



## Online HIRA Tool

### Case Study

#### Making it easy to run a HIRA workshop and identify risks to vulnerable road users

As part of the effort to ensure active transport users are kept safe during construction periods, a route selection tool has been developed to help construction companies determine the choice of route that provides the safest outcomes to vulnerable road users ('VRUs').

The Human Impact Route Assessment ('HIRA') tool was developed by the Construction Trucks and Community Safety project route selection working group, including members from VicRoads and Aurecon who were part of the Metro Rail joint venture partnership.

The HIRA tool can be used by construction companies undertaking projects involving significant heavy vehicle movements to ensure their trucks are travelling on the safest routes, limiting interactions with pedestrians, bicycle riders and motorcyclists, or introducing suitable countermeasures to make particular locations safer.

The HIRA tool, along with an instructional video, is now accessible online through the [VicRoads website](#).

#### The issue/ risk identified

Construction trucks often share road space and interact with other road users, including VRUs. With the increase of interaction between trucks and VRUs, there is an increase in the risk of collision between bicycle riders and pedestrians. Due to the sheer difference of weight and mass between the two, collisions often result in serious injury or fatality for the VRU.

Ultimately, the online HIRA tool is designed to enable key stakeholders to collaboratively determine the safest routes for construction trucks by reducing or minimising interactions with VRUs.

## Delivery approach

The HIRA tool invites the careful consideration and planning of the routes undertaken by construction trucks to minimise disruption and maintain community safety.

The HIRA tool is delivered in several key stages. Firstly, the client or contractor arranges a HIRA workshop with relevant stakeholders. The key destinations, along with 2-3 routes are identified prior to the workshop. At the workshop, attendees deliberate each of the routes, using the online HIRA tool to encourage discussion about the safety of each of the routes being considered. Each route is then scored against 11 elements.

The HIRA tool was initially developed as an Excel spreadsheet resource but was more recently adapted to an online tool, both are accessible through the VicRoads website. The tool sits alongside an instructional video, which clearly explains how users can access and use the tool to design safe routes.

## Stakeholder consultation undertaken to development/implement the initiative

This initiative arose from a Construction Truck and Community Safety project, whereby various internal and external stakeholders contributed to the design and implementation of the HIRA tool, including its adaption to an online version.

Following the implementation of the online HIRA tool, stakeholder consultation has occurred to ensure users of the tool are satisfied with its functionality and usability. Representatives from construction company McConnell Dowell shared their experience in using the tool to determine the appropriate routes for several of their key projects. They confirmed that the online tool was user-friendly, even for those without dedicated experience in route management. The HIRA tool is particularly beneficial for projects where there are many possible route choices, prompting consideration of the safest route with the least possible interaction with VRUs.

They recognise the value in using this tool collaboratively in larger teams as an exercise to discuss and deliberate the safety of various truck routes. The HIRA tool is particularly beneficial for those who are less experienced in route management, as it directs the focus of the discussion to the safety of VRUs.

## Key challenges and how they were addressed

Without the use of a HIRA tool or similar tool, construction companies may not fully consider all the risks to VRUs along their proposed truck routes. Through the HIRA tool, construction company representatives and relevant stakeholders are prompted to identify risks and provide a proof of a risk assessment.

The previous iteration of the HIRA tool comprised of an Excel spreadsheet. To encourage greater use and easier accessibility, the tool was adapted to an online version. This overcame previous barriers to collaboration through allowing for a real-time collaborative experience. The online tool allows users to retain their assessment in a format that can be reloaded into the online format whenever required, for easy review and future adjustments, provided that they save their inputs to a CSV file prior to closing the browser. A PDF of the final report can also be extracted and printed as a downloaded file prior to closing the browser.

### On Street Risks

- Road Type and Function
- Left Hand Turns
- Active Transport
- On Route Holding/Staging Areas
- On Route Bus Stops
- On Route Tram Stops

### Off Street Predictors

- Hospitals and Emergency Services Access
- Childcare, Schools, Other Educational Institutions
- Retail and Entertainment Precinct
- Sporting and Recreational Facilities
- Railway Stations

Figure 1. Route elements that are assessed



## Resources

The VicRoads website provides the link to the online HIRA tool in addition to other relevant resources:

- Construction Trucks and Community Safety webpage
- HIRA web-based tool workshop facilitator's overview [PDF 994 Kb]
- HIRA web-based tool (External link)
- HIRA tool printable version [PDF 375 Kb]
- Excel HIRA tool spreadsheet instructions [PDF 607 Kb]
- Excel HIRA tool spreadsheet [XLSX 20 Kb]

## Project summary

The HIRA tool and workshop process are designed with the safety of VRUs at the forefront of the heavy vehicle route selection process.

The tool supports and promotes the collaborative decision making between construction companies working with key stakeholders. This includes enabling local and state government authorities to identify and select safe truck routes during the construction of major projects. Through discussing and rating the various routes available, these representatives are actively considering the impacts of routes on VRU safety.

The broader implications of the increased use of the HIRA tool by construction companies is far-reaching. The increased accessibility of the HIRA tool through its online presence will help construction companies to utilise the tool and thereby proactively consider the safety of VRUs during their route selection process.