

To whom it may concern,

Re: Trinity Islands Solar Glare – Resequencing Desktop Review

GIA have been instructed to review the impact of construction resequencing for Trinity Islands in relation to Solar Glare and how this would impact the conclusions of the submitted ES Chapter 13 (ref: 132429/FO/2021). This letter should be read alongside the submitted Chapter 13 – Solar Glare of ES Volume 1. The table below details the scenarios assessed within Chapter 13 of the ES and how these would be amended by the proposed resequencing of construction.

SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Phase C1 only complete	Phase D2 only complete
Scenario 4	Phase C1 and C2 only complete	Phase D1 and D2 only complete
Scenario 5	Phase C1, C2 and D1 only complete	Phase C1, D1 and D2 only complete
Scenario 6 (Completed Development)	All Phases Complete, Phase C1, C2, D1 and D2	All Phases Complete, Phase C1, C2, D1 and D2

As identified in the above table, the resequencing does not result in any changes to Scenario 6, the Completed Development scenario, and so all conclusions and effects reported for Scenario 6 remain valid and are not discussed further. There is however the potential for changes in effects for the three phased scenarios, where the reflections visible, shading and obstructions could change as result of the resequencing. As such, a qualitative review is provided in Appendix A for each road junction and rail line identified as sensitive to solar glare effects and a summary provided below. As the design of the proposed buildings and the solar glare effects of the completed development scenario remain unchanged, and this change simply relates to bringing forward the construction of two blocks (Phase D1 and D2) and pushing back the construction of two blocks (Phase C1 and C2), it was not considered necessary to undertake a full technical update. The phased technical analysis provided within Appendix 13.1 of the submitted ES and discussion within Chapter 13 have been used to inform the qualitative review.

Scenario 3

The review provided in Appendix A found that the following junctions or rail lines would see a short term reduction in solar glare effects from those reported in the submitted ES due to the resequencing, where previously only reflections from Phase C1 were considered in scenario 3, but the resequencing means only reflections from Phase D2 would be relevant:

- Liverpool Street (LS) – reduces from Negligible to Minor Adverse (not significant) to Negligible (not significant);
- East Ordsall Lane (EOL1) – reduces from Minor to Moderate Adverse (significant) to Minor Adverse (not significant);
- Hampson Street (HS) – reduces from Negligible to Minor Adverse (not significant) to Negligible (not significant);
- Liverpool Road (LR) – reduces from Minor Adverse (not significant) to Negligible (not significant);
- New Elm Road (NER) – reduces from Minor Adverse (not significant) to Negligible (not significant);
- Trinity Way/Inner Ring Road (TW4) – reduces from Minor Adverse (not significant) to Negligible (not significant);
- Water Street (WS3) – reduces from Moderate to Major Adverse (significant) to Negligible (not significant);

- Ordsall Lane (OS) - reduces from Minor Adverse (not significant) to Negligible (not significant);
- Regent Retail Park (RP1) - reduces from Minor to Moderate Adverse (significant) to Minor Adverse (not significant);
- Regent Retail Park (RP2) - reduces from Minor to Moderate Adverse (significant) to Minor Adverse (not significant); and
- Northern Line (N4) - reduces from Moderate Adverse (significant) to Minor Adverse (not significant); and
- Tram Line (T1) - reduces from Moderate Adverse (significant) to Minor to Moderate Adverse (not significant).

The following junctions or rail lines would see no change in solar glare effects resulting from the resequencing:

- East Ordsall Lane (EOL2) - remains Minor to Moderate Adverse (significant);
- Trinity Way/Inner Ring Road (TW2) - remains Minor Adverse (not significant);
- Trinity Way/Inner Ring Road (TW1) - remains Moderate Adverse (significant);
- Regent Road (RR1) - remains Moderate Adverse (significant);
- Regent Retail Park (RP3) - remains Minor Adverse (not significant);
- Regent Retail Park (RP4) - remains Negligible (not significant);
- Northern Line (N1) - remains Minor Adverse (not significant);
- Northern Line (N2) - remains Moderate Adverse (significant); and
- Northern Line (N3) - remains Moderate Adverse (significant).

The following junctions would see a short term increase in solar glare effects resulting from the resequencing:

- Rolling Street (RS) - increases from Negligible (not significant) to Negligible to Minor Adverse (not significant);
- Water Street (WS1) - increases from Negligible (not significant) to Negligible to Minor Adverse (not significant);
- Trinity Way/Inner Ring Road (TW3) - increases from Negligible (not significant) to Minor Adverse (not significant);
- Water Street (WS2) - increases from Negligible (not significant) to Moderate Adverse (significant);
- Egerton Street/Inner Ring Road (ES2) - increases from Negligible to Minor Adverse (not significant) to Moderate Adverse (significant);
- Regent Road (RR3) - increases from Negligible (not significant) to Minor Adverse (not significant);
- Regent Road (RR2) - increases from Minor Adverse (not significant) to Moderate Adverse (significant);
- Egerton Street (ES1) - increases from Negligible (not significant) to Minor Adverse (not significant);
- Deansgate Interchange on-ramp (ES_Slip) - increases from Negligible (not significant) to Minor Adverse (not significant); and
- Deansgate Interchange (DGI) - increases from Negligible (not significant) to Minor Adverse (not significant).

Temporary mitigation was proposed within the ES at the junction of Water Street (WS3) to reduce the moderate to major adverse effects that occurred in scenario 3 in the instance that construction of Phase C2 is delayed. Due to the resequencing, the temporary mitigation would now not be required until scenario 5, in the instance that construction of C2 (scenario 6) is delayed. The extent of mitigation is unchanged from the submitted ES.

Scenario 4

The review provided in Appendix A found that the following junctions or rail lines would see a short term reduction in solar glare effects from those reported in the submitted ES due to the resequencing, where previously only reflections from Phase C1 and C2 were considered in scenario 4, but the resequencing means only reflections from Phase D1 and D2 would be relevant:

- Liverpool Street (LS) - reduces from Negligible to Minor Adverse (not significant) to Negligible (not significant);
- East Ordsall Lane (EOL1) - reduces from Moderate Adverse (significant) to Minor Adverse (not significant);
- Hampson Street (HS) - reduces from Negligible to Minor Adverse (not significant) to Negligible (not significant);
- Liverpool Road (LR) - reduces from Minor Adverse (not significant) to Negligible (not significant);
- New Elm Road (NER) - reduces from Minor Adverse (not significant) to Negligible (not significant);
- Water Street (WS3) - reduces from Moderate (significant) to Negligible (not significant);

- Regent Retail Park (RP2) – reduces from Minor to Moderate Adverse (significant) to Minor Adverse (not significant); and
- Northern Line (N4) – reduces from Moderate Adverse (significant) to Minor to Moderate Adverse (significant).

The following junctions or rail lines would see no change in solar glare effects resulting from the resequencing:

- East Ordsall Lane (EOL2) – remains Minor to Moderate Adverse (significant);
- Trinity Way/Inner Ring Road (TW2) – remains Minor Adverse (not significant);
- Trinity Way/Inner Ring Road (TW1) – remains Moderate Adverse (significant);
- Trinity Way/Inner Ring Road (TW4) – remains Minor to Moderate Adverse (significant);
- Egerton Street/Inner Ring Road (ES2) – remains Moderate Adverse (significant);
- Regent Road (RR1) – remains Moderate Adverse (significant);
- Ordsall Lane (OS) – remains Minor Adverse (not significant);
- Regent Retail Park (RP1) – remains Minor to Moderate Adverse (significant);
- Regent Retail Park (RP3) – remains Minor Adverse (not significant);
- Regent Retail Park (RP4) – remains Negligible (not significant);
- Egerton Street (ES1) – remains Minor Adverse (not significant);
- Deansgate Interchange on-ramp (ES_Slip) – remains Minor Adverse (not significant);
- Deansgate Interchange (DGI) – remains Minor Adverse (not significant);
- Northern Line (N1) – remains Minor Adverse (not significant);
- Northern Line (N2) – remains Moderate Adverse (significant);
- Northern Line (N3) – remains Moderate Adverse (significant); and
- Tram Line (T1) – remains Minor to Moderate Adverse (significant).

The following junctions or rail lines would see a short term increase in solar glare effects resulting from the resequencing:

- Rolling Street (RS) – increases from Negligible (not significant) to Negligible to Minor Adverse (not significant);
- Water Street (WS1) – increases from Negligible (not significant) to Negligible to Minor Adverse (not significant);
- Trinity Way/Inner Ring Road (TW3) – increases from Negligible (not significant) to Minor Adverse (not significant);
- Water Street (WS2) – increases from Negligible (not significant) to Moderate Adverse (significant);
- Regent Road (RR3) – increases from Negligible (not significant) to Minor Adverse (not significant); and
- Regent Road (RR2) – increases from Minor Adverse (not significant) to Moderate Adverse (significant).

No mitigation was proposed within the submitted ES in scenario 4 and remains unchanged with the proposed resequencing.

Scenario 5

The review provided in Appendix A found that the following junctions or rail lines would see a short term reduction in solar glare effects from those reported in the submitted ES due to the resequencing, where previously only reflections from Phase C1, C2 and D1 were considered in scenario 5, but the resequencing means only reflections from Phase C1, D1 and D2 would be relevant:

- East Ordsall Lane (EOL1) – reduces from Moderate Adverse (significant) to Minor to Moderate Adverse (significant); and
- Egerton Street/Inner Ring Road (ES2) – reduces from Moderate to Major Adverse (significant) to Moderate Adverse (significant).

The following junctions or rail lines would see no change in solar glare effects resulting from the resequencing:

- Liverpool Street (LS) – remains Negligible to Minor Adverse (not significant);
- Rolling Street (RS) – remains Negligible to Minor Adverse (not significant);
- East Ordsall Lane (EOL2) – remains Minor to Moderate Adverse (significant);
- Hampson Street (HS) – remains Negligible to Minor Adverse (not significant);

- Trinity Way/Inner Ring Road (TW2) - remains Minor Adverse (not significant);
- Trinity Way/Inner Ring Road (TW1) - remains Moderate Adverse (significant);
- Liverpool Road (LR) - remains Minor Adverse (not significant);
- New Elm Road (NER) - remains from Minor Adverse (not significant);
- Trinity Way/Inner Ring Road (TW4) - remains Minor to Moderate Adverse (significant);
- Regent Road (RR1) - remains Moderate Adverse (significant);
- Regent Road (RR2) - remains Moderate Adverse (significant);
- Ordsall Lane (OS) - remains Minor Adverse (not significant);
- Regent Retail Park (RP1) - remains Minor to Moderate Adverse (significant);
- Regent Retail Park (RP2) - remains Minor to Moderate Adverse (significant);
- Regent Retail Park (RP3) - remains Minor Adverse (not significant);
- Regent Retail Park (RP4) - remains Negligible (not significant);
- Egerton Street (ES1) - remains Minor Adverse (not significant);
- Deansgate Interchange on-ramp (ES_Slip) - remains Minor Adverse (not significant);
- Deansgate Interchange (DGI) - remains Minor Adverse (not significant);
- Northern Line (N1) - remains Minor Adverse (not significant);
- Northern Line (N2) - remains Moderate Adverse (significant);
- Northern Line (N3) - remains Moderate Adverse (significant);
- Northern Line (N4) - remains from Moderate Adverse (significant); and
- Tram Line (T1) - remains Minor to Moderate Adverse (significant).

The following junctions or rail lines would see a short term increase in solar glare effects resulting from the resequencing:

- Water Street (WS1) - increases from Negligible (not significant) to Negligible to Minor Adverse (not significant);
- Trinity Way/Inner Ring Road (TW3) - increases from Negligible (not significant) to Minor Adverse (not significant);
- Water Street (WS2) - increases from Minor to Moderate Adverse (significant) to Moderate Adverse (significant);
- Water Street (WS3) - increases from Moderate Adverse (significant) to Moderate to Major (significant); and
- Regent Road (RR3) - increases from Negligible (not significant) to Minor Adverse (not significant).

Temporary mitigation was proposed within the ES at the junction of Egerton Street/Inner Ring Road (ES2) to reduce the moderate to major adverse effects that occurred in scenario 5 in the instance that construction of Phase D2 is delayed. Due to the resequencing, temporary mitigation is no longer required at this junction.

Residual Effects

Construction Phase

There are no changes to the residual effects reported within Table 13.59 of the submitted ES in the construction phase. The overall residual effects remain Negligible to Moderate Adverse and significant for road users at nearby junctions, and Minor to Moderate Adverse and significant for train/tram drivers on nearby tracks.

Scenario 3 (Phase D2)

The likely significant effects reported in Table 13.59 for scenario 3 are unchanged, however due to the resequencing, temporary mitigation is no longer required. The residual effects would remain Negligible to Moderate and significant for road users at nearby junctions and Minor to Moderate Adverse and significant for train/tram drivers on nearby tracks.

Scenario 4 (Phases D1 and D2)

Whilst there have been changes in solar glare effects at numerous road junctions or train lines, there are no changes to the overall residual effects reported within Table 13.59 of the submitted ES in the scenario 4. The overall residual effects remain Negligible to Moderate Adverse and significant for road users at nearby junctions and Minor to Moderate Adverse and significant for train/tram drivers on nearby tracks.

Scenario 5 (Phases C1, D1 and D2)

The likely significant effects reported in Table 13.59 for scenario 5 are unchanged, however due to the resequencing, the temporary mitigation measures outlined would relate to those previously set out for scenario 3, regarding C1 and C2 rather than D1 and D2. The post-mitigation residual effects would remain Negligible to Moderate and significant for road users at nearby junctions and Minor to Moderate Adverse and significant for train/tram drivers on nearby tracks.

Scenario 6 (Completed Development)

There are no changes to the residual effects reported within Table 13.59 of the submitted ES in the scenario 6. The post-mitigation residual effects would remain Negligible to Moderate and significant for road users at nearby junctions and Minor to Moderate Adverse and significant for train/tram drivers on nearby tracks.

Summary

Therefore, whilst there would be changes in the reflections occurring within the phased assessments, scenarios 3, 4 and 5, the completed development scenarios (scenario 6) remains unchanged and no additional significant effects would occur. The majority of junctions or rail lines either see a slight reduction in phased effects or no change from those reported in the submitted ES. At some isolated junctions, there has been an increase in phased solar glare effects where Phases D1 and/or D2 are visible earlier within construction programme, however in these instances, there are no permanent additional effects or unless noted, no additional reflections that require temporary mitigation would arise as a result of resequencing the construction of the proposed development. Due to the change in construction programme, the proposed timing of the temporary mitigation proposed in the submitted ES would alter but the means and effect of the temporary mitigation remains unchanged. Therefore, the residual effects reported in Chapter 13 of the submitted ES remain valid.

Kind regards,



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Appendix A – Detailed Review

Liverpool Street (LS) - Junction with Oldfield Road

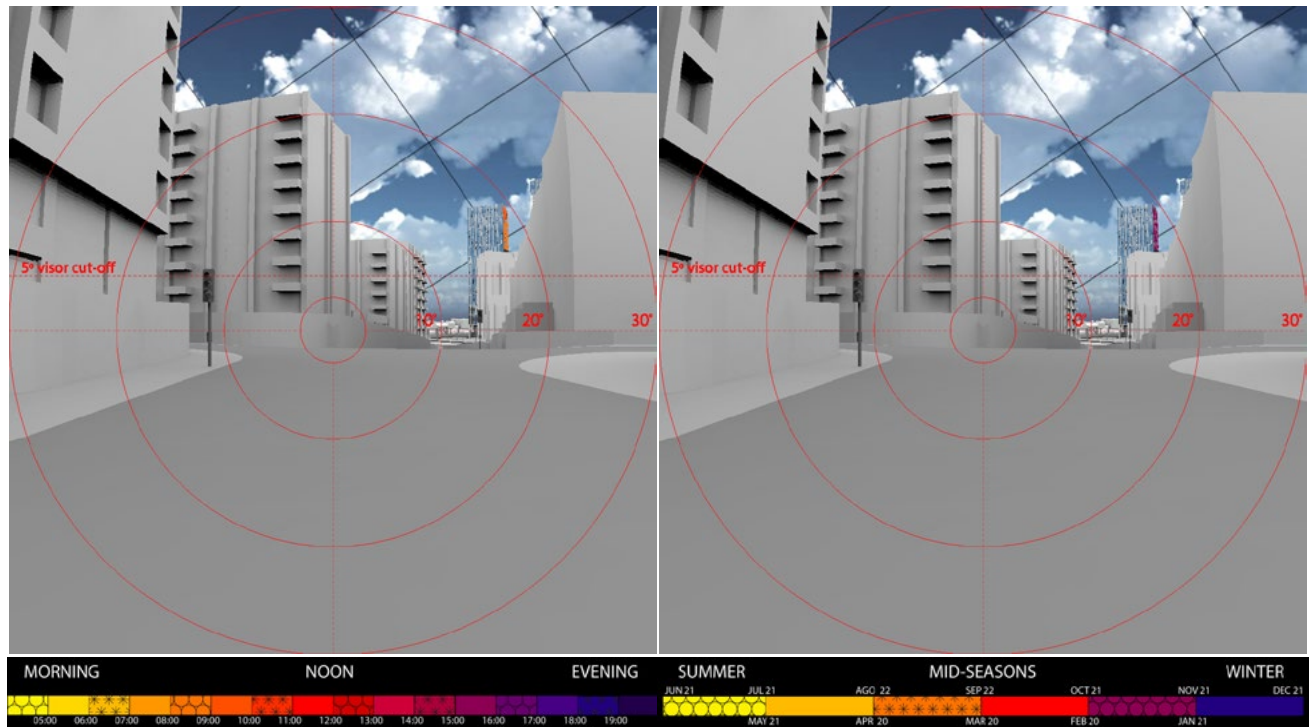


Fig. 01: Solar reflections – Scenario 6 (Completed Development)

At this viewpoint, only Phases C1 and C2 are visible within 30° of a driver's direct line of sight and reflections are only visible from the south-western elevation of C1. Implementation of Phase C2, D1 and D2 do not impact the reflections visible from C1 at this junction, and the phased solar glare effects at this junction would be:

LIVERPOOL STREET (LS)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Negligible to Minor Adverse	Negligible
Scenario 4	Negligible to Minor Adverse	Negligible
Scenario 5	Negligible to Minor Adverse	Negligible to Minor Adverse
Scenario 6	Negligible to Minor Adverse	Negligible to Minor Adverse

As identified in the above table, there is a slight reduction in solar glare effects in scenarios 3 and 4 due to the resequencing, as Phases D1 and D2 are not visible. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Rolling Street (RS) - Junction with Middlewood Street

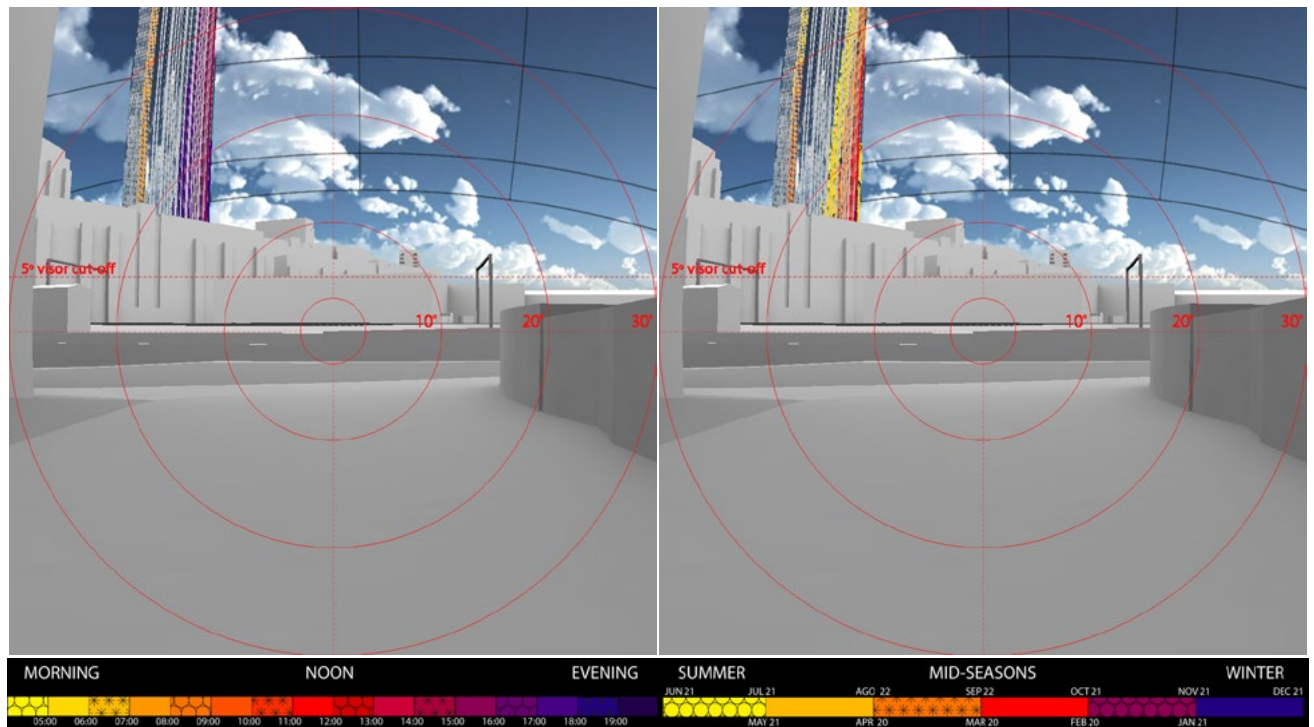


Fig. 02: Solar reflections - Scenario 6 (Completed Development)

At this viewpoint, only Phases D1 and D2 are visible within 30° of a driver's direct line of sight. Implementation of Phases C1 and C2 do not impact the reflections visible from D1 and D2 at this junction, therefore the reflections reported for D1 and D2 within the submitted ES remain unchanged and the phased solar glare effects at this junction would be:

ROLLING STREET (RS)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Negligible	Negligible to Minor Adverse
Scenario 4	Negligible	Negligible to Minor Adverse
Scenario 5	Negligible to Minor Adverse	Negligible to Minor Adverse
Scenario 6	Negligible to Minor Adverse	Negligible to Minor Adverse

At this junction, Phase D2 is partially obstructed from view by Phase D1, as a result of the resequencing, scenario 3 would result in a larger portion of Phase D2 being visible within the field of view. The reflections from Phase D2 would be comparable with those of Phase D1, due to this and the location of the reflections, it is not necessary for technical assessments to be undertaken to confirm an effect of Negligible to Minor Adverse in scenario 3.

As identified in the above table, there is a slight increase in solar glare effects in scenarios 3 and 4 due to the resequencing where Phase D1 and D2 are visible earlier within construction programme. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

East Ordsall Lane (EOL1) - Pedestrian Crossing

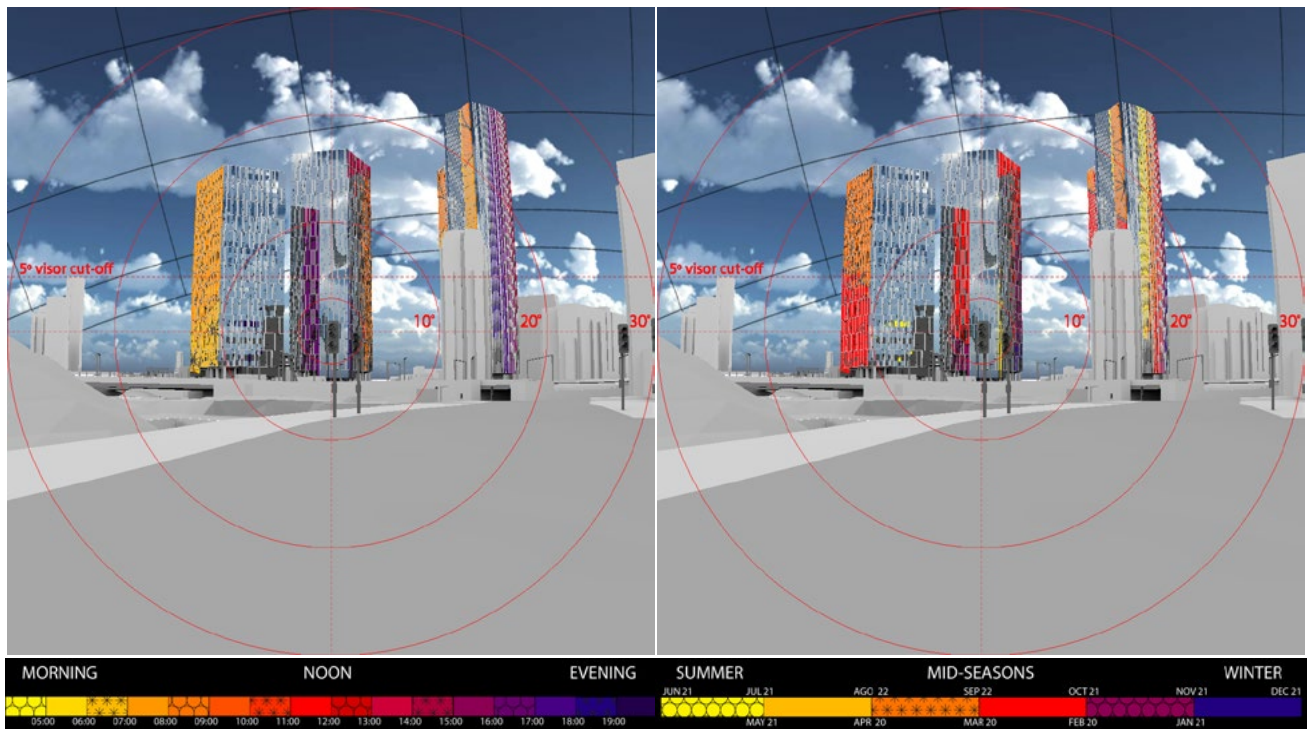


Fig. 03: Solar reflections - Scenario 6 (Completed Development)

At this junction, all four phases are visible within 30° of a driver's direct line of sight. Implementation of Phases C1 and C2 does not impact the reflections visible from Phases D1 and D2 at this junction, therefore the reflections reported for D1 and D2 within the submitted ES remain unchanged. The reflections resulting in the greatest solar glare effects at this junction are from Phases C1 and C2. It should however be noted that Phase D1 and D2 partially shade the most critical elevation of Phase C2, as such, the resequencing leads to a reduction in phased effects reported at this junction. Therefore, based on the location of reflections from each building as reported in the submitted ES, the phased solar glare effects at this junction would be:

EAST ORDSALL LANE (EOL1)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Minor to Moderate Adverse	Minor Adverse
Scenario 4	Moderate Adverse	Minor Adverse
Scenario 5	Moderate Adverse	Minor to Moderate Adverse
Scenario 6	Minor to Moderate Adverse	Minor to Moderate Adverse

At this junction, Phase D2 is largely obstructed from view by Phase D1, as a result of the resequencing, scenario 3 would result in a larger portion of Phase D2 being visible within the field of view. The reflections from Phase D2 would be comparable with those of Phase D1, due to this and the location of the reflections, it is not necessary for technical assessments to be undertaken to confirm an effect of Minor Adverse in scenario 3.

As identified in the above table, there is a reduction in phased solar glare effects due to the resequencing in scenarios 3, 4 and 5 where Phase D1 and D2 are visible earlier within construction programme. When Phase C2 is implemented, due to the earlier construction of D1 and D2, the most sensitive elevation of Phase C2 is therefore already partially shaded. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

East Ordsall Lane (EOL2) - Junction with Middlewood Street/Hampson Street

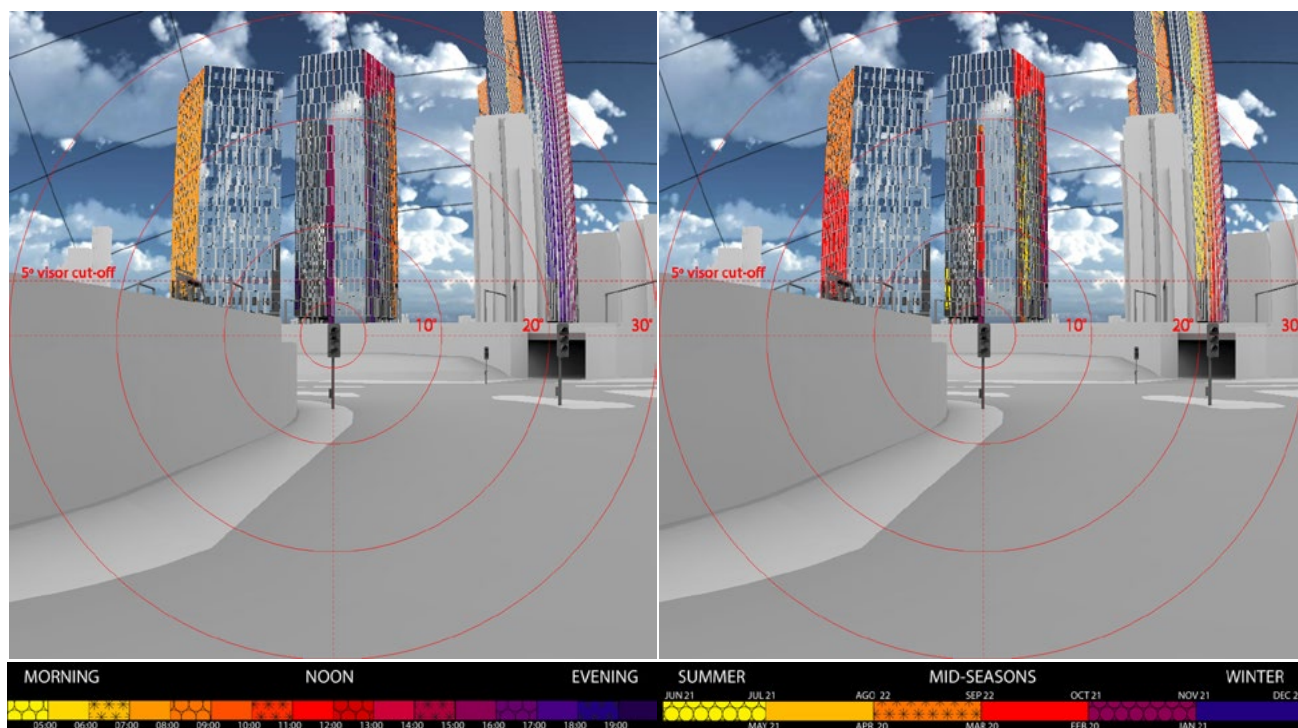


Fig. 04: Solar reflections - Scenario 6 (Completed Development)

At this junction, all four phases are visible within 30° of a driver's direct line of sight. Implementation of Phases C1 and C2 does not impact the reflections visible from Phases D1 and D2 at this junction, therefore the reflections reported for D1 and D2 within the submitted ES remain unchanged. The reflections resulting in the greatest solar glare effects at this junction are from Phase C2. It should however be noted that Phase D2 partially shades one of the most critical elevation of Phase C2, as such, the resequencing leads to a slight improvement in the reflections at this junction. Therefore, based on the location of reflections from each building as reported in the submitted ES, the phased solar glare effects at this junction would be:

EAST ORDSALL LANE (EOL2)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Minor to Moderate Adverse	Minor to Moderate Adverse
Scenario 4	Minor to Moderate Adverse	Minor to Moderate Adverse
Scenario 5	Minor to Moderate Adverse	Minor to Moderate Adverse
Scenario 6	Minor to Moderate Adverse	Minor to Moderate Adverse

At this junction, Phase D2 is predominantly obstructed from view by Phase D1, as a result of the resequencing, scenario 3 would result in a larger portion of Phase D2 being visible within the field of view. The reflections from Phase D2 would be comparable with those of Phase D1, due to this and the location of the reflections, it is not necessary for technical assessments to be undertaken to confirm an effect of Minor to Moderate Adverse in scenario 3.

As identified in the above table, there is no change in solar glare effects at this junction due to the resequencing. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Hampson Street (HS) - Junction with Trinity Way/Inner Ring Road

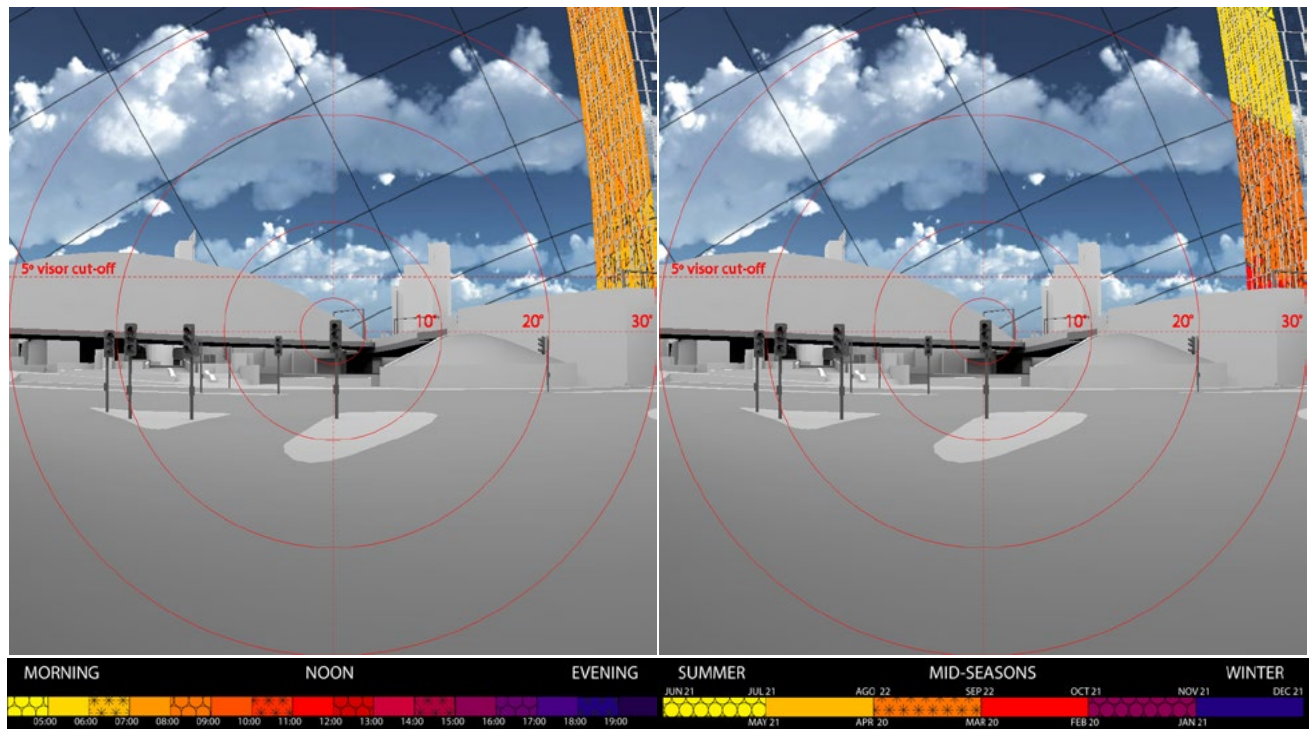


Fig. 05: Solar reflections - Scenario 6 (Completed Development)

At this viewpoint, only Phase C1 is visible within 30° of a driver's direct line of sight. Implementation of Phase D1 and D2 do not impact the reflections visible from C1 at this junction, and the phased solar glare effects at this junction would be:

HAMPSON STREET (HS)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Negligible to Minor Adverse	Negligible
Scenario 4	Negligible to Minor Adverse	Negligible
Scenario 5	Negligible to Minor Adverse	Negligible to Minor Adverse
Scenario 6	Negligible to Minor Adverse	Negligible to Minor Adverse

As identified in the above table, there is a slight reduction in solar glare effects due to the resequencing in scenarios 3 and 4 where Phase D1 and D2 are not visible. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Trinity Way/Inner Ring Road (TW2) - Junction with Hampson Street

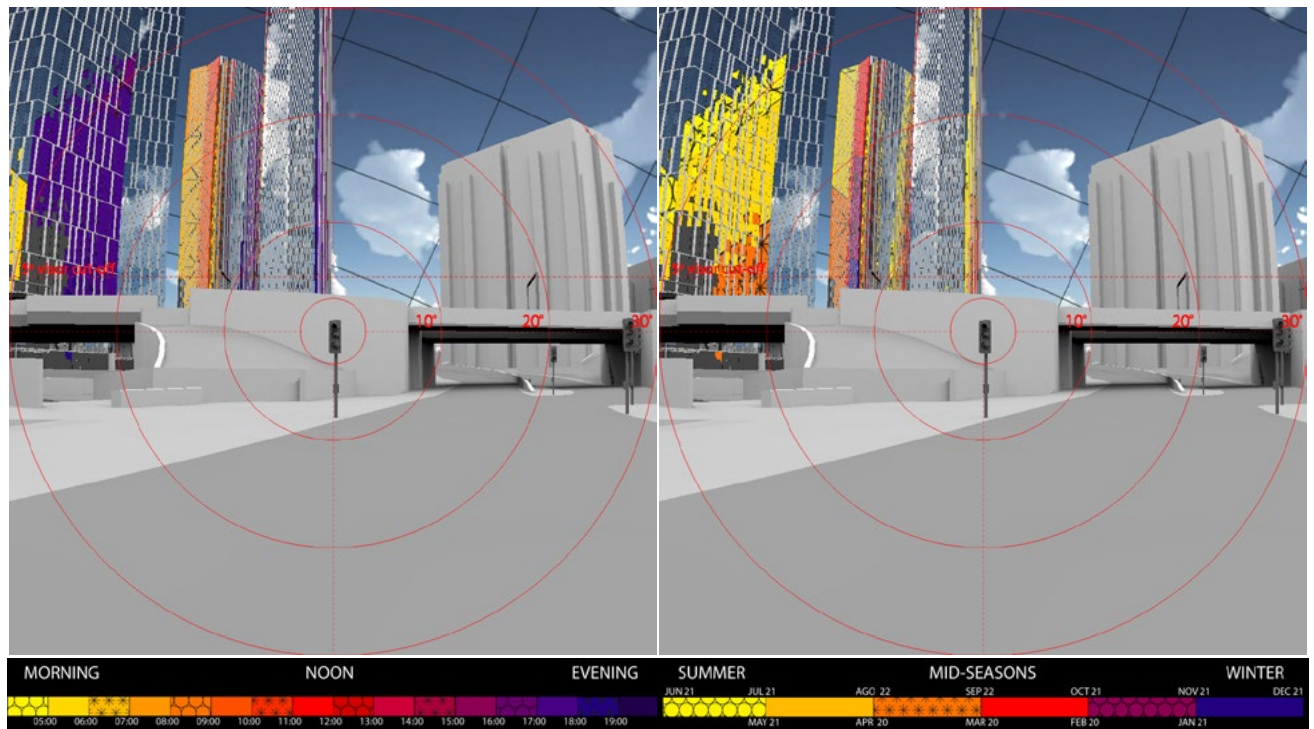


Fig. 06: Solar reflections - Scenario 6 (Completed Development)

At this junction, all four phases are visible within 30° of a driver's direct line of sight, however no reflections are generated by Phase C2. Implementation of Phases C1 and C2 does not materially impact the reflections visible from Phases D1 and D2 at this junction, with just a very small area of shading on the easterly elevation of D2, therefore the reflections reported for D1 and D2 within the submitted ES remain unchanged. Based on the location of reflections from each building as reported in the submitted ES, the phased solar glare effects at this junction would be:

TRINITY WAY/INNER RING ROAD (TW2)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Minor Adverse	Minor Adverse
Scenario 4	Minor Adverse	Minor Adverse
Scenario 5	Minor Adverse	Minor Adverse
Scenario 6	Minor Adverse	Minor Adverse

At this junction, Phase D2 is partially obstructed from view by Phase D1, as a result of the resequencing, scenario 3 would result in a slightly larger portion of Phase D2 being visible within the field of view. The reflections from Phase D2 would be slightly greater than those currently shown for Phase D2, due to this and the location of the reflections, it is not necessary for technical assessments to be undertaken to confirm an effect of Minor Adverse in scenario 3.

As identified in the above table, there is no change in solar glare effects at this junction due to the resequencing. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Trinity Way/Inner Ring Road (TW1) – Pedestrian Crossing

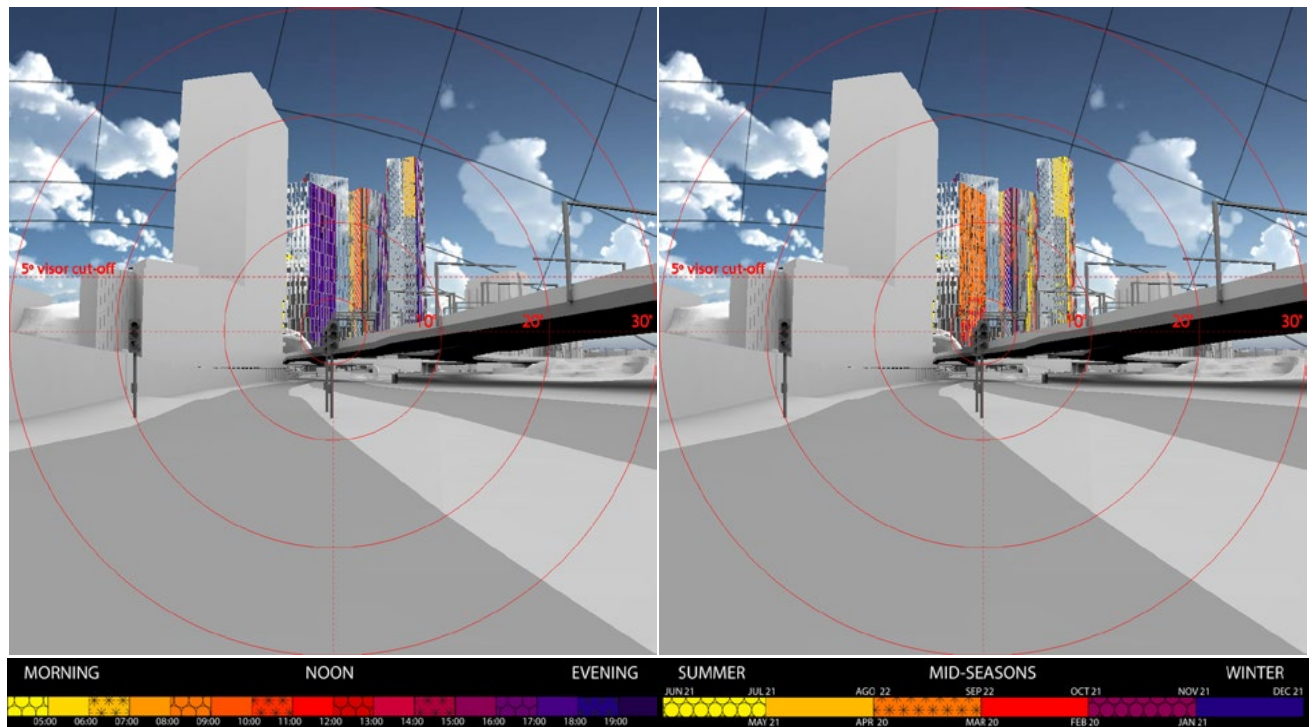


Fig. 07: Solar reflections – Scenario 6 (Completed Development)

At this junction, all four phases are visible within 30° of a driver's direct line of sight. Phase C2 shades the north-eastern elevation of Phase D1 and introduces inter-reflections from the shaded area, but Phases C1 and C2 do not impact the reflections visible from Phase D2 at this junction. The reflections resulting in the greatest solar glare effects at this junction are from Phases C1 and D2. Therefore, based on the location of reflections from each building as reported in the submitted ES, the phased solar glare effects at this junction would be:

TRINITY WAY/INNER RING ROAD (TW1)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Moderate Adverse	Moderate Adverse
Scenario 4	Moderate Adverse	Moderate Adverse
Scenario 5	Moderate Adverse	Moderate Adverse
Scenario 6	Moderate Adverse	Moderate Adverse

As identified in the above table, there is no change in solar glare effects at this junction due to the resequencing. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Water Street (WS1) – Junction with Liverpool Road

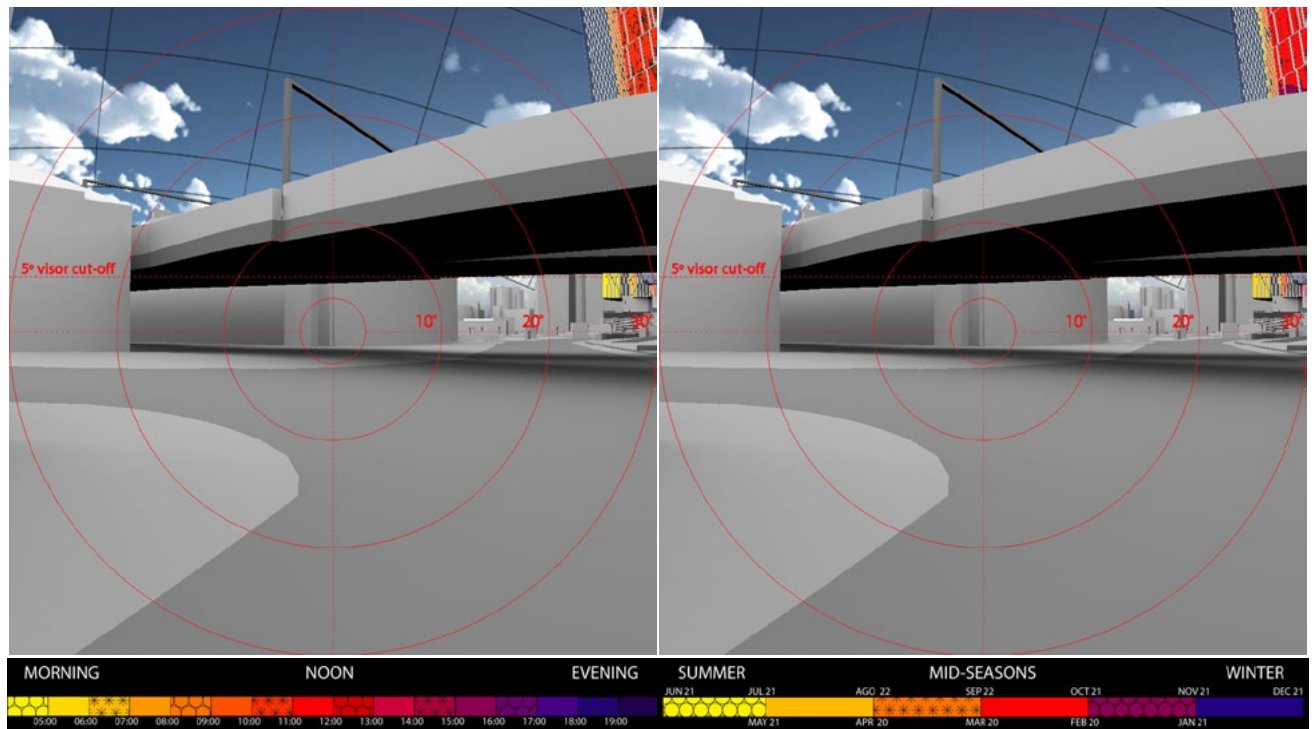


Fig. 08: Solar reflections - Scenario 6 (Completed Development)

At this viewpoint, only Phase D2 is visible within 30° of a driver's direct line of sight. Implementation of Phase C1, C2 and D1 do not impact the reflections visible from D2 at this junction, therefore the reflections reported for D2 within the submitted ES remain unchanged and the phased solar glare effects at this junction would be:

WATER STREET (WS1)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Negligible	Negligible to Minor Adverse
Scenario 4	Negligible	Negligible to Minor Adverse
Scenario 5	Negligible	Negligible to Minor Adverse
Scenario 6	Negligible to Minor Adverse	Negligible to Minor Adverse

As identified in the above table, there is a slight increase in solar glare effects due to the resequencing in scenarios 3, 4 and 5 where Phase D2 is visible earlier within construction programme. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Liverpool Road (LR) – Pedestrian Crossing

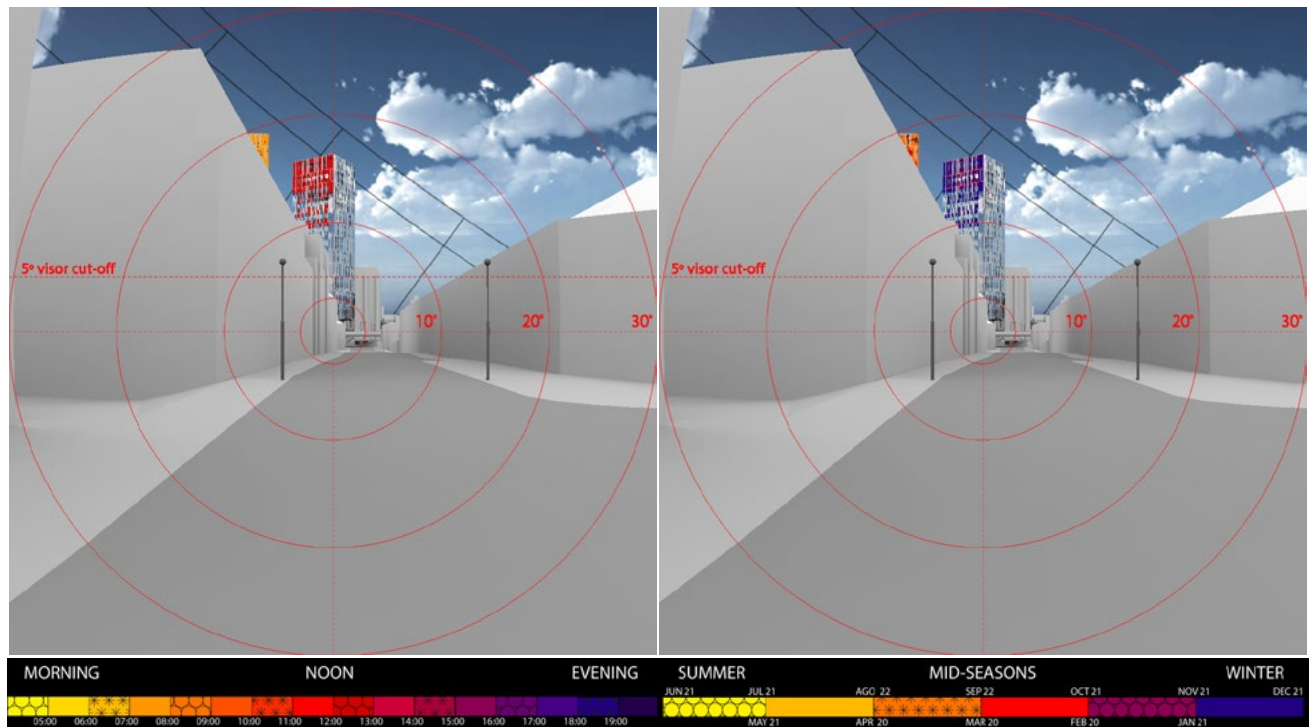


Fig. 09: Solar reflections - Scenario 6 (Completed Development)

At this viewpoint, only Phases C1 and C2 are visible within 30° of a driver's direct line of sight. Implementation of Phases D1 and D2 do not impact the reflections visible from C1 and C2 at this junction, and the phased solar glare effects at this junction would be:

LIVERPOOL ROAD (LR)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Minor Adverse	Negligible
Scenario 4	Minor Adverse	Negligible
Scenario 5	Minor Adverse	Minor Adverse
Scenario 6	Minor Adverse	Minor Adverse

As identified in the above table, there is a slight reduction in solar glare effects due to the resequencing in scenarios 3 and 4 where Phase C1 is no longer visible until scenario 5. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

New Elm Road (NER) – Junction with Water Street

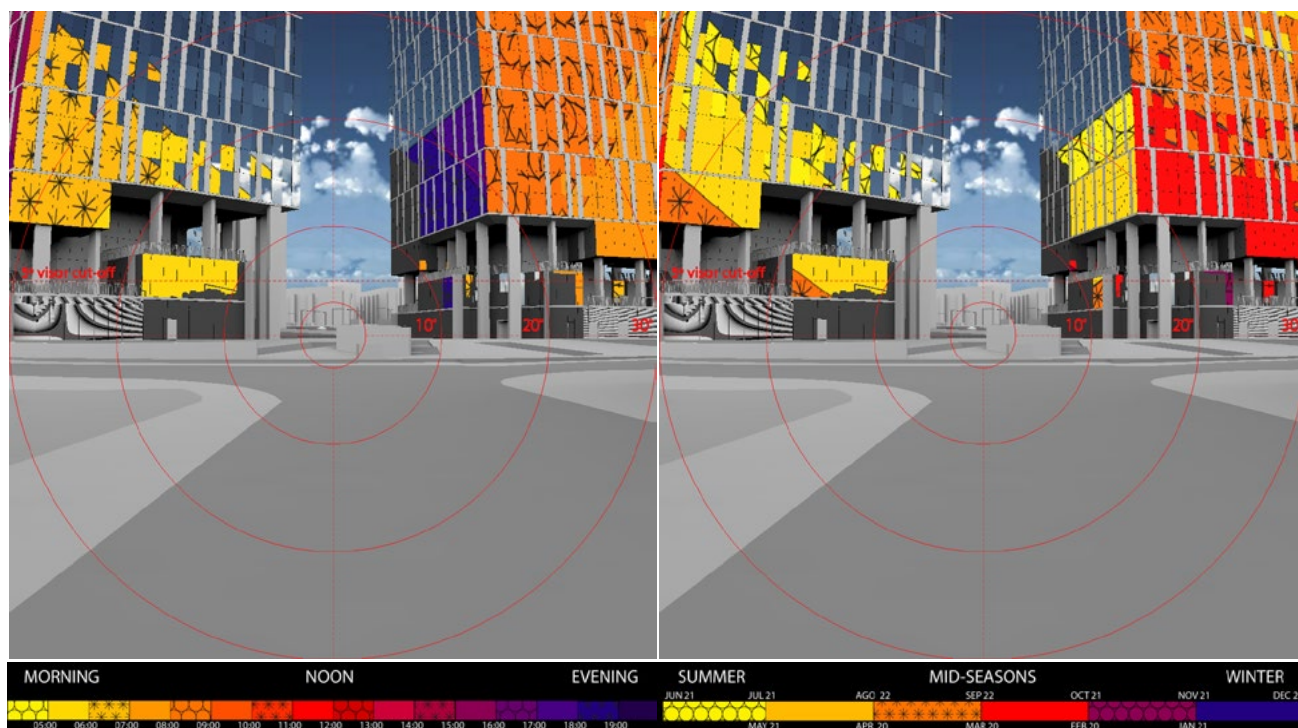


Fig. 10: Solar reflections – Scenario 6 (Completed Development)

At this viewpoint, only Phases C1 and C2 are visible within 30° of a driver's direct line of sight. Implementation of Phases D1 and D2 do not impact the reflections visible from C1 and C2 at this junction, and the phased solar glare effects at this junction would be:

NEW ELM ROAD (NER)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Minor Adverse	Negligible
Scenario 4	Minor Adverse	Negligible
Scenario 5	Minor Adverse	Minor Adverse
Scenario 6	Minor Adverse	Minor Adverse

As identified in the above table, there is a slight reduction in solar glare effects due to the resequencing in scenarios 3 and 4 where Phase C1 and C2 are not visible until scenarios 5 and 6. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Trinity Way/Inner Ring Road (TW3) - Junction with Water Street

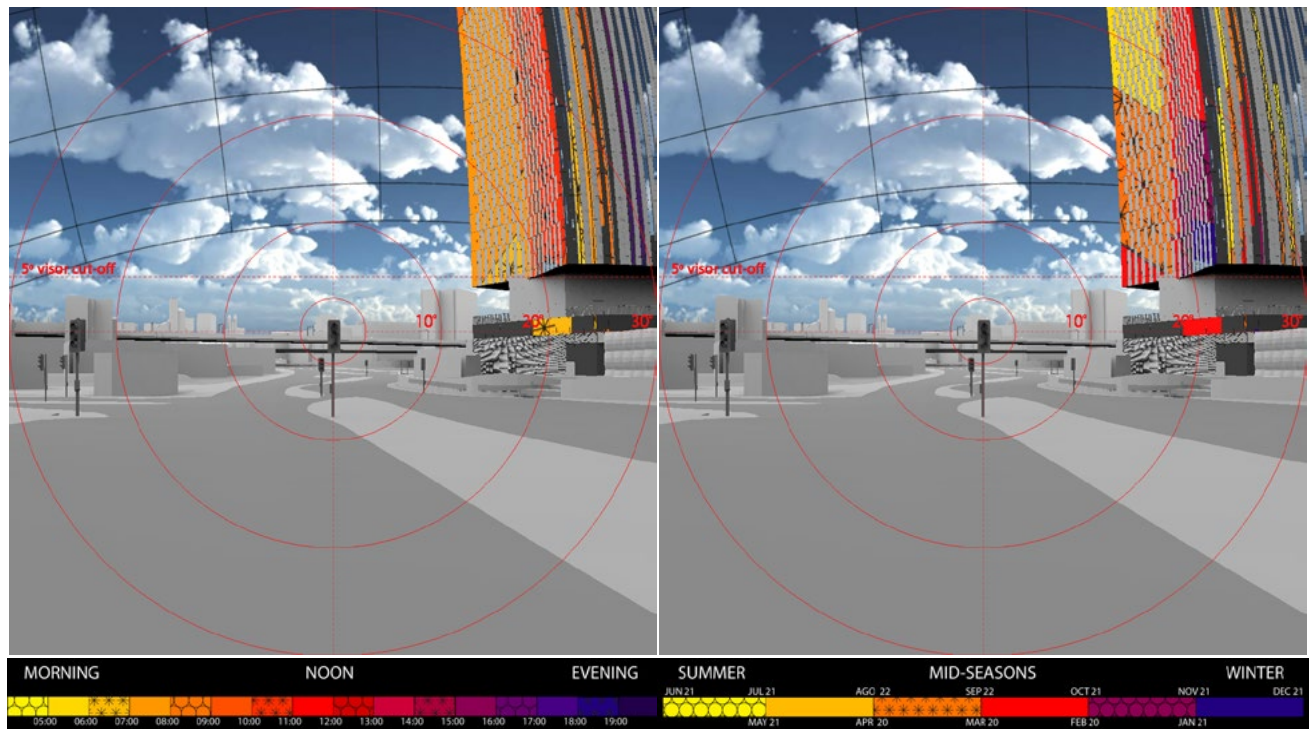


Fig. 11: Solar reflections - Scenario 6 (Completed Development)

At this viewpoint, only Phase D2 is visible within 30° of a driver's direct line of sight. Implementation of Phases C1 and C2 do not impact the reflections visible from D2 at this junction, therefore the reflections reported for D2 within the submitted ES remain unchanged and the phased solar glare effects at this junction would be:

TRINITY WAY/INNER RING ROAD (TW3)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Negligible	Minor Adverse
Scenario 4	Negligible	Minor Adverse
Scenario 5	Negligible	Minor Adverse
Scenario 6	Minor Adverse	Minor Adverse

As identified in the above table, there is a slight increase in solar glare effects due to the resequencing in scenarios 3, 4 and 5 where Phase D2 is visible earlier within construction programme. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Water Street (WS2) - Junction with Trinity Way/Inner Ring Road

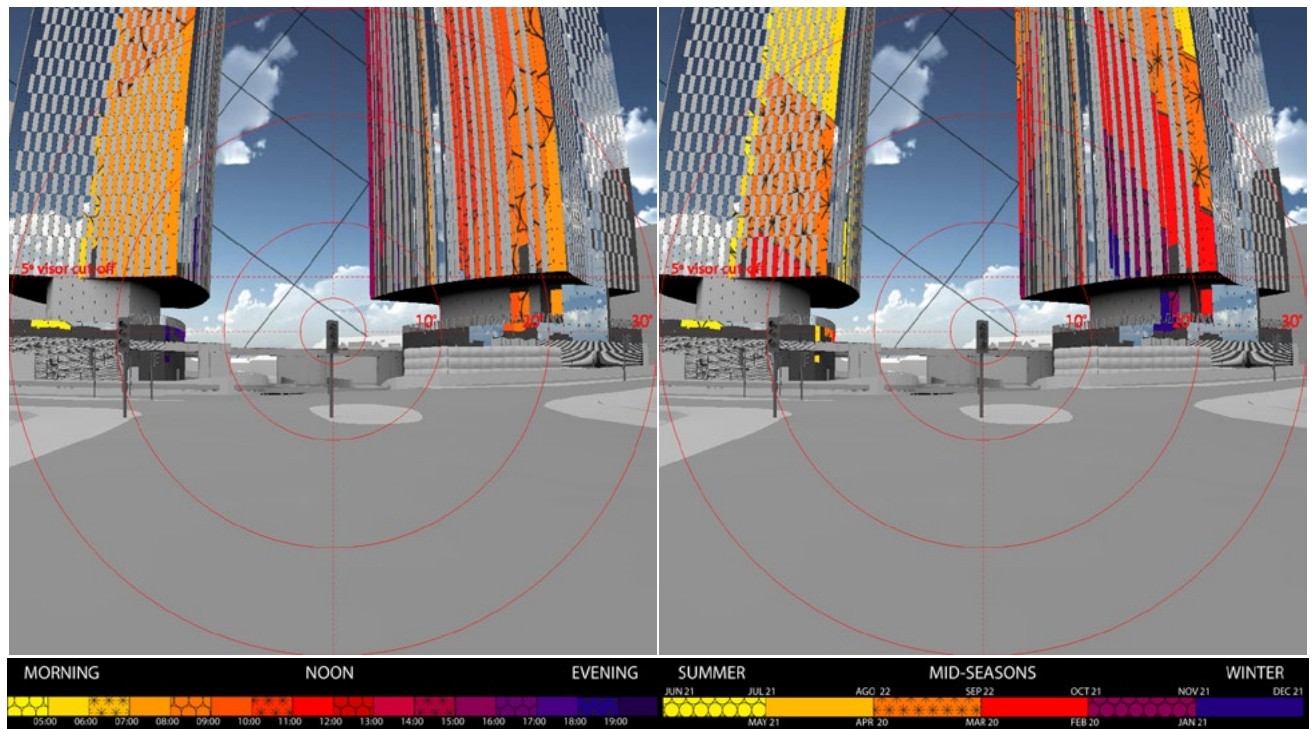


Fig. 12: Solar reflections - Scenario 6 (Completed Development)

At this junction, only Phases D1 and D2 are visible within 30° of a driver's direct line of sight. Implementation of Phases C1 and C2 do not impact the reflections visible from D1 and D2 at this junction, therefore the reflections reported for D1 and D2 within the submitted ES remain unchanged and the phased solar glare effects at this junction would be:

WATER STREET (WS2)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Negligible	Moderate Adverse
Scenario 4	Negligible	Moderate Adverse
Scenario 5	Minor to Moderate Adverse	Moderate Adverse
Scenario 6	Moderate Adverse	Moderate Adverse

As identified in the above table, there is an increase in solar glare effects due to the resequencing in scenarios 3, 4 and 5 where Phases D1 and D2 are visible earlier within construction programme, however no permanent additional effects or no reflections that require temporary mitigation would arise as a result of resequencing the construction of the proposed development. Whilst there would be a change in the short-term phased effects, there are no additional significant effects overall in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Trinity Way/Inner Ring Road (TW4) - Junction with Water Street

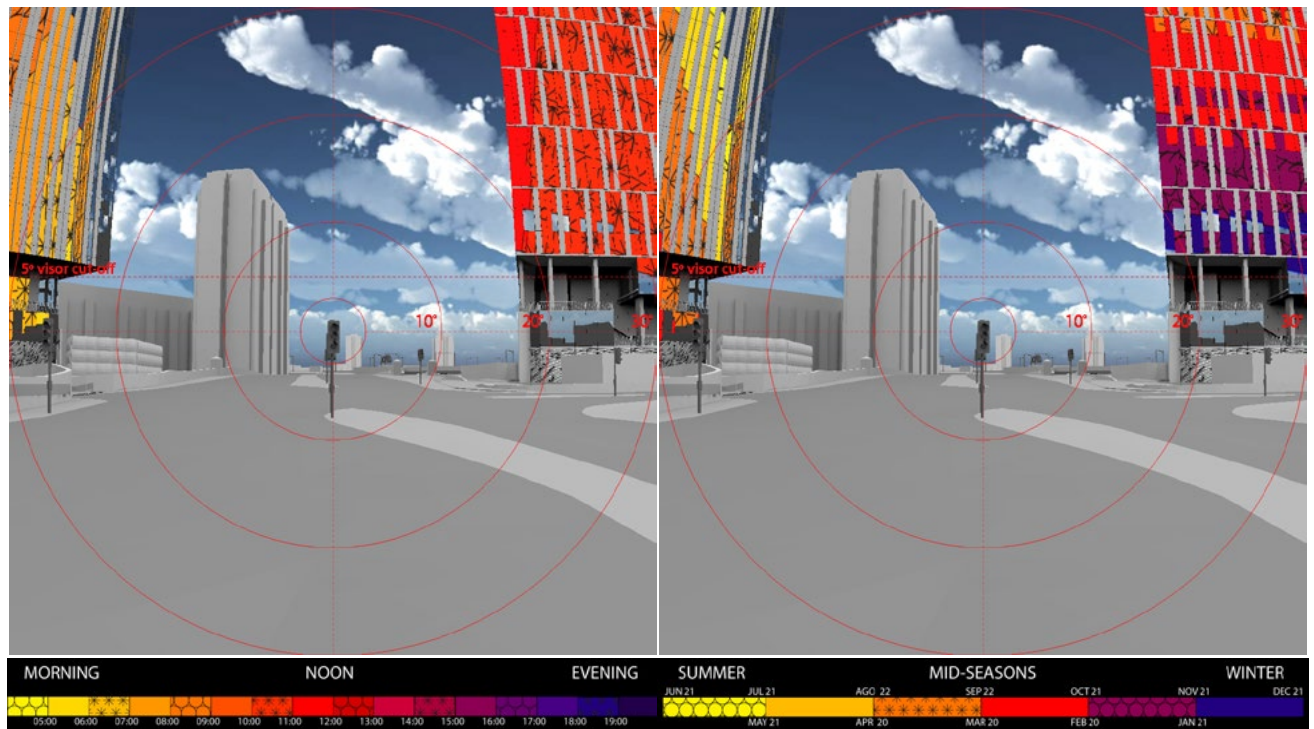


Fig. 13: Solar reflections - Scenario 6 (Completed Development)

At this junction, Phases C1, C2 and D1 are visible within 30° of a driver's direct line of sight. Implementation of Phases C1 and C2 do not impact the reflections visible from D1 at this junction, therefore the reflections reported for D1 within the submitted ES remain unchanged and the phased solar glare effects at this junction would be:

TRINITY WAY/INNER RING ROAD (TW4)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Minor Adverse	Negligible
Scenario 4	Minor to Moderate Adverse	Minor to Moderate Adverse
Scenario 5	Minor to Moderate Adverse	Minor to Moderate Adverse
Scenario 6	Minor to Moderate Adverse	Minor to Moderate Adverse

As identified in the above table, there is a slight reduction in solar glare effects in scenario 3 due to the resequencing where Phase D1, C1 and C2 are not visible until scenarios 4, 5 and 6. There is then an increase in solar glare effect in scenario 4 where Phase D1 is visible earlier within construction programme, however no permanent additional effects or no reflections that require temporary mitigation would arise as a result of resequencing the construction of the proposed development. Whilst there would be a change in the short-term phased effects, there are no additional significant effects overall in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Egerton Street/Inner Ring Road (ES2) - Junction with Regent Road

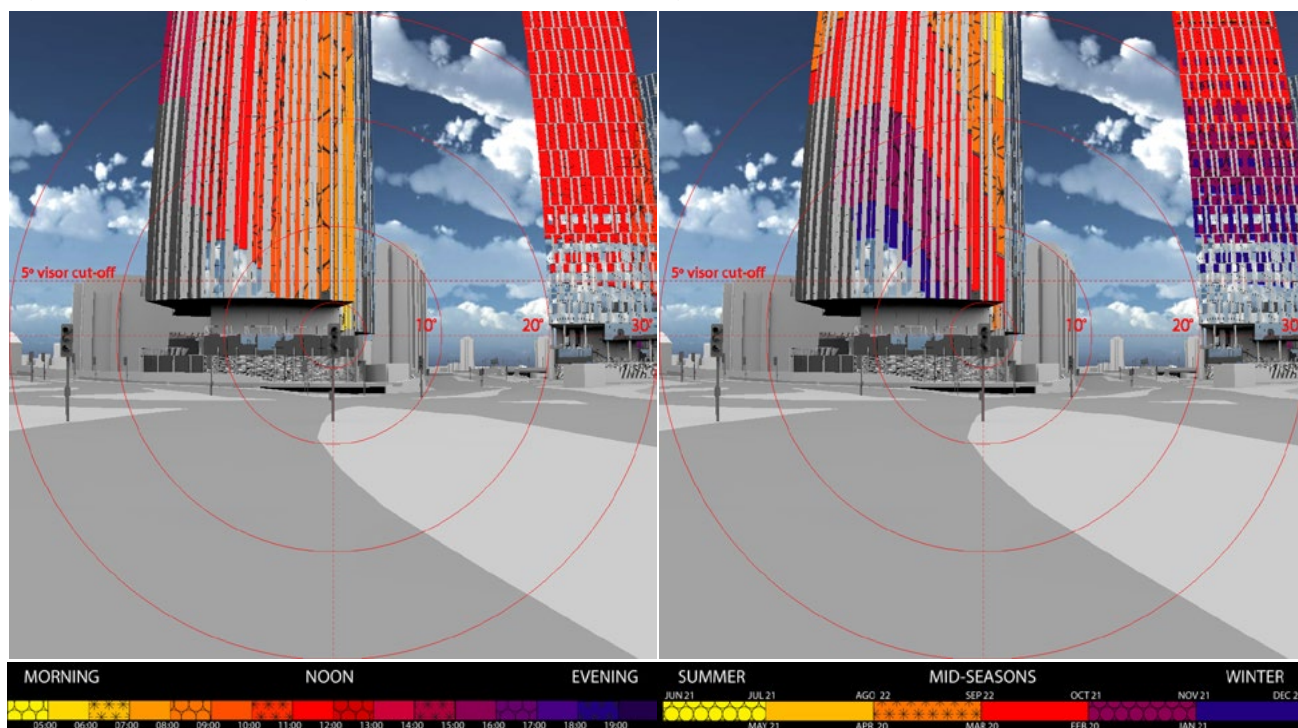


Fig. 14: Solar reflections – Scenario 6 (Completed Development)

At this junction, all phases are visible within 30° of a driver's direct line of sight within one or more of the scenarios. Phase C1 is only visible up until Phase C2 is implemented, where the later obstructs C1 from view at this junction, similarly Phase D1 is mostly only visible up until Phase D2 is implemented. Implementation of Phases C1 and C2 does not impact the reflections visible from Phases D1 and D2 at this junction, therefore the reflections reported for D1 and D2 within the submitted ES remain unchanged. The phased solar glare effects at this junction would be:

EGERTON STREET/INNER RING ROAD (ES2)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Negligible to Minor Adverse	Moderate Adverse
Scenario 4	Moderate Adverse	Moderate Adverse
Scenario 5	Moderate to Major Adverse	Moderate Adverse
Scenario 6	Moderate Adverse	Moderate Adverse

As identified in the above table, there is an increase in solar glare effects due to the resequencing in scenario 3, where Phase D2 is visible earlier within construction programme. There is a slight reduction in solar glare effects in scenario 5 due to the resequencing where Phase D1 is predominantly obstructed from view by the earlier implementation of Phase D2. Temporary mitigation was proposed within the ES at this junction to reduce the moderate to major adverse effects from Phase D1 that occurred in scenario 5 in the instance that construction of Phase D2 is delayed. Due to the resequencing, the temporary mitigation would no longer be required. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Water Street (WS3) - Junction with Regent Road & Egerton Street/Inner Ring Road

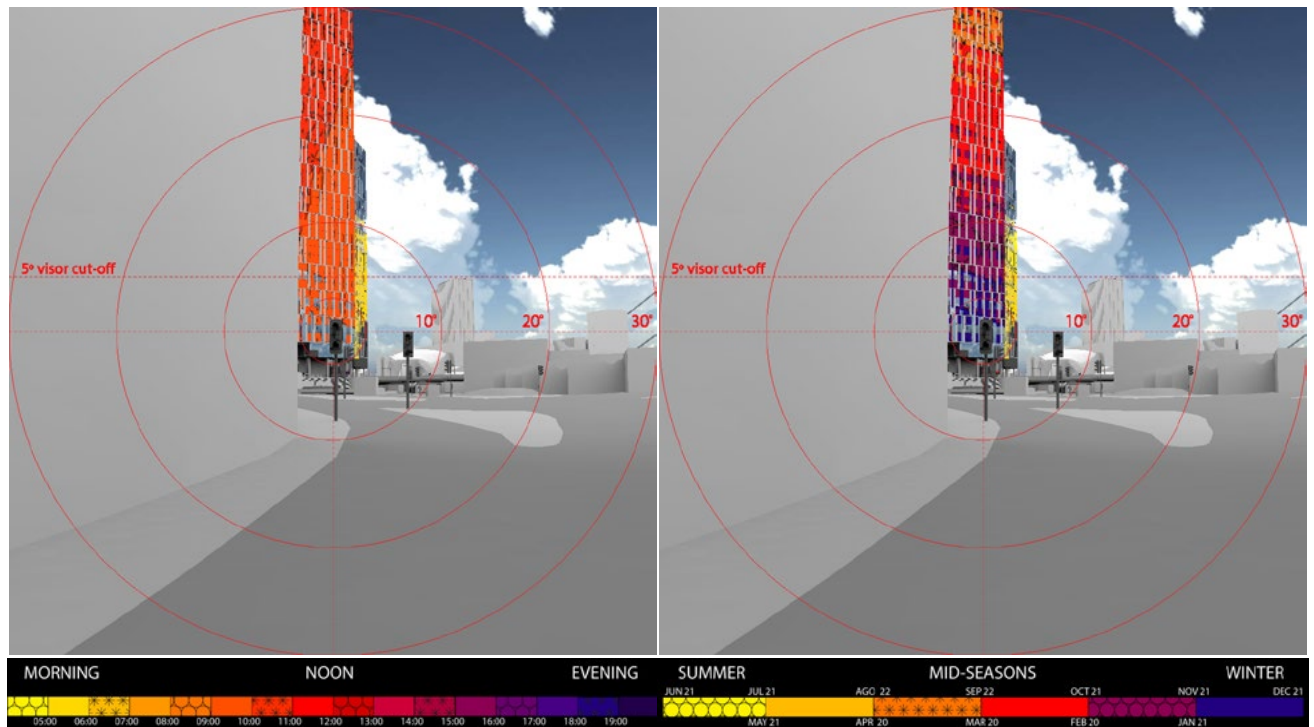


Fig. 15: Solar reflections - Scenario 6 (Completed Development)

At this viewpoint, only Phases C1 and C2 are visible within 30° of a driver's direct line of sight. Implementation of Phase D1 and D2 do not impact the reflections visible from C1 at this junction and the phased solar glare effects at this junction would be:

WATER STREET (WS3)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Moderate to Major Adverse	Negligible
Scenario 4	Moderate Adverse	Negligible
Scenario 5	Moderate Adverse	Moderate to Major Adverse
Scenario 6	Moderate Adverse	Moderate Adverse

As identified in the above table, there is a reduction in solar glare effects due to the resequencing in scenarios 3 and 4 due to Phase C1 and C2 being delayed. However the moderate to major adverse effects reported in scenario 3 would now occur in scenario 5. Temporary mitigation was proposed within the ES at this junction to reduce the moderate to major adverse effects that occurred in scenario 3 in the instance that construction of Phase C2 is delayed. Due to the resequencing, the temporary mitigation would now not be required until scenario 5, in the instance that construction of C2 (scenario 6) is delayed. The extent of mitigation is unchanged from the submitted ES. Whilst there would be a change in the phased effects, there are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Regent Road (RR3) - Junction with Egerton Street/Inner Ring Road

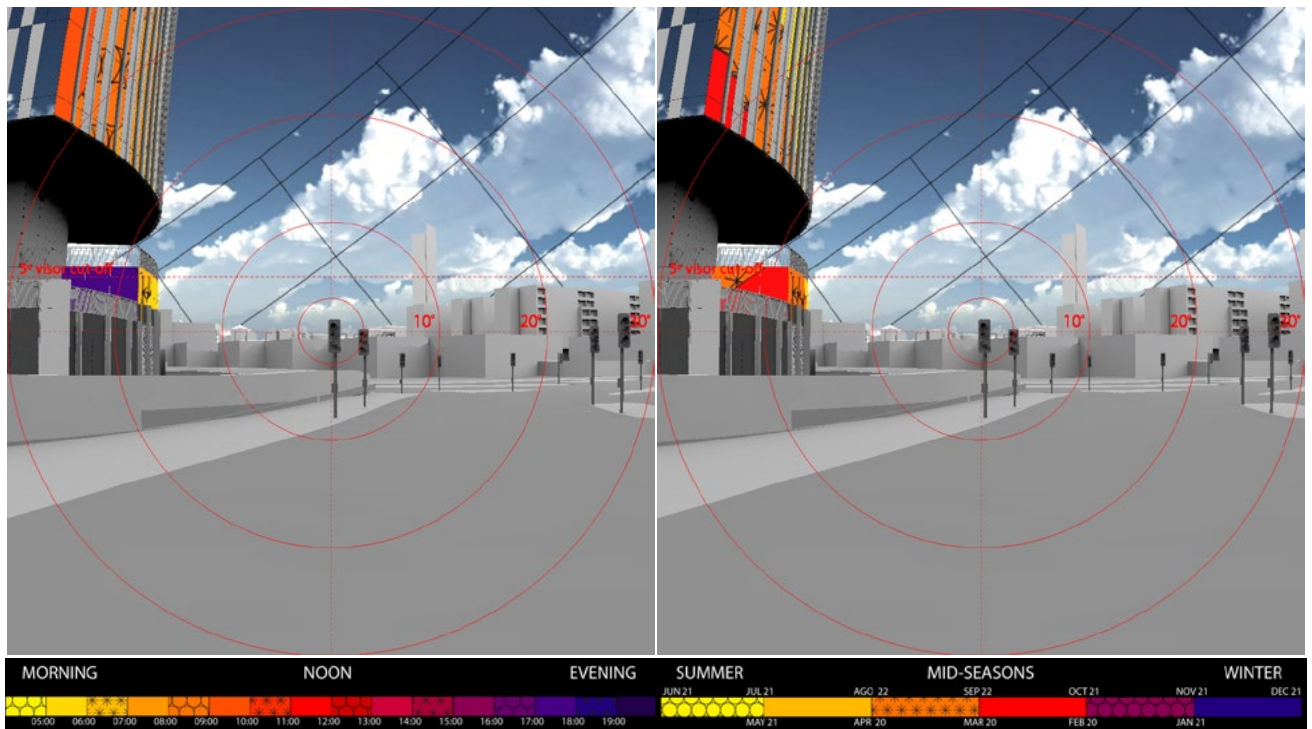


Fig. 16: Solar reflections - Scenario 6 (Completed Development)

At this viewpoint, only Phase D2 is visible within 30° of a driver's direct line of sight. Implementation of Phases C1, C2 and D1 do not impact the reflections visible from D2 at this junction, therefore the reflections reported for D2 within the submitted ES remain unchanged and the phased solar glare effects at this junction would be:

REGENT ROAD (RR3)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Negligible	Minor Adverse
Scenario 4	Negligible	Minor Adverse
Scenario 5	Negligible	Minor Adverse
Scenario 6	Minor Adverse	Minor Adverse

As identified in the above table, there is an increase in solar glare effects due to the resequencing in scenarios 3, 4 and 5 where Phases D2 is visible earlier within construction programme. Whilst there would be a change in the phased effects, there are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Regent Road (RR1) - Junction with Oldfield Road

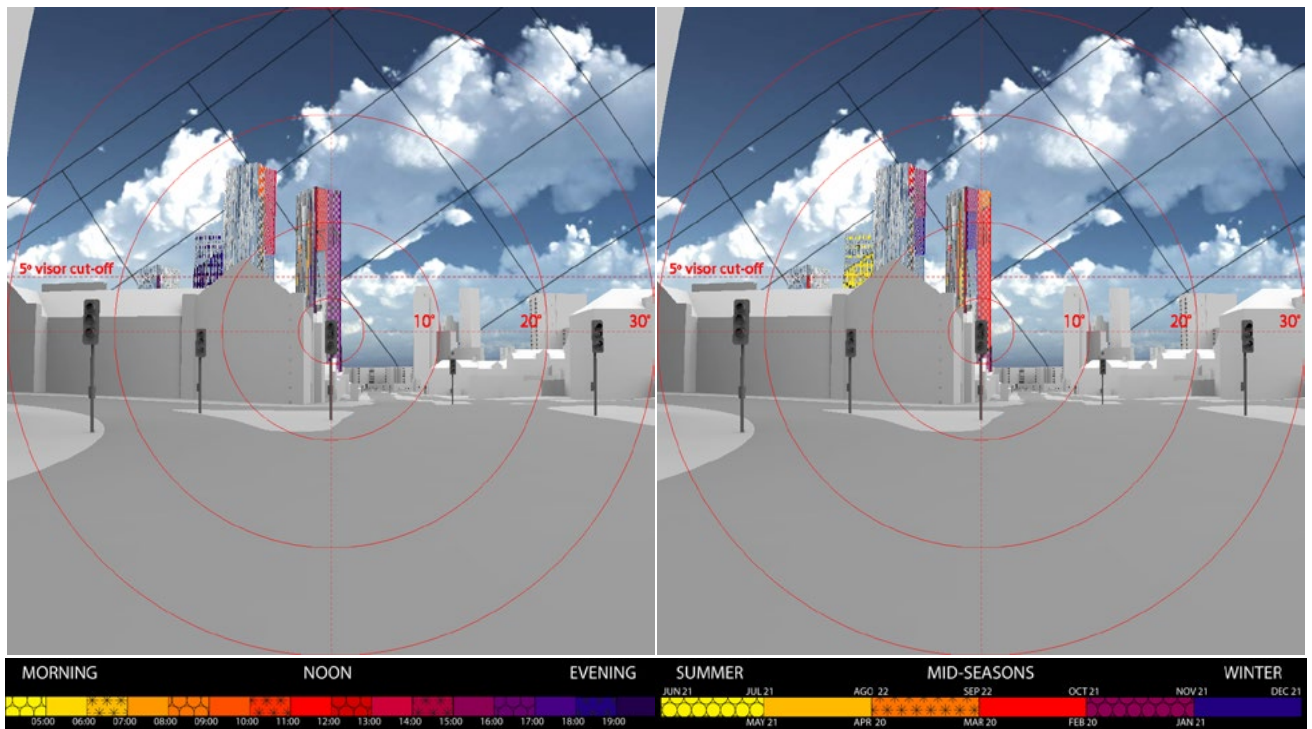


Fig. 17: Solar reflections - Scenario 6 (Completed Development)

At this junction, all four phases are visible within 30° of a driver's direct line of sight. Implementation of Phases C1 and C2 does not impact the reflections visible from Phases D1 and D2 at this junction therefore the reflections reported for D1 and D2 within the submitted ES remain unchanged and the phased solar glare effects at this junction would be:

REGENT ROAD (RR1)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Moderate Adverse	Moderate Adverse
Scenario 4	Moderate Adverse	Moderate Adverse
Scenario 5	Moderate Adverse	Moderate Adverse
Scenario 6	Moderate Adverse	Moderate Adverse

As identified in the above table, there is no change in solar glare effects at this junction due to the resequencing. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Regent Road (RR2) - Junction with Ordsall Lane

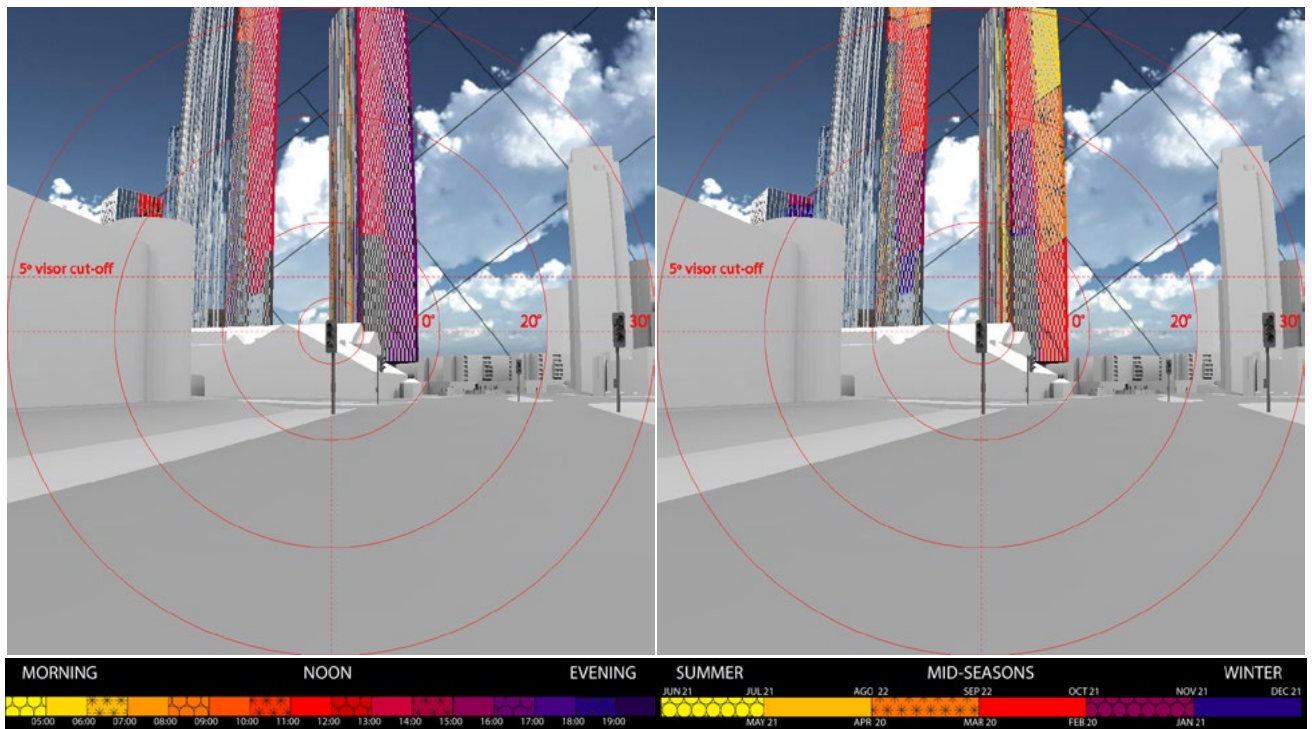


Fig. 18: Solar reflections - Scenario 6 (Completed Development)

At this junction, all four phases are visible within 30° of a driver's direct line of sight. Implementation of Phases C1 and C2 does not impact the reflections visible from Phases D1 and D2 at this junction, therefore the reflections reported for D1 and D2 within the submitted ES remain unchanged and the phased solar glare effects at this junction would be:

REGENT ROAD (RR2)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Minor Adverse	Moderate Adverse
Scenario 4	Minor Adverse	Moderate Adverse
Scenario 5	Moderate Adverse	Moderate Adverse
Scenario 6	Moderate Adverse	Moderate Adverse

As identified in the above table, there is an increase in solar glare effects due to the resequencing in scenarios 3 and 4 where Phases D1 and D2 are visible earlier within construction programme, however no permanent additional effects or no reflections that require temporary mitigation would arise as a result of resequencing the construction of the proposed development. Whilst there would be a change in the phased effects, there are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Ordsall Lane (OS) - Junction with Regent Road

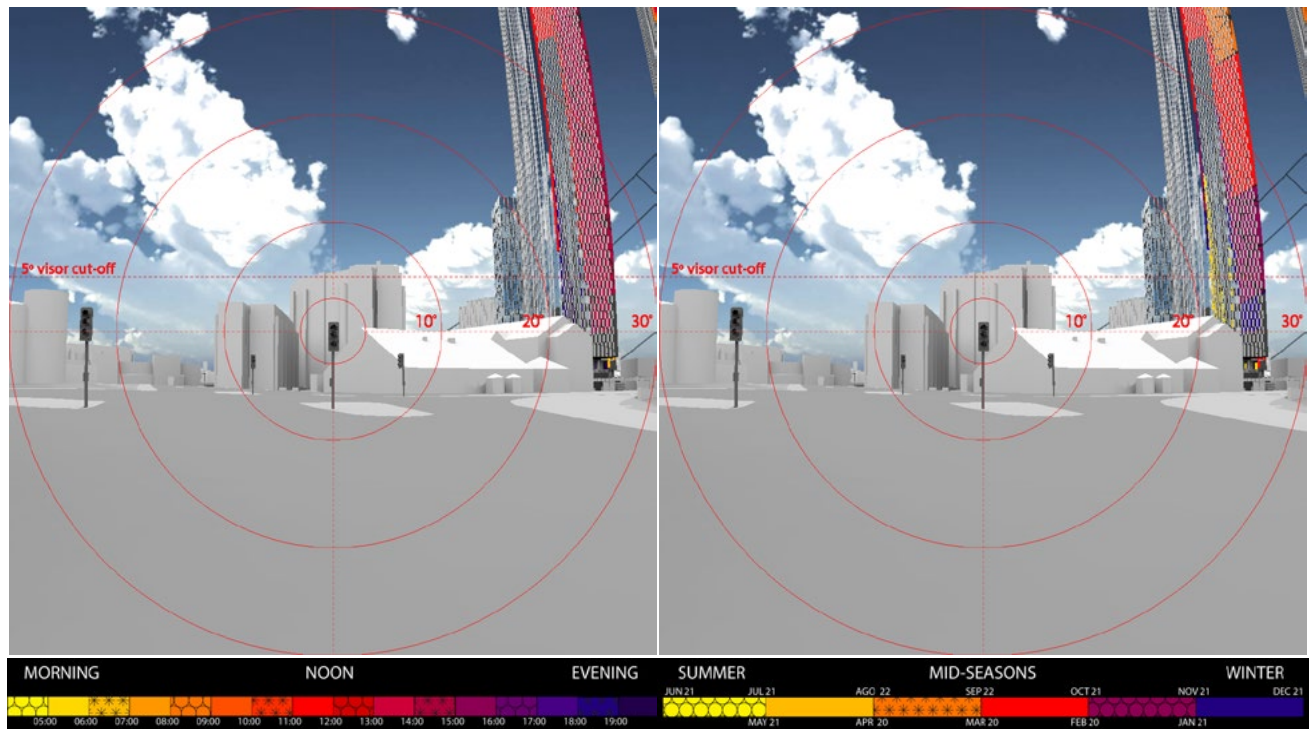


Fig. 19: Solar reflections - Scenario 6 (Completed Development)

At this junction, Phases C1, C2 and D1 are visible within 30° of a driver's direct line of sight within one or more of the scenarios. Phase D1 obstructs Phase C2 from view, as well as the area of Phase C1 that generates reflections. Implementation of Phases C1 and C2 does not impact the reflections visible from Phases D1 at this junction, therefore the reflections reported for D1 within the submitted ES remain unchanged. The phased solar glare effects at this junction would be:

ORDSALL LANE (OS)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Minor Adverse	Negligible
Scenario 4	Minor Adverse	Minor Adverse
Scenario 5	Minor Adverse	Minor Adverse
Scenario 6	Minor Adverse	Minor Adverse

As identified in the above table, there is a reduction in solar glare effects due to the resequencing in scenarios 3 due to Phases C1, C2 and D1 being delayed. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Regent Retail Park (RP1) - Pedestrian Crossing

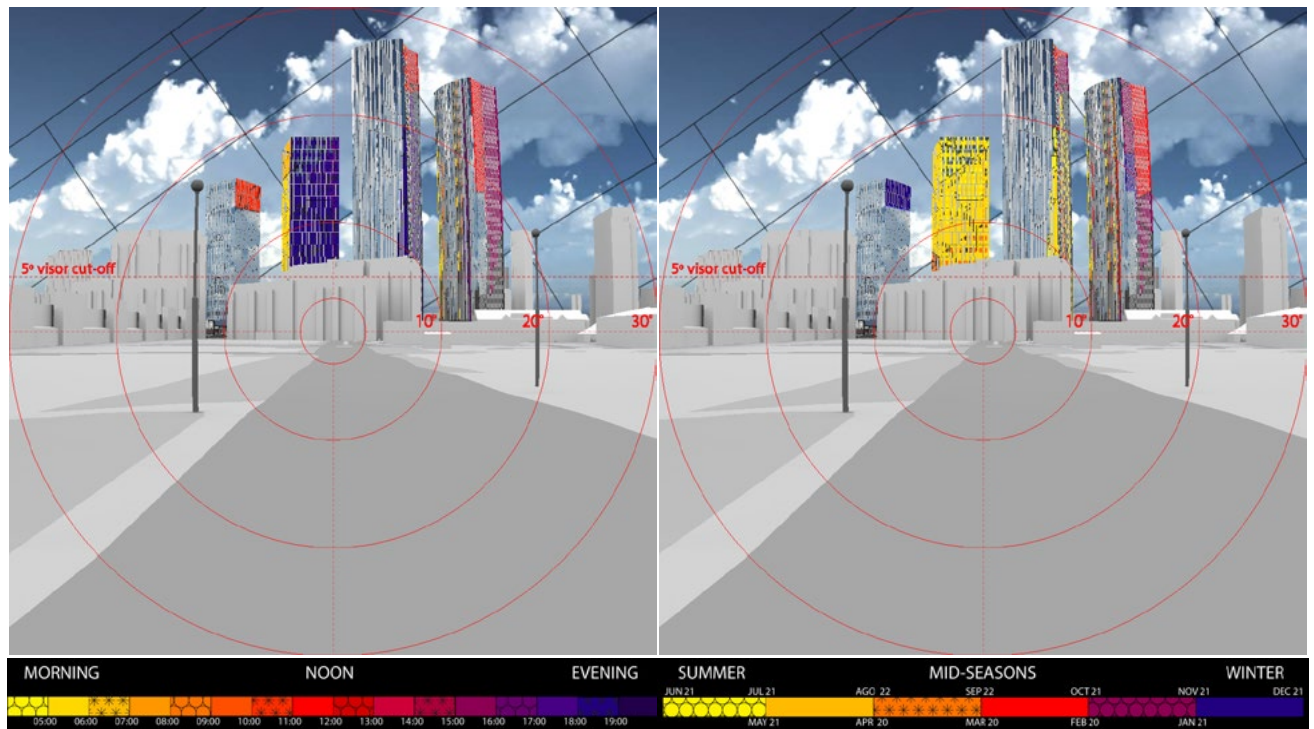


Fig. 20: Solar reflections - Scenario 6 (Completed Development)

At this viewpoint, all four phases are visible within 30° of a driver's direct line of sight. Implementation of Phases C1 and C2 does not impact the reflections visible from Phases D1 and D2 at this junction, therefore the reflections reported for D1 and D2 within the submitted ES remain unchanged and the phased solar glare effects at this junction would be:

REGENT RETAIL PARK (RP1)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Minor to Moderate Adverse	Minor Adverse
Scenario 4	Minor to Moderate Adverse	Minor to Moderate Adverse
Scenario 5	Minor to Moderate Adverse	Minor to Moderate Adverse
Scenario 6	Minor to Moderate Adverse	Minor to Moderate Adverse

As identified in the above table, there is a slight reduction in solar glare effects due to the resequencing in scenarios 3 where Phases D1, C1 and C2 are no longer visible. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Regent Retail Park (RP2) – Junction 1

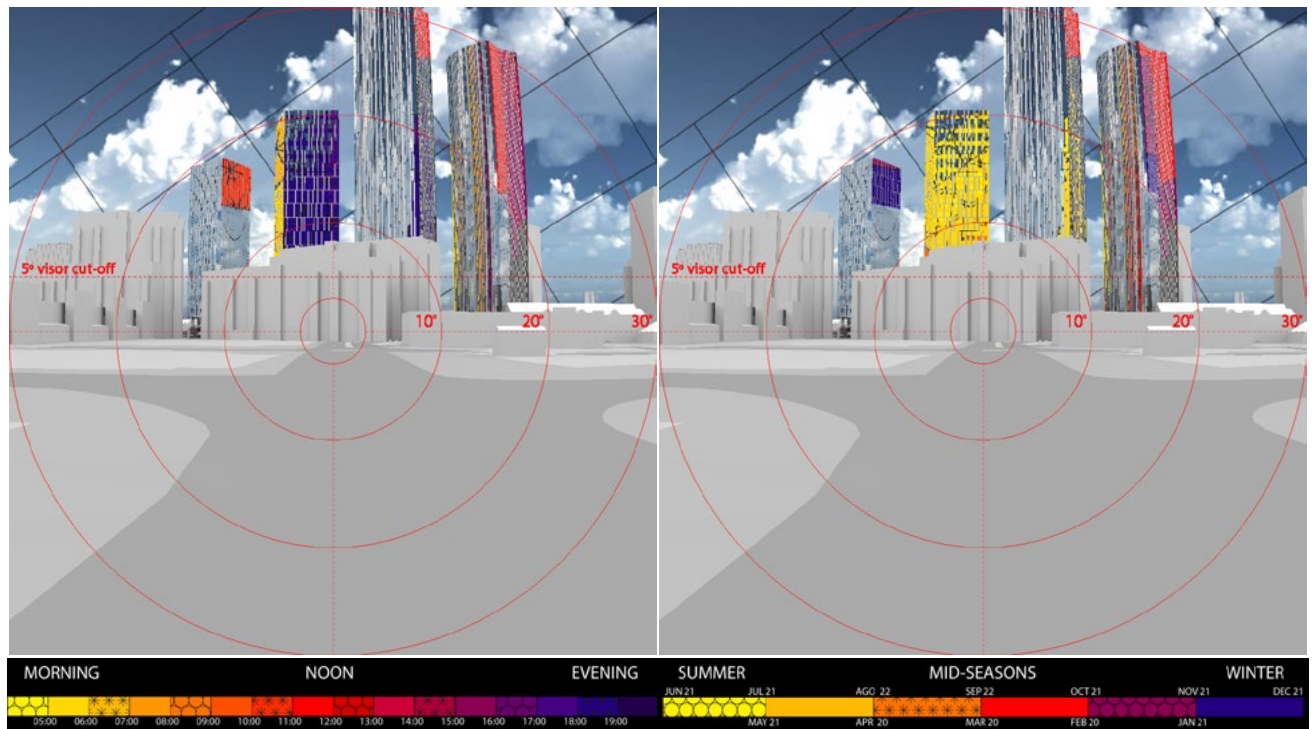


Fig. 21: Solar reflections – Scenario 6 (Completed Development)

At this viewpoint, all four phases are visible within 30° of a driver's direct line of sight. Implementation of Phases C1 and C2 does not impact the reflections visible from Phases D1 and D2 at this junction, therefore the reflections reported for D1 and D2 within the submitted ES remain unchanged and the phased solar glare effects at this junction would be:

REGENT RETAIL PARK (RP2)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Minor to Moderate Adverse	Minor Adverse
Scenario 4	Minor to Moderate Adverse	Minor Adverse
Scenario 5	Minor to Moderate Adverse	Minor to Moderate Adverse
Scenario 6	Minor to Moderate Adverse	Minor to Moderate Adverse

As identified in the above table, there is a slight reduction in solar glare effects due to the resequencing in scenarios 3 and 4 where Phases C1 and C2 are no longer visible. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Regent Retail Park (RP3) – Junction 2

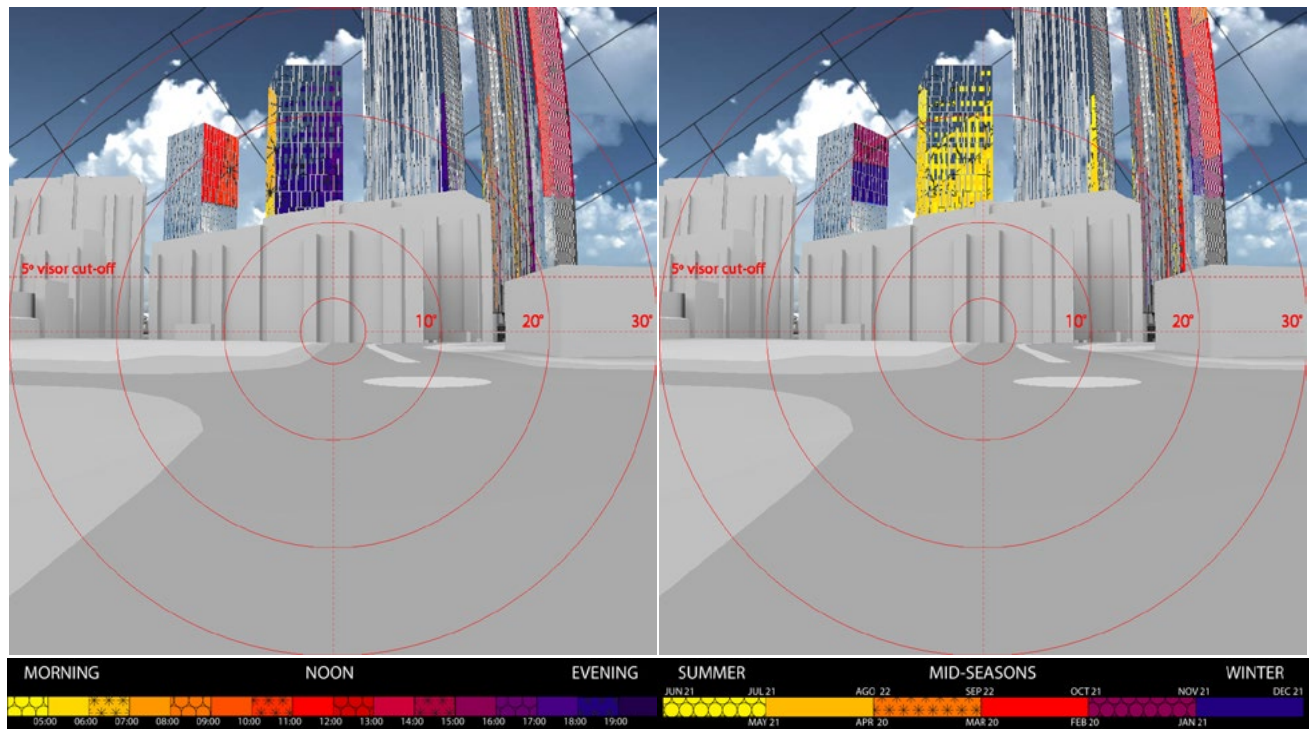


Fig. 22: Solar reflections – Scenario 6 (Completed Development)

At this viewpoint, all four phases are visible within 30° of a driver's direct line of sight. Implementation of Phases C1 and C2 does not impact the reflections visible from Phases D1 and D2 at this junction, therefore the reflections reported for D1 and D2 within the submitted ES remain unchanged and the phased solar glare effects at this junction would be:

REGENT RETAIL PARK (RP3)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Minor Adverse	Minor Adverse
Scenario 4	Minor Adverse	Minor Adverse
Scenario 5	Minor Adverse	Minor Adverse
Scenario 6	Minor Adverse	Minor Adverse

As identified in the above table, there is no change in solar glare effects at this junction due to the resequencing. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Regent Retail Park (RP4) – Junction with Ordsall Lane

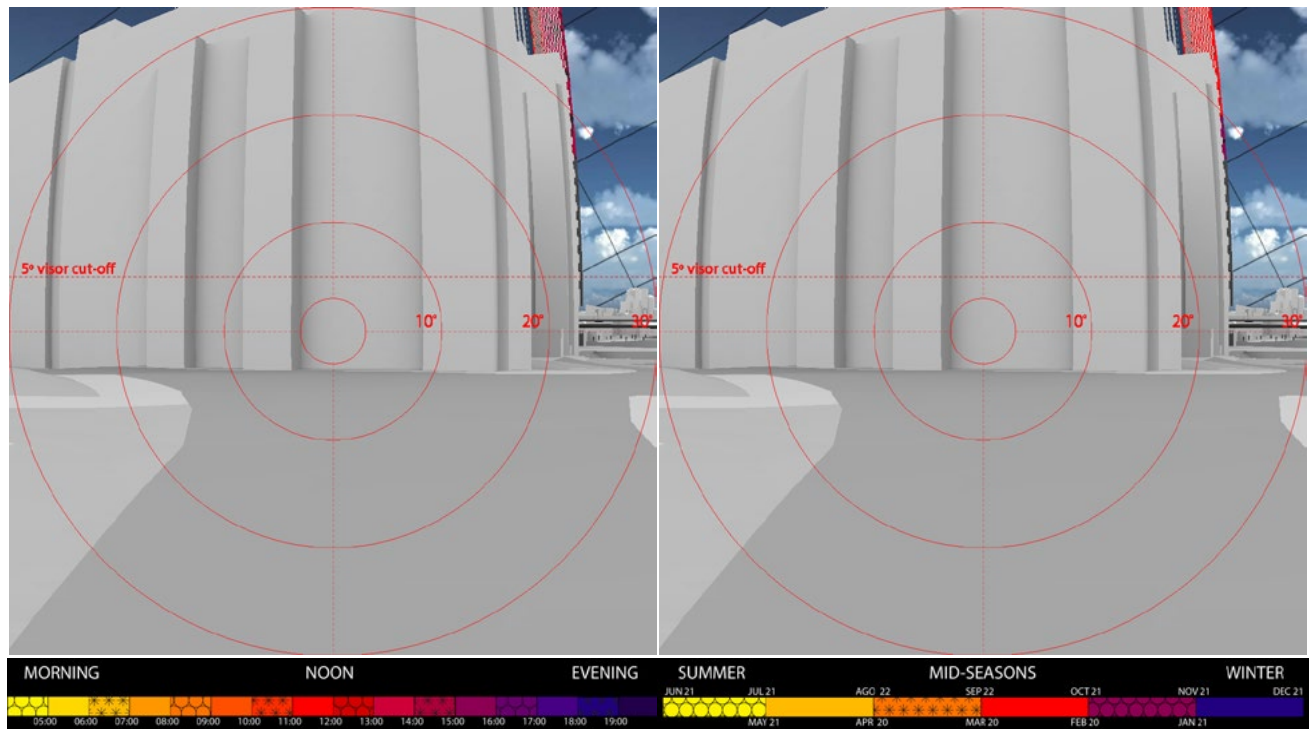


Fig. 23: Solar reflections – Scenario 6 (Completed Development)

At this viewpoint, only a slither of Phase D2 is visible within 30° of a driver's direct line of sight. Implementation of Phases C1 and C2 does not impact the reflections visible from Phase D2 at this junction, therefore the reflections reported for D2 within the submitted ES remain unchanged and the phased solar glare effects at this junction would be:

REGENT RETAIL PARK (RP4)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Negligible	Negligible
Scenario 4	Negligible	Negligible
Scenario 5	Negligible	Negligible
Scenario 6	Negligible	Negligible

As identified in the above table, there is no change in solar glare effects at this junction due to the resequencing. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Egerton Street (ES1) - Junction with Deansgate Interchange on-ramp

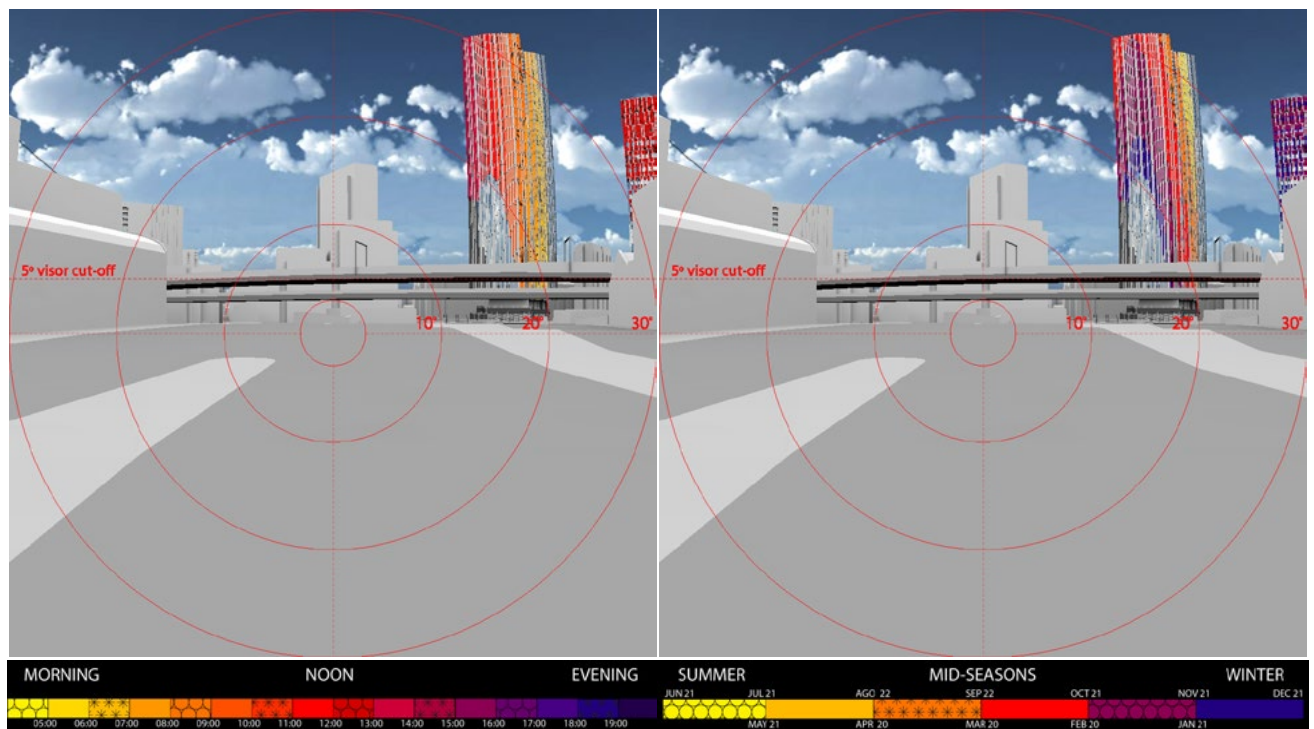


Fig. 24: Solar reflections - Scenario 6 (Completed Development)

At this junction, Phases C2, D1 and D2 are visible within 30° of a driver's direct line of sight. Implementation of Phases C1 and C2 does not impact the reflections visible from Phases D1 and D2 at this junction, therefore the reflections reported for D1 and D2 within the submitted ES remain unchanged and the phased solar glare effects at this junction would be:

EGERTON STREET (ES1)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Negligible	Minor Adverse
Scenario 4	Minor Adverse	Minor Adverse
Scenario 5	Minor Adverse	Minor Adverse
Scenario 6	Minor Adverse	Minor Adverse

As identified in the above table, there is an increase in solar glare effects due to the resequencing in scenario 3 where Phase D2 is visible earlier within construction programme. Whilst there would be a change in the phased effects, there are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Deansgate Interchange on-ramp (ES_Slip) - Junction with Egerton Street/Inner Ring Road

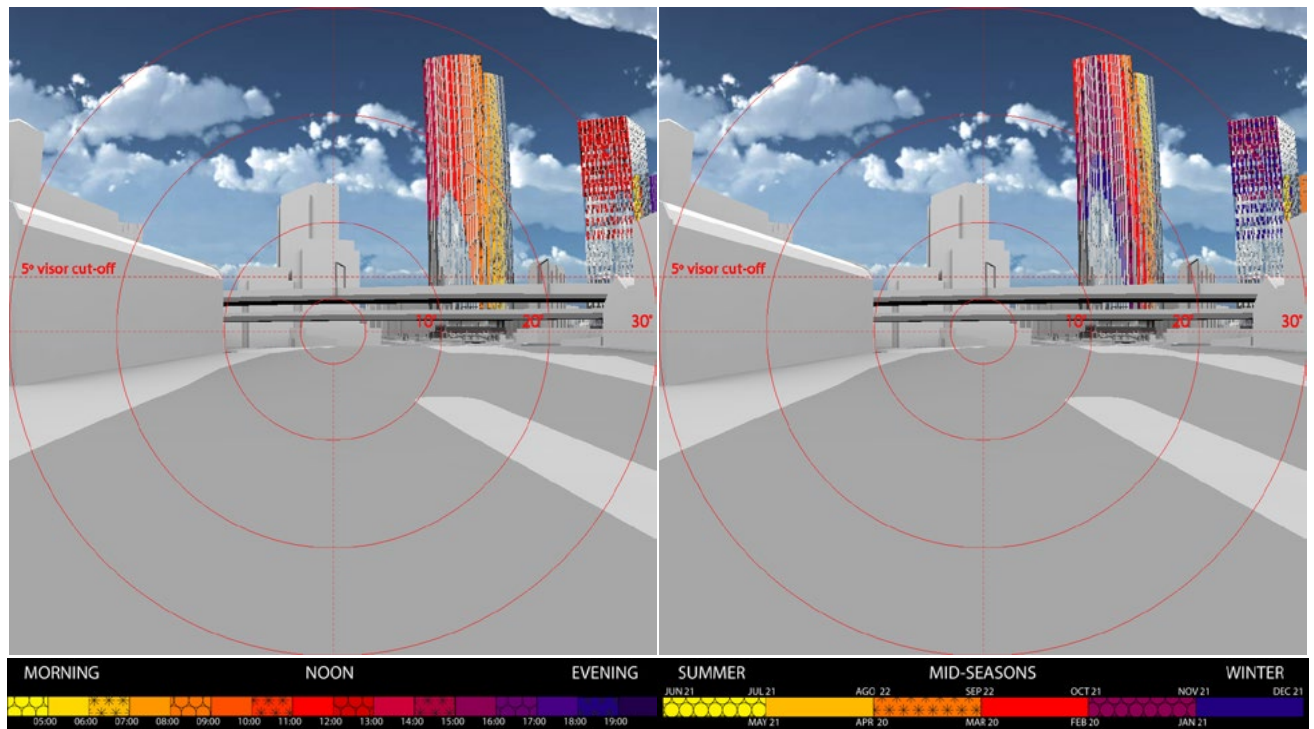


Fig. 25: Solar reflections - Scenario 6 (Completed Development)

At this junction, Phases C2, D1 and D2 are visible within 30° of a driver's direct line of sight. Implementation of Phases C1 and C2 does not impact the reflections visible from Phases D1 and D2 at this junction, therefore the reflections reported for D1 and D2 within the submitted ES remain unchanged and the phased solar glare effects at this junction would be:

DEANSGATE INTERCHANGE ON-RAMP (ES_SLIP)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Negligible	Minor Adverse
Scenario 4	Minor Adverse	Minor Adverse
Scenario 5	Minor Adverse	Minor Adverse
Scenario 6	Minor Adverse	Minor Adverse

As identified in the above table, there is an increase in solar glare effects due to the resequencing in scenario 3 where Phase D2 is visible earlier within construction programme. Whilst there would be a change in the phased effects, there are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Deansgate Interchange (DGI) - Junction with Chester Road

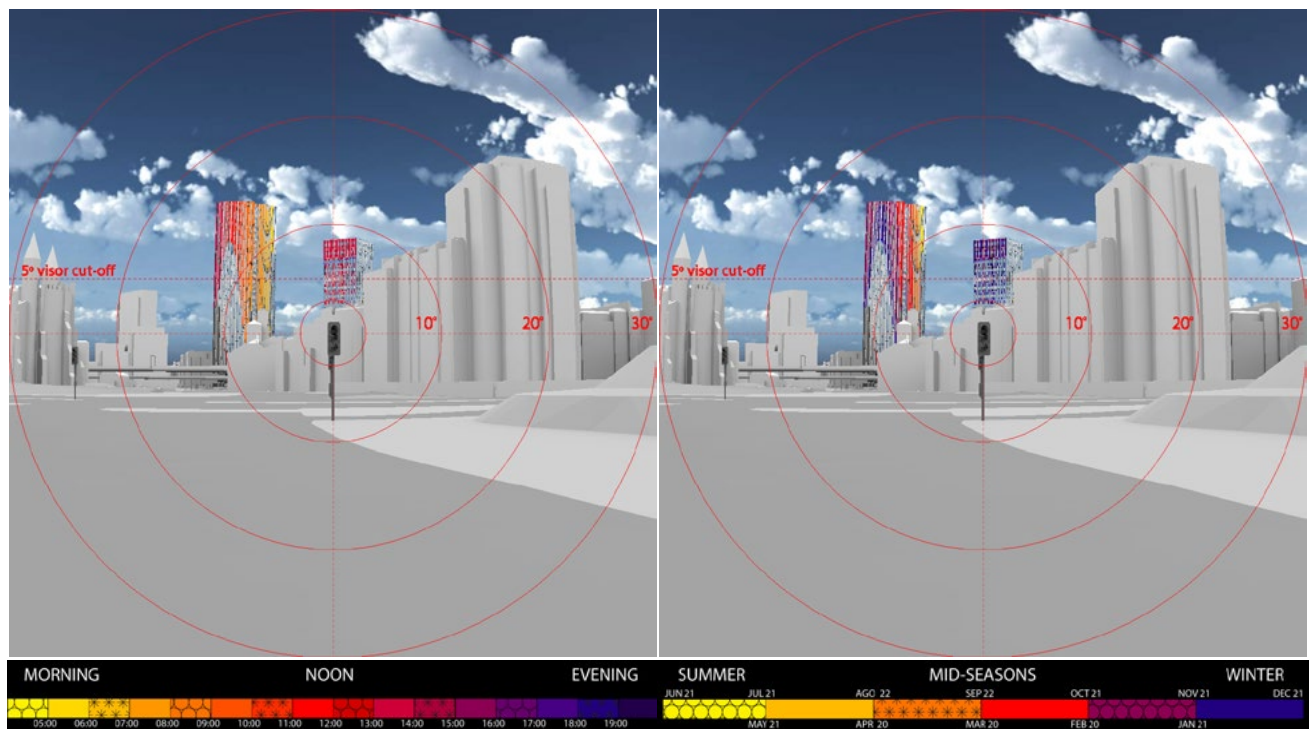


Fig. 26: Solar reflections - Scenario 6 (Completed Development)

At this junction, Phases C2, D1 and D2 are visible within 30° of a driver's direct line of sight. Implementation of Phases C1 and C2 does not impact the reflections visible from Phases D1 and D2 at this junction, therefore the reflections reported for D1 and D2 within the submitted ES remain unchanged and the phased solar glare effects at this junction would be:

DEANSGATE INTERCHANGE (DGI)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Negligible	Minor Adverse
Scenario 4	Minor Adverse	Minor Adverse
Scenario 5	Minor Adverse	Minor Adverse
Scenario 6	Minor Adverse	Minor Adverse

As identified in the above table, there is an increase in solar glare effects due to the resequencing in scenario 3 where Phase D2 is visible earlier within construction programme. Whilst there would be a change in the phased effects, there are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Northern Line (N1) – Southbound from Salford Crescent to Deansgate

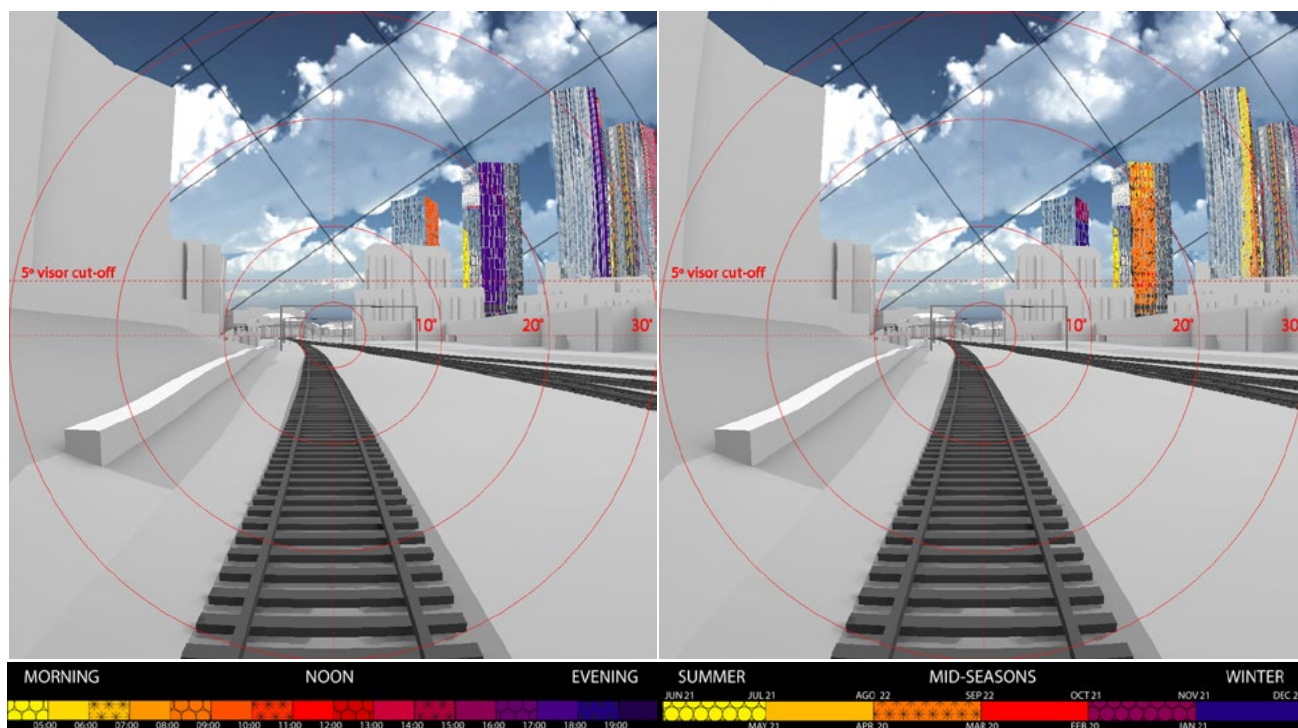


Fig. 27: Solar reflections – Scenario 6 (Completed Development)

Along this stretch of track, all phases are visible within 30° of a driver's direct line of sight. Implementation of Phases C1 and C2 does not impact the reflections visible from Phases D1 and D2 at the viewpoints assessed, with the exception of some small areas of inter-reflections, therefore the reflections reported for D1 and D2 within the submitted ES remain unchanged. It should however be noted that Phase D1 and D2 shade approximately half the western elevation of Phase C2, as such, the resequencing leads to a reduction in reflections reported from this facade. The phased solar glare effects along this stretch of track would be:

NORTHERN LINE (N1)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Minor Adverse	Minor Adverse
Scenario 4	Minor Adverse	Minor Adverse
Scenario 5	Minor Adverse	Minor Adverse
Scenario 6	Minor Adverse	Minor Adverse

For this track, Phase D2 is partially obstructed from view by Phase D1, as a result of the resequencing, scenario 3 would result in a larger portion of Phase D2 being visible within the field of view. The reflections from Phase D2 would be comparable with those already reported for D2, due to this and the location of the reflections, it is not necessary for technical assessments to be undertaken to confirm an effect of Minor Adverse in scenario 3.

As identified in the above table, there is no change in solar glare effects due to the resequencing for this stretch of track. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Northern Line (N2) - Southbound from Salford Central to Salford Crescent

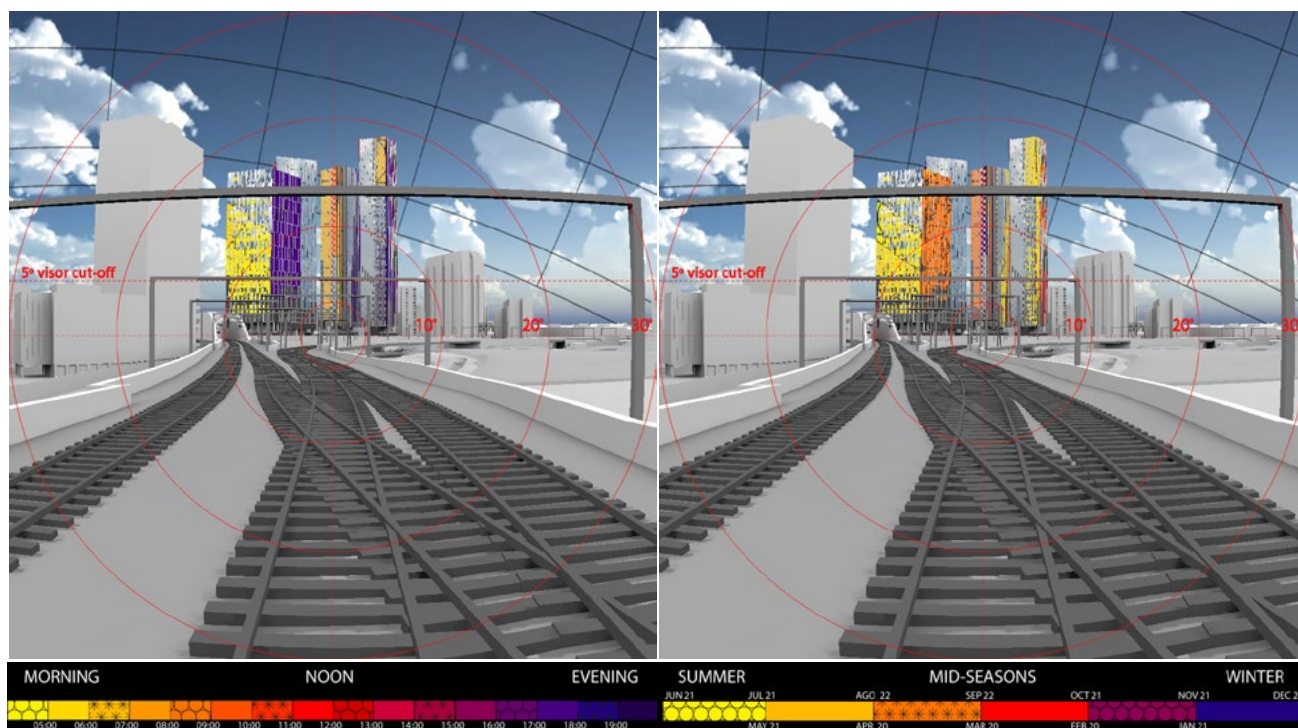


Fig. 28: Solar reflections - Scenario 6 (Completed Development)

Along this stretch of track, all four phases are visible within 30° of a driver's direct line of sight. Phase C2 shades the north-eastern elevation of Phase D1 and introduces inter-reflections from the shaded area, but Phases C1 and C2 do not impact the reflections visible from Phase D2. Therefore, based on the location of reflections from each building as reported in the submitted ES, the phased solar glare effects along this stretch of track would be:

NORTHERN LINE (N2)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Moderate Adverse	Moderate Adverse
Scenario 4	Moderate Adverse	Moderate Adverse
Scenario 5	Moderate Adverse	Moderate Adverse
Scenario 6	Moderate Adverse	Moderate Adverse

For this track, Phase D2 is partially obstructed from view by Phase D1, as a result of the resequencing, scenario 3 would result in a larger portion of Phase D2 being visible within the field of view. The reflections from Phase D2 would be comparable with those already reported for D2, due to this and the location of the reflections, it is not necessary for technical assessments to be undertaken to confirm an effect of Negligible to Minor Adverse in scenario 3.

As identified in the above table, there is no change in solar glare effects due to the resequencing for this stretch of track. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Northern Line (N3) - Southbound from Salford Crescent to Deansgate

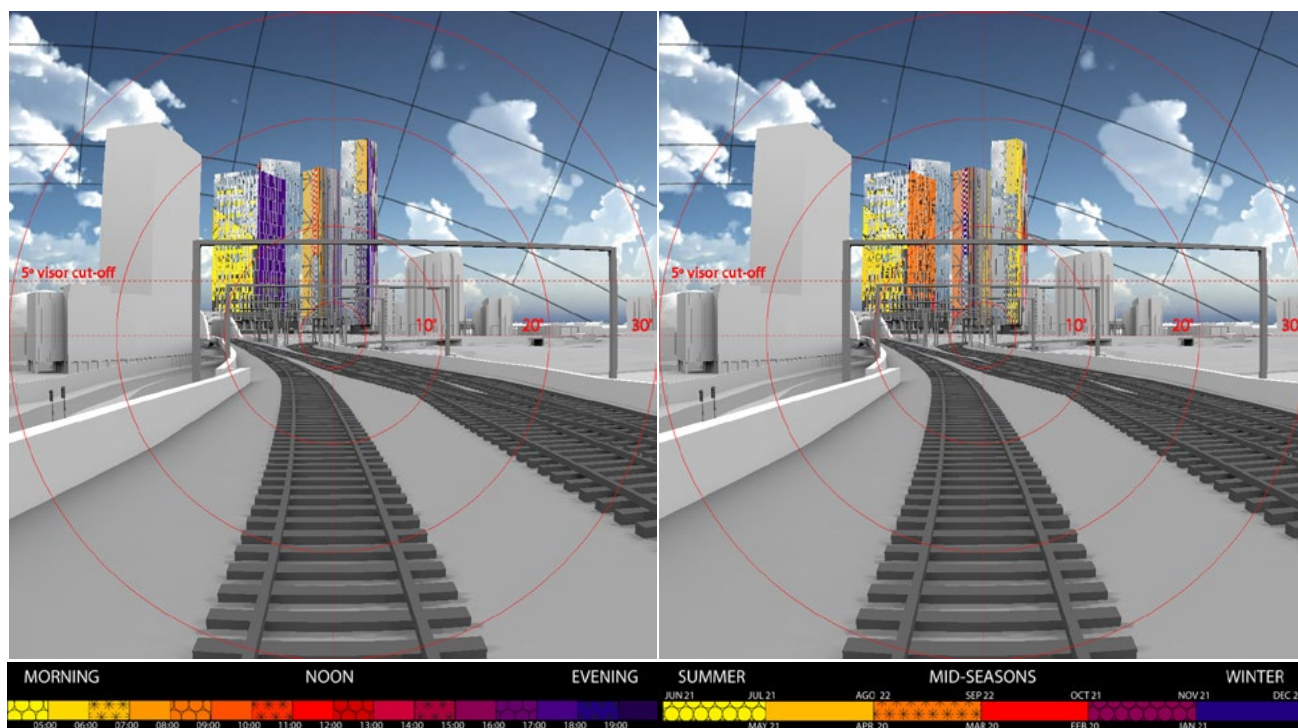


Fig. 29: Solar reflections - Scenario 6 (Completed Development)

Along this stretch of track, all four phases are visible within 30° of a driver's direct line of sight. Phase C2 shades the north-eastern elevation of Phase D1 and introduces inter-reflections from the shaded area, but Phases C1 and C2 do not impact the reflections visible from Phase D2. Additionally, Phase C2 partially obstructs Phase D2 from view within the later section of track (from viewpoint N3-110) but due to the location of Phase D2 within these views, the later implementation of Phase C2 would not alter the phased solar glare effects. Therefore, based on the location of reflections from each building as reported in the submitted ES, the phased solar glare effects along this stretch of track would be:

NORTHERN LINE (N3)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Moderate Adverse	Moderate Adverse
Scenario 4	Moderate Adverse	Moderate Adverse
Scenario 5	Moderate Adverse	Moderate Adverse
Scenario 6	Moderate Adverse	Moderate Adverse

For this track, Phase D2 is partially obstructed from view by Phase D1, as a result of the resequencing, scenario 3 would result in a larger portion of Phase D2 being visible within the field of view. The reflections from Phase D2 would be comparable with those of already reported for D2, due to this and the location of the reflections, it is not necessary for technical assessments to be undertaken to confirm an effect of Negligible to Minor Adverse in scenario 3.

As identified in the above table, there is no change in solar glare effects due to the resequencing for this stretch of track. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Northern Line (N4) - Northbound Deansgate to Salford Crescent/Eccles

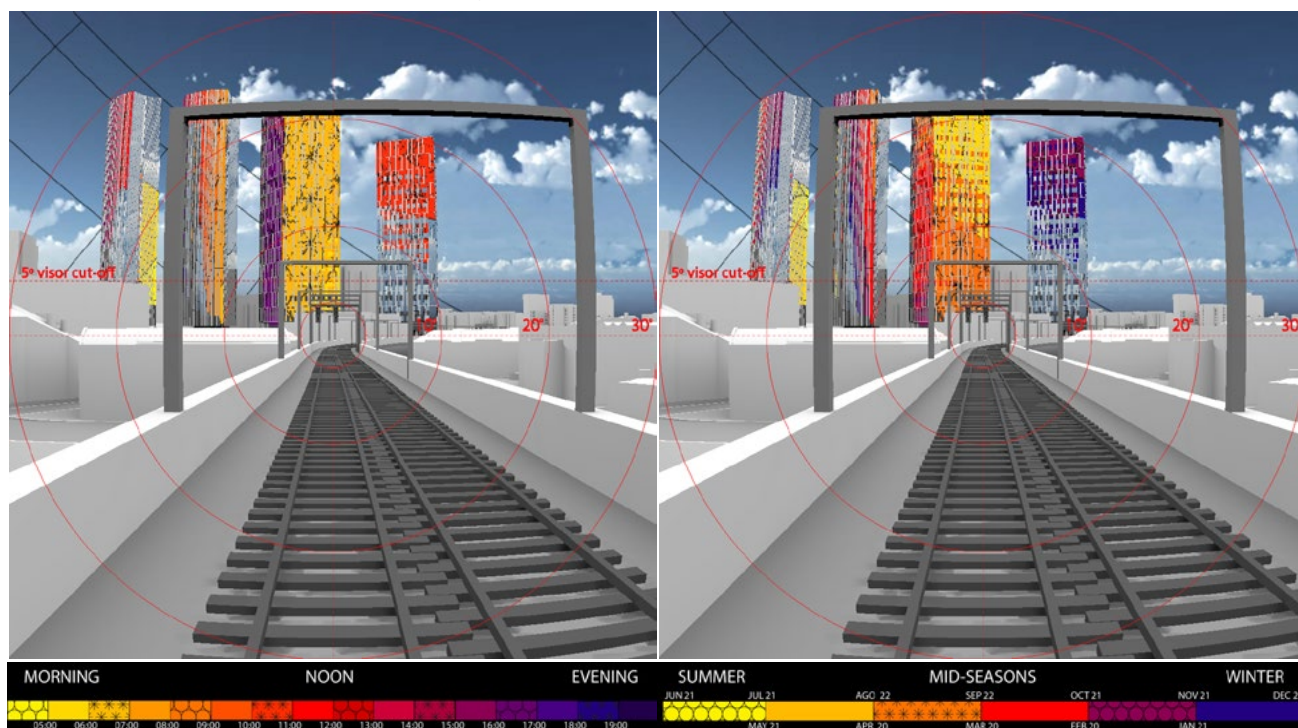


Fig. 30: Solar reflections - Scenario 6 (Completed Development)

Along this stretch of track, all four phases are visible within 30° of a driver's direct line of sight. Phases C1 and C2 do not impact the reflections visible from Phases D1 and D2. The reflections resulting in the greatest solar glare effects for this stretch of track are from Phases C1 and C2. Therefore, based on the location of reflections from each building as reported in the submitted ES, the phased solar glare effects along this stretch of track would be:

NORTHERN LINE (N4)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Moderate Adverse	Minor Adverse
Scenario 4	Moderate Adverse	Minor to Moderate Adverse
Scenario 5	Moderate Adverse	Moderate Adverse
Scenario 6	Moderate Adverse	Moderate Adverse

As identified in the above table, there is a reduction in solar glare effects due to the resequencing in scenarios 3 and 4 due to Phase C1 and C2 being delayed. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.

Tram Line (T1) - Eastbound Cornbrook to Deansgate-Castlefield

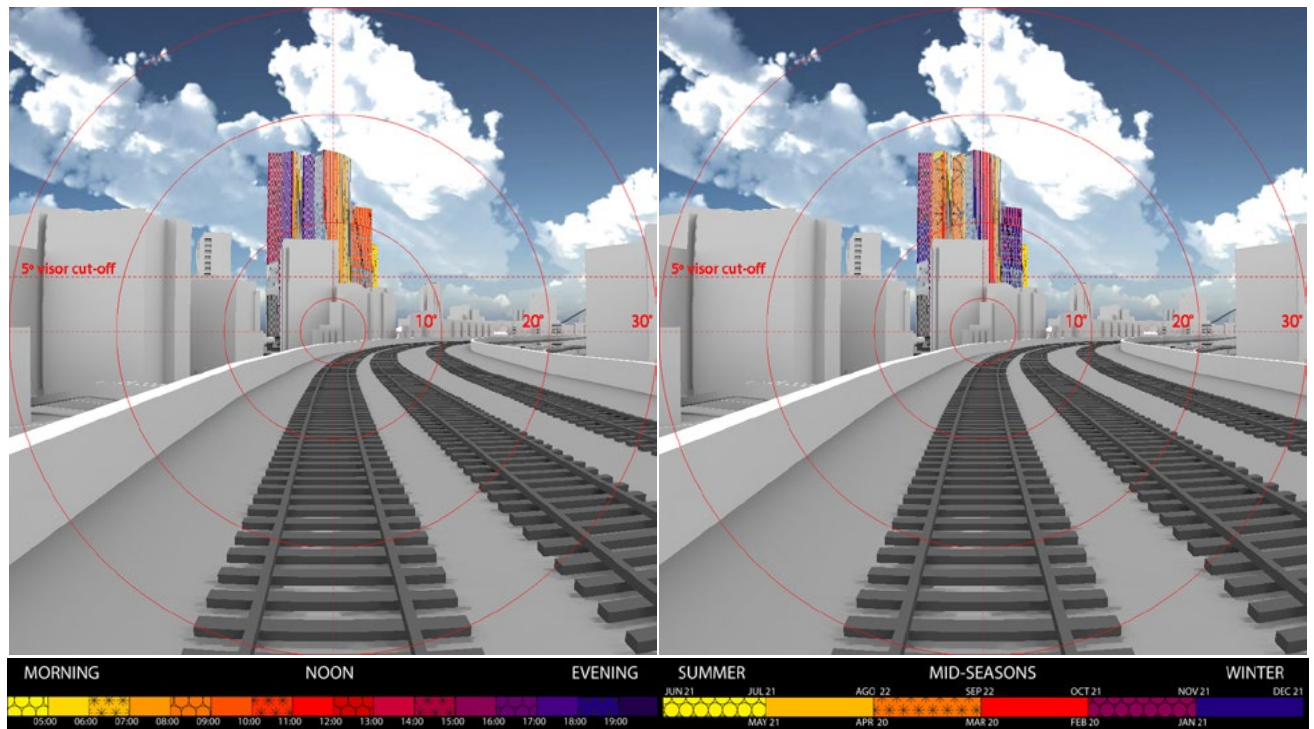


Fig. 31: Solar reflections - Scenario 6 (Completed Development)

Along this stretch of track, all phases are visible within 30° of a driver's direct line of sight. Implementation of Phases C1 and C2 does not impact the reflections visible from Phases D1 and D2 at the viewpoints assessed, therefore the reflections reported for D1 and D2 within the submitted ES remain unchanged and the phased solar glare effects for this stretch of track would be:

TRAM LINE (T1)		
SCENARIO	SUBMITTED ES	RESEQUENCING
Scenario 3	Moderate Adverse	Minor to Moderate Adverse
Scenario 4	Minor to Moderate Adverse	Minor to Moderate Adverse
Scenario 5	Minor to Moderate Adverse	Minor to Moderate Adverse
Scenario 6	Minor to Moderate Adverse	Minor to Moderate Adverse

As identified in the above table, there is a reduction in solar glare effects due to the resequencing in scenario 3 due to Phase D1, C1 and C2 being delayed. There are no additional significant effects in terms of solar glare to drivers at this junction and so the conclusions of the submitted ES remain valid.