

# HUNT

Electric Corporation

## DTA MULTIMODAL TRANSPORTATION FACILITY

### 11-1200 – PARKING EQUIPMENT

HUNT ELECTRIC CORP.

Date February 4, 2015

Project \_\_\_\_\_

- ☐ Rejected Resubmit  
☐ Preliminary Not for Construction  
☐ Approved as Noted  
☒ Approved for Construction

☐ \_\_\_\_\_

Signature Floyd Cochran

**JOB 263984**

**Hunt Electric Corporation**  
4330 W. 1<sup>st</sup> Street, Suite B Duluth, MN 55807  
Phone: 218.628.3323 Fax: 218.624.7485

**Project Name: DTA Multimodal Transportation Facility**

**Submittal Package**

**Date: 2/2/2015**

**Submitted to:** Hunt Electric Corporation  
Project Name: DTA Multimodal Transportation Facility

**Submitted by:** Amano McGann, Inc.  
Amano Mike Frisinger  
Representative:

Address: 4330 West 1st Street Suite B

Address: 2695 Patton Rd.

City, State, Zip: Duluth, MN 55807

City, State, Zip: Roseville, MN, 55113

Tel: (218) 624-6524  
Email: FCochran@huntelec.com

Tel: (612) 524-6325 x177  
Email: Mike.Frasinger@AmanoMcGann.com

Qty	Model	Description
<b>Level 1 Contract Parking</b>		
4	P-NL08-18/20	2' X 6' Detector Loop with 20' Lead
2	AGP-0234	Vehicle Detector, Dual Channel
1	O-0100/1100-000	Count/Monitoring Lane Controller
1	PRX000M	Amano McGann MIFARE Format Proximity Reader
1	ECL	Loop Detector Enclosure
<b>Level 2 Pedestrian Warning System (sign by others)</b>		
3	P-NL08-18/20	6' X 6' Detector Loop with 20' Lead
2	AGP-0234	Vehicle Detector, Dual Channel
2	ECL	Warning System Enclosure
<b>Level 3 Hourly Parking</b>		
4	AMG-1850/A907	AMI Direct-Drive Barrier Gate
4	AL30	AMANO 11' Aluminum Folding Gate Arm (AMG-1800)
8	P-NL08-18/20	2' X 6' Detector Loop with 20' Lead

Qty	Model	Description
<b>Level 3 Hourly Parking (continued)</b>		
4	O-0100/1100-000	Count/Monitoring Lane Controller
4	PRX000M	Amano McGann MIFARE Format Proximity Reader
2	AMG-2070/A925	AMI Magnetic Stripe Entry Station with Backlit Display
2	AMG-4570/A922	AMI Magnetic Stripe Exit Station with Credit Card Acceptance, Backlit Display
<b>Level 3 Head End Systems</b>		
1	AMS-SQL/TWR	PCI PA-DSS Host Controller System - Complete with LCD Monitor, Keyboard, Mouse, Windows Operating System, Windows SQL Database, AntiVirus, and UPS
1	AMS-SRVR/TWR	Host Server System - Rack Mount - Complete with KVM Switch, Windows Operating System, Intelligent Serial Card, AntiVirus and UPS
3	AGP-0509/A558	TC Converter (RS485 to RS232) w/ Power Supply
1	O-0100/CONFIG	IO100 Configuration File
1	Readers	Custom Firmware Development for MIFARE Access Card Format
1	AMS4950IP	Amano McGann iParcProfessional BA Business Alerts
1	AMS1156IP	Amano McGann iParcProfessional Revenue Software.
1	AMS4255DIP	Amano McGann iParcProfessional Card Access Software.
1	AMS6958IP	Amano McGann iParcProfessional Credit Card Software Suite
1	AMS7050IP	Amano McGann iParcProfessional Count/Monitor Software
1	AMS005ULIP	iParcProfessional Web Client 5 Pack User License.
<b>Level 3 Hourly Parking Paystations</b>		
1	AMG-7850/A914	Pay Station, PA-DSS Compliant pre-configured with credit card, coin and note processing functions (U.S.).

**Salesperson**

Nick Colianni

Sales Executive

**Amano McGann, Inc.**

2695 Patton Road

Roseville, MN 55113

Tel: 612-524-6325 x101

Cell: 612-310-0151

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**Project Manager**

Mike Frisinger

Senior Project Manager - Minneapolis Branch

**Amano McGann, Inc.**

2695 Patton Road

Roseville, MN 55113

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[Mike.Frisinger@AmanoMcGann.com](mailto:Mike.Frisinger@AmanoMcGann.com)

**AMANO McGANN**

## Notes

- Section 11 1200, Part 1, 1.2, A – On-site labor, setting, anchoring, control wiring installation, and wiring termination by others
- Section 11 1200, Part 1, 1.4, A, 3 – Intercom system provided and installed by others
- Section 11 1200, Part 1, 1.4, C, 1, f – Only timed anti-passback is available in the Level 1 Contract Area because only one card reader is specified
- Section 11 1200, Part 2, 2.3, D, 5 – Manual key switch (and associated wiring) in the office to manually override the FMS for control of the illuminated signs provided and installed by others
- Section 11 1200, Part 2, 2.8 – Detector loop materials provided by Amano McGann. Installation of detector loops by others. Amano McGann recommends the use of pre-formed PVC loops where possible to increase longevity and ease of installation.
- Section 11 1200, Part 2, 2.12 – Uninterruptible power supplies provided and installed by others

## Installation

Included in this proposal is all in-shop setup, prep, and equipment delivery by Amano McGann. On-site installation supervision and final system startup, testing, and training by Amano McGann is included in this proposal during the standard business hours of 8:00AM – 4:30PM, Monday through Friday.

## Product Delivery

Estimated lead time for PARCS equipment is 6-8 weeks from receipt of all required order forms and deposit for product delivery, when applicable. Amano McGann will deliver all equipment to the site for bolt-down by others.

## Change Orders

Any alteration or deviation from the above specifications, including but not limited to any such changes involving additional material and/or labor costs, will be executed only upon a written change order for same, signed by both Buyer and Amano McGann. If there is any charge for such alteration or deviation, the additional charge will be added to the contract price.

## Warranty

Unless noted otherwise, a standard one year warranty on parts and labor (travel time and mileage additional) for defects in materials or manufacture is included. Warranty does not cover damage or malfunctions resulting from acts of God, collision, vandalism, misuse, electrical surges, power failure, or use of non-manufacturer approved parts or consumable supplies.

**AMANO McGANN**

## **Scope of Work**

### **Amano McGann, Inc.**

Provide CAD electrical riser/equipment layout/s of system

Provide equipment listed above

All in-shop setup, prep, and equipment delivery

On-site installation supervision and final system startup, testing, and 16 hours of training

One year parts and labor warranty (travel time and mileage additional)

### **Others**

Provide Concrete and Protection Posts per our layout diagram/s

Power circuit/s with connection/s to lane equipment as required

Installation of detector loops (materials provided by Amano McGann)

Provide and install LED signs

Provide and install intercom system

Low-voltage wiring and conduit system per our shop drawing/s

On-site labor for setting and anchoring equipment

Power and low-voltage wiring termination

Clear all snow and ice from equipment locations prior to and during installation

Provide Ethernet connection to internet through commercial grade DSL or better

### **Exclusions**

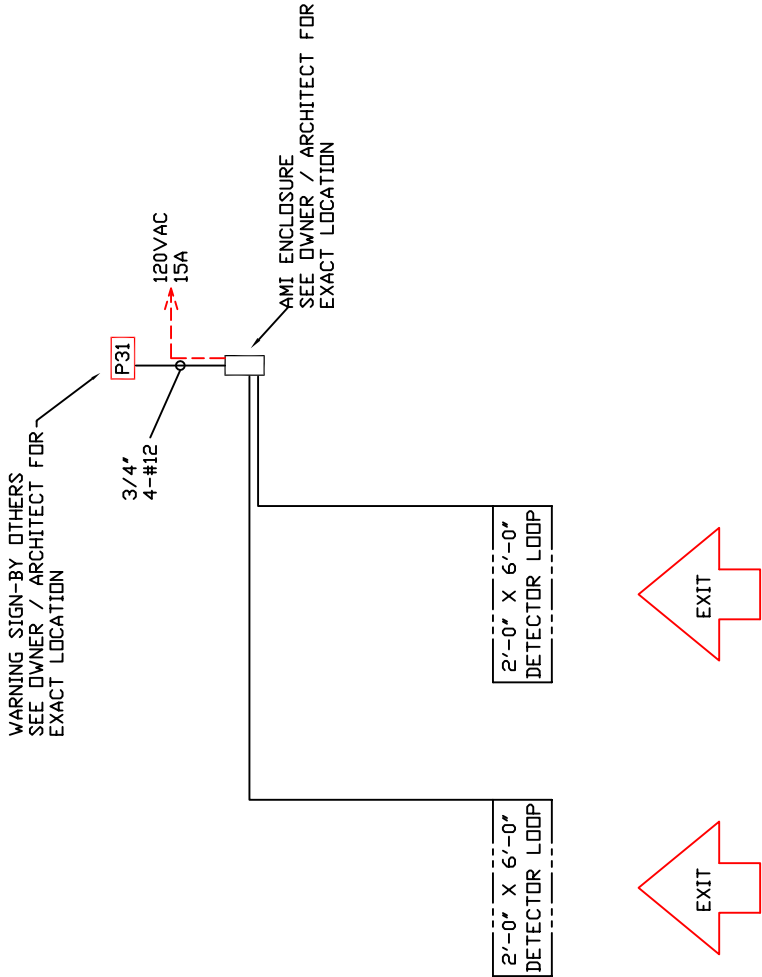
Integrity of scope of work provided by others

Integrity of equipment provided by others

Additional customer policies/procedures/requirements not specifically listed above

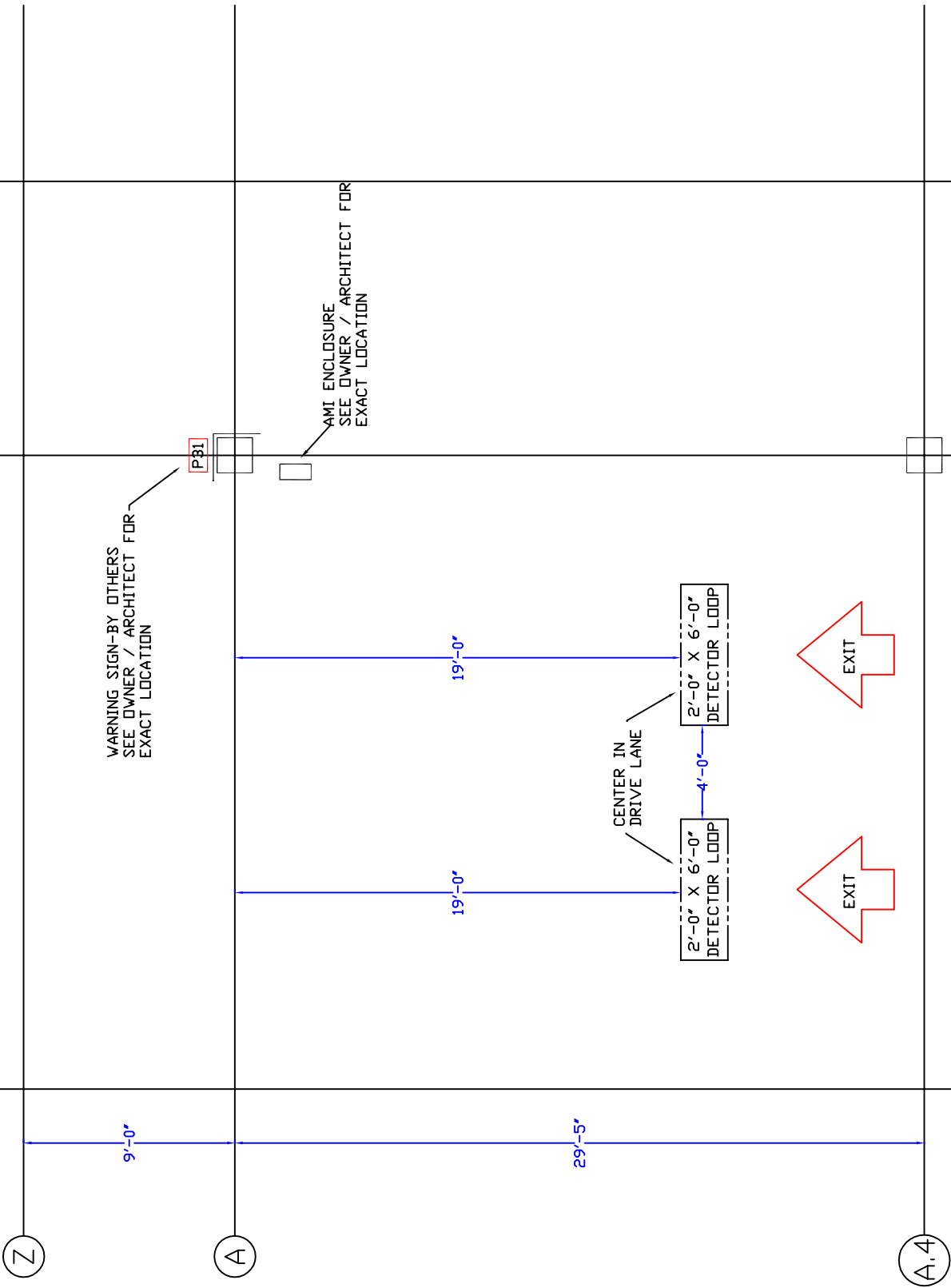
ELECTRICAL RISER

LAYOUT



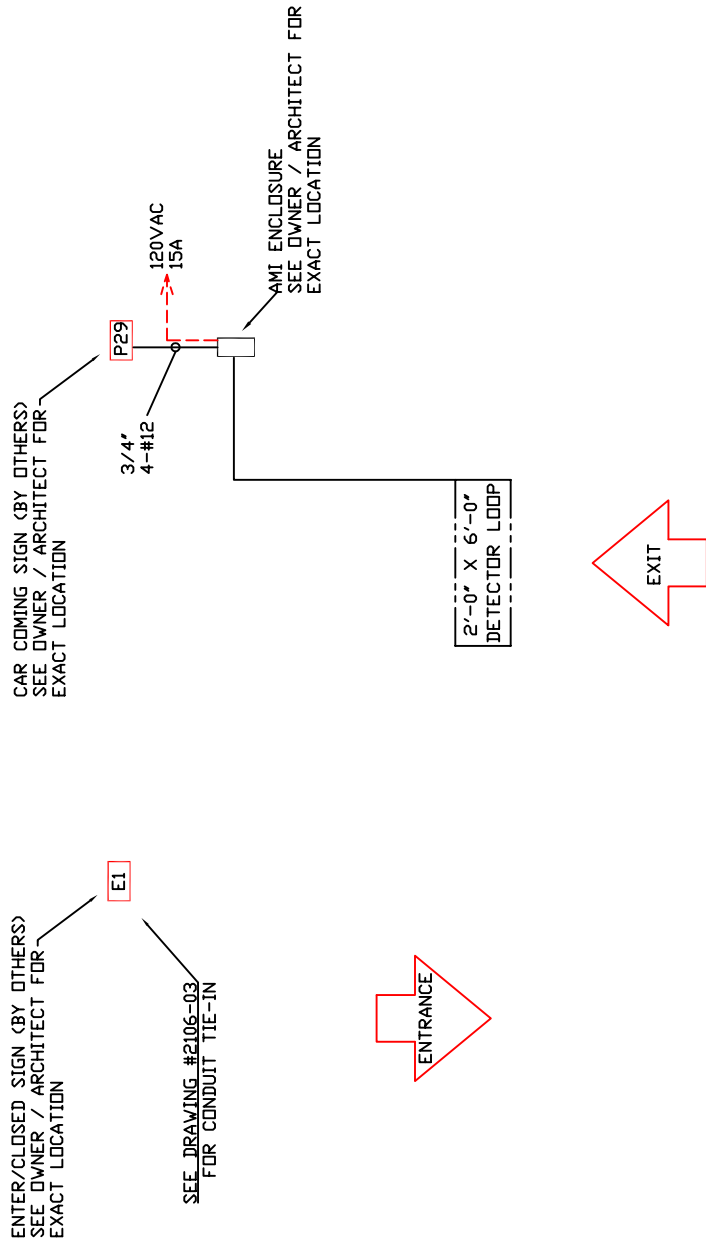
NOTES:

- EQUIPMENT IS DESIGNED FOR AUTOMOBILE TRAFFIC. NO MOTORCYCLES, BICYCLES, OR PEDESTRIANS.
- EQUIPMENT IS DESIGNED TO BE MOUNTED TO A LEVEL 6" HIGH CONCRETE PAD
- SEE LOOP DATA SHEET FOR INSTALLATION DETAILS
- 120VAC MUST NOT DROP BELOW 105 VAC WITH A 15 A LOAD
- 4 COMM RUNS - 1/0 100 (CA/COUNTS), AMG (CA/REV)
- ELECTRICAL SIGNS BY OTHERS ASSUMED TO BE 120VAC LED SIGNS - IF DIFFERENT SEPARATE SIGN POWER WILL NEED TO BE SUPPLIED BY ELECTRICIAN.



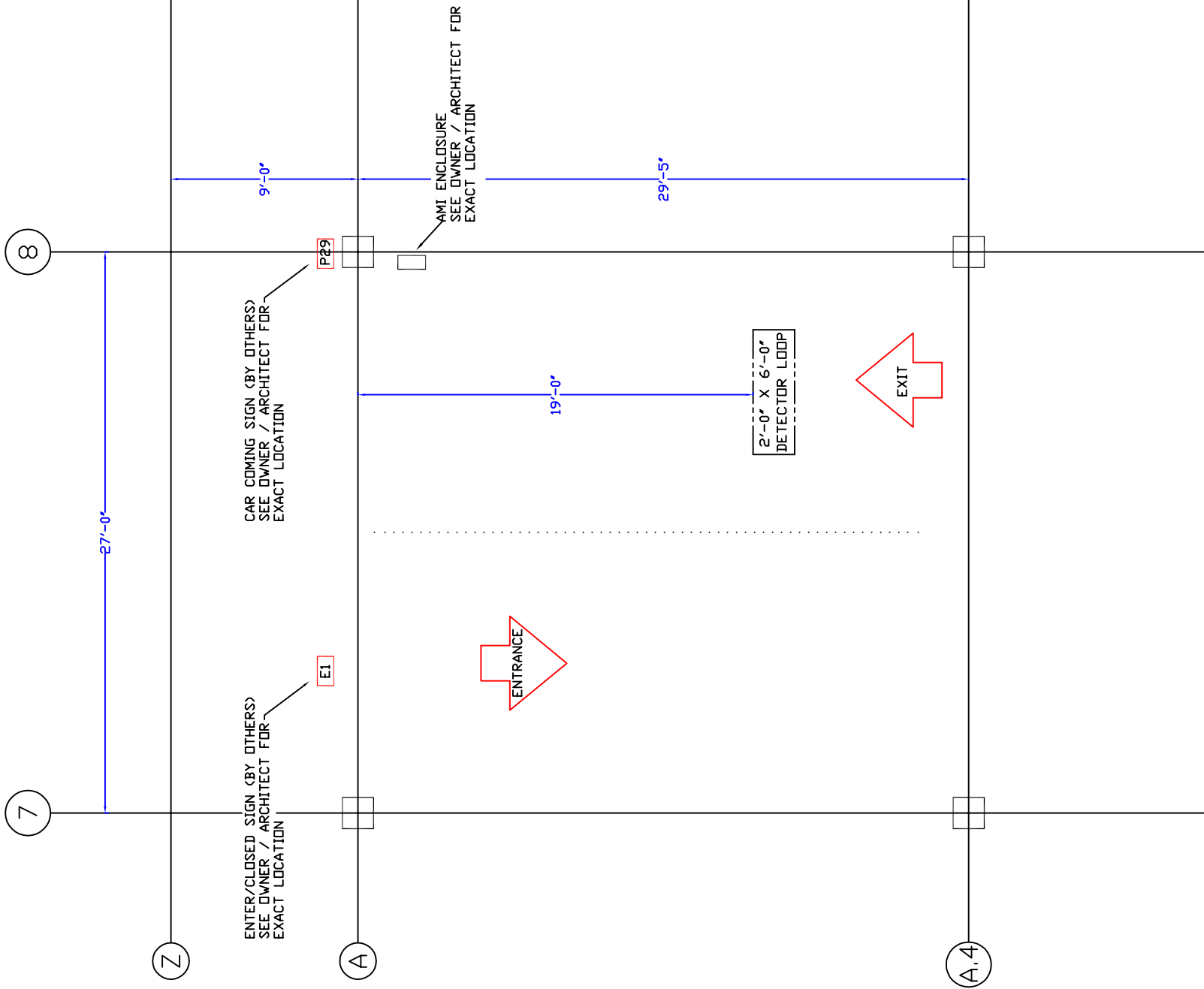
NOTES:			<div>AMANO MCGANN</div> <div>PARKING, REVENUE, ACCESS SYSTEMS, AND SOFTWARE</div> <div>2695 PATTON ROAD ROSEVILLE, MN 55113 PHONE: (612) 524-6325 FAX: (612) 524-6327 Copyright 2015 , AMANO MCGANN Inc. All rights reserved.</div>	PROJECT DTA			
				TITLE LEVEL 2 PEDESTRIAN WARNING SYS. - WEST			
	REV	DATE		DATE	BY	SCALE	#
				1/20/15	MF	NONE	2106-05

# ELECTRICAL RISER



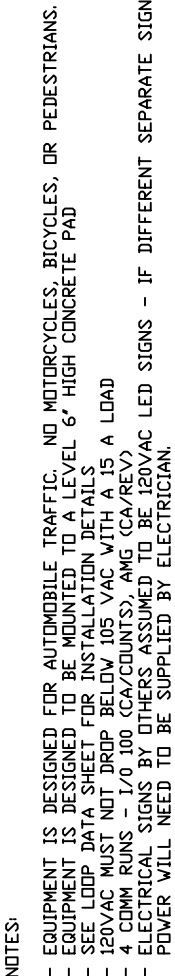
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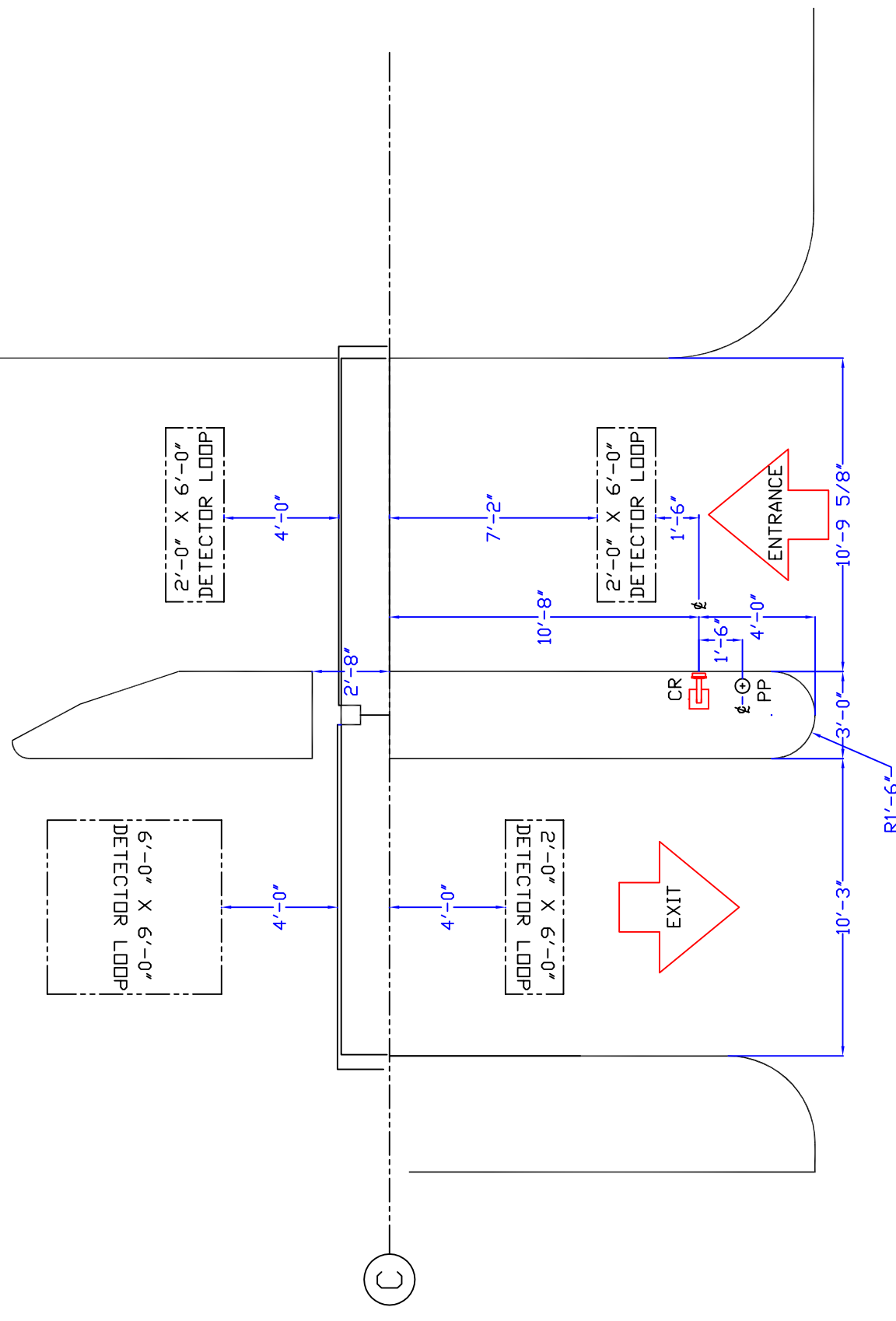
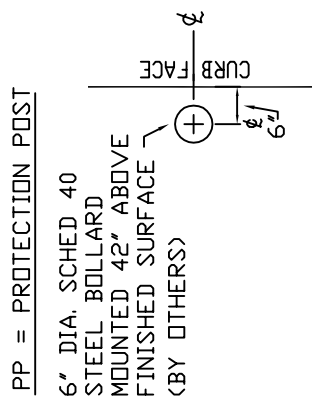
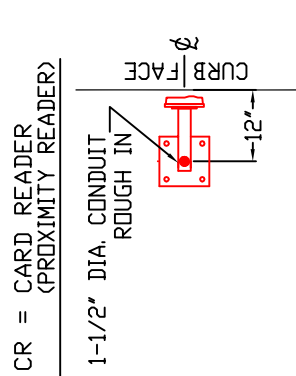
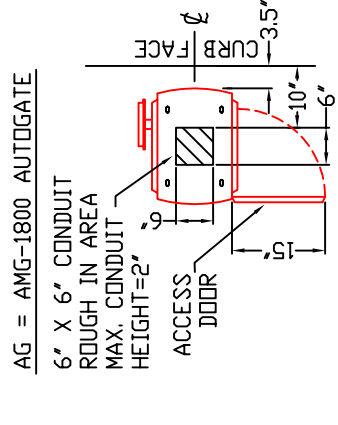
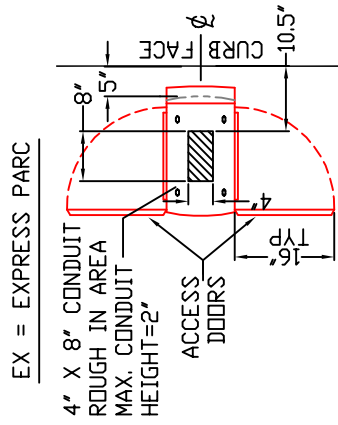
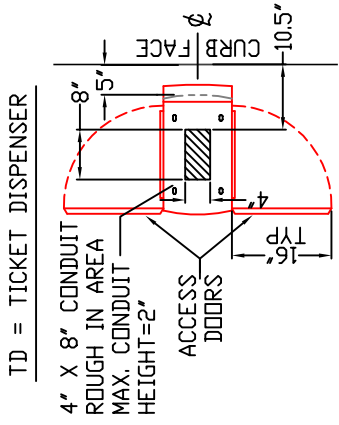


NOTES:

NOTES:					<p><b>AMANO MCGANN</b></p> <hr/> <p>PARKING, REVENUE, ACCESS SYSTEMS, AND SOFTWARE</p> <p>2695 PATTON ROAD ROSEVILLE, MN 55113</p> <p>PHONE: (612) 524-6325 FAX: (612) 524-6327</p> <p>Copyright 2015 , AMANO MCGANN Inc. All rights reserved.</p>
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PROJECT			DTA		
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DATE		BY		SCALE	#
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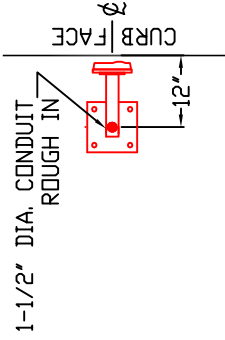
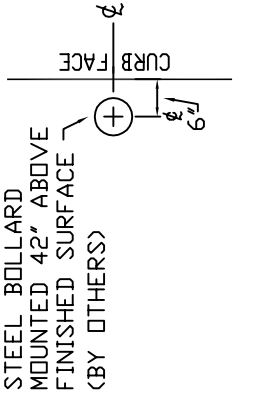
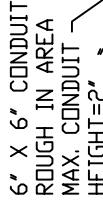
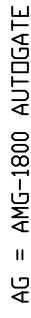
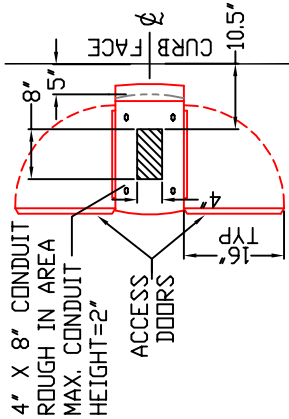
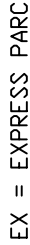
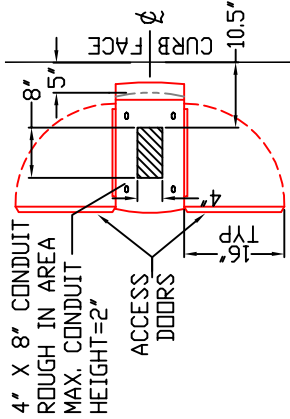
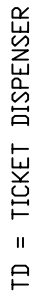
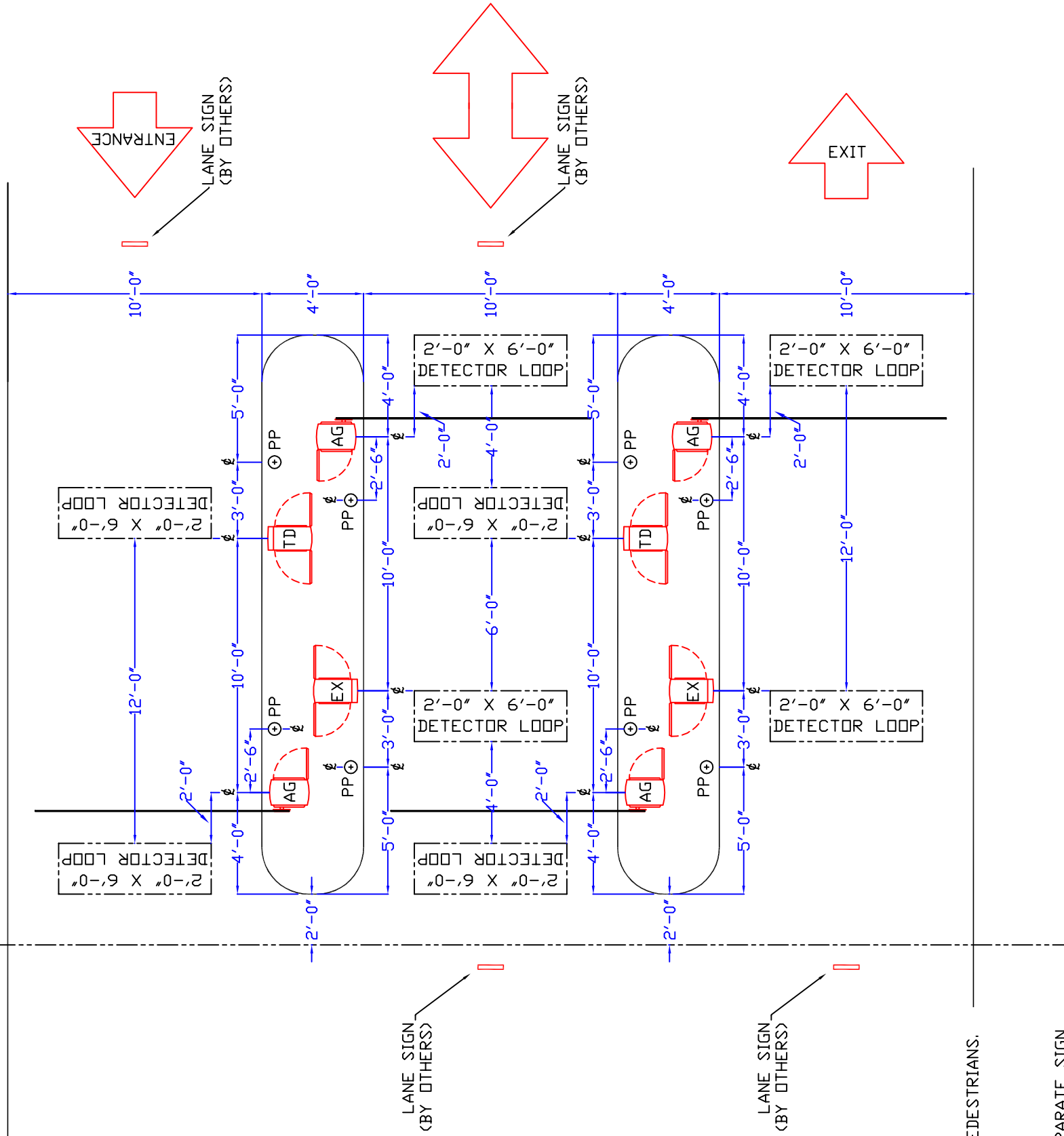
NOTES:  CARD READERS BUILT INTO TICKET DISPENSER AND EXPRESS PARC DEVICES	REV	DATE	<div> <div>AMANO McGANN</div> <div> PARKING, REVENUE, ACCESS SYSTEMS, AND SOFTWARE </div> </div>			
	B	2/2/15	<div> <div> 2695 PATTON ROAD  ROSEVILLE, MN 55113 </div> <div> PHONE: (612) 524-6325  FAX: (612) 524-6327 </div> </div>			
			Copyright 2015 , AMANO McGANN Inc. All rights reserved.			
			PROJECT	DTA		
			TITLE	ELECTRICAL RISER		
			DATE	1/21/15	BY	SCALE
					MF	NONE
					#	2106-03



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	TITLE LEVEL 1 EQUIPMENT LAYOUT								
	DATE 1/21/15	BY MF				SCALE NONE	# 2106-02		



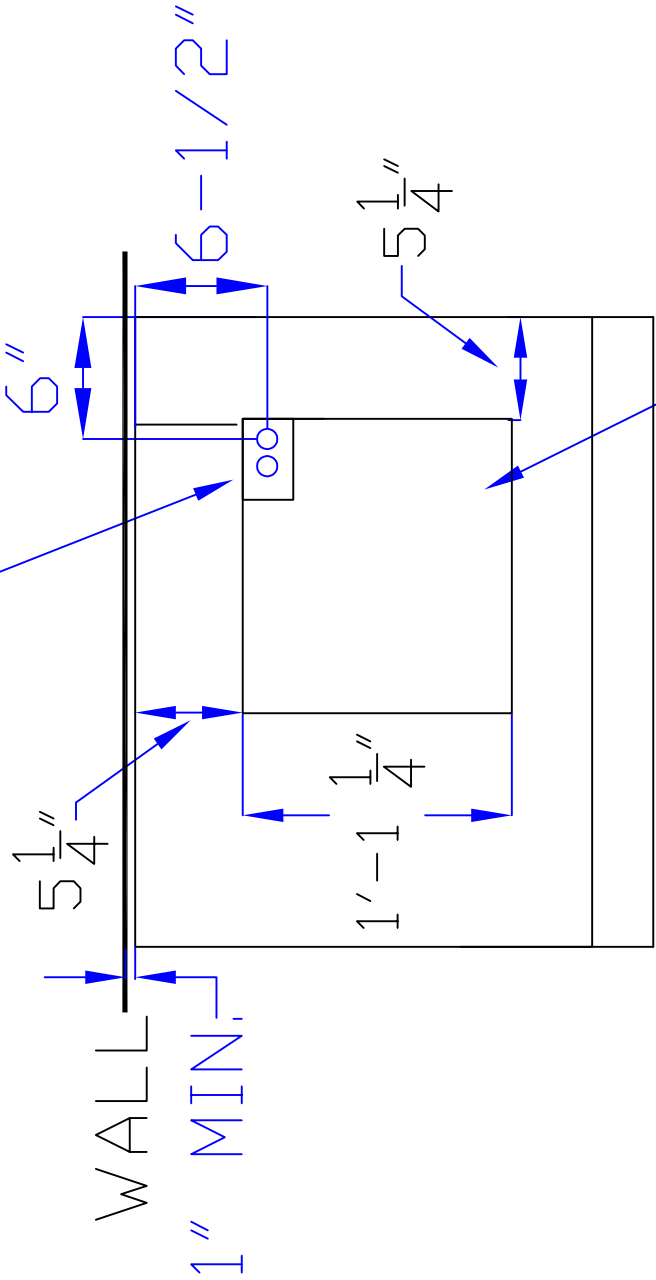
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				TITLE LEVEL 3 EQUIPMENT LAYOUT			
				DATE 1/21/15	BY MF	SCALE NONE	# 2106-01

AGP-7800 PAYSTATION

8" X 5" ROUGH-IN  
AREA. CONDUIT MAX  
HEIGHT = 2"



FRONT  
OF UNIT

ANCHOR PLATE  
AREA

NOTES:			PROJECT DTA		
			TITLE PAY STATION INFORMATION		
	REV	DATE	DATE	BY	SCALE
			1/20/15	MF	NONE
					#
		AMANO MCGANN			
		PARKING, REVENUE, ACCESS SYSTEMS, AND SOFTWARE			
		2695 PATTON ROAD		PHONE: (612) 524-6325	
		ROSEVILLE, MN 55113		FAX: (612) 524-6327	
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					2106-06

## iParcProfessional® PARKING MANAGEMENT SOFTWARE

**Real-time Communications**

**Count/Monitoring Statistics**

**Complete Reports**

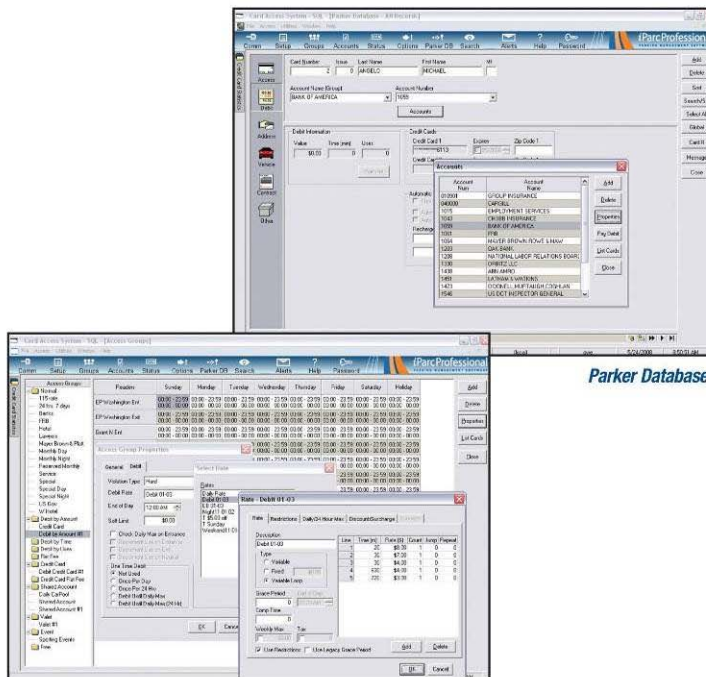
**Web Client**  
Remote Connectivity Made Easy

To manage your operation profitably, you need software that helps you control the business both strategically and tactically. The larger your operation, the more control you need over terminals, transactions and reporting.

iParcProfessional is the answer for parking operations that need the power of Amano McGann software at every level of the organization. With iParcProfessional, you can control every aspect of your operation in real-time and make key decisions that are supported across the business.

### Web Client Remote Connectivity Made Easy

- Full System Features
- Fast, Comprehensive Reports
- Real-time Transaction Display (Card Access, Counts, and Revenue)
- Proven Amano McGann Platform
- Desktop or Mobile Access
- Enterprise Scaleable



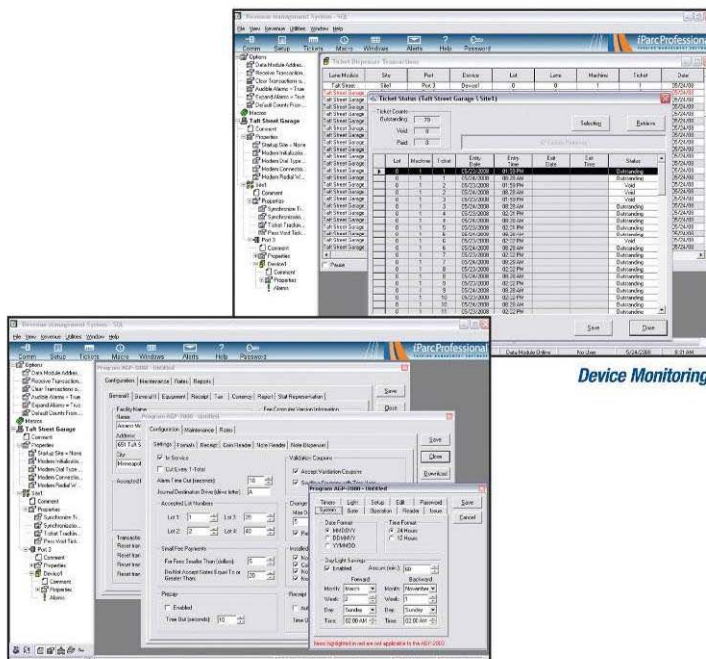
Access Groups/Rates

Parker Database

## Access Control

Amano McGann iParcProfessional Access Software is designed to meet the unique requirements of parking facility access – with a depth of features and options you won't find anywhere else. We've simplified programming, enhanced the comprehensive parker database, and increased overall flexibility to make the system more powerful than ever before.

You have immediate access to everything you need. iParcProfessional provides quick, "one click" access to view/edit access groups, lists of account users, debit balances, vehicle/phone/address information, parker quick searches, last card usages, anti-passback, reader result information and much more.



Device Monitoring

Rate/Device Programming

## Revenue Management

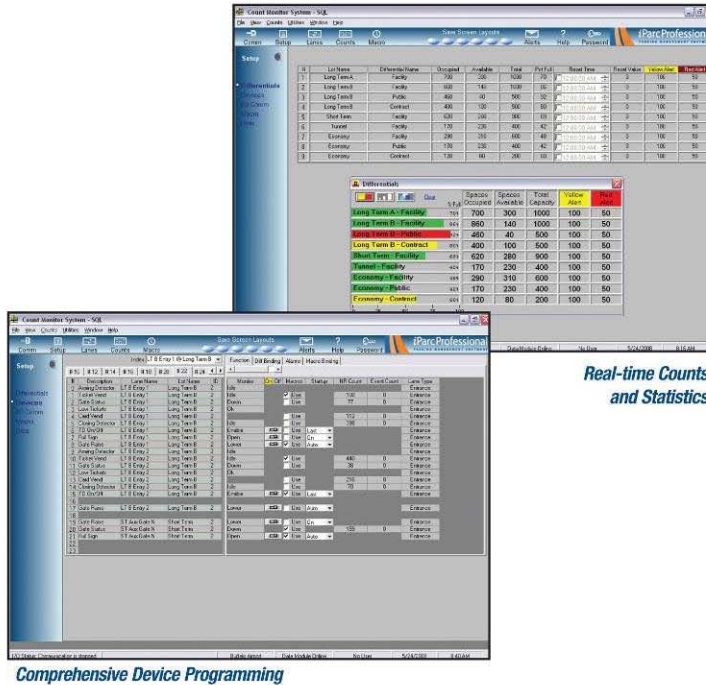
Enforce tight revenue control and increase your audit capabilities with Amano McGann iParcProfessional Revenue Management Software. Real-time transaction display from ticket dispensers, fee computers, pay stations and exit devices provides the ability to monitor system operations and alert management of system alarms. Create, store, and edit all revenue system rates from the software – then download them to the devices. There are no interruptions in the lane operation as the system changes and downloads can be processed at user-selected times.

**AMANO McGANN**

## Count and Monitoring

Amano McGann is the leader in count management solutions. iParcProfessional enhances our already proven solutions and interfaces with a wide variety of existing lane equipment. The software clearly displays space count and monitoring statistics such as differential and non-resettable lane activity counts, lane device status, loop activations, signage conditions, system alerts and alarm conditions.

Easy control of your space counts and lane devices are provided through hot buttons. You can store several variations of count and monitoring display screens and switch between them quickly.



Real-time Counts and Statistics

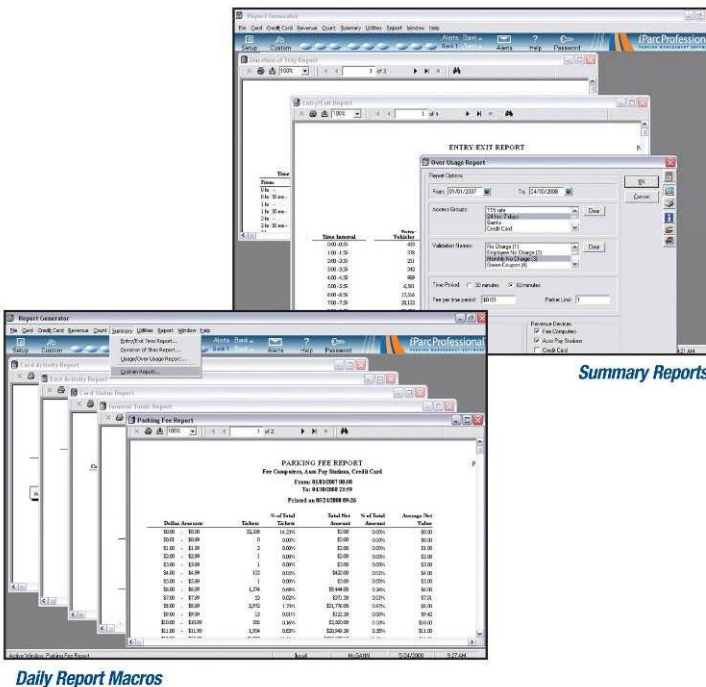
Comprehensive Device Programming

## Report Generator

The reporting system that revolutionized parking software is even better and more flexible. Featuring updated report macros, improved selection and sorting features, and convenient/editable data review prior to final printing.

Amano McGann iParcProfessional comprehensive reporting tools provide the best in audit control and statistical reporting.

Amano McGann iParcProfessional is built to leverage the capabilities of Internet connectivity. Although the software operates independently of the Internet, new Web Client provides full reporting anywhere in the world that has Internet connectivity.



## Feature-rich Options

### CARD ACCESS

**Integrated Accounts Receivable** – Features automatic card activation, posting payments and charges, invoicing, custom reporting, data export, ageing accounts and credit card on-file payment option.

**Debit Access Control** – Patrons enter and exit at unattended lanes, no ticket or cash – facility access card based (Proximity, AVI, Magstripe, etc.). Debit based on rate, time, or uses. Ability to “recharge” accounts remotely and automatically with credit card on file.

**Shared Accounts/Carpool** – Issue access cards to a group of parkers and set an occupancy limit. Once the limit is reached, you may either deny access, allow as a violation, or charge them from pre-programmed rate structures. Advanced Shared Accounts allows multiple occupancy thresholds with separate rates.

**Auto Activation** – Allows temporary one-day or multiple-day cards that activate on the first use, then automatically lockout on the expiration date – works with proximity, magstripe, barcode, etc.

### REVENUE MANAGEMENT

**Advanced Ticket Tracking** – Provides real-time access to outstanding and unreconciled ticket reports. For more comprehensive ticket audits, filters and parameters are set to search and review transactions by lot, machine number, ticket number, entry/exit dates or status.

### COUNT MONITORING

**Interactive Facility Mapping** – Provides an overhead view of your facility and gives you single-point control over it. You see all activity as it happens and you can control devices just by clicking the image.

**Variable Message Signage Control** – Allows count statistics to activate fixed message signs, digital variable signs and facility or level sign towers. Messages and available space counts can provide instructions and way finding to patrons.

### SPECIALTY APPLICATIONS

**University Systems** – Departmental budget charge systems, advanced validation tracking systems, way finding solutions, student card interfaces (several options available), debit card systems and much more.

**Hospital Systems** – Custom Payroll Interfaces, Doctor's Registry Interfaces, special patient access solutions – we offer extensive system solutions for the hospital environment.

**Event Systems** – From the small theatre to the large arena the iParcProfessional Event System is your solution. Wireless technology, exceptionally fast lane transactions, cash/credit card acceptance and complete audit.

**Mass Validation Systems** – Create your own validation coupons for your facilities with the touch screen based Mass Validation System. Full personnel control, audit reporting and custom printing on tickets.

**Hotel Systems** – Direct tie-in to iParcProfessional using existing hotel cards. Direct PMS interfaces in place for many major hotel chains.

## Software Made Flexible and Efficient

### • Full Functionality –

iParcProfessional delivers all the parking management and reporting capabilities you've come to expect from Amano McGann.

### • Full Scalability –

The solution architecture is specifically designed to accommodate the needs of multi-site parking operations.

### • Capability rich Interface –

Users can perform more tasks using a robust, Windows® based environment.

### • Easy Remote Connection –

Users can log in from any PC, terminal or remote device – anytime, anywhere.

### • User Flexibility –

Licenses are not tied to specific PCs, which means as users log off, other users are free to log on.

### • IT Friendly Solution –

A browser-based, client interface means higher security and low maintenance.

### • Industry-standard Technology –

iParcProfessional is built on a new generation of proven computing and networking technologies, and offers a clear upgrade path. Bottom line: you can have confidence in your investment.

# AMANO McGANN

# AMG-1800

Series

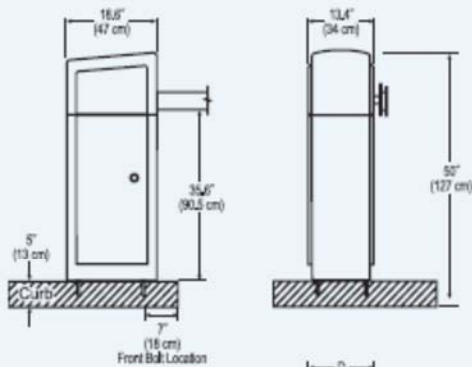
*Direct Drive  
Parking Gate*



*Amano McGann's AMG-1800 Series Direct Drive Parking Gate offers the safety and convenience of opening automatically in the event of power failure. The microprocessor-based logic and functionality provides the ultimate in reliability, performance and safety, as well as the flexibility to accommodate three different modes of operation.*

## Parking Gate

### AMG-1800



Letter	Measurement
A	6.7" (22 cm)
B	7" (18 cm)
C	11.8" (30 cm)
D	13.4" (34 cm)
E	18.6" (47.4 cm)
F	9.8" (25.16 cm)
G	6" (15.24 cm)

CONTOUR PANELS CONFORM TO ISO 9001  
THROUGHOUT THE ENTIRE PRODUCTION PROCESS

## FEATURES

- Slim, cabinet-style design
- Three selectable modes of operation
- Includes dual channel detector
- Microprocessor-based logic and functionality
- Auto raise safety feature
- 12' standard gate arm and 11' folding gate arm configurations available
- Dual powder coat finish
- Auto open feature in event of power failure
- Maintenance-free torque motor and lever system with counterbalance springs
- Removable cover for access to drive mechanism

REPRESENTED BY:

## SPECIFICATIONS

### ELECTRICAL

120V AC, 60 Hz

Power consumption: 60W

Service amps: 15A

Connections:

- Four utility power outlets GFCI
- DIN rail terminal blocks
- Main power breakers

Field wiring: **AMG-1850**

- Dry contact input, output
- 24VAC unregulated

### MOTOR CHARACTERISTICS

Horsepower: 1/18 HP Instant Reversing Torque Motor

Speed: 11 RPM

Starting amps: 750mA

Running amps: 370mA

Internal thermal/overload protection

### ENVIRONMENT

Temperature: -20°F ~ 120°F (-29°C ~ 49°C)

Humidity: 10% ~ 90% (non-condensing)

### HOUSING

Heavy-duty, 14-gauge all-weather steel construction

Dimensions: 45.1"H x 13.4"W x 18.6"D (114 cm x 34 cm x 47 cm)

Weight: 154 lbs. (70kg)

Access:

- Removable cover on drive mechanism (360° access)
- Lockable door (access to electrical connections and control box)

Finish (Std): Argento Silver (#305) cabinet / Classic Grey (#314) side panels; White (RAL#9003); custom color available

### GATE ARM

Height: 35.6" (90 cm) as shipped in DOWN position

Length: AL12: 12' (365 cm) — aluminum

AL30: 11' (323 cm) folding gate arm — aluminum

Opening time: Approx 2.1 seconds

Closing time: Approx 2.4 seconds

### MICROPROCESSOR-BASED CONTROLLER

Quick, plug-in installation. Gate up/normal/down switch (internal manual override)

Operation modes:

- One way pay
- Bi-directional lane
- Free direction

Features:

- Extra Sensory Detection
- Backout Timer
- Closing Loop Safety "auto raise"

Specifications are approximate and are subject to change without notice.



# AMANO McGANN

2699 Patton Road, Roseville, MN 55113  
Tel: (612) 331-2020 [www.amanomcgann.com](http://www.amanomcgann.com)

# AMG-2000

Series

***FlexScan Ready  
Entry Station  
shown with optional  
Barcode Matrix Scanner***

***FlexScan™ QR400***



*The AMG-2000 Series FlexScan Ready Entry Station is designed for multiple uses, typically at the unattended entrances of a parking facility. The entry station dispenses magstripe tickets, accepts access and credit cards for ticket in/card out and card in/card out functionality.*

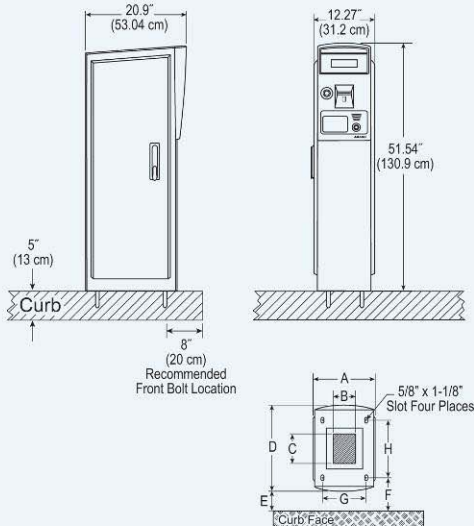
*The integrated FlexScan™ QR400 extends the functionality of the standard entry station adding the capability to scan linear and 2D barcodes. Credentials can be scanned from various printed and electronic media formats including paper, event tickets, ID badges and smartphones.*

*Utilize the iConnect® Partnership Program for custom integration with your IT operation. Control the process all the way to the lane.*

**AMANO McGANN**

Series

## AMG-2000



CONFINE RIGID CONDUIT NO MORE THAN 2" (5 cm) HIGH IN THIS AREA.

A = 12.27" (31.2 cm) C = 8" (20.32 cm) \*E = 5" (13 cm) G = 7.48" (19 cm)  
B = 4" (10.16 cm) D = 20.9" (53.04 cm) \*F = 8" (20 cm) H = 11.75" (29.8 cm)

\*Recommendation only. Installation requirements may vary.

## FEATURES

- Standalone (AMG-2070 series) or on-line (AMG-2570 series) ◀
- Uses common hardware components (RWPV-based) for fewer inventoried parts and reduced service training ◀
- Field programmable operation utilizing handheld wireless remote control ◀
- Accommodates credit card size magstripe media ◀
- Magstripe access card / credit card acceptance (AMG-2570 series) models optional ◀
- Proximity Technology Reader Integration optional ◀
- Barcode matrix scanner (FlexScan QR400) optional ◀
- Custom IT integration available utilizing iConnect ◀
- Integrated intercom ◀
- Personalized panel option, std. panel – no text ◀
- Dual powder coat finish ◀

REPRESENTED BY:

## SPECIFICATIONS

### COMPLIANCE

PCI PA-DSS (Payment Application Data Security Standard) Compliant

AMG-2570 Series lane equipment does not store credit card data

Meets ADA (Americans with Disabilities Act) and

ANSI (American National Standards Institute) requirements

### ELECTRICAL

120V AC, 60 Hz

220/240V AC, 50/60 Hz

10 amp max. (120V) 5 amp max. (240V)

Multiple I/O capability for ticket tracking, counts and monitoring

### MECHANICAL

Automatic dual ticket feed; dot matrix printer; cartridge ribbon; exclusive RWPV™ (read, write, print and vault) magstripe mechanism

### TIME CONTROL

Real-time clock synchronization with host computer

Built-in crystal controlled perpetual calendar

Programmable Daylight Saving Time adjustment

### ENVIRONMENT

Temperature: -20°F ~ 120°F (-29°C ~ 49°C)

Automatic thermostat-controlled heater included

Humidity: 10% ~ 90% (non-condensing)

### HOUSING

Heavy-duty, 14 gauge steel construction, weather gasketing, lockable door.

Dimensions: 51.54"H x 12.27"W x 20.9"D (130.9 cm x 31.2 cm x 53.04 cm)

Ticket throat: 41" (104 cm)

Weight: 135 lbs. (61 kg)

Finish (Standard): Argento Silver (#305) cabinet / Classic Grey (#314) side panels; White (RAL#9003); custom color available

### BARCODE MATRIX SCANNER

Opening: 4"W x 3"H (10.16 cm x 7.62 cm)

Barcode Types: 1D (Linear) & 2D (QR)

Ambient Light: Total darkness to 9000 ft. candles (96,900 LUX)

### PRINTER

Large (7 x 9 dot pattern) dot matrix printer

Prints date and time (12 & 24-hour format), ticket number, machine number and rate

Marks and voids retracted tickets

Self sharpening cutter blade

### TICKETS

Uses fanfold tickets: 5,000 tickets/carton. Holds two cartons.

Credit card size tickets: 2-1/8" x 3-3/8" (5.41 cm x 8.59 cm)

### OPTIONS

2nd I/O Rack (passcard readers lockout)

Magstripe and proximity access card models optional

### INTERCOM

Aliphone™ LEF series intercom system

Standard user recordable voice announcement

Manufactured by Amano Cincinnati, Inc.'s Ohio factory, an ISO 9001:2000 registered facility. Specifications are approximate and are subject to change without notice.

UL approval does not apply to 220/240V AC, 50/60 Hz



# AMANO McGANN®

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# AMANO McGANN

# AMG-4000

Series



***FlexScan Ready  
Exit Station***  
*shown with optional  
Barcode Matrix Scanner*

***FlexScan QR400®***

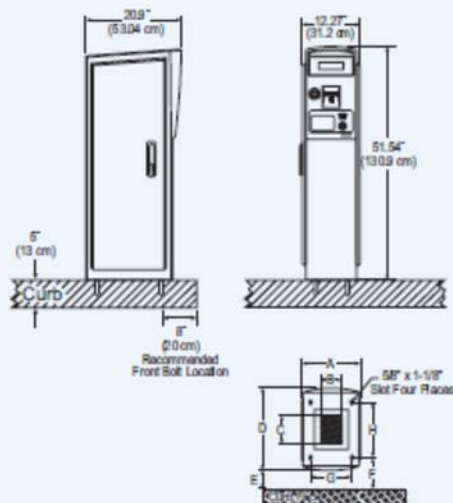


*The AMG-4000 Series FlexScan Ready Exit Station is designed for multiple uses, typically at the unattended exits of a parking facility. The exit station accepts entry tickets and validation coupons, calculates parking fees, accepts and processes credit cards and issues receipts.*

*The integrated FlexScan QR400® extends the functionality of the standard exit station adding the capability to scan linear and 2D barcodes. Credentials can be scanned from various printed and electronic media formats including paper, event tickets, ID badges and smartphones.*

*Utilize the iConnect® Partnership Program for custom integration with your IT operation. Control the process all the way to the lane.*

## Series AMG-4000



CONFINE RIGID CONDUIT NO MORE THAN 2\" (5 cm) HIGH IN THIS AREA.

A = 12.27\" (31.2 cm) C = 8\" (20.32 cm) E = 5\" (13 cm) G = 7.48\" (19 cm)  
B = 4\" (10.16 cm) D = 20.9\" (53.04 cm) F = 8\" (20 cm) H = 11.75\" (29.8 cm)  
\*Recommendation only. Installation requirements may vary.

## FEATURES

- Increased throughput provides rapid exit from your facility
- Increased exit lanes with no added labor costs
- Field programmable operation utilizing handheld wireless remote control
- Secure – no cash collected, no cash available
- Uses common hardware components (RWPV-based) for fewer inventoried parts and reduced service training
- Barcode matrix scanner (FlexScan QR400<sup>®</sup>) optional
- Custom IT integration available utilizing iConnect
- Built-in Intercom
- Personalized panel option, std. panel – “Thank You”
- Dual powder coat finish
- Prox Reader optional

REPRESENTED BY:

## SPECIFICATIONS

### COMPLIANCE

PCI PA-DSS (Payment Application Data Security Standard) Compliant  
AMG-4570 Series lane equipment does not store credit card data  
Meets ADA (Americans with Disabilities Act) and  
ANSI (American National Standards Institute) requirements

### ELECTRICAL

120 VAC, 60 Hz  
220/240 VAC, 50/60 Hz  
10 amp max. (120V) 5 amp max. (240V)  
Multiple I/O capability for ticket tracking, count and monitoring

### MECHANICAL

Automatic dual ticket feed; dot matrix printer; cartridge ribbon;  
exclusive RWPV<sup>™</sup> (read, write, print and vault) magstripe mechanism

### TIME CONTROL

Real-time clock synchronization with host computer  
Built-in crystal controlled perpetual calendar  
Programmable Daylight Saving Time adjustment

### TIME CONTROL

Quartz oscillated, accurate within  $\pm 3$  seconds per week at 68°F to 86°F (20°C to 30°C)  
Programmable Daylight Saving Time adjustment  
Off-Line Operation: AMG-4575 operates as a stand-alone lag-time reader

### ENVIRONMENT

Temperature: -20°F ~ 120°F (-29°C ~ 49°C)  
Automatic thermostat-controlled heater included  
Humidity: 10% ~ 95% (non-condensing)

### HOUSING

Heavy-duty, 14-gauge steel construction, weather gasketing, lockable door  
Dimensions: 51.54\"H x 12.27\"W x 20.9\"D (130.9 cm x 31.2 cm x 53.04 cm)  
Ticket throat: 41\" (104 cm)  
Weight: 152.5 lbs. (69.17 kg)  
Finish (standard): Argento Silver (#305) cabinet / Classic Grey (#314) side panels; White (RAL#9003); custom color available

### BARCODE MATRIX SCANNER

Opening: 4\"W x 3\"H (10.16 cm x 7.62 cm)  
Barcode Types: 1D (Linear) & 2D (QR)  
Ambient Light: Total darkness to 9000 ft. candles (96,900 LUX)

### TICKETS

Credit card size receipt tickets: 2-1/8\" x 3-3/8\" (5.41 cm x 8.59 cm)  
Holds 1,000 used tickets in vault  
AMG-4570 uses fanfold tickets: 5,000 tickets/carton. Holds two cartons.

### COMMUNICATIONS

Interfaces with iParcProfessional software for complete transaction monitoring and control

### OPTIONS

2nd I/O Rack (passcard reader lockout)  
Magstripe and proximity access card models optional

### INTERCOM

Aiphone LEF<sup>™</sup> series intercom system  
Standard user recordable voice announcement

Specifications are approximate and are subject to change without notice.  
UL approval does not apply to 220/240 VAC, 50/60 Hz



# AMANO McGANN

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# AMANO McGANN

# AMG-7800

Series



**Pay-On-Foot  
FlexScan Ready  
Central Pay Station**  
shown with optional  
**Barcode Matrix Scanner**

**FlexScan QR400®**

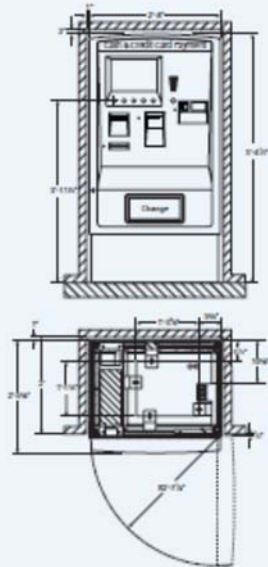


Amano McGann AMG-7800 automatic FlexScan Ready Central Pay Station is designed as a fast pay-processing unit and is perfect for large-scale 24-hour operations. A large easy-to-read 15-inch flat panel color display and lighted guidance system leads users through easy-to-follow transactions enhanced with screen prompts and voice announcements. Transactions are faster and easier for the user – virtually eliminating long lines and delays.

The integrated FlexScan QR400® extends the functionality of the central pay station adding the capability to scan linear and 2D barcodes. Credentials can be scanned from various printed and electronic media formats including paper, event tickets, ID badges and smartphones.

Utilize the iConnect® Partnership Program for custom integration with your IT operation. Control the process all the way to the lane.

## Central Pay Station AMG-7800



### FEATURES

- Ergonomic, customer-friendly, compact modular design* ◀
- Large, easy-to-read 15-in. flat panel display* ◀
- Intuitive, easy-to-use lighted guidance system helps patrons make fast transactions* ◀
- Barcode matrix scanner (FlexScan QR400®) optional* ◀
- Custom IT Integration available utilizing iConnect* ◀
- Superior counterfeit bill detection/rejection technology* ◀
- One-drop change location eliminates confusion* ◀
- Accepts notes and coins. Faster, more reliable electronic self-replenishing coin system eliminates tubes with option for up to three recycling coin hoppers and a fourth non-recycling hopper* ◀
- Dispenses notes (up to 3), coins (up to 4), and receipts* ◀
- Large, 8" receipt roll – saves labor, and improves security* ◀
- Uninterruptible power supply* ◀
- Note storage in individual, lockable cassettes* ◀
- Scalable hardware/software* ◀
- Multiple languages are programmable, including English, French and Spanish* ◀

REPRESENTED BY:

### SPECIFICATIONS

#### COMPLIANCE

PCI PA-DSS (Payment Application Data Security Standard) Compliant  
AMG-7800 Series Pay Station does not store credit card data  
Meets ADA (Americans with Disabilities Act) and  
ANSI (American National Standards Institute) requirements

#### ELECTRICAL

**Power Source:** 120VAC, 60Hz  
**Utilization:** 3 amp normal, 10 amp maximum

#### ENVIRONMENT

**Temperature:** 14° F to 104° F (-10° C to 40° C)  
Automatic thermostat-controlled heaters and fan included  
**Relative Humidity:** 10% to 90% (non-condensing)

#### HOUSING

**Height:** 64.25" (1631.95 mm)  
**Width:** 31.5" (800 mm)  
**Depth:** 27.2" (692 mm)  
**Construction:** Sheet steel housing  
**Cabinet Finish:** Textured powder coat finish Grey Classic 314 (RAL #7016)  
**Door Finish:** Metal door with painted molded plastic overlays  
**Total Weight:** Approximately 800 lbs. (363 kg)

#### BARCODE MATRIX SCANNER

**Opening:** 3.5" w x 2" h (8.89 cm x 5.08 cm)  
**Barcode Types:** 1D (Linear) & 2D (QR-code)  
**Ambient Light:** Total darkness to 9000 ft. candles (96,900 LUX)

#### TIME CONTROL

Quartz oscillated, accurate within ±3 seconds per week at 68° F to 86° F (20° C to 30° C)  
Perpetual calendar  
Programmable Daylight Saving Time adjustment

#### ON/OFF-LINE OPERATION

The model AMG-7800 may operate as a stand-alone unit utilizing the reporting functions of the pay station.  
**On-Line Operation:** Utilizes RS-485 communication with the parking management software host. Data sent from the pay station to the host PC includes individual transaction data, alarm and event messages. Data sent from the parking management software to pay station includes program data updates, time synchronization, backout ticket data and in/out of service status.  
**Credit Card Operation:** Utilizes ethernet communication to AMS Charge Server

#### SECURITY

Multi-point safety lock system  
**Access Lock:** Secures the main locking mechanism utilizing a plug type lock to be removed in order to gain access to the inner lock.  
**Inner Lock:** Secures the pay station door utilizing a T-shaped key  
Intruder alarm  
Security locks on money handling compartments

#### UNINTERRUPTIBLE POWER SUPPLY (UPS)

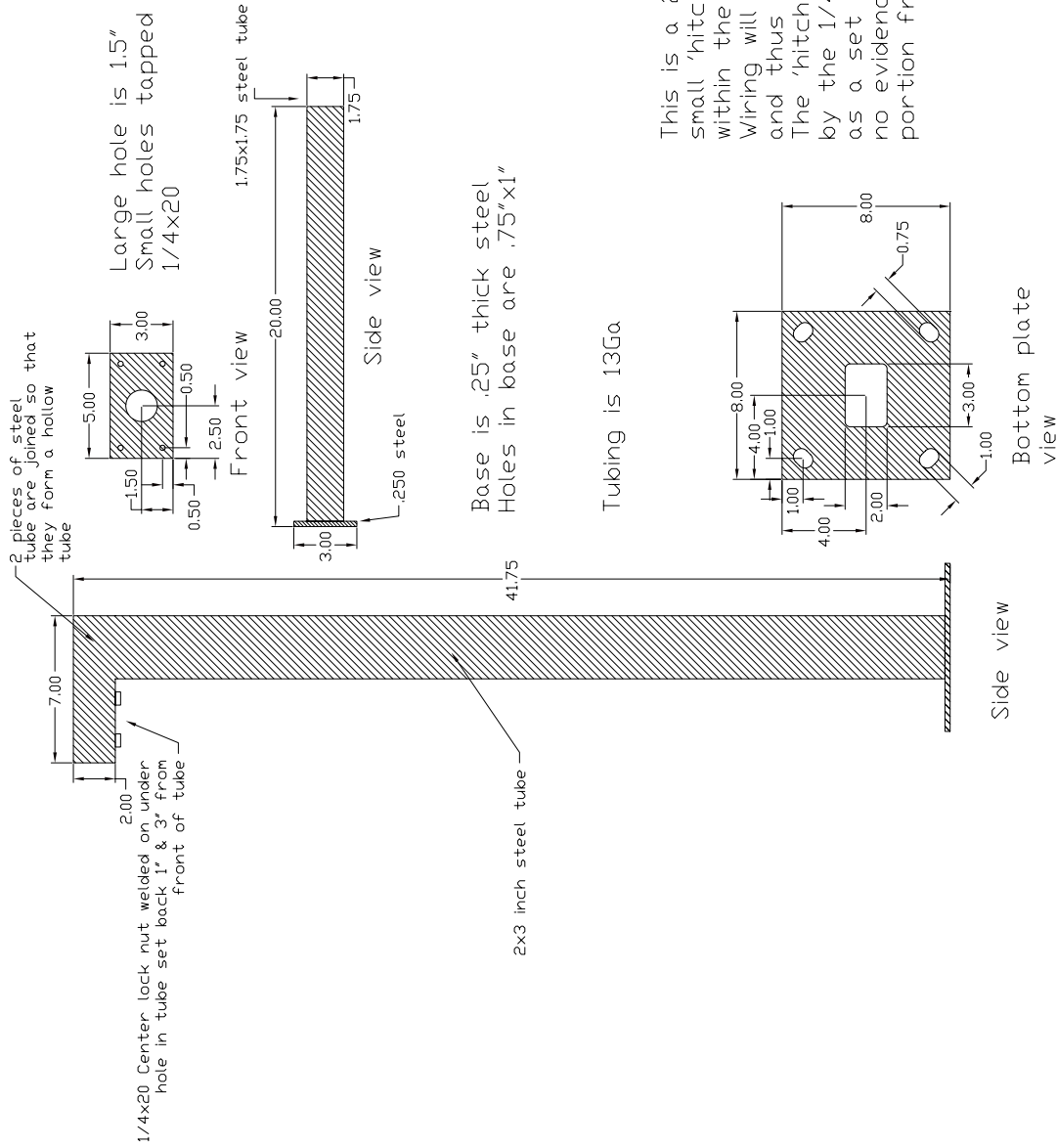
Protects the pay station from poor quality AC line power. Protection is provided from surges, low voltage, high voltage and complete power failure. On power fail, UPS will initiate an emergency shutdown. If transaction is in progress, the transaction will be completed prior to shutting down, the display will go blank and the internal PC will power down. UPS also provides protection of software databases.

Specifications are approximate and are subject to change without notice.  
UL approval does not apply to 220/240V AC, 50/60Hz



## AMANO McGANN

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This is a 2 piece design. The small 'hitch' piece must telescope within the 'receiver' piece. Wiring will go through the tubes and thus they must be hollow. The 'hitch' piece is held in place by the 1/4x20 bolt that is used as a set screw. There must be no evidence of welding on the upper portion from the outside.

NOTES:

REV		DATE	PROJECT	
			TITLE	
			DATE	
			BY	
			SCALE	
			#	
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			MINNEAPOLIS SACRAMENTO SAN FRANCISCO	
			651 TAFT STREET N.E.	
			MINNEAPOLIS, MN 55413	
			(612) 331-2020	
			FAX (612) 331-5187	

# XML-PVC PREFORMED DETECTOR LOOP

## Description

XML-PVC detector loops are constructed of ½" schedule 40 PVC conduit in 2' x 6', 6' x 6', and 4' x 8' configurations. Loops contain 4 or 5 turns of 18 gauge stranded wire (depending on size) and include a 25" lead-in wire. Other sizes are available for custom applications.

## Applications

XML-PVC detector loops are used for cast-in concrete installations where the use of sawed-in loops is inadvisable due to the presence of post-tension cables, snow melting devices, or waterproof membranes. They are also recommended for asphalt driveways where unstable subsurface material may cause fractures in the pavement. 2' x 6' loops are used in most gate control applications. 6' x 6' and 4' x 8' loops are used in conjunction with automatic door controls or for high vehicle (truck) detection.

## Installation

### Concrete Installation

1. Locate detector loop in the driveway as specified on the equipment layout drawing.
2. Position the detector loop as far as possible above the mesh, rebar using nonmetallic spacers, and tie in place.

### Asphalt Installation

1. Locate detector loop in driveway after base material is in place as specified on the equipment layout drawing.
2. Cover the loop with a 2" to 3" of the class 5 base material to protect it from the hot asphalt.
3. Do not allow vehicles to drive over loop prior to the installation of asphalt.

### All Installations

1. Provide a ½" PVC conduit from the detector loop to the termination point as indicated on the electrical drawing.
2. Install with the access cover of the "T" fitting face up.
3. Test the loop for continuity prior to installation of concrete or asphalt.

### NOTES:

1. Detector loop and lead-in wire must be located at least 8" away from any power circuits.
2. For optimum operation, the detector loop should be located at least 12" away from any large mass of metal such as a floor drain, and 48" away from the path of moving metal doors or gates.
3. Loop leads may be spliced above ground (in a Junction box), if necessary. Use twisted/shielded cable (Belden No. 8719 or equivalent) for runs of more than 50'. Loop leads should not exceed 200'.

## TYPICAL INSTALLATION DETAIL OF CLOSING DETECTOR LOOP WITH GATE

