CITY OF COLORADO SPRINGS
FIRE BOARD OF APPEALS
MEETING **MINUTES**
June 9, 2023 – 8:30 A.M.

Present Fire Board of Appeals Board Members (6):	**Industry Represented:**
David Hewett, Chair	Small Business
Ron Honn, Vice Chair	Citizen At-Large
Vince Colarelli	Building
Mike Riggs	Architecture
Jannic Ekornes	Fire Suppression
Laurie Olsen	Insurance
Not Present (0):	**Industry Represented:**
Vacant Position (1):	**Industry Represented:**
-	Large Business
Present Fire Board of Appeals Secretary	**Representing:**
Brett T. Lacey, Fire Marshal	Colorado Springs Fire Department
Additional Attendee(s):	**Representing:**
Desirae Tucker, Administrative Assistant Senior	Colorado Springs Fire Department
Mellisa Wutzke, Administrative Assistant Senior	Colorado Springs Fire Department
Captain Richard Valdez, Deputy Fire Marshal	Colorado Springs Fire Department
Connie Manning, Compliance Coordinator	Colorado Springs Fire Department
Roland Peterson, Senior Fire Inspector	Colorado Springs Fire Department
Phil Valdez, Senior Fire Inspector	Colorado Springs Fire Department
Jacob Watson, Fire Protection Engineer I	Colorado Springs Fire Department
Michael Starke, Fire Inspector II	Colorado Springs Fire Department
Sarah DaCosta, Administrative Assistant II	Colorado Springs Fire Department
Kris Cooper, Deputy Fire Marshal	Colorado Springs Fire Department
Katie Claar, Engineer II	Colorado Springs Utilities
Keith Buckmiller, Citizen	400 Dahlia Street
Randy Purvis, Homeowner	400 Dahlia Street
Robin Purvis, Homeowner	400 Dahlia Street
Scott Hente, Builder	Robert Scott General Contractors, Inc.
Nelson Daily, Citizen	Observer

CALL TO ORDER

1. **Board Chair Hewett called the meeting to order at 8:28 A.M. and promptly conducted a roll call.**

ADMINISTRATIVE

1. **Approval of Meeting Minutes**

   Board Member Colarelli motioned to approve the meeting minutes.
   Board Member Olsen seconded the motion.

The motion passed unanimously.

2. **Contractor Licensing**

   A. **Fire Alarm Contractor B**

      i. **Business Name:** APEX Integrated Systems, LLC
      Applicant: Mikel Foster
      RME: Mikel Foster

      Fire Marshal Lacey stated applicant meets the requirements and recommended approval.

      Board Member Colarelli motioned to approve the application.
      Board Member Honn seconded the motion.
      The motion passed unanimously.

3. **Appeal**

   A. **Request by Builder Scott Hente of Robert Scott General Contractors, Inc., on behalf of homeowners Randy and Robin Purvis, requests relief from Colorado Springs City Ordinance 18-50, *Fire Prevention Code and Standards* Appendix B, Fire-Flow Requirements for Buildings, Section B105.1 located at 400 Dahlia St., Colorado Springs, CO 80904**

Fire Marshal Lacey provided a background of the Colorado Springs Fire Department (CSFD) working with Builder Scott Hente on behalf of homeowners, Randy and Robin Purvis on the construction of a new home located at 400 Dahlia Street, Colorado Springs, Colorado. Due to the size of the home, the water flow available does not meet the fire flow code requirements. The water flow in this area is one of the remaining areas in Colorado Springs that are below the fire flow requirements. Fire Marshal Lacey introduced Katie Claar, Engineer II from the Water Infrastructure Planning at Colorado Springs Utilities (CSU) and she has been working with CSFD's Fire Protection Engineer, Dee Withee. For several months, discussions transpired to try and come up with a resolution to the water supply for the Purvises. Fire Protection Engineer Withee offered the appellants two resolutions. One was to install a residential sprinkler system or, two, to install a monitored alarm system. The intent for the monitored alarm system is if the CSFD could get early notification and rapid response, the fire could be kept to a minimal size. The appellants agreed to the monitored alarm system and the permit was issued. The appellants have since changed their minds and decided to appeal to the Fire Board of Appeals.

Fire Marshal Lacey introduced Roland Peterson, Senior Fire Inspector, CSFD.

Senior Fire Inspector Peterson provided information concerning the proposed residence at 400 Dahlia Street. The structure is a 5B building of 4938 square feet requiring a fire flow of 2000 gallons per minute (gpm). There is a theoretical fire flow of 800 gpm as well as an actual fire flow on 8/24/22 of 1388 gpm and a simultaneous fire flow on 10/4/22 of 1563 gpm. This is significantly short of the required fire flow. A compromise was made to allow a monitored alarm system in lieu of a fire sprinkler system

Chair Hewett asked for clarification that the initial expectation was a fire (sprinkler) system and the CSFD agreed to a fire alarm (monitoring system).

Senior Fire Inspector Peterson confirmed Chair Hewett's statement.

Fire Marshal Lacey clarified that the requirement is to have the required fire flow for the size of the house requested. There was further discussion between the appellant and the CSFD and the two options were offered. Upon further deliberation, it was decided that the CSFD would be ok with the alarm (monitoring) system.

Senior Fire Inspector Peterson stated there is an amendment in the fire code that allows a 50% reduction in fire flow requirement if the structure is sprinklered but have no less than 1500 gpm requirement at any given time for any given structure.

Chair Hewett asked if there were any other questions from the board for the CSFD.

Chair Hewett asked Builder Scott Hente to the podium.

Builder Scott Hente shared a presentation.
(All supplemental documents follow these minutes).

Scott Hente stated they are requesting relief from the fire flow requirement specifically for the monitored alarm system for the house under construction at 400 Dahlia Street. There are several reasons they are asking for this request. They are replacing an older structure with a new home constructed to the current fire code requirements which is the 2018 Wildland Urban Interface (WUI) fire code requirements. This neighborhood has never been advised that fire flow is an issue, and he believes there is sufficient fire flow for firefighting purposes. He referenced a map in his presentation of the neighborhood where 400 Dahlia Street is located that he received from CSU. He highlighted the location of 400 Dahlia Street and the two nearest fire hydrants. Fire hydrant 768C is 25 feet from the property line of the new house. He used this map as a basis to define the neighborhood. The previous map showed 25 separate single-family residences in addition to other structures such as sheds and detached garages. With one exception, the ages of the homes range from 33 to 119 years old. To the best of his knowledge, with one exception, no home in the neighborhood has a sprinkler system or a monitored alarm system. 400 Dahlia Street will be the only home built on the referenced map built to current fire codes and will be held to a higher standard of fire flow than any of the other houses, some of that are over 100 years old. The previous structure at 400 Dahlia Street was a dilapidated art studio that was built 60 years ago. It was a fire hazard and not in compliance with anything. If his customers had not purchased the lot, this structure would still be there today and present a hazard to the neighborhood. His customers have replaced this with a structure that is in compliance with modern fire codes, recent city ordinances, and 2018 WUI requirements. The Purvises are 32-year residents of this neighborhood. Their current residence is three doors from 400 Dahlia Street. None of the residences have ever been told this is an issue, and if it is an issue, why have there been no improvements to the overall system? Scott Hente confirmed that they have been in communication for many months with the CSFD before and after they pulled the permit. During this time, he asked CSU why they have not fixed the water issue. He was told it came down to money. The house they are building is being held to a higher standard and a higher fire code. They (appellants) believe there is sufficient flow. The appellants waited until after they pulled the permit to ask for this waiver because they started asking questions of others, including fire flow professionals, and former firefighters if this is really an issue. There are two hydrants that are on a double loop and if you use one of the hydrants shown on the map, it can handle multiple handlines that are available to the fire department. There are also the banks of the preconnected hoses that are on the fire trucks. Thus, the appellants feel there is sufficient flow, especially concerning a house that is being built to modern standards with materials such as ignition-free exterior surfaces. Since they are building to

the newest, most current standards, they are asking the requirement for the monitored alarm system to be waived.

Chair Hewett asked if there are any questions from the board members.

Board Member Colarelli asked Scott Hente about the change of the 400 square feet in the house compared to what was originally submitted.

Scott Hente replied he is not sure what he is referring to as the plans submitted to the building department have been submitted and approved.

Board Member Colarelli stated okay, and that the remainder of his questions are for the CSFD.

Board Member Riggs stated Scott Hente referenced hazards to existing residences and asked if he knows the size of the existing residences.

Scott Hente replied he has a list of all of them and they run the gamut ranging in size from very small to a couple that are bigger than what they are building.

Board Member Riggs stated when the appellant received the permit, they made some decisions that were revised on the permit in November, and it was agreed that a fire alarm system would be installed.

Scott Hente stated all of those were agreed to before the issuing of the permit, there have been no changes since the permit was issued.

Board Member Riggs asked if it was agreed to in the permit.

Scott Hente replied yes, and they agreed to that. He further stated that Fire Marshal Lacey is correct in that the process to get this home approved took more than a year. There were several factors contributing to this including the waiver of replat with the city, supply chain issues, and increasing costs. There was a desire to get the project going and they agreed to install a monitored fire alarm system when the permit was issued. It was after this that the appellant started to consult with fire professionals which led to additional conversations with Fire Marshal Lacey. The appellant has been working on this for several months and almost initiated this request at the time they pulled the permit.

Board Member Ekornes asked if he knew if there are plans for CSU to improve the water lines in the area.

Scott Hente stated that he would let CSU answer that question, but every time he has talked to them, he has been told that it is going to cost a lot of money and they can't get to it. Because CSU cannot improve their infrastructure, they are asking one homeowner to bear the cost of that failure of not improving their infrastructure and he feels that is unfair.

Chair Hewett stated that Scott Hente commented that he is building a newer home and everything else in the area is not being required to upgrade.

Scott Hente stated there is one other possible exception in the map.

Chair Hewett stated he understood, but what it is important to understand is the Fire Board of Appeals (FBA) does not have the authority or the right to go back to an existing home and require they bring it up to standard unless something is being done. The rest of the

neighborhood can be referenced, but there is no enforcement ability to an existing structure unless they intend to make changes to that existing structure.

Scott Hente agrees but this is a hindrance for anyone that wants to make improvements if they know that they are going to have these increased costs.

Chair Hewett responded that he understood, but wants to make sure he understands Scott Hente's point of contention which is the rest of the homeowners do not have to abide by this because of their age.

Scott Hente is not trying to suggest automatically enforcing that, what he is saying is there is now one house that is held to this higher standard when the rest are not. If the desire is to fight a fire and protect the neighborhood, is that being done? He is not sure that it is.

Board Member Colarelli stated this has become an increasingly common problem. He knows from the commercial side he has had to take extraordinary measures to provide fire flow in buildings that would otherwise not require them because of a decrease in fire flow or decrease in water pressure in the CSU system. He can site 5 buildings in the last 18 months where he has had to do that.

Scott Hente stated he is not a fire professional but has someone in attendance who is and would like him to speak if the board will allow it.

Chair Hewett said absolutely.

Keith Buckmiller introduced himself. He has been in the fire service since 1980 with 35 years at the CSFD. He referenced a slide from Scott Hente's presentation that shows a 1300-gallon fire hydrant that would provide that much flow. That provides 5, 2 ½ inch lines that would provide 265 gpm. That is a lot of water. Also at 212 degrees, one cubic foot of water will expand 1600 times and that is what will be putting the fire out. Although the CSFD's numbers state what is generated is less than what is applicable, a lot of fire can be put out with that hydrant, he has done it before and is still doing it today. That is a lot of water. With the ISO (Insurance Service Office) rating, continuous water flow in Colorado Springs, the training of the CSFD firefighters, and the water system that gives a high ISO rating, a lot of work can be done with that much water. He thinks there is a lot of overkill in the numbers presented. If there was a conflagration in the area like the Marshall Fire, that hydrant will be relied upon for all the other houses, and it is not going to be there. The Purvises house will have a 1-hour rating on the inside and outside, so fire coming from the outside will take 1 hour to get in, and fire on the inside will take 1 hour to get out. In that process, the whole neighborhood is going to go up in flames, and firefighters will be put in there with an inadequate water system, to be able to catch those hydrants to do a pump and run to fight the fires. The system is bad, CSU should be put on notice that it is bad, and the neighborhood should be notified that it is bad. To put $16,000-$20,000 into the house on Dahlia, he does not see the reasoning behind that. He reiterated that there is a lot of water and that if the house caught on fire, he would put it out.

Chair Hewett asked if there were any questions from the board.

Scott Hente stated Mr. Purvis, the property owner, would like to address the board.

Property owner, Randy Purvis wanted to address the square footage issue. To his understanding, when the plans were first submitted, the architect added up the square footage in the garage, main floor, basement, the front and back porch and came to that figure. The CSFD stated that was a nice starting point, but additional measurements are

required to include the eve overhang and the area underneath the deck. That is how they got the additional 300 to 400 square feet which is what pushed the house up to a significantly higher category.

Board Member Colarelli thanked Mr. Purvis.

Chair Hewett asked if there were any additional questions or comments from the board.

Board Member Colarelli asked Chair Hewett if the board could ask CSFD staff questions.

Chair Hewett responded certainly.

Board Member Colarelli asked Senior Fire Protection Engineer Peterson if he had any historical data on what the fire flows have been in the area and if they have changed.

Fire Marshal Lacey stated that Katie Claar, CSU engineer, should speak to that.

Board Member Colarelli responded that he would table that question for a minute. He stated that in the write-up, the building's allowable square footage is described like a commercial building as opposed to a residential building. There is approximately 1700 square feet on the lower level of this building, presuming that there was a drywall assembly under the joist and the door was a fire-rated door that goes up. Is there a strategy that the homeowner might be able to consider allowing for fire separation between the upper and lower level to reduce the allowable square footage?

Senior Fire Inspector Peterson replied that the requirements to separate a building for fire flow purposes require a 2-hour unpenetrated fire wall. To create two separate dwelling units with that 2-hour horizontal assembly with no penetrations is the only way, per the adopted fire code, that it could be accomplished.

Board Member Colarelli stated technically, there is a solution available if the appellant is willing to consider it.

Senior Fire Inspector Peterson responded yes.

Board Member Colarelli asked in the plans as approved, would there have been a requirement for smoke detectors in the house regardless of the monitored fire alarm system.

Senior Fire Inspector Peterson replied that the smoke detectors, being 120 volt tied together with a battery backup are a requirement of the building code.

Board Member Colarelli clarified that the additional requirement from a technical standpoint, is the addition of the monitoring to that system.

Senior Fire Inspector Peterson stated that the technical requirement would be an NFPA (National Fire Protection Association) 72 compliant system that dials out to dispatch.

Board Member Colarelli clarified it is a monitored system with a dialer as compared to a traditional smoke detector system.

Senior Fire Inspector Peterson stated the traditional smoke alarms required from the building code sound individually and based on how they are wired, will sound all together.

A smoke detector goes to a central panel with a dialer that calls a monitoring company that calls dispatch.

Board Member Colarelli thanked him.

Board Member Riggs asked about fire flow reduction for fire sprinklers which is outlined in (NFPA)1142. In the IFC (International Fire Code) there is a provision for the fire marshal to potentially decrease fire flow and fire duration. Has he looked at that or has this been applicable in the past? Is there a pathway forward? The code could be read to imply rural communities as a part of that passage in (IFC)103.1.

Fire Marshal Lacey responded that Colorado Springs is not considered rural as it has a water distribution system. In rural fire departments, there is hard suction you can draft from static water sources or portable tanks. None of the CSFD apparatus have hard suction because of the robust distribution system. The only reasonable approach to deal with the lack of water was the mechanisms proposed by Fire Protection Engineer Withee. The fire suppression system is an active measure to address the fire in its incipient stage. With that proposal, there could be a tradeoff for insurance with possible payback for that system. The next alternative at a lower cost, is the monitored fire alarm system because if the CSFD gets early notification fast response, there would be less fire to use the water available to extinguish the fire in a way that former Chief Buckmiller spoke to.

Board Member Riggs asked how the fire flow gpm can be utilized for different size buildings and how the relationship between gpm increases and building square footage increases going tandem. Are there differences in how that availability affects how a fire is fought?

Fire Marshal Lacey provided a history of fire flow testing, research, and standards and how those standards from 1914 are utilized today. However, materials of today, like plastics and resins, burn vastly differently than materials from 1914. The relative conversion of the amount of water required to quench a fire based on steam conversion given the amount of fuel load per square foot, determines the amount of flow we are comfortable with to control the fire assuming maximum probable loss or involvement of that fire.

Board Member Riggs thanked Fire Marshal Lacey for his perspective.

Board Chair Hewett stated part of that comment is fires of today are going to burn faster and hotter than what the numbers dictated in the calculations.

Fire Marshal Lacey responded affirmatively, but continued research is comfortable to honor the tables as provided. Given the current application, the resources available such as technical equipment, and the way fire equipment is utilized.

Board Chair Hewett stated he understood and asked if there were any questions.

Board Member Colarelli asked about the statement about the CSFD's ability to fight a fire with limited water based on certain gpm and handline available. Will he comment on the CSFD's ability to fight a fire in this location given the limited amount of water flow?

Fire Marshal Lacey responded the CSFD will do the best job they can with the limited fire flow available. The only thing he can guarantee is that fire is unpredictable and the CSFD does an exceptional job. The only thing he is comfortable with as the fire code official is

looking at the square footage, the type of construction, and the fire code with the tables of fire flow.

Board Chair Hewett stated this comes back to the issue of response time and the potential of unnoticed burning. If the home was unoccupied at the time of a fire, the alarm that was agreed upon is the key element, is that correct?

Fire Marshal Lacey agreed and explained that it is the CSFD's premise behind the consideration of the reduced fire flow that this would be acceptable due to the early notification and response.

Fire Marshal Lacey had Senior Fire Inspector Peterson return to the podium.

Senior Fire Inspector Peterson provided additional information about construction in the neighborhood. 411 Columbia Road, a property that touches 400 Dahlia, was a 2017 tear-down/rebuild of a home and was equipped with a residential fire sprinkler system. A home at 613 Columbia Court just received a certificate of occupancy and has a fire alarm system provided by Westerns States Fire Protection. 606 and 696 Columbia, and 516 Laurel Street have monitored fire alarm systems. 969 Columbia Court has both a fire alarm and a fire sprinkler system. These are five examples of homes in the area with systems one which is directly adjacent to 400 Dahlia Street.

Board Chair Hewett asked if these are all remodeled or built in a recent time period.

Senior Fire Inspector Peterson responded affirmatively with 969 Columbia Court being the oldest which was permitted in 2001.

Board Chair Hewett thanked Senior Fire Inspector Peterson.

Board Member Ekornes asked if a neighbor wanted to remodel their house, would they have to install a sprinkler system or alarm system?

Senior Fire Inspector Peterson responded it is based on the increase in square footage. He gave the example at 7 Swallow Drive which is a current remodel/addition that is across from 400 Dahlia Street. The addition did not increase the fire flow requirement for that structure.

Fire Marshal Lacey addressed the board and stated Sarah (DaCosta) was handing out the Staff Summary Report which was not included in the packet provided to the board and the appellants. It is a summary of the CSFD's staff opinion. He apologized for the omission and stated it would not happen again. (All supplemental documents follow these minutes).

Board Chair Hewett asked about the remodels Senior Fire Inspector Peterson mentioned. What are the square footages of these houses? He also stated 400 Dahlia Street is at 4938 square feet.

Senior Fire Inspector Peterson replied 613 Columbia Court is slightly smaller than 400 Dahlia Street being in the 3000 to 4000 square foot range. 411 Columbia Road is a comparable size, but he does not know the exact square footage. He is not familiar with the square footage of the others but believes they are roughly in the 3000 to 4000 square feet range.

Board Chair Hewett stated this neighborhood is going through a renaissance in other homes in the recent time period and asked if the appellant agree with that statement.

Scott Hente stated it varies house by house, some are remodels, and some are modernizing.

Board Chair Hewett stated that there is activity in the neighborhood.

Scott Hente replied that there is activity, and some do not change in square footage. He asked to address Board Member Colarelli's question.

Board Chair Hewett confirmed he could.

Scott Hente stated this is the first time he is seeing this document (referencing the Staff Summary Report).

Board Chair Hewett affirmed this is the case for the board as well,

Scott Hente stated Board Member Colarelli asked about the separation between the lower floor and the upper floor. Per the current fire code, he has to drywall the lid of the basement or if it is an unfinished area, he has to apply a fire retardant and has to provide a certificate at the time of the final building inspection. Thus, there is a separation between floors. There are other things they have done to decrease the fire risk at this home such as arc fault circuit protectors, the drywall is better, and other things required in the building code that help protect the structure even more than the structure that was there previously. He does not want the board to think he misled them. He used the homes in the map he was provided by CSU and the homes Senior Fire Inspector Peterson referenced were outside that map.

Board Chair Hewett stated he understood nor did he think that was the neighborhood and thanked Scott Hente.

Fire Marshal Lacey apologized for the omission of the Staff Summary Report, it is his responsibility that the packet is complete. The Staff Summary Report is provided to everyone as to why the recommendation was given. He offered everyone to take time to read it. The summary goes along with the recommendation that has been verbalized in testimony.

Board Chair Hewett appreciates Fire Marshal Lacey's comments and for everyone to take time to read the Staff Summary Report.

Scott Hente asked if CSU to come up to address the board.

Board Chair Hewett stated the job of the board is to review everything, but this board is not in control of CSU. He does want to hear the information and asked Katie Claar to the podium.

Katie Claar, CSU Engineer II provided information on the water flow in this neighborhood. The fire flow is low in this area because of aged infrastructure, the area is provided water from a single feed and has 6-inch pipelines. Eventually, these will be replaced with eight-inch water mains but there is no telling when the budget will be available. They have a finished water linear asset program where they have a risk model that considers the size, material, condition, and criticality of all the water mains and prioritizes all the water mains throughout the city that need to be replaced. Eventually, these water mains will fall under that. They have had a lot of fire studies for vulnerable areas within the city. They have

some recommendations to improve the fire flows in this area, but it depends on when the budget becomes available to do projects in this area.

Board Member Colarelli asked if it is her opinion that the fire flow has decreased over time in this area.

Engineer II Claar thinks they have decreased marginally because of aging infrastructure and as the pipe degrades, fire flows decrease. Due to the size of the pipes and the location she believes the flow was low at the time of construction.

Board Member Colarelli stated there was an actual fire flow of 1388(gpm). What would have been expected 20 years ago?

Engineer II Claar is not sure how much higher it would have been 20 years ago but does not think it would have been that much higher.

Board Member Colarelli asked if it would likely have been 2000(gpm).

Engineer II Claar responded no.

Board Member Colarelli asked if it would likely have been 1500(gpm).

Engineer II Claar replied yes.

Board Member Colarelli inquired if the aging infrastructure would cause this to decrease by 10%.

Engineer II Claar replied approximately.

Board Member Colarelli stated to be clear, the aging infrastructure is wear and tear on the inside face of the pipes.

Engineer II Claar responded with a confirmation.

Board Member Colarelli asked if this would increase friction loss and reduce flow.

Engineer II Claar responded with a confirmation.

Fire Marshal Lacey stated the material found in aging infrastructure such as cast iron, tuberculates, and corrodes causing the pipe diameter to shrink and reduce water flow. Current materials have eradicated this problem.

Board Chair Hewett asked if there are additional comments or questions from the board members or the appellant.

Appellant Randy Purvis stated per a map from CSU, there is a line coming west on Pikes Peak Avenue that turns north up Columbia and there is a second line coming down from Mesa that enters at the end of Columbia Road. It is a bi-fed neighborhood.

Board Member Colarelli stated that the CSFD has asked the appellant to install a monitored fire detection and fire alarm system as compared to the fire alarm and detection system that they would have to install under the code. What is their aversion to installing the system?

Appellant Randy Purvis responded there are three steps in the fire alarm system as he understands it. One is the code bare minimum, where there are alarms at various points throughout the house that are tied together that alarms only inside the building. The other end of the extreme, which is what they are being asked to do, is the alarm is all wired together to a central panel and the central panel buys a cell phone line. This neighborhood does not have good cell service, which brings additional concerns. The in-between option is a fire alarm/burglar alarm system that is monitored by an external agency. He thinks the bare minimum cost of this is about $500 to $600 and asked (Scott Hente) for confirmation.

Scott Hente does not think it costs that much but does not think of this as an additional cost as that is part of the building code, and it is built into the cost of the house.

Board Chair Hewett stated that he (Randy Purvis) is talking about the additional cost for the monitored alarm system.

Scott Hente stated he knows that cost.

Board Chair Hewett stated that is what Randy Purvis is trying to resolve.

Scott Hente stated that he knows that cost.

Board Chair Hewett asked what the cost is.

Scott Hente stated it is in the $16,000 to $20,000 range.

Randy Purvis stated he estimates the in-between option cost is $1000 to $2000.

Board Chair Hewett asked Board Member Colarelli if this answers his question.

Board Member Colarelli questioned if the compelling reason for the variance is to avert the additional cost.

Randy Purvis stated, in his point of view, it is the additional expense for a benefit that cannot be rationalized by the cost of the benefit. He can rationalize the in-between option where an alert is sent to an outside company.

Board Member Colarelli thanked him.

Board Chair Hewett asked if there were any additional questions or comments from the appellant.

Scott Hente responded no.
Board Chair Hewett asked if Fire Marshal Lacey had any additional comments.

Fire Marshal Lacey responded no.

Board Chair Hewett explained the process in the voting procedure.

Board Chair Hewett stated he has heard no further comments from the board, the appellant, or the fire marshal. He requested a motion to approve or deny from the board.

Board Member Riggs motioned to deny the request for relief from Colorado Springs City Ordinance 18-50, *Fire Prevention Code and Standards*

Appendix B, Fire-Flow Requirements for Buildings, Section B105.1 located at 400 Dahlia St., Colorado Springs, CO 80904.
Ekornes seconded the motion.
The motion passes unanimously.

Board Chair Hewett explained he will ask each board member individually for their vote and the reason for their vote.

Board Member Olsen denied the request stating when it comes down to it, the fire department's ammunition is water supply, despite all the equipment, training efficiency, the firefighters and adequate water supply for this type of home is critical and plays the most important role in saving lives and property. She agrees the monitored fire alarm system is reasonable.

Board Member Riggs voted to disapprove the appeal. The intent of the code is incremental improvement to improve not only your own structure but for the benefit and safety of those surrounding the facility. The code is pretty prescriptive but also provides options for what you can do in certain locations and guidelines whether that is a cap on square footage based on known elements, or through fire sprinkler systems, or through alternative means and methods. One of the alternative means and methods that the fire marshal has within his authority is to allow a monitored fire alarm system. Between those options, there are things that are available that could be employed and thinks this is a reasonable element to be employed.

Board Member Colarelli voted to deny and could not have said it better than Mr. Riggs.

Board Member Ekornes agrees with the motion. He stated that the national building code requires sprinkler systems in all buildings, but the CSFD has not adopted that. He thinks it is reasonable that they have allowed the appellant to do a monitored alarm system and also, it was agreed to in a meeting before the permit was approved that it would be supplied.

Board Vice Chair Honn votes with the group and sticking with the code and enforcing the code. He believes it is a reasonable accommodation.

Board Chair Hewett votes to deny. His reasoning is the appellant is in a situation where it is a changing neighborhood and, in his mind, is asking to keep what is in the neighborhood, unfortunately, the reality of where we live today, we have to have these codes. We have seen two egregious fires in our city in the last ten to twelve years. It is our job to protect our city and that is a job for every citizen here. We each get different ways we have to do that whether it be in a remodeling instance or a rebuilding instance. It does seem harsh at times, it doesn't always seem fair, but we don't have the legal ability to go back to every house and say you are coming up to today's code. But we do have the ability in the system that we live in to say that something new has to come within code or something is being remodeled. And so, we do the best we can. So, at this point, based on our vote today, your appeal is denied.

Board Chair Hewett asked if there are any other questions or comments.

ADJOURN

Board Member Colarelli motioned to adjourn.
Board Member Olsen seconded the motion.
The motion passed unanimously.

The meeting adjourned at 9:34 A.M.

Respectfully submitted by,

Brett T. Lacey,
Fire Marshal and Secretary to the Fire Board of Appeal

BTL/cm

From: City of Colorado Springs
To: Manning, Connie S
Subject: Fire Board of Appeals Application
Date: Thursday, May 18, 2023 1:26:53 PM

<p>Submitted on Thursday, May 18, 2023 - 1:26 pm
Submitted by user: Visitor
Submitted values are:
Date of Request: 2023-05-18
Project/Facility Information

Name: Robin Purvis, Randall Purvis (Owners) Robert Scott Genaral Contractors, Inc. (Builder)
Address/Location:
400 Dahlia St.
Colorado Springs, Colorado. 80904
United States

Applicant Information

Name: Scott Hente
Title: Builder
Organization: Robert Scott General Contractors, Inc.
Mailing Address:
9850 Highland Glen Place
Colorado Springs, Colorado. 80920
United States

Phone Number: 719-499-6752
Email: scotthente75@gmail.com
Which code requirement do you disagree with? (include code section and inspection report number):
Hydrant Flow of 2,000 gpm requirement based on Table B105.1(2) from the International Fire Code

Why do you believe the code should not be followed? How does your solution address the intent of the code?:
A. Equity
1. Existing buildings do not have these requirements
    What good is a monitor in the home if the CSFD cannot put out a fire in neighboring homes
2. Existing buildings have not had fire flow / mitigation requirements imposed on building permits
3. Imposes a “fix” randomly on new construction for water department failures
    As water customers we are paying for a service that is not being provided
    Why isn’t fire flow adequate?
        Age of pipes
        Valves not reset from prior tests, fires elsewhere on the system
4. Cost of Compliance is disproportionately large.
    $16,000 +/- to install alarm system
    Monthly operating expense: Unknown

Cost Information was not communicated to the builder or the homeowner prior to imposing the requirement.

B. Does not solve the problem

1. If fire flow is an issue – it is a City problem

Is it on the CSU capital improvements budget radar?

Any CSU plans to replace basic, 100-year old infrastructure?

How does this meet City goals of encouraging in-fill

2. If fire flow is insufficient, it affects all buildings in the vicinity

To provide fire protection for existing homes

To prevent spread of fire between existing homes

To prevent rapid spread of fire within existing homes

Built to older versions of building codes

Built before adoption of any building codes

C. Is it really needed?

1. Flow Requirements

Fire Flow per simultaneous test conducted 10-04-2022: 1675
(Hydrants 768-C and 1297-C)

Sq Ft per plans: 4687 Fire flow requirement: 1750

Sq Ft per submittal: 4938 Fire flow requirement: 2000

2. Fire flow is in fact adequate

Use of 2-inch hose to fight fire

The measured flows would supply:

5 lines @ 265 GPM with 1&1/8” tip @ 50 psi

4 lines @ 325GPM with 1&1/4” tip @ 50 psi

3 lines @ 400 GPM with 1&3/8” tip @ 50 psi

Adequate for fire fighting

3. As new construction, the home will meet existing codes have greater safety

Class A roof

Double Paned Windows

Greater fire blocking that meets current Building Codes

Exterior clad fire rated materials per Colorado Springs requirements for the Wildland Urban Interface (WUI)

4. CSFD has a very good ISO rating: 3 of 10

Additional Information

Discussed with Fire Marshal Rep.?: Yes

If so, with whom?: Fire Marshall Lacey and Deputy Fire Marshall Valdez

Alternative Solutions?: Yes

What is your proposed solution through alternate means or methods? (Be specific):

Construct a home to modern codes and Colorado Springs Current fire rated requirements and remove requirement stated on PPRBD Approved plans for an “Installed Monitored Fire Alarm System Per Code Requirements.” (Approved PPRBD plan set, page 4.)

If yes, why were they unacceptable?:

An additional alternative discussed was a Sprinkler system

Unacceptable for the same reasons; even more expensive.

<hr>

The results of this submission may be viewed at:

Colorado Springs Utilities
It's how we're all connected

Water Services Division
Operations Department

Fire Flow Test Report

DATE:	10/20/2022	
WORK ORDER #:	3913729	
REQUESTER NAME:	Elena Hepworth LGA Studios (Requester #1)	(Requester #2)
FAX #/Email:	elenah@LGAStudios.com	
PHONE #:	719-635-0880 ext 104	
LOCATION:	400 Dahlia St	

FLOWING HYDRANT #:	767-C
NOZZLE SIZE:	2.5
WATER MAIN SIZE:	
FLOW HYDRANT STATIC PSI:	115
PITOT (PSI):	36
FLOW (GPM):	1007

RESIDUAL HYDRANT #:	**768-C**
RESIDUAL HYD STATIC PSI:	132
WATER MAIN SIZE:	
RESIDUAL PRESSURE (PSI):	62

FIRE DEPT REVIEW PLAN #:	
FIRE INSPECTOR:	
CSFD REQUIRED FLOW (GPM):	
CALCULATED FLOW @ 20 PSI RESIDUAL (GPM):	**1298** ***Contact Fire Inspector to obtain Official Final Fire Flow Calculations.***

COMMENTS:

Please call with questions or comments.
Thank You
Sean Higbee, Water Distribution Supervisor

Distribution: Fire Prevention (CSFD 385-7334)

404 W. FONTANERO ST. BUILDING 457
P.O. BOX 1103, MAIL CODE 1210
COLORADO SPRINGS, CO 80947-1210
PHONE 719-668-4595, FAX 719-668-2890, shigbee@csu.org, http://www.csu.org

Colorado Springs Utilities
It's how we're all connected

Water Services Division
Operations Department

Fire Flow Test Report

DATE:	10/20/2022	
WORK ORDER #:	3913729	
REQUESTER NAME:	Elena Hepworth LGA Studios (Requester #1)	(Requester #2)
FAX #/Email:	elenah@LGAStudios.com	
PHONE #:	719-635-0880 ext 104	
LOCATION:	400 Dahlia St	

FLOWING HYDRANT #:	1297-C
NOZZLE SIZE:	2.5
WATER MAIN SIZE:	
FLOW HYDRANT STATIC PSI:	130
PITOT (PSI):	60
FLOW (GPM):	1300

RESIDUAL HYDRANT #:	**768-C**
RESIDUAL HYD STATIC PSI:	132
WATER MAIN SIZE:	
RESIDUAL PRESSURE (PSI):	62

FIRE DEPT REVIEW PLAN #:	
FIRE INSPECTOR:	
CSFD REQUIRED FLOW (GPM):	
CALCULATED FLOW @ 20 PSI RESIDUAL (GPM):	**1675** ***Contact Fire Inspector to obtain Official Final Fire Flow Calculations.***

COMMENTS:

Please call with questions or comments.
Thank You
Sean Higbee, Water Distribution Supervisor

Distribution: Fire Prevention (CSFD 385-7334)

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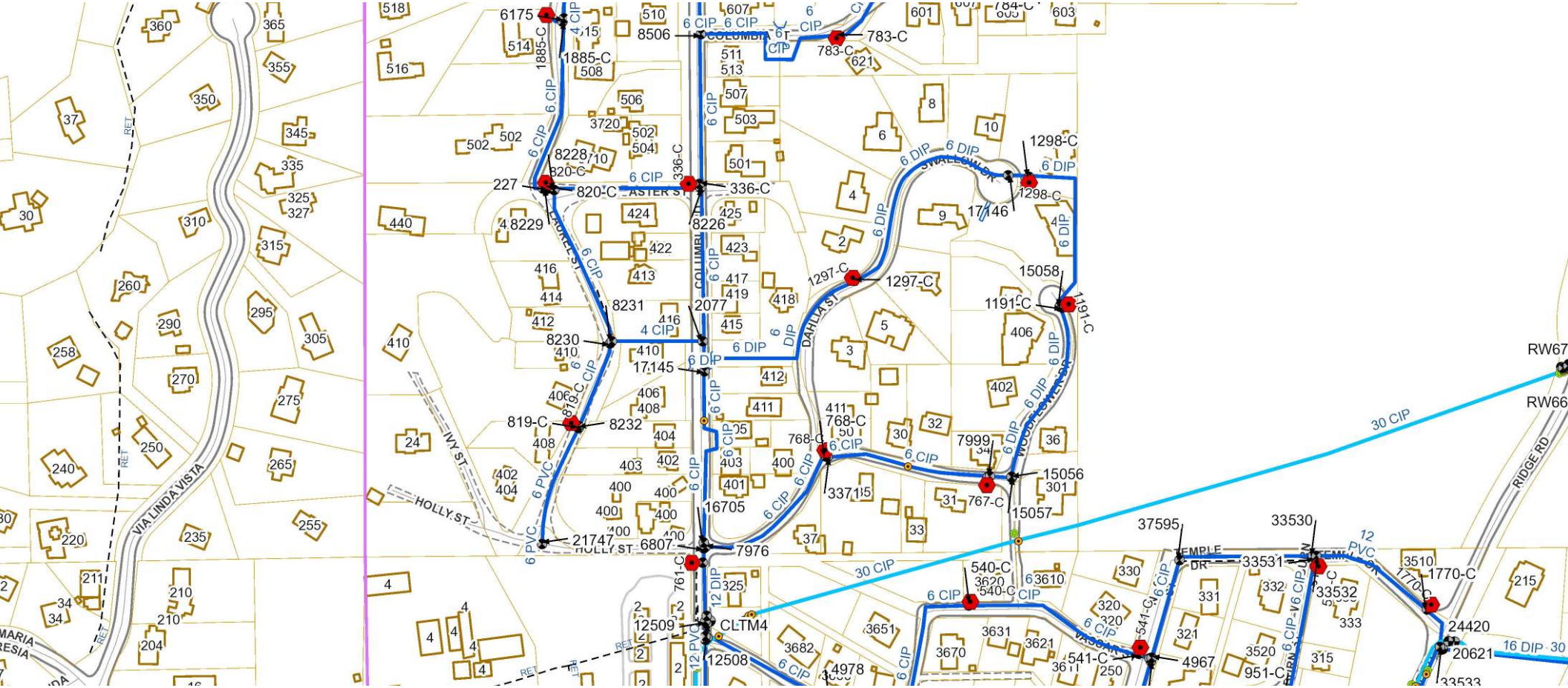
6175
8506
783-C
1885-C
8228
820-C
227
336-C
8229
8226
1298-C
17146
1297-C
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1191-C
8231
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819-C
8232
768-C
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337115
767-C
16705
21747
6807
7976
761-C
12509
CLTM4
12508
540-C
541-C
4967
951-C
37595
33530
33531
33532
1770-C
24420
20621
RW67
RW66
30 CIP
12 PVC
16 DIP
6 CIP
6 DIP
6 PVC
4 CIP
COLUMBIA
ASTER ST
DAHLIA ST
IVY ST
HOLLY ST
VIA LINDA VISTA
TEMPLE DR
RIDGE RD

COLORADO SPRINGS FIRE PREVENTION
PLAN REVIEW REPORT

May 22, 202

Tax Id: 7403204014 **DSN:**

Project Description: PURVIS RESIDENCE - 400 DAHLIA ST - NEW WUI HOME HARDENED STRUCTURE REQUIRED

SYSTEMS: monitored fire alarm in lieu of fire flow - reference variance tab

CN:Code: IRC - 15 IFC - 15 PPRBC 17 /Class: R3 / Const: 5B /Stories: 2 /Size: 4938 /OL: 1

FH:Required Flow: 2000gpm /# Hydrants 2 /On site flow: 1688 PER ACTUAL 8/24/22 see PR comment for update 10.20.22

DV: NONE

Additional Comments:

Business Name: PURVIS RESIDENCE **Address:** 00400 DAHLIA ST #400,

Plan Id: 20221410-HS-1 **Plan Description:** NEW RES DEV/HILSID

Plan Status: Approved **Contractor:** LGA STUDIOS

Review Status: DISAPPROVED **Plan Reviewer:** Trimble, James Charles **Review Date:** 9/16/2022

Status	Comment
FYI	*****(STANDARD COMMENT) This project is: PURVIS RESIDENCE - 400 DAHLIA ST - NEW WUIO HOME HARDENED STRUCTURE REQUIRED This plan review is based on the requirements found within the adopted Editions of the International Building Code, International Fire Code and the related Standards.
Disapproved	(DISAPPROVED) INSUFFICIENT WATER/HYDRANTS The available fire flows and/or number of hydrants at this location, do not meet the fire code requirements. You have several options: 1) Reduce the Square Footage 2) Install a fire sprinkler system. (You can get a 50% reduction in required fire flows if you install an approved fire sprinkler system.) 3) Change the construction type
FYI	(STANDARD COMMENT) THE DISAPPROVED ITEMS MAY NOT CONSITITUE A COMPLETE LIST OF VIOLATIONS. It is the responsibility of the design professional to conduct a complete re-review of the plans for additional violations of the adopted codes/standards and incorrect information prior to resubmitting.
FYI	(STANDARD COMMENT) CORRECTIONS All corrections and comments are to be submitted back to RBD. Corrections are not accepted over the phone, via fax, email or verbally.
FYI	(STANDARD COMMENT) PERMITS Insure all applicable permits are obtained from the Regional Building Department and the Colorado Springs Fire Department for the work that is being done at this site.
FYI	(STANDARD COMMENT) REVIEWS: 2015 IFC 105.4.4

Colorado Springs Fire Department plan reviews are based upon information provided on the drawings and/or the attached reference material. Issues or features that are not presented within the construction documents are assumed to be complaint with applicable codes/standards. It is the responsibility of the building owner to ensure that minimum code requirements are met as established by the Authority Having Jurisdiction, whether or not the requirements are specifically indicated on the submitted construction documents.

The CSFD has reviewed the submittal in accordance with the adopted fire code requirements, CSFD local amendments, City Code Standards, and applicable NFPA Standards. All plan review comments are subject to final on-site field inspections, and testing by the CSFD. Review and approval by the CSFD shall not relieve the applicant of the responsibility of compliance with the International Fire Code.

FYI (STANDARD COMMENT) JCT REVIEWER CONTACT:

If you have any specific questions or concerns about these comments, please feel free to contact me at:

JAMES TRIMBLE
Senior Fire Inspector, CSFD
2880 International Circle, Suite 200-7
Colorado Springs, CO 80910
(T) 719-385-2232
JAMES.TRIMBLE@coloradosprings.gov

COLORADO SPRINGS FIRE PREVENTION
PLAN REVIEW REPORT

May 22, 202

Tax Id: 7403204014 **DSN:**

Project Description: PURVIS RESIDENCE - 400 DAHLIA ST - NEW WUI HOME HARDENED STRUCTURE REQUIRED

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FH:Required Flow: 2000gpm /# Hydrants 2 /On site flow: 1688 PER ACTUAL 8/24/22 see PR comment for update 10.20.22

DV: NONE

Additional Comments:

Business Name: PURVIS RESIDENCE **Address:** 00400 DAHLIA ST #400,

Plan Id: 20221410-HS-1 **Plan Description:** NEW RES DEV/HILSID

Plan Status: Approved **Contractor:** LGA STUDIOS

Review Status: MEETING **Plan Reviewer:** Valdez, Philip Warren **Review Date:** 9/21/2022

Status	Comment
Meeting	Walkthru 9.21.22
	Met with Larry Gilland of LPA Architects to discuss options for getting this home approved thru Construction Services.
	Discuss why the gross sf and what he had shown on plans, was different. Read thru guidance doc which explains this per IFC B104.1 & B104.2.
	Discuss options for reducing fire flow requirments - Guidance doc at counter with him and Ref'd B105.1 and B105.2
	Discussed that the report he had in hand was NOT a simultaneous flow - he is going to request this and see what options the home owner wants to go with.

COLORADO SPRINGS FIRE PREVENTION
PLAN REVIEW REPORT

May 22, 202

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DV: NONE

Additional Comments:

Business Name: PURVIS RESIDENCE **Address:** 00400 DAHLIA ST #400,

Plan Id: 20221410-HS-1 **Plan Description:** NEW RES DEV/HILSID

Plan Status: Approved **Contractor:** LGA STUDIOS

Review Status: E-MAIL **Plan Reviewer:** Valdez, Philip Warren **Review Date:** 10/20/2022

Status	Comment
E-Mail	PV recevide an email with new flow report (while out of office on sick leave) and has since logged this report into Sdrive folder which shows an updated Actual Simultaneous flow report for hydrant C-767C as 1563 gpm. Discussed this project with Dee. Reviewed previous emails with this contractor to get up to speed. Dee/Larry recent email conversation on this project....see below. From: Larry Gilland <larryg@LGAStudios.com> Sent: Wednesday, October 19, 2022 4:55 PM To: Withee, Dee E. <Dee.Withee@coloradosprings.gov>; Trevor Hamilton <thamilton@csu.org>; Cameron Watson <cjwatson@csu.org>; Scott Hente <scotthente75@gmail.com>; Valdez, Phil W <Phil.Valdez@coloradosprings.gov> Cc: Randall Purvis <rwbpurvis@gmail.com>; Robin Purvis <robinpurvis@gmail.com>; Dawn Streb <dawns@LGAStudios.com> Subject: RE: 400 Dahlia St. Fire Flow Report Thank you Dee - We have requested from CSU the information - and seem to be at a standstill with CSU. (maybe the wrong form or wrong person# but Dawn is pretty thorough and I can trace down the paperwork if needed) I have also discussed some other options with the GC and owner. But we did not want to go down that path, unless we have to. From: Withee, Dee E. <Dee.Withee@coloradosprings.gov> Sent: Wednesday, October 19, 2022 4:27 PM To: Larry Gilland <larryg@LGAStudios.com>; Trevor Hamilton <thamilton@csu.org>; Cameron Watson <cjwatson@csu.org>; Scott Hente <scotthente75@gmail.com>; Valdez, Phil W <Phil.Valdez@coloradosprings.gov> Cc: Randall Purvis <rwbpurvis@gmail.com>; Robin Purvis <robinpurvis@gmail.com>; Dawn Streb <dawns@LGAStudios.com> Subject: RE: 400 Dahlia St. Fire Flow Report Hi Larry, Upon receipt of your email, I did some digging and found the size of this home requires minimum of 2000 gpm. So far, the records I can find show at most an available flow of 1400 gpm, as reported on the actual flow test conducted on 8/24/22.

So it appears we are still short on needed fire flow based on what has been proposed for the building.
Trevor, If we can get current information for hydrants 1297-C and 767-C, they may contribute to a potential solution. I know this area, and pressure zone, is troublesome with the flows for these bigger homes.
Let me know what you think.
Regards
Dee Withee, PE

From: Larry Gilland <larryg@LGAStudios.com>
Sent: Wednesday, October 19, 2022 4:06 PM
To: Trevor Hamilton <thamilton@csu.org>; Cameron Watson <cjwatson@csu.org>; Scott Hente <scotthente75@gmail.com>; Valdez, Phil W <Phil.Valdez@coloradosprings.gov>
Cc: Randall Purvis <rwbpurvis@gmail.com>; Robin Purvis <robinpurvis@gmail.com>; Dawn Streb <dawns@LGAStudios.com>
Subject: RE: 400 Dahlia St. Fire Flow Report

Trevor
Dawn, from my office (who is on vacation this week) did request actual flows - the Fire Dept continues to reject the plan for approval because they can not seem to agree on the fire flow rate.
We have a number of pieces of data with all various fire flows - but nothing is working for the fire department - which is why Dawn requested an actual test because Phil Valdez from fire requested it.
We know it is an older neighborhood but there are a number of hydrants here and houses much larger than what the client wants to build and we keep getting a run around between Fire and CSU.
This morning the email to Phil Valdez was kicked back as he was on vacation so its another time delay.
The client is a former City council person and an attorney and the Contractor (actually his partner is the GC) is also a former City Council person and Chairman of the Planning commission currently.
This is the last item to be signed off for approval and it is taking weeks - if not months.
Is there anything we need to do on our part to help this client out?

COLORADO SPRINGS FIRE PREVENTION
PLAN REVIEW REPORT

May 22, 202

Tax Id: 7403204014 **DSN:**

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DV: NONE

Additional Comments:

Business Name: PURVIS RESIDENCE **Address:** 00400 DAHLIA ST #400,

Plan Id: 20221410-HS-1 **Plan Description:** NEW RES DEV/HILSID

Plan Status: Approved **Contractor:** LGA STUDIOS

Review Status: E-MAIL **Plan Reviewer:** Withee, Doreen E **Review Date:** 10/20/2022

Status	Comment
Attention	simultaneous report dated 10/4 and received by me 10/20/22 is inadequate due to a flow below 750 gpm in violation of 2015IFC B105.4.
E-Mail	From: Withee, Dee E. Sent: Thursday, October 20, 2022 7:29 AM To: Larry Gilland <larryg@LGAStudios.com> Subject: RE: 400 Dahlia St. Fire Flow Report Understood - if there is anything I can assist with, let me know and I will do what I can. Regards Dee Withee, PE From: Larry Gilland <larryg@LGAStudios.com> Sent: Wednesday, October 19, 2022 4:55 PM To: Withee, Dee E. <Dee.Withee@coloradosprings.gov>; Trevor Hamilton <thamilton@csu.org>; Cameron Watson <cjwatson@csu.org>; Scott Hente <scotthente75@gmail.com>; Valdez, Phil W <Phil.Valdez@coloradosprings.gov> Cc: Randall Purvis <rwbpurvis@gmail.com>; Robin Purvis <robinpurvis@gmail.com>; Dawn Streb <dawns@LGAStudios.com> Subject: RE: 400 Dahlia St. Fire Flow Report CAUTION! - External Email. Malware is most commonly spread through unknown email attachments and links. DO NOT open attachments or click links from unknown senders or unexpected email! Thank you Dee - We have requested from CSU the information - and seem to be at a standstill with CSU. (maybe the wrong form or wrong person# but Dawn is pretty thorough and I can trace down the paperwork if needed) I have also discussed some other options with the GC and owner #. But we did not want to go down that path, unless we have to.

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Sent: Wednesday, October 19, 2022 4:27 PM
To: Larry Gilland <larryg@LGAStudios.com>; Trevor Hamilton <thamilton@csu.org>; Cameron Watson <cjwatson@csu.org>; Scott Hente <scotthente75@gmail.com>; Valdez, Phil W <Phil.Valdez@coloradosprings.gov>
Cc: Randall Purvis <rwbpurvis@gmail.com>; Robin Purvis <robinpurvis@gmail.com>; Dawn Streb <dawns@LGAStudios.com>
Subject: RE: 400 Dahlia St. Fire Flow Report

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CONTINUED...

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Cc: Randall Purvis <rwbpurvis@gmail.com>; Robin Purvis <robinpurvis@gmail.com>; Dawn Streb <dawns@LGAStudios.com>
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From: Trevor Hamilton <thamilton@csu.org>
Sent: Wednesday, October 19, 2022 2:25 PM
To: Cameron Watson <cjwatson@csu.org>; Scott Hente <scotthente75@gmail.com>
Cc: Randall Purvis <rwbpurvis@gmail.com>; Robin Purvis <robinpurvis@gmail.com>; Larry Gilland <larryg@LGAStudios.com>
Subject: RE: 400 Dahlia St. Fire Flow Report

Good Afternoon All,

I do show a record of a Fire Flow request that was executed 8/24/22. Please see the attached file that Cameron include for that flow report.

As far as the Fire Flow request from September (1297-C) I do not show any record of this but that doesn't mean it didn't happen nor wasn't submitted. I will investigate this further and get back with you. If it was requested for this address it may not have been done because it is not an accurate representation of the flow needed for this structure, so the system may have reverted back to the flow requested on 8/24/22.

There is an actual formula that is calculated based off static pressures as well as the flowing pressure readings. There is a device called a "pitot" tube that provides the flowing pressure when the hydrant is full open. The number that you are reading in the report is the calculated flow in GPM @ 20psi per AWWA and CDPHE standards for minimum pressure in a water system. This calculation comes from a combination of the actual (pitot) flow on one hydrant and the residual pressure taken with a gauge on the same water main at a different hydrant. This is a method put together by the National Fire Protection Association, and what we use for all Fire Flow Tests performed throughout our system.

Please feel free to reach out to me with any questions or if further explanation is needed. My cell is the easiest way to reach me.

Thank you,

Trevor Hamilton | Water Distribution Operations Supervisor (Interim)
Water System Operations

Office: 719.668.4680
Mobile: 719.332.1795
thamilton@csu.org |www.csu.org

COLORADO SPRINGS FIRE PREVENTION
PLAN REVIEW REPORT

May 22, 202

Tax Id: 7403204014 **DSN:**

Project Description: PURVIS RESIDENCE - 400 DAHLIA ST - NEW WUI HOME HARDENED STRUCTURE REQUIRED

SYSTEMS: monitored fire alarm in lieu of fire flow - reference variance tab

CN:Code: IRC - 15 IFC - 15 PPRBC 17 /Class: R3 / Const: 5B /Stories: 2 /Size: 4938 /OL: 1

FH:Required Flow: 2000gpm /# Hydrants 2 /On site flow: 1688 PER ACTUAL 8/24/22 see PR comment for update 10.20.22

DV: NONE

Additional Comments:

Business Name: PURVIS RESIDENCE **Address:** 00400 DAHLIA ST #400,

Plan Id: 20221410-HS-1 **Plan Description:** NEW RES DEV/HILSID

Plan Status: Approved **Contractor:** LGA STUDIOS

Review Status: MEETING **Plan Reviewer:** Withee, Doreen E **Review Date:** 11/14/2022

Status	Comment
Meeting	Meeting re lacking fire flow and how to get to approval LGA Studios: Dawn Streb and Larry Gilland (Larry was remote) Signature Homes - Scott Hente Homeowner - Randy and Robin Purvis (Robin was remote) CSFD: Dee Withee, DFM Valdez Due to lack of adequate fire flow, 1688 actual flow test where 2000 gpm is needed, fire sprinklers were recommended, but are not desireable to homeowners for: They go off Cause damage Concern with redesign of trusses I provided the failure rate of fire spinklers which is 1:16 million - they can fail but it is extremely rare. They cause less damage than a fire hose Generally residential systems do not require redesign due to materials used However, due to email string shared by Dawn, a home near this one ran into the same issue. Upon researching that address, another home was referenced - both were allowed monitoring fire alarm in lieu of fire flow. A monitored fire alarm allows for early notification of emergency forces. Larry Gilland was in agreement and thought this was a very reasonable and agreeable solution. We discussed what goes into them, has to be a listed system, with panel, monitoring, detection and notification installed by licensed contractors. Plans would be reviewed and approved by CSFD and a permit issued for the fire alarm system. Home plans need only have a note added that a monitored fire alarm would be installed for us to approve house plans for permit. All parties were agreeable.

COLORADO SPRINGS FIRE PREVENTION
PLAN REVIEW REPORT

May 22, 202

Tax Id: 7403204014 **DSN:**

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Additional Comments:

Business Name: PURVIS RESIDENCE **Address:** 00400 DAHLIA ST #400,

Plan Id: 20221410-HS-1 **Plan Description:** NEW RES DEV/HILSID

Plan Status: Approved **Contractor:** LGA STUDIOS

Review Status: APPROVED **Plan Reviewer:** Withee, Doreen E **Review Date:** 11/22/2022

Status	Comment
FYI	*****(STANDARD COMMENT) This project is: PURVIS RESIDENCE - 400 DAHLIA ST - NEW WUI HOME This plan review is based on the requirements found within the adopted Editions of the International Building Code, International Fire Code and the related Standards.
FYI	*****(STANDARD COMMENT) RED-LINED COMMENTS The following RED-LINED items are to be corrected prior to final inspection: 1. Existing vegetation shown on site plan - need fuels management assessment on what may stay and must be removed as there are unidentified species of trees within safety zone.
Attention	(STANDARD COMMENT) SCHEDULING INSPECTIONS Homes within the Wildland Urban Interface require the following THREE inspections: 1. PRIOR TO FRAMING: Before you dig out and pour the foundation, you must schedule a fuels management inspection with the Wildfire Mitigation Section. you will need to have the home laid out in the intended location for an appropriate inspection to be conducted. Please call 719-385-7342 to schedule this inspection 2. AT FRAMING: you will need to schedule an inspection to check any attic/roof/eave vent protection. Schedule this inspection with Construction services at the number indicted below. 3. FINAL: schedule your final inspection with Construction SErvices at the number indicated below. Please call 719-385-5982 Extension 2 to schedule construction related inspection activities. Due to the dynamic nature of inspectors schedules, PLEASE call your inspection requests in with ample time to allow scheduling. When calling, please have your complete CSFD plan review number(s) ready for each inspection request. (i.e. 2013-1234 - HS-1)

The CSFD Approved sets of plans are to be available for all inspections.

FYI — 2015 IFC 3310 ACCESS FOR FIREFIGHTING

Approved vehicle access for firefighing shall be provided to all construction/demolition sites. Vehicle access shall be either temporary or permanent roads, capable of supporting vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available.

FYI — (STANDARD COMMENT) INCREASED WILDFIRE RISK.

Residing in or near the wildland-urban interface areas involves increased fire risks that may not apply in urban or more urbanized types of developed communities.

FYI — *****(STANDARD COMMENT) ACCEPTED CONSTRUCTION MATERIALS/METHODS

Roofing materials is listed as being ---ASPHALT-- meeting the Class A requirements of Regional Building Code 303.4.61.1

Decking material is listed as being --COMPOSITE--- meeting the requirements for ignition resistant construction. UNDERSIDE OF DECK IS LEFT OPEN TO STRUCTURE AS PERMITTED.

Exterior cladding, is listed as being --FIBER CEMENT--- meeting the requirements for ignition resistant construction.

Soffit/Eaves is listed as being ---FIBER CEMENT-- meeting the requirements for ignition resistant construction.

Exterior overhangs (canti-lever areas, covered porch/deck ceilings) are listed as being ---COMPOSITE T&G PER REVIEW FORM-- meeting the requirements for ignition resistant construction.

Existing vegetation shown on site plan - need fuels management assessment on what may stay and must be removed. Landscape plan not included.

(See also the Amended 2015 International Fire Code Appendix K Section K104 for hardened structure requirements.)

FYI — (STANDARD COMMENT) HILLSIDE ORDINANCE

This lot/development is subject to the requirements of section of 20-4-10 5 CE (2) (Ordinances 93-48 and 93-49) of the City Code establishing minimum safety criteria for residential construction in the City's Hillside Areas. Ensure all landscaping complies with the wildfire interface specifications as required by the fire department and zoning/planning departments.

FYI — (STANDARD COMMENT) SOC RESPONSE TIMES

Fire service response times to this area do not fall within the CSFD interim Standard of Response Coverage. The CSFD is unable to provide the following level of service:
- 90% of all emergencies reached within 8 minutes (first due company)
- 90% of structure fires requiring a full effective fire-fighting complement (2 engine companies, 1 ladder/truck company) within 12 minutes.

Attention — 2015 IFC K102 FUELS MANAGEMENT

SAFETY ZONE:
Brush patches or clusters may be left in the safety zone, but shall be separated by clear areas of 10-feet or more of noncombustible materials or grass mowed to not more than 4-inches in height.

CLEARANCE TO MAIN STRUCTURE:
No hazardous brush, trees or shrubs shall be allowed within 15-feet of the main structure or significant accessory structure such as sheds, decks and pergolas. The trunks of deciduous trees may be allowed to be planted as close as 10-feet from structures where approved by the Fire Code Official.

Small brush patches not exceeding 100-square feet in size or trees no larger than 15 linear feet in any direction may be allowed to encroach into this zone.

PRUNING OF LIMBS:
Large trees shall not be allowed to have limbs overlap smaller trees or brush, and shall be pruned of dead limbs to a height up to 10-feet while maintaining a minimum 70% of the tree's crown. Certain tree clusters may be permitted if sufficient clear area is provided and approved by the Fire Code Official.

CLEARANCE OF TREE BRANCHES TO STRUCTURES OR APPURTENANCES:
Character tree branches shall not extend over or under the roof or eaves, and the canopy or drip-line shall not be within 15-feet of a deck or similar combustible projection, wood burning appliance or chimney unless approved by the Fire Code Official.

For additional information concerning this issue - contact our Wildfire Mitigation Administrator at 385-7368 or https://coloradosprings.gov/fire-department/page/wildfire-mitigation-0?mlid=9906

FYI (STANDARD COMMENT) CLASS A ROOFING

A Class A roof covering (excluding solid wood roofing products) shall be installed on all Residential Occupancies and a minimum Class B roof covering shall be installed on all remaining occupancies (Not to replace Class A where already required by Table 15-A) at the time an application is made for a roofing or re-roofing building permit within the limits of the City of Colorado Springs, Colorado.

Attention 2015 IFC K104 IGNITION-RESISTANT CONSTRUCTION REQUIREMENTS

1. Exterior cladding, eaves and soffits shall be constructed of ignition resistant materials, including but not limited to: fiber-cement board, stucco, masonry/brick, manufactured stone and similar materials. Natural wood/cedar siding, hardboard, vinyl and similar combustibles are not permitted. Natural wood or plastic products used for fascia, trim board materials and trim accents are allowed when painted or as approved.
2. For any portion of the attached structure with projections or overhangs, the area below shall have all horizontal under-floor areas enclosed with ignition resistive materials such as allowed in item 1 above.
3. Exterior doors shall be noncombustible or solid core not less than 1 3/4-inches thick. Windows within doors and glazed doors shall be tempered safety glass or multi-layered glazed panels.
4. Exterior windows shall be a minimum double pane. Tempered panes are preferable but not required.
5. All attic vents shall be screen with wire mesh or hardware cloth having openings no larger than 1/8-inch. Soffit vents are permitted, gable vents may be allowed as approved by the Fire Code Official.
6. Gutters and downspouts of non-combustible construction shall be installed such that the leading edge of the roof is finished with a metal drip edge so that no wood sheathing is exposed. Drip edge shall extend into the gutter. Vinyl gutters may be allowed but must have a noncombustible landing area below the roof line, a minimum of 5-feet from the side of the structure/foundation. Gutter caps are strongly recommended to prevent accumulation of combustible debris in the gutters.
7. Decks and other habitable spaces shall be of ignition resistant or non-combustible decking materials, such as metal or composite materials. Wood is permitted for use for large structural components and railings (ie vertical members).
8. The base of exterior walls, posts or columns shall be protected on the bottom side with provision such as fire resistant foam or wire mesh having openings no larger than 1/8-inch.
9. Chimneys serving fireplaces, and other solid or liquid fueled heating appliances shall have an approved spark arrestor or cap.

Attention (STANDARD COMMENT) CONSTRUCTION PERMIT REVIEW REQUIREMENTS:

Plans for any structure lying within the WUI Overlay area must be approved by the Colorado Springs Fire Department Construction Services prior to issuance of a building permit.

Final approval by CSFD on all permits issued by RBD is required prior to issuance of the Certificate of Occupancy.

FYI *****(STANDARD COMMENT) FIRE FLOW/HYDRANT REQUIREMENTS:

On this site fire flows are --1688-- gpm, and the numbers of hydrant(s) are --one-- based on a ACTUAL Report.

MONITORED FIRE ALARM SYSTEM REQUIRED IN LIEU OF FIRE FLOW

Attention (STANDARD COMMENT) MONITORED FIRE ALARM REQUIRED

A monitored fire alarm system is required in this home. However, a residential fire sprinkler system is an acceptable alternative or can be installed in addition to the fire alarm requirement.

FYI (STANDARD COMMENT) PERMITS

Insure all applicable permits are obtained from the Regional Building Department and the Colorado Springs Fire Department for the work that is being done at this site.

FYI	(STANDARD COMMENT) REVIEWS: 2015 IFC 105.4.4 Colorado Springs Fire Department plan reviews are based upon information provided on the drawings and/or the attached reference material. Issues or features that are not presented within the construction documents are assumed to be complaint with applicable codes/standards. It is the responsibility of the building owner to ensure that minimum code requirements are met as established by the Authority Having Jurisdiction, whether or not the requirements are specifically indicated on the submitted construction documents. The CSFD has reviewed the submittal in accordance with the adopted fire code requirements, CSFD local amendments, City Code Standards, and applicable NFPA Standards. All plan review comments are subject to final on-site field inspections, and testing by the CSFD. Review and approval by the CSFD shall not relieve the applicant of the responsibility of compliance with the International Fire Code.
FYI	(STANDARD COMMENT) DEW REVIEWER CONTACT: If you have any specific questions or concerns about these comments, please feel free to contact me at: Doreen "Dee" Withee, PE Fire Protection Engineer II, CSFD 2880 International Circle, Suite 200-7 Colorado Springs, CO 80910 (T) 719-385-7361 dee.withee@coloradosprings.gov

COLORADO SPRINGS FIRE PREVENTION
PLAN REVIEW REPORT

May 22, 202

Tax Id: 7403204014 **DSN:**

Project Description: PURVIS RESIDENCE - 400 DAHLIA ST - NEW WUI HOME HARDENED STRUCTURE REQUIRED

SYSTEMS: monitored fire alarm in lieu of fire flow - reference variance tab

CN:Code: IRC - 15 IFC - 15 PPRBC 17 /Class: R3 / Const: 5B /Stories: 2 /Size: 4938 /OL: 1

FH:Required Flow: 2000gpm /# Hydrants 2 /On site flow: 1688 PER ACTUAL 8/24/22 see PR comment for update 10.20.22

DV: NONE

Additional Comments:

Business Name: PURVIS RESIDENCE **Address:** 00400 DAHLIA ST #400,

Plan Id: 20221410-HS-1 **Plan Description:** NEW RES DEV/HILSID

Plan Status: Approved **Contractor:** LGA STUDIOS

Review Status: ATTENTION **Plan Reviewer:** Taylor II, Wyman L **Review Date:** 2/7/2023

Status	Comment
E-Mail	From: Whitworth, Ashley <Ashley.Whitworth@coloradosprings.gov> Sent: Tuesday, February 7, 2023 4:19 PM To: scotthente75@gmail.com Cc: Horton, Bailey E <Bailey.Horton@coloradosprings.gov>; Gregory, Andi <Andi.Gregory@coloradosprings.gov>; Taylor, Wyman L. <Wyman.Taylor@coloradosprings.gov> Subject: 400 Dahlia Street Importance: High Scott, It was a pleasure meeting with you today at 400 Dahlia Street. Per our onsite visit all vegetation on the property will be removed besides the juniper that is by the powerline because it is farther than 15 feet away from the structure. Please pass along to the homeowners that they do have to abide by the vegetation management requirements when they are landscaping their property (no conifers/junipers/evergreens within 15 feet of the structure). This information can be found in our Ignition Resistant Design Manual: https://www.coswildfireready.org/uploads/b/2721af80-1003-11ec-bf67-0310173bc1c8/2021%20WUI%20Wildfire%20Mitigation%20Design%20Manual_NzE4MD.pdf. Please let me know if you have any further questions or if there is anything additional I can assist with. Thank you, Ashley Whitworth Wildfire Mitigation Program Administrator Colorado Springs Fire Department 375 Printers Parkway Colorado Springs, CO 80910 Office: 719.385.7342

Fax: 719.385.7334
Ashley.Whitworth@coloradosprings.gov
"Sharing the Responsibility!"

Colorado Springs Utilities
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Water Planning and Design

2 Pages with Map

Fire Flow Calculations

Date Request Received:	8/12/2022			Date of Calculation:	8/16/2022
Project Name:	Purvis Residence				
Project Location:	400 Dahlia Street				
Project No:	NA	RMS No:	NA	UDCF No:	NA
Project Contact:	Elena Hepworth		Company:	LGA Studios	
Phone:	719-635-0880		Email:	ElenaH@LGAStudios.com	
Pressure Zone:	Columbia		Overflow Elevation:	6540	
Requested Fire Flow (gpm):	NA		Map Sheet:	C-31	

Hydrant	Elevation	Theoretical Flow @ 20 psi (gpm)	Static Pressure @ Max Day Demand (psi)	Max Static Pressure @ Bury Depth (psi)*
761-C	6207	800	144	148
768-C	6237	800	131	135

Bury depth is assumed to be 9 feet below the hydrant flange elevation

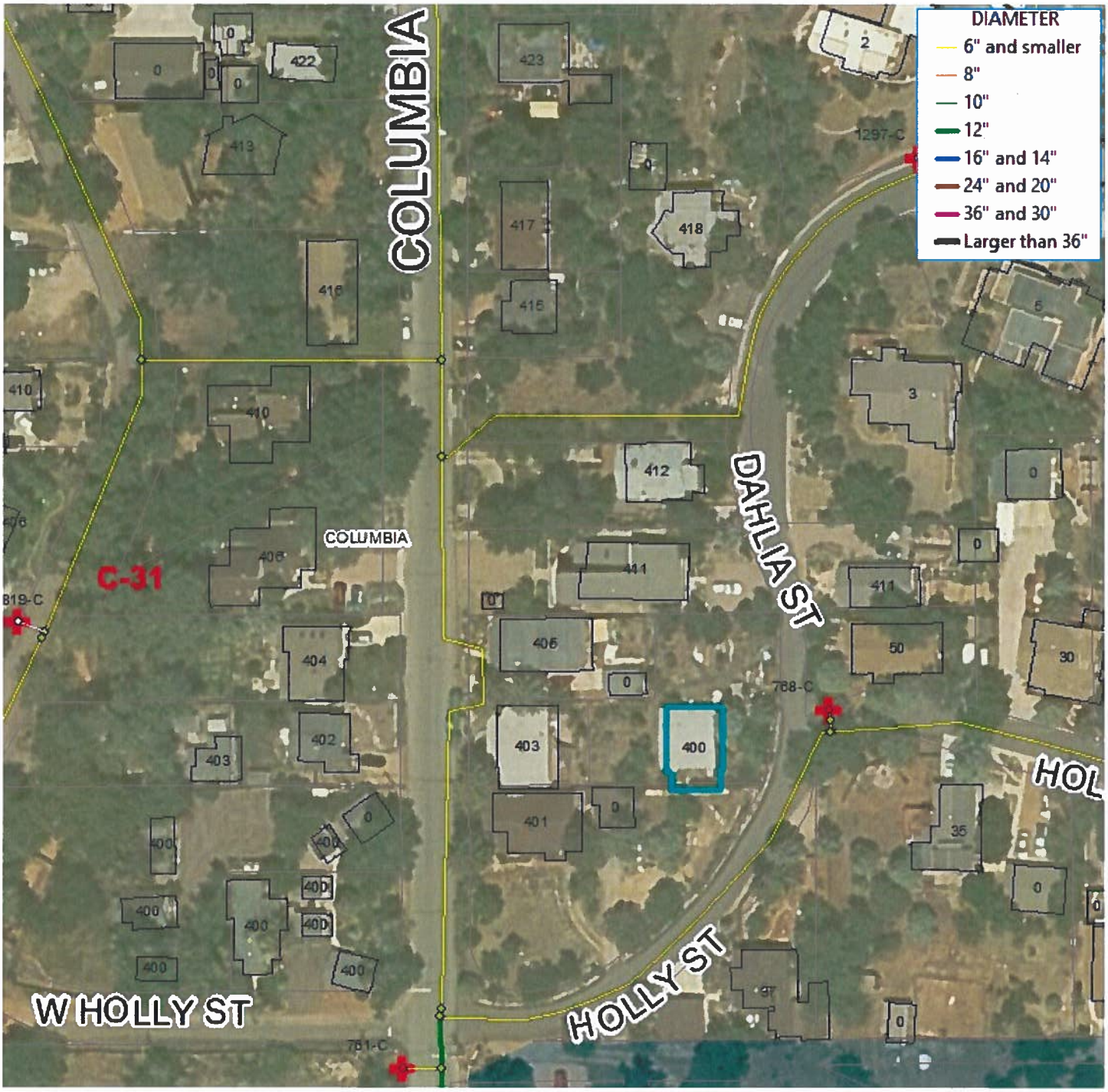
Per Colorado Springs Fire Department, the calculations provided are acceptable up to 1 year from above date.

Comments:
Flows were less than the minimum allowable flow of 1500 gpm. Colorado Springs Fire Department will determine further actions upon review.

***** Colorado Springs Rules and Regulations require that second and subsequent fire flow requests for the same address within a 12-month period are supplied with a minimum $50.00 fee for existing infrastructure and $200.00 fee for multiple runs for proposed infrastructure.***

Colorado Springs Utilities
Water Planning
waterplanning@csu.org

Distribution: Jerry Edwards - Water Planning and Design, Doreen Withee - Fire Prevention



Colorado Springs Utilities
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Water Services Division
Operations Department

Fire Flow Test Report

DATE:	8/24/2022
WORK ORDER #:	3913729
REQUESTER NAME:	Elena Hepworth LGA Studios
FAX #/Email:	elenah@LGAStudios.com
PHONE #:	719-635-0880 ext 104
LOCATION:	400 Dahlia St

FLOWING HYDRANT #:	768-C
NOZZLE SIZE:	2.5"
WATER MAIN SIZE:	
FLOW HYDRANT STATIC PSI:	125
PITOT (PSI):	45
FLOW (GPM):	1126

RESIDUAL HYDRANT #:	761-C
RESIDUAL HYD STATIC PSI:	138
WATER MAIN SIZE:	
RESIDUAL PRESSURE (PSI):	58

FIRE DEPT REVIEW PLAN #:	
FIRE INSPECTOR:	
CSFD REQUIRED FLOW (GPM):	
CALCULATED FLOW @ 20 PSI RESIDUAL (GPM):	1388 Contact Fire Inspector to obtain Official Final Fire Flow Calculations.

COMMENTS:

Oct 4/22 1563gpm

Another of 1660gpm

Please call with questions or comments.
Thank You
Sean Higbee, Water Distribution Supervisor
Distribution: Fire Prevention (CSFD 385-7334)

404 W. FONTANERO ST. BUILDING 457
P.O. BOX 1103, MAIL CODE 1210
COLORADO SPRINGS, CO 80947-1210
PHONE 719-668-4595, FAX 719-668-2890, shigbee@csu.org, http://www.csu.org

Colorado Springs Utilities
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Water Services Division
Operations Department

SIMULTANEOUS FIRE FLOW TEST REPORT

FLOW TEST DATE:	10/4/2022	**WORK ORDER #:**	3925202
REQUESTER NAME:	Scott Hente (Robert Scott Construction)		
FAX NUMBER/EMAIL:	scotthente75@gmail.com	**PHONE NUMBER:**	719-499-6752
LOCATION:	400 Dahlia Street, 80904		

FLOW HYDRANTS

FLOW HYDRANT #1:	761-C	**STATIC PSI:**	134	**FLOW AT RESIDUAL PSI:**	978
MAIN SIZE:	6"	**PITOT PSI:**	34	**CALCULATED FLOW @ 20 PSI:**	905
FLOW HYDRANT #2:	768-C	**STATIC PSI:**	125	**FLOW AT RESIDUAL PSI:**	712
MAIN SIZE:	6"	**PITOT PSI**	18	**CALCULATED FLOW @ 20 PSI:**	658
FLOW HYDRANT #3:		**STATIC PSI:**		**FLOW AT RESIDUAL PSI:**	0
MAIN SIZE:		**PITOT PSI:**		**CALCULATED FLOW @ 20 PSI:**	0
FLOW HYDRANT #4:		**STATIC PSI:**		**FLOW AT RESIDUAL PSI:**	0
MAIN SIZE:		**PITOT PSI:**		**CALCULATED FLOW @ 20 PSI:**	0

*Hydrants listed above were flowed at the same time.

RESIDUAL HYDRANT

RESIDUAL HYDRANT #:	767-C	**STATIC PSI:**	110	**MAIN SIZE:**	6"
		RESIDUAL PSI:	6		

CALCULATED FIRE FLOW @ 20 PSI RESIDUAL:	1563

COMMENTS:

Please call with questions or comments.
Thank You

Sean Higbe, Water Distribution Operations Supervisor

404 W. Fontanero St. Building 456
P.O. Box 1103, Mail Code 1210
Colorado Springs, CO. 80947-1210
Phone: 719-668-4595 | shigbee@csu.orgt | http://www.csu.org

APPENDIX B
FIRE-FLOW REQUIREMENTS FOR BUILDINGS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

SECTION B101
GENERAL

B101.1 Scope.
The procedure for determining fire-flow requirements for buildings or portions of buildings hereafter constructed shall be in accordance with this appendix. This appendix does not apply to structures other than buildings.

SECTION B102
DEFINITIONS

B102.1 Definitions.
For the purpose of this appendix, certain terms are defined as follows:

FIRE-FLOW. The flow rate of a water supply, measured at 20 pounds per square inch (psi) (138 kPa) residual pressure, that is available for fire fighting.

FIRE-FLOW CALCULATION AREA. The floor area, in square feet (m^2), used to determine the required fire flow.

SECTION B103
MODIFICATIONS

B103.1 Decreases.
The fire chief is authorized to reduce the fire-flow requirements for isolated buildings or a group of buildings in rural areas or small communities where the development of full fire-flow requirements is impractical.

B103.2 Increases.
The fire chief is authorized to increase the fire-flow requirements where conditions indicate an unusual susceptibility to group fires or conflagrations. An increase shall not be more than twice that required for the building under consideration.

B103.3 Areas without water supply systems.
For information regarding water supplies for fire-fighting purposes in rural and suburban areas in which adequate and reliable water supply systems do not exist, the *fire code official* is authorized to utilize NFPA 1142 or the *International Wildland-Urban Interface Code.*

SECTION B104
FIRE-FLOW CALCULATION AREA

B104.1 General.
The fire-flow calculation area shall be the total floor area of all floor levels within the *exterior walls*, and under the horizontal projections of the roof of a building, except as modified in Section B104.3.

B104.2 Area separation.
Portions of buildings which are separated by *fire walls* without openings, constructed in accordance with the *International Building Code,* are allowed to be considered as separate fire-flow calculation areas.

B104.3 Type IA and Type IB construction.
The fire-flow calculation area of buildings constructed of Type IA and Type IB construction shall be the area of the three largest successive floors.

> **Exception:** Fire-flow calculation area for open parking garages shall be determined by the area of the largest floor.

SECTION B105
FIRE-FLOW REQUIREMENTS FOR BUILDINGS

B105.1 One- and two-family dwellings, Group R-3 and R-4 buildings and townhouses.
The minimum fire-flow and flow duration requirements for one- and two-family *dwellings*, Group R-3 and R-4 buildings and townhouses shall be as specified in Tables B105.1(1) and B105.1(2).

TABLE B105.1(1)
REQUIRED FIRE-FLOW FOR ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

FIRE-FLOW CALCULATION AREA (square feet)	AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE-FLOW (gallons per minute)	FLOW DURATION (hours)
0-3,600	No automatic sprinkler system	*1,500*	1
3,601 and greater	No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2) at the required fire-flow rate
0-3,600	*Section 903.3.1.3 of the International Fire Code*	*1,500*	½
3,601 and greater	*Section 903.3.1.3 of the International Fire Code*	½ value in Table B105.1(2)	1

For SI: 1 square foot = 0.0929 m^2, 1 gallon per minute = 3.785 L/m.

a. Reduced fire-flow shall not be less than 1,500 gallons per minute.

TABLE B105.1(2)
REFERENCE TABLE FOR TABLES B105.1(1) AND B105.2

FIRE-FLOW CALCULATION AREA (square feet)					FIRE-FLOW (gallons per minute) [b]	FLOW DURATION (hours)
Type IA and IB [a]	Type IIA and IIIA [a]	Type IV and V-A [a]	Type IIB and IIIB [a]	Type V-B [a]		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	3
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	4
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
—	—	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
—	—	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
—	—	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
—	—	145,801-156,700	106,801-113,200	64,801-69,600	7,000	

(continued)

TABLE B105.1(2) -- continued
REFERENCE TABLE FOR TABLES B105.1(1) AND B105.2

FIRE-FLOW CALCULATION AREA (square feet)					FIRE-FLOW (gallons per minute) [b]	FLOW DURATION (hours)
Type IA and IB [a]	Type IIA and IIIA [a]	Type IV and V-A [a]	Type IIB and IIIB [a]	Type V-B [a]		
—	—	156,701-167,900	113,201-121,300	69,601-74,600	7,250	4
—	—	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
—	—	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
—	—	191,401-Greater	138,301-Greater	85,101-Greater	8,000	

For SI: 1 square foot = 0.0929 m^2, 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

a. Types of construction are based on the *International Building Code*.
b. Measured at 20 psi residual pressure.

TABLE B105.2
REQUIRED FIRE-FLOW FOR BUILDINGS OTHER THAN ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE-FLOW (gallons per minute)	FLOW DURATION (hours)
No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2)
Section 903.3.1.1 of the *International Fire Code*	*Down to 50%* of the value in Table B105.1(2) [a]	Duration in Table B105.1(2) at the reduced flow rate
Section 903.3.1.2 of the *International Fire Code*	*Down to 50%* of the value in Table B105.1(2) [b]	Duration in Table B105.1(2) at the reduced flow rate

For SI: 1 gallon per minute = 3.785 L/m.

a. The reduced fire-flow shall be not less than 1,000 gallons per minute.

B105.2 Buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses.
The minimum fire-flow and flow duration for buildings other than one- and two-family *dwellings*, Group R-3 and R-4 buildings and townhouses shall be as specified in Tables B105.2 and B105.1(2).

B105.3 Water supply for buildings equipped with an automatic sprinkler system.
For buildings equipped with an approved *automatic sprinkler system*, the water supply shall be capable of providing the greater of:

1. The *automatic sprinkler system* demand, including hose stream allowance.

2. The required fire-flow.

B105.4. Simultaneous flows.
Any hydrant must produce a minimum flow of 1,500 gallons per minute at 20 psi of residual pressure when flowing individually, or a minimum of 750 gallons per minute at 20 psi of residual pressure when flowing simultaneously to be considered by Table C102.1 or by Table C102.1's footnotes as one of the minimum hydrants required to protect any structure, hazard or potential hazard.

SECTION B106
REFERENCED STANDARDS

ICC	IBC—15	International Building Code	B104.2, Tables
ICC	IFC—15	International Fire Code	B105.1.(1) and B105.2
ICC	IWUIC—15	International Wildland-Urban Interface Code	B103.3
ICC	IRC—15	International Residential Code	Table B105.1.(1)
NFPA	1142—12	Standard on Water Supplies for Suburban and Rural Fire Fighting	B103.3

Code Path for Compliance on Residential Occupancies

Applicable Code: 2015 Colorado Springs Fire Prevention Code (non-applicable sections omitted

101.3 Intent. The purpose of this code is to establish the minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises, and to provide a reasonable level of safety to fire fighters and emergency responders during emergency operations.

102.1 Construction and design provisions. The construction and design provisions of this code shall apply to:
1. Structures, facilities and conditions arising after the adoption of this code.
2. Existing structures, facilities and conditions not legally in existence at the time of adoption of this code.

102.5 Application of residential code. Where structures are designed and constructed in accordance with the *International Residential Code*, the provisions of this code shall apply as follows:
1. Construction and design provisions of this code pertaining to the exterior of the structure shall apply including, but not limited to, premises identification, fire apparatus access and water supplies. Where interior or exterior systems or devices are installed, construction permits required by Section 105.7 of this code shall apply.

507.1 Required water supply. An *approved* water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction.

507.3 Fire flow. Fire flow requirements for buildings or portions of buildings and facilities shall be determined *as outlined in Appendix B of this code.*

B101.1 Scope. The procedure for determining fire-flow requirements for buildings or portions of buildings hereafter constructed shall be in accordance with this appendix. This appendix does not apply to structures other than buildings.

B104.1 General. The fire-flow calculation area shall be the total floor area of all floor levels within the *exterior walls*, and under the horizontal projections of the roof of a building, except as modified in Section B104.3.

B105.1 One- and two-family dwellings, Group R-3 and R-4 buildings and townhouses. The minimum fire-flow and flow duration requirements for one- and two-family *dwellings*, Group R-3 and R-4 buildings and townhouses shall be as specified in Tables B105.1(1) and B105.1(2).

TABLE B105.1(1) REQUIRED FIRE-FLOW FOR ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

FIRE-FLOW CALCULATION AREA (square feet)	AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE-FLOW (gallons per minute)	FLOW DURATION (hours)
0-3,600	No automatic sprinkler system	*1,500*	1
3,601 and greater	No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2) at the required fire-flow rate
0-3,600	*Section 903.3.1.3 of the International Fire Code*	*1,500*	½
3,601 and greater	*Section 903.3.1.3 of the International Fire Code*	½ value in Table B105.1(2)	1

For SI: 1 square foot = 0.0929 m2, 1 gallon per minute = 3.785 L/m.

a. Reduced fire-flow shall not be less than 1,500 gallons per minute.

PURVIS RESIDENCE

APPROVED
11/22/2022 9:04:30 AM
FDDEM
Colorado Springs Fire Department

FIRE ALARM IS IN LIEU OF MEETING REQUIRED FIRE FLOW. CSFD

FIRE DEPARTMENT REQUIREMENTS

THIS RESIDENCE TO HAVE AN INSTALLED MONITORED FIRE ALARM SYSTEM PER CODE REQUIREMENTS

GENERAL NOTES:

1. GENERAL CONTRACTOR, SUB-CONTRACTORS, SUPPLIERS AND OWNER SHALL FAMILIARIZE THEMSELVES AND VERIFY ALL NOTES, SPECIFICATIONS, DIMENSIONS AND DRAWINGS SHOWN ON THESE DOCUMENTS PRIOR TO STARTING CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THOSE PARTIES TO REPORT ANY CHANGES OR DISCREPANCIES TO THE DESIGNER. QUESTIONS REGARDING THESE DOCUMENTS INCLUDING INTERPRETATION, DIMENSIONS, NOTES, SCALE AND OTHER SIMILAR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER IMMEDIATELY IN WRITING. FAILURE TO DO ANY OF THE ABOVE SHALL RELIEVE THE DESIGNER OF ANY ERRORS. DESIGNER SHALL NOT BE RESPONSIBLE FOR ANY CHANGES NOT NOTED IN WRITING TO THESE DRAWINGS AND SPECIFICATIONS.
2. ALL MANUFACTURED PRODUCTS SHALL BE INSTALLED AND USED PER MFG SPECS. AND ICC.-UL REPORTS.
3. DESIGNER SHALL NOT BE RESPONSIBLE FOR PLUMBING, ELECTRICAL OR MECHANICAL SYSTEM DESIGN, SIZING OR LOCATION.
4. UNLESS NOTED OTHERWISE ALL FOUNDATION WALLS ARE 8".
5. UNLESS NOTED OTHERWISE ALL EXTERIOR WOOD STUD FRAMED WALL ARE 5 1/2".
6. UNLESS NOTED OTHERWISE ALL INTERIOR WOOD STUD FRAMED WALLS ARE 3 1/2".
7. UNLESS NOTED OTHERWISE ALL ANGLES ARE 45° OR 90°.
8. UNLESS NOTED OTHERWISE ALL WINDOW AND DOOR HEADER HEIGHTS ARE AT 80" AND 96".
9. UNLESS NOTED OTHERWISE ALL WINDOWS AND DOORS ARE NOTED IN NOMINAL FEET & INCHES. EXAMPLE: 2668 = 2'-6" WIDE X 6'-8" TALL.

COMMON SPECIFIC NOTES:

1 FLOOR LINE ABOVE
2 DECK LINE ABOVE
3 WALL LINE BELOW
4 CEILING BREAK
5 2x6 INTERIOR STUD WALL
6 NOT USED

SITE WORK
7 NOTE: SEE SITE PLAN FOR SPECIFIC DRIVE & WALKWAY INFORMATION
8 NOT USED
9 NOT USED

GLAZING
10 TEMP GLASS DOOR & ENCLOUSRE @ DOOR
11 LOWER GLASS UNITS SHALL BE 9 SQ. FT. OF GLAZING OR LESS
12 WINDOW SILL SHALL BE MIN 10 " ABOVE TUB DRAIN STANDING SURFACE OR WINDOW SILL SHALL BE MIN60" ABOVE TREAD/LANDING SURFACE
13 NOTE: GLAZING ADJACENT AND WITHIN A 24" ARC OF A DOOR IN THE CLOSED POSITION SHALL BE TEMP GLASS
14 NOT USED

FIRE PROTECTION
15 PROVIDE MINIMUM 1/2" GYP BD UNDER STAIRS
16 PROVIDE 5/8" TYPE "X" GYP BD (TO BE ATTACHED AT 16" O.C. PER CODE SEPARATION REQUIREMENTS) AT ENTIRE GARAGE CEILING & WALLS ADJACENT TO LIVING AREA, WRAP BEAMS & ALL COLUMNS, AND UNDERSIDE OF ALL CANTILEVERS
17 EGRESS WINDOWS SHALL HAVE EGRESS HARDWARE AND A MIN CLEAR NET OPENING OF 5.7 SF & A CLEAR NET OPERABLE HEIGHT DIM OF 24" MIN & A CLEAR OPERABLE WIDTH OF 20" MIN & A FINISHED SILL HEIGHT OF NOT MORE THAN 44" AFF.
18 NOT USED

FINISHES
19 ALL FURRED CEILING SHALL BE LIMITED TO MAX 8' WIDE & MIN 6'-8" FINISHED SOFFIT W/ 7'-6" MIN CEILING HEIGHT AS PER LOCAL CODE
20 1/2" GYP BD, TEXTURE, PAINT AND INSULATE THESE WALLS AS SHOWN
21 NOT USED

FIREPLACES
22 DIRECT VENT ZERO CLR GAS FIREPLACE W/ APPROVED ICC
23 NOT USED
24 HEARTH

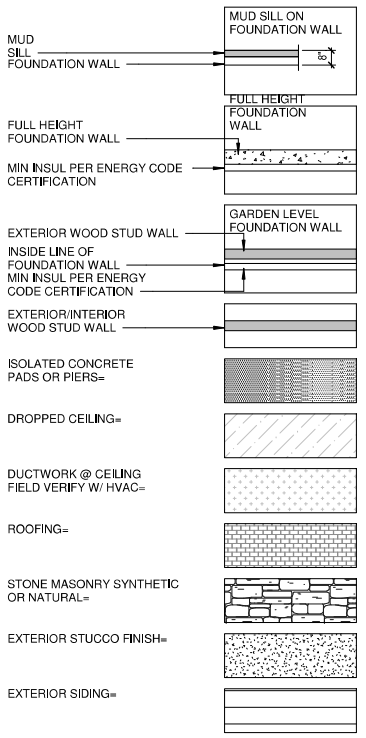
CASEWORK
25 SEE CABINET MFG DETAILS FOR SPECIFIC CABINET LAYOUT & DIMENSIONS
26 SEE CLOSET DETAILS FOR SPECIFIC CABINET LAYOUTS, SHELVING, CUBBIES, MICS & DIMENSIONS
27 NOT USED

PLUMBING
28 CUSTOM MUD SET SHOWER. SEE FLOOR PLAN FOR SPECIFIC DIMENSIONS.
29 30"x60" TUB/SHOWER
30 NOT USED
31 NOT USED
32 LAUNDRY TUB
33 NOT USED

LAUNDRY
34 WASHER/DRYER
35 DRYER DUCT SHALL NOT EXCEED 25', LENGTH SHALL BE REDUCED 2 1/2' FOR EACH 45° BEND & 5' FOR EACH 90° BEND. EXHAUST SHALL NOT PENETRATE EXTERIOR WALL WITHIN 3' OF ANY OPENINGS
36 PROVIDE 100 SQ. IN. MIN. MAKE-UP AIR DOOR NEEDS TO BE LOUVERED OR GRILLED. MAKE-UP AIR DOOR NEEDS TO BE LOUVERED OR GRILLED. MAKE-UP AIR FOR DRYER. MUST COME FROM AN AREA 500 SQ. FT. OR LARGER - OR PROVIDE GRILL ABOVE DOOR

INSULATION
37 NOT USED
38 PROVIDE INSULATION AS NOTED ON PLANS AND/OR AS PER IECC "INTERNATIONAL ENERGY CONSERVATION CODE CERTIFICATE"

COMMON HATCHES



SQUARE FOOTAGE

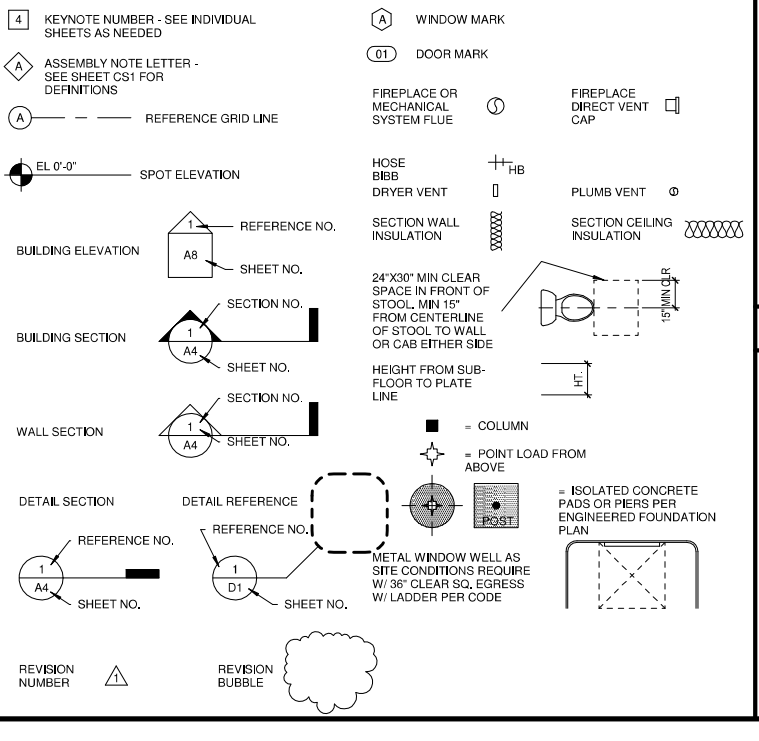
AREA SCHEDULE	
Name	Area
RI LOWER LEVEL	1244 SF
UNFINISHED LOWER	553 SF
GARAGE AREA	475 SF
SHOP AREA	241 SF
FINISHED MAIN LEVEL	1812 SF
COVERED DECK	251 SF
COVERED PORCH	110 SF
Grand total: 7	4687 SF

REVISIONS

COMMON ABBREVIATIONS

AFF	=	ABOVE FINISH FLOOR
B.C.	=	BOTTOM CHORD
BOW	=	BOTTOM OF WALL
BRG	=	BEARING
BTM	=	BOTTOM
CL	=	CENTERLINE
C/COL	=	COLUMN
CAB	=	CABINET
CANT	=	CANTILEVER
CLG BRK	=	CEILING BREAK
CLR	=	CLEARANCE
CONC	=	CONCRETE
(D)	=	DROPPED
DV	=	DIRECT VENT
EA	=	EACH
EE	=	EACH END
ELEC	=	ELECTRICAL
(F)	=	FLUSH
FF	=	FINISH FLOOR
FLR	=	FLOOR
FND	=	FOUNDATION
(FV)	=	FIELD VERIFY
GLB	=	GLULAM BEAM
GYP	=	GYPSUM
H/HDR	=	HEADER
HB	=	HOSE BIBB
HGR/HNGR	=	HANGER
HGT	=	HEIGHT
ICC	=	INTERNATIONAL CODE COUNCIL
INSUL	=	INSULATION
JST/JSTS	=	JOIST/JOISTS
K	=	KING STUD
LVL	=	LAMINATED VENEER LUMBER
MFG	=	MANUFACTURER
MAX	=	MAXIMUM
MIN	=	MINIMUM
ML	=	MICRO LAM
O.C.	=	ON CENTER
OFOI	=	OWNER FURNISH/OWNER INSTALL
O.H./OH	=	OVERHANG
PL	=	PLATE LINE
P.T./PT	=	PRESSURE TREATED
# PSF	=	POUNDS PER SQUARE FOOT
REQ'D	=	REQUIRED
R,S./RS	=	ROUGH SAWN
SHWR	=	SHOWER
SF/SQ.FT.	=	SQUARE FEET or SQUARE FOOT
T	=	TRIMMER
TBD	=	TO BE DETERMINED
TEMP	=	TEMPERED
TOF	=	TOP OF FOUNDATION
TOW	=	TOP OF WALL
TYP	=	TYPICAL
U.N.O./UNO	=	UNLESS NOTED OTHERWISE
VL	=	VERSALAM
VTR	=	VENT THROUGH ROOF
WP	=	WEATHER PROTECTED

COMMON SYMBOLS



LOADING 2015 IRC & 2017 PPRBD

WIND LOAD:	130 MPH (ULTIMATE) EXPOSURE "C"	
ROOF LOADS:	LIVE LOAD=	30# PSF
	DEAD LOAD=	15# PSF
FLOOR LOADS:	LIVE LOAD=	40# PSF
	DEAD LOAD=	10# PSF
DECK LOADS:	LIVE LOAD=	40# PSF
	DEAD LOAD=	15# PSF
	LEDGER=	66# PSF

ASSEMBLY NOTES

(REFERENCES TO SPECIFIC SPECIFICATION SECTIONS ARE FOR MAJOR ASSEMBLY ELEMENTS. OTHER SPECIFICATION SECTIONS MAY ALSO APPLY). SEE SHEET SS1.

FOR ALL HILLSIDE AREAS:
IGNITION RESISTANT MATERIALS ARE REQUIRED FOR ROOFS, EAVES, SOFFITS, FASCIA AND TRIM, GUTTERS AND DOWNSPOUTS, DECK MATERIAL, ALL CIELINGS, THE UNDERSIDE OF ALL EXTERIOR PROJECTIONS AND THE BASE OF EXTERIOR WALLS/POSTS/COLUMNS TO BE PROTECTED AT BOTTOM W/FIRE RESISTANT SEALANT OR WIRE MESH (1/8" OR LESS IN DIMENSION).

ASSEMBLY NUMBER	ASSEMBLY CATEGORY	PRODUCT SPECIFICATION REFERENCE
A	ROOF:	Roof: Class "A" Fiberglass Reinforced Asphalt Shingles (less than 240# between Oct - May) on underlayment and 7/16" sheathing over factory built trusses or rafters w/ specified insulation. Provide ice water shield starting at the eave and continuing to a point 24" inside the exterior wall line. Provide insulation per IECC requirements. Refer to Specification Sections 061000, 061700, 073113, 072100, 076200.
B	FASCIA/SOFFIT:	Fascia/Soffit: 2x10 Cement Board Fascia Board over 2x sub-fascia. 6" gutter and down spouts w/ minimum 5'-0" extensions @ grade. Cement Board Soffit on 2x ledgers with backer at buttjoints and 2x framing 24" O.C. Provide soffit vents as required by code which shall be covered with corrosion resistant metal mesh (1/8" inch or less in dimension). Refer to Specification Sections 061000 and 076200.
C	EXTERIOR WALL:	Exterior Wall: 2x6 wood studs 16" O.C., double top plates w/ 48" minimum false . Exterior solidly sheathed. Batt insulation, vapor barrier per 2015 IRC. Finish interior face w/ 1/2" gypsum board. Exterior face, 7/16" OSB sheathing. Cementaious siding install per manufacture stone over vapor retarder, as indicated. Provide insulation per IECC requirements. Refer to Specification Sections 047200, 061000, 061700, 072100, 072500, 074626, 092116 and 092513.
D	EXTERIOR WALL BALLOON FRAME:	Exterior Wall (balloon frame): 2x6 wood studs per IRC code to bottom chord of factory built trusses or rafters. Balance of material matching specified exterior wall note above. Provide insulation per attached IECC. Refer to Specification Sections 047200, 061000, 061700, 072100, 072500, 074626, and 092513.
E	FRAMED FLOOR SYSTEM:	Framed Floor System: 23/32" T&G sub-floor on "I"-Joist framing system with joist mfgr's OSB rim joist. Refer to Floor Framing Plans. Refer to Specification Sections 061000, 061700 and 072100.
F	EXTERIOR DECK SYSTEM:	Exterior Deck System: Flat 2x6 ICC listed and approved composite lumber over joists. Refer to Floor Framing Plans. Refer to Specification Sections 057300, 061000 and 067300.
G	RAILING SYSTEM:	Railing System: 36" high rail system w/ maximum 4" openings. Handrail grip surface to conform to IRC Code. Handrails shall be provided on a min of one side of continuous treads of a run of four or more risers running continuously the entire flight at a vertical distance of 34" min to 36" max from stair nosing. Refer to Specifications Sections 057300 and 061000.
H	STAIRS:	Stairs: 7 3/4" maximum rise, 10" minimum run. 36" minimum wide. Provide handrails as required by the IRC Code. Provide 18" minimum landing at either side of exterior door when door is not used as the required exit. Lay out any curved stair sections as indicated. Winder treads at curved stairs shall have a minimum tread depth of 10" at the walkline at 12" in from the narowest winder point. Refer to Specification Sections 061000.
I	BASEMENT FOUNDATION WALL:	Basement/Foundation Wall: Concrete foundation wall with fluid applied dampproofing per IRC section R406.1 dampproofing from top of the footing to the finish grade. Provide Stucco skim coat at exposed portions of exterior face. At basement walls finish interior face with 2x4 furring, insulate per IECC certificate. vapor barrier (warm side) beneath 1/2" gypsum board. Refer to Specification Sections 033000. 061000, 071113, 072100, 092116, 092513 and to engineered stamped foundation design for concrete reinforcement.
J	SLAB ON GRADE:	Slab-on-Grade: 4" thick concrete with welded wire fabric reinforcement over prepared sub-grade and vapor barrier as recommended by Soils Engineer 2015 IRC. Provide 1/2" expansion material at perimeter of slab and at all penetrations. Control joints as indicated or not less than 12 feet on center each way. Refer to Specification Sections 033000, 310000, and 334600.
K	PERIMETER DRAIN SYSTEM:	Perimeter Drain System: Perforated perimeter drain system set in free draining gravel wrapped in geo-textile fabric. Daylight to headwall as indicated or drain to sump pumped to storm drain. Refer to Specification Section 334600.

CODE INFORMATION

CODE COMPLIANCE:

2017 (PPRBC) PIKES PEAK REGIONAL BUILDING CODE
2015 (IRC) INTERNATIONAL RESIDENTIAL CODE
2015 (IBC) INTERNATIONAL BUILDING CODE
2015 (IECC) INTERNATIONAL ENERGY CONSERVATION CODE
2015 (IMC) INTERNATIONAL MECHANICAL CODE
2015 (IFGC) INTERNATIONL FUEL GAS CODE
2018 (IPC) INTERNATIONAL PLUMBING CODE
2020 (NEC) NATIONAL ELECTRICAL CODE

CODE INFORMATION:

2017 Edition of The Pikes Peak Regional Building Code (2017 PPRBC)
2015 IRC (*)
2015 IBC (*)
2015 IECC (*)
2015 IMC (*)
2015 IFGC (*)
2018 IPC (*)
2020 NEC (**)

(*) As amended by 2017 PPRBC
(**) Or the latest edition adopted by The State of CO.

Note: 2017 PPRBC can be viewed at www.pprbd.org

BUILDING TYPE:

OCCUPANCY R3 & U
CONSTRUCTION TYPE V-B

2015 INTERNATIONAL FIRE CODE

CONSULTANTS

CONTRACTOR:

Robert Scott
Custom Homes
Colorado Spring. CO 80902
PH: 719-499-6754
RSHOMES52@GMAIL.COM

STRUCTURAL ENGINEER:

Mibar Engineering LTD
6825 Silver Ponds Heights Suite 101
Colorado Springs. CO 80908
Phone: (719) 487-0812
Fax: (719) 481-9204
Web: mibarltd.com
Email: office@mibarltd.com

SHEET SCHEDULE

NOTE:
HVAC TO BE DESIGNED AND PROVIDED BY OTHERS.

REVISIONS
1 11/15/2022

LGA STUDIOS
201 E. Las Animas Street
Suite 113
Colorado Springs, CO. 80903
Phone: (719) 635-0880
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www.lgastudios.com

CONTRACTOR
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CUSTOM HOMES
COLORADO SPRING, CO 80902
PH: 719-499-6754
RSHOMES52@GMAIL.COM

Released for Permit
11/21/2022 12:14 PM
Pikes Peak REGIONAL Building Department
CONSTRUCTION

THE PURVIS RESIDENCE
400 DAHLIA STREET
COLORADO SPRING, CO 80904
PROJECT NUMBER # 22-2215

DRAWN BY: EAH
CHECKED: DMNS
PLOT: 11/15/2022

Sheet #
CS1
OF 1 SHEETS

OUTLINE SPECIFICATION-LGA STUDIOS-06/02/2022

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DIVISION 00 CONTRACTING REQUIREMENTS

00 3100 Available Project Information
1.0 GENERAL
1.1 Soils Report:
1.2 Existing Survey:
1.3 Hazardous Materials Report:

00 7000 General Conditions of the Contract
1.0 GENERAL
1.1 Notify the Designer of any conflicts between these specifications and other Contract Documents prior to performance of any work. In the event of unresolved conflict between or within documents, the item of highest quality or greatest extent of work as determined by the Contractor, shall apply and be performed by the Contractor.
1.2 All trades shall perform their work within the recognized standards of the specific industry, as required by manufacturer of specific materials, and as specified herein.
1.3 Deviation from the drawings and/or specifications is not allowed without the Designer's written permission. Failure to obtain such written authorization places all responsibility for the variation on the contractor.
1.4 The Contractor and each major Subcontractor will supply to the Owner original liability and workers compensation insurance forms as evidence of current coverage. No work will start without appropriate insurance.
1.5 A lien release will be provided by the contractor and each subcontractor and supplier as a condition of final payment for supplies provided and work performed.
1.6 The intent and meaning of the Contract Documents are that each Contractor, under the terms of his Contract, shall take such actions as necessary to provide labor, materials, supplies, equipment, transportation, facilities, and appurtenances thereto which are indicated or reasonably implied by each Drawing and each section of the Specifications, all of which are collectively necessary and required for the execution of the work, identified and described by the Contract Documents.
1.7 All Contractors and/or Subcontractors responsible for a portion of the Work defined by these Contract Documents shall, jointly and separately, coordinate their various portions of work as to scheduling, installation procedures, and installation of all related materials.
1.8 Before starting a section of work the Contractor and/or his Subcontractor shall carefully examine all preparatory work that has been executed to receive his work. By whatever means required, he shall ensure that his work and adjacent related work will finish to proper contours, planes, and levels. He shall promptly notify the Contractor of any defects or Imperfections in preparatory work which will in any way offset satisfactory completion of his work. Absence of such notification will be construed as an acceptance of preparatory work, and later claims of defects therein will not be recognized.
1.9 Under no condition shall work proceed prior to preparatory work having been completed, cured, dried, and/or otherwise made satisfactory to receive such related work. Responsibility for timely installation of all materials rests solely with the Contractor who will maintain coordination at all times.

00 8000 Supplementary General Conditions of the Contract
1.0 GENERAL
1.1 Any and all references to the "Architect" in the General Conditions – Contract for Construction, the Owner/Contractor Agreement, the Owner/Designer Agreement, Drawings, and these Specifications shall be understood as reference to the "Designer" Larry Gilland-Certified Professional Building Designer (CPBD) of LGA Studios (not licensed to practice architecture).
1.2 Refer also to Owner/General Contractor Agreement for Additional Supplementary Conditions.

DIVISION 1 GENERAL REQUIREMENTS

01 1000 Summary of Work
1.0 GENERAL
1.1 The Project includes Drawings and Specifications by Larry Gilland Associates, Inc. –dba LGA Studios (The Designer) and Consultants.
1.2 The Project includes all grading, excavation, site-work, utilities, foundations, complete building envelope and finishes, plumbing, mechanical and electrical systems. All elements of the complete Project as illustrated on the Drawings.
1.3 The Contractor is responsible for the general performance of the subcontractors and trades people. Including, but not limited to, any necessary training.

01 2500 Product Substitution Procedures
1.0 GENERAL
1.1 No products may be substituted for the specified product unless agreed upon in writing by the Owner and Designer.
1.2 Documentation: Submit written request for substitution to the Designer with the following information:
a. Statement indicating why specified material or product cannot be provided.
b. Coordination: provide a list of changes or modifications needed to other parts of the work that will be necessary to accommodate proposed substitution.
c. Provide detailed comparison of significant qualities of proposed substitution with those of the specified material or procedure. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
d. Product Data, including drawings and descriptions of product and fabrication and installation procedures.
e. Samples, where applicable or requested
f. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
g. Comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time.
h. Cost Information, including a proposal of change, if any, in the Contract Sum.
i. Contractor's certification that proposed substation complies With requirements in the Contract Documents and is Appropriate for applications indicated.
j. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.

01 3300 Submittals
1.0 GENERAL
1.1 As indicated in specific Sections, the Contractor shall submit Shop Drawings, Product Data, and Samples to establish the actual detail of manufactured and fabricated items; to indicate proper relationship to adjoining work; to amplify Architectural design details; to establish structural, mechanical, and electrical components in proper relationship to adjoining work; to incorporate minor changes of design or construction required to suit actual conditions. All the above to be reviewed by the Designer.
a. Submittal schedule: Prior to the start of construction, and before any items are submitted, submit three (3) copies of the Submittal Schedule. Compile a complete and comprehensive Schedule of all submittals required to be made during the course of the Work. Designer will not accept Submittals until the Contractor completes this schedule to the satisfaction of the Designer. Upon approval by the Designer the schedule will become part of the Contract and the Contractor will be required to adhere to the schedule unless specifically otherwise permitted.
1.2 Prior to submittal to the Designer for review, the Contractor shall review the submittal material and mark with his own stamp that it has been reviewed and approved for submittal. Items not first reviewed and stamped by the Contractor will not be reviewed by the Designer until such has been accomplished.
1.3 Gain Designer approval of the submitted material before fabrication or shipment of materials described by the submittals.
1.4 Quantities and Dimensions are the responsibility of the Contractor.
1.5 Proper fitting, construction of work, furnishing of materials and work required by the Contract Documents but not indicated in Submittals remains the responsibility of the Contractor.
1.6 Each submittal of Shop Drawings, Product Data, or Samples shall consist of three each of the documents or items for review. Two will be retained by the Designer and Owner for their files, the third will be returned to the contractor.
1.7 Do not proceed with the portion of work indicated by the submittal items until review and approval has been indicated by the Designer and/or Interior Designer on all finishes and finish materials.

01 4100 Regulatory Requirements
1.0 GENERAL
1.1 All work shall be done according to the requirements of the current International Residential Code, & current PPRBC including current editions of the NEC, IMC, IPC, and IECC, as required by local jurisdiction.
2.0 PRODUCTS
3.0 EXECUTION
3.1 The Contractor has sole responsibility for compliance on the job site to all applicable portions of the Occupational Safety and Health Act and compliance with the Equal Employment Opportunity Act.

01 4200 Definitions
1.0 GENERAL
1."Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown", "noted", "scheduled", and "specified" have the same meaning as "indicated".
2."Furnish" or "Supply": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
3."Install": Operations at Project site including unloading, temporary storing, unpacking, assembling, erecting, placing, anchoring, applying, working, to dimension, finishing, curing, protecting, cleaning, and similar conditions.
4."Provide": Furnish and install, complete and ready for the intended use.

01 5000 Temporary Facilities and Controls
1.0 GENERAL
1.1 Provide all temporary facilities, services, and controls required for completion of the work.
2.0 PRODUCTS
2.1 Provide, but not limited to the following: Power, Lighting, Temporary Heat and Enclosures, Telephone (cell), Water, Sanitary Facilities, Protective Facilities, Scaffolding, Construction Fencing, Daily Clean-up and Transport of Rubbish to licensed disposal facility.
3.0 EXECUTION

01 6400 Owner Furnished Products
1.0 GENERAL
1.1 Contractor shall obtain from Owner the Shop Drawings, Product Data, or other detailed description of each product to be supplied by Owner.
1.2 Contractor shall make all "Rough-in" requirements (including but not limited to plumbing, mechanical, electrical, and dimensional) necessary for products to be Owner Furnished Owner Installed, indicated as "OFOI" on the drawings.
1.3 Contractor shall make all provisions necessary for Installation of those products to be Owner Furnished Contractor Installed, indicated as "OFCI" on the Drawings.
1.4 For Schedule of Owner Furnished Products (OFOI and OFCI) refer to Drawings and Schedules.

01 7410 Final Cleaning
1.0 GENERAL
1.1 The entire work inside and out, the entire premises, shall be in first-class, clean condition upon completion before being accepted by the Owner. All surfaces shall be carefully and thoroughly cleaned and all construction facilities and temporary controls removed.

01 7419 Construction Waste Management and Disposal
1.0 GENERAL
1.1 Section includes requirements for salvaging, recycling, disposing, of nonhazardous waste.
1.2 Practice efficient waste management in the use of materials in the course of the Work. Use all reasonable means to divert construction and demolition waste from landfills and incinerators. Facilitate recycling and salvage of materials.
2.0 PRODUCTS
3.0 EXECUTION
3.1 Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator to authorities having jurisdiction.

01 7700 Contract Closeout
1.0 GENERAL
1.1 Submit written certification that project is complete and request a Final Punch List Observation by designer for Substantial Completion. Attach to said request the Contractor's own Punch list prepared after a walk-thru by Contractor, Owner, and designer describing incomplete work or work requiring correction.
a. Substantial Completion: On receipt of request, Designer will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the certificate of Substantial Completion after inspection or will notify Contractor of items either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued. All required submittal items must be received and approved by the Designer before Certificate of substantial Completion is issued.
b. Final Completion: Request re-inspection when Work identified in previous inspections as incomplete is completed or corrected. Results of completed inspection will form the basis of requirements for Final Completion.
c. Owner may withhold agreed upon amounts from final payment (up to 3 times the value of the work for each item) for each punch list item remaining at Final Completion Inspection. These amounts are to be released upon satisfactory completion of each remaining item.
1.2 Inspection Certificates: Contractor shall secure all certificates from any local governing body having jurisdiction indicating that the work is in strict accordance with applicable codes and deliver same to the to the Owner.
1.3 Provide Evidence of Payments and Release of Liens.
1.4 Maintenance Manuals: Furnish in hard-cover three-ring binder complete literature, operating instructions, and technical data on all systems or equipment requiring same including, but not limited to, mechanical and electrical systems.
1.5 Warranties: Submit written special warrantees as required in following Sections.

DIVISION 2 EXISTING CONDITIONS

02 4113 Selective Site and Building Demolition
1.0 GENERAL
1.1 Remove portions of existing building and site elements according to Demolition Plans on the drawings.
1.2 Owner will identify any items to be salvaged. Safely remove such items, without damage, to places of storage as directed by the Owner.
2.0 PRODUCTS
3.0 EXECUTION
3.1 Comply with the applicable codes and regulations for demolition operations and safety of the adjacent structures and the public.
3.2 If hazardous materials are discovered during removal operations, stop work and notify Designer and Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's and mercury.
3.3 Perform demolition in a manner that maximizes salvage and recycling of materials.
3.4 Prepare building demolition areas by disconnecting and capping utilities outside the demolition zone; identify and mark utilities to be subsequently reconnected, in the same manner as other utilities to remain.
3.5 Where selective demolition is required at existing facilities, maintain weatherproof exterior building enclosure as necessary to protect existing building and furnishings.

DIVISION 3 CONCRETE

03 3000 Cast-in-Place Concrete
1.0 GENERAL
1.1 Refer to Engineered Foundation Plan (by others) for Concrete and Reinforcing specifications.
1.2 Reference Standards: Follow ACI 301, latest edition, except as modified by these specifications.
1.3 Submittals: Provide mix designs for each Type of Concrete indicated and product data for under-slab vapor retarder.
2.0 PRODUCTS
2.1 Mix design intended for exterior use (exposed to extreme temperature changes) shall incorporate high levels of air entrainment (6% +/- 1-1/2%).
2.2 Unload and store reinforcing bars so they will be kept free of mud.
2.3 Use of Fly-Ash will be considered. Utilize to the extent indicated in approved mix designs.
2.4 Under-Slab Vapor Retarder: Stego Industries LLC, "Stego Wrap", 15 mil, with all necessary accessories for a complete tight installation. Or other approved substitution.
3.0 EXECUTION
3.1 Install Under-Slab Vapor Retarder beneath concrete slabs-on-grade after subgrade has been properly prepared and prior to slab reinforcement installation. Complete seams in material, penetrations, and continuous placement in accordance with manufacturer's written direction
3.2 Support welded wire fabric to the center of all the slabs during the placement of concrete.
3.3 Concrete flat work shall meet flatness tolerance of 1/4" in 10'.
3.4 All exterior flatwork shall be broom finished and sloped to drain.
3.5 Where Concrete Stain or Ceramic Tile is to be applied to concrete flatwork, do not apply curing compound. Utilize wet curing methods only.
3.6 Where stained concrete is indicated, apply minimum two coats concrete stain and sealer to areas indicated as recommended by manufacturer.
3.7 Control joints shall be cut into interior slabs not less than 12' O.C. each way, in pattern as indicated, or as otherwise indicated in soils report. Ensure that joints are cut at proper time and with appropriate equipment so that edges are not ragged and crumbling. Cut joints shall be filled with sealant, color as selected.
3.8 The Testing Lab will be hired directly by the Owner/GC. Costs of concrete testing by the Testing Lab will be paid by the Owner/GC.

DIVISION 4 MASONRY

04 7200 Manufactured Stone
1.0 GENERAL
1.1 Submit samples of manufactured stone and mortar for color selections.
2.0 PRODUCTS
2.1 Manufactured stone veneer shall be as selected by the Owner, color as selected from manufacturer's full range.
2.2 Provide all corner pieces, caps, and special shapes as required for the installation.
2.3 Lath, mortar, moisture barrier and all accessories as recommended by the manufacturer.
3.0 EXECUTION
3.1 Install complete manufactured stone system as recommended by the manufacturer.

DIVISION 5 METALS

05 1200 Structural Steel
1.0 GENERAL
1.1 All detailing, fabrication and erection shall conform to AISC 'Specification for the Design, Fabrication and Erection of Structural Steel for Buildings', and the AISC 'Code for Standard Practice for Steel Buildings and Bridges' latest edition.
1.2 Beam connections not detailed in the drawings shall be designed by a steel fabricator in accordance with Tables I and II of Part 4 of the AISC Manual for Steel Construction', eighth edition. Beam reactions not shown on plans or details shall be computed from the design loads shown on the drawings.
2.0 PRODUCTS
2.1 Conform to the "Standard Specifications for Structural Steel" ASTM Designation A-36 latest edition unless noted otherwise on plans. Steel pipes shall conform to ASTM 501 Fy = 36 ksi, or ASTM A-53, types 'E' or 'S', grade B, Fy = 36 ksi. Steel tubing shall conform to ASTM A-500, grade B, Fy = 46 ksi. All structural steel shall conform to ASTM A36 except pipe columns shall conform to ASTM A53 (grade B) or A501.
2.2 Adjustable pipe columns to be 11 GA minimum and be load rated for 14,600 lbs. minimum at 7'0" height, U.O.N.
3.0 EXECUTION
3.1 Shop connections shall be welded unless noted otherwise on plans.
3.2 Field connections shall be made with 3/4" DIA. ASTM A-307 bolts unless noted as A-325 or higher strength bolts on plans
3.3 Connections noted as A-325 or higher strength shall be made with ASTM A-325 friction type high strength bolts.
3.4 Equivalent welded connections may be substituted for bolted connections with engineer's approval.
3.5 All welding shall be done by a certified welder and shall conform to "AWS Structural Welding Code' (AWD D11) latest edition.
3.6 Weld sizes not otherwise shown shall be (min) continuous 3/16" fillet weld, or equal to the thickness of the thinner material, whichever is less.
3.7 All welding shall be done with AWSA5.1 or A5.5 E70 XX Electrodes.

05 7300 Ornamental Railings
1.0 GENERAL
1.1 Provide railings capable of withstanding the effects of gravity loads and the following loads and stresses
1.2 Submittals: Provide Shop Drawings for review by Designer. Illustrate all materials, connections, dimensions, details, and installation.
2.0 PRODUCTS
2.1 Steel and Iron:
Tubing: ASTM A 500 (cold formed).
Bars: Hot-rolled, carbon steel complying with ASTM A 29/A 29M, Grade 1010.
Plates, Shapes, and Bars: ASTM A 36/A 36M.
Castings: Either gray or malleable iron, ASTM A 48/A 48M, Class 30 or
ASTM A 47/A 47M.
2.2 Provide all shapes, sizes, and accessories as required for complete installation of the indicated railing system.
2.3 Finish: All components shall be first prepared and shop primed to comply with SSPC-SP 6 "Commercial Blast Cleaning" and SSPC-PA 1.
a. Galvanizing: Prior to shop priming hot-dip galvanize exterior railings and
complying with ASTM A123, for galvanizing steel and iron products.
b. All Interior and Exterior railings shall then be factory finished with Powder Coat System. Apply thermosetting polyester or acrylic urethane
powder coating with cured-film thickness not less than 1.5 mils.
3.0 EXECUTION
3.1 Touch-up Painting: Immediately after erection, clean abraded areas and paint exposed areas with material supplied by manufacturer for finish touch-up.
3.2 Anchor railing ends and supports to concrete, masonry, and framing with flanges connected to railing ends and anchored to wall construction with anchors and bolts.
3.3 Set posts in concrete by inserting into formed or core-drilled holes and grouting annular space, or bolt to wood framing as indicated.

DIVISION 6 WOOD AND PLASTICS

06 1000 Rough Carpentry
1.0 GENERAL
1.1 All wood framing shall conform to the "National Design Specification for Wood Construction" Latest Addition. As recommended by the "National Forest Products Association" & current addition of the Western Grading Rules.
1.2 Certified Wood: Materials shall be produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC" Principles and Criteria for Forest Stewardship.
2.0 PRODUCTS
2.1 All framing lumber shall bear manufacturer and grade stamp and shall conform to the following (equal or better) species and grades unless noted otherwise on plans.
SILL PLATE- Redwood or pressure treated lumber, construction grade
2X JOISTS, RAFTERS, BLOCKING - Hem-fir # 2 or better
2X4 STUDS - Hem-fir # 2 stud grade or better
2X6 and 2x8 STUDS – Hem-fir # 2 or better
HEADERS, COLUMNS - Hem-fir # 2 or better
FURRING, NON-STRUCTURAL BLOCKING - Western woods construction grade
DECK FRAMING – California Redwood # 2 (or better), Western Cedar # 2 (or better), Hem-fir # 2 (or better)
EXTERIOR POSTS - Redwood # 2
PRESSURE TREATED elements above grade – AWPA U1, Use Category UC3B, Commodity Specification A using waterborne preservation to 0.25lb/cu ft. retention. Kiln dry lumber after preservation treatment to maximum moisture content of 19 percent.
PRESSURE TREATED elements below grade – AWPA U1, Use Category UC4A, Commodity Specification A using waterborne preservation to 0.4lb/cu ft. retention. Provide Preservation for field application to cut surfaces as recommended by manufacturer of factory treatment chemicals for brush-application in the field. Do not use lumber or plywood treated with chromated copper arsenate (CCA) in exposed exterior applications subject to leaching.
2.2 ROOF AND WALL SHEATHING/FLOOR PANELS: Conform to American Plywood Association's current product standard specification and shall be performance rated by the American Plywood Association to the grades specified. Each sheet shall be identified with the appropriate trademark of the "American Plywood Association" latest edition.
2.3 ROOF AND WALL SHEATHING: 7/16" OS, APA rated, 48/24 span panel index, exposure 1.
2.4 RATED FLOOR PANELS: 23/32" thickness, APA rated, 48/24 span panel index, exposure 1 rated sturd-i-floor T & G Panels. Glue and nail to joists at plywood panel edges and along intermediate framing members. Fasteners, glue, and accessories as recommended by manufacturer.
2.5 WET-USE ADHESIVES are to be used in the manufacturer of all members exposed to weather.
2.6 COMPOSITE LUMBER DECK shall be Wood/Plastic composite material specifically manufactured for exterior deck applications, ICC listed and approved (submit ICC Evaluation report). Pre-finished material, color and texture as selected by the Owner. As manufactured by Trex, Correct Deck, TimberTech, or other approved manufacturer. Refer to section 01 2500 for Product Substitution Procedures.
3.0 EXECUTION
3.1 Multiple members (2 or more) shall be nailed together.
3.2 Nails to be as indicated on structural drawings or as code requires.
3.3 Provide solid blocking at all unsupported panel edges. Solid blocking shall be (min) nominal 2" wide x 4' deep.
3.4 Floor and roof sheathing panels shall be placed with 8'-0" dimension perpendicular to joist framing, stagger joints. Panels to be continuous over (2) or more spans. Panel end joints shall occur over framing. Allow spacing @ panel ends and panel edges as recommended by panel manufacturer.
3.5 Nailing shall be in accordance with I.R.C. Tables R602.3, as shown on drawings, or as specified by manufacturer (Simpson Strong Tie, BCI).
3.6 Sheath all exterior walls per I.R.C. Section R703, or as noted.
3.7 Blocking: Provide rim joist or solid blocking under all bearing points. Blocking under posts larger than 2 – 2 x 4's must be full area of post.
3.8 Composite Lumber: Install as recommended by the manufacturer and the ICC evaluation report.

06 1700 Prefabricated Wood Trusses and Structural Wood
1.0 GENERAL
1.1 Certified Wood: Materials shall be produced from wood obtained from forests certified by as FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship.
2.0 PRODUCTS
2.1 Glued-Laminated Structural Members: All Glued-Laminated structural members shall be fabricated with Douglas Fir Lumber. Laminated members shall be detailed and fabricated in accordance with the standard specifications for the design and fabrication of structural glued laminated lumber.
2.2 Laminated Veneer Lumber: Versa-lam by Boise Cascade Corporation, conform to current values set forth by manufacturer.
2.3 Prefabricated Wood Trusses: Trusses shall be in accordance with BCSI "Guide to Good Practice for Handling, Installation & Bracing of Metal Plate Connected Wood Trusses" and for loads required by local jurisdiction. Trusses shall be installed in strict accordance with the manufacturer's specifications. Provide calculations with seal and signature of design engineer.
2.4 "I" Joist Systems: All plywood web joists, joist bridging, blocking and other accessories shall be furnished by Boise Cascade Corporation or Weyerhaeuser TJI, installed in strict accordance with the manufacturer's recommendations, and as shown on plans.
2.5 Wet-use adhesives are to be used in the manufacturer of all members exposed to weather.
3.0 EXECUTION
3.1 Install all Prefabricated Wood Trusses and Structural Wood members as recommended by the manufacturer and as required by code jurisdiction.

06 2000 Finish Carpentry
1.0 GENERAL
1.1 Includes interior standing and running trim, frames and jambs as required.
1.2 Certified Wood: Materials shall be produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship".
2.0 PRODUCTS
2.1 Base, Window and Door Casing: As selected by Owner, see schedule.
3.0 EXECUTION
3.1 Install with minimum number of joints possible, using full-length pieces (from maximum length of lumber available) to greatest extent possible. Scarf running joints and stagger in adjacent and related members. Joints shall be tight fitting. Open joints on painted trim may be filled. Open joints at stained/clear finished trim must be replaced.
3.2 Install with finish nails, countersink, and filled (matching compound when stained and clear finished).
3.3 As a minimum standard to all Finish Carpentry Work, installation shall be according to AWI Quality Standards, Custom Grade, Section 1700, Table T-4 Installation Standards (Standing and Running Trim).
3.4 Extent of Painted versus Stained and Sealed Trim to as selected by the Owner.

06730 Composite Decking
1.0 GENERAL
1.1 Includes decking, fascia board, trim, and fasteners as required.
2.0 PRODUCTS
2.1 As selected by Owner.
3.0 EXECUTION
3.1 Examine, clean and repair as necessary any substrate conditions that would be detrimental to proper installation.
3.2 Install in accordance with manufacturer's instructions.
3.3 Protect installed products until completion of project.

DIVISION 7 THERMAL AND MOISTURE PROTECTION

07 1113 Bituminous Dampproofing
1.0 GENERAL
1.1 Bituminous Dampproofing at exterior side of foundation walls where below grade and atop full width of footings. Extend dampproofing from top of footings up to within 4 inches of finish grade.
2.0 PRODUCTS
2.1 Hydrocide 600 Non-Fibrous Emulsion by Sonneborn or acceptable equivalent.
3.0 EXECUTION
3.1 Examine surfaces to assure conditions are satisfactory for application of materials.
3.2 Brush down surfaces to remove loose scale, fins, dust, and any other substances that would affect proper performance of the dampproofing product.
3.3 Brush or spray two (2) coats of dampproofing at rates and coverages recommended by the manufacturer.

07 2100 Building Insulation
1.0 GENERAL
1.1 Provide types and application of insulation as indicated. Submit IECC Certificate and Procedure for each type as listed below.
1.2 Submittals: Product Data and written Instructions for Installation by Manufacturer for each type of installation material indicated.
2.0 PRODUCTS
2.1 Batt Insulation: Fiberglass batts or blanket with kraft face and flanges, or un-faced, as noted. Widths to fit stud/truss spacing. Minimum R-value as follows (and per ICC Certificate):
a. 3-1/2" thick material rated R-13 for 3-5/8" stud walls.
b. 6" thick material rated R-19 for 6" stud walls and floors.
c. 10" thick material rated R-38 for roof/ceiling applications.
2.2 Interior Vapor Retarder: ASTM D4397 polyethylene film reinforced with glass fiber square mesh, clear. Applied to inside face of studs at exterior walls (and as otherwise indicated) beneath gypsum board where unfaced batts are utilized.
2.3 Rigid Board Insulation: Extruded Polystyrene Board Insulation: ASTM C578, Type IV; Extruded polystyrene board with natural skin surface, thickness as indicated on drawings.
2.4 Sprayed/foamed-in-Place Insulation: HFC-blown type closed Cell Foam: Certain Teed CertaSpray Closed Cell Foam. Medium-density, MDI-based polyurethane thermoset rigid foam with an in-place core density of 1.9-2.2pcf. Or approved substitute.
2.5 Sprayed/Cellulose Fiber Insulation: ASTM C177, 2 lb./cu. ft. in accordance with ASTM D1622, maximum moisture absorption 15 percent by weight, and Flame spread and Smoke Developed Index of 10/0, in accordance with ASTM E84.
2.6 Sprayed/Glass Fiber Insulation: ASTM C1014, 0.25 K factor in accordance with ASTM C518, 3.5 lb./cu. ft. density, maximum 5 percent moisture absorption by weight, and Flame Spread and Smoke Developed Index of 10/0, in accordance with ASTM E84.
2.7 Insulation Baffle: Extruded polystyrene corrugated insulation baffles to maintain cold roof airflow.
2.8 At gaps between window and door frames and framed openings in exterior walls continuously fill gap with non-foamed material or with acrylic rope caulk.
3.0 EXECUTION
3.1 Blanket or batt Insulation: Fit tight to adjoining work and adjoining insulation so that a completely tight enclosure free from open joints, holes, cracks, and voids, is achieved. Attach insulation in place in a manner ensuring stability and to eliminate sagging.
3.2 Place continuous vapor barrier on conditioned interior side of wall where unfaced insulation is utilized. Tightly seal/tape all lap joints and penetrations through vapor retarder.
3.3 For each type of insulation and accessory required, install according to written direction of manufacturer.

07 2500 Weather Barriers
1.0 GENERAL
1.1 Submittals: Product Data and Written Installation Instructions by the manufacturer.
2.0 PRODUCTS
2.1 Sheet Air Barriers: At wood framed and ICF exterior walls: Tyvek Stuccowrap or House Wrap. Install with fasteners and as required by manufacturer. Apply to exterior face of sheathing or ICF (before application of paper-backed lath at Stucco areas).
2.2 Fluid-Applied Membrane Air Barriers: Carlisle Coatings & Waterproofing Vapor-Permeable Barritech VP, or DuPont Permeable Tyvek Fluid-Applied WB.
3.0 EXECUTION
3.1 Apply product according to specific written directions of manufacturer.

07 3113 Fiberglass Reinforced Asphalt Shingles
1.0 GENERAL
1.1 Warrantee: Manufacturer's standard limited 40 year warrantee 360# or greater dimensional asphalt shingles.
2.0 PRODUCTS
2.1 Asphalt Roofing: with all accessory trim pieces, furring, and underlayment, 110 mph Wind Resistance, and UL Class 'A' Fire Resistance; glass fiber mat base; ceramically colored/UV resistant mineral surface granules across entire face of shingle; shake shingle style. Color as selected by Owner from manufacturers' standard.
2.2 Self-Adhered underlayment (Ice and Water Damming Shield): Self-Adhered rubberized asphalt waterproofing membrane, minimum of 40 mils thick, 36" wide rolls, Class A rated, complying with ASTM D1970, as manufactured by Owens-Corning, W.R. Grace, or Protecto-Wrap.
2.3 Roofing Underlayment: DuPont RoofLiner or other approved substitute (30# asphalt impregnated felt not allowed).
3.0 EXECUTION
3.1 Install Ice and Water Shield full width of roll at eaves and valleys.
3.2 Install roofing underlayment over entire field of roof beneath shingles.

07 4626 Siding and Exterior Trim-Engineered Wood
1.0 GENERAL
1.1 Alternative siding and trim products will be considered. Forward proposal in writing to the General Contractor. Do not proceed without written approval of the General Contractor.
2.0 PRODUCTS
2.1 Lap siding: Louisiana Pacific ABT (engineered wood) siding, ½"x9-1/2"x16" textured, factory primed, field paint.
2.2 "Shingle" siding: Louisiana Pacific ABT siding, Shake shingle Lap, 7/16" thickness, factory primed, field paint.
2.3 Soffits: Louisiana Pacific SmartSoffit, cut to width (12"), textured, factory primed, field paint.
2.4 Smooth Trim: Louisiana Pacific SmartSide trim/fascia board, textured, ¾ inch thickness, width as indicated, factory primed, field paint.
2.5 Moisture Barrier: Refer to Section 07 2500 Weather Barriers.
3.0 EXECUTION
3.1 Apply siding according to manufacturers' instructions, over moisture barrier.
a. Refer to drawing details for batten drainage plane over moisture barrier, beneath siding.
3.2 Apply trim as indicated and as recommended by the manufacturer.

07 4626 Siding and Exterior Trim-Mineral Fiber Cement Board
1.0 GENERAL
2.0 PRODUCTS
2.1 Siding: James Hardie Hardieplank lap siding, Select Cedarmill 5/16 inch thickness, field paint.
2.2 Soffits: James Hardie SMOOTH panels, 5/16 inch thickness, factory primed, field paint.
2.3 Decorative trim/Siding: James Hardie, SHINGLESIDE HERITAGE shaped shingle boards, half-round, Scalloped, or Straight-edged as indicated. Field paint.
2.4 Smooth Trim: James Hardie, TRIMBOARD, ¾ inch thickness, width s indicated, cellular PVC unfinished, field paint.
2.5 Moisture Barrier: Refer to Section 07 2500 Weather Barriers.
3.0 EXECUTION
3.1 Apply siding according to manufacturers' instructions, over moisture barrier.
a. Refer to drawing details for batten drainage plane over moisture barrier, beneath siding.
3.2 Apply trim as indicated and as recommended by the manufacturer.

07 6200 Flashing and Sheet Metal
1.0 GENERAL
1.1 Comply with recommendations of "Architectural Sheet Metal Manual", latest edition, as published by Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA).
2.0 PRODUCTS
2.1 Galvanized Iron: 24 gauge ASTM A361, hot-dip type. Mill finished, ready for job painting.
2.2 Optional: Where exposed to view, utilize 24 gauge pre-finished galvalume metal sheet with Kynar fluoropolymer finish. Color as selected from full range of Kynar finishes.
3.0 EXECUTION
3.1 Unless indicated otherwise on the drawings, workmanship and details shall comply with reference SMACNA standards. Construct joints watertight and allow for expansion.

07 8400 Firestopping
1.0 GENERAL
1.1 Section Includes: Fire Stop, Smoke and Draft Barrier System where indicated on the drawings or required to maintain code compliant construction
2.0 PRODUCTS
2.1 Fire Stop Systems shall include mortars, puttys, sealants, collars, pillows, flexible and intumescent products, and applicable forming/damming materials, primers, and other components required by the manufacturer for application type and project conditions. Fire stopping compounds shall be paintable or capable of receiving finish materials in areas that are exposed to view and scheduled to receive finishes.
3.0 EXECUTION
3.1 Install fire stop systems accordance with manufacturer's written instructions and the fire resistance listing. Install fire stop system at conditions specified and required by Code whether or not fire stop or smoke barrier systems are indicated on drawings.
3.2 Provide fire stop system at all openings, penetrations, and areas required to maintain fire-resistance rating of assembly as directed by Paragraphs R602.8, R1001.16, and R1003.13 of the International Residential Code.

07 9200 Joint Sealants
1.0 GENERAL
1.1 Caulk and seal all exterior joints around windows and door frames; between wall sole plates and floors, and between exterior wall panels; joints of dissimilar materials; penetrations in walls, ceilings, and floors for plumbing, electrical or gas lines; openings in attic floors; all other openings in the building envelope.
2.0 PRODUCTS
2.1 Interior Sealants and Under Thresholds: Latex acrylic, paintable.
2.2 Interior Sealants at wet areas and at plumbing fixtures and trim: Silicone, color to match finish.
2.3 Exterior Joint Sealants: Latex acrylic, paintable.
2.4 Exterior Joints in Concrete Flatwork: Two component pourable self-leveling polyurethane.
3.0 EXECUTION
3.1 Clean surfaces according to joint sealant manufacturer's recommendations. Remove dirt, incompatible coatings, moisture, and other substances that interfere with bond of sealant.
3.2 Apply sealants in uniform, continuous ribbons without gaps or air pockets, with complete "wetting" of the joint bond surfaces equally on opposite sides.
3.3 Remove excess and spillage of compounds promptly as the work progresses. Clean the adjoining surfaces by whatever means necessary to eliminate evidence of spillage.

DIVISION 8 DOORS AND WINDOWS

08 1400 Doors
1.0 GENERAL
2.0 PRODUCTS
2.1 Interior doors shall be as selected by Owner.
a. Where they are to be clear finished, match trim stain color as selected.
b. Where they are to be painted, color as selected.
2.2 Doors to Deck shall be of configuration shown, matching windows, by window manufacturer.
2.3 Main Entrance door shall be as selected by Owner.
2.4 Interior door to garage shall be flush panel, solid core, 20 minute rated. Alder veneer finished to match balance of interior doors and trim.
3.0 EXECUTION
3.1 Install doors and hardware in accordance with manufacturer's recommendations.

08 3613 Overhead Sectional Doors
1.0 GENERAL
1.1 Overhead Garage door design shall be as illustrated on the drawings
2.0 PRODUCTS
2.1 Overhead Garage doors shall be as selected by Owner and similar to Drawings. Insulated core with flush interior panels. Panel lay-out, trim, and glazing as indicated on the drawings.
2.2 Factory glazed with double pane, sealed insulating glass.
2.3 Weatherstrip entire perimeter of door and joints between panels.
2.4 Electric openers, as required for specific door size and weight.
3.0 EXECUTION
3.1 Install in accordance with manufacturer's recommended installation procedures

08 5400 Windows
1.0 GENERAL
2.0 PRODUCTS
2.1 Windows shall be aluminum clad wood, fiberglass, composite, or vinyl; size and type as indicated, manufacturer as chosen by Owner.
2.2 Color: As selected from manufacturer's standard colors.
2.3 Factory glazed with double pane, sealed insulating glass, low-e coating.
2.4 Muntin Bars: Provide in pattern and location as shown.
3.0 EXECUTION
3.1 Install in accordance with manufacturer's recommended installation procedures and as indicated in drawing details.

08 7100 Door Hardware
1.0 GENERAL
2.0 PRODUCTS
2.1 Door hardware shall be as selected by the Owner.
3.0 EXECUTION
3.1 Install hardware in accordance with manufacturer's recommended installation procedures, and drawing schedules.

08 8000 Glazing
1.0 GENERAL
2.0 PRODUCTS
2.1 Doors and Windows are to be factory glazed by manufacturer
a. All exterior glazing shall be sealed insulating double glazed units with additional options as indicated in the accepted Window/Door Package.
b. Provide product data for specified glazing.
c. Include glazing at custom Main Entry door.
2.2 Shower Doors and Enclosures:
a. Tempered glass, ¼" thickness minimum. Tint pattern, clarity as selected by Owner.
b. Hardware and Frame: as selected by Owner.
3.0 EXECUTION
3.1 Install in accordance with manufacturer's recommended installation procedures.

DIVISION 9 FINISHES

09 2116 Gypsum Board Partitions and Ceilings
1.0 GENERAL
1.1 All interior partitions are wood studs with designated thickness gypsum board.
1.2 Comply with Gypsum Association Documents GA-216 "Recommended Specifications for Application and Finishing of Gypsum Board" and GA-214 "Levels of Gypsum Board Finish".
2.0 PRODUCTS
2.1 Gypsum Wallboard: paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
2.2 Provide suspended partitions to allow for slab movement at all slab on grade areas.
2.3 5/8" type X gypsum board at specific areas designated on plan, 1/2" gypsum board all other areas.
2.4 1/2" Water-Resistant Gypsum Board, painted, behind plumbing fixtures, non-wet areas.
2.5 Provide galvanized edge trim at exposed edges and corners. Provide special shapes as may be required.
3.0 EXECUTION
3.1 All gypsum board wall panels shall be installed horizontally and fastened to studs with metal screws as recommended by manufacturer.
3.2 Finish walls to "Level 4" finish. Texture style & finish as determined by owner, texture to all walls and ceilings.
a. Where "Level 5" finish is indicated, provide High Drywall Surfacer: Vinyl acrylic latex-based coating for spray application, designed to take the place of skim coating and separate paint primer in achieving Level 5 finish. Apply the drywall surfacer product over the Level 4 finished wall to achieve Level 5 finish. Tuff-Hide Primer-Surfacer manufactured by Sheetrock Brand or approved substitution.
3.3 Before proceeding with texturing operation, prepare minimum 4' x 8' sample panel of selected texture finish for review and approval of Owner. Do not proceed with texturing until sample has been reviewed and approved. Budget for preparation of two sample panels.

09 2513 Acrylic Thin-Coat Stucco
1.0 GENERAL
1.1 Stucco shall be as selected by Owner.
1.2 All stucco base and finish materials from a single manufacturing source or one that is approved by the manufacturer.
2.0 PRODUCTS
2.1 Weather Barrier: Building Felt over DuPont Tyvek Stucco Wrap
2.2 Lath: 1" 20 gauge self-furred hot-dipped galvanized steel woven wire fabric for vertical surfaces.
2.3 Acrylic Base Coat System: Acrylic modified factory proportioned fiber reinforced Portland cement based stucco with lime, alkali resistant fiber glass and acrylic fibers, factory mixed graded sand (ASTM C-897), water, bonding agent, and admixtures.
2.4 Acrylic Finish Coat System: Ready-mixed, 100% acrylic polymer and aggregate elastomeric coating for trowel or spray application.
2.5 Casing Trim: 26 gauge, 1/2" galvanized steel with expanded flanges. "Weep" design at bottom edge.
3.0 EXECUTION
3.1 After preparation of substrate and installation of lath and accessories, apply stucco base coat with proper spray equipment or a stainless steel trowel to a minimum thickness of approximately 3/8".
3.2 Avoid application in direct sunlight. Apply finish in a continuous application, always working to a wet edge.
3.3 Apply finish coat directly over the primed base coat. The finish coat shall be applied by spraying, rolling or troweling with a stainless steel trowel, depending on finish selected. Apply finish coat to approximately thickness of 1/8" to achieve full coverage.
3.4 Complete application as recommended by stucco system manufacturer.
3.5 Upon completion, point up finish around trim and other locations where finish terminates or meets dissimilar materials. Cut out and replace defective or damaged stucco. Match pointing and patches to surrounding stucco in form and texture. Remove stucco and protective materials from perimeter trim and adjacent surfaces.

09 3000 Tile
1.0 GENERAL
1.1 Installation Guidelines: TCA's "Handbook for Ceramic Tile Installation." Comply with TCA installation methods indicated in tile installation schedules for thin-set applications over wood and concrete.
2.0 PRODUCTS
2.1 ANSI Ceramic Tile Standard: Provide Standard grade tile that complies with ANSI A137.1, "Specifications for Ceramic Tile," for types, compositions, and other characteristics indicated.
2.2 Glazed and Unglazed Ceramic Tile (specific color and pattern as selected by Owner):
Composition: Impervious natural clay or porcelain.
Surface: Slip-resistant, with abrasive admixture where required.
Module Size: 12 x 12 inches at floor areas (other sizes and types as may be selected by Owner)
Nominal Thickness: 1/4 inch.
Face: Plain with cushion edges.
2.3 Provide all tile shapes and trim units as may be required to complete the indicated installation. Including bull-noses, coved base, and other special shapes as may be required. Match characteristics of adjoining flat tile and coordinated with sizes and coursing.
2.4 Select shape requirements from examples below that suit installation methods; delete subparagraphs if not applicable. Revise or supplement to suit Project.
2.5 Latex-Portland cement mortar, polymer modified (thin set).
2.6 Polymer-modified tile grout, sanded.
2.7 Waterproofing and Crack-Suppression Membrane: Manufacturer's standard product for Thin-Set Tile Installations: that complies with ANSI A118.10. Nonplasticized, chlorinated polyethylene faced on both sides with nonwoven polyester fabric, 0.030-inch nominal thickness, Nobleseal TS by the Noble Company, or equivalent of other manufacturer.
3.0 EXECUTION
3.1 Installations at interior floors shall be over waterproofing or crack suppression membrane.
3.2 Jointing Pattern: Lay tile in grid pattern, unless otherwise indicated. Align joints when adjoining tiles on floor, base, walls, and trim are same size. Lay out tile work and center tile fields in both directions in each space or on each wall area. Adjust to minimize tile cutting and avoid pieces less than one half tile. Provide uniform joint widths, unless otherwise indicated.

09 6400 Wood Flooring
1.0 GENERAL
1.1 Contractor shall select and approve flooring with a minimum 16 inch x 16 inch sample with selected stain and finish for approval before applying finish to new floor. Do not proceed until sample has been approved.
2.0 PRODUCTS
2.1 Solid-Wood, Strip Flooring: Kiln dried to 6 to 9 percent maximum moisture content, tongue and groove and end matched, and with backs channeled (kerfed) for stress relief.
2.2 Material shall be plain sawn, 25/32" thick, width to be determined, random-length strips.
2.3 Stain: Water based stain compatible with finish system.
2.4 Urethane Finish System: Complete water based system of compatible components that is recommended by finish manufacturer for application indicated.
3.0 EXECUTION
3.1 Install flooring over a layer of 15 lb. asphalt-saturated felt, allowing space at entire perimeter for contraction/expansion.
3.2 Blind nail or staple flooring to substrate as recommended by manufacturer.
3.3 Machine-sand to remove offsets, ridges, cups, and sanding-machine marks that would be noticeable after finishing. Vacuum and tack with clean cloth before applying finish.
3.4 Apply stain, sealer, and finish in number of coats recommended by finish manufacturer for application indicated, but not less than one coat of floor sealer and two finish coats.
3.5 Final coats shall be of sheen (and stain color) selected by Owner and approved in sample.

SPECIFICATIONS SCALE: AS INDICATED

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THE PURVIS RESIDENCE
400 DAHLIA STREET
COLORADO SPRING, CO 80904
PROJECT NUMBER # 22-2215

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CONSTRUCTION

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PLOT: 8/18/2022

Sheet # SS1
OF 2 SHEETS

09 6500 Resilient Flooring
1.0 GENERAL
2.0 PRODUCTS
2.1 Sheet Vinyl Flooring: 080 inch thick, as selected by contractor
3.0 EXECUTION
3.1 Sheet vinyl flooring joints shall be heat welded, flush with each adjoining surface, matching the color and texture of the sheet vinyl material. Install in accordance with manufacturer's specifications.

09 6800 Carpeting
1.0 GENERAL
2.0 PRODUCTS
2.1 Carpet: As selected by the Owner.
3.0 EXECUTION

09 9100 Painting
1.0 GENERAL
1.1 Exterior and interior surfaces not factory finished and not specifically excluded shall be painted. Interior trim selected by Owner shall be stained with clear finish, balance painted.
2.0 PRODUCTS
2.1 All paint, stain, and clear finish shall be Acrylic Latex "professional best grade" products of acceptable manufacturers. 150/L VOC Rating.
2.2 Provide primers and undercoat paint produced by the same manufacturer of the finish coats.
2.3 Wall and ceiling finishes shall be satin enamel finish at Kitchen and Baths. All other wall and ceiling finishes shall be flat.
2.4 All exterior paint finishes shall be a semi-gloss finish.
2.5 Refer to 09 2116 Gypsum Board partitions and ceilings for drywall Surfacer product to be utilized in place of primer for areas requiring level 5 drywall finish
3.0 EXECUTION
3.1 Apply one coat of primer and two finish coats of paint to all painted surfaces. Omit field primer where surface is factory primed.
3.2 Apply one coat stain and two coats clear polyurethane finish to selected interior trim.
3.3 Make all necessary surface preparation, testing, and sample preparation to insure successful coverage and performance.
3.4 Sand finishes on wood and metal surfaces between coats as necessary to assure smoothness and adhesion of subsequent coats.
3.5 Furnish and lay drop cloths or mask off areas where painting is being done to protect floors and adjacent work from damage during painting and finish operation.

DIVISION 10 SPECIALTIES

10 2800 Toilet Accessories
1.0 GENERAL
2.0 PRODUCTS
2.1 Toilet Accessories (toilet paper holders, paper towel dispensers, towel bars, mirrors, medicine cabinets) as selected by Owner.
3.0 EXECUTION
3.1 Provide solid blocking as required for mounting of selected toilet accessories.

10 3100 Manufactured Fireplaces
1.0 GENERAL
2.0 PRODUCTS
2.1 Provide Fireplace and Stove units as shown on plans. Gas log, rear/top vent or direct vent as indicated (ICC listed and approved). As selected by Owner.
2.2 Provide pre-finished chimney crown as manufactured by Chimney King, specific style as shown.
2.3 Selected style must be listed and labeled for use with the specific factory built chimney system utilized with the fireplace.
3.0 EXECUTION
3.1 Install fireplace unit, flue, and chimney crown as recommended by the manufacturer and for specific conditions and systems indicated.

DIVISION 11 EQUIPMENT

11 3100 Appliances
1.0 GENERAL
2.0 PRODUCTS
2.1 Kitchen Appliances: As selected by the Owner – all Energy Star
3.0 EXECUTION
3.1 Set appliances true and level according to manufacturer's written instructions.
3.2 Provide all necessary power and plumbing connections.

DIVISION 12 FURNISHINGS

12 3200 Wood Casework
1.0 GENERAL
2.0 PRODUCTS
2.1 Casework shall be as selected by the Owner.
2.2 Kitchen countertops shall be as selected by the Owner
3.0 EXECUTION
3.1 Set casework accurately in place, level, and secure to floor and walls. Provide connecting and attaching devices, closures, and trim members as required. Install items complete. Scribe and closely fit casework to adjacent work. Fasten base cabinets securely to base and to floor.
3.2 Adjust casework and hardware so that doors and drawers operate smoothly without warp or bind.

DIVISION 13 SPECIAL CONSTRUCTIONS -None Required-

DIVISION 14 CONVEYING SYSTEMS -None Required-

DIVISION 22 PLUMBING

22 0000 Plumbing Fixtures and Equipment
1.0 GENERAL
2.0 PRODUCTS
2.1 Refer to Plumbing Plan, fixtures as selected by the Owner.
3.0 EXECUTION
3.1 Shall comply with local code.

DIVISION 23 HEATING, VENTILATION, AND AIR-CONDITIONING

23 0000 Mechanical Equipment
1.0 GENERAL
2.0 PRODUCTS
2.1 Refer to Mechanical Plans for Heating, and Air-Conditioning Equipment per Schedule and Notes by mechanical contractor.
3.0 EXECUTION
3.1 Shall comply with local codes and shall be installed using duct sealing practices as ascribed in Chapter 12, Builders Guide to Cold Climates, Revised 2006 Joe Lstiburek.

DIVISION 26 ELECTRICAL

26 0000 Basic Electrical Requirements
1.0 GENERAL
2.0 PRODUCTS
2.1 Refer to Electrical Plans for Plan notes and Schedules.
2.2 Lighting fixtures as selected by the Owner.
3.0 EXECUTION
3.1 Coordinate with Owner for Computer, TV and other data cabling to be included.

DIVISION 31 EARTHWORK

31 0000 Earthwork
1.0 GENERAL
1.1 The Soils Engineer will be hired directly by the Owner/GC. Costs of earthwork testing and oversight by the Soils Engineer will be paid by the Owner/GC.
2.0 PRODUCTS
2.1 On-Site or Imported fill and backfill Materials as acceptable to the soils engineer.
3.0 EXECUTION
3.1 In addition to required compaction of fill and backfill materials, compact bottom of all footing excavations to the satisfaction of the Soils Engineer using a vibratory compactor immediately prior to forming.
3.2 Cut and fill areas as indicated or required to finish grades indicated. Leave graded surface clean, free from rubbish and large clods, and smooth. Grading Tolerances as follows:
Sub-grade Below Footings, Floor Slab, Sidewalk, & Paving: Tolerance +/- 0.02' (1/4").
Sub-grade Under All Other Areas Disturbed by Site Grading: Tolerance +/- 0.1' (1-1/4").
3.3 Final Finish Grades: All landscape areas, Tolerance +/-0.1'(1-1/4").
a. Complete with imported or stockpiled topsoil to depth and grade indicated on site plan.
3.4 Import or export material necessary to achieve finish grades indicated on drawings at no additional cost to the Owner.
3.5 Unsuitable or excess material including cobbles and boulders shall be disposed of off-site.

31 2113 Radon Venting
1.0 GENERAL
1.1 Submit Shop drawings and Product Data of design and layout of underslab Radon Venting System for review and approval.
a. Utilize perorated ABS piping.
b. Refer to drawings for detail.
1.2 Install system according to approved submittals
2.0 PRODUCTS
3.0 EXECUTION

DIVISION 32 EXTERIOR IMPROVEMENTS

32 0000 Planting and Irrigation
1.0 GENERAL
2.0 PRODUCTS
3.0 EXECUTION

32 1413 Precast Concrete Unit Paving
1.0 GENERAL
1.1 Provide concrete paver units, sand setting and sand joint filler.
1.2 Related Requirements: Section 31 0000 Earthwork, for preparation of soil substrate.
1.3 Submittals:
a. Product data for paver units.
b. Samples: Submit two samples of each pave type.
c. Manufacturer's Installation Instructions: Indicate substrate requirements and installation methods.
2.0 PRODUCTS
2.1 Interlocking Concrete Pavers: The design is based on the following product: Pavestone Concrete Pavers. Also acceptable, subject to compliance with specified requirements:
a. Hanover Architectural Products, Inc.
b. Oldcastle
2.2 Concrete Pavers: hydraulically pressed concrete, complying with ASTM C936.
2.3 Sand for setting Bed: Clean washed natural sand or crushed stone complying with the gradation requirements of ASTM C33 for fine aggregates.
2.4 Sand for Joints: Fine washed sand with 100 percent passing No.16 sieve and not more than 10 percent passing No. 200 sieve.
3.0 EXECUTION
3.1 Verify that substrate is level or to correct gradient, smooth, capable of supporting pavers and imposed loads, ready to receive paver installation.
3.2 Treat soil with herbicide to retard plant growth.
3.3 Spread setting bed sand, dampen and compact, place paver units, and work sand into paver joints according to written instructions of manufacturer.
3.4 Cut paver units at edges, joints, and changes in direction with masonry saw.
3.5 Tamp and level paver units with mechanical vibrator until units are firmly bedded, level, and to correct elevation and gradients. Do not tamp unrestrained edges.

DIVISION 33 UTILITIES

33 0000 Utilities
1.0 GENERAL
1.1 Perform all Utility Extension work in accordance with Local Utilities Provider standard specifications and details.
1.2 Tap fees will be paid directly by the Contractor for services as designed and shown on drawings. Contractor shall pay all over permit and construction related fees.
2.0 PRODUCTS
3.0 EXECUTION

33 4600 Sub-drainage Systems
1.0 GENERAL
1.1 Coordinate installation of system with Soils Engineer. Allow Soils Engineer to observe field conditions prior to layout, excavation, and installation.
2.0 PRODUCTS
2.1 PVC or HDPE single wall pipe. Perforated pipe at foundation drain system. Solid pipe outside of drainage areas for connection to outfall.
3.0 EXECUTION
3.1 Provide grade cleanouts at each major change in direction or as indicated on Drawings.
3.2 Refer to referenced Subsurface Soil Investigation for sub-drain detail.
3.3 Outfall to sump or daylight, as required.

END of OUTLINE SPECIFICATION-LGA STUDIOS

SPECIFICATIONS

SCALE: AS INDICATED

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Sheet #
SS2
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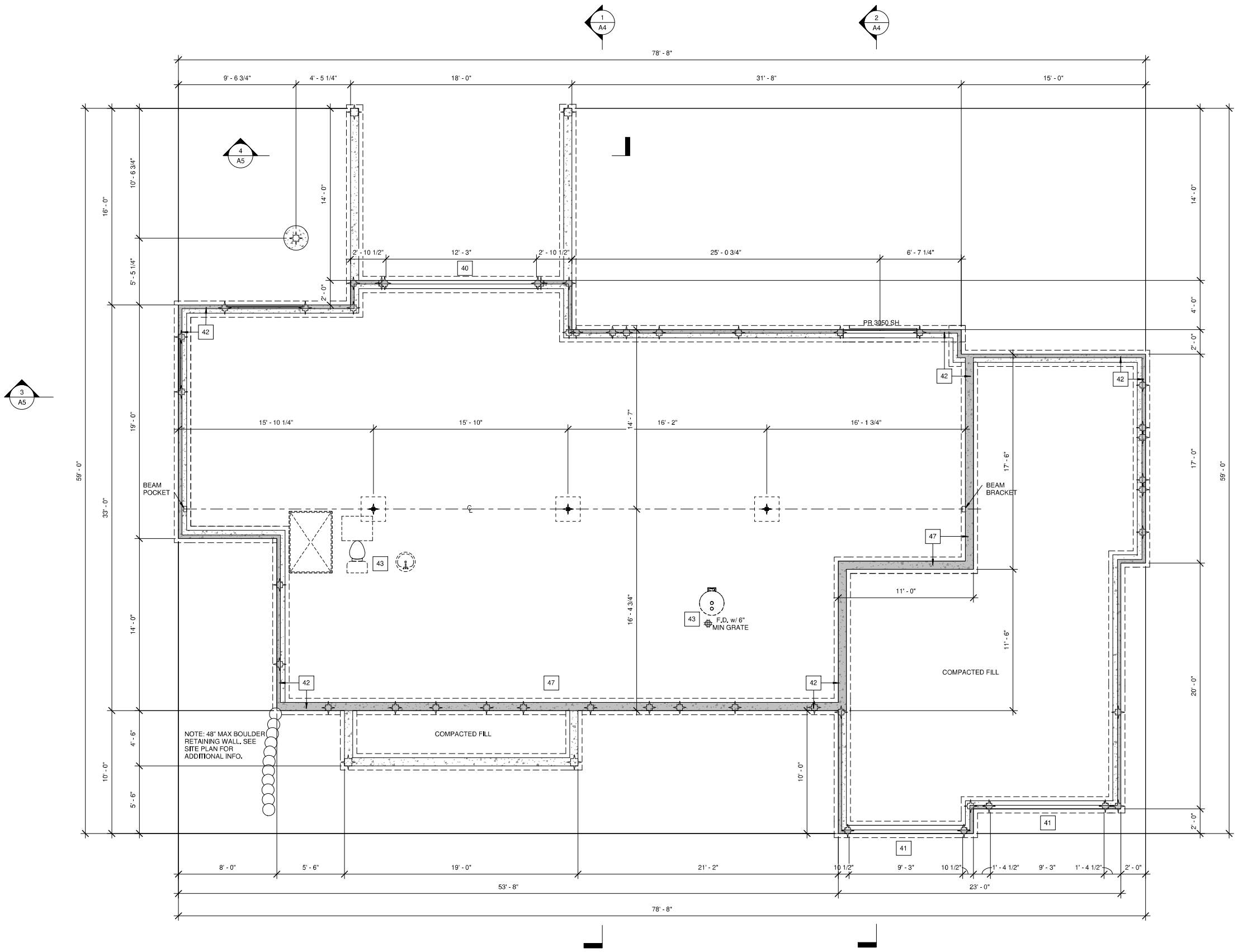

GENERAL FOUNDATION NOTES:

1. FOUNDATION DESIGN TO BE COMPLETED UPON SITE INSPECTION OF SOILS BY A COLORADO REGISTERED SOILS ENGINEER. DESIGN & SOILS REPORT TO BE ON HAND AT TIME OF INSPECTION AND/OR SUBMITTED TO THE BUILDING DEPARTMENT AT THE TIME OF PLAN CHECK. DESIGN BY AN ENGINEER SHALL BE BASED UPON LOADS FOUND BY USING DRAWINGS BY LGA STUDIOS, INC. IT SHALL BE ADVISED THAT ALL ENGINEERING SHOWN ON THE PLANS SHALL BE VERIFIED BY A PROFESSIONAL ENGINEER AND DISCREPANCIES REPORTED TO THE DESIGNER. FAILURE TO DO SO SHALL RELIEVE THE DESIGNER OF ERRORS.

2. ALL GRADES SHALL SLOPE AWAY FROM ANY STRUCTURE A MINIMUM OF 10% OR 1' IN 10' AND SHALL CONFORM TO ALL REQUIREMENTS INDICATED IN SOILS REPORT. SOILS REPORT SHALL GOVERN SLABS, AND FOUNDATION DRAINAGE. STEP FOUNDATION AS PER GRADE CONDITIONS AS SHOWN ON THE ELEVATIONS AND MAY NEED SOME ADJUSTMENT AT SITE.

3. SEE PLUMBING AND MECHANICAL CONTRACTORS FOR ANY REQUIRED PENETRATIONS.

4. INSTALL ALL COLUMN ANCHORS PER MFG. SEE MAIN LEVEL FLOOR FRAMING PLAN FOR COLUMN ANCHOR TYPE AND LOCATION.

5. PROVIDE 3" MINIMUM BEARING AT BEAM POCKETS (TYP).

6. FIELD VERIFY ACTUAL WALKOUT LOCATION WITH SITE PLAN AND AT SITE PER EXISTING SITE CONDITIONS.

7. PROVIDE MINIMUM PERIMETER FOUNDATION INSULATION AS REQUIRED PER CODE. SEE ATTACHED PIKES PEAK BUILDING DEPARTMENT INTERNATIONAL ENERGY CONSERVATION CODE CERTIFICATE.

ASSEMBLY NOTES:

A	ROOF:
B	FASCIA/SOFFIT:
C	EXTERIOR WALL:
D	EXTERIOR WALL BALLOON FRAME:
E	FRAMED FLOOR SYSTEM:
F	EXTERIOR DECK SYSTEM:
G	RAILING SYSTEM:
H	STAIRS:
I	BASEMENT FOUNDATION WALL:
J	SLAB ON GRADE:
K	PERIMETER DRAIN SYSTEM:

ALL ASSEMBLIES AND GENERAL NOTES REFERENCED TO SHEET GS1 AND SPECIFICATIONS SHEET SS1

SPECIFIC FOUNDATION NOTES:

40 DROP TOP OF WALL 6" @ DOOR & POUR SLAB OVER. CONTRACTOR TO VERIFY R.O. WIDTH

41 DROP TOP OF WALL 8" @ DOOR & POUR SLAB OVER. CONTRACTOR TO VERIFY R.O. WIDTH

42 2X4 MUD SILL W/ 1/2" DIA X 10" ANCHOR BOLTS @ 48" O.C. & 12" FROM ENDS w/MIN. 7" EMBEDMENT w/2 PER PIECE MIN

43 DASHED LINES INDICATE R.I. PLUMBING FIXTURES

44 NOT USED

45 STEP TOP OF FND.

46 NOT USED

47 RIPPED P.T. OR REDWOOD 2X10 SILL PLATE ATOP FND W/ 1/2" DIA X 10" ANCHOR BOLTS @ 48" O.C. & 12" FROM ENDS W/ MIN. 7" EMBEDMENT W/ 2 PER PIECE MIN.

NOTE:
FOR OTHER APPLICABLE KEYNOTES, SYMBOLS & HATCHES SEE GENERAL NOTE SHEET "CS1" FOR KEYNOTES AND CORRESPONDING ASSEMBLY NOTES.

FOUNDATION LAYOUT PLAN

SCALE: 1/4" = 1' - 0"

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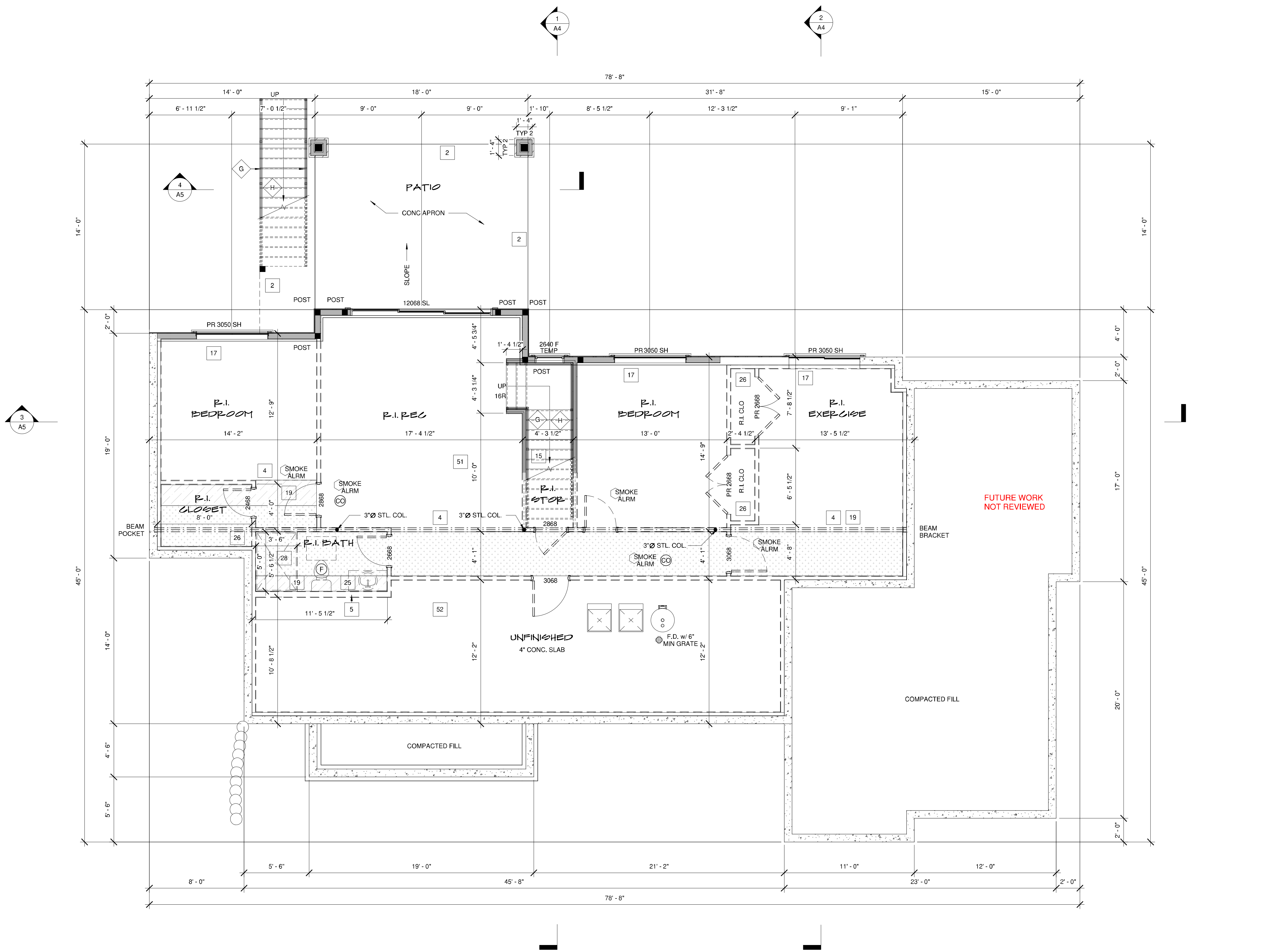
Sheet #
A1
OF 9 SHEETS



GENERAL LOWER LEVEL NOTES:

1. UNLESS NOTED OTHERWISE ALL CONCRETE FOUNDATION WALL HEIGHTS THIS LEVEL TO BE A 9'-0" POUR w/INTERIOR WALL HEIGHTS TO BE 8'-8"± FIELD VERIFY.

2. PROVIDE 'LOW RESISTANCE' RETURN AIR PATH FOR ALL CLOSED ROOMS. PER CODE CAN USE T-GRILLS OR UNDER-CUT DOORS.

3. ALL NON-BEARING WALL, STAIRS AND LANDINGS MUST FLOAT.

4. MAINTAIN MINIMUM 30" CLEAR SPACE IN FRONT OF THE CONTROL SIDE OF FURNACE & WATER HEATER. WATER HEATER MUST BE PLACED SO THE VENT IS ADJACENT & CLOSEST TO THE VENT STACK.

48" MAX HIGH RETAINING WALLS ARE SHOWN FOR REFERENCE ONLY. FIELD VERIFY WITH SITE PLAN AND ACTUAL SITE CONDITIONS PRIOR TO BACKFILLING. IN ADDITION, VERIFY w/CONTRACTOR ACTUAL RETAINING WALL CONSTRUCTION.

SPECIFIC ELECTRICAL NOTES / SYMBOLS

- (F) EXHAUST FAN (VENT TO EXTERIOR) FANS VENTED THROUGH UNCONDITIONED SPACE MAX 25'-0" & MIN R-6 INSUL
- SMOKE ALARM — HARDWIRED & INTERLOCK SMOKE DETECTOR w/BATTERY BACK-UP
- (CO) CARBON MONOXIDE DETECTOR

NOTES:
ALL PLACEMENT OF LIGHTING, OUTLETS, TV, PHONES, SECURITY, COMPUTER, STEREO/VIDEO WIRING, INTERCOM OR ANY OTHER ELECTRICAL FIXTURES SHALL BE VERIFIED PRIOR TO CONSTRUCTION w/CONTRACTOR. ELECTRICAL SHALL BE WIRED PER THE NATIONAL ELECTRICAL CODE AND LOCAL CODES. SEE SPECIFICATIONS DIVISION 16010 BASIC ELECTRICAL REQUIREMENTS.

ASSEMBLY NOTES:

A	ROOF:
B	FASCIA/SOFFIT:
C	EXTERIOR WALL:
D	EXTERIOR WALL BALLOON FRAME:
E	FRAMED FLOOR SYSTEM:
F	EXTERIOR DECK SYSTEM:
G	RAILING SYSTEM:
H	STAIRS:
I	BASEMENT FOUNDATION WALL
J	SLAB ON GRADE:
K	PERIMETER DRAIN SYSTEM:

ALL ASSEMBLIES AND GENERAL NOTES REFER TO SHEET CS1 AND SPECIFICATIONS SHEET SS1

SPECIFIC LOWER LEVEL NOTES:

48 PROVIDE BLOCK OUTS AS NEEDED IN STEPPED FOUNDATION WALL FOR NOTED WINDOWS.

49 METAL WINDOW WELL AS GRADE REQUIRES. PROVIDE 36" MIN CLEAR SQUARE EGRESS WELL W/ LADDER PER CODE (9 SQ' MIN CLR)

50 NOT USED

51 PROVIDE MECHANICAL VENTILATION PER IRC 2015 SECTION R303.1.1 AND ARTIFICIAL LIGHT PER SECTION R303.1.2

52 PROVIDE FIRE PROTECTION OF FLOORS PER 2015 R302.13 @ ENTIRE CEILING

NOTE:
FOR OTHER APPLICABLE KEYNOTES, SYMBOLS, & HATCHES SEE GENERAL NOTE SHEET 'CSI' FOR KEYNOTES AND CORRESPONDING ASSEMBLY NOTES.

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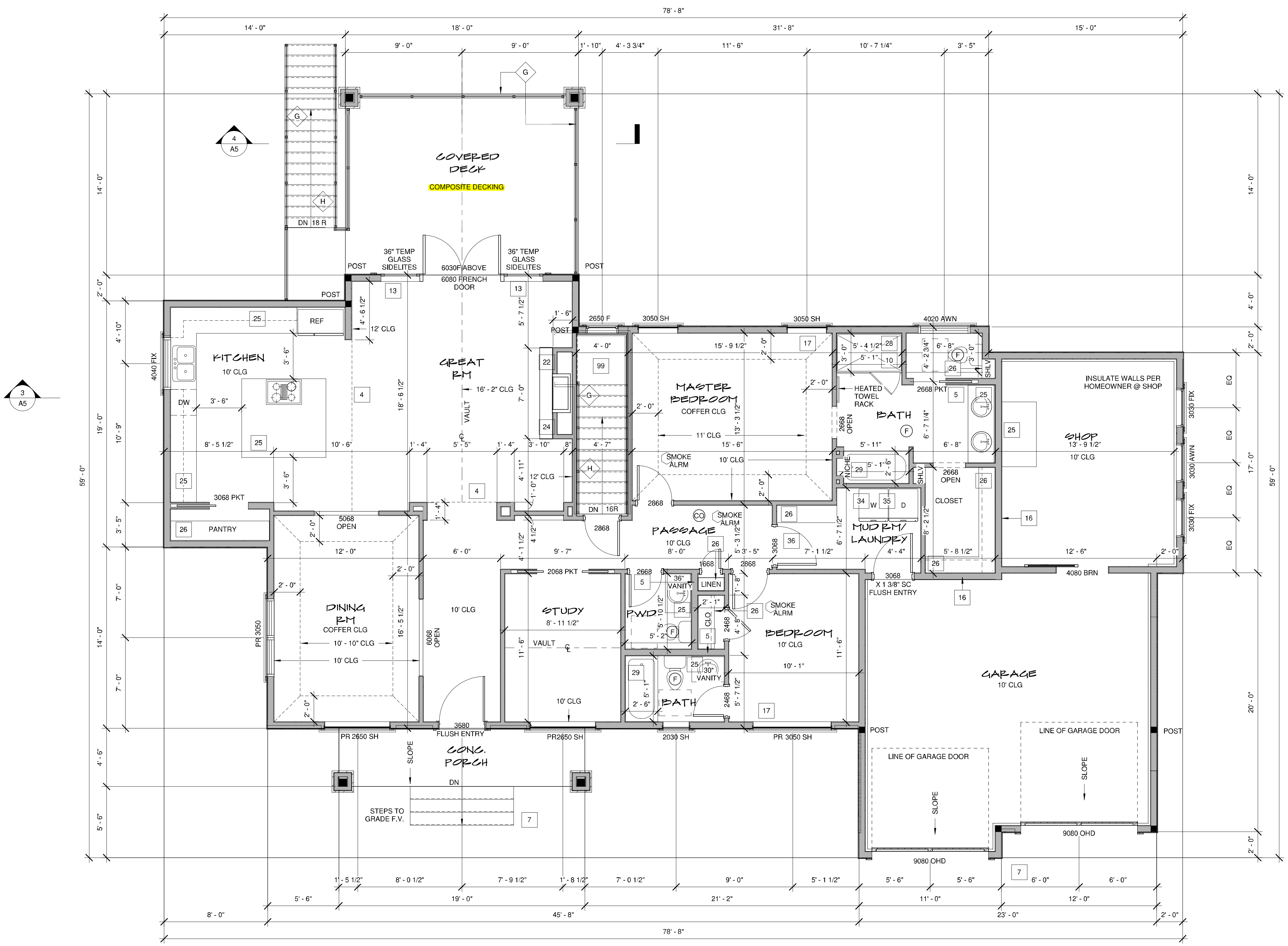
Sheet # **A2** OF 9 SHEETS

LOWER LEVEL FLOOR PLAN

SCALE: 1/4" = 1' - 0"

MAIN LEVEL FLOOR PLAN

SCALE: 1/4" = 1' - 0"



MONITORED FIRE ALARM SYSTEM IS REQUIRED AND MAY TAKE PLACE OF REQUIRED SINGLE/MULTI STATION SMOKE ALARMS REQUIRED BY IRC.
CSFD

GENERAL MAIN LEVEL NOTES:

1. UNLESS NOTED OTHERWISE ALL WALL HEIGHTS THIS LEVEL TO BE 10'- 1 1/8".

2. PROVIDE 'LOW RESISTANCE' RETURN AIR PATH FOR ALL CLOSED ROOMS. PER CODE CAN USE T-GRILLS OR UNDER-CUT DOORS.

SPECIFIC ELECTRICAL NOTES / SYMBOLS

- (F) EXHAUST FAN (VENT TO EXTERIOR) FANS VENTED THROUGH UNCONDITIONED SPACE MAX 25'-0" & MIN R-6 INSUL
- SMOKE ALARM — HARDWIRED & INTERLOCK SMOKE DETECTOR w/BATTERY BACK-UP
- (CO) CARBON MONOXIDE DETECTOR

NOTES:
ALL PLACEMENT OF LIGHTING, OUTLETS, TV, PHONES, SECURITY, COMPUTER, STEREO/VIDEO WIRING, INTERCOM OR ANY OTHER ELECTRICAL FIXTURES SHALL BE VERIFIED PRIOR TO CONSTRUCTION w/CONTRACTOR. ELECTRICAL SHALL BE WIRED PER THE NATIONAL ELECTRICAL CODE AND LOCAL CODES. SEE SPECIFICATIONS DIVISION 16010 BASIC ELECTRICAL REQUIREMENTS.

ASSEMBLY NOTES:

- A ROOF:
- B FASCIA/SOFFIT:
- C EXTERIOR WALL:
- D EXTERIOR WALL BALLOON FRAME:
- E FRAMED FLOOR SYSTEM:
- F EXTERIOR DECK SYSTEM:
- G RAILING SYSTEM:
- H STAIRS:
- I BASEMENT FOUNDATION WALL
- J SLAB ON GRADE:
- K PERIMETER DRAIN SYSTEM:

ALL ASSEMBLIES AND GENERAL NOTES REFER TO SHEET CS1 AND SPECIFICATIONS SHEET SS1

SPECIFIC MAIN LEVEL NOTES:

55 NOT USED

APPROVED
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FDDEM
Colorado Springs Fire Department

NOTE:
FOR OTHER APPLICABLE KEYNOTES, SYMBOLS, & HATCHES SEE GENERAL NOTE SHEET 'CS' FOR KEYNOTES AND CORRESPONDING ASSEMBLY NOTES.

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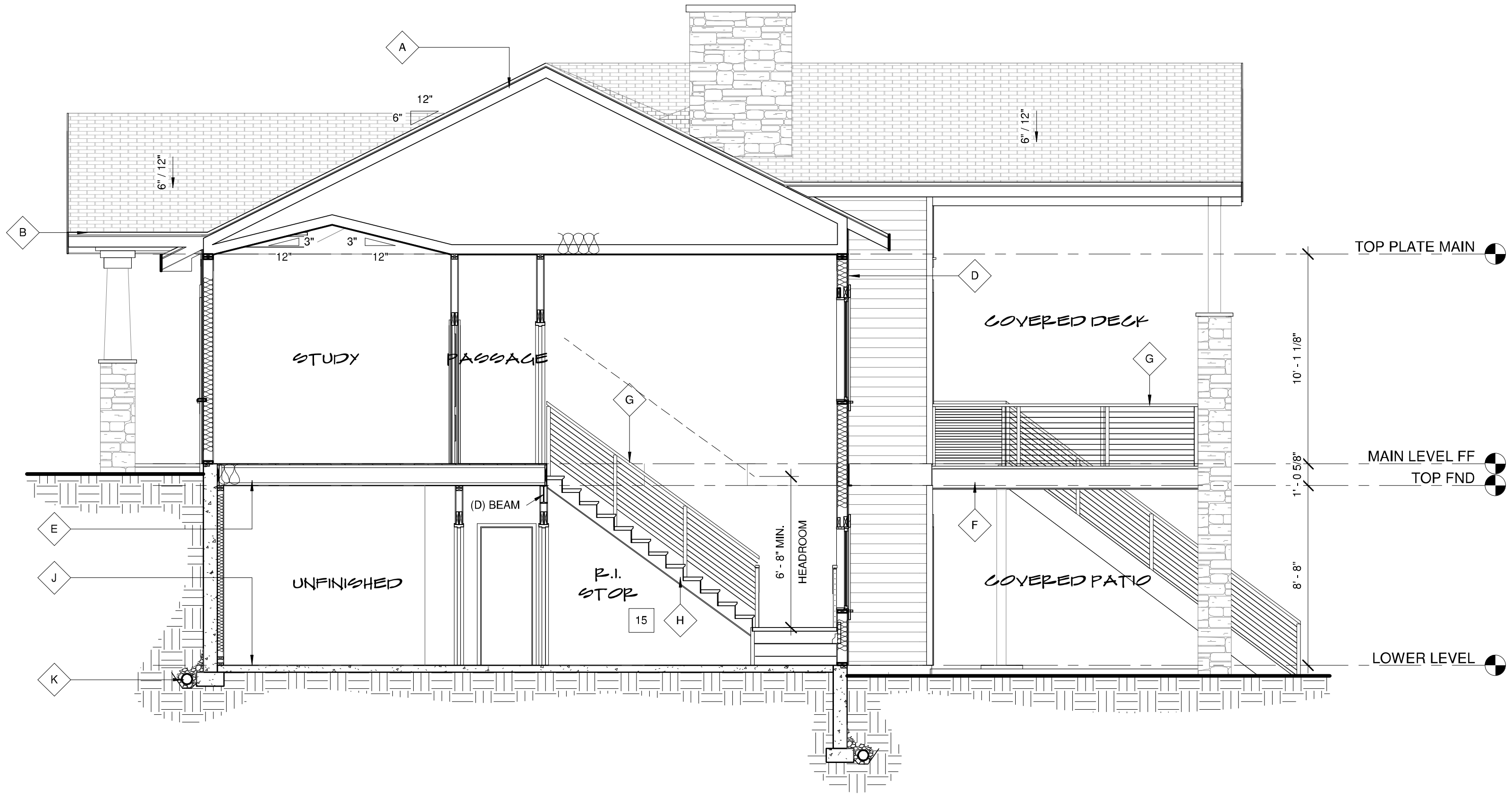
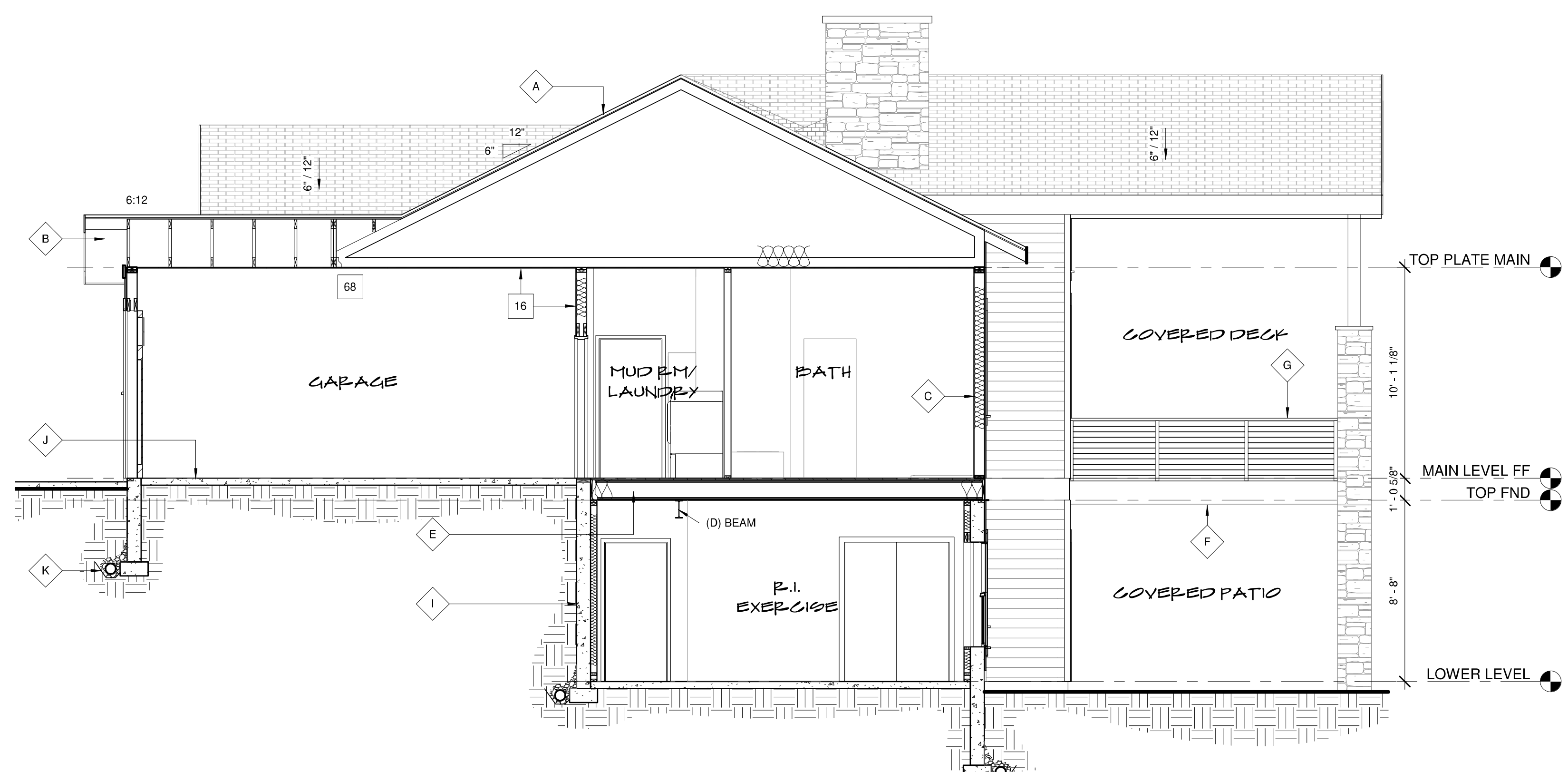
Sheet # A3
OF 9 SHEETS

Class A Roofing Required.
Exterior cladding, eaves and soffits shall be ignition-resistant (to include fascia and trim).
Exterior doors non-combustible or solid core not less than 1-3/4"
Attic & Roof vents screened with wire mesh or heardware cloth with openings 1/8" or less.
No gable vents.
Gutters and downspouts of non-combustible materials with drip edge extending to gutter and no exposed wood. If vinyl used, non-combustible landing area below minimum 5' from structure is required.
Decks and other habitable spaces to be of ignition resistant or noncombustible materials.
Base of exterior walls, posts, columns protected on bottom with fire resistant sealant or wire mesh with no larger than 1/8" openings.
Fuels management within 30' of all construction.



SECTION 1

SCALE: 1/4" = 1' - 0"



SECTION 2

SCALE: 1/4" = 1' - 0"

SECTIONS

SCALE: 1/4" = 1' - 0"

GENERAL SECTION NOTES:

1. UNLESS OTHERWISE NOTED ALL SECTIONS ARE TYPICAL. SEE SECTION S1/A4 FOR REFERENCE OF COMPLETE LABELING AND NOTES.
2. SEE STRUCTURAL SHEETS FOR ALL CALLOUTS OF FRAMING MEMBERS, BEAMS, HEADERS, AND CONNECTIONS ETC. TYPICAL.
3. ALIGN FLOOR JOISTS TO ALLOW FOR PLUMBING AND MECHANICAL INSTALLATION.
4. SECTION BEYOND ITEMS ARE SHOWN FOR REFERENCE ONLY AND DOES NOT INDICATE ANY SPECIFIC MATERIAL, MANUFACTURER OR TYPE.

ASSEMBLY NOTES:

A	ROOF:
B	FASCIA/SOFFIT:
C	EXTERIOR WALL:
D	EXTERIOR WALL BALLOON FRAME:
E	FRAMED FLOOR SYSTEM:
F	EXTERIOR DECK SYSTEM:
G	RAILING SYSTEM:
H	STAIRS:
I	BASEMENT FOUNDATION WALL
J	SLAB ON GRADE:
K	PERIMETER DRAIN SYSTEM:

ALL ASSEMBLIES AND GENERAL NOTES REFER TO SHEET CS1 AND SPECIFICATIONS SHEET SS1

SPECIFIC SECTION NOTES:

66 NOT USED
67 BEARING WALL. SEE STRUCTURAL SHEETS FOR ADDITIONAL INFORMATION
68 HANGER-TRUSS OR RAFTER SEE STRUCTURAL SHEETS FOR ADDITIONAL INFORMATION

NOTE:
FOR OTHER APPLICABLE KEYNOTES, SYMBOLS & HATCHES SEE GENERAL NOTE SHEET "CS1" FOR KEYNOTES AND CORRESPONDING ASSEMBLY NOTES.

SECTION NOTE SYMBOLS:

= EARTH MATERIAL
= CONCRETE

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Sheet # A4
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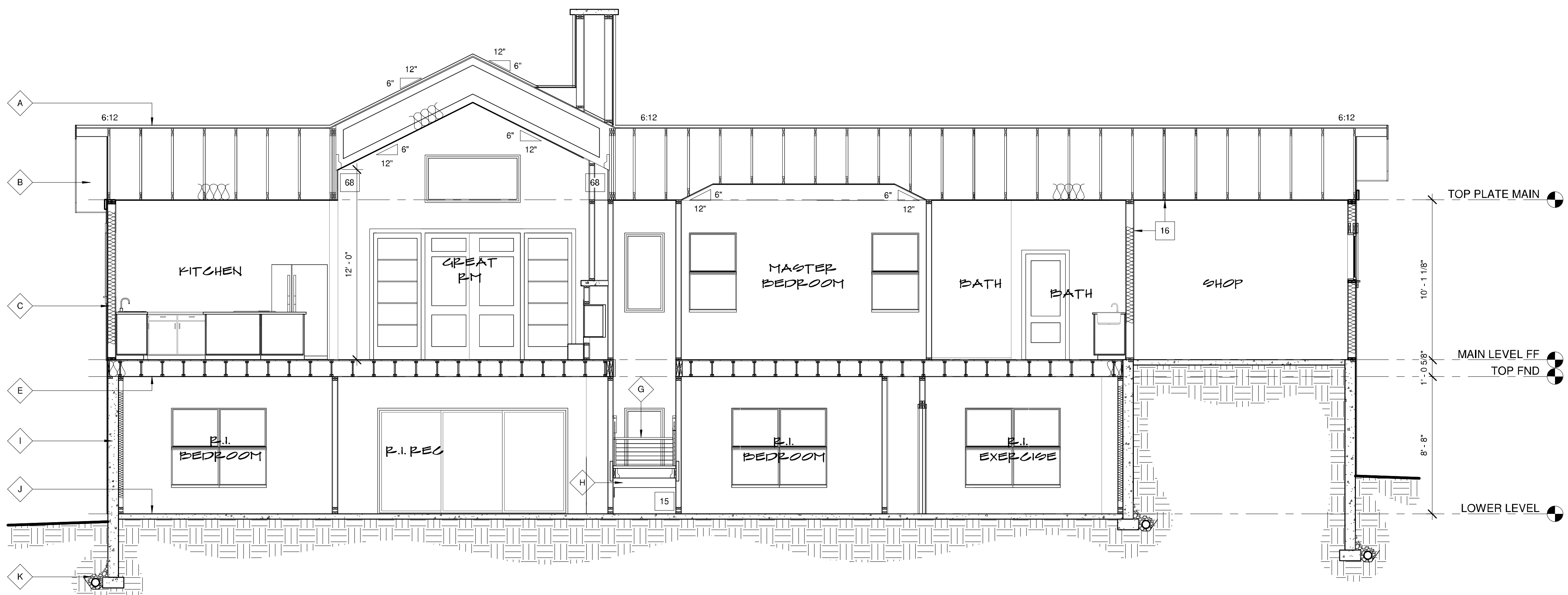
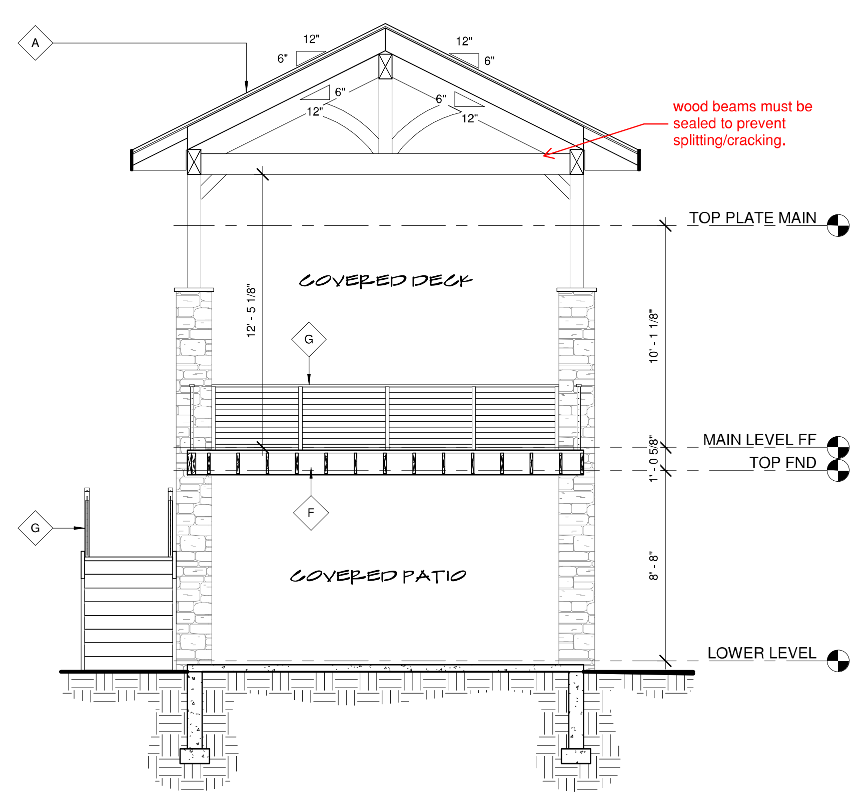


SECTION 3

SCALE: 1/4" = 1' - 0"

Class A Roofing Required.
Exterior cladding, eaves and soffits shall be ignition-resistant (to include fascia and trim).
Exterior doors non-combustible or solid core not less than 1-3/4"
Attic & Roof vents screened with wire mesh or hardware cloth with openings 1/8" or less.
No gable vents.
Gutters and downspouts of non-combustible materials with drip edge extending to gutter and no exposed wood. If vinyl used, non-combustible landing area below minimum 5' from structure is required.
Decks and other habitable spaces to be of ignition resistant or noncombustible materials.
Base of exterior walls, posts, columns protected on bottom with fire resistant sealant or wire mesh with no larger than 1/8" openings.
Fuels management within 30' of all construction.



SECTION 4

SCALE: 1/4" = 1' - 0"

GENERAL SECTION NOTES:

1. UNLESS OTHERWISE NOTED ALL SECTIONS ARE TYPICAL. SEE SECTION S1/A4 FOR REFERENCE OF COMPLETE LABELING AND NOTES.

2. SEE STRUCTURAL SHEETS FOR ALL CALLOUTS OF FRAMING MEMBERS, BEAMS, HEADERS, AND CONNECTIONS ETC. TYPICAL.

3. ALIGN FLOOR JOISTS TO ALLOW FOR PLUMBING AND MECHANICAL INSTALLATION.

4. SECTION BEYOND ITEMS ARE SHOWN FOR REFERENCE ONLY AND DOES NOT INDICATE ANY SPECIFIC MATERIAL, MANUFACTURER OR TYPE.

ASSEMBLY NOTES:

ALL ASSEMBLIES AND GENERAL NOTES REFER TO SHEET CS1 AND SPECIFICATIONS SHEET SS1

A	ROOF:
B	FASCIA/SOFFIT:
C	EXTERIOR WALL:
D	EXTERIOR WALL BALLOON FRAME:
E	FRAMED FLOOR SYSTEM:
F	EXTERIOR DECK SYSTEM:
G	RAILING SYSTEM:
H	STAIRS:
I	BASEMENT FOUNDATION WALL
J	SLAB ON GRADE:
K	PERIMETER DRAIN SYSTEM:

SPECIFIC SECTION NOTES:

66 NOT USED

67 BEARING WALL. SEE STRUCTURAL SHEETS FOR ADDITIONAL INFORMATION

68 HANGER-TRUSS OR RAFTER SEE STRUCTURAL SHEETS FOR ADDITIONAL INFORMATION

NOTE:
FOR OTHER APPLICABLE KEYNOTES, SYMBOLS & HATCHES SEE GENERAL NOTE SHEET "CS1" FOR KEYNOTES AND CORRESPONDING ASSEMBLY NOTES.

SECTION NOTE SYMBOLS:

= EARTH MATERIAL

= CONCRETE

SECTIONS

SCALE: 1/4" = 1' - 0"

REVISIONS

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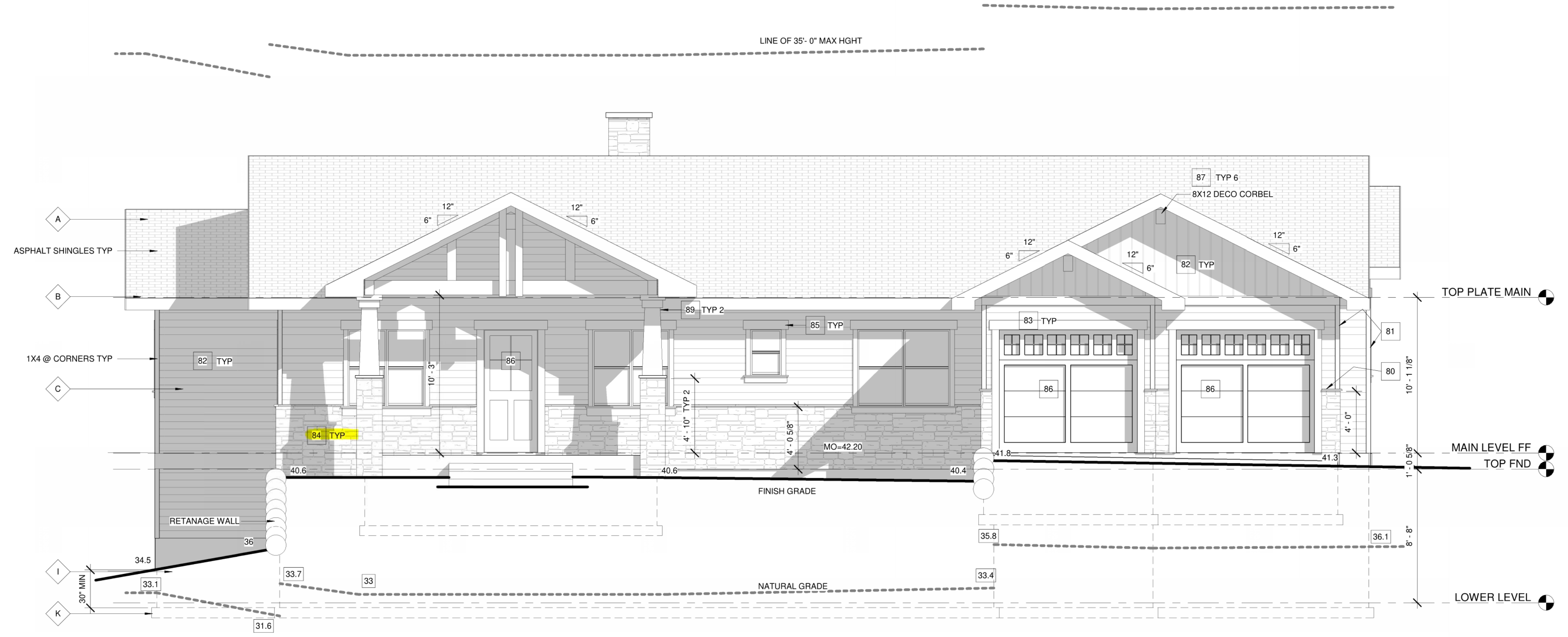
RSHOMES52@GMAIL.COM

THE PURVIS RESIDENCE
400 DAHLIA STREET
COLORADO SPRING, CO 80904
PROJECT NUMBER # 22-2215

Released for Permit
08/24/2022 11:32:32 AM
bphillips
CONSTRUCTION

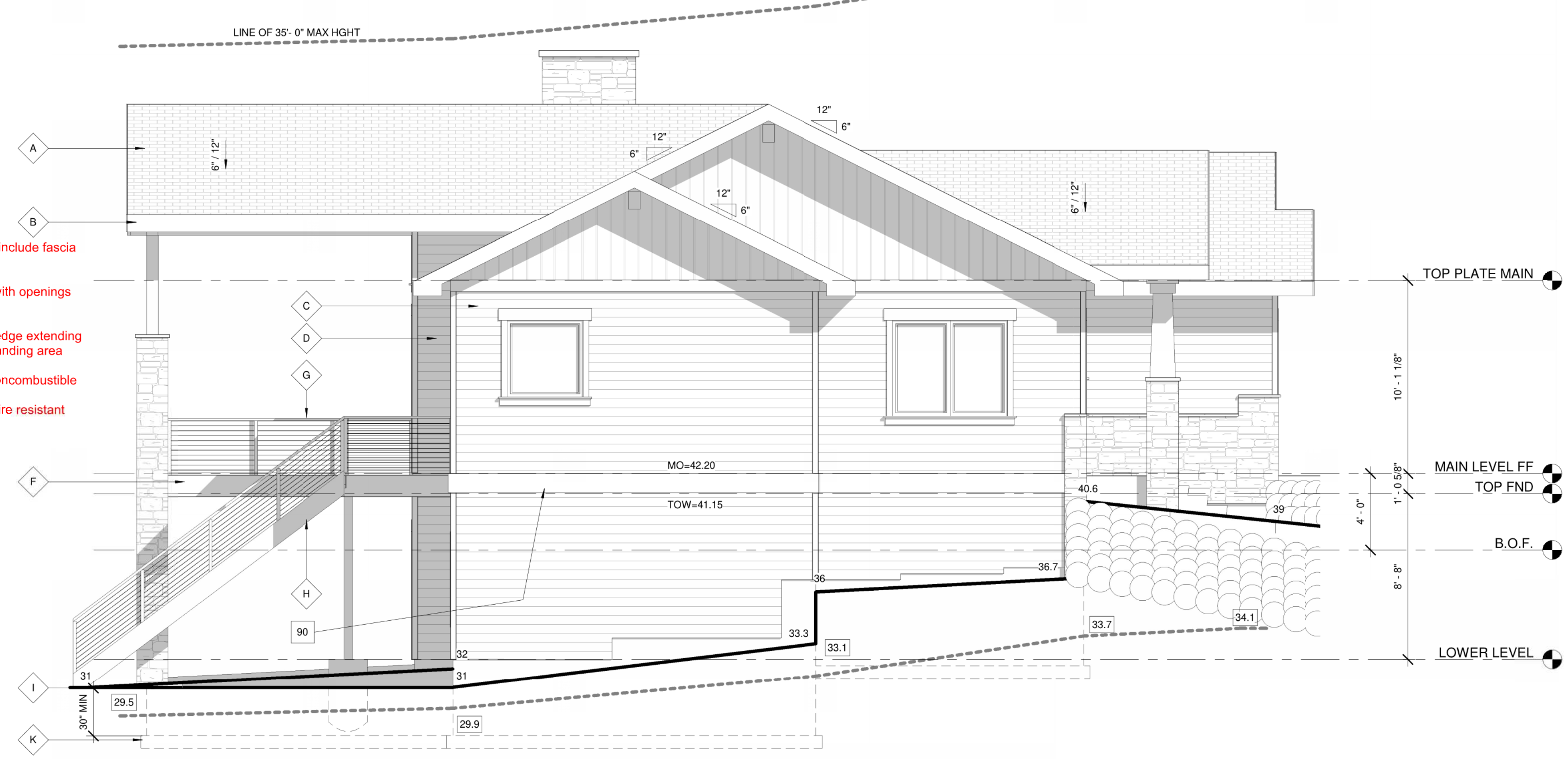
DRAWN BY: EAH
CHECKED: DMNS
PLOT: 8/18/2022

Sheet #
A5
OF 9 SHEETS



FRONT ELEVATION

SCALE: 1/4" = 1' - 0"



Class A Roofing Required.
Exterior cladding, eaves and soffits shall be ignition-resistant (to include fascia and trim).
Exterior doors non-combustible or solid core not less than 1-3/4"
Attic & Roof vents screened with wire mesh or hardware cloth with openings 1/8" or less.
No gable vents.
Gutters and downspouts of non-combustible materials with drip edge extending to gutter and no exposed wood. If vinyl used, non-combustible landing area below minimum 5' from structure is required.
Decks and other habitable spaces to be of ignition resistant or noncombustible materials.
Base of exterior walls, posts, columns protected on bottom with fire resistant sealant or wire mesh with no larger than 1/8" openings.
Fuels management within 30' of all construction.

APPROVED
11/22/2022 9:36:27 AM
FDCEM
Colorado Springs Fire Department

LEFT ELEVATION

SCALE: 1/4" = 1' - 0"

GENERAL ELEVATION NOTES:

1. PROVIDE 6" MIN. GUTTER AT ALL OVERHANGS AND DOWN SPOUTS AT ALL CORNERS OR AT ALL 30' OF GUTTER RUNS. FIELD LOCATE ALL DOWN SPOUTS SUCH THAT THEY SHALL DRAIN 700sf OF ROOF SURFACE PER 2"X4" DOWN SPOUT. ALL DOWN SPOUTS SHALL HAVE TIPOUTS THAT ALLOW FOR DRAINAGE PAST BACK FILL AREAS-APPROX 7'-0" FROM VERTICAL WALL TO PROVIDE DRAINAGE AWAY FROM STRUCTURE IN ALL DIRECTIONS.

2. ROOF VENTILATION SHALL COMPLY WITH 2015 IRC R806.2. 9.68 SQ. FT. UPPER ROOF w/EQUAL SOFFIT-EAVE OR 19.35 SQ. FT. UPPER ROOF TOTAL EQUAL SPACED FOR ROOF AREAS.

3. NOTES SHALL APPLY TO ALL ELEVATION CONDITIONS OF LIKE OR SIMILAR CONDITIONS.

4. ANY BOULDER RETAINAGE WALL SHOWN SHALL BE LESS THAN 48" IN HEIGHT w/96" MIN APART IF MORE THAN (1) WALL OR SHALL BE DESIGNED BY SOILS ENGINEER.

5. ICE AND SNOW SHIELD REQUIRED ABOVE 7,000 FEET ABOVE SEA LEVEL.

ASSEMBLY NOTES:

A	ROOF:
B	FASCIA/SOFFIT:
C	EXTERIOR WALL:
D	EXTERIOR WALL BALLOON FRAME:
E	FRAMED FLOOR SYSTEM:
F	EXTERIOR DECK SYSTEM:
G	RAILING SYSTEM:
H	STAIRS:
I	BASEMENT FOUNDATION WALL
J	SLAB ON GRADE:
K	PERIMETER DRAIN SYSTEM:

ALL ASSEMBLIES AND GENERAL NOTES REFER TO SHEET CS1 AND SPECIFICATIONS SHEET SS1

SPECIFIC ELEVATION NOTES:

80	STUCCO BUILT UP CAP ATOP FALSE STONE VENEER
81	1X4 CORNER BOARDS
82	HORIZONTAL SIDING MATERIAL TBD PRIOR TO ORDERING & INSTALLING. F.V. W/ CONTRACTOR
83	DIVIDED LIGHTS AS SHOWN. FIELD VERIFY w/CONTRACTOR PRIOR TO ORDERING AND INSTALLATION
84	FALSE STONE VENEER FIELD VERIFY ACTUAL STONE LOOK W/OWNER PRIOR TO ORDERING AND INSTALLATION
85	2x8 TOP TRIM, 2X4 SIDE TRIM, & 1X1 ATOP 2X6 BTM TRIM
86	DOOR STYLE IS REPRESENTATIONAL ONLY. F.V. STYLE, MATERIAL & AVAILABILITY W/ MFG PRIOR TO ORDERING
87	FALSE DECO CORBEL. SCREW INTO GABLE END TRUSS WEBS OR BLOCKING BETWEEN WEBS.
88	VERTICAL SIDING MATERIAL TBD PRIOR TO ORDERING & INSTALLING. F.V. W/ CONTRACTOR
89	2x4 ATOP 1X6 TRIM
89	2X12 BELLY BAND

fiber cement per Sheet 1

NOTE:
FOR OTHER APPLICABLE KEYNOTES, SYMBOLS, & HATCHES SEE GENERAL NOTE SHEET 'CSI' FOR KEYNOTES AND CORRESPONDING ASSEMBLY NOTES.

ELEVATION NOTE SYMBOLS:

———	= FINISH GRADE LINE
– – – –	= NATURAL GRADE LINE
01 (boxed)	= EXISTING GRADE ELEVATION
01	= FINISH GRADE ELEVATION
TOW=07	= TOP OF FOUNDATION WALL ELEVATION
MO=08	= MAIN LEVEL FINISH FLOOR ELEVATION

FRONT AND LEFT ELEVATIONS

SCALE: 1/4" = 1' - 0"

REVISIONS

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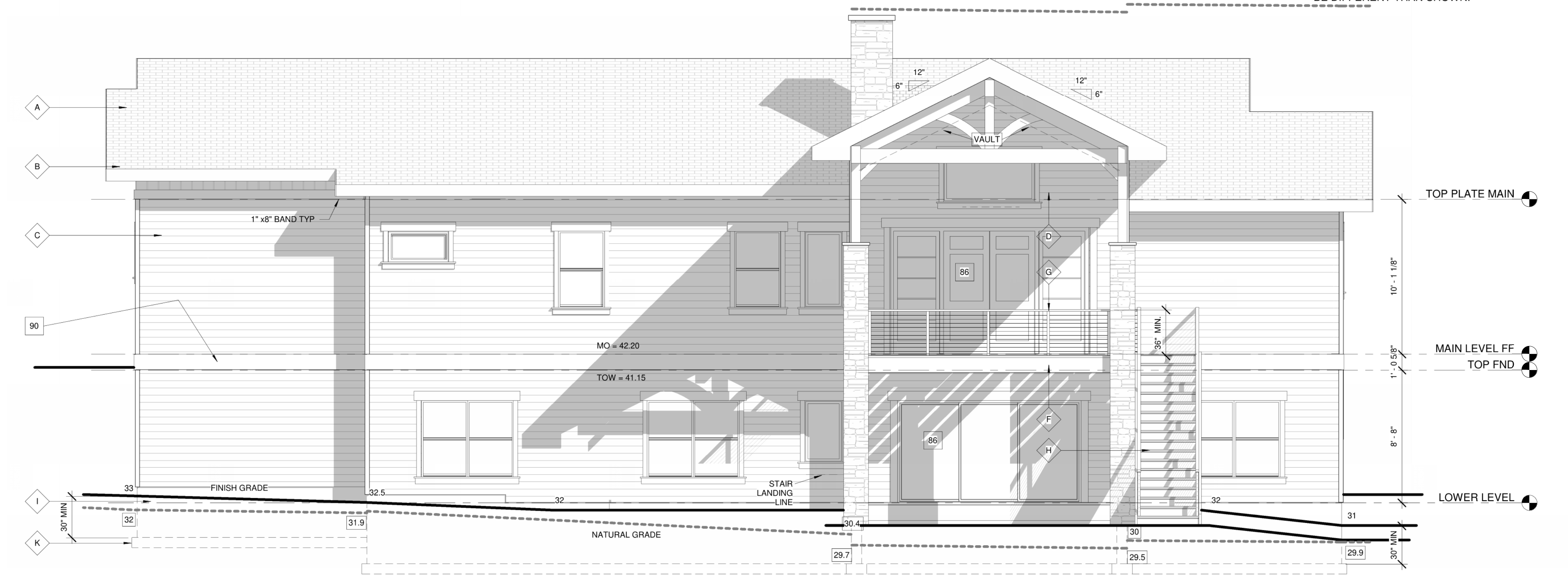
THE PURVIS RESIDENCE
400 DAHLIA STREET
COLORADO SPRING, CO 80904
PROJECT NUMBER # 22-2215

Released for Permit
08/24/2022 11:32:32 AM
bphillips
CONSTRUCTION

DRAWN BY: EAH
CHECKED: LGA
PLOT: 8/18/2022

Sheet # A6
OF 9 SHEETS

NOTE: FURNITURE SHOWN IS FOR REFERENCE ONLY AND IS NOT PROVIDED AS PART OF THE PLAN. ACTUAL FURNITURE MAY BE DIFFERENT THAN SHOWN.



REAR ELEVATION

SCALE: 1/4" = 1' - 0"

Class A Roofing Required.
Exterior cladding, eaves and soffits shall be ignition-resistant (to include fascia and trim).
Exterior doors non-combustible or solid core not less than 1-3/4"
Attic & Roof vents screened with wire mesh or heardware cloth with openings 1/8" or less.
No gable vents.
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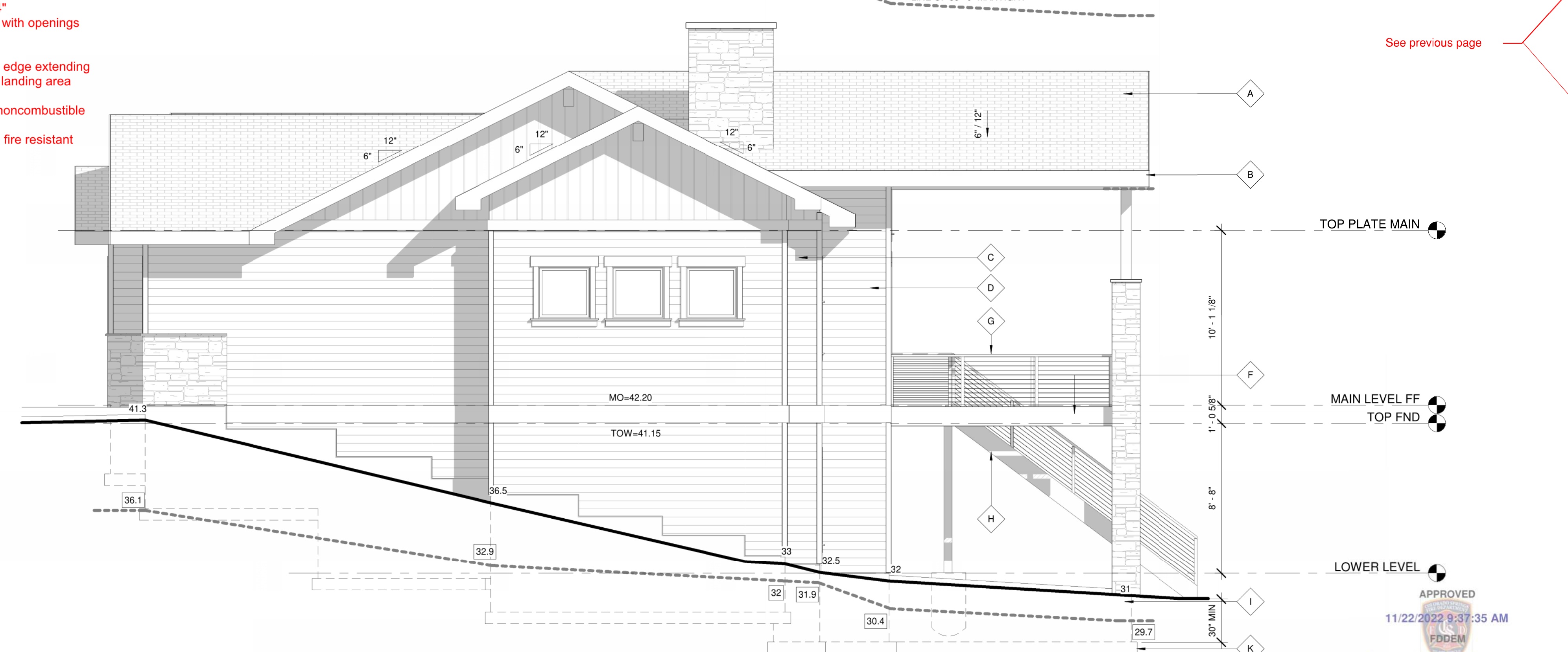

RIGHT ELEVATION

SCALE: 1/4" = 1' - 0"

See previous page

APPROVED 11/22/2022 9:37:35 AM FDDEM Colorado Springs Fire Department

GENERAL ELEVATION NOTES:

1. PROVIDE 6" MIN. GUTTER AT ALL OVERHANGS AND DOWN SPOUTS AT ALL CORNERS OR AT ALL 30' OF GUTTER RUNS. FIELD LOCATE ALL DOWN SPOUTS SUCH THAT THEY SHALL DRAIN 700sf OF ROOF SURFACE PER 2"X4" DOWN SPOUT. ALL DOWN SPOUTS SHALL HAVE TIPOUTS THAT ALLOW FOR DRAINAGE PAST BACK FILL AREAS-APPROX 7'-0" FROM VERTICAL WALL TO PROVIDE DRAINAGE AWAY FROM STRUCTURE IN ALL DIRECTIONS.

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ASSEMBLY NOTES:

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ALL ASSEMBLIES AND GENERAL NOTES REFER TO SHEET CS1 AND SPECIFICATIONS SHEET SS1

SPECIFIC ELEVATION NOTES:

80	STUCCO BUILT UP CAP ATOP FALSE STONE VENEER
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PROJECT NUMBER # 22-2215

Released for Permit 08/24/2022 11:32:32 AM bphillips CONSTRUCTION

DRAWN BY: EAH
CHECKED: LGA
PLOT: 8/18/2022

Sheet # A7
OF 9 SHEETS

REAR AND RIGHT ELEVATIONS

SCALE: 1/4" = 1' - 0"

COLORADO SPRINGS FIRE DEPARTMENT
RESIDENTIAL CONSTRUCTION PLAN REVIEW SUBMITTAL FORM

CSFD
11/22/2022 9:55:28 AM

CONTRACTOR NAME: HOME OWNER **DATE:** 8/12/22

COMPANY REPRESENTATIVE: ELENA HEPWORTH w/LGA STUDIOS

COMPANY ADDRESS: 201 E LAS ANIMAS #112 C/S/C 80903

PHONE: 719.635.0880 **FAX:** N/A **EMAIL:** ELENAH@LGASTUDIOS.COM

PROPERTY ADDRESS: 400 DAHLIA ST

SUBDIVISION NAME: LENNON PARK

FILING #: **LOT:** 21,22 **BLOCK:** BLK B **TAX SCHEDULE NUMBER:** 7403204014

GROSS SQ. FOOTAGE OF HOME[1]: 4938 **NUMBER OF FLOOR LEVELS:** 2

CONSTRUCTION TYPE: VB (Wood Frame=VB)

TYPE OF MATERIALS:
ROOF: ASPHALT **SIDING:** STONE/COMPOSITE **FLOOR JOISTS:** BCI

SOFFITS/EAVES: COMPOSITE **DECKING MATERIALS:** COMPOSITE

CEILING FINISHES OVER COVERED PORCE/PATIO: COMPOSITE T&G

FIRE SPRINKLER SYSTEM: REQUIRED[2]: VOLUNTARY[2]: N/A:

FIRE ALARM SYSTEM: REQUIRED: VOLUNTARY: N/A:

REQUIRED FIRE FLOW[2,3]: 2000

MINIMUM NUMBER OF HYDRANTS REQUIRED: 2

MAXIMUM DISTANCE BETWEEN HYDRANTS[3]: 450

MAXIMUM HOSE LAY DISTANCE[3]: 225

CALCULATED "ON SITE" FIRE FLOW: hydrant 761-C=1388 768-C= 1126

CITY WATER MAP NUMBER:

For water flow calculations/modeling in the City of Colorado Springs – Please contact: www.csu.org then using the Search bar, search for Fire Flow Report.

ATTENTION: The Colorado Springs Utilities attempts to get all fire flow calculations completed as soon as possible, but you must understand it may take approximately 2-3 working days for the calculations to be processed.

[1] The gross square footage must include all floors, basement, garage, and covered decks
[2] A 50% water flow credit will be allowed for all fire sprinkled structures.
[3] See Water Supplies for Commercial & Residential Fire Protection Packet.

Colorado Springs Utilities
It's how we're all connected

Water Planning and Design

2 Pages with Map

MONITORED FIRE ALARM SYSTEM IN LIEU OF FIRE FLOW

Fire Flow Calculations

Date Request Received:	8/12/2022		Date of Calculation:	8/16/2022	
Project Name:	Purvis Residence				
Project Location:	400 Dahlia Street				
Project No:	NA	RMS No:	NA	UDCF No:	NA
Project Contact:	Elena Hepworth		Company:	LGA Studios	
Phone:	719-635-0880		Email:	ElenaH@LGAStudios.com	
Pressure Zone:	Columbia		Overflow Elevation:	6540	
Requested Fire Flow (gpm):	NA		Map Sheet:	C-31	

Hydrant	Elevation	Theoretical Flow @ 20 psi (gpm)	Static Pressure @ Max Day Demand (psi)	Max Static Pressure @ Bury Depth (psi)*
761-C	6207	800	144	148
768-C	6237	800	131	135

Bury depth is assumed to be 9 feet below the hydrant flange elevation

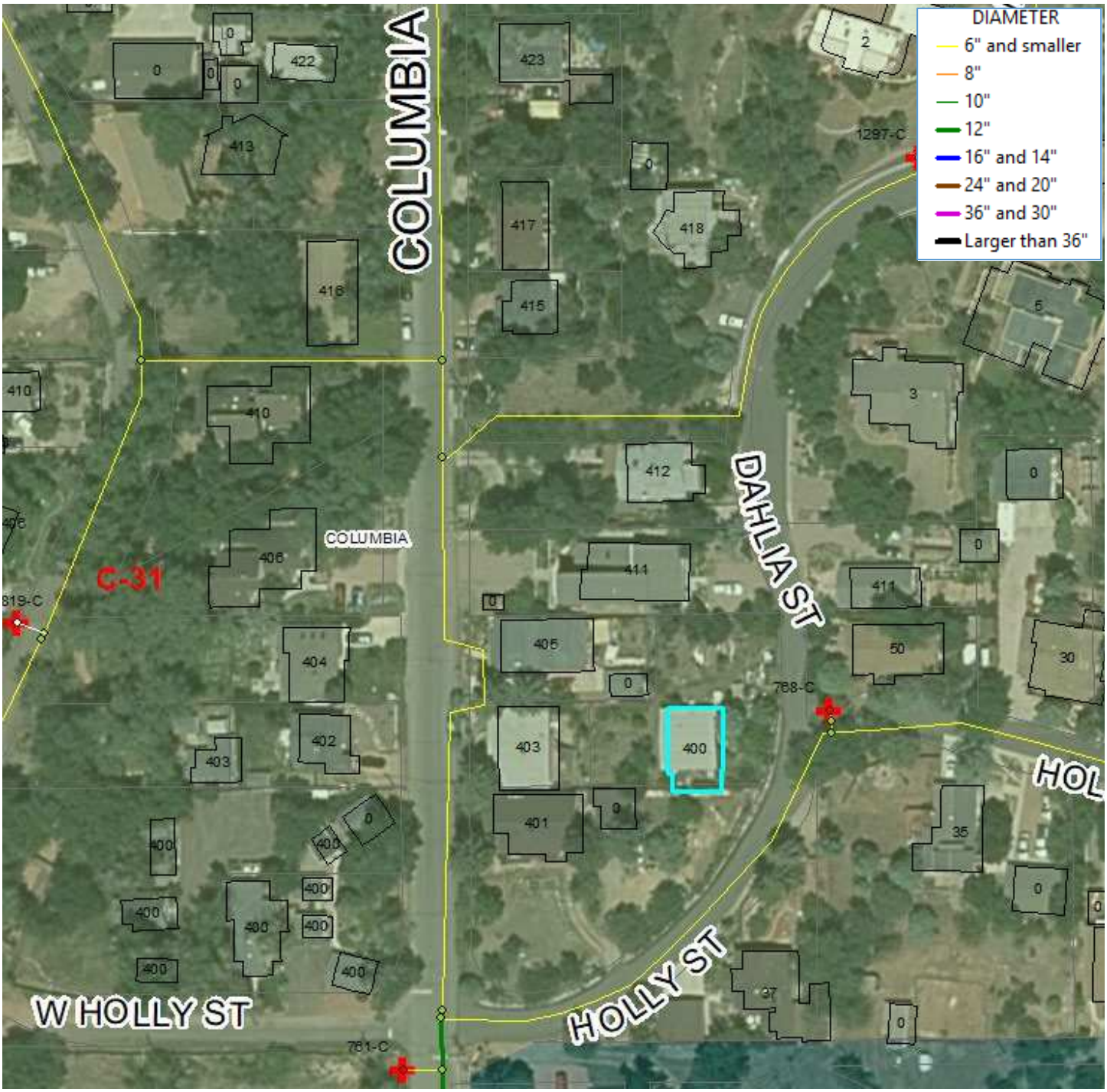
Per Colorado Springs Fire Department, the calculations provided are acceptable up to 1 year from above date.

Comments:
Flows were less than the minimum allowable flow of 1500 gpm. Colorado Springs Fire Department will determine further actions upon review.

***** Colorado Springs Rules and Regulations require that second and subsequent fire flow requests for the same address within a 12-month period are supplied with a minimum $50.00 fee for existing infrastructure and $200.00 fee for multiple runs for proposed infrastructure.***

Colorado Springs Utilities
Water Planning
waterplanning@csu.org

Distribution: Jerry Edwards - Water Planning and Design, Doreen Withee - Fire Prevention



Colorado Springs Utilities
It's how we're all connected

Water Services Division
Operations Department

Fire Flow Test Report

DATE:	8/24/2022	
WORK ORDER #:	3913729	
REQUESTER NAME:	Elena Hepworth LGA Studios (Requester #1)	(Requester #2)
FAX #/Email:	elenah@LGAStudios.com	
PHONE #:	719-635-0880 ext 104	
LOCATION:	400 Dahlia St	

FLOWING HYDRANT #:	768-C
NOZZLE SIZE:	2.5"
WATER MAIN SIZE:	
FLOW HYDRANT STATIC PSI:	125
PITOT (PSI):	45
FLOW (GPM):	1126

RESIDUAL HYDRANT #:	**761-C**
RESIDUAL HYD STATIC PSI:	138
WATER MAIN SIZE:	
RESIDUAL PRESSURE (PSI):	58

FIRE DEPT REVIEW PLAN #:	
FIRE INSPECTOR:	
CSFD REQUIRED FLOW (GPM):	
CALCULATED FLOW @ 20 PSI RESIDUAL (GPM):	**1388** *Contact Fire Inspector to obtain Official Final Fire Flow Calculations.*

COMMENTS:

Please call with questions or comments.
Thank You
Sean Higbee, Water Distribution Supervisor
Distribution: Fire Prevention (CSFD 385-7334)

404 W. FONTANERO ST. BUILDING 457
P.O. BOX 1103, MAIL CODE 1210
COLORADO SPRINGS, CO 80947-1210
PHONE 719-668-4595, FAX 719-668-2890, shigbee@csu.org, http://www.csu.org