

Permanent Orienteering Course - Scout Guide

Camp Hugh Taylor Birch

Compiled 2021 by Matt Bond, Miami Valley Orienteering Club (MVOC)

Orienteering – The Thinking Sport



Orienteering Overview

Successful orienteering requires not just physical fitness, and not just knowing how to navigate, but a combination of these. And just as there are different physical training routines, there are different navigation skills like map reading, terrain matching for contours & vegetation, and direction orientation (compass skills are a subset of this). Putting it all together to travel the most efficient way between control locations based on your abilities is the essence of orienteering -- the thinking sport.

Training

It's best to use the full Orienteering Merit Badge Pamphlet to develop orienteering skills. Order a full copy at <https://www.scoutshop.org/?cncl=439> (search for: Orienteering Merit Badge Pamphlet) or purchase it at your local scout shop. Also check out the Getting Started link at the top of the Miami Valley Orienteering Club (MVOC) website, <http://www.mvoclub.org>

Types of Courses

A course set up to follow a set sequence of controls is known as a **cross-country course**. An example set of cross-country courses is included with this scout guide from easiest to hardest named Scout, 1st Class, Star, Life, and Eagle. They differ not only in distance but also in how challenging the control is to find and how many route choice decisions need to be made



A course set up to run on time is known as a **score course**. With it, participants visit as many controls as possible and return within a certain time interval. Which controls to visit and in what order to get them is up to you. Sometimes controls either further from the start/finish area or are harder to find are worth more points. Return before the time limit, because points are deducted for every minute or part thereof over the time limit. Tied for points? The return time is the tie-breaker. Take a time keeping device with you.

Other course types can be run as well including relays, routes with forked legs, etc.

The Punch Card

A sheet containing three blank punch cards is included at the end of this guide. Print that page to get three blank punch cards. It's the standard MVOC punch card and has some fields like vehicle info that won't be used. Fill out both parts of the punch card – the main part and the stub. The end stub is detached at the start and stays at the event center to keep track of who is out on the course.

The Controls

The controls you will find are three-sided brown posts with white/orange squares at the top. They're just like the start/finish control post, except with different codes.



Control Descriptions (a.k.a. Clue Sheets)

The control codes and descriptions are on the clue sheet, formally known as the control descriptions. The clue sheet uses the International Orienteering Federation (IOF) symbols, and for the easier courses the English meaning is shown. If you learn the IOF symbols, you can orienteer anywhere in the world without needing to know the local language. The symbols are easy to understand since they look like map symbols for the features. A good reference for the symbols on the clue sheet is <https://www.maprunner.co.uk/simon/iofcondescbothpages.jpg>

Use the code in column B of the clue sheet to check that you found the correct control. It should match the code on the control you found. Then use the pin punch at the control to punch the correct box on your punch card. Different patterns are made on the card by punches at different controls.

Opisy punktów				
	M16	4.1 km	120 m	
▶		↗	✕	
1 40	↘	∩		
2 53	↙	∪		
3 46	↓	∇		
4 57)}{		
5 32		}		
6 58		▲		
7 47	↖	∩	—	
8 48	↗			└┐
9 49	■			└┐
10 100	↘	↗	✕	
○-----180 m----->◎				

The Maps

The name of the course is shown in the top-left corner of the clue sheet on each map. Print copies of the course page(s) needed. A synopsis of each course follows:

- Scout – Easiest and shortest, get used to reading the map, no compass needed.
- 1st Class – Beginner, length meets 1st class rank advancement 4a criteria, no compass needed.
- Star – Advanced beginner, gets off trail a bit, compass use could help for a few controls.
- Life – Intermediate, longer for the older scout, can interpret the control descriptions, compass use could help for a few controls.
- Eagle – Advanced Intermediate, longest requires endurance and the ability to mentally navigate while physically fatigued, can interpret the control descriptions, compass use could help for a few controls. Note: this course is not considered at the expert level because the trail density at Camp Birch is too high. Only short bushwacking is needed to hit another trail and relocate.
- Score – All abilities, used for timed activities, controls have point values, points are deducted per minute when returning over the time limit. Take a watch or other timekeeping device, and don't be late getting back!
- All Controls – Use to design and implement your own course.

Camp Hugh Taylor Birch

4057 Swimming Pool Road, Yellow Springs, OH 45387



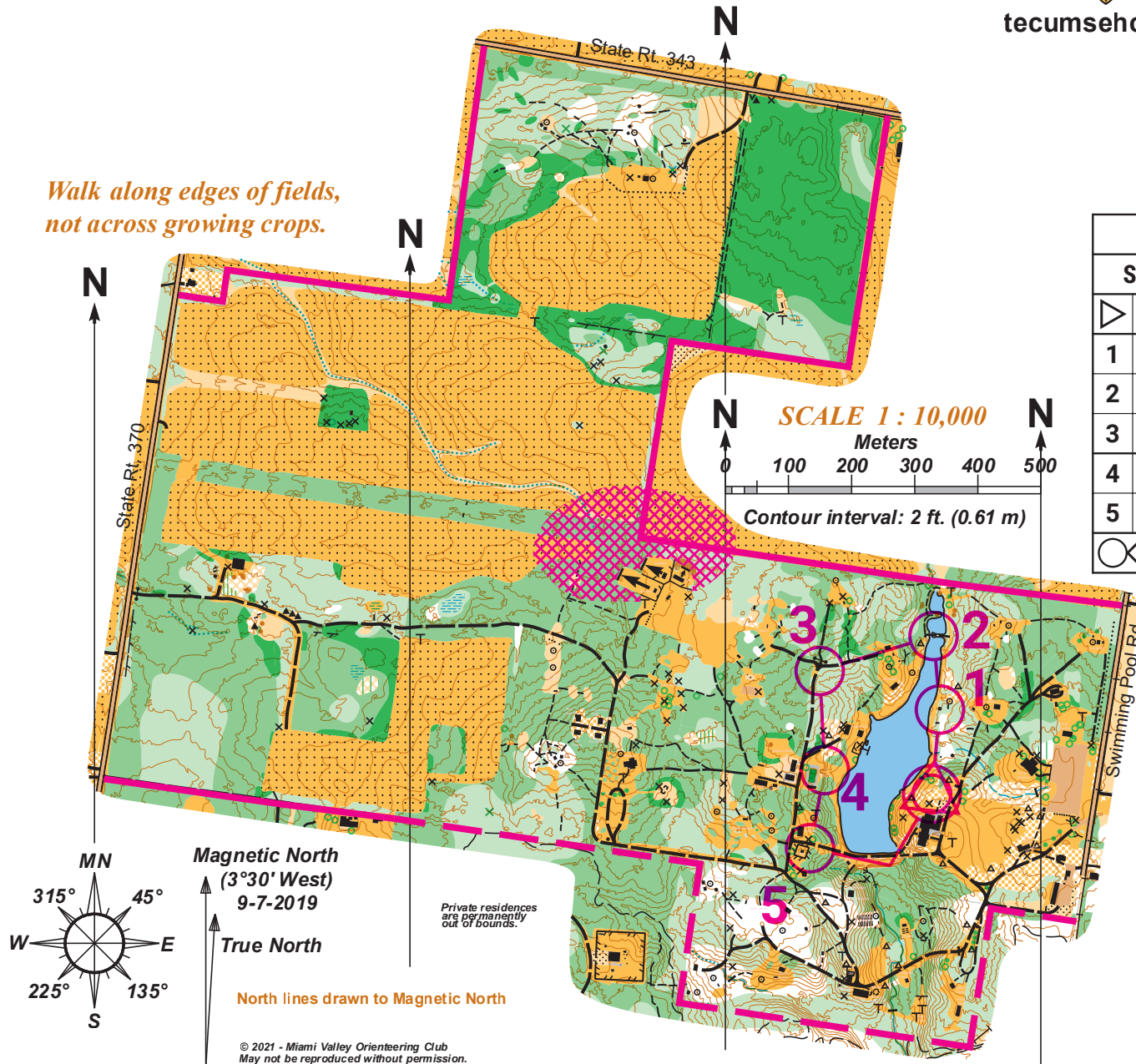
tecumsehscouncilbsa.org



mvocclub.org

Base map: GIS data from
Greene County
Fieldwork & Cartography, 2019
by Matt Bond
Latest Update: Apr. 2021
by Matt & Sharon Bond

Walk along edges of fields,
not across growing crops.



Permanent Course					
Scout		1.0 km		15 m	
▷		⚓			Start: copse
1	A	▲			Boulder
2	B	↗		○	SE side of bridge
3	C	↘	✕	○	SE side of path crossing
4	D	↑	↘	└	Foot of N earth bank
5	E	↗		└	NE outside corner of fence
○✕		260 m		○✕	Navigate 260 m to finish

LEGEND

Open land	Paved road
Open land with scattered trees	Road
Open land with scattered copses	Vehicle track
Rough open land	Footpath
Rough open land with sc. trees	Small footpath
Open sandy or gravelly ground	Indistinct small footpath
Cultivated land	Narrow ride (mt. bike path)
Open forest	Path with bridge, without bridge
Forest, slow running	Path junctions: distinct & indistinct
Undergrowth, slow running	Building, Man-made object
Forest, difficult to run	Paved area
Undergrowth, difficult to run	Bare rock
Vegetation, very difficult to run	Power line
Distinct trees, Rootstock	Small tower, Fire ring
Passable rock face, Cliff	Pipeline
Boulder, Boulder cluster	Firing range
Small watercourse, Narrow marsh	Gate, Ruin
Intermittent stream, Lake	Disc golf target
Well, Water source	Contour lines
Uncrossable stream (use bridges)	Form lines, Small erosion gully
Stream with high bank	Knoll, Elongated knoll
Distinct cultivation boundary	Small depression, Pit
Distinct vegetation boundary	Broken ground, Stony ground
Fence	Camp boundary with private land
Ruined fence	Camp boundary with public land
High fence	Dangerous area

Camp Hugh Taylor Birch

4057 Swimming Pool Road, Yellow Springs, OH 45387



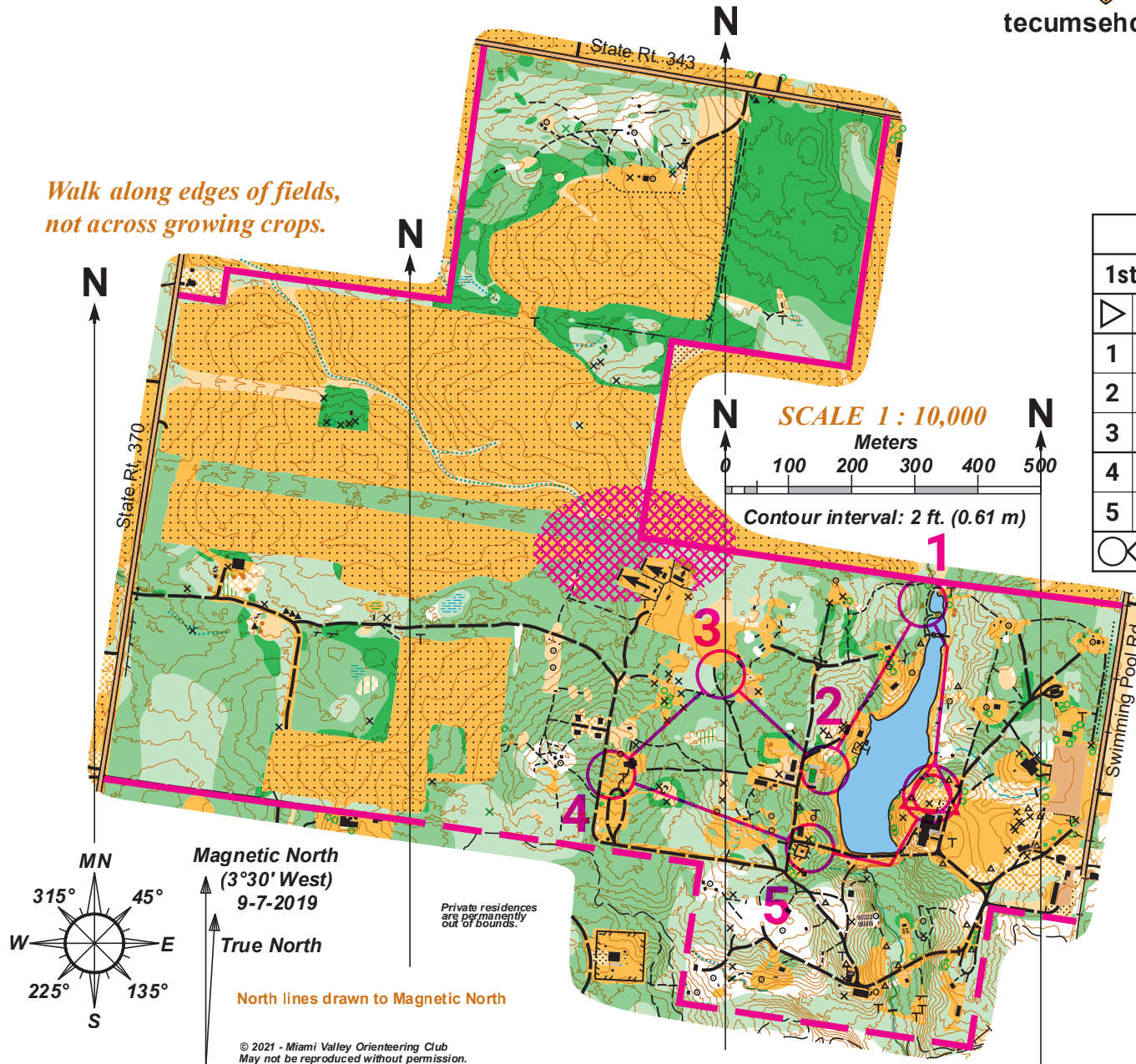
tecumsehcountilbsa.org



mvocclub.org

Base map: GIS data from
Greene County
Fieldwork & Cartography, 2019
by Matt Bond
Latest Update: Apr. 2021
by Matt & Sharon Bond

Walk along edges of fields,
not across growing crops.



Permanent Course					
1st Class		1.7 km	20 m		
▷		⚓			Start: copse
1	F	•	⊙		N edge of knoll
2	D	↑	⌒		Foot of N earth bank
3	G	⚓			Lone tree
4	H	⚓			Middle copse
5	E	⚓	⌒		NE outside corner of fence
⊙		260 m	⊙		Navigate 260 m to finish

LEGEND

Open land	Paved road
Open land with scattered trees	Road
Open land with scattered copses	Vehicle track
Rough open land	Footpath
Rough open land with sc. trees	Small footpath
Open sandy or gravelly ground	Indistinct small footpath
Cultivated land	Narrow ride (mt. bike path)
Open forest	Path with bridge, without bridge
Forest, slow running	Path junctions: distinct & indistinct
Undergrowth, slow running	Building, Man-made object
Forest, difficult to run	Paved area
Undergrowth, difficult to run	Bare rock
Vegetation, very difficult to run	Power line
Distinct trees, Rootstock	Small tower, Fire ring
Passable rock face, Cliff	Pipeline
Boulder, Boulder cluster	Firing range
Small watercourse, Narrow marsh	Gate, Ruin
Intermittent stream, Lake	Disc golf target
Well, Water source	Contour lines
Uncrossable stream (use bridges)	Form lines, Small erosion gully
Stream with high bank	Knoll, Elongated knoll
Distinct cultivation boundary	Small depression, Pit
Distinct vegetation boundary	Broken ground, Stony ground
Fence	Camp boundary with private land
Ruined fence	Camp boundary with public land
High fence	Dangerous area

© 2021 - Miami Valley Orienteering Club
May not be reproduced without permission.

Camp Hugh Taylor Birch

4057 Swimming Pool Road, Yellow Springs, OH 45387



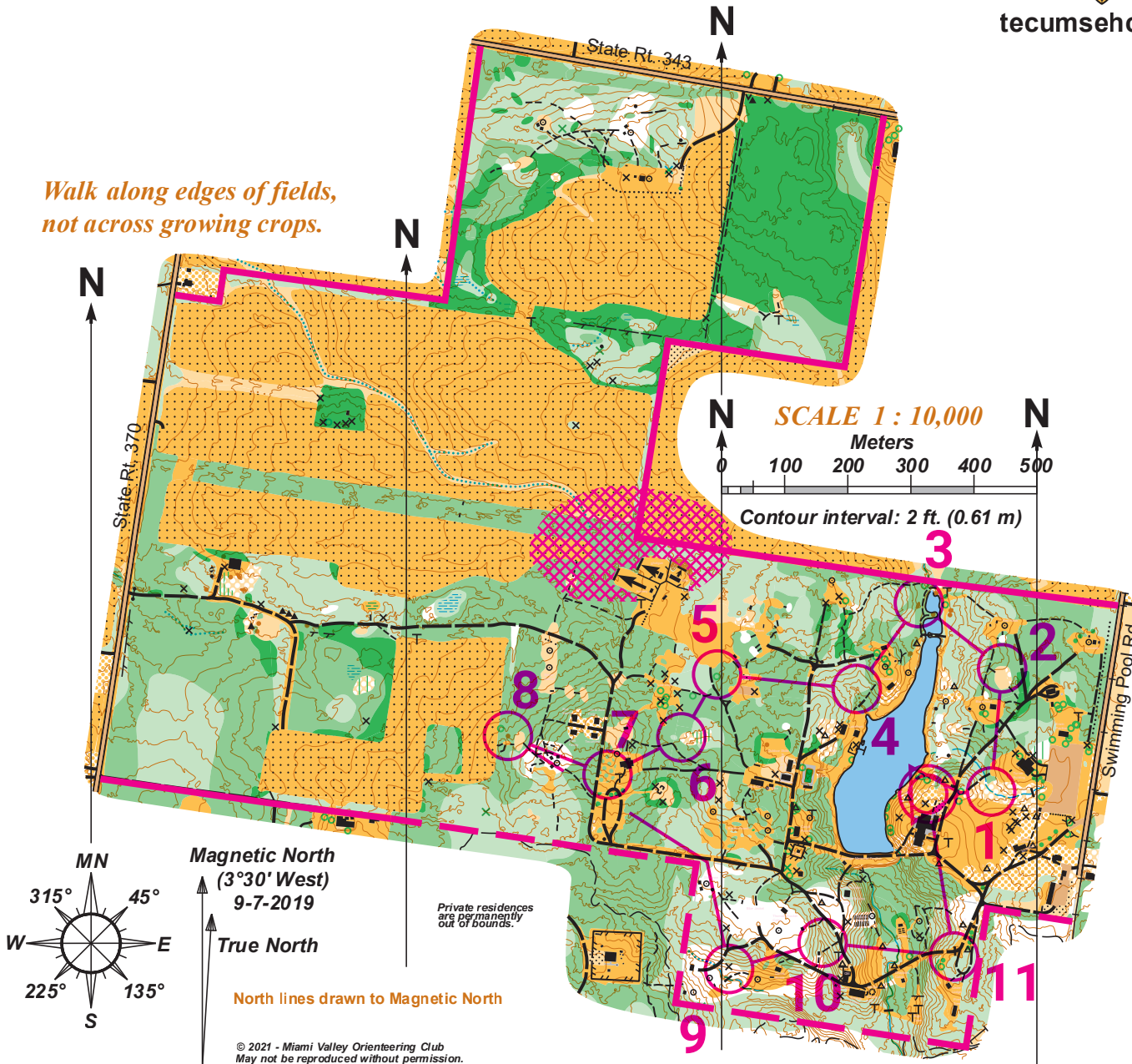
tecumsehcountilbsa.org



mvocclub.org

Base map: GIS data from
Greene County
Fieldwork & Cartography, 2019
by Matt Bond
Latest Update: Apr. 2021
by Matt & Sharon Bond

Walk along edges of fields,
not across growing crops.



Permanent Course					
Star		2.4 km	35 m		
					Start: copse
1	R				Bend in ditch
2	J				N part of semi-open land
3	F				N edge of knoll
4	K				Shallow reentrant junction
5	G				Lone tree
6	L				W part of semi-open land
7	H				Middle copse
8	M				Top of knoll
9	N				S side of pipeline
10	O				Reentrant
11	Q				S side of tower
		260 m			Navigate 260 m to finish

LEGEND

Open land	Paved road
Open land with scattered trees	Road
Open land with scattered copses	Vehicle track
Rough open land	Footpath
Rough open land with sc. trees	Small footpath
Open sandy or gravelly ground	Indistinct small footpath
Cultivated land	Narrow ride (mt. bike path)
Open forest	Path with bridge, without bridge
Forest, slow running	Path junctions: distinct & indistinct
Undergrowth, slow running	Building, Man-made object
Forest, difficult to run	Paved area
Undergrowth, difficult to run	Bare rock
Vegetation, very difficult to run	Power line
Distinct trees, Rootstock	Small tower, Fire ring
Passable rock face, Cliff	Pipeline
Boulder, Boulder cluster	Firing range
Small watercourse, Narrow marsh	Gate, Ruin
Intermittent stream, Lake	Disc golf target
Well, Water source	Contour lines
Uncrossable stream (use bridges)	Form lines, Small erosion gully
Stream with high bank	Knoll, Elongated knoll
Distinct cultivation boundary	Small depression, Pit
Distinct vegetation boundary	Broken ground, Stony ground
Fence	Camp boundary with private land
Ruined fence	Camp boundary with public land
High fence	Dangerous area

Camp Hugh Taylor Birch

4057 Swimming Pool Road, Yellow Springs, OH 45387



tecumsehcountilbsa.org



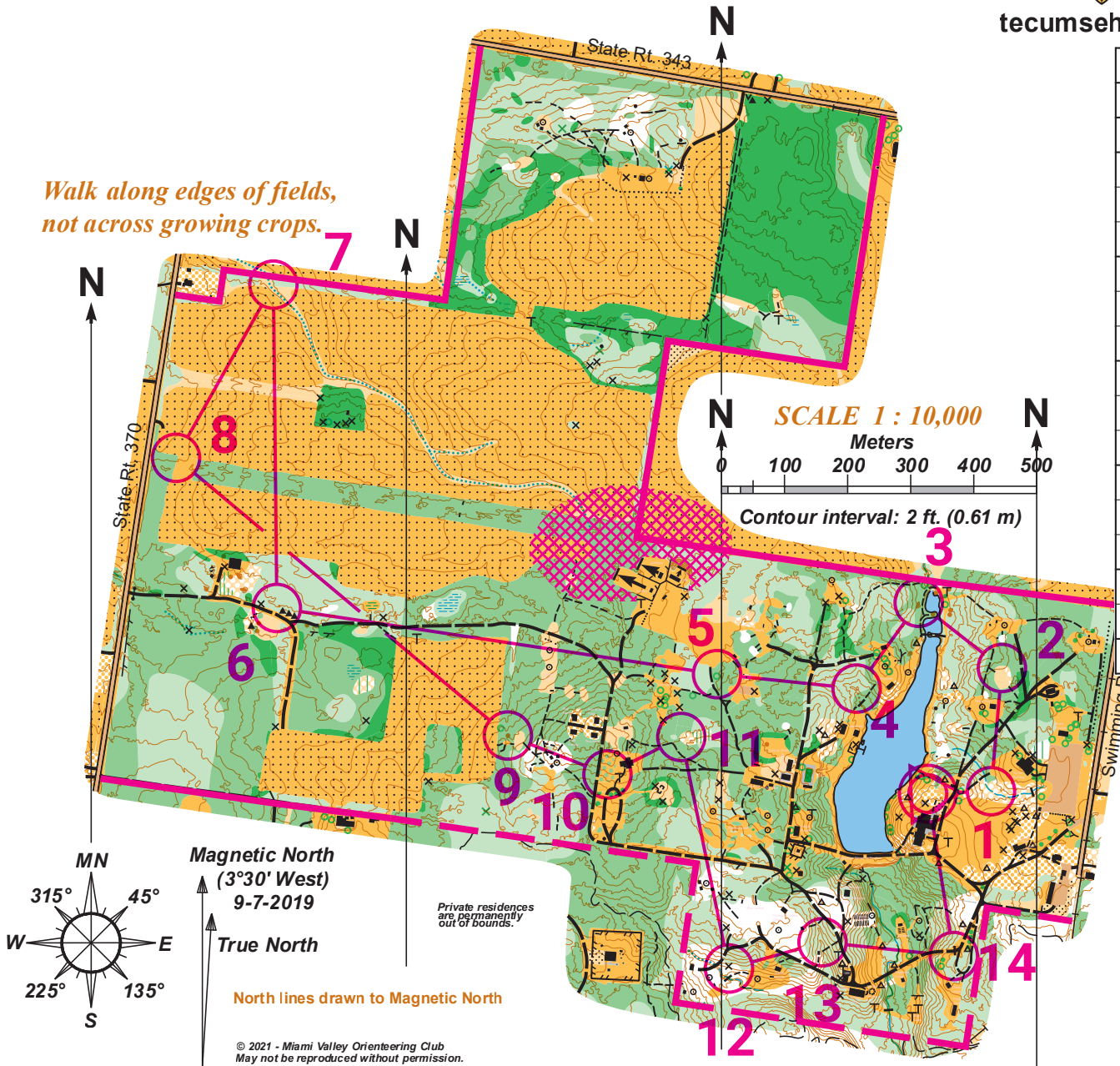
mvocclub.org

Base map: GIS data from
Greene County
Fieldwork & Cartography, 2019
by Matt Bond
Latest Update: Apr. 2021
by Matt & Sharon Bond

Permanent Course				
Life		4.4 km	45 m	
▷		⚓		
1	R	⚓	<	
2	J	⚓	○	
3	F	•	○	
4	K	⌒	Y	
5	G	⌒		
6	U	⌒	○	
7	X	⚓	Y	○
8	S	⚓	⌒	
9	M	•	⌒	
10	H	⌒		
11	L	⚓	○	
12	N	⚓	○	
13	O	⌒		
14	Q	T	○	
⊗		260 m	⊗	

LEGEND

Open land	Paved road
Open land with scattered trees	Road
Open land with scattered copses	Vehicle track
Rough open land	Footpath
Rough open land with sc. trees	Small footpath
Open sandy or gravelly ground	Indistinct small footpath
Cultivated land	Narrow ride (mt. bike path)
Open forest	Path with bridge, without bridge
Forest, slow running	Path junctions: distinct & indistinct
Undergrowth, slow running	Building, Man-made object
Forest, difficult to run	Paved area
Undergrowth, difficult to run	Bare rock
Vegetation, very difficult to run	Power line
Distinct trees, Rootstock	Small tower, Fire ring
Passable rock face, Cliff	Pipeline
Boulder, Boulder cluster	Firing range
Small watercourse, Narrow marsh	Gate, Run
Intermittent stream, Lake	Disc golf target
Well, Water source	Contour lines
Uncrossable stream (use bridges)	Form lines, Small erosion gully
Stream with high bank	Knoll, Elongated knoll
Distinct cultivation boundary	Small depression, Pit
Distinct vegetation boundary	Broken ground, Stony ground
Fence	Camp boundary with private land
Ruined fence	Camp boundary with public land
High fence	Dangerous area



Camp Hugh Taylor Birch

4057 Swimming Pool Road, Yellow Springs, OH 45387



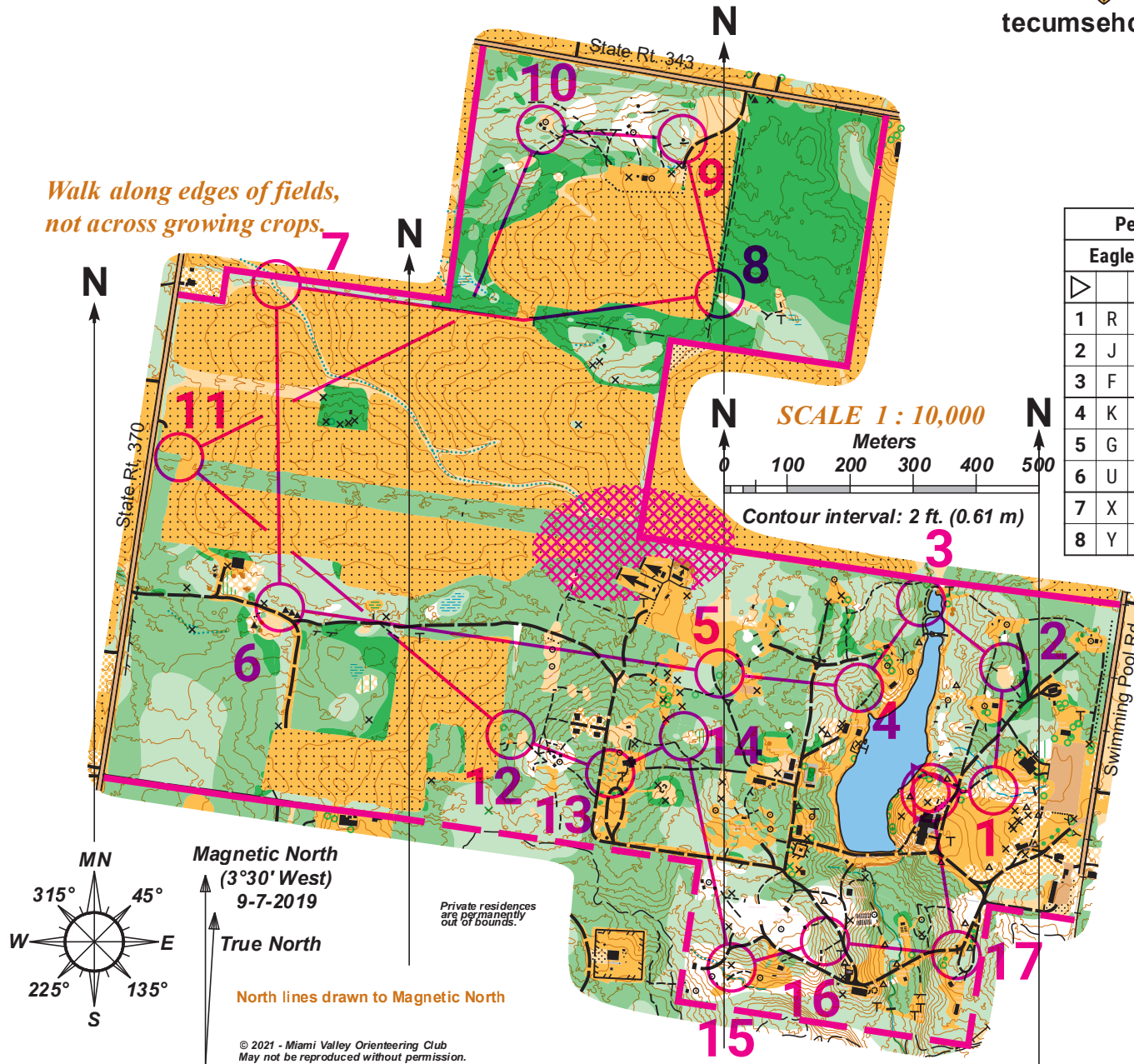
tecumsehcountilbsa.org



mvocclub.org

Base map: GIS data from
Greene County
Fieldwork & Cartography, 2019
by Matt Bond
Latest Update: Apr. 2021
by Matt & Sharon Bond

Walk along edges of fields,
not across growing crops.



Permanent Course		
Eagle	6.1 km	60 m
1 R		
2 J		
3 F		
4 K		
5 G		
6 U		
7 X		
8 Y		

9	P			
10	T			
11	S			
12	M			
13	H			
14	L			
15	N			
16	O			
17	Q			
		260 m		

LEGEND

	Open land		Paved road
	Open land with scattered trees		Road
	Open land with scattered copses		Vehicle track
	Rough open land		Footpath
	Rough open land with sc. trees		Small footpath
	Open sandy or gravelly ground		Indistinct small footpath
	Cultivated land		Narrow ride (mt. bike path)
	Open forest		Path with bridge, without bridge
	Forest, slow running		Path junctions: distinct & indistinct
	Undergrowth, slow running		Building, Man-made object
	Forest, difficult to run		Paved area
	Undergrowth, difficult to run		Bare rock
	Vegetation, very difficult to run		Power line
	Distinct trees, Rootstock		Small tower, Fire ring
	Passable rock face, Cliff		Pipeline
	Boulder, Boulder cluster		Firing range
	Small watercourse, Narrow marsh		Gate, Ruin
	Intermittent stream, Lake		Disc golf target
	Well, Water source		Contour lines
	Uncrossable stream (use bridges)		Form lines, Small erosion gully
	Stream with high bank		Knoll, Elongated knoll
	Distinct cultivation boundary		Small depression, Pit
	Distinct vegetation boundary		Broken ground, Stony ground
	Fence		Camp boundary with private land
	Ruined fence		Camp boundary with public land
	High fence		Dangerous area

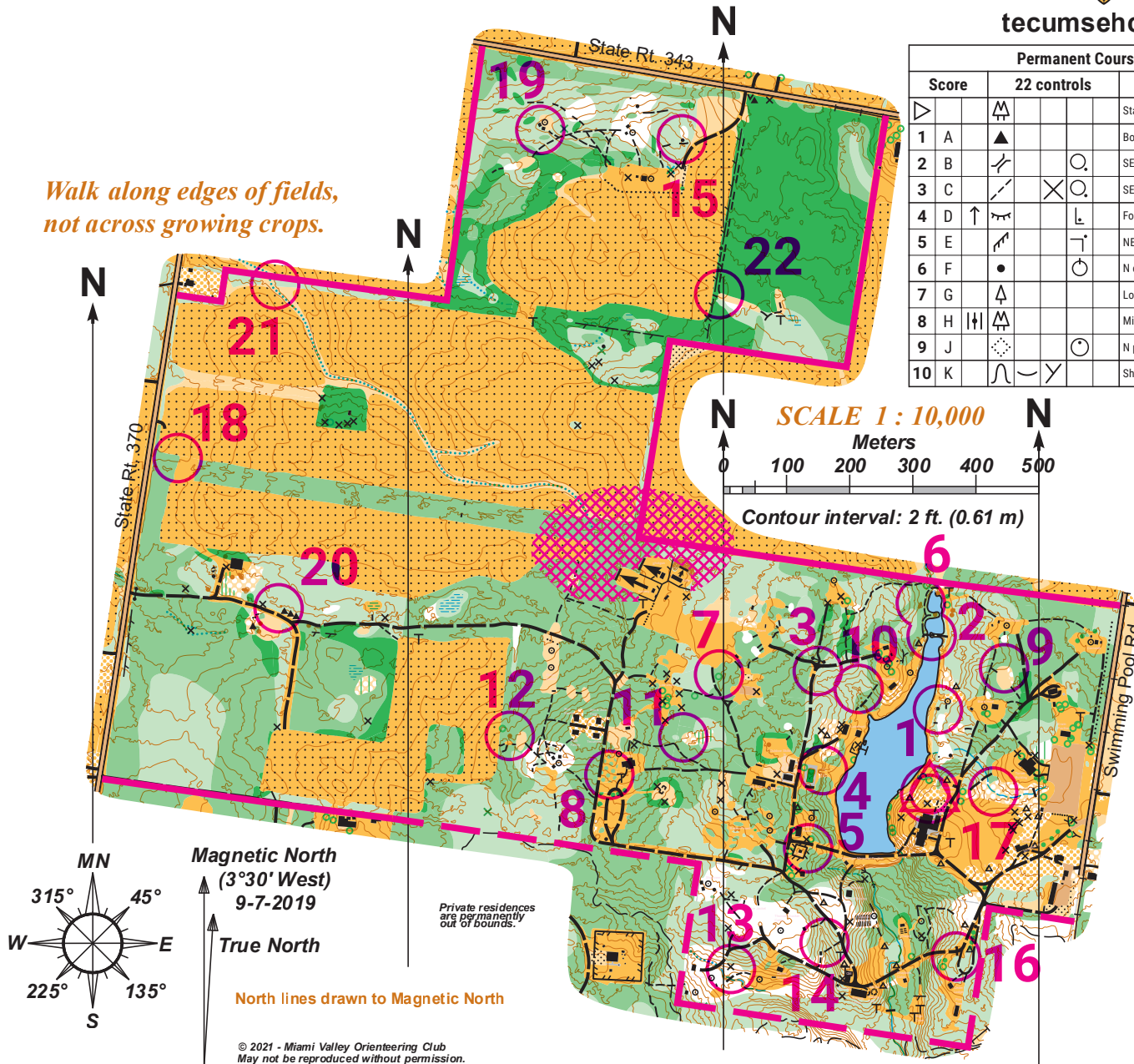
Camp Hugh Taylor Birch

4057 Swimming Pool Road, Yellow Springs, OH 45387



tecumsehcountilbsa.org

Walk along edges of fields,
not across growing crops.



Permanent Course				
Score	22 controls			
Start: copse				
1 A	▲			Boulder
2 B	↗		○	SE side of bridge
3 C	↘	×	○	SE side of path crossing
4 D	↑		⊥	Foot of N earth bank
5 E	↗		⊥	NE outside corner of fence
6 F	●		○	N edge of knoll
7 G	▲			Lone tree
8 H		▲		Middle copse
9 J	○		○	N part of semi-open land
10 K	⌒	⌒	⌒	Shallow reentrant junction

11 L	○		○	W part of semi-open land
12 M	●		⌒	Top of knoll
13 N	↗		○	S side of pipeline
14 O	⌒			Reentrant
15 P	▲			Boulder
16 Q	⊥		○	S side of tower
17 R	⌒	⌒		Bend in ditch
18 S	⌒		⌒	NE inside corner of forest corner
19 T	⌒	⌒	○	SW side of SE building
20 U	▲		○	NW side of boulder cluster
21 X	⌒	⌒	○	SW edge of ditch and vegetation boundary junction
22 Y	⌒	⌒	⌒	Path and semi-open land crossing

LEGEND

Open land	Paved road
Open land with scattered trees	Road
Open land with scattered copses	Vehicle track
Rough open land	Footpath
Rough open land with sc. trees	Small footpath
Open sandy or gravelly ground	Indistinct small footpath
Cultivated land	Narrow ride (mt. bike path)
Open forest	Path with bridge, without bridge
Forest, slow running	Path junctions: distinct & indistinct
Undergrowth, slow running	Building, Man-made object
Forest, difficult to run	Paved area
Undergrowth, difficult to run	Bare rock
Vegetation, very difficult to run	Power line
Distinct trees, Rootstock	Small tower, Fire ring
Passable rock face, Cliff	Pipeline
Boulder, Boulder cluster	Firing range
Small watercourse, Narrow marsh	Gate, Run
Intermittent stream, Lake	Disc golf target
Well, Water source	Contour lines
Uncrossable stream (use bridges)	Form lines, Small erosion gully
Stream with high bank	Knoll, Elongated knoll
Distinct cultivation boundary	Small depression, Pit
Distinct vegetation boundary	Broken ground, Stony ground
Fence	Camp boundary with private land
Ruined fence	Camp boundary with public land
High fence	Dangerous area

Camp Hugh Taylor Birch

4057 Swimming Pool Road, Yellow Springs, OH 45387



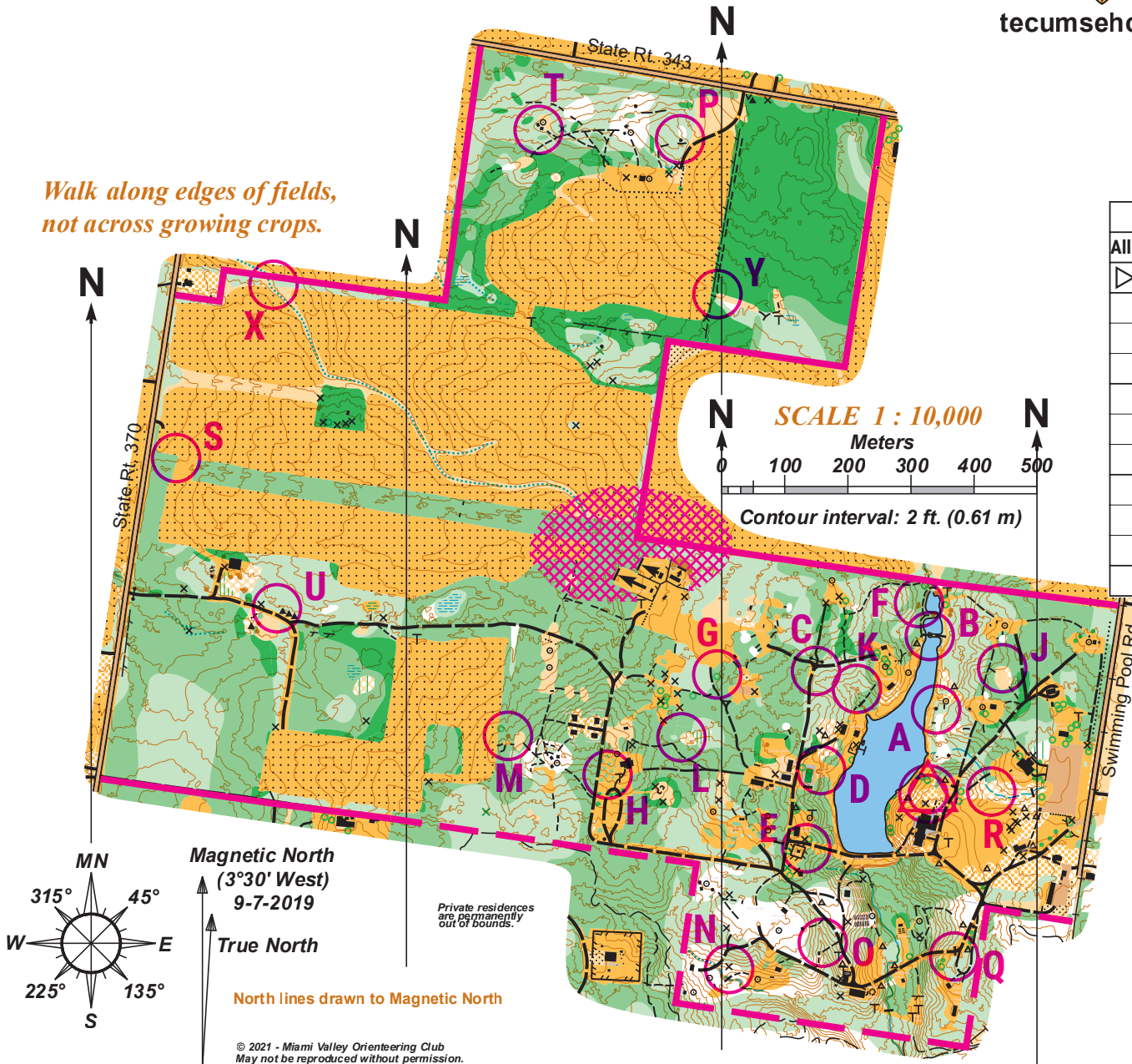
tecumsehclubbsa.org



mvocclub.org

Base map: GIS data from
Greene County
Fieldwork & Cartography, 2019
by Matt Bond
Latest Update: Apr. 2021
by Matt & Sharon Bond

Walk along edges of fields,
not across growing crops.




Permanent Course			
All controls		22 controls	
▷		⚓	
A	▲		
B	↗		○
C	↘	×	○
D	↑		⊥
E	↖		⊥
F	●		○
G	↑		
H	⚓		
J	⬢		○
K	↖		

L	⬢		○
M	●		⊥
N	↗		○
O	↘		
P	▲		
Q	⚓		○
R	⚓	<	
S	⚓	⊥	
T	⚓		○
U	▲		○
X	⚓	⊥	○
Y	⚓	×	
	⊥		⊥


LEGEND

Open land	Paved road
Open land with scattered trees	Road
Open land with scattered copses	Vehicle track
Rough open land	Footpath
Rough open land with sc. trees	Small footpath
Open sandy or gravelly ground	Indistinct small footpath
Cultivated land	Narrow ride (mt. bike path)
Open forest	Path with bridge, without bridge
Forest, slow running	Path junctions: distinct & indistinct
Undergrowth, slow running	Building, Man-made object
Forest, difficult to run	Paved area
Undergrowth, difficult to run	Bare rock
Vegetation, very difficult to run	Power line
Distinct trees, Rootstock	Small tower, Fire ring
Passable rock face, Cliff	Pipeline
Boulder, Boulder cluster	Firing range
Small watercourse, Narrow marsh	Gate, Run
Intermittent stream, Lake	Disc golf target
Well, Water source	Contour lines
Uncrossable stream (use bridges)	Form lines, Small erosion gully
Stream with high bank	Knoll, Elongated knoll
Distinct cultivation boundary	Small depression, Pit
Distinct vegetation boundary	Broken ground, Stony ground
Fence	Camp boundary with private land
Ruined fence	Camp boundary with public land
High fence	Dangerous area

	Safety Law RETURN THIS CARD TO FINISH OFFICIAL				FINISH			
	NAME(S)				START			00
Card No.	COURSE	CLASS	AFFILIATION		TOTAL			
17	18	19	20	21	22	23	24	
9	10	11	12	13	14	15	16	
1	2	3	4	5	6	7	8	


CUT HERE

VEHICLE LICENSE OR DESCRIPTION:		FOLD	
Card No.	NAME(S)		
COURSE	FINISH		00
CLASS	START		
AFFILIATION	TOTAL		

	Safety Law RETURN THIS CARD TO FINISH OFFICIAL				FINISH			
	NAME(S)				START			00
Card No.	COURSE	CLASS	AFFILIATION		TOTAL			
17	18	19	20	21	22	23	24	
9	10	11	12	13	14	15	16	
1	2	3	4	5	6	7	8	

CUT HERE

VEHICLE LICENSE OR DESCRIPTION:		FOLD	
Card No.	NAME(S)		
COURSE	FINISH		00
CLASS	START		
AFFILIATION	TOTAL		

	Safety Law RETURN THIS CARD TO FINISH OFFICIAL				FINISH			
	NAME(S)				START			00
Card No.	COURSE	CLASS	AFFILIATION		TOTAL			
17	18	19	20	21	22	23	24	
9	10	11	12	13	14	15	16	
1	2	3	4	5	6	7	8	

CUT HERE

VEHICLE LICENSE OR DESCRIPTION:		FOLD	
Card No.	NAME(S)		
COURSE	FINISH		00
CLASS	START		
AFFILIATION	TOTAL		