Lower Parramatta River Catchment Floodplain Matrix (Figure 7-5 of August 2005 FPRMS&P)

Planning & Development Controls

Flood Risk Precincts (FRP's)

Planning Consideration	Low Flood Risk									Medium Flood Risk									High Flood Risk								
	Sensitive Uses & Facilities	Critical Utilities & Uses	Subdivision	Filling	Residential **	Commercial & Industrial	Tourism Related Development	Open Space & Non-Urban	Concessional Development	Sensitive Uses & Facilities	Critical Utilities & Uses	Subdivision	Filling	Residential **	Commercial & Industrial	Tourism Related Development	Open Space & Non-Urban	Concessional Development	Sensitive Uses & Facilities	Critical Utilities & Uses	Subdivision	Filling	Residential **	Commercial & Industrial	Tourism Related Development	Open Space & Non-Urban	Concessional Development
Floor Level		3			2,5	2,5	2,5							2,5	2,5	2,5	1,5	4,5								1,5	4,5
Building Components		2												1	1	1	1	1								1	1
Structural Soundness		2												2	2	1	2	2								1	1
Flood Affectation		2	2	1	2	2	2					1		1	1	1	2	1								1	1
Car Parking & Driveway Access		1,3,5,6			1,3,5,6	1,3,5,6	1,3,5,6	2,4,6,7						1,3,5,6,7	1,3,5,6,7	1,3,5,6,7	2,4,6,7	1,5								2,4,6,7	1,5
Evacuation		2,4,6	5		3,4	4	4					5,3,4		3,4,6	3,4,6	3,4,6	1,4	3,6								1,4	3,4,6
Management & Design		2,3,4	1									1		2,3,4	2,3,4	2,3,4	2,3,4	2,3,4								2,3,4	2,3,3

Not Relevant | Unsuitable Land Use | ** For redevelopment of an existing dwelling refer also to 'Concessional Development' provisions

Notes:

1. Freeboard equals an additional height of 500mm.
2. The relevant environmental planning instruments (generally the Local Environmental Plan) identify development permissible with consent in various zones in the LGA. Notwithstanding, constraints specific to individual sites may preclude Council granting consent for certain forms of development on all or part of a site. The above matrix identifies where flood risks are likely to determine where certain development types will be considered "unsuitable" due to flood related risks.
3. Filling of the site, where acceptable to Council, may change the FRP considered to determine the controls applied in the circumstances of individual applications.
4. Any fencing that forms part of a proposed development is subject to the relevant Flood Affectation and Structural Soundness planning considerations of the applicable landuse category.
5. Some developments will need to have regard for the Foreshore Building Line and all its objectives, as per the relevant environmental plannng instrument.
6. Terms in italics are defined in the glossary of this plan and Schedule 2 specifies development types included in each land use category. These development types are generally as defined within Environmental Planning Instruments applying to the local government area.

2-12 River Road West project status (on the sole basis of Medium Flood Risk Precinct treatment)	
Does the submission currently comply with this Floodplain Matrix control?	
Yes, No, N/A, Partially?	**Comment**

Floor Level

1	All floor levels to be no lower than the 20 year flood level plus freeboard		
2	*Habitable floor* levels to be equal to or greater than the 100 year *flood level* plus *freeboard* .	Yes (ref HKMA reports 3/5/10 & 4/11/10)	However it is noted that the development will need to take account of potential climate change flood levels which are currently being assessed by Council, and will be assessed against site specific DCP controls at DA stage
3	All floor levels to be equal to or greater than the PMF level plus *freeboard*		
4	Floor levels to be equal to or greater than the 100 year *ARI flood level* plus *freeboard* . Where this is not practical due to compatibility with the height of adjacent buildings, or compatibility with the floor level of existing buildings, or the need for access for persons with disabilities, a lower floor level may be considered. In these circumstances, the floor level is to be as high as practical, and, when undertaking alterations or additions, no lower than the existing floor level.		
5	A restriction is to be placed on the title of the land, pursuant to S.88B of the Conveyancing Act, where the lowest *habitable floor area* is elevated above finished ground level, confirming that the subfloor space is not to be used in any form.	N/A	-

Building Components & Method

1	All structures to have *flood compatible building components* below the 100 year *flood level* plus *freeboard.*	No	However it is considered that this can be adequately addressed at the DA stage, and will be subject to site specific DCP controls at that stage
2	All structures to have *flood compatible building components* below the *PMF* .		

Structural Soundness

1	Engineer's report to certify that the structure can withstand the forces of floodwater, debris and buoyancy up to and including a 100 *year flood* plus *freeboard.*		
2	Engineers report to certify that any structure can withstand the forces of floodwater, debris and buoyancy up to and including a *PMF level.*	No	However it is considered that this can be adequately addressed at the DA stage, and will be subject to site specific DCP controls at that stage

Flood Affectation

1	Engineer's report required to certify that the development will not increase flood effectation elsewhere, having regard to: (i) loss of flood storage; (ii) changes in flood levels and velocities caused by alterations to the flood *conveyance* ; and (iii) the cumulative impact of multiple potential developments in the same catchment.	Partially (ref Mott MacDonald report of 16/2/12)	Additional modelling is required to complete assessment of Parramatta River and Clay Cliff Creek flood regimes (and hence finalise flood-related building footprints). This can be undertaken at the DA stage and will be subject to site specific DCP controls at that stage
2	The flood impact of the development on flooding elsewhere to be considered having regard to the three factors listed in consideration 1 above.		

Car Parking and Driveway Access

1	The minimum surface level of open spaces or carports shall be as high as *practical* , but no lower than 0.1m below the 100 year ARI flood level. In the case of garages, the minimum surface level shall be as high as practical, but no lower than the 100 year flood level.	N/A	-
2	The minimum surface level of open parking spaces or carports shall be as high as practical, but no lower than 0.3m above the 20 year ARI flood level.		
3	Garages capable of accommodating more than 3 motor vehicles on land zoned for urban purposes, or enclosed car parking, must be protected from inundation by floods equal to or greater than the 100 year flood. Ramp levels to be no lower than 0.5m above the 100 year ARI flood level.	Yes (ref HKMA reports 3/5/10 & 4/11/10)	Additionally, site specific DCP controls will be established to ensure works are undertaken to prevent PMF floodwaters from entering the basement car parking levels
4	The driveway providing access between the road and parking spaces shall be as high as practical and generally rising in the egress direction.		
5	The level of the driveway providing access between the road and parking shall be no lower than 0.2m below the 100 year flood level.	N/A	-
6	Enclosed car parking and car parking areas accommodating more than 3 vehicles, with a floor level below the 100 year flood level, shall have adequate warning systems, signage, exits and evacuation routes.	Partially (Ref HKMA letter report of 4/11/10)	Whilst only an outline of the works has been provided to date, it can be addressed at DA stage and will be subject to site specific DCP controls at that stage
7	Restraints or vehicle barriers to be provided to prevent floating vehicles leaving a site during a 100 year ARI flood.	N/A	-

Evacuation

1	Reliable access for pedestrians or vehicles required during a 20 year ARI peak flood.		
2	Reliable access for pedestrians and vehicles is required to a publicly accessible location during the *PMF peak flood.*		
3	Reliable access for pedestrians and vehicles is required from the site to an area of refuge above the *PMF level* , either on site (eg. second storey) or off site.	Partially (Ref HKMA letter report of 4/11/10)	Confirmation is required that access will be available for all persons needing to access upper floor flood evacuation areas, and this will be addressed via site specific DCP controls at the DA stage
4	Applicant to demonstrate the development is consistent with any relevant *flood evacuation strategy* or similar plan.	No	However it is considered that this can be adequately addressed at the DA stage, and will be subject to site specific DCP controls at that stage
5	Applicant to demonstrate that evacuation in accordance with the requirements of this DCP is available for the potential development resulting from the subdivision		
6	Adequate flood warning is available to allow safe and orderly evacuation without increased reliance upon SES or other authorised emergency services personnel.	Yes (ref HKMA reports 3/5/10 & 4/11/10)	No documentation has been submitted re applicant's discussions with emergency services authorities. However it can be addressed at DA stage and will be subject to site specific DCP controls at that stage

Management and Design

1	Applicant to demonstrate that potential development as a consequence of a subdivision proposal can be undertaken in accordance with the relevant FRMS and FRMP.		
2	*Site Emergency Response Flood Plan* required where the site is affected by the 100 year ARI flood level, (except for single dwelling-houses).	Partially (Ref HKMA letter report of 4/11/10)	Whilst only an outline of the Plan has been provided, it can be addressed at DA stage and will be subject to site specific DCP controls at that stage
3	Applicant to demonstrate that area is available to store goods above the 100 year *flood level* plus *freeboard.*	No	However it is considered that this can be adequately addressed at the DA stage, and will be subject to site specific DCP controls at that stage
4	No storage of materials below the 100 year *ARI flood level* .	No	However it is considered that this can be adequately addressed at the DA stage, and will be subject to site specific DCP controls at that stage