



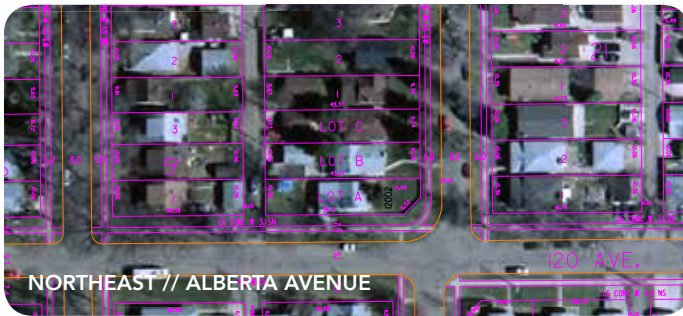
UNDERSTANDING THE IMPACT OF EXISTING AND POTENTIAL MNO  
REGULATIONS ON CURRENT ADJACENT NEIGHBOURS AND STREETScape

NOVEMBER 2015

## Mature Neighbourhood Overlay Regulations of the Edmonton Zoning Bylaw 12800 in Visual Graphics



WHERE NEIGHBOURS MEET  
and GREAT THINGS HAPPEN  
EDMONTON FEDERATION OF COMMUNITY LEAGUES



Refer to Appendix page 16-19 for larger images

There has been an increasing demand in developing new infills in mature neighbourhoods. To best understand the impact of the current and potential bylaw changes for Mature Neighbourhood Overlay (MNO) within the existing mature neighbourhoods of Edmonton, Alberta in 2015, a Mature Neighbourhood Site Plan and Typical Infill Prototype will be used as the basis to graphically illustrate the issues.

The bylaw regulations that will be discussed in this document are:

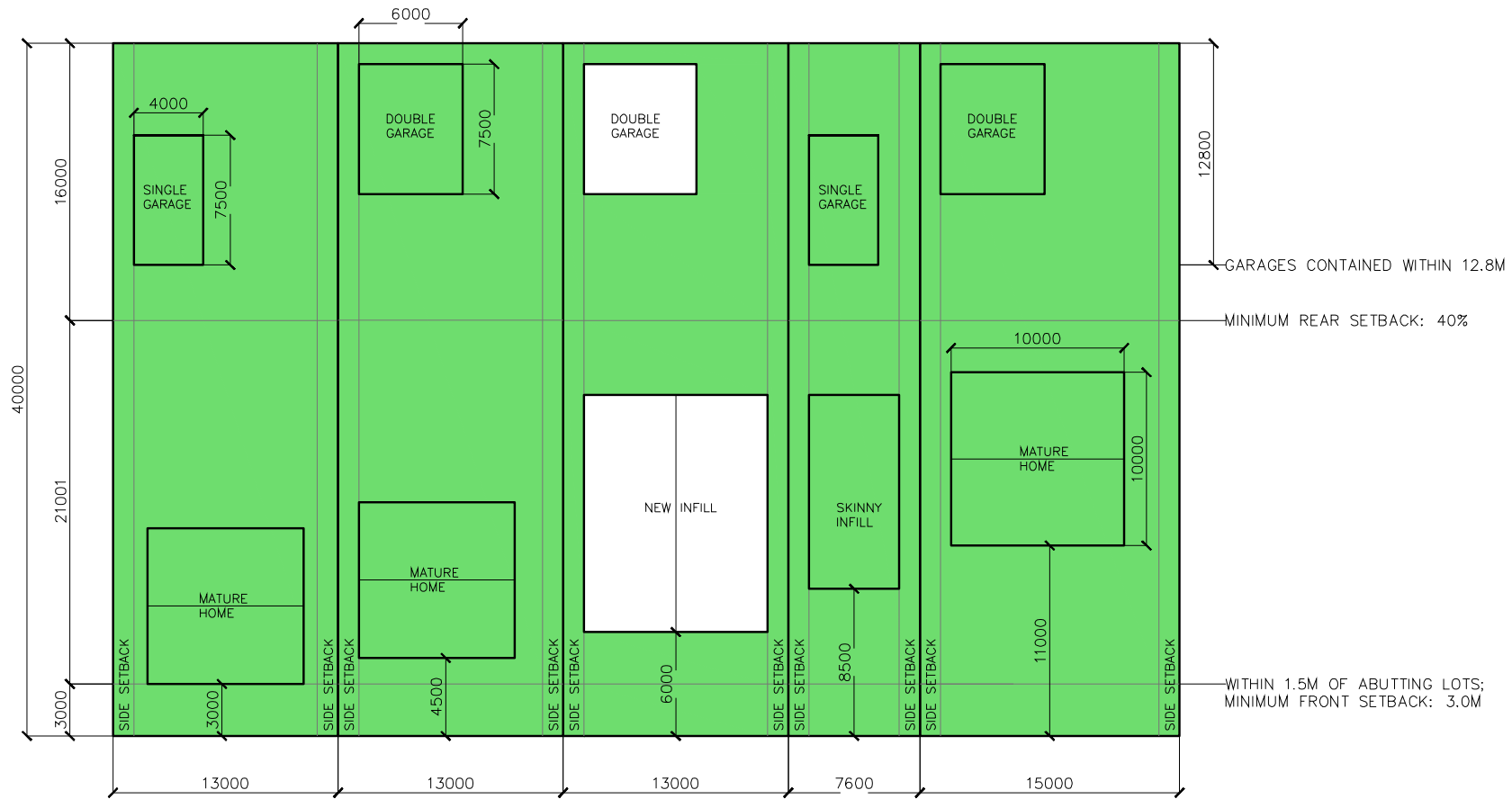
- Height Regulation
- Third Floor Area
- Front Setback
- Rear Setback
- Garage Suite Height
- Garage Suite Distance

The Mature Neighbourhood Site Plan and Typical Infill Prototype were derived from examining the property sizes, housing type, and setbacks of mature neighbourhoods from each quadrant in the city as well as the Bylaw regulation #12800 for the MNO and Single Detached Housing (RF1). The purpose is to create a model that resembles the existing "real life" mature neighbourhood.

The Mature Neighbourhood Observation Study showed:

- Common Property Width: 7.6m, 10.0m, 15.0m, up to 24.0m
- Common Property Depth: 35m, 40m
- Mature Front Setback Range: 3m - 14m
- Mature Housing Type: Single Detached
- Mature Housing Height Range: 5.5m - 8.6m
- New Infill Roof Type: Gable, Flat, Shed, Combination
- New Infill Housing Height: 8.6m (2 1/2 and 3 Storeys)
- Single Garage Dimensions: 4m X 7.5m
- Double Garage Dimensions: 6.5m X 7.5m

**BEFORE WE BEGIN...**  
 INTRODUCTION AND MATURE NEIGHBOURHOOD OBSERVATION STUDY  
 SET WITHIN THE ZONING BYLAW #12800 FOR MNO AND SINGLE DETACHED HOUSING



SITE PLAN



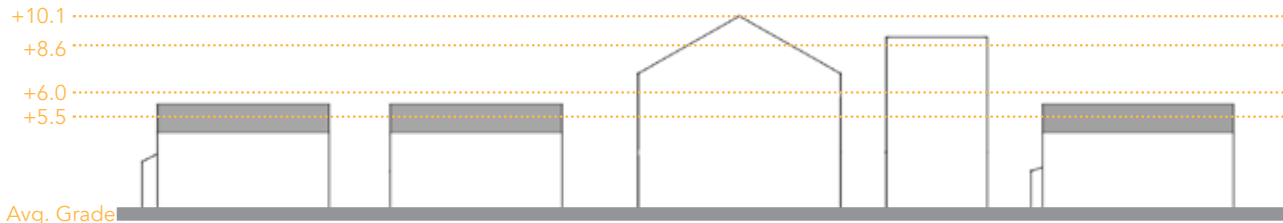
LOT A  
MATURE HOME  
9.0M X 9.0M  
  
SINGLE GARAGE  
4.0M X 7.5M  
  
FRONT SETBACK 3.0M

LOT B  
MATURE HOME  
9.0M X 9.0M  
  
DOUBLE GARAGE  
6.0M X 7.5M  
  
FRONT SETBACK 4.5M

LOT C  
TYPICAL INFILL PROTOTYPE  
BUILT TO CURRENT MNO  
REGULATION  
10.6M X 18.0M  
  
DOUBLE GARAGE  
6.5M X 7.5M  
  
FRONT SETBACK 6.0M

LOT D  
SKINNY INFILL  
BUILT TO CURRENT  
MNO REGULATION  
5.2M X 11.2M  
  
SINGLE GARAGE  
4.0M X 7.5M  
  
FRONT SETBACK 8.5M

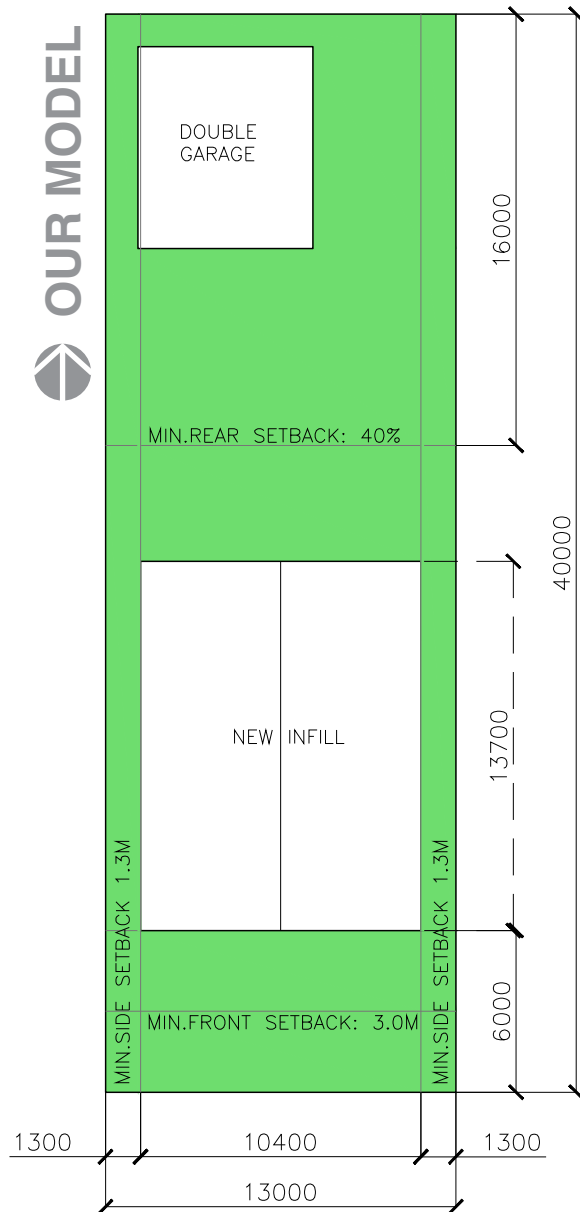
LOT E  
MATURE HOME  
10.0M X 10.0M  
  
DOUBLE GARAGE  
6.0M X 7.5M  
  
FRONT SETBACK 11.0M



SOUTH ELEVATION

**BEFORE WE BEGIN...**  
TYPICAL MATURE NEIGHBOURHOOD SITE PLAN

BASED ON MATURE NEIGHBOURHOOD OBSERVATION STUDY AND MNO AND SINGLE DETACHED HOUSING REGULATION



TYPICAL INFILL PROTOTYPE

PLAN VIEW

BYLAW REQUIREMENT: Single Detached Housing (RF1) and MNO Regulations.	INFILL PROTOTYPE
Site Area:	
a) minimum Site area shall be 250.8 sqm	520 sqm
b) minimum Site width shall be 7.6 m	13.0 m
c) minimum Site depth shall be 30.0 m	40.0 m
Maximum Site Coverage shall be 28% for Single Detached Housing greater than 300 sqm, and 12% for Garage	complies
Front Setback shall be consistent within 1.5 m of the Front Setback on Abutting Lots; and shall not be less than 3.0m.	6.0 m
The minimum Rear Setback shall be 40% of site property	yes
The Side Setbacks shall total at least 20% of the Site Width with a minimum Side Setback of 1.2 m	1.3 m
The minimum distance from the Rear Lot Line to a detached Garage where the vehicle doors face the Lane shall be 1.2 m.	1.2 m
Rear attached Garages shall not be allowed	complies
A rear detached Garage shall be fully contained within the rear 12.8 m of the Site.	complies

**BEFORE WE BEGIN...**  
TYPICAL INFILL PROTOTYPE MODEL

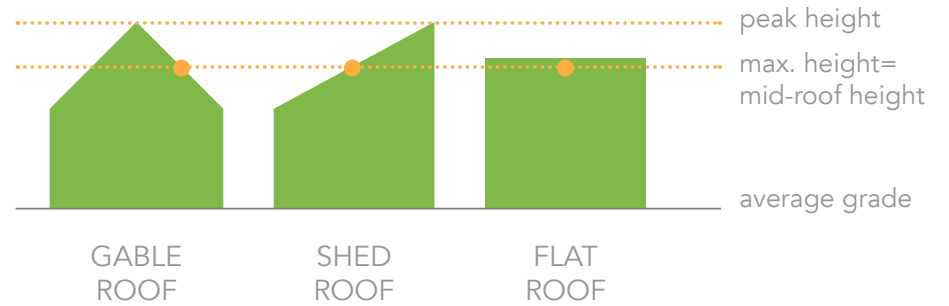
BASED ON MATURE NEIGHBOURHOOD OBSERVATION STUDY AND MNO AND SINGLE DETACHED HOUSING REGULATION

# HEIGHT REGULATION

The maximum Height is the maximum mid-roof height determined by the average of the highest and lowest point of the roof.

According to the MNO of the Zoning Bylaw #12800 | 814.3.13, the maximum Height shall not exceed 8.6m; and the maximum peak height shall not exceed 10.1m.

In this section, we will examine the impact of the current, more permissive, and less permissive conditions of the height regulation of a 3 Storey Gable Roof Infill situated on North/South and West/East axis.

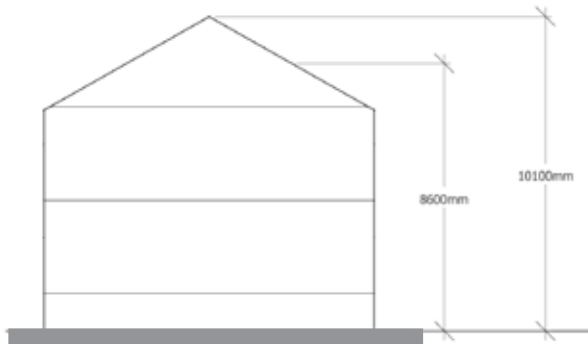


note: please see Bylaw 12800.52 for more detail on calculating maximum height of roof styles.

## BYLAW 814.3.13 CURRENT HEIGHT REGULATION

Maximum Height shall not exceed 8.6 m.

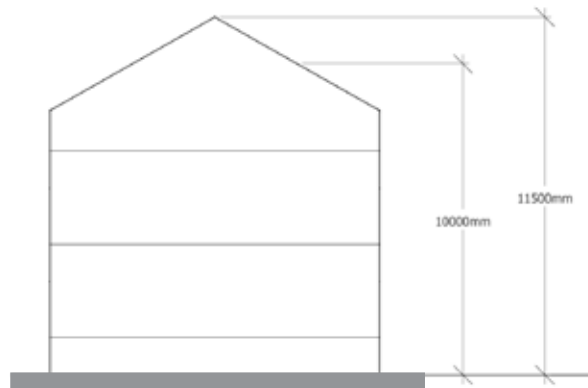
Maximum Peak Height is 10.1 m.



## MORE PERMISSIVE OPTION

Maximum Height shall not exceed 10.0 m.

Maximum Peak Height of 11.5 m



## LESS PERMISSIVE OPTION

Maximum Height is 1.5 m above average maximum mid-roof height of adjacent buildings.

Minimum Height of 7.6 m is guaranteed up to a max. of 10.0 m.



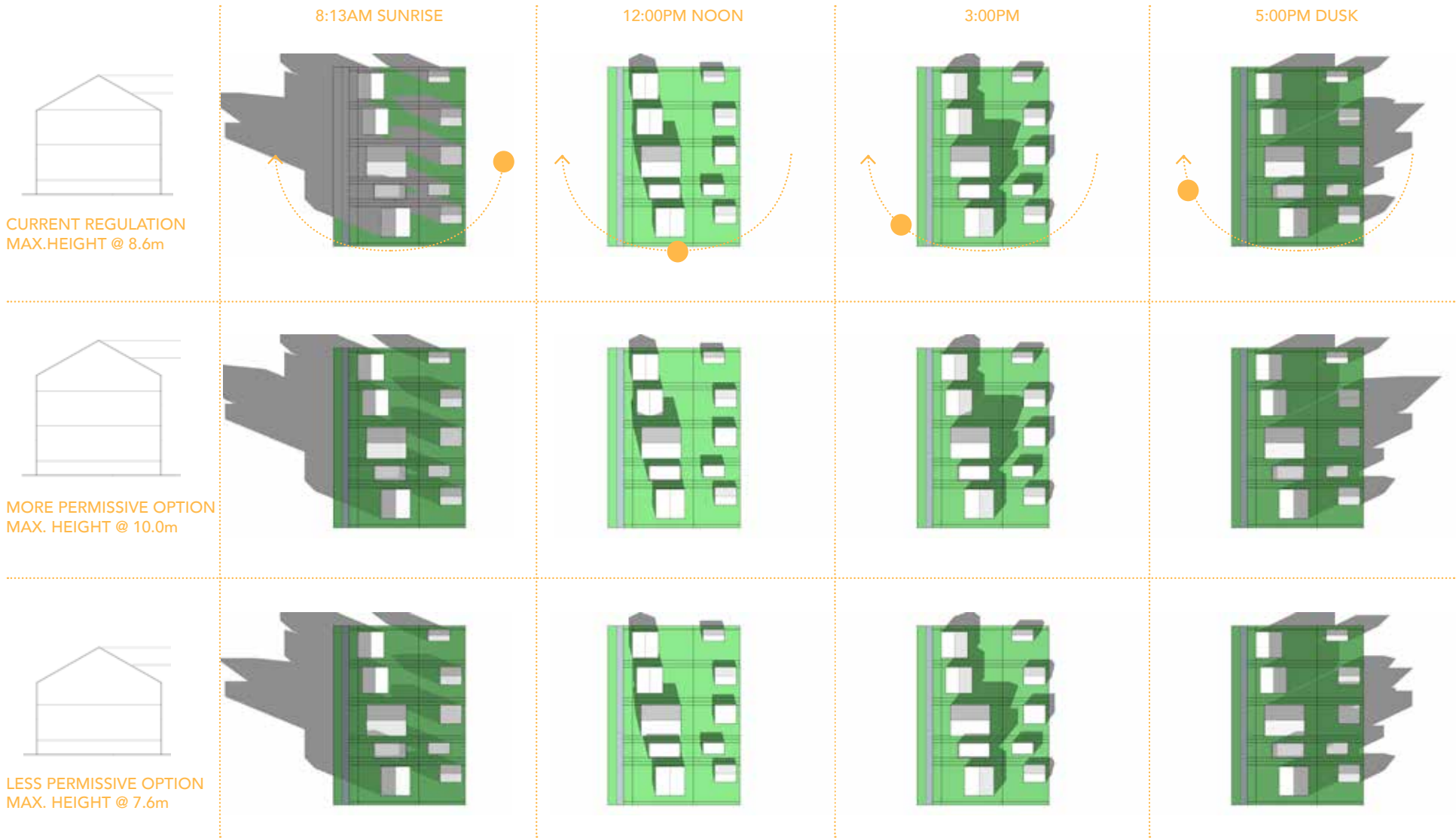




EDMONTON, AB | UTC-6:00 | OCTOBER 21

 **SUN SHADOW STUDY FOR NORTH/SOUTH FACING LOCATION**  
SUMMARY CHART





EDMONTON, AB | UTC-6:00 | OCTOBER 21



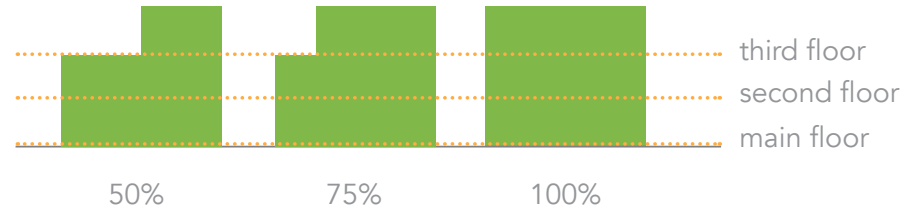
**SUN SHADOW STUDY FOR WEST/EAST FACING LOCATION**  
SUMMARY CHART



# THIRD FLOOR AREA

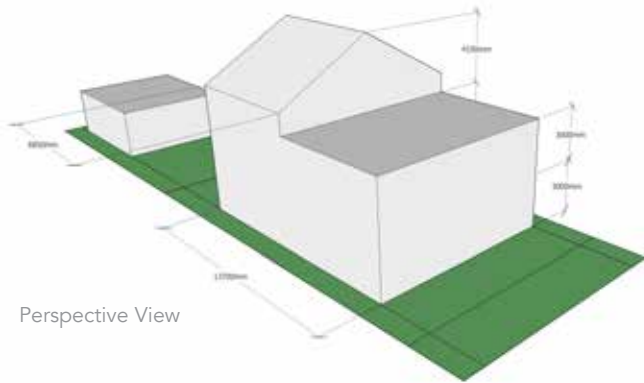
According to the MNO of the Zoning Bylaw #12800 | 814.3.14, the Floor Area of the upper half Storey of a 2 1/2 Storey building shall not exceed 50% of the structure's second Storey Floor Area

In this section, we will examine the impact of the current, more permissive, and less permissive conditions of the third floor area using the Gable Roof Type with maximum Height of 8.6m.



## BYLAW 814.3.14 CURRENT THIRD FLOOR REGULATION

The Floor Area of the upper half storey of the 2 1/2 Storey building shall not exceed 50% of the structure's second Storey Floor Area.



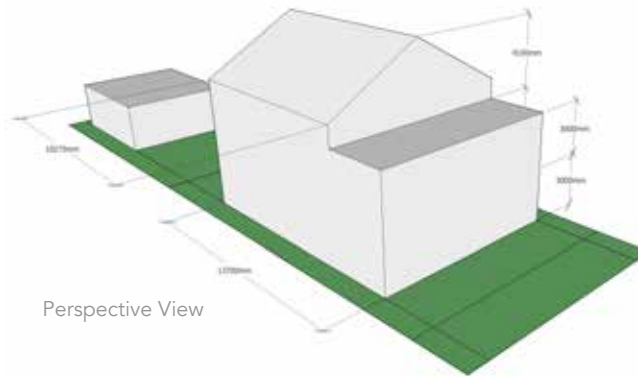
Perspective View



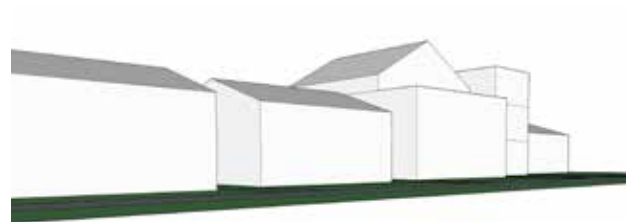
Street View

## MORE PERMISSIVE OPTION A

75% of the second Storey Floor Area



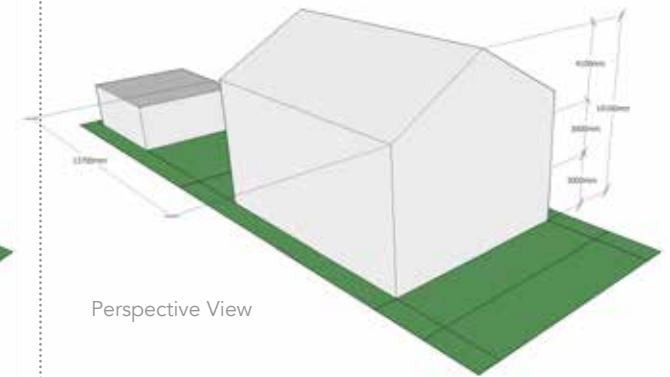
Perspective View



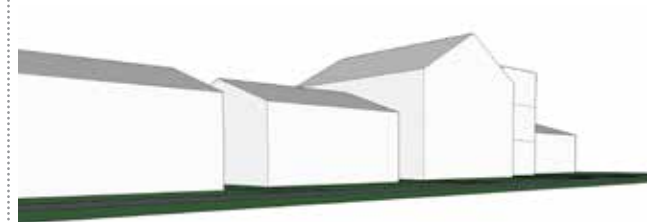
Street View

## MORE PERMISSIVE OPTION B

100% of the second Storey Floor Area



Perspective View



Street View

BYLAW 814.3.14  
CURRENT THIRD FLOOR REGULATION

---

The Floor Area of the upper half storey of the 2 1/2 Storey building shall not exceed 50% of the structure's second Storey Floor Area.





BYLAW 814.3.14  
MORE PERMISSIVE OPTIONS

---

75%-100% of the second Storey Floor Area

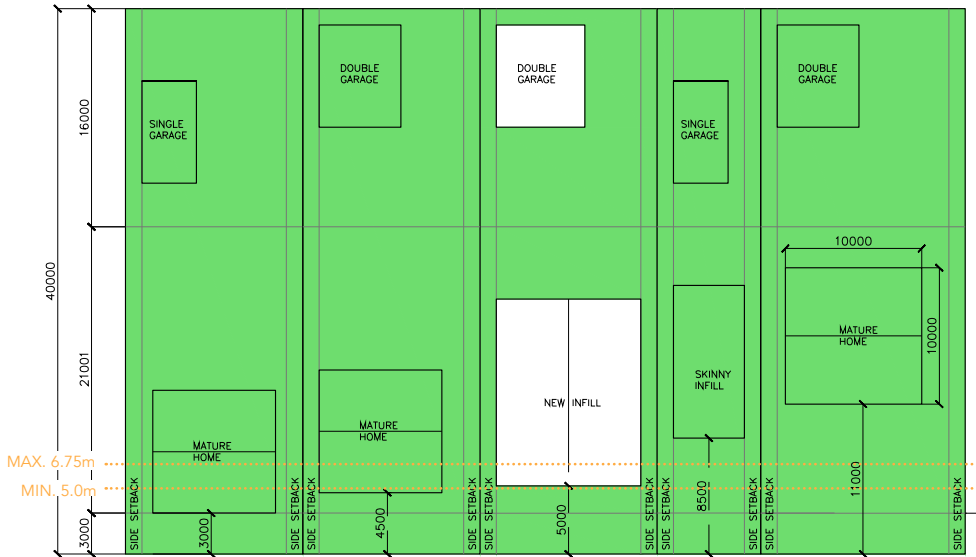


# FRONT SETBACK

## BYLAW 814.3.1 CURRENT FRONT SETBACK REGULATION

The Front Setback shall be consistent within 1.5 m of the Front Setback on Abutting Lots and with the general context of the block face. The Front Setback shall not be less than 3.0m and shall not be more than 6.0m.

The average Front Setback between the abutting lots plus 1.5m allows the Front Setback of the New Infill to be within the range of 5.0m-6.75m (See Appendix page 36 for calculation.)



Top View

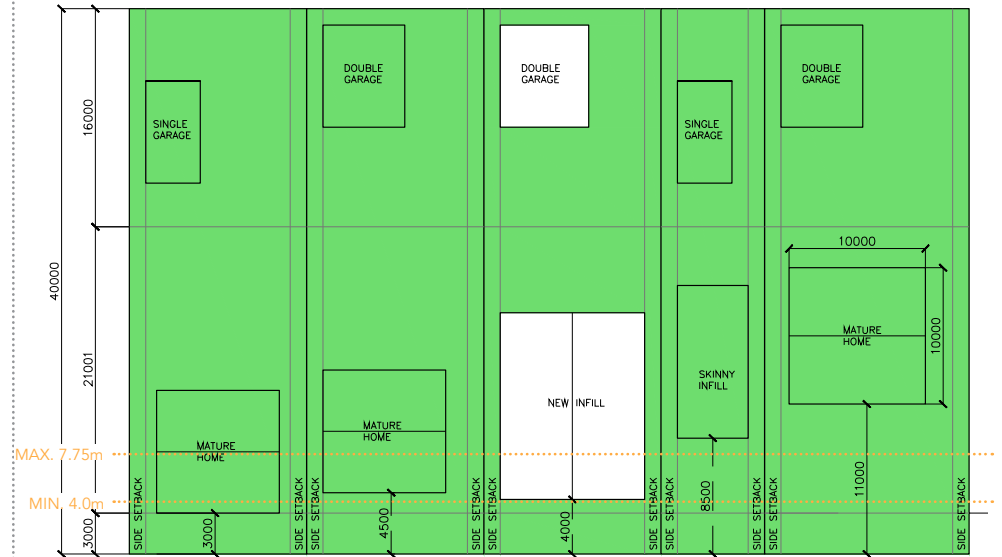


Street View

## MORE PERMISSIVE OPTION

Within 2.5 m of the Front Setback on Abutting Lots.  
The Front Setback shall not be more than 8 m.

The average Front Setback between the abutting lots plus 2.5m allows the Front Setback of the New Infill to be between 4.0m-7.75m (See Appendix page 36 for calculation.)



Top View

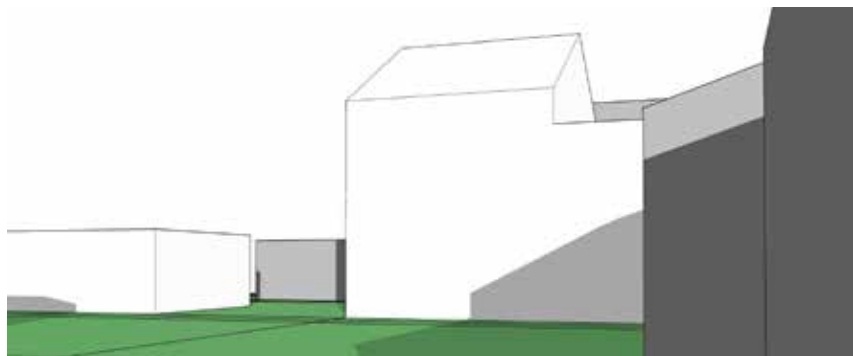
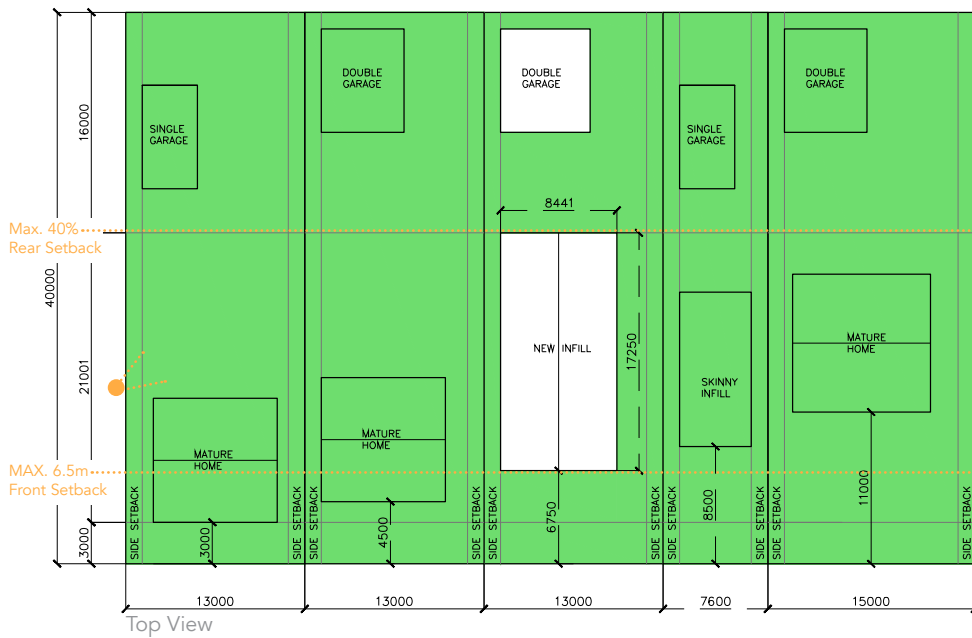


Street View

# REAR SETBACK

## BYLAW 814.3.5 CURRENT REAR SETBACK REGULATION

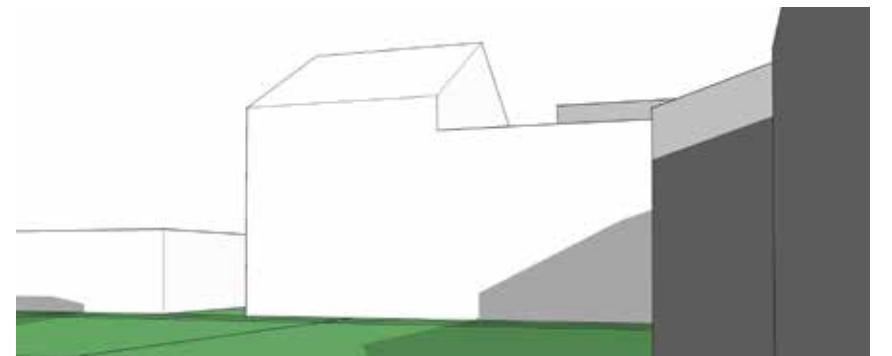
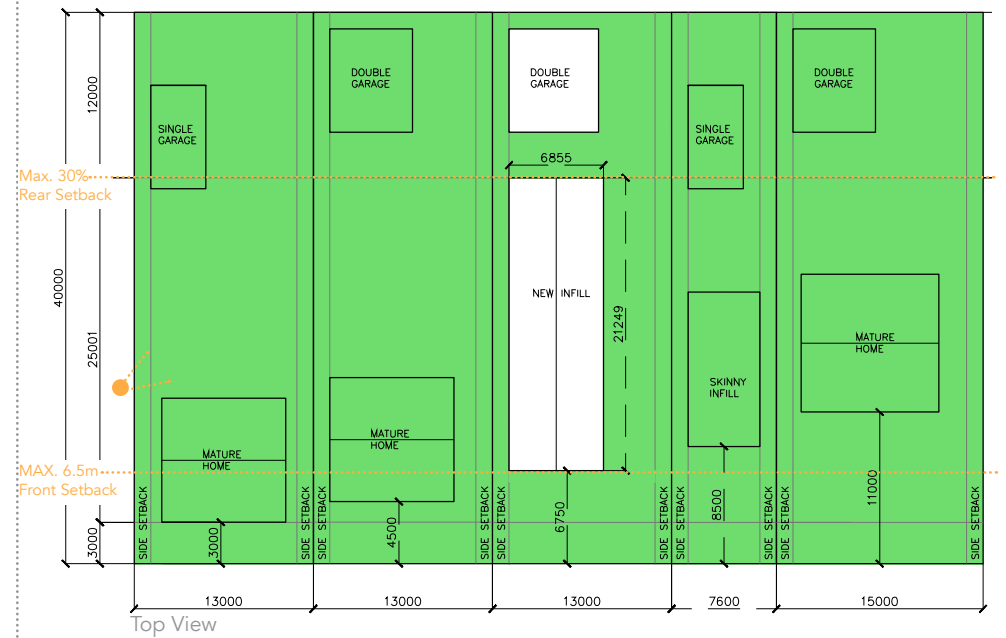
The minimum Rear Setback shall be 40% of the Site depth.



Backyard View

## MORE PERMISSIVE OPTION

Minimum Rear Setback shall be 30% of the Site depth

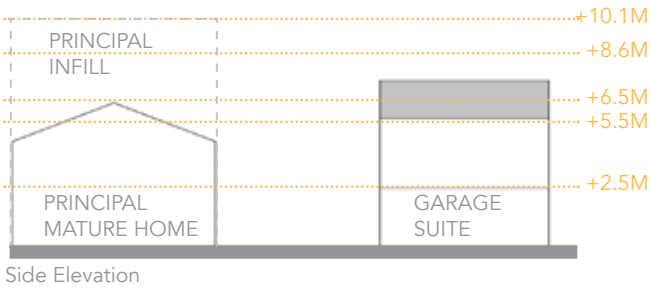


Backyard View

# GARAGE SUITE HEIGHT

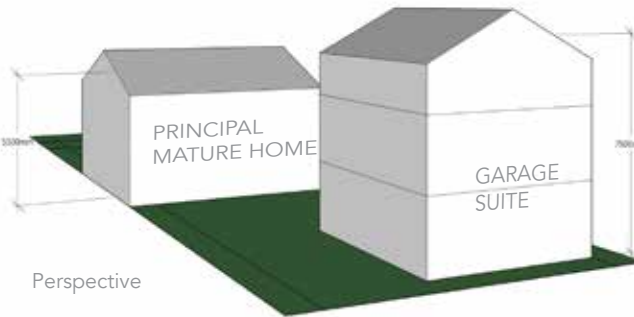
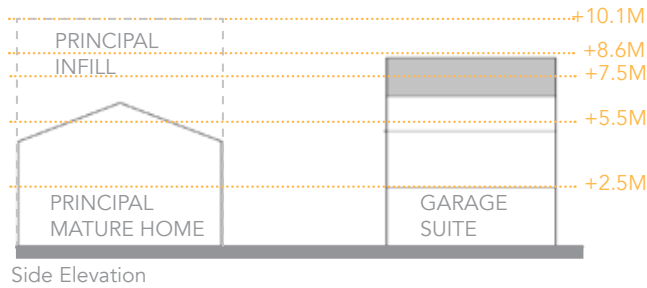
## BYLAW SECTION 87 GARAGE SUITE HEIGHT REGULATION

Garage Suite Height of 6.5 m or 1.5 m higher than the principal dwelling whichever is the lesser, where the roof slope is greater than 4/12 (18.4 degrees).



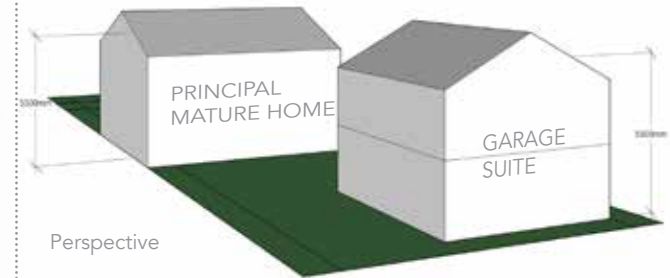
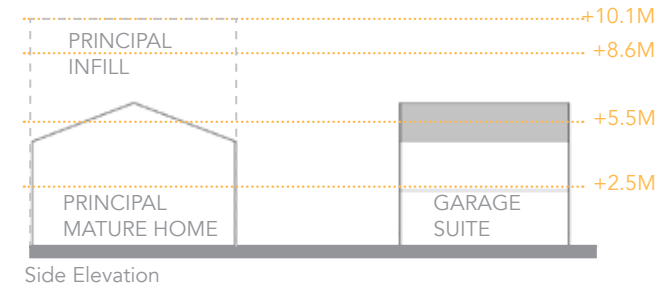
## MORE PERMISSIVE OPTION

Garage Suite Height of 7.5 m, where the roof slope is greater than 4/12 (18.4 degrees).



## LESS PERMISSIVE OPTION

The maximum exterior wall Height of the Garage Suite will be 5.5 m, where the roof slope is greater than 4/12 (18.4 degrees).



# GARAGE SUITE DISTANCE FROM MINIMUM REAR SETBACK

BYLAW SECTION 48  
GARAGE DISTANCE FROM MIN. REAR SETBACK

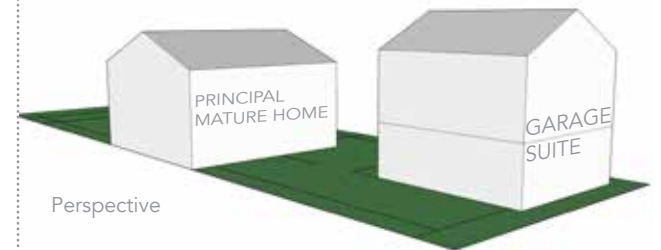
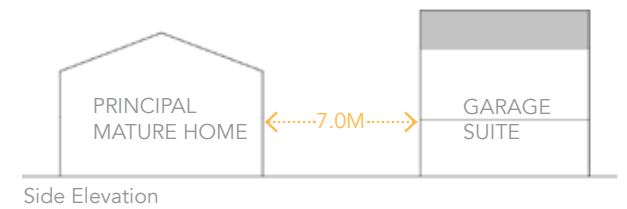
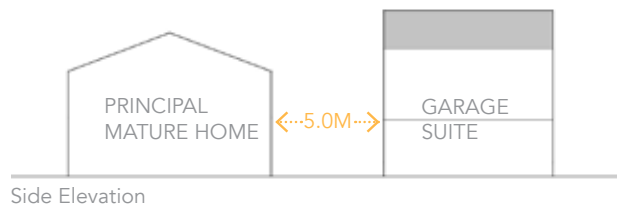
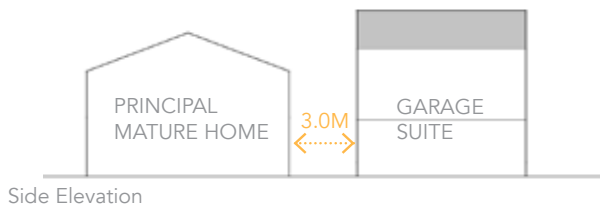
A Principal Building shall be separated from a rear detached Garage Suite by a minimum of 3.0 m.

LESS PERMISSIVE OPTION A

In front of a required Window other than the Principal Living Room Window, the minimum depth is 5.0 m, or half the Height of any wall opposite the said Window, to a maximum of 7.5 m shall be provided.

LESS PERMISSIVE OPTION B

A Garage Suite with windows facing the Principal building shall be separated from the minimum rear setback by 7.0 m (if Front Setback and Rear Setback permits).







**Appendix**



**TRANSPORTATION  
OPERATIONS**

**Legal Property / Curb Lines / Photography**

INFRASTRUCTURE & MAPPING  
 produced by: Roadways Design  
 Phone: (780) 496-6636  
 Fax: (780) 496-3495  
 email: mapdesk@edmonton.ca

The City of Edmonton provides this information in good faith, but provides no warranty nor accepts any liability arising from incorrect, incomplete or misleading information or its improper use. All rights reserved. No part of this map may be reproduced in any form or by any means without the written consent of the City of Edmonton and appropriate license agreement. All dimensions are in meters. Information provided on this plan should not be used to establish property boundaries © \$YEAR\$

This plot created by: \$USER\$

Date of photography: May 2014  
 Printed on: October 26, 2015  
 Approximate scale: 1 : 1000  
 Photo positional accuracy +/- 2 m,  
 features may be offset owing to  
 height distortion.





THE CITY OF  
**Edmonton**

**Legal Property / Curb Lines / Photography**  
**TRANSPORTATION OPERATIONS**

INFRASTRUCTURE & MAPPING

produced by: Roadways Design  
 Phone: (780) 496-6636  
 Fax: (780) 496-3495  
 email: mapdesk@edmonton.ca

Date of photography: May 2014  
 Printed on: October 26, 2015  
 Approximate scale: 1 : 1000  
 Photo positional accuracy +/- 2 m,  
 features may be offset owing to  
 height distortion.

This plot created by: \$USER\$

The City of Edmonton provides this information in good faith, but provides no warranty nor accepts any liability arising from incorrect, incomplete or misleading information or its improper use. All rights reserved. No part of this map may be reproduced in any form or by any means without the written consent of the City of Edmonton and appropriate license agreement. All dimensions are in meters. Information provided on this plan should not be used to establish property boundaries © \$YEAR\$





TRANSPORTATION OPERATIONS

Legal Property / Curb Lines / Photography

The City of Edmonton provides this information in good faith, but provides no warranty nor accepts any liability arising from incorrect, incomplete or misleading information or its improper use. All rights reserved. No part of this map may be reproduced in any form or by any means without the written consent of the City of Edmonton and appropriate license agreement. All dimensions are in meters. Information provided on this plan should not be used to establish property boundaries © \$YEARS\$

Date of photography: May 2014  
 Printed on: October 26, 2015  
 Approximate scale: 1 : 1000  
 Photo positional accuracy +/- 2 m, features may be offset owing to height distortion.

produced by: Roadways Design  
 Phone: (780) 496-6636  
 Fax: (780) 496-3495  
 email: mapdesk@edmonton.ca

This plot created by: \$USER\$





THE CITY OF  
**Edmonton**  
 TRANSPORTATION  
 OPERATIONS

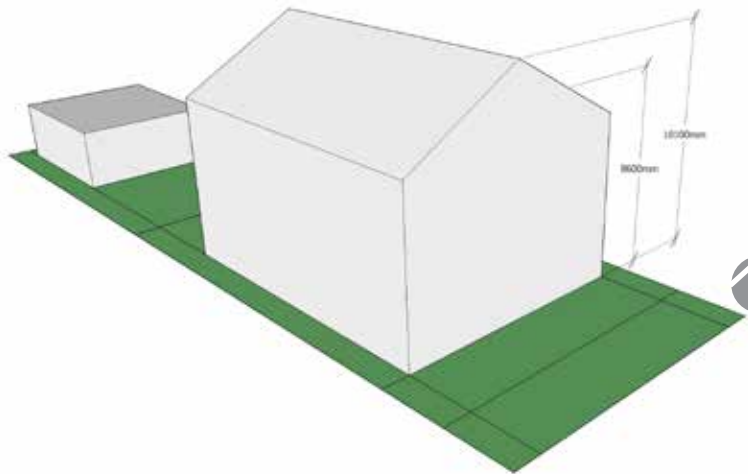
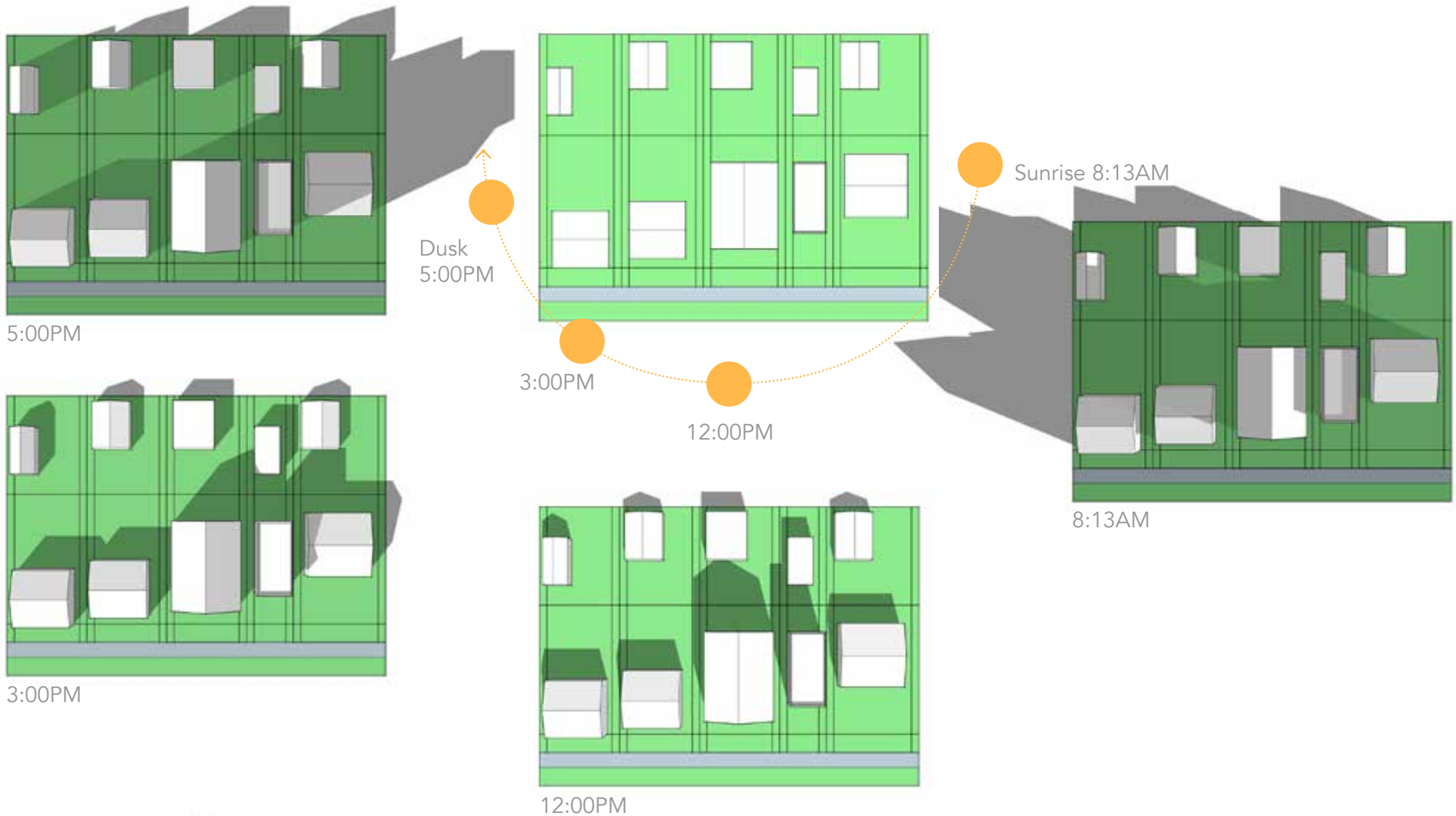
Legal Property / Curb Lines / Photography

INFRASTRUCTURE & MAPPING  
 produced by: Roadways Design  
 Phone: (780) 496-6636  
 Fax: (780) 496-3495  
 email: mapdesk@edmonton.ca

Date of photography: May 2014  
 Printed on: October 26, 2015  
 Approximate scale: 1 : 1000  
 Photo positional accuracy +/- 2 m,  
 features may be offset owing to  
 height distortion.

This plot created by: \$USERS\$

The City of Edmonton provides this information in good faith, but provides no warranty nor accepts any liability arising from incorrect, incomplete or misleading information or its improper use. All rights reserved. No part of this map may be reproduced in any form or by any means without the written consent of the City of Edmonton and appropriate license agreement. All dimensions are in meters. Information provided on this plan should not be used to establish property boundaries @ \$YEARS



EDMONTON, AB | UTC-6:00 | OCTOBER 21



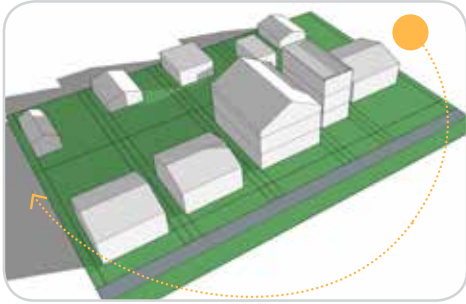
**SUN SHADOW STUDY FOR NORTH/SOUTH FACING LOCATION**

CURRENT ZONING BYLAW REGULATION 814.3.13

THE MAXIMUM HEIGHT SHALL NOT EXCEED 8.6M (max peak height of 10.1m)



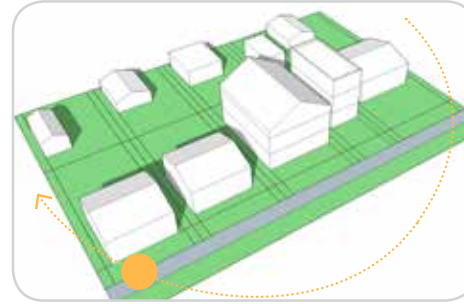
South Facing Front Yard



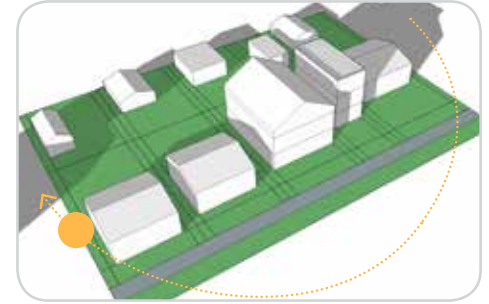
Sunrise 8:13AM



12:00PM

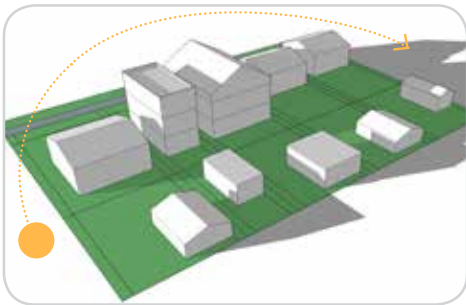


3:00PM

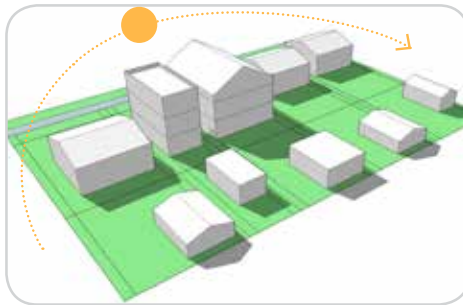


Dusk 5:00PM

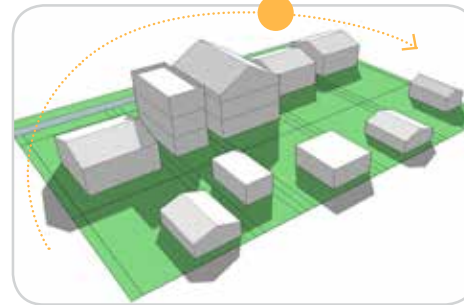
North Facing Rear Yard



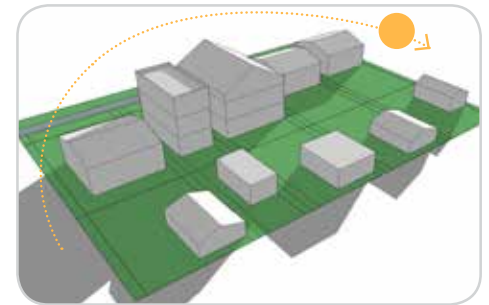
Sunrise 8:13AM



12:00PM



3:00PM



Dusk 5:00PM

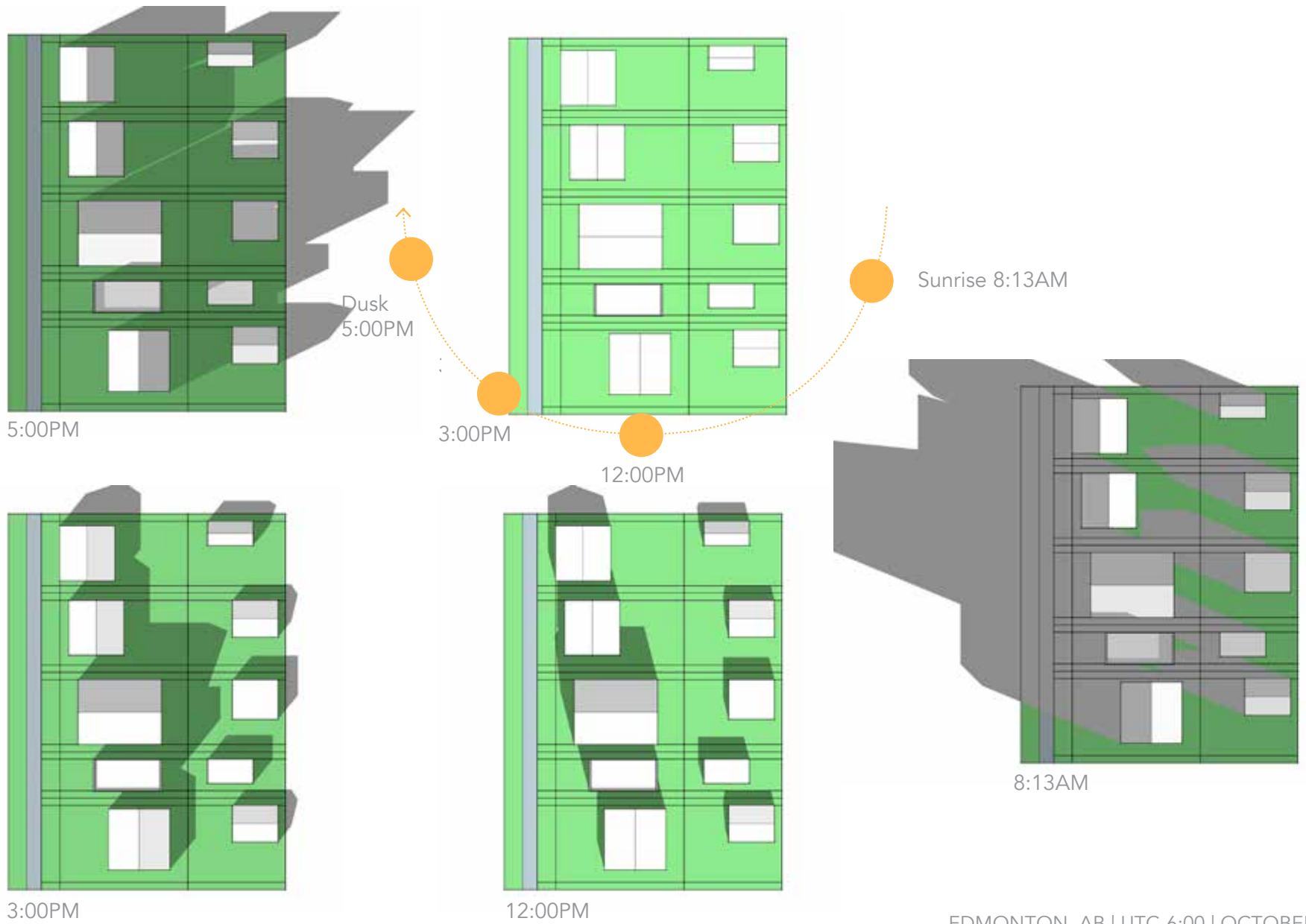
EDMONTON, AB | UTC-6:00 | OCTOBER 21

**SUN SHADOW STUDY FOR NORTH/SOUTH FACING LOCATION**

CURRENT ZONING BYLAW REGULATION 814.3.13

THE MAXIMUM HEIGHT SHALL NOT EXCEED 8.6M (max peak height of 10.1m)





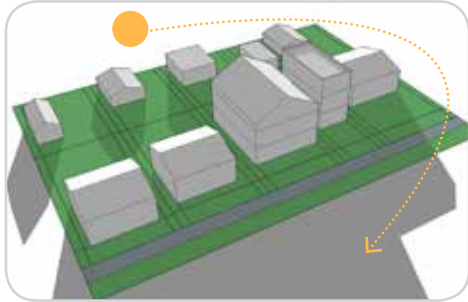
EDMONTON, AB | UTC-6:00 | OCTOBER 21

**SUN SHADOW STUDY FOR WEST/EAST FACING LOCATION**

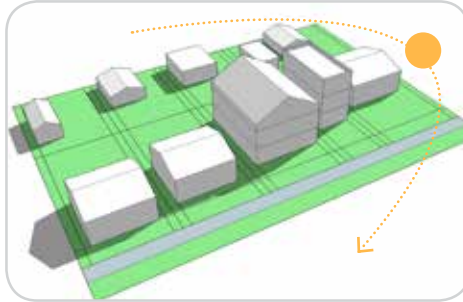
CURRENT ZONING BYLAW REGULATION 814.3.13

THE MAXIMUM HEIGHT SHALL NOT EXCEED 8.6M (max peak height of 10.1m)

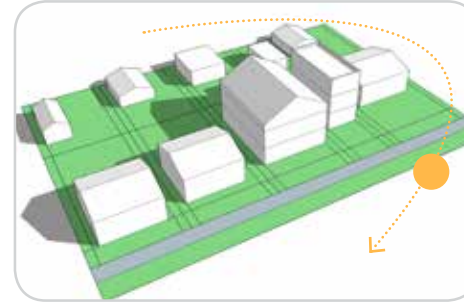
West Facing Front Yard



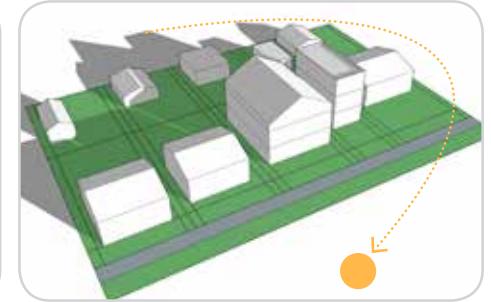
Sunrise 8:13AM



12:00PM

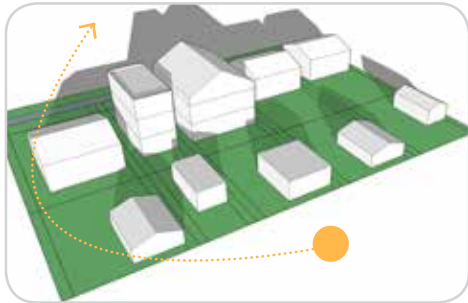


3:00PM

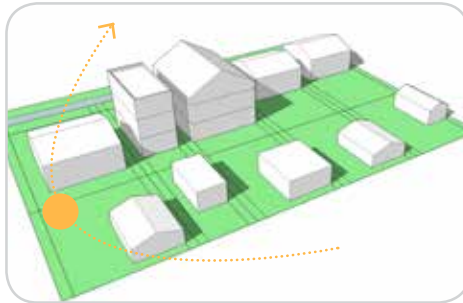


Dusk 5:00PM

East Facing Rear Yard



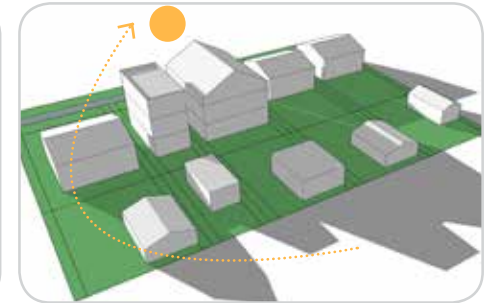
Sunrise 8:13AM



12:00PM



3:00PM



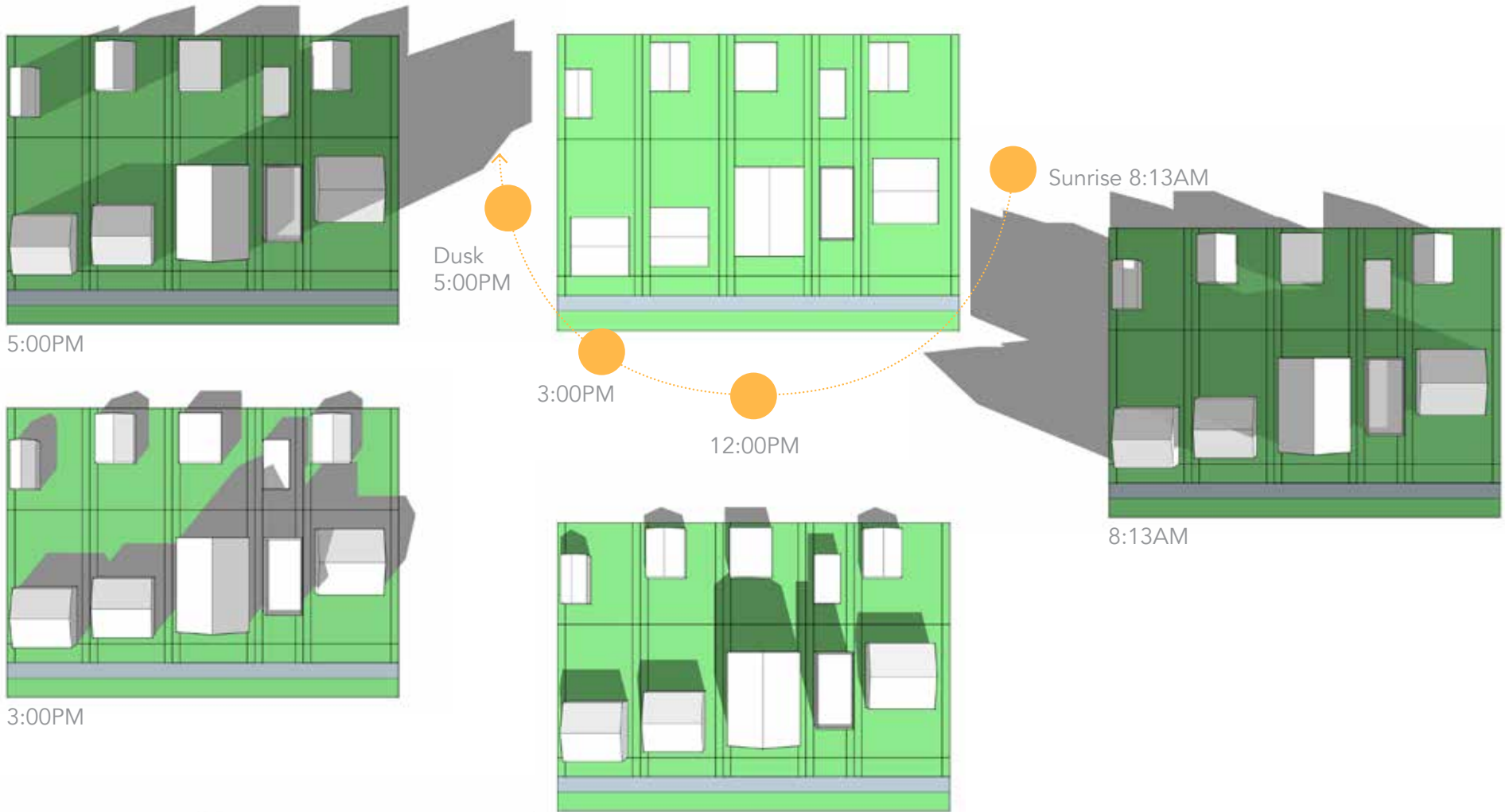
Dusk 5:00PM

EDMONTON, AB | UTC-6:00 | OCTOBER 21

**SUN SHADOW STUDY FOR WEST/EAST FACING LOCATION**

CURRENT ZONING BYLAW REGULATION 814.3.13

THE MAXIMUM HEIGHT SHALL NOT EXCEED 8.6M (max peak height of 10.1m)



5:00PM

Dusk  
5:00PM

3:00PM

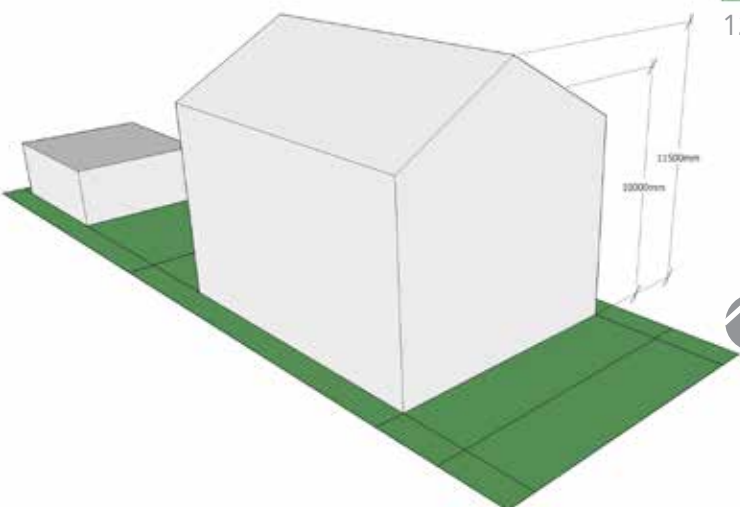
12:00PM

Sunrise 8:13AM

8:13AM

3:00PM

12:00PM



EDMONTON, AB | UTC-6:00 | OCTOBER 21

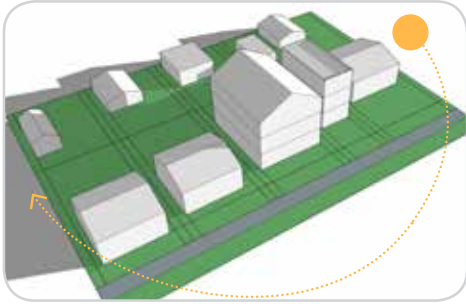


**SUN SHADOW STUDY FOR NORTH/SOUTH FACING LOCATION**

**MORE PERMISSIVE OPTION**

THE MAXIMUM HEIGHT SHALL NOT EXCEED 10.0M (max peak height of 11.5m)

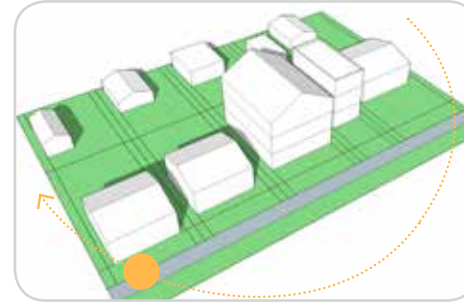
South Facing Front Yard



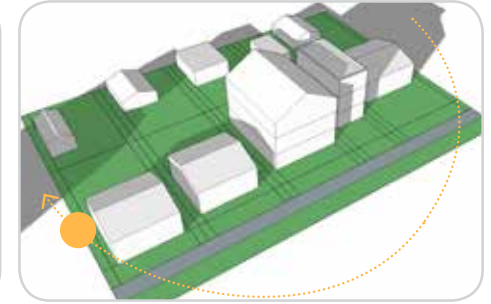
Sunrise 8:13AM



12:00PM

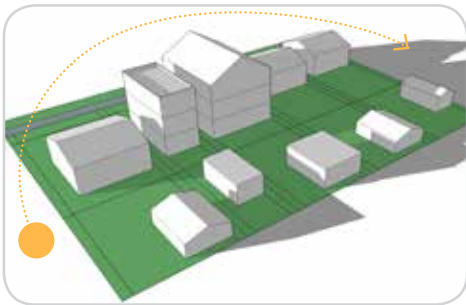


3:00PM

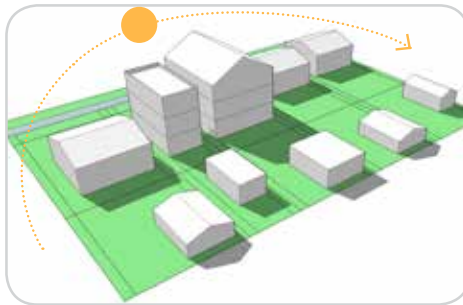


Dusk 5:00PM

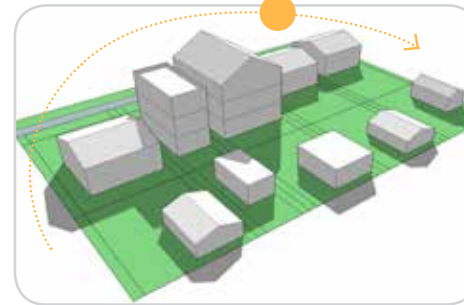
North Facing Rear Yard



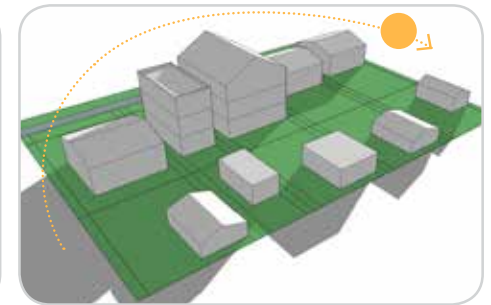
Sunrise 8:13AM



12:00PM



3:00PM



Dusk 5:00PM

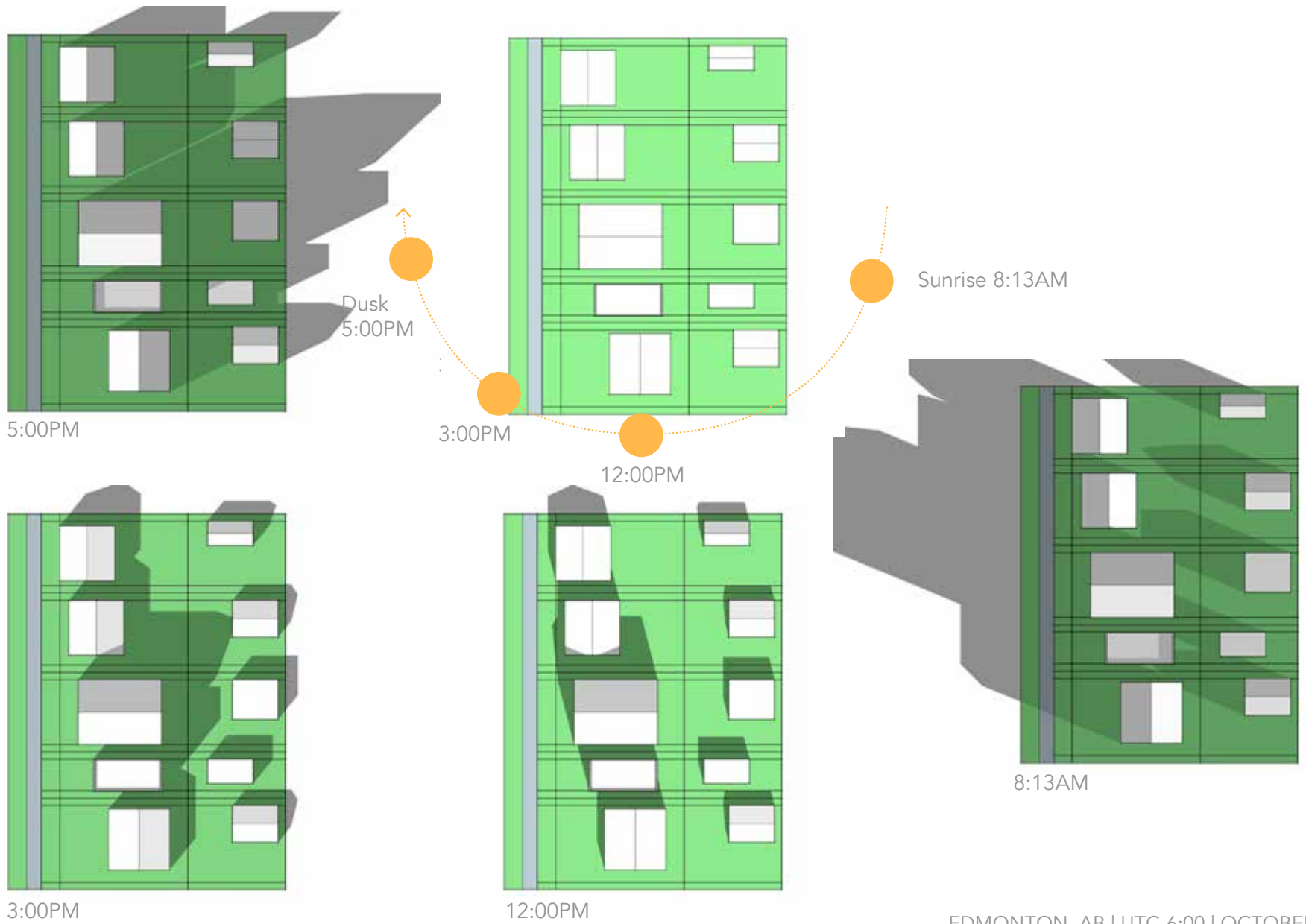
EDMONTON, AB | UTC-6:00 | OCTOBER 21

**SUN SHADOW STUDY FOR NORTH/SOUTH FACING LOCATION**

**MORE PERMISSIVE OPTION**

THE MAXIMUM HEIGHT SHALL NOT EXCEED 10.0M (max peak height of 11.5m)



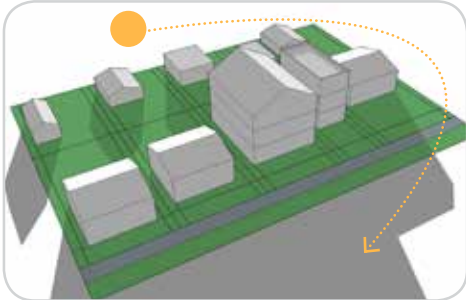


EDMONTON, AB | UTC-6:00 | OCTOBER 21

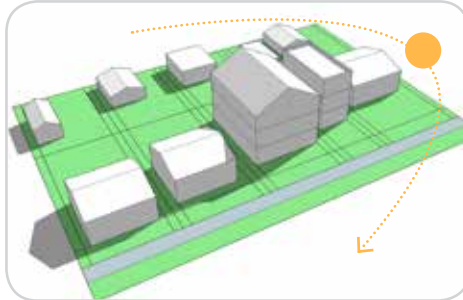
 **SUN SHADOW STUDY FOR WEST/EAST FACING LOCATION**  
 MORE PERMISSIVE OPTION

THE MAXIMUM HEIGHT SHALL NOT EXCEED 10.0M (max peak height of 11.5m)

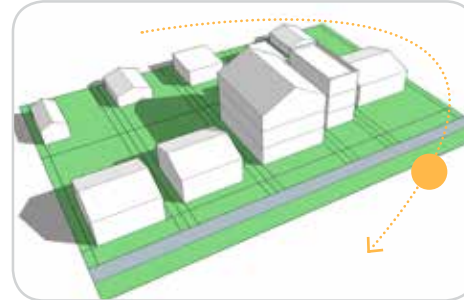
West Facing Front Yard



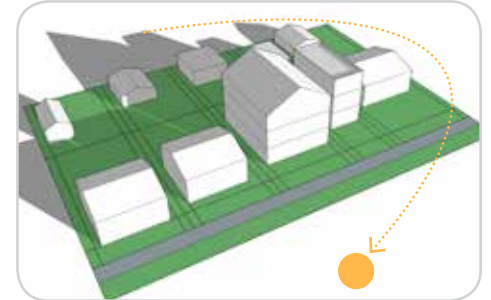
Sunrise 8:13AM



12:00PM

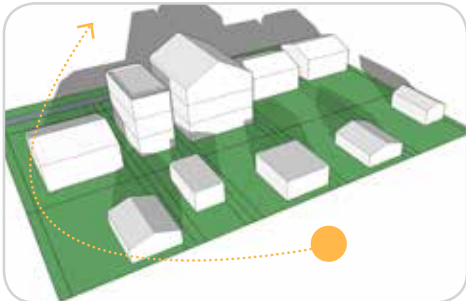


3:00PM

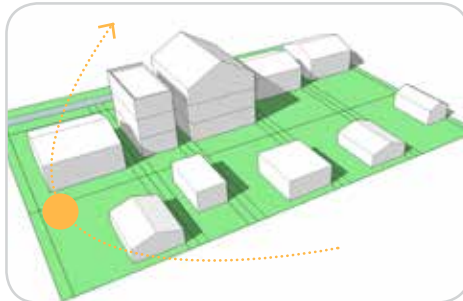


Dusk 5:00PM

East Facing Rear Yard



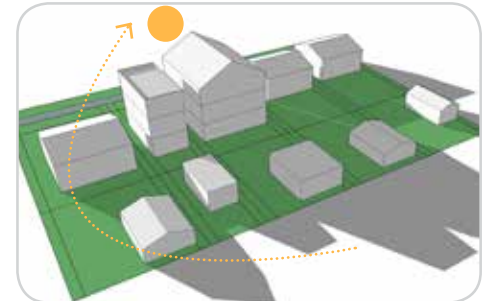
Sunrise 8:13AM



12:00PM



3:00PM



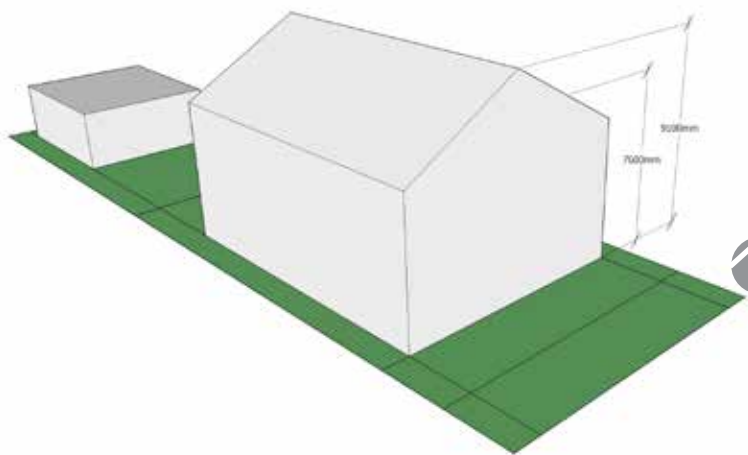
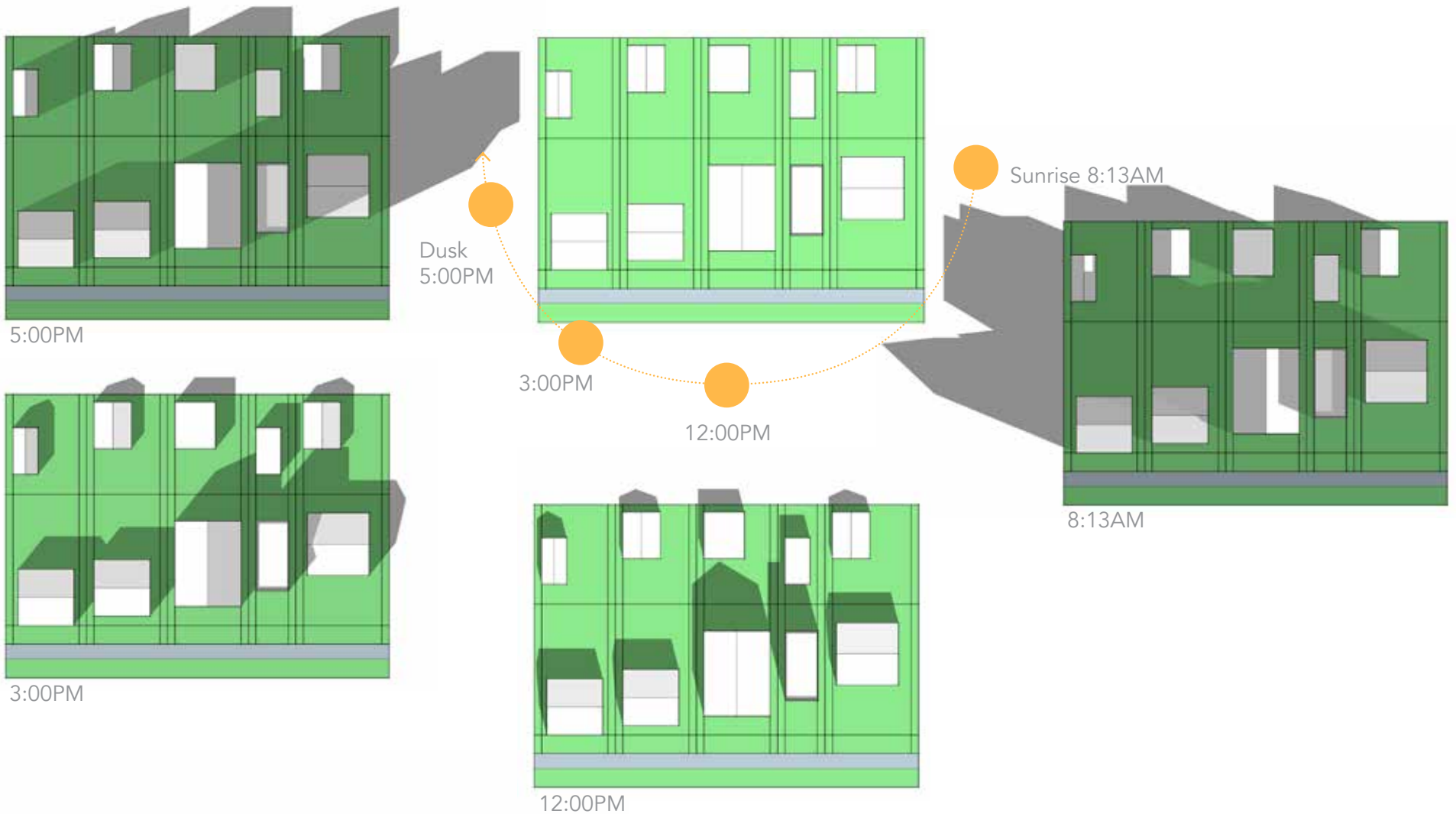
Dusk 5:00PM

EDMONTON, AB | UTC-6:00 | OCTOBER 21

**SUN SHADOW STUDY FOR WEST/EAST FACING LOCATION**

**MORE PERMISSIVE OPTION**

THE MAXIMUM HEIGHT SHALL NOT EXCEED 10.0M (max peak height of 11.5m)



EDMONTON, AB | UTC-6:00 | OCTOBER 21



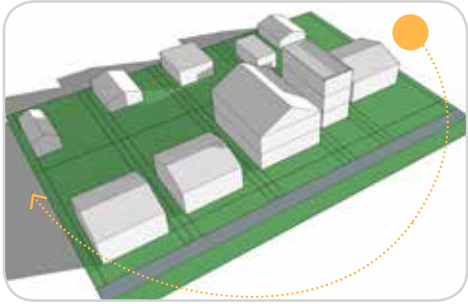
**SUN SHADOW STUDY FOR NORTH/SOUTH FACING LOCATION**

LESS PERMISSIVE OPTION

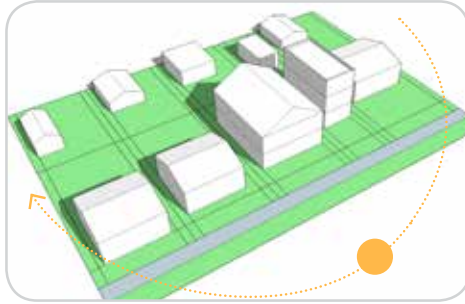
THE MINIMUM HEIGHT IS 7.6M (max peak height of 10.0m)



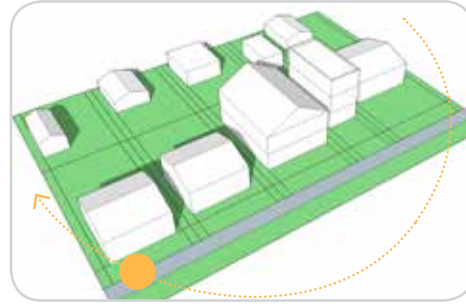
South Facing Front Yard



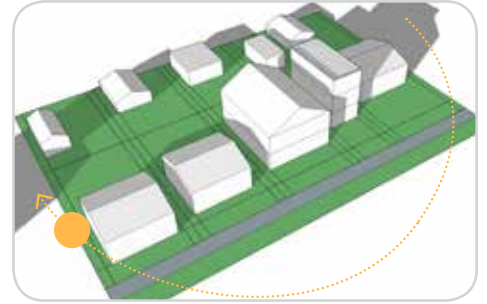
Sunrise 8:13AM



12:00PM



3:00PM

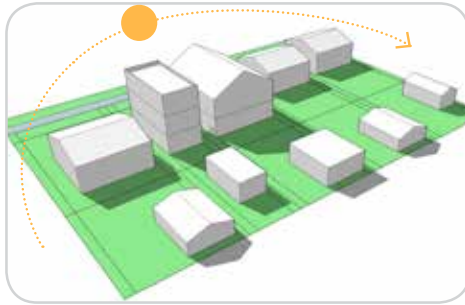


Dusk 5:00PM

North Facing Rear Yard



Sunrise 8:13AM



12:00PM



3:00PM



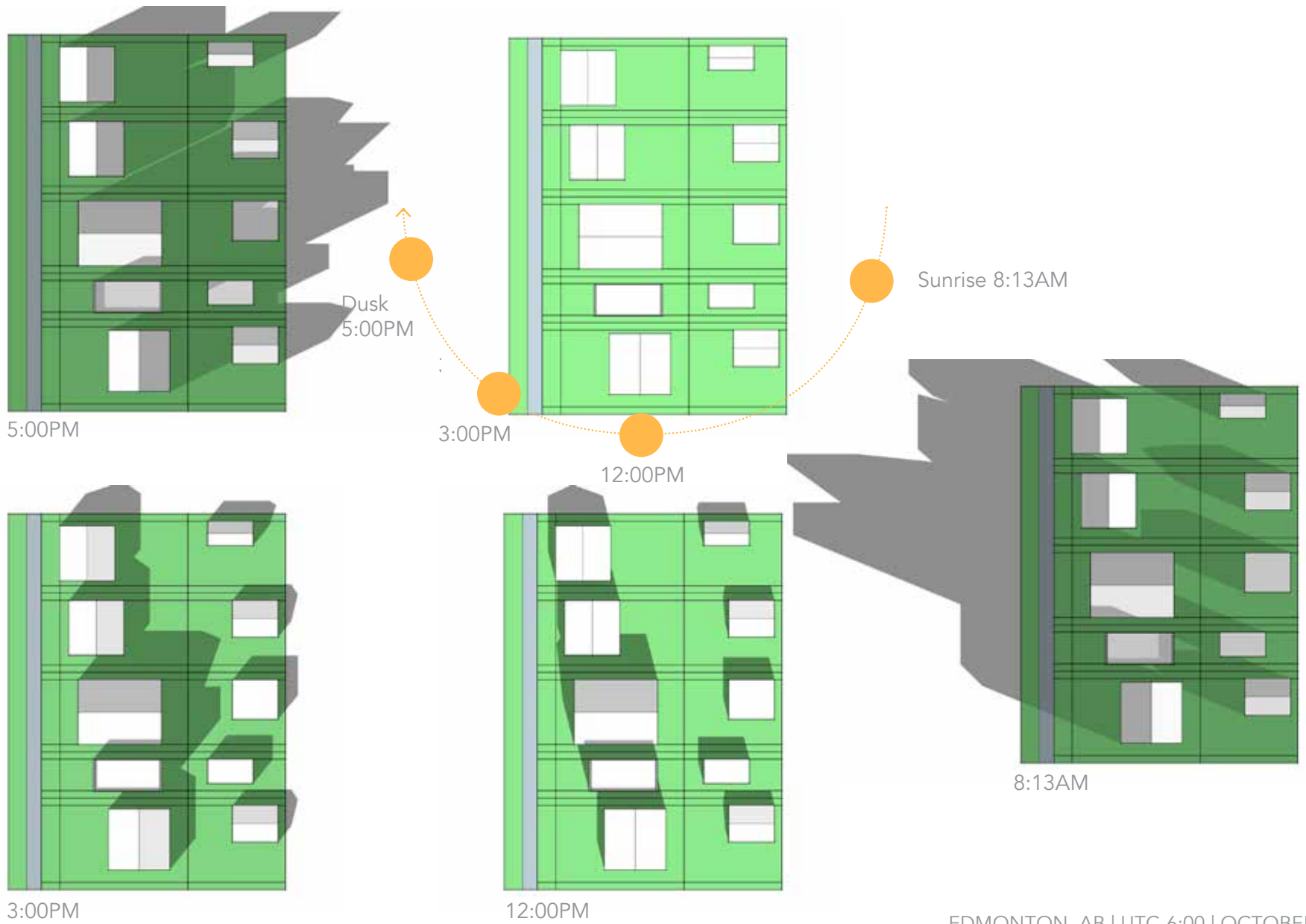
Dusk 5:00PM

EDMONTON, AB | UTC-6:00 | OCTOBER 21

**SUN SHADOW STUDY FOR NORTH/SOUTH FACING LOCATION**

LESS PERMISSIVE OPTION

THE MINIMUM HEIGHT IS 7.6M (max peak height of 10.0m)



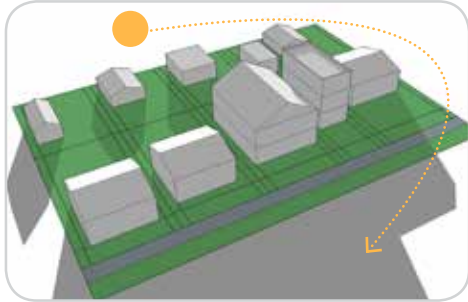
EDMONTON, AB | UTC-6:00 | OCTOBER 21

 **SUN SHADOW STUDY FOR WEST/EAST FACING LOCATION**

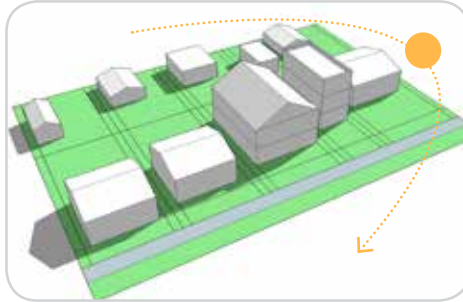
LESS PERMISSIVE OPTION

THE MINIMUM HEIGHT IS 7.6M (max peak height of 10.0m)

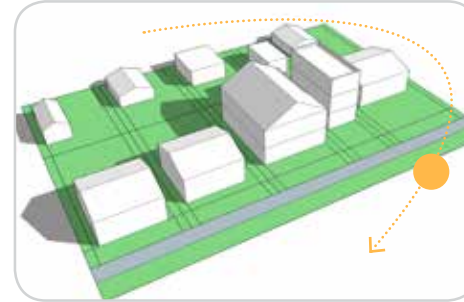
West Facing Front Yard



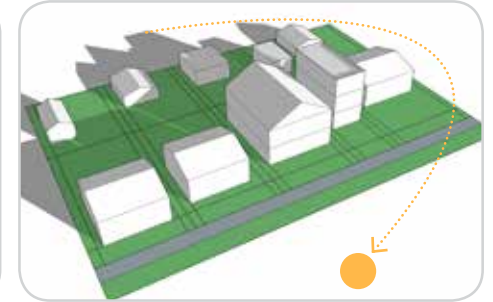
Sunrise 8:13AM



12:00PM

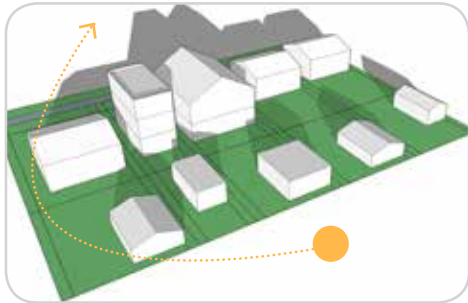


3:00PM

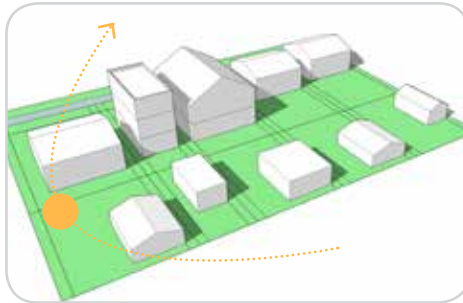


Dusk 5:00PM

East Facing Rear Yard



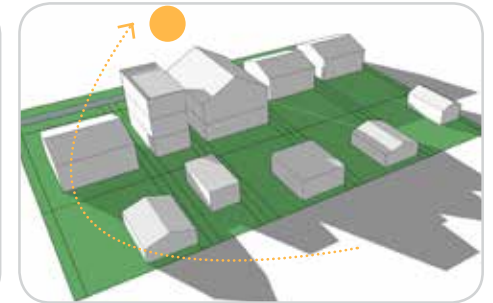
Sunrise 8:13AM



12:00PM



3:00PM



Dusk 5:00PM

EDMONTON, AB | UTC-6:00 | OCTOBER 21

**SUN SHADOW STUDY FOR WEST/EAST FACING LOCATION**

LESS PERMISSIVE OPTION

THE MINIMUM HEIGHT IS 7.6M (max peak height of 10.0m)

## FRONT SETBACK CALCULATION

Front Setback Calculation method used by Development Officers, According to Anlin Wen, Senior Planner and supervisor of DOs reviewing residential development applications:

The Front Setback must be within the overlapping ranges of the  
a) front setback of the Abutting Lots, and  
b) the general context of the blockface – generally the average.

In the Site Plan, the abutting properties have front setbacks of 4.5m and 8.5m , the permitted abutting property range is calculated as follows:

### CURRENT FRONT SETBACK REGULATION:

AVERAGE FRONT SETBACK OF ABUTTING PROPERTIES:  $(4.5\text{m}+8.5\text{m})/2 = 6.5 \text{ m}$

Permitted range from the abutting properties for current Front Setback regulation=  $(6.5 - 1.5)$  to  $(6.5 +1.5)$  which is 5.0 m to 8.0 m

AVERAGE FRONT SETBACK OF BLOCKFACE: 5.25 m

(In the site plan there are only 4 abutting properties shown. Usually a blockface consist of more than 4 abutting properties, so we will assume the block face average to be 5.25m)

Permitted range from the blockface for current Front Setback regulation=  $(5.25 - 1.5)$  to  $(5.25 +1.5)$  which is 3.75m to 6.75m

FRONT SETBACK RANGE: 5.0m to 6.75m

(Front Setback Range is determined by the most restrictive setback)

### MORE PERMISSIVE FRONT SETBACK REGULATION:

Permitted range from the abutting properties for more permissive Front Setback regulation=  $(6.5 - 2.5)$  to  $(6.5 +2.5)$  which is 4.0 m to 8.5 m

Permitted range from the blockface for more permissive Front Setback regulation=  $(5.25 - 2.5)$  to  $(5.25 +2.5)$  which is 2.75m to 7.75m

FRONT SETBACK RANGE: 4.0m to 7.75m

(Front Setback Range is determined by the most restrictive setback)