REGION OF OTTAWA-CARLETON | REPORT
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Your File/V/Réf.

DATE 13 April 2000

TO/DEST. Co-ordinator Transportation Committee

FROM/EXP. Director of Mobility Services and Corporate Fleet Services
Environment and Transportation Department

SUBJECT/OBJET **KENT STREET PLAN**

REPORT RECOMMENDATIONS

That the Transportation Committee recommend Council approve the road modifications for Kent Street (Catherine Street to Gloucester Street) as identified by the functional plan attached as Annex C (Ainley Group DWG: Kent-01 to 05) and detailed within this report.

BACKGROUND

In 1994, the City of Ottawa allocated $80,000 for a traffic calming study within the Centretown area. The study was intended to serve as the basis for implementing policies of the City of Ottawa's Official Plan which dealt with traffic calming, and polices of the Centretown Secondary Policy Plan that provide direction for reducing the impacts of through traffic on the residential livability of the neighbourhood.

In April 1994, the Ottawa Local Architects Network held an Urban Design Charrette to identify ways to revitalize Kent Street between the Queensway and Gloucester Street.

Upon completion of the Charrette, Transportation Committee directed staff to:

> "Review the Kent Street Urban Design Charrette in order to create a street of regional significance (in an urban context) leading to Parliament Hill; and that Planning and Transportation Departments report back on how they would proceed with this project, i.e., consultant vs. staff, 1994 or 1995 budget, before the end of this term of Council"

Subsequently, Kent Street from the Queensway to the beginning of the Core Area (Catherine to Gloucester) staff negotiated the addition of Kent Street to the Centretown Traffic Calming Plan (CTCP) as a special study area at a cost to the Region of $40,000.

In working with the Kent Street study assessment and in light of the excess capacity that currently exists on Kent Street and recommendations to be proposed by the study, staff in December of 1997 with the support of the ward Councillor, introduced a pilot project for all-day parking on the east side of the street, thus reducing the on-street capacity. The Kent Street study had assessed three road configuration options: two lanes, three lanes and the existing four lanes. The preferred option was that of three lanes during the peak periods and two in the off-peak, which allowed off-peak parking in the third lane. The pilot was to provide capacity assessment information for staff to consider during detailed design and implementation of the Kent Street Traffic Calming Concept Plan.

On 8 April 1998, Regional Council, subject to technical evaluation, approved *the Preferred Kent Street Traffic Calming Concept Plan* , as illustrated in Annex A.. In addition Council approved two other recommendations that are pertinent to the completion and implementation of the plan, those being the involvement of residents, businesses and those with disabilities in the final design, and secondly the incorporation of trees into the streetscape.

DISCUSSION

Maintaining the Council approved plan in principle, the Kent Street design presented by Ainley Group, as illustrated in Annex C, is a reworking of the traffic elements originally proposed. Through an iterative design stage with the consultant, the public and staff, the Preferred Kent Street Traffic Calming Concept Plan has been refined to produce the final version presented herein. The concepts as presented in the Centretown Traffic Calming Plan report remain unchanged; however through a detailed look at the technical and functional aspects of the plan, modifications to enhance the plan were recognized and included in the design. This version of the plan has taken an extra effort to see that trees are an integral part of the final product. It was also recognized that other issues could be addressed through the plan's implementation where these issues would provide special functions as well as contribute to the plan's overall goals. In particular these include the installation of side street raised crosswalks across the south section's side streets (refer to Annex C), and the upgrading of the through movement prohibition features at the Lisgar Street intersection. The raised crosswalks have a primary function of storm water management (discussed in more detailed within the report), while providing an improved road crossing enhancement for pedestrian movements. The through movement prohibition features will improve the compliance with the "no through" prohibition while shortening of the pedestrian crossing distance on Lisgar.

Specific details of the plan are discussed in the following paragraphs.

Parking

With the introduction of the 24-hour parking pilot in 1998 which reduced the lane capacity from four lanes to three lanes, the equivalent of approximately 50 metered parking spaces were gained. Observation of the Kent Street operation since the implementation of the pilot project has revealed that the roadway system continues to operate with an acceptable level of service. Given its minimum impact, 24-hour parking has been retained in the plan as the primary occupant of the current fourth traffic lane.

Although the location of the 24-hour parking during the pilot was implemented on the east side of Kent Street and off-peak parking on the west side, review of this arrangement identified a benefit to having the two parking arrangements switch to the opposite side of the street with exception of the current three off-peak meters between Nepean and Gloucester. As a result the recommended plan has all-day parking on the west side with road narrowings providing a protected setting, and off-peak parking existing on the east side. Where only the off-peak parking is currently metered, it has been requested by the City of Ottawa to meter the 24-hour parking as well.

An acceptance of full metering results in 19, 24-hour stalls and 47 off-peak stalls. When compared to pre 24-hour parking conditions, there is a net gain of 19, 24-hours spaces, a net loss of 3 off-peak spaces, and a loss of approximately 8 side street spaces due to the recommended side street narrowings. As for the virtual loss of spaces from the 24-hour parking pilot, it should be recognized that parking space has been traded off for other desired measures and to ensure efficient traffic flow operations along Kent Street. The narrowings have accommodated safety features such as improved sight lines and shorter roadway crossing distances, as well as providing an improved tree growing environment.

In terms of by-laws, the west side parking will allow metered parking throughout the day (length of stay to be determined but it will not be any longer than the standard 3 hour maximum limit for any one stay), the east side parking will be off-peak hour parking with tow away conditions during the peak hours. Where peak hour towing will be required to ensure the capacity of three lanes exists to facilitate the peak hour flows.

Road Narrowings

Narrowings are recommended at all intersections from Catherine to Gloucester on either Kent Street or the intersecting side street or both. For the most part the narrowings are located on the west side of Kent Street and the south sides of the side streets. The Kent Street narrowings consist of a 2.5 metre boulevard extension into the paved portion of the road.

These extensions or bulb-outs support a number of features including a pedestrian buffer zone on the west side of the street where the sidewalks are narrow, protection for the 24-hour parking, better alignment of the raised crosswalks with the adjacent sidewalks, shorter Kent Street and side street roadway crossings, and improved tree locations and accommodations. South side narrowings on the side streets allow for shorter side street crossings, improved sight lines for side street motorists crossing Kent Street northbound traffic and improved turning radii for delivery/service trucks and school buses. The trade-off for the south side narrowings is a potential loss of side street parking where there is a conflict between the new travel lane and existing parking.

Cyclists

The Region's current standard approach of allowing for 4.25 metre curb lanes in lower speed urban settings has been applied in this plan where lane reductions have permitted it. Where it was necessary to retain all four vehicle lanes at the major crossing streets (Gladstone, Gilmour, Somerset and Gloucester) to accommodate the turning movement volumes, wider cycling lanes have not been provided. Relocating the 24-hour parking from the east side to the west side substantially improves cyclist travel in the peak hours as there are fewer potential conflicts with parked cars, their operators and related movements entering and leaving parking spaces.

Transit

Again, with 24-hour parking being relocated to the west side of the street, there is a benefit from a transit perspective. Regional policy discourages the use of bus bays, particularly in the peak hours. Twenty-four hour parking on the east side of the street lends itself to the creation of bus bays between parking zones during the peak hours, whereas west side 24-hour parking will allow transit direct access to curb stops while remaining in its travel lane.

Trees

From the onset of the Kent Street Concept Plan work, trees have been identified as a vital part of the Kent Street solution. This point has been reiterated many times through the comments received from the project's public open houses. The reasons are two-fold: beautify the visual aspect of the street as well as provide a soft side traffic calming measure. As was recommended by the Kent Street Concept Plan, a gateway is proposed at the south end of the street. If at some future date this gateway is built, it will be located along the mid-block section of Kent between Flora and Arlington where trees will play the key role in its presentation.

Trees throughout the remainder of the street, as well as the side street approaches will be placed to obtain the greatest benefit to the street from both a streetscaping and speed control/traffic calming perspective. Although it is not anticipated that underground utilities will greatly affect the ability to plant and locate trees, there may be instances where proposed tree plantings may have to wait for utility relocations during the street's future rehabilitation work. However, every effort will be made to place trees as identified in the plan as shown in Annex C.

Speed Control Measures

Throughout the study, speed of vehicles in the off-peak periods has been raised as a concern. Measured speeds in off-peak free flow conditions indicate that motorists have an 85th percentile speed of 5 to 10 km./h. over the posted 50 km./h. speed limit and an average speed around the posted speed. As Kent Street is an arterial roadway providing service to emergency vehicles, vertical measures such as speed humps and raised intersections are not preferred measures and hence not recommended at this time. However, as vertical measures are currently being assessed via pilot projects throughout the region, results of this work may approve certain vertical measures for arterial streets.

If this is the case, a raised intersection may be possible at the intersection of Kent Street and Somerset Street as proposed in the Kent Street Traffic Calming Concept Plan (KSTCCP). The proposed raised intersection for Kent Street and Gladstone Avenue, although recommended by the KSTCCP, has been eliminated from the plan due to the drainage problems that it would cause. In place of the vertical measures softer side friction measures have been applied. These include the narrowing of the street, placement of trees along the road edge and the introduction of a chicane which generates three gentle lateral shifts while proceeding up Kent Street from Catherine to Gloucester.

Vehicle Capacity

Although the monitoring of the 24-hour parking pilot project revealed capacity was not significantly affected with the reduction of lanes from four to three in the peak period, it is still reduced. And although the approach to the major cross streets, as recommended, have been left as a four-lane cross-section to process all movements effectively, the removal of the fourth lane throughout the remainder of the street does restrict flow to some degree, in particular when vehicles are required to weave in mid-block to reach their desired location or to bypass a stopped transit vehicle or illegally parked car.

The fourth lane on a daily basis provides some relief and increases the level of service but in the occasional circumstance, it provides a highly required relief valve for such occurrences as snow storms, construction, collisions, and emergency situations. Although traffic should flow well for the majority of time and there are many benefits from a lane reduction, removal of a lane does not support the Master Plan requirement to obtain an additional 5% capacity from the existing road system.

Raised Crosswalks/Storm Water Management

Recent 50 to 100 year floods in the Region have identified a need in the central area to better manage storm water and hence reduce and eliminate flooding of residential and business buildings. With raised crosswalks proposed by the Kent Street Traffic Calming Concept Plan across some of the side streets along Kent Street, City of Ottawa staff, through a preliminary assessment, have requested that the number of raised side street crosswalks be increased. Not primarily to assist pedestrian movement, but to improve the control of storm water flowing west of Kent Street and in particular between MacLaren and Catherine. With an added benefit of enhancing side street crossings, the plan assists City staff with their drainage concerns by providing raised crosswalks along Kent Street's west side at MacLaren, James, Florence, McLeod, Flora and Arlington. However if the City, upon completion of their final

assessment, has any reservations regarding this storm water management approach, the raised crosswalks will be reduced to reflect only on the originally proposed crossings at MacLaren, Florence and Arlington.

Lisgar Street Through Movement Prohibition

In 1990, the intersection of Lisgar Street and Kent Street was assessed as warranting a traffic control signal based on collision and volume data. However, the Greater Central Area Signal Spacing Policy precluded its installation until other methods to reduce collision occurrences were tried and proven insufficient. As a result through prohibitions on Lisgar crossing Kent Street were established through by-law and signage. No westbound through movements were permitted between 7:00 a.m. to 7:00 p.m., Monday through Friday (cyclist exempted).

In monitoring this location for compliance and collision reduction, it was identified that signing alone was not adequate. In 1997 measures were taken to place temporary physical features on Lisgar Street to create a more channelized right-turn lane and the through prohibitions were modified to be in effect at all times. Further monitoring has indicated that there is still a compliance problem. The next step in improving the safety of this intersection and preventing the through movements is a permanent roadway modification that prevents the through movement from occurring. With Kent Street implementing road narrowings and curb extensions as part of its plan, staff recommend taking advantage of this opportunity to modify the current temporary conditions to a more permanent solution to restrict the motorist through movement while retaining the cyclist ability to move through the intersection.

Sidewalks

Through the consultation process, it was noted numerous times that the sidewalk conditions along Kent Street's west side between Gloucester and Somerset were in need of repair or replacement. Although the rest of Kent Street has concrete sidewalks in place, the identified section has asphalt sidewalks that have deteriorated over the years. This has been confirmed by the City of Ottawa's sidewalk assessment and replacement program which identifies this section of sidewalk as a "replace now" condition. However, despite the high priority identification, the City has indicated that due to funding limitations this section is not slated for repair in the near future. As road narrowings and boulevard work is scheduled in the vicinity of these sidewalks, it would be cost effective to improve the sidewalk at the same time; it is recommended that sidewalks in this stretch be upgraded at Regional cost.

REGIONAL CYCLING ADVISORY GROUP

The Regional Cycling Advisory Group (RCAG) have been involved in the design throughout the study process with participation in the public open house consultation and review of preliminary designs. Comments received by RCAG during this process have been reflected in the final design.

PUBLIC CONSULTATION

In addition to the extensive public consultation undertaken for the Kent Street Traffic Calming Concept Plan, staff extended that consultation with three open houses and meetings with the Kent Street community association, businesses and institutions. Comments from these sessions have been used to develop the proposed Kent Street Plan.

As required by the *Municipal Act of Ontario*, a notice of the proposed roadway modifications has been placed in Le Droit, the Ottawa Citizen and the Ottawa Sun for four consecutive weeks.

A copy of this report has been circulated to RCAG for comments. Any further RCAG comments will be made available at the Public Hearing.

Temporary signs advising pedestrians, cyclists and motorists that "roadway modifications are proposed" have been placed along Kent Street. They feature a telephone number from which more information can be obtained and/or comments and concerns can be recorded.

FINANCIAL IMPLICATION

The construction cost estimate for the work as recommended in this report is $500,000.00.

If approved by the Transportation Committee and Council, funds for this project are available in the 2000 Capital Budget, Order No. 900065, Traffic Calming Measures (reference page 167).

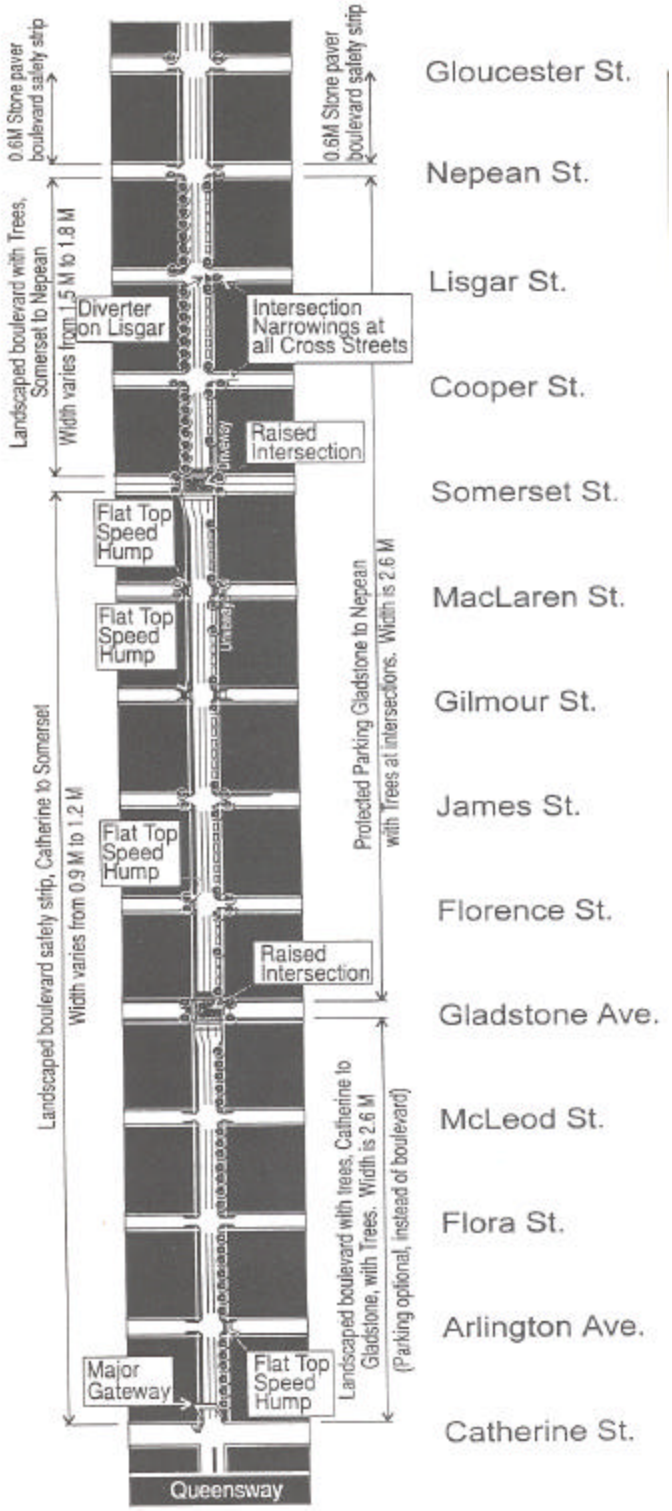
Approved by
Doug Brousseau

GK

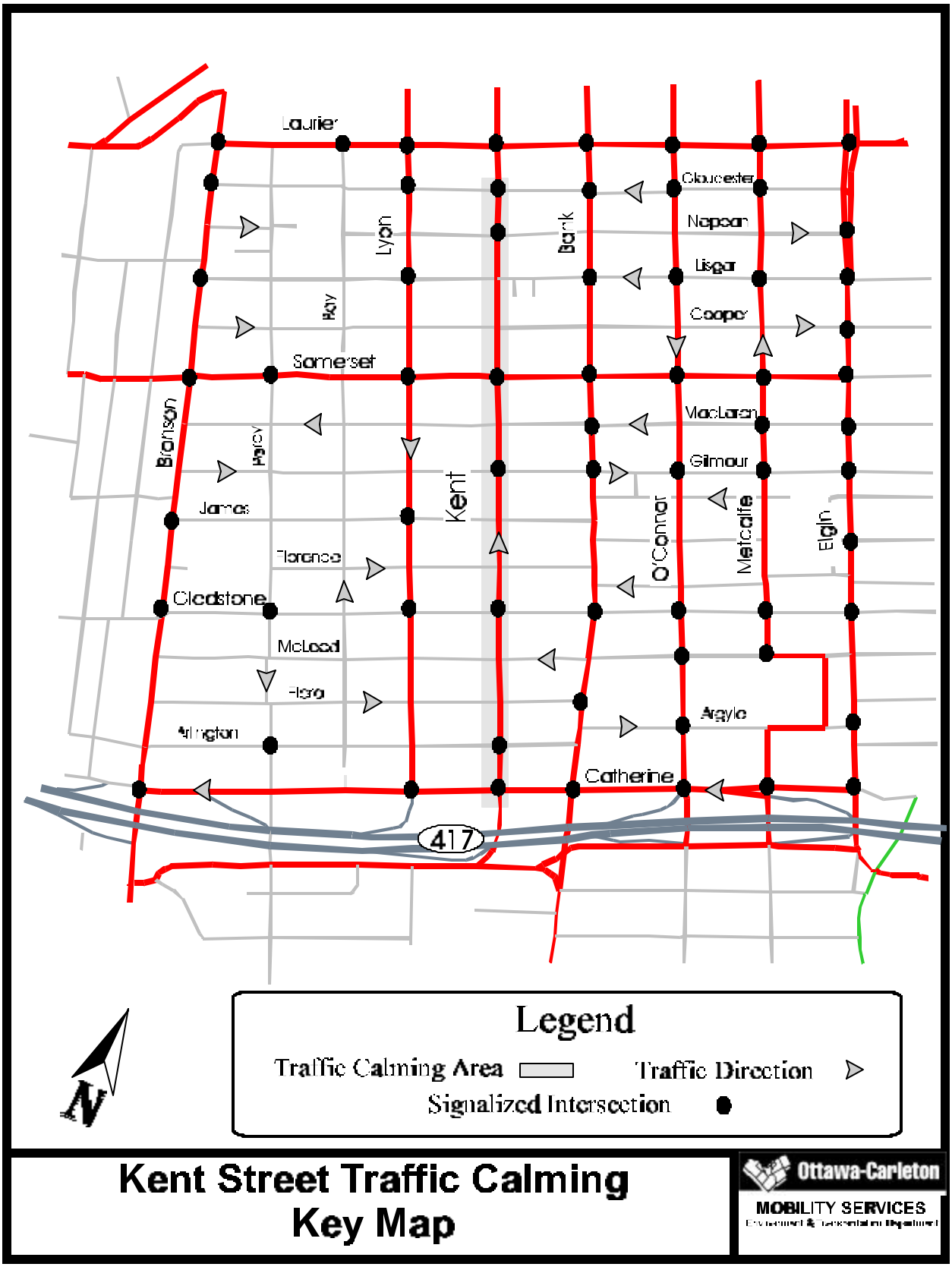
Attach. (3)

ANNEX A

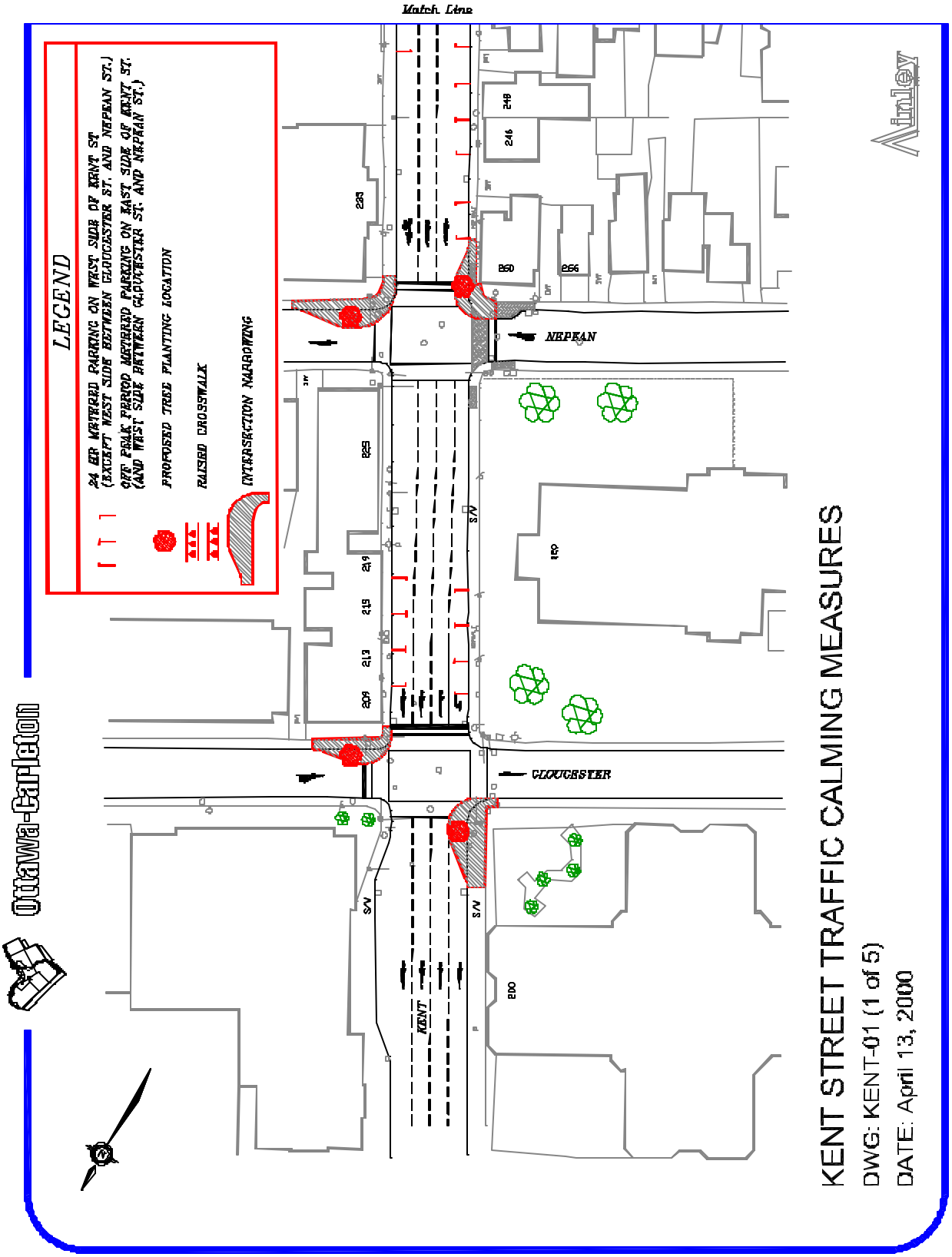
THE PREFERRED KENT STREET TRAFFIC CALMING PLAN, CENTRETOWN TRAFFIC CALMING PLAN REPORT, MAY1997

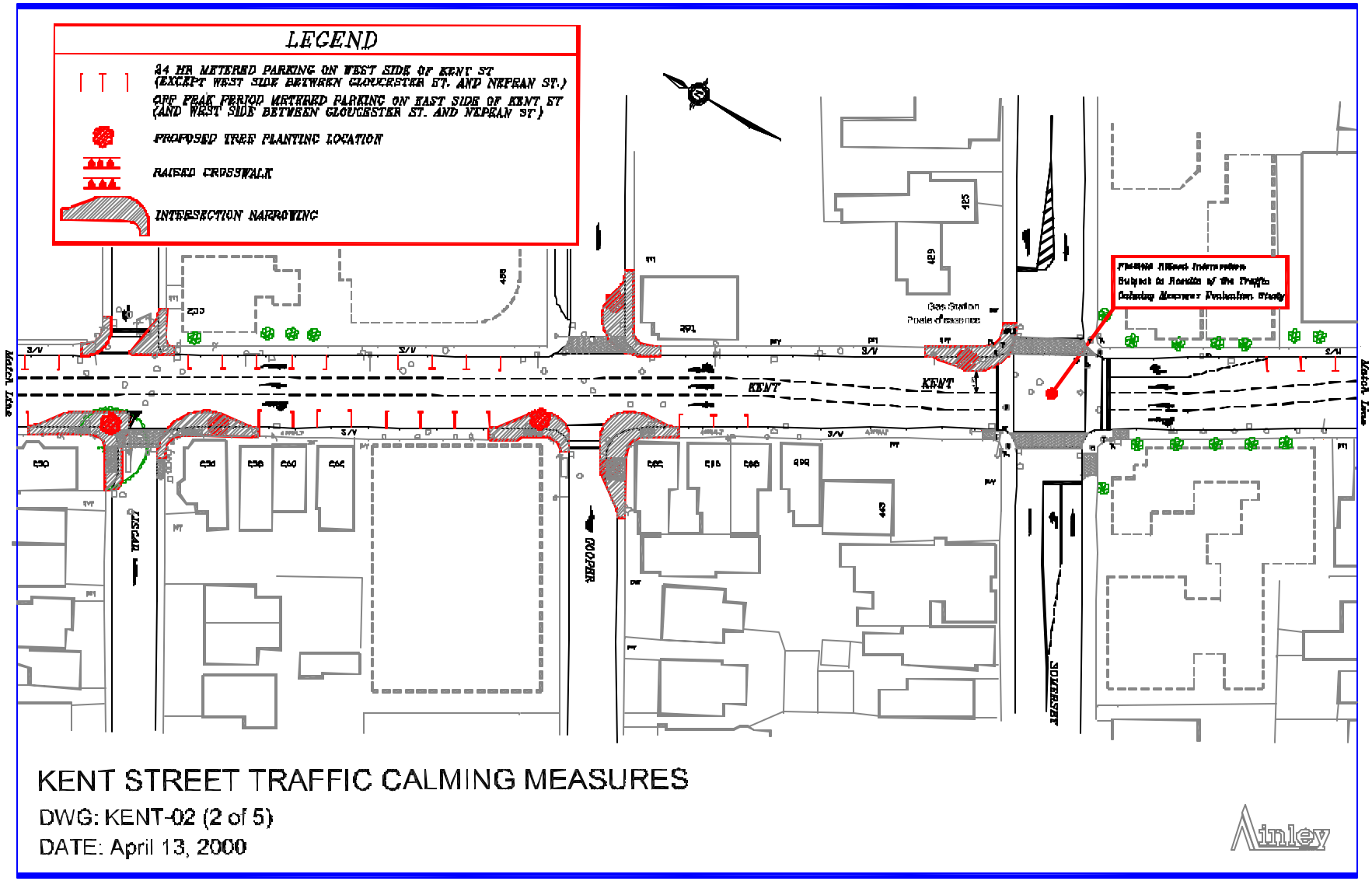


ANNEX B


Laurier
Lyon
Bank
Gloucester
Nepean
Lisgar
Cooper
Bay
Somerset
Bronson
Percy
Kent
MacLaren
Gilmour
James
O'Connor
Metcalfe
Elgin
Florence
Gladstone
McLeod
Argyle
Catherine
417
Legend
Traffic Calming Area
Traffic Direction
Signalized Intersection
N
Kent Street Traffic Calming
Key Map
Ottawa-Carleton
MOBILITY SERVICES

ANNEX C


Match Line
LEGEND
24 HR METERED PARKING ON WEST SIDE OF KENT ST (EXCEPT WEST SIDE BETWEEN GLOUCESTER ST. AND NEPEAN ST.)
OFF PEAK PERIOD METERED PARKING ON EAST SIDE OF KENT ST. (AND WEST SIDE BETWEEN GLOUCESTER ST. AND NEPEAN ST.)
PROPOSED TREE PLANTING LOCATION
RAISED CROSSWALK
INTERSECTION NARROWING
NEPEAN
GLOUCESTER
KENT
Ottawa-Carleton
Ainley
KENT STREET TRAFFIC CALMING MEASURES
DWG: KENT-01 (1 of 5)
DATE: April 13, 2000

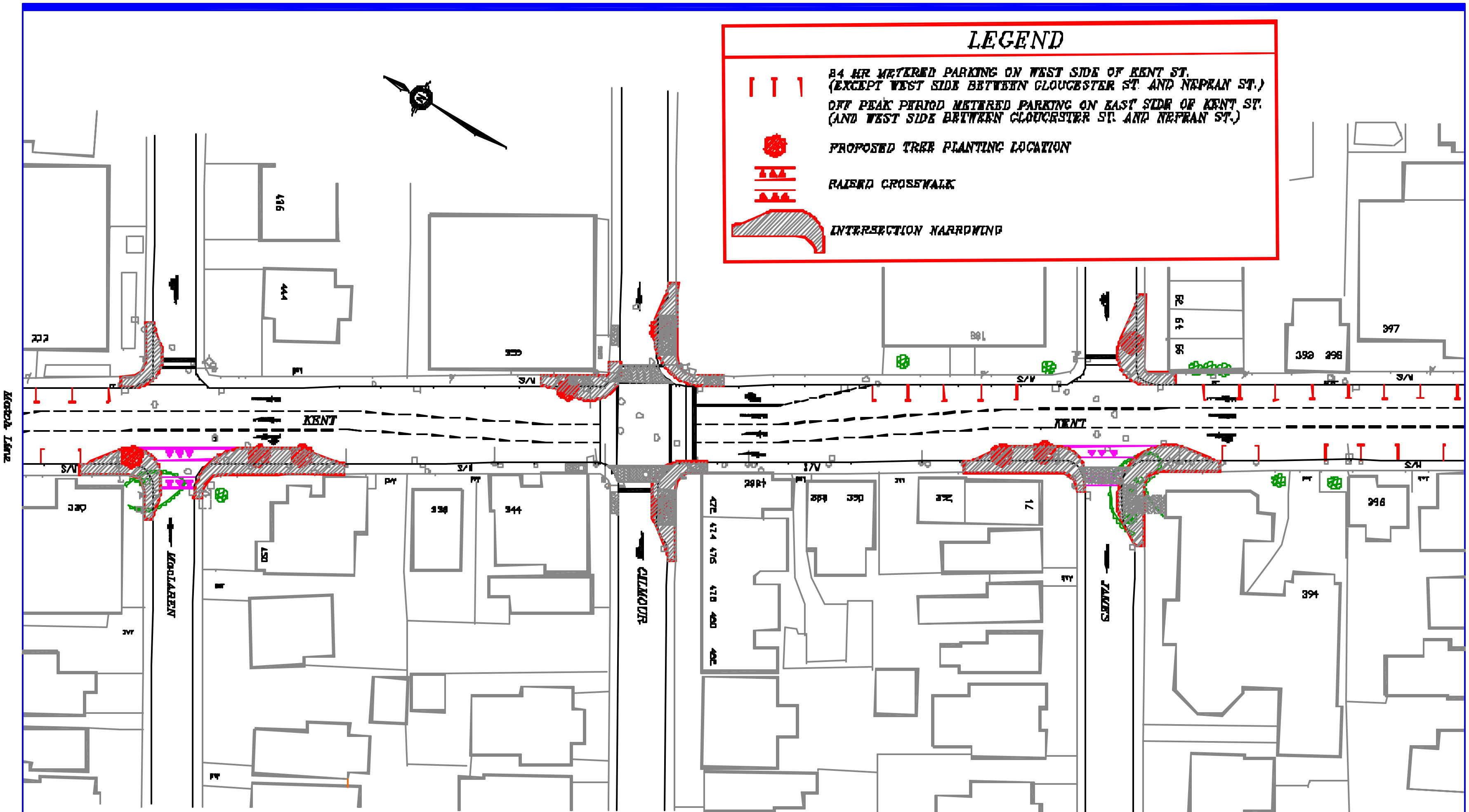


KENT STREET TRAFFIC CALMING MEASURES

DWG: KENT-02 (2 of 5)

DATE: April 13, 2000

Ainley

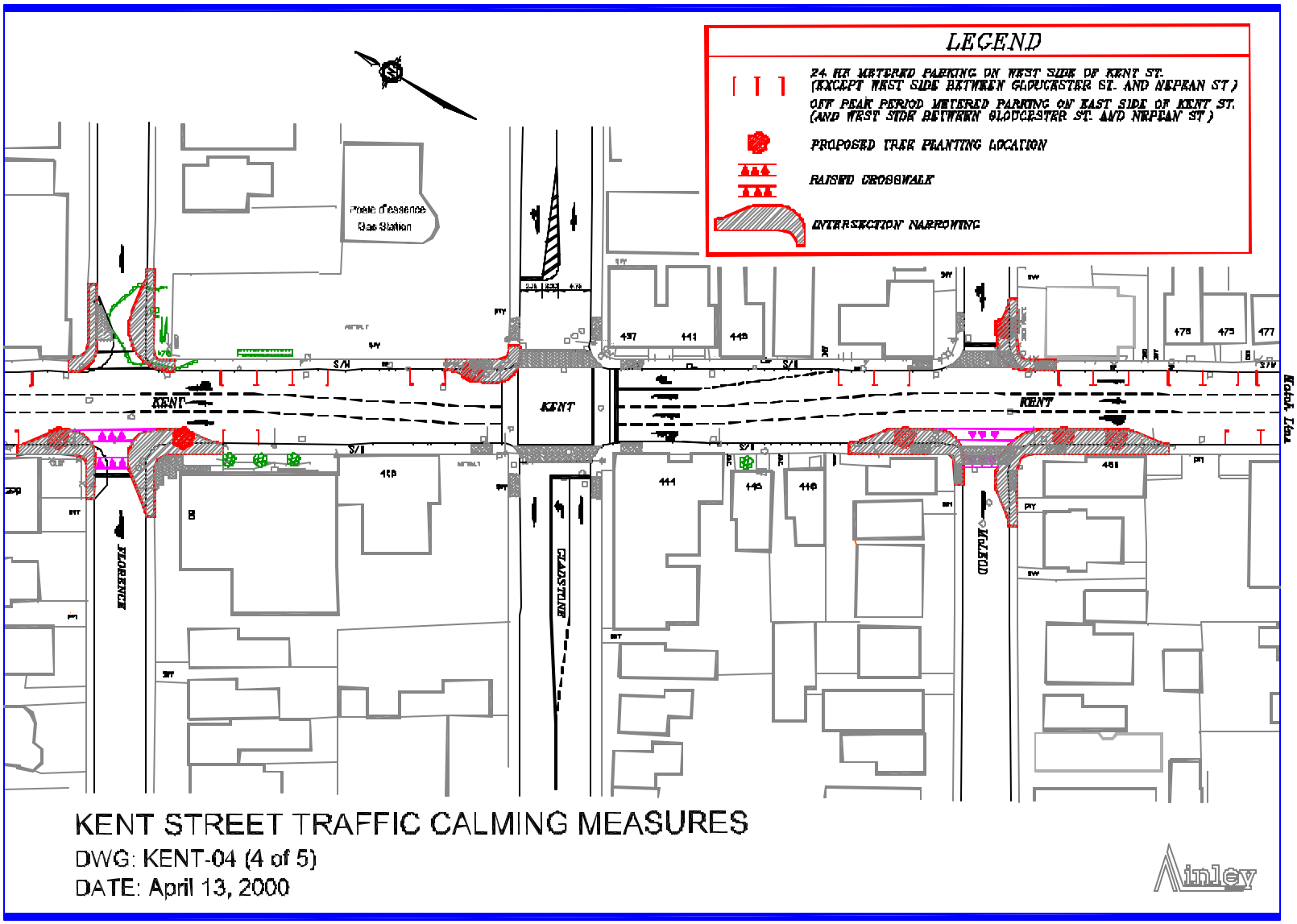


KENT STREET TRAFFIC CALMING MEASURES

DWG: KENT-03 (3 of 5)

DATE: April 13, 2000

Ainley

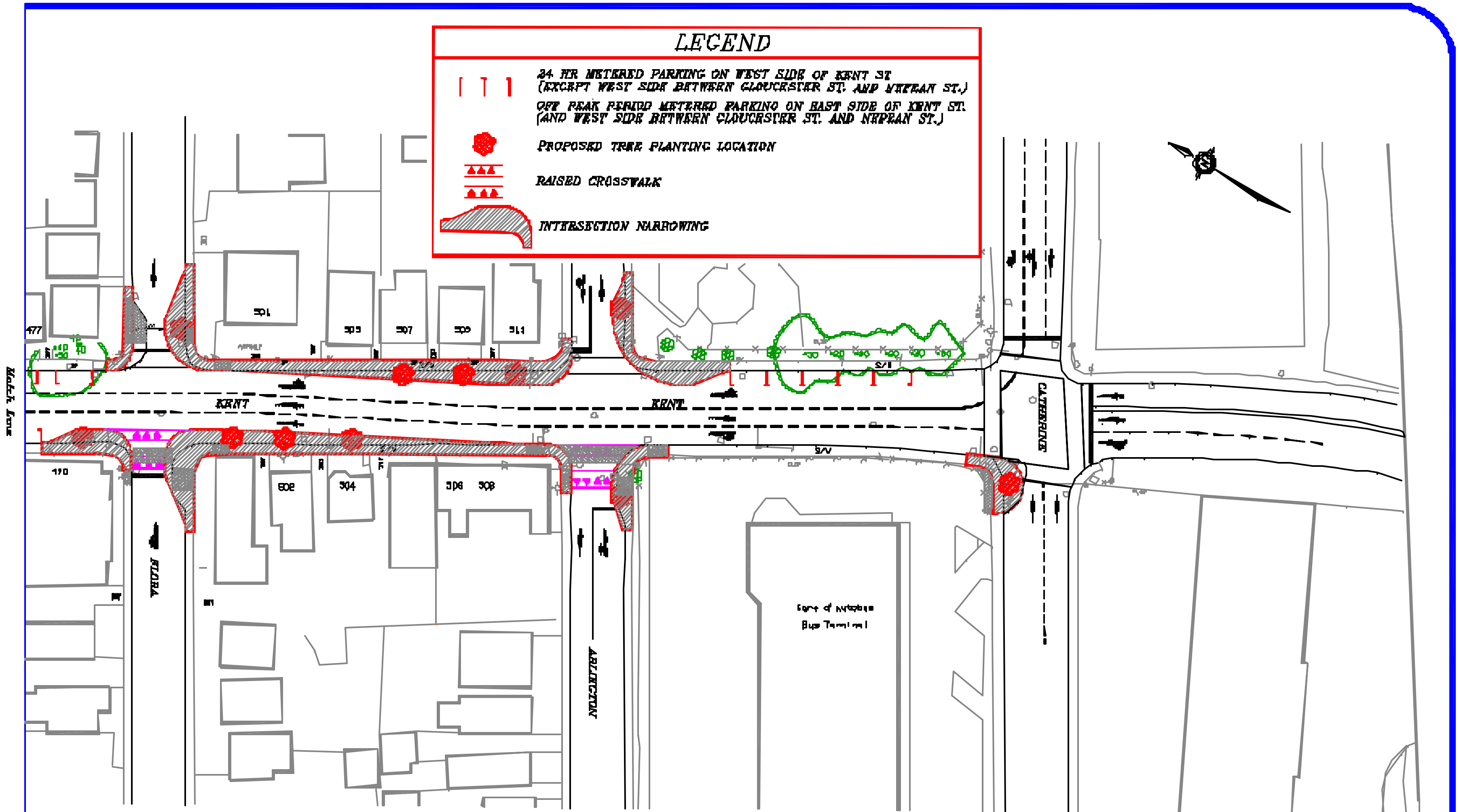


KENT STREET TRAFFIC CALMING MEASURES

DWG: KENT-04 (4 of 5)

DATE: April 13, 2000

Ainley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(AND WEST SIDE BETWEEN GLOUCESTER ST. AND NEPEAN ST.)
PROPOSED TREE PLANTING LOCATION
RAISED CROSSWALK
INTERSECTION NARROWING
KENT
KENT
FLORA
ARLINGTON
CATHERINE
Match Line
477
501
505
507
509
511
470
502
504
506
508

KENT STREET TRAFFIC CALMING MEASURES

DWG: KENT-05 (5 of 5)

DATE: April 13, 2000