Reynolds School District #7
Reynolds Middle School Classroom
Structural Seismic Upgrades

REQUEST FOR PROPOSALS
Architecture/Engineering Services

September 21, 2016

A. Introduction

Reynolds School District invites written sealed proposals for Architectural/Engineering services for their Reynolds Middle School Classroom Structural Seismic Upgrades.

Reynolds Middle School is located at 1200 NE 201st Avenue in Fairview, Oregon. The structures under consideration are the 300 and 400 classroom wings constructed in 1956. Both buildings are very similar and are 19,330 sq. ft. and 17,375 sq. ft. respectively. Each wing houses multiple classrooms and accessory rooms. The buildings are framed with a post and beam system supporting 2x decking. The buildings are attached in several locations to the balance of the structures on the site which comprise the rest of the school facility.

The tentative schedule for design process would be from the date of contract award this fall and completed with the bid phase in late winter 2017. The construction contract is expected to be executed in early spring with construction during the summer of 2017 after the end of the 2016/2017 school year.

The A/E Services are anticipated to be provided, but not limited, to the following:

Architectural
Structural Engineering
Mechanical Engineering, (HVAC & Plumbing)
Electrical Engineering, (Line & Low Voltage)

A more detailed description of the proposed project, including the project's budget is provided in the Structural Seismic Evaluation Report for the Reynolds Middle School Classroom dated December 2015 provided in ***Attachment E***.

Also refer to the Matrix of Services in ***Attachment B*** to this Request for Proposals.

The District will be providing any geotechnical, site surveying, or hazardous material consulting services necessary on the Projects directly. The A/E firm selected will be expected to cooperate and coordinate as necessary with the District's consultants.

B. RFP Dates and Deadlines

The Reynolds School District has established the following dates and deadlines for this RFP:

RFP issue date	September 21, 2016
Non-mandatory pre-proposal meeting at 2:45 PM	October 5, 2016
Deadline for proposer questions	October 12, 2016
RFP Addenda issuance	October 13, 2016
Proposals due at 2:00 PM	October 24, 2016
Shortlisted firms identified	October 27, 2016
Proposer interviews	November 2, 2016
Board approval of selection	November 9, 2016
Beginning of services	November 10, 2016

C. Pre-Proposal Meeting

A non-mandatory pre-proposal meeting will be held to answer questions from prospective proposers on ***October 5 at 2:45 PM*** prevailing local time at **Reynolds Middle School, 1200 NE 201st Ave, Fairview, OR 97024**. The meeting will allow proposers the opportunity to view the construction site, gain a better understanding of the work, and the unique aspects of the project.

D. RFP Terms

1. Reynolds School District is issuing this RFP for the purpose of obtaining proposals for the provision of architectural and engineering services. Reynolds School District expects to enter into a contract with one (1) architectural/engineering firm (including partnership or joint venture) for these architectural and engineering services, using the form of professional services contract and statement of work attached as ***Attachment A***. However, Reynolds School District does not guarantee that it will award any contract pursuant to this RFP.

2. At Reynolds School District's discretion, any representation made by a proposer in response to this RFP, whether verbal or written, will be incorporated into any contract between the Reynolds School District and the proposer.

3. This RFP provides instructions for the preparation of a proposal that will address all RFP requirements. This RFP is not an offer to contract. Only the execution of a written contract will obligate Reynolds School District, in accordance with the terms contained in the contract.

4. Proposals that do not meet minimum RFP requirements will be classified as "non-responsive." Reynolds School District will disqualify all non-responsive proposals from further evaluation. Responsive proposals will be evaluated on the basis of the criteria listed in Section G of this RFP.

5. Reynolds School District will not pay any costs a proposer incurs in preparing and submitting its proposal or in negotiating and signing a contract, all of which will be the sole responsibility of the proposer. Any due diligence conducted by a proposer is at the proposer's expense. All proposals become the property of Reynolds School District upon delivery to Reynolds School District.

6. Reynolds School District reserves the right to amend this RFP in any manner prior to award of a contract.

7. Reynolds School District reserves the right to postpone or cancel the RFP without liability to Reynolds School District any time prior to executing contract if Reynolds School District determines, in its sole discretion, it's in District's best interest to do so.

8. Reynolds School District reserves the right to share the RFP and any proposals received with any third party of their choosing, in order to secure expert opinion.

9. Reynolds School District reserves the right to reject any or all proposals.

E. Proposal Requirements

Each proposer's submission in response to this RFP must:

1. Include one original (marked as such), five (5) copies, and one (1) PDF copy on a USB flash drive;

2. Include the completed and executed Proposal Certifications (Attachment C of this RFP) as the first page of the original submission and each copy;

3. Be submitted in a sealed envelope that is plainly marked "Proposal to Provide A/E Services – Reynolds School Middle School Classroom Structural Seismic Upgrades" and bears the proposer's name, address, telephone number, and email address; and

4. Be delivered to the following addressee **no later than 2:00 PM, October 24, 2016:**

Reynolds School District
RE: RFP – Architectural/Engineering Services
1204 NE 201st Avenue
Fairview, OR 97024

5. Additional solicitation information:

a. Questions

Questions pertaining to this RFP shall be presented in writing via email to:

Bob Collins, Project Manager
DAY CPM SERVICES (Owner Representative)
12745 SW Beaverdam Rd. Ste. #120
Beaverton, OR 97005
Email: rcollins@daycpm.com

Questions must be received in electronic format not later than **2:00 PM,** on the date of the "Deadline for Proposer Questions" in Section B above. Questions will be compiled and collectively addressed in writing prior to the deadline RFP Addenda stated in Section B above.

b. Changes to RFP

Reynolds School District reserves the right to make changes to the RFP. Changes will be made only by written addendum which will be available to all prospective proposers via the District's website link below:

http://www.reynolds.k12.or.us/rfps.

Prospective proposers may request or suggest any change to the RFP by submitting a written request. The request shall specify the provision of the RFP in question and contain an explanation for the requested change. The request must be submitted per the timeline above in Section C of this RFP.

The evaluation team will evaluate all requests submitted but will not be obligated to accept the requested change.

c. Amend or Withdraw Proposal

A proposer may amend or withdraw its proposal any time prior to the time and date established for submission of proposals.

d. Public Disclosure of Proposals

Any information provided to the Reynolds School District pursuant to this RFP is subject to public disclosure pursuant to Oregon's public records laws (ORS 192.410 to 192.505).

The general requirement for public disclosure is subject to a number of exemptions. Each page containing information deemed by the proposer as necessary to remain exempt from public disclosure after proposals have been evaluated (e.g., pages containing trade secret, economic development information, etc.) and should be plainly marked. Marked pages should be placed in a group separate from the remainder of the proposal.

The fact that a proposer marks and segregates certain information as exempt from disclosure does not mean that the information is necessarily exempt. Reynolds School District will make an independent determination regarding exemptions applicable to information that has been properly marked and segregated. Information that has not been properly marked and segregated may be disclosed in response to a public records request. When exempt information is mixed with nonexempt information, the non-exempt information must be disclosed. Reynolds School District will redact pages that include both exempt and nonexempt information to allow disclosure of the nonexempt information.

Unless expressly provided otherwise in this RFP or in a separate communication, Reynolds School District does not agree to withhold from public disclosure any information submitted in confidence by a proposer unless the information is otherwise exempt under Oregon law. Reynolds School District considers proposals submitted in response to this RFP to be submitted in confidence only until Reynolds School District's evaluation is complete and the Evaluation Committee has acted on the Notice of Intent to Award, and agrees not to disclose proposals until Reynolds School District has completed its evaluation of all proposals, publicly announced the notice of intent to award and Reynolds School District has acted a Notice of Intent to Award.

6. Proposals <u>must include</u> the following information:

   a. The proposer's complete name, mailing address, physical address, email address, voice telephone, and fax numbers (see Section 7 below);

   b. A description of the ownership structure of the proposer, giving specific details with regard to any parent or affiliates;

c. The names, titles, and qualifications of the specific individuals (key persons) proposer intends to assign to the work, together with the roles each will play, their current workloads, their qualifications to do the work, and the amount of experience this team has working together;

d. A list of sub-consultants proposed to be used on the Project as per Section 12 below;

e. A thorough description of the proposer's experience on seismic rehabilitation projects utilizing collaborative contracting methods such as AE and team-oriented management processes;

f. A description of at least three (3) projects similar to the work that has been performed within the past ten (10) years by the key persons, description to include a brief project summary, owner information including contact information, start date / finish date, and scope modifications;

g. Demonstration of your understanding and approach to this project including planning, permitting, design, construction administration, public involvement, and proposers special/unique benefit your firm brings to this project.

i. Demonstration of experience with local MWESB firms including a list of State of Oregon certified businesses that your firm has partnered or subcontracted within the last two (2) years, identify any MWESB firms that are part of your proposed team, and any innovative/successful measures your firm has undertaken to increase diverse business participation on projects in the Portland Metro area.

j. Five (5) references whom the Reynolds School District can contact to discuss the proposer's qualifications (see ***Attachment D***).

7. If submitting a proposal with another firm, the proposal must provide the information requested regarding the experience of each firm and also provide the experience of both firms in working in association with other architectural and/or engineering firms. The proposer must explain if either firm will act as a sub-consultant or whether both firms will operate as a joint venture or partnership. If the proposers will conduct business as a joint venture or partnership the proposal must provide the information requested regarding the experience of the partnership or joint venture in addition to that of each member firm. If the proposers are selected for an interview, they will be required to provide a copy of the partnership or joint venture agreement relating to the Project. Each partner or joint venture must sign the submittal and the contract if selected for award.

8. Proposals must address all of the requirements of this RFP.

9. Proposers may add content in areas where the proposer feels it can offer value to Reynolds School District in an area that is not specifically requested.

10. Due to the nature of the Project and the complexity of its technical requirements, Reynolds School District will be involved in the final selection of all sub-consultants and has ultimate discretion on whether the sub-consultant may be a part of the proposer's design team for the Project. The proposer must identify the sub-consultant by specialty, and provide the following information:
    - Firm name, address, phone number, website, contact person information including email address.
    - A list of the firm's personnel by discipline that will be available to provide the capacity and capability to perform the required services for the Project
    - A list of the firm's relevant project experience limited to no more than five (3) similar projects in size and complexity.

11. Each proposal must be signed by the proposer (if the proposer is an individual), by an authorized representative of the proposer (if the proposer is a business entity), or by a representative of each partner or joint venture member, if the proposer is a partnership or joint venture, and must include a copy of a signed original of **Attachment C**, in which the proposer certifies that it meets all minimum requirements of Section B of this RFP, the proposer has not colluded with any other proposer in the preparation of its proposal, and the proposer agrees to be bound by the terms and pricing of its proposal, including all attachments.

F. Selection Criteria

1. The Reynolds School District will evaluate proposals based on the following criteria:
    a. Evaluation of technical proposal (Scored);
    b. References (Scored); and
    c. Interviews (Optional, if found to be necessary by the School District), (Scored).

2. Proposal elements that are subject to scoring will be awarded points as follows:
    a. **Evaluation of Technical Proposal (Scored):** The evaluation committee will score all proposals as follows based on **100 points total.**

        (i). Office location where effort applicable to this project will be performed is within fifty (50) miles of the construction site. If work is to be provided, in part, with an associated firm, so note in submittal (5 pts).

        (ii). Skills, experience, and time working together of the proposed project team (20 pts).

(iii). Similar projects completed by the Principal Architect, Principal Engineer, and Project Manager (15 pts).

(iv). Experience of the firm in designing and engineering public works / operations facilities of similar size and character as outlined above (20 pts).

(v). Experience with collaborative contacting methods such as AE and team oriented management process (15 pts).

(vi). Firm's approach and understanding of the Project (20 pts).

(vii). Collective, concise and comprehensive presentation of information (5 pts).

b. **References (Scored): (Max 50 points)** The evaluation committee will follow up with references provided by the proposers.

c. **Interviews (Optional, if found to be necessary by the School District (scored): (max. 100 points)**

d. The evaluation committee will add together the points that each committee member assigns and divide the total points by the total number of evaluation committee members to compute average score for the evaluation questions.

3. The evaluation committee may request additional clarification from a proposer on any portion of a proposal. Proposer may not submit new information or documentation, and a proposer may not use a clarification to rehabilitate a non-responsive proposal. Proposer's point of contact must be available during the evaluation period to respond to requests for additional clarification. Proposers shall submit written signed clarification(s) within 24 hours, Monday through Friday, after receiving Reynolds School District's request. A proposer's failure to provide clarification may result in a lower score for the proposal.

4. Reynolds School District reserves the right to request references in addition to those provided by the proposer, to investigate any references or representatives of projects that the proposer worked on whether or not furnished by the proposer, and to investigate the past performance of any proposer. Reynolds School District investigation of proposer qualifications may include inquiry into the proposer's performance of similar services, compliance with specifications and contractual obligations, completion or delivery of services on schedule, proposer's lawful payment of suppliers, subcontractors, and workers, and other relevant matters.

5. The proposers with the two (2) highest ranking proposals will be invited to interviews; plus others that are within 10 scoring points of the competitive range. Reynolds School

District expects to conduct interviews per schedule noted in Section B. Reynolds School District anticipates awarding contracts per schedule noted in Section B.

6. Reynolds School District may postpone the award or execution of the contract after the announcement of the apparent successful proposer in order to complete the Reynolds School District investigation.

H. Minority, Women and Emerging Small Business ("MWESB") Participation

1. As noted in Oregon Governor's Executive Order 12-03: "Minority-owned and women-owned businesses continue to be a dynamic and fast-growing sector of the Oregon economy. Oregon is committed to creating an environment that supports the ingenuity and industriousness of Oregon's Minority Business Enterprise [MBE] and Women Business Enterprise [WBE]. Emerging Small Business [ESB] firms are also an important sector of the state's economy."
2. If there may be opportunities for subcontractors to work on the Project, the Reynolds School District expects the proposer to take reasonable steps to ensure that MWESB certified firms are provided an equal opportunity to compete for and participate in the performance of any contracts or subcontracts resulting from this procurement.

I. SECURITY VERIFICATION "SECURITY AND BACKGROUND CHECK REQUIREMENTS

All Reynolds School District sites will be considered an open site for the purposes of this project. This means that a fingerprint based criminal history verification will be conducted on all personnel employed by the successful AE Firm and subcontractors on the project. This means that unsupervised contact between project personnel and students may occur. "Unsupervised contact" with students means contact that provides the person opportunity and probability for personal communication or touch with students when not under direct District supervision. As required by ORS 326.603, AE shall ensure that AE, any subcontractors, and their officers, employees, and agents will have no direct, unsupervised contact with students while on District property. Consultant shall work with District to ensure compliance with this requirement.

Successful AE, (contractor), authorizes District to obtain information about personnel and subcontractor's and its history and to conduct a criminal background check, including analysis of fingerprints of any AE's or subcontractor's officers, employees, or agents. AE shall cause its employees and/or subcontractors, to authorize District to conduct these background checks. AE shall pay $65.50 for processing the background check in addition to required fingerprinting and notary services. AE and its subcontractors must supply fingerprint cards for each employee proposed to work on the project to the District when applying for the security check. District may deduct the

cost of such fees from a progress or final payment to AE under their Contract, unless AE elects to pay such fees directly at the time of application for the security check.

All contractors, subcontractors, and their employees whether full time or part time working at District sites must undergo a criminal history verification for disqualifying convictions per ORS 342.143 as mentioned criminal history verification checks will be conducted at the contractor's expense, by RSD. Prior to entry of a AE's or subcontractor's employees onto a jobsite, the AE and the subcontractor shall provide a list of its employees who have successfully undergone the criminal history verification check. Upon Contract execution, the AE will supply a list of projected AE personnel as well as subcontractor personnel during the Construction Phase. These people will be expected to attend a meeting as a group to complete paperwork and undergo mobile fingerprinting services. This District in an effort to expedite the review process will engage a third party company to do a preliminary background checks, while the background and fingerprinting verification is being process through the State of Oregon Department of Education. The cost of this additional background check is $6.50 per person. There will be a short form to be filled out by the prospective contractor employee with personal identification information checked by District representative on site. The AE will issue a check that the covers the cost for groups of workers. Once the background check comes back without any issue the employee will then receive a temporary badge. This process should be expected to take between 24 – 48 hours. With the final approval there will be the issuance of final badge. All badges will be expected to be turned into the District by any of the badge owners at the conclusion of their participation on the Project.

J. RFP Attachments

1. ***Attachment A*** to this RFP is the form of contract that will be used for any contract issued pursuant to this RFP. The contract includes the statement of work, insurance coverage requirements, and other exhibits associated with the Attachment.

Objections to Proposed Contract: The form of Contract that the successful Contractor will be expected to execute if awarded the contract is included. The Proposer should include in the proposal any objections to the form or terms of the Contract. Any objections shall be considered after a determination of the apparent highest ranked responsive, responsible bidder is made, and the terms shall be subject to negotiation. The Project Manager, in consultation with the City Attorney, shall determine if any proposed modifications to the form of Contract are acceptable to the City and that they do not present material risk to the City or increase the City's costs. If the final negotiated terms are not acceptable to the apparent highest ranked responsive, responsible bidder, that bidder shall be declared not to be responsive, and the next apparent highest ranked responsive, responsible bidder's proposal and objections to form of Contract, if any, shall be considered, and so forth in order, until a responsive,

responsible bidder agreeable to execution of a form of Contract acceptable to the City and to the bidder is ascertained.

2. ***Attachment B*** to this RFP is the A/E design team services matrix for the Project.
3. ***Attachment C*** to this RFP is a statement that must be signed by the proposer and submitted with the proposal, certifying to the accuracy of all statements made in the proposal and certifying that the proposer meets all minimum qualifications stated in Section B of this RFP and is prepared to enter into a contract on the terms contained in all attachments.
4. ***Attachment D*** to this RFP is a form to be used by proposer for listing references.
5. ***Attachment E*** to this RFP is Structural Seismic Evaluation Report for the Reynolds Middle School Classroom dated December 2015, prepared by ZCS Engineering, Inc.

"A complete proposal will include the following materials:

- ✓ A narrative proposal responding to all requirements listed in Section E.6;
- ✓ A copy of a signed and dated Attachment C, filled in and submitted by proposer with the proposal;
- ✓ A completed Attachment D (references), filled in and submitted by proposer with the proposal.

(End of RFP – Attachments follow.)

RSD#7 Assigned Contract#:

REYNOLDS SCHOOL DISTRICT #7
PERSONAL/PROFESSIONAL SERVICES AGREEMENT

THIS AGREEMENT, entered into by and between the Reynolds School District #7 "RSD" and "Contractor", and in consideration of the following covenants, conditions, and considerations:

WITNESSETH:

1. The contractor shall provide RSD with the following information:
   a. Full Name
   b. Mailing Address
   c. Telephone Number
   d. Federal Tax ID No. or Social Security No.:
   e. Business Designation (check one): ☐ Individual ☐ Sole proprietorship ☐ Partnership ☒ Corporation Other ☐

Payment information will be reported to the IRS under the name and taxpayer I.D. number provided above. We are required by the Internal Revenue Service to obtain this information in order to report income paid to you by the District. If the information is not provided, we will be required to withhold 31 % of all future payments made to you.

1099 Withholding Exemption: If exempt from backup withholding (form 1099 reporting), check here ☐ and check your qualifying reason below:

- ☐ i. Corporation
- ☐ ii. Tax Exempt Charity under 501(a), or IRA
- ☐ iii. The United States or any of its agents or instrumentalities
- ☐ iv. A state, the District of Columbia, a possession of the United States, or any of their political subdivisions
- ☐ v. A foreign government or any of its political subdivisions
- ☐ vi. District will deduct taxes from pay, which will occur monthly

f. Does contractor now have, or have had within the prior year, contracts with other persons or entities to perform services similar to the services being performed hereunder? ☐ Yes ☐ No ☒ N/A

g. Does Contractor have current statutory Worker's Compensation Insurance coverage for all persons performing services under this contract? Yes☐ No ☐ N/A☒

2. **Statement of Work**: Contractor agrees to perform the following services for the District (please be specific as to nature and dates of performance and expected time involved) *Attach an exhibit if needed.*

Use additional sheet if needed.

3. **Contract Term.** This Contract becomes effective on _____. Unless terminated earlier as provided below, this Contract shall continue through _____.

4. Contractor shall be compensated in the manner provided in either subsection (a) or (b) below, whichever is completed.
   a. The entire, agreed-upon compensation for the services to be performed under this contract is $ to be paid according to the following schedule of payments

   Use additional sheets if needed.

   b. If services are to be charged at a periodic rate, rate charged and period: $ per .
   What is the total estimated compensation $; Additional description of pay, if applicable .

If it appears during the course of this contract that the actual compensation will exceed the estimated amount, the contractor shall notify the RSD Fiscal Department in writing. No payment in excess of the total estimated compensation shall be paid unless the Contractor has notified the Fiscal Office of the increase in time required to complete the services, and received approval of Fiscal Office to perform services up to the newly approved contract time.

Exhibits. As a condition to receiving the compensation above, the Contractor shall provide, in addition to the services above stated the following additional documents or reports relating to the service performed:
(Check all that apply)
Exhibit A: Statement of Work ☐; Exhibit B: Contractor's Proposal ☐; Exhibit C: Insurance Requirements ☐; Other ☐, *describe*

If RSD is required by law to withhold any monies from Contractor, e.g., PERS, such withholding shall be deducted from the amount of compensation due to Contractor and the balance shall be paid to Contractor. Contractor must submit an invoice to the RSD Chief Financial Officer as an application for payment. The invoice shall itemize Contractor's charges and expenses.

5. If total compensation is in excess of $150,000, as stated in Section 4a above, or the estimated charges based upon the rate charge and anticipated time involved as stated in Section 4b above exceed $150,000, this contract shall not be binding upon RSD until approved by the RSD Board of Directors.
   If compensation is to be paid as stated in Section 4b, and it appears that the total payments under this Agreement shall exceed $150,000, Contractor shall notify the RSD Chief Financial Officer. The CFO shall present this Agreement to the RSD Board of Directors for approval of compensation in excess of $150,000. No compensation shall be due or payable to Contractor in excess of $150,000 (in the aggregate) unless the RSD Board of Directors approves this Agreement.

6. Unless Contractor is a sole proprietorship, prior to performing any labor for this Contract, Contractor shall file with RSD Chief Financial Officer a certificate of insurance evidencing that the persons performing services under this Contract are covered by the Contractor's statutory worker's compensation insurance. Contractor shall maintain such coverage during the term of this Contract.

7. Contractor is being employed as an independent contractor to provide the services stated in Section 2 above. The compensation paid to Contractor shall be for all materials, supplies, and labor required, necessary or convenient for Contractor to provide services to RSD. Contractor shall be responsible for, and shall indemnify and hold RSD harmless from any governmental assessments resulting from Contractor's services or compensation, including but not limited to income tax, social security, worker's compensation, or employment insurance. RSD shall not have the right to direct or control the manner of Contractor's performance. RSD expressly disclaims any acts by its employees who attempt to direct or control Contractor's manner of performance; Contractor shall notify RSD Chief Financial Officer should any RSD employee make an attempt to exercise direction or control over Contractor.

8. Contractor covenants and warrants to RSD that Contractor is an independent business, has performed such services for others in the past or is now performing such services for others, and is skilled and duly qualified to provide the services required under this Agreement.

9. This provision is required by statute. In addition to applicable federal and state laws, ORS 279B.220 requires that Contractor shall:

   a. Make payment promptly, as due, to all persons supplying to the contractor labor or material for the performance of the work provided for in the contract.
   b. Pay all contributions or amounts due the Industrial Accident Fund from the contractor or subcontractor incurred in the performance of the contract.
   c. c. Not permit any lien or claim to be filed or prosecuted against the state or a county, school district, municipality, municipal corporation or subdivision thereof, on account of any labor or material furnished.
   d. Pay to the Department of Revenue all sums withheld from employees under ORS 316.167.

   If Contractor neglects or refuses to make prompt payment of any claim for labor or services furnished to it by any party in connection with this Contract as such claim becomes due, RSD may pay such claim to the party furnishing the goods or services and subtract the payment amount from funds due or to become due the Contractor. RSD's payment of such a claim shall not relieve Contractor or Contractor's surety, if any, from its obligation to any unpaid claims.

10. Payment for Medical Care: This provision is required by statute. As required by ORS 279B.230 and to the extent any of Contractor's employees are covered by Oregon employment laws, Contractor shall promptly, as due, make payment to any person, co-partnership, association, or corporation, furnishing medical, surgical and hospital care or other needed care and attention, incident to sickness or injury, to the employees of Contractor, of all sums that Contractor agrees to pay for such services and all moneys and sums that Contractor collected or deducted from the wages of employees under any law, contract, or agreement for the purpose of providing or paying for such service.

11. Non-Appropriation; Adequate Funding: RSD is prohibited from contracting for services for which it has not received appropriated funds. If payment for work under this Contract extends into RSD's next fiscal year, RSD's obligation to pay for such work shall be subject to approval of future Board of Education ("Board") appropriations to fund this Contract. Moreover, continuation of this Contract at specified levels is specifically conditioned on adequate funding under the RSD's budget adopted in June of each year. RSD reserves the right to adjust the level of services provided for in this Contract in accordance with funding levels adopted by the Board. In the event that the RSD is not adequately funded or funds are cut back, the RSD reserves the right to cancel all, or part of this contract.

12. Contractor shall indemnify, defend, and hold RSD harmless from any claims, actions, demands, losses, or costs (including attorney fees) arising out of or resulting from any act or omission by Contractor.

13. Contractor warrants to RSD that it/he/she has general liability insurance coverage in excess of $2,000,000 per person, $3,000,000 per occurrence, and $50,000 property damage, and that Contractor shall maintain such insurance during the term of this agreement or for such longer time as RSD may request at the time of execution hereof.

    Initial if applicable. Contractor warrants to RSD that it/he/she has professional malpractice insurance coverage for any errors or omissions by Contractor for the type of services being performed under this Agreement, with limits not less than $1,000,000 per occurrence.

    Initial if applicable. Motor Vehicle Liability. If Contractor is providing services that require Contractor to transport RSD personnel, students, or property, then in addition to any legally required insurance coverage, Contractor shall maintain motor vehicle liability insurance of at least $1,000,000 for each claim, incident, or occurrence.

    Certificate of Insurance. Upon RSD request, Contractor shall furnish to RSD a current certificate of insurance for each of the above coverage's within 48 hours of RSD request. Each certificate must state the relevant deductible or retention level. For general liability coverage, the certificate must state that RSD, its agents, officers, and employees are additional insured's with respect to Contractor's services provided under this Contract. The certificate must specify an additional insured endorsement, and Contractor shall attach a copy of the endorsement to the certificate. If requested by RSD, Contractor shall also provide complete copies of insurance policies to RSD.

14. Contractor acknowledges that RSD is a public entity, and that persons or entities contracting with public entities are subject to certain state or federal law, rules, or regulations. To the extent any state or federal law, rule, or regulation is applicable to this Agreement, it is hereby incorporated by reference as if stated herein. It shall be Contractor's responsibility to become acquainted with the applicable laws, rules, and regulations, and Contractor shall indemnify and defend RSD in the event Contractor fails to comply with any applicable state or federal law, rule or regulation.

15. Subcontracts and Assignment. Contractor shall not subcontract, assign, delegate, or transfer any of its duties, rights, or interests under this Contract without the prior written consent of RSD. RSD may withhold such consent for any or no reason. If RSD consents to an assignment or subcontract, then in addition to any other provisions of this Contract, Contractor shall require any permitted subcontractor to be bound by all the terms and conditions of this Contract that would otherwise bind Contractor. The parties agree that any such subcontracts shall be construed as matters solely between the Contractor and its subcontractor and shall have no binding effect on RSD.

16. Successors in Interest. This Contract shall bind and inure to the benefit of the parties, their successors, and approved assigns, if any.

17. No Third Party Beneficiaries. RSD and Contractor are the only parties to this Contract and are the only parties entitled to enforce its terms. Nothing in this Contract provides any benefit or right, directly or indirectly, to third

parties unless they are individually identified by name in this Contract and expressly described as intended beneficiaries of this Contract.

18. Hours of Labor. This provision is required by statute. As required by ORS 279B.020(5), 279B.235(3), and 279C.540(6), for Contractor's employees subject to Oregon employment laws:
    a. Maximum Hours: Employees shall be paid at least time and a half pay for all time worked in excess of 40 hours in any one week and for work performed on Saturdays, Sundays, New Year's Day (Jan. 1), Memorial Day (last Monday in May), Independence Day (July 4), Labor Day (first Monday in September), Thanksgiving Day (fourth Thursday in November), and Christmas Day (December 25).
    b. Exemption: The requirements of Section 15(a) do not apply to individuals who are excluded under ORS 653.010 to 653.261 or under 29 U.S.C. 201 to 209 from receiving overtime.
    c. Notice to Employees: Contractor must give notice in writing to its employees who perform work on this Contract, either at the time of hire or before commencement of work on this Contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work.

19. Time Limitation on Claim for Overtime. This provision is required by statute. For Contractor's employees subject to Oregon employment laws and as required by ORS 279C.545, any worker employed by Contractor shall be foreclosed from the right to collect for any overtime provided in ORS 279C.540 unless a claim for payment is filed with Contractor within 90 days from the completion of this Contract, providing Contractor has: (1) Caused a circular clearly printed in boldfaced 12-point type and containing a copy of this section to be posted in a prominent place alongside the door of the timekeeper's office or in a similar place that is readily available and freely visible to workers employed on the work, and (2) Maintained such circular continuously posted from the inception to the completion of this Contract on which workers are or have been employed.

20. Hazardous Materials. Contractor shall notify RSD before using any products containing hazardous materials to which RSD employees, students, or the general public may be exposed. Products containing hazardous materials are those products defined by Oregon Administrative Rules, Chapter 437. Upon RSD request, Contractor must immediately provide Material Safety Data Sheets to RSD for all materials subject to this provision.

21. Errors. Contractor shall perform any and all additional work necessary to correct errors in the work required under this Contract without undue delays or additional cost to RSD.

22. Access to Records; Contractor Financial Records. Contractor agrees that RSD and its authorized representatives are entitled to review all Contractor books, documents, papers, plans, and records, electronic or otherwise ("Records"), directly pertinent to this Contract for the purpose of making audit, examination, excerpts, and transcripts. Contractor shall maintain all Records, fiscal and otherwise, directly relating to this Contract in accordance with generally accepted accounting principles so as to document clearly Contractor's performance. Following final payment and termination of this Contract, Contractor shall retain and keep accessible all Records for a minimum of three years, or such longer period as may be required by law, or until the conclusion of any audit, controversy, or litigation arising out of or related to this Contract, whichever date is later.

23. Ownership of Work Products. Contractor agrees that any and all goods or services provided by or developed for RSD are intended as "works made for hire" by Contractor for RSD. As a work made for hire, all work products (including intellectual property) created by the Contractor, as part of Contractor's performance under this Contract shall be the exclusive property of the RSD. If any such work products contain Contractor's intellectual property that is or could be protected by federal copyright, patent, or trademark laws, Contractor hereby grants RSD a perpetual, royalty-free, fully-paid, non-exclusive, and irrevocable license to copy, reproduce, deliver, publish, perform, dispose of, and use or re-use, in whole or in part, and to authorize others to do so, all such work products. RSD claims no right to any pre-existing work product of Contractor provided to RSD by Contractor in the performance of this Contract, except to copy, use, or re-use any such work product for RSD use only.

24. Work Performed on RSD Property. Contractor shall comply with the following:
    a. Identification: When performing work on RSD property, Contractor shall be in appropriate work attire (or uniform, if applicable) at all times. If Contractor does not have a specific uniform, then Contractor shall provide identification tags and/or any other mechanism the RSD in its sole discretion determines is required to easily identify Contractor. Contractor and its employees shall (i) display on their clothes the above-mentioned identifying information and (ii) carry photo identification and present it to any RSD personnel upon request. If Contractor cannot produce such identification or if the identification is unacceptable to RSD,

RSD may provide at its sole discretion, RSD-produced identification tags to Contractor, costs to be borne by Contractor.

b. Sign-in Required: As required by schools and other RSD locations, each day Contractor's employees are present on RSD property, those employees must sign into the location's main office to receive an in-school identification/visitors tag. Contractor's employees must display this tag on their person at all times while on RSD property.

c. No Smoking: All RSD properties are tobacco-free zones; Contractor is prohibited from using any tobacco product on RSD property.

d. No Drugs: All RSD properties are drug-free zones as enforced by local law enforcement.

e. No Weapons or Firearms: Except as provided by statute and RSD policy, all RSD properties are weapons- and firearms-free zones; Contractor is prohibited from possessing on its persons or in its vehicles any weapons or firearms while on RSD property.

25. Unsupervised Contact with Students. This provision is required by statute. "Unsupervised contact" with students, means contact that provides the person opportunity and probability for personal communication or touch with students when not under direct RSD supervision. As required by ORS 326.603, Contractor shall ensure that Contractor, any subcontractors, and their officers, employees, and agents will have no direct, unsupervised contact with students while on RSD property. Contractor will work with RSD to ensure compliance with this requirement. If Contractor is unable to ensure through a security plan that none of its officers, employees, or agents or those of its subcontractors will have direct, unsupervised contact with students in a particular circumstance or circumstances, then Contractor shall notify RSD before beginning any work that could result is such contact. Contractor authorizes RSD to obtain information about Contractor and its history and to conduct a criminal background check, including fingerprinting, of any Contractor officers, employees, or agents who will have unsupervised contact with students. Contractor shall cause its employees and/or subcontractors, if any, to authorize RSD to conduct these background checks. Contractor shall pay all fees assessed by Oregon Department of Education for processing the background check. RSD may deduct the cost of such fees from a progress or final payment to Contractor under this Contract, unless Contractor elects to pay such fees directly.

26. Confidentiality; FERPA Re-disclosure. Family Education Rights and Privacy Act ("FERPA") prohibits the re-disclosure of confidential student information. Except in very specific circumstances, Contractor shall not disclose to any other party without prior consent of the parent/guardian any information or records regarding students or their families that Contractor may learn or obtain in the course and scope of its performance of this Contract. Any re-disclosure of confidential student information must be in compliance with the re-disclosure laws of FERPA. Contractor is not to re-disclose information without prior written notification to and written permission of RSD.

27. Security. Any disclosure or removal of any RSD matter or property by Contractor shall be cause for immediate termination of this Contract. Contractor shall bear sole responsibility for any liability including, but not limited to attorney fees, resulting from any action or suit brought against RSD because of Contractor's willful or negligent release of information, documents, or property contained in or on RSD property. RSD hereby deems all information, documents, and property contained in or on RSD property privileged and confidential.

28. Employee Removal. At RSD's request, Contractor shall immediately remove any Contractor employee from all RSD properties in cases where RSD in its sole discretion determines that removal of that employee is in RSD's best interests.

29. Remedies. In case of Contractor breach of this Contract, RSD shall be entitled to any other available legal and equitable remedies. In case of RSD breach, Contractor's remedy shall be limited to termination of the Contract and receipt of Contract payments to which Contractor is entitled.

30. Controlling Law; Venue. The parties agree that Oregon law will govern any dispute related to this Contract, and any litigation arising out of the Contract shall be conducted in courts located in Multnomah County, Oregon.

31. Amendments; Renewal. Any amendments, consents to or waivers of the terms of this Contract must be in writing and signed by both parties. The parties may renew this Contract by their signed, written instrument.

32. Counterparts. The parties may execute this Contract in counterparts, each of which constitutes an original and all of which comprise one and the same Contract. Counterparts may be delivered by electronic means.

33. Entire Agreement. When signed by both parties, this Contract (and any attached exhibits) is their final and entire agreement. As their final and entire expression, this Contract supersedes all prior and contemporaneous oral or written communications between the parties, their agents, and representatives. There are no representations, promises, terms, conditions, or obligations other than those contained herein.

34. Notices. All notices or demands of any kind required or desired to be given by RSD or Contractor must be in writing and shall be deemed delivered upon depositing the notice or demand in the United States mail, certified or registered, postage prepaid, addressed to the respective party at the addresses herein.

35. This contract may be terminated by either party with a 30-day written notice. The RSD can immediately terminate the Agreement if the Contractor and/or any of the Contractor's employees or agents endanger the health or safety of RSD students or employees.

36. Standards. Contractor shall meet the highest standards prevalent in the industry or business most closely involved in providing the appropriate goods or services.

37. Performance. Should the Contractor fail to perform the scope of work or meet the performance standards of the RFP and/or contract, the Contracting Agency may (a) reduce or withhold payment under the contract, (b) require the Contractor to perform, at the Contractor's expense, any additional work necessary to perform the scope of work to meet the performance standards established under the contract, and/or (c) to declare a default of the resulting Contract, to terminate the resulting Contract, and to seek damages and other relief available under the resulting Contract and/or applicable law.

IN WITNESS WHEREOF, the parties do execute this Agreement, and except as provided above, the undersigned warrant to the other that they are executing this agreement pursuant to authority.

Reynolds School District #7	**Contractor**
_____	_____
Rachel Hopper Chief Operating Officer	Contractor Signature
_____	_____
Date Signed	Printed Name
	_____
	Title
	_____
	Date Signed
	☐ Certificate of Insurance Provided

..... **RSD Internal Review required for final authorization** .....

.....	.....
Program Director	Date Signed
.....	.....
Site Manager	Date Signed

☒ Account Code for applicable charges ..... required for revenue, expense and pass thru funds.

☐ *Board approval required if estimated charges exceed $75,000*

Board Approval Date .....

☐ *Background check completed - Required if in direct contact with students*

REYNOLDS SCHOOL DISTRICT
RMS CLASSROOM WINGS SEISMIC UPGRADE 16-17
ATTACHMENT B - DESIGN TEAM SERVICES MATRIX

Service Line	Architect / Engineering Basic Services	Supplemental Services	Other Owner Consultants	Owner Costs
CORE DESIGN TEAM				
Architectural Design	X			
BIM Management Plan - If Proposed Plan Is To Design Using BIM				
Architectural Production	X			
Architectural Construction Administration	X			
Design, Interior	X			
Design, Landscape	X			
Engineering, Civil	X			
Engineering, Electrical	X			
Design & Engineering, IT-Technology / Low Voltage, Security	X			
Design & Engineering, Energy Efficient / Specialty Lighting	X			
Design & Engineering, AV Systems	X			
Design & Engineering, Mass Notification, Fire and Life Safety Systems	X			
Engineering, Mechanical	X			
Engineering, Plumbing	X			
Engineering, Structural	X			
Planning, Educational Specifications				
SPECIALTY CONSULTANTS				
Consultant, Acoustic	X			
Consultant, Architectural Specifications	X			
Consultant, Code	X			
Consultant, Structural PEER Review			X	
Consultant, 3rd Party Estimating			x	
Consultant, Sustainability	X			
Consultant, Non-Code Required Signage and Wayfinding	X			
Consultant, Fire / Life / Safety	X			
Consultant, Certified Fire Protection Engineer	X			
Consultant, Hardware	X			
Consultant, Building Envelope		X		
Consultant, Roofing		X		
Consultant, Security			x	
Consultant, Soils / Geotechnical			X	
Consultant, 3rd Party PEER Review Soils Engineer			X	
Consultant, Environmental / Hazardous Material			X	
Consultant, Commissioning Agent / MEP and Building Envelope			X	
Consultant,Commissioning Telecommunications / IT Systems / Security / AV				x
Consultant, Special Inspections / Testing Laboratory				X
Coordination of Permit and AHJ Review	X			
Permits / SDC's / and other AHJ Charges				X
Planning Consultant, Telecommunications / IT Systems / Security / AV	X			
Planning, Relocation / Transition and Move Coordination				X
Site Logistics, Planning / Coordination				X

Attachment C
Proposer Certifications

NOTE TO PROPOSER: Each proposal must include a copy of a signed original of this attachment that has been signed by an authorized representative of proposer. Proposals that do not include a scanned signed copy of this attachment will be rejected as nonresponsive.

Proposer represents that each of the following statements is accurate at the time the proposer submits its proposal. Proposer warrants that each of the following statements will remain accurate for a period of 120 days following submission of proposer's proposal and, if proposer's proposal is accepted, each statement will remain accurate throughout the term of any contract between proposer and the Reynolds School District for architectural and engineering services.

1. The key persons named in proposer's proposal are qualified to perform the work described in this RFP and in the proposal, and proposer will assign these key persons to perform the work if the Reynolds School District awards a contract to proposer for these services.

2. Proposer has not colluded or consulted with any other proposer or potential proposer in the preparation and submission of this proposal.

3. Proposer agrees to be bound by the terms and pricing of its proposal, including all attachments to it.

4. The person signing this certification is authorized by proposer to act on behalf of and to make the representations in this certification on behalf of the proposer.

5. Proposer does not discriminate in its employment practices with regard to race, creed, age, religious affiliation, sex, disability, sexual orientation or national origin, nor has proposer or will proposer discriminate against a subcontractor in awarding a subcontract because the subcontractor is a minority, women or emerging small business enterprise certified under ORS 200.055.

6. Proposer has read and understands all instructions, specifications, and terms and conditions contained in the RFP and any addenda to it, and the Reynolds School District is not liable for any claims or subject to any defenses asserted by proposer based upon, resulting from, or related to, proposer's failure to comprehend all requirements of the RFP.

7. If the Reynolds School District awards a contract to proposer for architectural and engineering services, proposer will diligently perform the contract according to its terms.

8. Each of the foregoing representations is accurate and is incorporated into any contract between the Reynolds School District and the proposer for the delivery of the architectural and engineering services.

Proposer Name: _____

By: _____

Title: _____

Date: _____

Attachment D
References
Reynolds School District

Proposer Name: _____

Proposer must provide five references that can rate proposer's performance on similar projects in the last five (5) years and proposer's ability to satisfy the requirements set forth in RFP section D.6, Proposal Requirements. References must include client name, title and contact information.

The Reynolds School District may attempt to contact two (2) sources for each reference given. The committee may make up to three (3) attempts to contact each of the reference sources, which will be made during normal business hours. If the three (3) attempts are unsuccessful, the proposer may receive zero (0) points for that reference source.

(Note: Proposer may supply the required information in a different format, as long as all required information is provided.

Reference 1

Client Name: _____
City, State: _____
Contact Name: _____
Contact Title: _____
Telephone: _____
Email: _____
Description: _____
_____

Type: Public _____ Private _____

Reference 2

Client Name: _____
City, State: _____
Contact Name: _____
Contact Title: _____
Telephone: _____
Email: _____
Description: _____
_____

Type: Public _____ Private _____

Reference 3

Client Name: _____
City, State: _____
Contact Name: _____
Contact Title: _____

Telephone: _____
Email: _____
Description: _____
_____

Type: Public _____ Private _____

Reference 4

Client Name: _____
City, State: _____
Contact Name: _____
Contact Title: _____
Telephone: _____
Email: _____
Description: _____
_____

Type: Public _____ Private _____

Reference 5

Client Name: _____
City, State: _____
Contact Name: _____
Contact Title: _____
Telephone: _____
Email: _____
Description: _____
_____

Type: Public _____ Private _____

Attachment E

Structural Seismic Evaluation Report

for the

Reynolds Middle School Classroom

Prepared for:

Reynolds School District

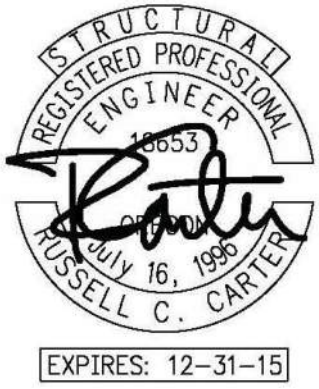
December, 2015

Prepared by:

Zachary A. Stokes, PE
Project Manager

and

Russell C. Carter, PE, SE
Principal in Charge



ZCS ENGINEERING Inc.

900 Klamath Avenue, Klamath Falls, Oregon, 97601

T: 541.884.7421 • F: 541.883.8804

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1.0 Executive Summary

The Reynolds School District (*District*) located in Fairview, Oregon in Multnomah County, approximately three miles North of Gresham, Oregon. The District operates 19 schools located within the community including the property of interest, Reynolds Middle School. The District has retained ZCS Engineering, Inc. (ZCS) to revise the Seismic Rehabilitation Grant application for the Reynolds Middle School 300/400 classrooms wings that was prepared for the 2014 round of grants. A prior evaluation of the facility was prepared by KPFF and can be found in Appendix B. This evaluation was performed in accordance with the American Society of Civil Engineers "Seismic Rehabilitation of Existing Buildings ASCE/SEI 41-13" and includes schematic strengthening drawings that convey the scope of work.

Reynolds Middle School is located at 1200 NE 201st Avenue in Fairview, Oregon. The structures under consideration are the 300 and 400 classroom wings constructed in 1956. Both buildings are very similar and are 19,330 sq. ft. and 17,375 sq. ft. respectively. Each wing houses multiple classrooms and accessory rooms. The buildings are framed with a post and beam system supporting 2x decking. The buildings are attached in several locations to the balance of the structures on the site which comprise the rest of the school facility.

The evaluation of the facility indicates rehabilitation of existing lateral system components are necessary to meet the requirements for Life Safety as outlined in ASCE 41-13. The following is a brief list of seismic deficiencies described in the attached engineering report:

- Continuous cross ties between diaphragm chords are not present
- Straight sheathed diaphragm lacks strength
- The existing diaphragm span does not meet criteria
- Insufficient shearwall redundancy
- Inadequate wall anchorage
- No seismic gap between adjacent buildings

To help the District understand the magnitude of the rehabilitation effort and secure funding sources for the seismic system rehabilitation of the building, a preliminary construction cost estimate was developed. With the assistance of a local construction company representative a total construction cost of **$1,833,900** including all soft costs associated with architecture/engineering, permitting, and District Project Management was developed. Refer to section 5.0 of the report body.

In addition to the construction cost estimation efforts we performed a "Benefit Cost Analysis" using the tool provided by the State of Oregon Infrastructure Finance Authority. The building has a benefit cost score of **2.389**. Refer to Appendix D for BCA worksheets.

It is our final recommendation that given the BCA score and the general condition of the seismic resisting systems, this building is an excellent candidate to be rehabilitated to meet the

currently prescribed seismic demands for Life Safety per ASCE 41-13. Once rehabilitated, this building will meet the needs of the District and community for future generations.

2.0 Project Introduction

Reynolds School District (District) is centrally located in Fairview, Oregon in Multnomah County. Reynolds Middle School is located at 1200 NE 201st Avenue in Fairview, Oregon.

The District has retained ZCS Engineering, Inc. (ZCS) to revise the Seismic Rehabilitation Grant application for the Reynolds Middle School 300/400 classrooms wings prepared during the 2014 application round. The revisions include reviewing the cost estimate and adjusting for inflation, revising the benefit cost analysis, revising the grant application, and providing a report summarizing the information. The cost estimate and application information are based on a seismic evaluation report and schematic strengthening drawings prepared by KPFF Consulting Engineers dated September 29, 2014. Based on the seismic evaluation and schematic rehabilitation design drawings, a preliminary construction cost estimate was developed. Based on the preliminary construction cost estimate, a benefit cost analysis was prepared to help the District determine whether or not the rehabilitation efforts outlined in this report are financially responsible.

This work was conducted at the request of Rachel Hopper, Chief Operations Officer, under an engineering services contract between the District and ZCS.

Preliminary Construction Cost Consulting Services:

- Perform site visit to observe structural systems and visually review structural condition and deficiencies as reported in original application
- Review and revise engineer's opinion of probable cost to perform a seismic retrofit based on the conceptual repair drawings to account for inflation
- Review costs with a licensed contractor to finalize construction cost recommendations
- Revise cost benefit analysis based on SRGP methodologies and material provided in original submittal
- Prepare revised application paperwork based on revised application forms from SRGP
- Assemble the revised SRGP submittal with information provided by the District as required
- The District will be supplied with a complete SRGP grant submittal

3.0 Preliminary Construction Cost Estimate

The attached engineer's opinion of probable cost has been developed by ZCS for Reynolds Middle School Classrooms. ZCS has a successful record of completing seismic rehabilitation projects within the State of Oregon. The prices provided in the attached cost estimate have been developed using the extensive list of past projects as a baseline for this project. These prices are based on Oregon BOLI wage rates. The cost estimate is broken down into multiple line items associated with each major task (general conditions, foundation, structural steel, MEP, etc.) associated with the rehabilitation. Additional line items are included for design associated permit costs, and owner construction management.

Following the generation of the preliminary construction cost estimate, it was reviewed with a local construction company representative who has participated in similar construction projects. This representative is a highly qualified commercial contractor that has worked on multiple educational facilities and performed seismic retrofits to existing structures. They reviewed the values presented in the construction cost estimate, and provided insight into current construction costs from a contractor's perspective. The comments and insight provided have been included in the proposed construction cost estimate. After final review the preliminary opinion of probable cost is **$1,833,900**.

4.0 Benefit Cost Analysis

The provided benefit-cost analysis (BCA) included in Appendix D, has been prepared by ZCS using the BCA tool as provided by the State of Oregon Infrastructure Finance Authority. The costs associated with the building replacement value, contents replacement value, and occupancy values have been developed by District staff using recent data.
The BCA for this project is **2.389**. Given the BCA score of **2.389** is greater than 1.0 this project is a good candidate for the grant program.

5.0 Conclusion and Recommendations

Given the current condition of the structure, the current code section on existing buildings does not mandate that upgrades are required unless the building is scheduled for repairs, alterations, additions, or change in occupancy. However, it is our understanding the goal of the District is to continue utilizing the existing building as a facility for education, and the District wants the seismic structural system to be compliant with the current code. To clarify, upgrades outlined in this report are strictly at the discretion of the District.

Please contact our office if you would like to discuss our findings. Please review the attached schematic drawings that can be used to refine a scope and budget.

Appendix A: Figures

Figure 1 – End elevation

Figure 2 – Side elevation

Figure 3 – Side Elevation

Figure 4 - Hallway

Figure 5 – Typical Classroom

Figure 6 – 2x Roof Decking

Figure 7 – Attic Space

Appendix B:
KPFF
RSD – Middle School 300/400 Classroom Wings Seismic Evaluation and Conceptual Seismic Strengthening Scheme

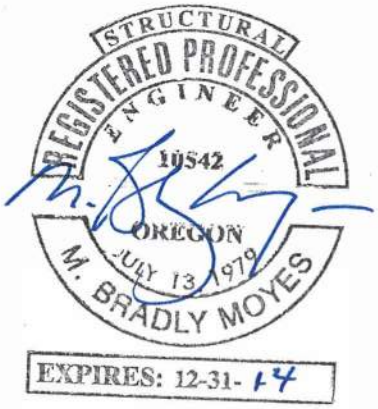
kpff Consulting Engineers

REYNOLDS SCHOOL DISTRICT
MIDDLE SCHOOL 300/400 CLASSROOM WINGS

SEISMIC EVALUATION AND CONCEPTUAL SEISMIC STRENGTHENING DESIGN

SEPTEMBER 29, 2014

KPFF PROJECT NO. 213454.61



PREPARED BY:

KPFF CONSULTING ENGINEERS
111 SW FIFTH AVENUE, SUITE 2500
PORTLAND, OR 97204

SUBMITTED TO:

OH PLANNING+DESIGN
115 NW FIRST AVENUE, SUITE 300
PORTLAND, OR 97209

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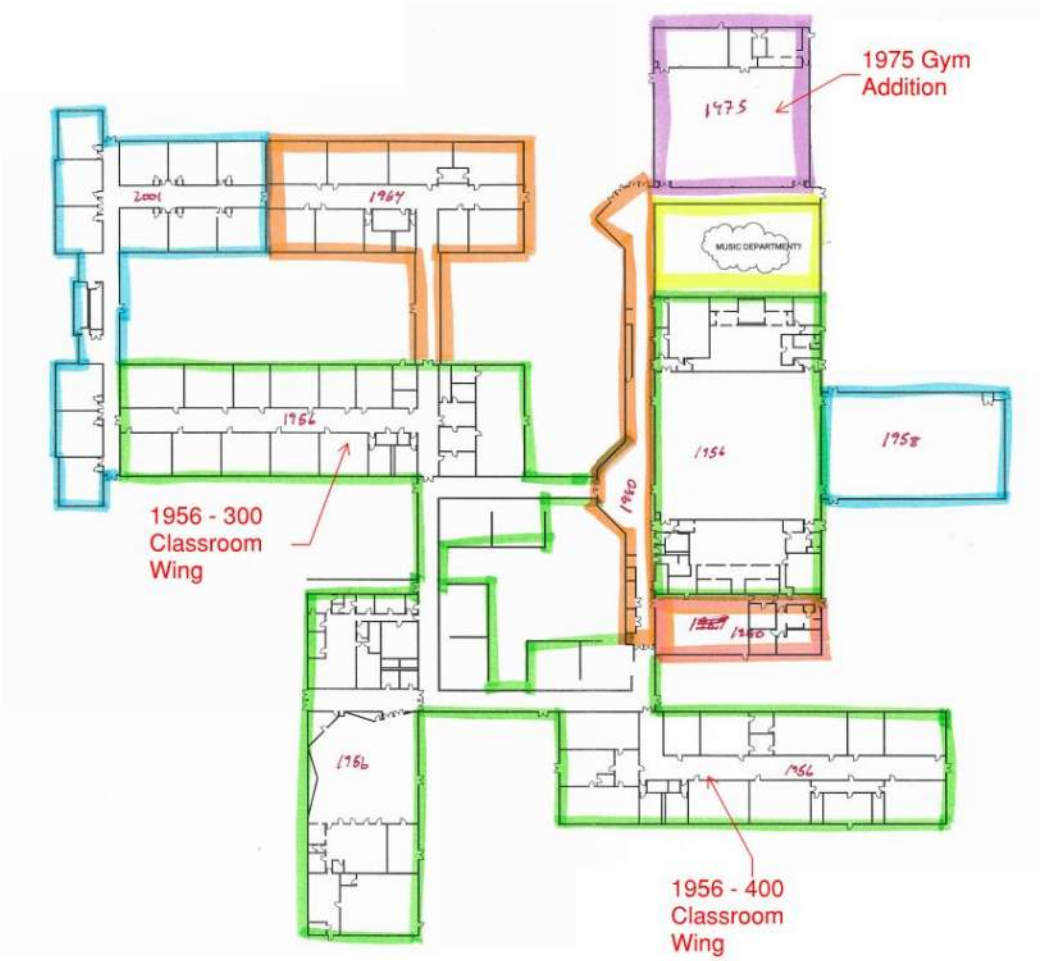
INTRODUCTION AND BUILDING DESCRIPTION

The Reynolds Middle School Campus is located in Troutdale, Oregon. The campus consists of an assortment of buildings constructed at various times between 1956 and 2001. This evaluation is limited to the 300/400 Classroom Wings which were built in 1956. KPFF Consulting Engineers was contracted to perform a seismic investigation of the 300/400 Classroom Wing structures and to provide a separate conceptual strengthening scheme for pricing for each wing. American Society of Civil Engineers (ASCE) Standard 41-13, *Seismic Evaluation and Retrofit of Existing Buildings* was used to complete the evaluation and strengthening scheme.

The Reynolds Middle School 300/400 Classroom Wings consist of (2) one-story buildings, rectangular in plan, each with a footprint of approximately 250 ft. x 74 ft. The first floor consists of a 4-inch thick concrete slab-on-grade. The roof consists of glu-lam beams supporting 2-inch tongue and groove decking. A combination of steel wide flange columns, reinforced brick walls, and wood stud walls support the roof framing.

Buildings 300 and 400 are mirror images of one another, and separated by a large square area with a perimeter covered walkway which is designated as Building 100 in the existing drawings. There is no existing seismic joint between the perimeter walkways and the adjacent buildings.



Reynolds Middle School Campus Plan

PROJECT SCOPE

KPFF Consulting Engineers was retained to perform a seismic evaluation and create a seismic strengthening scheme of the Reynolds Middle School 300/400 Classroom Wings. KPFF used an ASCE 41-13 Tier 1 Evaluation as an evaluation tool and as a guideline to develop the conceptual seismic strengthening scheme.

The recommended strengthening scheme provides rehabilitation of the seismic resisting system and mitigation of nonstructural hazards to a Life Safety performance level.

The seismic evaluation included a review of the original structural drawings and an assessment of observable structural conditions. Our review and the findings presented herein are limited to those conditions and components for which sufficient information could be found within the original structural drawings and confirmed on-site by the visual observations of a KPFF structural engineer.

Observations, analyses, conclusions, and recommendations contained within this report reflect our best engineering judgment. Concealed problems with the construction of the building may exist that cannot be revealed through drawings and photos alone. Therefore, KPFF can in no way warrant or guarantee the condition of the existing construction of the building, or the future building performance.

OBSERVATIONS

Site Reconnaissance
KPFF conducted a site survey of the school to verify the general conformance of the existing documents and general building condition. The existing drawings appear to be generally accurate based on the visual observation of construction readily accessible to view.

Document Review
The following documents were available for review:

Drawings:

- 1956 – New High School for District Seven, dated January 9, 1956

STRUCTURAL EVALUATIONS

The Reynolds Middle School Gym Addition was evaluated using ASCE 41-13, *Seismic Evaluation and Retrofit of Existing Buildings.* The target for rehabilitation was to achieve a Life Safety building performance performance for the BSE-1E event. This performance level assumes the following during a design earthquake event:

(a) Partial or total structural collapse does not occur.
(b) Damage to nonstructural components is non-life-threatening.
(c) The building may require significant repairs before it can be occupied again, and these repairs may not be economically feasible.

The basis for this performance level evaluation comes from ASCE 41-13 which approaches the evaluation with a three tier process. For this report, a Tier 1 analysis was performed. The three tiers are as follows:

Tier 1 - Screening Phase: This level includes completing checklists for the structure, foundations, and nonstructural items (reference Appendix A). During this phase, a review is performed utilizing any available construction documents. In addition to the construction plans, a site visit is made to assess the condition for the existing structure for deterioration of the structure and finishes, and compare the existing structure to the information provided in available drawings.

Tier 2 - Evaluation Phase: For building types not requiring a full Tier 2 evaluation, this phase analyzes noncompliant elements from Tier 1 utilizing a simplified static analysis approach. The Reynolds Middle School 300/400 Classroom Wings do not require a full Tier 2 evaluation.

Tier 3 - Detailed Evaluation Phase: Tier 3 utilizes complex, nonlinear computer modeling to accurately evaluate the building's response to a seismic event and to take advantage of the structure's ductility and post elastic strength.

When analyzing a building, the total seismic force, also known as the base shear, of the building is calculated using a static analysis. This base shear is defined by ASCE 41 as the *Pseudo Lateral Load*. The calculation is based on a formula that utilizes geographic seismicity, mass of the building, stiffness, and structural building type. The base shear is then distributed to each level of the structure based on a weighted proportion of each level's mass and height above the ground. These forces are used to evaluate the structural elements in the building.

The seismic analysis considers BSE-1N Spectral Response Accelerations of $S_{xs,\ BSE\text{-}1N}$ = 0.659g and $S_{x1,\ BSE\text{-}1N}$ = 0.373g with Site Class C soils. The site is classified as having a High Level of Seismicity per ASCE 41-13.

ASCE 41-13 Evaluation Findings

Structural Performance

The building's seismic performance was assessed in accordance with the ASCE 41-13 Tier 1 evaluation criteria. The structure is considered a reinforced masonry with flexible diaphragms building type (RM1). The appropriate Tier 1 checklists for this building type in a high seismicity region are provided in Appendix A of this report. Below is a summary of the items that were found to be nonconforming along with comments and/or recommendations. In accordance with an ASCE 41-13 assessment, these items require mitigation.

- Adjacent Buildings – This criterion requires that the clear distance between adjacent buildings be greater than 4% of the lesser building height.
  - There is no clear space between either of the buildings and Building 100. The strengthening scheme provides a seismic joint.

- Redundancy – This criterion requires that the number of lines of shear walls in each direction be greater than or equal to 2.
  - The short direction of each building has only 1 line of shear walls. The strengthening scheme adds wood shear walls in this direction.

- Wall Anchorage – This criterion requires that exterior concrete walls be anchored to the diaphragm for out-of-plane forces with steel anchors, reinforcing dowels, or straps that develop into the diaphragm.
  - The existing wall anchorage is not adequate. The strengthening scheme adds anchors.

- Cross Ties – This criterion requires that there be continuous cross ties between diaphragm chords.
    - Continuous cross ties are not present. The strengthening scheme adds cross ties in both directions.

- Straight Sheathing – This criterion requires that there all straight sheathed diaphragms have aspect ratios less than 2-1.
    - The existing diaphragm does not meet this criterion. The strengthening scheme adds a layer of plywood on top of the sheathing to act as the diaphragm.

- Spans – This criterion requires that wood diaphragms with spans greater than 24 feet be constructed of wood structural panels or diagonal sheathing.
    - The existing diaphragm does not meet this criterion. The strengthening scheme adds a layer of plywood on top of the sheathing to act as the diaphragm.

Geologic Site Hazards

The building's Geologic and Site Hazards were evaluated based on visual observations of the site and experience with other projects in the general area. The appropriate Tier 1 checklist is provided in Appendix A of this report.

Nonstructural Components

The building's nonstructural components were evaluated based on the requirements of ASCE 41-13. The appropriate Tier 1 checklists are provided in Appendix A of this report and a summary of the findings are listed below:

- Building Contents and Furnishings – Items such as file cabinets and bookshelves were generally found to be unbraced. It is recommended that a review of furnishing anchorages be performed, particularly along exit routes, with upgrades installed as required to meet ASCE 41-13.

- Overhead Glazing – Exterior glazing did not appear to be tempered glass. It is recommended that a review of exterior glazing be performed, particularly along exit routes, and tempered glass be installed as required to meet ASCE 41-13.

GENERAL SUMMARY AND RECOMMENDATIONS

Based on the ASCE 41-13 evaluation and guidelines, the Reynolds Middle School Gym Addition presently has deficiencies that could result in localized hazards, or partial or total collapse of the structure in a major seismic event. Significant deficiencies include: insufficient shear wall capacity in the short direction of the building, limited capacity of roof diaphragm to distribute lateral loads to walls, anchorage of diaphragms to shear walls, and localized falling hazards from unbraced interior furnishings and exterior glazing.

KPFF Consulting Engineers recommends strengthening the structure to a Life Safety performance level. Refer to Appendix C for proposed strengthening scheme.

APPENDIX A

ASCE 41-13 CHECKLISTS

SEISMIC EVALUATION (PER ASCE 41-13)
16.1.2LS LIFE SAFETY BASIC CONFIGURATION CHECKLIST

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
LOW SEISMICITY	
BUILDING SYSTEM	
LOAD PATH: The structure shall contain a complete, well defined load path, including structural elements and connections, that serves to transfer the inertial forces associated with the mass of all elements of the building to the foundation. (Commentary: Sec. A.2.1.1. Tier 2: Sec. 5.4.1.1)	C
ADJACENT BUILDINGS: The clear distance between the building being evaluated and any adjacent building is greater than 4% of the height of the shorter building. This statement shall not apply for the following building types: W1, W1a, and W2. (Commentary: Sec. A.2.1.2. Tier 2: Sec. 5.4.1.2)	NC
MEZZANINES: Interior mezzanines levels are braced independently from the main structure or are anchored to the seismic-force-resisting elements of the main structure. (Commentary: Sec. A.2.1.3. Tier 2: Sec. 5.4.1.3)	N/A
BUILDING CONFIGURATION	
WEAK STORY: The sum of the shear strengths of the seismic-force-resisting system in any story in each direction is not less than 80% of the strength in the adjacent story above. (Commentary: Sec. A.2.2.2. Tier 2: Sec. 5.4.2.1)	N/A
SOFT STORY: The stiffness of the seismic-force-resisting system in any story shall is not less than 70% of the seismic-force-resisting system stiffness in an adjacent story, above or less than 80% of the average seismic-force-resisting system stiffness of the three stories above. (Commentary: Sec. A.2.2.3. Tier 2: Sec. 5.4.2.2)	N/A
VERTICAL IRREGULARITIES: All vertical elements in the seismic-force-resisting system are continuous to the foundation. (Commentary: Sec. A.2.2.4. Tier 2: Sec. 5.4.2.3)	C

SEISMIC EVALUATION (PER ASCE 41-13)
16.1.2LS LIFE SAFETY BASIC CONFIGURATION CHECKLIST

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
GEOMETRY: There are no changes in the net horizontal dimension of the seismic-force-resisting system of more than 30% in a story relative to adjacent stories, excluding one-story penthouses and mezzanines. (Commentary: Sec. A.2.2.5. Tier 2: Sec. 5.4.2.4)	N/A
MASS: There is no change in effective mass more than 50% from one story to the next. Light roofs, penthouses, and mezzanines need not be considered. (Commentary: Sec. A.2.2.6. Tier 2: Sec. 5.4.2.5)	N/A
TORSION: The estimated distance between the story center of mass and the story center of rigidity shall is less than 20% of the building width in either plan dimension (Commentary: Sec. A.2.2.7. Tier 2: Sec. 5.4.2.6)	C
MODERATE SEISMICITY: COMPLETE THE FOLLOWING ITEMS IN ADDITION TO THE ITEMS FOR LOW SEISMICITY.	
GEOLOGIC SITE HAZARDS	
LIQUEFACTION: Liquefaction-susceptible, saturated, loose granular soils that could jeopardize the building's seismic performance shall not exist in the foundation soils at depths within 50 ft. under the building. (Commentary: Sec. A.6.1.1. Tier 2: 5.4.3.1)	C
SLOPE FAILURE: The building site is sufficiently remote from potential earthquake-induced slope failures or rockfalls to be unaffected by such failures or is capable of accommodating any predicted movements without failure. (Commentary: Sec. A.6.1.2. Tier 2: 5.4.3.1)	C
SURFACE FAULT RUPTURE: Surface fault rupture and surface displacement at the building site are not anticipated. (Commentary: Sec. A.6.1.3. Tier 2: 5.4.3.1)	C

SEISMIC EVALUATION (PER ASCE 41-13)
16.1.2LS LIFE SAFETY BASIC CONFIGURATION CHECKLIST

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
HIGH SEISMICITY: COMPLETE THE FOLLOWING ITEMS IN ADDITION TO THE ITEMS FOR LOW AND MODERATE SEISMICITY. **FOUNDATION CONFIGURATION**	
OVERTURNING: The ratio of the least horizontal dimension of the seismic-force-resisting system at the foundation level to the building height (base/height) is greater than $0.6S_a$. (Commentary: Sec. A.6.2.1. Tier 2: Sec. 5.4.3.3)	C
TIES BETWEEN FOUNDATION ELEMENTS: The foundation has ties adequate to resist seismic forces where footings, piles, and piers are not restrained by beams, slabs, or soils classified as Site Class A, B, or C. (Commentary: Sec. A.6.2.2. Tier 2: Sec. 5.4.3.4)	C

FOOTNOTES:
(1) C = Compliant; NC = Non-compliant; N/A = Not Applicable; U = Unable to Determine or Not Investigated
(2) Quick Check refers to ASCE-41 Procedures

SEISMIC EVALUATION (PER ASCE 41-13)

16.15LS LIFE SAFETY STRUCTUAL CHECKLIST FOR BUILDING TYPES RM1: REINFORCED MASONRY BEARING WALLS WITH FLEXIBLE DIAPHRAGMS AND RM2: REINFORCED MASONRY BEARING WALLS WITH STIFF DIAPHRAGMS

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
LOW AND MODERATE SEISMICITY **SEISMIC-FORCE-RESISTING SYSTEM**	
REDUNDANCY: The number of lines of shear walls in each principal direction is greater than or equal to 2. (Commentary: Sec. A.3.2.1.1. Tier 2: Sec. 5.5.1.1)	NC
SHEAR STRESS CHECK: The shear stress in the reinforced masonry shear walls, calculated using the Quick Check procedure of Section 4.5.3.3, is less than 70 lb./in.^{2} (Commentary: Sec. A.3.2.4.1. tier 2: Sec. 5.5.3.1.1)	C
REINFORCING STEEL: The total vertical and horizontal reinforcing steel ratio in reinforced masonry walls is greater than 0.002 of the wall with the minimum of 0.0007 in either of the two directions; the spacing of reinforcing steel is less than 48 in., and all vertical bars extend to the top of the walls. (Commentary: Sec. A.3.2.4.2. Tier 2: Sec. 5.5.3.1.3)	C
STIFF DIAPHRAGMS	
TOPPING SLAB: Precast concrete diaphragm elements are interconnected by a continuous reinforced concrete topping slab. (Commentary: Sec. A.4.5.1. Tier 2: Sec. 5.6.4)	N/A
CONNECTIONS	
WALL ANCHORAGE: Exterior concrete or masonry walls that are dependent on the diaphragm for lateral support are anchored for out-of-plane forces at each diaphragm level with steel anchors, reinforcing dowels, or straps that are developed into the diaphragm. Connections shall have adequate strength to resist the connection force calculated in the Quick Check procedure of Section 4.5.3.7. (Commentary: Sec. A.5.1.1. Tier 2: Sec. 5.7.1.1)	NC

SEISMIC EVALUATION (PER ASCE 41-13)

16.15LS LIFE SAFETY STRUCTUAL CHECKLIST FOR BUILDING TYPES RM1: REINFORCED MASONRY BEARING WALLS WITH FLEXIBLE DIAPHRAGMS AND RM2: REINFORCED MASONRY BEARING WALLS WITH STIFF DIAPHRAGMS

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
WOOD LEDGERS: The connection between the wall panels and the diaphragm does not induce cross-grain bending or tension in the wood ledgers. (Commentary: Sec. A.5.1.2. Tier 2: Sec. 5.7.1.3)	C
TRANSFER TO SHEAR WALLS: Diaphragms are connected for transfer of seismic forces to the shear walls. (Commentary: Sec. A.5.2.1. Tier 2: Sec. 5.7.2)	C
TOPPING SLAB TO WALLS OR FRAMES: Reinforced concrete topping slabs that interconnect the precast concrete diaphragm elements are doweled for transfer of forces into the shear wall for frame elements. (Commentary: Sec. A.5.2.3. Tier 2: Sec. 5.7.2)	N/A
FOUNDATION DOWELS: Wall reinforcement is doweled into the foundation. (Commentary: Sec. A.5.3.5. Tier 2: Sec. 5.7.3.4)	C
GIRDER-COLUMN CONNECTION: There is a positive connection using plates, connection hardware, or straps between the girder and the column support. (Commentary: Sec. A.5.4.1. Tier 2: Sec. 5.7.4.1)	C
HIGH SEISMICITY: COMPLETE THE FOLLOWING ITEMS IN ADDITION TO THE ITEMS FOR LOW AND MODERATE SEISMICITY **STIFF DIAPHRAGMS**	
OPENINGS AT SHEAR WALLS: Diaphragm openings immediately adjacent to the shear walls are less than 25% of the wall length. (Commentary: Sec. A.4.1.4. Tier 2: Sec. 5.6.1.3)	N/A
OPENINGS AT EXTERIOR MASONRY SHEAR WALLS: Diaphragm openings immediately adjacent to exterior masonry shear walls are not greater than 8 ft. long. (Commentary: Sec. A.4.1.6. Tier 2: Sec. 5.6.1.3)	N/A

SEISMIC EVALUATION (PER ASCE 41-13)

16.15LS LIFE SAFETY STRUCTUAL CHECKLIST FOR BUILDING TYPES RM1: REINFORCED MASONRY BEARING WALLS WITH FLEXIBLE DIAPHRAGMS AND RM2: REINFORCED MASONRY BEARING WALLS WITH STIFF DIAPHRAGMS

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
FLEXIBLE DIAPHRAGMS	
CROSS TIES: There are continuous cross ties between diaphragm chords. (Commentary: Sec. A.4.1.2. Tier 2: Sec. 5.6.1.2)	NC
OPENINGS AT SHEAR WALLS: Diaphragm openings immediately adjacent to the shear walls are less than 25% of the wall length. (Commentary: Sec. A.4.1.4. Tier 2: Sec. 5.6.1.3)	C
OPENINGS AT EXTERIOR MASONRY SHEAR WALLS: Diaphragm openings immediately adjacent to exterior masonry shear walls are not greater than 8 ft. long. (Commentary: Sec. A.4.1.6. Tier 2: Sec. 5.6.1.3)	C
STRAIGHT SHEATHING: All straight sheathed diaphragms have aspect ratios less than 2-to-1 in the direction being considered. (Commentary: Sec. A.4.2.1. Tier 2: Sec. 5.6.2)	NC
SPANS: All wood diaphragms with spans greater than 24 ft. consist of wood structural panels or diagonal sheathing. (Commentary: Sec. A.4.2.2. Tier 2: Sec. 5.6.2)	NC
DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS: All diagonally sheathed or unblocked wood structural panel diaphragms have horizontal spans less than 40 ft. and aspect ratios less than or equal to 4-to-1. (Commentary: Sec. A.4.2.3. Tier 2: Sec. 5.6.2)	N/A
OTHER DIAPHRAGMS: The diaphragm shall not consist of a system other than wood, metal deck, concrete, or horizontal bracing. (Commentary: Sec. A.4.7.1. Tier 2: Sec. 5.6.5)	C

SEISMIC EVALUATION (PER ASCE 41-13)

16.15LS LIFE SAFETY STRUCTUAL CHECKLIST FOR BUILDING TYPES RM1: REINFORCED MASONRY BEARING WALLS WITH FLEXIBLE DIAPHRAGMS AND RM2: REINFORCED MASONRY BEARING WALLS WITH STIFF DIAPHRAGMS

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
CONNECTIONS	
STIFFNESS OF WALL ANCHORS: Anchors of concrete or masonry walls to wood structural elements are installed taunt and are stiff enough to limit the relative movement between the wall and the diaphragm to no greater than 1/8 in. before engagement of the anchors. (Commentary: Sec. A.5.1.4. tier 2: Sec. 5.7.1.2)	U

FOOTNOTES:
(1) C = Compliant; NC = Non-compliant; N/A = Not Applicable; U = Unable to Determine or Not Investigated
(2) Quick Check refers to ASCE-41 Procedures

SEISMIC EVALUATION (PER ASCE 41-13)
16.17LS NONSTRUCTURAL CHECKLIST

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
LIFE SAFETY SYSTEMS	
LS-LMH; PR-LMH. FIRE SUPPRESSION PIPING: Fire suppression piping is anchored and braced in accordance with NFPA-13. (Commentary: Sec. A.7.13.1. Tier 2: Sec. 13.7.4)	U
LS-LMH; PR-LMH. FLEXIBLE COUPLINGS: Fire suppression piping has flexible couplings in accordance with NFPA-13. (Commentary: Sec. A.7.13.2. Tier 2: Sec. 13.7.4)	U
LS-LMH; PR-LMH. EMERGENCY POWER: Equipment used to power or control life safety systems is anchored or braced. (Commentary: Sec. A.7.12.1. Tier 2: Sec. 13.7.7)	U
LS-LMH; PR-LMH. STAIR AND SMOKE DUCTS: Stair pressurization and smoke control ducts are braced and have flexible connections at seismic joints. (Commentary: Sec. A.7.14.1. Tier 2: Sec. 13.7.6)	N/A
LS-MH; PR-MH. SPRINKLER CEILING CLEARANCE: Penetrations through panelized ceilings for fire suppression devices provide clearances in accordance with NFPA-13. (Commentary: Sec. A.7.13.3. Tier 2: Sec. 13.7.4)	U
LS-not required; PR-LMH. EMERGENCY LIGHTING: Emergency and egress lighting equipment is anchored or braced. (Commentary: Sec. A.7.3.1. Tier 2: Sec. 13.7.9)	N/A
HAZARDOUS MATERIALS	
LS-LMH; PR-LMH. HAZARDOUS MATERIAL EQUIPMENT: Equipment mounted on vibration isolators and containing hazardous material is equipped with restraints or snubbers. (Commentary: Sec. A.7.12.2. Tier 2: 13.7.1)	N/A

SEISMIC EVALUATION (PER ASCE 41-13)
16.17LS NONSTRUCTURAL CHECKLIST

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
LS-LMH; PR-LMH. HAZARDOUS MATERIAL STORAGE: Breakable containers that hold hazardous material, including gas cylinders, are restrained by latched doors, shelf lips, wires, or other methods. (Commentary: Sec. A.7.15.1. Tier 2: Sec. 13.8.4)	N/A
LS-MH; PR-MH. HAZARDOUS MATERIAL DISTRIBUTION: Piping or ductwork conveying hazardous materials is braced or otherwise protected from damage that would allow hazardous material release. (Commentary: Sec. A.7.13.4. Tier 2: Sec. 13.7.3 and 13.7.5)	N/A
LS-MH; PR-MH. SHUT-OFF VALVES: Piping containing hazardous material, including natural gas, has shut-off valves or other devices to limit spills or leaks. (Commentary: Sec. A.7.13.3. Tier 2: 13.7.3 and 13.7.5)	N/A
LS-LMH; PR-LMH. FLEXIBLE COUPLINGS: Hazardous material ductwork and piping, including natural gas piping, has flexible couplings. (Commentary: Sec. A.7.15.4. Tier 2: Sec.13.7.3 and 13.7.5)	N/A
LS-MH; PR-MH. PIPING OR DUCTS CROSSING SEISMIC JOINTS: Piping or ductwork carrying hazardous material that either crosses seismic joints or isolation planes or is connected to independent structures has couplings or other details to accommodate the relative seismic displacements. (Commentary: Sec. A.7.13.6. Tier 2: Sec.13.7.3, 13.7.5, and 13.7.6)	N/A
PARTITIONS	
LS-LMH; PR-LMH. UNREINFORCED MASONRY: Unreinforced masonry or hollow-clay tile partitions are braced at a spacing of at most 10 ft. in Low or Moderate Seismicity, or at most 6 ft. in High Seismicity. (Commentary: Sec. A.7.1.1. Tier 2: Sec. 13.6.2)	N/A
LS-LMH; PR-LMH. HEAVY PARTITIONS SUPPORTED BY CEILINGS: The tops of masonry or hollow-clay tile partitions are not laterally supported by an integrated ceiling system. (Commentary: Sec. A.7.2.1. Tier 2: Sec. 13.6.2)	N/A

SEISMIC EVALUATION (PER ASCE 41-13)
16.17LS NONSTRUCTURAL CHECKLIST

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
LS-MH; PR-MH. DRIFT: Rigid cementitious partitions are detailed to accommodate the following drift ratios: in steel moment frame, concrete moment frame, and wood frame buildings, 0.02; in other buildings, 0.005. (Commentary: A.7.1.2. Tier 2: Sec. 13.6.2)	N/A
LS-not required; PR-MH. LIGHT PARTITIONS SUPPORTED BY CEILINGS: The tops of gypsum board partitions are not laterally supported by an integrated ceiling system. (Commentary: Sec. A.7.2.1. Tier 2: Sec. 13.6.2)	N/A
LS-not required; PR-MH. STRUCTURAL SEPARATIONS: Partitions that cross structural separations have seismic or control joints. (Commentary: Sec. A.7.1.3. Tier 2. Sec. 13.6.2)	N/A
LS-not required; PR-MH. TOPS: The tops of ceiling-high framed or panelized partitions have lateral bracing to the structure at a spacing equal to or less than 6 ft. (Commentary: Sec. A.7.1.4. Tier 2. Sec. 13.6.2)	N/A
CEILINGS	
LS-MH; PR-LMH. SUSPENDED LATH AND PLASTER: Suspended lath and plaster ceilings have attachments that resist seismic forces for every 12 ft.^{2} of area. (Commentary: Sec. A.7.2.3. Tier 2: Sec. 13.6.4)	N/A
LS-MH; PR-LMH. SUSPENDED GYPSUM BOARD: Suspended gypsum board ceilings have attachments that resist seismic forces for every 12 ft.^{2} of area. (Commentary: Sec. A.7.2.3. Tier 2: Sec. 13.6.4)	N/A
LS-not required; PR-MH. INTEGRATED CEILINGS: Integrated suspended ceilings with continuous areas greater than 144 ft.^{2}, and ceilings of smaller areas that are not surrounded by restraining partitions, are laterally restrained at a spacing no greater than 12 ft. with members attached to the structure above. Each restraint location has a minimum of four diagonal wires and compression struts, or diagonal members capable of resisting compression. (Commentary: Sec. A.7.2.2. Tier 2: Sec. 13.6.4)	N/A

SEISMIC EVALUATION (PER ASCE 41-13)
16.17LS NONSTRUCTURAL CHECKLIST

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
LS-not required; PR-MH. EDGE CLEARANCE: The free edges of integrated suspended ceilings with continuous areas greater than 144 ft.^{2} have clearances from the enclosing wall or partition of at least the following: in Moderate Seismicity, ½ in.: in High Seismicity, ¾ in. (Commentary: Sec. A.7.2.4. Tier 2: Sec. 13.6.4)	N/A
LS-not required; PR-MH. CONTINUITY ACROSS STRUCTURE JOINTS: The ceiling system does not cross any seismic joint and is not attached to multiple independent structures. (Commentary: Sec. A.7.2.5. Tier 2: Sec. 13.6.4)	N/A
LS-not required; PR-H. EDGE SUPPORT: The free edges of integrated suspended ceilings with continuous areas greater than 144 ft.^{2} are supported by closure angles or channels not less than 2 in. wide. (Commentary: Sec. A.7.2.6. Tier 2: Sec. 13.6.4)	N/A
LS-not required; PR-H. SEISMIC JOINTS: Acoustical tile or lay-in panel ceilings have seismic separation joints such that each continuous portion of the ceiling is more than 2500 ft.^{2} and has a ratio of long-to-short dimensions no more than 4-to-1. (Commentary: Sec. A.7.2.7. Tier 2: 13.6.4)	N/A
LIGHT FIXTURES	
LS-MH; PR-MH. INDEPENDENT SUPPORT: Light fixtures that weigh more per square foot than the ceiling they penetrate are supported independent of the grid ceiling suspension system by a minimum of two wires at diagonally opposite corners of each fixture. (Commentary: Sec. A.7.3.2. Tier 2: Sec. 13.6.4 and 13.7.9)	U
LS-not required; PR-H. PENDANT SUPPORTS: Light fixtures on pendant supports are attached at a spacing equal to or less than 6 ft. and, if rigidly supported, are free to move with the structure to which they are attached without damaging adjoining components. (Commentary: A.7.3.3. Tier 2: Sec. 13.7.9)	N/A
LS-not required; PR-H. LENS COVERS: Lens covers on light fixtures are attached with safety devices. (Commentary: Sec. A.7.3.4. Tier 2: Sec. 13.7.9)	N/A

SEISMIC EVALUATION (PER ASCE 41-13)
16.17LS NONSTRUCTURAL CHECKLIST

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
CLADDING AND GLAZING	
LS-MH; PR-MH. CLADDING ANCHORS: Cladding components weighing more than 10 lb./ft.^{2} are mechanically anchored to the structure at a spacing equal to or less than the following: for Life Safety in Moderate Seismicity, 6 ft.; for Life Safety in High Seismicity and for Position Retention in any seismicity, 4 ft. (Commentary: Sec. A.7.4.1. Tier 2: Sec. 13.6.1)	N/A
LS-MH; PR-MH. CLADDING ISOLATION: For steel or concrete moment frame buildings, panel connections are detailed to accommodate a story drift ratio of at least the following: for Life Safety in Moderate Seismicity, 0.01; for Life Safety in High Seismicity and for Position Retention in any seismicity, 0.02. (Commentary: Sec. A.7.4.3. Tier 2: Sec. 13.6.1)	N/A
LS-MH; PR-MH. MULTI-STORY PANELS: For multi-story panels attached at more than one floor level, panel connections are detailed to accommodate a story drift ratio of at least the following: for Life Safety in Moderate Seismicity, 0.01; for Life Safety in High Seismicity and for Position Retention in any seismicity, 0.02. (Commentary: Sec. A.7.4.4. Tier 2: Sec. 13.6.1)	N/A
LS-MH; PR-MH. PANEL CONNECTIONS: Cladding panels are anchored out-of-plane with a minimum number of connections for each wall panel, as follows: for Life Safety in Moderate Seismicity, 2 connections; for Life Safety in High Seismicity and for Position Retention in any seismicity, 4 connections. (Commentary: Sec. A.7.4.5. Tier 2: Sec. 13.6.1.4)	N/A
LS-MH; PR-MH. BEARING CONNECTIONS: Where bearing connections are used, there is a minimum of two bearing connections for each cladding panel. (Commentary: Sec. A.7.4.6. Tier 2: Sec. 13.6.1.4)	N/A
LS-MH; PR-MH. INSERTS: Where concrete cladding components use inserts, the inserts have positive anchorage or are anchored to reinforcing steel. (Commentary: Sec. A.7.4.7. Tier 2: Sec. 13.6.1.4)	N/A

SEISMIC EVALUATION (PER ASCE 41-13)
16.17LS NONSTRUCTURAL CHECKLIST

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
LS-MH; PR-MH. OVERHEAD GLAZING: Glazing panes of any size in curtain walls and individual interior or exterior panes over 16 ft.^{2} in area are laminated annealed or laminated heat-strengthened glass and are detailed to remain in the frame when cracked. (Commentary: Sec. A.7.4.8: Tier 2: Sec. 13.6.1.5)	NC
MASONRY VENEER	
LS-LMH; PR-LMH. TIES: Masonry veneer is connected to the backup with corrosion-resistant ties. There is a minimum of one tie for every 2-2/3 ft.^{2}, and the ties have spacing no greater than the following: for Life Safety in Low or Moderate Seismicity, 36 in., for Life Safety in High Seismicity and for Position Retention in any seismicity, 24 in. (Commentary: Sec. A.7.5.1. Tier 2: Sec. 13.6.1.2)	N/A
LS-LMH; PR-LMH. SHELF ANGLES: Masonry veneer is supported by shelf angles or other elements at each floor above the ground floor. (Commentary: Sec. A.7.5.2. Tier 2: Sec. 13.6.1.2)	N/A
LS-LMH; PR-LMH. WEAKENED PLANES: Masonry veneer is anchored to the backup adjacent to weakened planes, such as at the locations of flashing. (Commentary: Sec. A.7.5.3. Tier 2: Sec. 13.6.1.2)	N/A
LS-LMH; PR-LMH. UNREINFORCED MASONRY BACKUP: There is no unreinforced masonry backup. (Commentary: Sec. A.7.7.2. Tier 2: Sec. 13.6.1.1 and 13.6.1.2)	N/A
LS-MH; PR-MH. STUD TRACKS: For veneer with metal stud backup, stud tracks are fastened to the structure at a spacing equal to or less than 24 in. on center. (Commentary: Sec. A.7.6.1. Tier 2: Sec. 13.6.1.1 and 13.6.1.2)	N/A
LS-MH; PR-MH. ANCHORAGE: For veneer with concrete block or masonry backup, the backup is positively anchored to the structure at a horizontal spacing equal to or less than 4 ft. along the floors and roof. (Commentary: Sec. A.7.7.1. Tier 2: Sec. 13.6.1.1. and 13.6.1.2)	N/A

SEISMIC EVALUATION (PER ASCE 41-13)
16.17LS NONSTRUCTURAL CHECKLIST

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
LS-not required; PR-MH. WEEP HOLES: In veneer anchored to stud walls, the veneer has functioning weep holes and base flashing. (Commentary: Sec. A.7.5.6. Tier 2: 13.6.1.2)	N/A
LS-not required; PR-MH. OPENINGS: For veneer with metal stud backup, steel studs frame window and door openings. (Commentary: Sec. A.7.6.2. Tier 2: Sec. 13.6.1.1 and 13.6.1.2)	N/A
PARAPETS, CORNICES, ORNAMENTATION, AND APPENDAGES	
LS-LMH; PR-LMH. URM PARAPETS OR CORNICES: Laterally unsupported unreinforced masonry parapets or cornices have height-to-thickness ratios no greater than the following: for Life Safety in Low or Moderate Seismicity, 2.5; for Life Safety in High Seismicity and for Position Retention in any seismicity, 1.5. (Commentary: Sec. A.7.8.1. Tier 2: Sec. 13.6.5)	N/A
LS-LMH; PR-LMH. CANOPIES: Canopies at building exits are anchored to the structure at a spacing no greater than the following: for Life Safety in Low or Moderate Seismicity, 10ft; for Life Safety in High Seismicity and for Position Retention in any seismicity, 6 ft. (Commentary: Sec. A.7.8.2. Tier 2: Sec. 13.6.6)	C
LS-MH; PR-LMH. CONCRETE PARAPETS: Concrete parapets with height-to-thickness ratios greater than 2.5 have vertical reinforcement. (Commentary: Sec. A.7.8.3. Tier 2: Sec. 13.6.5)	N/A
LS-MH; PR-LMH. APPENDAGES: Cornices, parapets, signs, and other ornamentation or appendages that extend above the highest point of anchorage to the structure or cantilever from components are reinforced and anchored to the structural system at a spacing equal to or less than 6 ft. This checklist item does not apply to parapets or cornices covered by other checklist items. (Commentary: Sec. A.7.8.4. Tier 2: Sec. 13.6.6)	C

SEISMIC EVALUATION (PER ASCE 41-13)
16.17LS NONSTRUCTURAL CHECKLIST

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
MASONRY CHIMNEYS	
LS-LMH; PR-LMH. URM CHMINEYS: Unreinforced masonry chimneys extend above the roof surface no more than the following: for Life Safety in Low or Moderate Seismicity, 3 times the least dimension of the chimney; for Life Safety in High Seismicity and for Position Retention in any seismicity, 2 times the least dimension of the chimney. (Commentary: Sec. A.7.9.1. Tier 2: 13.6.7)	N/A
LS-LMH; PR-LMH. ANCHORAGE: Masonry chimneys are anchored at each floor level, at the topmost ceiling level, and at the roof. (Commentary: Sec. A.7.9.2. Tier 2: 13.6.7)	N/A
STAIRS	
LS-LMH; PR-LMH. STAIR ENCLOSURES: Hollow-clay tile or unreinforced masonry walls around stair enclosures are restrained out-of-plane and have height-to-thickness ratios not greater than the following: for Life Safety in Low or Moderate Seismicity, 15-to-1; for Life Safety in High Seismicity and for Position Retention in any seismicity, 12-to-1. (Commentary: Sec. A.7.10.1. Tier 2: Sec. 13.6.2 and 13.6.8)	N/A
LS-LMH; PR-LMH. STAIR DETAILS: In moment frame structures, the connection between the stairs and the structure does not rely on shallow anchors in concrete. Alternatively, the stair details are capable of accommodating the drift calculated using the Quick Check procedure of Section 4.5.3.1 without including any lateral stiffness contribution from the stairs. (Commentary: Sec. A.7.10.2. Tier 2: 13.6.8)	N/A
CONTENTS AND FURNISHINGS	
LS-MH; PR-MH. INDUSTRIAL STORAGE RACKS: Industrial storage racks or pallet racks more than 12 ft. high meet the requirements of ANSI/MH 16.1 as modified by ASCE 7 Chapter 15. (Commentary: Sec. A.7.11.1. Tier 2: Sec. 13.8.1)	N/A

SEISMIC EVALUATION (PER ASCE 41-13)
16.17LS NONSTRUCTURAL CHECKLIST

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
LS-H; PR-MH. TALL NARROW CONTENTS: Contents more than 6 ft. high with a height-to-depth or height-to-width ratio greater than 3-to-1 are anchored to the structure or to each other. (Commentary: Sec. A.7.11.2. Tier 2: Sec. 13.8.2)	NC
LS-H; PR-H. FALL-PRONE CONTENTS: Equipment, stored items, or other contents weighing more than 20 lb. whose center of mass is more than 4 ft. above the adjacent floor level are braced or otherwise restrained. (Commentary: Sec. A.7.11.3. Tier 2: Sec. 13.8.2)	NC
LS-not required; PR-MH. ACCESS FLOORS: Access floors more than 9 in. high are braced. (Commentary: Sec. A.7.11.4. Tier 2: Sec. 13.8.3)	N/A
LS-not required; PR-MH. EQUIPMENT ON ACCESS FLOORS: Equipment and other contents supported by access floor systems are anchored or braced to the structure independent of the access floor. (Commentary: Sec. A.7.11.5. Tier 2: Sec. 13.7.7 and 13.8.3)	N/A
LS-not required; PR-H. SUSPENDED CONTENTS: Items suspended without lateral bracing are free to swing from or move with the structure from which they are suspended without damaging themselves or adjoining components. (Commentary: A.7.11.6. Tier 2: Sec. 13.8.2)	N/A
MECHANICAL AND ELECTRICAL EQUIPMENT	
LS-H; PR-H. FALL-PRONE EQUIPMENT: Equipment weighing more than 20 lb. whose center of mass is more than 4 ft. above the adjacent floor level, and which is not in-line equipment, is braced. (Commentary: A.7.12.4. Tier 2: 13.7.1 and 13.7.7)	U
LS-H; PR-H. IN-LINE EQUIPMENT: Equipment installed in-line with a duct or piping system, with an operating weight more than 75 lb., is supported and laterally braced independent of the duct or piping system. (Commentary: Sec. A.7.12.5. Tier 2: Sec. 13.7.1)	U

SEISMIC EVALUATION (PER ASCE 41-13)
16.17LS NONSTRUCTURAL CHECKLIST

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
LS-H; PR-MH. TALL NARROW EQUIPMENT: Equipment more than 6 ft. high with a height-to-depth or height-to-width ratio greater than 3-to-1 is anchored to the floor slab or adjacent structural walls. (Commentary: Sec. A.7.12.6. Tier 2: Sec. 13.7.1 and 13.7.7)	U
LS-not required; PR-MH. MECHANICAL DOORS: Mechanically operated doors are detailed to operate at a story drift ratio of 0.01. (Commentary: Sec. A.7.12.7. Tier 2: Sec. 13.6.9)	N/A
LS-not required; PR-H. SUSPENDED EQUIPMENT: Equipment suspended without lateral bracing is free to swing from or move with the structure from which it is suspended without damaging itself or adjoining components. (Commentary: Sec. A.7.12.8. Tier 2: Sec. 13.7.1 and 13.7.7)	N/A
LS-not required; PR-H. VIBRATION ISOLATORS: Equipment mounted on vibration isolators is equipped with horizontal restraints or snubbers and with vertical restraints to resist overturning. (Commentary: Sec. A.7.12.9. Tier 2: Sec. 13.7.1)	N/A
LS-not required; PR-H. HEAVY EQUIPMENT: Floor-supported or platform-supported equipment weighing more than 400 lb. is anchored to the structure. (Commentary: Sec. A.7.12.10. Tier 2: 13.7.1 and 13.7.7)	N/A
LS-not required; PR-H. ELECTRICAL EQUIPMENT: Electrical equipment is laterally braced to the structure. (Commentary: Sec. A.7.12.11. Tier 2: 13.7.7)	N/A
LS-not required; PR-H. CONDUIT COUPLINGS: Conduit greater than 2.5 in. trade size that is attached to panels, cabinets, or other equipment and is subject to relative seismic displacement has flexible couplings or connections. (Commentary: Sec. A.7.12.12. Tier 2: 13.7.8)	N/A

SEISMIC EVALUATION (PER ASCE 41-13)
16.17LS NONSTRUCTURAL CHECKLIST

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
PIPING	
LS-not required; PR-H. FLEXIBLE COUPLINGS: Fluid and gas piping has flexible couplings. (Commentary: Sec. A.7.13.2. Tier 2: Sec. 13.7.3 and 13.7.5)	N/A
LS-not required; PR-H. FLUID AND GAS PIPING: Fluid and gas piping is anchored and braced to the structure to limit spills or leaks. (Commentary: Sec. A.7.13.4. Tier 2: Sec. 13.7.3 and 13.7.5)	N/A
LS-not required; PR-H. C-CLAMPS: One-sided C-clamps that support piping larger than 2.5 in. in diameter are restrained. (Commentary: Sec. A.7.13.5. Tier 2: Sec. 13.7.3 and 13.7.5)	N/A
LS-not required; PR-H. PIPING CROSSING SEISMIC JOINTS: Piping that crosses seismic joints or isolation planes or is connected to independent structures has couplings or other details to accommodate the relative seismic displacements. (Commentary: Sec. A.7.13.6. Tier 2: Sec. 13.7.3 and 13.7.5)	N/A
DUCTS	
LS-not required; PR-H. DUCT BRACING: Rectangular ductwork larger than 6 ft.^{2} in cross-sectional area and round ducts larger than 28 in. in diameter are braced. The maximum spacing of transverse bracing does not exceed 30 ft. The maximum spacing of longitudinal bracing does not exceed 60 ft. (Commentary: Sec. A.7.14.2. Tier 2: 13.7.6)	N/A
LS-not required; PR-H. DUCT SUPPORT: Ducts are not supported by piping or electrical conduit. (Commentary: Sec. A.7.14.3. Tier 2: Sec. 13.7.6)	N/A
LS-not required; PR-H. DUCTS CROSSING SEISMIC JOINTS: Ducts that cross seismic joints or isolation planes or are connected to independent structures have couplings or other details to accommodate the relative seismic displacements. (Commentary: Sec. A.7.14.5. Tier 2: Sec. 13.7.6)	N/A

SEISMIC EVALUATION (PER ASCE 41-13)
16.17LS NONSTRUCTURAL CHECKLIST

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
ELEVATORS	
LS-H; PR-H. RETAINER GUARDS: Sheaves and drums have cable retainer guards. (Commentary: Sec. A.7.16.1. Tier 2: 13.8.6)	N/A
LS-H; PR-H. RETAINER PLATE: A retainer plate is present at the top and bottom of both car and counterweight. (Commentary: Sec. A.7.16.2. Tier 2: 13.8.6)	N/A
LS-not required; PR-H. ELEVATOR EQUIPMENT: Equipment, piping, and other components that are part of the elevator system are anchored. (Commentary: Sec. A.7.16.3. Tier 2: 13.8.6)	N/A
LS-not required; PR-H. SEISMIC SWITCH: Elevators capable of operating at speeds of 150 ft./min. or faster are equipped with seismic switches that meet the requirements of ASME A17.1 or have trigger levels set to 20% of the acceleration of gravity at the base of the structure and 50% of the acceleration of gravity in other locations. (Commentary: Sec. A.7.16.4. Tier 2: 13.8.6)	N/A
LS-not required; PR-H. SHAFT WALLS: Elevator shaft walls are anchored and reinforced to prevent toppling into the shaft during strong shaking. (Commentary: Sec. A.7.16.5. Tier 2: 13.8.6)	N/A
LS-not required; PR-H. COUNTERWEIGHT RAILS: All counterweight rails and divider beams are sized in accordance with ASME A17.1. (Commentary: Sec. A.7.16.6. Tier 2: 13.8.6)	N/A
LS-not required; PR-H. BRACKETS: The brackets that tie the car rails and the counterweight rail to the structure are sized in accordance with ASME A17.1. (Commentary: Sec. A.7.16.7. Tier 2: 13.8.6)	N/A
LS-not required; PR-H. SPREADER BRACKET: Spreader brackets are not used to resist seismic forces. (Commentary: Sec. A.7.16.8. Tier 2: 13.8.6)	N/A

SEISMIC EVALUATION (PER ASCE 41-13)
16.17LS NONSTRUCTURAL CHECKLIST

BUILDING NAME: Reynolds Middle School 300/400 Classroom Wings
BUILDING LOCATION: Troutdale, OR

Evaluation Statement	Evaluation (1)
LS-not required; PR-H. GO-SLOW ELEVATORS: The building has a go-slow elevator system. (Commentary: Sec. A.7.16.9. Tier 2: 13.8.6)	N/A

FOOTNOTES:
(1) C = Compliant; NC = Non-compliant; N/A = Not Applicable; U = Unable to Determine or Not Investigated
(2) Quick Check refers to ASCE-31 Procedures

APPENDIX B

RVS REPORTS

NEW RVS

Rapid Visual Screening of Buildings for Potential Seismic Hazards

FEMA-154 Data Collection Form

HIGH Seismicity

Scale:

Address: 1200 ME 201st Ave, Fairview, OR 97204

Zip

Other Identifiers

No. Stories 1 **Year Built** 1956

Screener AC **Date** 9/17/14

Total Floor Area (sq. ft.)

Building Name Reynolds Middle School - 300/400 Classroom Wings

Use School

PHOTOGRAPH

OCCUPANCY			SOIL		TYPE						FALLING HAZARDS			
Assembly	Govt	Office	Number of Persons		A	B	C	D	E	F	☐	☐	☒	☒
Commercial	Historic	Residential	0 – 10	11 – 100	Hard Rock	Avg. Rock	Dense Soil	Stiff Soil	Soft Soil	Poor Soil	Unreinforced Chimneys	Parapets	Cladding	Other: Glazing
Emer. Services	Industrial	School	101-1000	1000+										

BASIC SCORE, MODIFIERS, AND FINAL SCORE, *S*

BUILDING TYPE	W1	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM
Basic Score	4.4	3.8	2.8	3.0	3.2	2.8	2.0	2.5	2.8	1.6	2.6	2.4	2.8	2.8	1.8
Mid Rise (4 to 7 stories)	N/A	N/A	+0.2	+0.4	N/A	+0.4	+0.4	+0.4	+0.4	+0.2	N/A	+0.2	+0.4	+0.4	0.0
High Rise (> 7 stories)	N/A	N/A	+0.6	+0.8	N/A	+0.8	+0.8	+0.6	+0.8	+0.3	N/A	+0.4	N/A	+0.6	N/A
Vertical Irregularity	-2.5	-2.0	-1.0	-1.5	N/A	-1.0	-1.0	-1.5	-1.0	-1.0	N/A	-1.0	-1.0	-1.0	-1.0
Plan irregularity	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
Pre-Code	0.0	-1.0	-1.0	-0.8	-0.6	-0.8	-0.2	-1.2	-1.0	-0.2	-0.8	-0.8	-1.0	-0.8	-0.2
Post-Benchmark	+2.4	+2.4	+1.4	+1.4	N/A	+1.6	N/A	+1.4	+2.4	N/A	+2.4	N/A	+2.8	+2.6	N/A
Soil Type C	0.0	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
Soil Type D	0.0	-0.8	-0.6	-0.6	-0.6	-0.6	-0.4	-0.6	-0.6	-0.4	-0.6	-0.6	-0.6	-0.6	-0.6
Soil Type E	0.0	-0.8	-1.2	-1.2	-1.0	-1.2	-0.8	-1.2	-0.8	-0.8	-0.4	-1.2	-0.4	-0.6	-0.8

FINAL SCORE, *S* 0.9

COMMENTS

Collapse Potential=High for S<1.0

Detailed Evaluation Required

YES **NO**

* = Estimated, subjective, or unreliable data
DNK = Do Not Know

BR = Braced frame
FD = Flexible diaphragm
LM = Light metal

MRF = Moment-resisting frame
RC = Reinforced concrete
RD = Rigid diaphragm

SW = Shear wall
TU = Tilt up
URM INF = Unreinforced masonry infill

DOGAMI RVS

Reynolds Middle School

Reynolds SD 7

Mult_sch29B

Building Type	County
School	Multnomah

Street: 1200 NE 201st St

City	State	Zip
Fairview	OR	97024

Latitude	Longitude
45.53113	122.45451

Tracking Code	Inspection Date
RVS in 2006	7/14/2006

Seismicity Zone: High

FEMA 154 Rapid Visual Screening Score Card

	Type	Basic Score	Vert Irreg	Plan Irreg	Pre-Code	Post-Bench	Soil C	Soil D	Soil E	RVS Score
Primary	RM1	2.8	-1	-0.5	0	0	0	0	0	1.3
Secondary		0	0	0	0	0	0	0	0	0
Tertiary		0	0	0	0	0	0	0	0	0

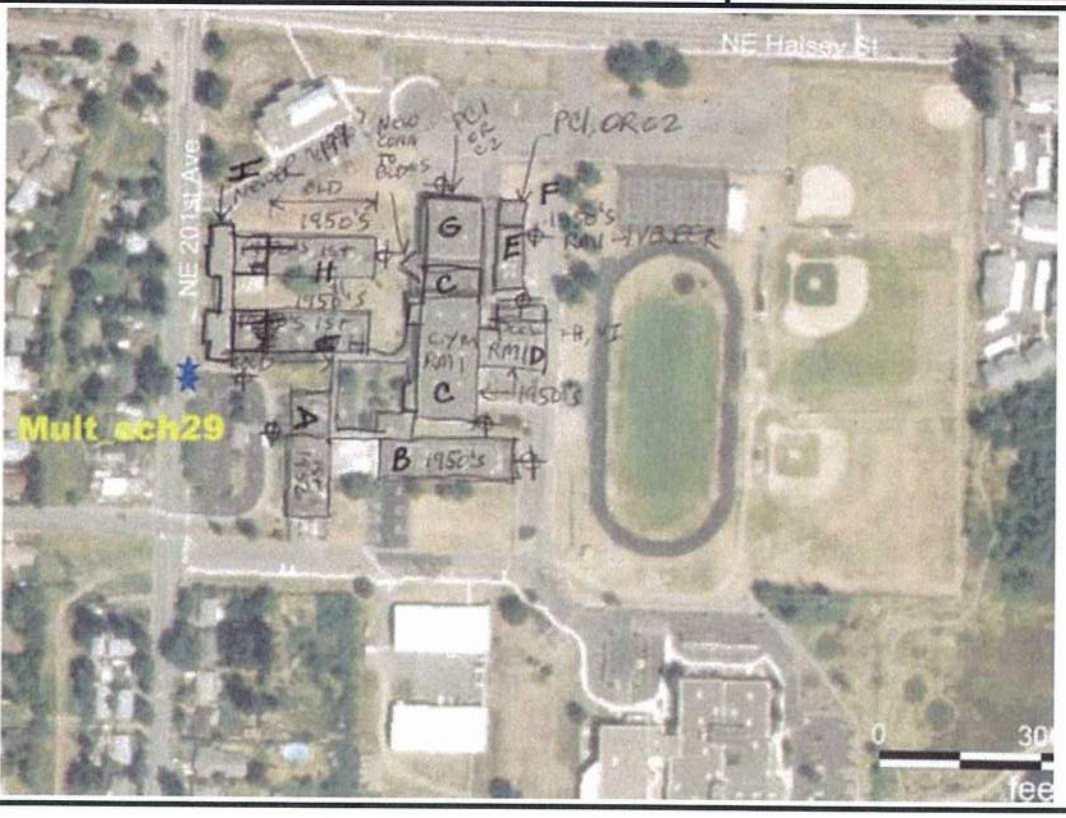
Reynolds Middle School

Final RVS Score

Final Type	Final Score
RM1	1.3

FEMA-154 Collapse Potential

Moderate (>1%)



OregonGeology

Rapid Visual Screening - Senate Bill #2 - Seismic Needs Assessment

Oregon Department of Geology and Mineral Industries

Reynolds Middle School

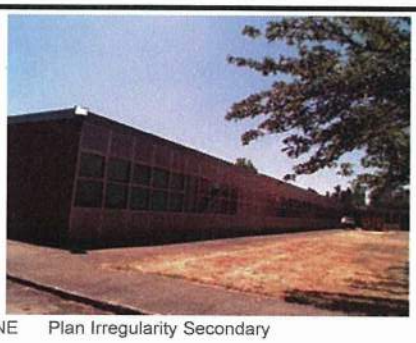
Mult_sch29B

Enrollment	Year Built (Field Verified)	Year Built (Alt. Source)	Est. Decade Built
1022		1956	1950
Total Area (square ft)	**Number of Stories**	**Basement**	**Pounding Potential**
168000	1	No	Yes

Plan Irregularities	Vertical Irregularities
Reentrant Corners:Other (Adjacent Build/Entity)	Steps in Elevation View: Single Change (Adjacent Building/Entity)
Torsion: Eccentric Stiffness	None
None	None

Falling Hazards	Poor Conditions
Other: Brick Veneer	None
None	None
None	None

SE Elevation View



NE Plan Irregularity Secondary

Reynolds Middle School

Reynolds SD 7

Mult_sch29H

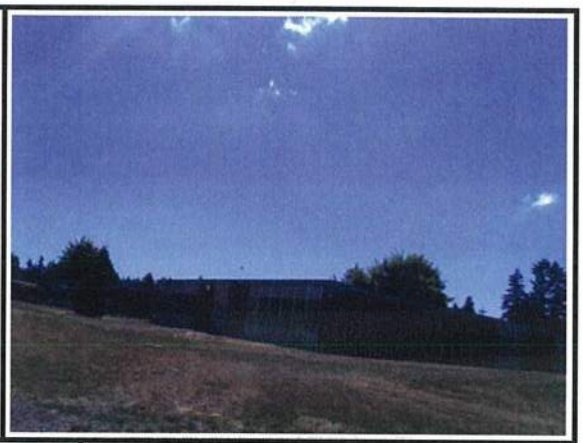
Building Type	County
School	Multnomah

Street: 1200 NE 201st St

City	State	Zip
Fairview	OR	97024

Latitude	Longitude
45.53207	122.45571

Tracking Code	Inspection Date
RVS in 2006	7/14/2006



Seismicity Zone: High

FEMA 154 Rapid Visual Screening Score Card

	Type	Basic Score	Vert Irreg	Plan Irreg	Pre-Code	Post-Bench	Soil C	Soil D	Soil E	RVS Score
Primary	RM1	2.8	-1	-0.5	0	0	0	0	0	1.3
Secondary		0	0	0	0	0	0	0	0	0
Tertiary		0	0	0	0	0	0	0	0	0

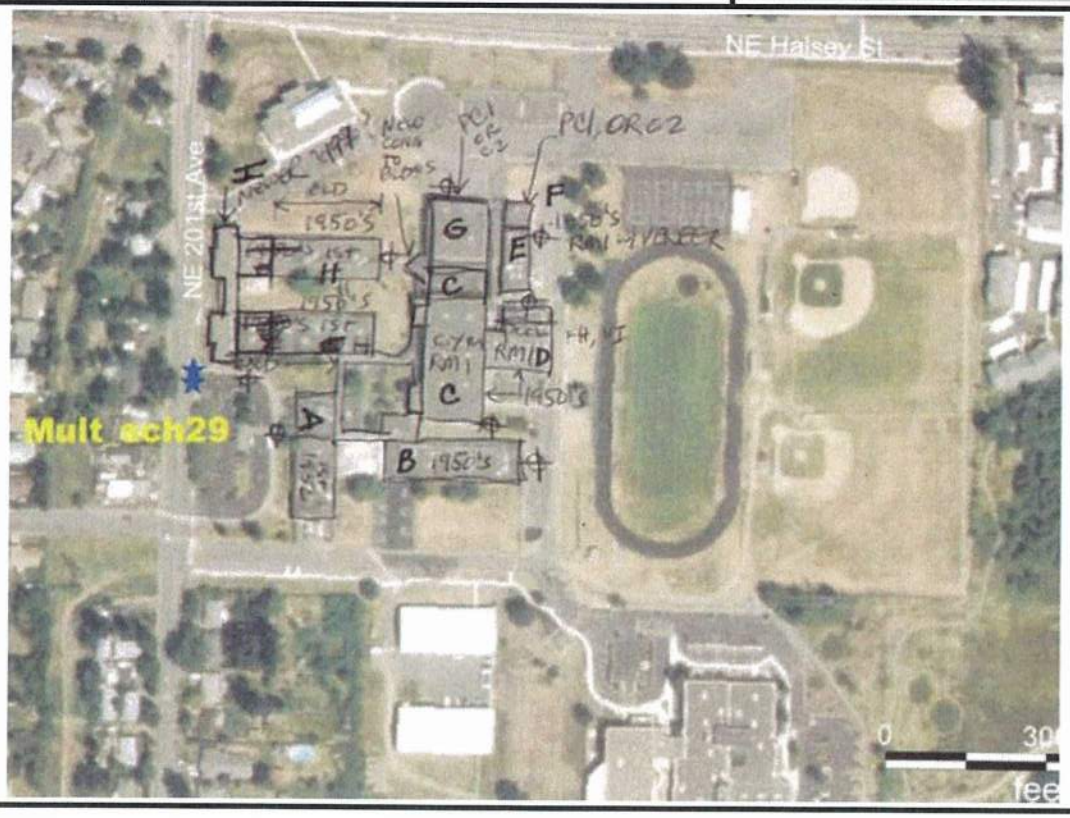
Reynolds Middle School

Final RVS Score

Final Type	Final Score
RM1	1.3

FEMA-154 Collapse Potential

Moderate (>1%)



OregonGeology

Rapid Visual Screening - Senate Bill #2 - Seismic Needs Assessment

Oregon Department of Geology and Mineral Industries

Reynolds Middle School

Mult_sch29H

Enrollment	Year Built (Field Verified)	Year Built (Alt. Source)	Est. Decade Built
1022		1956	1950
Total Area (square ft)	**Number of Stories**	**Basement**	**Pounding Potential**
168000	1	No	Yes

Plan Irregularities	Vertical Irregularities
Reentrant Corners:Other (Adjacent Build/Entity)	Steps in Elevation View: 2 to 3 Changes (Adjacent Building/Entity)
None	None
None	None

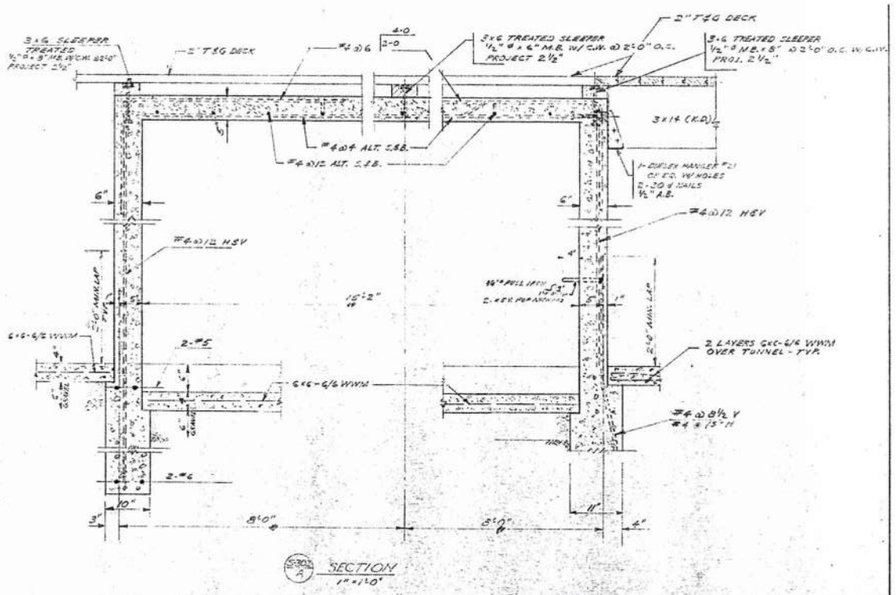
Falling Hazards	Poor Conditions
Other: Brick Veneer	None
None	None
None	None

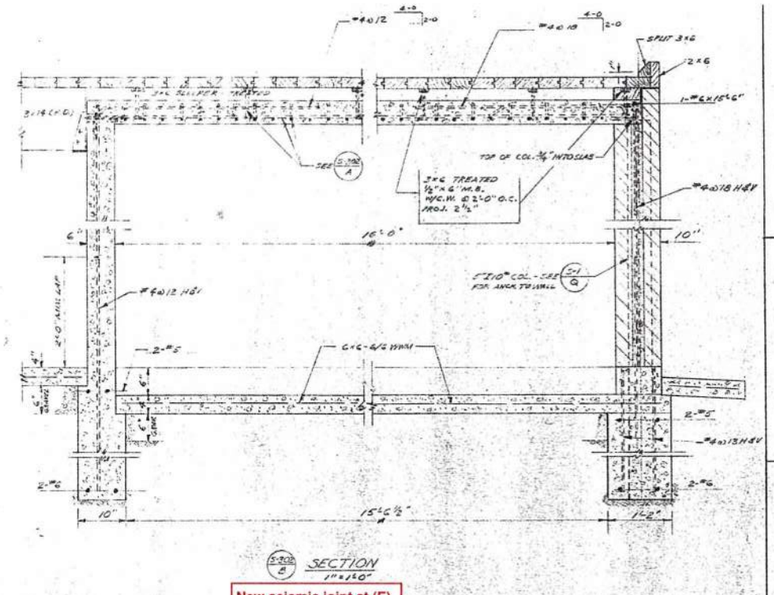
NE Elevation View

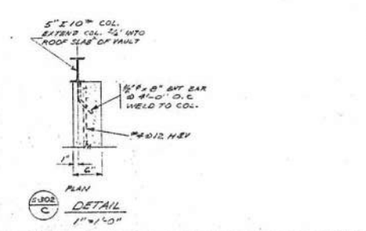
N General Site
N CONN TO I

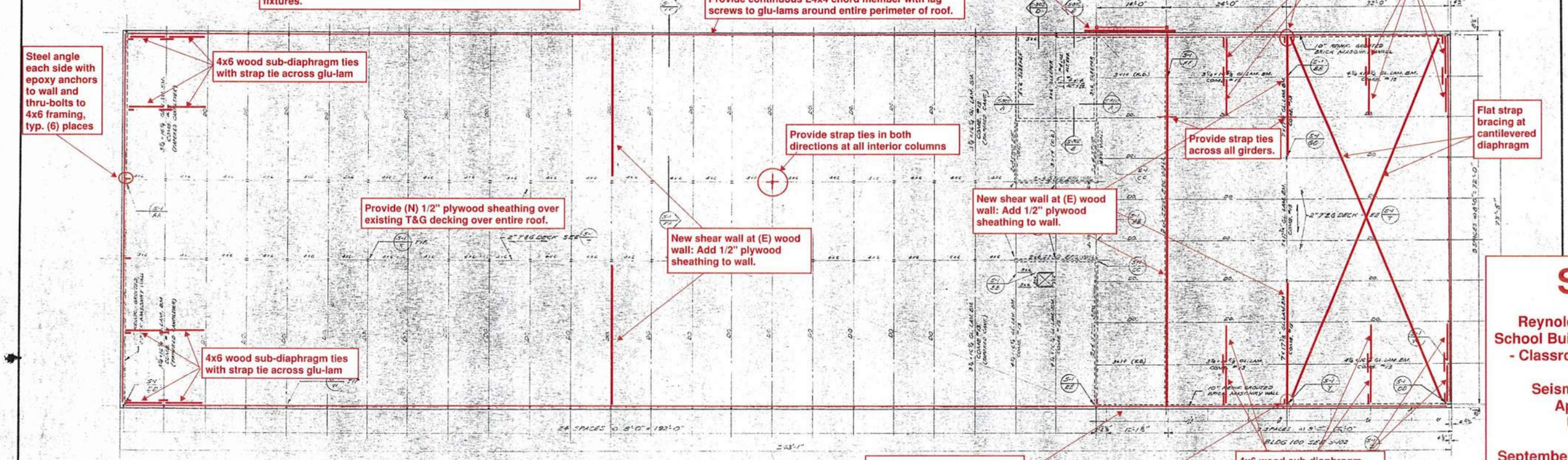
APPENDIX C

STRENGTHENING SCHEME









S-302 A SECTION 1"=1'-0"

S-302 B SECTION 1"=1'-0"

S-302 C DETAIL 1"=1'-0"

S-302 D SECTION 1"=1'-0"

Replace existing glass with tempered glass.
Provide anchorage for any unsecured mechanical units.
Provide bracing for cabinets over 6 feet tall and for suspended furnishings.
At drop ceilings, provide independent vertical support for light fixtures.

New seismic joint at (E) walkway: Cut existing structure and provide (2) HSS 4x4 posts and HSS 4x4 beam with welded connections

Steel angle each side with epoxy anchors to wall and thru-bolts to 4x6 framing, typ. (4) places

4x6 wood sub-diaphragm ties with strap tie across glu-lam

Provide continuous L4x4 chord member with lag screws to glu-lams around entire perimeter of roof.

Steel angle each side with epoxy anchors to wall and thru-bolts to 4x6 framing, typ. (6) places

4x6 wood sub-diaphragm ties with strap tie across glu-lam

Provide strap ties in both directions at all interior columns

Provide strap ties across all girders.

Flat strap bracing at cantilevered diaphragm

Provide (N) 1/2" plywood sheathing over existing T&G decking over entire roof.

New shear wall at (E) wood wall: Add 1/2" plywood sheathing to wall.

New shear wall at (E) wood wall: Add 1/2" plywood sheathing to wall.

4x6 wood sub-diaphragm ties with strap tie across glu-lam

Reference SK-3 for new seismic joint at (E) walkway.

Steel angle each side with epoxy anchors to wall and thru-bolts to 4x6 framing, typ. (4) places

4x6 wood sub-diaphragm ties with strap tie across glu-lam

ROOF FRAMING PLAN
⅛"=1'-0"

ARCHITECTS ASSOCIATED A. I. A.
WILLIAMS AND MARTIN, 1919 S. W. TWELFTH AVENUE, PORTLAND
STEWART AND RICHARDSON, 219 S. W. STARK STREET, PORTLAND

L FOR DISTRICT SEVEN
COUNTY, OREGON

SK-1

Reynolds Middle School Building 300 - Classroom Wing

Seismic Grant Application Upgrades

September 12, 2014

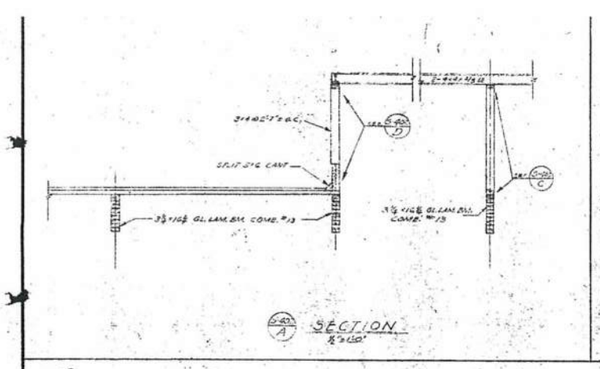
kpff Consulting Engineers
Portland Oregon

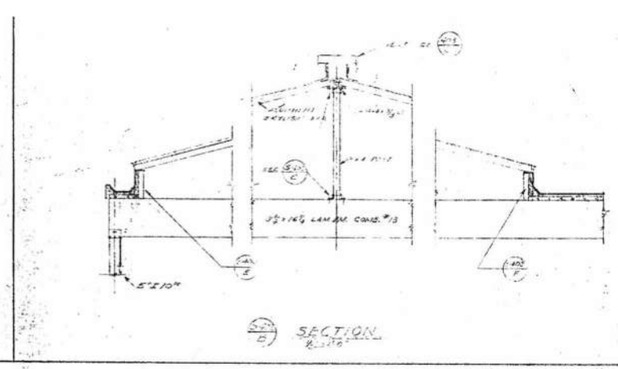
MILES E. COOPER
ROWLAND S. ROSE
CONSULTING STRUCTURAL ENGINEERS
PORTLAND OREGON

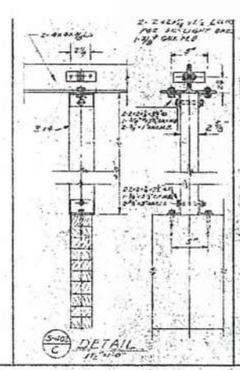
ROWLAND S. ROSE
OREGON
MAY 7, 1952

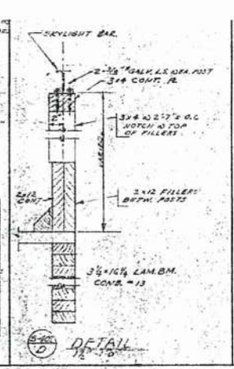
ROOF FRAMING PLAN

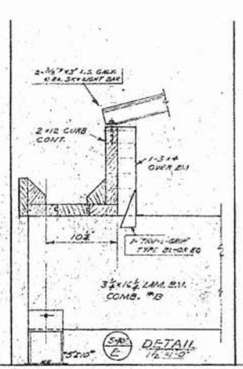
DRAWN
DATE
S-302
SHEET NO.

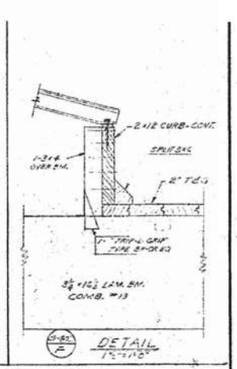












Replace existing glass with tempered glass.
Provide anchorage for any unsecured mechanical units.
Provide bracing for cabinets over 6 feet tall and for suspended furnishings.
At drop ceilings, provide independent vertical support for light fixtures.

Steel angle each side with epoxy anchors to wall and thru-bolts to 4x6 framing, typ. (4) places

Reference SK-3 for new seismic joint at (E) walkway.

New shear wall at (E) wood wall: Add 1/2" plywood sheathing to wall.

Provide continuous L4x4 chord member with lag screws to glu-lams around perimeter of roof.

4x6 wood sub-diaphragm ties with strap tie across glu-lam

Flat strap bracing at cantilevered diaphragm

Provide strap ties across all girders.

Steel angle each side with epoxy anchors to wall and thru-bolts to 4x6 framing, typ. (4) places

4x6 wood sub-diaphragm ties with strap tie across glu-lam

Provide (N) 1/2" plywood sheathing over existing T&G decking over entire roof.

New shear wall at (E) wood wall: Add 1/2" plywood sheathing to wall.

4x6 wood sub-diaphragm ties with strap tie across glu-lam

Provide strap ties in both directions at all interior columns

Steel angle each side with epoxy anchors to wall and thru-bolts to 4x6 framing, typ. (6) places

4x6 wood sub-diaphragm ties with strap tie across glu-lam

ROOF FRAMING PLAN
1/8"=1'-0"

ARCHITECTS ASSOCIATED A.I.A.
WILLIAMS AND MARTIN, 1919 S.W. TWELFTH AVENUE, PORTLAND
STEWART AND RICHARDSON, 219 S.W. STARK STREET, PORTLAND

L FOR DISTRICT SEVEN
COUNTY, OREGON

SK-2

Reynolds Middle School Building 400 - Classroom Wing

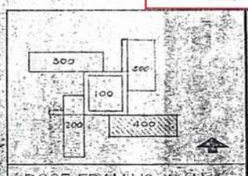
Seismic Grant Application Upgrades

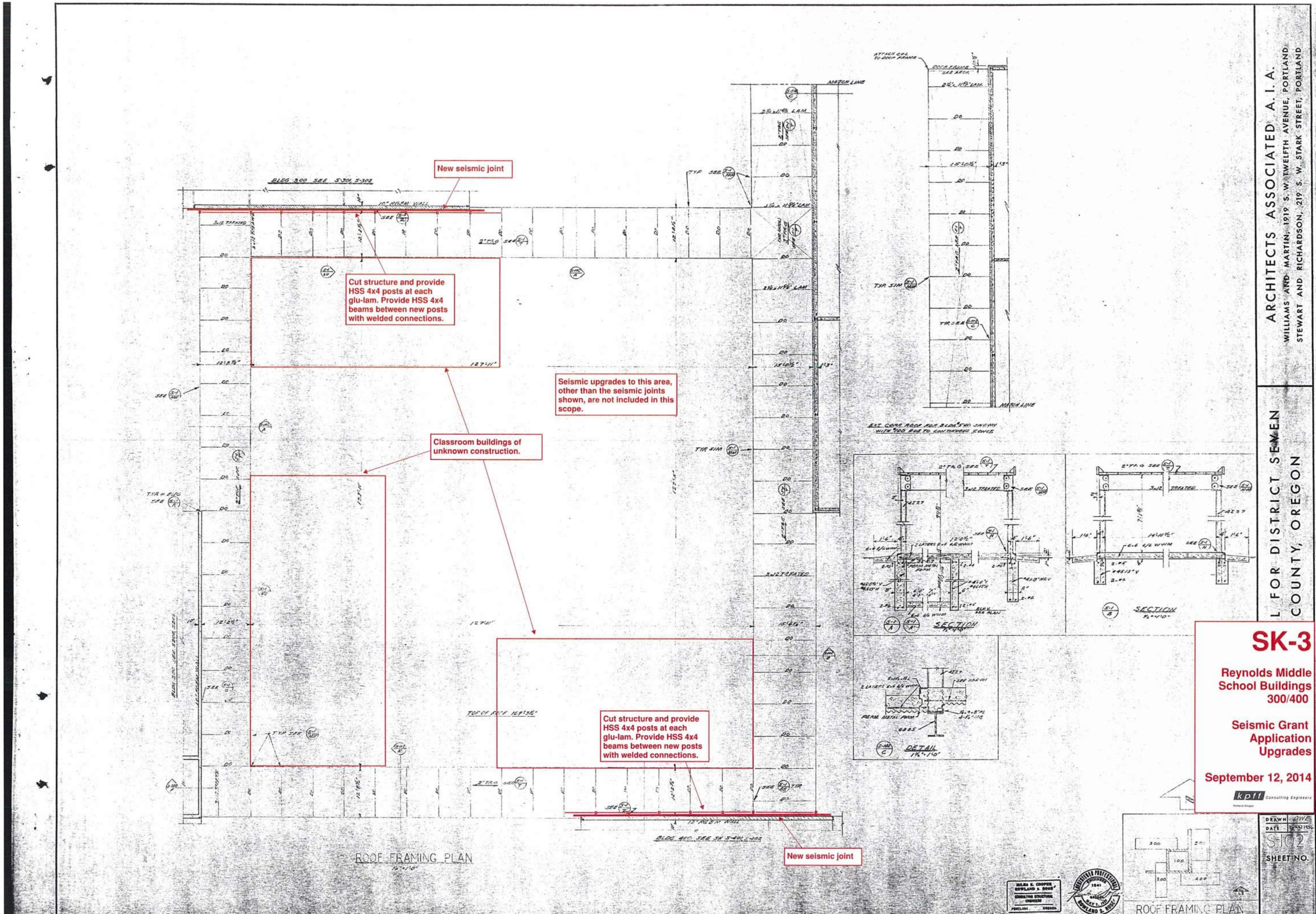
September 12, 2014

kpff Consulting Engineers

DRAWN
DATE

S-402
SHEET NO.




New seismic joint
Cut structure and provide HSS 4x4 posts at each glu-lam. Provide HSS 4x4 beams between new posts with welded connections.
Seismic upgrades to this area, other than the seismic joints shown, are not included in this scope.
Classroom buildings of unknown construction.
Cut structure and provide HSS 4x4 posts at each glu-lam. Provide HSS 4x4 beams between new posts with welded connections.
New seismic joint
ROOF FRAMING PLAN
SECTION
DETAIL
ARCHITECTS ASSOCIATED A. I. A.
WILLIAMS AND MARTIN, 1919 S. W. TWELFTH AVENUE, PORTLAND
STEWART AND RICHARDSON, 219 S. W. STARK STREET, PORTLAND
L FOR DISTRICT SEVEN
COUNTY, OREGON
SK-3
Reynolds Middle School Buildings 300/400
Seismic Grant Application Upgrades
September 12, 2014
kpff Consulting Engineers
SHEET NO.
S-102
ROOF FRAMING PLAN

Appendix C: Construction Cost Estimate Worksheets

ENGINEER'S OPINION OF PROBABLE COST - REYNOLDS MIDDLE SCHOOL 300/400 CLASSROOMS SEISMIC REHABILITATION

Description	Quantity	Units	Unit Price	Total Price for Construction Item
GENERAL CONDITIONS				
General Conditions	5%	%		**$66,400.00**
Preconstruction Services	1%	%		**$13,900.00**
Equipment Rental	3	Month	$ 5,000.00	**$15,000.00**
Toilet Rental	3	Month	$ 1,800.00	**$5,400.00**
Cleanup Continuous	3	Month	$ 4,000.00	**$12,000.00**
Clean Up Dumpsters	3	Month	$ 2,400.00	**$7,200.00**
Final Clean UP	36700	Square Foot	$ 0.35	**$12,800.00**
Soft Demolition	36700	Square Foot	$ 3.50	**$128,450.00**
Asbestos Abatement	18350	Square Foot	$ 1.25	**$22,937.50**
Interior Finishes Layout	4620	Square Foot	$ 0.50	**$2,310.00**
Escalation	2%	%		**$28,200.00**
Bonding & Insurance	3%	%		**$42,300.00**
Contractor Profit & Overhead	5%	%		**$74,000.00**
			General Conditions Subtotal	**$430,900.00**
Foundation / Floor Strengthening Construction				
			Foundation Level Subtotal	**$ -**
Wall Strengthening Construction				
Sheathing of Existing Walls	4620	Square Foot	$ 8.00	**$36,960.00**
Painting of Wall	36700	Square Foot	$ 3.00	**$110,100.00**
Interior Wall Finish Repair	4620	Square Foot	$ 2.00	**$9,240.00**
Glazing Replacement	6200	Square Foot	$ 35.00	**$217,000.00**
			Wall Strengthening Subtotal	**$ 373,300.00**
Roof Strengthening Construction				
New Roof Sheathing	36700	Square Foot	$ 2.75	**$100,925.00**
New 3" polyisocyanurate rigid insulation	36700	Square Foot	$ 3.75	**$137,625.00**
New single ply membrane roofing	36700	Square Foot	$ 5.50	**$201,850.00**
Seismic Isolation from Adjacent Building	120	Lineal Foot	$ 600.00	**$72,000.00**
Diaphragm Attachments - Out-of-Plane	1300	Lineal Foot	$ 65.00	**$84,500.00**
New Blocking/Strapping Lines	20	EA	$ 2,340.00	**$46,800.00**
Diaphragm Attachments - In-Plane Shear	2600	Square Foot	$ 3.00	**$7,800.00**
New Beam To Column Connections	100	EA	$ 200.00	**$20,000.00**
Ceiling Repair	5000	Square Foot	$ 5.50	**$27,500.00**
			Roof Strengthening Subtotal	**$ 699,000.00**
Miscellaneous Elements				
Misc Electrical / HVAC / Plumbing	1	Lump Sum	$25,000.00	**$25,000.00**
Non-Structural Attachments	1	Lump Sum	$25,000.00	**$25,000.00**
			Miscellaneous Subtotal	**$ 50,000.00**
			Total Construction Cost	**$1,553,200.00**
Associated Design / Soft Costs				
Architectural Consulting				**$15,500.00**
Structural / Rehabilitation Engineering				**$139,800.00**
Geotechnical Consulting				**$11,600.00**
Special Inspection Services for Construction				**$7,800.00**
Structural Observations during Construction				**$7,800.00**
Materials Testing for Design				**$7,800.00**
Construction Management / Owner Representation				**$38,800.00**
Permitting Fees				**$46,600.00**
Relocation of FF&E				**$5,000.00**
			Design / Soft Cost Subtotal	**$280,700.00**
			Total Project Funding Requirement	**$1,833,900.00**

Appendix D: Benefit Cost Analysis Worksheets

Oregon Seismic Rehabilitation Grant Application: Benefit-Cost Analysis

Entity:	**Sanitiam Canyon School District**		
Point of Contact	**Rachel Hopper**		
Telephone:	**(503) 661-7200**		
E-Mail:	rhopper@rsd7.net		
BCA File Name:	**BCA-ReynoldsMiddleSchool.xls**	**BCA Date:**	**12/31/2015**

Building Name:	**Reynolds Middle School**
Site ID:	**Mult_sch29**
Facility Use:	**School**

Is the Building in the Oregon BCA Tool Database: Yes or No? **Yes**

How Many Structurally Different Building Parts Are There?

User-Defined	Database
10	9

Unique Building ID Number	Building Part Square Footage	Percent of Total SF	Percent of Occupancy	Percent of Budget	Building Part Being Retrofitted?
Mult_sch29A	21,766	13.10%	13.10%	13.10%	**No**
Mult_sch29B	18,611	11.20%	11.20%	11.20%	**Yes**
Mult_sch29C	37,227	22.41%	22.41%	22.41%	**No**
Mult_sch29D	12,011	7.23%	7.23%	7.23%	**No**
Mult_sch29E	6,962	4.19%	4.19%	4.19%	**No**
Mult_sch29F	2,289	1.38%	1.38%	1.38%	**No**
Mult_sch29G	18,289	11.01%	11.01%	11.01%	**No**
Mult_sch29H	19,272	11.60%	11.60%	11.60%	**Yes**
Mult_sch29I	16,309	9.82%	9.82%	9.82%	**No**
Mult_sch29J	13,378	8.05%	8.06%	8.06%	**No**
Totals:	**166,114**	**100.00%**	**100.00%**	**100.00%**	

Seismic Retrofit Cost Estimate per SRGP Application: **$1,833,900**

Benefit-Cost Analysis: Summary Results
Reynolds Middle School

Building Part	Benefits
Mult_sch29A	
Mult_sch29B	$2,152,166
Mult_sch29C	
Mult_sch29D	
Mult_sch29E	
Mult_sch29F	
Mult_sch29G	
Mult_sch29H	$2,229,925
Mult_sch29I	
Mult_sch29J	
Total Benefits	**$4,382,090**
Total Cost	**$1,833,900**
Benefit-Cost Ratio	**2.389**

Benefits by Category Avoided Damages and Losses	
Building Damage	$722,940
Contents Damage	$180,735
Displacement Costs	$87,814
Loss of Function Costs	$25,604
Casualties	$3,364,998
Total	**$4,382,090**

Occupancy Data

For benefit-cost analysis, the average occupancy on a 24/7/365 basis is used for casualty calculations.
Enter data below ONLY for the occupancy categories applicable to this building - all other green cell entries should be left blank.
There are entries below for: employees, visitors, students, meetings or special events and patients.

NOTE: for buildings with similar occupancies each month, complete the tables on the left side only.

NOTE: For buildings with different summer occupancies, complete the tables both on the left and right sides. If this does not apply, enter "0" for number of summer months

Employees: 12 Months per Year or Academic Year for Schools				
Day of Week	Time of Day	Hours per Day	Average Employees in Building	Calculated 24/7/365 Occupancy
Monday - Friday	Day	8	50	9.893
Monday - Friday	Evening	4	8	0.791
Monday - Friday	Night	4	8	0.791
Saturday	Day	8	2	0.079
Saturday	Evening			
Saturday	Night			
Sunday	Day	8	2	0.079
Sunday	Evening			
Sunday	Night			
			Subtotal:	11.635

Employees: Summer Months			Number of Months:	2
Day of Week	Time of Day	Hours per Day	Average Employees in Building	Calculated 24/7/365 Occupancy
Monday - Friday	Day	9	14	0.623
Monday - Friday	Evening	4	8	0.158
Monday - Friday	Night			
Saturday	Day			
Saturday	Evening			
Saturday	Night			
Sunday	Day			
Sunday	Evening			
Sunday	Night			
			Subtotal:	0.782

Visitors: 12 Months per Year or Academic Year for Schools			
Day of Week	Average Number of Visitors Per Day	Average Time in Building (Minutes)	Calculated 24/7/365 Occupancy
Monday - Friday	84	40	1.385
Saturday			
Sunday			
	Subtotal:		1.385

Visitors: Summer Months		Number of Months:	2
Day of Week	Average Number of Visitors Per Day	Average Time in Building (Minutes)	Calculated 24/7/365 Occupancy
Monday - Friday	33	40	0.109
Saturday			
Sunday			
	Subtotal:		0.109

K-12 Students: Academic Year	
Average Daily Number of Students:	983
Hours per Day:	7
Days per Year:	180
Calculated 24/7/365 Occupancy:	141.390

K-12 Students: Summer School	
Average Daily Number of Students:	248
Hours per Day:	5
Days per Year:	25
Calculated 24/7/365 Occupancy:	3.539

College Students: Academic Year				
Number of Weeks per Year of Classes:				
Course	Class Duration (hours)	Number of Class Periods per Week	Average Number of Students per Class	Calculated 24/7/365 Occupancy
1 Hr. Courses	1			
1.5 Hr. Courses	1.5			
2 Hr. Courses	2			
3 Hr. Courses	3			
Other	N/A			
Other	N/A			
			Subtotal:	

College Students: Summer School				
Number of Weeks per Year of Classes:				
Course	Class Duration (hours)	Number of Class Periods per Week	Average Number of Students per Class	Calculated 24/7/365 Occupancy
1 Hr. Courses	1			
1.5 Hr. Courses	1.5			
2 Hr. Courses	2			
3 Hr. Courses	3			
Other	N/A			
Other	N/A			
			Subtotal:	

Occupancy Data

Meetings, Sports Events etc.				
Event	Events per Year	People per Event	Average Duration per Event (hours)	Calculated 24/7/365 Occupancy
Adult Ed. Class	25	15	1	0.043
Food Pantry Distribution	48	1000	2	10.959
Open House	2	450	2	0.205
Parent/Teacher Conf.	2	600	10	1.370
Basketball Practice	50	25	4	0.571
Basketball Game	20	70	2	0.320
Swimming Practice	50	20	2	0.228
Swimming Lessons	80	14	4	0.511
Swimming Open	80	40	8	2.922
Water Polo Practice	40	12	2	0.110
Water Polo Meet	8	35	2	0.064
Wrestling Practice	40	22	2	0.201
Wrestling Meet	5	90	6	0.308
Music/Preforming Arts	12	160	3	0.658
Graduation Exercise	2	500	3	0.342
Culturally Specific Parenting	18	20	1	0.041
School Board Meeting	4	20	2	0.018
Community Meeting	8	40	1	0.037
Student Dance	4	550	4	1.005
			Subtotal:	19.913

Patients			
		Total Number of In-Patient Beds:	
		Average Daily Number of In-Patients	
		Average Percentage Occupancy	
Day of Week	Average Number of Out-Patients per Day	Average Time in Building (Hours)	Calculated 24/7/365 Occupancy

Occupancy Data			
Monday - Friday			
Saturday			
Sunday			
		Out-Patients:	
		In-Patients:	
		Total Patients:	

Occupancy Data

SUMMARY OCCUPANCY DATA:
Average 24/7/365 Occupancy

Occupancy Category	12 Months or Academic Year	Summer
Employees	11.635	0.782
Visitors	1.385	0.109
Students: K-12	141.390	3.539
Students: College		
Meetings & Special Events	19.913	N/A
Patients		N/A
Subtotals:	174.323	4.429
Avg 24/7/365 Occupancy:	178.752	

College Student Occupancy Data

These tables calculate the inputs required to determine the average 24/7/365 occupancy for the classes in the building. The tables are organized by course duration (1 hr, 1.5 hr, etc) with two additional tables provided to capture different course lengths.

Do not duplicate information that has already been provided on the Occupancy worksheet.

Instructions

Enter requested course data into the green shaded cells. Tables for the Academic Year are in Row 9, Tables for Summer School are in Row 64. Use the Other / Additional Courses tables for class durations that aren't specified elsewhere or if additional space is required.

Occupancy data entered on this page are generally available for and entered for the entire school or facility and then allocated to building parts on the Main Page

However, if you enter data on the Main Page for only parts of a facility, then the occupancy data on this page _must_ also be _only_ for those facility parts entered on the Main Page.

See: USER GUIDE PAGES 16-17 for further guidance

Academic Year: 1 Hour Courses

Course Name	Class Duration (hours)	Number of Class Periods per Week	Average Number of Students per Class	Student Hours per Week
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
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	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	Totals:	0	0.00	0.0

Academic Year: 1.5 Hour Courses

Course Name	Class Duration (hours)	Number of Class Periods per Week	Average Number of Students per Class	Student Hours per Week
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
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	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	Totals:	0	0.00	0.0

Academic Year: 2 Hour Courses

Course Name	Class Duration (hours)	Number of Class Periods per Week	Average Number of Students per Class	Student Hours per Week
	2			0.0
	2			0.0
	2			0.0
	2			0.0
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	2			0.0
	2			0.0
	2			0.0
	Totals:	0	0.00	0.0

Academic Year: 3 Hour Courses

Course Name	Class Duration (hours)	Number of Class Periods per Week	Average Number of Students per Class	Student Hours per Week
	3			0.0
	3			0.0
	3			0.0
	3			0.0
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	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	Totals:	0	0.00	0.0

Academic Year: Other / Additional Courses

Course Name	Class Duration (hours)	Number of Class Periods per Week	Average Number of Students per Class	Student Hours per Week
				0.0
				0.0
				0.0
				0.0
				0.0
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				0.0
				0.0
	Totals:	0	0.00	0.0

Academic Year: Other / Additional Courses

Course Name	Class Duration (hours)	Number of Class Periods per Week	Average Number of Students per Class	Student Hours per Week
				0.0
				0.0
				0.0
				0.0
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				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
	Totals:	0	0.00	0.0

Summer School: 1 Hour Courses

Course Name	Class Duration (hours)	Number of Class Periods per Week	Average Number of Students per Class	Student Hours per Week
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	1			0.0
	Totals:	0	0.00	0.0

Summer School: 1.5 Hour Courses

Course Name	Class Duration (hours)	Number of Class Periods per Week	Average Number of Students per Class	Student Hours per Week
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	1.5			0.0
	Totals:	0	0.00	0.0

Summer School: 2 Hour Courses

Course Name	Class Duration (hours)	Number of Class Periods per Week	Average Number of Students per Class	Student Hours per Week
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	2			0.0
	Totals:	0	0.00	0.0

Summer School: 3 Hour Courses

Course Name	Class Duration (hours)	Number of Class Periods per Week	Average Number of Students per Class	Student Hours per Week
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	3			0.0
	Totals:	0	0.00	0.0

Summer School: Other / Additional Courses

Course Name	Class Duration (hours)	Number of Class Periods per Week	Average Number of Students per Class	Student Hours per Week
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
	Totals:	0	0.00	0.0

Summer School: Other / Additional Courses

Course Name	Class Duration (hours)	Number of Class Periods per Week	Average Number of Students per Class	Student Hours per Week
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
				0.0
	Totals:	0	0.00	0.0

Annual Operating Budget for this Facility

Employees:

	Classification	Number of FTEs[1]	Average Annual Salary per Employee	Total Benefits as Percent of Salary	Annual Salary and Benefits
1	Teachers	56	$48,111	37.00%	**$3,691,076**
2	Classified	42	$23,198	37.00%	**$1,334,813**
3	Administrators	3	$82,400	37.00%	**$338,664**
4					**$0**
5					**$0**
6					**$0**
7					**$0**
8					**$0**
9					**$0**
10					**$0**
	Total Number of FTEs:	**101.00**		**Subtotal:**	**$5,364,553**

[1] FTEs: Full time equivalents

Other Building Expenses

Category		Annual Cost
Supplies		$809,363
Building Maintenance		$67,675
Utilities		$28,692
Insurance		$113,793
Rent		$298,319
Average Annual Capital Goods		$0
OTHER: specify below		
Professional Services		$1,214,449
Transportation		$155,461
Telephone		$22,342
Percent of District Office/Headquarters Annual Operating Budget Attributed to This Building:	7.73%	**$495,867**
If rent is zero (building owned), a proxy rent is calculated automatically, based on the value of the building:		**$0**
	Subtotal:	**$3,205,961**

Total Building Annual Operating Budget:	**$8,570,514**

Annual Operating Budget for this Facility

For entities with multiple facilities, a fraction of the operating budget for a District Office of Headquarters building may be attributed to the building being retrofitted. That is, the annual operating budget for the building above may include part of the operating budget for the District Office or Headquarters Building.
If so, complete the following tables:

District Office/Headquarters Building Employees

	Classification	Number of FTEs[1]	Average Annual Salary per Employee	Total Benefits as Percent of Salary	Annual Salary and Benefits
1	Administrators	14	$113,013	41.00%	**$2,230,877**
2	Teachers	21	$57,206	37.00%	**$1,645,817**
3	Classified Staff	40	$40,553	37.00%	**$2,222,304**
4					**$0**
5					**$0**
6					**$0**
7					**$0**
8					**$0**
9					**$0**
10					**$0**
	Total Number of FTEs:	**75.00**		**Subtotal:**	**$6,098,998**

District Office/Headquarters Building Expenses

Category	Annual Cost
Supplies	$78,518
Building maintenance	$630
Utilities	$226,780
Insurance	$9,910
Rent	
Average Annual Capital Goods	
OTHER: specify below	
Enter replacement value of building:	
If rent is zero (building owned), a proxy rent is calculated	**$0**
Subtotal:	**$315,838**

Total Annual Operating Budget for District Office/Headquarters Building:	**$6,414,836**

Building Part A: Data for Benefit-Cost Analysis

Building Name:	**Reynolds Middle School**
Building ID:	**Mult_sch29A**
Building Part Name / Description:	

Evaluation for Building Part A

Seismic Hazard Data		
Region of Seismicity	Moderately High	
PGA Ground Motion (g)	2% in 50 year	0.406
	5% in 50 year	0.255
	10% in 50 year	0.167
	20% in 50 year	0.099
Spectral Accelerations (g)	S_{xs}, 2% in 50 year	0.920
	S_{x1}, 2% in 50 year	0.333
	S_{xs}, 10% in 50 year	0.364
	S_{x1}, 10% in 50 year	0.126

Data Entry Item	User Entered Values	Default Values	Used for BCA
Site Data			
County		Multnomah	Multnomah
Decimal Latitude		45.53113	45.53113
Decimal Longitude		122.45547	122.45547
Soil Type		B	AB
Construction Data			
Primary Structure Type (FEMA 154)		RM1	RM1
Number of Stories		1	1
Year Built		1956	1956
Rapid Visual Screening Data			
Severe Vertical Irregularity		No	No
Moderate Vertical Irregularity		Yes	Yes
Plan Irregularity		Yes	Yes
Pre-Code		No	No
Post-Benchmark		No	No
Building Data			
Historic Importance		None	None
Historic Adjustment Modifier	N/A	N/A	1.00
Building Square Footage - SF	21,766	N/A	21,766
Building Replacement - $/SF		$250.00	$250.00
Building Replacement Value - $	N/A	N/A	$5,441,500
Historic Building Replacement - $/SF	N/A	N/A	$250.00
Historic Building Replacement Value - $	N/A	N/A	$5,441,500
Contents Value - % of Building Value		25%	25%
Displacement Costs - $/SF/month		$1.50	$1.50
Displacement Costs - One Time		$1.35	$1.35
Average Annual Occupancy	23.42	23.42	23.42
Annual Operating Budget	$1,122,737	$1,122,999	$1,122,737
Seismic Fragility Curves			
Before Mitigation			
Slight Damage State		0.11	0.11
Moderate Damage State		0.13	0.13
Extensive Damage State		0.20	0.20
Complete Damage State		0.35	0.35
Beta		0.66	0.66
After Mitigation			
Retrofit Building Type		C2	C2
Retrofit Performance Objective		LS	LS
Slight Damage State		0.11	0.11
Moderate Damage State		0.13	0.13
Extensive Damage State		0.20	0.20
Complete Damage State		0.35	0.35
Beta		0.66	0.66

Data Documentation: Building Part A	
Provide brief documentation below and/or references to other documents included with your application (with page number), but ONLY for data entries in Column C, which replace the default values in Column D.	
Soil Type	
Primary Structure Type	
Number of Stories	
Year Built	
Severe Vertical Irregularity	
Moderate Vertical Irregularity	
Plan Irregularity	
Pre-Code	
Post-Benchmark	
Historic Importance (if not none)	
Building Square Footage	
Building Replacement Value $/SF	
Contents Value % of Building Value	
Displacement Costs One Time	
Displacement Costs $/SF/month	
Fragility Curve Parameters Before Mitigation	
Fragility Curve Parameters After Mitigation	
Other Comments	

Building Part B: Data for Benefit-Cost Analysis

Building Name:	**Reynolds Middle School**
Building ID:	**Mult_sch29B**
Building Part Name / Description:	

Evaluation for Building Part B

Seismic Hazard Data		
Region of Seismicity	Moderately High	
PGA Ground Motion (g)	2% in 50 year	0.407
	5% in 50 year	0.291
	10% in 50 year	0.200
	20% in 50 year	0.118
Spectral Accelerations (g)	S_{xs}, 2% in 50 year	0.949
	S_{x1}, 2% in 50 year	0.488
	S_{xs}, 10% in 50 year	0.437
	S_{x1}, 10% in 50 year	0.210

Data Entry Item	User Entered Values	Default Values	Used for BCA
Site Data			
County		Multnomah	Multnomah
Decimal Latitude		45.53113	45.53113
Decimal Longitude		122.45451	122.45451
Soil Type	C	B	C
Construction Data			
Primary Structure Type (FEMA 154)		RM1	RM1
Number of Stories		1	1
Year Built		1956	1956
Rapid Visual Screening Data			
Severe Vertical Irregularity		No	No
Moderate Vertical Irregularity		Yes	Yes
Plan Irregularity		Yes	Yes
Pre-Code		No	No
Post-Benchmark		No	No
Building Data			
Historic Importance		None	None
Historic Adjustment Modifier	N/A	N/A	1.00
Building Square Footage - SF	18,611	N/A	18,611
Building Replacement - $/SF		$250.00	$250.00
Building Replacement Value - $	N/A	N/A	$4,652,750
Historic Building Replacement - $/SF	N/A	N/A	$250.00
Historic Building Replacement Value - $	N/A	N/A	$4,652,750
Contents Value - % of Building Value		25%	25%
Displacement Costs - $/SF/month		$1.50	$1.50
Displacement Costs - One Time		$1.35	$1.35
Average Annual Occupancy	20.02	20.03	20.02
Annual Operating Budget	$959,898	$960,219	$959,898
Seismic Fragility Curves			
Before Mitigation			
Slight Damage State		0.11	0.11
Moderate Damage State		0.13	0.13
Extensive Damage State		0.20	0.20
Complete Damage State		0.35	0.35
Beta		0.66	0.66
After Mitigation			
Retrofit Building Type		C2	C2
Retrofit Performance Objective		LS	LS
Slight Damage State		0.20	0.20
Moderate Damage State		0.36	0.36
Extensive Damage State		0.66	0.66
Complete Damage State		1.15	1.15
Beta		0.62	0.62

Data Documentation: Building Part B	
Provide brief documentation below and/or references to other documents included with your application (with page number), but ONLY for data entries in Column C, which replace the default values in Column D.	
Soil Type	
Primary Structure Type	
Number of Stories	
Year Built	
Severe Vertical Irregularity	
Moderate Vertical Irregularity	
Plan Irregularity	
Pre-Code	
Post-Benchmark	
Historic Importance (if not none)	
Building Square Footage	
Building Replacement Value $/SF	
Contents Value % of Building Value	
Displacement Costs One Time	
Displacement Costs $/SF/month	
Fragility Curve Parameters Before Mitigation	
Fragility Curve Parameters After Mitigation	
Other Comments	

Building Part C: Data for Benefit-Cost Analysis

Building Name:	**Reynolds Middle School**
Building ID:	**Mult_sch29C**
Building Part Name / Description:	

Evaluation for Building Part C

Seismic Hazard Data		
Region of Seismicity	Moderately High	
PGA Ground Motion (g)	2% in 50 year	0.406
	5% in 50 year	0.255
	10% in 50 year	0.167
	20% in 50 year	0.099
Spectral Accelerations (g)	S_{xs}, 2% in 50 year	0.919
	S_{x1}, 2% in 50 year	0.333
	S_{xs}, 10% in 50 year	0.364
	S_{x1}, 10% in 50 year	0.126

Data Entry Item	User Entered Values	Default Values	Used for BCA
Site Data			
County		Multnomah	Multnomah
Decimal Latitude		45.53171	45.53171
Decimal Longitude		122.4545	122.4545
Soil Type		B	AB
Construction Data			
Primary Structure Type (FEMA 154)		RM1	RM1
Number of Stories		1	1
Year Built		1956	1956
Rapid Visual Screening Data			
Severe Vertical Irregularity		No	No
Moderate Vertical Irregularity		Yes	Yes
Plan Irregularity		No	No
Pre-Code		No	No
Post-Benchmark		No	No
Building Data			
Historic Importance		None	None
Historic Adjustment Modifier	N/A	N/A	1.00
Building Square Footage - SF	37,227	N/A	37,227
Building Replacement - $/SF		$250.00	$250.00
Building Replacement Value - $	N/A	N/A	$9,306,750
Historic Building Replacement - $/SF	N/A	N/A	$250.00
Historic Building Replacement Value - $	N/A	N/A	$9,306,750
Contents Value - % of Building Value		25%	25%
Displacement Costs - $/SF/month		$1.50	$1.50
Displacement Costs - One Time		$1.35	$1.35
Average Annual Occupancy	40.06	40.06	40.06
Annual Operating Budget	$1,920,652	$1,920,696	$1,920,652
Seismic Fragility Curves			
Before Mitigation			
Slight Damage State		0.12	0.12
Moderate Damage State		0.15	0.15
Extensive Damage State		0.22	0.22
Complete Damage State		0.40	0.40
Beta		0.66	0.66
After Mitigation			
Retrofit Building Type		C2	C2
Retrofit Performance Objective		LS	LS
Slight Damage State		0.12	0.12
Moderate Damage State		0.15	0.15
Extensive Damage State		0.22	0.22
Complete Damage State		0.40	0.40
Beta		0.66	0.66

Data Documentation: Building Part C	
Provide brief documentation below and/or references to other documents included with your application (with page number), but ONLY for data entries in Column C, which replace the default values in Column D.	
Soil Type	
Primary Structure Type	
Number of Stories	
Year Built	
Severe Vertical Irregularity	
Moderate Vertical Irregularity	
Plan Irregularity	
Pre-Code	
Post-Benchmark	
Historic Importance (if not none)	
Building Square Footage	
Building Replacement Value $/SF	
Contents Value % of Building Value	
Displacement Costs One Time	
Displacement Costs $/SF/month	
Fragility Curve Parameters Before Mitigation	
Fragility Curve Parameters After Mitigation	
Other Comments	

Building Part D: Data for Benefit-Cost Analysis

Building Name:	**Reynolds Middle School**
Building ID:	**Mult_sch29D**
Building Part Name / Description:	

Evaluation for Building Part D

Seismic Hazard Data		
Region of Seismicity	Moderately High	
PGA Ground Motion (g)	2% in 50 year	0.406
	5% in 50 year	0.255
	10% in 50 year	0.167
	20% in 50 year	0.099
Spectral Accelerations (g)	S_{xs}, 2% in 50 year	0.919
	S_{x1}, 2% in 50 year	0.333
	S_{xs}, 10% in 50 year	0.364
	S_{x1}, 10% in 50 year	0.126

Data Entry Item	User Entered Values	Default Values	Used for BCA
Site Data			
County		Multnomah	Multnomah
Decimal Latitude		45.53174	45.53174
Decimal Longitude		122.45403	122.45403
Soil Type		B	AB
Construction Data			
Primary Structure Type (FEMA 154)		RM1	RM1
Number of Stories		1	1
Year Built		1956	1956
Rapid Visual Screening Data			
Severe Vertical Irregularity		No	No
Moderate Vertical Irregularity		Yes	Yes
Plan Irregularity		Yes	Yes
Pre-Code		No	No
Post-Benchmark		No	No
Building Data			
Historic Importance		None	None
Historic Adjustment Modifier	N/A	N/A	1.00
Building Square Footage - SF	12,011	N/A	12,011
Building Replacement - $/SF		$250.00	$250.00
Building Replacement Value - $	N/A	N/A	$3,002,750
Historic Building Replacement - $/SF	N/A	N/A	$250.00
Historic Building Replacement Value - $	N/A	N/A	$3,002,750
Contents Value - % of Building Value		25%	25%
Displacement Costs - $/SF/month		$1.50	$1.50
Displacement Costs - One Time		$1.35	$1.35
Average Annual Occupancy	12.92	12.92	12.92
Annual Operating Budget	$619,648	$619,698	$619,648
Seismic Fragility Curves			
Before Mitigation			
Slight Damage State		0.11	0.11
Moderate Damage State		0.13	0.13
Extensive Damage State		0.20	0.20
Complete Damage State		0.35	0.35
Beta		0.66	0.66
After Mitigation			
Retrofit Building Type		C2	C2
Retrofit Performance Objective		LS	LS
Slight Damage State		0.11	0.11
Moderate Damage State		0.13	0.13
Extensive Damage State		0.20	0.20
Complete Damage State		0.35	0.35
Beta		0.66	0.66

Data Documentation: Building Part D	
Provide brief documentation below and/or references to other documents included with your application (with page number), but ONLY for data entries in Column C, which replace the default values in Column D.	
Soil Type	
Primary Structure Type	
Number of Stories	
Year Built	
Severe Vertical Irregularity	
Moderate Vertical Irregularity	
Plan Irregularity	
Pre-Code	
Post-Benchmark	
Historic Importance (if not none)	
Building Square Footage	
Building Replacement Value $/SF	
Contents Value % of Building Value	
Displacement Costs One Time	
Displacement Costs $/SF/month	
Fragility Curve Parameters Before Mitigation	
Fragility Curve Parameters After Mitigation	
Other Comments	

Building Part E: Data for Benefit-Cost Analysis

Building Name:	**Reynolds Middle School**
Building ID:	**Mult_sch29E**
Building Part Name / Description:	

Evaluation for Building Part E

Seismic Hazard Data		
Region of Seismicity	Moderately High	
PGA Ground Motion (g)	2% in 50 year	0.405
	5% in 50 year	0.255
	10% in 50 year	0.167
	20% in 50 year	0.099
Spectral Accelerations (g)	S_{xs}, 2% in 50 year	0.919
	S_{x1}, 2% in 50 year	0.333
	S_{xs}, 10% in 50 year	0.364
	S_{x1}, 10% in 50 year	0.126

Data Entry Item	User Entered Values	Default Values	Used for BCA
Site Data			
County		Multnomah	Multnomah
Decimal Latitude		45.53215	45.53215
Decimal Longitude		122.45406	122.45406
Soil Type		B	AB
Construction Data			
Primary Structure Type (FEMA 154)		RM1	RM1
Number of Stories		1	1
Year Built		1956	1956
Rapid Visual Screening Data			
Severe Vertical Irregularity		No	No
Moderate Vertical Irregularity		No	No
Plan Irregularity		No	No
Pre-Code		No	No
Post-Benchmark		No	No
Building Data			
Historic Importance		None	None
Historic Adjustment Modifier	N/A	N/A	1.00
Building Square Footage - SF	6,962	N/A	6,962
Building Replacement - $/SF		$250.00	$250.00
Building Replacement Value - $	N/A	N/A	$1,740,500
Historic Building Replacement - $/SF	N/A	N/A	$250.00
Historic Building Replacement Value - $	N/A	N/A	$1,740,500
Contents Value - % of Building Value		25%	25%
Displacement Costs - $/SF/month		$1.50	$1.50
Displacement Costs - One Time		$1.35	$1.35
Average Annual Occupancy	7.49	7.49	7.49
Annual Operating Budget	$359,105	$359,199	$359,105
Seismic Fragility Curves			
Before Mitigation			
Slight Damage State		0.13	0.13
Moderate Damage State		0.16	0.16
Extensive Damage State		0.24	0.24
Complete Damage State		0.43	0.43
Beta		0.66	0.66
After Mitigation			
Retrofit Building Type		C2	C2
Retrofit Performance Objective		LS	LS
Slight Damage State		0.13	0.13
Moderate Damage State		0.16	0.16
Extensive Damage State		0.24	0.24
Complete Damage State		0.43	0.43
Beta		0.66	0.66

Data Documentation: Building Part E	
Provide brief documentation below and/or references to other documents included with your application (with page number), but ONLY for data entries in Column C, which replace the default values in Column D.	
Soil Type	
Primary Structure Type	
Number of Stories	
Year Built	
Severe Vertical Irregularity	
Moderate Vertical Irregularity	
Plan Irregularity	
Pre-Code	
Post-Benchmark	
Historic Importance (if not none)	
Building Square Footage	
Building Replacement Value $/SF	
Contents Value % of Building Value	
Displacement Costs One Time	
Displacement Costs $/SF/month	
Fragility Curve Parameters Before Mitigation	
Fragility Curve Parameters After Mitigation	
Other Comments	

Building Part F: Data for Benefit-Cost Analysis

Building Name:	**Reynolds Middle School**
Building ID:	**Mult_sch29F**
Building Part Name / Description:	

Evaluation for Building Part F

Seismic Hazard Data		
Region of Seismicity	Moderately High	
PGA Ground Motion (g)	2% in 50 year	0.405
	5% in 50 year	0.255
	10% in 50 year	0.167
	20% in 50 year	0.099
Spectral Accelerations (g)	S_{xs}, 2% in 50 year	0.919
	S_{x1}, 2% in 50 year	0.333
	S_{xs}, 10% in 50 year	0.364
	S_{x1}, 10% in 50 year	0.126

Data Entry Item	User Entered Values	Default Values	Used for BCA
Site Data			
County		Multnomah	Multnomah
Decimal Latitude		45.53238	45.53238
Decimal Longitude		122.45407	122.45407
Soil Type		B	AB
Construction Data			
Primary Structure Type (FEMA 154)		PC1	PC1
Number of Stories		1	1
Year Built		1956	1956
Rapid Visual Screening Data			
Severe Vertical Irregularity		No	No
Moderate Vertical Irregularity		No	No
Plan Irregularity		No	No
Pre-Code		No	No
Post-Benchmark		No	No
Building Data			
Historic Importance		None	None
Historic Adjustment Modifier	N/A	N/A	1.00
Building Square Footage - SF	2,289	N/A	2,289
Building Replacement - $/SF		$250.00	$250.00
Building Replacement Value - $	N/A	N/A	$572,250
Historic Building Replacement - $/SF	N/A	N/A	$250.00
Historic Building Replacement Value - $	N/A	N/A	$572,250
Contents Value - % of Building Value		25%	25%
Displacement Costs - $/SF/month		$1.50	$1.50
Displacement Costs - One Time		$1.35	$1.35
Average Annual Occupancy	2.47	2.46	2.47
Annual Operating Budget	$118,273	$118,099	$118,273
Seismic Fragility Curves			
Before Mitigation			
Slight Damage State		0.11	0.11
Moderate Damage State		0.14	0.14
Extensive Damage State		0.21	0.21
Complete Damage State		0.35	0.35
Beta		0.66	0.66
After Mitigation			
Retrofit Building Type		PC1	PC1
Retrofit Performance Objective		LS	LS
Slight Damage State		0.11	0.11
Moderate Damage State		0.14	0.14
Extensive Damage State		0.21	0.21
Complete Damage State		0.35	0.35
Beta		0.66	0.66

Data Documentation: Building Part F	
Provide brief documentation below and/or references to other documents included with your application (with page number), but ONLY for data entries in Column C, which replace the default values in Column D.	
Soil Type	
Primary Structure Type	
Number of Stories	
Year Built	
Severe Vertical Irregularity	
Moderate Vertical Irregularity	
Plan Irregularity	
Pre-Code	
Post-Benchmark	
Historic Importance (if not none)	
Building Square Footage	
Building Replacement Value $/SF	
Contents Value % of Building Value	
Displacement Costs One Time	
Displacement Costs $/SF/month	
Fragility Curve Parameters Before Mitigation	
Fragility Curve Parameters After Mitigation	
Other Comments	

Building Part G: Data for Benefit-Cost Analysis

Building Name:	**Reynolds Middle School**
Building ID:	**Mult_sch29G**
Building Part Name / Description:	

Evaluation for Building Part G

Seismic Hazard Data		
Region of Seismicity	Moderately High	
PGA Ground Motion (g)	2% in 50 year	0.405
	5% in 50 year	0.255
	10% in 50 year	0.167
	20% in 50 year	0.099
Spectral Accelerations (g)	S_{xs}, 2% in 50 year	0.919
	S_{x1}, 2% in 50 year	0.333
	S_{xs}, 10% in 50 year	0.364
	S_{x1}, 10% in 50 year	0.126

Data Entry Item	User Entered Values	Default Values	Used for BCA
Site Data			
County		Multnomah	Multnomah
Decimal Latitude		45.53232	45.53232
Decimal Longitude		122.45449	122.45449
Soil Type		B	AB
Construction Data			
Primary Structure Type (FEMA 154)		C2	C2
Number of Stories		1	1
Year Built		1956	1956
Rapid Visual Screening Data			
Severe Vertical Irregularity		No	No
Moderate Vertical Irregularity		Yes	Yes
Plan Irregularity		No	No
Pre-Code		No	No
Post-Benchmark		No	No
Building Data			
Historic Importance		None	None
Historic Adjustment Modifier	N/A	N/A	1.00
Building Square Footage - SF	18,289	N/A	18,289
Building Replacement - $/SF		$250.00	$250.00
Building Replacement Value - $	N/A	N/A	$4,572,250
Historic Building Replacement - $/SF	N/A	N/A	$250.00
Historic Building Replacement Value - $	N/A	N/A	$4,572,250
Contents Value - % of Building Value		25%	25%
Displacement Costs - $/SF/month		$1.50	$1.50
Displacement Costs - One Time		$1.35	$1.35
Average Annual Occupancy	19.68	19.68	19.68
Annual Operating Budget	$943,606	$943,606	$943,606
Seismic Fragility Curves			
Before Mitigation			
Slight Damage State		0.10	0.10
Moderate Damage State		0.14	0.14
Extensive Damage State		0.22	0.22
Complete Damage State		0.39	0.39
Beta		0.66	0.66
After Mitigation			
Retrofit Building Type		C2	C2
Retrofit Performance Objective		LS	LS
Slight Damage State		0.10	0.10
Moderate Damage State		0.14	0.14
Extensive Damage State		0.22	0.22
Complete Damage State		0.39	0.39
Beta		0.66	0.66

Data Documentation: Building Part G	
Provide brief documentation below and/or references to other documents included with your application (with page number), but ONLY for data entries in Column C, which replace the default values in Column D.	
Soil Type	
Primary Structure Type	
Number of Stories	
Year Built	
Severe Vertical Irregularity	
Moderate Vertical Irregularity	
Plan Irregularity	
Pre-Code	
Post-Benchmark	
Historic Importance (if not none)	
Building Square Footage	
Building Replacement Value $/SF	
Contents Value % of Building Value	
Displacement Costs One Time	
Displacement Costs $/SF/month	
Fragility Curve Parameters Before Mitigation	
Fragility Curve Parameters After Mitigation	
Other Comments	

Building Part H: Data for Benefit-Cost Analysis

Building Name:	**Reynolds Middle School**
Building ID:	**Mult_sch29H**
Building Part Name / Description:	

Evaluation for Building Part H

Seismic Hazard Data		
Region of Seismicity	Moderately High	
PGA Ground Motion (g)	2% in 50 year	0.407
	5% in 50 year	0.291
	10% in 50 year	0.200
	20% in 50 year	0.118
Spectral Accelerations (g)	S_{xs}, 2% in 50 year	0.949
	S_{x1}, 2% in 50 year	0.488
	S_{xs}, 10% in 50 year	0.437
	S_{x1}, 10% in 50 year	0.210

Data Entry Item	User Entered Values	Default Values	Used for BCA
Site Data			
County		Multnomah	Multnomah
Decimal Latitude		45.53207	45.53207
Decimal Longitude		122.45571	122.45571
Soil Type	C	B	C
Construction Data			
Primary Structure Type (FEMA 154)		RM1	RM1
Number of Stories		1	1
Year Built		1956	1956
Rapid Visual Screening Data			
Severe Vertical Irregularity		No	No
Moderate Vertical Irregularity		Yes	Yes
Plan Irregularity		Yes	Yes
Pre-Code		No	No
Post-Benchmark		No	No
Building Data			
Historic Importance		None	None
Historic Adjustment Modifier	N/A	N/A	1.00
Building Square Footage - SF	19,272	N/A	19,272
Building Replacement - $/SF		$250.00	$250.00
Building Replacement Value - $	N/A	N/A	$4,818,000
Historic Building Replacement - $/SF	N/A	N/A	$250.00
Historic Building Replacement Value - $	N/A	N/A	$4,818,000
Contents Value - % of Building Value		25%	25%
Displacement Costs - $/SF/month		$1.50	$1.50
Displacement Costs - One Time		$1.35	$1.35
Average Annual Occupancy	20.74	20.74	20.74
Annual Operating Budget	$994,180	$994,323	$994,180
Seismic Fragility Curves			
Before Mitigation			
Slight Damage State		0.11	0.11
Moderate Damage State		0.13	0.13
Extensive Damage State		0.20	0.20
Complete Damage State		0.35	0.35
Beta		0.66	0.66
After Mitigation			
Retrofit Building Type		C2	C2
Retrofit Performance Objective		LS	LS
Slight Damage State		0.20	0.20
Moderate Damage State		0.36	0.36
Extensive Damage State		0.66	0.66
Complete Damage State		1.15	1.15
Beta		0.62	0.62

Data Documentation: Building Part H	
Provide brief documentation below and/or references to other documents included with your application (with page number), but ONLY for data entries in Column C, which replace the default values in Column D.	
Soil Type	
Primary Structure Type	
Number of Stories	
Year Built	
Severe Vertical Irregularity	
Moderate Vertical Irregularity	
Plan Irregularity	
Pre-Code	
Post-Benchmark	
Historic Importance (if not none)	
Building Square Footage	
Building Replacement Value $/SF	
Contents Value % of Building Value	
Displacement Costs One Time	
Displacement Costs $/SF/month	
Fragility Curve Parameters Before Mitigation	
Fragility Curve Parameters After Mitigation	
Other Comments	

Building Part I: Data for Benefit-Cost Analysis

Building Name:	**Reynolds Middle School**
Building ID:	**Mult_sch29l**
Building Part Name / Description:	

Evaluation for Building Part I

Seismic Hazard Data		
Region of Seismicity	Moderately High	
PGA Ground Motion (g)	2% in 50 year	0.406
	5% in 50 year	0.255
	10% in 50 year	0.167
	20% in 50 year	0.099
Spectral Accelerations (g)	S_{xs}, 2% in 50 year	0.919
	S_{x1}, 2% in 50 year	0.333
	S_{xs}, 10% in 50 year	0.364
	S_{x1}, 10% in 50 year	0.126

Data Entry Item	User Entered Values	Default Values	Used for BCA
Site Data			
County		Multnomah	Multnomah
Decimal Latitude		45.53197	45.53197
Decimal Longitude		122.45616	122.45616
Soil Type		B	AB
Construction Data			
Primary Structure Type (FEMA 154)		RM1	RM1
Number of Stories		1	1
Year Built		1956	1956
Rapid Visual Screening Data			
Severe Vertical Irregularity		No	No
Moderate Vertical Irregularity		Yes	Yes
Plan Irregularity		Yes	Yes
Pre-Code		No	No
Post-Benchmark		No	No
Building Data			
Historic Importance		None	None
Historic Adjustment Modifier	N/A	N/A	1.00
Building Square Footage - SF	16,309	N/A	16,309
Building Replacement - $/SF		$250.00	$250.00
Building Replacement Value - $	N/A	N/A	$4,077,250
Historic Building Replacement - $/SF	N/A	N/A	$250.00
Historic Building Replacement Value - $	N/A	N/A	$4,077,250
Contents Value - % of Building Value		25%	25%
Displacement Costs - $/SF/month		$1.50	$1.50
Displacement Costs - One Time		$1.35	$1.35
Average Annual Occupancy	17.55	17.55	17.55
Annual Operating Budget	$841,624	$841,449	$841,624
Seismic Fragility Curves			
Before Mitigation			
Slight Damage State		0.11	0.11
Moderate Damage State		0.13	0.13
Extensive Damage State		0.20	0.20
Complete Damage State		0.35	0.35
Beta		0.66	0.66
After Mitigation			
Retrofit Building Type		C2	C2
Retrofit Performance Objective		LS	LS
Slight Damage State		0.11	0.11
Moderate Damage State		0.13	0.13
Extensive Damage State		0.20	0.20
Complete Damage State		0.35	0.35
Beta		0.66	0.66

Data Documentation: Building Part I	
Provide brief documentation below and/or references to other documents included with your application (with page number), but ONLY for data entries in Column C, which replace the default values in Column D.	
Soil Type	
Primary Structure Type	
Number of Stories	
Year Built	
Severe Vertical Irregularity	
Moderate Vertical Irregularity	
Plan Irregularity	
Pre-Code	
Post-Benchmark	
Historic Importance (if not none)	
Building Square Footage	
Building Replacement Value $/SF	
Contents Value % of Building Value	
Displacement Costs One Time	
Displacement Costs $/SF/month	
Fragility Curve Parameters Before Mitigation	
Fragility Curve Parameters After Mitigation	
Other Comments	

Building Part J: Data for Benefit-Cost Analysis

Building Name:	**Reynolds Middle School**
Building ID:	**Mult_sch29J**
Building Part Name / Description:	

Evaluation for Building Part J

Seismic Hazard Data		
Region of Seismicity		
PGA Ground Motion (g)	2% in 50 year	
	5% in 50 year	
	10% in 50 year	
	20% in 50 year	
Spectral Accelerations (g)	S_{xs}, 2% in 50 year	
	S_{x1}, 2% in 50 year	
	S_{xs}, 10% in 50 year	
	S_{x1}, 10% in 50 year	

Data Entry Item	User Entered Values	Default Values	Used for BCA
Site Data			
County			
Decimal Latitude			
Decimal Longitude			
Soil Type			
Construction Data			
Primary Structure Type (FEMA 154)			
Number of Stories			
Year Built			
Rapid Visual Screening Data			
Severe Vertical Irregularity			
Moderate Vertical Irregularity			
Plan Irregularity			
Pre-Code			
Post-Benchmark			
Building Data			
Historic Importance		None	None
Historic Adjustment Modifier	N/A	N/A	1.00
Building Square Footage - SF	13,378	N/A	13,378
Building Replacement - $/SF		$250.00	$250.00
Building Replacement Value - $	N/A	N/A	$3,344,500
Historic Building Replacement - $/SF	N/A	N/A	$250.00
Historic Building Replacement Value - $	N/A	N/A	$3,344,500
Contents Value - % of Building Value		25%	25%
Displacement Costs - $/SF/month		$1.50	$1.50
Displacement Costs - One Time		$1.35	$1.35
Average Annual Occupancy	14.41	14.40	14.41
Annual Operating Budget	$690,783	$690,227	$690,783
Seismic Fragility Curves			
Before Mitigation			
Slight Damage State			
Moderate Damage State			
Extensive Damage State			
Complete Damage State			
Beta			
After Mitigation			
Retrofit Building Type			
Retrofit Performance Objective			
Slight Damage State			
Moderate Damage State			
Extensive Damage State			
Complete Damage State			
Beta		0.66	0.66

Data Documentation: Building Part J	
Provide brief documentation below and/or references to other documents included with your application (with page number), but ONLY for data entries in Column C, which replace the default values in Column D.	
Soil Type	
Primary Structure Type	
Number of Stories	
Year Built	
Severe Vertical Irregularity	
Moderate Vertical Irregularity	
Plan Irregularity	
Pre-Code	
Post-Benchmark	
Historic Importance (if not none)	
Building Square Footage	
Building Replacement Value $/SF	
Contents Value % of Building Value	
Displacement Costs One Time	
Displacement Costs $/SF/month	
Fragility Curve Parameters Before Mitigation	
Fragility Curve Parameters After Mitigation	
Other Comments	