

TPB PG-NO. 41

**TOWN PLANNING BOARD GUIDELINES ON
SUBMISSION OF VISUAL IMPACT ASSESSMENT FOR
PLANNING APPLICATIONS TO THE TOWN PLANNING BOARD**

[Important Note :

The Guidelines are intended for general reference only.

Any enquiry on this pamphlet should be directed to the Secretariat of the Town Planning Board (15th Floor, North Point Government Offices (NPGO), 333 Java Road, North Point, Hong Kong – Tel: 2231 4810 or 2231 4835) or the Planning Enquiry Counters of the Planning Department (Hotline: 2231 5000) (17th Floor, NPGO and 14th Floor, Sha Tin Government Offices, 1 Sheung Wo Che Road, Sha Tin).

The Guidelines are subject to revision without prior notice.]

1. Introduction

1.1 From time to time, section 16 planning applications or section 12A applications for amendments of statutory plans or compliance with approval conditions under the Town Planning Ordinance (the Ordinance) may involve submission of visual impact assessment (VIA). The main aim of VIA is to assess the potential visual impact of the proposed development to the surrounding areas, and to present sufficient information in a structured manner to facilitate the Town Planning Board (TPB) to visualise the three-dimensional relationship of the proposed development with the surrounding context and to consider the visual effects in making a decision. The purpose of the Guidelines is to provide guidance to encourage the best results in preparing VIA submissions under the Ordinance in support of applications to the TPB or compliance with approval conditions.

2. Scope and Application of VIA

2.1 The visual impact of a proposal is a result of the spatial relationship between the proposed development and its surrounding context. The siting, general location, setting, nature, size, scale and visual prominence of a proposed

development are all primary factors for consideration of the need and scope for VIA. Before the details affecting the design of the proposed development are available, it is often difficult to predetermine the need and scope for VIA. Therefore, professional and reasoned judgement has to be exercised on the exact need and level of details. The following paragraphs set out some general guidelines.

2.2 Not all planning applications will require VIA. Except in circumstances highlighted in para. 2.3 below, an application which proposes a development that complies with all the development parameters and criteria stipulated in the Notes for the zoning, including building height, plot ratio/gross floor area (GFA) and/or site coverage for a particular zone shall not normally require a VIA.

2.3 In general, these Guidelines are applicable when :

- (a) VIA is stipulated in the Notes of the statutory plans for the subject site;
- (b) VIA is stipulated in the approval conditions;
- (c) VIA is requested by the TPB;
- (d) the proposal is within an area, for example areas zoned “Comprehensive Development Area”, subject to comprehensive planning and design control in the form of planning brief, design brief or submission of Master Layout Plan for TPB’s approval;
- (e) the proposal involves modification of development parameters of a site to deviate from the statutory planning restrictions applicable to the site or the neighbourhood, and the modification will amount to pronounced increase in development scale and intensity and visual changes from key public viewing points;
- (f) the proposal involves upzoning or rezoning of a site from non-development use to development use which will result in loss of visual openness on-site or off-site from key public viewing points; and
- (g) the proposal may affect existing visually sensitive areas, visual

amenities and visual resources on-site or off-site enjoyed by the public due to its nature, scale, location, visual prominence, design, relationship to the site context, etc.

2.4 A flow chart showing the application of VIA is in **Appendix A**.

3. Primary Consideration of VIA

3.1 The primary town planning consideration of visual impact is not so much on the architectural design, façade treatment, colour, texture, materials and finishes of a building per se, which are matters for the individual architects. The emphasis is on the impact of the overall site layout, development scale, form, massing, disposition and character of the development and its spatial relationship with the overall townscape or surrounding landscape.

3.2 The foremost underlying principle of VIA would be, balancing other relevant factors, to avoid developments that will likely result in major adverse visual impact within the existing and planned development context, especially where visually sensitive areas, visual amenities, visual resources and/or public viewers are affected.

4. Contents of VIA

4.1 The contents suggested in these Guidelines are general and applicable to VIA for projects of varying size, site context and resultant impact. The level of assessment adopted should be commensurate with the project, having regard to its locality, setting, nature, size, scale, visual prominence and the extent of the visual envelope under influence. It is not necessary to adopt an elaborate assessment method as required for designated projects under the Environmental Impact Assessment Ordinance.

4.2 The following information would be useful for VIA submissions :

Assessment Area

4.3 The assessment area is expected to cover the area of visual influence within

which the proposed development is pronouncedly visible from key sensitive viewers. The extent of the assessment area for VIA would vary case by case depending on the size of development, the site context and the distance and location of the sensitive viewers. A larger building will more likely give a more distinct visual impact than a smaller building at the same distance. Groups of buildings seen at a farther distance may be visually less distinct than the close-up views of individual buildings⁽¹⁾. The actual assessment area, i.e. the visual envelope, should be determined having regard to the size of the proposed development, the distance of the development and its potential visibility from the selected viewing points, and the actual site and surrounding topographical conditions by ground inspection.

- 4.4 The visual envelope is expected to cover the fields of views⁽²⁾ from all sensitive viewers in direct sight of the proposed development. Prior to the actual ground inspection, the assessment area can be approximated through topographic map analysis manually or by computer simulation. For harbourfront development, the assessment area may have to extend to the opposite side of the harbour and the ridgelines in the visual backdrop of the development. Likewise, areas where views to the proposed development are substantially blocked by buildings, structures, vegetation or topography in between can be excluded.

Viewing Points

- 4.5 Visual impact should take into account views from key strategic and popular local vantage points, as well as local visual impacts on the adjacent neighbourhood area. Important views to special landmarks, valued landscape features, the harbour, ridgelines, etc should be protected. In the highly developed context of Hong Kong, it is not practical to protect private views without stifling development opportunity and balancing other relevant considerations. In the interest of the public, it is far more important to protect public views, particularly those easily accessible and popular to the public or tourists. VIA should primarily assess the impact on sensitive

⁽¹⁾ When the viewer is at a distance equal to three times of the height of a building, the viewer will tend to see the building as part of a group rather than as a single building (Source : Werner Hegemann and Elbert Peets, *The American Vitruvius, an Architect's Handbook of Civic Art*). This may be used as an initial reference in approximating the extent of assessment area subject to verification by ground inspection.

⁽²⁾ Normal field of vision is at 60° vertically and horizontally without straining the human eyes.

public viewers from the most affected viewing points. The viewing points could be kinetic or static. They include key pedestrian nodes, popular areas used by the public or tourists for outdoor activities, recreation, rest, sitting-out, leisure, walking, sight-seeing, and prominent travel routes where travellers' visual attention may be caught by the proposed development. Viewing points should be at human eye level for a realistic presentation of views.

- 4.6 The visual sensitivity of the public viewers from the viewing points can be qualitatively graded as high, medium or low, taking into account the activity of the viewers⁽³⁾, the duration and distance over which the proposed development would remain visible, and the public perception of value attached to the views being assessed.
- 4.7 For identification of key public viewing points, the applicants may refer to Chapter 11 on Urban Design Guidelines in the Hong Kong Planning Standards and Guidelines (HKPSG), the Explanatory Statements of relevant statutory plans, adopted outline development plans and layout plans, and completed planning studies available for public reference. Local viewpoints should be determined with reference to the setting of the project and views of local significance. The applicant should explain the selection of the viewing points in the VIA.

Visual Elements

- 4.8 The visual outlook is shaped by the combined composition of all the visual elements which come into sight of the viewers. All key visual elements, including any major physical structures, visual resources or attractors (e.g. the harbour, natural coastline, ridgeline, mountain backdrop, woodland, streams, etc.) and/or visual eyesores or detractors (e.g. pylons, sewage treatment plants, refuse collection points, ventilation shaft buildings, quarries, etc.) that currently exist or are known to be planned within the assessment area should be reported. Different visual elements may enhance, degrade or neutralize the overall visual impact of the development being assessed.
- 4.9 Given the publicly recognized importance of the harbour and ridgelines as

⁽³⁾ People engaged in working activities are usually less sensitive to visual changes.

our natural visual resources, all VIAs should demonstrate whether and how the proposed development would cause impact on the views to ridgelines and harbour if the site location is within the assessment area where views to ridgelines and the harbour may be reduced or blocked.

Appraisal of Visual Changes

4.10 The effects of visual changes on the assessment area and sensitive public viewers should be appraised. Visual changes may be positive or negative and they are not necessarily mutually exclusive. The appraisal is expected to consider the following aspects :

- (a) **Visual Composition** – Visual composition is the total visual effects of all the visual elements due to their variation in locations, massing, heights, dispositions, scales, forms, proportions and characters vis-a-viz the overall visual backdrop. Visual composition may result in visual balance, compatibility, harmony, unity or contrast. The appraisal should have due regard to the overall visual context and character within the wider and local contexts. A building of an inappropriate scale can dominate the setting and create visual incompatibility with the surroundings. However, in some areas, a well-designed building creating contrast in an appropriate setting may punctuate the space, add visual interest and break the visual monotony, provided other urban design principles applicable to the site are not negated.

- (b) **Visual Obstruction** – A development may cause views in its foreground or background to be intercepted or blocked. The appraisal should assess the degree of visual obstruction and loss of views or visual openness due to the proposed development from all key public viewing points within the assessment area. Blockage or partial blockage of views which substantially reduce visual permeability, existing panorama, vistas, visual resources or visual amenities should be avoided or minimized, in particular with regard to impact on prominent ridgelines, the harbour, natural coastlines, open sea horizon, skyline, scenic areas, valued landscape, special landmark, heritage features to be preserved, etc. The degree of visual obstruction can sometimes be reduced by repositioning of building

blocks or scaling down building mass.

- (c) **Effect on Public Viewers** – The effects of visual changes from key public viewing points with direct sightlines to the proposed development should be assessed and demonstrated in VIA. The changes in views to the existing and future public viewers should be compared before and after the proposed development. The cumulative impact with any known planned developments as permitted by the statutory plans should be taken into account where possible. The appraisal should take into account the public perception of value attached to the views currently enjoyed, and any likely visual concerns from the general public, e.g. concerns on sore thumb development, visual impermeability, wall effect, neighbourhood identity and character, etc. In the likelihood of such public concerns, the appraisal should explain how to avoid or address the negative visual impact. The effects of the visual changes can be graded qualitatively in terms of magnitude as substantial, moderate, slight or negligible.
- (d) **Effect on Visual Resources** – The condition, quality and character of the assessment area may change positively or negatively as a result of a development. The applicant should appraise if the proposed development may improve or degrade the condition, quality and character of the assessment area and any on-site and off-site visual impact such as that on the visual resources, visual amenities, area of special character, natural and built heritage, sky view, streetscape, townscape and public realm related to the development. Any proposal to enhance or mitigate the impact through design measures, such as design to improve visual permeability, greening, streetscape improvement, landscape screening for visually intrusive elements e.g. carparks, plant rooms, retaining walls, etc. should be included and presented.

Evaluation of Overall Visual Impact

- 4.11 The applicant should evaluate the overall visual impact of a proposed development, taking into account the sensitivity of the key public viewers,

visual resources and visual amenities likely to be affected, the magnitude, extent and duration of impact and any resultant improvement or degradation in the visual quality and character of the surrounding area, and the planning intention and known planned developments of the area. Any visual impact should be moderated, with mitigation and enhancement measures proposed for the development. The conclusion should be substantiated by reasoned professional judgement and accurate illustrative materials. Relevant urban design concepts and principles applicable to the application site such as the Urban Design Guidelines in the HKPSG, planning brief or design brief applicable to the site, and any other relevant planning documents and planning studies completed and available for public reference, e.g. the Study on Landscape Value Mapping of Hong Kong, Town Planning Board's Vision Statement for Victoria Harbour, Harbour Planning Principles and Harbour Planning Guidelines promulgated by the then Harbour-front Enhancement Committee etc. should be referenced to. The resultant overall impact may be concluded and classified within a range of threshold :

- (a) **enhanced** – if the proposed development in overall term will improve the visual quality and complement the visual character of its setting from most of the identified key public viewing points;
- (b) **partly enhanced/partly adverse** – if the proposed development will exhibit enhanced visual effects to some of the identified key public viewing points and at the same time, with or without mitigation measures, exhibit adverse visual effects to some other key public viewing points;
- (c) **negligible** – if the proposed development will, with or without mitigation measures, in overall term have insignificant visual effects to most of the identified key public viewing points, or the visual effects would be screened or filtered by other distracting visual elements in the assessment area;
- (d) **slightly adverse** – if the proposed development will, with or without mitigation measures, result in overall term some negative visual effects to most of the identified key public viewing points;
- (e) **moderately adverse** – if the proposed development will, with or

without mitigation measures, result in overall term negative visual effects to most of the key identified key public viewing points; and

- (f) **significantly adverse** – if the proposed development will in overall term cause serious and detrimental visual effects to most of the identified key public viewing points even with mitigation measures.

4.12 A flow chart summarising the process of VIA is in **Appendix B**.

5. Visualisation Materials to be Submitted

5.1 The visualisation materials to be provided for VIA should be suitable for the scale and level of complexity of the project. Materials presented should be accurate, clear, concise and reproduceable for easy visualization and checking.

5.2 Visualisation materials should normally consist of the following which may vary for individual cases :

- (a) Site layout plan, elevation and section diagrams of the proposed development.
- (b) A plan to show the boundary of the assessment area, locations and heights of the key public viewing points selected, the fields of views towards the proposed development from the viewing points, the alignment and direction of any major visual corridor, and positions of key visual elements within the assessment area. A sample plan is shown in **Appendix C**.
- (c) Photographs to show the aerial views of the spatial relationship of the subject site with the surroundings within the assessment area.
- (d) Photographs to show the existing views to the subject site from the key public viewing points without the proposed development.
- (e) Photomontages to show the existing views and the future views to the proposed development in relation to other existing and known planned

developments and prominent visual features from the key public viewing points. Information of the exact locations, heights and angles from where the photographs are taken, as well as the focal length used, for the photomontages, should be clearly referenced.

5.3 The following materials may be useful to facilitate better understanding of the visual impact for more complex cases and be submitted at the discretion of the applicant if considered necessary :

- (a) Physical model in the appropriate scale, size and coverage.
- (b) Computer-generated animation of the proposed development in the surrounding setting.
- (c) Perspective drawings of the proposed development.

5.4 The technical details of the visualization materials submitted shall be recorded. Applicant may be requested to submit the details for verification of accuracy, when necessary.

5.5 If soft copies of site photographs and visualization outputs such as photomontages are to be submitted, they should be in JPEG/BMP/TIFF formats with not less than 1024 x 1280 dpi; and computer-generated animation, if submitted, should be in AVI/WMV format (built-in Codec) with resolution in 720*576 for PAL, or 720*486 for NTSC.

6. Amendments to Approved Schemes

6.1 For development proposals or compliance with the approval conditions involving major amendments to schemes previously approved by the TPB, the applicant should submit a fresh planning application with a revised VIA. For an application for Class B amendments to an approved development proposal under section 16A of the Ordinance, if the approved development proposal is the subject of a VIA and the amendments will result in changes in the key development parameters which may have implications on the visual impact, including increase of GFA/plot ratio arising from incorporation of concessionary GFA granted by the Building Authority, the

applicant should also submit a revised VIA to assess the change in visual impact.

7. Enquiries and Advice

7.1 Applicants may approach the Urban Design Unit of the Planning Department direct for general and non-site specific enquiries and advice if necessary on these Guidelines. For site specific enquiries, the applicants may approach the relevant District Planning Office.

8. Appendices

Appendix A – Application of VIA

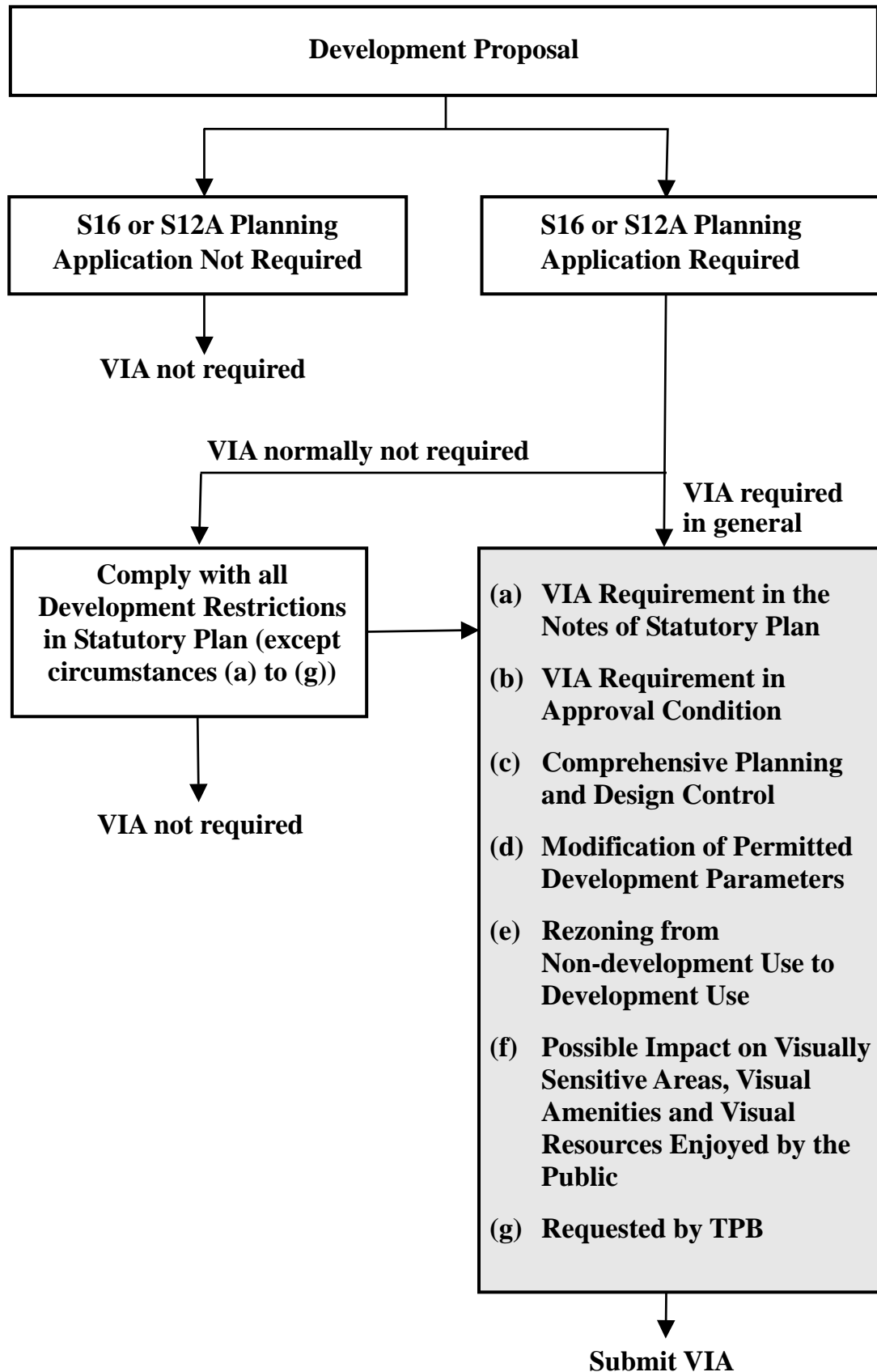
Appendix B – Process of VIA

Appendix C – Sample Plan for Key Visual Elements for VIA

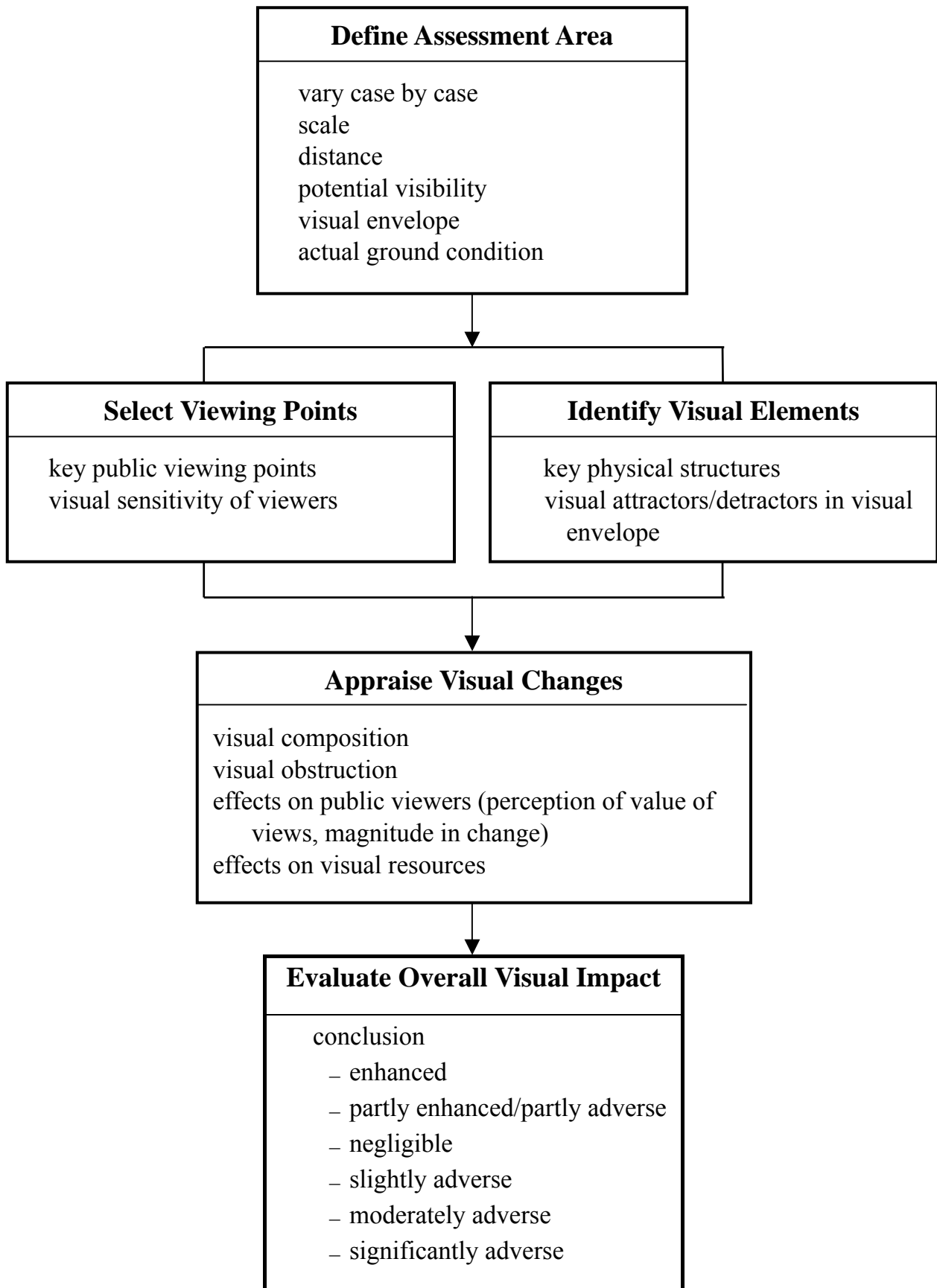
TOWN PLANNING BOARD

July 2010

Application of VIA

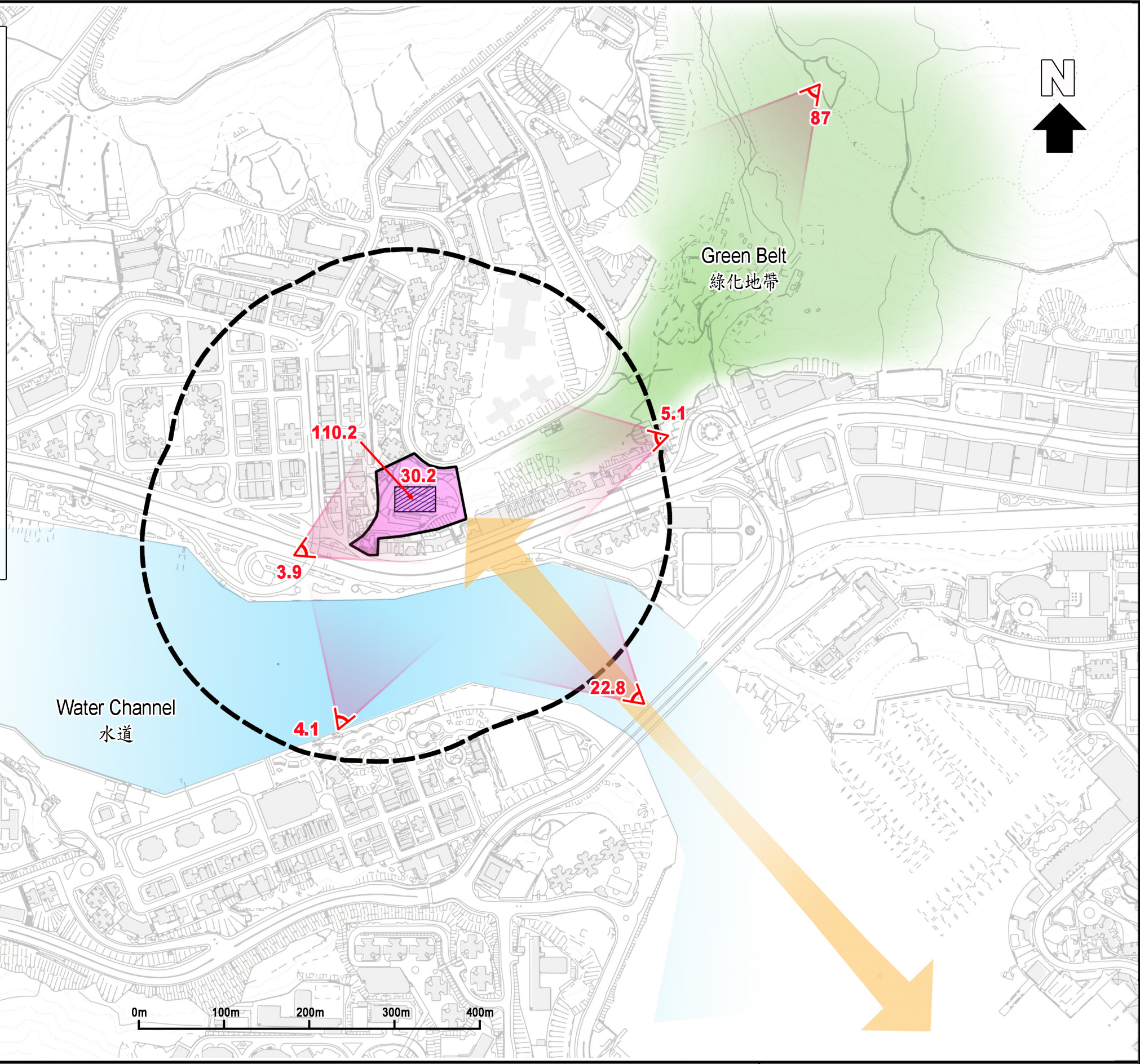


Process of VIA



Legend 圖例

- Proposed Development Site
擬議發展地盤
- Proposed Building (H = 80m)
擬議建築物 (建築高度 = 80米)
- Field of Views towards Proposed Development
能看到擬議發展項目的視域
- Initial Assessment Area Boundary
初步評估範圍
(•3H = 240m
Refer to Footnote(1) in Para.4.3 of Paper
•Identification of Exact Visual Envelope Subject to Actual Ground Inspection)
(•建築高度的 3 倍 = 240米
請參閱文件第4.3段的註(1)
•實際的視線範圍須進行實地視察才能確定)
- Key Public Viewing Points
主要公眾觀景點
- 3.9 Height in mPD
主水平基準上高度
- Major Visual Elements
主要視覺元素
- Major Visual Corridor
主要觀景廊



SAMPLE PLAN FOR KEY VISUAL ELEMENTS FOR VIA
視評的主要視覺元素圖樣本