

U.S. Construction Market Outlook

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Representing CMAA

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A Good News Story!

U.S. Construction Industry in 2015

- Total estimated spending of \$1.12 trillion
 - Up 10 percent from 2014, highest since 2007
 - Private sector \$828 billion
 - Public \$294 billion
- US is 2nd largest construction market behind China
- Growth Strong in Several Markets:
 - Office building
 - Housing and lodging
 - Manufacturing



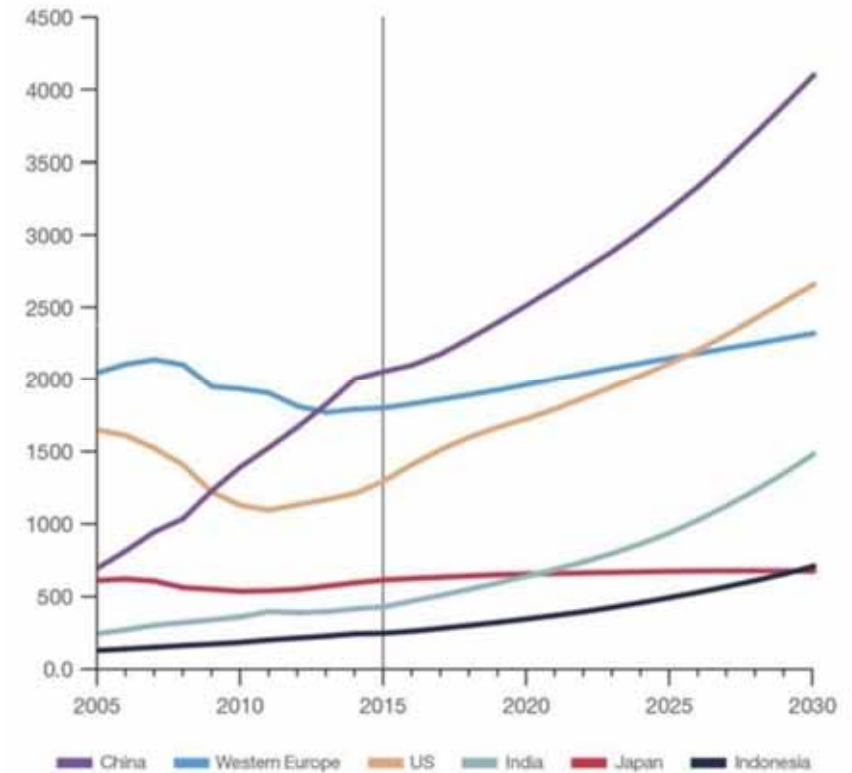
Interstate 495 Express Lanes, Virginia, USA
CMAA Project Achievement Award Winner

Future Looks Bright for US Construction

- Global construction to grow 70% to \$15.5 trillion by 2030*;
- A growth of \$8 trillion from today;
- US, China, India will lead the way with 57% of growth;
- India to overtake Japan as 3rd largest market.

* According to research report by Global Construction Perspectives, Oxford Economics

Market Size of Top Global Construction Markets
(\$bn, 2014 prices)



Source: Global Construction Perspectives, Oxford Economics

However - Infrastructure Challenge Remains

- American Society of Civil Engineers 2013 Report Card:
 - \$3.6 trillion investment needed by 2020
- Overall grade of D+ on scale of A (best) to F (fail)
- “Infrastructure Report Card” improved slightly from last report by ASCE in 2009
- Roads, bridges, transit, airports, water/wastewater, power, all need significant investment



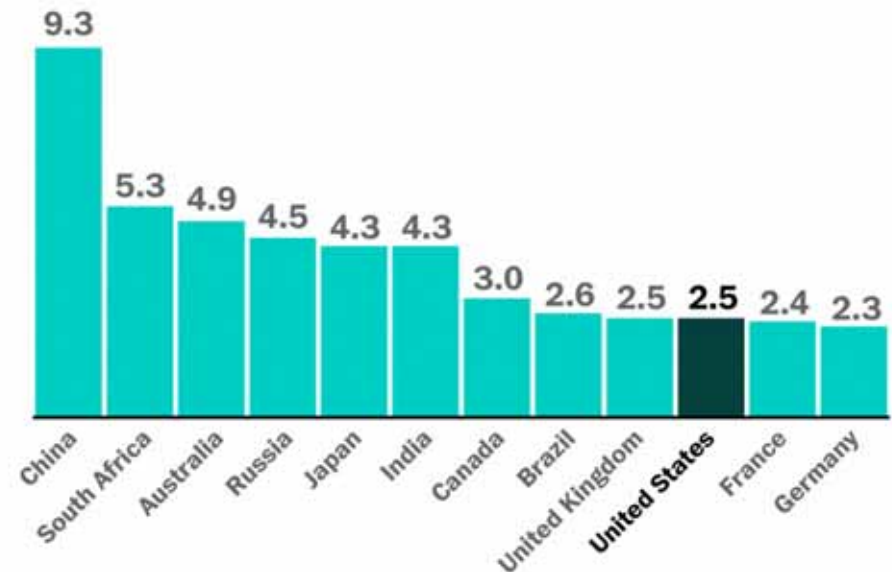
American Society of Civil Engineers 2013
Report Card for America's Infrastructure

Why? Many Reasons... Some Are:

- Infrastructure spending reduced
 - 2.5% GDP vs. 3%+ in 1980
- Difficult to agree federal funding
 - 1980 – 80% federal, 20% states
 - Today – 30% federal, 70% states
 - Recent \$305 billion 5 year highway funding – first long term bill in 10 years.
- Hostility to taxes
 - Federal gas tax to fund roads, transit has not increased since 1993.

U.S. infrastructure spending lags.

Infrastructure spending as share of GDP, by country



WAP0.ST/WONKBLOG

Source: McKinsey Infrastructure Stock and Spend Database

Trends in the CM Industry

- *ENR*: Market “has returned to health.”
- Top 100 CM/PM Firms Fee Revenues grew 2.6% in 2014
 - Total \$19.9 billion
 - Domestic U.S. - \$14.8 billion, + 1.4%
 - International - \$5.1 billion, + 6.1%
- CM At Risk Revenue Grew 7.4%
 - Total \$104 billion
 - US grew 11.5%
 - International declined 9.5%



Owners Increasing Their Use of CM

According to CMAA's 2015 Owner Survey:

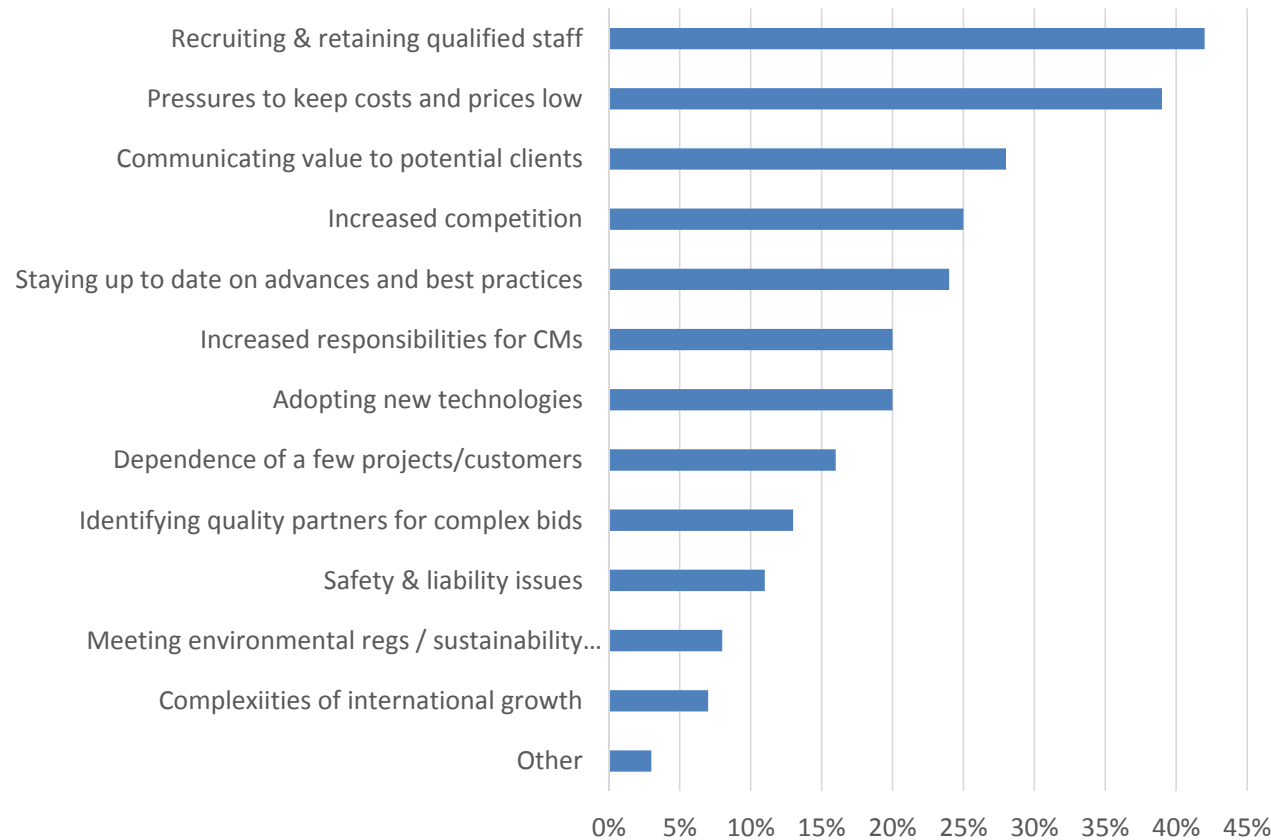
- 71% reported that *"we have more currently active projects."*
- 57% said they are making more use of consultants today.
- 40% said *"we have begun work on projects that were previously on hold."*

But, Owners Continue to Have Concerns

Challenges Cited by Owners in CMAA's Survey:

- Overly aggressive pricing of change orders
- Too many change orders
- Poor quality of design documents
- Inadequate budgets
- Lack of true innovation and new ideas among bidders

CMAA Members Biggest Challenges



Source: CMAA
Membership Survey
Fall 2015



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Other Challenges For CM Industry

- How Do We Prove Value of CM Services?
 - Continues to be price, not value driven
- Future Shortage of Skilled Professional CMs
- Bigger and More Complex Projects Require CMs With Broader Skills and Experience
- CM, Like Construction, Still a Low Tech Industry

CMs and Technology

How Are CMs Using Technology?

2015 CMAA Owners Survey Reported:

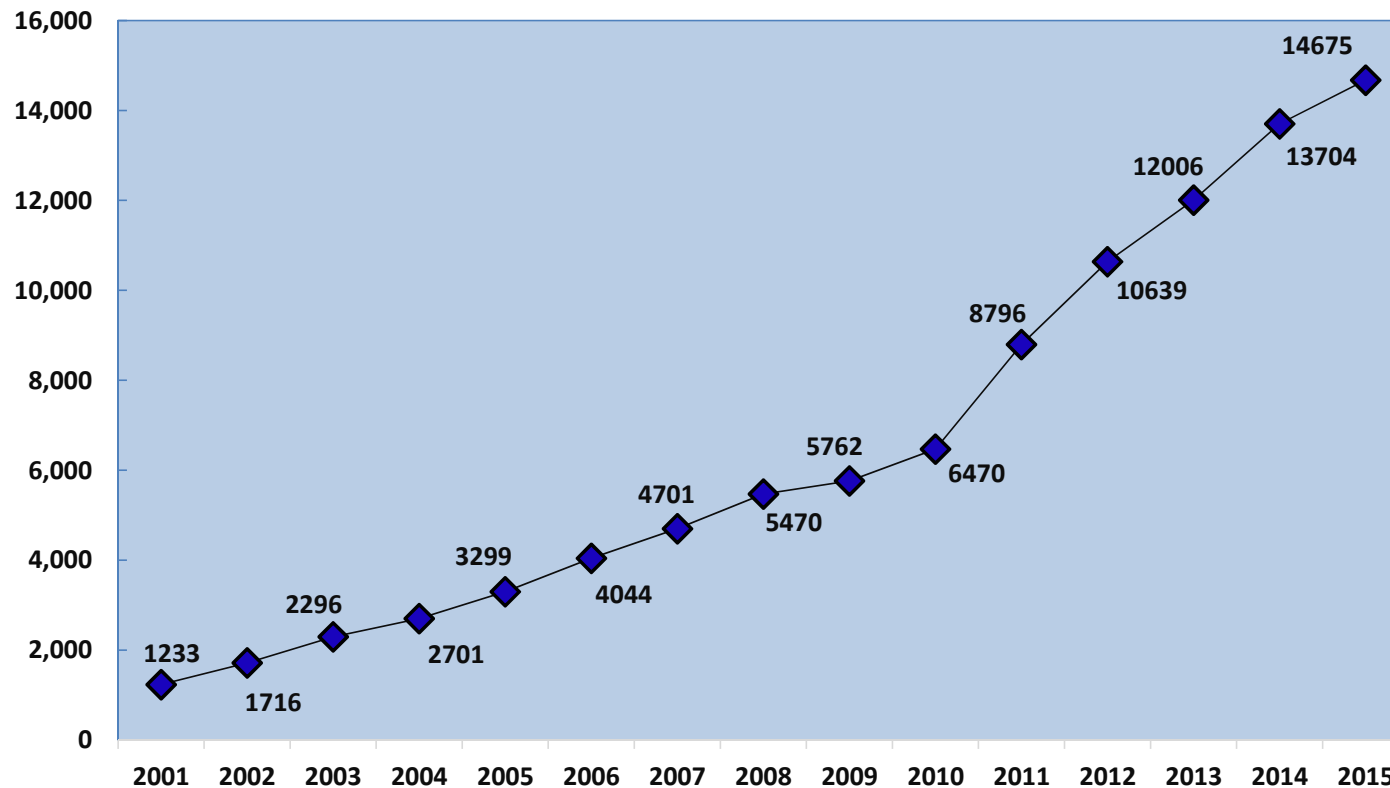
- 63 percent say their CMs “*meet their tech needs*”
- Most used/most familiar:
 - Prefabrication of components
 - Company-wide CM/PM software systems
 - Geographic Information Systems
 - Remote iPad/tablets in the field
 - Cloud-based storage

But, BIM Still Not Well Adopted

2015 CMAA Owners Survey:

- >60 percent of Owners have “some experience” with BIM
- 64 percent have no experience yet with 4D BIM (BIM + Schedule)
- 74 percent have no experience yet with 5D BIM (BIM + Schedule + Cost)

What's New at CMAA – Membership Growth



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What's New at CMAA – Membership Growth

- More “Mega” Members Than Ever
 - Mega membership is all-inclusive approach to CMAA services
 - Allows organizations to enroll *all* of their personnel in CMAA
- More Owners Joining CMAA
 - Owners adding Certified CMs (CCMs) to their in-house staff
 - Driven by need for better project outcomes



Certified Construction Manager

- CCM number 3,000 recognized in January 2016
- **458** new CCMs in 2015 – new record!
- **> 600** new applications each of last two years
- Growing recognition by owners
- CCM is endorsed by prestigious Construction Industry Institute, University of Texas.
- 2016: New, updated study of CM job competencies

CMAA Accrediting Academic CM Programs

- ABET Accreditation of Undergraduate CM Programs
 - ABET: Accreditation Board for Engineering Technologies
 - CMAA admitted to ABET – 2013
 - Program-specific criteria for CM approved – 2015
 - First 3 college/university CM programs accredited – 2015
 - CMAA invited to develop graduate program criteria
- ABET is *the* pre-eminent engineering accrediting organization



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Why ABET Matters

- An educational path distinct from other specialties – a key element of “profession”
- Familiar and accepted by industry
- Assurance to employers that new grads have right knowledge and skills
- Assurance to students that their education is right for CM
- Enhances universities’ ability to attract CM students

CMAA Provides A Complete Educational & Career Path

1. Undergraduate education at ABET institution
2. CMAA student chapters
3. Construction Manager In Training (CMIT)
 - 300 new CMITs in 2015. Now more than 1,500.
4. Continuing professional education
 - > 18,000 Professional Development Hours in 2015
5. Clear path leading to...*CCM!*



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CMAA 2015 Project Achievement Awards

Award-winning projects demonstrated team collaboration, broad scope of CM services, focus on sustainability and social impact of professional CM/PM.

Annapolis Joint Commissary Exchange

- Owner: U.S. Navy Exchange Service Command
- CM: Parsons
- Cost: \$28.5 million
- Delivery: Design-Bid-Build with Agency CM



Annapolis Joint Commissary Exchange



- CMAA's first "Project of the Year" (New award in 2015)
- Multiple stakeholders, complex site
- CMs stressed team collaboration
- Client used as a model for other projects nationwide

I-95 Express Lanes



- Owner: Virginia Department of Transportation
- CM: ATCS-CH2M Joint Venture
- Cost: \$925 million
- Delivery: P3 with Design-Build

I-95 Express Lanes

- \$925 million project
- Added lanes, bridges, entries, etc.
- Highway remained in use
- Complex traffic management
- Communication to the public



Metolong Dam and Water Supply

- Owner: Metolong Authority
- CM: CDM Smith
- Cost: \$430 million
- Delivery: PM/CM with Design-Build and Design-Bid-Build



Metolong Dam and Water Supply



- Key water supply project in Lesotho
- Serves 500,000+ people
- Expanded scope of CM services to include financing planning
- Applied new technology
- Achieved cost savings, high safety performance, energy efficiency

Lafayette Building Renovation

- Owner: U.S. General Services Administration
- CM: Hill International
- Cost: \$88 million
- Delivery: Design-Bid-Build



Lafayette Building Modernization



- Historic federal office building in Washington, DC
- Scope grew significantly during project
- Building was continuously in use
- “Green” renovation

Las Collinas Detention Facility



- Owner: County of San Diego, CA
- CM: Vanir Construction Management
- Cost: \$162 million
- Delivery: Design-Build

Las Collinas Detention Facility

- Reduced carbon footprint through on-site renewable energy
- BIM integrated into ongoing facility management
- “A new way to document the project life cycle.”





www.cmaanet.org

www.cmcertification.org



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