

# E-Construction Electronic Tickets (eTickets)

Lee Shepard  
Pavement Promotional Director



**ConcreteState**



TICKET #327740 DATE Sep 15, 2017

PLANT N	TRUCK 81	DRIVER Leto, Brett	TICKETED: TO JOB:	07:32:29 13:24:20
ORDER# 4	PO# 835	JOB#		
CUSTOMER# STE1090	PROJECT# STE835	PROJECT NAME Des Moines- BO 103 Park Ave		

SOLD TO: Sternquist Construction

DELIVER TO: BO 103 Park Ave Des Moines, IA

PRODUCT NO.	QTY	UNIT	DESCRIPTION	UNIT PRICE	AMOUNT
DCSUDSA	10	cy	C-SUD 3 Agg, SA Air, 5 oz WR 1 oz Ret		
200	10	cy	Hauling Charge		
				SUB TOTAL:	
				TAX:	
				TOTAL:	

ORDERED: 1200.00 DELIVERED: 20.00 SLUMP: 2.50

LOAD TIME: 07:32:59 MAX WATER ALLOWED: 0.00 WATER ADDED @ PLANT: 0.00 WATER ADDED @ JOBSITE: 0.00  
W/C RATIO @ PLANT: 0.37 W/C RATIO @ JOBSITE: 0.37

	ACTUAL	MOISTURE	TARGET	UNIT
LIMESTONE	14260	0.6% (10.25 gl)	14266	LB
SAND	12600	3.3% (49.82 gl)	12596	LB
LS 3/8" CHIPS	3360	0.6% (2.42 gl)	3089	LB
CEMENT 1	3980		3970	LB
FLYASH	1950		1960	LB
RETARDER	120		119	OZ
POLYCHEM SA	90		90	OZ
KB1200	177		178	OZ
WATER	201		203	GL

# Why eTickets?

# Problems

- Lost Tickets
- Ticket Verification
- Ticket sorting
- Recording Test Results
- Summing the tickets for contractor pay
- Safety of workers dodging trucks to collect tickets
- Diminishing Workforce

Form 610005  
03-02

**IOWADOT**  
Ready Mix Concrete Ticket

Truck No. 93 Ticket No. 1 cy/m³ 10.0 / Total 10.0  
 Ready Mix Plant DNI WEST  
 Date 10-30-15 Mix C-4WR-C20  
 Contractor Absolute Conc Sub.  
 Project No. IMM-080-3(175) 119-0E-25 Design No.  
 \*Cement Mfg. PCCEC2 lbs./cy-km³ 474  
 \*Flyash Source FA013C lbs./cy-km³ 119  
 \*Slag Source lbs./cy-km³  
 \*Fine Agg. Source Hallitt A25514 % Moist 4.3  
 Dry Wt. 1506 Sp. Gr. 2.64 lbs./cy-km³ 1574  
 \*Coarse Agg. Source MM A85004 % Moist 1.3  
 Dry Wt. 1522 Sp. Gr. 2.68 lbs./cy-km³ 1542  
 \*Interm. Agg. Source % Moist  
 Dry Wt. Sp. Gr. lbs./cy-km³  
 # Water (gal./L or lbs./kg This Truck) 8.2 + 2.4 = 10.6 gal in max per 40  
 H2O in Matls. Fine 6.8 lbs/kg Coarse 20 lbs/kg Interm. lbs/kg  
 Added (Plant) 16.3 gal/L lbs/kg  
 Subtotal 27.3 gal/L lbs/kg  
 Added grade 3.0 gal/L lbs/kg  
 Total Water 28.3 gal/L lbs/kg  
 MAX. WATER ALLOWED 39.8 gal/L lbs/kg or kg/m³

\*Air Agent Mfg. Poly VR Lot # 2100915 oz/cy-mil/m³ 6.5  
 \*Retarder Mfg. Lot # oz/cy-mil/m³  
 \*Water Reducer KB 1200 Lot # E101915 oz/cy-mil/m³ 18  
 \*Heated Water Agg. Temp. Air Temp. Conc. Temp.

Time Charged 7:24 Time Discharged 8:23  
 Revolutions @ Plant 70 Rev. @ Project 50  
 Slump @ Plant Air @ Plant  
 Slump @ Proj. 3 Air @ Proj. 5.7

Plant Inspector YM Salazar CI249  
 Receiving Inspector William D. H. A 10

\*Applies to the first load and any subsequent changes.

Beam: No. Time Station Waste

590



# The Handoff!

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# Questions We Asked Ourselves

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- What do we want to accomplish?
- What data do we want to capture?
- Where do we want to store that data?
- What type of file do we need to move the data from one place to another?



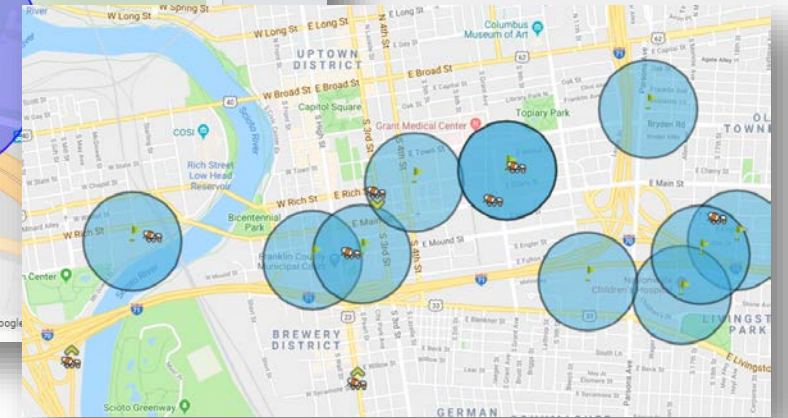
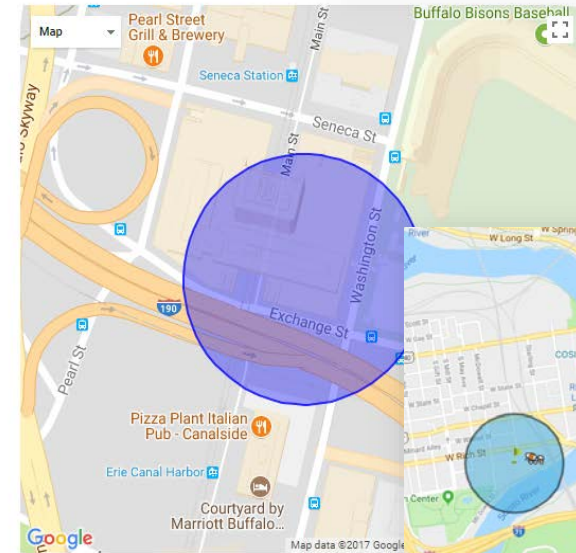
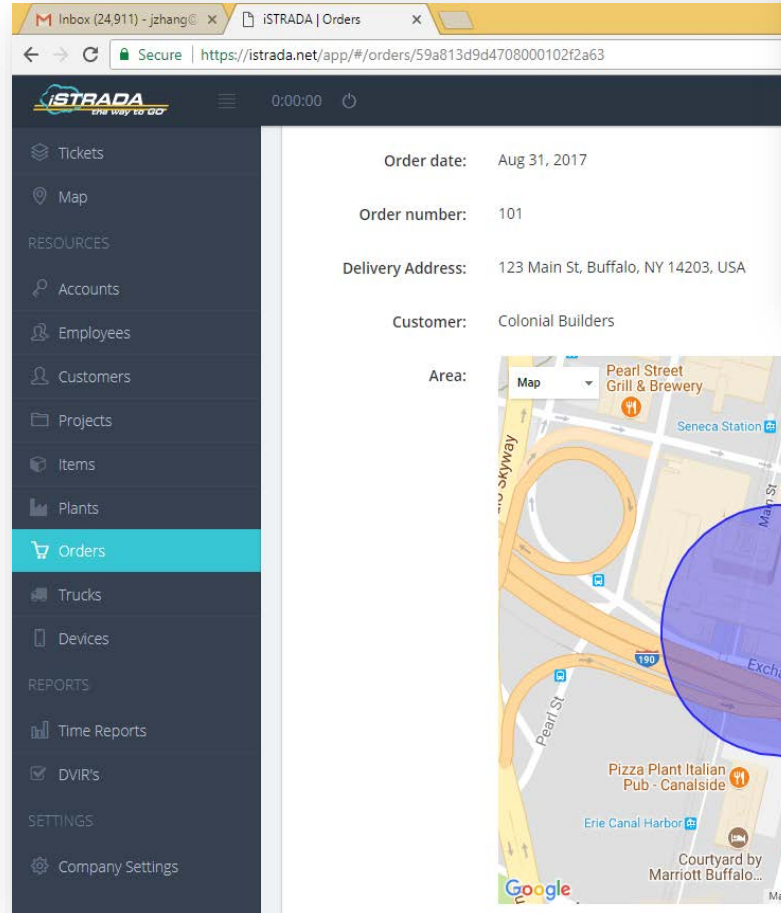




# Track Material

## Geozones?

- Plant Site
- Job Site
- Other Places?
  - Wash Out Location?





# GPS Enabled Devices



# Truck Load Times

rate of 1 1/2% per month on all past due accounts.

PLANT 32	TICKET NO. 3244414	TRUCK 743	DRIVER CAMPOS, JORGE	ORDER 176	USE -	DATE 2/17/17
SOLD TO: DEMAC CONCRETE CONTRACTORS INC		CUSTOMER NO. 6211335	TIME DUE 4:04 AM	LOAD TIME 3:37 AM	AIR -	CC -
DELIVERY ADDRESS: 18140 Kickapoo Rd		PROJECT NO. 1600971	P.O. NO. GALLONG	ZONE -		

DELIVERY / DRIVER INSTRUCTIONS:

FROM 32Y HWY 290 (L) TO KIKAPOO RD (L) TO JOB \*\*\*POURING PERS\*\*\*



334414

LOAD QTY	CUM. QTY	ORDERED QTY	PRODUCT CODE	PRODUCT DESCRIPTION	UNIT PRICE	AMOUNT
10	150	350	2151590	4000,1CS,4,2	cy	-
1	-	-	ENV.FEE	ENVIRONMENTAL FEE SURCHARGE	cs	-
1	-	-	FUEL.SUR	FUEL SURCHARGE	cs	-

Truck	Driver	User	Dispatch Ticket Num	Mix Code	Time	Date
743	9007241	-	3244414	2151590	3:37 AM	2/17/17

# Add Inspection Details

↑ 14:07

← #70 Inspection at job site

AT JOB SITE

Air content  
+ \_\_\_\_\_

Slump  
+ \_\_\_\_\_

Concrete temperature  
+ \_\_\_\_\_


Water added  
+ \_\_\_\_\_

Revolutions  
\_\_\_\_\_

Unit weight  
\_\_\_\_\_





Discharged at: click to select

ACCEPTANCE

Concrete accepted 

INSPECTOR SIGNATURE

Command Alkon Comments

Water Added(Gal)	Qty on Truck	Time	Reason	+ Add
10.5	0	10:15 AM		 
- 0 +	- 0 +	10:15 AM	Select ▼	 

Cancel Save

# Batch Weights

LOAD TIME: 07:21:14    MAX WATER ALLOWED: 0.00    WATER ADDED @ PLANT: 0.00    WATER ADDED @ JOBSITE: 0.00  
W/C RATIO @ PLANT: 0.37    W/C RATIO @ JOBSITE: 0.37

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CEMENT 1	3995		3970	LB
FLYASH	1975		1960	LB
RETARDER	120		119	OZ
POLYCHEM SA	90		90	OZ
KB1200	177		178	OZ
WATER	201		203	GL

# Make Comments

Water Added:

Unit Weight:

☒ Accepted

Signed By:\*

Notes:

Cancel

✓ Save

Command Allon

Comments

Air too high  
Late arriving to site  
Slump too high

Ticket Ad

Comments List

- ☐ Air Too High
- ☐ Late Arriving To Site
- ☐ Returned Pallets Damaged:
- ☐ Returned Pallets Good:
- ☐ Slump Too High
- ☐ Truck Broke Down

Cancel Add



# Inspector's Signature

## INSPECTION ON SITE

INSPECTOR: Ryan utter



ACCEPTED

NOTES:  
Sta 76+98 lt

AIR CONTENT: 8.90   SLUMP: 0.00   TEMPERATURE: 83.0 F   WATER ADDED: 0.00   DISCHARGE  
REVOLUTIONS: 30

Customer Signature




Clear Signature

Save

Driver Rating



# Tickets Emailed or .pdf Downloadable



TICKET #327739    DATE Sep 15, 2017

PLANT N	TRUCK 141	DRIVER Perez, Carlos	TICKETED: TO JOB:	07:19:49 16:11:14
ORDER# 4	PO# 835	JOB#		
CUSTOMER# STE1090	PROJECT# STE835	PROJECT NAME Des Moines- BO 103 Park Ave		

SOLD TO: Sternquist Construction  
DELIVER TO: BO 103 Park Ave Des Moines, IA

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KB1200	177		178	OZ
WATER	201		203	GL

INSPECTION ON SITE

INSPECTOR: Ryan Utter

ACCEPTED

NOTES:  
Sta 76+98 It

AIR CONTENT: 8.90    SLUMP: 0.00    TEMPERATURE: 83.0 F    WATER ADDED: 0.00    DISCHARGE TIME: 09:53:49  
REVOLUTIONS: 30

# Multiple Ways to View/Enter Data

Status

Truck

Ticket

Date range

Today

This Week

Custom

From 2017-09-27

To 2017-09-27

Show date range

Tickets

Search Export

#328251 | Order: 92

Sternquist Construction | Des Moines- BO 103 Park Ave  
BO 103 Park Ave Des Moines, IA

Sep 27, 2017 TO JOB INSPECTED

Truck: 135 | Morton, Orville

#328249 | Order: 92

Sternquist Construction | Des Moines- BO 103 Park Ave  
BO 103 Park Ave Des Moines, IA

Sep 27, 2017 TO JOB INSPECTED

Truck: 121 | Adamovicz, Richard

#328238 | Order: 86

Sternquist Construction | Des Moines- BO 103 Park Ave  
BO 103 Park Ave Des Moines, IA

Sep 27, 2017 TO JOB INSPECTED

Truck: 125 | Bentley, Dennis

#328248 | Order: 92

Sternquist Construction | Des Moines- BO 103 Park Ave  
BO 103 Park Ave Des Moines, IA

Sep 27, 2017 TO JOB INSPECTED

Truck: 98 | Flores, Cesar

#328246 | Order: 86

Sternquist Construction | Des Moines- BO 103 Park Ave  
BO 103 Park Ave Des Moines, IA

Sep 27, 2017 TO JOB INSPECTED

Truck: 107 | Ramirez, Salvador

ORDER DETAILS

Map Satellite Hoover 65 31 17 275 65 17

Map data ©2016 Google

Google

NOTIFICATIONS DISABLED

Status:

Product Type:

Description:

Quantity:

SCHEDULED ( 7 TRUCKS, 46.0 CY)

Plant	Quantity	Travel
1	7.00	20 M
1	7.00	20 M
1	7.00	20 M
1	7.00	20 M
1	7.00	20 M
1	7.00	20 M
1	4.00	20 M

IN TRANSIT (2 TRUCKS, 14.0 CY)

Ticket	Plant	Quantity
14763	1	7.00
14765	1	7.00

PRINTED (1 TRUCKS, 3.00 CY)

Ticket	Plant	Quantity	Status
15010	1	3.00	Printed

ORDER REQUEST

REVIEW

Project - Crown Volvo Dealership

Product - 1 1/2" Stone

Delivery - 6/16/16 2:00 PM

Truck :

Quantity : 20 tn

Load Size : 10 tn

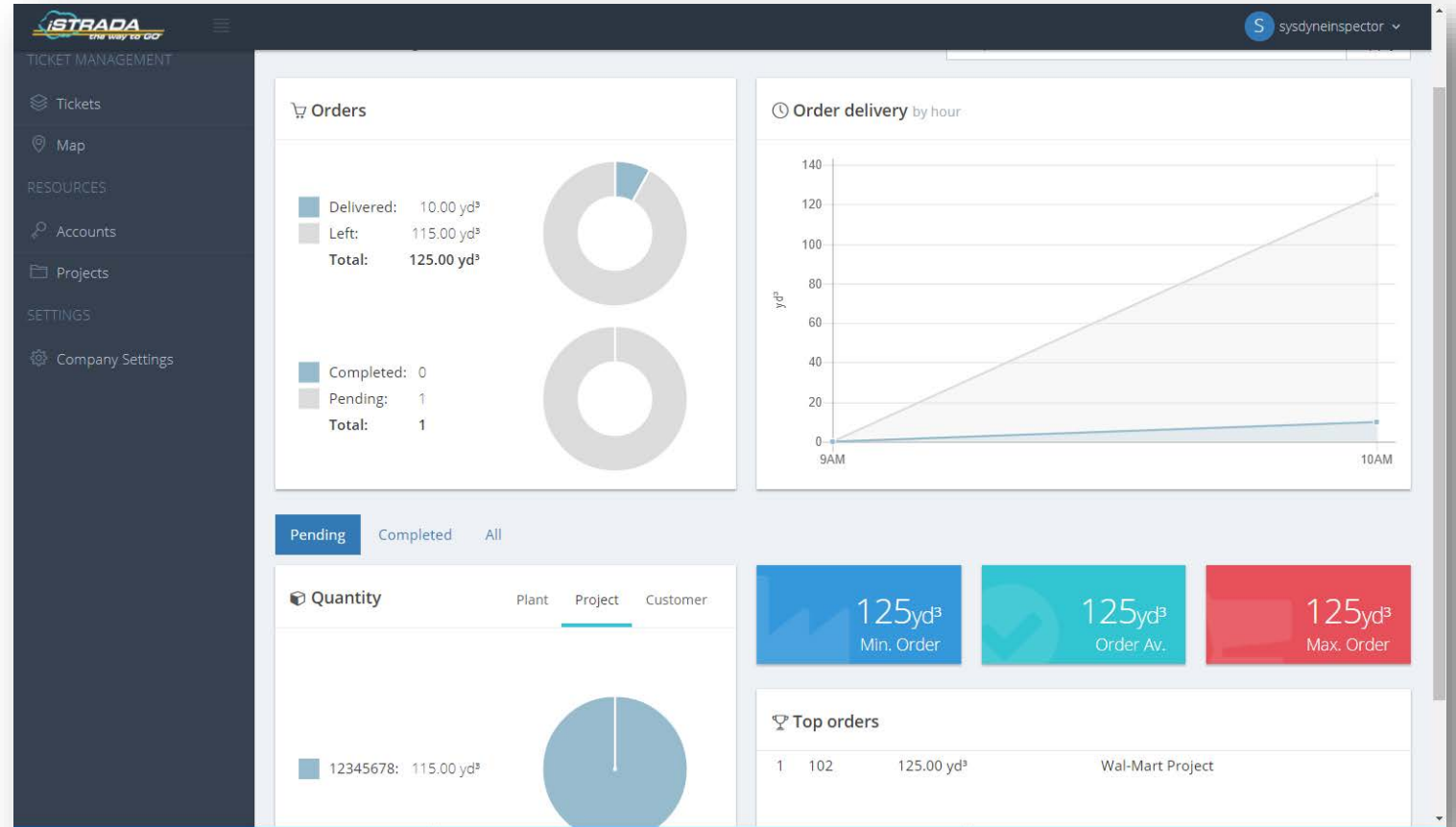
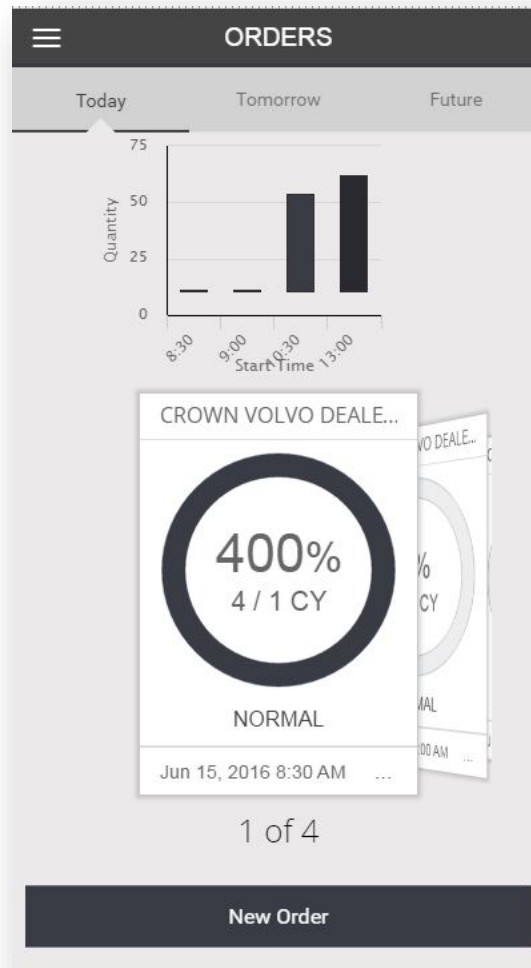
Spacing : 15 Minutes

Pour Type :

Click Here to add comments

Submit

# Project/Pour Metrics





# 2016 & 2017

## 2016 – Concrete Supply Inc.

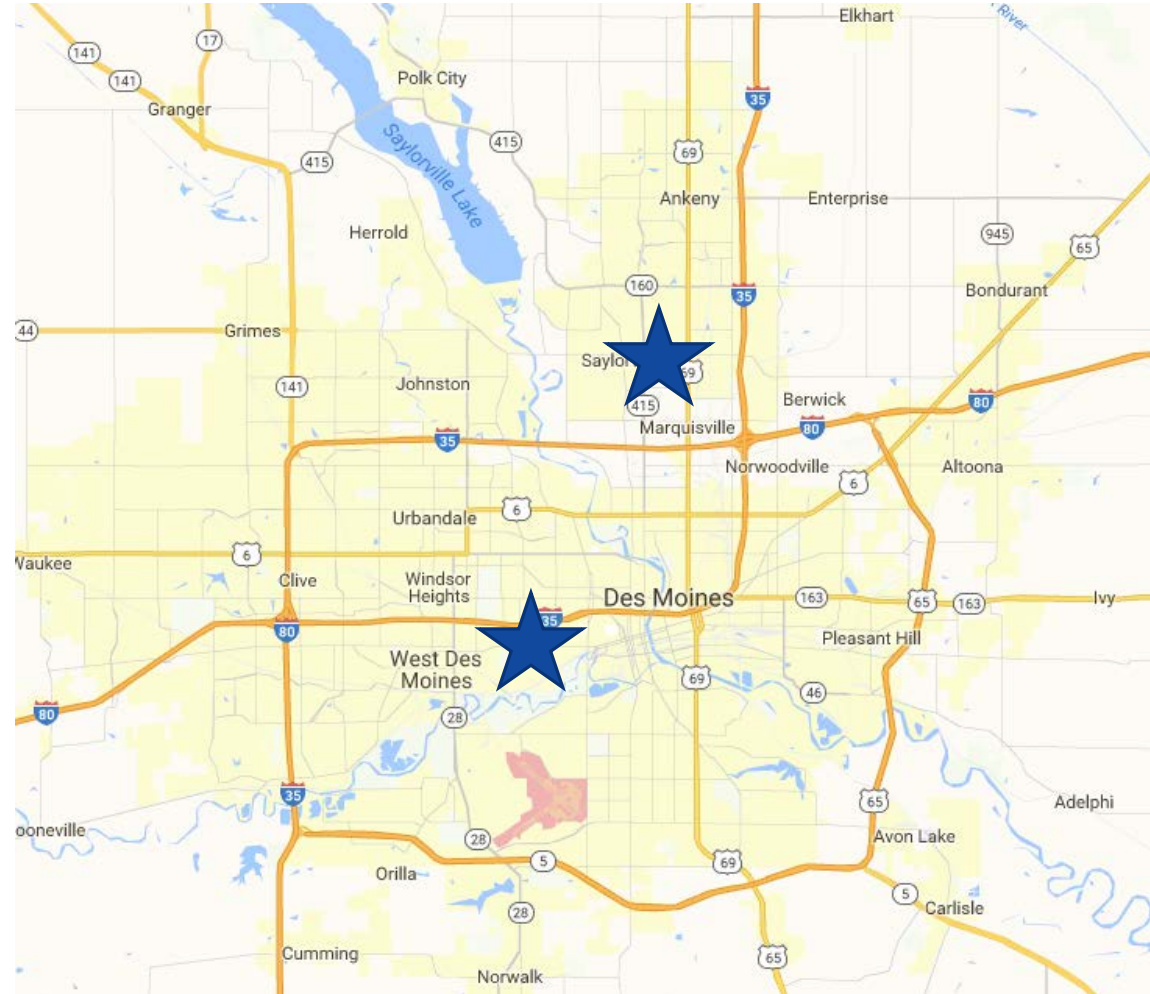
### Administered by Grimes RCE

- NE 54<sup>th</sup> St. in Des Moines
- 2,500 cy of PCC
- 4 different Mix Types

## 2017 – Norwalk Ready Mix

### Administered by City of Des Moines

- Also Partnered with FHWA
- Park Avenue Des Moines
- 1,500 cy of PCC
- PEM
- Trucks Delivering Mix From Two Different Plants



# 2018

## Manatt's Inc. – 2 Projects

### Administered by Jefferson RCE

- On I-35 South of Ames
- Bridge
- 950 cy of PCC

### Administered by Marshalltown RCE

- On Iowa 146 near LeGrand
- Bridge
- 1000 cy of PCC

## Hahn Ready Mix and Others – Starting Dec.

### Administered by Davenport RCE

- I-74 in Davenport
- Multiple Projects
- \$400 Million in Total Contracts
- Over 50,000 cy of PCC
- Multiple Mixes

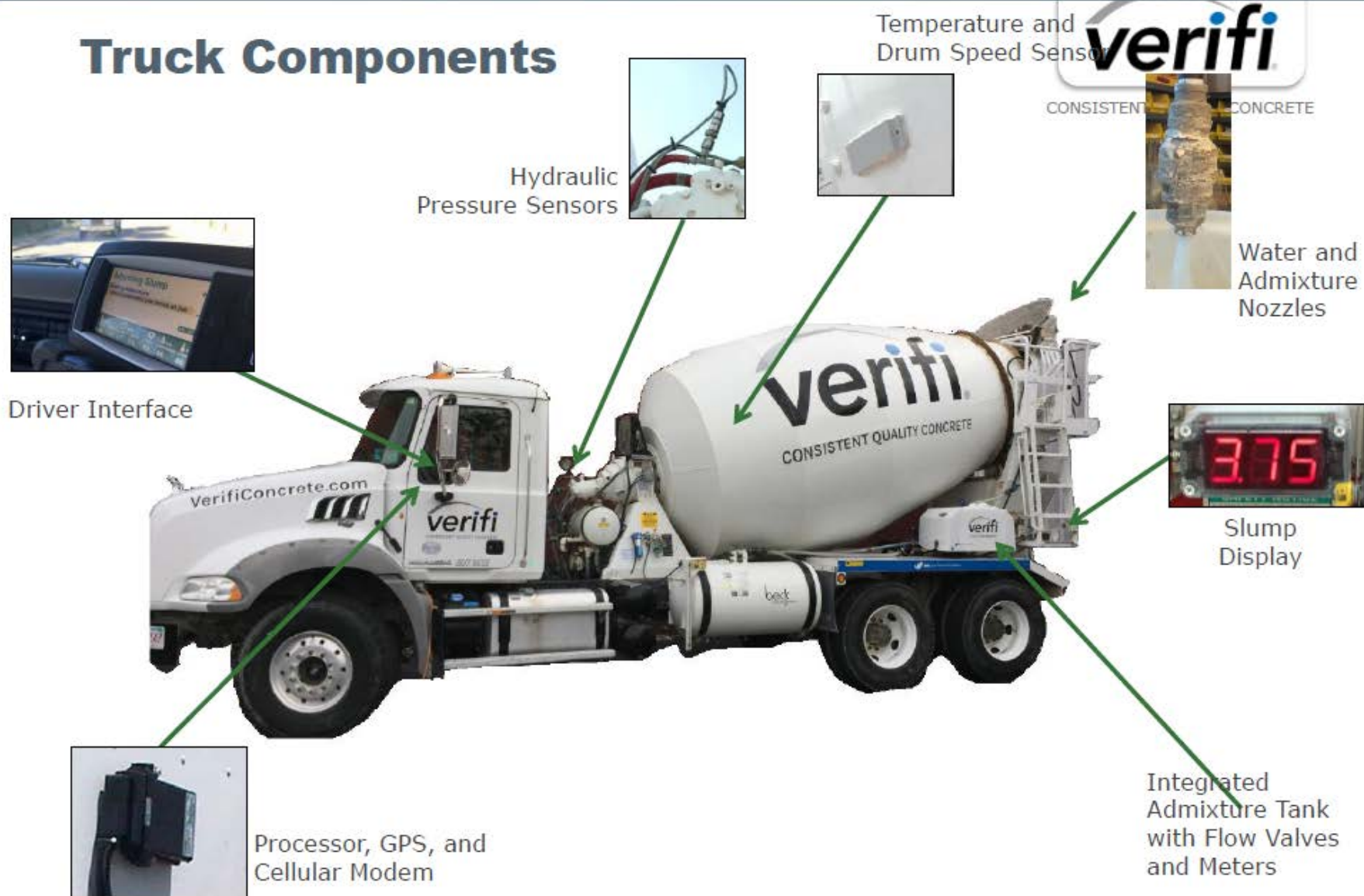




# Where Now?

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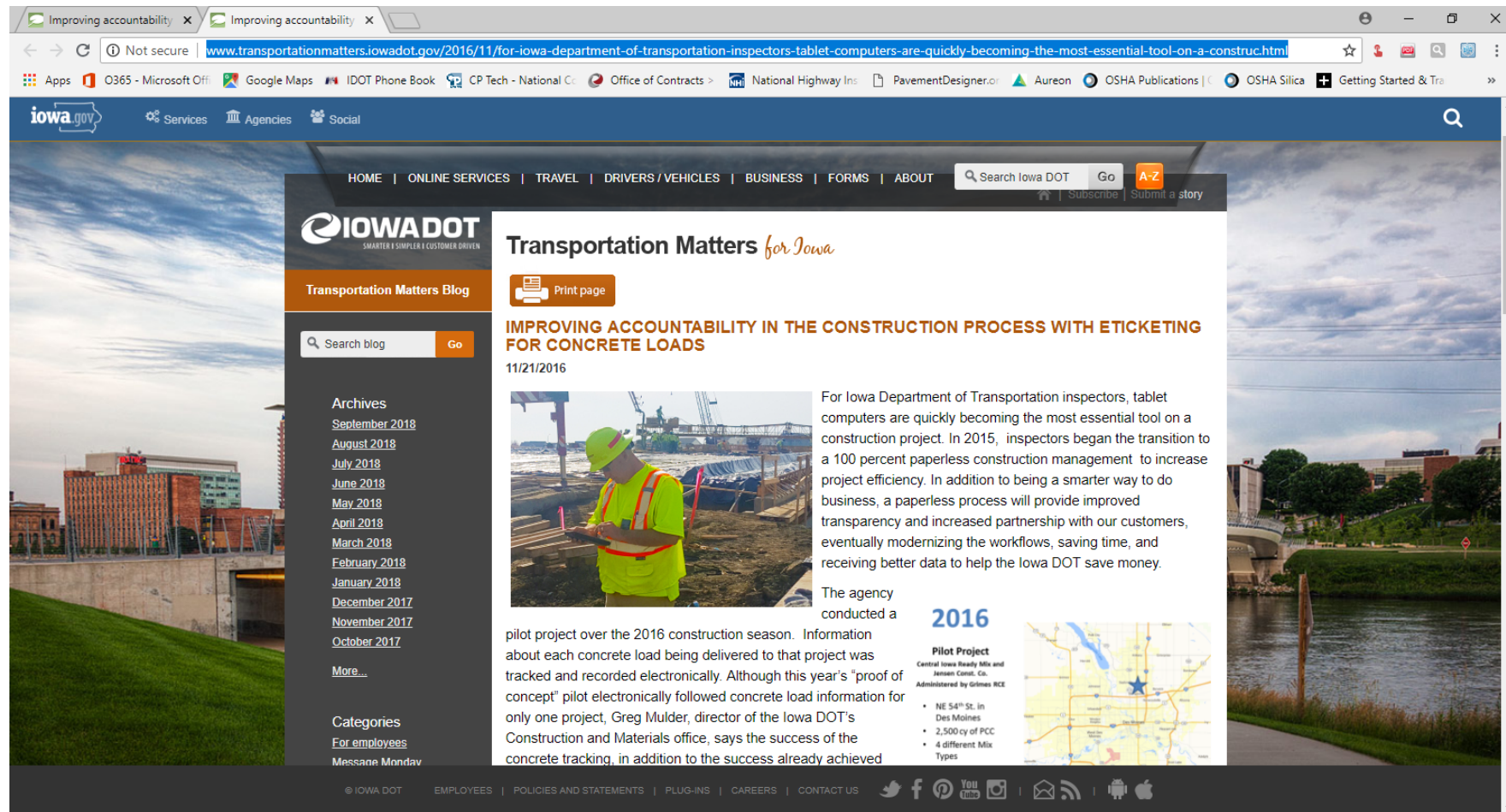
# Truck Components





# Where's Information Going?





<http://www.transportationmatters.iowadot.gov/2016/11/for-iowa-department-of-transportation-inspectors-tablet-computers-are-quickly-becoming-the-most-essential-tool-on-a-construc.html>

# Questions?

