MEDINA, WASHINGTON

PLANNING COMMISSION SPECIAL MEETING

Virtual/Online

Tuesday, June 21, 2022 – 4:00 PM

AGENDA

COMMISSION CHAIR | Laurel Preston
COMMISSION VICE-CHAIR | Shawn Schubring
COMMISSIONERS | Laura Bustamante, Li-Tan Hsu, David Langworthy, Mark Nelson, Mike Raskin
PLANNING MANAGER | Stephanie Keyser

Virtual Meeting Participation

The Medina Planning Commission meetings will remain virtual until fall 2022. Members of the public may participate by phone/online. Individuals wishing to speak live during the Virtual Planning Commission meeting will need to register their request with the Development Services Coordinator, Rebecca Bennett, at 425.233.6414 or email rbennett@medina-wa.gov and leave a message before 12PM on the day of the June 21 Planning Commission meeting. Please reference Public Comments for June 21 Planning Commission Meeting on your correspondence. The Development Services Coordinator will call on you by name or telephone number when it is your turn to speak. You will be allotted 3 minutes for your comment and will be asked to stop when you reach the 3-minute limit.

Join Zoom Meeting
https://us06web.zoom.us/j/84388755778?pwd=Z3lCbGVQeUxnZGJDUVRUck1WeFdjUT09

Meeting ID: 843 8875 5778
Passcode: 949470
One tap mobile +12532158782,,84388755778#,,,,*949470# US (Tacoma)

1. CALL TO ORDER / ROLL CALL

2. APPROVAL OF MEETING AGENDA

3. APPROVAL OF MINUTES

3.1 Planning Commission Minutes of May 24, 2022
Recommendation: Approve Minutes
Staff Contact: Rebecca Bennett, Development Services Coordinator

4. ANNOUNCEMENTS

4.1 Staff/Commissioners

5. AUDIENCE PARTICIPATION

Individuals wishing to speak live during the Virtual Planning Commission meeting will need to register their request with the Development Services Coordinator, Rebecca Bennett, via email (rbennett@medina-wa.gov) or by leaving a message at 425.233.6414 before 12pm the day of the Planning Commission meeting. Please reference Public Comments for the June 21 Planning Commission meeting on your correspondence. The Development Services Coordinator will call on you by name or telephone number when it is your turn to speak. You will be allotted 3 minutes for your comment and will be asked to stop when you reach the 3-minute limit.

6. PUBLIC HEARING

6.1 Alternatives to Original Grade
Recommendation: Approve
Staff Contact(s): Stephanie Keyser, Planning Manager
Time Estimate: 90 minutes

7. ADJOURNMENT

ADDITIONAL INFORMATION

Planning Commission meetings are held on the 4th Tuesday of the month at 4 PM, unless otherwise specified.

In compliance with the Americans with Disabilities Act, if you need a disability-related modification or accommodation, including auxiliary aids or services, to participate in this meeting, please contact the City Clerk's Office at (425) 233-6410 at least 48 hours prior to the meeting.

UPCOMING MEETINGS

Tuesday, July 26, 2022 - Special Meeting at 4:00 PM
Tuesday, August 23, 2022 – No PC Meeting
Tuesday, September 27, 2022 - Special Meeting at 4:00 PM
Tuesday, October 25, 2022 - Special Meeting at 4:00 PM
Tuesday, November 22, 2022 - Regular Meeting Cancelled
November 2022 - ***Meeting Date TBD***
Tuesday, December 27, 2022 - Regular Meeting Cancelled
December 2022 - ***Meeting Date TBD***

MEDINA, WASHINGTON

PLANNING COMMISSION MEETING

Virtual/Online

Tuesday, May 24, 2022 – 4:00 PM

MINUTES

COMMISSION CHAIR | Laurel Preston
COMMISSION VICE-CHAIR | Shawn Schubring
COMMISSIONERS | Laura Bustamante, Li-Tan Hsu, David Langworthy, Mark Nelson, Mike Raskin
PLANNING MANAGER | Stephanie Keyser

1. CALL TO ORDER / ROLL CALL

Chair Preston called the meeting to order at 4:05pm.

PRESENT
Chair Laurel Preston
Vice Chair Shawn Schubring
Commissioner Laura Bustamante
Commissioner David Langworthy arrived at 5:18pm
Commissioner Mark Nelson
Commissioner Mike Raskin

ABSENT
Commissioner Li-Tan Hsu

STAFF
Bennett, Burns, Kellerman, Keyser, Miner, Wilcox

2. APPROVAL OF MEETING AGENDA

By consensus, Planning Commission approved the meeting agenda as presented.

3. APPROVAL OF MINUTES

3.1 Planning Commission Minutes of April 26, 2022
Recommendation: Approve Minutes
Staff Contact: Rebecca Bennett, Development Services Coordinator

ACTION: Motion to approve amended minutes. (Approved 6-0)

Motion made by Vice Chair Schubring, Seconded by Commissioner Raskin.
Voting Yea: Chair Preston, Vice Chair Schubring, Commissioner Bustamante,

Commissioner Langworthy, Commissioner Nelson, Commissioner Raskin

4. ANNOUNCEMENTS

4.1 Staff/Commissioners

Keyser announced that starting in September we will be moving to a hybrid meeting. Preston announced that the tree code recommendations are in front of council. Burns updated commissioners on the buffer between transitional housing and schools.

5. AUDIENCE PARTICIPATION

Paul Saad and India Fitting spoke of their concerns to alternatives to original grade.

6. DISCUSSION

6.1 Alternatives to Original Grade
Recommendation: Discussion
Staff Contact(s): Stephanie Keyser, Planning Manager
Time Estimate: 60 minutes

Keyser gave an update for alternatives to original grade. Commissioners discussed and asked questions. Staff responded accordingly.

7. ADJOURNMENT

Meeting adjourned at 6:02pm.

ACTION: Motion to adjourn.

Motion made by Commissioner Nelson, Seconded by Vice Chair Schubring.
Voting Yea: Chair Preston, Vice Chair Schubring, Commissioner Bustamante, Commissioner Langworthy, Commissioner Nelson, Commissioner Raskin

MEDINA, WASHINGTON

AGENDA BILL

Tuesday, June 21, 2022

Subject: Alternatives to Original Grade

Category: Public Hearing

Staff Contact(s): Stephanie Keyser, Planning Manager

Summary

Original grade has been used as the starting point for measuring structure height in Medina for decades. Defined as the natural ground elevation that existed prior to any lot development or manmade modifications in the first instance (MMC 16.12.080), determining original grade is not as simple as going to a site to look at it or reviewing a topographic map. As prescribed in the code, the determination requires a soils investigation by a geotechnical engineer along the parameters of the proposed exterior walls/sides (MMC 16.23.080(B)). Test pits are dug and based on those samples the geotechnical engineer determines original grade underneath the entire structure. A written report is submitted with the building permit and is reviewed for completeness against the requirements in MMC 16.23.080(D).

The process of determining original grade is an imperfect science. Different firms can and have reached contrasting conclusions for the same site. There are sites where original grade is actually in the air at a point above the existing ground because the site was graded at some point in its history. There are sites that have been amended with soil and now the original grade is 4-6 feet beneath the visual ground.

For the first half of 2022, Planning Commission has discussed moving to an average grade method for determining structure height. During the last meeting, concern was raised about the impact this might have on Medina Heights, a neighborhood with a lower height allowance.

The attachments include a redlined version (Attachment A) and one with all changes accepted (Attachment B). Just as with the tree code draft, in the redlined version, the sections that are *existing text* but have been moved are in red while the sections with new text are red and underlined.

Attachment(s)

A) Average Grade Draft – Redlined
B) Average Grade Draft – All changes accepted
C) Public Comments
  1. Bill Pollard, received via email June 6, 2022
  2. Andrew DeFlorio, Baylis Architects, received via email May 17, 2022
  3. David Yee, received via email May 20, 2022
D) History of Height Map
E) Examples

Budget/Fiscal Impact: N/A

Recommendation: Approve

Proposed Commission Motion: Move to recommend approval of the draft code

Time Estimate: 90 minutes

16.12.020. – "G" definitions.

Gazebo or *pavilion* means a fully or partly roofed or covered freestanding structure fully or partly open at the sides designed, established and installed to provide outdoor living, cooking and/or recreation.

Geologically hazardous areas means areas that may not be suited to development consistent with public health, safety or environmental standards, because of their susceptibility to erosion, sliding, earthquake, or other geologic events as designated by WAC 365-190-120. In the City of Medina, types of geologically hazardous areas include erosion, landslide, and seismic hazards.

Golf course means an area with at least nine holes for playing golf, including improved tees, greens, fairways, hazards, and a driving range. Facility may include a clubhouse with related pro-shop, restaurant/food, and alcohol service.

Grade, average means the average of the natural or existing topography of the portion of the lot, parcel, or tract of real property which will be directly under the proposed building or structure. The calculation shall be made prior to any development activity by averaging the ground elevations at the midpoint of all exterior walls of the proposed building or structure.

Grade, existing; existing grade means the ground elevation existing on a lot at the time an application for a building or other development permit is filed at the city.

Grade, finished; finished grade means the ground elevation after any lot development is completed.

~~Grade, original: original grade means the natural ground elevation that existed prior to any lot development or manmade modifications in the first instance. (See MMC 16.23.080)~~

Grading means the movement or redistribution of the soil, sand, rock, gravel, sediment, or other material on a site in a manner that alters the natural contour of the land.

Grading when used with Chapter 16.50 MMC means any excavation, filling, removal of topsoil, or any combination thereof.

Greenhouse means a building wherein the temperature and humidity can be regulated for the cultivation of plants.

Grid system means a type of permeable pavement made with a concrete or plastic grid that contains and stabilizes gravel or topsoil and grass and allows water to infiltrate.

Ground water means water in a saturated zone or stratum beneath the surface of land or a surface water body.

Growth Management Act means Chapter 36.70A RCW, as amended.

Grubbing means to clear by digging up roots and or stumps. See "clearing."

Guests means those who occupy upon invitation of the owner or lessee without charge or other consideration for such occupancy.

Gutter, depending on its context, means:

1. On a roof, a gutter is a shallow trough fixed to the edge of a roof or eave for the carrying off of rainwater; or

2. On grade, a gutter is a channel for draining off water at the edge of a street or road.

…

16.23.050 Maximum building and structure height standards.

A. Application of maximum height standards.

1. Table 16.23.050(A) establishes the maximum height standards for buildings and structures within each zon~~e~~ing district.

2. Table 16.23.050(B) establishes the maximum height standards for buildings and structures within each overlay district.

3~~2~~. Areas not identified in Table 16.23.050(A) are subject to the height standards specified for the R-20/R-30 zone.

4~~3~~. Where Table 16.23.050(A) specifies eligibility for a height bonus, a property owner may elect to apply the additional height standards ~~in subsection (C) of this section in lieu of the height standards in Table 16.23.050(A);~~ provided, that:

a. The total structural coverage on the lot does not exceed 13 percent, excluding the structural coverage bonus set forth in MMC 16.23.040; or

b. If the lot area is 16,000 square feet or less, the total structural coverage on the lot does not exceed 17½ percent, excluding the structural coverage bonus set forth in MMC 16.23.040.

B. ~~Maximum height is determined by the zone or height overlay where the building or structure is located and the corresponding unit of height specified for original and finished grade prescribed in the tables~~. Maximum height for buildings and structures not located in an overlay district is measured from average grade to the highest point of a flat roof, or to the ridge of a pitched roof.

1. The maximum building façade height on a downhill side of a sloping lot shall not exceed 30-feet. The building façade shall be measured from the existing grade or finished grade, whichever is lower, at the furthest downhill extend of the proposed building, to the top of the exterior wall façade supporting the roof framing, rafters, trusses, etc.

~~C. A property owner electing to apply the height bonus allowed pursuant to subsection (A)(3) of this section shall apply the height limits specified in Table 16.23.050(C).~~

C~~D~~. The methods for ~~measuring the height~~ determining the average grade of buildings and structures are set forth in MMC 16.23.060.

D~~E~~. Exemptions from maximum height requirements are set forth in MMC 16.23.070.

~~F. Eligibility for the bonus height standard in subsection (A)(3) of this section shall not apply where the total structural coverage on the lot exceeds 13 percent, excluding structural coverage that qualifies for the bonus under MMC 16.23.040.~~

Table 16.23.050(A): Maximum Zoning Height Standards

~~Measurement Points~~		~~Zoning/Height Overlay Maximum Height~~					
		~~R-16~~	~~R-20/R-30~~	~~SR-30~~	~~N-A~~	~~Public~~	~~Medina Heights~~
~~Original Grade~~	~~High Point~~	~~25 feet~~	~~N/A*~~	~~N/A*~~	~~None~~	~~None~~	~~N/A*~~
	~~Low Point~~		~~25 feet~~	~~25 feet~~			~~20 feet~~
~~Finished Grade~~	~~High Point~~	~~28 feet~~	~~N/A*~~	~~N/A*~~	~~30 feet~~	~~35 feet~~	~~N/A*~~
	~~Low Point~~		~~28 feet~~	~~28 feet~~			~~23 feet~~
~~Eligible for Height Bonus~~		~~No~~	~~Yes~~	~~Yes~~	~~No~~	~~No~~	~~No~~

Zoning District	**Maximum Height (feet)**	**Height Bonus (feet)**
R-16	25	N/A
R-20/R-30	25	30
SR-30	25	30
N-A (Neighborhood Auto)	30	N/A
Public	35	N/A

Table 16.23.050(B): Maximum Overlay Height Standards

Zoning Overlay	**Maximum Height (feet)**	**Measurement**	**Height Bonus (feet)**
Medina Heights	20	Lowest point of existing or finished, whichever point is lower is used	N/A
Shoreline District	See MMC 16.63.040	See MMC 16.63.040	See MMC 16.63.040

16.23.060. Measuring building and structure height.

This section establishes methods required for applying height standards and is applied in conjunction with the height standards prescribed in MMC 16.23.050.

A. Where multiple buildings and structures are located on the same lot, and are detached from each other, the height of each building or structure shall be measured independently from the others, except:

1. Excluding trellises, arbors and similar open structures, if the distance between any buildings and/or structures is less than six feet, the buildings and structures that are less than six feet apart shall be considered attached for purposes of measuring height;

2. If buildings are connected by a breezeway or similar above ground types of structures, the buildings shall be considered attached for purposes of measuring height.

B~~G~~. The following shall be excluded as part of the outside exterior wall/side of a building or structure for purposes of measuring height:

1. Walls adjoining window wells where the area inside of the window well does not exceed 15 square feet of open surface area;

2. Attached structures (e.g., uncovered decks, porches, steps, etc.), not exceeding 30 inches above ~~original or finished~~ existing grade~~, whichever is lower~~;

3. Uncovered decks, porches, and verandas not qualifying for the exemption in subsection (B~~G~~)(2) of this section where the space below the structure is not enclosed and not more than 25 percent of the ground surface below the structure is hardscape; and

4. Areas under roof eaves including gutters and areas under balconies provided they extend 24 inches or less from the exterior wall. Gutters extending six inches or less from the outer edge of the roof eaves shall be excluded from counting towards the 24-inch limit.

C. Average building elevation is calculated at the discretion of the applicant using one of the following methods:

a. At the midpoint, measured horizontally, of each exterior wall of the structure, as shown in Figure 16.23.060(C)(a), or

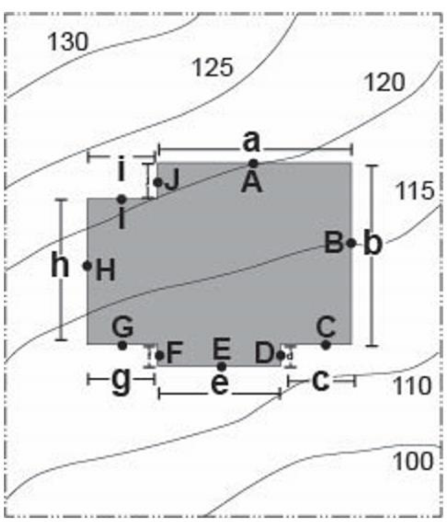
b. At the midpoint of each side of the smallest rectangle that can be drawn to enclose the structure, as shown in Figure 16.23.060(C)(b).

Figure 16.23.060(C)(a) Calculating Average Grade, Option 1

A, B, C, D…Existing ground elevation at midpoint of exterior wall

a,b,c,d…Horizontal length of exterior wall

Include the perimeter of a deck unless the deck has no walls at or below the deck level and no covering above the deck.



*Site Plan: Not to scale

Midpoint Elevation	Exterior Wall Length
A = 120.0’	a = 20’
B = 115.0’	b = 30’
C = 113.0’	c = 7’
D = 112.5’	d = 5’
E = 112.3’	e = 16’
F = 112.7’	f = 5’
G = 113.1’	g = 7’
H = 117.2’	h = 15’
I = 120. 4’	i = 10’
J = 120.6’	j= 6’

Formula: (A x a)+(B x b)+(C x c)+(D x d)+(E x e)+(F x f)+(G x g)+(H x h)+(I x i)+ (J x j)…

a + b + c + d + e + f + g + h + i + j…

Example: (120.0’ x 20’)+(115.0’ x 30’)+(113.0’ x 7’)+(112.5’ x 5’)+(112.3’ x 16’)+(112.7’ x 5’)+ (113.1’ x 7’)+(117.2’ x 15’)+(120. 4’ x 10’)+(120.6’ x 6’)

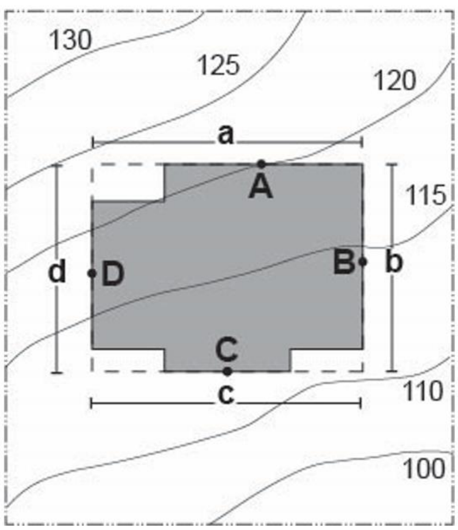
20 + 30 + 7 + 5 + 16 + 5 + 7 + 15 + 10 + 6

14041.1 = 116.04’ Average Grade
121

Figure 16.23.060(C)(b) Calculating Average Grade, Option 2

A, B, C, D…Existing ground elevation at midpoint of rectangle segment

a,b,c,d…Length of rectangle segment



Midpoint Elevation	Exterior Wall Length
A = 120.0’	a = 30’
B = 114.8’	b = 35’
C = 111.6’	c = 30’
D = 117.5’	d = 35’

*Site Plan: Not to scale

Formula: (A x a)+(B x b)+(C x c)+(D x d)

a + b + c + d

Example: (120.0’ x 30’)+(114.8’ x 35’)+(111.6’ x 30’)+(117.5’ x 35’)

30 + 35 + 30 + 35

15078.5 = 115.98’ Average Grade
130

D. For the Medina Heights Overlay, height shall be measured as shown in Figure 16.23.060(D) and as set forth in the following procedures:

1. The base elevation for measuring height shall be taken at two points where the outside of the exterior walls/sides of the proposed building or structure intersect with the following:

a. The lowest point of existing grade;
b. The lowest point of finished grade;

2. Starting at the two base elevation points, a vertical line shall be extended by the distance of the applicable maximum height prescribed in Table 16.23.050(B).

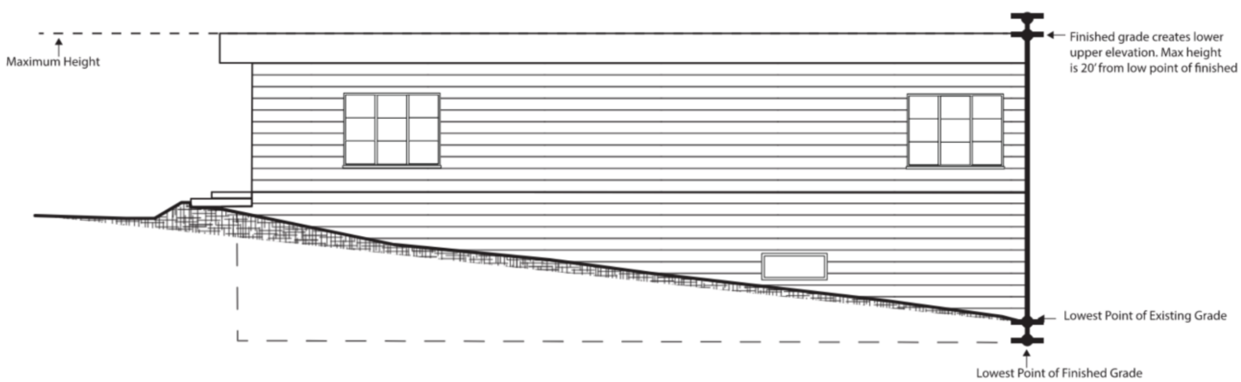
3. The grade and corresponding vertical line established under subsection (D)(1) of this section that has the lower upper elevation (measured from a zero-elevation surface) shall be used to measure maximum height;

4. Maximum height shall be a horizontal plane intersecting the upper elevation of the vertical line established in subsection (C)(2) of this section for measuring maximum height and shall be perpendicular to the same vertical line as shown in Figure 16.23.060(D);

5. The maximum height envelope shall be the area between the applicable grade and the horizontal height plane established in this section and shown in Figure 16.23.060(D);

6. No part of the building or structure, including roof lines, shall protrude above the maximum height envelope, except as allowed otherwise by law.

Figure 16.23.060(D Calculating Height in Medina Heights Overlay



~~B. In the R-16 zone, height shall be measured as shown in Figure 16.23.060(B) and as set forth in the following procedures:~~

~~1. The original grade shall be established as set forth in MMC 16.23.080;~~

~~2. The base for measuring height shall be established as follows:~~

~~a. Base elevations shall be taken at four points where the outside of the exterior walls/sides of the building or structure intersect the following:~~

~~i. The lowest point of the original grade;~~
~~ii. The highest point of the original grade;~~
~~iii. The lowest point of finished grade; and~~
~~iv. The highest point of finished grade;~~

~~b. The lower grade between original and finished grade shall be used for measuring height, which is determined as follows:~~

~~i. Starting at the two highest original and finished grade elevations determined under subsection (B)(2)(a)(ii) and (iv) of this section, a vertical line shall be extended by the applicable maximum height prescribed in Table 16.23.050(A);~~
~~ii. The grade (original or finished) whose vertical line has the lower upper elevation (measured from a zero-elevation surface) shall be designated the "lower grade" to be used for measuring height;~~

~~3. Maximum height shall be measured by extending a vertical line from the lowest and highest base elevations established in subsection (B)(2)(a) of this section of the lower grade by the distance of the applicable maximum height prescribed in Table 16.23.050(A);~~

~~4. Maximum height shall be a plane essentially parallel to the lower grade drawn by a line intersecting the upper elevation of the two vertical lines extending from the lower grade;~~

~~5. An additional height limitation shall apply to buildings and structures on sloping grades established as follows:~~

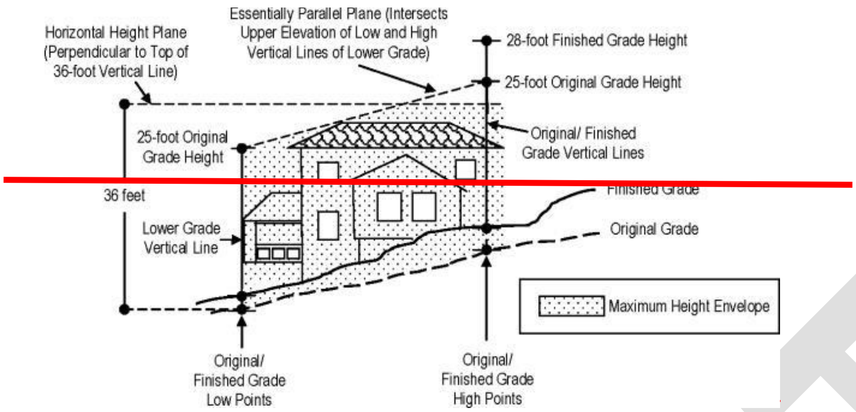
~~a. A vertical line shall be extended a distance of 36 feet from the lowest point of original grade ascertained in subsection (B)(2)(a)(i) of this section;~~
~~b. A horizontal plane shall be extended perpendicular from the top of the 36-foot vertical line;~~

~~6. The maximum height envelope shall be the area between the lower grade and the two height planes established in this section and shown in Figure 16.23.060(B);~~

~~7. No part of the building or structure, including roof lines, shall protrude above the maximum height envelope, except as allowed otherwise by law;~~

~~8. See subsection (E) of this section for establishing height plane parameters, subsection (F) of this section for establishing the orientation of the height plane, and subsection (G) of this section for height calculation exemptions.~~

~~**Figure 16.23.060(B): R-16 Height Measurements**~~



~~C. In the R-20, R-30, and SR-30 zones (except where the bonus height standards in Table 16.23.050(C) are used) and in the Medina Heights overlay, height shall be measured as shown in Figure 16.23.060(C) and as set forth in the following procedures:~~

~~1. The original grade shall be established as set forth in MMC 16.23.080;~~

~~2. The base elevation for measuring height shall be taken at two points where the outside of the exterior walls/sides of the building or structure intersect the following:~~

~~a. The lowest point of original grade;~~
~~b. The lowest point of finished grade;~~

~~3. Starting at the two base elevation points ascertained under subsection (C)(2) of this section, a vertical line shall be extended by the distance of the applicable maximum height prescribed in Table 16.23.050(A);~~

~~4. The grade (original or finished) and corresponding vertical line established under subsection (C)(3) of this section that has the lower upper elevation (measured from a zero-elevation surface) shall be used to measure maximum height;~~

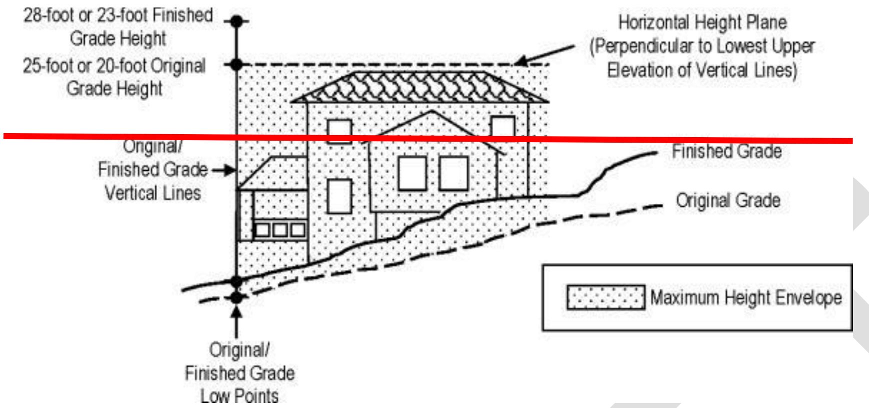
~~5. Maximum height shall be a horizontal plane intersecting the upper elevation of the vertical line established in subsection (C)(4) of this section for measuring maximum height and shall be perpendicular to the same vertical line as shown in Figure 16.23.060(C);~~

~~6. The maximum height envelope shall be the area between the applicable grade (original or finished) and the horizontal height plane established in this section and shown in Figure 16.23.060(C);~~

~~7. No part of the building or structure, including roof lines, shall protrude above the maximum height envelope, except as allowed otherwise by law;~~

~~8. See subsection (E) of this section for establishing the height plane parameter and subsection (G) of this section for height calculation exemptions.~~

~~**Figure 16.23.060(C): R-20, R-30, SR-30, and Medina Heights, Height Measurements**~~



~~D. Where the bonus height standards in Table 16.23.050(C) are used, height shall be measured as shown in Figure 16.23.060(D) and as set forth in the following procedures:~~

~~1. The original grade shall be established as set forth in MMC 16.23.080;~~

~~2. The base elevation for measuring height shall be taken at four points where the outside of the exterior walls/sides of the building or structure intersect the following:~~

~~a. The lowest point of the original grade;~~
~~b. The highest point of the original grade;~~
~~c. The lowest point of finished grade; and~~
~~d. The highest point of finished grade;~~

~~3. Starting at the four base elevation points ascertained under subsection (D)(2) of this section, a vertical line shall be extended by the distance of the applicable maximum height prescribed in Table 16.23.050(C);~~

~~4. The grade (original or finished) and corresponding vertical line established under subsection (D)(3) of this section that has the lower upper elevation (measured from a zero-elevation surface) shall be used to measure maximum height;~~

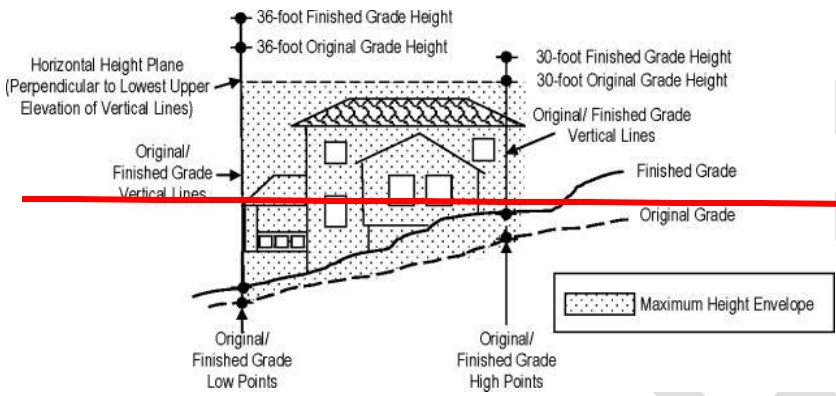
~~5. Maximum height shall be a horizontal plane intersecting the upper elevation of the vertical line established in subsection (D)(4) of this section for measuring maximum height and shall be perpendicular to the same vertical line as shown in Figure 16.23.060(D);~~

~~6. The maximum height envelope shall be the area between the applicable grade (original or finished) and the horizontal height plane established in this section and shown in Figure 16.23.060(C);~~

~~7. No part of the building or structure, including roof lines, shall protrude above the maximum height envelope, except as allowed otherwise by law;~~

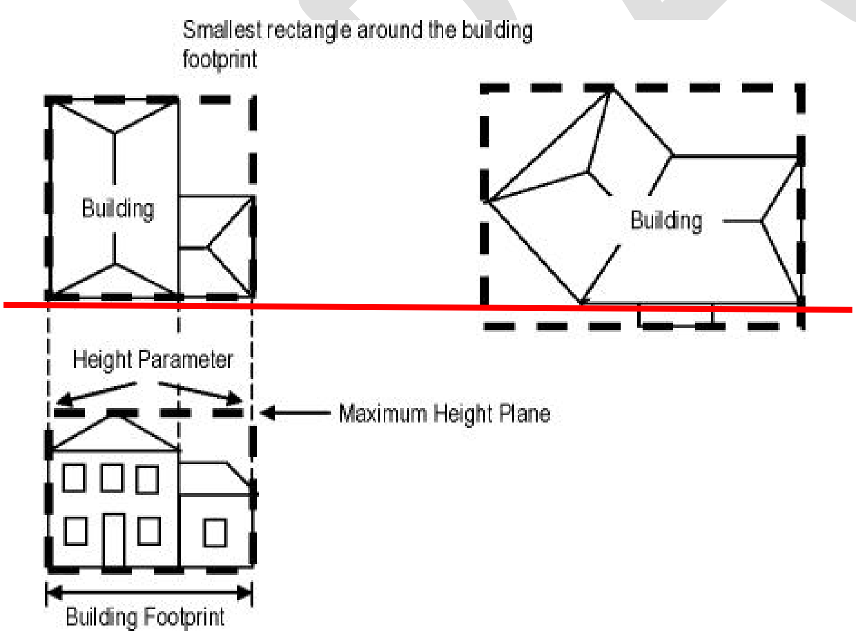
~~8. See subsection (E) of this section for establishing the height plane parameter and subsection (G) of this section for height calculation exemptions.~~

~~Figure 16.23.060(D): Bonus Height Measurements~~



~~E. The parameters of a maximum height plane shall be parallel to a parameter created by the smallest rectangle that can be drawn around the footprint of the building or structure. See Figure 16.23.060(E).~~

~~Figure 16.23.060(E): Height Plane Parameters~~



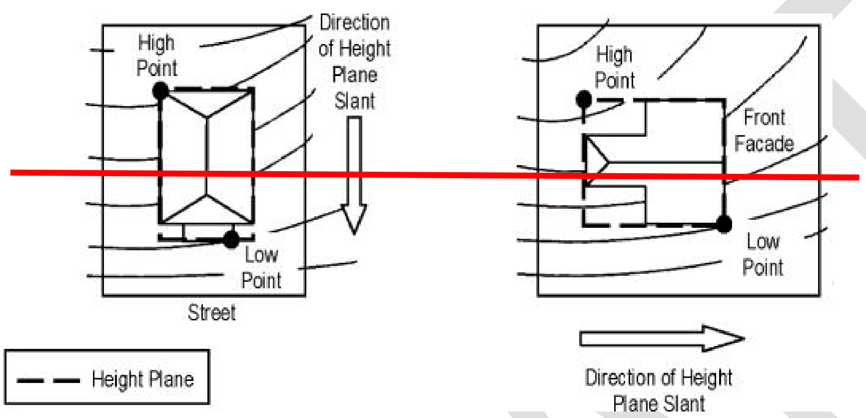
~~F. Where a building or structure is placed within the R-16 zone on a slope, the property owner may elect for the slant of the essentially parallel height plane to be in the direction of either:~~

~~1. The front facade of the building where the primary entrance of the building is located; or~~

~~2. The building facade facing a public street or private lane.~~

~~3. Figure 16.23.060(F) provides further direction on determining the orientation of the height plane slant.~~

~~**Figure 16.23.060(F): Direction of Slant for Essentially Parallel Height Plane**~~



16.23.070. - Building and structure height exceptions.

The following are exempt from the height standards in MMC 16.23.050:

A. Spires, belfries and domes of religious facilities not intended for human occupancy provided the height is approved as part of the nonadministrative special use permit for the religious facility;

B. Flag poles, provided the pole does not exceed:

1. A height of 45 feet above the existing grade; and

2. A width of 12 inches diameter at the widest point of the pole;

C. Chimneys, chase, mechanical equipment, vents or other essential building elements required by the building codes provided:

1. The structure or equipment does not project more than three feet above the maximum height otherwise allowed on the lot;

2. The structure or equipment does not exceed five feet in horizontal width above the maximum height otherwise allowed on the lot;

D. Photovoltaic (PV) panels; provided, that:

1. The panels do not project more than six inches above the maximum height otherwise allowed on the lot; and

2. Where feasible, the support structure of a roof-mounted panel is screened by extended parapets or other architecturally integrated screening;

E. Wireless communication facilities approved pursuant to Chapter 16.37 MMC; and

F. Exceptions specifically granted elsewhere in the Medina Municipal Code.

~~16.23.080. Determining original grade.~~ Repealed

~~The following outlines the general procedures to establish the original grade on a lot. These procedures may be administratively modified by the director pursuant to subsection (F) of this section on a case-by-case basis to fit unique circumstances.~~

~~A. The placement of proposed exterior walls/sides of the building/structure on the lot is identified first and these locations are marked on the property. It is preferred, but not required, that a surveyor stake the proposed exterior wall corners of the building or structure.~~

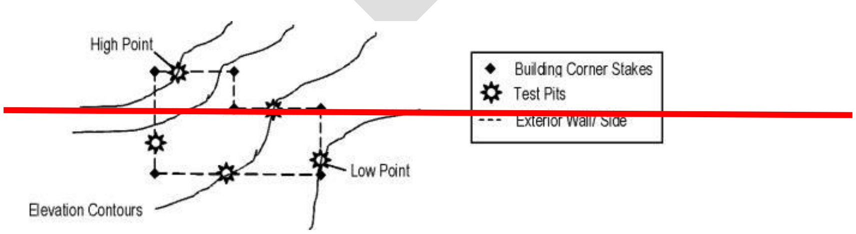
~~B. A geotechnical engineer shall conduct an investigation of the soils along the parameters of the proposed exterior walls/sides to determine the elevations of the original grade:~~

~~1. The investigation should include exploring and testing a reasonable number of test pits to substantiate the findings of the geotechnical engineer; and~~

~~2. Based on the findings of the soil investigation, the geotechnical engineer shall determine the original grade underneath the entire building or structure.~~

~~C. A surveyor shall set the vertical elevations of the applicable low and high base points required to measure height using the determination of original grade by the geotechnical engineer.~~

~~Figure 16.23.080: Confirmation of Original Grade~~



~~D. A written report of the determination of original grade shall be prepared by the geotechnical engineer for submission to the city. The content of the report shall at a minimum include the following:~~

~~1. The applicant's and property owner's name and contact information;~~

~~2. Project location (include parcel number);~~

~~3. Written narrative regarding the scope of work for which the original grade determination is being made;~~

~~4. The name and qualification of the persons preparing the report;~~

~~5. Written narrative of the investigation and findings;~~

~~6. A site plan showing:~~

~~a. An outline of the footprint of the building or structure on the lot;~~
~~b. The locations of the test pits where the soil exploration was performed;~~
~~c. The location and vertical elevation of the assumed high and low base points of the original grade, as applicable, for measuring height;~~
~~d. Reserved;~~
~~e. Topographical information including contour intervals of five feet or less, as appropriate; and~~

~~7. Other pertinent information determined to be necessary by the director in supporting an original grade determination.~~

~~E. The applicant must obtain approval from the city for an original grade determination. An approved determination of original grade report shall be used in determining plan review compliance with height standards prior to issuing construction permits.~~

~~F. The director may approve modifications to these procedures if:~~

~~1. The modification is evaluated and applied on a case-by-case basis;~~

~~2. The modification is to address a unique circumstance on the property such as an inability to conduct site investigation due to existing buildings and structures;~~

~~3. Modifications are based on accepted methods and/or practices found within the geotechnical engineer's profession;~~

~~4. The applicant requests the modification in writing to the director and provides justification for the modification; and~~

~~5. The modification is processed as a Type 1 decision pursuant to the review procedures in Chapter 16.80 MMC.~~

16.12.020. – "G" definitions.

Gazebo or *pavilion* means a fully or partly roofed or covered freestanding structure fully or partly open at the sides designed, established and installed to provide outdoor living, cooking and/or recreation.

Geologically hazardous areas means areas that may not be suited to development consistent with public health, safety or environmental standards, because of their susceptibility to erosion, sliding, earthquake, or other geologic events as designated by WAC 365-190-120. In the City of Medina, types of geologically hazardous areas include erosion, landslide, and seismic hazards.

Golf course means an area with at least nine holes for playing golf, including improved tees, greens, fairways, hazards, and a driving range. Facility may include a clubhouse with related pro-shop, restaurant/food, and alcohol service.

Grade, average means the average of the natural or existing topography of the portion of the lot, parcel, or tract of real property which will be directly under the proposed building or structure. The calculation shall be made prior to any development activity by averaging the ground elevations at the midpoint of all exterior walls of the proposed building or structure.

Grade, existing; existing grade means the ground elevation existing on a lot at the time an application for a building or other development permit is filed at the city.

Grade, finished; finished grade means the ground elevation after any lot development is completed.

Grading means the movement or redistribution of the soil, sand, rock, gravel, sediment, or other material on a site in a manner that alters the natural contour of the land.

Grading when used with Chapter 16.50 MMC means any excavation, filling, removal of topsoil, or any combination thereof.

Greenhouse means a building wherein the temperature and humidity can be regulated for the cultivation of plants.

Grid system means a type of permeable pavement made with a concrete or plastic grid that contains and stabilizes gravel or topsoil and grass and allows water to infiltrate.

Ground water means water in a saturated zone or stratum beneath the surface of land or a surface water body.

Growth Management Act means Chapter 36.70A RCW, as amended.

Grubbing means to clear by digging up roots and or stumps. See "clearing."

Guests means those who occupy upon invitation of the owner or lessee without charge or other consideration for such occupancy.

Gutter, depending on its context, means:

1. On a roof, a gutter is a shallow trough fixed to the edge of a roof or eave for the carrying off of rainwater; or

2. On grade, a gutter is a channel for draining off water at the edge of a street or road.

…

16.23.050 Maximum building and structure height standards.

A. Application of maximum height standards.

1. Table 16.23.050(A) establishes the maximum height standards for buildings and structures within each zoning district.
2. Table 16.23.050(B) establishes the maximum height standards for buildings and structures within each overlay district.
3. Areas not identified in Table 16.23.050(A) are subject to the height standards specified for the R-20/R-30 zone.
4. Where Table 16.23.050(A) specifies eligibility for a height bonus, a property owner may elect to apply the additional height standards provided, that:
    a. The total structural coverage on the lot does not exceed 13 percent, excluding the structural coverage bonus set forth in MMC 16.23.040; or
    b. If the lot area is 16,000 square feet or less, the total structural coverage on the lot does not exceed 17½ percent, excluding the structural coverage bonus set forth in MMC 16.23.040.

B. Maximum height for buildings and structures not located in an overlay district is measured from average grade to the highest point of a flat roof, or to the ridge of a pitched roof.

1. The maximum building façade height on a downhill side of a sloping lot shall not exceed 30-feet. The building façade shall be measured from the existing grade or finished grade, whichever is lower, at the furthest downhill extend of the proposed building, to the top of the exterior wall façade supporting the roof framing, rafters, trusses, etc.

C. The methods for determining the average grade of buildings and structures are set forth in MMC 16.23.060.

D. Exemptions from maximum height requirements are set forth in MMC 16.23.070.

Table 16.23.050(A): Maximum Zoning Height Standards

Zoning District	Maximum Height (feet)	Height Bonus (feet)
R-16	25	N/A
R-20/R-30	25	30
SR-30	25	30
N-A (Neighborhood Auto)	30	N/A
Public	35	N/A

Table 16.23.050(B): Maximum Overlay Height Standards

Zoning Overlay	Maximum Height (feet)	Measurement	Height Bonus (feet)
Medina Heights	20	Lowest point of existing or finished, whichever point is lower is used	N/A
Shoreline District	See MMC 16.63.040	See MMC 16.63.040	See MMC 16.63.040

16.23.060. Measuring building and structure height.

This section establishes methods required for applying height standards and is applied in conjunction with the height standards prescribed in MMC 16.23.050.

A. Where multiple buildings and structures are located on the same lot, and are detached from each other, the height of each building or structure shall be measured independently from the others, except:

1. Excluding trellises, arbors and similar open structures, if the distance between any buildings and/or structures is less than six feet, the buildings and structures that are less than six feet apart shall be considered attached for purposes of measuring height;

2. If buildings are connected by a breezeway or similar above ground types of structures, the buildings shall be considered attached for purposes of measuring height.

B. The following shall be excluded as part of the outside exterior wall/side of a building or structure for purposes of measuring height:

1. Walls adjoining window wells where the area inside of the window well does not exceed 15 square feet of open surface area;

2. Attached structures (e.g., uncovered decks, porches, steps, etc.), not exceeding 30 inches above existing grade;

3. Uncovered decks, porches, and verandas not qualifying for the exemption in subsection (B)(2) of this section where the space below the structure is not enclosed and not more than 25 percent of the ground surface below the structure is hardscape; and

4. Areas under roof eaves including gutters and areas under balconies provided they extend 24 inches or less from the exterior wall. Gutters extending six inches or less from the outer edge of the roof eaves shall be excluded from counting towards the 24-inch limit.

C. Average building elevation is calculated at the discretion of the applicant using one of the following methods:

a. At the midpoint, measured horizontally, of each exterior wall of the structure, as shown in Figure 16.23.060(C)(a), or

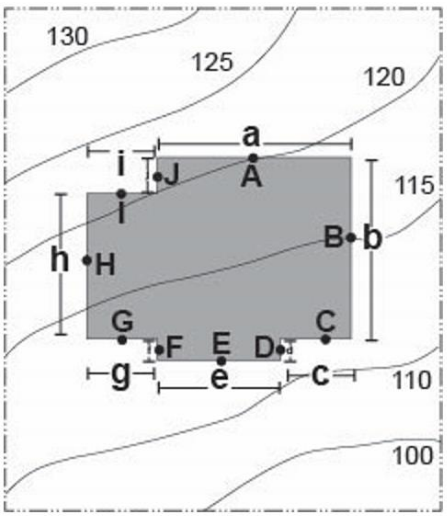
b. At the midpoint of each side of the smallest rectangle that can be drawn to enclose the structure, as shown in Figure 16.23.060(C)(b).

Figure 16.23.060(C)(a) Calculating Average Grade, Option 1

A, B, C, D…Existing ground elevation at midpoint of exterior wall

a,b,c,d…Horizontal length of exterior wall

Include the perimeter of a deck unless the deck has no walls at or below the deck level and no covering above the deck.



*Site Plan: Not to scale

Midpoint Elevation	Exterior Wall Length
A = 120.0’	a = 20’
B = 115.0’	b = 30’
C = 113.0’	c = 7’
D = 112.5’	d = 5’
E = 112.3’	e = 16’
F = 112.7’	f = 5’
G = 113.1’	g = 7’
H = 117.2’	h = 15’
I = 120. 4’	i = 10’
J = 120.6’	j= 6’

Formula: (A x a)+(B x b)+(C x c)+(D x d)+(E x e)+(F x f)+(G x g)+(H x h)+(I x i)+ (J x j)…
a + b + c + d + e + f + g + h + i + j…

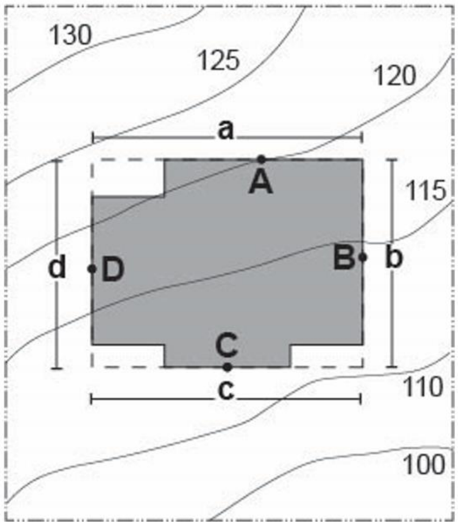
Example: (120.0’ x 20’)+(115.0’ x 30’)+(113.0’ x 7’)+(112.5’ x 5’)+(112.3’ x 16’)+(112.7’ x 5’)+ (113.1’ x 7’)+(117.2’ x 15’)+(120. 4’ x 10’)+(120.6’ x 6’)
20 + 30 + 7 + 5 + 16 + 5 + 7 + 15 + 10 + 6

= 14041.1 = 116.04’ Average Grade
121

Figure 16.23.060(C)(b) Calculating Average Grade, Option 2

A, B, C, D…Existing ground elevation at midpoint of rectangle segment

a,b,c,d…Length of rectangle segment



*Site Plan: Not to scale

Midpoint Elevation	Exterior Wall Length
A = 120.0’	a = 30’
B = 114.8’	b = 35’
C = 111.6’	c = 30’
D = 117.5’	d = 35’

Formula: $\frac{(A \times a)+(B \times b)+(C \times c)+(D \times d)}{a + b + c + d}$

Example: $\frac{(120.0' \times 30')+(114.8' \times 35')+(111.6' \times 30')+(117.5' \times 35')}{30 + 35 + 30 + 35}$

$= \frac{15078.5}{130} = 115.98'$ Average Grade

D. For the Medina Heights Overlay, height shall be measured as shown in Figure 16.23.060(D) and as set forth in the following procedures:

1. The base elevation for measuring height shall be taken at two points where the outside of the exterior walls/sides of the proposed building or structure intersect with the following:

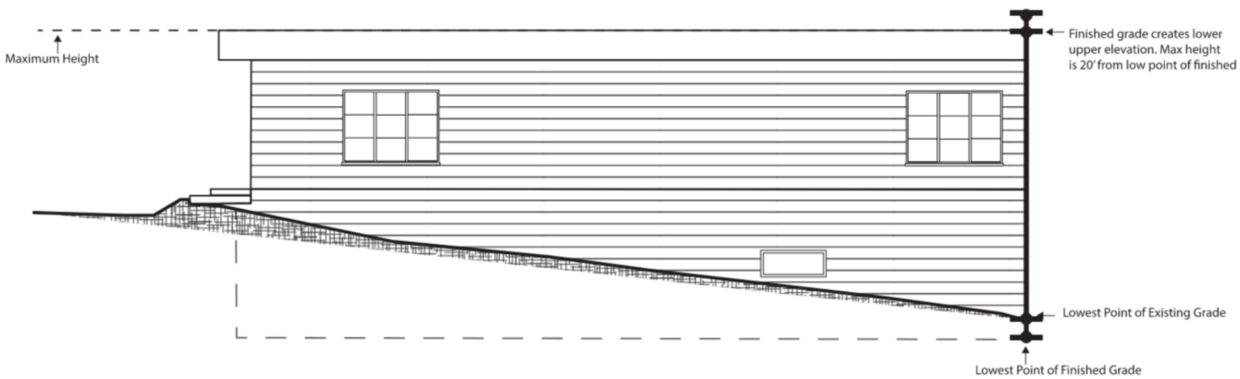
   a. The lowest point of existing grade;
   b. The lowest point of finished grade;

2. Starting at the two base elevation points, a vertical line shall be extended by the distance of the applicable maximum height prescribed in Table 16.23.050(B).

3. The grade and corresponding vertical line established under subsection (D)(1) of this section that has the lower upper elevation (measured from a zero-elevation surface) shall be used to measure maximum height;

4. Maximum height shall be a horizontal plane intersecting the upper elevation of the vertical line established in subsection (C)(2) of this section for measuring maximum height and shall be perpendicular to the same vertical line as shown in Figure 16.23.060(D);
5. The maximum height envelope shall be the area between the applicable grade and the horizontal height plane established in this section and shown in Figure 16.23.060(D);
6. No part of the building or structure, including roof lines, shall protrude above the maximum height envelope, except as allowed otherwise by law.

Figure 16.23.060(D Calculating Height in Medina Heights Overlay



16.23.070. - Building and structure height exceptions.

The following are exempt from the height standards in MMC 16.23.050:

A. Spires, belfries and domes of religious facilities not intended for human occupancy provided the height is approved as part of the nonadministrative special use permit for the religious facility;

B. Flag poles, provided the pole does not exceed:

   1. A height of 45 feet above the existing grade; and

   2. A width of 12 inches diameter at the widest point of the pole;

C. Chimneys, chase, mechanical equipment, vents or other essential building elements required by the building codes provided:
   1. The structure or equipment does not project more than three feet above the maximum height otherwise allowed on the lot;

2. The structure or equipment does not exceed five feet in horizontal width above the maximum height otherwise allowed on the lot;

D. Photovoltaic (PV) panels; provided, that:

1. The panels do not project more than six inches above the maximum height otherwise allowed on the lot; and

2. Where feasible, the support structure of a roof-mounted panel is screened by extended parapets or other architecturally integrated screening;

E. Wireless communication facilities approved pursuant to Chapter 16.37 MMC; and

F. Exceptions specifically granted elsewhere in the Medina Municipal Code.

Stephanie Keyser

From: Pete Holton <pwholton@comcast.net>
Sent: Monday, June 20, 2022 3:40 PM
To: Stephanie Keyser
Subject: Re: June 21 meeting

Hi Stephanie, I live in Medina Heights where our current building height is restricted to 20 feet from original grade. I would like to keep it at 20 feet from original grade. As you know Medina Heights homes are built on a mildly sloped hillside and in order to preserve views the Preservation District was created. My opinion is that using average grade will result in higher rooflines thus restricting views. Let’s keep the Preservation District as is.
Thank Pete

Sent from my iPad

> On Jun 20, 2022, at 12:52 PM, Stephanie Keyser <skeyser@medina-wa.gov> wrote:
>
> Hi Pete,
>
> Yes, all of the meetings are recorded. I'm not sure if any motions will be made tomorrow but regardless Planning Commission's recommendation will be brought to Council in September for another public hearing and possible adoption.
>
> Let me know if you have questions.
>
> Stephanie
>
> -----Original Message-----
> From: Pete Holton <pwholton@comcast.net>
> Sent: Friday, June 17, 2022 4:49 PM
> To: Stephanie Keyser <skeyser@medina-wa.gov>
> Subject: June 21 meeting
>
> I can’t attend the virtual meeting. Will it be recorded and available at a later date?
> Thanks Pete
>
> Sent from my iPhone

Stephanie Keyser

Attachment C.2

From: Steven Smith <stevendsmith13@gmail.com>
Sent: Monday, June 20, 2022 12:04 PM
To: Stephanie Keyser
Cc: Kathleen Bayley-Smith
Subject: Proposed Average Grade Amendment

To whom it may concern,

We have lived at 309 Upland Road, Medina for approximately 20 years.
We also own 8467 Midland Road, Medina.
We are submitting comments regarding a Proposal to change building requirements from the current "original" grade to "average" grade to determine available height for building.

This proposed change is a VERY BAD idea.
If this was the very beginning of the City of Medina in the 1950's, it could make sense.
Unfortunately, approximately 1/2 or more of the homes in Medina have been rebuilt over the last 65 + years under the existing "original" grade determination.
With flat, non-view lots, it may not make a significant difference.

But with view, sloped lots, such as Medina Heights it will be a catastrophe.
Over 1/2 the homes in these areas have already been rebuilt under the "original" grade determination.
Most of these properties have approximately 10' - 12' of slope over their building footprint.
This new proposal would enable any new rebuilt homes to be approximately 5' - 6' higher than previously allowed.
5' - 6' additional height would significantly negatively impact the view of any existing home or already rebuilt home under the "original" grade determination.
Especially Medina Heights which only has a 20' (original) 23' (finished) overall height available currently.
This would be approximately a 25% increase in height allowed.

The many homes already built to the "original" grade determination would likely seek financial remedy from the City of Medina for loss of view if the "average" grade proposal were approved.
It could be said that the already rebuilt homes could rebuild again higher with the proposed amendment.
That would be unlikely with a range of $3M to $10M in construction cost already spent in the rebuilt homes.

I am a long term homeowner, as well as a builder who has built many homes in Medina and Clyde Hill.
I understand the proposed amendment and STRONGLY OPPOSE it.

Thank you for your consideration.

Steven and Kathleen Smith
425-260-4595
425-260-4596

Stephanie Keyser Attachment C.3

From: Richard Stevenson <richstevenson@comcast.net>
Sent: Monday, June 20, 2022 10:03 AM
To: Stephanie Keyser
Subject: Average Grade

Hi Stephanie,

My name is Rich Stevenson and we(my family) have lived at 8214 Overlake Dr. W in Medina for 22 years. I have been in the construction/real estate business for over 40 years and would like you to know where I stand with regards to the new proposal of “Average Grade”.

Medina is the first place I’ve lived or worked where “original grade” is standard practice for measuring structure height. I believe this to be a very antiquated, impractical and unfair means to determining the height of a structure with regards to equality to all residents and basic curb appeal for the neighborhood.

For what it is worth, I would like you to know that **I support the proposal of “Average Grade”.**

Sincerely,
Rich Stevenson
(206)619-6995

Stephanie Keyser

From: Bill Pollard <pollard@talonprivate.com>
Sent: Monday, June 6, 2022 8:36 AM
To: Stephanie Keyser
Cc: Jhpollard@comcast.net
Subject: Planning Commission "Average Grade" discussion

Stephanie:

I own a home in Medina Heights located at 8423 Midland Road. We did a major renovation approximately 3 years ago and had numerous height constraints because it was determined that our Original Grade was significantly lower than the current Average Grade. There are numerous lots adjacent to us that are ripe from re-development. If there was a switch to an Average Grade height determination, it would have major view implications and negative impacts on property values for all of us that have abided by the Original Grade code requirements. While I support progressive municipal regulation, it not appropriate nor equitable for the City to specifically modify a code to enhance the property values of some while having a punitive impact on those who have been abided by the existing regulations. I would also suggest that Medina Heights is unique within the City due to its topography. It might be appropriate to exempt Medina Heights from a punitive code modification which wouldn't have negative effects in the balance of the City.

Thank you for your consideration and please pass on my thoughts to the Planning Commission.

Bill Pollard

BILL POLLARD
MANAGING PRINCIPAL
Download my vCard - Click Here

TALON
O: 425.507.2570 **C:** 425.765.7141
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Bellevue, WA 98004
www.talonprivate.com

TALON PRIVATE CAPITAL, LLC
TALON | M PARTNERS, LLC

From: Andrew DeFlorio <DeFlorioa@baylisarchitects.com>
Sent: Tuesday, May 17, 2022 2:35 PM
To: Stephanie Keyser <skeyser@medina-wa.gov>
Cc: Johan Luchsinger <luchsingerj@baylisarchitects.com>
Subject: RE: Average Grade - Proposed Code Amendment

Hi Stephanie,

This is great information, thanks so much for passing it on.

We're talking to our client about how they'd like to proceed, and this information about the code and possible timeline will be very helpful.

With regards to my experience with original grade on this site, we were able to get our grades back from the surveyor relatively quickly and they mostly matched what we were seeing in previous site surveys. The unknowns and seeming arbitrary value of original grade gives me pause since it is seems much easier to determine existing grade, given that's what we're actually measuring.

A lot of the difficulty for us comes from the length and narrowness of our site, which also has a higher point in the middle, creating a more limited area where can locate the home, given current code using the low points. We're also in R-16, right on the cusp of R-20, so we don't get to take advantage of any bonuses.

It is true that an average grade plane calculation would allow a higher overall building plane for us, but we also lose the 36' horizontal height plane, which could have we could have benefited from on this site, given the slope. Overall, using an average grade plane allowed us a bit more freedom and flexibly with construction and design without an overall increase in maximum building height area.

I'm curious to keep this on my radar and would love to listen or attend the hearing if possible. Any chance the hearings are streamed online or are they only in person?

Thanks again for the information, this has been extremely helpful.

Andrew DeFlorio
Intern Architect

baylis ARCHITECTS
CELEBRATING 50 YEARS

10801 Main Street, # 110 | Bellevue, WA 98004
T: 425.454.0566 **D:** 425.679.5203 **F:** 425.453.8013
deflorioa@baylisarchitects.com | BaylisArchitects.com

Facebook | LinkedIn | Houzz

Stephanie Keyser

Attachment C.6

From: laurelpr@seanet.com
Sent: Friday, May 20, 2022 4:12 PM
To: 'David Yee'
Cc: Stephanie Keyser
Subject: RE: building height

Dear Dr. Yee,

Thank you for your input. Ms. Keyser will circulate it to the entire Commission.

Just a remark regarding correspondence in the future...I know that I have told you that you are welcome to email me, and we appreciate hearing from you. Going forward, please send any messages that you intend for the entire Commission directly to Ms. Keyser. She will forward your message to all Commissioners. An independent email that includes a quorum could be perceived as a meeting, but the necessary public notification of a meeting has not taken place. So this is a matter of transparency. We cannot conduct substantive discussions via email.

I hope you understand and I do not in any way intend to discourage your input. Thank you again for your message.

Best,
Laurel

-----Original Message-----
From: David Yee <davidyee2006@yahoo.com>
Sent: Friday, May 20, 2022 2:02 PM
To: laurelpr@seanet.com
Cc: del@davidlangworthy.com; mark@nelsonarchitecture.net; laurabustamante60@gmail.com
Subject: building height

Dear Chair and Commissioner Preston, Vice Chair and Commissioner Schubring, Commissioner Nelson, Commissioner Hsu, Commissioner Raskin, Commissioner Bustamente, and Commissioner Langworthy:

During a recent city council meeting, Commissioner Preston reported to the city council about the Planning Commission's work on building height. She noted that there was little public input and that she sought such public input. I am writing to comply with that request.

My observations by having an addition built for my house and by reading the proposal are:

1. The proposed code is overly complex. This increases costs to Medina residents. More than one architect has remarked to me that projects in Medina are costly because of many incremental costs associated with compliance. Increased costs harm Medina residents. One architect mentioned that he did not like to design projects in Medina because of the overly complex and legalistic requirements.

2. Overly restrictive and bureaucratic requirements generally do not benefit Medina residents. The larger lots and low density makes it possible to have a varied view, be it of the yard, trees, street, lake (in some cases), and other houses.

3. A sloped property already presents design challenges so additional challenges added by the city create headaches and problems.

4. Land is not 2 dimensional unlike paper drawings. Land elevation varies not only along the length of the house but also the width and all the area within these lines.

5. Most of the time, it is trees, not houses, that block views. I say this as an offender, not a victim, as the many tall trees on my property block others' views.

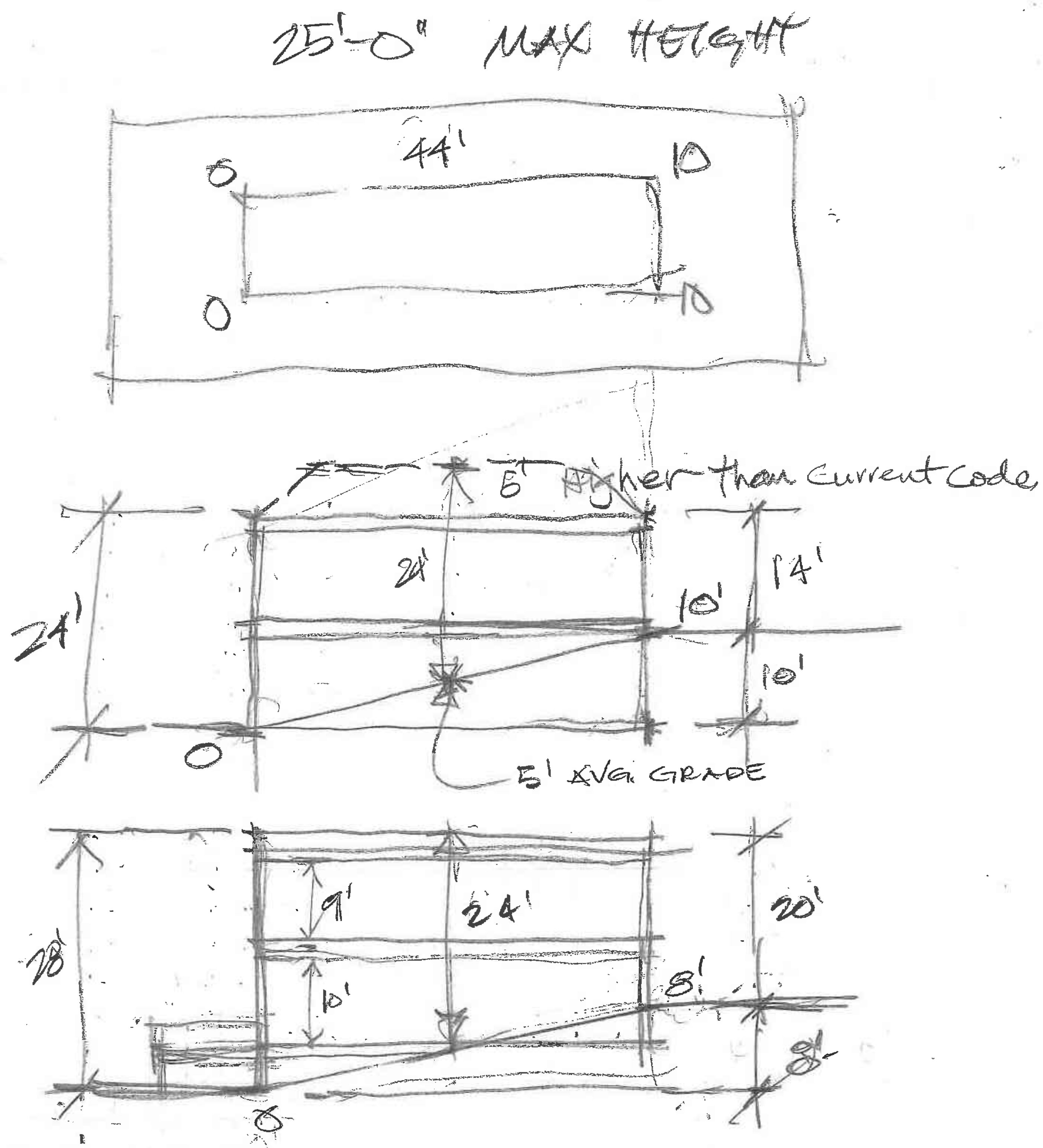
I would find it acceptable if the maximum building height is measured by the highest point of the original grade where there will be a building. Any other parts of the building may equal this elevation as long as the difference between that maximum elevation and the excess over the maximum building height is less than or equal to one floor or 15 feet, which ever is lower. As floors are level, the undulations of the ground elevation are not replicated in the floor.

As an example, if the elevation of a property is between 5 ft. above sea level and 50 ft. above sea level, the height limitation would be 28 ft. (78 ft. above sea level, 50+28=78) if the house is built where the land is 50 ft. above sea level. All other parts of the house could be at 78 ft. above sea level IF that area of the house was no more than 43 ft. (28 + 15) above original grade or one floor higher than 28 ft., whichever was lower.

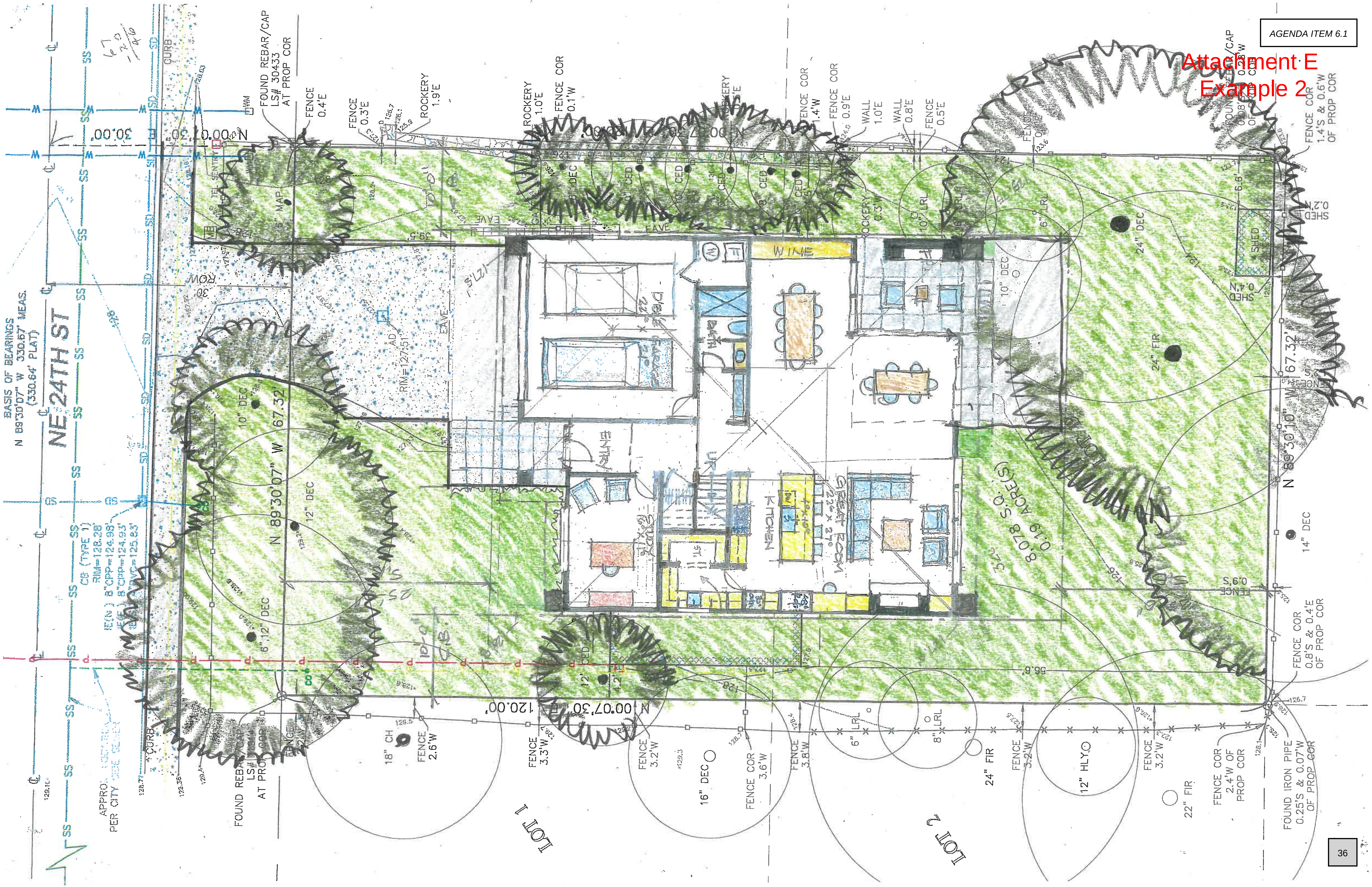
I am copying the other planning commission members whom I have an e-mail address for. I do not have all of them.

Best regards,
David
David Yee, MD
3215 Evergreen Point Road


Attachment D
Town of
Lake Washington
Evergreen Point
Fairweather Bay
Cozy Cove
Lake Lane
520
Vacant
SR-520 Maintenance Facility
Fairweather Nature Preserve / Park
SR-520
Bellevue Christian School
N/A Shared Dock
PSE
Wells Medina Nursery
Legend
Before 1955
1955-1976
1976-1986
1986-1993
1993-1994
1994-1999
1999-2004
2004-2009
2009-present
Overlake Golf & Country Club
Overlake Golf & CC
St. Thomas Church/School
Gas Station
Medina Park
City Shop
PSE Substation
Store
Post Office
Metro Substation
Medina Elementary
Medina Beach Park
City Hall
Dabney Point
Lake Washington
Viewpoint Park Public Dock
Meydenbauer Bay
Groat Point


25'-0" MAX HEIGHT
44'
0
10
0
10
8' Higher than Current Code
24'
24'
10'
14'
10'
0
5' AVG. GRADE
28'
9'
24'
20'
10'
8'
8'
0

Attachment E
Example 2

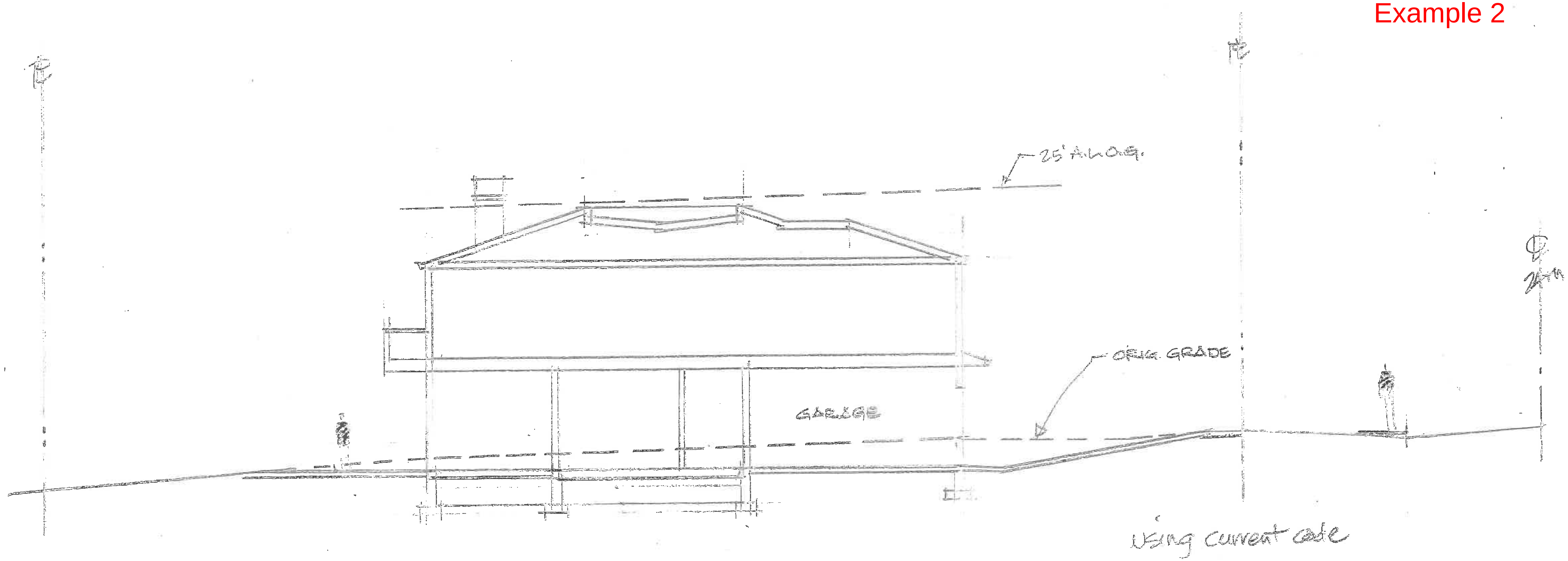


Attachment E
Example 2

SLOPED ROOF OPTION

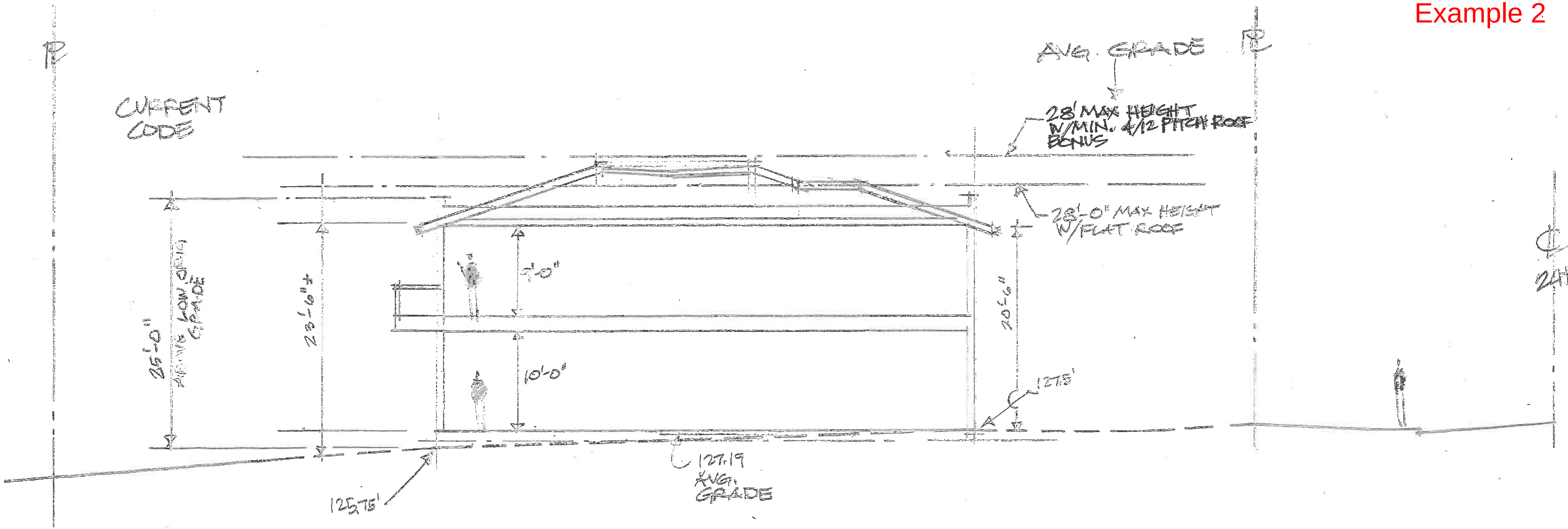
SC: 1/8" = 1'-0"

Attachment E
Example 2



SLOPED ROOF OPTION SECTION
SC: 1" = 10'-0"

Attachment E
Example 2



AVG. GRADE 127.1875'

SLOPED ROOF OPTION SECTION
USING AVERAGE GRADE FOR ROOF HEIGHT

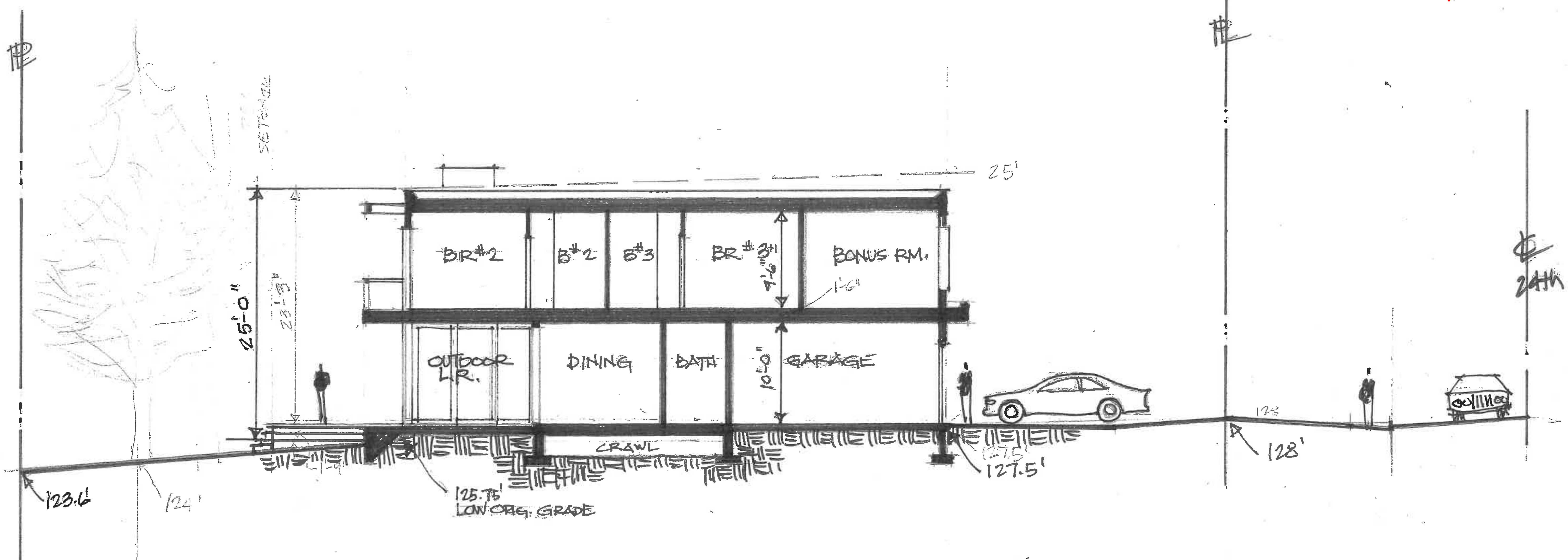
SC: 1" = 10'-0"

1" = 10'-0"

Attachment E
Example 2

FLAT ROOF OPTION
SC: 1/8" = 1'-0"

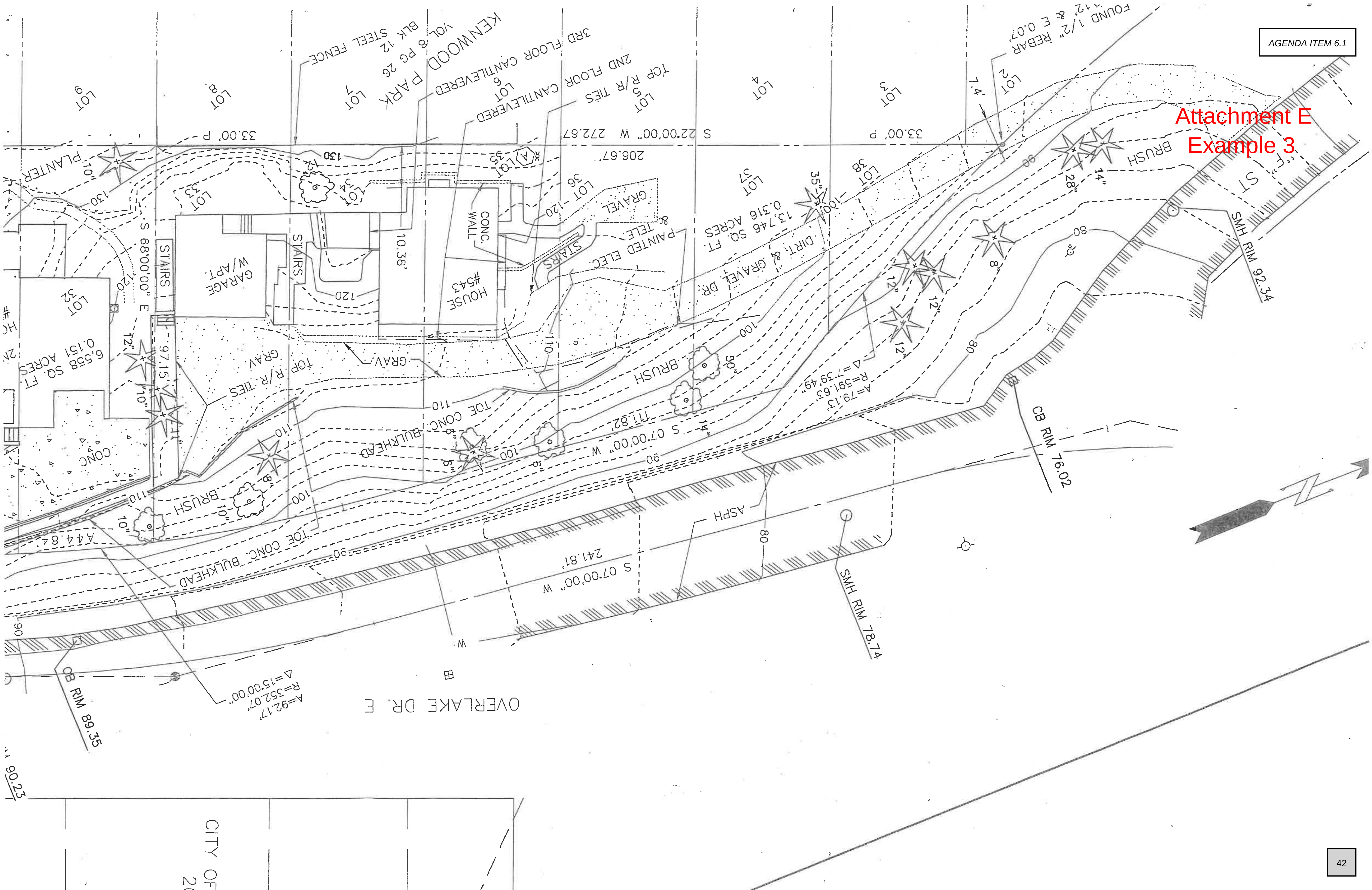
Attachment E
Example 2



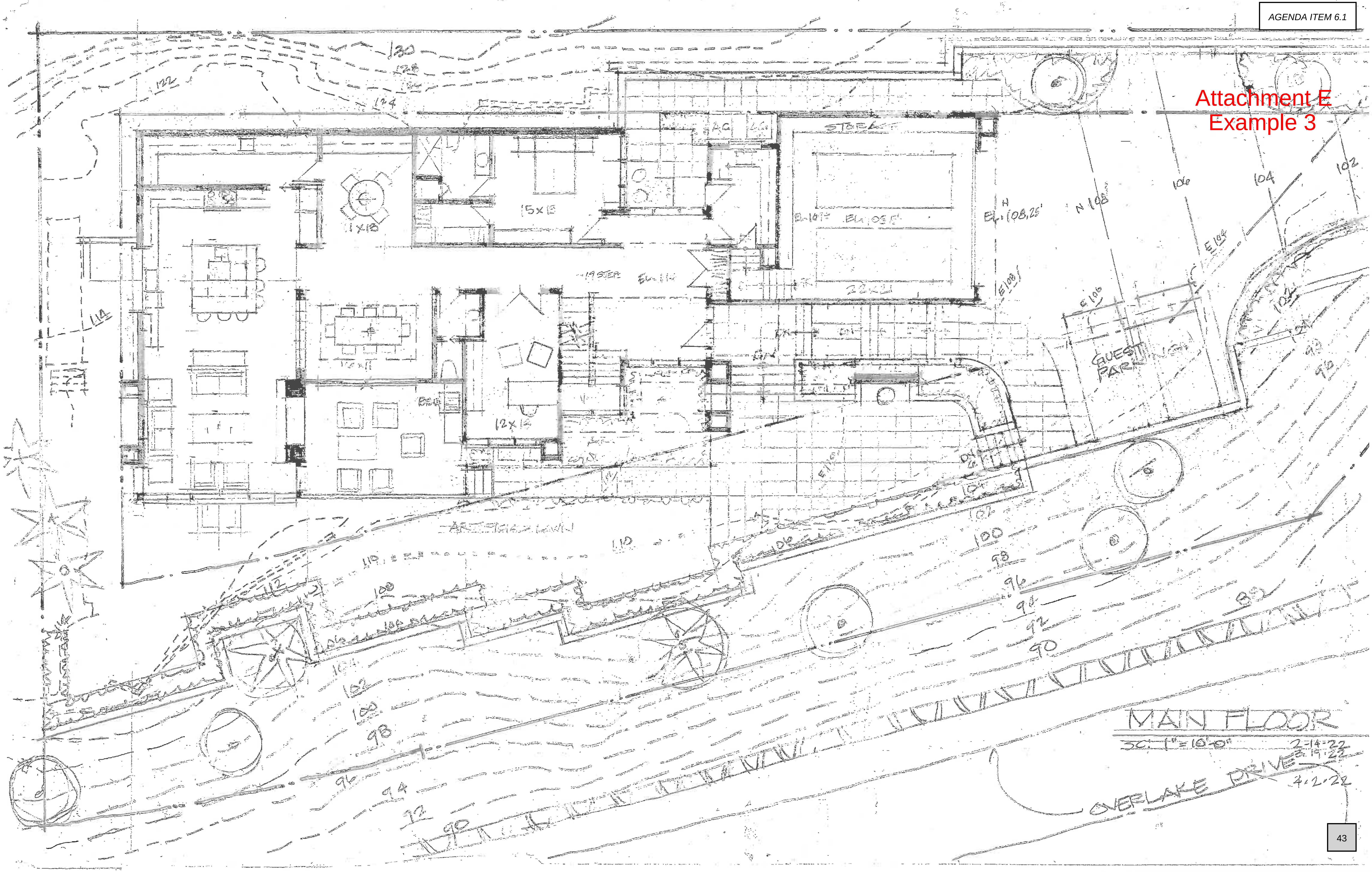
FLAT ROOF OPTION SECTION

sc: 1" = 10'-0"

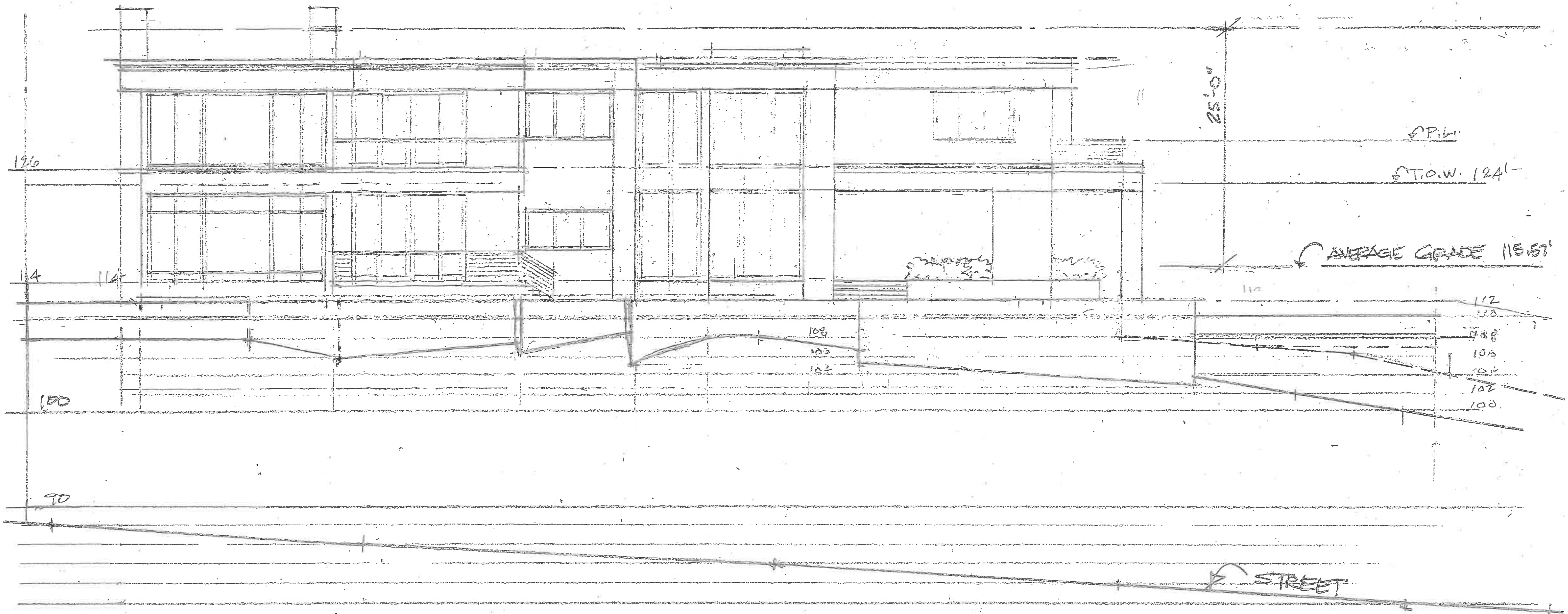
Attachment E
Example 3



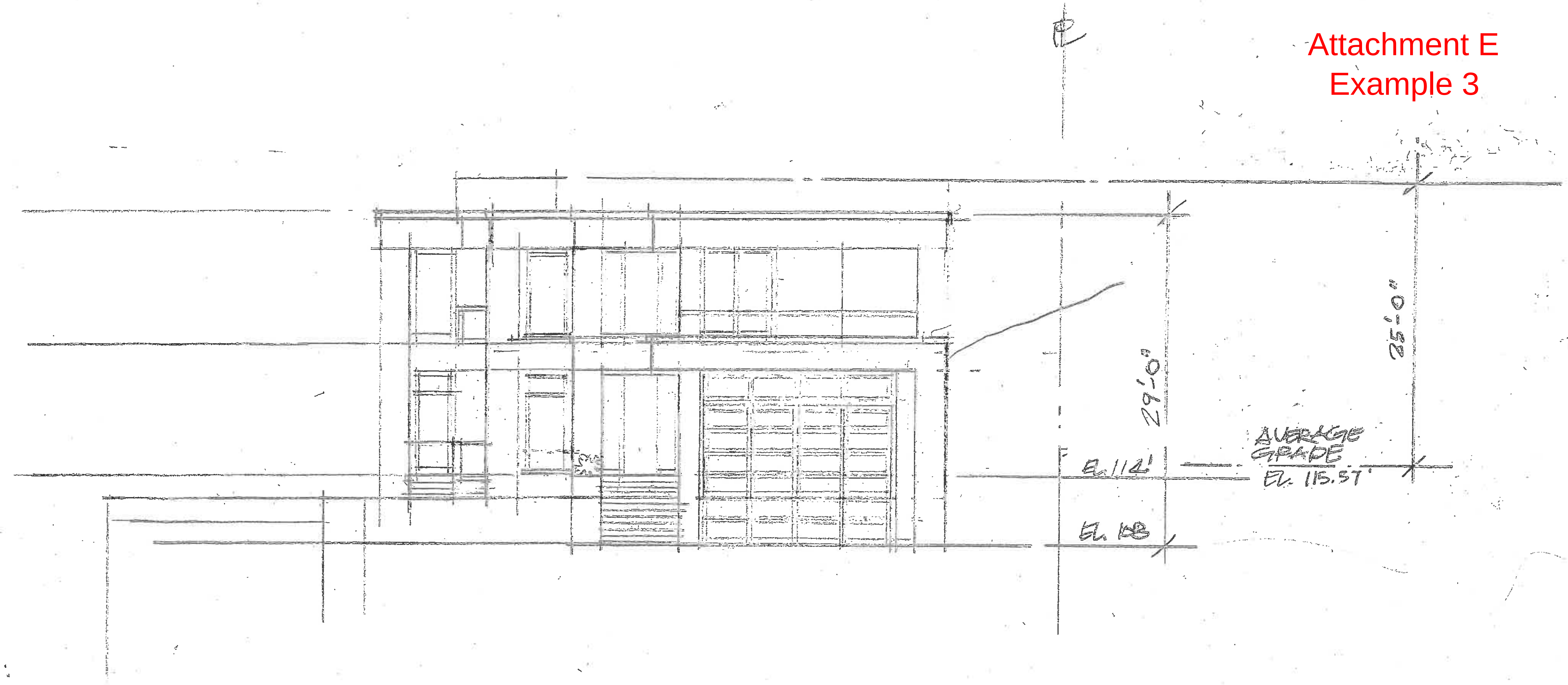
Attachment E
Example 3



Attachment E
Example 3



Attachment E
Example 3



Attachment E
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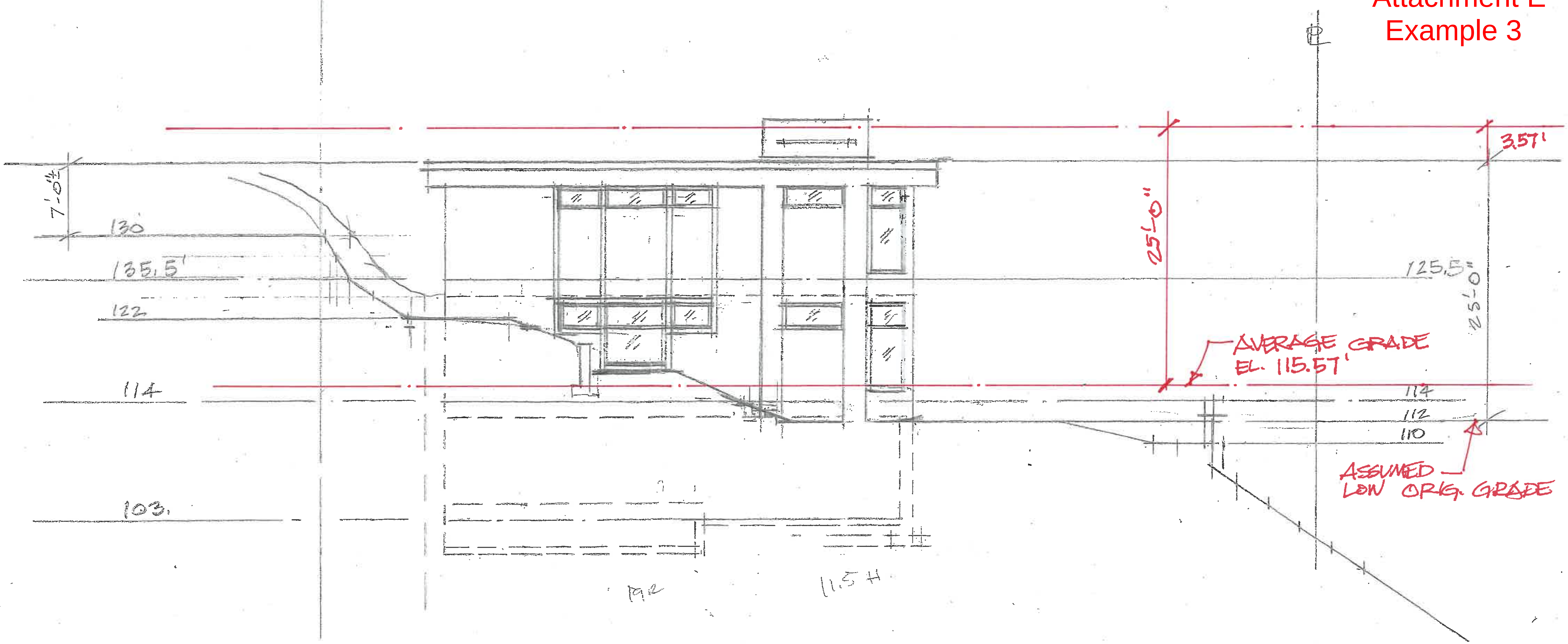

Attachment E
Example 3