

Strategic Maintenance Fleet: Enhancing In-House Asphalt Repair

The City of Fort Bragg is proposing a strategic shift toward self-performing asphalt repairs to improve responsiveness to community complaints and increase repair quality. This transition requires a specialized fleet of heavy machinery and specialized attachments to handle hot-mix asphalt logistics and installation.



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February 23, 2026

OPERATIONAL REALIGNMENT

Street Rehabilitation & Maintenance Strategy

Establishing In-House Capacity & Oak Street Investigation

RECOMMENDATION: BALANCING IMMEDIATE NEEDS WITH OPERATIONAL SUSTAINABILITY



DECISION POINT 1: ESTABLISH IN-HOUSE STREETS CREW

- Procure equipment package for **efficient road repair**.
- Transition to hybrid delivery model to **reduce contractor reliance**.
- Goal: **Improve response times** and maximize street funding.



DECISION POINT 2: OAK STREET STORM DRAIN INVESTIGATIONS

- Proceed with **investigative potholing** and **utility verification**.
- Confirm conditions for **future rehabilitation design**.

NOTE: Staff is NOT requesting authorization for Level 3 or 4 rehabilitation work at this time.

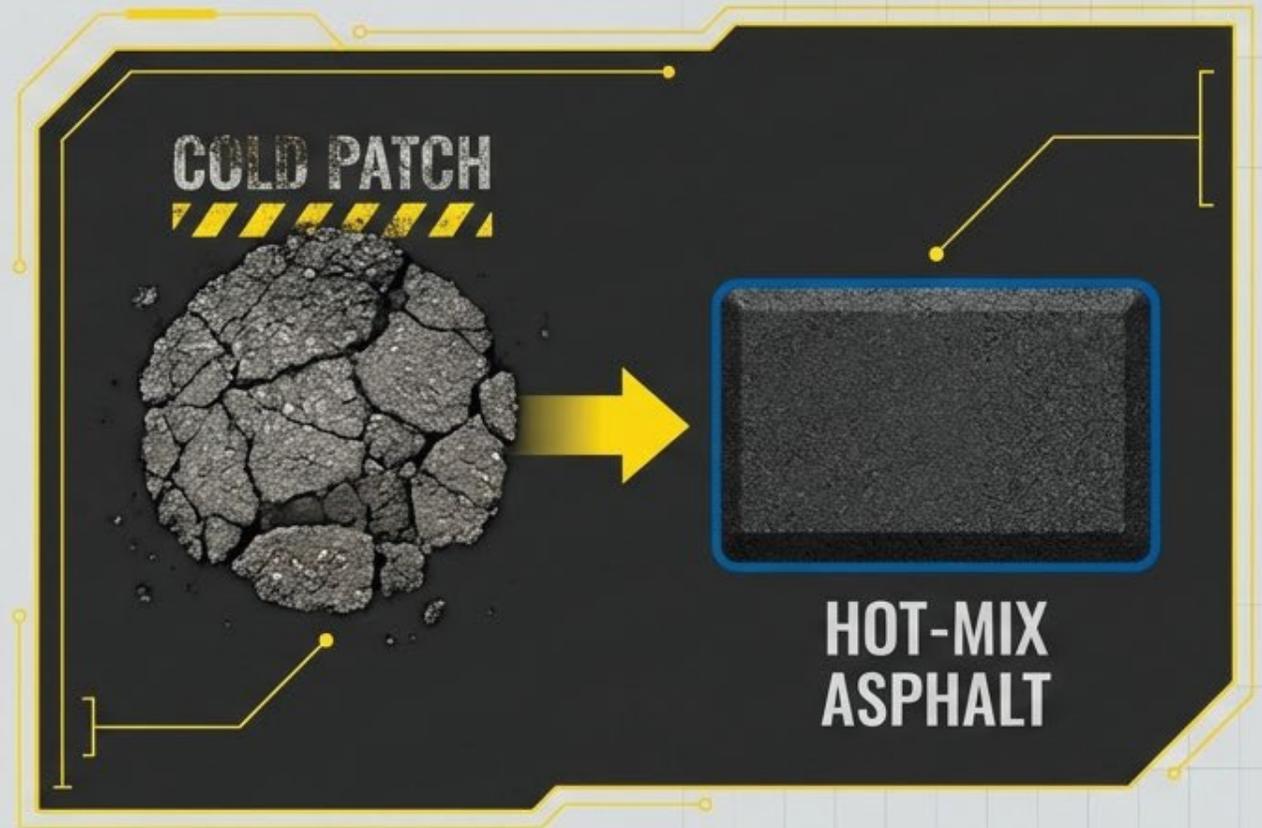
THE CURRENT CHALLENGE: REACTIVE & CONTRACTOR-DEPENDENT

THE PROBLEM:

- **Limited Capacity:** Public Works currently performs only temporary “cold patch” repairs.
- **High Costs:** Reliance on expensive outside contractors for minor maintenance.
- **New Pressure:** Broadband construction has left temporary trench patches citywide.

THE CONSEQUENCE:

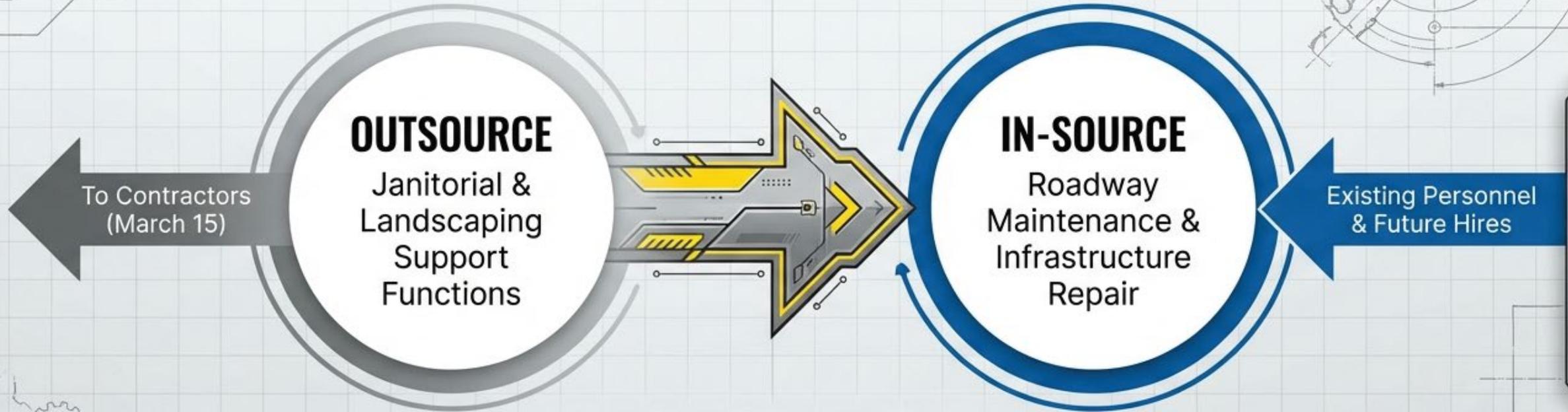
- Delayed response times and high mobilization costs.



Reference image



OPERATIONAL REALIGNMENT: A HYBRID DELIVERY MODEL



STRATEGIC BENEFITS

RESPONSIVENESS

Address pothole complaints faster than capital projects.

QUALITY

Transition from cold patches to permanent hot-mix.

DEVELOPMENT

Advanced machinery training for internal staff.



NOTE: Operational changes will be implemented in phases.



OPERATIONAL LOGISTICS & STAFFING



THE CREW MODEL (4-5 PERSON TEAM)

- ✓ 2 Equipment Operators
- ✓ 2-3 Flaggers/Laborers (Seasonal/Part-time)
- ✓ **NEW HIRE:** 1 Full-Time Maintenance II (Must possess Class A CDL)

FACILITY REQUIREMENTS

- ✓ **Storage:** Need ~5,000 sq ft (indoor/covered)
- ✓ **Purpose:** Protect \$500k+ equipment investment

THE TOOLKIT: EQUIPMENT FOR PRECISION & AGILITY

KIT OF PARTS



Caterpillar 265 Compact Track Loader

Price: \$174,905

Note: Grinding, grading, and paving prep.



Thermo-Lay Asphalt Trailer

Price: \$377,553

Note: Keeps asphalt workable for 3 days.



Tilt-Deck Equipment Trailer

Price: \$13,266.50

Rapid mobilization.



Skid Steer Paver Attachments

Price: \$6,119

Precision placement.

TOTAL INVESTMENT:
~\$571,845

THE MULTI-TOOL: CATERPILLAR 265 TRACK LOADER



GRINDING

Cold planer attachment mills failed asphalt.



SWEEPING

Broom attachment clears debris.



COMPACTING

Vibratory roller ensures professional-grade density.

Value Proposition

Replaces "drive-over compaction" with engineered surface preparation.



OVERCOMING THE GEOGRAPHIC CONSTRAINT



WITHOUT THERMO-LAY:



Asphalt cools and becomes unusable during transport. Forced to use temporary cold patch.

WITH THERMO-LAY TRAILER:



Material stays at ideal temperature for up to 3 days. Enables professional-grade, permanent repairs.

DEFINING CAPABILITIES: THE 4-LEVEL MATRIX

**NEW
IN-HOUSE
CREW SCOPE**

LEVEL 1	Simple Patch / Stop Gap	Scope: Precision repairs, pothole patching, linear wheel-path cracking.
LEVEL 2	Hybrid Coordination	Scope: City crews perform grinding/prep; contractors hired for paving.
LEVEL 3	Advanced Pavement	Scope: Full edge-to-edge failure requiring full grind and overlay.
LEVEL 4	Complex Engineering	Scope: Subsurface failures, utility conflicts, drainage issues.

**REMAINS
OUTSOURCED**

NOTE: Operational changes will be implemented in phases.

DEFINING THE WORK: LEVELS 1 & 2

LEVEL 1: PRECISION REPAIRS

- **Scope:** Simple patch paving (stop gap), grind & pave prep.
- **Locations:** Alley N 400D, Broadband utility patching.

LEVEL 2: HYBRID COORDINATION

- **Scope:** City crews perform grind/surface prep; contractors hired for paving/stripping.
- **Locations:** Walnut Street, Oak Street (Sanderson to Dana).

INTERNAL MAINTENANCE & CREW DEVELOPMENT (LEVELS 1-3)



Level 1: Precision Repairs
Focused on patching and repairs (stop gap), grind & pave prep. where adjacent redmeit pavement remains in gocation in condition.

Level 2: Hybrid Coordination
Scope: City crews perform grind/surface prep; contractors hired for paving/stripping.

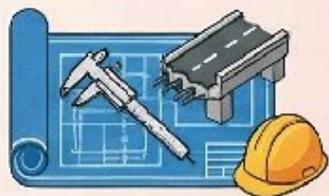


MANAGING EXPECTATIONS: DEFERRING LEVEL 3 & 4



Level 3 & 4: Structural Failures

Projects involving full edge-to-edge failure, poor subgrade, or severe drainage issues.



Locations for External Triage

South Harrison, Chestnut, West Street, Major utility repairs require professional engineering.



Future Funding Strategy

Level 3/4 sites will be triaged for LPP competitive grants in November 2026.

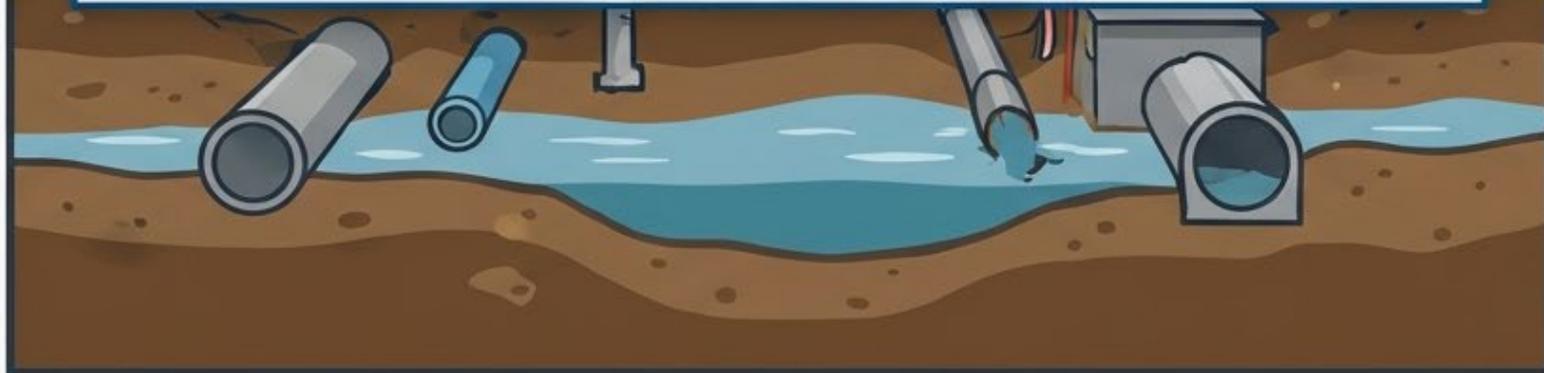
PROFESSIONAL ENGINEERING & COMPLEX PROJECTS (LEVEL 4)

DEFERRED PROJECTS:

- South Harrison (Subsurface failures)
- Chestnut (Utility compaction)
- West Street (Edge-to-edge failure)



Requires Design-Bid-Build Delivery.
Candidates for future LPP Grants.



THE OAK STREET CORRIDOR



Challenge Box

- A complex City corridor.
- Collapsed storm drain segments between California Way and Sanderson.
- Aging utilities and documented pavement failures. 

GOAL: Complete targeted investigative work to confirm conditions and develop a defensible basis for design.

OAK STREET INVESTIGATION SCOPE

1.

STORM DRAIN CCTV

Certified inspection and defect coding.

2.

STORM DRAIN POTHOLING

Up to 8 hours / 10 potholes.

3.

CONDITION ANALYSIS & 15% CONCEPTUAL DESIGN

Rehab vs. replacement strategies.

WHY NOW?

- The storm drain system is in a state of collapse and represents a safety risk.
- Data strengthens position for November 2026 LPP Competitive Grant.

SYNERGY: LEVERAGING INTERNAL CAPACITY FOR SAVINGS



Lumos Base Proposal: \$82,050

Deduct (City Crews Perform Task 2): - (\$19,000)

REVISED COST: \$63,050

This is the first practical application of the “Hybrid Delivery Model,” reducing consultant costs by utilizing internal labor for excavation and traffic control.

FINANCIAL STRATEGY & FUNDING

EQUIPMENT INVESTMENT

- Total Estimated Cost: ~\$571,845
- Available LSR Funds: \$187,714



SHORTFALL: ~\$211,701
(Requires Budget Amendment)

INVESTIGATION INVESTMENT

- Lumos Revised Base: \$63,050
(Recommended)
- Optional Sewer Tasks: \$31,900
(If authorized)

STAFF RECOMMENDATIONS & DIRECTION



ACTION 1: ESTABLISH IN-HOUSE CREW

- Proceed with equipment procurement (\$571k package).
- Begin staffing recruitment (Maintenance II).



ACTION 2: OAK STREET INVESTIGATION

- Authorize Lumos contract.
- Utilize City crew for potholing to realize savings.

Investing in capacity now to save on repairs later.