

The background is a detailed architectural floor plan in white lines on a dark blue background. It shows various rooms including bedrooms (QUARTO), bathrooms (SANIT), a service area (SERVICO), and a hall. Rooms are labeled with their area in square meters (M²). For example, QUARTO 2 is 12.04 M², SANIT 4.36 M², SANIT 5.02 M², SANIT 5.04 M², SERVICO 2.25 M², and SERVICO 2.25 M². There are also labels for P1, P2, and P3, likely representing parking or entrance points. The plan includes furniture like beds, sofas, and tables, and architectural details like doors, windows, and stairs.

# BUILD: SANDY SPRINGS

Let's build something great together



# **BUILD: SANDY SPRINGS**

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Let's build something great together

- **“BUILD: SANDY SPRINGS”** is a series of seminars presented by the Community Development department of the City of Sandy Springs, GA.
- It is intended to educate the public on the current policies, procedures and expectations of the City of Sandy Springs, GA as it relates to construction within the jurisdiction.
- The information presented in these seminars is subject to change with new Code adoptions, changes in City ordinances and zoning, and changes in office policy as it relates to current construction trends.

# DECK DESIGN & DETAILING PER THE 2018 IRC

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2018 International Residential Building Code (2018 IRC)




**SANDY SPRINGS™**  
GEORGIA

August 12, 2020



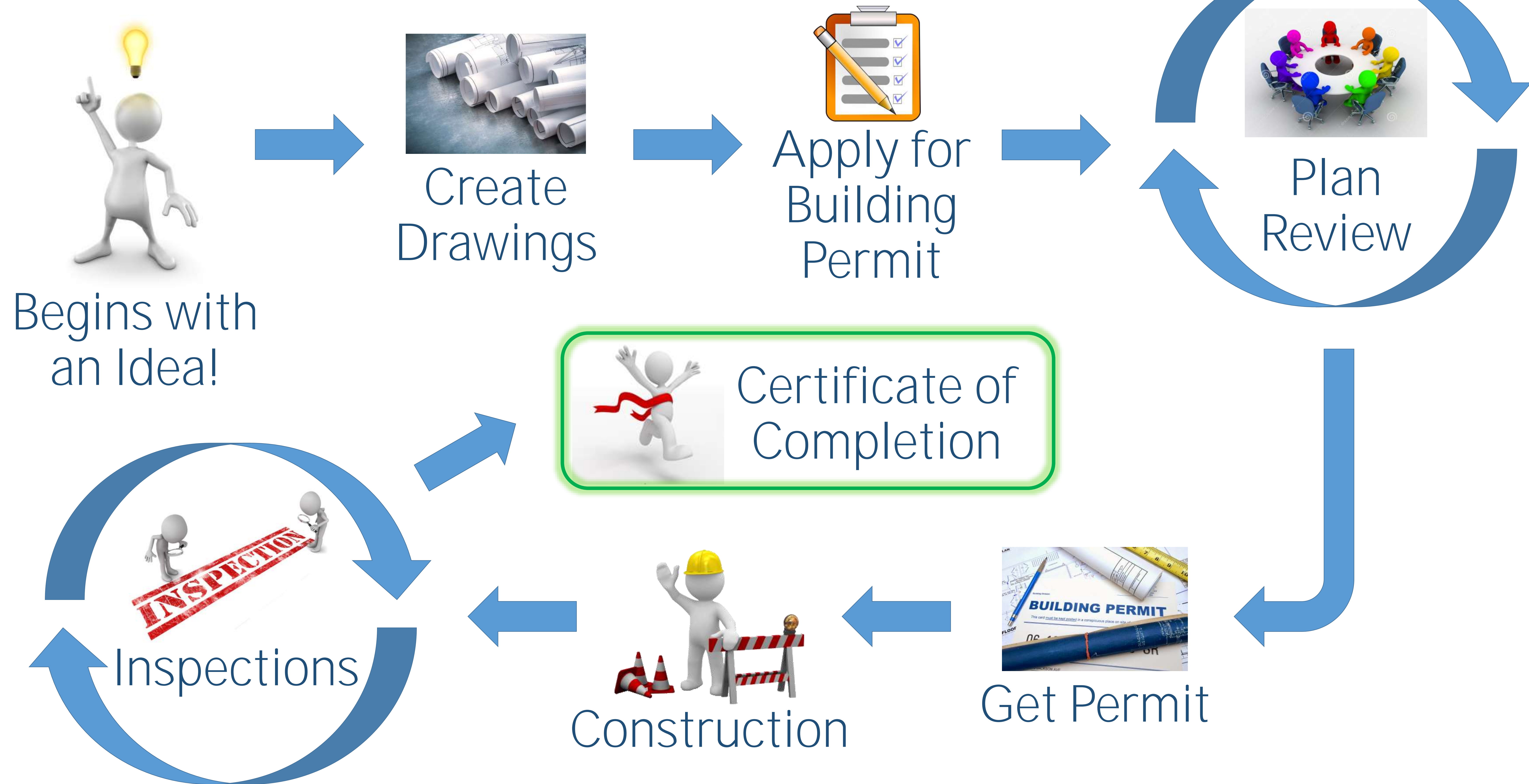
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  - Planning & Zoning Conditions
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# The “Process”



# The Project “Process”





# What Design Parameters Do I Need To Know?

## **Step 1: Determine Your “Zoning District”:**

1. Call the City (770-730-5600) and ask the Planner of the Day.
2. Use the **City’s** Community Development **GIS** found on the City’s website: [www.sandyspringsga.gov](http://www.sandyspringsga.gov)
  - a) Navigate to “City Services” ➔ “Urban Development” ➔ “Development Code & Zoning”; *or*
  - b) Use the quick link to the City’s Urban Development Website: [Spr.gs/devcode](http://Spr.gs/devcode)
3. Click on the “this interactive map” link.

## Urban Development

development code and zoning maps   planning and zoning   city center development   code enforcement   long-range planning

### Development Code And Zoning Maps

[City Services](#) » [Urban Development](#)

#### Development Code and Zoning Maps

The Sandy Springs Mayor and City Council adopted the new Development Code and Zoning Map during their August 15, 2017 meeting and it became effective September 15, 2017. Subsequently, the Mayor and City Council adopted amendments to the code at the April 17, 2018 public hearing, effective May 17, 2018.

[Development Code](#)  
[Technical Manual](#)

#### Public Comments

Comments and suggestions are welcome. They can be submitted via email at [pz@sandyspringsga.gov](mailto:pz@sandyspringsga.gov), up to 10 calendar days prior to the hearings, or in person at the hearings.

#### Adopted Zoning Map:

[Citywide Zoning Map](#), as amended April 17, 2018

- [Zoning Map Council District 1](#), as amended April 17, 2018
- [Zoning Map Council District 2](#), as amended April 17, 2018
- [Zoning Map Council District 3](#), as amended April 17, 2018
- [Zoning Map Council District 4](#), as amended April 17, 2018
- [Zoning Map Council District 5](#), as amended April 17, 2018
- [Zoning Map Council District 6](#), as amended April 17, 2018


The information shown on the maps above may be incomplete. Please consult [this interactive map](#) to confirm the zoning district at the parcel level.

#### Adopted Character Area Map:

The Mayor and City Council have amended the adopted Character Area Map at their meeting on November 21, 2017. The Character Area Map is intended to implement the Comprehensive Plan and guide the Zoning Map.

[Amended Character Area Map](#)

Please consult [this interactive map](#) to confirm the character area at the parcel level.



**SANDY SPRINGS SELECTS HEATH AND LINEBACK ENGINEERS TO FURTHER STRATEGY FOR RIVER ACCESS AND TRAILS**

During its Sept. 17, 2019 meeting, the Sandy Springs City Council approved the selection of Heath and Lineback Engineers, Inc. to conduct a feasibility study for trails and access along the Chattahoochee River within the northern district of the city.

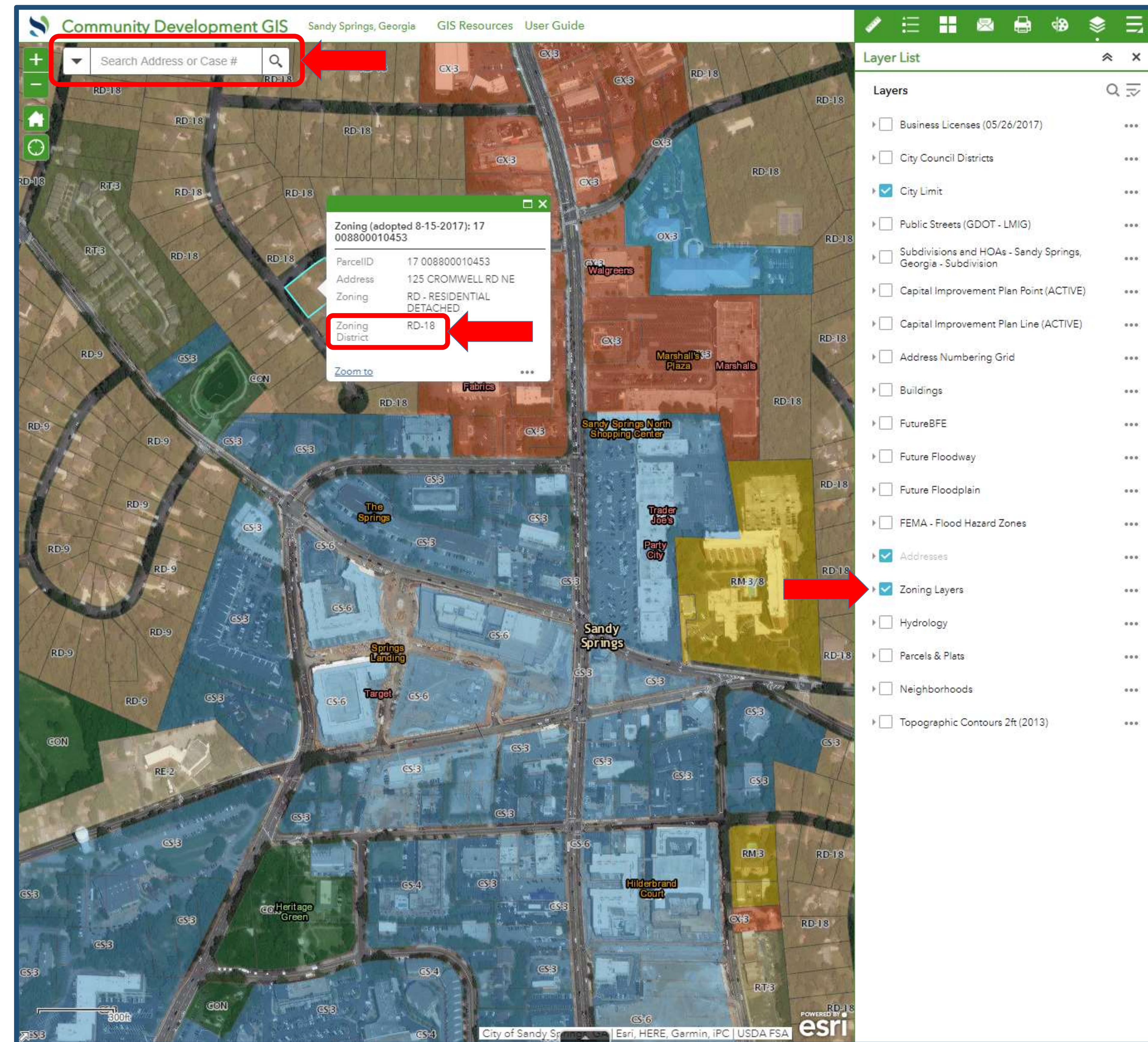


# What Design Parameters Do I Need To Know?

## Zoning District Example:

1. Make sure the “Zoning Layers” is turned on.
2. Search by Address (upper left corner) or by clicking on the specific lot.
3. Zoning districts are identified by the colored coded areas or identified in the pop-up window for the specific lot.

Example: 125 Cromwell Rd. is in a RD-18 Zoning District





# Zoning Certification Letter (ZCL)

- What information does a ZCL provide?
  - Zoning district designation
  - Zoning conditions
- How do I request a ZCL?
  - Submit a request letter to the Planning and Zoning Division
  - Include the address and a survey/Parcel ID #
  - Include a check for the \$30 fee



# What Design Parameters Do I Need To Know?

## Step 2: Determine Your “Lot Parameters” and “Placement & Height”:

1. Open the City’s Development Code by clicking on the “Development Code” link found on the City’s Urban Development website.
2. Once in the Development Code, navigate to your specific zoning district:  
Article 2 – Protected Neighborhoods  
Article 3 – Urban Neighborhoods  
Article 4 – Corridors & Nodes  
Article 5 – Perimeter Center

## Urban Development


development code and zoning maps   planning and zoning   city center development   code enforcement   long-range planning

### Development Code And Zoning Maps

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[Development Code](#) 

[Technical Manual](#)

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# What Design Parameters Do I Need To Know?

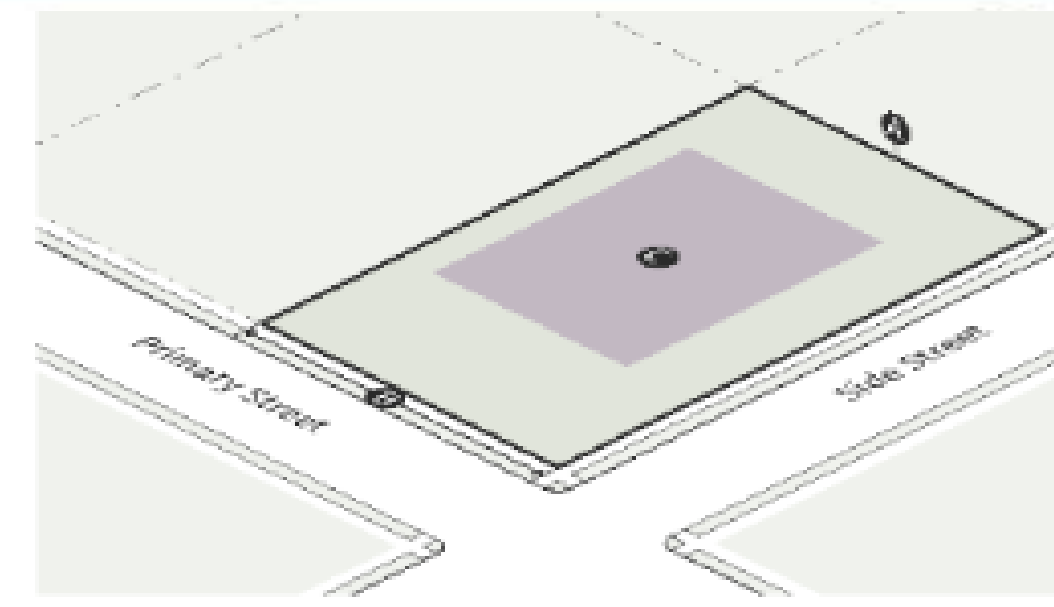
## Lot Parameters Example:

### Assume Zoning District RD-18 (Section 2.3.1):

- Min Lot Area = 18,000 SF  
(single unit detached)
- Min Lot Width = 100 FT  
(single unit detached)
- Max Lot Coverage = 35%  
(residential use)
- Max Canopy Coverage = 35%  
(residential use)

Div. 2.3. - Residential Detached (RD-27, -18, -15)  
Sec. 2.3.1. - Lot Parameters

SEC. 2.3.1. LOT PARAMETERS



		RD-27	RD-18	RD-15
<b>Lot</b>				
<b>A</b>	Area			
	Single unit detached	27,000 SF min	18,000 SF min	15,000 SF min
	All other allowed uses	10,000 SF min	10,000 SF min	10,000 SF min
<b>B</b>	Width			
	Single unit detached	120' min	100' min	90' min
	All other allowed uses	100' min	100' min	100' min
<b>Coverage</b>				
<b>C</b>	Lot coverage			
	Residential use	30% max	35% max	38% max
	All other principal uses		By use permit	
<b>D</b>	Canopy coverage			
	Residential use	35% min	35% min	35% min
	All other uses	40% min	40% min	40% min



# What Design Parameters Do I Need To Know?

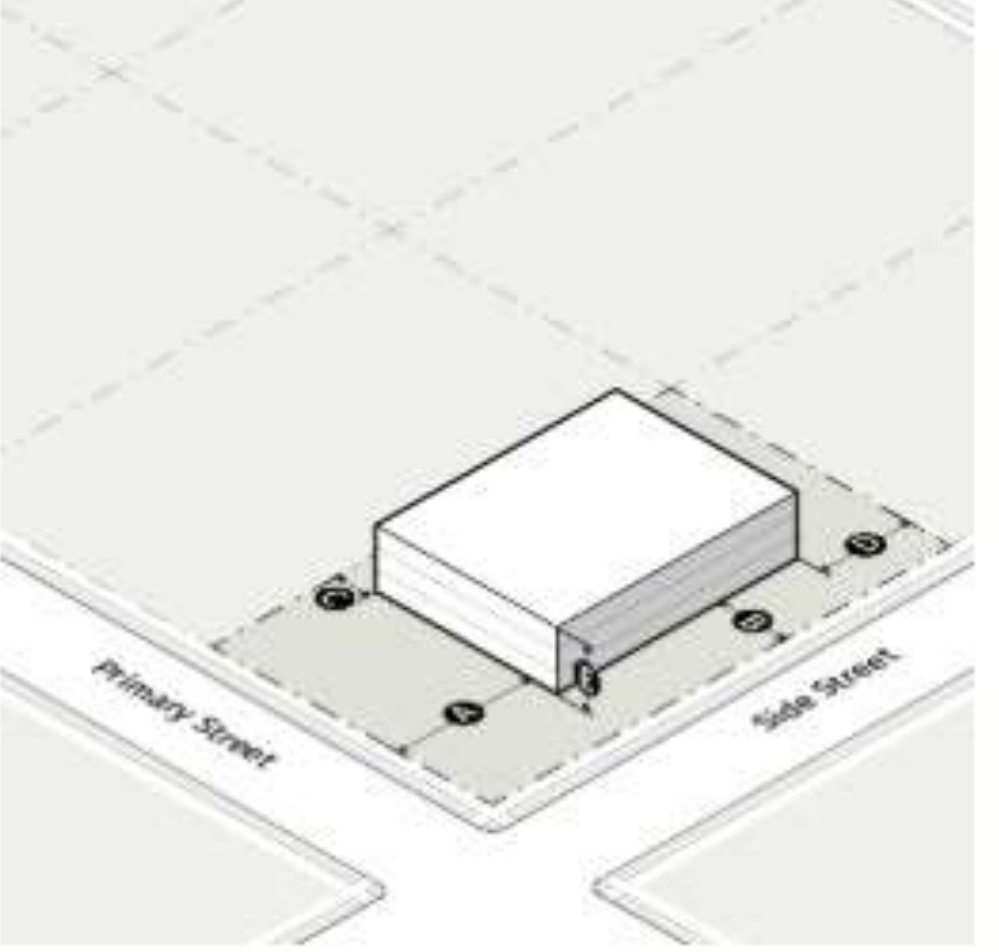
## Placement and Height Example:

Assume Zoning District RD-18  
(Section 2.3.2):

- Building Setbacks:
  - Primary Street = 50' min
  - Side Street = 20' min
  - Side (Common Lot Line) = 10' min
  - Rear (Common Lot Line) = 35' min
- Building Height = 3 stories / 40' max

Div. 2.3. - Residential Detached (RD-27, -18, -15)  
Sec. 2.3.2. - Placement and Height

SEC. 2.3.2. PLACEMENT AND HEIGHT

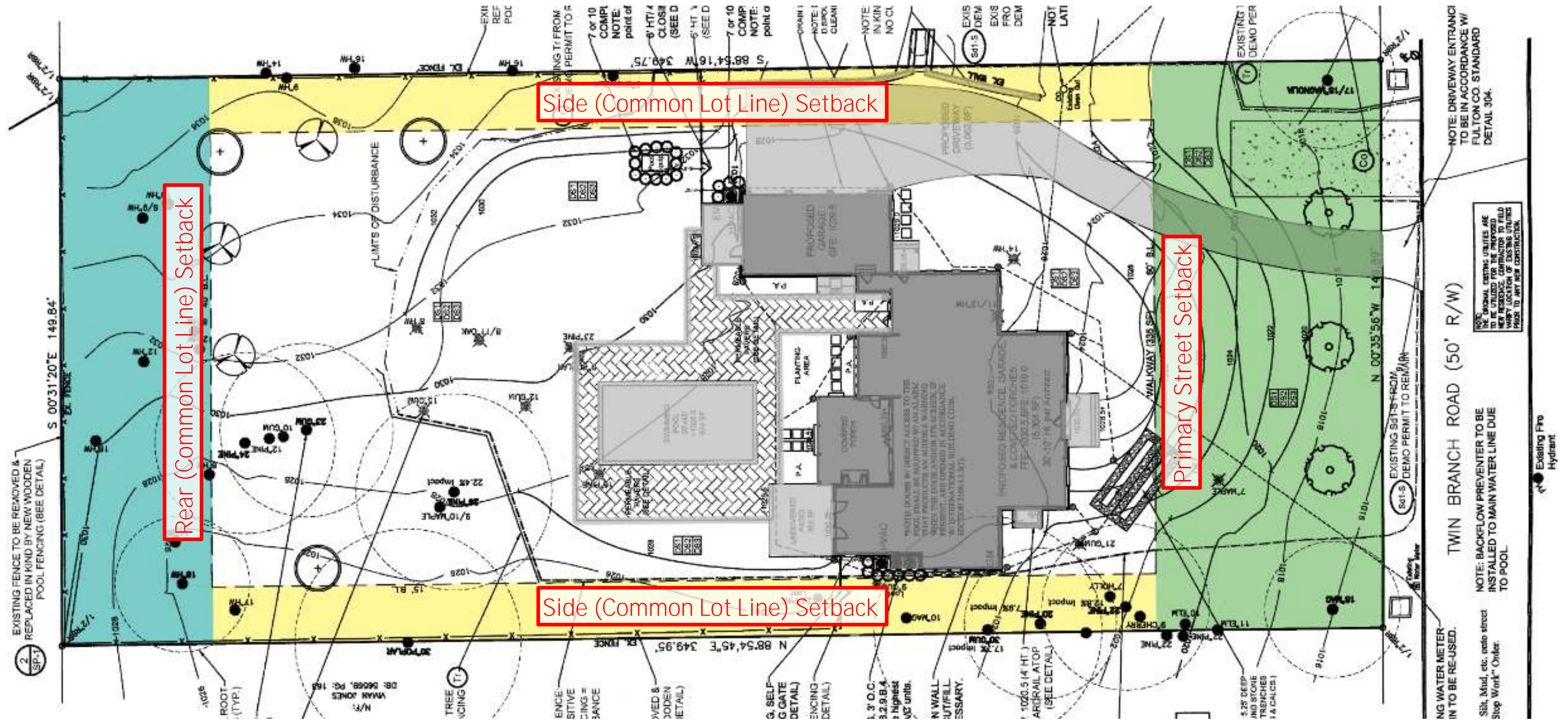


		RD-27	RD-18	RD-15
<b>Building Setbacks</b>				
A	Primary street	60' min	50' min	Avg.*
B	Side street	30' min	20' min	20' min
C	Side: common lot line	15' min	10' min	10' min
D	Rear: common lot line	40' min	35' min	35' min
<b>Building Height</b>				
E	Single-unit detached dwelling		3 stories/40' max	
	All other principal uses		By use permit	

\*Average front setback. Measured using 2 lots to either side of proposed site. New building must be no closer to the front lot line than the shallowest setback and no further than the deepest setback of the adjacent lots.



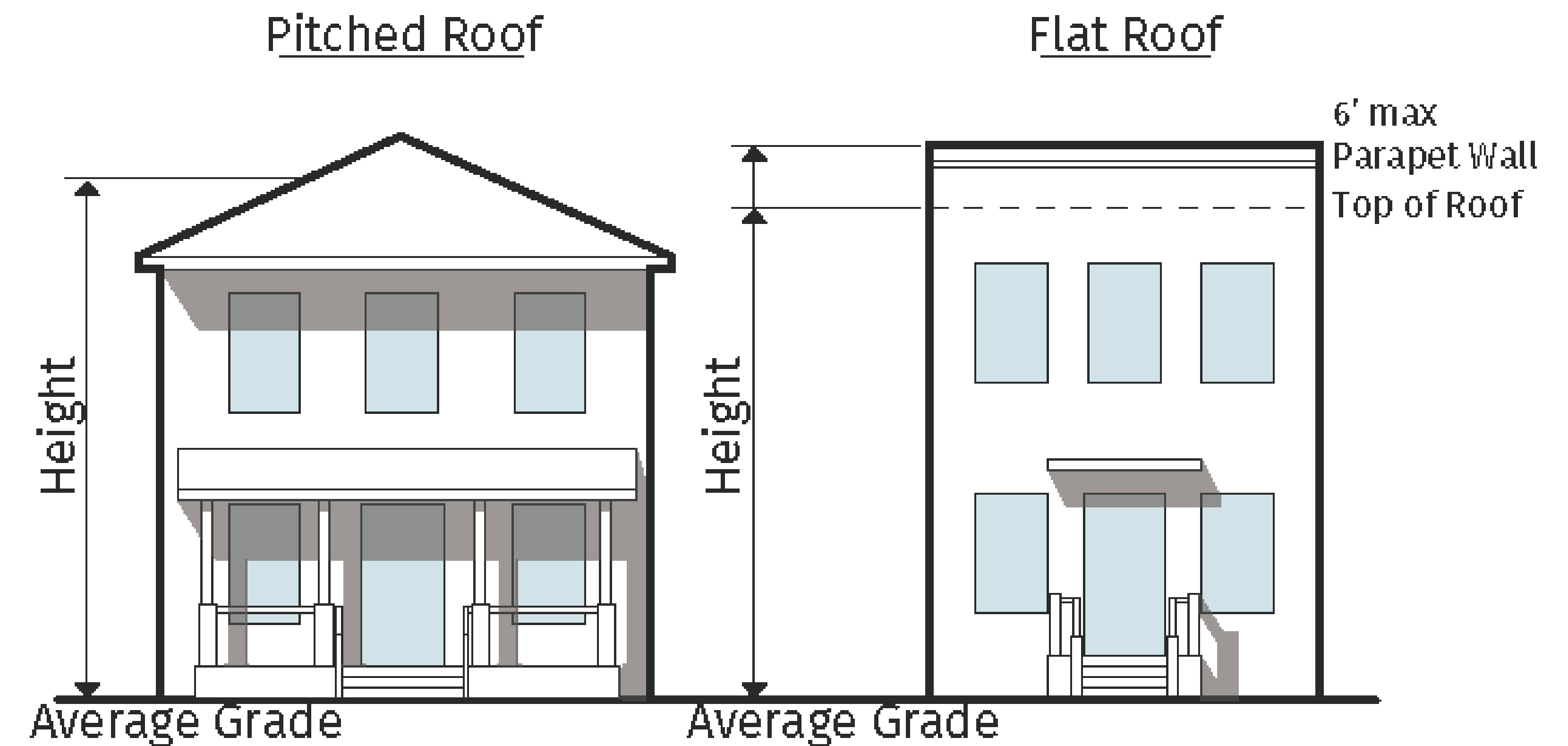
# What Design Parameters Do I Need To Know?



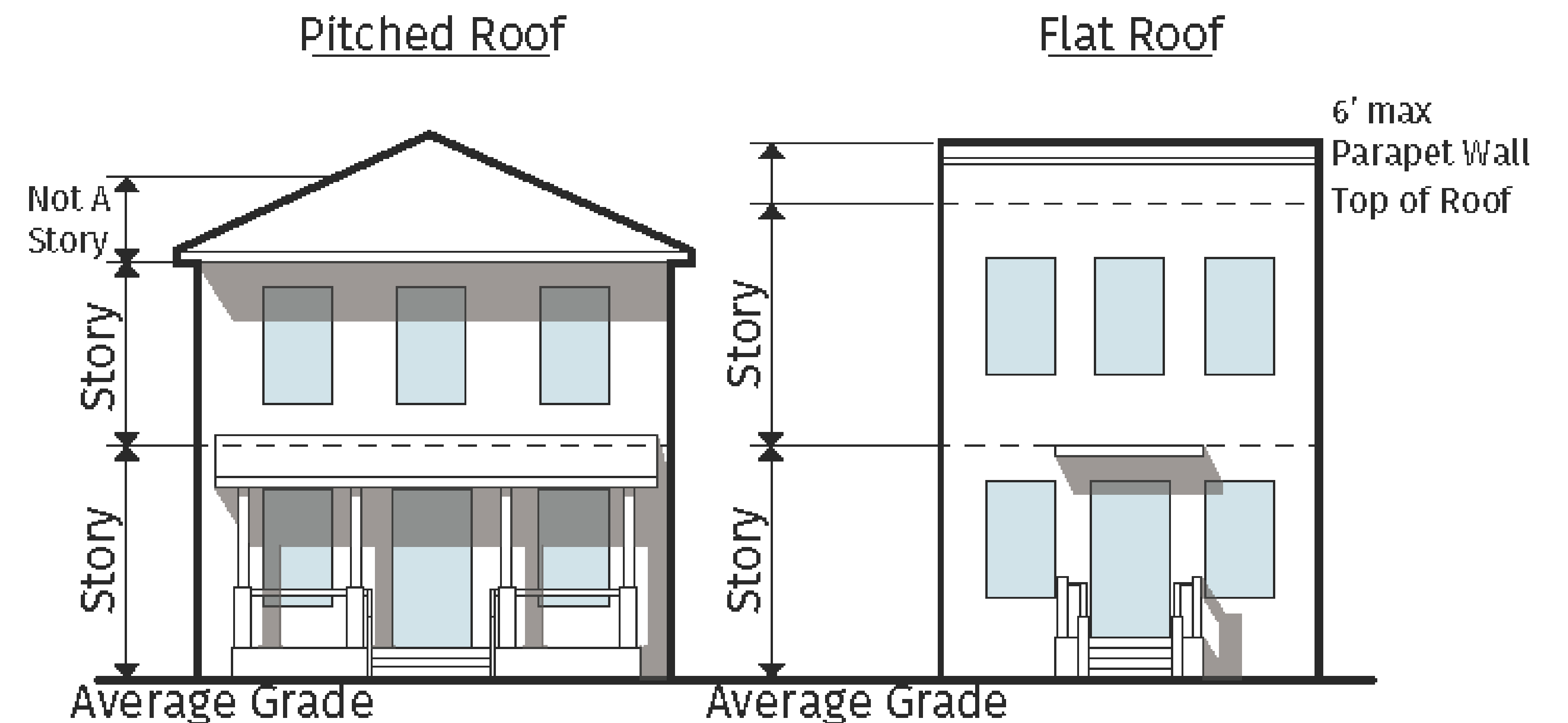


# What Design Parameters Do I Need To Know?

- Building Height is measured from the average grade plane to the mean roof height of a pitched roof or the top of a parapet wall.



- Per the Building Official, a Story is classified as any level that has current or future habitable space regardless of the average grade plane.





# Lot Coverage Requirement

- The Lot Coverage % is calculated by adding up the Total Square Footage of All Impervious Areas on any property divided by the Total Square Footage of the Property:

$$\text{Lot Coverage \%} = \frac{\text{Total Square Footage of All Impervious Areas}}{\text{Total Square Footage of Property}}$$

- Lot Coverage includes all of the following:
  - a) The horizontal area of the building footprint measured within the outside of the exterior walls of the ground floor of all principal buildings and any roofed accessory building on the lot; and
  - b) Any impervious parking areas, driveways, walkways, steps, terraces, uncovered patios and decks, swimming pools, and any similar features.



# Lot Coverage Requirement

- 100% area credit will be given for pervious pavers if you use the City of Sandy Springs pervious paver detail.
- 50% area credit will be given for pervious concrete.
- Other materials will be evaluated upon request.
- In RE- and RD- districts, the base maximum lot coverage may be supplemented by 5% if mitigation measures are implemented.
  - The mitigation consists of providing stormwater infiltration for the additional impervious area beyond the base maximum lot coverage at a rate of 2.4 inches in 24 hours.



# Lot Coverage Requirement

- Sample Lot Coverage Chart:

LOT COVERAGE CALCULATIONS	
House	3,250 SF
Driveway	956 SF
Walkway	120 SF
Pool	432 SF
Outdoor Kitchen	256 SF
Deck	260 SF
Patio	480 SF
Terrace	364 SF
Pervious Pavers (50%)	360 SF x 0.5 = 180 SF
Total Lot Coverage	6,298 SF (30.2%)

Single Family Residence (RD-18 Zoning)  
Lot Size = 0.478 acres x 43,560 SF/acre  
= 20,821 square feet

Maximum Lot Coverage:  
 $20,821 \text{ SF} \times 0.35 \text{ (35\%)} = 7,287 \text{ SF}$

Actual Lot Coverage < Maximum Lot Coverage  
 $6,298 \text{ SF} < 7,293 \text{ SF}$  (okay)

Maximum Lot Coverage Satisfied



# Tree Canopy Requirement

- The Tree Canopy Coverage Requirement is the percentage of Total Square Footage of the Tree Canopy Coverage on any property divided by the Total Square Footage of the Property:

$$\text{Tree Canopy Coverage} = \frac{\text{Total Square Footage of Tree Canopy Coverage}}{\text{Total Square Footage of Property}}$$

- Allowable Canopy Coverage:
  - 35% (residential – single family, townhome, condo)  
Calculation: Lot size (in square feet) x 0.35
  - 40% for all other uses (commercial, industrial, apartments)  
Calculation: Lot size (in square feet) x 0.40



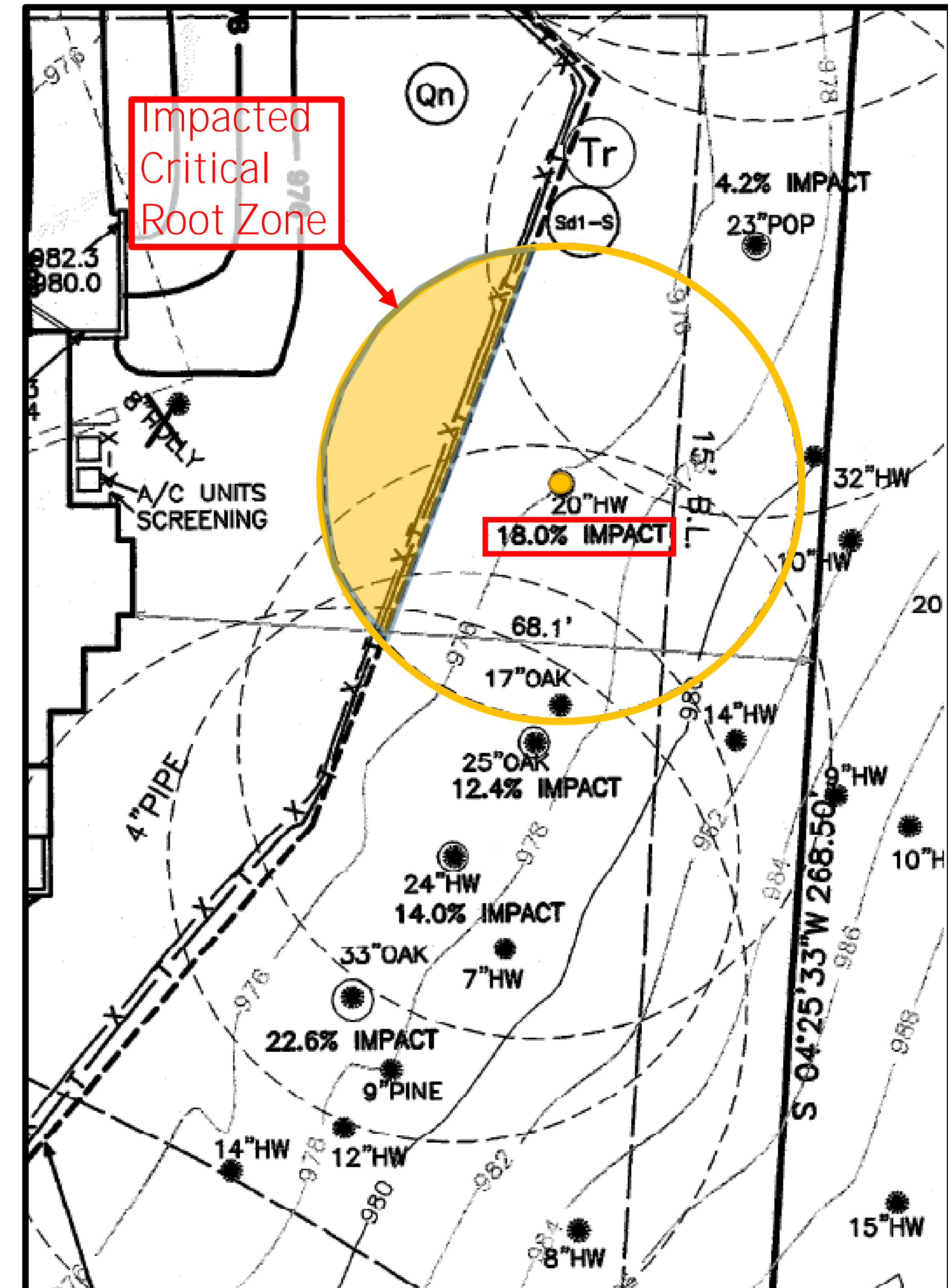
# Tree Canopy Requirement

- If you are already under your canopy requirements, you only mitigate and recompense for the Protected Trees that were removed or impacted over 25%.
- Protected **Trees** are trees that measure 18" in diameter or larger in fair or better condition.
- Only a Certified Arborist can determine if a tree is not in fair condition.



# Tree Canopy Requirement

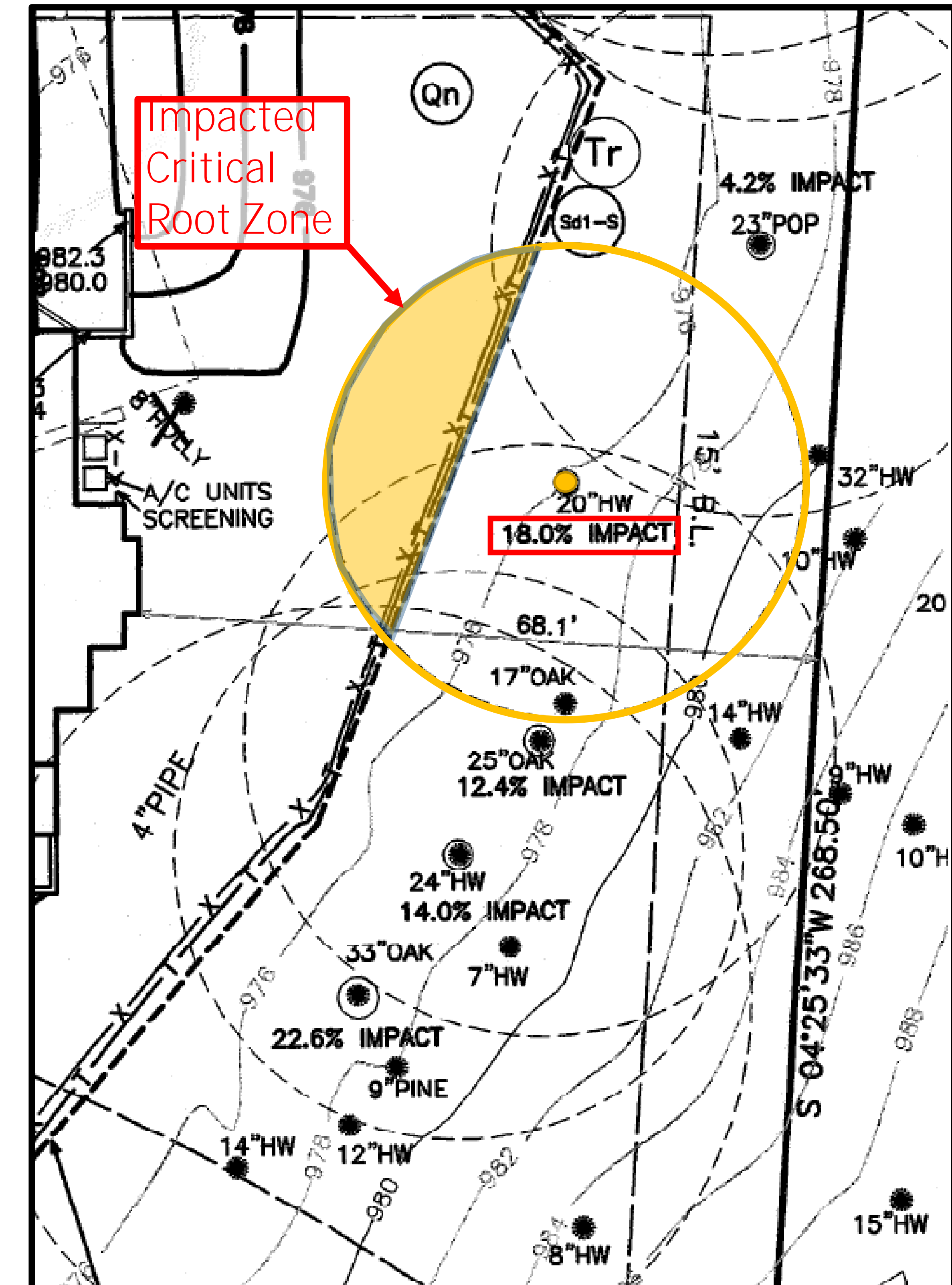
- You must submit a Site Plan that includes the following information:
  1. All trees on site, including their Diameter at Breast Height (DBH), species and location.
    - DBH is the standard for measuring trees and refers to the tree diameter measured at 4.5 feet above the ground.
  2. All Boundary Trees (any tree whose Critical Root Zone extends onto your property).
    - The Critical Root Zones of all impacted trees is represented at 1.25 feet per 1 inch of diameter size.





# Tree Canopy Requirement

- You must submit a Site Plan that includes the following (continued):
  3. The percentage levels of impact to the critical root zones (anything impacted over 25% is considered lost and does not count towards the Canopy Coverage).
  4. All trees proposed for removal shall be shown on the site plan and listed in an inventory.
  5. The standard details for tree save fencing and tree planting, if applicable shall be shown on the site plans.





# Tree Canopy Requirement

- You must submit a Site Plan that includes the following (continued):
  6. Canopy Coverage Chart if you are building an enclosed structure (Note: Decks and patios are exempt).
    - Protected Trees **are trees 18" in diameter and larger.**
      - Count for 1,000 square feet.
    - Protected Boundary Trees **are Boundary Trees over 18" in diameter that extend on to your property.**
      - Count for 1,250 square feet.
    - Landmark Trees (LM) **are hardwood trees 27" in diameter and larger as well as pine trees 30" in diameter and larger.**
      - Count for 1,250 square feet.



# Tree Canopy Requirement

- Sample Canopy Coverage Chart:

Single family residence with a lot size of 20,836 square feet:  
 $20,836 \times 0.35$  (35%) = 7,293 SF of required Tree Canopy Coverage

DBH	Species	Percentage of Impact	Removed?	Square Footage
18"	Hardwood	0%	No	1000
31"	Pine	3%	No	1250 (LM)
22"	Pine	27%	No, but considered lost.	0
19"	Pine	9%	No	1000
25"	Pine	0%	No	1000
28"	Hardwood	14%	No	1250 (LM)
19"	Hardwood	50%	Yes	1000
26"	Hardwood	21%	No	0

Prior Canopy	8,500 SF
Required Canopy	7,293 SF
Post Canopy	6,500 SF
Shortage	793 SF
Recompense	$793 \times \$1.20 = \$951.60$
Replanting	1 Tree (1,000 SF)

$6,500 \text{ SF} + 1,000 \text{ SF} = 7,500 \text{ SF}$

Canopy Requirements Satisfied





Decks



# Decks – Planning & Zoning Conditions

- Primary and Secondary Street Setbacks. Porches, raised entries, and stoops may encroach no more than 10 feet into a required setback, including steps, if such extension is at least 5 feet from the vertical plane of any lot line.
- Common Side and Rear Setbacks. Unenclosed patios, decks, terraces or fire escapes may encroach into a common side or rear setback, provided that such extension is at least 5 feet from the vertical plane of any common side lot line and 10 feet from any rear lot line.



# Decks – Submittal Requirements



# Submittal Requirements

- Original Submittal:
  - Complete set of construction documents including structural sheets
  - Include a cover page with the referenced Building Codes, design criteria, sheet index and key plan
  - Provide an electronic PDF file of all the construction documents on a USB thumb drive
- Revisions:
  - All revisions shall be clouded, dated and clearly labeled
  - Owner is responsible for inserting the revised sheets into the previously permitted set
  - Provide an updated electronic PDF file of all the construction documents including the revised sheets on a USB thumb drive



# Decks – Grading Limitations

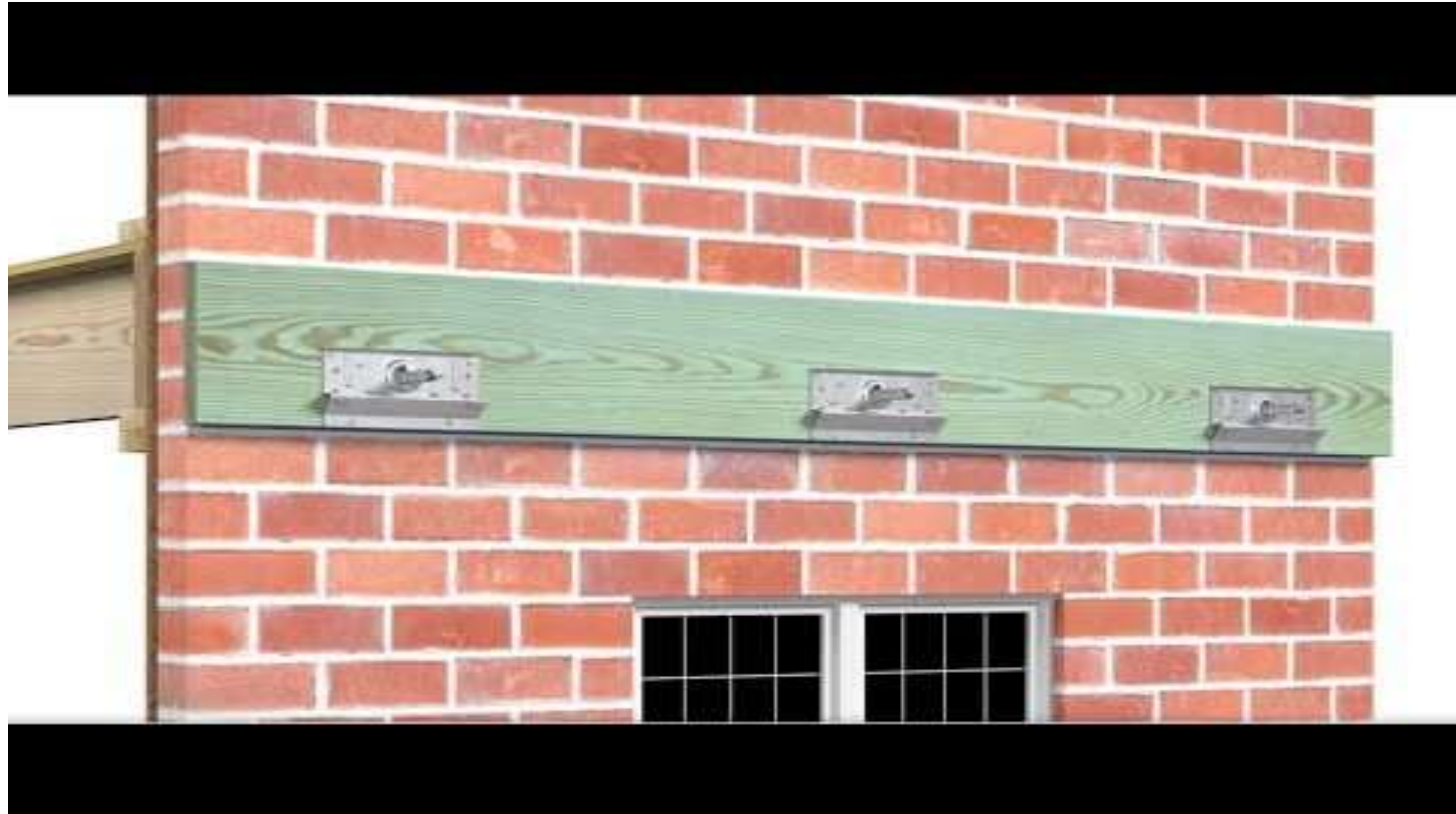


# Decks – Required Inspections

- General Inspection Notes
- ■ Keep copies of the permit and site plan posted in the permit box at the right of way.
- ■ Install erosion and sediment control measures and the tree protection fence according to the approved site plan and keep them maintained throughout demo/construction. Upon completion of BMP installation, contact your site inspector.
- ■ Any tracking of dirt, silt, mud, etc. onto the street will result in **an immediate “stop work order.”**
- ■ Prior to acceptance and issuance of the certificate of occupancy/completion, the as-built survey must be submitted for approval to the COSS Land Development Supervisor (email pdf to; Terrance Byrd [tbyrd@sandyspringsga.gov](mailto:tbyrd@sandyspringsga.gov)) Include the location of



# Decks – Ledger Attachment Through Brick Veneer





# Accessory Structures



# Accessory Structures – Planning & Zoning Conditions

- The Development Code Section 7.8.22 - Accessory Structures separates accessory structures into two categories:
  1. Minor Residential Accessory Structures – Typically associated with single-family residential uses that are not predominately intended for the shelter of humans or goods. Typically, minor residential accessory structures are smaller in size than major residential accessory structures and are unenclosed on three or more sides.
  2. Major Residential Accessory Structures - Typically associated with single-family residential uses that are predominately intended for the shelter of humans or goods. Typically, major residential accessory structures are enclosed on two or more sides.



# Accessory Structures – Planning & Zoning Conditions

	Minor Accessory Structure	Major Accessory Structure
Examples	Pergola, trellis, gazebo, outdoor fire place, fire pit, play structure, sport court, outdoor kitchen, tree house (unconditioned), detached carport, swimming pool, spa	<ul style="list-style-type: none"> <li>Cabana, pool house, detached garage, shed</li> </ul>
Location	<ul style="list-style-type: none"> <li>Allowed in side or rear yard (not front yard)</li> <li>Less Restrictive of the following:                             <ul style="list-style-type: none"> <li>a) No closer than the building setbacks (buildable area); or</li> <li>b) Must <b>be a minimum of 10'-0" from any</b> property line</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Allowed in side or rear yard (not front yard)</li> <li>If &gt;500 sq. ft.: must meet the building setbacks</li> <li>If &lt;500 sq. ft.: same as Minor Accessory Structure</li> </ul>
Height	<ul style="list-style-type: none"> <li><b>15' height max. (if located in the setbacks)</b></li> <li><b>24' height</b> max. (if in buildable area)</li> <li>Each façade must comply with height</li> </ul>	<ul style="list-style-type: none"> <li>Same as Minor Accessory Structure</li> </ul>



# Accessory Structures – Planning & Zoning Conditions

- A Guest House must meet the following criteria:
- No more than one guest house per lot allowed.
- A separate kitchen facility is allowed.
- Heated floor area must be less than 50% of the principal dwelling unit first-floor heated floor area, or must be less than 1,200 square feet, whichever is less.
- The location is limited to the rear yard and all building setbacks apply.
- Height may be no greater than 2 stories and 24 feet.
- A guest house may be located over a garage, provided its location and size meet the requirements of the use standards above.
- Only allowed in RE-1 & RE-2 zoning districts





# Accessory Structures – Submittal Requirements

- Per the International Building Code (IBC), a permit is not required for *one-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided that the floor area is not greater than 120 square feet.*
- Per the International Building Code (IRC), a permit is not required for “One-story detached accessory structures, provided that the floor area does not exceed 200 square feet.”
- If a permit is required, then the following plans shall be submitted:
  - Site Plan (including Lot Coverage and Tree Canopy Coverage calculations)
  - Floor Plans
  - Elevations & Sections
  - Structural Foundation Plan & Details
  - Structural Framing Plan & Details



# Accessory Structures – Submittal Requirements



# Submittal Requirements

- Original Submittal:
  - Complete set of construction documents including structural sheets
  - Include a cover page with the referenced Building Codes, design criteria, sheet index and key plan
  - Provide an electronic PDF file of all the construction documents on a USB thumb drive
- Revisions:
  - All revisions shall be clouded, dated and clearly labeled
  - Owner is responsible for inserting the revised sheets into the previously permitted set
  - Provide an updated electronic PDF file of all the construction documents including the revised sheets on a USB thumb drive



# Accessory Structures – Grading Limitations



# Accessory Structures – Required Inspections

1. Site Preconstruction Meeting – On-site inspection to verify that all sediment and erosion control measures, construction drives and tree save fences are installed per the approved erosion control plan. The permit card must be posted in a weatherproof enclosure, visible from the street, with a copy of the approved construction drawings and the allowable City work hours clearly posted. This inspection is required prior to any of the following inspections.
2. Building Preconstruction Meeting – Schedule a preconstruction meeting with the City of Sandy Springs to review the required building inspections and expectations, order of inspections, OSHA safety compliance and Certificate of Occupancy (CO) requirements.





Pools



# Pools – Submittal Requirements

- All swimming pools must be completely surrounded by an enclosure that meets the requirements of the International Swimming Pool and Spa Code as well as the requirements in [Sec. 8.2.10](#). The enclosure must be in place prior to pool completion. Materials and construction must comply with the regulations administered by the Fulton County Health Department.



# Submittal Requirements

- Original Submittal:
  - Complete set of construction documents including structural sheets
  - Include a cover page with the referenced Building Codes, design criteria, sheet index and key plan
  - Provide an electronic PDF file of all the construction documents on a USB thumb drive
- Revisions:
  - All revisions shall be clouded, dated and clearly labeled
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# Subdivision (Division 11.4)

- Conceptual Plan (Preliminary Plat)
  - Large development
  - Compatible uses
  - Connectivity
  - Guides LDP
- Final Plat
  - Plat with all legal info
  - Boundary info
  - Certification info
- Minor Plat
  - Subdividing of 3 lots or less



# Permit Types (Division 11.5)

- Land Disturbance Permit (LDP) – comprehensive site plan (existing/proposed, wall heights, HVAC, lot calculations, trees, etc.)
- Building Residential
  - BR – within parameters of LDP, vertical plans & site plan
- Building Commercial
  - BC – within parameters of LDP, vertical plans & site plan



# Permit Types (Division 11.5) (cont.)

- Demo – required prior to any new build at same location
  - Only reviewed by Environmental Officer
- Pool – often concurrent w/ LDP (Int. Pool & Spa Code, screening, etc.)
- RW – retaining walls, as discussed already, typically with LDP
- (FN) Fences and (SG) Signs



# Pools – Submittal Requirements



\* High output 110-115 dB alarm when children enter through door or gate

\* BYPASS button provides adult only pass through

\* Weather/water resistant construction allows use exterior gates or house

\* Additional BYPASS button delayed entry from either door or fence

\* Additional magnetic door exit/entry

\* 9 volt battery operation (sold separately)

\* Low battery LED display

\* 3 YEAR WARRANTY

Model S187D



# Pools – Planning & Zoning Conditions

- Pools are minor ASS
- 7.8.2.2
- Sec. 7.8.22. - Accessory Structures
- A. Residential accessory structures, minor 1. Defined and Basic Use Standards Improvements typically associated with single-family residential uses that are not predominately intended for the shelter of humans or goods. Typically, minor residential accessory structures are smaller in size than major residential accessory structures, and are unenclosed on three or more sides. Examples include:
  - - Pergola, trellis, gazebo



# Pools – Grading Limitations



# Pools – Required Inspections



# Pools – Required Inspections

1. Site Preconstruction Meeting – On-site inspection to verify that all sediment and erosion control measures, construction drives and tree save fences are installed per the approved erosion control plan. The permit card must be posted in a weatherproof enclosure, visible from the street, with a copy of the approved construction drawings and the allowable City work hours clearly posted. This inspection is required prior to any of the following inspections.
2. Building Preconstruction Meeting – Schedule a preconstruction meeting with the City of Sandy Springs to review the required building inspections and expectations, order of inspections, OSHA safety compliance and Certificate of Occupancy (CO) requirements.



# Retaining Walls



# What Is A Retaining Wall?

- Retaining walls are relatively rigid walls used for supporting soil laterally so that it can be retained at different levels on the two sides.
- A freestanding structure without lateral support at its top. These are cantilevered from a footing and rise above the grade on one side to retain a higher level grade on the opposite side. The walls must resist the lateral pressures generated by loose soils or, in some cases, water pressures.
- Retaining walls are designed to restrain soil to a slope that it would not naturally keep to (typically a steep, near-vertical or vertical slope). They are used to bound soils between two different elevations often in areas of terrain possessing undesirable slopes or in areas where the landscape needs to be shaped severely and engineered for more specific purposes. A retaining wall is a structure designed and constructed to resist the lateral pressure of soil when



# Residential Retaining Wall (Section 9.4.3)

- 0'-4': No permit required for the wall, Land Disturbance Permit may be necessary
  - 12"-36": Knee wall, landscape wall, garden wall (No permit)
- >6': Wall must be tiered
  - Tiers must be separated by at least 4'
- Retaining walls have required setbacks from the side and rear property lines
  - Setbacks are specific to zoning district



# Retaining Walls – Submittal Requirements



# Submittal Requirements

- Original Submittal:
  - Complete set of construction documents including structural sheets
  - Include a cover page with the referenced Building Codes, design criteria, sheet index and key plan
  - Provide an electronic PDF file of all the construction documents on a USB thumb drive
- Revisions:
  - All revisions shall be clouded, dated and clearly labeled
  - Owner is responsible for inserting the revised sheets into the previously permitted set
  - Provide an updated electronic PDF file of all the construction documents including the revised sheets on a USB thumb drive



# Retaining Walls – Submittal Requirements



# Retaining Walls – Planning & Zoning Conditions

- Sandy Springs Development Code Section 9.4.3. - Retaining Walls
  - Max height in Residential = 6'-0" (RE, RD, RU Zoning District)
  - Max height in Commercial = up to 8'-0" as a single wall
  - If you are retaining more soil than the maximum allowable retaining wall height, then you may use up to maximum height tiered retaining walls with **4'-0" horizontal separation.**
  - There are separate setback requirements by zoning
  - All retaining walls shall be finished with brick, stone, or stucco and the colors shall be natural earth tones (whites, blacks, and browns)
  - Architectural Segmented or Modular block is allowed but must be installed **per the specific manufacturer's** specifications (Please note that the City prefers block to be straight faced (no beveled corners))



# Retaining Walls – Planning & Zoning Conditions

- Where retaining walls are necessary, they are limited as follows:
  - Retaining walls shall be separated horizontally by at least 4 feet from other retaining walls. This horizontal separation area must be graded to capture stormwater and not sloped such that stormwater will run off.
  - Each tier between retaining walls must be vegetated and maintained with a mix of native, evergreen and deciduous shrubs, to be approved by the City Arborist, as follows:
    - One shrub every 4 linear feet
    - The Director may waive this landscaping standard for retaining walls that slope back and contain natural planting.



# Retaining Walls – Planning & Zoning Conditions

- How are the heights measured?
  - Total retaining wall height is considered to be the vertical distance between finished grade level at the front of the wall and the grade level at the back of the wall at the same section.
  - Any portion of a retaining wall extending above the finished grade is considered to be a fence or wall, subject to the requirements of Sec. 8.2.10.
  - RE-, RD- and RU- Districts In order to protect trees and vegetation on sites and to protect the character of the neighborhood, the following standards apply to all lots in RE-, RD- and RU- Districts.
    1. In the side building setbacks:
      - a) In all RE- districts, retaining walls may encroach up to 10 feet into required side building setbacks.
      - b) In all RD- districts, retaining walls may encroach up to half the



# Retaining Walls – Grading Limitations

- Permit not required for retaining walls that are not over 4 feet in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding hazardous liquids.
- Retaining walls shall be designed to ensure stability against overturning, sliding, excessive foundation pressure and water uplift.
- Retaining walls shall be designed to resist the lateral action of soil to produce sliding and overturning with a minimum safety factor of 1.5 in each case.
- Design shall be based on 0.7 times nominal earthquake loads, 1.0 times other nominal loads, and investigation with one or more of the variable loads set to zero.
- The safety factor against lateral sliding shall be taken as the available soil resistance at the base of the retaining wall foundation divided by



# Retaining Walls – Required Inspections

1. Retaining Wall Foundation – All foundation dimensions, reinforcement, embeds, etc. shall be approved prior to placement of concrete. Note: Retaining wall foundation inspections will be performed separately but can be scheduled at the same time as the building and deck foundation inspections. Third party foundation inspections are allowed.
2. Retaining Wall Reinforcement – All retaining wall reinforcement shall be inspected prior to being fully enclosed in the concrete forms and/or filled with concrete/grout. No concrete forms are required to be installed for this inspection. For CMU walls, all vertical reinforcement shall be visible and tied to the bond beam located at the top of the CMU wall. Third party retaining wall reinforcement inspections are allowed.



# Retaining Walls – Required Inspections

3. Retaining Wall Form – For concrete walls only. After the retaining wall reinforcement has been approved and all the concrete forms have been installed, a retaining wall form inspection will be required to verify the correct wall thickness and placement of reinforcement within the wall. Third party foundation wall form inspections are allowed.
4. Retaining Wall Final – All retaining walls shall be installed and faced with the City approved veneer. All guardrails shall be installed where **the retaining walls are more than 30" above the lower grade measured anywhere within 36" horizontally from the face of the wall.**

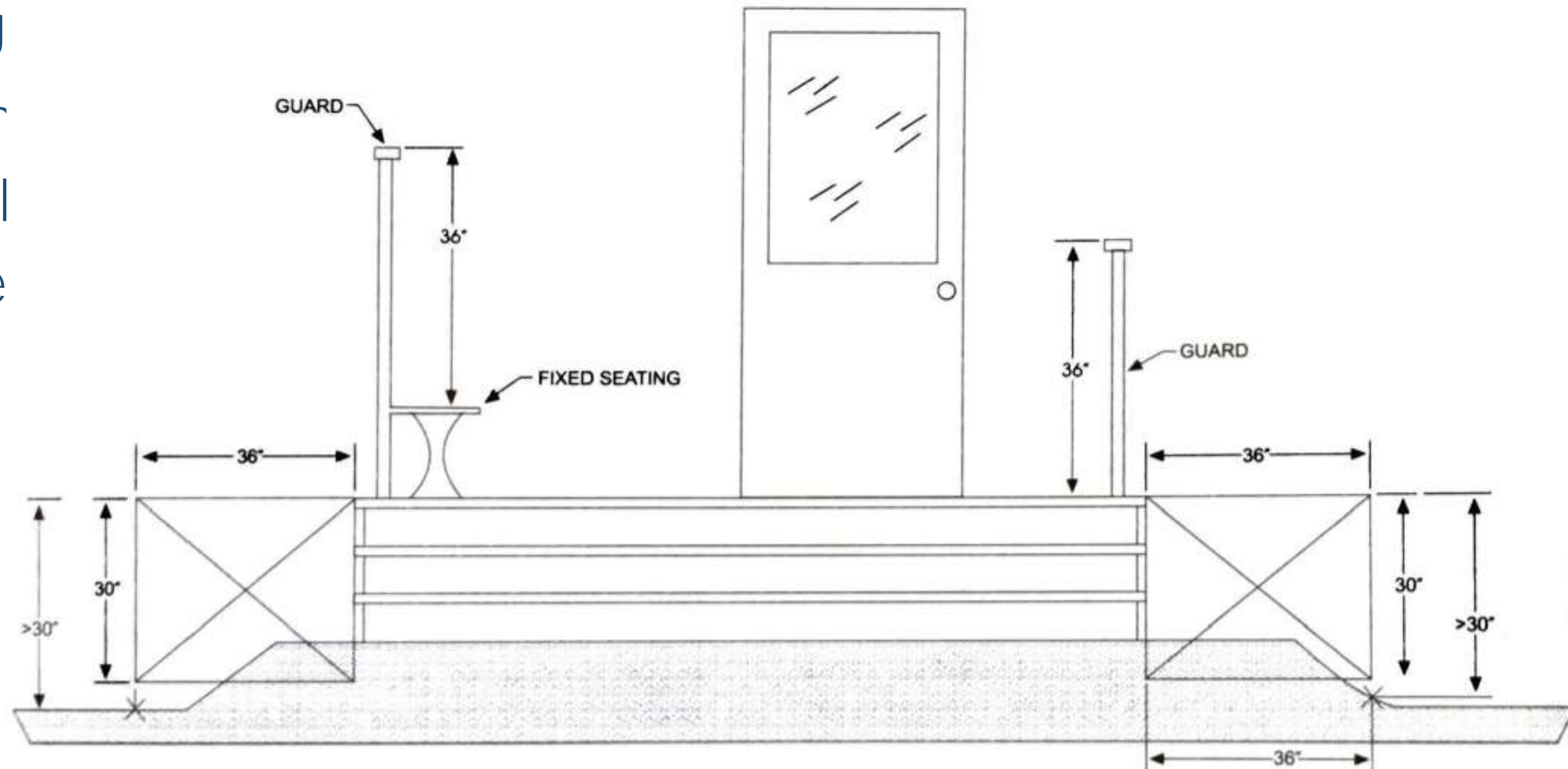
Note: For segmental retaining walls, a certification letter from the installer/manufacture shall be submitted stating that the wall was **installed per the manufacturer's specifications and details.**



# GUARDRAILS

- Guards shall be located along open sided walking surfaces (including stairs, ramps and landings) that are located **more than 30"** above the floor or grade below **any point within 36"** horizontally to the edge of the open side.

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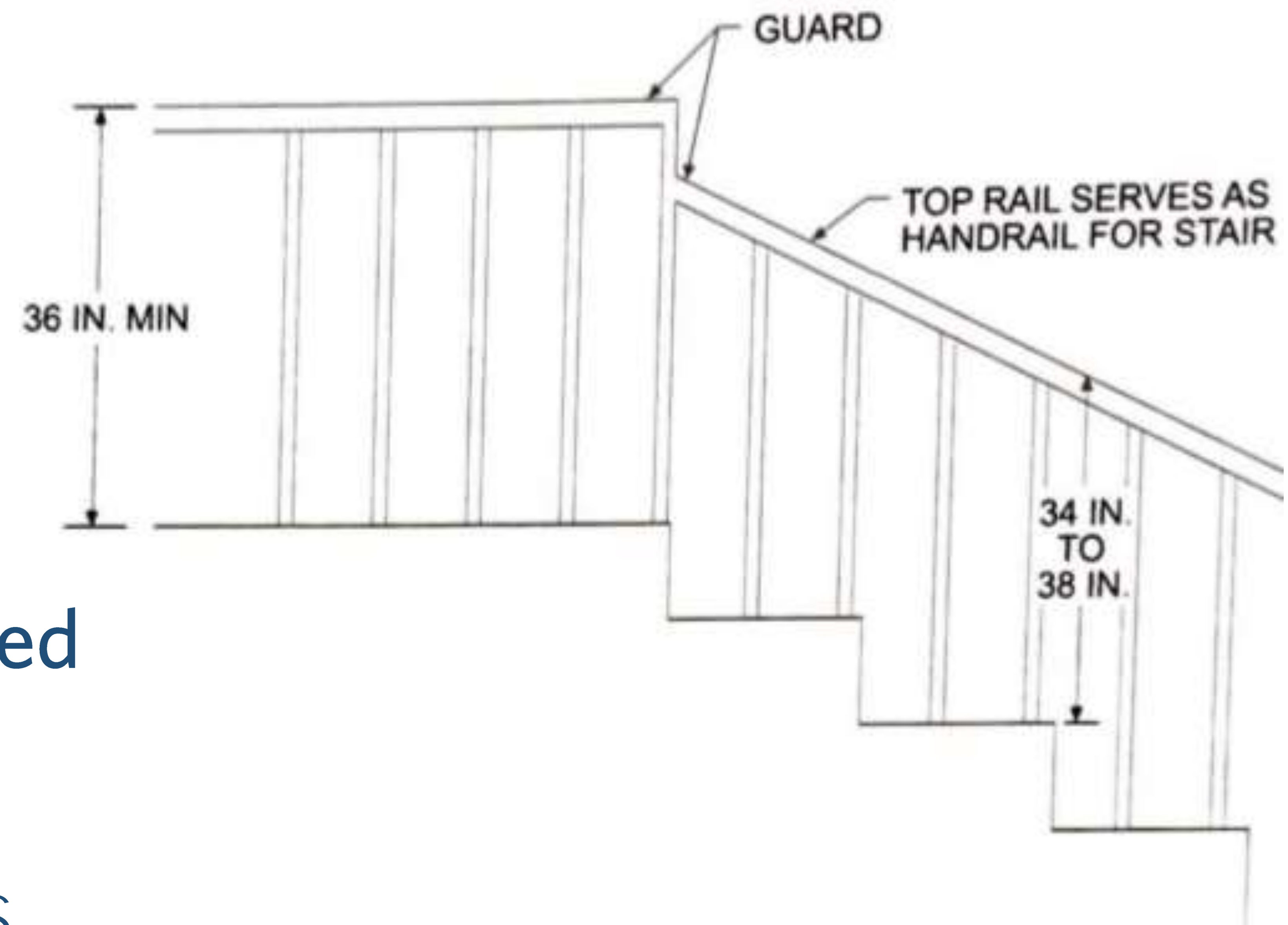
# GUARDRAILS

- Guards shall be located along open sided walking surfaces that are located **more than 30" above the floor** or grade below any point within 36" horizontally to the edge of the open side.
- Minimizes the possibility of a fall from the walking surface to a lower level
- Guards shall be designed to resist a linear load of 50 pounds per linear foot and a concentrated load of 200 pounds.
- Commercial Height = Shall be not less than 42 inches high, measured vertically from the adjacent walking surfaces.
- Residential Height = Shall be not less than 36 inches high, measured vertically from the adjacent walking surfaces.



# GUARDRAILS

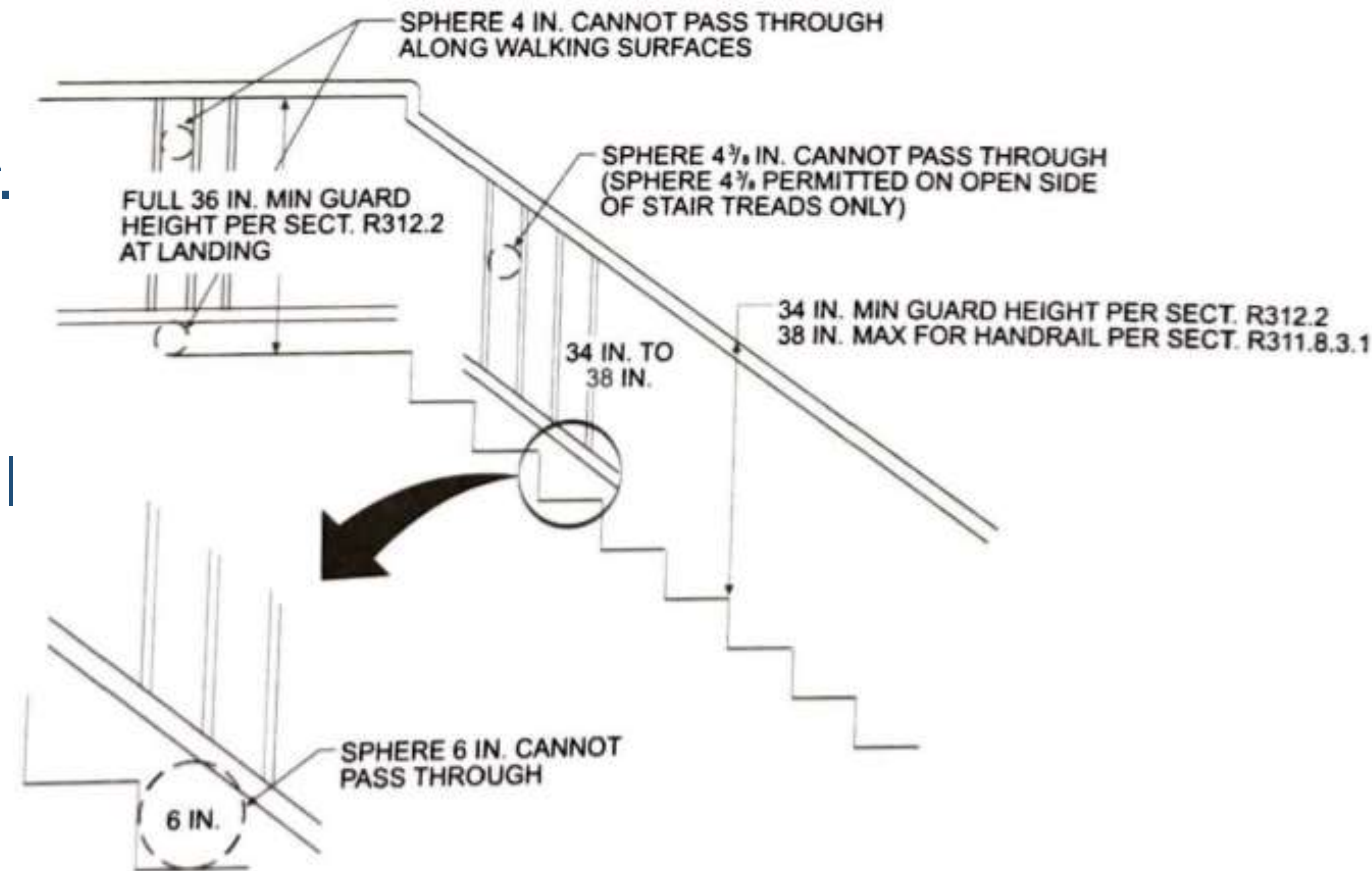
- **Guards shall not be less than 36" high** measured vertically above the walking surface, adjacent fixed seating or the line connecting the leading edges of treads.
- Exceptions:
  1. Guards on the open side of stairs shall **have a height not less than 34" measured** vertically from a line connecting the leading edges of the treads.
  2. Where the top of the guard also serves as a handrail on the open side of stairs, the top of the guard shall not be less than **34" and not more than 38" measured** vertically from a line connecting the leading edges of the treads.





# GUARDRAILS

- Guards shall not have openings from the walking surface to the required guard height which allow **passage of a sphere 4" in diameter.**
- Exceptions:
  1. The triangular opening at the open side of stairs formed by the riser, tread and bottom rail of a guard shall not allow **passage of a sphere 6" in diameter.**
  2. Guards on the open side of stairs shall not have openings which allow passage of a sphere 4- **$\frac{3}{8}$ " diameter.**





# Inspection Guidelines



# Inspection Guidelines

- Required inspections must be requested prior to concealment of work.
- Concealment of work without required inspections will result in the inspection being rejected.
- Rejected inspections are subject to a \$250 penalty fee and require a Building Official review on site.
- Failed inspections are subject to a \$75 re-inspection fee.
- Subsequent inspections cannot commence without passing the previous required inspection.



# Inspection Guidelines (cont.)

- Work completed without a permit are subject to the following:
  - Possible fine and/or ticket
  - Required to apply for a permit for the unpermitted work
    - Plan review and approval
  - Subject to double permit fees
  - Require a Building Official review on site
    - Removal of existing finishes as necessary to verify code compliance of the concealed scope of work to the satisfaction of the Building Official



# Certificate of Completion



# Certificate of Completion (CC)


- A Certificate of Completion shall be applied for by the applicant and issued by the City after the project has passed the following inspections:
  - Final Building Combo (always required)
  - Final Site Inspection (always required)
  - Approved As-Built Survey (always required except for one-story accessory structures not greater than 120 square feet *or* like-for-like deck replacements; may vary case by case)
  - Final Fire Inspection (not required for residential)
  - Final Zoning Inspection (only required to verify compliance with any conditional variances to the zoning regulations that have been agreed upon during the permit review process.



# Future Seminar Topics



# Future Seminar Topics

- The *New EnerGov* Citizen Self Service (CSS) – *Coming Soon!*
  - Replacing the old Contractor Access Portal (CAP)
- 2018 International Building Code Updates
  - Wednesday, January 15, 2020
- Proper Anchor, Strapping and Holdown Installations
  - Collaboration with Simpson Strong-Tie 
- Common Construction Mistakes
  - Collaboration with The Engineered Wood Association 





Questions?