



## The 1933 Long Beach Earthquake

- March 10, 1933 at 5:55 p.m.
- Long Beach and surrounding areas experience a 6.3 earthquake.
- 70 schools were destroyed with hundreds of others damaged.



Jefferson Junior High School, The Field Act & Public School Construction: A 2007 Perspective



## Assemblyman Don Field

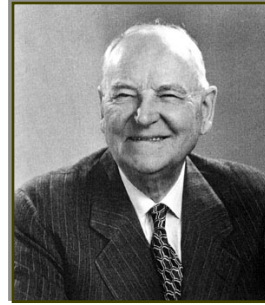
- In neighboring Glendale, Assemblyman Don Field saw first-hand the destruction left by the earthquake.
- As a former building contractor, Assemblyman Field was appalled by how destructive the earthquake had been.
- Assemblyman Field immediately returned to Sacramento to see how similar incidents could be avoided.





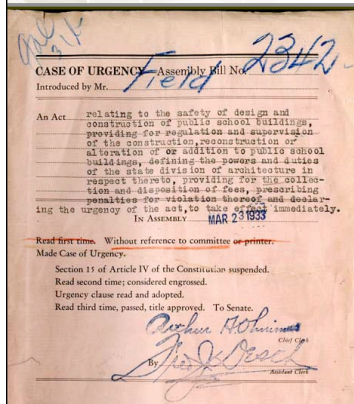
## Drafting the Bill

- Assemblyman Field quickly called a meeting with State Architect George McDougall, who brought engineer W.C. Willett with him.
- Within days, engineers in the State Architect's Office helped Assemblyman Field draft a bill that would charge the State Architect with building safe schools.



State Architect George McDougall

## Assembly Bill 2342



- AB 2342 was submitted to the California Assembly on March 23, 1933, less than two weeks after the Long Beach Earthquake.
- Submitted as emergency legislation, the bill quickly passed with a unanimous vote in the Assembly.



## Senate Delay

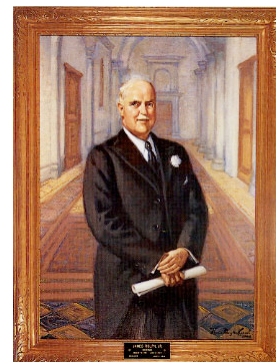
- State Senators were not as quick to act; many were suspicious of the bill's intent because of how quickly it had moved through the State Assembly.
- Pressure from the media and structural engineers quickly quieted the opposition.



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## The Bill Becomes Law

- The State Senate approved AB 2342 on April 5, 1933.
- On April 10, 1933, a mere month after the Long Beach Earthquake, Governor James Rolph, Jr., signed the bill into law.
- The resulting law has since been known as the Field Act.



Governor James Rolph, Jr.

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## Impact of the Field Act

### Key Provisions of the Field Act

- Structural plans must be prepared by licensed structural engineers.
- Structural plans must be approved by an independent state agency (specifically, the Division of the State Architect).

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT

100678

AC AM FLS PA SS HB  
DATE 2-23-00



## Key Provisions of the Field Act (continued)

- There must be continuous inspection of all work by a DSA approved project inspector who is retained by the school district.
- Project architect and engineers must perform construction observation and administration.
- The construction process is overseen by DSA.
- A Final Verified Report must be filed by the project architect, engineers, inspectors, testing labs, and the contractor.



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## Field Act Compliant vs. Other Buildings

- The Field Act has stricter structural code requirements.
- Structural design work must be completed by structural engineers rather than civil engineers.
- Structural plan review is completed by structural engineers rather than civil engineers.
- Schools have continuous on-site inspection, typically other buildings have only periodic inspection.



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# The Field Act: Myths Dispelled

# Myth: The Field Act is too conservative!

- Design force levels for schools are only 15% greater than for office buildings.
- Design force levels for hospitals are 50% greater than for office buildings.

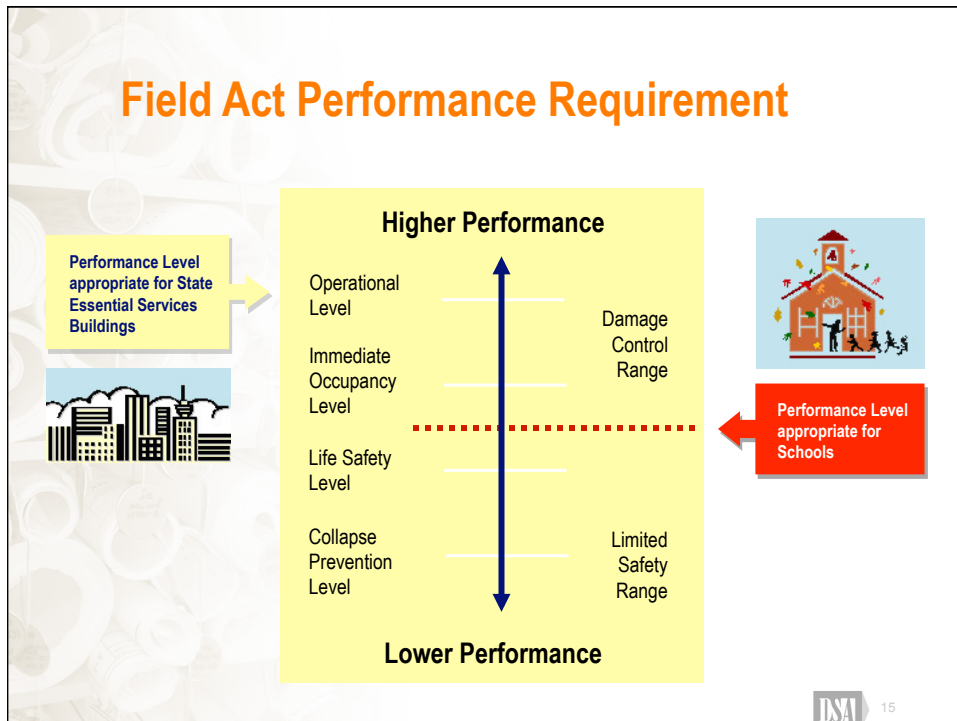


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## Field Act Performance Requirement



## Myth: The Field Act is too expensive!

- 1992 study shows only a 3 ½ to 4 percent cost impact.
  - Only 1/3 of that cost impact is associated with the structural improvements.
  - 2/3 of the cost impact is associated with soft cost.
  - The majority of those soft costs are for inspection and testing.





## Myth: DSA Can't Handle the Workload!

- Very few structural plan reviewer vacancies are left in DSA.
- DSA contracts structural plan review work out to qualified consultants.



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## Myth: Non-Field Act Buildings Can't be Used!

- DSA has regulations for the retrofit of non-Field Act buildings.
- Buildings are required to provide the same level of safety as provided for in new construction.

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## Contact DSA For Help

### DSA Can Help



- Visit our website at [www.dsa.dgs.ca.gov](http://www.dsa.dgs.ca.gov)
- Call our offices:
  - San Francisco Bay Area Regional Office: (510) 622-3101
  - Sacramento Regional Office: (916) 445-8730
  - Los Angeles Regional Office: (213) 897-3995
  - San Diego Regional Office: (858) 674-5400
  - Headquarters: (916) 445-8100



