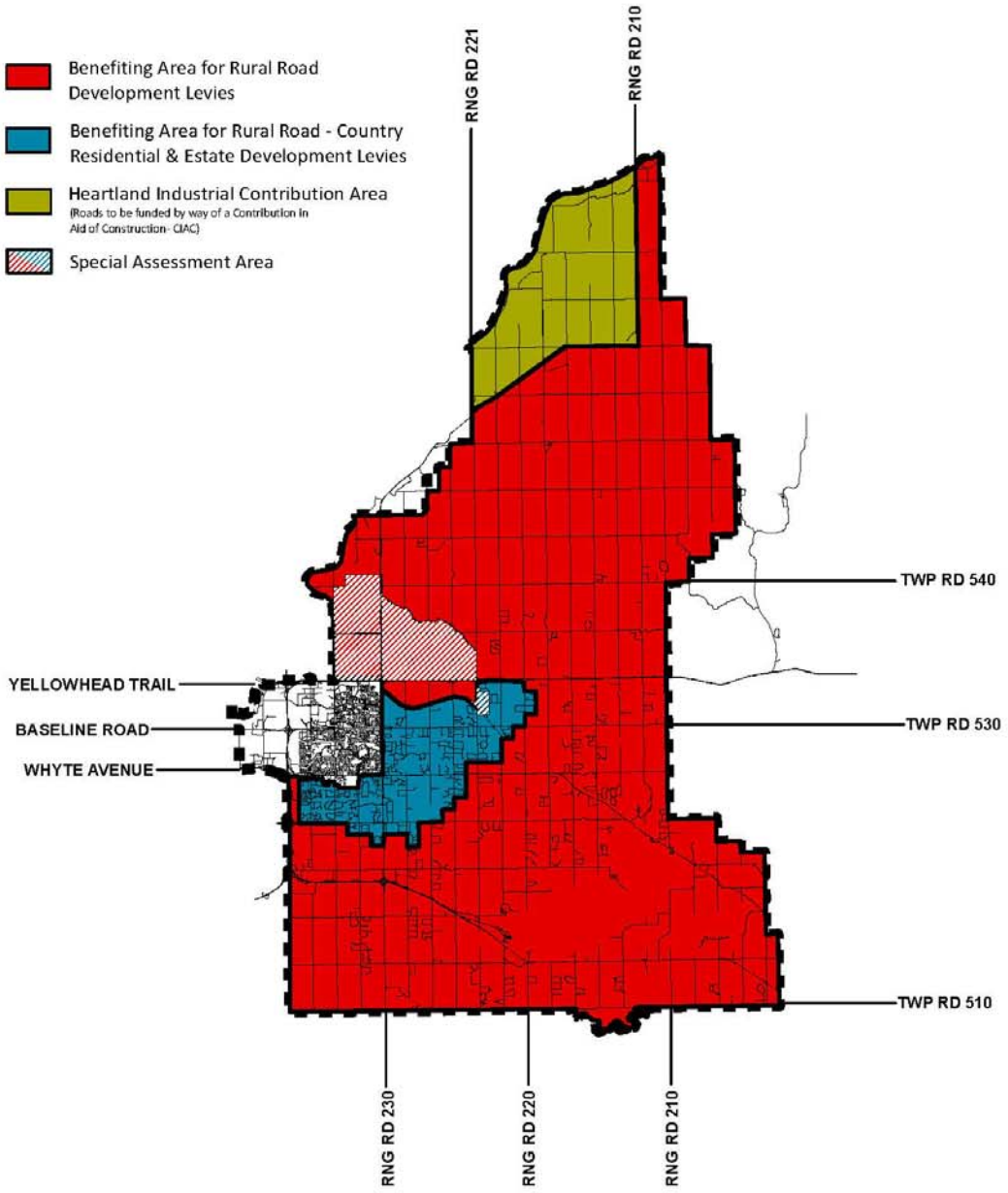
SCHEDULE "A-5" TO BYLAW 14-2019



Offsite Development Levies Rural Road Levies Benefiting Areas	**SCHEDULE "A-5"**
Drawn By: J. Cavers	PLANNING & DEVELOPMENT SERVICES — STRATHCONA COUNTY
Date Drawn: May 3, 2017	N:\PDS Admin\4000 - 4499 Land Use Services\ 4470 Technical Support\Planning Techs\ Engineering\Levies Maps\Development Area Maps
Revision Date: mm/dd/yy	

SCHEDULE "B-2" TO BYLAW 14-2019

STRATHCONA COUNTY
OFFSITE DEVELOPMENT LEVIES
2019

INFORMATION COMPILED BY:
PLANNING & DEVELOPMENT SERVICES
CORPORATE FINANCE
UTILITIES
TRANSPORTATION PLANNING & ENGINEERING

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STRATHCONA COUNTY
2019 OFFSITE DEVELOPMENT LEVIES

SECTION 1 - General Criteria

1.1 LEGISLATIVE AUTHORITY & PROCESS

Municipalities are authorized to implement and collect offsite development levies through the *Municipal Government Act*, Division 6, Sections 648-649.

Strathcona County implements its authority by establishing a bylaw which provides detailed development levy objectives and calculations. The bylaw is then applied to specific developments through a Development Agreement.

1.2 CAPITAL COST FUNDING ALLOCATIONS

A summary of capital funding allocations for new development is as follows:

Onsite Sanitary Sewer, Storm Sewer, & Water Distribution Systems

- Funded by Developer – Developer designs and constructs.

Onsite Oversizing of Water, Sanitary, Storm & Stormwater Management Facilities

- Funded by the Developer – Developer builds and recovers from adjacent undeveloped benefiting lands when they develop.

Water Storage, Pumping and Supply / Treatment Facilities

- Capital costs recovered through utility rates and/or local improvement assessments.

Water Transmission Lines

a) Urban Services Area – County constructs and recovers full costs through offsite development levies.

b) Country Residential and Hamlets – when serviced by County system, the County constructs and recovers costs through "contributions in aid of construction" and in accordance with the Utility Rates Policy. In addition, systems tying into urban water system will also pay a Connection Fee established and set forth under the County's Fees & Charges Bylaw.

Sanitary Sewage Treatment and Disposal

a) Capital costs of treatment and disposal for all systems tied into municipal collection – recovered through utility rates.

b) Capital costs of private sewage treatment systems – designed, constructed and funded by the developer or property owner.

c) New trunks in the Urban Services Area – County and/or Developer constructs and recovers full costs through offsite development levies.

d) Costs of upgrading collector trunk lines to meet infiltration standards of 0.28 L/sec/ha – proportionately allocated to existing developed benefiting areas

through utility rates and new undeveloped benefiting areas through offsite development levies.

e) Country Residential and Hamlets – County constructs and recovers costs through a combination of "contributions in aid of construction", utility rates, and connection fees established and set forth under the Fees & Charges Bylaw.

Stormwater Management Systems

a) Developers are responsible for the design and construction of stormwater management facilities with cost sharing arrangements established through development agreements.

b) A portion of the Capital Costs of the offsite or regional facilities constructed by the County in the NW Sherwood Park Drainage Basin are recovered through offsite development levies.

Roads

a) Urban arterial road costs are funded through offsite development levies.

b) Rural road upgrades required by new development are recovered through a levy per parcel, assessed at the subdivision or development permit stage.

c) Local and collector roads within new developments / subdivisions are designed and constructed by Developers at their cost.

d) Country Residential and Hamlets offsite road – County constructs and recovers costs through "contributions in aid of construction".

1.3. LEVY ASSESSMENT

1.3.1 Development Assessment:

Levies are assessed to all lands within the development area of a subdivision, except for:

a) Arterial road right-of-ways;

b) Land or existing rights-of-way not in title of the developer;

c) Environmental reserve;

d) The County, at its sole discretion, may allow the exclusion of those lands dedicated for the preservation of trees, natural habitat, or parks and natural areas dedicated over and above the 10% MR requirements, not utilized for PUL or utility requirements, and provided the subject lands are deeded to the County.
All other lands, including roads, easements, public utility lots, municipal reserve dedication, storm ponds, etc. are assessed offsite levies.

Municipal Improvements, such as stormwater management facilities, are permitted to include land and levy costs as eligible for cost sharing.

For special features or major facilities which will service a land area larger than the subdivision under development (such as neighbourhood parks and stormwater management facilities), the County may, at its discretion, allow payment of these levies to be deferred to the whole of the benefiting lands under ownership of this developer, provided that any levies so deferred shall be escalated and indexed to the years that actual payments are made.

1.3.2 Levy Calculations

Levy calculations are based upon engineering cost estimates for proposed capital projects and actual costs of completed work (including financing costs).

1.3.3 Levy Payment Policies:

Offsite development levies shall be paid by Developers utilizing the following payment method:

1. Levies shall be paid on a parcel by parcel basis at the time of title transfer by the developer or an application for a development permit is received by the County. The calculation of the charge for each parcel shall be calculated by taking the gross hectares of the development area multiplied by offsite development levies and divided by the number of saleable lots within that particular stage.

   All levies shall be paid by the developer to the County no later than one year following the date of execution of the Development Agreement. Caveats protecting the County's financial interest shall be registered on all applicable titles at the Developer's expense.

2. Interest on overdue amounts shall be calculated from 12 months following the date of execution of the Development Agreement at a rate per annum equal to Prime Rate plus two percent (2%). Such interest shall be adjusted from time to time in accordance with the change in the prime rate.

3. Any Developer or its representative, who has been issued a Notice of Default with the County or has failed to pay any levies, fees or contributions within 30 days of the invoiced date shall be subject to the following:

   i) For the first documented default or payment failure, they shall be required to pay 50% of the levies or contributions payable prior to registration of the plan of subdivision. The remainder of the unpaid offsite development levies shall be paid no later than one year following the date of execution of the Development Agreement.

   ii) For the second documented default or payment failure, that Developer shall be required to pay 100% of the offsite development levies and contributions owing prior to registration of the plan of subdivision.

   iii) For the third documented default or payment failure, that Developer shall be required to pay 100% of all the offsite development levies

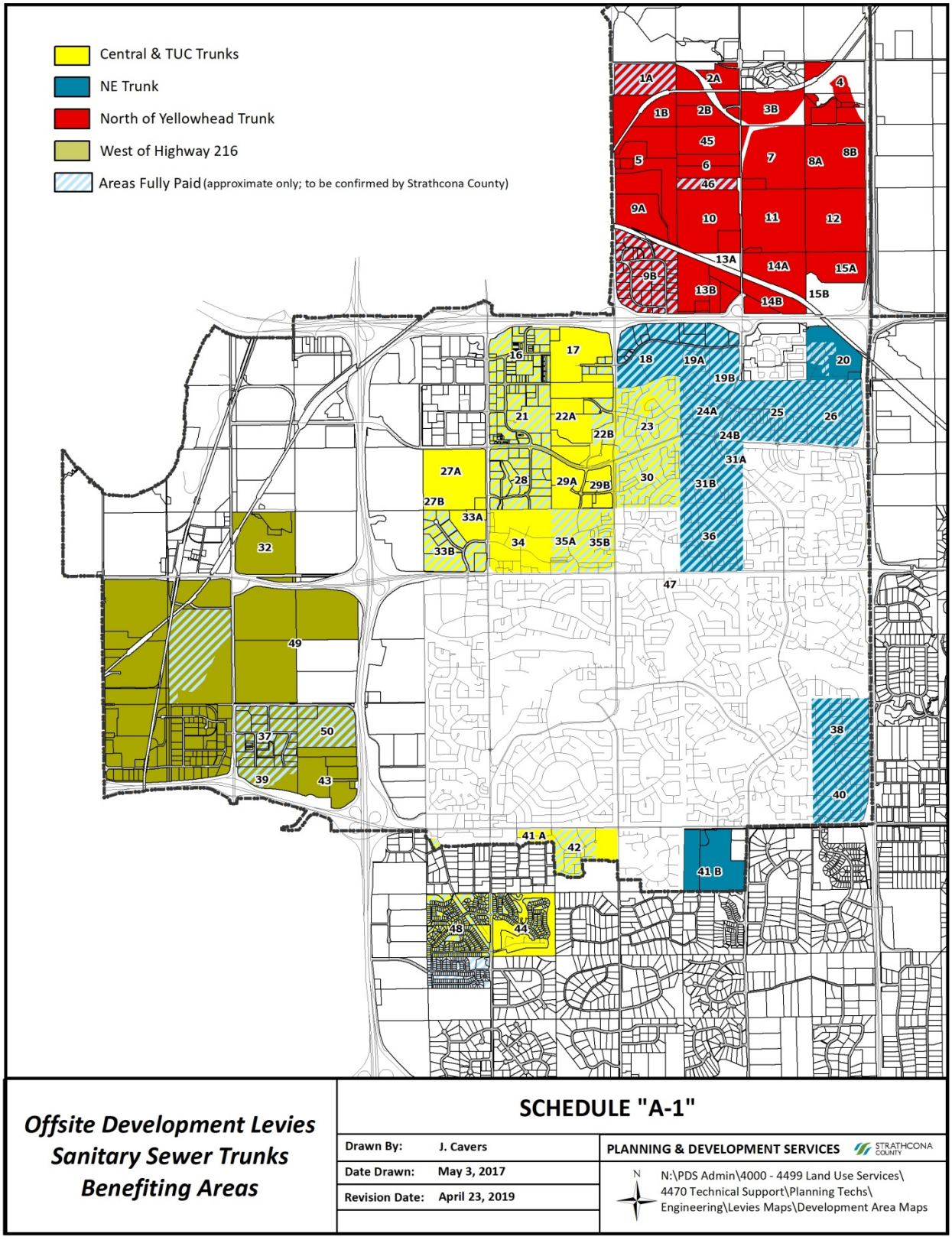
and contributions owing in conjunction with the execution of the Development Agreement.

iv) Where a Developer who has been subject to clauses i) through iii) above, and has made all payments of levies and contributions as required for a minimum of five years, that Developer may be eligible to the payment method in subsection i) above, at the County's discretion.

** ***Recognizing that individuals and corporations operate under many different legal entities, the Developer shall include individuals, corporations, employees or representative associated with the Developer and shall not be tied to a specific corporation or entity.***

4. Where any Developer or its representative has outstanding Notice of Defaults for prior stages of development, the County may, in its sole discretion, defer entering into new development agreements or addendums until such time as all defaults have been rectified to the satisfaction of the County.

STRATHCONA COUNTY
2019 OFFSITE DEVELOPMENT LEVIES



SECTION 2 - Sanitary Sewer

GENERAL CRITERIA

- Strathcona County will provide a safe, reliable wastewater collection system at an acceptable level of service.
- Sanitary trunk sewer costs will be shared equitably within each facility's service area on a gross development area basis.
- The cost of facilities shall be shared equally by the benefiting areas.
- In the case of sanitary trunks located internally in subdivisions that provide both trunk and local collection functions, only the oversizing cost shall be paid by benefiting upstream service areas. In this case, local collection sewers are those that have service connections to abutting lots. Also in this situation, oversizing is defined as the extra cost of the trunk over and above what is required to service the adjacent development.

SANITARY SEWER TRUNKS FUNDED BY OFFSITE DEVELOPMENT LEVIES

1. SHERWOOD PARK NE & CENTRAL TRUNKS

- The NE and Central Trunks were purchased from AMHC in 1989.
- These mains are fully constructed and debentures are retired.
- Levies relate to the repayment of the $10.4 million from General Revenues used in the AMHC acquisition, of which $5,408,000 is the NE and Central Sanitary Sewer trunks proportionate share.

2. NORTHEAST TRUNK UPGRADES

- The existing trunks are completely constructed.
- In order to address the servicing needs of new engineering design standards based on an infiltration allowance of 0.28 L/s/ha as well as changes to land uses in the Municipal Development Plan since 1989, upgrading of the trunk capacities is required.
- The upgrading will provide a continued level of service acceptable for both existing and new development in the benefiting areas.

3. CENTRAL TRUNK & TUC NORTHWEST TRUNK UPGRADES

- The existing trunks are completely constructed.
- In order to address the servicing needs of new engineering design standards based on an infiltration allowance of 0.28 L/s/ha as well as changes to land uses in the Municipal Development Plan since 1989, upgrading of the trunk capacities is required.
- The upgrading will provide a higher level of service to both existing and new development in the benefiting areas.

- Flow monitoring and hydraulic modeling identify that the existing trunk sewers on the west side of Sherwood Park do not have capacity to provide the standard level of service in Sherwood Park and were not designed to service any lands south of Wye Road.
- Engineering studies recommend that the most cost-effective method for servicing lands south of Wye Road and the industrial land north of Baseline Road and to meet upgraded standards is a new trunk as well as upgrade of the existing line.
- The costs associated with the Central Trunk and TUC trunk benefiting areas have been blended and incorporated into one benefiting area.

4. 34 STREET & 84TH AVENUE – Gold Bar Wastewater Treatment Plant to 84 Avenue (City of Edmonton Connection)

- Under the proposed Wastewater Treatment and 34th Street Trunk Agreement between the City of Edmonton and Strathcona County, the County is responsible for approximately 42% of the estimated capital costs of $16,585,464 of the required trunk. The benefiting area includes Sherwood Industrial area north of Wye Road in the 84th Avenue service area. (see Table 1)
- Within this benefiting area, Developers shall pay a "contributions in aid of construction". The amount of contribution required by the Developer shall be determined and payable pursuant to a Development Agreement and the contribution will go towards the specific capital asset required within this benefiting area.

5. NORTH OF YELLOWHEAD

- Sanitary servicing to the majority of the area is being provided from a new stub connection to the Alberta Capital Region Wastewater Commission (ACRWC) along Township Road 534.
- Based on the 2014 Stantec North of Yellowhead Engineering Design and 2019 unit rates, the estimated capital costs of sanitary sewer upgrades is $15,127,000 (Table 1).
- A small portion of sanitary servicing is also required to connect south into the gravity manhole located along Range Road 231, north of the CN Rail tracks.

6. COUNTRY RESIDENTIAL/CLUSTER DEVELOPMENT

- Where Country Residential/Cluster developments are serviced with sanitary sewer, Developers shall, in addition to "contributions in aid of construction", pay a connection fee as established by the Fees & Charges Bylaw. This connection charge contribution will go towards the specific capital asset in that particular benefiting area.

Northeast Sanitary Trunk Benefiting Area:

$\frac{\$190}{10^*}$ = $ 19 per lot or connection

TUC Trunk Benefiting Area:
$4,982 = $498 per lot connection
10*

Based on assumed typical 10 lots per hectare density

7. SANITARY SEWER STORAGE

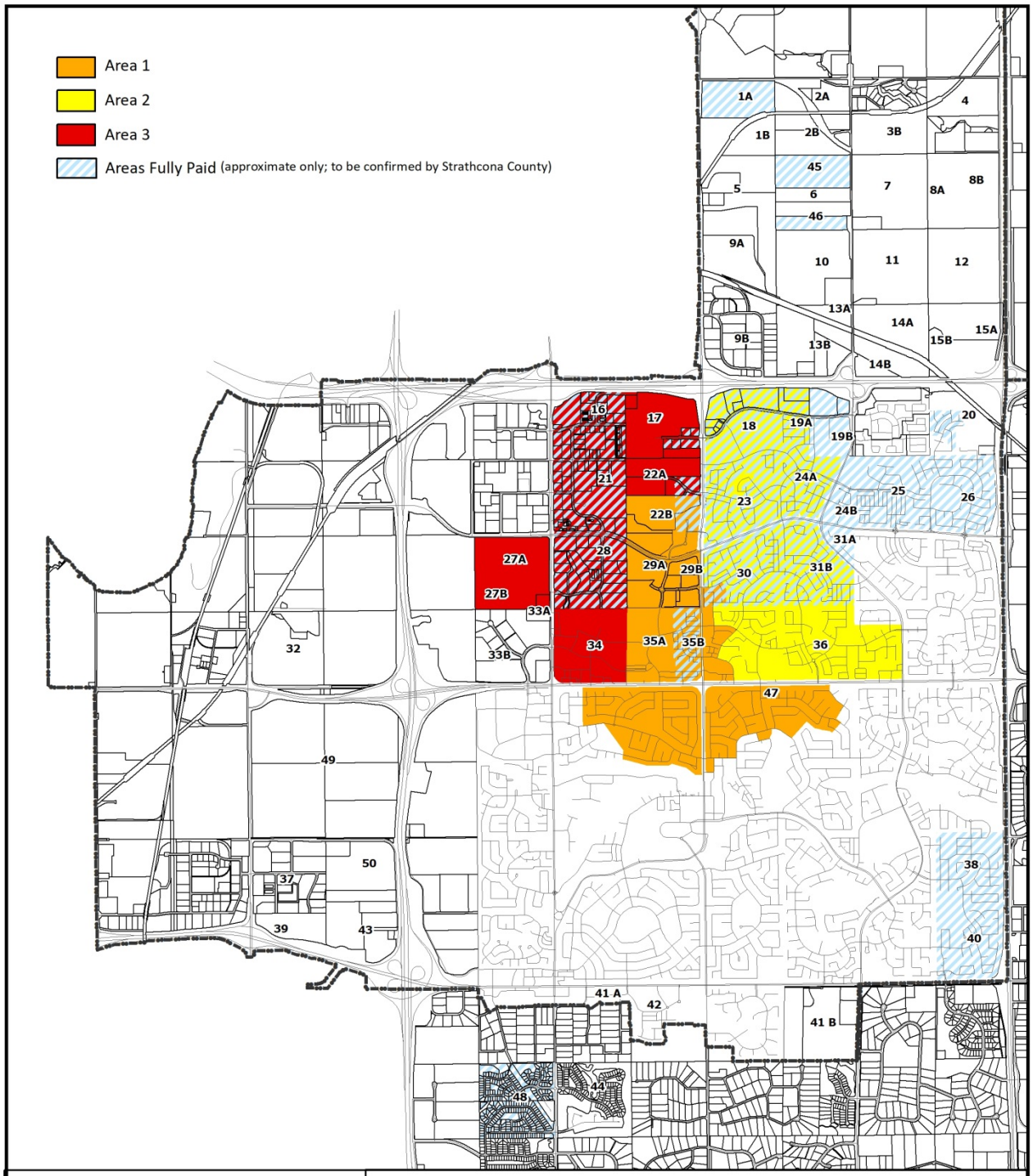
- In 2004, the ACRWC conducted a level of service study to determine the storage necessary for each municipality based on the selected level of service criteria. A study conducted by UMA incorporated the information from the Commission's study into the Sanitary Servicing Master Plan for Sherwood Park.
- Based on the UMA study, a cost of $17,895,047 (see Table 1) was estimated and would be collected by both new and existing areas of Sherwood Park. This cost has been proportionately allocated to all sanitary benefiting areas.

Table 1:

Strathcona County
2019 Sanitary Facilities Cost Estimates

Project Description	Project Cost Estimates	Developer Levy Costs
34th Street Sanitary Trunk Upgrading - Phase 1A	$340,859	$110,025
34th Street Sanitary Trunk Upgrading - Phase 2	$6,105,892	$974,908
34th Street Sanitary Trunk Upgrading - Phase 3	$662,220	$105,735
34th Street Sanitary Trunk Upgrading - Phase 4	$2,005,402	$322,102
34th Street Sanitary Trunk Upgrading - Phase 5	$7,811,950	$1,247,309
North of Yellowhead Wastewater - Design	$642,367	$493,252
North of Yellowhead Wastewater - Phases 1 & 2	$ 15,127,000	$11,576,469
TUC Upgrade - Phase 2	$964,484	$56,254
TUC Upgrade - Phase 3	$1,918,703	$111,908
NE Sanitary Sewer Line Emerald Hills	$174,173	$21,160
Central Sanitary Trunk Upgrade - Phase 1	$2,101	$73
LOS Wastewater Storage - Design	$2,103,609	$514,649
LOS Wastewater Storage - Construction	$15,791,438	$3,650,632

STRATHCONA COUNTY
2019 OFFSITE DEVELOPMENT LEVIES



SECTION 3 – Drainage

GENERAL CRITERIA

The drainage plan for NW Sherwood Park has been established by a report completed by Stantec Consulting in 2000. The major focus of this plan is the diversion of 210 hectares from Culvert 1, crossing Highway 16 at Highway 216 to Culvert 9, west of Sherwood Drive on Highway 16. The purpose of the diversion is to avoid any additional downstream flows from Culvert 1 by diverting flows to Culvert 9, thereby reducing the total downstream effects. The benefiting lands have been split into three areas as follows:

SHERWOOD PARK DRAINAGE UPGRADES FUNDED BY OFFSITE DEVELOPMENT LEVIES

1. AREA ONE – POND 115

The estimated costs (Table 2) for the outfall and upstream work are proportionately allocated to offsite development levies on new undeveloped benefiting lands and on existing developed benefiting areas through utility rates.

2. AREA TWO – CULVERT 9

The costs for lands lying east of Sherwood Drive and west of Cloverbar Road for Culvert 9 have now been included for provincial funding as part of the Highway 16 upgrades and no longer required to be proportionately allocated to offsite development levies on new undeveloped benefiting lands or on existing developed benefiting areas through utility rates.

3. *AREA THREE – CULVERT 9 DOWNSTREAM DRAINAGE CONVEYANCE*

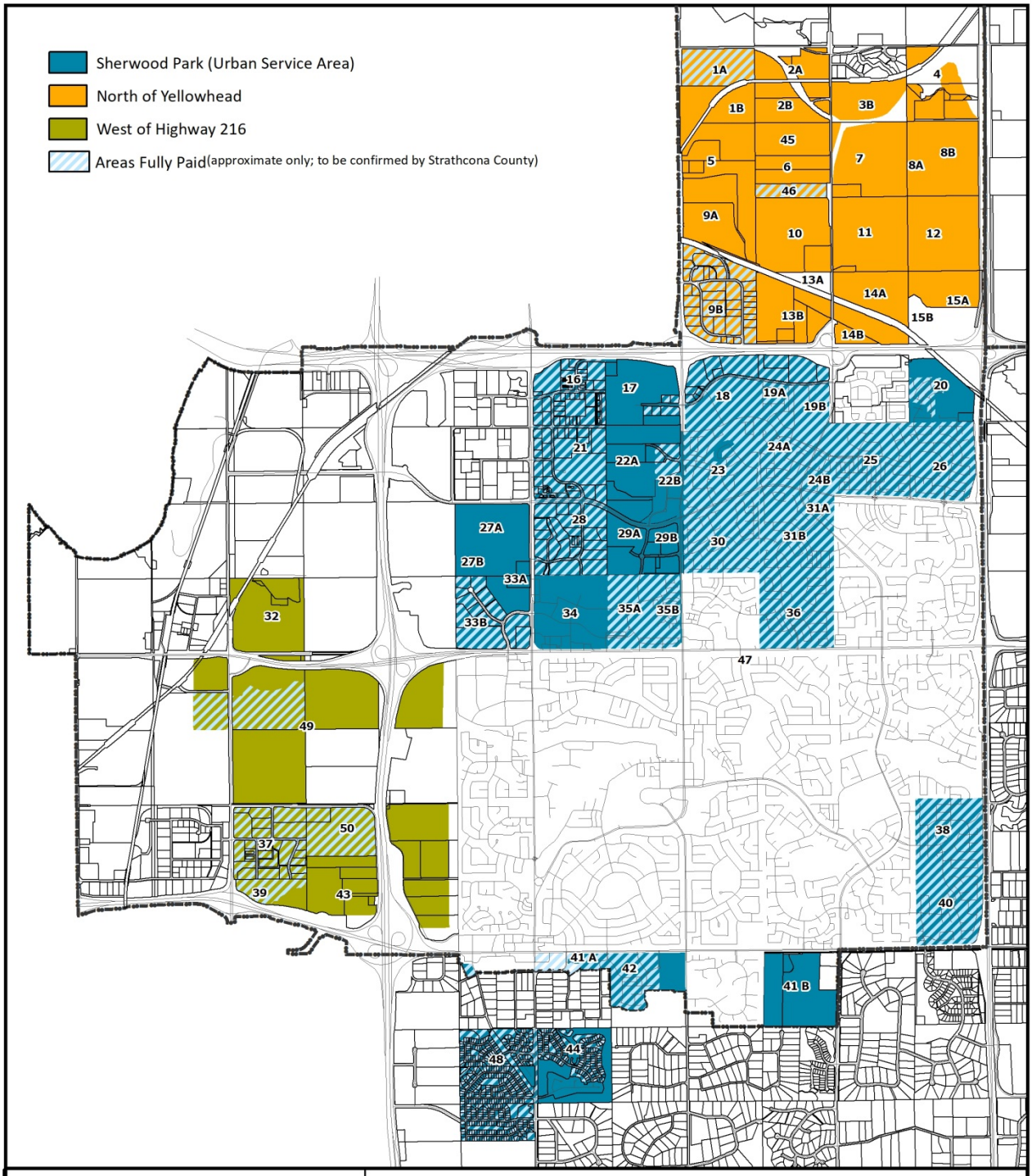
Construction costs (Table 2) for lands lying west of Sherwood Drive for Downstream Drainage are proportionately allocated to offsite development levies on new undeveloped benefiting lands and on existing developed benefiting areas through utility rates.

Table 2:

Strathcona County
2019 Storm Facilities Cost Estimate

Project Description	Project Cost Estimates	Developer Levy Costs
NW Sherwood Park Drainage - Phase 1 of 4	$9,225	--
NW Sherwood Park Drainage - Phase 2 of 4	$457,690	$37,782
NW Sherwood Park Drainage - Phase 3 of 4 Downstream Conveyance	$5,965,734	$2,065,454

STRATHCONA COUNTY
2019 OFFSITE DEVELOPMENT LEVIES



Offsite Development Levies Water Mains Benefiting Areas	**SCHEDULE "A-3"**	
	Drawn By: J. Cavers	PLANNING & DEVELOPMENT SERVICES STRATHCONA COUNTY
	Date Drawn: May 3, 2017	N:\PDS Admin\4000 - 4499 Land Use Services\ 4470 Technical Support\Planning Techs\ Engineering\Levies Maps\Development Area Maps
	Revision Date: April 23, 2019	

SECTION 4 - Water Transmission Mains

GENERAL CRITERIA

- Strathcona County will provide a safe, reliable supply of potable water at an acceptable level of service.
- Water Transmission Main costs will be shared equitably within the entire service area on a gross development area basis.
- The full cost of the true transmission mains shall be shared by the entire service area. True transmission mains are those that are 400mm and larger in size and do not have service connections to abutting lots.
- In the case of 400mm and larger water mains, located internally in subdivisions that provide both transmission and distribution functions, only the oversizing cost shall be shared by the entire service area. Water mains providing a distribution function in this case are those that have service connections to abutting lots. Also in this situation, oversizing is defined as the extra cost of the water main over and above a base 300mm water main. The oversizing is typically identified at the detailed subdivision design stage and the cost would be recoverable under the Development Agreement.

TRANSMISSION MAINS FUNDED BY OFFSITE DEVELOPMENT LEVIES

1. SHERWOOD PARK WATER MAINS I & II

- 17 Street to Clover Bar Road, Clover Bar Road – Colwill Boulevard to Primrose Boulevard; Broadmoor Boulevard – Mission Street to Highway 16.
- Water Mains I & II were purchased from AMHC in 1989.
- These mains are fully constructed, and debentures are retired.
- Levies relate to repayment of the $10.4 million from grant reserves used in the AMHC acquisition, of which $4,992,000 is the Water Main I and II proportionate share.

2. SHERWOOD PARK WATER MAIN III (Clover Bar Road)

- Clover Bar Road – Primrose Boulevard to South Highway 16.
- This transmission main provides service to the northern parts in combination with the new transmission mains described below and Water Mains I & II.
- The balance from Summerwood Boulevard to Highway 16 will be constructed by the County in stages as development and construction proceeds.

3. SHERWOOD PARK WATER MAIN IV

- Clover Bar Road – Colwill Boulevard to Wye Road.

- This main is now completely constructed by oversizing lines through the adjacent subdivisions, and all oversizing costs paid.

4. LAKELAND DRIVE AND SHERWOOD DRIVE WATER TRANSMISSION LINES

- These mains will provide service to the northern parts of Pressure Zone 1 and Pressure Zone 3 in combination with the other transmission mains.
- These mains will be constructed by the County in stages as development proceeds.
- Lakeland Drive transmission line from the proposed reservoir site to Lakeland Drive - $1,600,423 (see Table 3)
- Sherwood Drive transmission line cost - $965,579 (see Table 3)

5. SOUTH OF WYE TRANSMISSION MAIN

- Parallels Wye Road to south from TUC to Range Road 231
- This main provides service to the commercial and estate residential developments south of Wye Road.
- Parts of this main are constructed through the Estates of Sherwood Park and Wye Commercial.
- The balance of the line will be constructed by Developers as development continues by utilizing lines through the developments.
- Internal cost sharing between Developers will be administered through Development Agreements.

6. NORTH OF YELLOWHEAD TRANSMISSION MAIN

- Range Road 232 from Liberty Road to south of the CP Tracks.
- This main provides service to Griffin Industrial and the North of Yellowhead areas.
- A portion of the main was constructed by Lockerbie and Hole on a cost recovery basis.
- This area has preliminary design completed with construction cost estimates of approximately $12,098,000 (see Table 3) for servicing the remaining areas in this basin.
- These mains will provide service to the lands north of Yellowhead and will be constructed by the County in stages as development proceeds.

7. COUNTRY RESIDENTIAL/CLUSTER DEVELOPMENTS

- Where Country Residential/Cluster developments are serviced with water though the Rural Water Main Financing Policy, Developers shall provide the "contributions in aid of construction" as required by the said policy.

8. ARDROSSAN AND JOSEPHBURG RESERVOIR AND STORAGE UPGRADES

- The proposed facilities required to service future development will not be levied, but rather collected through user rates, similar to the Urban Service Area of Sherwood Park.
- Any oversizing of these facilities to accommodate potential future lands, are to be constructed and paid for by the developers as required as part of their development costs, to be incorporated in appropriate Development Agreements and not as levies.

9. NEW RESERVOIR FILL MAIN & LAKELAND DRIVE TRANSMISSION EXTENSION

- The proposed reservoir and supply system required to service future development will not be levied, but rather collected through user rates. The exception to this is the Reservoir Fill Main and the Lakeland Drive Transmission Extension.

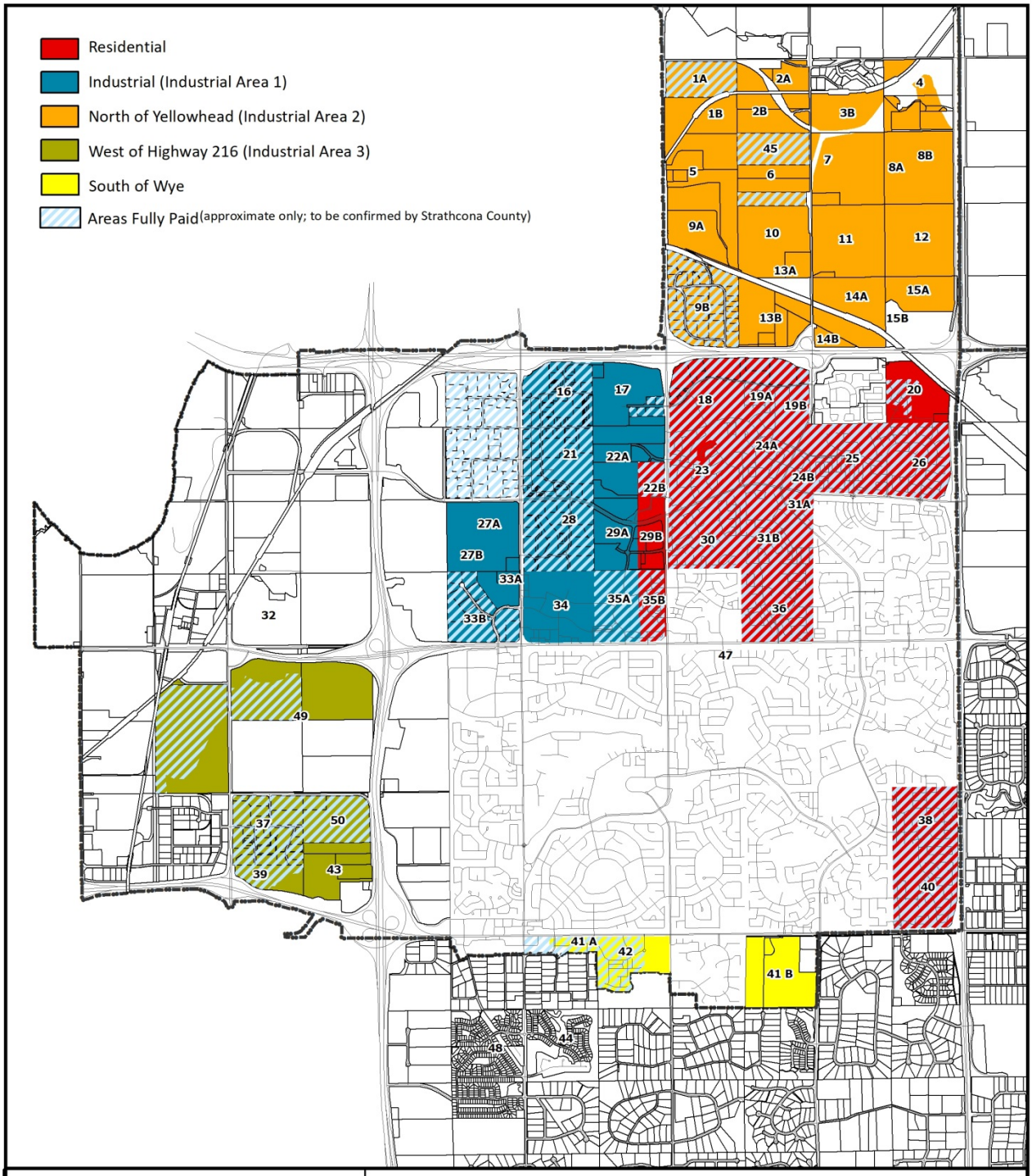
Table 3:

Strathcona County
2019 Water Facilities Cost Estimates

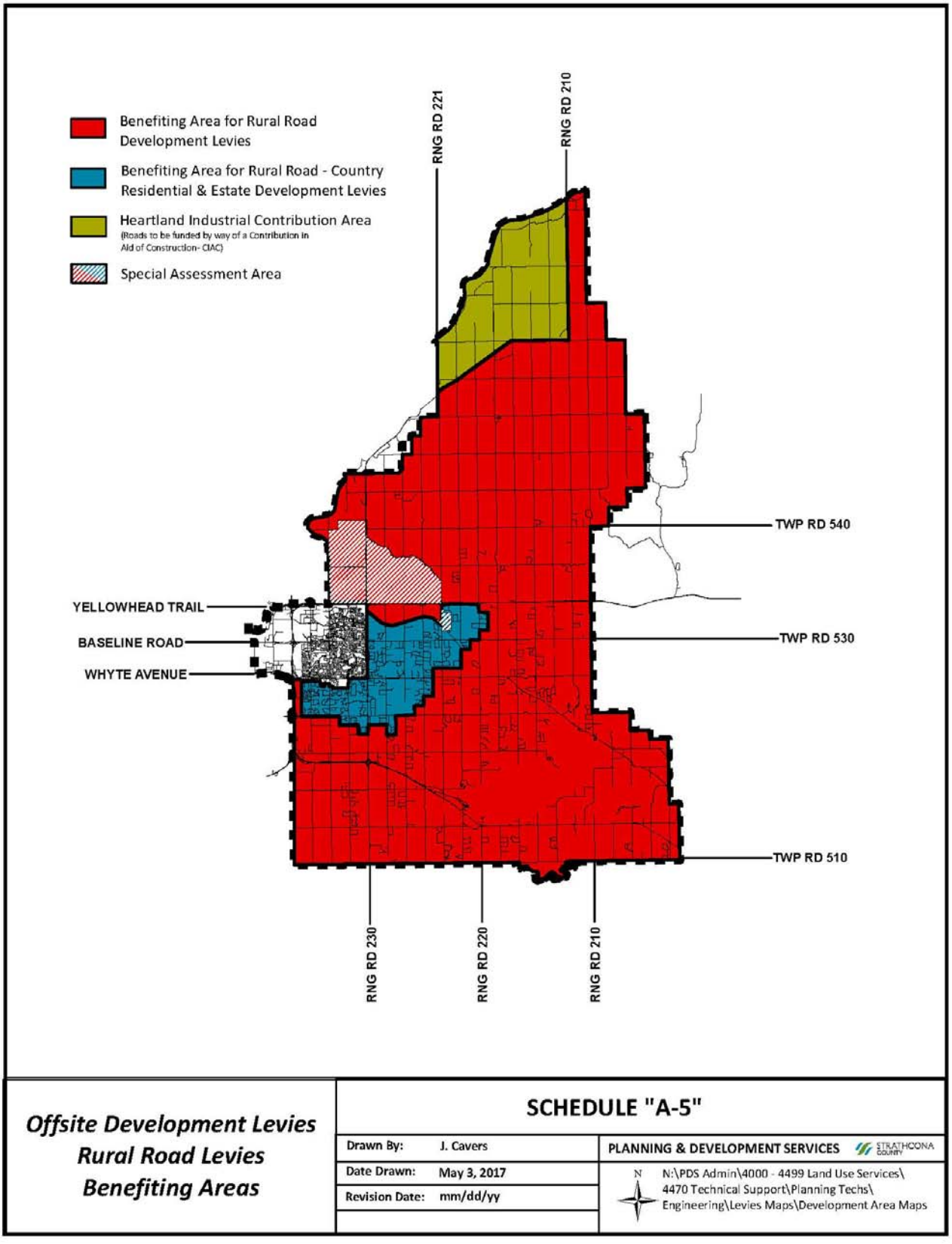
Project Description	Project Cost Estimates	Developer Levy Costs
Sherwood Drive North Watermain - Phase 2 Palisades to Emerald Drive	$965,579	$433,833
Lakeland Drive Watermain Phase 2	$1,600,423	$774,482
North of Yellowhead - Design	$642,935	$622,617
North of Yellowhead - Phase 1	$12,098,000	$11,747,033
Strathcona County Water Supply System - Phase 1A Fill Line to Bison Way	$12,602,967	$5,326,331
Strathcona County Water Supply System - Phase 1 and 2 (34th & 17th St. Infrastructure)	$32,796,330	--
Lakeland Reservoir / Pumphouse Design	$337,390	--
Clover Bar Road Watermain Phase 2	$194,585	$92,313

SCHEDULE "B-2" TO BYLAW 14-2019

STRATHCONA COUNTY
2019 OFFSITE DEVELOPMENT LEVIES



STRATHCONA COUNTY
2019 OFFSITE DEVELOPMENT LEVIES



SECTION 5 – Arterial Roads / Rural Roads

GENERAL CRITERIA

- Since the development of lands creates a demand for new arterial roadways and an increase in capacities of existing arterial roadways, these costs are to be recovered proportionately from benefiting developments.
- The levies contained herein are based on the land use and projected development pursuant to the current Municipal Development Plan.
- Due to the nature and intensity of traffic generation, the levies for industrial, urban residential, and rural development outside the Urban Services Area are prepared separately.

1. ***ROAD RIGHT-OF-WAY REQUIREMENT***

Within the Urban Services Area, all new development will require arterial roadways and such roadways are considered to benefit all new development. The construction of the arterial road and the cost of the land purchased by the County for arterial road right-of-way is included in the levy calculations as costs to be shared equitably by new development.

Where the arterial road traverses any parcel, the owner/developer of the land will be required to dedicate land up to 24 metres in width for the purpose of constructing the road. Where the arterial road is located on the boundary between two parcels, each parcel will be required to dedicate 12 metres of land, in addition to any existing road allowances. Where there is a requirement for a second left turn lane at the arterial/arterial intersection, the owner/developer will be required to dedicate land equal in width to the additional wider road surface required to accommodate the second left turn lane. Typically, the additional left turn requires a 3.5 metre wide lane with a taper and a length of varying width on both side of the intersection for transition of the arterial road right-of-way back to its nominal width.

Further requirements at arterial/arterial intersections for parallel widening of the right-of-way for the deceleration lane, acceleration lane and corner cut-off for the arterial roads will be purchased from the owners at fair market values, and such costs included in the levy calculations. Road right-of-way widths are as prescribed for each specific arterial roadway.

In summary:
The developer/owner will dedicate the following land for arterial road right-of-ways:

- 24 metres of the specified arterial road right-of-way width.
- land required for the additional left turn lane at arterial/arterial intersections.

The County will purchase the following land for arterial right-of-ways:

- the difference between the specified arterial road right-of way width and the 24 metre dedication.

- the parallel widening for the deceleration and acceleration lanes arterial/arterial intersection.
- the corner cut-off at arterial/arterial intersections.

Within the Rural Area, no land costs are included in the levy calculations as road right-of-way widening of major roads are included in subdivision approval conditions.

2. TRANSPORTATION GRANTS

The application of grants to arterial road projects are reviewed annually and annual levy calculations for arterial roads may reflect current grant applications as determined by the County.

3. NOISE ATTENUATION FACILITIES

Developers are responsible to construct required noise attenuation on a project specific basis, in accordance with the County's Urban Traffic Noise Policy SER-009-027 and amendments thereto.

Noise attenuation facilities required for upgrading in conjunction with completion of arterials in developed areas are included in calculations of arterial roadway development levies.

4. ARTERIAL ROAD ACCESSES AND ARTERIAL/COLLECTOR ROAD INTERSECTIONS

Developers are responsible for the construction cost of intersections to arterial roadways required for access to their development, including acceleration, deceleration, and median left turn bays, and related costs.

The developer/owner will be required to dedicate all land required over and above the nominal arterial road right-of-way width for arterial/collector road intersections. This includes land for the corner cut-off, deceleration lane, acceleration lane, and additional left turn lanes. A standard arterial median will accommodate one left turn lane without the need to widen the arterial road right-of-way.

The cost of arterial road signals, will be shared in the following manner:
Arterial/Arterial Road Intersections

- The cost of signals at arterial/arterial road intersections will be included in the levies.

Residential Arterial/Collector Road Intersections

- Where no development has occurred on either side of the road, 100% of the signals will be included in the levies.
- Where one side of the arterial road is developed, 50% of the cost of the signals will be included in the levies.

Industrial Arterial Road Intersections

- The costs of signals will be the responsibility of the developer.

Where arterial roads have been constructed by the County prior to development of contiguous lands, the County may have constructed components of intersections with the arterial road. These intersection costs will be recovered from the adjacent property when it develops, at the time Development Agreements or permits are required.

5. ARTERIAL ROADWAY LANDSCAPING AND PEDESTRIAN WALKWAYS

Arterial Roadway Landscaping and Pedestrian Walkways required for new development are included in calculations of arterial roadway development levies.

6. ARTERIAL ROAD CONSTRUCTION PROGRAMS

Any proposed new developments which are not contiguous to or adequately serviced by an existing arterial roadway may be required to construct and pay for that portion of the arterial roadway necessary to provide required access. Arterial levies payable on that development may be credited to the arterial construction costs incurred by that development.

7. SUBDIVISION IDENTIFICATION FEATURES

Individual developers and landowners are responsible for 100% of the capital costs of subdivision identification features and related land requirements, pursuant to Directive SER-008-026 New Development Major Entrance Features, and amendments thereto.

8. UNDERGROUND POWER COSTS

Underground power costs have been added to the estimated construction costs of applicable arterial roads.

9. CONSTRUCTION COST ESTIMATES

Construction costs are based on the actual contract unit rates applied to average construction quantities per kilometre of arterial roads built.

Construction cost estimates include all site preparation, earthwork, base and surface construction, concrete work, markings, signage, utilities, landscaping, land requirements, engineering, and related facilities.

SPECIFIC BENEFITING AREAS

1. RESIDENTIAL ARTERIAL ROADS WITHIN THE URBAN SERVICES AREA

a) Residential arterial roads and related facilities required to service new development within the Urban Services Area are included and identified in Table 4.

b) As residential development generates a considerable amount of traffic which will impact the downstream roads, the arterial roadways development levies include a downstream component calculated herein to equitably recover such costs.

The downstream portion of the Arterial Roadways Development Levies are based on the following guidelines:

i) Based on the complete development of the residential area in the Urban Services Area, the total traffic projections, based on population and employment projections, is calculated for each major arterial road.

ii) Hypothetical traffic projections of existing population (excluding development) is also calculated for each arterial road.

iii) The difference between i) and ii) above would indicate the impact of development on the roadway system.

iv) The impact is then expressed as percentages of total traffic volumes on the various roads.

v) Downstream levies are then calculated on the basis of these percentages. Any impact less than 10% of the total traffic is excluded.

2. INDUSTRIAL ARTERIAL ROADS

a) **Area I** – Industrial Area in Urban Service Area between Baseline Road and Highway 16 and between Sherwood Drive and Range Road 216 East; Arterial roads and related facilities required to service new development in the Industrial Area I are identified in Table 4.

No downstream costs are added to this benefiting area.

b) **Area 2** – Industrial Area in Urban Service Area North of Highway 16 Arterial roads required to service new development in Industrial Area 2 as recommended in the North of Yellowhead Engineering Design Brief are identified in Table 4.

c) **Area 3** – Sherwood Industrial Area south of Baseline Road and west of Highway 216. Within Industrial Area 3, Developers shall pay a "contribution in aid of construction". The amount of contribution required by the Developer shall be determined and payable pursuant to a Development Agreement and the contribution will go towards the specific capital asset in that particular benefiting area.

d) **South of Wye Development Area** - The estimated cost of the improvements shown in the table below, represents the cost of upgrading Wye Road to a six lane cross-section as well as improvements on Range Road 232.

An analysis of the projected traffic from the South of Wye benefiting area was completed and has been shown as percentage of the total 2015 projected traffic volume on Wye Road in each of the sections from Ordze Avenue to Clover Bar Road. The percentage values were then applied to the total cost in each section and is represented as the Development Cost Component as identified in Table 4.

3. RURAL ROAD LEVIES

A single subdivision in isolation does not create the necessity for the County to upgrade various roadways. It is the combined effect of a number of subdivisions that increase traffic volumes to the point where a road can no longer accommodate the traffic volume. This is particularly true on the downstream end of the road network.

As properties are subdivided and additional residences are constructed, increased demand on the County's road network occurs to the extent that at some point an upgrading of some roads will be required in order to accommodate the increase in traffic volumes.

The Rural Road Master Plan includes expenditures to maintain the County's rural grid roads and cold mix network at the present or status quo level.

A rural road levy will assist the County in the capital construction costs in upgrading the various roads.

The estimated 2019 cost of upgrading the sub-grade, base, and geometric aspects of a rural road is $571,629 per km.

The length of road associated with providing access to every two sections of land is three miles, or 4.8 km.

Based upon experience related to recent Country Residential subdivisions development in the County, approximately 50 lots per quarter section, or 400 lots for every 2 sections is the estimated resulting density.

Applying a cost of $571,629 per km of road, the upgrade cost per lot would be $6,789/lot.

In the proposed Rural Road Levy calculation, a credit is given to recognize that a portion of existing taxes contribute to the current rural road Reconstruction Network Program.

The amount of the levy will be reviewed from time to time to reflect the changing costs over time.

The levies will be applied as follows:

- The number of new parcels created other than exceptions noted above less residual parcels, i.e. If a quarter section is

subdivided into 5 lots then 4 additional lots would be created from the quarter section adding demand on County roadway system.

- The rural road levy would not be applied to first parcel out, 80 acres splits or boundary adjustments.
- The money collected from levies would be applied to roads where traffic volumes warrant and not necessarily the road which abuts the development.
- The Rural Road levies apply to all new subdivisions not within a prescribed benefiting and levies area.

4. RURAL ROAD LEVIES – COUNTRY RESIDENTIAL AND ESTATES

As density is greater in the Country Residential and Estate Residential benefiting area, a separate rural road levy exists for this benefiting area. The Rural Road Levy for Country Residential and Estate Residential is based upon 2009 actual costs to upgrade Township Road 530 from Highway 21 to Highway 824 and Range Roads 231, 232, and 233 from Wye Road to Highway 628 as recommended in the Function Planning Studies. This estimated cost is the cost to upgrade the remaining grid roads to a Class I standard.

The total estimated cost to upgrade the roads within this benefiting area, including land for right-of-ways is $117,630,988. Based on a draft study of the Country Residential Policy area, potential undeveloped and existing lots within this benefiting area is 5,006 lots. The Rural Road Levy proposed for this benefiting area, based upon actual 2017 costs is $23,266 per subdivided rural lot. The amount of the levy will be reviewed from time to time to reflect the changing costs over time.

The levies will be applied as follows:

- The number of new parcels created other than exceptions noted above less residual parcels, i.e. If a quarter section is subdivided into 50 lots then 49 additional lots would be created from the quarter section adding demand on County roadway system.
- The money collected from levies would be applied to roads within the benefiting area and not necessarily the road which abuts the development.

STRATHCONA COUNTY
2019 OFFSITE DEVELOPMENT LEVIES

Table 4:

Strathcona County
2019 Arterial Road Facilities Cost Estimates

Project Description	Project Cost Estimate	Developer Levy Costs
Clover Bar Road 200m N of Dawson Dr. to Hwy 16 - 2nd Phase	$2,415,997	$835,266
Clover Bar Road Dawson Dr. to Hwy 16 2nd Phase	$1,707,202	$333,884
Clover Bar Road Dawson Dr. to Hwy 16 Final Lift	$435,121	--
Lakeland Drive Palisades Blvd to Sherwood Dr. - Add 2 lanes	$1,480,437	$563,317
Lakeland Drive Sherwood Dr to Cloverbar Rd – complete to 4 lanes	$10,741,517	$2,847,697
Lakeland Drive Cloverbar Rd to Hwy 21 - 2 lane phase (plus future trees)	$4,364,722	$1,597,785
Lakeland Drive Cloverbar Rd to Hwy 21 - complete to 4 lanes	$3,347,326	$958,570
Lakeland Drive Palisades Blvd to Hwy 21 - Final Lift	$608,227	$9,075
Lakeland Drive Highway 21 Interchange Land (NW Quadrant)	$636,625	$261,106
Sherwood Drive Cranford Way to Lakeland Dr. Final Lift (residential portion)	$474,794	--
Sherwood Drive Lakeland Dr to Hwy 16 - add 2 lanes (residential portion)	$5,863,881	$612,162
Sherwood Drive Lakeland Dr to Hwy 16 - Final Lift (residential portion)	$768,033	$144,504
Sherwood Dr Cranford to Centennial Park (residential portion)	$1,368,964	$496,627
U\G Power Bury Sherwood Dr. - Centennial Pk to Hwy 16 (residential portion)	$405,774	$159,079
Signals at Collector / Arterial Intersections	$825,000	--
Petroleum Way Hwy 216 to 800m East	$5,008,249	$3,383,759
Petroleum Way 800m East of Hwy 16A to W. of Broadmoor Blvd.	$2,466,749	$1,089,725
Lakeland Drive Broadmoor Blvd. To Palisades Blvd. - Add 2 lanes	$1,722,466	$758,538
Lakeland Drive Broadmoor Blvd. To Palisades Blvd. - Final Lift	$471,376	$214,733

STRATHCONA COUNTY
2019 OFFSITE DEVELOPMENT LEVIES

Broadmoor Boulevard Baseline Rd. to Hwy 16 - Trees	$725,000	$494,670
Sherwood Drive Cranford Way to Lakeland Dr. - Final Lift (Industrial portion)	$97,246	$6,503
Sherwood Drive Lakeland Dr. to Hwy. 16 - Add 2 lanes (Industrial portion)	$1,204,860	$330,450
Sherwood Dr Lakeland Dr. to Hwy. 16 - Final Lift (Industrial portion)	$157,309	$56,397
U\G Power Bury Sherwood Dr. - Centennial Pk to Hwy 16 (Industrial portion)	$83,111	$60,204
U\G Power Bury - Broadmoor Blvd. - Baseline Rd. to Hwy 16	$670,577	$493,307
Broadmoor Blvd. Improvements Adjacent to Buckingham Business Park	$144,131	$141,077
Baseline Road Remove Access @ RR231	$79,603	$28,008
Baseline Road Noise Attenuation - Broadmoor Blvd. To Hwy 21 S. Side	$806,635	$167,256
Baseline Road Noise Attenuation - Cloverbar Rd. to Hwy 21 N. Side	$656,000	$128,913
U\G Power Bury Baseline Road. - Clarkdale Blvd to Hwy 21 (N. Side)	$180,764	$88,794
Range Rd 232 Hwy 16 to Turbo Access - Add 2 lanes	$2,510,000	--
Range Rd 232 Turbo Access to CP Railway Crossing - Add 2 lanes	$9,536,699	--
Range Rd 232 Turbo Access to CP Railway Crossing - Final Lift	$950,000	--
Range Rd 232 CPR Railway Crossing to TWP 534 - 4 lanes	$29,953,500	$4,209,672
Range Rd 232 CNR Railway Overpass	$26,630,000	$12,984,293
Range Rd 232 CPR Railway Overpass	$23,980,000	--
Range Rd 231 Hwy 16 to TWP 534 - 4 lanes	$50,749,640	$35,338,654
Range Rd 231 CNR Railway Overpass	$18,030,000	$14,451,044
Township Rd 534 RR232 to RR231 - 4 lanes	$45,851,898	$35,128,330
Township Rd 534 RR231 to Hwy 21 - 4 lanes	$115,916,913	$18,323,425
Township Rd 534 Oldman Creek Bridge (4 Lane Structure)	$8,500,000	$2,980,824

STRATHCONA COUNTY
2019 OFFSITE DEVELOPMENT LEVIES

Township Rd 534 TWP 534 CPR Railway Overpass	$17,020,006	--
Wye Road Ash Street - Wye Rd to Green St./Wallace Drive	$5,002,314	$355,318
Wye Road Ordze Rd. to Sherwood Drive	$7,581,000	$47,549
Wye Road Sherwood Dr. to Ash St.	$3,332,160	$119,884
Wye Road Ash St. to Hawthorne St.	$4,346,100	$308,306
Wye Road Hawthorne St. to Commercial Access	$4,276,102	$179,689
Wye Road Commercial Access to Brentwood Blvd	$2,266,161	$26,938
Wye Road Brentwood Blvd to Estate Dr.	$5,225,000	$582,624
Wye Road Estate Dr. to Nottingham Way	$5,910,000	$754,120
Wye Road Nottingham Way - Clover Bar Rd.	$4,600,000	$963,360
Range Rd 232 Wye Road to south property line	$5,250,000	$481,629
Range Road 231 Wye Road to Hillshire Blvd.	$6,420,000	$418,407
17th Street Upgrade	$22,173,000	--