

COTTONWOOD HEIGHTS CITY APPEALS HEARING OFFICER MEETING AGENDA



April 29, 2026

Notice is hereby given that the **Cottonwood Heights Appeals Hearing Officer** will convene on **Wednesday, April 29, 2026**, at **Cottonwood Heights City Hall** (2277 E. Bengal Blvd., Cottonwood Heights, UT 84121) for a **public meeting**.

The meeting will begin at **10:00 a.m.** in the City Council Chambers.

10:00 a.m. Public Meeting

1.0 Welcome and Acknowledgements

1.1 Ex parte communications or conflicts of interest to disclose

2.0 Business Items

2.1 Project AHO-26-002

Consideration of a request by Royal Coburn for a variance to allow development on slopes exceeding 30 percent at 7568 S. Quicksilver Circle. The request constitutes a variance from the Sensitive Lands slope development standards, as the subject property contains areas with slopes greater than 30 percent that constrain the buildable area of the lot.

3.0 Consent Agenda

3.1 Approval of Appeals Hearing Officer Minutes from April 29, 2026

(The Appeals Hearing Officer will approve the minutes of the April 29, 2026 meeting after the following process is met. The City Recorder will prepare the minutes and email them to the Hearing Officer. The Hearing Officer will have five days to review the minutes and provide any changes to the Recorder. If, after five days there are no changes, the minutes will stand approved. If there are changes, the process will be followed until the changes are made and the hearing officer is in agreement, at which time the minutes shall be deemed approved.)

4.0 Adjourn

Meeting Procedures

The appeal hearing will proceed pursuant to applicable provisions of Chapter 19.92 of the Cottonwood Heights zoning ordinance, and the agreed-upon procedure between the city and the appellant.

Appeals Hearing Officer applications may be tabled if: 1) Additional information is needed to act on the item; OR 2) The Appeals Hearing Officer feels there are unresolved issues that may need further attention before the Officer is ready to make a decision. No agenda item will begin after 3:00 p.m. without approval from the Appeals Hearing Officer. The Appeals Hearing Officer may carry over agenda items, scheduled late in the evening and not heard, to the next regularly scheduled meeting.

Notice of Compliance with the Americans with Disabilities Act (ADA)

In compliance with the Americans with Disabilities Act, individuals needing special accommodations or assistance during this meeting shall notify the City Recorder at (801) 944-7015 at least 24 hours prior to the meeting. TDD number is (801) 270-2425 or call Relay Utah at #711.

Confirmation of Public Notice

On Thursday, April 20, 2026, a copy of this agenda was posted in conspicuous view in the front foyer of the Cottonwood Heights City Offices. The agenda was also posted on the City's website at www.cottonwoodheights.utah.gov and the Utah public notice website at <http://pmn.utah.gov>.

DATED THIS 20th DAY OF APRIL 2026

Attest: Tiffany Janzen, City Recorder



APPEALS HEARING OFFICER STAFF REPORT

Coburn Variance – 7568 S Quicksilver Circle

Meeting Date: April 8, 2026

Staff Contact: Sheldon Howa, Planner III

Summary

Action Requested:

Variance Request to allow development on slopes greater than 30%

Applicant:

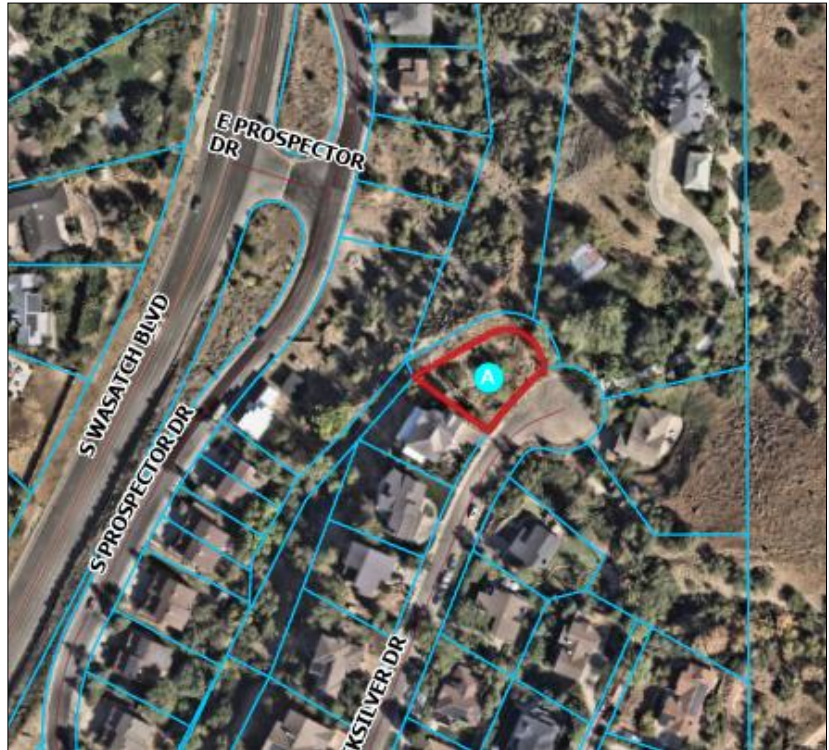
Royal Coburn

Recommendation:

Approval with Conditions

Project #:

AHO-26-002



Subject Property Vicinity Map

Context

Subject Property:

7568 S Quicksilver Circle

Property Owner:

Royal Coburn

Acres:

0.23

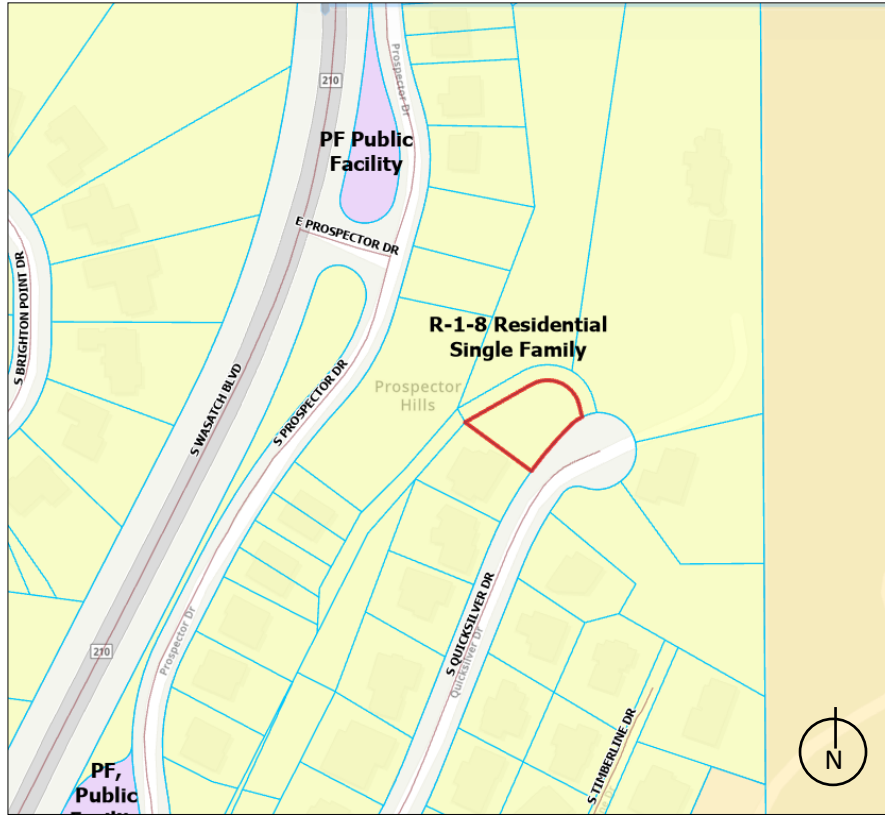
Parcel #:

22-25-377-004-0000



Subject Property Street View - Looking Northwest

Zoning



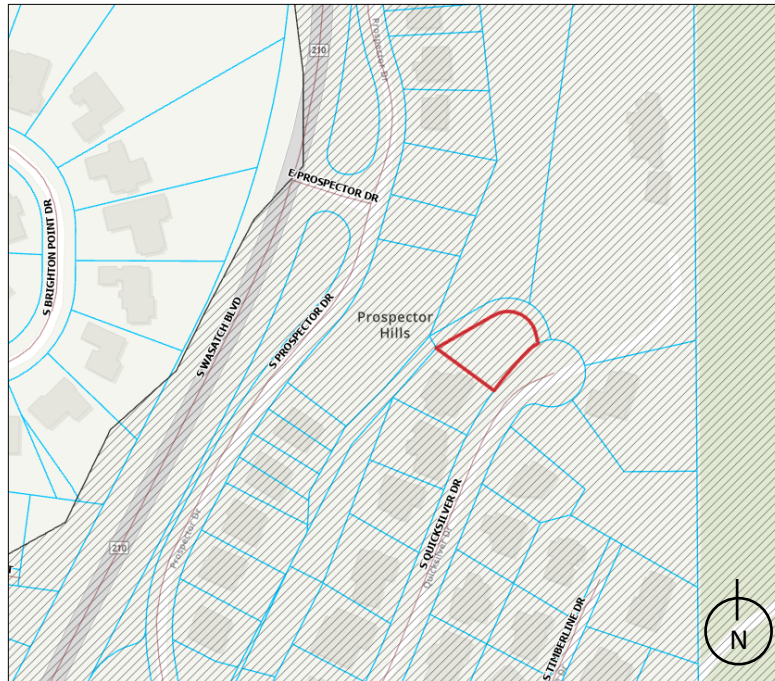
Background

The applicant is proposing to construct a single-family residence on vacant property located at 7568 South Quicksilver Circle, identified as Lot 50 of Prospecter Hills No. 6 Subdivision.



The subject property was platted prior to the incorporation of Cottonwood Heights and prior to the adoption of the Sensitive Lands Evaluation and Development Standards (SLEDS) regulations.

The property falls within the City’s Sensitive Lands Overlay Zone and is therefore subject to the requirements of Chapter 19.72 of the Cottonwood Heights Municipal Code. More specifically, the site is located within both the fault rupture study area and the slope stability hazard areas identified on the City’s Sensitive Lands maps.



The subject property is within the Sensitive Lands Overlay Zone (indicated by the grey diagonal striping).

The property is encumbered by areas of steep topography, including mapped locations where existing slopes exceed 30 percent. Pursuant to Section 19.72.050(A) of City Code, development is generally prohibited on slopes greater than 30 percent unless a variance is approved. As a result, the presence and distribution of these steep slope areas substantially constrain the buildable area of the lot and form the basis of the applicant’s variance request.

Request

The applicant is requesting a variance from Section 19.72.050(A)(1) of the Cottonwood Heights Municipal Code to allow construction of a single-family residence and associated site improvements within portions of the property where existing slopes exceed 30 percent.

The request is based on the distribution of steep slopes across the site, which the applicant states significantly limits the ability to construct a functional residence while maintaining required setbacks and access. According to the submitted narrative and supporting geotechnical information, portions of the steep slopes on the property are the result of prior site disturbance and roadway construction activities rather than natural hillside conditions. The applicant further indicates that the proposed building envelope has been positioned to minimize encroachment into slope areas while still allowing reasonable residential use of the legally platted lot.

The proposed development includes construction of a single-family dwelling, driveway access, grading improvements, and drainage infrastructure designed to address site stability and stormwater management. The applicant asserts that development of the property may be safely achieved through implementation of geotechnical recommendations, including structural setbacks from the top of slope and engineered site design measures.

The variance is therefore requested to allow limited development within slope areas exceeding 30 percent in order to permit reasonable residential use of the property consistent with the intended character of the surrounding subdivision.

Variance Regulations

In Cottonwood Heights, variances are regulated by provisions of both city and state code, excerpts of which are outlined below.

City Code

19.92.030 Variances

C.1 The appeal hearing officer may authorize in specific cases variance from the terms of this title only if:

- a. Literal enforcement of the zoning ordinance would cause an unreasonable hardship for the applicant that is not necessary to carry out the general purpose of the zoning ordinance;*
- b. There are special circumstances attached to the property that do not generally apply to other properties in the same district;*
- c. Granting the variance is essential to the enjoyment of a substantial property right possessed by other property in the same district;*
- d. The variance will not substantially affect the general plan and will not be contrary to the public interest; and*
- e. The spirit of the zoning ordinance is observed and substantial justice is done.*

C.2 In determining whether enforcement of the zoning ordinance would cause unreasonable hardship under Subsection C(1)(a) of this section, the appeals hearing officer may not find an unreasonable hardship unless the alleged hardship:

- a. Is located on or associated with the property for which the variance is sought, and*
- b. Comes from circumstances particular to the property, not from conditions which are general to the neighborhood.*

C.3 In determining whether or not enforcement of the zoning ordinance would cause unreasonable hardship under Subsection C(1)(a) of this section, the appeals hearing officer may not find an unreasonable hardship if the hardship is self-imposed or economic.

C.4 In determining whether or not there are special circumstances attached to the property under Subsection C(1)(b) of this section, the appeals hearing officer may find that special circumstances exist only if special circumstances:

- a. Relate to the hardship complained of; and*
- b. Deprive the property of the privileges granted to other properties in the same district.*

D. The applicant shall bear the burden of proving that all the conditions justifying a variance have been met.

E. Variances run with the land.

F. The appeals hearing officer shall not grant a variance that:

- 1. Is intended as a temporary measure only;*
- 2. Is greater than the minimum variation necessary to relieve the unnecessary hardship demonstrated by the applicant; or*
- 3. Authorizes uses not allowed by law (i.e., a “use variance”).*

G. In granting a variance, the appeals hearing officer may impose additional requirements on the applicant that will:

- 1. Mitigate any harmful effects of the variance; or*
- 2. Serve the purpose of the standard or requirement that is waived or modified.*

H. A variance less than or different than that requested may be authorized when the record supports the applicant’s right to some relief but not to the relief requested.

State Code

10-9a-702 Variances

1. Any person or entity desiring a waiver or modification of the requirements of a land use ordinance as applied to a parcel of property that he owns, leases, or in which he holds some other beneficial interest may apply to the applicable appeal authority for a variance from the terms of the ordinance.

2. a. The appeal authority may grant a variance only if:

- i. literal enforcement of the ordinance would cause an unreasonable hardship for the applicant that is not necessary to carry out the general purpose of the land use ordinances;*
- ii. there are special circumstances attached to the property that do not generally apply to other properties in the same zone;*
- iii. granting the variance is essential to the enjoyment of a substantial property right possessed by other property in the same zone;*
- iv. the variance will not substantially affect the general plan and will not be contrary to the public interest; and*
- v. the spirit of the land use ordinance is observed and substantial justice done.*

2.b.

- i. In determining whether or not enforcement of the land use ordinance would cause unreasonable hardship under Subsection (2)(a), the appeal authority may not find an unreasonable hardship unless the alleged hardship:*
 - A. is located on or associated with the property for which the variance is sought; and*
 - B. comes from circumstances peculiar to the property, not from conditions that are general to the neighborhood.*

- ii. *In determining whether or not enforcement of the land use ordinance would cause unreasonable hardship under Subsection (2)(a), the appeal authority may not find an unreasonable hardship if the hardship is self-imposed or economic.*
 - c. *In determining whether or not there are special circumstances attached to the property under Subsection (2)(a), the appeal authority may find that special circumstances exist only if the special circumstances:*
 - i. *relate to the hardship complained of; and*
 - ii. *deprive the property of privileges granted to other properties in the same zone.*
3. *The applicant shall bear the burden of proving that all of the conditions justifying a variance have been met.*
4. *Variances run with the land.*
5. *The appeal authority may not grant a use variance.*
6. *In granting a variance, the appeal authority may impose additional requirements on the applicant that will:*
- a. *mitigate any harmful effects of the variance; or*
 - b. *serve the purpose of the standard or requirement that is waived or modified.*

Staff Analysis

Special Circumstances

Section 19.92.030(C)(1)(b) requires that special circumstances be attached to the property which do not generally apply to other properties in the same zoning district.

Staff finds that special circumstances exist due to the unique physical and regulatory characteristics affecting the subject parcel. The property contains mapped slope stability hazard areas where slopes exceed 30 percent, which substantially constrain the location and configuration of a buildable area. These constraints are not typical of all properties within the zoning district and are specifically related to the site's topographic conditions.

Additionally, the lot was created through a subdivision process that occurred prior to adoption of the City's Sensitive Lands regulations. As a result, the parcel was not designed or graded to meet current slope development standards. This timing creates a circumstance distinct from properties platted or developed after adoption of the SLEDS ordinance, which would have been configured to avoid or mitigate steep slope impacts during the subdivision process.

Staff therefore finds that the combination of steep slope encumbrances and the pre-existing platted status of the lot constitutes a special circumstance that justifies consideration of variance relief.

Substantial Property Right

Section 19.92.030(C)(1)(C) further requires that granting the variance be essential to the enjoyment of a substantial property right possessed by other properties in the same zoning district.

Staff finds that construction of a single-family residence represents a substantial property right commonly enjoyed by other residential properties within the surrounding subdivision and zoning district. The subject parcel was established as a residential lot and is surrounded by developed single-family homes.

Without approval of the requested variance, strict application of the slope development standard may preclude reasonable residential use of the property. Granting the variance would allow the owner to utilize the property in a manner consistent with the intended development pattern of the neighborhood and comparable properties in the same zoning classification.

General Plan and Public Interest

Section 19.92.030(C)(1)(D) requires that the variance not substantially affect the General Plan and not be contrary to the public interest.

Staff finds that the proposed residential development is consistent with the General Plan land use designation for low-density residential development. Allowing reasonable development of an existing platted lot supports orderly infill within an established neighborhood and does not introduce a use that is incompatible with surrounding properties.

Potential impacts associated with development on steep slopes can be addressed through compliance with geotechnical recommendations, engineering review, and implementation of drainage and grading controls required under the Sensitive Lands ordinance. Subject to these technical safeguards, staff finds that approval of the variance will not be materially detrimental to public health, safety, or welfare.

Hardship Must Not Be Self-Imposed

Section 19.92.030(C)(3) provides that a variance may be granted only where the demonstrated hardship is not self-imposed.

The subject parcel was platted as part of the Prospector Hills No. 6 Subdivision prior to the incorporation of Cottonwood Heights and prior to the adoption of the Sensitive Lands Evaluation and Development Standards. At the time of plat approval, the lot was recognized as a buildable residential parcel under the regulations then in effect.

While adoption of the Sensitive Lands Overlay Zone represents a valid exercise of the City's police power to protect public health and safety, its application to previously platted lots can create circumstances where strict compliance may prevent reasonable development of property that was lawfully created with an expectation of residential use.

Staff finds that the variance process is the appropriate mechanism to balance these competing considerations. Granting limited relief from the slope development standard, subject to engineering review and mitigation requirements, allows the property to be used consistent with its original subdivision intent while maintaining the protective purposes of the Sensitive Lands ordinance.

Minimum Necessary Relief

Section 19.92.030(F)(2) requires that the variance granted be the minimum necessary to relieve the demonstrated hardship.

Staff finds that the requested variance represents a reasonable and limited deviation from the slope development prohibition in order to allow construction of a single-family residence and necessary site improvements. The proposed building location and site design seek to minimize disturbance of steep slope areas while accommodating required access, setbacks, and safety considerations.

Based on review of the applicant's materials and site constraints, staff finds that further avoidance of slope areas may not be feasible without effectively precluding reasonable residential use of the lot. Approval of the variance would therefore provide only the relief necessary to allow functional development of the parcel while maintaining the protective intent of the Sensitive Lands regulations through engineering oversight and mitigation measures.

Findings and Recommendation

Based on review of the application materials, supporting geotechnical information, and the variance criteria contained in CHMC 19.92.030 and Utah Code §10-9a-702, staff finds that the requested variance to allow development on slopes greater than 30 percent at 7568 South Quicksilver Circle satisfies the required approval standards.

Strict application of CHMC 19.72.050(A) would impose an unreasonable hardship by substantially limiting the ability to construct a functional single-family residence on a legally established residential lot. The hardship results from site-specific physical constraints associated with steep slope conditions and is not self-imposed.

Special circumstances are present due to the parcel's topography and its status as a pre-existing platted lot created prior to adoption of the Sensitive Lands Evaluation and Development Standards. These circumstances distinguish the property from others within the zoning district that were designed or subdivided under current regulations.

Staff further find that professional geotechnical analysis supports the applicant's request. The geotechnical study prepared by Intermountain GeoEnvironmental Services (IGES) indicates that the slopes exceeding 30 percent on the subject property are largely the result of prior human disturbance, including fill placement, roadway construction, and undocumented material stockpiling, rather than natural hillside conditions. The IGES report further states that, in their professional opinion, this condition supports the granting of a variance, as the man-made slopes create a constraint that limits development of the property under current code standards.

Granting the variance is essential to the enjoyment of a substantial property right commonly exercised by other properties in the surrounding neighborhood — namely, the ability to develop a single-family residence consistent with the zoning designation and subdivision pattern.

Staff further finds that approval of the variance, subject to appropriate engineering review and mitigation requirements, will not substantially affect the General Plan or be contrary to the public interest. The proposed development represents compatible residential infill within an established

neighborhood and can be designed to address slope stability and drainage considerations through professional geotechnical oversight.

Finally, staff finds the requested relief represents the minimum necessary deviation from the slope development prohibition to allow reasonable use of the property while preserving the intent of the Sensitive Lands ordinance.

For these reasons, staff recommend approval of the variance, subject to the conditions outlined below.

Recommended Conditions of Approval

1. **Full Compliance with SLEDS Requirements**

All development associated with this approval shall comply with the requirements of Chapter 19.72 (Sensitive Lands Evaluation and Development Standards) of the Cottonwood Heights Municipal Code. Approval of this variance does not waive any other applicable provisions of Chapter 19.72 beyond the specific relief granted for development on slopes exceeding 30 percent.

2. **Geotechnical Analysis and Mitigation**

Prior to issuance of a building permit, the applicant shall submit a site-specific geotechnical and slope stability report prepared by a licensed professional engineering geologist. The report shall evaluate slope stability, drainage, foundation design, grading limits, and construction methods. All potential impacts associated with development on slopes of 30 percent or greater shall be identified and mitigated through the recommendations contained in the approved geotechnical report.

3. **City Engineer and DRC Approval**

All geotechnical recommendations, grading plans, drainage facilities, and slope stabilization measures shall be subject to review and approval by the City Engineer and/or Development Review Committee (DRC) prior to building permit issuance. No construction shall occur until such approvals are obtained.

4. **Implementation of Geotechnical Recommendations**

All recommendations contained within the approved geotechnical report, including but not limited to structural setbacks, grading limitations, foundation design, slope stabilization measures, and drainage improvements, shall be incorporated into the final construction plans and implemented as a condition of development.

5. **Slope Stability and Setbacks**

All structures and site improvements shall maintain minimum setbacks from the top of slope and other critical areas as recommended in the approved geotechnical report to ensure long-term slope stability.

6. **Retaining Walls and Structural Improvements**

Any retaining walls or structural slope stabilization measures shall comply with the design standards and height limitations set forth in CHMC 19.72.050 and shall be designed in accordance with the approved geotechnical report.

7. **Grading and Erosion Control**

All grading activity shall be limited to the minimum necessary to accommodate the approved development and shall comply with City grading standards. Erosion control measures shall be installed and maintained throughout construction to prevent sediment transport and slope degradation.

8. Stormwater and Runoff Mitigation

Impervious surface coverage exceeding 30 percent within slope hazard areas shall be mitigated through on-site stormwater retention and drainage improvements in accordance with CHMC 19.72.040(D) and the approved geotechnical report, subject to review and approval by the City Engineer.

9. Ongoing Maintenance Responsibility

The property owner shall be responsible for maintaining all drainage facilities, retaining structures, and slope stabilization improvements in accordance with the approved plans to ensure continued performance and site stability.

10. Limitation of Variance Scope

This variance applies solely to relief from the prohibition on development within slopes exceeding 30 percent. This approval does not grant any relief from the setback, height, or other development standards of the underlying zoning district, all of which shall be met.

11. Variance Runs with the Land

This variance shall run with the land and shall apply only to development substantially consistent with the approved plans and supporting geotechnical analysis.

Model Motions

Approval

"I move to approve the following variance requests based on the findings outlined in the staff report:"

- *List the approved variance requests*
- *List any additional findings for approval*

Denial

"I move to deny the following variance requests based on the findings outlined in the staff report:"

- *List the denied variance requests*
- *List any additional findings for denial*

Attachments

1. Project Narrative (applicant)
2. IGES Geotechnical Narrative
3. Building & Site Plans

**Attachment - A
Project Narrative**

PROJECT NARRATIVE

Variance Request for Development on Slopes Greater Than 30%

SLEDS Ordinance 19.72.050(A)(1)

1. SPECIFIC FEATURES REQUIRING A VARIANCE

The proposed residential construction on this pre-platted lot requires a variance to permit development on slopes exceeding 30%, as regulated under Cottonwood Heights Municipal Code (CHMC) 19.72.050(A)(1). According to topographic analysis and slope mapping conducted by IGES Engineering (see attached Figure 2: Slope Map), significant portions of the buildable area of the lot, including areas within and adjacent to the proposed building envelope, contain slopes that exceed the 30% threshold.

The proposed development includes a single-family residence with associated site improvements (driveway, walkways, grading, and drainage infrastructure). Due to the lot's topography and the location of slopes exceeding 30%, it is not feasible to construct a functional residence on this property without developing on these steeper slope areas.

2. SPECIFIC PROVISION AND PRECISE VARIANCE SOUGHT

Ordinance Provision: Cottonwood Heights Municipal Code 19.72.050(A)(1) - Development on Slopes Greater Than 30 Percent, which states: "Structures, roads, and other improvements shall not be constructed on slopes greater than 30%, unless a variance is approved pursuant to the provisions of this chapter."

Precise Variance Requested: A variance to permit the construction of a single-family residence, driveway, walkways, grading improvements, and associated site infrastructure on portions of the property where slopes exceed 30%.

3. CHARACTERISTICS CAUSING UNNECESSARY HARDSHIP

Several unique characteristics of this property create unnecessary hardship that prevents compliance with the 30% slope development prohibition:

a) Man-Made Slopes Created by Prior Human Disturbance

The critical fact distinguishing this property is that **the slopes exceeding 30% are not natural terrain but rather the product of previous human activity**. According to IGES Engineering's 2019 site reconnaissance and professional geologic assessment:

- The steep slopes on the **southern portion** of the property were created as a fill slope during the construction of Quicksilver Circle. This fill slope was subsequently cut into, resulting in a man-made cut slope with a depressed bowl configuration.
- The steep slopes on the **northern side** of the property consist of man-made berms and stockpiles of undocumented fill material left over from previous development activity. During site inspection, IGES observed that these fill piles contained concrete debris, metal pipes, and food containers—clear evidence of construction **dumping rather than natural topography**.
- **IGES concluded that the site has been "almost entirely disturbed by previous human activity" (IGES, 2019).**

The hardship is this: The SLEDS ordinance was designed to protect natural sensitive lands from inappropriate development. However, this property's steep slopes are entirely **artificial features created by road construction and prior site disturbance**—not natural geologic conditions requiring preservation. The lot owner is being prevented from reasonable development not due to natural terrain sensitivity, but due to slopes created by others' previous construction and dumping activities on what was otherwise designated and platted as a buildable residential lot.

b) Pre-existing Platted Status Prior to SLEDS Adoption

This lot was legally platted as Lot 5 of the Prospector Hills No. 6 Subdivision under Salt Lake County jurisdiction prior to Cottonwood Heights' incorporation and the subsequent adoption of the SLEDS ordinance in 2015. At the time of platting, this lot was approved and designated as a buildable residential lot under the standards then in effect, without slope development restrictions.

The property owner acquired this lot with the reasonable expectation that it could be developed consistent with its platted designation. The retroactive application of slope development prohibitions to a pre-existing platted lot—particularly where those slopes are man-made artifacts rather than natural conditions—creates an unreasonable hardship not contemplated when the subdivision was approved and platted.

c) Lot Configuration and Buildable Area Constraints

The lot's topography, as modified by the man-made slopes described above, leaves insufficient flat or gently-sloping area to accommodate a reasonably-sized single-family

residence without encroaching on slopes exceeding 30%. The Slope Map (Figure 2) clearly illustrates that the >30% slope areas significantly constrain the buildable envelope, making compliance with the prohibition effectively impossible while still constructing a functional home.

Unlike properties with natural rolling terrain where alternative building locations might exist, this lot's buildable area has been artificially constrained by the cut slopes and fill piles from prior activities, leaving no reasonable alternative site design that avoids all >30% slope areas.

d) Professional Engineering Findings Support Safe Development

Multiple professional geotechnical and geologic hazard evaluations have assessed this property and concluded it is suitable for residential development:

- **AGRA Earth & Environmental (1999)** conducted fault rupture hazard and geotechnical studies, including two fault trenches and two test pits. No fault hazards were encountered.
- **IGES Engineering (2019)** provided an updated surface-fault-rupture hazard study, slope stability assessment, and geotechnical investigation. IGES concluded the site is **"suitable from a geologic hazard perspective, provided a minimum structural setback of 35 feet from the top of the slope is observed during design and construction."**

The professional engineering consensus is that this property can be safely developed with appropriate setbacks, grading controls, and construction practices. The slopes exceeding 30%, being man-made disturbances rather than natural unstable terrain, do not present the type of inherent geologic hazard that the slope development prohibition was designed to address.

Compliance with Code Exception Criteria: In addition to the professional engineering findings supporting safe development, this project will satisfy all five criteria specified in CHMC 19.72.050(A)(1)(a) for the exception to the >30% slope prohibition. The slope areas are localized and smaller than two acres, not part of a larger contiguous slope system. The comprehensive IGES geotechnical study currently being scoped will provide site-specific slope stability analysis by qualified professional geologists and engineers, and will demonstrate that development will not create unstable geologic or drainage conditions. All retaining structures, if required, will comply with the four-foot height limitation (12-foot combined for terraced walls). Full compliance with these technical criteria further demonstrates that the hardship can be relieved through engineering-based solutions without detriment to public safety.

e) No Alternative Development Options

Given the lot's configuration and the distribution of man-made slopes across the property, there are no practical alternative development approaches that would:

- Avoid all slopes exceeding 30%
- Provide a reasonably-sized single-family residence consistent with neighborhood character
- Maintain required setbacks and access
- Comply with other applicable building and safety codes

The hardship is not self-created—it results from prior activities by others that created artificial slopes on what was approved as a buildable lot, combined with the subsequent overlay of slope development restrictions that did not exist when the lot was platted.

4. MINIMUM VARIATION NECESSARY

The minimum variation necessary is to permit development as shown in the submitted site plans (14 sheets sealed by Michael Sotuyo, P.E., dated June 17, 2024), which include:

- A single-family residence positioned to minimize encroachment on slopes exceeding 30% while maintaining required setbacks, including the 35-foot structural setback from the top of slope as recommended by IGES Engineering
- Necessary driveway and vehicle access improvements
- Essential walkways for safe property access
- Grading and drainage improvements required for site stability and stormwater management
- All site improvements designed in accordance with engineering recommendations to ensure safe construction

This variance represents the minimum deviation required to permit reasonable residential development consistent with:

- The lot's original platted and approved use as a residential building lot
- Professional engineering recommendations for safe development
- Neighborhood development patterns and character

- Applicable building codes and safety standards

The proposed development does not seek to maximize site coverage or building size, but rather to achieve a functional, appropriately-scaled home that can be safely constructed with proper engineering controls.

5. COMPLIANCE WITH CITY CODE 19.92.030 SUBSECTION C STANDARDS

Standard 1: Literal enforcement would cause an unreasonable hardship for the applicant that is not necessary to carry out the general purpose of the zoning ordinance.

Response: Literal enforcement of the prohibition on development on slopes exceeding 30% would render this pre-platted residential lot effectively unbuildable, or would require such severe design constraints that the lot could not support a functional single-family residence. This hardship is unreasonable and unnecessary because:

The slopes are man-made, not natural sensitive terrain: The general purpose of CHMC 19.72.050(A)(1) is to prevent development on naturally steep, potentially unstable slopes that present geologic hazards. However, as documented by IGES Engineering, the >30% slopes on this property are entirely the product of previous human disturbance—specifically road construction fill/cut slopes and dumping of construction debris. These are not natural sensitive lands requiring protection from development impacts. Applying slope development restrictions designed for natural geologic features to artificially-created slopes does not serve the ordinance's protective purpose.

Professional engineering confirms safe developability: IGES Engineering's professional geologic and geotechnical assessments (1999 AGRA study, 2019 IGES study, and proposed 2025 comprehensive study) confirm that the site is suitable for residential development with appropriate engineering controls. The engineered setbacks, grading plans, and construction practices recommended by IGES directly address any actual stability or hazard concerns. The general purpose of ensuring safe development is fully achieved through professional engineering—the strict slope percentage prohibition adds no additional safety benefit in this context.

Pre-platted lot status: This lot was approved and platted as buildable residential property before SLEDS regulations existed. The lot owner obtained the property with vested expectations of development rights consistent with its platted designation. Retroactively preventing development serves no purpose related to the original subdivision approval or the lot's intended residential use.

Precedent demonstrates no adverse impacts: As discussed in pre-application meetings with City staff Adam Ginsberg and Ian Harris, other lots within this same Prospector Hills No. 6 Subdivision that face similar slope conditions have received variances and been successfully developed. This precedent demonstrates that the City has previously determined that variances for >30% slope development in this neighborhood can be granted consistent with the ordinance's general protective purposes, and that such development has not caused adverse impacts.

Standard 2: There are special circumstances attached to the property that do not generally apply to other properties in the same zoning district.

Response: This property has multiple special circumstances that distinguish it from typical properties in the zoning district:

a) Man-Made Slopes from Prior Disturbance: Unlike properties with natural topography, this lot's >30% slopes are entirely artificial features created by:

- Road construction activities (Quicksilver Circle fill and subsequent cut slopes)
- Dumping and stockpiling of construction debris and fill material
- Previous site disturbance that IGES characterized as affecting "almost entirely" the property

This is a unique circumstance not generally applicable to other properties. Most lots either have natural terrain that can be avoided during site planning, or have relatively flat topography. This property has been artificially constrained by others' prior activities that created steep slopes where none would naturally exist.

b) Pre-Platted Status Prior to SLEDS: This lot was platted as a buildable residential lot under Salt Lake County jurisdiction before Cottonwood Heights incorporated and adopted SLEDS regulations in 2015. This creates a unique vested rights and timing circumstance not applicable to:

- Properties platted after SLEDS adoption (which would be designed to comply)
- Properties developed before SLEDS adoption (which were not subject to restrictions)
- Newly proposed developments or lot splits (which can be configured to avoid steep slopes)

c) Specific Site History and Prior Engineering Studies: This particular lot has a documented history of multiple professional geotechnical investigations (AGRA 1999, IGES

2019) specifically analyzing its suitability for development. The accumulation of professional engineering work specific to this property represents circumstances not generally present for other lots.

d) Recognized Pattern Within the Subdivision: City staff have confirmed in pre-application meetings that other lots in this same Prospector Hills No. 6 Subdivision have faced similar slope-related SLEDS compliance issues and received variances. This indicates the City recognizes that this subdivision has special circumstances—likely related to its pre-annexation platting and site disturbance patterns—that distinguish it from properties generally in the zoning district.

Standard 3: The variance is the minimum necessary to relieve the hardship.

Response: The requested variance represents the absolute minimum necessary relief because:

No Alternative Site Design Exists: Given the distribution of >30% slopes across the property (see attached Slope Map, Figure 2), there is no practical alternative building location that would:

- Completely avoid all >30% slope areas
- Provide adequate building area for a functional single-family residence
- Maintain required setbacks from property lines
- Observe the 35-foot setback from top of slope recommended by IGES Engineering
- Provide necessary vehicular and pedestrian access

Alternative designs were explored during the site planning process. The proposed building location represents the optimal placement that minimizes encroachment on steep slopes while still providing a buildable footprint.

Design Incorporates All Required Engineering Safeguards: The site plan fully incorporates the engineering recommendations from IGES, including:

- Minimum 35-foot structural setback from the top of slope
- Appropriate grading and drainage improvements
- Foundation and structural design to be based on geotechnical recommendations
- Construction oversight and testing as specified in engineering reports

These engineering controls ensure safe construction—the variance simply allows these engineered solutions to be implemented on slopes that are artificial rather than natural.

No Excessive or Unnecessary Features: The proposed development includes only:

- A modestly-sized single-family residence appropriate for the neighborhood
- Minimum necessary driveway for vehicle access
- Essential walkways for safe pedestrian access
- Required drainage and grading improvements

No luxury features, excessive hardscaping, or unnecessary structures are included that would extend development onto steep slopes beyond what is required for functional use.

Minimum Building Size Consistent with Neighborhood: The proposed residence is scaled appropriately for the neighborhood and does not seek to maximize building size. A smaller home would not meaningfully reduce encroachment on >30% slopes given the lot configuration, but would be inconsistent with the established character of surrounding development.

Standard 4: The variance will not be materially detrimental to the purposes of this title, to property in the same zoning district, or to the public health, safety and general welfare.

Response: The variance will not be detrimental for the following reasons:

a) Professional Engineering Confirms Safe Development

IGES Engineering, a qualified professional geotechnical and geologic hazard consulting firm, has evaluated this property multiple times and concluded it is suitable for residential development. Their professional findings include:

- No fault rupture hazards identified (AGRA 1999, IGES 2019)
- Site suitable for development with proper engineering controls (IGES 2019)
- Specific setback requirements identified (35 feet from top of slope) to ensure stability
- Comprehensive geotechnical study proposed (IGES 2025) to verify conditions and provide final design recommendations

With professional engineering oversight and adherence to recommended construction practices, the development will not present risks to public health, safety, or welfare. The

engineering analysis directly addresses the concerns that the slope development prohibition was designed to prevent.

b) Slopes Are Man-Made, Not Natural Sensitive Terrain

The purpose of prohibiting development on slopes >30% is to protect natural sensitive lands from destabilization and to prevent construction on inherently hazardous terrain. However, this property's steep slopes are entirely the product of prior human disturbance—road construction and debris dumping—not natural geologic features.

Granting a variance to develop on man-made slopes does not undermine the ordinance's purpose of protecting natural sensitive lands, because these artificial slopes were never part of the natural landscape the ordinance was designed to preserve. The variance allows development to proceed on already-disturbed ground with appropriate engineering controls.

c) Established Precedent Within the Subdivision

During pre-application meetings, City planning staff Adam Ginsberg and Ian Harris confirmed that similar variances for development on slopes exceeding 30% have been granted for other lots within the same Prospector Hills No. 6 Subdivision. These prior approvals demonstrate:

- The City has previously determined that such variances in this subdivision are not detrimental to public welfare
- Development has proceeded successfully on other lots with similar conditions
- A pattern of consistent treatment for similarly situated pre-platted lots in this neighborhood
- No adverse impacts have resulted from granting these previous variances

Granting this variance maintains consistency with established precedent and ensures equitable treatment of similarly situated properties.

d) Consistent with Neighborhood Character

Approving this variance will allow development that is consistent with the established character of the surrounding Prospector Hills subdivision. The proposed single-family residence will be compatible in scale, design, and use with neighboring homes. Denying the variance would create an anomalous undeveloped lot within an otherwise established residential neighborhood, which would be inconsistent with the subdivision's planned character.

e) No Impact on Adjacent Properties

The proposed development, with engineered grading, drainage, and construction controls, will not adversely impact adjacent properties. Proper stormwater management (to be addressed through the geotechnical report and DRC review process for impervious surface coverage) will prevent runoff impacts. Slope stability measures will ensure no risk to neighboring lots.

f) Fulfills the Intended Use of a Platted Lot

This lot was platted and approved specifically for single-family residential development. Allowing that intended use to proceed—with proper engineering oversight—serves the purposes of orderly planned development and is not detrimental to the zoning district. It represents the fulfillment of the original subdivision plan, not a deviation from intended land use.

5A. COMPLIANCE WITH EXCEPTION CRITERIA UNDER CHMC 19.72.050(A)(1)(a)

In addition to satisfying the variance standards under CHMC 19.92.030(C), this project will fully comply with all conditions required under CHMC 19.72.050(A)(1)(a), which provides an exception pathway for development on slopes exceeding 30%. Specifically:

Criterion 1: The slope area is smaller than two acres in size

✓ **Complies.** The total lot size is less than one acre, and the areas containing slopes exceeding 30% represent only a portion of the lot. The >30% slope areas are significantly smaller than two acres.

Criterion 2: The slope is a localized slope that is not part of a larger, contiguous slope that exceeds 30%

✓ **Complies.** As documented in the IGES Slope Map (Figure 2) and site reconnaissance, the >30% slopes on this property consist of:

- Localized cut slopes created by Quicksilver Circle road construction on the southern portion
- Localized man-made berms and fill piles on the northern portion

These are discrete, localized slope features created by previous site disturbance, not part of a larger natural hillside or contiguous slope system. The slopes are isolated features confined to the property boundaries and immediate vicinity.

Criterion 3: Their disturbance or removal will not create unstable geologic or drainage conditions that result in damage to public or private property

✓ **Will Comply.** The comprehensive IGES geotechnical and geologic hazard study (proposed 2025) will specifically analyze slope stability and drainage conditions to ensure that development activities will not create instability or damage. Preliminary findings from IGES (2019) indicate the site is suitable for development with proper engineering controls, including:

- Minimum 35-foot structural setback from top of slope
- Appropriate grading and drainage design
- Engineered foundations and site improvements

The final geotechnical report will provide detailed analysis confirming that disturbance for construction will not create unstable conditions, and will specify all necessary engineering measures to ensure stability and proper drainage management.

Criterion 4: The city engineer has approved a site-specific slope stability study performed by qualified engineering geologists and geotechnical engineers which meets all the requirements of this chapter

✓ **Will Comply.** IGES Engineering, a qualified professional geotechnical and geologic hazard consulting firm with licensed Professional Geologists (P.G., C.P.G.) and Professional Engineers (P.E.), has been retained to perform a comprehensive site-specific slope stability study that will meet all current SLEDS requirements.

This study, as outlined in IGES's July 30, 2025 scoping letter, will include:

- Supplemental fault trenching with complete coverage of the building footprint
- Additional test pits for subsurface characterization
- Laboratory testing of soil and rock samples
- Detailed slope stability analysis
- Surface-fault-rupture hazard assessment
- Comprehensive geotechnical design recommendations
- Construction oversight and monitoring protocols

Upon variance approval, this study will be completed and submitted to the City Engineer for review and approval, satisfying this requirement.

Criterion 5: Slope retaining structures on slope areas in excess of 30% shall not exceed four feet in height (terracing permitted with combined height not exceeding 12 feet)

✓ **Will Comply.** Any retaining structures required for site development will be designed in accordance with this height limitation. The geotechnical engineer will specify appropriate retaining wall design, if needed, to comply with the four-foot individual height limit and 12-foot combined height limit for terraced walls.

Exception 1(a)(ii) - Natural Slopes East of State Roads 190/210:

✓ **Not Applicable.** This property is not located within the area east of State Roads 190/210 where the exception does not apply. Furthermore, as extensively documented, the >30% slopes on this property are not natural slopes but rather man-made features created by road construction and site dumping.

Summary:

All five criteria under CHMC 19.72.050(A)(1)(a) either currently comply or will be satisfied through completion of the comprehensive IGES geotechnical study and implementation of its recommendations. This demonstrates that the proposed development meets the technical pathway established by the ordinance for development on >30% slopes, reinforcing that the variance request is appropriate and that development can proceed safely with professional engineering oversight.

6. ADDITIONAL PERTINENT INFORMATION

Pathway to Full SLEDS Compliance

This variance request works in conjunction with the technical compliance pathway established under CHMC 19.72.050(A)(1)(a). While the variance provides relief from the strict prohibition on development on >30% slopes, the project will fully satisfy all five exception criteria specified in that section, including:

- Completion of a comprehensive, city-engineer-approved slope stability study by qualified professional geologists and engineers (IGES)
- Demonstration that slope disturbance will not create unstable geologic or drainage conditions
- Compliance with all retaining wall height limitations

- Verification that slopes are localized, less than two acres, and not part of larger contiguous slope systems

This dual approach—variance relief combined with technical compliance—ensures that development proceeds safely and consistent with the protective intent of SLEDS regulations.

Prior Engineering Studies and Proposed Comprehensive Study

This property has been the subject of extensive professional geotechnical and geologic hazard evaluation:

AGRA Earth & Environmental (1999): Conducted fault rupture hazard and geotechnical study including two fault trenches and two test pits. No faults or significant hazards were identified. While this study predates current SLEDS requirements, it provides valuable baseline data on subsurface conditions.

IGES Engineering (2019): Provided updated surface-fault-rupture hazard study, slope stability assessment, and geotechnical investigation to address deficiencies in the AGRA report. Key findings included:

- Site has been almost entirely disturbed by previous human activity
- Observed steep slopes are products of road construction (cut/fill slopes) and dumping (debris piles)
- Site is suitable for development from a geologic hazard perspective
- Recommended minimum 35-foot structural setback from top of slope

IGES Engineering (2025 - Proposed): Following a scoping meeting with City staff on August 7, 2025, IGES proposed a comprehensive geotechnical and geologic hazard study that would meet current SLEDS requirements. This study was put on hold pending variance approval, but will include:

- Supplemental fault trenching to provide complete coverage of the building footprint
- Additional test pits for subsurface characterization
- Laboratory testing of soil and rock samples
- Updated slope stability analysis
- Comprehensive geotechnical design recommendations
- Final engineering oversight and construction monitoring recommendations

Upon variance approval, this comprehensive study will be completed and submitted to the City to satisfy all SLEDS technical requirements and provide the basis for final site design and construction.

Pre-Application Meetings and City Staff Input

In pre-application discussions with City planning staff Adam Ginsberg and Ian Harris, the following was confirmed:

- Other lots within the Prospector Hills No. 6 Subdivision have received similar variances for development on slopes exceeding 30%
- The City recognizes that pre-platted lots in this subdivision face unique circumstances related to the timing of SLEDS adoption
- Staff indicated that precedent exists for granting such variances where engineering analysis supports safe development
- The variance process is the appropriate mechanism to address the hardship created by applying slope development restrictions to pre-existing platted lots with man-made slopes

This pre-application guidance informed the preparation of this variance request and provides confidence that the request is consistent with the City's approach to similar situations.

Man-Made Nature of Slopes - Photographic Evidence

The attached site photographs from IGES's 2019 reconnaissance clearly illustrate the man-made nature of the >30% slopes:

- Cut slopes showing evidence of excavation for road construction
- Fill piles containing construction debris (concrete, metal, food containers)
- Disturbed vegetation patterns inconsistent with natural hillside
- Depressed bowl-shaped terrain resulting from cut and fill operations

These photographs support the fundamental distinction between this property and natural sensitive lands: the steep slopes here are artifacts of human activity, not natural terrain requiring preservation from development impacts.

Commitment to Engineering Compliance

The property owner commits to:

- Completing the comprehensive IGES geotechnical and geologic hazard study
- Implementing all engineering recommendations for grading, setbacks, drainage, and construction
- Obtaining all necessary DRC approvals for technical compliance
- Providing on-site stormwater retention as required for impervious surface coverage exceeding 30% in slope areas (per CHMC 19.72.040(D))
- Following all construction oversight and testing protocols specified by the geotechnical engineer
- Satisfying all five criteria under CHMC 19.72.050(A)(1)(a) for development on slopes exceeding 30%

This commitment ensures that any actual geologic or stability concerns—the true intent of SLEDS regulations—will be fully addressed through professional engineering, even while obtaining relief from the blanket prohibition on development on >30% slopes.

CONCLUSION

This variance request seeks relief from a slope development prohibition that, while appropriate for protecting natural sensitive lands, creates unreasonable hardship when applied to a pre-platted lot with entirely man-made slopes created by prior disturbance. The requested variance represents the minimum necessary to permit reasonable residential development consistent with:

- The lot's original platted and approved designation as a buildable residential lot
- Professional engineering findings confirming safe developability with proper controls
- Established City precedent for similar lots in the same subdivision
- The protective purposes of SLEDS regulations as achieved through engineering analysis rather than blanket prohibition
- Full compliance with all five exception criteria under CHMC 19.72.050(A)(1)(a)

The unique circumstances of this property—pre-existing platted status, man-made slopes from prior road construction and dumping, extensive engineering evaluation, established precedent for similar variances, and ability to satisfy all technical exception criteria—justify relief from strict application of the slope development prohibition. With professional

engineering oversight and adherence to recommended construction practices, the proposed development will not be detrimental to public welfare and will allow for equitable treatment consistent with other approved variance requests in the Prospector Hills No. 6 Subdivision.

We respectfully request approval of this variance to allow safe, professionally-engineered residential development on this pre-platted lot, fulfilling its intended use while fully protecting public health, safety, and welfare through engineering controls and satisfaction of all technical compliance criteria established in the SLEDS ordinance.



Intermountain GeoEnvironmental Services, Inc.
2702 South 1030 West, Suite 10, South Salt Lake City, Utah 84119
T: (801) 270-9400 www.igesinc.com

November 18, 2025

Mr. Royal Coburn
7070 South 3088 East
Salt Lake City, Utah 84121

Project No. 05062-001

Subject: **Variance Application Letter**
Geotechnical & Geologic Hazard Study
Coburn Residence
Lot 5 of the Prospector Hills No. 6 Subdivision
7568 S. Quicksilver Circle
Cottonwood Heights, Utah

Mr. Coburn:

It is our understanding that you will be applying for a variance to the Cottonwood Heights City Code with respect to development on the subject property, Lot 5 of the Prospector Hills No. 6 Subdivision, located at 7568 S. Quicksilver Circle in Cottonwood Heights, Utah. This letter is intended to provide preliminary geotechnical and geologic hazard support for the application process.

A scoping meeting was held at the Cottonwood City offices on August 7, 2025, to discuss the proposed investigative approach by IGES to perform a geotechnical and geologic hazard study at the property, as presented in a scoping letter (IGES, 2025; see the attached *Aerial Image/Exploration Map* as provided in the IGES (2025) scoping letter). In the meeting, it was discussed that because much of the lot includes slopes in excess of 30%, including across the building envelope (see the attached *Slope Map* as provided in the IGES (2025) scoping letter), and that in order for development to take place on the lot as planned, a variance of the prohibition of development on >30% slope areas from the SLEDS ordinance (Cottonwood Heights, 2015) would need to be granted.

It is our understanding that the subject lot has been previously evaluated multiple times. Initially, AGRA Earth & Environmental, Inc. (AGRA, 1999) provided a fault rupture hazard and geotechnical study for the property, in which two fault trenches and two test pits were excavated (see the *Slope Map*). Though no faults were encountered in the trenches, AGRA is no longer in business, and the study does not meet the requirements of the current SLEDS code, as identified in a review letter by GeoStrata (GeoStrata, 2024). Additionally, IGES provided an updated surface-fault-rupture hazard study, slope stability assessment, and geotechnical investigation for the subject lot in 2019, intended to supplement the deficiencies of the AGRA (1999) report. The IGES (2019) report did not include any additional subsurface work or laboratory testing, but did include a site reconnaissance by a professional geologist

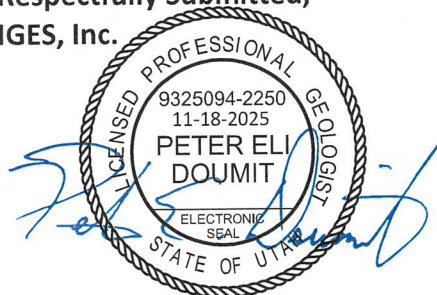
and slope stability analysis that was lacking from the AGRA (1999) study. The site was found to be almost entirely disturbed by previous human activity, but appeared to be suitable from a geologic hazard perspective, provided a minimum structural setback of 35 feet from the top of the slope is observed during design and construction (IGES, 2019).

To our knowledge, the IGES (2019) report was never submitted to the City for review, and based on the proposed building footprint as shown on the site plans (14 sheets) sealed by Mr. Michael Sotuyo, P.E., dated June 17, 2024, the AGRA (1999) fault trenching does not provide adequate coverage across the building footprint. Therefore, IGES (2025) proposed to provide supplemental fault trenching and test pits as part of a geotechnical and geologic hazard study that would supersede the previous reports. However, given the results of the scoping meeting as noted above, the study was put on hold until it was known that a variance could be granted for the project, such that effort and money would not be spent in the event of a variance not being granted by the City regardless of the findings of the geotechnical and geologic hazard study.

It is IGES' opinion that a variance for the subject property is supported by the fact that the >30% slopes observed on the property at the time of the IGES (2019) site reconnaissance were the product of human disturbance, rather than being natural >30% slopes. The steep slopes on the southern portion of the property were observed to be a fill slope from the construction of Quicksilver Drive that had been cut into and now represented a cut slope with a depressed bowl shape (see the *Slope Map*). Additionally, the steep slopes on the northern side of the property were observed to be man-made berms and stockpiles of undocumented fill left over from previous human activity on the site, which included concrete, metal pipes, and food containers. Select photographs of the site from the IGES (2019) site reconnaissance are attached to this letter. As a result of the human disturbance (which created man-made slopes >30%), the site is left without enough area to construct a single-family residence according to City Code without a variance. In the opinion of IGES, this reasonably constitutes a *hardship* to development, which we understand is one required element of the variance application.

We thank you for the opportunity to provide this service. If you have any questions, please contact the undersigned at your convenience at (801) 270-9400.

Respectfully Submitted,
IGES, Inc.



Peter E. Doumit, P.G., C.P.G.
Senior Geologist

David A. Glass, P.E.
Associate

Attachments

- 1) Figure 1: *Aerial Image/Exploration Map* from IGES (2025)
- 2) Figure 2: *Slope Map* from IGES (2025)
- 3) Select Site Photos from IGES (2019) Site Reconnaissance

References Cited:

AGRA Earth & Environmental, Inc., 1999, Fault Rupture Hazard and Geotechnical Study, Prospector Hills Number 6, Lot 5, 7568 South Quicksilver Circle, Salt Lake County, Utah: AGRA Job No. 9-817-002267, prepared for Mr. Jerry Eisinger, dated April 30, 1999.

Cottonwood Heights City, 2015, Cottonwood Heights City Code Chapter 19.72 Sensitive Lands Evaluation & Development Standards (SLEDS), adopted January 14, 2015.

GeoStrata, 2024, Review of: "Report Fault Rupture Hazard and Geotechnical Study, Prospector Hills Number 6, Lot 5 7568 South Quicksilver Circle, Salt Lake County, Utah", April 30, 1999 (AGRA Job No. 9-817-002267): prepared for Mr. Michael Johnson and Mr. Adam Ginsberg, City of Cottonwood Heights, dated September 26, 2024.

IGES, Inc. (IGES), 2019, Updated Surface-Fault-Rupture Hazard Study, Slope Stability Assessment, and Geotechnical Investigation, Lot 5 of the Prospector Hills No. 6 Subdivision, 7568 South Quicksilver Circle, Cottonwood Heights, Utah: IGES Project No. 03198-001, prepared for Mr. Jerry Eisinger, dated October 3, 2019.







IGES, 2025, Proposed Investigative Approach, Geotechnical & Geologic Hazard Study, Coburn Residence, Lot 5 of the Prospector Hills No. 6 Subdivision, 7568 South Quicksilver Circle, Cottonwood Heights, Utah: IGES Project No. 05062-001, prepared for Mr. Royal Coburn, dated July 30, 2025.

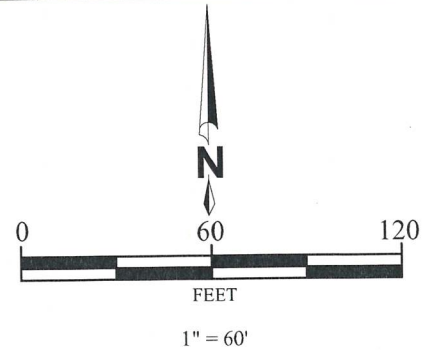


Legend

Imagery:
-Bing Maps Image, accessed on 07/28/2025.

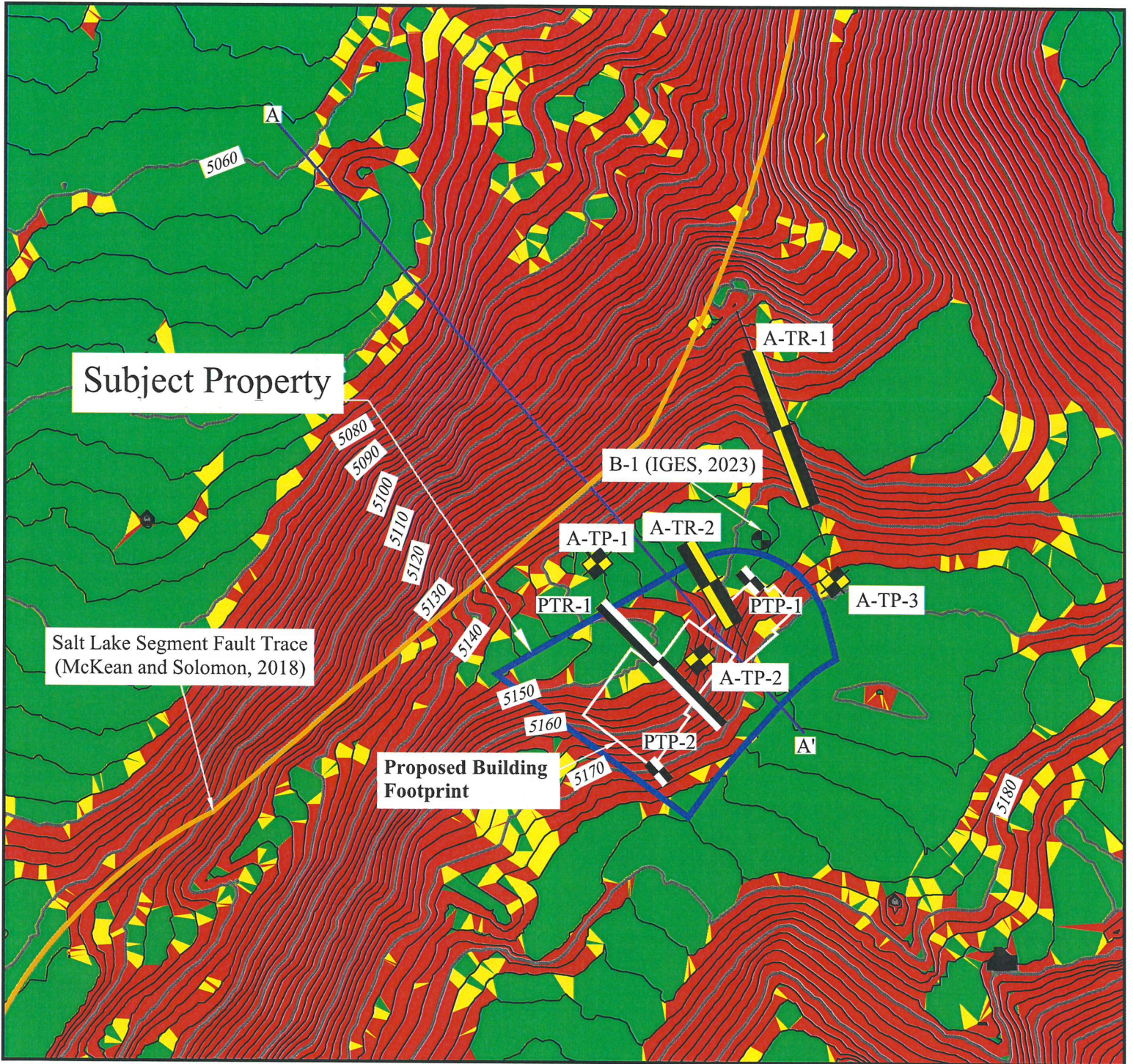
Site Plan:
-Mr. Michael Sotuyo, *Site Plan*, dated 6/17/2024.

-  PTP-2 Proposed Test Pit
-  PTR-1 Proposed Trench
-  Proposed Cross Section
-  B-1 Boring (IGES, 2023)
-  A-TR-2 Trench (AGRA, 1999)
-  A-TP-3 Test Pit (AGRA, 1999)



Geotechnical & Geologic Hazards Study
Coburn Residence
7568 S. Quicksilver Circle
Cottonwood Heights, Utah
Aerial Image/Exploration Map

Figure 1



Topo Data:







State of Utah Acquired 0.5 Meter Lidar Data-Wasatch Front, 2013-2014. Distributed from www.opentopography.org, accessed on 07/24/2025.

-Contour Interval=2'

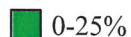
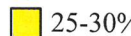
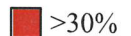
Site Plan:

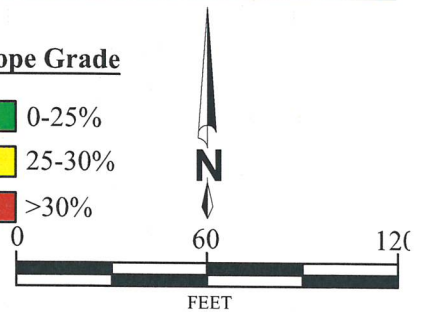
-Mr. Michael Sotuyo, *Site Plan*, dated 6/17/2024.

Legend

-  PTR-2 Proposed Test Pit
-  PTR-1 Proposed Trench
-  A A' Proposed Cross Section
-  B-1 Boring (IGES, 2023)
-  A-TR-2 Trench (AGRA, 1999)
-  A-TP-3 Test Pit (AGRA, 1999)

Slope Grade

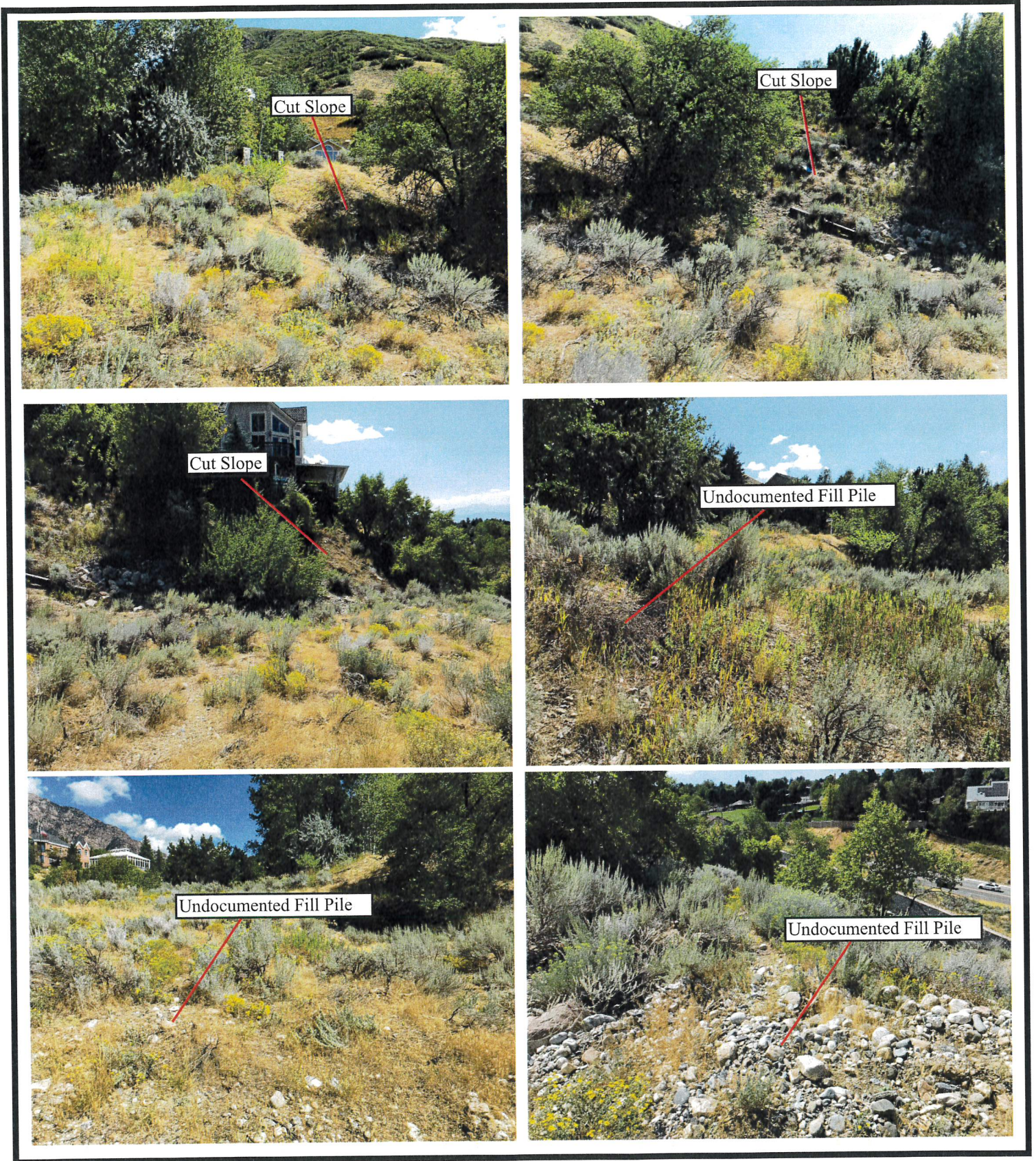
-  0-25%
-  25-30%
-  >30%



Geotechnical & Geologic Hazards Study
 Coburn Residence
 7568 S. Quicksilver Circle
 Cottonwood Heights, Utah

Figure
 2

Slope Map



Photos taken on September 12, 2019.



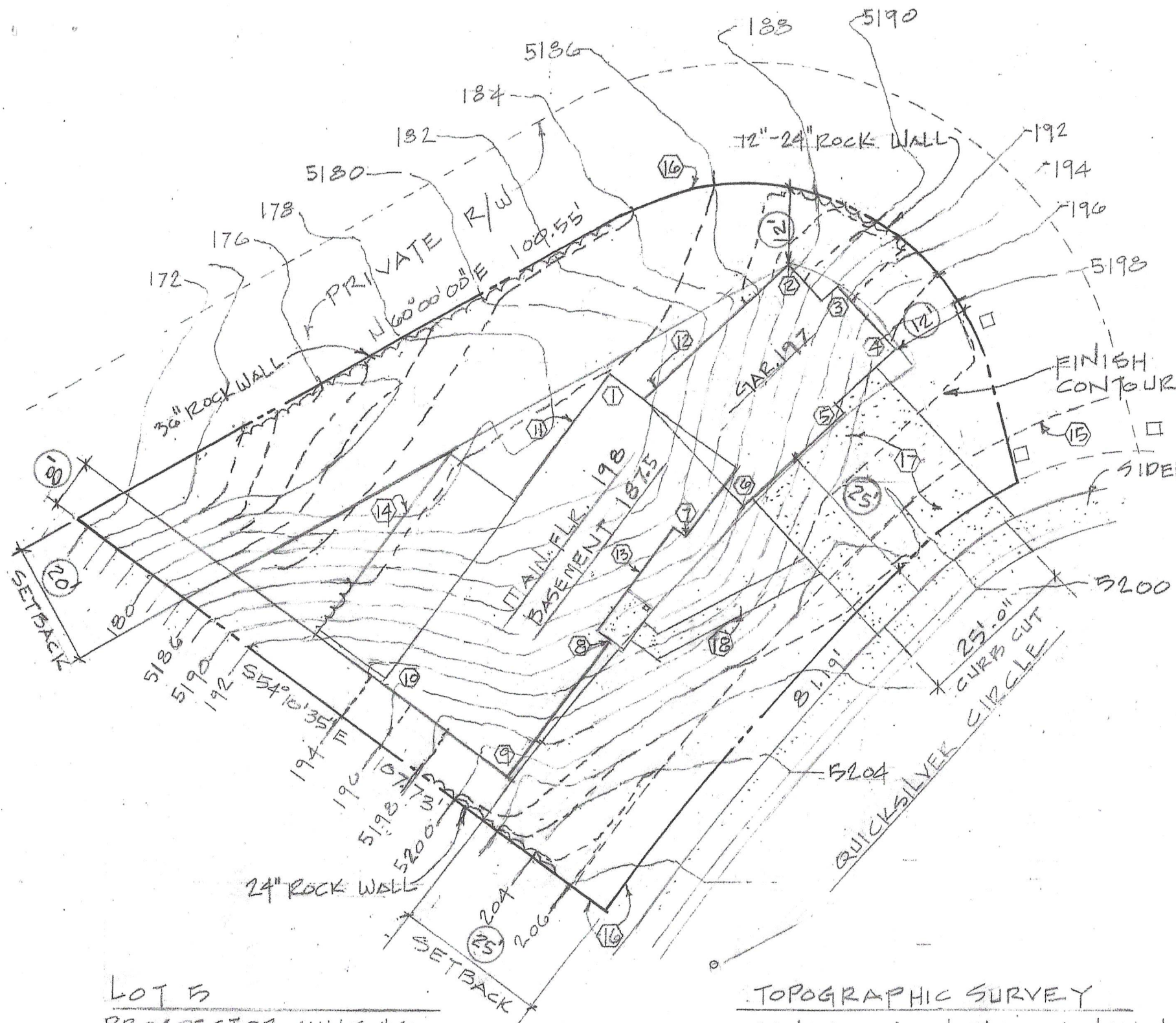
Project Number – 05062-001

Variance Application Letter
 Geotechnical and Geologic Hazard Study
 Lot 5 of the Prospector Hills No. 6 Subdivision
 7568 S. Quicksilver Circle
 Cottonwood Heights, Utah

**SELECT
 SITE PHOTOS**

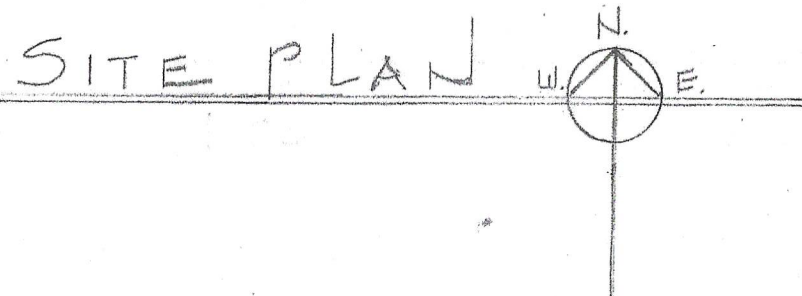
**FIGURE
 1**

Attachment - C
Building & Site Plans



LOT 5
 PROSPECTOR HILLS #6
 7568 SO. QUICKSILVER CIR.
 SALT LAKE CO. UTAH

TOPOGRAPHIC SURVEY
 McNEIL ENG. & SURVEYING
 JOB NO: 99060



KEYED NOTES

- ⊕ EXISTING GRADE @ CORNER:
 - ① - 5179 ② - 5188 ③ - 5192
 - ④ - 5198+ ⑤ - 5196 ⑥ - 5190
 - ⑦ - 5186 ⑧ - 5192 ⑨ - 5200+
 - ⑩ - 5195
- ⊕ HIGHEST ROOF POINTS @ EXIST. GRADE
 - ⑪ - 5212 ⑫ - 5208
 - ⑬ - 5221 ⑭ - 5208
- ⊕ EASEMENT (71)
- ⊕ PROPERTY LINE
- ⊕ 4" CONC. DRIVEWAY
- ⊕ 4" CONC. WALK

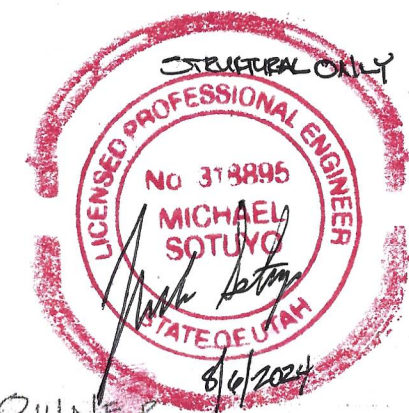
SQUARE FOOTAGE

BASEMENT	2325 S.F.
MAIN FLR	2325 S.F.
UPPER FLR	844 S.F.
TOTAL	5494 S.F.

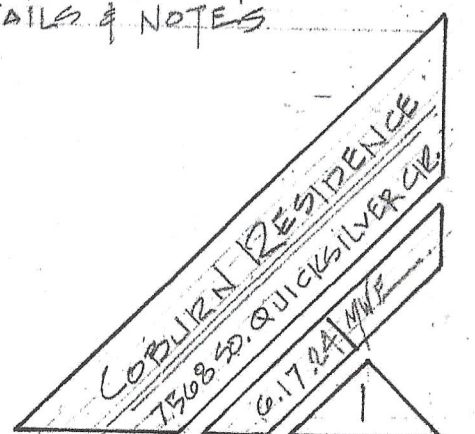
INDEX OF DRAWINGS

1. SITE PLAN
 2. FTG. & FOUND. PLAN
 3. BASEMENT PLAN
 4. MAIN FLOOR PLAN
 5. UPPER FLOOR PLAN
 6. FRONT ELEVATION
 7. RIGHT & LEFT ELEVATIONS
 8. BACK ELEVATION
 9. BUILDING SECTION
 10. BUILDING SECTION
 11. BUILDING SECTION
 12. BUILDING SECTION
 13. DOOR & WIND. SCHEDULES
 14. ELEC., PLUMB. & MECH. NOTES
 15. T.I. DET'S, FTG. SCHEDULE & NAILING SCHED.
 16. FRAMING DETAILS
- S.O. - S.I. 3.

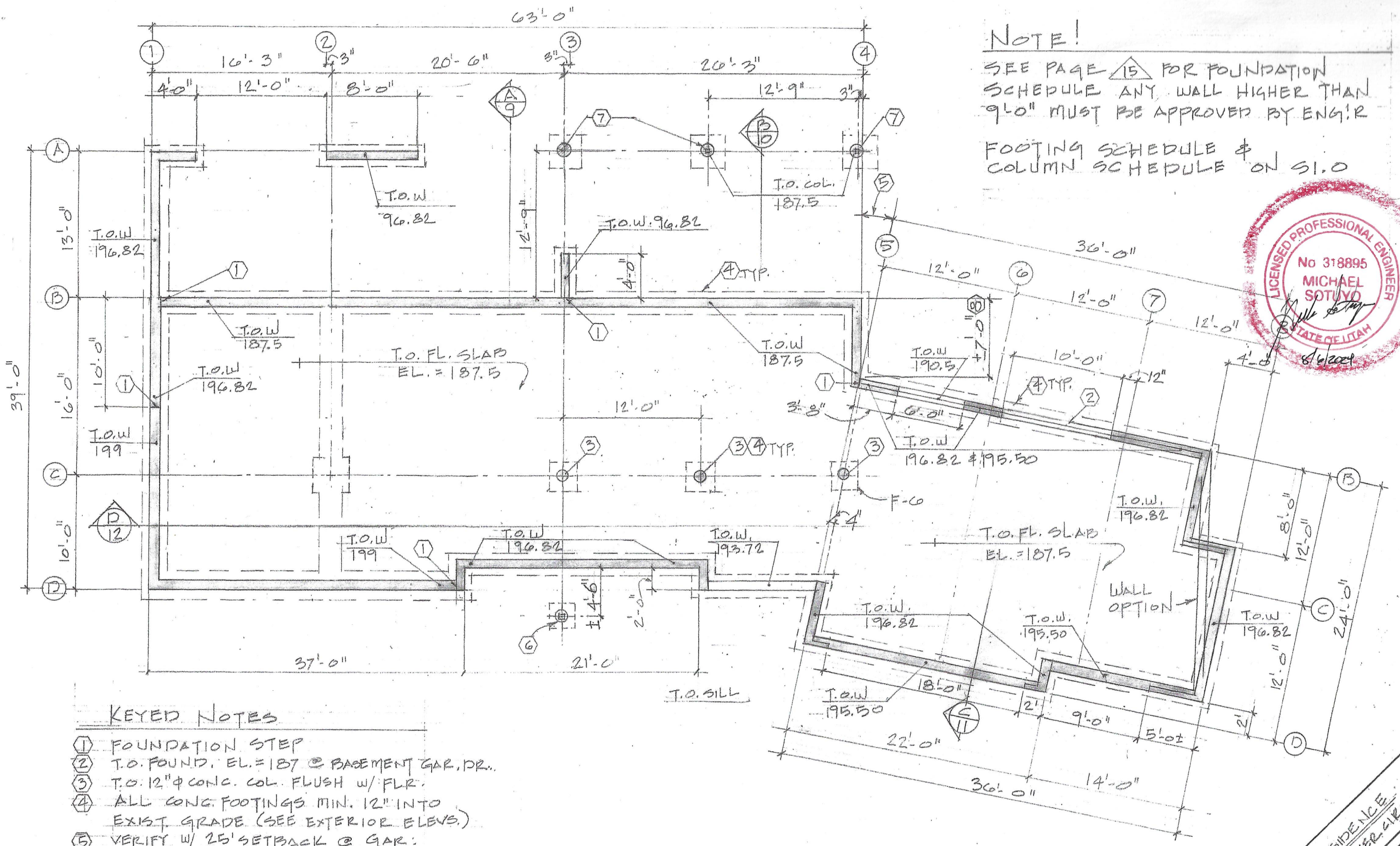
CONSULT STRUCT. ENG.
 FOR FRAMING PLANS,
 DETAILS & NOTES



OWNER
 L. & R. COBURN
 7070 SO. 3088 EAST
 S.L.C. UTAH 84121



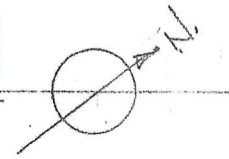
NOTE!
 SEE PAGE 15 FOR FOUNDATION SCHEDULE ANY WALL HIGHER THAN 9'-0" MUST BE APPROVED BY ENGR.
 FOOTING SCHEDULE & COLUMN SCHEDULE ON S.I.O



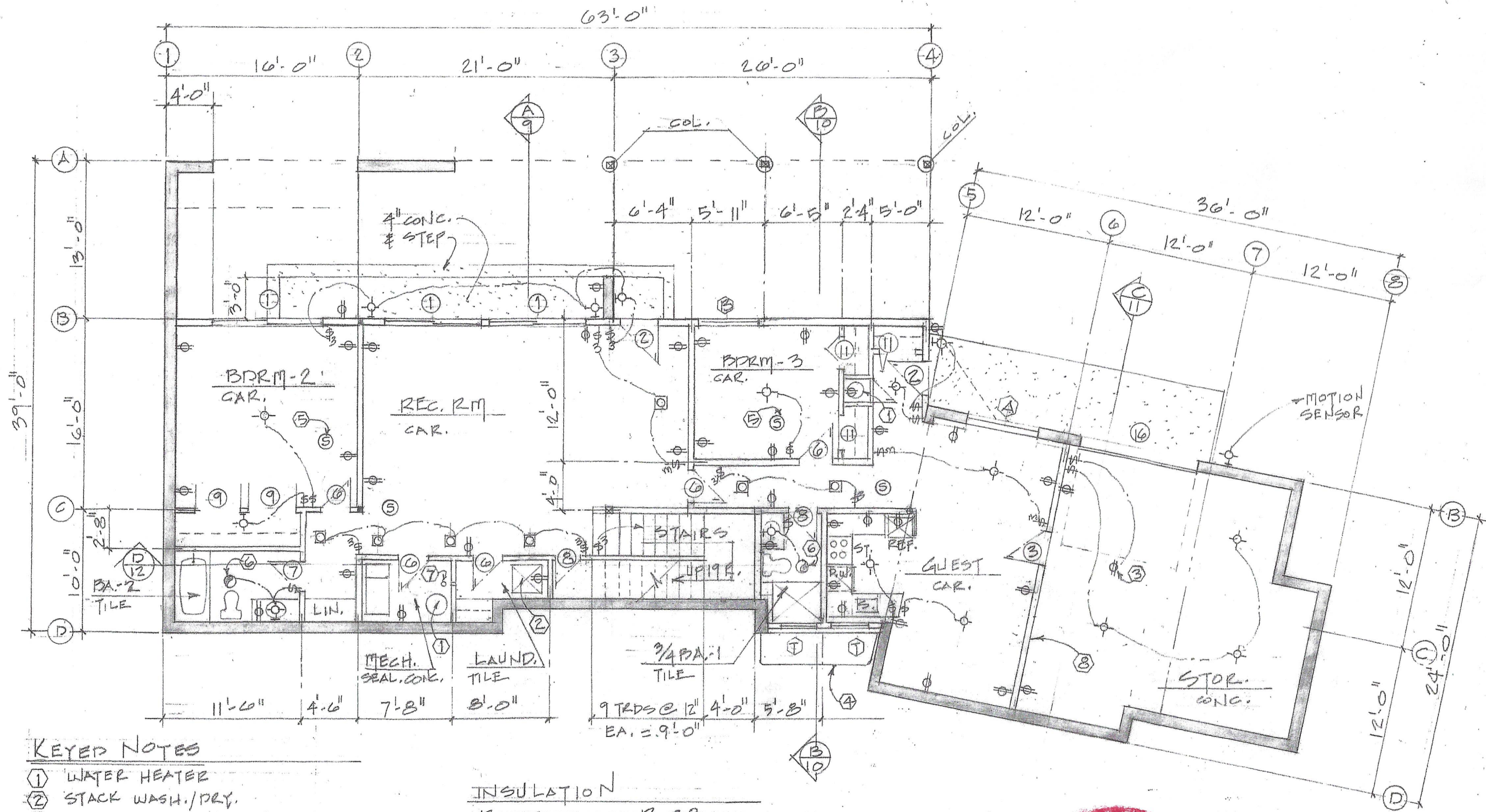
KEYED NOTES

- ① FOUNDATION STEP
- ② T.O. FOUND. EL. = 187 @ BASEMENT GAR. DR.
- ③ T.O. 12" φ CONC. COL. FLUSH W/ FLR.
- ④ ALL CONC. FOOTINGS MIN. 12" INTO EXIST. GRADE (SEE EXTERIOR ELEV.)
- ⑤ VERIFY W/ 25' SETBACK @ GAR.
- ⑥ SEE STRUCT. DET. 5/SLO & C3 COL. SIZE
- ⑦ SEE STRUCT. DET. 2/S.I.O & C5 COL. SIZE
- ⑧ VERIFY W/ 25' SETBACK

FOOTING & FOUNDATION PLAN
 SCALE: 1/8" = 1'-0"



COBURN RESIDENCE
 756840 QUICKSILVER CIR.
 07.24.11
 2



KEYED NOTES

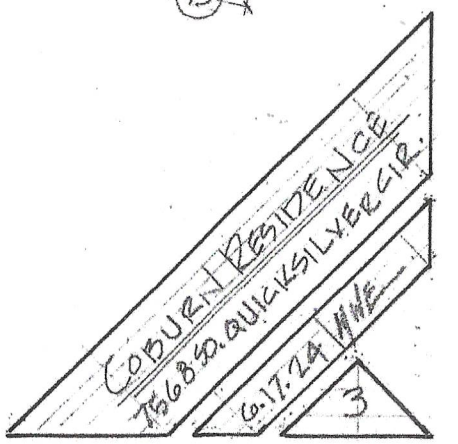
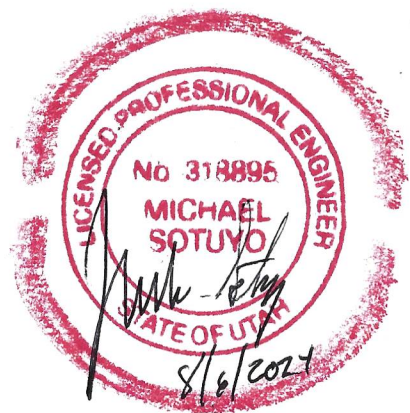
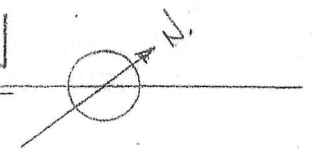
- ① WATER HEATER
- ② STACK WASH./DRY.
- ③ AUTO GAR. DR. OPNR W/ LIGHT
- ④ PRE-FAB WINDOW WELL (CORR. & GALV.)
- ⑤ SMOKE DET. ⑤
- ⑥ EXHAUST FAN ⑥
- ⑦ FLOOR DRAIN
- ⑧ 5/8" FIRE RATED WALL w/ AIR TIGHT PERIMETER

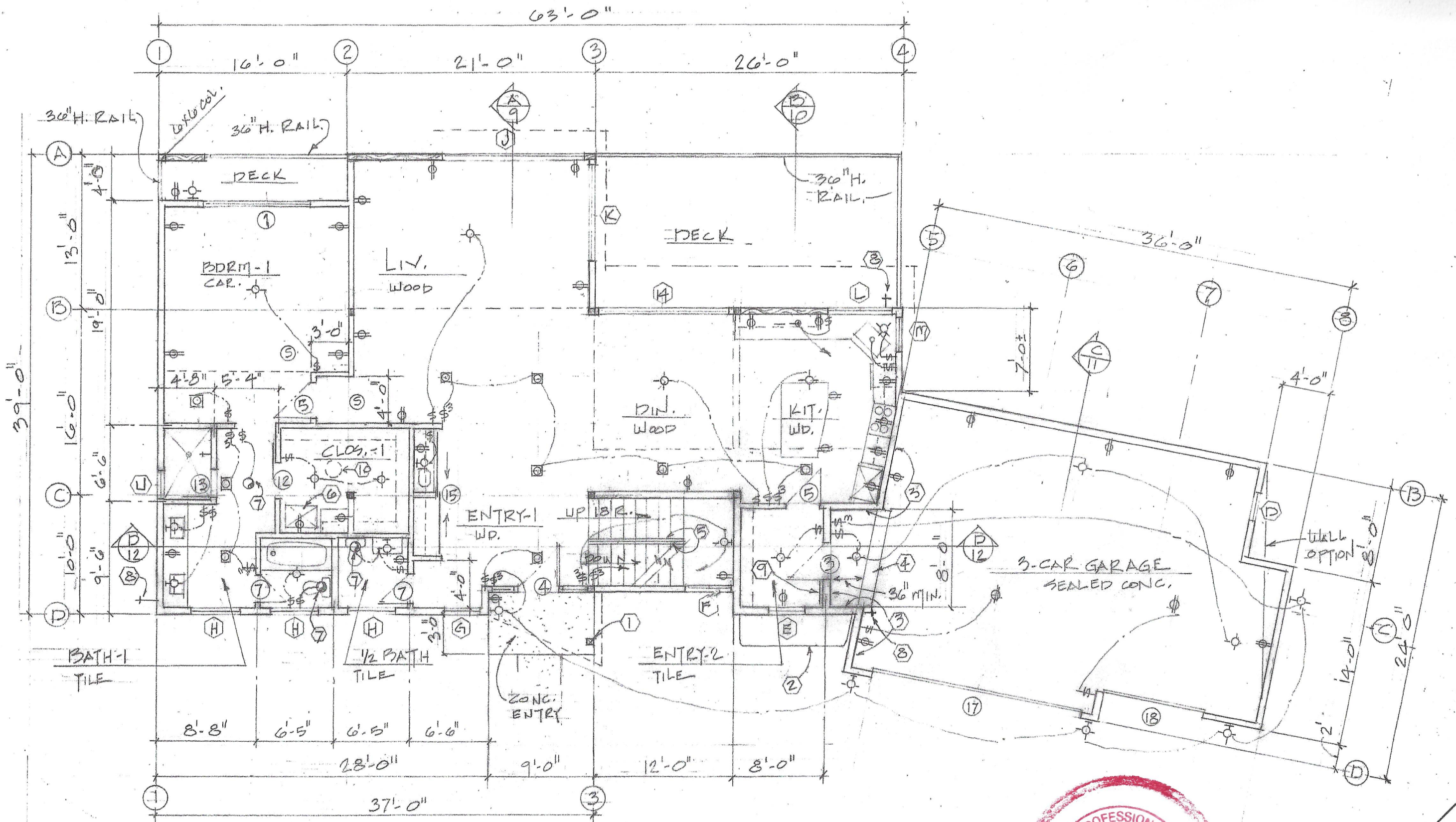
INSULATION

ROOF	R-38
EXT. WALLS	R-19
FLOOR	R-30 @ EXT.
FOUND.	R-

BASEMENT FLOOR PLAN

SCALE:



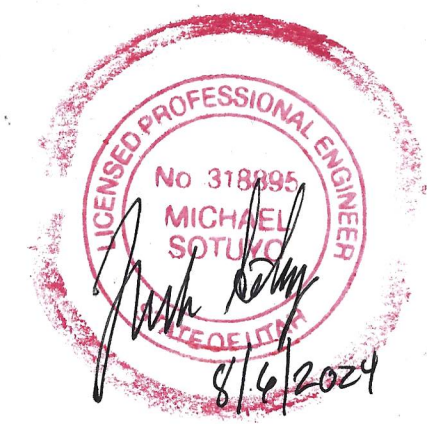


KEYED NOTES

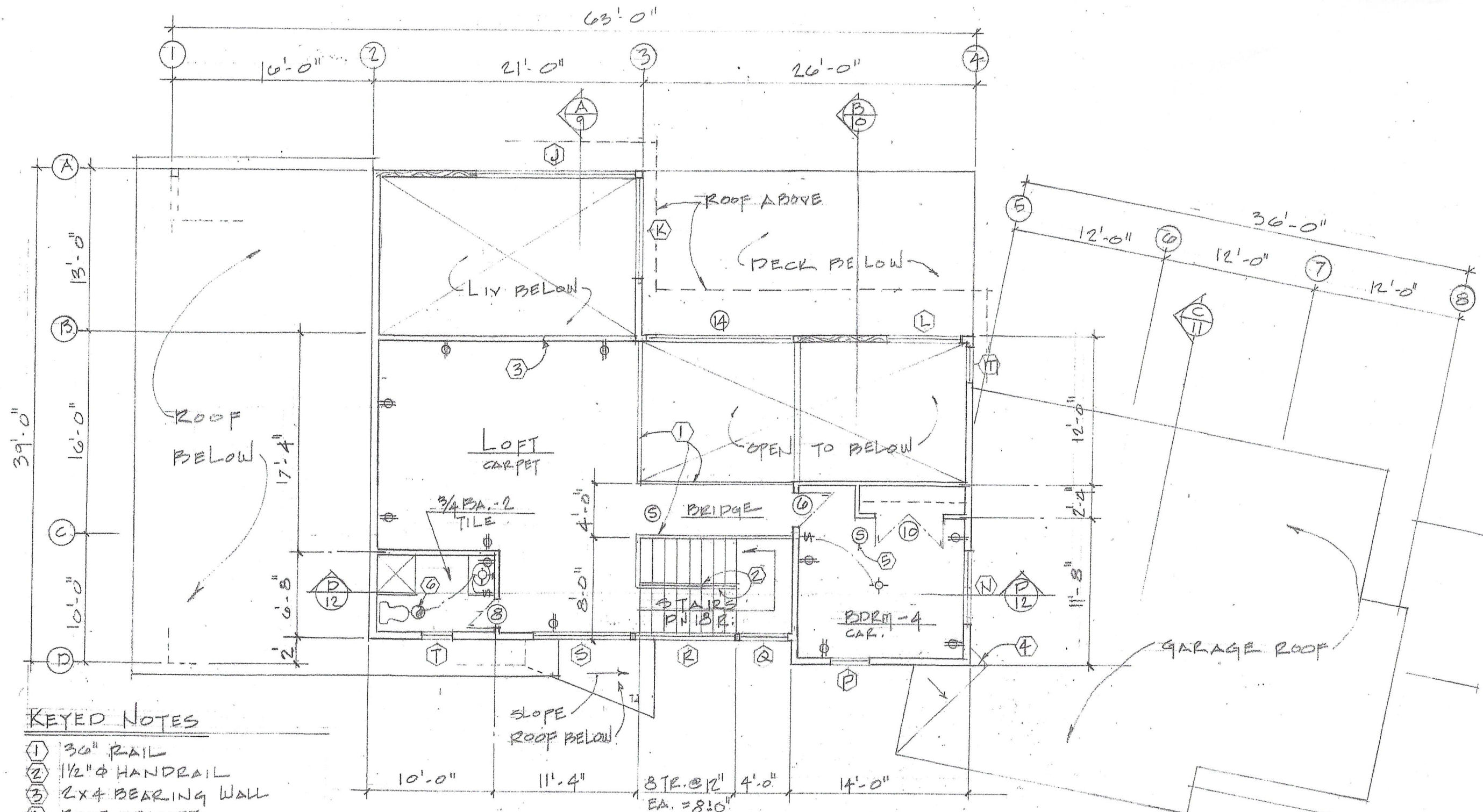
- | | |
|----------------------------------|---------------|
| ① 3x3 T.S. COL. | ⑦ EXHAUST FAN |
| ② WINDWELL BELOW | ⑧ HOSE BIBS |
| ③ 5/8" FIRE RATED GYP BD (WALLS) | ⑨ ELEC. PANEL |
| ④ 12" CONC. STEP | ⑩ TUBE LITE |
| ⑤ 1/2" φ HANDRIL | |
| ⑥ STACK WASH/DRY. | |

MAIN FLOOR PLAN

SCALE: _____



COBURN RESIDENCE
156850. QUICKSILVER CIR.
10.17.24 MWE
4

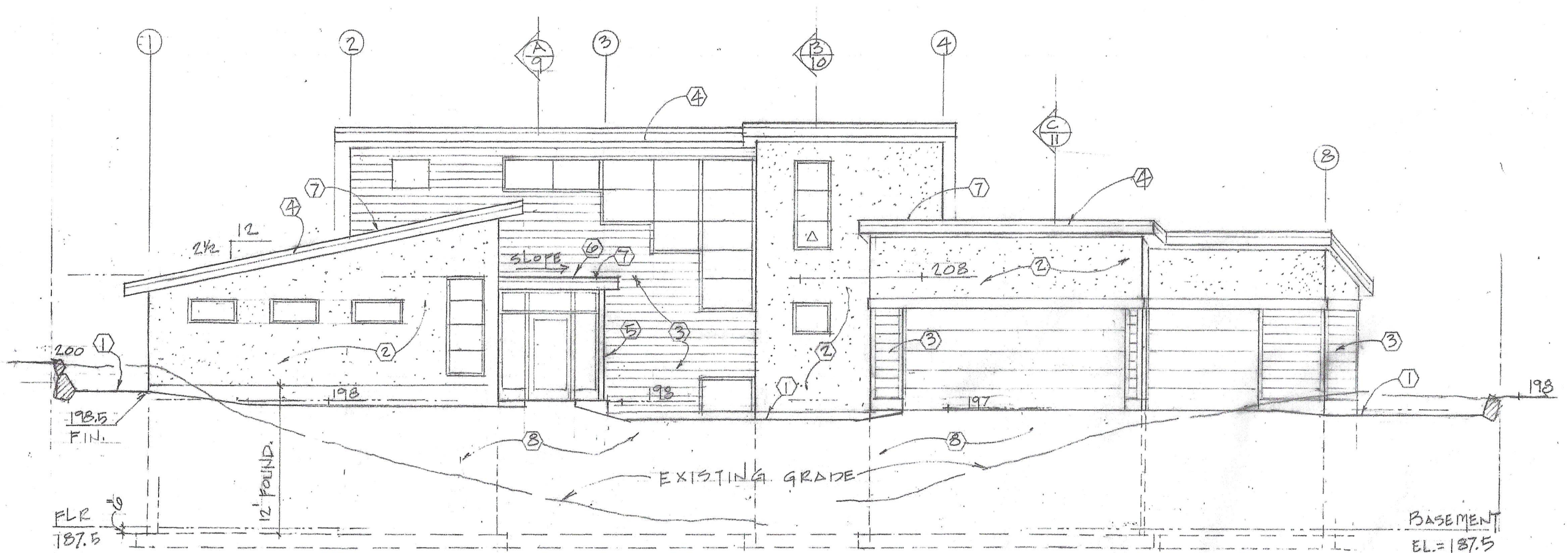


- KEYED NOTES**
- ① 30" RAIL
 - ② 1/2" φ HANDRAIL
 - ③ 2x4 BEARING WALL
 - ④ ROOF CRICKET
 - ⑤ SMOKE DETECTOR
 - ⑥ EXHAUST FAN

UPPER FLOOR PLAN
 SCALE: N.



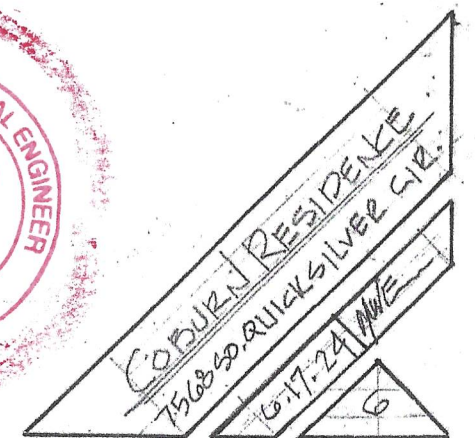
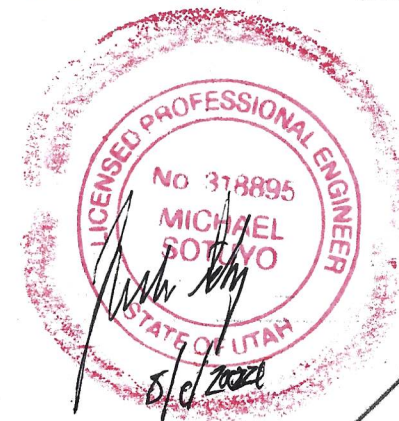
COBURN RESIDENCE
 7563 S. QUICKSILVER CIR.
 6.17.24 MWE
 5



- KEYED NOTES
- ① FINISH GRADE
 - ② STUCCO FINISH
 - ③ 1x8 T&G SIDING w/ FLUSH JOINT (WOOD)
 - ④ ALUM DRIP EDGE & FASCIA
 - ⑤ 3" φ STEEL COL. (GALV.)
 - ⑥ FLAT ROOF w/ MIN. SLOPE
 - ⑦ ROOF TO WALL FLASHING
 - ⑧ FILL

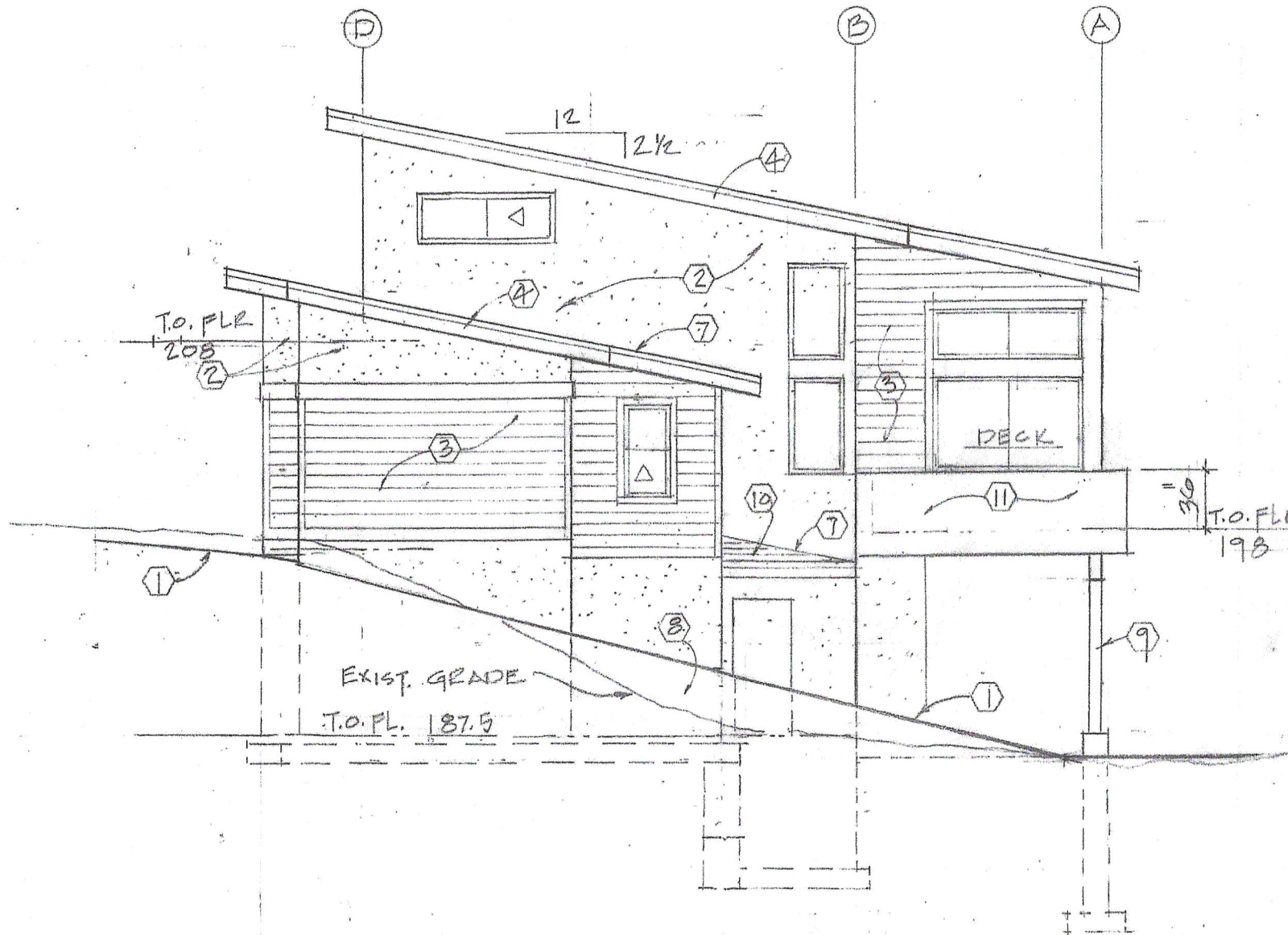
FRONT SIDE ELEVATION (S.E.)

SCALE:



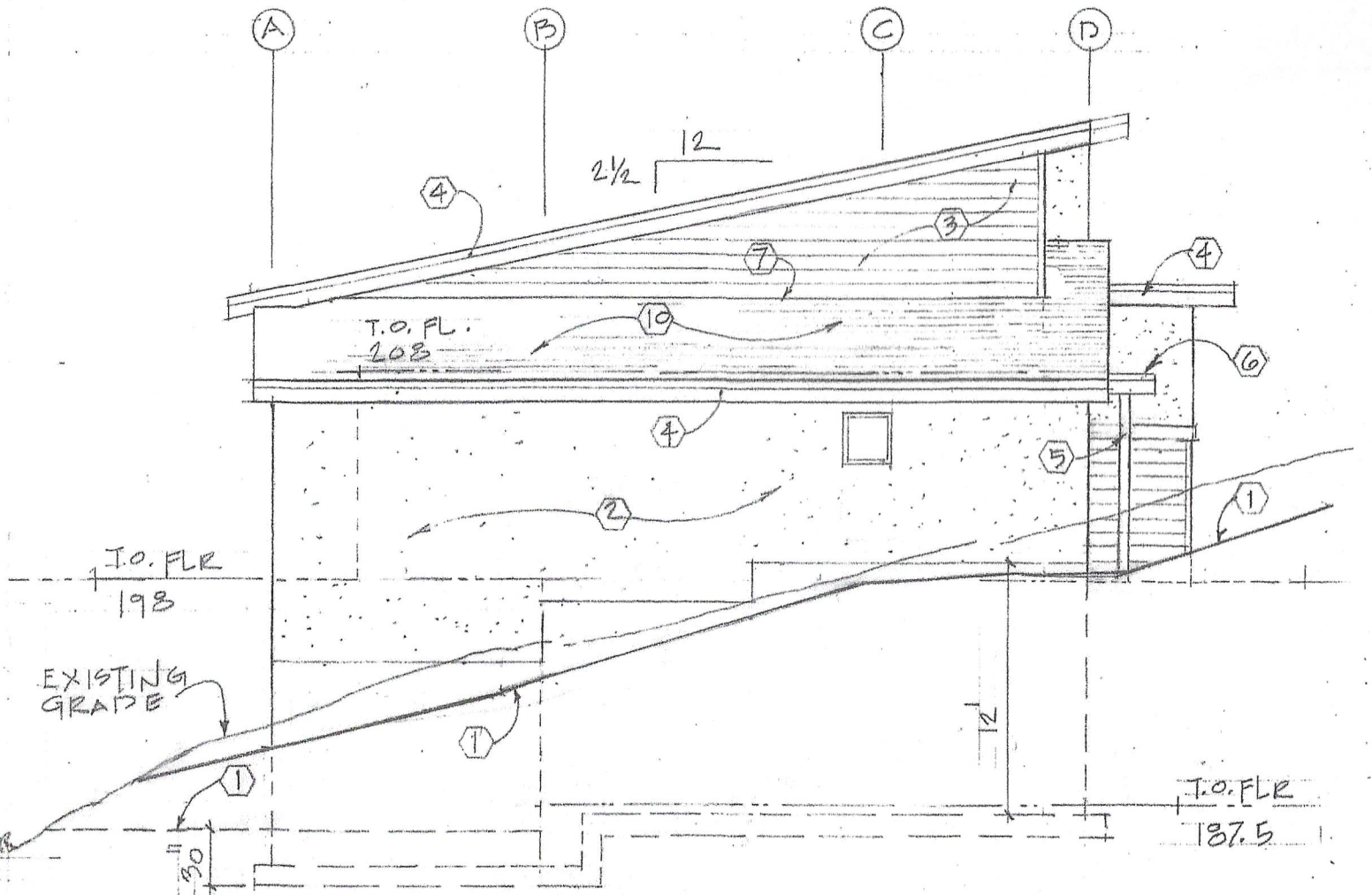
KEYED NOTES

- ① THRU ⑧ ON PAGE ⑥
- ⑨ 6x6 COLUMN
- ⑩ METAL ROOF
- ⑪ 36" RAILING



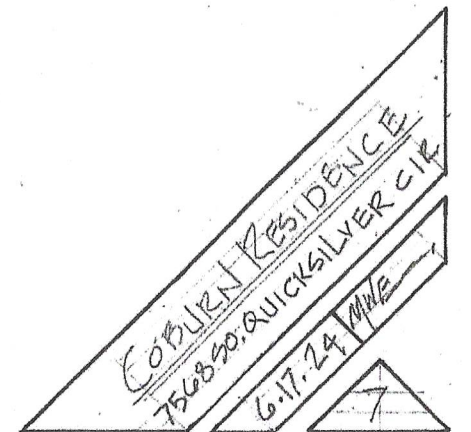
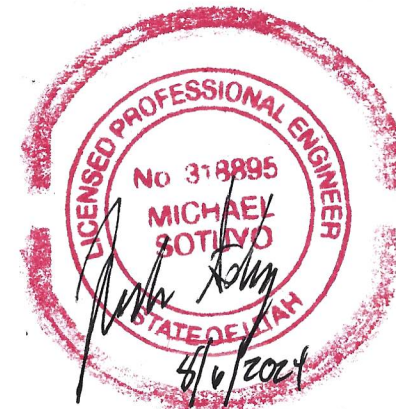
RIGHT SIDE ELEVATION (No.E.)

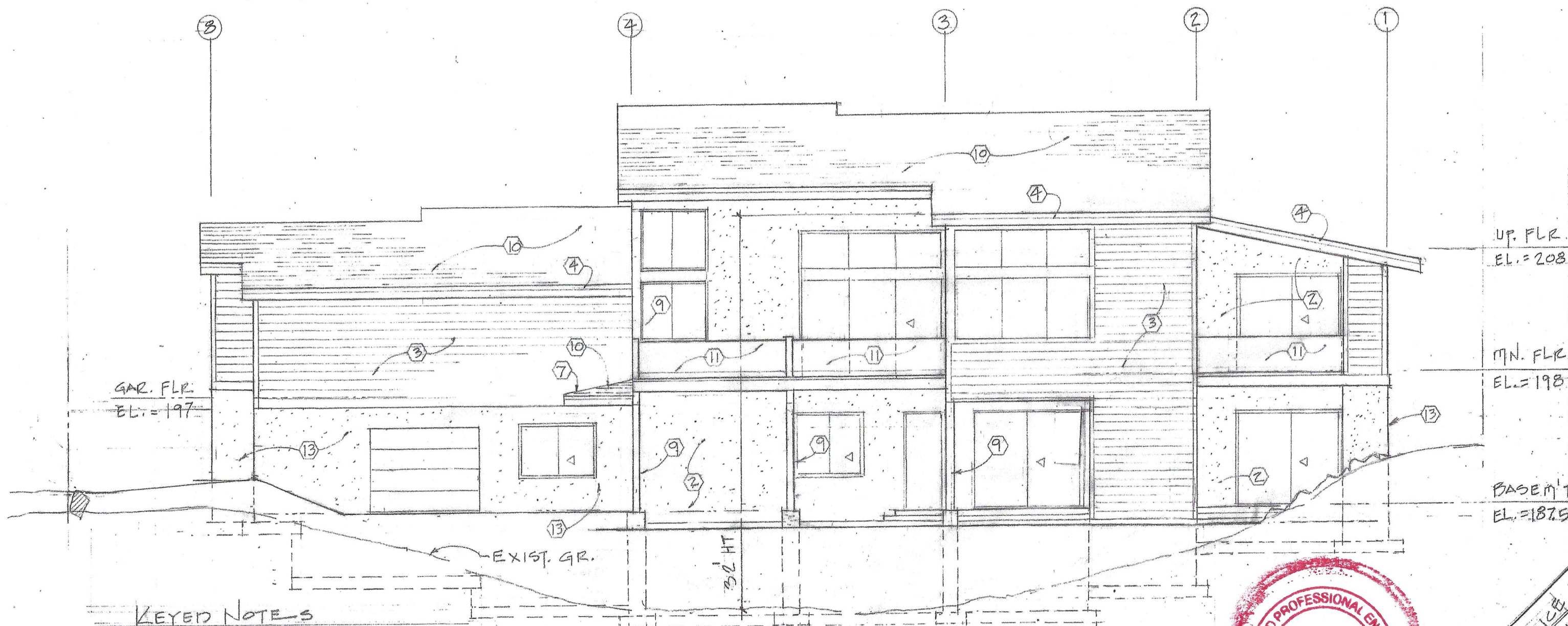
SCALE:



LEFT SIDE ELEVATION (So.W.)

SCALE:





UP. FLR
EL. = 208

MN. FLR
EL. = 198

BASEM'T
EL. = 1875

GAR. FLR
EL. = 197

EXIST. GR.

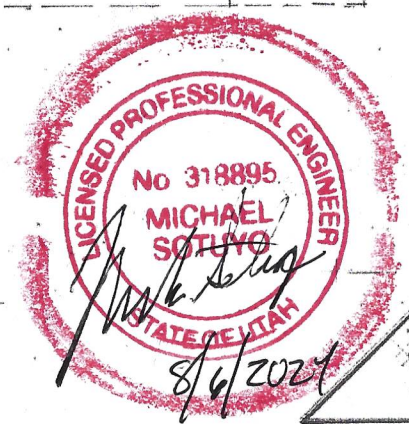
BLT HT.

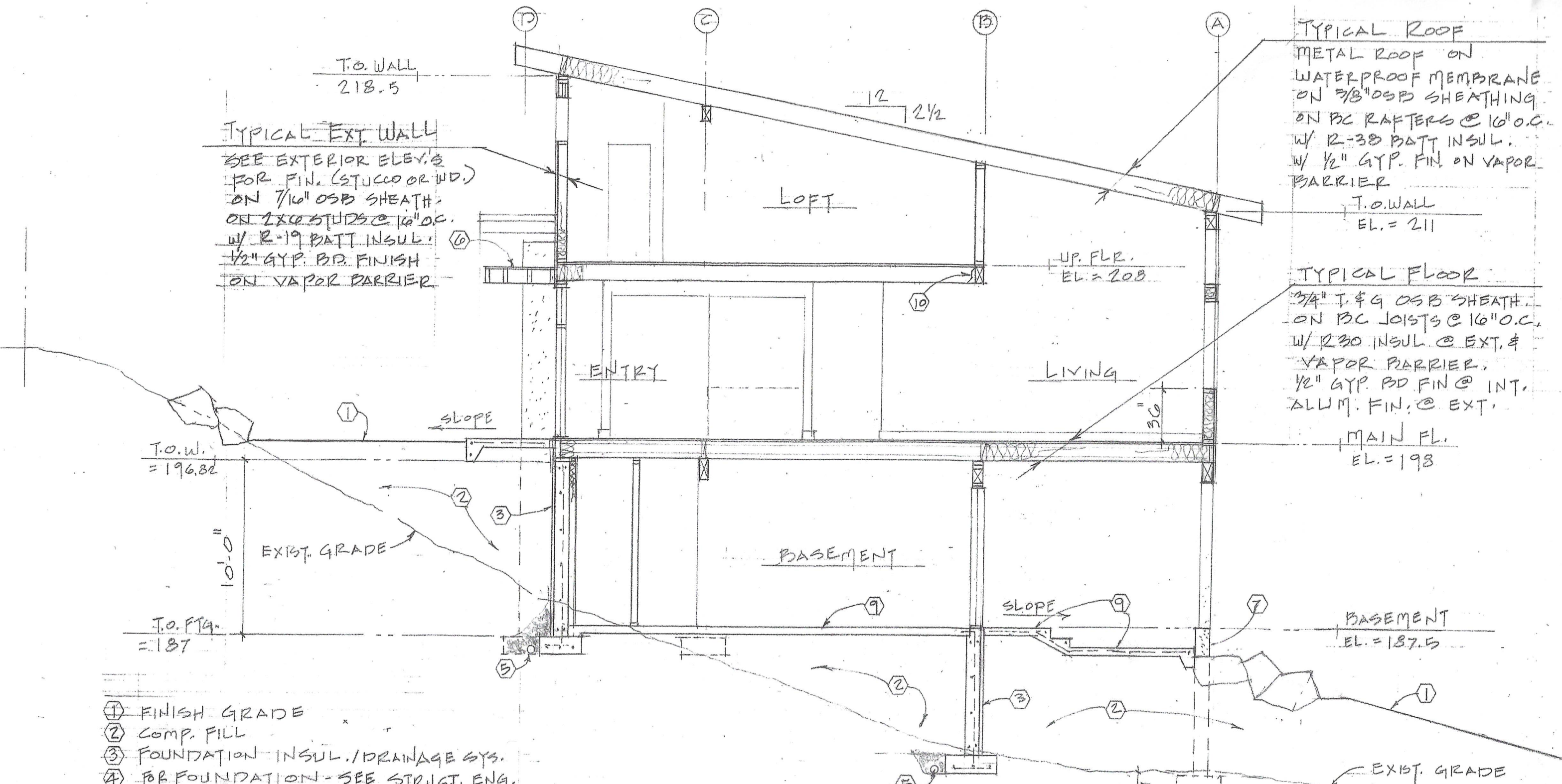
- KEYED NOTES**
- ① THRU ⑧ ON PAGE ⑥
 - ⑨ COL...
 - ⑩ METAL ROOF
 - ⑪ 3" RAILING
 - ⑫ 12" ϕ CONC. COL.
 - ⑬ CONC. WALL

SEE STAIR

BACK SIDE ELEVATION (No. W.)

SCALE:





T.O. WALL
218.5

TYPICAL EXT. WALL
SEE EXTERIOR ELEV'S
FOR FIN. (STUCCO OR WD.)
ON 7/16" OSB SHEATH.
ON 2X6 STUDS @ 16" O.C.
W/ R-19 BATT INSUL.
1/2" GYP. BR. FINISH
ON VAPOR BARRIER

TYPICAL ROOF
METAL ROOF ON
WATERPROOF MEMBRANE
ON 5/8" OSB SHEATHING
ON BC RAFTERS @ 16" O.C.
W/ R-38 BATT INSUL.
W/ 1/2" GYP. FIN. ON VAPOR
BARRIER

T.O. WALL
EL. = 211

TYPICAL FLOOR
3/4" T. & G OSB SHEATH.
ON BC JOISTS @ 16" O.C.
W/ R30 INSUL @ EXT. &
VAPOR BARRIER.
1/2" GYP. BR. FIN @ INT.
ALUM. FIN. @ EXT.

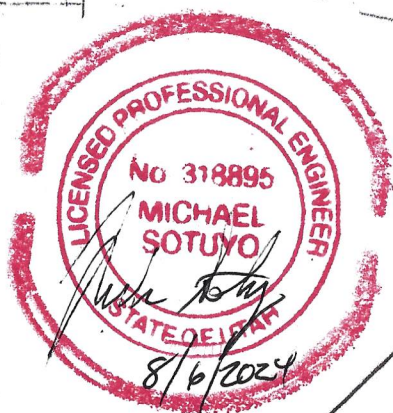
UP. FLR.
EL. = 208

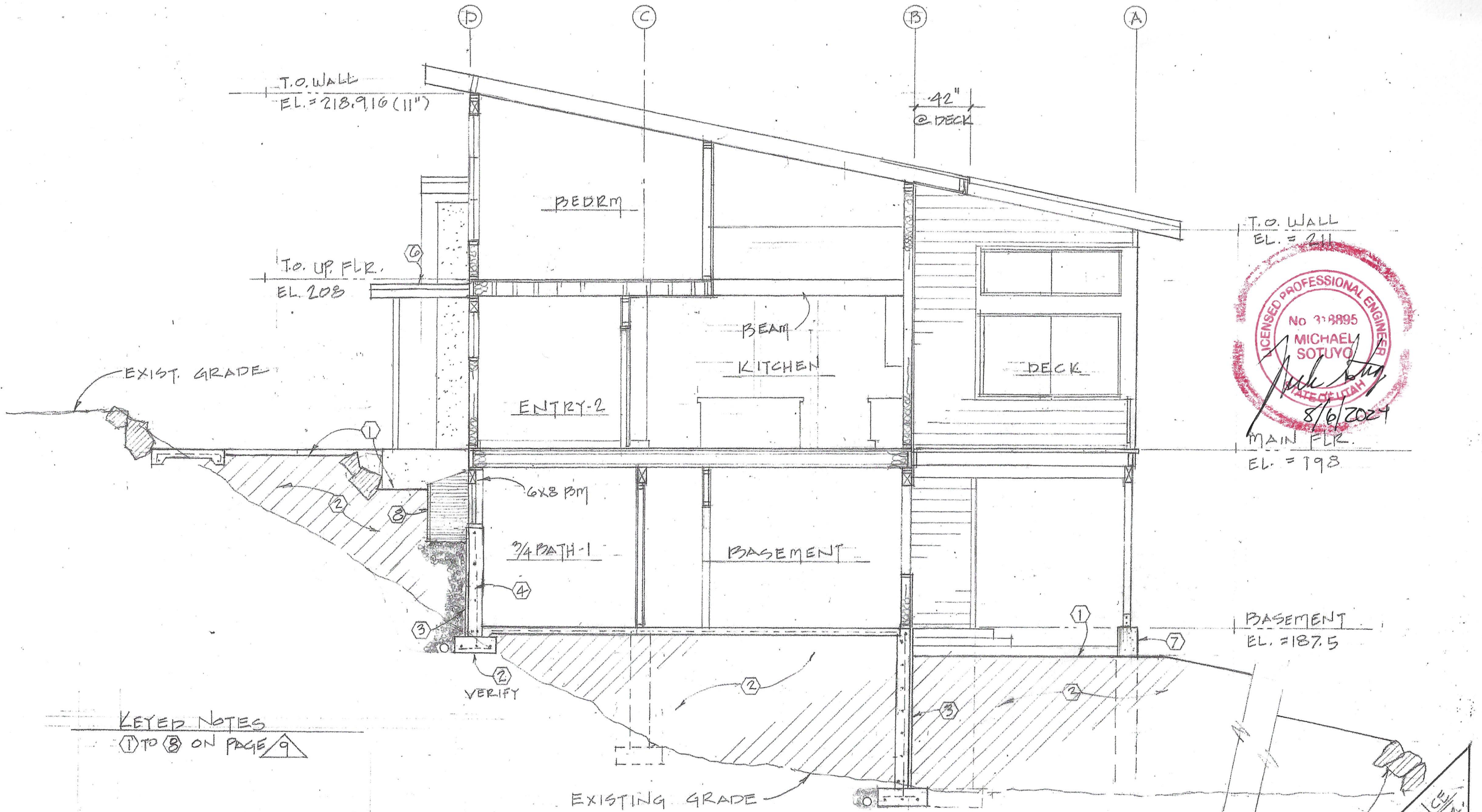
MAIN FL.
EL. = 198

- ① FINISH GRADE
- ② COMP. FILL
- ③ FOUNDATION INSUL. / DRAINAGE SYS.
- ④ FB FOUNDATION - SEE STRUCT. ENG.
- ⑤ FOUND. DRAINAGE SYSTEM
- ⑥ FLAT ROOF W/ MIN. SLOPE (EPDM MEMBR.)
- ⑦ 12" Ø CONC. COL.
- ⑧ PRE-FAB WIND. WELL (CORR. & GALV.)
- ⑨ 4" CONC. SLAB
- ⑩ JOIST HANGERS

TYP: 12" MIN. INTO
EXIST. GRADE

BUILDING SECTION A
9





T.O. WALL
EL. = 211

T.O. WALL
EL. = 211

EXIST. GRADE

EXISTING GRADE

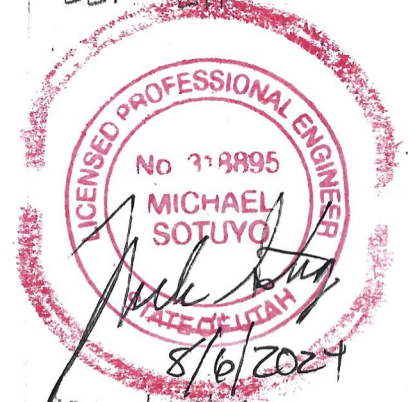
BASEMENT
EL. = 187.5

KEYED NOTES
① TO ⑧ ON PAGE 9

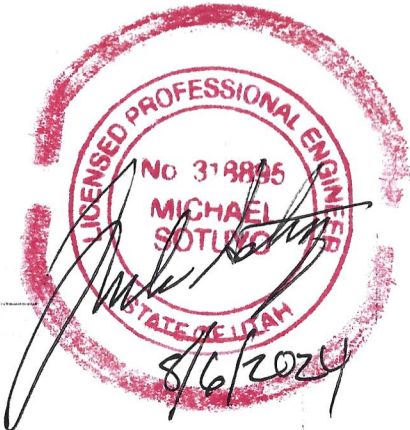
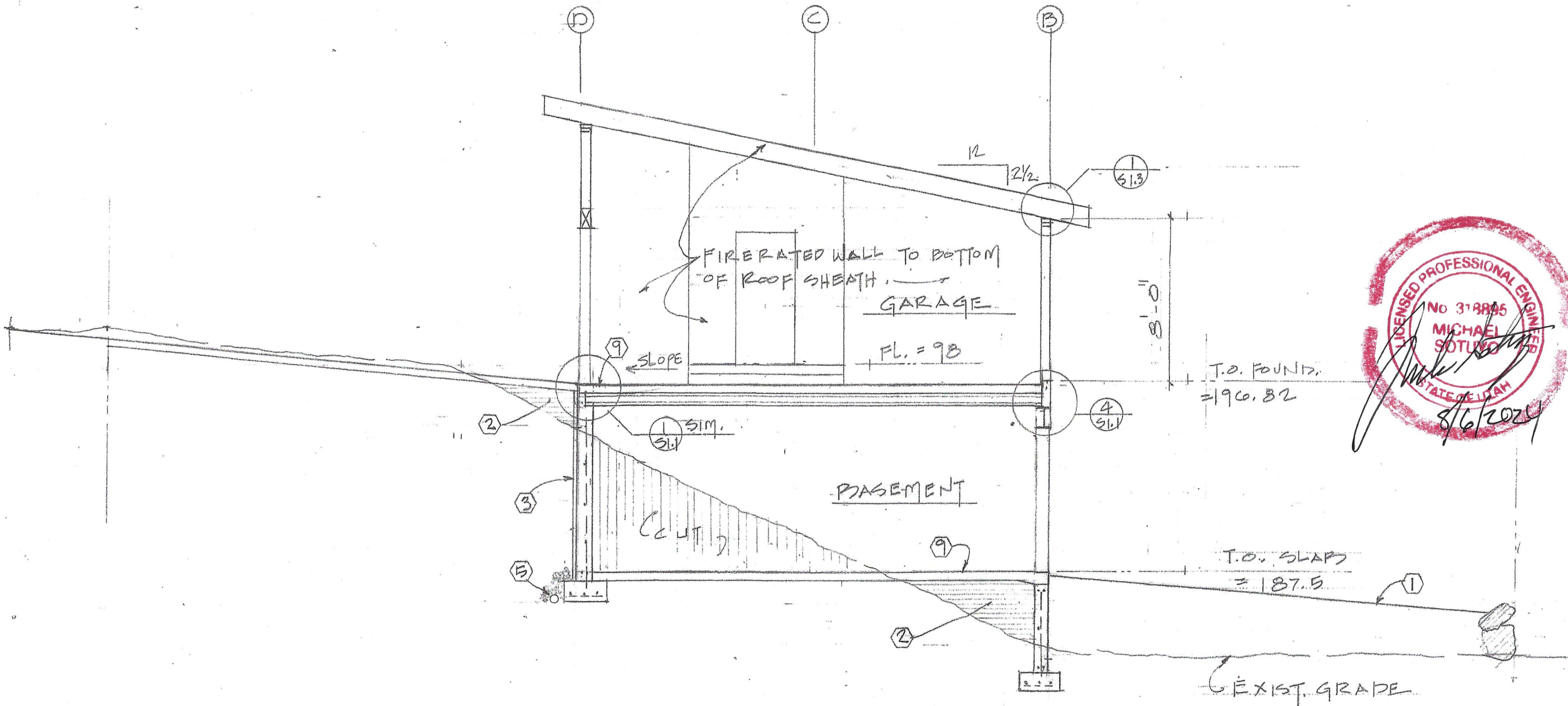
VERIFIED

36" ROCK WALL

COBURN RESIDENCE
7508 SO. QUICKSILVER CIR.
6-17-24 WVE
10

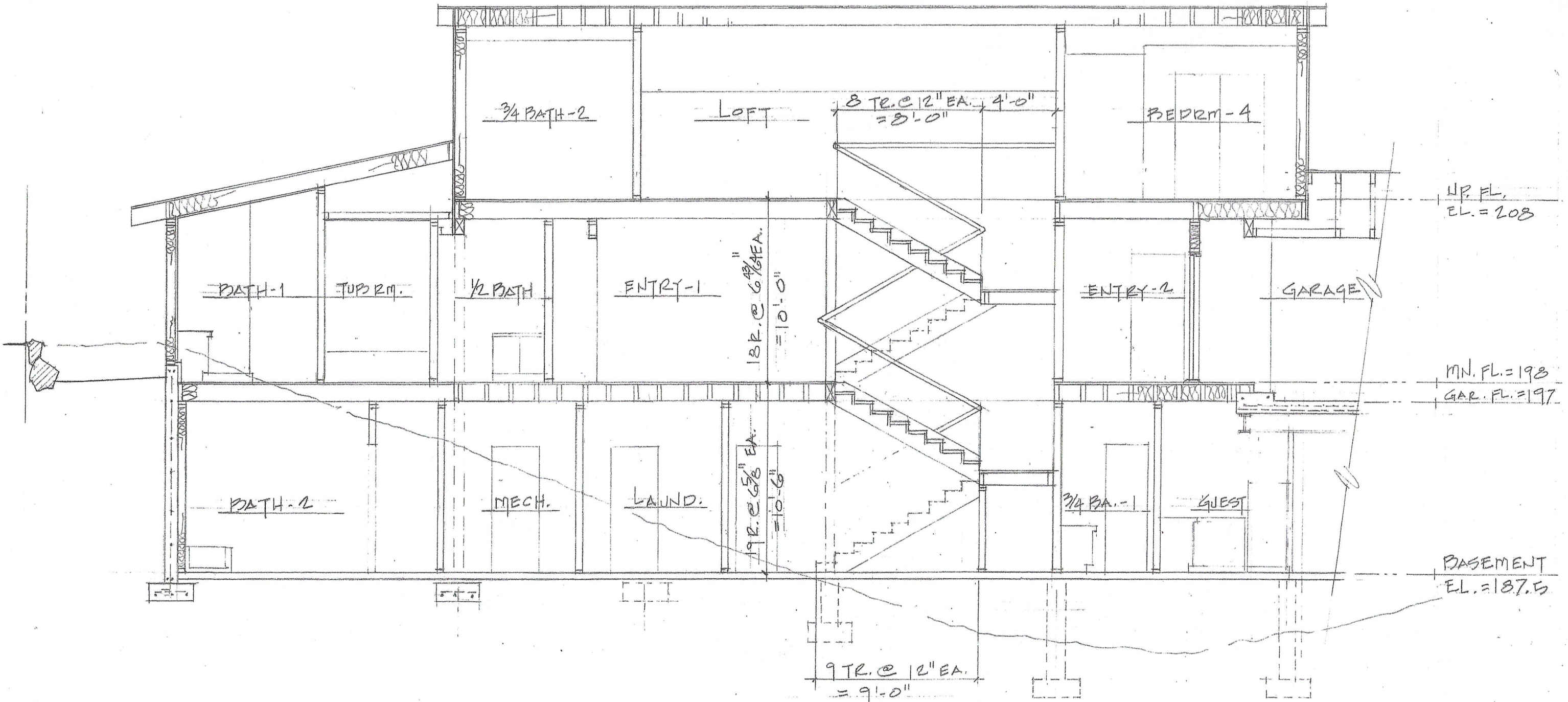


BUILDING SECTION B
SCALE: 3/16" = 1'-0"

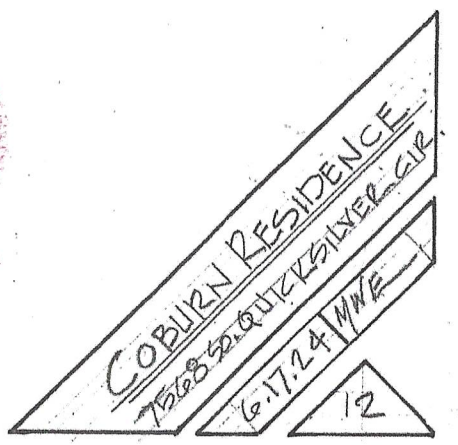
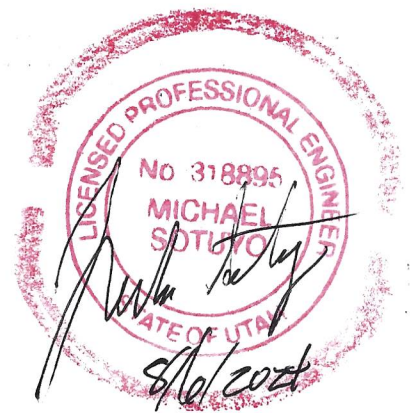


BUILDING SECTION C

COBURN RESIDENCE
 7508 S. QUICKSILVER CIR.
 6.17.24 MWE
 11



BUILDING SECTION D
12
SCALE: 3/16" = 1'-0"



○ DOOR SCHEDULE			
MARK	SIZE	TYPE	REMARK
1	8'-0" x 8'-0"	SLID (SPAN'L)	w/TRANSOM & TEMP.
2	3'-0" x 8'-0"	S.C. - WP.	w/TRAN. & TEMP.
3	3'-0" x 6'-8"	20 MIN. F.R.	AUTO CLOS.
4	3'-6" x 7'-0"	S.C. - WP.	w/TRAN. & TEMP.
5	3'-0" x 7'-0"	S.C.	
6	2'-8" x 7'-0"	S.C.	
7	2'-0" x 7'-0"	S.C.	
8	2'-4" x 7'-0"	S.C.	
9	2'-2'-0" x 7'-0"	S.C.	
10	2'-2'-6" x 7'-0"	S.C.	
11	2'-1'-6" x 7'-0"	B1-FOLD	
12	3'-0" x 7'-0"	SLID.	"BARN DR."
13	2'-4" x 6'-8"	SHOWER DR.	TEMP. GL.
14	11'-0" x 8'-0"	SLID. (SPAN'L)	w/TRANS. & TEMP.
15	2'-5'-4" x 8'-0"	SLID. S.C.	CUSTOM
16	8'-0" x 7'-0"	GARAGE DR.	
17	18'-0" x 8'-0"	" "	" "
18	9'-0" x 8'-0"	" "	" "

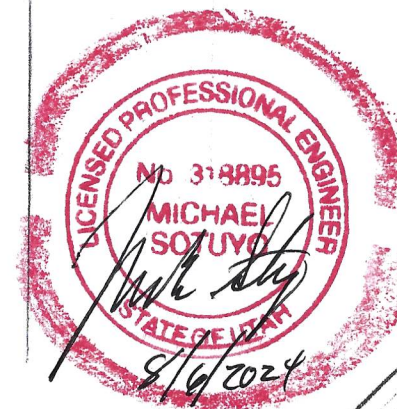
◻ WINDOW SCHEDULE			
MARK	SIZE	TYPE	REMARK
A	6'-0" x 4'-0"	SLID.	
B	5'-0" x 5'-0"	SLID	
C	3'-0" x 4'-0"	SING. HU.	
D	2'-8" x 5'-0"	SING. HU.	
E	3'-0" x 2'-8"	AWNING	
F	4'-0" x 2'-8"	FIXED	TEMP
G	3'-0" x 6'-0"	FIXED	3 WIND'S VERT.
H	4'-0" x 2'-0"	FIXED	
J	12'-0" x 5'-0"	FIX. w/TRANS.	- 3 WIND. HORIZ.
K	8'-0" x 5'-0"	FIX. w/TRANS.	- 2 WIND. HORIZ.
L	5'-0" x 5'-0"	FIX. w/TRANS.	
M	3'-0" x 5'-0"	FIX w/TRANS.	
N	6'-0" x 2'-6"	SLID.	
P	3'-0" x 7'-6"	SLID.	3 WIND. VERT.
Q	4'-0" x 12'-0"	FIXED	5-2'-4" VERT.
R	5) 4'-0" x 2'-4"	FIX. - SEE	EXT. ELEV.
S	2) 4'-0" x 2'-4"	FIXED	
T	3'-0" x 2'-4"	AWNING	
U	2'-0" x 2'-0"	AWNING	

NOTE

ALL WINDOWS & EXT. DRS. HEAD, JAMB & SILL SHALL BE WRAPPED w/ GRACE SNOW & ICE SHIELD & APPLIED ONTO WOOD STRUCTURE FROM INSIDE WALL TO 6" OF OUTSIDE FACE OF SHEATHING. APPLY TO FACE OF FLASH & 6" ONTO SHEATH.

NOTE

GLASS U-FACTOR .35 OR BETTER



Electrical notes

1. Line voltage and low voltage control wiring for furnace by electrical contractor.
2. All work to comply with NEC and local codes and ordinances.
3. Tamper resistant outlets as required.
4. Arc fault protection required on all bedroom outlets. Combination type breakers.
5. All receptacles need to be G.C.F.I. in garage, in bathrooms, and at exterior or within 6'0" of any sink.
6. Need G.C.F.I. at kitchen countertop within 24" of ends. Outlets at 48" o.c. minimum at kitchen tops.
7. Garage receptacles to be a minimum 18" above floor.
8. Switches, receptacles, etc. to be Lutron, Lumea series in white. Dimmers, Lutron, Maestro in white.
9. All switches to be 3-wired.
10. Wire for TV, audio, energy management, and security. Consult owner.
11. Security system to include sensors at all windows and exterior doors, two motion sensors at interior, and exterior light motion sensors.
12. Smoke detectors and CO detector shall be hard wired with battery backup.
13. Lights in closet to meet NEC 410-8.
14. Electrical panel to comply with 110-16 NEC. 30" clearance minimum width and 6'0" floor to head clearance.
15. Lights under kitchen pantry and bar cabinets. Consult owner.
- ~~16. Safety floods at each corner of house. Consult owner.~~

Plumbing Notes

1. Plumbing system to be installed in strict accordance with local and state plumbing codes.
2. The plumbing contractor to be responsible for the complete plumbing installation and provide a one-year warranty after owner's acceptance.
3. Visit the jobsite prior to bidding the project to become familiar with the existing conditions.
4. No plumbing shall run on outside wall.
5. Water heaters to be seismic strapped to adjoining wall.
6. Shower head shall have a flow rate of 2.5 G.P.M. maximum.
7. Water closets shall have a flow rate of 1.6 gal. per flush maximum.
8. All vents shall be ganged to the fewest number possible to penetrate roof and shall be a min. of 10' from eaves.
9. All plumbing vents through roof to be a minimum 3" diameter. 1'0" before exiting roof.
10. Install non-freeze type backflow preventer hose bibs.
11. Provide expansion tank on culinary water system.
12. Water hammer arrestors. Verify location.
13. Vent termination to be 6" above snow accumulation level on roof.
14. Tubs and showers with anti-scalding tempering valves.

Mechanical Notes

1. Dryer ductwork to be 4"0 aluminum.
2. Kitchen and bathroom ductwork to be galvanized steel.
3. Exhaust fans shall be sized to provide 5 air changes per hour.
4. Submit spec sheets on all equipment for review by owner.
5. Mechanical heating as noted on plans. Supplier to provide heat loss calculations, shop drawings, thermostat locations and cut sheets on all proposed equipment. Provide manufacturers clearances.
6. Min. 1" clearance btwn. class 'B' vents and 3/8" clearance btwn. class 'BW' vents and combustible materials.
7. Combustion air ducts and misc. vents to have exterior cover of 1/4" galvanized screen.
8. Provide 30" clearance from range top to combustible materials.

