

# Enhancing Sustainability and Safety with Lighting Controls and Smart Technology

Municipal Garages Montgomery County, MD

## **SUMMARY**

## Solution

 LSI's Excursion LED Parking Garage Luminaire (EXN) with AirLink™ Wireless Controls

## Results

- Brighter, safer, energy-efficient parking garages
- High brightness, edge-lit LED technology
- Modern, durable, attractive fixtures
- Simple, intuitive sensor configuration app for mobile devices

### **Benefits**

- Meets MCDOT Green requirements
- Greater energy efficiency
- · Lower energy costs
- Improved customer safety

# About Montgomery County Department of Transportation (MCDOT)

With 1,350 employees, the MCDOT is committed to delivering the first-rate, multimodal transportation system that Montgomery County needs.

MCDOT builds and maintains transportation infrastructure; reduces traffic congestion; increases mobility; improves pedestrian, bicyclist and vehicle safety; provides transit and alternative transportation services and promotes access to the county's central business districts.

www.montgomerycountymd.gov/dot/

## The Challenges

## **Reduce Energy Consumption**

As part of their Green Energy Initiative, MCDOT was determined to reduce electricity consumption in its parking garages throughout the county. To help achieve their sustainability objectives, they set a requirement that stated all new parking garage light fixtures must include motion control and daylight detection sensors.

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## **Case Study: Parking Garage Lighting**



Specifically, their lights need to remain on 24 hours a day, yet automatically dim to 10 percent when the area becomes unoccupied for 15 minutes. Once motion is detected, the lights must automatically increase back to 100 percent.

MCDOT also wanted to implement "Daylight Harvesting" in areas closest to the perimeter of their parking garages. This feature automatically dims the lights nearest to those areas as ambient daylight becomes brighter.

## **Enhance Customer Safety**

Customer safety was also a key concern to MCDOT. To address this objective, the lights above their car charging stations were required to remain on and set to 100 percent 24 hours a day.

## The Solution

LSI's Excursion LED Parking Garage Luminaire (EXN) with AirLink™ Wireless Controls

The Excursion luminaire features best-in-class, high brightness, edge-lit LED technology. It compliments any architectural setting and delivers energy-efficient, uniform downlight to enhance visibility and safety.

This attractive fixture provides visual comfort with minimal glare. It's ideal for parking garages, and is available in 5000K and 4000K color temperatures per ANSI C78.377.

MCDOT's Excursion luminaires were paired with LSI's AirLink™ wireless control system, which uses a 2.4 GHz Self-Healing Mesh Network and a simple configuration app. This solution gives employees the ability to use their mobile devices to program and manage all of their LSI Excursions across multiple parking garage locations.

## AirLink™ Capabilities

- Motion detection to adjust light based on occupancy in a given area
- Daylight harvesting dims the light when daylight is available
- Schedule pre-programmed changes in light levels based on time of day
- Dimming controls
- Energy monitoring identifies power usage information to drive conservation and cost savings

## The Results

With the installation of their Excursion LED parking garage fixtures and AirLink™ wireless control system, MCDOT received a state-of-the-art, energy-efficient, non-glare LED lighting solution that met the strict requirements of their Green Energy Initiative.

The solution includes daylight harvesting in the perimeter of the parking garage where outdoor ambient light is present, and sensors that dim lights to 10% when an area is unoccupied for more than 15 minutes.

All of this resulted in enhanced sustainability, greater efficiency and improved safety across multiple parking garages.

#### LSI Industries

Our lights and graphics are everywhere you look!

LSI's products are used extensively in automotive dealerships, petroleum stations, quick service restaurants, grocery stores and pharmacies, retail establishments, sports complexes, parking lots and garages, and commercial and industrial buildings.

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