Sunshine Coast private hospital bus turnaround

Client: TransLink
Design Fee: $120,000
Construction Cost: @$1M

An example of a risk management approach to design, concept to completion

Marie Gales
Introduction

- Larger buses on the route servicing Sunshine Coast Private Hospital
- Stop blacklisted and operations stopped
- Nearest location to drop off passengers 600 metres away
- Need to address unacceptable level of service and pedestrian safety
- Need to improve safety of bus operation
Project Objectives

- Reconfigure the bus stop approach by providing a wider turning area for the buses, so that they had a simplified approach to the bus stop

- Reconfigure the access road to the car park area to provide sufficient width for a bus to travel safety into the car park area, and to improve sight lines to reduce the likelihood of conflict between buses and oncoming vehicles
The original scope
Stakeholders

Direct Involvement:
- TransLink
- Bus company
- Bus drivers union
- The hospital
- TMR

Secondary Involvement:
- Sunshine Coast Regional Council
- The hospitals architect
Understand the problem – on the bus
Understand the needs

Bus turn template

Bus turn trial
Define New Project Objective

Provide improved bus facilities, whilst maintaining or improving the level of provision and safety of pedestrians and other users in the area.
Define Project Constraints

- No loss of parking
- No impacts on surrounding council roads
- No change to the access/exit point
- Maintain access to underground loading area
- Retention of disabled parking spaces
- No impacts on the protected fauna habitat
Define User Groups

- Pedestrians, staff (regular users)
- Pedestrians, visitors (occasional/new users)
- Drivers, regular
- Drivers, occasional/new
- Bus Drivers, professional driver
- Delivery Drivers, professional driver
Central island car parking area:

- No loss of car parking
- Maintenance of access arrangements
- Maintain access to underground loading area
- Retention of disabled parking spaces
Develop Options – an example

- Redefine the objectives capture constraints
- Identify user groups
- Identify a traffic management measure that contributes to the objectives
- Develop measure within project constraints
- Assess the impacts of the measure against each other user group in turn
  - Is the measure acceptable to all other user groups?
    - Improvement or no change
    - Accept measure into the project
  - worsening
    - Can the measure be improved and reconsidered?
      - Yes
        - Drive Through Parking
      - No
        - Discard measure and seek alternative
        - Angled Parking
        - 90 Degree Parking
Refinement – an example

Angled Parking

Drive through issues could be avoided by the introduction of bump kerbs

Ensure lighting was adequate

Provide upgraded disabled parking
Revised Scope

- **Realignment of the kerb lines and additional road pavement on the approach to the bus stop** (approximately 10 times the area originally scoped)
- **Relocation of 2 light poles**, installation of 2 additional light poles
- **Re-alignment of the footpath**
- **Realignment and widening of hospital access road**
- Construction of a bus boarder platform
- Reconfiguration of existing car parking
- Incorporation of additional replacement parking
- Upgrade of disabled car parking spaces
- Bus friendly humps
- Shared space signage
- Improved signage along the bus route within the hospital
- Advance warning signs on Elsa Wilson Drive.
- Reconfigured stormwater drainage
The Bus Turnaround Area

- Disabled parking bays
- Reconfigured car parking
- One way system
- New parking bays
- Realigned kerbs and new pavement
- Bus stop and boarding area
- Hospital reception entrance
- Realigned footpath
The Access Road

- Realigned kerbs and new pavement and trees cleared for visibility
- Shared space signage
- Bus friendly hump
Key Challenges

- Multiple stakeholders
- Advocating for all users
- Convincing people that a non-standard approach could work
- Convincing the client and end user of the need of the physical extents of the works
- Lack of existing information eg stormwater network
- Getting the Drivers Union to sign off the new stop to allow services to start running again
Key Successes

A DDA compliant bus stop

A more legible environment for all users
Key Successes

Improved access alignment, visibility and speed control

A facility that has operated successfully for 18 months
Learnings

- Inclusive process
- Time intensive
- An experienced engineer essential
- Documentation is king
- Challenge the standards
- Encourage innovation
- Learning and development opportunity
Vision Action Results – A personal take

| My Vision:             | Small improvements can make a big impact  
|                       | Engineers can approach design in this way to produce cost effective safe solutions |
| My Action:            | Apply these principles to all projects, where appropriate  
|                       | Develop young engineers to understand the principles through project involvement and mentoring |
| My Results:           | Make real improvements through projects and leave a legacy of capability |

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Questions?