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Issued
March 14, 2023

Project Number
22-155

Atholea Drive Development
Serviceable Boundary Extension and Rezoning

Dear Leah,

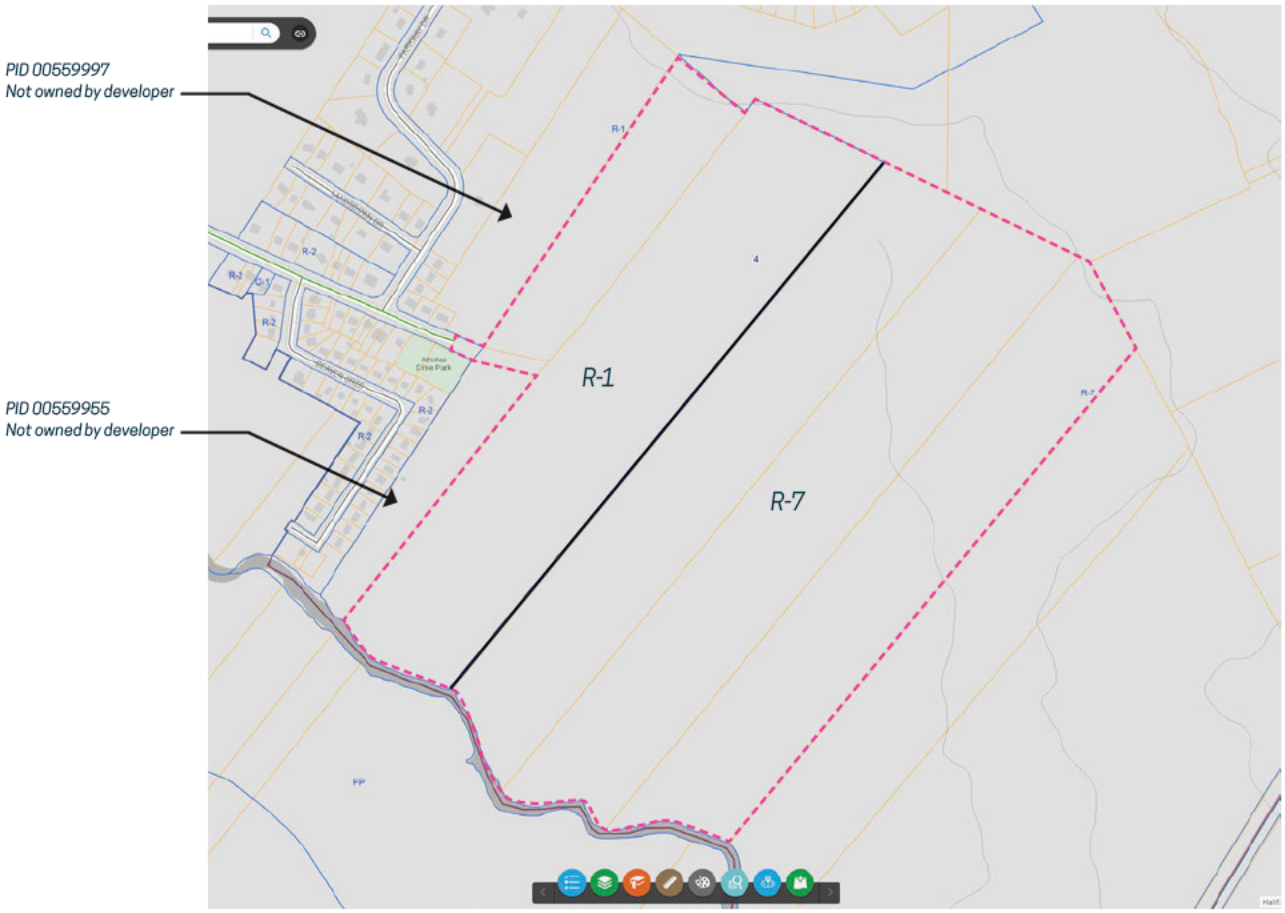
Thanks for chatting with me on this one a few months back. As I mentioned, these 8 properties have been purchased by a Toronto developer who is hoping to advance a phased development consistent with the housing that already exists in this area of Colby South. The PIDS include:

PID	Zone	Area (sf)	acres	Acres/Zone
41519596	R-1	7273	0.17	42.11
41513557	R-1	16871	0.39	
559963	R-1	425146	9.76	
41199183	R-1	1385208	31.8	
41199175	R-7	1202256	27.6	109.2
41199167	R-7	1258884	28.9	
41199159	R-7	1176120	27	
41199142	R-7	1119492	25.7	
		6567106	**150.76**	

The total acreage of the R-1 zoned land is 42.11 acres and the area of the R-7 zoned land. All of the land, except PID 4159596, is just outside the Urban Service Boundary. Our request to Regional Planning is to consider extending the urban service boundary to all of the PIDS, and to rezone the R-1 and R-7 lands to CDD to allow for a comprehensive development district. Alternately, the lands could all be zoned to R-1 but we would appreciate the flexibility of a more mixed development to allow semis, townhomes and possibly some apartment buildings as shown in the accompanying master plan.

The master plan shows 2 PIDS developed as part of the development though they are not owned by the current developer. The developers wanted to ensure that these two parcels were not land lock in the future and that all land was treated as a comprehensive development. The PIDS included in the master plan but not owned by the developers include 00559997(9 acres) and 00559955 (5.2 acres). The developers have contacted these owners to either participate in this process or sell their land to the developer in the future.

ARCHITECTURE LANDSCAPE ARCHITECTURE PLANNING INTERPRETIVE WAYFINDING BRANDED ENVIRONMENTS



The Master Plan

The master development plan is preliminary until we confirm the serviceable boundary can be extended and the land can be rezoned as CDD or R1. Our preference would be CDD to allow for a mixed walkable development. The plan shows that the north and eastern part of the properties are bounded by wetlands and to the south by Cow Bay River. The extent of these wetlands and streams likely limits future phases of development surrounding these lands. A full wetland delineation and detailed topographic survey would be needed once we better understand the permit and zoning pathway.

Atholea Drive enters into the site at the highest point with the land falling away in all directions. As such, the Atholea Drive extension will run along a south-east oriented ridgeline. The plan shows a linear park and trail development along the north side of this street extension following the ridgeline. This means that future residents only have a 1-2 minute walk to get to the trail system which links to the surrounding open spaces that surround the development. A series of larger 1-2 acre community parks sit along the parkway providing enough space for sports courts, playground(s) and small field facilities. There is significant road frontage along these parks proposed to meet the parkland dedication guidelines in the Subdivision Bylaw.

The current master plan is limited to less dense uses including single family homes, semi/duplex and a few townhouse homes. If a CDD can be secured for the property, we would like to explore multi-unit buildings as well though these have not been shown on the current plan. The current plan anticipates 2 phases following the existing zone boundaries. Phase 1 could be built to meet the current R-1 zone standards, with the R-7 zone being rezoned as CDD or R-1.

Assuming a CDD type development, the total acreage of all the lands (including

PIDS 559997 and 559955) would be 165 acres. Assuming no multis, the master plan shows about 550 units with the majority of units being single family. This is a density of 3.3 units per acre. We think a more walkable development would be closer to 10 units per acre.

Servicing

Sanitary Sewer

Sanitary sewer routing is dictated by the higher elevations in the central /western portions of the property near the east end of Atholea Drive and the adjacent lower elevations along the north, east and southern edges (refer to Elevations figure). Elevations changes from the high points to the north side of the site are about 10 meters and elevation changes to the south are close to 16 meters.

Existing municipal sanitary infrastructure abuts the site at three primary locations with the challenges and opportunities of each discussed below.

1. Astral Drive Sewage Treatment Plant - An existing small scale sewage treatment facility was constructed at the east end of Astral Drive in 2012 to support local residential development. The facility is about 200 meters north of "Road C", but the inflow pipes to the treatment facility are 3-4 meters higher that the proposed pipe elevations at the north end of "Road C". This suggests that a pumping station would be required to convey flows to the treatment plant. Based on site elevations, a pumping station would also be required to convey flows to the existing piped network to the west of the site, therefore it appears prudent to consolidate the flows from the overall development and direct those flows towards the larger Eastern Shore Treatment Plant. This is represented in the accompanying drawings showing a new pumping station located near the north end of "Road C" and a forcemain extending back up "Road C" to a manhole on "Road I", which allows for gravity to the Beaver Crescent Pumping Station beyond this point.

2. Atholea Drive Gravity Sewer – An existing 200mm diameter asbestos concrete gravity sanitary sewer (via MH22666) is present at the east end of Atholea Drive. This connection is at a relatively high elevation (invert = 36.83m) and therefore can only accommodate gravity flows for a small portion of the development area nearest the manhole as shown on the schematic servicing drawings. This gravity sewer conveys flows to the west along Atholea Drive, and then south along Beaver Crescent to the Beaver Crescent Pumping Station. With the exception of 3 new houses on Atholea Drive, these flows could also be conveyed down "Road B" internal to the subdivision to the same pumping station. As noted above, this portion of the system would also include pumped inflows from the new pumping station at the north end of "Road C".

3. Beaver Crescent Pumping Station – This pumping station is located at the south end of Beaver Crescent with surface elevations about 4 meters higher (~28m) that surrounding ground level (~24m). To achieve gravity flow to this pumping station, these lower land areas will need to be filled to an adequate elevation to achieve minimum pipe cover and grades. Given the elevation difference on site to the higher central area, borrow materials are likely to be available to fill these areas.

Filling in this manner allows the full Phase 1 development to be accommodated with a single pumping station near the end of Road C. Alternatively, less fill can be used in this area and the Phase 2 pumping station could be constructed during Phase 1 and include a right of way and gravel road to the pumping station which would be located in the Phase 2 area.

Ultimately, all flows from this development would be conveyed to the Beaver Crescent pumping station. At this time, the capacity of that pumping station to accommodate flows from this development has not been evaluated, though it is anticipated that some level of upgrading will be required during Phase 2, or potentially Phase 1 of the development.

Stormwater

The conveyance of stormwater is again directed by the high central areas and lower lying edges of the development, similar to the sanitary sewer infrastructure. In general, the development is surrounded by wetlands and watercourses to help facilitate stormwater discharge from the site.

The south side of the development abuts the Cow Bay River and therefore provides and variety of direct outfall opportunities for stormwater to the site. The outfall locations will be dictated by the detailed grading of southern portions of "Road I", which in turn will be dependent on the arrangement of sanitary sewer infrastructure along the south portion of "Road I".

The eastern part of the site abuts to a large provincial wetland area while areas north of the site are characterized by a series of wetland areas and minor watercourses interconnecting these areas. Both provide opportunities for stormwater discharge from the site and it is assumed that all discharge locations will be controlled by relevant quantity (pre-post balancing) and quality constraints as required for all developments in the Province.

It is anticipated that most roadways in this area will be constructed with an urban curbed cross-section including catch basins and associated infrastructure. It is assumed that a variety of stormwater management techniques will be used to balance pre- and post-development flows from the site, including the use of open and park areas.

Domestic and Fire Water

Existing water services are available adjacent to the development at a number of different locations:

1. Atholea Drive – A 250mm diameter ductile iron water main is present along Atholea Drive up to Beaver Crescent. This splits into a 200mm diameter main along Beaver Crescent and a 150mm diameter main that extends to the east edge of the existing service boundary along Atholea Drive at a capped termination point. These two connection points for the most logical connections to the new development.

2. Parkway Drive – A 200mm ductile iron water main extends from Astral Drive along Parkway Drive, reducing to a 150mm main between Landsdown Drive and Atholea Drive. At Atholea, the short section of 150mm main on Parkway connects to the 150mm main on Atholea Drive between Beaver Crescent and the east capped end. As this

connection is located east of Beaver Crescent, the two connections from Atholea and Beaver Crescent provide two distinct sources of water supply to the subdivision. For additional capacity, an alternative (or addition) to the Atholea connection would be to connect the subdivision to the 200mm main on Parkway Drive north of Lansdown Drive. This would require an easement across properties to the north of Atholea Drive.

3. Astral Drive – It may be possible to provide a connection from any of the "Future Connection" roadways identified in the plans towards Astral Drive to the north side of the development site. These would connect to an existing 200mm ductile iron water main installed along Astral Drive about 200 meters to the north. These connections would require easements across properties between Astral Drive and the proposed development, which the development does not currently own. While such a connection may provide some minor benefits, functionally, the connection along Parkway Drive provides the majority of the same benefits using a water main that is already present in closer proximity to the development.

Due to the elevation of lands in the west-central part of the site, it is anticipated that an air release chamber will be required near the high point of the development.

The Request

The developer would like to request consideration for a comprehensive development district CDD zoning change for the entirety of the properties, as well as a serviceable boundary extension over these lands. The accompanying drawings help to communicate our initial concept in hopes of securing consideration in the Regional Plan, which will allow us to navigate the necessary GFLUM and LUB Amendments. We welcome your feedback as we understand HRM is trying to advance these large scale master planned developments in an effort to curb the current housing crisis. We would be happy to undertake a more detailed servicing and traffic/transit study once we are in agreement with the concept and the approval pathway.

Sincerely,

[redacted]

Rob LeBlanc, Director of Planning
[redacted] direct, [redacted] mobile
[redacted]

ATHOLEA DRIVE DEVELPMENT

WILLOWDALE, NOVA SCOTIA

Scale = 1:2500 MARCH 2023

0 100 200m



ATHOLEA DRIVE

LANDSDOWN DRIVE

PARKWAY DRIVE

BEAVER CRESCENT

PID 00559997
Not owned by developer

PID 00559955
Not owned by developer

FUTURE CONNECTION

FUTURE CONNECTION?

PROVINCIAL WETLAND

FUTURE CONNECTION?
LOW POINT

WETLAND

TOWNHOMES

TRAIL

MAIN ENTRY

HIGH POINT RIDGE PARK

COMMUNITY PARK

LOW POINT LIFT STATION

PHASE 1
(R1 & R5))

PHASE 2
(R7 to R1)

NEIGHBOUR-HOOD PARK

COW BAY RIVER

592 m

Atholea Drive Development	January 5th, 2023
Building Type	Units
Phase 1 (add R5)	
R1 - Single Family (18.3x30)	174
Townhomes (6.1x30)	108
Phase 1 Total	282
Phase 2 (switch from R7 to R1)	
R1 - Single Family (18.3x30)	266
Phase 2 Total	266
Development Total Units	548
Open Space Area	23.7 acres

ATHOLEA DRIVE DEVELOPMENT

SERVICING SCHEMATIC - Domestic and Fire Water Infrastructure

Scale = 1:2500 FEBRUARY 2023

0 100 200m

ATHOLEA DRIVE

LANDSDOWN DRIVE

PARKWAY DRIVE

BEAVER CRESCENT

EX. 250mm WATER

EX. 150mm WATER

EX. 150mm WATER

EX. 200mm WATER

EX. 200mm WATER

CONNECT TO EXISTING 150mm WATER MAIN AT EAST END OF ATHOLEA DRIVE

CONNECT TO EXISTING 200mm WATER MAIN AT SOUTH END OF BEAVER CRESCENT

AIR RELEASE VALVE REQUIRED NEAR HIGH POINT OF WATER NETWORK

PHASE 1

PHASE 2

FUTURE CONNECTION

FUTURE CONNECTION

PROVINCIAL WETLAND

FUTURE CONNECTION

WETLAND

TRAIL

PROVINCIAL WETLAND

TRAIL

TRAIL

PROVINCIAL WETLAND

COW BAY RIVER

592 m

ATHOLEA DRIVE DEVELOPMENT

SERVICING SCHEMATIC - Stormwater Infrastructure

Scale = 1:2500 FEBRUARY 2023

0 100 200m

ATHOLEA DRIVE

EXISTING DITCH

LANDSDOWN DRIVE

PARKWAY DRIVE

CONNECT TO EXISTING ATHOLEA DRIVE DITCH

BLACK BOUNDARIES REPRESENT APPROXIMATE STORMWATER CATCHMENT AREAS

BEAVER CRESCENT

PHASE 1

PHASE 2

OUTFALL

FUTURE CONNECTION

PROVINCIAL WETLAND

WETLAND

PRELIMINARY CATCHMENT AREAS

TRAIL

PARK AREAS TO INCLUDE STORMWATER MANAGEMENT FEATURES

COW BAY RIVER

592 m

ATHOLEA DRIVE DEVELOPMENT

SERVICING SCHEMATIC - Sanitary Infrastructure

Scale = 1:2500 FEBRUARY 2023

0 100 200m

CONNECTIONS AT EXISTING SEWAGE TREATMENT PLANT ARE 3-4 METERS HIGHER THAN NORTHERN DISCHARGE POINT OF THE NEW SUBDIVISION AND WOULD THEREFORE REQUIRE A PUMPED SOLUTION. THEREFORE, PREFERENCE IS TO PUMP TO MAIN SANITARY NETWORK DESTINED TO THE EASTERN SHORE SEWAGE TREATMENT PLANT.

FUTURE CONNECTION

PROVINCIAL WETLAND

FUTURE CONNECTION

NEW PHASE 1 PUMPING STATION

FUTURE CONNECTION

WETLAND

ATHOLEA DRIVE

LANDSDOWN DRIVE

PARKWAY DRIVE

CONNECT TO EXISTING MANHOLE (MH22666). DOWNSTREAM PIPE IS 250mm DIA. ASBESTOS CONTREET

PHASE 1 INLCUDES 1 PUMPING STATION AND FORCEMAIN (SHOW IN GREEN) CONNECTING TO MANHOLE SHOWN BELOW. THIS IN TURN DISCHARGES TO EXISTING MANHOLE ON ATHOLEA DRIVE.

TRAIL

PROVINCIAL WETLAND

TRAIL

BEAVER CRESCENT

EXISTING SEWAGE PUMPING STATION. ALL SANITARY DISCHARGE FROM PHASE 1 IS DIRECTED TO THIS PUMPING STATION.

SANITARY FLOWS FROM FUTURE PHASE 2 WILL BE DIRECTED TO THIS PUMPING STATION. UPGRADING MAY REQUIRE UPGRADING IN PHASE 1 OR PHASE 2.

PHASE 1

PHASE 2

LOWER PORTION OF THE SITE WILL REQUIRE FILL OF UP TO 4-5 METERS AT SOME LOCATIONS TO ALLOW GRAVITY FLOW TO EXISTING PUMPING STATION

TRAIL

PROVINCIAL WETLAND

NEW PHASE 2 PUMPING STATION

COW BAY RIVER

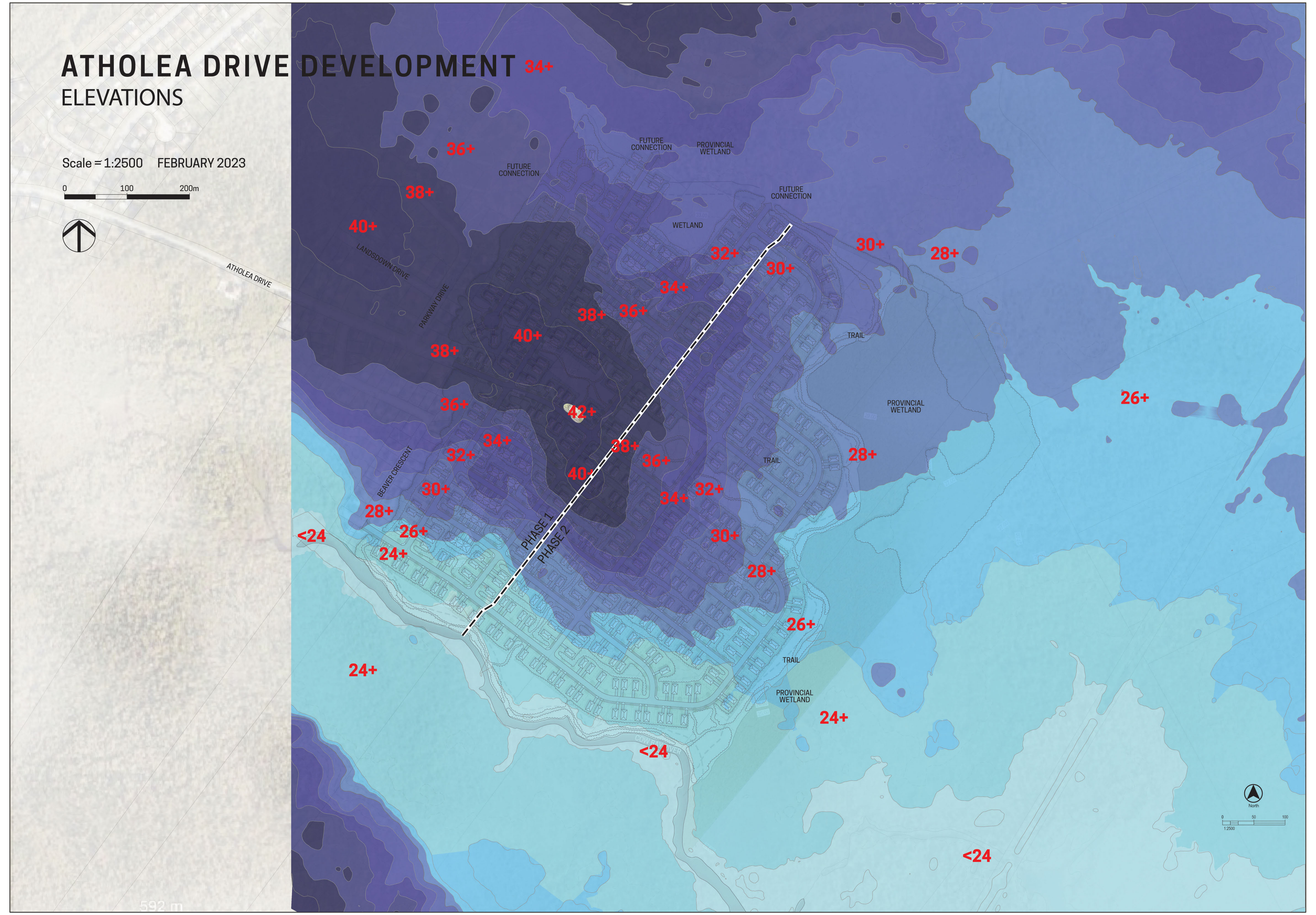
592 m

ATHOLEA DRIVE DEVELOPMENT

ELEVATIONS

Scale = 1:2500 FEBRUARY 2023

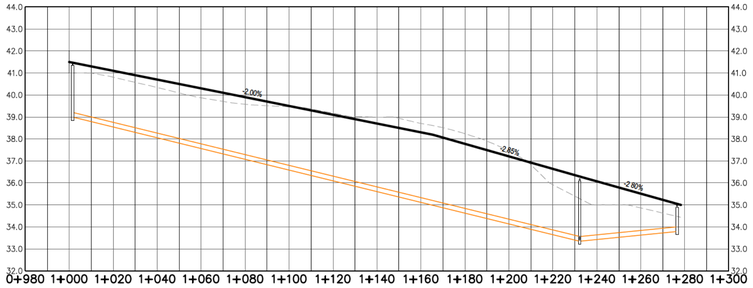
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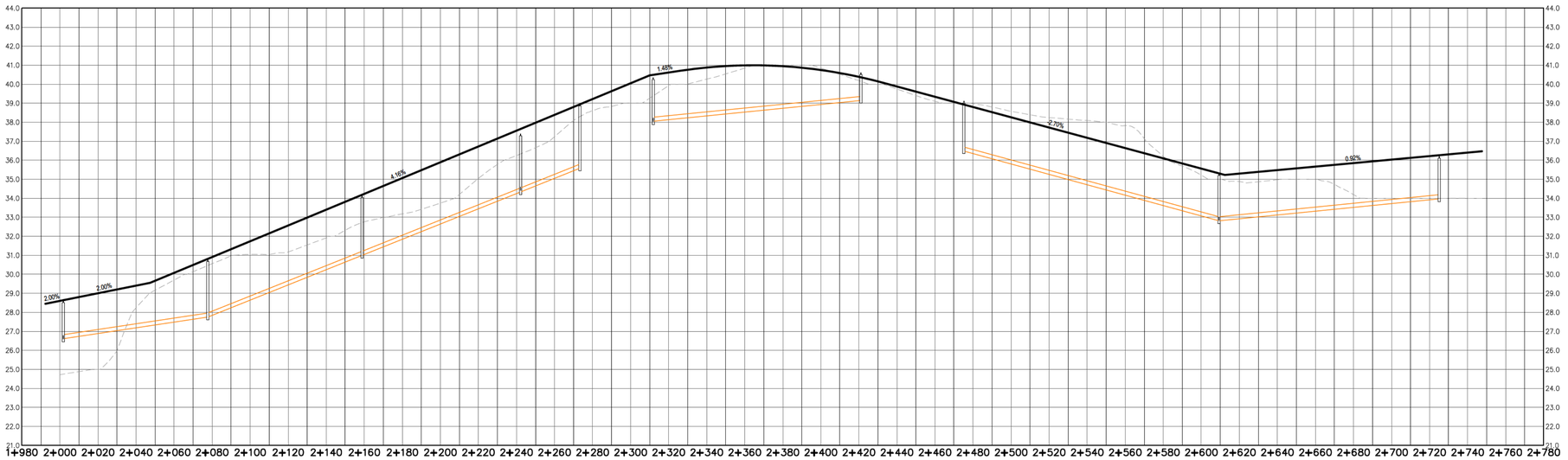
592 m


Provincial Watercourse
(source: online Provincial
Wetland Mapping)
20m Watercourse
Buffer
ROAD A
ROAD F
ROAD B
ROAD G
ROAD D
ROAD H
ROAD C
ROAD I
ROAD E
ROAD J
ROAD K
ROAD L
Provincial Wetland
(source: online Provincial
Wetland Mapping)
20m Wetland
Buffer
20m Watercourse
Buffer
Cow Bay River
Rail Trail
Athlolea Drive
Lynch Stream Drive
Parkway Drive
STRUCTURE - 7(4)
STRUCTURE - 7(5)
North
0
50
100
1:2500
ATHOLEA DRIVE
BASE PLAN
DATE: 14 DECEMBER 2022
ISSUED FOR REVIEW
fathomstudio.ca
40 King Street
Dartmouth, NS
B2Y 2R4
fathom
Formerly
Ekistics Planning & Design

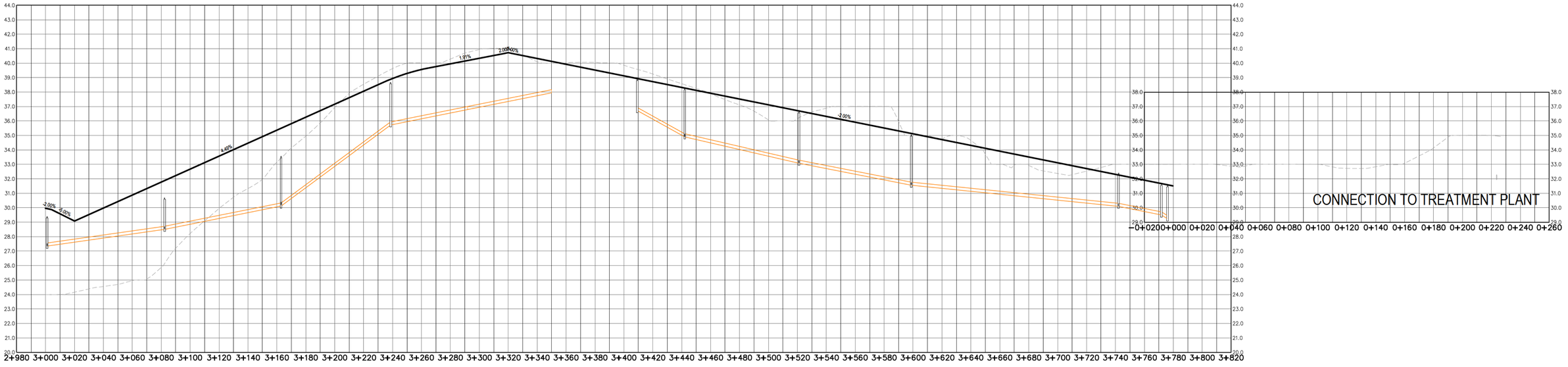
ROAD A



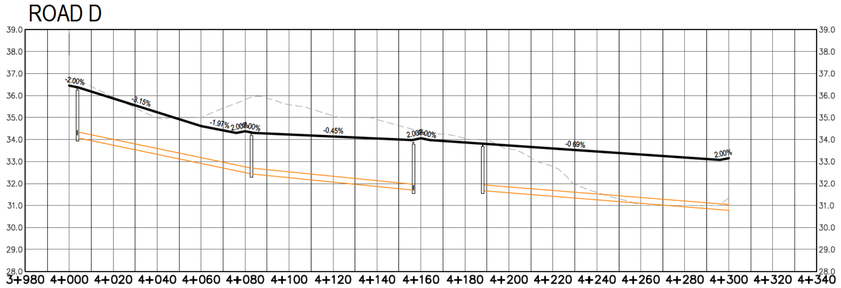
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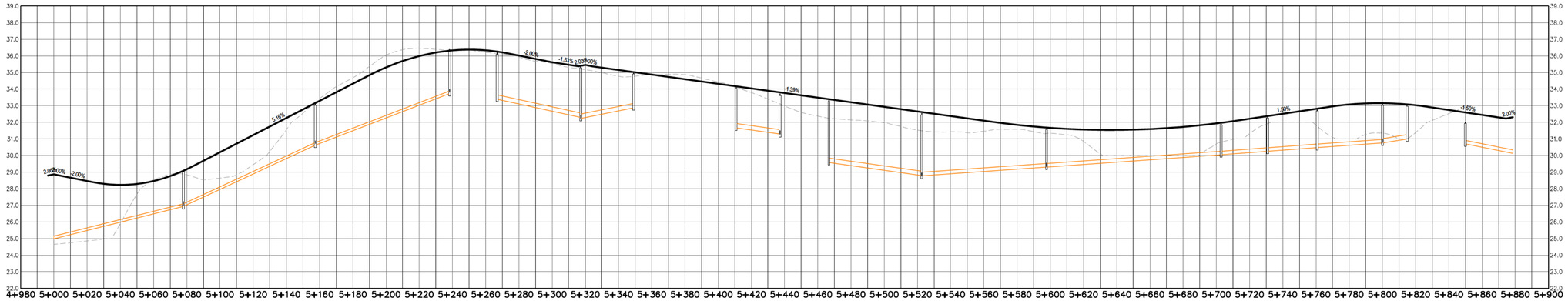
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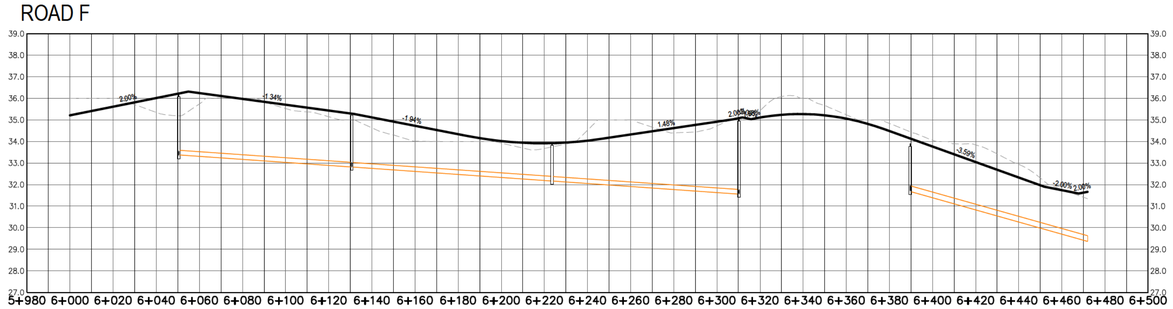
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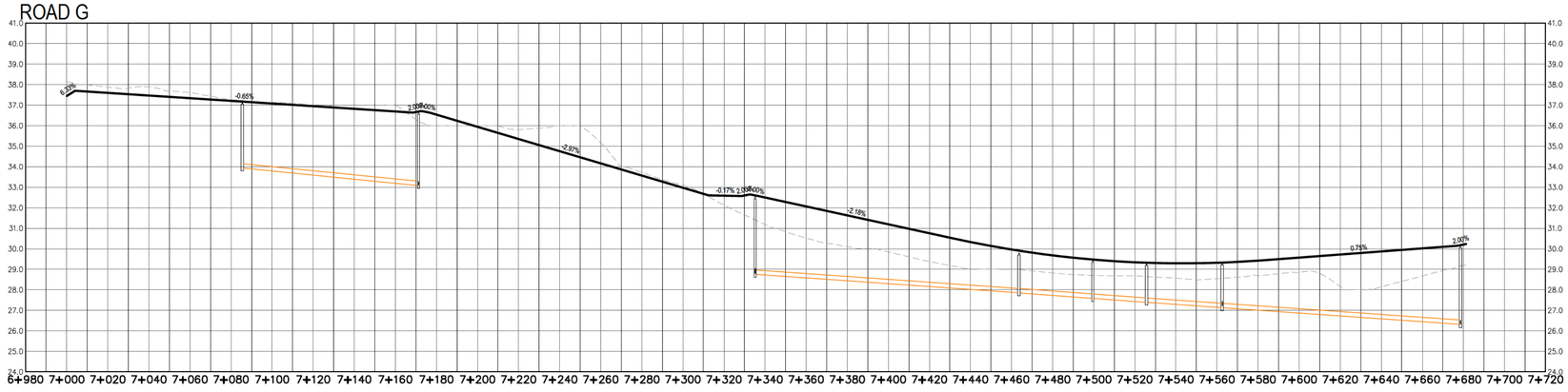
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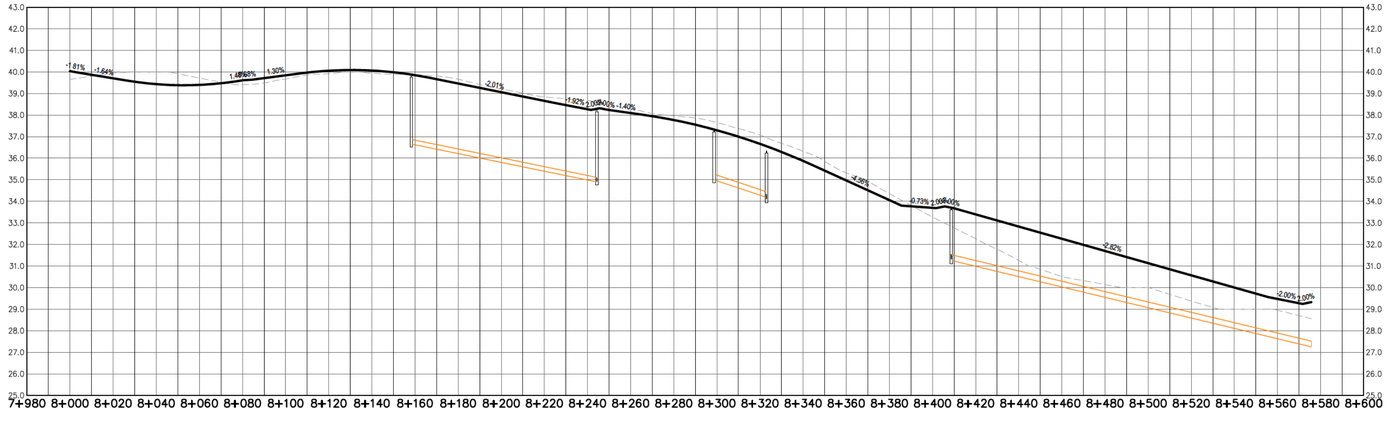
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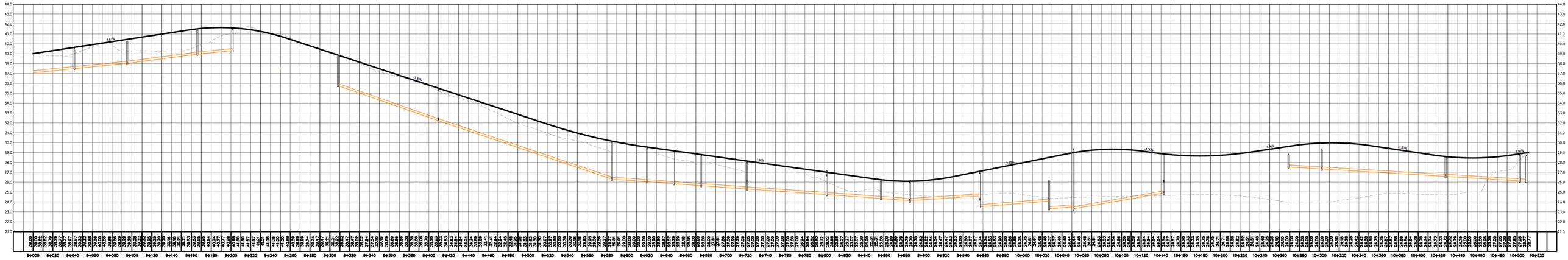
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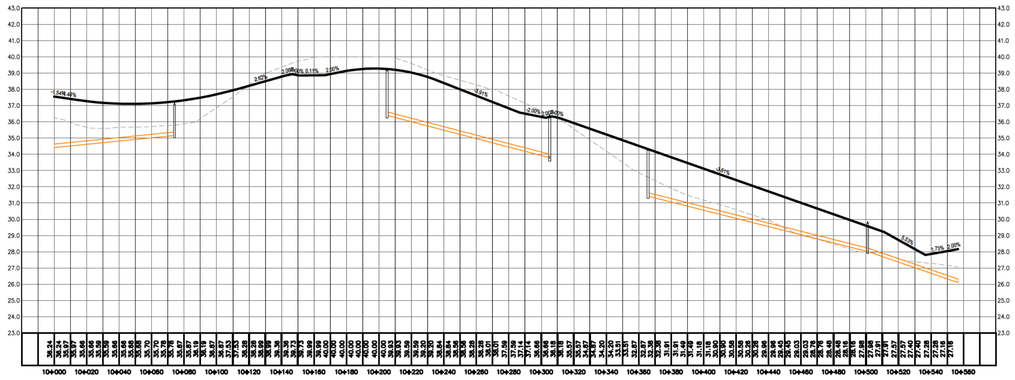
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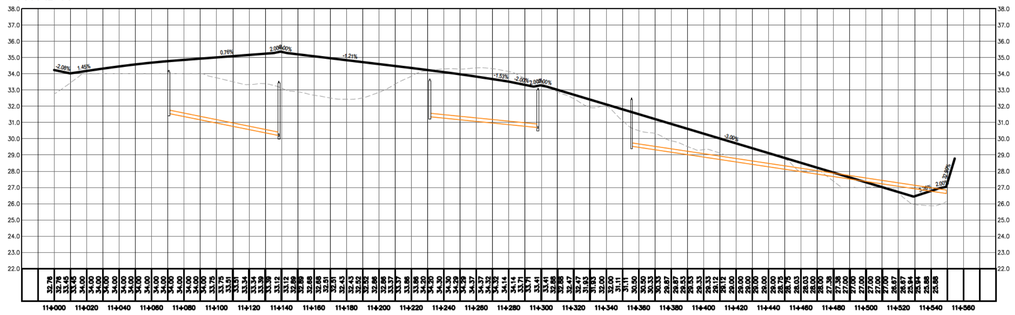
ROAD I



ROAD J



ROAD K



ROAD L

