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IMPACT ASSESSMENT & MITIGATION PLAN

GRIP ROAD GRAVEL MINE
SKAGIT COUNTY, WA

DECEMBER 2021

NW ECOLOGICAL SERVICES
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EXECUTIVE SUMMARY

Northwest Ecological Services, LLC (NES) was retained to complete an impact assessment and mitigation plan for a proposed project located in unincorporated Skagit County, Washington. This report describes existing conditions, analyzes proposed impacts, and as needed presents mitigating actions based on the current design that will maintain, protect and/or enhance existing critical areas and associated buffer functions in accordance with applicable environmental regulations.

This report is intended for inclusion with future development permit submissions to Skagit County (County), the U.S. Army Corps of Engineers (Corps), Washington State Department of Ecology (WDOE), and the Washington Department of Fish and Wildlife (WDFW) as may be required.

The project area is located north of Grip Road, east of the intersection of Grip and Prairie Road (Section 03, Township 35, Range 04; Section 34, Township 36, Range 04; Section 27, Township 36, Range 04W.M.). The review area is part of a larger approximately 735-acre tract of land that is under single ownership and managed as natural resource land- forestry. Miles Sand and Gravel has proposed conversion of a portion of this forestry land to a gravel mine.

The mine location is approximately 2.2 miles north of Grip Road, and south of the Samish River. Materials from the proposed gravel mine will be transported from the mine via an existing gravel roadway that was installed and has been used for past forestry management of the properties. Skagit County has determined that use of the haul road to transport material from the mine site constitutes a change of use and may result in potential impacts to functions and values of adjacent critical area and their buffers and has required a critical area assessment pursuant to Skagit County Code (SCC) 14.24.060.

The NES assessment does not include construction or use of the mine site, but rather impacts associated with the use of the roadway to transport materials from the mine site only.

Per Skagit County requirement, NES performed a critical area assessment for land within 300-ft of the approximately 2.2 mile long haul road. Graham- Bunting Associates (GBA) prepared a wetland delineation and fish and wildlife assessment of the mine site in 2015 with an addendum in 2017.

Currently the NES review area is undeveloped and forested and has been actively managed in forestry for decades. The haul road vicinity was reviewed for critical areas by NES in November and early December of 2021. A total of 36 wetlands, one fish bearing stream (Swede Creek), and 21 seasonal, non-fish bearing streams are present within 300 feet of the roadway.

Swede Creek is mapped by WDFW as fish bearing, with the presence of multiple species of salmonids and trout, a number of which are state or federally listed species. Oregon spotted frog (*Rana pretiosa*) critical habitat is mapped approximately 700 feet northeast of the site in the Samish River and associated wetlands. The only wetland within the review area that meets the habitat needs for this species and contains potential habitat for Oregon spotted frog is Wetland JJ. This wetland also has a downstream connection via an offsite stream to mapped critical

habitat associated with the Samish River. No Oregon spotted frogs were observed in Wetland JJ during the site visits. However, our observations were limited to one day in this area, and to limited to observations along one edge of the wetland.

The haul road is currently gravel, and the drive surface is approximately 20 to 25 feet wide on average. Ditches border both sides, meeting Skagit County road standards. The project does not include expansion of the road footprint, but the steeper section of roadway from the bridge across Swede Creek to the north need to be resurfaced (paved) to meet road safety standards. This is anticipated to include paving of approximately 500 linear feet of road.

The proposed change in use does not extend the footprint of the road prism. Due to the length of time the road has been present, no actions proposed outside the existing road prism, and continued similar use, no new direct impacts to wetlands, steams, or buffers are anticipated.

The use of the haul road to transport material from the proposed gravel mine will result in a greater number of trips per day than compared to the existing forestry practice. This additional traffic may potentially result in indirect impacts to water quality and potentially wildlife functions associated with site critical areas or their buffers. However, these indirect impacts are anticipated to be minor for reasons stated herein. To minimize indirect impacts, mitigation measures recommended include the following actions:

- During resurfacing- establish erosion control and BMP's to ensure protection of downstream waters.
- Haul trucks shall be maintained in good working condition such that petroleum products or other harmful chemicals are not leaked into adjacent critical areas.
- During operation of the mine, maintain existing forested vegetation adjacent to the roadway, particularly in wetlands and buffers. This forested buffer along the road provides water quality filtration of surface waters prior to entering adjacent wetlands and streams and provides a buffer and screening for wildlife using the interior of the site.
- Review the proposal for compliance with applicable County/ State stormwater management requirements.

NES QUALIFICATIONS

NES is a specialized service-oriented environmental consulting firm based in Bellingham, Washington. We provide a range of biological services to both the public and private sectors. Our services include: wetland assessments, biological assessments, wetland restoration and mitigation plans, natural resource analysis, environmental regulatory compliance, landscape and ecological design, and environmental impact assessment of plants, animals, fish and sensitive habitats. NES professionals have performed wetland and biological assessments over 33,000 acres [1991-2020] in Whatcom, Skagit, Island, Snohomish, and King Counties.

NES staff qualifications summary:

- Molly Porter is an ecologist with NES and has provided environmental services within the north Puget Sound area since 2004. Ms. Porter obtained a Bachelor of Science in Environmental Science from Huxley College of the Environment at Western Washington University (WWU). She is certified through SWS as a PWS, #2064.
- Collin Van Slyke is an ecologist with NES, providing environmental services for projects throughout the north Puget Sound since 2014. Mr. Van Slyke obtained a Bachelor of Science in Environmental Science from Huxley College of the Environment at Western Washington University. He is certified through SWS as a PWS, #3129.
- Candice Trusty is an ecologist with NES and has been providing environmental services within the north Puget Sound since 2019. Ms. Trusty obtained a Bachelor of Science in Environmental Science from Huxley College of the Environment at Western Washington University. Her experience includes the assessment of wetland and fish & wildlife critical areas, fish removal, biological surveying, and habitat restoration. She is certified through SWS as a WPIT.
- Michael Whitehurst is an ecologist with NES. Mr. Whitehurst obtained a Bachelor of Science in Marine Biology from the University of West Florida and certificate in wetland science and management from the University of Washington. His experience includes marine and freshwater organism identification, marine and terrestrial botany, and water quality sampling and analysis.
- Alexandre Pederson is an ecologist with NES with a Bachelor of Science in Ecological Engineering from Oregon State University. His experience includes bioremediation, watershed and stormwater management, and sampling and analysis of biological, chemical, and physical properties of soils.

DISCLAIMER

Wetland, stream, and lake delineations and determinations are based upon protocols defined in manuals and publications produced by federal, state and local agencies. The wetland methodology used in this report is consistent with methods described in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Corps, 2010) and the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory, 1987), as required by WAC 173-22-035. The findings were based on observations of conditions at the time of the site visit(s).

Mitigation plans are developed to meet local regulations. This report does not guarantee agency concurrence or permit approval. This plan requires local agency concurrence prior to implementation. The recommendations are based on conditions at the time of the site visit(s) and development plans provided by the Client and Client representatives. Although the plan is carefully designed to facilitate success, no guarantees are given that the project will meet all performance standards. Project success depends on many unforeseen and uncontrollable events, achieving success can be greatly improved through:

- Ensuring a qualified ecologist is on site during mitigation project construction
- Installing the mitigation project as specified in this report
- Maintaining the mitigation project as specified in this report (ideally by a landscape professional that specializes in restoration and/or wetland mitigation)
- Implementing any recommended contingency measures in a timely manner

This report is provided for the use and named recipient only and is not intended for use by other parties for any purpose. This report does not guarantee agency concurrence or permit approval.

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1.0 INTRODUCTION

1.1 Scope of Work

Northwest Ecological Services, LLC (NES) was retained to complete an impact assessment and mitigation plan for a proposed project in unincorporated Skagit County, Washington. This report describes existing conditions, analyzes proposed impacts, and as needed presents mitigating actions based on the current design that will maintain, protect and/or enhance existing critical areas and associated buffers in accordance with applicable environmental regulations.

This report is intended for inclusion with future development permit submissions to Skagit County (County), the U.S. Army Corps of Engineers (Corps), Washington State Department of Ecology (WDOE), and the Washington Department of Fish and Wildlife (WDFW) as may be required.

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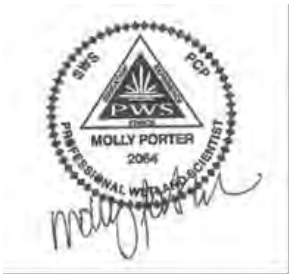

1.2 Project Location

The project area is located north of Grip Road, east of the intersection of Grip and Prairie Road (Section 03, Township 35, Range 04; Section 34, Township 36, Range 04; Section 27, Township 36, Range 04W.M.) (Figure 1, Appendix B). The NES review area encompasses approximately 143-acres within portions of parcels: P35704, P125622, P125623, P125624, P125625, P125626, P125627, P125628, P125629, P125630, P125631, P125632, P125633, P125646, P125647, and

P125648. An aerial photograph of the review area and surrounding landscape is included as Figure 2 (Appendix B). Only areas owned by the applicant were directly accessed.

1.3 Project Overview & Background

The project area is part of a larger approximately 735-acre tract of land that is under single ownership and managed as natural resource land- forestry. Miles Sand and Gravel has proposed conversion of a portion of this forestry land to a gravel mine. As part of the permit review process, Skagit County has requested a critical area review along the existing gravel forestry road that is proposed to be used to transport gravel from the mine site. Per Skagit County requirement, NES has performed a critical area assessment for land within 300-ft of the approximately 2.2 mile long haul road. NES review does not include the mine site itself. Graham- Bunting Associates (GBA) prepared a wetland delineation and fish and wildlife assessment of the mine site in 2015 with an addendum in 2017.

The subject parcels are zoned rural resources- natural resource lands. The proposed project includes development of an approximate 68-acre gravel mine within the larger 735-acre property. The mine location is approximately 2.2 miles north of Grip Road, and south of the Samish River. The subject property is currently in actively managed forestry and has been for some time. Prior to current ownership the properties were owned by the Trillium Corporation, who also managed the land in forestry.

Materials from the proposed gravel mine will be transported from the mine via an existing gravel roadway that was installed for and has been used for past forestry management of the properties.

The project does not include expansion of the road footprint, but the steeper section of roadway (with a more than 12 percent slope) from the bridge across Swede Creek to the north needs to be resurfaced to meet road safety standards. This is anticipated to include paving approximately 500 linear feet of road. An as-built of the entire existing roadway is included in Appendix C. The area to be resurfaced is detailed in Figure 3 (Appendix B).

During local permitting, Skagit County has determined that use of the haul road to transport material from the mine site constitutes a change of use and may result in potential impacts to functions and values of adjacent critical area and their buffers and has required a critical area assessment pursuant to Skagit County Code (SCC) 14.24.060.

The NES assessment does not include construction or use of the mine site, but rather impacts associated with the use of the roadway to transport materials from the mine site only.

2.0 BASELINE INFORMATION

The haul road vicinity was reviewed for critical areas by NES in 2021. The following is a summary of that report, for more detail please refer to the 2021 critical areas report (NES, 2021).

2.1 Existing Conditions

The property is currently forested and the review area is undeveloped with the exception of the existing gravel access road, a few parking pullouts, and bridge crossing Swede Creek. A number of smaller, less frequently used gravel roads extend from the main road. The properties are managed in forestry, and have been used in this capacity for decades. The majority of the area along the roadway has not been harvested for some time (since the late 1990's according to aerial photograph review), with exception of two areas totaling approximately 42-acres that appear to have been harvested in 2018.

Topography onsite is variable. Steeper slopes are present along the ravine containing Swede Creek and west of the road in Area 3 (Figure 7, Appendix B). LiDAR can be seen in Figure 4 (Appendix B).

The review area contains wetlands and streams as detailed below. Potential geo-hazard areas have been addressed by others.

2.2 Wetlands

NES identified 36 wetlands within the vicinity of the roadway (Figures 4 to 9, Appendix B). Table 1 provides a classification summary for the identified wetlands. For additional detail refer to the 2021 NES critical area report.

Table 1. Wetland Classification Summary

Wetland	Hydrogeomorphic Class	Cowardin Classification	Size
A	Depressional	PSS	2261 sq. ft.
AA	Depressional	PSS	78 sq. ft.
B	Depressional	PSS	1049 sq. ft.
BB	Slope	PFO/PSS/PEM	2.5 acres
C	Slope	PSS	213 sq. ft.
CC	Depressional	PSS	5696 sq. ft.
D	Riverine	RFO	1501 sq. ft. *
DD	Slope	PSS	4202 sq. ft.
E	Riverine	RFO	2357 sq. ft.
EE	Slope	PFO/PSS	0.5 acres
F	Slope	PSS	681 sq. ft.
FF	Depressional	PSS	497 sq. ft.
G	Slope	PSS	173 sq. ft.
GG	Depressional	PSS	1154 sq. ft.
H	Slope	PFO	7987 sq. ft.
HH	Depressional	PFO	0.5 acres *
J	Slope	PFO/PSS	0.3 acres
JJ	Depressional	PSS/PEM	3.7 acres *
K	Riverine	RSS	391 sq. ft.
KK	Slope	PSS	3142 sq. ft.
L	Riverine	RSS	207 sq. ft
LL	Slope	PFO	0.2 acres
M	Riverine	RSS	1054 sq. ft.
MM	Depressional	PFO/PEM	6.0 acres *
N	Riverine	RFO	0.5 acres
NN	Depressional	PFO	213 sq. ft.
P	Depressional	PFO	1.6 acres *
PP	Depressional	PFO	77 sq. ft.
R	Depressional	PFO	0.3 acres
T	Slope	PFO/PSS	0.8 acres
U	Depressional	PFO/PSS	7.9 acres *
V	Depressional	PSS	1387 sq. ft.
W	Depressional	PSS	4667 sq. ft.
X	Slope	PSS	0.3 acres *
Y	Slope	PSS	840 sq. ft.
Z	Depressional	PSS	402 sq. ft.

(PSS: Palustrine Scrub Shrub, PFO: Palustrine Forested, PEM: Palustrine Emergent,
RFO: Riverine Forested, RSS: Riverine Scrub-shrub)
* total area is estimated due to the wetland extending off-site

NES rated site wetlands using the current WDOE wetland rating system and Table 2 summarizes the results.

Table 2. Wetland Rating and Functional Assessment

Wetland	Improving Water Quality	Hydrologic	Habitat	Total Score	WDOE Category
A, B	M/L/H (6)	L/L/L (3)	L/H/M (6)	**15**	**IV**
C, F	L/L/H (5)	L/L/L (3)	L/H/M (6)	**14**	**IV**
D, E, K, L, M	M/L/H (6)	M/M/M (6)	L/H/H (7)	**19**	**III**
N	M/M/H (7)	M/M/M (6)	M/H/H (8)	**21**	**II**
G	M/L/H (6)	L/L/M (4)	L/H/M (6)	**16**	**III**
H, LL	L/L/H (5)	L/L/M (4)	L/H/H (7)	**16**	**III**
J	L/L/H (5)	L/L/M (4)	M/H/H (8)	**17**	**III**
P, W	M/L/H (6)	M/L/M (5)	L/H/M (6)	**17**	**III**
R	M/L/H (6)	M/L/M (5)	M/H/M (7)	**18**	**III**
T, EE	L/L/H (5)	L/L/M (4)	M/H/M (7)	**16**	**III**
U	M/L/H (6)	M/M/M (6)	M/H/H (8)	**20**	**II**
V	M/L/H (6)	M/L/L (4)	L/H/M (6)	**16**	**III**
X, Y	L/L/H (5)	L/L/M (4)	L/H/L (5)	**14**	**IV**
Z, GG	M/L/H (6)	M/L/L (4)	L/H/L (5)	**15**	**IV**
AA	L/L/H (5)	M/L/M (5)	L/H/L (5)	**15**	**IV**
BB	M/L/H (6)	L/M/M (5)	M/H/M (7)	**18**	**III**
CC	M/L/H (6)	M/L/M (5)	L/H/L (5)	**16**	**III**
DD	L/L/H (5)	L/L/M (4)	L/H/M (6)	**15**	**IV**
FF	M/L/H (6)	L/L/L (3)	L/H/L (5)	**14**	**IV**
HH, KK	M/L/H (6)	M/L/M (5)	L/H/H (7)	**18**	**III**
JJ	M/L/H (6)	H/L/M (6)	M/H/H (8)	**20**	**II**
MM/NN/PP	M/L/H (6)	M/M/M (6)	M/H/H (8)	**20**	**II**

Site potential score /landscape potential score/ value score (total points for function)
L=Low; M=Moderate, H=High

2.3 Streams, Lakes, and HCAs

No lakes or frequently flooded areas are present within the vicinity of the site.

Swede Creek, a fish bearing stream bisects the southern portion of the site (Figure 4 and 6, Appendix B). NES mapped 21 smaller, seasonal streams within the vicinity as well (Figures 3 to 9, Appendix B). Only Swede Creek is mapped as fish bearing. The smaller tributary streams are not mapped as fish bearing and generally are small or on steeper slopes and do not appear likely to support fish populations.

Fish and Wildlife habitat conservation areas (HCAs) or protected species potentially present in the vicinity include a variety of salmonids in Swede Creek. WDFW mapping indicates the stream as mapped with: documented spawning habitat for coho salmon (*Oncorhynchus kisutch*); documented presence of steelhead salmon (*O. mykiss*) and cutthroat trout (*O. clarki clarki*); and the stream is mapped as gradient accessible to Chinook (*O. tshawytscha*), pink (*O. gorbuscha*), and chum salmon (*O. keta*)- with documented chum 0.2 miles downstream of the onsite bridge.

Steelhead, Chinook, chum, and coho salmonid are documented downstream in the Samish River. A partial fish passage barrier (culvert) is mapped downstream under Grip Road, just before Swede Creek flows into the river.

Puget Sound Chinook and steelhead salmon are federally listed as a Threatened species and steelhead salmon are listed as a Candidate species in Washington State. All of the species listed above are state Priority Species by Washington State.

Oregon spotted frog (*Rana pretiosa*) is a native species that can be found in Skagit County. This species is listed as federally Threatened and Endangered by Washington State. Critical habitat is present approximately 700 feet northeast of the review area associated with the Samish River and adjacent wetlands. Habitat for Oregon spotted frog is potentially present in one wetland within the site (Wetland JJ) and this wetland appears to have a surface connection to critical habitat. Frogs were not observed in Wetland JJ but observations were limited to one day in this area, and to limited to observations along one edge of the wetland.

Pileated woodpecker *(Dryocopus pileatus*) excavations were observed in one location mid-site. Pileated woodpecker are a Priority species in Washington State.

2.4 Regulatory Summary

Agencies with regulatory authority over the site wetlands and streams are summarized in Tables 3 and 4.

Table 3. Critical Areas Summary- Wetlands

Feature		Regulatory Authority				Corps Hydrology Classification	Regulated Buffer (ft)
	WDOE Category (habitat points)	Skagit County	Corps	WDOE	WDFW		
Wetlands A, B, DD	IV (6)	X	X	X		Adjacent to RPW	40
Wetlands C, F	IV (6)			X		Isolated	NA
Wetlands D, E, H, K, L, M, BB, EE, KK, LL	III (7)	X	X	X	X	Abutting an RPW	110
Wetlands G, P	III (6)	X	X	X		Adjacent to RPW	110
Wetlands N, U, JJ, MM, NN, PP	II (8)	X	X	X	X	Abutting an RPW	225
Wetlands R, T, HH	III (7)	X	X	X		Adjacent to RPW	110
Wetland J	III (8)	X	X	X	X	Abutting an RPW	110
Wetlands V, W	III (6)	X		X		Isolated	110
Wetlands X, GG	IV (5)	X	X	X		Adjacent to RPW	40
Wetlands Y, Z, AA, FF	IV (5)			X		Isolated	NA
Wetland CC	III (5)	X	X	X		Adjacent to RPW	110

NA = Not anticipated to be regulated by Skagit County

Table 4. Critical Areas Summary- Streams

Feature		Regulatory Authority				Corps Hydrology Classification	Regulated Buffer (ft)
	Stream Type	Skagit County	Corps	WDOE	WDFW		
Swede Creek	F	X	X	X	X	RPW	150
Streams 1-18, 20-22	Ns	X	X	X	X	RPW	50

F= Fish Bearing

2.4.1 Local- Skagit County CAO

The review area contains the following wetlands, streams, and/or HCAs under the jurisdiction of the Skagit County CAO:

- Wetlands A, B, D, E, G, H, J, K, L, M, N, P, R, T, U, V, W, X, BB, CC, DD, EE, GG, HH, JJ, KK, LL, MM, NN, and PP
- Swede Creek
- Streams 1-18 and 20-22

Skagit County regulates all wetlands, with the exception of Category III and IV wetlands smaller than 1,000 sq. ft. that do not provide suitably significant or unique characteristics as defined by the CAO (SCC 14.24.230(6)(a)). Under the 2014 Wetland Rating System, Wetlands C, F, Y, Z, AA, and FF are Category IV or III wetlands with five or six habitat points, and appear to be smaller than 1,000 sq. ft. These wetlands appear to meet the criteria listed in SCC 14.24.230(6)(a), therefore, **Skagit County does not appear to regulate Wetlands C, F, Y, Z, AA, and FF.** Other wetlands (G, K, L, MM, and PP) also meet the category and size threshold but contain unique characteristics listed in SCC 143.230(6)(a), such as location in a riparian corridor, and are therefore anticipated to be regulated by the County.

Skagit County Code states that Category III and IV wetlands between 1,000 and 4,000 sq. ft. are exempt from the mitigation sequencing requirement to avoid impacts, provided that they meet the criteria listed in SCC 14.24.230(6)(a), and that project impacts are fully mitigated. **Wetlands A, B, V, and GG appear to be less than 4,000 sq. ft. and therefore exempt from the mitigation sequencing requirement of avoidance.**

Skagit County requires a buffer around regulated critical areas to protect functions. The buffer must remain naturally vegetated except where it can be enhanced to improve functions. Buffer widths vary depending on wetland Category, wildlife habitat score, and proposed land use impact. Forestry is considered a low intensity land use under SCC 14.24.230 but commercial use is considered high.

Section 5.2.2 of the GBA report (GBA 2015) describes their approach to the proposed land use intensity impact and argues that a moderate land use intensity should apply to the proposed gravel mine rather than a high land use impact. Their logic appears sound and was originally

approved by Skagit County. Land use impact associated with the haul road is also likely to be less than that of the mine site itself, as the road is pre-existing.

Skagit County issued a forest practice conversation permit and SEPA determination for the project, based on the moderate intensity land use, but this has been withdrawn. Based on the past determination the buffers stated in this report are those for a moderate intensity land use impact. If a high intensity land use impact is applied buffers will be larger.

The remaining wetlands (Wetlands D, E, G, H, J, K, L, M, N, P, T, Y, U, W, X, BB, CC, DD, EE, HH, JJ, KK, LL, and MM) are greater than 4,000 sq. ft. or provide suitably significant or unique characteristics as defined by the CAO [SCC 14.24.230[6)(a)]. **Buffers according to SCC 14.24.230(1)(b) using a combination of standard or optional wetland buffers, with a moderate land use impact are shown in Table 3**.

Skagit County requires a fish and wildlife HCA site assessment for any project within 200 feet of streams and rivers (SCC 14.24.520). Riparian buffers associated with site rivers and streams are based on DNR water type, according to SCC 14.24.530(1)(c). DNR mapping within this site only includes Swede Creek. The smaller streams are not mapped but meet the criteria of seasonal, non-fish bearing streams and are anticipated to be regulated by the County as such. **Buffers anticipated for streams within this site are shown in Table 4.** Seeps in the bank of Swede Creek are not listed in Table 4. The County may also regulate these features, potentially as seasonal, non-fish bearing streams. If so a 50-foot buffer would apply.

Skagit County requires that buildings and other structures are **setback a minimum of 15 feet from the edge of critical area buffers to allow for a maintenance corridor**, or from the critical areas where no buffer is required (SCC 14.24.080[4]). Uses allowed within the 15-foot maintenance corridor include: landscaping with non-invasive species; uncovered decks; building overhangs up to 18 inches; impervious surfaces such as driveways and patios, provided that they may be subject to special drainage provisions; and trails.

2.4.2 State and Federal

Activities altering wetlands, streams, and other regulated water bodies may require permit authorization from the Corps under Section 404 of the federal Clean Water Act (CWA) (33 U.S.C. § 1251 et seq.) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 401). The Corps appears to have jurisdiction over wetlands and streams as stated above in Tables 3 and 4.

WDOE has authority over discharge into all wetlands (including isolated wetlands) and streams and can impose buffers and compensatory mitigation for impacts. WDOE reviews all permits received by the Corps for 401 Water Quality Certification. WDOE requires an "individual" review of all wetland disturbances greater than one-half acre or those that require additional review. Water Quality Certification is required for all Individual Permit applications.

The WDFW requires issuance of a Hydraulic Project Approval (HPA) prior to any activities that may directly or indirectly affect streams or associated wetlands. WDFW is anticipated to have jurisdiction of Swede Creek and potentially contributing tributaries and wetlands.

Only the aforementioned agencies have the authority to make jurisdictional determinations.

3.0 IMPACT ASSESSMENT

3.1 Proposed Design Plan

As previously described in Section 1.3, the proposed project does not include any construction or expansion of the roadway outside of the existing developed road prism. Rather this assessment considers potential impacts associated with the change in use of the haul road to a road used to transport mine materials, and the potential road resurfacing shown in Figure 3 (Appendix B).

3.2 Code Compliance

Skagit County has required a critical area review for the proposed project pursuant to SCC 14.24.060. and 14.24.080. The following section summarizes criteria from SCC 14.24.080 and includes details on how the proposed project is meeting each.

(i) Project description that includes a detailed narrative describing the project, its relationship to the critical area and its potential impact to the critical area; and

A project description was included above in Section 1.3. Potential impacts to site critical areas are discussed below in Section 3.4.

(ii) A copy of the site plan for the project proposal including a map to scale depicting critical areas, buffers, the development proposal, and any areas to be cleared; and

The existing road is shown in Figure 2 (Appendix B) and in the as built drawings in Appendix C. The proposal areas to be resurfaced are shown in Figure 3 (Appendix B).

(iii) Identification and characterization of all critical areas and buffers adjacent to the proposed project area; and

All wetland, streams, and HCAs in the vicinity of the haul road are detailed in the NES 2021 critical area report and are shown in Figures 3 to 9 (Appendix B).

(iv) An assessment of the probable cumulative impacts to critical areas resulting from development of the site and the proposed development; and

Potential impacts to site critical areas, including cumulative impacts are discussed below in Section 3.4.

(v) A description of the proposed stormwater management plan for the development and consideration of impacts to drainage alterations; and

Based on our understanding, a stormwater plan has not been required to date. No earthwork, grading, or resulting alterations/ impacts to drainages have been proposed.

(vi) A description of efforts made to apply mitigation sequencing pursuant to Subsection (6)(b) of this Section; and

Mitigation sequencing has been adhered to as described in Section 3.3.

(vii) A proposed mitigation plan including land use restrictions and landowner management, maintenance and monitoring responsibilities; and

The project does not include any direct wetland, stream, or buffer impact. Therefore, traditional mitigation measures such as wetland or buffer enhancement have not been presented.

The use of the haul road to transport material from the proposed gravel mine will result in a greater number of trips per day than compared to the existing forestry practice. This is anticipated to potentially result in indirect impacts to water quality and potentially wildlife functions associated with site critical areas or their buffers (as discussed below). These indirect impacts are anticipated to be minor. Mitigation measures have been recommended to minimize indirect impacts, as described in Section 4.0.

(viii) Regulatory analysis including a discussion of any Federal, State, Tribal, and/or local requirements, including but not limited to the Shoreline Management Master Program, or special management recommendations which have been developed for species and/or habitats located on the site.

Streams within the project vicinity do not appear to be regulated under the SMP. Swede Creek is not listed as a Shoreline stream in the Skagit County SMP. All other agencies with regulatory authority over site wetlands and streams have been included in both the critical area assessment and summarized in Tables 3 and 4.

No direct impacts to wetlands or streams have been proposed. The change of use and minor resurfacing of the roadway does not appear to require permits for wetland/ stream impact from the Corps, WDOE, or WDFW. However, stormwater requirements by both the County and/ or WDOE may apply, which is outside of our purview.

(ix) If necessary, designate a maintenance corridor to provide an area for construction and maintenance of buildings and other structures. The standard width of the maintenance corridor shall be 15 feet. This distance may be modified with approval of the Administrative Official.

n/a- no building or structures are proposed.

3.3 Mitigation Sequencing

The Skagit County CAO requires projects demonstrate adherence to a specific sequence of actions termed "mitigation sequencing" before impacting regulated critical areas (SCC 14.24.080). The proposed project applied mitigation sequencing as summarized below:

- **Avoid**. The project avoids direct wetland and streams impacts.
- **Minimize**. The property has been managed as natural resource land for many years. The current proposal continues this use but pivots from forestry to mineral extraction. The existing haul road will be used. Use of this existing road limits additional impacts and land disturbance that would be associated with a new road.
- **Rectify**. Activity at the proposed mine site is anticipated to occur over 20 to 25 years. While this is an extended time frame it is not a permanent change in use. The mine site

area is proposed to be restored upon project completion and the entire area will be then again managed in forestry.

- **Reduce or eliminate through preservation or maintenance**. The project shall comply with stormwater requirements and shall adhere to BMPs during resurfacing.
- **Compensate**. Recommendations for mitigating actions to limit indirect impacts to critical area functions are included in Section 4.0

3.4 Proposed Critical Areas Impacts

3.4.1 Wetland Impacts

No direct wetland impacts are proposed.

3.4.2 Stream Impacts

No direct stream impacts or work below the OHWM of a stream are proposed.

3.4.3 Buffer Impacts

No buffer impacts are proposed. Other than the 500 linear feet of road resurfacing, the project does not include any construction or modification to anything in a buffer or direct buffer impact. The area to be resurfaced is entirely within the existing road prism, which is partially in a buffer, but this area is currently gravel, functionally impervious, and provides no buffer function in the current condition.

The existing haul road currently is at least partially within the buffer of Wetlands E, H, M, N, P, R, T, U, V, W, Z, BB, CC, D, EE, HH, and JJ. The road does not overlap with the regulated buffer of Wetlands A, B, D, G, J, K, L, and X.

The existing haul road currently is at least partially within the buffer of Swede Creek and Streams 4 to 9, 13 to 18, 20 and 21. The road does not overlap with the regulated buffer of Streams 1, 2, 3, 10, 11, 12, or 22.

3.4.4 Indirect Impacts

Because the road is an existing impact, and proposed use is consistent with the current use, no direct impacts are anticipated. However, the County has requested consideration of this change of use in frequency of vehicular traffic and an analysis of if this constitutes a new functional or indirect wetland or buffer impact. This is discussed in detail below.

DN Traffic Consultants prepared a traffic study for the project in 2019 (DN Traffic, 2019). Their report states during use of the road for mine material transport, anticipated traffic counts on the haul road may result in an average of 46 trips per day during the anticipated 260 days per year of operation.

3.5 Impact Analysis

The proposed change in use has the potential to indirectly impact wetland, stream, and/or buffer functions due to these features existing within the project vicinity. The following sections provide an analysis of the potential impacts associated with the project.

3.5.1 Water Quality/Run-off Filtration

Existing Condition:

In general, the site wetlands provide moderate water quality function. The site depressional wetlands all contains seasonally ponded areas that allow for settling of particulates. All site wetlands contain some cover of dense vegetation that is able to provide filtration and uptake, but in many wetlands dense herbaceous vegetation that could further increase this function is lacking or limited. Slope wetlands have a more limited potential to provide water quality improvement functions due to the gradient which limits retention time and the ability for particulates to settle. The site wetlands currently do not have the opportunity to provide water quality improvement functions as they are located in a forested setting and the contributing basins generally do not include development containing potentially polluted runoff.

The Samish Bay Watershed has a TMDL for water quality issues associated with bacteria, and downstream surface waters of Swede Creek and the Samish River are 303d listed waters for dissolved oxygen and temperature. Therefore, the water quality improvement functions provided by site critical areas and buffers are of value.

Wetland/ stream buffers generally provide moderate to high water quality functions. Smaller portions of the site have steeper slopes, which limits retention time and the ability for settling or filtering of particulates. However, the majority of the buffers are forested and contain woody and herbaceous vegetation, duff, and loamy soils that are able to provide filtration and uptake of pollutants. Tree canopy extends over all streams and wetlands, with the exception of smaller portions of Wetlands BB and MM, providing thermal protection and cooling of surface waters.

The existing road is compact gravel that is functionally impervious and provides no water quality improvement functions.

Potential Impact:

The majority of water quality impacts to adjacent wetlands and buffers occurred with installation of the roadway some time ago when the road was cleared, graded, compacted, and developed.

Surface runoff from the existing road drains to adjacent ditches along the majority of the length, which then drain in various directions. Most wetlands in the review area do not receive runoff from ditches adjacent to the road. Those that do include Wetlands M, T, U, W, and Y, and Wetlands E and D via Streams 6 and 3 respectively. Swede Creek and Streams 3, 4, 5, 6, 7, 8, 9, 13, 15, 20 and 21 all also receive direct runoff from ditches adjacent to the haul road, and Streams 1 and 2 receive runoff from Grip Road.

The proposed change in use is not anticipated to result in a significant reduction of the water quality improvement function because no vegetation removal and no new impervious surfaces

are proposed. The gravel road is already functionally impervious, providing no water quality improvement, and paving is not anticipated to alter this condition in terms of water quality function.

The change in use from forestry to the gravel mine is anticipated to result in increased traffic on the road. This additional traffic has the potential to increase pollutants from vehicles if they are not properly maintained.

The proposed project is not anticipated to increase water quality concerns related to temperature, bacteria, or dissolved oxygen. Vegetation cover will be maintained, providing cover and shading to surface waters. The project does not include actions that would increase bacterial loads in the watershed. The project does not include actions that would decrease dissolved oxygen such as removing riparian vegetation that could increase water temperatures, increasing nutrient pollution that would cause excess algal growth, or creating point sources of pollution such as sewage effluent.

As with all projects, temporary disturbances during construction have the potential to increase turbidity and runoff during construction. Construction best management practices (BMPs) and temporary erosion and sediment control (TESC) measures are expected to minimize the potential for temporary erosion and sedimentation.

Mitigated Determination:

No direct wetland, stream, or buffer impacts have been presented; therefore no mitigation actions have been included.

Indirect impacts to downstream water quality may occur during the construction/ resurfacing of the road, and potentially due to increased traffic and pollutants traffic generates. To mitigate for these actions the following mitigation actions are recommended:

- During resurfacing- establish erosion control and best management practices (BMP's) to ensure protection of downstream waters.
- Haul trucks shall be maintained in good working condition such that petroleum products or other harmful chemicals are not leaked into adjacent critical areas.
- During operation of the mine site, maintain existing vegetation around roadways, particularly in wetland/ stream buffers. This forested buffer provides filtration of surface waters and is important to protect water quality prior to entering adjacent wetlands and streams.
- Review the project for compliance with applicable County and State stormwater management requirements. Preparation of a stormwater management plan is outside of our purview. Inclusion of stormwater management generally provides treatment of runoff from roads and other pollutant generating surfaces in order to protect water quality in downstream surface waters, including streams and wetlands.

3.5.2 Hydrology

Existing Condition:

In general, the site wetlands provide low to moderate hydrologic function. Those with low function generally include the smaller isolated wetlands that provide little flood storage, or slope wetlands that again have a limited capacity to provide water storage and retention during storm events. The large depressional and riverine wetlands generally provide a higher (but still moderate) hydrology function. In particular Wetlands U, BB, JJ, and MM are larger, have intermittently flowing outlets and therefore have an increased storage capacity. The contributing basins for site wetlands are mostly forested and do not have an elevated level of surface runoff.

Wetland/ stream buffers generally provide moderate protection of hydrologic function. The buffers are primarily forested and in most areas they have a dense, multi-layer canopy. This woody vegetation has the ability to provide hydrology functions through rainwater interception, water uptake within plant biomass, and ability to slow surface flows during flood events.

Hydrology functions provided by the site are of value due to documented downstream flooding in the Samish River.

Potential Impact:

As stated above, surface runoff from the existing road drains to adjacent ditches along the majority of the length, which then drain in various directions including into a number of wetlands and streams. This flow path will not be altered, and no impacts to wetland hydrology or instream flows are anticipated.

The proposed change in use is not anticipated to result in an indirect impact to hydrology functions. No vegetation removal or no new impervious surfaces are proposed. No grading or alteration of flow path is proposed. Runoff from the gravel road will continue in its established flow path.

The change in use from forestry trucks to the gravel trucks may result in increased use and traffic on the road but this is not anticipated to result in any impacts to site hydrology or wetland/buffer hydrology functions.

Mitigated Determination:

No impacts to hydrologic functions have been proposed, therefore no mitigation has been presented.

3.5.3 Thermal Protection

Existing Condition:

Vegetation can provide important functions in moderating temperatures within a stream, lake, or wetland, and contribute food sources and cover to aquatic organisms. The majority of the site, including wetlands, wetland buffer, and the stream buffers are well forested, which

provides a high level of thermal protection, with the exception of the recently logged area around Wetland BB.

Potential Impact:

The project does not include any vegetation removal. Therefore no impacts to thermal protection functions are anticipated.

Mitigated Determination:

No impacts to thermal protection functions have been proposed, therefore no mitigation has been presented.

3.5.4 Fish and Wildlife Habitat

Existing Condition:

In general, site wetlands provide moderate to high wildlife habitat functions. Much of this function is due to the location within a larger undisturbed landscape and connectivity to multiple other habitats including streams, riparian corridors, and presence of Priority habitat features (LWD) in the vicinity. Due to past logging, species diversity within many of the site wetlands is limited. Much of the site has revegetated with a palate of similar species and lacks diversity in species and hydroperiods, and many wetlands are limited to a single vegetation class, limiting habitat complexity.

Many of the site wetlands contain habitat features such as large woody debris (LWD). But again, due to past logging, with the exception of wetlands along the riparian corridor, most of these pieces of LWD are fairly small and quantities are limited. Wetlands with higher quality wildlife habitat include Wetlands J, N, U, MM, and Wetland JJ in particular. Wetland JJ has been altered by beaver (*Castor canadensis*) activity and contains habitat not available elsewhere within the review area.

Wetland and stream buffers also generally provide moderate to high wildlife habitat function. The buffers are generally forested with a multi-layer canopy and habitat features such as snags and large woody debris- some meeting the WDFW definition of Priority habitat features. Some areas along the edge of the roadway have thickets of invasive species primarily blackberry (*Rubus armenicus or R. laciniatus*), but away from the road edge invasive cover in other areas is relatively low. The buffers are generally well vegetated, but diversity is moderate with similar habitat and species throughout the project area.

Multiple species of salmonids are mapped and assumed present in Swede Creek. These include state and federally listed species. The majority of other seasonal streams throughout the site are quite small and some are quite steep, and do not appear likely to support fish populations.

Amphibian breeding habitat is limited for most site wetlands, mainly due to slopes and/or shallow ponding in most areas. However, amphibian breeding habitat appears present in Wetlands JJ, R, U, V, W, CC and smaller pockets within a few other site wetlands (Wetland N, P, T, BB, and MM).

Suitable habitat for Oregon spotted frog is present in Wetland JJ and this wetland appears to have a surface connection to critical habitat mapped approximately 700 feet northeast of the review area. Oregon spotted frogs were not observed in Wetland JJ but observations were limited to one day in this area, and limited to observations along one edge of the wetland.

The review area contains habitat which may potentially be utilized by deer, coyote (*Canis latrans*), cougar (*Puma concolor*), birds of prey, songbirds, and a variety of smaller mammals.

Potential Impact:

The project does not include vegetation removal or expansion of the developed footprint. During operation of the mine, it is anticipated that the existing habitat within the site will remain in its current condition, therefore, the project is not anticipated to result in a significant indirect impact to fish or wildlife habitat functions.

Again, the change in use from forestry trucks to the gravel trucks may result in increased use and traffic on the road. Based on our understanding of the traffic study, the traffic levels are anticipated to be less than the level of service capacity on Grip Road and are not anticipated to generate traffic related impacts. This increase in vehicle traffic may detour wildlife from the area immediately around the roadway when trucks are present. This may result in minor modifications to how wildlife are using the site but is not anticipated to deter use of this habitat all together.

The traffic study states that peak hours of use will likely occur between 9am and 3pm, which avoids higher traffic counts during dusk/ dawn. While use of the haul road can be allowed at any time without significant impacts to wildlife, this scheduling minimizes trips during the dawn and dusk hours when many wildlife species are more active and may be moving throughout the site, and is anticipated to reduce potential conflicts with wildlife.

Furthermore, wildlife species that have been observed or are mapped in this vicinity do not include any that are listed (other than Oregon spotted frogs as previously discussed) or those that are particularly sensitive to some level of human presence. Species that were observed or are anticipated to use this site include deer, coyotes, birds of prey, songbirds, and smaller mammals. These species all commonly utilize habitat mixed with some level of human presence. Therefore, these species are not likely to be deterred from using the available habitat even with the additional road traffic. Outside of the roadway and mine site, approximately 664 acres remain within the site that will continue to provide available wildlife habitat.

Oregon spotted frog is a highly aquatic species and are always found associated with a perennial water source. Even if they are present in Wetland JJ, the road is 200 feet or more from the wetland and the change of use on the road does not impact available habitat within the wetland or the majority of its buffer. Nor is the road located in the vicinity of the stream connection between Wetland JJ and mapped critical habitat.

No instream impacts below the OWHM are proposed, therefore no impact to fish habitat is anticipated.

Mitigated Determination:

No direct impacts to wetland/ stream/ or buffer habitat are anticipated, therefore no mitigation has been presented.

In order to minimize wildlife habitat impacts due to indirect effects the following is recommended:

- During operation or the mine, maintain established vegetation along the roadway in order to provide a buffer and screening for wildlife using the interior of the site.

3.5.5 Cumulative Impacts

Existing Condition:

The site is within a fairly rural area within Skagit County. Many properties within this area remain forested, and a mostly forested corridor exists to the north including Anderson Mountain all the way to Lake Whatcom, only broken by development along Prairie Road and South Bay Drive; and south to Butler Hill only broken the development along Grip Road. Overall, development in the vicinity of the site is generally rural and includes single family homes on forested acreage. However much of the land in this area is in forestry or is managed by the Department of Natural Resources (DNR).

Potential Impact:

One of the primary concerns of cumulative impacts to forested habitat is fragmentation. Intrusion into larger forested blocks has the potential to sever migratory corridors for wildlife.

Like many of the remaining forested blocks in Skagit County, this area is susceptible, and is likely already experiencing some level of cumulative impacts resulting from habitat fragmentation from the sum of multiple individual development projects.

The road does not contribute to further habitat fragmentation, as it is pre-existing and was developed for the use in natural resource management of this area (forestry) some time ago.

Water quality in downstream water resources is also susceptible to cumulative impacts due to the sum of multiple projects built in a watershed. As previously mentioned, the project does not include elements that would further exacerbate existing water quality issues related to temperature, bacteria, or dissolved oxygen impairments. Also as stated above, it is recommended that the project shall include review for stormwater management, per County and WDOE requirements, to avoid additional downstream water quality impacts.

Cumulative impacts analysis also generally includes addressing items that could reasonably occur in the foreseeable future as a result of the proposed project. These are referred to as interrelated or interdependent actions/ impacts. This is generally applicable to projects that for example build new roads or create new lots via short plats where additional impact would likely occur due to construction of homes or businesses along new roadway, or impacts for homes installed on newly platted lots. The mine is the primary project, and increased use of the road by haul trucks would be the interrelated action. No additional interrelated actions are anticipated due to the proposed project.

Mitigated Determination:

No additional impacts were identified that will result from cumulative impacts associated with this project. Therefore, no additional mitigation measures have been presented.

4.0 MITIGATION

The project does not include any direct wetland, stream, or buffer impact. Therefore, traditional mitigation measures such as wetland or buffer enhancement have not been presented.

The use of the haul road to transport material from the proposed gravel mine will result in a greater number of trips per day compared to the existing forestry practice. This may potentially result in indirect impacts to water quality and potentially wildlife functions associated with site critical areas or their buffers. For the reasons previously mentioned these indirect impacts are anticipated to be minor. However, the following mitigation measures have been recommended:

- During resurfacing- establish erosion control and BMP's to ensure protection of downstream waters.
- Haul trucks shall be maintained in good working condition such that petroleum products or other harmful chemicals are not leaked into adjacent critical areas.
- During operation of the mine, maintain existing forested vegetation adjacent to the roadway, particularly in wetlands and buffers. This forested buffer along the road provides water quality filtration of surface waters prior to entering adjacent wetlands and streams and provides a buffer and screening for wildlife using the interior of the site.
- Review the proposal for compliance with applicable County/ State stormwater management requirements.

In summary, the project avoids direct critical area impacts, has followed mitigation sequencing to avoid/ minimize impacts, and has presented mitigation actions in order to offset or minimize indirect impacts to wetland or wetland/stream buffers functions and appear to meet requirements in SCC 14.24.

APPENDIX A: REFERENCES

References

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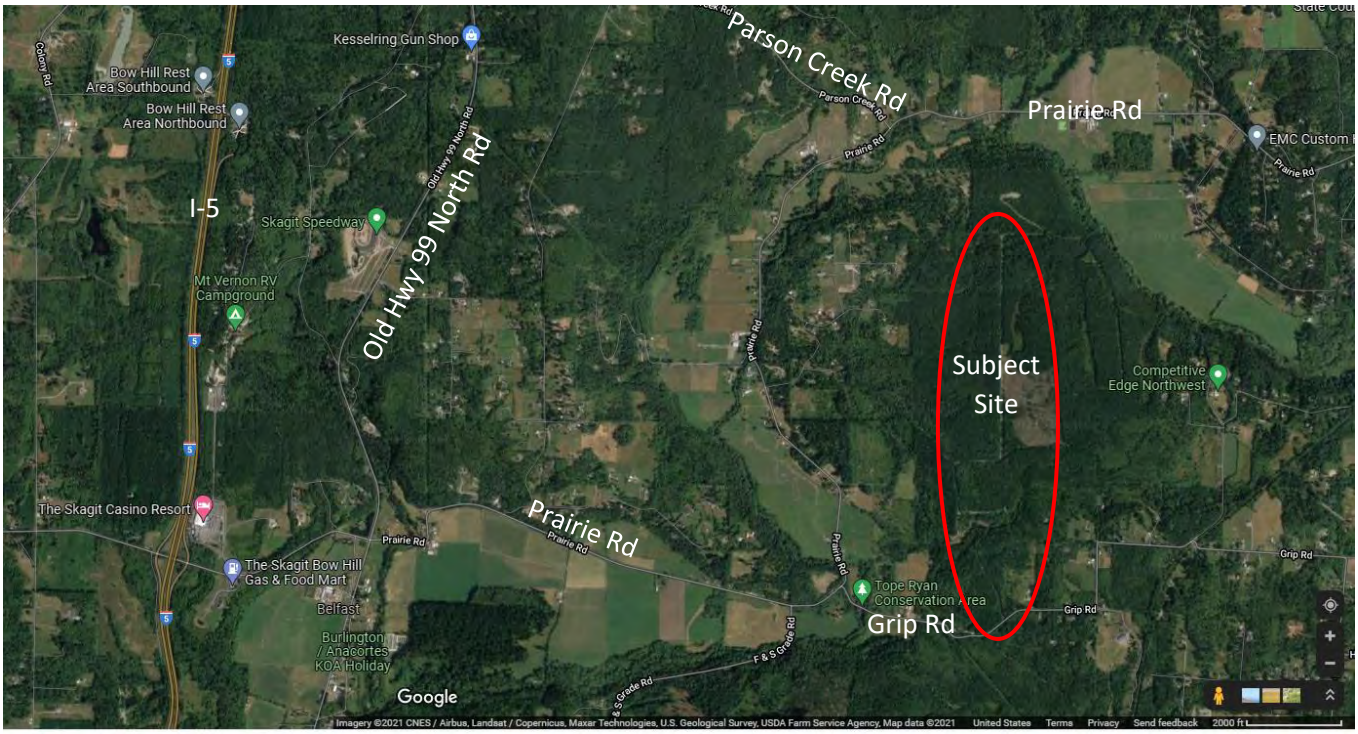
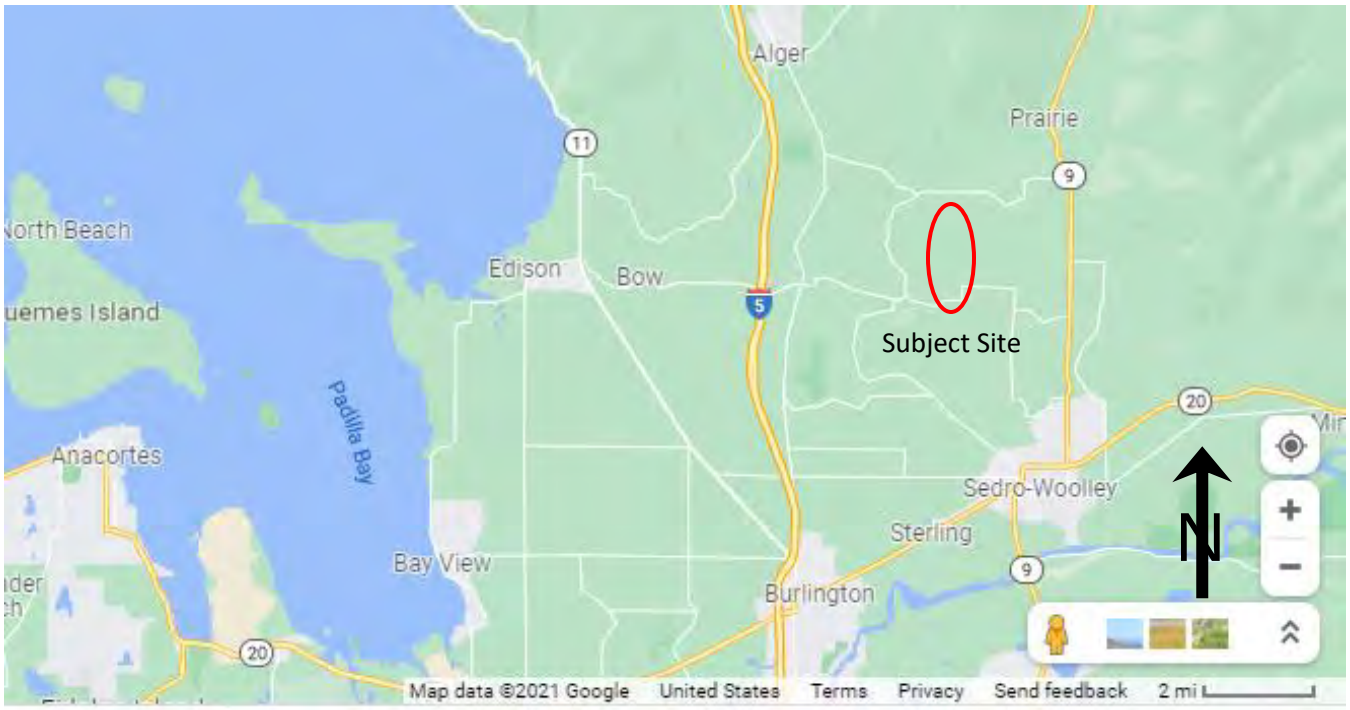
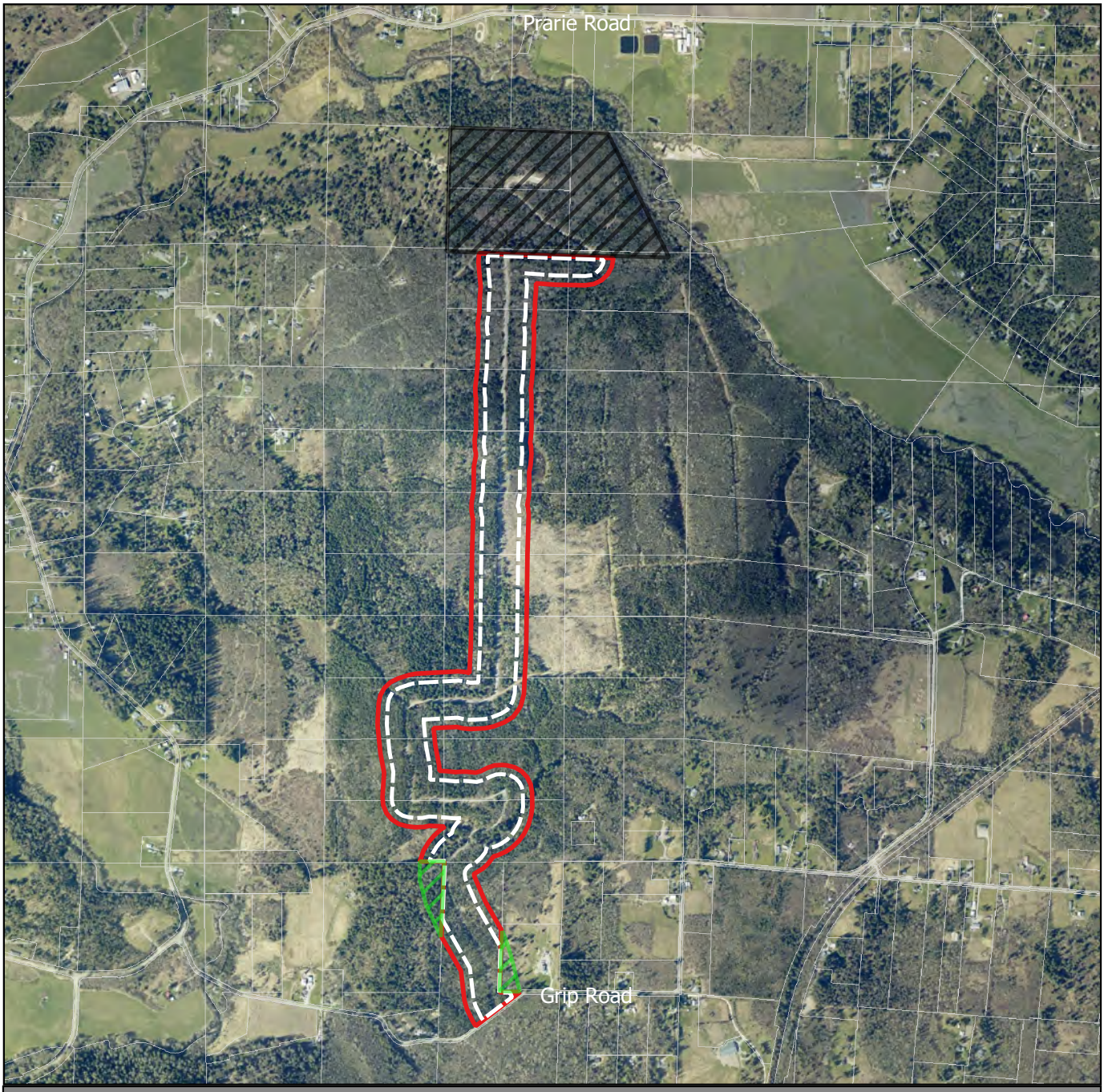
APPENDIX B: FIGURES





ECOLOGICAL NORTHWEST	**Vicinity Map (Google Maps)** **Grip Road Gravel Mine** **Impact Assessment & Mitigation Plan**	**Figure 1** **DEC 2021**



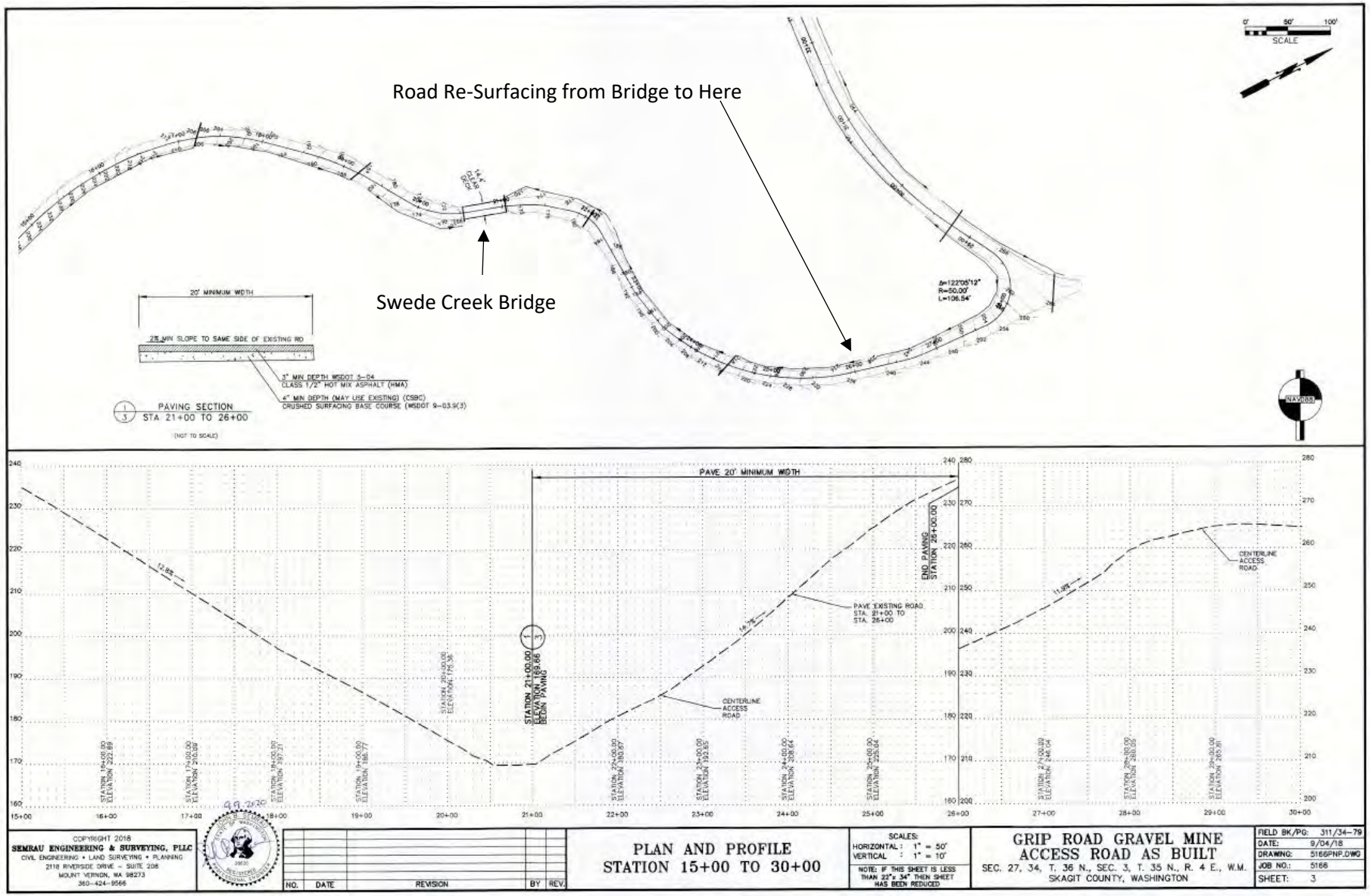
Mine Area (Approx.)
300-ft Review Area for wetlands
200-ft Review Area for streams
Area within 300 ft but remote review only

0 750 1,500 2,250 3,000 ft

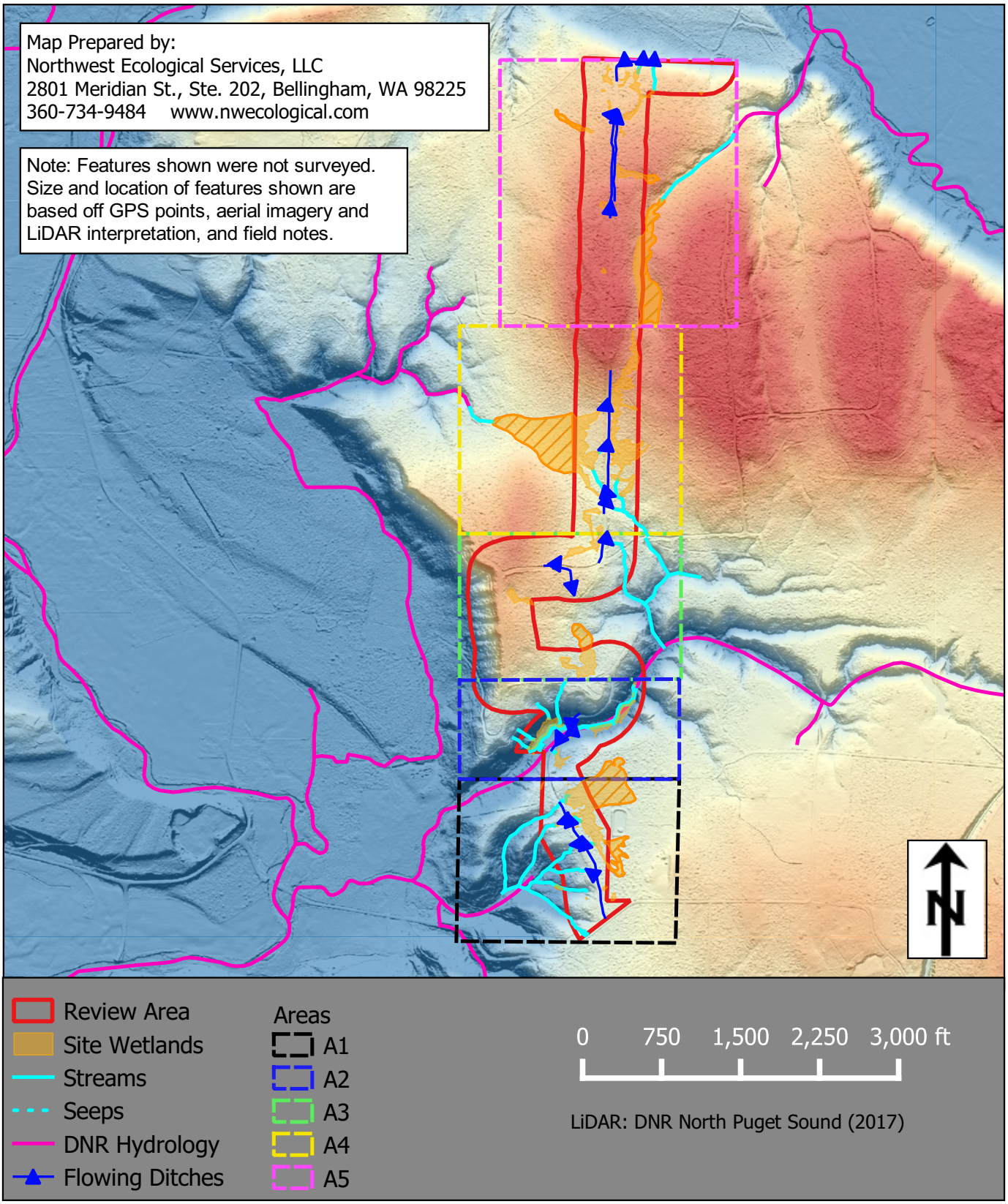
Aerial Photo: Skagit County 2021

N

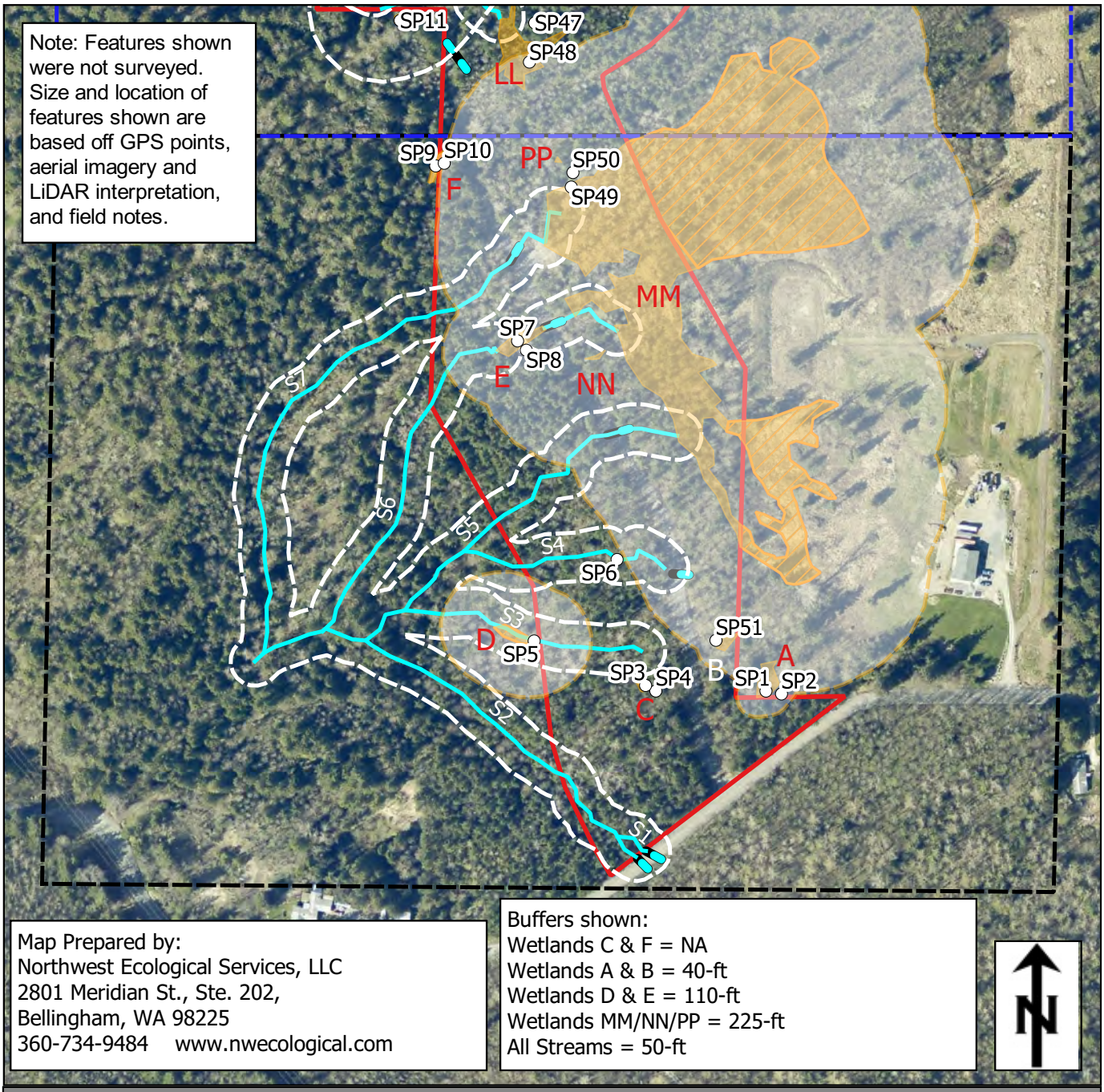
COLOGICAL ORTHWEST	**2021 Aerial Photograph with Review Area** **Grip Road Gravel Mine** **Impact Assessment & Mitigation Plan**	**Figure 2** **DEC 2021**



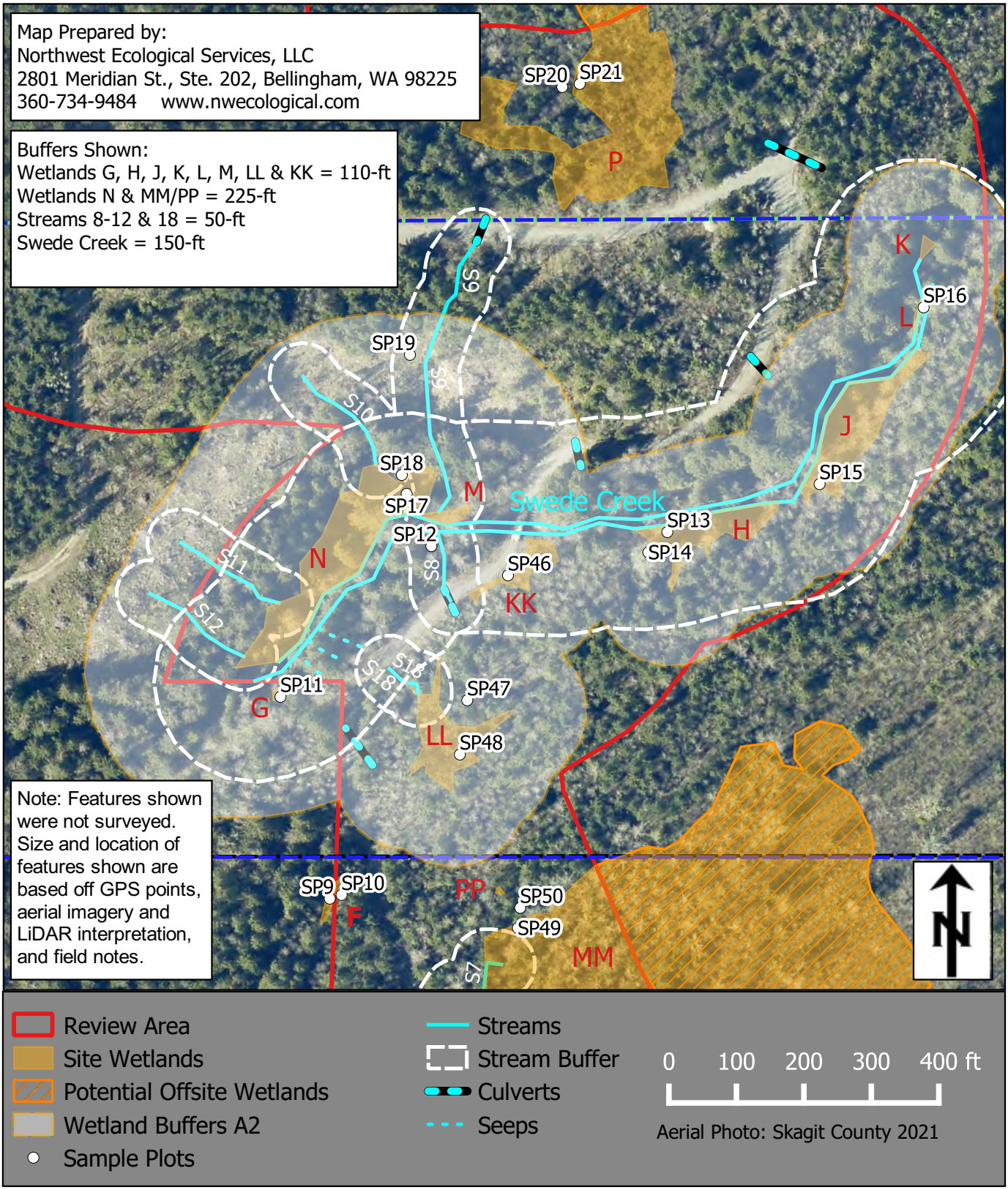
ECOLOGICAL NORTHWEST	**Road Re-Surfacing Extent** **(Semrau Engineering & Surveying PLLC)** **Grip Road Gravel Mine** **Impact Assessment & Mitigation Plan**	**Figure 3** **DEC 2021**



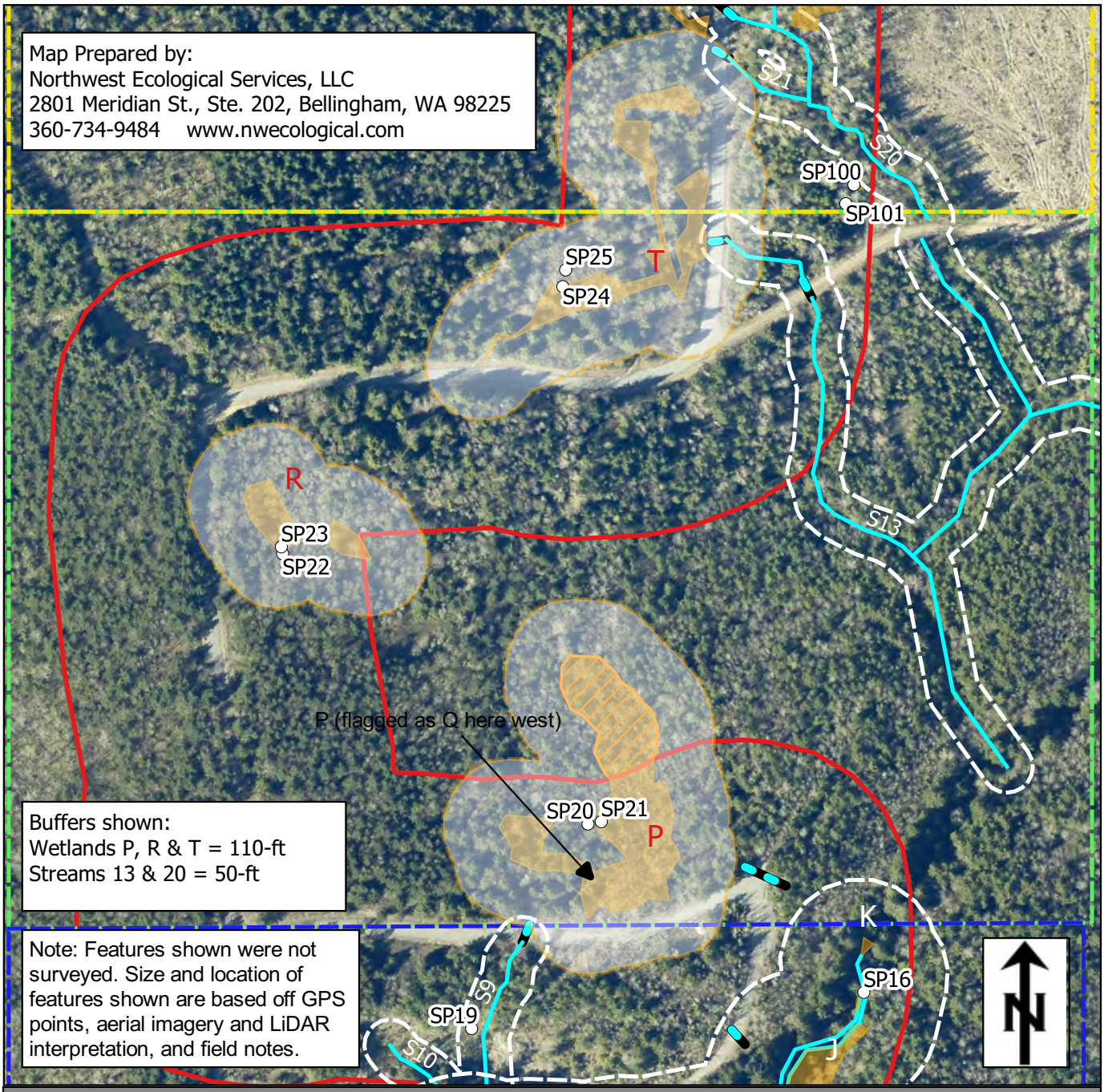
COLOGICAL ORTHWEST	**Wetland/ Stream Map (Overview with LiDAR)** **Grip Road Gravel Mine** **Impact Assessment & Mitigation Plan**	**Figure 4** **DEC 2021**



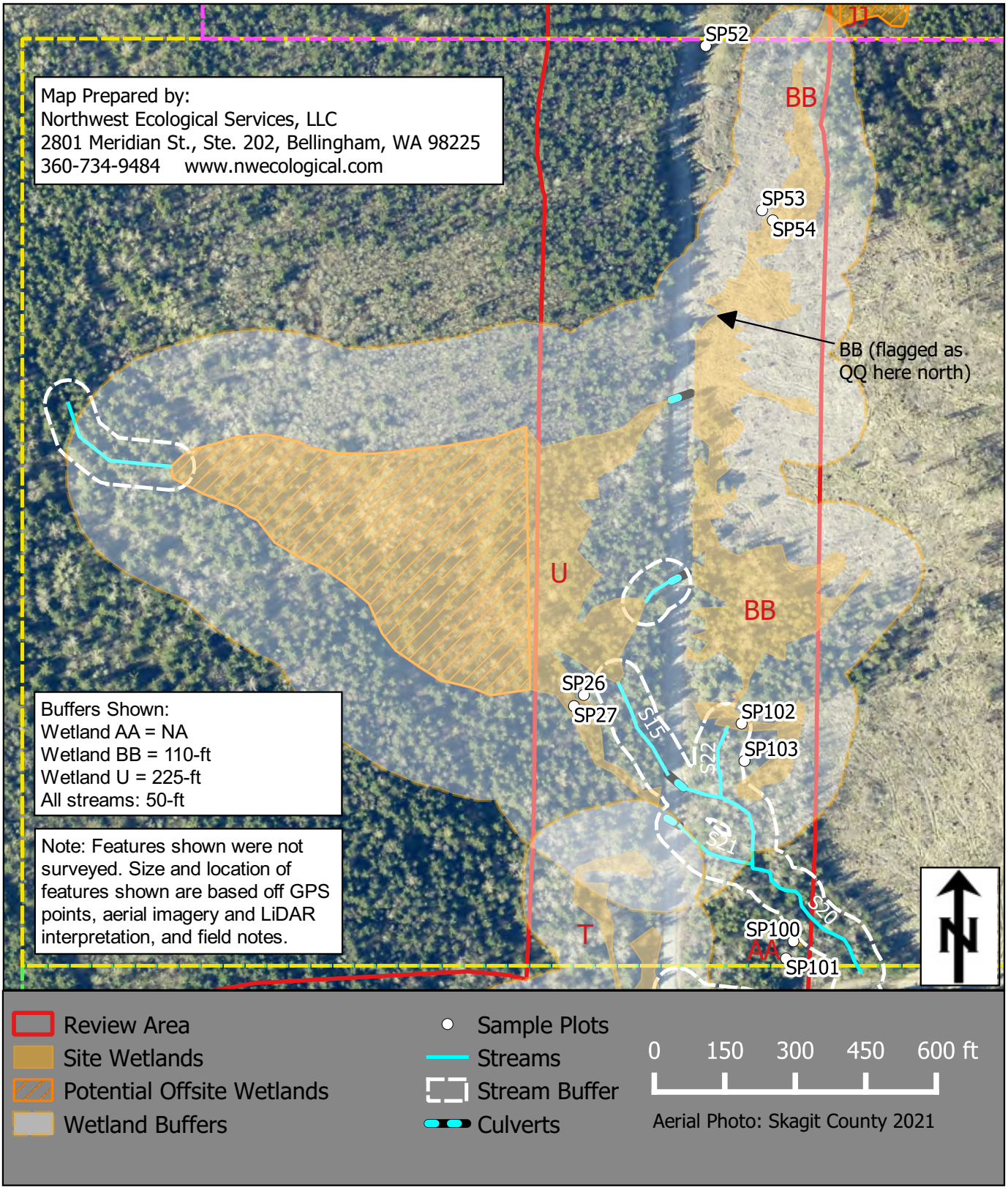
Ecological Northwest	**Wetland/ Stream Detail Map (Area 1)** **Grip Road Gravel Mine** **Impact Assessment & Mitigation Plan**	**Figure 5** **DEC 2021**



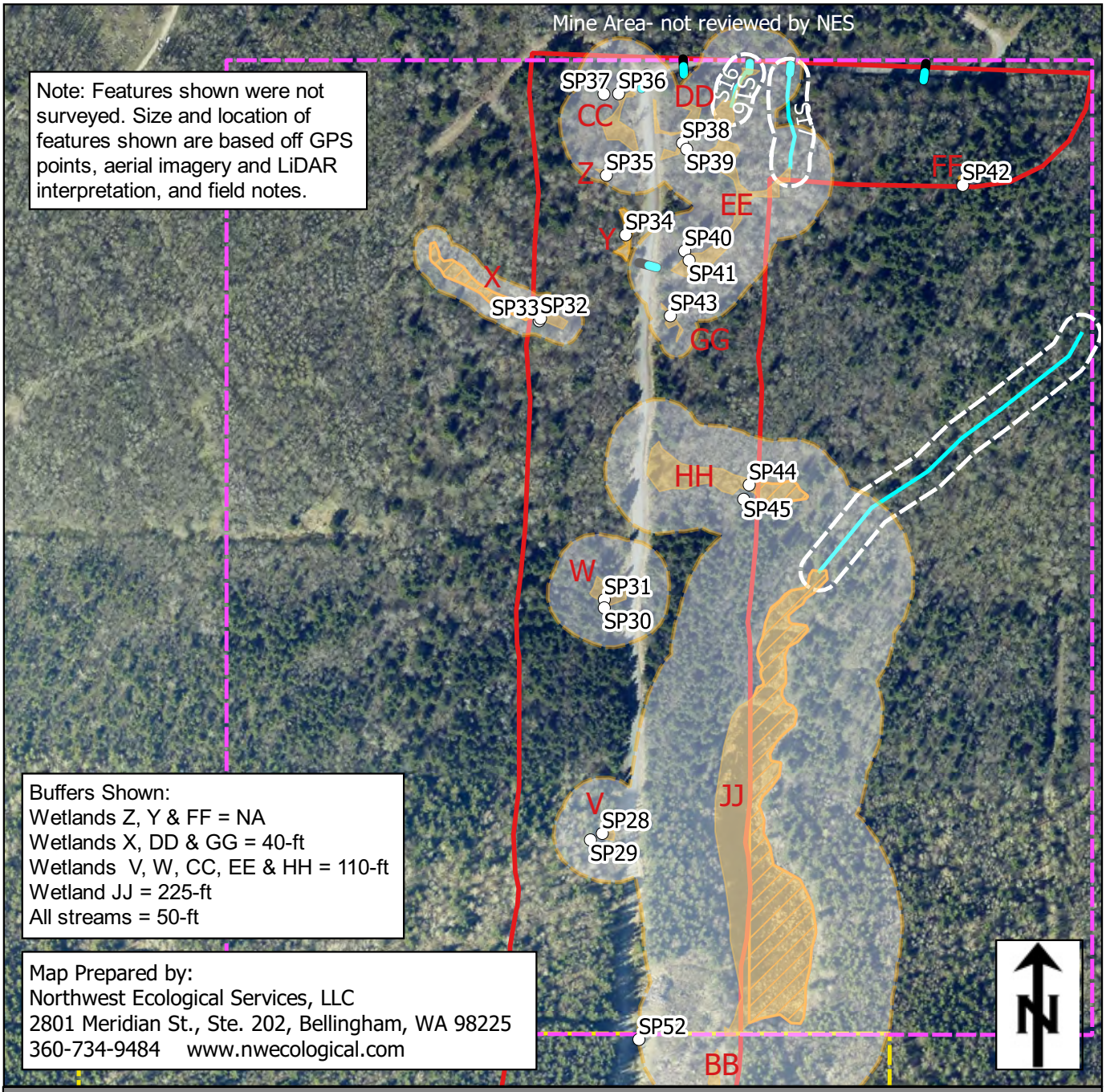
Ecological Northwest	**Wetland /Stream Detail Map (Area 2- Swede Creek Vicinity)** **Grip Road Gravel Mine** **Impact Assessment & Mitigation Plan**	**Figure 6** **DEC 2021**



Ecological Northwest	**Wetland/ Stream Detail Map (Area 3- curve north of Swede Ck)** **Grip Road Gravel Mine** **Impact Assessment & Mitigation Plan**	**Figure 7** **DEC 2021**

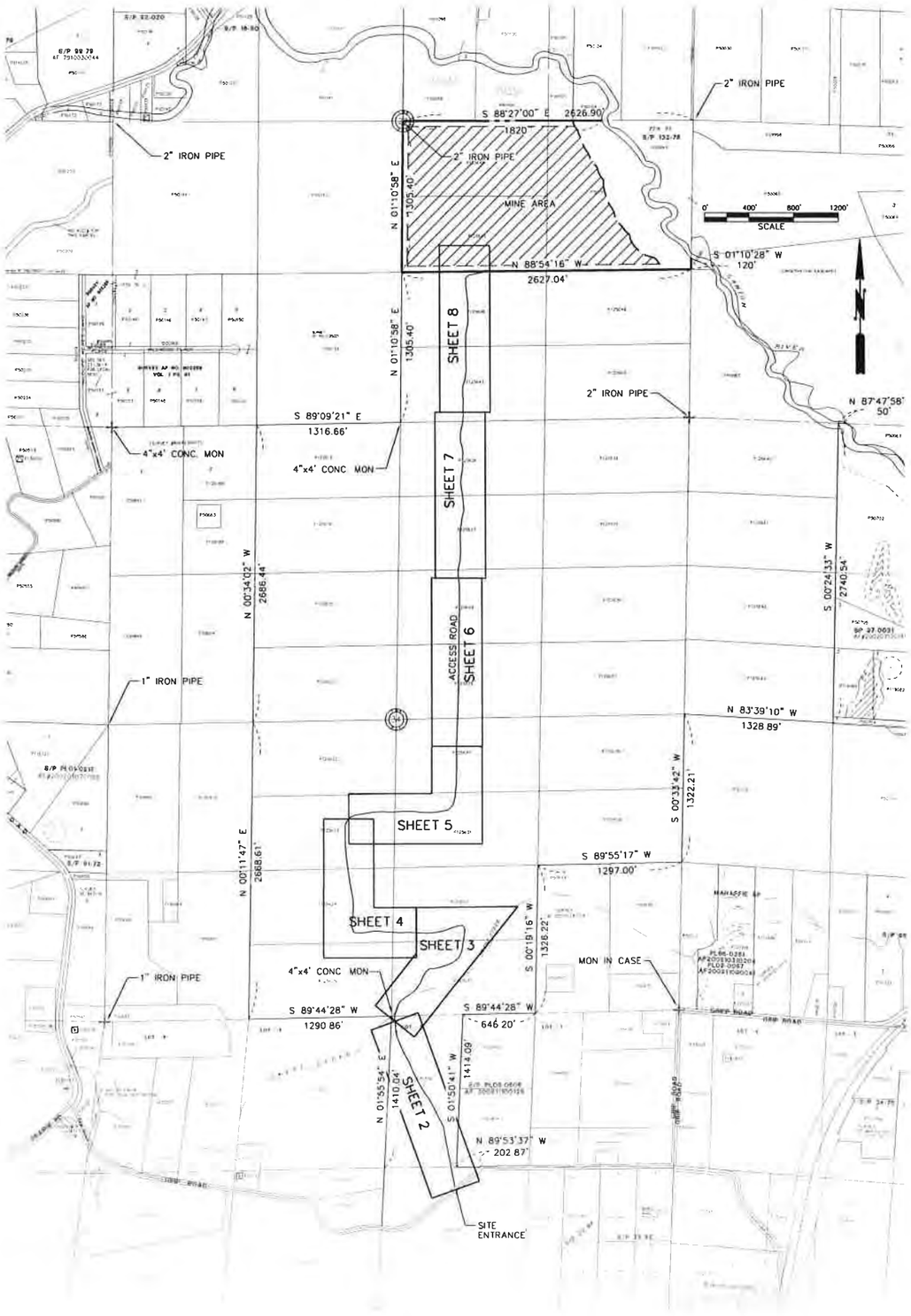


Ecological Northwest	**Wetland/ Stream Detail Map (Area 4)** **Grip Road Gravel Mine** **Impact Assessment & Mitigation Plan**	**Figure 8** **DEC 2021**

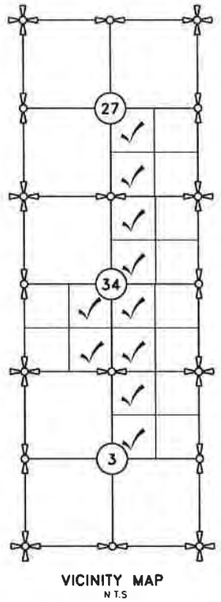


Ecological Northwest	**Wetland/ Stream Detail Map (Area 5- north)** **Grip Road Gravel Mine** **Impact Assessment & Mitigation Plan**	**Figure 9** **DEC 2021**

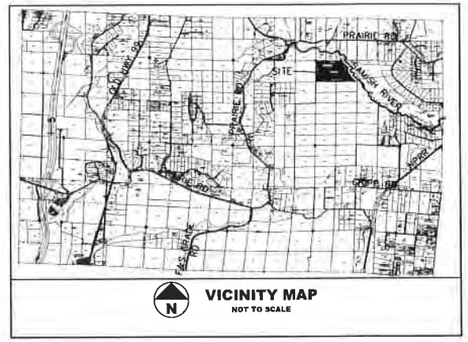
APPENDIX C: HAUL ROAD ASBUILT



GRIP ROAD GRAVEL MINE
ACCESS ROAD AS BUILT
SECTIONS 27 & 34, TOWNSHIP 36 NORTH, RANGE 4 EAST, W.M.
SECTION 3, TOWNSHIP 35 NORTH, RANGE 4 EAST, W.M.
SKAGIT COUNTY, WASHINGTON



VICINITY MAP
N.T.S



VICINITY MAP
NOT TO SCALE

APPLICANT/OWNER

MILES SAND AND GRAVEL
663 PEASE ROAD
BURLINGTON, WA 98233
CONTACT: DAN COX
TEL: (360) 757-3121

CIVIL ENGINEER/SURVEYOR

SEMRAU ENGINEERING AND SURVEYING
2118 RIVERSIDE DRIVE SUITE 208
MOUNT VERNON, WA 98273
CONTACT: JOHN B. SEMRAU P.E. & P.L.S.
TEL: (360) 424-9566

SURVEY NOTES:

1 MERIDIAN: ASSUMED, BASED ON RECORDED SURVEYS

2 DATUM: NAVD88, FROM RTK GPS

3 CONTOURS AND FEATURES FROM TOPOGRAPHIC SURVEY BY STANDARD FIELD TRAVERSE

4, NO UTILITY RESEARCH OR LOCATE SERVICE USED ONLY VISIBLE UTILITIES SHOWN

5 THE PURPOSE OF THIS SURVEY WAS FOR AS CONSTRUCTED ROADWAY RECORDS, AS REQUESTED BY MILES SAND AND GRAVEL

6 INSTRUMENTATION USED ON THIS THIS SURVEY:
LEICA MS50 THEODOLITE DISTANCE METER
LEICA VIVA 14 GPS/GNSS RECEIVERS

7 EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS SURVEY MAP, THIS SURVEY DOES NOT PURPORT TO REFLECT ALL OF THE FOLLOWING WHICH MAY BE APPLICABLE TO THE SUBJECT REAL ESTATE: EASEMENTS, BUILDING SETBACKS LINES, RESTRICTIVE COVENANTS, SUBDIVISION RESTRICTIONS, ZONING OR OTHER LAND-USE REGULATIONS AND ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE

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NAVD88

DRAWING FILE: 5166CSAB.DWG 9/04/18

9.13.18

SHEET 1 OF 10

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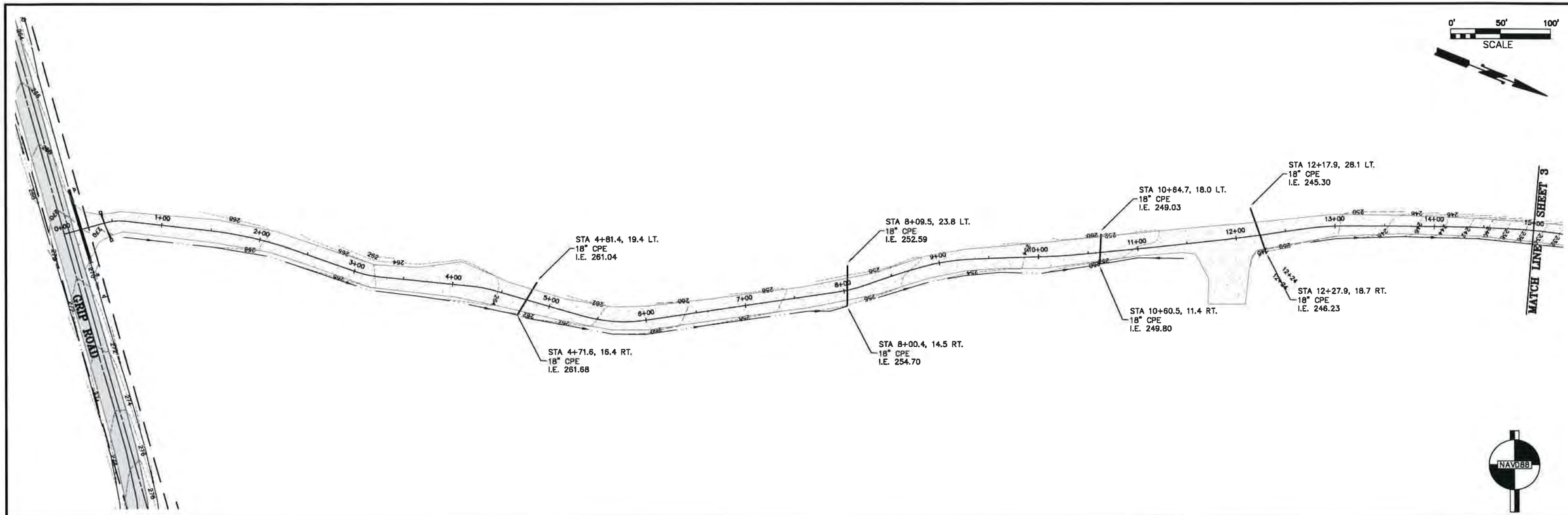
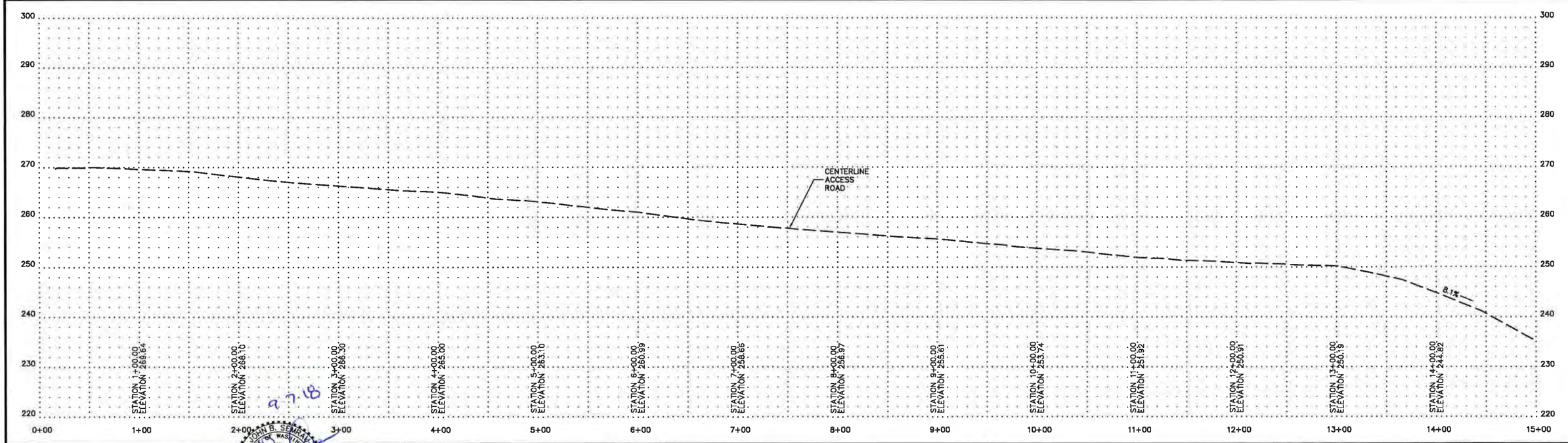
SECTIONS 27 & 34, T. 36 N., R. 4 E., W.M.
SECTION 3, T. 35 N., R. 4 E., W.M.
SKAGIT COUNTY, WASHINGTON

DATUM:	NAVD 88	SEMRAU ENGINEERING & SURVEYING SURVEYING - ENGINEERING - PLANNING MOUNT VERNON, WA 98273 360-424-9566	SCALE: 1"= 600'
MERIDIAN:	ASSUMED		JOB NO. 5166





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JOHN B. SEMRAU STATE OF WASHINGTON 28628 REGISTERED PROFESSIONAL ENGINEER

9.7.18

NO.	DATE	REVISION	BY	REV.

PLAN AND PROFILE
STATION 0+00 TO 15+00

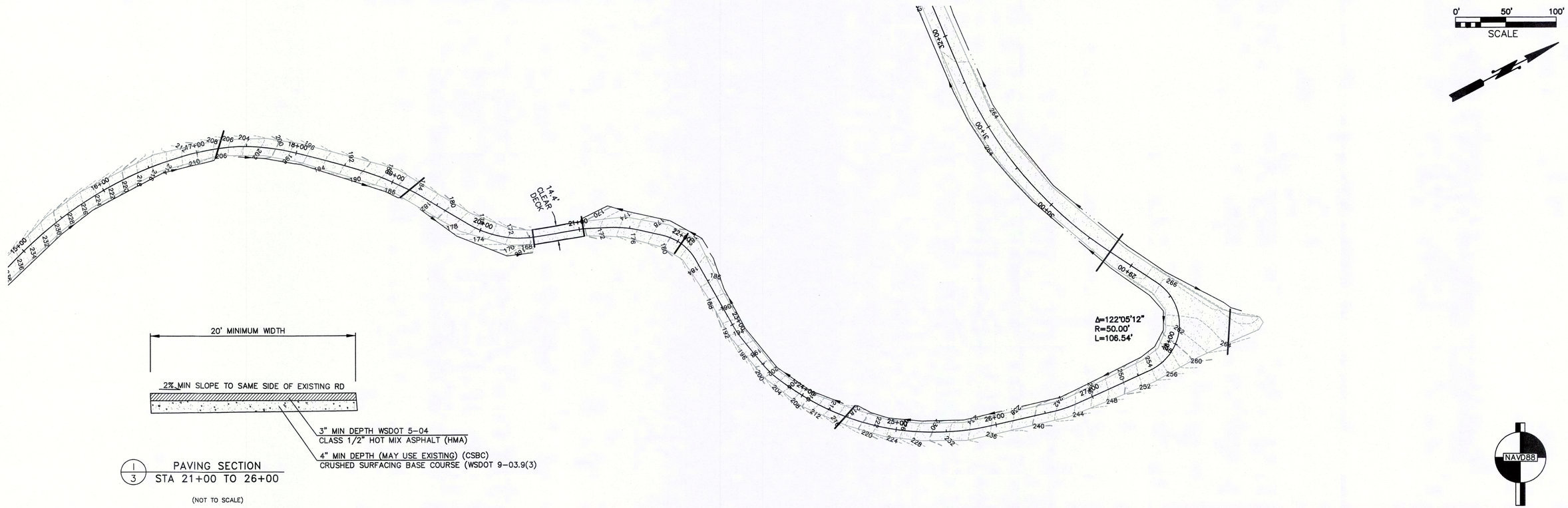
SCALES:
HORIZONTAL : 1" = 50'
VERTICAL : 1" = 10'

NOTE: IF THIS SHEET IS LESS THAN 22"x 34" THEN SHEET HAS BEEN REDUCED

GRIP ROAD GRAVEL MINE ACCESS ROAD AS BUILT

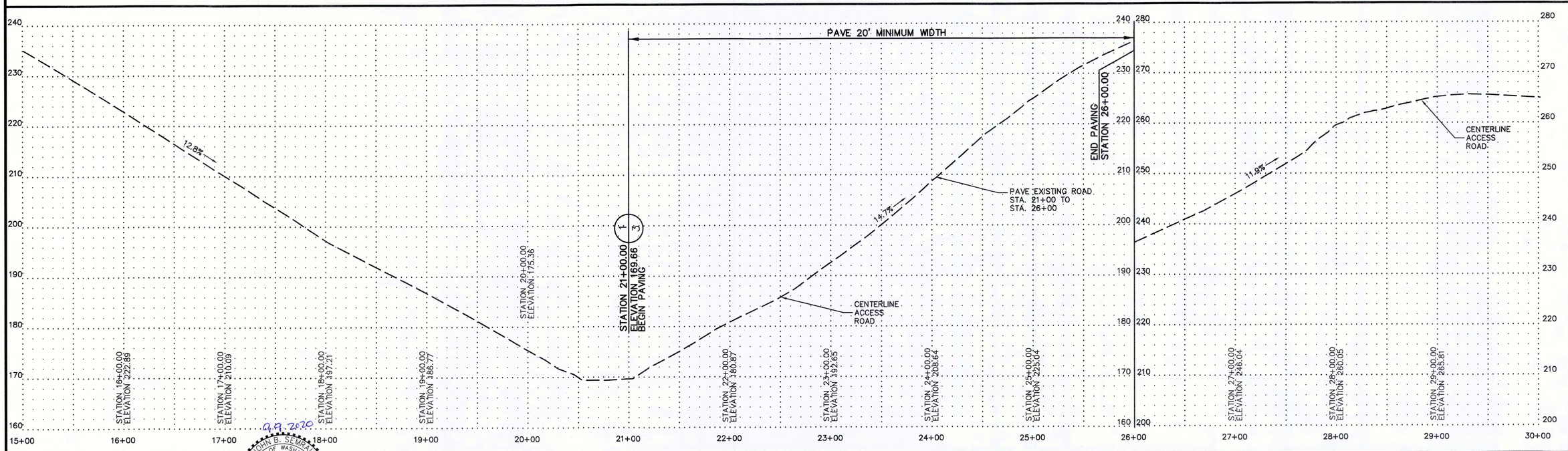
SEC. 27, 34, T. 36 N., SEC. 3, T. 35 N., R. 4 E., W.M.
SKAGIT COUNTY, WASHINGTON

FIELD BK/PG:	311/34-79
DATE:	9/04/18
DRAWING:	5166PNP.DWG
JOB NO.:	5166
SHEET:	2



1/3 PAVING SECTION
STA 21+00 TO 26+00

(NOT TO SCALE)



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Q.7.2020
JOHN B. SEMRAU
STATE OF WASHINGTON
28626
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PROFESSIONAL ENGINEER

NO.	DATE	REVISION	BY	REV.

PLAN AND PROFILE
STATION 15+00 TO 30+00

SCALES:
HORIZONTAL : 1" = 50'
VERTICAL : 1" = 10'

NOTE: IF THIS SHEET IS LESS THAN 22"x 34" THEN SHEET HAS BEEN REDUCED

GRIP ROAD GRAVEL MINE
ACCESS ROAD AS BUILT
SEC. 27, 34, T. 36 N., SEC. 3, T. 35 N., R. 4 E., W.M.
SKAGIT COUNTY, WASHINGTON

FIELD BK/PG:	311/34-79
DATE:	9/04/18
DRAWING:	5166PNP.DWG
JOB NO.:	5166
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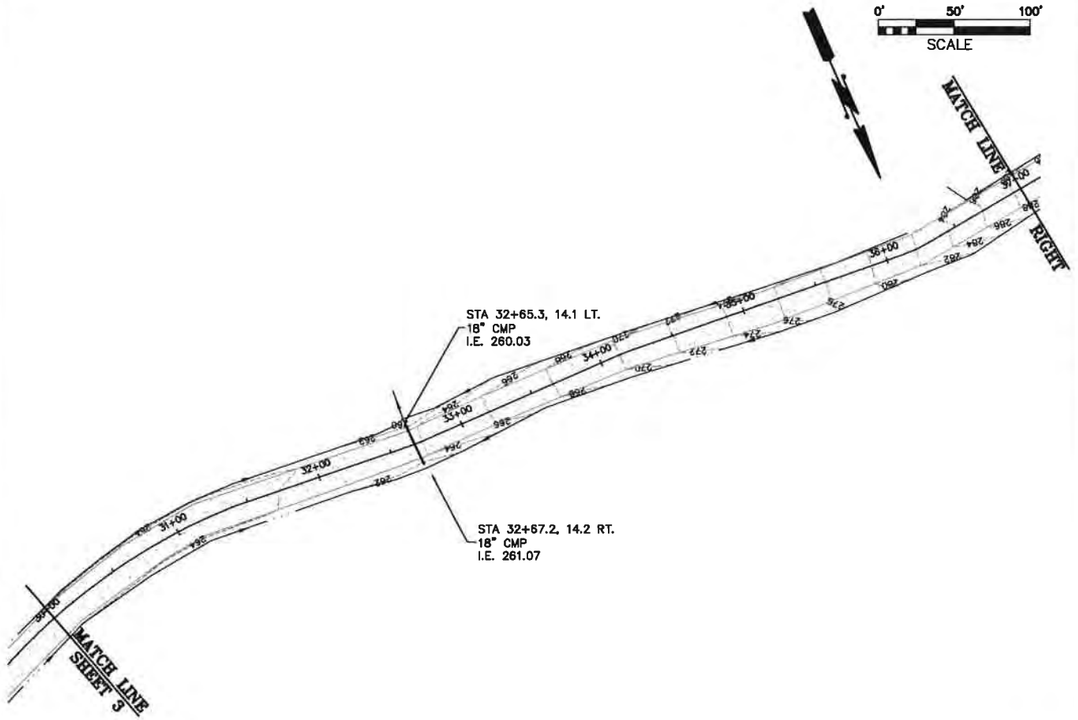

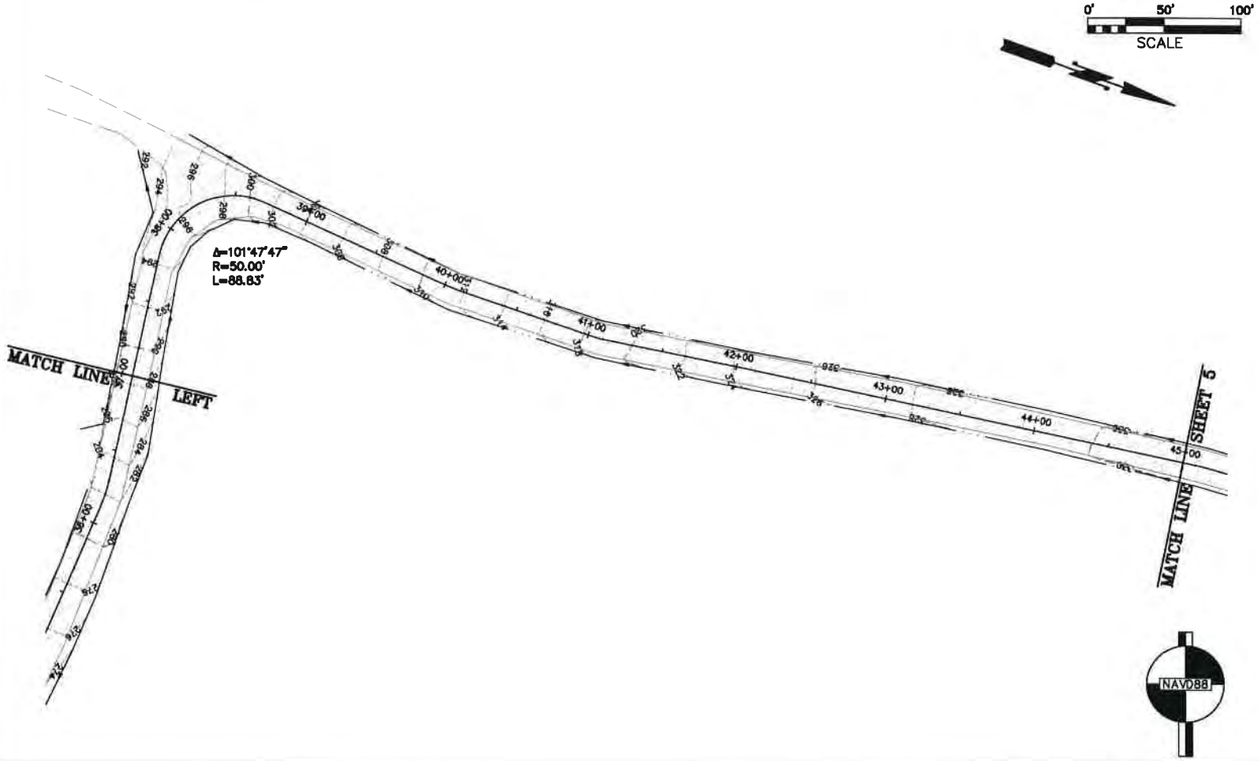

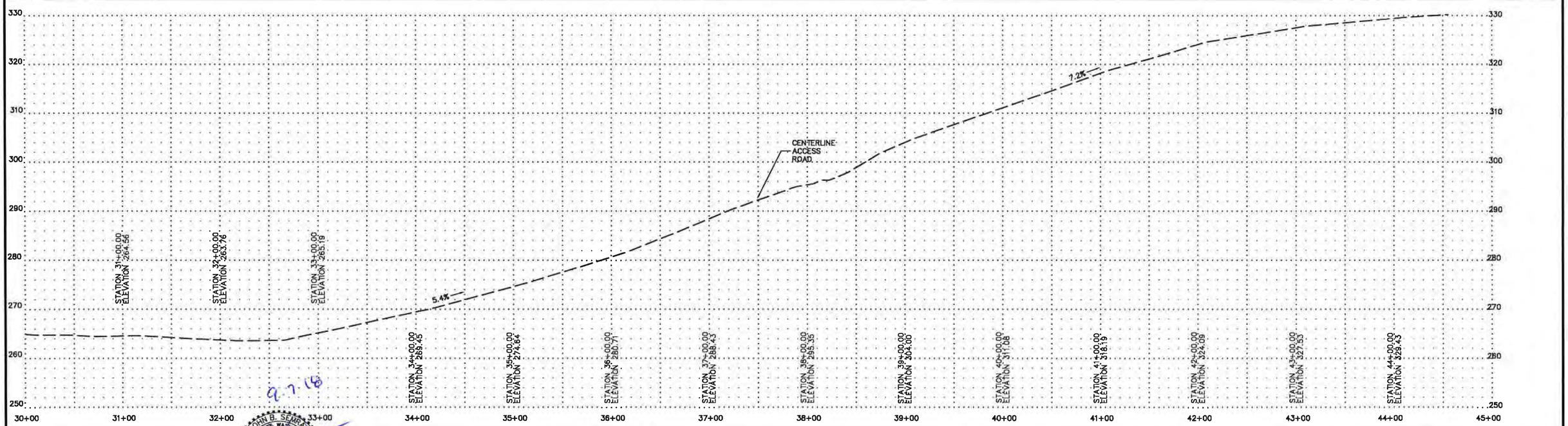

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9.7.18

NO.	DATE	REVISION	BY	REV.

PLAN AND PROFILE
STATION 30+00 TO 45+00

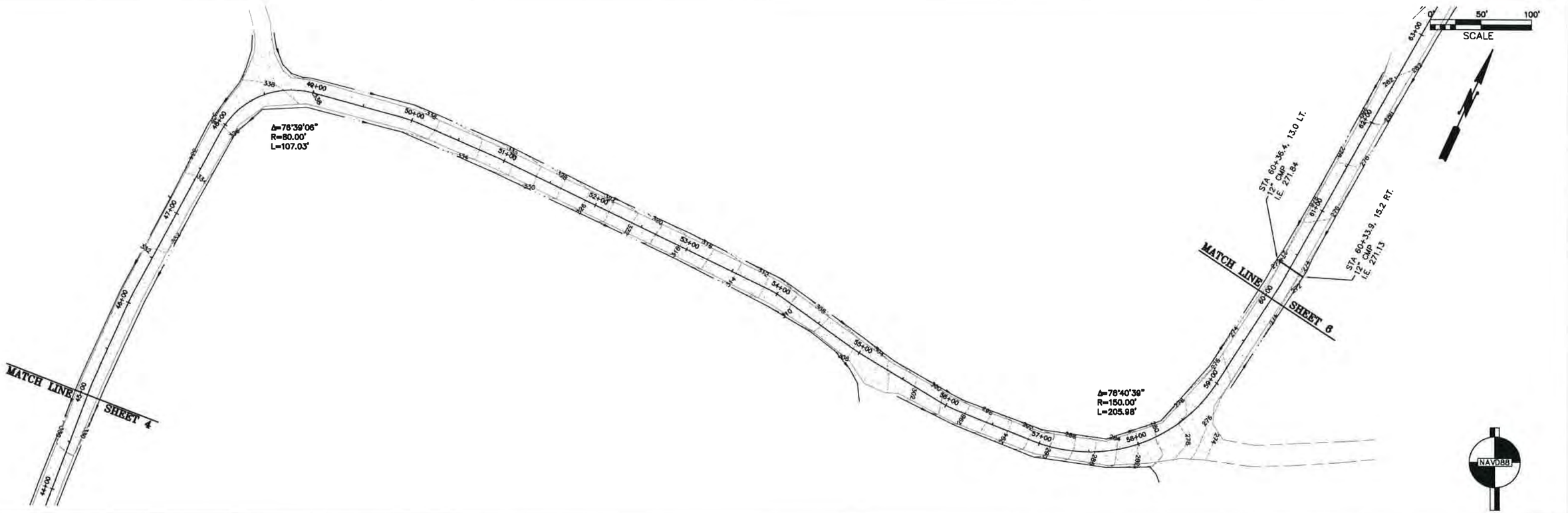
SCALES:
HORIZONTAL : 1" = 50'
VERTICAL : 1" = 10'

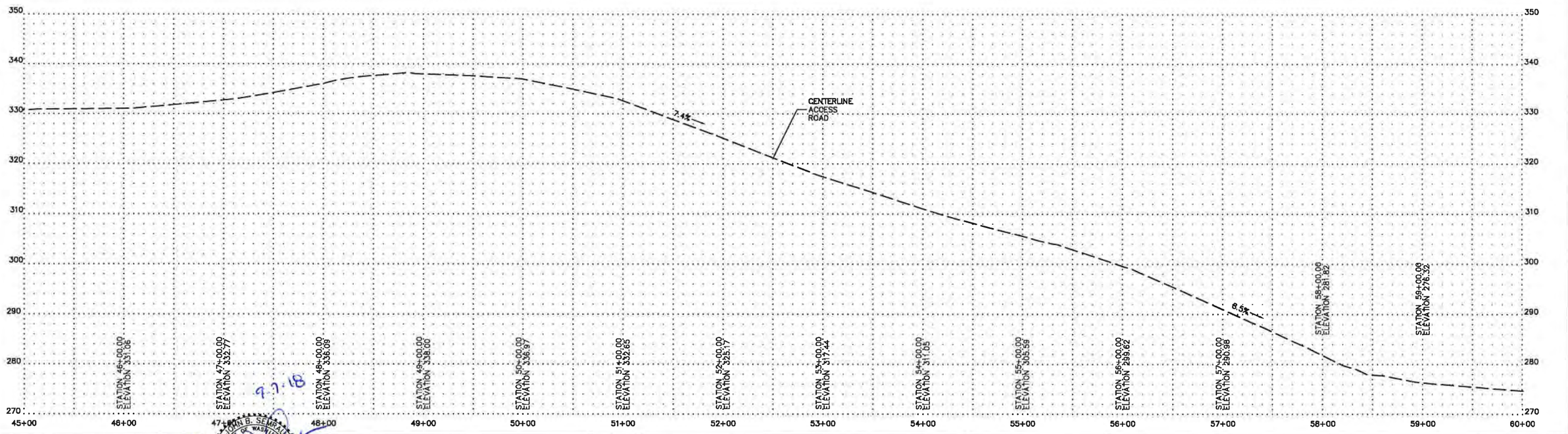
NOTE: IF THIS SHEET IS LESS THAN 22"x 34" THEN SHEET HAS BEEN REDUCED

GRIP ROAD GRAVEL MINE ACCESS ROAD AS BUILT

SEC. 27, 34, T. 36 N., SEC. 3, T. 35 N., R. 4 E., W.M.
SKAGIT COUNTY, WASHINGTON

FIELD BK/PG:	311/34-79
DATE:	9/04/18
DRAWING:	5166PNP.DWG
JOB NO.:	5166
SHEET:	4





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9.7.18

NO.	DATE	REVISION	BY	REV.

PLAN AND PROFILE
STATION 45+00 TO 60+00

SCALES:
HORIZONTAL : 1" = 50'
VERTICAL : 1" = 10'
NOTE: IF THIS SHEET IS LESS THAN 22"x 34" THEN SHEET HAS BEEN REDUCED

GRIP ROAD GRAVEL MINE
ACCESS ROAD AS BUILT
SEC. 27, 34, T. 36 N., SEC. 3, T. 35 N., R. 4 E., W.M.
SKAGIT COUNTY, WASHINGTON

FIELD BK/PG:	311/34-79
DATE:	9/04/18
DRAWING:	5166PNP.DWG
JOB NO.:	5166
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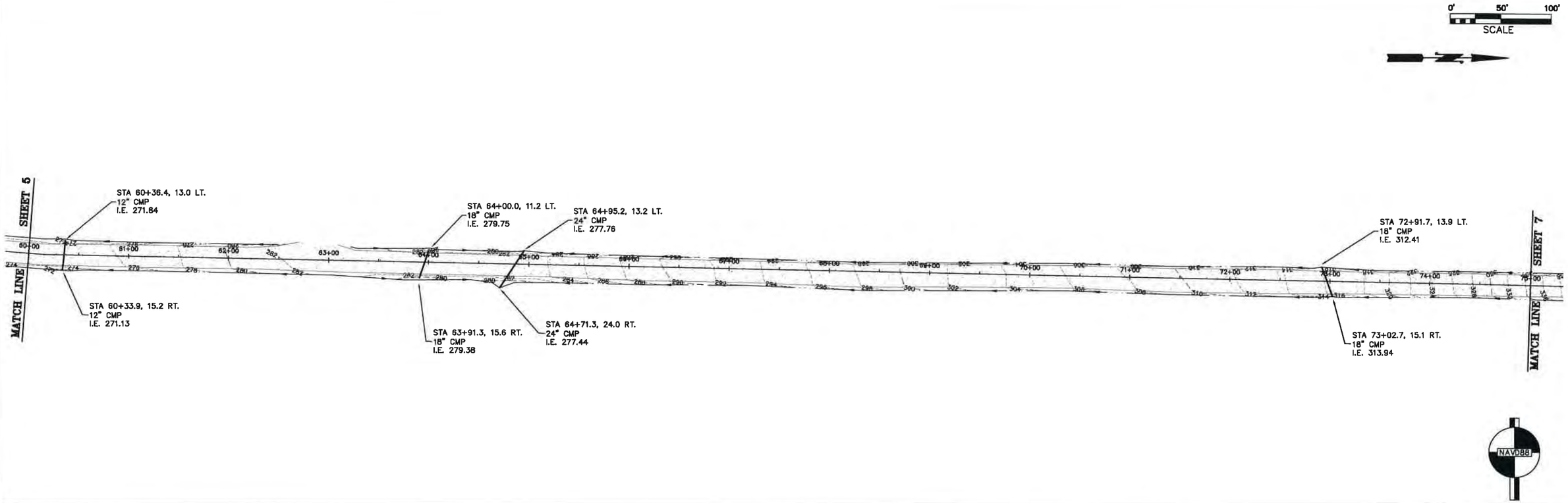

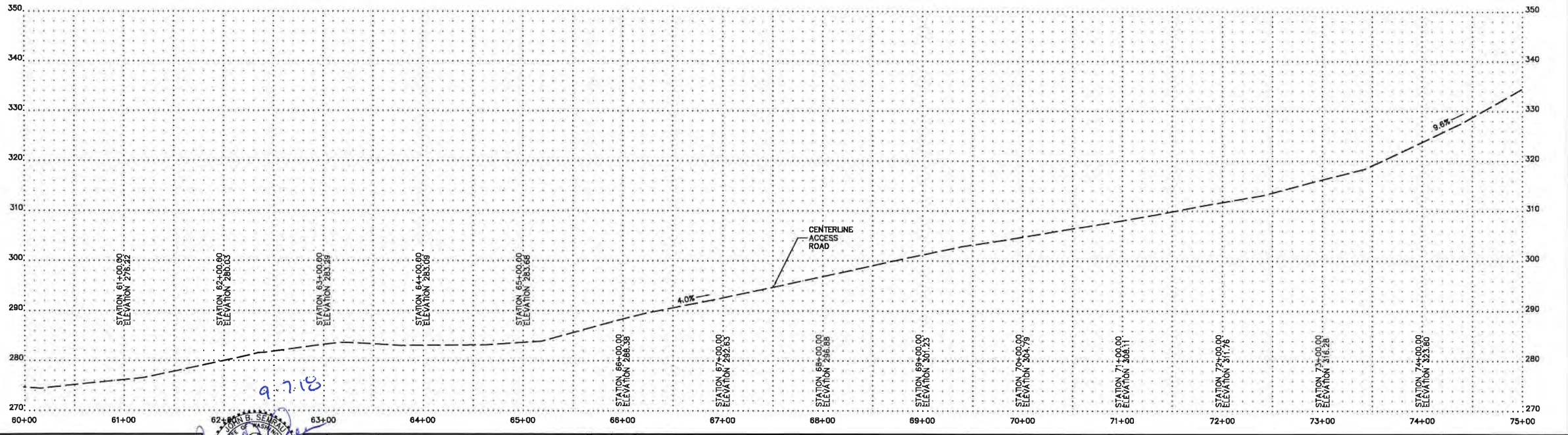

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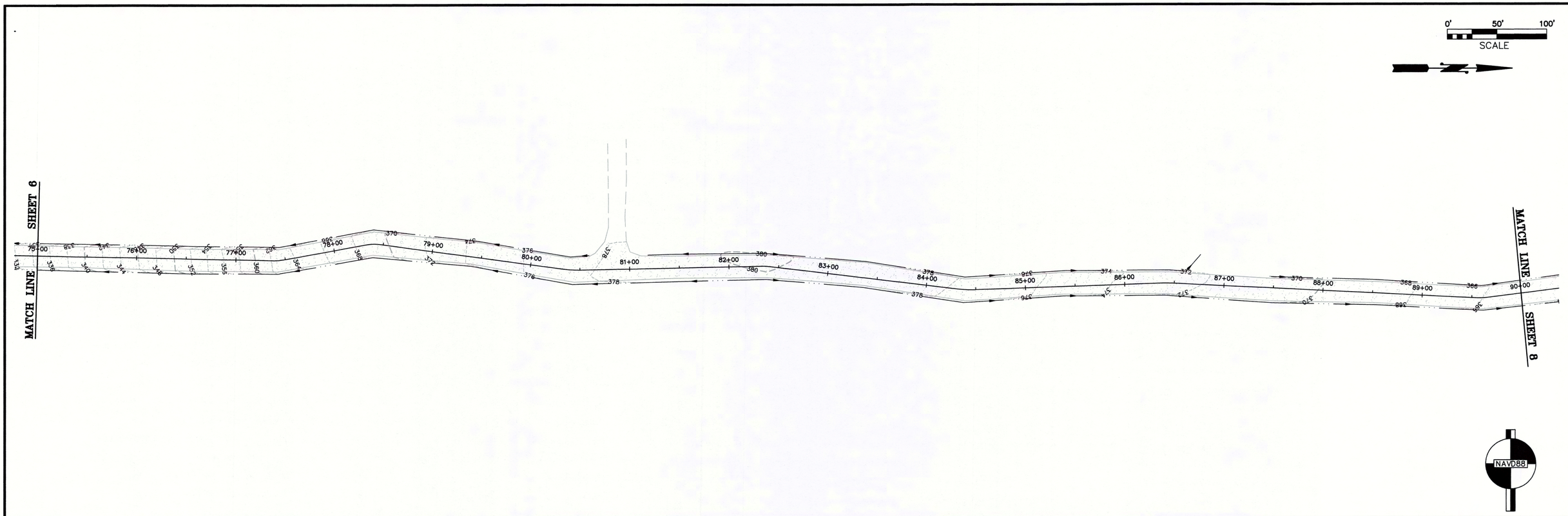
NO.	DATE	REVISION	BY	REV.

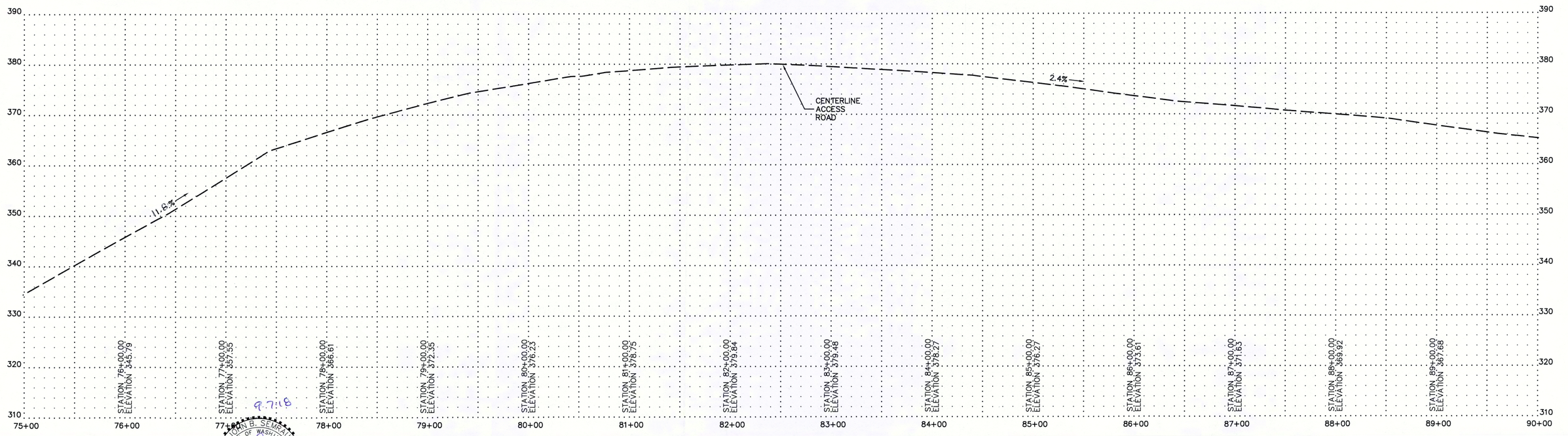
PLAN AND PROFILE
STATION 60+00 TO 75+00

SCALES:
HORIZONTAL : 1" = 50'
VERTICAL : 1" = 10'
NOTE: IF THIS SHEET IS LESS THAN 22"x 34" THEN SHEET HAS BEEN REDUCED

GRIP ROAD GRAVEL MINE
ACCESS ROAD AS BUILT
SEC. 27, 34, T. 36 N., SEC. 3, T. 35 N., R. 4 E., W.M.
SKAGIT COUNTY, WASHINGTON

FIELD BK/PG:	311/34-79
DATE:	9/04/18
DRAWING:	5166PNP.DWG
JOB NO.:	5166
SHEET:	6





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9.7.18

NO.	DATE	REVISION	BY	REV.
1	6.7.19	CORRECT SLOPE 76+00 TO 77+00	JBS	

PLAN AND PROFILE
STATION 75+00 TO 90+00

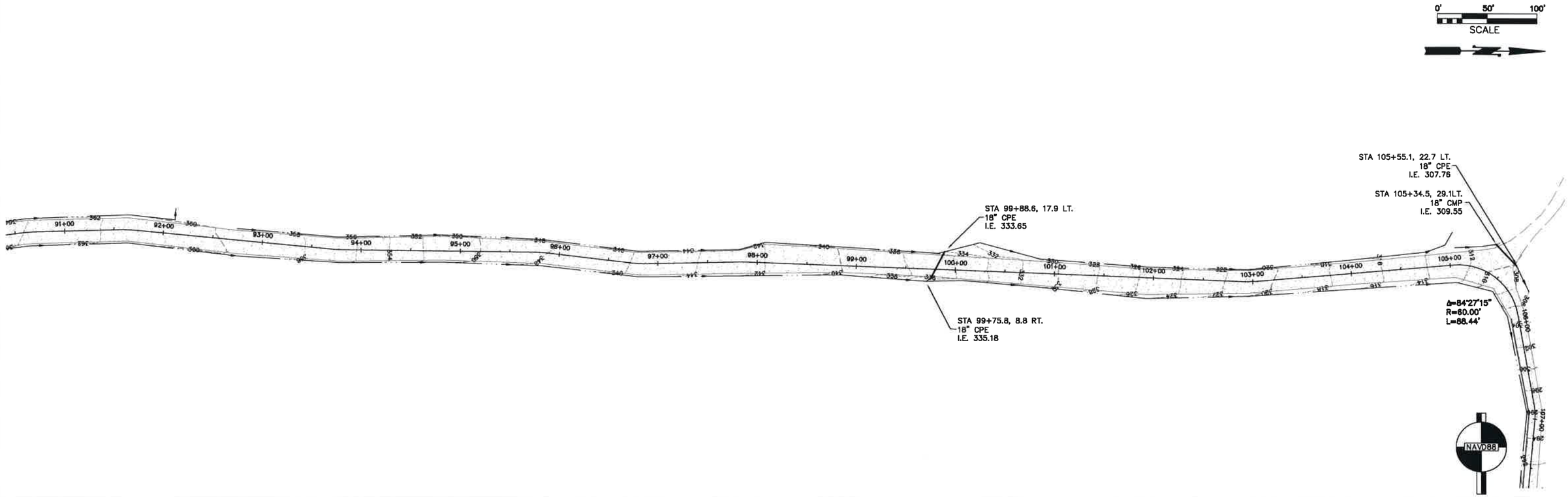
SCALES:
HORIZONTAL : 1" = 50'
VERTICAL : 1" = 10'

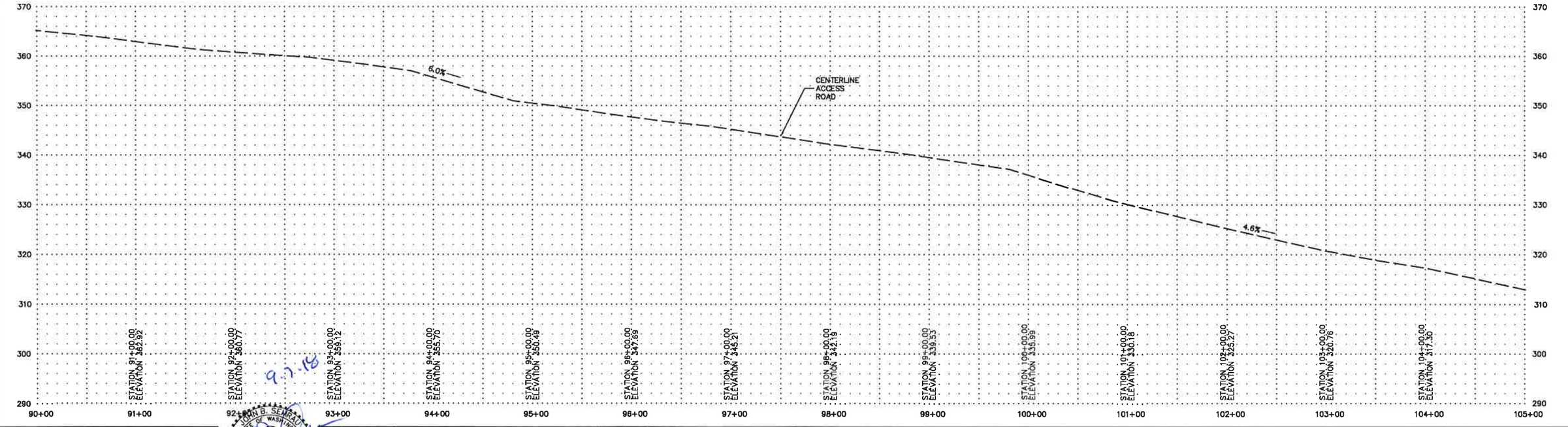
NOTE: IF THIS SHEET IS LESS THAN 22"x 34" THEN SHEET HAS BEEN REDUCED

GRIP ROAD GRAVEL MINE ACCESS ROAD AS BUILT

SEC. 27, 34, T. 36 N., SEC. 3, T. 35 N., R. 4 E., W.M.
SKAGIT COUNTY, WASHINGTON

FIELD BK/PG:	311/34-79
DATE:	9/04/18
DRAWING:	5166PNP.DWG
JOB NO.:	5166
SHEET:	7





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9-7-18

NO.	DATE	REVISION	BY	REV.

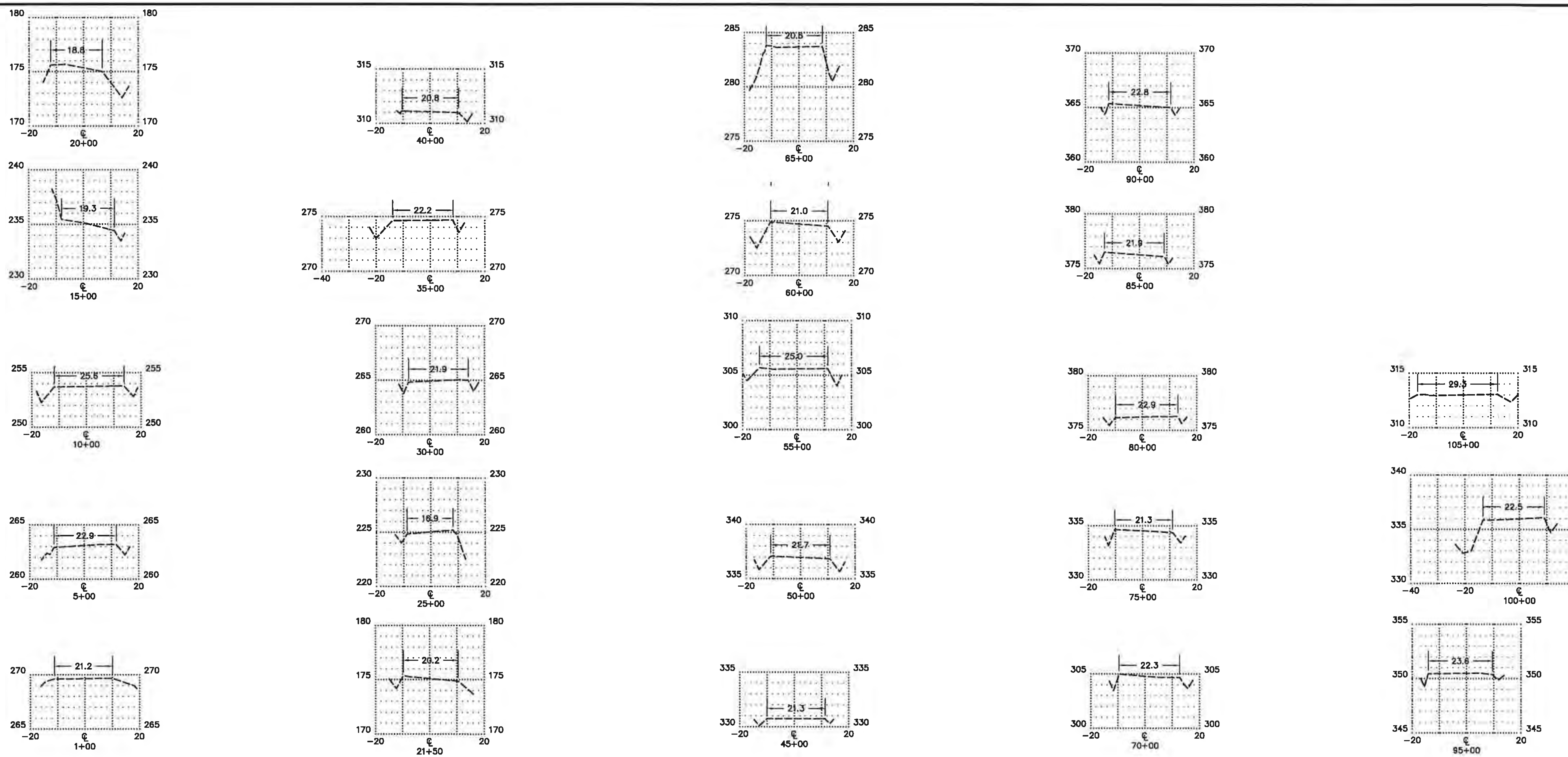
PLAN AND PROFILE
STATION 90+00 TO 105+00

SCALES:
HORIZONTAL : 1" = 50'
VERTICAL : 1" = 10'

NOTE: IF THIS SHEET IS LESS THAN 22"x 34" THEN SHEET HAS BEEN REDUCED

GRIP ROAD GRAVEL MINE
ACCESS ROAD AS BUILT
SEC. 27, 34, T. 36 N., SEC. 3, T. 35 N., R. 4 E., W.M.
SKAGIT COUNTY, WASHINGTON

FIELD BK/PG:	311/34-79
DATE:	9/04/18
DRAWING:	5166PNP.DWG
JOB NO.:	5166
SHEET:	8



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9.7.18

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NO.	DATE	REVISION	BY	REV.

CROSS SECTIONS

SCALES:
HORIZONTAL : 1" = 20'
VERTICAL : 1" = 5'

NOTE: IF THIS SHEET IS LESS THAN 22"x 34" THEN SHEET HAS BEEN REDUCED

GRIP ROAD GRAVEL MINE ACCESS ROAD AS BUILT

SEC. 27, 34, T. 36 N., SEC. 3, T. 35 N., R. 4 E., W.M.
SKAGIT COUNTY, WASHINGTON

FIELD BK/PG:	311/34–79
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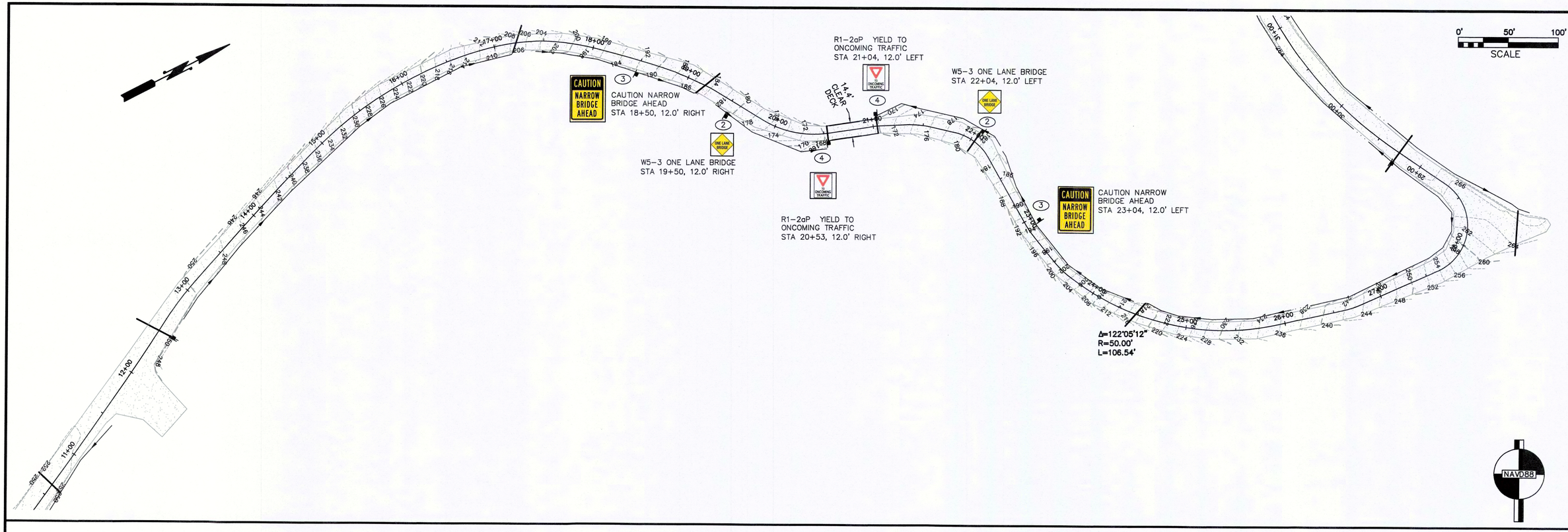

SIGN LEGEND

① R1-1 STOP
30" X 30"

② W5-3 ONE LANE BRIDGE
36" X 36"

③ CAUTION NARROW BRIDGE AHEAD

④ R1-2aP YIELD TO ONCOMING TRAFFIC

10-28-2020

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NO.	DATE	REVISION	BY	REV.

SIGNAGE PLAN
STATION 15+00 TO 30+00

SCALES:
HORIZONTAL : 1" = 50'
VERTICAL : 1" = 10'

NOTE: IF THIS SHEET IS LESS THAN 22"x 34" THEN SHEET HAS BEEN REDUCED

GRIP ROAD GRAVEL MINE ACCESS ROAD AS BUILT
SEC. 27, 34, T. 36 N., SEC. 3, T. 35 N., R. 4 E., W.M.
SKAGIT COUNTY, WASHINGTON

FIELD BK/PG:	311/34-79
DATE:	10/28/20
DRAWING:	5166PNP.DWG
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