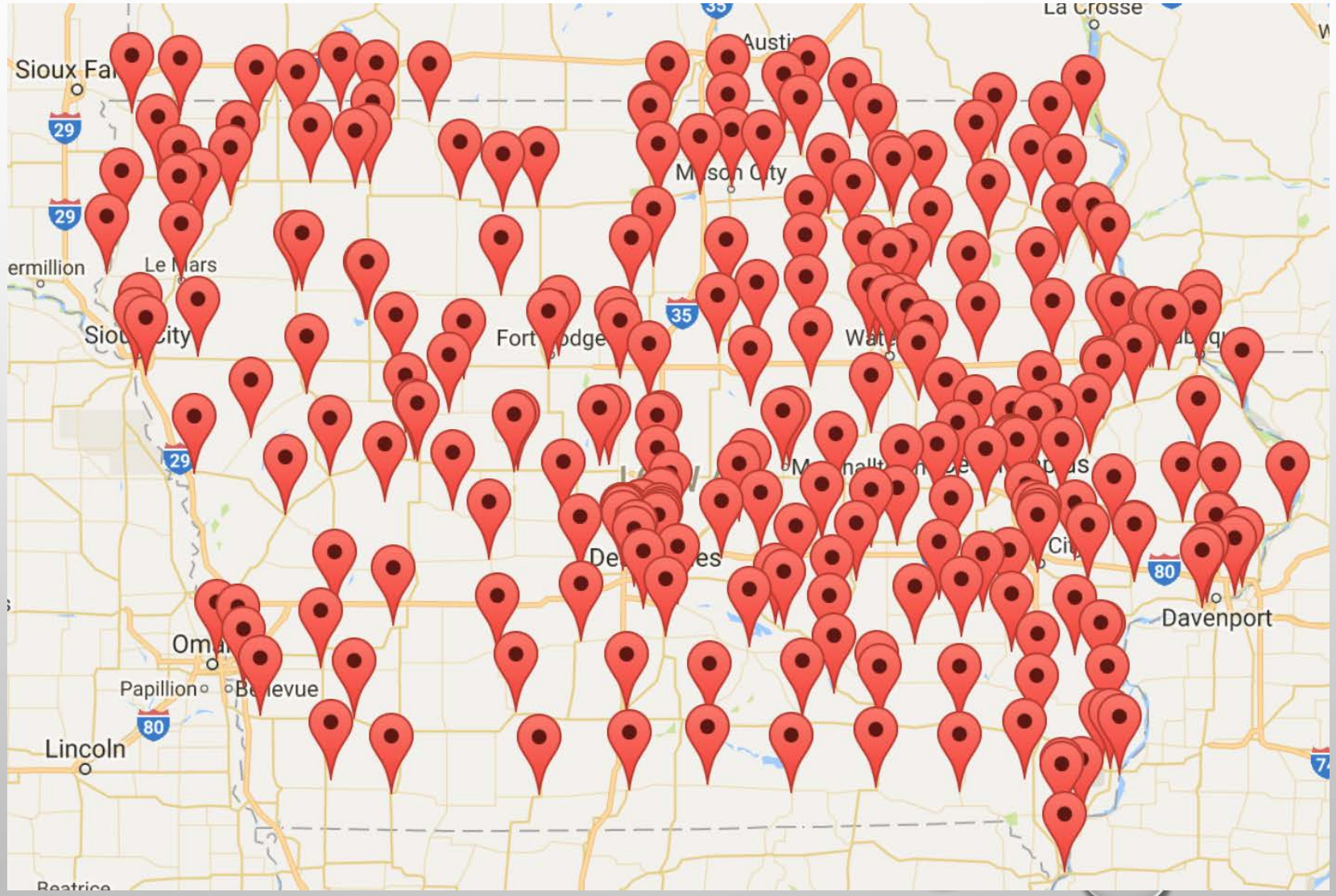
E-TICKETING

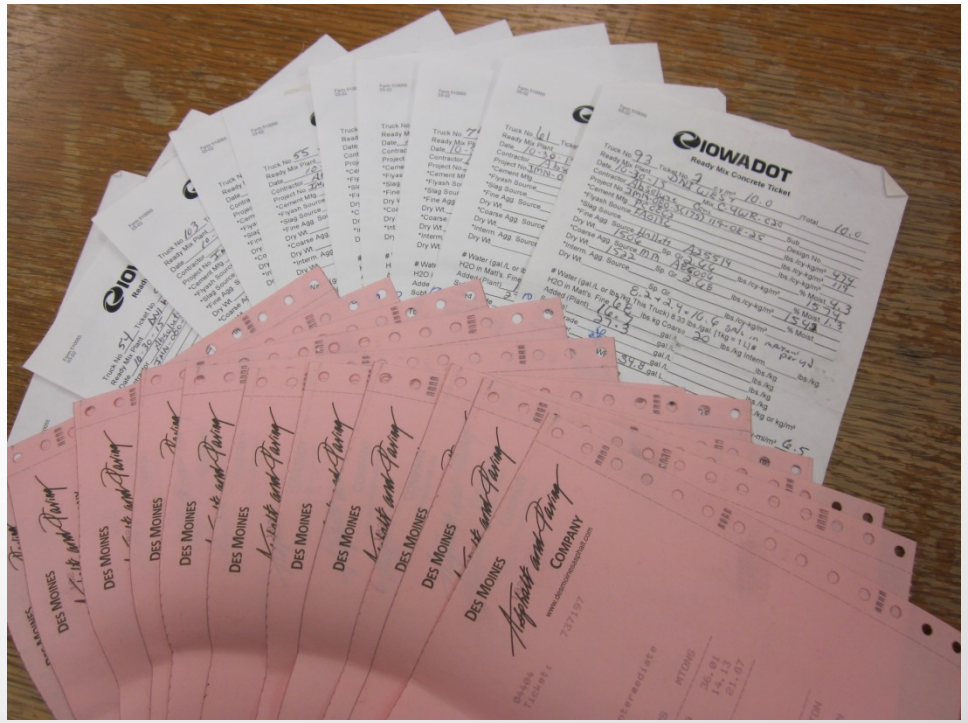
GREG MULDER, P.E. ICPA/IRMCA

LEE SHEPARD, IOWA DOT

IOWA READY MIX CONCRETE PLANTS



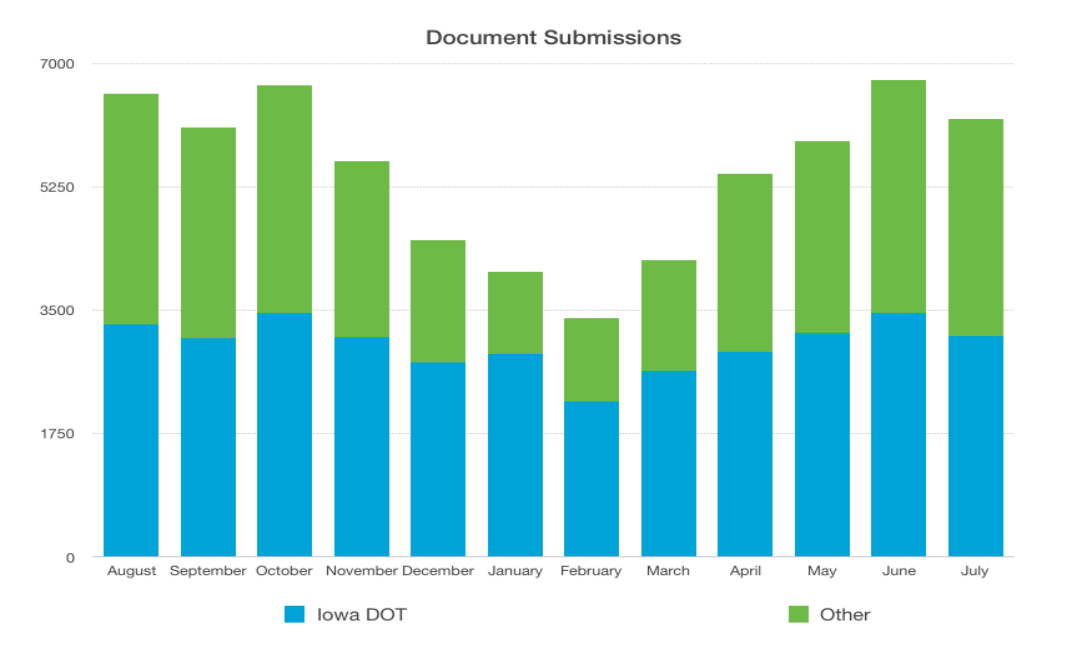
PROBLEMS



- Paper tickets
- Lost Tickets
- Ticket Verification
- Ticket sorting
- Summing the tickets for contractor pay
- Safety of workers dodging trucks to collect tickets

WHY E-TICKETS? 100% PAPERLESS?

- As of May, 2017
  - 500+ Agency Users
  - 300+ Non-Dot Users
  - 2330+ Contracts
  - 300,000+ Documents



THIS DOESN'T INCLUDE TICKETS!!

PCC E-TICKETS

#1000136 Code Print Send

ON JOB @ 20:35:14 **Date:** Aug 23, 2016

Plant: 2 **Truck:** 55 **Driver:** Torres, Jose

Order#: 100 **PO#:** **Job#:**

Customer#: CAL1074 **Project#:** Test **Project name:** Test Demo

Sold to: Cal Concrete Construction

Deliver to: 801-901 W Jefferson St Knoxville

Qty	Unit	Description	Unit price	Amount
10	cy	3000 PSI MIX W/541 CEM	$75.00	$750.00
1	/I	HAULING CHARGE	$30.00	$30.00
			Sub Total:	$780.00
			TAX:	$20.63
			Total:	$800.63

Ordered: 250.00 **Delivered:** 10.00 **Slump:** 4.00

› Batch Weights ⌄ Water Details

W/C ratio: 0.40 (on site: 0.43)

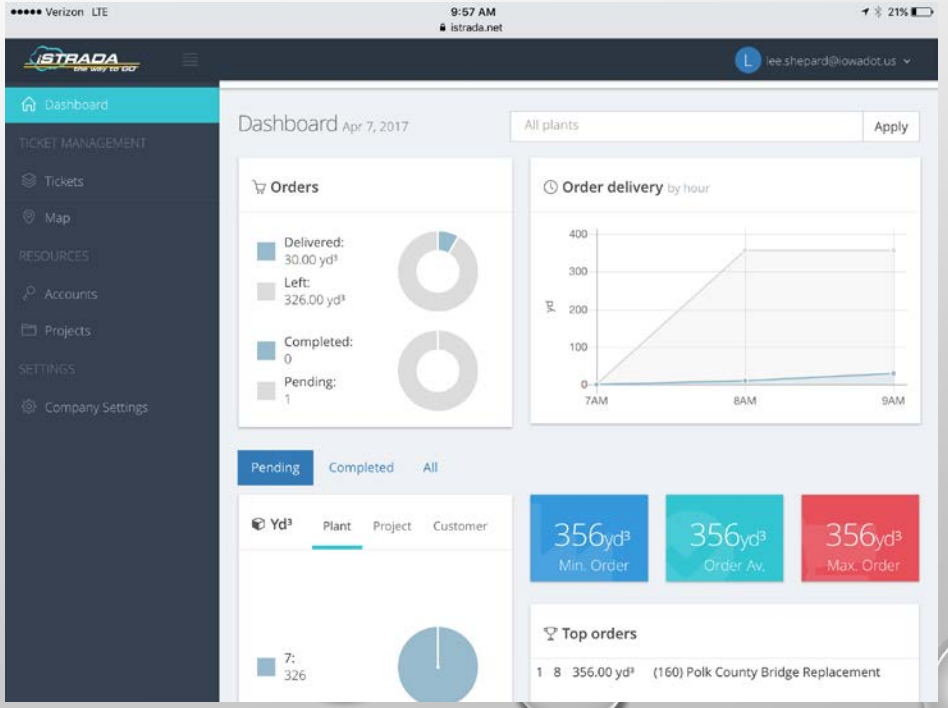
Max water allowed:

Sand water:

Batched water:

Water added on site: 20.0 gl

Water added allowed on site: 0 gl

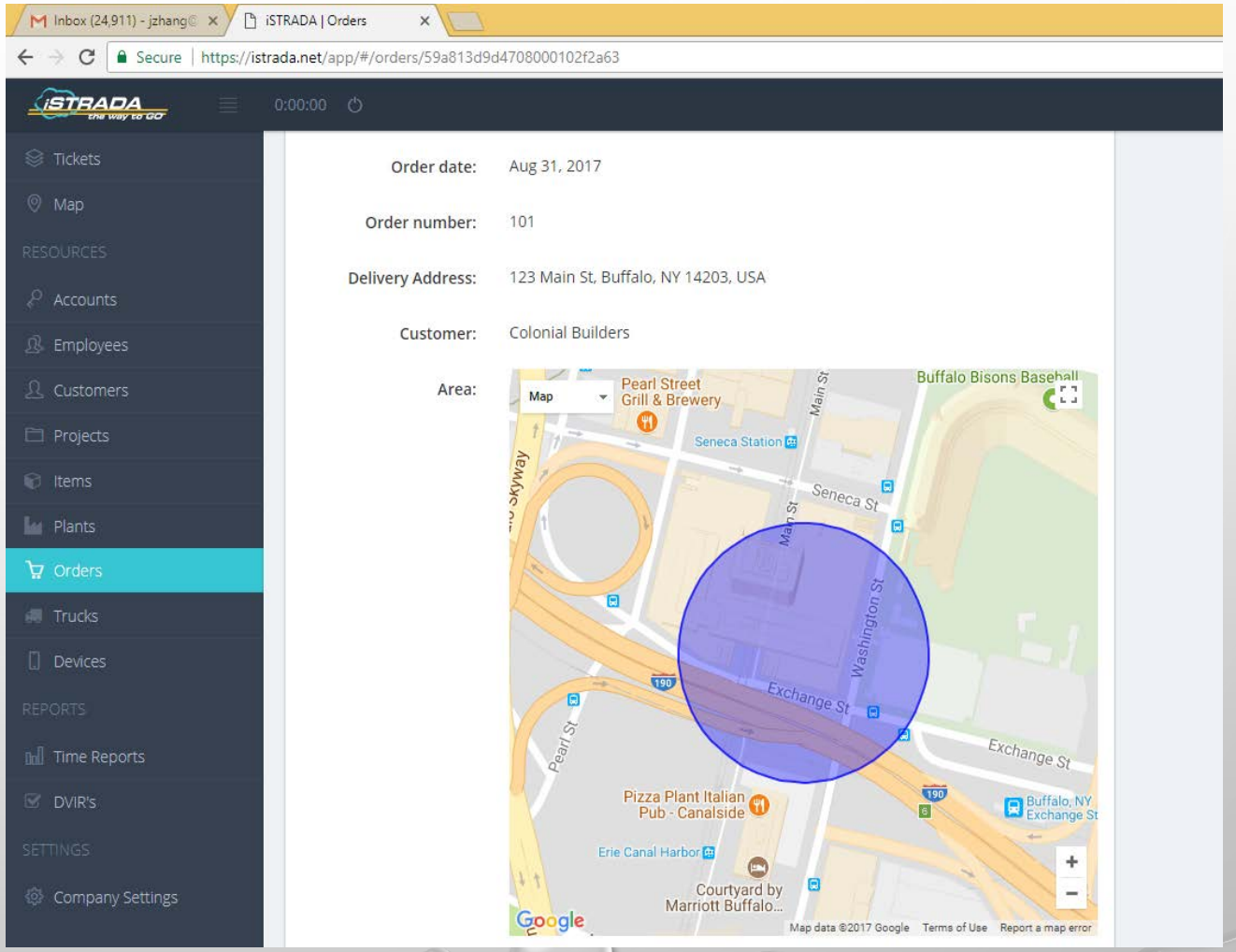


TABLET IN CONCRETE TRUCK

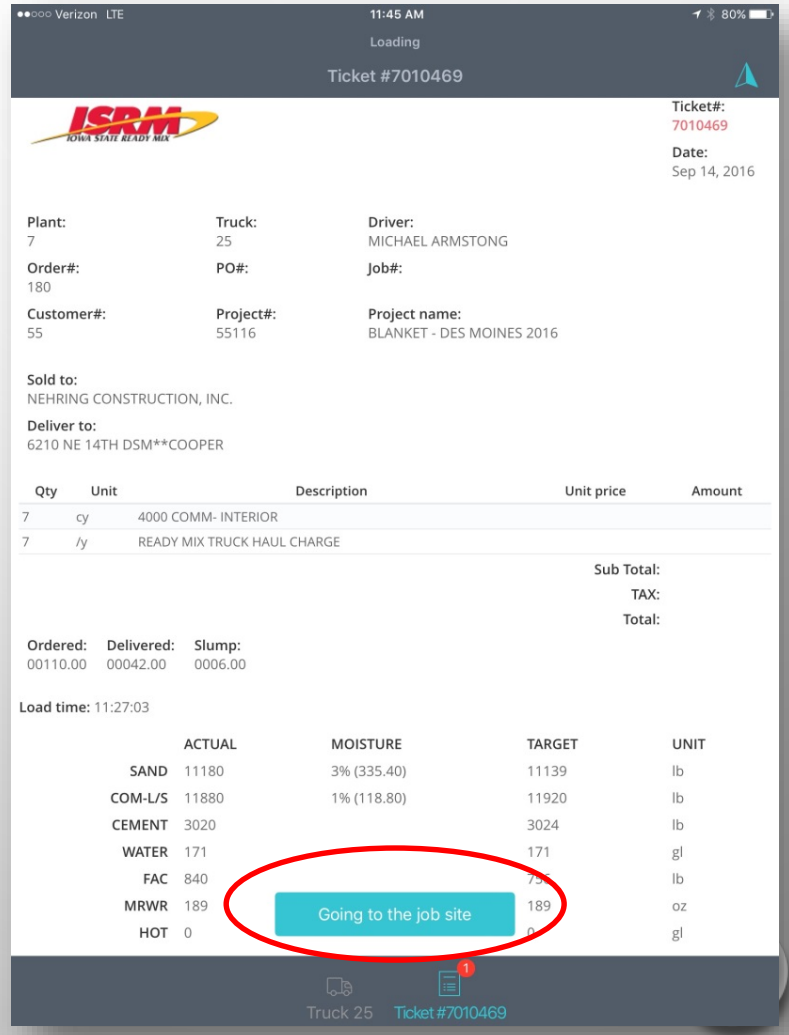
GEOZONES

Geozones Around

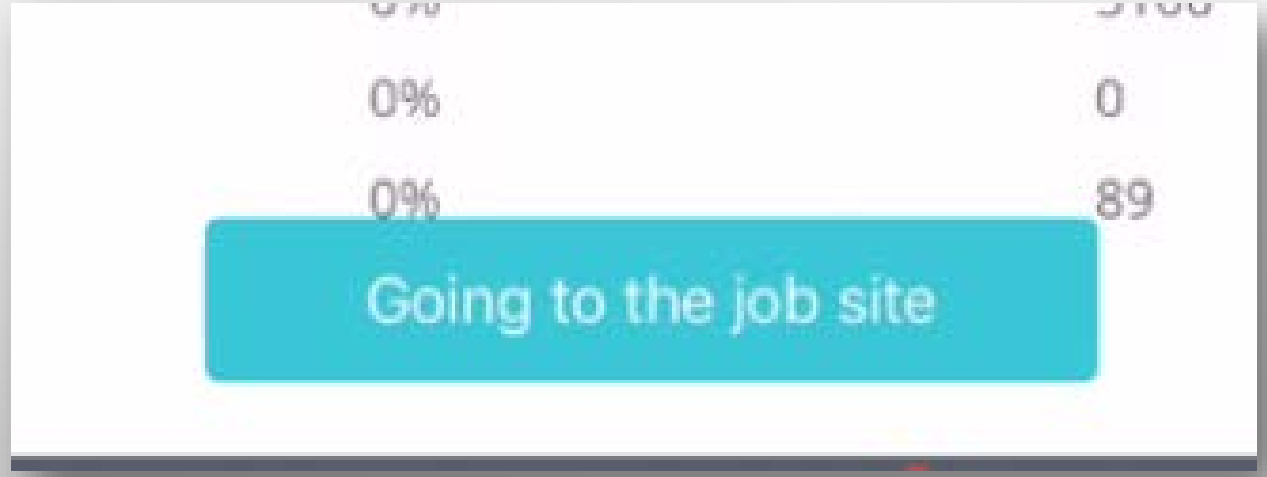
- Plant Site
- Job Site
- Other Places?
  - Adjacent Jobsites?
  - Wash Out Location?

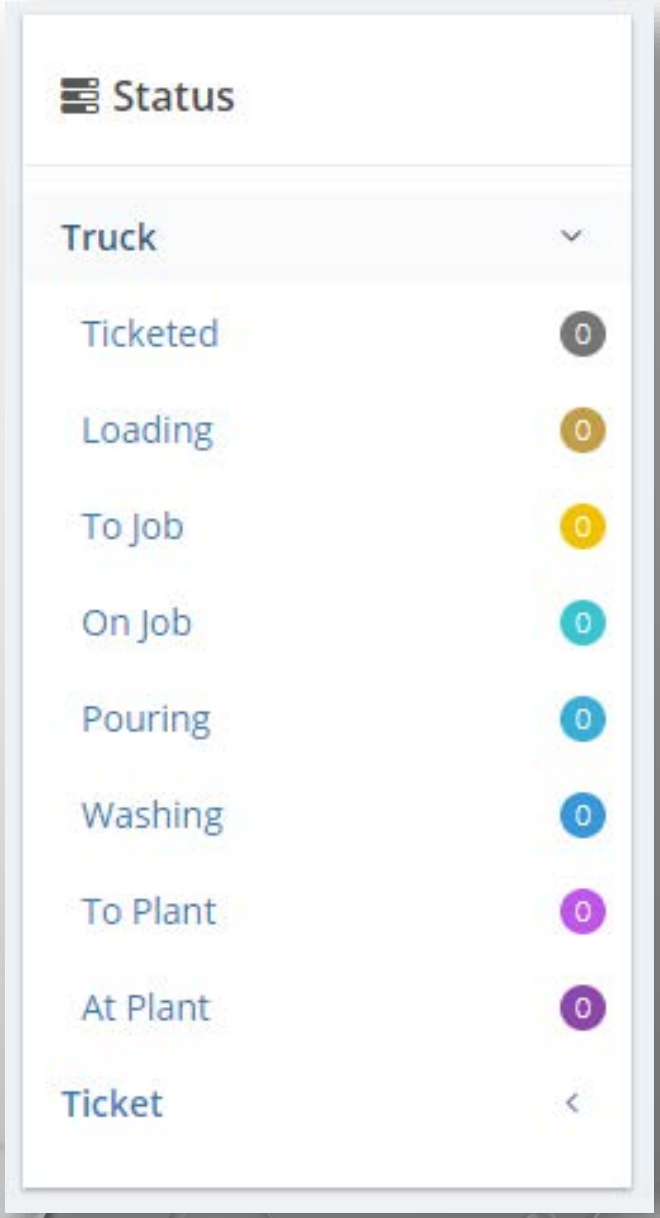


TICKET UPDATES ON DRIVERS TABLET



STATUS CHANGES



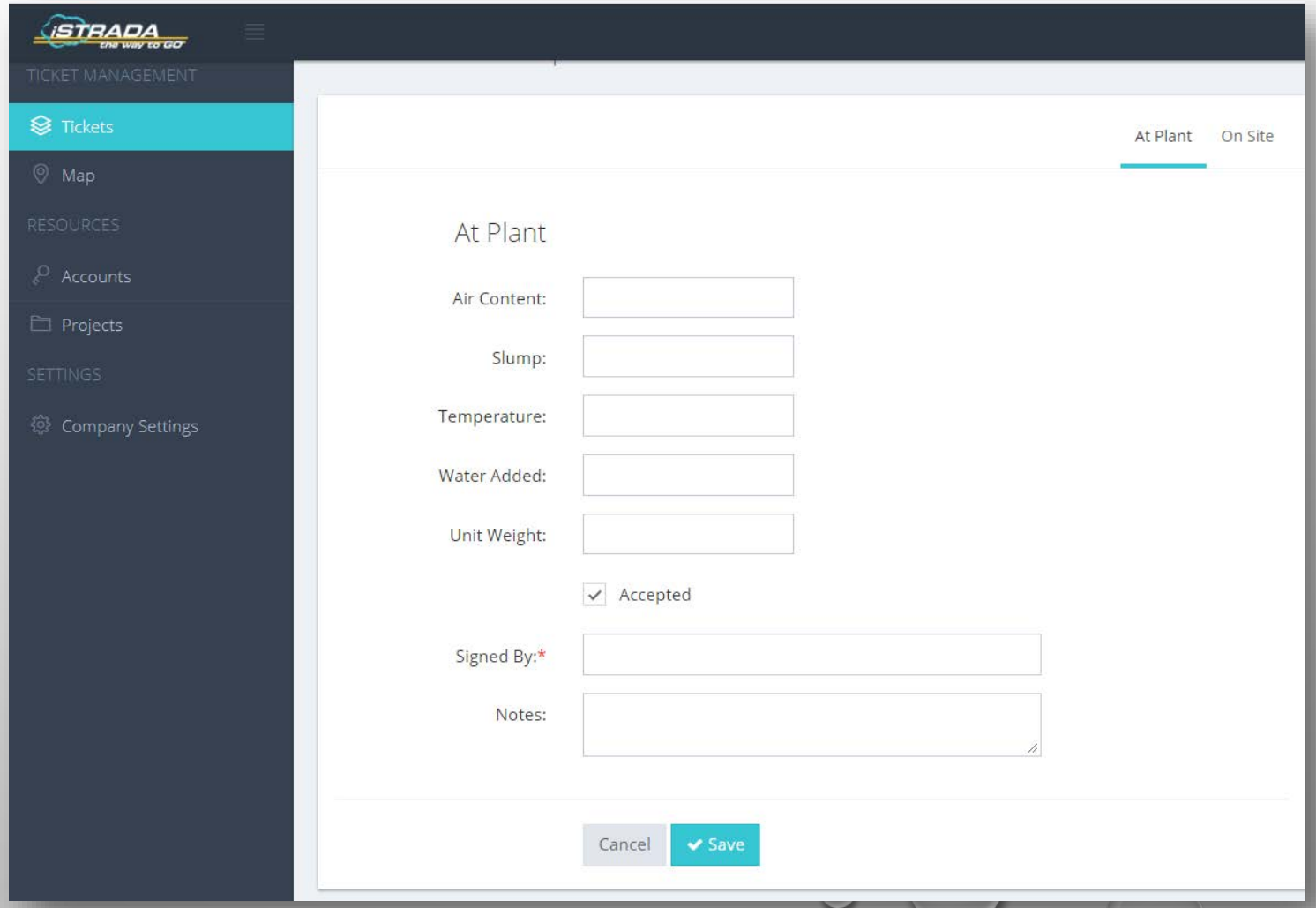


BATCH WEIGHTS BROUGHT IN

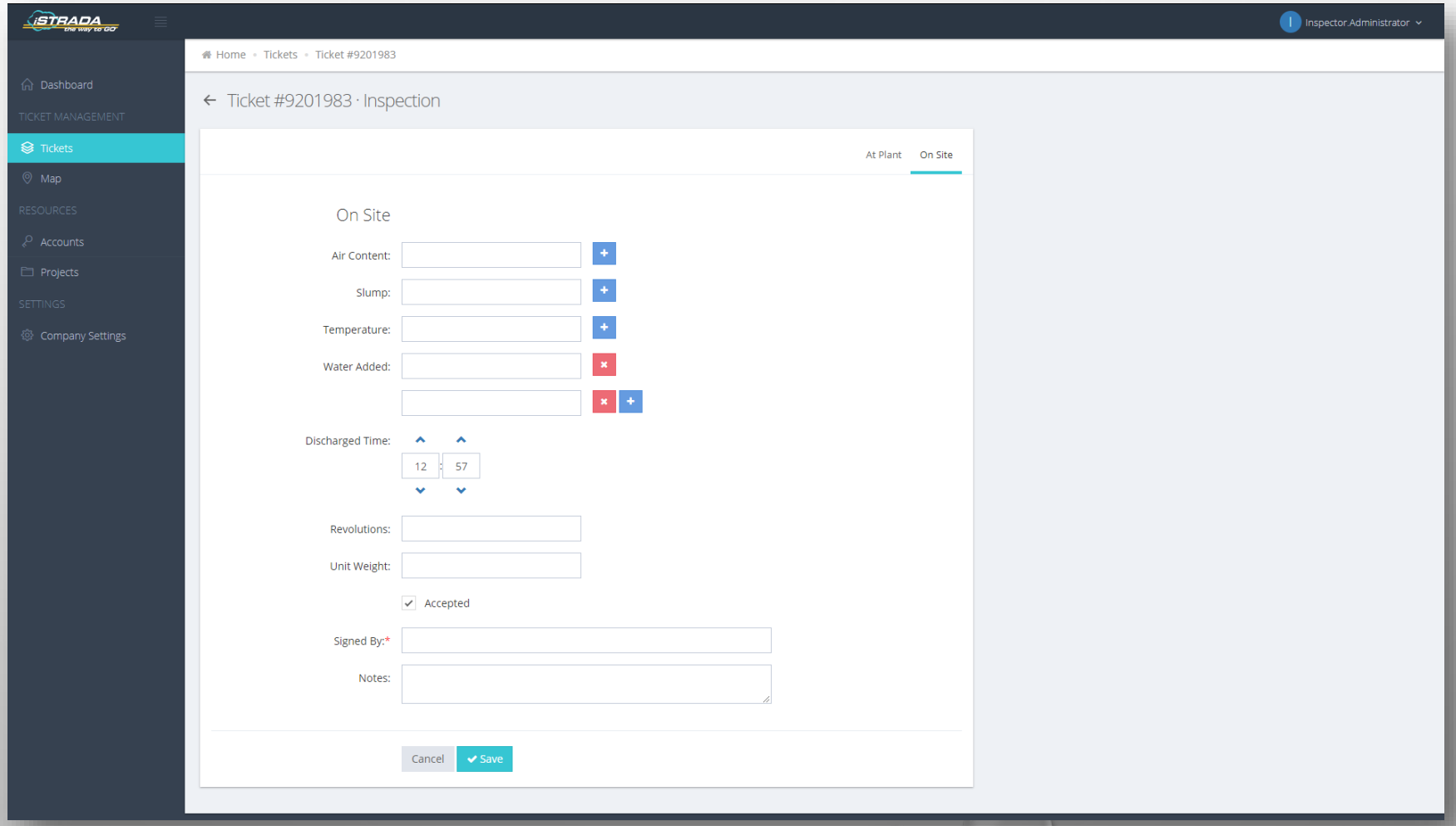
LOAD TIME: 07:21:14 **MAX WATER ALLOWED:** 0.00 **WATER ADDED @ PLANT:** 0.00 **WATER ADDED @ JOBSITE:** 0.00
W/C RATIO @ PLANT: 0.37 **W/C RATIO @ JOBSITE:** 0.37

	ACTUAL	MOISTURE	TARGET	UNIT
LIMESTONE	14360	0.6% (10.32 gl)	14266	LB
SAND	12480	3.3% (49.35 gl)	12596	LB
LS 3/8" CHIPS	3280	0.6% (2.36 gl)	3089	LB
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

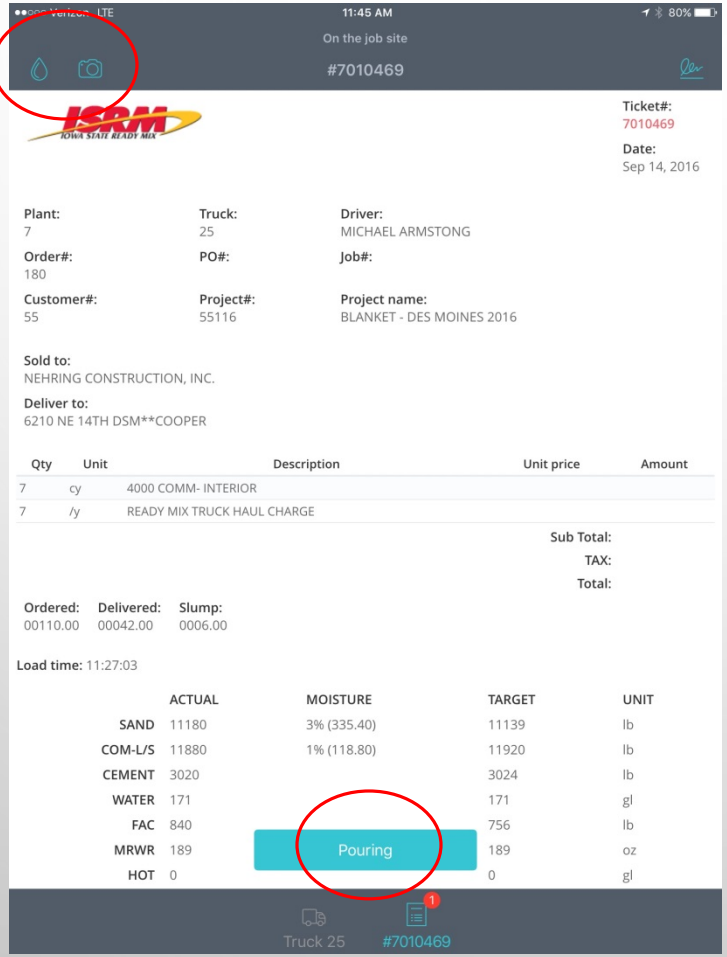
PLANT INSPECTION INFO ADDED BY CPI

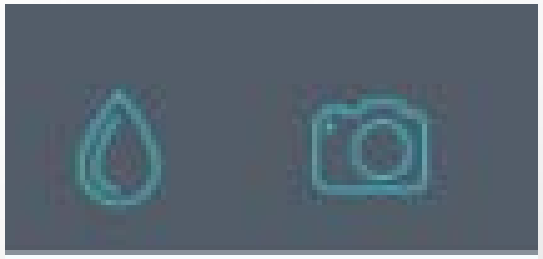


INSPECTION DATA ENTERED AT SITE

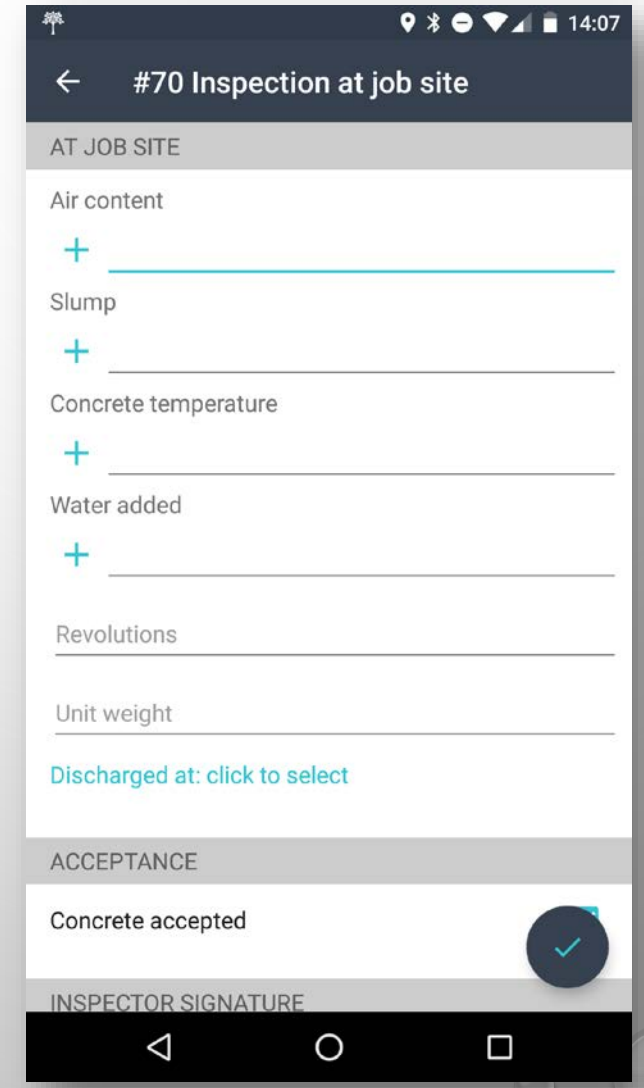


DRIVER TABLET*





SMART PHONE


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

INSPECTOR'S SIGNATURE

INSPECTION ON SITE

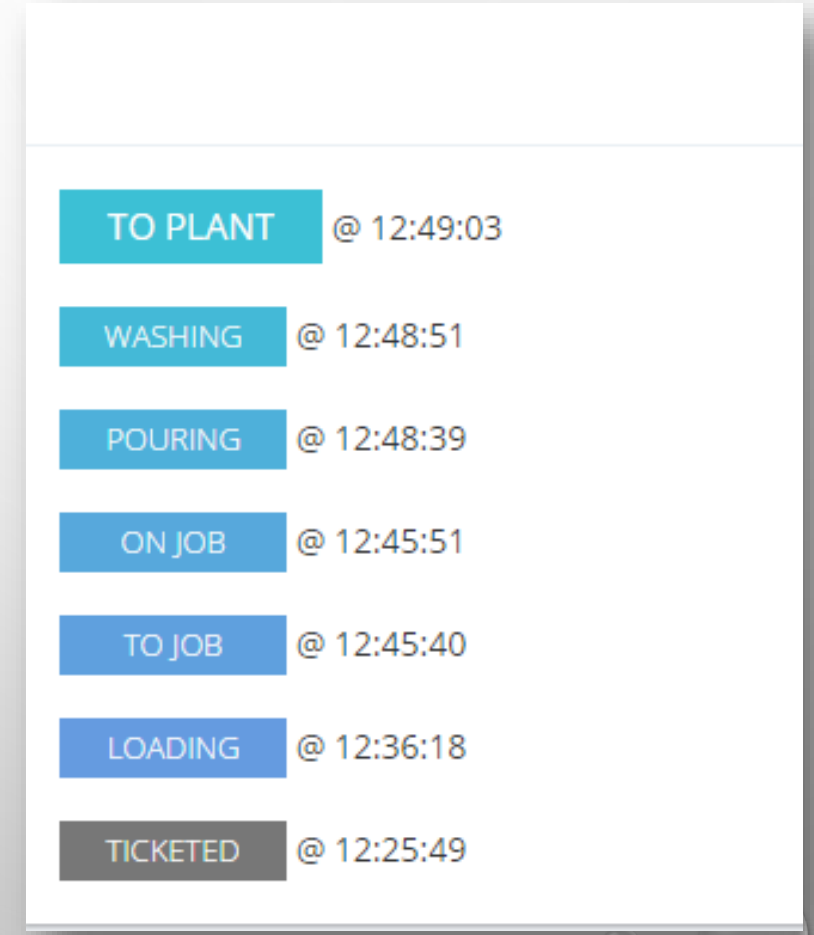
INSPECTOR: Ryan utter

ACCEPTED

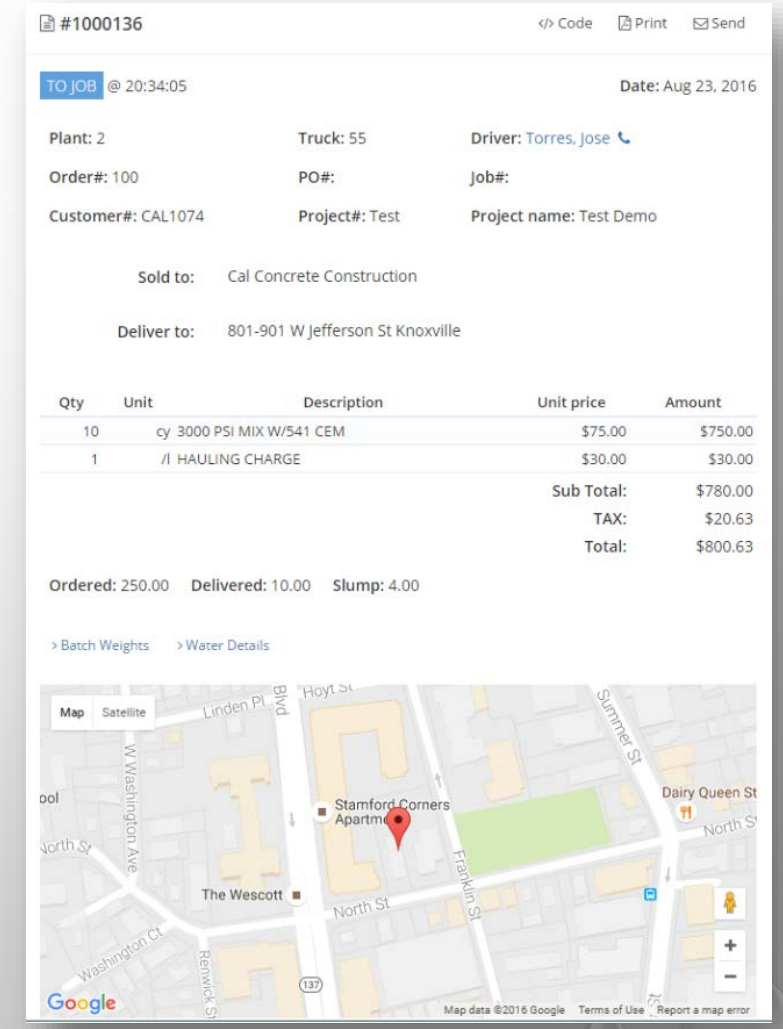
NOTES:
Sta 76+98 lt

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

KEY TIMES RECORDED



PINS DROPPED ON MAP



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Plant: 2 **Truck:** 55 **Driver:** Torres, Jose

Order#: 100 **PO#:** **Job#:**

Customer#: CAL1074 **Project#:** Test **Project name:** Test Demo

Sold to: Cal Concrete Construction

Deliver to: 801-901 W Jefferson St Knoxville

Qty	Unit	Description	Unit price	Amount
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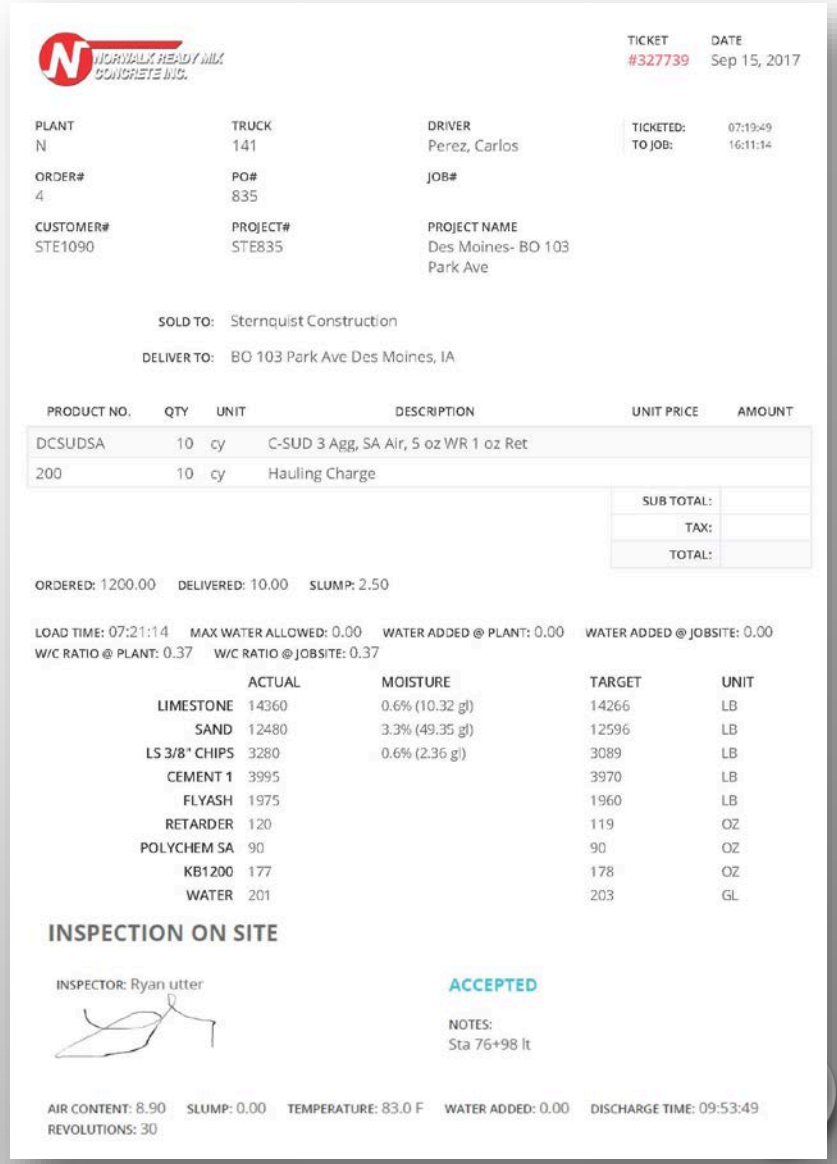
1	/I	HAULING CHARGE	$30.00	$30.00
			Sub Total:	$780.00
			TAX:	$20.63
			Total:	$800.63

Ordered: 250.00 **Delivered:** 10.00 **Slump:** 4.00

› Batch Weights › Water Details

TICKETS EMAILED OR .PDF DOWNLOADABLE



NORWALK READY MIX CONCRETE INC.

TICKET #327739 DATE Sep 15, 2017

PLANT	TRUCK	DRIVER	TICKETED:	07:19:49
N	141	Perez, Carlos	TO JOB:	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

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: 10.00 SLUMP: 2.50

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

	ACTUAL	MOISTURE	TARGET	UNIT
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FLYASH	1975		1960	LB
RETARDER	120		119	OZ
POLYCHEM SA	90		90	OZ
KB1200	177		178	OZ
WATER	201		203	GL

INSPECTION ON SITE

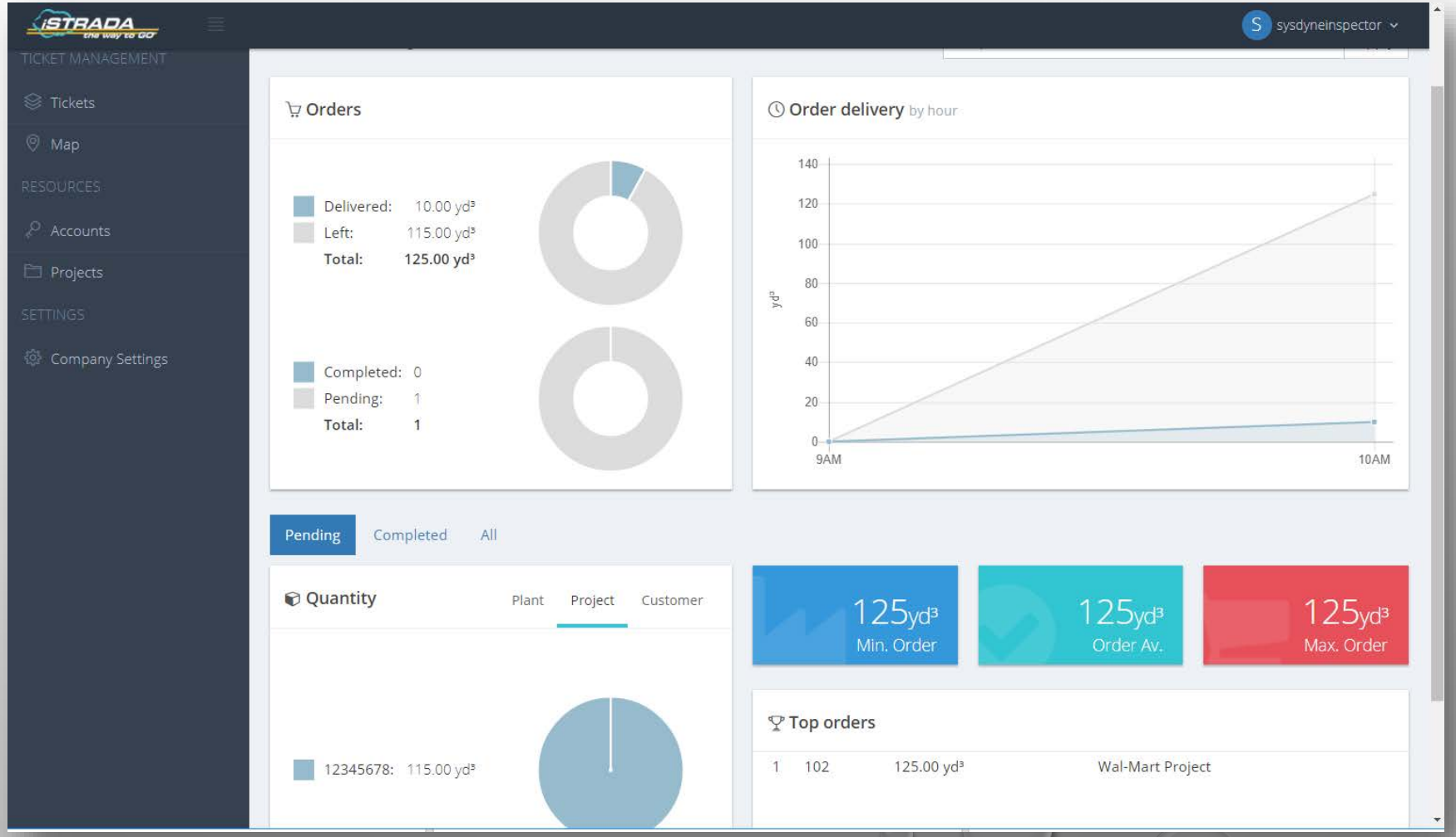
INSPECTOR: Ryan utter

ACCEPTED

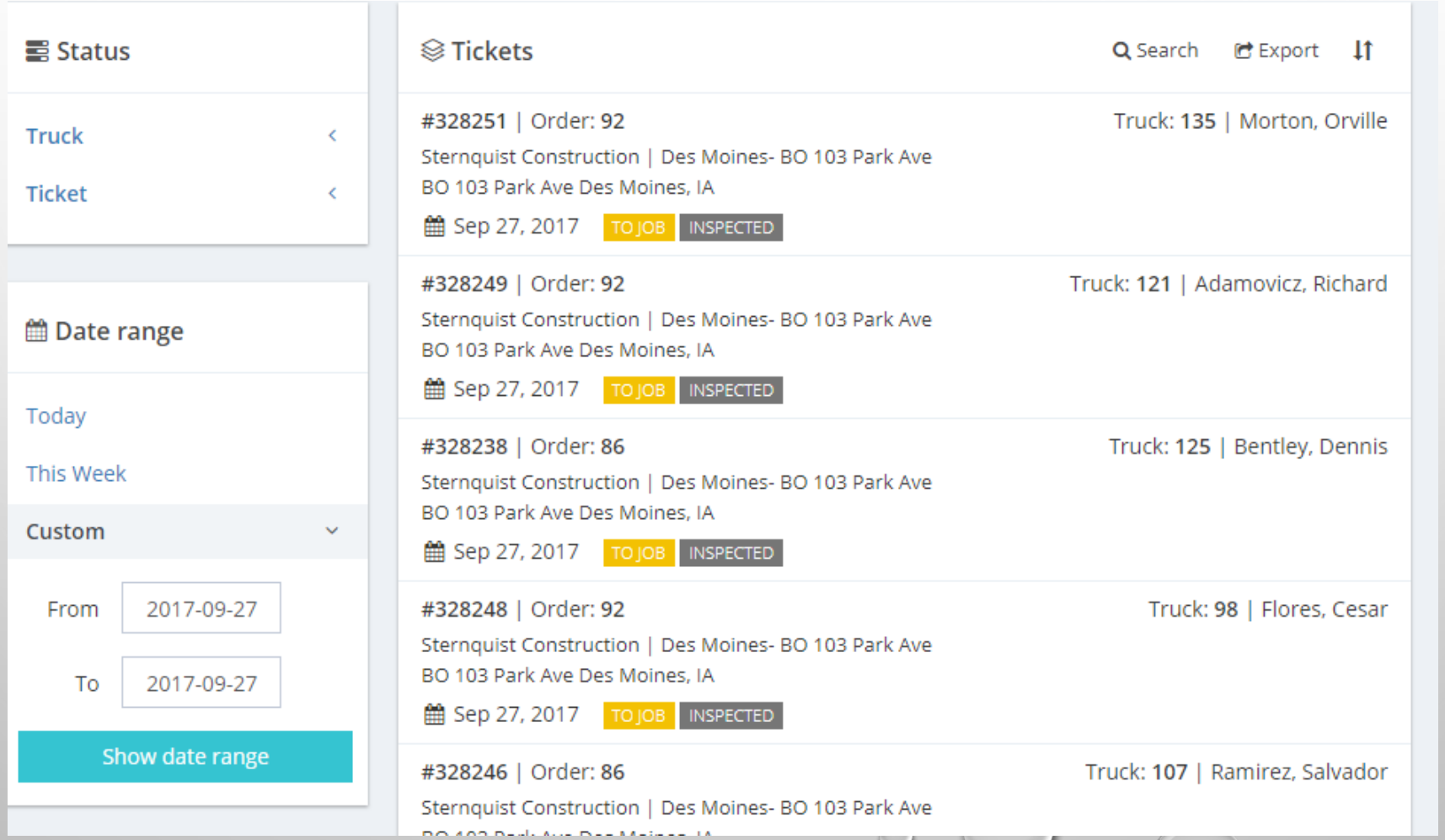
NOTES:
Sta 76+98 lt

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

DASHBOARD OF POUR



TICKET BOARD



WHAT DOES THE CITY INSPECTION STAFF NEED TO GET READY

- LAPTOP, TABLET, OR SMART PHONE – ANY BRAND TYPICALLY WORKS
  - INTERNET CAPABILITY
    - CELLULAR DATA PLAN OR HOTSPOT
    - OFFLINE MODE ON DRIVERS TABLET
  - BROWSERS SUPPORTED
    - IE, CHROME, FIREFOX, SAFARI, OTHERS…
- USER NAME AND PASSWORD FOR SECURITY
- GOOD COMMUNICATION WITH CONTRACTOR/CONCRETE SUPPLIER!

QUESTIONS?