



ACPA Technical Services Briefing Report for 2023 Q4

ACPA delivers consultation, specification interpretation, education and other technical services to members, State and Federal Agencies, and Chapter/State Partners. These services translate to millions of dollars annually in industry savings or profit/revenue potential.

The summary provided is a snapshot of work performed during CY2023 Q4, compiled to convey the value provided by ACPA's technical services staff. Additional work like market development and advocacy has been omitted for brevity.



Airport Market

ACPA assisted contractors and provided guidance to airport sponsors, design engineers and agencies. Though difficult to quantify immediately, the value of potential cost savings total more than \$1.2M.



Direct Agency Assistance

Direct Agency Assistance benefited agencies and owners, contractors and suppliers, and the general concrete paving industry to facilitate market growth.



Highway/ SLR/ Industrial Market

ACPA provided the potential for significant savings, though the value is difficult to quantify. ACPA support also includes advocacy efforts at the Federal and State agency levels, which create additional market opportunities.



Direct Chapter/Affiliate Support

ACPA provided technical assistance and training/education sessions to Chapter/State partners and staff, translating to professional development, continuing education and market promotion.



Airport Market

ACPA's efforts focused largely on assisting contractors and providing guidance to airport sponsors, design engineers and agencies. Benefits often are difficult to quantify immediately, but the value of potential and realized member cost savings total more than \$1.2M.

Beneficiaries of ACPA Efforts During Q4

Southern Region Military Airfield

Assisted contractor in confidential dispute concerning removing and replacing large amounts of pavement, resulting in \$1.2M saved in unnecessary pavement removal.

Western-Pacific Region FAA Airport

Assisted contractor in confidential dispute concerning removing and replacing pavement, with up to \$20M at risk.

Great Lakes Region Military Base

Local base engineers instructed a contractor to remove, crush and haul-off existing pavement. Worked with contractor and military pavement expert to facilitate discussion allowing contractor to crush and reuse it as base material, resulting in significant savings.

Northwest Region Military Base

Responded to contractor's questions on most-recent update of Tri-Services concrete specification with provision to test for air entrainment in front of and behind the slip-form paver. Result will lead to a change to Tri-Services' concrete specification language to clarify. The military plans to issue waivers to specification to eliminate confusion.

FAA Northeast Region Airport

- Provided interpretation of concrete admixtures specification of a design engineer on allowable admixtures for concrete mixtures under the P-501 specification.
- Provided recommendations to designer on requirements for California Profilograph measurement requirements for airfield pavement. Eliminated need for contractors using outdated 1950s technology California Profilograph equipment.

FAA Southern Region Airport

- Aided two contractors on two projects. Both issues regard acceptance criteria in P-307 cement treated permeable base. Staff worked with FAA to change acceptance criteria so projects could continue, eliminating unnecessary removal and replacement of test sections and providing alternative methods of material acceptance. This effort will result in specification change.
- Worked with contractor to fix rejected mixture design.
- Worked with contractor and engineer on taxiway base installed 2" below planned grade. Engineer wanted contractor to remove and replace base before paving. ACPA recommended paying for base at prorated deduct and adding 2" of concrete instead, resulting in significant savings and a stronger pavement section.
- Worked with airport sponsor to investigate premature scaling and cracking that looks like ASR on a terminal apron. Airport is performing a petrographic analysis.

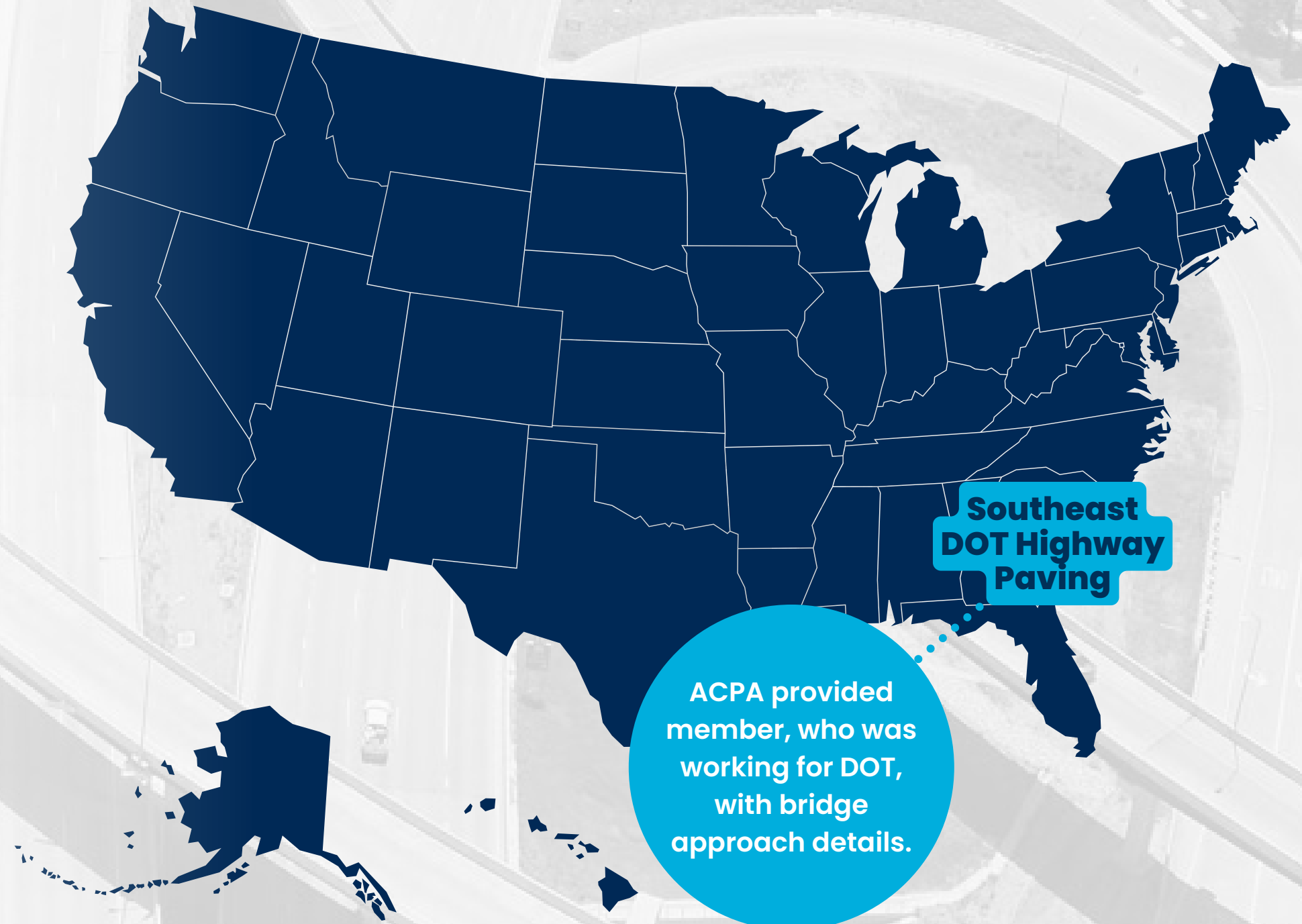




Highway/SLR/ Industrial Market

ACPA provided the potential for significant contractor savings, though the total value is difficult to quantify. This portion of the report does not include advocacy efforts at the Federal and State agency levels, which create and preserve additional market opportunities.

Beneficiaries of ACPA Efforts During Q4





Direct Agency Assistance

Direct Agency Assistance benefits:

1. Agencies/owners by addressing concerns before they become problems, making it easier to choose concrete;
2. Contractors and suppliers by advocating for constructible designs and improved specifications; and
3. Concrete paving industry by ensuring concrete paving construction goes smoothly and pavements perform to expectations, facilitating market growth.

Beneficiaries of ACPA Efforts During Q4

FAA Headquarters

FAA started next update of Advisory Circular 150/5370-10H and requested ACPA review of current Advisory Circular. ACPA compiled member comments for FAA to review. FAA Headquarters engineers attended ACPA Annual Meeting Airport Forum and discussed proposed changes, soliciting further input.

FHWA Eastern Federal Lands

Parkway design issue existed with jointing plan problems and national park constraints. ACPA provided guidance for more modern design.

Southwest Highway Agency

Assisted with development of concrete preservation specifications.

Northwest Highway Agency

Assisted with value engineering to compare various pavement design strategies and construction operations for interstate highway reconstruction through metropolitan area.

Northwest Highway Agency

Served on research oversight panel for curling- and-warping study sponsored by agency.

Northeast Highway Agency

Assisted with guidance on accounting for geotextile fabric interlayer when using PMED for concrete overlay design.

Southern Highway Agency

Provided resources and consultation in planning concrete overlay project.

Southeast DOT

Met regarding potential overlay project and developed overlay designs.

Midwest DOT

Provided overlay design training.





Direct Chapter/ Affiliate Support

ACPA provided technical assistance and training/education sessions to Chapter/State partners, translating to professional development, continuing education and market promotion. ACPA also provided technical assistance to Chapter/State Affiliate staff in addressing technical issues for members.

ACPA CSEs

Developed and communicated resources for contractor EPD development to C/S group.

NE Chapter

Provided ACPA Position Paper on ADAB.

***New Technical
Service Efforts for Q4***





Other Industry/ Member Support

ACPA engages in activities that provide general but significant support and service to the concrete paving industry. The benefits of this work are difficult to quantify but important in protecting long-term industry interests.

Support in Q4

- Assisted SW agency with updating concrete pavement standard specifications.
- Prepared DBR specifications for consideration by AASHTO Comp.
- Participated in CP Tech Center Technical Panel about diamond grinding impact on airfields.
- Advanced ACI's Concrete Pavement Finisher Certification.
- Participated in International Road Federation Conference.
- Served on advisory panel for Streets and Roads Guide.
- Promoted concrete paving sustainability initiatives.
 - WAP Sustainability.
 - Worked with RC3 Group to get state DOTs, promoters and contractors ready to pursue FHWA sustainability-related funding.
 - Worked with NRMCA to navigate FHWA's needs for data on EPD collection and defining low carbon materials.
 - Worked on EPA grant application for EPD assistance with up to \$1.5M in EPD generation rebates.
- Reviewed and provided input to IGGA on sustainability calculator development.
- Assisted ISCP with sponsorships for International Conference on Concrete Pavements.
- Trained ACPA member on using and promoting PavementDesigner.
- Provided sustainability update slides for member.
- Published revised/updated dowel specifications.
- Wrote and reviewed article for Roads & Bridges magazine.



Workshops and Meetings Held During Q4

- Participated in agency value engineering process to evaluate options for rehabbing concrete pavement carrying heavy traffic.
- Participated in TRB Sealant Webinar providing information for developing joint sealing program in concrete pavements.
- Participated in evaluating measurement of SCRIM friction testing device—promoted by FHWA to replace traditional ASTM Locked Wheel Skid Trailer—at VTTI.
- Co-authored paper on concrete pavement performance and sustainability to present at upcoming ISCP Conference.
- Delivered airport paving workshop that included participation by FAA Headquarters’ engineers, Tri-Services’ engineers and other industry experts.
- Updated PCA’s Marketing forum on ACPA’s sustainability efforts.
- Participated in industry meeting to discuss EPD industry benchmarks.
- Held WAP Sustainability’s EPD Assistance kickoff webinar.
- Held sustainability presentations.
 - Highways USA Conference
 - SWCPA webinar program
 - ASCP Conference
 - Future Roads Conference
 - North Carolina workshop
 - ACEC sustainability podcast
- Conducted two workshops on roundabouts.
- Participated in TRB’s Concrete Pavement Construction Committee’s research needs meeting.
- Participated in NCC executive committee meetings to plan Spring 2024 NCC meeting.
- Hosted ACPA/CPTech Center’s Annual Overlay Summit.
- Participated in ASCE Highway Pavements Committee webinar planning meetings.
- Participated in CNCA/SWCPA pavement forum meetings.
- Held check-in meetings with FHWA regarding sustainability efforts.

