



Staff Report

Operations

Report To: Council Meeting
Meeting Date: February 14, 2022
Report Number: CSOPS.22.015
Title: Arthur Street Parking Lot Follow-up
Prepared by: Mike Humphries, Senior Infrastructure Capital Project Coordinator

A. Recommendations

THAT Council receive Staff Report CSOPS.22.015, entitled “Arthur Street Parking Lot Follow-up”;

AND THAT Council direct staff to remove the following components from the project: bicycle lockers and pedestrian plaza; reduction in landscaping; and conduit for the EV charging stations for a total cost reduction of \$80,000.

AND THAT Council approve an increase in the project budget of \$350,000 from \$410,000 to \$760,000 to allow for the final design, contract administration, and construction of the Arthur Street Parking Lot as revised in this report to be funded as per this report.

B. Overview

This report is a subsequent report to CSOPS.22.006 entitled “Arthur Street West Parking Lot Update” and considers alternative design options including phasing of the project, cost recovery analysis, sustainability, and maintenance costs.

C. Background

The property was purchased by the Town in 2020 to provide additional parking for the downtown core. The original concept was to have the new municipal lot connected to the existing TD Bank parking lot. This concept was proposed but was not supported by the TD bank. This concept was eliminated early in the design.

WT Infrastructure was retained in April 2021 to complete the detailed design and construction administration for a small hard surfaced parking lot to maximize parking potential with consideration for drainage and stormwater management, lighting, landscaping, ducting for future electric vehicle charging stations, bicycle corral, and snow storage. The current design conforms to the Town’s standards including Comprehensive Zoning By-law 2018-65. In response to Staff Report CSOPS.22.006 “Arthur Street West Parking Lot Update”, Council directed staff to bring forward options to reduce the need for additional budget. Specifically,

staff were to assess alternative design options including phasing of the project, cost recovery analysis, sustainability and maintenance costs.

The design concept that was presented considered: a change in land use and associated drainage issues; consultation with the adjacent residents, the Thornbury BIA, the Town's Sustainability Committee and the Grey County Joint Accessibility Advisory Committee; the Town's zoning by-law; previous Council discussions including potential for alternate uses; and long-term operations and maintenance requirements. The design is near Tender ready (90% complete).

D. Analysis

This project was included in the 2021 budget for \$410,000. This included \$50,000 for engineering, \$320,000 for construction and \$40,000 for contingency. External engineering budget was included due to the complexity of project in terms of existing drainage and impacts from a change in land-use, stormwater management design and compliance with the *Accessibility for Ontarians with Disabilities Act*. The awarded engineering costs are \$97,500 which now leaves \$312,500 for construction. WT Infrastructure provided a 90% Engineer's Estimate of projected construction costs of \$645,500 plus a \$97,000 (15%) contingency. The total estimated construction cost including contingency is \$742,500 plus the \$97,500 already committed for engineering resulting in a total estimated project cost of \$840,000.

The current design can be broken down into the following components and funding sources (the Federal Gas Tax and Development Charges do not require a pay-back from revenues). Further detail on each component is provided following the chart:

| Component | Cost | Funding Source |
|---|-------------|--|
| Parking Lot | \$207,650 | Parking and By-law Development Charges |
| Excess Soil | \$90,000 | Parking and By-law Development Charges |
| Landscaping | \$29,250 | Parking and By-law Development Charges |
| Storm Sewer | \$149,100 | Parking and By-law Development Charges |
| Pedestrian Plaza (including Bike Lockers and associated Concrete Pad) | \$64,000 | Federal Gas Tax |
| Fencing | \$12,000 | Parking Lot Reserve Fund |

| | | |
|--------------------------------|--|--|
| Lighting | \$82,500 | Parking and By-law Development Charges |
| EV Charging | \$11,000 | Federal Gas Tax |
| Contingency (15%) ¹ | \$97,000 | Parking and By-law Development Charges and/or Federal Gas Tax and/or Parking Lot Reserve Fund |
| Engineering | \$97,500 | Parking and By-law Development Charges and/or Federal Gas Tax and/or Parking Lot Reserve Fund (based on an estimated % of the construction cost) |
| Total | \$840,000 Parking and Development Charges (87%) and Federal Gas Tax (13%) | (with all components included before reductions) |

¹Contingency funding is based on the component that required the additional works

The 90% design and associated costs were presented to the Committee of the Whole on January 19, 2022.

The Committee requested that staff provide a subsequent Staff Report directly to the February 14 Council meeting to consider:

- i) Alternative options including the possibility of a phased project;
- ii) Revenue generation analysis;
- iii) Sustainability; and
- iv) Maintenance Costs.

Analysis of Alternative Options

The following analysis considers the components listed above to identify opportunities to reduce costs and consider phasing and sustainability to optimize the design.

1. Parking Lot

The current parking lot design includes a granular base and asphalt surface in accordance with Town Standards and Zoning Requirements. The parking lot is proposed to be surrounded by concrete barrier curb and sidewalk for accessibility (AODA) to connect the parking area to Arthur Street and is estimated at \$207,650.

| Alternative | Considerations | Cost Impact |
|---|---|-----------------------|
| Gravel Parking (Excludes Asphalt and Curb) | <ul style="list-style-type: none">• Does not meet Town Standards• Increased maintenance costs• Would require approval of either a Minor Variance or Zoning By-law Amendment to General Provision 5.1.8 titled Surface Treatment of the Town Zoning By-law• Would create challenges related to accessibility• Would require <i>Planning Act</i> application (as noted above), and any decision rendered can be subject to an appeal to OLT• Minor Variance or Zoning By-law Amendment process would delay project 8-12 weeks depending on the type of application filed• If appealed to OLT, it could delay project 8 months or longer | Reduction of \$93,000 |
| Asphalt Surface with elimination of Concrete Curb | <ul style="list-style-type: none">• Does not meet Town Standards• Increase in maintenance costs | Reduction of \$20,000 |
| Elimination of Parking Spaces (9 in back row) | <ul style="list-style-type: none">• Reduced Revenue Opportunities• Increased green space | Reduction of \$18,000 |

Phasing Opportunities

If the parking lot were constructed to a gravel surface now and operated for a period with the intent of adding curb and asphalt in the future, it would be much more expensive. The granular 'A' surface and underlying granular 'B' subbase would have to be reviewed. At minimum, the granular surface would be contaminated and must be removed, replaced and regraded prior to placement of the asphalt. The cost could increase as much as 25%.

Sustainability Considerations

During the design the project team considered options for sustainability as it relates to the parking lot surface. Considerations included tinted white asphalt and permeable pavement.

Tinted white asphalt was considered for this project. Tinted asphalt can benefit the environment by lowering temperatures in hot climates. In this case, it would have little benefit to the environment based on the small size of the parking lot and cool temperatures in this region. The tinted asphalt would be high maintenance requiring regular painting/sealing. A common complaint from tinted asphalt is increased glare from the sun reflecting off the white surface. Tinted asphalt would have a “worn” look very quickly as it would highlight debris, tire tracks etc. Although it has many benefits it was not suited well for this project and was discounted.

Permeable pavement was considered for the site but due to the expected 4 season use of the site and the potential use of sand/salt on the parking lot it was not recommended due to the likelihood of clogging of the pores in the pavement. Furthermore, the permeable pavement would require a permeable layer to be installed beneath to allow contact with the existing soil to allow infiltration. The existing soil on the site is not highly permeable which may result in freezing of the subgrade soils resulting in excessive pavement cracking, increased maintenance, and shortened life. In Ontario, permeable pavement is suitable over highly permeable subsoils and where parking is primarily for non-winter months. This parking lot does not meet these criteria.

Maintenance Costs

The anticipated maintenance costs for the parking lot as designed are expected to be around \$1,000 per month or \$12,000 per year. Maintenance would include garbage removal, snow removal and spring sweeping.

Maintenance costs for permeable pavement would be much more than a traditional asphalt parking lot as special equipment would have to be brought in to vacuum the sediment out of the voids in the asphalt to allow infiltration. This would likely be completed twice a year at minimum.

Maintenance costs for a gravel parking lot would also be much more than a traditional asphalt parking lot. The gravel surface would have to be topped up with new gravel once every year and regraded several times a year. There would also be increased sediment/gravel entering the storm system and the possibility for tracking of mud/debris onto Arthur Street.

If the parking lot was built with an asphalt surface but no curb, maintenance costs would increase. There would be damage to landscaping/sod from winter snow removal and the asphalt edges will likely deteriorate and/or crack.

2. Excess Soil

Excess soil is expected to cost as much as \$90,000. This is an allowance for the removal and disposal of excess soils to the requirements of the new excess soils legislation O. Reg. 409/06 which came into full effect as of January 1, 2022. The full financial impact of this new provincial requirement was not anticipated or known at the time the original budget was developed. The regulated community is continuing to seek additional clarity about the new requirements from the Ministry of the Environment, Conservation and Parks. In the interim, staff are working on procedures and planning for the reuse of the soil from Town projects to help reduce capital costs, but it will not be in place for the 2022 construction season. The design/grading was optimized to keep excess soils to a minimum. There is limited opportunity to reduce this cost other than reducing the size of the parking lot.

3. Landscaping

This project includes significant trees, shrubs and aesthetic ground covers and the estimated cost is \$29,250 with the current design. This is broken down into \$7,600 for trees, \$6,400 for shrubs, \$8,000 for ornamental grasses and perennials and \$7,250 for sod. The additional cost of \$8,500 related to upgrading the design to Xeriscaping is included in these numbers. The current design includes the retention of 12 existing trees. To maximize parking opportunities approximately 15 existing trees will have to be removed mostly from the southwest corner of the property. The landscape design calls for the planting of 3 deciduous trees, 3 coniferous trees, 20 smaller 1.0m coniferous trees, 114 shrubs, 284 pots of ornamental grasses and 520 sq. m of sod.

The landscaping plan was the result of a number of consultation efforts since the initiation of this project. During the initial consultation with the adjacent landowners and the Thornbury BIA, there were several concerns related to landscaping and the look of the parking lot. The BIA requested landscaping to discourage pedestrians from traversing through rear/side yards, a walkway to promote pedestrian flow with connectivity to Arthur Street as well as the existing TD parking lot and a mixture of trees and plantings to provide winter colour. The adjacent landowners requested trees, shrubs, and solid fencing to act as a noise/pollution buffer and provide screening and security.

| Alternative | Considerations | Cost Impact |
|-------------------------|---|-----------------------|
| Reduce landscape to sod | <ul style="list-style-type: none">• Inconsistent with community design guidelines and sustainability• Increased maintenance cost compared to xeriscaping• Reduced noise/pollution or visual buffer for adjacent residents• Not in line with public input | Reduction of \$14,000 |

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|--|--|--|
| | <ul style="list-style-type: none">• Sod does not perform well in high traffic areas, and would require irrigation, therefore not recommended by Community Services | |
|--|--|--|

Phasing Opportunities

Planting strips can be added in the future at a minimal increased cost. Trees and shrubs could be more challenging depending on the final grading and fencing design.

Maintenance Costs

The xeriscaping is proposed to reduce maintenance, but it will still require monthly weeding, raking, etc. The anticipated maintenance costs for the landscaped areas are expected to be around \$5,000 per year.

Sustainability Considerations

The initial design considered Low Impact Development (LID) options such as rain gardens and soil cell tree technology such as “Silva Cell” which provides for a structural cell under the parking area for infiltration and root growth. The existing soil on the site is not highly permeable and the technology is expensive. Through the design we were able to save 12 existing trees and strategically place proposed trees to eliminate the need for the soil cell tree technology and reduce project costs.

The current landscaping design approach includes xeriscaping, which is an economical, sustainable, eco-friendly alternative to traditional landscaping that is drought resistant and low maintenance.

4. Storm Sewer

The current storm sewer system consists of catch basins, maintenance holes, underground stormwater storage, an oil sediment removal system and an outlet to the existing municipal storm sewer on Arthur Street. This is a regulated system and must be incorporated into the design and approved by the MECP. The cost as designed is estimated at \$149,100. The extent of the stormwater management needs were not fully understood when the property was initially purchased by the Town (e.g., the extent of the drainage impacts from a change in land-use). Requirements for appropriate stormwater management have been refined as the engineering design progressed.

Phasing Opportunities

None. It is not practical to phase the storm infrastructure.

Sustainability Considerations

As indicated in the parking lot section above the soil at the site is not appropriate for infiltration. The underground storage design will minimize temperature impacts in comparison with surface storage. The oil grit separator (OGS) will improve the quality of the stormwater and snow melt leaving the site by capturing debris and sediment and trapping hydrocarbons and oils.

Staff considered the installation of a “Gutter Bin” stormwater filtration system with the design. The “Gutter Bin” is an insert that can be easily placed in a standard catch basin that filters stormwater by removing trash, microplastics, sediment, oil, and heavy metals. The “Gutter Bins” were not included in the design to reduce costs but due to their easy installation staff plan to install them post construction. Staff have brought this forward to the Sustainability Advisory Committee and may be pursuing this idea in other locations once it has been tested at this site.

Maintenance Costs

There will be an annual cost to clean out the catch basins, maintenance holes, oil grit separator and flush the underground storage chamber and storm pipes. The estimated cost of these works is \$2,500 per year. If a gravel parking lot were to be considered this cost would increase due to increased sediment loading.

5. Bicycle Lockers and Pedestrian Plaza

The addition of the bicycle storage area was intended to address sustainability objectives in terms of promoting active transportation and bicycle tourism in the area. The proposed system consists of four covered standard bicycle racks and six enclosed bicycle lockers along with a concrete pad and seating area. The bicycle lockers would be fitted with a bluetooth rental and locking mechanism to generate revenue. The bike storage area and pedestrian plaza is estimated to cost \$80,000 total. This includes the concrete pad extending to Arthur Street.

| Alternatives | Considerations | Cost impact |
|--|---|-----------------------|
| Remove Bike Lockers and Entire Pedestrian Plaza | <ul style="list-style-type: none">• Does not allow for Accessibility• No active transportation component | Reduction of \$80,000 |
| Remove Bike Lockers and 50% of Concrete Pad. (50% of Concrete Pad to remain in front of Accessible Parking) | <ul style="list-style-type: none">• Allows for Accessibility• No active transportation component | Reduction of \$64,000 |
| Remove Bicycle Lockers and Pedestrian Plaza. Provides concrete pad in | <ul style="list-style-type: none">• Allows for Accessibility | Reduction of \$55,000 |

| | | |
|--|--|-----------------------|
| front of Accessible Parking and standard rack. | <ul style="list-style-type: none"> Allows for active transportation component at reduced cost | |
| Remove Bicycle Lockers, provide standard rack and pedestrian plaza | <ul style="list-style-type: none"> Allows for Accessibility Allows for active transportation component at reduced cost | Reduction of \$40,000 |

Note: There would be increased landscape costs to offset areas being removed from pedestrian plaza.

Phasing Opportunities

The bicycle lockers and pedestrian plaza could be easily added in the future without significant impact provided that no infrastructure is placed in the proposed location. There would be additional costs to remove any landscaping or other infrastructure that is placed in the proposed location.

Sustainability Considerations

Bicycle lockers will promote active transportation and could be used by both visitors and residents working in the area.

Maintenance Costs

Maintenance costs would generally be low. Periodic inspections are required but could be performed in conjunction with regular maintenance visits. There is potential for additional maintenance costs due to vandalism.

6. Fencing

As mentioned above, during the public consultation with the adjacent landowners and Thornbury BIA, a Solid Wood Fence was specifically requested along the rear of the property as well as trees and shrubs. The solid wood fencing is proposed in the current design to reduce noise, provide privacy and security and reduce light spillage from vehicles and parking lot lighting. The cost for a solid wood fence is estimated at \$12,000.

| Alternatives | Considerations | Cost Impact |
|--------------------|---|----------------------|
| Chain Link Fencing | <ul style="list-style-type: none"> Provides security Would not provide noise reduction or privacy Would not protect from light spillage Not in line with public input | Reduction of \$6,000 |

| | | |
|------------------------------------|---|----------------------|
| Solid Vinyl or Metal Panel Fencing | <ul style="list-style-type: none">• Provides privacy and reduces light spillage• Higher maintenance cost and component replacement cost• Not in line with public input | Reduction of \$4,000 |
| Cedar Hedge (Live Fence) | <ul style="list-style-type: none">• Provides some security and screening• Cedar hedge would not grow/survive under canopy of existing trees being retained• Sustainable option but not feasible long-term given existing canopy | Not Recommended |

Phasing Opportunities

Phasing is not recommended due to the concerns from the adjacent landowners. The fence could be easily installed in the future but may be more difficult depending on the landscaping that is chosen.

Sustainability Considerations

Wooden (Cedar) fences are more sustainable than metal or vinyl fencing. Cedar fencing requires no chemical treatment and is naturally resistant to decay for a long life. It requires little maintenance.

Live fence (cedar hedge) is a great sustainable option but is not recommended by our landscape consultant in this instance. The hedge would have to be planted under the canopy of the existing trees that are being retained and would not likely survive.

Maintenance Costs

Cedar fencing as well as metal /vinyl fencing are all considered low maintenance. Cedar fencing materials are readily available locally and easy to procure if repairs are required. Vinyl or metal fencing products may not be as readily available and will require painting from time to time.

7. Lighting

The lighting as designed is consistent with Town requirements and is dark sky compliant. The proposed lights are LED, solar and fully programmable. The lighting was placed around the perimeter of the parking lot facing inward to maximize light on the parking lot and minimize offsite spillage. Light spillage was identified by the adjacent landowners as a major concern at

the virtual design consultation. Both Operations and Community Services would prefer that parking lot lighting not be placed in the centre of the lot to avoid conflicts when plowing. The estimated cost for the solar LED lighting is \$80,000.

| Alternatives | Considerations | Cost Impact |
|---|---|-----------------------|
| Install high mast lighting in centre of parking lot | <ul style="list-style-type: none">• Significant reduction in number of light poles• Does not meet Town requirements (typically very tall)• Would not be dark sky compliant• Anticipated spillage of light onto adjacent properties• Less efficient operationally• LED lights are energy efficient but would be dependent on power grid. Therefore, not as sustainable.• Ongoing power costs | Reduction of \$40,000 |
| Install Standard lighting in centre of parking lot | <ul style="list-style-type: none">• Reduction in number of poles• Less operationally efficient• LED lights are energy efficient but would be dependent on power grid and therefore, not as sustainable.• Would not likely be dark sky compliant.• Ongoing power costs | Reduction of \$20,000 |
| Do not provide lighting | <ul style="list-style-type: none">• Inconsistent with community design guidelines• Lighting is strongly recommended for safety and security• An unlit parking lot would be considered a liability | Reduction of \$80,000 |

Phasing Opportunities

Parking lots should be well lit for safety and security. It is not recommended to phase in the lighting.

Sustainability Considerations

Solar LED lights are powered by a renewable energy source and are considered eco-friendly and sustainable. The added benefit of having programmable lights makes the option even more energy efficient. Standard lighting fed off the electrical grid is initially cheaper but will have ongoing electricity costs. Examples of these solar LED lights are currently found at the OPP station and the Town Hall parking facilities.

8. EV Charging

Electric vehicles are a cost effective and energy efficient alternative to gas powered vehicles and are the future of sustainable transportation. Any new parking lot design should include EV charging stations.

The 90% design included conduit and concrete pads for four (4) future electrical vehicle charging stations. Due to the proposed location at the front of the lot close to an existing hydro pole this work can easily be completed in the future when the charging stations are installed with minimal disturbance. It is recommended that these be deleted from the current contract. This will reduce the total cost by \$11,000.

9. Engineering

Engineering costs were bid competitively through the Request for Proposal Process. The cost for the design and construction administration is \$97,500. Staff negotiated with the consultant to reduce engineering costs by approximately 10% prior to award.

10. Contingency Allowance

Typically, the contingency allowance for a project is set at 30% or more at the concept stage (budget) and 20% (or more) of the estimated construction cost at the 30% design or preliminary stage. This percentage can be decreased as the design progresses, sometimes to as low as 10% but usually not lower for a project of this level of complexity. The contingency used in the 90% design estimate for this project was 15% and is considered appropriate. The contingency is currently set at 15% or \$97,000. If it is reduced to 10% (which is standard at tender stage) the contingency would become \$65,000, an overall reduction in the budget increase request of \$32,000. This has some risk with it. When the project proceeds to construction and something unforeseen is encountered and it exceeds the contingency, then the project would not be able to proceed until more funds were approved by Council. This could take several weeks or months and complicate the successful and timely completion of the project. Due to the market conditions and recent pricing uncertainty staff do not recommend reducing the contingency allowance.

Cost-Saving Recommendation

The current design is considered appropriate, but it is understood that Council is looking to reduce costs. In order to reduce costs and still comply with Town Standards, Accessibility

Requirements and the Comprehensive Zoning By-law, staff recommend that the parking lot be constructed as designed with the following adjustments:

- i) Removal or phasing of the bicycle lockers and pedestrian plaza – Reduction of \$64,000;
- ii) Reduction in landscaping adjacent to the TD parking lot -Reduction of \$5,000; and
- iii) Defer the conduit for the EV charging stations to the future project – Reduction of \$11,000.

| Component | Cost Reduction | Funding Source |
|---|----------------|--|
| Pedestrian Plaza (including Bike Lockers and associated Concrete Pad) | \$64,000 | Federal Gas Tax |
| Partial Landscaping | \$5,000 | Parking and By-law Development Charges |
| Conduit for EV Charging | \$11,000 | Federal Gas Tax |

The estimated reduction in cost would be \$80,000. The revised estimate of projected construction costs including 15% contingency would be \$662,500 plus the \$97,500 already committed for engineering resulting in a total estimated project cost of \$760,000.

E. Strategic Priorities

1. Communication and Engagement

We will enhance communications and engagement between Town Staff, Town residents and stakeholders

2. Organizational Excellence

We will continually seek out ways to improve the internal organization of Town Staff and the management of Town assets.

3. Community

We will protect and enhance the community feel and the character of the Town, while ensuring the responsible use of resources and restoration of nature.

4. Quality of Life

We will foster a high quality of life for full-time and part-time residents of all ages and stages, while welcoming visitors.

F. Environmental Impacts

Consideration for future vehicle charging stations is being provided to promote electric vehicle use and help reduce emissions. Solar lighting is being provided as a sustainable alternative. An oil grit separator is being incorporated into the stormwater design to help remove debris and sediment as well as capture oil and pollutants. Existing trees are being preserved where possible and new low maintenance drought resistant trees, shrubs and grasses (xeriscaping) are being provided.

G. Financial Impacts

The majority of this project is being funded from Parking and By-law Development Charges (87%) and Federal Gas Tax (13%); both of these funding sources are not “paid back”, therefore a payback analysis has not been done. Through the creation of the 2022 budget staff had to make some assumptions around the revenue generation capabilities of this new parking lot.

Staff considered it best to compare this parking lot to the one at Northwinds, despite the fact that the Northwinds parking lot is only used seasonally and is gravel. Included in the 2022 Draft budget is almost \$100,000 in estimated revenue from the Arthur Street parking lot, which is expected to double in future years when the lot will be open year around. Taking into account maintenance and operating costs of roughly \$25,000 annually, the net revenue from paid parking for the Arthur Street parking lot is offsetting taxation by as much as \$150,000 in future years once this lot is constructed based on the assumptions above.

Staff used the following assumptions when building the 2022 budget revenues for this parking lot:

- 1) Parking Spots: 50
- 2) Available Hours: 1,440 (180 days for 8 hours)
- 3) Hourly Rate: \$10
- 4) Usage: 15% (taking into account residents do not pay)

Using these assumptions staff budgeted \$100,000 in revenues for 2022, the revenue projections double for 2023 and future years as the parking lot will be available 365 days per year.

Net revenues generated by this parking lot directly offset taxation requirements, as all maintenance costs are funded by parking fee revenues. The anticipated maintenance costs are in the range of \$20,000 to 25,000 per year. As an example, the \$150,000 in net revenues forecasted for 2023 would have a downward impact of 0.82% on the 2022 draft tax levy.

Once completed this parking lot will generate revenues that help to offset the taxation requirements. The benefits are further compounded as non-taxation funding (Development Charges – 87% and Federal Gas Tax -13%) is being used for the majority of the project, and residents of the Town can use the lot for free.

H. In Consultation With

Sam Dinsmore, Deputy Treasurer / Manager of Accounting and Budgets

Shawn Carey, Director of Operations

Ryan Gibbons, Director of Community Services

Jim McCannell, Manager of Roads and Drainage

Trevor Houghton, Manager of Community Planning

I. Public Engagement

Virtual Design Workshops were held with the BIA Board of Directors and adjacent landowners on September 14, 2021, at the Concept (30%) Design stage to gather feedback on the initial concept design. The Town's Sustainability Advisory Committee was also consulted at the Concept Design Stage.

A second Virtual Design Workshop was held with the BIA Board of Directors on December 1, 2021, to present the Final (90%) Design and rendering. On December 14, 2021, adjacent landowners were sent the 90% design presentation along with a letter outlining the changes that had been made to the design based on the feedback received at the meetings on September 14, 2021. A summary of the comments and concerns and how they are being addressed can be found in the attached presentation.

The 90% Design was presented to the Grey County Joint Accessibility Advisory Committee on January 17, 2022, for review and comment prior to finalizing the design.

Any comments regarding this report should be submitted to Mike Humphries, Senior Infrastructure Capital Project Coordinator
engineeringdesigntechnologist@thebluemountains.ca.

J. Attached

1. Attachment 1 – Detailed Design Presentation

Respectfully submitted,
Mike Humphries
Senior Infrastructure Capital Project Coordinator

Shawn Carey
Director of Operations

For more information, please contact:
Mike Humphries, Senior Infrastructure Capital Project Coordinator
engineeringdesigntechnologist@thebluemountains.ca
519-599-3131 extension 277

Report Approval Details

| | |
|----------------------|---|
| Document Title: | CSOPS.22.015 Arthur Street Parking Lot Follow-up.docx |
| Attachments: | - Attachment 1 Detailed Design Presentation.pdf |
| Final Approval Date: | Feb 9, 2022 |

This report and all of its attachments were approved and signed as outlined below:

No Signature - Task assigned to Shawn Carey was completed by delegate Jeff Fletcher

Shawn Carey - Feb 9, 2022 - 8:24 AM

No Signature found

Shawn Everitt - Feb 9, 2022 - 9:14 AM



Arthur St. Municipal Parking Lot

Detailed Design Presentation

PRESENTATION OUTLINE

Background

Consultation Outcomes

Design Components

Innovative Approaches

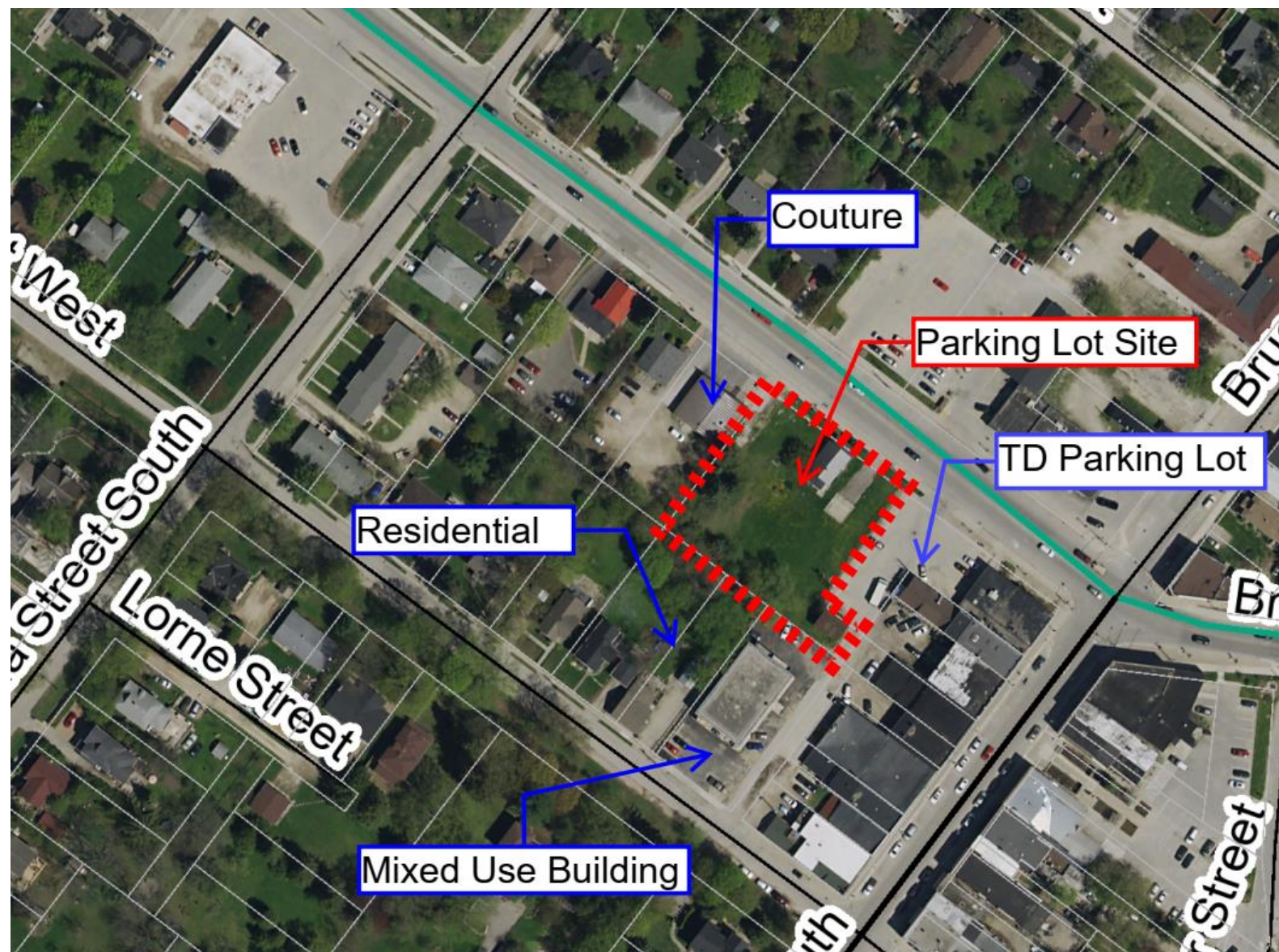
Schedule

Next Steps

Questions

BACKGROUND

- Property Purchased by Town in 2020.
- Proposal for small hard surfaced parking lot
 - Stormwater Management
 - Lighting
 - Allowance for EV charging
 - Bicycle Parking
 - Paid Parking Options



CONSULTATION OUTCOMES



Adjacent Landowners

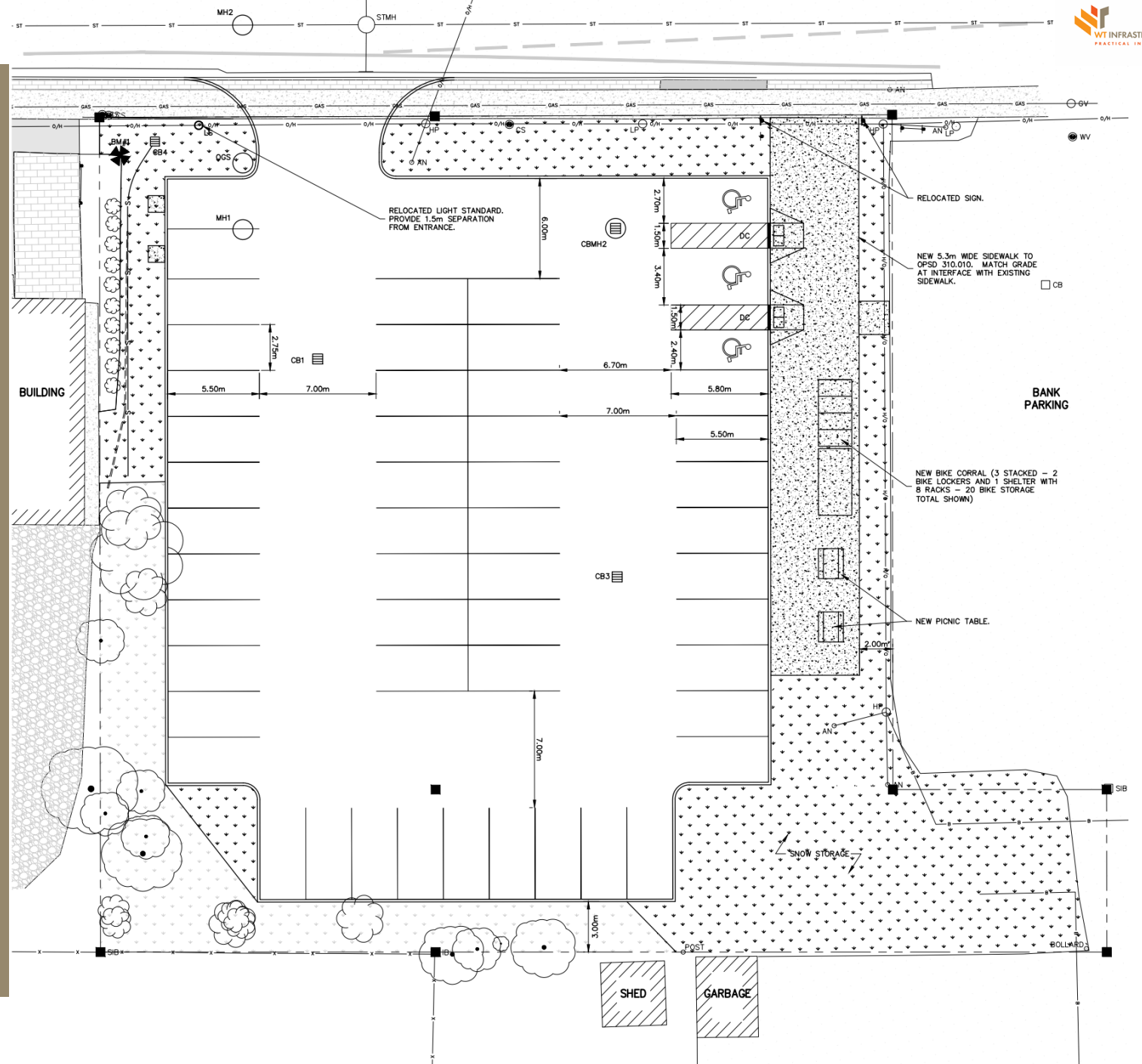
- Fencing
 - Solid wooden fencing to be extended.
- Noise/Pollution Buffer
 - Black Spruce trees in areas where viable.
- Lighting
 - Lighting to be Dark Sky compliant.
- Snow Storage
 - Clearly defined area to southeast corner.

BIA

- Exit to Louisa/Laneway Access from Louisa
 - Landscaping to discourage traversing through rear-yard.
- Motorcycle Parking
 - No specific motorcycle parking provided.
- Left Turn Access
 - Will coordinate for signage, but no works on Arthur are proposed.
- Access to TD Property
 - Walkway to promote pedestrian flow.
- Winter Colour
 - Mixture of plantings to provide some seasonality.
- Washrooms
 - No washrooms being provided.

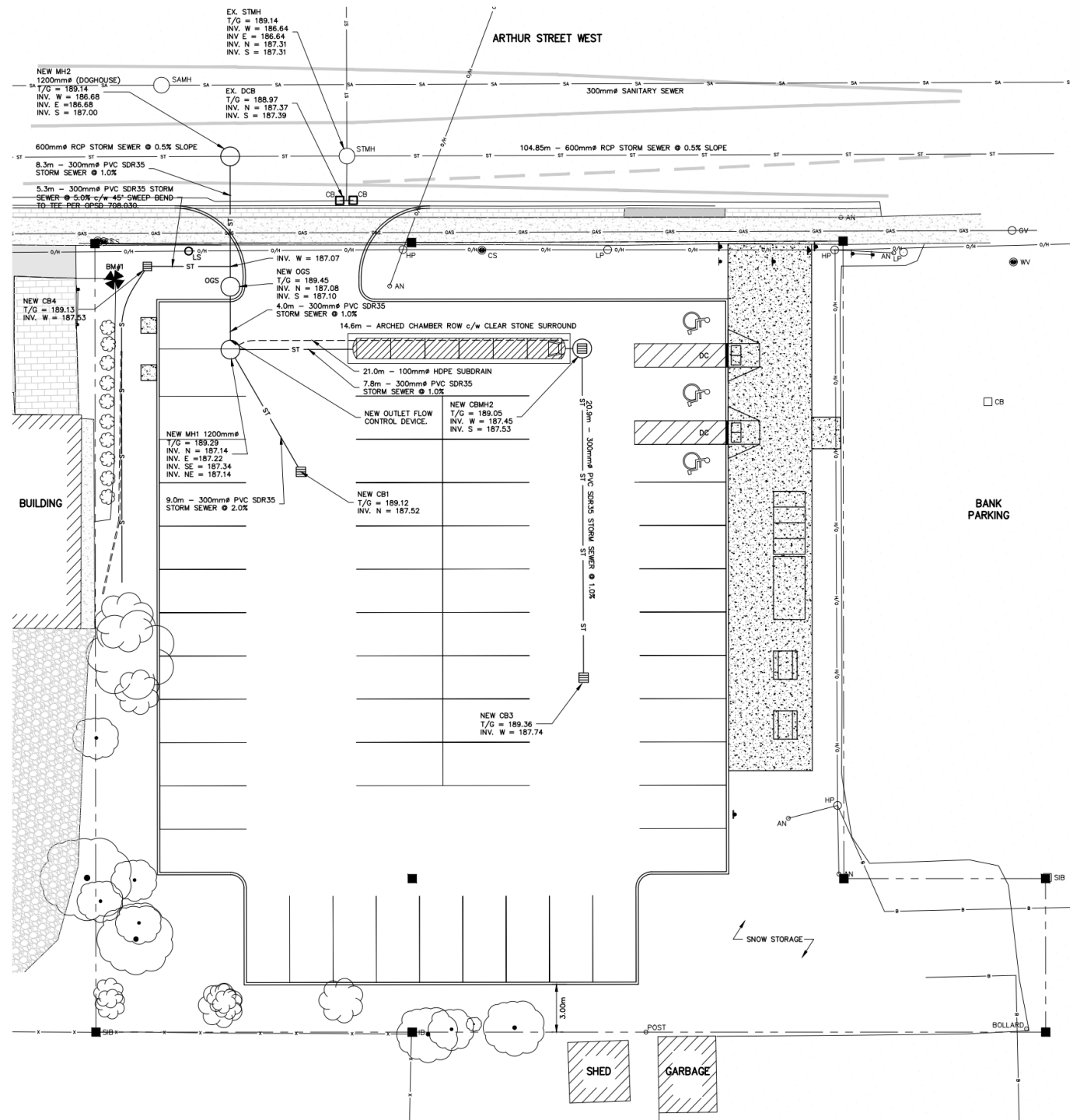
FUNCTIONAL DESIGN

- Unsignalized Entrance off Arthur Street
- Forty-nine (49) Standard Parking Spaces
- Three (3) Barrier Free Parking Spaces
- Concrete Bicycle and Pedestrian Plaza
- Enclosed and Open Bicycle Lockers
- Native Landscaping/Xeriscaping



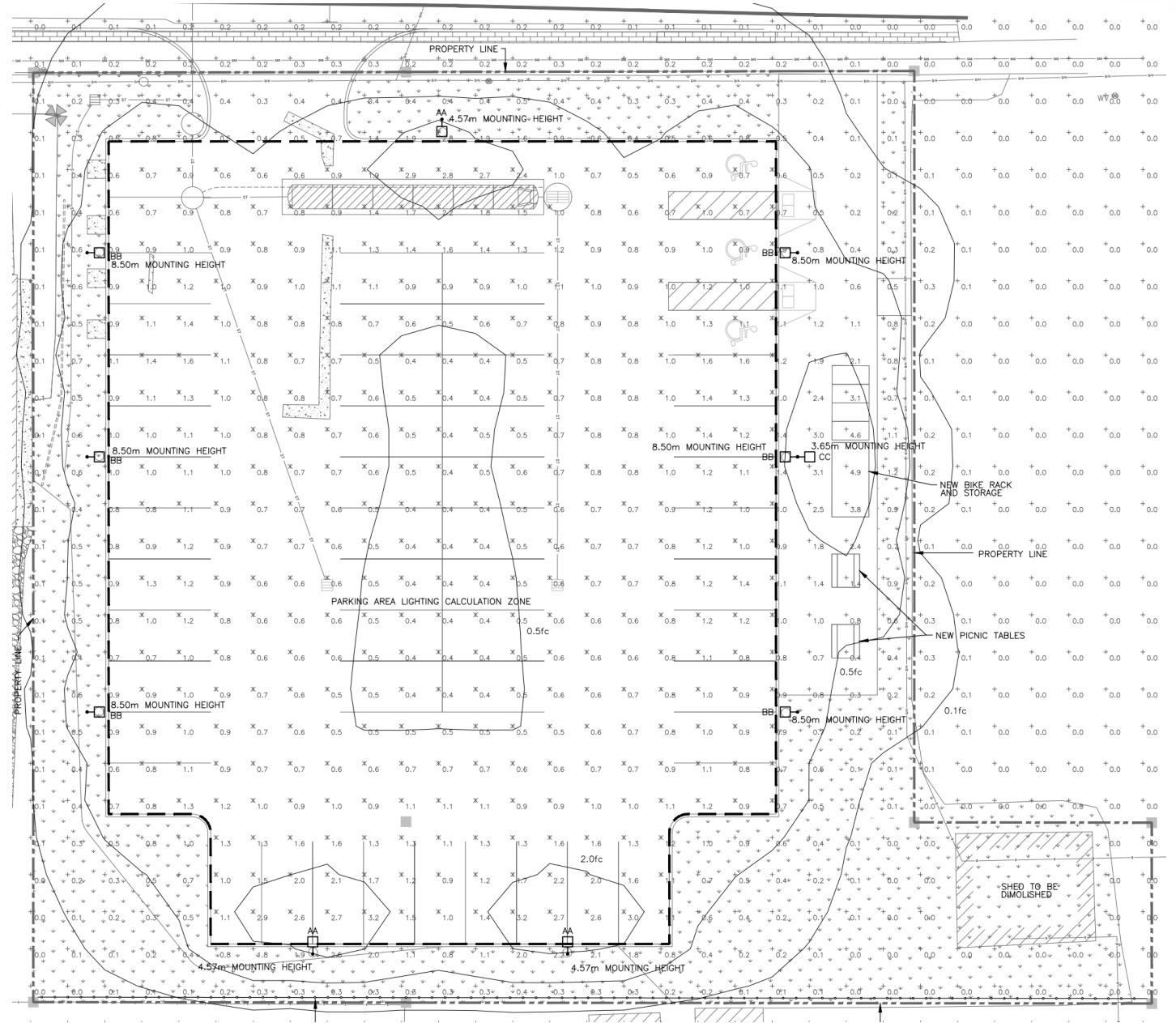
DRAINAGE DESIGN

- Controlling run-off from site to match current discharge quantity.
- Underground storage tanks to minimize peak flow off-site.
- Oil/Sediment Interceptor to remove any contaminants before entering municipal storm sewer.
- Drainage patterns to minimize flow across driven areas during snow melt.



LIGHTING DESIGN

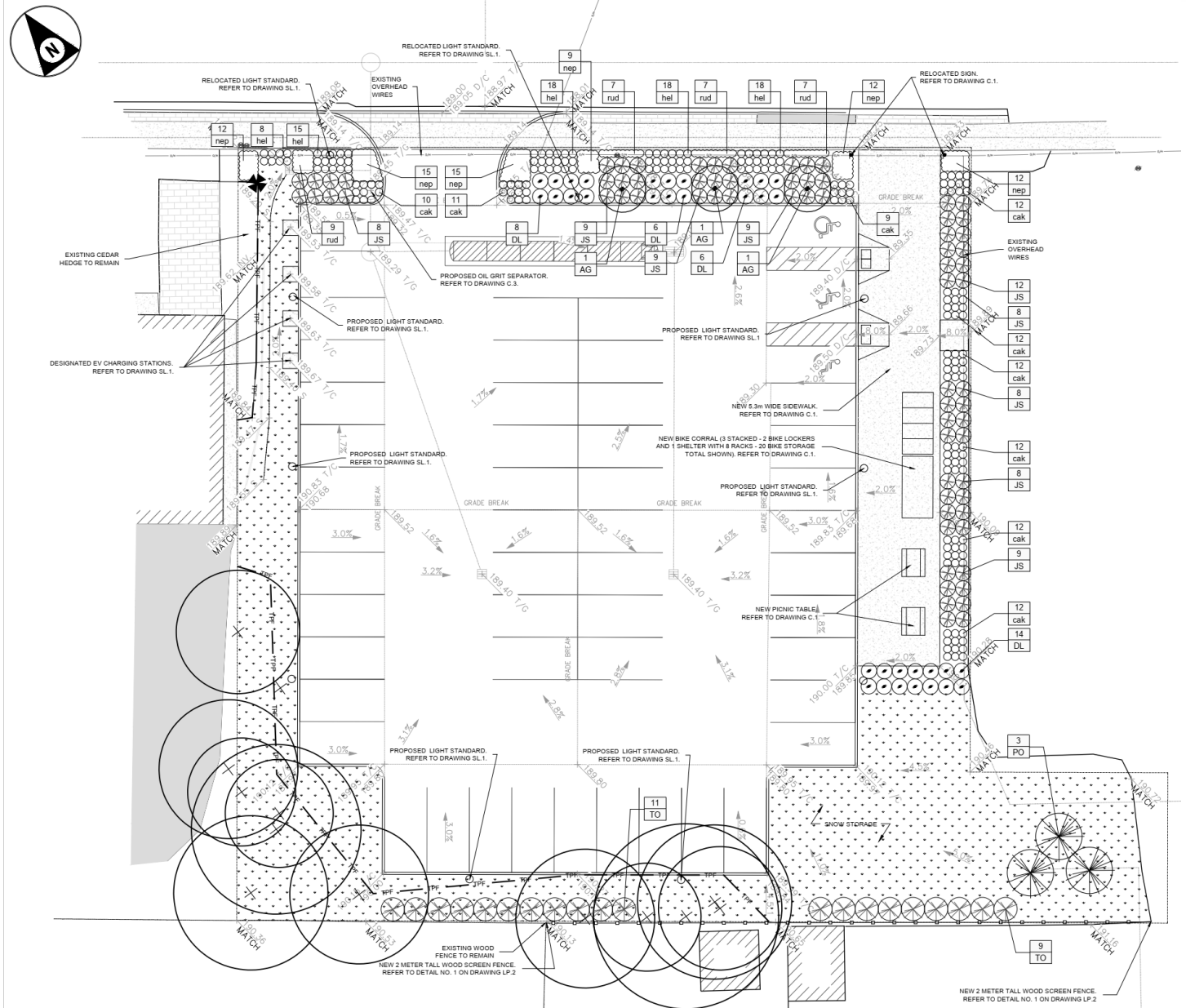
- Solar Lighting
- Six (6) – 8.5 m (28') poles
- Three (3) – 4.57 m (15') poles
- One (1) – 3.65 m (12') lamp for bicycle rack lighting.
- No light spillage onto residential area.
- Minor spillage onto TD Parking Lot
- Lighting around perimeter and solar lighting has a cost impact.



LANDSCAPE DESIGN

- Trees (26)
 - Serviceberry
 - Spruce
- Shrubs (114)
 - Honeysuckle
 - Juniper
- Grasses and Perennials (284)
 - Feather Reed Grass
 - Catmint
 - Black-eyed Susan

Drought resistant once established and low maintenance.



PROPOSED LANDSCAPING MATERIALS

PARKING LOT PLANT MATERIAL



HACKBERRY



SERVICEBERRY



BLUE OAT GRASS



PURPLE CONEFLOWER



FEATHER REED GRASS



BUTTERFLY MILKWEED



ORNAMENTAL CATMINT



BUSH HONEYSUCKLE



SAVIN JUNIPER



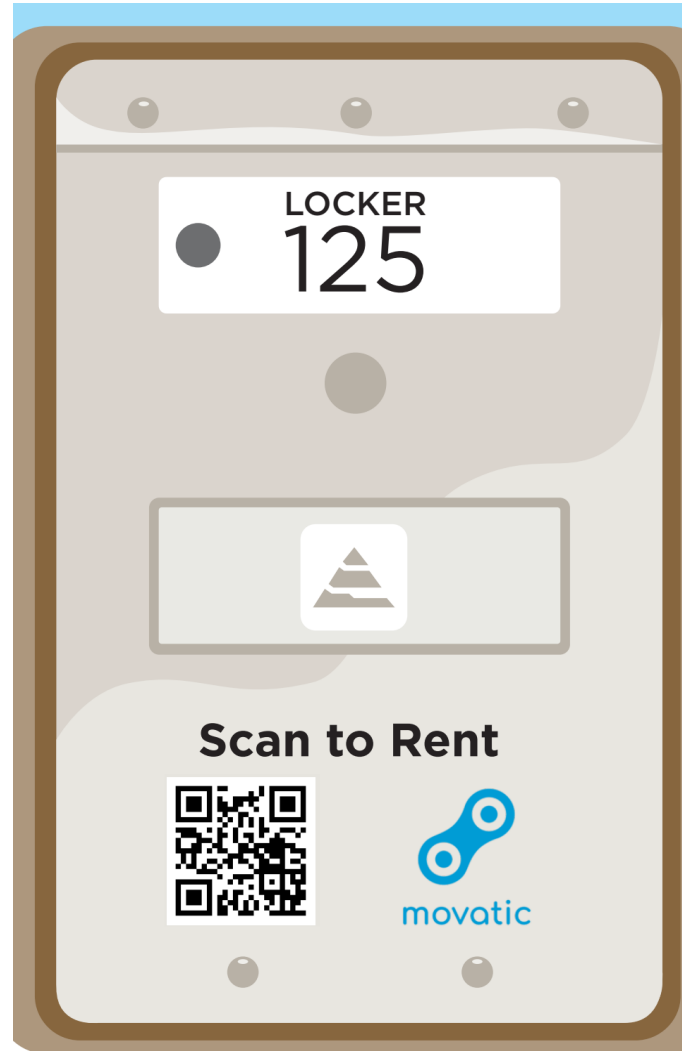
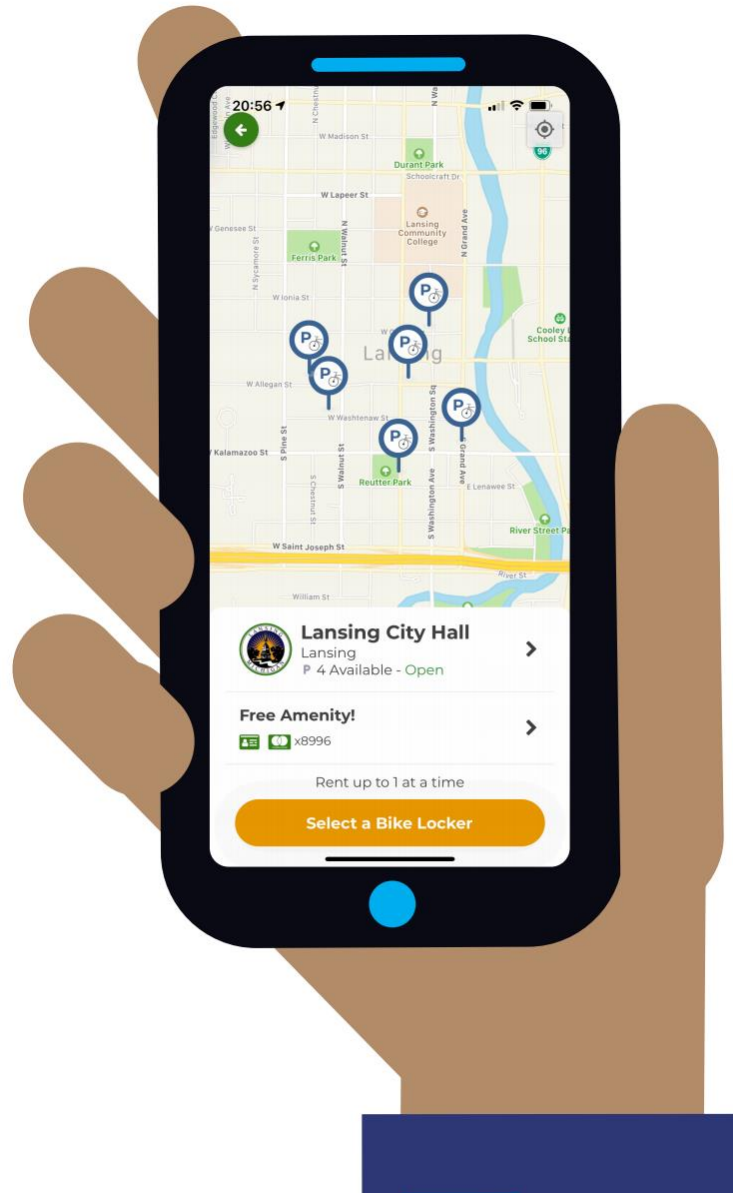
GRO-LOW SUMAC



BLACK EYED SUSAN



RENDERING OF PROPOSED ARTHUR STREET PARKING LOT



INNOVATIVE FEATURES

- Paid Bicycle Lockers
 - Downloadable App
 - Credit Card Payment
 - Town sets cost
- Currently in place in
 - Essex County
 - London
 - Kawartha Lakes

OTHER ISSUES

- Parking Payment Strategy – Similar to remainder of Town
- Approvals Status – MECP Approvals are in progress
- Options still being considered:
 - Change grassed area for snow storage to alternative naturalized area to maximize infiltration.
 - Additional trees where current shed is located to increase buffer and reduce foot traffic.

CAPITAL COST

- Total Project Cost - \$840,000 including 15% contingency and engineering
- Major cost items:
 - Excess Soil
 - Lighting
 - Bicycle Lockers

SCHEDULE



Design Finalization – Fall 2021



Stormwater Management Approval Period – November – March 2022



Tender Issue – Winter 2021/2022



Construction Start (Subject to Budget Approval) – May 2022



Construction Completion – June 2022



REVIEW AND ADDRESS
PUBLIC COMMENTS



FINALIZE DESIGN



COMPETITIVE
CONSTRUCTION TENDER
PROCESS



AWARD CONSTRUCTION TENDER
(SUBJECT TO BUDGET APPROVAL)



COMMENCE
CONSTRUCTION

NEXT STEPS

Thank you for your time. Questions?

For additional project information and updates go to:
<https://www.thebluemountains.ca/arthur-street-west-parking-lot.cfm?is=2>

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