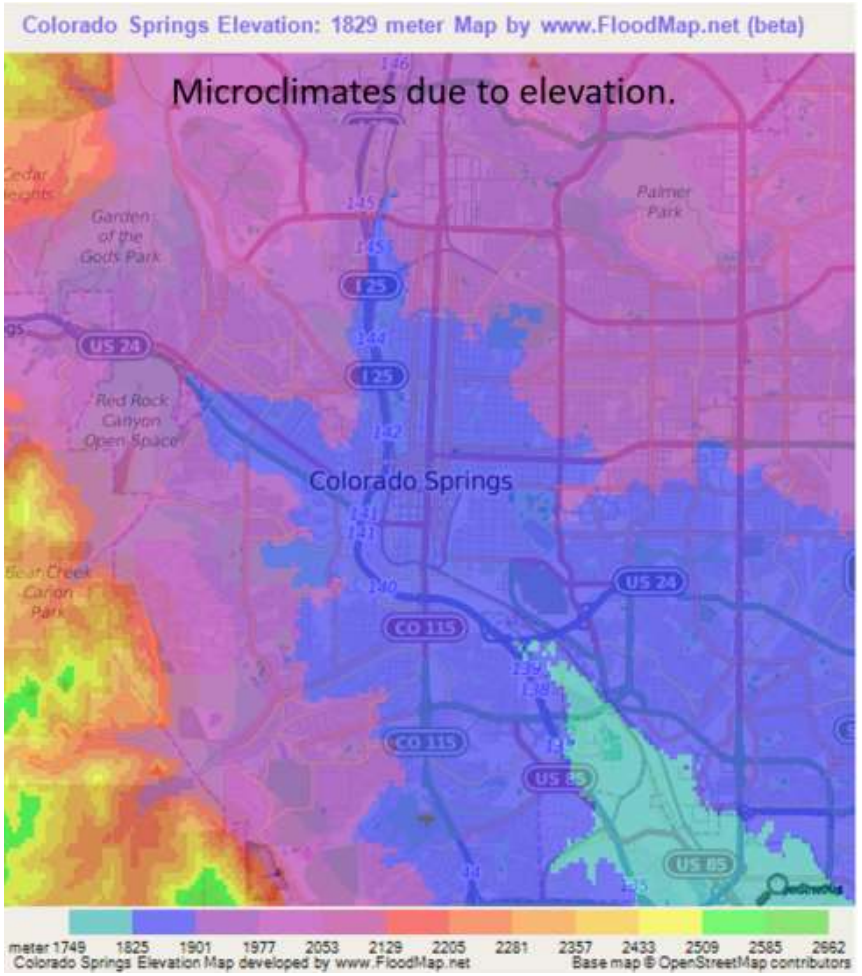
COLORADO SPRINGS OLYMPIC CITY USA

- Controllable Streetlights Use Case:
  - Improve the overall operational efficiency of the municipal streetlight program
    - » Maintenance costs
    - » Pro-active instead of reactive
    - » Improved lighting on roadways
    - » Reduced electricity consumption



Smart Streetlight Pilot Project

- IoT Deployment – Snow Depth Sensor
  - Better inform the public about the snow hazards and conditions
  - Better inform our internal operations on snow depth and surface temp

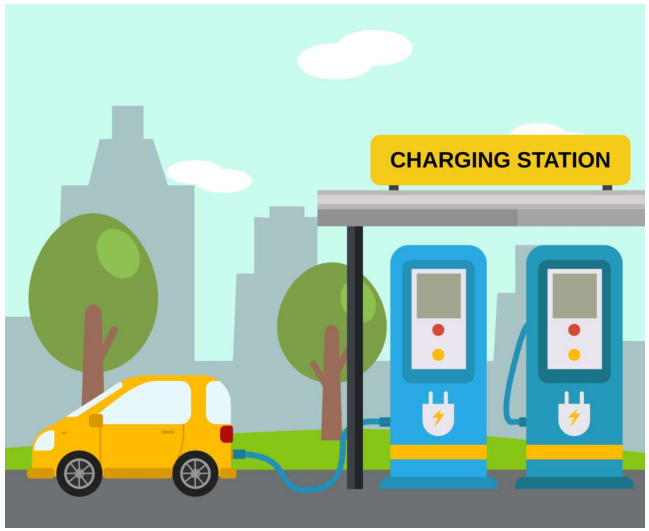


FirstNet

- Partnership with FirstNet Network Authority & AT&T
- Dedicated wireless cellular network dedicated to first responders in the City of Colorado Springs

Electric Vehicle Readiness Plan

- Partnership between Colorado Springs Utilities and the City of Colorado Springs
- Awarded $200k from the State of Colorado Department of Local Affairs
  - Internal EV adoption
  - EV charging strategy
  - Utility rate recommendations
- Launch Q1 2020

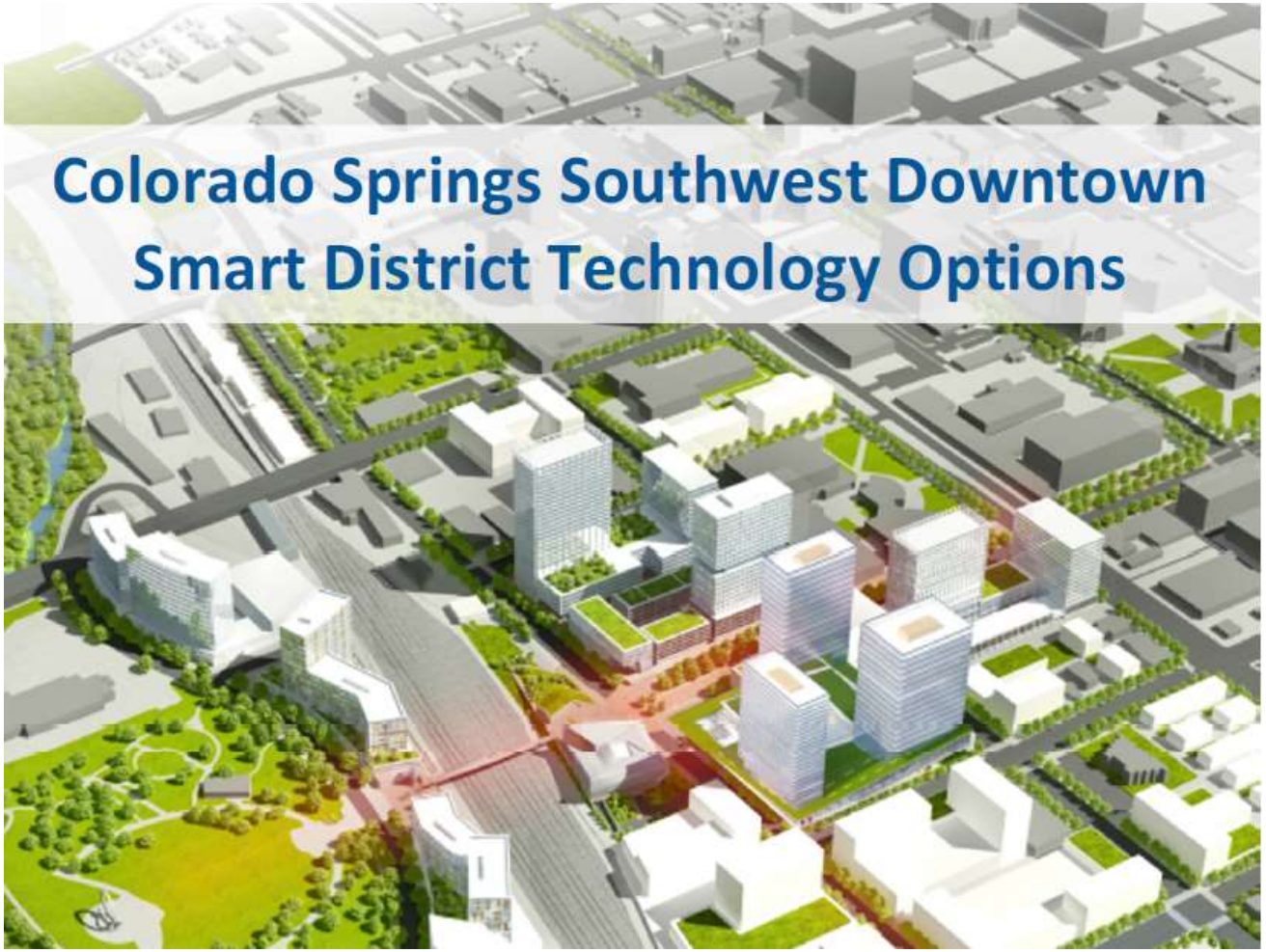


Micro-grid

– Municipal Courthouse

- Pilot project to analyze use case of energy resiliency, demand reduction, and system performance
- On-site solar generation with batter storage
- Potentially off-sets need for backup diesel generator
- Finalizing scope & estimated deployment in Q2 2020

Smart District Master Plan

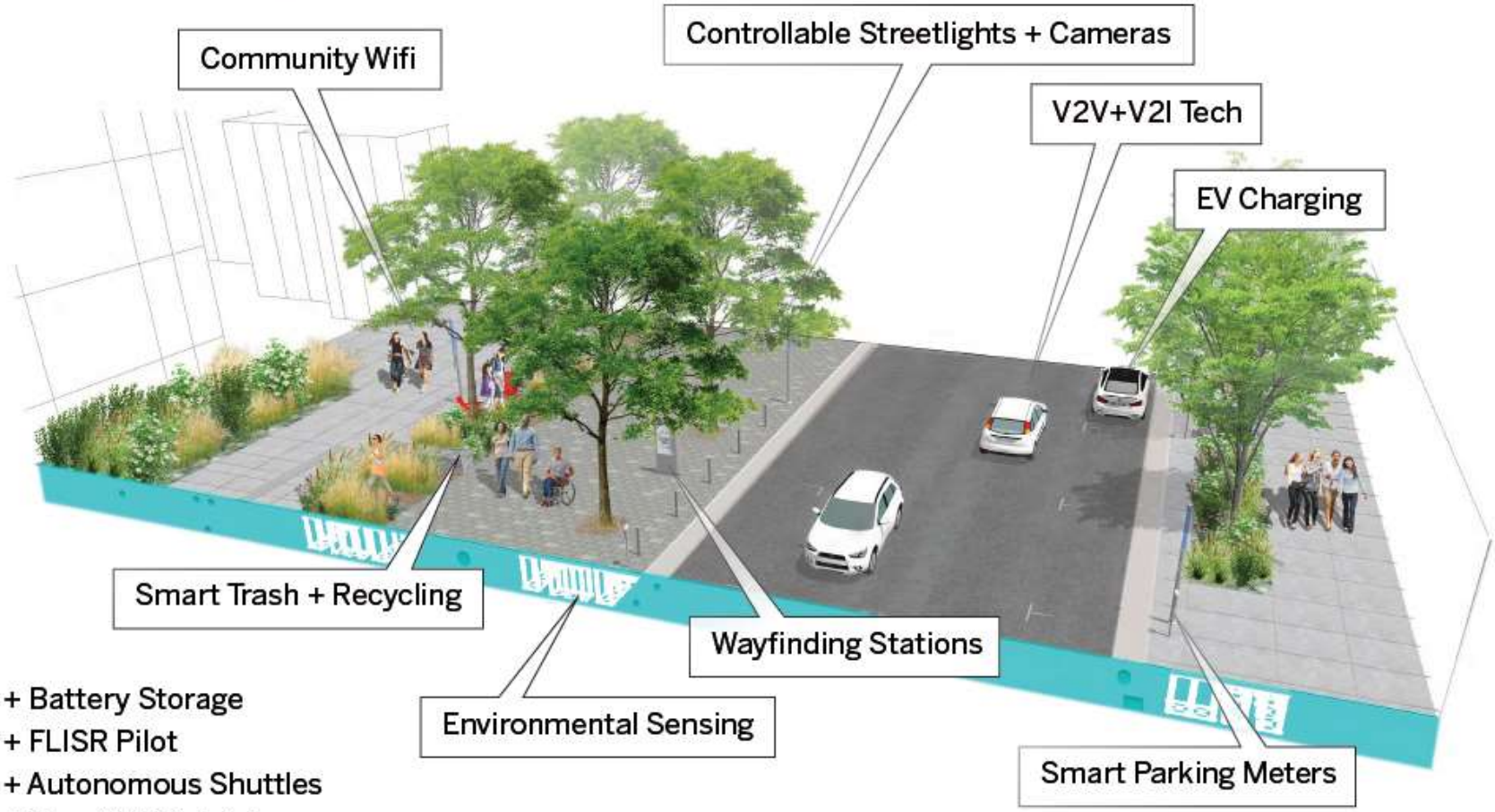


Smart District Master Plan

COLORADO SPRINGS
OLYMPIC CITY USA

SW Downtown Smart District

Project Features



+ Battery Storage
+ FLISR Pilot
+ Autonomous Shuttles
+ Transit & Ticket App
+ B-Cycle Bike Share

Thank you!

LIKE US ON facebook