Appendix 8.3

KINETIC TRACKS

NOTE

Jackson's Row Developments Ltd (hereinafter referred to as ‘the Applicant’) is seeking to construct a major development proposal known as St Michael’s, Jackson’s Row, Manchester, UK

The planning application for the development was originally registered in January 2017. Following feedback, the decision was taken to revise the scheme. Revised plans and documents were submitted in November 2017 and the development was granted planning permission in June 2018.

Through the detailed design process, a number of relatively minor improvements to the original scheme have been identified; these will also provide technical and functional improvements through the next stage design process. The Applicant wishes to progress these proposed changes, which are considered to require amendments to the original scheme, through a Section 73 application.

An Environmental Statement, produced in accordance with the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2011, was submitted in support of the Approved Development in 2017. The 2017 Environmental Statement comprised three volumes, as follows:

Volume 1: Main Text and Figures;
Volume 2: Technical Appendices;
Volume 3: Non-Technical Summary

With reference to Volumes 1 and 2 of the 2017 Environmental Statement, it has been decided that rather than updating and re-submitting the entire Volumes in support the Section 73 application, an ‘Addendum’ to the 2017 Environmental Statement should be submitted. This is because the Proposed Amendments to the scheme are minor in nature and the potential to affect the environmental assessment is limited.

This Environmental Statement Volume 2 (2017) appendix formed part of the application package for the June 2018 approved scheme and remains valid. Please refer to the Environmental Statement Addendum (2019) Volume 1 for more information.

REFERENCE
PL1556.1

PROJECT

ST. MICHAELS

DOCUMENT

APPENDIX 8.3 - ST MICHAELS VERIFIED KINETIC ASSESSMENT

STATUS	DATE
PLANNING	NOVEMBER 2017

DOCUMENT CONTROL

FILE NAME

PL1556.2-LV-010-02-APPENDIX 8.3 - KINETIC ASSESSMENT RESUBMISSION

PREPARED BY **CH**	
CHECKED BY **PS**	

TRACK LOCATIONS

Track 1

Kinetic track from Princess Street, traveling north-west before turning west into St. Peters Square

Track 2

Kinetic track north-west along Princess Street and turning along the western edge of Albert Square at its northern corner

KINETIC TRACK

CHARACTER CHANGE

VERIFIED VIDEO METHODOLOGY

PREAMBLE/ BACKGROUND

A8.3.1 Planit-IE LLP were appointed by Jacksons Row Developments Ltd. to prepare a Townscape and Visual Impact Assessment (TVIA) for the proposed development of the site currently comprising the Jackson's Row Police Station (vacant); Sir Ralph Abercrombie public house and the Manchester Reform Synagogue.

A8.3.2 During the early stages of the work discussions were had internally and with Manchester City Council Officers regarding the number and location of Verified Viewpoints. It quickly became clear that, when numbers of close images in particular began to increase significantly, in the main over very short distances, that the normal methodology of static views alone was not fit for purpose for the scale, sensitivity and complexity of the St. Michael's proposals.

ASSESSMENT METHODOLOGY

A8.3.3 This assessment has been carried out with reference to the Guidelines for Landscape & Visual Impact Assessment, 3rd Edition, 2013 (referred to hereafter as "the Guidelines").

A8.3.4 An assessment of townscape value and susceptibility of townscape to change enables the overall sensitivity of townscape receptors to be determined. This forms the baseline from which the impact of the Proposed Scheme can be assessed.

A8.3.5 The assessment has considered the Proposed Scheme against the Site as it currently stands. The Site comprises of the former Bootle Street Police Station, Manchester Reform Synagogue, Sir Ralph Abercromby pub and surface car parking, as detailed within the Chapter 2: Description of the Site and Surrounding Area. The Site is limited in use, due to the vacancy of the Police Station. The built form is located in the parcel of land which is bound to the north by Jackson's Row, east by Southmill Street and south by Bootle Street. The existing 201 Deansgate and Onward Buildings lie outside the Site's western boundary and provide separation between the Site and Deansgate.

A8.3.6 This TVIA introduces the use of kinetic viewpoints (known as 'tracks') to supplement the static viewpoint assessment. These tracks provide a dynamic experience along key localised routes and approaches to the application Site through adjacent Conservation Areas. These represent a closer to reality view of how pedestrians would experience the Proposed Scheme in the context of a tight-knit, dynamic and constantly changing city centre. These tracks have been selected and compiled following a rigorous methodology emanating from the accepted static viewpoint photomontage methodology as set out in the Guidelines.

A8.3.7 In order to provide the most comprehensive, rounded and objective view of the Townscape and Visual Impacts of the Proposed Scheme, assessed effects have been agreed following round-table discussions by a team of individual assessors.

KINETIC VERIFIED MONTAGE (KVM) PRODUCTION METHODOLOGY

Track Selection

A8.3.8 Tracks were chosen to represent the main approach sequences to Albert Square and St. Peters Square which have the potential to be impacted by the Proposed Development.

A8.3.9 The tracks were agreed based on the City 3D model, with the proposed buildings located as blocks.

Videography

A8.3.10 A professional videographer was employed, using a 4K quality steady-cam (to match the normal walking motion of a human being) with focal length to match that of the human eye (equivalent to 31-33mm with static views). The cameraman followed a prescribed route for each track, looking ahead rather than artificially towards the location of the proposed development – only stopping or turning at key junctions and/or when crossing the road.

3D Point Survey

A8.3.11 As with static verified views, a surveyor was sent out to survey locations of known points along each of the four video tracks.

A8.3.12 Rather than bearings, the surveyor surveyed known points in 3D space, at each key location along the routes. Within each view (or change in view) a minimum of 12 points was surveyed – this ensures that when matched into moving footage, at least four points are visible (as some may disappear behind obstructions momentarily), allowing accurate triangulation to occur.

A8.3.13 The data from the surveyor is then overlaid on a CAD tile of Manchester that is aligned to the 3D city model.

City Model verification

A8.3.14 Manchester has an accurate City Model that is made available to those bringing forward major development. However, the accuracy has never been independently verified. With the point cloud data, we were able to ascertain that the 3D city model was over 95% accurate, giving a high degree of confidence to the matching of any animated sequences with the verified video footage.

Post-processing of raw footage

A8.3.15 The raw footage is loaded into the software and 'tracker nodes' are used to identify each survey points' location in the footage, every 25 frames (equivalent of half a second). The matching of frames between these manual track points are then automated - this is a lengthy process often taking over an hour per track of which there may be up to 12.

A8.3.16 To compensate for any camera 'bounce' or remove any anomalies each tracked survey point is 'cleaned' using a graph of relative x and y movements to ensure the highest possible level of alignment. Single frames are corrected by hand for the entire duration of the film for each of the tracks.

A8.3.17 After the cleaning process is complete the 3D world space survey points are imported and linked to the corresponding video tracked point. The software then triangulates where the camera is in 3D space.

A8.3.18 This camera animation is then exported and transferred to 3D Studio Max (the CGI modelling and animation software) which should drop into location.

Compositing & masking

A8.3.19 The next stage in the process is akin to the masking of static views, which would in that case take place in Photoshop.

A8.3.20 Once the animation is rendered, the St Michael's development proposals have to be placed into the video footage. Any elements that lie in front of the proposals (i.e. buildings, trees, lamppost, people, vehicles etc.) would be 'masked' so that the proposals are accurately superimposed behind the existing context.

A8.3.21 In a static view, this is done once for each viewpoint location. For verified video tracks every frame is masked at 25 frames per second and automatically 'tracked' over the entire duration. These are then 'cleaned' to make sure they align to their subject - correcting alignment in single frames by hand for the entire duration of the film.

A8.3.22 The rendered animation of the development proposal and masked video footage is then exported as a high-resolution MP4 file.

KINETIC VERIFIED MONTAGE (KVM) ASSESSMENT METHODOLOGY

A8.3.23 This assessment has been carried out with reference to the Guidelines. The kinetic tracks differ from static viewpoints in their ability to present an evolving character along the length of a track. In order for an assessment of the kinetic tracks to follow the Guidelines, the tracks have been split into separate viewpoint characters, defined within the baseline. Each of these characters have then been individually assessed. The assessment of a character allows the same recognised assessment headings to be applicable as set out in methodology included within Chapter 8.

A8.3.24 Transitions have been considered between the viewpoint characters. This simply provides reasoning for potential jumps in sensitivities or magnitude based on abrupt changes in character. These jumps are unlikely to occur during gradual transitions of character.

TRACK 1 - CLICK ON THE IMAGE TO VIEW THE BASELINE TRACK

Manual URL:

https://youtu.be/MMPfgaRBFNs

BASELINE AND SENSITIVITY

Track 1

Kinetic track from Princess Street, traveling north-west before turning west into St. Peters Square

Designation and Approx. Distance to Site Boundary	Length of Track	Description of Baseline Track	Type of View and Number of Users	Value of Track	Susceptibility to Change	Overall Sensitivity of Receptor
Designations: Grade I Listed Town Hall, Grade II* Listed Town Hall Extension and Manchester War Memorial // boundary of George Street, Upper King Street and facing predominantly into Albert Square Conservation Area **Distance to site:** 300 - 240m north-east	00:42	The track travels along Princess Street, alongside Manchester Art Gallery, to the junction with Mosley Street before crossing into St. Peter's Square, facing towards Lloyds Street. The Town Hall forms a prominent feature throughout the length of the track, characterising the experience and drawing users into St. Peter's Square towards the key landmark. As users head towards St. Peter's Square, the Town Hall Extension, War Memorial and the recently completed square surrounds the Town Hall within an attractive setting. The experience along the track remains open throughout the length of the journey, representing arrival into the heart of the city. Trams cross in front of users along the length of the track and alight at stops just beyond the left of the view. These have the potential to distract users from the surrounding townscape, alongside traffic travelling along Princess Street during the first portion of the track. The extent of the view into St. Peter's Square and the dominance of the Town Hall buildings provide subtle character changes with gradual transitions throughout the kinetic track. This occurs at three occasions, and splits the track into the following characters; 00:00 - 00:18 (Princess Street), 00:18 - 00:35 (St. Peter's Square crossing) and 00:35 - 00:42 (St. Peter's Square). The initial experience along Princess Street is characterised by the view towards the Grade I Listed Town Hall. This is apparent alongside the contemporary architecture (80 Mosley Street) visible to the right of the view. Traffic along Princess Street presents a barrier as it travels directly towards the user, with visible tram tracks running perpendicular to the direction of travel suggesting views towards the Town Hall are likely to be interrupted during travel. The initial view towards the Town Hall from Princess Street is further cluttered by lamp posts, signage and overhead tram cables - all further distracting from the impressive heritage feature. The angular roofscape of the Town Hall, along with its spire at each end ensures the building is not lost within the mid and low level city clutter and draws the users eye up the building when the attention is not focussed on traffic and trams. The track experience changes as it traverses Princess Street, with St. Peter's Square characterising the foreground. From here, the Town Hall and Town Hall Extension are viewed as a pair of buildings which dominate the majority of the view. Trees and street furniture clutter the fore and mid-ground of the view, again reducing some of the dominance of the buildings at lower levels of the view. The interaction between the Town Hall and Town Hall Extension is particularly apparent, with the gap created by Lloyd Street between the two landmarks accentuated by the angle of the facade of the Town Hall Extension. Pedestrian movement is highlighted along the western edge of the square, close to where the Town Hall Extension meets St. Peter's Square. This pedestrian flow would ensure the townscape would prevent all views westward from St. Peter's Square. No contemporary architecture is apparent in this track. The final portion of the track is characterised by a more open, yet dominating view of the Town Hall and Town Hall Extension, with Manchester War Memorial in the foreground. This experience accentuates the interrelationship between the Town Hall buildings, with the sky penetrating between, reminding users of the route along Lloyd Street. Views down Lloyd Street present the only glimpses of wider townscape from this track. Pedestrian flow is limited in its route towards Lloyd Street by Manchester War Memorial, forcing users to travel towards either Town Hall building, ensuring the glimpse along Lloyd Street is lost. No contemporary architecture is apparent in this track.	The view remains open along the track, due to its proximity to St. Peter's Square. The potential exists for a high number of viewers to appreciate the nationally appreciated heritage buildings (Manchester Town Hall and Town Hall Extension) with important cultural associations. Visitors to these heritage/ cultural attractions are likely to appreciate the surrounding townscape, particularly due to the opportunity provided by St. Peter's Square. The overall sensitivity of the receptor is therefore considered to be High along the length of the journey.	High	High	**High**

TRACK 1 - CLICK ON THE IMAGE TO VIEW THE PROPOSED TRACK

Manual URL:

https://youtu.be/LqUzqjHgcFE

RESIDUAL EFFECTS

Track 1

Kinetic track from Princess Street, traveling north-west before turning west into St. Peters Square

Visual Elements	Timestamp of character	Description of Change	Embedded Mitigation	Overall Sensitivity of Receptor	Size/ Scale of Impact	Geographical Extent of Impact	Duration/ Reversibility	Overall Magnitude of Impact	Nature of Impact	Significance	Confidence
Track 1 - Character 1 - Princess Street Construction Phase	00:00 - 00:18	Views of construction works will not be visible due to the orientation of the track.	No additional mitigation required.	High	No Change	Local	Short/ Medium-term Reversible	No Change	N/A	Not Significant	Medium
Track 1 - Character 1 - Princess Street Operational Phase		The Proposed Development is not visible in the portion of the track due to the orientation of the track.	No additional mitigation required.		No Change	Local	Long-term Irreversible	No Change	N/A	Not Significant	High
Track 1 - Character 1 - Princess Street Cumulative Phase		The Proposed Development is not visible. Further in-combination effects are therefore not anticipated to occur.	No additional mitigation required.		No Change	Local	Long-term Irreversible	No Change	N/A	Not Significant	Medium
	Gradual transition - The character of the view gradually changes as the track turns towards St. Peter's Square										
Track 1 - Character 2 - St Peter's Square Crossing Construction Phase	00:18 - 00:35	Views of construction works will be apparent above the Town Hall Extension, in the gap between the Town Hall. Construction works will be partially obscured, with partial views of the upper storeys visible.	A single phase construction approach reduces the length of construction works.	High	Minor	Local	Short/ Medium-term Reversible	Minor	Adverse Direct	Moderately Significant	Medium
Track 1 - Character 2 - St Peter's Square Crossing Operational Phase		The Proposed Development will break the ridgeline above the Town Hall Extension, the in gap between the Town Hall, limiting views of the sky. A partially obscured view of the wide elevation of the tower of the Proposed Development will be visible. The Scheme will prevent the user from reading the interrelationship between the Town Hall buildings without also reading the tower of the Proposed Development. Whilst the view is glimpsed along the alignment of Lloyd Street, where the Proposed Development is visible it will cause a clearly noticeable change to the character of the view which will alter the composition and presence currently accorded to the landmark Town Hall buildings.	The choice of colour within the materiality of the Scheme subtly projects the colour tones of the Town Hall whilst presenting itself in a contemporary manner. The responsive nature of the anodised finish to the building façade helps to soften the colour and provide townscape interest as elevations will react differently to the sun, throughout the day and year. The elliptic shape, along with the changing colour of the anodised finish helps to diminish the width of the wide elevation, helping to reduce some of the mass on the view.		Moderate	Local	Long-term Irreversible	Moderate	Adverse Direct	Moderately Significant	High
Track 1 - Character 1 - St Peter's Square Crossing Cumulative Phase		St. John's Place will be visible, low in the gap between the Town Hall buildings. Only a small portion of the development will be visible. Whilst the development lies at the centre of the view, it is unlikely to be dominant, due to the attention of the viewer likely to be focussed on the historic facades, historic roofscape or indeed the proposed development. It is not considered that the in-combination effects are likely to increase the assessment further.	No additional mitigation required.		Moderate	Local	Long-term Irreversible	Moderate	Adverse	Moderately Significant	Medium
	Gradual transition - The character of the view gradually changes as the track moves towards Lloyd Street										

Track 1 - Character 3 - St. Peter's Square **Construction Phase**	00:35 - 00:42	Views of construction works will be apparent above the Town Hall Extension, in the gap between the Town Hall. Construction works will be mostly obscured, with partial views of the upper storeys visible, limiting the appearance of sky.	A single phase construction approach reduces the length of construction works.	High	Minor	Local	Short/ Medium-term Reversible	Minor	Adverse Direct	Moderately Significant	Medium
Track 1 - Character 3 - St. Peter's Square **Operational Phase**		The Proposed Development will break the ridgeline above the Town Hall Extension, the in gap between the Town Hall, limiting views of the sky at the top of the view. A partially obscured view of the wide elevation of the tower of the Proposed Development will be visible, albeit above and beyond the Town Hall buildings. The Scheme will prevent the user from reading the interrelationship between the Town Hall buildings without also reading the tower of the Proposed Development. Whilst the view is glimpsed along the alignment of Lloyd Street, where the Proposed Development is visible it will cause a clearly noticeable change to the character of the view which will alter the composition and presence currently accorded to the landmark Town Hall buildings.	The choice of colour within the materiality of the Scheme subtly projects the colour tones of the Town Hall whilst presenting itself in a contemporary manner. The responsive nature of the anodised finish to the building façade helps to soften the colour and provide townscape interest as elevations will react differently to the sun, throughout the day and year. The elliptic shape, along with the changing colour of the anodised finish helps to diminish the width of the wide elevation, helping to reduce some of the mass on the view.		Moderate	Local	Long-term Irreversible	Moderate	Adverse Direct	Moderately Significant	High
Track 1 - Character 3 - St. Peter's Square **Cumulative Phase**		St. John's Place will be visible, low in the gap between the Town Hall buildings. Only a small portion of the development will be visible. Whilst the development lies at the centre of the view, it is unlikely to be dominant, due to the attention of the viewer likely to be focussed on the historic facades, historic roofscape or indeed the proposed development. It is not considered that the in-combination effects are likely to increase the assessment further.	No additional mitigation required.		Moderate	Local	Long-term Irreversible	Moderate	Adverse	Moderately Significant	Medium

TRACK 2 - CLICK ON THE IMAGE TO VIEW THE BASELINE TRACK

Manual URL:

https://youtu.be/qWdXbYVETnQ

BASELINE AND SENSITIVITY

Track 2

Kinetic track north-west along Princess Street and turning along the western edge of Albert Square at its northern corner

Designation and Approx. Distance to Site Boundary	Length of Track	Description of Baseline Track	Type of View and Number of Users	Value of Track	Susceptibility to Change	Overall Sensitivity of Receptor
Designations: Grade I Listed Albert Memorial, Grade II* Listed Memorial Hall and Grade II Listed Abbey National Building, Albert Chambers and Anglia House // Albert Square Conservation Area **Distance to site:** 180 - 130m north-east	01:01	The Track extends from Princess Street, facing down John Dalton Street before turning to cross Princess Street and travelling along the western edge of Albert Square towards the north-eastern corner of the site, stopping before the Albert Memorial. The experience has been split into two separate characters, reflecting the change in orientation along the track. The first character (00:00 - 00:20) is defined by the view of the road junction and landmark buildings defining key corners as the townscape responds to this strategic movement decision point within the city centre. To the right of the view, Cross Street leads users north directly through the City Centre to the Cathedral Quarter. Straight ahead, John Dalton Street takes users west to Deansgate and directly across the River Irwell to Salford. The foreground is therefore busy with cars and pedestrians crossing, with associated signage and street furniture and limited opportunities to stop and enjoy the setting. The view is focussed straight ahead. Any views left towards Albert Square would be obscured by tree canopies which line the square. Townscape further frames the right of the view and channels attention along John Dalton Street and strengthening the presence of the Abbey National Building and Anglia House. As the track turns and crosses Princess Street, the character of the view changes considerably (00:20 - 01:01). Grade I Listed Albert Memorial draws attention to the left of the view, with views down to the Site framed by the contemporary townscape to the right of the view. The Portland Stone colour defining the Former Bootle Street Police Station is apparent at the centre of the view, with the contrast in colour and materiality drawing users eye towards this point. Contemporary architecture is also dominant at the centre of the view, with Beetham Tower, Great Northern Tower and Owen Street (future baseline) rising above the townscape at the back of the view. Albert Memorial remains a defining feature along the length of the track, drawing the eye and inciting users into Albert Square as defined by the line of street trees. Opportunities to stop and enjoy the setting are apparent. The track does not highlight the Grade I listed Town Hall which is likely to draw the eye further off the view to the left, although the track represents pedestrians using the alignment of the track to traverse the space. The dominance of the Albert Memorial is clearly apparent in the baseline view from the point where the track turns into the square through to the end of the view. The changing relationship with the Albert Memorial broadly alters the character of the view a number of times through the kinetic experience. These include; where the Memorial is not visible, where the Memorial forms a dominant feature at the centre of the view and close to the Memorial where it acts to frame the view.	Majority of the track is open and subject to a high number of viewers with the potential to appreciate the important civic space and the associated buildings of significant heritage quality. The overall sensitivity of the track is therefore considered to be high across the changes in character.	High	High	High

TRACK 2 - CLICK ON THE IMAGE TO VIEW THE PROPOSED TRACK

Manual URL:

https://youtu.be/bEp9uyU5tRI

RESIDUAL EFFECTS

Track 2

Kinetic track north-west along Princess Street and turning along the western edge of Albert Square at its northern corner

Visual Elements	Timestamp of character	Description of Change	Embedded Mitigation	Overall Sensitivity of Receptor	Size/ Scale of Impact	Geographical Extent of Impact	Duration/ Reversibility	Overall Magnitude of Impact	Nature of Impact	Significance	Confidence
Track 2 - Character 1 - Princess St. Construction Phase	00:00 - 00:20	Views of construction works will not be visible due to the orientation of the track.	No additional mitigation required.	High	No Change	Local	Short/ Medium-term Reversible	No Change	N/A	Not Significant	Medium
Track 2 - Character 1 - Princess St. Operational Phase		The Proposed Development is not visible in the portion of the track due to the orientation of the track.	No additional mitigation required.		No Change	Local	Long-term Irreversible	No Change	N/A	Not Significant	High
Track 2 - Character 1 - Princess St. Cumulative Phase		The Proposed Development is not visible. Further in-combination effects are therefore not anticipated to occur.	No additional mitigation required.		No Change	Local	Long-term Irreversible	No Change	N/A	Not Significant	Medium
	Abrupt transition - The character of the view completely changes as the track turns into Albert Square										
Track 2 - Character 2 - Albert Sq. North Construction Phase	00:20 - 01:01	A view of construction works of the podium will be visible at the centre of the view, amongst the existing townscape, including the contemporary Beetham, Great Northern and Owen Street (future baseline) towers and within the setting of the Grade I Listed Albert Memorial. The works are likely to cause a temporary effect on the appreciation of the view.	A single phase construction approach reduces the length of construction works.	High	Minor	Local	Short/ Medium-term Reversible	Minor	Adverse Direct	Moderately Significant	Medium
Track 2 - Character 2 - Albert Sq. North. Operational Phase		The Proposed Development will be visible at the centre of the view, amongst the existing townscape and marked by the retention of the Portland Stone Former Bootle Street Police Station. Only the podium will be visible at the centre of the view. The tower is partially visible on the edge of the viewpoint, above the existing townscape. The placement of the tower on the Deansgate edge ensures its impact on the view is limited. Contemporary development atop the retained Police Station is broadly in keeping with the height datum of the existing townscape in this view, and is visible directly amongst the contemporary towers rising beyond the heritage. Whilst the Proposed Development is visible within the setting of the Grade I listed Albert Memorial, it is not anticipated that the Scheme will noticeably alter the character of the view.	The orientation of the tower has prevented its visibility from this viewpoint. The choice of colour within the materiality of the podium subtly projects the colour tones of the Town Hall whilst presenting itself in a contemporary manner. Where visible, the responsive nature of the anodised finish to the building façade helps to soften the colour and provide townscape interest as elevations will react differently to the sun, throughout the day and year.		Minor	Local	Long-term Irreversible	Minor	Neutral Direct	Moderately Significant	High
Track 2 - Character 2 - Albert Square North Cumulative Phase		Glimpsed views of Manchester Central are visible beyond the existing townscape within the view. The limited view of the tower has deemed it unlikely that further in-combination effects will arise as a result of the Proposed Scheme.	No additional mitigation required.		Minor	Local	Long-term Irreversible	Minor	Neutral	Moderately Significant	Medium

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