



Est. 1873

REPORT TO MAYOR AND COUNCIL

PRESENTED: JULY 20, 2015 - REGULAR AFTERNOON MEETING
FROM: ENGINEERING DIVISION
SUBJECT: 208 STREET CORRIDOR

REPORT: 15-94
FILE: 5400-20-018

RECOMMENDATION:

That Council endorse the current strategy for acquisition of major road infrastructure, including 208 Street and the 208 Street Overpass utilizing the Development Cost Charges program.

EXECUTIVE SUMMARY:

Widening of 208 Street, including the existing Overpass over Highway No. 1 have been identified as road network priority projects in the Township's Master Transportation Plan (MTP), adopted by Council in 2009. The existing 208 Street Overpass was completed in 1999 as a two-lane overpass, with allowances made for its future widening to four lanes. It does not currently provide for cycling facilities as a safe and acceptable mode of transportation as identified in the Township's Sustainability Charter and ultimate cycling network plan, adopted by Council on June 23, 2008 and September 23, 2013 respectively.

Provision of the transportation improvements requires significant funds, relating firstly to design and construction and secondly, in some cases, land acquisition. While Development Cost Charges (DCC) are the primary source of funding, they do not account for land acquisition costs, as dedications are typically obtained as part of the development approval process, at no cost to the Township. This is a practical consideration and a best management practice that has historically been employed in the Township since the establishment of the DCC program in the 1980's.

Staff is currently proceeding with the design work for completion of the widening of the 208 Street Overpass, as a critical piece of road infrastructure necessary to provide overall system improvements, based on previous direction (including MTP and DCC); and prior years' approved budgets (2014 and 2015), with remaining construction costs to be provided as part of future years' (2016 and 2017) budget approval processes. Completion of this project, currently estimated at approximately \$12.6M, would enable completion of the corridor from 83 Avenue to 88 Avenue and result in better lane balancing at the signalized intersections, improving overall traffic operations connectivity between the south and north sides of Highway No.1.

The estimated construction cost for the entire 208 Street corridor, from 64 Avenue to 84 Avenue, excluding the Overpass, is approximately \$30M, to be funded primarily through the DCC program. Other preliminary costs, associated with land acquisition, currently not included in the DCC program, is estimated at an additional approximate cost of \$17M.

PURPOSE:

To respond to Council's request for information relating to the 208 Street corridor and to seek Council's approval to proceed with the current strategy to complete the 208 Street Overpass using DCC's.

BACKGROUND/HISTORY:

The Willoughby community has been experiencing significant growth, which is projected to continue over the next 20 to 25 years. Development in the area is consistent with the Willoughby Community Plan, adopted by Council in 1998, and subsequent neighbourhood planning work since that time. The growth has resulted in an increase to traffic volumes in the area, particularly the arterial road network, including 200 Street, 202 Street, and 208 Street as the three major north-south transportation corridors.

The Township's Master Transportation Plan (MTP), adopted by Council in 2009, provides a framework for the transportation infrastructure required to support the anticipated growth. Additionally, the MTP identifies the 216 Street Interchange at Highway No. 1, proposed in conjunction with the 212 Street Connector, to provide a link from this interchange to 208 Street. The existing and future improvements to arterial roads function as a network, where improvements in one area would be expected to result in an impact elsewhere in the system as travel patterns adjust.

Within the Master Transportation Plan and the respective neighbourhood plans, 208 Street is identified as a four lane divided arterial roadway, complete with on-street bike lanes and a separated greenway on both sides of the roadway. Between 70 Avenue and 74B Avenue, the number of travel lanes increases to six to improve the flow through the intersection of 72 Avenue and provide lane balancing for the additional lanes from the 212 Street Connector.

Conceptual drawings have been prepared, illustrating the ultimate alignment of 208 Street from 64 Avenue to Highway No. 1, provided as attachments to this report. The corridor is planned to be fully divided, consistent with best practice, to improve the level of safety, based on the function of the road as an arterial. All signalized intersections are planned to include dedicated left turn bays to improve the level of safety and minimize impacts to through traffic on the corridor. Prior to improvements, the 208 Street Corridor is approximately 20m in width, whereas the full four lane sections are approximately 40m in width including greenways. This necessitates approximately 10m of roadway dedication for each side of the roadway. For the six lane cross section, the dedication required is estimated at approximately 50m in total, which, in some cases, may involve removal of existing buildings as part of ultimate construction.

Currently the 208 Street Overpass at Highway No. 1 is two lanes and is proposed to be widened to accommodate four lanes with the design for expansion currently underway. The original structure was completed in 1999, based on an ultimate four-lane design, with the two lanes on the east side constructed at that time. In the original design, there was no provision for cycling facilities on the structure, and as part of the current work underway, provision of cycling facilities is being considered, consistent with the ultimate cycling network as approved by Council.

Provision of the transportation improvements requires significant funds. The costs can be generally divided into two main categories of: a) land acquisition; and b) design and construction. The Township's Development Cost Charges (DCC) program is the primary source of funding for the acquisition of the necessary infrastructure to support growth. The DCC program relies on contributions made at time of development for the design and construction of major infrastructure (part b above). However, it does not include land acquisition costs (part a above) as the program anticipates dedication of the required property as part of the development approval processes. This is a practical consideration and a best management practice that has historically been employed in the Township since the establishment of the DCC program in the 1980's. Accordingly, the dedication necessary for road improvements is considered a benefit to the particular development, required as a condition of development at no cost to the Township.

An exception to the above noted general rule would be what are referred to as 'nodal' improvements (improvement at a node as opposed to along a lineal section of road), where there are no specific adjacent properties that might benefit from the new infrastructure with significant associated costs, such as culvert crossings, bridges, traffic signals and overpass structures. Another exception to the DCC calculation criteria are those sections with no development potential of the fronting property. The 208 Street Overpass and portions of 208 Street/Willowbrook Connector between 64 Avenue and 68 Avenue are two such examples.

While this is a fiscally prudent approach, it does not provide the municipality with control over the timing of overall system improvements. As properties do not necessarily develop in sequential order, this can lead to a segmented widening, where some sections of the road fronting a particular development project may be upgraded and some other sections along the same road where there is no development activity may remain unimproved.

DISCUSSION/ANALYSIS:

As discussed above, the existing sections of 208 Street that have been widened to ultimate standards were completed as part of adjacent development applications. Staff has reviewed the remaining sections in consideration of current development applications and neighbourhood planning work and has prepared a diagram outlining anticipated timelines, presented as attachment G to this report. This diagram outlines the sections that have been completed; those that are anticipated to be complete within a three-year timeframe (short term); those that are anticipated to be complete within three to five years (medium term); and those that are anticipated to be completed beyond five years (long term). It should be noted that the projected completion horizons are subject to market and economic conditions and as such are a best estimate at this time.

Transportation Priority Projects

The Township has a number of high priority projects identified in the Master Transportation Plan with significant resource requirements, as shown below:

- 216 Interchange
- 212 Street Connector
- 208 Street Overpass
- 208 Street: 64 – 84 Avenue
- Fraser Highway Widening
- 80 Avenue / Labonte Road Extension
- 200 Street
- 16 Avenue

The listing above is not intended to show order of priority, but only a listing of the projects. As can be seen, completion of the 208 Street Overpass project has been identified as one of the highest priority road network improvement projects. The principal funding source for this project is the DCC account, with historic annual revenues of approximately \$6,500,000 for roadworks. Staff has commenced the design work for this project, anticipated in 1999 and reaffirmed with the MTP in 2009 with funding approved by Council as part of the 2014 and 2015 capital budget processes. The project is anticipated to require multi-year funding allocation over the next two years in 2016 and 2017 for completion. Other historical sources of funding include the transportation utility funding in the amount of \$750,000 per year. The Township also receives Translink funding for Major Road Network (MRN) roadways in the amount of approximately \$800,000 per year. In the recent past, this funding has been utilized for the widening of Fraser Highway. Translink funding is not eligible for 208 Street as it is not included in the MRN.

208 Street Overpass

As described above, the Township is currently in the process of completing the design for the widening of the existing Overpass at Highway No. 1 to four lanes. The implementation of this project is not anticipated to be completed through the development process due to the high cost involved (currently estimated at \$12.6M) and no directly attributable adjacent property.

Completion of this project would enable completion of the corridor from 83 Avenue to 88 Avenue and result in better lane balancing at the signalized intersections, improving the traffic operations at these locations and improved overall connectivity between the south and north sides of Trans-Canada Highway No.1.

208 Street from 64 Avenue to 68 Avenue

This portion of 208 Street has very limited development potential. The section, north of 66A Avenue on the west side, is not anticipated to be complete within a five-year timeframe. On the east side, the land is predominantly within the Agricultural Land Reserve (ALR) with no development potential. Completion of this portion by the Township would allow for improved operations at the signalized intersections including 64 Avenue, which currently experiences moderate levels of delay in the peak periods.

Financial Implications:

Utilizing the timeline indicated above and the conceptual design, staff has prepared an order-of-magnitude construction cost estimate for completion of the 208 Street corridor. For the purposes of this estimate, all locations assumed to be completed within three years through the development process, were not included in the estimate. A summary is provided below.

208 Street (Summary)

Location	Total Cost (Excluding Land)	Land	TOTAL
64 Ave to 68 Ave	\$5,553,000	\$851,000	\$6,404,000
68 Ave to 72 Ave	\$7,038,000	\$2,988,000	\$10,026,000
72 Ave to 76 Ave	\$11,376,000	\$10,461,000	\$21,837,000
80 Ave to 84 Ave	\$4,964,000	\$504,000	\$5,468,000
Storm Water Management	\$816,000	\$1,920,000	\$2,736,000

Total	\$29,747,000	\$16,724,000	\$46,471,000
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As shown in the table above, the construction cost for the entire corridor, excluding the Overpass, is currently estimated at approximately \$30M, with a projected estimated land cost of approximately \$17M. The land cost would be necessarily added to the capital construction cost, if construction was to precede development applications along the corridor. The limitations on this estimate include:

- Based on a conceptual stage only and includes a 25% contingency;
- Smith neighbourhood assumptions regarding utility sizing;
- Excludes individual private service connections;
- Historic DCC program provisions exclude land acquisition costs, except on east side of 208 Street between 64 Avenue and 68 Avenue fronting ALR; and
- Excludes greenways, typically funded through development as part of amenity contributions pursuant to neighbourhood plan policies.

Implementation of the projects identified in this report could be completed subject to funding availability. As such, it is staff's intention to re-evaluate the current priorities, based on Council direction, market and economic conditions and available funding, on a three-year cycle basis. Sections of the 208 Street corridor are anticipated to be completed through the development process, and this will influence the areas requiring attention to provide the residents of the Township with an improved overall road network.

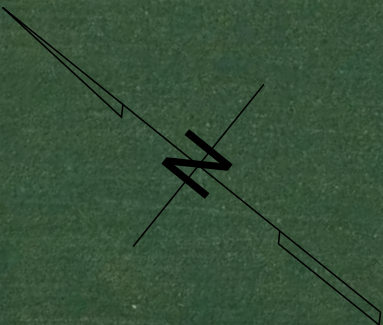
Respectfully submitted,

Richard Welfing
TRANSPORTATION ENGINEER
for
ENGINEERING DIVISION

This report has been prepared in consultation with the following listed departments.

CONCURRENCES	
Division / Department	Name
FINANCE DIVISION	K. Sinclair

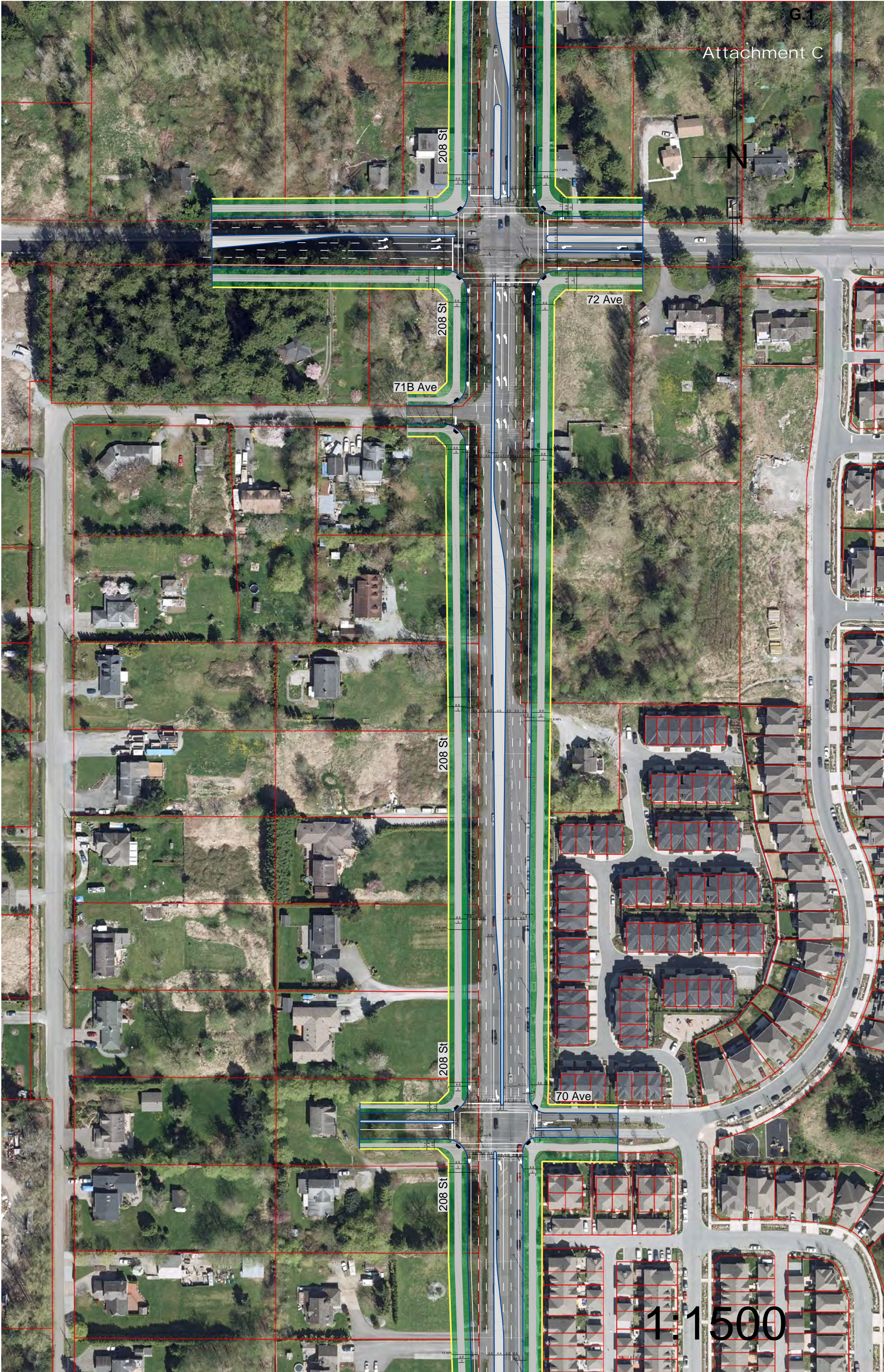
Attachment A	Conceptual Plan of 208 Street from 64 Avenue to 66 Avenue
Attachment B	Conceptual Plan of 208 Street from 66 Avenue to 68 Avenue
Attachment C	Conceptual Plan of 208 Street from 68 Avenue to 72 Avenue
Attachment D	Conceptual Plan of 208 Street from 72 Avenue to 75 Avenue
Attachment E	Conceptual Plan of 208 Street from 75 Avenue to 78B Avenue
Attachment F	Conceptual Plan of 208 Street from 78B Avenue to 80 Avenue
Attachment G	Anticipated Development Timeframe



1:1500



1:1500



G.1

Attachment C

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208 St

208 St

71B Ave

72 Ave

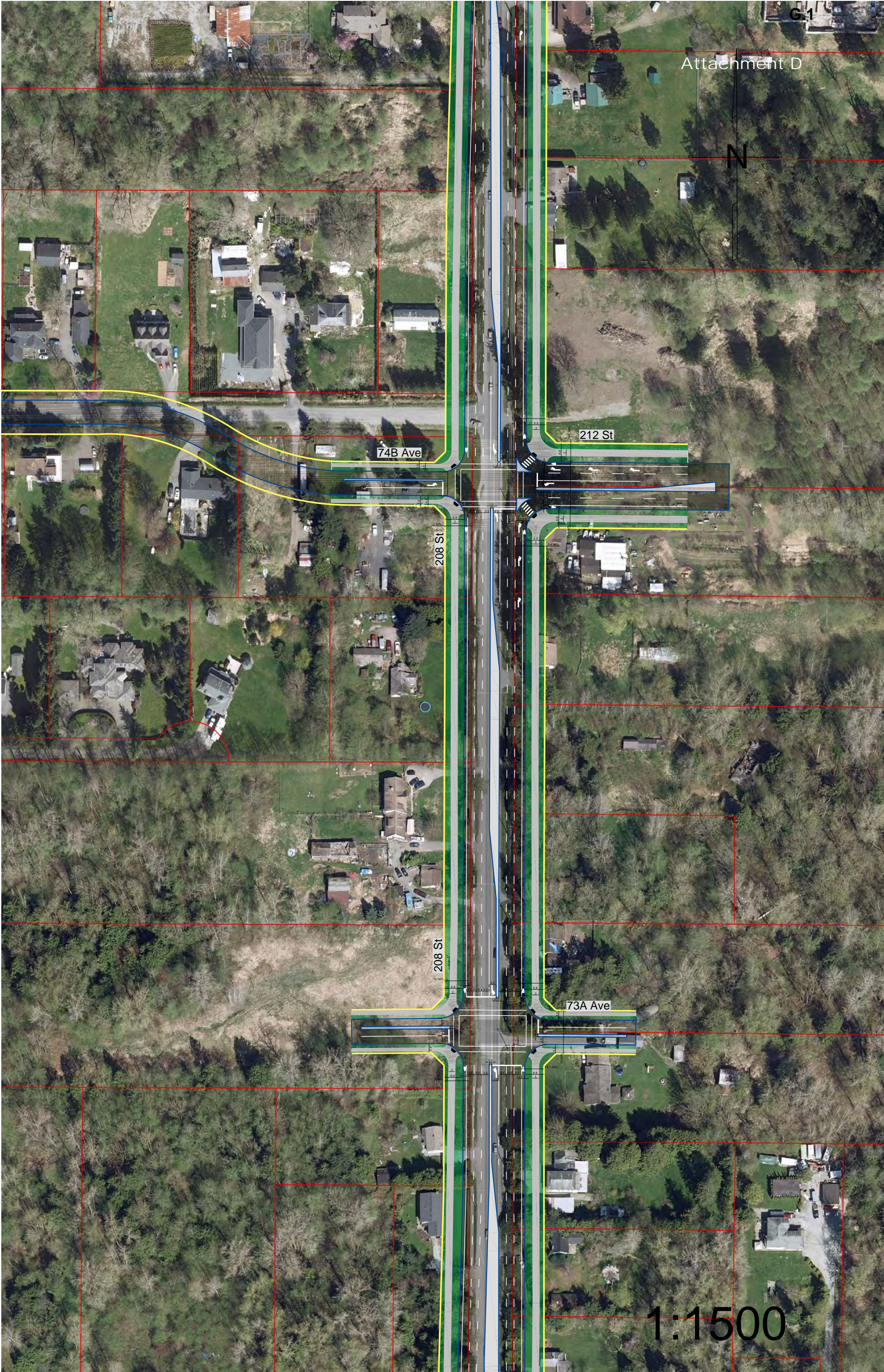
208 St

208 St

208 St

70 Ave

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Attachment D

N

212 St

74B Ave

208 St

208 St

73A Ave

1:1500



G.1

Attachment E

N

WTCD

208 St

77A Ave

208 St

76 Ave

208 St

1:1500



G.1

Attachment F

N

80 Ave

208 St

WTCD

208 St

1:1500

