香港城市設計學會
Hong Kong Institute of Urban Design

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By email: policyaddress@pico.gov.hk

Ms. Doris HO Pui Ling, JP

Head

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26/F, West Wing, Central Government Offices

2 Tim Mei Avenue, Tamar, Hong Kong

Dear Ms. Ho,

Policy Address 2021 – HKIUD' Recommendations for Consideration by the Chief Executive

On behalf of the Hong Kong Institute of Urban Design, we would like to submit, on the attached file for your consideration our recommendations on the 2021 Policy Address.

We are also pleased to meet relevant officers to further explain the contents therein if necessary.

Should further information be required, please kindly contact me or Ms. Cherry Lau, our Senior Administrative Officer at 2235 9057. Yours sincerely,

(Anthony CHEUNG)

Chairman, Public Affairs Committee, HKIUD

Hong Kong Institute of Urban Design Limited

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Policy Address 2021 – HKIUD' Recommendations for Consideration by the Chief Executive

With respect to the Chief Executive's 2021 Policy Address, the Hong Kong Institute of Urban Design has the following recommendations:

	Items	Comments
1	Urban Design Approach for Future Planning of Hong Kong	• **Urban Design over Traditional 2-D Town Planning Approach** - Hong Kong is still following very traditional approach in the planning and implementation of our city: 2-D planning approach spearheaded by the PlanD then implementation by the CEDD, a disjointed effort and not the right approach for highly densified 3-D city like Hong Kong. Urban design is an interdisciplinary field that utilises the procedures and the elements of architecture and other related professions, including landscape design, urban planning, transport planning, civil engineering, and municipal engineering.[1] It considers overall health, social, economic, environmental as well as **aesthetic** aspects of the planning of the city and requires widespread input from all related sources of expertise. Liveable cities are a product of all the above and can never be satisfactorily generated when starting with 2-D planning, data and engineering concerns. We need a **'Betterment of the City'** approach. The state of the public realm is appalling, in part because no single body is addressing this in a comprehensive way. Our notorious policy silos preclude proper objectives being established. • **Urban Design Think Tank** - In doing so, it is recommended to start an urban design think tank, like the Centre for Liveable Cities in Singapore https://www.clc.gov.sg/, such as to help the government to plan ahead from a scientific approach. There is a lack of research about the impact of urban design in high density city such as Hong Kong, and yet most of that knowledge fails to adequately impact policy and formative decision making. PICO should specifically, through PPR and SPPR, incentivise research on built environment impact in high density city. • **Comprehensive Master Plan approach** – The result of town planning in Hong Kong should be far more than an Outline Zoning Plan (OZP). Area Action Plan and comprehensive, detailed urban master plans – which contain

[1] Van Assche, K.; Beunen, R.; Duineveld, M.; de Jong, H. (2013). "Co-evolutions of planning and design: Risks and benefits of design perspectives in planning systems". *Planning Theory*. **12** (2): 177–98

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not just large blocks with designated land use, but also important details on urban blocks, height and setback, protected views, pedestrian and cycling networks, public open space, etc., all informed by urban design principles – should be adopted as the base product of urban planning and design in Hong Kong, as they are in most places in the developed world, including Mainland China.

- **An Urban Design & Implementation Office/Authority** - Ultimately, the future planning of Hong Kong shall be rested on an Urban Design Office or Authority to coordinate the current 2D and disjointed planning and implementation approach. Most cities benefit substantially from having an elected Mayor, who is can envision and implement betterment issues over and above a wide range of vested interests and siloed considerations. Hong Kong needs to develop a similar non-aligned approach to form visionary targets rather than react to past metrics.
- **City-wide Digital Twin** – extending the current initiative of the CSDI and the BEAP, digital twin shall be built to cover the entire Hong Kong for testing of new urban design concept, infrastructure network, walkability, air-ventilation across the territories, etc.
- **Incorporation of Health and Wellness Aspects into Urban Design** – Health and wellness are not a normal subject of 2-D planning. With the lessons of the Pandemic, we should prioritise health, wellness, and happiness aspects as the key focus of urban design.
- **Aging population –** with the exponential growth of the percentage of the elderly population, besides the fact that we need to plan for elderly homes with a range of affordability, significant research indicates that not only do people prefer to age in place, supported by family and community, this leads to better outcomes. Significant efforts need to be expended on advance planning for shifting to aging-in-place and aging-in-community development models. Aging in-place or community is an urban design issue, housing needs rather than a welfare issue in singularity.
- **Improve in interdepartmental collaboration for town planning and development matters through urban design means** – important town planning and implementation matters are undoubted requiring collaboration of different government departments. The current model that the government is adopting does not seem to be the best mechanism especially for important projects. Take Lantau Tomorrow as an example, it is supposedly to be one of the future CBD of Hong Kong and it is now being led by CEDD; a development signifying the

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		future of Hong Kong being led with an engineering angle will be grossly insufficient. Walkability is a liveability matter, and it is strange that it is led by TD when walking is not officially considered as a mode of transport. We believe important town planning and implementation projects should be led from interdisciplinary approach and this is where urban design approach can help. While the government is considering splitting of THB and that town planning is inseparable from transport, housing, and territory developments, it will be imminent that an office or authority leading cross-bureaux and cross-department efforts to tackle these matters from an urban design angle.
2	Advancing Net Zero & Resilience	• **Renewable energy percentage** – The government program and targets remain unambitious and below the necessities of the situation – Hong Kong's stated renewable energy potential is just 3-4% according to government and clearly an intensified means of exploration of a wider range of decentralised and micro-scale production is required. Calculations show that if all building roofs were covered with solar panels, solar systems could produce between 2.66TWh – 5.98TWh of electricity, equivalent to 5.9% – 13.4% of Hong Kong's electricity consumption. Other calculations, which also include the potential of solar projects on facades, even assume a potential of 11.64TWh, about 25% of annual electricity consumption. In other words, Hong Kong could completely replace the coal share of the current electricity mix with locally generated renewable energy. More efficient PV systems are continually being developed. For Hong Kong to remain internationally competitive, a new mindset needs to be adopted, rerising a "can do" attitude to urgent, systematic change and meaningful change. Government shall consider mandating power companies to rapidly adopt **higher percentage of energy generation from renewable sources**, especially urgently developing new potentials of renewable power generation, not merely greenwashing through purchasing unachievable carbon offsets. • **Mandatory insulation standards in new buildings.** Much building energy consumption, especially in the summer months, is due to the total lack of insulation in most buildings in Hong Kong, leading to heated floors and walls, which significantly adds to the heat loads inside and as a result to excessive cooling energy consumption. There are many global standards for building insulation, which are relatively cheap to implement and lead to substantial reductions in energy consumption. • **Renewable energy for new buildings** – Every **new building shall be required to adopt some threshold of renewable energy generation** method as part of the

building plan approval pre-requisition. Smaller projects can consider providing off-site renewable energy supply facilitated by certificates (RECs) in lieu of actual in-building renewable energy devices. Building sensoring and performance monitoring need to be actively incorporated into new-build and retrofitted to provide necessary 3D data feedback on city performance.

- **Incentives to reduce carbon footprints of existing building stocks** – Concentrating environmental policy for new building is grossly insufficient as the major problems are from the old building stock. The government shall consider subsidies to change all less effective air-cool chiller to water-cool chillers. Incentives for improvement of building envelope performance (e.g., changing windowpanes from single to double-glaze, external insulation cladding). What is needed are case studies that show Return on Investment from owner and occupier point of view to convince owner and occupier.
- **Phasing out of petrol-based vehicles** – it is quite apparent that a rapid global shift to electric transportation is taking place. Exhaust emissions are proven as one of the key components of air pollution and health impacts and government has not sufficiently addressed this over the last 10 years. A much more proactive approach to policy encouraging electrical vehicle utilisation coupled with charging infrastructure provision is necessary. The government shall consider an **aggressive program to rapidly phasing phase out all petrol-based vehicle**s, led by a 5-year programme replacing all public and civic fleet vehicles including buses and taxis. Shenzhen had already replaced its entire fleet of 16,000 buses and 22,000 taxis with electric vehicles by 2019 and the logistics fleet is already over 70,000 vehicles including road cleaning, delivery service vehicles, vans, and trucks. Significant consideration needs to be paid to rapidly adjust the urban fabric to develop the shared transport economy model, prioritising EV mobility of all sizes and types including micro vehicles (MVs), bikes, trikes, scooters, and other new forms of urban mobility that are both continually developing and yet to be developed.
- **Phasing out of plastic bottles and utensils** – government plans for phasing out of plastic bottles, utensils, and containers by 2025 is considered too late.
- **Increase green coverage ratio** - currently, for new projects, green coverage ratios are 30% for larger sites and 20% for smaller sites. An increase in such ratio shall be considered for further reduction of heat island effect. Singapore, Paris,

Berlin have initiated policy to incentivize positive green ratio coverage (above100%). This is much more pro-active and effective and complementary to increase green coverage at ground level. Positive green ratio also promotes a more balanced health benefit of green view in high density city. Initiate cool network/area studies, area that green with shadow and well ventilated

- **Decentralised electricity grid** – it is clearly apparent that battery storage will be the backbone of renewable energy power development, allowing irregular renewable energy supply to become regularised and addressing the needs for peak power supply without further power generation of expensive peaker plants or grid capacity provision. The increasing popularisation of mini grids with attached energy storage of differing sizes shows the changing direction of urban power supply to meet climate targets. Government must urgently promote urgent pilots that incorporate independent power generation together with storage capacity, facilitated by feed-in-tariffs (FITs) and smart meters, particularly addressing public housing, commercial development and all new comprehensive development to become energy positive.
- **Rapid exploration of alternative energies** – establishing multiple sources of small-scale renewable energy resources coupled to energy storage solutions and a decentralised grid allows a whole host of potential alternative renewable sources to be incorporated. Significant support should be provided to rapidly explore and pilot a wide range of

localised alternatives, which might include tidal-stream and offshore wind sources, inland and offshore wave power, as well as human and vehicular kinetic nano-generation.

- **Sponge City Implementation** – we are encouraged by the government's initiative to investigate into sponge city technologies. While city-wide sponge city research and implementation shall be led by the government, implementation of sponge city provisions in both individual public sector and private sector projects shall also be started. We believe the magnitude of implementation in individual projects can be incremental and started as soon as relevant regulations are in place. We read in a statement released by the government in Jan 2020 that an Authority to organise the efforts amongst DSD, WSD and EPD is being considered; we welcome the approach but the inclusion of PlanD and BD are also required. Many sponge city technologies have been implemented and are proven elsewhere, they can be implemented in parts and there is no necessity to wait until a city-wide system is in place. In many other Chinese cities, sponge city tech implementation in individual building projects have become a requirement for quite a few years and we shall not be lagging behind.

3 Hong Kong 2030+

- **Transportation Linkage between the Expanded Qianhai and Hong Kong** – With the Qianhai Expansion recently put on the table, efficient transport means for the expanded Qianhai and Hong Kong will need to be considered.

- **Upgrade of North Economic Belt to a CBD** – A 4th CBD in northern NT that can provide commercial building stocks servicing the area, Shenzhen city centre and Qianhai Expansion shall be considered. It can also provide job opportunities for citizens of Hong Kong resided in northern NT. This will help reduce traffic from northern NT to our traditional CBD area, thus also reduce pressure on our infrastructure network. The location should take advantage of the existing HST emergency station in the NT and become the HK HST north, a counterpart to Shenzhen north.

4 Traffic and Transport Strategy Study

- **Comprehensive Urban Design Approach for Traffic and Transport Planning** - There is really no such thing as an isolated 'Comprehensive Traffic and Transport Strategy" standing apart from everything else – what we need is an effective Land Use, Planning and Transport Strategy where all these aspects are properly considered and combined, considering, inter-alia, projected growth / committed development areas and cross-boundary linkages. This should also of course cover both walkability and cycle aspects and establish firm criteria to be met in relation to the vague ideals of liveability and sustainability that appear in most planning documents. Wider Economic Benefit of Transport approach should be adopted.

- **Commitment to Walkability** - There must be a firm and irrefutable commitment to walkability in the city and this must clearly be commensurate with a reduction in vehicle use and its long-facilitated permeability within the urban matrix. HKIUD is also very disappointed that walkability study being conducted by TD is being reduced to an exercise of designing combined signage posts… We suggest that TD should make a U-turn and focus discussion on walkability, pedestrian network improvement, better streetscape, etc. In conjunction with the Highway Department and the long-

overdue revision of the outdated TPDM (Transport Planning Design Manual).

- **Minimisation of Private Cars** - We agree with the recent decision and motivation to increase taxes and fees for private vehicles owners to decrease the number of private cars on the road. Hong Kong, is a compact and condensed city, already has the lowest car ownership of any so-called world city, and a highly efficient and cost-effective system of public transport. However there has been a 46% increase in private car registration, 57% for motorcycle, and 115% heavy goods vehicles increase over 2009-19 years while overall vehicle increased 36%, population 8% which has had a significant impact on the city. A very dense city like Hong Kong should minimise car use and increase mass public transport reliance which we agree is already very high, perhaps developing shared use concepts and taxi which have not increased over the same period.
- **Reducing goods delivery traffic by using consolidated delivery,** as an example an office building housing 7,000 and up to 12,000 daily has an estimated 2.5 million items delivered annually, by using consolidating delivery of all lorries, van, car, and motorcycle deliveries, the number of vehicle trip can be reduced from 1,300 to 50 per week, a reduction of 96% of the trip and a substantial reduction in traffic. In Hong Kong Goods vehicles represent 14% of registered vehicles. In Hong Kong, it is also unclear how many private car and motorcycle are used for delivery of goods and people.
- **Autonomous transport** – while this can in theory have a positive impact on efficiency of surface transport, its likely application might be in urban fringe areas and new towns rather than the city. Study should be undertaken to explore and test application AV either a public transport (buses) in separated lanes and pooled vehicle. On the other hand, any further restriction on pedestrian access and walkability due to AV lane separation – for example through the introduction of more railings, footbridges, etc. - should be rejected.
- **Greater commitment to electric vehicles** - We need to expect a much greater commitment to electric vehicles and 'green transport' in all aspects. New highways shall be planned with "only accessible by electric-vehicles" concept. First, this reduces carbon footprints (P.S. with the assumption that the government will adopt more natural gas and renewable energy generation policy). Secondly, these highways can be decked over for more public open spaces or even for buildings wherever the location is suitable (e.g., Quarry Bay).

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- **Electric Road Pricing implementation along with Smart City Technology** - Aspects which in practice could have acted to reduce road traffic periodically appear over the years but lack political will. The Electric Road Pricing issue was first proposed by Alan Scott some 40 years ago, but despite being resurrected it has never been implemented. The idea of restricting servicing to buildings in off-peak times has, together with illegal parking, had a substantial impact on traffic flow, and again this has never been properly addressed.
- **Central Carparks** – While we see the need to resolve the illegal parking problem (primarily an issue of enforcement), we note that, as observed in many cities around the world, just adding car parking capacity tends to have the negative effect of encouraging car usage and increasing congestion; indeed, many cities now impose an upper limit on car parking provision in new developments, for precisely that reason. In that context, we note that the recent move by TD to increase the overall carparking ratio in PSG may be counterproductive. Furthermore, in locations where additional parking is deemed absolutely necessary, we opine that the government shall take more loads in the increase of parking spaces rather leaving it entirely to the private sector while many of the old government carparking structures are disappearing and making way for other uses. Many countries adopted the central carparking under roads and highways. Larger scale central public carparking are definitely more efficient space-wide. We understand that no government department is willing to take up the design, construction, and management of this kind of central carparking structure under roads and highway is the primary reason why this kind of provisions which is happening elsewhere in world but not Hong Kong may be related to climate; this have to be investigated.

5 Artificial Islands in the Central Waters (formerly Lantau Tomorrow)

- **Establish a commonly accepted Vision** - We understand that consultant is appointed and study for the design and implementation of Artificial Islands in the Central Waters; the most important issue is to establish a vision that is supported by most of the citizens of Hong Kong. A city-wide consultation to agree on a Vision for these islands is imminent – whether it is really the CBD, a green icon for Hong Kong or simply lands for housing (for which 70% is for public housing?).
- **Public as judge for design competition** - We also noted that there is a design competition within the first stage of the study. We encourage the government to utilise the competition as a mean to gauge public views, i.e., let's representatives from the public or, at least, professional

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institutes be members of the judge panel. Therefore, the design competition shall be advanced and shouldn't be left as the last item of the first stage of the study.

- **Car-less city** - Complete new urban design and smart city design approach for the planning of these artificial islands shall be considered. We believe that the islands when completed shall primarily be served by **community mass transit**… they can be islands without private cars on the streets but only subterranean levels… releasing land for infrastructure use (which normally occupies 21-25% of land in NDAs) back for parks and quality public open spaces.
- **Incremental Approach for Reclamation** - We encourage the government to investigate the adoption of an incremental approach of reclamation, evaluating the need of reclamation from time to time, rather than committing to large scale reclamation in one go.
- **Research and scientific base to identify needs** - This requires careful analysis of population projections, future population movement, job creation in the GBA, and actual housing need beyond that already committed, before it can be sensibly integrated within a CTS. Environmental impacts shall be assessed based on Scientific research instead of retrospective Environmental Impact Assessment.
- **High-speed passenger and freight link with Qianhai Expanded area** - The linking of Lantau Tomorrow with the national high-speed rail network would have immense implications and benefits to the economy of Hong Kong. It is then possible that Hong Kong could better capitalise on our assets of our harbour and port facilities as well as the CLK airport runways. Part of the future reclaimed land should perhaps be used for relevant **logistics uses.** At the same time, the government shall review if the port facilities in Kwai Chung and Tsuen Wan can be reallocated for other domestic and non-domestic needs.
- **A community with filled with places of events/celebration, waterfront and marine sports and leisure activities** – As the 3rd CBD of Hong Kong, we expect there will be signature open spaces for events, celebration and leisure. There will also be long coastlines which shall be well designed for waterfront, marine sports and other leisure activities. For marine diversity, the government shall look into marine country park and reintroduction of fishing industries to Hong Kong.
- **A zero-carbon city** – Zero carbon shall be one of the foremost objectives of this project. We believe that this project can become exemplified example to the world that

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zero-carbon or zero-carbon ready can be archived.

6 Housing and Land

- **Progressive reduction of number of Sub-divided flats** – it is noted that the government received advice to rid the city of sub-divided flats. While it may be a noble cause but this can only be done when those citizens requiring such an economical and in-town (due to transportation cost) home can all find and have new and comparable homes near where they are having employment. Afterall, one of the root problems of "sub-divided flats" was high land cost and uneven distribution of wealth. Sub-divided flat problem can't be tackled without tacking its root problems.
- **Transitional Housing vs Permanent Subsidized Housing** - It is noted that Government has committed to providing 15 000 transitional housing units within three years. Whilst it is considered useful to build more transitional housing, we would caution against indiscriminate infill development of odd-shaped buildings in inappropriate locations, as some "temporary" schemes might be kept for many years and almost become permanent.
- **Running of Transitional Housing by NGO** – We observed that there are many cases of successful running of transitional housing by NGOs as they have instilled new creative ideas to run these social housing. We notice successful programs of elderly looking after kids, youth helping elderly, weekend markets running by full time moms, etc. We consider that this kind of concept can be implemented in permanent social housing rather than by rigid governmental instrument. **(Joel, please elaborate)**
- **QUALITY equally important as QUANTITY** - there is an impression that Government is placing greater emphasis on issues of QUANTITY and less on QUALITY. Besides, the traditional way of planning tends to be only 2-dimensional and that emphasis was also on individual developments instead of covering the spaces outside. Our submission on 29-9-2020 has, by quoting the examples of Manhattan in New York (the Highline park and the improved access to the Brooklyn waterfronts) highlighted the value of good designs and the importance of Government intervention by up-grading of the infrastructures and external spaces. This is especially valid if we intend to promote the recovery of the economy in the post-Covid period. We therefore reiterate our suggestion that even when trying to increase plot ratios, Government should also take heed to improve and make better use of the spaces in the public realm under the Post-Covid "new normal".
- **Other Land supply options** - The government shall continue to study and pursue other viable means of

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replenishing our land bank. We should not stick to and be subject to risks of delay that may arise from only a few "possible" sites. We shall exhaust other option, e.g. converting Kwai Chung Container Yards or with decks for other non-domestic uses above (such as Science Park, Hospitals, Government uses such as relocation of the Police Academy, parks and gardens and other GIC uses, etc.), set up new policy to better the current village house policy, etc.

With Qianhai Expansion, the government shall consider liaising with SZ or even the Central government to move some government facilities (those not requiring day to day interface with the citizens) like storages, back of house services, poultry or meat slaughtering facilities, etc. Relocating military facilities in Shek Kong, Castle Peak and elsewhere to Qianhai can also be an option. in fact, the GBA/Qianhai could assist HK in many ways, in relieving HK of its constant problems of absorbing many brownfield G/IC and educational uses within its very limited area.

Non-domestic uses above built highways and other infrastructures can also be considered. In turn, those lands targeted for non-domestic uses (such as industrial parks, logistic parks, etc.) can be released for domestic purposes.

- **Increase Subsidised Housing Supplies by all means** – Besides HA and HS, the government shall also consider asking URA, MTRC and even private development to help to attain the portion of subsidised housing of the 70% public housing target. Such arrangement can also help to reduce labelling effect.
- **Stacking of multiple government facilities** - The Government shall further review and increase the magnitude of the stacking of multiple government facilities on one piece of land; we understand that several new government buildings are being developed under this initiative but larger scale mega-scale GIC facilities shall also be considered. These facilities can also be considered to plan on not developable land for housing purpose, e.g. on top of highway and other infrastructures.

ENDS

Hong Kong Institute of Urban Design

15 September 2021