Development Engineering Formal Referral Response



Application Information:

Referral Officer: Mark Pisani

Officer: Corey Wooldridge

Council Reference: PLN23/0661

Referral Number: IREF23/01997

Address: 9 Arthur Street, Fairfield

Proposal: Construction of two double storey dwellings on a lot

Comments Sought: Access arrangements; internal layout

Disclaimer: Council's Development Engineering unit, provides the following advice

based on information provided in the referral request memo referenced

above.

Engineering Referral Details

Council's Engineering Referral team has reviewed the drawings and documents provided by the Statutory Planning department, as outlined in *Table 1* below.

A list of requirements for the applicant and proposed conditions to be included in the Planning Permit have been outlined in **Section 1 – Engineering Requirements** and **Section 2 – Engineering Conditions** respectively. Specific details of the engineering assessment are provided in **Section 3 – Engineering Detailed Assessment** and have informed the requirements and conditions.

Note: the engineering related matters highlighted in the Planning referral have been assessed and included in the response.

Table 1 - Drawings and Documents reviewed by Engineering

Author / Consultant	Drawing No. or Document	Revision	Dated
Terrain Consulting Group	23162D01s Title Re-Establishment, Feature & Level Survey	2	22 June 2023
Taouk Architects	TP_02 Ground Floor Plan TP_05 Elevations TP_06 Section	- - -	13 November 2023 13 November 2023 13 November 2023

SECTION 1: Engineering Requirements – Issue to the Applicant

The applicant must satisfy the engineering items outlined in *Table 2* below. A written response must be provided for each requirement, and the action is to be completed prior to resubmission.

Any amendments to plans/drawings or updates to reports/documents must be highlighted using a *red cloud* around the relevant section. In the written response, indicate the relevant sheet/pages of each document which have been amended.

Table 2 - Engineering Requirements for Applicant

Item	Engineering Requirement	Action for Applicant
1	Dimension each garage doorway	Update the drawings.
2	Revise the vehicle crossing cross sectional drawing along the centreline of the proposed vehicle crossing. The road pavement level 1.0 metre from the edge of the channel must be provided. Road pavement, kerb and footpath levels must be actual levels along centreline of the crossing.	Revise and resubmit the vehicle crossing cross sectional drawing to apply along the centreline of the vehicle crossing and with revised levels.

SECTION 2: Engineering Conditions – Planning Permit

The conditions outlined in *Table 3* below must be included in the Planning Permit to ensure the specific engineering requirements are complied with.

Note: further conditions may be required if any of the items in Table 2 are not fulfilled prior to the issuing of the Planning Permit.

Table 3 - Engineering conditions to be included in the Planning Permit

	ssings (VC) conditions	
Condition related to…	Engineering condition	Reasoning / justification
VC: Design	Concurrent with the submission of Condition 1 plans or by such later date as approved in writing by the Responsible Authority, a vehicle crossing design must be submitted to Council's Civil Engineering Department for approval.	
	The submitted design must demonstrate compliance with City of Yarra's, Vehicle Crossing Information Sheet.	
VC: Construction	Before the building/s is/are occupied, or by such later date as approved in writing by the Responsible Authority, any new vehicle crossing must be constructed:	
	(a) at the permit holder's cost; and	
	(b) to the satisfaction of the Responsible Authority.	
/C: Reinstatement	Before the building/s is/are occupied, or by such later date as approved in writing by the Responsible Authority, any redundant vehicular crossing must be demolished and re-instated as footpath, verge (if applicable), and kerb and channel:	
	(a) at the permit holder's cost; and(b) to the satisfaction of the Responsible Authority.	
General wo	rks conditions	
Condition related to	Engineering condition	Reasoning / justification
Reinstatement of damages cause during development works	The state of the s	
	 (a) In accordance with Yarra Standard Drawings Yarra City Council (b) at the permit holder's cost; and 	

Planning Permit – Notes		
Note related to	Engineering note	Reasoning / justification
Stormwater: Site discharge	The site stormwater must be directed to the nominated legal point of discharge (LPD) and shall be limited to equivalent predevelopment levels <i>or</i> 70% impervious coverage, whichever is lowest, for a 20% AEP rainfall event.	Potentially, when the Drainage Design Guidelines are officially adopted into Council and included in the Planning Scheme, this Note may become a Condition.
Service infrastructure adjustment to suit finished grades, alignments, etc.	Any service poles, structures or pits located within the public realm areas that interfere with the proposal, must be adjusted accordingly: (a) at the permit holder's cost; and (a) to the satisfaction of the Responsible Authority.	
Existing parking infrastructure	No parking restriction signs, or line-marked on-street parking bays are to be removed, adjusted, changed or relocated without approval or authorisation from Council's Parking Management unit and Construction Management branch.	
Private utility assets	Areas must be provided inside the property line and adjacent to the footpath to accommodate pits and meters. No private pits, boundary traps, valves or meters on Council property will be accepted.	
Adjusting utility infrastructure	Any services poles, structures or pits that interfere with the proposal must be adjusted, removed or relocated at the owner's expense after seeking approval from the relevant authority.	
Existing parking infrastructure	Any on-street parking reinstated as a result of development works must be approved by Council's Parking Management unit.	

SECTION 3: Engineering Detailed Assessment

DEVELOPMENT LAYOUT DESIGN Layout Design Assessment

Item	Assessment	
Access Arrangements		
Development Entrances	The 3.2 metre wide driveway entrances satisfy <i>Design</i> standard 1 – Accessways of Clause 52.06-9.	
Garage Doorways	The doorway widths of the garages have not been dimensioned on the drawings.	
Headroom Clearance	The garage doorways have headroom clearances of at least 2.8 metres, which satisfy the Australian/New Zealand Standard AS/NZS 2890.1:2004.	
Car Parking Modules		
Single Garage	The dimensions of the single garage (3.52 metres by 6.0 metres) satisfy <i>Design standard 2: Car parking spaces</i> .	
Double Garage	The dimensions of the double garage (5.56 metres by 6.0 metres) also satisfy <i>Design standard</i> 2.	
Gradients		
Ramp Grade for the first 5.0 metres inside the Property	The upward grades of the driveways for Unit 1 and Unit 2 are approximately 1 in 29 and 1 in 22, respectively. These grades satisfy <i>Design standard 3: Gradients</i> .	
Ramp Grades and Changes of Grade	The ramp grades and changes of grade satisfy <i>Table 3 Ramp Gradients</i> of Clause 52.06-9.	
Other Items		
Vehicle Crossing – Unit 1	There is no objection to the continual use of the existing vehicle crossing to service unit 1.	
Vehicle Crossing – Unit 2	The cross sectional drawing of the vehicle crossing must apply along the centre line of the vehicle crossing, as per diagram below:	
	RELEVANT PLANNING RELEVANT PLANNING RIL 33,056 2500 RIL 33,056 2500 RIL 33,110 RIL	

Item **Assessment** The cross sectional drawing does not appear to accurately represent the road profile of Arthur Street. The invert (the low point) has been incorrectly depicted at the edge of the channel. The invert of the east kerb of Arthur Street is located at the face of the kerb. The footpath and road pavement levels must be re-taken/revised. The road pavement level 1.0 metre from the edge of the kerb must be provided to complete the cross sectional drawing. EDGE OF CHANNEL 1.0 metre R.L. 32.851 Level Required 4690 540 The cross sectional drawing is to be resubmitted for assessment. A Vehicle Crossing Information Sheet is appended to this memo to provide further information.

SECTION 4: Acknowledgement

Engineer: Mark Pisani

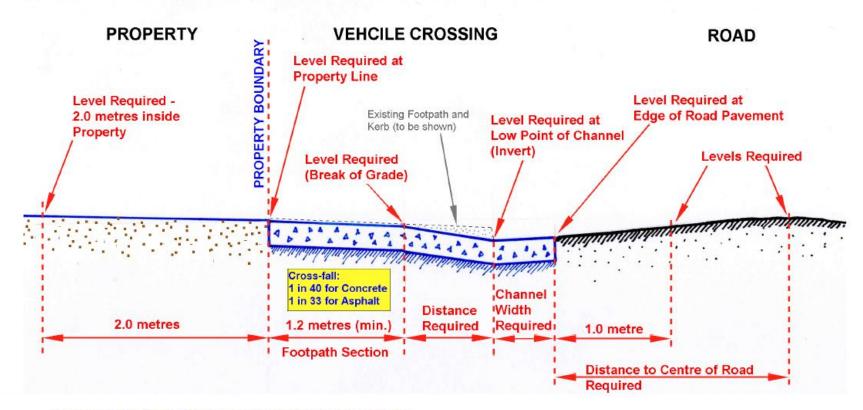
Signature: Mili-

Date: 7 December 2023

VEHCILE CROSSING INFORMATION SHEET



Cross Sectional Drawing



The Cross Sectional Drawing must provide the following:

- All Levels (to three decimal places) as shown above.
- All Dimensions to points/levels as shown above.
- Ground clearance check using the B85 design vehicle (domestic)* or B99 design vehicle as per AS/NZS 2890.1:2004.
- The existing footpath and kerb to be shown (as a dashed line).
- The existing Top of Kerb level should be shown.
- The property boundary must be shown/labelled.

^{*} Domestic - one to three residential units.

Open Space Services Formal Referral Response



	Application Information
Referral Officer	Corey Wooldridge
Officer	Tree Dimensions (LF)
Council Reference	PLN23/0661
Address	9 Arthur Street, Fairfield
Proposal	Construction of two double-storey dwellings on a lot
Comments Sought	Click here to view the advertised documents on Council's website: https://eservices.yarracity.vic.gov.au/WebApps/eProperty/P1/eTrack/eTrackApplicationDetails.aspx?r=P1.WEBGUEST&f=%24P1.ETR.APPDET.VIW&ApplicationId=PLN23%2f0661 • Removal of mature vegetation within the subject site. • Impacts on the adjoining vegetation on adjoining sites.

Council's Open Space Services (City Works) provides the following information which is based on the information provided in the Statutory Planning referral request memo referenced above.

Council's Open Space Services (City Works) were requested to make comment on the proposal:

Referral Type:

Arboricultural Report (Desktop Review)

Capital Works

We are unaware of any capital works approved or proposed within the area of the subject site (as relevant to the planning application). We are providing external arboricultural comments.

Comments and Recommendations

Local Laws, Overlays, Policies, Plans and Standards Used in Assessment

- City of Yarra General Local Law (consolidated) 2016
- AS 4970–2009 Protection of trees on development sites
- AS 4373–2007 Pruning of amenity trees
- AS 2303:2018 Tree stock for landscape use

Application Documents Used in Assessment

- Arboricultural Assessment & Report Stem Arboriculture, 01/11/2023
- Set of Plans Taouk Architects, November 2023

Arborist report

The arborist report was prepared by a suitably qualified arborist. The tree data in the supplied arborist report appear correct.

Site Trees

The trees growing within the subject site have low significance and do not require permits for removal. Suitable replacement plantings should be shown on the landscape plan.

Neighbouring Trees

Tree #35 has minor TPZ encroachment and will require protection during works, but is unlikely to be negatively impacted. Trees #19, 20, 21, 22, 39, and 47 will not be impacted by construction works.

Road Reserve Trees

The plans show the retention of three road reserve trees, impacts to which will be negligible. Minor works will occur within the TPZs of Trees #1 and 2. A Tree Management Plan will be required for their protection during these works. They are expected to remain viable. Tree #3 will not be impacted by construction works.

Recommendations

A Tree Management Plan (TMP) is required as part of the permit conditions if the application is approved.

08/12/2023

Urban Design Formal Referral Response



Application Information:

Referral Officer: Lewis McNeice

Officer: Corey Wooldridge

Council Reference: PLN23/0661

Address: 9 Arthur St. Fairfield VIC 3078

Proposal: Construction of two double storey dwellings on a lot

Comments Sought: Click here to view referral memo:

Record D23/482890: IREF23/01999 - Internal Referral Response - Urban Design

Disclaimer: Council's Urban Designer provides the following information which is

based on the information provided in the referral request memo

referenced above.

Prev. Responses:

Recommendation

• The proposal is supported in principle, subject to changes.

Comment Summary

The proposal is located within a Neighbourhood Residential Zone in the Planning Scheme indicating the need to promote and protect the surrounding neighbourhood character. The built form and design policy outlines several design objectives to ensure that new development positively responds to the surrounding context. This proposal mostly addresses these objectives; however, some concerns are raised below.

Built Form and Massing

- The building's built form and massing is generally supported from an Urban Design perspective as the form of the building does not deviate too far from the City's existing street pattern and urban form. It is also noted that the proposal's proximity to Heidelberg Road and the developed property immediately to the north could be seen as acting as a buffer or step towards the neighbourhood character directly to the south.
- The modern-look and flat roof of the proposal goes against the neighbourhood character and does not match the pitched roofs of the Californian bungalows with large gardens and significant vegetation that dominate the rest of the streets. However, the inclusion of respectful setbacks, the clear visual distinction between to the two units and the inclusion of a lightwell/ atrium to increase permeable surfaces are all supported.
- While, the proposal is generally supported, and even commended on its high-quality Architecture, garages are not part of the neighbourhood character and therefore the addition of a double garage for unit 2 is not supported.
- The overtly car-dominant double garage of Unit 2 also goes against the design guidelines in 22.10 that state that:

- o 'new development constructed with a front setback to the street should include soft landscaping within the setback area. This setback should not be used for ancillary services, <u>car parking</u>, basement car parking, ventilation shafts, or major promotion signs.'
- The removal of the double garage will also allow for a separation between the proposal's internal walls and the site boundary. Which would be favoured outcome from an Urban Design perspective.
- According 22.10 crossovers should be limited and according to 55.06/07 crossovers should be minimised. From an Urban Design perspective additional crossovers impact pedestrian and public realm quality. For this reason additional crossovers are generally not supported from an Urban Design perspective.
- It should noted, that the proposal is only seeking a single additional crossover, and as new the rest of the street is not littered with crossovers, this choice is cautiously supported.

Public Realm Interface

- It should be noted that the substantial loss of vegetation in the proposal is a concern due to the significant amenity that vegetation provides to the public realm.
- Reducing the vegetation also unnecessarily compounds the starkness of the
 modern building not suiting the neighbourhood character. It is recommended that
 this proposal is encouraged to retain the significant tree species listed in the
 Arborist's report and provide a landscape plan to better understand the public realm
 interface. Please refer to Council Arborist response.
- However, the type of fencing in the proposal, the sense of address and the good passive surveillance are all good practices to employ in building design and supported.

Façade Design & Materials

- More information is required to properly assess the materiality of the proposal. In general, the 'timber look' material choice is not preferred due to its untruthful nature and unsatisfactory appearance. It is recommended that if using batten cladding the development solely use a natural timber.
- The proposal should also specify the cladding material type for AL1, AL2 and AL3 in the material schedule. Please see Figure 1, below.

Figure 1: Material Schedule RFI

MATERIALS + FINISHES SCHEDULE FACEBRICHWORK BRICK-WHITE/DRIFY FACEBRICHWORK BRICK-CREANOFFWHITE FACEBRICHWORK BRICK-CREANOFFWHITE FOOD COTT DAMED CLODING: BATTEN CADDING: NATURAL TIMBERY TIMBER LOOK FACEBRICHWORK BRICK-CREANOFFWHITE COTT DAMED CLODING: NATURAL TIMBER TIMBER LOOK FACEBRICHWORK BRICK-CREANOFFWHITE FOOD FACEBRICHWORK BRICK-CREANOFFWHITE GOTT DAMED CLODING: NATURAL TIMBER TIMBER LOOK FACEBRICHWORK BRICK-CREANOFFWHITE GOTT DAMED CLODING: NATURAL TIMBER TIMBER LOOK FACEBRICHWORK BRICK-CREANOFFWHITE GOTT DAMED CLODING: NATURAL TIMBER TIMBER LOOK FALE CLODING: GREEN GREEN

Streetscape and Capital Works

• There are no known Streetscape and Capital Works around the site currently planned.

The proposal is supported in principle, subject to the following improvements and additional details:

- Reduce double garage in Unit 2 to single garage and remove wall from boundary.
- Provide more detailed information in Material Schedule.
- Please refer back to Urban Design when a decision is made.

These comments exclude comments from the following teams, and they will be providing separate referral comments:

- Open Space
- Arboriculture & Streetscapes

Capital Works:

There are no known planned / approved capital works around the site being led by the Urban Design Team.

Urban Designer: Lewis McNeice

Date: 06 December 2023

ESD Formal Referral Response



Application Information:

Referral Officer: Gavin Ashley

Officer: Corey Wooldridge

Council Reference: PLN23/0661

Address: 9 Arthur St, Fairfield VIC 3078

Proposal: Construction of two double storey dwellings on a lot

Comments Sought: Click here to view referral memo:

D23/457754

Disclaimer: Council's ESD Officer provides the following information which is based

on the information provided in the referral request memo referenced

above.

Prev. Responses:

ESD comments were requested on the following:

- New referral
- SDA

In assessing this application, the following documents were reviewed:

- Plans prepared by Taouk Architects dated November 2023
- SDA prepared by Archi Sustainability dated 27 October 2023

Documents downloaded from:

https://eservices.yarracity.vic.gov.au/WebApps/eProperty/P1/eTrack/eTrackApplicationDetails.aspx?r=P1.WEBGUEST&f=%24P1.ETR.APPDET.VIW&ApplicationId=PLN23%2f0661

Comments

The standard of the submitted ESD <u>does not meet</u> Council's Environmentally Sustainable Design (ESD) standards.

Furthermore, it is recommended that all ESD commitments (1), deficiencies (2) and the outstanding information (3) are addressed in an updated SDA report and are clearly shown on Condition 1 drawings. ESD improvement opportunities (4) have been summarised as a recommendation to the applicant.

1. Applicant ESD Commitments:

- Commitments detailed in the SDA:
 - BESS Assessment achieves a score of 50% with no mandatory category (IEQ, Energy, Water, Stormwater) below 50%.

- Water efficiency ratings (WELS):
 - Showerhead: 4 star
 - Taps: 5 stars
 - Dishwasher: Default or unrated
 - WC: 4 stars
 - Washing machine: 4 star
- o Water efficient landscaping
- Average 6.5 star NatHERS rating
- Heating & cooling (reverse cycle / refrigerative space): 4 star energy efficiency
- o Gas instantaneous, 5 star hot water system
- Double glazing to all habitable areas
- Cross flow ventilation to all habitable rooms
- Use of low VOC paints for internal walls
- Use of certified (e.g. FSC or PEFC)/recycled/reused timber
- STORM rating of 103% achieved with 1 x 3000L tank (to dwelling 1), and 1 x 3000L tank & 1 x 1000L tank (to dwelling 2), with tanks and respective litre capacities shown on plans
- Spatial allocation for four-stream bin systems shown on plans
- Adjustable outdoor clotheslines shown on plans
- Area analysis on plans shows:
 - 43% of the site is permeable surfaces
 - o 38% of the site is garden area
 - o 33% of the site is vegetated

2. Application ESD Deficiencies

- The proposed development includes minimal external shading (e.g. shallow aluminium shrouds in some instances). Of particular concern is the west facing glazing of the first floor master bedrooms, which is floor-to-ceiling with glazing areas of approximately 5sqm. This has the potential to result in poor thermal outcomes for these habitable rooms and occupant comfort, and should be minimised by the inclusion of external shading devices such as awnings. This could be complemented by also providing external shading to the east (retractable) and north (fixed) facing glazing.
- The exclusion of a gas connection and gas systems (e.g. hot water) is strongly recommended to provide an all-electric development in accordance with the residential gas ban coming into force on January 1, 2024.

3. Outstanding Information

- Clarify the permeability of paving in private open space, addressing inconsistency between annotation on plans ('permeable') and WSUD plan mark-up (marked impervious). Update documentation and assessments accordingly.
- Clarify rainwater reuse connections and ensure consistency across all documentation. For example, the plans only note toilet flushing, the SDA notes toilet flushing & laundry, and BESS notes toilet flushing, laundry & irrigation. If irrigation is connected, refer to the BESS Tool Notes regarding the applicability of Water Credit 3.1 Water Efficient Landscaping.
- Update STORM assessment to include all impervious surfaces (as marked in Roof / WSUD Plan in plans i.e. ground level surfaces such as driveway and private open

- space paving which are not proposed to be treated), ensuring the updated STORM rating achieves a minimum of 100%.
- Ensure the SDA notes on the plans are consistent with the ESD commitments detailed in the SDA (e.g. one difference currently is the toilet water efficiency).
- Ensure areas across all documentation and assessments are consistent (e.g. vegetated area).
- Clarify the proposed colour of the roof material and detail it in the documentation, ensuring the specification supports a reduction in urban heat outcomes.

4. ESD Improvement Opportunities

- Consider the addition of solar PV panels on the rooftop of each dwelling.
- The development only achieves a 6.5 star average NatHERS rating (individual ratings of 6.6 stars and 6.4 stars). We recommend consideration of further improvements to the thermal performance of the dwellings to achieve a minimum 7 star average rating to improve energy efficiency and thermal comfort outcomes.
- Consider the inclusion of ceiling fans in bedrooms and living areas to provide an alternative, less energy intensive cooling option.
- Consider providing enabling infrastructure (e.g. wiring etc) for electric vehicle charging which will allow for the future installation of electric vehicle charging stations.
- Consider the inclusion of at least one secure bicycle space per dwelling.
- Consider the inclusion of a water tap and drain for outdoor open space to facilitate more gardening by the occupants.
- Consider vertical greening/landscaping (e.g. climbing plants) on the north and south facades for improved urban ecology outcomes.
- Include commitments to, and specification of, recycled materials (e.g. recycled content insulation; recycled content concrete).

Recommendations

Having reviewed the documentation, the applicant is required to address the items above listed as ESD deficiencies (2) and Outstanding Information (3) – and is strongly encouraged to incorporate the ESD improvement Opportunities (4) where practical.

ESD Advisor: Gavin Ashley Date: 14 December 2023

Sustainable Management Plan (SMP)

for planning applications being considered by Yarra Counci





ESD in the Planning Permit Application Process

Yarra City Council's planning permit application process includes Environmentally Sustainable Development (ESD) considerations. This is now supported by the ESD Local Policy Clause 22.17 of the Yarra Planning Scheme, entitled *Environmentally Sustainable Development*.

The Clause 22.17 requires all eligible applications to demonstrate best practice in ESD, supported by the Built Environment Sustainability Scorecard (BESS) web-based application tool, which is based on the Sustainable Design Assessment in the Planning Process (SDAPP) program.

As detailed in Clause 22.17, this application is a 'large' planning application as it meets the category Non-residential 1. 1,000m² or greater.

What is a Sustainable Management Plan (SMP)?

An SMP is a detailed sustainability assessment of a proposed design at the planning stage. An SMP demonstrates best practice in the 10 Key Sustainable Building Categories and;

- Provides a detailed assessment of the development. It may use relevant tools such as BESS and STORM or an alternative assessment approach to the satisfaction of the responsible authority; and
- Identifies achievable environmental performance outcomes having regard to the objectives of Clause 22.17 (as appropriate); and
- Demonstrates that the building has the design potential to achieve the relevant environmental performance outcomes, having regard to the site's opportunities and constraints; and
- Documents the means by which the performance outcomes can be achieved.

An SMP identifies beneficial, easy to implement, best practice initiatives. The nature of larger developments provides the opportunity for increased environmental benefits and the opportunity for major resource savings. Hence, greater rigour in investigation is justified. It may be necessary to engage a sustainability consultant to prepare an SMP.

Assessment Process:

The applicant's town planning drawings provide the basis for Council's ESD assessment. Through the provided drawings and the SMP, Council requires the applicant to demonstrate best practice.

Sustainable Management Plan (SMP)

for planning applications being considered by Yarra Counc





Applicant Response Guidelines

Project Information:

Applicants should state the property address and the proposed development's use and extent. They should describe neighbouring buildings that impact on or may be impacted by the development. It is required to outline relevant areas, such as site permeability, water capture areas and gross floor area of different building uses. Applicants should describe the development's sustainable design approach and summarise the project's key ESD objectives.

Environmental Categories:

Each criterion is one of the 10 Key Sustainable Building Categories. The applicant is required to address each criterion and demonstrate how the design meets its objectives.

Objectives:

Within this section the general intent, the aims and the purposes of the category are explained.

Issues:

This section comprises a list of topics that might be relevant within the environmental category. As each application responds to different opportunities and constraints, it is not required to address all issues. The list is non-exhaustive and topics can be added to tailor to specific application needs.

Assessment Method Description:

Where applicable, the Applicant needs to explain what standards have been used to assess the applicable issues.

Benchmarks Description:

The applicant is required to briefly explain the benchmark applied as outlined within the chosen standard. A benchmark description is required for each environmental issue that has been identified as relevant.

How does the proposal comply with the benchmarks?

The applicant should show how the proposed design meets the benchmarks of the chosen standard through making references to the design brief, drawings, specifications, consultant reports or other evidence that proves compliance with the chosen benchmark.

ESD Matters on Architectural Drawings:

Architectural drawings should reflect all relevant ESD matters where feasible. As an example, window attributes, sun shading and materials should be noted on elevations and finishes schedules, water tanks and renewable energy devices should be shown on plans. The site's permeability should be clearly noted. It is also recommended to indicate water catchment areas on roof- or site plans to confirm water re-use calculations.