

# Landscaping and BIM

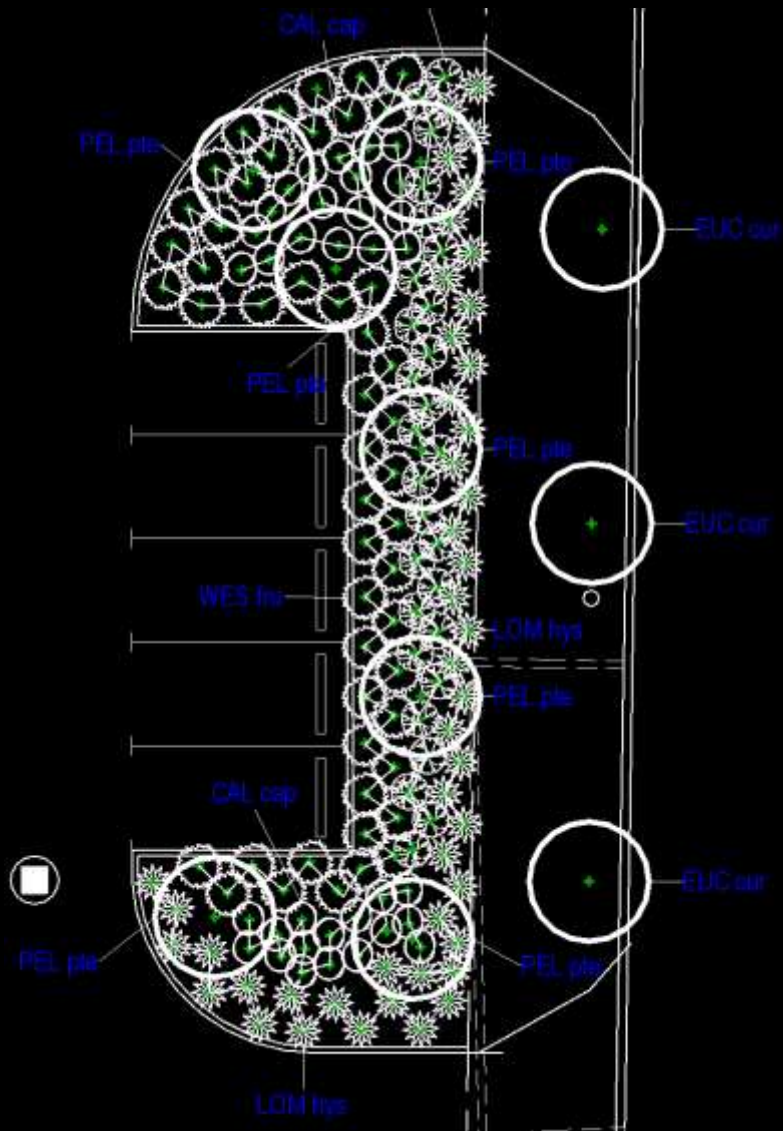
WULKURAKA ROLLINGSTOCK MAINTENANCE CENTRE

**MODE**

MANNER METHOD FORM

mode

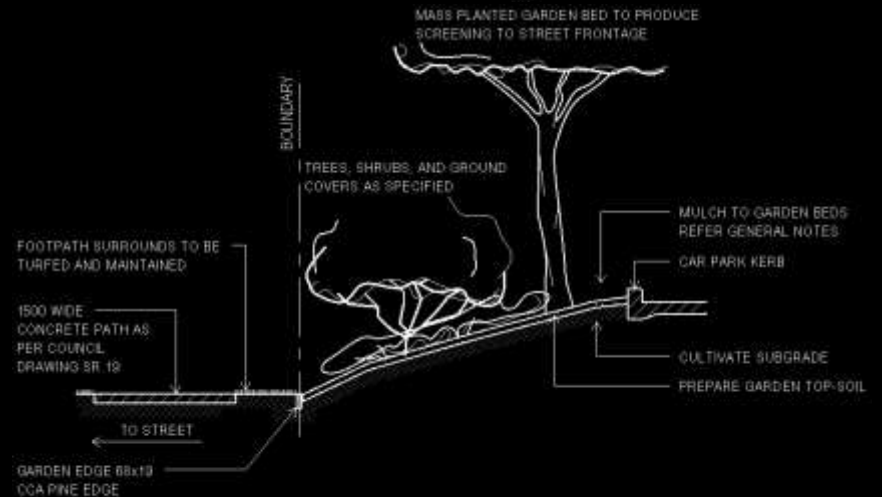
# THE BENEFITS...



Planting Schedule				
Code	Botanical Name	Count	Pot Size	Height (mm)
Tree				
EUC cur	Eucalyptus Curtisii	5	0	0
MEL bro	Melaleuca Broadleaf	6	25L	1200
PEL pte	Peltophorum Pterocarpum	7	200	500
WAT flo	Waterhousia Floribunda	7	45L	1300

Shrub				
CAL cap	Calistemon 'Captain Cook'	63	200	250
CAL pac	Calistemon Pachyphyllus	28	200	250
LOM hys	Lomandra Hysterix	86	140	300
WES fru	Westringia Fruticosa	95	200	200

297



Landscaped Section to Street

(A1) 1:50

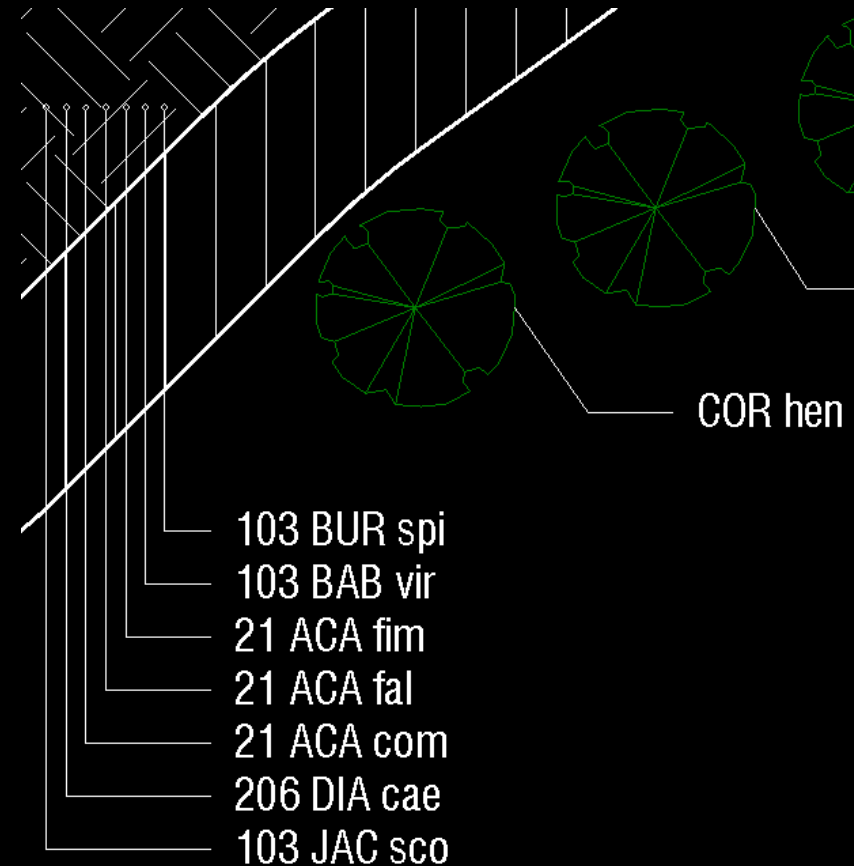
- Ease of Counting and speed of updating.



## THE Difficulties...

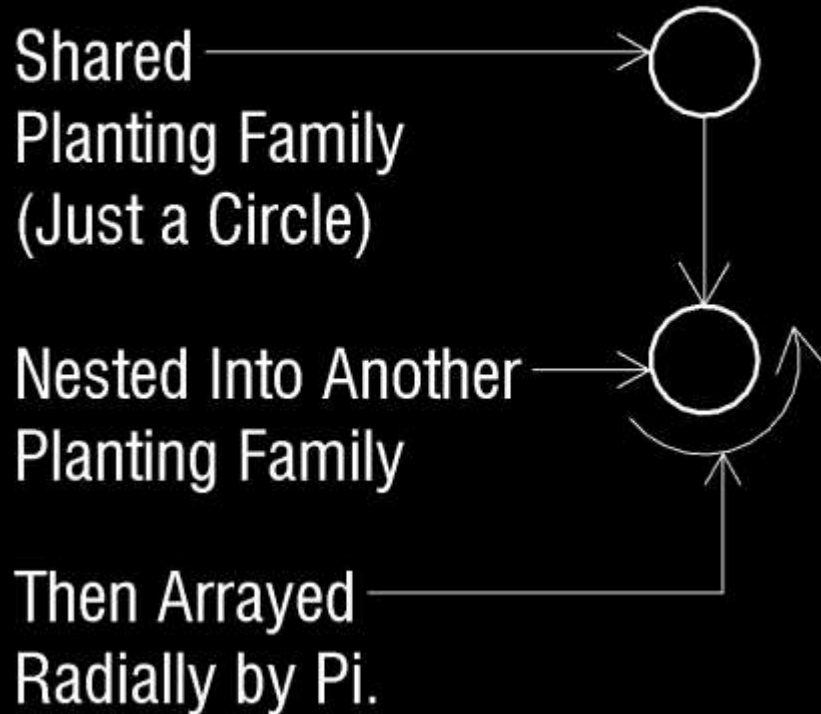
JUN acu	JUNCUS acutus	323	Tubestock
JUN kra	JUNCUS kraussi	323	Tubestock
CAR fas	CAREX fascicularis	92	Tubestock
CRI ped	CRINUM pedunculatum	92	Tubestock
FIC nod	FICINIA nodosa	184	Tubestock
JUN acu	JUNCUS acutus	92	Tubestock
JUN kra	JUNCUS kraussi	184	Tubestock
LOM hys	LOMANDRA hystrix	184	Tubestock
PHI lan	PHILYDRUM lanugines	92	Tubestock
CAR acu	CAREX acuta	398	Tubestock
FIC nod	FICINIA nodosa	398	Tubestock
JUN acu	JUNCUS acutus	398	Tubestock
JUN kra	JUNCUS kraussi	398	Tubestock
ACA com	ACACIA complanata	250	Tubestock
ACA fal	ACACIA falcata	250	Tubestock
ACA fim	ACACIA fimbriata	250	Tubestock
BAB vir	BABINGTONIA virgata	1252	Tubestock
BUR spi	BURSARIA spinosa	1252	Tubestock
CAL vim	CALLISTEMON viminalis	1252	Tubestock
DAV vil	DAVIESIA villifera	1252	Tubestock
DIA cae	DIANELLA caerulea	1252	Tubestock
ERE deb	EREMOPHILA debile	1252	Tubestock
EUS lat	EUSTREPHUS latifolius	2504	Tubestock
FIC cor	FICUS coronata	250	Tubestock
GAH asp	GAHNIA aspera	1252	Tubestock
GEI cym	GEITONOPLESIMUM cymosum	2504	Tubestock
HAR vio	HARDENBERGIA violacea	2504	Tubestock
JAC sco	JACKSONIA scoparia	1252	Tubestock
LOM hys	LOMANDRA hystrix	1252	Tubestock
PAR str	PARSONIA straminea	1252	200mm
PUL vil	PULTENAEA villosa	1252	Tubestock
THE tri	THEMEDA triandra	2504	Tubestock

67063

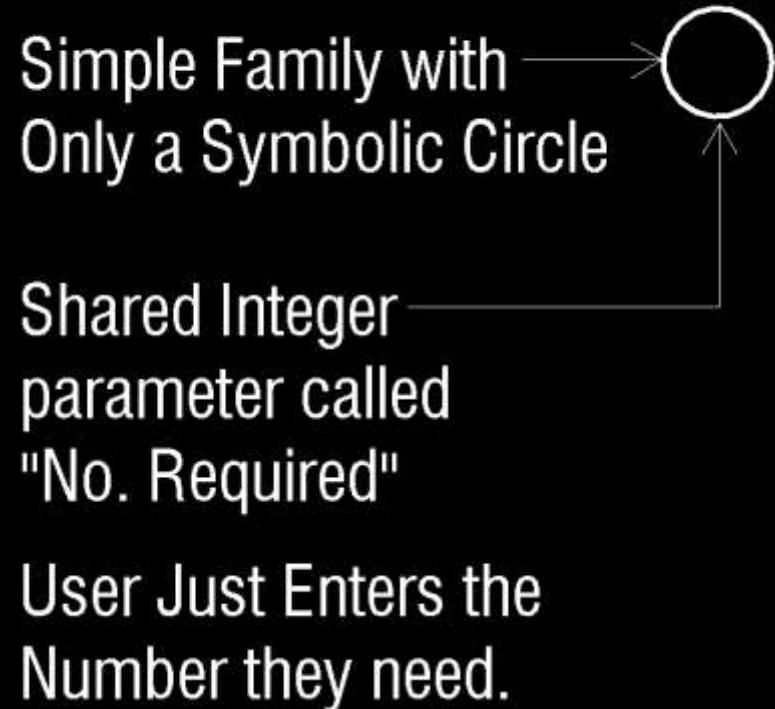


- Really large number are not very efficient to model.

## First Solution



## Second Solution



- What we are really interested in is Data.

## Adding some intelligence...

- We want to locate plants within areas and stages
- We want to drive the “No. Required” by user or by Area and density of planting.

Create Shared Parameters to enter the data.  
The Name, Area and Density of planting.

Planting Area Name	Planting Area A - Revegetation to Existing Batter
Planting Area	515.000 m <sup>2</sup>
Planting Density	0.200000

Create a yes/no parameter to define if the “No. Required” is driven by the Area or not.

Area Driven Number	<input checked="" type="checkbox"/>
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Add a formula to control the “No. Required” parameter

```
if(Area Driven Number,(Planting Area * Planting Density), No. Required User)
```

- What we are really interested in is Data.

Topsoil Requirements Schedule			
Name	Surface Area	Topsoil Depth	Topsoil Volume
Zone A - Embankment Planting Pockets	178.28 m <sup>2</sup>	500	89.14 m <sup>3</sup>
Zone A - Accoustic Fence Screening Planting	218.79 m <sup>2</sup>	200	43.76 m <sup>3</sup>
Zone A - Bio Basin 1 Batter	563.57 m <sup>2</sup>	200	112.71 m <sup>3</sup>
Zone C - Verge Embankment	819.55 m <sup>2</sup>	200	163.91 m <sup>3</sup>
Zone D - Verge Batter	3201.96 m <sup>2</sup>	200	640.39 m <sup>3</sup>
Zone G - Breakout Space Garden 1	247.90 m <sup>2</sup>	200	49.58 m <sup>3</sup>
Zone G - Breakout Space Garden 2	35.17 m <sup>2</sup>	200	7.03 m <sup>3</sup>
Zone G - Breakout Space Garden 3	61.25 m <sup>2</sup>	200	12.25 m <sup>3</sup>
Zone H - Bio Basin 3 Batter	228.38 m <sup>2</sup>	200	45.68 m <sup>3</sup>
Zone H - Dry Basin	6808.99 m <sup>2</sup>	200	1361.80 m <sup>3</sup>

Zone A - Turf - Northern Verge	1205.72 m <sup>2</sup>	100	120.57 m <sup>3</sup>
Zone A - Turf - Southern Grassed Area	4486.05 m <sup>2</sup>	100	448.61 m <sup>3</sup>
Zone C - Turf - Northern Verge	1605.41 m <sup>2</sup>	100	160.54 m <sup>3</sup>
Zone G - Breakout Space Turf	331.89 m <sup>2</sup>	100	33.19 m <sup>3</sup>
Zone G - Turf - Northern Verge	605.85 m <sup>2</sup>	100	60.58 m <sup>3</sup>
Zone H - Turf - Entrance Grassed Area	3639.64 m <sup>2</sup>	100	363.96 m <sup>3</sup>
Zone H - Turf - Southern Verge	1079.06 m <sup>2</sup>	100	107.91 m <sup>3</sup>

Zone G - Planting Schedule			1362.85 m <sup>3</sup>
Code	Botanical Name	No. Required	
			0.00 m <sup>3</sup>
			0.00 m <sup>3</sup>
			0.00 m <sup>3</sup>
			0.00 m <sup>3</sup>
			0.00 m <sup>3</sup>

Planting Area G - Bio Basin Batter			0.00 m <sup>3</sup>
Code	Botanical Name	No. Required	
CAR fas	CAREX fascicularis	164	0.00 m <sup>3</sup>
CRI ped	CRINUM pedunculatum	164	0.00 m <sup>3</sup>
FIC nod	FICINIA nodosa	328	0.00 m <sup>3</sup>
JUN acu	JUNCUS acutus	164	0.00 m <sup>3</sup>
JUN kra	JUNCUS kraussi	328	0.00 m <sup>3</sup>
LOM hys	LOMANDRA hystrix	328	0.00 m <sup>3</sup>
PHI lan	PHILYDRUM lanuginos	164	0.00 m <sup>3</sup>
Planting Area G - Bio Basin Invert			3909.10 m <sup>3</sup>
CAR acu	CAREX acuta	323	
FIC nod	FICINIA nodosa	323	
JUN acu	JUNCUS acutus	323	
JUN kra	JUNCUS kraussi	323	

Eastern Embankment Early Works Planting Schedule			
Code	Botanical Name	No. Required	Minimum Pot Size
Planting Area A - Accoustic Fence Planting			
ERE deb	EREMOPHILA debilis	218	Tubesto
GAH asp	GAHNIA aspera	218	Tubesto
LOM hys	LOMANDRA hystrix	218	Tubesto
THE tri	THEMEDA triandra	218	Tubesto

Planting Area A - Embankment Planting Pockets			
Code	Botanical Name	No. Required	Minimum Pot Size
CIS ant	CISSUS antarctica	89	Tubesto
ERE deb	EREMOPHILA debilis	89	Tubesto
GRE RM	GREVILLEA pinnata 'Royal Mantle'	89	Tubesto
HAR vio	HARDENBERGIA violacea	89	Tubesto
MYO par	MYOPORUM parvifolium	89	Tubesto

Planting Area A - Revegetation to Existing Batter			
Code	Botanical Name	No. Required	Minimum Pot Size
ACA com	ACACIA complanata	21	Tubesto

Zone H - Planting Schedule			0.00 m <sup>3</sup>
Code	Botanical Name	No. Required	
			0.00 m <sup>3</sup>
			0.00 m <sup>3</sup>
			0.00 m <sup>3</sup>
			0.00 m <sup>3</sup>

JAC sco	ACACIA complanata	250	0.00 m <sup>3</sup>
ACA fal	ACACIA falcata	250	0.00 m <sup>3</sup>
ACA fim	ACACIA fimbriata	250	0.00 m <sup>3</sup>
BAB vir	BABINGTONIA virgata	1252	0.00 m <sup>3</sup>
BUR spi	BURSARIA spinosa	1252	0.00 m <sup>3</sup>
CAL vim	CALLISTEMON viminalis	1252	0.00 m <sup>3</sup>
DAV vil	DAVIESIA vilifera	1252	0.00 m <sup>3</sup>
DIA cae	DIANELLA caerulea	1252	0.00 m <sup>3</sup>
ERE deb	EREMOPHILA debilis	1252	0.00 m <sup>3</sup>
EUS lat	EUSTREPHUS latifolius	2504	0.00 m <sup>3</sup>
FIC cor	FICUS coronata	250	0.00 m <sup>3</sup>
GAH asp	GAHNIA aspera	1252	0.00 m <sup>3</sup>
GEI cym	GEITONOPLESIMUM cymosum	2504	0.00 m <sup>3</sup>
HAR vio	HARDENBERGIA violacea	2504	0.00 m <sup>3</sup>
JAC sco	JACKSONIA scoparia	1252	0.00 m <sup>3</sup>
LOM hys	LOMANDRA hystrix	1252	0.00 m <sup>3</sup>
PAR str	PARSONIA straminea	1252	0.00 m <sup>3</sup>
PUL vil	PULTENAEA villosa	1252	0.00 m <sup>3</sup>
THE tri	THEMEDA triandra	2504	0.00 m <sup>3</sup>

Zone H - Planting Schedule			No. Required
Code	Botanical Name	No. Required	
			0.00 m <sup>3</sup>
			0.00 m <sup>3</sup>
			0.00 m <sup>3</sup>
			0.00 m <sup>3</sup>

Planting Area H - Bio Basin Batter			92
Code	Botanical Name	No. Required	
CAR fas	CAREX fascicularis	92	0.00 m <sup>3</sup>
CRI ped	CRINUM pedunculatum	92	0.00 m <sup>3</sup>
FIC nod	FICINIA nodosa	184	0.00 m <sup>3</sup>
JUN acu	JUNCUS acutus	92	0.00 m <sup>3</sup>
JUN kra	JUNCUS kraussi	184	0.00 m <sup>3</sup>
LOM hys	LOMANDRA hystrix	184	0.00 m <sup>3</sup>
PHI lan	PHILYDRUM lanuginos	92	0.00 m <sup>3</sup>

Planting Area H - Bio Basin Invert			398
Code	Botanical Name	No. Required	
CAR acu	CAREX acuta	398	0.00 m <sup>3</sup>
FIC nod	FICINIA nodosa	398	0.00 m <sup>3</sup>
JUN acu	JUNCUS acutus	398	0.00 m <sup>3</sup>
JUN kra	JUNCUS kraussi	398	0.00 m <sup>3</sup>

Planting Area H - Revegetation Type 2			0.00 m <sup>3</sup>
Code	Botanical Name	No. Required	
			0.00 m <sup>3</sup>
			0.00 m <sup>3</sup>
			0.00 m <sup>3</sup>
			0.00 m <sup>3</sup>

Street Tree Planting Schedule			
Code	Botanical Name	Minimum Pot Size	No. Required
ACM smi	ACMENA smithii	25 Ltr	4
ANG lei	ANGOPHORA leiocarpa	25 Ltr	4
ARA cun	ARJACARIA cunninghamii	25 Ltr	4
BAC cit	Backhousia citriodora	25 Ltr	10
COR hen	CORYMBIA henryi	25 Ltr	14
COR tess	CORYMBIA tessellaris	25 Ltr	16
CUP ana	CUPANIOPSIS anacardioides	25 Ltr	16
EUC sid	EUCALYPTUS sideropholia	25 Ltr	11
TRI lau	TRISTANIOPSIS laurina	25 Ltr	11
WAT flo	WATERHOUSIA floribunda	25 Ltr	13

