

8. CHARLESTON CLUSTER UNDERGROUNDING



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PURPOSE OF REPORT

1. The purpose of this report is to present the Council with the options for the continuation of undergrounding in the Charleston Cluster, in accordance with an earlier undertaking given by the Council.

EXECUTIVE SUMMARY

2. The Charleston area is bounded by Wilsons Road, Ferry Road, Ensors Road and the railway corridor. There are several City Plan zonings across the cluster area. The Charleston Neighbourhood Plan (NIP) was published in September 2001 and since that time the focus has been putting it into action.
3. The Charleston NIP signalled an intention to underground overhead services in the Charleston streets the year before the kerb and channel work commenced. It was always intended that the funding for the undergrounding would be sourced from the Urban Renewal Budget. This budget has been used for the undergrounding that has occurred to date.
4. Since 2002, Charles Street, the southern end of Barbour Street (Charles Street to the end), and Short Street have had the kerb and dish channel renewed and the overhead services undergrounded. The kerb and channel renewal project on Osborne Street is almost complete, although this project did not include undergrounding as the budget was not available.
5. The Council took over the responsibility for funding undergrounding and determining which streets are undergrounded from Orion (then Southpower) in 1996/97. In accepting the transferred responsibility for street selection, Council officers developed a framework for prioritising projects which has been in use since that time, undergoing refinements. The "policy" determines how the available Transport and Greenspace funding is allocated:
 - In conjunction with major road works where road widening requires the existing poles to be relocated.
 - Major arterial routes, particularly entrances to the City.
 - Major tourist routes.
6. As the Charleston Cluster comprises local roads, undergrounding would not qualify under this policy.
7. Since 2001 the Council has undergrounded all arterial roads that have been identified through the kerb and channel renewal programme. A number of collector roads have not been undergrounded under this policy. These roads have not been undergrounded primarily because the pole positions were not affected by replacement of the road kerb and channel and there were higher priorities at the time. Some arterials have also been undergrounded in conjunction with footpath resurfacing.
8. As well as the undergrounding budget for these essentially main roads there was an 'Urban Renewal Policy' (and associated budget) adopted in August 1995. Under the latest LTCCP decisions this Urban Renewal operational funding has been reduced to \$100,000 per year. As this is inadequate to underground all but the shortest of streets, any decision to use this budget for undergrounding of local roads would need to be made on its merit and as a top up to another operational budget.
9. The recent LTCCP outcomes take effect from the 2006/07 financial year. The 2006-2016 LTCCP has made no provision for local road undergrounding and so this is not included as an outcome in the planning of local roads. As a result there was no further provision for undergrounding in the Charleston Cluster except for the remaining stretch of Barbour Street (from Charles Street to Ferry Road). This stretch of Barbour Street is being undergrounded from 2005/06 Urban Renewal funding.

10. The most recent Charleston Cluster project included street designs for Barbour Street (between Charles Street and Ferry Road), Grafton Street, Frederick Street, Grenville Street, Laurence Street and Henry Street. Completion of this cluster would mean that all the streets in the Charleston area would have kerb and flat channel. Barbour Street will be undertaken in the 2006/07 year and Grafton Street and Henry Street will follow in the 2007/08 year. Unfortunately the timing of the other three streets in the cluster is unknown at this point in time.
11. Options are presented in this report to allow the continued undergrounding of the Charleston Area. They include using existing undergrounding budgets, budget increases and LTCCP substitutions.

FINANCIAL AND LEGAL CONSIDERATIONS

12. The annual budgets for undergrounding are as follows:
 - **\$1,104,833** Transport and Greenspace Operational Budget (for Main Roads)
 - **\$100,000** Urban Renewal Operational (potential to use for undergrounding local roads)
 - **\$216,901** Transport and Greenspace Capital (Street Light Conversion - the cost of converting street lighting in conjunction with undergrounding programme)
 - **\$10,000** Urban Renewal Capital (Street Light Conversion)
13. The total estimated cost of undergrounding the remaining streets is \$2,321,505 which comprises the following estimates for each of the streets.
 - Grafton Street - \$588,280
 - Osborne Street - \$635,100
 - Frederick Street - \$223,520
 - Grenville Street - \$327,910
 - Laurence Street - \$341,380
 - Isabella Place - \$205,310
14. There are no legal implications for this project.

STAFF RECOMMENDATIONS

That the options outlined in this report be considered by the Council.

SECTION 1 - BACKGROUND ON CHARLESTON CLUSTER UNDERGROUNDING

The Charleston Cluster

15. The Charleston area is bounded by Wilsons Road, Ferry Road, Ensors Road and the railway. There are several City Plan zonings across the cluster area. At the southern end of Grafton Street, Osborne Street and Barbour Street the zoning is Business 3 (Inner City Industrial) and Business B3 (Inner City Industrial Buffer). At the Ferry Road end of Barbour Street and Grafton Street the zoning is Business 1 (Local Centre). The remainder of the Charleston Cluster is primarily residential and zoned Living 3 (Medium Density).
16. The Charleston Neighbourhood Plan (NIP) was published in September 2001 and since that time the focus has been on putting it into action. A public meeting in September 2002 agreed to a co-ordinated solution for roading improvements in the area. This was the start of the clustering concept in Charleston.
17. The Charleston NIP signalled an intention to underground overhead services in the Charleston streets the year before the kerb and channel work were commenced. This intention was expressed to the residents of Charleston but never committed to by way of a Council resolution. There is however, text on the matter which can be found on the Charleston NIP document. The document states *"In conjunction with the kerb and channel renewal programme, funds have been allocated to underground the overhead services the year prior to the kerb and channel works being done. As with the kerb and channel renewal programme, the first two years of the underground programme are definite with the following three years open to change."*
18. It appears that this intention to underground the Charleston NIP is a unique situation ie no other NIP's in the City have the same undergrounding intention.
19. It was always intended that the funding for the undergrounding would be sourced from the Urban Renewal Budget. This budget has been used for the undergrounding that has occurred to date.
20. Since 2002, Charles Street, the southern end of Barbour Street (Charles Street to the end), and Short Street have had the kerb and dish channel renewed and the overhead services undergrounded. The kerb and channel renewal project on Osborne Street is almost complete, this project did not include undergrounding as the budget was not available. Attachment 2 illustrates the streets which have kerb and flat channel and Attachment 3 illustrates those that have underground services.
21. Additional development of Jade Stadium, by way of another spectator stand, is due to commence so that the development is complete by the time of the 2011 Rugby World Cup. Council has indicated that the completion of the Charleston Cluster by that time would be preferable.

Background on the Councils Undergrounding Involvement

22. The Council took over the responsibility for funding undergrounding and determining which streets are undergrounded from Orion in 1996/97. In accepting the transferred responsibility for street selection, Council officers developed a framework that was based primarily on the selection process for streets that Orion had been using up to that point. The street selection framework has been in use since that time, undergoing refinements. The selection policy itself was not determined, nor resolved by Council, but has received implicit approval by the general Council approvals given to the on-going capital programme which has outlined and identified future arterials/collectors for undergrounding.
23. The "policy" for determining how the available funding is allocated is:
 - In conjunction with major road works where road widening requires the existing poles to be relocated.
 - Major arterial routes, particularly entrances to the City.
 - Major tourist routes.

24. As the Charleston Cluster comprises local roads, undergrounding would not qualify under this policy.
25. To satisfy the above, projects along designated traffic routes (ie arterials and collectors) are selected from capital works programme (mainly kerb and channel projects) as possible candidates for undergrounding. In the past the budget allocation has not allowed all designated traffic routes in the capital works programme to be undergrounded, therefore candidates have been prioritised based on road hierarchy, traffic volumes and the need to relocate poles.
26. Since 2001 the Council has undergrounded all arterial roads that have been identified through the kerb and channel renewal programme. A number of collector roads have not been undergrounded under this policy. These roads have not been undergrounded primarily because the pole positions were not affected by replacement of the road kerb and channel and there were higher priorities. Some arterials have also been undergrounded in conjunction with footpath resurfacing.
27. There are approximately 40 km of 'Major Arterials', 124 km of 'Minor Arterial' and 145 km of 'Collector roads' that still have overhead wires. It is estimated that it would take 250 years to complete undergrounding of these remaining roads under the current expenditure level.
28. As well as the undergrounding budget for these essentially main roads there was an 'Urban Renewal Policy' (and associated budgets) adopted in August 1995. This Urban Renewal policy seeks the progressive renewal of the older residential parts of the city to standards appropriate in the modern environment. Undergrounding of overhead services was included as one of the activities which can help to upgrade residential areas.
29. The budget for carrying out the Urban Renewal Programme, from 2001 to 2006 was \$250,000 per annum operational budget and \$250,000 capital budget. The operational budget was spent almost entirely on undergrounding overhead wires with approximately 10% of the operational cost being spent from the capital budget on associated replacement street lighting. The capital budget was not available for funding undergrounding. Undergrounding is very popular with communities and is an essential component of achieving environmental enhancement in older residential areas. It is most effective when a group of streets is done however the \$250,000 was only sufficient to underground one or two streets a year. The streets were selected according to the following criteria:
 - In Neighbourhood Improvement Plan Areas
 - In the upcoming kerb and channel renewal programme, (it is preferable to underground the wiring just prior to the kerb and channel renewal)
 - Where the undergrounding will have the most effect eg where there are no large street trees or where adjoining streets have already been undergrounded, and
 - Where the cost of doing a street, part of a street or combinations of streets adds up to under \$250,000.
30. Urban Renewal undergrounding has focussed on the following streets in recent years:
 - Charleston area over the recent years, Charles, Barbour, Short Streets in the Charleston Area
 - Special Amenity Areas in the Fendalton/Merivale Area - eg Winchester, Stirling Streets
 - Rees Street, which is in a special amenity area and was sufficiently short in length to be accommodated with the unallocated 2005/06 budget, and
 - Angus Street, which is a narrow street that underwent major reconstruction and integration with reserve and waterway work - undergrounding was seen to add particular value here.
31. Under the latest LTCCP decisions the Urban Renewal operational funding has been reduced to \$100,000 per year. As this is inadequate to underground all but the shortest of streets, any decision to use this budget for undergrounding of streets in Neighbourhood Improvement Plan areas would need to be made on its merit and as a top up to another operational budget.

32. One other policy for undergrounding used to exist, this was the Narrow Streets Policy. In 2004 the MOA Residents Association sought funding for undergrounding of narrow streets in older areas, the argument being that in narrow streets there is no opportunity to plant trees or have berms or other roadside greenery to disguise or diminish the appearance of the poles and overhead wires. This initiative was supported by the Council which allocated funding from 2006/07 (onwards). At the 2006 LTCCP budget discussions, the Council made the decision to remove all funding allocated to the Narrow Street category, hence this policy is no longer operative. Preliminary reports only into suitable selection criteria had been developed for this policy, and no streets have been undergrounded under its mantle.
33. The recent LTCCP outcomes take effect from the 2006/07 financial year. The 2006-2016 LTCCP has made no provision for local road undergrounding and so this is not included as an outcome in the planning of local roads. As a result there was no further provision for undergrounding in the Charleston Cluster except for the remaining stretch of Barbour Street (from Charles Street to Ferry Road). This stretch of Barbour Street is being undergrounded from 2005/06 funding.
34. The remaining annual budgets in the LTCCP for undergrounding are as follows:
 - \$1,104,833 Transport and Greenspace Operational Budget (for Main Roads)
 - \$100,000 Urban Renewal Operational budget (potential to use for undergrounding local roads)
 - \$216,901 Transport and Greenspace Capital (Street Light Conversion)
 - \$10,000 Urban Renewal Capital (Street Light Conversion)

Future kerb and channel renewal projects in the Charleston Cluster

35. The most recent Charleston Cluster project included Barbour Street (between Charles Street and Ferry Road), Grafton Street, Frederick Street, Grenville Street, Laurence Street and Henry Street. Completion of this cluster would mean that all the streets in the Charleston area would have kerb and flat channel. All of these projects were to occur over the next three years.
36. However, the kerb and channel renewal works within the Transport and Greenspace Capital Programme are currently being reviewed to maximise Land Transport New Zealand subsidy levels. This means some changes to the programme will occur. The effect of this process on the Charleston Cluster is that Barbour Street will be undertaken in the 2006/07 year and Grafton Street, Henry Street, Laurence Street, Fredrick Street and Grenville Street are planned to follow in the 2007/08 - 2008/09 years.

The Estimated Costs to underground the Charleston Cluster

37. 'Rough order of cost' estimates for the remaining streets to be undergrounded have been prepared using costs provided by Orion and include an allowance for increasing cable prices. To gain a more accurate estimate an undergrounding design would need to be prepared for each of the streets.
38. The operational costs include \$810m (includes both sides of street) for the power plus \$1000 per property for Telecom. The capital costs are the street lighting component which based on 10% of the operational costs. These estimates assume the current agreements with Telecom and Telstra remain in place, ie Telecom share the cost 50/50 with Council and Telstra fully fund their part of the work.

Table 1- Cost Estimates for Undergrounding the Charleston Cluster

Street Name	Total Cost	Operational Costs	Capital Costs
Grafton Street (includes Henry)	\$588,280	\$534,800	\$53,480
Laurence Street	\$341,380	\$310,350	\$31,035
Frederick Street	\$223,520	\$203,200	\$20,320
Grenville Street	\$327,910	\$298,100	\$29,810
Isabella Place (Includes entire re-sealing of footpaths and driveways)	\$205,310	\$182,100	\$23,210
Osborne Street (Includes entire re-sealing of footpaths and driveways)	\$635,100	\$541,000	\$94,100
Total Estimate	\$2,321,505		

The Main Roads included in the 3 year kerb and channel renewal programme

39. The kerb and channel renewal programme has recently reviewed due to the Land Transport NZ issues that arose around which projects qualify for funding. The following collector and arterial streets are on the programme for kerb and channel renewal for the next few years. The years beyond that are still being developed.

Table 2 - Main Roads on the three year programme

Street Name	Hierarchy	Total Cost	Operational Costs	Capital Costs
2007/08				
Blighs Road Wairakei to Idris	Collector	\$365,750	\$332,500	\$33,250
St Martins Road Wilsons to Ensors	Minor arterial	\$339,380	\$308,530	\$30,850
2008/09				
Bridge Street	Minor Arterial	\$440,000	\$400,000	\$40,000
2009/10				
Bower Ave	Minor Arterial	\$1,023,000	\$930,000	\$93,000

SECTION 2 - OPTIONS

40. If the Council wishes to underground the remaining streets in Charleston the following funding options are available.

Option One - Make a one-off exception to the Main Roads Undergrounding Policy and use existing Undergrounding Budgets to implement the Undergrounding of Charleston over next four years

41. This option would involve using both the main roads undergrounding budget and remaining Urban Renewal Budget to implement undergrounding in Charleston over the next five years to meet the 2011 preferred deadline. The degree of funding recommended is around \$300-500,000 a year to achieve the completion of the cluster. This leaves funds for some of the main roads that require renewal over this time. The remaining amounts match those above in Table 2 required for main road on the kerb and channel programme. A suggested timeframe and funding commitment (operational) is shown in the table below.

Table 3 - Option One - Operational funding
 (*indicates the use of the \$100,000 Urban Renewal budget)

Street	2007/08	2008/09	2009/10	2010/11
Grafton Street	\$541,000			
Grenville Street		\$298,100		
Laurence Street		\$310,350		
Fredrick Street		\$203,200		
Isabella Street			\$182,100	
Osborne Street				\$541,000
Main Roads	\$670,033	\$393,183	\$1,022,733	\$663,833
Total Budget	\$1,204,833*	\$1,204,833*	\$1,204,833*	\$1,204,833*

Option Two - Make a one-off exception to the Main Roads Undergrounding Policy and use existing Undergrounding Budgets to implement the Undergrounding of Charleston over next two years

42. This option would involve using both the main roads undergrounding budget and remaining Urban Renewal Budget to implement undergrounding in Charleston over the next two years to finish well before the 2011 preferred deadline. The degree of funding to achieve this is the entire use of existing budgets in the first year. This leaves no funds for the main roads in the first year and only \$300,000 in the second year. A suggested timeframe and funding commitment (operational) is shown in the table below.

Table 3 - Option Two - Operational funding
 (*indicates the use of the \$100,000 Urban Renewal budget)

Street	2007/08	2008/09	2009/10	2010/11
Grafton Street	\$534,800			
Grenville Street	\$298,100			
Laurence Street	\$310,350			
Fredrick Street		\$203,200		
Isabella Street		\$182,100		
Osborne Street		\$541,000		
Main Roads		\$278,533	\$1,104,833	\$1,104,833
Total Budget	\$1,143,250*	\$1,204,833*	\$1,104,833	\$1,104,833

Option Three - LTCCP Level of Service Substitutions

43. Review all 2006/16 LTCCP Level of Service substitutions and savings options as presented to council during LTCCP deliberations with a view to specifically identifying a \$2.5m substitution.

Option Four -Undergrounding Budget Increase

44. Formally authorise a one off undergrounding budget increase of \$2.5m to be included in the 2007/08 financial year. This allows for the expenditure to be directly rated for.

Option Five - Do Nothing

45. The Council does not underground Charleston despite the intention signalled to the community as part of the NIP Plan.

ASSESSMENT OF OPTIONS

Option One - Make a one-off exception to the Main Roads Undergrounding Policy and use existing Undergrounding Budgets to implement the Undergrounding of Charleston over next four years

46. This option would involve using what has been traditionally budgeted for the arterial and collector routes that are upgraded as part of the kerb and channel renewal programme. An assumption is made that the budget amount remains constant over the next five years. There are a number of implications associated with this option:
- The programme to underground main roads that are undergoing kerb and channel renewal matches the suggested spending framework. The undergrounding would need to occur in the same year of construction.
 - Any other main roads not undergoing construction could not be undergrounded. It may be desirable to have these main roads also undergrounded for the rugby world cup.
 - The safety benefits of removing poles on main roads may not be realised.
 - Undergrounding on local roads is often requested by the residents, dedicating the majority of funds to one area of the city may be considered unreasonable and unfair.

Option Two - Make a one-off exception to the Main Roads Undergrounding Policy and use existing Undergrounding Budgets to implement the Undergrounding of Charleston over next two years

47. This option would involve dedicating all of what has been traditionally budgeted for the arterials and collector routes in the first year and two thirds in the second year. An assumption is made that the budget amount remains constant over the next five years. There are a number of implications associated with this option:
- The programme to underground main roads falls behind schedule and there may be the need to delay some projects until the undergrounding funding becomes available. It may be desirable to have these main roads also undergrounded for the rugby world cup.
 - Blighs Road (Innes to Wairakei), St Martins Road and Bridge Street would be undergrounded as part of the kerb and channel renewal or delayed until the budget to underground is available as there is little opportunity to return in the future to underground and would incur higher costs due to re-instatement.
 - The safety benefits of removing poles on main roads may not be realised.
 - Undergrounding on local roads is often requested by the residents, dedicating the majority of funds to one area of the city may be considered unreasonable.

Option Three - LTCCP Level of Service Substitutions

48. Review all 2006/16 LTCCP Level of Service substitutions and savings options as presented to council during LTCCP deliberations with a view to specifically identifying a \$2.5m substitution. Note that other Transport and Greenspace operational maintenance budgets are already forecasted to be over expended in 2006/07 therefore no opportunities exist within Transport and Greenspace for expenditure substitution. These budgetary pressures will be realised in 2007/08 Streets maintenance budgets. Therefore this option is not recommended.

Option Four - Undergrounding Budget Increase

49. Formally authorise a one off undergrounding budget increase of \$2.5m to be included in the 2007/08 financial year. This allows for the expenditure to be directly rated for. However, this option in isolation would increase rates in 2007/08 by approximately 1.25%.

Option Five - Do Nothing

50. The Council does not underground Charleston despite the intention signalled to the community as part of the NIP Plan. This option would mean that the undergrounding of main roads could continue without an exception being made for local roads.