

Zonnestudie ABC Westland

De volgende bezonningsdiagrammen maken inzichtelijk of de bezonning van de nieuwbouw op de gevel en/of tuin voldoende blijft. Ook geven ze inzicht in toename van schaduw op de omgeving door de nieuwbouw.

Met een 3D-model is de bestaande situatie vergeleken met de toekomstige situatie. Hiervoor zijn de volgende maatgevende dagen van de 4 seizoenen gebruikt:

- 21 maart (lentepunt, equinox)
- 21 juni (zonnwende; zon staat het hoogst)
- 23 september (herftstpunt, equinox)
- 21 december (zonnwende; zon staat het laagst)

Volgens de TNO-normering zijn de volgende twee data onderzocht:

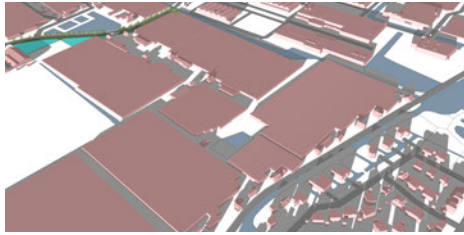
- 19 februari
- 21 oktober

19 februari (TNO)

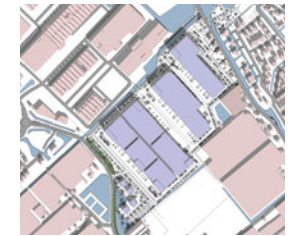
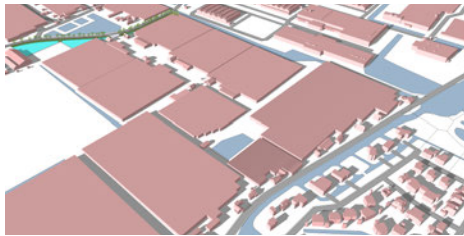
bestaande situatie

nieuwe situatie

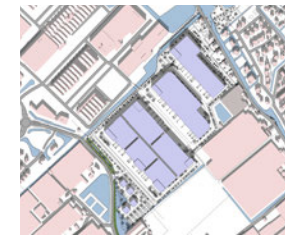
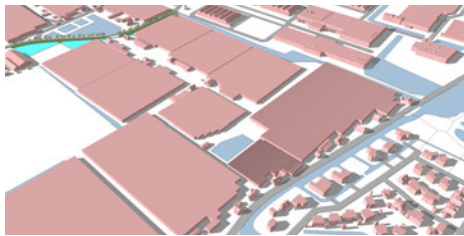
09:00



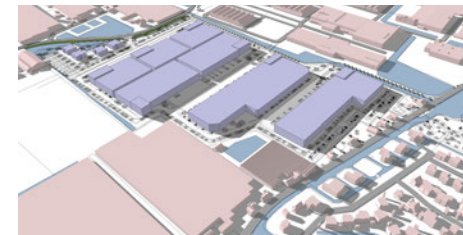
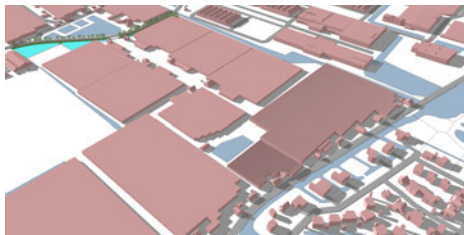
11:00



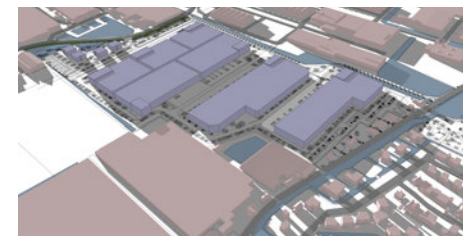
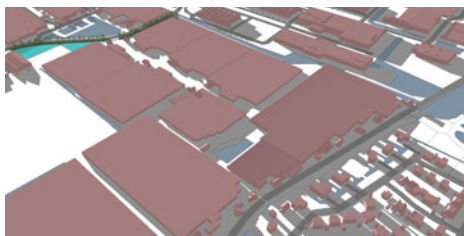
13:00



15:00



17:00

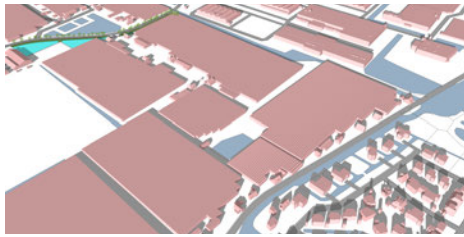


21 maart

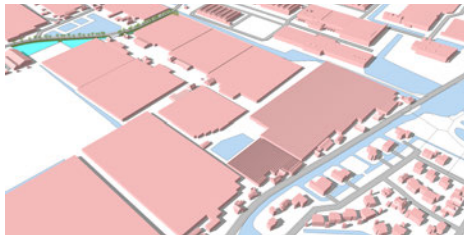
bestaande situatie

nieuwe situatie

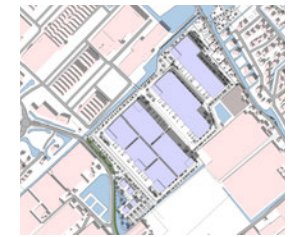
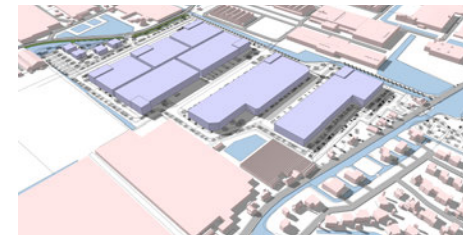
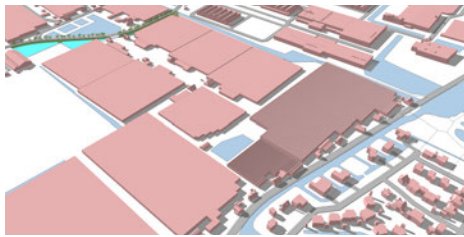
09:00



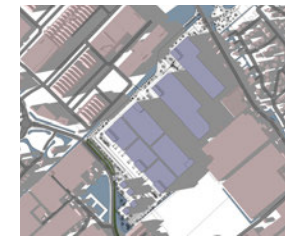
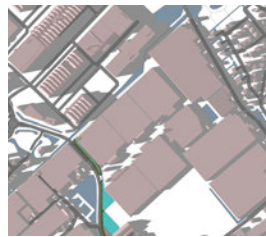
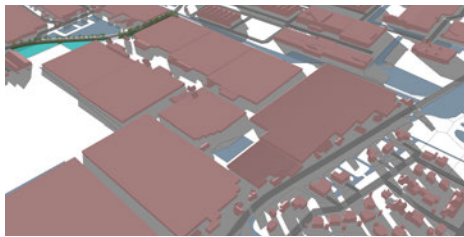
12:00



15:00



18:00

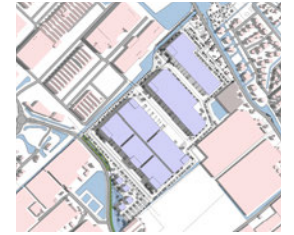
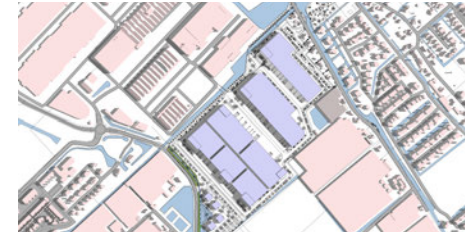
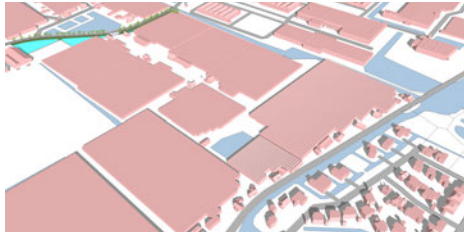


21 juni

bestaande situatie

nieuwe situatie

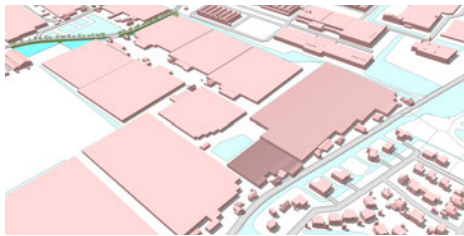
09:00



12:00



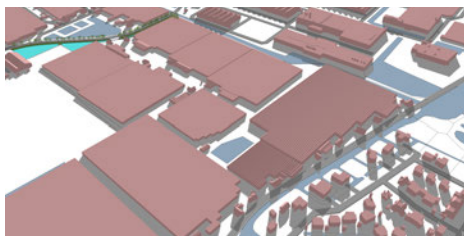
15:00



18:00



20:00

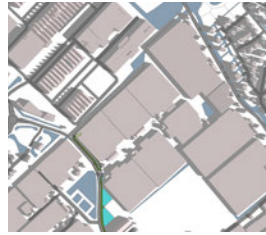
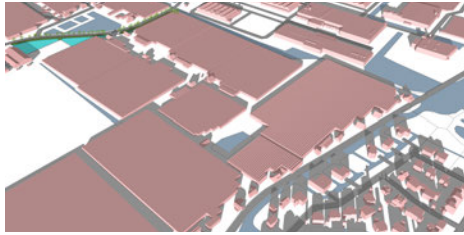


23 september

bestaande situatie

nieuwe situatie

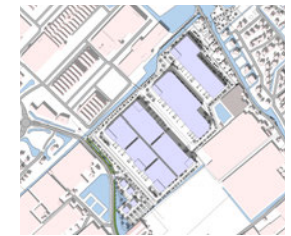
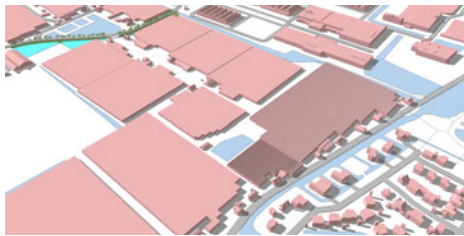
09:00



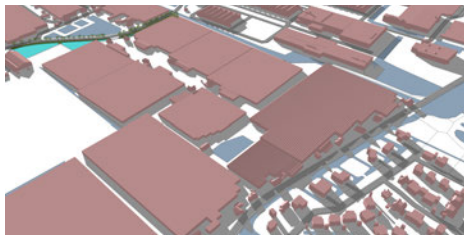
12:00



15:00



18:00

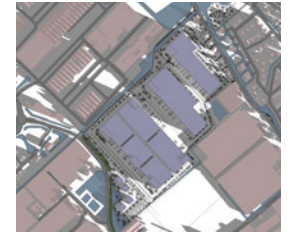
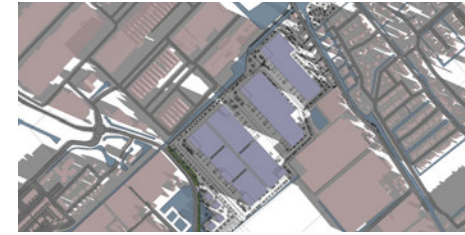
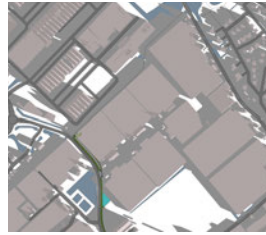
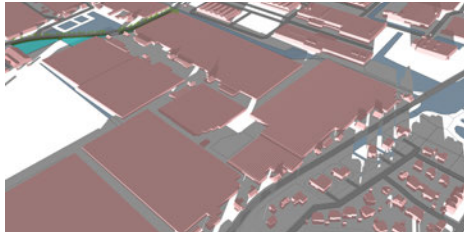


21 oktober (TNO)

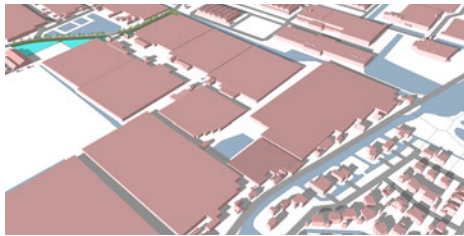
bestaande situatie

nieuwe situatie

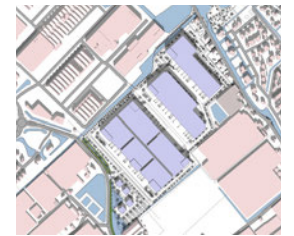
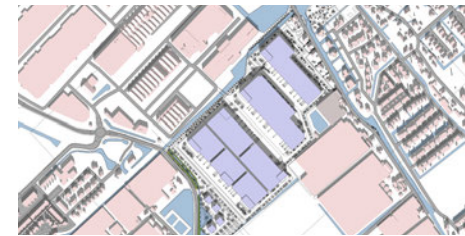
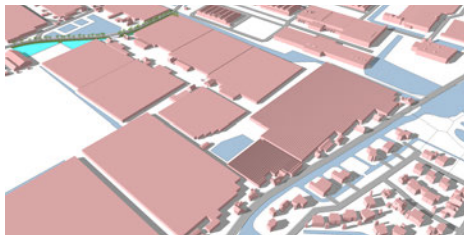
09:00



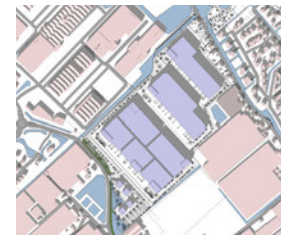
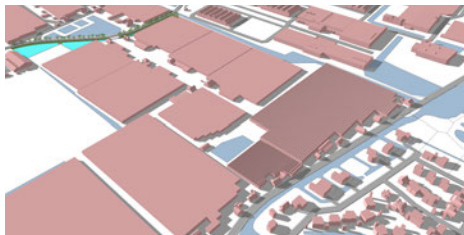
11:00



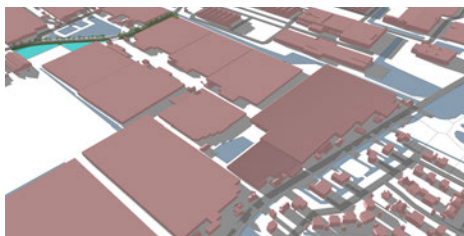
13:00



15:00



17:00

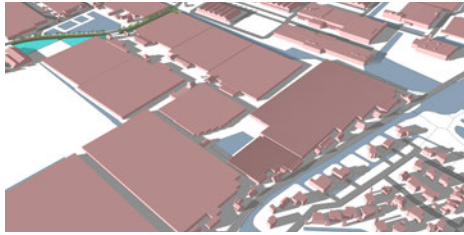


21 december

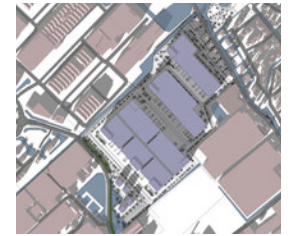
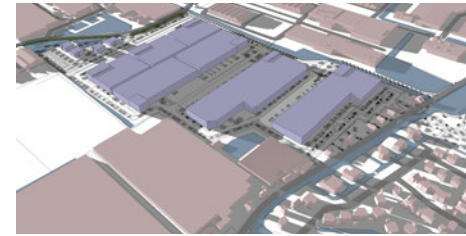
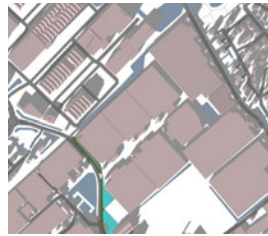
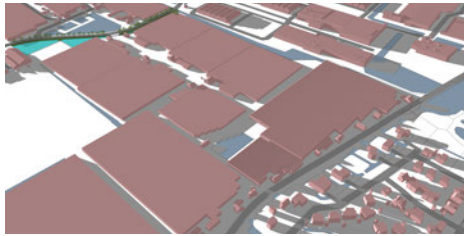
bestaande situatie

nieuwe situatie

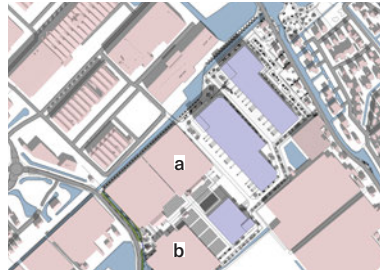
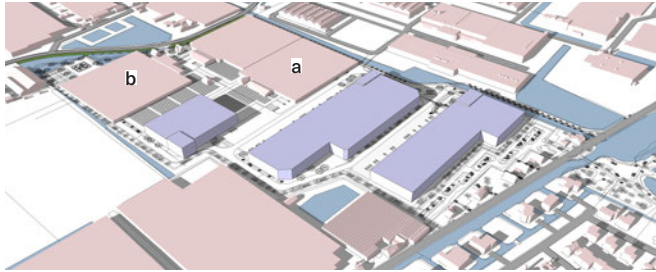
12:00



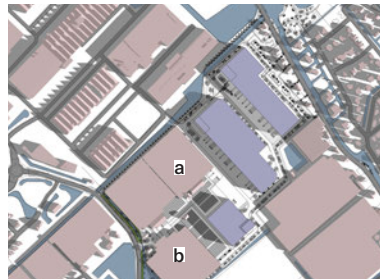
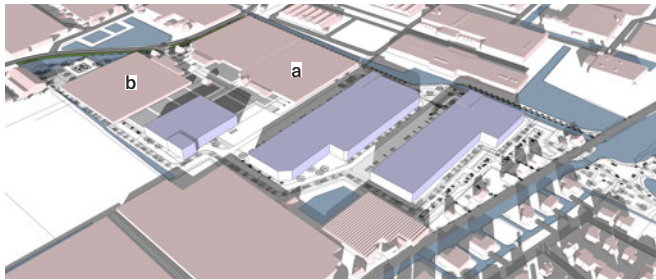
15:00



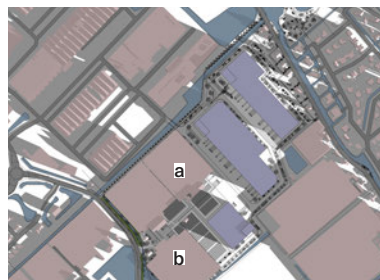
Schaduwwerking op kassen A en B



19 februari 's ochtends (< 9 uur)



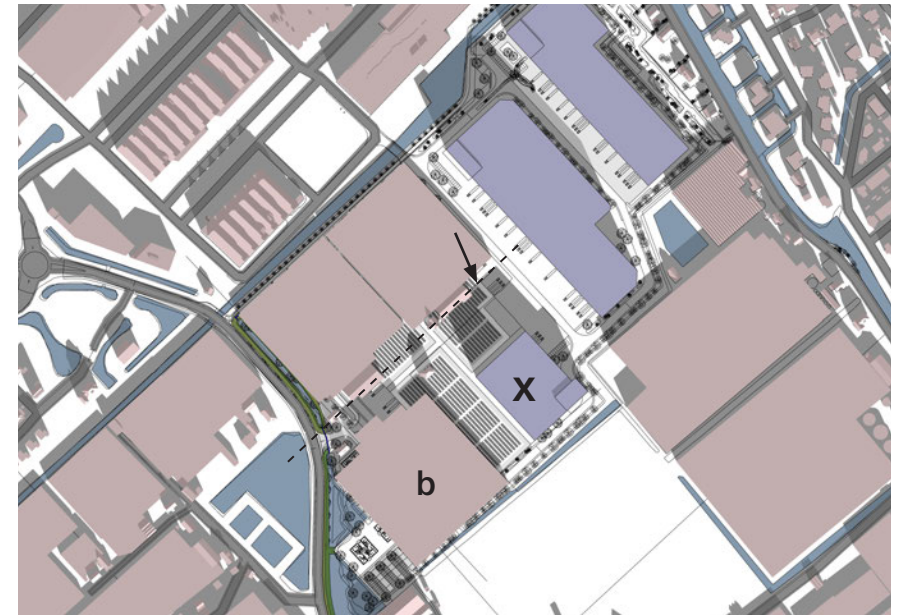
23 september 's ochtends (voor 09:00)



21 oktober 's ochtends (tussen zonsopkomst om 08:17 en 09:30 schaduweffect)



21 december 's ochtends (tussen zonsopkomst om 08:48 en 10:30 schaduweffect)



Bovenstaande illustratie toont aan dat de schaduwlijn van pand X op kritieke momenten niet verder reikt dan de schaduwlijn van de huidige kassen, waaronder kassencomplex B.

Bevindingen

21 maart

09:00 Geen effect
12:00 Geen effect
15:00 Geen effect
18:00 Geen effect

21 juni

09:00 Geen effect
12:00 Geen effect
15:00 Geen effect
18:00 Geen effect
20:00 Geen effect

23 september

09:00 Schaduweffect van zonsopkomst tot 09:00
12:00 Geen effect
15:00 Geen effect
18:00 Geen effect

21 december

09:00 Schaduweffect van zonsopkomst tot 10:30
12:00 Geen effect
15:00 Geen effect

19 februari (TNO)

09:00 Schaduweffect van zonsopkomst tot 09:00
11:00 Geen effect
13:00 Geen effect
15:00 Geen effect
17:00 Geen effect

21 oktober (TNO)

09:00 Schaduweffect van zonsopkomst tot 09:30
11:00 Geen effect
13:00 Geen effect
15:00 Geen effect
17:00 Geen effect

Conclusie

	21 maart	21 juni	23 september	21 december	19 februari	21 oktober
ochtend			schaduw (beperkt)	schaduw	schaduw (beperkt)	schaduw
middag						
avond						

Conclusie:

De uitbreiding van ABC Westland leidt tot vergelijkbare schaduwwerping als in de huidige situatie behalve in de wintermaanden, waar tot maximaal 10:30 (op 21 december) een gedeeltelijke schaduwwerking zal optreden aan de zuidzijde van het noordelijker gelegen kassencomplex A.