

10. CULTURAL AND HERITAGE

10.1 Potential Sources of Impact

The heritage resources within Tin Shui Wai area will potentially be impacted by activities associated with the construction, permanent landtake and operation of West Rail, whereas the EPIW construction works will be distant.

Both temporary and permanent landtake may result in damage to, or loss of, archaeological remains and deposits, the removal of historic buildings, standing archaeological monuments and to the physical coherence of historic landscapes. These potential impacts have been addressed by the West Rail Final Assessment Report. Of most significance to the Pagoda are severance and “islanding”, visual and noise and vibration impacts.

Severance and “islanding” may result from permanent landtake required for the West Rail alignment and associated permanent features and from temporary landtake required during construction to accommodate haul roads and construction sites. Areas of historic and cultural interest may be severed, thereby altering or destroying their integrity.

Ground compaction due to construction activities or the weight of permanent embankments may cause damage or distortion to buried archaeological remains, especially in soft alluvial deposits.

Visual and noise intrusion on the setting and amenity of historic and cultural resources may occur where the route passes close to historic buildings, gravesites, archaeological sites and monuments and culturally or historically significant landscape features.

However, given that the West Rail alignment and station are closer to the Pagoda, the mitigation measures being implemented will be sufficient for the EPIW's construction works.

10.2 Prediction and Evaluation of Impacts

No buildings or structures of known historical interest are to be directly impacted by the EPIWs.

During the construction phase, the adjacent works will include site clearance, limited foundation construction using non-percussive piling techniques and superstructure construction but mostly at-grade highway preparation works. With limited scope for heavy vibratory plant in at-grade highway works, the distance separation between these works and the Pagoda, no impacts are likely during the construction phase. However, given the sensitivity and heritage importance of this structure, a condition survey is being undertaken as part of the West Rail works and sample vibration monitoring will be undertaken by the Contractor during site operations. A vibration limit of 2 mm/s peak particle velocity has been applied to all construction related activities and should be included in the Particular Specification for EPIWs.

Since the EPIW's construction activities are likely to be concurrent with West Rail works, the monitoring will ensure no continued exceedance of this threshold limit.

10.3 Recommended Mitigation

Vibration monitoring and adherence to a threshold limit of unacceptability is recommended to protect the structure during the construction phase for all works within 75 m of the Pagoda.

10.4 Residual Impacts

With the implementation of the recommended vibration monitoring to ensure that the levels of vibration associated with the construction phase do not exceed the threshold limit, it is not anticipated that there will be any adverse residual impacts to cultural or heritage resources from either the construction or operation of the EPIWs.

10.5 Conclusions

No temporary or permanent impacts will be likely to the Tsui Shing Lau Pagoda as a result of the Tin Shui Wai EPIW. No other archaeological or cultural resources are known or likely to be impacted by the EPIWs.

Table 10.4a Summary of Recommended Mitigation Measures During Construction and Operation of the Project

Phase	Recommended Mitigation Measures
Construction Phase	Precondition survey of the Pagoda structure. Vibration monitoring during construction works and no exceedance of a 2 mm/s peak particle velocity criteria within the Pagoda Structure.
Operational Phase	None required.