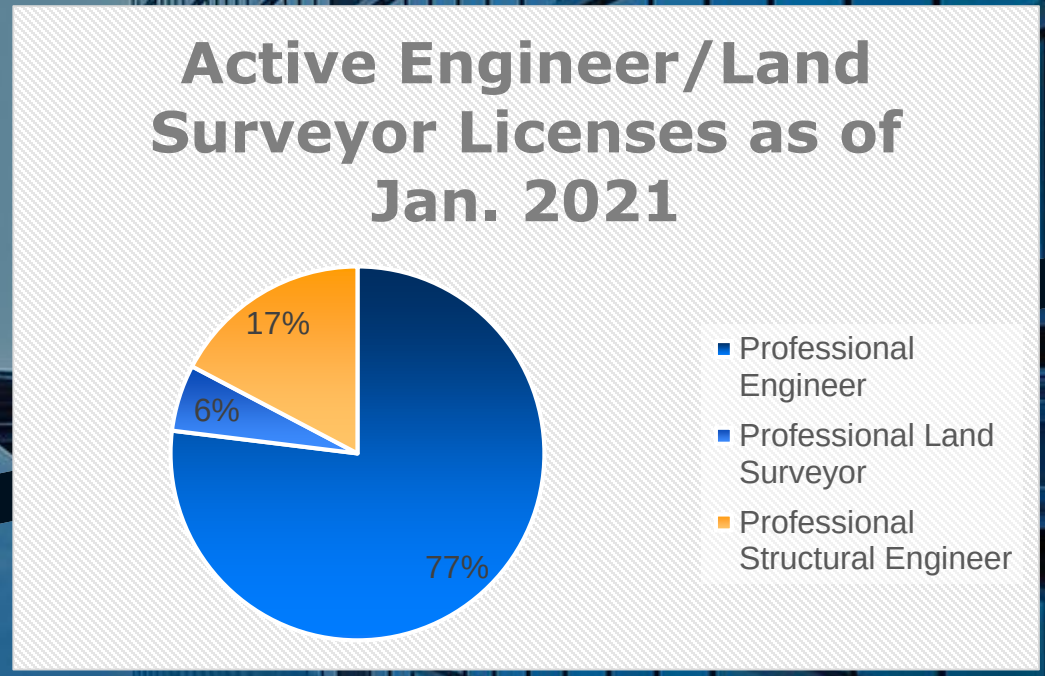
Professional Engineers and Professional Land Surveyors Licensing

Strategic Marketing and Outreach Plan

Utah Department of Commerce
Division of Occupational and Professional Licensing

Executive Summary

Due to the complex nature of engineering and land surveyor licensure, requirements for continuing education, and education of prospective professionals in these fields, DOPL is interested in promoting and educating licensees, prospective licensees, and the public on the various functions and requirements of the Professional Engineers and Professional Land Surveyors Licensing Act.



Utah Department of Commerce
Division of Occupational and Professional Licensing

Education and Enforcement Fund

The Marketing and Outreach Plan will utilize funds from the Education and Enforcement Fund.

The Education and Enforcement Fund consists of money from the surcharge fee placed on initial, renewal, and reinstatement licensure fees and must be used for the following purposes (Utah Code 58-22-103):

- “education and training of licensees under this chapter;
- education and training of the public or other interested persons in matters concerning engineering, structural engineering, and land surveying laws and practices; and.
- enforcement of this chapter by:
    - investigating unprofessional or unlawful conduct; and
    - providing legal representation to the division when the division takes legal action against a person engaging in unprofessional or unlawful conduct.”

Utah Department of Commerce
Division of Occupational and Professional Licensing

Marketing Goals

- Improve understanding and knowledge of and respect for licensing procedures, requirements, and processes.
- Reduce the number of engineering/land surveyors calling DOPL due to confusion.
- Educate prospective licensees on licensure processes and the importance of acquiring a license.
- Increase positive public perception of regulation through DOPL and the licensing board.

Utah Department of Commerce
Division of Occupational and Professional Licensing

Areas of Focus

DOPL, along with advice from Blaine Leonard, identified demand for education, training, marketing, and outreach in the following areas:

- Education of engineering and land surveying students in licensure processes
- Updated CE courses/instruction
- Promote licensure to under-licensed professions
- Informing the public of the importance of hiring a licensed engineer or land surveyor
- Remind trade associations of the availability of the Education and Enforcement Fund

Marketing Plan

Outreach | Educational Videos | Continuing Education Resources | Website Reconfiguration

Utah Department of Commerce
Division of Occupational and Professional Licensing

Outreach

- The Division of Occupational and Professional Licensing will contact the heads of the trade associations to schedule a meeting in relation to the further education of licensees, marketing opportunities, and to remind them of the purpose and availability of the Education and Enforcement Fund.
- In addition, DOPL will also email licensees a survey to identify areas of confusion that could require further education or resources.

Utah Department of Commerce
Division of Occupational and Professional Licensing

Educational Videos

DOPL will commission the production of a series of short educational and informative videos on various topics relating to the licensing of a Professional Engineer, Professional Structural Engineer, or Professional Land Surveyor.

Educational Video Usage:

- Posted on DOPL.Utah.Gov to train and educate licensees.
- Disseminated to trade associations for their usage in CE curriculum and/or as an online resource.
- SEO utilization to make videos easily discoverable in web searches.
- Social Media Posts.

Utah Department of Commerce
Division of Occupational and Professional Licensing

CE Resources & Website Reconfiguration

Continuing Education Resources

- DOPL will explore options for new continuing education resources and curriculum. Options include creation of infographics, exploration of new CE topics, virtual courses, and on-demand options amid the COVID-19 pandemic.

Website Reconfiguration

- DOPL will change the engineering and land surveyor licensing web pages (https://dopl.utah.gov/eng/) to increase accessibility, educate users, and create a visually pleasing and user-friendly experience. These changes may include:
  - Reconfiguration of the landing page;
  - Adjustments to the navigation menu; *and*
  - Utilization of videos and/or graphics for ease of use.

THANK YOU!

What do you think? Questions/Comments

Utah Department of Commerce
Division of Occupational and Professional Licensing

Professional Engineers and Professional Land Surveyors Licensing

Strategic Marketing and Outreach Plan

January 20, 2021

Presented by the Division of Occupational and Professional Licensing

Table of Contents

Executive Summary

In conjunction with the guidance and endorsement of the State Professional Engineering and Land Surveyors Licensing Board, the Division of Occupational and Professional Licensing (DOPL) provides protection to the public consumer by offering state licensure to Professional Engineers, Professional Structural Engineers, and Professional Land Surveyors, and occupations that fall under these umbrella categories.

Due to the complex nature of engineering and land surveyor licensure, requirements for continuing education, and education of prospective professionals in these fields, DOPL is interested in promoting and educating licensees, prospective licensees, and the public on the various functions and requirements of the Professional Engineers and Professional Land Surveyors Licensing Act.

The plan detailed below provides information about the Professional Engineers and Professional Land Surveyors Licensing Act audience, current education/outreach needs, and marketing method options. The plan will utilize funds from the Education and Enforcement Fund. The Education and Enforcement Fund consists of money from the surcharge fee placed on initial, renewal, and reinstatement licensure fees and must be used for the following purposes (Utah Code 58-22-103):

- "education and training of licensees under this chapter;
- education and training of the public or other interested persons in matters concerning engineering, structural engineering, and land surveying laws and practices; and.
- enforcement of this chapter by:
    - investigating unprofessional or unlawful conduct; and
    - providing legal representation to the division when the division takes legal action against a person engaging in unprofessional or unlawful conduct."

The outreach and marketing plan outlined will provide clarification, transparency, and knowledge to both current and prospective engineering licensees. By providing continuing education, training, resources, user-friendly website updates, and other promotional materials DOPL's public perception will continue to move in a positive direction, there will be a decrease in calls/complaints from engineer licensees, and engineer licensees will be empowered to protect themselves and their clients.

Market Research

The Professional Engineers and Professional Land Surveyors Licensing Act provides licensing and regulation to the professionals in the following fields: Professional Engineer, Professional Land Surveyor, and Professional Structural Engineer. These professionals are required to meet specific criteria for licensure. The criteria for licensure is as follows:

- Graduate with a qualifying degree from an accredited educational institution or based on experience as a principal
- Successfully pass required exams
- Submit an application with DOPL
- Pay a Fee

Each classification (Professional Engineer, Professional Structural Engineer, and Professional Land Surveyor) has additional requirements for licensure. After achieving licensure, engineering professionals must fulfill continuing education (CE) requirements, submit renewal every two years, and be in good standing with DOPL. To maintain good standing, licensees must not commit any unlawful or unprofessional conduct as laid out in Utah Code 58-22-501 and 58-22-502.5. Depending on the conduct, it may be possible for licensees to maintain their license if they correct the violation, pay a fine, and/or follow any disciplinary actions required by DOPL. Licensed Professional Engineers, Professional Structural Engineers, and Professional Land Surveyors utilize a seal that must be used on final plans, sketches, surveys, etc. (Utah Code 58-22-602).

As evident above, there are many stipulations, rules, and codes governing the licensure of engineers. Because of this, there is a strong need to inform and educate the audiences listed below.

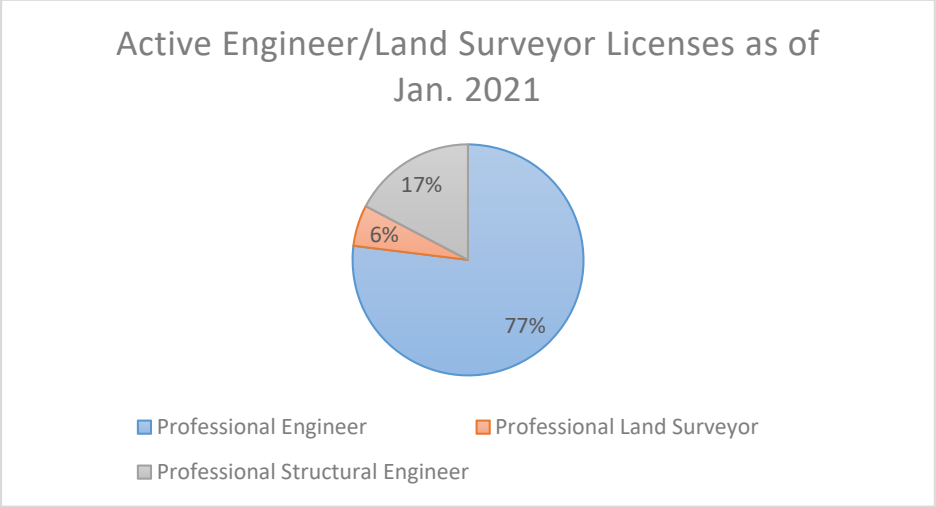
Audiences

- Engineer and Land Surveying Trade Associations
- Current Professional Engineer and Professional Land Surveyor Licensees
    - Professional Engineers
    - Professional Structural Engineers
    - Professional Land Surveyors
- Current and Graduating Students in Engineering and Land Surveying Programs

Audience Descriptions

Engineer and Land Surveying Trade Associations – Associations within Utah and nationally that help promote and develop the engineer and land surveying industry. These associations represent trade members, offer continuing education opportunities, set industry standards, publish content, etc. A list of engineer and land surveying trade associations can be found under "Marketing Mix" in this document.

Current Professional Engineer and Professional Land Surveyor Licensees – DOPL has 12,692 active Engineer/Land Surveyor Licenses as of January 2021. These licenses are distributed into three categories: Professional Engineer, Professional Land Surveyor, and Professional Structural Engineer. As highlighted in the chart below, the majority of licensees are Professional Engineers.



The average number of active Engineer/Land Surveyor licensees for the last 7 years (2013-2020) is 10,210.

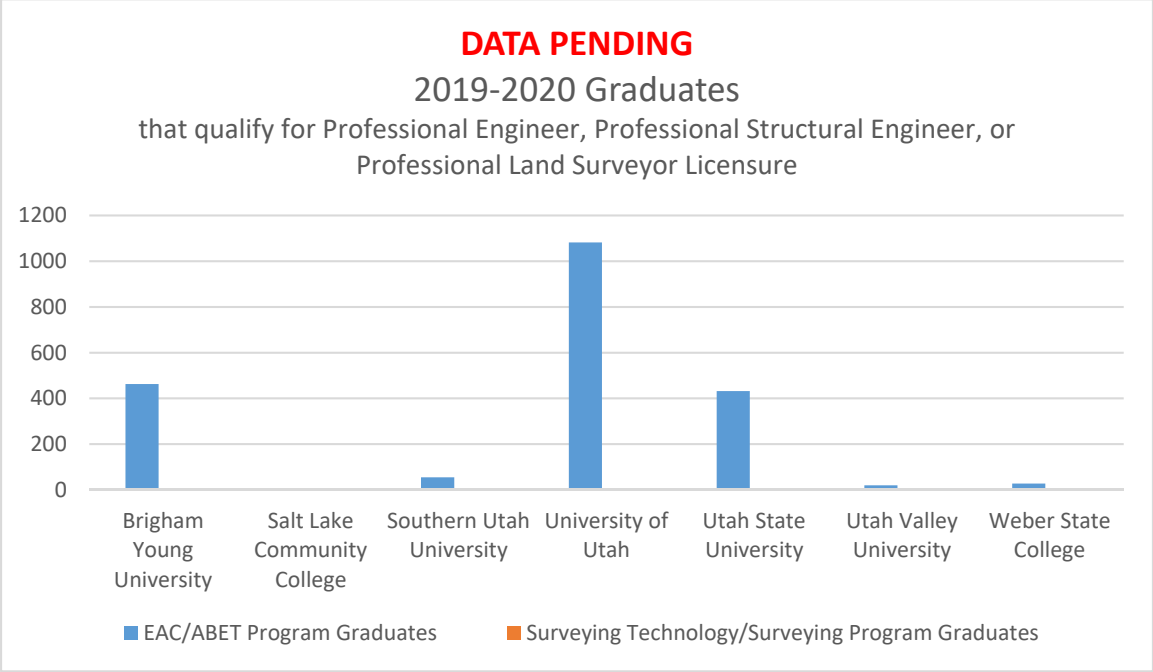
Professional Engineers (PE) – A person licensed as a professional engineer. Many professions require a PE License to work. These jobs include consultant work, patent work, and public safety work.

Professional Structural Engineer (PSE) – A person licensed as a professional structural engineer. PSEs work on significant and essential structures. Their duties are vital to ensuring structures such as hospitals, public assembly buildings, emergency shelters, skyscrapers, etc. are structurally sound.

Professional Land Surveyor (PLS) – A person licensed as a professional land surveyor. PLS use mathematics to measure, locate lines, elevations, etc. in order to update boundary lines, prepare construction sites, and more.

Current and Graduating Students in Engineering and Land Surveying Programs – Utah has several universities and colleges with accredited engineering and land surveying programs with the Engineering Accreditation Commission/Accreditation Board for Engineering and Technology (EAC/ABET). It is important to note that EAC/ABET accredited programs qualify for licensure and cover civil engineers. Programs accredited by the Engineering Technology Accreditation Commission/Accreditation Board for Engineering and Technology, Inc. (ETAC/ABET) do not qualify for licensure in Utah and covers civil engineering technology programs.

Schools that offer EAC/ABET accredited programs are as follows: University of Utah, Brigham Young University, Utah State University, Utah Valley University, Southern Utah University, Weber State College. There are two Utah schools that offer Land Surveying programs: Salt Lake Community College and Utah Valley University. The following data reflects the graduates from these programs for the 2019-2020 school year:



Market Needs

There is a need to educate and inform the audiences listed above on the policies, procedures, and requirements for license applications and license renewal. DOPL, along with the chair of the Utah Board of Professional Engineers and Land Surveyors, identified demand for education, training, marketing, and outreach in the following areas:

- Education of engineering and land surveying students in licensure processes
- Updated CE courses/instruction:
    - Usage of Seal;
    - Unprofessional Practices, Disciplinary Actions, and Fines; *and*
    - Filing a Complaint.
- Promote licensure to under-licensed professions:
    - Mechanical Engineers; *and*
    - Electrical Engineers.
- Informing the public of the importance of hiring a licensed engineer
- Remind trade associations of the availability of the Education and Enforcement Fund

Value Proposition

Audience Target Messages

- **Engineer and Land Surveying Trade Associations:** DOPL offers resources and tools to educate and license engineers and land surveyors, namely the Education and Enforcement Fund.
- **Current Professional Engineer and Land Surveyor Licensees:** DOPL provides straightforward and understandable instruction/education for renewing a license, applying for licensure, and the requirements for maintaining a license.
- **Current and Graduating Students in Engineering and Land Surveying Programs:** Becoming a licensed professional is beneficial whether or not an employer requires a license and the licensure process is clear.

Marketing Goals

- Improve understanding and knowledge of and respect for licensing procedures, requirements, and processes
- Reduce the number of engineering/land surveyors calling DOPL due to confusion
- Educate prospective licensees on licensure processes and the importance of acquiring a license
- Increase positive public perception of regulation through DOPL and the licensing board

Marketing Strategies

Core Messaging

- Engineering and Land Surveying licensure processes and requirements are clear.
- Licensure is beneficial and worthwhile.
- DOPL is efficient and provides tools and resources that empower licensees.

Early Outreach to Key Audiences

- Survey of current licensees to identify areas of confusion.
- Gather feedback from University and College administrators regarding their students' knowledge of DOPL.
- Develop a strategy based on results from the aforementioned outreach initiatives.

Marketing Tools

- DOPL.Utah.gov;
- Educational Videos;
- Targeted Emails;
- Virtual Classes/Seminars;
- CE Tools:
    - Handouts; *and*
    - Digital Media (video, graphics, etc.)
- Social Media Posts.

Marketing Mix

- DOPL.Utah.Gov:
    - Engineer and Land Surveyor Licensing Landing page;
- Engineer and Land Surveyor Email Messages;
- Utah Department of Commerce Social Media Accounts;
- Trade Associations:
    - American Society of Civil Engineers (ASCE)
        - Asceutah.com
        - board@asce.org
    - Structural Engineer Association of Utah (SEAU)
        - Seau.org
        - Boardmember1@seau.org
    - National Society of Professional Engineers – Utah Chapter (USPE)
        - Nspe.ut.org/home
        - Jfoulger3@gmail.com
    - Earthquake Engineering Research Institute (EERI)
        - Utah.eeri.org
        - cgarris@ce-labs.com
    - American Council of Engineering Companies (ACEC)
        - Acecutah.org
        - michael@acecutah.org
    - Utah Council of Land Surveyors (UCLS)
        - Ucls.org
        - bmortensen@meiamerica.com
- Accredited Utah Engineering and Land Surveying Programs:
    - University of Utah College of Engineering
        - coe.utah.edu
        - contact@coe.utah.edu
    - Brigham Young University College of Engineering
        - engineering.byu.edu
        - engineering@byu.edu
    - Utah State University College of Engineering
        - engineering.usu.edu
        - Matthew Jensen, PR for USU College of Engineering: matthew.jensen@usu.edu
    - Southern Utah University Department of Engineering and Technology
        - suu.edu/et/
        - Matthew Roberts, Department Chair/Professor: mwroberts@suu.edu
    - Utah Valley University Department of Engineering
        - uvu.edu/engineering/index.html
        - engineering@uvu.edu
    - Weber State
        - weber.edu/engineering
        - Gina Naisbitt, Exec. Assistant: rnaisbitt@weber.edu

Marketing Plan

Outreach

The Division of Occupational and Professional Licensing will contact the heads of the trade associations to schedule a meeting in relation to the further education of licensees, marketing opportunities, and to remind them of the purpose and availability of the Education and Enforcement Fund.

In addition, DOPL will also email licensees a survey to identify areas of confusion that could require further education or resources.

Educational Videos

The Division of Occupational and Professional Licensing will commission the production of a series of short educational and informative videos on the following topics relating to the licensing of a Professional Engineer, Professional Structural Engineer, or Professional Land Surveyor:

- Importance of Licensure
- Licensure Process/Online Application Tutorial
- How and When to use the Seal
- Unprofessional/Unlawful conduct, disciplinary actions, penalties, fines, etc.

The educational videos will be disseminated to trade associations to be used in conjunction with CE curriculum or as an online resource. DOPL will post the videos online (dopl.utah.gov) to help train and educate licensees. DOPL will request the aid of the Department of Commerce's marketing team for their expertise in the usage of search engine optimization to increase the discoverability of the educational videos. Videos may be used on the Department of Commerce social media pages if approved by the Department.

Continuing Education Resources

DOPL will explore options for new continuing education resources and curriculum. Options include creation of infographics, exploration of new CE topics, virtual courses, and on-demand options amid the COVID-19 pandemic.

Website Reconfiguration

DOPL will change the engineering and land surveyor licensing web pages (https://dopl.utah.gov/eng/) to increase accessibility, educate users, and create a visually pleasing and user-friendly experience. These changes may include:

- Reconfiguration of the landing page;
- Adjustments to the navigation menu; *and*
- Utilization of videos and/or graphics for ease of use.

EXECUTIVE ORDER
2021-01

Requiring a Review of All Regulated Occupations and Professions

WHEREAS, government provides necessary protections for Utah residents by regulating certain occupations and professions;

WHEREAS, excessive regulation creates barriers to working;

WHEREAS, government should impose only those regulations that are necessary to protect the health, safety, and well-being of Utah residents;

WHEREAS, government should periodically review regulations to ensure they are serving the intended purpose;

NOW, THEREFORE, I, Spencer J. Cox, Governor of the State of Utah, by virtue of the authority vested in me by the Constitution and the laws of the State of Utah, do hereby order that:

1. As used in this order, "agency" means an agency within the Executive Branch that establishes administrative rules or other regulations for an occupational or professional license.

2. No later than June 30, 2021, each agency shall:

a. review administrative rules and other regulations for occupational or professional licenses within the agency's scope of authority and identify rules and regulations that are no longer necessary or can be amended to reduce barriers to working while still protecting the health, safety, and well-being of Utah residents; and

b. submit a report to the Governor's Office including recommendations regarding ways to remove barriers to licensing and limit unnecessary government regulation.

IN WITNESS, WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Utah. Done in Fillmore, Utah, on this, the 4th day of January, 2021.

(State Seal)

Spencer J. Cox
Governor

ATTEST:

Deidre M. Henderson
Lieutenant Governor

2021/001/EO

07 December 2020

Ms. Tracy Taylor, Board Secretary
Division of Occupational and Professional Licensing
Department of Commerce
160 East 300 South, P.O. Box 146741
Salt Lake City, UT 84114-6741
801.530.6454
trtaylor@utah.gov

STRUCTURAL ENGINEERS
ASSOCIATION OF UTAH

P.O. Box 581292
Salt Lake City, Utah 84158-1292

RE: SEAU Annual Scholarship Program-Match Grant Request

Ms. Taylor:

We have appreciated the support and the direction that you have provided to SEAU in recent years related to grant requests, applications, and reimbursements. Our organization has benefitted from the Education and Enforcement Fund in being able to continue quality structural engineering instruction through monthly seminars and events. We express our gratitude to you and your colleagues for this advocacy and financial assistance.

With the conditions of the world, we have adapted our instructional processes to become virtual and web-based, including our annual education conference. While decreasing the need for meals and venue rental costs, we have had to ramp up IT support services and pay for other technological software upgrades. We have also seen a slight decrease in our membership numbers, as everyone is in a holding pattern for what the unforeseen future holds.

To perpetuate our profession, SEAU annually hosts a fundraising golf tournament to raise money for scholarships that we award to upper-level Civil Engineering students. The tournament is held in the Fall, and the scholarship applications are sent out in the Spring. This past tournament resulted in $1,700 of funds raised. In previous years, we have received a number of qualified applicants, but we have not had sufficient funds to support all of them. We are seeking a 100% match from DOPL's Education and Enforcement fund for $2,000. We will earmark $2,000 towards the upcoming Scholarship Program, and if DOPL can match, we can then award (4) students with $1,000 scholarships, each.

As an organization, we have a stewardship to provide quality education to our members. However, the numbers of structural engineers in the industry, nationwide, has been dwindling. Some leave the profession after a few years; others are choosing other engineering fields of study at the university level. We are continuing our presence at the (3) local institutions of higher learning: The University of Utah, Utah State University, and Brigham Young University, to ensure that curriculum is commensurate with what is required for graduates entering our industry, and also to ensure that students stay excited about the important role that structural engineers play in our world today. Being able to

support a greater number of students financially in an uncertain economy would greatly assist us in these endeavors.

A copy of last year's scholarship Application is appended to this letter. We have also appended a modified grant application for the $2,000 match being requested. Since funds are being sought for scholarship support and not for educational efforts, we did our best to modify the information on our application.

Please do not hesitate to reach out if you or the board have any questions. We look forward to hearing from you, and can attend in-person or virtual board meetings to field questions. Please let us know the next meeting time and location, and we will avail ourselves.

With respect,

Digitally signed by Cambria M. Flowers
Date: 2020.12.07 13:36:10 -07'00'
Adobe Acrobat version: 11.0.6

Cambria M. Flowers, P.E., S.E.
Programs Committee Past Chair

CC- David Alter, SEAU President
Nicole Eskelson, SEAU Executive Director

SEAU 2020 Scholarship Application

The Structural Engineers Association of Utah does not discriminate on the basis of race, color, age, gender, nationality, religion, or disability.

SCHOLARSHIPS GUIDELINES

The Structural Engineers Association of Utah will award up to three separate one-time scholarships to up to three individuals, each in the amount of $500.00-$1500.00. The award will be based on the combination of financial need, scholastic achievement, and contributions to the field of structural engineering.

** Please proofread your responses before submitting. Spelling and grammatical errors will reflect poorly on your application.

I. ELIGIBILITY REQUIREMENTS

Recipients of the scholarship are required to:

A. Be a student member of SEAU (to join, visit seau.org)

B. Complete the Scholarship Application

C. Be enrolled as a Junior, Senior, or Graduate Student in a Utah accredited university/college

D. Be pursuing a degree or Certificate of Completion, in a field related to structural engineering.

E. Have and maintain a minimum 3.0 GPA.

F. Not be related to any member of the SEAU Board of Directors

II. APPLICATION PROCEDURES

A. Complete the Scholarship Application and submit with the items listed below:

i. Copy of your most recent academic transcript

ii. One Letter of Recommendation

III. SELECTION RECIPIENTS

Selections will be based on student's overall academic progress and success, financial need, the conveyance of how this financial aid will help the applicant earn a degree and make a difference in structural engineering.

IV. NOTICE OF AWARDS

Students will be notified of any scholarship award or denial.

**Photos will not be made available to the awards jury and only the photos of scholarship winners will be used on SEAU publications announcing scholarship recipients.

STATE OF UTAH
DIVISION OF OCCUPATIONAL AND PROFESSIONAL LICENSING
160 East 300 South, P.O. Box 146741
Salt Lake City, Utah 84114-6741
Telephone (801) 530-6628
www.dopl.utah.gov

APPLICATION FOR FUNDING FROM EDUCATION AND ENFORCEMENT FUND

☐ ARCHITECT ☒ ENGINEER ☐ LAND SURVEYOR ☐ LANDSCAPE ARCHITECT ☐ GEOLOGIST	☒ **New Funding Request -** Requests should be submitted 60 days in advance of the program date. ☐ **Additional Funding Request -** Requests should be submitted 60 days in advance of the program date.

(Note: Microsoft Word users can fill in the blanks, print the form and save it for their records)

Requesting Organization: The Structural Engineers Association of Utah (SEAU)		Federal I.D. Number: 87-0686593	
Contact Person: Cambria M. Flowers, Programs Committee Past-Chair		Phone #: 801.598.8997	
Mailing Address: P.O. Box 581292		Email: cambria@canyonsstructural.com	
City: Salt Lake City		State: UT	Zip: 84158-1292
Title of Event: SEAU Annual Scholarship Program-Match		Amount Requested: $ 2,000	
Dates of Training - From: 1/1/2021	To: 5/31/2021	Location: n/a	
Number of Classroom Hours: n/a Expected Number of Attendees: n/a	Level of Curriculum: ☐ Beginner ☐ Novice ☐ Mid level ☐ Professional ☐ Expert		

Summary of Training Objectives:

Annually, SEAU has a fundraising golf tournament, where all proceeds are used for upper-level civil/structural engineering collegiate scholarships. The golf tournament is held in the Fall, and the scholarships are awarded in the Spring. Last year, the quality of our applicants exceeded the funding available. To perpetuate our profession, we greatly desire the ability to award more scholarships. We are seeking a match for what SEAU earned at this year's golf tournament. We will earmark $2,000 from SEAU's coffers towards scholarships this year, and we seek an equal amount of $2,000. This would allow us to support a greater number of students.

Please provide information for <u>each course</u> being taught in the training. *(Attach additional pages if necessary.)*

Course Description:

Describe how the training relates to the education goals of the Professional Board for the current year:

Text(s) or other materials to be used:

Lead Instructor:	Phone #:	
Street Address:	Email:	
City:	State:	Zip:

BOARD ACTION		
Date:	☐ Favorable ☐ Unfavorable	Amount Recommended: $
Reason:		

DEPARTMENT OF COMMERCE ACTION		
Date:	☐ Approved ☐ Not Approved	Amount Approved: $
Bureau Manager:		Date:
Limited Purchasing Delegate:		Date:
Division Director:		Date:
Department Director:		Date:

STATE OF UTAH
DIVISION OF OCCUPATIONAL AND PROFESSIONAL LICENSING
160 East 300 South, P.O. Box 146741
Salt Lake City, Utah 84114-6741
Telephone (801) 530-6628
www.dopl.utah.gov

APPLICATION FOR FUNDING WORKSHEET

Title of Event: SEAU Annual Scholarship Program-Match	
Dates of Training - From: 1/1/2021	To: 5/31/2021

PROJECTED TRAINING REVENUE			
Funding Participants *(excluding DOPL)*			
Jurisdiction:			$
Organization/Association: SEAU Golf Tournament			$ 1,700
Individual:			$
Other: SEAU surplus funds			$ 300
Other:			$
Other:			$
Other:			$
Other:			$
Registration Fee: $	Number of Attendees:	Total	$
		Total Training Revenue Anticipated	$ 2,000
Portion of Registration fees for Non-Reimbursable Expenses *(Code books, Breaks, etc.)*			($)
Portion of Registration to be Applied Against Education Costs			($)
		Balance of Anticipated Revenue	$ 2,000

PROJECTED TRAINING EXPENSES		
Meeting Room:		$
Instructor Fees:		$
Instructor Travel:		$
Audio/Visual Equipment:		$
Workbooks, Text Books, Study Guides:		$
Printing:		$
Brochures, Advertising:		$
Postage, Mailing:		$
Other qualified items: SEAU seeks a $2000 match for their scholarship contribution		$ 2,000
	Total Reimbursable Expenses	$
Portion of Registration to be Applied to Educational Cost		($)
	Total Anticipated Reimbursement Request	$ 2,000

I hereby verify under penalty of perjury, that any funds requested from the State of Utah are not being reimbursed from any other source.

Cambria M. Flowers
Name Authorized Representative *(please print)*

Programs Committee Past Chair
Title

Digitally signed by Cambria M. Flowers
Date: 2020.12.07 13:36:35 -07'00'
Adobe Acrobat version: 11.0.6
Signature

07 December 2020
Date

STATE OF UTAH
DIVISION OF OCCUPATIONAL AND PROFESSIONAL LICENSING
160 East 300 South, P.O. Box 146741
Salt Lake City, Utah 84114-6741
Telephone (801) 530-6628
www.dopl.utah.gov

APPLICATION FOR FUNDING FROM EDUCATION AND ENFORCEMENT FUND

APPLICATION INSTRUCTIONS AND INFORMATION

I. All applications for funding must be made by completing and submitting the Division's "Application for Funding from Education and Enforcement Fund" form. The form is included in this packet. Applicants may submit their application via email to: doplbureau5@utah.gov, or via regular mail to:

DOPL Bureau 5
PO Box 146741
Salt Lake City UT 84114

II. Upon receipt of the application, the request for funding will be placed on the agenda for review by the respective Board. Applicants will be notified of the meeting and attendance is encouraged to present the training plan.

III. If the reviewed application is recommended for approval, the funding request must then be approved by the Bureau Manager, Division Director, and Department Director. *The application is not officially approved until it has been signed by all parties.* A letter of approval will be mailed to you after all signatures have been obtained.

IV. It is *strongly* recommended that applications be submitted ***at least 60 days*** in advance of the event. If it is not received ***15 days*** prior to the next scheduled Board meeting, the request will not be placed on the agenda for consideration. Keep in mind, some Boards only meet a few times a year and may require you to submit your application sooner than recommended. **Any request not considered by the Board and approved prior to the event will not be approved for funding.**

*Professional Licensing Boards meet in the Heber M. Wells Building. Meeting dates, times, and agendas can be accessed at www.dopl.utah.gov.

The following items may be considered by the Board in making a determination for funding:

a. Previous experience in providing training; including cost per-attendee and current cost estimates.
b. How the education fits with the Board's education objectives for the applicable year.
c. How the text relates to the course objectives.
d. Target audience.
e. Target region.
f. The number of students, hours of instruction, and the ratio of students per dollar to be spent for the education.
g. The percentage of the training being paid for by the student, and by the Education and Enforcement Fund.
h. Anticipated revenue received.

ITEMS QUALIFYING FOR STATE FUNDING:

Reimbursement will **only** be for educational expenses that qualify for state funding. Note: **Code Books** or any **Referenced Standards do not** qualify for funding. **Sponsors' staffing or personnel costs do not** qualify for funding. Break items **do not** qualify for funding (e.g. food, drink, promotional items, awards, and prizes).

The following is a list of items which may qualify for funding:

- Instructor Fees: Will not be reimbursed for excess of $3,000 per day, *including* travel and meals. Any Instructor fees in excess of $150.00 per hour will be subject to further review and approval by the Board, the Division and the Department. (*State or local government employees should be aware of prohibition of*

paying instructor fees if the instructor is also being paid wages for the same time period. Contact DOPL with questions.)

- Instructor Travel and Meals: Meals, mileage, and lodging must not exceed current State of Utah rates. Current maximum rates are: mileage at $.56 per mile, $95.00 per day for hotel, and meals at: $10.00 breakfast, $13.00 lunch, and $16.00 dinner.
- Code Analysis and Code Update Books
- Workbooks, Study Guides, or Textbooks
- Meeting Rooms or Facilities
- Audio/Visual Equipment Costs
- Printing Costs (*including copies for workbooks, study guides, or textbooks*)
- Brochures (*for advertising, mailing, etc*.)
- Mailing, Postage & Handling Costs

Please note: Any items that do not qualify for state funding must be included as part of the registration fee paid by the participant, or paid by the sponsor of the program.

V. Applicants will be notified in writing if the application has been approved or denied. Advertising and agenda or training material for the training program shall include the following statement, ***"Partial funding for this educational opportunity has been provided by the Division of Occupational & Professional Licensing and the Education and Enforcement Fund.***"

VI. It is the responsibility of the sponsoring organization to assure that the training is provided by instructors who are qualified to teach the program demonstrated with adequate education and experience. Furthermore, the sponsoring organization is responsible to assure that instructors are prepared to teach the class, including making an appropriate outline of the program, making appropriate audio or visual aids, preparing or arranging for handouts or study guides, arranging for any needed equipment and assuring that the training is held for the time period specified in your request for funding. Please be aware that funding grants are based upon the sponsoring organizations' assurance that a quality training program will be provided.

If the training is deficient in quality of presentation or preparation as outlined above, it could jeopardize your grant of funding. We recommend the contract you enter into with instructors completely and accurately specify the responsibilities of the instructors and any consequences as a result of failing to hold the training, and/or lack of adequate preparation.

VII. It is the responsibility of the sponsoring organization to engage in good faith negotiations to ensure the best reasonable value for eligible reimbursement costs.

VIII. After completion of each course the sponsoring organization must complete and submit the following to the Division in order to obtain reimbursement for the training provided:

a. Request for Reimbursement Form
b. Itemized Invoice: Provided on the sponsoring organization's letterhead with attached original receipts, invoices, and other documentation to support the requested reimbursement.
c. Roster of Attendees
d. Advertising: Copy of the advertising announcement, agenda, and training material, which includes the acknowledgement of funding as specified above.

STATE OF UTAH
DIVISION OF OCCUPATIONAL AND PROFESSIONAL LICENSING
160 East 300 South, P.O. Box 146741
Salt Lake City, Utah 84114-6741
Telephone (801) 530-6628
www.dopl.utah.gov

APPLICATION FOR FUNDING FROM EDUCATION AND ENFORCEMENT FUND

☐ **ARCHITECT** ☐ **ENGINEER** ☒ **LAND SURVEYOR** ☐ **LANDSCAPE ARCHITECT** ☐ **GEOLOGIST**	☒ **New Funding Request -** Requests should be submitted 60 days in advance of the program date. ☐ **Additional Funding Request -** Requests should be submitted 60 days in advance of the program date.

(Note: Microsoft Word users can fill in the blanks, print the form and save it for their records)

Requesting Organization: Utah Council of Land Surveyors		Federal I.D. Number: 94-2943794	
Contact Person: Susan Merrill		Phone #: 801-964-6192	
Mailing Address: P.O. Box 1032		Email: srmerrill@ucls.org	
City: Salt Lake City		State: UT	Zip: 84110
Title of Event: UCLS Conference		Amount Requested: $ 9,450.00	
Dates of Training - From: 2/17/21	To: 2/19/21	Location: Dixie Convention Center, St. George, UT	
Number of Classroom Hours:	Level of Curriculum: ☐ Beginner ☐ Novice ☒ Mid level	☒ Professional ☒ Expert	
Expected Number of Attendees:			
Summary of Training Objectives: Two and a half days of break out sessions focused on the theme of "Finding Answers"; presenters are notable national, regional and local experts in their fields; additional business meetings of the UCLS will be held throughout the conference.			
Please provide information for <u>each course</u> being taught in the training. *(Attach additional pages if necessary.)*			
Course Description: Examples of the topics that will be presented are Historical Right of Way, Homesteads and Pioneer Surveys; Arbitration Panel discussion with the Ombudsman; Modernization and Best practices for GNSS Surveying; Leadership and Efficient Work-flow Workshops; Ethics; Private vs Public Surveyors ; Utah Statutes and Standards; etc.			
Describe how the training relates to the education goals of the Professional Board for the current year: These break out sessions meet the requirements set forth by DOPL to meet the continuing educational requirements for renewal of license.			
Text(s) or other materials to be used: Handouts and reference materials provided by the presenters through an app and available on-line in advance of the conference to allow each participant to download and print if needed or have on their laptop and/or other electronic device.			
Lead Instructor: John Stahl		Phone #: 801-495-2360	
Street Address: 9917 S. Cascade Park Dr.		Email: cplsinc@gmail.com	
City: Sandy		State: UT	Zip: 84070

BOARD ACTION		
Date:	☐ Favorable ☐ Unfavorable	Amount Recommended: $
Reason:		

DEPARTMENT OF COMMERCE ACTION		
Date:	☐ Approved ☐ Not Approved	Amount Approved: $
Bureau Manager:		Date:
Limited Purchasing Delegate:		Date:
Division Director:		Date:
Department Director:		Date:

STATE OF UTAH
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160 East 300 South, P.O. Box 146741
Salt Lake City, Utah 84114-6741
Telephone (801) 530-6628
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APPLICATION FOR FUNDING WORKSHEET

Title of Event: UCLS Conference	
Dates of Training - From: 2/17/21	To: 2/19/21

PROJECTED TRAINING REVENUE			
Funding Participants *(excluding DOPL)*			
Jurisdiction:			$
Organization/Association:			$
Individual: UCLS Members - 268			$ 120,600.00
Other: Non-Members - 17			$ 11,050.00
Other: Utah Students - 15			$ 1,950.00
Other: Vendors - 10			$ 10,300.00
Other:			$
Other:			$
Registration Fee: $ 450 base	Number of Attendees: 300	Total	$
		Total Training Revenue Anticipated	$ 143,900.00
Portion of Registration fees for Non-Reimbursable Expenses *(Code books, Breaks, etc.)*			($ 47,750.00)
Portion of Registration to be Applied Against Education Costs			($ 9,450.00)
		Balance of Anticipated Revenue	$ 86,700.00

PROJECTED TRAINING EXPENSES	
Meeting Room:	$ 8,000.00
Instructor Fees:	$ 3,000.00
Instructor Travel:	$ 1,400.00
Audio/Visual Equipment:	$ 4,000.00
Workbooks, Text Books, Study Guides:	$ 1,250.00
Printing:	$
Brochures, Advertising:	$ 1,250.00
Postage, Mailing:	$
Other qualified items:	$
Total Reimbursable Expenses	$ 18,900.00
Portion of Registration to be Applied to Educational Cost	($ 9,450.00)
Total Anticipated Reimbursement Request	$ 9,450.00

I hereby verify under penalty of perjury, that any funds requested from the State of Utah are not being reimbursed from any other source.

Brad T. Mortensen
Name Authorized Representative

Treasurer
Title

Brad T Mortensen
Signature

1/14/2021
Date

STATE OF UTAH
DIVISION OF OCCUPATIONAL AND PROFESSIONAL LICENSING
160 East 300 South, P.O. Box 146741
Salt Lake City, Utah 84114-6741
Telephone (801) 530-6628
www.dopl.utah.gov

REQUEST FOR REIMBURSEMENT FORM

Requesting Organization:	Federal I.D. Number:	
Contact Person:	Phone #:	
Mailing Address:	Email:	
City:	State:	Zip:
Title of Event:	Amount Requested: $	
Dates of Training - From: To:	Location:	

I hereby verify that I/we provided the educational program for which we obtained pre-approval from the Division and that we provided the program as outlined in our original submittal except for the following changes: *(Please identify below any changes that have been made in subjects, dates, locations or instructors, if applicable.)*

Please identify the information required below. (Attach additional pages if needed.)

Title/Subject	Date(s)	Location(s)	# Hours of Session	# Attendees

We are requesting reimbursement for the following costs incurred and for which we have attached the original receipts.	
Meeting Room; Name and Location:	$
Instructor Fees:	$
Instructor Travel/Meals:	$
Instructor Name(s):	
Audio Visual Equipment:	$
Workbooks, Textbooks, Study Guides:	$
Title(s):	
Printing:	$
Brochures, Adverstising:	$
Postage, Mailing:	$
Other – Describe:	$
Total Educational Expenditures	$
Deduct the portion of registration fees that have been applied to educational costs	($)
Balance/Total Reimbursement Request:	$

STATE OF UTAH
DIVISION OF OCCUPATIONAL AND PROFESSIONAL LICENSING
160 East 300 South, P.O. Box 146741
Salt Lake City, Utah 84114-6741
Telephone (801) 530-6628
www.dopl.utah.gov

REMITTANCE FORM

I hereby verify under penalty of perjury, that these expenses have been paid by our organization and that we have received no other reimbursement for these expenses from any other source.

Remit To:

_____	_____	_____
Organization Name	Federal I.D. Number	Date Signed
_____	_____	
Authorized Representative *(Please Print)*	Title	
_____		
Signature		

DEPARTMENT OF COMMERCE USE ONLY							
PURPOSE:		DEPT:	**670**	FUND:		UNIT	
Board Secretary:					Date:		
Bureau Manager:					Date:		
Limited Purchasing Delegate:					Date:		
Division Director:					Date:		
Department Director:					Date:		

2021
UCLS CONFERENCE

HONORING OUR PROFESSION

February 17-19, 2021

Ethics & Statutes
Credits available

GPS Modernization
w/ Dr. Jan Van Sickle

Leadership Workshops

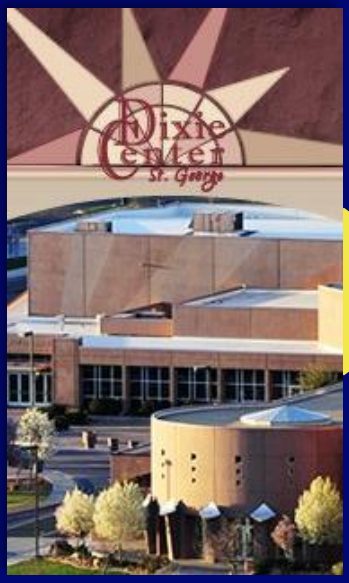
Special Arbitration Panel
w/ John Stahl & Ombudsman

Skeet Shooting

Silent Auction

Dixie Convention Center
St. George, UT

Virtual Attendance
MemberClicks ePly Platform



In-Person Venue

DIXIE CENTER

Dixie Center Website

Dixie Center Facebook Page

Virtual Venue

MemberClick ePly Virtual Venue

- **Compatible w/ the Conference App**
- **Includes UberEats Meal Voucher**

Accommodations

ST GEORGE, UTAH

- **Hilton Garden Inn**
- **Fairfield Inn**
- **Hyatt Place**
- **Holiday Inn**
- **Quality Inn**
- **Greater Zion Lodging**

Travel & Driving

CLOSE TO NATIONAL PARKS

The Dixie Center is located in St. George Utah, the heart of Utah's scenic outdoors. St. George is located in the southwestern most corner of Utah and is easily accessible on I-15 from either Las Vegas, NV to the south or Salt Lake City, UT to the north.

REGISTRATION

2021 UCLS Conference

REGISTER ONLINE

Visit the UCLS website to register for the 2021 UCLS Conference **www.ucls.org**

or click below

Register Here

COST

UCLS Member
Full Conference
$450

Non-member
Full Conference
$650

For daily registration and other options visit the event page or click below

Additional Details

$35 cancellation fee.

No refunds given after 2/10/2021 – no exceptions!

QUESTIONS

Susan Merrill

Utah Council of Land Surveyors
P.O Box 1032
Salt Lake City, UT 84110
(801) 964-6192
srmerrill@ucls.org

Contact Susan

MOBILE/ VIRTUAL

Member Clicks App

ePly Virtual Venue

Visit the App or Play Store on your mobile device to download
Virtual Registrants will receive ePly link

App Link Coming Soon!

Partial funding for this educational opportunity has been provided by the Division of Occupational & Professional Licensing and the Education and Enforcement Fund as well as 'In Utah' CARES Act funds.

American Society of Plumbing Engineers
Intermountain Chapter Board of Directors
181 East 5600 South, Suite 200
Murray, UT 84107

7 January 2021

Utah Professional Engineers and Professional Land Surveyors Board
160 East 300 South
First Floor
Salt Lake City, Utah 84111

To Whom It May Concern:

We are writing to seek the Board's support in adding a "Plumbing" option to the National Council of Examiners for Engineers and Surveyors' (NCEES) Principals & Practices (PP) "Mechanical Engineering" discipline exam. Based on discussions with NCEES' Tim Miller and David Cox, a minimum of ten Boards must concur to the need for such an option.

The practice of engineering encompasses many disciplines which contain many specific sub-disciplines within their general discipline. One such sub-discipline, not currently represented within the subset of Mechanical Engineering, is Plumbing.

At one time, plumbing was felt to be simplistic enough that any ABET-accredited engineer could adequately meet the demands of the discipline; providing fixtures, drains and vents. However, plumbing engineering has been and continues to become more complex than it was in the past. Plumbing has a significant impact on public health, safety and welfare in ways significantly different from air-conditioning or heating. Some of the systems with which the plumbing engineer must design and manage are: domestic/potable water (specialized systems such as distilled, softened, deionized, reverse osmosis, grey water and black water, among others), sanitary waste and vent (specialized clinical, medical, laboratory and kitchen waste systems along with removal of Fats, Oils and Greases (FOG) from the kitchen waste), storm water removal and reuse (both conventionally and siphonically), fuel systems (natural gas, liquefied petroleum (LP or propane) fuel oils, gasoline and others), industrial gases (oxygen, nitrogen, acetylene, argon, carbon dioxide and others), medical gas systems (oxygen, breathing air, instrument air, vacuum, waste anesthesia gas removal and others), laboratory gas systems (which can feature medical gases, industrial gases, fuels, etc.) and with the growth of "Green" systems rain and waste reclamation systems are being brought into the market. And when one considers the design and regulatory requirements, Plumbing Engineering has achieved a complexity all of its own.

Engineers, specializing in plumbing, must routinely concern themselves with these various and complex Plumbing Systems. Today's practice of engineering has become more difficult, if not impossible, for the typical Registered Engineer specializing in the Heating, Ventilating and Air Conditioning (HVAC) discipline. It is not practical or possible to maintain the necessary level of competency in the two distinct disciplines of plumbing and HVAC.

Yes, there are many similarities between engineers who practice within the HVAC and plumbing disciplines; heat transfer, thermal dynamics, fluid flow, gases such as air, etc. However, there are many

differences as well. HVAC engineers deal with full pipe flow, psychometrics, relatively low pressure air movement, building automation systems, etc. Plumbing engineers, on the other hand, deal with partially filled pipe flow, open channel flow, bio-films and pathogenic growths within potable water systems, higher pressures within gas systems that involve considerations for compressibility, etc. For these and the reasons above, a plumbing option should be placed within the framework of the mechanical PP examination process. It has become a necessity for the engineering community and the regulatory boards that oversee that community to assure that the public's health, safety and welfare is protected.

In closing, we urge the Board to support the inclusion of a plumbing option within the Mechanical Engineering examination and to advise NCEES of this support.

Thank you for your time, consideration, and support.

Sincerely,

American Society of Plumbing Engineers
Intermountain Chapter Board of Directors

Nick Allred, CPD (President)
nallred@sacincorporated.com

Kyle Sorenson (Vice President, Technical)
kyle@innovativespec.com

Jeff Zaugg, CPD (Vice President, Legislative)
jeff.zaugg@jtbengineering.net

Mauro Artica (Vice President, Membership)
martica@vbfa.com

Steven Shields, EIT (Treasurer)
kstevenshields@msn.com

Clifford Holmes, PE, GPD (Secretary)
cliffdholmes@outlook.com

Scott Elkins (Affiliate Liaison)
Scott@fitzpatricksales.com

Dallan Naumann, EIT (ASPE Young Professional Liaison)
dnaumann@heatheng.com

Kurt Bramstedt (Education Committee Chair)
Kurt.Bramstedt@rheem.com

Utah Professional Engineers and Professional Land Surveyors Board
160 East 300 South
First Floor
Salt Lake City, Utah 84111

11/20/2020

To Whom It May Concern:

I am writing to seek the Board's support in adding a "Plumbing" option to the National Council of Examiners for Engineers and Surveyors' (NCEES) Principals & Practices (PP) "Mechanical Engineering" discipline exam. Based on discussions with NCEES' Tim Miller and David Cox, a minimum of ten Boards must concur to the need for such an option. As a Registered Professional Engineer (Arizona, California, Florida, Georgia, Nevada, and Texas), I will be seeking this support from multiple Boards. I would like to ask that you present this letter to the Utah Professional Engineers and Professional Land Surveyors Board.

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In closing, I urge the Board to support the inclusion of a plumbing option within the Mechanical Engineering examination and to advise NCEES of this support.

Thank you for your time, consideration, and support.

Sincerely,

Clifford D. Holmes, PE
cell: 801.960.6109
cliffdholmes@outlook.com
ASPE Intermountain Chapter Secretary
LICENSED IN UT #309570-2202

Utah Professional Engineers and Professional Land Surveyors Board
160 East 300 South
First Floor
Salt Lake City, Utah 84111

12/4/2020

To Whom It May Concern:

I am writing to seek the Board's support in adding a "Plumbing" option to the National Council of Examiners for Engineers and Surveyors' (NCEES) Principals & Practices (PP) "Mechanical Engineering" discipline exam. Based on discussions with NCEES' Tim Miller and David Cox, a minimum of ten Boards must concur to the need for such an option. As a Registered Professional Engineer (Arizona, California, Florida, Georgia, Nevada, and Texas), I will be seeking this support from multiple Boards. I would like to ask that you present this letter to the Utah Professional Engineers and Professional Land Surveyors Board.

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On a personal note, I have experienced firsthand the need for a Plumbing option within the Mechanical Engineering examination. Before graduating in Mechanical Engineering from the University of Utah, I worked in the plumbing construction industry for many years. Since graduation, I have worked as a mechanical engineer designing the plumbing construction plans for various commercial buildings in Utah and surrounding states. My next career step is to become a licensed professional engineer. Despite having 10 years of design and applied experience in plumbing, I am currently studying to take the HVAC Mechanical Engineering exam because a plumbing exam is not available. I will be tested on systems unrelated to my career and expertise.

In closing, I strongly urge the Board to support the inclusion of a plumbing option within the Mechanical Engineering examination and to advise NCEES of this support.

Thank you for your time, consideration, and support.

Sincerely,

Dallan Naumann, Mechanical Engineer
cell: 801.317.6897
Address: 895 N 1345 E Layton, Ut 84040
dnaumann@heatheng.com
ASPE Intermountain Chapter Board Member

January 15, 2020

Michael Ricks, District Manager
A&D Fire Sprinklers, Inc.
9384 South 670 West
Sandy, UT 84070
Phone: 801-367-0485

AD Fire Sprinklers – FIRST FIRE REVIEW
Client Permit No.: N/A
WC[3] Job No.: 220-714-001

RESUBMITTAL REQUIRED

Re: Plan Review: Vineyard Retail Buildings E & F - FSS
Address: 600 Mill Road, Vineyard, UT

Mr. Ricks:

West Coast Code Consultants, Inc. (WC[3]) has completed the first review of the following documents for the project referenced above on behalf of A&D Fire Sprinklers, Inc.:

1. Fire suppression plans: dated 1/3/2020, by A&D Fire Sprinklers Inc.
2. Hydraulic calculations: dated 10/29/2019, by A&D Fire Sprinklers Inc.
3. Specifications:

The 2018 IBC, IFC, IMC, 2017 NEC, and applicable NFPA standards, were used as the basis of our review. **Our comments follow on the attached list.**

Please note that West Coast Code Consultants', Inc. (WC[3]) plan review is limited only to the provisions regulated and enforced by the State of Utah. Please be aware that additional comments in relation to this application may be generated by other divisions/departments within the jurisdiction. Please do not return plans until all comments from all applicable divisions/departments have been addressed.

Please call if you have any questions or if we can be of further assistance.

Sincerely,

CBPE Comment: Missing professional seal, and referring to wrong NFPA #13 edition. 12/1/20

West Coast Code Consultants, Inc. (WC[3])

Fire Plan Review By:

Craig Hanson, Fire & Life Safety Plans Examiner

cc: Trevor Ricks, tricks@adfiresprinklers.com
A&D Fire Sprinklers, Inc. Staff

Fire Plan Review Comments

OCCUPANCY & BUILDING SUMMARY:

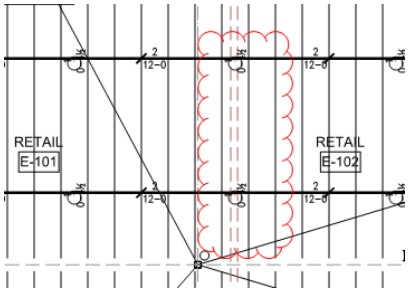
Occupancy Groups:	Shell M
Type of Construction:	VB
Sprinklers:	Yes
Stories:	1
Area of Work (sq. ft.):	Bld E: 6,260 sq. ft., Bld F: 7,460 sq. ft.

GENERAL INFORMATION:

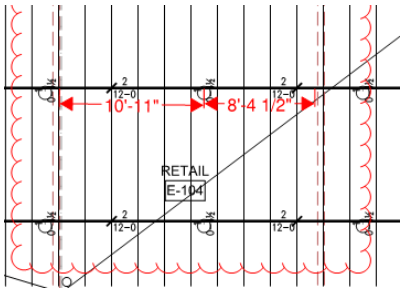
The submitted documents for the above-mentioned project, as outlined in the cover letter, have been reviewed. The following comments address areas of concern, non-compliance with the governing code, potential errors, or omissions in the proposed design. The appropriate design professional must address each comment below and submit a written response in addition to revised plans and calculations if necessary. **Please cloud any revisions made to the construction drawings and provide the date of the latest revision on each revised sheet.**

FIRE COMMENTS:

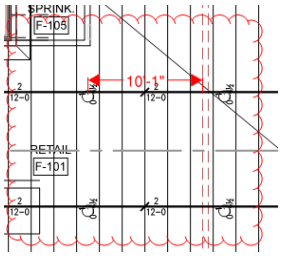
F1. Sprinkler Location- Building E has heads directly on demising walls between space E-101 and E-102. Adjust head locations to be more than 4" from the demising wall.



F2. Sprinkler Spacing-Demising walls in space E-104 puts the heads to far from either wall and heads in E-103 to close to wall. Adjust coverage so that if walls are built modification of system is not needed.



F3. Sprinkler Spacing- Heads in Building F space F-101 are to far from demising wall. Adjust head spacing as to not exceed max distance from walls.



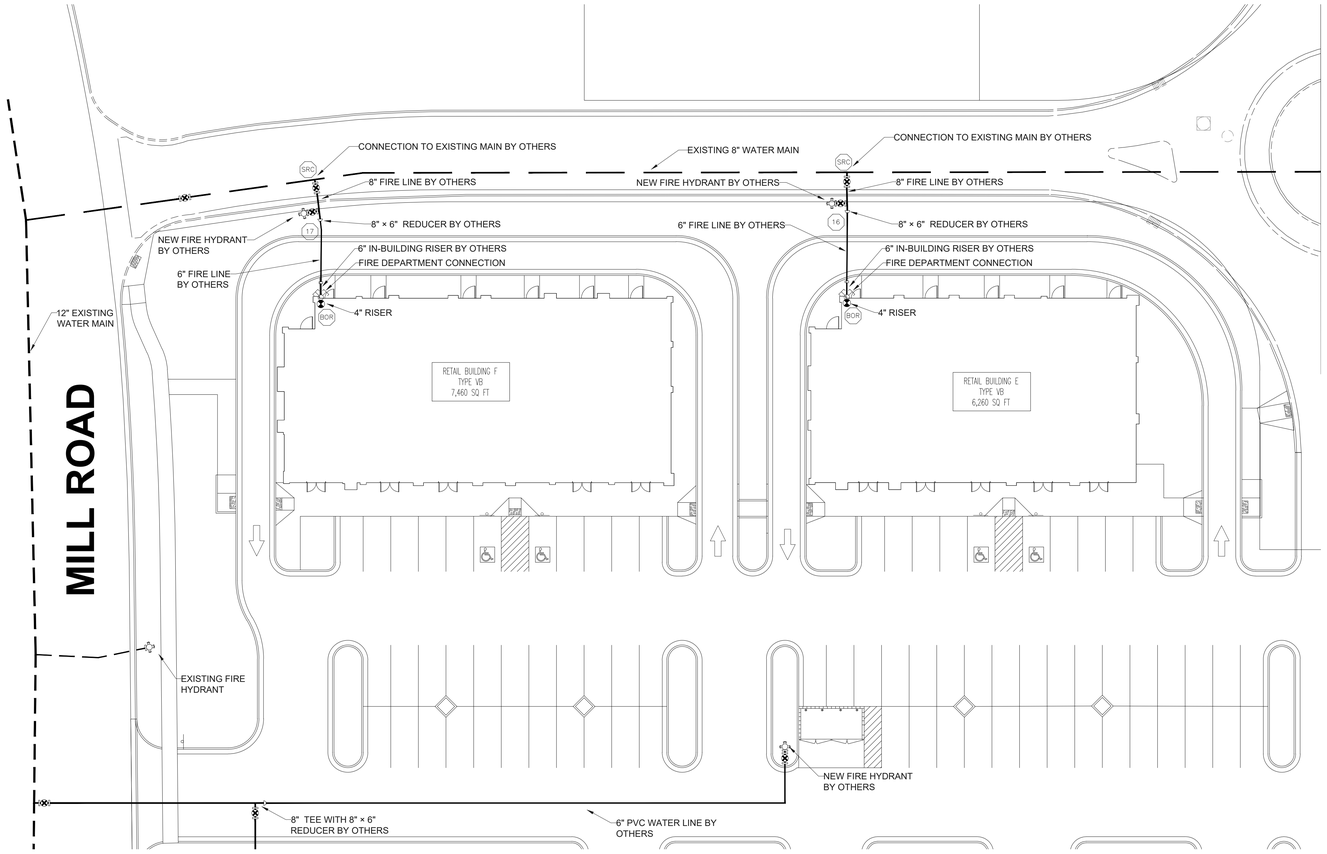
F4. Bracing Details- Sectional shows open web wood trusses but the details for the bracing is showing attachment into solid beams. Additionally, your showing bracing to the steel beam on both building but there are no details for this attachment. Provide details on all attachments to structure.

F5. Unobstructed Construction- Sectional shows wood joist construction that may be considered obstructed if the open space between members is less than 70% [NFPA 13: 3.7.2*]. These are 30" panels on 24" centers which gives an area of 720 sq. Inches. The total area of the chords and webs exceeds 70% then it is obstructed. Orientation of the webs and chords make a difference to the equation. Please provide information on wood joist construction and whether this is obstructed or unobstructed.

If you have any questions regarding the above comments, please contact Craig Hanson (CraigH@wc-3.com) for plan review comments via email or telephone 253-225-9977.

[End]

VINEYARD RETAIL BLDGS E & F



SITE PLAN (FOR REFERENCE ONLY)

N.T.S.

UNDERGROUND FIRE LINE SYMBOL LEGEND

- NEW UNDERGROUND PIPE (TYPE AND CLASS AS NOTED ON PLANS)
- EXISTING UNDERGROUND PIPE (TYPE AND CLASS AS NOTED ON PLANS)
- DOUBLE CHECK DETECTOR ASSEMBLY
- POST INDICATING VALVE
- UNDERGROUND GATE VALVE WITH STREET KEY
- FIRE DEPARTMENT CONNECTION
- FIRE HYDRANT
- THRUST BLOCK
- FIRE SPRINKLER RISER
- CHECK VALVE

FIRE SPRINKLER GENERAL NOTES

APPLICABLE CODES AND STANDARDS:
1. ALL WORK SHALL BE PREFORMED AS PER THE APPLICABLE CODES AND STANDARDS AS LISTED IN THE BUILDING INFORMATION DATA PROVIDED ON THIS SHEET AND SUBJECT TO LOCAL AHJ APPROVAL.

DESIGN CRITERIA:
1. THE SPRINKLER SYSTEM SHALL BE HYDRAULICALLY DESIGNED PER THE REQUIREMENTS OF NFPA 13 (2013 EDITION)
 1.1. THE SHELL BUILDINGS SHALL BE ORDINARY HAZARD GROUP II OCCUPANCY. THE SPRINKLER SYSTEM HAS BEEN DESIGNED TO PROVIDE .20 GPM/SQ. FT. OVER THE MOST DEMANDING 1500 SQUARE FEET.
  1.1.1.1. THIS WILL PROVIDE ADEQUATE PIPE SIZING FOR FUTURE T.I. SPACE

MATERIAL:
1. ALL MATERIAL AND EQUIPMENT ESSENTIAL TO THE SUCCESSFUL SYSTEM OPERATION USED IN THIS PROJECT SHALL BE NEW AND LISTED BY UNDERWRITERS LABORATORIES FOR USE IN AUTOMATIC FIRE SPRINKLER SYSTEMS.
 1.1. PIPE AND FITTINGS LISTED IN NFPA 13 TABLE 6.3.1.1, TABLE 6.4.1 (IE: PIPE AND FITTINGS MEETING ASTM, ANSI, OR AWS STANDARDS) NEED NOT BE LISTED.
 1.2. THREADED RODS, SHOCKBOLTS AND SCREWS WHICH ARE IN COMPLIANCE WITHIN A TOXPANEL ARE NOT REQUIRED TO BE LISTED.
 1.3. HANGERS CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER AS PER NFPA 13 9.1.1.2 NEED NOT BE LISTED.
 1.4. EQUIPMENT THAT DOES NOT AFFECT SYSTEM OPERATION SUCH AS DRAIN VALVES AND SIGNS DOES NOT NEED NOT BE LISTED.
2. PIPE AND FITTINGS:
 2.1. ALL PIPE AND FITTINGS USED IN THE OVERHEAD PIPING SYSTEMS SHALL BE OF THE TYPES SHOWN IN THE "PIPE AND FITTING" LEGEND PROVIDED ON EACH PIPING PLAN UNLESS NOTED OTHERWISE BY A NOTE IN THE DRAWINGS.
 2.2. ALL THREADED PIPE SHALL HAVE THREADS CUT TO STANDARD ANSI/ASME B1.20.1.
 2.3. STEEL PIPE WITH WALL THICKNESS LESS THAN SCHEDULE 30, IN SIZES 8 IN. AND LARGER, OR SCHEDULE 40 , IN SIZES LESS THAN 8 IN. SHALL NOT BE JOINED BY THREADED FITTINGS UNLESS THE PIPE HAS BEEN LISTED FOR USE WITH THREADED FITTINGS.
 2.4. ALL WELDED FITTINGS SHALL BE INSTALLED BY METHODS THAT COMPLY WITH ALL OF THE REQUIREMENTS OF AWS D10.9, LEVEL AR-3.
  2.4.1. A WELDING PROCEDURE SHALL BE PREPARED AND QUALIFIED BY THE CONTRACTOR OR FABRICATOR PRIOR TO THE START OF ANY WELDING.
  2.4.2. ALL SPRINKLER PIPING SHALL BE SHOP WELDED.
  2.4.3. HOLES IN PIPING FOR WELDED OUTLETS SHALL BE CUT TO THE FULL INSIDE DIAMETER OF FITTINGS PRIOR TO WELDING IN PLACE OF THE FITTINGS, ALL DISCS SHALL BE REMOVED, OPENINGS CUT INTO PIPING SHALL BE SMOOTH BORE, AND ALL INTERNAL SLAG AND WELDING RESIDUE SHALL BE REMOVED.
  2.4.4. FITTINGS SHALL NOT PENETRATE THE INTERNAL DIAMETER OF THE PIPING.
  2.4.5. STEEL PLATES SHALL NOT BE WELDED TO THE ENDS OF PIPING OR FITTINGS, WELDED FITTINGS SHALL NOT BE MODIFIED, AND NUTS, CLIPS, EYE RODS, ANGLE BRACKETS, OR OTHER FASTENERS SHALL NOT BE WELDED TO PIPE OR FITTINGS.
  2.4.6. WELDERS OR WELDING MACHINE OPERATORS SHALL, UPON COMPLETION OF EACH WELD, STAMP AN IMPRINT OF THEIR IDENTIFICATION INTO THE SIDE OF THE PIPE ADJACENT TO THE WELD.
  2.4.7. THE CONTRACTOR OR FABRICATOR SHALL MAINTAIN CERTIFIED RECORDS, WHICH SHALL BE AVAILABLE TO THE AUTHORITY HAVING JURISDICTION, OF THE PROCEDURES USED AND THE WELDING OR WELDING MACHINE OPERATORS EMPLOYED BY THEM ALONG WITH THEIR WELDING IDENTIFICATION IMPRINTS.
  2.4.8. RECORDS SHALL SHOW THE DATE AND THE RESULTS OF PROCEDURE AND THE PERFORMANCE QUALIFICATIONS.
 2.5. PIPE JOINED WITH GROOVED FITTINGS SHALL BE JOINED BY A LISTED COMBINATION OF FITTINGS, GASKETS, AND GROOVES. GROOVES CUT OR ROLLED ON PIPE SHALL BE DIMENSIONALLY COMPATIBLE WITH THE FITTINGS.
3. SPRINKLER HEADS:
 3.1. ALL SPRINKLER HEADS SHALL BE AS INDICATED IN THE HEAD LEGENDS ON EACH PIPING PLAN.
 3.2. A STOCK OF SPARE SPRINKLES OF EACH STYLE, TYPE , AND TEMPERATURE RATING ALONG WITH A SPRINKLER WRENCH SHALL BE LOCATED AT THE MAIN RISER.
4. VALVES:
 4.1. ALL CONTROL VALVES SHALL BE INDICATING TYPE AND BE MONITORED
 4.2. VALVE TYPES SHALL BE AS INDICATED IN THE DRAWINGS
 4.3. ALL VALVES SHALL HAVE A PERMANENTLY AFFIXED SIGN INDICATING THEIR FUNCTION.
 4.4. CONTROL VALVES SHALL IDENTIFY THE PORTION OF THE BUILDING BEING SERVED.

HANGERS:
1. ALL HANGERS SHALL BE INSTALLED AS PER NFPA 13 SECTIONS 9.1-9.2 AND THEIR APPROVED LISTINGS.
 1.1. HANGERS SHALL BE OF THE TYPE LISTED IN THE DRAWINGS AND SHOWN IN THE DETAILS.
 1.2. ALL HANGERS IN CONCRETE SHALL BE PREQUALIFED BY THE ICC EVALUATION SERVICE FOR USE IN CRACKED CONCRETE AS A SPRINKLER ANCHOR AND INSTALLED ACCORDING TO THE ICC-ES EVALUATION REPORT.
 1.3. ALL END OF LINE HANGERS AND ON BRANCH LINES SHALL BE RESTRAINED AGAINST EXCESSIVE MOVEMENT BY AN APPROVED MEANS.
 1.4. FOR STEEL PIPE, WHERE THE STATIC PRESSURE AT THE SPRINKLER HEAD EXCEEDS 100 PSI, ANY DROP ON THE END OF A LINE OR ON AN ARMOVER SUPPLYING A PENDANT SPRINKLER IN A CEILING SHALL HAVE A HANGER THAT RESTRAINS AGAINST UPWARD MOVEMENT WITHIN 12"
2. THE FIRE SPRINKLER CONTRACTOR ASSUME NO RESPONSIBILITY FOR THE ADEQUACY OF THE BUILDING STRUCTURE TO SUPPORT THE SPRINKLER LOADS BOTH CAUSED BY THE HANGERS AND THE SWAY BRACING. ANY STRUCTURAL REINFORCEMENT REQUIRED AT THE POINTS OF ATTACHMENT ARE NOT THE RESPONSIBILITY OF THE SPRINKLER CONTRACTOR.

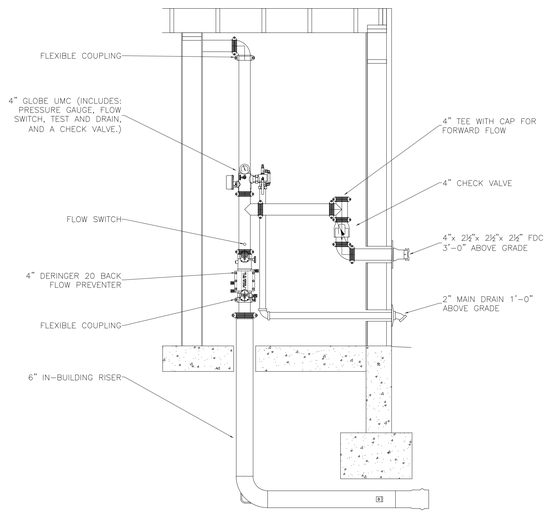
PROTECTION OF PIPING:
1. THE SPRINKLER SYSTEM SHALL BE PROTECTED AGAINST EARTHQUAKE DAMAGE IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13 9.3, INCLUDING THE USE OF FLEXIBLE JOINTS AND COUPLINGS, CLEARANCES, SEISMIC SEPARATION ASSEMBLIES, SWAY BRACING AND BRANCH LINE LATERAL RESTRAINTS.
 1.0.1. ALL GROOVED COUPLINGS SHALL BE NON-FLEXIBLE EXCEPT AT THE BASE AND TOP OF RISERS AND AS OTHERWISE REQUIRED BY NFPA 13 9.3.2.
  1.0.1.1. RISERS LESS THAN 3' SHALL NOT REQUIRE FLEXIBLE COUPLINGS.
  1.0.1.2. RISERS FROM 3' TO 7', ONLY ONE FLEXIBLE COUPLING IS REQUIRED.
 1.0.2. MINIMUM CLEARANCE ON ALL SIDES OF PIPE PASSING THROUGH CONCRETE OR OTHERWISE SOLID (NON-FRANGIBLE CONSTRUCTION) OR RATED WALLS, PLATFORMS OR FOUNDATIONS SHALL BE NOT LESS THAN 1 IN. FOR PIPES 1 IN. THROUGH 3 1/2 IN. AND 2 IN. FOR PIPE SIZES 4 IN. AND LARGER.
  1.0.2.1. WHEN A FLEXIBLE COUPLING IS PROVIDED WITHIN 1 FT. OF EACH SIDE OF THE WALL OR WITHIN 1' ABOVE AND 2' BELOW A FLOOR OR PLATFORM, CLEARANCE IS NOT REQUIRED.
 1.0.3. SWAY BRACING ATTACHMENTS AND MATERIALS SHALL BE DETERMINED BY ANALYSIS.
  1.0.3.1. THE SWAY BRACING LOADS ARE SHOWN IN THE DRAWINGS AND THE SWAY BRACING SHALL BE INSTALLED AS PER THE DETAILS SHOWN AT LOCATIONS INDICATED ON THE DRAWINGS.
  1.0.3.2. WHERE NOTED AND ALLOWED BY NFPA 13, MAINS HUNG WITH HANGER RODS LESS THAN 6" IN LENGTH FROM THE POINT OF ATTACHMENT TO THE STRUCTURE TO THE TOP OF THE PIPE DO SHALL NOT REQUIRE LATERAL SWAY BRACING.
 1.0.4. THE LATERAL RESTRAINT OF BRANCH LINES SHALL NOT BE REQUIRED WHEN HUNG WITH HANGER RODS LESS THAN 6" FROM THE POINT OF ATTACHMENT TO THE STRUCTURE TO THE TOP OF THE PIPE.
2. RISERS SUBJECT TO MECHANICAL DAMAGE SHALL BE PROTECTED BY STEEL POSTS, CONCRETE BARRIERS OR OTHER APPROVED MEANS.
3. ANY PORTION OF THIS SPRINKLER SYSTEM WHICH IS EXPOSED TO FREEZING SHALL BE ADEQUATELY PROTECTED AGAINST THIS EXPOSURE.

SYSTEM ATTACHMENTS:
1. FIRE DEPARTMENT CONNECTIONS:
 1.1. THE FIRE DEPARTMENT CONNECTIONS(FDC) SHALL BE VISIBLE, ACCESSIBLE, HAVE NST FEMALE OUTLETS, HAVE PROTECTIVE CAPS AND APPROVED CHECK VALVE LOCATED IN THE MAIN LINE AS CLOSE TO THE FDC AS POSSIBLE.
 1.2. EACH FIRE DEPARTMENT CONNECTION SHALL BE DESIGNATED BY A SIGN HAVING RAISED OR ENGRAVED LETTERS AT LEAST 1" IN HEIGHT.
 1.3. THE FIRE DEPARTMENT CONNECTION SHALL BE NOT LESS THAN 18" OR MORE THAN 40" ABOVE GRADE.
2. ALARMS:
 2.1. THE AUTOMATIC SPRINKLER SYSTEM SHALL BE MONITORED BY AN APPROVED SUPERVISING STATION.
 2.2. ALL VALVES CONTROLLING THE WATER SUPPLY FOR AUTOMATIC SPRINKLER SYSTEMS AND WATER-FLOW SWITCHES WILL BE ELECTRONICALLY SUPERVISED BY A LISTED FIRE ALARM CONTROL UNIT.
 2.3. AN APPROVED AUDIBLE SPRINKLER FLOW ALARM SHALL BE PROVIDED ON THE EXTERIOR OF THE BUILDING
 2.4. AN APPROVED LOCATION AND AN APPROVED AUDIBLE SPRINKLER FLOW ALARM TO ALERT THE BUILDING OCCUPANTS SHALL BE PROVIDED IN THE INTERIOR OF THE BUILDING IN A NORMALLY OCCUPIED LOCATION.
 2.5. THE ALARMS AS DESCRIBED ABOVE ARE TO BE INSTALLED BY OTHERS NOT THE RESPONSIBILITY OF THE SPRINKLER CONTRACTOR.

SYSTEM ACCEPTANCE:
1. ALL SPRINKLER SYSTEM PIPING SHALL BE HYDROSTATICALLY TESTED AT 200 PSI FOR TWO HOURS OR AT 50 PSI ABOVE THE SYSTEM OPERATING PRESSURE, WHICHEVER IS GREATER PRIOR TO COVERING ANY PIPE. THE HYDROSTATIC TEST SHALL BE WITNESSED BY THE AUTHORITY HAVING JURISDICTION.
2. ALL UNDERGROUND MAINS AND LEAD-IN CONNECTIONS SHALL BE FLUSHED AS INDICATED IN NFPA 13 PRIOR TO CONNECTION TO THE OVERHEAD PIPING. THE FLUSHING SHALL CONTINUE UNTIL THE WATER IS CLEAR. THE FLUSHING SHALL BE WITNESSED BY THE AUTHORITY HAVING JURISDICTION.
3. UPON COMPLETION OF THE SPRINKLER SYSTEM AND ACCEPTANCE BY THE AUTHORITY HAVING JURISDICTION, THE SPRINKLER CONTRACTOR SHALL PROVIDE THE OWNER WITH THE NECESSARY INSTRUCTION MANUALS FOR THE UPKEEP OF THE SYSTEM.
4. IT IS THE RESPONSIBILITY OF THE OWNER TO MAINTAIN THE INTEGRITY OF THE SPRINKLER SYSTEM.

SPRINKLERS CONTAINED IN EACH CABINET

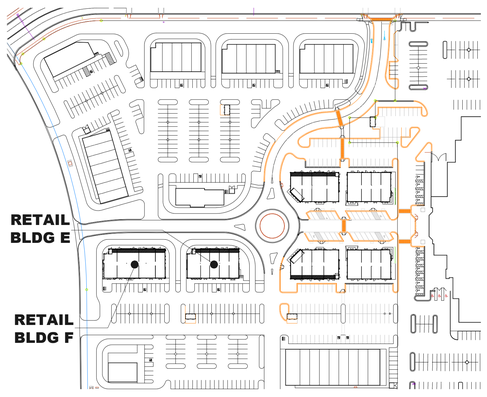
SPRINKLER ID# (SIN)	MANUFACTURER	GENERAL DESCRIPTION	TEMP. F°	SPR. QTY. MAINTAINED
TY3131	TYCO	K5.6, ½" NPT, BRASS, SSU, QR	200°	6
PROVIDE HEAD WRENCH FOR EACH TYPE OF SPRINKLER, PER MANUFACTURERS REQUIRMENTS		TOTAL REQUIRED HEADS PER NFPA 13, SEC. 6.2.9.5		6



RISER DETAIL

SCALE: NTS

A FP-0.0



VICINITY MAP

N.T.S.

PROJECT DATA		RETAIL BUILDING E INFORMATION		RETAIL BUILDING F INFORMATION	
PROJECT NAME:	VINEYARD RETAIL BLDGS E & F	CONSTRUCTION TYPE:	VB	CONSTRUCTION TYPE:	VB
PROJECT ADDRESS:	600 MILL ROAD, VINEYARD, UT 84058	OCCUPANCY CLASSIFICATION(S):	A-2, B, E, M & S-1	OCCUPANCY CLASSIFICATION(S):	A-2, B, E, M & S-1
OWNER:	600 MILL, LLC 9537 S 700 E, SANDY, UT 84070	NUMBER OF STORIES:	1	NUMBER OF STORIES:	1
GOVERNING CODES:	2013 EDITIONS WITH ALL LOCAL AMENDMENTS OF NFPA 13	BUILDING HEIGHT:	26'-0"	BUILDING HEIGHT:	26'-0"
SEISMIC DESIGN FACTORS:	Ss=1.202 (FROM THE US GEOLOGICAL SURVEY) Cp=0.5704 (SEE NFPA 13 9.3.5.9.3)	BUILDING AREA:	6,260 SQ. FT.	BUILDING AREA:	7,460 SQ. FT.
		FLOW TEST DATA			
		CONDUCTED BY:	MIKE RICKS & ROD SOUTHWORTH - A & D FIRE SPRINKLERS, INC		
		WITNESSED BY:	SULLIVAN LOVE - CITY OF VINEYARD WATER SYSTEMS MANAGER		
		DATE OF TEST:	10/29/2019		
SCOPE OF WORK		OBSERVED RESULTS		PROJECTED FLOW AFTER SYSTEM MODS	
1. PROVIDE WET PIPE SPRINKLER SYSTEMS IN ACCORDANCE WITH NFPA 13 (2013). 2. WORK TO START AT BASE OF RISERS, ALL UNDERGROUND BY OTHERS.		STATIC PRESSURE:	88 PSI	STATIC PRESSURE:	65 PSI
		OBSERVED FLOW:	2577 GPM	OBSERVED FLOW:	2577 GPM
		RESIDUAL PRESSURE:	70 PSI	RESIDUAL PRESSURE:	47 PSI
		FLOW AT 20 PSI:	5282 GPM	FLOW AT 20 PSI:	4227 GPM

AHJ SUBMITTAL
PLOTTED 12/30/19

DRAWING LEGEND

DWG. #	DRAWING DESCRIPTION	SCALE
FP-0.0	SITE PLAN & GENERAL NOTES	AS NOTED
FP-0.1	SWAY BRACE DETAILS & NOTES	AS NOTED
FP-1.0	PIPING PLANS & BUILDING SECTIONS	AS NOTED

THESE PLANS AND ASSOCIATED HYDRAULIC CALCULATIONS (WHERE SUBMITTED) HAVE BEEN PREPARED UNDER THE DIRECTION OF:
MICHAEL RICKS, CET
NICET CERTIFICAITON NUMBER 148609 EX: 10/01/2021
LEVEL III WATER-BASED SYSTEMS LAYOUT

GRAPHIC SCALES: 1" = 3'-0" | ½" = 1'-0" | ¼" = 1'-0" | ⅛" = 1'-0" | 1/16" = 1'-0"

SLF-21.dwg

FIRE SPRINKLER SYSTEM SYMBOL LEGEND
AUTO SPRINKLER RISER | WELD/SCRAM PIC NO. | WELD-BRANCHLINE NO. | BRANCH LINE NO. | CENTERLINE DIMENSION FROM WALL | CENTERLINE DIMENSION FROM DECK | HANGER TYPE & LENGTH (SHOWN WHEN REQUIRED) | PIPE HANGER LOCATION | HYDRAULIC REF. POINT | LATERAL (UPRIGHT/DRAIN) 4-WAY | LINE RESTRAINT | EARTHQUAKE BRACE SYMBOLS

INSTALLER NOTES:

AUTHORITY HAVING JURISDICTION

STOUT BUILDING CONTRACTORS
CONTRACTOR: STOUT BUILDING CONTRACTORS
ADDRESS: 1113 S. 500 W BOUNTIFUL, UT 84010

VINEYARD RETAIL BLDGS E & F
600 MILL ROAD, VINEYARD, UT 84058
SITE PLAN & GENERAL NOTES

9384 S 870 W
SANDY, UT 84070
LICENSE NO.5370 10464120-5501
(801)-897-8163
FIRE SPRINKLERS INC.

JOB #: SLF-21
SCALE: AS NOTED
DRAWN BY: N RICKS
CHECKED BY: T RICKS
DATE: 3-Jan-20
SHEET: FP-0.0

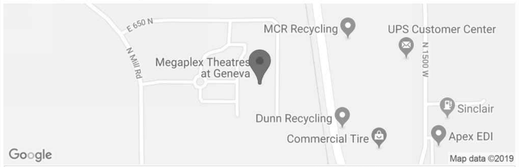
VINEYARD RETAIL BLDGS E & F

OSHPD

VINEYARD RETAIL BUILDINGS E & F

600 Mill Rd, Vineyard, UT 84058, USA

Latitude, Longitude: 40.3075228, -111.73569320000001

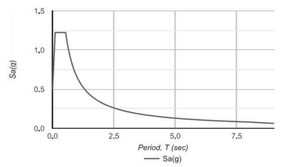


Date	12/5/2019, 8:48:22 AM
Design Code Reference Document	ASCE7-10
Risk Category	II
Site Class	D - Stiff Soil

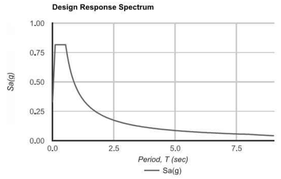
Type	Value	Description
S_S	1,202	MCE_R ground motion. (for 0,2 second period)
S_1	0,412	MCE_R ground motion. (for 1,0s period)
S_{MS}	1,225	Site-modified spectral acceleration value
S_{M1}	0,654	Site-modified spectral acceleration value
S_{DS}	0,817	Numeric seismic design value at 0,2 second SA
S_{D1}	0,436	Numeric seismic design value at 1,0 second SA

Type	Value	Description
SDC	D	Seismic design category
F_a	1,019	Site amplification factor at 0,2 second
F_v	1,588	Site amplification factor at 1,0 second
PGA	0,532	MCE_G peak ground acceleration
F_{PGA}	1	Site amplification factor at PGA
PGA_M	0,532	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	1,202	Probabilistic risk-targeted ground motion. (0,2 second)
SsUH	1,488	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	2,896	Factored deterministic acceleration value. (0,2 second)
S1RT	0,412	Probabilistic risk-targeted ground motion. (1,0 second)
S1UH	0,5	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	1,07	Factored deterministic acceleration value. (1,0 second)
PGAd	1,015	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0,808	Mapped value of the risk coefficient at short periods
C_{R1}	0,824	Mapped value of the risk coefficient at a period of 1 s

MCER Response Spectrum



Design Response Spectrum



SWAY BRACING CALCULATED LOADS

LOAD FACTOR (Cp) 0.5704 Ss 1.202 (See NFPA 13 2013 Table 9.3.5.6.3)

WEIGHT OF WATER FILLED PIPE		PIPE IN ZONE OF INFLUENCE(AS PER NFPA 13, 1994 A-4-6.4.3.5.2)										Wp	Fpw (Cp x Wp)	FITTING WEIGHT (Fpw X 15%)	TOTAL LOAD	MAXIMUM ALLOWED SWAY BRACE SPACING AND LOADS				MAXIMUM ALLOWED BRACE LOAD
	TYPE	1"	1.25"	1.5"	2"	2.5"	3"	4"	6"	8"						MAXIMUM LATERAL BRACE SPACING BASED ON TYPE OF PIPE BEING BRACED(SEE NFPA 13 9.3.5.5.2)		MAXIMUM BRACE LOAD ALLOWED BASED ON BRACE AND FASTNER DESIGN (SEE BRACE DETAIL)		
	SCH 40	2.05	2.93	3.61	5.13	7.89	10.82	16.40	31.69	47.70										
	SCH 30	1.86	2.754	3.468	4.842	NA	NA	NA	NA	NA										
	SCH 10	1.81	2.52	3.04	4.22	5.89	7.94	11.78	23.03	40.08										
	SCH 07	NA	2.019	2.86	3.982	5.299	7.144	11.29	NA	NA										
	CPVC	0.675	1.079	1.417	2.224	3.255	4.829	NA	NA	NA										
BRACE TYPE AND LOCATION																				
BRACE ID	A1	SCH 40														PIPE SIZE	4"	BRACE MATERIAL	713	
BRACE DETAIL #	A	SCH 30														PIPE TYPE	SCH 7	BRACE COMPONANTS	1745	
BRACE TYPE	4" FOUR WAY	SCH 10						40								MAX SPACING	40'	BRACE FASTNER	310	
ZOI DESCRIPTION		SCH 07																		
NOTES		CPVC																		
TOTAL	TOTAL		0	0	0	0	0	0	471	0	0	471	269	40	309	MAX LOAD ALLOWED	567	WEAKEST LINK LOAD	310	310
BRACE ID	B1	SCH 40														PIPE SIZE	4"	BRACE MATERIAL	713	
BRACE DETAIL #	B	SCH 30														PIPE TYPE	SCH 7	BRACE COMPONANTS	1745	
BRACE TYPE	4" LATERAL	SCH 10						40								MAX SPACING	40'	BRACE FASTNER	310	
ZOI DESCRIPTION	4" BULK MAIN	SCH 07																		
NOTES		CPVC																		
TOTAL	TOTAL		0	0	0	0	0	0	471	0	0	471	269	40	309	MAX LOAD ALLOWED	567	WEAKEST LINK LOAD	310	310
BRACE ID	C1	SCH 40														PIPE SIZE	3"	BRACE MATERIAL	713	
BRACE DETAIL #	C	SCH 30														PIPE TYPE	SCH 7	BRACE COMPONANTS	1745	
BRACE TYPE	3" LATERAL	SCH 10														MAX SPACING	20'	BRACE FASTNER	790	
ZOI DESCRIPTION	3" CROSS MAIN W/ BRANCH LINE	SCH 07			234		20													
NOTES		CPVC																		
TOTAL	TOTAL		0	0	0	932	0	143	0	0	0	1075	613	92	705	MAX LOAD ALLOWED	712	WEAKEST LINK LOAD	713	712
BRACE ID	D1	SCH 40														PIPE SIZE	4"	BRACE MATERIAL	713	
BRACE DETAIL #	D	SCH 30														PIPE TYPE	SCH 7	BRACE COMPONANTS	1745	
BRACE TYPE	LONGITUDIANL	SCH 10														MAX SPACING	80'	BRACE FASTNER	790	
ZOI DESCRIPTION	4" MAIN	SCH 07						80												
NOTES		CPVC																		
TOTAL	TOTAL		0	0	0	0	0	0	903	0	0	903	515	77	592	MAX LOAD ALLOWED	N/A	WEAKEST LINK LOAD	713	713
BRACE ID		SCH 40														PIPE SIZE		BRACE MATERIAL		
BRACE DETAIL #		SCH 30														PIPE TYPE		BRACE COMPONANTS		
BRACE TYPE		SCH 10														MAX SPACING		BRACE FASTNER		
ZOI DESCRIPTION		SCH 07																		
NOTES		CPVC																		

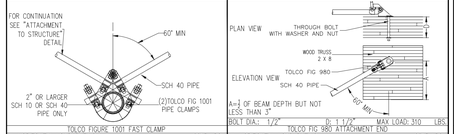
TYPE: A ' SEISMIC BRACING DETAIL

BRACE MATERIAL INFORMATION

BRACE MATERIAL: 1" SCH 40 PIPE — SLENDERNESS RATIO (L/r): 300
ANGLE OF BRACE (FROM VERTICAL): 60° TO 90° — MAXIMUM ALLOWED LENGTH FOR BRACING MATERIAL: 10'-6"
LEAST RADIUS OF GYRATION: 0.42 — MAXIMUM ALLOWED WEIGHT FOR BRACING MATERIAL: 713 LBS.

BRACE ATTACHMENTS

4 WAY RISER BRACE — ATTACHMENT TO WOOD--ORIENTATION I



TOLCO FIGURE 1001 FAST CLAMP — TOLCO FIG 980 ATTACHMENT END

BOLT DIA.: 1/2" — D: 1 1/2" — MAX LOAD: 310 LBS.

UL HORIZONTAL LOAD RATING: 2015 LBS. — UL HORIZONTAL LOAD RATING: 2015 LBS.
ALLOWABLE LOAD (DIVIDE LOAD RATING BY 1.155): 1745 LBS. — ALLOWABLE LOAD (DIVIDE LOAD RATING BY 1.155): 1745 LBS.

ATTACHMENT TO PIPE ² — ATTACHMENT TO STRUCTURE

WEAKEST LINK

COMPONENT WITH THE WEAKEST LINK: THROUGH BOLT — WEAKEST LINK COMPONENT MAX. LOAD³: 310 LBS.

1) SEE SWAY BRACING CALCULATED LOADS SHOWN ON THIS SHEET INDICATING THE LOADS FOR SPECIFIC SWAY BRACES. NOT ALL BRACE LOADS HAVE BEEN CALCULATED BUT THE MOST SEVERE LOADS HAVE BEEN USED TO PROVE OTHER BRACE LOCATIONS WHERE LESSER LOADS ARE PRESENT.
2) LATERAL BRACES LOCATED WITHIN 24" OF A CHANGE OF DIRECTION IN THE MAINS CAN ALSO ACT AS A LONGITUDINAL BRACE ON THE ADJACENT MAIN. THE LOADS FOR THE ADJACENT MAIN HAVE BEEN ADDED INTO THE LOAD CALCULATIONS WHERE THIS SITUATION OCCURS.
3) THIS IS THE MAXIMUM ALLOWED LOAD FOR THIS BRACE ASSEMBLY. THE TOTAL LOAD INDICATED IN THE SWAY BRACING CALCULATED LOAD TABLE FOR THIS TYPE OF BRACE CANNOT EXCEED THIS AMOUNT.

TYPE: B ' SEISMIC BRACING DETAIL

BRACE MATERIAL INFORMATION

BRACE MATERIAL: 1" SCH 40 PIPE — SLENDERNESS RATIO (L/r): 300
ANGLE OF BRACE (FROM VERTICAL): 60° TO 90° — MAXIMUM ALLOWED LENGTH FOR BRACING MATERIAL: 10'-6"
LEAST RADIUS OF GYRATION: 0.42 — MAXIMUM ALLOWED WEIGHT FOR BRACING MATERIAL: 713 LBS.

BRACE ATTACHMENTS

LATERAL BRACE — ATTACHMENT TO WOOD--ORIENTATION I

TOLCO FIGURE 1001--2"--8" SCH 10 OR SCH 40 PIPE — TOLCO FIG 980 ATTACHMENT END

BOLT DIA.: 1/2" — D: 1 1/2" — MAX LOAD: 310 LBS.

UL HORIZONTAL LOAD RATING: 2015 LBS. — UL HORIZONTAL LOAD RATING: 2015 LBS.
ALLOWABLE LOAD (DIVIDE LOAD RATING BY 1.155): 1745 LBS. — ALLOWABLE LOAD (DIVIDE LOAD RATING BY 1.155): 1745 LBS.

ATTACHMENT TO PIPE ² — ATTACHMENT TO STRUCTURE

WEAKEST LINK

COMPONENT WITH THE WEAKEST LINK: THROUGH BOLT — WEAKEST LINK COMPONENT MAX. LOAD³: 310 LBS.

1) SEE SWAY BRACING CALCULATED LOADS SHOWN ON THIS SHEET INDICATING THE LOADS FOR SPECIFIC SWAY BRACES. NOT ALL BRACE LOADS HAVE BEEN CALCULATED BUT THE MOST SEVERE LOADS HAVE BEEN USED TO PROVE OTHER BRACE LOCATIONS WHERE LESSER LOADS ARE PRESENT.
2) LATERAL BRACES LOCATED WITHIN 24" OF A CHANGE OF DIRECTION IN THE MAINS CAN ALSO ACT AS A LONGITUDINAL BRACE ON THE ADJACENT MAIN. THE LOADS FOR THE ADJACENT MAIN HAVE BEEN ADDED INTO THE LOAD CALCULATIONS WHERE THIS SITUATION OCCURS.
3) THIS IS THE MAXIMUM ALLOWED LOAD FOR THIS BRACE ASSEMBLY. THE TOTAL LOAD INDICATED IN THE SWAY BRACING CALCULATED LOAD TABLE FOR THIS TYPE OF BRACE CANNOT EXCEED THIS AMOUNT.

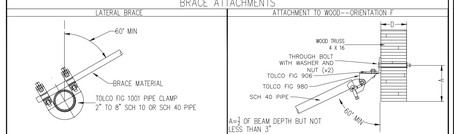
TYPE: C ' SEISMIC BRACING DETAIL

BRACE MATERIAL INFORMATION

BRACE MATERIAL: 1" SCH 40 PIPE — SLENDERNESS RATIO (L/r): 300
ANGLE OF BRACE (FROM VERTICAL): 60° TO 90° — MAXIMUM ALLOWED LENGTH FOR BRACING MATERIAL: 10'-6"
LEAST RADIUS OF GYRATION: 0.42 — MAXIMUM ALLOWED WEIGHT FOR BRACING MATERIAL: 713 LBS.

BRACE ATTACHMENTS

LATERAL BRACE — ATTACHMENT TO WOOD--ORIENTATION F



TOLCO FIGURE 1001--2"--8" SCH 10 OR SCH 40 PIPE — TOLCO FIG 980 ATTACHMENT END

BOLT DIA.: 1/2" — D: 1 1/2" — MAX LOAD: 790 LBS.

UL HORIZONTAL LOAD RATING: 2015 LBS. — UL HORIZONTAL LOAD RATING: 2015 LBS.
ALLOWABLE LOAD (DIVIDE LOAD RATING BY 1.155): 1745 LBS. — ALLOWABLE LOAD (DIVIDE LOAD RATING BY 1.155): 1745 LBS.

ATTACHMENT TO PIPE ² — ATTACHMENT TO STRUCTURE

WEAKEST LINK

COMPONENT WITH THE WEAKEST LINK: BRACE MATERIAL — WEAKEST LINK COMPONENT MAX. LOAD³: 713 LBS.

1) SEE SWAY BRACING CALCULATED LOADS SHOWN ON THIS SHEET INDICATING THE LOADS FOR SPECIFIC SWAY BRACES. NOT ALL BRACE LOADS HAVE BEEN CALCULATED BUT THE MOST SEVERE LOADS HAVE BEEN USED TO PROVE OTHER BRACE LOCATIONS WHERE LESSER LOADS ARE PRESENT.
2) LATERAL BRACES LOCATED WITHIN 24" OF A CHANGE OF DIRECTION IN THE MAINS CAN ALSO ACT AS A LONGITUDINAL BRACE ON THE ADJACENT MAIN. THE LOADS FOR THE ADJACENT MAIN HAVE BEEN ADDED INTO THE LOAD CALCULATIONS WHERE THIS SITUATION OCCURS.
3) THIS IS THE MAXIMUM ALLOWED LOAD FOR THIS BRACE ASSEMBLY. THE TOTAL LOAD INDICATED IN THE SWAY BRACING CALCULATED LOAD TABLE FOR THIS TYPE OF BRACE CANNOT EXCEED THIS AMOUNT.

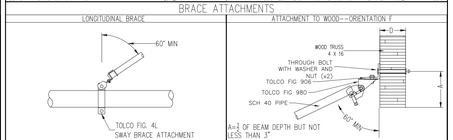
TYPE: D ' SEISMIC BRACING DETAIL

BRACE MATERIAL INFORMATION

BRACE MATERIAL: 1" SCH 40 PIPE — SLENDERNESS RATIO (L/r): 300
ANGLE OF BRACE (FROM VERTICAL): 60° TO 90° — MAXIMUM ALLOWED LENGTH FOR BRACING MATERIAL: 10'-6"
LEAST RADIUS OF GYRATION: 0.42 — MAXIMUM ALLOWED WEIGHT FOR BRACING MATERIAL: 713 LBS.

BRACE ATTACHMENTS

LONGITUDINAL BRACE — ATTACHMENT TO WOOD--ORIENTATION F



TOLCO FIG. 4L — TOLCO FIG 980 ATTACHMENT END

BOLT DIA.: 1/2" — D: 1 1/2" — MAX LOAD: 790 LBS.

UL HORIZONTAL LOAD RATING: 2015 LBS. — UL HORIZONTAL LOAD RATING: 2015 LBS.
ALLOWABLE LOAD (DIVIDE LOAD RATING BY 1.155): 1745 LBS. — ALLOWABLE LOAD (DIVIDE LOAD RATING BY 1.155): 1745 LBS.

ATTACHMENT TO PIPE ² — ATTACHMENT TO STRUCTURE

WEAKEST LINK

COMPONENT WITH THE WEAKEST LINK: BRACE MATERIAL — WEAKEST LINK COMPONENT MAX. LOAD³: 713 LBS.

1) SEE SWAY BRACING CALCULATED LOADS SHOWN ON THIS SHEET INDICATING THE LOADS FOR SPECIFIC SWAY BRACES. NOT ALL BRACE LOADS HAVE BEEN CALCULATED BUT THE MOST SEVERE LOADS HAVE BEEN USED TO PROVE OTHER BRACE LOCATIONS WHERE LESSER LOADS ARE PRESENT.
2) LATERAL BRACES LOCATED WITHIN 24" OF A CHANGE OF DIRECTION IN THE MAINS CAN ALSO ACT AS A LONGITUDINAL BRACE ON THE ADJACENT MAIN. THE LOADS FOR THE ADJACENT MAIN HAVE BEEN ADDED INTO THE LOAD CALCULATIONS WHERE THIS SITUATION OCCURS.
3) THIS IS THE MAXIMUM ALLOWED LOAD FOR THIS BRACE ASSEMBLY. THE TOTAL LOAD INDICATED IN THE SWAY BRACING CALCULATED LOAD TABLE FOR THIS TYPE OF BRACE CANNOT EXCEED THIS AMOUNT.

AHJ SUBMITTAL
PLOTTED 12/30/19

THESE PLANS AND ASSOCIATED HYDRAULIC CALCULATIONS (WHERE SUBMITTED) HAVE BEEN PREPARED UNDER THE DIRECTION OF:
MICHAEL RICKS, CET
NICET CERTIFICAITON NUMBER 148609 EX: 10/01/2021
LEVEL III WATER-BASED SYSTEMS LAYOUT

SLF-21.dwg

FIRE PROTECTION ENGINEERING — STATE OF UTAH — CLASSIFICATION 5370 — EXPIRES 10/04/120-5501

FIRE SPRINKLER SYSTEM SYMBOL LEGEND

AUTO SPRINKLER RISER — WELD/SCHAN PIECE — WELD BRANCHLINE PIPE — BRANCH LINE NO. — CENTERLINE DIMENSION FROM WALL — CENTERLINE DIMENSION FROM DECK — HYDRAULIC REF. POINT — PIPE HANGER LOCATION — HANGER TYPE & LENGTH (SHOWN WHEN REQUIRED) — LATERAL (LONGITUDINAL 4-WAY — LINE RESTRAINT — EARTHQUAKE BRACE SYMBOLS

INSTALLER NOTES:

AUTHORITY HAVING JURISDICTION

STOUT BUILDING CONTRACTORS
CONTRACTOR:
ADDRESS: 1113 S. 500 W
BOUNTIFUL, UT 84010

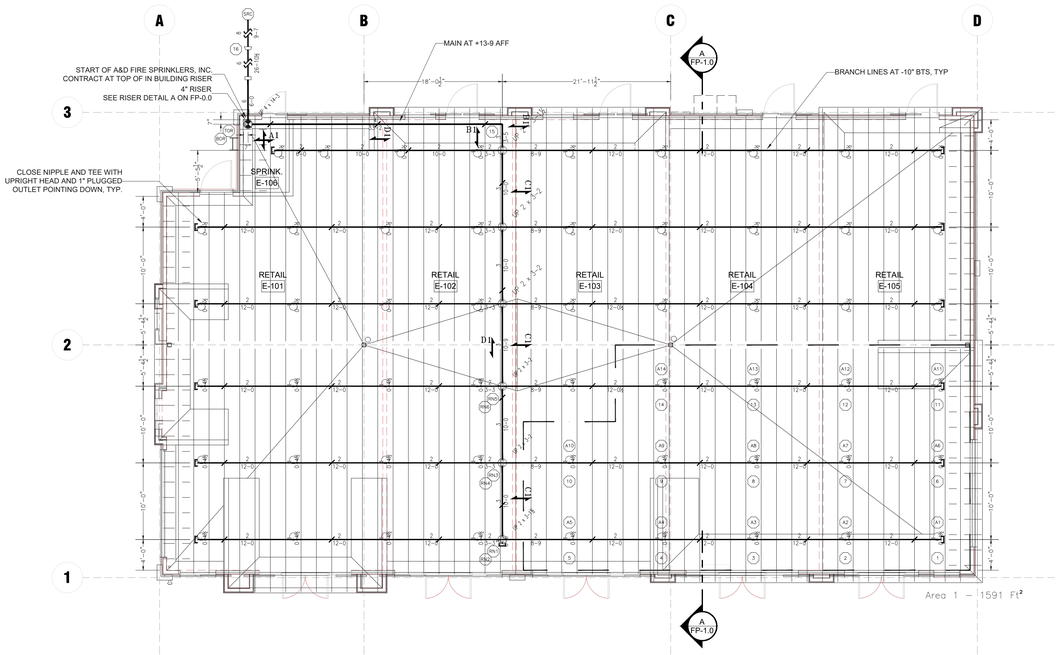
VINEYARD RETAIL BLDGS E & F
600 MILL ROAD,
VINEYARD, UT 84058
SWAY BRACE DETAILS & NOTES

938A S 670 W
SANDY, UT 84070
LICENSE NO:5370- 10464120-5501
801-987-4163
FIRE SPRINKLERS INC.

JOB #: SLF-21
SCALE: AS NOTED
DRAWN BY: N RICKS
CHECKED BY: T RICKS
DATE: 3-Jan-20
SHEET: FP-0.1

GRAPHIC SCALES: 1" = 1'-0" / 3" = 1'-0" / 1½" = 1'-0" / 1" = 1'-0" / ¼" = 1'-0" / ⅛" = 1'-0" / 1/16" = 1'-0"

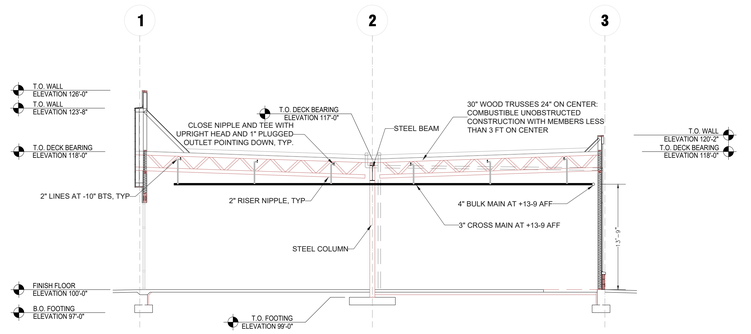
VINEYARD RETAIL BLDGS E & F



BLDG E PIPING PLAN

SCALE: 1/8" = 1'-0"

SPRINKLER HEAD SCHEDULE					
Symbol	Count	Thread	K-Factor	Description	Note
○	54	1/2"	5.6	TY313 1/2 QR 200 B UP	
54 = Total Number of Heads BLDG E					



BLDG E SECTION VIEW

SCALE: NTS

A FP-1.0

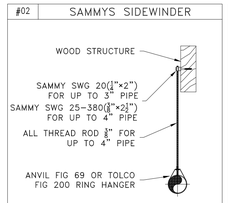
VINEYARD RETAIL BUILDINGS E & F

AREA 1
SW CORNER

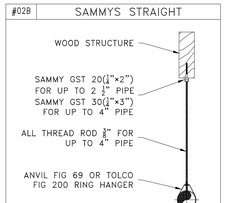
HYDRAULIC DATA PLATE INFORMATION

PROJECT:	VINEYARD RETAIL BUILDINGS E & F				
LOCATION:	VINEYARD, UT 84058				
CONTRACTOR:	A & D FIRE SPRINKLERS INC				
ADDRESS:	9384 S 670 W			SANDY, UT 84070	
DATE:	12/1/2019		**NFPA STANDARD:**	NFPA 13 2013	
SYSTEM # OR FLOOR:	BLDG E	**AREA #**	1	**AREA:**	SW CORNER
HAZARD	OH2		**SYSTEM TYPE:**		WET
DENSITY/AREA:	0.20	GPM/SF OVER		1591 SQ. FT. AREA	
MAXIMUM COVERAGE PER SPRINKLER:	130 SQUARE FEET				
SPRINKLER TYPE:	TY-FRB SSU, QR	**K FACTOR:**	5.6	**TEMP:**	200
FLOWING SPRINKLERS:	14	**HOSE ALLOWANCE:**	250 GPM		
SUMMARY OF FLOW					
END HEAD FLOW:	26.00 GPM AT	21.56 PSI			
BASE OF RISER FLOW:	373.12 GPM AT	48.86 PSI			
INSIDE HOSE:	0 GPM	**OUTSIDE HOSE:**	250 GPM		
IN RACK DEMAND	GPM AT	PSI			
SOURCE FLOW:	623.12 GPM AT	50.19 PSI			
AVAILABLE FLOW:	623.12 GPM AT	63.70 PSI			
SAFETY FACTOR:	21.21%	13.51 PSI			
SUPPLY DATA					
LOCATION:	600 MILL RD				
TEST BY:	A & D FIRE SPRINKLERS INC			**DATE:**	10/29/2019
STATIC:	65.00 PSI	**FLOW:**	2577 GPM AT		47.00 PSI

#02 SAMMYS SIDEWINDER

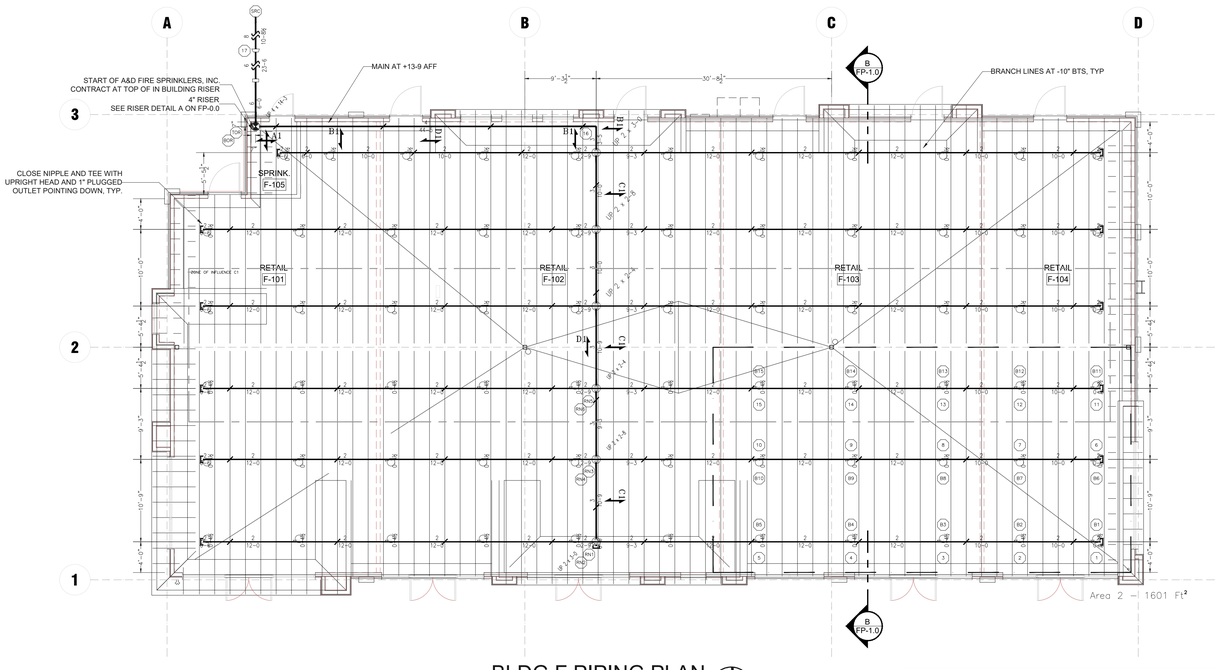


#02B SAMMYS STRAIGHT



HANGER DETAILS

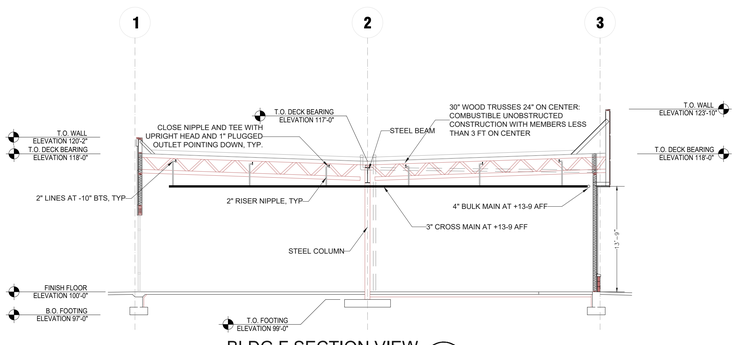
N.T.S.



BLDG F PIPING PLAN

SCALE: 1/8" = 1'-0"

SPRINKLER HEAD SCHEDULE					
Symbol	Count	Thread	K-Factor	Description	Note
○	66	1/2"	5.6	TY313 1/2 QR 200 B UP	
66 = Total Number of Heads BLDG F					



BLDG F SECTION VIEW

SCALE: NTS

B FP-1.0

VINEYARD RETAIL BUILDINGS E & F

AREA 2
SW CORNER

HYDRAULIC DATA PLATE INFORMATION

PROJECT:	VINEYARD RETAIL BUILDINGS E & F				
LOCATION:	VINEYARD, UT 84058				
CONTRACTOR:	A & D FIRE SPRINKLERS INC				
ADDRESS:	9384 S 670 W			SANDY, UT 84070	
DATE:	12/1/2019		**NFPA STANDARD:**	NFPA 13 2013	
SYSTEM # OR FLOOR:	BLDG F	**AREA #**	2	**AREA:**	SW CORNER
HAZARD	OH2		**SYSTEM TYPE:**		WET
DENSITY/AREA:	0.20	GPM/SF OVER		1601 SQ. FT. AREA	
MAXIMUM COVERAGE PER SPRINKLER:	130 SQUARE FEET				
SPRINKLER TYPE:	TY-FRB SSU, QR	**K FACTOR:**	5.6	**TEMP:**	200
FLOWING SPRINKLERS:	15	**HOSE ALLOWANCE:**	250 GPM		
SUMMARY OF FLOW					
END HEAD FLOW:	26.00 GPM AT	21.56 PSI			
BASE OF RISER FLOW:	397.68 GPM AT	51.96 PSI			
INSIDE HOSE:	0 GPM	**OUTSIDE HOSE:**	250 GPM		
IN RACK DEMAND	GPM AT	PSI			
SOURCE FLOW:	647.68 GPM AT	53.30 PSI			
AVAILABLE FLOW:	647.68 GPM AT	63.60 PSI			
SAFETY FACTOR:	16.20%	10.31 PSI			
SUPPLY DATA					
LOCATION:	600 MILL RD				
TEST BY:	A & D FIRE SPRINKLERS INC			**DATE:**	10/29/2019
STATIC:	65.00 PSI	**FLOW:**	2577 GPM AT		47.00 PSI

AHJ SUBMITTAL
PLOTTED 12/30/19

THESE PLANS AND ASSOCIATED HYDRAULIC CALCULATIONS (WHERE SUBMITTED) HAVE BEEN PREPARED UNDER THE DIRECTION OF:
MICHAEL RICKS, CET
NICET CERTIFICAITON NUMBER 148609 EX: 10/01/2021
LEVEL III WATER-BASED SYSTEMS LAYOUT

PIPE AND FITTING TYPES															
PIPING TYPE	PIPE TYPE						STANDARD OR LISTING	FITTING TYPE							STANDARD OR LISTING
MAIN	BULL MOOSE EDDYFLOW						UL/FM	WELDED OUTLETS/GROOVED COUPLINGS							UL/FM
NPS	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"	8"	10"	12"		C-FACTOR
NOMINAL I.D.	N/A	1.530	1.728	2.203	2.703	3.334	N/A	4.310	N/A	N/A	N/A	N/A	N/A		120
BRANCH LINES	BULL MOOSE EDDYFLOW						UL/FM	WELDED OUTLETS/GROOVED COUPLINGS							UL/FM
NPS	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"	8"	10"	12"		C-FACTOR
NOMINAL I.D.	N/A	1.530	1.728	2.203	2.703	3.334	N/A	4.310	N/A	N/A	N/A	N/A	N/A		120
ARMOVERS	BULL MOOSE EDDYTHREAD 40						UL/FM	THREADED							UL/FM
NPS	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"	8"	10"	12"		C-FACTOR
NOMINAL I.D.	1.083	1.418	1.654	2.123	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		120
ALL PIPE AS SHOWN ABOVE UNO ON PLANS															

SLF-21.dwg

GRAPHIC SCALES: 1" = 3'-0" | 1/2" = 1'-0" | 1/4" = 1'-0" | 1/8" = 1'-0" | 3/16" = 1'-0" | 1/16" = 1'-0"

FIRE SPRINKLER SYSTEM SYMBOL LEGEND

AUTO SPRINKLER RISER | SEE A.1.1 | WELDED MAIN PIPE NO. | #LL1 | WELD BRANCH PIC NO. | #L01 | BRANCH LINE NO. | HANGER TYPE & LENGTH (BRACING WHERE REQUIRED) | PIPE HANGER LOCATION | 12" | CENTERLINE DIMENSION FROM WALL | 12" | CENTERLINE DIMENSION FROM DECK | HYDRAULIC REF. POINT | LATERAL (LONGITUDINAL 4-WAY | LINE RESTRAINT | EARTHQUAKE BRACE SYMBOLS

INSTALLER NOTES:
1. PIPE LENGTHS SHOWN ARE CENTER TO CENTER LENGTHS
2. SEE SWAY BRACE DETAILS ON SHEET FP-0.1

AUTHORITY HAVING JURISDICTION

STOUT BUILDING CONTRACTORS
CONTRACTOR: CONTRACTORS
ADDRESS: 1113 S. 500 W
BOUNTIFUL, UT 84010

VINEYARD RETAIL BLDGS E & F
600 MILL ROAD,
VINEYARD, UT 84058
PIPING PLANS & BUILDING SECTIONS

A&D FIRE SPRINKLERS INC.
9384 S 670 W
SANDY, UT 84070
LICENSE NO.5370 - 10464120-5501
ROBERT ANDERSON
801-987-8163

JOB #: SLF-21
SCALE: AS NOTED
DRAWN BY: N RICKS
CHECKED BY: T RICKS
DATE: 3-Jan-20
SHEET: FP-1.0

~~appreciable depth of cooking oils shall be replaced with a UL300 listed system by May 1, 2004.~~]

3.[~~5.4~~]3.2 Water Supply Analysis

3.[~~5.4.1~~]3.2.1 For proposed construction in both sprinklered and unsprinklered occupancies, the owner or architect shall provide an engineer's water supply analysis evaluating the available water supply.

3.[~~5.4.2~~]3.2.2 The owner or architect shall provide the water supply analysis during the preliminary design phase of the proposed construction.

3.[~~5.4.3~~]3.2.3 The water analysis shall be representative of the supply that may be available at the time of a fire as required in NFPA, Standard 13, [~~Appendix A-9-2.1~~] Annex A.15.2.1.

[~~3.6 Alternative Automatic Fire Extinguishing Systems~~

~~3.6.1 IFC, Chapter 9, Section 903.6 is amended to add the following subsection: 903.6.3 Dry chemical hood system suppression. Existing automatic fire extinguishing systems using dry chemical that protect commercial kitchen exhaust hood and duct systems shall be removed and replaced with a UL300 listed system by January 1, 2006 or before that date when any of the following occurs: 1) Six year internal maintenance service; 2) Recharge; 3) Hydrostatic test date as indicated on the manufacturers date of the cylinders; or 4) Reconfiguring of the system piping.~~

~~3.6.2 IFC, Chapter 9, Section 903.6 is amended to add the following subsection: 903.6.4 Wet chemical hood system suppression. Existing wet chemical fire extinguishing systems not UL300 listed and protecting commercial kitchen exhaust hood and duct systems shall be removed, replaced or upgraded to a UL300 listed system by January 1, 2006 or before that date when any of the following occurs: 1) Six year internal maintenance service; 2) Recharge; 3) Hydrostatic test date as indicated on the manufacturers date of the cylinder; or 4) Reconfiguration of the system piping.~~]

3.[~~7~~]3.3 Fire Alarm Systems

3.[~~7~~]3.3.1 Required Installations

3.[~~7~~]3.3.1.1 All state-owned buildings, college and university buildings, other than institutional, with an occupant load of 300 or more, all schools with an occupant load of 50 or more, shall have an approved fire alarm system with the following features:

3.[~~7~~]3.3.1.1.1 [~~Smoke detectors~~] Automatic detection devices that detect smoke shall be installed throughout all corridors and spaces open to the corridor at the maximum prescribed spacing of thirty feet on center and no more than fifteen feet from the walls or smoke detectors shall be installed as required in NFPA, Standard 72, Section 5.3.

3.[~~7~~]3.3.1.1.2 [~~In non or partially fire sprinklered buildings, automatic detectors shall be installed in each enclosed space, other than corridors, at maximum prescribed spacing as specified in Section 3.7.1.1.2 for smoke detectors or by the manufacturer's listing for heat detectors.~~] Where structures are not protected or partially protected with an automatic fire sprinkler system, approved automatic detectors shall be installed in accordance with the complete coverage requirements of NFPA, Standard 72.

3.[~~7~~]3.3.1.1.3 Manual fire alarm boxes shall be provided as required. In public and private elementary and secondary schools, manual fire alarm boxes shall be provided in the boiler room, kitchen, and main administrative office of each building, and any other areas as determined by the AHJ.

3.[~~7~~]3.3.2 Main Panel

3.[~~7~~]3.3.2.1 An approved key plan drawing and operating instructions shall be posted at the main fire alarm panel which displays the location of all alarm zones and if applicable, device addresses.

3.[~~7~~]3.3.2.2 The main panel shall be located in a normally attended area such as the main office or lobby. Location of the Main Panel other than as stated above, shall require the review and authorization of the SFM. Where location as required above is not

State of Utah

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

Utah Department of Public Safety

SCOTT T. DUNCAN
Commissioner

Utah State Fire Marshal

RON L. MORRIS
State Fire Marshal

MEMORANDUM

TO: Architects, Designers, Owner's & Engineers

FROM: Brent R. Halladay
Chief Deputy State Fire Marshal

DATE: September 14, 2007

SUBJECT: Water Supply Analysis

Utah Administrative Code, R710-4-3.3.2 states that whenever construction is proposed in fire sprinklered or unsprinklered occupancies, the owner or architect shall provide an engineer's Water Supply Analysis to the Utah State Fire Marshal's Office during the preliminary design phase of the proposed construction. It also states that the water analysis shall be representative of the supply that may be available at the time of a fire as required in NFPA 13.

The water supply analysis has become a significant problem over the last extended period of time. The water supply analysis is either being submitted late in the construction phase or not at all. This has caused countless problems when portions of construction are completed and the water supply requires adjustments to the fire and life safety systems that cost extensive monies to correct.

Therefore, from this date forward, on those occupancies that are under the direction of the State Fire Marshal's Office such as state owned facilities, public and private schools, colleges, universities, and institutional occupancies, a water supply analysis will be required during the preliminary design phase. If the water supply analysis has not been completed at that time, and placed on the Plan Review Submittal Form, the plans will not be accepted nor will they be reviewed until this has been completed.

The Utah State Fire Marshal Plan Review Submittal Form can be located at our office or on our website at http://www.firemarshal.utah.gov Please make sure your employees and contractors are aware of this change.

Thank you so much.

5272 South College Drive, Suite 302, Murray, Utah 84123-2611
telephone 801-284-6350 • facsimile 801-284-6351 • http://firemarshal.utah.gov

FIRETROL
Protection Systems

November 9, 2017

Wes Baker
Babcock Design Group
52 Exchange Place
Salt Lake City, Utah 84111
Phone (801) 824 – 1385
Email wes@babcockdesign.com

Re: American Academy of Innovation Addition - Water Supply Analysis
South Jordan Parkway & Cardinal Park Road
South Jordan, Utah

Wes,

Attached is the water supply analysis for the project referenced above.

Please call if you have any questions

CBPE Comment:
Not an engineer.

Best Regards,

Gordon Smith

Gordon Smith

FIRETROL
Protection Systems

November 9, 2017

American Academy of Innovation Addition - Water Supply Analysis

South Jordan Parkway & Cardinal Park Road
South Jordan, Utah

SOUTH JORDAN CITY WATER SYSTEM

The South Jordan City Public Water System in this location obtains 100 % of their water supply from the Jordan Valley Water Conservancy District. (JVWCD)

According to Mr. Matt Hinckley of the JVWCD, the JVWCD has been in operation since the 1950s. They have multiple reservoirs in the mountains above Salt Lake and have 4 major water treatment plants located in the Salt Lake Valley. Their system provides approximately 180 Million Gallons per day to multiple Water Jurisdictions in the Salt Lake Valley.

The South Jordan Water Department (SJWD) installs and maintains their own system of water storage tanks and distribution pipes throughout the City of South Jordan. This existing Charter School is located in a Master Planned community called "Daybreak". According to Mr. Cary Necaise, Water manager of the SJWD, there are currently Two (2) 5 million gallon reservoirs located in the Daybreak project. Both tanks feeding this zone are "Primary". Both are automatically maintained with supply lines connected to the JVWCD supply mains. The water distribution pipes in this area are gravity feed, and there are Pressure Regulating Valves. This entire water system in the area is approximately 7 years old.
There are two (2) Secondary Water Supply systems in the City which is used to supply irrigation needs to most of the major businesses in the area. One is owned and maintained by SJWD and the other by Daybreak.

ON SITE FLOW TEST

On approximately October 12, 2017, a Fire Flow Test was conducted adjacent to the new school property. The Flow Test was conducted by the South Jordan Water Department, and the results provided to Gordon Smith of Firetrol Protections Systems. (See attached)

The Results of the Flow Test are:

Static = 76 psi
Residual = 68 psi (Pitot of 65 psi)

Flow = 1, 350 gpm

Calculated Flow @ 20 psi = 3, 873 gpm

American Academy of Innovation Addition - Water Supply Analysis

South Jordan Parkway & Cardinal Park Road
South Jordan, Utah

-Continued-

DESCRIPTION OF EXISTING & NEW WORK

The existing American Academy of Innovation is a freestanding building of approximately 33, 169 square feet, 2 Story facility of combustible construction. 23,025 Sq. Ft. on Level 1 and 10, 144 Sq. Ft. on Level 2.

A 6" Dedicated Fire Line is installed from the existing 12 " City water main in South Jordan Parkway to the Fire Riser room located on the Street (South East) face of the building.

The site plan indicates there are Fire Hydrants located along South Jordan Parkway, on the same side of the street as the new school. The distance from an existing hydrant to an FDC located on the wall of the Fire Riser Room is approximately 200 Feet. This will need to be reviewed and Approved by the Fire Department, or an additional Fire hydrant may need to be added.

The existing building is equipped with a complete fire sprinkler system in accordance with NFPA # 13. Since the construction is combustible, Fire Sprinklers must be provided above and below ceilings to protect all combustible concealed spaces per NFPA # 13.

The new Addition will be Four (4) new classrooms comprising approximately 3, 285 Square Feet. Construction will be Combustible and Fire Sprinklers will be required above and below the ceilings. The The entire school including the addition will be a total of 26,310 on Level 1 and 10,144 on Level 2. Since this is below the 52,000 Sq. Ft. limitation in Code, an additional system will not be required.

SUMMARY

1) Per Matt Hinckley of the Jordan Valley Water Conservancy District, **their public water system is very reliable** and will experience minimal if any reductions for seasonal flows or deterioration due to potential future growth. Any future growth or deterioration can be overcome by adjustments to their system settings.

2) Per Cary Necaise of the South Jordan Water Department, **their public water system is very reliable** and will experience minimal if any reductions for seasonal flows or deterioration due to potential future growth. The pressure readings taken in this flow test are based strictly on gravity feed from the tanks and the tanks are automatically filled and have a redundancy, and they anticipate there will be minor fluctuations in the future.

3) All of the calculations should be provided with a minimum of **15 % cushion.**

4) The available Fire Flow will need to be reviewed and approved by the Fire Marshal.

5) Fire Hydrant placement will need to be reviewed and approved by the Fire Marshal.

Gordon Smith

From: Cary S. Necaise <CNecaise@sjc.utah.gov>
Sent: Thursday, October 12, 2017 9:03 AM
To: Gordon Smith
Subject: AAI

Gordon sorry this took me so long, hopefully this works for you.

Static	76
Residual	68
GPM	1350
Pitot	65

If you have any question feel free to call me.

Cary Necaise | Water Manager | City of South Jordan
10996 South Redwood Rd. | South Jordan, UT 84095
O: 801.253.5203 Ext. 1395 | F: 801.253.0617
Click on the logos to follow us on Social Media!

FLOW TEST SUMMARY REPORT page1

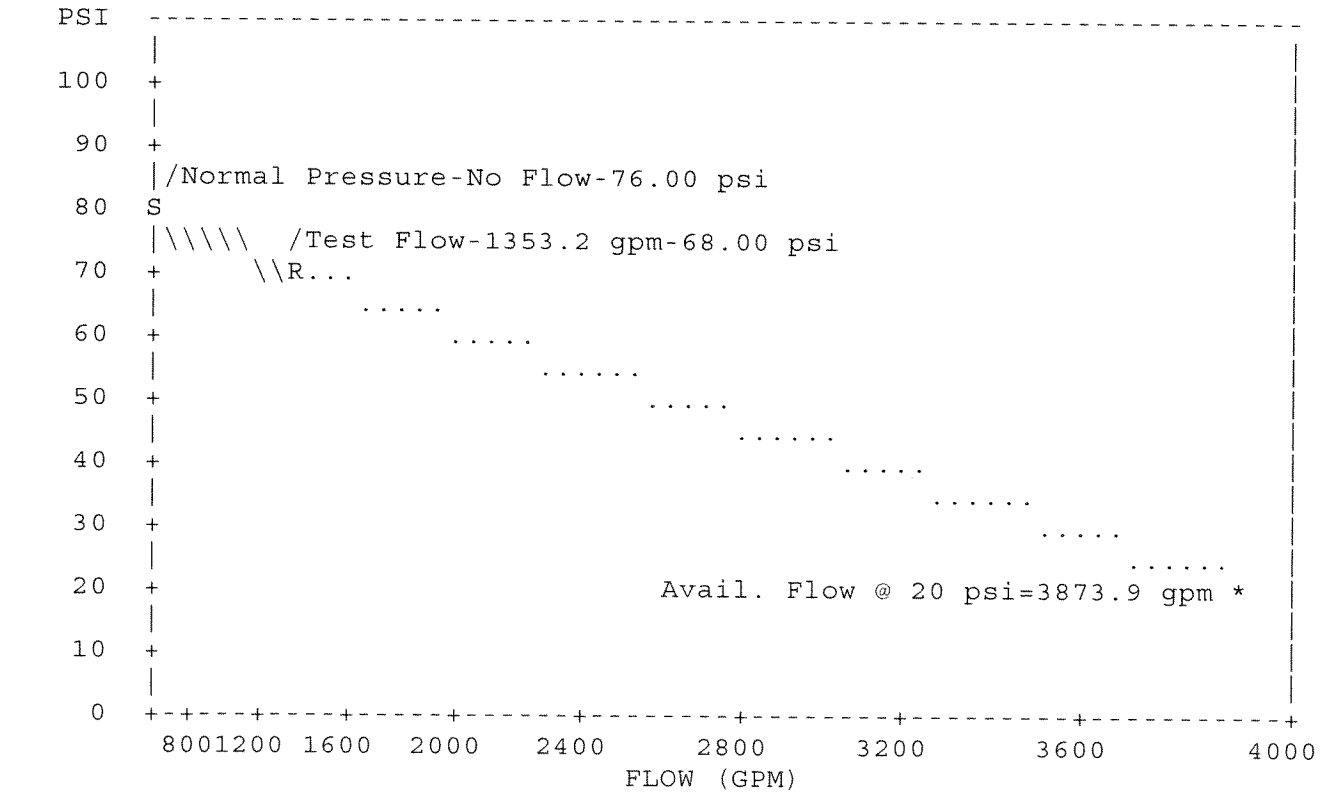
LOCATION:AAI Charter School Addition
5510 W So. Jordan Parkway So. Jordan, Uta

DATE: 10/12/17
TIME: 9:00 AM

Static Hydrant Number:	1	Flowing Hydrant Number:	2
Elevation:	0	Elevation:	0
Dist. Between Hydrants:	200		
Diameter of Main:	8		
Outlet Diameter:	2.50 in	Number flowing: 1 Coeff.:	0.90
Static pressure:	76.00 psi	Residual pressure:	68.00 psi
Pitot Reading:	65.00 psi	Flow:	1353.2 gpm

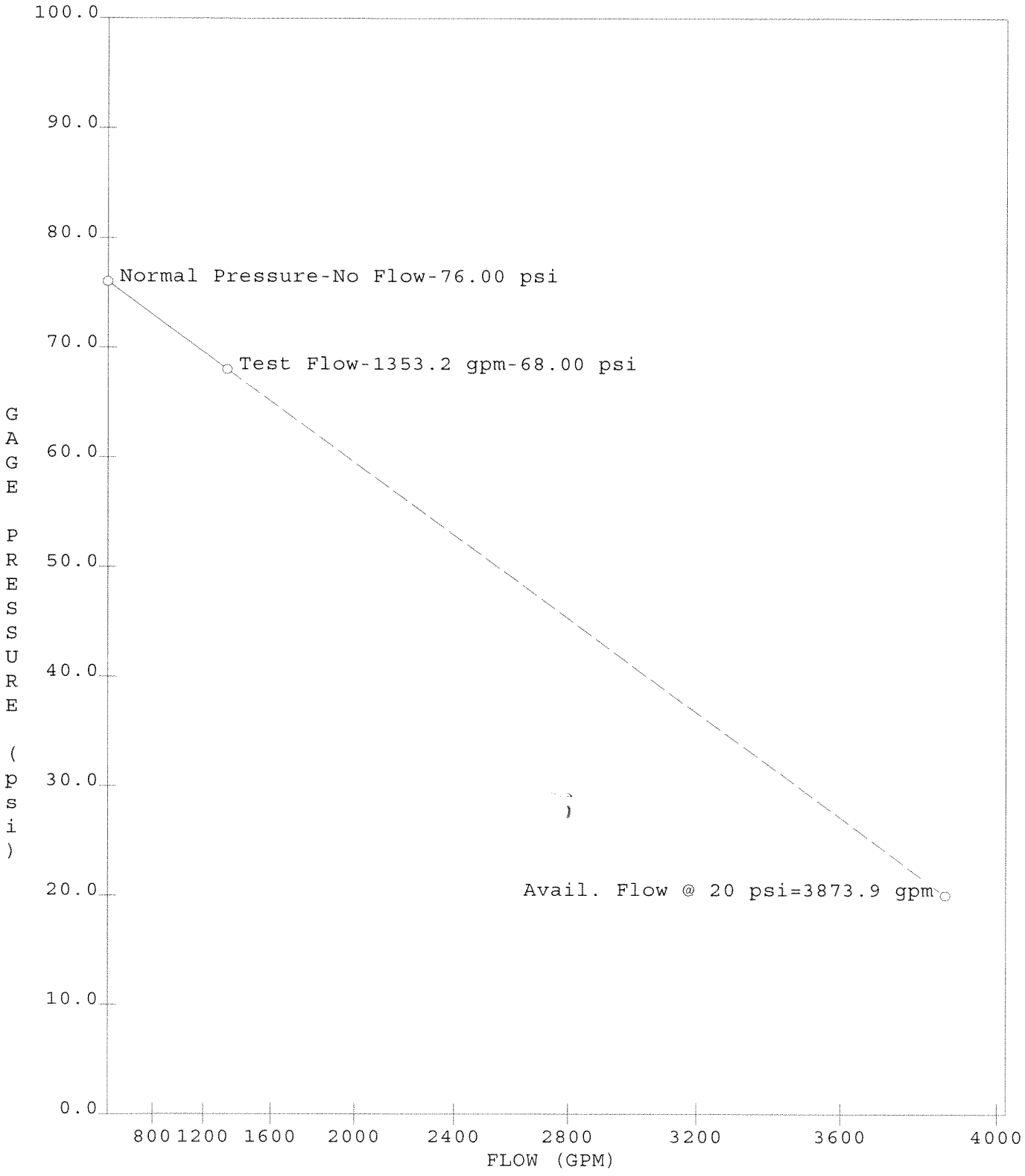
Flow at 20 psi: 3873.9 gpm

GRAPH:



NOTES:

(1) Flowing hydrant is assumed to be on a circulating main or downstream of the pressure test hydrant on a dead-end system.
(2) Flow analysis assumes a gravity flow system with no distribution pumps and having no demand, other than the test flow.
(3) Distance between hydrants, elevations & main diameter are for information only.


100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
GAGE PRESSURE (psi)
Normal Pressure-No Flow-76.00 psi
Test Flow-1353.2 gpm-68.00 psi
Avail. Flow @ 20 psi=3873.9 gpm
800 1200 1600 2000 2400 2800 3200 3600 4000
FLOW (GPM)

DIVISION OF
FACILITIES CONSTRUCTION &
MANAGEMENT

4110 State Office Building
Salt Lake City, Utah 84114
Phone: (801) 538-3018
Website: http://dfcm.utah.gov/

Deferred Submittal Guidelines

1. **General Instructions:**

   a) In accordance with IBC 107.3.4.1, "…deferred submittals are defined as those portions of the design that are not submitted at the time of the application and that are to be submitted to the building official within a specified period."

   b) The DFCM Building Official reserves the right to not allow items to be deferred prior to issuing and approval in accordance with IBC 107.3.4.1.

   c) In accordance with IBC 107.3.4.1, the design professional in responsible charge shall review the deferred submittal items for conformance with the design of the building prior to submitting to the DFCM Building Official for approval.

   d) No deferred submittal items are to be installed until approval has been granted by the DFCM Building Official.

2. **Construction Documents:**

   a) The plans submitted for review to the DFCM Building Official shall clearly list all items that will be provided as deferred submittals.

   b) The deferred submittal must include all necessary details and specific information relating to the materials, type, size, etc. as necessary to fabricate and install the deferred submittal item.

   c) The deferred submittal items should include a "Statement of Special Inspections" addressing any necessary special inspection and testing requirements during the fabrication and installation of such items.

3. **Nonstructural Components:**

   a) If the seismic restraint of nonstructural components is to be deferred it should be clearly noted on the plans by means of the DFCM "Nonstructural Component Checklist".

   b) All nonstructural component deferred submittals should be submitted in one single package or in groups by discipline. As an example, at no time should multiple submittals be provided for the seismic restraint of mechanical items, such as separate submittals for equipment, ductwork, piping, etc. The design professional in responsible charge should submit deferred submittals to the DFCM Building Official grouped in as few packages as feasible.

Last Revised: 10/2016

[A] 105.7 Placement of permit. The building *permit* or copy shall be kept on the site of the work until the completion of the project.

SECTION 106
FLOOR AND ROOF DESIGN LOADS

[A] 106.1 Live loads posted. In commercial or industrial buildings, for each floor or portion thereof designed for *live loads* exceeding 50 psf (2.40 kN/m^2), such design *live loads* shall be conspicuously posted by the owner or the owner's authorized agent in that part of each *story* in which they apply, using durable signs. It shall be unlawful to remove or deface such notices.

[A] 106.2 Issuance of certificate of occupancy. A certificate of occupancy required by Section 111 shall not be issued until the floor load signs, required by Section 106.1, have been installed.

[A] 106.3 Restrictions on loading. It shall be unlawful to place, or cause or permit to be placed, on any floor or roof of a building, structure or portion thereof, a load greater than is permitted by this code.

SECTION 107
SUBMITTAL DOCUMENTS

[A] 107.1 General. Submittal documents consisting of *construction documents*, statement of *special inspections*, geotechnical report and other data shall be submitted in two or more sets with each *permit* application. The *construction documents* shall be prepared by a *registered design professional* where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the *building official* is authorized to require additional *construction documents* to be prepared by a *registered design professional*.

Exception: The *building official* is authorized to waive the submission of *construction documents* and other data not required to be prepared by a *registered design professional* if it is found that the nature of the work applied for is such that review of *construction documents* is not necessary to obtain compliance with this code.

[A] 107.2 Construction documents. *Construction documents* shall be in accordance with Sections 107.2.1 through 107.2.8.

[A] 107.2.1 Information on construction documents. *Construction documents* shall be dimensioned and drawn on suitable material. Electronic media documents are permitted to be submitted where *approved* by the *building official*. *Construction documents* shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the *building official*.

[A] 107.2.2 Fire protection system shop drawings. Shop drawings for the *fire protection system(s)* shall be submitted to indicate conformance to this code and the *construction documents* and shall be *approved* prior to the start of system installation. Shop drawings shall contain all information as required by the referenced installation standards in Chapter 9.

[A] 107.2.3 Means of egress. The *construction documents* shall show in sufficient detail the location, construction, size and character of all portions of the *means of egress* including the path of the *exit discharge* to the *public way* in compliance with the provisions of this code. In other than occupancies in Groups R-2, R-3, and I-1, the *construction documents* shall designate the number of occupants to be accommodated on every floor, and in all rooms and spaces.

[A] 107.2.4 Exterior wall envelope. *Construction documents* for all buildings shall describe the *exterior wall envelope* in sufficient detail to determine compliance with this code. The *construction documents* shall provide details of the *exterior wall envelope* as required, including flashing, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves or parapets, means of drainage, water-resistive membrane and details around openings.

The *construction documents* shall include manufacturer's installation instructions that provide supporting documentation that the proposed penetration and opening details described in the *construction documents* maintain the weather resistance of the *exterior wall envelope*. The supporting documentation shall fully describe the *exterior wall* system that was tested, where applicable, as well as the test procedure used.

[A]107.2.5 Exterior balconies and elevated walking surfaces. Where balconies or other elevated walking surfaces are exposed to water from direct or blowing rain, snow, or irrigation, and the structural framing is protected by an impervious moisture barrier, the *construction documents* shall include details for all elements of the impervious moisture barrier system. The *construction documents* shall include manufacturer's installation instructions.

[A] 107.2.6 Site plan. The *construction documents* submitted with the application for *permit* shall be accompanied by a site plan showing to scale the size and location of new construction and existing structures on the site, distances from *lot lines*, the established street grades and the proposed finished grades and, as applicable, *flood hazard areas*, *floodways*, and *design flood elevations*; and it shall be drawn in accordance with an accurate boundary line survey. In the case of demolition, the site plan shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot. The *building official* is authorized to waive or modify the requirement for a site plan where the application for *permit* is for *alteration* or *repair* or where otherwise warranted.

[A] 107.2.6.1 Design flood elevations. Where *design flood elevations* are not specified, they shall be established in accordance with Section 1612.3.1.

[A] 107.2.7 Structural information. The *construction documents* shall provide the information specified in Section 1603.

107.2.8 Relocatable buildings. *Construction documents* for relocatable buildings shall comply with Section 3112.

[A] 107.3 Examination of documents. The *building official* shall examine or cause to be examined the accompanying submittal documents and shall ascertain by such examinations whether the construction indicated and described is in accordance with the requirements of this code and other pertinent laws or ordinances.

[A] 107.3.1 Approval of construction documents. When the *building official* issues a *permit*, the *construction documents* shall be *approved*, in writing or by stamp, as "Reviewed for Code Compliance." One set of *construction documents* so reviewed shall be retained by the *building official*. The other set shall be returned to the applicant, shall be kept at the site of work and shall be open to inspection by the *building official* or a duly authorized representative.

[A] 107.3.2 Previous approvals. This code shall not require changes in the *construction documents*, construction or designated occupancy of a structure for which a lawful *permit* has been heretofore issued or otherwise lawfully authorized, and the construction of which has been pursued in good faith within 180 days after the effective date of this code and has not been abandoned.

[A] 107.3.3 Phased approval. The *building official* is authorized to issue a *permit* for the construction of foundations or any other part of a building or structure before the *construction documents* for the whole building or structure have been submitted, provided that adequate information and detailed statements have been filed complying with pertinent requirements of this code. The holder of such *permit* for the foundation or other parts of a building or structure shall proceed at the holder's own risk with the building operation and without assurance that a *permit* for the entire structure will be granted.

[A] 107.3.4 Design professional in responsible charge. Where it is required that documents be prepared by a *registered design professional*, the *building official* shall be authorized to require the *owner* or the owner's authorized agent to engage and designate on the building *permit* application a *registered design professional* who shall act as the *registered design professional in responsible charge*. If the circumstances require, the *owner* or the owner's authorized agent shall designate a substitute *registered design professional in responsible charge* who shall perform the duties required of the original *registered design professional in responsible charge*. The *building official* shall be notified in writing by the *owner* or the owner's authorized agent if the *registered design professional in responsible charge* is changed or is unable to continue to perform the duties.

The *registered design professional in responsible charge* shall be responsible for reviewing and coordinating submittal documents prepared by others, including phased and deferred submittal items, for compatibility with the design of the building.

[A] 107.3.4.1 Deferred submittals. Deferral of any submittal items shall have the prior approval of the *building official*. The *registered design professional in responsible charge* shall list the deferred submittals on the *construction documents* for review by the *building official*.

Documents for deferred submittal items shall be submitted to the *registered design professional in responsible charge* who shall review them and forward them to the *building official* with a notation indicating that the deferred submittal documents have been reviewed and found to be in general conformance to the design of the building. The deferred submittal items shall not be installed until the deferred submittal documents have been *approved* by the *building official*.

[A] 107.4 Amended construction documents. Work shall be installed in accordance with the *approved construction documents*, and any changes made during construction that are not in compliance with the *approved construction documents* shall be resubmitted for approval as an amended set of *construction documents*.

[A] 107.5 Retention of construction documents. One set of *approved construction documents* shall be retained by the *building official* for a period of not less than 180 days from date of completion of the permitted work, or as required by state or local laws.

SECTION 108
TEMPORARY STRUCTURES AND USES

[A] 108.1 General. The *building official* is authorized to issue a *permit* for temporary structures and temporary uses. Such *permits* shall be limited as to time of service, but shall not be permitted for more than 180 days. The *building official* is authorized to grant extensions for demonstrated cause.

[A] 108.2 Conformance. Temporary structures and uses shall comply with the requirements in Section 3103.

[A] 108.3 Temporary power. The *building official* is authorized to give permission to temporarily supply and use power in part of an electric installation before such installation has been fully completed and the final certificate of completion has been issued. The part covered by the temporary certificate shall comply with the requirements specified for temporary lighting, heat or power in NFPA 70.

[A] 108.4 Termination of approval. The *building official* is authorized to terminate such *permit* for a temporary structure or use and to order the temporary structure or use to be discontinued.

SECTION 109
FEES

[A] 109.1 Payment of fees. A *permit* shall not be valid until the fees prescribed by law have been paid, nor shall an

[A] 110.6 Approval required. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the *building official*. The *building official*, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or notify the *permit* holder or his or her agent wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the *building official*.

SECTION 111
CERTIFICATE OF OCCUPANCY

[A] 111.1 Use and occupancy. A building or structure shall not be used or occupied, and a change in the existing use or occupancy classification of a building or structure or portion thereof shall not be made, until the *building official* has issued a certificate of occupancy therefor as provided herein. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction.

Exception: Certificates of occupancy are not required for work exempt from *permits* in accordance with Section 105.2.

[A] 111.2 Certificate issued. After the *building official* inspects the building or structure and does not find violations of the provisions of this code or other laws that are enforced by the department of building safety, the *building official* shall issue a certificate of occupancy that contains the following:

1. The building *permit* number.
2. The address of the structure.
3. The name and address of the *owner* or the owner's authorized agent.
4. A description of that portion of the structure for which the certificate is issued.
5. A statement that the described portion of the structure has been inspected for compliance with the requirements of this code for the occupancy and division of occupancy and the use for which the proposed occupancy is classified.
6. The name of the *building official*.
7. The edition of the code under which the *permit* was issued.
8. The use and occupancy, in accordance with the provisions of Chapter 3.
9. The type of construction as defined in Chapter 6.
10. The design *occupant load*.
11. If an *automatic sprinkler system* is provided, whether the sprinkler system is required.
12. Any special stipulations and conditions of the building *permit*.

[A] 111.3 Temporary occupancy. The *building official* is authorized to issue a temporary certificate of occupancy before the completion of the entire work covered by the *permit*, provided that such portion or portions shall be occupied safely. The *building official* shall set a time period during which the temporary certificate of occupancy is valid.

[A] 111.4 Revocation. The *building official* is authorized to, in writing, suspend or revoke a certificate of occupancy or completion issued under the provisions of this code wherever the certificate is issued in error, or on the basis of incorrect information supplied, or where it is determined that the building or structure or portion thereof is in violation of any ordinance or regulation or any of the provisions of this code.

SECTION 112
SERVICE UTILITIES

[A] 112.1 Connection of service utilities. A person shall not make connections from a utility, source of energy, fuel or power to any building or system that is regulated by this code for which a *permit* is required, until released by the *building official*.

[A] 112.2 Temporary connection. The *building official* shall have the authority to authorize the temporary connection of the building or system to the utility, source of energy, fuel or power.

[A] 112.3 Authority to disconnect service utilities. The *building official* shall have the authority to authorize disconnection of utility service to the building, structure or system regulated by this code and the referenced codes and standards set forth in Section 101.4 in case of emergency where necessary to eliminate an immediate hazard to life or property or where such utility connection has been made without the approval required by Section 112.1 or 112.2. The *building official* shall notify the serving utility, and wherever possible the *owner* and occupant of the building, structure or service system of the decision to disconnect prior to taking such action. If not notified prior to disconnecting, the *owner* or occupant of the building, structure or service system shall be notified in writing, as soon as practical thereafter.

SECTION 113
BOARD OF APPEALS

[A] 113.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the *building official* relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The board of appeals shall be appointed by the applicable governing authority and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business.

[A] 113.2 Limitations on authority. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply or an equally good or better form of construction is proposed. The board shall not have authority to waive requirements of this code.

[A] 113.3 Qualifications. The board of appeals shall consist of members who are qualified by experience and training to

Building Services & Code Enforcement
www.slcpermits.com
801-535-6000, fax 801-535-7750

451 South State Street, Room 215
Salt Lake City, Utah 84111

PO Box 145490
Salt Lake City, Utah 84114-5490

Office only

Updated 7-2016

BLD #

Received by

Date

Valuation

Deferred Submittal Agreement- required separate fire permits only

Project name

Date

Address

Building permit #

2015 IBC 107.3.4.1 - Deferred Submittal

Deferral of any submittal items shall have the prior approval of the building official. The registered design professional in responsible charge shall list the deferred submittal on the construction documents for review by the building official.

Documents for deferred submittal items shall be submitted to the registered design professional in responsible charge who shall review and forward them to the building official with a notation indicating that the deferred submittal documents have been reviewed and found to be in general conformance to the design of the building. The deferred submittal items shall not be installed until the deferred submittal documents have been approved by the building official.

2015 IFC 104.7.2 - Technical Assistance

To determine the acceptability of technologies, processes, products, facilities, materials and uses attending the design, operation or use of a building or premises subject to inspection by the fire code official, the fire code official is authorized to require the owner or owner's authorized agent to provide, without charge to the jurisdiction, a technical opinion and report. The opinion and report shall be prepared by a qualified engineer, specialist, laboratory or fire safety specialty organization acceptable to the fire code official and shall analyze the fire safety properties of the design, operation or use of the building or premises and the facilities and appurtenances situated thereon, to recommend necessary changes. The fire code official is authorized to require design submittals to be prepared by, and bear the stamp of, a registered design professional.

Deferred Submittal Items

- ☐ **Any Building Fire Sprinkler Work (2015 IFC 903.2 where required) [IFC 105.7.1 & 105.7.7]**
- ☐ **Any Building Fire Alarm System Work (2015 IFC 907.2 where required) [IFC 105.7.6]**
- ☐ **Any Underground Fire Line/Hydrant Work [2015 IFC 105.7.13]**
- ☐ **Any Alternate Automatic Fire-Extinguishing System Work (2015 IFC 904.2 where required) [105.7.1]**
- ☐ **Any Stand Pipe System Work (2015 IFC 905.3 where required) [IFC 105.7.17]**
- ☐ **Any Emergency Responder Radio System Work (2015 IFC 510.0 & 510.2 where required) [IFC 105.7.5]**

Other

Other

Deferred submittals shall be submitted to the address provided in the letterhead and the envelope should explicitly state the Project Address, Permit Number, and the Building Plans Examiner associated with the project.

Fire permits shall be in accordance with IFC Sections 105.1.1 through 105.7.18.

2015 IFC[A] 105.7 Required construction permits. The fire code official is authorized to issue construction permits for work as set forth in Sections 105.7.1 through 105.7.18.

All fire deferred (IBC 107.3.4.1) submittal item(s) need to be submitted within 30 calendar days of the original building permit issuance date. The final inspection approval (IBC 110.3.10) cannot be issued and no building or structure can be used or occupied (IBC 111.1) until all the fire deferred submittal items are approved by the building and fire officials.

Seal

Declaration by Architect / Engineer

I, the design professional in responsible charge for this project, have read and agree to comply with the terms and conditions of this agreement.

Date

provo
FIRE&RESCUE

Fire Sprinkler System Plan Review

Date: 4/3/2017

Contractor: Western Automatic Sprinkler
Address: 2510 South West temple, SLC, Utah
Telephone: (801) 484-3531
Cell:
E-mail:

Project: BYU Engineering Building
Address: BYU Campus

As requested, we have performed a fire sprinkler system plan review for the above project.

We find the fire sprinkler system drawings to be **acceptable** as per the review done by Kelly Snow on 4/2/2017. See the attached pages for additional notes that apply to Provo City.

Sincerely,

Brad Adams
Deputy Fire Marshal
Provo Fire & Rescue
(801)852-6307
badams@provo.org

KGS FIRE PROTECTION SERVICES

Kelly G. Snow

REVIEW OF FIRE SPRINKLER SHOP DRAWINGS AND HYDRAULIC CALCULATIONS:

February 3, 2017 Revised per response by VCBO

"City of Provo Response Letter" with attachments receipt of 03/24/2017.

Items noted in "BLUE" are either additions or responses to the provided information.

TO: Brad Adams, Deputy Fire Marshal
Provo Fire Dept. AHJ
80 South 300 West
Provo, UT 84601
(801) 852-6307
BAdams@provo.org

PROJECT: BYU Engineering Building
BYU Campus
Provo, Utah

REVIEWED BY: Kelly G. Snow
ICC Certified Fire Plans Examiner
NICET C.E.T #069715 1983
KGS Fire Protection Services
483 N. 745 E.
Pleasant Grove, UT 84062
snowkfire@gmail.com
801-554-5942

SUBMITTED BY: Western Automatic Sprinkler/ with preliminary design provided by CBPE

ADDRESS: 2510 S. West Temple, Salt Lake City, Utah 84115

TELEPHONE: (801) 484-3531

BYU Engineering Building

900 North and E. Campus Drive, BYU Campus, Provo, Utah

DATE RECEIVED: January 14, 2017, revision received 03/24/2017

AHJ: Provo City Fire Dept.

APPLICABLE STANDARDS:

NFPA-13	Installation of Sprinkler Systems with all appendices, 2013 edition.
NFPA-14	Installation of Standpipe Systems, 2013 edition.
NFPA-72	National Fire Alarm Code, 2013 edition.
IBC	International Building Code, 2015 Edition.
IFC	International Fire Code, 2015 Edition.

DESCRIPTION:

The submitted plans are for a new wet pipe sprinkler system for the New BYU Engineering Building. The Building Fire Protection System was designed by CBPE and included as part of the contract drawings. The comments on this submittal should be reviewed and corrected and/or clarified by the Engineer, CBPE systems.(These comments were addressed and acceptable). The building is a 4 story stand alone classroom and lab building with various light and ordinary hazard rooms located within. It has a Class 1 standpipe system.
Plans were designed using NFPA 13, 2013 edition., and per FM Global Standards

WATER FLOW TEST DATA:

The flow test data as shown as provided by CBPE on 9/10/2015.

Static Pressure:	72.0	p.s.i.
Residual Pressure:	65.0	p.s.i.
Flow:	2106	G.P.M.

900 North and E. Campus Drive, BYU Campus, Provo, Utah

Provo Fire and Water to **verify and confirm** flow data is acceptable for use. Note that per NFPA 13:23.2.1.1, a waterflow test shall be conducted no more than 12" months prior to working plan submittal unless otherwise approved by the AHJ.

FIRE SPRINKLER SYSTEM DOCUMENTS REVIEWED:

Type of System: NFPA 13: 4 STORY CLASSROOM AND ENGINEERING BUILDING. Wet system throughout, with complete Class 1 standpipe system,

Hazard Classification: Light, Ordinary Group 1-2 Hazard. .

Drawings: Sheets FP001 1/25/16, FP100 1/25/16, FP100.1 10/31/16, FP101.2 1031/16, 102.1 1/25/16. FP102.2 1/25/16, FP103.1 10/31/16, FP103.2 10/19/16, FP104.1 10/31/16. FP104.2 10/31/16, FA101 1/25/16 (11 DRAWINGS)

Note that revised drawings submitted are FP100.2, FP101.1, FP101.2, FP102.1, FP103.1, FP103.2, FP104.1, FP104.2 all dated 1/25/2017

Hydraulic Calculations: (7) sets dated 03/10/2016 by CBPE Group (2 additional calculations were provided as requested).

Equipment Submittal: Provided (acceptable)

FINDINGS:

Release for Installation, See comments for items that were addressed with the response letter to Provo City.

Final Acceptance of the Fire Sprinkler System will need to be based upon Field Inspection and

Testing of the System in Accordance with NFPA-13: 2013.

REVIEW COMMENTS: We have reviewed the submitted documents and offer the following:

1.1 PRODUCT DATA FOR FIRE SPRINKLER SYSTEM: Provided, .Acceptable.

1.2 FIRE SPRINKLER DESIGN DRAWINGS COMMENTS:

1. Project does not have required information to enable a complete review as required by NFPA 13: see 23.1.3 for items noted in (xx) below, the items needed are as follows:
   a. (2) location including street address.(provided, acceptable)
   b. (4) full height cross section including structural member information...(provided, acceptable)
   c. (7) occupancy classification of each room (*room names*) to identify hazard of occupancy. (sheets FP101.1, FP101.2, FP104.1, and FP104.2 have no room names noted) (provided, acceptable)
   d. (28) Provide complete site plan with location/footage to hydrants from fdc.
   e. Numerous drawings refer to RFI 1267, all such areas do not show adequate sprinkler protection or coverage, revise and provide adequate detail. (provided, acceptable)
   f. Provide detailed standpipe drawings with locations shown, standpipe from at least (1) standpipe shall provide rooftop protection with a control valve located below the roof and a roof manifold with (2) 2 ½" outlets. Provide standpipe calculations to show required demand at the FDC. (provided,

acceptable)

2. FP100.2, show complete riser detail including pipe sizes. Revise FDC type to be a 5" "storz" connection in conformance with Provo City Fire requirements. Label connection as "auto-sprinkler/standpipe connection. (provided, acceptable)

3. FP101.1, show complete standpipe hose valve assembly, drawing is missing detailed information. Add sprinklers to chase between bathroom near col. 11. (provided, acceptable)

4. FP101.2, show hydraulic ref. points in R/A. (provided, acceptable)

5. FP102.1, room between col. 10-12 and "G" no sprinklers shown. (provided, acceptable)

6. FP102.2, sprinklers in catering/kitchen 240 A not attached, area sprinklers are overspaced.(revised drawings are acceptable).

7. FA101, no identification where building is located, add hydraulic ref. points to plan, provide complete riser detail.(no new drawings were provided nor was any additional information provided,)

8. Revise hydraulic calculations as noted below for Atrium and Annex areas. (provided, acceptable)

9. HYDRAULIC CALCULATIONS

1.1 REMOTE AREA #1-BASEMENT:

1.1.1 **Hazard Description:** Ordinary Hazard Group II

1.1.2	**Design Area:**	2500 sq.ft.
1.1.3	**Sprinkler Coverage Area:**	112 sq.ft
1.1.4	**Sprinkler Design:**	22.4 gpm @16.0 p.s.i.
1.1.5	**Total Sprinkler Flow Required:**	757.6 gpm
1.1.6	**Operating Pressure Required:**	56.7 @ Base-of-Riser
1.1.7	**Design Density:**	.20 gpm/ft^2
1.1.8	**Hose Stream Allowance:**	250 G.P.M.

Comments: hydraulic calculations are acceptable with a 13.6 p.s.i safety allowance.

1.2 REMOTE AREA #2-1ST FLOOR:

1.2.1	**Hazard Description:**	Ordinary Hazard Group II
1.2.2	**Design Area:**	1500 sq.ft.
1.2.3	**Sprinkler Coverage Area:**	112 sq.ft
1.2.4	**Sprinkler Design:**	22.4 gpm @16.0 p.s.i.
1.2.5	**Total Sprinkler Flow Required:**	878.98 gpm
1.2.6	**Operating Pressure Required:**	55.8 @ Base-of-Riser
1.2.7	**Design Density:**	.20 gpm/ft^2
1.2.8	**Hose Stream Allowance:**	250 G.P.M.

Comments: hydraulic calculations are acceptable with a 13.9 p.s.i safety allowance.

1.3 REMOTE AREA #2ND FLOOR:

1.3.1	**Hazard Description:**	Light Hazard
1.3.2	**Design Area:**	1500 sq.ft.
1.3.3	**Sprinkler Coverage Area:**	225 sq.ft

1.3.4 **Sprinkler Design:** 22.5 gpm @16.1 p.s.i.

1.3.5 **Total Sprinkler Flow Required:** 439.5 gpm

1.3.6 **Operating Pressure Required:** 57.0 @ Base-of-Riser

1.3.7 **Design Density:** .10 gpm/ft^2

1.3.8 **Hose Stream Allowance:** 250 G.P.M.

Comments: hydraulic calculations are acceptable with a 13.9 p.s.i safety allowance. Code requires 100 gpm hose, the 250 gpm hose as provided is in excess of the required 100 gpm required, and is acceptable.

1.4 REMOTE AREA #3RD FLOOR: Commons/ Office Area

1.4.1 **Hazard Description:** Light Hazard

1.4.2 **Design Area:** 1500 sq.ft.

1.4.3 **Sprinkler Coverage Area:** 150 sq.ft

1.4.4 **Sprinkler Design:** 18.0 gpm @10.3 p.s.i.

1.4.5 **Total Sprinkler Flow Required:** 423.8 gpm

1.4.6 **Operating Pressure Required:** 44.0 @ Base-of-Riser

1.4.7 **Design Density:** .10 gpm/ft^2

Hose Stream Allowance: 250 G.P.M.

Comments: hydraulic calculations are acceptable with a 27.4 p.s.i safety allowance.

1.5 REMOTE AREA #4TH FLOOR: ANALOG LAB

1.5.1 **Hazard Description:** Ordinary hazard II

1.5.2 **Design Area:** 2500 sq.ft.

1.5.3 **Sprinkler Coverage Area:** 96 sq.ft

1.5.4	**Sprinkler Design:**	19.2 gpm @11.7 p.s.i.
1.5.5	**Total Sprinkler Flow Required:**	576.4 gpm
1.5.6	**Operating Pressure Required:**	58.8 @ Base-of-Riser
1.5.7	**Design Density:**	.20 gpm/ft^2
1.5.8	**Hose Stream Allowance:**	250 G.P.M.

Comments: hydraulic calculations are acceptable with a 11.9 p.s.i safety allowance

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1.6 REMOTE AREA #ATRIUM (revision provided, acceptable)

1.6.1	**Hazard Description:**	Light Hazard
1.6.2	**Design Area:**	entire atrium.
1.6.3	**Sprinkler Coverage Area:**	120 sq.ft
1.6.4	**Sprinkler Design:**	21.17 gpm @7.0 p.s.i.
1.6.5	**Total Sprinkler Flow Required:**	292.8 gpm
1.6.6	**Operating Pressure Required:**	60.4 @ Base-of-Riser
1.6.7	**Design Density:**	.10 gpm/ft^2
1.6.8	**Hose Stream Allowance:**	100 G.P.M.

Comments: hydraulic calculations are acceptable with a 11.36 p.s.i safety allowance.,

1.7 REMOTE AREA #ANNEX

1.7.1	**Hazard Description:**	Not noted
1.7.2	**Design Area:**	2500 sq.ft.
1.7.3	**Sprinkler Coverage Area:**	unknown sq.ft
1.7.4	**Sprinkler Design:**	30.0 gpm @7.0 p.s.i.
1.7.5	**Total Sprinkler Flow Required:**	846.2 gpm

1.7.6 **Operating Pressure Required:** 47.6 @ Base-of-Riser

1.7.7 **Design Density:** .30 gpm/ft^2

1.7.8 **Hose Stream Allowance:** 250 G.P.M.

Comments: hydraulic calculations are not conclusive, the data as shown on the calculations may be acceptable with a 21.2 p.s.i safety allowance, however without the hydraulic reference points and a hydraulic remote area on the FA101 plan, and other required information, the data cannot be accepted.(no mention is made of this plan or the hydraulic calculations, is this part of the scope of work for this project?)

1.7.9 REMOTE AREA #STANDPIPES

1.7.10 **Hazard Description:** Class 1 standpipes x 3

1.7.11 **Required GPM** 1000 g.p.m.

1.7.12 **Required p.s.i at FDC** 164.8 p.s.i. from pumper connection

1.8 PRODUCT DATA FOR FIRE SPRINKLER SYSTEM: Provided, .Acceptable.

1.9

.FIRE SPRINKLER GENERAL NOTES:

ALL items noted below have been added to the contract drawings per ASI 1047 and are acceptable.

1.1 The fire sprinkler installation must be in full compliance with NFPA 13, 2013 edition.

1.2 **Water Flow Switches:** All water-flow switches for the automatic fire sprinkler systems must be electrically supervised. [IFC 903.4]

1.3 **Fire Sprinkler Control Valves:** All valves controlling the water supply for the automatic fire sprinkler system must be electrically supervised. [IFC 903.4]

1.4 **Exterior Fire Sprinkler Alarms:** An approved audible sprinkler flow alarm must be provided on the exterior of the building in an approved location. [IFC 903.4.2]

1.5 **Off Premises Monitoring of Fire Sprinkler System:** Off Premise Monitoring for the Fire Sprinkler System must be provided. [IFC 903.4.1]

1.6 **Fire Department Connection (FDC):** [NFPA 13-8.16.2.4.6 and 13-8.16.2.4.7]

1.6.1 Location of FDC must to be approved by the Provo City Fire.

1.6.2 FDC shall be a 5" "Storz" connections as required by Provo City Fire.

1.6.3 FDC must be on the street side of building.

1.6.4 FDC must be located and arranged so that hose lines can be readily and conveniently attached to the inlets without interference from any nearby objects including buildings, fences, posts, or other fire department connections.

1.6.5 FDC to sprinkler system shall be marked "Auto Sprinkler" and must be designated with a sign having raised or engraved letters at least 1 in. in height on plate or fitting reading service design.

1.6.6 Proper access is to be provide for fire department personnel. An all-weather, clear access path must be provided to and around the FDC. FDC cannot be in an unpaved area.

1.1 **Backflow Preventer:** Means shall be provided downstream of all backflow prevention valves for flow tests at system demand. [NFPA 13:8.17.4.6.1]

1.2 **Hangers:** With static pressures that exceed 100 p.s.i., piping that supplies a sprinkler in the pendant position shall have a hanger within 12" of its end to restrict upward movement. All armovers in excess of 12" shall also meet this requirement. [NFPA 13:9.2.3.4.4]

2. LATERAL SWAY BRACING – STEEL PIPING: Lateral sway bracing must be spaced no greater than 40-feet on center. Lateral sway bracing must be provided for feed mains, all cross mains and branch lines with a diameter of 2-1/2 inches and larger. The last length of pipe at the end of a feed or cross main must be provided with a lateral brace. The distance between the last brace and the end of the pipe cannot exceed 6-feet. [NFPA-13, 6-4.5.3]

3. COUPLINGS: Listed flexible pipe couplings joining grooved end pipe shall be provided as flexure joints to allow individual sections of piping 2-1/2 inch or larger to move differentially with the individual sections of the building to which it is attached. Couplings shall be arranged to coincide with structural separations within a building. They shall be installed:

3.1 Within 24-inches of the top and bottom of all risers.

3.2 Within 12-inches above and within 24 in. Below the floor in multistory buildings. When the flexible coupling below the floor is above the tie-in main to the main supplying that floor, a flexible coupling shall be provided on the vertical portion of the tie-in piping.

3.3 On both sides of concrete or masonry walls within 1 ft of the wall surface.

3.4 Within 24 in. of building expansion joints.

3.5 Within 24 in. of the top and bottom of drops to hose lines, rack sprinklers, and mezzanines, regardless of pipe size.

3.6 Within 24-inches of the top and bottom of drops exceeding 15-feet in length

to portions of systems supplying more than one sprinkler, regardless of pipe size.

3.7 Above and below any intermediate points of support for a riser or other vertical pipe.

4. CLEARANCE AROUND PIPES: Clearance must be provided around all piping extending through walls, floors, platforms and foundations, including drains, fire department connections and other auxiliary piping. A minimum clearance on all sides shall be not less than:

4.1 1-inch for pipes 1-inch through 3-1/2-inch.

4.2 2-inches for pipe sizes 4-inch and larger.

Applicable Codes & Standards used to conduct Review

IBC	International Building Code, 2015 edition
IFC	International Fire Code, 2015 edition
NFPA 13	Installation of Sprinkler Systems with all appendices, 2013 edition
NFPA 72	National Fire Alarm Code, 2013 edition
NFPA 24	Private fire Service Mains and their appurtenances, 2010 edition
NFPA 14	Standard for the Installation of Standpipe and Hose Systems, 2010 edition.

Fire Sprinkler System Notes: Additional Info that applies to Provo City,

1. **The sprinkler flow notification on the outside of the bldg. shall be a horn/strobe with a blue lens for flow notification only.**
2. The fire sprinkler system installation must be in full compliance with the codes & standards listed above, also all other requirements as defined by the manufacturer.
3. A system test and inspection shall be completed for system acceptance and before use.
4. Any major deviation from the fire sprinkler drawings submitted for review will require that revised hydraulic calculations be provided to prove the design layout.

Fire Department Connection (FDC) [NFPA 13-8.16.2.4.6 and 13-8.16.2.4.7

1. Fire sprinkler contractor to verify with Provo City Fire Department that location is acceptable prior to installation.
2. **FDC shall be a 5" Storz connection**

58-22-603. Seal -- Authorized use.

(1) A professional engineer or professional structural engineer may only affix the licensee's seal to a plan, specification, and report when the plan, specification, and report:

(a) was personally prepared by the licensee;

(b) was prepared by an employee, subordinate, associate, or drafter under the supervision of a licensee, provided the licensee or a principal affixing his seal assumes responsibility;

(c) was prepared by a licensed professional engineer, professional structural engineer, or architect in this state or any other state provided:

(i) the licensee in this state affixing the seal performs a thorough review of all work for compliance with all applicable laws and rules and the standards of the profession; and

(ii) makes any necessary corrections before submitting the final plan, specification, or report:

(A) to a building official for the purpose of obtaining a building permit; or

(B) to a client who has contracted with a professional engineer or professional structural engineer for the design of a building or structure, when the licensee represents, or could reasonably expect the client to consider, the plan, specification, or report to be complete and final;

(d) was prepared in part by a licensed professional engineer, professional structural engineer, or architect in this state or any other state provided:

(i) the licensee in this state clearly identifies that portion of the plan, specification, or report for which the licensee is responsible;

(ii) the licensee in this state affixing the seal performs a thorough review of that portion of the plan, specification, or report for which the licensee is responsible for compliance with the standards of the profession; and

(iii) makes any necessary corrections before submitting the final plan, specification, or report for which the licensee is responsible:

(A) to a building official for the purpose of obtaining a building permit; or

(B) to a client who has contracted with a professional engineer or professional structural engineer for the design of a building or structure, when the licensee represents, or could reasonably expect the client to consider, the plans, specifications, or reports to be complete and final;

(e) was prepared by a person exempt from licensure as a professional engineer, professional structural engineer, or architect provided that:

(i) the licensee in this state affixing the seal performs a thorough review for compliance with all applicable laws and rules and the standards of the profession; and

(ii) makes any necessary corrections before submitting the final plan, specification, or report:

(A) to a building official for the purpose of obtaining a building permit; or

(B) to a client who has contracted with a professional engineer, professional structural engineer, or architect for the design of a building or structure, when the licensee represents, or could reasonably expect the client to consider, the plan, specification, or report to be complete and final; or

(f) meet any additional requirements established by rule by the division in collaboration with the board.

(2) A professional land surveyor may only affix the licensee's seal to a plan, map, sketch, survey, drawing, document, plat, and report when the plan, map, sketch, survey, drawing, document, plat, and report:

(a) was personally prepared by the licensee; or

(b) was prepared by an employee, subordinate, associate, or drafter under the supervision of a professional land surveyor, provided the professional land surveyor or a principal affixing his seal assumes responsibility.

R156-22-601. Seal Requirements.

(1) In accordance with Section 58-22-601, all final plans, specifications, reports, maps, sketches, surveys, drawings, documents and plats prepared by the licensee or prepared under the supervision of the licensee, shall be sealed in accordance with the following:

(a) Each seal shall be a circular seal, 1-1/2 inches minimum diameter.

(b) Each seal shall include the licensee's name, license number, "State of Utah", and, as appropriate, "Professional Engineer", "Professional Structural Engineer", or "Professional Land Surveyor".

(c) Each seal shall be signed and dated with the signature and date appearing across the face of each seal imprint.

(d) Each original set of final plans, specifications, reports, maps, sketches, surveys, drawings, documents and plats, as a minimum, shall have the original seal imprint, original signature and date placed on the cover or title sheet.

(e) A seal may be a wet stamp, embossed, or electronically produced.

(f) Electronically generated signatures are acceptable.

(g) It is the responsibility of the licensee to provide adequate security when documents with electronic seals and electronic signatures are submitted. Sheets subsequent to the cover of specifications are not required to be sealed, signed and dated.

(h) Copies of the original set of plans, specifications, reports, maps, sketches, surveys, drawings, documents and plats which contain the original seal, original signature and date is permitted, if the seal, signature and date is clearly recognizable.

(2) A person who qualifies for and uses the title of professional engineer intern is not permitted to use a seal.