

*Introducing.....*  
*Regional Sustainability Co-operative*





## *Introducing.....* *Regional Sustainability Co-operative*

### What is it about?



*Examples of well designed furniture manufactured in metropolitan areas.*



### Genesis of an Idea

Regional Councils across New South Wales procure and maintain large quantities of street furniture for use in parks and town centres. This furniture includes seats, litterbins, table settings, shelters, bollards and lighting. Much of this furniture is purchased from specialist manufacturers operating out of large metropolitan centres. Tens to hundreds of thousands of dollars each year is spent by Councils in regional areas on street furniture – *this is effectively money leaking out of regional New South Wales!*

*Is there a way of keeping this money in regional New South Wales by employing local people and using locally available materials?*

A street furniture suite for regional areas – important objectives

To ensure that street furniture can be manufactured by local people in even the smallest regional centres, the materials chosen should be readily available. The furniture design needs to be simple and able to be fabricated without complex processes and infrastructure.

The two basic materials selected to fit this purpose are Duragal Steel and Australian hardwood, both in standard sections that can be sourced virtually anywhere. Stainless steel for frontline coastal environments and precast concrete are also options. Hot dip galvanised steel is also an option but realistically only for centres in reasonably close proximity to a hot dip galvanising facility. Even all the fixings specified in this street furniture suite can be readily sourced. You will find that your local hardware supplier will be able to provide many, if not all the fixing items required.

## Sustainability credentials

From a sustainability perspective this initiative presents a number of distinct advantages over conventional practice associated with street furniture procurement.

*The materials* - Australian hardwood is a renewable material produced regionally through sustainable forestry practices. Duragal Steel is manufactured in eastern Australia.

*Transport costs* - Making the furniture locally will reduce energy and costs associated with transport.

*Employing local people* – this will help keep regional communities viable.

## Visual Appearance is Not Compromised

The visual appearance and durability of the furniture need not be compromised. All timber specified in seats and table settings is large sectioned dressed kiln dried Australia hardwood which is concealed fixed (not visible on contact surfaces) to the frames and treated simply with two coats of Tung Oil. The use and treatment of this material in this manner will maximise strength, durability, comfort and visual attractiveness. The frames for the furniture are made from rectangular hollow sectioned Duragal which can be readily corrosion treated and painted after fabrication. With good fabrication and paint application practices this is also a very durable and attractive material.

## Maintenance and Vandal Resistance

All furniture has been designed with ongoing maintenance in mind. In most instances the only likely ongoing maintenance is the reapplication of Tung Oil every two or so years.

Vandal resistance has also been considered. Concealed security head fixings minimise the risk of theft. If timber is vandalised, individual standard sized sections can be readily removed and replaced.



*A locally designed and fabricated seat in Laurieton NSW.*

## Making it Individual – Making it Yours

There is plenty of scope to individualise street furniture to reflect individual places and applications. There are eighteen (18) individual furniture items in this suite and many more combinations thereof - this offers a large degree of flexibility.

Frames can be painted to be consistent with themed colour palettes developed for individual towns. The backrests of timber seats and the plinths of precast concrete seats can be used to carve, mount or grit blast public art and/or heritage interpretation works.

## Costs

Well designed and manufactured street furniture from metropolitan centres comes at considerable costs. Transport costs from metropolitan to regional centres are also substantial. It has been estimated that street furniture detailed in this street furniture suite will cost significantly less both in terms of manufacture and transport costs. More importantly, the money spent will stay in town!!

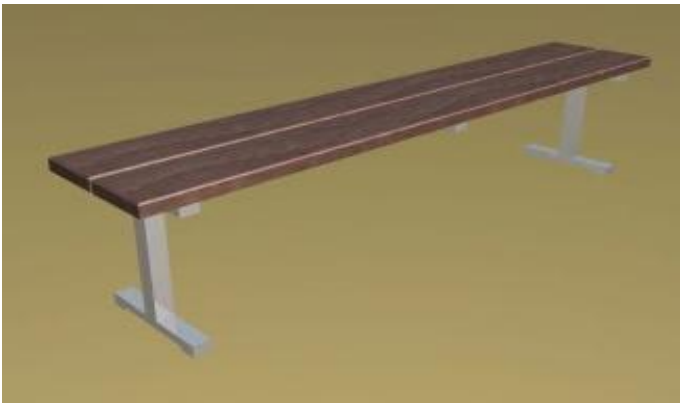
*The Furniture.....Individual and Combined Items*



Timber Seat with Backrest (TSB)



Timber Bench Seat (TSBA)



Timber Bench Seat (TBS)



Wheelchair Accessible Timber Table (WTT)



Table Setting Type 1 (TBS + WTT + TBS)

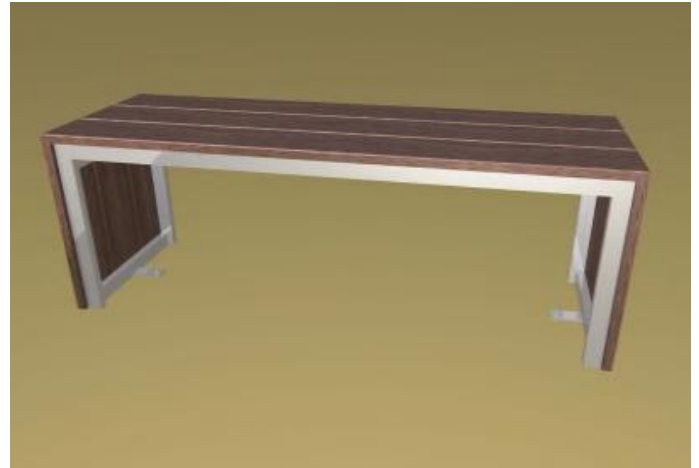


Folded Timber Bench Seat (FTB)

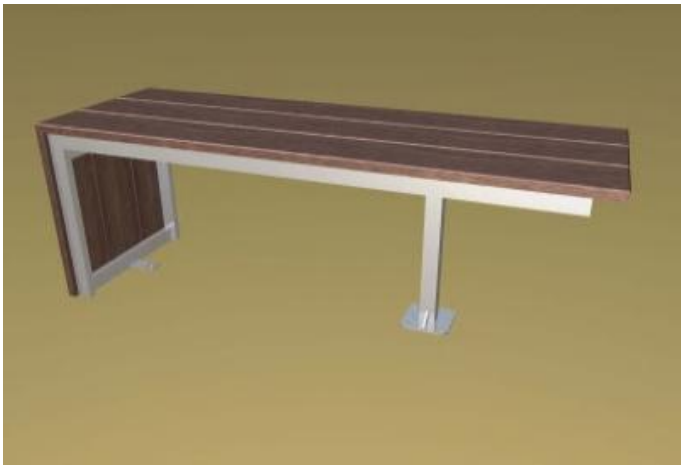
*The Furniture.....Individual and Combined Items*



Folded Timber Bench Seat with Backrest (FTBB)



Folded Timber Table (FTT)



Wheelchair Accessible Folded Timber Table (WFTT)

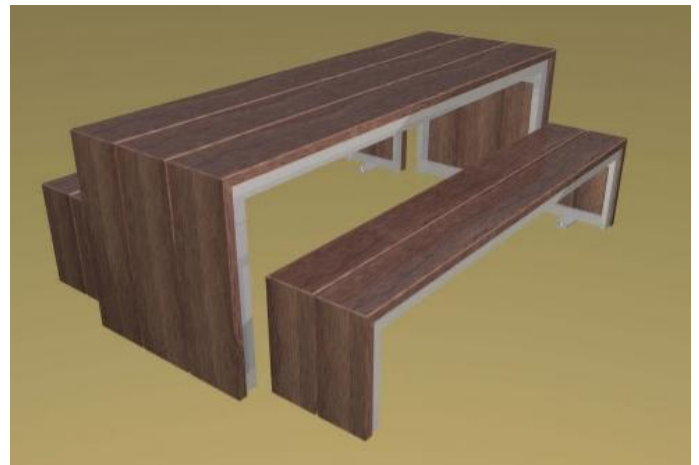


Table Setting Type 3 (FTB + FTT + FTB)

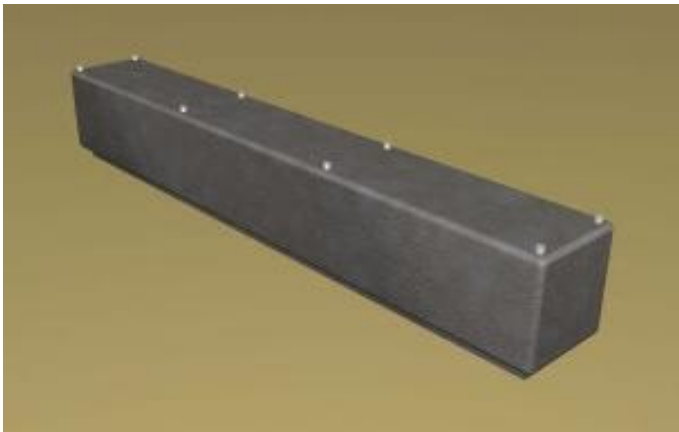


Table Setting Type 4 (FTB + WFTT + FTB)

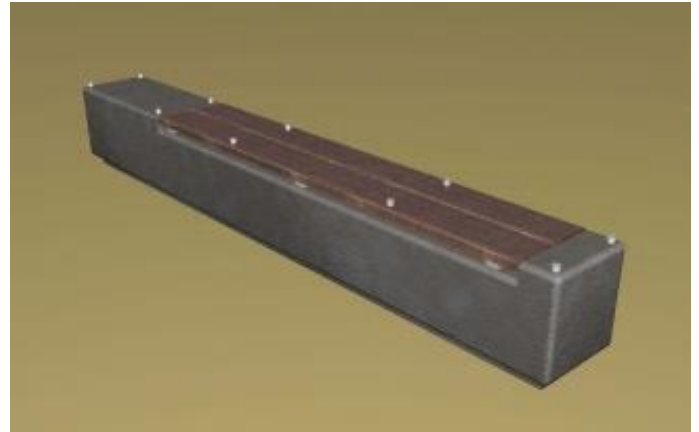


Table Setting Type 5 (FTBB + WFTT + FTB)

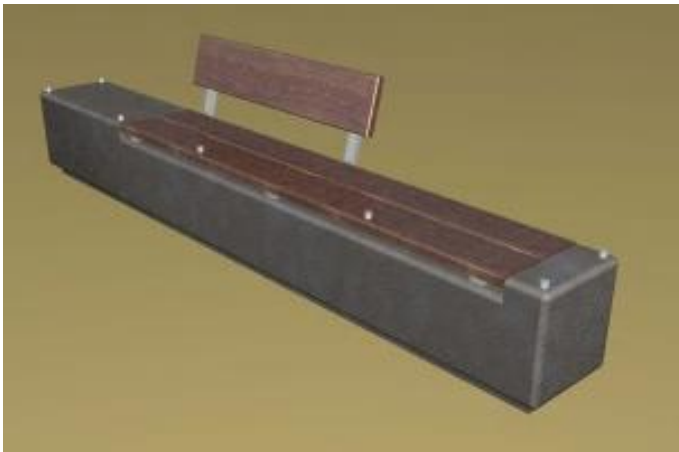
*The Furniture.....Individual and Combined Items*



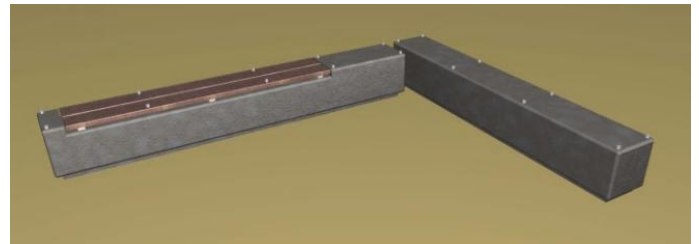
Precast Concrete Bench Seat (PCB)



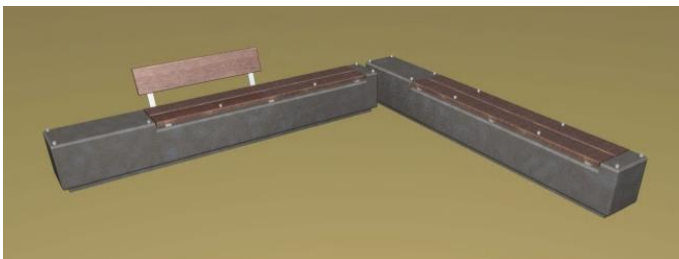
Precast Concrete and Timber Bench Seat (PCTB)



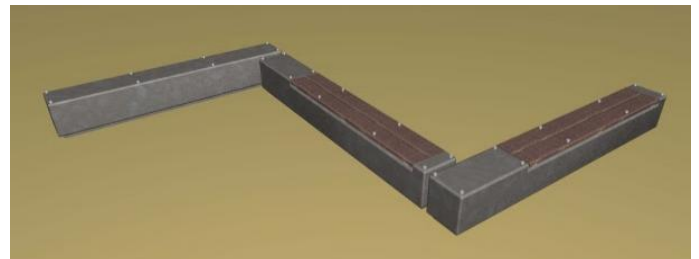
Precast Concrete and Timber Bench Seat with Backrest (PCTBB)



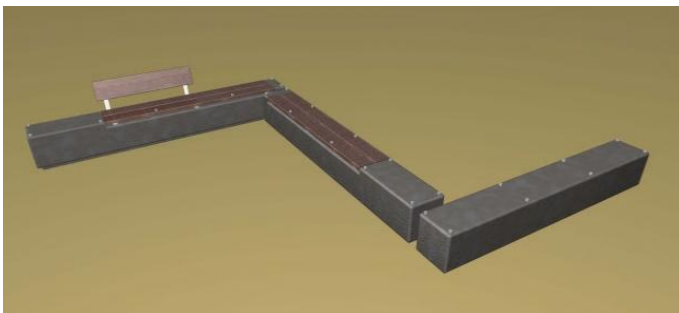
Combined Precast Example 1 (PCTB + PCB)



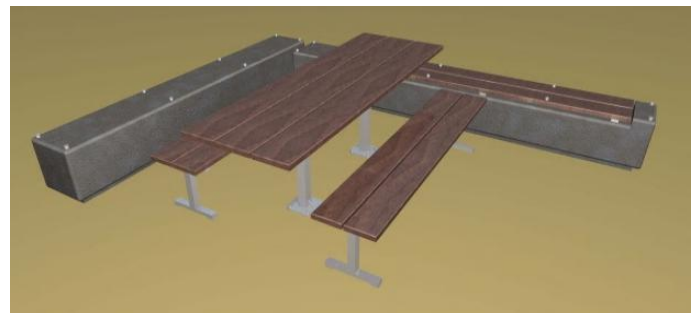
Combined Precast Example 2 (PCTBB + PCTB)



Combined Precast Example 3 (PCB + PCTB + PCTB)



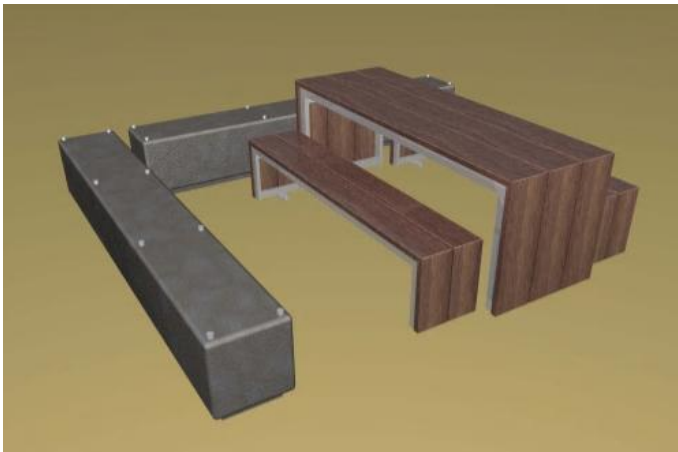
Combined Precast Example 4 (PCTBB + PCTB + PCB)



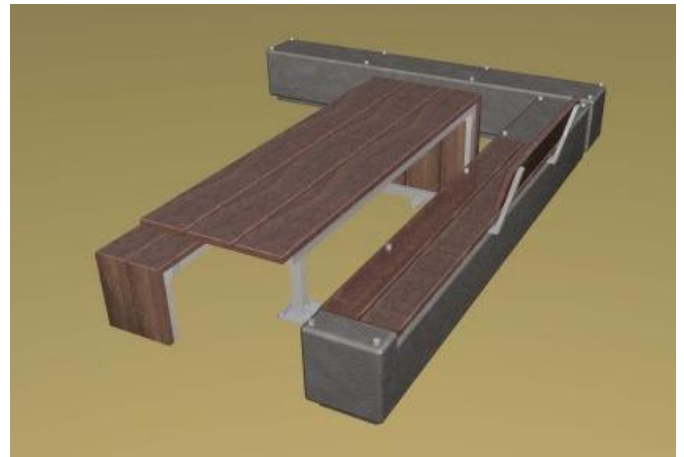
Combined Precast & Table Setting Example 1 (PCB + PCTB + TBS + WTT + TBS)



*The Furniture.....Individual and Combined Items*



Combined Precast & Table Setting Example 2  
(PCB + PCB + FTB + FTT + FTB)



Combined Precast & Table Setting Example 3  
(PCB + PCTBB + FTB + WFTT)



240L Wheelie Bin Enclosure (240B)



120L Wheelie Bin Enclosure (120B)



240L Recyclable Wheelie Bin Enclosure Suite (240BS)



Square Bin Enclosure (SB)

*The Furniture.....Individual and Combined Items*



Bollard Luminaire (BL)



Timber Bollard Type 1 (TB1)



Timber Bollard Type 2 (TB2)



Steel Bollard (SB)



Precast Concrete Bollard – Fluted (PB)

# Sample of Furniture Item Working Drawing Sheet

The drawing sheet includes the following components:

- SECTION 1.00:** A side-view technical drawing of the bench backrest and seat assembly, showing dimensions and material callouts.
- ELEVATION 1.20:** A front-view technical drawing of the bench, showing overall dimensions and component placement.
- PLAN 1.20:** A top-view technical drawing of the bench, showing the layout of the seat and backrest.
- DETAIL 1.3:** A close-up technical drawing of a specific joint or connection point.
- PHOTOGRAPHS:** Two photographs showing the physical bench: one from a side angle and one from a front perspective.
- SPECIFICATIONS:** A text block containing material and construction requirements, such as:
  - SEAT - ALL SEATING SURFACES TO BE MANUFACTURED FROM... (text partially obscured)
  - BACKREST - ALL SEATING SURFACES TO BE MANUFACTURED FROM... (text partially obscured)
  - WOOD - ALL TIMBER IS TO BE LOCAL... (text partially obscured)
  - FINISH - ALL FINISHES TO BE... (text partially obscured)
- Technical Notes:** A list of notes on the right side of the drawing, such as:
  - 1. ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN MILLIMETERS.
  - 2. FINISHES TO BE AS SPECIFIED IN THE DRAWING.
  - 3. ALL MATERIALS TO BE SUPPLIED BY THE CONTRACTOR.
  - 4. ALL MATERIALS TO BE LOCAL AND APPROVED BY THE CONTRACTOR.
  - 5. ALL FINISHES TO BE APPROVED BY THE CONTRACTOR.
- Project Information:** A table at the bottom containing project details:
 

PROJECT NAME	WOODEN BENCH WITH BACKREST (SEE)
CLIENT	REGIONAL SUSTAINABILITY CO-OPERATIVE
DATE	2014
SCALE	1:10
DRAWN BY	...
CHECKED BY	...
DATE	...
- Logos:** The 'KING + CAMPBELL' logo is present in the bottom left and bottom right corners.

A sample page from the Regional Sustainability Co-Operative Construction Documentation Set

Each Street Furniture item is documented on individual A3 sheets identifying all materials and technical details for construction.

## *How it Works – a Co-operative Arrangement*

The successful implementation of this sustainability initiative is reliant upon the establishment of a cooperative venture between local government areas (through individual Councils) and King and Campbell.

King and Campbell have invested considerable time and energy in developing this idea into a set of fully detailed construction drawings for eighteen (18) individual furniture items. King and Campbell are seeking to enter into contracts with individual Councils to enable initial implementation and secure funding for ongoing research and development to sustain and expand implementation into the future.

To facilitate this initiative the following arrangement is offered to individual Councils:

- For a set fee King and Campbell will forward a full set of construction documents (in pdf format) to Council for their use for a period of three (3) years. The set fee will vary for each Council depending on the size (population) of the local government area. The larger the population of the local government area the larger the set fee. Over time it is expected that the documentation package will be refined and additional furniture items added. The set fee may rise accordingly. A fee quotation can be provided by King and Campbell upon request.
- King and Campbell retain design copyright of all material. Council shall agree not to release any part of the construction document set to any other party.
- Council shall be responsible for the production and review of prototype furniture from the construction document set provided.
- Council will endeavour to communicate back to King and Campbell any feedback relating to the furniture design, including suggested improvements.
- Councils in contract with King and Campbell can contact King and Campbell at any time to clarify details relating to the construction documents, including potential adjustments.
- King and Campbell can provide project specific advice and generate project specific street furniture details for an agreed fee, in addition to the set fee.
- King and Campbell will update its construction drawing set on a (minimum) annual basis, including introducing new furniture items and any updates of existing furniture detailing. The updated construction documentation set will be forwarded to all Councils in contract with King and Campbell following a revision.
- At the conclusion of the three (3) year period individual Councils may choose to renew their arrangement with King and Campbell for a further three (3) years for a fee of one half of the original set fee plus adjustment for CPI. After six (6) years the whole arrangement will be reviewed.



Examples of Street Furniture previously designed by King and Campbell.



## About King and Campbell

King and Campbell are a long established Port Macquarie based multi-disciplinary firm who have extensive experience in a wide range of urban and open space design and planning projects. We have particular expertise in town centre design, which has included street furniture design. Most importantly we are regionally based, we do almost all of our work in regional New South Wales and we care about the future of regional New South Wales.

If you would like to know more about King and Campbell please visit our website – [www.kingcampbell.com.au](http://www.kingcampbell.com.au)

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