



June 20, 2007

TO: Dawn McIntosh, Project Engineer (MS 140)
Joanne Wright, Environmental Coordinator (MS 138)

THRU: Gary Davis (MS-138)

FROM: Trina Miller
(206) 440-4901

**SUBJECT: SR 9: 20th Street SE Widening (WIN A00916G; XL 2262)
Jurisdictional Ditches Review**

This memorandum is intended to provide the U.S. Army Corps of Engineers with the information necessary to make a jurisdictional ditch determination for the State Route (SR) 9 South Lake Stevens Road at milepost (MP) 13.70 to 20th Street SE at MP 14.50 safety improvement project. Ditches were examined along SR 9 in the project area on May 30, 2007 by WSDOT biologists to determine which ditches meet the U.S. Army Corps of Engineers criteria for a jurisdictional ditch. The proposed project is a safety and corridor improvement project, and consists of two intersection upgrades, widening symmetrically for a northbound add-lane and southbound drop-lane between South Lake Stevens Road and 20th Street SE, a new widened bridge south of the SR 9/20th Street SE intersection, intersection illumination upgrades, signalization improvements, and drainage improvements. WSDOT biologists walked along the entire project to examine potential jurisdictional ditches proposed for impact within the project limits.

METHODOLOGY

Ditches were reviewed to determine if they meet the COE criteria for a jurisdictional ditch by exhibiting such features as:

- Areas exhibiting scour marks;
- Presence of a defined channel;
- Vegetation laid down by flowing water;
- Debris racks;
- Areas of flowing or standing water;
- Clear areas of gravel with no vegetation; or
- Areas meeting the three wetland parameters that were not considered jurisdictional wetland.

CONCLUSIONS

A total of two ditches (Ditch A and Ditch B) on-site met the aforementioned jurisdictional criteria; however, only one of these ditches (Ditch A) had relatively permanent water at the time of the investigation (Table 1). Impacts to Ditch A include 1,100 feet due to roadway widening and fill, and will be replaced with a new roadside ditch. Ditch impacts to Ditch B include 750 feet of impact in

which the existing ditch will be filled due to roadway widening and relocated east of the new alignment.

The remaining non-jurisdictional ditches in the project area that will be impacted are either part of a previously delineated wetland or are shallow, heavily vegetated ditches lacking standing water, scour, OHWM, laid down vegetation.

Conveyance is the primary function currently provided by these identified ditch segments. Impacts to potentially jurisdictional ditch sections will be mitigated on-site through the construction of a new ditch (Table 1). The proposed project will not result in any discernable loss of this function.

Please call me if you have any questions or require additional information.

tmm

Attachments: Table 1. Potential jurisdictional ditch characterization
Photographs
Plan Sheets

Table 1. Potential jurisdictional ditch characterization.

Ditch	Location (Stationing)	Length (ft)	Width (ft)	Depth (ft)	Size (ft³)	Source	Discharge Location	Jurisdictional Characteristics	Impacts
A	174+38 to 185+00	1,100	1.50	0.08	132.00	Sheet flow from northbound lane and the SR9/20 th St. SE intersection.	Ditch flows into Wetland 5 located at the southeast quadrant of SR 9/20 th St. SE.	Standing water, scour, and a defined channel.	Ditch will be filled and relocated to the east of the new roadway alignment.
B	192+75 to 200+10	750	0.67	0.08	40.20	Sheet flow from northbound lane.	Ditch flows into a SR 9 cross-culvert at station 192+75 and drains west into a wetland contained on private property, outside of the project limits.	Scour and defined channel with some wetland vegetation.	Ditch will be filled and relocated to the east of the new roadway alignment.

AREAS CONSIDERED POTENTIALLY JURISDICTIONAL

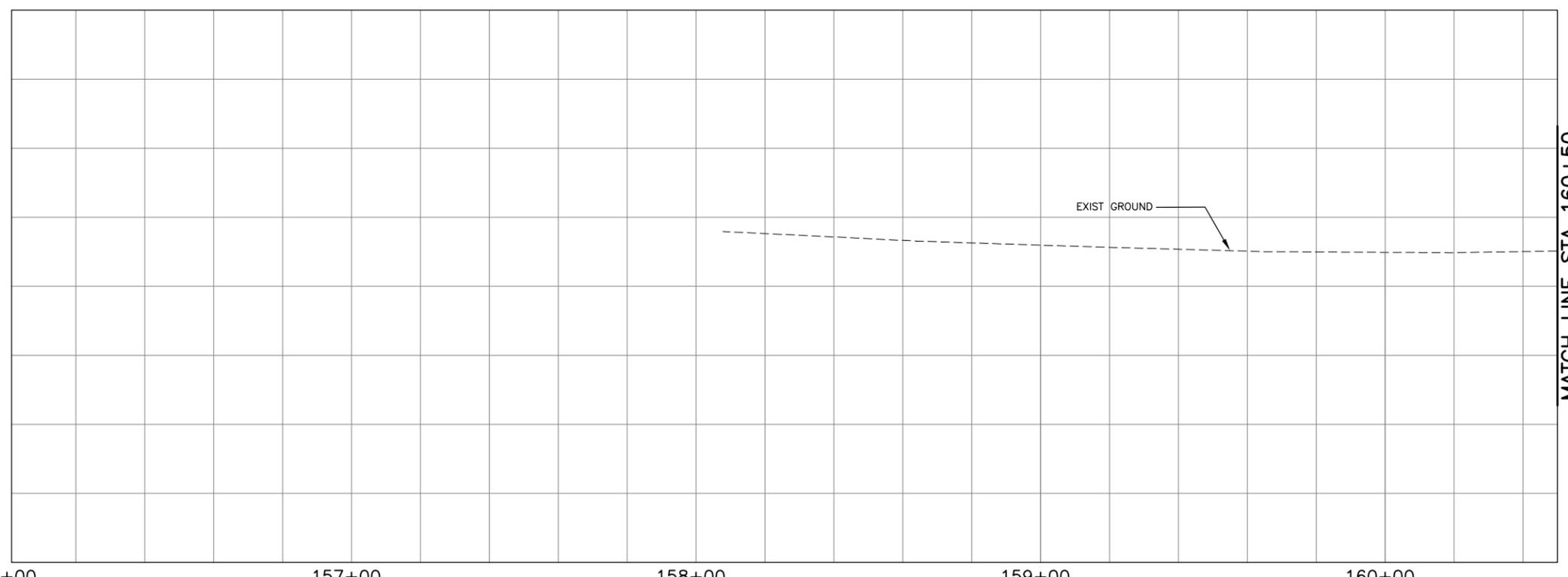
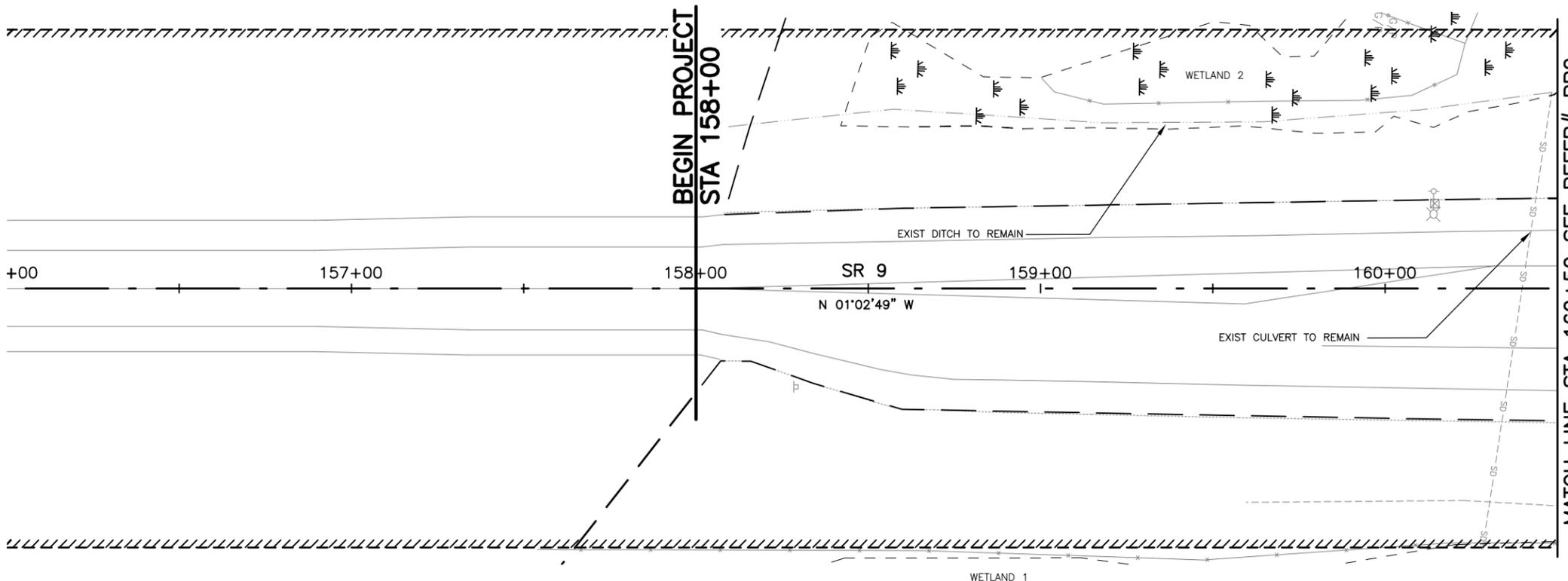


Photo 1. North-facing view of Ditch A, showing ponded water, signs of scour, and a defined OHWM.



Photo 2. North-facing view of Ditch B, showing signs of scour and defined OHWM.

SECTION 24 & 25, T. 29 N., R. 5 E., W.M.



GENERAL NOTES

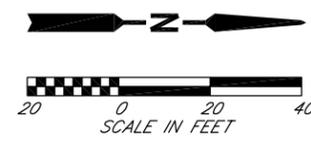
1 HYDRAULIC RUNOFF IS FROM ROADWAY AND EXISTING IMPERVIOUS FEATURES WITHIN THE RIGHT OF WAY. THIS RUNOFF IS DIRECTED INTO CENTENNIAL CREEK.

LEGEND

LINETYPES	DESCRIPTION
---	SURFACE FEATURES:
---	EDGE OF PAVEMENT (EXISTING)
---	BUFFER
---	BUILDING LINE (EXISTING)
---	CURB/CONCRETE (EXIST.)
---	DITCH/STREAM CENTERLINE (EXIST.)
---	FENCE (EXISTING)
---	GRAVEL (EXIST.)
---	RETAINING WALL (EXISTING)
---	ROCKERY (EXISTING)
---	WETLAND BOUNDARY/OHWM
---	CENTERLINE (CONSTRUCTION)
S	SANITARY SEWER
SD	STORM DRAINAGE
---	SERVICE (LIST TYPE, SIZE, ETC.)
HW	OHWM

SURFACE FEATURES/LANDSCAPING

SYMBOL	DESCRIPTION
(EXTEND TO CATCH)	EMBANKMENT
□	MAIL BOX
□	SIGN
(DRAW TO SCALE)	RIP RAP
○	BOULDER
○	SHRUB
★	TREE (Conifer)
○	TREE (Deciduous)
★	STUMP
○	WELL
○	ROCKERY
	WETLAND



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PLAN CHECK	BY	DATE	REVISION	BY

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.
10	WASH.		
DESIGNED BY: D. MEISENHEIMER		DRAWN BY: D. MEISENHEIMER	
FIELD BOOK(S):		DRAWING # SR9_TD01-TDXX	

APPROVED FOR CONSTRUCTION

OWEN B. CARTER, P.E.
SNOHOMISH COUNTY ENGINEER

DATE APPROVED: _____

SNOHOMISH COUNTY
DEPARTMENT OF
PUBLIC WORKS

PROJECT NO. RR7955

SR9
S. LAKE STEVENS RD TO 20TH ST S.E.
DITCH IMPACTS
STA 156+00 TO 160+50

REFER #	TD1
SURVEY NO.	
SHEET OF SHEETS	

Jun 21, 2007 - 10:36am jesset C:\Temp\BGFPlot_2772\SR9_TD01-TDXX.dwg Layout Name: pp01

SECTION 24 & 25, T. 29 N., R. 5 E., W.M.

GENERAL NOTES

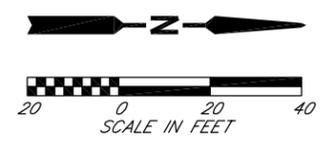
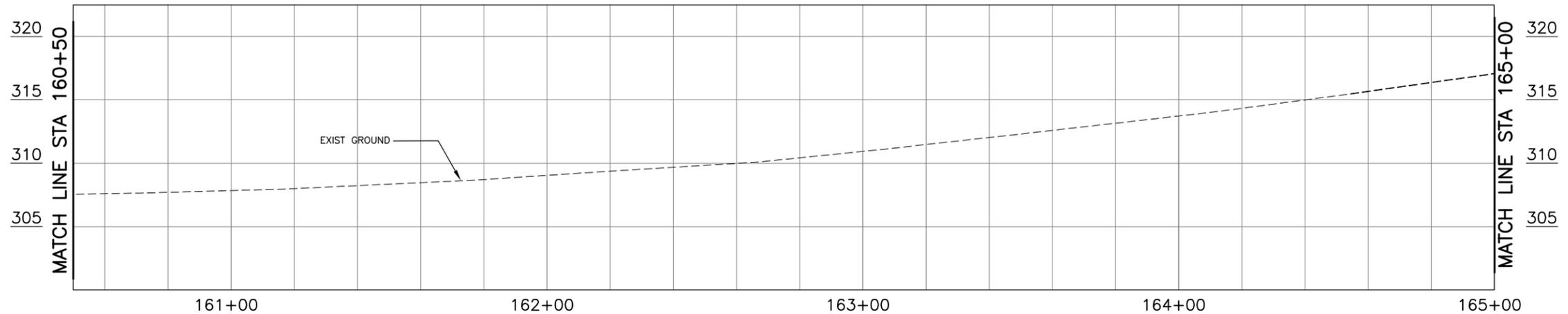
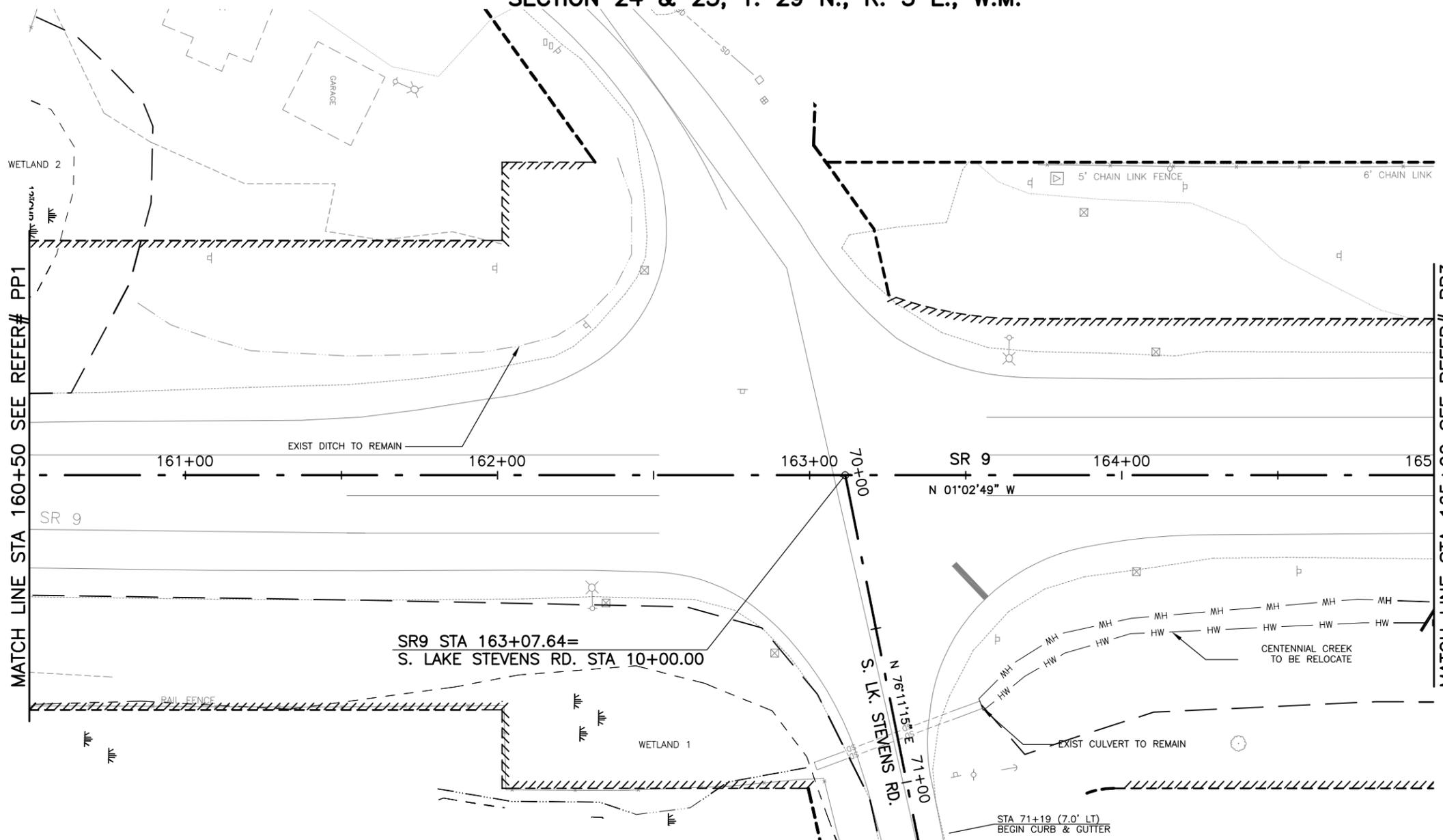
1 HYDRAULIC RUNOFF IS FROM ROADWAY AND EXISTING IMPERVIOUS FEATURES WITHIN THE RIGHT OF WAY. THIS RUNOFF IS DIRECTED INTO CENTENNIAL CREEK.

LEGEND

LINETYPES	DESCRIPTION
---	SURFACE FEATURES:
---	EDGE OF PAVEMENT (EXISTING)
---	BUFFER
---	BUILDING LINE (EXISTING)
---	CURB/CONCRETE (EXIST.)
---	DITCH/STREAM CENTERLINE (EXIST.)
---	FENCE (EXISTING)
---	GRAVEL (EXIST.)
---	RETAINING WALL (EXISTING)
---	ROCKERY (EXISTING)
---	WETLAND BOUNDARY/OHWM
---	CENTERLINE (CONSTRUCTION)
S	SANITARY SEWER
SD	STORM DRAINAGE
	SERVICE (LIST TYPE, SIZE, ETC.)
HW	OHWM

SURFACE FEATURES/LANDSCAPING

SYMBOL	DESCRIPTION
(EXIST.)	EMBANKMENT
(EXTEND TO CATCH)	MAIL BOX
	SIGN
(DRAW TO SCALE)	RIP RAP
	BOULDER
	SHRUB
	TREE (Conifer)
	TREE (Deciduous)
	STUMP
	WELL
	ROCKERY
	WETLAND



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SR9
S. LAKE STEVENS RD TO 20TH ST S.E.
DITCH IMPACTS
STA 160+50 TO 165+00

REFER #	TD2
SURVEY NO.	
SHEET	
OF	
SHEETS	

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SECTION 24 & 25, T. 29 N., R. 5 E., W.M.

GENERAL NOTES

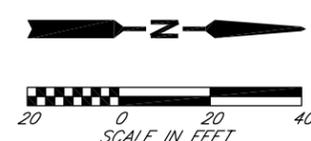
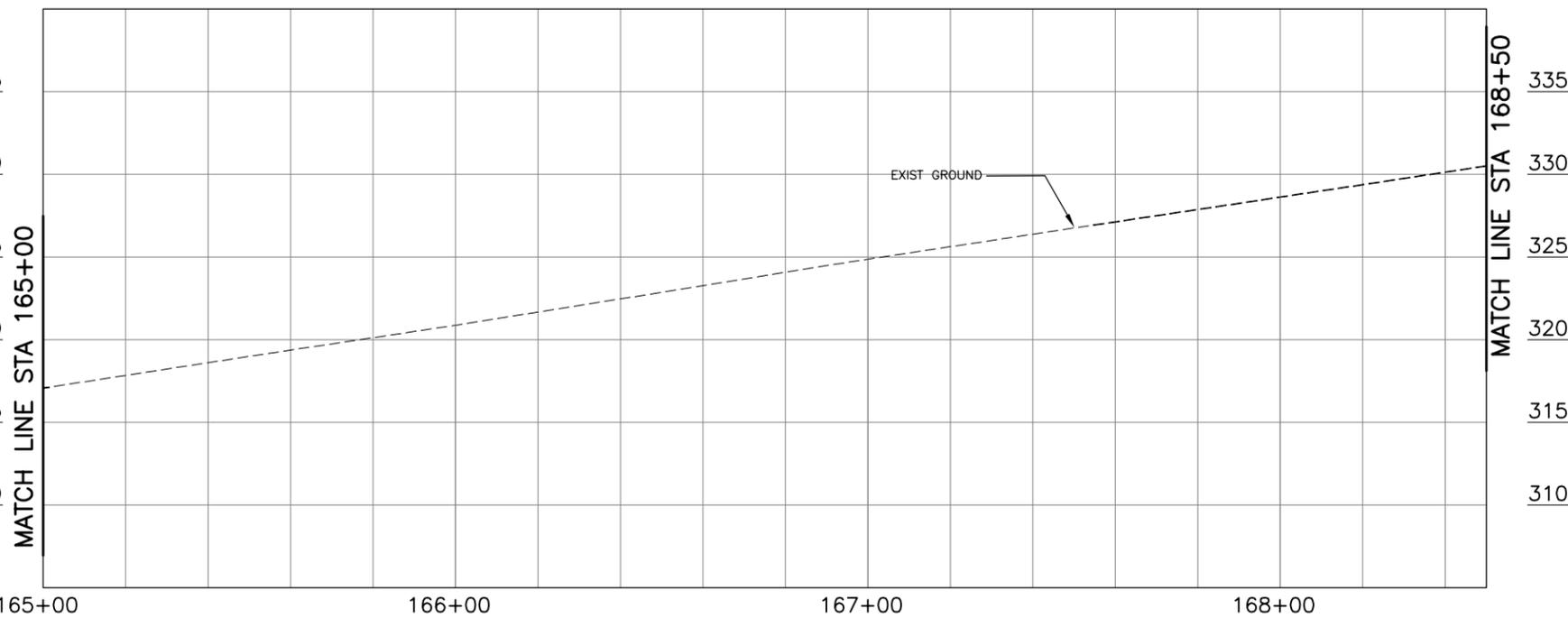
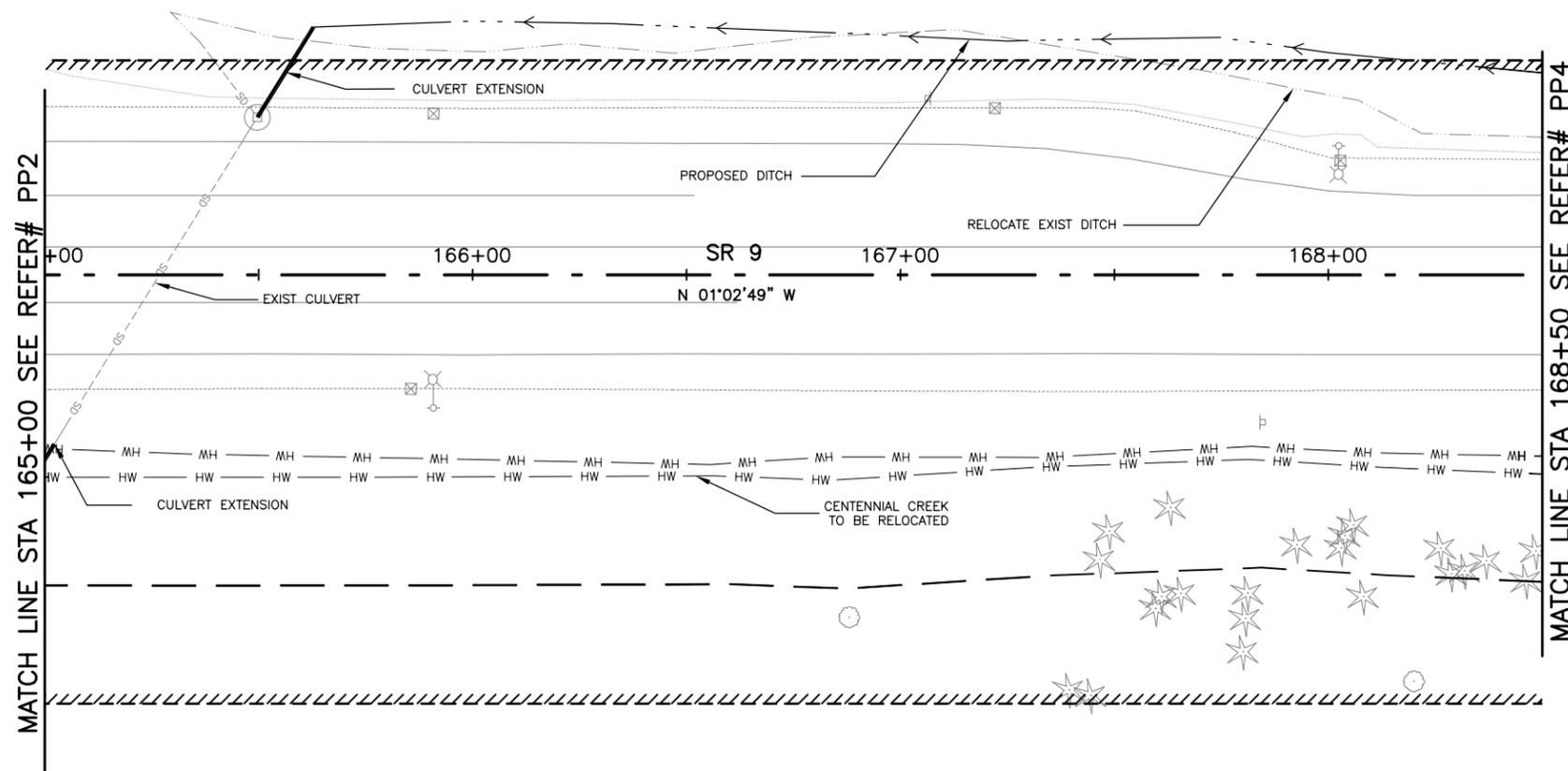
1 HYDRAULIC RUNOFF IS FROM ROADWAY AND EXISTING IMPERVIOUS FEATURES WITHIN THE RIGHT OF WAY. THIS RUNOFF IS DIRECTED INTO CENTENNIAL CREEK.

LEGEND

LINETYPES	DESCRIPTION
---	SURFACE FEATURES: EDGE OF PAVEMENT (EXISTING)
---	BUFFER
---	BUILDING LINE (EXISTING)
---	CURB/CONCRETE (EXIST.)
-x-x-x-	DITCH/STREAM CENTERLINE (EXIST.)
-x-x-x-	FENCE (EXISTING)
---	GRAVEL (EXIST.)
///	RETAINING WALL (EXISTING)
o-o-o-o	ROCKERY (EXISTING)
---	WETLAND BOUNDARY
---	CENTERLINE (CONSTRUCTION)
S	SANITARY SEWER
SD	STORM DRAINAGE
HW	SERVICE (LIST TYPE, SIZE, ETC.)
OHMM	OHMM

SURFACE FEATURES/LANDSCAPING

SYMBOL	DESCRIPTION
(EXIST.)	EMBANKMENT
(EXTEND TO CATCH)	MAIL BOX
□	SIGN
(DRAW TO SCALE)	RIP RAP
○	BOULDER
○	SHRUB
★	TREE (Conifer)
○	TREE (Deciduous)
★	STUMP
●	WELL
o-o-o-o	ROCKERY
	WETLAND



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SR9
S. LAKE STEVENS RD TO 20TH ST S.E.
DITCH IMPACTS
STA 165+00 TO 168+50

REFER #	TD3
SURVEY NO.	
SHEET OF SHEETS	

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SECTION 24 & 25, T. 29 N., R. 5 E., W.M.

GENERAL NOTES

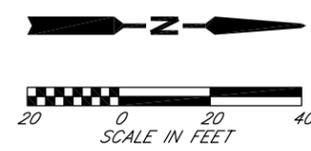
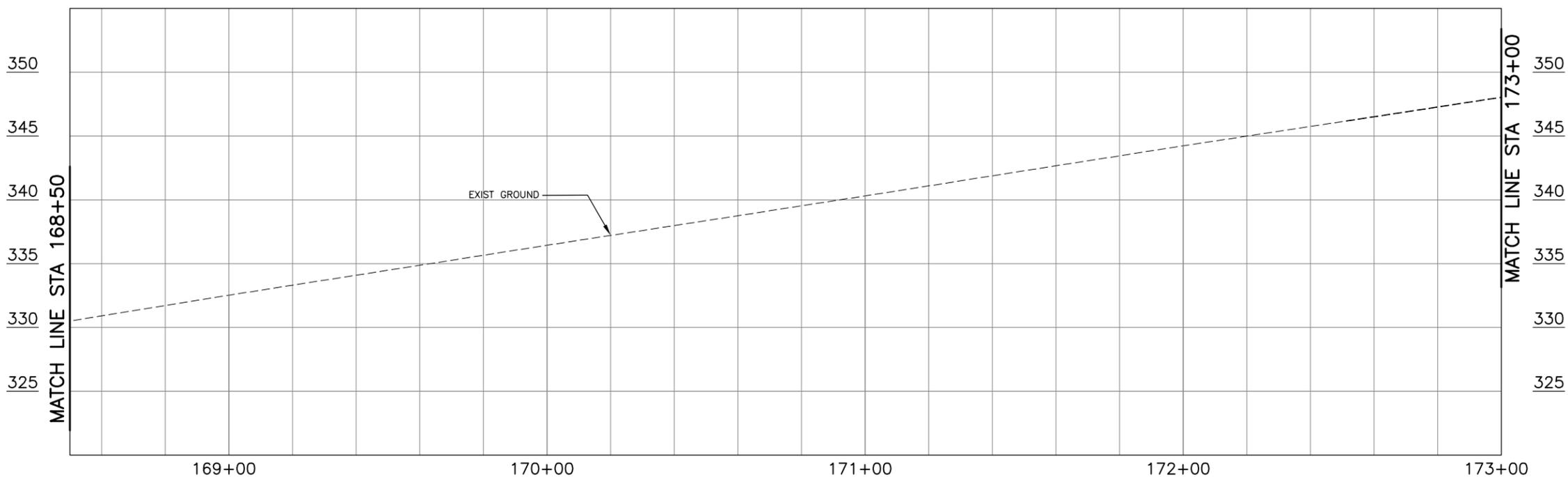
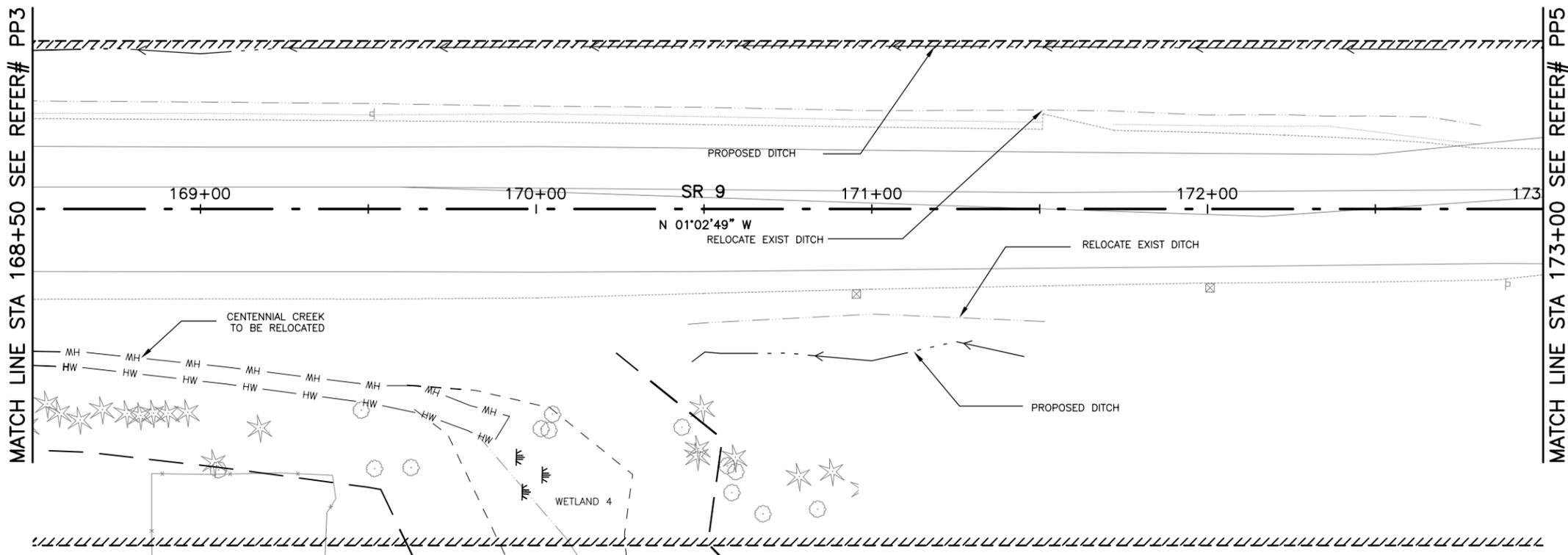
1 HYDRAULIC RUNOFF IS FROM ROADWAY AND EXISTING IMPERVIOUS FEATURES WITHIN THE RIGHT OF WAY. THIS RUNOFF IS DIRECTED INTO CENTENNIAL CREEK.

LEGEND

LINETYPES	DESCRIPTION
---	SURFACE FEATURES:
---	EDGE OF PAVEMENT (EXISTING)
---	BUFFER
---	BUILDING LINE (EXISTING)
---	CURB/CONCRETE (EXIST.)
---	DITCH/STREAM CENTERLINE (EXIST.)
---	FENCE (EXISTING)
---	GRAVEL (EXIST.)
---	RETAINING WALL (EXISTING)
---	ROCKERY (EXISTING)
---	WETLAND BOUNDARY/OHWM
---	CENTERLINE (CONSTRUCTION)
S	SANITARY SEWER
SD	STORM DRAINAGE
---	SERVICE (LIST TYPE, SIZE, ETC.)
HW	OHWM

SURFACE FEATURES/LANDSCAPING

SYMBOL	DESCRIPTION
(EXIST.)	EMBANKMENT
(EXTEND TO CATCH)	MAIL BOX
□	SIGN
(DRAW TO SCALE)	RIP RAP
○	BOULDER
○	SHRUB
★	TREE (Conifer)
○	TREE (Deciduous)
★	STUMP
●	WELL
○	ROCKERY
	WETLAND



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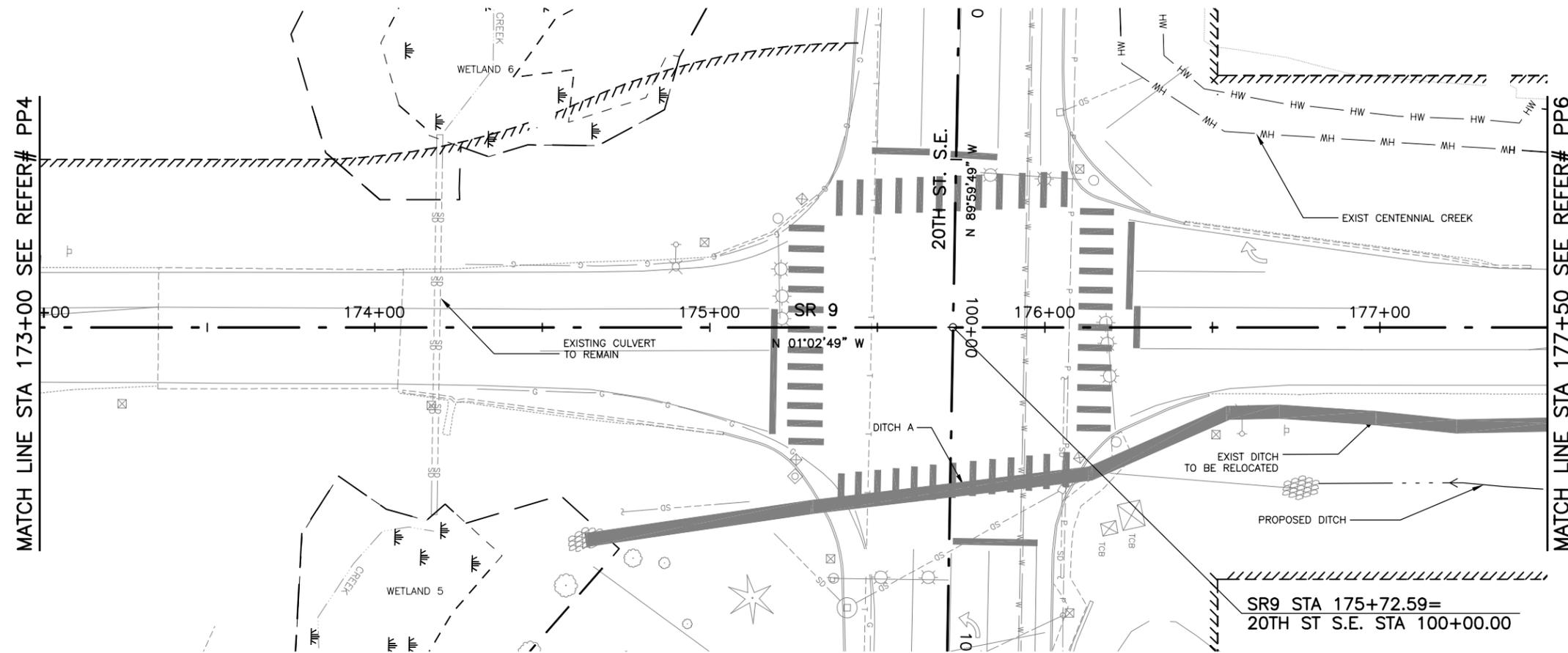
PROJECT NO. RR7955

SR9
S. LK. STEVENS RD TO 20TH ST S.E.
DITCH IMPACTS
STA 168+50 TO 173+00

REFER #
TD4
SURVEY NO.
SHEET
OF
SHEETS

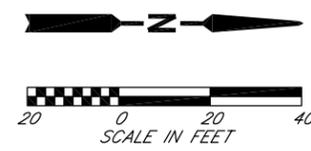
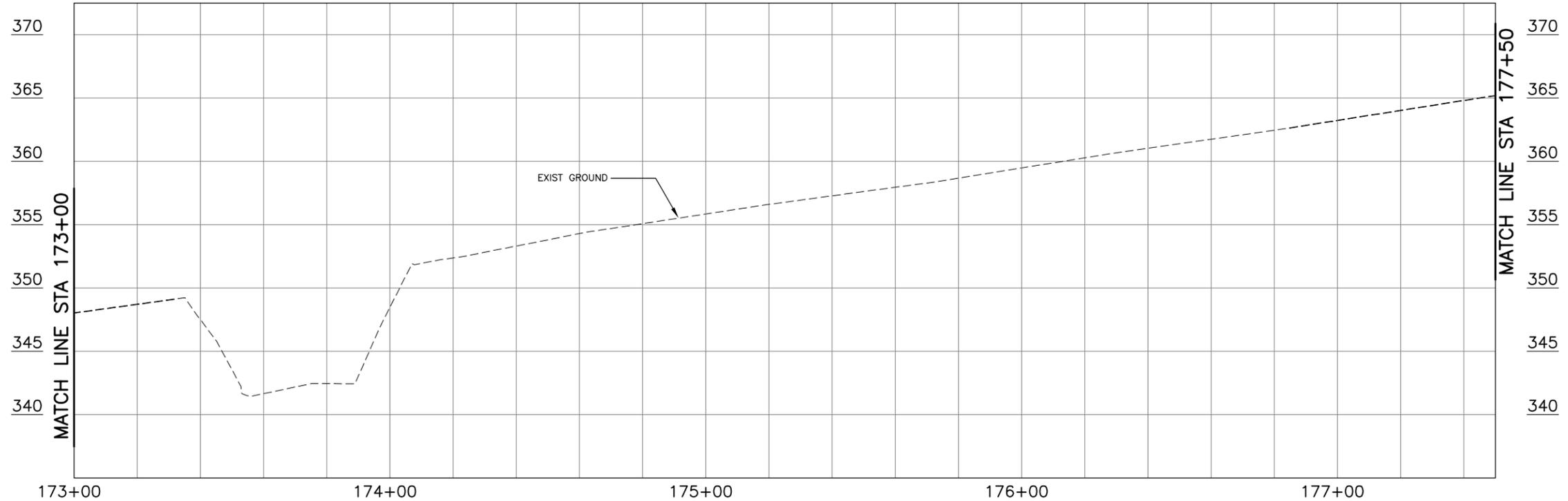
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SECTION 24 & 25, T. 29 N., R. 5 E., W.M.



GENERAL NOTES
 1 HYDRAULIC RUNOFF IS FROM ROADWAY AND EXISTING IMPERVIOUS FEATURES WITHIN THE RIGHT OF WAY. THIS RUNOFF IS DIRECTED INTO CENTENNIAL CREEK.

- LEGEND**
- LINETYPES**
- SURFACE FEATURES
 - EDGE OF PAVEMENT (EXISTING)
 - BUFFER
 - BUILDING LINE (EXISTING)
 - CURB/CONCRETE (EXIST.)
 - DITCH/STREAM CENTERLINE (EXIST.)
 - x-x-x- FENCE (EXISTING)
 - GRAVEL (EXIST.)
 - RETAINING WALL (EXISTING)
 - ROCKERY (EXISTING)
 - WETLAND BOUNDARY/OHWM
 - CENTERLINE (CONSTRUCTION)
 - S SANITARY SEWER
 - SD STORM DRAINAGE
 - SERVICE (LIST TYPE, SIZE, ETC.)
 - IMPACTED JURISDICTIONAL DITCH
 - HW --- HW --- HW --- OHWM
- SURFACE FEATURES/LANDSCAPING**
- SYMBOL EXIST. DESCRIPTION
- ▽ (EXTEND TO CATCH) EMBANKMENT
 - MAIL BOX
 - ▭ SIGN
 - ▨ (DRAW TO SCALE) RIP RAP
 - BOULDER
 - ◌ SHRUB
 - ★ TREE (Conifer)
 - ◌ TREE (Deciduous)
 - ⊙ STUMP
 - ⊙ WELL
 - ⊙ ROCKERY
 - ▨ WETLAND



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										D. MEISENHEIMER	D. MEISENHEIMER		
										FIELD BOOK(S):	DRAWING #		
											SR9_TD01-TDXX		
			DATE	NO.	REVISION	BY							

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PROJECT NO. RR7955

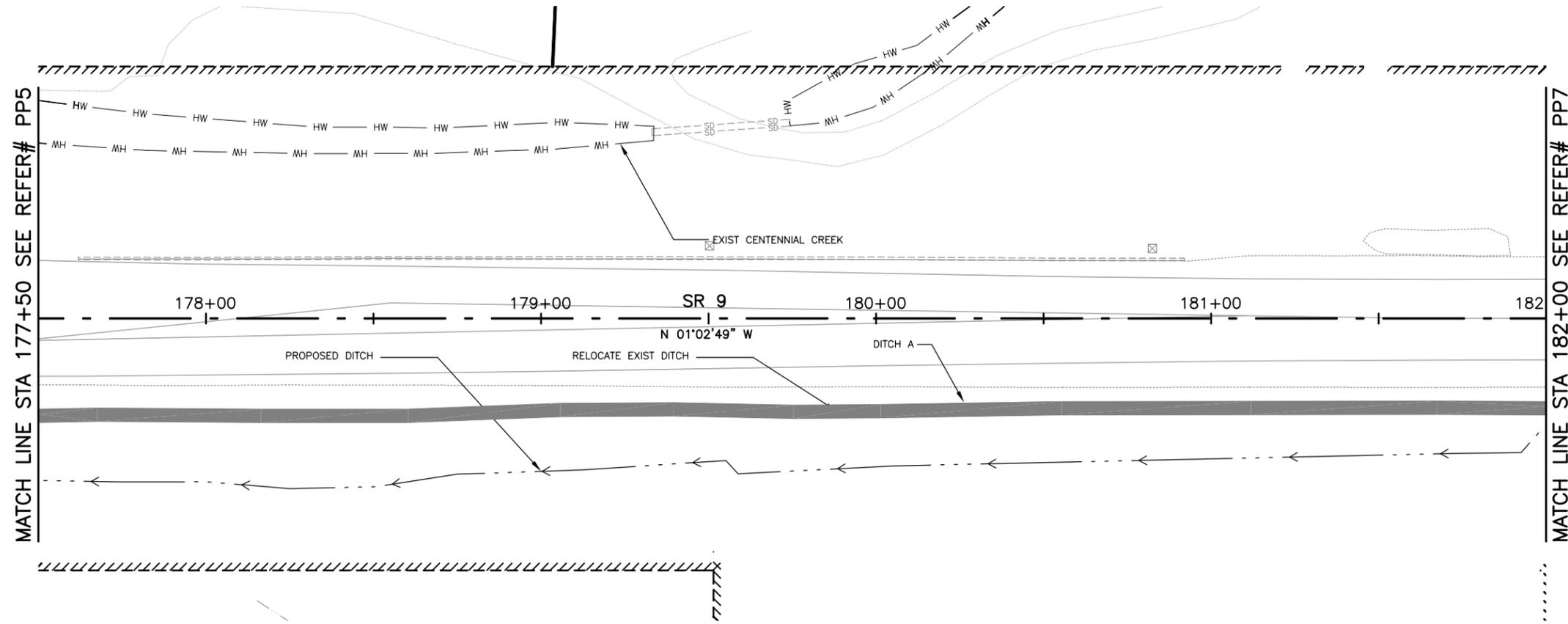
SR9
 S. LAKE STEVENS RD TO 20TH ST S.E.
DITCH IMPACTS
 STA 173+00 TO 177+50

REFER #
TD5

SURVEY NO.

SHEET
 OF
 SHEETS

SECTION 24 & 25, T. 29 N., R. 5 E., W.M.



GENERAL NOTES

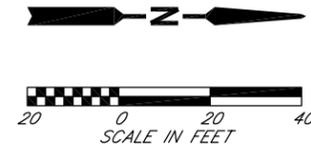
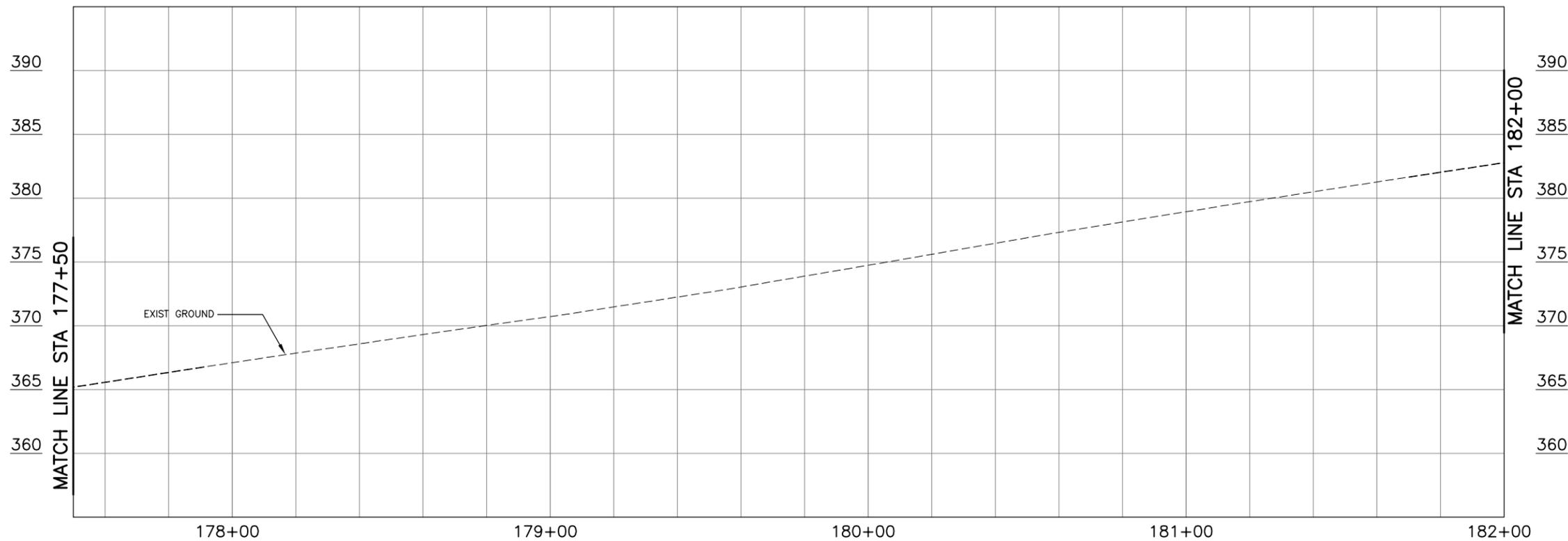
1 HYDRAULIC RUNOFF IS FROM ROADWAY AND EXISTING IMPERVIOUS FEATURES WITHIN THE RIGHT OF WAY. THIS RUNOFF IS DIRECTED INTO CENTENNIAL CREEK.

LEGEND

LINETYPES	DESCRIPTION
---	SURFACE FEATURES:
---	EDGE OF PAVEMENT (EXISTING)
---	BUFFER
---	BUILDING LINE (EXISTING)
---	CURB/CONCRETE (EXIST.)
---	DITCH/STREAM CENTERLINE (EXIST.)
---	FENCE (EXISTING)
---	GRAVEL (EXIST.)
---	RETAINING WALL (EXISTING)
---	ROCKERY (EXISTING)
---	WETLAND BOUNDARY/OHWM
---	CENTERLINE (CONSTRUCTION)
S	SANITARY SEWER
SD	STORM DRAINAGE
---	SERVICE (LIST TYPE, SIZE, ETC.)
---	IMPACTED JURISDICTIONAL DITCH
HW	OHWM

SURFACE FEATURES/LANDSCAPING

SYMBOL	DESCRIPTION
(EXTEND TO CATCH)	EMBANKMENT
□	MAIL BOX
□	SIGN
(DRAW TO SCALE)	RIP RAP
○	BOULDER
○	SHRUB
★	TREE (Conifer)
○	TREE (Deciduous)
★	STUMP
○	WELL
○	ROCKERY
	WETLAND



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10	WASH.		
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FIELD BOOK(S):		DRAWING # SR9_TD01-TDXX	

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PROJECT NO. RR7955

SR9
S. LAKE STEVENS RD TO 20TH ST S.E.
DITCH IMPACTS
STA 177+50 TO 182+00

REFER #	TD6
SURVEY NO.	
SHEET OF SHEETS	

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SECTION 24 & 25, T. 29 N., R. 5 E., W.M.

GENERAL NOTES

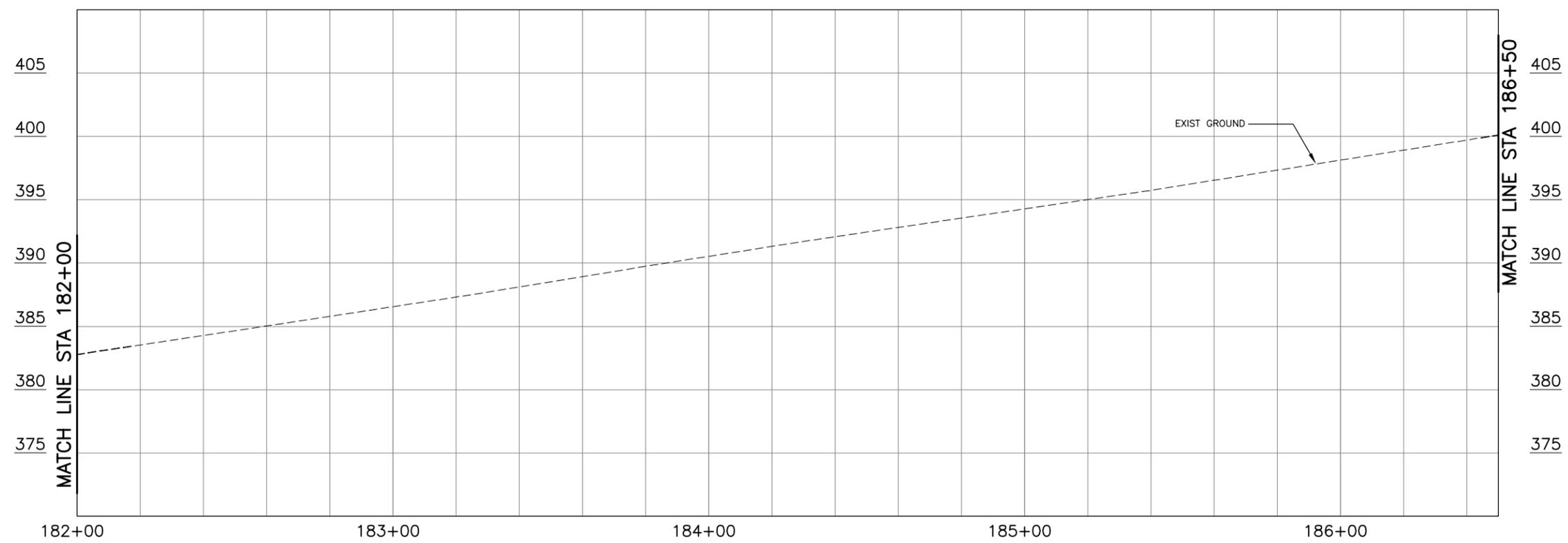
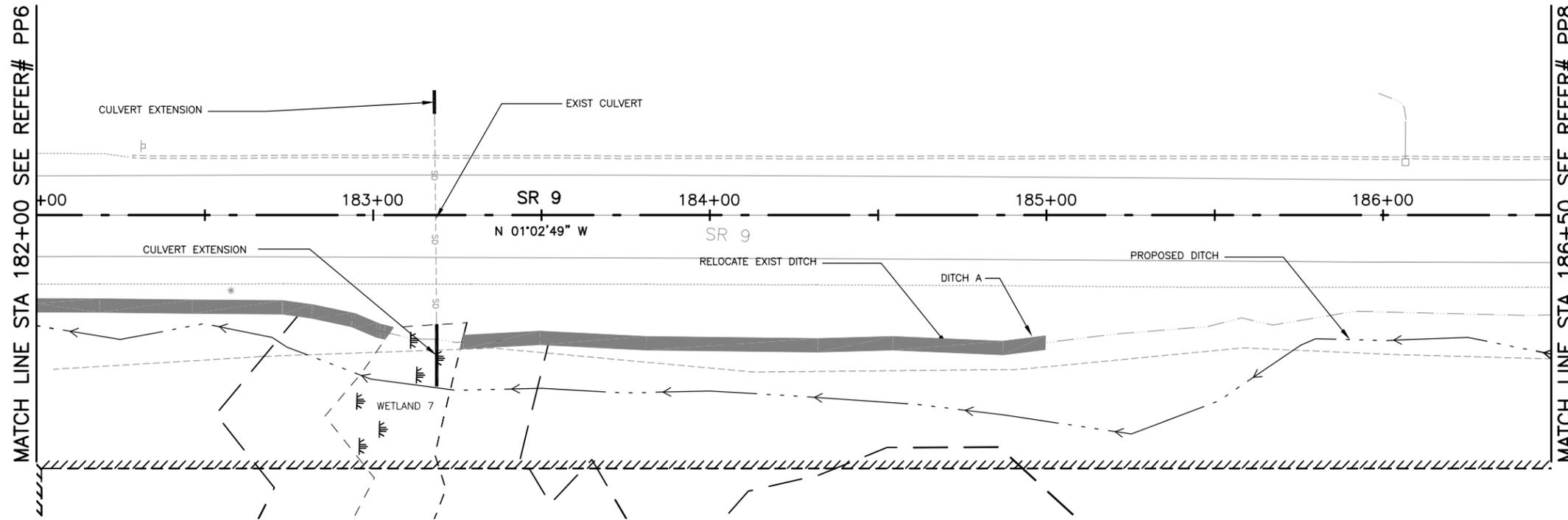
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LEGEND

LINETYPES	DESCRIPTION
---	SURFACE FEATURES:
---	EDGE OF PAVEMENT (EXISTING)
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---	ROCKERY (EXISTING)
---	WETLAND BOUNDARY/OHWM
---	CENTERLINE (CONSTRUCTION)
S	SANITARY SEWER
SD	STORM DRAINAGE
---	SERVICE (LIST TYPE, SIZE, ETC.)
---	IMPACTED JURISDICTIONAL DITCH
HW	HW
OHWM	OHWM

SURFACE FEATURES/LANDSCAPING

SYMBOL	DESCRIPTION
EXIST.	
▽ (EXTEND TO CATCH)	EMBANKMENT
□	MAIL BOX
▭	SIGN
⊞ (DRAW TO SCALE)	RIP RAP
○	BOULDER
⊞	SHRUB
⊞	TREE (Conifer)
⊞	TREE (Deciduous)
⊞	STUMP
⊞	WELL
⊞	ROCKERY
⊞	WETLAND



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FIELD BOOK(S):		DRAWING # SR9_TD01-TDXX	

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SNOHOMISH COUNTY ENGINEER

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PROJECT NO. RR7955

SR9
S. LAKE STEVENS RD TO 20TH ST S.E.
DITCH IMPACTS
STA 182+00 TO 186+50

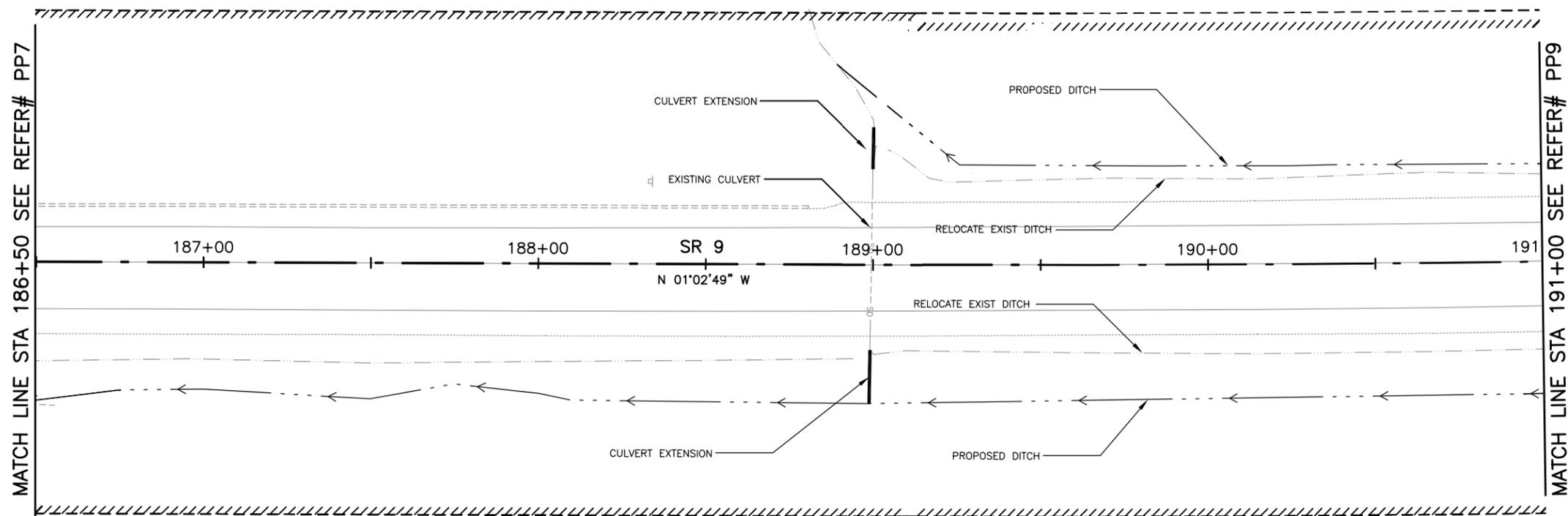
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SURVEY NO.	
SHEET	
OF	
SHEETS	

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SECTION 24 & 25, T. 29 N., R. 5 E., W.M.

GENERAL NOTES

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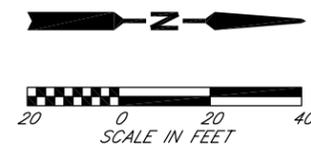
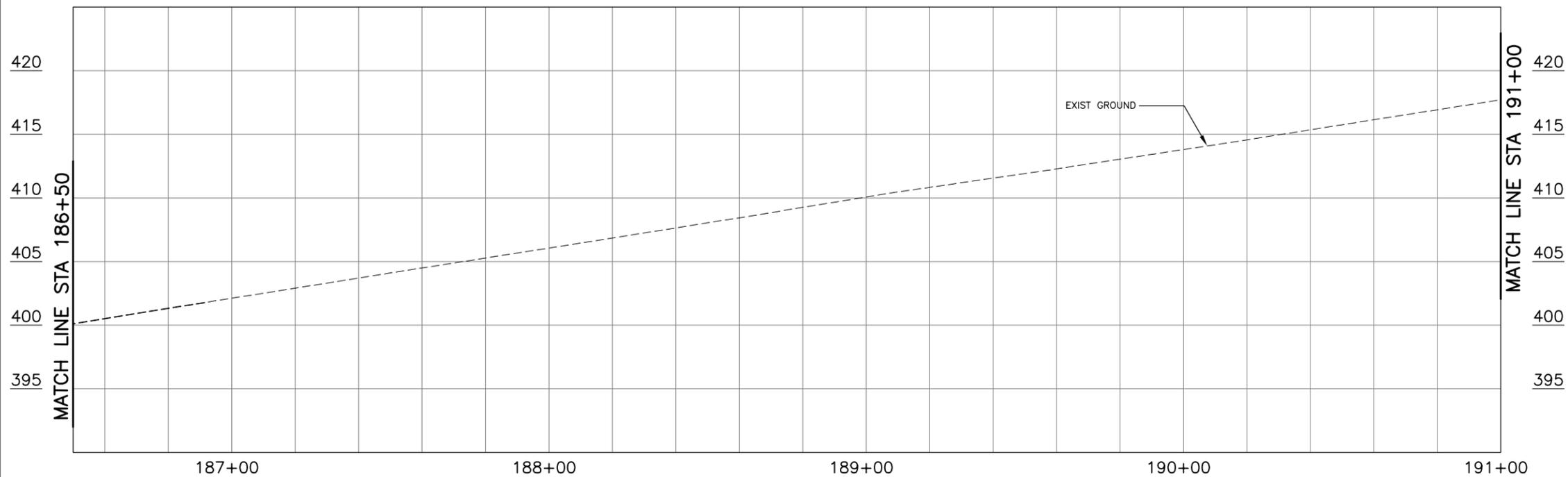


LEGEND

LINETYPES	DESCRIPTION
---	SURFACE FEATURES:
- - - - -	EDGE OF PAVEMENT (EXISTING)
- - - - -	BUFFER
- - - - -	BUILDING LINE (EXISTING)
- - - - -	CURB/CONCRETE (EXIST.)
- - - - -	DITCH/STREAM CENTERLINE (EXIST.)
- x - x - x	FENCE (EXISTING)
- - - - -	GRAVEL (EXIST.)
	RETAINING WALL (EXISTING)
o o o o o	ROCKERY (EXISTING)
- - - - -	WETLAND BOUNDARY/OHWM
- - - - -	CENTERLINE (CONSTRUCTION)
- - - - -	SANITARY SEWER
- - - - -	STORM DRAINAGE
- - - - -	SERVICE (LIST TYPE, SIZE, ETC.)
	IMPACTED JURISDICTIONAL DITCH
- - - - -	HW
- - - - -	OHWM

SURFACE FEATURES/LANDSCAPING

SYMBOL	DESCRIPTION
▲	EMBANKMENT
□	MAIL BOX
□	SIGN
	RIP RAP
○	BOULDER
○	SHRUB
★	TREE (Conifer)
○	TREE (Deciduous)
★	STUMP
○	WELL
o o o o o	ROCKERY
	WETLAND



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PLAN CHECK	BY	DATE	REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.
			10	WASH.		
DESIGNED BY:	D. MEISENHEIMER		DRAWN BY:	D. MEISENHEIMER		
FIELD BOOK(S):			DRAWING #	SR9_TD01-TDXX		
DATE	NO.	REVISION	BY			

APPROVED FOR CONSTRUCTION

OWEN B. CARTER, P.E.
SNOHOMISH COUNTY ENGINEER

DATE APPROVED:

SNOHOMISH COUNTY
DEPARTMENT OF
PUBLIC WORKS

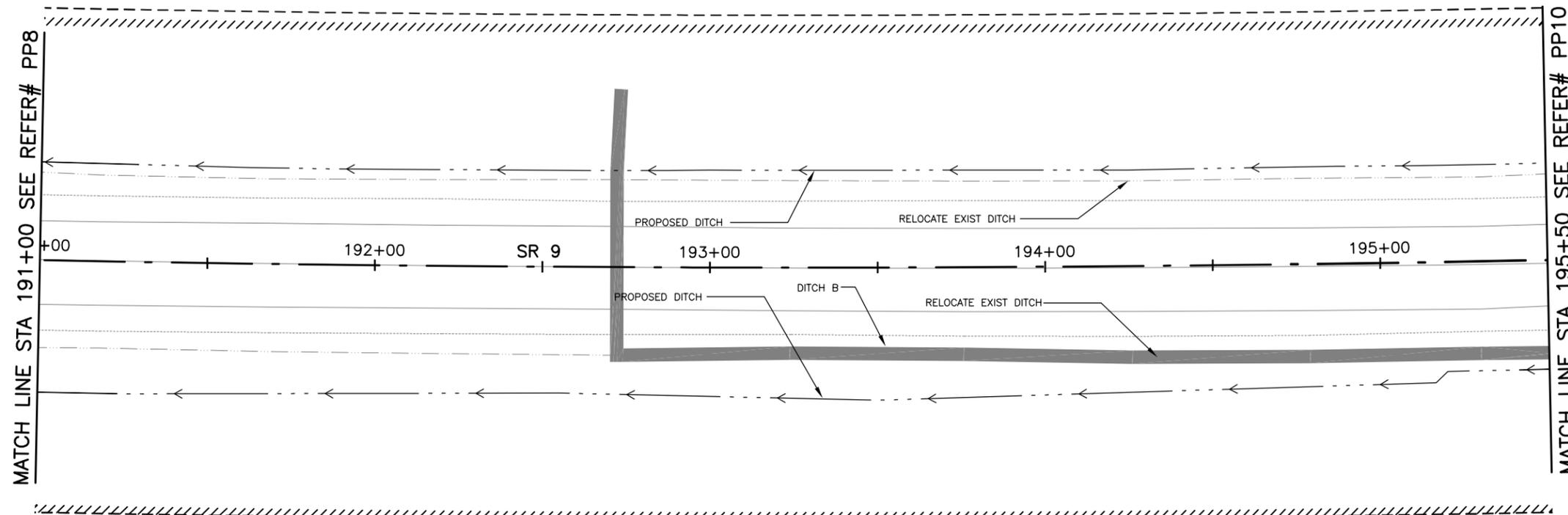
PROJECT NO. RR7955

SR9
S. LAKE STEVENS RD TO 20TH ST S.E.
DITCH IMPACTS
STA 186+50 TO 191+00

REFER #	T08
SURVEY NO.	
SHEET	
OF	
SHEETS	

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SECTION 24 & 25, T. 29 N., R. 5 E., W.M.



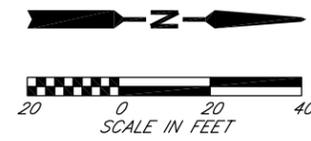
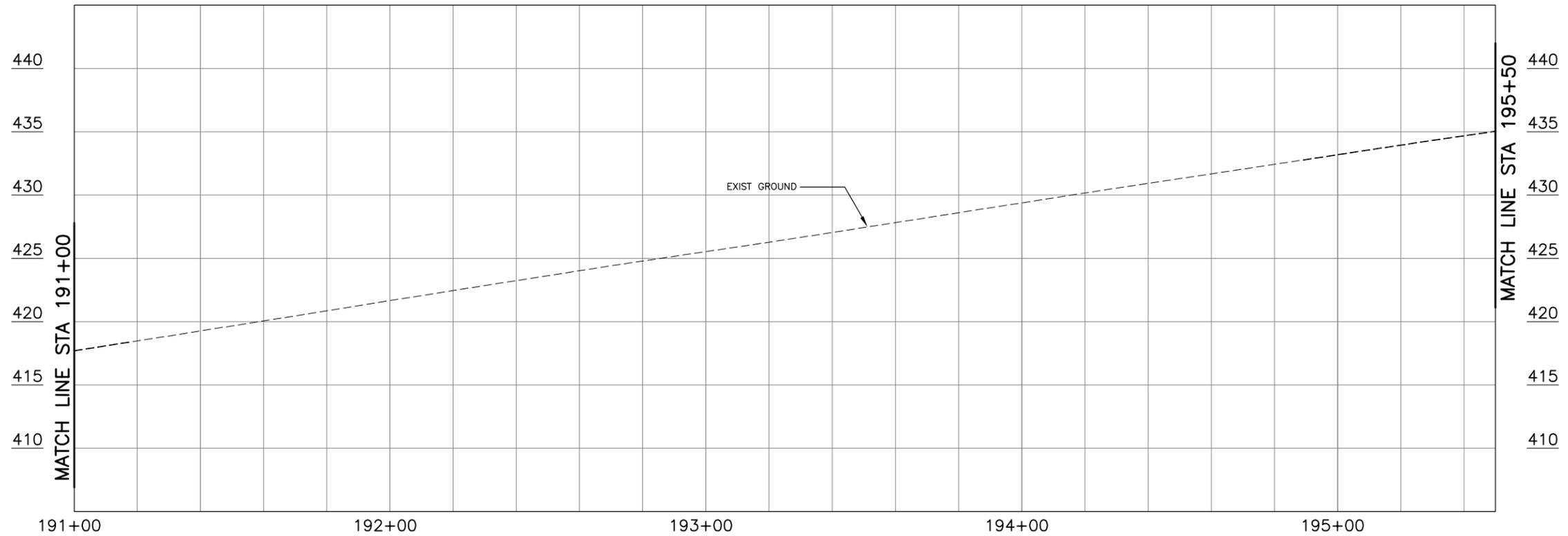
GENERAL NOTES
 1 HYDRAULIC RUNOFF IS FROM ROADWAY AND EXISTING IMPERVIOUS FEATURES WITHIN THE RIGHT OF WAY. THIS RUNOFF IS DIRECTED INTO CENTENNIAL CREEK.

LEGEND

LINETYPES	DESCRIPTION
---	SURFACE FEATURES: EDGE OF PAVEMENT (EXISTING)
- - -	BUFFER
- · - · -	BUILDING LINE (EXISTING)
- · - · - · -	CURB/CONCRETE (EXIST.)
- · - · - · - · -	DITCH/STREAM CENTERLINE (EXIST.)
- x - x - x -	FENCE (EXISTING)
- · - · - · - · - · -	GRAVEL (EXIST.)
	RETAINING WALL (EXISTING)
○ ○ ○ ○ ○	ROCKERY (EXISTING)
- · - · - · - · - · - · -	WETLAND BOUNDARY/OHWM
—	CENTERLINE (CONSTRUCTION)
S	SANITARY SEWER
SD	STORM DRAINAGE
—	SERVICE (LIST TYPE, SIZE, ETC.)
—	IMPACTED JURISDICTIONAL DITCH
—	HW
—	OHWM

SURFACE FEATURES/LANDSCAPING

SYMBOL	DESCRIPTION
EXIST.	
▽ (EXTEND TO CATCH)	EMBANKMENT
□	MAIL BOX
▣	SIGN
■ (DRAW TO SCALE)	RIP RAP
○	BOULDER
⊙	SHRUB
⊙*	TREE (Conifer)
⊙	TREE (Deciduous)
⊙*	STUMP
⊙	WELL
○ ○ ○	ROCKERY
	WETLAND



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PLAN CHECK	BY	DATE	REVISION	BY

REGION NO. 10	STATE WASH.	FED. AID PROJ. NO.	SHEET NO.
DESIGNED BY: D. MEISENHEIMER		DRAWN BY: D. MEISENHEIMER	
FIELD BOOK(S):		DRAWING # SR9_TD01-TDXX	

APPROVED FOR CONSTRUCTION

OWEN B. CARTER, P.E.
SNOHOMISH COUNTY ENGINEER

DATE APPROVED:

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DEPARTMENT OF
PUBLIC WORKS

PROJECT NO. RR7955

SR9
S. LAKE STEVENS RD TO 20TH ST S.E.
DITCH IMPACTS
STA 191+00 TO 195+50

REFER # TD9
SURVEY NO.
SHEET OF SHEETS

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SECTION 24 & 25, T. 29 N., R. 5 E., W.M.

GENERAL NOTES

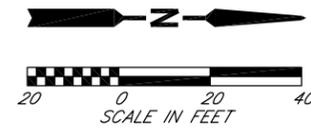
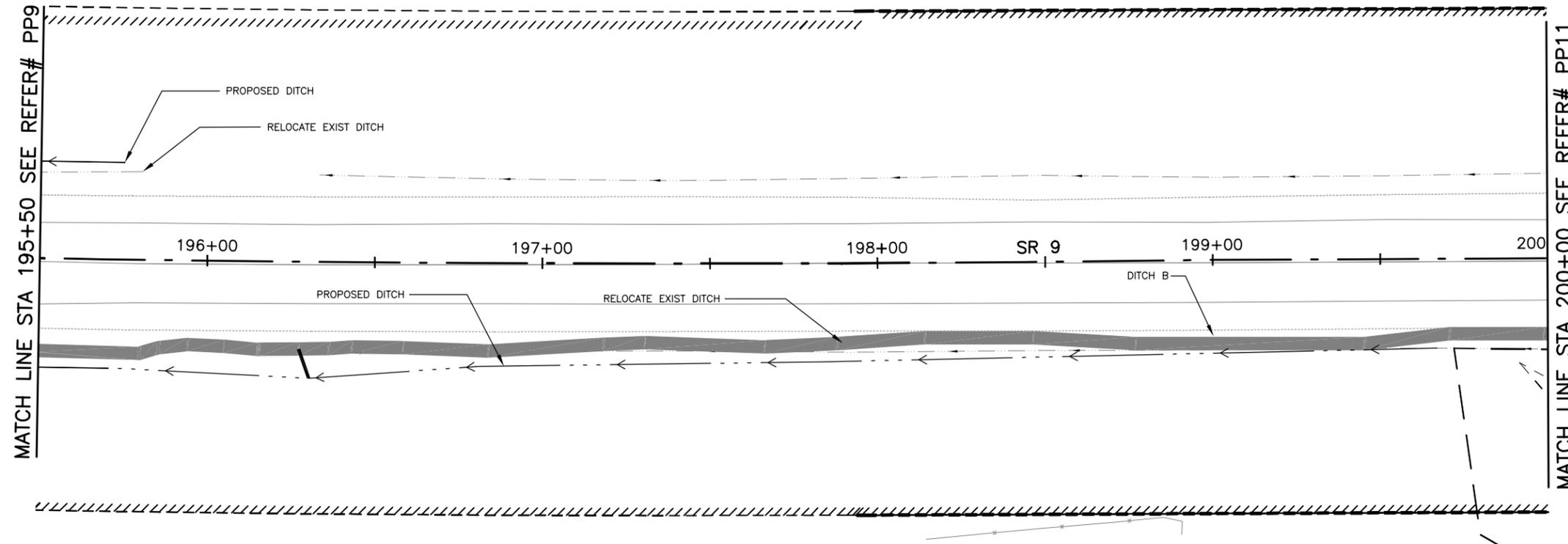
1 HYDRAULIC RUNOFF IS FROM ROADWAY AND EXISTING IMPERVIOUS FEATURES WITHIN THE RIGHT OF WAY. THIS RUNOFF IS DIRECTED INTO CENTENNIAL CREEK.

LEGEND

LINETYPES	DESCRIPTION
---	SURFACE FEATURES: EDGE OF PAVEMENT (EXISTING)
- - -	BUFFER
- · - · -	BUILDING LINE (EXISTING)
- · - -	CURB/CONCRETE (EXIST.)
- · - · - · -	DITCH/STREAM CENTERLINE (EXIST.)
- x - x - x	FENCE (EXISTING)
- · - · - · - · -	GRAVEL (EXIST.)
	RETAINING WALL (EXISTING)
o o o o o	ROCKERY (EXISTING)
- · - · - · - · - · -	WETLAND BOUNDARY/OHWM
— · — · — · — · —	CENTERLINE (CONSTRUCTION)
S	SANITARY SEWER
SD	STORM DRAINAGE
█	SERVICE (LIST TYPE, SIZE, ETC.)
█	IMPACTED JURISDICTIONAL DITCH
—	HW
—	OHWM

SURFACE FEATURES/LANDSCAPING

SYMBOL	DESCRIPTION
(EXTEND TO CATCH)	EMBANKMENT
□	MAIL BOX
□	SIGN
(DRAW TO SCALE)	RIP RAP
○	BOULDER
○	SHRUB
★	TREE (Conifer)
○	TREE (Deciduous)
★	STUMP
●	WELL
o o o	ROCKERY
	WETLAND



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PLAN CHECK	BY	DATE	REVISION	BY

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.
10	WASH.		
DESIGNED BY: D. MEISENHEIMER		DRAWN BY: D. MEISENHEIMER	
FIELD BOOK(S):		DRAWING # SR9_TD01-TDXX	

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OWEN B. CARTER, P.E.
SNOHOMISH COUNTY ENGINEER

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PROJECT NO. RR7955

SR9
S. LAKE STEVENS RD TO 20TH ST S.E.
DITCH IMPACTS
STA 195+50 TO 200+00

REFER #	TD10
SURVEY NO.	
SHEET OF SHEETS	

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SECTION 24 & 25, T. 29 N., R. 5 E., W.M.

GENERAL NOTES

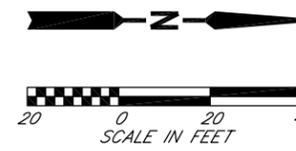
1 HYDRAULIC RUNOFF IS FROM ROADWAY AND EXISTING IMPERVIOUS FEATURES WITHIN THE RIGHT OF WAY. THIS RUNOFF IS DIRECTED INTO CENTENNIAL CREEK.

LEGEND

LINETYPES	DESCRIPTION
---	SURFACE FEATURES:
---	EDGE OF PAVEMENT (EXISTING)
---	BUFFER
---	BUILDING LINE (EXISTING)
---	CURB/CONCRETE (EXIST.)
---	DITCH/STREAM CENTERLINE (EXIST.)
---	FENCE (EXISTING)
---	GRAVEL (EXIST.)
---	RETAINING WALL (EXISTING)
---	ROCKERY (EXISTING)
---	WETLAND BOUNDARY/OHWM
---	CENTERLINE (CONSTRUCTION)
S	SANITARY SEWER
SD	STORM DRAINAGE
---	SERVICE (LIST TYPE, SIZE, ETC.)
---	IMPACTED JURISDICTIONAL DITCH
---	HW
---	OHWM

SURFACE FEATURES/LANDSCAPING

SYMBOL	DESCRIPTION
EXIST.	
▽ (EXTEND TO CATCH)	EMBANKMENT
□	MAIL BOX
▣	SIGN
▨ (DRAW TO SCALE)	RIP RAP
○	BOULDER
⊖	SHRUB
★	TREE (Conifer)
⊙	TREE (Deciduous)
⊛	STUMP
⊘	WELL
⊚	ROCKERY
⊛	WETLAND



MATCH LINE STA 200+00 SEE REFER# PP10

MATCH LINE STA 204+50 SEE REFER# PP12



PLAN CHECK	BY	DATE	REVISION	BY

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.
10	WASH.		
DESIGNED BY: D. MEISENHEIMER		DRAWN BY: D. MEISENHEIMER	
FIELD BOOK(S):		DRAWING # SR9_TD01-TDXX	

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SNOHOMISH COUNTY ENGINEER

DATE APPROVED: _____

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DEPARTMENT OF
PUBLIC WORKS

PROJECT NO. RR7955

SR9
S. LAKE STEVENS RD TO 20TH ST S.E.
DITCH IMPACTS
STA 200+00 TO 204+50

REFER #	TD11
SURVEY NO.	
SHEET OF SHEETS	

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