WSP
100 Apollo Drive, Suite 302
Chelmsford, MA 01824
USA
T +1 978-692-9090
wsp.com

2026-01-29
Reference: US-EI-3652230438

Katrin Kaminsky
Worthington Town Clerk
Town Hall
160 Huntington Road
Worthington, MA 01098

Notice of 190 Ridge Road Preliminary Plan of Subdivision Application

On behalf of BWC Wades Stream, LLC (Applicant/Subdivider), WSP USA Inc. is pleased to submit a notice of application for a Preliminary Plan of subdivision (the Project) to the Town Clerk for the lot located at 190 Ridge Road, Worthington, Massachusetts in Hampshire County (the Site). Enclosed is a copy of the compiled application submitted to the Planning Board on 01/29/2026.

Sincerely,

Olivia Crosby, P.E.
Lead Consultant, Civil Engineer

CC: BWC Wades Stream, LLC

Attachments: Compiled Preliminary Plan of Subdivision Application titled *190 Ridge Road Preliminary Plan of Subdivision* and dated 01/29/2026

WSP
100 Apollo Drive, Suite 302
Chelmsford, MA 01824
USA
T +1 978-692-9090
wsp.com

2026-01-29
Reference: US-EI-3652230438

Board of Selectmen
Worthington Town Planning Board
Town Hall
160 Huntington Road
Worthington, MA 01098

190 Ridge Road Preliminary Plan of Subdivision

On behalf of BWC Wades Stream, LLC (Applicant/Subdivider), WSP USA Inc. is pleased to submit this Preliminary Plan of subdivision (the Project) to the Planning Board for the lot located at 190 Ridge Road, Worthington, Massachusetts in Hampshire County (the Site).

Preliminary Plan submission requirements in accordance with the *Rules and Regulations Concerning the Subdivision of Land Worthington, Massachusetts* last updated November 7, 2011, are outlined below with WSP's responses provided in ***bold italics***.

In reference to the Procedure for the Submission and Approval of Plans set forth in Section III.A:

A. Preliminary Plan

1. General

   A Preliminary Plan of a subdivision may be submitted by the applicant for discussion and approval, and be filed by delivery or mailing to the Planning Board c/o the Board of Selectmen, Town Hall, Worthington, MA 01098. The submission of such a Preliminary Plan will enable the applicant, the Planning Board, other municipal agencies and owners of property abutting the subdivision to discuss and clarify the problems of such subdivision before a Definitive Plan is prepared. Therefore, it is strongly recommended that a Preliminary Plan be filed in every case.

   The submission materials contained herein constitute a Preliminary Plan of a subdivision, delivered to the Planning Board c/o the Board of Selectmen, Town Hall, Worthington, MA 01098.

2. Contents

   The Preliminary Plan shall be drawn at a suitable scale. Said Preliminary Plan should show sufficient information about the subdivision to form a clear basis for discussion of its problems or for the preparation of the Definitive Plan. Such information will include the proposed storm drain, sewer disposal and water supply systems, major site features such as existing stone walls, fences, buildings, large trees, rock ridges and outcroppings, swamps and water bodies, the topography of the land in a general manner, together with the information required by

items 1 to 4, inclusive, of the Filing Procedure of Definitive Plan (Section III.B.2). During discussion of the Preliminary Plan the complete information required for the Definitive Plan and the financial arrangements (Section III.B.3 - Performance Guarantee) will be developed.

The attached Preliminary Plan is provided at a suitable scale to show sufficient information about the subdivision. The information shown on the plan includes:

- ***Proposed storm drain, sewer disposal and water supply systems – Not Applicable***
- ***Existing stone walls***
- ***Fences – Not Applicable***
- ***Buildings***
- ***Large Trees – Displayed as a border to the area encompassing forested land and all large trees on site***
- ***Rock Ridges and outcroppings – Not Applicable***
- ***Swamps and water bodies***
- ***Topography of the land***

In reference to items 1 to 4, inclusive, of the Filing Procedure of Definitive Plan set forth in Section III.B.2:

2. Filing Procedure

Any person who submits a Definitive Plan of a subdivision to the Planning Board for approval shall file with the Planning Board the following:

a.) One reproducible original, an electronic copy, and eleven (11) printed copies of the Definitive Plan. The original shall be reserved for signature to be returned to the applicant after approval or disapproval by the Planning Board. The Definitive Plan shall be prepared, stamped, and signed by a registered professional engineer or registered land surveyor, or both, as apt, and shall be at a scale clearly and legibly drawn.

A reproducible original, an electronic copy, and eleven (11) print copies of the Preliminary Plan at a scale clearly and legibly drawn has been provided as part of this application.

b.) The plan shall be at a scale of one inch equals (forty) feet or such other scale as the Planning Board may accept to show details clearly and adequately. Sheet sizes shall not exceed 24"by 36". If multiple sheets are used, an index sheet showing the entire subdivision shall accompany them. The Definitive Plan shall contain the following information:

Due to the size of the proposed subdivision, the Preliminary Plan is at a scale of one-inch equals one hundred fifty (150) feet to clearly and adequately show the proposed divided parcel boundary lines in relation to the original parcel. The plan is shown at this scale in order to adequately show the three (3) proposed parcels and all pertinent information clearly and effectively. The Preliminary Plan provides an inset at a scale of one-inch equals one hundred (100) feet to show the proposed road details at a closer scale.

1.) Subdivision name, boundaries, North point, date and scale.

Subdivision name, boundaries, North point, date and scale are provided on the attached Preliminary Plan.

2.) Name and address of record owner, subdivider (if not the owner), engineer and/or surveyor.

Name and address of record owner, subdivider (if not the owner), engineer and/or surveyor are provided on the attached Preliminary Plan.

3.) Names of all abutters within two hundred feet as they appear in the most recent tax records.

Names of all abutters within two hundred feet as they appear in the most recent tax records are provided on the attached Preliminary Plan.

4.) Existing and proposed lines of streets, ways, lots, easements, and public or common areas within the subdivision. (The proposed names of proposed streets shall be shown in pencil until they have been approved by the Planning Board.)

Existing and proposed lines of streets, ways, lots, easement, and public or common areas within the subdivision are provided on the attached Preliminary Plan. The street is proposed to be named 'Sena Way.'

Although not explicitly required by Section III.A.2., in reference to items 5 through 9 of the Filing Procedure of Definitive Plan set forth in Section III.B.2, included for informational purposes only:

5.) Sufficient data to determine the location, direction and length of every street and way line, lot line and boundary line to establish these lines on the ground.

Sufficient data to determine the location, direction and length of every street and way line, lot line and boundary line to establish these lines on the ground are provided on the attached Preliminary Plan.

6.) Location of all permanent monuments properly identified as to whether existing or proposed.

Locations of existing permanent monuments are shown on attached Preliminary Plan. Locations of proposed permanent monuments will be determined for the Definitive Plan.

7.) Location, names and present widths of streets bounding, approaching or within reasonable proximity of the subdivision.

Location, names and present widths of streets bounding, approaching or within reasonable proximity of the subdivision are shown on the attached Preliminary Plan.

8.) Suitable space to record the action of the Planning Board and the signatures of members of the Planning Board (or officially authorized person).

Suitable space to record the action of the Planning Board and the signatures of members of the Planning Board (or officially authorized person) is included on the attached Preliminary Plan.

9.) Proposed layout of storm drainage, water supply and sewerage disposal systems. This may be submitted on the same sheet as the Definitive Plan or on a separate sheet.

This subdivision application includes removal and replacement of existing culverts beneath the roadway and a proposed landscaped depression for stormwater infiltration, as shown on the attached Preliminary Plan.

3. Approval

The Planning Board may give such Preliminary Plan its approval, with or without modification. Such approval does not constitute approval of a subdivision but does facilitate the procedure in securing final approval of the Definitive Plan.

The Applicant acknowledges these terms of Preliminary Plan approval.

4. Filing and fees

Any person submitting a Preliminary Plan of a subdivision to the Planning Board for approval shall file with the Planning Board the following:

a.) a reproducible original, an electronic copy, and eleven (11) print copies of Preliminary Plan;

b.) a filing fee in the amount of Fifty (50) dollars per lot, e.g. $50.00 times the number of lots shown on the Preliminary Plan;

c.) the filing fee shall be in the form of a certified check or money order made payable to "Town of Worthington, Massachusetts";

d.) Application for Approval of Preliminary Plan (Form B), appended hereto, signed by the applicant and providing all information requested;

e.) an original and eleven (11) copies of a draft Development Impact Statement and Environmental Analysis as required by part B of this section.

This application is accompanied by the following:

- ***A reproducible original, an electronic copy, and eleven (11) print copies of Preliminary Plan.***
- ***A certified check or money order for $150.00 (fifty dollars per lot) made payable to "Town of Worthington, Massachusetts" has been provided under separate cover by the Applicant.***
- ***Application for Approval of Preliminary Plan (Form B).***
- ***An original and eleven (11) copies of a Draft Development Impact Statement (Form L).***
- ***An original and eleven (11) copies of a Draft Environmental Analysis.***

A copy of the completed application has also been mailed to the Town Clerk along with a notice stating the date of submission for approval as 01/29/2026.

Sincerely,

Olivia Crosby, P.E.
Lead Consultant, Civil Engineer

CC: BWC Wades Stream, LLC

Attachments: Preliminary Plan
Application of Approval of Preliminary Plan (Form B)
Draft Development Impact Statement (Form L)
Draft Environmental Analysis

GENERAL NOTES:

1. OWNER OF RECORD: TIMOTHY J. SENA AND CATHERINE RUDE–SENA AS RECORDED IN BOOK 8119 PAGE 223 (PARCEL 1) 8260 PAGE 228 (PARCEL 2) WITH A TOWN LISTED PROPERTY ADDRESS OF 190 BUFFINGTON HILL ROAD, WORTHINGTON, HAMPSHIRE COUNTY, MASSACHUSETTS. FOR FURTHER REFERENCE, SEE WORTHINGTON TAX MAP 407 – PARCEL 28 (PER MASS GIS). FIELD WORK WAS COMPLETED IN NOVEMBER OF 2023, FIELD REVIEWED IN APRIL 2024, AND REVIEWED IN FEBRUARY 2025.
2. HORIZONTAL DATUM IS BASED ON MASSACHUSETTS STATE GRID COORDINATE SYSTEM NAD83 (2011 – MAINLAND). SURVEY DATA SHOWN WAS DEVELOPED UTILIZING ON THE GROUND DATA COLLECTION WITH SURVEY GRADE GPS AND OR ROBOTIC TOTAL STATION. CONTOUR INTERVAL SHOWN ON PLAN IS 2 FOOT.
3. THE WETLANDS SHOWN ON THIS PLAN WERE REVIEWED, DEFINED, AND FLAGGED BY OTHERS AND FIELD LOCATED BY SGC ENGINEERING DATED NOVEMBER 22, 2023.
4. PROPERTY IS LOCATED WITHIN THE RESIDENTIAL – AGRICULTURAL DISTRICT (PER ON–LINE TOWN RECORDS) AND MAY BE OR MAY NOT BE AFFECTED BY: FLOOD PLAIN DISTRICT; WESTFIELD RIVER PROTECTION DISTRICT; AND THE WATER SUPPLY PROTECTION DISTRICT. THE TOWN OF WORTHINGTON, MASSACHUSETTS HAS THE FOLLOWING DIMENSIONAL REQUIREMENTS FOR THIS ZONE:

A. MINIMUM FRONTAGE	400	FT
B. FRONT SETBACK	40	FT
C. SIDE SETBACK	40	FT
D. REAR SETBACK	40	FT
E. MINIMUM LOT SIZE	2.0	ACRES

   MINIMUM SETBACK FROM WETLANDS – BASED ON REVIEW OF WETLANDS BY THE WORTHINGTON CONSERVATION COMMISSION WITH TYPE, DEFINITION, AND LOCATION.
5. A PREDOMINATE PORTION OF THE PROPERTY LIES WITHIN ZONE "X" AND IS NOT AFFECTED (SEE PLAN). A SMALL CENTRAL PORTION OF THE LOCUS PARCEL IS AFFECTED BY ZONE "A" AND IS CATEGORIZED AS A SPECIFIED FLOOD HAZARD ZONE. FOR FURTHER REFERENCE SEE F.I.R.M. – FLOOD INSURANCE RATE MAP – COMMUNITY PANEL NUMBER 250175 0008 SUFFIX B / MAP NUMBER 8 OF 25 FOR THE TOWN OF WORTHINGTON, HAMPSHIRE COUNTY (ALL JURISDICTIONS), MASSACHUSETTS, WITH AN EFFECTIVE DATE OF JUNE 19, 1989. ZONE "A"(WATTS STREAM SO–CALLED) IS DESCRIBED AS AN AREA THAT NO BASE FLOOD ELEVATION HAS BEEN DETERMINED. THE BASE FLOOD ELEVATION IS THE WATER SURFACE ELEVATION OF THE 1% ANNUAL CHANCE FLOOD. ZONE "X"IS DETERMINED AS AREAS OUTSIDE 500 – YEAR FLOOD PLAIN.
6. SGC ENGINEERING, LLC HAS NOT INDEPENDENTLY VERIFIED THE LOCATION, EXISTENCE, AND SERVICEABILITY OF ANY UTILITIES AND MAKES NO GUARANTEE TO THE COMPLETENESS OR THE ACCURACY OF ANY UTILITIES SHOWN ON THIS PLAN. UTILITIES SHOWN WERE FIELD LOCATED ABOVEGROUND AND VISUAL, AND OR REFERENCED FROM PLANS AND MAP REFERENCES. ADDITIONAL UTILITIES MAY EXIST IN THE FIELD, WHICH ARE NOT SHOWN ON THIS PLAN. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD PRIOR TO EXCAVATION OR OTHER CONSTRUCTION ACTIVITIES. CALL "DIG SAFE" AT 1–888–344–7233 OR DIAL 811. SGC ENGINEERING, LLC ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF ANY UTILITIES OMITTED OR INACCURATELY SHOWN ON THIS PLAN.
7. THIS SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF THE PERSON, PERSONS, OR ENTITY NAMED IN THE CERTIFICATION AND TITLE BLOCK OF THIS PLAN. THIS SURVEY DOES NOT EXTEND TO ANY UNNAMED PERSON, PERSONS, OR ENTITY WITHOUT HAVING SGC ENGINEERING'S CONSENT IN WRITING.
8. THE LOCATIONS OF THE WATTS STREAM, WITHIN PARCEL "B"(SO CALLED), AND AN UN–NAMED BROOK, THAT DEMARCATES A WESTERLY BOUNDARY LINE OF PARCEL "B", ARE BOTH BASED ON PHYSICAL FIELD EVIDENCE, DEED CALLS, AND OR PLANS OF RECORD AT TIME OF SURVEY. BOTH WATTS STREAM AND THE UN–NAMED BROOK MAY OR MAY NOT AFFECT THE PRESENT – FUTURE PROPERTY DUE TO AVULSION, ACCRETION, AND/OR RELICTION.

CENTERLINE "SENA WAY" TABLE

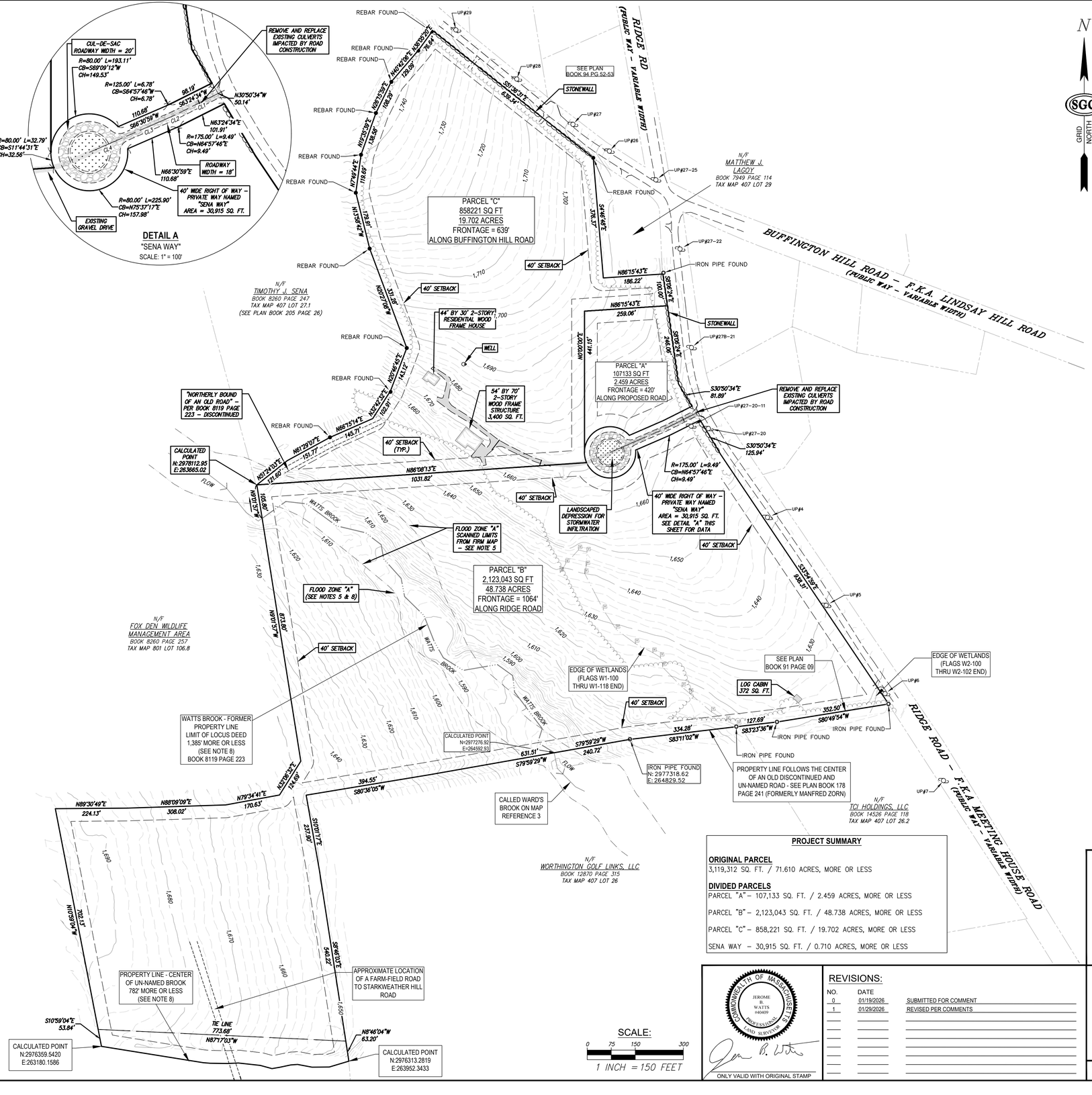
LINE # / CURVE #	LENGTH	BEARING / CHORD BEARING	RADIUS
CL1	114.68'	S63° 24' 34"W	
CL2	8.13'	S64°57'46"W	150.00'
CL3	110.68'	S66° 30' 59"W	
CL4	75.99'	S66° 30' 59"W	
TOTAL CL LENGTH	309.48'		

LEGEND:

ADJACENT LOT LINE
BUILDING
BOUNDARY LINE
LEASE LINE
STONEWALL
SETBACK LINE
EDGE OF GRAVEL
EDGE OF PAVEMENT
EDGE OF TRAIL
DRAIN CULVERT (UD)
EDGE OF VEGETATION
STATE GIS WETLAND
FEMA/FIRM ZONE LINE
EDGE OF WATER
WATTS BROOK
PIPE
REBAR
CONTROL
UTILITY POLE
COMMUNICATIONS HANDHOLE
TRANSFORMER (ET)
WELL

HAMPSHIRE COUNTY, ss
REGISTRY OF DEEDS
Received :
at _____h _____m _____M., and
Filed in Plan Book _____Page _____
ATTEST:
_____
Register

DETAIL A
"SENA WAY"
SCALE: 1" = 100'



SCALE:
0 75 150 300
1 INCH = 150 FEET

N
GRID NORTH
SEE GENERAL NOTE 2

VICINITY MAP: (NOT TO SCALE)

MAP REFERENCES:

1) A PLAN ENTITLED "PLAN OF LAND IN WORTHINGTON, MASSACHUSETTS PREPARED FOR TIMOTHY J. SENA & CATHERINE RUDE–SENA" DATED MARCH 23, 2005, RECORDED AT THE HAMPSHIRE COUNTY REGISTRY OF DEEDS IN PLAN BOOK 205 PAGE 25.
2) A PLAN ENTITLED "PLAN OF LAND IN WORTHINGTON, MASSACHUSETTS PREPARED FOR ESTHER C. SENA–SANDERS IRREVOCABLE TRUST" DATED MARCH 23, 2005, RECORDED AT THE HAMPSHIRE COUNTY REGISTRY OF DEEDS IN PLAN BOOK 205 PAGE 23.
3) A PLAN ENTITLED "PLAN OF LAND IN WORTHINGTON, MASS – OWNER: MANFRED ZORN" DATED JULY 1996 AND RECORDED IN PLAN BOOK 0178 PAGE 241.

PLANNING BOARD
WORTHINGTON, MASSACHUSETTS

CHAIRPERSON _____

_____

_____

_____

_____

DATE: _____

PLANNING BOARD ENDORSEMENT UNDER THE SUBDIVISION CONTROL LAW SHOULD NOT BE CONSTRUED AS EITHER ENDORSEMENT OF AN APPROVAL OF ZONING REQUIREMENTS

SURVEYOR'S CERTIFICATION

1. I HEREBY CERTIFY TO THE BEST OF MY PROFESSIONAL KNOWLEDGE THAT THIS IS A TRUE PLAN BASED ON FIELD SURVEYS AND THE LATEST DEEDS - PLANS OF RECORD.
2. I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS
3. NO DETERMINATION OF COMPLIANCE WITH ZONING REQUIREMENTS HAS BEEN MADE OR INTENDED AND THAT ENDORSEMENT BY THE PLANNING BOARD DOES NOT GUARANTEE THAT ANY OF THE LOTS SHOWN ON THIS PLAN ARE BUILDABLE LOTS.
4. THE PROPERTY HAS FREE AND CLEAR ACCESS IN AND TO RIDGE ROAD, AND BUFFINGTON HILL ROAD, BOTH BEING DEDICATED AND PUBLIC WAYS WITH NO GAPS OR GORES.
5. I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE PROCEDURAL AND TECHNICAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS – JEROME B. WATTS #40409 – PROFESSIONAL LAND SURVEYOR

JEROME B. WATTS / MASSACHUSETTS PLS 40409 / DATE: JANUARY 29, 2026

PROJECT SUMMARY

ORIGINAL PARCEL
3,119,312 SQ. FT. / 71.610 ACRES, MORE OR LESS

DIVIDED PARCELS
PARCEL "A" – 107,133 SQ. FT. / 2.459 ACRES, MORE OR LESS
PARCEL "B" – 2,123,043 SQ. FT. / 48.738 ACRES, MORE OR LESS
PARCEL "C" – 858,221 SQ. FT. / 19.702 ACRES, MORE OR LESS
SENA WAY – 30,915 SQ. FT. / 0.710 ACRES, MORE OR LESS

COMMONWEALTH OF MASSACHUSETTS – JEROME B. WATTS #40409 – PROFESSIONAL LAND SURVEYOR
ONLY VALID WITH ORIGINAL STAMP

REVISIONS:

NO.	DATE	
0	01/19/2026	SUBMITTED FOR COMMENT
1	01/29/2026	REVISED PER COMMENTS

PLAN OF LAND
SUBDIVISION OF PROPERTY OF
TIMOTHY SENA & CATHERINE RUDE-SENA
190 RIDGE ROAD
WORTHINGTON, HAMPSHIRE COUNTY, MA 01098
PREPARED FOR:
WSP USA
100 APOLLO DRIVE, CHELMSFORD, MASSACHUSETTS

SGC ENGINEERING, LLC
SURVEY AND MAPPING
865 SPRING STEET, UNIT 6
WESTBROOK, MAINE 04092
PHONE: 207-347-8100 // FAX: 207-347-8101
WWW.SGCSURVEY.COM

DATE: 01/29/2026 SCALE: 1" = 150'	CALC: EGL DRAWN: EGL CHECK: JBW	PROJECT: 1941073 FILE: 1941073	SHEET 1 OF 1

APPLICATION FOR APPROVAL OF PRELIMINARY PLAN--Form B

File with the Planning Board, Town of Worthington, Massachusetts

File the original, one electronic copy and eleven print copies of the completed forms and plans, and one additional copy showing wetlands which may be an 11" x17" reduced scale plan, , with the Town Clerk and the Planning Board, in accordance with the requirements of Section III.A Preliminary Plan. All plans must be folded and a copy of this application attached to each plan.

To the Planning Board:

The undersigned herewith submits the accompanying Preliminary Plan of Property located in the Town of Worthington for approval as allowed under the Subdivision Control Law and the Rules and Regulations Governing the Subdivision of Land of the Planning Board in the Town of Worthington. We further grant the Planning Board and its agents the right to enter our property for the purpose of evaluating this application.

1. Applicant BWC Wades Stream, LLC Signature Joel Lindsay

   Address 116 Huntington Ave, Boston, MA 02116 Phone (857) 930-7682

2. Owner Timothy J. Sena & Catherin Rude-Sena Signature Timothy Sena Catherine Rude Sena Timothy Sena Catherine Rude Sena (Dec 22, 2025 10:55:20 EST)

   Address PO Box 132 Worthington, MA 01098 Phone 4132385813

3. Engineer WSP USA Inc. Attn: Olivia Crosby Signature Crosby, Olivia (USOC714815) Digitally signed by Crosby, Olivia (USOC714815) Date: 2026.01.21 13:26:41 -05'00'

   Address 100 Apollo Drive, Suite 302, Chelmsford, MA 01824 Phone +1 978-692-9090

4. Surveyor SGC Engineering, LLC Attn: Jerome Watts Signature Jerome B. Watts Digitally signed by Jerome B. Watts Date: 2026.01.22 10:42:34 -05'00'

5. Deed of property recorded in (Hampshire County Registry) or Land Court (circle one),

   Book 8119 Page 223

6. Location and Description of Property:

   The Property is located at 190 Ridge Road, in the southwesterly corner of the intersection of Buffington Hill Road. Representative latitude and longitude of the Property are: 42.41138, -72.95092. The Property is primarily actively hayed fields and forested land. A principal dwelling structure is erected in the central portion of the Property.

   # of Lots: 1

7. Assessor's Map ID: 407 Lot(s): 28

Date submitted to Planning Board: _____ Date Decision Filed: _____

Town Clerk: _____ (Print name) Town Clerk: _____ (Signature)

Att B - Preliminary Plan Application Form --- RESIGN (002)

Final Audit Report 2026-01-28

Created:	2026-01-28
By:	Brie Fortmuller (brie.fortmuller@bluewavesolar.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAA5yevU3n9kz9AtEaH9F10SD5L7e1Ube5R

"Att B - Preliminary Plan Application Form ---RESIGN (002)" History

Document digitally presigned by Crosby\, Olivia (USOC714815) (olivia.crosby@wsp.com)
2026-01-21 - 6:26:41 PM GMT

Document digitally presigned by Jerome B. Watts (jerome.watts@sgcsurvey.com)
2026-01-22 - 3:42:34 PM GMT

Document created by Brie Fortmuller (brie.fortmuller@bluewavesolar.com)
2026-01-28 - 6:38:47 PM GMT

Document emailed to Joel Lindsay (jlindsay@bluewave.energy) for signature
2026-01-28 - 6:40:59 PM GMT

Email viewed by Joel Lindsay (jlindsay@bluewave.energy)
2026-01-28 - 7:25:19 PM GMT

Document e-signed by Joel Lindsay (jlindsay@bluewave.energy)
Signature Date: 2026-01-28 - 7:25:47 PM GMT - Time Source: server

Agreement completed.
2026-01-28 - 7:25:47 PM GMT

DEVELOPMENT IMPACT STATEMENT —Form L
File with the Planning Board, Town of Worthington, Massachusetts

NAME OF PROJECT:	190 Ridge Road Subdivision	ACREAGE :	71.5 acres
TYPE OF PROJECT:	Class III Subdivision	OWNER(S) :	Timothy J. Sena & Catherine Rude-Sena
LOCATION:	190 Ridge Road	PLANNER:	BWC Wades Stream, LLC
PARCEL NUMBER(S):	PIN: 407-0-28	ENGINEER:	WSP USA Inc.
		ARCHITECT:	None

1. Project Description

a) Number of Units

Total	None	Low Income	None	Single Family	None
Two Family	None	Apartment	None	Other	None

b) Type of Ownership

Condominium	N/A	Rental	N/A	Private	N/A

c) Number of Bedrooms

Condominium	N/A	Apartment	N/A

d) Approximate Price per Lot/Unit

Private	N/A	Condominium	N/A	Rental	N/A

2. Circulation System

a) Street design
Explain reasons for location of streets and intersections.

b) Traffic study
Project the number of motor vehicles to enter or depart the site per average day and peak hour. Also state the number of motor vehicles to actually pass by streets adjacent to the proposed subdivision per average day and peak hour. Such data shall be sufficient to enable the Planning Board to evaluate
(1) existing traffic on streets adjacent to the proposed project,
(2) traffic generated or resulting from the proposed project, and
(3) the impact of such additional traffic on all ways within and adjacent to the proposed project.

Attach to this DIS the results of all studies conducted to develop these data, plus a description of the study methodology, and the name, address and telephone number of the persons responsible for carrying out the study.

3. Supporting Systems

a) Water distribution
Discuss the types of wells proposed for the project, means of providing fire supply, and any special problems which might arise.

3. Supporting Systems (continued)

b) Sewerage disposal

Discuss the type of system, level of treatment, suitability of soils and results of percolation tests.

c) Storm drainage

Discuss the storm drainage system including the projected flow from a fifty (50) year storm, name of the receptor stream, and any flow constrictions between the site and the receptor stream.

d) Refuse disposal

Discuss the, location and type of facilities, hazardous materials requiring special precautions, and screening.

e) Lighting

Discuss the location and size of lights and method to screen adjoining properties from glare.

f) Fire protection

Discuss the type and capacity of fuel storage facilities, location and storage areas for hazardous substances, special requirements, and distance to fire station.

g) Recreation

Indicate distance to, and type of any public facilities to be provided with the development.

h) Schools

Project the student population of the project for the nursery, elementary, Junior High School and Senior High School levels and indicate distance, capacity, and present enrollment of the nearest elementary, and secondary schools. Describe the basis or methodology for all projections of student population.

4. Natural Conditions

Describe the extent to which the proposed plan meets the applicable Design Standards set forth in Section IV with specific reference to each of the factors specified therein, and with reference to the Environmental Analysis, if one was required.

5. Design Factors

Describe briefly the following features including photographs, when possible:

a) Present visual quality of the area
b) Location of significant viewpoints
c) Historic structures
d) Architecturally significant structures
e) Type of architecture for development
f) Any factors contained in Section IV not specifically discussed in Section 2 or 4 of this DIS.

6. Plans

Describe how the project relates to any long range plans adopted by the Town of Worthington, or any regional plans prepared by the county, or regional planning agencies.

7. Phasing

If the development of the site will take place over more than one year, supply a schedule showing how the development will be phased. A flow chart is helpful. This timetable shall include the following elements:

a) Stripping or clearing of site, or both
b) Rough grading and construction
c) Construction of grade stabilization and sedimentation control structures.

190 Ridge Road Preliminary Plan of Subdivision – Draft Development Impact Statement (Form L)

To: Board of Selectmen, Worthington Town Planning Board

From: WSP USA Inc.

Cc: BWC Wades Stream, LLC

Ref: US-EI-3652230438

Date: 2026-01-29

Subject: Supplemental Responses to Development Impact Statement – Form L for 190 Ridge Road Preliminary Plan of Subdivision

On behalf of BWC Wades Stream, LLC, (the Applicant/Subdivider), WSP USA Inc. respectfully submits the following supplemental responses to the information requested as part of the Developmental Impact Statement – Form L for the Preliminary Plan of Subdivision located at 190 Ridge Road, Worthington, Massachusetts in Hampshire County (the Site).

Information requested in Form L is outlined below with WSP's responses provided in ***bold italics***. The Project Description (Section 1) of Form L has been filled out on the provided form.

2. Circulation System
    a. Street design
        i. Explain reasons for location of streets and intersections.

        This subdivision application includes the proposal of one street. The plan calls for upgrading a portion of the current driveway connecting to Ridge Road and constructing a cul-de-sac to ensure sufficient frontage and access for the new lots.

    b. Traffic study
        i. Project the number of motor vehicles to enter or depart the site per average day and peak hour. Also state the number of motor vehicles to actually pass by streets

adjacent to the proposed subdivision per average day and peak hour. Such data shall be sufficient to enable the Planning Board to evaluate

1. existing traffic on streets adjacent to the proposed project,
2. traffic generated or resulting from the proposed project, and
3. the impact of such additional traffic on all ways within and adjacent to the proposed project.

Attach to this DIS the results of all studies conducted to develop these data, plus a description of the study methodology, and the name, address and telephone number of the persons responsible for carrying out the study.

Streets adjacent to the proposed subdivision are estimated to have an existing annual average daily traffic (AADT) count between 100 and 200 vehicles, and a peak hour count between 15 and 25 vehicles. These estimates were derived from traffic volume counts conducted on roadway segments of similar functional classification and adjacent land use within nearby communities, as documented in the MassDOT traffic count database. The exported traffic volume counts are included as Attachment A of this document. Minimal traffic impacts are expected resulting from the proposed subdivision as no residential dwelling developments are proposed. Accordingly, the traffic patterns will remain consistent with existing conditions.

3. Supporting Systems
    a. Water distribution
        i. Discuss the types of wells proposed for the project, means of providing fire supply, and any special problems which might arise.

        No wells or water distribution infrastructure are proposed as part of this subdivision application. Fire protection and fire supply will remain consistent with existing conditions and the current means of service in the area.

    b. Sewerage disposal
        i. Discuss the type of system, level of treatment, suitability of soils and results of percolation tests.

        No sewage disposal system is proposed as part of this subdivision application. Accordingly, the type of system, level of treatment, soil suitability analysis, and percolation testing are not applicable and have not been provided.

    c. Storm drainage

i. Discuss the storm drainage system including the projected flow from a fifty (50) year storm, name of the receptor stream, and any flow constrictions between the site and the receptor stream.

This subdivision application includes removal and replacement of existing culverts beneath the roadway and a proposed landscaped depression for stormwater infiltration. No significant storm drainage system is proposed and drainage patterns will remain consistent with existing conditions, draining to Watts Stream and Wards Stream. Further stormwater analysis will be completed for the Definitive Plan; roadside trenches and/or swales may be included as necessary.

d. Refuse disposal

i. Discuss the location and type of facilities, hazardous materials requiring special precautions, and screening.

No refuse disposal facilities or hazardous materials are proposed as part of this subdivision application. Refuse disposal will remain consistent with existing conditions.

e. Lighting

i. Discuss the location and size of lights and method to screen adjoining properties from glare.

No lighting is proposed as part of this subdivision application. Accordingly, the location and size of lights and method to screen adjoining properties from glare are not applicable and have not been provided.

f. Fire protection

i. Discuss the type and capacity of fuel storage facilities, location and storage areas for hazardous substances, special requirements, and distance to fire station.

No fuel storage facilities or hazardous substance storage areas are proposed as part of this subdivision application. Fire protection will remain consistent with existing conditions and the current means of service in the area. The Worthington Fire District is a 1.0-mile drive from the Site.

g. Recreation

i. Indicate distance to and type of any public facilities to be provided with the development.

No public facilities are proposed as part of this subdivision application. Accordingly, the distance to and type of any public facilities are not applicable and have not been provided.

h. Schools

i. Project the student population of the project for the nursery, elementary, Junior High School and Senior High School levels and indicate distance, capacity, and present enrollment of the nearest elementary, and secondary schools. Describe the basis or methodology for all projections of student population.

No residential dwellings are proposed as part of this subdivision application. Accordingly, projections of impacts to student populations are not applicable and have not been provided.

4. Natural Conditions

Describe the extent to which the proposed plan meets the applicable Design Standards set forth in Section IV with specific reference to each of the factors specified therein, and with reference to the Environmental Analysis, if one was required.

In reference to the Design Standards set forth in Section IV:

A. General Standards and Relationship to Town Plans

The plan of the subdivision is shown in accordance with the requirements of Section IV, Design Standards, and Section V, Required Improvements. The proposed plan is in accordance with the Zoning Bylaw, Section 5. Dimensional Regulations, by adhering to a minimum area of two (2) acres and a minimum frontage of 400 feet for each proposed lot. No more than one existing principal structure is within each lot and no additional structures are proposed. The existing structures meet the minimum setback and yard requirements within the proposed lots. The proposed street/cul-de-sac and associated landscaped depression for stormwater infiltration is designed in accordance with the Worthington Subdivision Regulations Streets Design Standards (see section below.) No sidewalks, water systems, sanitary sewers, public and private utilities, or other infrastructure are proposed as part of this subdivision application. Accordingly, the General Standards regarding design of the above-stated infrastructure are not applicable.

B. Streets

1. Street Classification

Streets in subdivisions shall be classified as major and minor:

a.) Major Street: A street which, in the opinion of the Planning Board, is likely to carry substantial volumes of through traffic or a street serving a Class I Subdivision.

b.) Minor Street: A street which connects with Major Streets or streets serving Class II and Class III Subdivisions (less than ten (10) lots).

The proposed street serves a Class III Subdivision, classifying as a minor street.

2. Location and Alignment

a.) All streets and ways shall be designed so that in the opinion of the Planning Board they will provide safe vehicular travel. Streets shall also be designed to maximize the attractiveness and design of the street layout to maximize livability and amenity of the subdivision. As far as practicable, streets should also follow natural contours.

The proposed street is designed to provide ease of access for each of the subdivided lots and is atop the path of the existing driveway, following the natural contours.

b.) The design and layout of the proposed subdivision shall conform, so far as is practicable, to the Town Master Plan, Open Space and Recreation Plan, or other Town plans, as adopted by the Planning Board or the Town.

The proposed subdivision adheres to the Town Master Plan, Open Space and Recreation Plan, and other Town plans, as described in this document.

c.) Provision shall be made, to the satisfaction of the Planning Board, for the proper projection of streets, or for access to adjoining property which is not yet subdivided or developed. Generally, it is preferred that new roads loop back to the existing road instead of being dead-end streets.

Although the proposed street is a cul-de-sac, it provides central access to the subdivided lots and can be extended to accommodate future development if required.

d.) Reserve strips prohibiting access to streets or adjoining property shall not be permitted.

No reserve strips are proposed as part of this subdivision application.

3. Right of Way (ROW) and Road Design Standards

Street standards shall be provided in accordance with the table below. All roads are to be constructed to meet MassDOT Design standards for 25 MPH roads. These standards provide a balance between what is necessary for safety (e.g., fire needs) and what is important to maintain Worthington's character.

	Minor Street	Major Street
Street Width	18 feet	20 feet
Shoulder Width	4 feet	4 feet
Minimum ROW	50 feet	50 feet
Horizontal Alignment: Minimum center line radius	Refer to MassDOT Design Standards for 25 MPH design speed	Refer to MassDOT Design Standards for 25 MPH design speed
Vertical Alignment: Minimum stopping sight distance at 3.5 feet above pavement	Refer to MASSDOT Design Standards for 25 MPH design speed	Refer to MASSDOT Design Standards for 25 MPH design speed
Maximum Grade	Refer to MASSDOT Design Standards, based on terrain and 25 MPH design speed	Refer to MASSDOT Design Standards, based on terrain and 25 MPH design speed
Minimum Grade	0.75%	0.75%
Intersection angle	90°	90°
Minimum sight distance (stop-controlled or obstructed-view intersection)	Refer to MASSDOT Design Standards, based on obstruction location and 25 MPH design speed	Refer to MASSDOT Design Standards, based on obstruction location and 25 MPH design speed
Minimum radius at edge of roadway	Refer to MASSDOT Design Standards for 25 MPH design speed	Refer to MASSDOT Design Standards for 25 MPH design speed

The proposed street is designed in accordance with the 'Minor Street' standards provided in the above table, as shown on the preliminary plan for a subdivision.

4. Dead End Streets (Cul-De-Sacs)

Dead-end streets (cul-de-sacs) shall be permitted as Minor Streets only. Project shall make every effort to avoid the creation of dead-end streets and must connect their subdivision to existing dead-end streets whenever reasonably possible. Dead end streets are more expensive to maintain, limit emergency access, and reduce the sense of connection and equality that comes from interconnecting streets.

The proposed street (cul-de-sac) classifies as a minor street.

a.) Dead-end streets are only appropriate when the surrounding property will never need a street connection, because of extremely sensitive and permanently protected natural resources, and the project provides a viable alternative pedestrian and bicycle connection to the surrounding property, and the street connection will not aid the transportation network that serves the subdivision, and the dead-end street will not serve more than seven (7) housing units.

The proposed street provides central access to the subdivided lots and will not serve more than seven (7) housing units.

b.) The length of a dead-end street allowed by right is four hundred feet (400'), as measured along the centerline of construction of the street from the nearest connected existing public street which is not itself a dead-end street. With a waiver by the Planning Board, a dead-end street is allowed up to 1,000 feet maximum if a corresponding amount of Reserved Open Space in the subdivision is dedicated. The formula is that for every two acres of Reserved Open Space dedicated, 100 feet of additional street length is allowed, up to 1,000 feet maximum. When there are six (6) residential units or less on a cul-de-sac the Planning Board may modify the pavement width requirements, provided that the subdivider provides adequate off-street parking facilities.

The proposed street is less than four hundred feet (400'), measured along the centerline of construction from the edge of Ridge Road to the furthest end of the cul-de-sac.

c.) All dead-end streets shall use either a permanent teardrop-shaped or a T-shaped hammerhead cul-de-sac.

The proposed street is designed with a teardrop-shaped cul-de-sac, as shown on the preliminary plan for a subdivision.

d.) Teardrop-shaped cul-de-sacs shall have an island radius of forty (10-40) feet and a property line (turn around) radius of eighty (30-80) feet. The center of the cul-de-sac shall be on the centerline of construction. A permanent cul-de-sac turnaround island shall be constructed in the center of the cul-de-sac. This island shall be designed as a landscaped depression to accept and infiltrate stormwater runoff from the surrounding pavement. Landscaping shall include grasses and/or appropriately planted with acceptable trees or shrubs. Alternatively, the center island may be left with its original tree growth in the center, and all runoff can be directed towards landscaped stormwater infiltration areas in the Right of Way or elsewhere within the development.

The proposed teardrop-shaped cul-de-sac has an island radius of 40 feet and a turnaround radius of 64 feet. The cul-de-sac island is designed as a landscaped depression to accept and infiltrate stormwater runoff from the surrounding roadway surface, as shown on the preliminary plan for a subdivision.

e.) A hammerhead cul-de-sac shall be designed as a "T" to allow fire trucks and snow plows to turn around with only one backing-up movement. The portion of the hammerhead perpendicular to the road shall be at the same width as the street it abuts and shall extend at least 28 feet in each direction of the "T" beyond the sidelines of the main road pavement edge. (see diagrams) Lots may only gain frontage from one edge of the hammerhead.

No hammerhead cul-de-sacs are proposed as part of this subdivision application.

f.) For all cul-de-sacs, the roadway shall have the same width as the roadway leading into the cul-de-sac, said pavement width beginning at the exterior radius of the turnaround. The road going around a cul-de-sac turn around shall be a one way road twenty (20) feet wide.

The proposed road going around the cul-de-sac turn is a 20-foot-wide one-way road, as shown on the preliminary plan for a subdivision.

5. Layout

a.) Arrangement

The arrangement of streets in the subdivision shall provide for the continuation of major and secondary streets of adjoining subdivisions and for proper protection of major and

secondary streets into adjoining properties which are not yet subdivided, in order to make possible necessary fire protection, movement of traffic and construction or extension, presently or later required, of needed utilities and public services such as sewers, water and drainage facilities. Where, in the opinion of the Planning Board, topographical or other conditions make such continuance undesirable or impracticable, the above conditions may be modified.

The proposed street provides central access to the subdivided lots, ensuring fire protection access and movement of traffic. The street can be extended to accommodate future development if required.

b.) Topography

Streets shall be logically related to the topography so as to produce useable lots, reasonable grades and safe intersections in appropriate relation to the proposed use of the land to be served by such streets. Adequate provisions shall be made to control drainage of each lot by an adequate storm water system, subject to the approval of the Planning Board.

The proposed street is atop the path of the existing driveway, following the existing contours. No significant storm drainage system is proposed, and drainage patterns will remain consistent with existing conditions, draining to Watts Stream and Wards Stream. Further stormwater and grading analysis will be completed for the Definitive Plan; roadside trenches and/or swales may be included as necessary.

c.) Horizontal and Vertical Curves

No horizontal curve shall have a centerline radius of less than one hundred fifty (150) feet. For changes in grade exceeding one (1) percent, a vertical curve shall be provided insuring a minimum sight distance of one hundred fifty (150) feet.

The proposed street has no centerline radii of less than one hundred fifty (150) feet. Further grading analysis will be performed for the Definitive Plan.

d.) Grades

Street grades shall be at least .75 percent to provide satisfactory drainage. The maximum allowable grade shall be ten (10) percent. In no case shall a grade of greater than five (5) percent be allowed at or within fifty (50) feet of an intersection. However, the Planning Board may authorize on a cul-de-sac street as a variance, a maximum grade not to exceed twelve (12) percent for a total distance not to exceed nine hundred (900) feet provided that a grade of not greater than five (5) percent is established at or within one hundred fifty (150) feet of an intersection. For grades in excess of eight (8) percent, the Planning Board may require safety features as deemed necessary, such as guardrails and extended shoulders.

The proposed street has slopes between 2 and 10 percent. Further grading analysis will be performed for the Definitive Plan.

e.) Intersections

Street intersections shall be as nearly at right angles (90 degrees) as possible, and a waiver by the Planning Board shall be required if a deviation from 90 degrees is proposed. No intersection shall be at an angle of less than sixty (60) degrees. In addition, streets and ways shall be laid out so as to intersect in accordance with Street Offsets and the following:

The proposed street intersects Ridge Road at a right angle. There are no proposed intersections at angles less than sixty degrees.

(1) Street and way lines at all intersections, between proposed streets or between, whenever applicable, a proposed and/or existing street, shall be rounded with a curve at each corner which has a property line radius of not less than fifteen and not more than twenty–five feet (25').

The proposed street has radii of 25' at its intersection with Ridge Road. All proposed corner radii are between 15 and 25'.

(2) The center line of all intersecting streets or ways shall be a straight line from the point of intersection of said center line for a distance of no less than twenty (20) feet.

The centerline of the proposed street is a straight line of more than 20' from the point of intersection with Ridge Road.

(3) On any street where the grade exceeds two (2) percent on the approach of the intersection, a leveling area, with a maximum slope of two (2) percent shall be provided for a distance of not less than thirty (30) feet measured from the nearest gutter line of the intersecting street.

Grading for the proposed street will be provided in the Definitive Plan.

f.) Street Jogs/Offsets

Streets entering opposite sides of another street shall be laid out either directly opposite each other or with a minimum offset of one hundred and fifty (150) feet between their centerlines. Streets entering the same side of another street shall also be laid out with a minimum offset of one hundred and fifty (150) feet between their centerlines. This minimum offset shall also be observed whenever one or more streets entering are existing, whether located within or outside the boundary of the proposed development.

One street is being proposed as part of this subdivision plan. No streets entering opposite sides of another street or streets entering the same side of another street

are being proposed. Accordingly, the Design Standards regarding street jogs/offsets are not applicable.

g.) Tangents

A tangent of at least one hundred (100) feet in length shall be introduced between reverse curves on all proposed streets.

No reverse curves along streets are proposed as part of this subdivision application.

h.) Private Streets

When streets will be kept in private ownership, the Planning Board strongly encourages the formation of a nonprofit 501 (c)3 Homeowners Association that includes the following provisions:

- In the documents that are part of the purchase agreement, the language should state that the homeowner is required to join the association
- Residents are required to pay a yearly fee (to be determined based on projected maintenance costs)
- Failure to pay the yearly fee would result in an automatic lien on the property, and owners cannot sell the house until the fee is paid

The Applicant acknowledges this recommendation.

i.) Street names

Streets shall be identified by name on the preliminary plan. Proposed streets which are obviously in alignment with others already existing and named shall bear the names of existing streets. In no case shall names for proposed streets duplicate existing street names irrespective of the suffix, be it street, avenue, boulevard, place or court.

The proposed street will be named 'Sena Way.'

6. Access Road

The Planning Board may require the subdivider to improve any access road to the subdivision to the appropriate street standards provided in these regulations if such access would otherwise be inadequate, provided that the Municipality owns or provides the right-of-way.

The Applicant acknowledges additional access road improvements to the subdivision may be required by the Planning Board.

7. Pedestrian Ways

All roads must include a parallel pedestrian walkway within the road right- of-way, or if outside of the right-of-way, within an easement for the public use. Pedestrian walkways shall

be located on at least one side of the street, and shall be constructed of a durable non-paved surface (see below). Walkways may be required on both sides of a street if deemed necessary by the Planning Board . Paved sidewalks may also be required at the discretion of the Planning Board.

The pedestrian network shall be continuous, with no breaks at streams or elsewhere, to allow pedestrians to safely walk off the roadbed. Pedestrian ways shall include a durable, secure bed, which may be crushed stone, gravel, grassed pavers, etc. provided there is adequate drainage to ensure the pedestrian way is passable when snow does not block access. Walkways shall be at least four (4) feet in width and shall otherwise be designed and constructed in accordance with the MassDOT Standard Specification and Architectural Access Board and Americans with Disabilities Act standards.

Where necessary, in the judgment of the Planning Board, right-of-way for pedestrian travel and access may be required between subdivisions or its parts or between a subdivision and public property. These pedestrian ways shall be built and lighted as described herein.

The proposed street does not include a pedestrian walkway. The proposed street intersects Ridge Road, an existing street without a pedestrian walkway on either side of the street.

8. Surface Material

a.) Sub-base:

The sub-base shall be screened bank-run gravel, a mixture of 3''- 4'', 24'' deep, except that the top 6'' shall be processed 1.5''- gravel. A tolerance of one-half (1/2) inch above or below finished sub-grade will be permitted, provided this difference is not maintained over fifty (50) feet and the required cross section is maintained. The gravel borrow shall be laid to a depth of 18".

The sub-base material for the proposed street will adhere to the above requirements.

b.) For paved surfaces:

The base or binder course (the first coat of asphalt) shall be asphalt concrete, in accordance with Standard Specifications, Class I Bituminous Concrete Pavement type I-I (Binder Course Mix). It shall be laid to a depth of 2.5".

The surface course (the second and final coat of asphalt) shall be asphalt concrete, in accordance with Standard Specifications, Class I Bituminous Concrete Pavement Type I-I (Top Course Mix). It shall be laid to a depth of 2".

No streets with paved surfaces are proposed as part of this subdivision application.

c.) For unpaved surfaces:

A surface layer consisting of three successive layers of ¾"-size crushed traprock stone, ½"-size crushed traprock stone, and ¼"-size crushed traprock stone, with a crown sufficient for drainage.

The surface layer for the proposed street will adhere to the above requirements.

d.) Further requirements may be added to meet the site's requirements.

No additional requirements have been added for the proposed street at this time.

e.) Inspections shall be made by the project engineer and the municipality upon completion of each layer of sub-base and the binder and surface courses.

The Applicant acknowledges this requirement.

C. Easements

No easements are proposed as part of this subdivision application. Accordingly, the Design Standards regarding easements are not applicable.

D. Sewage Disposal System

No sewage disposal system is proposed as part of this subdivision application. Accordingly, the Design Standards regarding sewage disposal systems are not applicable.

E. Swales, Drainage, and Curbs

Curb and gutter systems are generally not appropriate for new subdivisions in Worthington, except in very limited circumstances. Except where a waiver is granted by the Planning Board, all streets shall be designed with flat curbs using Low Impact Development (LID) drainage systems that closely mimic natural systems, meeting the following standards:

1. All of the stormwater from a 1" NRCS design storm drains into the ground and does not leave the site. A 1" NRCS design storm is a storm with 1" of rain within a 24 hour period. More than 80% of Western Massachusetts storms are at or below this level.
2. Water leaving the road enters grassed swales graded flat enough to avoid erosion and hold and treat water. Swales shall be located in the street right-of-way where feasible, or in perpetual unobstructed easements of appropriate width.
3. Measures to reduce runoff, improve groundwater recharge, and improve stormwater quality, such as rain barrels (barrels at the base of roof gutter leaders that store stormwater and provide water for future lawn and garden use), or rain gardens (rain is captured and retained in depressions carefully planted with native vegetation and allowed to drain into the ground.)
4. Curbs are only appropriate in narrow defined areas without opportunity for grassed swales or in village center-type projects. In those areas curbs shall be Type 2 bituminous concrete or cement concrete curbs or granite curbs Type SB (sloped) placed on the bituminous binder, if the road is paved, or granite curbs of the road is gravel. Curbs shall utilize a 6" reveal (or 6"

of curbing exposed above the street pavement). The installation of bituminous berm, granite curb, granite edging and granite curb corners shall conform to the relevant provisions of the Standard Specifications. All catch basin frames shall be consistent with those used elsewhere in town.

5. Removal of Spring and Surface Water

   The subdivider shall be required by the Planning Board to use Low Impact Development and other water management strategies to manage spring and surface water that may exist either previous to or as a result of the subdivision.

6. The Planning Board shall approve the design and size of drainage facilities based on anticipated run-off under conditions of total potential development. The subdivider's engineer shall provide information as the Planning Board deems necessary to the determination of the adequacy of the facilities.

7. Responsibility for Drainage Downstream

   The subdivider's engineer shall provide such information as the Planning Board deems necessary to determine the effect of the subdivision on the existing downstream drainage facilities outside the area of the subdivision. Where the Planning Board anticipates that the additional run-off incident to the development of the subdivision will overload the existing downstream drainage facility so that there will be damage to private property or an increase in the expenditure of public funds, the Planning Board shall not approve the subdivision until the subdivider and the Board of Selectmen agree to share the cost of the necessary improvement required. The Municipality's share shall be based upon the portion of the run-off which the developed area downstream from the subdivider's subdivision contributes to the necessary improvement, except that there shall be credited to the Municipality's share that portion of the need which can be met by existing facilities.

8. Inhabitable Land

   All land to be used for building purposes on the Plan submitted for approval shall be of such character that it can be used for building purposes without danger to health.

9. Culverts

   There shall be at least eighteen (18) inches of cover over culverts crossing roadways and for culverts over fifteen (15) inches in diameter the Municipal Engineer may specify additional depth of cover. The minimum size culvert installed shall be twelve (12) inches. All culverts shall have headers which shall not extend above the final grade. Header design shall be approved by the Planning Board.

   The Applicant acknowledges these requirements for swales, drainage, and curbs. This subdivision application includes removal and replacement of existing culverts beneath the roadway and a proposed landscaped depression for stormwater infiltration. No significant storm drainage system is proposed and drainage patterns will remain

consistent with existing conditions. Further stormwater analysis will be completed for the Definitive Plan; roadside trenches and/or swales may be included as necessary.

F. Utilities

No utilities are proposed as part of this subdivision application. No structures are proposed on lots without the provision of potable water facilities. Accordingly, the Design Standards regarding utilities are not applicable. Existing fire protection measures will remain in place and are currently considered adequate.

G. Street Lighting

No street lighting is proposed as part of this subdivision application. Accordingly, the Design Standards regarding street lighting are not applicable.

H. Street Signs

No street signs or posts are proposed as part of this subdivision application. Accordingly, the Design Standards regarding street signs are not applicable.

I. Storm Drainage

1. Removal of Spring and Surface Water

   The subdivider shall be required by the Planning Board to carry away by pipe or open ditch any spring and surface water that may exist either previous to or as a result of the subdivision. Such drainage facilities shall be located in the street right-of-way where feasible, or in perpetual unobstructed easements of appropriate width.

2. Drainage Structure to Accommodate Potential Development Upstream

   Culverts and drainage facilities shall, in each case, be large enough to accommodate potential run-off from the entire subdivision. The Planning Board shall approve the design and size of the facilities based on anticipated run-off under conditions of total potential development. The subdivider's engineer shall provide information as the Planning Board deems necessary to the determination of the adequacy of the facilities.

3. Responsibility for Drainage Downstream

   The subdivider's engineer shall provide such information as the Planning Board deems necessary to determine the effect of the subdivision on the existing downstream drainage facilities outside the area of the subdivision. Where the Planning Board anticipates that the additional run-off incident to the development of the subdivision will overload the existing downstream drainage facility so that there will be damage to private property or an increase in the expenditure of public funds, the Planning Board shall not approve the subdivision until the subdivider and the Board of Selectmen agree to share the cost of the necessary improvement required. The Municipality's share shall be based upon the portion of the run-off which the developed area downstream from the subdivider's subdivision contributes to the

necessary improvement, except that there shall be credited to the Municipality's share that portion of the need which can be met by existing facilities.

4. Inhabitable Land

   All land to be used for building purposes on the Plan submitted for approval shall be of such character that it can be used for building purposes without danger to health.

5. Other Provisions

   In the design of the drainage system, natural waterways shall be utilized to the full extent feasible. There shall be at least eighteen (18) inches of cover over culverts crossing roadways and for culverts over fifteen (15) inches in diameter the Municipal Engineer may specify additional depth of cover. The minimum size culvert installed shall be twelve (12) inches. Where catch basins are installed the street shall have curbing unless the Planning Board shall approve an alternate method. Open roadside drainage ditches in excess of five (5) percent grade shall be paved with stone or asphalt as required by the Planning Board. All culverts shall have headers which shall not extend above the final grade. Header design shall be approved by the Planning Board. Whenever possible natural drainage courses should be extended across a road and not diverted to roadside drainage ditches.

   The Applicant acknowledges these requirements for storm drainage. This subdivision application includes removal and replacement of existing culverts beneath the roadway and a proposed landscaped depression for stormwater infiltration. No significant storm drainage system is proposed and drainage patterns will remain consistent with existing conditions. Further stormwater analysis will be completed for the Definitive Plan; roadside trenches and/or swales may be included as necessary.

J. Lots

   The proposed lot layout has been designed to comply with the Zoning By-Law and to avoid foreseeable difficulties related to topography or other natural conditions. Each lot contains an adequate area of a minimum of two (2) acres and a minimum frontage of 400 feet on a public street to allow for potential future construction or building in compliance with the Zoning By-Law on either lot.

K. Open Space and Recreation Area

   No residential dwellings are proposed as part of this subdivision application. Accordingly, the requirement for a park or parks suitably located for playground or recreation purposes or for providing light and air is not anticipated to be applicable.

L. Protection of Natural, Cultural and Historic Features

   The proposed street will be constructed atop the existing driveway to preserve existing features of the Site. No residential dwellings are proposed as part of this subdivision application. The existing features, natural cover, and natural drainage-ways of the Site will remain consistent with existing conditions. A Draft Environmental Analysis has also been

prepared for this proposed subdivision plan and includes additional information on the existing natural, cultural and historic features to remain.

M. Excavation and Grading

1. General

   All excavating and filling required for construction of improvements shall be as specified herein. The entire area of work shall be brought to the required lines and grades by excavation filling. Excavation material, if suitable, may be used in making embankments and in filling low areas. A minimum of four (4) inches of topsoil shall be provided to cover over all finished slopes. This material shall be spread uniformly over all finished slopes. All streets shall be graded from property line to property line to approved grade and cross section.

2. Suitable Materials Required

   No stumps, wood, roots, sod, or other fibrous materials shall be placed in any embankment. In those locations where the alignment crosses swamp or marsh land, or other similar soil that is incapable of withstanding expected loads, such inadequate soil s4all be entirely removed and replaced with adequate material. The materials so removed shall not be placed in embankment, but may be used in flattening embankment slopes or for filling spots outside the road section. The Planning Board may require the developer to submit evidence of boring and/or other soil investigations to determine the depth composition and stability of the subgrade within the road section.

3. Embankments

   Embankments shall be formed of suitable and acceptable excavated materials and brought to the required lines and grades. The materials for embankment shall be placed in successive horizontal layers not exceeding six (6) inched in depth extending across the entire fill area. They shall be spread by a bulldozer or other acceptable method, and shall be thoroughly compacted. Successive layers shall not be placed until the layer under construction has been thoroughly compacted. Where embankments are made of rock, the sock shall be so deposited that all voids are filled with earth and in such a way that the compaction specified above may be secured.

4. Subgrade

   Upon completion of filling and excavation, the subgrade shall be formed to the required grade and contour, and the entire surface again rolled as specified above. High spots shall be removed and low spots filled with acceptable material and the process of leveling and rolling continued until no further depression results.

5. Side Slopes

   Side slopes in embankment and on roadside drainage ditches shall descend one (1) foot vertically for at least two (2) feet horizontally (2 on 1). Surplus material resulting from excavation of the road prism shall be used to flatten slopes of embankment so that they

ascend one (1) foot vertically for at least two (2) feet horizontally (2 on 1). Side slopes in excavation rock shall ascend six (6) feet vertically for at least each one (1) foot horizontally (1 on 6). Where rock cuts have a face higher that ten (10) feet vertically, (3) foot berm shall be provided at each ten (10) foot level above the grade at the edge of the pavement. Side slopes shall not be graded so as to extend beyond the limits of the road right-of-way onto land not part of the subdivision unless a suitable slope easement has been properly established and granted by the affected property owner.

The Applicant acknowledges these requirements for excavation and grading. Excavation and grading will be performed during construction of the proposed roadway. Further grading analysis will be performed for the Definitive Plan.

N. Construction Cost Estimate

The applicant shall submit a detailed estimate for all materials to be used for construction within the proposed roadway layout and/or public utility easements, certified by the project's Registered Professional Engineer. Said estimate shall be based on the current edition of the "Standard Specifications for Highways and Bridges" of the Commonwealth of Massachusetts, and shall include:

1. Quantity, item number, unit price and total amount for each construction item
2. Total amount for cost of completion of project.
3. Costs adjusted to account for municipal prevailing wage rates
4. Costs adjusted to add a 20% inflation/safety factor
5. Engineering inspection, materials testing, legal and other soft costs.

The Applicant acknowledges these requirements for a construction cost estimate. A certified cost estimate will be provided at the time of submission of the Definitive Plan.

5. Design Factors

Describe briefly the following features including photographs, when possible:

a. Present visual quality of the area

The Site consists primarily of open agricultural land, predominantly grass-covered fields. The area to the north and east is bordered by a tree line and local roads. The surrounding area to the west, and south, is forested. Photos of the Site are attached.

b. Location of significant viewpoints

The Site is situated on the Southerly side of Buffington Hill Road and the Westerly side of Ridge Road. The Site perimeter is characterized by established vegetative cover along Buffington Hill Road and Ridge Road, with additional forested areas along the eastern and southern boundaries. Views of the Site from adjacent public roadways are limited and primarily seasonal, occurring during winter months when deciduous

vegetation is not in leaf. Representative viewpoint images from Google Earth are attached.

c. Historic structures

There are no historic structures on Site. Photos of the principal structure on Site are attached.

d. Architecturally significant structures

There are no architecturally significant structures in the vicinity of the Site. Photos of the principal structure on Site are attached.

e. Type of architecture for development

No structural developments are proposed as part of this subdivision application. Accordingly, type of architecture for development is not applicable and has not been provided.

f. Any factors contained in Section IV not specifically discussed in Section 2 or 4 of this DIS.

All factors contained in Section IV have been discussed in Sections 2 through 5 of this Development Impact Statement.

6. Plans

Describe how the project relates to any long range plans adopted by the Town of Worthington, or any regional plans prepared by the county, or regional planning agencies.

The subdivision plan is designed to be compatible with existing land use, preserves existing natural features, and does not require the extension of municipal infrastructure. The plan is consistent with the Town of Worthington's long-range planning objectives by adhering to Zoning By-Laws.

7. Phasing

If the development of the site will take place over more than one year, supply a schedule showing how the development will be phased. A flow chart is helpful. This timetable shall include the following elements:

a. Stripping or clearing of site, or both

b. Rough grading and construction

c. Construction of grade stabilization and sedimentation control structures.

Development of the site will not take place over more than one year. Accordingly, a schedule showing development phasing is not applicable and has not been provided.

Attachment A MassDOT Traffic Count Data

Latest Volume Count Detail
Criteria: From 1/1/1900 To 12/31/2049 12:00:00 AM

LOCATION INFO

Location ID	RPA03-108-9449
Type	SPOT
Functional Class	6
Located On	SPRUCE CORNER ROAD
Located On Alias	
Direction	2-WAY
Community	Goshen
MPO ID	
HPMS ID	
Agency	MHD

COUNT INFO

Count Status	Accepted
Start Date	Wed 8/23/2023
End Date	Thu 8/24/2023
Start Time	11:45 AM
End Time	11:45 AM
Direction	
Notes	
Count Source	RPA03-108-9449
Filename	
Weather	
Study	
Speed Limit	
Sensor Type	NA
Imported	11/27/2023 3:36 PM
Owner	rpa03

INTERVAL: 15-MIN

	15-min Interval				Hourly
Time	**1st**	**2nd**	**3rd**	**4th**	**Count**
0:00-1:00	0	1	0	0	1
1:00-2:00	0	0	0	0	0
2:00-3:00	0	0	0	0	0
3:00-4:00	0	0	0	0	0
4:00-5:00	0	0	0	0	0
5:00-6:00	1	0	1	1	3
6:00-7:00	1	1	1	3	6
7:00-8:00	2	1	2	4	9
8:00-9:00	2	0	1	4	7
9:00-10:00	3	2	5	3	13
10:00-11:00	1	1	0	0	2
11:00-12:00	0	0	0	3	3
12:00-13:00	2	3	0	3	8
13:00-14:00	0	3	1	0	4
14:00-15:00	1	2	3	3	9
15:00-16:00	4	4	4	4	16
16:00-17:00	3	2	2	4	11
17:00-18:00	6	1	0	2	9
18:00-19:00	3	3	1	0	7
19:00-20:00	0	1	3	0	4
20:00-21:00	5	1	1	1	8
21:00-22:00	1	0	0	0	1
22:00-23:00	2	0	0	0	2
23:00-24:00	0	0	0	0	0
Total					123

Total		123
AADT		107
AM Peak		08:45-09:45 14
PM Peak		15:00-16:00 16

Latest Volume Count Detail
Criteria: Location ID Included In List RPA02-129-0005

LOCATION INFO	
Location ID	RPA02-129-0005
Type	SPOT
Functional Class	6
Located On	PLAINFIELD ROAD
	PLAINFIELD
Direction	2-WAY
Community	Hawley
MPO ID	
HPMS ID	
Agency	MHD

COUNT INFO	
Count Status	Accepted
Start Date	Tue 9/6/2022
End Date	Wed 9/7/2022
Start Time	1:30 PM
End Time	1:30 PM
Direction	
Notes	
Count Source	RPA02-129-0005
Filename	
Weather	
Study	
Speed Limit	
Sensor Type	NA
Imported	12/21/2022 12:26 PM
Owner	rpa02

INTERVAL: 15-MIN

	15-min Interval				Hourly
Time	**1st**	**2nd**	**3rd**	**4th**	**Count**
0:00-1:00	0	1	2	0	3
1:00-2:00	0	0	0	0	0
2:00-3:00	0	0	0	0	0
3:00-4:00	0	0	0	0	0
4:00-5:00	0	0	0	1	1
5:00-6:00	0	0	0	2	2
6:00-7:00	0	5	3	2	10
7:00-8:00	3	3	3	5	14
8:00-9:00	3	7	7	9	26
9:00-10:00	5	3	6	4	18
10:00-11:00	2	5	1	3	11
11:00-12:00	7	4	1	2	14
12:00-13:00	1	6	5	6	18
13:00-14:00	4	5	2	4	15
14:00-15:00	4	10	3	2	19
15:00-16:00	4	2	5	5	16
16:00-17:00	3	5	5	9	22
17:00-18:00	1	6	1	7	15
18:00-19:00	2	2	4	5	13
19:00-20:00	2	3	1	1	7
20:00-21:00	0	0	1	0	1
21:00-22:00	0	0	0	2	2
22:00-23:00	1	0	1	0	2
23:00-24:00	0	0	0	0	0
Total					229

Total		229
AADT		219
AM Peak		08:15-09:15 28
PM Peak		16:00-17:00 22

Attachment B Site Photos

Figure 1 **Viewpoint of the Site from the existing driveway entrance connecting to Ridge Road facing west. Imagery provided by Google Earth, dated 08/2025.**

Figure 2 **Viewpoint of the Site from a break in the perimeter vegetation where access is provided off Buffington Hill Road facing south. Imagery provided by Google Earth, dated 09/2025.**

Figure 3 **Viewpoint of the Site from Ridge Road south of the driveway where no trees line the perimeter facing west. Imagery provided by Google Earth, dated 08/2025.**

Figure 4 **Viewpoint of the Site from Ridge Road near the southeastern corner of the property facing west. Imagery provided by Google Earth, dated 08/2025.**

Figure 5 **The principal structure on Site. Imagery provided via the Property Assessment Card for Lot 28. The photo is estimated to be taken in 2018.**

Figure 6 **The principal structure on Site. Imagery provided via the Property Assessment Field Card for Lot 28 and dated 08/15/2018.**

Site Photographs from June 9 and August 1, 2023
190 Ridge Road, Worthington, MA

View of Northern Field (facing southeast) from northern edge of property

View of Southern Field (facing north) from its southwestern portion

Watts Stream and remnants of beaver dam (facing south) roughly 450 feet west of Southern Field

Bordering Vegetated Wetland ("BVW") in former beaver impoundment of Watts Stream; view west

Watts Stream downstream of beaver dam; view northwest

Wetland 1 at western edge of Southern Field; view west

One of the streams connecting Wetland 1 in Southern Field to Watts Stream; view east

Representative view of staking/flagging of Wetland 1 boundary in Southern Field; view east

Damaged culvert at the head of Wetland 2 near southeastern corner of Southern Field

View of Southern Field's eastern edge just north of Wetland 2 and damaged culvert (i.e., no wetlands)

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190 Ridge Road Preliminary Plan of Subdivision – Draft Environmental Analysis

To: Board of Selectmen, Worthington Town Planning Board

From: WSP USA Inc.

Cc: BWC Wades Stream, LLC

Ref: US-EI-3652230438

Date: 2026-01-29

Subject: 190 Ridge Road Preliminary Plan of Subdivision – Draft Environmental Analysis

Proposed Plan of Subdivision

BWC Wades Stream, LLC (the Applicant/Subdivider) is proposing to divide the Property at 190 Ridge Road identified on Tax Map 407 as Lot 28 into three lots. An approximately 400-foot-long minor dead-end road will be constructed off an existing curb cut with Ridge Road. All three lots shall have adequate vehicular, pedestrian, and bicycle access from the public way: Lot A from the proposed minor road, Lot B from Ridge Road, and Lot C from Buffington Hill Road. It is the opinion of the Applicant and Engineer that Ridge Road and Buffington Hill Road are of sufficient condition and width to provide access for emergency services and to carry the traffic accessing the two respective lots. The proposed road has been designed in accordance with the *Rules and Regulations Concerning the Subdivision of Land Worthington, Massachusetts* and therefore shall be of sufficient condition and width to provide access as well. It is also the opinion of the Applicant and Engineer that the surrounding municipal infrastructure is sufficient and capable of handling the subdivision as the volume of traffic, stormwater runoff, or any other factor shall not increase by way of the subdivision.

Ground and Surface Water Impact

Subdividing the Property shall not have any impact upon ground and surface water quality and recharge. Since an existing curb cut with Ridge Road will be utilized for the proposed road, the impervious material of the proposed road primarily aligns with an existing impervious driveway. This practice minimizes the additional impervious area being added to the land and will produce a minimal increase in stormwater runoff respectively. Further, the proposed minor dead-end road will have a teardrop cul-de-sac

turnaround. The island radius within the cul-de-sac shall be forty (40) feet and designed as a landscaped depression to accept and infiltrate stormwater runoff from the surrounding impervious area. Stormwater runoff modeling and calculations shall be provided with the Definitive Plan along with proposed grade changes. In the case that the cul-de-sac island does not provide sufficient stormwater treatment and/or recharge, roadside swales or trenches shall be designed to accommodate the required volume. With the land primarily maintaining its current use, the estimated phosphate and nitrate loading on groundwater and surface water from the agricultural activities on the Property shall be equivalent to the loading experienced under existing conditions.

Material Effects upon Flora and Fauna

Subdividing the Property shall not have any effects upon important wildlife habitats, outstanding botanical features, and scenic or historic environs. The subdivision does not include development which would in any way physically divide the land nor destroy existing habitat(s). Minimal disturbance to the existing vegetative cover shall occur for the construction of the proposed minor road and associated stormwater best management practices (BMPs). Appropriate erosion and sediment control practices shall be implemented for construction of the road. The vegetative cover being disturbed consists solely of active farmland and no trees nor shrubbery shall be removed from the land. Therefore, the impact to vegetative cover does not correspond with an impact to potential existing habitats. For informational purposes of the existing state of wildlife, botanical features, and scenic and historic environs, figures for each factor have been included as an Attachment to this analysis. As no impact on these factors is anticipated by subdividing the Property, the proposed condition shall remain identical to the condition displayed in the figures.

Impact on Erosion Control Capabilities

Subdividing the Property shall have a minimal effect on the soil and vegetative cover of the land. The Property is primarily actively farmed hay fields and forested land. Minimal earthwork shall accompany the subdivision in the form of grading the proposed road to meet design regulations and associated stormwater infiltration practices. Minimal vegetative disturbance to the actively farmed hay field shall occur in association with the construction of the minor road and stormwater BMPs. Furthermore, the associated stormwater BMPs shall provide adequate quality control of the runoff and prevent erosion and sedimentation to the maximum extent possible. The erosion control capabilities of the existing vegetative cover throughout most of the land shall not be impacted and are expected to continue providing sufficient stability to prevent erosion. Additional erosion control measures which may be implemented in association with the proposed road development include trenches and/or swales. No other development which has associated risks of erosion, silting, or other instability shall take place as part of the subdivision.

“Do Nothing” Alternative

The “Do Nothing” Alternative is an alternate option in which no action is taken, and the Property is not subdivided. In proposing no action or change, this alternative would have no impact on the

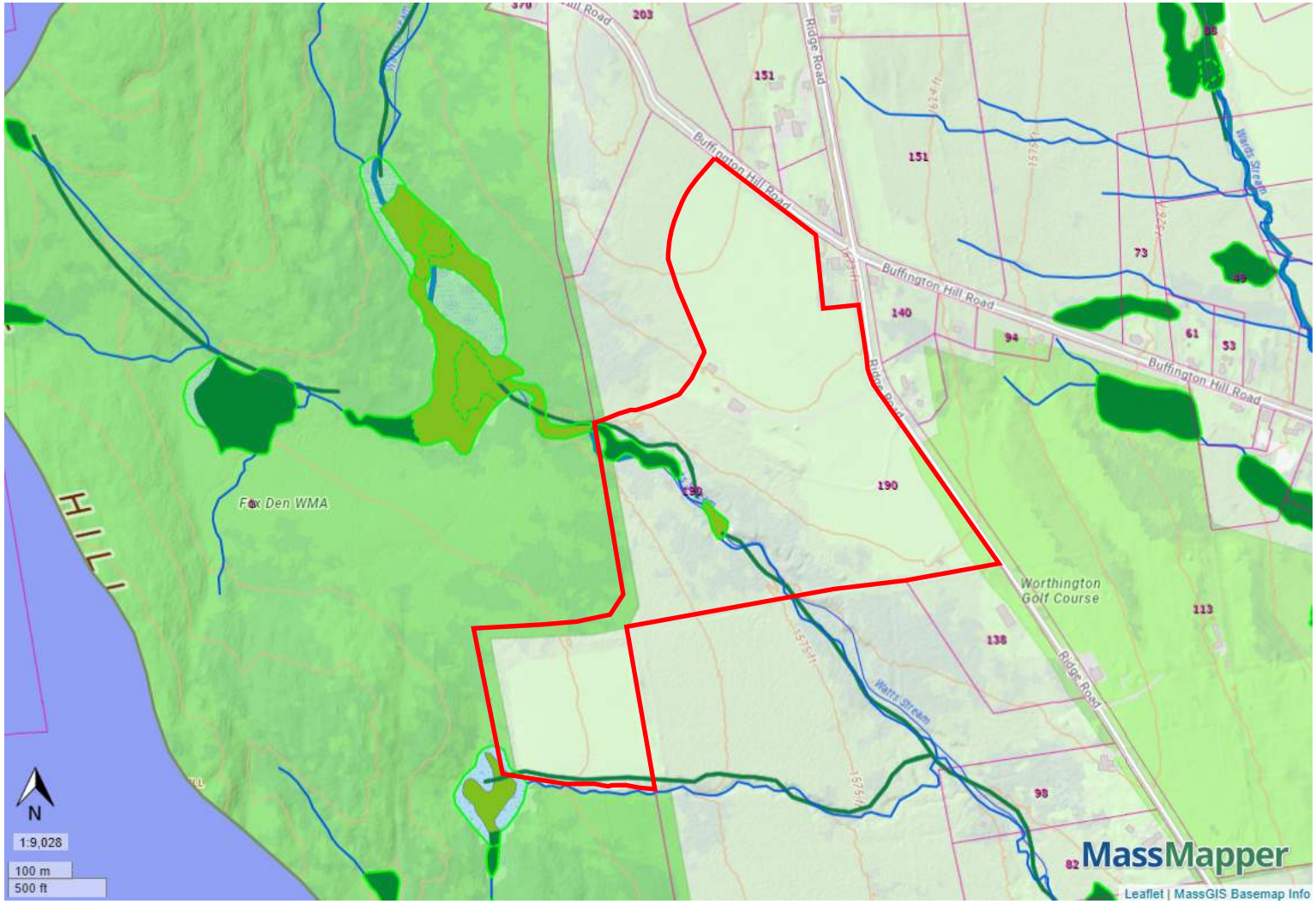
environmental factors discussed herein but would also not accomplish the goals of the landowner and Applicant. The “Do Nothing” Alternative does not allow the landowner the potential economic and/or legal benefits of subdivision, thereby failing to meet their goals for the Property. Since the proposed plan of subdivision has minimal to no environmental impact, as outlined and supported through this Environmental Analysis report, but succeeds in the owner’s and Applicant’s goal of dividing the Property into three lots, it is the preferred plan.

Conclusion

Subdividing the Property at 190 Ridge Road will have minimal to no direct nor indirect environmental impact and has a functionally equivalent effect on environmental factors as the “Do Nothing” Alternative.

Attachment A Figures

Wildlife Features



Property Tax Parcels

Outstanding Resource Waters

- ACEC
- Cape Cod National Seashore
- Protected Shoreline
- Public Water Supply Watershed
- Retired Public Water Supply
- Scenic/Protected River
- Wildlife Refuge

DEP Wetlands Linear Features

- SHORELINE
- HYDROLOGIC CONNECTION
- MEAN WATER LINE
- APPARENT WETLAND LIMIT
- CLOSURE LINE
- EDGE OF INTERPRETED AREA

NWI Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Other

DFW Coldwater Fisheries Resources

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Botanical Features

Property Tax Parcels

NWI Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Other

Prime Forest Land

- Prime 1
- Prime 2
- Prime 3
- Statewide Importance
- Local Importance
- Prime 3 Wet
- Statewide Importance Wet
- Local Importance Wet
- Unique Wet
- Non-Forested Land

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Historic & Scenic Features

Property Tax Parcels

Interior Forest

- Interior Forest
- Adjacent Non-forested Wetland
- Adjacent Non-forested Salt-water Wetland
- Adjacent Open Water

MassHistoric Commission Inventory (Points)

- National Register of Historic Places
- Preservation Restriction
- Massachusetts Historic Landmark
- Local Historic District
- NRHP and LHD
- Inventoried Property

MassHistoric Commission Inventory (Areas)

- National Register of Historic Places
- Preservation Restriction
- Massachusetts Historic Landmark
- Local Historic District
- NRHP and LHD
- Inventoried Property

Land Cover Land Use (2016)

- Residential - Single Family
- Residential - Multi Family
- Residential - Other
- Commercial
- Industrial
- Mixed Use - Primarily Residential
- Mixed Use - Primarily Commercial
- Mixed Use - Other
- Other Impervious
- Right-of-way
- Cultivated
- Pasture or Hay
- Developed Open Space
- Deciduous Forest
- Evergreen Forest
- Grassland
- Scrub or Shrub
- Bare Land
- Forested Wetland
- Non-forested Wetland
- Saltwater Wetland
- Water
- Unconsolidated Shore
- Aquatic Bed

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