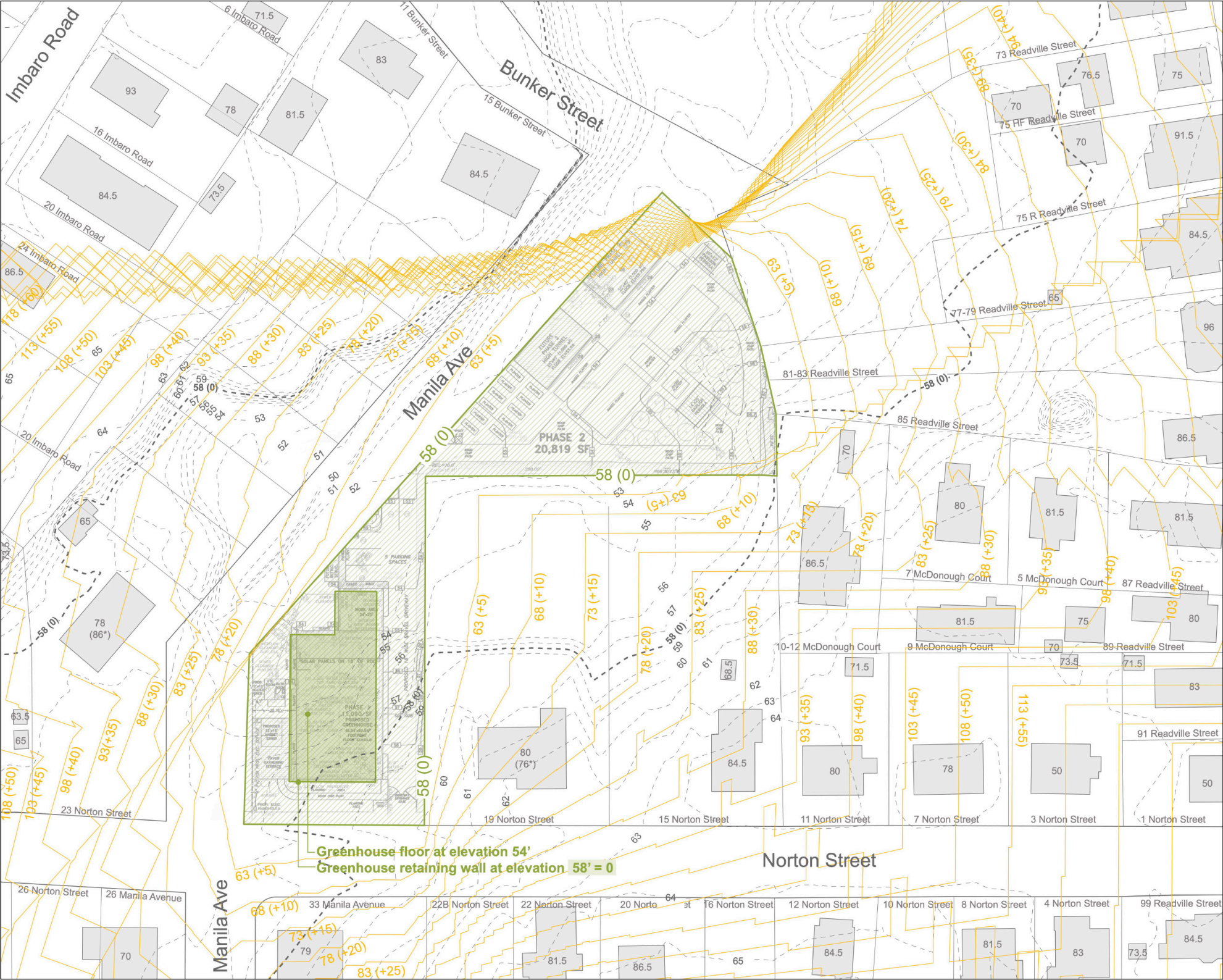


13-17 Norton Shadow Analysis

October 2021

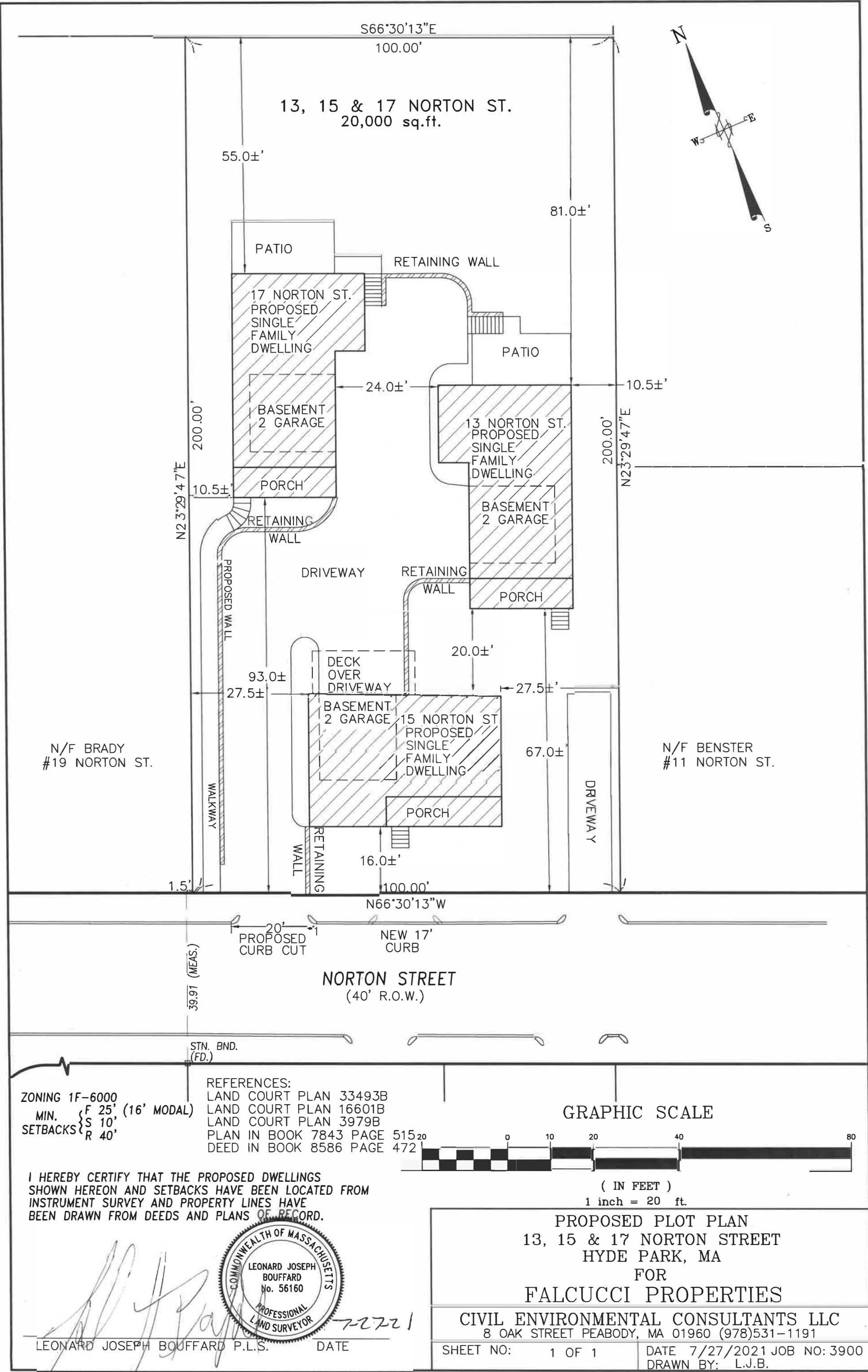
Rafi Segal A+U

Existing Condition



- Maximum heights under solar fan (without adding shadow to farm)
- Topography, B.C.B heights
- Property lines
- Existing building height (absolute height = B.C.B.)
*if survey shows different height
- Greenhouse
- Urban farm boundary

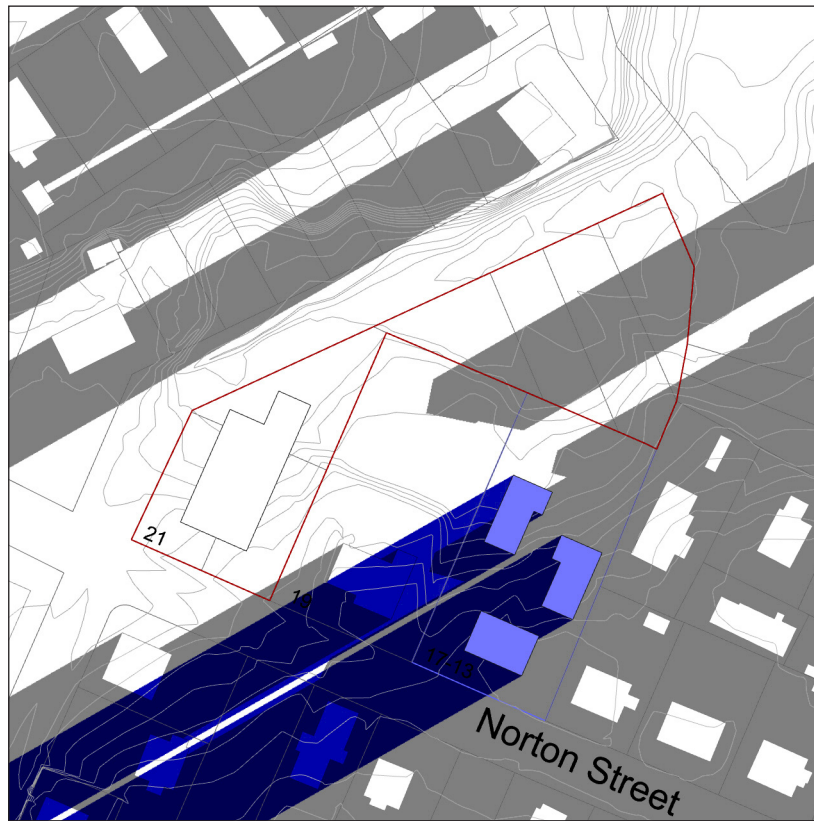
PROPOSED PLAN FOR 13-17 NORTON STREET, OCTOBER 2021



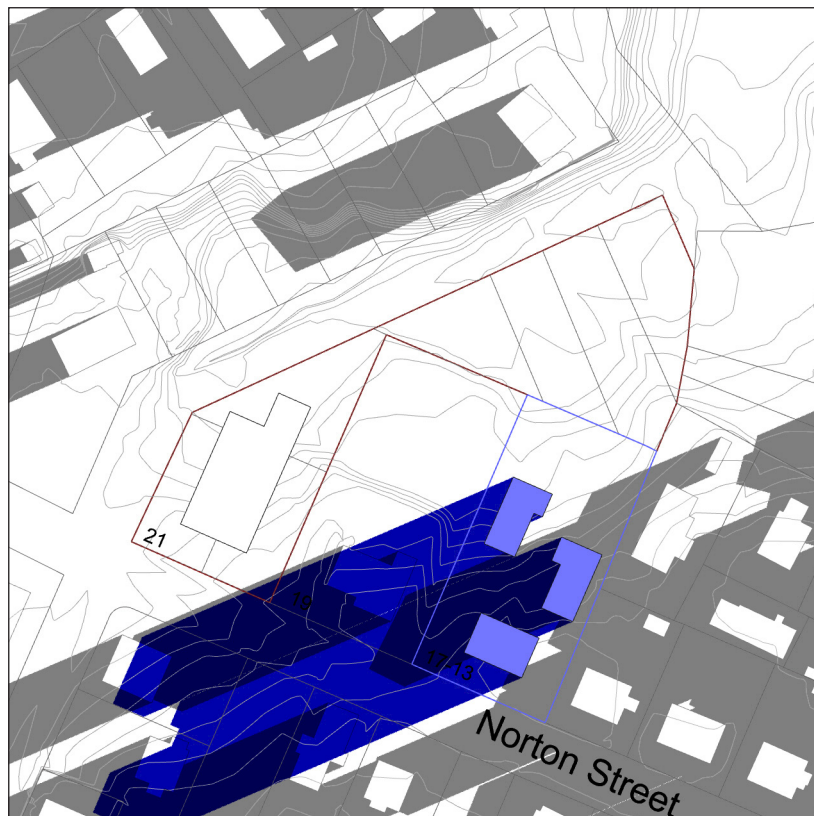
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Summer Solstice, June 21

from 5:30 am (20 minutes after sunrise) to 8:00 pm (20 minutes before sunset)



5:30 am (sunrise + 20 minutes)

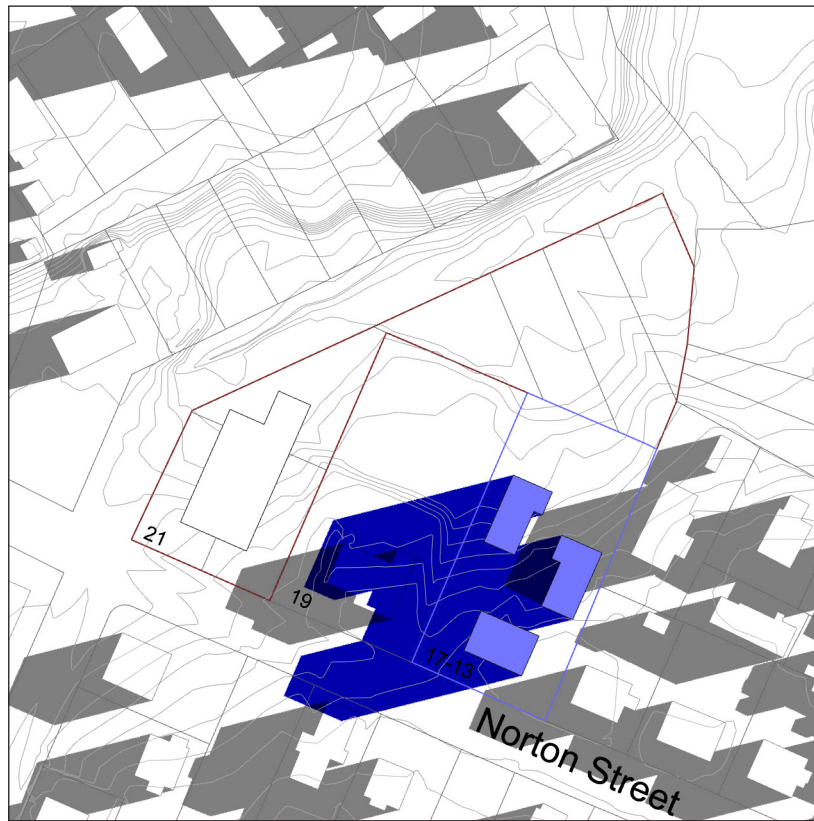


6:10 am (sunrise + 1 hour)

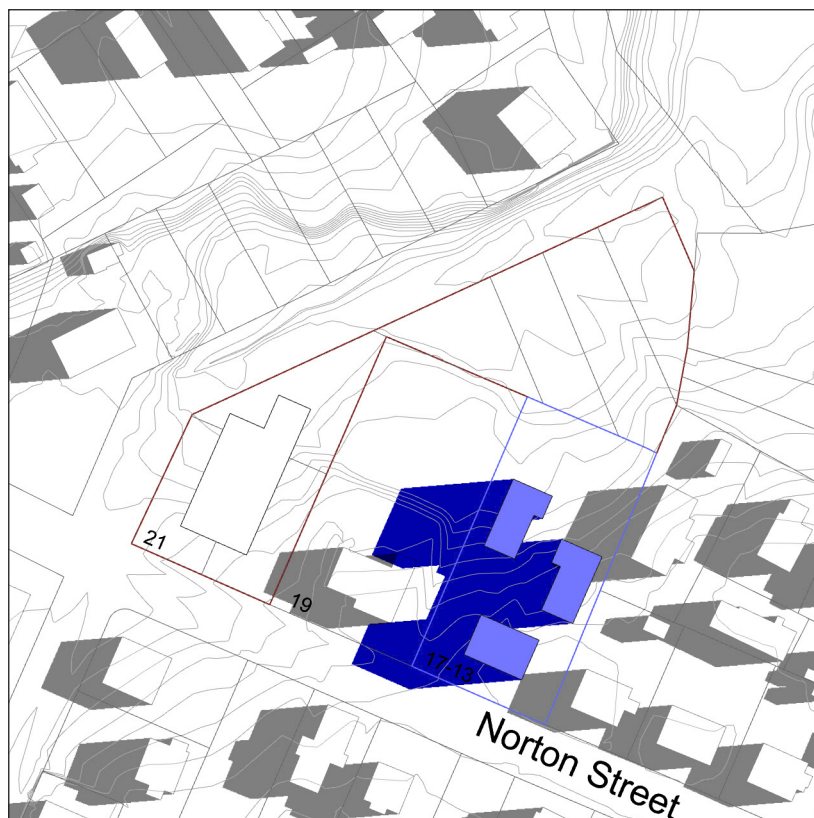
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Summer Solstice, June 21

from 5:30 am (20 minutes after sunrise) to 8:00 pm (20 minutes before sunset)



7:10 am

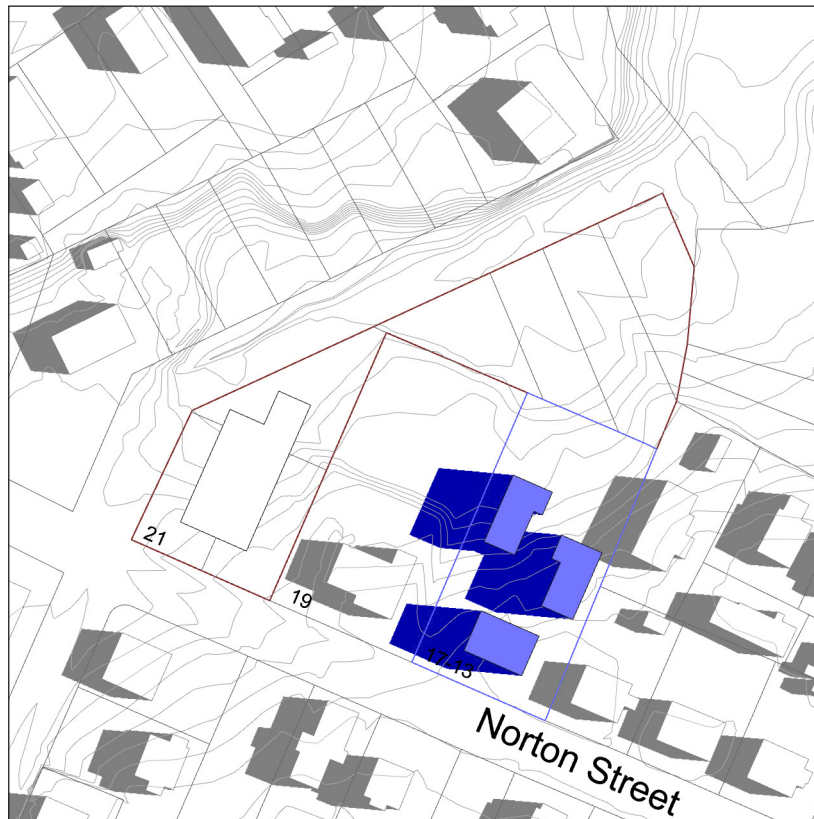


8:10 am

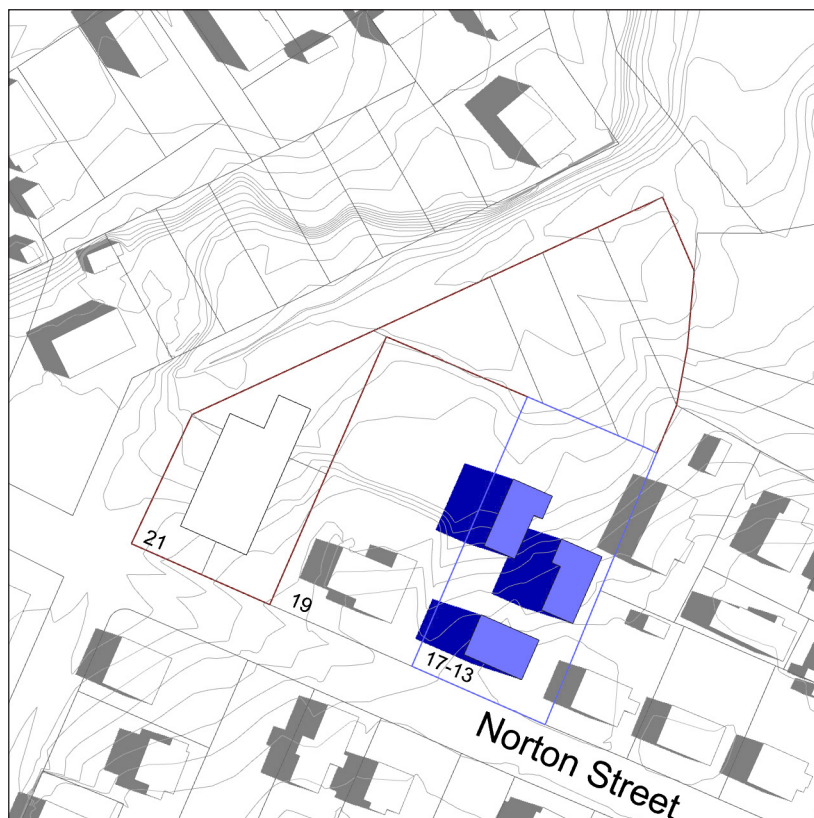
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Summer Solstice, June 21

from 5:30 am (20 minutes after sunrise) to 8:00 pm (20 minutes before sunset)



9:10 am



10:10 am

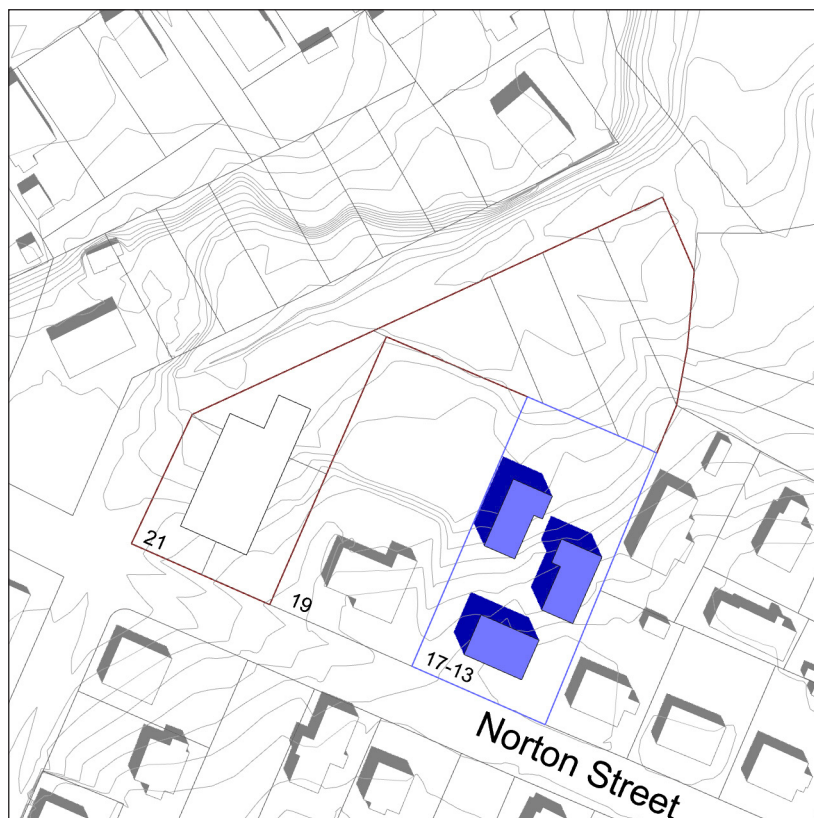
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Summer Solstice, June 21

from 5:30 am (20 minutes after sunrise) to 8:00 pm (20 minutes before sunset)



11:10 am



12:10 pm

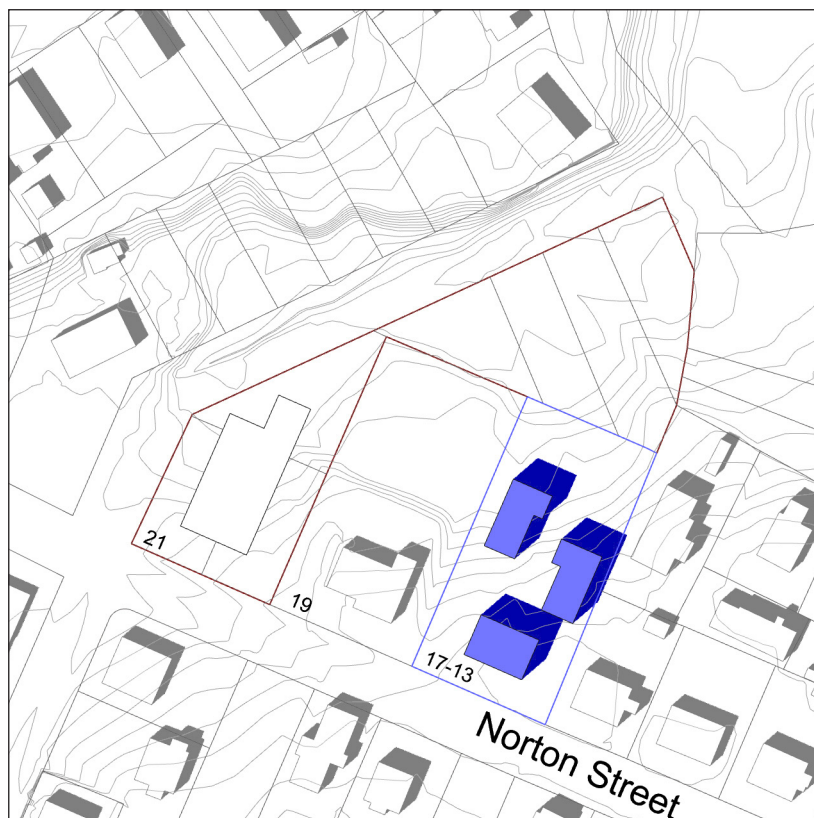
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Summer Solstice, June 21

from 5:30 am (20 minutes after sunrise) to 8:00 pm (20 minutes before sunset)



1:10 pm

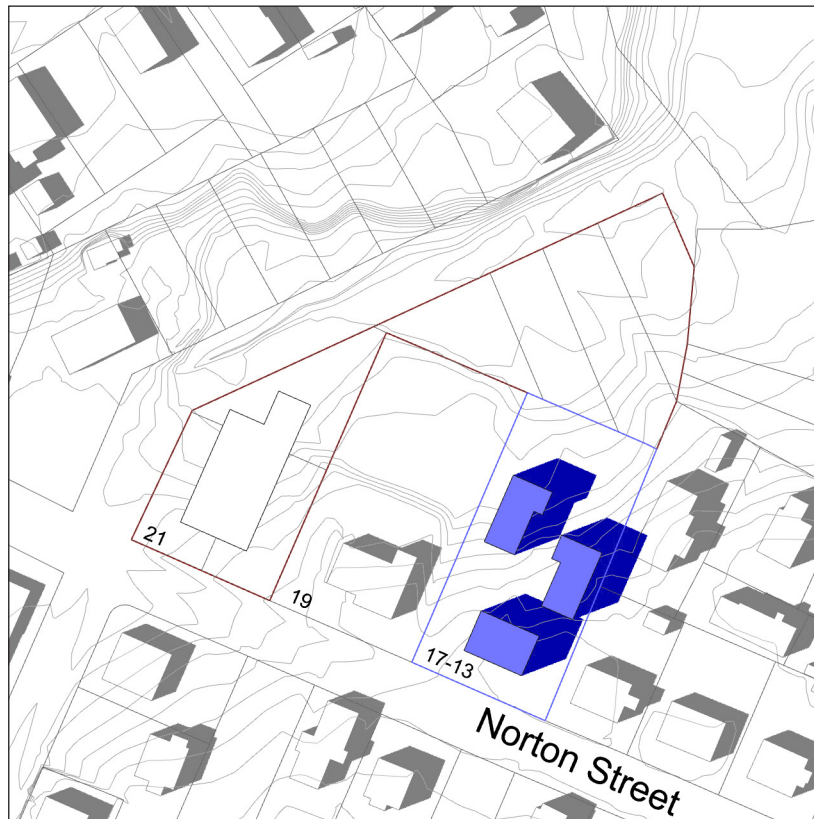


2:10 pm

13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Summer Solstice, June 21

from 5:30 am (20 minutes after sunrise) to 8:00 pm (20 minutes before sunset)



3:10 pm



4:10 pm

13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Summer Solstice, June 21

from 5:30 am (20 minutes after sunrise) to 8:00 pm (20 minutes before sunset)



5:10 pm



6:10 pm

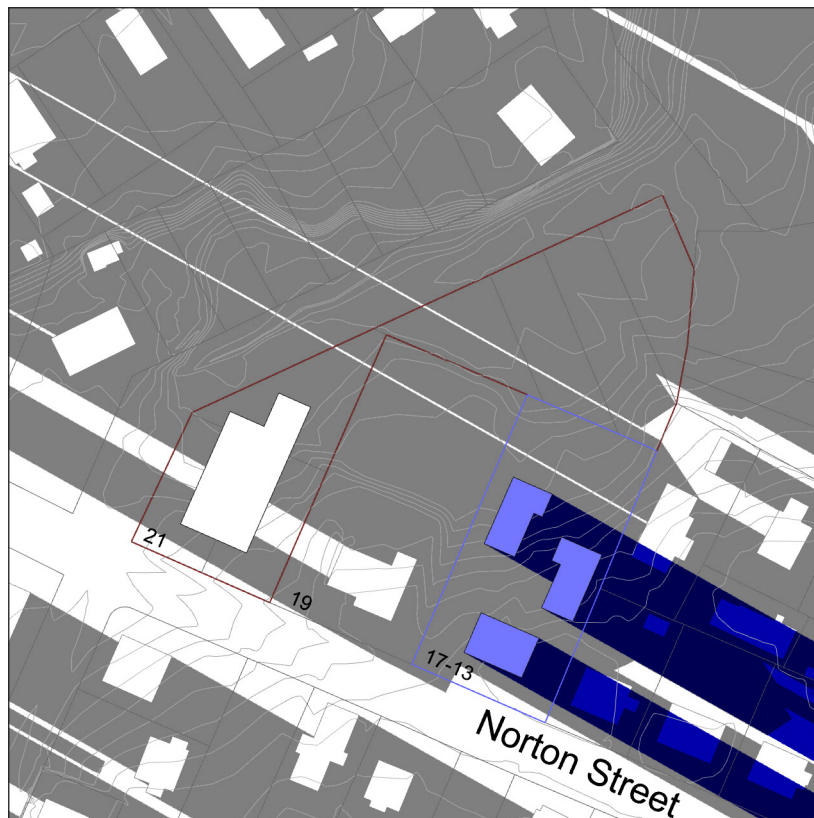
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Summer Solstice, June 21

from 5:30 am (20 minutes after sunrise) to 8:00 pm (20 minutes before sunset)



7:10 pm (sunset - 1 hour 10 minutes)

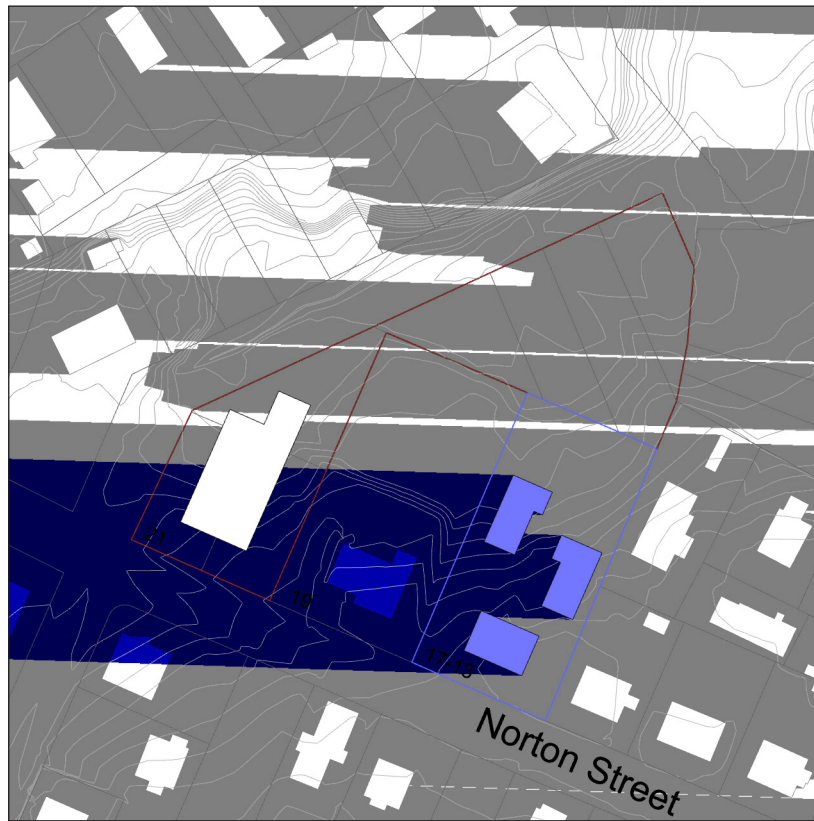


8:00 pm (sunset - 20 minutes)

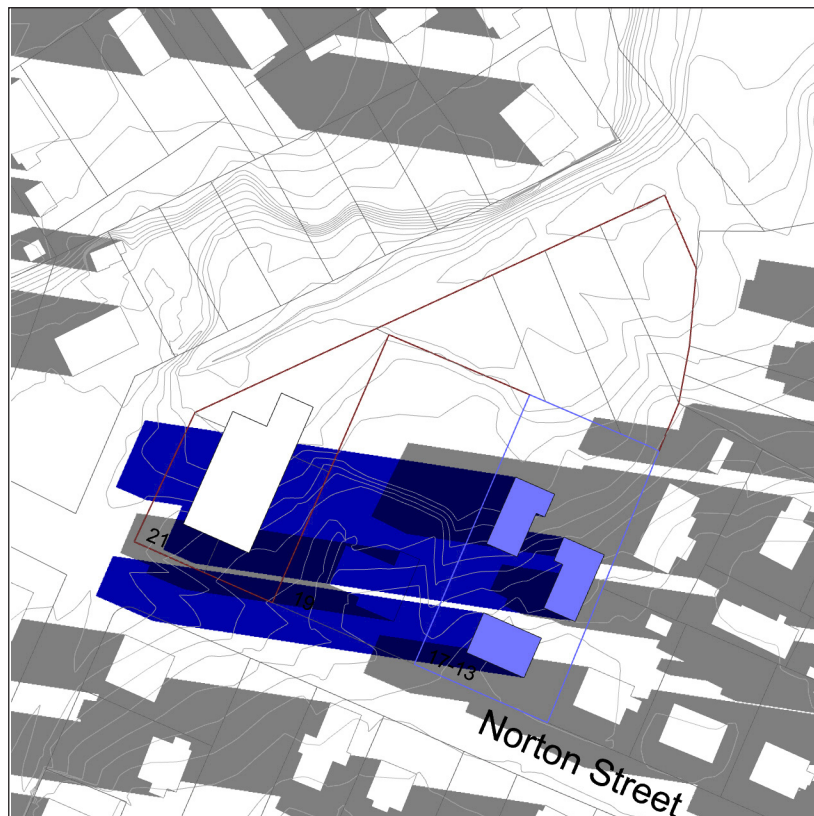
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Fall Equinox, September 21

from 6:50 am (20 minutes after sunrise) to 6:20 pm (20 minutes before sunset)



6:50 am (sunrise + 20 minutes)

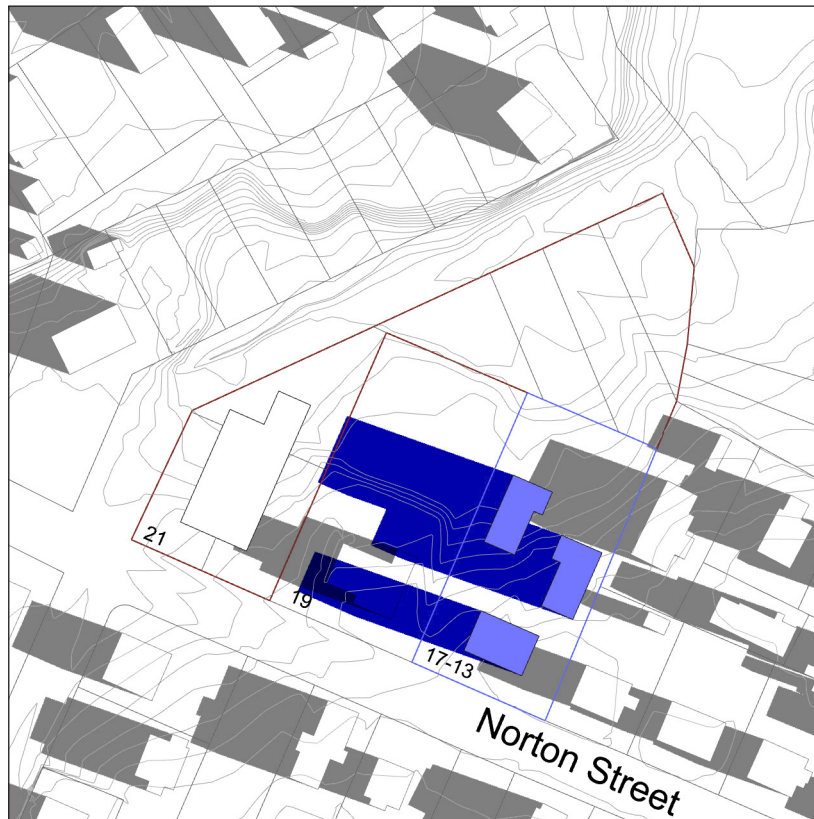


7:30 am (sunrise + 1 hour)

13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Fall Equinox, September 21

from 6:50 am (20 minutes after sunrise) to 6:20 pm (20 minutes before sunset)



8:30 am

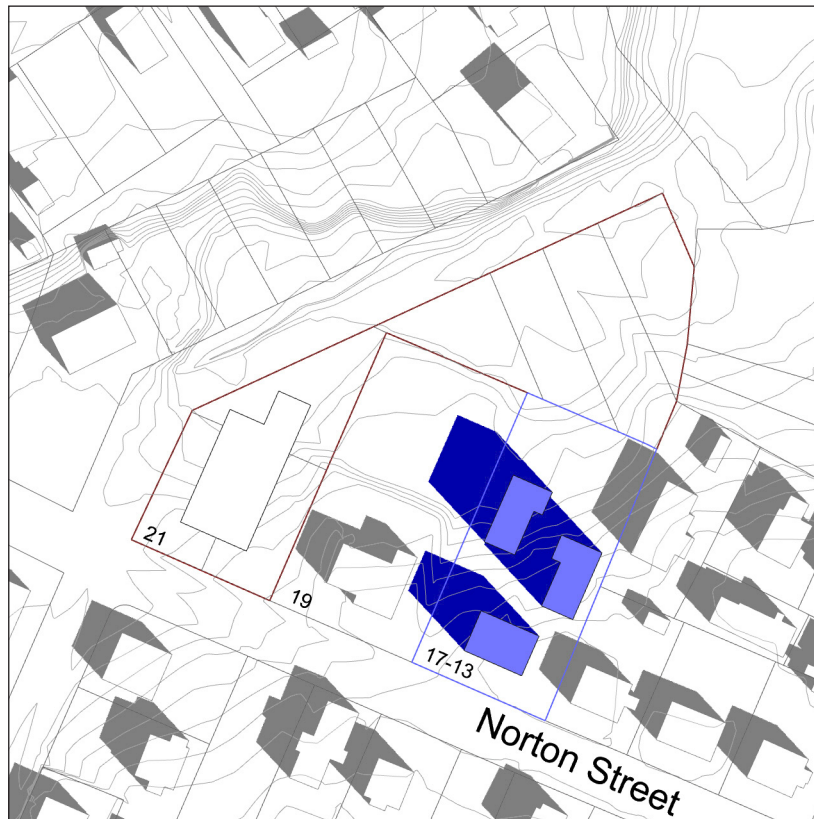


9:30 am

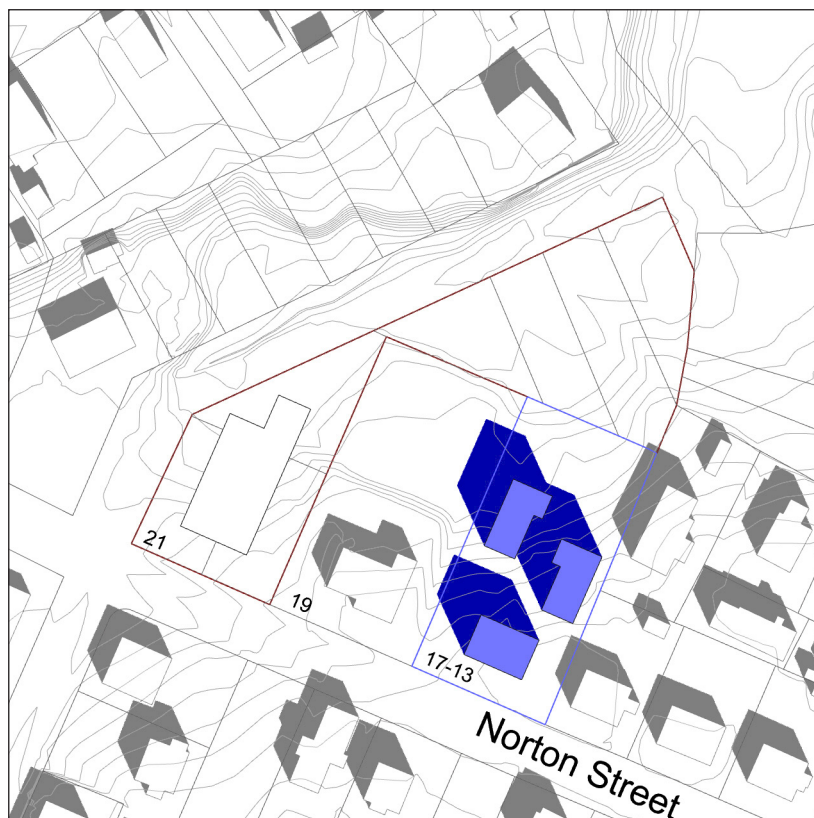
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Fall Equinox, September 21

from 6:50 am (20 minutes after sunrise) to 6:20 pm (20 minutes before sunset)



10:30 am



11:30 am

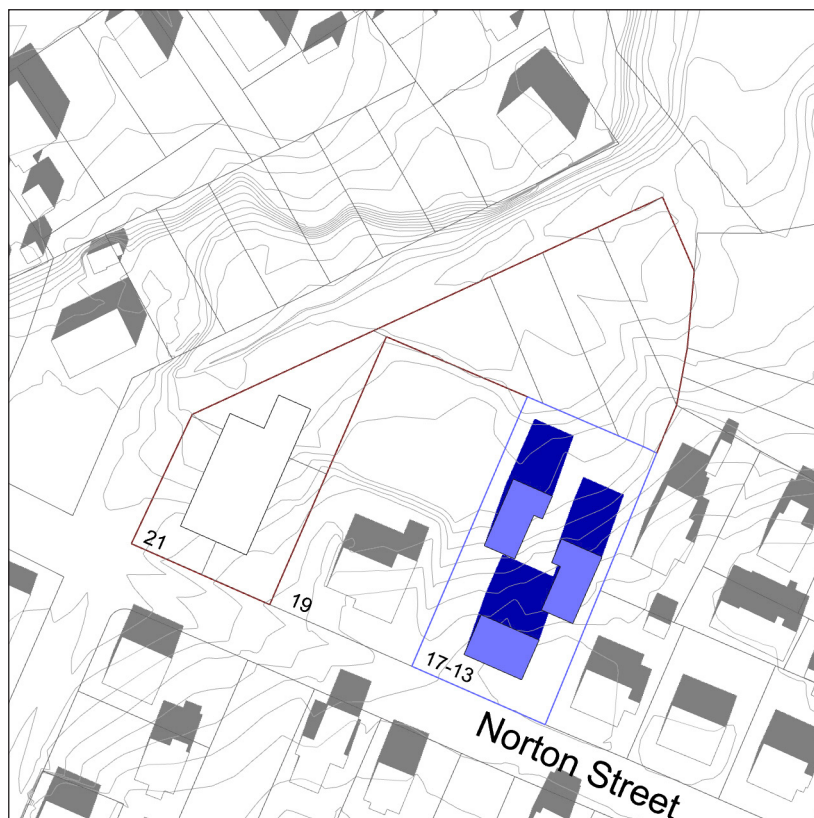
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Fall Equinox, September 21

from 6:50 am (20 minutes after sunrise) to 6:20 pm (20 minutes before sunset)



12:30 pm

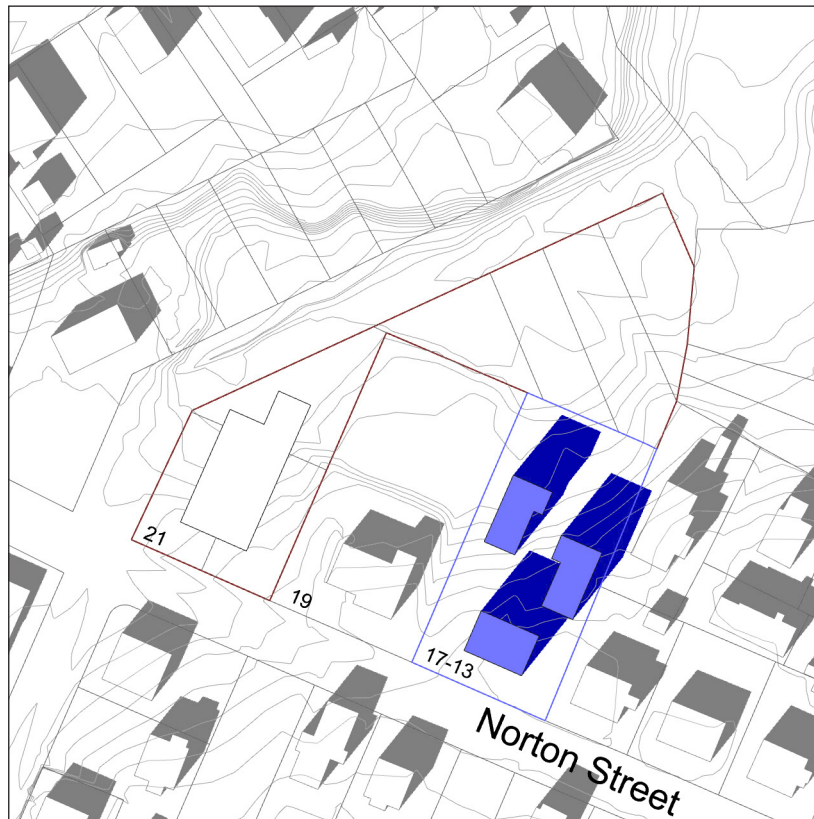


1:30 pm

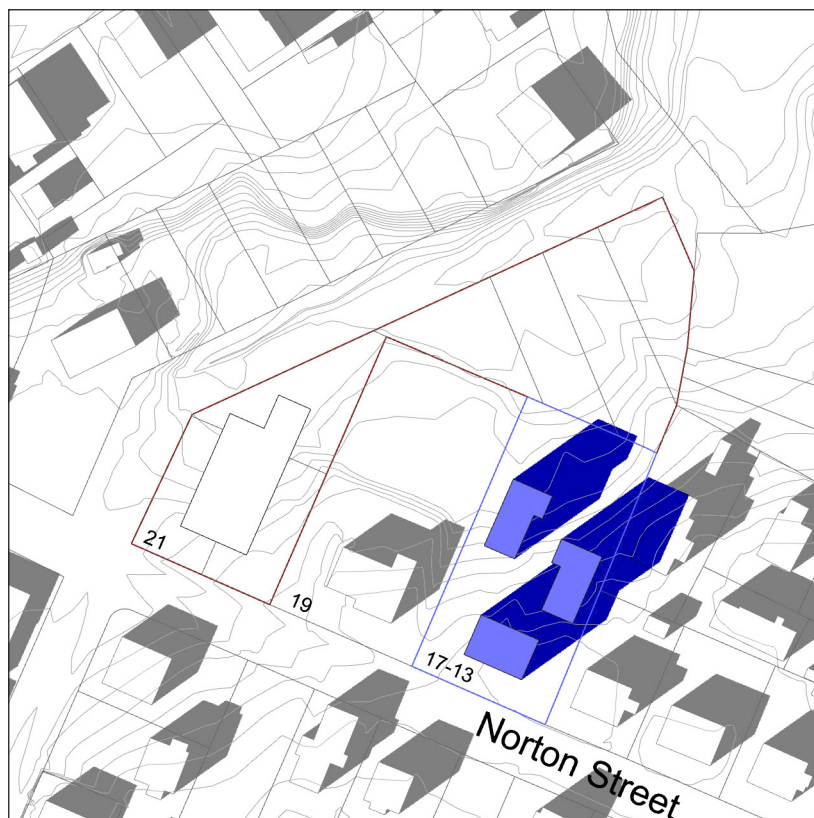
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Fall Equinox, September 21

from 6:50 am (20 minutes after sunrise) to 6:20 pm (20 minutes before sunset)



2:30 pm



3:30 pm

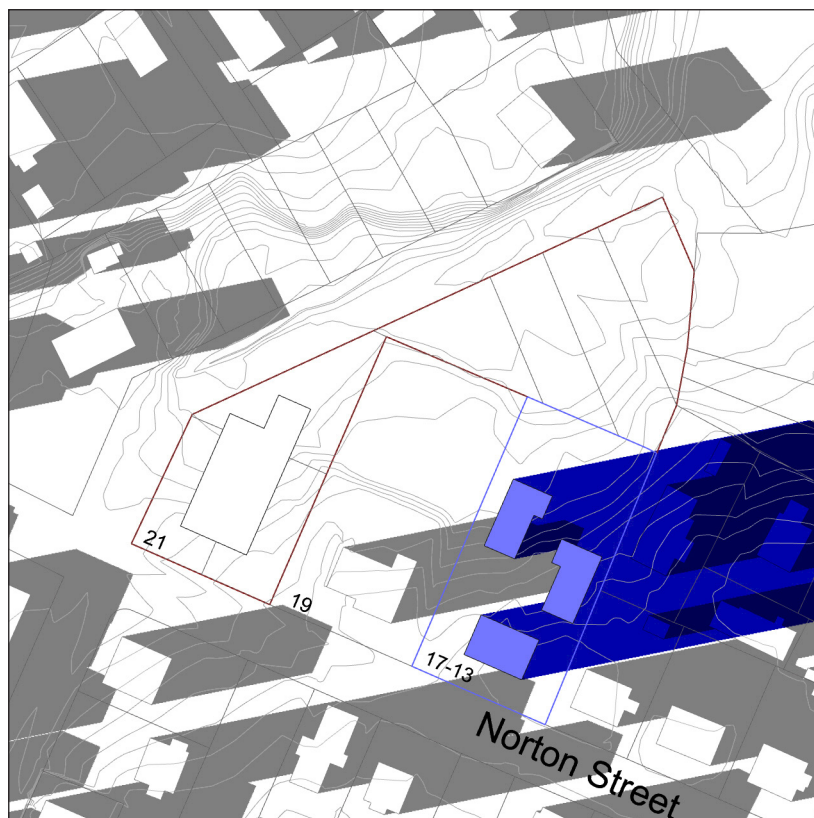
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Fall Equinox, September 21

from 6:50 am (20 minutes after sunrise) to 6:20 pm (20 minutes before sunset)



4:30 pm

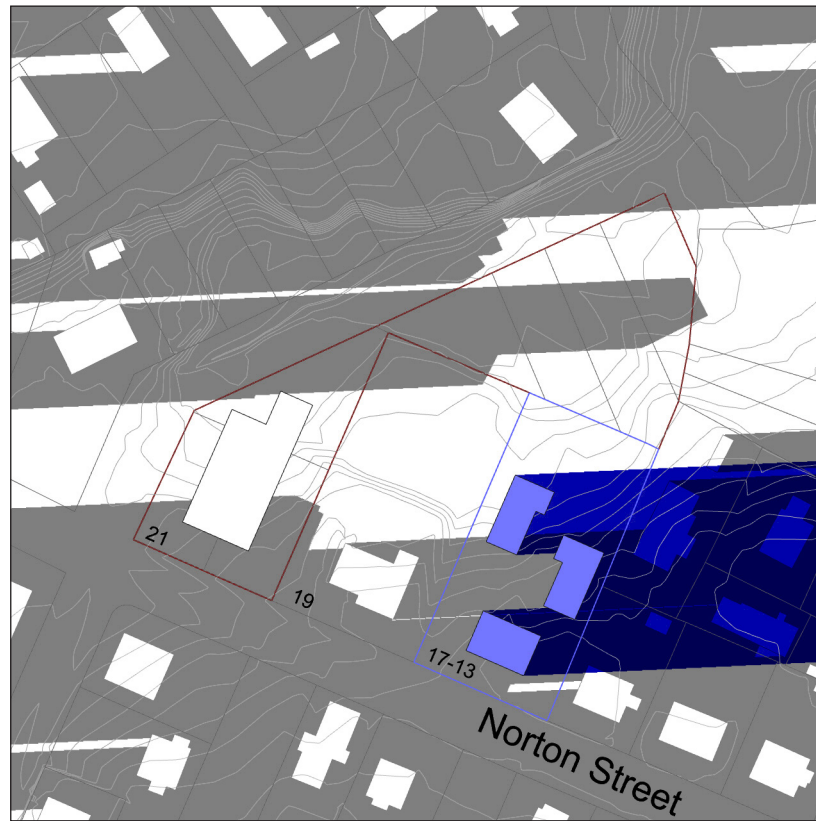


5:30 pm (sunset - 1 hour 10 minutes)

13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Fall Equinox, September 21

from 6:50 am (20 minutes after sunrise) to 6:20 pm (20 minutes before sunset)

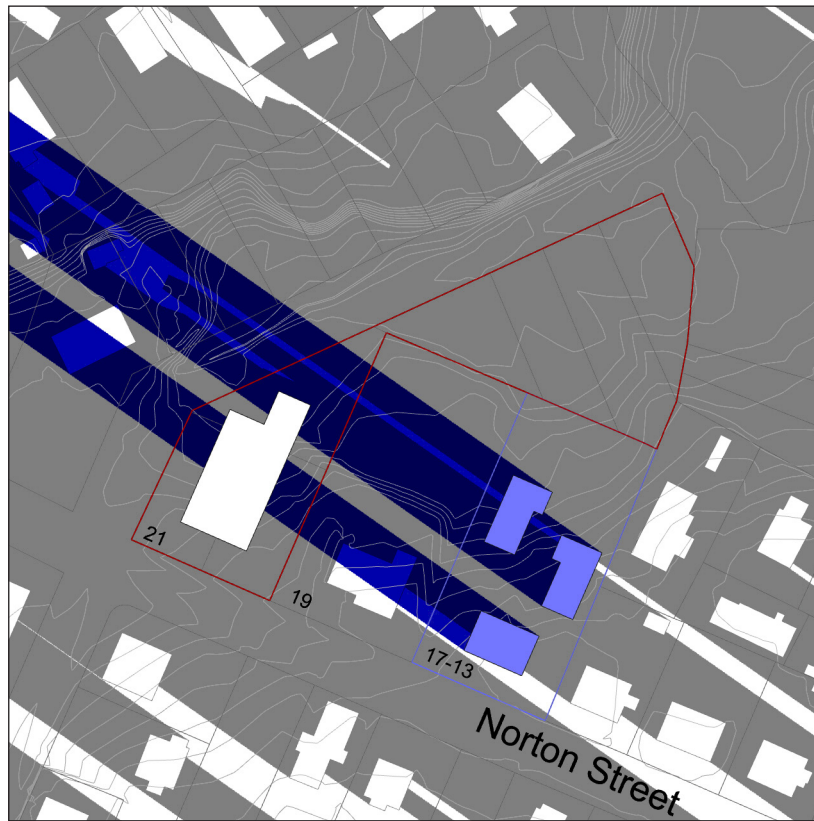


6:20 pm (sunset - 20 minutes)

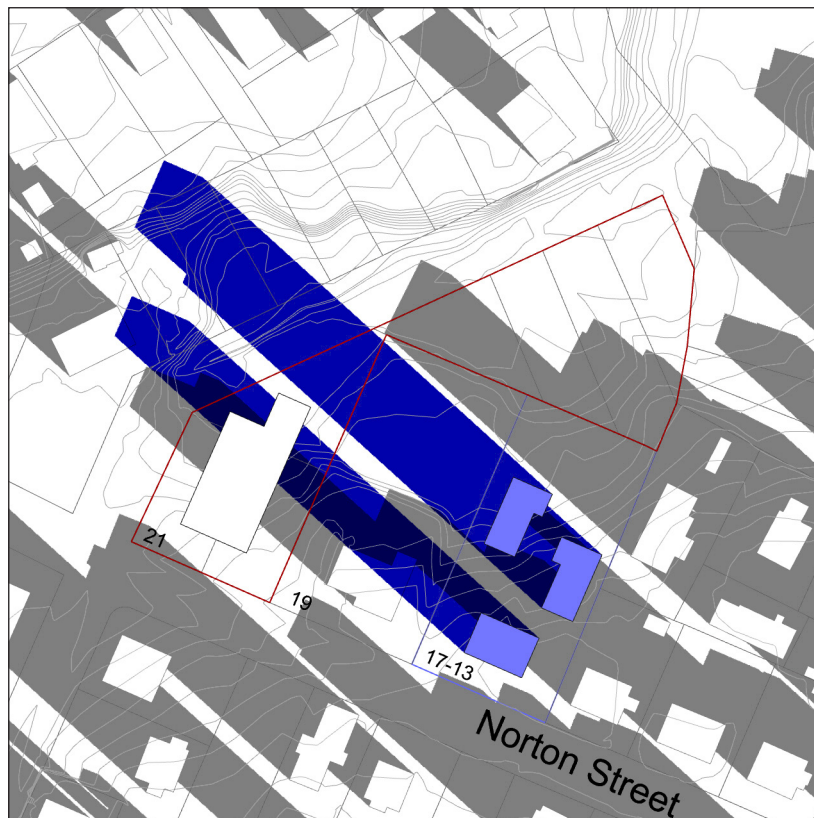
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Winter Solstice, December 21

from 7:30 am (20 minutes after sunrise) to 3:55 pm (20 minutes before sunset)



7:30 am (sunrise + 20 minutes)



8:10 am (sunrise + 1 hour)

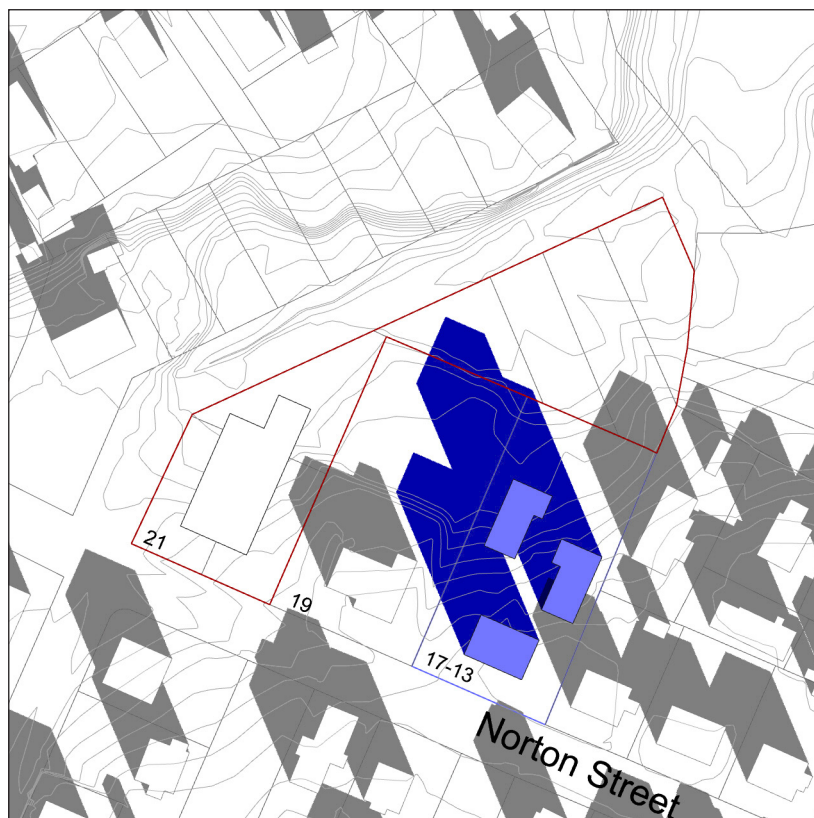
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Winter Solstice, December 21

from 7:30 am (20 minutes after sunrise) to 3:55 pm (20 minutes before sunset)



9:10 am



10:10 am

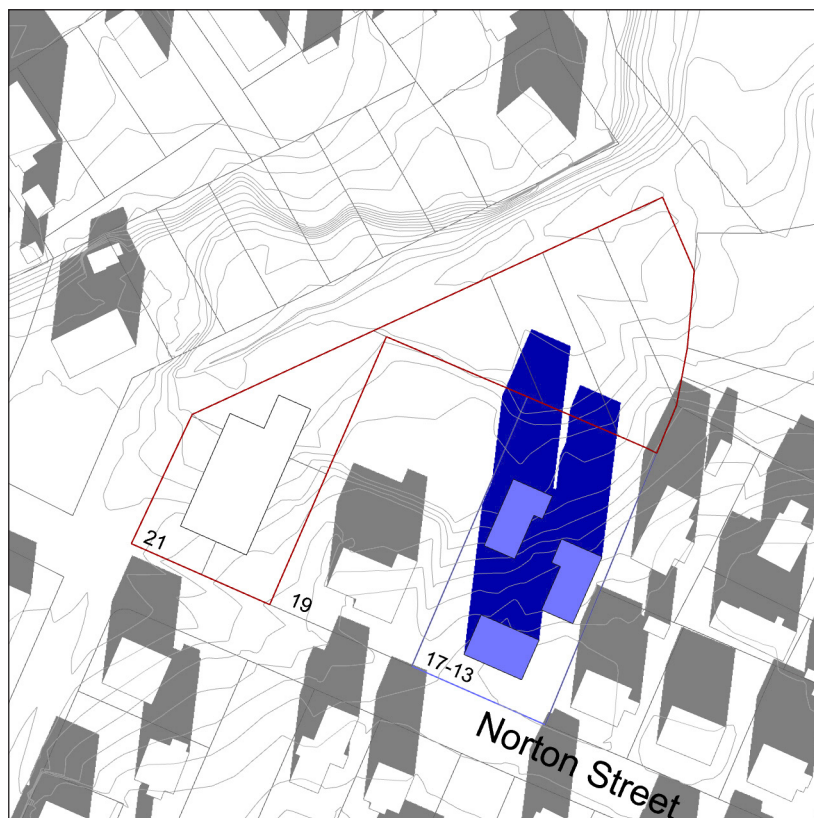
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Winter Solstice, December 21

from 7:30 am (20 minutes after sunrise) to 3:55 pm (20 minutes before sunset)



11:10 am

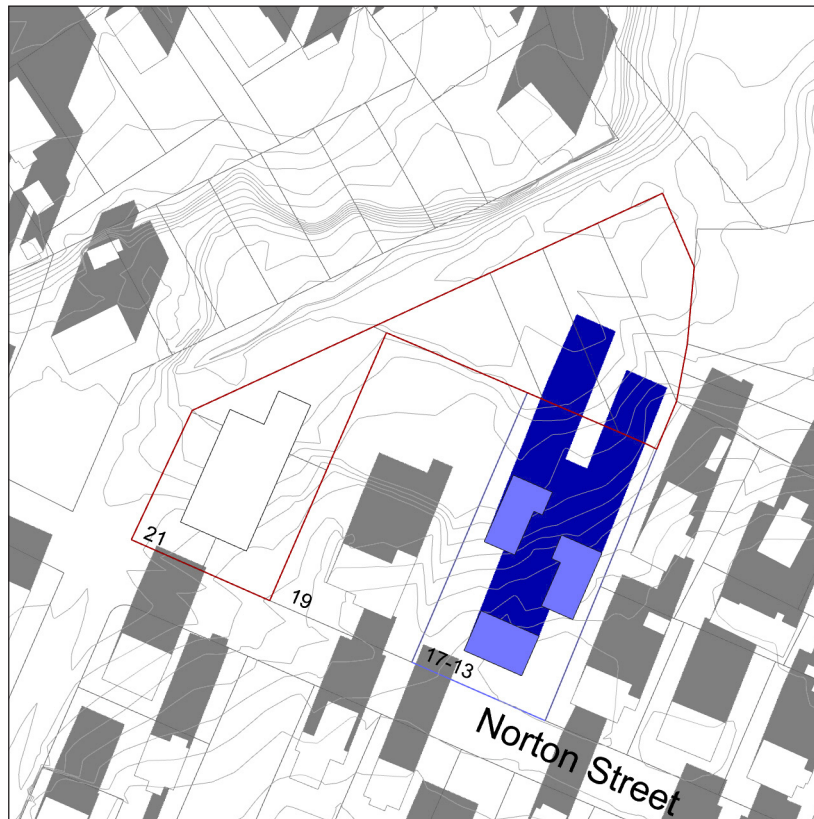


12:10 pm

13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Winter Solstice, December 21

from 7:30 am (20 minutes after sunrise) to 3:55 pm (20 minutes before sunset)



1:10 pm

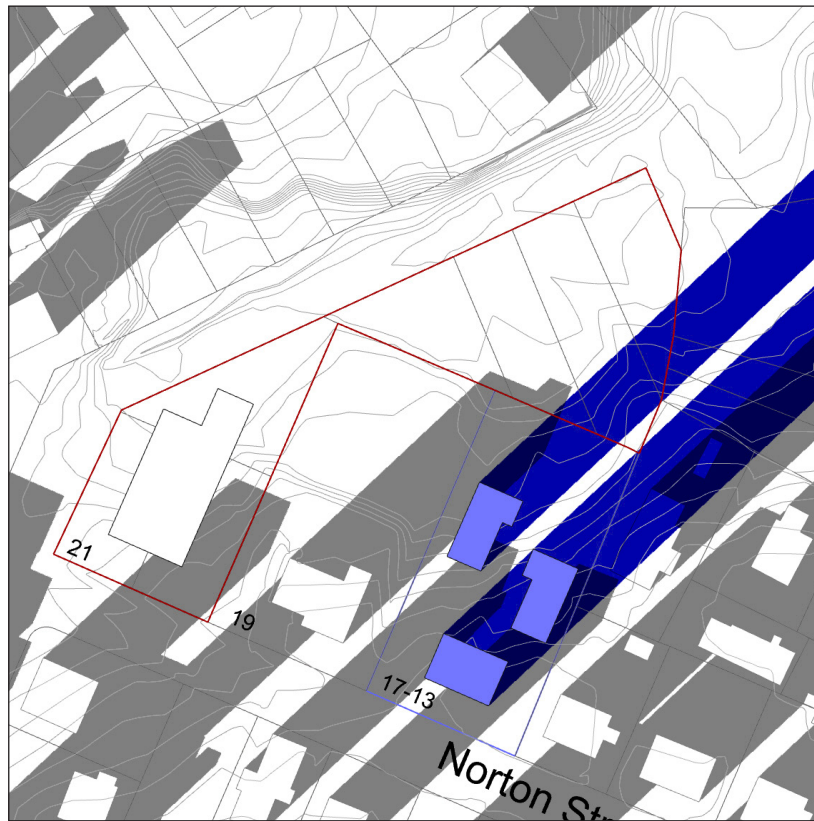


2:10 pm

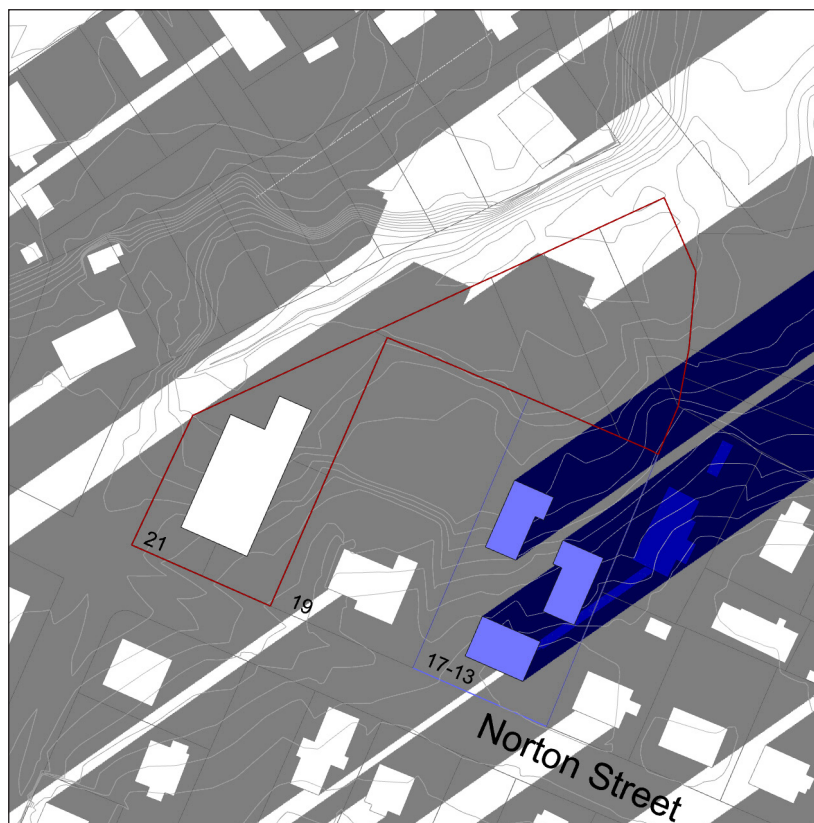
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Winter Solstice, December 21

from 7:30 am (20 minutes after sunrise) to 3:55 pm (20 minutes before sunset)



3:10 pm (sunset - 1 hour 5 minutes)

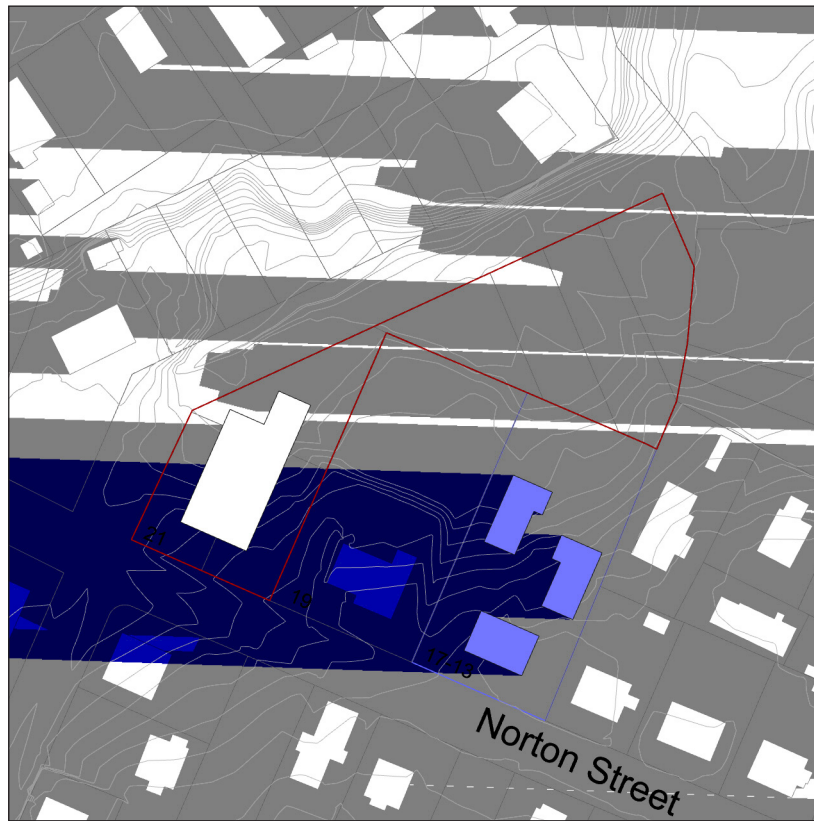


3:55 pm (sunset - 20 minutes)

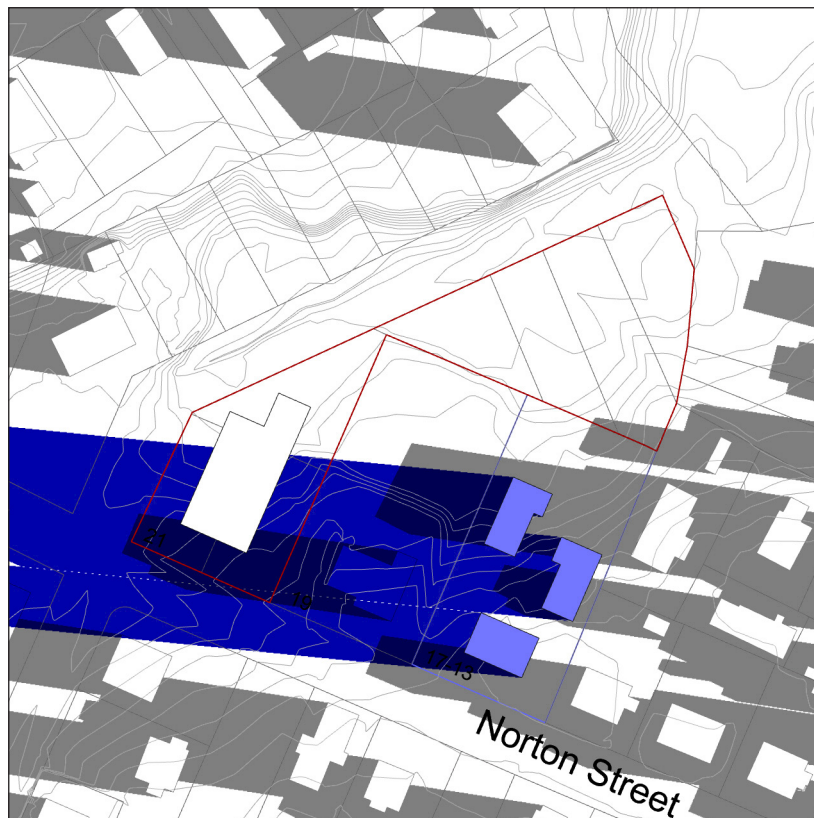
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Spring Equinox, March 21

from 7:05 am (20 minutes after sunrise) to 6:35 pm (20 minutes before sunset)



7:05 am (sunrise + 20 minutes)

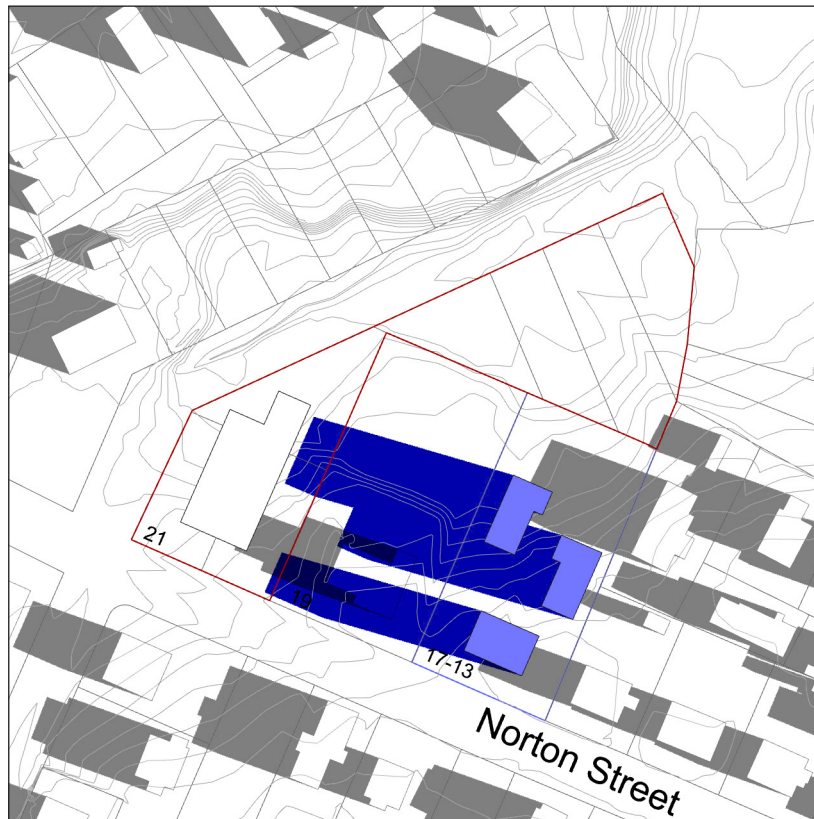


7:45 am (sunrise + 1 hour)

13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Spring Equinox, March 21

from 7:05 am (20 minutes after sunrise) to 6:35 pm (20 minutes before sunset)



8:45 am



9:45 am

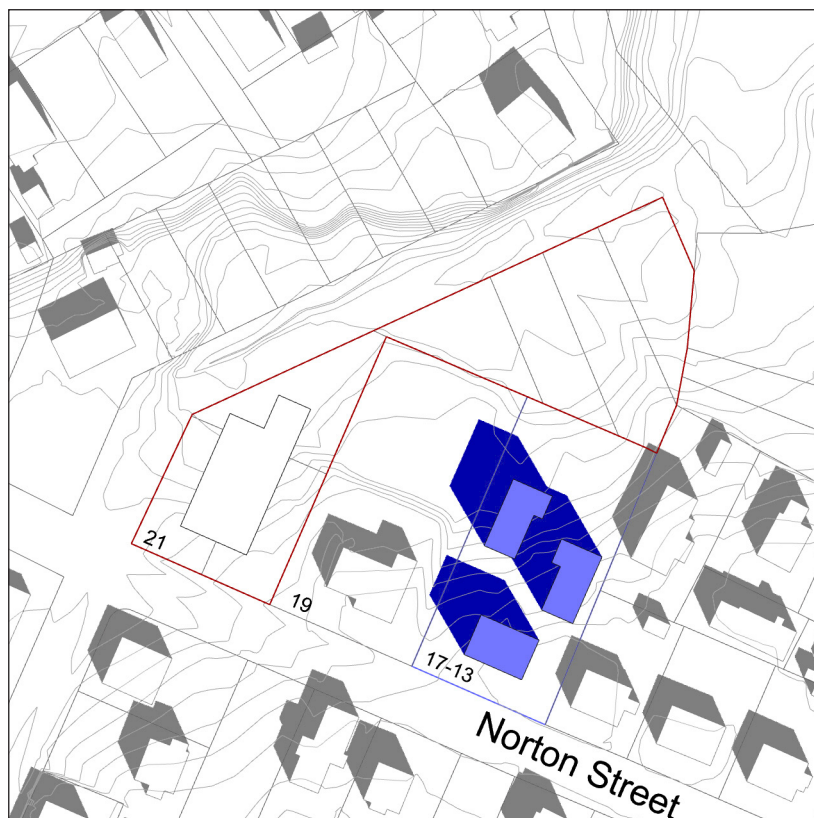
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Spring Equinox, March 21

from 7:05 am (20 minutes after sunrise) to 6:35 pm (20 minutes before sunset)



10:45 am



11:45 am

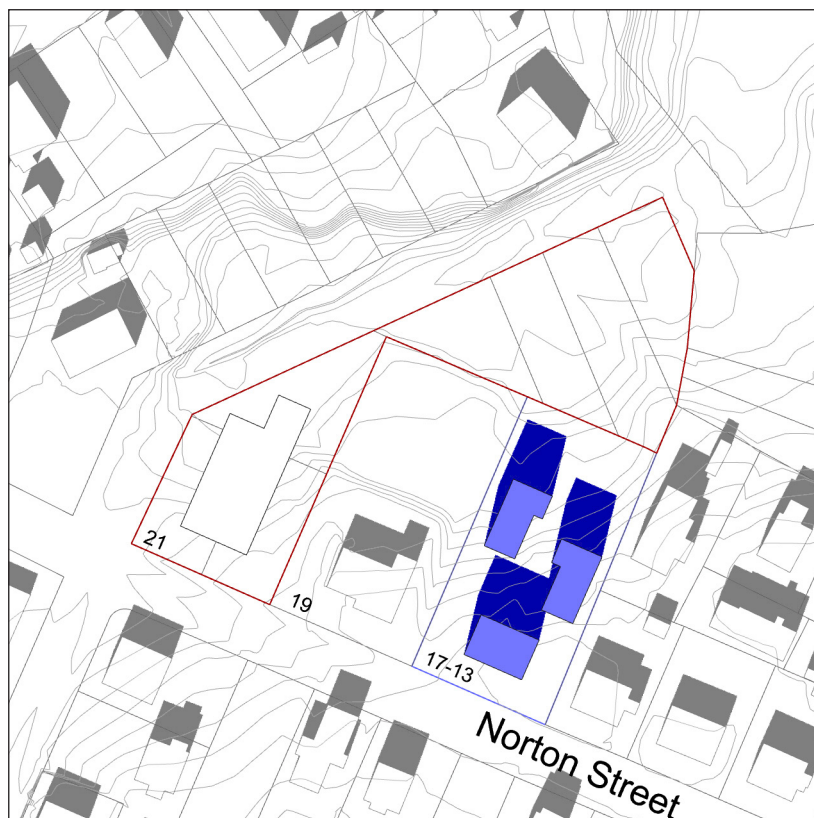
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Spring Equinox, March 21

from 7:05 am (20 minutes after sunrise) to 6:35 pm (20 minutes before sunset)



12:45 pm

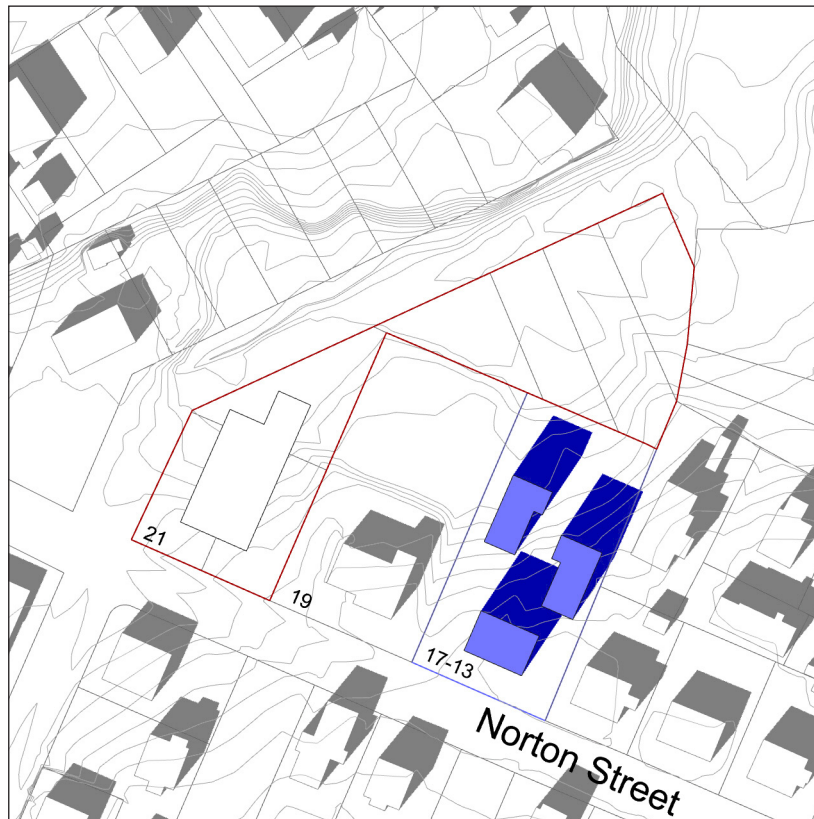


1:45 pm

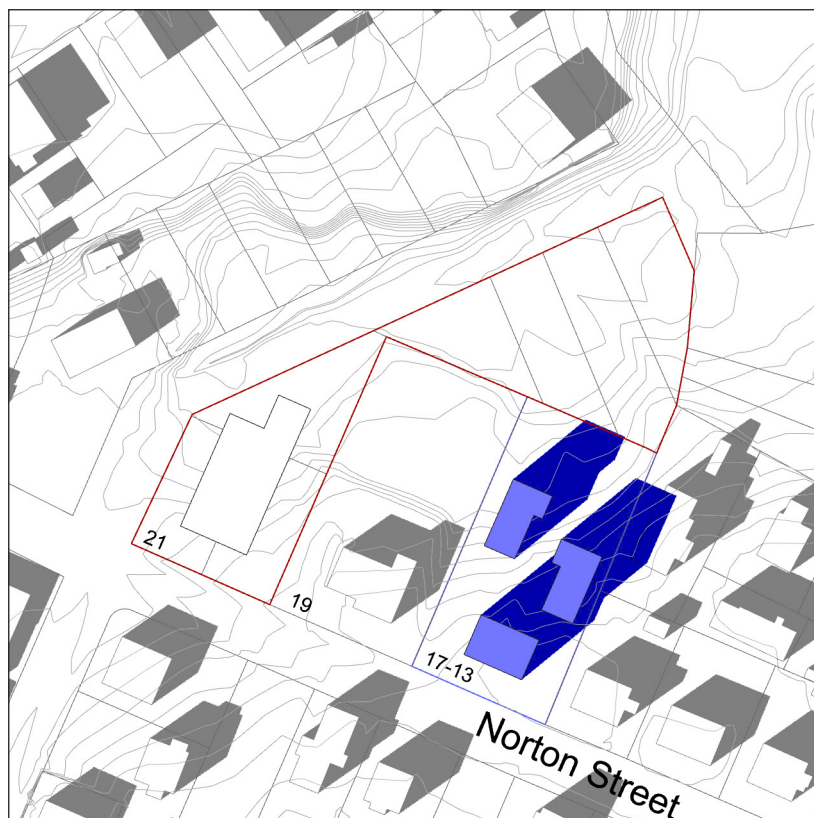
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Spring Equinox, March 21

from 7:05 am (20 minutes after sunrise) to 6:35 pm (20 minutes before sunset)



2:45 pm



3:45 pm

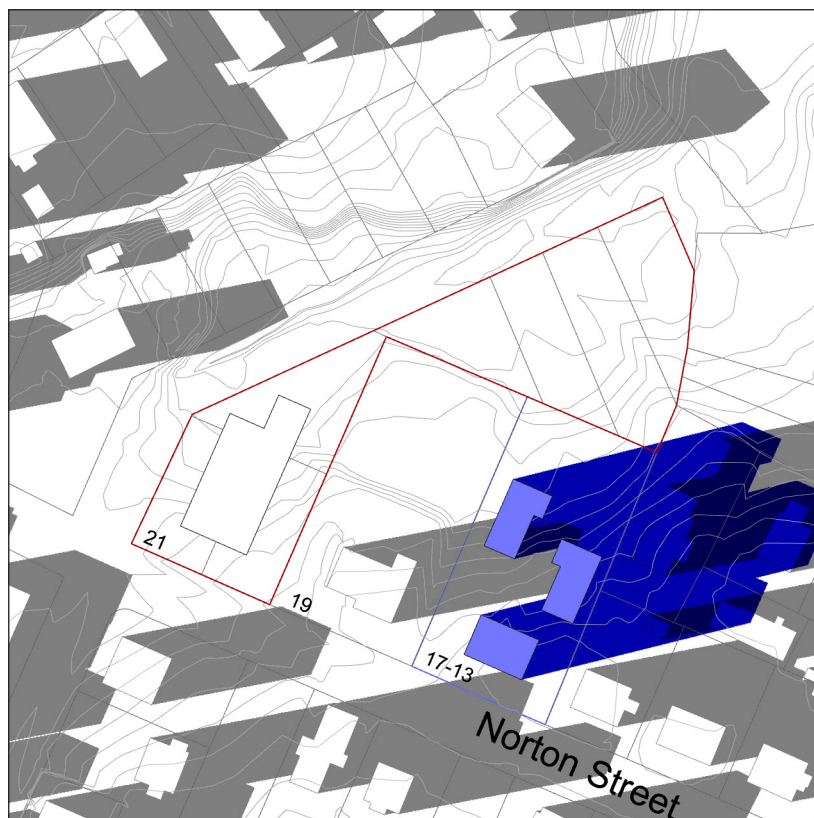
13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Spring Equinox, March 21

from 7:05 am (20 minutes after sunrise) to 6:35 pm (20 minutes before sunset)



4:45 pm

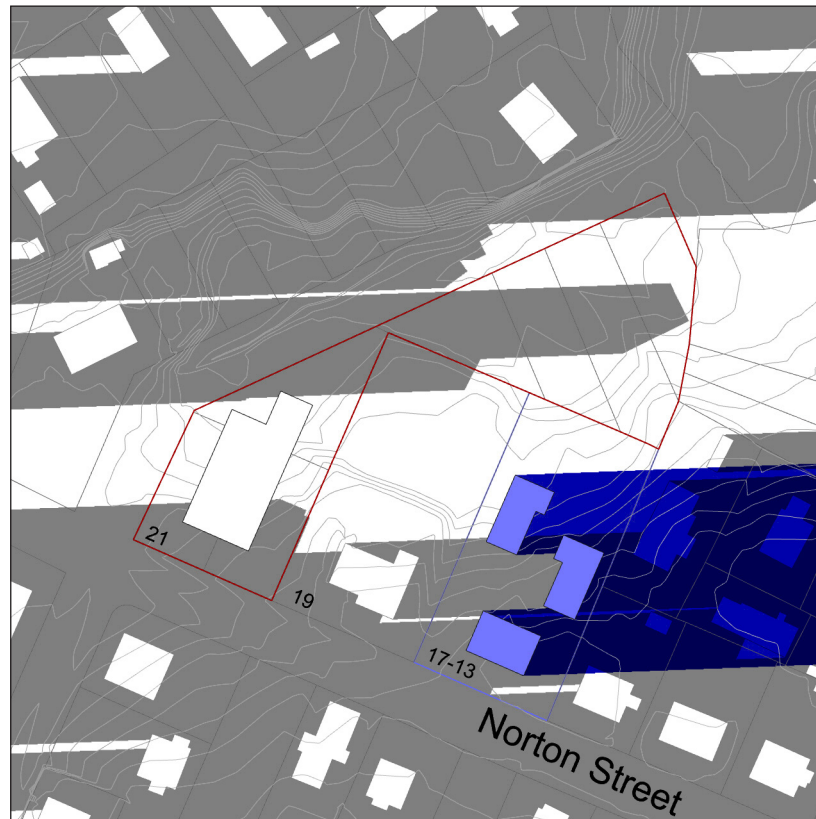


5:45 pm (sunset - 1 hour 10 minutes)

13-17 Norton Shadow Study on 19 and 21 Norton (Urban Farm)

Spring Equinox, March 21

from 7:05 am (20 minutes after sunrise) to 6:35 pm (20 minutes before sunset)



6:35 pm (sunset - 20 minutes)