



Putting The Smart Into Smart Cities

CONTACT: [INFO@INTELLISTREETS.COM](mailto:INFO@INTELLISTREETS.COM)

**Intellistreets is a brand of products by Illuminating Concepts**



**Made in Oakland County, Michigan**

Intellistreets is the only end to end street level solution that provides seamless connectivity to the digital backbone of a smart community.

### Community Engagement



### Sustainability



### Security





## 2021's Events Underline The Timeliness of Intellistreets



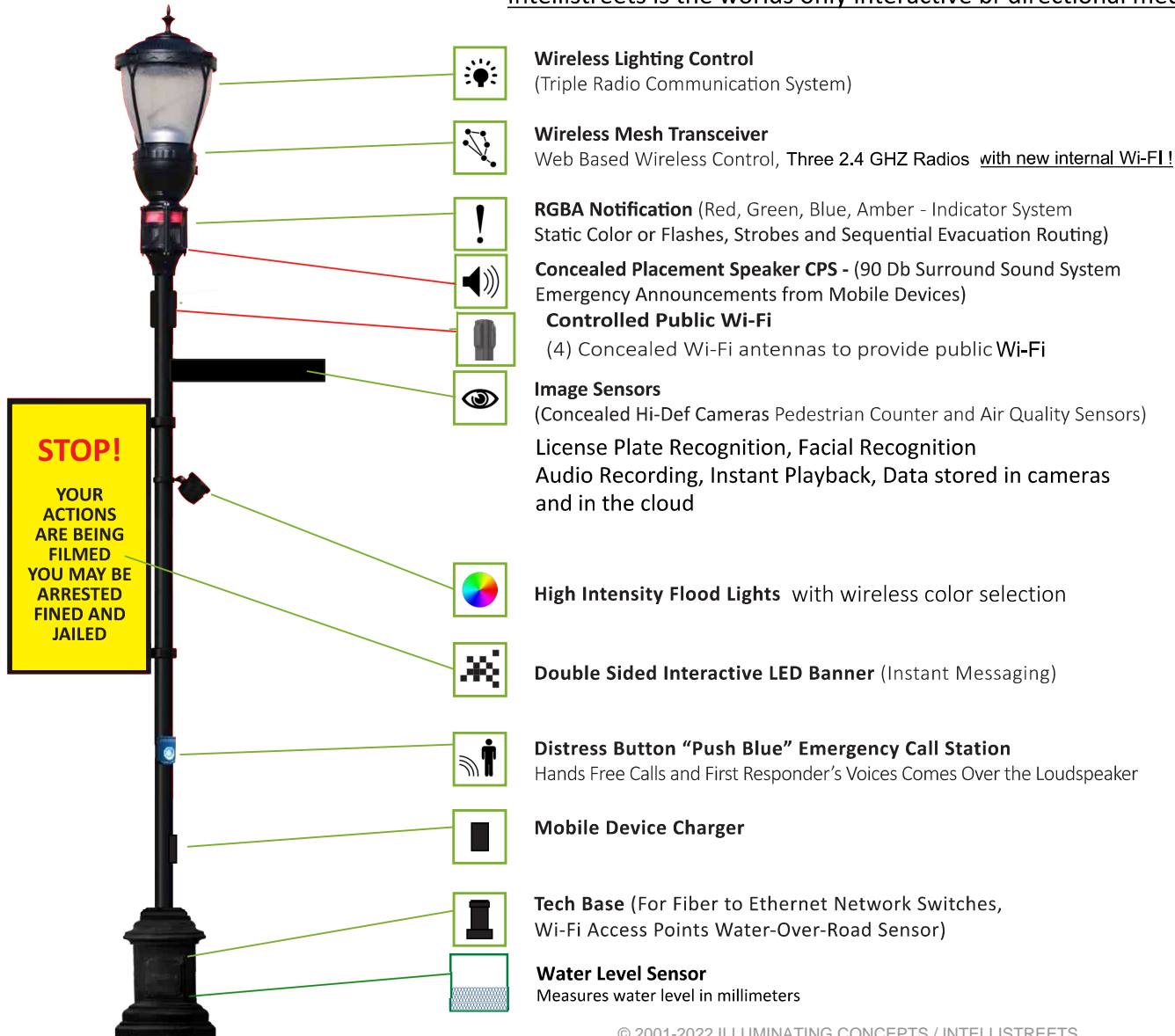
Timing is everything, and at this most urgent time in our lives the Intellistreets feature set delivers on the priority needs of communities today.

- Safety
- Security
- Emergency Alerts
- Communications Connectivity
- Traffic Control/Way-Finding
- Forces of Nature Warnings
- Content Delivery
- Energy Savings
- State-of-the Art Lighting
- Sustainability with Extended Efficacy



# Intellistreets Luminaires / The Evolving New Normal Has Doubled The Validity Of The Intellistreets Business Case

Intellistreets is the worlds only interactive bi-directional media system



A Wireless electronic homeland security system for new or retrofit conditions. Available for all lighting styles and all security applications



Made in Oakland County, Michigan



## Intellistreets Luminaires / Full System Features - with a Post Top Module (PTM)

All functions available for mobile devices, laptops or desktop computers



### Lighting Control

Photocell Control, 0-100% Dimming, On-Demand Light Levels



### Wireless Mesh Transceiver

Web Based Wireless Control with Three 2.4 GHZ Radios and new internal WI-FI



### Image Sensors

180° Cameras, Proximity Sensors, Pedestrian Counter, Homeland Security



### RGBA Notification

Indicator Light (Red, Green, Blue, Amber)



### Controlled Receptacle

Holiday Lighting, Vendor Carts



### Concealed Placement Speaker (CPS)

Music, Alerts, Announcements



### Wi-Fi System

(4) Concealed Wi-Fi antennas to provide public Wi-Fi (Wi-Fi AP Concealed Pole Base)



### Digital Signage

Way Finding, Traffic Direction, Alert Notification, Civic Information, Revenue Generation (via Advertising)



### Dynamic Lighting

Color Changing Flood Lights



### "Push Blue" Emergency Call Station

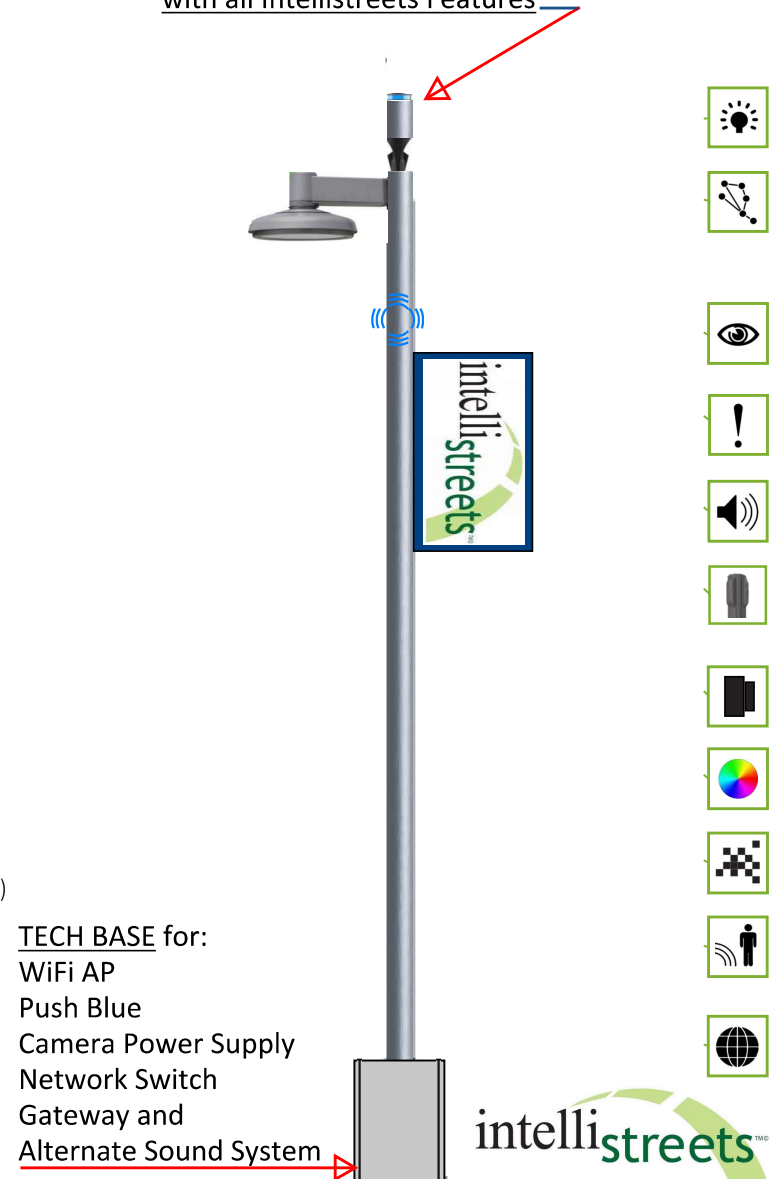
Emergency Call Station



### Environmental Sensors

Water Detection, Air Quality and Weather Station

The Intellistreets PTM controls any luminaire with all Intellistreets Features



TECH BASE for:

WiFi AP

Push Blue

Camera Power Supply

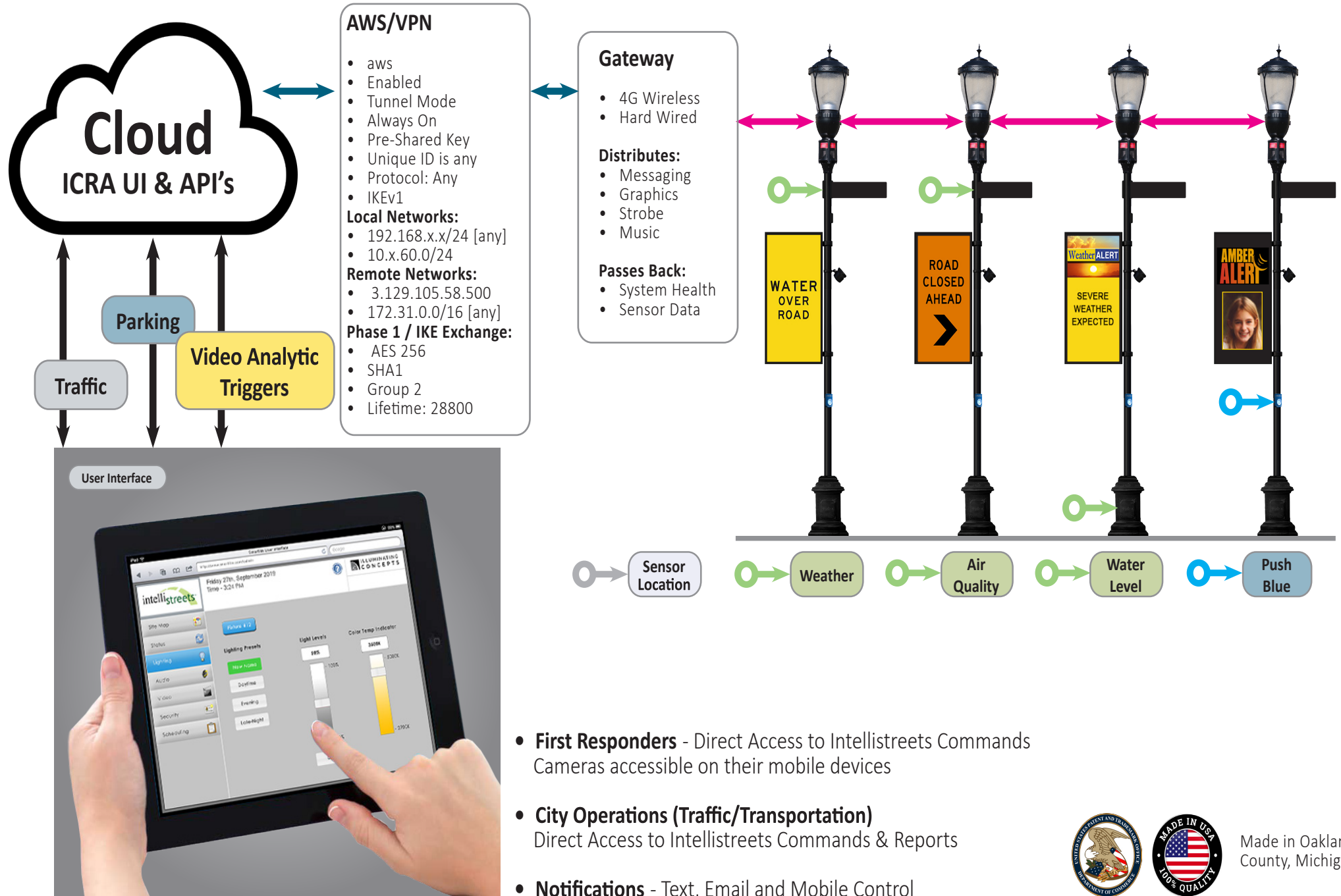
Network Switch

Gateway and

Alternate Sound System

intellistreets

## Intellistreets / Feedback Loop (For All Inputs)



- **First Responders** - Direct Access to Intellistreets Commands  
Cameras accessible on their mobile devices
- **City Operations (Traffic/Transportation)**  
Direct Access to Intellistreets Commands & Reports
- **Notifications** - Text, Email and Mobile Control



Made in Oakland  
County, Michigan





Intellistreets system (ECM) included in luminaire or Post Top Module - Standard Features

Wireless Network

Embedded in luminaire or surface mount Post Top Module
Dual Radio System - load balances network
Self Healing Mesh Network
800 MHz Processor
8 Gig On-Board Removable Storage - upgradable
Multi-sensor Integrated Inputs
Individually Addressable
Web based control
Non-proprietary broadcast frequencies
GPS coordinates on Google Map
802.15.4 dynamic mesh
Range between gateway and first node - 300 feet

Receptacle Control

Relay closure for GFCI
------------------------

Post Top Module



Lighting Control

On/Off Dim/Report
Energy usage report
0-10V Dimming
Pulse Width Modulation Dimming
DMX Color Changing) Software
Color Controller output
Thermal Sensor Reporting
Thermal Sensor/Auto Dim
Extended LED Life Algorithm - collective intelligence
Photocells - optical sensors measuring available light
Failover to on-board photocell
Ambient Light Sensor Settable Auto-Dim Feature
Flood light controller
Receptacle Control with separate on-off timing
Controls up to FOUR luminaires per pole
Surge Protection

Integrated Luminaire



Sound/Mass Notification  
(Hi-Definition Sound System)

Built in sound amplifier
Built in Speaker System
360 degree sound dispersion
Built in Sound Processing
Built in sound file storage
Addressable by unit, by block, by district etc.
Secure Dial-up announcements
Pre-stored Security announcements
Play lists for music
Stored emergency messages for instant playback

Emergency Indicator

Four color selectable capability (RGBA)
360 degree visibility
Multi-function individual flashing
Accurately sequenced route indication
Works in combination with audio and video

Available Options

Below Are Features As Options

LED Banner
High definition output
Play list organized
Plays video or static images
Connects to Amber Alert
Works in combination with audio messaging
Video/Audio synchronization available

Available Sensors
Occupancy sensors
Image sensors - cameras
Streaming video
Video and Image capture and storage
Water detection and water saturation level + stream level sensors
Air Quality Sensor Pac - California Standards
Ports sensor data to User Interface and API
Weather Station - measures rate of precipitation, wind speed and direction, barometric pressure, lightning strikes
Pedestrian, Car, Bus & Bicycle Counting, Pedestrian Counting

Emergency Pushbutton
Press once creates two way hands free call
Integrated with Intellistreets Audio capable of 90 Db.
Integrated with Intellistreets Alert Notification
Integrated with Intellistreets Video Banners/Signs

Wi-Fi
Intellistreets offers the only concealed Wi-Fi access point when coupled with a smart pole base
Intellistreets has the only concealed Wi-Fi antenna system
In most instances, the poles are delivered pre-wired



## INTELLISTREETS MARKETS BY SECTOR

METROPOLITAN AREAS	MASS TRANSIT	SPORTS	CAMPUS	ATTRACTIONS	FEDERAL	STATES	HEALTH CARE
ENTERTAINMENT AND SHOPPING DISTRICTS	AIRPORTS & PARKING	ARENAS FOR HOCKEY AND BASKETBALL	PRIVATE UNIVERSITIES	ZOOS	HOMELAND SECURITY ✓	STATE PARKS ✓	HOSPITAL CAMPUSES
BUSINESS DISTRICTS	PORTS & SECURE AREAS	STADIUMS FOR BASEBALL FOOTBALL AND SOCCER ✓	STATE & PUBLIC FUNDED UNIVERSITIES ✓	AQUARIUMS	NATIONAL PARKS	VISITORS CENTERS	LABS & PHARMACEUTICAL DISTRIBUTION
PLACES OF WORSHIP	BRIDGES	NCAA - ALL UNIVERSITIES	SPORTS	MOVIEPLEX'S	GOVERNMENT OFFICES: COURT HOUSES TREASURY PRISONS ✓	GOVERNMENT BUILDINGS	PARKING LOTS
PUBLIC SCHOOLS/JUNIOR COLLEGES	FREIGHT TERMINALS	NASCAR & FORMULA ONE	CORPORATE OFFICES	THEME & RIDE PARKS	POST OFFICES	TOURIST DESTINATIONS	
RECREATIONAL AREAS AND SPORTS COMPLEXES ✓	TRAIN STATIONS	FORMULA ONE	PARKING STRUCTURES & LOTS	MUSEUMS	RETAIL	NATURE TRAILS ✓	MANUFACTURING
HISTORIC DISTRICTS	HIGH SPEED RAIL CROSSINGS			WATER PARKS	MEGA-MALLS	HIGHWAYS & OVERPASSES	INDOOR PRODUCTION AREAS
HIGH END RESIDENTIAL	BUS STOPS	GOLF, TENNIS, SOCCER, SWIMMING			MALLS AND LIFESTYLE CENTERS	REST STOPS AND TRANSIT PLAZAS	WAREHOUSING
PUBLIC HOUSING	HIGHWAYS & OVERPASSES	SKI RESORTS			BIG BOX RETAIL		PARKING LOTS
HOTELS & MOTELS	ON AND OFF RAMPS				STRIP MALLS		
TOURIST ATTRACTIONS					PARKING DECKS AND LOTS		





## Intellistreets

### 2021 Projects

### 2022 Projects in Progress

- West Reading, PA
- Lakeside Park, Fond Du Lac, WI
- Village of Cassopolis, MI
- University of Wisconsin, Platteville, WI
- University of Illinois, Champaign, IL
- Village of Palmetto Bay, FL
- City of Los Angeles, CA
- City of Platteville, WI
- City of Tecumseh, Ontario, Canada
- City of Covina, CA
- Liberty Park II, Mooresville, NC
- Connector Freeway, Mooresville, NC
- University of Fayetteville, NC
- University of So. Florida, St. Petersburg, FL
- Concord, NC
- Johnson City, TN (3 projects)
- East St. Louis, IL
- Markham, IL
- Com-Ed (4) projects, Chicago, IL
- Humboldt Park, Chicago, IL
- Oswego, IL
- Neocity, Kissimmee, FL
- Boca West, Boca Raton, FL
- Prairie State College, Chicago Heights, IL
- State of New York Government Buildings

## Intellistreets Installations

### (Partial List, Pre-2021)

- Rockhampton, Australia
- Herndon, VA
- Smyrna, DE
- Gulfport, MS
- Lansing, MI
- St. Cloud, MN
- Greenville, NC
- Bloomington, IL
- Oxonia, MI
- Auburn Hills, MI
- Farmington Hills, MI
- Asbury Park, NJ
- Las Vegas, NV
- New Orleans Superdome, LA
- Navy Pier Chicago, IL
- Spicer, MN
- Carmel, IN
- Royal Oak, MI
- Mooresville, NC
- Boston, MA
- Sony Studios, Culver City, CA
- Henry Ford Health System, Detroit, MI



## Satisfied Customers



Cassopolis, Michigan is a quaint village near Lake Michigan and the Indiana border. The area is known for its many clear lakes, including one very close to our downtown. We receive visitors from all of our state and our neighbors to the south. With assistance from many State agencies, we were able to renovate the historic downtown, adding pavers, landscaping and period appropriate LED luminaires.

We chose IntelliStreets as our Smart City lighting system and this resulted in reducing the number of light fixtures, our energy costs and saving us long term maintenance costs as well.

Looking toward the future, and wanting to increase the use of our downtown by our citizens, having new businesses open, and create a tourist destination, we chose IntelliStreets as a means of providing public Wi-Fi.

The manner in which IntelliStreets concealed the Wi Fi system maintained the historic integrity of our re-developed downtown. Adding to a village that celebrates its history, yet looks toward the future, we used the IntelliStreets LED Banners to be a part of the communication we have with our citizens. Current and future use of the banners include businesses advertisements, events notifications, weather alerts and celebration of our local students.

Unlike any system we looked into, IntelliStreets has a concealed robust sound system that not only plays background music, but will make announcements and play holiday music.

Cassopolis completely re-developed the Stone Lake beachfront, adding a bandshell, pier and landscaping to create a gathering place. IntelliStreets plays a big part of that area as well as providing Push Blue, an emergency call system.

We have been very happy with the IntelliStreets products, the service and the staff at IntelliStreets.

*Emilie G. Sarratore, Esq.*  
Village Manager, Village of Cassopolis  
121 N. Disbrow  
Cassopolis, MI 49031



Here in Mooresville, we have been successful in re-developing our downtown and parks in part because we chose IntelliStreets as our Smart City lighting system. Looking toward the future, and wanting to increase the use of our downtown by our citizens, open new businesses, and create a tourist destination, we chose IntelliStreets as a means of providing public Wi-Fi. The manner in which they concealed the Wi Fi system maintained the historic integrity of our re-developed downtown. Mooresville takes pride in celebrating our history, while at the same time looking toward the future.

To monitor traffic, weather conditions, and public events, we added concealed 180 degree cameras along Main Street and into our park. These unobtrusive, almost impossible to see cameras placed back to back, give us a 360 degree view of our sidewalks, storefronts and street. Unlike any system we looked into, IntelliStreets has a concealed robust sound system that not only plays background music, but will make announcements and play holiday music. For Liberty Park, we added a bandshell, pathways and landscaping to create a gathering place. IntelliStreets plays a big part of that area not only for lighting and background music, but for a secondary amplified speaker system in the base of the pole that is used for band and movie sound support. This reduces the need for extra big loud speakers at the stage and the echo they create.

We have been very happy with the products, service and the staff at IntelliStreets and look forward to more deployments as our community grows.

We were able to reduce energy costs, saving us long term maintenance costs as well.

Thank you  
Jeff Brotherton  
Town of Mooresville  
Director of Technology and Innovation



## Lighting Control

- Control the on and off times with astronomical clock, photocell **on** and **off**, photocell **on** and astronomical **off**, setbacks to come on or off and dawn or dusk
- Light engine photocell for determining lumen degradation
- Control and set dimming levels after hours
- **Aggregate Intelligence** where the light sensors share data across many lights to determine **on** or **off** times
- User Interface shows light locations, status, GPS location and energy usage





## RGB Notification (Beacon)

4 selectable colors, **Red**, **Blue**, **Green**, **Amber**

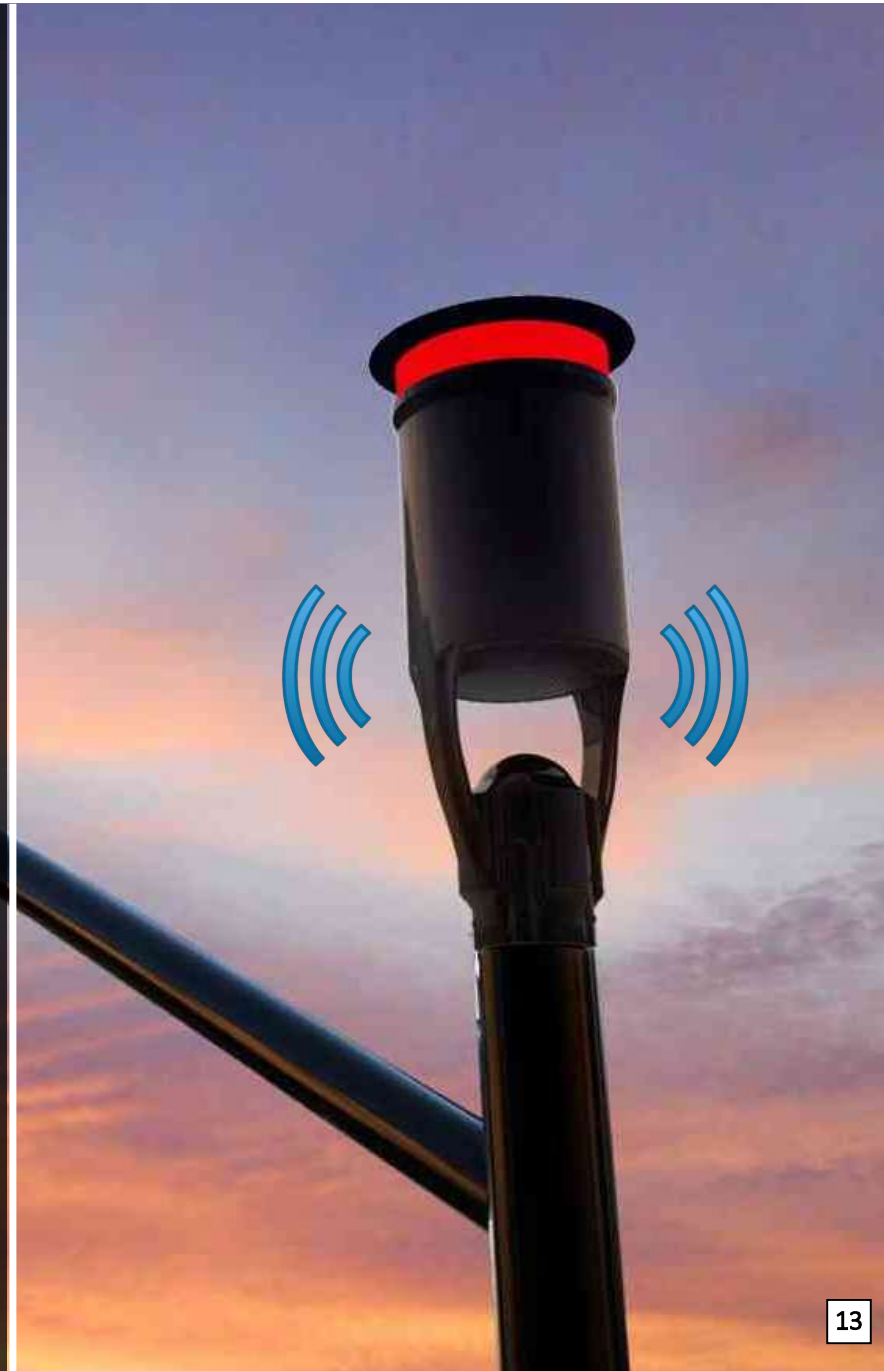
- Slow traffic by flashing **Amber** when:
  - Water over road
  - Snow removal
  - Accident ahead
  - Sequential strobe for indicating new route
- Flash **Red**
  - Police en-route
  - Homeland Security threat
- Constant **Blue**
  - All clear
  - Way finding for curved roads
- Flashing **Blue**
  - Distress button is pushed
- Alternate **Red** and **Green**
  - Holiday seasons, 4th of July





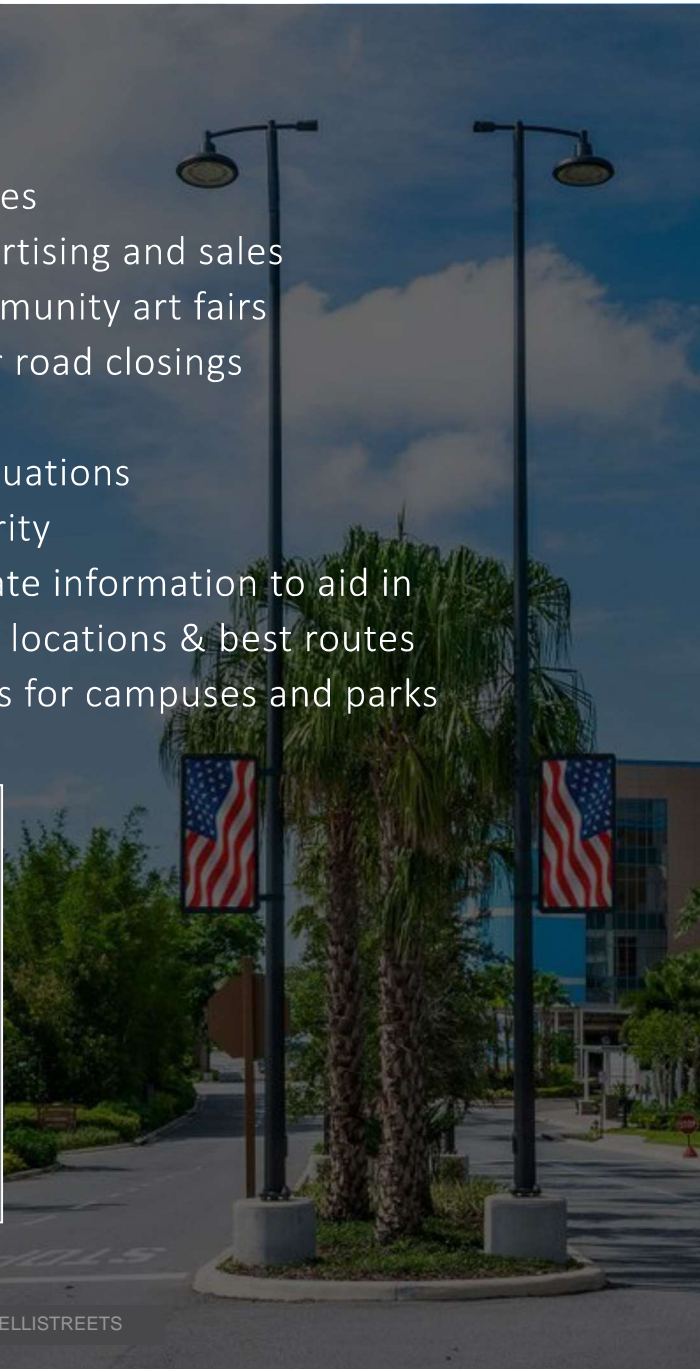
## Audio Control

- Announcements for public safety, weather alerts
- Play lists of audio tracks
- Commercial Public Radio style “brought to you by” ads
- Community announcements for coming events
- Re-play of local school bands, and orchestras
- Holiday parades and events of any type



## Digital LED Banner

- Community messages
- Local business advertising and sales
- University and Community art fairs
- Safety messages for road closings
  - Re-route traffic
  - Emergency evacuations
  - Homeland Security
  - Display immediate information to aid in evacuation, fuel locations & best routes
  - Wayfinding signs for campuses and parks





### Push Blue Emergency Call System (Distress Button)

The Push Blue Call System is an emergency communication device designed for the public to easily call for help when needed. With a microphone and speaker on board, the button allows for quick, wireless two way communication to get the help you need

- Call for assistance for emergencies
- Call for information

### Push Blue Info Call System (Docent Button)

- Tell the story of historic sites by pushing the branded button
- For Zoos, tell the story of animal lives and habitats
- Indicate feeding times for viewing





## Camera Systems

The Intellistreets suite of camera solutions includes 4K 12 Mega-pixel Ai based sensors concealed in the poles or Post Top Modules.

Features include:

License Plate Recognition, Facial Recognition, Pedestrian, Vehicle and Bicycle Counters, Low Light Color All viewable on the Intellistreets User Interface

### **Key components of this system include:**

- Record on motion
- 360-degree fixed view with digital zoom
- Output audio messages
- Used for snow and other emergencies, traffic control, flooding, crowd control
- Can trigger the LED Banners and beacons



## Post Top Module

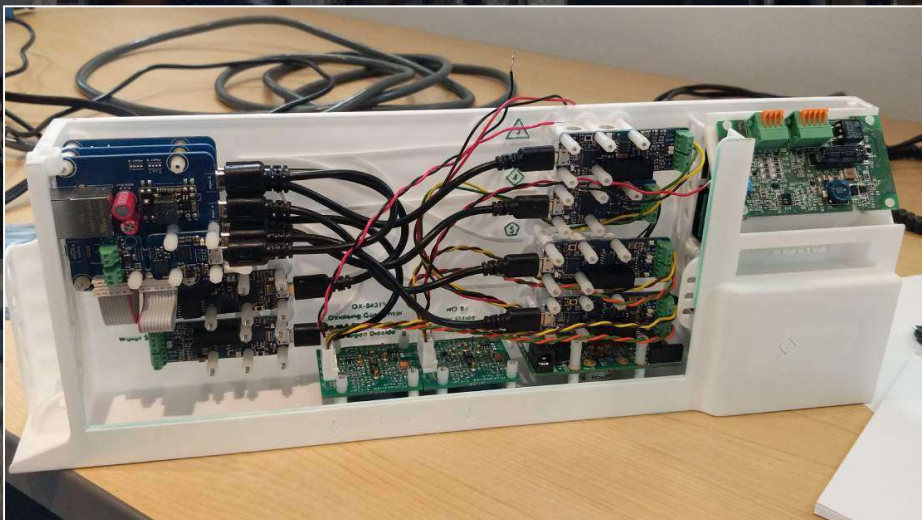
Enables all Intellistreets features and concealed cameras



## Intellistreets Smart Arm Series

- Pedestrian Counting System
- Air Quality Sensors
- Water Sensors
- Weather Sensors

## At-Edge Environmental Processing Hub



Pedestrian Counting



Air Quality Sensors

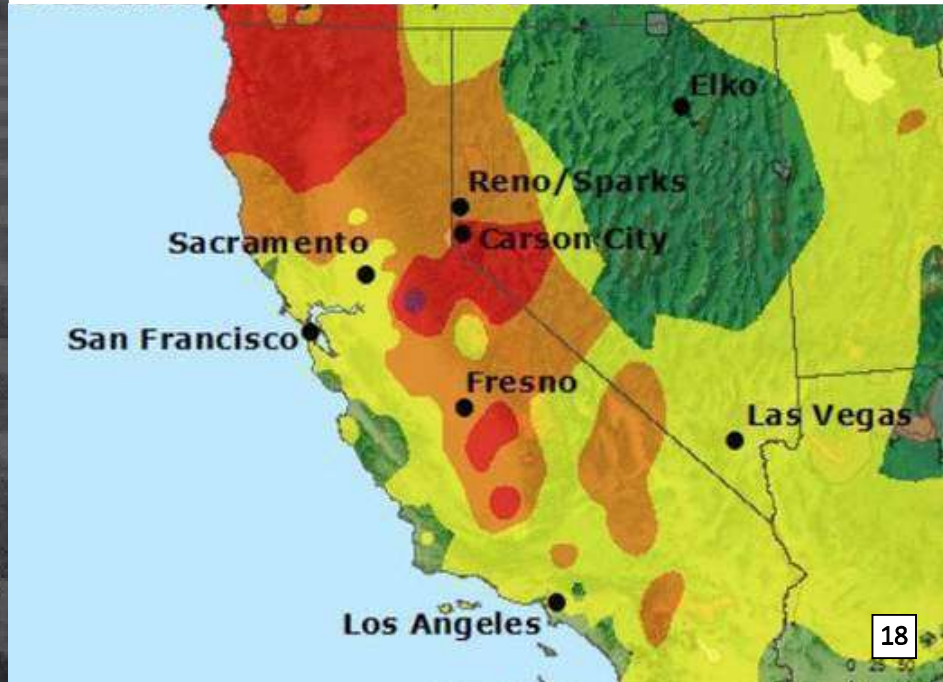
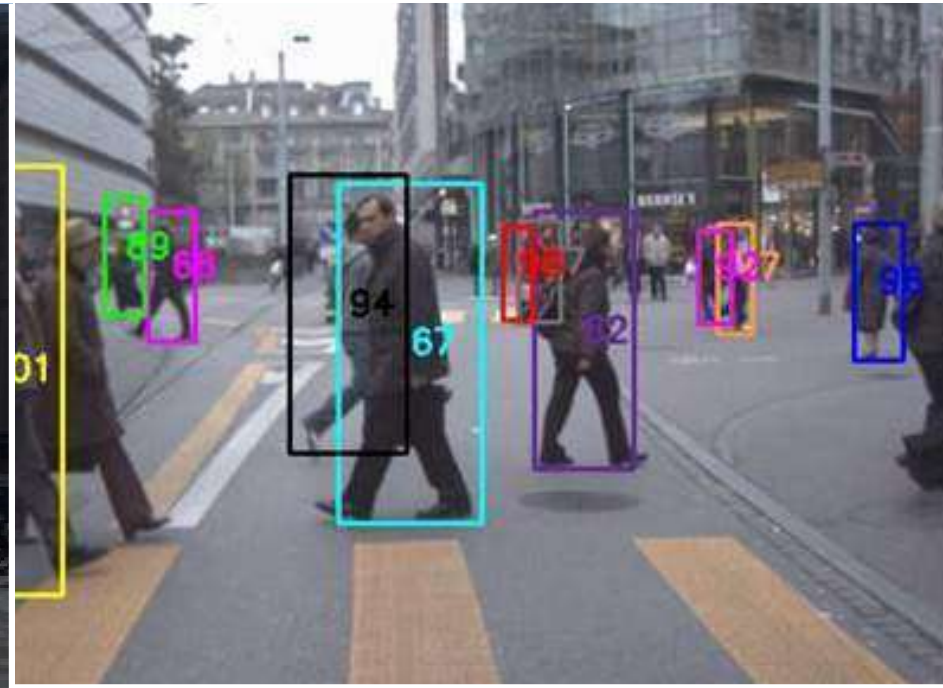


## Pedestrian Counting

- Counts direction & number of pedestrians in real time
- Populates a database for analysis, and machine learning
- May be used to identify crowd formation and trigger automated Intellistreets responses

## Air Quality Sensors

- Reports all typical particulates and gases that make up the National Weather service rating
- Reports can trigger the LED Banners to display air quality in near real time
- For life threatening gases or particulates, the system can report by email, and trigger messaging by audio, video and light Beacons





## Water Sensors

- Reports water over curb in millimeters
- Triggers Beacons to warn motorists
- Triggers LED Banners
- Triggers audio message

## NEW\* River and lake level measurements

## Weather Sensors

- In cities and areas where weather analysis is crucial due to micro-climates, Intellistreets weather stations gather critical information including all forms of precipitation and rate of fall.
- The system counts lightning strikes within a 5-mile radius
- Wind gusts or moving downpours will create alerts to adjacent areas and public officials.

## Benefits

### High performance

Measurements are unaffected by air temperature, humidity, flood events, floating debris, or contaminated water; reduces the likelihood of missing data and reduces data post processing

### Low maintenance

Flat antenna design eliminates nesting areas for insects and periodic maintenance requirement.

### Simple installation

Light weight compact design facilitates easy mounting on bridges, extension mounting bracket or inside a small protective housing.

### Low profile design

Unobtrusive appearance is ideal for urban installation sites or sites prone to vandalism.

### Flexible integration/Easy setup

Connects to most data loggers via standard communication interfaces, SDI-12 or 4-20 mA; no need for additional PC software.

### Low power consumption

Ideal for remote or solar powered sites; requires only 12 mA when active.

## WATER LEVEL SENSOR FOR LAKES AND RIVERS



The water level sensor uses radar to measure water levels in rivers and lakes. The data is coupled with the Intellistreets User Interface and database. Trigger levels are set to varying tolerances that enable messages to be sent to prescribed end-users, displayed on the IS LED Banners, and trigger alert audio messages.



## Wi-Fi System (Stealth Wi-Fi System)

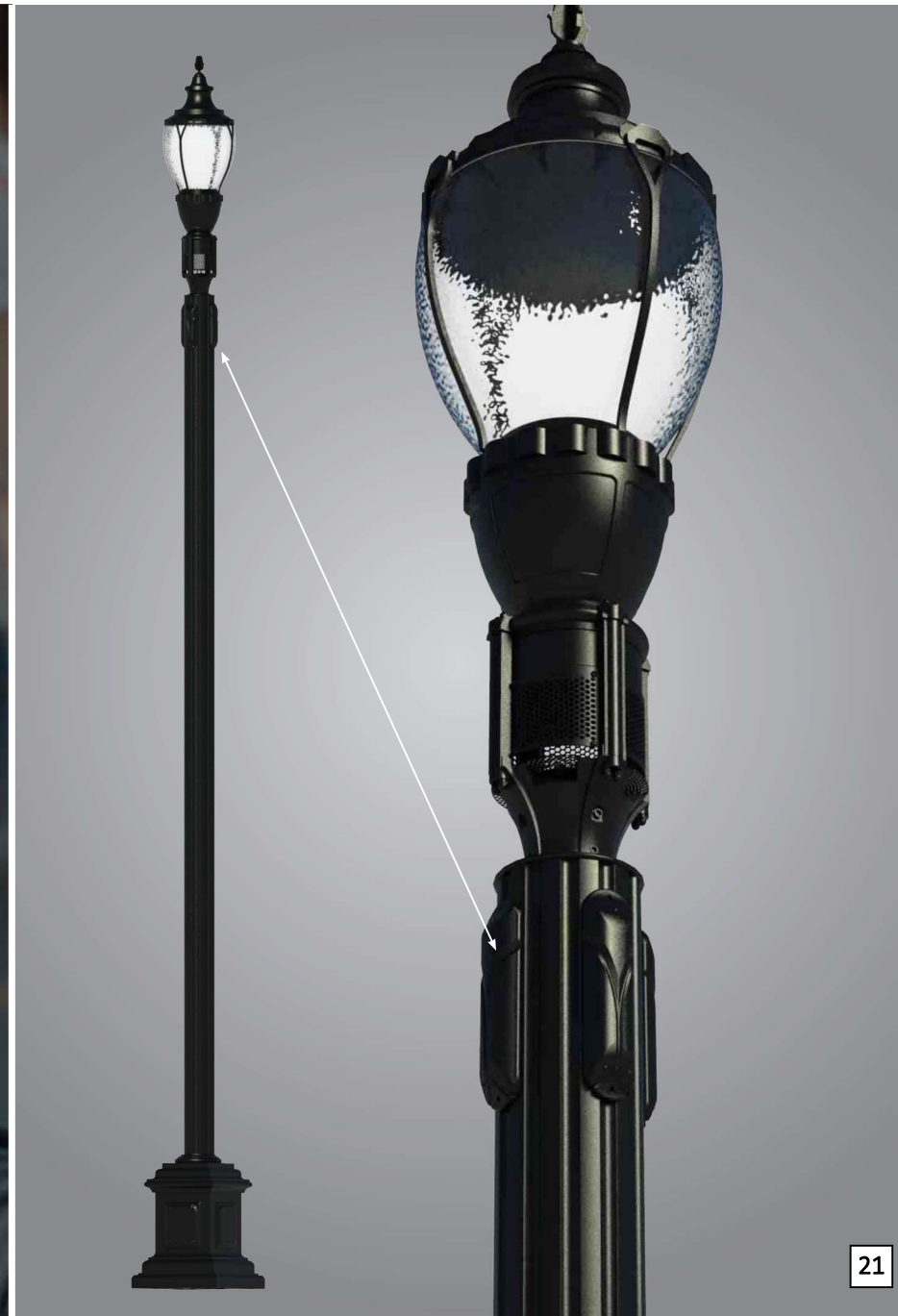
(4) Concealed Wi-Fi antennas to provide public Wi-Fi, and a Wi-Fi Access Point in the pole base

### Features & Benefits

- Integrated Wi-Fi antennas
- Basically invisible on pole when installed
- Water tight housing
- Cast plastic design



Patent Pending



## Dynamic Flood Lighting

The IntelliStreets system can wirelessly control dynamic color changing lights which will facilitate the transformation of an ordinary space for a special event without additional equipment

### Features & Benefits

- Dynamic Color Change or Tunable White
- Facade Lighting
- Wireless App Control
- On/Off/Dim Wireless App Control



Gulfport, LA



## User Interface Design

The Intellistreets system and database supports emergency management with instant stored and recalled messages, on-demand uploading of graphics and automatic messages triggered from sensors like weather, water or air quality

## Features & Benefits

- Control Scheduling on the go
- Remote Automation
- Real Time Emergency Management



## Lighting Control



## Site Map



## Banner Control



## Pole Status

















## ICID INDUSTRIAL DESIGN AND DOCUMENTATION

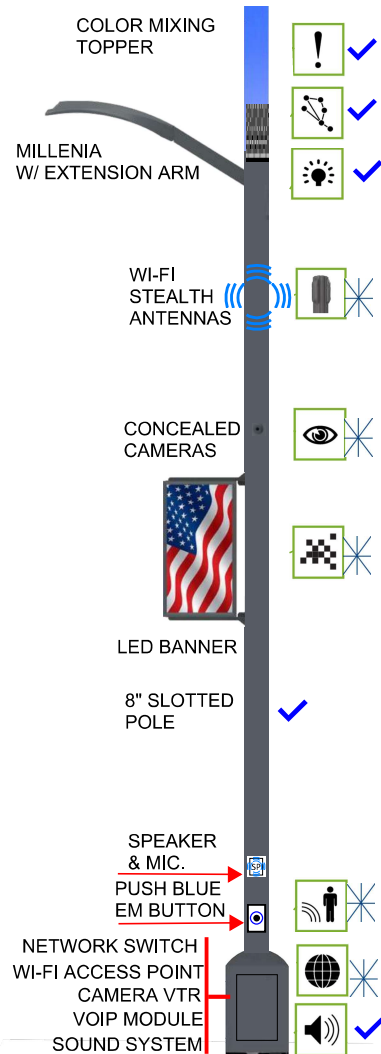
### Custom pole, luminaire and tech base

#### 4.5 PRODUCT INFORMATION

Roadway Luminaire Smart Pole

-  Image Sensors
-  RGB Color Mixing
-  Controlled Receptacle
-  Digital LED Banner
-  "Push Blue" Emergency Call Station
-  Lighting Control
-  Wireless Mesh Transceiver
-  Concealed Placement Speaker (CPS)
-  Wi-Fi System
-  Environmental Sensors
-  Optional
-  Standard

intelli**streets**



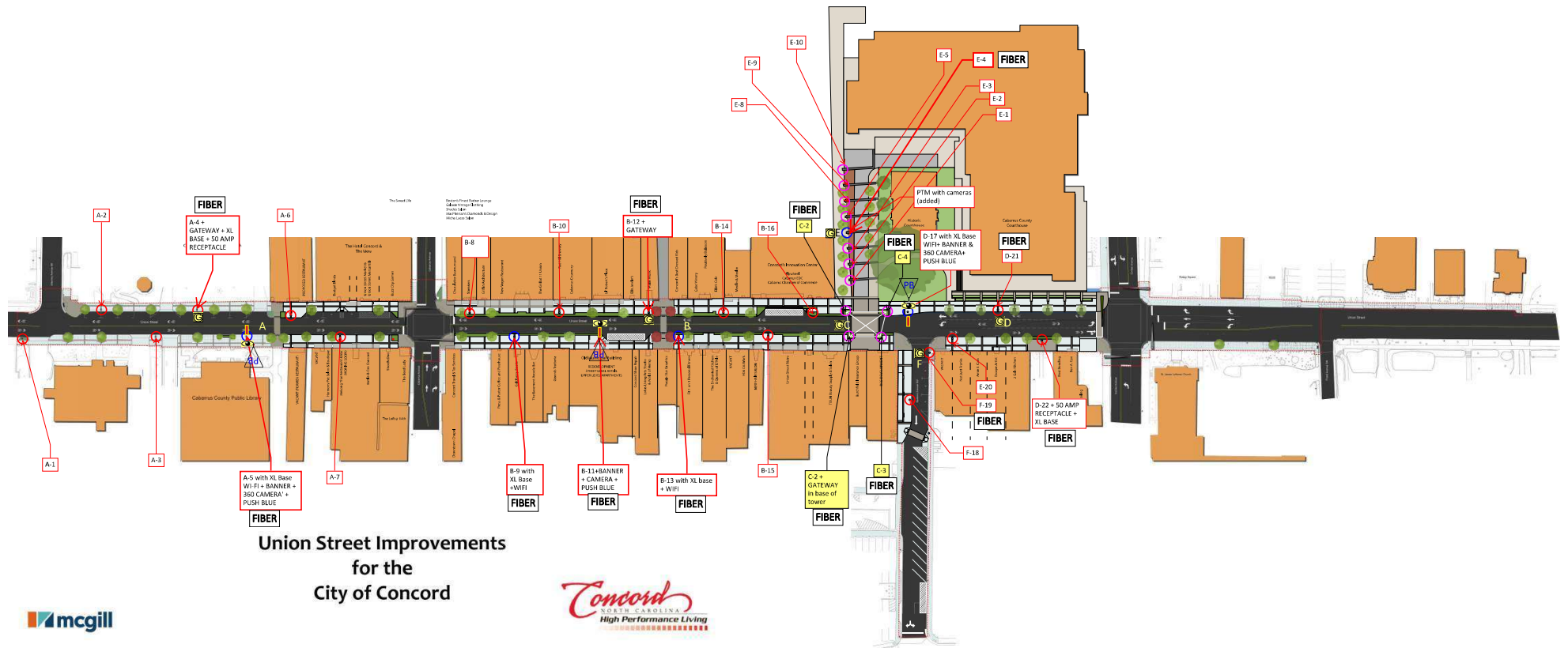
ICID is the industrial design arm of  
Illuminating Concepts and Intellistreets

From precise layouts with network attributes  
to custom luminaire design,  
our team documents the entire process.



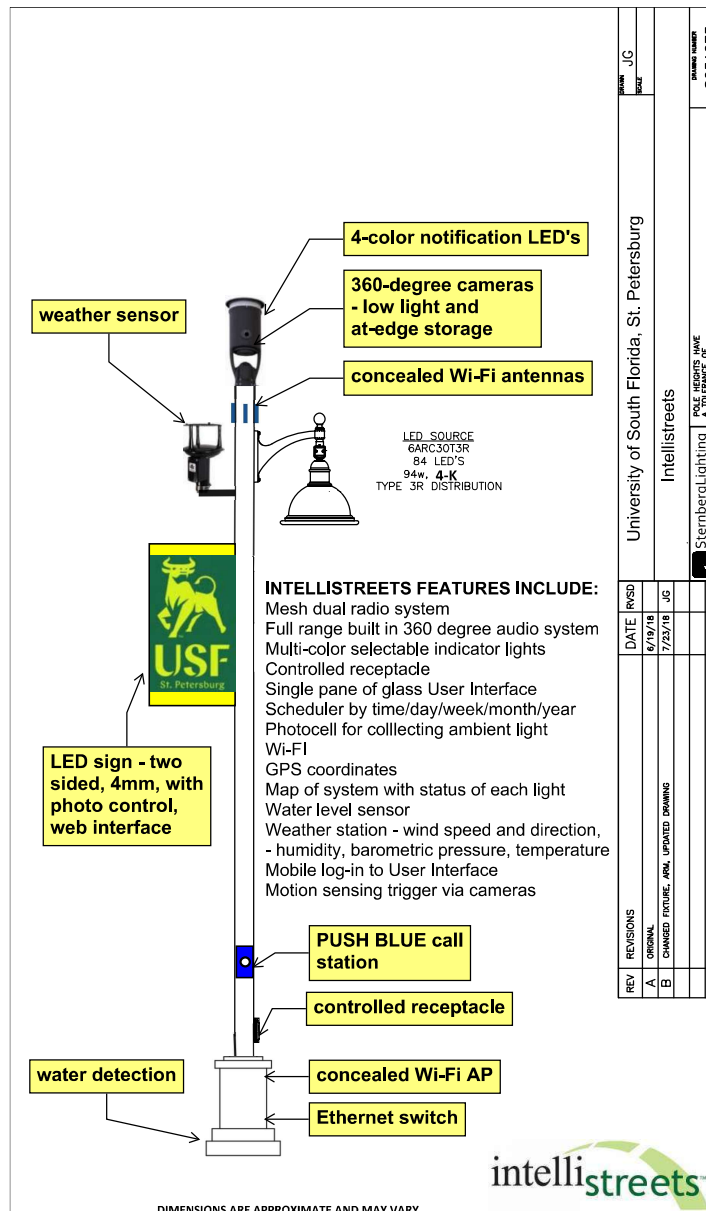
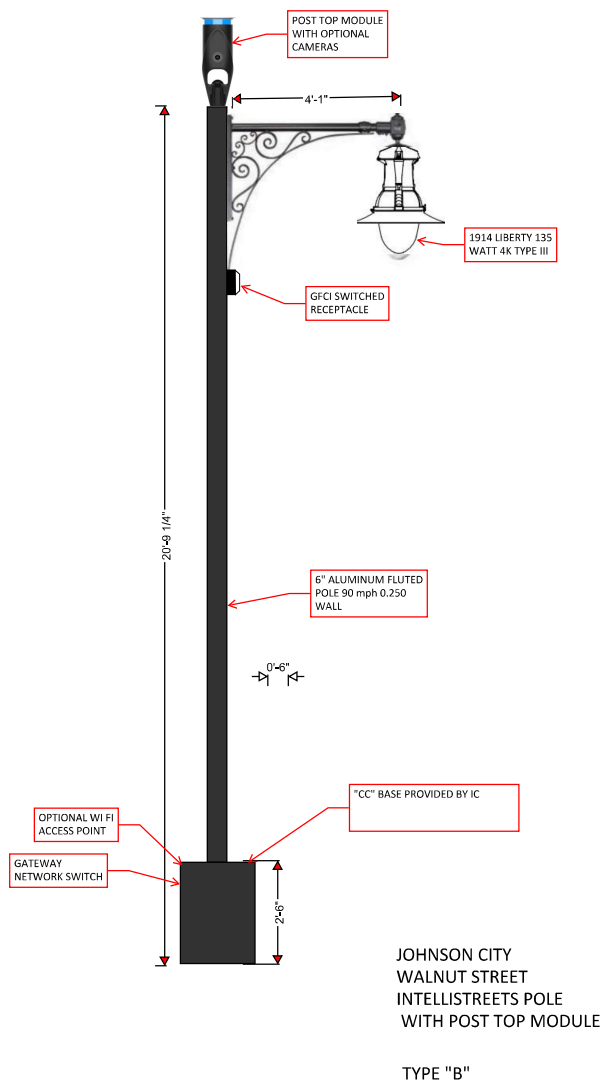
intelli**streets**

TYPICAL DESIGN GUIDE FOR INTELLISTREETS LAYOUTS  
INCLUDES POLE NUMBERS, GATEWAY ASSIGNMENTS  
FEATURES AND FIBER LANDING LOCATIONS. INTELLISTREETS  
FEATURES 4g, 5g and ETHERNET CONNECTIVITY





## Typical Mock-up Renderings



A photograph of a modern street lighting installation. A tall, dark, rectangular pole stands in the foreground, with a horizontal arm extending from it to hold a rectangular light fixture. The pole has a small, cylindrical sensor or camera unit at the top. In the background, another similar pole is visible. To the left, there are lush green trees. To the right, a modern building with a curved, cantilevered roof structure is partially visible. The sky is a clear, bright blue.

# Intellistreets Installations

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BEACH AND BOARDWALK



PIER



VILLAGE

## VILLAGE OF CASSOPOLIS, MI

**STANDARD FEATURES INCLUDED:** LIGHTING CONTROL AND DIMMING, FULL RANGE HI DEFINITION AUDIO, WAYFINDING INDICATOR LIGHTS, SWITCHED RECEPTACLES, COLOR CONTROLLER AND SENSOR INPUTS

**OPTIONAL SYSTEMS DEPLOYED:** POST TOP MODULE, PUBLIC WI-FI, LED BANNERS, PUSH BLUE, AUTOMATED FLOWER WATERING

LUMINAIRES BY



SternbergLighting



POWERED BY



intelliStreets

INTELLISTREETS.COM



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CASSOPOLIS,  
MICHIGAN  
PROJECT  
IMAGES





Options included: Public WiFi, flag and banner holders, 360 degree cameras

**STANDARD FEATURES INCLUDED:** LIGHTING CONTROL AND DIMMING, FULL RANGE HI DEFINITION AUDIO, WAYFINDING INDICATOR LIGHTS, SWITCHED RECEPTACLES, COLOR CONTROLLER AND SENSOR INPUTS

**Intellistreets Installation /** **Liberty Park and Main Street, Mooresville, North Carolina**

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Intellistreets Installation / **Gulf Port, Mississippi / Lansing, Michigan / Los Angeles, California** \*\*

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\*\* Los Angeles Intellistreets System includes Wi-Fi, Weather Station and Cameras





Features include Hig Definition Audio, Wi-Fi, switched receptacles, 4-G small cell boosters, and audio



### Intellistreets Installation [Herndon, Virginia](#)

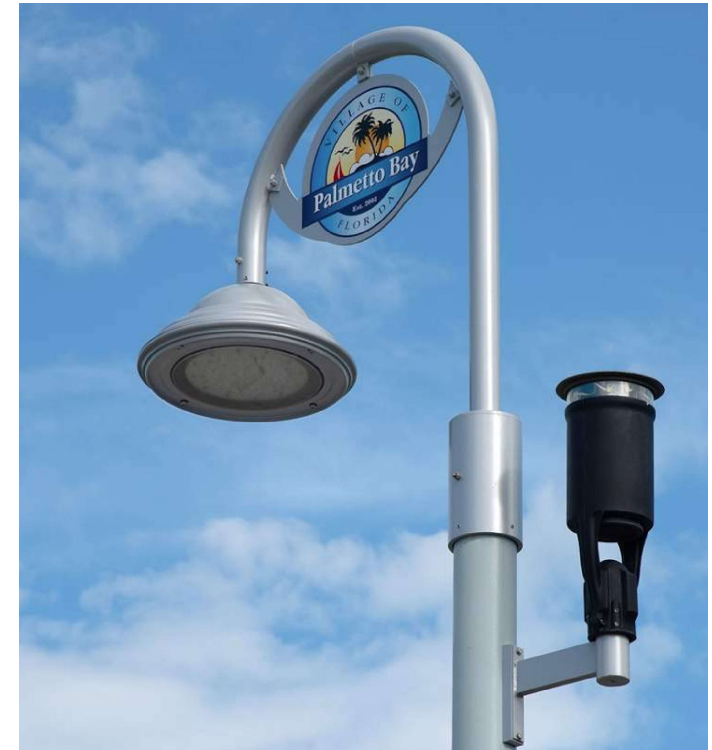




## VILLAGE OF PALMETTO BAY, FLORIDA

**STANDARD FEATURES INCLUDED:** LIGHTING CONTROL AND DIMMING, FULL RANGE HI DEFINITION AUDIO, WAYFINDING INDICATOR LIGHTS, SWITCHED RECEPTACLES, COLOR CONTROLLER AND SENSOR INPUTS

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 SternbergLighting

 intelliStreets<sup>INC.</sup>









Lansing Board of Water and Light



Executive Compound, Michigan



COVINA, CA. CITRUS AVE



COVINA, CA. CITRUS AVE



COVINA, CA. TRAIN STATION



**STANDARD FEATURES INCLUDED:** LIGHTING CONTROL AND DIMMING, FULL RANGE HI DEFINITION AUDIO, WAYFINDING  
INDICATOR LIGHTS, SWITCHED RECEPTACLES, COLOR CONTROLLER AND SENSOR INPUTS

**TRAIN STATION FEATURES:** LED BANNER, CAMERAS,  
PEDESTRIAN COUNTER, WEATHER STATION





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Putting The Smart Into Smart Cities

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