



C.C. Tatham & Associates Ltd.
Consulting Engineers

MONTERRA PHASE II DEVELOPMENT

Town of the Blue Mountains

Functional Servicing Report

prepared by:

C.C. Tatham & Associates Ltd.
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Collingwood, ON L9Y 5A6
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info@cctatham.com

prepared for

Skyline Blue Development Inc.

November, 2017

CCTA File 115185

TABLE OF CONTENTS

1	Introduction	1
1.1	Site Description	1
1.2	Objectives	1
1.3	Background and Guidelines	3
1.4	Proposed Land Use	3
2	Water Supply	4
3	Sanitary Servicing	6
4	Stormwater Management	7
5	Utilities	8
6	Conclusions	9

APPENDICES

Appendix A: Water Supply Demands and Head Loss Calculations

Appendix B: Sanitary Sewer Design Sheet

Appendix C: Utility Information

LIST OF TABLES

Table 1: Water Supply Demands	4
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LIST OF FIGURES

Figure 1: Site Location Plan	2
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DRAWINGS

GS-1: General Servicing Plan

DP-1: Existing Drainage Plan

DP-2: Proposed Drainage Plan

1 Introduction

C.C. Tatham & Associates Ltd. (CCTA) has been retained by Skyline Blue Mountain Development Inc. (Skyline) to prepare a Functional Servicing Report in support of the proposed Monterra Phase II residential development in the Town of the Blue Mountains. Specifically, this report has been prepared to address internal and external servicing requirements associated with this development.

1.1 Site Description

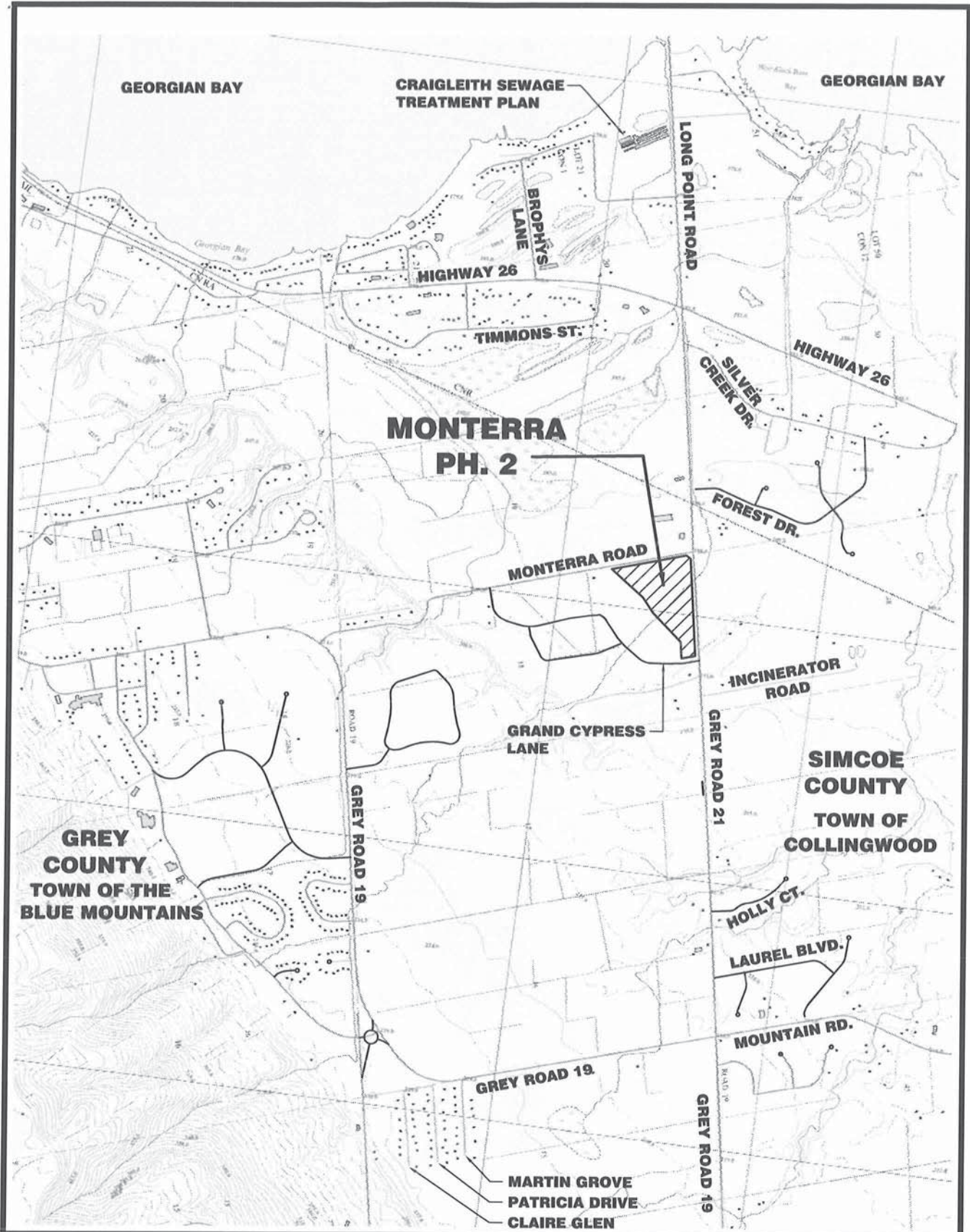
The subject property consists of approximately 5.6 ha of undeveloped land located on the west side of Grey Road 21 (Osler Bluff Road) between Monterra Road and the Monterra golf course in the Town of the Blue Mountains. The property is part of Craigleith-Camperdown Watershed 1 as identified in the Craigleith-Camperdown Subwatershed Study. The Monterra golf course borders the subject property along its southwest extent, Monterra Road bounds the property's north extent and Grey Road 21 borders the site to the east. The property is legally described as Part Lot 18, Concession 1 (RP-16R8591 Part 1), Town of the Blue Mountains (formerly the Township of Collingwood), in the County of Grey. Figure 1 provided overleaf illustrates the location of the subject property.

The majority of the property is forested with an identified watercourse, known as Watercourse 1 in the Craigleith-Camperdown Subwatershed Study, bisecting the property. A letter report, the Monterra Phase 2 Natural Hazard Assessment, has determined the required development setbacks from Watercourse 1 as 48 m centred on the centreline of the watercourse.

An existing 450 mm diameter trunk sanitary sewer, hydro, gas, telephone and cable utilities are present along Grey Road 21 and are able service the site. The site will be serviced with water by connecting to the existing 200 mm watermain on the south side of Grand Cypress Lane south of the subject property. The 450 mm diameter trunk sanitary sewer running along Grey Road 21 was installed in 2014 and designed to accommodate the sewage flows from the Monterra Phase II Development.

1.2 Objectives

The primary objective of this report is to assess the feasibility of the proposed development with respect to servicing; ensuring adequate services are available in the area. This report will evaluate the existing services in the area and provide recommendations for any improvements required to service the proposed development. In addition, this report has been prepared to demonstrate that the proposed servicing plan for the development is in accordance with the applicable Municipal, Regional and Provincial guidelines.



C.C. Tatham & Associates Ltd.
Consulting Engineers

Collingwood Brantford Orillia Barrie

MONTERRA PH. 2
SITE LOCATION PLAN

DWG. No.

FIG. 1

SCALE: NTS

DATE: SEPT. 2017

JOB NO. 115185

1.3 Background and Guidelines

This report was prepared recognizing the pertinent Municipal and Provincial guidelines on water resources and the environment including the following publications:

- Stormwater Management Practices Planning and Design Manual. Ministry of the Environment (2003);
- Design Guidelines for Sewage Works. Ministry of the Environment (2008);
- Design Guidelines for Drinking-Water Systems. Ministry of the Environment (2008);
- Engineering Standards. Town of the Blue Mountains (April 2009);
- Craigleith-Camperdown Subwatershed Study. Gore and Storrie Limited (1993);
- Monterra Phase II Development Stormwater Management Report. C.C. Tatham & Associates Ltd. (September 2017)

1.4 Proposed Land Use

The proposed site plan is to develop 32 single family residential lots serviced by two rural cross-section roads ending in cul-de-sacs. One of these roads will be accessed from Grey Road 21 (Osler Bluff Road) and the other from Monterra Road. Lot 1 will be accessed off of Grand Cypress Lane and Lot 2 will be accessed off of Grey Road 21. The rural roadway will include roadside ditches for drainage with sanitary sewer, watermain and utilities to service the lots. Water service will be provided from the Town of the Blue Mountains water distribution network, specifically the 200 mm diameter water main installed along the south side of Grand Cypress Lane. Sanitary service will be provided by the 450 mm diameter gravity trunk sanitary sewer running north on Grey Road 21 terminating at the Craigleith Sewage Treatment Plant. Utilities (hydro, gas, telephone and cable) will be provided by the respective utility provider's in the surrounding area.

2 Water Supply

The water demands of the development, maximum day, peak hour and fire suppression flows, are presented in the following table and the supporting calculations are provided in Appendix A for reference.

Table 1: Water Supply Demands

Demand	Demand Criteria	Flow
Maximum Day	2.0 PF	0.8 L/s
Peak Hour	4.5 PF	1.7 L/s
Fire Suppression	4,000 L/min (FUS)	66.7 L/s
Design	-	68.4 L/s

Note: PF – Peak Factor; FUS – Fire Underwriters Survey

As discussed, the 200 mm diameter water main which is part of the Town of the Blue Mountains water distribution system located on Grand Cypress Lane will supply the subdivision with water. This connection will be made near the intersection of Grand Cypress Lane and Grey Road 21 where a sampling station and blow-off are currently located. Connecting to the water main on Grand Cypress lane will require external works in the Town of the Blue Mountains' Grand Cypress Lane right-of-way as well as along Grey Road 21 which is owned by the County of Grey.

From the Grand Cypress Lane connection the watermain will be extended north along the west side of Grey Road 21 to service lots 1 and 2 of Monterra Phase II. The watermain will then turn into the subdivision at the intersection of Street B and Grey Road 21. The watermain will follow Street B to the end of the cul-de-sac where it will cross Watercourse 1 to service the lots on Street A. The watermain will be sized at 200 mm and generally follow Streets A and B to service the proposed 32 single family residential lots within the Monterra Phase II development. The watermain will be terminated with a blow-off at Monterra Road. This termination location will allow for a potential future connection should watermain be extended down Monterra Road in the future.

A 200 mm diameter watermain has been selected as the pipe size to minimize head losses under fire flow conditions. Sizing calculation are included in Appendix A and show acceptable static pressures during fire flow plus peak hour conditions. Head loss calculations based on a flow test completed by Vipond (see Appendix A) also show that static water pressure during average demand is below 550 kPa (80 psi), the maximum allowable pressure during the average demand condition.

Six fire hydrants have been included on-site to provide the requisite fire suppression for the development. The water main is proposed to dead end at Monterra Road as there currently is no accessible connection point to allow for a looping system. At the end of the cul-de-sac on Street A and at the intersection of

Street A and Monterra Road, automatic flushing stations will be installed to allow for proper flushing of the system.

The proposed water main, fire hydrant locations and flushing stations are illustrated on the General Servicing Plan Drawing (GS-1) included with this report.

3 Sanitary Servicing

A 200 mm diameter gravity sanitary sewers will service 30 of the proposed 32 single family residential lots within the Monterra Phase II development with Lot 1 and Lot 2 connecting directly to the 450 mm trunk sewer on Grey Road 21. The 200 mm diameter sanitary sewer servicing Street A will follow the road draining northeast to SAN MH E13 on Grey Road 21 at the intersection of Grey Road 21 and Monterra Road. The 200 mm diameter sanitary main servicing Street B will follow the road draining east to SAN MH E16 Also located on Grey Road 21. Both of these manholes were installed as part of the Grey Road 21 Trunk Sanitary Sewer project completed in 2014 and took into account future flows from the Monterra Phase II development when sizing the sewer. A preliminary sanitary sewer design sheet, attached as Appendix B, shows that at a minimum slope of 0.5%, 200 mm diameter sanitary sewers have adequate capacity to service Streets A and B. The alignment of the sanitary sewers can be seen on the attached drawing GS-1.

The trunk sanitary sewer runs north along the west side of Grey Road 21 to Highway 26 then west to existing SAN MH 69 and an existing 300 mm diameter gravity sanitary sewer. The existing 300 mm diameter gravity sewer drains west approximately 860 m to Timmons Road and a 750 mm diameter trunk sanitary sewer. The 750 mm diameter trunk sanitary sewer drains west to a sewage pumping station that transfers the sewage to the Craigleith Sewage Treatment Plant on Long Point Road via a 300 mm diameter force main. In the future, the Grey Road 21 trunk sanitary sewer will be extended across Highway 26 and run north directly to a new lift station and the Craigleith Sewage Treatment Plant.

Until the future extension and lift station are installed, the "short term sewage servicing alternative – 4B" as described in Section 8.2.2 of the Combined EA Master Plan for Craigleith, Castle Glen and Osler (June 2006) is approved. It relies on the existing 300 mm diameter gravity sanitary sewer between Grey Road 21 and Timmons Road and 300 mm diameter force main to convey the sewage from the Grey Road 21 trunk sanitary sewer to the treatment plant. As part of the Grey Road 21 Trunk Sanitary Sewer project, the capacity of the existing system was analysed to determine when the trunk sewer extension and lift station are required. The results of analysis determined that the existing sanitary sewer could accommodate an additional 765 to 1,185 units are available on a first come first served basis which will accommodate sanitary flows from the Monterra Phase II development.

4 Stormwater Management

A Stormwater Management Report (dated November 2017) prepared by CCTA has been issued under separate cover and should be read in conjunction with this report. The Stormwater Management Report has been prepared to address the internal and external servicing requirements related to stormwater management for this project and describes in detail the proposed stormwater management plan for the development. As such, only a summary of the stormwater management plan is provided in this report.

The subject property is located in Watershed 1 as identified in the Craighleith-Camperdown Subwatershed Study and the majority of the subject site drains overland to Watercourse 1 and ultimately Georgian Bay. Two drainage outlets have been identified on-site and are described as follows:

1. **Watercourse 1 Outlet** - A portion of the property northwest as well as the entire portion of the property southeast of Watercourse 1 drain to Watercourse 1 exiting the site through a culvert under Grey Road 2. These areas correspond to drainage catchments 101 and 102 respectively and can be seen on the attached pre development drainage plan drawing DP-1.
2. **Monterra Road Roadside Ditch Outlet** - The northern most section of the property northwest of Watercourse 1 is generally flat and poorly drained. During storm events water will spill from this area northwest to the Monterra Road roadside ditch. This area corresponds to catchment 103 in the attached pre development drainage plan DP-1.

The proposed grading and servicing design of the development has been completed to maintain existing drainage conditions at the existing site outlets. The existing stormwater runoff rates to Watercourse 1 will be maintained under proposed conditions by restricting post development peak flow rates to pre-development levels for the 2 through 100 year design storms. This will be achieved on-site by storing the surface water runoff within two wetland stormwater management facilities (SWMF) and releasing it off-site at attenuated rates via controlled outlets. Level 1 "Enhanced" water quality treatment in the form of 80% total suspended solids (TSS) removal is required for the site effluent as Georgian Bay is a cold water fishery. This will be achieved by the wetland SWMF's which have been designed for proper water quality control as outlined in the accompanying stormwater management report.

The proposed stormwater management plan is detailed in the Stormwater Management Report should additional details be required.

5 Utilities

The utility providers for the area have been contacted and confirmed that hydro, gas, telephone and cable services are available from Grey Road 21 (Osler Bluff Road).

Hydro One, Union Gas, Bell, and Rogers have confirmed their services in the area on Grey Road 21 and have capacity to service the Monterra Phase II Development. Email confirmations from the four utility providers are attached in Appendix C for reference.

Utility designs will be included as part of subsequent submissions.

6 Conclusions

This Functional Servicing Report has been prepared to address internal and external servicing requirements associated with the Monterra Phase II development. The proposed development will be serviced with municipal water, municipal sanitary sewer, roadside ditch drainage with wetland SWMF's, hydro, gas, telephone and cable services. Specifically, the site services include:

- Potable water and fire suppression will be supplied to the development via the existing 200 mm diameter water main on Grand Cypress Lane;
- Sanitary service will be provided by the 450 mm diameter trunk sanitary sewer on Grey Road 21 designed to service the proposed development. No downstream improvements are required to service this development;
- Wetland SWMF's will provide the requisite level of water quantity and quality control for the development; and
- Hydro, gas, telephone and cable services.

As such, the proposed development will have adequate services available.



Authored by: Andrew Overholt, B.E.Sc, EIT
Engineering Intern



Reviewed by: Dan Hurley, B.A.Sc., P.Eng., LEED AP
Vice President,
Manager – Water Resources Engineering

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APPENDIX A:
WATER SUPPLY DEMANDS AND HEAD LOSS CALCULATIONS

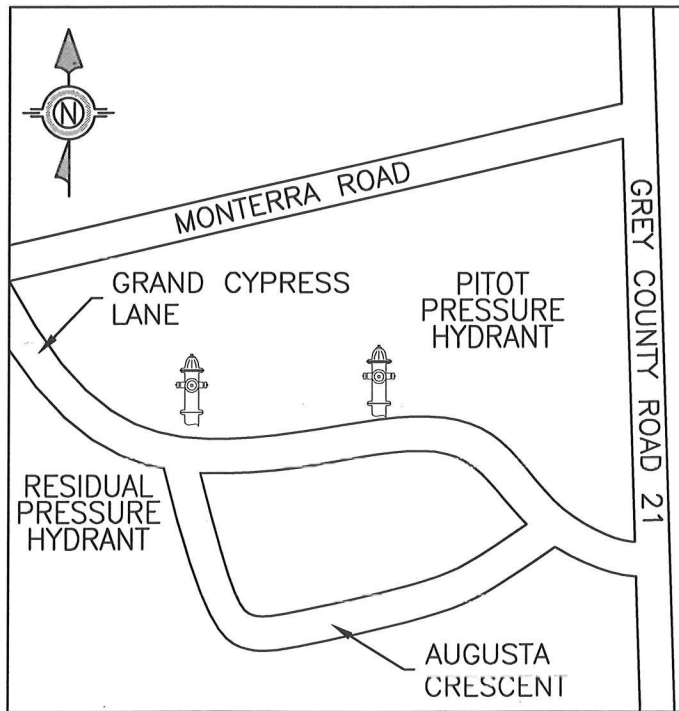


FLOW TEST RESULTS

DATE : AUGUST 30, 2017 TIME : 11:00 AM

LOCATION : GRAND CYPRESS LANE
THE BLUE MOUNTAINS, ON

TEST BY : VIPOND FIRE PROTECTION AND LOCAL PUC



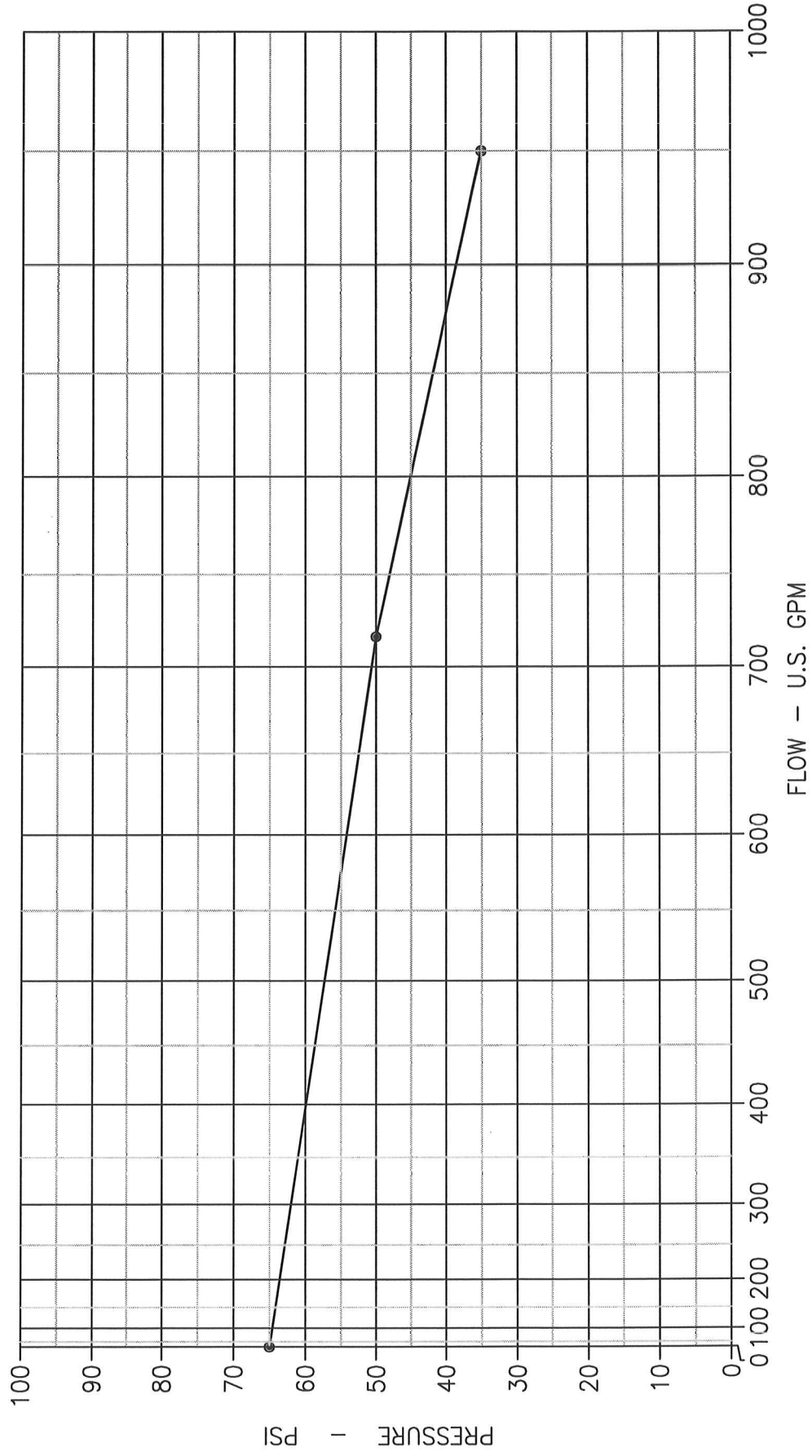
STATIC PRESSURE : 65 PSI

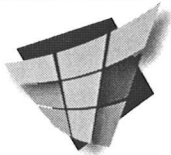
TEST NO.	NO. OF NOZZLES	NOZZLE DIAMETER (INCHES)	DISCHARGE CO-EFFICIENT	RESIDUAL PRESSURE (PSI)	PITOT PRESSURE (PSI)	DISCHARGE (U.S. GPM)
1	1	2-1/2"	0.9	50	18	712
2	2	2-1/2"	0.9	35	8	949



GRAND CYPRESS LANE	BY : ZAC SCHELL
THE BLUE MOUNTAINS, ON	OFFICE : BARRIE
	TEST BY : VIPOND & PUC
	DATE : AUGUST 30, 2017

STATIC: 65 PSI RESIDUAL: 50 PSI @ FLOW: 712 GPM
 TEST#1 TEST#1 35 PSI @ TEST#1 949 GPM





C.C. Tatham & Associates Ltd.
 Consulting Engineers
 Collingwood Bracebridge Orillia Barrie

Project: Monterra Phase II

Date: Sept. 20, 2017

File No.: 115185

Designed: AO

Subject: Water Supply Calculations

Checked:

DEMAND CRITERIA

Average Daily Demand: 450 L/capita/day
 Capita per Unit: 2.3 capita/unit
 Maximum Daily Demand Factor: 2.0
 Peak Hourly Demand Factor: 4.5
 Number of Units: 32 units

DESIGN FLOWS

Average Daily Flow: 33120 L/day
 0.1 L/s
 Maximum Day Demand: 0.8 L/s
 Peak Hour Demand: 1.7 L/s
 Fire Suppression: 4000 L/min (FUS - Part II, Note J, 3 to 10 m Exposure Distance)
 66.7 L/s
 Design Flow: 68.4 L/s

HAZEN- WILLIAMS FRICTIONAL LOSSES

Water Main Diameter (d): 0.20 m
 Water Main Length (L): 940 m
 Roughness Coefficient (C): 120

$$hf = L \frac{10.67Q^{1.85}}{C^{1.85}d^{4.87}}$$

	Desing Flow	Fire Flow	Max Day	Peak Hour	Avg Flow	
Head Loss (Friction):	25.3	24.2	0.01	0.03	0.00	m
	248	237	0	0	0	kPa
	36	34	0	0	0	psi

STATIC LOSSES

Elevation at Grey Road 21: 189.75 m
 Elevation at Cul De Sac: 189.00 m
 Elevation Difference: -0.75 m
 -7 kPa
 -1 psi

	Desing Flow	Fire Flow	Max Day	Peak Hour	Avg Flow	
TOTAL HEAD LOSS	24.6	23.4	-0.7	-0.7	-0.7	m
	240.9	229.5	-7.3	-7.1	-7.3	kPa
	34.9	33.3	-1.1	-1.0	-1.1	psi

Static pressure from a fire flow test on Grand Cypress lane found the static pressure to be 448 kPa (65 psi). With the calculated head loss under fire flow conditions, the pressure would be 207 kPa (30 psi) which exceeds the Town Required 140 kPa (20 psi). The pressure during average flow is 455 kPa (66 psi) which is less than the maximum 550 kPa (80 psi).

**APPENDIX B:
SANITARY SEWER DESIGN SHEET**

Minimum Dia. = 200 mm
 Mannings "n" = 0.013
 Minimum Velocity = 0.6 m/s
 Minimum Grade = 0.5 %
 Avg. Domestic Flow = 450 l/c/d
 Infiltration = 0.23 l/s/ha
 Max. Peaking Factor = NA
 Min. Peaking Factor = NA
 Maximum Velocity = 3 m/s



C.C. TATHAM & ASSOCIATES LTD.
CONSULTING ENGINEERS

SANITARY SEWER DESIGN SHEET
Monterra - Phase II
Town of the Blue Mountains

Project: Monterra Phase II
 Project No: 115185
 Date: September 20, 2017
 Designed by: AO
NOMINAL PIPE SIZE USED

STREET	FROM MH	TO MH	RESIDENTIAL						COMMERCIAL/INDUSTRIAL/INSTITUTIONAL					FLOW CALCULATIONS					PIPE DATA						
			AREA (ha)	ACC. AREA (ha)	UNITS (#)	DENISTY (P/ha)	DENSITY (P/unit)	POP	ACC. RES. POP.	AREA (ha)	ACC. AREA (ha)	EQUIV. POP. (p/ha)	FLOW RATE (l/s/ha)	ACC. EQUIV. POP.	INFILTRATION (l/s)	TOTAL ACC. POP.	PEAKING FACTOR	RES. FLOW (l/s)	COMM. FLOW (l/s)	TOTAL FLOW (l/s)	DIA. (mm)	SLOPE (%)	Q FULL (l/s)	V FULL (m/s)	V ACT (m/s)
Street A	5	4	1.26	1.26	10		2.3	23	23.0	0	0	0	0	0	0.29	23.0	4.37	0.52	0.00	0.81	200	0.50	23.18	0.74	0.33
Street A	4	3	0.49	1.75	3		2.3	6.9	29.9	0	0	0	0	0	0.40	29.9	4.35	0.68	0.00	1.08	200	0.50	23.18	0.74	0.37
Street A	3	2	0.86	2.61	8		2.3	18.4	48.3	0	0	0	0	0	0.60	48.3	4.32	1.09	0.00	1.69	200	0.50	23.18	0.74	0.43
SWM Block	2	1	0.12	2.73	1		2.3	2.3	50.6	0	0	0	0	0	0.63	50.6	4.31	1.14	0.00	1.76	200	0.50	23.18	0.74	0.43
SWM Block	1	E13	0.00	2.73	0		2.3	0	50.6	0	0	0	0	0	0.63	50.6	4.31	1.14	0.00	1.76	200	0.50	23.18	0.74	0.43
Street B	7	6	0.88	0.88	7		2.3	16.1	16.1	0	0	0	0	0	0.20	16.1	4.39	0.37	0.00	0.57	200	0.50	23.18	0.74	0.30
Street B	6	E16	0.03	0.91	2		2.3	4.6	20.7	0	0	0	0	0	0.21	20.7	4.38	0.47	0.00	0.68	200	0.50	23.18	0.74	0.31

**APPENDIX C:
UTILITY INFORMATION**

Andrew Overholt - FW: Confirmation of ability to service subject lands

From: <Planning.Z5Distribution@HydroOne.com>
To: <aoverholt@cctatham.com>
Date: 7/21/2017 9:59 AM
Subject: FW: Confirmation of ability to service subject lands
Cc: <subdivision@HydroOne.com>
Attachments: Monterra Phase 2 Site.pdf

Good morning Andrew,

In response to your email below, I can confirm that Hydro One has the ability to provide electrical service from Osler Bluff Rd. We do not have any assets on Monterra Rd at the location you have indicated. One additional consideration is that our ability to supply your new connection is subject to our conditions of service – maximum of 167kVA 1ph, and 500kVA 3ph per delivery point.

Regards,

Mark van Tol, P.Eng

Network Management Engineer, TCT13
 Distribution Investment Planning
 Hydro One Networks Inc.
 Tel: [\(416\) 345-6178](tel:(416)345-6178)
 Cell: [\(416\) 302-7658](tel:(416)302-7658)
 Email: mark.vantol@hydroone.com

From: PROV LINE SUBDIVISION
Sent: Tuesday, July 18, 2017 2:14 PM
To: Z5 DISTRIBUTION Planning
Subject: FW: Confirmation of ability to service subject lands

Please confirm with C.C. Tatham.

Dale Webster

Engineering Support Assistant

Hydro One Networks Inc.
 420 Welham Road, Barrie ON L4N 8Z2
 Telephone: [\(705\) 719-5701](tel:(705)719-5701)
 Toll Free: [1 866 272-3330](tel:1866272-3330) (Ext 5701)
 Fax: [\(705\) 719-0716](tel:(705)719-0716)

From: DAVIS Cheryl
Sent: Friday, July 14, 2017 9:38 AM

To: 'aoverholt@cctatham.com'; PROV LINE SUBDIVISION
Cc: CENTRAL FBC PLANNING
Subject: FW: Confirmation of ability to service subject lands

Good morning Andrew,

I have forwarded your inquiry onto our Subdivision Group. They will be able to help you out and provide you answers to your questions. You can also reach them at 1-866-272-3330.

Thanks,

Cheryl Davis
Customer Operations Support Rep, Provincial Lines, BA1
Hydro One Networks Inc.
Tel: 705-728-5017 ext 6372
Fax: 705-727-9621
Email: cheryl.davis@hydroone.com

From: Andrew Overholt [<mailto:aoverholt@cctatham.com>]
Sent: Thursday, July 13, 2017 2:33 PM
To: DAVIS Cheryl
Subject: Confirmation of ability to service subject lands

Hello Cheryl,

Patty Mitchell game me you contact information in regards to confirming Hydro One's ability to service a residential subdivision in the Town of Blue Mountains. Attached is a plan with the location of the proposed subdivision. At this point we are putting together a submission in support of a draft plan and would like to confirm with the required utilities their ability to service the lands.

If you have any questions feel free to call or message me.

Regards,

Andrew Overholt B.E.Sc.

Water Resources EIT

C.C Tatham & Associates Ltd

115 Sandford Fleming Drive, Suite 200, Collingwood, L9Y 5A6

aoverholt@cctatham.com | Tel: 705.444.2565 | Fax: 705.444.2327 | www.cctatham.com

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Andrew Overholt - Monterra development

From: Tony Dominguez <Tony.Dominguez@rci.rogers.com>
To: Andrew Overholt <aoverholt@cctatham.com>
Date: 7/13/2017 4:13 PM
Subject: Monterra development

Good afternoon Andrew,

Rogers appreciates the opportunity to review and comment the second phase of the Monterra development.

It is the intent of Rogers Communications, to provide telecommunication services within the proposed development and to achieve that goal; we have the following standard requirements:

1. The Developer authorizes our standard "Letter of Understanding" which sets out undertakings and understanding for both parties prior to the engineering stages of project. Please provide me the owner name, full mailing address and the draft plan reference number or legal description.
2. To ensure our rights of plant ownership and our ability to maintain our plant for the future home owners, the developer will be responsible for securing all necessary easements / right-of-ways over condominium property at no expense to the Utilities.
3. To ensure a comprehensive telecommunications installation that is designed to harmonize with the other infrastructure and municipal services, the Developer or hired consultants will supply all related development drawings (AutoCAD format), detailed schedules, and including Composite Utility Plans.
4. To reduce congestion in the boulevard right-of-way, the Developer will utilize a supplied joint-use trench construction to be shared by the shallow utilities, Hydro, Bell and Cable.
5. All costs associated to plant relocations caused directly or indirectly by this development shall be born by the Developer.

Future requirements would be determined upon receiving the engineered plans and the hydro design. Should you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Tony Dominguez
System planner
Rogers Communications Inc.
1 Sperling Drive,
Barrie, ON L4M 6B8

tony.dominguez@rci.rogers.com

o [705.812.4585](tel:705.812.4585) m [705.896.9620](tel:705.896.9620)



From: Andrew Overholt [aoverholt@cctatham.com]
Sent: Thursday, July 13, 2017 2:36 PM
To: Tony Dominguez <Tony.Dominguez@rci.rogers.com>
Subject: Hello Tony,

Hello Tony,
Patty Mitchell game me you contact information in regards to confirming Hydro One's ability to service a residential subdivision in the Town of Blue Mountains. Attached is a plan with the location of the proposed subdivision. At this point we are putting together a submission in support of a draft plan and would like to confirm with the required utilities their ability to service the lands.

If you have any questions feel free to call or message me.

Regards,

Andrew Overholt B.E.Sc.

Water Resources EIT

C.C Tatham & Associates Ltd

115 Sandford Fleming Drive, Suite 200, Collingwood, L9Y 5A6

aoverholt@cctatham.com | Tel: [705.444.2565](tel:705.444.2565) | Fax: [705.444.2327](tel:705.444.2327) | www.cctatham.com

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Andrew Overholt - RE: Confirmation of ability to service subject lands

From: "O'Brien, Carol A" <carol.obrien@bell.ca>
To: Andrew Overholt <aoverholt@cctatham.com>
Date: 7/14/2017 3:17 PM
Subject: RE: Confirmation of ability to service subject lands

Andrew,

We would be providing facilities to this development. Once you have a confirmed design please provide an AutoCad file to overlay in our map and then I will engage our planner.

Thanks
Carol

From: Andrew Overholt [aoverholt@cctatham.com]
Sent: Thursday, July 13, 2017 2:42 PM
To: O'Brien, Carol A
Subject: Confirmation of ability to service subject lands

Hello Carol,

Patty Mitchell gave me your contact information in regards to confirming Bell's ability to service a residential subdivision in the Town of Blue Mountains. Attached is a plan with the location of the proposed subdivision. At this point we are putting together a submission in support of a draft plan and would like to confirm with the required utilities their ability to service the lands.

If you have any questions feel free to call or message me.

Regards,

Andrew Overholt B.E.Sc.

Water Resources EIT

C.C Tatham & Associates Ltd

115 Sandford Fleming Drive, Suite 200, Collingwood, L9Y 5A6

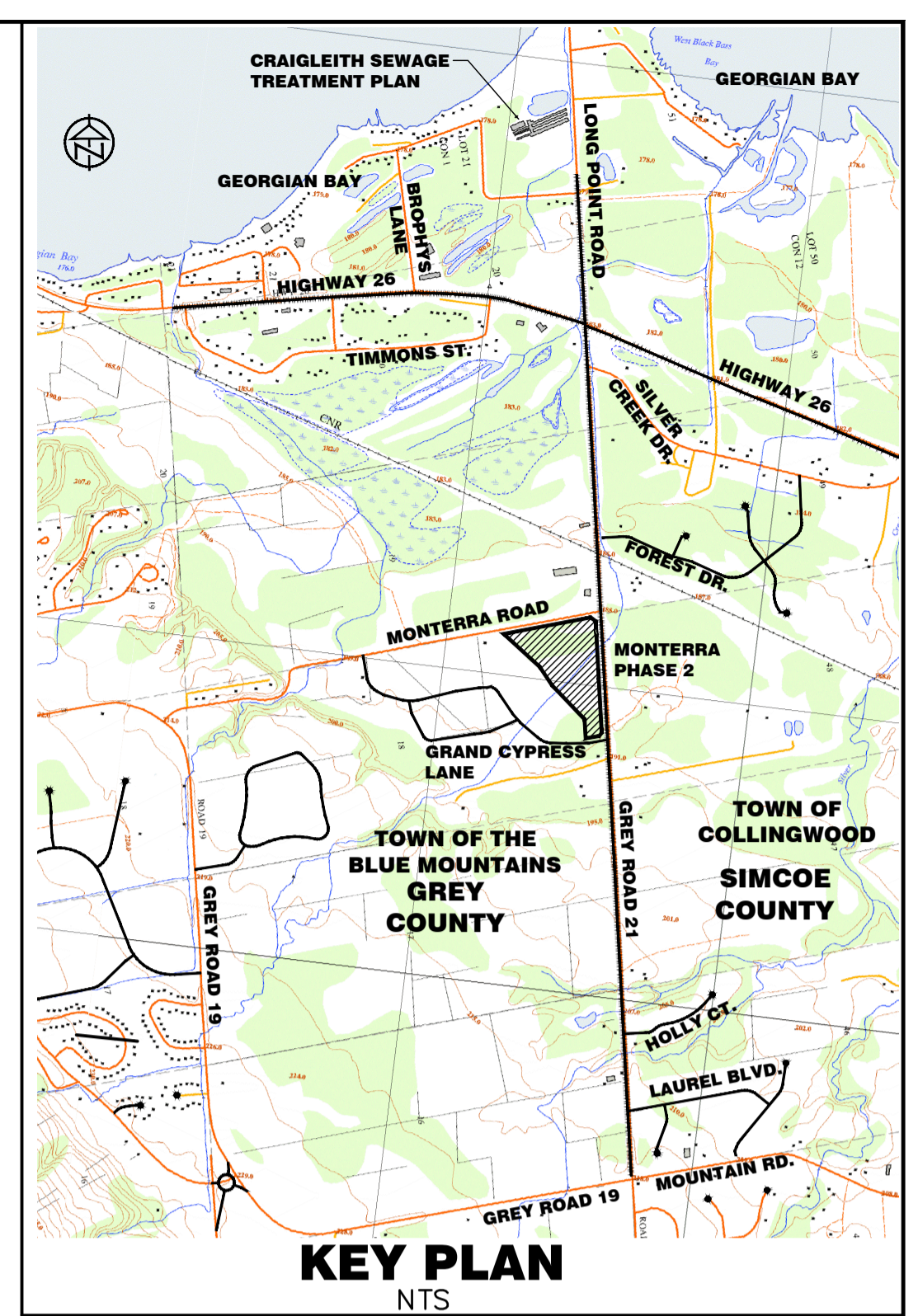
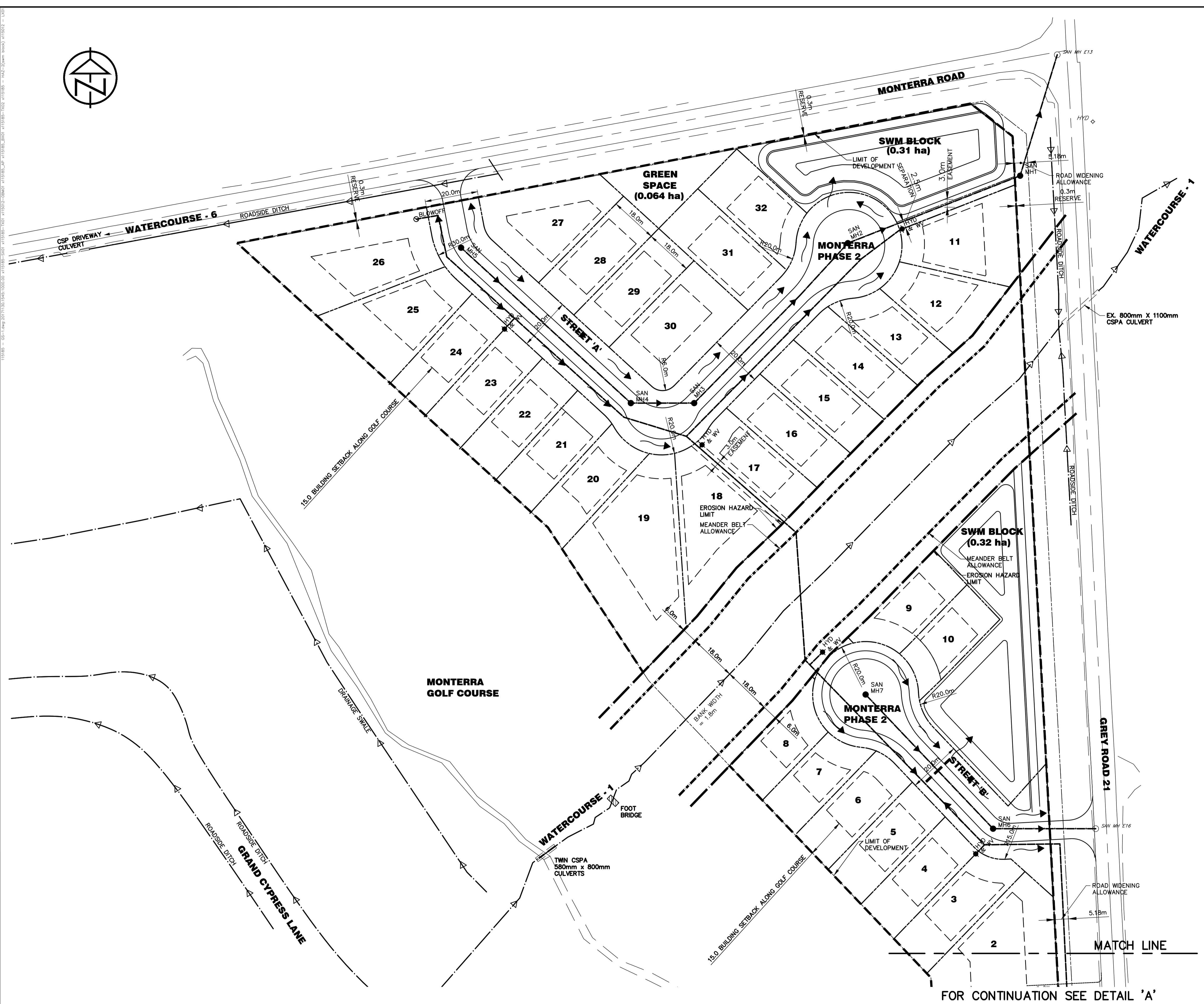
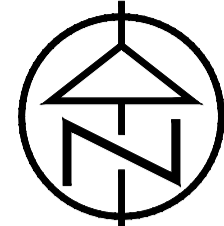
aoverholt@cctatham.com | Tel: [705.444.2565](tel:705.444.2565) | Fax: [705.444.2327](tel:705.444.2327) | www.cctatham.com

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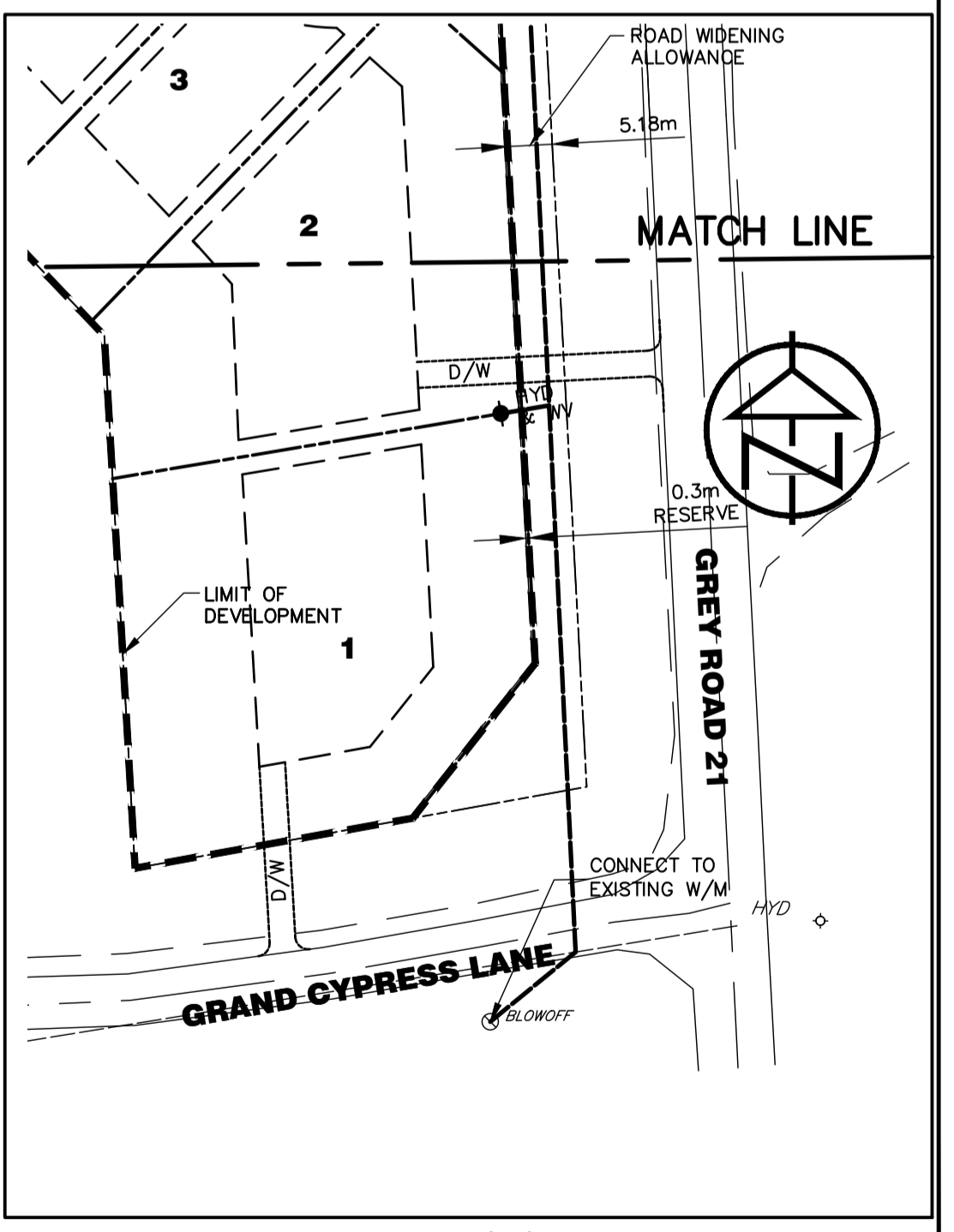
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LEGEND

LIMIT OF DEVELOPMENT	---
EROSION HAZARD LIMIT	---
MEANDER BELT ALLOWANCE	---
EX. PROPERTY LINE	---
CONCEPTUAL LOT LINE	---
CONCEPTUAL LOT NUMBER	24



CONTRACT DRAWINGS
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TBM #1 - ELEVATION 189.260m
 TOP OPERATING NUT OF FIRE HYDRANT # AS1 AT THE SOUTH EAST CORNER OF GREY ROAD 21 AND MONTERRA ROAD.

TBM #2 - ELEVATION 187.920m
 NAIL AND WASHER IN HYDRO POLE 170m± SOUTH OF MONTERRA ROAD, ON EAST SIDE OF GREY ROAD 21.

TBM #3 - ELEVATION 191.303m
 TOP OPERATING NUT OF FIRE HYDRANT # AS1 AT THE SOUTH EAST CORNER OF GREY ROAD 21 AND GRAND CYPRESS LANE.

NO.	REVISIONS	DATE	INITIAL

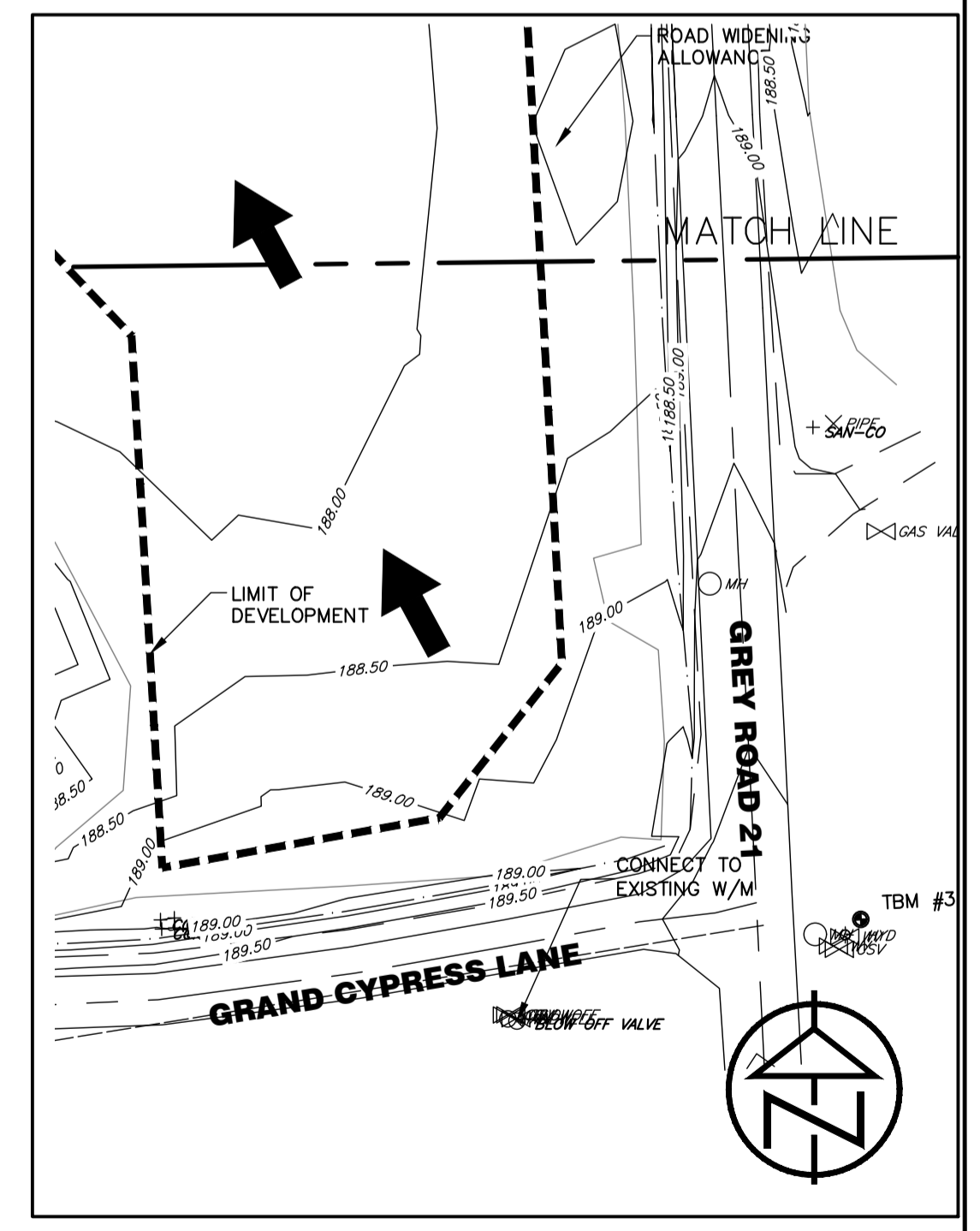
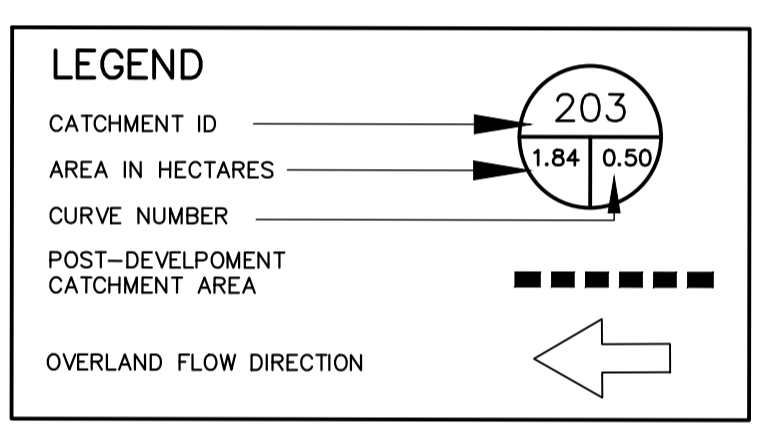
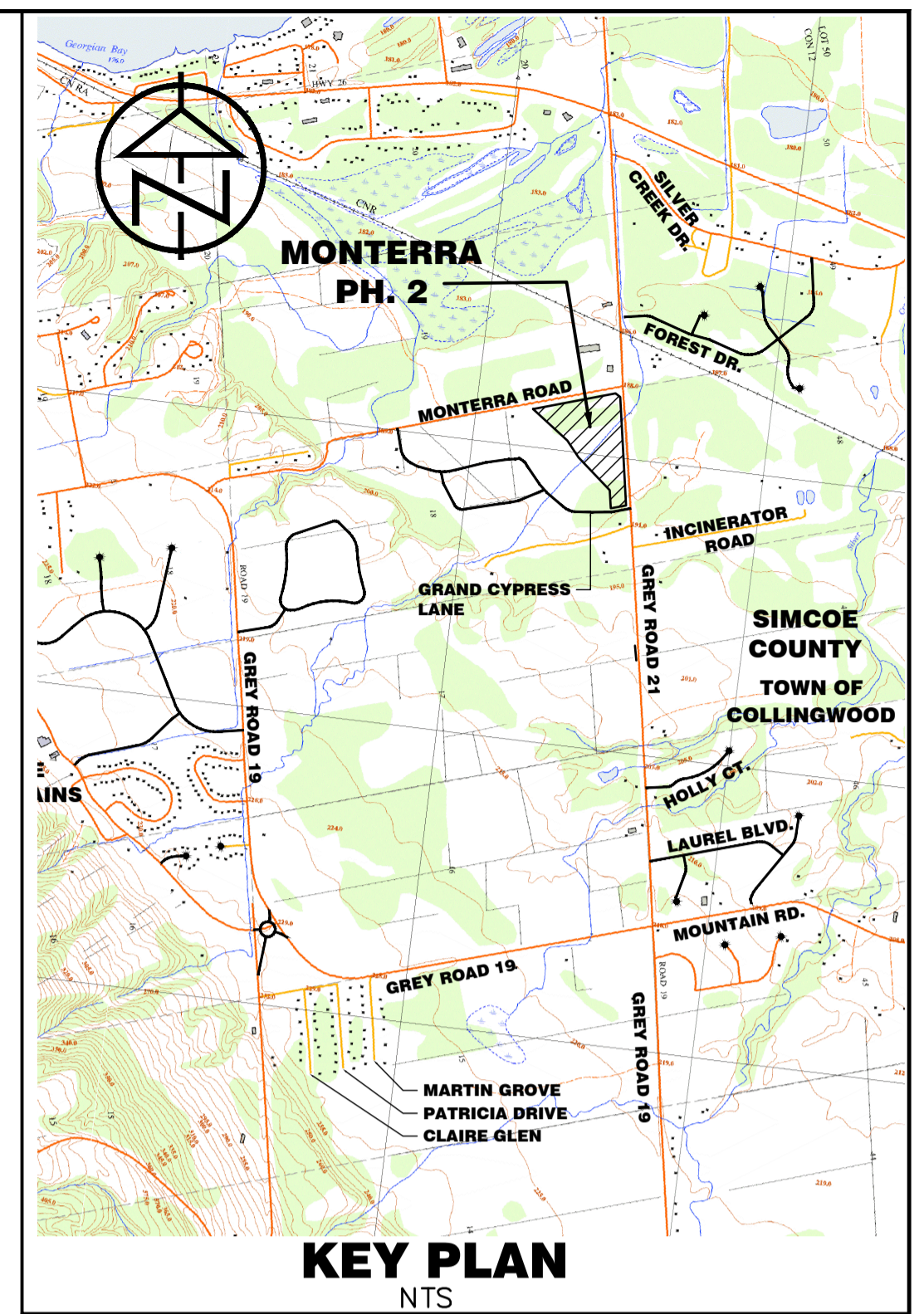
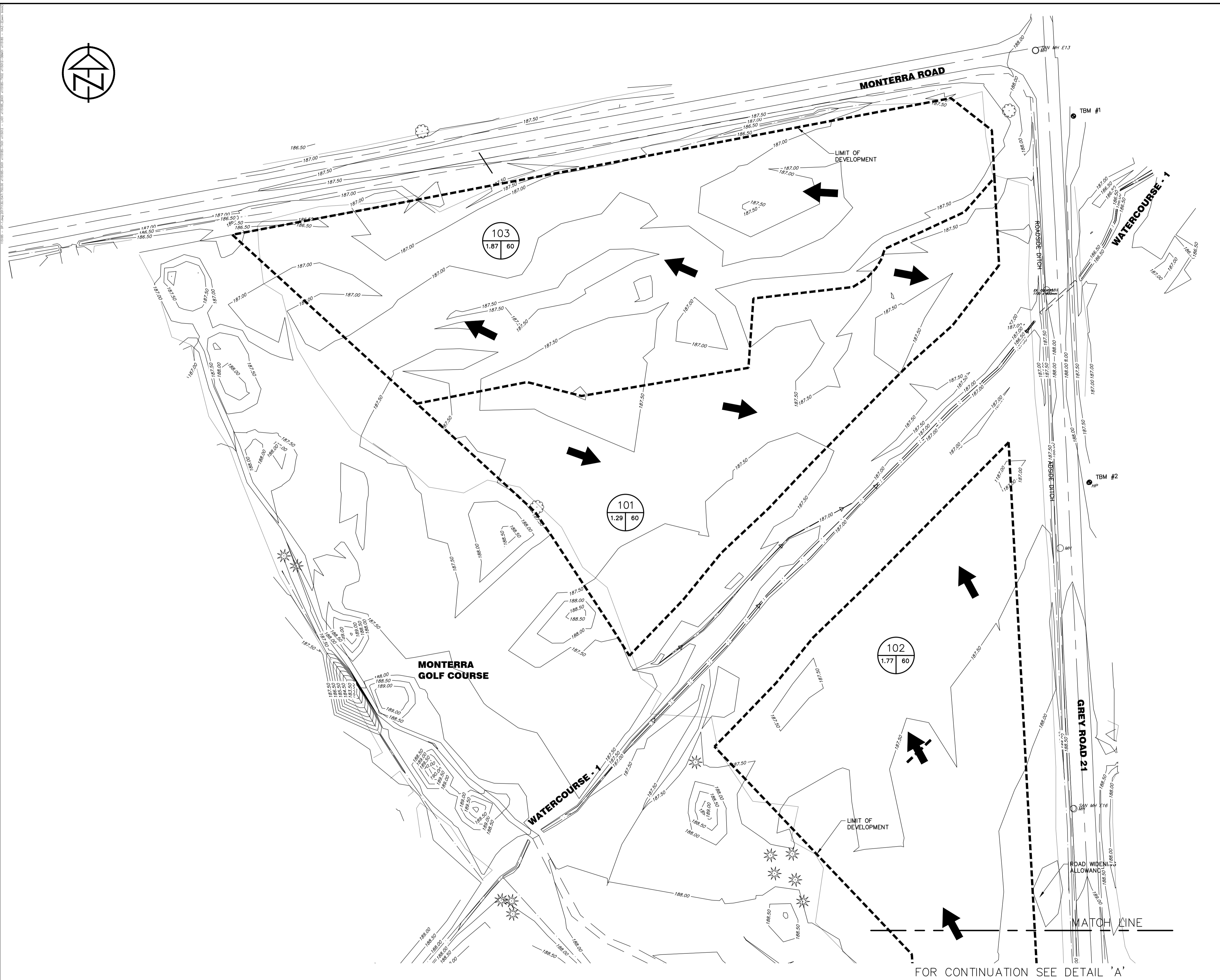
APPROVED

MONTERRA PHASE 2
TOWN OF THE BLUE MOUNTAINS

GENERAL SERVICING PLAN

C.C. Tatham & Associates Ltd.
 Consulting Engineers
 Collingwood Bracebridge Orillia Barrie

SCALE: 1:750 JOB NO. 115185
 DESIGN: DM CHECKED: DRT
 DRAWN: DEP DATE: DEC./15 DWG. **GS-1**



FOR CONTINUATION SEE DETAIL 'A'

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TBM #1 - ELEVATION 189.260m
 TOP OPERATING NUT OF FIRE HYDRANT # A51 AT THE SOUTH EAST CORNER OF GREY ROAD 21 AND MONTERRA ROAD.

TBM #2 - ELEVATION 187.920m
 NAIL AND WASHER IN HYDRO POLE 170m± SOUTH OF MONTERRA ROAD, ON EAST SIDE OF GREY ROAD 21.

TBM #3 - ELEVATION 191.303m
 TOP OPERATING NUT OF FIRE HYDRANT AT THE SOUTH EAST CORNER OF GREY ROAD 21 AND GRAND CYPRESS LANE.

NO.	REVISIONS	DATE	INITIAL

APPROVED

MONTERRA PHASE 2
TOWN OF THE BLUE MOUNTAINS

PRE-DEVELOPMENT DRAINAGE PLAN

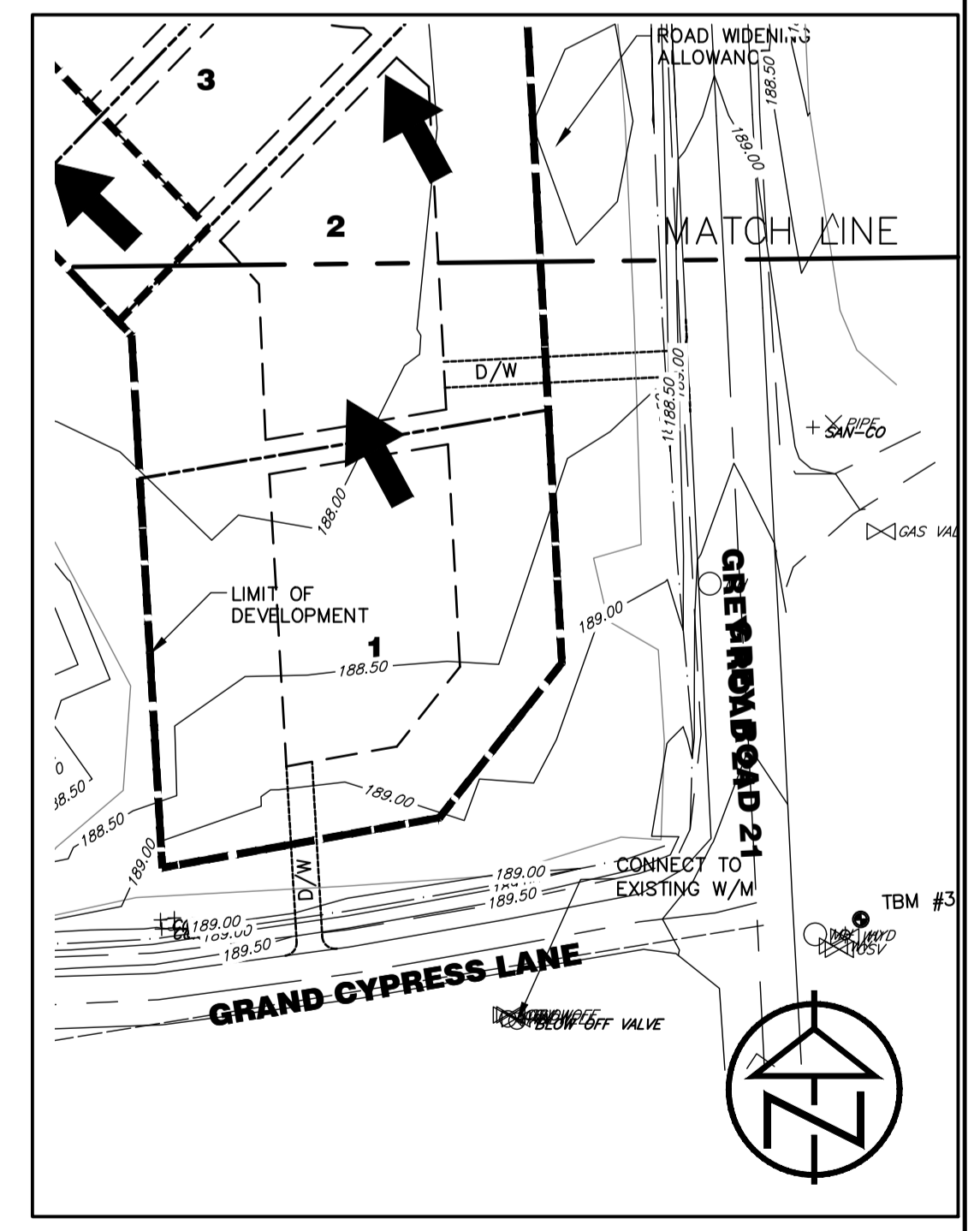
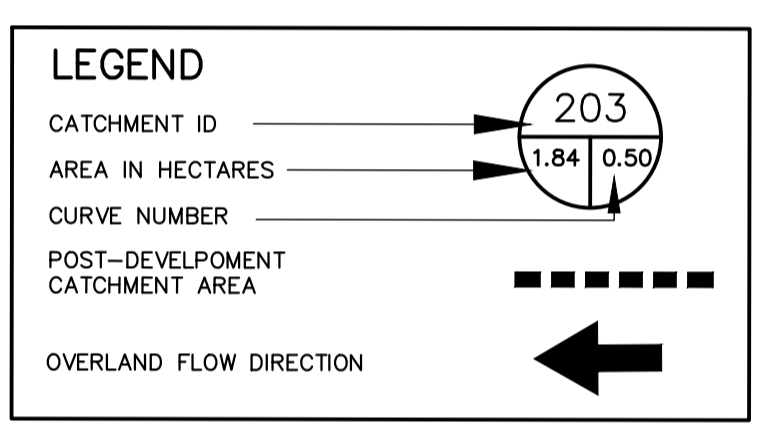
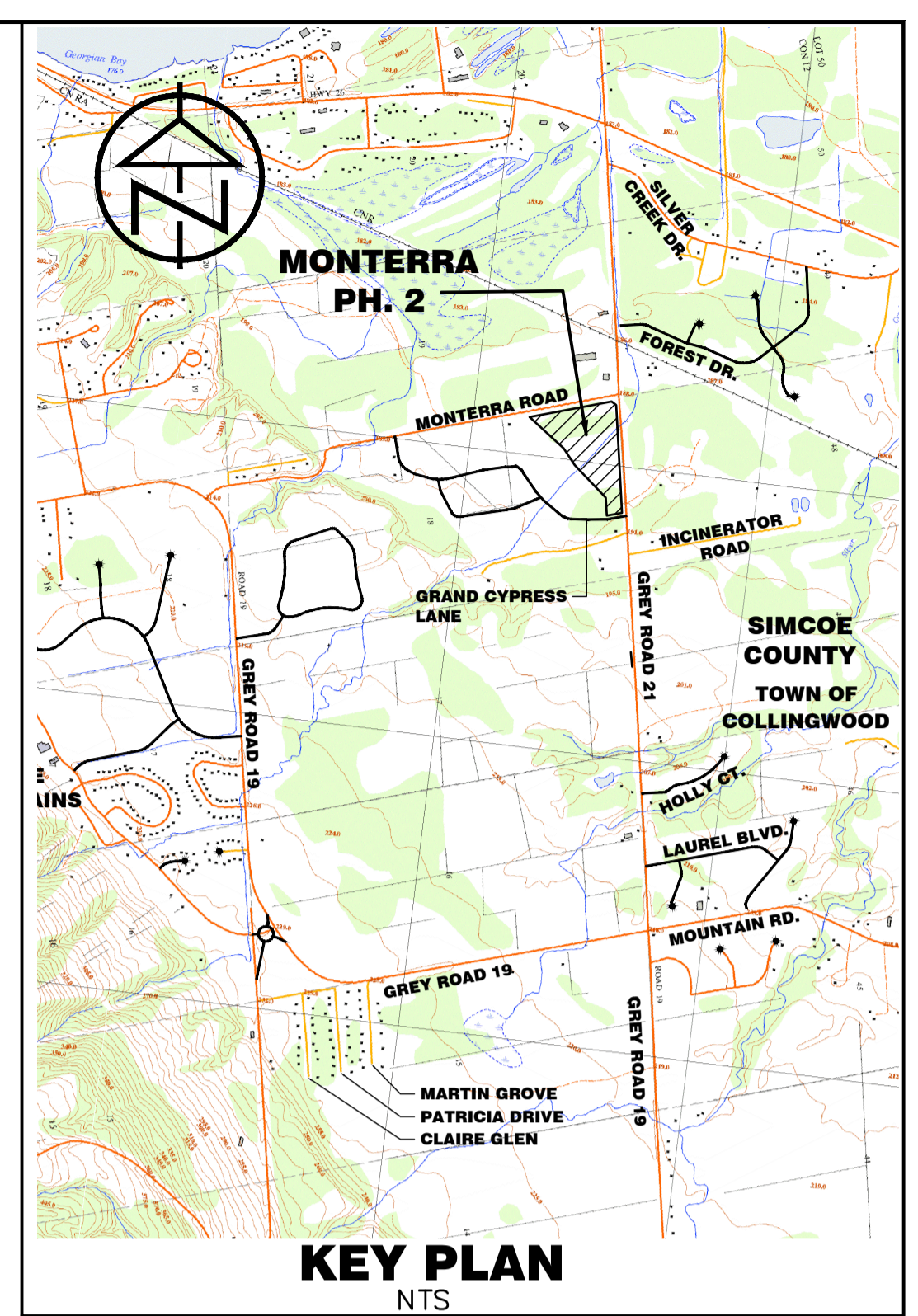
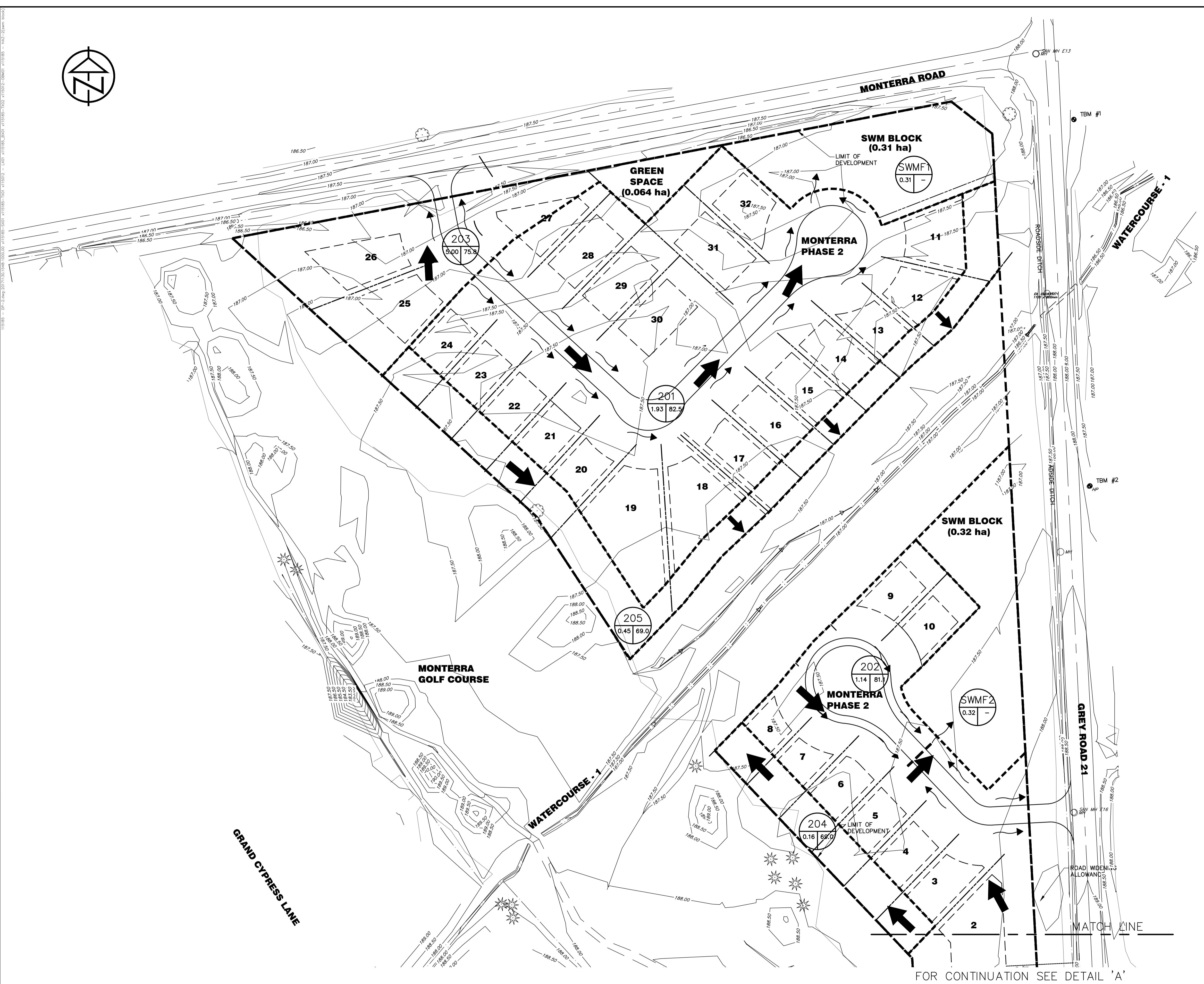
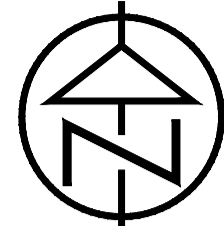
C.C. Tatham & Associates Ltd.
 Consulting Engineers

Collingwood Brassbridge Orillia Barrie

SCALE: 1:750
 DESIGN: AO
 DRAWN: DEP

CHECKED: DRT
 DATE: DEC./15

JOB NO. 115185
 DWG. **DP-1**



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TBM #1 - ELEVATION 189.260m
 TOP OPERATING NUT OF FIRE HYDRANT # AS1 AT THE SOUTH EAST CORNER OF GREY ROAD 21 AND MONTErrA ROAD.

TBM #2 - ELEVATION 187.920m
 NAIL AND WASHER IN HYDRO POLE 170m± SOUTH OF MONTErrA ROAD, ON EAST SIDE OF GREY ROAD 21.

TBM #3 - ELEVATION 191.303m
 TOP OPERATING NUT OF FIRE HYDRANT # AS1 AT THE SOUTH EAST CORNER OF GREY ROAD 21 AND GRAND CYPRESS LANE.

NO.	REVISIONS	DATE	INITIAL

APPROVED

MONTErrA PHASE 2
TOWN OF THE BLUE MOUNTAINS

PRE-DEVELOPMENT DRAINAGE PLAN

C.C. Tatham & Associates Ltd.
 Consulting Engineers

Collingwood Brassbridge Orillia Barrie

SCALE: 1:750	JOB NO. 115185
DESIGN: AO	CHECKED: DRT
DRAWN: DEP	DATE: DEC./15
DWG. DP-2	