

WSC Checklist: Building Plan Approval (BPA) Application

Case Number: Retrospective: Yes No Feasibility: Yes No

eDeveloper and Hydra Case Submission:	
Hydra Download is on the correct address or asset	
eDeveloper 'Application Type' field is 'Adjustment / Deviation'	
Developer and Applicant details (including spelling) are correct	
'Lead Address' is complete and appropriate for the works	
'Work description' uses correct format	
'Development Description' is appropriate for the scope of works	
All associated cases have been referenced in eDeveloper case submission and case manager advised of BPA	
The Tap In Application Number is included in the listed associated cases	
Services selected match the asset types of those being assessed	
Cost Recovery Agreement:	
Cost Tier has been selected in line with Engineering Competency Standard category	
Cost Recovery Agreement has been signed by the applicant and is included in the submission	
Water Servicing Coordinator (WSC) to complete:	
1. I have reviewed the submitted documentation and confirm is complies with Sydney Water's requirements and where applicable, is prepared in accordance with the appropriate provider instructions.	
2. I have confirmed all the above have been entered correctly and the application has been submitted in accordance with Sydney Water's requirements.	
Date:	Water Servicing Coordinator:
Documentation Requirements:	
Are works proposed within, or intercepting, the Zone of Influence of assets? If yes, please refer to the 'Loading' and 'Access to Mains' impact categories	
Are works proposed that result in a Dig Zone that conflicts with the location of assets? If yes, please refer to the 'Displacement' impact category	
Are works proposed on site that contains an existing or proposed maintenance structure? If yes, please refer to the 'Access to Structures' impact category	
Are works proposed on a site that contains an existing or proposed Sydney Water easement? If yes, please refer to the 'Easements' impact category	
Are works proposed on, or adjacent to, a site that is owned by Sydney Water? If yes, please refer to the 'SWC Property' impact category	
Are works proposed within 10m of a vent shaft, where the required 2m vertical clearances are not met? If yes, please refer to the 'Odour' impact category	
Are works proposed resulting in a sewer maintenance structure within a habitable space or driveway that drains into, not away from, the site? If yes, please refer to the 'Surcharge' impact category	
Are works proposed resulting in a pool within 2m of a sewer maintenance structure? If yes, please refer to the 'Surcharge' impact category	

WSC Checklist: Building Plan Approval (BPA) Application

Impact Consideration: Presumed Assets Unaffected	
Applies when:	Applies:
Applications where no impact considerations are flagged by cover page questionnaire.	
Minimum Document Requirements:	Provided:
Asset Location Information Assets located via one or more of the following: <ul style="list-style-type: none"> • Service Protection Report not older than 24 months • Work-as-Constructed drawing not older than 36 months • Approved Major Works Design • Minor Works proposal for disuse of asset 	
Architectural Plans Site Plan <ul style="list-style-type: none"> • Show extent of proposed works, matching the submission description • Mark up with location of assets Plan View drawings <ul style="list-style-type: none"> • To be provided for each floor and subfloor proposed • Mark up with locations of assets 	

WSC Comments and Notes

This box must be completed if this consideration is applied. If not applicable to all assets under an application, please specify which assets it applies to.

Impact Consideration: Loading	
Applies when:	Applies:
Any works within, or intercepting, the Zone of Influence of assets.	
Minimum Document Requirements:	Provided:
Asset Location Information	Assets located via one or more of the following: <ul style="list-style-type: none"> Service Protection Report not older than 24 months Work-as-Constructed drawing not older than 36 months Approved Major Works Design Minor Works proposal for disuse of asset
Architectural Plans	Site Plan <ul style="list-style-type: none"> Show extent of proposed works, matching the submission description Mark up with location of assets Plan View drawings <ul style="list-style-type: none"> To be provided for each floor and subfloor proposed Mark up with locations of assets
Structural Plans	Plan View drawings <ul style="list-style-type: none"> Show extent of proposed structural works Accurately plot location of assets Cross Section drawings <ul style="list-style-type: none"> Drawings must accurately represent sewer locations (no generic drawings to be applied generally along the asset) Accurately detail site specific covers, clearances, and zone of influence calculations.
Specialist Engineers Assessment (SEA) & SEA Checklist and Report	Refer to Section 1.10 of the <i>Technical Guidelines for building over and adjacent to pipe assets</i> for guidance relating to the suggested content to form an engineer's report / appraisal. Additionally, the report should also achieve the following: <ul style="list-style-type: none"> Demonstrate that foundations proposed are fit-for-purpose for transferring loads away from assets, and below zone of influence. Demonstrate that foundations proposed are fit-for-purpose for supporting building even in the event of main failure Demonstrate that works are proposed to be carried out in such a way that they will not impact assets. Support these demonstrations with Geotechnical, Civil, and Structure appraisal

WSC Comments and Notes

Impact Consideration: Access to Mains		
Applies when:		Applies:
Works within, or overlapping, the zone of influence of mains		
Subcategories		
Mains Under Building	(MUB)	Works within 900mm horizontal clearance of outside edge of asset
Mains Adjacent to Building	(MAB)	Works with minimum 900mm horizontal clearance of outside edge of asset
Mains Inside Building	(MIB)	Works resulting in main within building
Minimum Document Requirements:		Provided:
Asset Location Information	<p>(MUB & MAB) Assets located via one or more of the following:</p> <ul style="list-style-type: none"> • Service Protection Report not older than 24 months • Work-as-Constructed drawing not older than 36 months • Approved Major Works Design • Minor Works proposal for disuse of asset <p>(MIB) Approved Major Works Design to be provided</p>	
Architectural Plans	<p>Site Plan</p> <ul style="list-style-type: none"> • Show extent of proposed works, matching the submission description • Mark up with location of assets 	
	<p>Plan View drawings</p> <ul style="list-style-type: none"> • To be provided for each floor and subfloor proposed • Mark up with locations of assets • (MUB & MAB) Detail widths of walkways of unobstructed walkways to asset locations 	
	<p>Elevation View drawings</p> <ul style="list-style-type: none"> • To be provided detailing all works proposed near the asset • Mark up with locations of assets • Where works are suspended over the asset, clearly define headspace clearances 	
Structural Plans	<p>Plan View drawings</p> <ul style="list-style-type: none"> • Show extent of proposed structural works • Accurately plot location of assets • Detail extent of any sub-ground works (e.g. shoring, excavation, anchors) 	
	<p>Cross Section drawings</p> <ul style="list-style-type: none"> • Drawings must accurately represent sewer locations (no generic drawings to be applied generally along the asset) • Accurately detail site specific covers, clearances, and zone of influence calculations • Detail extent of any sub-ground works (e.g. shoring, excavation, anchors) 	
Specialist Engineers Report	<p>Refer to Section 1.10 of the <i>Technical Guidelines for building over and adjacent to pipe assets</i> for guidance relating to the suggested content to form an engineer's report / appraisal. Additionally, the report should also achieve the following:</p> <ul style="list-style-type: none"> • Demonstrate that the structure has been designed in such a way that will not impact Sydney Water's ability to access the asset in emergency / reactive scenarios • Where impact on access is unavoidable, demonstrate that suitable provisions are proposed to either make the asset maintenance free, or to provide some level of access to the asset. 	

WSC Comments and Notes

WSC Checklist: Building Plan Approval (BPA) Application

Impact Consideration: Access to Structures	
Applies when:	Applies:
Works on any lot containing an existing or proposed maintenance structure	
Subcategories	
Structure Adjacent to Building (SAB)	Works on lot containing or proposed to contain, a structure
Structure In Building (SIB)	Works resulting in structure within building footprint
Minimum Document Requirements:	Provided:
Asset Location Information (SAB) Structure(s) located via one or more of the following: <ul style="list-style-type: none"> • Service Protection Report not older than 24 months • Work-as-Constructed drawing not older than 36 months • Approved Major Works Design (SIB) Approved Major Works Design to be provided	
Architectural Plans Site Plan <ul style="list-style-type: none"> • Show extent of proposed works, matching the submission description • Mark up with location of structure(s) Plan View drawings <ul style="list-style-type: none"> • To be provided for each floor and subfloor proposed • Mark up with locations of assets • Detail access path from parked vehicle to location of structure • Detail access path widths and distances • Detail minimum working space allowances around structure Elevation View drawings <ul style="list-style-type: none"> • Detail location of structure in relation to nearby works • Detail working space clearance allowances above and around structure 	

WSC Comments and Notes

Impact Consideration: Displacement	
Applies when:	Applies:
Works that involve a Dig Zone that conflicts with the location of assets	
Minimum Document Requirements:	Provided:
<p>Asset Location Information</p> <p>Assets located via one or more of the following:</p> <ul style="list-style-type: none"> • Service Protection Report not older than 24 months • Work-as-Constructed drawing not older than 36 months • Approved Major Works Design • Minor Works proposal for disuse of asset 	
<p>Architectural Plans</p> <p>Site Plan</p> <ul style="list-style-type: none"> • Show extent of proposed works, matching the submission description • Mark up with location of assets <hr/> <p>Plan View drawings</p> <ul style="list-style-type: none"> • To be provided for each floor and subfloor proposed • Mark up with locations of assets <hr/> <p>Elevation View drawings</p> <ul style="list-style-type: none"> • To be provided detailing all works proposed near the asset • Mark up with locations of assets 	
<p>Structural Plans</p> <p>Plan View drawings</p> <ul style="list-style-type: none"> • Show extent of proposed structural works • Accurately plot location of assets • Detail extent of any sub-ground works (e.g. shoring, excavation, anchors) <hr/> <p>Cross Section drawings</p> <ul style="list-style-type: none"> • Drawings must accurately represent sewer locations (no generic drawings to be applied generally along the asset) • Accurately detail site specific covers, clearances, and zone of influence calculations • Detail extent of any sub-ground works (e.g. shoring, excavation, anchors) 	
<p>Specialist Engineers Report</p> <p>Refer to Section 1.10 of the <i>Technical Guidelines for building over and adjacent to pipe assets</i> for guidance relating to the suggested content to for an engineer's report / appraisal. Additionally, the report should also achieve the following:</p> <ul style="list-style-type: none"> • Demonstrate that the structure has been designed in such a way that will not impact assets • Where impact on asset is unavoidable, demonstrate that suitable protection of assets is proposed to prevent damage • Demonstrate that monitoring and contingency plans are appropriate to ensure protection of the asset, and/or facilitate response in event of main failure • Demonstrate that works are proposed to be carried out in such a way that they will not impact assets • Support these demonstrations with Geotechnical, Civil and Structure appraisal. 	
WSC Comments and Notes	

Impact Consideration: Easements		
Applies when:		Applies:
Works on a lot burdened by a Sydney Water Easement		
Minimum Document Requirements:		Provided:
Asset Location Information	Service Protection Report must be provided with survey data locating Sydney Water's easement in relation to site boundaries. Registered Surveyor required.	
Architectural Plans	Site Plan <ul style="list-style-type: none"> Show extent of proposed works, matching the submission description Mark up location easements and/or Sydney Water land. 	
	Plan View drawings <ul style="list-style-type: none"> Detail any proposed works resulting in level changes, or clearly state no such works to take place Detail all building works, permanent and temporary, in relation to easement To be provided for each floor and subfloor proposed Mark up with location of easement 	
	Elevation View drawings <ul style="list-style-type: none"> Detail location of works in relation to easement Detail working space clearances allowances throughout easement if works proposed within easement 	
	Long Section drawings <ul style="list-style-type: none"> Detail all existing and proposed levels throughout the easement Detail all existing and proposed structures throughout the easement 	
Structural Plans	Plan View drawings <ul style="list-style-type: none"> Show extent of proposed structural works Detail extent of any sub-ground works (e.g. shoring, excavation, anchors) Accurately plot location of easement 	
	Cross Section drawings <ul style="list-style-type: none"> Drawings must accurately represent sewer locations (no generic drawings to be applied generally along the asset) Detail extent of any sub-ground works (e.g. shoring, excavation, anchors) Accurately plot location of easement 	
Work Methodology	<ul style="list-style-type: none"> Detailed Work Methodology (not a Safe Work Method Statement) Plant details including access to, and within the site Stockpiling locations Steps to be taken to identify easement location and for protecting the easement 24/7 access on site during works 	

WSC Comments and Notes

Impact Consideration: Sydney Water Property		
Applies when:		Applies:
Works on Sydney Water land or lot parcels adjacent to Sydney Water land		
Sub Categories		
Sydney Water Land Adjacent (LAD)	Works on a lot which shares are boundary with Sydney Water land	
Sydney Water Land (SWL)	Works on a lot that is Sydney Water land	
Minimum Document Requirements:		Provided:
Architectural Plans	Site Plan <ul style="list-style-type: none"> Show extent of proposed works, matching the submission description 	
	Plan View drawings <ul style="list-style-type: none"> Detail current and proposed permanent fencing arrangements for the site (SWL) Detail any proposed works resulting in level changes, or clearly state no such works to take place (SWL) Where nearby assets are not covered by other impact types, detail nearest assets on site. Estimation appropriate where assets have not been located under other impact considerations. 	
Structural Plans	Plan View drawings <ul style="list-style-type: none"> Show extent of proposed structural works Detail extent of any sub-ground works (e.g. shoring, excavation, anchors) (SWL) Where nearby assets are not covered by other impact types, detail nearest assets on site. Estimation appropriate where assets have not been located under other impact considerations. 	
	Cross Section drawings <ul style="list-style-type: none"> Drawings must accurately represent sewer locations (no generic drawings to be applied generally along the asset) Detail extent of any sub-ground works (e.g. shoring, excavation, anchors) 	
Work Methodology	<ul style="list-style-type: none"> Detailed Work Methodology (not a Safe Work Method Statement) Plant details including access to, and within the site Stockpiling locations Confirmation of fencing arrangements during and after construction Steps to be taken to identify easement location and for protecting the easement 24/7 access on site during works 	

WSC Comments and Notes

Impact Consideration: Odour	
Applies when:	Applies:
Works within 10m of vent shaft, where shaft cowl is not 2m above habitable space or air intakes	
Minimum Document Requirements:	Provided:
Asset Location Information Vent shaft located via one or more of the following: <ul style="list-style-type: none"> • Service Protection Report not older than 24 months • Work as Constructed drawing not older than 36 months • Approved Major Works Design 	
Architectural Plans Site Plan <ul style="list-style-type: none"> • Show extent of proposed works, matching the submission description • Mark up with location of vent shaft Plan View drawings <ul style="list-style-type: none"> • To be provided for each floor and subfloor proposed • Mark up with location of vent shaft Detail horizontal clearances between habitable space and vent shaft	
Elevation View drawings <ul style="list-style-type: none"> • Detail location of vent shaft in relation to nearby works • Detail horizontal clearances from habitable space and/or air intakes • Detail vertical level differences between the vent cowl and the habitable spaces and/or air intakes. 	

WSC Comments and Notes

WSC Checklist: Building Plan Approval (BPA) Application

Impact Consideration: Surcharge		
Applies when:		Applies:
Works near a structure where surcharge may drain to (or not drain from) habitable space		
Sub Categories		
Surcharge Affecting Pool	(SCP)	Works where outside edge of pool is within 2m of sewer structure lid
Surcharge Affecting Buildings	(SCB)	Works where sewer structure will reside in driveway or ramp that does not drain away from property Works where sewer structure will reside within a building
Minimum Document Requirements:		Provided:
Asset Location Information	Structure located via one or more of the following: <ul style="list-style-type: none"> • Service Protection Report not older than 24 months • Work-as-Constructed drawing not older than 36 months • Approved Major Works Design 	
Architectural Plans	Site Plan <ul style="list-style-type: none"> • Show extent of proposed works, matching the submission description • Mark up with location of structure 	
	Elevation View drawings <ul style="list-style-type: none"> • Detail levels around structure • Detail levels between structure and proposed surcharge capture points • (SCP) Detail all levels between structure opening and pool inside edge 	
Drainage / Hydraulic Plans	<ul style="list-style-type: none"> • (SCP) Where levels are not per the Technical Guidelines, drainage solution to be provided for capturing surcharge and directing it to stormwater drainage • (SCB) Drainage solution for capturing surcharge and directing it from the site 	

WSC Comments and Notes

Instructions for eDeveloper Submissions

These notes are provided for clarification of eDeveloper and Hydra requirements in the above checklist:

- The Hydra Download must cover all appropriate lot(s) for the development works that are constrained to a property, or all of the appropriate/affected asset(s) for road and infrastructure works.
- The Developer Field in eDeveloper must be completed with the details of the Developer for the works. WSC to confirm if applicant is the developer, or if the applicant is applying on behalf of the developer.
- The Lead Address must match the development site for works constrained to a property. Where works are not constrained to a property the address should capture the main street for the works. We may review the suitability of the provided address on a case by case basis.
- The Work Description must use the following format:

(Proposed / Retrospective / Feasibility) – Building Plan Approval (over/adjacent) (Asset Size / Material / Stream).

The **Blue** terms are to be modified to suit the application.

E.g. *Proposed – Building Plan Approval over 225 CICL Sewer and adjacent 450 PVC sewer*

Proposed: Standard application for plan packages

Retrospective: Applications where works have already commenced on site

Feasibility: Applications containing draft, preliminary or not-for-construction plans and/or reports.

- The Development Description must detail the works being submitted for assessment. Where the Development Approval description is appropriate this can be used. However, if the Development Approval description is unclear, reference to proposed building elements should be included in the Development Description.
- The Associated Case section must include the Tap In Application Number (not the reference number).
- The Services selected must be correctly selected, as this determines the application fee raised by the system. Where an incorrect fee is raised because the number of services selected is incorrect, the case may need to be terminated and resubmitted.

Attaching documents in eDeveloper

Documents are required to be submitted in the following format. Documents to be submitted will fall within the following categories:

- Admin and Misc
- Asset Location Documentation
- Architectural Plans
- Structural Plans
- Engineering reports
- Hydraulic Plans
- Work Methodology.

Depending on the document needs identified within the checklist, you will need to include a separate folder for each category, containing the documents relevant to that category.

A copy of this checklist, the Cost Recovery Agreement, any additional information forms, and links to CCTV should be included in the *Admin and Misc* folder. Where possible these files are to be zipped within a single file and attached to the case.

Preliminary, draft and conceptual document submissions: The plans and reports being submitted for approval must be final, and not preliminary or draft. If a developer wishes to seek in-principle approval for preliminary or draft documentation, an application must be flagged as a feasibility submission. These applications will result in in-principle feedback. The WSC for the case will not be authorised to stamp plans or provide an approval. A separate case will need to be submitted following finalisation of plans and reports, to facilitate final review.

Oversized file submissions: eDeveloper will only accept attachments up to 20MB per file. Where files are too large to submit as a single package, the WSC must either reduce the size of the package or separate into parts. Where multiple folders are required, the WSC should submit their lead folder in the Application Entry work step, and after releasing the work step attach any additional folders by using the “Add Document” button in the eDeveloper Case Enquiry Document Tab and selecting the “Development Plan” category.

Impact Considerations

Once the WSC has reviewed the proposed works with the applicant, the main impact concerns for the application may be determined. The front page of the checklist is designed to assist in the determination of impact types to be considered. For each impact type, the associated checklist must be completed, and the detailed documentation is to be provided with the application.

Note that this documentation has been identified as the minimum documentation that must be submitted with an application. On a case-by-case basis we may request additional documentation or clarification. The applicant is encouraged to submit additional information to support their application that helps demonstrate that our infrastructure and operations have been considered and protected. It is not appropriate to submit an application with less than the detailed documentation, unless otherwise noted in this document or in writing from the case manager prior to submission.

Impact: Loading

- This impact considers potential for the building itself to impact and/or be impacted by nearby our assets.
- The primary focus of this impact type is to demonstrate that the building works and the final building itself will not directly impact our infrastructure through loading. Building works should be designed in such a way that they do not impose load on our assets.
- A secondary focus of this impact type is to demonstrate that the building foundations have been designed in such a way that failure of the nearby assets will not undermine the new structure. This should include consideration for the displacement of earth because of potential main collapse, as well as the loss of earth because of water flows, and their impact on the proposed foundation systems.
- A secondary focus of this impact type is to demonstrate that the construction works proposed on site have been designed, and will be carried out, in such a way that they do not impact our assets as a result of the works being carried out.

Impact: Displacement

- This impact considers potential for building works through the act of shoring and excavation to impose impacts on our adjacent infrastructure.
- The primary focus of this impact type is to demonstrate that the building works and the final building itself will not directly impact our infrastructure through displacement. Building works should be designed in such a way that they do not impose vibration, tension, or movement impacts on our assets.
- Where works cannot be designed in such a way, it should be demonstrated how these impacts are intended to be limited and consideration must be given for the asset itself and its ability to tolerate expected impacts without consequence.
- The criteria for this impact consider the use of the Dig Zone test to determine if an asset needs to be reviewed. It may be necessary for assets that pass the Dig Zone test to still require demonstration that displacement impact risks are taken into consideration. We will advise on a case by case basis in circumstances where this consideration is made. This consideration may be made at the time of reviewing the submission for acceptance, or during the review, at the discretion of the case manager and our specialist teams.

Impact: Access to Mains

- This impact considers potential for the building itself to impact and/or be impacted by our access to its pipe and culvert infrastructure.
- The primary focus of this impact type is to demonstrate that the building works will not restrict our access to our pipe and culvert infrastructure, particularly through trenching. Building works should be designed in such a way that they do not restrict our access to our infrastructure, or provisions proposed to make the assets suitably maintenance free.
- For large (larger than DN450) or deep assets (existing cover more than 3m) access to mains may not be required via trenching. In some circumstances it may be appropriate for the application to be submitted first without the requires Specialist Engineers Report to seek guidance from us regarding this matter. Note, this may result in delays to the project, but WSC may nominate to proceed this way by indicating in the comment box for this section.

Impact: Access to Structures

- This impact considers potential for the building itself to impact our access to our maintenance structures.
- The primary focus of this impact type is to demonstrate that the building works and the final building itself will not restrict our ability to access our maintenance structures. Building works must be designed in such a way that they do not restrict our access to our maintenance structures, and provisions to be proposed for scenarios where access to its maintenance structures may be required via private property with potentially restricted access.
- Structural Plans may be provided by the applicant, or requested by the case manager, to support the architectural plans, however are not considered necessary for this impact as a baseline requirement.

Impact: Easements and Sydney Water Land

- This impact considers potential for the building works, and the building itself, to impact on our operations in lands owned by us or covered by an easement in our benefit.
- The primary focus of these impact types is to demonstrate that the building works, and the final building itself, will not restrict our ability to access our land or easement established for the purposes of access to land. Building works must be designed in such a way that they do not restrict access to our land or easements.

Impact: Odour

- This impact considers potential for an existing vent shaft to pose a health and safety concern, and public nuisance complaints, due to the new building exceeding the height of the vent shaft.
- The primary focus of this impact type is to demonstrate that the building works have appropriately considered a nearby vent shaft and the potential for impact on the future occupants of that building.
- The secondary focus of this impact type is to demonstrate appropriate considerations have been made to prevent, or limit, occupant's exposure to odours resulting from a nearby vent shaft.

Impact: Surcharge

- This impact considers potential for surcharge from a sewer maintenance structure to pose health and safety, environmental concerns, and public nuisance complaints due to unmanaged sewer surcharge.

- The primary focus of this impact type is to demonstrate that any potential surcharge from a nearby maintenance structure is appropriately considered, with controls proposed for implementation to limit the potential for these incidents to pose serious risk.

Calculating the Zone of Influence and Dig Zone

Zone of Influence

The Zone of Influence is described in Section 1.15 of the *Technical Guidelines for building over and adjacent to pipe assets*. It is calculated and an angle equal to a 1:1 grade from the outside edge of an asset from its invert level, as such:

Easement exception: Encasement does affect the zone of influence calculation. Assets that are, or are proposed to be, encased must have the zone calculated from the bottom outside edge of the encasement.

Stormwater exception: Stormwater assets have an additional exclusion zone of 1m, from the outside edge of the asset, to the beginning of the zone of influence.

The Dig Zone

The Dig Zone applies a zone of influence from the outside edge of the sub-ground (or below ground) works, at the same 1:1 grade. Assets within the building or excavation area and within, or overlapping, this zone are noted as failing the 'Dig Test'.

Please note, the Dig Zone is a guide, as to whether we will require review and assessment of an asset in relation to displacement impacts. Some assets may be required to be reviewed for displacement impacts even if those mains do not immediately fail the Dig Test. We will advise on a case by case basis where this consideration is made. This consideration may be made at the time of reviewing the submission for acceptance, or during the review at our discretion. If a WSC, or Developer, believes an asset that passes a Dig Test might still be of interest for review, we would encourage consideration of that asset in the case submission.

