

**MICHIGAN STATE**  
**UNIVERSITY**

**School of Planning, Design  
and Construction  
Construction Management Program**



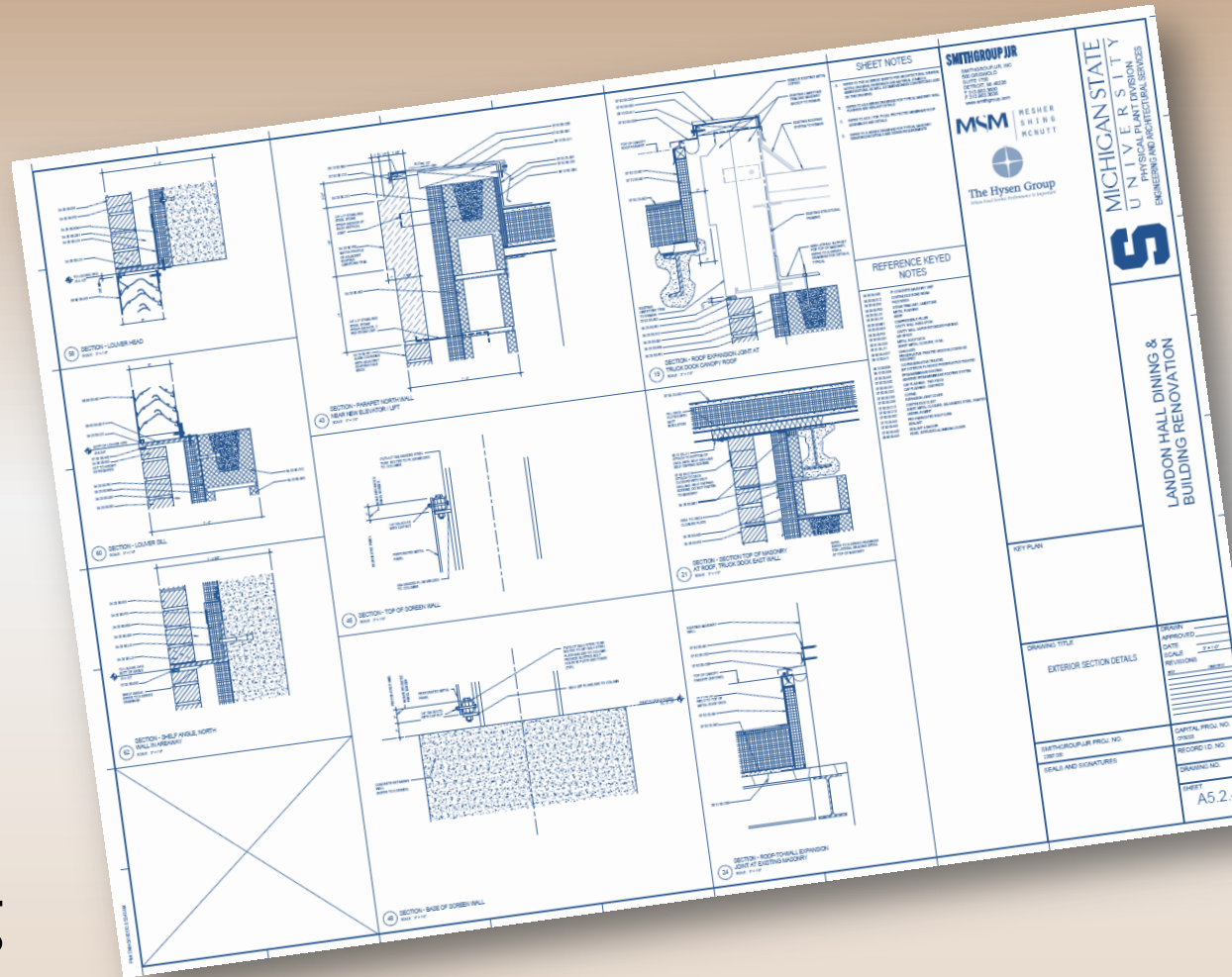
**120 Years of Innovation**



The Christman Company  
March 27, 2014

# Breaking It Down

- Company Overview and History
- MSU Pride
- Timeline of Innovation
- Today's Drawing Board
- Q & A



# Short Version of a Long Story

## ■ Founded in 1894

- H.G. Christman Company, South Bend, IN
- Established Michigan HQ in 1915

## ■ Service Lines

- Construction Management
- General Contracting
- Design/Build
- Real Estate Development (Christman Capital Development Company)
- Self-Perform (Christman Constructors, Inc.)
- Facilities Analysis and Planning

## ■ Key Markets

- Higher Education
- Historic Preservation and Adaptive Reuse
- Office
- Government / Public Facilities
- Healthcare

## ■ Annual Construction Sales of \$550 Million

- Average of \$1.5 Billion in Construction Under Way

## ■ Eight Full-Service Offices Nationally

- Midwest (Livonia, Lansing, Grand Rapids), Mid-Atlantic/D.C. (Reston, VA) and Southeast U.S. (Augusta, GA; Chattanooga and Knoxville, TN; Greensboro, NC)
- Experience in 37 States

## ■ Management and Employee-Owned

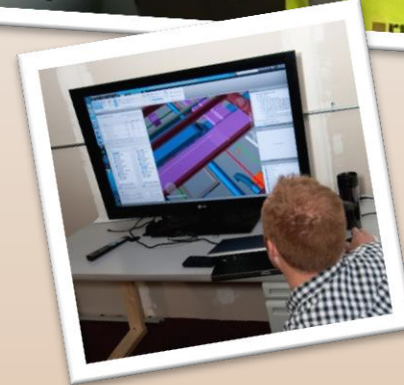
- 231 professional employees
- 80 LEED AP

## ■ Top Contractors Nationally

- 163 in ENR 400

## ■ Dedicated 22-Member Project Planning Group

- In-house MEP, Full-time BIM Specialists, Value Management, Sustainable Facilities Coordinator
- Focus on Teamwork and Innovative Practices







# THE CHRISTMAN WAY

## OUR PURPOSE

To unite great people in great achievement

## OUR VALUES

1. Honor all commitments with integrity
2. Build lasting relationships
3. Have passion for your work and a competitive spirit
4. Be a great place to work

## OUR PEOPLE

Experts. Leaders. Partners.

## OUR GOAL

To be the most sought after in the markets we serve

 **CHRISTMAN**  
S I N C E 1 8 9 4

# MSU Pride

MICHIGAN STATE COLLEGE  
OF AGRICULTURE AND APPLIED SCIENCE  
OFFICE OF THE PRESIDENT  
EAST LANSING, MICH.

January 18, 1951

To Whom It May Concern:

Since the close of World War II, The Christman Company of Lansing, Michigan, has built a considerable portion of the total construction program at Michigan State College with its contracts having totalled \$15,477,660 of a total program of about \$32,000,000. Included have been dormitories for both men and women, classrooms, and laboratories.

Our relations with The Christman Company have been of the finest, and I have no hesitance in saying that the organization is faithful in the executing of contracts, has a high standard of workmanship, is most cooperative in obtaining the best results, and is most reasonable in settling points of difference.

The Christman Company deserves a great deal of credit for the manner in which it devoted time and talents of its organization to the solution of emergency problems at Michigan State College arising from the sudden increase in the number of students enrolled. So far as Michigan State College is concerned, the record of the Company is exemplary in every respect.

Sincerely,

  
President

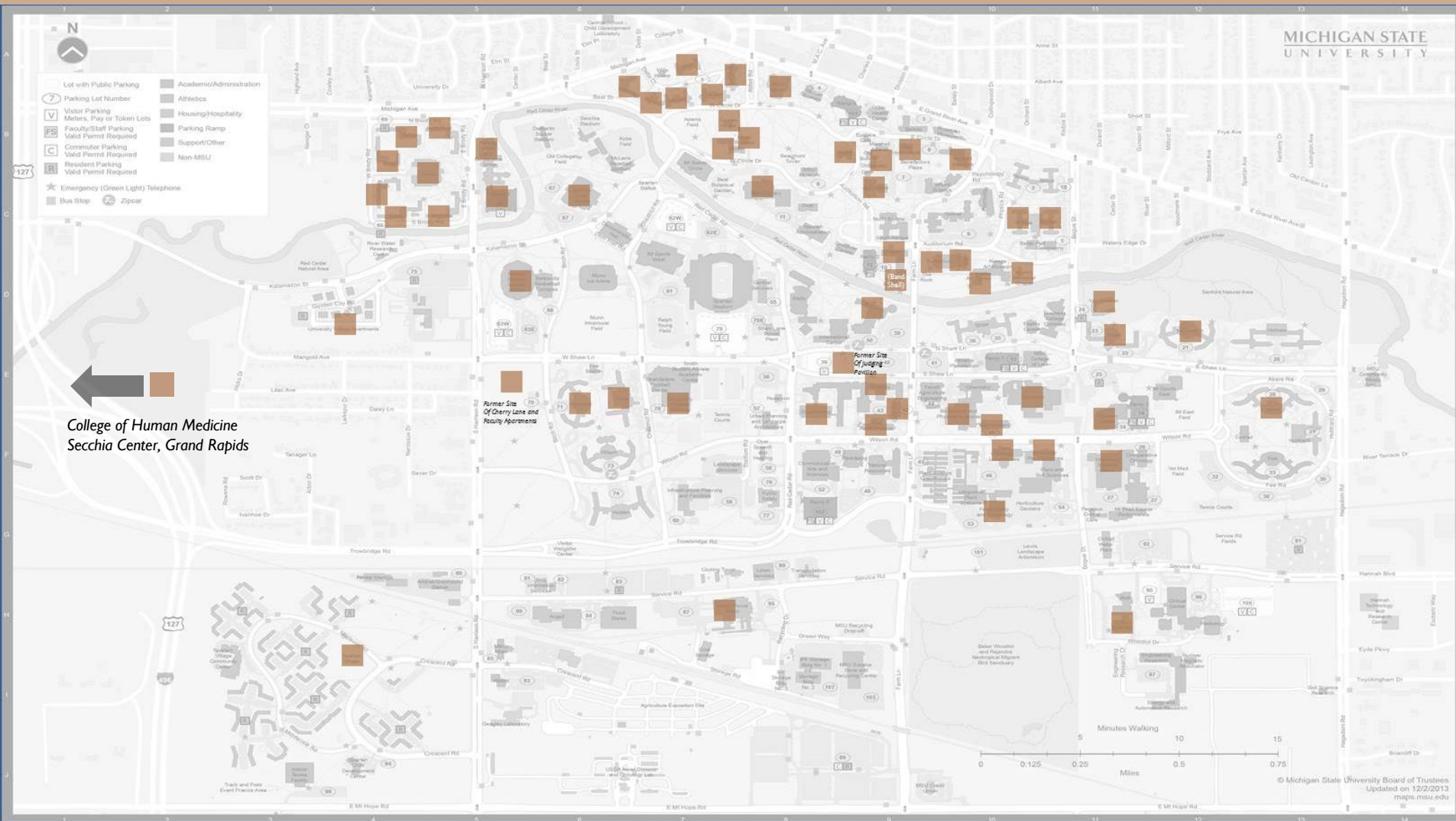
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# MSU Pride

***Over 120 projects totaling over 10 million square feet since 1909***



## Christman Projects on Campus

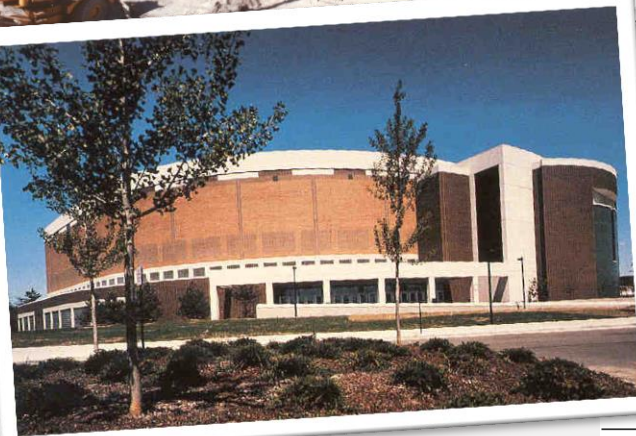
# MSU Pride

Year Built	Building/Project
1909	Agriculture Hall
1925	Horticulture Building
1925	Union Memorial Building
1925	Dairy Building Completion
1925	Storage Reservoir - MSU
1930	Barns
1931	Mary Mayo Hall
1931	Delta Sigma Phi Fraternity House
1931	Kappa Kappa Gamma Sorority House
1936	Kappa Alpha Theta Sorority House
1937	Williams Hall
1937	Band Shell
1938	Judging Pavilion
1939	Campbell Hall
1940	Jenison Fieldhouse
1940	Music
1942	Head House
1947	Home Management
1947	Landon Hall
1947	Linton Hall - Addition I
1948	Faculty Apartments - Ungren Apt Bldg
1948	Faculty Apartments - Pelton Apt Bldg
1948	Faculty Apartments - Frang Apt Bldg
1948	Faculty Apartments - Rafferty Apt Bldg
1948	Faculty Apartments - Bale III Apt Bldg
1948	Faculty Apartments - Drake Apt Bldg
1948	Faculty Apartments - Howland Apt Bldg
1948	Faculty Apartments - Crowe Apt Bldg
1948	Faculty Apartments - French Apt Bldg
1948	Faculty Apartments - Bauman Apt Bldg
1948	Faculty Apartments - Parker Apt Bldg
1948	Gilchrist Hall
1948	Yakeley Hall
1949	Union Building - Addition 2
1950	Cowles House - Addition I
1950	Shaw Hall
1952	Giltner Hall - Additoin 5
1952	Memorial Chapel
1954	Brody Hall
1954	Bryan Hall
1954	Butterfield Hall
1954	Rather Hall
1954	University Village - Apt. 1102, 1106-11, 1115-16
1955	Armstrong Hall
1955	Bailey Hall
1955	Brody Hall - Addition I
1955	Emmons Hall
1955	Library
1955	University Village - Apt 1103, 1105, 1201-12, 1301-14
1956	Cherry Lane Apts - Apt 911, 939(odd), 920
1957	Erickson Hall
1957	Vanhoosen Hall
1957	Student Services
1957	Spartan Village - Apt. 1401-1428
1957	Spartan Village - Laundry and Shop
1958	Kresge Art Center





# MSU Pride



1958	Spartan Village - Apts (Balance of Complex)
1958	Spartan Village - Laundry
1961	Case Halls
1961	Bessey Hall - Classroom Wing
1961	Bessey Hall - Office Wing
1961	Owen Graduate Hall
1961	Cherry Lane Apts - Apt 807,811-13-15, 914-16-22-24
1962	Wonders Halls
1962	Engineering Building
1963	McDonel Halls
1964	Packaging Laboratory
1965	Simon Power Plant - Main Building
1965	Owen Graduate Hall - Addition I
1965	Simon Power Plant - Cooling Tower Substation
1965	Simon Power Plant - Cooling Tower
1965	Simon Power Plant - Gallery and Transfer Tower
1968	Music Practice
1970	Life Science - Unit I
1974	Simon Power Plant - Unit 3 Main Building
1976	Simon Power Plant - Coal Car Thawing Shed
1982	Wharton Center PAC - Wharton Ctr for Performing Art
1985	Daugherty Football - Football Practice Facility
1986	Jack Breslin Student Events Center
1987	Cyclotron Building 5th Addition
1989	Kellogg Center Parking Ramp
1989	Natural Science Building
1990	Kellogg Center Renovations
1990	Engineering Building - new construction
1989	Veterinary Clinical Center
1991	Food Service Building Alterations
1992	Food Science Building
1994	Wharton Center Box Office and Gift Shop Renovation
1997	Engineering Building Addition
1998	Anthony Hall Renovation
2001	Biomedical and Physical Sciences Facility
2003	Cyclotron Addition
2004	Physics and Astronomy Renovation
2004	Biochemistry HVAC Upgrades
2006	TB Simon Power Plant Addition
2006	Kellogg Center Guest Bath Renovations
2007	Breslin Center Locker Room Renovations
2007	University Village Apartments
2008	Snyder/Phillips Hall Renovation
2009	Wharton Center for Performing Arts Addition and Renov
2010	College of Human Medicine Secchia Center
2010	FRIB Utilities
2010	Plant Biology Exterior Restoration
2012	Music Building Renovation
2012	Molecular Plant Sciences Building
2012	MSU Auditorium Third and Fourth Floor Renovation
2013	Fairchild Theatre Renovation
2013	Armstrong and Bryan Halls Renovation
2013	Music Building Green Room and Library Renovation
2014	Landon Hall Renovation
2014	Chittenden Hall Renovation
2014	Akers Hall Renovation





# Innovation Timeline



H.G. Christman begins “Teamster and Excavating” service in South Bend, IN

Values included honesty, respect, hard work, quality, and learning on the job.



Christman premieres its reinforced concrete frame and deck construction used on Agriculture Hall, a technique previously used primarily in industrial buildings. It eliminated traditional bearing walls and allowed flexible partition of spaces, and was a milestone in the company’s expansion.



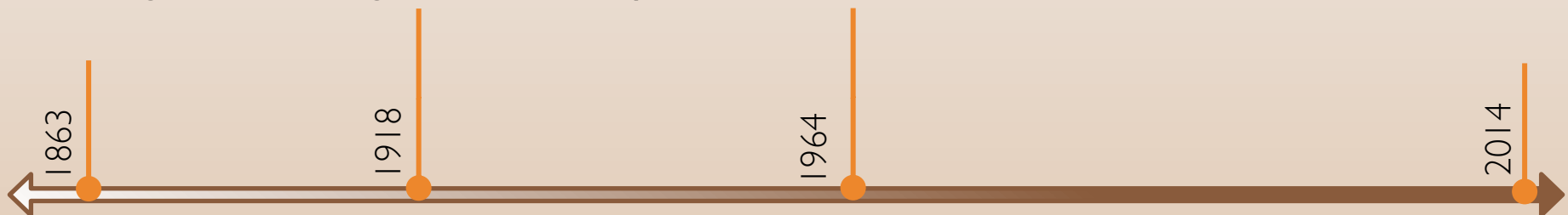
# Innovation Timeline



H.G. Christman and his brother met with other general contractors to establish the national AGC for the purpose of establishing a code of ethics and uniform building procedures, the forerunner of today's building codes. The company has been represented at each AGC annual meeting since the organization's inception.



Christman president Bud Conrad, together with Curt Bottum of Townsend & Bottum – co-founded the AGC summer intern program for civil engineering (and, later CM) students at MSU, U of M, Ferris, and Michigan Tech. It provided guidelines for base pay and school grant fellowships for students and is believed to be the first program of its kind in the country.





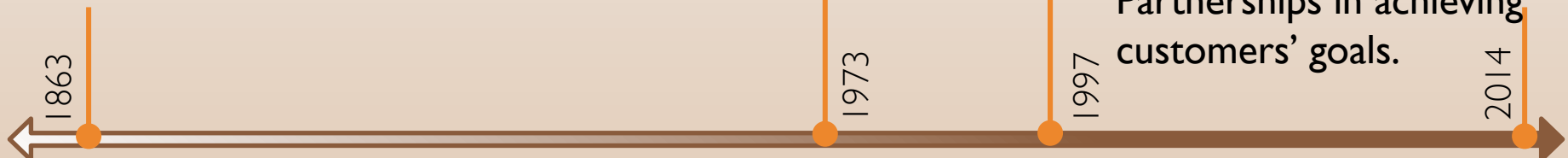
# Innovation Timeline



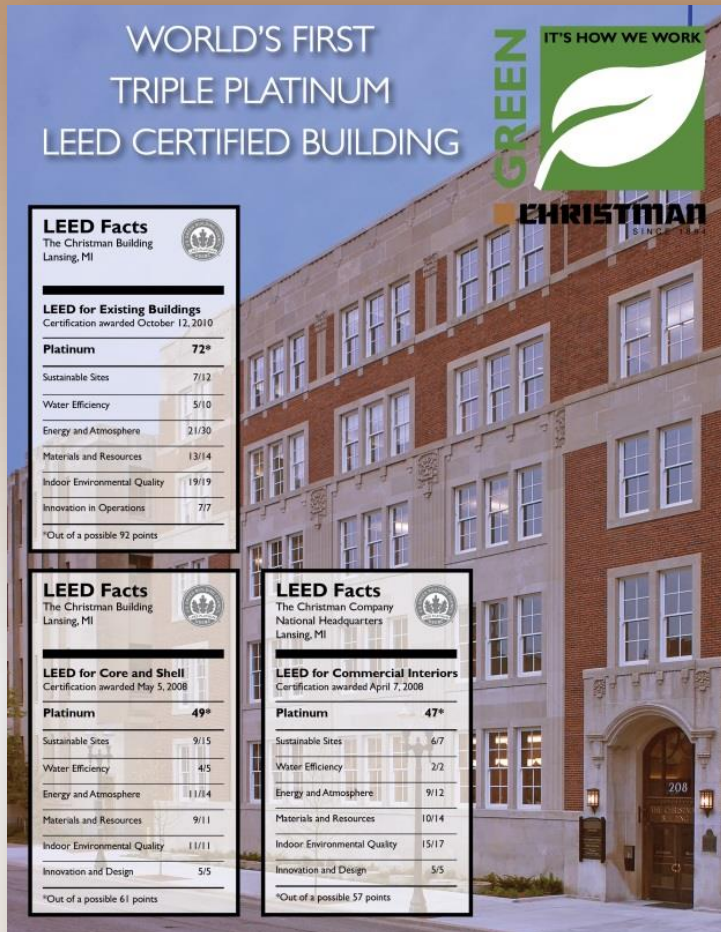
Future president Phil Frederickson introduced the “construction management” method to his Christman partners as a team approach, with owner, architect and contractor collaborating for project success. Christman went on to pioneer the method throughout the state.



Christman Capital Development Company was created to assist clients manage various real estate challenges with a variety of services including build-to-suit and lease back. Mixed-use projects such as East Lansing’s City Center Redevelopment have advanced the use of Public/Private Partnerships in achieving customers’ goals.



# Innovation Timeline



Restoration of historic Mutual Building in Lansing for Christman national HQ leads to world's first triple-Platinum LEED certified building



Redevelopment of functionally obsolete Ottawa Street Power Station into Accident Fund's national HQ transforms riverfront and stimulates downtown redevelopment





# Ottawa Street Power Station Redevelopment

- Removal and Relocation of Central Chilled Water Plant and Steam Distribution Station
- Demolition of City-Owned Parking Structure Spanning Street and Occupying Southwest Site Corner
- Modification of Plant to Provide Effective Interior Daylighting
- Acquisition of Privately Owned Building Adjacent to Site



# Key Stakeholders





# A Public/Private Partnership

- Ultimate Partnership Involved
  - Locating Partners and Identifying Needs
  - Working Through Go/No-Go Milestones
  - Total Project Valued at \$182 Million
- Project Feasibility Achieved Through a Complex Package of Tax Credits and Incentives:
  - Developer:
    - Federal Historic Tax Credits
    - State Historic Tax Credits
    - State Brownfield Tax Credits
    - State and Local Brownfield TIF (Tax Increment Financing) Reimbursements
  - Public Environmental:
    - Clean Michigan Initiative (CMI) Grants
    - Environmental Protection Agency (EPA) Environmental Remediation Credits
  - Tenant:
    - MEGA Job Growth State Tax Credits Over 12 Years
    - State Business Tax Savings, From 12-Year Renaissance Zone (incl. Real and Personal Property Tax Abatements)









# Innovation Timeline



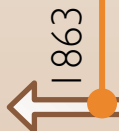
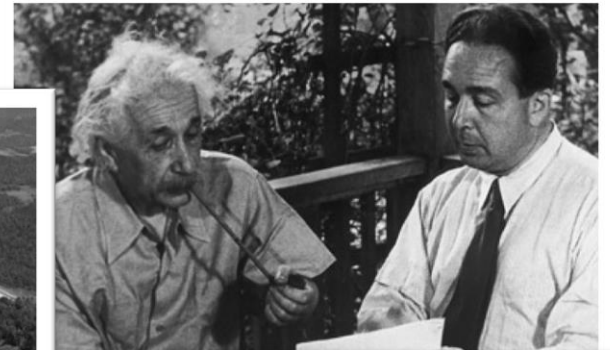
2012 - Creative formation of Copper Rock Insurance Company, a “captive insurance company,” in order to provide greater control over insurance markets while enhancing corporate risk management practices.

Acquisition of Rentenbach Constructors, Inc., a Knoxville, TN-based construction firm, grows company footprint in southeast US while enhancing core business growth and development.



# Rentenbach Constructors, Inc.

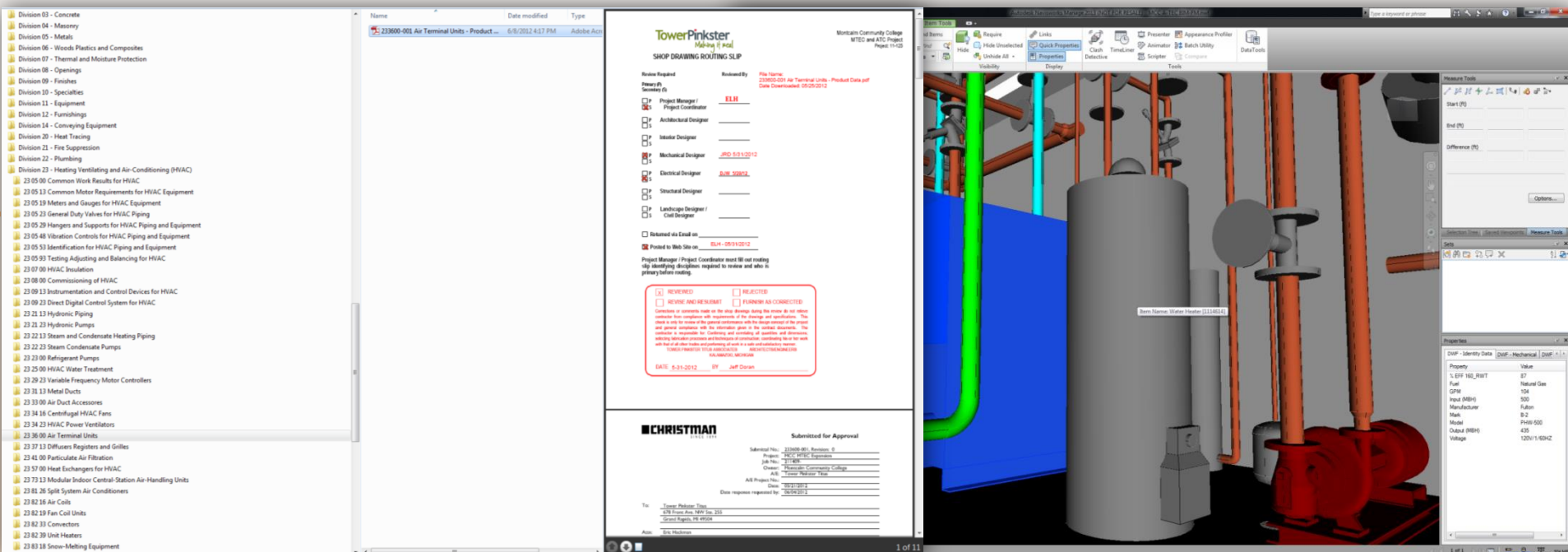
- Established 1943
- 100 Employees
- Annual Revenues of \$200 million
- 3 Full-service Offices
  - Knoxville, TN;
  - Chattanooga, TN;
  - Greensboro, NC
- Experience in 34 States
- Strong Market Expertise
  - Higher Ed
  - Healthcare
  - Industrial
- 299 in ENR 400
- National Award-Winning Firm
  - 4-Time Build America
- Exemplary Safety Record; EMR of .73





# Virtual Building / BIM for FM

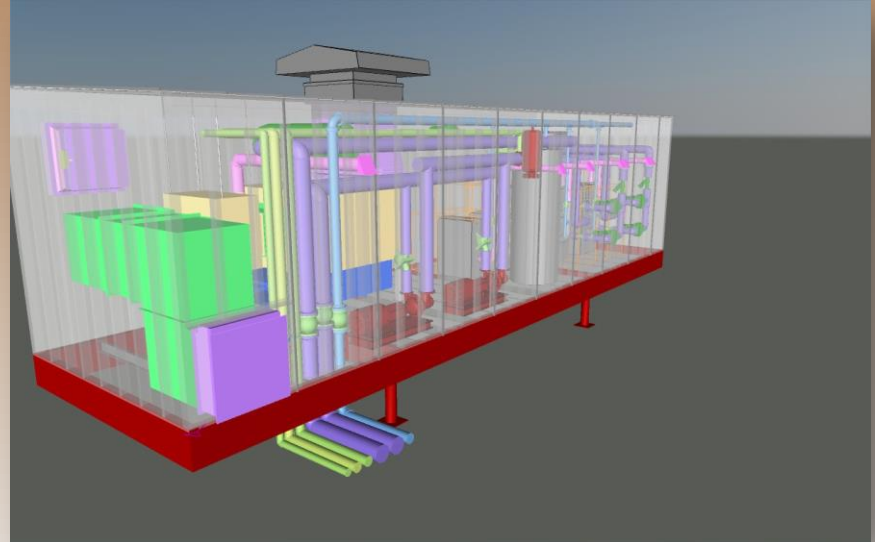
- Location
- Photographic Confirmation
- Shop Drawing
- Service Records
- Warranty Document
- Emergency Contact



# Lean Construction / Pre-Fab / Multi-Trade Fabrication



Traverse City Cherry Capital Airport  
"The Big Lift"



Prefabricated Boiler Penthouse-  
Lake Trust Credit Union



Multi-trade Infrastructure "Rack" Proposal-  
Lake Trust Credit Union



Prefabricated Soffit Sections and Roof Bays-  
Four Winds Casino

1863

2014



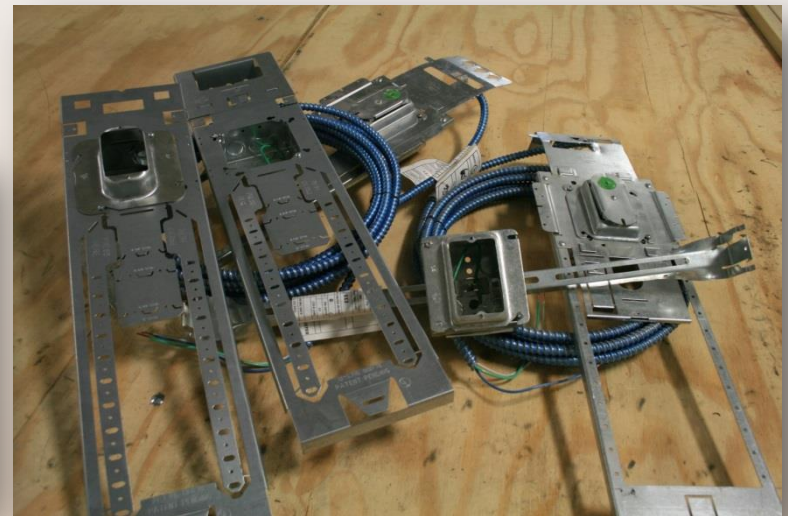
# Lean Construction / Pre-Fab / Multi-Trade Fabrication



Prefabricated Pump Skids-  
Oakland University



Prefab Electrical Components-  
Planned for Jackson National





# Pushing Technology With iPad Field Use

- Utilizing PlanGrid iPad app for accurately storing most up-to-date linked drawings
- Reference tool for unit prices, punchlist, as-builts, code checks
- Fast, clear communication





# Pre-Construction Capabilities Expansion

- People

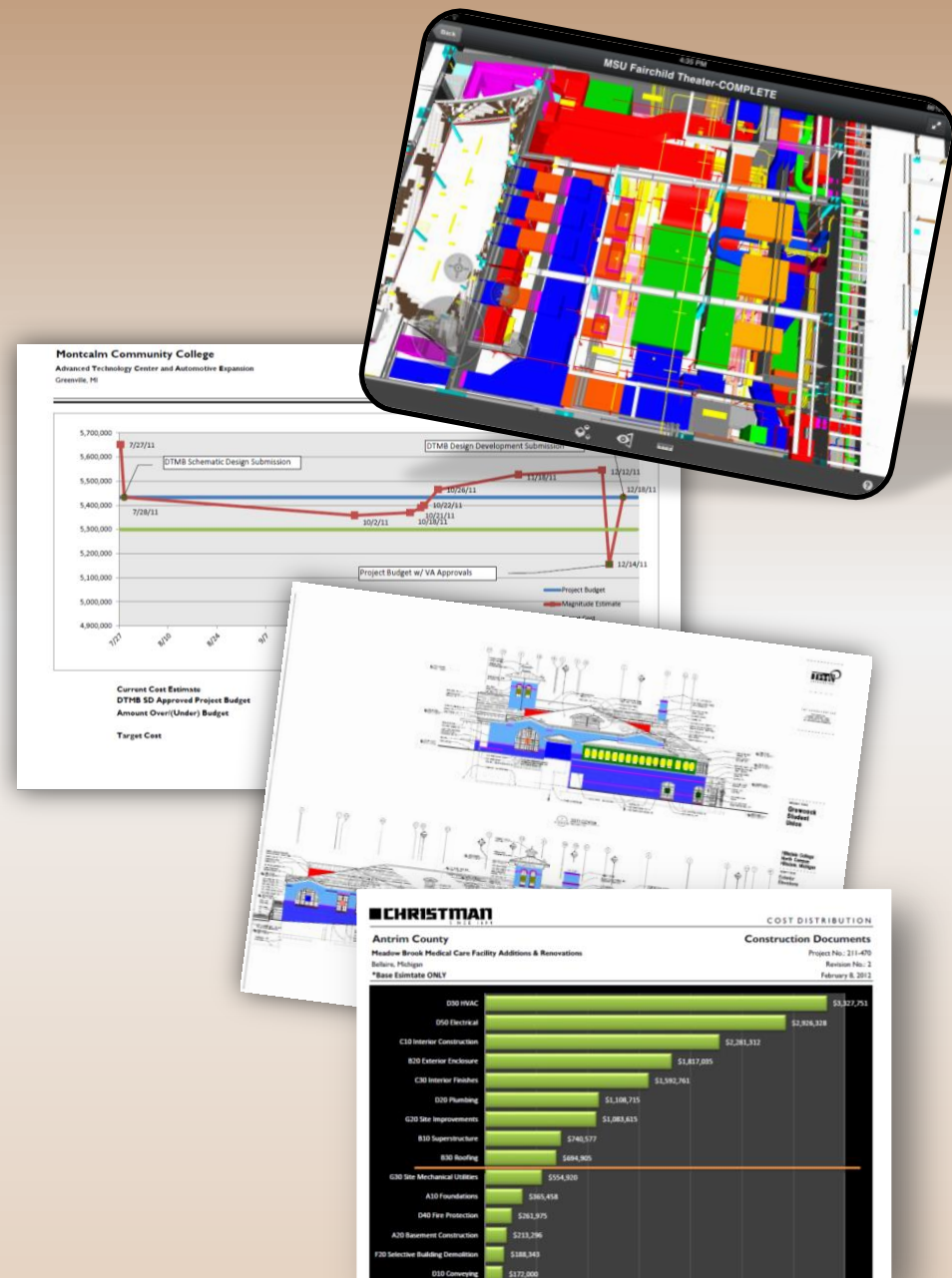
- Full-service, in-house planning team
- Pre-construction planning
- Mechanical, electrical and plumbing estimating and coordination

- Process

- Benchmarking with rich datasets
- Collaboration
- Value analysis at all stages

## Tools

- Building Information Modeling (BIM), offering new functionality for ongoing Asset/Facilities Management
- Life Cycle Analysis
- On-screen/3D technical tools



# Q&A