Planning for Success

Chuck Fuller

Quality Pavement Through Communication

Chuck Fuller: Texas Asphalt Pavement Association

2025 Texas Quality Asphalt Pavement Award Winners

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

LONE STAR PAVING

Specialty Project

CITY OF KERRVILLE 1889 TEXAS

TEXAS MATERIALS A CRH COMPANY

City Street

City of Dallas

FORT WORTH®

Large Airport

Austin

DENTON

JAGOE-PUBLIC COMPANY DENTON, TEXAS

Small Airport Category

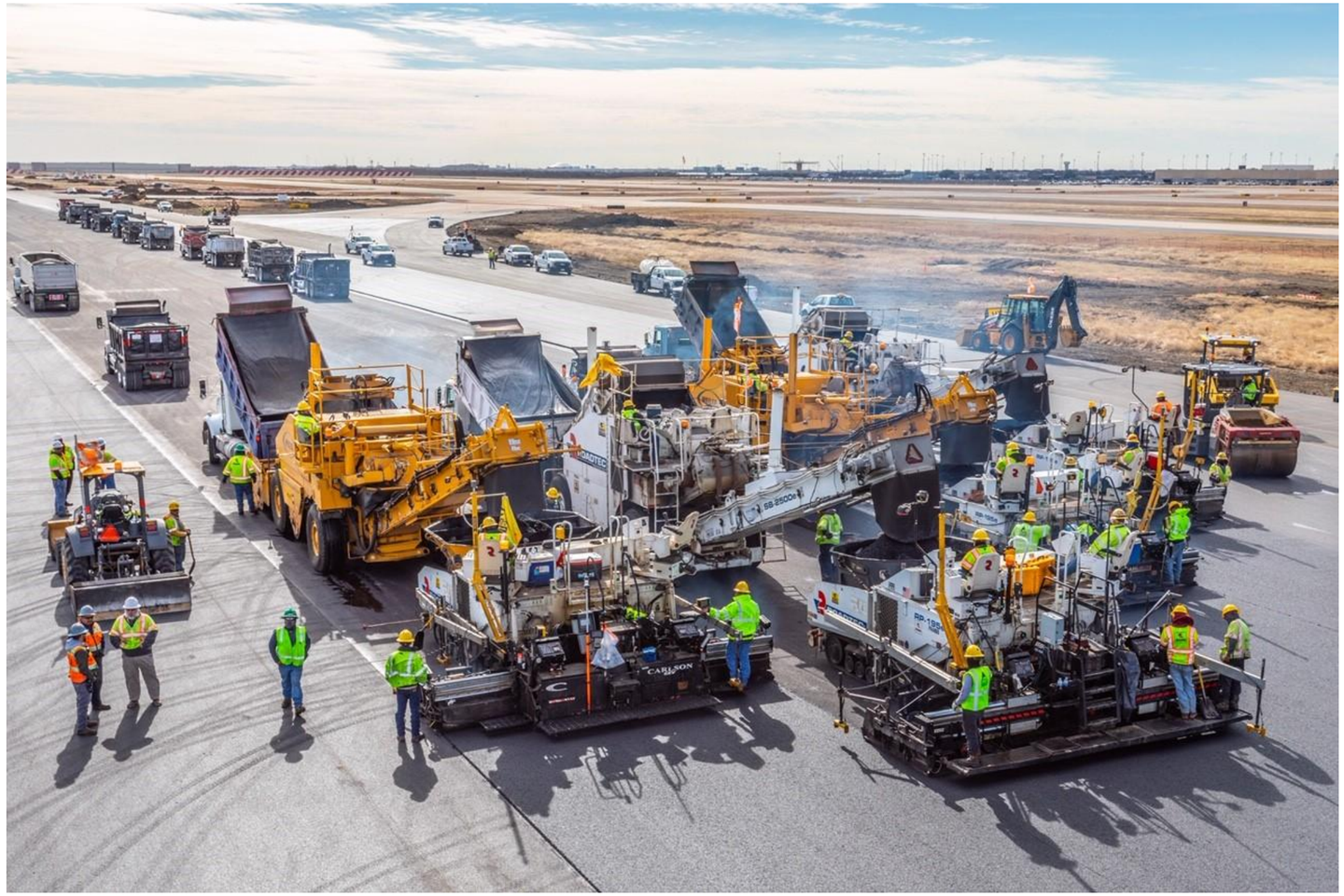
Positive
Nuetral
Poison


"Nothing Bad Happens Until Something Bad Happens."

COMMUNICATION

PAVING IS A TEAM PROJECT

- Including Management
- Goal is Non-Stop Paving
- Balanced Paving



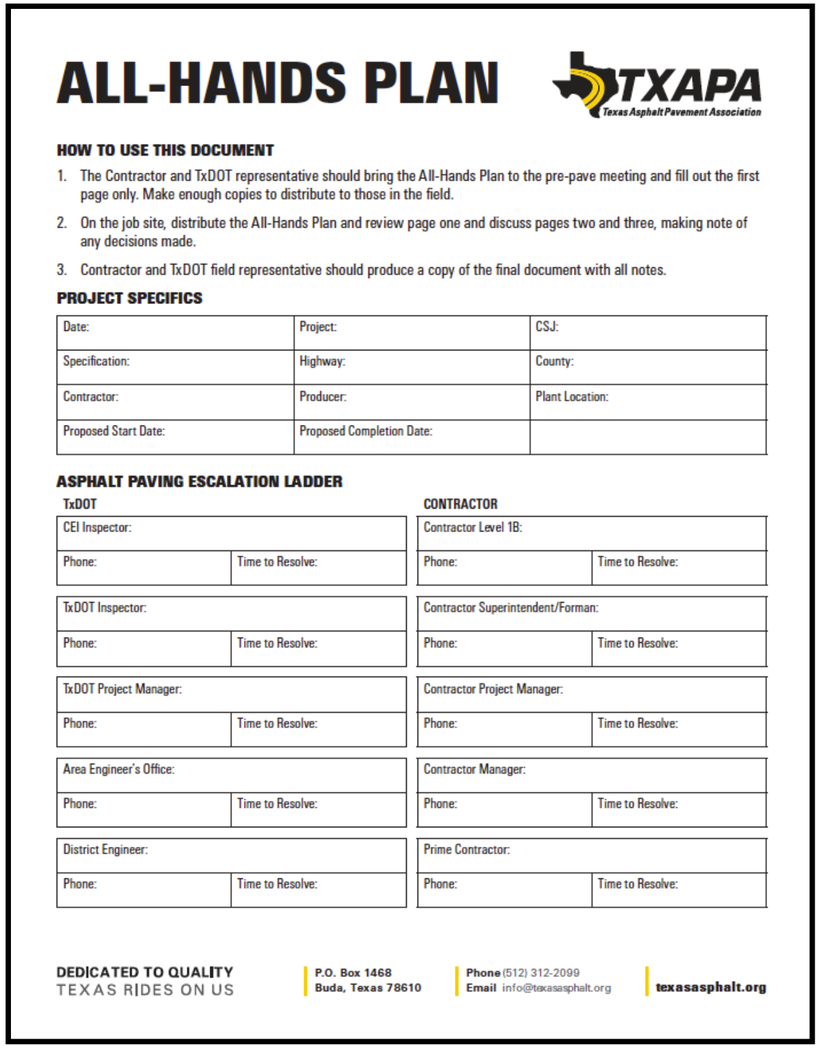
QUALITY CONTROL PLAN (QCP)
DEVELOP & FOLLOW

Submit a written QCP before the mandatory pre-paving meeting
Receive approval of the QCP before the beginning of production. Include the following items in the QCP:

- Project Personnel “Certifications
- Production “Asphalt Plant”
- Transporting “Trucking”
- Placement “Laydown”
- Compaction “Rolling”

AGENDA FOR ASPHALT
PRE-PAVING MEETING

- Project Information
- Project Staffing
- Project Materials
- Production - Sampling - Testing
- Placement - Sampling - Testing
- Construction Procedures
  (Phasing - Ride Quality)



ALL-HANDS PLAN

TXAPA
Texas Asphalt Pavement Association

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Date:	Project:	CSJ:
Specification:	Highway:	County:
Contractor:	Producer:	Plant Location:
Proposed Start Date:	Proposed Completion Date:	

ASPHALT PAVING ESCALATION LADDER

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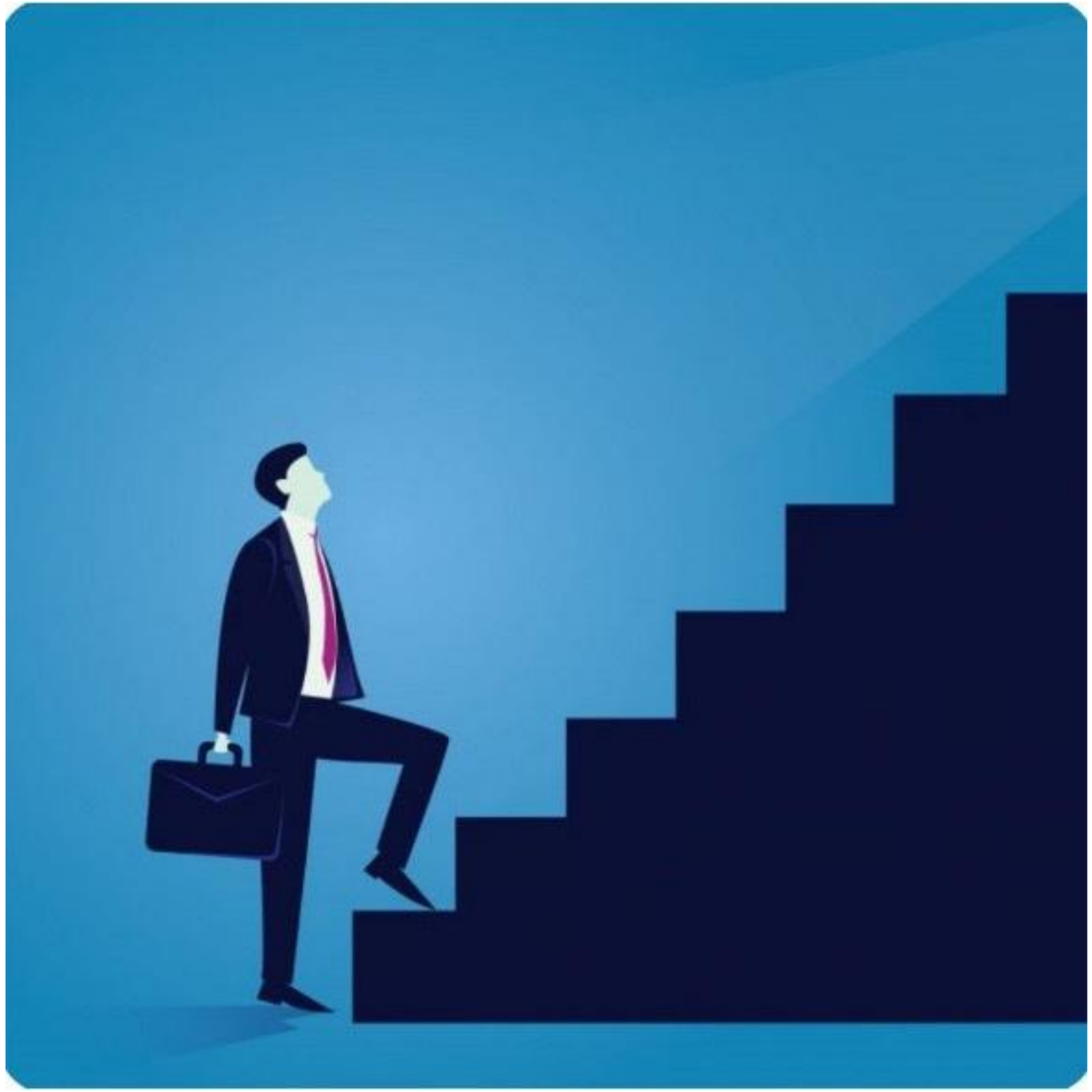
PROJECT INFORMATION

- Roadway
- County
- Location
- Start Date
- Producer
- Crew Placing

PROJECT
STAFFING

- Owner Engineer
- Owner Project Manager
- Owner Inspector
- Contractor Super
- Contractor Quality Control
- Plant Supervisor

Escalation Ladder



PRODUCTION

- QCP Approved
- Mix Design Approved
- Lot Size - Testing
- Binder - Testing
- Reporting Timeframe

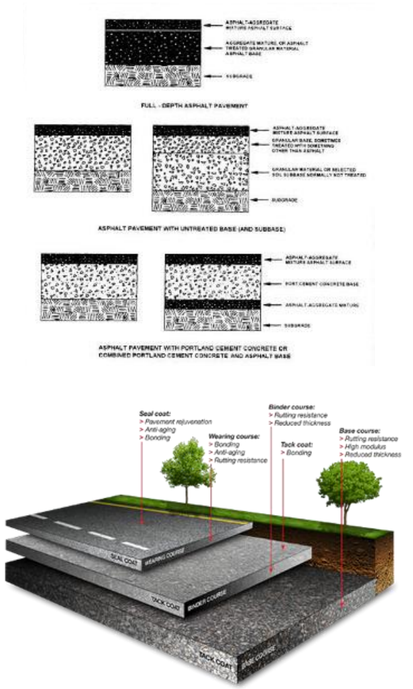
PLACEMENT

- Min. - Max. Lift Thickness
- Min. - Max Temperatures
- Density Locations
- Exempt Areas
- Segregation
- Mix Tickets - Yield

CONSTRUCTION PROCEDURES

- Phasing
- Traffic Control
- Building Edge
  (Driveway - Intersection)
- Ingress - Egress
- Surface Irregularities
- Straight Edge

PAVING PLAN,
WIDTHS, OFFSETS, & THICKNESSES



BALANCE PRODUCTION,
DELIVERY, COMPACTION, & SMOOTHNESS

BALANCE PRODUCTION, DELIVERY,
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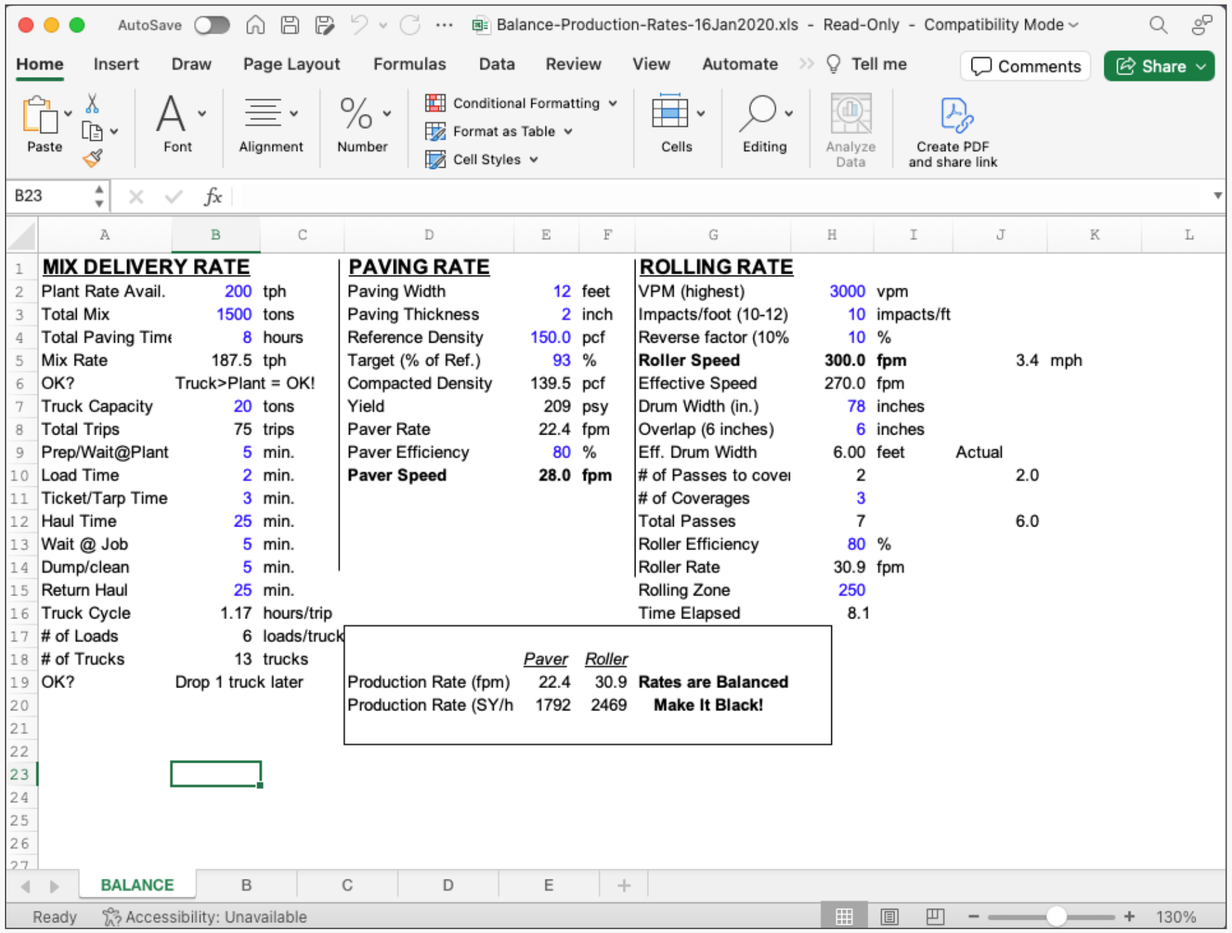
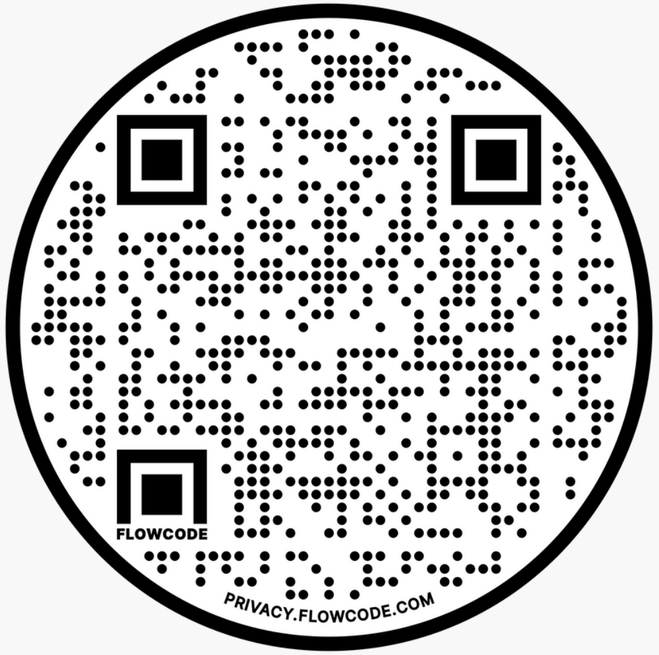


	A	B	C	D	E	F	G	H	I	J	K	L
1	**MIX DELIVERY RATE**			**PAVING RATE**			**ROLLING RATE**					
2	Plant Rate Avail.	200	tph	Paving Width	12	feet	VPM (highest)	3000	vpm			
3	Total Mix	1500	tons	Paving Thickness	2	inch	Impacts/foot (10-12)	10	impacts/ft			
4	Total Paving Time	8	hours	Reference Density	150.0	pcf	Reverse factor (10%	10	%			
5	Mix Rate	187.5	tph	Target (% of Ref.)	93	%	**Roller Speed**	**300.0**	**fpm**		3.4	mph
6	OK?	Truck>Plant = OK!		Compacted Density	139.5	pcf	Effective Speed	270.0	fpm			
7	Truck Capacity	20	tons	Yield	209	psy	Drum Width (in.)	78	inches			
8	Total Trips	75	trips	Paver Rate	22.4	fpm	Overlap (6 inches)	6	inches			
9	Prep/Wait@Plant	5	min.	Paver Efficiency	80	%	Eff. Drum Width	6.00	feet	Actual		
10	Load Time	2	min.	**Paver Speed**	**28.0**	**fpm**	# of Passes to cover	2			2.0	
11	Ticket/Tarp Time	3	min.				# of Coverages	3				
12	Haul Time	25	min.				Total Passes	7			6.0	
13	Wait @ Job	5	min.				Roller Efficiency	80	%			
14	Dump/clean	5	min.				Roller Rate	30.9	fpm			
15	Return Haul	25	min.				Rolling Zone	250				
16	Truck Cycle	1.17	hours/trip				Time Elapsed	8.1				
17	# of Loads	6	loads/truck									
18	# of Trucks	13	trucks									
19	OK?	Drop 1 truck later										

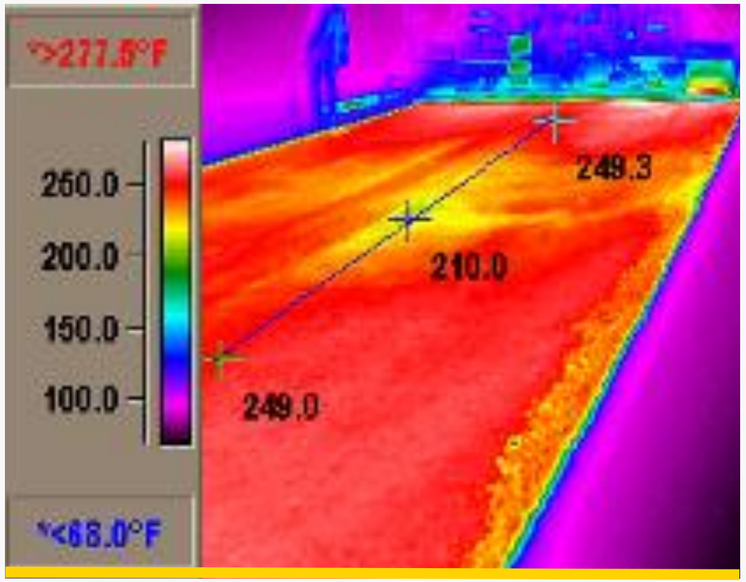
	Paver	*Roller*	
Production Rate (fpm)	22.4	30.9	**Rates are Balanced**
Production Rate (SY/h	1792	2469	**Make It Black!**



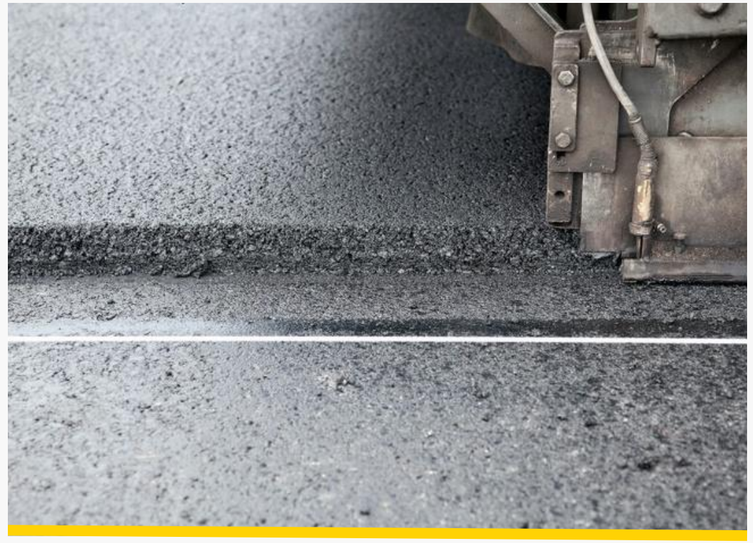
Balance-Production-Rates
QR code

TRANSFER MIXTURE INTO PAVER AVOIDING SEGREGATION & SPILLAGE

PAVER OPERATIONS



QUALITY LONGITUDINAL AND TRANSVERSE JOINTS



Some unique issues that can be discussed and agreed upon before construction

- Contractor doesn’t want to throw mix away
- Owner wants a smooth, durable, long-lasting pavement
- Discuss before pavement work begins
- Discuss payment options

ALL-HANDS PLAN

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ALL-HANDS PLAN

PRODUCTION SIZE

4. Identify lot size: _____tons
5. The Inspector and Paving Superintendent should have a discussion prior to making any changes to the lot size. Notify lab and plant personnel of any changes. The goal is to choose a lot size that consistently achieves four sublots per day.
6. Discuss where to end lots. (Exact Tonnage, Nearest Ticket to Tonnage, etc.) _____
7. Discuss incomplete lots and sublots. Will you carry into the following production day or close out and begin a new lot?

POINTS OF DISCUSSION

1. Safety:
   a. Identify vehicles that have safety kits, fire extinguishers, and spill kits.
   b. Identify the nearest emergency room.
   c. Identify individuals who are certified in CPR and first aid.
2. Discuss the Traffic Control Plan.
3. Review applicable Special Provision: **SP** _____
4. Review General Notes (material transfer device, backfill requirements etc.).
5. Surface Irregularities: If a pattern of surface irregularities is detected (including, but not limited to, color, texture, roller marks, tears, uncoated aggregate particles, or segregation):
   d. The Contractor shall make an investigation into the cause(s) and immediately take the necessary corrective action.
   e. Placement may continue for no more than one (1) day of production from the time the Contractor is first notified and while corrective actions are being taken.
   f. If no corrective action is taken or if the problem exists after one (1) day, paving shall cease until the Contractor further investigates the causes and the Engineer approves further corrective action.
   g. Remove and replace, at the Contractor's expense, any mixture that does not bond or has surface irregularities.
6. Discuss how to achieve the required Ride Schedule (Item 585).
7. Discuss the need to establish random numbers at the end of the sub-lot and distribute accordingly.
8. Roadway cores:
   a. Discuss lane closures and safety in cutting the cores.
   b. Discuss not being able to cut the core at the end of the shift. When is the next available time to cut the cores?
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ALL-HANDS PLAN

WHAT IF?

Issue	Question	Suggestion	Plan of Action
Rain event during placement	Do we wait it out and continue to pave?	The area in question is marked and identified as an isolated area. Rely on QA test results as to whether material is acceptable or not.	
Equipment breaks down	Do we wait it out for new equipment to show up or repair existing equipment?	The area in question is marked and identified. Rely on QA test results as to whether material is acceptable or not. If break downs are reoccurring, have standby equipment available on site.	
Issues causing trucking delays	What if delay between trucks is greater than: - minutes?____ - temperature?____	Move the paver away from the mat. Clean out and proceed with a new transverse joint when the trucking issue is resolved.	
Unexpected event leading to road user cost	What if an accident or other issues not caused by the contractor cause a delay in getting off the roadway in time?	Each event should be addressed individually. The main objective is to provide the traveling public the least inconvenience and safest travel. Address lane drop-offs and transitions.	
Trucking issues	What if the load is overweight?	There is no payment for material over the accepted weight limit.	
Trucking issues	Is the truck equipped with an adequate tarp?	Utilize the load in question if the temperature is acceptable and make aware a need for the correct tarp.	
Trucking issues	What if loads are dumped out of order?	Utilize the load and make aware a need for the correct order to verify tonnage.	
Load issues	What if the load is hot, cold, contaminated, or has uncoated aggregate?	Utilize the QA testing as much as possible to prove or disprove material acceptability. Nobody wants to throw material away. Discuss if there is another use for the material (driveways, detours, backfill edges, etc.).	
Driving equipment on the new roadway	What if the new pavement gets scarred/marred?	During the Pre-Pave Meeting, it is discussed how equipment will be moved and parked along the project site, including crew trucks and personnel workers' vehicles. Hauling track machines and/or rollers may be required to and from the work site.	

ALL-HANDS PLAN

DAILY DEBRIEF

The Contractor Superintendent/Foreman debriefs daily with the Project Inspector to discuss recommended items, including:

- traffic control queue
- straightness of longitudinal joints
- smoothness of transverse joints
- overall appearance (segregation) of the roadway
- smoothness of overall ride
- any other item that can improve the quality and production of the project

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- PROJECT SPECIFICS
- ESCALATION LADDER

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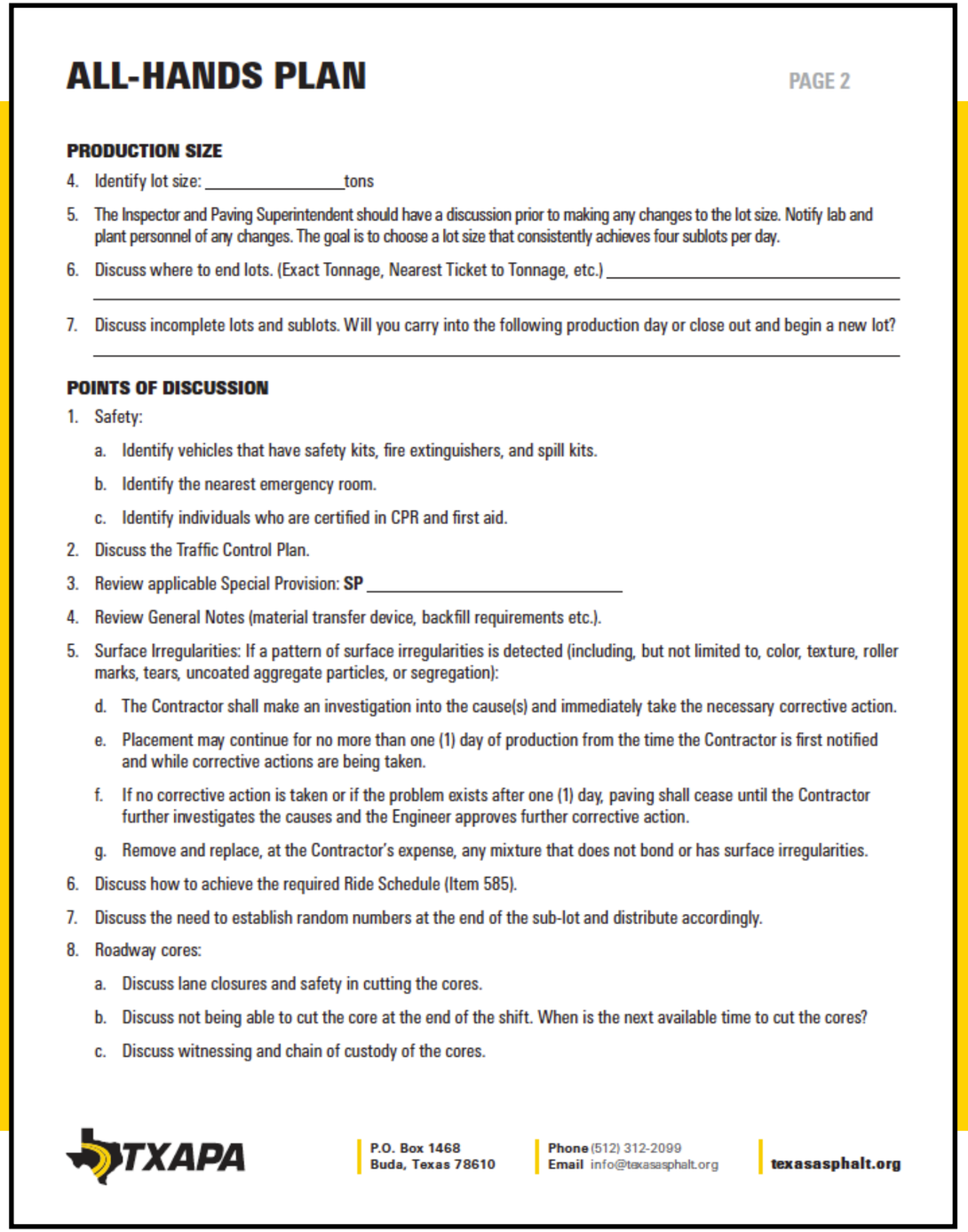
ALL-HANDS PLAN

- PRODUCTION SIZE
- POINTS OF DISCUSSION



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- DAILY DEBRIEF

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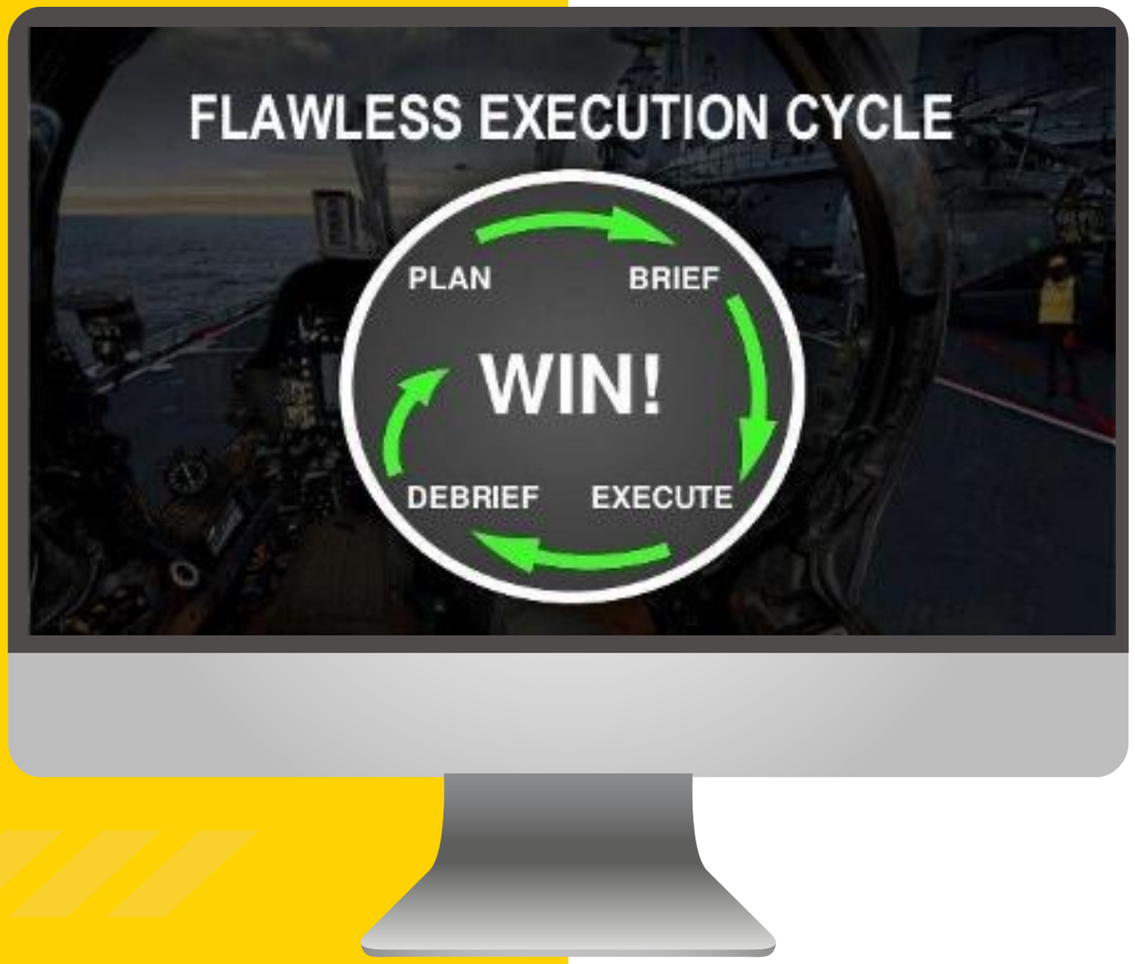
PAVEMENT PREP FOR OVERLAYS & MAINTENANCE WORK

- Physically look at pavement structure
- If repair is needed - look for the cause
- Understand the need to repair
- Utilize the tools in the toolbox
- If not corrected be aware of the consequences

TOP 5 TAKEAWAYS

1. Communication
2. Quality Control Plan
3. Escalation Ladder
4. Resource Page
5. All Hands (Debrief)



WHAT DO YOU SEE?

WHAT DO YOU SEE?

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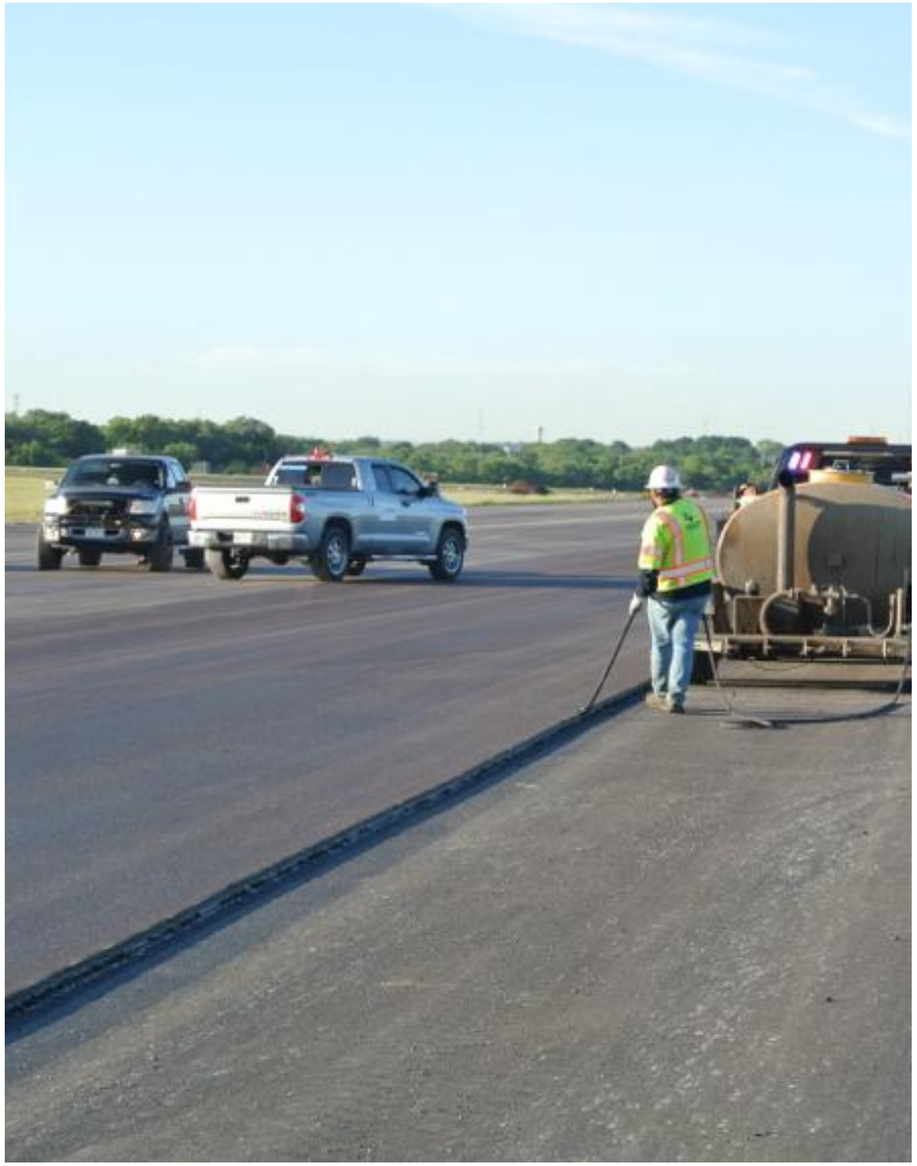

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Questions?

Chuck Fuller

512-657-7970

Send us an email

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