

Municipality of the District of Argyle



Internal Report



Mixed Use Development and Road Extension

Property at 4092 Highway 308, Tusket, NS

June 2019

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1. Introduction

1.1. Project Introduction

With the development of the new Municipal Administration Building on the property of 4092 Highway 308 in Tusket the community is facing the opportunity to grow. All residential properties on Gardner Lane are sold and it appears there is more interest for this type of development in the Community. The New Municipal Administration building is located on two properties, which one of them was kindly donated by a local resident and the other one purchased at fair market price. The location of the property was well chosen and is located near many amenities and is well connected to the rest of the community. The two properties were amalgamated into one large lot of about 12 acres. 10 acres are mostly wooded and overgrown with medium to large shrubs and medium size trees, which are all local species and a mix of deciduous and coniferous types. So far, no invasive species were detected. The property was surveyed, all boundaries confirmed, and the topographic features picked up. It appears that the property has a small mound in the middle and is gently rolling to the south west corner and south east corner. The topographic features are very even and gently changing without many spots for water pooling or wetlands, which makes this property fairly easy to develop and does not need further environmental assessments. The history of the two properties are well known and both were mostly used for residential or small commercial (convenience store) use in the past. The commercial use was shut down decades ago and the building removed shortly after. The residential property was maintained and used until the purchase of the property and we do not expect that either property is affected by contamination. Geotechnical investigation confirmed that the soils are suitable for construction with minor improvements to allow for the new administration building construction. All together this property is ideal for further development and could attract further mixed use (residential, small commercial and institutional) growth for the community.

2. Project Objectives

The Municipality has identified the following main objectives to fully maximise the potential of the property, which are in alignment of the strategic goals as set out in the MODA Strategic Plan.

2.1. Develop a quality design idea

Develop a conceptual idea to improve the quality of life within the community and open up the opportunity for low income housing developments, which are in high demand and not fully available within the community.

2.2. Future ready

The development shall aim for solutions that can withstand future changes in demographics and society. It shall offer room for a healthy mix of different types of housing, small commercial developments and institutional developments. The strategic goals of economic growth, Population growth and heritage protection/promotion shall be achieved. In addition, the development shall provide the opportunity for a continuation of the road alignment and be “future ready” considering climate change and the potential of sea level rising challenges.

2.3. Viable

The development shall offer opportunities for a broad variety of housing types and attract

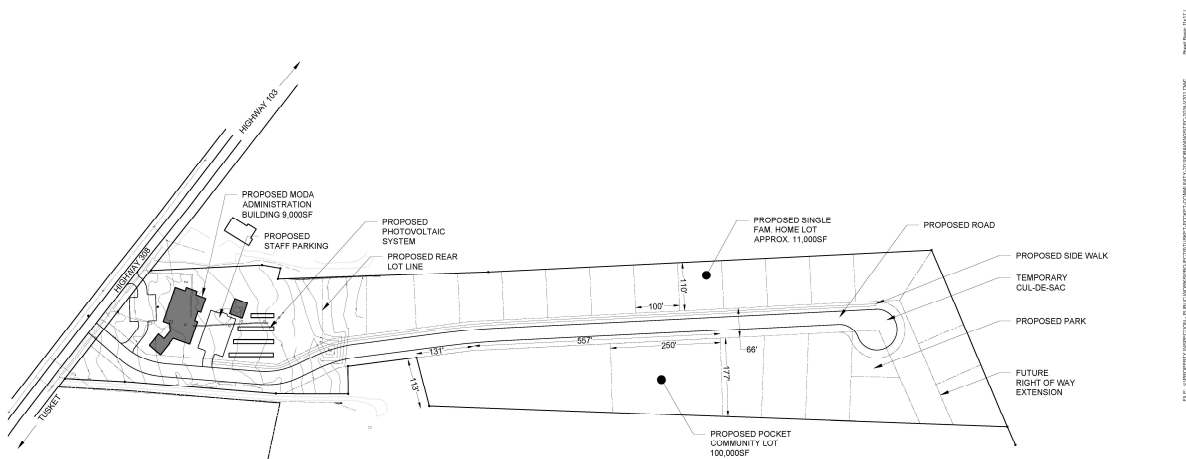
multiple levels of social demographics by focusing on low income, senior housing, single family housing and multi-unit dwellings. The development shall aim to be economically viable and open the possibility for further development beyond the property boundaries.

2.4. Alignment with MODA Strategy

The development should aim to be in alignment with all four goals of the Municipal Strategic plan and be an example of sustainable planning for the community.

3. Design Outcome

Municipal Staff applied the Municipal Land-Use strategy to the property and prepared a draft conceptual design that meets the project objectives as outlined under section 2. The origin of the road alignment is driven by the design of the New Municipal Administration Building project as displayed in dark grey.



4092 HIGHWAY 308 - MUNICIPALITY OF ARGYLE
PROPOSED DEVELOPMENT PLAN

TUSKET, NOVA SCOTIA
MARCH 2019




PRELIMINARY

A full-size drawing can be found in Appendix A.

The road extension was initially planned for about 500m from the Hwy 308 and would create room for 19-20 new vacant lots. The lot sizes were designed in accordance with our Land-Use-By-Law considering that each lot is serviced by a central sewer collection system. The road alignment was chosen for the middle of the property to fully maximize both sides of the road right of way due to the fact that each lot needs a minimum public road frontage as described in the Land-Use-By-Law for the

maintenance can be handled at low cost. If Phase 1 is successful and we register more demand for further development, Phase 2 is a simple continuation.

This design and the phasing options are very flexible and lot layout can be adjusted easily or the entire property can be developed at the same time in one phase. It provides the opportunity to continue with a road development to the south, which opens up the possibility of further development and community growth beyond the property boundary and could create a connection to Courthouse Road to fully close the loop. This would also cross the Yarmouth County Rail Trail and open the possibility for a great Active Transportation trail connection to encourage residents to a more active lifestyle. Almost all properties in that direction are under private ownership and could continue the community growth. Properties to the east are mostly under federal ownership and unlikely to open for development.

The proposed lot layout could also be adjusted to offer room for a road connection to the properties in the north and allow for developments in this direction as well. These properties are currently limited to the commercial use only due to the limited road frontage along Hwy 308. A secondary road could increase the value of the properties and allow for subdividing residential lots as well.

This development offers a broad variety of possibilities to develop healthy and attractive growth strategies for the community and continue the goal of making Tusket a viable community centre for the Municipality.

4. Construction Phasing

4.1. Phase 1

The first Phase of the development is measured from the center line of Highway 308 and about 300m long going into the property. The first 100m will be paved with asphalt to allow for a comfortable and safe access to the new municipal administration building. The remaining 200m will be a gravel road with the potential for future paving if needed. At the end of the gravel road we will install a temporary turn around area, also known as a “Hammerhead”. This area would be located just past the top of the small hill and the sewer line will be installed along the north side of the road. This line would be a 100mm diameter gravity fed sewer line and run between the Manhole #2 down to Manhole #1 (along main sewer line at Hwy 308). Any storm water ditches would follow the road alignment and water running off the road would be collected within the Stormwater Pond at the South west corner of the property, which is part of the New Municipal Administration Building project. Due to cost saving measures we may not be able to install the shown sidewalk along the north side of the road extension. This sidewalk was proposed by the engineer but was not part of the original idea. Traffic volume is expected to be low and the gravel road can be used as a shared space in a safe manner.

4.2. Phase 2

Once Phase 1 is successfully completed and the demand for further development is high it would be fairly easy to continue with the road construction and extend the development another 320m. The “Hammerhead” turn-around area can be partially re-used, and the gravel road be continued as per drawings. The sewer line for Phase 2 would be a small diameter (50mm) pressure line going uphill and feeding into Manhole #2 and service about 14 Single Family Home lots. At the end of the road extension we are proposing a cul-de-sac for easy and safe turning. Between lot 13 and 14 we’re proposing a combination of a stormwater pond and

public park to offer recreation and buffer space for a healthy community. Lot 9 or 10 can be transformed into a road right-of-way to allow further development to the north. This potential change should be incorporated soon and one of these lots could be made into another park space as place holder for future changes.

4.3. Phase 1+2 Combined

The concept of the development is fairly flexible, and the stages described in 4.1 and 4.2 can be combined as one project if we should come across enough interest for potential buyers of all 20 lots. This may save costs on mobilization of contractors and engineers, as well as profit mark ups, construction market increases, inflation and other soft costs.

The density of this development is only possible because of the road alignment and public road frontage on both sides of the road and being serviced by a central sewer system. In case a buyer is interested in purchasing all properties at once the road alignment should stay as is to use the full potential of the property. Otherwise there maybe a loss of density depending on the proposed use. Nevertheless, multiple properties can be combined to one larger lot to allow for a small conglomeration of buildings for a community housing project as permitted by our Land-Use-By-Laws and other guiding regulations.

5. Costs

5.1. Phase 1

5.1.1 Expenses

As described under 4.1 the work is set out for about 300m of road and sewer installation.

The following estimates have been received from ABLE Engineering and are considered preliminary only (details can be found in Appendix B):

1. Site preparation and Subgrade shaping –	\$15,000 (300m @ \$50/m)
2. Geotextile installation –	\$6,600 (3,300sqm @ \$2/sqm)
3. Type 2 Gravel Installation -	\$74,000 (3,700t @ \$20/t)
4. Type 1 Gravel Installation -	\$25,000 (1,250t @ \$20/t)
5. Spread Asphalt (base lift) -	\$14,850 (110t @ \$135/t)
6. Spread Asphalt (top lift) -	\$8,775 (65t @ \$135/t)
7. Gravel Sidewalk (optional) -	\$9,000 (450sqm @ \$20/sqm)
8. Gravity Sewer Pipe installation -	\$45,000 (300m @ \$150/m)
9. Manhole installation -	\$7,000 (2 @ \$3,500/each)
10. Services ('T' in main line) -	\$1,000 (5 @ \$200/each)
11. Service laterals (pipe to property line) -	\$1,800 (60m @ \$30/m)

Sub Total: \$208,025 + HST

This price can be reduced by \$11,800 if the sidewalk and the individual services are not installed. Anticipated cost for phase 1 would range between \$196,225 and \$208,025 plus HST, 5% contingency and 5% for material testing services. Including our municipal HST credits we would look at a range of **\$225,609** and **\$239,177** all in. The general inspection during installation is already covered under the current consultant contract.

5.1.2 Revenue

With the development from the sale of lots of our own new municipal administration building most of the road frontage is used to develop our own property portion and does not generate revenues from land sales. In this phase we would be able to offer 4 single family home lots and the large community housing lot for sale using a public request for proposal process.

Based on a preliminary review of current property sales prices on www.viewpoint.ca for the area of Yarmouth county, we noticed that most of the similar sized vacant and serviced lots within a denser community setting are offered at about \$45,000. More rural located vacant lots are starting at \$25,000 for 2 acres un-serviced lots.

For preliminary estimates we are making the assumption to offer the single-family home lots for a total of \$27,000 to attract suitable buyers. The larger lot currently reserved for a community housing project should be assessed by a professional realtor with sufficient experience for this task. Currently we would make the assumption of \$50,000 to \$60,000 for this lot. Based on these very preliminary estimates the following revenue could be expected:

1. Single Family lot/commercial lot-	\$108,000 (4 @ \$27,000/each)
2. Community Housing lot -	\$60,000 (1 @ \$60,000/each)
	Sub Total: \$168,000

Comparing the revenue to the expenses we would be in the range of a \$58,000 to \$71,000 deficit after completing phase 1. This calculation does not include any contemplated tax revenue from the development.

Realtor costs and other fees have not been considered yet and the revenue may decrease by these costs a bit. Furthermore, the costs do not include any fee payable to NS Power for the extension of power to these lots. Again, this estimate is prepared on a very high level and should be reviewed and confirmed by a professional realtor having experience in the field of land assessment.

5.2. Phase 2

5.2.1 Expenses

As described under 4.2 the work is set out for about 300m of road and sewer installation. The following estimates have been received from ABLE Engineering and are considered preliminary only (details can be found in Appendix B):

12. Site preparation and Subgrade shaping –	\$19,000 (380m @ \$50/m)
13. Geotextile installation –	\$8,360 (4,180sqm @ \$2/sqm)
14. Type 2 Gravel Installation -	\$95,000 (4,750t @ \$20/t)
15. Type 1 Gravel Installation -	\$31,600 (1,580t @ \$20/t)
16. Gravel Sidewalk (optional) -	\$11,600 (580sqm @ \$20/sqm)
17. Pressure Sewer Pipe installation -	\$20,800 (320m @ \$65/m)
18. Services (Corporation Stop) -	\$3,600 (18 @ \$200/each)
19. Services (Curb Stop) -	\$5,400 (18 @ \$300/each)
20. Service laterals (pipe to property line) -	\$6,000 (200m @ \$30/m)
	Sub Total: \$201,360 + HST

This price can be reduced by \$26,600 if the sidewalk and the individual services are not installed. Anticipated cost for phase 1 would range between \$174,760 and \$201,360 plus HST, 5% contingency and 5% for material testing services. Including our municipal HST credits we would look at a range of **\$200,931** and **\$231,514** all in. The general inspection during installation is already covered under the current consultant contract.

5.2.2 Revenues

After completing phase 2 and providing access to the remaining 15 single family home lots we could offer the lots at the same rate as mentioned under 5.1.2. This would create the following revenues:

1. Single Family Home lot -	\$405,000 (15 @ \$27,000/each)
Sub Total:	\$405,000

When considering all revenues and expenses from phase one and two, assuming 100% sale of properties, the project could result in a net surplus of **\$102,000**. Keeping in mind that the sale of properties would be accomplished over time, with no guarantee all will be sold at the proceeds listed above. These revenues do not consider any inflation, interest accumulation or costs or any realtor costs and are more to be a potential range. The actual revenue is depending on the sales price of each individual lot and time frame each lot can be sold. A more detailed review of property sales prices should be performed by a professional realtor and/or financial analyst.

5.3. Phase 1+2 Combined

5.3.1 Expenses

For comparison and flexibility, we also looked at the costs if the entire road is installed in one phase. The necessary steps were explained in section 4.1 to 4.3. This option may have the advantage of saving some mobilization and profit mark up costs. The following estimates have been received from ABLE Engineering and are considered preliminary only (details can be found in Appendix B):

1. Site preparation and Subgrade shaping –	\$34,000 (680m @ \$50/m)
2. Geotextile installation –	\$14,960 (7,480sqm @ \$2/sqm)
3. Type 2 Gravel Installation -	\$166,000 (8,300t @ \$20/t)
4. Type 1 Gravel Installation -	\$56,000 (2,800t @ \$20/t)
5. Spread Asphalt (base lift) -	\$14,850 (110t @ \$135/t)
6. Spread Asphalt (top lift) -	\$8,775 (65t @ \$135/t)
7. Gravel Sidewalk (optional) -	\$21,000 (1,050sqm @ \$20/sqm)
8. Gravity Sewer Pipe installation -	\$45,000 (300m @ \$150/m)
9. Pressure Sewer Pipe installation -	\$20,800 (320m @ \$65/m)
10. Manhole installation -	\$7,000 (2 @ \$3,500/each)
11. Services ('T' in main line) -	\$1,000 (5 @ \$200/each)
12. Service laterals (pipe to property line) -	\$1,800 (60m @ \$30/m)
13. Services (Corporation Stop) -	\$3,600 (18 @ \$200/each)
14. Services (Curb Stop) -	\$5,400 (18 @ \$300/each)
15. Service laterals (pressure pipe to property line) -	\$6,000 (200m @ \$30/m)
Sub Total:	\$406,185 + HST

This price can be reduced by \$38,800 if the sidewalk and the individual services are not installed. Anticipated cost for the entire road extension would range between \$367,385 and \$406,185 plus HST, 5% contingency and 5% for material testing services. Including our municipal HST credits we would look at a range of **\$422,402** and **\$467,012** all in. The general inspection during installation is already covered under the current consultant contract.

5.3.2 Revenue

With the completion of the entire road and sewer expansion and considering the realty market situation as explained under 5.1.2 and 5.2.2 the following revenue could be generated:

1. Single Family lot -	\$513,000 (19 @ \$27,000/each)
2. Community Housing lot -	\$ 60,000 (1 @ \$60,000/each)
Sub Total:	<u>\$573,000</u>

Comparing the revenue to the expenses we would be in the range of **\$106,000** surplus after completing both phases together.

Realtor costs and other fees have not been considered yet and the revenue may decrease by these costs a bit. Again, this estimate is prepared on a very high level and should be reviewed and confirmed by a professional realtor having experience in the field of land assessment.

6. Staff recommendations

In providing these recommendations, staff considered the following:

1. Long-time recommendation from our economic development strategy to invest in the growth of Tusket as a business centre, due to the existing developments that can support growth and central living.
2. Public housing has been selected as a priority of Council for the current fiscal year, with the extension of a public road to the back of our property being part of our commitment to allow land use for that purpose.
3. As a consequence of the priority setting session, Council approved up to \$250,000 investing in a public road, which will be covered by Gas Tax.

The following recommendations are for Council's consideration:

- a) Preserve the mixed-use zoning of the remainder of the community of Tusket, which allows for residential and commercial, but not light or heavy industry. Link to Land use bylaw:

[file:///C:/Users/admuise.MA/AppData/Local/Packages/Microsoft.MicrosoftEdge_8wekyb3d8b-bwe/TempState/Downloads/Municipality%20of%20Argyle%20-%20Land%20Use%20By-law%20\(1\).pdf](file:///C:/Users/admuise.MA/AppData/Local/Packages/Microsoft.MicrosoftEdge_8wekyb3d8b-bwe/TempState/Downloads/Municipality%20of%20Argyle%20-%20Land%20Use%20By-law%20(1).pdf)

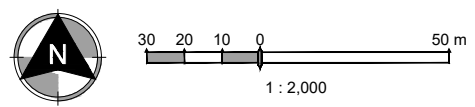
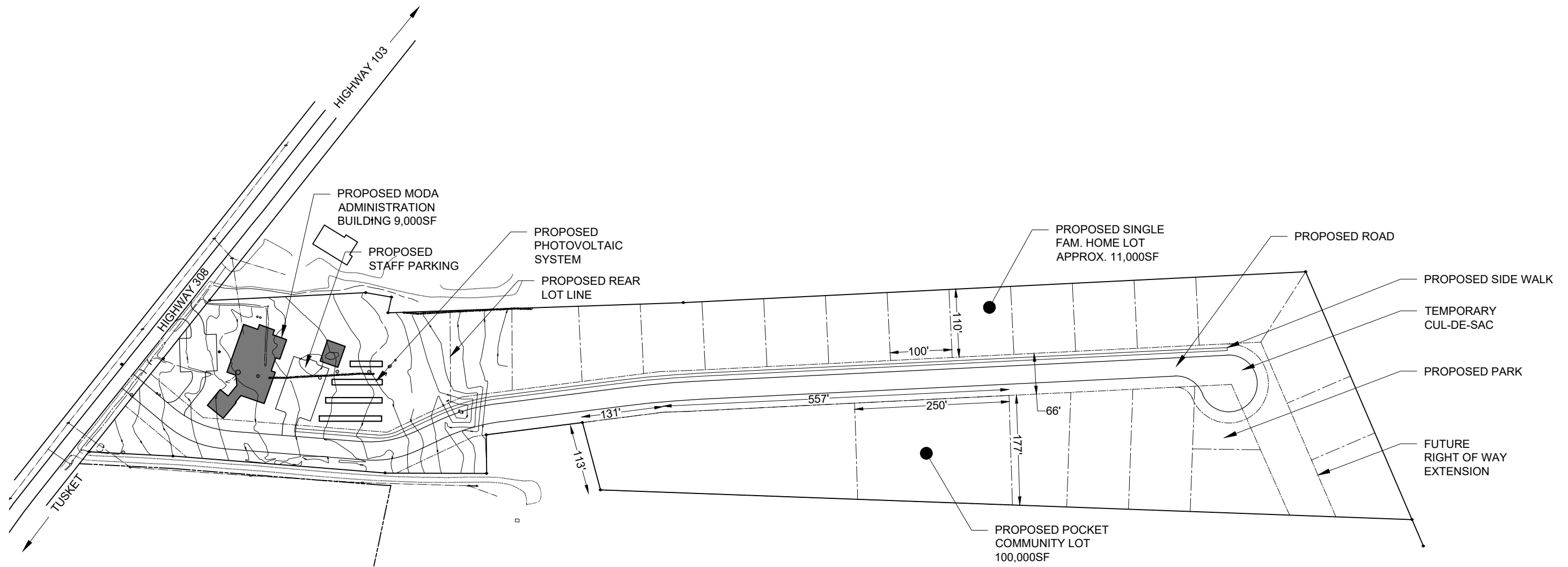
- b) Preserve the flexibility of the property and allow for a continuation of the road extension to explore further developments to the north and south. The road shouldn't stop at a dead end.
- c) Develop this property in two phases rather than in one large phase. This will allow the public road to be used for our construction and will be enough to access a portion of the back lots. This will give us time to review the real estate market response. The difference in savings in constructing the road all at once is not significant. Furthermore, we don't know what we don't know, which may result in a slightly different construction of the second phase of the road.
- d) Once the Tusket Wastewater By-law is approved and the subdivision registered engage a realtor to assess the property values and review the revenue stream in more detail.
- e) Proceed with an RFP process to offer lots for sale, in particular those earmarked for alternative and affordable housing, and follow the Project objectives as described under section 2.

7. Appendices

The following documents have been provided by ABLE Engineering.

Appendix A

Conceptual and detailed design drawings



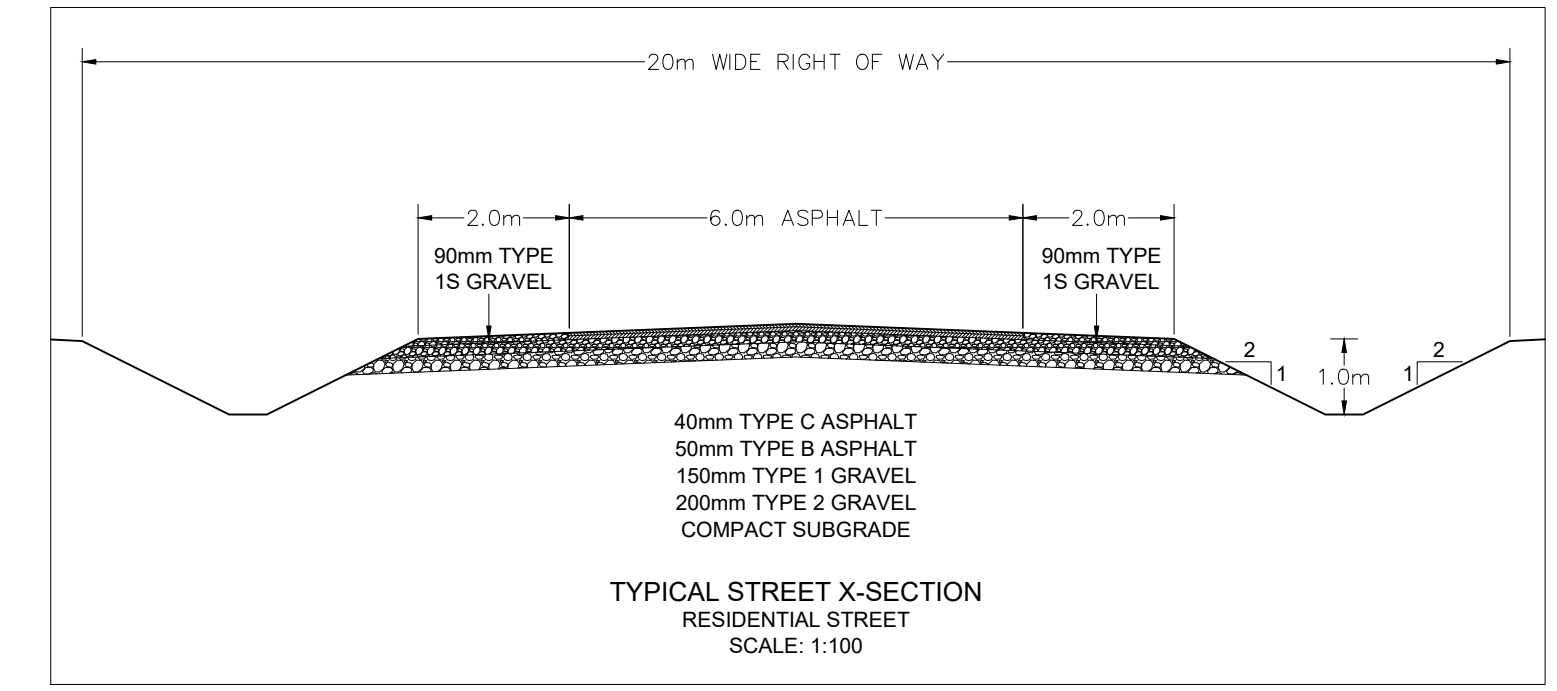
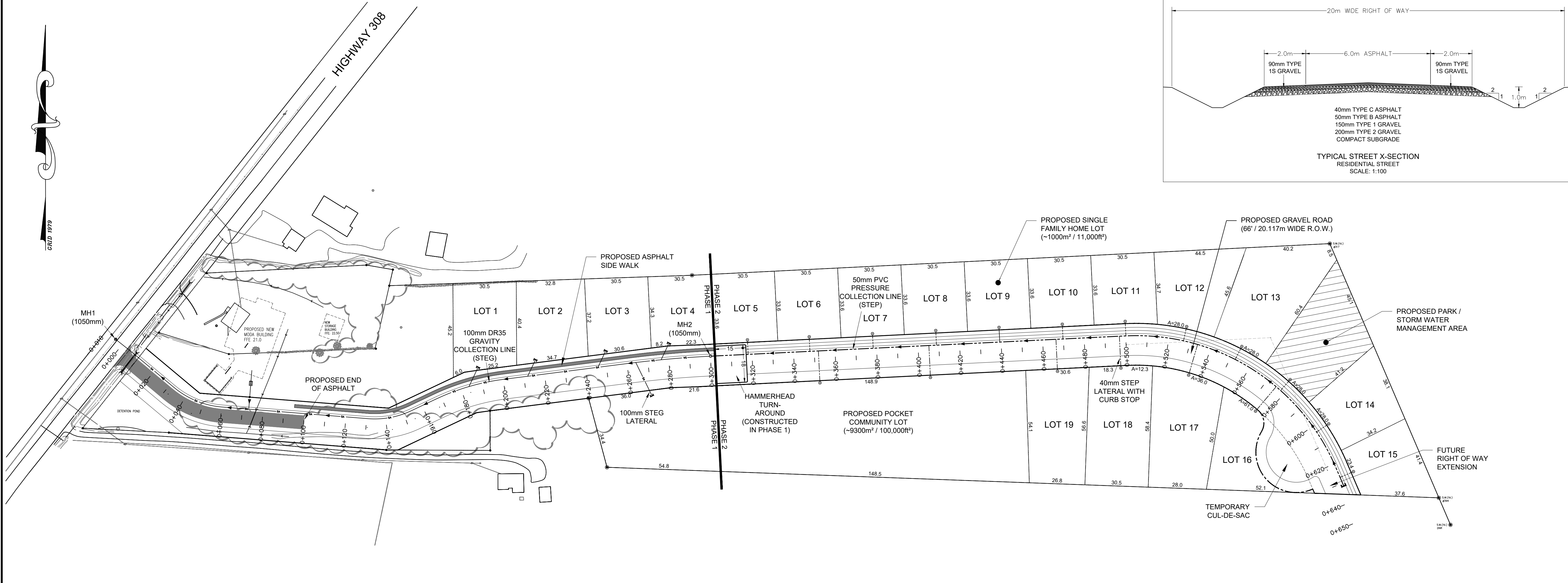
4092 HIGHWAY 308 - MUNICIPALITY OF ARGYLE

PROPOSED DEVELOPMENT PLAN

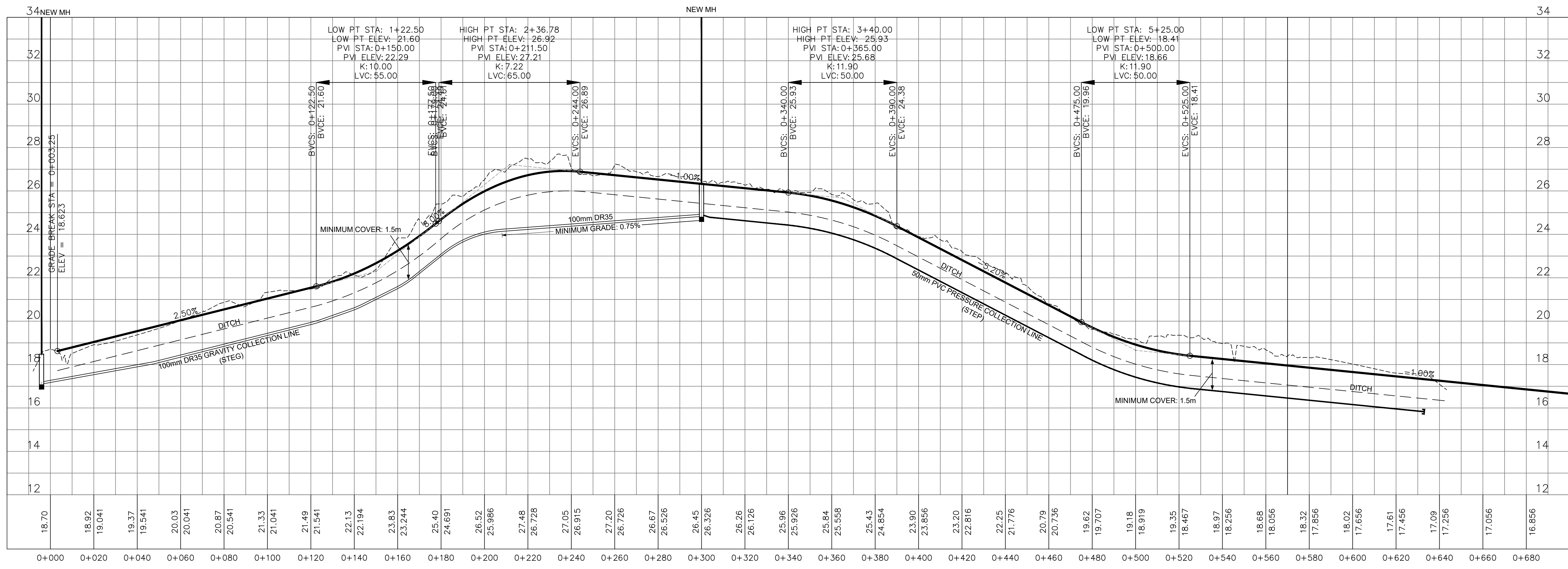
PRELIMINARY

TUSKET, NOVA SCOTIA
MARCH 2019





New MDA Road PROFILE



ENGINEER'S STAMP

No.	APPROVALS	DATE	BY
1		05/06/2019	DAB

REVISION OR ISSUE



PROJECT:
MUNICIPALITY OF THE DISTRICT OF ARGYLE
NEW RESIDENTIAL DEVELOPMENT
HIGHWAY 308
TUSKET, NOVA SCOTIA

DATE	MAY 6, 2019	REF NO	
DRAWN BY	DAB	CHK	AWD
DWG NO	Y2019-035-01	SHEET	1 of 1
SCALE	1:1000		

Appendix B

Cost Estimates

4. SCHEDULE OF QUANTITIES AND UNIT PRICES

ITEM NO.	DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
ROADWAY CONSTRUCTION					
	Prepare and make ready subbase including subgrade preparation, scarifying, fine grading, and all else necessary to complete the work as specified the work and/or as shown on the drawings.				
.1	Subgrade shaping	m	300	\$50.00	\$15,000.00
.2	Non-woven Road Geotextile (1.3mm thick, 250 g/m ²)	sm	3300	\$2.00	\$6,600.00
.3	Type II gravel (450mmthick)	tonnes	3700	\$20.00	\$74,000.00
.4	Type I gravel (150mm thick)	tonnes	1250	\$20.00	\$25,000.00
.5	Spreader asphalt 63mmthick Base Lift	tonnes	110	\$135.00	\$14,850.00
.6	Spreader asphalt 38mm thick Top Lift	tonnes	65	\$135.00	\$8,775.00
21.	Sidewalk				
	Remove, topsoil, organics, place and compact subgrade gravel.				
.1	Gravel Sidewalk (100mm thick)	sm	450	\$20.00	\$9,000.00
SANITARY SEWER					
20.	Gravity Pipe				
	Supply & installation of the following items including all excavation, bedding, pipe laying, backfill & compaction.				
.1	100mm diameter DR35 PVC pipe	m	300	\$150.00	\$45,000.00
22.	Manholes				
.1	1050mm diameter concrete (Sanitary)	ea	2	\$3,500.00	\$7,000.00
23.	Services				
.1	100mm tee in main	ea	5	\$200.00	\$1,000.00
.2	100mm diameter DR35 PVC pipe to property line	m	60	\$30.00	\$1,800.00

Note: The Contractor shall not commence work until ALL permits and land easements have been obtained.

Sub Total	<u>\$208,025.00</u>
HST (15% of Subtotal)	<u>\$31,203.75</u>
Total Tender Price	<u>\$239,228.75</u>

4. SCHEDULE OF QUANTITIES AND UNIT PRICES

ITEM NO.	DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
ROADWAY CONSTRUCTION					
	Prepare and make ready subbase including subgrade preparation, scarifying, fine grading, and all else necessary to complete the work as specified the work and/or as shown on the drawings.				
.1	Subgrade shaping	m	380	\$50.00	\$19,000.00
.2	Non-woven Road Geotextile (1.3mm thick, 250 g/m ²)	sm	4180	\$2.00	\$8,360.00
.3	Type II gravel (450mmthick)	tonnes	4750	\$20.00	\$95,000.00
.4	Type I gravel (150mm thick)	tonnes	1580	\$20.00	\$31,600.00
21. Sidewalk					
	Remove, topsoil, organics, place and compact subgrade gravel.				
.1	Gravel Sidewalk (100mm thick)	sm	580	\$20.00	\$11,600.00
SANITARY SEWER					
20. Gravity Pipe					
	Supply & installation of the following items including all excavation, bedding, pipe laying, backfill & compaction.				
.2	50mm pressure collection pipe	m	320	\$65.00	\$20,800.00
22. Manholes					
23. Services					
.3	38mm Corporation stops	ea	18	\$200.00	\$3,600.00
.4	38mm Curb Stops c/w valve box & stainless steel rod	ea	18	\$300.00	\$5,400.00
.5	38mm 160 psi Poly Service pipe	m	200	\$30.00	\$6,000.00

Note: The Contractor shall not commence work until ALL permits and land easements have been obtained.

Sub Total	\$201,360.00
HST (15% of Subtotal)	\$30,204.00
Total Tender Price	\$231,564.00

4. SCHEDULE OF QUANTITIES AND UNIT PRICES

ITEM NO.	DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
ROADWAY CONSTRUCTION					
	Prepare and make ready subase including subgrade preparation, scarifying, fine grading, and all else necessary to complete the work as specified the work and/or as shown on the drawings.				
.1	Subgrade shaping	m	680	\$50.00	\$34,000.00
.2	Non-woven Road Geotextile (1.3mm thick, 250 g/m ²)	sm	7480	\$2.00	\$14,960.00
.3	Type II gravel (450mmthick)	tonnes	8300	\$20.00	\$166,000.00
.4	Type I gravel (150mm thick)	tonnes	2800	\$20.00	\$56,000.00
.5	Spreader asphalt 63mmthick Base Lift	tonnes	110	\$135.00	\$14,850.00
.6	Spreader asphalt 38mm thick Top Lift	tonnes	65	\$135.00	\$8,775.00
21.	Sidewalk				
	Remove, topsoil, organics, place and compact subgrade gravel.				
.1	Gravel Sidewalk (100mm thick)	sm	1050	\$20.00	\$21,000.00
SANITARY SEWER					
20.	Gravity Pipe				
	Supply & installation of the following items including all excavation,bedding, pipe laying,backfill & compaction.				
.1	100mm diameter DR35 PVC pipe	m	300	\$150.00	\$45,000.00
.2	50mm pressure collection pipe	m	320	\$65.00	\$20,800.00
22.	Manholes				
.1	1050mm diameter concrete (Sanitary)	ea	2	\$3,500.00	\$7,000.00
23.	Services				
.1	100mm tee in main	ea	5	\$200.00	\$1,000.00
.2	100mm diameter DR35 PVC pipe to property line	m	60	\$30.00	\$1,800.00
.3	38mm Corporation stops	ea	18	\$200.00	\$3,600.00
.4	38mm Curb Stops c/w valve box & stainless steel rod	ea	18	\$300.00	\$5,400.00
.5	38mm 160 psi Poly Service pipe	m	200	\$30.00	\$6,000.00

Note: The Contractor shall not commence work until ALL permits and land easements have been obtained.

Sub Total	\$406,185.00
HST (15% of Subtotal)	<u>\$60,927.75</u>
Total Tender Price	<u>\$467,112.75</u>