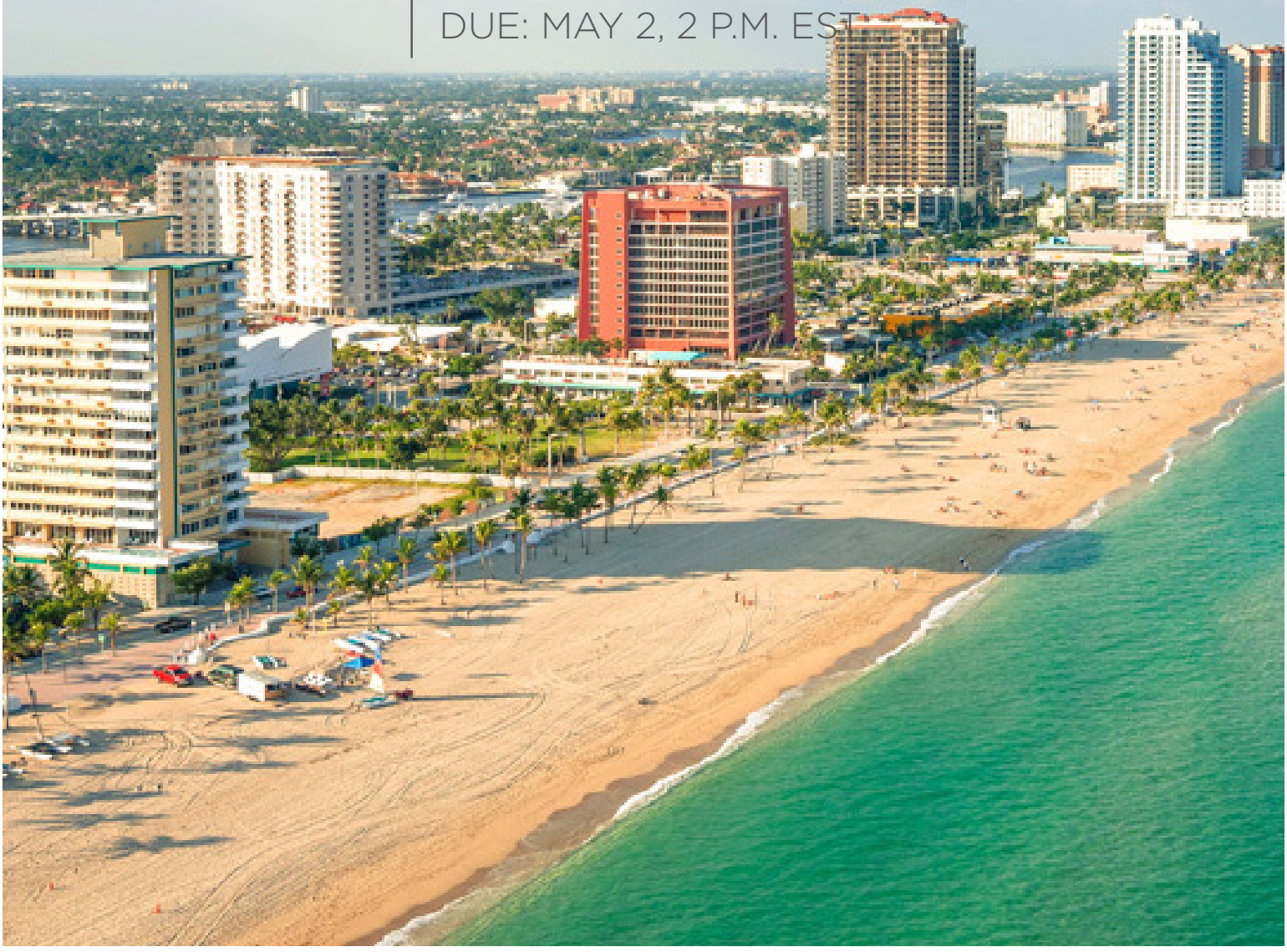
CITY OF FORT LAUDERDALE

SOLICITATION 12109-885
COMPREHENSIVE PARKING DEMAND MANAGEMENT SYSTEM

DUE: MAY 2, 2 P.M. EST



PREPARED BY:
IPS GROUP, INC.
7737 KENAMAR COURT
SAN DIEGO, CA 92121 U.S.A.
WWW.IPSGROUPINC.COM

CONTACT:
CHAD P. RANDALL
CHIEF OPERATING OFFICER
IPS GROUP, INC.
DIRECT: 858.404.0607
FAX: 858.403.3352
CHAD.RANDALL@IPSGROUPINC.COM

May 1, 2018

City of Fort Lauderdale
Procurement Services Division
100 N. Andrews Avenue, #619
Fort Lauderdale, FL 33301

Dear Ms. Laurie Platkin,

IPS is pleased to submit a proposal in response to RFP # 12109-885 for Comprehensive Parking Demand Management System for the City of Ft. Lauderdale. As a pioneer in the industry since 1994, our company has evolved to meet the ever-changing parking needs of municipalities worldwide. We have grown from the inventor of the credit card-enabled single-space parking meter, to a leading provider of single-space meters, multi-space pay stations, vehicle detection sensors, smart collection systems, mobile parking applications, in-vehicle payment, and Enforcement and Permitting solutions as part of *the industry's only true, fully-integrated Smart Parking Platform.*

WHAT SETS IPS APART FROM THE COMPETITION?

For over two decades, we have partnered with cities worldwide to build Smart Parking solutions that bring Smart Cities to life. Our full portfolio of integrated products provide the most efficient, powerful, parking solution to our customers, and is backed by a professional support team that provides fast, efficient service. We know our customers' ultimate goal is to have an optimized Smart Parking program, and we aim to help them achieve this by establishing a lasting relationship built on a foundation of trust, outstanding quality and integrity.

Through our partnership with IPdisplays and Q-Free, IPS is proud to offer the City a truly cloud-based digital signage solution which includes the Q-Free level counting system, a dynamic digital signage solution provided by IPdisplays, and the latest Mobile Enforcement System from IPS.

PROPOSED SOLUTION

We are excited to offer our next-generation Enforcement Management and Permit Management Solutions to the City of Ft. Lauderdale. The Enforcement Management Solution manages the entire citation lifecycle from issuance to collections and incorporates state-of-the-art, real-time technology, and dedicated customer service resources. The complete Enforcement Management Solution seamlessly integrates with a number of Smart Parking

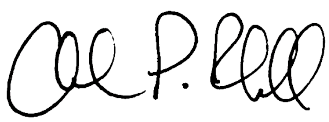
Technologies including IPS single-space Smart Parking meters, multi-space pay stations, License Plate Recognition (LPR) technology, Permit Management, Code Enforcement, and pay-by-phone apps. We can also integrate with third-party vendors if desired by the Agency.

OUR SOLUTION INCLUDES:

- IPdisplays™ Dynamic Digital Signage: The smart LED signs use self-contained microprocessors that eliminate the need for a PC to "drive" them and feature onboard microprocessor and software developed by IPdisplays™ which allows the smart LED signs to intelligently pull information from a variety of sources, or receive dynamic information pushed to them.
- Q-Free Level Counting System: Includes overhead mounted Ultrasonic Directional Sensors (USDS) installed at vehicle entry/exit at garage/level transition area entry/exits. The wireless design eliminates the need for expensive cable and conduit running each device to a server and boasts a system uptime of 99.9%.
- Mobile Enforcement System (MES): The most innovative on the market today, our N5 Print all-in-one Mobile Enforcement Device (Android compatible) ensures parking enforcement officers experience a convenient, quick and efficient citation issuance process.
- Enforcement Management System (EMS): Our end-to-end cross compatible web-based citation management system manages the entire lifecycle of parking citations including issuance, adjudication, payment, DMV communications and collections.
- Public Citation Management Portal: The Public Citation Management Portal is a website that allows citizens to review the current status of their citation, pay or obtain information on how to contest their citation, review fine amounts including late fees, and obtain additional information.
- Permit Management System: The Permit Management solution offers property managers the flexibility and convenience to manage the entire parking permit lifecycle from initial design through fulfillment via a web-based system available 24/7.

We believe that when you compare the strength and experience of the IPS team, the customer convenience of the proposed solution, and the superior total cost of ownership, you will see a compelling story and agree that our team is exceptionally positioned to provide your Agency with outstanding products, people, and support. We look forward to the potential opportunity partner with the City of Ft. Lauderdale in the upcoming weeks and months.

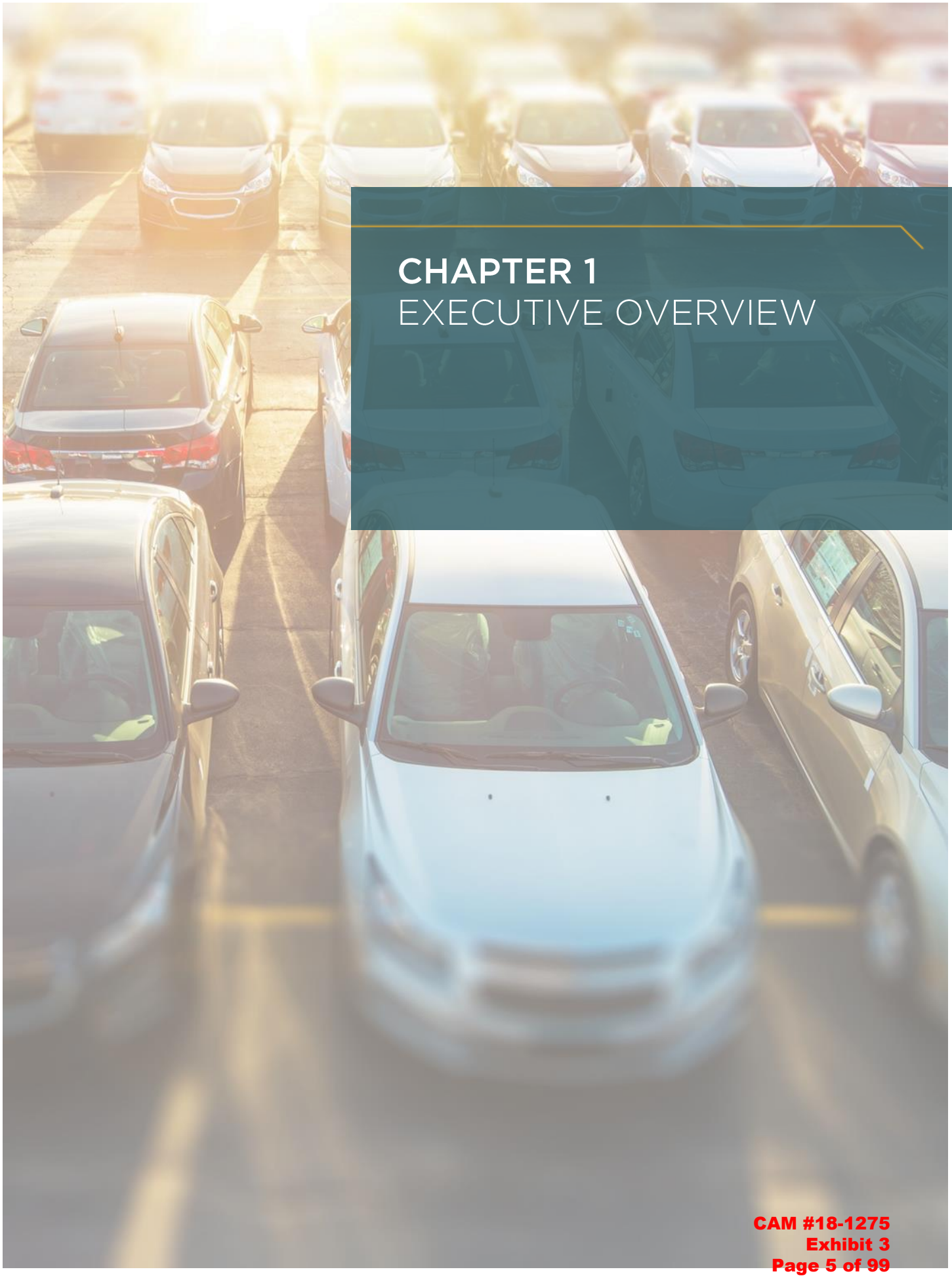
Respectfully,



Chad Randall, Chief Operating Officer, IPS Group, Inc.

TABLE OF CONTENTS

Important note: *IPS Group Inc. ("IPS") has made an effort to be as thorough and responsive as part of our request for proposal (RFP) submission. In doing so, we are providing valuable and protected information, including ideas and concepts that IPS considers to be confidential. Release of IPS confidential information may cause irreparable harm to IPS by publicly disclosing such information that is not publicly known. IPS respectfully requests the right to be notified and provided an opportunity to redact such confidential information in the event of any third-party request for public disclosure.*



CHAPTER 1
EXECUTIVE OVERVIEW

MINIMUM QUALIFICATIONS

Proposers shall satisfy each of the following requirements cited below. Failure to do so may result in the proposal being deemed non-responsive.

MINIMUM QUALIFICATION	IPS RESPONSE
2.16.1 Proposer or principals shall have relevant experience in Parking Demand Management Systems. Project manager assigned to the work must have experience in Parking Demand Management Systems and have served as project manager on similar projects.	IPS complies. The diverse IPS team possesses more than 200 combined years of experience in specialties ranging from management, R&D, sales and marketing, to engineering and customer support. Our high-performing project management team will apply best practices to ensure that the entire solution is implemented within budget, on schedule, and within scope. We strive to provide you with the tools to make you successful. Dave Rotenberg joined IPS in 2016, bringing with him 20 years of parking enforcement management experience in both the public and private sectors.
2.16.2 Before awarding a contract, the City reserves the right to require that a Proposer submit such evidence of qualifications as the City may deem necessary. Further, the City may consider any evidence of the financial, technical, and other qualifications and abilities of a firm or principals, including previous experiences of same with the City and performance evaluation for services, in making the award in the best interest of the City.	IPS complies. IPS will submit any requested evidence of qualifications as requested by the City.
2.16.3 Firm or principals shall have no record of judgments, pending lawsuits against the City or criminal activities involving moral turpitude and not have any conflicts of interest that have not been waived by the City Commission.	IPS complies. There are no pending lawsuits or record of judgments against the firm or any of its principals.
2.16.4 Neither firm nor any principal, officer, or stockholder shall be in arrears or in default of any debt or contract involving the City, (as a party to a contract, or otherwise); nor have failed to perform faithfully on any previous contract with the City.	IPS complies. Neither IPS, nor any of its principals, officers or stockholders are in arrears or in default of any debt or contract involving the City.

4.2.2 EXECUTIVE SUMMARY

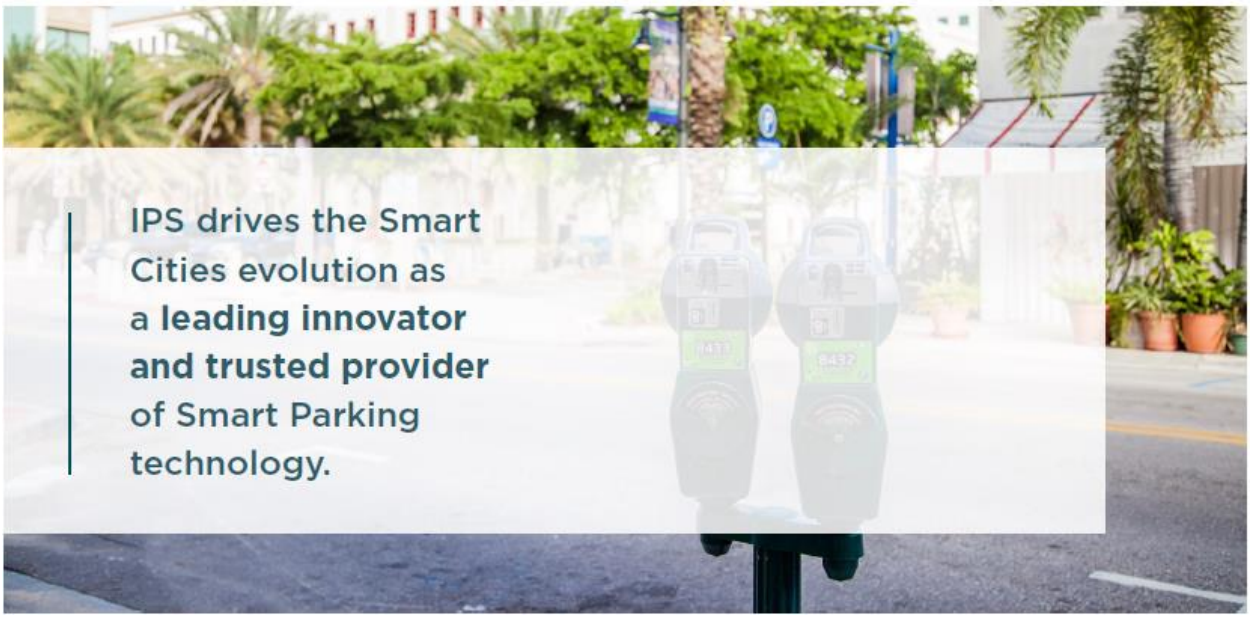
Each Offeror must submit an executive summary that identifies the business entity, its background, main office(s), and office location that will service this contract. Identify the officers, principals, supervisory staff and key individuals who will be directly involved with the work and their office locations. The executive summary should also summarize the key elements of the proposal.

The mission of IPS Group, Inc. is to transform Cities with the most technologically advanced, yet practical and affordable Smart Parking solutions in the world.

For over two decades, IPS has been committed to the design, engineering, and manufacturing of intelligent parking technologies that shape the industry such as payment processing systems, SaaS management software, and low-power wireless telecommunications.

Based in San Diego, CA, IPS is the proud inventor of the credit card enabled single-space parking meter and has more wireless parking devices deployed across the US than our competitors combined. To date, IPS operates more than 250,000 wireless devices in over 250 cities worldwide. IPS drives the Smart Cities evolution as an innovator and trusted provider of Smart Parking technology.

IPS handles all design, final assembly, and ongoing support is conducted in our San Diego offices where we employ more than 200 full-time employees. By manufacturing in the US, we are able to provide outstanding quality, reduce environmental impact, and meet quick delivery turnaround requirements. IPS also has local sales and field staff throughout the US to provide the level of support our customers require. In addition to sales and dedicated customer support assigned to your account, IPS has an in-house team of product engineers, computer programmers, marketing and PR professionals, accountants, and technical support specialists to support any project.



DAVID W. KING

IPS President & CEO

ROLE: Authorized to Bind and Negotiate

David King is the founder and Chief Executive Officer of IPS Group, Inc. A leader in telecommunications for over 20 years and the senior brainchild behind the solar powered single-space parking meter, King's responsibilities include leadership and oversight of all the Company's initiatives and operations. As a business leader, King has had a far reach across the globe. In South Africa, King was an executive for Barlow Rand Limited, the largest industrial company in the country. King also served as President of Telkor Pty, a large high-tech telecommunications and military electronics company employing over 1,000 employees, half of which were highly skilled engineers.

CHAD P. RANDALL

IPS Chief Operating Officer

ROLE: Authorized to Bind and Negotiate

As COO, Chad Randall is responsible for the broad oversight of IPS Group's ongoing operations and maintains direct supervision of the Company's business development unit. Randall joined the Company in 2008 at his current position, bringing many years of Fortune 500 corporate experience in both the automotive and instrumentation industries. In addition to business management, Randall has functional experience in engineering, manufacturing, marketing and product line management. Randall holds a Bachelor of Science in Mechanical Engineering from Rose-Hulman Institute of Technology and a Master's in Business Administration from Harvard Business School.

ALEXANDER M. SCHWARZ

IPS Chief Technical Officer

ROLE: All Meter and Back Office Technical Integration

Alex Schwarz serves as the Chief Technical Officer of IPS Group, Inc. As CTO, Schwarz has played a major role in the development of IPS' flagship product, the solar powered single-space parking meter, and is responsible for the oversight of IPS Group's research and development efforts. Schwarz joined IPS Group in 1998 as a specialist in information technology and cellular telecommunications. Schwarz has comprehensive knowledge of the design and manufacturing of electronic peripherals, electronic parking meters, and cellular interface technology (CDMA and GSM).

MIKE DALZELL

IPS Senior Vice President of US Sales | ROLE: Senior Vice President of US Sales

With more than 30 years of professional sales experience, including 3 years of prior military service, Dalzell has built a career as a successful systems sales engineering and sales team manager. This includes over 10 years selling Communications Technology into Fortune 500 companies, as well as over 20 years providing sales management and marketing services to startup technology companies all over the USA.

FRANK DEL MONACO

Vice President of Sales/East Coast | ROLE: Vice President of Sales, East Coast

Frank Del Monaco joined IPS in May 2011 and brings more than 30 years of public parking management experience to IPS in both local government and private management positions. He recently held the position of Director of Municipal Services for LAZ Parking and since 2001 was responsible for government services contract oversight in outsourced and P3 concession agreements. Del Monaco served as the chief parking administrator for municipalities in New Jersey, Florida, and Connecticut. He has also served as an elected official on the International Parking Institute's Board of Directors, served as a member on their Board of Advisors and achieved designation as a Certified Administrator of Public Parking (CAPP) by the International Parking Institute (IPI) as part of the inaugural class in 1994.

SHERRY FOUNTAIN

Director of Regional Sales | ROLE: Regional Sales, Southern Region

Sherry Fountain serves as Regional Sales Manager for the Southern Region of the United States. Fountain will participate in any required meetings or presentations related to this project. In addition, she will oversee the installation and deployment of the new meters. Fountain brings over 21 years of experience in the parking industry to IPS Group.

DAVID L. ROTENBERG

IPS Project Manager

ROLE: Project Manager

Dave Rotenberg serves as Director of Enforcement Solutions of IPS Group, Inc. As Director, Dave is responsible for the oversight and management of the Enforcement Solutions division and maintains direct supervision over the technical and operations units. Dave joined IPS in 2016 at his current position, bringing with him 20 years of parking enforcement management experience in both the public and private sectors. Prior to taking on his role as Director of Enforcement Solutions, Dave was the COO and part owner of a premier parking and code enforcement data management corporation where he was responsible for the day-to-day today operations of the company; managing the MIS, Client Relations and Operations departments.

RANDY LASSNER

IPS Regional Sales Manager | ROLE: Parking Enforcement Management

Before joining IPS, Randy Lassner worked in the car industry for over 12 years as a General Manager for one of the top 20 volume Chevrolet dealerships in the US. He was responsible for managing a team of 20+ salespersons, advertising, and purchasing all used cars. In 2008, Lassner entered the parking industry. As Director of Sales, he was responsible selling Parking Enforcement software and hardware to Municipalities and Universities across the country. Lassner helped multiple companies grow their presence across the US market through strategic partnerships and relationships.

Q-FREE TEAM

DAVE RADFORD – VICE PRESIDENT & MANAGING DIRECTOR

Will serve as the overall point of contact before the notice to proceed. Dave has been in the Parking Industry for over 17 years, focusing exclusively on the PGS market segment the last 10 years. Dave's experience in the PGS market has been the driving force to continued innovation at Q-Free and proves to be an unmatched asset to constant improvement.

Dave has been involved in the design, customization and implementation of over 200 installations at Q-Free. He has been instrumental in the implementation of city wide solutions, multi-garage solutions and large scale projects, such as Nike Headquarters, City of Ottawa, and Disney World. This extensive market knowledge has resulted in extremely high customer satisfaction and loyalty, especially when opportunities for expansion at current properties arise, as well as when new innovations become available.

GRANT MURPHY, BUSINESS DEVELOPMENT EXECUTIVE

Grant will be the direct point of contact during this project. Grant comes with over 10 years of Operations experience and completely understands all aspect of running a garage. Heading up operations, valet solutions, reconciliations, etc. make Grant a valuable asset.

His recent success with Parking Guidance include the LaGuardia Airport in NYC, Seaport Convention Center in Boston and other large Employer garage projects throughout the US and Canada.

RUSTY ROSE, PROJECT MANAGER

Rusty will serve as the point of contact after contract award. He has been with Q-Free for 12 years, and during that time has managed most of the Q-Free PGS projects ranging in value from $50K up to $2M. Rusty's extensive experience in PGS project management allows him to smoothly implement solutions and improve customer satisfaction.

Recently completed/ongoing projects include:

- Single space system for over 2,500 parking spaces for a Reedy Creek Disney Parking Garage in Orlando, FL
- Montgomery County, MD battery operated/wireless single space system for three garages with over 3,000 sensors
- City of Edina, MN project managed a PGS system for four garages with roadway signs
- Nike Headquarters OR, project managed single space monitoring installations for 4 employee garages with over 4,500 single space sensors
- James Madison University, VA project managed level counting installations for 3 campus garages including current system upgrade project

WILLIAM SARGENT, FIELD TECHNICIAN

Will is one of the field technicians assigned to perform any on-site related work for this project. He has been with Q-Free TCS for over 9 years and has been involved in the component assembly and system commissioning process of Q-Free TCS PGS systems during this time. His experience and in depth knowledge of each component of the system provides him with a unique ability to foresee potential long term complications and prevent them during final the final stages of installation.

Recently completed/ongoing projects include:

- International Monetary Fund Garages DC, level counting for 2 parking garages for employee and visitor parking
- Wounded Warrior Parking Garage DC, level counting for hospital garage
- Castle Towers Shopping Centre Sydney Australia, single space system with over 5,000 single space sensors in 5 parking garages

TUE YANG, FIELD TECHNICIAN

Tue is one of the field technician assigned to perform any on-site related work for this project. He has been with Q-Free TCS for 3 years and has been involved in the design and system commissioning process of Q-Free TCS PGS systems during this time. Tue has been instrumental in the initial design of PGS systems and identifying potential obstacles as well as on site testing and training once installation has been completed.

Recently completed/ongoing projects include:

- Children's Hospital MA, level counting & single space monitoring project
- City Center DC, 1,200 space single space system
- Florida Hospital, 2,500 space single space system for 2 parking garages

ANDREW BRODERICK – FIELD TECHNICIAN

Andrew is one of the field technicians assigned to perform any on-site related work for this project. He has been with Q-Free TCS for 3 years and has been involved in the component assembly and system commissioning process of Q-Free TCS PGS systems during this time. His experience and in depth knowledge of each component of the system provides him with a unique ability to foresee potential long term complications and prevent them during final the final stages of installation.

Recently completed/ongoing projects include:

- Florida Hospital, 2,500 space single space system for 2 parking garages
- Hollywood Casino Jamul, CA single space system with LPR integration (Project management and system design and integration)

IPdisplays

MATT POPE

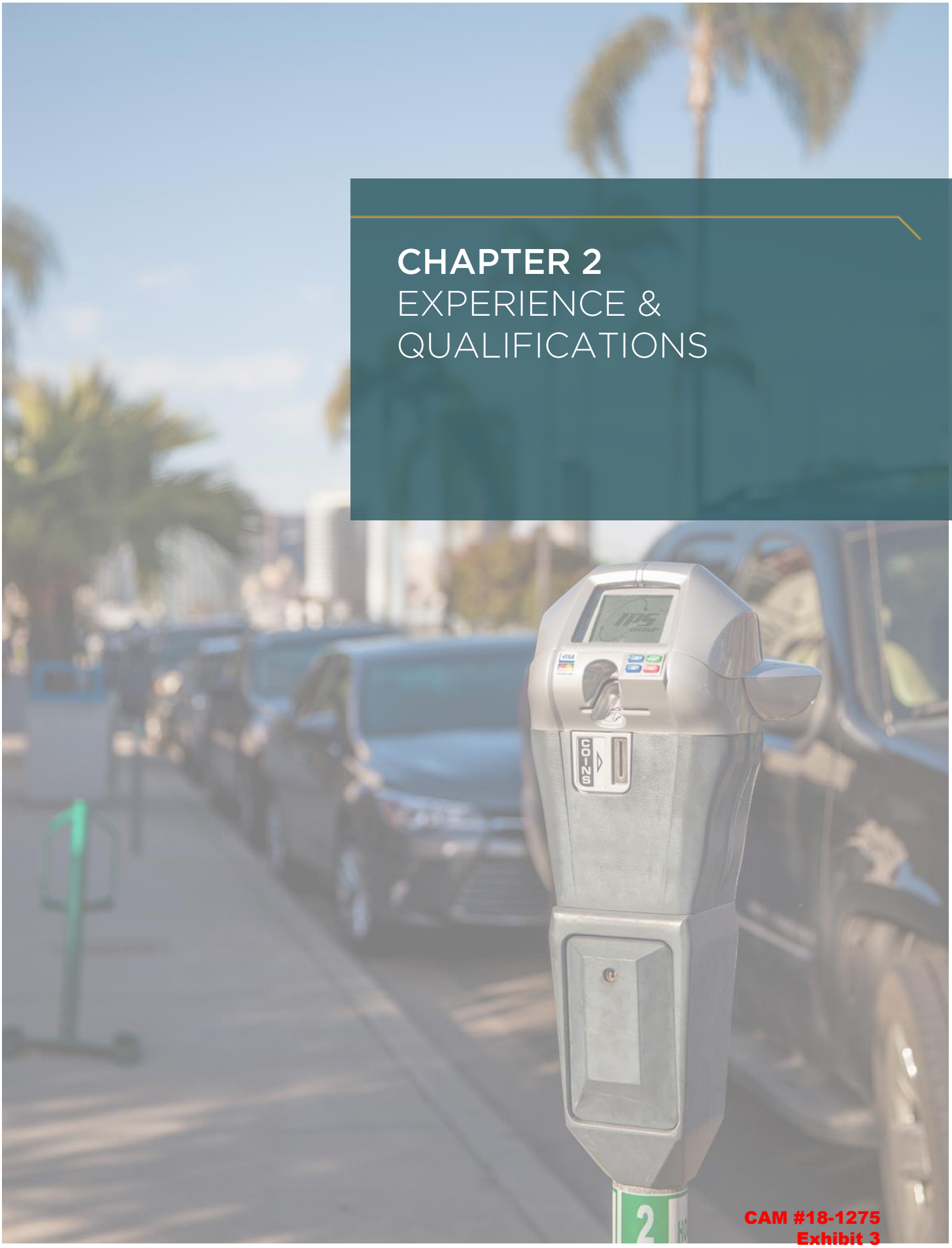
Matt Pope is the chief engineer at IPDisplays producing hardware and electrical designs for the past 13 years. His focus at IPDisplays has been creating our LED panel technology and Controller boards designs. He holds an Electrical Engineering degree from the University of Arkansas.

KEVIN HOOKS

Kevin Hooks is the Chief Technology officer at IPDisplays since 2005 overseeing product development and market opportunities. He previously was the Chief Technologist at Simon communications for 10 years. Kevin holds a biochemistry degree from Michigan State University.

ANNA BLACK

Anna Black is a senior programmer working at IPDisplays for 13 years. She is responsible for designing the web interface and providing programming services as requested by customers. She holds a Business Technology degree from Mississippi State University.



CHAPTER 2
EXPERIENCE & QUALIFICATIONS

4.2.3 EXPERIENCE & QUALIFICATIONS

Indicate the firm's number of years of experience in providing the professional services as it relates the work contemplated. Provide details of past projects for agencies of similar size and scope, including information on your firm's ability to meet time and budget requirements. Indicate the firm's initiatives towards its own sustainable business practices that demonstrate a commitment to conservation. Indicate business structure, IE: Corp., Partnership, LLC. Firm should be registered as a legal entity in the State of Florida; Minority or Woman owned Business (if applicable); Company address, phone number, fax number, E-Mail address, web site, contact person(s), etc. Relative size of the firm, including management, technical and support staff; licenses and any other pertinent information shall be submitted.

IPS DRIVES THE SMART CITIES REVOLUTION

For over two decades, IPS has been committed to the design, engineering, and manufacturing of intelligent parking technologies that shape the industry such as payment processing systems, SaaS management software, and low-power wireless telecommunications.

Based in San Diego, CA, IPS is the proud inventor of the credit card enabled single-space parking meter and has more wireless parking devices deployed across the US than our competitors combined. To date, IPS operates more than 250,000 wireless devices in over 250 cities worldwide. IPS drives the Smart Cities evolution as an innovator and trusted provider of Smart Parking technology.

Firm Name: IPS Group, Inc.

Business Structure: Corporation

Principal Place of Business: San Diego, CA

Contact Person: Chad Randall, COO; (858) 404-0607, chad.randall@ipsgroupinc.com

Tax ID #: 23-3028164

Registered legal entity in the State of Florida: Yes

Relative Size of Firm: 200 employees

ENFORCEMENT MANAGEMENT SOLUTION REFERENCES

Since its release, the Enforcement Management Solution has proven itself revolutionary to parking management and public safety solutions. The following references are currently active or are participating in a live pilot of the IPS Enforcement Management Solution, and are projects similar in scope to the Agency. We invite you to contact our references, who can attest to our high level of customer support, technical innovation, and product dependability.

CITY OF EUGENE, OR

Travis Hargitt | Director of Operations

Phone: 541-682-5296
Email: Travis.L.Hargitt@ci.eugene.or.us

Key IPS Staff: Dave Rotenberg, Nick Stanton, Randy Lassner, Elisa Leanos

Description of Services Provided:

- Real-time meter status alerts
- 12 Mobile Enforcement hand-held devices
- EMS Citation Management System
- IPS Permit Management Suite
- LPR products, services, and integration

UNIVERSITY OF MINNESOTA DULUTH, MN

Lisa Norr | Associate Director of Student Life Operations

Phone: 218.726.6601
Email: lisanorr@d.umn.edu

Key IPS Staff: Dave Rotenberg, Nick Stanton, Randy Lassner, Elisa Leanos

Description of Services Provided:

- 3 Mobile Enforcement hand-held devices
- EMS Citation Management system

EASTON TOWN CENTER, TX

Alba Cates
Security Administrative Coordinator

Phone: (614) 416-7000
Email: acates@Steiner.com

Key IPS Staff: Dave Rotenberg, Nick Stanton, Randy Lassner, Elisa Leanos

Description of Services Provided:

- 3 Mobile Enforcement hand-held devices
- EMS Citation Management system

LONG TERM IPS GROUP REFERENCES

The following are additional references that have all been IPS customers for over three years and can attest to the unmatched service provided by IPS, as well as our meter products that, like the Enforcement Management and Permit Management solutions, are fully-integrated with the IPS Smart Parking Platform.

CITY OF LOS ANGELES, CA

Ken Husting

Email: ken.husting@lacity.org,
Tel: 213.972.8430
Address: 555 Ramirez Street, Los Angeles, CA 90012

Population: 9,830,420
Model: single-space meter and in-ground vehicle detection sensors
Quantity of Meters Installed: 33,000 in total (5,600 in Express Park™), 500 in-ground vehicle detection sensors
Project Dates: 2010-2012

CITY OF SAN DIEGO

Jonathan Carey

Email: jcarey@sandiego.gov
Tel: 619.533.3610
Address: 202 C Street, San Diego, CA 92101

Population: 1,381,069
Model: single-space meters, multi-space pay stations and vehicle detection sensors
Project Dates: Installation January 2015
Quantity of Meters Installed: 4,700 single-space meters, 120 multi-space pay stations

CITY OF HOLLYWOOD, FL

Anthony DeRosa

Email: ADerosa@hollywoodfl.org
Tel: 954.921.3337
Address: 2600 Hollywood Blvd., Hollywood, FL 33022

Population: 146,526
Model: 130 M5™ single-space parking meters
Project Dates: August 2014
Quantity of Meters Installed: 13

CITY OF WEST PALM BEACH

Dan Giust

Email: dgiust@wpb.org
Tel: 561.822.1494
Address: 500 Banyan Blvd., West Palm Beach FL 33401

Population: 102,436
Model: 1,000 M5™ single-space meters and
Project Dates: July 2015
Quantity of Meters Installed: 1,000

CHARLOTTE.

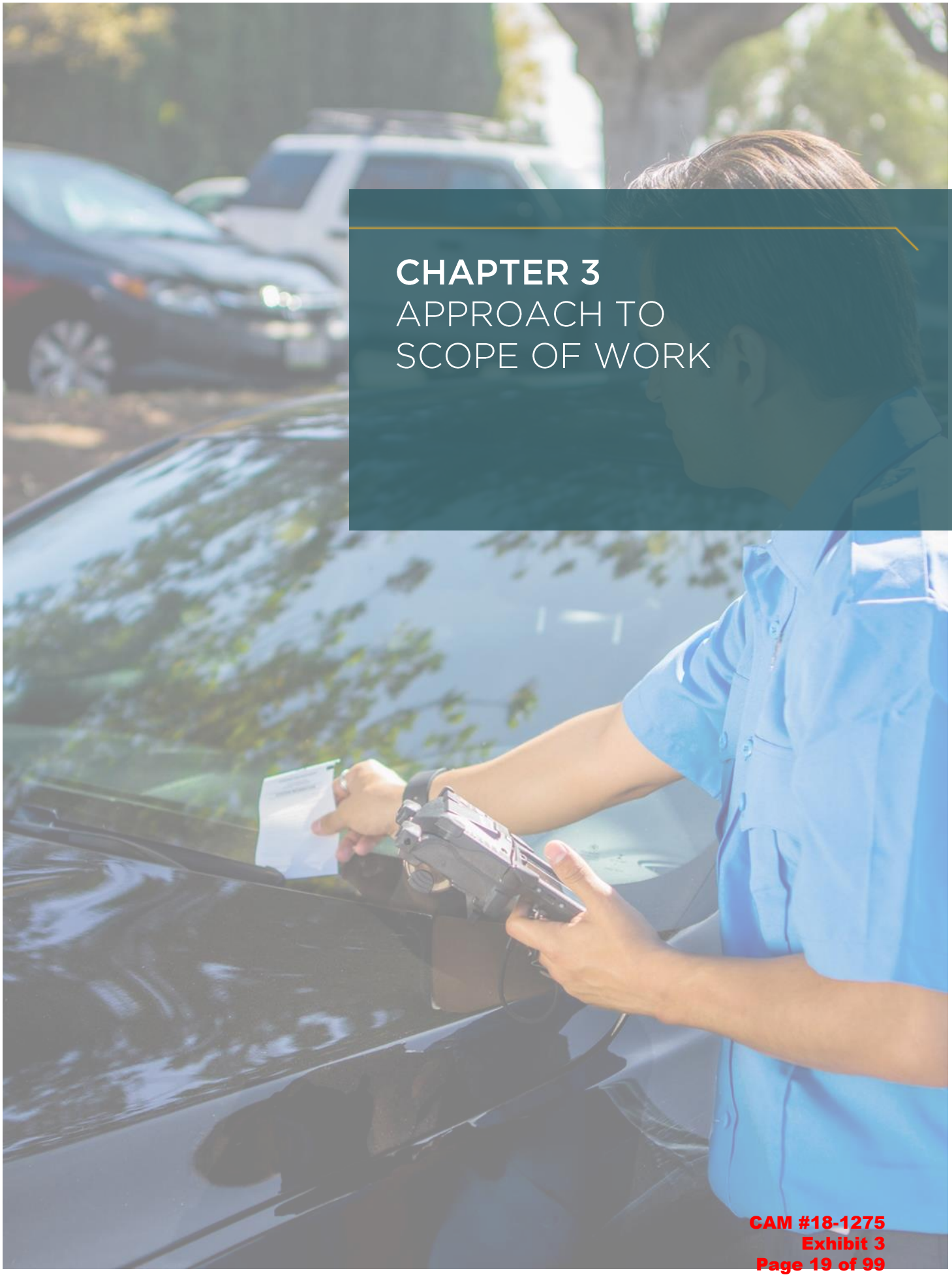
CITY OF CHARLOTTE, NC

Clement Gibson

Email: cgibson@ci.charlotte.nc.us
Tel: 704.336.4905
Address: 1440 Tryon St. Ste. 108, Charlotte, NC 29202

Population: 804,251
Model: 575 M5™ single-space parking meters
Project Dates: January 2015
Quantity of Meters Installed: 575

ADDITIONAL REFERENCES FOR OUR SUBCONTRACTORS CAN BE FOUND IN THE APPENDIX SECTION.



CHAPTER 3
APPROACH TO SCOPE OF WORK

4.2.4 APPROACH TO SCOPE OF WORK

Provide in concise narrative form, your understanding of the City's needs, goals and objectives as they relate to the project, and your overall approach to accomplishing the project. Give an overview on your proposed vision, ideas and methodology. Describe your proposed approach to the project. As part of the project approach, the proposer shall propose a scheduling methodology (time line) for effectively managing and executing the work in the optimum time. Also provide information on your firm's current workload and how this project will fit into your workload. Describe available facilities, technological capabilities and other available resources you offer for the project.

PROJECT APPROACH FOR THE CITY OF FORT LAUDERDALE

For the City of Fort Lauderdale project, our project approach is as follows:

1. Host an initial kick off meeting between the City, IPS, Q-Free and IPdisplays to complete the following tasks:

- Finalize any open questions or issues not already addressed
- Finalization of system design for the parking structure to ensure customer expectations and requirements are met
- Investigate current power locations to ensure required enclosures are in optimum locations to be less obtrusive and efficient.
- Wireless propagation study may be done to ensure signal strength meets and exceeds requirements providing client with a reliable communication system
- Using experience make suggested quantity and location suggestions for intelligent signage. Creating the optimum WAY FINDING and information platform for users.

2. Sign design confirmation and assembly usually determine the critical path. We will submit detailed project submittals within given timelines and the City will be required to sign off on the submittals.

3. Once approved, all counting equipment will be assembled in its entirety, from stock inventory.

4. Assembly of the counting components can be accomplished within 4 weeks after submittal sign off.

5. The entry and interior signs can be ready for shipment 8-10 weeks after submittal sign off.

6. The installation of the conduit, cabling and PGS equipment will be performed by a customer appointed Electrical contractor, with Q-Free's remote support.

8. Once the installation is completed, Q-Free will commission the site and train owner personnel on the equipment.

9. Any post installation related issues and warranty support will be addressed by Q-Free directly.

INSTALLATION TESTING

Ultrasonic Directional Sensors (USDS): Q-Free will test the start-up and connectivity of each USDS and confirm that each sensor is counting correctly and has a strong connection to the communication point.

Signs: Q-Free and IPdisplays will test the start-up and connectivity of the signs to the communication point.

Communication Equipment: Q-Free will test the connectivity throughout the facility to make sure data is successfully being transmitted to and from the Parking Guidance Server. This includes the control and status updates on the Visual Control Center Software.

ESTIMATED PROJECT TIMELINE

TASK	PARTY	TARGET TIMELINE
Notice to Proceed (NTP)	City/IPS	TBD
Public Outreach	City/IPS	Immediately
Manufacturing of Counting Equipment	Q-Free	4 weeks
Manufacturing of Entry & Interior Signs	IPdisplays	8-10 weeks + 1 week standard shipping
Installation of digital signage and counting equipment	Third party	6-8 weeks
Define all Installation points	City/IPS	5-10 days
Complete EMS Configuration Data Sheets and Conversion Data Request	City/IPS	10-20 days
Complete Credit Card Processing Information and Data Conversion setup	City/IPS	20-30 days
HVCC/IPS	City/IPS	20-30 days
EMS and MES Testing and Data Conversion review	City/IPS	30-45 days
MES and EMS Implementation, Delivery, Installation & Testing and Data Conversion review and moved from staging to live system	City/IPS	60-75 days
Training of City/Parking personnel (1-2) days	City/IPS	Prior to and at the time of delivery and installation

A. Name all persons or entities involved in the Proposal at the time of submission and identify the authorized representative(s) of the entity including contact name(s), phone number(s) and email address(s);

IPS Group, Inc.

7737 Kenamar Court

San Diego, CA 92121

Chad Randall / 858.404.0607 / chad.randall@ipsgroupinc.com

IPS GROUP TEAM MEMBERS

- Mike Dalzell
- Dave Rotenberg
- Randy Lasner

Q-FREE TEAM MEMBERS

- Dave Radford
- Grant Murphy
- Rusty Rose
- William Sargent
- Tue Yang
- Andrew Broderick

IP DISPLAYS TEAM MEMBERS

- Matt Pope
- Kevin Hooks
- Anna Black

B. Describe Proposer's current operations and locations. Include branding affiliation(s) as may be applicable and any other pertinent qualifications to achieve the intent of this request. Explain in as much detail as possible the type of development, if any, Proposer intends to operate

IPS

IPS is headquartered in San Diego, Calif., with offices across North America and Europe. For over 20 years, IPS has delivered world-class solutions through its fully-integrated Smart Parking product suite comprised of smart single-space meters, multi-space pay stations, pay-station upgrade kits, vehicle detection sensors, smart cash collection systems, mobile applications, enforcement and permitting solutions, hosted data management software with advanced data analytics, and more.

C. Describe in detail the Proposer's smart parking demand management system;

LEVEL COUNT SENSING TECHNOLOGY

In a Q-Free Level Counting installation, vehicle entry/exit at garage/level transition area entry/exits are monitored by overhead mounted Ultrasonic Directional Sensors (USDS). These sensors are suspended from ceilings at the counting points with threaded rod. Using A-B logic the ultrasonic beams are configured to identify the profile of a vehicle only and track the direction of travel (in-bound or out-bound). This calibration allows the system to not be "tricked" by pedestrians, carts, debris bicycles etc. The intelligence of the system allows for the tracking of wrong way traffic, meaning a vehicle entering an exit would be a "wrong way" count and automatically corrected in the software. **Mounting these sensors to the ceiling gives Q-Free the advantage over competitive solutions which require saw-cutting loops into the parking deck thus requiring x-raying etc.** These sensors can also easily be moved should traffic pattern change. This also provides an advantage over in-ground loops which must be re-cut and x-rayed again.

In the design provided, "cluster" design USDS configurations are proposed. This patented design is used in extra wide (20'+) lanes on entries/bi-directional ramps. A series of 3 USDS sensors are placed across the span to cover all possible transactions. **Utilizing the Q-Free "cluster" design eliminates the need for lane delineation on the ramps and the additional use of flexible posts, bollards, etc.** Each group of USDS sensors are BUS cabled to a communication enclosure (CP) on the nearby walk or pillar where they receive power and communication. Low voltage 24V power supplies drive the sensors and we have a wireless modem for communication to the server gateway on site. All cabling within the system is low voltage and a 3-pair 18 AWG. Only the CPs and gateways require 120 VAC.

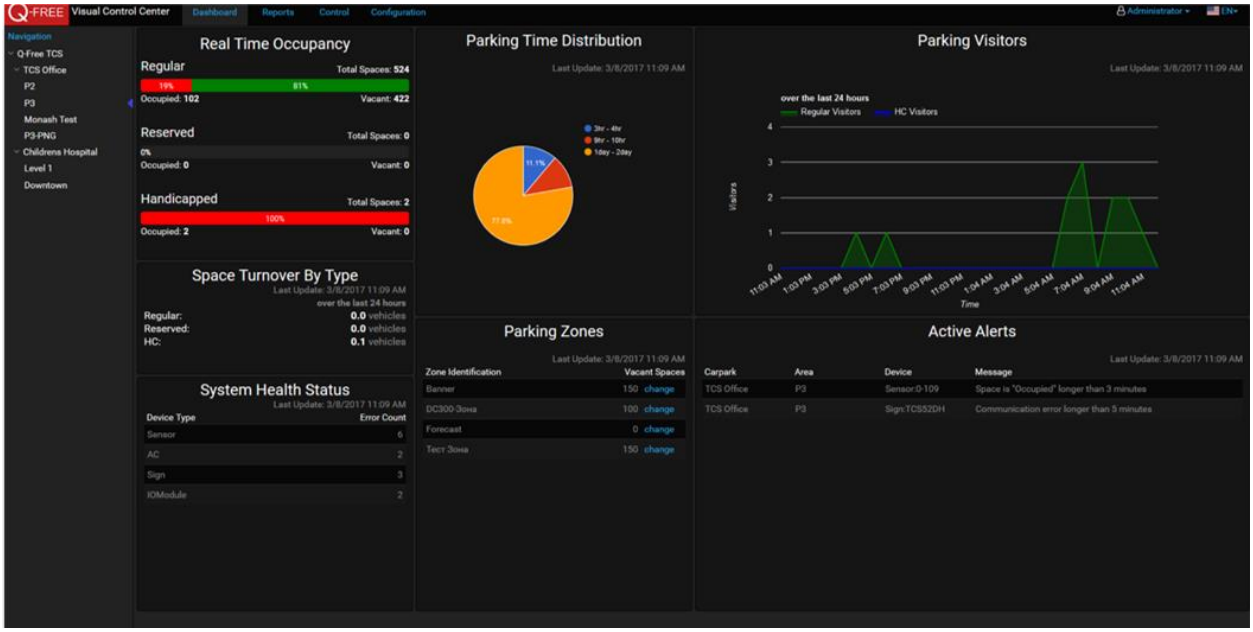
Our industry leading **wireless design** is KEY, as it **eliminates the need for expensive cable and conduit running from each device to a server**. This design has been deployed in some of the most highly sensitive government sites, as well as shopping centers, employee facilities, etc. around the world. Our **wireless mesh networks guarantee a system uptime of 99.99% as each communication point is a receiver and transmitter at the same time**. Each transaction is recorded in real time. To enhance the system design, user friendly intelligent signs are placed at key decision points.

INDUCTIVE IN-GROUND LOOPS

Inductive in-ground loops are used for counting levels or zones. They are used when there is no ceiling for counting a roof level or for outdoor surface lot applications. Loops are located at entry/exit points to the City Hall Garage. The loops are installed by either creating a saw-cut channel, or are embedded into concrete or asphalt during the pour schedule. The loops cables are connected to a loop detector which can detect direction as well as tailgating patterns. The loop detector is connected to a PGS area controller collecting all the car count information. Should the area controller lose connection to the server, the loops will still operate if the communication enclosure is powered on. The detector/area controller has an internal memory so it will keep track of the vehicles that pass over the loops. Then once connection is restored it will update the software accordingly.

CENTRAL PGS SOFTWARE

Q-Free will provide a client-based PGS software solution, which allows for multi-user access and dashboard controls through a web-portal. Our PGS software has a customer friendly, windows based, easily maneuverable GUI interface, providing overall status information as well as the ability to generate statistics, and run reports. The dashboard overview provides easy access to the most important system data.

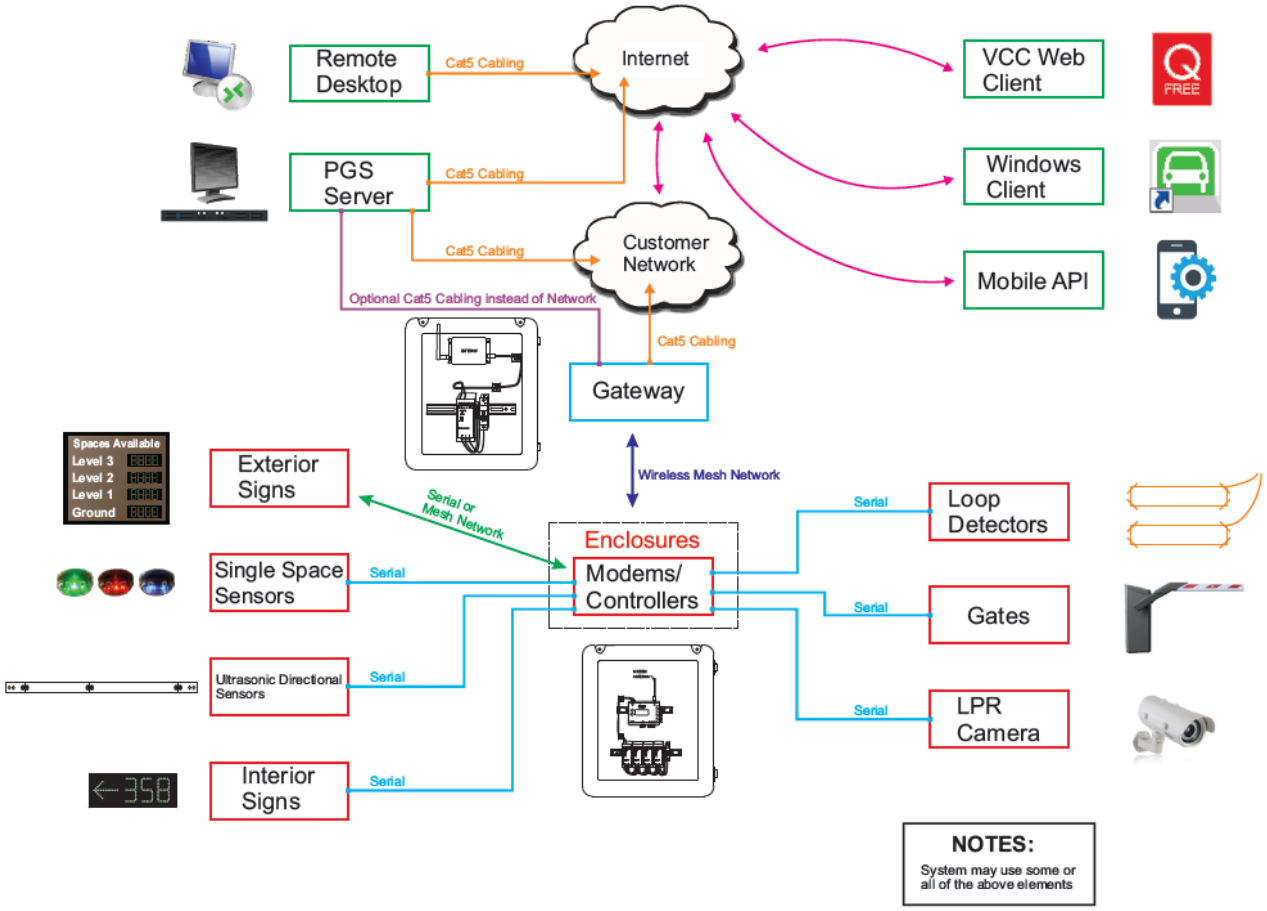


There are no 3rd party software packages in our proposal. All software is owned by Q-Free. Our system has an open API interface to 3rd party applications such as websites, apps, etc. Future expansion to other garages, facilities, roadway sign etc. is readily available.

OPTIONAL ENHANCEMENTS - FIND-YOUR-CAR FEATURE

Q-Free is working with EZR Parking to provide a cost effective "find-your-car" solution should this be required. Drivers can snap, text, or tap a strategically placed EZR Smart Signs and are instantly alerted with their parking location. There is no need for the additional costs of hardware for kiosks along with their installation requirements. This solution also does not require remembering a license plate to find where the car is parked.

SAMPLE OVERVIEW SCHEMATIC (STANDARD WIRELESS)



SYSTEM HARDWARE BREAKDOWN

ARTS & SCIENCE DISTRICT GARAGE

Ultrasonic Directional Sensors – Qty. 11

- Three (3) unit cluster configuration at wide garage/level entrances/exits and single unit standard configuration at standard width garage/level entrances/exits provided
- Built in central processing unit to control sensor logic
- Built in self-test diagnostics
- Maximum mounting height 8 ft
- Directional counting of vehicles
- Maximum effective speed 12 mph
- 24 VDC low voltage
- Output: plus-minus pulses and/or serial interface via RS-485
- Max. 24'/Delineation required for optimal cluster counting accuracy
- Max. 12'/Delineation required for optimal standard counting accuracy
- Dimensions: 74" L x 2.75" H x 2.5" W
- Weight: 15.5 lbs.

NOTE:

- Patent pending
- Proximity of vehicles under sensor can skew accuracy
- Spacing of sensors depends on garage floor layout and is customized per installation

Q-Free is not responsible for accurate system counts if proper lane delineation, if required, is not implemented, and maintained by others

Communication Point Enclosures – Qty. 5

All components for local network wireless clusters connected to USDS communication points (CP).

- Ultrasonic directional sensor communication point enclosures provided including:
  - Wireless communication equipment (i.e. modems, power supplies, etc.)
  - Power supplies for USDS and/or signs
  - Peripherals, etc.
- Equipment pre-configured in 14" x 12" x 6" NEMA 4 PVC indoor enclosure

Directional Delineation Posts – Qty. 25

- Lane delineation equipment used to ensure proper vehicle counts
- Used to properly channel traffic under count sensor
- 36” standard post
- Includes two (2) reflector stripes
- Adhesive pads provided
- Installation by others
- Max. 24’/Delineation required for optimal cluster counting accuracy
- Max. 12’/Delineation required for optimal standard counting accuracy

Note: Final quantity of required units is subject to site evaluation due to traffic flow concerns

Q-Free does not accept any responsibility for replacement of delineators if damaged or destroyed due to traffic flow. The delineators are placed to ensure proper system performance and are not designed to sustain extensive abuse due to traffic flow or abuse.

Gateway Enclosure – Qty. 1

All components for local network wireless clusters connected to wireless gateway (GW).

- Wireless gateway enclosure provided including:
- Wireless communication equipment (i.e. gateways, power supplies, etc.)
- Equipment pre-configured in 14” x 12” x 6” NEMA 4 PVC indoor enclosure

NOTE: Wireless gateway (GW) must be physically connected to the existing customer network or directly to the PGS server.

BRIDGESIDE PLACE GARAGE

Ultrasonic Directional Sensors – Qty. 22

- Three (3) unit cluster configuration at wide garage/level entrances/exits and single unit standard configuration at standard width garage/level entrances/exits provided
- Built in central processing unit to control sensor logic
- Built in self-test diagnostics
- Maximum mounting height 8 ft
- Directional counting of vehicles
- Maximum effective speed 12 mph
- 24 VDC low voltage
- Output: plus-minus pulses and/or serial interface via RS-485
- Max. 24’/Delineation required for optimal cluster counting accuracy
- Max. 12’/Delineation required for optimal standard counting accuracy
- Dimensions: 74” L x 2.75” H x 2.5” W
- Weight: 15.5 lbs.

NOTE:

- Patent pending
- Proximity of vehicles under sensor can skew accuracy
- Spacing of sensors depends on garage floor layout and is customized per installation

Q-Free is not responsible for accurate system counts if proper lane delineation, if required, is not implemented, and maintained by others

Communication Point Enclosures – Qty. 8

All components for local network wireless clusters connected to USDS communication points (CP).

- Ultrasonic directional sensor communication point enclosures provided including:
  - Wireless communication equipment (i.e. modems, power supplies, etc.)
  - Power supplies for USDS and/or signs
  - Peripherals, etc.
- Equipment pre-configured in 14" x 12" x 6" NEMA 4 PVC indoor enclosure

Directional Delineation Posts – Qty. 25

- Lane delineation equipment used to ensure proper vehicle counts
- Used to properly channel traffic under count sensor
- 36" standard post
- Includes two (2) reflector stripes
- Adhesive pads provided
- Installation by others
- Max. 24'/Delineation required for optimal cluster counting accuracy
- Max. 12'/Delineation required for optimal standard counting accuracy

Note: Final quantity of required units is subject to site evaluation due to traffic flow concerns

Q-Free does not accept any responsibility for replacement of delineators if damaged or destroyed due to traffic flow. The delineators are placed to ensure proper system performance and are not designed to sustain extensive abuse due to traffic flow or abuse.

Gateway Enclosure – Qty. 1

All components for local network wireless clusters connected to wireless gateway (GW).

- Wireless gateway enclosure provided including:
- Wireless communication equipment (i.e. gateways, power supplies, etc.)
- Equipment pre-configured in 14" x 12" x 6" NEMA 4 PVC indoor enclosure

NOTE: Wireless gateway (GW) must be physically connected to the existing customer network or directly to the PGS server.

CITY HALL GARAGE

Ultrasonic Directional Sensors – Qty. 14

- Three (3) unit cluster configuration at wide garage/level entrances/exits and single unit standard configuration at standard width garage/level entrances/exits provided
- Built in central processing unit to control sensor logic
- Built in self-test diagnostics
- Maximum mounting height 8 ft
- Directional counting of vehicles
- Maximum effective speed 12 mph
- 24 VDC low voltage
- Output: plus-minus pulses and/or serial interface via RS-485
- Max. 24'/Delineation required for optimal cluster counting accuracy
- Max. 12'/Delineation required for optimal standard counting accuracy
- Dimensions: 74" L x 2.75" H x 2.5" W
- Weight: 15.5 lbs.

NOTE:

- Patent pending
- Proximity of vehicles under sensor can skew accuracy
- Spacing of sensors depends on garage floor layout and is customized per installation

Q-Free is not responsible for accurate system counts if proper lane delineation, if required, is not implemented, and maintained by others

Communication Point Enclosures – Qty. 8

All components for local network wireless clusters connected to USDS communication points (CP).

- Ultrasonic directional sensor communication point enclosures provided including:
  - Wireless communication equipment (i.e. modems, power supplies, etc.)
  - Power supplies for USDS and/or signs
  - Peripherals, etc.
- Equipment pre-configured in 14" x 12" x 6" NEMA 4 PVC indoor enclosure

Directional Delineation Posts – Qty. 25

- Lane delineation equipment used to ensure proper vehicle counts
- Used to properly channel traffic under count sensor
- 36” standard post
- Includes two (2) reflector stripes
- Adhesive pads provided
- Installation by others
- Max. 24’/Delineation required for optimal cluster counting accuracy
- Max. 12’/Delineation required for optimal standard counting accuracy

Note: Final quantity of required units is subject to site evaluation due to traffic flow concerns

Q-Free does not accept any responsibility for replacement of delineators if damaged or destroyed due to traffic flow. The delineators are placed to ensure proper system performance and are not designed to sustain extensive abuse due to traffic flow or abuse.

Communication Point Enclosures – Single Lane – Qty. 1

All components for local network wireless clusters connected to area controller/loop detector communication points:

- Loop counting communication enclosure provided including:
- Area controller:
- Configured to manage inputs from all loop counting locations
- Manages all dynamic signage
- Power supply
- (1) Anti-tailgating loop detector including calibration loop & harness per enclosure
- External antenna & cable
- Wireless communication equipment (i.e. modems, power supplies, etc.)
- Equipment pre-configured in 20” x 20” x12” NEMA 4X grey fiberglass enclosure

Pre-Formed Loops – Qty. 2

- Pre-formed in-ground loops provided

Loop Sealant – Qty. 10

- Includes tubes of loop sealant for in-ground saw-cut loops

Communication Point Enclosures – Triple Lane – Qty. 1

All components for local network wireless clusters connected to area controller/loop detector communication points:

- Loop counting communication enclosure provided including:
- Area controller:
- Configured to manage inputs from all loop counting locations
- Manages all dynamic signage
- Power supply
- (1) Anti-tailgating loop detector including calibration loop & harness per enclosure
- External antenna & cable
- Wireless communication equipment (i.e. modems, power supplies, etc.)

- Equipment pre-configured in 20” x 20” x12” NEMA 4X grey fiberglass enclosure

Pre-Formed Loops – Qty. 6

- Pre-formed in-ground loops provided

Loop Sealant – Qty. 30

- Includes tubes of loop sealant for in-ground saw-cut loops

Gateway Enclosure – Qty. 1

All components for local network wireless clusters connected to wireless gateway (GW).

- Wireless gateway enclosure provided including:
- Wireless communication equipment (i.e. gateways, power supplies, etc.)
- Equipment pre-configured in 14” x 12” x 6” NEMA 4 PVC indoor enclosure

NOTE: Wireless gateway (GW) must be physically connected to the existing customer network or directly to the PGS server.

CITY PARK GARAGE

Ultrasonic Directional Sensors – Qty. 42

- Three (3) unit cluster configuration at wide garage/level entrances/exits and single unit standard configuration at standard width garage/level entrances/exits provided
- Built in central processing unit to control sensor logic
- Built in self-test diagnostics
- Maximum mounting height 8 ft
- Directional counting of vehicles
- Maximum effective speed 12 mph
- 24 VDC low voltage
- Output: plus-minus pulses and/or serial interface via RS-485
- Max. 24’/Delineation required for optimal cluster counting accuracy
- Max. 12’/Delineation required for optimal standard counting accuracy
- Dimensions: 74” L x 2.75” H x 2.5” W
- Weight: 15.5 lbs.

NOTE:

- Patent pending
- Proximity of vehicles under sensor can skew accuracy
- Spacing of sensors depends on garage floor layout and is customized per installation

Q-Free is not responsible for accurate system counts if proper lane delineation, if required, is not implemented, and maintained by others

Communication Point Enclosures – Qty. 16

All components for local network wireless clusters connected to USDS communication points (CP).

- Ultrasonic directional sensor communication point enclosures provided including:
  - ✓ Wireless communication equipment (i.e. modems, power supplies, etc.)
  - ✓ Power supplies for USDS and/or signs
  - ✓ Peripherals, etc.
- Equipment pre-configured in 14” x 12” x 6” NEMA 4 PVC indoor enclosure

Directional Delineation Posts – Qty. 25

- Lane delineation equipment used to ensure proper vehicle counts
- Used to properly channel traffic under count sensor
- 36” standard post
- Includes two (2) reflector stripes
- Adhesive pads provided
- Installation by others
- Max. 24’/Delineation required for optimal cluster counting accuracy
- Max. 12’/Delineation required for optimal standard counting accuracy

Note: Final quantity of required units is subject to site evaluation due to traffic flow concerns

Q-Free does not accept any responsibility for replacement of delineators if damaged or destroyed due to traffic flow. The delineators are placed to ensure proper system performance and are not designed to sustain extensive abuse due to traffic flow or abuse.

Gateway Enclosure – Qty. 1

All components for local network wireless clusters connected to wireless gateway (GW).

- Wireless gateway enclosure provided including:
- Wireless communication equipment (i.e. gateways, power supplies, etc.)
- Equipment pre-configured in 14” x 12” x 6” NEMA 4 PVC indoor enclosure

NOTE: Wireless gateway (GW) must be physically connected to the existing customer network or directly to the PGS server.

CENTRAL PGS SERVER HARDWARE AND SOFTWARE

Hardware*:*

- Dedicated PGS tower server Dell T-130 or equivalent
- Operating System Windows Server 2016
- CPU: Intel Xeon, 3.0GHz or similar
- Hard Drive: 256GB

- Minimum 8 GB RAM
- 22” Flat screen monitor
- USB Mouse & keyboard
- *Customer supplied UPS backup recommended*

Software:

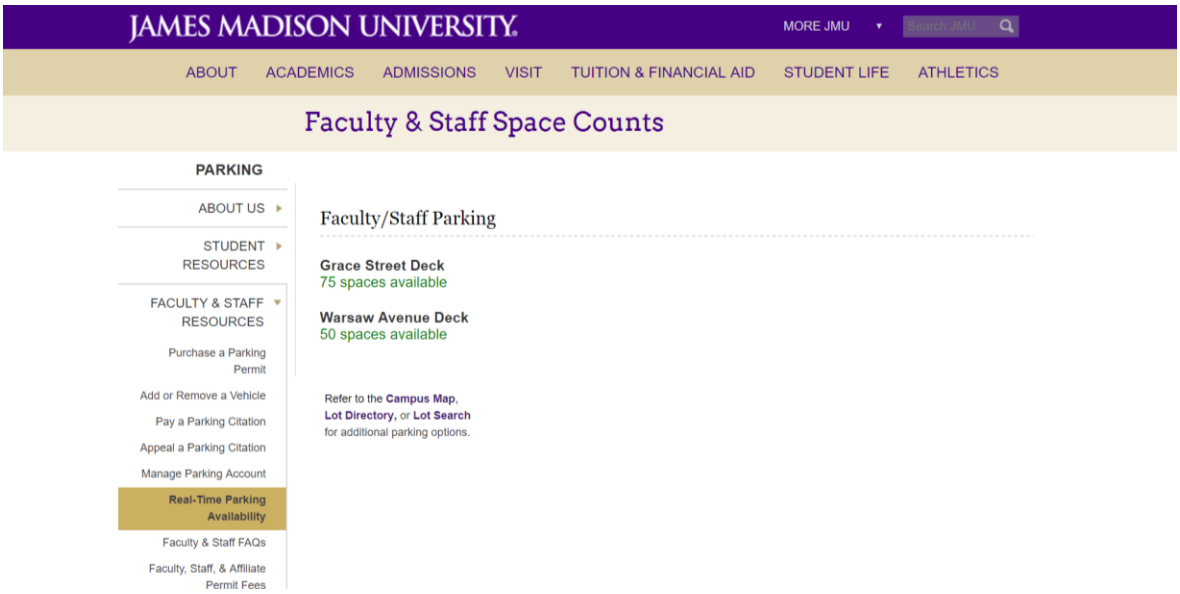
- Server based software with web user interface for dashboard controls
- Microsoft™ Windows based
- Operating language English
- Real time graphical analysis for operator control with GUI for parking facility
- Central communications to LED signage and ultrasonic detectors
- Complete single control and programmability of LED signage and sensors
- Password protected access
- All reprogramming changes are logged
- Complete reporting and statistics for floor counts, occupancy, turnover, alarms, and customizable reports
- Storage and access of historical data
- Alarm monitoring for dynamic signage & counting locations
- Remote LogMeIn capability required prior to system commissioning & training
- *Customer supplied anti-virus software recommended*

Note; Customer responsible for network connection between garages.

API TOOL

- API tool allowing export of data for upload to client website/mobile app
- Updated counts sent by the PGS system automatically

SAMPLE WEBINTERFACE:



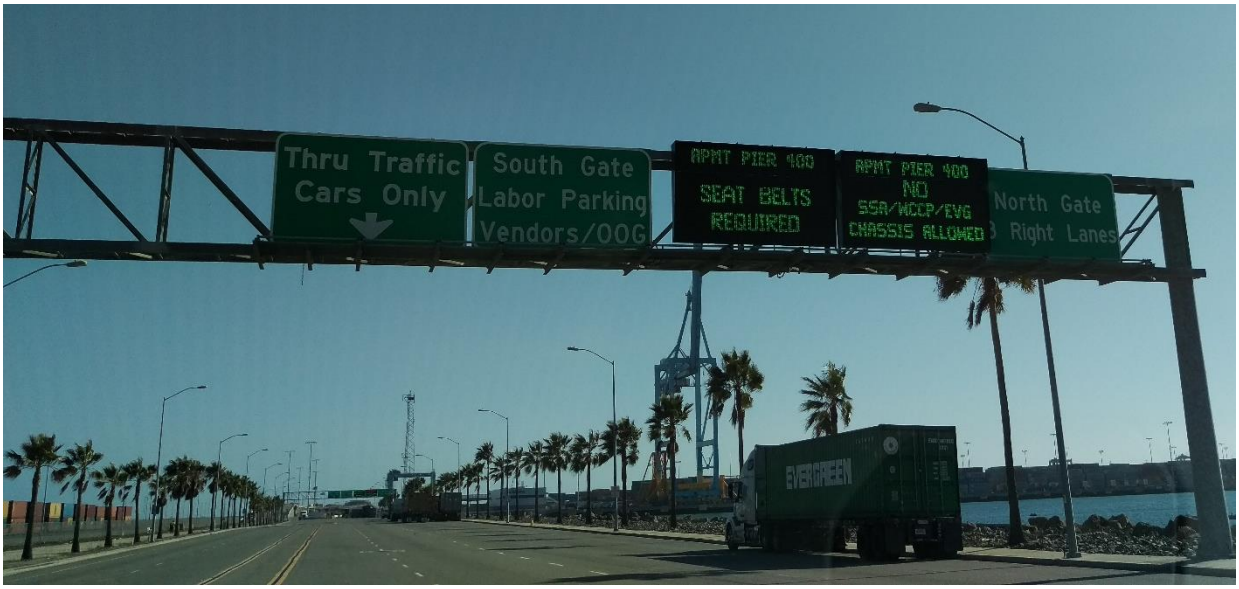
DIGITAL SIGNAGE – IPDISPLAYS

IPdisplays™ manufactures smart LED signs with **self-contained microprocessors that eliminate the need for a PC** to "Drive" them. Instead, the onboard microprocessor and software developed by IPdisplays™ allows the smart LED signs to intelligently pull information from a variety of sources, or receive information pushed to them. The signs can display anything from train arrival times or outages to truck pickup locations… virtually anything that people need to know to maintain productivity.

Smart LEDs from IPdisplays™ use **Internet Protocol (IP) and Web services** as the means of communicating and gathering information needed to **populate the signs with dynamic, real-time data**.

KEY BENEFITS

- Intuitive User Interface: Save time with the ability to rapidly configure the display. Ultra-friendly, menu-based user interface that is similar in operation to most commercial programs.
- Browser-based Interface: Providing the maximum ease of use and operation. Users can manage their displays from a simple Web browser anywhere an internet connection can be found. No custom software needs to be installed to send messages, check status, or midify sign layouts.
- Dynamic Sign Layouts: Provides unprecedented flexibility in how to display your information. Use a wide array of options for the number of zones and data elements. Multiple layouts may be used to convey all the information you desire.
- Open-platform Design: No need to learn proprietary software protocols or new programming languages. The system uses **simple, standard XML programming to send data to the displays**.



- Data Threshold Capabilities: Immediate, automated feedback based on your data. The on-board processor can be set to watch your data and compare it to preset thresholds to automatically alter the display, and provide a visual alert when data changes or a threshold has been crossed.
- Text, Graphics and Multiple Color Options: Configure messages easily with a word processor-style interface. Multiple font styles and colors are available to format messages. Bitmap images are easily imported and inserted into messages. Graphics and text may be configured with red, green or yellow colors. Full spectrum color available. Blinking and scrolling can add further visual impact.
- Industrial Ready: Operating temperatures of -20°F to 160°F. The displays are built to handle harsh environments. Completely solid state, no fans to push dirty air over the electronics. The non-glare windows can easily be replaced in the field if they become damaged by extended dust or chemical exposure.
- Ultra-bright LED Technology: These signs offer 10mm+ pitch LEDs for optimal viewing and readability from a distance. Light sensors can brighten in bright conditions; dim in dark.
- Self-contained, Plug and Play System: No need for an extra PC or intermediate software to drive the system. IPdisplays' signs are shipped with everything needed to begin operation after installation.
- Conditions and Soft Logic: Change the look and feel of the display based on your data. Simply set up "conditions" and let logic change what and how the display shows informaton. Add impact and attention to what's important by enabling new layouts or messages.
- Remote Snapshot: See what the display is showing wherever you are. View exactly what is being displayed on the sign directly from your browser.

MOBILE ENFORCEMENT DEVICE

Convenient, Quick, and Efficient Citation Issuance

The N5 Print Mobile Enforcement Device combines ease-of-use and durability to ensure that parking enforcement officers experience the most convenient, quick, and efficient paperless citation issuance process possible. The device provides access to citation history, scofflaw and habitual offender information and custom alerts to ensure accurate citation issuance. Real-time syncing to the secure Enforcement Management System (EMS) gives the peace-of-mind that citation information has been accurately captured and securely transferred to the EMS for immediate processing to kick off the citation workflow.

One-Piece Mobile Enforcement Device

The conveniently self-contained one-piece, while lightweight and portable, is rugged for heavy-duty daily use and is environmentally-sealed to protect against harsh elements including rain, sleet, snow, and is also mud-resistant. A high contrast screen is easy to read screen even in harsh daylight conditions, and the integrated thermal printer produces citations quickly. A magnetic strip and smart card reader is also included for on-the-go payment collection. The unit also features color photo syncing, and e-chalking, as well as **features exclusive only to the IPS Mobile Enforcement Device including guided enforcement,** LPR-Lite, **and heat mapping that directs officers and enables better route planning.**

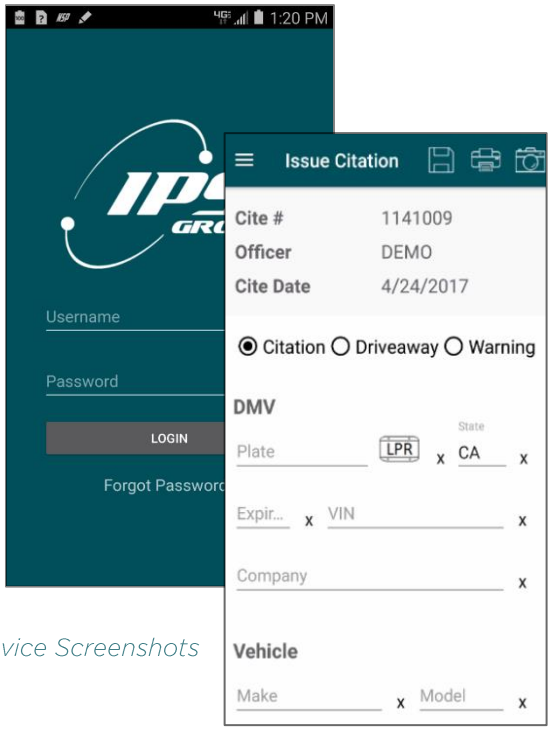
Our Mobile Enforcement Solution is compatible with all Android devices. IPS also offers a two-piece option that is compatible with all printer configurations.

BASIC FEATURES

- All-in-one 1-piece or optional 2-piece unit (Android OS compatible)
- Real-time syncing to secure/encrypted EMS backoffice
- Scofflaw and customized alerts
- Integrated thermal printer (1-piece unit)
- Magnetic strip and smart card reader for payment collection
- E-chalking
- Shift tracking
- Customizable user dashboard
- High contrast easy-to-read screen – even in harsh daylight conditions
- Type-ahead field input
- E-chalking time limit marking
- GPS tracking
- High-res color images (2mp 1080p @3fps color imager)
- Automatic software updates
- IP65 rating (Operating temps tested to MIL-STD 810F -20° to + 50° C)

EXCLUSIVE TO THE IPS N5 MOBILE ENFORCEMENT DEVICE:

- LPR-lite citation issuance function
- Heat mapping
- Guided enforcement

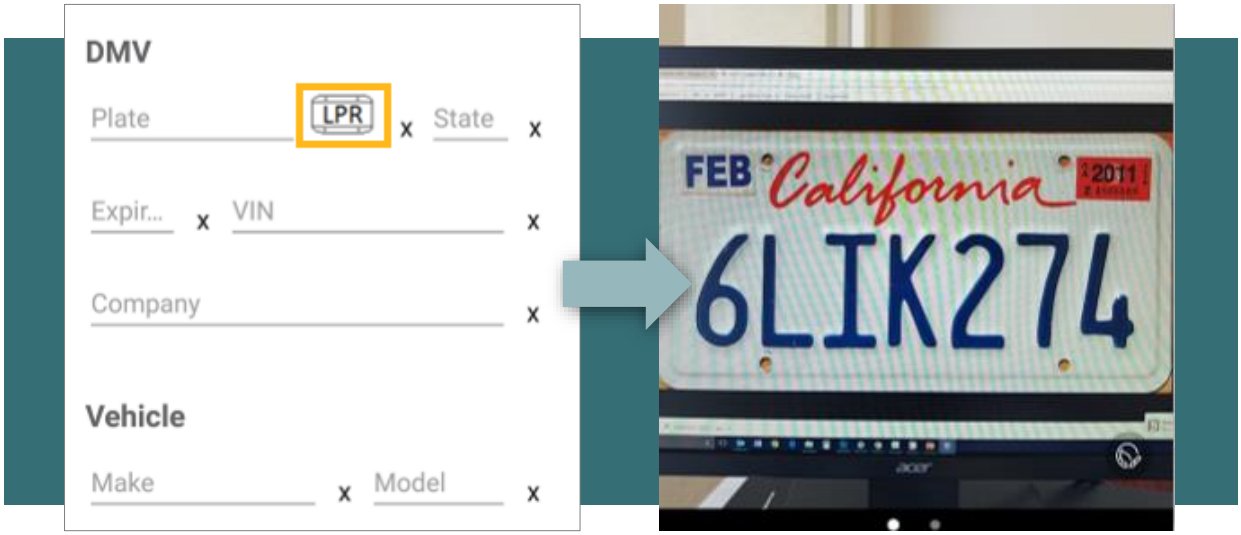


Mobile Device Screenshots

LPR-LITE CITATION ISSUANCE FUNCTION (IPS EXCLUSIVE)

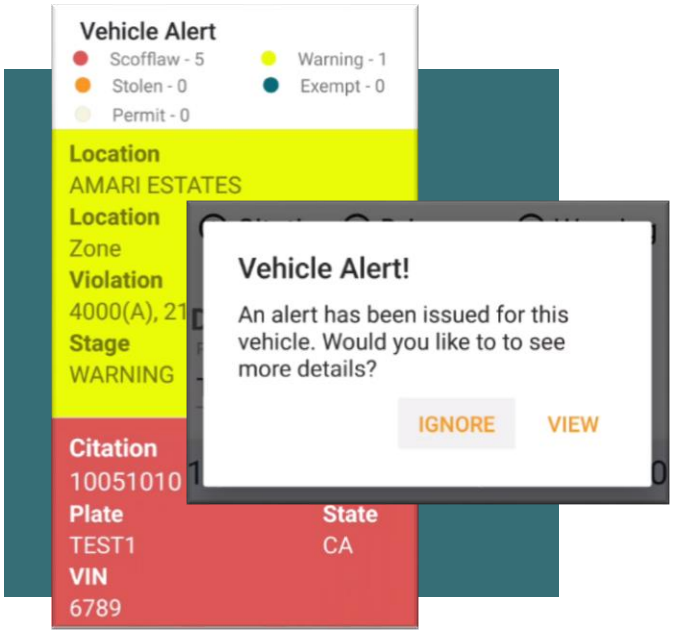
LICENSE PLATE RECOGNITION AT YOUR FINGERTIPS

Our exclusive **LPR-lite** citation issuance function allows a user to take a picture of the respective plate and hit confirm to kick off the LPR process. The plate number field is then updated onto the citation being issued.



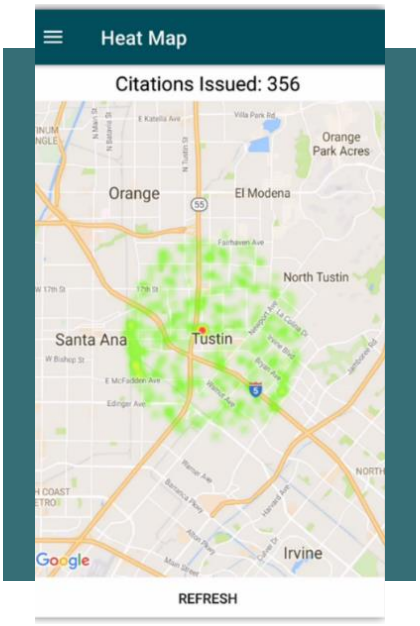
FEATURES INCLUDE:

- Automatic Alerts
- Scofflaw/Habitual offenders
- Stolen plate
- Virtual permitting
- VIP and exempt plates
- Pay-by-plate integration



CITATION HEAT MAP (IPS EXCLUSIVE) EASILY IDENTIFY AREAS WITH HIGH CITATION VOLUME

Real-time GPS heat map shows concentration of citations issued over a specific period.



- Identify areas with high concentration of citations
- Maps refresh in real time
- Displays number of tracked and mapped citations
- Color-coded zones indicate citation volumeGUIDED ENFORCEMENT (IPS Exclusive)

AUTOMATE METER TRACKING AND ENFORCEMENT

Guided Enforcement helps save time by providing real-time meter status via Google Maps of all meters on the beat, directing enforcement personnel to the exact location of meters in violation. Your enforcement personnel will no longer roam unsystematically in search for meter violators, but instead use real-time data to make informed decisions and optimize enforcement route planning.

- Real-time meter status alerts
- Color-coded status for easy violation identification
- View or set repair notifications for meters in real time
- Click for detailed meter information

D. Define the main market drivers and barriers for the deployment of smart parking systems

In recent years, more and more cities are enlisting in the opportunity to join the Smart Cities movement. Smart parking systems are a just a small piece of the larger smarter cities initiative, however they often share similar catalysts and inhibitors. Within the smart parking systems arena, buzz words like "big data" and "integration" have become commonplace. Fundamentally, these words represent even more in terms of smart parking. They represent data in the way of informational metrics and analytics, **allowing cities to make informed parking decisions around revenue, parking rates, time limits, enforcement, and parking availability.**

Accessibility and convenience are additional benefactors to smart parking. A key goal behind technology's influx into parking has been to increase efficiencies for cities and their staff but more importantly, provide a greater ease of use and more intuitive experience for the everyday customer.

Parking availability has become a premium in many cities. Much of the time, less parking availability translates into a growth in demand. Even with programs and initiatives like car-share, ride-share and chatter around autonomous vehicles, the need to park one's personal vehicles is not disappearing anytime soon. As a result, smart parking solutions have become increasingly important.

As with much of anything, there are barriers to smart parking systems as well. Technology and the ability for companies invest in **innovation is not cheap**. However, a city's own investment in parking is often contingent on budget availability – and for so long, **parking has been at the very back of the line when it comes to allocating city's funds** for parking programs. So, to an extent, the expansion and influence of smart parking systems grows in parallel with cities and their budgets.

Beyond just the red tape of cities though, we are all in a unique era where there is a divide in our population between those who are progressive in adapting to new technology and those that are a bit slower to embrace. As a result though, as stakeholders in one's community, those that are not as apt have the ability to tip the scale one way or the other. Therefore education, communication and inclusion are important factors in preventing the human variable.

E. Elaborate on the primary technologies of your smart parking system's features, functionality, and the ability to migrate data from our current parking management system (T2 FLEX)

We are more than confident in our ability to work with your existing data to analyze and convert it, as required, in the RFP. IPS understands how critical this data conversion is to the success of your project and it is our promise to provide you dedicated care and communication throughout the entire conversation process.

IPS has a number of full time individuals dedicated to helping you throughout the conversion process. We utilize a unique process of expediting the conversion data by working test data prior to the live exchange. All of these processes are accomplished and continuously supported in-order to maintain the integrity of your data; all while minimizing operational and customer service disruptions

We recommend converting all citation issued within the last 5 years. This will ensure that you will be able to generate statistics and reports against a complete data set. IPS is happy to accommodate a smaller conversion should that be the desired direction. A detailed conversion timeline is included below. This timeline contains sample start and end dates which help provide a clear picture of the steps we will take during your conversion process.

CONVERSION TASK	SUBTASK	DURATION	SAMPLE START DATE	SAMPLE END DATE
Conversion Data Analysis		**14**	**1/1/2018**	**1/15/2018**
	Data file(s) request	1	1/15/2018	1/16/2018
	Data file(s) receipt	5	1/16/2018	1/21/2018
	Data file(s) initial analysis	1	1/21/2018	1/22/2018
	Data file(s) Q&A with existing vendor	1	1/22/2018	1/23/2018
	Answer(s) received from existing vendor	1	1/23/2018	1/24/2018
	Import into test database	1	1/24/2018	1/25/2018
	Follow up Q&A with existing vendor	1	1/25/2018	1/26/2018
	Conversion algorithm modification	1	1/26/2018	1/27/2018
	Reload conversation data into test DB	1	1/27/2018	1/28/2018
	Analysis of loaded data	1	1/28/2018	1/29/2018
Live Data Conversion		18	1/29/2018	2/16/2018
	Receipt of live data	1	1/29/2018	1/30/2018
	Data analysis	1	1/30/2018	1/31/2018
	Follow up Q&A with existing vendor	1	1/31/2018	2/1/2018
	Answer(s) received from existing vendor	1	2/1/2018	2/2/2018
	Import into live database	1	2/2/2018	2/3/2018
	Year 1 data loaded	5	2/3/2018	2/8/2018

	Year 2 data loaded	1	2/8/2018	2/9/2018
	Year 3 data loaded	1	2/9/2018	2/10/2018
	Year 4 data loaded	1	2/10/2018	2/11/2018
	Year 5 data loaded	5	2/11/2018	2/16/2018
Final Review		**8**	**2/16/2018**	**2/24/2018**
	Final analysis	2	2/17/2018	2/19/2018
	Client analysis	2	2/19/2018	2/21/2018
	Vendor sign off	2	2/21/2018	2/23/2018
	Client sign off	2	2/23/2018	2/25/2018

F. Elaborate further on the dynamic and adaptive reporting capabilities of your parking system

IPS DYANMIC ENFORCEMENT MANAGEMENT SYSTEM

- Mobile Enforcement System (MES): The most innovative on the market today, our N5 Print all-in-one Mobile Enforcement Device (Android compatible) ensures parking enforcement officers experience a convenient, quick and efficient citation issuance process.
- Enforcement Management System (EMS): Our end-to-end cross compatible web-based citation management system manages the entire lifecycle of parking citations including issuance, adjudication, payment, DMV communications and collections.
- Public Citation Management Portal: The Public Citation Management Portal is a website that allows citizens to review the current status of their citation, pay or obtain information on how to contest their citation, review fine amounts including late fees, and obtain additional information.
- Permit Management System: The Permit Management solution offers property managers the flexibility and convenience to manage the entire parking permit lifecycle from initial design through fulfillment via a web-based system available 24/7.

G. Elaborate further on the proposed parking system maintenance, accuracy and warranty

ACCURACY AND WARRANTY OF LEVEL COUNTING SYSTEM

Level Counting installation, vehicle entry/exit at garage/level transition area entry/exits are monitored by overhead mounted Ultrasonic Directional Sensors (USDS). These sensors are suspended from ceilings at the counting points with threaded rod. **Mounting these sensors to the ceiling gives Q-Free the advantage over competitive solutions which require saw-cutting loops into the parking deck thus requiring x-raying etc.** These sensors can also easily

be moved should traffic pattern change. This also provides an advantage over in-ground loops which must be re-cut and x-rayed again.
In the design provided, “cluster” design USDS configurations are proposed. This patented design is used in extra wide (20’+) lanes on entries/bi-directional ramps. A series of 3 USDS sensors are placed across the span to cover all possible transactions. **Utilizing the Q-Free “cluster” design eliminates the need for lane delineation on the ramps and the additional use of flexible posts, bollards, etc.**

Our industry leading **wireless design** is KEY, as it **eliminates the need for expensive cable and conduit running from each device to a server**. This design has been deployed in some of the most highly sensitive government sites, as well as shopping centers, employee facilities, etc. around the world. Our **wireless mesh networks guarantee a system uptime of 99.99% as each communication point is a receiver and transmitter at the same time**.

Please see the Q-Free Limited Warranty provisions in the Pricing Section of our proposal.

MOBILE ENFORCEMENT DEVICE WARRANTY
TERMS AND CONDITIONS FOR THE N-CLASS 2TRX PRODUCT CARE PROGRAM

Limited Product Warranty

Two Technologies, Inc®. (Two Technologies) warrants that the N-Class Rugged Android product shall be free from defects in materials and workmanship, under normal intended use, for a period of 12 months from the date of shipment from Two Technologies. The N-CLASS products can be warranted up to five (5) years (including the standard warranty period). Two Technologies warrants that the following items shall be free from defects in materials and workmanship, under normal intended use, for a period of ninety (90) days from the date of shipment: battery packs, media containing the N-CLASS programs, desktop PC programs, owner’s manual and any accessories. Extended warranties apply only to the N-CLASS products, not battery packs, media containing N-CLASS programs, desktop PC programs, owner’s manual(s) and any accessories.

Warranty Exclusions

This warranty shall not apply if: (i) the product has been set up improperly or has been improperly installed or calibrated, (ii) the product is operated in a manner that is not in accordance with the instruction manual(s) and/or user guide, (iii) the product is used for a purpose other than for which it was designed, (iv) the product has been used in environmental conditions outside of those specified for the product, (v) the product has been subject to any modification, alteration, or change by or on behalf of customer (except and unless modified, changed or altered by Two Technologies or Two Technologies’ direct supervision), (vi) the defect or malfunction results from misuse or accident, (vii) the serial number on the product has been tampered with or removed, or (viii) the product has been opened or tampered with in anyway. Broken or Damaged Display is not covered under Warranty. Excessively worn parts are not covered under the RX Extend program. These may include, but are not limited, touch screen, keyboard elastomer/switch, hand strap, bumpers, graphics, battery. This warranty is exclusive and Two Technologies will not assume and hereby expressly disclaims any further warranties, whether express or implied, including,

without limitation, any warranty to merchantability, fitness for a particular purpose, non-infringement or any warranties arising from the course of performance, dealing or usage of trade. Two Technologies specifically makes no warranties as to the suitability of its products for any particular application. Two Technologies makes no warranties that its products will meet your requirements or will work in combination with any hardware or applications software products provided by third parties, that the operation of its products will be uninterrupted or error free, or that all defects in the product will be corrected. Two Technologies shall not be responsible for software, firmware, information, or memory data contained in, stored on, or integrated with any products returned to Two Technologies for repair, whether under warranty or not.

Remedy

In the event a defect in materials or workmanship is discovered and reported to Two Technologies within the specified warranty period, Two Technologies will, at its option, repair the defect or replace the defective product. Replacement products may be new or reconditioned. Two Technologies warrants any replaced or repaired product for a period of ninety (90) days from the date of return shipment, or through the end of the original warranty period, whichever is longer.

Limitation of Liability

To the fullest extent allowed by law, Two Technologies' obligation shall be limited to the repair or replacement of the product. Two Technologies shall in no event be liable for special, incidental, or consequential, indirect, special or punitive damages of any kind, or for loss of revenue or profits, loss of business, loss of information or data, or other financial loss arising out of or in connection with the sale, installation, maintenance, use performance, failure or interruption of any product. Any responsibility and/or liability of Two Technologies shall, in connection with a warranted product, be limited in maximum amount to the original purchase price.

Warranty Repairs

To obtain repair or service on N-CLASS product, contact the Repair Services Department within the applicable warranty period to receive an Electronic Return Material Authorization (eRMA) number. Repairs returned without proper authorization may be subject to additional handling fee and/or delay the repair. The customer is responsible to prepay all shipping costs when sending equipment to a repair center. Two Technologies will return the repaired equipment by the same method it was received.

Governing Law

This warranty is governed by laws of the Commonwealth of Pennsylvania, and excluding the United Nations Convention on Contracts for the International Sale of Goods. The courts of the Commonwealth of Pennsylvania shall have exclusive personal jurisdiction in case of any disputes arising out of or in connection with this warranty.

Services and Materials Provided Under All Warranties

- Analysis of problem by service technician
- Labor and materials required to fix defective parts
- Functional analysis performed after repair

Obligations for Extended Warranty

Customer Obligations

1. Pay for the extended warranty coverage per Two Technologies' stated terms and conditions. The extended warranty time frame must be determined and purchased at the time of original equipment purchase.

2. When a repair is needed, log in to the eRMA System on Two Technologies' website at www.2T.com to receive an eRMA number and instructions on how to ship the product.

3. Properly pack the product (equal to the original shipping carton).

4. Adequately insure the product against loss or shipping damages.

5. Pay for shipping, handling, and insurance costs needed to return the product.

6. Pay for any expediting fees outside our normal repair policy and extended warranty programs.

7. Assume full responsibility for returning the product for repair prior to the warranty expiration date.

8. Assist as needed in tracing and/or settling shipping losses or damages.

Factory Obligations

1. Provide Return Material Authorization (RMA) number and accept the product back for evaluation or repair.

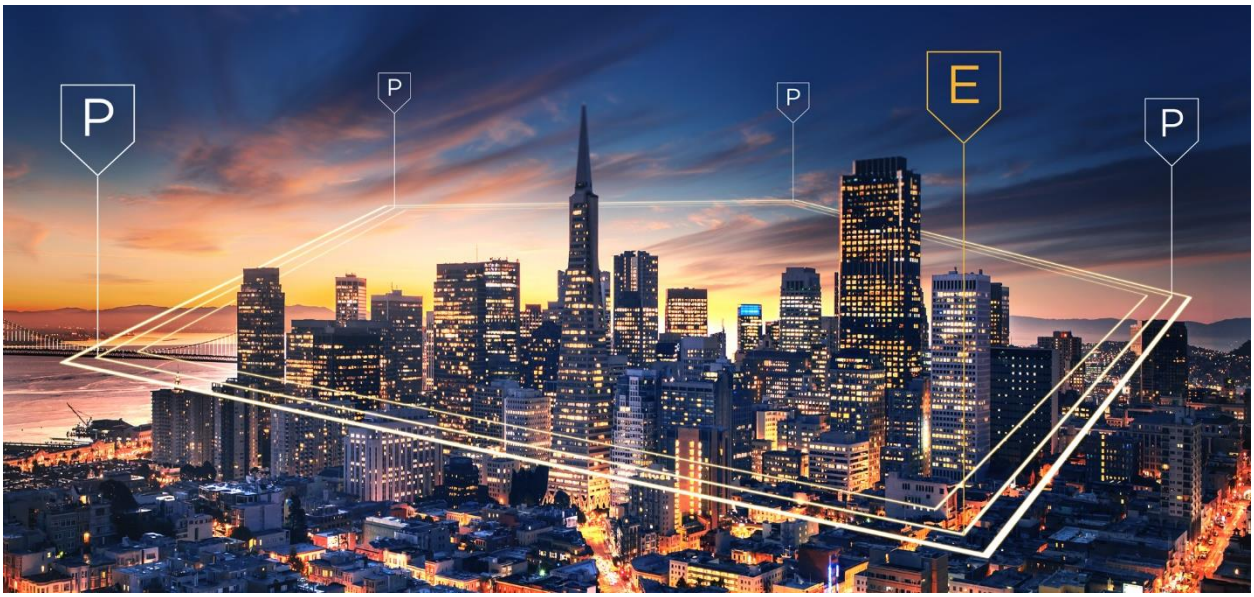
2. Evaluate, repair or replace the product as needed.

3. Repair and return the product within the specified turnaround time or notify the customer if there is a delay and explain the cause of the delay

4. Forewarn the customer of any non-warranty work to be completed (including associated shipping and handling costs).

5. Assist as needed in tracking and/or settling losses or damages.

H. Provide insight into how large the global smart parking technology and services market is and how large it will be in terms of revenue and parking spaces by the year 2025 and beyond



An article by Cision, PR Newswire, the smart parking industry's technology solutions and applications reached nearly $13 billion in 2016. The article stated that this number should increase to over $35 billion by 2022. IPS has also witnessed this exponential growth in recent years, both internally and across the industry. In recent years, the tech boom has finally infiltrated the parking industry. For so long, the extent of parking was inserting coins into a meter. But with advancements in technology including software, mobile applications, sensor and camera technology, parking has entered the "smart" arena.

A great example of this technological influence is the mobile payment applications used for completing parking payments. Over the past four to five years, mobile applications companies have exploded onto the scene, each grasping for a share of the market as smartphones and applications have become the new norm. Inevitably however, this became a race to the bottom, and over the past one to two years, the market and mobile payment vendors have been consolidated to just a few leaders.

Internally at IPS, the inventor of the credit-card enabled single-space smart meter, growth in smart parking has resulted in IPS's movement into the multi-space field, creating both its own pay station but also an ability to retrofit other vendor's existing units. Furthermore, IPS has created its own mobile payment platform, enhanced its presence in the sensor market with radar technology, and recently breaking into the enforcement and citation and permit arena.

With car-share and ride-share programs, cities investments into public transportation, and development at large, one would assume that the need for parking spaces and inventory would decrease over time. In addition, the cost per space for the construction of new parking in the form or lots and garages is constantly increasing. However, we still must consider the

now and immediate future, where demand for parking inventory is very high. Therein, planning and forecasting is a critical component to any cities smart parking system. And finally, as mentioned previously, with the influx of funding and investment into technology applicable to smart parking, it seems that parking revenue combined with consistent demand, will continue to increase.

I. Describe what financing models being used for a smart parking project

IPS is pleased to provide various options for purchase, lease and/or lease-purchase. Each option has various benefits and disadvantages to the City and is outlined below, however, IPS is capable and experienced in providing all financing arrangements, including direct financing as well as using third parties, such as local banks and private municipal lenders. In addition, IPS has the flexibility to offer hybrid solutions to maximize the flexibility that the City needs and the budget that is available. Ultimately, more flexibility and risk for the vendor or lender means higher costs for the City, however, IPS is and will be a committed partner to work with the City to explore these traditional opportunities as well as alternative solutions, an example of which is listed below.

Purchase: A traditional capital budget method, which represents most of the agreements that IPS has today. If capital is available, this option can be used to avoid additional interest.

Lease: Can be financed with IPS or with third-party lenders. Local banks and municipal lending specialists will provide the best possible rates and IPS has partners ready to work closely with the City. Local bank rates are currently estimated at 3.00%-5.00%, but better rates may be possible when given the opportunity to negotiate more directly with such lenders if awarded. Given that most of the useful meter life will be used during this straight lease, it is our recommendation that the City utilize a lease purchase-agreement if interested in a lease option.

Combination lease & purchase: A lease-purchase agreement with an up-front buy-down, such that a portion of current capital can be used, but more meters can be installed vs. a straight lease resulting in a lower monthly rate over the term of the agreement.

Performance based: pay for the meters out of the increase in revenues generated or from receipt of net credit card revenues. Both performance based options are available through IPS and this form of agreement would not require the City to provide any up front capital. With more flexibility and lender risk comes increased costs. Such options may increase the costs of capital. However, IPS can provide such options, and if it is the City's intention to pay off any lease obligation early, most interest can be avoided and IPS can provide such financing solutions with no pre-payment penalties.

CUSTOMER HIGHLIGHT: CITY OF LOS ANGELES – EXPRESS PARK

IPS partnered with the City of Los Angeles to deliver a no upfront cost model under which IPS is paid out of the increase in revenue. As financing proved to be the biggest obstacle for the City, this flexible financing model allowed the City to deploy 10,000 IPS smart parking meters at no upfront cost to the City. The City estimated that the new IPS meters would bring a yearly net increase of $1-1.5 million. Installation of the meters began in May 2010 and was completed in just 12 weeks. Almost immediately the City began to realize the benefits of the new technology. To date, the City of Los Angeles has now upgraded 80% of their meters to IPS through the lease-to-own option and saw an initial increase of $3 million in revenue in the first year with 10,000 meters deployed as well as greater meter uptime, fewer complaints, and higher credit card usage. To date, IPS has over 33,000 meters installed in LA.

IPS Group is the primary parking meter vendor for the City of Los Angeles' dynamic pricing program, Express Park

As a testament to the success of the IPS-City partnership, IPS Group was recognized by the US Conference of Mayors for Excellence in Public-Private Partnership for its role in providing the parking meter technology for the LA Express Park program.

J. State whether Proposer is offering a shared financial and / or operational interest with the City for some of or all of the proposed development.

A revenue-share model has proven successful for several IPS customers. An example is the City of Los Angeles.

IPS can offer the City of Fort Lauderdale a no upfront cost model for the procurement of M5™ single-space parking meters under which IPS would be paid out of the meter-generated revenue.

K. Describe Proposer's financial capability to develop, train and maintain the proposed parking system

IPS possesses the financial capacity and personnel resources to develop, train and maintain the proposed parking system.

L. Provide a general time frame for the development, implementation, and training of the new parking system, as well as any additional information that may be beneficial for the City.

For nearly two decades, IPS has built a reputation as an industry leader due to its fully-integrated Smart Parking Platform, which is backed by a professional support team that provides fast, efficient service. We know our customers' ultimate goal is to have an optimized Smart Parking program, and we aim to help them achieve this by establishing a lasting relationship built on a foundation of trust, outstanding quality and integrity.

No other supplier in the industry knows parking like we do. Our service team of professional, dependable and courteous experts are committed to the ongoing support of your parking

operations, whenever you need it, for any reason, to ensure you achieve the best results possible and that we deliver what we promise.

IPS clearly understands the importance of ongoing support and we encourage the City to speak with our references in this regard. We also understand that ongoing support is a critical element of any successful project and the basis of a long-term partnership. IPS is uniquely positioned to provide support services that will translate into the most responsive and comprehensive service offering available to the City. Cities are provided a designated Customer Support Manager who understands all of the intricacies of your project.

The following service offerings are included throughout the life of the contract with IPS:

24/7 TELEPHONE HELP DESK & ONGOING SUPPORT

Knowledgeable, friendly service is just a phone call away.

IPS offers customer service resources with in-depth system knowledge around the clock to ensure you get what you need, fast. Our team of experts are available via a telephone-based help desk during normal business hours from 8 a.m. to 5 p.m. EST, Monday through Friday. We also offer after-hours/emergency technical support to maintain constant coverage. Upon entering a contract, IPS will provide contact information for all IPS senior staff.

IPS customer service can be reached toll-free at (877) 630-6638, or at customersupport@ipsgroupinc.com for non-emergencies.

USER MANUALS AND TRAINING MATERIALS

Self-help support resources are right at your fingertips.

Our products have been developed so that an easy, immediate fix may be available without the help of additional IPS personnel support. The next-generation DMS provides Cities with all of the self-help resources to get the job done. Online help tools include product manuals, FAQs, “how-to” training videos, and more. These tools can be conveniently accessed 24/7 online for authorized users. Any common web browser is the only tool required to access the DMS.

DATA SECURITY MANAGEMENT

Your data is protected.

IPS offers ongoing data security management and backup systems support of the DMS in case of a critical failure.

PERSONALIZED FOLLOW-UP MEETINGS

Ensure all project criteria is met and exceeds expectations.

Once installation is complete, a conference call between the City, the designated CSM, and Director of Sales is held to discuss the wrap-up of the installation and ensure all project criteria has been met. Check-in meetings can be held periodically to discuss progress or additional concerns as needed.

ONSITE SUPPORT

Designated onsite project management and technical support are ready to support you.

During the implementation phase of the contract, IPS will support the City with onsite project management and technical support to ensure the smoothest transition possible. Onsite support can be extended after the warranty has expired at the request of the City for an additional fee.

TRAINING

IPS will provide as much training (both on-site and web-based) as required by the City, including additional and customized sessions before, during, and after deployment. Additionally, IPS can provide multiple trainers if necessary. Most IPS training sessions are a combination of onsite classroom training and hands-on use. As new features are developed, additional training sessions can be established at mutually agreeable times to provide updated and refresh training.

Training Subject: Handheld Hardware/Mobile Enforcement System (MES)	
Element	Description
Subject Matter	To introduce Officers to handheld hardware and software use. Training includes basic handheld use and operating features related to issuing a citation, taking photos of vehicles in violation, use of the chalking feature, use of Meter Guided Enforcement. First line troubleshooting, and basic repair is also included. Session also includes FAQs and Q&A session.
Primary Audience	Officer staff responsible for issuing citation
Training Hours/Student	1-2 hours per session
Students Eligible to Train	No limit to number of total students
Proposed Schedule	Prior to and during installation
Location of Training	City determined location TBD
Training Provided By	IPS Group System Support Specialist/Local Field Service Technician

Training Subject: Enforcement Management System (EMS)	
Element	Description
Subject Matter	To introduce City staff to the Enforcement Management System (EMS) used to track the entire lifecycle of parking citations. Training includes review of citation data, adjudication, payment, DMV communications, and

	reporting Training includes overview of the various system functions related to citation changes and updated. Session also includes FAQs and Q&A session.
Primary Audience	Office staff having interaction with public inquiries and any City employee needing access to citation information.
Training Hours/Student	1-2 hours per session
Students Eligible to Train	No limit to number of total students
Proposed Schedule	Prior to and during installation
Location of Training	City determined location TBD
Training Provided By	IPS Group System Support Specialist/Local Field Service Technician

A TIMELINE FOR COMPLETION OF IMPLEMENTATION

IPS estimates a 6-8 month project implementation timeline however this is a tentative timeline and a more defined schedule would need to be determined upon a Notice to Proceed. This project schedule would be key deliverable in the project's kick-off.

M. Include any suggestions or advice regarding feasibility of this project.
IPS staff is familiar with large multi-component parking management projects. Often overlooked is the time and effort needed to fully outline a comprehensive project timeline and deliverables. This comprehensive project timeline includes responsibilities both on the sides of the prime and sub-contractor(s) but also on the City, with regard to outreach and communication.

IPS feels it is prudent to establish realistic expectations and timelines to ensure a project is implemented effectively and efficiently.

N. Include a brief summary highlighting important elements of the RFP.
Key elements within the proposed RFP include:

- Timeline
- Project Team (Internal / External)

Additionally, the proposal should specifically address:

O. A list of all dynamic pricing and enforcement systems (by location and services provided) that your firm implemented over the past five years. (Limit last 10 projects)

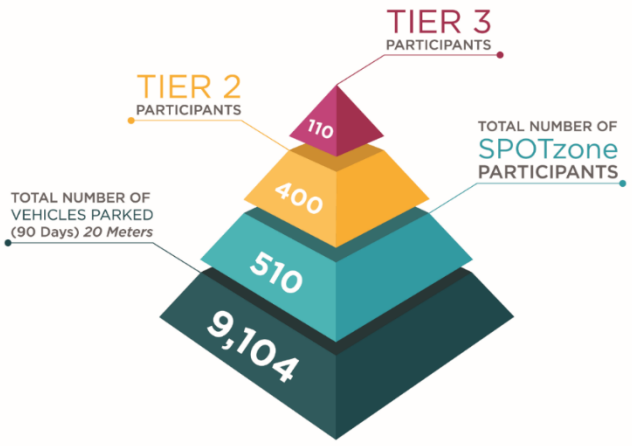
SFMTA – SF*PARK*

With 25,000 single-space meters throughout San Francisco, the SFMTA manages the fourth largest on-street parking operation in the US. In 2010, IPS deployed new credit card meter technology as part of the SF*park* project. This project was the first of its kind to incorporate real-time data feeds from parking meters, sensors and other data sources in order to study the effect of changes in parking rates due to demand and to implement a dynamic rate structure accordingly. The IPS meters support this complex rate structure through two types of configurations which are stored in meter memory, including the current active configuration and one additional future configuration. Each configuration (both current and future) has the ability to provide 7 days Monday-Sunday of rates, with up to *15 rates per day*. In terms of programming, configurations can be assigned at the City wide level, a zone, area, sub-zone or even down to the level of an individual meter. Additionally, IPS can offer customized assignment of configurations if they require a more customized selection of meters and associated configurations.

CITY OF SACRAMENTO, CA

Sacramento's parking program has a tiered-based pricing structure (also known as dynamic pricing) designed for the short-term parking meters in the Central and Fort Sutter traffic districts. The program aims to reduce traffic congestion, encourage short-term turnover, and redirect short-term parkers to on-street parking and long-term parkers to off-street facilities. The pricing model supports these objectives and is comprised of the following three tiers. All configurations for the dynamic pricing rate structure can be managed remotely via one common backend system, the IPS DMS.

Tier 1: On-street, short-term parking to encourage higher turnover. This pricing is the base meter hourly rate up to the maximum allowed parking time. If motorists wish to extend their parking session, they can move up to Tier 2.



Tier 2: On-street pricing comparable with off-street rates (currently set at USD $3.00 per hour). The Tier 2 rate is effective for up to one additional hour beyond the Tier 1 time limit.

Tier 3: Tier 2 rate plus 25%, which becomes effective after the expiration of the Tier 2 hour and for each hour parked thereafter.

Through IPS, the City was able to upgrade all of its SacPark meters to allow motorists to park beyond the posted limit at the meter or through an app remotely, and to implement a tiered-based pricing system to effectively manage parking assets resulting in enhanced customer service and increased turnover.

P. Photos and/or illustrations showing work completed over the past five years. (Limit last 10 projects)

Sample projects are listed below. Full case studies can be found in the Appendix.

Q. A written description of your approach to the implementation. (Limit one page)

For the City of Fort Lauderdale project, our project approach is as follows:

1. Host an initial kick off meeting between the City, IPS, Q-Free and IPdisplays to complete the following tasks:

- Finalize any open questions or issues not already addressed
- Finalization of system design for the parking structure to ensure customer expectations and requirements are met
- Investigate current power locations to ensure required enclosures are in optimum locations to be less obtrusive and efficient.
- Wireless propagation study may be done to ensure signal strength meets and exceeds requirements providing client with a reliable communication system
- Using experience make suggested quantity and location suggestions for intelligent signage. Creating the optimum WAY FINDING and information platform for users.

2. Sign design confirmation and assembly usually determine the critical path. We will submit detailed project submittals within given timelines and the City will be required to sign off on the submittals.

3. Once approved, all counting equipment will be assembled in its entirety, from stock inventory.

4. Assembly of the counting components can be accomplished within 4 weeks after submittal sign off.

5. The entry and interior signs can be ready for shipment 8-10 weeks after submittal sign off.

6. The installation of the conduit, cabling and PGS equipment will be performed by a customer appointed Electrical contractor, with Q-Free's remote support.

8. Once the installation is completed, Q-Free will commission the site and train owner personnel on the equipment.

9. Any post installation related issues and warranty support will be addressed by Q-Free directly.

INSTALLATION TESTING

Ultrasonic Directional Sensors (USDS): Q-Free will test the start-up and connectivity of each USDS and confirm that each sensor is counting correctly and has a strong connection to the communication point.

Signs: Q-Free and IPdisplays will test the start-up and connectivity of the signs to the communication point.

Communication Equipment: Q-Free will test the connectivity throughout the facility to make sure data is successfully being transmitted to and from the Parking Guidance Server. This includes the control and status updates on the Visual Control Center Software.

Dave Rotenberg, the IPS Director of Enforcement Solutions, will be responsible for managing the citations processing project for the Agency through all stages of the implementation and throughout the life of the project. Dave will oversee the integrity of the service and performance.

R. Your firm's hourly rate for consulting services.

IPS is prepared to provide hourly parking consulting services provided the scope does not entail any conflicts of interest. The hourly rate is $115 per hour.

S. Answer the following questions:
1. Does your firm have a product line specific to dynamic pricing and enforcement systems?

Yes. At the heart of the IPS Data Management System is a database structure and associated web services that can exchange information as specified in either a real time format (such as XML) or batch files in a pre-determine time frame (such as daily CSV). IPS has successfully demonstrated this capability in multiple locations and projects.

The IPS Enforcement Management Solution manages the entire citation lifecycle from issuance to collections and incorporates state-of-the-art, real-time technology, and dedicated customer service resources. The complete Enforcement Management Solution seamlessly integrates with a number of Smart Parking Technologies including IPS single-space Smart Parking meters, multi-space pay stations, License Plate Recognition (LPR) technology, Permit Management, Code Enforcement, and pay-by-phone apps. We can also integrate with third-party vendors if desired by the Agency.

2. Is your firm currently or within the past 5 years been under litigation for services performed? If yes, please explain.

No, IPS is not currently, nor in the past five years, been under litigation for services performed.

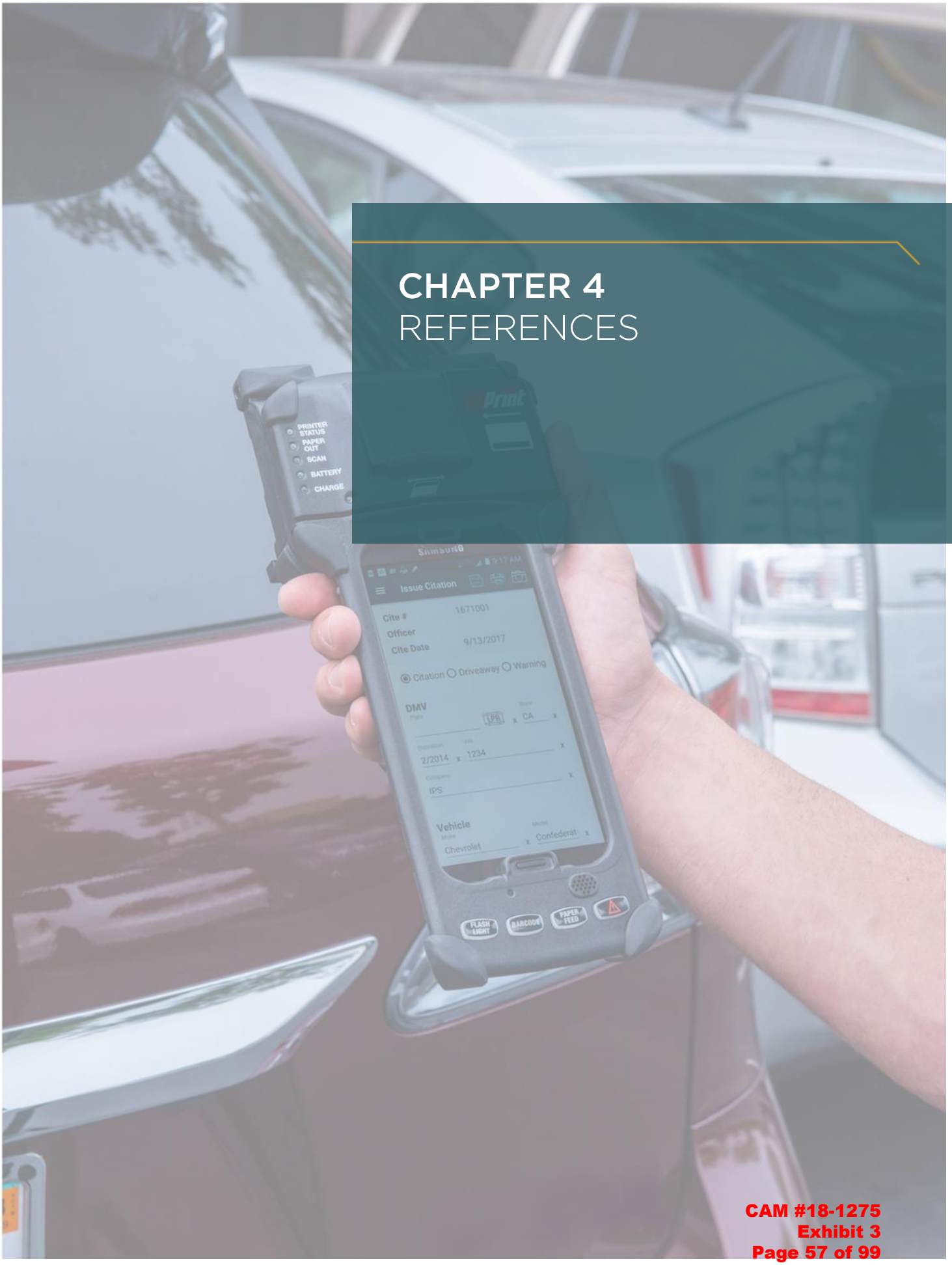
3. What sustainable material(s) or practices will you incorporate into the project?

Sustainability measures are employed throughout the entire lifecycle of IPS products beginning at our corporate headquarters in San Diego where IPS products are manufactured. We employ energy efficient lighting, use recycled materials where possible, ensure old batteries are recycled properly and refurbish older generation meters.

IPS is committed to employing sustainable business and manufacturing processes to minimize the impact on our environment wherever possible. As such, we have incorporated the following actions with a view to increasing energy efficiency, minimizing the amount of waste we contribute to landfills and ensuring sustainable business practices are followed throughout the organization. These same practices will be employed for the City of Ft. Lauderdale project.

1. LED lights throughout our corporate offices: IPS is currently in the process of upgrading our existing office lighting with state-of-the-art LED lighting which will result not only in a cost savings for the company, but are also approximately 60% more energy efficient than the existing lights.
2. Motion detection sensors: Our corporate headquarters feature motion detection sensors in all of the offices and conference rooms so that lights are turned on only when someone is present in the room. In addition, employees are encouraged to conserve energy by turning off lights when leaving a room and powering down electronics when leaving for the day.
3. Waste prevention: IPS encourages employees to “Think before You Print” in order to minimize the amount of paper used in printing. We also utilize recyclable paper and materials whenever possible and send all corporate communications via email or other electronic media in order to minimize paper use. With a sales team spread throughout the US, IPS conducts conference calls and webinars in order to minimize air travel.
4. Battery recycling: Batteries which have reached the end of their useful life are sent back to the manufacturer for recycling, ensuring that no batteries end up in the landfill. IPS also partners with a third-party battery recycling company to offer battery recycling services to our customers.

5. **Plastics recycling:** The plastic components and Lexan coverings from returned or malfunctioning meters are sent back to the manufacturer and recycled into new plastic, thereby reducing the amount of plastic that enters our local landfills.



CHAPTER 4
REFERENCES

4.2.5 REFERENCES

CITY OF EUGENE, OR

Travis Hargitt | Director of Operations

Phone: 541-682-5296
Email: Travis.L.Hargitt@ci.eugene.or.us

Key IPS Staff: Dave Rotenberg, Nick Stanton, Randy Lassner, Elisa Leanos

Description of Services Provided:

- Real-time meter status alerts
- 12 Mobile Enforcement hand-held devices
- EMS Citation Management System
- IPS Permit Management Suite
- LPR products, services, and integration

UNIVERSITY OF MINNESOTA DULUTH, MN

Lisa Norr | Associate Director of Student Life Operations

Phone: 218.726.6601
Email: lisanorr@d.umn.edu

Key IPS Staff: Dave Rotenberg, Nick Stanton, Randy Lassner, Elisa Leanos

Description of Services Provided:

- 3 Mobile Enforcement hand-held devices
- EMS Citation Management system

EASTON TOWN CENTER, TX

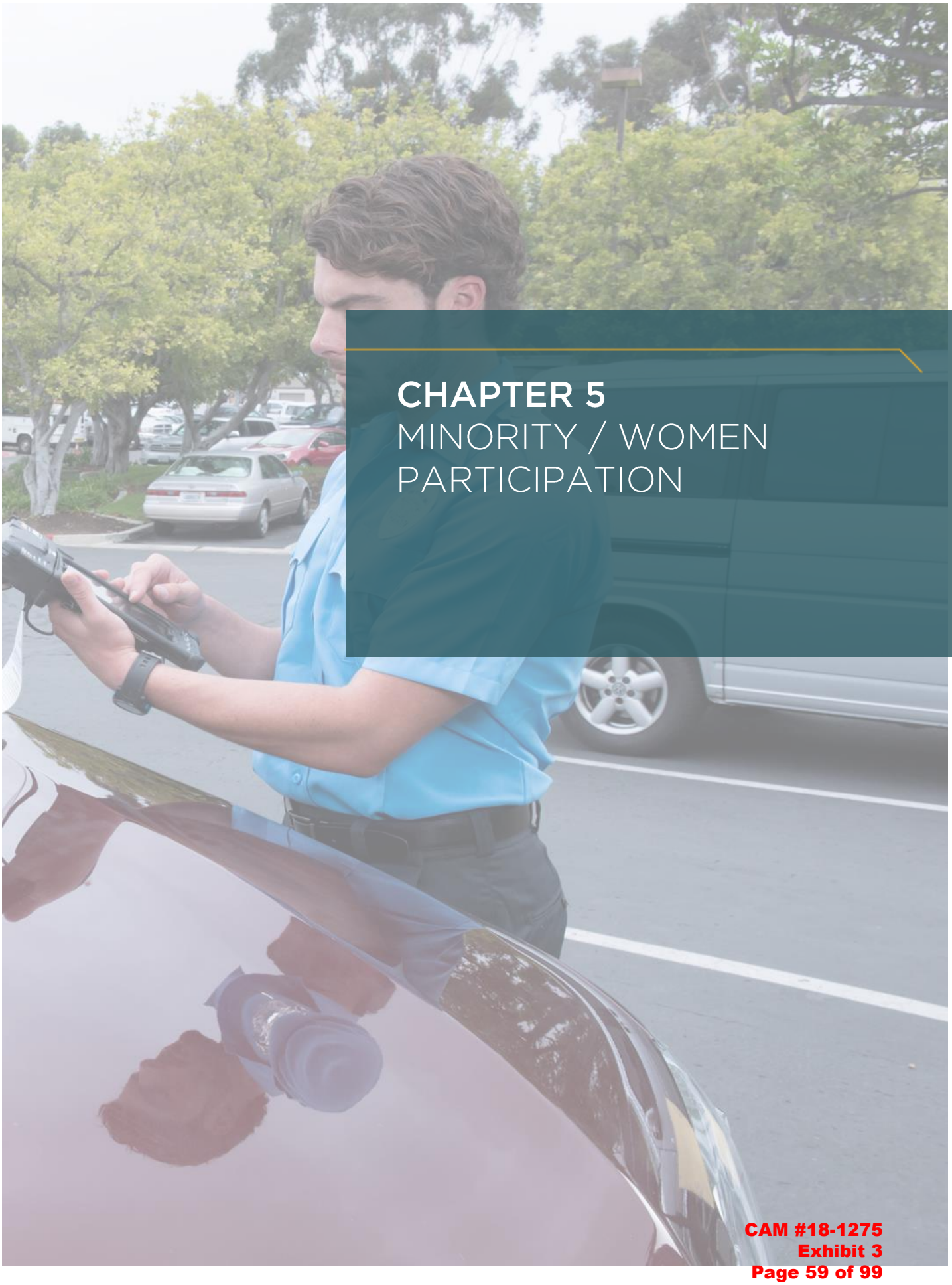
Alba Cates
Security Administrative Coordinator

Phone: (614) 416-7000
Email: acates@Steiner.com

Key IPS Staff: Dave Rotenberg, Nick Stanton, Randy Lassner, Elisa Leanos

Description of Services Provided:

- 3 Mobile Enforcement hand-held devices
- EMS Citation Management System

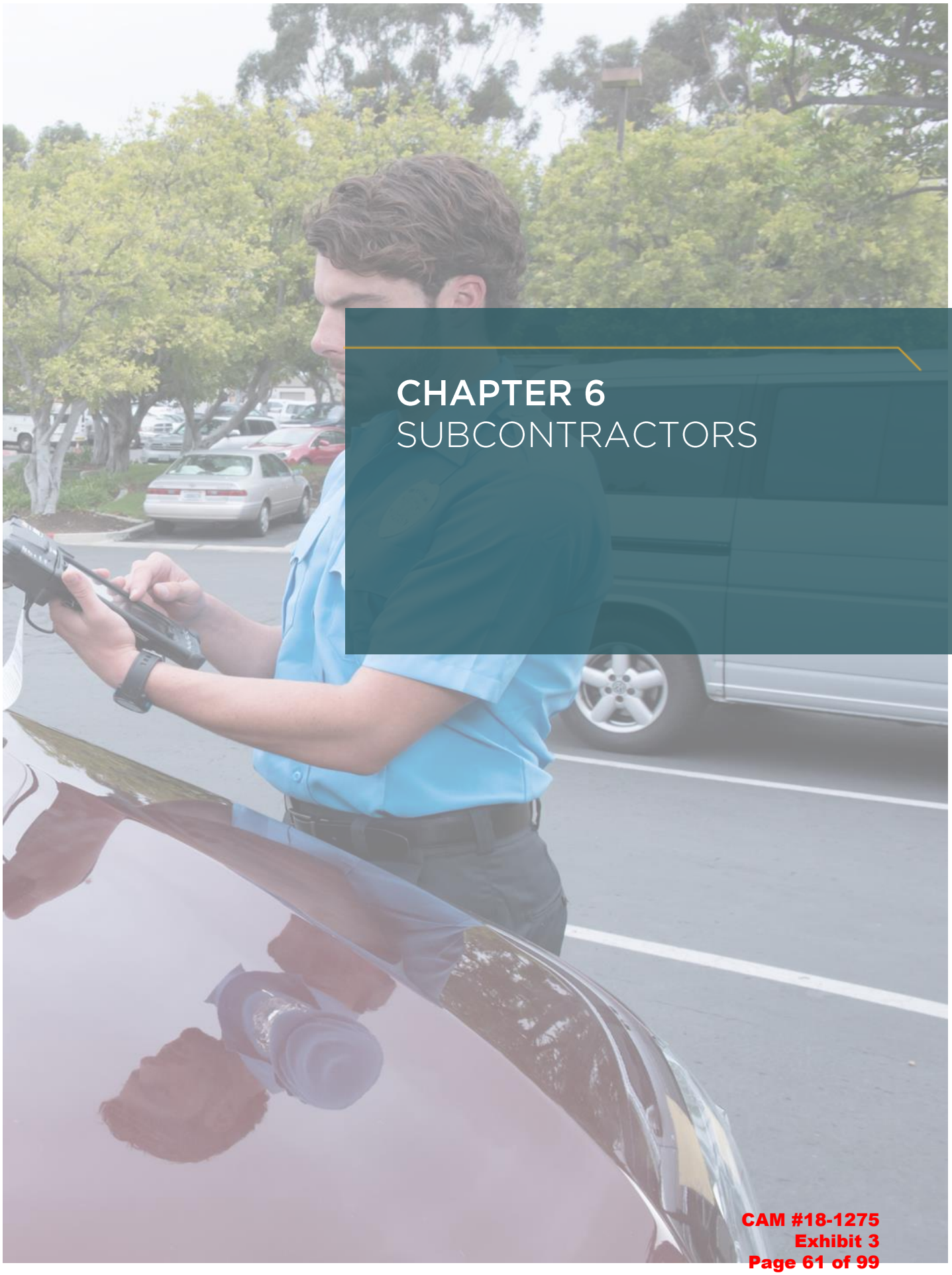


CHAPTER 5
MINORITY / WOMEN PARTICIPATION

4.2.6 MINORITY/WOMEN (M/WBE) PARTICIPATION

If your firm is a certified minority business enterprise as defined by the Florida Small and Minority Business Assistance Act of 1985, provide copies of your certification(s). If your firm is not a certified M/WBE, describe your company's previous efforts, as well as planned efforts in meeting M/WBE procurement goals under Florida Statutes 287.09451.

n/a



CHAPTER 6
SUBCONTRACTORS

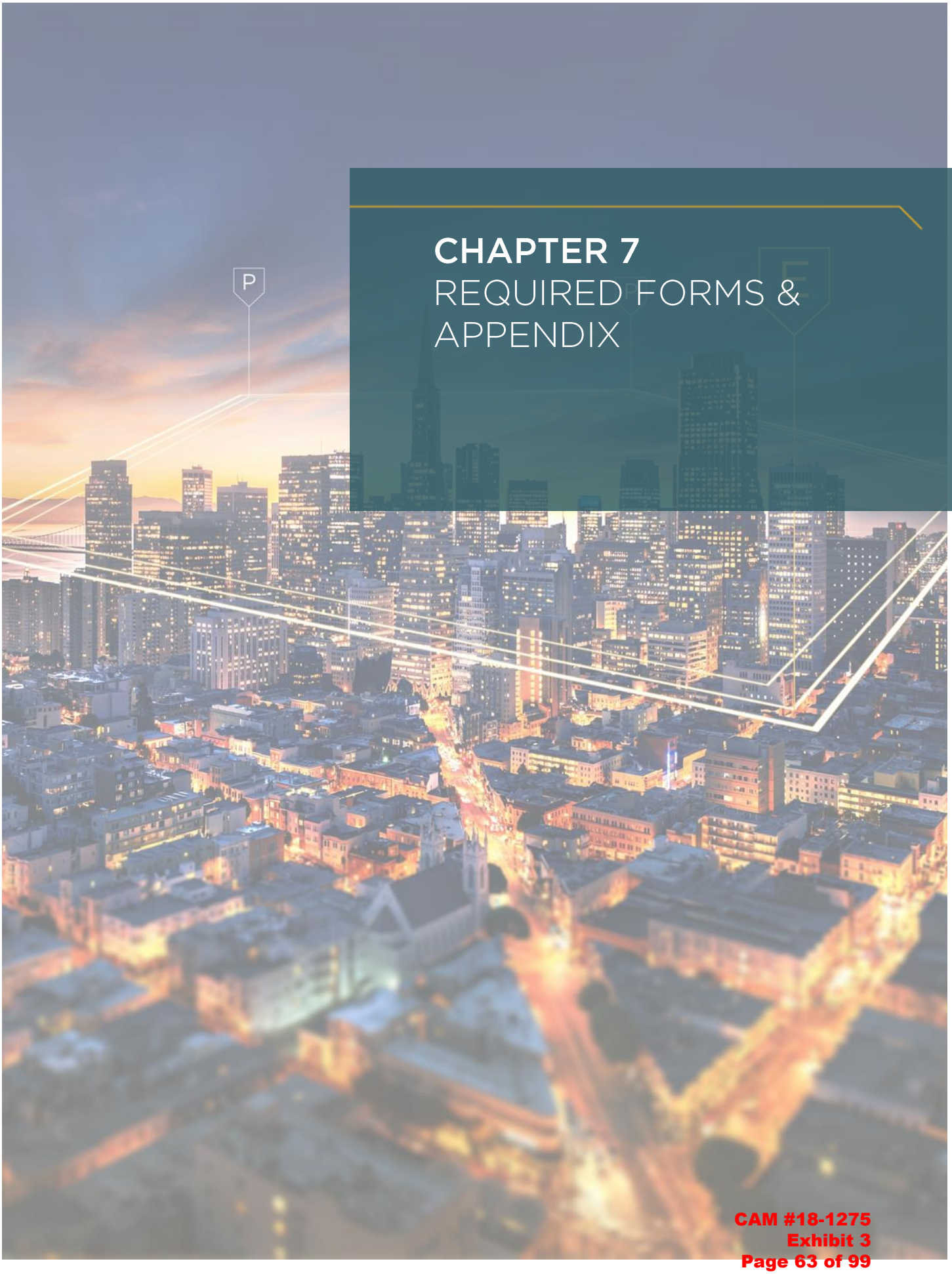
4.2.7 SUBCONTRACTORS

Proposer must clearly identify any subcontractors that may be utilized during the term of this contract.

IPS as the prime, will be partnering with Q-Free and IPdisplays to meet the requirements of the Ft. Lauderdale project.

OUR SOLUTION INCLUDES:

- IPdisplays™ Dynamic Digital Signage: The smart LED signs use self-contained microprocessors that eliminate the need for a PC to “drive” them and feature onboard microprocessor and software developed by IPdisplays™ which allows the smart LED signs to intelligently pull information from a variety of sources, or receive dynamic information pushed to them.
- Q-Free Level Counting System: Includes overhead mounted Ultrasonic Directional Sensors (USDS) installed at vehicle entry/exit at garage/level transition area entry/exits. The wireless design eliminates the need for expensive cable and conduit running each device to a server and boasts a system uptime of 99.9%.
- Mobile Enforcement System (MES): The most innovative on the market today, our N5 Print all-in-one Mobile Enforcement Device (Android compatible) ensures parking enforcement officers experience a convenient, quick and efficient citation issuance process.
- Enforcement Management System (EMS): Our end-to-end cross compatible web-based citation management system manages the entire lifecycle of parking citations including issuance, adjudication, payment, DMV communications and collections.
- Public Citation Management Portal: The Public Citation Management Portal is a website that allows citizens to review the current status of their citation, pay or obtain information on how to contest their citation, review fine amounts including late fees, and obtain additional information.
- Permit Management System: The Permit Management solution offers property managers the flexibility and convenience to manage the entire parking permit lifecycle from initial design through fulfillment via a web-based system available 24/7.



CHAPTER 7
REQUIRED FORMS & APPENDIX

4.2.8 REQUIRED FORMS

A. Proposal Certification
Complete and attach the Proposal Certification provided herein.

B. Cost Proposal
Provide firm, fixed, costs for all services/products using the form provided in this request for proposal. These firm fixed costs for the project include any costs for travel and miscellaneous expenses. No other costs will be accepted.

C. Non-Collusion Statement
This form is to be completed, if applicable, and inserted in this section.

D. Non-Discrimination Certification Form
This form is to be completed and inserted in this section.

E. Local Business Preference (LBP)
This form is to be completed, if applicable, and inserted in this section.

F. Contract Payment Method
This form must be completed and returned with your proposal. Proposers must presently have the ability to accept these credit cards or take whatever steps necessary to implement acceptance of a card before the start of the contract term, or contract award by the City.

G. Addendum (If any are required)

H. Sample Insurance Certificate
Demonstrate your firm's ability to comply with insurance requirements. Provide a previous certificate or other evidence listing the Insurance Companies names for the required coverage and limits.

BID/PROPOSAL CERTIFICATION

Please Note: If responding to this solicitation through BidSync, the electronic version of the bid response will prevail, unless a paper version is clearly marked **by the bidder** in some manner to indicate that it will supplant the electronic version. All fields below must be completed. If the field does not apply to you, please note N/A in that field.

If you are a foreign corporation, you may be required to obtain a certificate of authority from the department of state, in accordance with Florida Statute §607.1501 (visit http://www.dos.state.fl.us/).

Company: (Legal Registration) IPS Group, Inc. EIN (Optional):

Address: 7737 Kenamar Court

City: San Diego State: CA Zip: 92121

Telephone No. 858.404.0607 FAX No. 858.403.3352 Email: chad.randall@ipsgroupinc.com

Delivery: Calendar days after receipt of Purchase Order **(section 1.02 of General Conditions)**: 180-210 days

Total Bid Discount **(section 1.05 of General Conditions)**: $0.00

Does your firm qualify for MBE or WBE status **(section 1.09 of General Conditions)**: MBE _____ WBE _____

ADDENDUM ACKNOWLEDGEMENT - Proposer acknowledges that the following addenda have been received and are included in the proposal:

Addendum No.	Date Issued	Addendum No.	Date Issued	Addendum No.	Date Issued
1	March 19	3	March 19	5	March 22
2	March 14	4	March 19	6	April 3
7	April 4	8	April 20		

VARIANCES: If you take exception or have variances to any term, condition, specification, scope of service, or requirement in this competitive solicitation you must specify such exception or variance in the space provided below or reference in the space provided below all variances contained on other pages within your response. Additional pages may be attached if necessary. No exceptions or variances will be deemed to be part of the response submitted unless such is listed and contained in the space provided below. The City does not, by virtue of submitting a variance, necessarily accept any variances. If no statement is contained in the below space, it is hereby implied that your response is in full compliance with this competitive solicitation. If you do not have variances, simply mark N/A. **If submitting your response electronically through BIDSYNC you must also click the "Take Exception" button.**

The below signatory hereby agrees to furnish the following article(s) or services at the price(s) and terms stated subject to all instructions, conditions, specifications addenda, legal advertisement, and conditions contained in the bid/proposal. I have read all attachments including the specifications and fully understand what is required. By submitting this signed proposal I will accept a contract if approved by the City and such acceptance covers all terms, conditions, and specifications of this bid/proposal. The below signatory also hereby agrees, by virtue of submitting or attempting to submit a response, that in no event shall the City's liability for respondent's direct, indirect, incidental, consequential, special or exemplary damages, expenses, or lost profits arising out of this competitive solicitation process, including but not limited to public advertisement, bid conferences, site visits, evaluations, oral presentations, or award proceedings exceed the amount of Five Hundred Dollars ($500.00). This limitation shall not apply to claims arising under any provision of indemnification or the City's protest ordinance contained in this competitive solicitation.

Submitted by:

Chad Randall
Name (printed)

Signature

May 1, 2018
Date:

Chief Operating Officer
Title

revised 04/10/15

SECTION VI - COST PROPOSAL PAGE

Proposer Name: IPS Group, Inc.

Proposer agrees to supply the products and services at the prices bid below in accordance with the terms, conditions and specifications contained in this RFP.

Cost to the City: Contractor should quote firm, fixed, costs for all services/products identified in this request for proposal. These firm fixed costs for the project include any costs for travel and miscellaneous expenses. No other costs will be accepted.

Notes:
Include a breakdown of costs including but not limited to labor, equipment, materials and parts. The cost breakdown should be separated by cost categories (ex. Enforcement, technology, maintenance, etc.).

Category #	Category Name	Item or Task	Description	Unit or Quantity	Sub-Total Cost	Category Total Cost
1	**Technology (include any data migration or integration costs)**		Mobile Device Software License	1	$0.00	**$0.00**
			City System License	1	$0.00	
			Data Conversion	1	$0.00	
			Integration	1	$0.00	
2	**Enforcement**		N5Z1 Print Mobile Enforcement Device	15	$40,080.00	**$260,909.00**
			N5Z1 Charging Cradle and Hot Swap Battery	15	$4,485.00	
			N5Z1 Carrying Case	15	$525.00	
			N5Z1 Data Plan ***per unit/per month**	15	$9,900.00	
			Handheld Support ***per unit/per month**	15	$10,800.00	
			All Weather Citation Paper Rolls (100,000 citations)	2,000	$7,920.00	
			Plate Charges for Ticket Customization (One-time Fee)	3	$225.00	
			Citation Processing Fee	100,000	$40,000.00	
			RO Acquisition – Local DMV ***Local DMV rates are based on Agency relationship with DMV. Pricing can vary based on this relationship.**	100,000	$0.00	
			Ro Acquisition – Out of State	TBD	32 % of amount collected	

			Delinquent Notice/Correspondence Letter	85,000	$58,650.00	
			Online Payments	48,000	$19,200.00	
			Online & IVR Secure Credit Card Payments - Gateway Fee ***Charged to the Public**		$2.00 or 3% whichever is higher	
			Permit Management System	1	$4,000.00	
			Per Permit	36, 180	$65,124.00	
4	**Digital Signage**		Interior IPLED24X128RGB-C	1*	$1995.00	**$84,545.00**
			(3 level) IPLED96X96-MON-6RGB	1	$5,150.00	
			(4 level) IPLED128X96-MON-6RGB	3	$6,250.00	
			(5 level) IPLED160X96-MON-6RGB	3	$7,350.00	
			(7 level) IPLED224X96-MON-6RGB	4	$9,150.00	
5	**Loop Counting System**		Loop system			**$135,012.00**
			Central PGS Server	1	$9,000.00	
			Design, remote project management & system commissioning	1	$14,514.00	
			Standard freight & handling		$5,189.00	
5	**Maintenance and Warranty**		N5Z1 Print – 3 Year Warranty **(Optional)**	15	$11,775.00	**$11, 775.00**
6	**Other (as needed)**		Travel Expenses	2 days	$4,000.00	**$5,200.00**
			On-site Training and Install	2 days	$1,200.00	
Total Project Cost						$497,441.00

* depending on walk through and City needs, 1 per level or 2 per level.

Optional Services		IVR Solution	Per Month		$225.00
		IVR Record & Store Calls	Per Call		$0.45
		IVR Call Transcription	Per Call		$0.90
		LockBox Setup (one-time fee)	Per Unit		$450.00
		Mail-in Payments	Per Unit		$0.40
		Permit Fulfillment (Verification)	Per Unit		$0.90
		Per Letter (Includes postage)	Per Unit		$1.13

		Customization per hour	Per Hour		$112.50

The proposal is the recommended system design based on limited customer specifications. The final quote will be provided after full review of all findings. All wiring must be adhered to as indicated in the EC Scope.

Submitted

IPS Group, Inc.
Name (printed)

Signature

05/02/2018
Date

Chief Operating Officer
Title

NON-COLLUSION STATEMENT:

By signing this offer, the vendor/contractor certifies that this offer is made independently and *free* from collusion. Vendor shall disclose below any City of Fort Lauderdale, FL officer or employee, or any relative of any such officer or employee who is an officer or director of, or has a material interest in, the vendor's business, who is in a position to influence this procurement.

Any City of Fort Lauderdale, FL officer or employee who has any input into the writing of specifications or requirements, solicitation of offers, decision to award, evaluation of offers, or any other activity pertinent to this procurement is presumed, for purposes hereof, to be in a position to influence this procurement.

For purposes hereof, a person has a material interest if they directly or indirectly own more than 5 percent of the total assets or capital stock of any business entity, or if they otherwise stand to personally gain if the contract is awarded to this vendor.

In accordance with City of Fort Lauderdale, FL Policy and Standards Manual, 6.10.8.3,

3.3. City employees may not contract with the City through any corporation or business entity in which they or their immediate family members hold a controlling financial interest (e.g. ownership of five (5) percent or more).

3.4. Immediate family members (spouse, parents and children) are also prohibited from contracting with the City subject to the same general rules.

Failure of a vendor to disclose any relationship described herein shall be reason for debarment in accordance with the provisions of the City Procurement Code.

NAME	RELATIONSHIPS

In the event the vendor does not indicate any names, the City shall interpret this to mean that the vendor has indicated that no such relationships exist.

Signed: _____ **Date:** May 1, 2018

Chad Randall, COO, IPS Group, Inc.

CONTRACTOR'S CERTIFICATE OF COMPLIANCE WITH NON-DISCRIMINATION PROVISIONS OF THE CONTRACT

The completed and signed form should be returned with the Contractor's submittal. If not provided with submittal, the Contractor must submit within three business days of City's request. Contractor may be deemed non-responsive for failure to fully comply within stated timeframes.

Pursuant to City Ordinance Sec. 2-17(a)(i)(ii), bidders must certify compliance with the Non-Discrimination provision of the ordinance.

(a) Contractors doing business with the City shall not discriminate against their employees based on the employee's race, color, religion, gender (including identity or expression), marital status, sexual orientation, national origin, age, disability or any other protected classification as defined by applicable law.

Contracts. Every Contract exceeding $100,000, or otherwise exempt from this section shall contain language that obligates the Contractor to comply with the applicable provisions of this section.

The Contract shall include provisions for the following:

(i) The Contractor certifies and represents that it will comply with this section during the entire term of the contract.

(ii) The failure of the Contractor to comply with this section shall be deemed to be a material breach of the contract, entitling the City to pursue any remedy stated below or any remedy provided under applicable law.

Authorized Signature

Chad Randall, Chief Operating Officer
Print Name and Title

May 1, 2018
Date

CONTRACT PAYMENT METHOD BY P-CARD

THIS FORM MUST BY SUBMITTED WITH YOUR RESPONSE

The City of Fort Lauderdale has implemented a Procurement Card (P-Card) program which changes how payments are remitted to its vendors. The City has transitioned from traditional paper checks to payment by credit card via MasterCard or Visa. This allows you as a vendor of the City of Fort Lauderdale to receive your payment fast and safely. No more waiting for checks to be printed and mailed.

Payments will be made utilizing the City's P-Card (MasterCard or Visa). Accordingly, firms must presently have the ability to accept credit card payment or take whatever steps necessary to implement acceptance of a credit card before the commencement of a contract.

Please indicate which credit card payment you prefer:

_____ Master Card

__X__ Visa Card

Company Name: IPS Group, Inc.

Chad Randall
Name (Printed)

Signature

May 1, 2018
Date

Chief Operating Officer
Title

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ADDENDUM NO. 5

RFP/ ITB No. 12109-885
Comprehensive Parking Demand Management System

ISSUED: March 22, 2018

This addendum is being issued to make the following change(s):

1. Change to SECTION III - TECHNICAL SPECIFICATIONS/SCOPE OF SERVICES under sub-section 3.4 SCOPE OF SERVICES.
   A. Format correction to **It Requirements**
   B. Additional clarification under **Future Technologies** item 1) (b)

All other terms, conditions, and specifications remain unchanged.

Laurie Platkin
Procurement Specialist II

Company Name: IPS Group, Inc.
(please print)

Bidder's Signature: _____

Date: May 1, 2018

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ADDENDUM NO. 6

RFP/ ITB No. 12109-885
Comprehensive Parking Demand Management System

ISSUED: April 3, 2018

This addendum is being issued to make the following change(s):

1. Format correction to solicitation.
   12109-885 - Parking Demand Management System-V7 replaces
   12109-885 - Parking Demand Management System-V6

All other terms, conditions, and specifications remain unchanged.

Laurie Platkin
Procurement Specialist II

Company Name: IPS Group, Inc.
(please print)

Bidder's Signature: 

Date: May 1, 2018

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ADDENDUM NO. 7

RFP/ ITB No. 12109-885
Comprehensive Parking Demand Management System

ISSUED: April 4, 2018

This addendum is being issued to make the following change(s):

1. T2 reports added in response to Question 50

All other terms, conditions, and specifications remain unchanged.

Laurie Platkin
Procurement Specialist II

Company Name: IPS Group, Inc.
(please print)

Bidder's Signature: [signature]

Date: May 1, 2018

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ADDENDUM NO. 8

RFP/ ITB No. 12109-885
Comprehensive Parking Demand Management System

ISSUED: April 20, 2018

This addendum is being issued to make the following change(s):

1. Providing PDF of City Owned Light Poles 2016
2. Providing PDF of City Hall Garage- 4th Floor Addition plans
3. Providing PDF of City Hall Garage Rehab 2002 plans
4. Providing PDF of PACA Garage Original Plans
5. Providing PDF of Riverwalk Center (City Park Garage) plans

All other terms, conditions, and specifications remain unchanged.

Laurie Platkin
Procurement Specialist II

Company Name: IPS Group, Inc.
(please print)

Bidder's Signature: Lee P. Pell

Date: May 1, 2018

CERTIFICATE OF LIABILITY INSURANCE

3/19/2019

DATE (MM/DD/YYYY) 4/20/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Lockton Insurance Brokers, LLC License #0F15767 4275 Executive Square, Suite 600 La Jolla CA 92037 (858) 587-3100	**CONTACT NAME:** **PHONE (A/C, No, Ext):** **FAX (A/C, No):** **E-MAIL ADDRESS:**
INSURED 1377909 IPS Group, Inc. 7737 Kenamar Court San Diego CA 92121	**INSURER(S) AFFORDING COVERAGE** — **NAIC #** **INSURER A :** National Fire Insurance Co of Hartford — 20478 **INSURER B :** The Continental Insurance Company — 35289 **INSURER C :** Indian Harbor Insurance Company — 36940 **INSURER D :** **INSURER E :** **INSURER F :**

COVERAGES IPSGR01 **CERTIFICATE NUMBER:** 15336976 **REVISION NUMBER:** XXXXXXX

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X **COMMERCIAL GENERAL LIABILITY** CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC OTHER:	Y	N	4034952942	3/19/2018	3/19/2019	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 100,000 $ 15,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
A	**AUTOMOBILE LIABILITY** X ANY AUTO OWNED AUTOS ONLY / SCHEDULED AUTOS X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY X Coll. $1,000 / X Comp. $1,000	N	N	6013847872	3/19/2018	3/19/2019	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ XXXXXXX $ XXXXXXX $ XXXXXXX $ XXXXXXX
B	X **UMBRELLA LIAB** X OCCUR **EXCESS LIAB** CLAIMS-MADE DED X RETENTION $ 10,000	N	N	4034952990	3/19/2018	3/19/2019	EACH OCCURRENCE AGGREGATE	$ 15,000,000 $ 15,000,000 $ XXXXXXX
B B	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N: N **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below	N / A	Y	5093308451 (CA) 5093308496 (AOS)	3/19/2018 3/19/2018	3/19/2019 3/19/2019	X PER STATUTE / OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
C	Tech E&O / Network / Privacy / Media	N	N	MTP9032003	3/19/2018	3/19/2019	Each Occ. 5,000,000; Agg.: 5,000,000; Ded.: 100,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: Bid 12109-885. City of Fort Lauderdale, Florida is an Additional Insured to the extent provided by the policy language or endorsement issued or approved by the insurance carrier.

CERTIFICATE HOLDER

15336976
City of Fort Lauderdale
Procurement Services Division
100 N. Andrews Avenue, Room 619
Fort Lauderdale FL 33301

CANCELLATION See Attachments

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

FLORIDA HOSPITAL — FLORIDA, USA

Master panel sign at garage entrance

End-of-space single-space sensors

Florida Hospital is a highly sought group of hospitals in the Orlando, Tampa, and Daytona Beach, FL providing the latest providing the latest treatments and technology.

Q-Free has provided a Parking Guidance System for four of the garages at Florida Hospital. They comprise of ultrasonic directional sensors (USDS) to monitor vehicle traffic at the entrance and exits of each facility, as well as the parking levels within.

To monitor each individual parking space, ultrasonic single-space sensors were used. Roadway signs, indicating space availability with the ability to show customizable variable messages, were installed at facility entrances.

The Q-Free Visual Control Center software package is used to manage the system, providing a user interface and statistical information as well as interfaces to customized LCD information screens throughout the system.

INSTALLATION HIGHLIGHTS

- Single-space monitoring and level counting PGS for four parking garages
- Over 3,000 three-color end-of-space single-space sensors
- Over 70 ultrasonic directional sensors
- Central PGS server
- Space availability signage guides drivers to avaiable parking
- Wireless Mesh Network
- Roadway signs displaying facility space available

VS.29.03.17

www.q-free.com

For more information contact marketing@q-free.com

LEADING THE WAY

REFERENCE

CITY OF OTTAWA GARAGE — OTTAWA, CANADA

As the capital of Canada, Ottawa's population of over 952,000 creates a high volume of downtown traffic. In 2013, to reduce congestion and enhance the ease of finding parking, the City of Ottawa contacted Q-Free to install customized Parking Guidance Systems (PGS) for two of their busiest downtown parking garages. Q-Free provided a mix of single-space monitoring and level-counting PGS equipment which included custom-designed dynamic and static message signs.

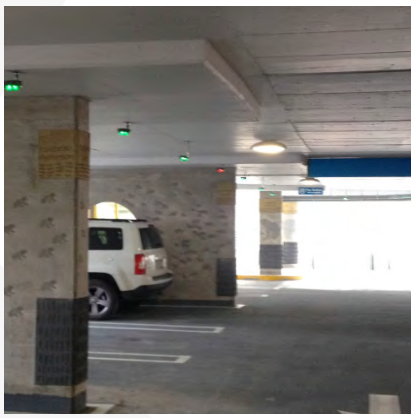
In 2015, Q-Free was contracted again and asked to provide a single-space guidance system to the newly renovated Glebe Garage, which is located in one of Ottawa's most eclectic shopping districts. The addition of two more garages is planned for 2016.

The PGS server located at City Hall provides central monitoring for all three parking garages including customizable reports. The PGS's API tool enables occupancy data to be exported to the city's third-party mobile application.

INSTALLATION HIGHLIGHTS

- Over 1,000 parking spaces monitored
- Wireless Mesh network
- Mix of ultrasonic and single-space sensors
- Master and level signs displaying parking availability throughout garage
- Real-time parking information through Visual Control Center

Space availability signage guiding drivers to spaces



Single-space sensors

VS.0609.16

www.q-free.com

For more information contact marketing@q-free.com

LEADING THE WAY

JAMES MADISON UNIVERSITY CAMPUS – VIRGINIA, USA

James Madison University (JMU) is a public co-educational research establishment located in Harrisonburg, Virginia. With over 148 major buildings, it is home to over 20,000 students. Guiding drivers quickly and efficiently to available parking was one of the University's major concerns.

In 2007, to accomdate students, faculty and the large amounts of traffic due to the University sporting events, Q-Free was first contracted to provide a Parking Guidance System (PGS) for one of the garages on campus utilizing ultrasonic directional sensors, and custom designed space availability signage with wireless communication .

Since then, the company has installed PGS systems in two additional campus garages. All systems are connected to a central PGS server located in the parking management office. An additional garage expansion will be completed in 2016.

INSTALLATION HIGHLIGHTS

- Over 2,000 parking spaces monitored in three campus garages
- Wireless Mesh network
- Ultrasonic directional sensors
- Master and level signs display parking availability throughout garages
- Real-time parking information through Visual Control Center software
- Valuable parking occupancy statistics

VS.06.09.16

LEADING THE WAY

REFERENCE

GO TRANSIT METROLINX — GREATER TORONTO AREA, ONTARIO

Bilingual interior space availability and directional signage

Master panel sign at garage entrance

End-of-space single-space sensors

GO Transit Metrolinx first approached Q-Free to provide a combination of single-space monitoring and level counting for a newly erected five-level parking structure in Oakville, Ontario in 2012. This 1,600 parking space facility was equipped with a Parking Guidance System (PGS) designed by Q-Free. In 2013, Metrolinx added Q-Free systems to the Ajax, Aurora, Erindale and Clarkson GO station garages to monitor over 2,000 parking spaces.

Q-Free provided customized single-space monitoring and level-counting PGSs for each garage. Entrance and level signs guide drivers and display space availabilities. Q-Free's Visual Control Center software package is used to manage the system, providing an easy user interface and statistic information.

INSTALLATION HIGHLIGHTS

- Single-space monitoring/level-counting PGS for five transit parking garages
- Over 2,000 three-color end-of-space single-space sensors
- Over 100 ultrasonic directional sensors
- Bilingual (English and French) space availability signage and dynamic LED displays
- Individual PGS servers at each garage location

The Q-Free PGS software on each server provides a graphical user interface displaying real-time parking availability, counting device status and sign information. The software allows the user to view, analyze and export statistical information in numerical and graphical form.

VS.06.09.16

www.q-free.com

For more information contact marketing@q-free.com

LEADING THE WAY

TOWN OF BANFF — ALBERTA, CANADA

The Town of Banff located within Banff National Park is a thriving destination for tourism as it's uniquely situated within Alberta's portion of the Rocky Mountains. Spanning only 5km², it can see 10's of thousands of visitors in a single weekend who wish to take in the magnificent scenery. With the high quantity of visitors and the towns limited size it's no surprise that smart parking technology was required to help manage traffic.

In 2014 the Town of Banff and Q-Free partnered up to implement a surface lot counting system in one location. Since then it has developed into a town wide Parking Guidance System that tracks parking space availability at majority of the towns surface lots, key roadways, and parking structure.

Parking space availability is displayed on wayfinding signage strategically located at key decision points along town roadways. Additional LED signage is located at all surface lot and parking structure entires.

INSTALLATION HIGHLIGHTS

- A mixture of Induction Loops and USDS monitoring surface lots, roadways, and parking structure.
- Wayfinding signage located at key decision points across the town.
- LED Signage located at entrances to surface lots and parking structure.
- Centralized PGS server located on the property which provides real time parking counts and customizable reports

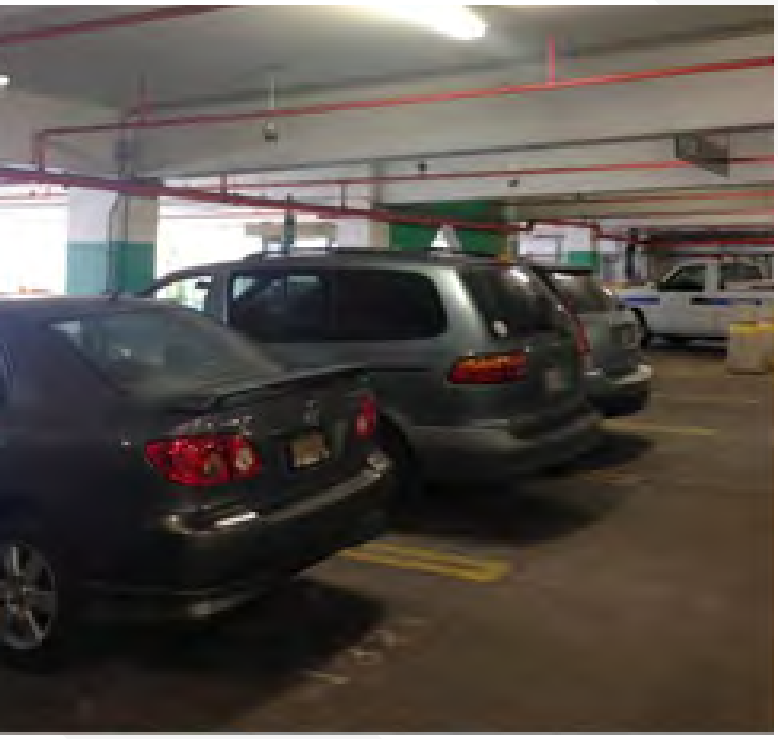
Overhead USDS monitoring parking structure entry/exit

Surface Lot LED Entrance Sign

VS.0609.16

LEADING THE WAY

MONTGOMERY COUNTY GARAGE — MARYLAND, USA



Ultrasonic directional sensors

Space availability signage guiding drivers to available spaces

The city of Montgomery looked to address downtown traffic congestion issues by building three new parking garages. In 2014, Q-Free was invited to install a customized Parking Guidance System (PGS) in one of the garages. By the end of the same year, it had installed a PGS in all three.

Q-Free provided battery-operated, wireless, single-space sensors and custom-designed garage and way-finding signs. A central PGS server covers all three garages.

INSTALLATION HIGHLIGHTS

- Over 3,000 parking spaces monitored
- Wireless Mesh technology for all three garages
- Ultrasonic directional sensors
- Master and level signs display parking availability throughout the garages
- Real-time parking information through Visual Control Center software
- Valuable parking occupancy statistics

VS.06.09.16

LEADING THE WAY

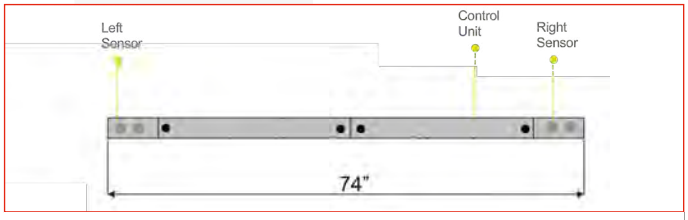
USDS ULTRASONIC DIRECTIONAL SENSOR

- Single unit standard or three-unit cluster design
- Overhead mounting with no need for saw-cutting ground work
- High-accuracy detection, even of wrong-direction events

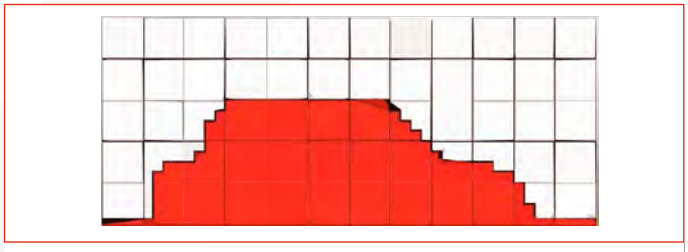
OVERVIEW

The Ultrasonic Directional Sensor is designed to replace inductive loops and provide accurate vehicle counts. USDS sensors are extremely reliable and play an important part in any facility or level-counting parking guidance solution. These ceiling-mounted sensors eliminate the need for saw-cutting groundwork.

Installation is easy, and relocation is possible should traffic patterns change. The three-unit cluster technology reduces the need for delineation to separate entrance and exit lane counts.



Sensor Dimensions



Sensor Directional Analysis

HIGHLIGHTS

- Single unit standard configuration at standard width garage/level entrances/exits (total lane detection of up to 12 feet)
- Three-unit cluster configuration at wide-width garage/level entrances/exits (total lane detection of up to 24 feet)
- One built-in central processing unit to control sensor logic
- Standalone operation with memory back-up offline
- Bi-directional counting of vehicles
- Up to 30km/h (19mph) effective counting speed
- Output: Dry contact and/or serial interface via RS-485
- Power supply voltage: 12–24V DC

FUNCTION

Two groups of ultrasonic sensors on a single USDS sensor continually measure the distance to ground. A passing vehicle produces a typical height profile (see illustration). A vehicle is differentiated from other objects by correlating information using a pattern-recognition process.

TECHNICAL DATA

Type: Ultrasonic distance measurement

Voltage: Low, 24V DC

Data transfer: RS-485 or Plus-Minus relay

Temperature: -4°F to +158°F (-20°C to +70°C)

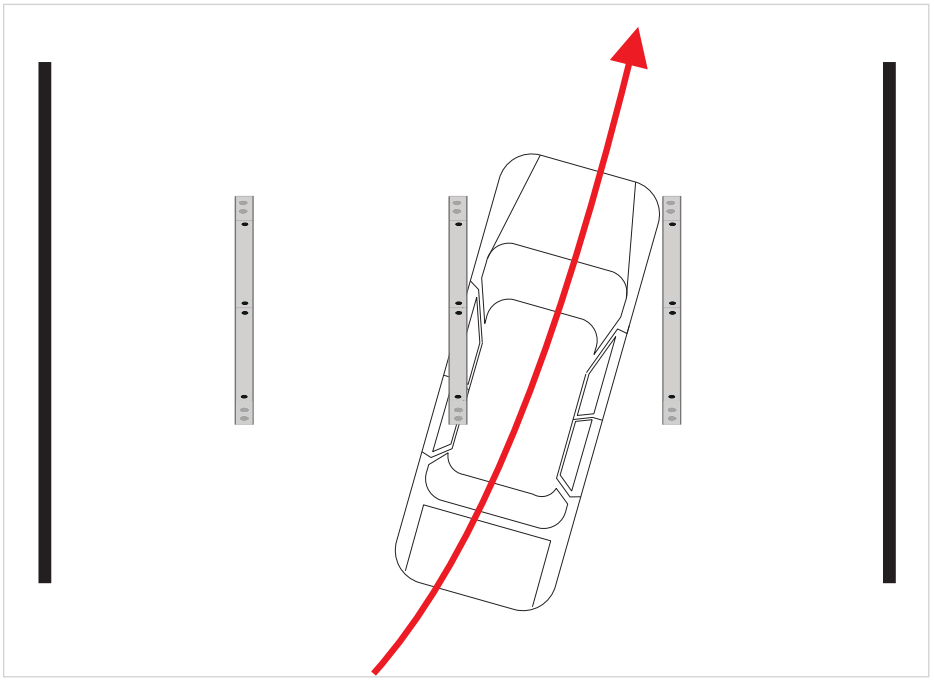
CONNECTION

18 AWG 4 conductor shielded wire

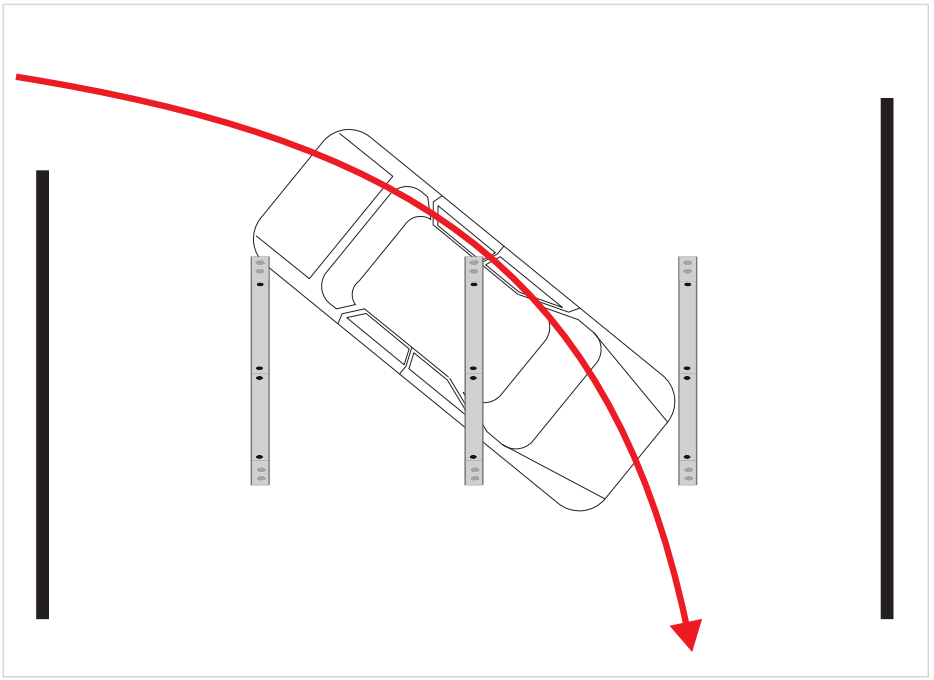
OPERATIONAL DATA

- Detection of vehicles
- Flexible installation options
- Low maintenance

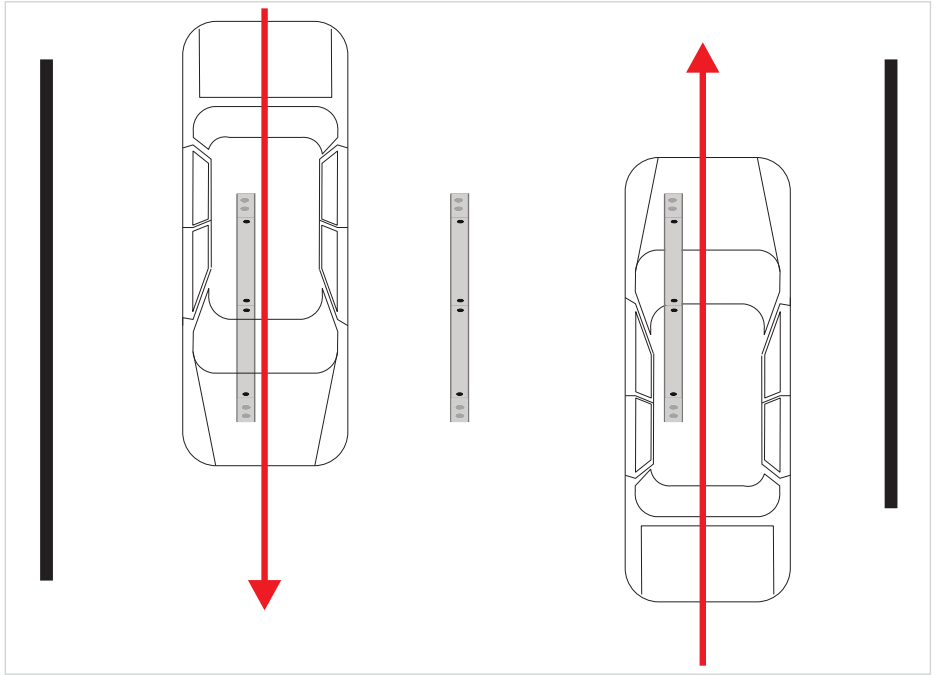
VS.29.03.16



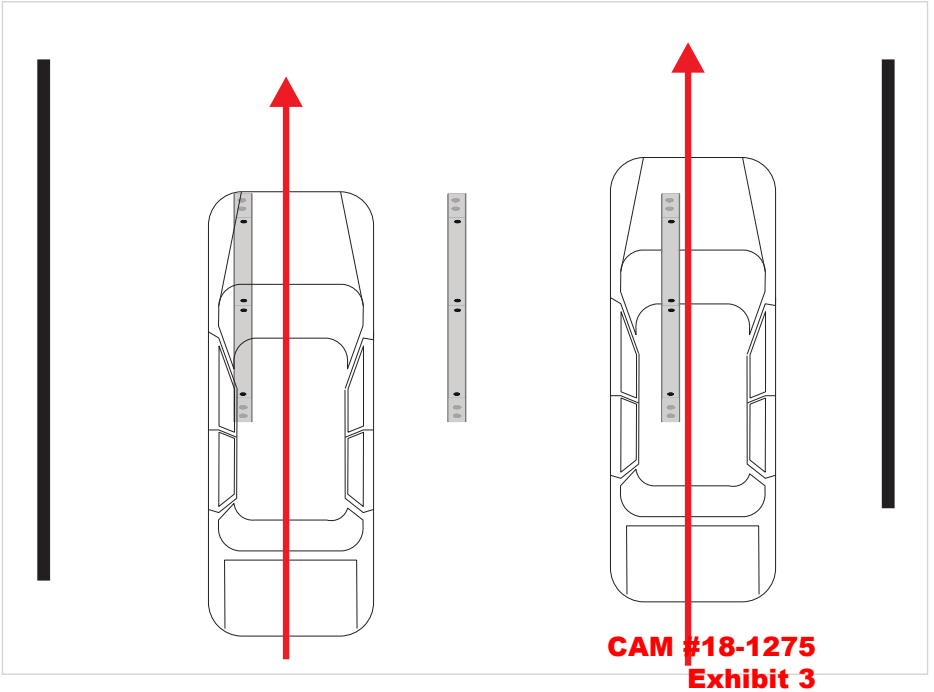
Diagonally across 2 USDS



Diagonally across 3 USDS



2 Vehicles traveling in opposite directions



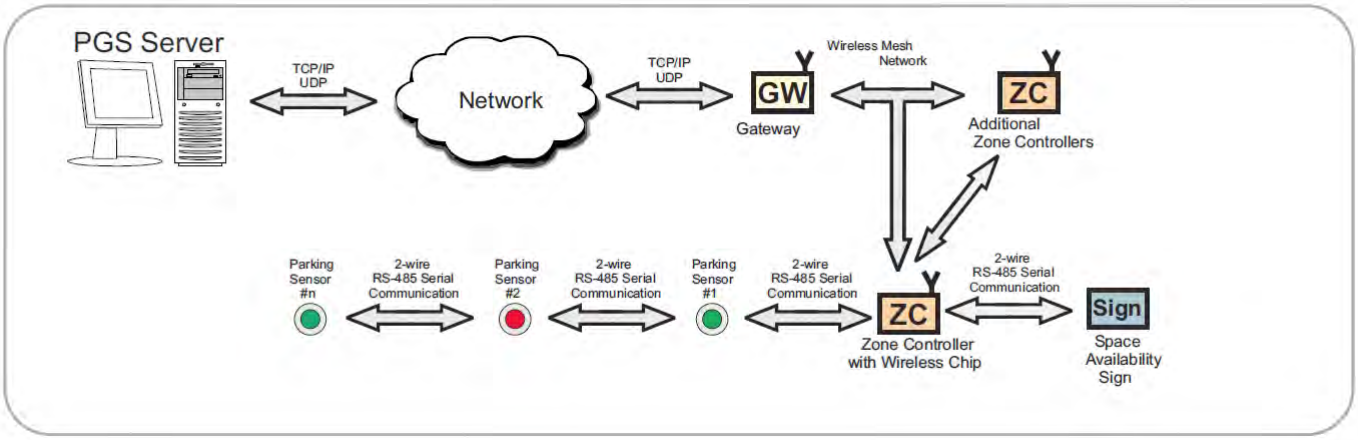
2 Vehicles traveling in the same direction

Q-FREE

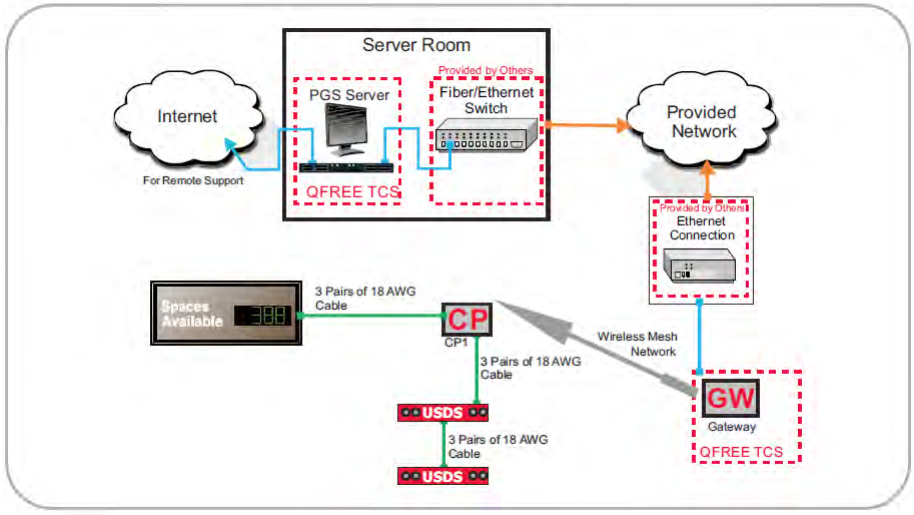
Dell PowerEdge T130 Features	Technical Specification
Form factor	Mini tower server
Processor	Intel Xeon E3-1220 V5 3.0GHz, 8M cache, 4C/4T, turbo (80W)
Chipset	Intel C236
Operating system	Microsoft Windows Server 2012 R2, x64
Memory	Architecture: Up to 2133MT/s DIMMs Memory type: UDIMMs Memory module sockets: 4 RAM: 4GB
Hypervisor support	Microsoft Windows Server with Hyper-V ® VMware vSphere ESXi
Storage	3.5" 7.2k RPM SATA 6 Gbps
Drive bays	4 x 3.5" cabled HDDs
Slots	1x8 PCIe 3.0 (x16 connector) 1x4 PCIe 3.0 (x8 connector) 1x4 PCIe 3.0 (x8 connector) 1x1 PCIe 3.0 (x1 connector)
RAID controllers	PERC H330
Network controller	Broadcom ® BCM5720
Communications	2 X 1GbE LOM Click here for T130 supported network interface cards (NICs) and host bus adapters (HBAs) and scroll to "Additional Network Cards" section.
Power	290W cabled PSU
Management	Systems management: • IPMI 2.0 compliant Remote management: • iDRAC8, Basic
Device Access	8 total USB: • Rear USB: 2 x USB 3.0 plus 4 x USB 2.0 • Front USB: 1 x USB 2.0 plus 1 x USB 3.0
Dimensions	Height: 14.17 in /36.0 cm Width: 6.89 in/17.5 cm Depth: 17.12 in /43.5 cm

WIRELESS SYSTEM COMMUNICATION

- Based on wireless Mesh technology
- Multiple gateway connection options
- Reduction in cabling and installation costs



Flow diagram of wireless communication single-space sensor system



Flow diagram of wireless communication level/facility counting system

OVERVIEW

The Q-Free wireless communication solution takes advantage of wireless Mesh technology, allowing at-the-edge devices such as sensors and signs to communicate through multiple wireless pathways. It reduces the cost of cabling and installation associated with a traditional hard-wired Parking Guidance System (PGS). Each device or group of devices is wired locally to a modem. This modem wirelessly transfers the device information to the PGS gateway. The gateway is connected through a network to the PGS server where the Q-Free Visual Control Center software manages the whole system and provides a graphical user interface.

HIGHLIGHTS

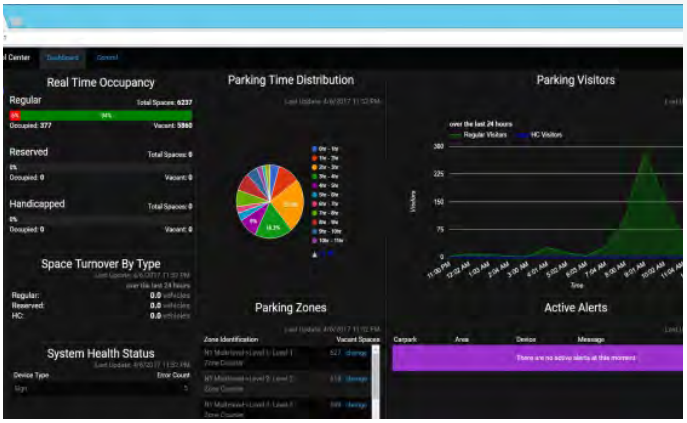
- Reduction in cabling and installation costs
- Self-healing network
- 100% network uptime
- Deployed in all of Q-Free's PGS installations
- First PGS provider in the world specializing entirely in wireless system communication

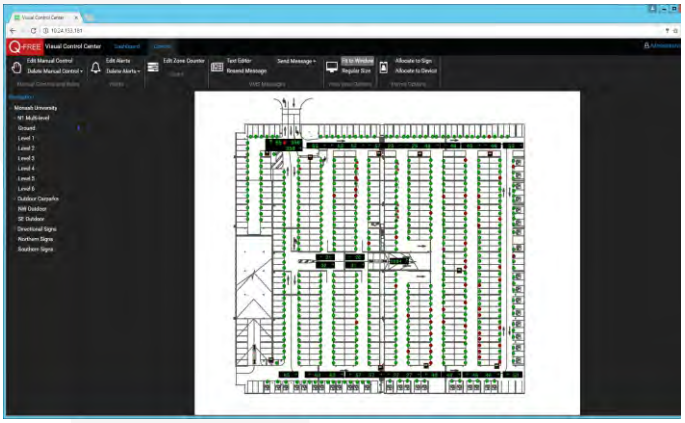
VS.25.03.16

VISUAL CONTROL CENTER PGS SOFTWARE

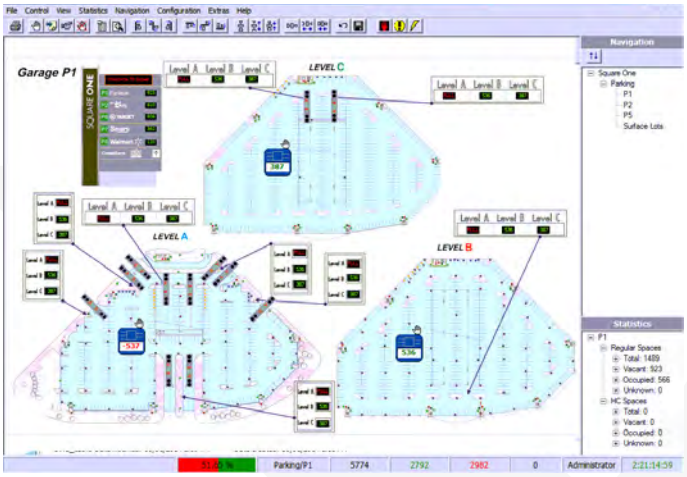
- Proprietary software with in-house development
- Unique optional multi-user platform

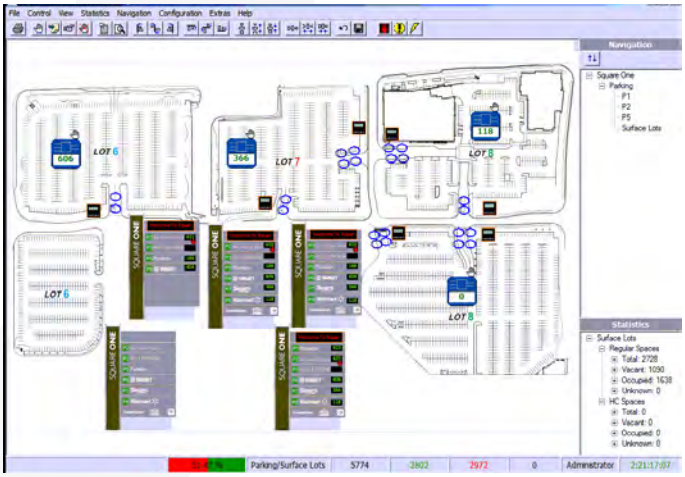
WEB BROWSER ACCESS





CLIENT SOFTWARE ACCESS



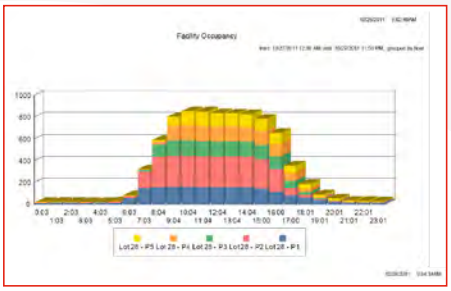
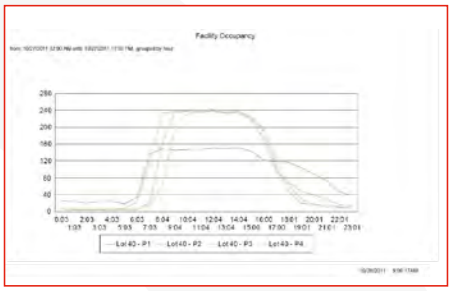
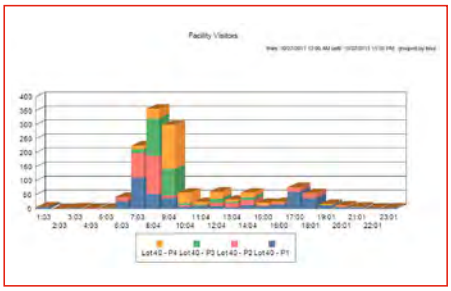


OVERVIEW

The Visual Control Center is the graphical user interface and communication service for Q-Free's parking guidance systems. It communicates to all installed devices and displays real-time parking availability, counting device statuses, and sign information. This software enables users to view and export numerical and graphical parking information statistics, providing important occupancy information.

FEATURES

A customized graphical user interface displaying all device statuses and real-time parking availability information. The application can be accessed through the client software on the parking guidance server, or through a web browser. Supported web browsers are Firefox and Google Chrome.

Example of reports available using the Visual Control Center PGS Software

HIGHLIGHTS

- Real-time parking availability
- Easy-to-use graphical user interface
- Device status updates
- Parking information statistics
- Customized on-screen parking guidance layout based on individual facility
- Compatible with all Q-Free parking guidance products
- API tool for exporting parking availability to customer website and/or mobile app
- Optional multi-user platform allowing multiple user access

TYPICAL APPLICATIONS

- Single-space monitoring
- Level counting
- Facility counting
- Surface lot space availability
- Way-finding

STATISTICS AND REPORTS

The Visual Control Center software provides access to a variety of important occupancy status reports:

- Facility occupancy
- Zone or level occupancy
- Facility visitor tracking
- Parking time control
- Parking duration

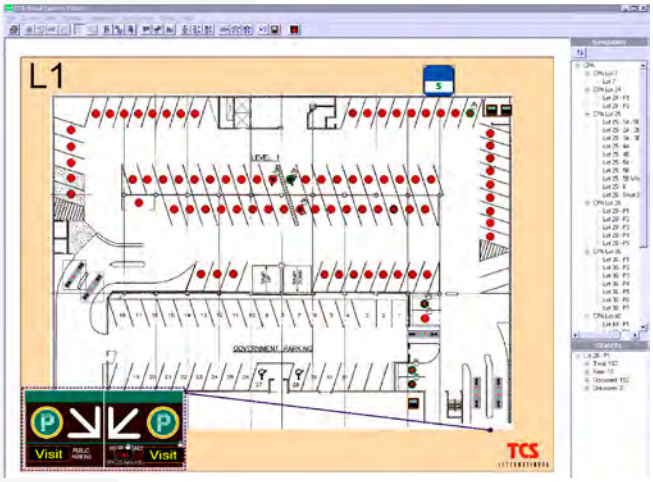
Parking availability statistics provide vital occupancy information and can assist with staffing or marketing plans.

GRAPHICAL USER INTERFACE

The Visual Control Center software is used with all of our parking guidance products:

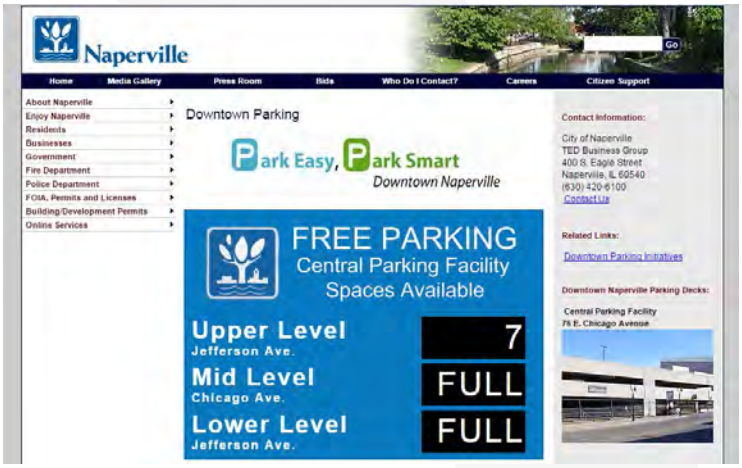
- Ultrasonic single space sensors
- Ultrasonic directional sensors
- Surface parking space sensors
- In-ground loop technology
- Space availability signs
- Variable message displays
- Wireless Mesh technology

Example of the Visual Control Center graphical user interface displaying a parking level with ultrasonic single-space monitoring technology. The user is able to view real-time parking availability and occupancy on a per-stall basis, as well as parking availability signs.

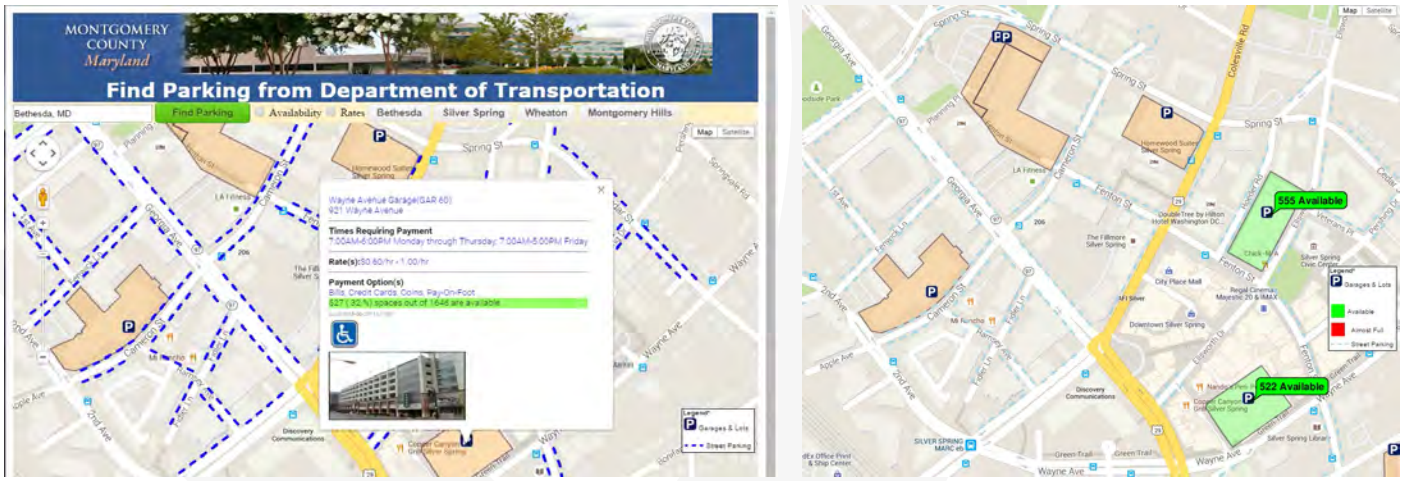


VS.12.03.18

WEB INTERFACE MODULE/API TOOL



Naperville parking web interface



Montgomery County, MD parking web interface

OVERVIEW

The Q-Free Web Interface Module/API tool is an optional add-on to the PGS Visual Control Center software. It exports captured parking information to feed into third-party websites or mobile applications. These applications provide stress-free parking for customers by allowing them to save time and plan parking in advance.

- Provides detail of total parking spaces in selected parking facilities
- Provides space availability by type (reserved, handicapped, etc.)
- Multiple file formats available
- Tool for export of statistical/count data to third-party systems

Real-time parking information is exported from the Visual Control Center software via the web interface/API tool to a customer's existing website. Examples shown are:

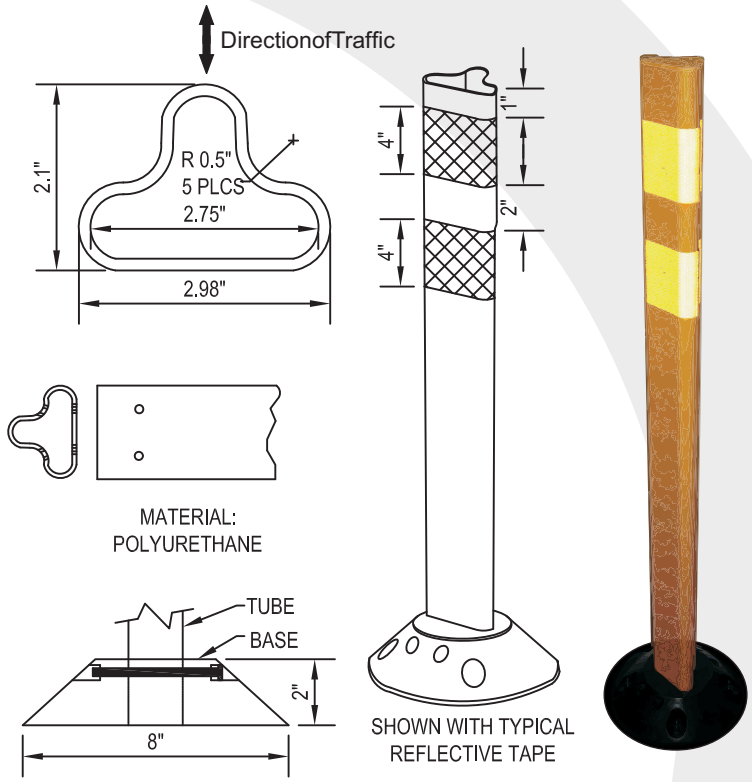
- http://www.naperville.il.us/downtownparking.aspx
- http://www.calgaryparking.com/parkadeRssFeed/availability/lot/060/feed.rss
- http://www2.montgomerycountymd.gov/gisparking/parkingpublicmap.html

www.q-free.com

For more information contact sales.usa@q-free.com

PRODUCT

DP-300-UR DELINEATION POST



DP-300-UR INFORMATION

- Post HeightAvailability
  Standard: 36”
  Optional: 18”, 24”, 28”, or 42”
- Post ColorAvailability
  Standard: yellow
  Optional: white or orange
- Reflective Sheeting ColorAvailability
  Standard: yellow
  Optional: white or blue
- Superior resistance to tearing and puncturing
- Designed for daily traffic abuse

OVERVIEW

The Q-Free TCS Delineation Post (DP-300-UR) comes standard with a butyl pad for adherence to the ground. Delineation posts create a “counting point” for accurate system counts by controlling the traffic speed and proper lane travel throughout the parking facility. The delineation posts are composed of flexible polyurethane plastic which quickly restores back to an upright position after being struck. The polymer maintains its flexibility to -50 F (-45 C) as well as its toughness to fuels, oils, and grease.

Example of Lane Delineation

USA 55 Union Ave. | Sudbury, MA 01776 | T +1 978 443 2527 | F +1 978 579 9545
Canada 70 Six Point Rd. Etobicoke, ON M8Z2X2 | T +1 416 259 4862 | F +1 416 252-0285
www.q-free.com | www.tcsintl.com | @QFreeASA
For more information contact sales.usa@q-free.com

VS.09.07.15

PRODUCT

SYNTHETIC RUBBER BUTYL PADS 8”x8”

1. Product Description:

Butyl adhesives offer quick and reliable adhesion for temporary installation of traffic control products. Pexco’s butyl is a 100 % solid preformed synthetic polymer based adhesive which exhibits excellent adhesion to many substrates, including both porous and non-porous surfaces. Adhesion improves with age and remains permanently flexible, even at low temperatures.

2. Technical Data:

Hardness, Shore “00”, 77° F, 21 days	73
Hardness, Shore “00”, 180° F, 21 days	80
Yield Strength, 77° F, 24 hours	15 pounds/sq. inch
Yield Strength, 180° F, 14 days	33 pounds/sq. inch
Sag, 180° F, 14 days	None
Service Temperature	- 60° F to 212° F
Heat Resistance, 190° F	No blistering, flow or adhesion loss
Low Temperature Flexibility	No cracking or loss of adhesion
Solids Content	100 % solids
Shrinkage	None
Backing removal	Complete removal, no tearing
Color	Black
Thickness	3/16"

3. Packaging:

25 pieces per box

4. Surface Preparation:

Please refer to “Application Instructions” included in each box.

5. Storage Life:

Over one year stored under normal conditions; for maximum shelf life store at or below 80° F.

VS.09.07.15

USA 55 Union Ave. | Sudbury, MA 01776 | T +1 978 443 2527 | F +1 978 579 9545
Canada 70 Six Point Rd. Etobicoke, ON M8Z2X2 | T +1 416 259 4862 | F +1 416 252-0285
www.q-free.com | www.tcsintl.com | @QFreeASA
For more information contact sales.usa@q-free.com

Installation Procedures

Pressure sensitive butyl pads are a cost effective solution for temporary installations of Davidson channelizer posts, especially in areas where anchor bolts may not be uses, such as parking garages and bridge decks.

A) A clean, dry surface is required. Sweep or blow off the area where the base will be installed using the broom or blowgun to remove gravel, sand or other debris.

B) For optimum performance, the recommended installation temperature is 50 degrees F and rising.

C) Special Conditions: All Concrete Surfaces and old Asphalt pavements: prime the surface with DAPCO pavement primer prior to installation of butyl pads

D) Remove the slip sheeting from one side of the Butyl Pad and place it on the ground with the exposed adhesive facing up.

E) Set the base on the Butyl Pad, centering it within the edges of the pad.

F) Step on the base to secure it to the pad. Lift the base and remove the remaining slip sheet from the other side of the pad.

G) Place the base/pad assembly in position making sure it is oriented properly. Generally this means the locking pin holes will face oncoming traffic.

H) Slowly drive a vehicle up onto the base and stop so one of the front wheels is directly on top of the base. Remain in this position for at least 15 seconds to “set” the adhesive.

I) One the bases are set, install channelizer posts in the bases and lock with 2 pins.

F) Limitations

1) Insufficient pressure will not allow the adhesive to set. Failure to install correctly can result in loss of the marker and adhesive.
2) Moisture on the roadway will inhibit bonding of the markers.
Roadway must be clean and dry prior to installation.

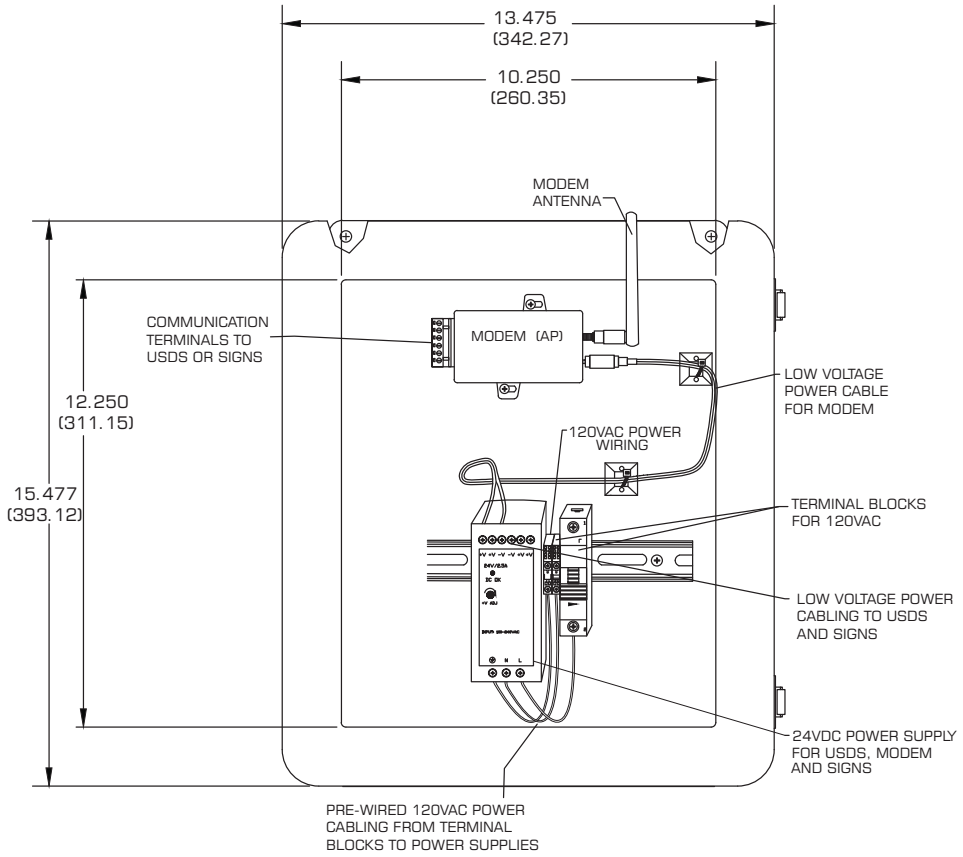
G) Important Notice to Purchaser

The following is made in lieu of all warranties, expressed or implied, including the implied warranties of merchantability and fitness for purpose: Seller's and manufacture's only obligation shall be to replace such quantity of the product proved to be defective. Before using, user shall determine the suitability of the product for it's intended use, and user assumes all risk and liability whatsoever in connection therewith. Neither manufacturer nor seller shall be liable either in tort or in contract for any loss or damage, direct, incidental, or consequential, arising out of the use of or the inability to use the product.

VS.09.07.15

USA 55 Union Ave. | Sudbury, MA 01776 | T +1 978 443 2527 | F +1 978 579 9545
Canada 70 Six Point Rd. Etobicoke, ON M8Z2X2 | T +1 416 259 4862 | F +1 416 252-0285
www.q-free.com | www.tcsintl.com | @QFreeASA
For more information contact sales.usa@q-free.com

Typical USDS and or Sign



Q-Free
55 Union Avenue
Sudbury, MA 01776
Phone (978) 443-2527
Fax (978) 579-9545
www.q-free.com

Typical USDS and or Sign Enclosure

Drawing No.

	Submittal No.	Submittal Date

	Project No.	
	Engineer	
	Draftsman	KB
	Date	3/1/2016
	Checked	-
Description of Modification	Approved	-
Date		

G.
F.
E.
D.
C.
B.
A.

Parking Enforcement Management Solution

IPS continues to exceed industry standards by offering innovative technology solutions that bring greater efficiency to parking operations, which now includes the IPS Parking Enforcement Product Suite. The next-generation Parking Enforcement Management Solution manages the entire citation lifecycle from issuance to collections and incorporates state-of-the-art real-time technology and customer service resources. The IPS solution is built from the ground up and future-proofed to stand apart from aging and obsolete legacy enforcement systems and equipment. This fully-integrated solution from IPS includes a handheld citation writer, a back office web-based application, and an online public portal.

FEATURES

- All-in-one enforcement device integration with IPS meter integration
- Dashboard features real-time statistics, heat mapping, user activity and performance analytics
- On-demand visual reporting with multiple export formats
- Cross-platform, cross-browser and cross-device compatibility
- Single sign-on (SSO) enables access to meter and enforcement data in one back office

INTEGRATION WITH:

- National Law Enforcement Telecommunications Systems (NLETS) in all 50 states
- Verizon and T-Mobile
- Third-party cashiering and financial systems
- LPR technology
- Letter Mailing and Lockbox Payment Services

For more information on the fully-integrated solution from **IPS Group,** please contact us.
Call for an on-site demo: **877.630.6638**
Online: **ipsgroup.com**

HANDHELD

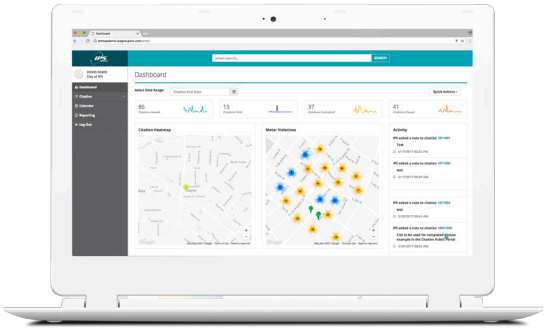
The most innovative on the market today, our easy-to-use handheld citation writer ensures parking enforcement officers experience a convenient, quick and efficient citation issuance process.

FEATURES INCLUDE:

- All-in-one 1-piece or 2-piece solution, Android OS compatible
- Real-time syncing and connectivity
- Lightweight and portable, but rugged to withstand weather and heavy-duty use
- High contrast, easy-to-read screen
- Integrated thermal printer produces easy-to-read tickets
- Magnetic strip and smart card reader for payment collection
- High-resolution color photos, e-chalking and heat-mapping
- Scofflaw and customized notifications.

EMS

The Enforcement Management System (EMS) is a real-time, web-based enforcement application that gives officers access to case information including high-level citation summaries, photos, notices and letters, adjudications and voids.

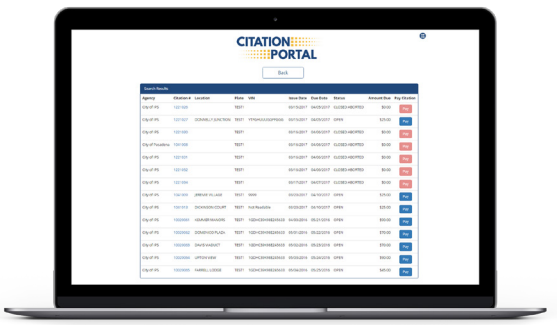


FEATURES INCLUDE:

- Cross-compatible interface across all operating systems and devices
- Advanced search capability and option for manual citation entry
- Adjudication and disposition management
- Personalized report libraries
- Payment and refund processing
- Notice and letter processing

CITATION PORTAL

The Citation Portal is a website that allows citizens to review the current status of their citation, pay or obtain information on how to contest their citation, review fine amounts including late fees, and obtain additional information.



FEATURES INCLUDE:

- Real-time access to citation status and transaction history
- Highly secure PCI compliant application
- Cross-compatible interface supports all browsers and devices
- Customizable interface and branding
- Comprehensive (Smart) FAQ and customer service reporting
- Accepts all major credit cards

Datasheet
11/2016

IPLED24X128RG-OD-C
(Compact Outdoor)

>Specifications

Internals

LEDs: Array 24x128; 3072 pixels; Tricolor, 2R/1G; Dot Pitch of 6MM.
Processor: ARM A8 at 1GHz; Memory: 1GB SDRAM; uSD Memory card: 2GB Min.
OS: Embedded Compact CE 7.0

Electrical

Ethernet - RJ45 - 10/100Mb Cat5.
USB 2.0 - Host - Type A connector.
Audio - 3.5mm Stereo Jack - 3 conductor.
Case: 1" Knockout opening.
Power Switch:
DPDT 1/0 legend marked.
Conduit cutout
Enclosure:
IP65 Rated LEDs - PTFE gasketed.
Weather-sealed enclosure.

Environmental

Operating Temperature:
-34°C ~65°C or -30°F ~ 150°F ambient.
Relative Humidity:
upto 90 % non-condensing.
Ethernet Isolation:
1500VAC min per IEEE 802.3.

Power Requirements

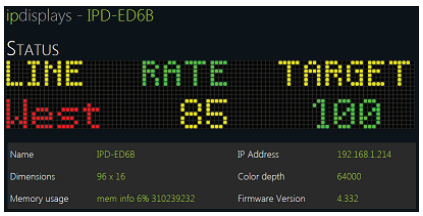
Input - 95 ~ 260VAC at 50 ~ 60Hz.
Power Consumption:
188 W maximum
48 W typical

Mechanicals

Length: 30." (1066.8mm).
Height: 7 " (279.4mm).
Depth: 4" (101.6mm).
Weight: 24lbs est (10.8kg).

info@ipdisplays.com www.ipdisplays.com 817 South Greenville Ave, Plano TX 75002

>Display Features

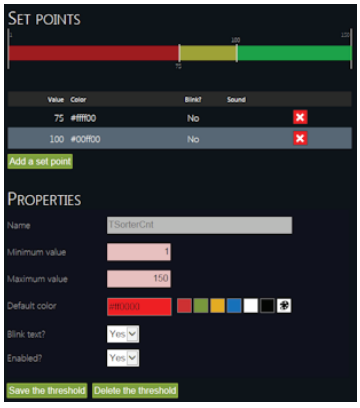


Remote 'snapshot'

Not where you can see your display, no problem. View exactly what is on the display no matter where you are. The sign generates an instant copy of what is being displayed and sends it right to your browser.

Integrated 10/100 Ethernet

This is the core of our technology which allows for superior ease of use and integration in conjunction with the unit's built in web-server. TCPIP enabled out of the box. Use built-in support for DHCP and NTP to aid in your ease of configura tion.



Data thresholds

Set thresholds on your data to change your message color or state to bring impact to an event.

Server-free solution

With easy web-based interfaces and easy to program XML data structures, no longer do you need middleware or any additional hardware to accumulate data saving you time, money and resources.

Direct PLC Interfaces

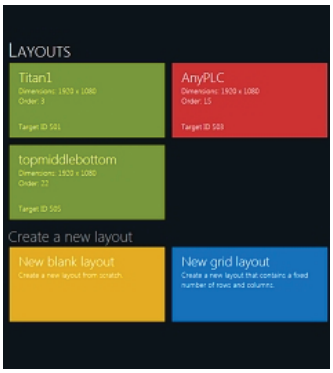
Connect to Standard based PLC's including: Ethernet/IP™, Modbus/TCP, Melsec(Mistubishi), FINS (OMRON), and OPC.

Browser based interface

Ease of use exemplified. Manage your display from a simple web-browser anywhere - any time. Send messages, check status, and manage thresholds, layouts, remote or local data fields all from web pages hosted on the sign. No software to install and no custom programming needed.

Live message elements

Insert data into any message. You can have real-time data and see it update dynamically on the display. Any message may contain static or scrolling text, live data, database elements, clocks, bit-mapped graphics or any combination therein.



Dynamic sign layouts

Schedule any number of layouts with our Playlist manager. Show real-time data, statistics, company news, safety informa tion, or general messages in their own unique layout to get the impact you want. The Playlist manager allows you to schedule the times and order - it is all under your control.

EtherNet/IP™ ODVA

Fonts, graphics and effects

Use any of the 44 built-in text or graphics fonts to build your message. Add pizazz using the built-in entry and exit effects.

Conditions/Program Logic

Program logic can be tied to variables on the sign. As data is changed "Program logic" can be used to Activate/Deactivate Messsages, Layouts, Thresolds, Commands or even update other variables on the sign.

Simple Integration/Open Interface

Use simple standard XML syntax and constructs to send data to the display. No proprietary protocols, syntaxes, or languages to learn. Any XML capable application like MS Excel or SQL Server or programming language like Perl, VB, or C# can easily update data fields or elements on the sign.

info@ipdisplays.com www.ipdisplays.com 817 South Greenville Ave, Plano TX 75002

Datasheet
02/2018

IPLED32X96RGB4-MI
(Stainless Steel)

>Specifications

Mechanicals

Length: 26″

Height: 11″

Depth: 3.5″

Weight: 10 lbs

Environmental

Operating Temperature:
-34°C ~65°C or -30°F ~ 150°F ambient.

Relative Humidity:
upto 90 % non-condensing.

Ethernet Isolation:
1500VAC min per IEEE 802.3.

Enclosure:

Internals

LEDs: Array 32x96; 3072 pixels; Tricolor, R/G/B; Dot Pitch of 4MM.

Processor: ARM A8 at 1GHz; Memory: 1GB SDRAM; uSD Memory card: 2GB Min.

OS: Embedded Compact CE 7.0

Power Requirements

Input - 95 ~ 260VAC at 50 ~ 60Hz.

Power Consumption:
75W maximum
20W typical

Inrush - cold start (est):
18A @ 115VAC
36A @ 230VAC

Electrical

Ethernet - RJ45 - 10/100Mb Cat5.

USB 2.0 - Host - Type A connector.

Audio - 3.5mm Stereo Jack - 3 conductor.

Power Input:
Conduit Cutout

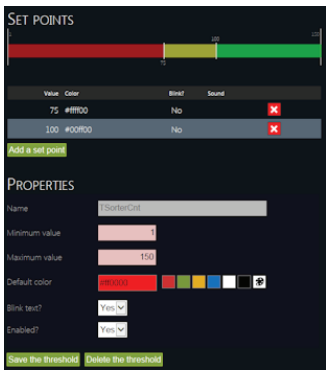
info@ipdisplays.com www.ipdisplays.com 817 South Greenville Ave, Plano TX 75002

>Display Features

ipdisplays™

Remote 'snapshot'
Not where you can see your display, no problem. View exactly what is on the display no matter where you are. The sign generates an instant copy of what is being displayed and sends it right to your browser.

Integrated 10/100 Ethernet
This is the core of our technology which allows for superior ease of use and integration in conjunction with the unit's built in web-server. TCPIP enabled out of the box. Use built-in support for DHCP and NTP to aid in your ease of configura tion.



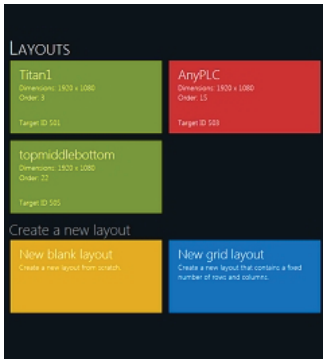
Data thresholds
Set thresholds on your data to change your message color or state to bring impact to an event.

Server-free solution
With easy web-based interfaces and easy to program XML data structures, no longer do you need middleware or any additional hardware to accumulate data saving you time, money and resources.

Direct PLC Interfaces
Connect to Standard based PLC's including: Ethernet/IP™, Modbus/TCP, Melsec(Mistubishi), FINS (OMRON), and OPC.

Browser based interface
Ease of use exemplified. Manage your display from a simple web-browser anywhere - any time. Send messages, check status, and manage thresholds, layouts, remote or local data fields all from web pages hosted on the sign. No software to install and no custom programming needed.

Live message elements
Insert data into any message. You can have real-time data and see it update dynamically on the display. Any message may contain static or scrolling text, live data, database elements, clocks, bit-mapped graphics or any combination therein.



Dynamic sign layouts
Schedule any number of layouts with our Playlist manager. Show real-time data, statistics, company news, safety informa tion, or general messages in their own unique layout to get the impact you want. The Playlist manager allows you to schedule the times and order - it is all under your control.

Fonts, graphics and effects
Use any of the 44 built-in text or graphics fonts to build your message. Add pizazz using the built-in entry and exit effects.

Conditions/Program Logic
Program logic can be tied to variables on the sign. As data is changed "Program logic" can be used to Activate/Deactivate Messsages, Layouts, Thresolds, Commands or even update other variables on the sign.

Simple Integration/Open Interface
Use simple standard XML syntax and constructs to send data to the display. No proprietary protocols, syntaxes, or languages to learn. Any XML capable application like MS Excel or SQL Server or programming language like Perl, VB, or C# can easily update data fields or elements on the sign.

EtherNet/IP™ ODVA

info@ipdisplays.com www.ipdisplays.com 817 South Greenville Ave, Plano TX 75002