

**MODIFICATION REQUEST:
CBD and South East Light Rail (MOD 6)**

***Amendment to Condition B47 – Tree
pruning of two trees at the corner of
Alison and Darley Roads***



Environmental Assessment Report
Section 115ZI(2) of the
Environmental Planning and Assessment Act 1979

February 2017

Cover Photograph: Location of the two mature fig trees on the corner of Alison and Darley Road circled in red (Source: TfNSW, 2016).

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TABLE OF CONTENTS

| | |
|--|----------|
| TABLE OF CONTENTS | I |
| 1. BACKGROUND | 1 |
| 1.1 Project Approval | 1 |
| 1.2 Project Description | 1 |
| 1.3 Subsequent Modifications | 1 |
| 2. CURRENT MODIFICATION | 2 |
| 2.1 Description of Proposed Modification | 2 |
| 2.2 Justification and options considered | 3 |
| 3. STATUTORY CONTEXT | 5 |
| 3.1 Modification of the Minister's Approval | 5 |
| 3.2 Delegated Authority | 5 |
| 4. CONSULTATION | 5 |
| 4.1 Modification of the Minister's Approval | 5 |
| 4.2 Submissions | 5 |
| 5. ASSESSMENT | 6 |
| 6. CONCLUSION AND RECOMMENDATIONS | 8 |
| APPENDIX A MODIFICATION REQUEST | 1 |
| APPENDIX B SUBMISSIONS | 2 |
| APPENDIX C RECOMMENDED MODIFYING INSTRUMENT | 3 |

1. BACKGROUND

1.1 Project Approval

The CBD and South East Light Rail (CSELR) project was identified as a key priority transport infrastructure project in the Government's *Long Term Transport Master Plan* and was subsequently declared critical State Significant Infrastructure by the then Minister for Planning and Infrastructure in June 2013. Planning approval of the project was granted by the then Minister for Planning on 4 June 2014.

1.2 Project Description

The CSELR project consists of approximately 13 kilometres of new light rail track between Circular Quay and Randwick/Kensington providing an efficient mass transit system and improving access to jobs, residences, educational, health, entertainment and sporting facilities. The key components of the project include:

- 19 light rail stops;
- a pedestrian zone on George Street (between Hunter and Bathurst Streets);
- approximately 12 substations to provide power for the light rail vehicles (LRVs); and
- a LRV stabling facility in Randwick and a maintenance depot at Lilyfield.

The project location and layout is shown on **Figure 1**.

1.3 Subsequent Modifications

The project has been modified five times subsequent to the Minister's approval. The scope of these modifications is summarised in **Table 1**.

Table 1: Summary of Modifications

| Modification | Description of Modification |
|---|--|
| <i>MOD 1 approved 17 February 2015</i> | Changes to the project include: <ul style="list-style-type: none"> • increase in light rail passenger capacity, LRV size and platform length; • provision of wire-free infrastructure within the CBD; • amended design for the Grosvenor Street stop; • removal of a light rail stop at World Square; • amended design of the Moore Park stop; • realignment of the light rail and stops along Alison Road; • flood mitigation changes at Centennial Park; • realignment of the light rail at the Anzac Parade/Alison Road intersection; • revised construction methodology for the tunnel under Anzac Parade; • increased height of the Randwick stabling facility; and • relocation of substations. |
| <i>MOD 2 approved 17 March 2015</i> | Amendment to the definition of construction to enable some low impact works to commence ahead of pre-construction commitments being completed. |
| <i>MOD 3 approved 30 September 2015</i> | Minor amendment to condition B24 requiring preparation of property access plans to ensure that best endeavours are demonstrated to obtain landowner agreement. |
| <i>MOD 4 approved 18 April 2016</i> | Changes to the project include: <ul style="list-style-type: none"> • relocating the Randwick terminus from High Cross Park to the eastern end of High Street; • realigning the University of New South Wales High Street stop; and • consequential changes to the road network and access to properties off High Street. |
| <i>MOD 5 approved 3 June 2016</i> | Minor amendment to Condition B13 to allow construction of the Randwick Stabling Facility to commence after the proposed noise wall only had been constructed, rather than after all proposed operational noise mitigation had been installed. |



Figure 1: Project route (Source: TfNSW)

2. CURRENT MODIFICATION

2.1 Description of Proposed Modification

Transport for NSW (the Proponent) seeks to amend Condition B47 of the approval, which prohibits any impact to the two mature fig trees on the corner of Alison and Darley roads (**Figures 2, 3 and 4**). The trees are on the perimeter of the Centennial Parklands which have National, State and Local heritage significance. The Proponent seeks to change the wording of Condition B47 so canopy, root pruning and trimming work can be carried out on the two trees to enable the construction of the shared path and light rail infrastructure. Condition B47 of the approval states:

“The Proponent shall, to the greatest extent possible, minimise the removal of vegetation, including at Circular Quay, Moore Park and surrounds, Anzac Parade, Centennial Park and surrounds, Royal Randwick Racecourse (along Alison and Wansey Roads), High Cross Park, Arthur Street, High Street and within the UNSW lands. Where vegetation has been removed, reinstatement and supplement landscaping shall be undertaken in accordance with the Revegetation Compensation Package required by condition B52. The two mature fig trees located on Centennial

Park and Moore Park Trust lands at the end of the heritage listed perimeter fence on the corner of Alison Road and Darley Road shall not be impacted by the SSI.”

The Proponent proposes the following changes to the final sentence of Condition B47 in its modification application (in italics):

“The two mature fig trees located on Centennial Park and Moore Park Trust lands at the end of the heritage listed perimeter fence on the corner of Alison Road and Darley Road shall not be impacted by the SSI *unless identified in the Tree Report prepared for B48*”.

The Proponent considers that the proposed revised wording for Condition B47 would allow the two trees referenced in Condition B47 to be pruned in accordance with the recommendations of the Independent Arborist in the Tree Report required by Condition B48.

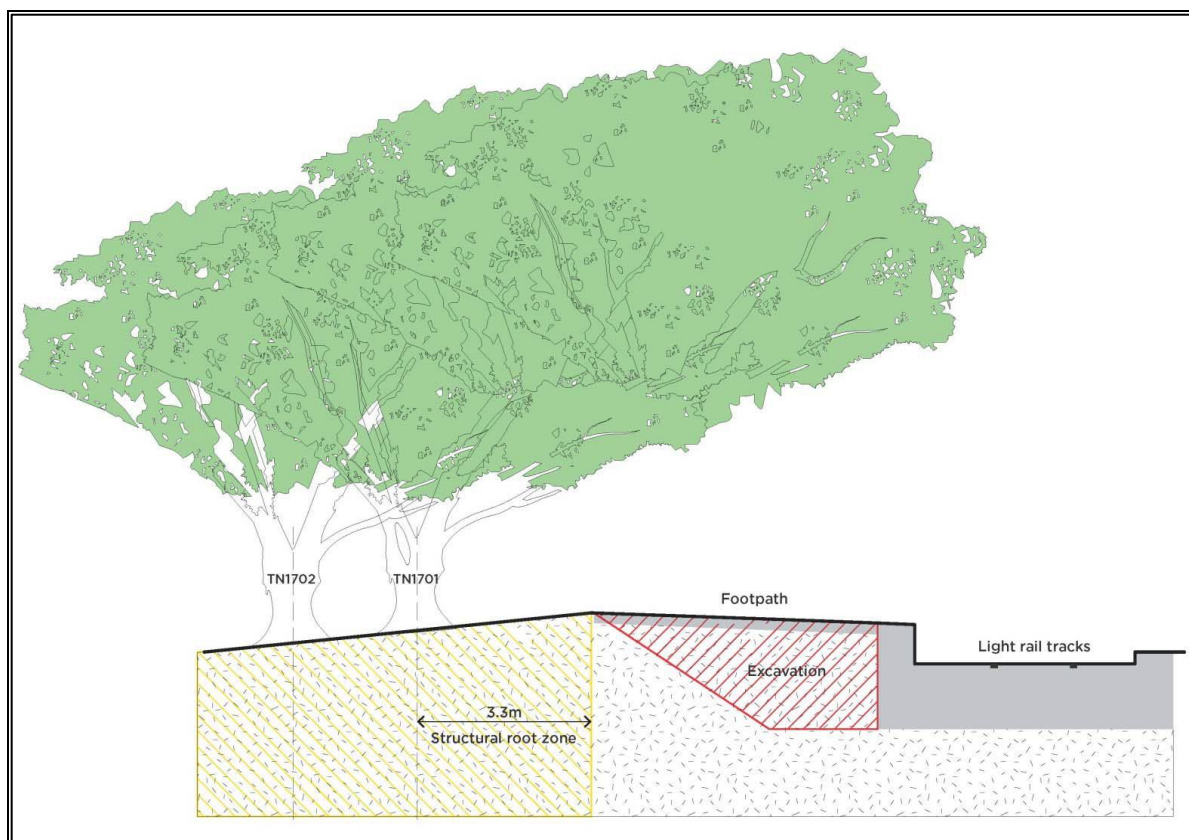


Figure 2: Cross section of the relationship between the structural root zones of the two trees and proposed track (Source: TfNSW 2016)

2.2 Justification and Options Considered

The Proponent has provided justification for the design modification and has reviewed the options described in the Modification Report. Pruning of the two trees is required to provide sufficient clearance for construction of the project, to ensure construction and operation programmes and safety requirements are met.

The trees are on the boundary of the Centennial Parklands

Five options were considered in the modification report, with the key consideration being protection and avoidance of crown or root pruning of the two trees. These options include:

- **Option 1** – the option described in Modification 1, which places the shared path perpendicular to Darley Road. This option was discounted on the basis that pedestrians and cyclists would be encouraged to cut the corner of a dangerous right turn toward the road crossing. Tree impacts would also be required to accommodate this design;

- **Option 2 (Figure 3, the Proponent's preference)** – which retains the approved track alignment with an adjustment to the shared cycle/pedestrian path (discussed in more detail in Chapter 5);
- **Option 3 (Figure 4, Centennial Park Moore Park Trust's preference)** – involves realignment of the tracks and shared user path to avoid disturbance of the two trees (discussed in more detail in Chapter 5);

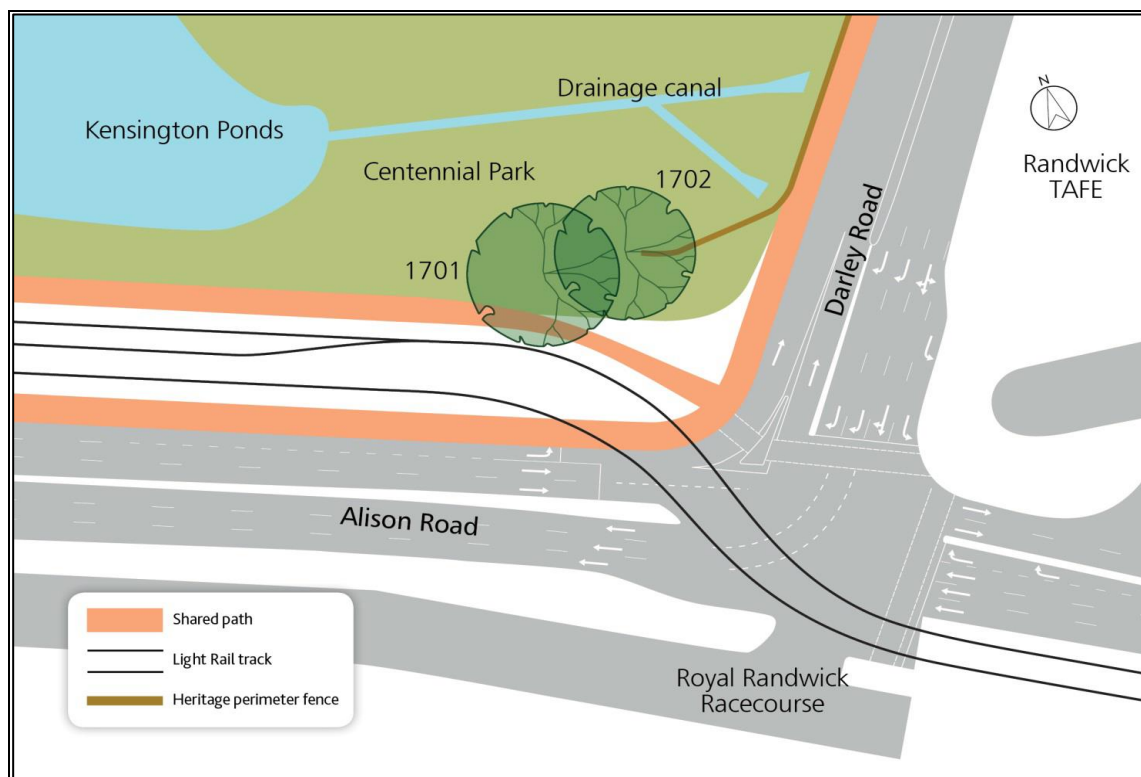


Figure 3: Option 2, the Proponent's preferred route for shared path and rail alignment, and relationship to the two trees (Source: TfNSW, 2016).

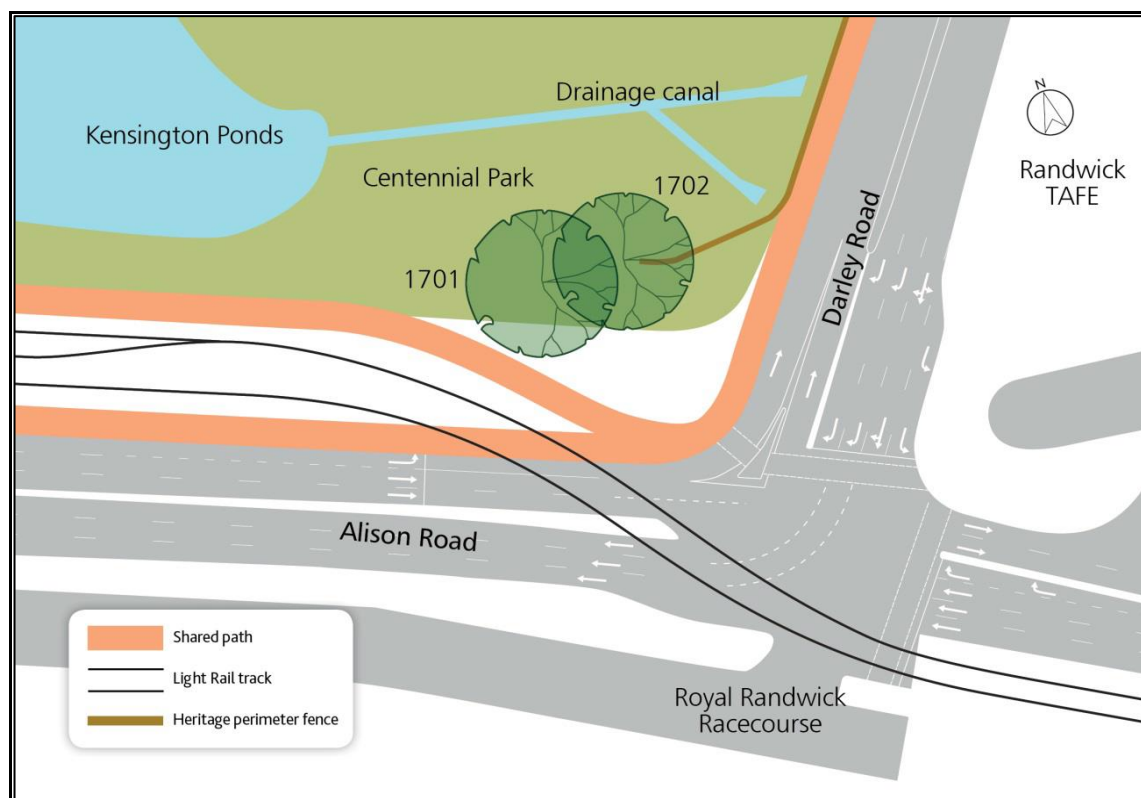


Figure 4: Option 3, avoiding any impact to the trees and the preferred option for the CPMPT (Source: TfNSW, 2016).

- **Option 4** – includes repositioning of the shared path north of the trees. This was discounted on the basis of ingress of the path into flood prone land and impacts to the State heritage listed perimeter fence. Path users would be encouraged to cross light rail tracks as a short-cut to the road crossing in this scenario. Minor trimming would still be required; and
- **Option 5** – considered changes to the track geometry and location of the third (turn back) track in order to increase the track distance to the trees. The changed track geometry would require a slower intersection approach due to the tighter curve, which would negatively impact intersection performance and would increase maintenance costs due to track wear and tear.

3. STATUTORY CONTEXT

3.1 Modification of the Minister's Approval

Pursuant to Section 115ZI of the *Environmental Planning and Assessment Act 1979* (EP&A Act), the Proponent is seeking formal approval from the Minister for Planning for the modification of SSI-6042 approval granted on 4 June 2014 and subsequently modified on 17 February 2015 (MOD 1); 17 March 2015 (MOD 2); 30 September 2015 (MOD 3); 18 April 2016 (MOD 4); and 3 June 2016 (MOD 5).

A Section 115ZI modification request is appropriate as the proposed modification is not consistent with the SSI approval, but does not represent a radical transformation of the project.

3.2 Delegated Authority

On 16 February 2015 the Minister for Planning delegated his powers and functions under Part 5.1 of the EP&A Act to senior executive officers in cases where:

- there are less than 25 public submissions in the nature of an objection;
- the relevant council has not made an objection; or
- a political donation disclosure statement has not been made.

This modification request received an objection from Randwick City Council, and therefore does not meet the terms of the above delegation. The modification must therefore be determined by the Minister for Planning.

4. CONSULTATION

4.1 Modification of the Minister's Approval

The Department made the CSELR Modification 6 proposal publicly available from 9 November 2016 on the Department's website, in accordance with Section 115ZL of the EP&A Act, and advised that submissions should be received by 23 November 2016.

Randwick City Council (Council), the Centennial Park and Moore Park Trust (CPMPT), the Environmental Defenders Office, and the local Member of Parliament were also notified that the modification request was available for review. The modification was not exhibited by any other means due to the minor nature of the proposed changes.

4.2 Submissions

Both CPMPT and Council made submissions which object to the proposed modification.

CPMPT considers the two trees to be fundamental to the landscape of Centennial Park and have State and potential National heritage value. CPMPT also disputed that the amount of proposed crown trimming would be restricted to 10% or less for each tree, and considers the tree would be at risk of failing if pruning were to proceed. CPMPT stated its preference for Option 3 of the Modification Report, which would avoid any pruning of the trees.

Council has advised that the pruning of 10% of the crown cover and root trimming of each tree would not adversely affect the health of the trees and is consistent with Council's tree preservation policy. However, it objects to the Proponent's proposed changes to Condition B47 which it considers provides insufficient protection from impact beyond the 10% tree crown proposed for removal. Council's concern is that the proposed modification may allow additional and subsequent tree work/removal without statutory approval.

The Department has considered these issues in its assessment of the proposal as provided in the following sections of the report.

5. ASSESSMENT

Options Assessment

In addition to protection of the trees, the options analysis in the Modification Report considers safety, adequate provision of cycling and pedestrian access, and intersection (vehicular and Light Rail) performance. The Modification Report identifies a number of site constraints at this location, including:

- the location of the existing shared pedestrian and cycle path adjacent to the road;
- proximity to waterways and areas prone to flooding;
- the potential need to realign the Alison Road and Darley Road intersection to accommodate the project; and
- the requirement for light rail vehicles to have a clear line of sight to signals.

Option 2 (**Figure 3**) was selected by the Proponent as the preferred option as it does not affect operational requirements, traffic phasing or road geometry and would result in minimal visual and heritage impacts over those already assessed and approved. This option would result in the trimming/pruning of no more than 10% of the trees' canopy and root zones, which is consistent with Council's tree preservation policy and recommended by the project's Independent Arborist. This recommendation is based on an arboricultural impact assessment that addresses amongst other matters the condition of individual trees and the tolerance of individual species to disturbance. The trees will remain viable and stable and the Department does not consider the extent of pruning will have a detrimental impact on the long term health of the trees. Accordingly, their associated values, including their contribution to the heritage value of the Centennial Parklands, will be retained.

CPMPT indicated its preference for Option 3 (**Figure 4**), which would shift the alignment of the rail track and shared cycle/pedestrian path six metres away from the tree canopy, largely avoiding the requirement for tree and root pruning. While avoiding impacts on the trees, the Proponent determined that this option would have greater impacts on other constraints compared with the other alignment options. Key impacts include disruption to Light Rail construction and operation, and traffic flow through the Alison and Darley Road intersection. Spatial constraints identified include:

- limited space around the Alison Road stop location to accommodate special event ancillary infrastructure (third track and track turnouts) at this stop;
- the location of the Alison Road pedestrian crossing from the Australian Turf Club Gate 1 to Centennial Park and public transport nodes; and
- the requirement to provide sufficient space for track turnouts to the Randwick Stabling facility.

Roads and Maritime Services (RMS) provided a submission that further quantified the traffic and safety constraints at this intersection. RMS found that the increase in the length of the Alison and Darley Road intersection, by up to 25 metres for Option 3, would cause further deterioration of the intersection's performance. RMS consider that the additional setback distance required to accommodate the changes would create further operational delays, increases in queuing lengths and congestion. Option 3 was also found to potentially increase the risks to pedestrians crossing the Darley Road slip lane as sight lines for pedestrians and motorists would be affected.

The Department considers that the Proponent's preferred option is supportable. While Option 2 would impact on the tree canopies, it is considered the best option for minimising construction and operational program impacts as well as to the performance of the Alison and Darley Road intersection. Notwithstanding, the Department considers restrictions are necessary to ensure the long term protection of the trees and has therefore recommended a modified condition that limits the pruning of the trees to a maximum of three metres clearance to the Light Rail overhead wires, and that pruning of the trees must:

- satisfy the requirements of *AS4373 (2007) Pruning of Amenity Trees*;
- be restricted to the minimum amount necessary and no more than 10 per cent of the pre-construction extent of the overhead canopy of each tree;
- not include root pruning of the structural root zone of each tree;
- be supervised by an Arborist; and
- be undertaken in conjunction with management and mitigation measures before, during and after pruning as recommended by the Independent Arborist and included in the Tree Report required by Condition B48.

The Department also agrees with the concerns raised by Council, which considers that the proposed wording of a modified Condition B47 may allow subsequent tree pruning and/or removal beyond the original 10% upper limit without statutory approval. To address this the Department has recommended removing the reference to the two trees in Condition B47 and inserting an additional condition permitting the initial pruning. This will ensure the long term protection of the trees when maintenance pruning during construction. This addresses Council's concerns with the possible future additional pruning beyond that sought in the modification.

With these measures in place the Department is satisfied the pruning of the two trees can facilitate construction and operation of the light rail project and ensure the ongoing health of these two significant trees.

Visual Impacts

The intent of the existing condition B47 is to protect the remaining trees in the Centennial Parklands interface from unnecessary removal and to limit further landscape change of the area beyond what has already been proposed and approved.

This condition was introduced following the Department's assessment of Modification 1 of the project approval, in acknowledgement that the local community, special interest groups, local governments and other submitters who raised significant opposition to the removal of trees along Alison Road.

While the proposed activities constitute an impact to the two trees, the Department is satisfied that the proposed trimming and pruning activities (as described in the Independent Arborists Tree Report) are minor and would not result in further or cumulative impact to the landscape change of the Centennial Parklands interface area.

6. CONCLUSION AND RECOMMENDATIONS

The Department accepts that the construction and operational constraints of the project require pruning and trimming of the two figs at the intersection of Alison and Darley Roads and that the preferred option of the Proponent is the most appropriate option.

With the recommended conditions that restrict the extent of pruning of the two trees, the Department is satisfied that the health of the trees will be maintained and visual impacts of the pruning would be minor.

The Department considers that the residual impacts of the modification can be managed with existing and amended conditions of approval, management and mitigation measures. The proposed changes would comply with the objects of the *Environmental Planning and Assessment Act 1979* and the principles of Ecologically Sustainable Development.

 20/2/17
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Director
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20/02/2017

APPENDIX A MODIFICATION REQUEST

See the Department's website at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8007

APPENDIX B SUBMISSIONS

See the Department's website at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8007

APPENDIX C FURTHER INFORMATION

See the Department's website at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8007

APPENDIX D RECOMMENDED MODIFYING INSTRUMENT
