Optimising site capacity: A design-led approach
Consultation 11 February 2022 to 27 March 2022

Monks Orchard Residents' Association - Comments:

General Comment:

It is understood this guidance "Optimising Site Capacity" is to assess and analyse whether a development would be suitable for the 'available Site.' However, a fundamental 'attribute' necessary for evaluation would be the *"Site Area."* This phrase is found only twice in the whole document, both of which are within the supporting text for Figure 4.8 - Plot ratio and plot coverage relating to the illustration extracted from the National Model Design Code & Guidance and specifically included for this analysis.

The London Plan Policy paragraph 3.3.2 states:

"A design-led approach to optimising "site capacity" should be based on an evaluation of the site's attributes, its surrounding context and its capacity for growth to determine the appropriate form of development for that site."

Para 3.3.2 is very precise in its definition. The most obvious *'attribute'* is the available Area of the Site of a development proposal which is a constraint on the sites capacity for growth. Therefore, the 'assessment' to "Optimise the Site Capacity" would surely require knowledge of the "Site Area" and without such, is completely missing the objective of the Guidance. If NOT, the LPG Title is wrong and should be changed to "Optimising Development Proposals Capacity"!

The Indicative Site Capacity Toolkit does NOT include the 'Site Area' parameter for analysis or assessment and therefore the LPF does NOT fulfill its objective of "Optimising Site Capacity"!

Comments on Section 1

1 About this document

1.1 What is the design-led approach?

1.1.2 This document sets out how the design-led approach, set out in Policy D3 of the London Plan, should be used to determine the most appropriate form of development on a site. The design-led approach is the process of setting site-specific design parameters and codes for development sites to provide clarity over the future design.

The Document most definitely, DOES NOT *"determine the most appropriate form of development" on a 'SITE'* – as is proven by the general points raised above.

Assessment:

To meet the stated objective of para 1.1.2 above, the fundamental parameters for assessment is the *"Site Area"* and the *"Area Type"* or *"Setting"*. It would also be preferrable to use the same parameters as defined in the NPPF National Model Design Code and Guidance published by the Department of Levelling Up, Housing and Communities (DLUHC) (January and June 2021).

It is understood this LPG guidance is aimed at LPAs and Applicants with consultation engagement with Community Groups and local Residents' Associations to define the appropriate Site Parameters acceptable for an "Area Type" or "Setting."

The analysis needs to establish whether a proposal is appropriate for the Local "Setting," "Area Type" and has adequate supporting infrastructure for developments at the proposed "Site."

Additionally, if the local area is designated as an area suitable for densification, the appropriate densification "Factor" should be incorporated into the 'Design Code' Site Optimisation assessment and analysis.

It is NOT considered that these fundamentals have been adequately considered in this LPG document - *"Optimising the Site Capacity."*

Indicative site capacity toolkit

Our understanding of the "Indicative Site Capacity Calculator" is that it provides an analysis of the parameters of an offered proposal – NOT AN ANALYSIS OF WHAT THE ACTUAL DEVELOPMENT SITE CAPACITY CAN SUPPORT in terms of the available "Site Area" at the local "Setting" or "Area Type" or any consideration of the available supporting local "infrastructure" limitations. IT IS THEREFORE NOT an actual Site Capacity Calculator but a PROPOSAL CAPACITY CALCULATOR.

It would seem unnecessary for community groups to purchase 'SketchUp' Software and the Excel spreadsheet indicative "Site Capacity" calculator does not seem to have a requirement to input or take account of the proposal's "Site Area" or capacity to evaluate the Housing or Residential Density of a proposal to determine the appropriateness for a local "Setting" or "Area Type" as defined by the National Model Design Code or Guidance.

Figure 1.2 Five stages to the design-led approach

Comments on Section 2 - Stage One

2 Stage One: Site analysis

2.1 Site context

2.1.1 Stage One is an analysis of the site and its surrounding context. This stage should reflect findings from the borough-wide characterisation assessment as well as a more detailed analysis of a **site's** opportunities and **constraints**. This analysis should form the basis of any future redevelopment of a site, informing the appropriate scale and character.

The missing ingredient is again the *"SITE AREA."* The parameters established from the characterisation assessment should provide the local Design Codes and "Setting" or "Area Type," the local build format characterisation of the locality, including the Set-back building lines and building heights within the immediate vicinity. It should also provide an assessment of Supporting infrastructure both existing and planned.

These parameters should form the fundamental basis for establishing the capacity of a proposed Development Site and whether the SITE AREA is sufficient to accommodate the proposal which includes the Building footprint, the access and off-street Parking, the Amenity space and play space for children etc.

2.3 Environmental and infrastructure opportunities and constraints

A proposal assumes current available infrastructure and therefore Policies should define the limits of developments which are appropriate for current levels of infrastructure for sustainable developments.

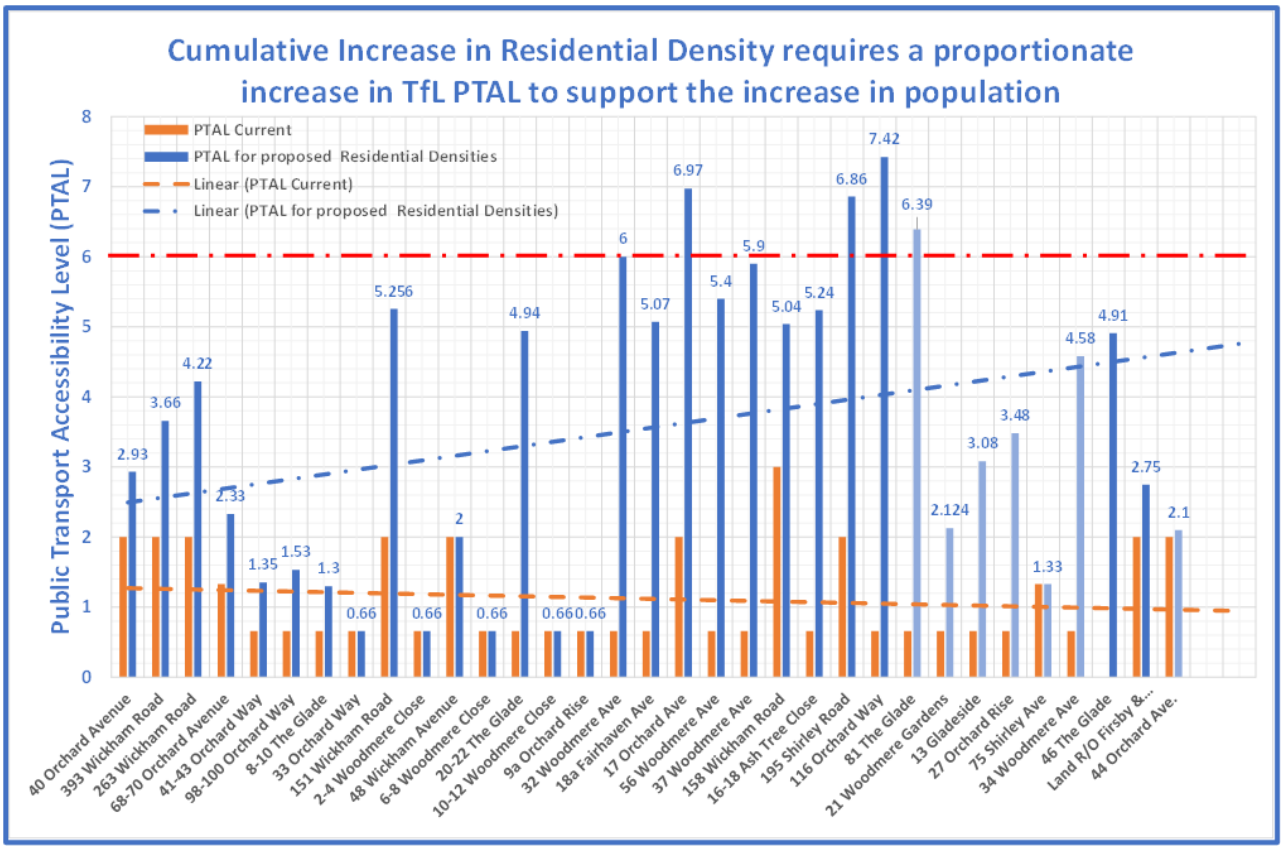
If there are planned increases in infrastructure with defined delivery timescales, the proposed development should be assessed on the sequencing of increased delivery of improved infrastructure facilities.

2.4 Connectivity, permeability, and access to local services

Figure 2.4 Connectivity measures

2.4.1 An optimum capacity and density will be one where development takes full advantage of a site's current and future planned connectivity by public transport, walking and cycling to enhance access to employment and services, both in the immediate area and through the public transport network. Connectivity measures such as Public Transport Access Level (PTAL) and Time Mapping (TIM) should be used to identify opportunities or potential barriers to site Optimisation.

As the TfL Density Matrix has been omitted from the revised London Plan, there is now no methodology to assess the required Public Transport Accessibility (PTAL) to support a proposal's Residential Density as measured in bedspaces per hectare. It is 'people' who use Public Transport – NOT Dwellings (Units/ha) or Habitable rooms (hr/a)!



This Histogram illustrates recent developments in the London Borough of Croydon, Shirley North Ward where Applicants and Planning Officers have completely disregarded the Public Transport Accessibility requirements to support the Residential Densities. (assessment using the TfL Connectivity & Accessibility data).

We have used the TfL data[1] to compile an assessment of Public Transport Accessibility (PTAL) required for recent developments since 2018. The LPA shows NO concern that the PTAL connectivity for these developments is inadequate! (See illustration above).

The TfL Connectivity Assessment Guide[1] which includes the Density Matrix (at Section 2.2 page 6) is still available on the TfL website and therefore could be used as a reference to assess the suitability of a proposal's Residential Density based upon the original assessment of the Setting.

However, the TfL Residential Density parameter is measured in Habitable Rooms/hectare (hr/ha), but it is People that use Public Transport NOT Housing Units or Habitable Rooms. Habitable Rooms are NOT the best analysis of Density as many developments have open plan to give an impression of more space when space is limited. The appropriate parameter for Residential Density is Bedspaces per hectare.

It is suggested that the PTAL be used to determine the graduation incremental increase within the "Setting" from minimum to maximum Residential Density in the "Setting" range as defined by the National Model Design Code & Guidance. As the PTAL improves from 0 through to 6 the Residential Density can increase incrementally from the minimum residential Density to the maximum Residential Density of the "Setting" or "Area Type".

2.5 Built form and open spaces

2.5.1 "… The provision of public green space should be considered at this stage with reference to the site analysis of topography, hydrology and the borough's wider green infrastructure network."

The relationship between the Built Form and open spaces is slightly confusing. The inference is that developers should consider the availability of local public Open Green Spaces in their proposals, when there is NO policy on the actual communal open space afforded to occupants of multiple occupation dwellings or flats. As this Guidance is targeted on the "Site Capacity Optimisation" of developments, rather than the availability of public open Space in the vicinity, it would be much more relevant to a proposal to have guidance on the proportion of the site used by future occupants of the development being assessed in terms of its Communal Open Space per Occupant compliance for a development proposal.

Open Spaces are a more strategic issue but if open spaces have implications on a proposed developments "Site Capacity" for Optimisation, then the actual specific parameter for compliance needs to be determined. It is ineffective to have vague and subjective consideration of available local open spaces if there is no defined relationship policy definition to actually meet.

2.8 Infrastructure capacity analysis

2.8.1 Boroughs, neighbourhood planning groups and applicants should proactively plan for estimated population growth within areas of new residential development. This will involve an iterative process of identifying existing infrastructure provision and any deficiencies and then re-evaluating it once an indicative site capacity is determined and thus likely population has been established.

[1] https://content.tfl.gov.uk/connectivity-assessment-guide.pdf

The strategic activity required is to establish infrastructure capacity to support development proposals in advance of developments or as a result of increased developments requiring infrastructure "catch-up."

A proposal assumes current available infrastructure and therefore Policies should define the limits of developments which are appropriate for current levels of infrastructure. If there are planned increases in infrastructure with defined delivery timescales, the proposed development should be assessed on the sequencing of increased delivery of improved infrastructure and the timing of Build-out and completion of the proposal in sequence with the upgrade of the local infrastructure.

Other requirements for infrastructure provision are more strategic, such as Health Service, Hospital capacity, GPs, School places and other supporting infrastructure. These requirements do not immediately influence a proposals Site Capacity limitation but have profound longer term strategic implications.

2.7 Building height, layout and uses

2.7.1 Next, a site analysis of the building heights, layout and land uses should be carried out. As part of this, the impact of potential future building heights should be considered on heritage assets, protected views and the daylight and sunlight of neighbouring properties.

Guidance on Building Height, Layout and Land uses are also found in the National Model Design Code & Guidance. These characteristics should be incorporated within the local "Design Code."

3 Stage Two: Design vision

The National Model Design Code at para 52 Built form states:

Build form refers to the three-dimensional arrangement of buildings, blocks, streets, and spaces. This will form the core of the design code and the settings for each element of built form will vary considerably by area type.

Detailed information is provided in Guidance Note Code Content: Built Form.

i) **Density: Codes should define density ranges which are likely to be higher for Town and local Centres and lower in suburbs. Mixed use schemes can be calculated on a pro-rata basis. (See B.1.i Density)**

Town Centre: >200 d/ha,
Urban Neighbourhoods: 60 to 120 d/ha
Suburbs 30 to 50 d/ha

ii) **Plot Ratio: Calculated by dividing the Gross Floor Area of the building by the area of the Plot, (Site Area in m^2). Plot ratios along with the Site Coverage should be used alongside good Urban Design principles to regulate the Density of mixed-use and non0residential uses (See B.1.i Density)**

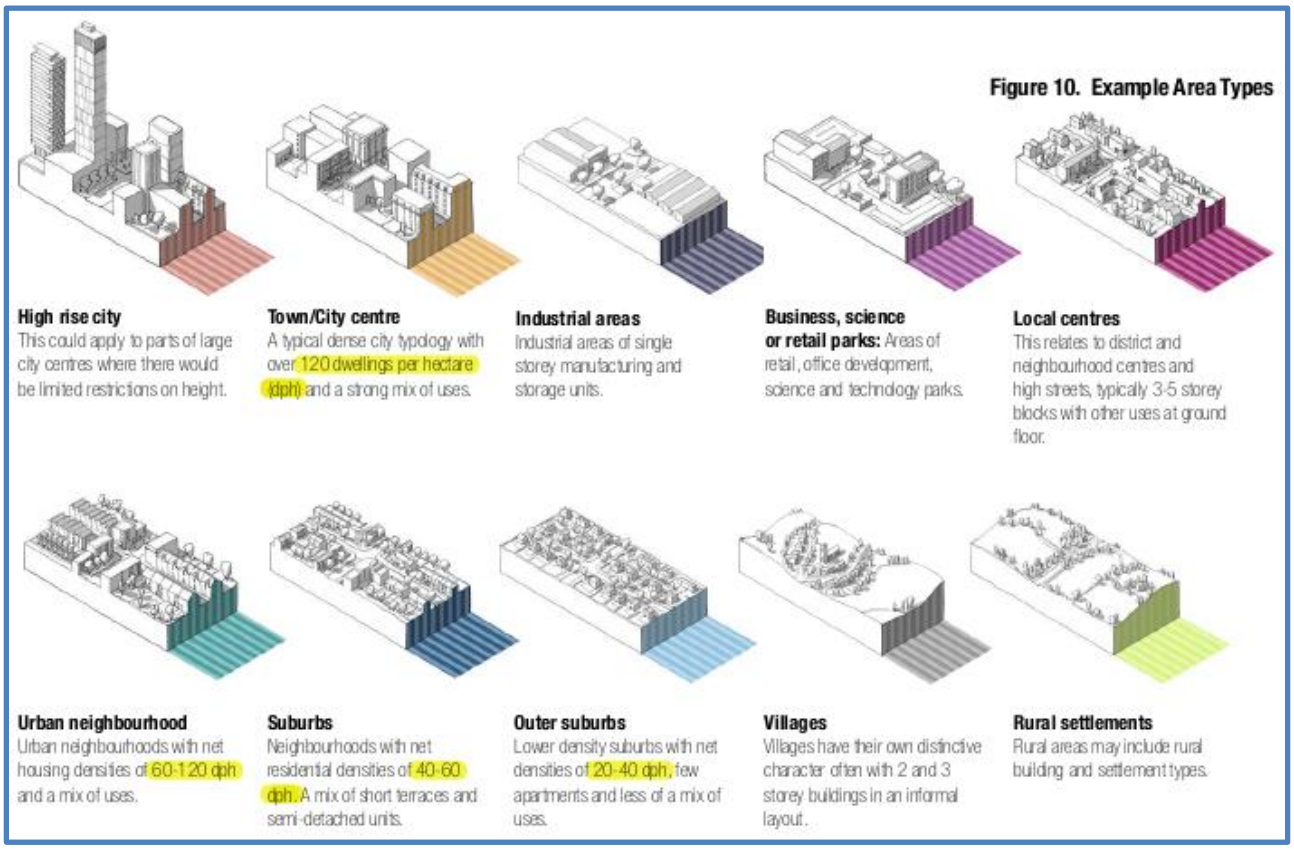
Town Centre: Plot Ratio >2
Urban Neighbourhoods: Plot Ratio >1
Suburbs: Plot Ratio <0.5

These parameter definitions are extremely helpful in the assessment of Site Capacities and should be incorporated within this Guidance on Optimising Development Site Capacities.

3.1 Placemaking

3.1.1 *"… This is likely to include the **scale and massing of the built form**, routes through the sites, **location of open spaces and other key green infrastructure features** as well as land uses.*

Surely, this document is aimed at "individual development Site Capacities" or are we confused? It should reflect the local Design Codes as defined by the National Model Design Code and Guidance for local development guidance, for the "Setting" or "Area Type."



The National Model Design Code provides the recommended Design parameters for the "Settings" or "Area Types"

These recommended parameter values should be acknowledged in the "Optimising Site Capacity LPG" as fundamental guidance for determining the Site Capacity and if other values are recommended, they should be justified why they differ and on what grounds.

The Table below is an assessment of our local area "Setting" or "Area Type" which shows the locality is < or just within the "Outer Suburban" Designated "Setting" or "Area Type".

3.3.2 The site's location within one of the three areas of change and growth categories below (see the Characterisation and Growth Strategy LPG) can also assist in informing the design vision for a site and the subsequent design parameters and codes. As a guide, the form and scale of development in each of the three areas of change should be similar to that detailed for **"Conserve areas", "Enhance areas" and "Transform areas"** below.

Location	Area (ha)	Population	Dwellings (Units)	Residential Density (bs/ha)	Housing Density (Units/ha)	"Setting" for Design Code Density
Shirley North Ward	327.90	15666	6555	47.78	19.99	<Outer Suburban
Shirley South Ward	387.30	14147	5919	36.53	15.28	<Outer Suburban
All Shirley	715.20	29814	12474	41.69	17.44	<Outer Suburban
MORA Area	178.26	9283	3884	52.07	21.79	Outer Suburban
Post Code CR0 8S(*)	16.95	627	237	36.99	13.98	<Outer Suburban
Post Code CR0 8T(*))	11.82	644	246	54.48	20.81	Outer Suburban
Post Code CR0 7PL	1.73	47	19	27.17	10.98	<Outer Suburban
Post Code CR0 7QD	1.51	68	28	45.03	18.54	<Outer Suburban
Shirley "Place" [1] (approx)	770.00	?	?	?	?	?
Average	205.08	8787	3670	42.72	17.35	<Outer Suburban
All Shirley	715.20	29814	12474	41.69	17.44	<Outer Suburban
Shirley Place (Estimates)	770.00	33414	13981	43.39	18.16	<Outer Suburban

This Table illustrates an assessment & validation of our local area Design Code "Setting" by analysing Groups of different proportions, but all indicate an Outer Suburban Setting.

Conserve areas

3.3.3 As an area defined as having a consistently high quality and coherent character, future development in conserve areas should be consistent with the predominant typology. Development height should closely resemble the prevailing height and any new streets should closely follow the existing street pattern and street type.

The understanding for Conserve Areas is that developments should conform to existing Housing and Residential Densities with zero or minimal densification. This does NOT accord with the Croydon Local Plan which allows "Gentle Intensification" across all areas of Croydon even where there is no prospect of improvement to Public Transport or supporting infrastructure.

It is inappropriate to increase Housing or Residential Density within Conserve areas which could be within "Outer Suburban," "Suburban" or "Urban" Settings or Area Types, as these "Conserve" Designated areas would not attract intensification and the existing supporting infrastructure should be adequate to support the new developments, so long as they are within the Density range of the "Setting" or "Area Type."

Enhance areas

3.3.4 As an area defined as having a mixed built quality, future development in enhance areas should align with the positive characteristics identified in an area, which are articulated in the area-wide vision of an area. As a result, future development should be sensitive to the predominant typology and prevailing building height within the local area. It should also be clear that the positive characteristics of an area are reflected in the new development.

The densification for Enhance areas should be defined. The "Setting" or "Area Type" as specified by the National Model Design Code & Guidance provides a range of Densities for each "Setting" or "Area Type" and any densification should be within that range.

We have accepted that the available PTAL could allow commensurate values in Densities but remain within the defined range for the Setting or Area Type. A High PTAL could allow higher Densities tending toward the maximum in the range for the Setting. Conversely a Low PTAL should tend toward a lower density within the range for the "Setting".

Transform areas

3.3.5 As an area defined as having low-quality development of ill-defined character, future development in transform areas have the opportunity to establish a newly coherent character grounded in good urban design principles. This new character should be based on an area-wide vision and inform the design parameters set. The quantum and phasing of development will need to be in line with the deliverable infrastructure (see section 2.8).

3.3.6 This process should take into account an area's capacity for growth. As a result, the form and scale of development in areas with a lower or higher capacity for growth may vary (see Characterisation and Growth Strategy LPG).

An area's capacity for "growth" requires the area's "Setting" or "Area Type" to be defined. This is a function of the LPA's Spatial Planning Department. The Croydon (Revised) Local Plan has three designations for "Growth" viz: "Focussed Intensification", "Moderate Intensification" and "Gentle Densification".

The Local Planning Authority have proposed "Intensification areas" which are currently assessed as areas of "Low" density which the LPA believe can absorb "Focussed Intensification" to meet housing need (Targets).

However, these low-density areas have also low provision of supporting infrastructure and therefore the increases in density required by intensification would not have supporting infrastructure greater than that afforded to the current "Setting" or "Area Type". Such a "Focussed Intensification" Site Capacity can therefore only be increased to the maximum of the range of Density acceptable for the current "Setting" or "Area Type".

We have therefore proposed in our submission to the consultation for the revised Croydon Local Plan (Regulation 19) that the "intensification" categories should not exceed the maximum density of any designated "Setting" as it would exceed the available supporting infrastructure at that "Setting" unless significant improvements to the local infrastructure is planned.

The Local Plan provides no guidance on the magnitude levels of Intensification or Densification appropriate for the "Area Types" or "settings" and is therefore nugatory.

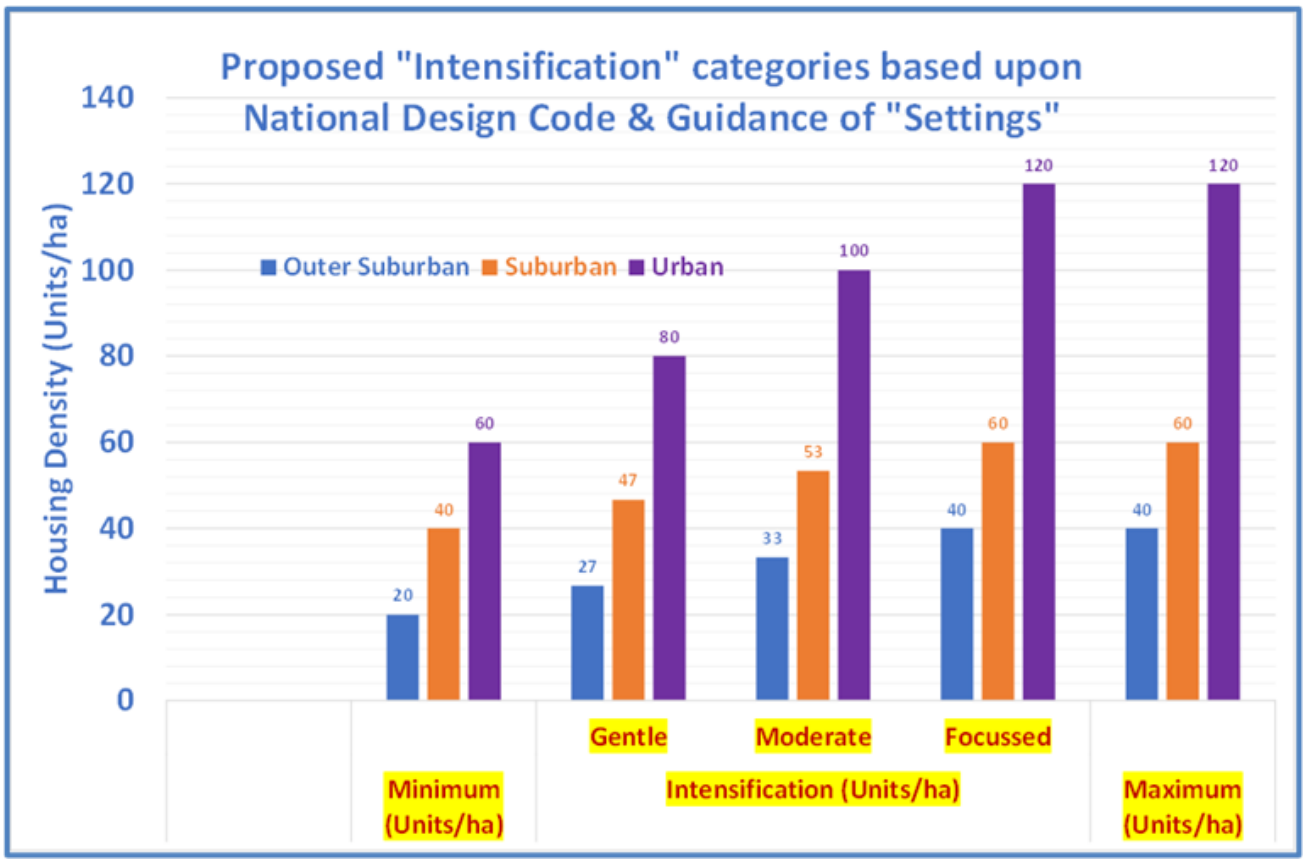
Using the National Model Design Code and Guidance in the National Model Design Code, Part 1, Section 2B Coding are the dph, the Housing Densities units/ha for "Outer Suburban" or "Outer (London) Suburban" at 20 to 40 units/ha, "Suburban" at 40 to 60 units/ha and "Urban" at 60 to 120 units/ha by which we are able to recommend values for "Focussed", Moderate and Gentle Densification.

The National Design Code" Setting" defines the Housing Density Range which defines "Site Capacity." Any "Intensification" therefore should be restricted to within the "Density Range" specified by the "Setting." Thus, assuming that "Intensification" within a "Setting" as defined by the National Model Design Code & Guidance, retains the "Setting" designation, then the Intensification should remain within the defined Range of that Setting.

Therefore, we can define an estimate of the 'Intensification' categories within each of the "Settings" and the "Focussed Intensification" should NOT exceed, but be equal to, the maximum range of that "Setting." The "Gentle" and "Moderate" Intensifications within the "Setting" are proposed as 1/3rd & 2/3rd of the Range at the "Setting" but could be any recommended values within the setting as shown in the Table below.

The Central "Setting" lower limit is 120units/ha but has no upper limit. However, the upper limit will be determined by the requirement to meet the London Plan Table 3.1 "Minimum Internal Space Standards for new dwellings."

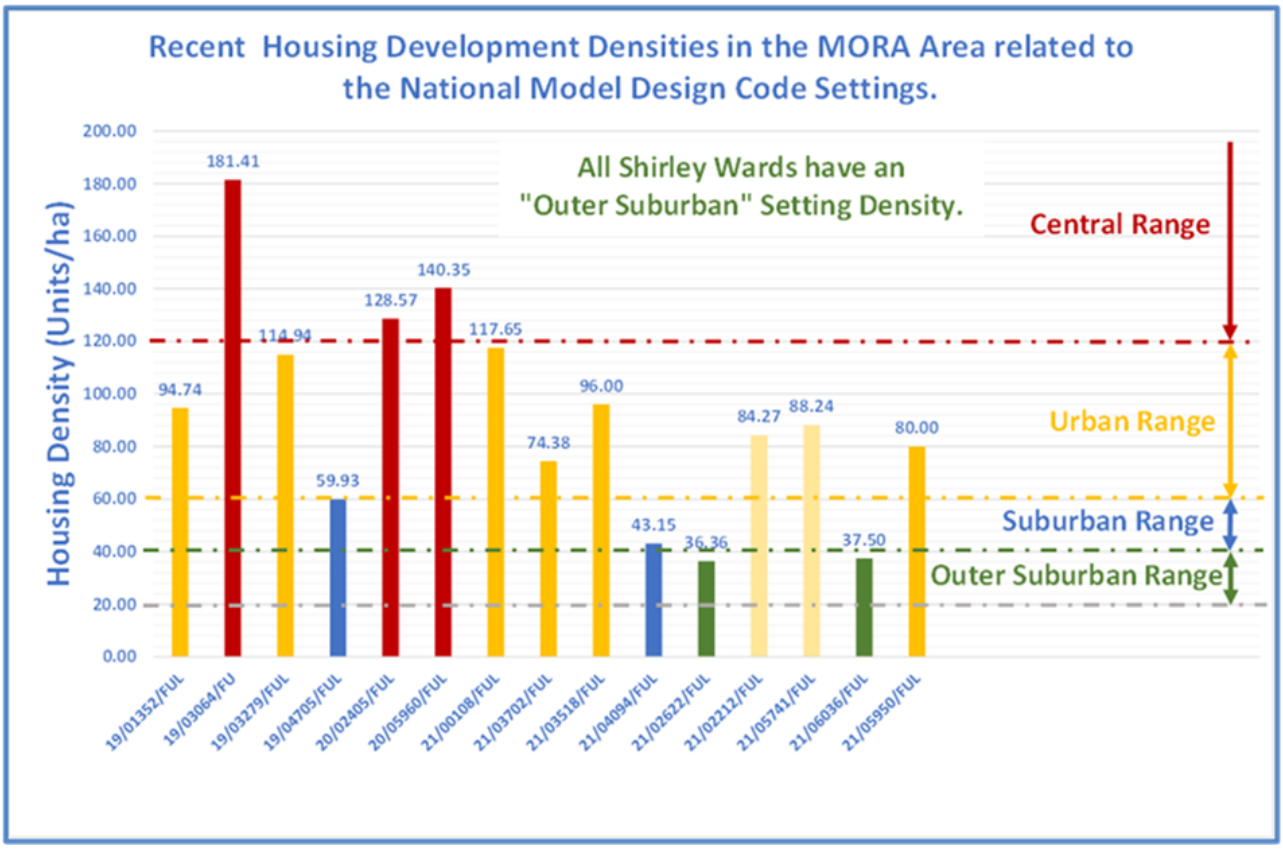
Housing Density Setting	Minimum (Units/ha)	Intensification (Units/ha)			Maximum (Units/ha)
		Gentle	Moderate	Focussed	
Outer Suburban	20	27	33	40	40
Suburban	40	47	53	60	60
Urban	60	80	100	120	120



This illustrates a methodology of defining "Intensification" in a meaningful process.

The Categories "Conserve", "enhance", or "transform" require specific quantifiable guidance for Applicants and Planning Officers as currently, Applicants and planning experience has shown that Croydon LPA Planning Officers have NO comprehension of the difference between current densification policies "Focussed Intensification", "Moderate Intensification" or "Gentle Densification" and applicants just assume any densification of the site area meets the general requirement of increasing density to meet housing need.

The Histogram below illustrates the consequence of Applicants and Planning Officers complete disregard of the Local "Setting" of appropriate Densities in a locality which by any assessment is "OUTER SUBURBAN".



Recent Development proposals for the Shirley North Ward of Croydon LPA which by all assessments is "Outer Suburban" showing total disregard of the local "Setting" or "Area Type"

4 Stage Three: Draft site-based design parameters

4.1 Site-based design parameters

4.1.2 **Site-based design parameters:** are concise, graphical, and simple to understand parameters that relate specifically to a development site. These are a set of high-level and strategic design codes that should include limits on acceptable building heights, scale, massing, indicative layouts, and, where appropriate, the amount of floorspace that should be provided for different land uses. These will form the basis of design parameters and codes that are formalised during Stage Five. For further information on design codes, see the National Model Design Code.

The "Site Area" is not included in the "Optimising Site Capacity" list! – Astonishing!

4.5 Built form

Block type, plot ratio and plot coverage

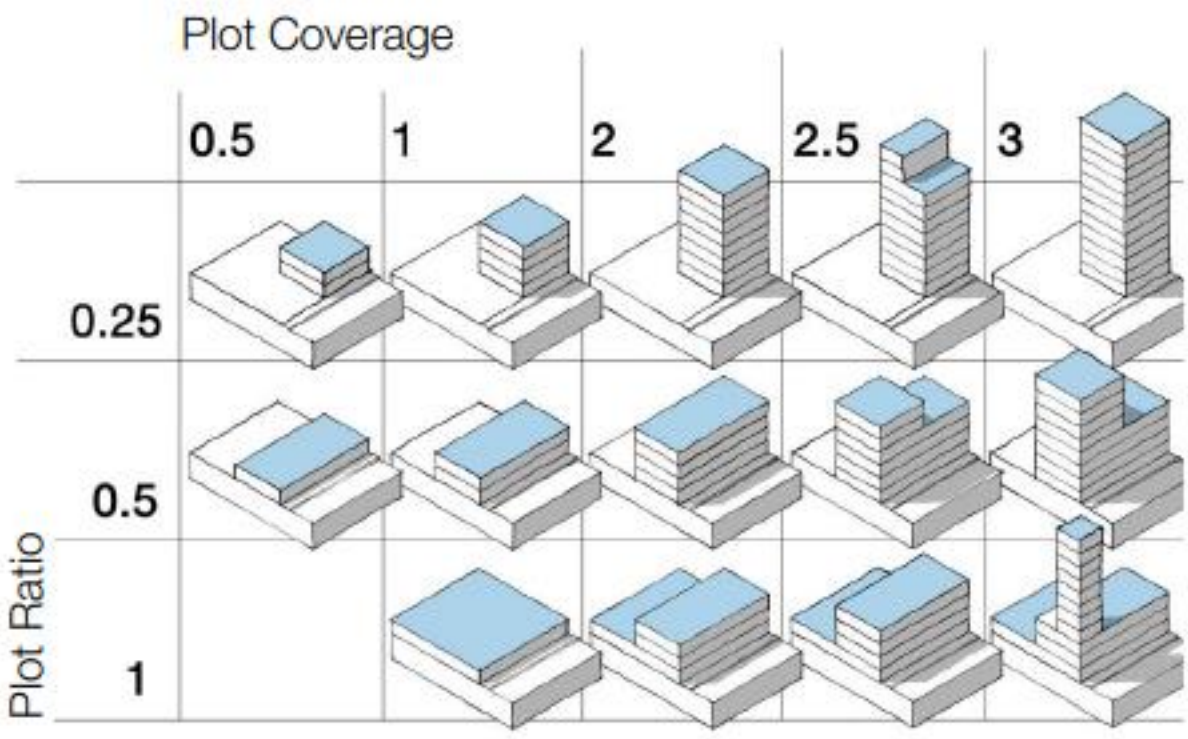
4.5.1 "… Defining the plot ratio and plot coverage, instead of residential density, can be a more useful and context appropriate way as they take account of the form and massing. In doing so, these measures can provide ways to optimise a site's capacity while ensuring the design positively contributes to the character of an area. …"

Where is the evidence that Plot Ratio and Plot Coverage is more useful than Housing and Residential Densities? The only significant help is for "Mixed Use Sites" when Plot Coverage and Plot Ratio can assist in evaluating a development proposals Site Capacity.

The "Site Area" is required in both cases and is NOT requested anywhere in this entire document on "Optimising Site Capacity"!

Floor Area Ratio = GIA/Site Area (both parameters in m^2) (For Suburban should be <0.5) and

Plot Coverage Ratio = GEA/Site Area (both parameters in m^2) (No recommended ratio given).



Housing Density (Units/ha) is a measure of Land usage, whereas the Residential Density (bedspaces/ha) is a measure of population and occupancy which requires supporting infrastructure for 'people.'

The Residential Density parameter in the TfL matrix is Habitable Rooms/ha which is a confusing parameter as developments are tending to provide open plan accommodation of Lounge, Dining and Kitchens to give the impression of spaciousness but in fact allows the floor area normally taken up by dividing walls to become useable. These Areas are "Functional Areas" and NOT habitable Rooms. Residential Density should be measured in Bedspaces/ha.

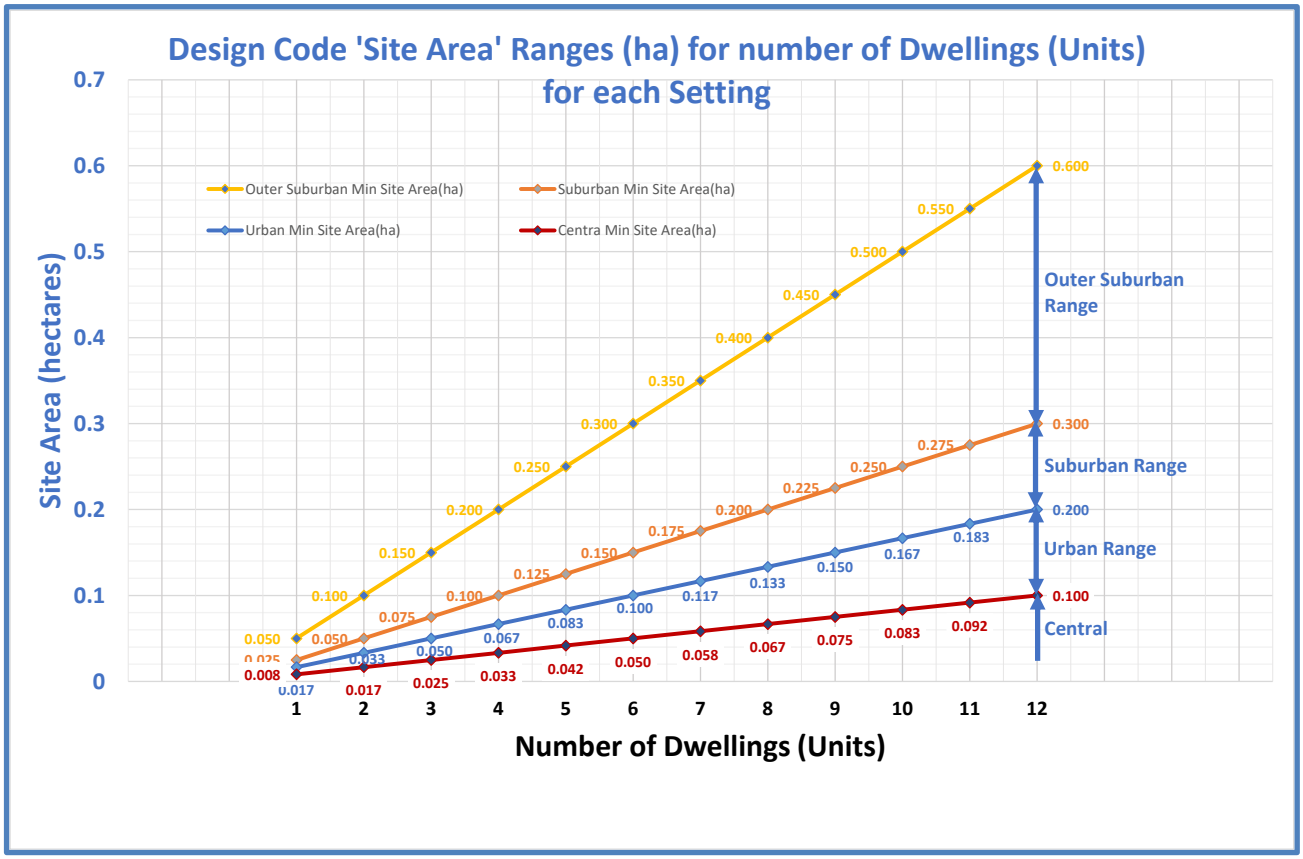
The Residential Density allows assessment of necessary supporting infrastructure for the number of occupants of a development proposal and allows an assessment of the distribution of occupants over a development and the need to define the appropriate requirements for amenity, Play Space and parking provision of a proposed development.

It would be extremely helpful if, rather than providing abstract guidance, effort were made to define a relationship between infrastructure provision and the users of that infrastructure.

Housing Density:

Site Capacities:

Site Capacities:												
Number of Dwellings	1	2	3	4	5	6	7	8	9	10	11	12
Outer Suburban max Site Area(ha)	0.050	0.100	0.150	0.200	0.250	0.300	0.350	0.400	0.450	0.500	0.550	0.600
Outer Suburban min Site Area (ha)	0.025	0.050	0.075	0.100	0.125	0.150	0.175	0.200	0.225	0.250	0.275	0.300
Suburban max Site Area (ha)	0.025	0.050	0.075	0.100	0.125	0.150	0.175	0.200	0.225	0.250	0.275	0.300
Suburban min Site Area (ha)	0.017	0.033	0.050	0.067	0.083	0.100	0.117	0.133	0.150	0.167	0.183	0.200
Urban max Site Area (ha)	0.017	0.033	0.050	0.067	0.083	0.100	0.117	0.133	0.150	0.167	0.183	0.200
Urban min Site Area (ha)	0.008	0.017	0.025	0.033	0.042	0.050	0.058	0.067	0.075	0.083	0.092	0.100
Central max Site Area (ha)	0.008	0.017	0.025	0.033	0.042	0.050	0.058	0.067	0.075	0.083	0.092	0.100



This graphical illustration demonstrates the appropriate "Site Areas" required to be within the Max & Min Ranges for each of the "Settings" (Area Types) as defined in the National Model Design Code & Guidance. We have shown the incremental number of Units (Dwellings) from 1 to 12 but the graph could be extended proportionately.

The normal infill and redevelopments are <10 as developers elect to avoid 10 Units or greater due to the requirement in the Croydon Local Plan for 40% affordable homes at 10 or > Development proposals. Therefore, developments are predominantly blocks of Flats up to nine dwellings. (The London Plan GG4 and Policy H4 has a strategic Target of 50% affordable homes).

There is no minimum site area for the Central "Setting" as this would ultimately be determined by the requirement to meet the (Minimum) London Plan Internal Space Standards.

4.6 Identity

Sense of place and local character

4.6.1 Boroughs, neighbourhood planning groups and applicants may wish to produce design codes and guides on a site's detailing, materiality, and local identity. These codes are unlikely to impact on a site's indicative site capacity and therefore for boroughs, may not be necessary for all sites. However, where suitable, guidance on these aspects can provide clarity on the aspirations of a final design and provide greater certainty.

These objectives are clearly helpful but ineffective if the Local Planning Authority cannot even assess a locality's appropriate "Setting" or "Area Type" densities.

5 Stage Four: Testing site capacity

5.1 Modelling the site and determining the indicative site capacity

5.1.1 This section applies to sites that have residential dwellings (use class C3). For these sites, an indicative site capacity should be calculated using the draft design parameters set during Stage Three. The testing of a site's capacity is intended to be undertaken digitally using simple CAD software such as SketchUp or another 3D modelling software. Modelling the site allows boroughs, neighbourhood planning groups and applicants to test the appropriateness of several layouts and combine different residential types together.

Community Groups and Residents' Associations may not have access to CAD software such as SketchUp or other modelling software so presumably Stage Four is inappropriate for Community Groups

5.3 Worked example – Indicative site capacity

5.3.1 The indicative site capacity for the worked example above has been determined using the Indicative Site Capacity toolkit, available as part of this guidance[2]. Using the excel spreadsheet template, the number and types of residential blocks have been entered in along with the tenure split.

5.3.2 There is also an option to include the total GEA of non-residential uses as well as the proposed parking ratio. These will lead to a reduction in the indicative site capacity for the number of housing units due to the floor area that they take up. As a result, the number of car parking spaces should be minimised as this space will reduce the number of homes that can be accommodated on site and lead to additional traffic.

Our comments on the Indicative Site Capacity Calculator are included on comments on Appendix 1

Appendix 1 Indicative Site Capacity Toolkit - Residential types

A1.1.2 Each of the four residential types have an indicative capacity which can be calculated using the indicative site capacity calculator. This will enable a design-led approach when calculating the capacity of sites which is based on an understanding of the character and identity of the place.

The Input Parameters

Input Parameter	Description	Comment
Site Area	Hectares or sq.m.	A fundamental parameter for determining the Site Capacity but there is NO field to input this parameter.
Type	Limited to four types	Needs to be more definitive Does NOT include "Settings" or "Area Types"
GEA (m^2)	Gross External Area	This is the area of the external building (Footprint(s)). (NOT the sum of the external area for each floor but the sum of the External Areas [Footprint] of each Block on a Site)!
Number of Storeys (m2)	Number of floors	The makeup of Floors e.g., Number of Bedrooms, Bed Spaces, and Habitable Rooms need to be input.
Total GEA per Block (m^2)	Gross External Area of each Block	In the event of multiple Blocks on a Site.
Quantity		Quantity of What?
Total GEA (m^2)		Sum of GEAs per entry for each Type
Amenity Space (m^2)	Per occupant	Private Open Space
Storage Space (m^2)	Related to Occupants	In- Built Storage Space
Communal Space (m^2/occupant)	Communal Open Space	Should be a function of the allocation per occupant
Play Space for Children (m^2 per child)	Play Space London Plan Policy	Allocation of 10sq.m. per child of the occupants of the development.
Parking Spaces	On Site Parking	For occupants of the development and visitors.

Select Type:

- Only four types! – This field needs to be more definitive e.g. "Detached", "Semi-detached," "Bungalow,", "maisonettes,", Flats etc.
- Does NOT include an input of the available "Site Area" considered fundamental to calculation of a development's Site Capacity.
- Does NOT include Design Code information e.g., "Setting" or "Area Type"
- Does NOT include Densification/Intensification category (Factor) for "Setting" or "Area Types"
- Does NOT include PTAL of locality of Site.

Stage 1 Proposal Site Analysis and related parameters:

- **The Site Analysis should include the "Site Area" parameter in sq.m. and/or hectares.**
- **The Local "Setting" or "Area Type."**
- **The Local Supporting Infrastructure and Public Transport Accessibility (PTAL).**
- **The Number of Dwellings (Units/ha) which could be accommodated on the Site.**
- **The number of occupants (Bedspaces).**
- **The estimated probable number of Children and Adults.**
- **The offered Private Open Space – Balconies or Terraces.**
- **The offered Amenity Space.**
- **The offered Play Space for children.**
- **The offered "Communal Open Space" (measured in sq.m. per occupant).**
- **The offered minimum Storage Space.**
- **The offered Parking Space and Access area (with swept path illustrations to show Ingress and egress with all other spaces occupied).**
- **The Gross Internal Area (GIA) i.e., the sum of all internal floor areas.**
- **The Gross External Area (GEA) the building footprint area in sq.m.**
- **Areas of Cycle Storage and Refuse & Recycling Bin Storage.**
- **For Flats and HMOs; the required Private Amenity Open Space, Communal Open Space, Play Space and Parking Space.**
- **Local PTAL**

End

The following Appendix A is a Worked example of an Application Proposal which exceeded the Local Design Codes and Site Capacity.

These assessments were included in our representation to the LPA Development Management during consultation, prior to a determination.

Appendix A A Worked Example:

Demolition of a single storey dwelling and redevelopment with a new building to provide nine dwellings (Class C3), with associated amenity space, integral refuse, cycle stores and external car parking.

Original:

Local Area PTAL: Zero

Local Post Code CR0 7QD

Post Code Area: 1.51 ha

Post Code Dwellings: 28

Post Code Population: 68

Housing Density: 18.54 units/ha

Residential Density: 45.03 bs/ha

Setting or Area Type: <Outer Suburban

Existing parameters

Dwelling	Bedrooms	Bedspaces	Habitable Rooms	Housing Density (U/ha)	Residential Density (hr/ha)	Residential Density (bs/ha)
Bungalow	2	4	4	9.80	39.22	39.22

Assessment of Local Design Code Densities:

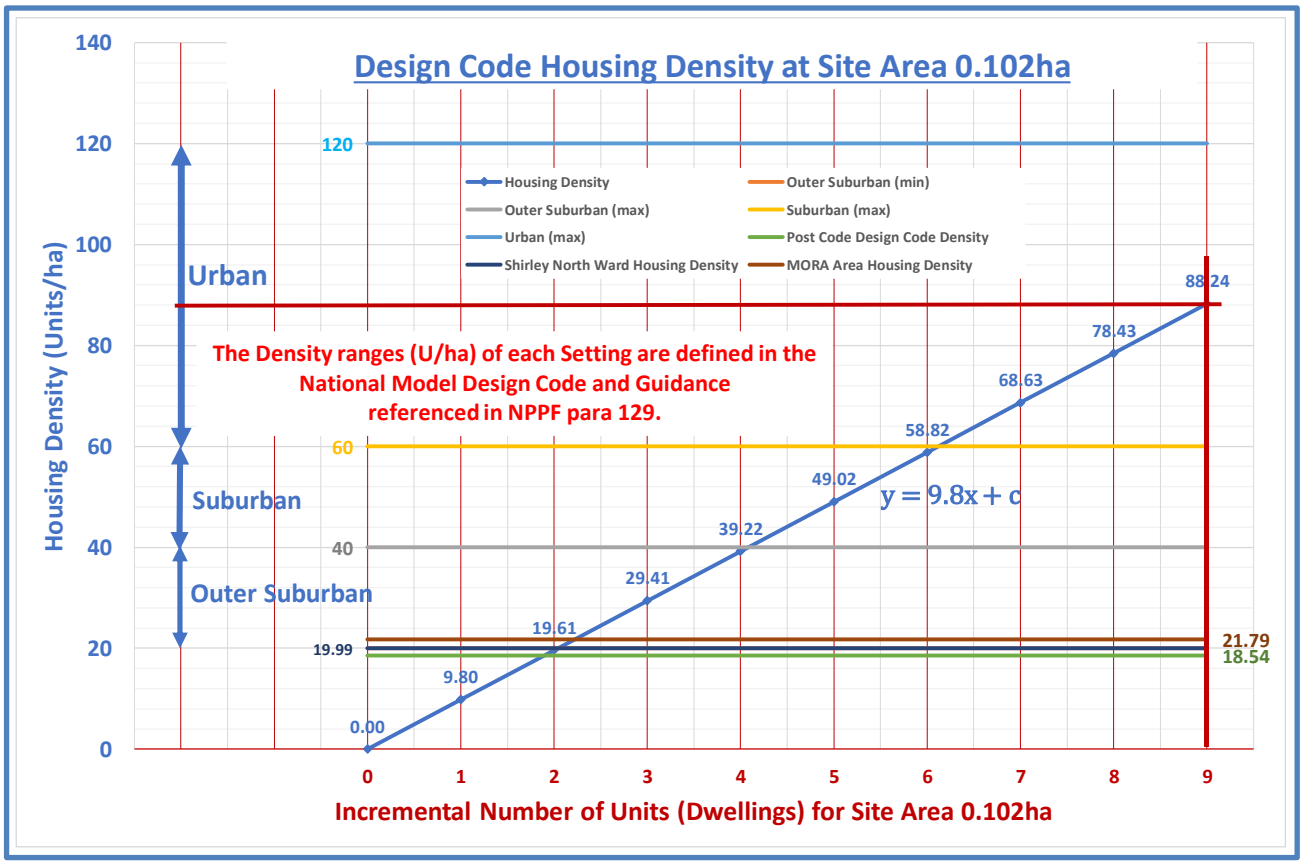
Location	Area (ha)	Population	Dwellings (Units)	Residential Density (bs/ha)	Housing Density (Units/ha)	"Setting" for Design Code Density
Shirley North Ward	327.90	15666	6555	47.78	19.99	<Outer Suburban
Shirley South Ward	387.30	14147	5919	36.53	15.28	<Outer Suburban
All Shirley	715.20	29814	12474	41.69	17.44	<Outer Suburban
MORA Area	178.26	9283	3884	52.07	21.79	Outer Suburban
Post Code CR0 8S(*)	16.95	627	237	36.99	13.98	<Outer Suburban
Post Code CR0 8T(*))	11.82	644	246	54.48	20.81	Outer Suburban
Post Code CR0 7PL	1.73	47	19	27.17	10.98	<Outer Suburban
Post Code CR0 7QD	1.51	68	28	45.03	18.54	<Outer Suburban
Shirley "Place" [1] (approx)	770.00	?	?	?	?	?
Average	205.08	8787	3670	42.72	17.35	<Outer Suburban
All Shirley	715.20	29814	12474	41.69	17.44	<Outer Suburban
Shirley Place (Estimates)	770.00	33414	13981	43.39	18.16	<Outer Suburban

Proposal:

The Glade Shirley			Ref: 21/05741/FUL											
Post Code CR0 7QD Population			68	Dwellings	28	Residential Density (hr/ha)		313.73	Floor Area Ratio		0.6958	39.16%	PTAL 2011	Zero
Units	Site Area	1020	sq.m.	Post Code	CR0 7QD	Residential Density (bs/ha)		313.73	Post Code Density		18.54	Units/ha	PTAL 2031	Zero
9	Site Area	0.102	ha			Housing Density (U/ha)		88.24	Area Post Code CR0 7QD		1.51	ha		
Dwelling	Type	Bedrooms	Bedspaces	Habitable Rooms	Functional Areas	GIA offered	GIA Required	Built-In Storage Offered	Amenity Space Offered	Amenity Space Required	Car Parking	Probable Adults	Probable Children	Play Space Offered
Flat 1	M4(3)	3	4	4	6	86.0	74.0	Not Stated	Private Gdn	7	Disabled	2	2	4.60
Flat 2	M4(2)	3	4	4	6	86.0	74.0	Not Stated	Private Gdn	7		2	2	4.60
Flat 3	M4(2)	2	3	3	5	73.8	61.0	Not Stated	7.00	6		2	1	1.20
Flat 4	M4(2)	2	3	3	5	64.0	61.0	Not Stated	7.00	6		2	1	1.20
Flat 5	M4(2)	2	4	3	5	79.4	70.0	Not Stated	7.37	7		2	2	1.20
Flat 6	M4(2)	2	3	4	6	73.0	61.0	Not Stated	7.00	6	6	2	1	1.20
Flat 7	M4(2)	2	3	4	6	64.3	61.0	Not Stated	7.00	6		2	1	1.20
Flat 8	M4(2)	2	4	4	6	77.9	61.0	Not Stated	7.37	6		2	1	1.20
Flat 9	M4(2)	2	4	3	5	105.3	70.0	Not Stated	7.00	7		2	2	1.20
Totals		20	32	32	50	709.7	593.0	Not Stated	49.74	58.00	7	18	13	17.6

Proposal Parameters:

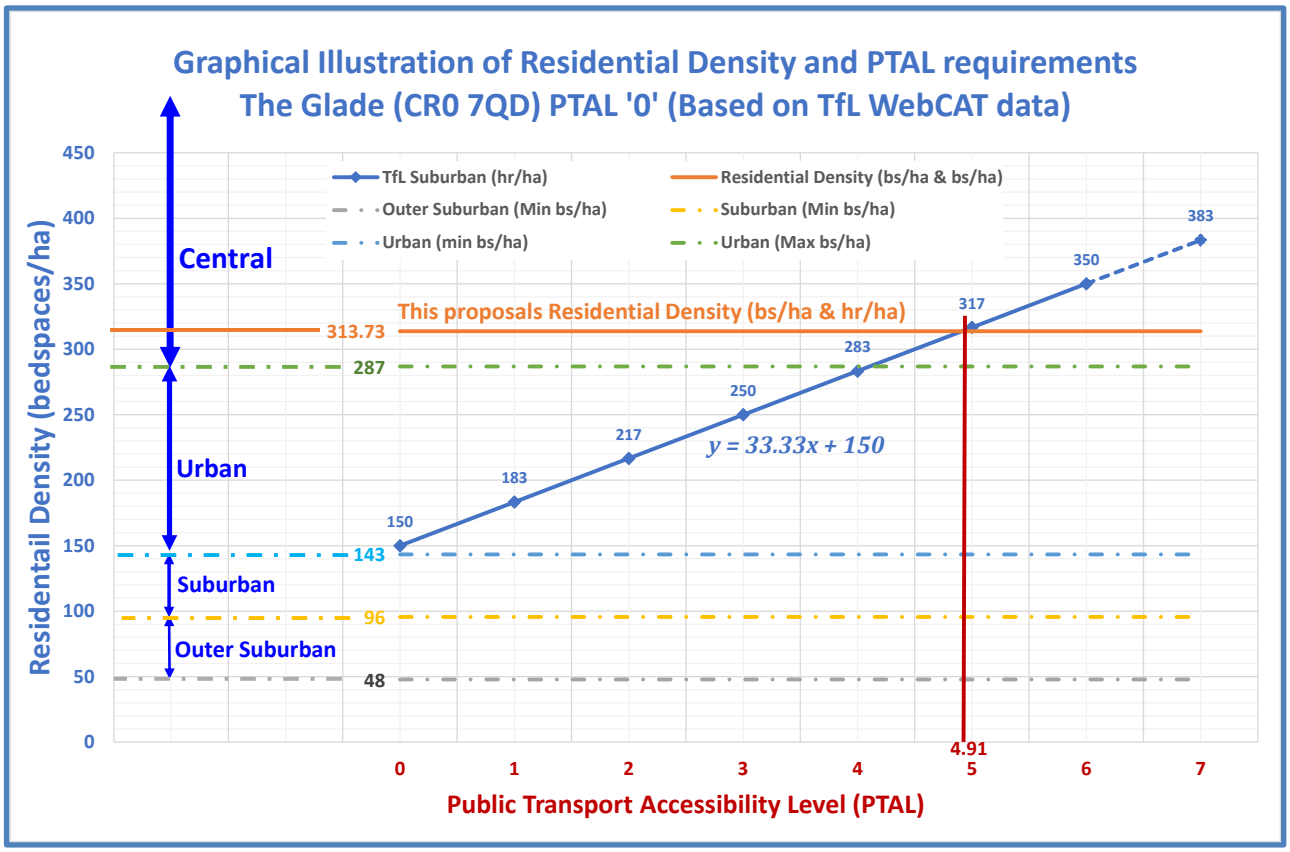
Dwelling	Probable Children	Play Space Offered	London Plan Play Space	Play Space Deficient
Flat 1	2	4.6	20	15.4
Flat 2	2	4.6	20	15.4
Flat 3	1	1.2	10	8.8
Flat 4	1	1.2	10	8.8
Flat 5	2	1.2	20	18.8
Flat 6	1	1.2	10	8.8
Flat 7	1	1.2	10	8.8
Flat 8	1	1.2	10	8.8
Flat 9	2	1.2	20	18.8
Totals	**13**	**17.6**	**130**	**112.4**



The above graphical assessment shows the National Model Design Code Housing Density Site Capacity limitations for the Site Area of 0.102ha in relation to the number of Dwellings appropriate at an Outer Suburban "Setting" compared to the Ward Density (19.99u/ha), the Post Code Density (18.54u/ha) and the MORA Area Density (21.78u/ha) at < or just within the low Outer Suburban range as defined by the National Model Design Code & Guidance.

The proposed Site has capacity for 2 to 4 dwellings, but the proposal is for 9 dwellings and would be appropriate for an "Urban" Setting with reasonable mid-range PTAL ≈3.

As the local PTAL is "Zero", the Site capacity should tend toward the lower of the range of 2 to 4 dwellings, as the supporting infrastructure is very low.



This graphical analysis shows that the proposal at the proposed residential Density of 313.73 bedspaces/ha and 313.73hr/ha (coincidentally) in a locality of PTAL Zero, would require a PTAL of 4.91 assuming the incremental increase in PTAL is linear over the whole range as provided in the TfL Connectivity Assessment Guide.[2] It also indicates the "Residential Density" is more appropriate to a "Central" Setting as opposed to the actual "Outer Suburban (Outer London Suburban) "Setting".

The LPA eventually refused this proposal.

End

Kind regards

Derek

[redacted]

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[2] https://content.tfl.gov.uk/connectivity-assessment-guide.pdf