



History of Guerrilla Marketing of Precast Concrete Pavement Systems

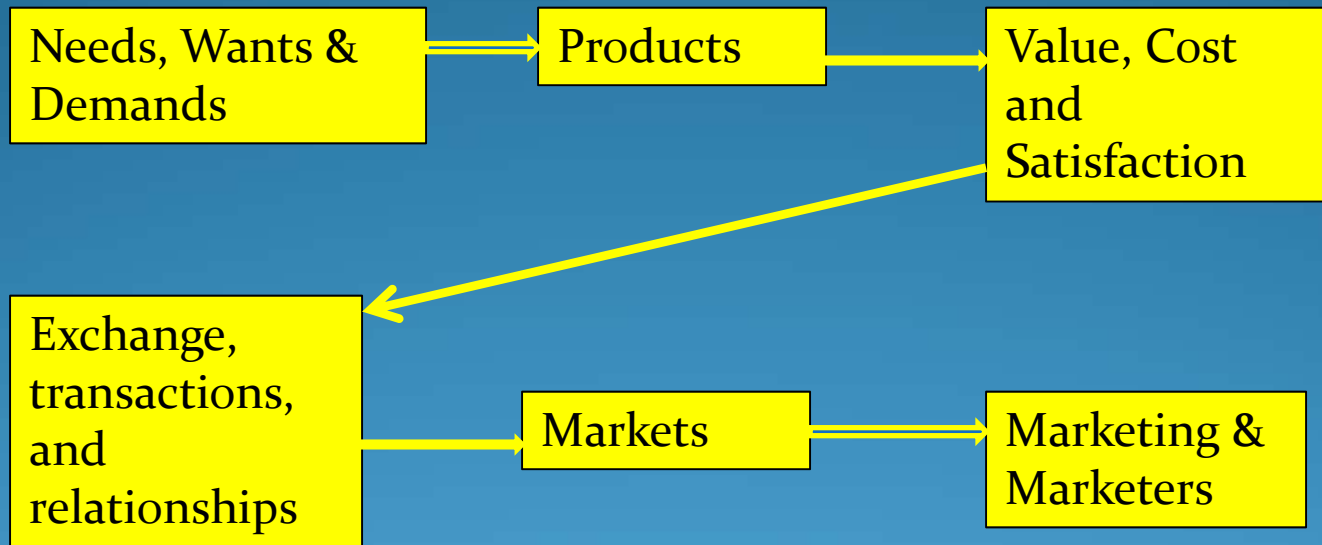
A look back at the past 15 years

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Traditional Marketing Concepts



Needs, Wants & Demands

- **Needs**: To provide technically and economically feasible alternative pavement treatments for the timely rehabilitation and reconstruction of rigid pavements.
- **Wants**: Pavement treatment must be provide equal to or better performance than traditional rehabilitation or reconstruction treatments, and the installation process time period must be shorter than traditional methods. Minimize Project Sponsor Risk. Rapid renewal with longer service life.
- **Demands**: Public is demanding less impact to delay time caused by pavement rehabilitation and reconstruction projects. Contractors demand less risk for liquidated damages associated with MOT restrictions. “Get in- Get out – Stay out!”

Who & Where are the demands coming from? (customers/target audience)

- State DOT Executives, Highway Designers, Pavement Engineers
- Large Municipal DOT Executives, Designers, Pavement Engineers
- Toll & Bridge Authorities
- Heavy Highway Contractors
- Precast Concrete Fabricators
- Consultant Highway Design Engineering
- Airport Managers and Executives



PCPS Products

- Jointed Precast Pavement (JPP) Systems
 - Generic
 - Illinois Toll Authority Design
 - Michigan DOT Design
 - Proprietary
 - Ft. Miller Co. - SuperSlab™
 - Roman Stone Construction Co.
- Continuous - Prestressed Precast Concrete Pavement (PPCP) Systems



Product SWOT Analysis

STRENGTHS

- Slabs are cast under ideal conditions
- Can be placed under adverse weather conditions
- Less Risk to owner/contractor
- No cure times
- Long life expectancy with low maintenance
- Use existing base material in most cases
- Placement in a short time frame can impact congestion & commerce
- Pre-approved mix/products/materials
- Pre-existing specifications available
- Documented performance history
- Established industry, methods, and technology
- Staged reconstruction possible
- Supported by FHWA/AASHTO/ACPA/PCI/NPCA
- Positive Public Relations Potential
- Pre-instrumentation, sensors embedded in panels yielding reduced impact to traffic
- Reduced Work Zone timeframe and physical limits yielding enhanced Safety
- Extensive testing has been performed and documented

WEAKNESSES

- First Costs (higher initial costs)
- Installation Expertise (contractor learning curve)
- Meeting existing geometries, radii, utilities, etc.
- Material Handling Equipment optimization
- Panel Transport/Permitting/Handling requirements
- Product/Process/Technology unknown to users
- Potential Ride Quality issues

OPPORTUNITIES

- Prestressed/Mildly reinforced options to reduce pavement thickness
- Growing Accelerated Construction mentality occurring in the industry
- Greater life expectancy over traditional alternative
- Precast Plant Fabrication = Improved Quality
- Practice would foster innovation
- Positive Public Relations – opportunity for recognition
- Improved Safety (Public & Construction Workers)
- Optimize Pavement Surface textures possible
 - Two-lift construction possible
 - Quieter Pavement texture
 - Improved Texture (friction, spray, splash)
- Potential for rapid response to emergency repairs

THREATS

- Competing Pavement Treatments (HES Concrete, Traditional Slip-form, CIP pavement methods)
- Reluctance by owners
- Institutional barriers
- Level of familiarity with competing treatments
- Long-term durability of load transfer systems, grouts, and bedding materials

Value, Cost & Satisfaction

- Demonstrated that PCPS meets customer needs
- Increased initial cost are off-set by reduced congestion delays
- It's Innovative!
- Proven technology..."I'm not going to be the first one to try it"
- Reduces owner & contractor risk over other treatment alternatives



Exchange, Transactions and Relationships

- Industry/Technology Providers develops a better understanding of Points of Entry, end-user needs and demographics, confirmation of needs & wants
- Supplier-end-user relationships fostered
- Growth in Technology Network
 - AASHTO TIG on PCPS
 - NPCA/PCI PCPS subcommittee formation
 - Growth in PCPS as a topic at National Conferences
 - TRB, ISCP, Int'l Conf. on Long-Life Pavements, ASCE, Nat'l Conference on Preservation, Repair & Rehabilitation on Concrete Pavements, AASHTO, ACPA, Airport Technical Conferences.
 - Growth in Regional/Local Technology Networks
- Growth in Financial Technology Sponsorship – fostering faster adoption
 - FHWA, AASHTO, SHRP2

The Market

- Over the past 10 years we have witness changing profile of PCPS Technology Providers –some new providers, others have stopped.
- Readily accessible PCPS technology information
- Generic Specification are available (AASHTO TIG, SHPR2)
- Over the past 10 years there has been opportunities for State DOT's to leverage project funding to experiment with PCPS (example FHWA-HfL program)
- Project successes build momentum for the industry
- End-users are more aware of PCPS capabilities, restrictions, and limitations leading to improved candidate project selections.
- End-users facing more resource limitations, “More with Less” – Leading to less tolerance for Risk (we can't afford to do this over again!)
- Institutionalization of the Technology = Repeat Customers

Marketing & Marketers

- Marketing Media Tools Used to date
 - Producer / Supplier Demo's (Showcases)
 - Project Demonstrations/Workshops (Supplier and/or FHWA-HfL)
 - Active Participation in National Program Initiatives
 - AASHTO TIG
 - NPCA/PCI/ACPA (gaining endorsements for the technology)
 - FHWA- HfL initiatives (vanguard technology), CPTP Program
 - SHRP2 – R05 Modular Pavements
 - Participate in National Pavement related Conferences/Workshops
 - TRB, Int'l Conf. on Long-Life Pvmnts, Nat'l Conf. on Preservation, Repair and Rehabilitation of Concrete Pavements, AASHTO Executive Briefings, ASCE Conferences, Int'l Society of Concrete Pavements
 - Participate in Local/Regional Conferences & Workshops
 - ACPA state Chapter annual workshops

Marketing & Marketers, cont'd.

- More Marketing Media Tools Utilized
 - E-media (websites, CD's, Video's, PDF) on PCPS Systems
 - Google now has over 500,000 links for PCPS
 - Product Specific Brochures, pamphlets, information folders
 - Fostering Strategic Alliances
 - Publishing Articles in Trade Magazines
 - PCI Journal, NPCA Newsletter, Aspire, Concrete International, Concrete Producers, Roads & Bridges, Public Roads, Public Works, Concrete Products, ENR, RAI, FHWA Focus, Construction Equipment, Daily metropolitan Newspaper, Concrete Construction, and TRB TRR to name a few.

United States Population



LEGEND

Census 2000: Population Density
PERSONS PER SQUARE MILE, BY STATE

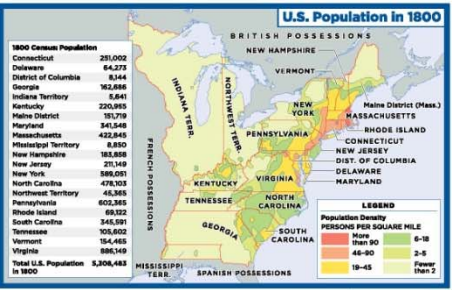
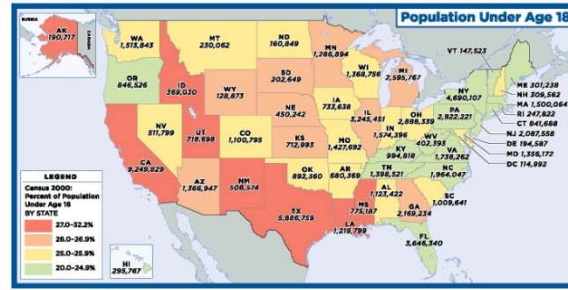
- More than 726
- 400-725
- 126-399
- Fewer than 126

Population and Congressional Representatives Per State

KENTUCKY
4,041,769 (6)

State Population Number of Representatives

State Boundary National Capital State Capital



Census 2000: Youngest and Oldest Populations

MEDIAN AGE IN YEARS, BY STATE

State	Median Age
Utah	27.1
Texas	32.3
Alaska	32.4
Idaho	33.2
California	33.3
United States	35.3
Vermont	37.7
Pennsylvania	38.0
Maine	38.8
Florida	38.7
West Virginia	38.9

Completed Precast Concrete Pavement System Projects in the United States & Canada 2000 thru 2012

Summary of Guerilla Marketing Successes: PCPS Projects To-Date (2000 – 2012)

• Illinois Toll Authority –	2 Projects
• Michigan DOT	2 Projects
• Roman Stone Construction Co. –	4 Projects
• Prestress Precast Concrete Pavements –	9 Projects
• Ft. Miller Company –	<u>67 Projects</u>
Total Projects	84 Projects

- Canada = 6 projects
- USA Projects in the following States: NY, NJ, VT, PA, DE, VA, FL, TX, IA, IL, MI, MO, MN, NV, UT, CA, OR

The Challenge Now is: Where do we go from here?

Questions?

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