

SUPPLEMENTARY ASSESSMENT

JOINT REGIONAL PLANNING PANEL (Southern)

JRPP No	2016STH019
DA Number	298-2016
Local Government Area	Queanbeyan-Palerang Regional Council
Proposed Development	Demolition of two classrooms and construction of three storey distance education centre
Street Address	42 Surveyor Street, Queanbeyan
Applicant/Owner	Department of Public Works / Department of Education
Number of Submissions	None
Regional Development Criteria (Schedule 4A of the Act)	Crown development with a capital investment value of more than \$5 million
List of Matters discussed	• State Environmental Planning Policy (Infrastructure) 2007 – clause 32 • Queanbeyan Development Control Plan
Recommendation	Deferred commencement approval
Report by	Lorena Blacklock – Manager Development Control Queanbeyan-Palerang Regional Council
Report date	20 October 2016

Introduction

This supplementary Assessment is in response to a submission from the Department of Education dated 12 October 2016 stating that:

“the assessment report by the Queanbeyan-Palerang Regional Council on the development application does not make reference to the requirements of clause 32 of the SEPP, and this appears not to have been considered by the JRPP.”

The submission from the Department is provided in Attachment A.

The following assessment provides a review and assessment of the requirements of the Clause 32 of the Infrastructure SEPP and includes consideration of the referenced *School Facilities Standards – Design Standard*.

Assessment

Clause 32 of State Environmental Planning Policy (Infrastructure) 2007 states:

32 Determination of development applications

- (1) (Repealed)
- (2) Before determining a development application for development for the purposes of a school, the consent authority must take into consideration all relevant standards in the following State government publications (as in force on the commencement of this Policy):
 - (a) *School Facilities Standards—Landscape Standard—Version 22* (March 2002),
 - (b) *Schools Facilities Standards—Design Standard* (Version 1/09/2006),
 - (c) *Schools Facilities Standards—Specification Standard* (Version 01/11/2008).
- (3) If there is an inconsistency between a standard referred to in subclause (2) and a provision of a development control plan, the standard prevails to the extent of the inconsistency.
- (4) Copies of the standards referred to in subclause (2) are available for inspection by the public at the head office of the Department of Planning and such other offices of the Department (if any) as the Director-General may determine.
- (5) If a development application has been made before the commencement of the amendment to this clause by *State Environmental Planning Policy (Infrastructure) Amendment (Group Homes) 2009*, and the application has not been finally determined before that commencement, the application must be determined as if that amendment had not been made.

The referenced standards in CI 32(2) have been reviewed and the following summarises the assessment of the relevant provisions and identifies if a standard is inconsistent with the provision of the relevant development control plan.

(a) Schools Facilities Standards – Landscape Standard

The *Schools Facilities Standards – Landscape Standard* includes the following section that relates to onsite parking (extract from Zone Data Sheets – Services Zone).

CAR PARK AND SERVICE AREAS.

Car parks and service areas must be considered as an integral part of the school design. The siting of these facilities should balance the needs of amenity and security. Visual amenity may utilise planted screens to hide services from particular vantage points, while security may require clear views of that service from other points (e.g. administration buildings). Adequate space should be provided in car parks for tree planting to improve amenity and provide shade.

The proposed car parking and the proposed number of parking spaces has failed in this regard. It has not been considered as an integral part of the distance education centre design and has not considered the needs of amenity or security for the staff and visitors. Whilst the proposed parking for the pool vehicles has been provided on site and included as part of the site design, it is inadequate for the proposed 104 staff who will occupy the building. Indeed, the proposed additional 12 car parking spaces proposed by the Department of Education in their submission on 10 October 2016 is an insignificant contribution when it is considered that the traffic generation for such a development required 74 carp parking spaces. The suggestion that car parking for 104 staff is to occur within the surrounding residential streets fails to demonstrate that the car parking is integral part of the school design.

(b) Schools Facilities Standards – Design Standard

The stated purpose of this standard is *“To outline the general performance requirements of each technical component, as itemised above, within all spaces of the whole school.”*

Height

The *Schools Facilities Standards – Design Standard* includes a section (10.04 Critical Dimensions for School Buildings) relating to the heights for the wall, floor to floor and roof components of school buildings. The standard does not specify overall heights of the building as a whole. There is no inconsistency with the height standard of this standard and Council's DCP.

It is noted that the building height does not comply with the Queanbeyan Local Environmental Plan 2012 and that the applicant has lodged a Clause 4.6 variation under the Queanbeyan LEP 2012 to justify the non-compliance with the height of building control of 8.5m for the site. Council supports the variation.

Car parking

The *Schools Facilities Standards – Design Standard* includes the following standards that relate to onsite parking:

- Parking spaces for people with disabilities (19.11)
- Compliance with Australian Standards esp AS 2890 (96.01.02)
- External Material and finishes for car parks (40.00.01)
- Vehicular Circulation required to car Parking and Disabled car parking (90.05.07)
- Civil works standard for construction of car parking (90.03.04)
- Provision of external access lighting to illuminate car park and compliance with AS11583.1 and AS4282. (63.03)
- Provision of a sign with main block layout of the school located adjacent to the car park to assist visitors in finding their way to Administration (71.03)
- Provision of kerb edging in car parking areas to prevent contamination being washed off the road surface (92.10)

- Trees that may shed large branches should not be planted in car parks (92.11)

There is no inconsistency between the abovementioned standards and Council's DCP standards.

It is also noted that there are no standards contained within this document that stipulate the number of car parking spaces to be provided on the site, nor does this standard specify that the amount of onsite car parking is to be minimised as suggested in the Department of Education's letter of 12 October 2016.

(c) School Facilities Standard – Specification Standard

The specification standard's purpose is to guide consultants in the preparation of specifications that reflect the Department of Commerce and the Department of Education and Training's policy. The standards contained are very specific to the design, tender, building and construct process for schools rather than development controls. There are no standards that are inconsistent with Council's DCP.

Updated standards - Education Facilities Standards and Guidelines (EFSG)

In reviewing the standards referenced in Clause 32, it is noted that there is an updated standard titled *Education Facilities Standards and Guidelines (EFSG)*. These web based guidelines are available through <https://efsg.det.nsw.edu.au/design>

The *EFSG Design Guide* is written with the intent to:

- *Outline the guiding principles for school design*
- *Outline the objectives and general performance requirements of the various design elements including supporting infrastructure and equipment that make up a school facility.*
- *Provide the minimum requirements of the technical components that make an element of school design. Sometimes the minimum standards will exceed the requirements of the regulatory standards.*
- *Ensure school facilities are fit for purpose and offer Value for Money within a Whole of Life framework.*
- *Provide facilities planners with the hindsight and experience developed from completing similar educational projects to required standards and budget.*

These guidelines separate out the different types of schools and education establishments. There are specific guidelines for Primary Schools and Secondary Schools which essentially replicate many of the guidelines of the *Schools Facilities Standards – Design Standard*. These updated guidelines which are used by the Department of Education and its contractors do not specifically apply to Distance Education Centres. This form of school, along with a number of other education establishments such as Trade Training Centres are listed with the advice that:

“Guidelines for this school type do not currently exist. Guidelines will be developed as part of the design process for new facilities at relevant schools and added to this section.”

Source: <https://efsg.det.nsw.edu.au/schools-without-current-guidelines>

As such it can be considered that these updated guidelines are not relevant in the consideration of this development application for a Distance Education Centre.

Notwithstanding the fact that the new Guidelines do not apply to Distance Education Centres, an assessment of the EFSG as it relates to Secondary Schools and parking is provided for the panel's information.

H5 Technical Data Summary of the EFSG specifies the standards for car parking and where it is to be accessed from, that the layout of spaces is to meet AS2890 requirements, that it should include one Access space per 100 spaces and that the area is as required for number of parking spaces, "refer Accommodation Summary for the number of car parking space, site specific requirements determined by Planning Committee". The applicant does not provide any detail about the existence of an accommodation summary for this site or development for the distance education centre.

The Secondary Schools – Secondary Rooms & Spaces – Services Zone section of the EFSG makes a statement that:

In order to ensure that the available site area for teaching, learning and play is maximised, to enable community use and to encourage the use of sustainable means of transport to and from the school, on school site parking should be kept to a minimum.

Queanbeyan, unlike the metropolitan areas, does not have a public transport service that caters for the 104 proposed staff that will need to travel to this site. The applicant's own traffic study accepts that the mode of transport for the staff will be by private motor vehicle. It is inappropriate to construe the statement in this section of the EFSG to mean that the provision of 12 car parking spaces for 104 staff is compliant.

Further, it should be noted that Council's Development Control Plan requires the provision of a minimum of 74 car parking spaces for the Distance Education Centre. In reviewing the number of car parking spaces and the impacts on the street network, Council's assessment report makes concessions for the minimum number of car parking spaces to be provided on the site. Instead of the required 74, it was recommended that 40 be provided. Council has accepted that there is a need to ensure that there is adequate site area for the functions of the school and while Queanbeyan High School has a relatively large area, Council has agreed to reduce the number of on-site car parking spaces required to those which appear to be able to be provided in close proximity to the new building without significant impacts on site area. While the parking does not have to be provided beneath the building as recommended in the original assessment report, there is ample area adjoining the existing car park and on the site to provide car parking to reduce the impact on surrounding residents and streets and to maximise the convenience to staff and users of the distance education facility. It is Council contention that the only reason the carparks are not being provided is because of the additional cost to the Department rather than because it is unreasonable or impractical to provide up to 30 spaces on site.

This section of the EFSG goes on to detail that

"The parking numbers indicated in the EFSG accommodation summary are maximums and should only be provided when a site specific traffic report indicates that these numbers are required taking into account the location of the facility, public transport links Cycle routes etc."

The accommodation summary has not been provided, however the traffic study provided by the applicant to support the Development application has been reviewed as detailed in the original assessment report. The consideration of the location of the facility and traffic impacts have been considered by the Local Development Committee. This committee includes representatives from Council, including the Road Safety Officer, the NSW Police Service and Roads and Maritime Services. This committee did not support the proposal and cited concerns for traffic Safety and in particular cyclist safety. This committee has the local knowledge and expertise in Queanbeyan and have dealt with parking and traffic safety concerns at this site in the past.

Conclusion

The Department of Education has indicated that a more detailed assessment of clause 32 of the Infrastructure SEPP and the Standards referenced should be undertaken. Council's assessment is that there are no standards contained within this document that stipulate the number of car parking spaces to be provided on the site, nor does this standard specify that the numbers of onsite car parking to be provided should be minimised as suggested in the Department of Education's letter of 12 October 2016.

Further an assessment of the new design standards that do reference providing a balance between the needs of providing school facilities with the need for onsite parking do not apply to Distance Education Centres.

Even if this provision did apply it is Council's view that its requirement to provide 30 onsite parking spaces does not diminish the standard's objective of ensuring that the *available site area for teaching, learning and play is maximised, to enable community use and to encourage the use of sustainable means of transport to and from the school,*

Given all of the above the standards referenced in Clause 32 of the Infrastructure SEPP are not inconsistent with Council's Queanbeyan Development Control Plan 2012. In particular there is no inconsistency with the minimum number of parking spaces required for the development. The previous assessment report and the minutes of the Local Development Committee clearly demonstrate that the lack of onsite car parking for this proposed distance education centre will have a significant adverse impact on the amenity and traffic safety of the surrounding streets. This is an unacceptable impact and is recommended to be addressed by requiring additional car parking on the site. The original recommendation for the deferred commencement consent is unchanged as a result of this supplementary assessment.



Ms Ruth O'Brien
Department of Planning & Environment
320 Pitt St
Sydney 2000

DOC16/987681

Subject: DA2016 STH019 – DISTANCE EDUCATION CENTRE – 42 SURVEYOR STREET QUEANBEYAN

Dear ~~Ms O'Brien~~ *Ruth*

I write in relation to the Southern JRPP meeting held yesterday (11/10/16) on the above Development Application and the proposed recommendation by the JRPP to refer the matter to the Minister, primarily on the basis of the numbers of car spaces being provided by the development.

I refer the JRPP to clause 32 of the State Environmental Planning Policy (Infrastructure) 2007 (SEPP). This requires the consent authority to take into consideration all relevant standards including the Schools Facilities Standards – Design Standard. In the event of an inconsistency between a standard and a development control plan the standard prevails.

The Department of Education's Design Standard requires minimising the amount of on-site car parking, and this is what our development complies with by providing 6 on-site car parking spaces for Department of Education fleet vehicles and an additional 12 on-site car parking spaces for staff.

The Assessment Report by the Queanbeyan-Palerang Regional Council on the development application does not make reference to the requirements of clause 32 of the SEPP, and this appears not to have been considered by the JRPP.

As the requirements of the SEPP have not been complied with on this matter, I ask that this is reviewed by the JRPP in their final decision for either determining the application or referring it to the Minister for Planning for determination.

Yours faithfully

A handwritten signature in black ink, appearing to read "Tony McCabe".

Tony McCabe
R/Executive Director, Asset Management
12 October 2016

Report of the Local Development Committee – 27 September 2016
(Ref: SF160088/01-07; Author: Wilson-Ridley)

Present: Derek Tooth (QPRC) (Chair), Kelly Cherry (RMS),
Senior Constable Sam Morabito (NSW Police)

Also Present: Keith Davies (QPRC), Dirl Jol (QPRC), Joanne Wilson-
Ridley (QPRC)

Apologies: Nil

The Committee met at 12.00pm.

1. Confirmation of the minutes from the meeting held on 27 April 2016

An update on the progress of items from previous meeting was provided and the committee were thanked for their feedback that assisted in achieving amendments improving traffic and safety outcomes for the discussed DAs

2. **Traffic Study DA298-2016 Erection of an educational establishment (distance education facility) at Queanbeyan High School**

In response to the development application for proposed erection of distance education facility at Queanbeyan High School the Committee raised the following:

1. The committee did not support the DA in the current form noting the lack of provision for on-site parking. This concern was raised given the DA location in an existing school zone, with existing school and residential parking usage and the facility generating 105 job position plus periodic traffic with onsite running of 'mini-school'. The committee requested the consideration in the DA for the provision of on-site parking.
2. Safety concerns were raised regarding the cycling strategy for the DA given that the parking needs of the DA are proposed to be met by on-street parking. A number of the proposed roads to be utilized for on-street parking have width and topographical features that when teamed with on-street cycling and school traffic, including buses, raised potential safety risks. The committee requested consideration to widening of the roads surrounding Queanbeyan High School to achieve the DA's cycling strategy
3. It was noted that future use and expansion of the facility was not addressed by the supporting DA documentation. The documentation addressed the parking needs of the facility when it opens but the committee identified a lack of consideration for parking should use of the facility be expanded.

4. The committee noted existing safety concerns with the school zone, especially Agnes Avenue that added concerns to the DA proposal to handle parking needs using surrounding on-street parking. Concern was particularly noted for potential enhanced congestion during school zone times.
 5. The committee noted concerns that the existing school zone is used for a High School and that the DA is for an educational facility that will be used for both primary and high school needs. The use of 'mini-school' visits at the facility is noted in the DA and consideration is recommended for the DA to review the school zone for new use by primary school children.
 6. Concerns were raised regarding the installation of new driveway access on Agnes Avenue, in conjunction to an existing driveway access, and possible safety concerns for right turn movements both exiting and entering the drive-way, with possible traffic flow impacts caused when vehicles require making a right turn movement into the site.
 7. The following inconsistencies with the DA supporting documentation including Transport Impact Assessment was raised by the committee:
 - In citing that the parking needs of the DA could be adequately met by surrounding on-street parking there appeared to be a lack of consideration for current parking usage on Agnes Avenue, Surveyor Street and Early Street both by residents and existing school community
 - Capacity of Early Street to handle parking did not note the limitation of this street in regards to existing double barrier centerlines
 - Capacity of Surveyor Street to handle parking is reduced 25m before Naylor Street for 250m due existing double barrier centerlines.
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Attachment C – Extracts of Standards

Extracts from the School Facilities Standards - Design Standard

Purpose of the Design Standard :-

- To outline the **general performance** requirements of each technical component, as itemised above, within all spaces of the whole school.

01.01	SITE INVESTIGATIONS	
	<i>DS / LANDSCAPE DEVELOPMENT:- SITE INVESTIGATIONS</i>	<i>90.03</i>
	Prior to design and development, the following is required for each site.	
	• Surveys of pre-development conditions. • Analyse of surveys • Evaluation of relative importance of factors for site. • Assessment to determine impact on/interaction with site development.	

10	AREA	
		<i>GENERAL 10.01</i>
		<i>FACILITIES STANDARD DRAWINGS 10.02</i>
		<i>BUDGETARY IMPLICATIONS 10.03</i>
		<i>CRITICAL DIMENSIONS FOR SCHOOL BUILDINGS 10.04</i>
		<i>Refer DS /LANDSCAPE DEVELOPMENT / Site Areas. 90.02.1</i>

• Wall Heights:	•
• Single Storey:	• 2 400mm: Possible springing height for raked ceilings.
• Multi Storey:	
	• 2 700mm: Springing Height + roof construction depth.
	• Gnd Floor: 2 700mm + 1st floor structure.
	• Intermediate Floors: As per floor to floor heights below.
	• 1st Floor: 2 700mm springing height + roof structure. Can be 2 400mm springing height with raked ceiling.
• Floor to Floor Heights:	
• Multi Storey:	• 2 920mm – Including 600mm deep beams & approx. 220mm floor slab zone.
• Minimum:	
• Maximum:	• 3 345mm – Including mechanical extract duct zone, 600mm beams & approx. 250 floor slab zone.
• Roof Heights:	
• Primary Buildings:	• 4 900mm Maximum from FFL to top of ridge based over a 10.8m span. Other spans use same roof pitches.
• Secondary Buildings	• 4 900mm Maximum from FFL to top of ridge based over a 17.0m span (10° pitch). Other spans use same pitch.
• Special Units & Schools.	• 5 400mm Maximum from FFL to top of ridge based over a 13.9m span (18° pitch). Other spans use same pitch.

19.11 PARKING SPACES FOR PEOPLE WITH DISABILITIES

- **A parking space** shall consist of a useable, unobstructed area, having a firm, plane surface with a fall not exceeding 1:40 in any direction.
- **Parking space width** shall be $\geq 3200\text{mm}$ which may include overlap allowances, hereto specified.
- **Overlap at the sides** of a parking space of **500mm** can be used when the unobstructed width of the adjoining surface is $\geq 1000\text{mm}$, provided that :-
 - the adjoining area is useable, as previously defined;
 - the adjoining area is not another parking space;
 - the adjoining area is at the same level as the parking space.
- **Locate parking spaces** to service a particular building or facility, close to an accessible building or facility entrance.
- **Provide a continuous, accessible path of travel** (AS 1428.1) between each parking space and an accessible, building entrance.

40.00.01

EXTERNAL MATERIALS & FINISHES SUMMARY

	FINISH TYPE: ▶																																		
		Zinculume PreFormed & Finished.	Hot Dipped Galvanised	Zincalate Primed – Ready to Paint	Pre-Finished 2 Pck Polyurathene	Expanded Mesh-Sun Louvre Prof.	Expanded Mesh.	Stainless Steel	Clear Anodised.	Colour Anodised	Powder Coated.	Perforated Sheet	Termite Resistant or Treated	Painted	Stained	Brick – Fair Faced.	Concrete.	Concrete Block.	Split Face Concrete Blocks.	Compressed Fibre Cement.	Fibreglass –Plain Translucent.	Opalised Translucent Fibreglass.	Polycarbonate Twin Walled.		Laminated Safety Glass.	PVC	UPVC	Oxide Coloured Concrete.	Plain Concrete– Broom Finished.	Washed aggregate	Granolithic - Non Slip	Terrazzo	Asphaltic Concrete.	Unit Paving.	REFERENCE
Balustrade:		P*	P*	P*		P*		P*	P*			P*																						DS:40.01.11 SS: N/A	
Handrail:		M*																																DS: 40.01.11 SS: N/A	
Stairs:		P*															P*																	DS:40.01.14; 91.01.06 SS: N/A	
Steps:																	P*																	DS: 40.01.14; 91.01.06 SS: N/A	
Paths:																												A*	P*				P*	DS: 40.01.15; 91.01.06 SS: 274:2	
Ramps:																													M*					DS:40.01.18; 91.01.06 SS: 274:2	
Covered Walkways:																													M*					DS:40.01.19 SS: 274:2	
Assembly Area:																												M*						DS:40.01.17 SS: 274:2	
Trees in Paving																																	M*	DS:40.01.15; 91.01.06 SS: N/A	
Games Courts:																																M*		DS: 40.01.16; 96.00.05 SS: N/A	
Car Parks:																													P*			P*		DS: 96.00.05 SS: N/A	

63.03

EXTERNAL – ACCESS

Provide external Access Lighting to illuminate building entrances, footpaths, sheltered walkways, roadways and car park.

External Access Lighting shall:

- Be kept minimal and designed to prevent glare to pedestrians, nearby residents and to motorists.
- Be located so as to link various sources of illumination such as street lighting (for carpark and roadways) and internal security lighting (for footpaths, walkways and entrances).
- Illuminate building entry doors.
- Highlight 'accident-prone' areas such as changes in level, stairs and ramps.

Use weather proof, vandal-resistant type fittings in all external Access Lighting.

Acceptable fittings are:

- a. Vandal resistant fluorescent luminaires (18 watt only).
- b. Pole mounted HID vandal resistant luminaires.
- c. Wall mounted HID vandal resistant luminaires.
- d. Vandal resistant floodlights.

Bollard fittings are to be avoided due to susceptibility to vandalism and obscuring by bushes and small trees.

Select and install fittings to provide an effective seal around the diffuser and seal at the cable entries to prevent insect entry.

Each type of luminaire has a specific application.

Ensure illumination at building entry points allows adequate illumination for persons to safely **access the interior lighting switches**. In instances where the internal lighting switch panel is not near the entry door it may be necessary to extend the external lighting circuit to control an additional luminaire inside the building.

Locate luminaires in consultation with the Project and/or Landscape Architect.

Poles for mounting luminaires shall be designed to include access hatches, entry hatch for underground cables, equipment panel and rag-bolt base mounting. Normal water pipe and direct buried poles are not to be used.

Illumination Level

1. Provide a maintenance lighting level of 5 to 10 lux.
2. The lumen method can be used for approximate calculations. It is often sufficiently accurate for initial design purposes to take a value of 0.3 for the utilisation factor and a value of 0.6 for maintenance factor.
3. Point-by-point method shall be used if a more accurate calculation is required.

Comply with AS1158.3.1 and AS4282. Categories are:

- Area /pathway lighting P7
- Car parks P11
- Access roads P3

Access Lighting is required by the Schools Facilities Standards in COLAs. Control this

lighting from the communal hall switch panel in conjunction with other access lighting associated with the hall. Requirements for high intensity discharge luminaires used for this application are contained in DS63.11.	
<i>Refer Design Standard/High Intensity Discharge Luminaires</i>	63.11

71.00	SIGNS:- Refer Specification Standard – SS/ Signs and Display Refer Design Standard/ Braille and Tactile Signage	60.00 19.12.3
71.03	SCHOOL PLAN To show main block layout of the school. Location:- • Adjacent to the car park and in a relevant position near the front of the school to assist visitors in finding their way to the Administration; or • Inside the school fence along the main entry path/pedestrian access to the Administration; or • On the Administration front wall if close to the main Entrance Zone; or • Located near the main car park (site specific).	

Item Ref.	Item	Cross Ref.
90.00	SITE	
	SITE SELECTION SITE INVESTIGATIONS LANDSCAPE DESIGN STANDARDS PLANNING ELEMENTS DEMOUNTABLE SCHOOLS GROUNDWORKS LANDSCAPE HARDWORKS LANDSCAPE SOFTWORKS LANDSCAPE FIXTURES CONTRACT DOCUMENTATION, CONSTRUCTION PHASE POST-OCCUPANCY EVALUATION	90.02 90.03 92.04 90.05 90.05.11 90.06 91.00 92.00 93.00 94.00 94.03 94.05
	Refer: DS / Site Factors DS / Passive Solar Design SFS , Site / Primary/Secondary Schools SFS Landscape Standard	01 02 900 Intranet
90.01	INTRODUCTION The overall objective is to develop each school site in a rational, coherent and coordinated manner, acknowledging:- • site specific physical and contextual characteristics; • principles and criteria embodied in the Facilities Standards; • the need to maximise useable space; • the need to maximise available site; • the need to minimise on-going grounds maintenance; • Schools Programs Group cost budget procedures.	

Item Ref.	Item	Cross Ref.
	Consideration is also given to :- • landscape development associated with schools/units for specific purposes; • landscape development associated with fully demountable schools; • staging; • on-going maintenance procedures; • post-construction/occupancy evaluation <i>Refer to SFS Landscape Standard</i>	
90.01.01	Abbreviations The following abbreviations are used: DET - NSW Department of Education and Training EFRG - Education Facilities Research Group, (Department Of Commerce and Department of Education and Training) SFS - Schools Facilities Standards DS - Design Standard PS - Primary School Facilities Standard HS - Secondary School Facilities Standard SS - Specification Standard CBP - Cost Budget Procedure PG - Procedures Guide DLAWC Department of Land & Water Conservation LDG - Landscape Design Group	

90.02	SITE SELECTION DET selects and purchases school sites. While selection is affected by several factors including availability and cost, available sites often fall short of the ideal. When more than one site is being considered, the Landscape Architect's broad knowledge about the interaction of site factors and development requirements may be usefully employed in the selection process by assisting in the identification of:- • each site's capability for traditional school development • inherent costs and environmental penalties resulting from such development.	
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90.02.1	SITE AREAS The maximum area of useable land required by DET for school sites are: <i>Secondary Schools</i> : up to 6 hectares <i>Primary Schools</i> • Home Bases 18-21 (Core 21) : up to 3 hectares • Home Bases 11-17 (Core 14) : up to 3 hectares • Home Bases 5-10 (Core 7) : up to 3 hectares • Home Bases 1-4 : up to 2 hectares Combined Primary & Secondary : up to 9 hectares
90.03	SITE INVESTIGATIONS Prior to design and development, the following is required for each site: • Surveys to provide an inventory of pre-development conditions; • Analysis to investigate the factors involved; • Evaluation to ascertain the relative importance of the factors for that site; • Assessment to determine the impact on/ interaction with, site development.
90.03.01	BASIC SITE DEVELOPMENT FACTORS Ensure the following are included when presenting information:- • regional / district location, • local environment / character • visual survey, • climate and microclimate, • slope, drainage and erosion, • flood risk • site & local flora / fauna survey • regional flora species • heritage significance • toxic residues • airborne pollutants • bushfire risks • land resources, • education brief, • site development guidelines • design analysis • Appraisal of physical and visual factors affecting site development.
90.03.02	Geo-technical plus Soil reports should also be commissioned for each site to:- • Describe the engineering capabilities and limitations encountered under the soil surface. • Investigate the suitability of the topsoil and anticipated sub-grade materials for horticultural purposes. This will determine appropriate techniques for treatment of landscape sub-grades and topsoil materials to enhance horticultural performance and provide guidance in rational plant species selection.
90.03.03	An environmental risk report may be desirable for development proposals within sensitive natural environments or sites subject to natural risks (i.e. flood prone sites, bush fire areas). Testing for toxic residues must be done in all areas of filled or dumped ground.
90.03.04	Compile an objective appraisal of the development constraints imposed by the site's natural character or location, in conjunction with the Geo-technical appraisals and information available from other sources (government departments, statutory authorities, local councils, etc.). This appraisal may then be used to prepare indicative costs for the preparatory site works necessary for traditional school development.

90.04	LANDSCAPE DESIGN STANDARDS	
90.04.01	Landscape Standard Refer to SFS Landscape Standard on Department Of Commerce Intranet - <i>Business Tools/Project Management Roadmap/Quick Links <u>Quick-find Documents/ Schools Facilities Standards/Landscape Standard</u></i>	
90.04.02	Landscape planning and design encompasses all elements in a development proposal, including:- groundworks, buildings, roadworks, and services as well as drainage, erosion control, surface finishes and planting, to provide a rational solution to site specific factors, to facilitate site development and management.	
90.04.03	Detailed landscape design involves: fine resolution of hard and soft elements. • Soft Works relates to the planting component in a landscape design, including soil preparation: • Hard Works applies to pedestrian pavements, steps, low retaining walls and external furniture etc.	
90.04.04	Detailed design development of other hard works such as bulk earthworks, retaining walls higher than 1.0 metres, vehicular pavements or site services are the province of other professions although the Landscape Architect may contribute design advice.	
	<i>DS / Co-ordination</i> <i>DS / Design Documentation</i> <i>DS / Contract Documentation</i>	94.01 94.02 94.03

Item Ref.	Item	Cross Ref.
96.00	CIVIL WORKS	
	GENERAL	96.01
	MATERIALS	96.02
	HARD WORKS	96.03
	Refer DS / Budget Implications	10.02
	DS / Facilities Standard Drawings	10.03
	DS / Site	90.00
	DS /Landscape Hard Works	91.00
	DS / Soft Works	92.00
	DS / Stormwater	95.00
96.01.01	GENERAL	
	• Civil Hard Works include roads, parking areas, bus bays, paths and hard-standing areas and games courts. • Design the works to ensure durability, serviceability, strength and quality to produce a finished product fit for its intended purpose, of minimum cost, and having minimum impact on the site and environment from contamination, erosion, sedimentation, dust and noise during construction. • Limit the amount of spoil removed from site	
96.01.02	STANDARDS	
	• Comply with the requirements of all relevant authorities especially the local Council, the Environmental Protection Authority (E.P.A.), and Mine Subsidence Board if applicable. • Comply with relevant Australian Standards, especially AS 2890, but design to higher standards where called for in this SFS Design Standard. • Comply with the requirements of the site Geotechnical Report if available, and AS2870.1 especially with regards to compaction and filling. • Design pavements to the requirements of 'AUSTROADS - Pavement Design'.	
96.01.03	PAVEMENT DESIGN	
	• All pavements to be designed for a 25 year life. • All pavements trafficked by buses and trucks to be designed for a minimum 5×10^5 repetitions of a standard axle load. • For other vehicular traffic areas design for 1.0×10^5 repetitions of a standard axle load. • Allow for movements in the foundations caused by moisture variations and mine subsidence. • Design rigid pavements so there is no vertical differential movement between panels at joints. • For truck turning area pavements shall be rigid in construction and finished with a reinforced concrete surface. • For other areas pavements may be either flexible or rigid in construction. For flexible construction finish with a surface coat of asphaltic concrete. • Breccia or dolerite is not to be used in road base or concrete mix.	
96.01.04	GRADES	
	• Fall all paving away from the buildings and covered areas. • Finished vertical grades to be limited to < 1 in 10. Provide vertical curves where change of grade exceeds 3%. Provide cross-falls, as required.	
96.01.05	FINISHES	
	• Non-skid finish for vehicular trafficked pavements.	

Item Ref.	Item	Cross Ref.
	• Non-slip finish for pedestrian trafficked pavements including carparks.	

96.03.04	CAR PARKING <i>Fabric</i> • Reinforced concrete – broomed finish, or • 40mm asphaltic concrete on 200mm base course. • Drainage to swale and perimeter subsoil drains, or • Kerb and gutter with piped stormwater drains for poor soil conditions (CBR<5). • Fall carpark to drain to one side only. Fixtures • Line markings and wheel stops to be provided to parking bays	
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90.05	PLANNING ELEMENTS	
90.05.01	GENERAL The School Facilities Standards contain detailed descriptions of the requirements for all spaces in schools, which all have an impact on the planning and organisation of the site. Familiarity with their general contents is essential to the Landscape Architect.	
	<i>Refer SFS. PS/HS / SITE</i>	612
90.05.02	Incidental items and fixtures include:- Flagpoles, signs, seating and fencing as well as drinking fountains. Additional non-standard fixtures may need to be incorporated such as play structures, bell, bicycle rack/rails and cricket nets.	
	<i>Refer DS/LANDSCAPE FIXTURES</i>	93.00
90.05.03	Service elements which may affect site planning include Gas , Power (Electrical Kiosk); Septic Tank and transpiration/absorption area (non-sewered areas); water meter, fire hydrants; site lighting/security lighting; telephone and stormwater.	
90.05.04	Planting elements include retained vegetation, grassed areas, trees in grass, trees in paved areas and mass planting. Demountable learning facilities may be required to carry peak enrolment.	
90.05.05	Site facilities in Secondary Schools generally comprise:- Assembly Quadrangle Games Court for PE and other activities such as Basketball - note that this facility is in use virtually every period so that a close access relationship between the Games Court and Shower/Change Spaces is important; Games Field to accommodate a range of sports eg. competition Rugby (min. 120m x 73m); Batting Practice Nets Ancillary paved pedestrian areas access , paved areas and bus zone. Agricultural Field Area Open Space	<i>Refer SFS. HS /</i> 607.01 505.01 505.03 505.04 608 609.06 506.06 610.01 90.06.06
	<i>Refer D.S. /Management of Turf Wear</i>	
90.05.06	Pedestrian access paths, ramps, steps, covered ways are required by:- Public to Administrative Facilities, Communal Hall, Gymnasium, Movement Studio and Games Court. Staff from Carpark to Administrative and Staff Facilities, thence to all facilities. Students from Bus Zone to all facilities. Access For People With Disabilities is required via paths, ramps or covered ways from disabled parking space to all learning, communal, administration and designated toilet facilities: - in new schools - in all new buildings in existing schools - in major refurbishment Except where it is agreed at Planning Review that access is not practicable. All Pedestrian ramps on a school site should comply with the Access For People With Disabilities Code requirements for grade and length.	19.00

90.05.07 **Vehicular Circulation is required to:-**

Refer SFS.HS

- Bulk Waste Pad
- **Car Parking and Disabled Parking (DS.19)**
- Bus Zone, either Bus Bays or Bus Lay Bys
- Bicycle Enclosure
- Materials Learning Units
- Outdoor Covered Workshop
- Agricultural Field Area
- Delivery to Administration, Canteen and Bulk Store
- Access to LPG tank and Electrical Kiosk
- Emergency Access

609.04

609.05

609.06

609.07

409/410

503

506.06

92.00 **LANDSCAPE SOFTWARES**

The planting strategy for any school should comprise grassed surfaces with trees outside the building precinct, paved surfaces with trees inside the building precinct and a minimum of mass planted beds. The whole scheme should require only simple maintenance appropriate to available resources.

92.10 **MASS PLANTED AREAS**

Generally, **keep mass planted areas to a minimum**, located in highly visible areas to encourage maintenance and minimise misuse/abuse. It should not be considered as a “make-up” surface treatment in confined areas, too narrow for trees or easy mowing access. - the cost of properly prepared and planted beds approximates that of paving, (excluding further maintenance) and is therefore a “luxury” item to be used for a functional purpose.

- **Mass planting** such as shrubs and climbers, which could conceal signs of termite activity, should be kept clear of building edges. Low ground covers requiring minimum watering may be considered.
- **Maximum slope** is 1 : 3 for mass planted banks - surface run-off should be diverted around the top and bottom of the bank to reduce the risk of erosion or bank collapse.
- **Selected plant species** must be long-lived, hardy and able to withstand long periods of neglect - for this reason, plant species must be selected on a site specific and performance basis, with native shrubs being used with discretion.
- **The planting preparation** where mass planted areas occur in paved areas, should finish flush with adjacent paving to take advantage of inadvertent watering maintenance when paving is being hosed down.
- **In car parking areas, a kerb edge is essential to prevent contamination from oil, grease and petrol washed off the road surface.**

92.11 **HAZARDOUS TREES /PLANTS**

When selecting tree and plant species for specific locations on school sites, the following must be considered:

- **Trees that may shed large branches when under environmental stress should not be planted in** school play or assembly areas, adjacent to buildings or in **car parks**. (Eucalyptus ssp. camaldulensis, citriodora, maculata, mannifera ssp.

maculosa, regnans, rubida, viminalis, Erythina ssp).

- **Trees or Shrubs that may cause injury** should not be positioned within assembly areas, adjacent to games courts and along circulation routes. (shrubs/trees that have thorns or prickly foliage, produce large fruit or cones).
- **Trees with aggressive root systems** are not to be located where they can damage walls, paving or drainage pipes. (Figs & Rubber Trees, Poplars, willows, Camphor Laurel, Coral Trees, Black Locust).
- **Avoid planting species where they will drop leaves to block roof gutters.** (Casuarina ssp., deciduous trees and climbers).
- **To minimise the risk of termite infestation** in buildings, improve the chances of termite detection by ensuring planting will not obscure the building edges, inhibit sub-floor ventilation for elevated floors and watering systems do not create damp conditions conducive to termites.
- **Avoid poisonous or high allergy risk plant species.**

Refer Landscape Standard PWM-0410 / Harmful or Irritant Plants

Cl. 2.4

94.01 CO-ORDINATION

The Project Architect is responsible for the overall design and coordination of each school. When a primary consultant is appointed, the primary consultant is responsible for coordination of all other consultants including the LDG Landscape Architect.

94.01.01 THE LANDSCAPE ARCHITECT:

- **May be involved in the siting of buildings** with the Architect. When the building design location is fixed, the Landscape Architect will confer with the Architect and Civil Engineer to determine exterior levels. Design and/or siting modifications may be necessary to fulfil these requirements. This will be done in consultation with the Architect and Civil Engineer.

The Landscape Architect will:-

- **Be involved in the design of vehicular access**, delivery bays, car parking areas and bulk waste pad in consultation with the Architect and/or Civil Engineer. These items will be documented by the Civil Engineer.
- **Establish the broad site shaping** to accommodate site facilities (PE courts, playing fields, etc.) and siting surface run-off, in consultation with the Architect and/or Civil Engineer.
- **Determine the finished levels** of all landscape softworks: site preparation up to landscape sub-grade levels and finished earthworks/contour plans will be documented by the Civil Engineer.
- **Liaise with the Architect to identify vegetation to be cleared or protected** and nominate suitable areas for stockpiling topsoil and for the builder's compound. This information is to be included on the site plan prepared by the Architect.
- **Liaise with the Architect on the design of paths** and pavement layout, materials walls, steps, ramps, walkways and general levels: these items will be documented by other consultants unless otherwise directed at appointment.
- **Check grading and paths** to ensure tolerances are kept to those stated in Design Standards.
- **Advise the Civil/Hydraulics Engineers** on the extent of sub-soil drains and irrigation or numbers and location of hose cocks required to ensure adequate drainage to hard and soft areas and water supply to planted and grassed areas. **Documentation** to be carried out by Civil/Hydraulics Engineers. Liaison will also be required regarding siting of septic tanks and absorption areas on unsewered sites.
- **Liaise with the Civil/Mechanical Engineers** to determine the size and location of the LPG tank and verify current safety regulations, particularly with regard to location and type of development, planting and surface finishes allowed in the vicinity of the tank.

EXTRACTS - School Facilities Standard – Specification Standard

This document has been written to guide consultants in the preparation of specifications that reflect the Department of Commerce and the Department of Education and Training's policy, and should be read before other parts of the Specification Standard

EXTRACTS – School Facilities Standards - Landscape Design Standard

M0410-03.doc		ZONE DATA SHEETS	1. Entrance Zone 2. Street Frontage Zone 3. Assembly Zone 4. Active Zone 5. Passive Zone 6. Boundary Zone 7. Services Zone 8. Out of Bounds Zone 9. Special Function Zone
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SERVICES ZONE

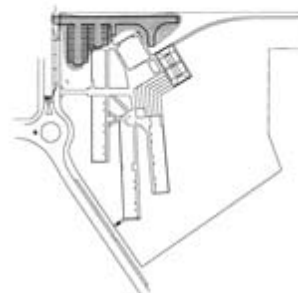
FUNCTION:

- SCREENING
- INTEGRATION WITH SCHOOL LANDSCAPE

LOCATION: Carparks, bicycle racks, service roads, bulk waste pads, LPG tank enclosures.

PLANNING:

The services zone supports the day to day functioning of the school. These functions require associated infrastructure that can either be incorporated into the school landscape or screened as necessary.



CRITERIA

Microclimate

Context

Biodiversity Recovery

Pedestrian movement

Shade

Winter solar access

Fixtures

Water

Erosion

Surface

Solar glare

Allergenic plants

Stormwater

Lighting

Signage

Maintenance

CONSIDERATIONS

Overshadowing, heat and glare from paved surfaces.

Consider relationship of service to surrounding buildings and street - noise, odour, function, views.

Low opportunity due to amount of hard paving required for most services.

Ensure safety by separating pedestrian and vehicular movement. Discourage student access in potentially dangerous areas. Define main paths and connections with placement of planting. Allow access for people with disabilities.

Ensure selected or existing species do not drop branches, excess leaves or fruit. Allow clear sightlines to vehicles from adjacent buildings.

Desirable where planting is close to windows of buildings.

Not required as student access will be restricted.

Sufficient hosecocks for planting maintenance. Ensure hosecocks do not form obstacles to pedestrian movement.

Consider desire lines and spill out from edges of paving.

Paved to civil engineers design.

Bright, reflective areas to be avoided.

Medium level acceptable, as student use is restricted.

Incorporate services pits within paved areas, rather than turf or planting beds. Provide for naturally landscaped drainage treatments e.g. gravel or planted swales, retention basins, permeable surfaces.

Refer Schools Facilities Standards.

Any services used by the public e.g. visitor carparks (refer Schools Facilities Standards and Specification Standard).

Low level due to restricted student access.

SERVICES ZONE

ILLUSTRATED EXAMPLES

The following examples of services designs are from a range of school sites. They illustrate some of the strategies that can be adopted. Each is unique and relates to the particular landscape context of the school site.



CAR PARK AND SERVICE AREAS.

Car parks and service areas must be considered as an integral part of the school design. The siting of these facilities should balance the needs of amenity and security. Visual amenity may utilise planted screens to hide services from particular vantage points, while security may require clear views of that service from other points (e.g. administration buildings). Adequate space should be provided in car parks for tree planting to improve amenity and provide shade. Cycle facilities can be neatly located adjacent to buildings, which provide a level of security and weather protection.