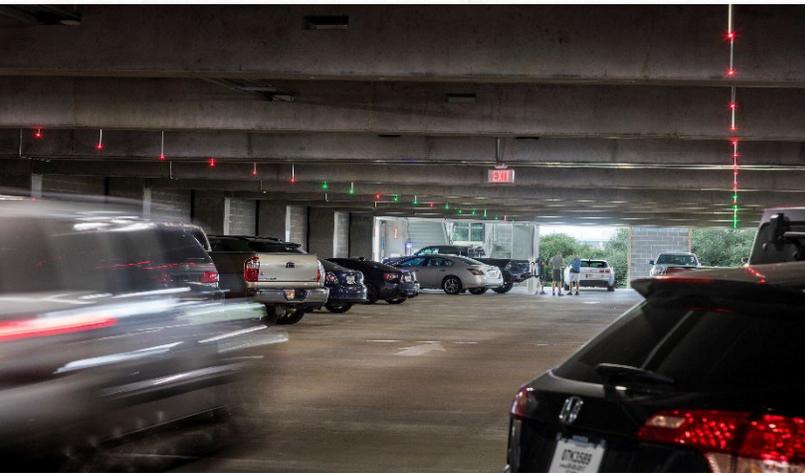




TEXAS A&M UNIVERSITY
Transportation Services

The Future of Parking at Texas A&M University



Peter Lange & Debbie Hoffmann
Texas A&M Transportation Services



Overview

- About Texas A&M University
 - Transportation Services
 - Parking Operations
- Industry Technology
 - License Plate Recognition Technology
 - Texas A&M Timeline
 - Reimagining Business Rules
 - Challenges
 - Right choice for who?
- Other Technologies Improving Soon
 - Lot Entry
 - Lot Counting



About Texas A&M



- Over 70k student, staff and faculty on campus
- 5,200 acres spanning the entire campus area



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Transportation Services

Texas A&M Transportation Services



Transportation Services

- Manages a Budget over \$45 million (FY2018)
- 599 Employees (*188 full time, 343 students and 68 wage employees*)
- Operations include:
 - *Alternative Transportation*
 - *Auto Maintenance*
 - *Customer Service*
 - *Marketing & Communications*
 - *Fleet Leasing & Fuel*
 - *Parking Access & Maintenance*
 - *Parking Facilities Projects & Maintenance*
 - *Parking Services & Traffic*
 - *Special Events & Visitor Parking*
 - *Transit*



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Parking Operations



Parking Operations



- Manage 35,225 Parking spaces
- Parking Admin \$1,932,065.82
- Parking HR \$303,034.23
- Parking IT \$2,156,832.43
- Parking Debt Service \$7,603,839



Current Parking Payment Options

- Permits purchased online
 - Annual, semester, monthly, weekly or daily
 - Can register up to 3 license plate numbers (this is an arbitrary number we set)
 - Can swap out LPs online at any time
- Parkmobile smart phone app
 - Individuals can register LP and pay by the hour
 - Departments may register LP and pay on behalf of the customer
 - Departments may give promo code to customer to enter as a component of payment
- Digital Pay Stations
 - Customers pay at machine for amount of time needed; customers paying by credit card may enter cell phone number at [time of payment to get text](https://transport.tamu.edu)



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Industry Technology



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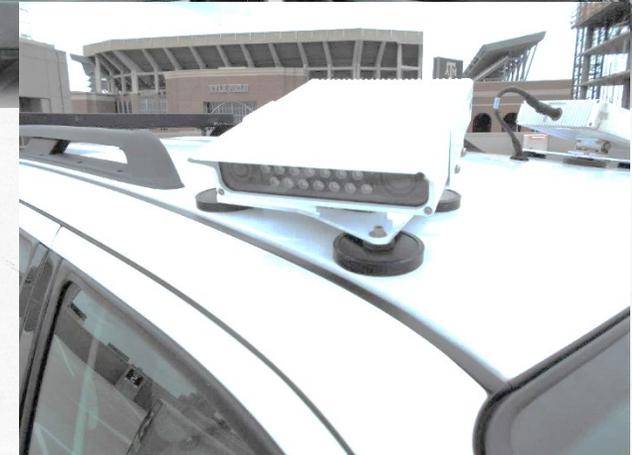
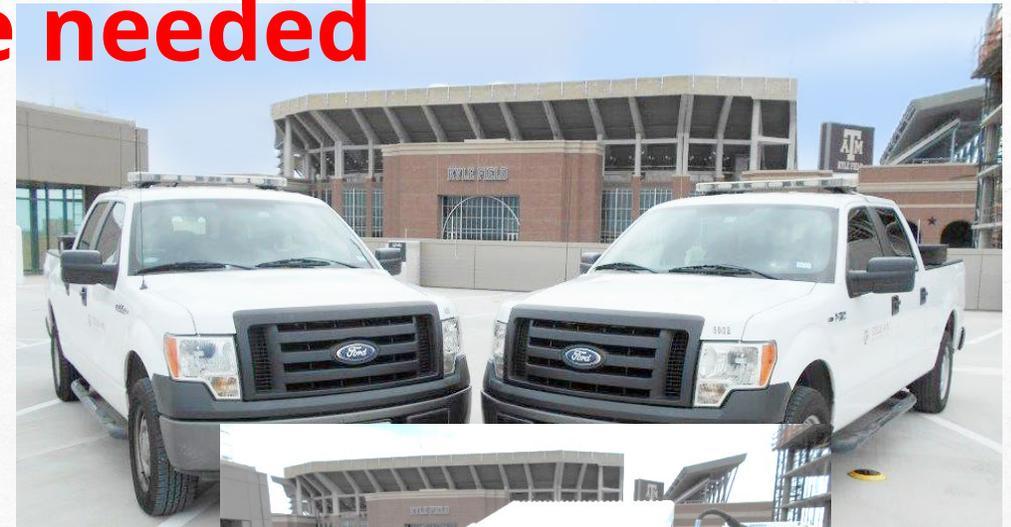
License Plate Recognition Technology

(License Plate Enabled)

LPR - Texas A&M Timeline

Lot 104 Genetec image needed

- 2011 - Mobile LPR
 - SCOFFLAW
 - Lot Counts
- 2013 – Fixed LPR
- 2018 – Permitless pilot at nearby RELLIS TAMUS campus
- 2019 – Pilot fixed LPR cameras for gate access at garage
- 2020 - Fixed LPR cameras for access at new garage





LPR – Reimaging Business Rules

- *Permitless*
 - *Communicating Proper Parking*
 - *Enabling customers to manage LP records*
 - *Establishing new payment options, permit types and rules*
 - *Implementing new rules in existing systems*
- *Reexamine citation fine amounts to look more like tolling*
 - \$15 for non-payment for first 48 hours
 - \$35 from day 2-14
 - \$10 escalation for late payment on 15th day takes rate to \$45
- Redefine appeal review process



LPR – Challenges

- *Works well in homogenous areas but mixed permit types or permissions is really tough*
- *Complicated to pull off*
- *States with no front plates; backing in*
- *VIPs still want visual identifier*
- *Event Management*



LPR - Challenges

- *Vanity plates*
- *Stacked Plates*





LPR – Challenges

➤ *Fuzzy Logic*





LPR – Right choice for who?

- *Municipality with on-street parking, including residential permits*
- *Small (not complex) university*
 - *But can they afford it?*
 - *Do they have enough people to manage the technical side of it?*



Other Technologies Improving Soon

Lot Entry Technology

- Use Transcore technology now and still see RFID as a likely primary/secondary access method – show picture of Transcore readers and tag
- Ticketless entry
 - *Designa qinkk beacon*
 - *ParkHub beacons – coming soon?*
 - *Inugo – “frictionless parking system” (app)*
 - *ZipBy - <http://www.zipby.us/>*





Loops – count consists
manual recounts are n

Car

