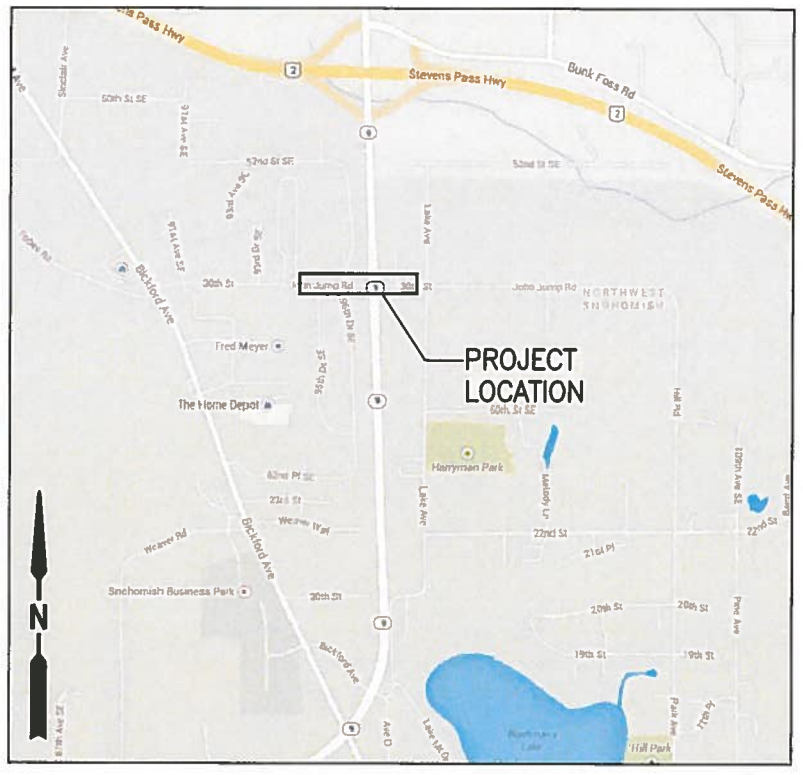
BID SET

CITY OF SNOHOMISH

30TH STREET PROJECT
ROAD WIDENING

GENERAL SITE DESCRIPTION:

N.E. 1/4 OF SECTION 1, T. 28 N., R 5 E, W. M.



VICINITY MAP
NTS

SHEET INDEX

SHEET NO.	DRAWING NO.	SHEET TITLE & DESCRIPTION
1	CV1	COVER SHEET
2	GO1	LEGEND
3	RS1	ROADWAY SECTIONS
4	DD1	MISCELLANEOUS DETAILS
5–6	PP1–PP2	ROADWAY PLAN & PROFILE
7–8	DU1–DU2	DRAINAGE AND UTILITY PLAN & PROFILE
9	DU3	DITCH PLAN & PROFILE
10–11	IP1–IP2	INTERSECTION PLANS
12–13	DW1–DW2	DRIVEWAY PLAN AND PROFILES
14–18	TS1–TS5	TRAFFIC SIGNAL PLAN
19	EC1	EROSION CONTROL PLAN
20–21	CH1–CH2	CHANNELIZATION & SIGNING PLAN
22	TC1	TRAFFIC CONTROL–PHASE 1
23	TC2	TRAFFIC CONTROL–PHASE 2
24	TC3	TRAFFIC CONTROL–TYPICAL ONE LANE CLOSURE

CITY OF SNOHOMISH

MAYOR
KAREN GUZAK

DEPUTY MAYOR
LYNN SCHILATY

COUNCIL MEMBERS

DERRICK BURKE
KAREN GUZAK
TOM HAMILTON
DEAN RANDALL
MICHAEL ROHRSCHEIB
LYNN SCHILATY
ZACH WILDE

CITY MANAGER

LARRY BAUMAN

DEPUTY CITY MANAGER/DIRECTOR OF PUBLIC WORKS

STEVE SCHULLER

PROJECT MANAGER

ANDY SICS

CALL TWO (2) DAYS
BEFORE YOU DIG
1–800–424–5555

AECOM
1111 Third Avenue, Suite 1600
Seattle, WA 98101
T: 206–438–2700

NO.	REVISION	DATE	BY	CK
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2				
3				
4				
5				

CITY OF SNOHOMISH
116 UNION AVENUE
SNOHOMISH, WA 98290
PHONE: (360) 568–3115

PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
COVER SHEET

DATE: 5–23–16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: NONE
SHEET 1 OF 24	
DRAWING NO.: CV1	

May. 31, 16 – 2:25 PM randellm P:\Trans\60322331 – 30th st widening\900 working docs-cad\Sheets\CV1.dwg

BID SET

CITY OF SNOHOMISH

SYMBOL AND LINETYPE LEGEND

UTILITY SYMBOLS

SYMBOL EXIST.	SYMBOL PROP.	DESCRIPTION
		CAP/PLUG
G/P	G/P	GUARD POST
		THRUST BLOCK
	(GREEN)	WATER METER
		FIRE HYDRANT
		WATER VALVE
	(GREEN)	GAS METER
	(GREEN)	GAS VALVE
		PAD MOUNTED TRANSFORMER
		TRANSMISSION TOWER
		UTILITY POLE
		UTILITY POLE ANCHOR
		TELEPHONE RISER
TJB	TJB	TELEPHONE JUNCTION BOX
**	**	UTILITY VAULT
		SAN. SEWER CLEAN OUT
		SAN. SEWER MANHOLE
		STORM DRAIN CB TYPE 1
		STORM DRAIN CB TYPE 2
		STORM DRAIN (SIZED) CB TYPE 2
		GUY POLE

SURFACE FEATURE/LANDSCAPE

SYMBOL EXIST.	SYMBOL PROP.	DESCRIPTION
(EXTEND TO CATCH)	(WHITE)	EMBANKMENT
		MAIL BOX
		SIGN
(DRAW TO SCALE)		RIP RAP
		SHRUB
		TREE (Conifer)
		TREE (Deciduous)

SIGNALIZATION SYMBOLS

SYMBOL EXIST.	SYMBOL PROP.	DESCRIPTION
		DIPOLE DETECTOR (TYPE 2 LOOP)
		QUADRAPOLE DETECTOR (TYPE 1 LOOP)
		OPTICOM SENSOR
		JUNCTION BOXES (TYPE I, II, III)
		SIGNAL CONTROLLER
		ELECTRICAL SERVICE CABINET
		PEDESTRIAN POLE AND FOUNDATION
(DRAW MAST ARMS TO SCALE)		TRAFFIC SIGNAL POLE
		TRAFFIC SIGNAL POLE W/ TERMINAL CABINET
(SHOW ON MAST ARM)		TRAFFIC SIGNAL POLE LUMINAIRE
		STREET LIGHT ASSEMBLY
		PEDESTRIAN SIGNAL HEAD
		VEHICLE SIGNAL HEAD
		VEHICLE SIGNAL HEAD W/ARROW INDICATOR
(MAST ARM)	(MAST ARM)	STREET NAME SIGN
(MAST ARM)	(MAST ARM)	LANE USE CONTROL SIGN
1	1	WIRE NOTE
1	1	POLE NOTE
		VIDEO CAMERA
(COLOR B)	(COLOR B)	VIDEO DETECTION ZONE
BPS	BPS	BACKUP POWER SUPPLY
		DECORATIVE STREET LIGHT POLE
		METAL LUMINAIRE POLE

CHANNELIZATION SYMBOLS

SYMBOL EXIST.	SYMBOL PROP.	DESCRIPTION
		LEFT TURN ARROW
		RIGHT TURN ARROW
		LEFT-STRAIGHT ARROW
		STRAIGHT ARROW
X		CHANNELIZATION PLAN LANE CALLOUT
X_x		CHANNELIZATION PLAN LANE CALLOUT

EROSION CONTROL SYMBOLS

SYMBOL	LABEL	HATCH PATTERN* (OR BLOCK NAME)	DESCRIPTION
	IP		INSTALL FILTER FABRIC INLET PROTECTION

GEO-TECHNICAL SYMBOLS

SYMBOL EXIST.	SYMBOL PROP.	DESCRIPTION
		SOIL BORING
		TEST WELL
		TEST PIT

SURVEY SYMBOLS

FIELD/MONUMENTATION

SYMBOL FOUND (SET)	SYMBOL CALC'D (THEO)	SYMBOL PROP.	DESCRIPTION
	(c)	N/A	PK/HUB & TACK
		N/A	BENCH MARK
		N/A	IRON PIPE/OR OTHER MAT'L (SPECIFY)
		N/A	REBAR
		N/A	SURFACE BRASS CAP
			CONC. MONUMENT
			MONUMENT IN CASE
		N/A	TRAVERSE POINT
N/A	N/A	N/A	SPOT ELEVATION

SECTION/OWNERSHIP:

SYMBOL FOUND (SET)	SYMBOL CALC'D (THEO)	SYMBOL PROP.	DESCRIPTION
N/A	16	N/A	SECTION CENTER
		N/A	SECTION CORNER
		N/A	QUARTER CORNER
		N/A	SIXTEENTH CORNER
		N/A	CLOSING CORNER
MC WC	MC WC	N/A	MEANDER CORNER
		N/A	WITNESS CORNER
N/A	-XXX	N/A	TAX LOT / PARCEL NUMBER
N/A		N/A	OWNERSHIP TIE

LINETYPE

LINETYPE	DESCRIPTION
	SURFACE FEATURES:
	EDGE OF PAVEMENT (EXISTING)
	BUILDING LINE (EXISTING)
	BUILDING LINE (PROPOSED)
	CURB/CONCRETE (EXIST.)
	CURB/CONC./PAVEMENT (PROP)
	DITCH CENTERLINE (EXIST.)
	DITCH CENTERLINE (PROP.)
	FENCE (EXISTING)
	FENCE (PROPOSED)
	GRAVEL (EXIST.)
	GRAVEL (PROP)
	GUTTER LINE
	VEGETATION LINE
	WETLAND/SWAMP PERIMETER
	EROSION CONTROL (PROPOSED):
SF SF	SILT FENCE
HVF HVF	HIGH VISIBILITY FENCE
	DESIGN CENTERLINES (PROPOSED):
	CONST. CENTERLINE ON CHAN. PLAN
	CENTERLINE (PROPOSED)
	SURVEY LINES:
	CONTOUR (MINOR-EXISTING)
	CONTOUR (MAJOR-EXISTING)
	CONTOUR (MINOR-PROPOSED)
	CONTOUR (MAJOR-PROPOSED)
	DONATION LAND CLAIM (EXIST.)
	EASEMENT (PROPOSED)
	EASEMENT (EXISTING)
	PROPERTY LINE
(RIGHT OF WAY & CONSTRUCTION PLANS)	RIGHT-OF-WAY ℄ (EXISTING)
(RIGHT OF WAY)	RIGHT-OF-WAY (EXISTING)
(RIGHT OF WAY)	RIGHT-OF-WAY (EXISTING USED)
(RIGHT OF WAY PLANS)	RIGHT-OF-WAY (PROPOSED)
(CONSTRUCTION PLANS)	RIGHT-OF-WAY (NEWLY ACQUIRED)
	RIGHT-OF-WAY (LIMITED ACCESS)
	RIGHT-OF-WAY (LIMITED ACCESS)
	SECTION LINE
	QUARTER SECTION LINE
	SIXTEENTH SECTION LINE
	STATE/COUNTY/CORPORATE LIMIT
	RANGE/TOWNSHIP LINE
	EXISTING CROWN OF ROAD
	TOP OF BANK/SLOPE
	TOE OF BANK/SLOPE

LINETYPE (cont.)

LINETYPE	DESCRIPTION
	SURVEY LINES cont:
Cut Cut	CUT LINE
Fill Fill	FILL LINE
UT UT	UTILITIES (PROPOSED): MAIN LINE (LIST TYPE, SIZE, ETC.)
	STORM DRAIN (.05" PLINE)
	CULVERT (.05" PLINE)
UT UT	SERVICE (LIST TYPE, SIZE, ETC.)
SC SC	TRAFFIC SIGNAL CONDUIT LINE
S S	SANITARY SEWER
FM FM	SANITARY SEWER (FORCE MAIN)
	WATER
	UTILITIES (EXISTING):
TV	CABLE TELEVISION (AERIAL)
TV	CABLE TELEVISION (BURIED)
FO	FIBER OPTIC LINE (AERIAL)
FO	FIBER OPTIC LINE (BURIED)
DF DF	DRAIN FIELD
G G	GAS
O O	OIL
P	POWER (AERIAL)
P	POWER (BURIED)
S S	SANITARY SEWER
FM FM	SANITARY SEWER (FORCE MAIN)
STE STE	STEAM
SD	STORM DRAINAGE (STR TO STR)
T	TELEPHONE (AERIAL)
T	TELEPHONE (BURIED)
SC SC	TRAFFIC SIGNAL CONDUIT LINE
UT ##	UTILITY (AERIAL)
UT ##	UTILITY (BURIED)
	WATER
	CULVERT (WIDTH TO SCALE)

** - INDICATE UTILITY TYPE USING APPROPRIATE TEXT LAYER (PO, TL, TV, FO, ETC.)

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RYAN J. HILTZ — STATE OF WASHINGTON — 40324 — REGISTERED PROFESSIONAL ENGINEER — 6-15-16

CITY OF SNOHOMISH
116 UNION AVENUE
SNOHOMISH, WA 98290
PHONE: (360) 568-3115

PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
LEGEND

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: NONE
SHEET 2 OF 24	
DRAWING NO.: G01	

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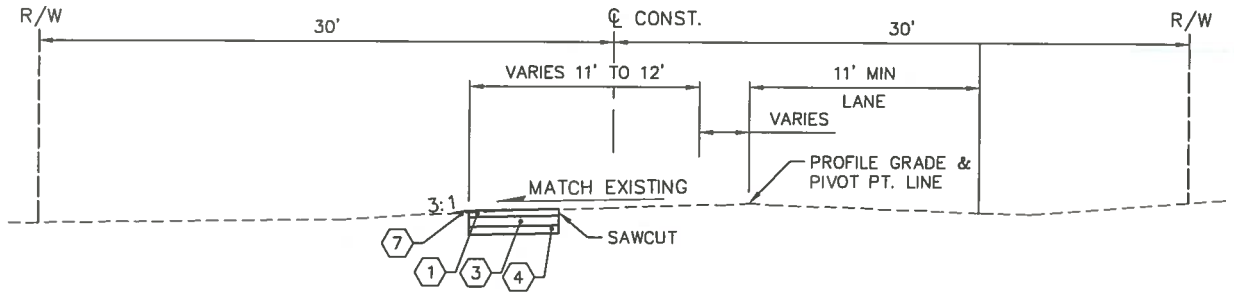
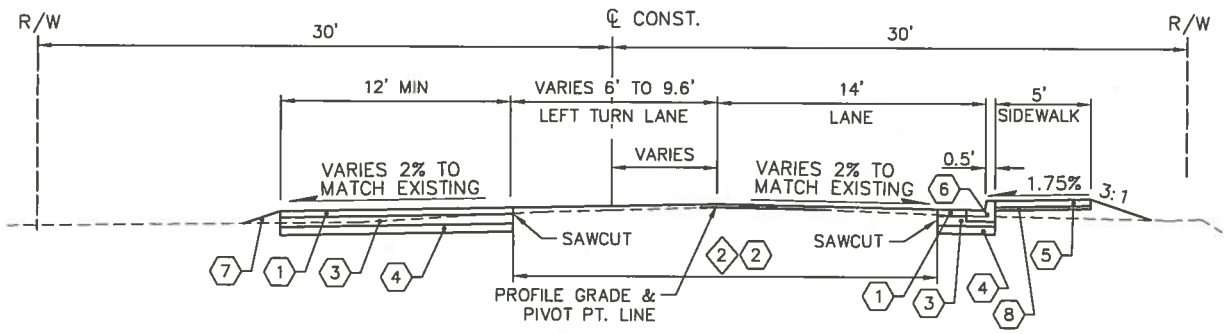


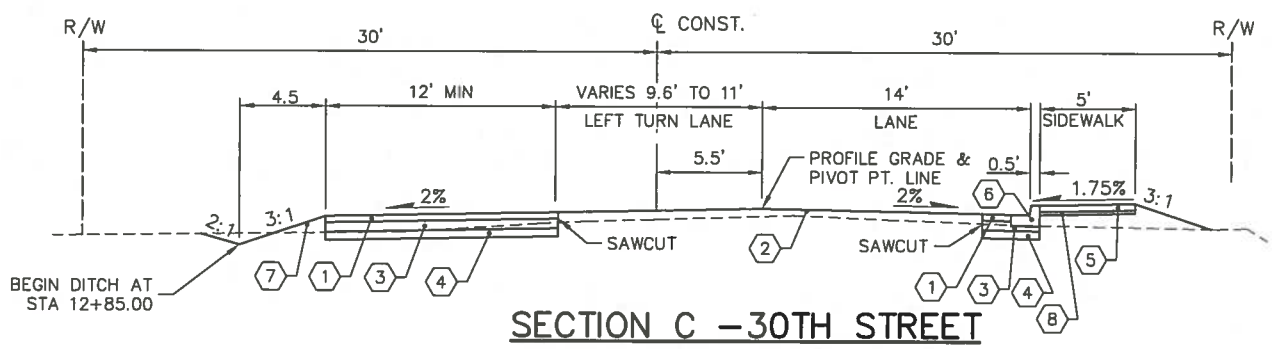
SECTION A –30TH STREET

STA 11+44.70 TO STA 11+73.26



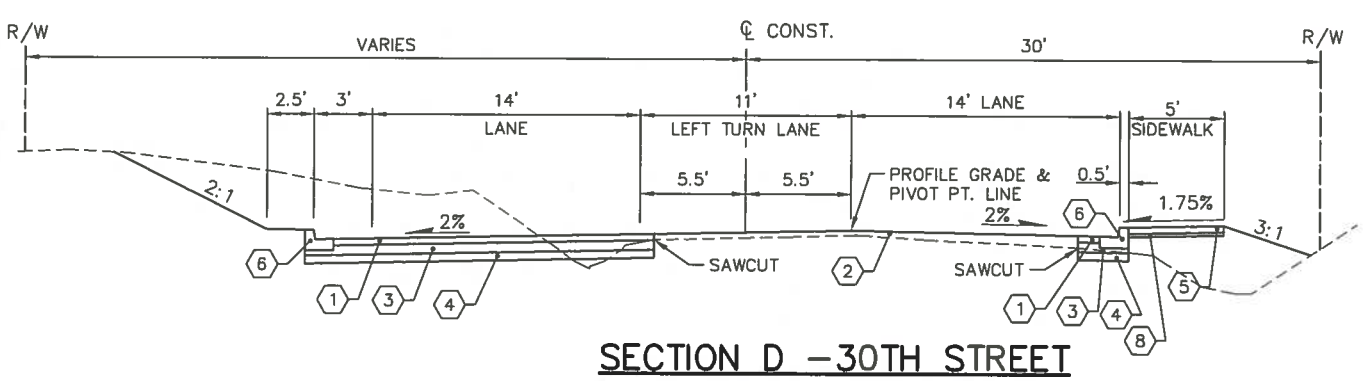
SECTION B –30TH STREET

STA 11+73.26 TO STA 12+20.00



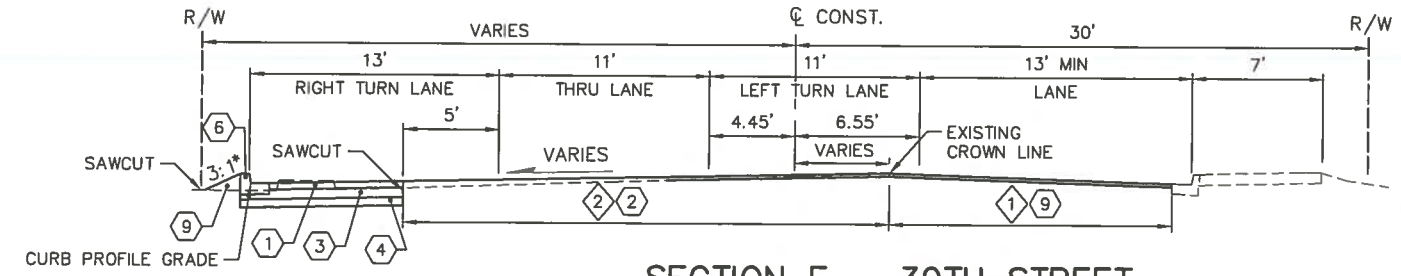
SECTION C –30TH STREET

STA 12+20.00 TO STA 14+23.03



SECTION D –30TH STREET

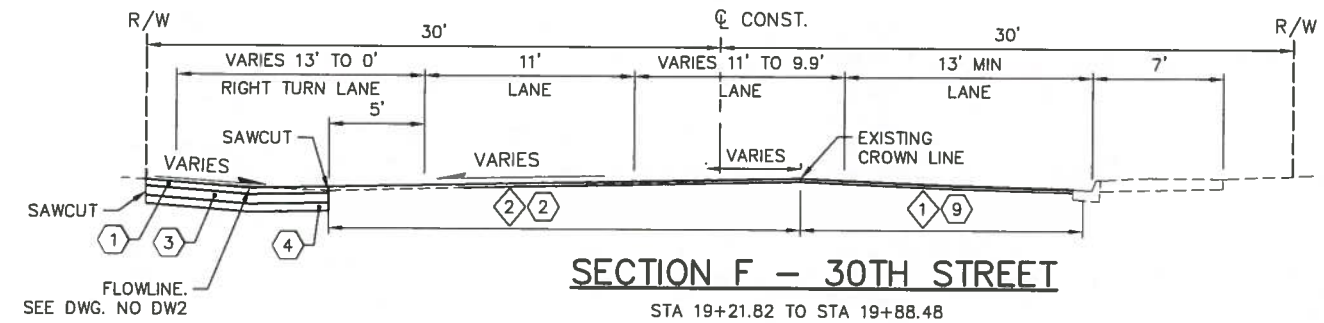
STA 14+23.03 TO STA 17+23.15



* 3:1 OR MATCH AT R/W

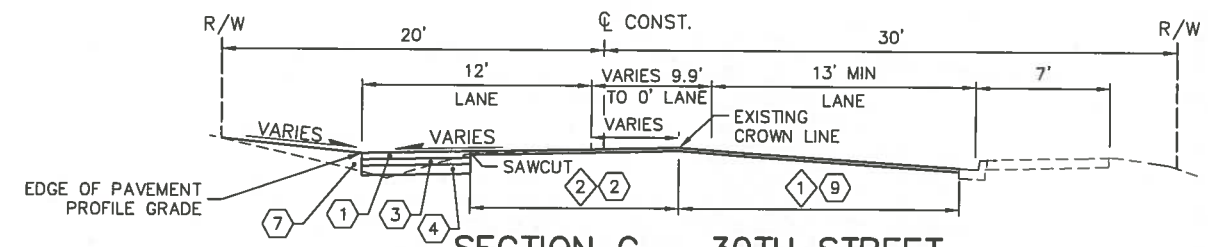
SECTION E – 30TH STREET

STA 17+81.26 TO STA 19+21.82



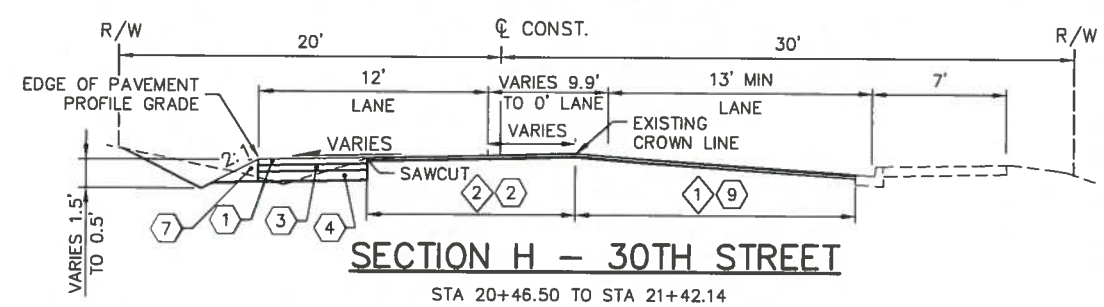
SECTION F – 30TH STREET

STA 19+21.82 TO STA 19+88.48



SECTION G – 30TH STREET

STA 19+88.48 TO STA 20+46.50



SECTION H – 30TH STREET

STA 20+46.50 TO STA 21+42.14

SURFACING LEGEND

1. 0.33' DEPTH HMA CL. 1/2 IN. PG 64–22
2. VARIABLE DEPTH – 0.17' MIN. DEPTH HMA CL. 1/2 IN. PG 64–22
3. 0.5' CRUSHED SURFACING TOP COURSE
4. 0.42' GRAVEL BORROW
5. CEMENT CONCRETE SIDEWALK PER CITY OF SNOHOMISH STD DWG 306
6. CEMENT CONCRETE CURB AND GUTTER TYPE A–1 SEE CITY OF SNOHOMISH STD DWG 305A
7. CRUSHED SURFACING TOP COURSE
8. 0.17' CRUSHED SURFACING TOP COURSE
9. 0.17' MIN DEPTH HMA CL. 1/2 IN. PG 64–22

NOTE: ALL DEPTHS ARE COMPACTED DEPTHS.

MILLING LEGEND

1. 0.17' DEPTH MILL
2. VARIABLE DEPTH MILL 0' TO 0.17'

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BRYAN J. HUNTLEY, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER
6-15-16

CITY OF SNOHOMISH
116 UNION AVENUE
SNOHOMISH, WA 98290
PHONE: (360) 568–3115

PROJECT INFORMATION
30TH STREET
WIDENING PROJECT

SHEET TITLE:
ROADWAY SECTIONS

DATE: 5–23–16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: NONE
SHEET 3 OF 24	
DRAWING NO.: RS1	

May. 23, 16 – 3:05 PM randollim P:\Trans\60322331 – 30th St Widening\900 WORKING DOCS-CAD\Sheets\RS1.dwg

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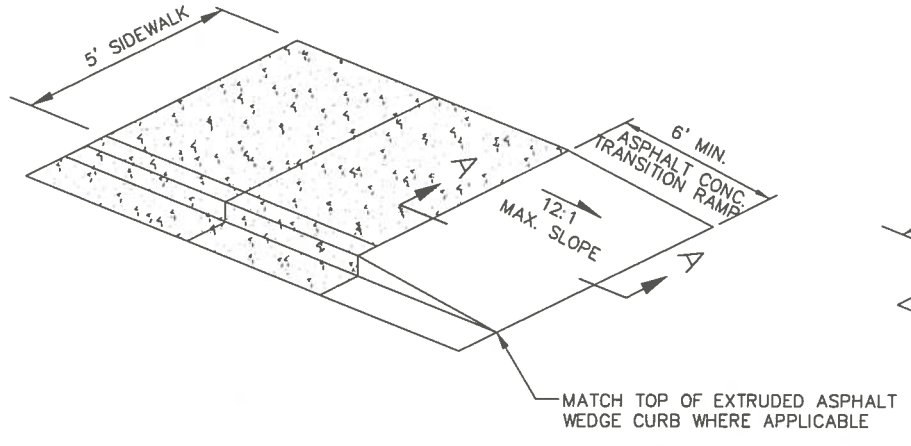
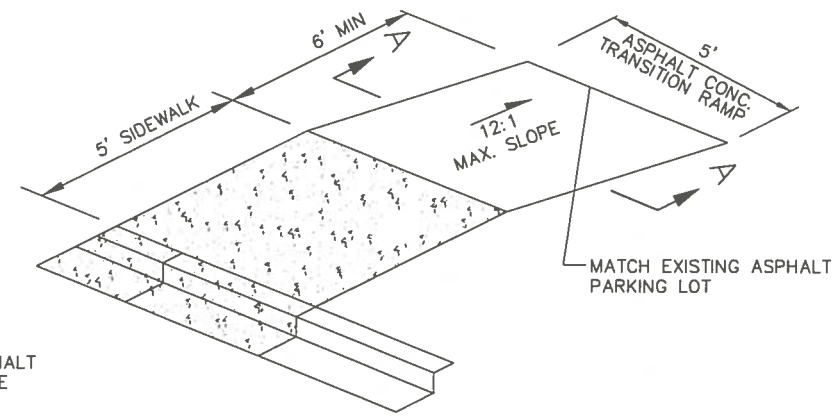
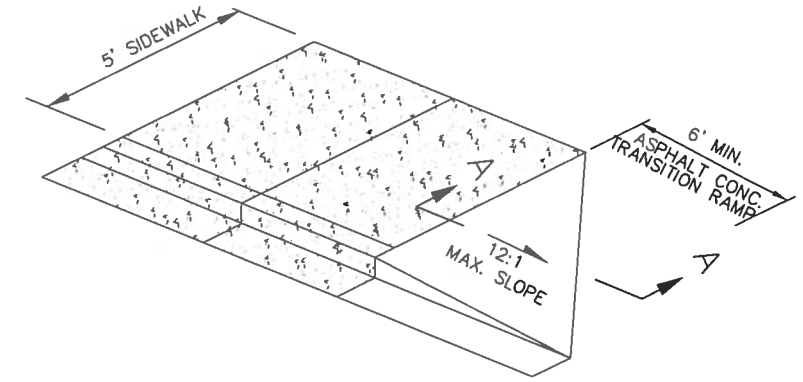
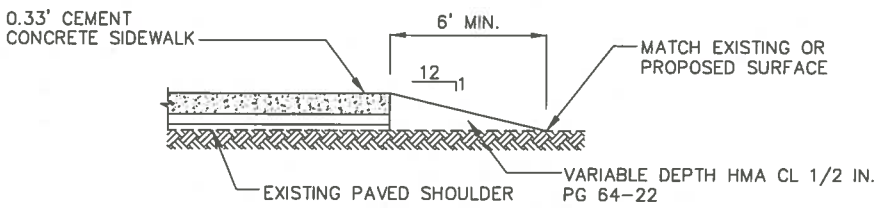


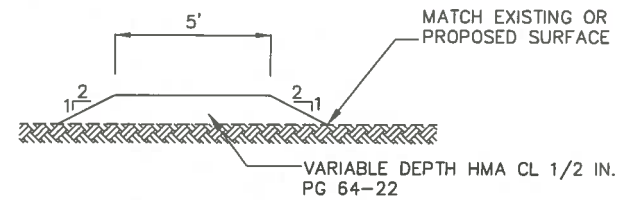






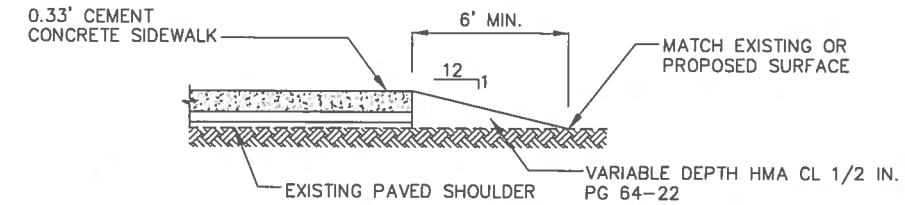
SECTION A–A

ASPHALT RAMP DETAIL 1



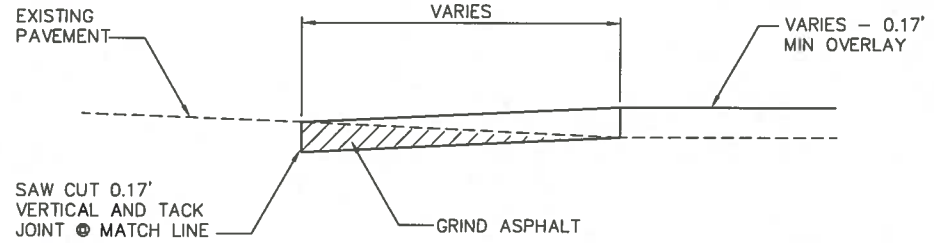
SECTION A–A

ASPHALT RAMP DETAIL 2

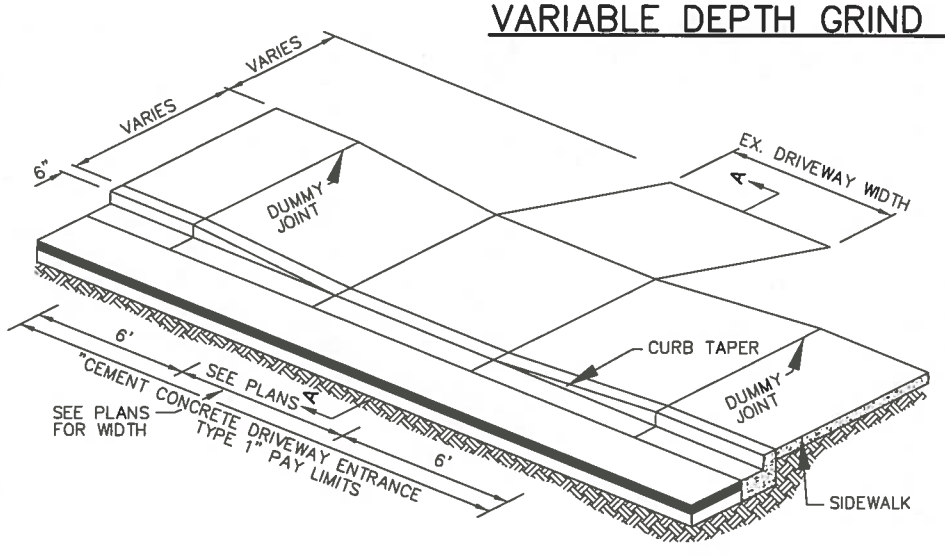


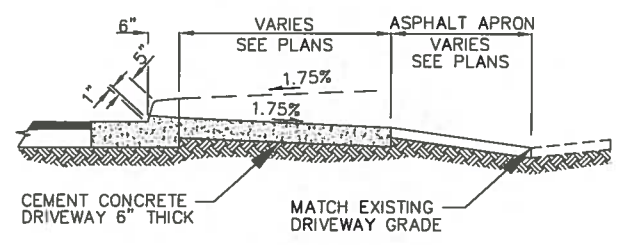
SECTION A–A

ASPHALT RAMP DETAIL 3



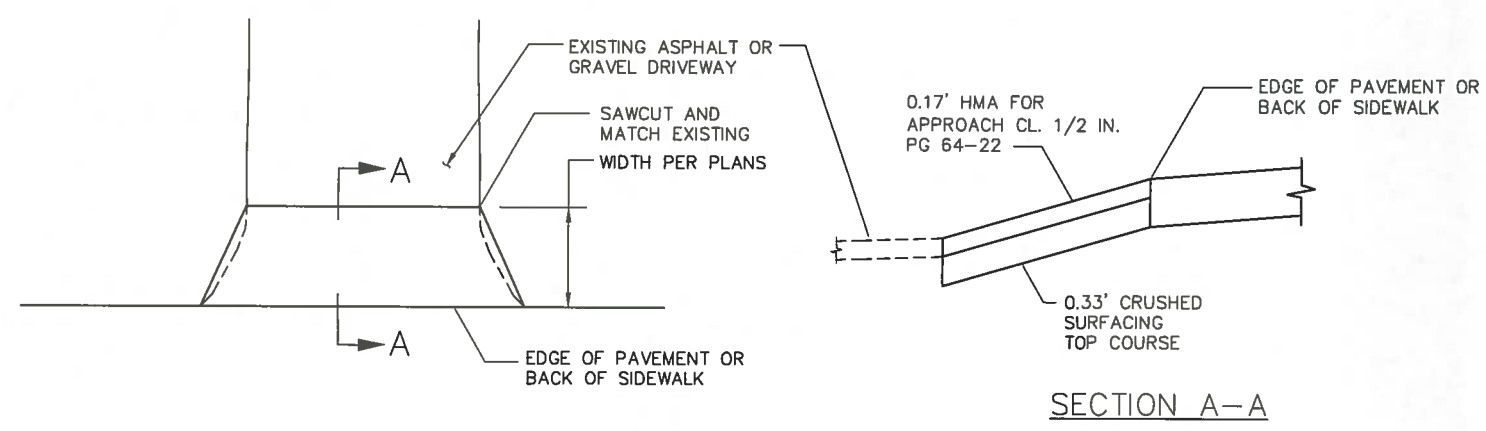
VARIABLE DEPTH GRIND AND OVERLAY DETAIL





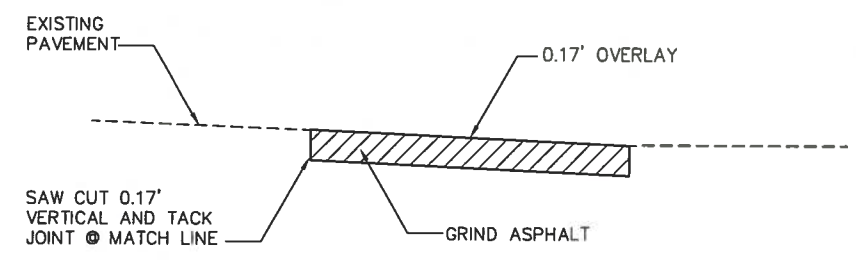
SECTION A–A

CEMENT CONCRETE DRIVEWAY ENTRANCE TYPE 1 (REVERSE SLOPE)



SECTION A–A

ASPHALT DRIVEWAY



0.17' DEPTH GRIND AND OVERLAY DETAIL

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BRIAN J. HUNEKE, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER
6-5-16

CITY OF SNOHOMISH
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PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
MISCELLANEOUS DETAILS

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: NONE
SHEET 4 OF 24	
DRAWING NO.: DD1	

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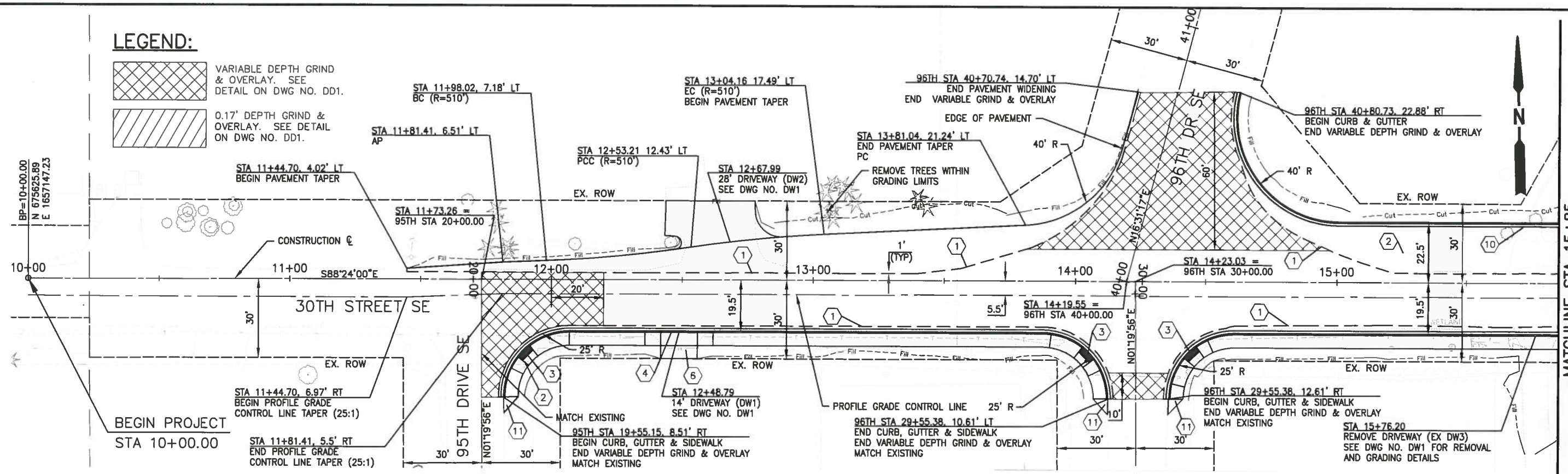
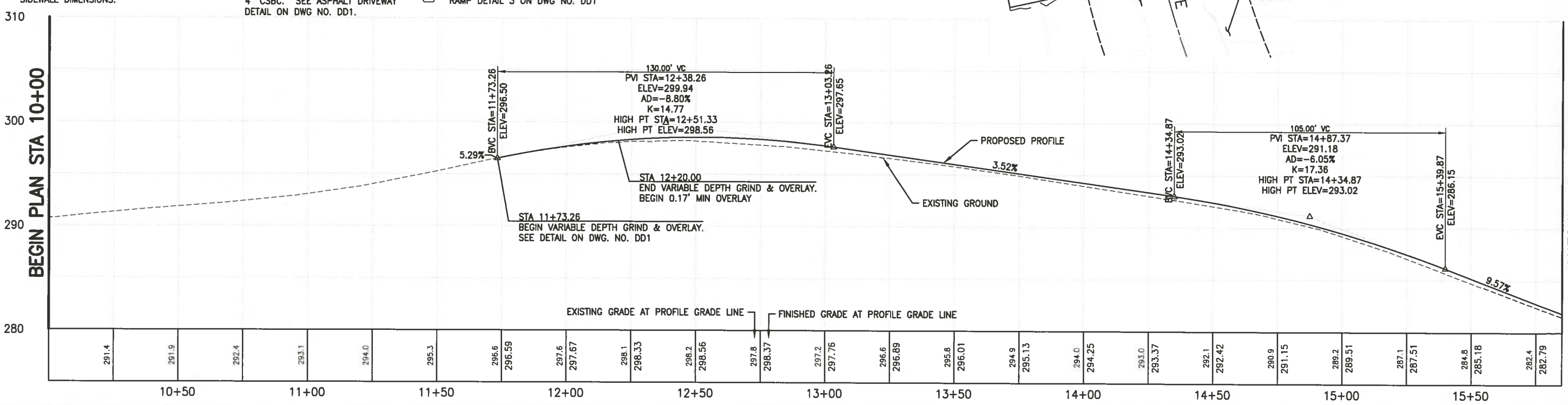


CONSTRUCTION NOTES

1. SAWCUT & REMOVE EXISTING PAVEMENT.
2. RELOCATE/REMOVE TRAFFIC SIGN, SEE SIGNING PLANS.
3. INSTALL PARALLEL CURB RAMP TYPE A PER WSDOT STD. PLAN F-40.12-01. SEE DWG NO. IP1 FOR STATION AND SIDEWALL DIMENSIONS.
4. INSTALL CONCRETE DRIVEWAY TYPE 1 (REVERSE SLOPE). SEE DWG NO. DW1 FOR DRIVEWAY PROFILE AND DWG NO. DD1 FOR DRIVEWAY DETAILS.
6. INSTALL ASPHALT DRIVEWAY APRON 2" HMA CL ½ IN. PG 64-22 OVER 4" CSBC. SEE ASPHALT DRIVEWAY DETAIL ON DWG NO. DD1.
9. EXISTING DRIVEWAY TO BE REMOVED AFTER NEW DRIVEWAY IS INSTALLED. SEE SPECIAL PROVISIONS.
10. REMOVE 15 LF OF EXISTING WIRE FENCE TO STA 15+75, 28' LT.
11. INSTALL ASPHALT RAMP , SEE ASHPALT RAMP DETAIL 3 ON DWG NO. DD1

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB.
2. EXISTING AND PROPOSED STORM DRAINAGE ARE SHOWN ON DWG NO. DU1 & DU2.
3. SEE DWG NO. IP1 & IP2 FOR INTERSECTION DETAILS.



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CITY OF SNOHOMISH
116 UNION AVENUE
SNOHOMISH, WA 98290
PHONE: (360) 568-3115

PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
ROADWAY PLAN & PROFILE

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: 1"=20'
SHEET 5 OF 24	
DRAWING NO.: PP1	

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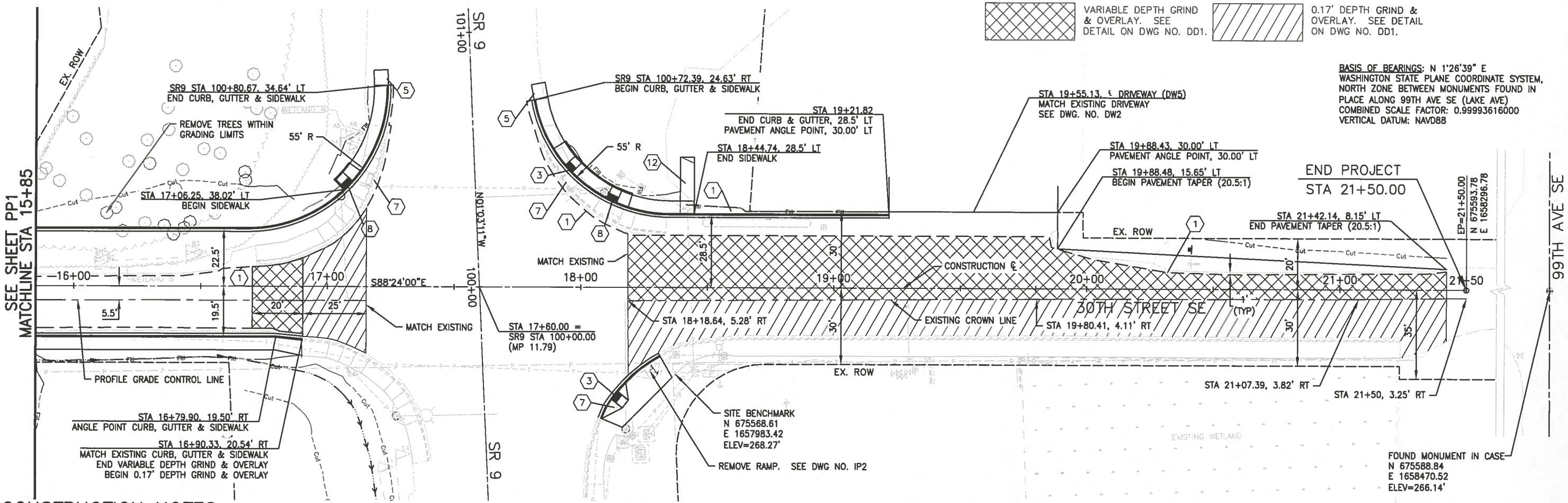
BID SET

LEGEND:

VARIABLE DEPTH GRIND & OVERLAY. SEE DETAIL ON DWG NO. DD1.

0.17' DEPTH GRIND & OVERLAY. SEE DETAIL ON DWG NO. DD1.

BASIS OF BEARINGS: N 1°26'39" E
WASHINGTON STATE PLANE COORDINATE SYSTEM, NORTH ZONE BETWEEN MONUMENTS FOUND IN PLACE ALONG 99TH AVE SE (LAKE AVE)
COMBINED SCALE FACTOR: 0.99993616000
VERTICAL DATUM: NAVD88



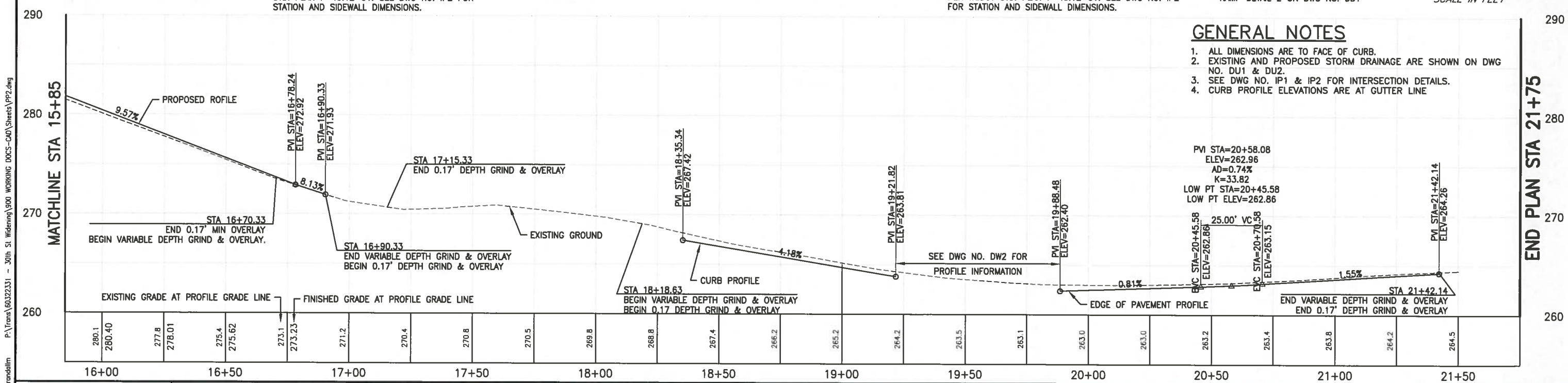
CONSTRUCTION NOTES

1. SAWCUT & REMOVE EXISTING PAVEMENT.
3. INSTALL PARALLEL CURB RAMP TYPE A PER WSDOT STD. PLAN F-40.12-01. SEE DWG NO. IP2 FOR STATION AND SIDEWALL DIMENSIONS.
5. INSTALL ASPHALT RAMP, SEE DETAIL ON DWG NO. DD1.
7. REMOVE CURB, CUTTER, AND SIDEWALK
8. INSTALL PARALLEL CURB RAMP TYPE B PER WSDOT STD. PLAN F-40.12-01. SEE DWG NO. IP2 FOR STATION AND SIDEWALL DIMENSIONS.
12. INSTALL ASPHALT RAMP , SEE ASHPALT RAMP DETAIL 2 ON DWG NO. DD1

20' 0 20' 40'
SCALE IN FEET

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB.
2. EXISTING AND PROPOSED STORM DRAINAGE ARE SHOWN ON DWG NO. DU1 & DU2.
3. SEE DWG NO. IP1 & IP2 FOR INTERSECTION DETAILS.
4. CURB PROFILE ELEVATIONS ARE AT GUTTER LINE



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NO.	REVISION	DATE	BY	CK
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BRYAN J. HUSAK, STATE OF WASHINGTON, 36809, PROFESSIONAL ENGINEER
6-15-16

CITY OF SNOHOMISH
116 UNION AVENUE
SNOHOMISH, WA 98290
PHONE: (360) 568-3115

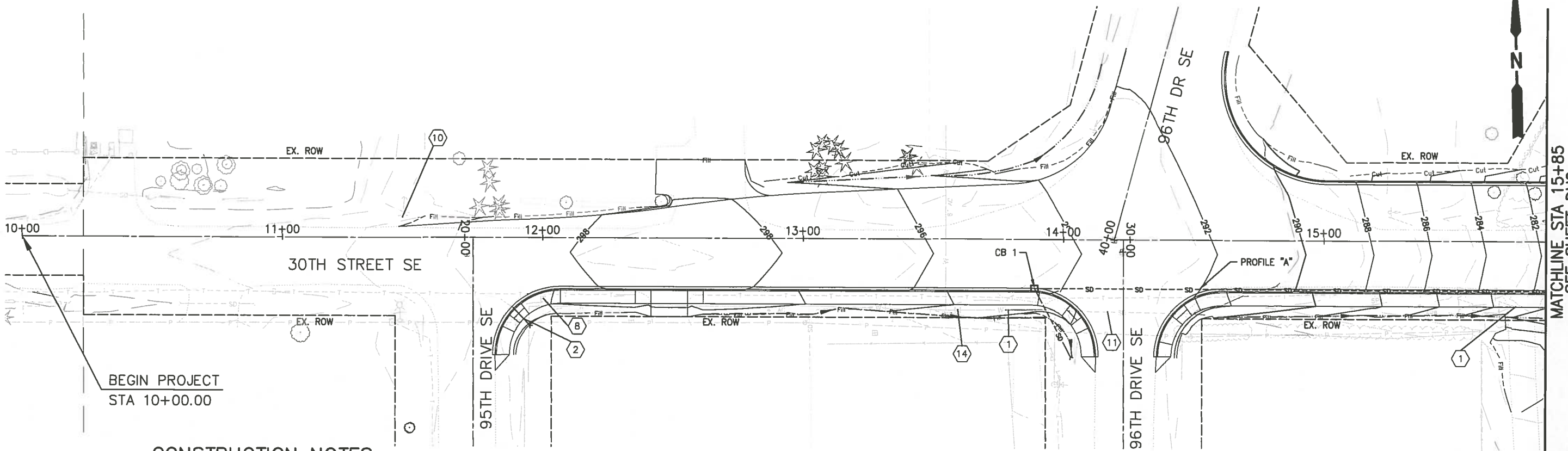
PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
ROADWAY PLAN & PROFILE

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: 1"=20'
SHEET 6 OF 24	
DRAWING NO.: PP2	

May. 23, 16 – 3:06 PM randallm P:\Trans\60322331 – 30th St Widening\900 WORKING DOCS-CAD\Sheets\PP2.dwg

BID SET



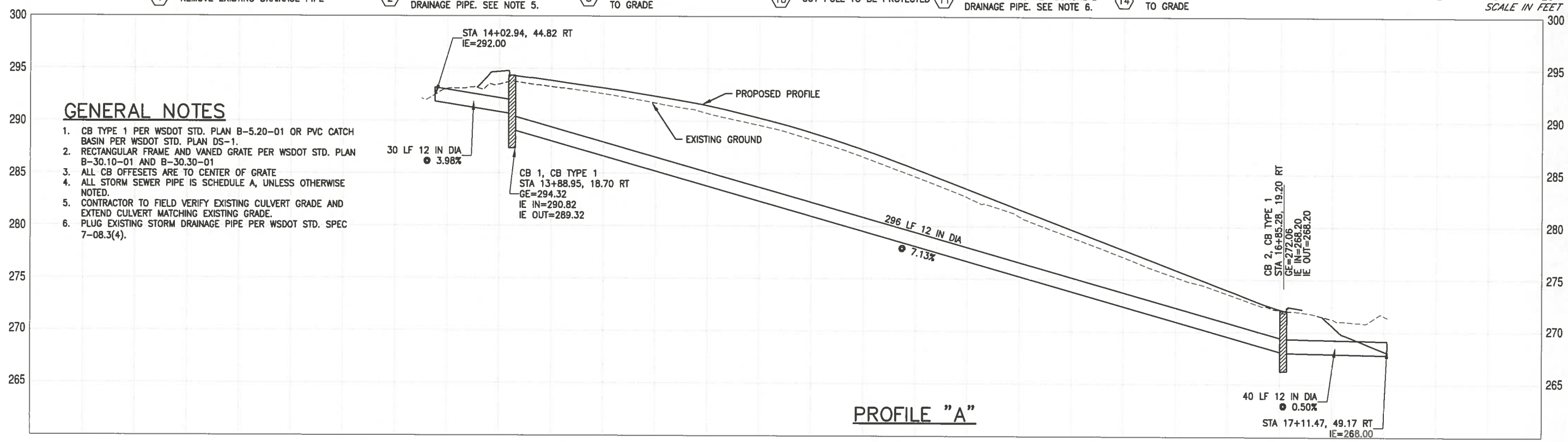
CONSTRUCTION NOTES

1. REMOVE EXISTING DRAINAGE PIPE
2. EXTEND EXISTING 12" CONCRETE DRAINAGE PIPE. SEE NOTE 5.
8. ADJUST WATER METER & BOX TO GRADE
10. GUY POLE TO BE PROTECTED
11. PLUG EXISTING 12" CONCRETE DRAINAGE PIPE. SEE NOTE 6.
14. ADJUST WATER VALVE BOX TO GRADE

20' 0 20' 40'
SCALE IN FEET

GENERAL NOTES

1. CB TYPE 1 PER WSDOT STD. PLAN B-5.20-01 OR PVC CATCH BASIN PER WSDOT STD. PLAN DS-1.
2. RECTANGULAR FRAME AND VANED GRATE PER WSDOT STD. PLAN B-30.10-01 AND B-30.30-01
3. ALL CB OFFESETS ARE TO CENTER OF GRATE
4. ALL STORM SEWER PIPE IS SCHEDULE A, UNLESS OTHERWISE NOTED.
5. CONTRACTOR TO FIELD VERIFY EXISTING CULVERT GRADE AND EXTEND CULVERT MATCHING EXISTING GRADE.
6. PLUG EXISTING STORM DRAINAGE PIPE PER WSDOT STD. SPEC 7-08.3(4).



PROFILE "A"

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BRYAN J. HUSCHKA, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER
6-15-16

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116 UNION AVENUE
SNOHOMISH, WA 98290
PHONE: (360) 568-3115

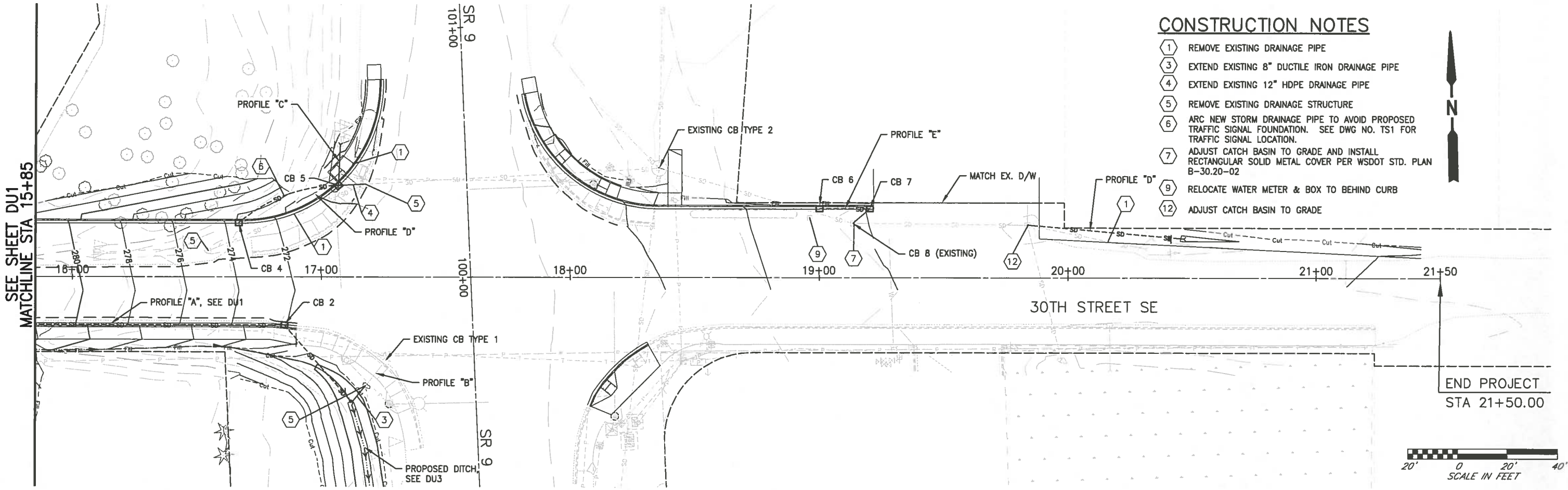
PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
DRAINAGE AND UTILITY PLAN & PROFILE

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: 1"=20'
SHEET 7 OF 24	
DRAWING NO.: DU1	

May. 23, 16 – 3:07 PM randolfm P:\Trans\60322331 – 30th St Widening\900 WORKING DOCS-CAD\Sheets\DU1.dwg

BID SET

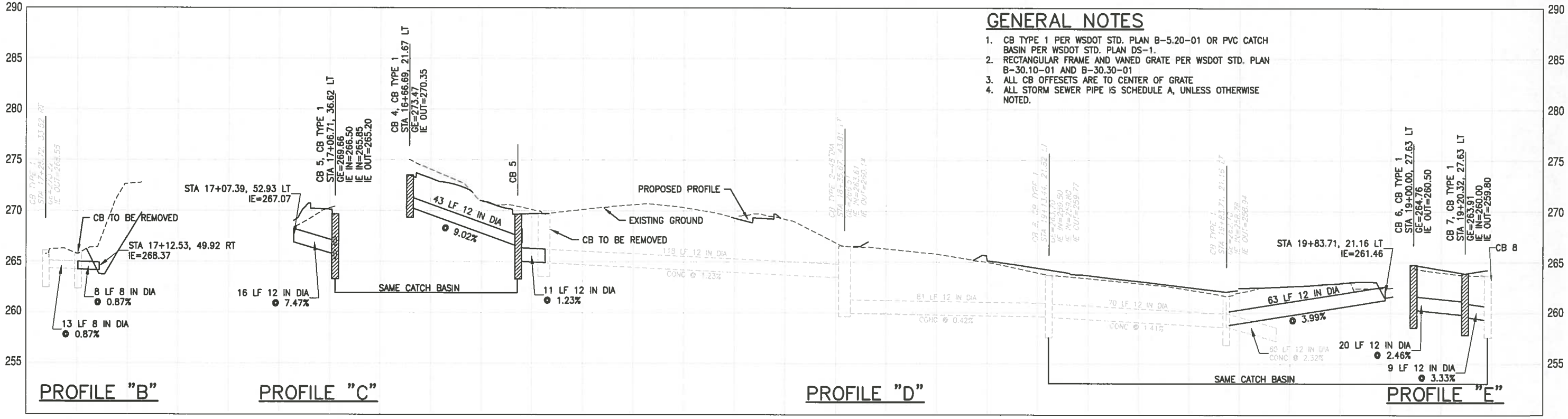


CONSTRUCTION NOTES

1. REMOVE EXISTING DRAINAGE PIPE
3. EXTEND EXISTING 8" DUCTILE IRON DRAINAGE PIPE
4. EXTEND EXISTING 12" HDPE DRAINAGE PIPE
5. REMOVE EXISTING DRAINAGE STRUCTURE
6. ARC NEW STORM DRAINAGE PIPE TO AVOID PROPOSED TRAFFIC SIGNAL FOUNDATION. SEE DWG NO. TS1 FOR TRAFFIC SIGNAL LOCATION.
7. ADJUST CATCH BASIN TO GRADE AND INSTALL RECTANGULAR SOLID METAL COVER PER WSDOT STD. PLAN B-30.20-02
9. RELOCATE WATER METER & BOX TO BEHIND CURB
12. ADJUST CATCH BASIN TO GRADE

GENERAL NOTES

1. CB TYPE 1 PER WSDOT STD. PLAN B-5.20-01 OR PVC CATCH BASIN PER WSDOT STD. PLAN DS-1.
2. RECTANGULAR FRAME AND VANED GRATE PER WSDOT STD. PLAN B-30.10-01 AND B-30.30-01
3. ALL CB OFFESETS ARE TO CENTER OF GRATE
4. ALL STORM SEWER PIPE IS SCHEDULE A, UNLESS OTHERWISE NOTED.



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BRIAN J. HUSAK, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER
6-15-16

CITY OF SNOHOMISH
116 UNION AVENUE
SNOHOMISH, WA 98290
PHONE: (360) 568-3115

PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
DRAINAGE AND UTILITY PLAN & PROFILE

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: 1"=20'
SHEET 8 OF 24	
DRAWING NO.: DU2	

May 23, 16 – 3:07 PM randollim P:\Trans\60322331 – 30th St Widening\900 WORKING DOCS-CAD\Sheets\DU2.dwg

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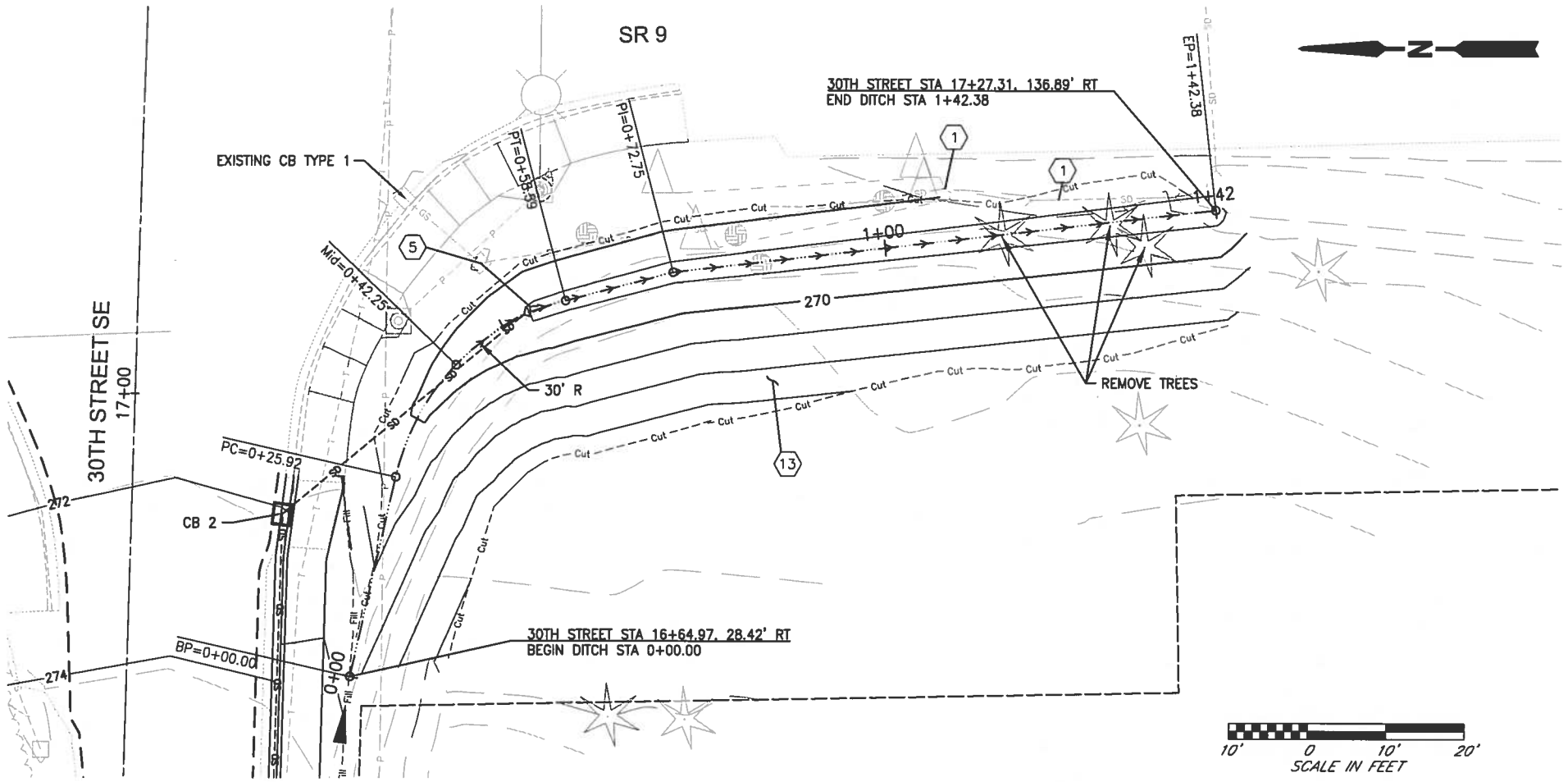
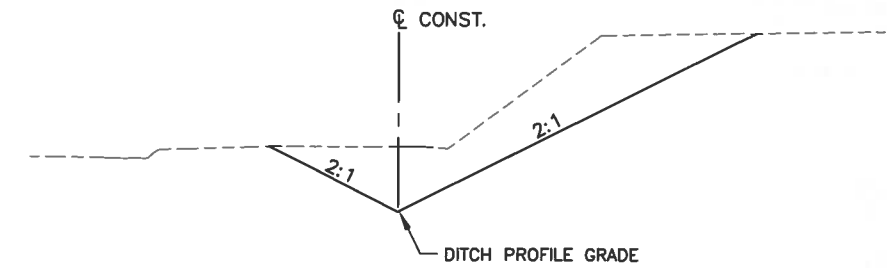
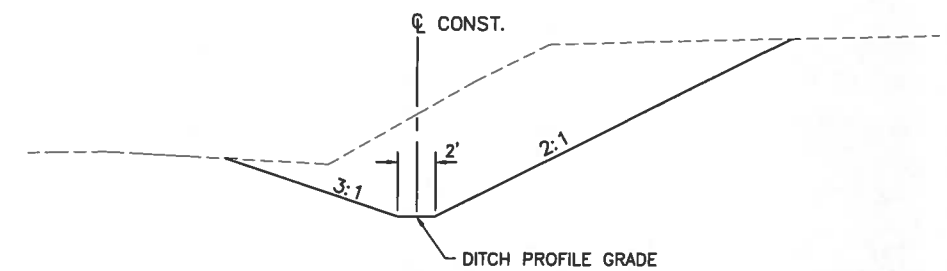




SECTION A – DITCH

STA 0+00.00 TO STA 0+45.00

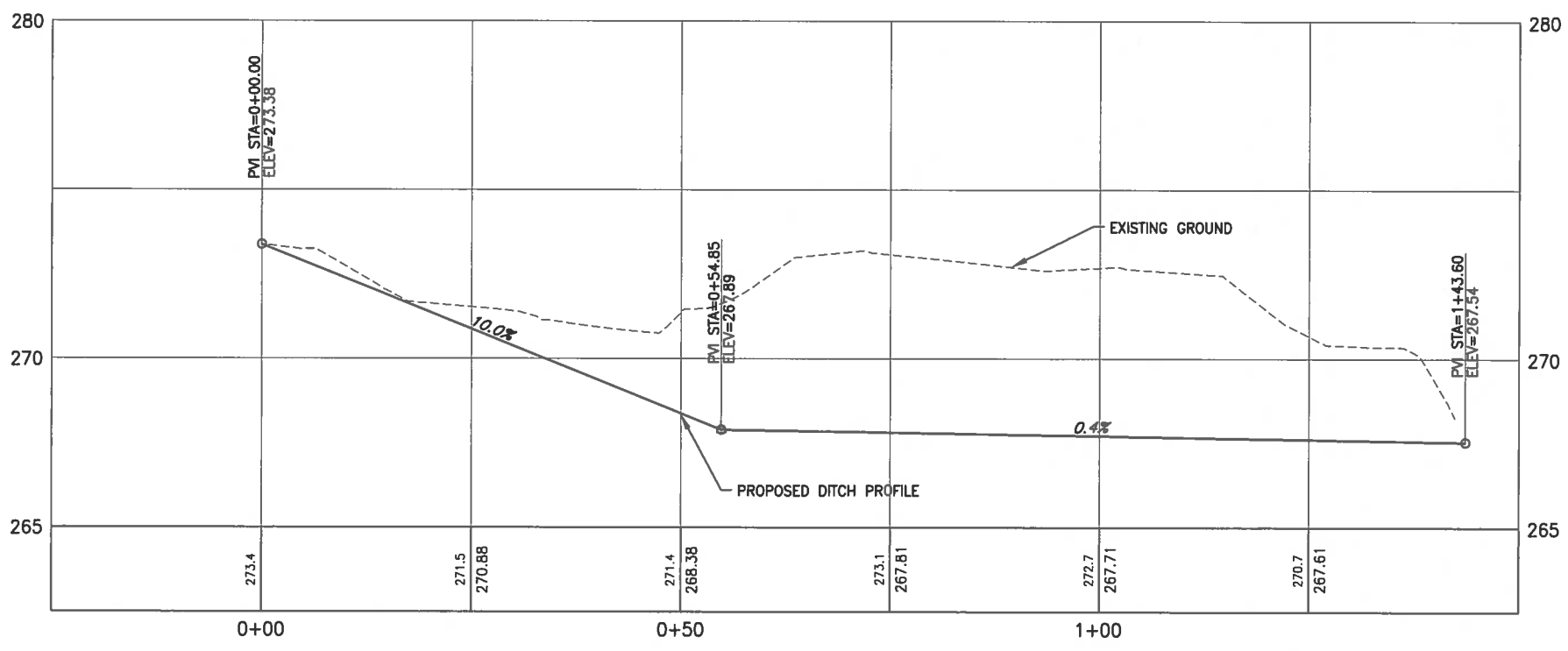


SECTION B – DITCH

STA 0+45.00 TO STA 1+43.60

CONSTRUCTION NOTES

1. REMOVE EXISTING DRAINAGE PIPE
5. REMOVE EXISTING DRAINAGE STRUCTURE
13. PROTECT SLOPE WITH PLASTIC COVERING PER WSDOT STD SPEC 8-01.3(5) & 9-14.5(3)



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PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
DITCH PLAN AND PROFILE

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: 1"=10'
SHEET 9 OF 24	
DRAWING NO.: DU3	

Jun. 15, 16 – 6:03 PM brenda_mcintosh J:\DCS\Projects\TRN\60322331 – 30th St Widening\900 WORKING DOCS-CAD\Sheets\DU3.dwg

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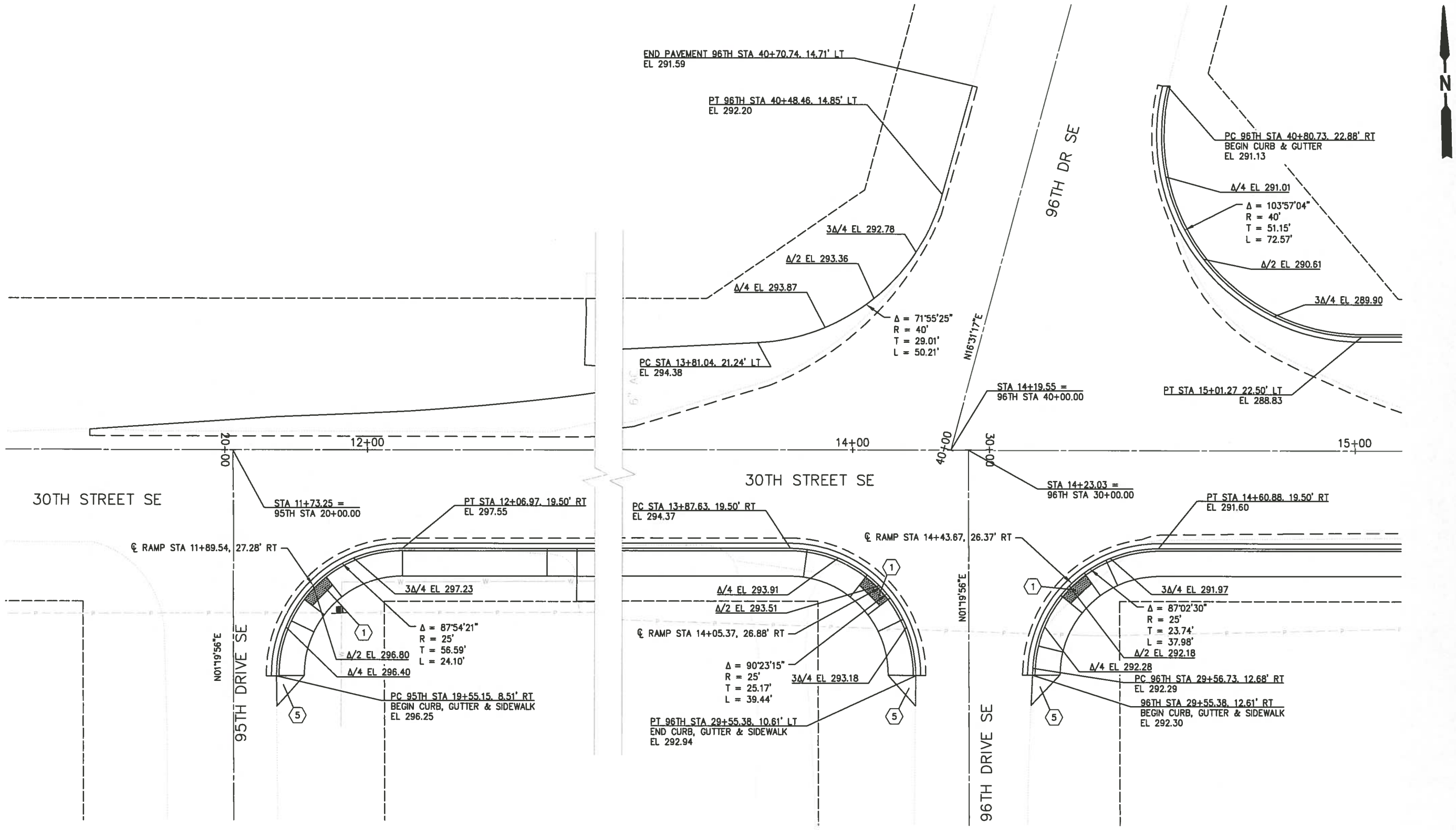

CONSTRUCTION NOTES

(1) INSTALL PARALLEL CURB RAMP TYPE A PER WSDOT STD. PLAN F-40.12-01

(5) INSTALL ASPHALT RAMP, SEE ASPHALT RAMP DETAIL 3 ON DWG NO. DD1.

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB & ALL ELEVATIONS AT GUTTER LINE.

10' 0 10' 20'
SCALE IN FEET

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BRIAN J. HUNTLEY, STATE OF WASHINGTON, 40404, REGISTERED PROFESSIONAL ENGINEER
6-23-16

CITY OF SNOHOMISH
116 UNION AVENUE
SNOHOMISH, WA 98290
PHONE: (360) 568-3115

PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
INTERSECTION PLANS

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: 1"=10'
SHEET 10 OF 24	
DRAWING NO.: IP1	

May, 23, 16 - 3:08 PM randollm P:\Trans\60322331 - 30th St Widening\900 WORKING DOCS-CAD\Sheets\IP1.dwg

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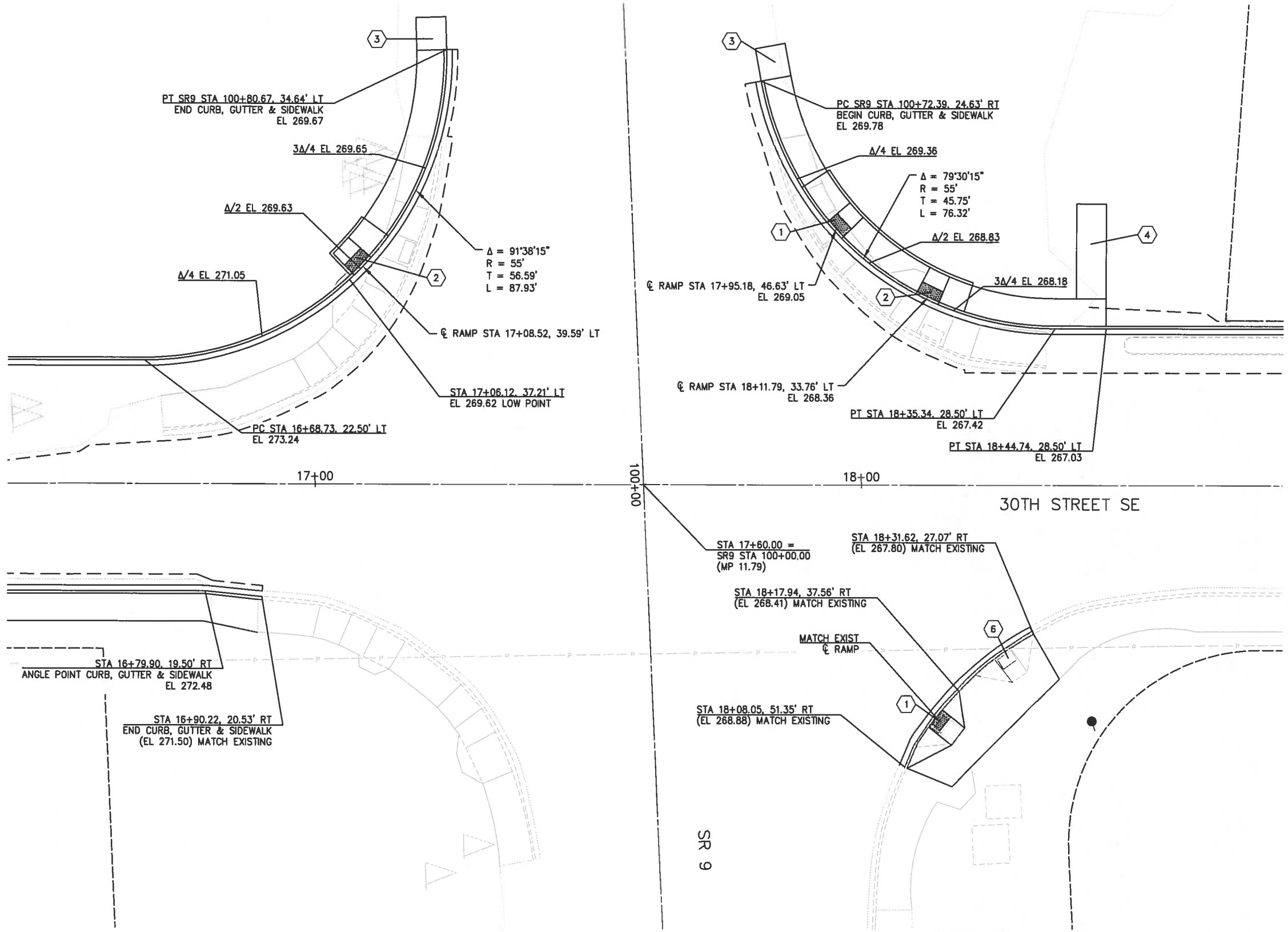

CONSTRUCTION NOTES

1. INSTALL PARALLEL CURB RAMP TYPE A PER WSDOT STD. PLAN F-40.12-01
2. INSTALL PARALLEL CURB RAMP TYPE B PER WSDOT STD. PLAN F-40.12-01
3. INSTALL ASPHALT RAMP, SEE ASPHALT RAMP DETAIL 1 ON DWG NO. DD1.
4. INSTALL ASPHALT RAMP, SEE ASPHALT RAMP DETAIL 2 ON DWG NO. DD1.
6. REMOVE EXISTING CURB RAMP. INSTALL NEW VERTICAL CURB & GUTTER, AND SIDEWALK.

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB & ALL ELEVATIONS AT GUTTER LINE.

(EL XXX.XX) EXISTING ELEVATION TO BE FIELD VERIFIED.

10' 0 10' 20'
SCALE IN FEET

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BRIAN J. HUSTEA, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER
6-13-16

CITY OF SNOHOMISH
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SNOHOMISH, WA 98290
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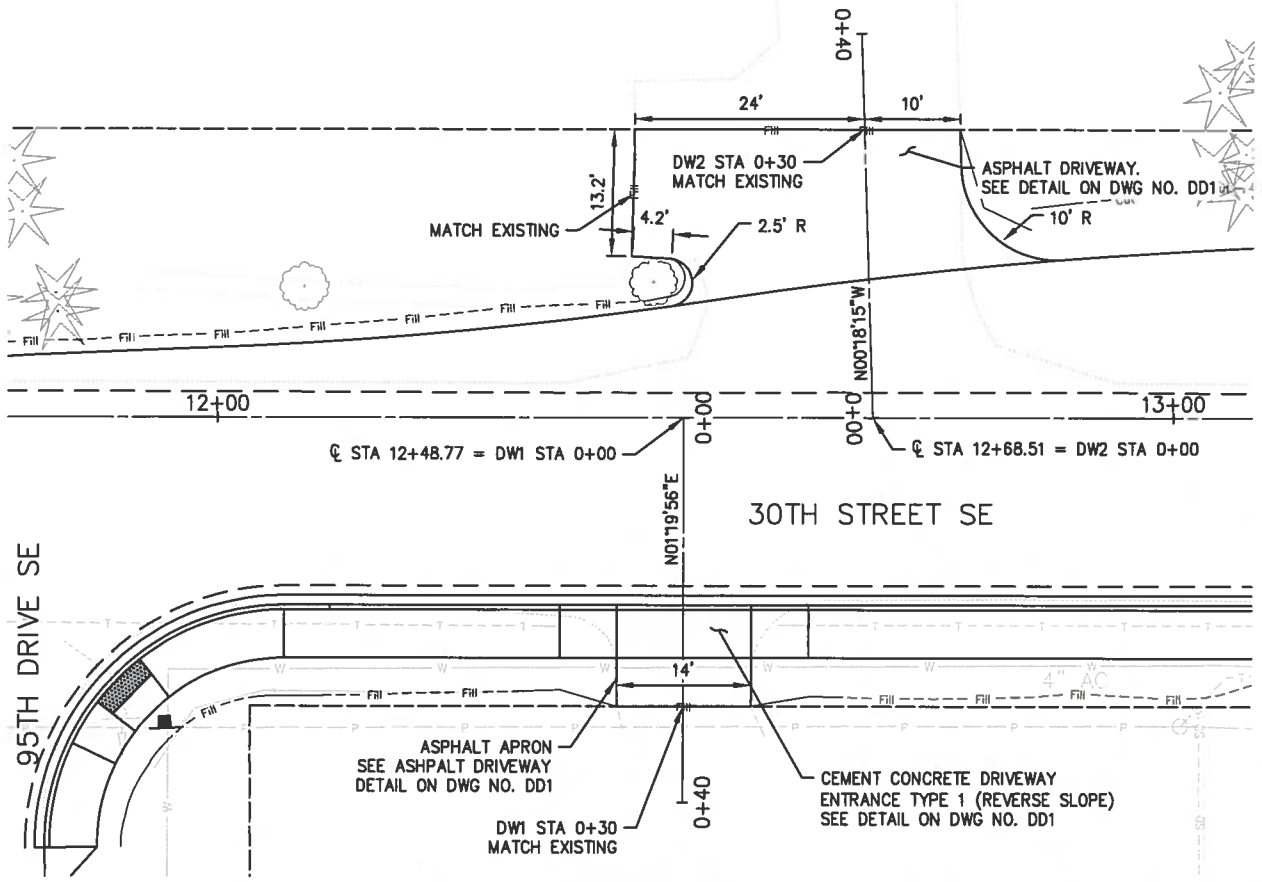
PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
INTERSECTION PLANS

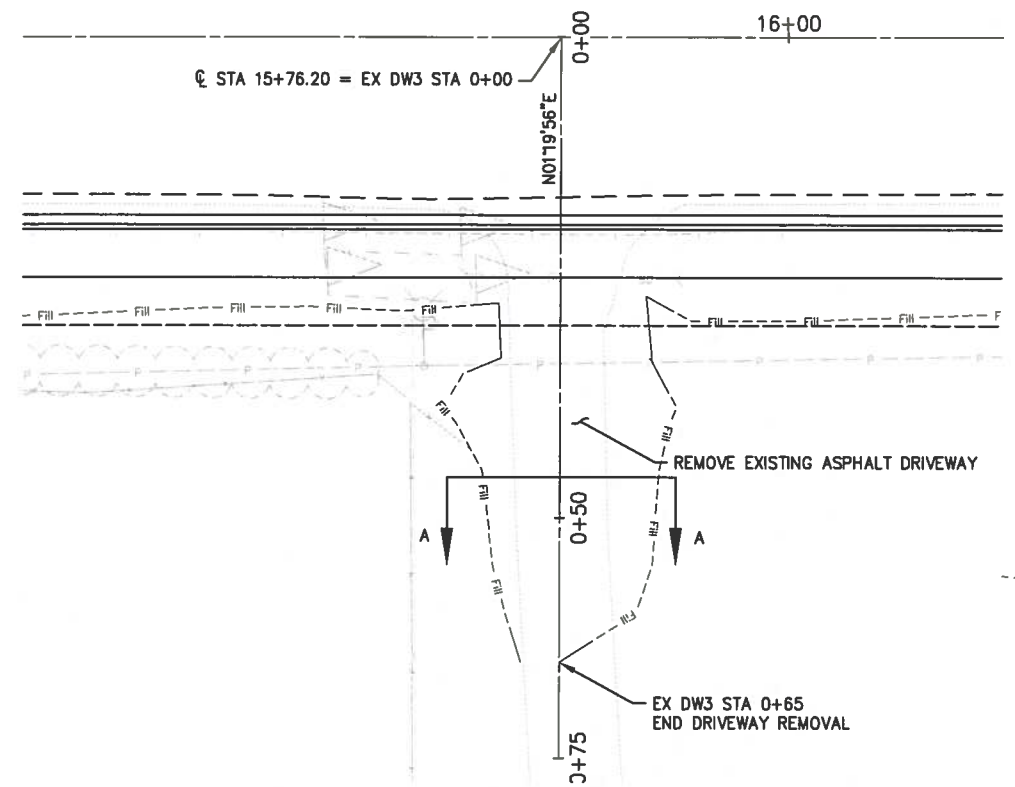
DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: 1"=10'
SHEET 11 OF 24	
DRAWING NO.: IP2	

May. 23, 16 - 3:09 PM randallm P:\Trans\60322331 - 30th St Widening\900 WORKING DOCS-CAD\Sheets\IP2.dwg

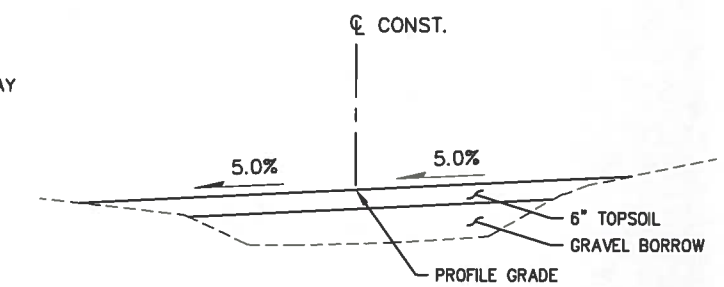
BID SET



DW1 & DW2

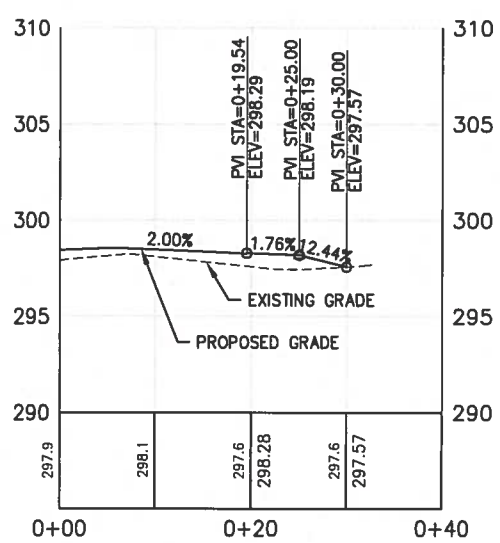


EX DW3

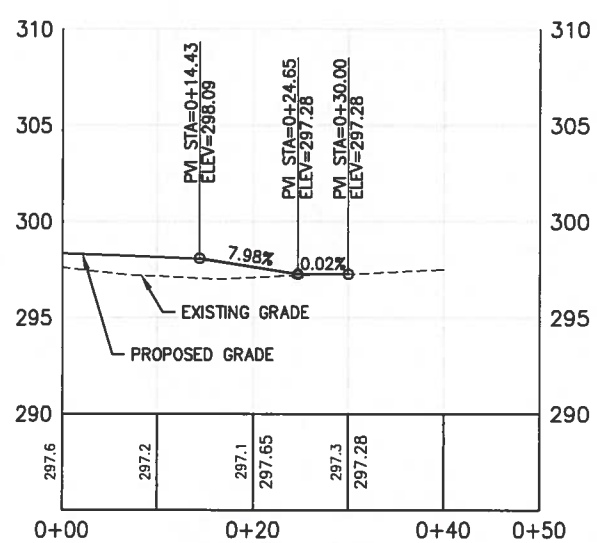


SECTION A –DRIVEWAY REMOVAL

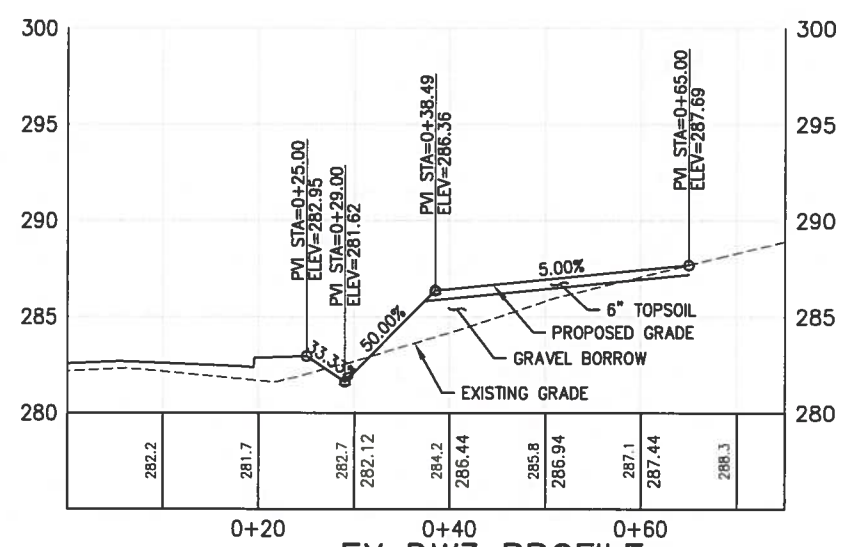
EX DW3 STA 0+29.00 TO STA EX DW3 STA 0+65.00



DW1 PROFILE



DW2 PROFILE



EX DW3 PROFILE

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB & ALL ELEVATIONS AT GUTTER LINE.
2. SEE DWG NO. DD1 FOR DRIVEWAY DETAILS

10' 0 10' 20'
SCALE IN FEET

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6-15-16

CITY OF SNOHOMISH
116 UNION AVENUE
SNOHOMISH, WA 98290
PHONE: (360) 568-3115

PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
DRIVEWAY PLAN & PROFILE

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: 1"=10'
SHEET 12 OF 24	
DRAWING NO.: DW1	

May, 23, 16 – 3:09 PM randollim P:\Trans\60322331 – 30th St Widening\900 WORKING DOCS-CAD\Sheets\DW1.dwg

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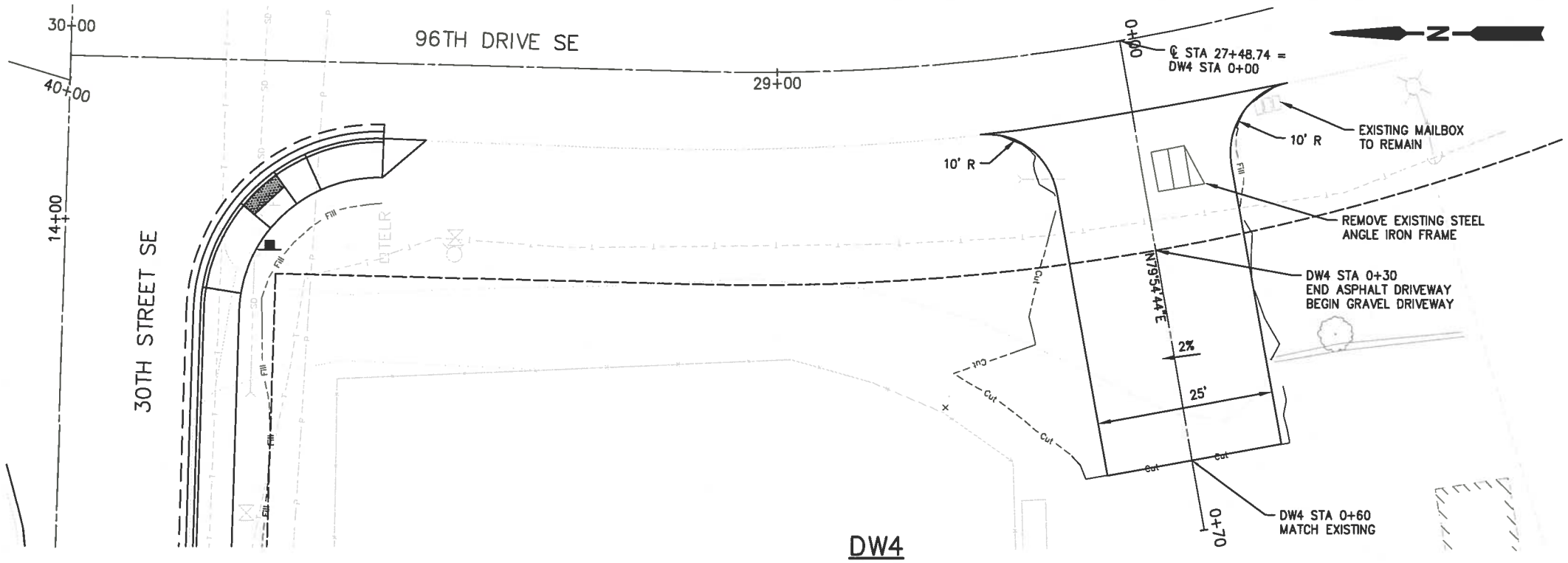
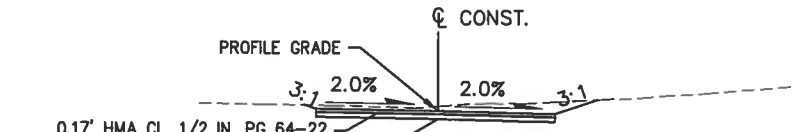
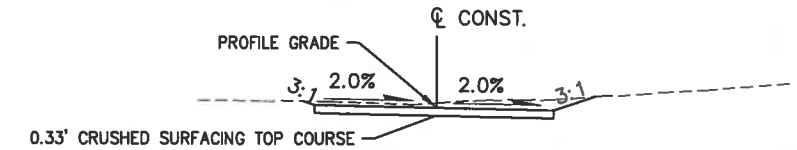


DW4



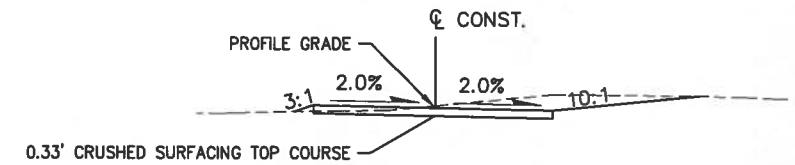
SECTION A –DW4

DW4 STA 0+10.19 TO DW4 STA 0+30.00



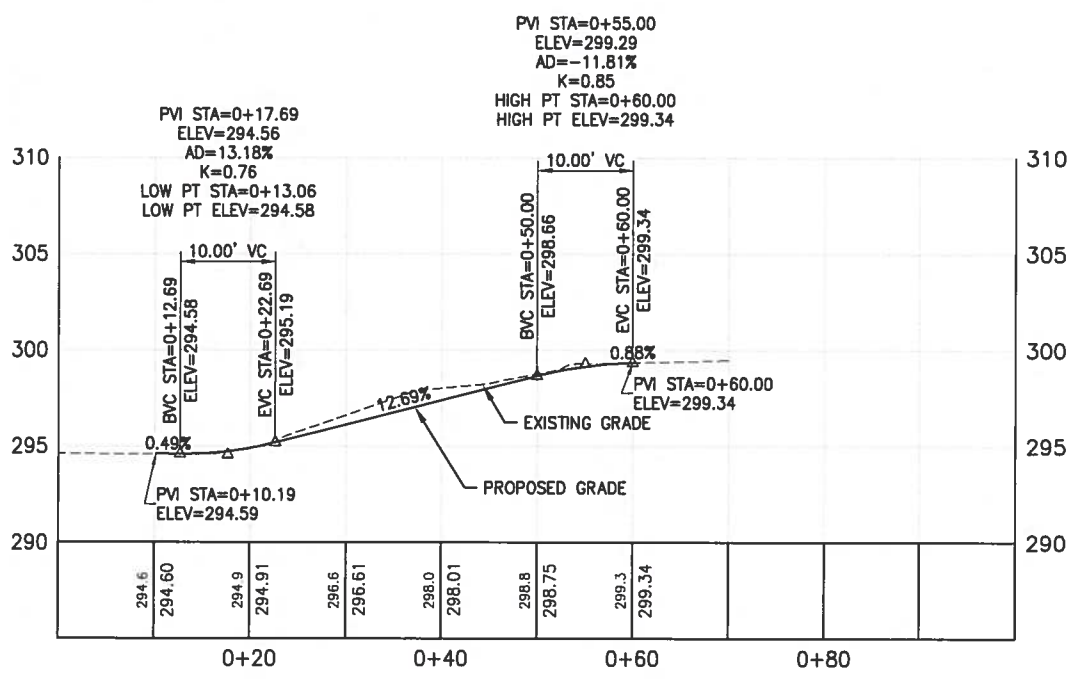
SECTION B –DW4

DW4 STA 0+30.00 TO DW4 STA 0+45.00

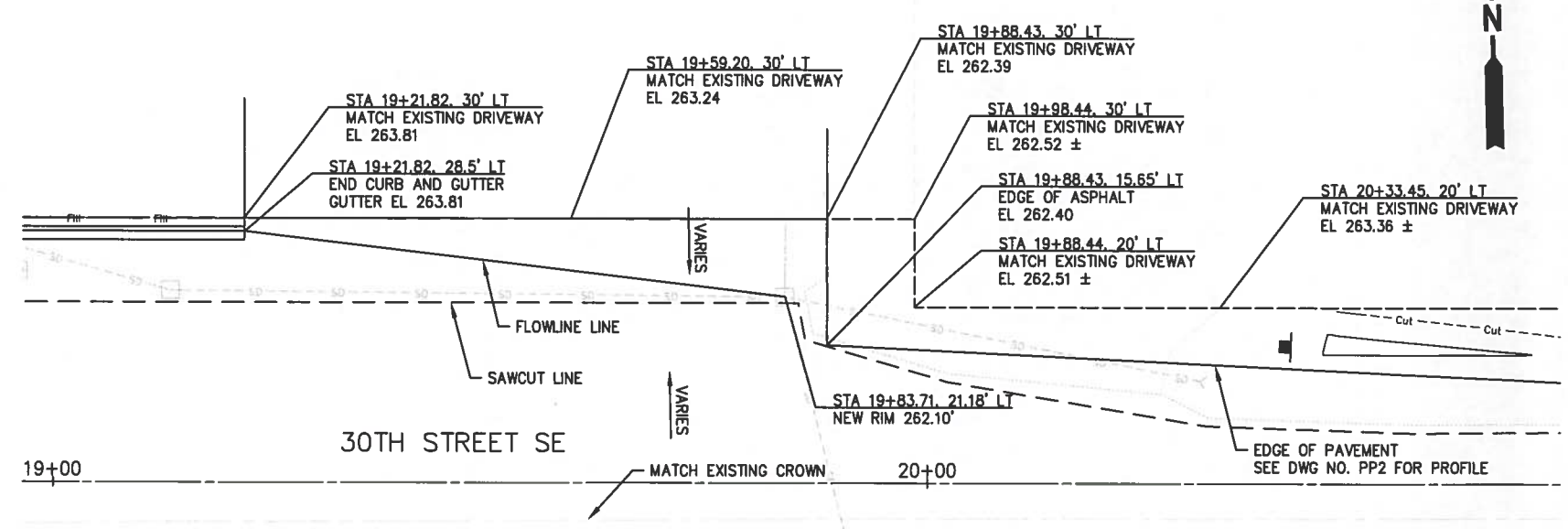


SECTION C –DW4

DW4 STA 0+45.00 TO DW4 STA 0+60.00



DW4 PROFILE



DW5

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB & ALL ELEVATIONS AT GUTTER LINE.

10' 0 10' 20'
SCALE IN FEET

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RYAN J. HUTCHINS — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER
6-15-16

CITY OF SNOHOMISH
116 UNION AVENUE
SNOHOMISH, WA 98290
PHONE: (360) 568-3115

PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
DRIVEWAY PLAN & PROFILE

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: 1"=10'
SHEET 13 OF 24	
DRAWING NO.: DW2	

May 23, 16 – 3:10 PM randollm P:\Trans\60322331 – 30th St Widening\900 WORKING DOCS-CAD\Sheets\DW2.dwg

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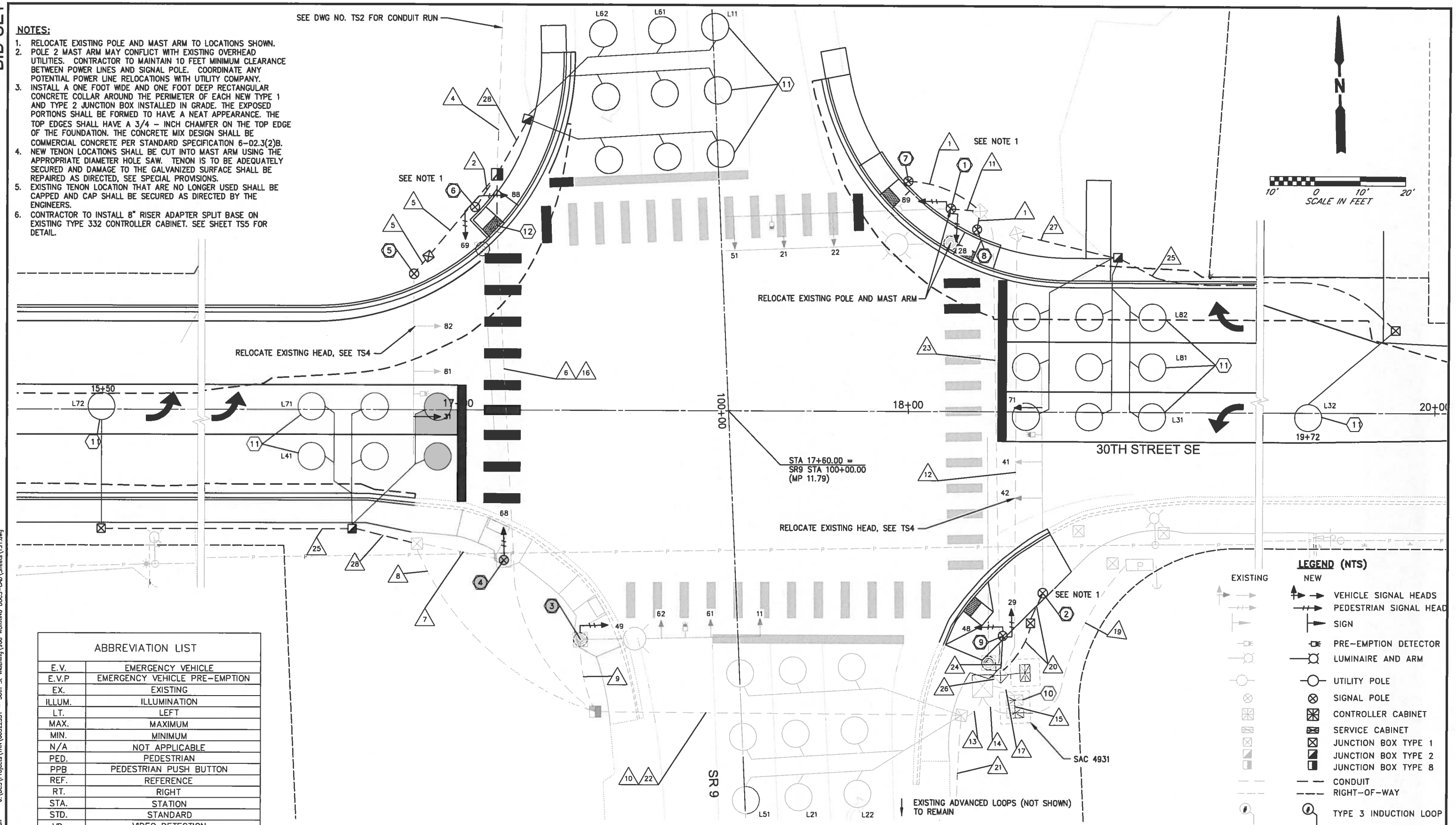
NOTES:

1. RELOCATE EXISTING POLE AND MAST ARM TO LOCATIONS SHOWN.
2. POLE 2 MAST ARM MAY CONFLICT WITH EXISTING OVERHEAD UTILITIES. CONTRACTOR TO MAINTAIN 10 FEET MINIMUM CLEARANCE BETWEEN POWER LINES AND SIGNAL POLE. COORDINATE ANY POTENTIAL POWER LINE RELOCATIONS WITH UTILITY COMPANY.
3. INSTALL A ONE FOOT WIDE AND ONE FOOT DEEP RECTANGULAR CONCRETE COLLAR AROUND THE PERIMETER OF EACH NEW TYPE 1 AND TYPE 2 JUNCTION BOX INSTALLED IN GRADE. THE EXPOSED PORTIONS SHALL BE FORMED TO HAVE A NEAT APPEARANCE. THE TOP EDGES SHALL HAVE A 3/4 – INCH CHAMFER ON THE TOP EDGE OF THE FOUNDATION. THE CONCRETE MIX DESIGN SHALL BE COMMERCIAL CONCRETE PER STANDARD SPECIFICATION 6-02.3(2)B.
4. NEW TENON LOCATIONS SHALL BE CUT INTO MAST ARM USING THE APPROPRIATE DIAMETER HOLE SAW. TENON IS TO BE ADEQUATELY SECURED AND DAMAGE TO THE GALVANIZED SURFACE SHALL BE REPAIRED AS DIRECTED, SEE SPECIAL PROVISIONS.
5. EXISTING TENON LOCATION THAT ARE NO LONGER USED SHALL BE CAPPED AND CAP SHALL BE SECURED AS DIRECTED BY THE ENGINEERS.
6. CONTRACTOR TO INSTALL 8" RISER ADAPTER SPLIT BASE ON EXISTING TYPE 332 CONTROLLER CABINET. SEE SHEET TS5 FOR DETAIL.



ABBREVIATION LIST	
E.V.	EMERGENCY VEHICLE
E.V.P	EMERGENCY VEHICLE PRE-EMPTION
EX.	EXISTING
ILLUM.	ILLUMINATION
LT.	LEFT
MAX.	MAXIMUM
MIN.	MINIMUM
N/A	NOT APPLICABLE
PED.	PEDESTRIAN
PPB	PEDESTRIAN PUSH BUTTON
REF.	REFERENCE
RT.	RIGHT
STA.	STATION
STD.	STANDARD
VD.	VIDEO DETECTION
VEH.	VEHICLE
H.H.	HAND HOLE

LEGEND (NTS)

EXISTING	NEW	
		VEHICLE SIGNAL HEADS
		PEDESTRIAN SIGNAL HEAD
		SIGN
		PRE-EMPTION DETECTOR
		LUMINAIRE AND ARM
		UTILITY POLE
		SIGNAL POLE
		CONTROLLER CABINET
		SERVICE CABINET
		JUNCTION BOX TYPE 1
		JUNCTION BOX TYPE 2
		JUNCTION BOX TYPE 8
		CONDUIT
		RIGHT-OF-WAY
		TYPE 3 INDUCTION LOOP
		WIRE NOTE
		CONSTRUCTION NOTE

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CITY OF SNOHOMISH
116 UNION AVENUE
SNOHOMISH, WA 98290
PHONE: (360) 568-3115

PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
30TH STREET / SR9 TRAFFIC SIGNAL PLAN

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: 1"=10'
SHEET 14 OF 24	
DRAWING NO.: TS1	

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brenda_mcintosh
Jun. 15, 16 – 5:01 PM

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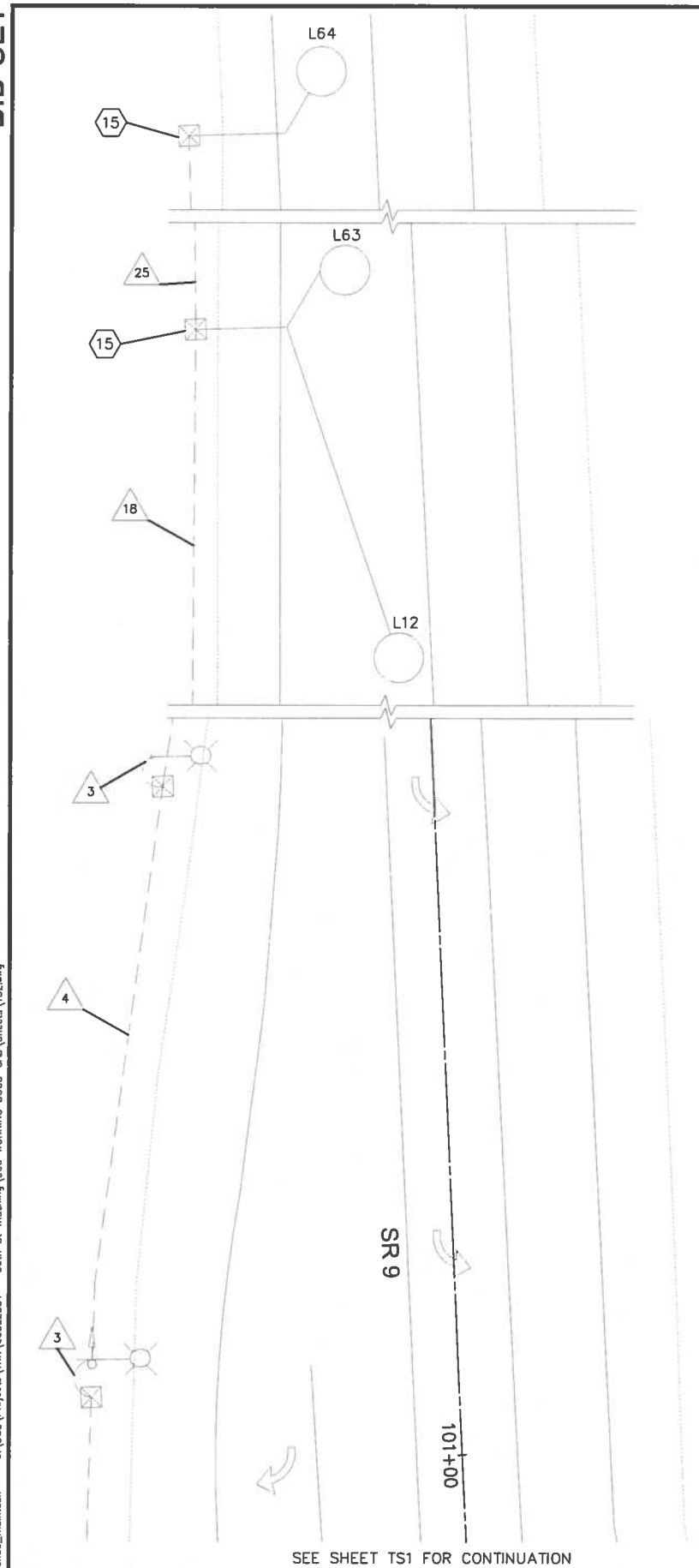
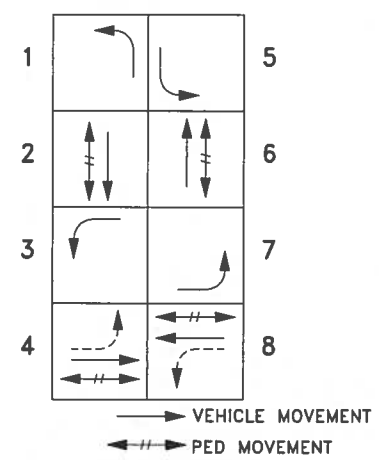


SEE SHEET TS1 FOR CONTINUATION

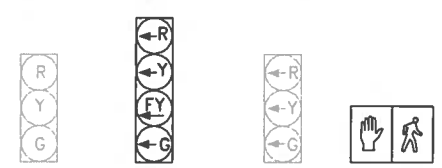
GENERAL NOTES:

1. CONTRACTOR SHALL PHASE WORK SUCH THAT ALL NEW SIGNAL WIRES HAVE BEEN PULLED PRIOR TO RELOCATING SIGNAL POLES.
2. SIGNAL MAY BE SHUT DOWN DURING THE HOURS SPECIFIED IN THE SPECIAL PROVISIONS TO MOVE EXISTING POLES AND MAKE NECESSARY CONNECTIONS. WHILE SIGNAL IS TURNED OFF CONTRACTOR SHALL CONDUCT FLAGGING OPERATIONS.
3. ALL LOOPS ON SR9 SHALL REMAIN OPERATIONAL EXCEPT DURING SIGNAL SHUT DOWN TIMES OR CONTRACTOR SHALL INSTALL TEMPORARY VIDEO DETECTION USING TRAFFICON VIDEO EQUIPMENT. TEMPORARY VIDEO DETECTION REQUIRED SHALL BE INCIDENTAL TO THE COST OF THE SIGNAL.
4. ALL EXISTING CONDUIT AND PULL BOXES (SIZE AND LOCATION) ARE BASED ON AS BUILT DRAWINGS. CONTRACTOR SHALL VERIFY ALL EQUIPMENT PRIOR TO CONSTRUCTION.
5. EXISTING FOUNDATIONS FOR POLES 1,2, AND 5 SHALL BE REMOVED IN THEIR ENTIRETY AND BACKFILLED PER SPECIFICATIONS.
6. INSTALL FOUNDATION ID TAG ON NEW FOUNDATIONS PER STD PLAN J-26.15-01.



PHASE DIAGRAM

SIGNAL HEAD DISPLAY NOTES:



HEADS	HEADS	HEADS	HEADS
21,22	71	11,51	28,29
41,42	31		48,49
61,62			68,69
81,82			88,89

SIGNAL DISPLAYS

1. ALL VEHICLE SIGNAL HEADS SHALL "LED" TYPE WITH 12" LENS. SEE SPECIAL PROVISIONS.
2. ALL VEHICLE HEADS SHALL BE INSTALLED ON TYPE "M" MOUNTING.
3. ALL PED HEADS SHALL BE "LED" TYPE WITH COUNT DOWN TIMERS. SEE SPECIAL PROVISIONS.
4. ALL PED HEADS SHALL BE INSTALLED ON TYPE "E" MOUNTING EXCEPT SINGLE PED HEAD 68 SHALL BE INSTALLED ON TYPE "D" MOUNTING.
5. ALL VEHICLE HEADS SHALL HAVE BACKPLATES. ADD 1" REFLECTIVE TAG AROUND ALL NEW SIGNAL HEAD DISPLAYS.
6. ALL PEDESTRIAN PUSH BUTTONS TO BE AUDIBLE TYPE.

CONSTRUCTION NOTES:

(1) CONSTRUCT FOUNDATION AND RELOCATE EXISTING POLE, FOUNDATION ELEVATION TO BE LEVEL WITH SIDEWALK. REMOVE EXISTING PEDESTRIAN HEADS AND REPLACE WITH NEW PEDESTRIAN HEADS WITH COUNT DOWN TIMERS. REMOVE EXISTING PUSH BUTTONS AND PATCH HOLE. (SEE DETAIL SHEET TS5)

(2)(5) CONSTRUCT FOUNDATION AND RELOCATE EXISTING POLE, FOUNDATION ELEVATION TO BE LEVEL WITH SIDEWALK. REMOVE EXISTING PEDESTRIAN HEADS, EXISTING PUSH BUTTONS AND PATCH HOLES (SEE DETAIL SHEET TS5).

(3)(4) EXISTING TO REMAIN. REMOVE EXISTING PEDESTRIAN HEADS AND REPLACE WITH NEW PEDESTRIAN HEADS WITH COUNT DOWN TIMERS. REMOVE EXISTING PEDESTRIAN PUSH BUTTONS, PATCH HOLE (SEE DETAIL SHEET TS5), AND REPLACE WITH APS BUTTONS. INSTALL APS BUTTONS FACING TOWARD INTERSECTION AND PARALLEL WITH ASSOCIATED CROSSWALK.

(4) ADJUST EXISTING POLE TO BE VERTICALLY PLUMB.

(6)(9) INSTALL APS PUSH BUTTONS AND APS PUSH BUTTON CONTROL BOARD IN PEDESTRIAN SIGNAL HEAD HOUSING. PROGRAM SPEECH WALK MESSAGE" "SR9. WALK SIGN IS ON TO CROSS SR9." "30TH STREET. WALK SIGN IS ON TO CROSS 30TH STREET". INSTALL APS BUTTONS FACING TOWARD INTERSECTION AND PARALLEL WITH ASSOCIATED CROSSWALK.

(6) INSTALL TYPE PS POLE AND CURB FOUNDATION PER WSDOT STD PLAN J-20.16-02.

(7)(8) INSTALL TYPE PPB PER WSDOT STD PLAN J-20.11-02 INSTALL APS PUSH BUTTONS AND APS PUSH BUTTON CONTROL BOARD IN CORRESPONDING PEDESTRIAN HEAD. INSTALL APS BUTTONS FACING TOWARD INTERSECTION AND PARALLEL WITH ASSOCIATED CROSSWALK. INSTALL PPB POSTS WITH CURB BASE FOUNDATIONS.

(9) INSTALL TYPE PS POLE AND FOUNDATION PER WSDOT STD PLAN J-20.16-02.

(10) EXISTING FULLY LOADED TYPE 332 SIGNAL CABINET WITH TYPE 2070 CONTROLLER AND FRONT DOOR FACING EAST TO REMAIN. INSTALL NEW LOOP AMPLIFIERS FOR NEW PHASE 3 AND 7 LOOPS (1 PER PHASE).

(11) INSTALL TYPE 3 LOOPS, STUB OUTS AND CONDUIT, SEE STANDARD PLAN J-50.12-00 AND J-50.15-00..

(12) REMOVE EXISTING JUNCTION BOX AND EXTEND CONDUIT TO NEW JUNCTION BOX. SPLICE EXISTING ILLUMINATION AS NECESSARY IN NEW JUNCTION BOX.

(13) REMOVE ALL EXISTING WIRING THAT IS NOT USED WHEN NEW SIGNAL IS OPERATIONAL.

(14) NEW WIRE INSTALLED IN EXISTING SPARE CONDUIT.

(15) SPICE NEW 2(SH) TO EXISTING LOOP WIRES.

WIRE SCHEDULE SERVICE NO.

△ NO.	CONDUIT SIZE (IN)	P/V DETECT 2C(S)	E.V. DETECT 3C(S)	VEH HEAD 10C	PED HEAD 7C	PED HEAD 5C	APS 4C	PPB 2C	SIGNAL POWER #6	ILLUM. POWER #8	POWER #2	
1	1½	1					1					
2	1½	2				2						
3	1E									2E		
4	1½E	3								2		
5	1½		1	1								
6	3E	3E/5								2E		(13)
7	1¼E					1E		1E				
8	1¼E	5				1E						
9	3E		1E	1E		1E		1E		2E		
10	4E		1/1E	1E		2E				2E		
11	2		1	1	1		2					
12	2E	7								2E		(13)
13	4E	11E/17	1/1E	1E		2/2E				2E		
14	2E									2E		
15	1¼E								3E			
16	2E		1	1		2						(14)
17	4E/4E/2E	11E/19	3/1E	2/1E		4/2E						
18	1½E	3										
19	2E								3E			
20	1½		1	1								
21	1½E	1E								2E		
22	2E	3E/10				2						(14)
23	3E	2	1	1	1					2		(14)
24	1½					2						
25	1½	1										
26	2E	7	1	1		2						
27	1½	7										
28	1½	3										

NOTE: E-EXISTING CONDUIT/CONDUCTOR TO REMAIN

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CITY OF SNOHOMISH
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PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
30TH STREET / SR9 TRAFFIC SIGNAL PLAN

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO: 60322331
DRAWN BY: MCR	SCALE: NTS
SHEET 15 OF 24	
DRAWING NO.: TS2	

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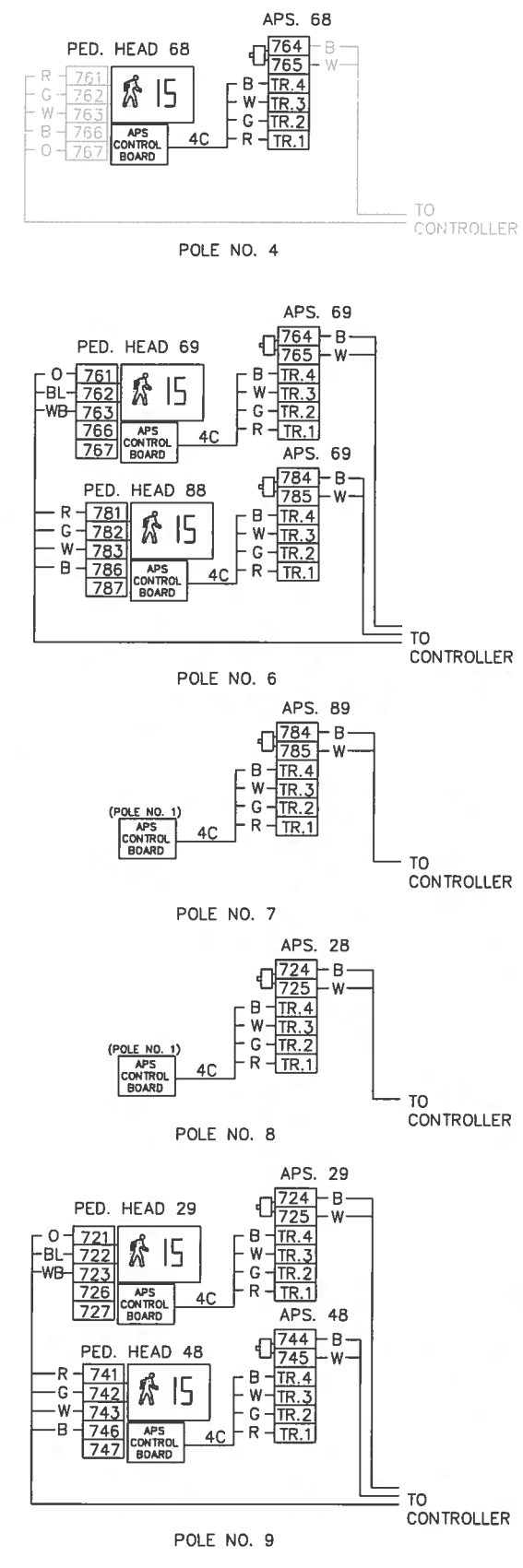
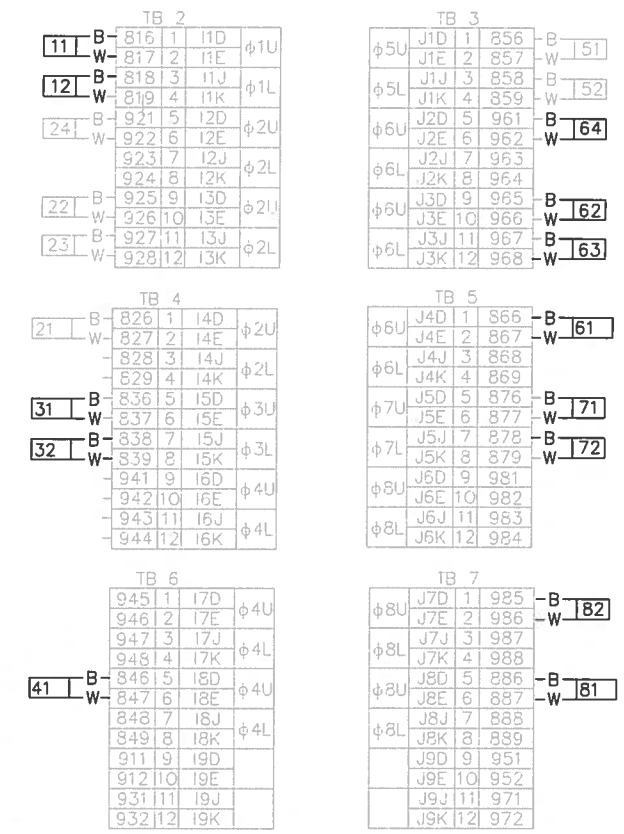
BID SET

FIELD WIRE TERMINATIONS

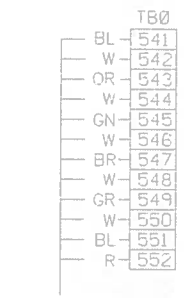
CABINET WIRE TERMINATIONS



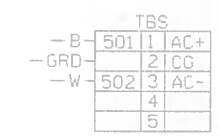
DETECTION INPUT TERMINALS

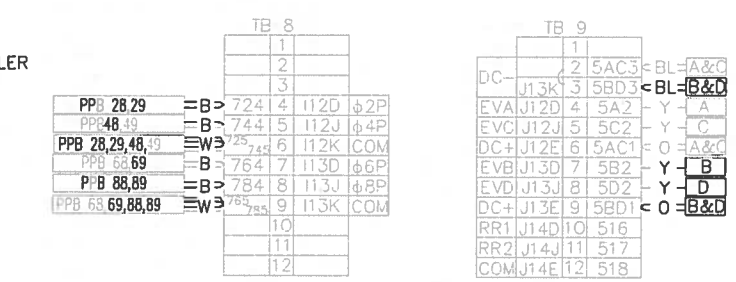


COORDINATION

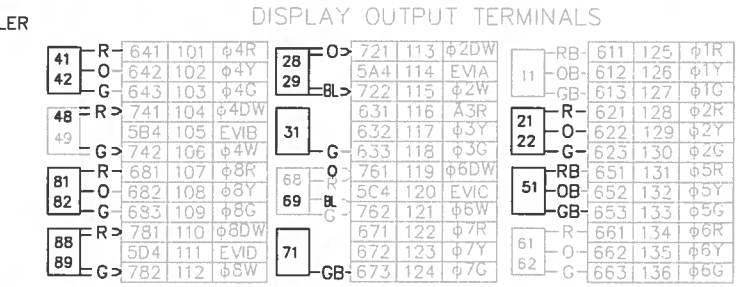


SERVICE PANEL

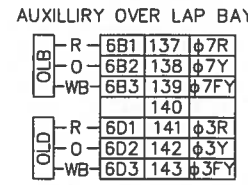




DISPLAY OUTPUT TERMINALS



AUXILLIRY OVER LAP BAY



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PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
30TH STREET / SR9 TRAFFIC SIGNAL PLAN

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: NTS
SHEET 16 OF 24	
DRAWING NO.: TS3	

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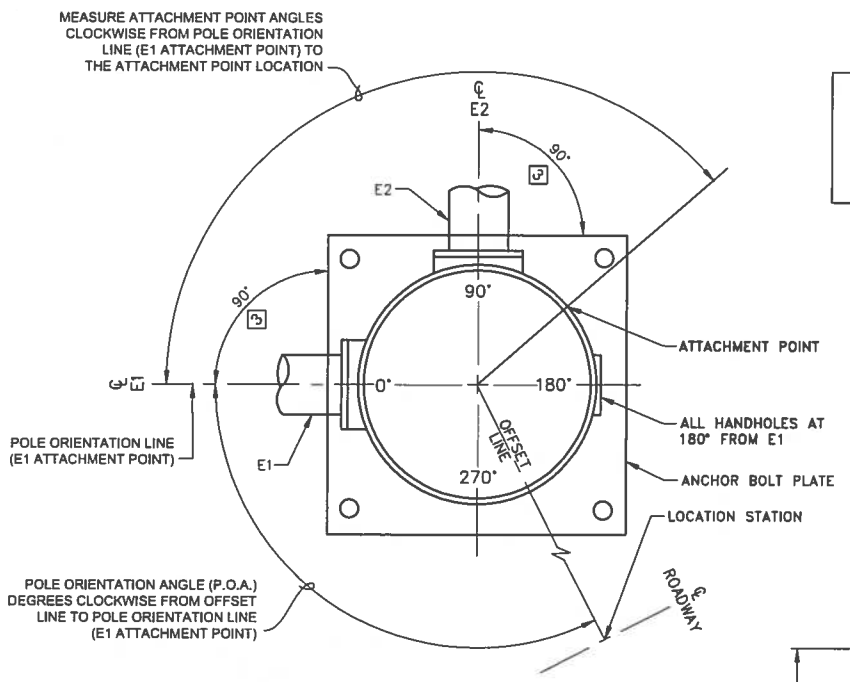


POLE ORIENTATION AND ATTACHMENT POINT DETAIL ①

NOTE:

TYPE E MOUNTS SHALL BE USED FOR PEDESTRIAN DISPLAYS ON TYPE II OR III SIGNAL STANDARDS, WITH THE FOLLOWING EXCEPTIONS: PEDESTRIAN DISPLAYS MOUNTED ON OCTAGONAL (8 SIDED) SIGNAL STANDARDS AT AN ANGLE OTHER THAN A 45° INCREMENT SHALL USE A TYPE A MOUNT FOR TWO PEDESTRIAN DISPLAYS, OR A TYPE B MOUNT FOR SINGLE PEDESTRIAN DISPLAY.

SIGNAL STANDARD IDENTIFICATION TAG DETAIL

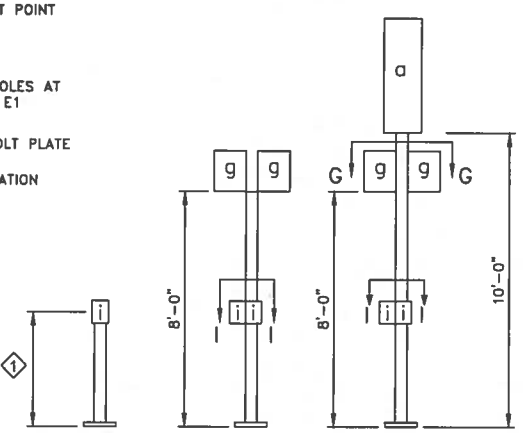
STD. NO. XX	SIGNAL STANDARD NO.
SRXXX, MP XXX.XX	STATE ROUTE AND MILE POST NO.
MANUFACTURER	
APPROVED DWG. XXXXXX	APPROVED DRAWING NO.
FAB. X/XX/XXXX	FABRICATION DATE

EXAMPLE

STD. NO. 02
SR97, MP 069.09
MANUFACTURER
APPROVED DWG. AB12345
FAB. 6/14/2002

NOTE:

CORROSION RESISTANT METAL TAG SECURED WITH (2) 0.125" RIVETS AS FOLLOWS: POLE SHAFT – LOCATED WITHIN 6" ABOVE HAND HOLE (TYPE II & III), SIGNAL AND LUMINAIRE MAST ARM (TYPE II & III) – LOCATED WITHIN 6" OF THE LUMINAIRE ARM AND THE POLE SHAFT CONNECTION POINT (TYPE II & III). TEXT SHALL BE A MINIMUM OF 3/16 " HIGH, STAMPED OR EMBOSSED.



TYPE PPB PPB POST | TYPE PS PED. HEAD STANDARD | TYPE I VEHICLE HEAD STANDARD

LUMINAIRE MAST ARM X Y Z (ft)³	
MAST ARM LENGTH	X Y Z (ft)³
6'	19.8
8'	26.4
10'	33.0
12'	39.6
14'	46.2
16'	52.8

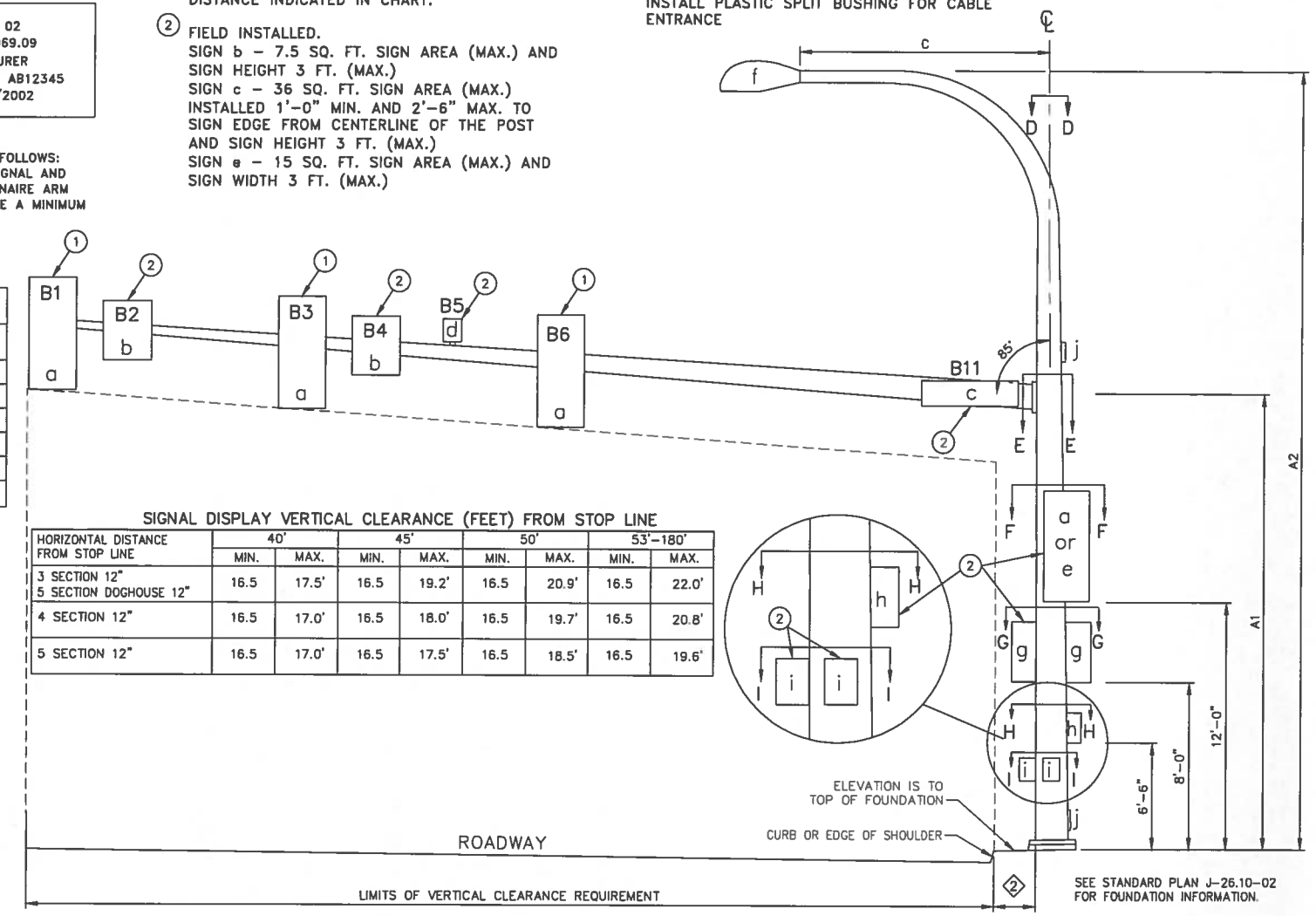
NOTES

① MOUNTING COUPLING INSTALLED AT OFFSET DISTANCE INDICATED IN CHART.

② FIELD INSTALLED.
SIGN b – 7.5 SQ. FT. SIGN AREA (MAX.) AND SIGN HEIGHT 3 FT. (MAX.)
SIGN c – 36 SQ. FT. SIGN AREA (MAX.) INSTALLED 1'–0" MIN. AND 2'–6" MAX. TO SIGN EDGE FROM CENTERLINE OF THE POST AND SIGN HEIGHT 3 FT. (MAX.)
SIGN e – 15 SQ. FT. SIGN AREA (MAX.) AND SIGN WIDTH 3 FT. (MAX.)

ALTERNATE NOTE FOR TYPE N MOUNT ONLY

① DRILL 1" DIAMETER HOLE IN MAST ARM AND INSTALL PLASTIC SPLIT BUSHING FOR CABLE ENTRANCE



TYPE II, III & SD SIGNAL STANDARD

APPLY GROUT EVEN WITH THE BOTTOM OF THE ANCHOR PLATE AFTER PLUMBING THE STANDARD. PROVIDE 3/8" DIAMETER DRAIN TUBE IN THE GROUT PAD

SIGNAL DISPLAY VERTICAL CLEARANCE (FEET) FROM STOP LINE

HORIZONTAL DISTANCE FROM STOP LINE	40'		45'		50'		53'–180'	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
3 SECTION 12" 5 SECTION DOGHOUSE 12"	16.5	17.5'	16.5	19.2'	16.5	20.9'	16.5	22.0'
4 SECTION 12"	16.5	17.0'	16.5	18.0'	16.5	19.7'	16.5	20.8'
5 SECTION 12"	16.5	17.0'	16.5	17.5'	16.5	18.5'	16.5	19.6'

LEGEND

a. VEHICLE DISPLAY
b. MAST ARM MOUNTED SIGN
c. STREET NAME SIGN
d. PRE–EMPT DETECTOR
e. POST MOUNTED SIGN
f. LUMINAIRE
g. PEDESTRIAN DISPLAY
h. CABINET
i. PPB–M
j. HANDHOLE

① HEIGHT OF PEDESTRIAN PUSH BUTTON: 42"

② PLACEMENT SHALL BE 2' – 0" MIN. FROM FACE OF CURB OR EDGE OF SHOULDER; 3' – 0" MIN. FROM FACE OF GUARDRAIL; 4' – 0" MIN. FROM CONC. BARRIER TYPE 2 (MEASURED FROM A POINT WHERE THE BARRIER BASE MEETS THE SHOULDER SURFACE (TOE). MEASUREMENT TAKEN FROM TRAFFIC SIDE OF BARRIER; TO FACE OF POLE

③ DMS OR VMS IS NOT ALLOWED ON THIS POLE.

④ FOR POST MOUNTED SIGNS THERE SHALL BE 2' – 0" MIN. FROM THE FACE OF THE CURB OR THE EDGE OF THE SHOULDER TO THE EDGE OF THE SIGN

SIGNAL STANDARD DETAIL CHART

STD. No.	SR NO.	FIELD LOCATION STATION	OFFSET	LT.	RT.	P.O.A.	POLE TYPE	MOUNTING HEIGHT (FT) A1	A2	SIGNAL MAST ARM DATA: OFFSET DISTANCES (FT) (Z) (POLE TO ATTACHMENT POINT) B1	B2	B3	B4	B5	B6	B11	WINDLOAD AREAS (FT²) (X)(Y) B1	B2	B3	B4	B6	B11	CALCULATED POLE XYZ (FT³)**	LUMINAIRE ARM (FT) C	POLE ATTACHMENT POINT ANGLES (deg) D	E1	E2	F	G1	G2	H	I1	I2	FOUNDATION DESIGN XYZ (FT³)	FOUNDATION DEPTH (FT) ALTERNATE 1 3'RD.	3'SQ.	4'RD.	ALTERNATE 2 3'RD.	4'RD.	SOIL PSF	REMARKS
1	SR9/30TH ST	18+09.17	44.80'	√		90	III	18.5	50	49.5	–	37		40	26	5E	9.2	–	9.2	–	9.2	12E	1095		0	0			0	270				1095	7	6	6			2500	RELOCATE EXISTING POLE & MAST ARM
2	SR9/30TH ST	18+30.00	40.00'		√	0	II	18		41**		29*		35	21	5E	11.6	–	9.2		9.2	12E	996			0								996	7	6	6			2500	RELOCATE EXISTING POLE & MAST ARM
3	SR9/30TH ST	17+27.32	50.69'		√	90	III	19.5																	0	0			90			270										EXISTING TO REMAIN
4	SR9/30TH ST	17+10.16	33.19'		√	0	PS																						0			0										EXISTING TO REMAIN
5	SR9/30TH ST	16+90.00	30.00'	√		0	II	19		32 **		22 *		27	12	5E	11.6	–	9.2		9.2	12E	744			0								744	6	6	6			2500	RELOCATE EXISTING POLE & MAST ARM
6	SR9/30TH ST	17+03.54	44.79'	√		0	PS																						0	270		0	270									
7	SR9/30TH ST	17+99.74	50.83'	√		0	PBB																									0										
8	SR9/30TH ST	18+15.03	40.23	√		0	PBB																									90										
9	SR9/30TH ST	18+21.22	49.51		√	0	PS																						0	270		0	270									

* RELOCATED HEAD – INSTALL NEW TENON
** NEW HEAD – INSTALL NEW TENON
E – EXISTING TO REMAIN

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PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
30TH STREET / SR9 TRAFFIC SIGNAL PLAN

DATE: 5–23–16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: NTS
SHEET 17 OF 24	
DRAWING NO.: TS4	

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BID SET

REPAIR PROCEDURE – BOLT HOLE SIZE 1/2" (IN) DIAMETER OR LESS ~ PIPE TRADE SIZE 1/2" (IN) OR LESS

FOR UNC OR UNF THREADS:

1. APPLY SILICONE CAULK TO THREADS OF SS BOLT WITH SHANK.
2. TIGHTEN SS BOLT UNTIL SHANK IS TIGHT AGAINST STANDARD.
3. CUT OFF SS BOLT EVEN WITH STANDARD.
4. FILE SS BOLT TO MATCH CONTOUR OF STANDARD.
5. TREAT SS BOLT AND SURROUNDING POLE WITH GALVANIZING REPAIR PAINT MEETING THE REQUIREMENT OF STANDARD SPECIFICATION 9-08.1(2).
6. APPLY TWO COATS. PAINT SHALL BE DRY BEFORE APPLYING SECOND COAT.

FOR NATIONAL PIPE THREADS:

1. APPLY SILICONE CAULK TO THREADS OF HOT-DIPPED GALVANIZED HEX SOCKET PIPE PLUG.
2. TIGHTEN PLUG UNTIL FLUSH WITH STANDARD.
3. FILE PLUG TO MATCH CONTOUR OF STANDARD.
4. FILL HEX SOCKET WITH PAINTABLE SILICONE CAULK.
5. TREAT PLUG AND SURROUNDING POLE WITH GALVANIZING REPAIR PAINT MEETING THE REQUIREMENT OF STANDARD SPECIFICATION 9-08.1(2).
6. APPLY TWO COATS. PAINT SHALL BE DRY BEFORE APPLYING SECOND COAT.

332 RISER ADAPTER SPLIT BASE NOTES

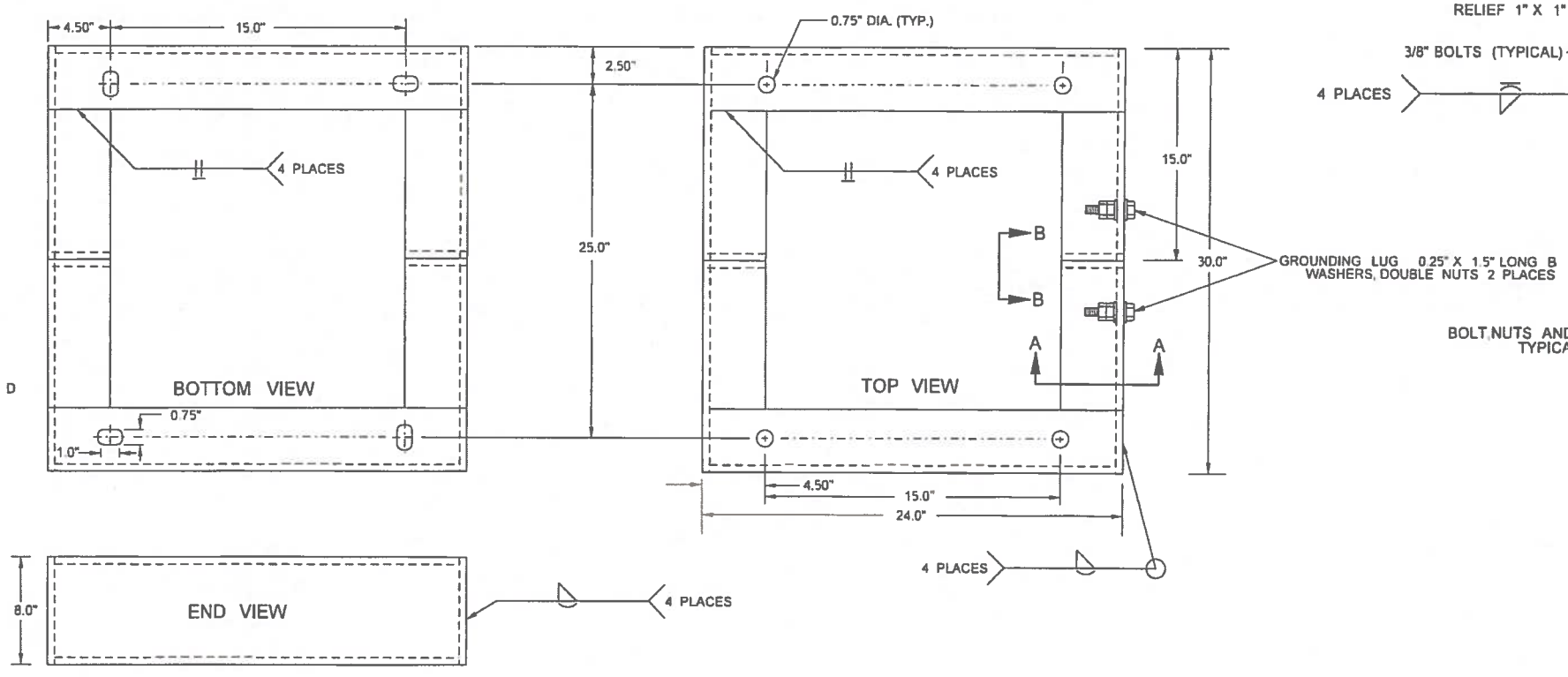
1. FEILD VERIFY CONTROLLER CABINET ANCHOR BOLT PATTERN & LOCATION PRIOR TO FABRICATION.
2. GROOVE SIZE AND FILLET SIZE ARE EQUAL TO MATERIAL THICKNESS.
3. ALL HARDWARE SHALL BE STAINLESS STEEL.
4. ALL WELDING SHALL BE GTAW.

TOLERANCES	
ANGLE	± 1 DEGREE
X.XX	= ±0.125
HOLES	+0.062 −0.015

GTAW = GAS TUNGSTEN ARC WELDING

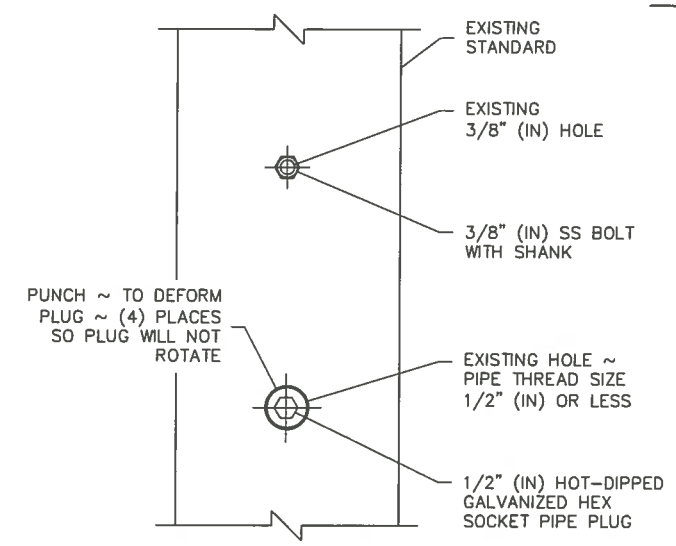
MATERIAL: 0.125 INCH SHEET ALUMINUM (5052-H32), MINIMUM THICKNESS. EXTRUDED CHANNEL OR FORMED CHANNEL MAY BE SUBSTITUTED FOR WELDED PLATE.

(1) MAINTAIN SURFACE FLATNESS OF ±0.05 AT MATING SURFACE



332 RISER ADAPTER SPLIT BASE

NOT TO SCALE



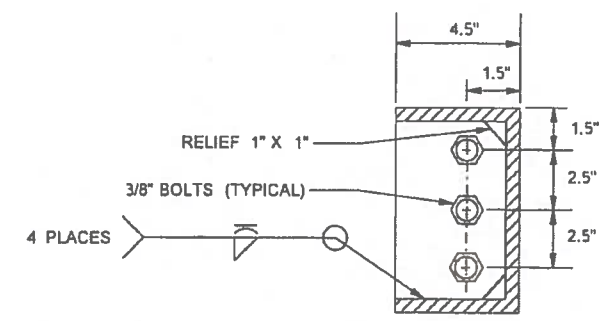
ELEVATION VIEW

HOLE REPAIR DETAIL

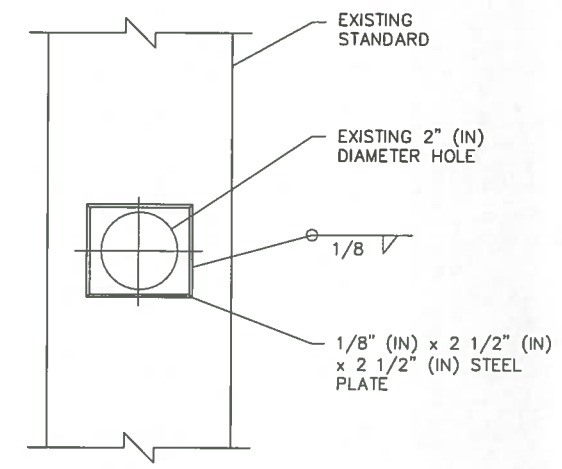
EXAMPLE OF REPAIR FROM PPB LOCATION ~ 1/2" (IN) DIAMETER AND 3/8" (IN) DIAMETER HOLES SHOWN

REPAIR PROCEDURE – MAXIMUM HOLE SIZE 3" (IN) DIAMETER OR LESS

1. SUBMITTAL PER STANDARD SPECIFICATION 6-03.3(25).
2. MAXIMUM HOLE SIZE 3" (IN) OR LESS IN DIAMETER.
3. 1/8" (IN) STEEL PLATE – TYPE ASTM A – 36 ELECTRODE TYPE XX-70.
4. THE PLATE SHALL BE 1/2" (IN) LARGER THAN THE DIAMETER OF THE HOLE TO BE REPAIRED (1/4" (IN) OVERLAP ALL SIDES).
5. TACK WELD PLATE TO POLE.
6. SHAPE PLATE TO MATCH TAPER AND CURVE OF POLE.
7. 1/8" (IN) FILLET WELD ALL AROUND.
8. CHAMFER (GRIND) EDGE OF PLATE SMOOTH. REMOVE ALL BURRS AND SHARP EDGES.
9. TREAT PATCH PLATE AND SURROUNDING POLE WITH GALVANIZING REPAIR PAINT MEETING THE REQUIREMENT OF STANDARD SPECIFICATION 9-08.1(2).
10. APPLY TWO COATS. PAINT SHALL BE DRY PRIOR TO APPLYING SECOND COAT.



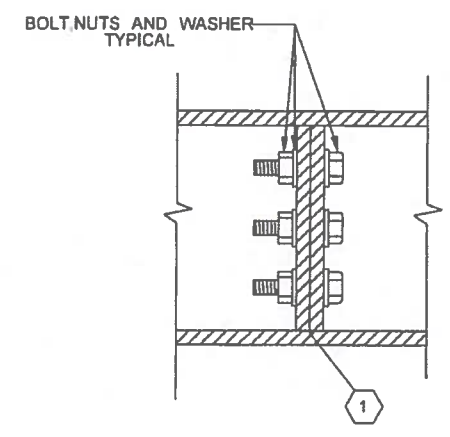
SECTION A



ELEVATION VIEW

HOLE REPAIR DETAIL

EXAMPLE WITH 2" (IN) DIAMETER HOLE SHOWN



SECTION B

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CITY OF SNOHOMISH
116 UNION AVENUE
SNOHOMISH, WA 98290
PHONE: (360) 568-3115

PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
30TH STREET / SR9 TRAFFIC SIGNAL PLAN

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: NTS
SHEET 18 OF 24	
DRAWING NO.: TS5	

Jun. 7, 16 – 4:09 PM brenda_mcintosh P:\Trans\60322331 – 30th St Widening\900 WORKING DOCS-CAD\Sheets\TS5.dwg

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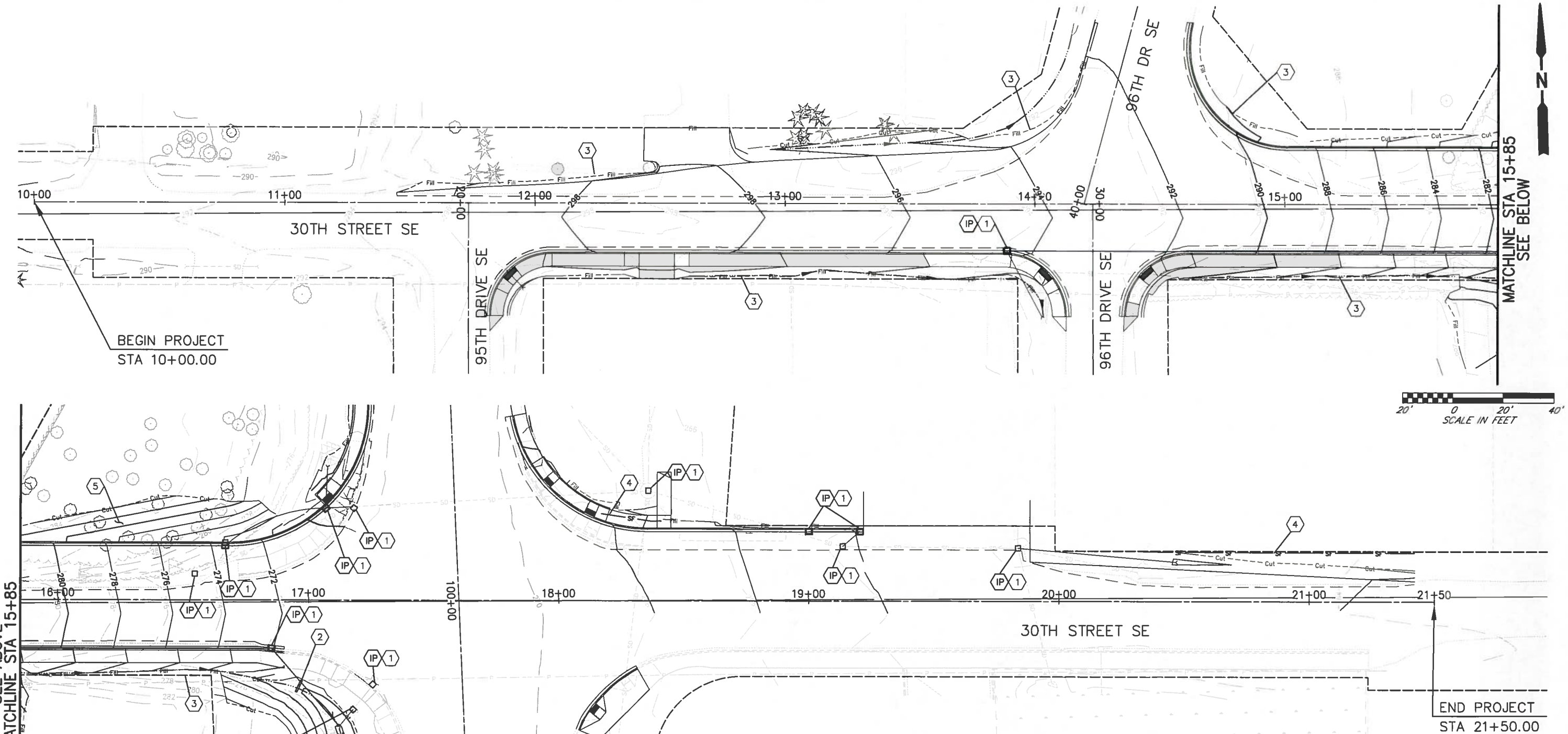

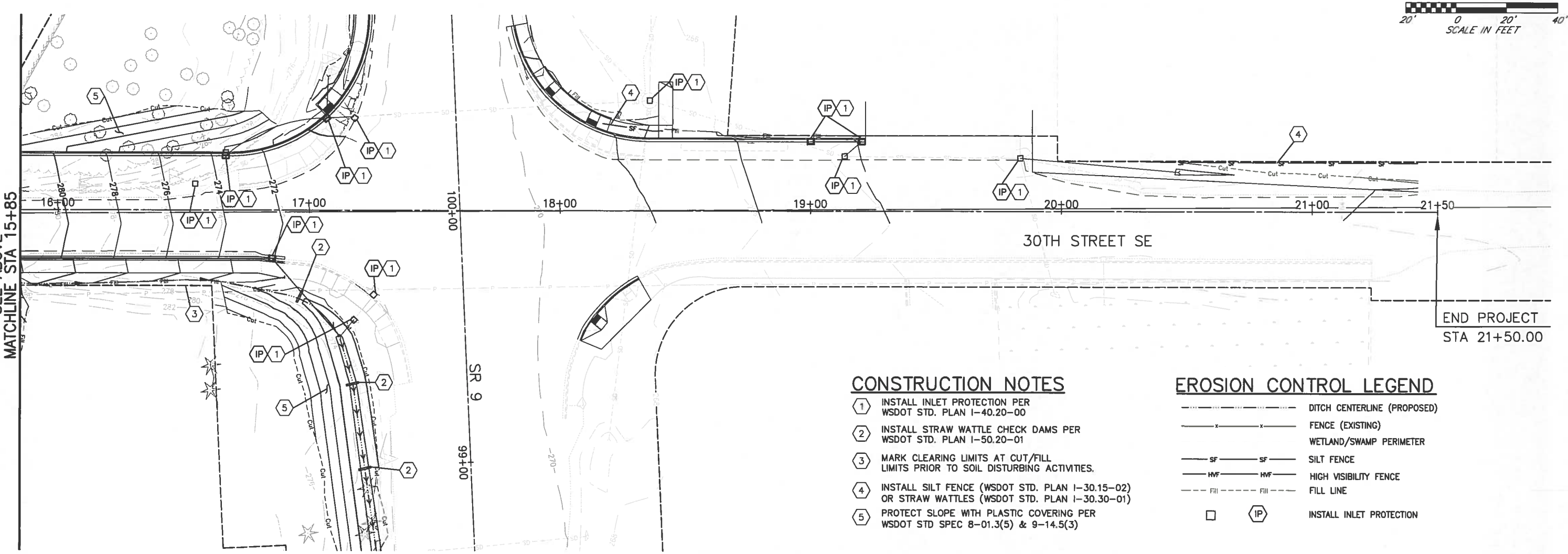

CONSTRUCTION NOTES

1. INSTALL INLET PROTECTION PER WSDOT STD. PLAN I-40.20-00
2. INSTALL STRAW WATTLE CHECK DAMS PER WSDOT STD. PLAN I-50.20-01
3. MARK CLEARING LIMITS AT CUT/FILL LIMITS PRIOR TO SOIL DISTURBING ACTIVITIES.
4. INSTALL SILT FENCE (WSDOT STD. PLAN I-30.15-02) OR STRAW WATTLES (WSDOT STD. PLAN I-30.30-01)
5. PROTECT SLOPE WITH PLASTIC COVERING PER WSDOT STD SPEC 8-01.3(5) & 9-14.5(3)

EROSION CONTROL LEGEND

- DITCH CENTERLINE (PROPOSED)
- FENCE (EXISTING)
- WETLAND/SWAMP PERIMETER
- SILT FENCE
- HIGH VISIBILITY FENCE
- FILL LINE
- INSTALL INLET PROTECTION

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RYAN J. HUSNIK, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER
6-23-16

CITY OF SNOHOMISH
116 UNION AVENUE
SNOHOMISH, WA 98290
PHONE: (360) 568-3115

PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
EROSION CONTROL PLAN

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: 1"=20'
SHEET 19 OF 24	
DRAWING NO.: EC1	

May. 23, 16 - 4:09 PM randallm P:\Trans\60322331 - 30th St Widening\900 WORKING DOCS-CAD\Sheets\EC1.dwg

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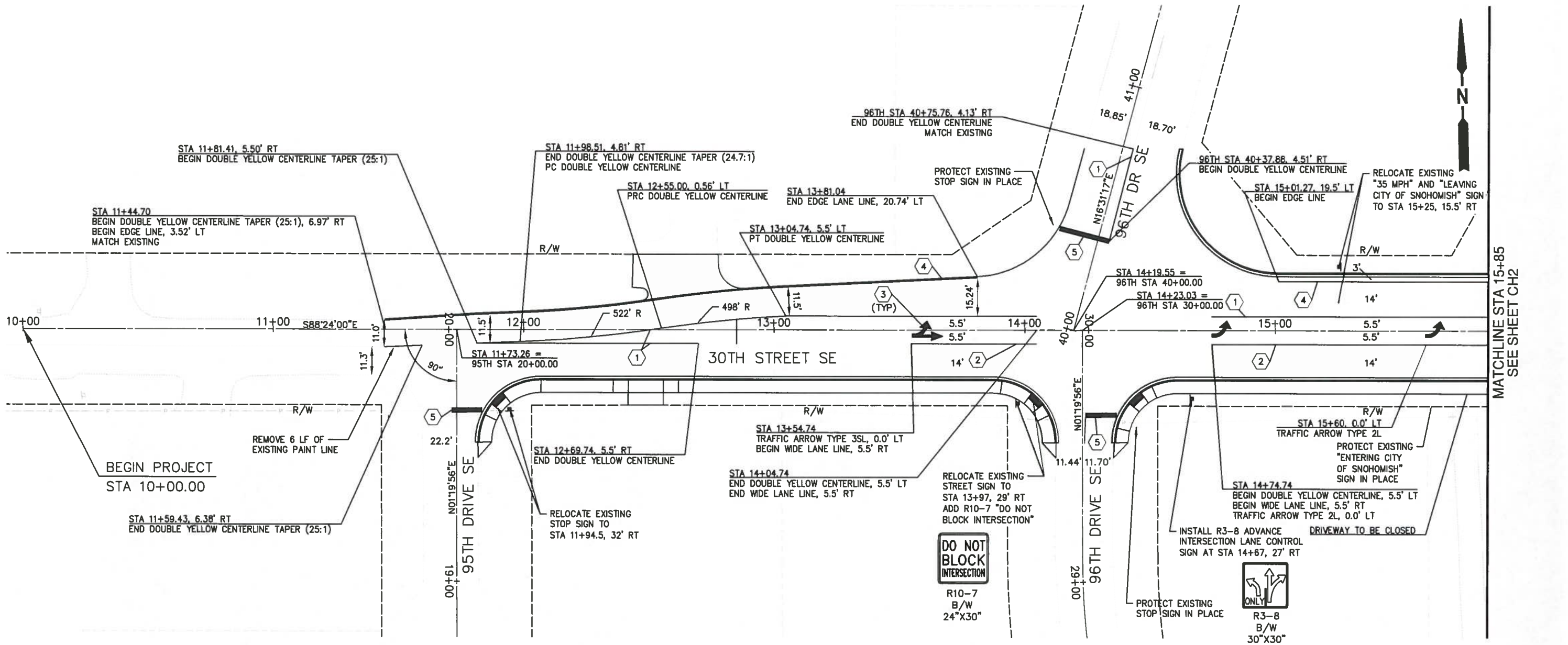

LEGEND

1. INSTALL DOUBLE YELLOW CENTERLINE (TYPE D MMA) PER WSDOT STD PLAN M-20.10-02.
2. INSTALL WHITE WIDE LANE LINE (TYPE D MMA) PER WSDOT STD PLAN M-20.10-02.
3. INSTALL TRAFFIC ARROW (TYPE D MMA) PER WSDOT STD PLAN M-24.40-02.
4. INSTALL WHITE EDGE LINE (TYPE D MMA) PER WSDOT STD PLAN M-20.10-02.
5. INSTALL STOP LINE (TYPE D MMA) PER WSDOT STD PLAN M-24.60-04.

GENERAL NOTES

1. ALL NEW AND RELOCATED SIGNS TO STEEL SIGN SUPPORT PER WSDOT STD PLAN G-24.40-05.

20' 0 20' 40'
SCALE IN FEET

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BRIAN J. HUSHIK, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER
6-23-16

CITY OF SNOHOMISH
116 UNION AVENUE
SNOHOMISH, WA 98290
PHONE: (360) 568-3115

PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
CHANNELIZATION & SIGNING PLAN

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: 1"=20'
SHEET 20 OF 24	
DRAWING NO.: CH1	

May 23, 16 - 3:12 PM randolim P:\Trans\60322331 - 30th St Widening\900 WORKING DOCS-CAD\Sheets\CH1.dwg

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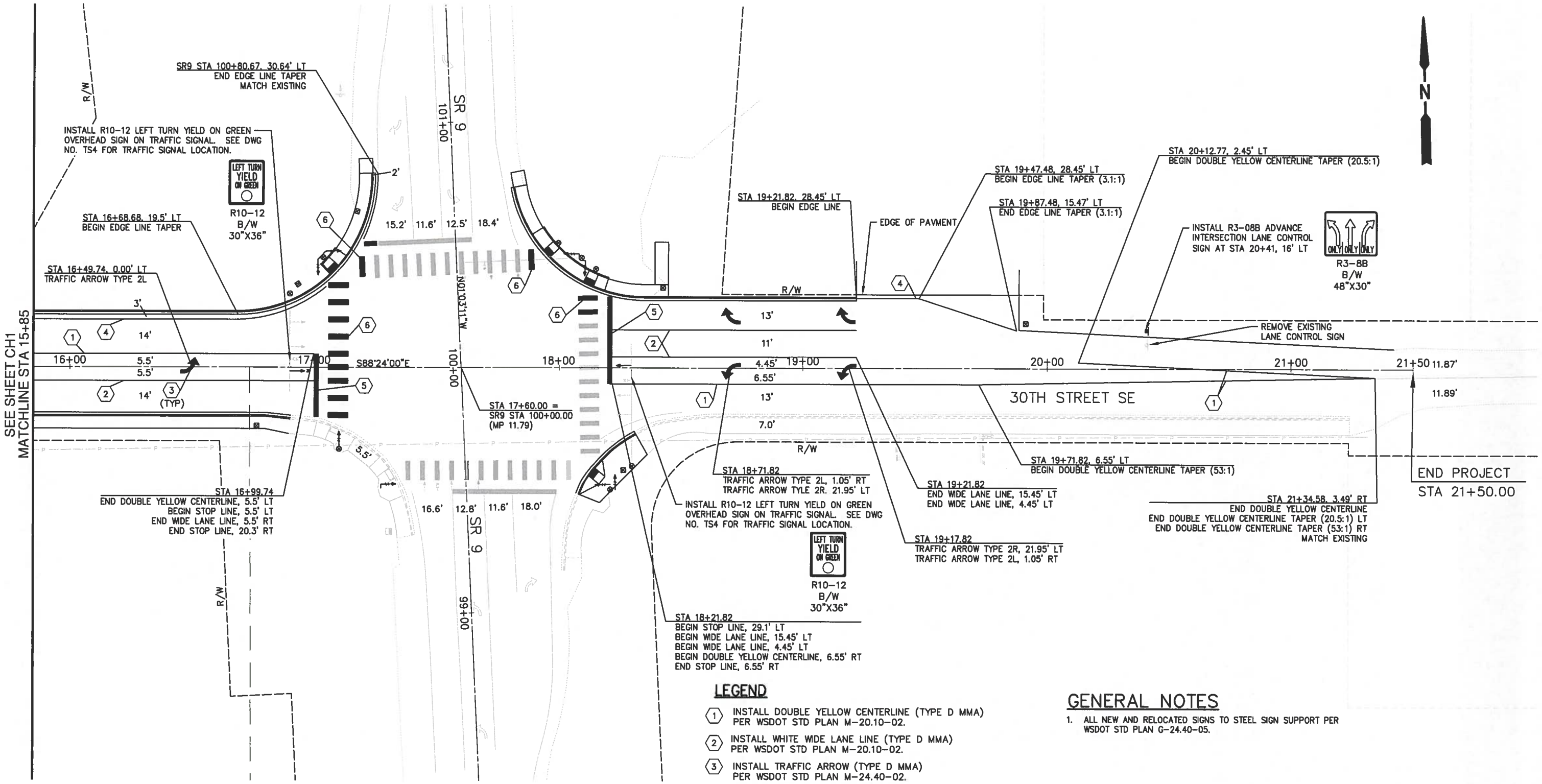

LEGEND

1. INSTALL DOUBLE YELLOW CENTERLINE (TYPE D MMA) PER WSDOT STD PLAN M-20.10-02.
2. INSTALL WHITE WIDE LANE LINE (TYPE D MMA) PER WSDOT STD PLAN M-20.10-02.
3. INSTALL TRAFFIC ARROW (TYPE D MMA) PER WSDOT STD PLAN M-24.40-02.
4. INSTALL WHITE EDGE LINE (TYPE D MMA) PER WSDOT STD PLAN M-20.10-02.
5. INSTALL STOP LINE (TYPE D MMA) PER WSDOT STD PLAN M-24.60-04.
6. INSTALL CROSSWALK LINE (TYPE D MMA) PER WSDOT STD PLAN M-15.10-01.

GENERAL NOTES

1. ALL NEW AND RELOCATED SIGNS TO STEEL SIGN SUPPORT PER WSDOT STD PLAN G-24.40-05.

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BRIAN J. HUSHKA, STATE OF WASHINGTON, 22347, PROFESSIONAL ENGINEER
6/15/16

CITY OF SNOHOMISH
116 UNION AVENUE
SNOHOMISH, WA 98290
PHONE: (360) 568-3115

PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
CHANNELIZATION & SIGNING PLAN

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: 1"=20'
SHEET 21 OF 24	
DRAWING NO.: CH2	

May 23, 16 - 3:16 PM randallm P:\Trans\60322331 - 30th St Widening\900 WORKING DOCS-CAD\Sheets\CH2.dwg

BID SET

NOTES

1. ALL DIMENSIONS TO CURB ARE TO FACE OF CURB.
2. REMOVE CONFLICTING PAINT STRIPES.
3. A PROTECTIVE VEHICLE IS REQUIRED REGARDLESS IF A TRUCK MOUNTED ATTENUATOR (TMA) IS AVAILABLE; A WORK VEHICLE MAY BE USED. WHEN NO TMA IS USED, THE PROTECTIVE VEHICLE SHALL BE STRATEGICALLY LOCATED TO SHIELD WORKERS, WITH NO SPECIFIC ROLL-AHEAD DISTANCE.
4. MOTORCYCLES USE EXTREME CAUTION SIGNS (W21-1701) SHALL BE INSTALLED WHEN THE FOLLOWING ROADWAY CONDITIONS EXIST:
   - GROOVED PAVEMENT (W8-2001)
   - STEEL PLATES (W21-1801)
   - ABRUPT LANE EDGE (W21-801)
   - LOOSE GRAVEL (W8-7)

   SPECIFIC SIGNS FOR EACH OF THE CONDITIONS NOTED SHALL BE INSTALLED ALONG WITH MOTORCYCLES USE EXTREME CAUTION SIGNS.
5. STEEL PLATES, IF USED SHALL BE ROAD PLATES MANUFACTURED FOR THIS PURPOSE AND SHALL BE SKID RESISTANT (ANTI-SKID SURFACE).
6. EXTEND DEVICE TAPER (L/3) ACROSS SHOULDERS - RECOMMENDED.
7. MAINTAIN A MINIMUM OF ONE ACCESS POINT FOR EACH BUSINESS AND RESIDENT WITHIN THE WORK AREA LIMITS.
8. NO STEEL PLATES ON SR-9.
9. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS FOR LOOP INSTALLATION. TRAFFIC CONTROL PLANS SHALL BE APPROVED BY ENGINEER 72 HOUR PRIOR TO IMPLEMENTATION.

APPROVAL NOTES: SR-9 PORTION OF THE CITY OF SNOHOMISH 30TH ST. WIDENING PROJECT

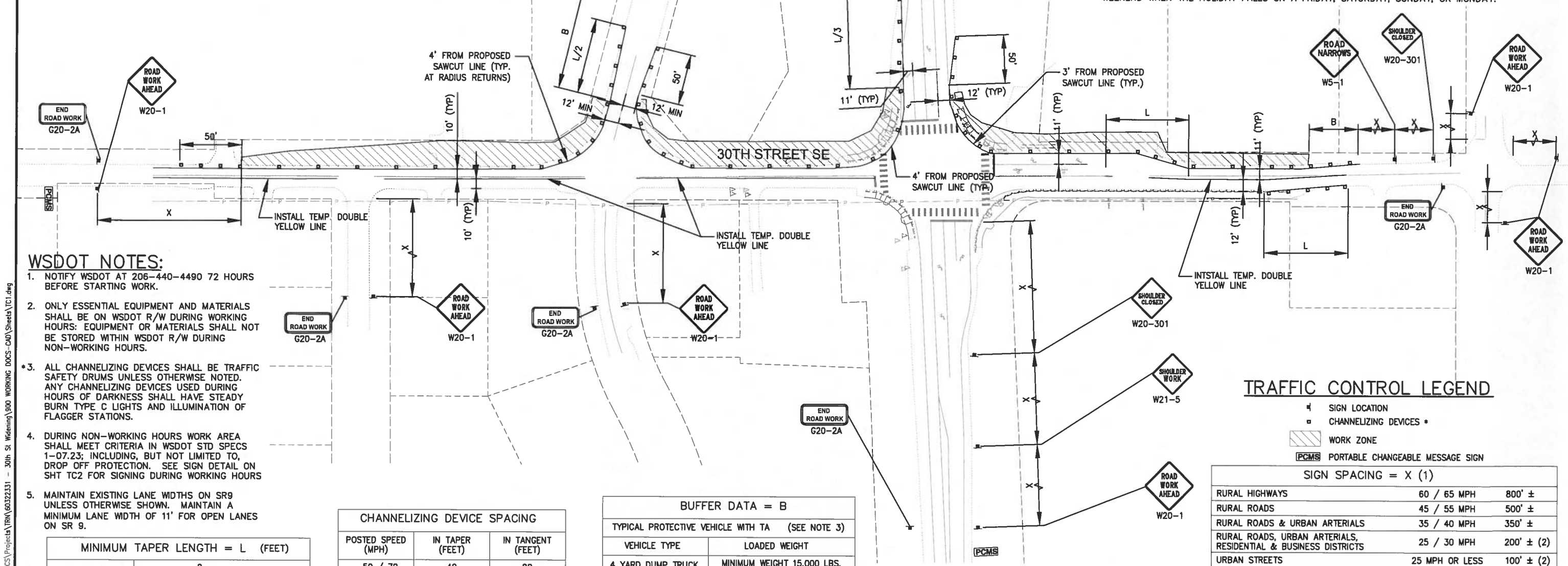
1. ALL LANES OF SR-9 ARE TO BE KEPT OPEN AT ALL TIMES (THRU LANES AND TURN LANES) UNLESS OTHERWISE SHOWN & APPROVED.
2. PROTECT TRAFFIC AND PEDESTRIANS FROM EXCAVATIONS DURING NON-WORKING HOURS.
3. NOTIFY WSDOT A MINIMUM OF 5 DAYS IN ADVANCE OF WORK BEGINNING: 206-440-4454 OR VIA EMAIL TO: SEGUINK@WSDOT.WA.GOV
4. CONTACT WSDOT NW REGION RADIO APPROX. 5 MIN PRIOR TO START OF CLOSURE AND AGAIN AFTER OPENING (206-440-4490)
5. ALL SIGNS SHALL BE 48" X 48" BLACK ON ORANGE W/ REFLECTIVE SHEETING UNLESS OTHERWISE NOTED.
6. PEDESTRIAN TRAFFIC SHALL BE ACCOMMODATED AT ALL TIMES. ESCORT PEDESTRIANS THROUGH THE WORK AREA AS NEEDED OR PROVIDE TRAFFIC CONTROL PLANS FOR EACH PHASE OF WORK. TRAFFIC CONTROL PLANS MUST BE APPROVED BY ENGINEER 72 HOURS PRIOR TO IMPLEMENTING.
7. WHEN EXCAVATION WORK IS NEEDED, NOTE THAT ALL DROP-OFFS SHALL COMPLY WITH WSDOT STD. SPEC 1-07.23(1)
8. WORK IN LOCAL AGENCY RIGHT-OF-WAY IF NOT REVIEWED BY WSDOT, BUT SHALL BE REVIEWED AND APPROVED BY LOCAL AGENCY.
9. NOTIFY TRANSIT AGENCY 3 DAYS IN ADVANCE IF BUS STOPS ARE AFFECTED.
10. FLAGGING STATION SHALL BE VISIBLE FROM SIGN W20-7A. ADD AN ADDITIONAL W20-7A IF NEEDED DUE TO LIMITED SIGHT DISTANCE.
11. THE MAXIMUM ALLOWABLE THRU LANE OFFSET ACROSS SR-9 IS 6 INCHES.

CLOSURE HOURS:

SUNDAY TO THURSDAY (NIGHTLY) 9:00 PM TO 5:00 AM

HOLIDAY IMPACTS:

NO LANE CLOSURES PERMITTED BETWEEN NOON THE DAY PRIOR TO A HOLIDAY OR HOLIDAY WEEKEND THROUGH NOON THE DAY FOLLOWING A HOLIDAY OR HOLIDAY WEEKEND. IT IS A HOLIDAY WEEKEND WHEN THE HOLIDAY FALLS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY.



WSDOT NOTES:

1. NOTIFY WSDOT AT 206-440-4490 72 HOURS BEFORE STARTING WORK.
2. ONLY ESSENTIAL EQUIPMENT AND MATERIALS SHALL BE ON WSDOT R/W DURING WORKING HOURS: EQUIPMENT OR MATERIALS SHALL NOT BE STORED WITHIN WSDOT R/W DURING NON-WORKING HOURS.
3. *ALL CHANNELIZING DEVICES SHALL BE TRAFFIC SAFETY DRUMS UNLESS OTHERWISE NOTED. ANY CHANNELIZING DEVICES USED DURING HOURS OF DARKNESS SHALL HAVE STEADY BURN TYPE C LIGHTS AND ILLUMINATION OF FLAGGER STATIONS.
4. DURING NON-WORKING HOURS WORK AREA SHALL MEET CRITERIA IN WSDOT STD SPECS 1-07.23; INCLUDING, BUT NOT LIMITED TO, DROP OFF PROTECTION. SEE SIGN DETAIL ON SHT TC2 FOR SIGNING DURING WORKING HOURS
5. MAINTAIN EXISTING LANE WIDTHS ON SR9 UNLESS OTHERWISE SHOWN. MAINTAIN A MINIMUM LANE WIDTH OF 11' FOR OPEN LANES ON SR 9.

MINIMUM TAPER LENGTH = L (FEET)	
25 to 35 MPH	$V^2(D)/60$
40 TO 60 MPH	V(D)

WHERE: V=POSTED SPEED
D=LANE SHIFT DISTANCE

CHANNELIZING DEVICE SPACING		
POSTED SPEED (MPH)	IN TAPER (FEET)	IN TANGENT (FEET)
50 / 70	40	80
35 / 45	30	60
25 / 30	20	40

NOTE:
CHANNELIZATION DEVICES SHALL BE 1/2 THE SPACING WHEN USED BETWEEN OPPOSING TRAFFIC.

BUFFER DATA = B	
TYPICAL PROTECTIVE VEHICLE WITH TA (SEE NOTE 3)	
VEHICLE TYPE	LOADED WEIGHT
4 YARD DUMP TRUCK, SERVICE TRUCK, FLAT BED, ETC.	MINIMUM WEIGHT 15,000 LBS. (MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATION)
① ROLL AHEAD STOPPING DISTANCE = 30 FEET MIN. (DRY PAVEMENT ASSUMED)	

TRAFFIC CONTROL LEGEND

- SIGN LOCATION
- CHANNELIZING DEVICES *
- WORK ZONE
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN

SIGN SPACING = X (1)		
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)
ALL SIGNS ARE BLACK ON ORANGE UNLESS DESIGNATED OTHERWISE		

(1) ALL SIGN SPACING MAY BE ADJUSTED TO ACCOMMODATE AT-GRADE INTERSECTIONS AND DRIVEWAYS.

(2) THIS SIGN SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

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BRYAN J. HUNTLEY STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER 6-15-16

CITY OF SNOHOMISH
116 UNION AVENUE
SNOHOMISH, WA 98290
PHONE: (360) 568-3115

PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
TRAFFIC CONTROL PHASE 1

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: NTS
SHEET 22 OF 24	
DRAWING NO.: TC1	

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NOTES

1. ALL DIMENSIONS TO CURB ARE TO FACE OF CURB.
2. REMOVE CONFLICTING PAINT STRIPES.
3. A PROTECTIVE VEHICLE IS REQUIRED REGARDLESS IF A TRUCK MOUNTED ATTENUATOR (TMA) IS AVAILABLE; A WORK VEHICLE MAY BE USED. WHEN NO TMA IS USED, THE PROTECTIVE VEHICLE SHALL BE STRATEGICALLY LOCATED TO SHIELD WORKERS, WITH NO SPECIFIC ROLL-AHEAD DISTANCE.
4. MOTORCYCLES USE EXTREME CAUTION SIGNS (W21-1701) SHALL BE INSTALLED WHEN THE FOLLOWING ROADWAY CONDITIONS EXIST:
   - GROOVED PAVEMENT (W8-2001)
   - STEEL PLATES (W21-1801)
   - ABRUPT LANE EDGE (W21-801)
   - LOOSE GRAVEL (W8-7)

   SPECIFIC SIGNS FOR EACH OF THE CONDITIONS NOTED SHALL BE INSTALLED ALONG WITH MOTORCYCLES USE EXTREME CAUTION SIGNS.
5. STEEL PLATES, IF USED SHALL BE ROAD PLATES MANUFACTURED FOR THIS PURPOSE AND SHALL BE SKID RESISTANT (ANTI-SKID SURFACE).
6. EXTEND DEVICE TAPER (L/3) ACROSS SHOULDERS - RECOMMENDED.
7. MAINTAIN A MINIMUM OF ONE ACCESS POINT FOR EACH BUSINESS AND RESIDENT WITHIN THE WORK AREA LIMITS.
8. NO STEEL PLATES ON SR-9.
9. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS FOR LOOP INSTALLATION. TRAFFIC CONTROL PLANS SHALL BE APPROVED BY ENGINEER 72 HOUR PRIOR TO IMPLEMENTATION.

APPROVAL NOTES: SR-9 PORTION OF THE CITY OF SNOHOMISH 30TH ST. WIDENING PROJECT

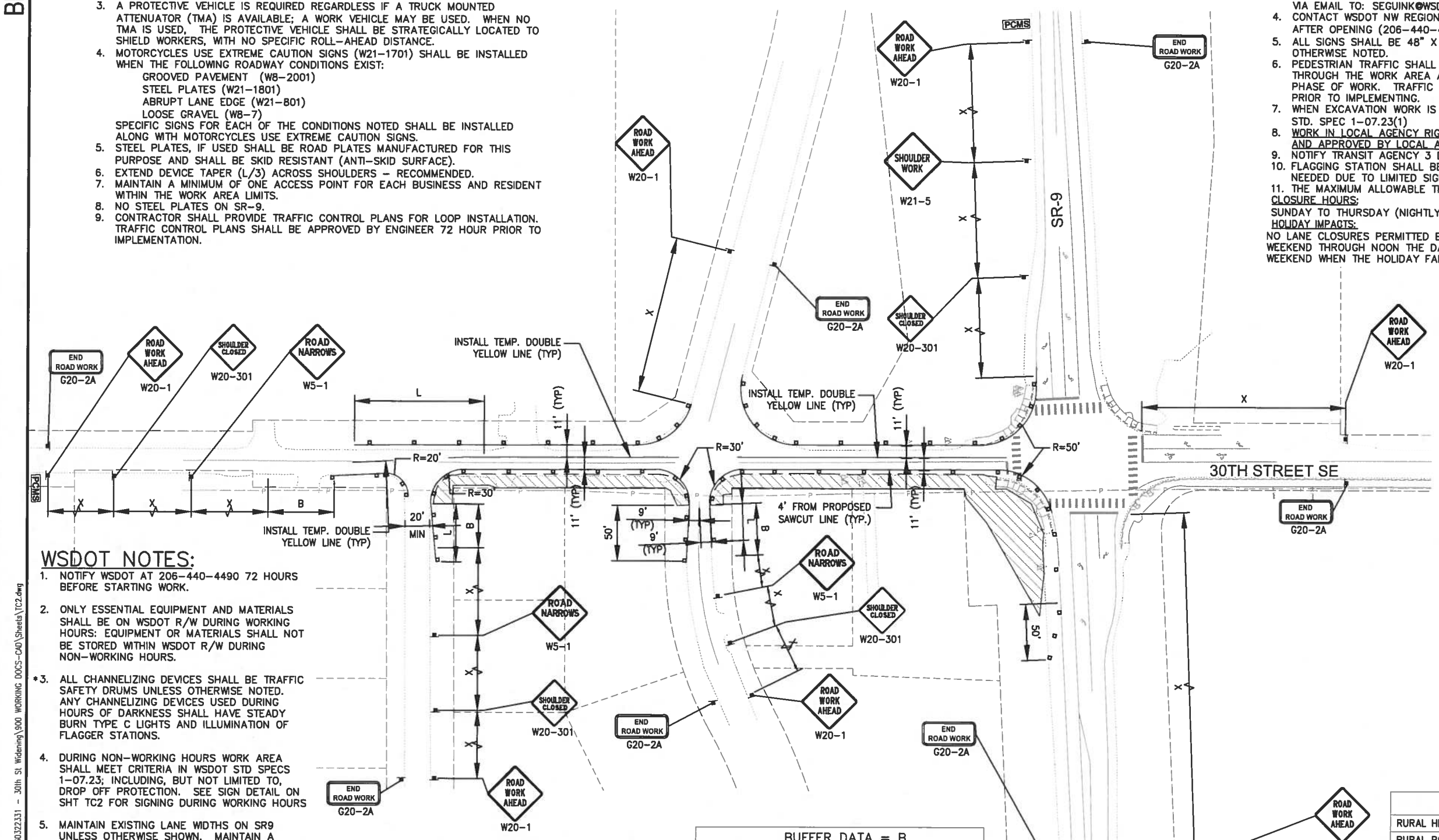
1. ALL LANES OF SR-9 ARE TO BE KEPT OPEN AT ALL TIMES (THRU LANES AND TURN LANES) UNLESS OTHERWISE SHOWN & APPROVED.
2. PROTECT TRAFFIC AND PEDESTRIANS FROM EXCAVATIONS DURING NON-WORKING HOURS.
3. NOTIFY WSDOT A MINIMUM OF 5 DAYS IN ADVANCE OF WORK BEGINNING: 206-440-4454 OR VIA EMAIL TO: SEGUINK@WSDOT.WA.GOV
4. CONTACT WSDOT NW REGION RADIO APPROX. 5 MIN PRIOR TO START OF CLOSURE AND AGAIN AFTER OPENING (206-440-4490)
5. ALL SIGNS SHALL BE 48" X 48" BLACK ON ORANGE W/ REFLECTIVE SHEETING UNLESS OTHERWISE NOTED.
6. PEDESTRIAN TRAFFIC SHALL BE ACCOMMODATED AT ALL TIMES. ESCORT PEDESTRIANS THROUGH THE WORK AREA AS NEEDED OR PROVIDE TRAFFIC CONTROL PLANS FOR EACH PHASE OF WORK. TRAFFIC CONTROL PLANS MUST BE APPROVED BY ENGINEER 72 HOURS PRIOR TO IMPLEMENTING.
7. WHEN EXCAVATION WORK IS NEEDED, NOTE THAT ALL DROP-OFFS SHALL COMPLY WITH WSDOT STD. SPEC 1-07.23(1)
8. WORK IN LOCAL AGENCY RIGHT-OF-WAY IF NOT REVIEWED BY WSDOT, BUT SHALL BE REVIEWED AND APPROVED BY LOCAL AGENCY.
9. NOTIFY TRANSIT AGENCY 3 DAYS IN ADVANCE IF BUS STOPS ARE AFFECTED.
10. FLAGGING STATION SHALL BE VISIBLE FROM SIGN W20-7A. ADD AN ADDITIONAL W20-7A IF NEEDED DUE TO LIMITED SIGHT DISTANCE.
11. THE MAXIMUM ALLOWABLE THRU LANE OFFSET ACROSS SR-9 IS 6 INCHES.

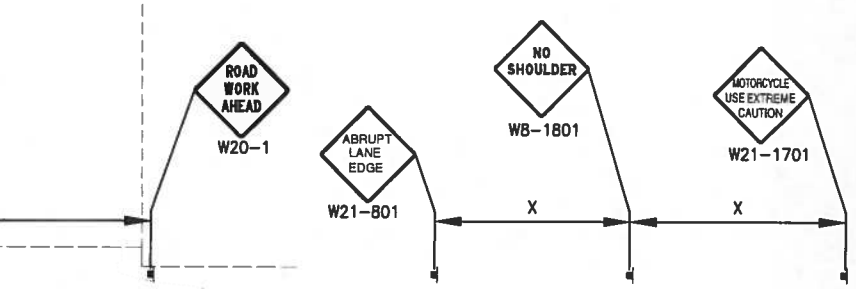
CLOSURE HOURS:

SUNDAY TO THURSDAY (NIGHTLY) 9:00 PM TO 5:00 AM

HOLIDAY IMPACTS:

NO LANE CLOSURES PERMITTED BETWEEN NOON THE DAY PRIOR TO A HOLIDAY OR HOLIDAY WEEKEND THROUGH NOON THE DAY FOLLOWING A HOLIDAY OR HOLIDAY WEEKEND. IT IS A HOLIDAY WEEKEND WHEN THE HOLIDAY FALLS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY.





SIGNING DURING NON-WORKING HOURS

SIGNS SHALL START "X" DISTANCE BEFORE WORK AREA

WSDOT NOTES:

1. NOTIFY WSDOT AT 206-440-4490 72 HOURS BEFORE STARTING WORK.
2. ONLY ESSENTIAL EQUIPMENT AND MATERIALS SHALL BE ON WSDOT R/W DURING WORKING HOURS: EQUIPMENT OR MATERIALS SHALL NOT BE STORED WITHIN WSDOT R/W DURING NON-WORKING HOURS.
3. * ALL CHANNELIZING DEVICES SHALL BE TRAFFIC SAFETY DRUMS UNLESS OTHERWISE NOTED. ANY CHANNELIZING DEVICES USED DURING HOURS OF DARKNESS SHALL HAVE STEADY BURN TYPE C LIGHTS AND ILLUMINATION OF FLAGGER STATIONS.
4. DURING NON-WORKING HOURS WORK AREA SHALL MEET CRITERIA IN WSDOT STD SPECS 1-07.23; INCLUDING, BUT NOT LIMITED TO, DROP OFF PROTECTION. SEE SIGN DETAIL ON SHT TC2 FOR SIGNING DURING WORKING HOURS
5. MAINTAIN EXISTING LANE WIDTHS ON SR9 UNLESS OTHERWISE SHOWN. MAINTAIN A MINIMUM LANE WIDTH OF 11' FOR OPEN LANES ON SR 9.

MINIMUM TAPER LENGTH = L (FEET)	
25 to 35 MPH	$V^2(D)/60$
40 TO 60 MPH	V(D)

WHERE: V=POSTED SPEED
D=LANE SHIFT DISTANCE

CHANNELIZING DEVICE SPACING		
POSTED SPEED (MPH)	IN TAPER (FEET)	IN TANGENT (FEET)
50 / 70	40	80
35 / 45	30	60
25 / 30	20	40

NOTE:
CHANNELIZATION DEVICES SHALL BE 1/2 THE SPACING WHEN USED BETWEEN OPPOSING TRAFFIC.

BUFFER DATA = B	
TYPICAL PROTECTIVE VEHICLE WITH TA (SEE NOTE 3)	
VEHICLE TYPE	LOADED WEIGHT
4 YARD DUMP TRUCK, SERVICE TRUCK, FLAT BED, ETC.	MINIMUM WEIGHT 15,000 LBS. (MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATION)
1 ROLL AHEAD STOPPING DISTANCE = 30 FEET MIN. (DRY PAVEMENT ASSUMED)	

TRAFFIC CONTROL LEGEND

- SIGN LOCATION
- CHANNELIZING DEVICES *
- WORK ZONE
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN

SIGN SPACING = X (1)		
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)
ALL SIGNS ARE BLACK ON ORANGE UNLESS DESIGNATED OTHERWISE		

(1) ALL SIGN SPACING MAY BE ADJUSTED TO ACCOMMODATE AT-GRADE INTERSECTIONS AND DRIVEWAYS.

(2) THIS SIGN SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

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CITY OF SNOHOMISH
116 UNION AVENUE
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PHONE (360) 568-3115

PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
TRAFFIC CONTROL PHASE 2

DATE 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: NTS
SHEET 23 OF 24	
DRAWING NO.: TC2	

Jun. 15, 16 - 5:47 PM brenda_mcintosh J:\DCS\Projects\TRN\60322331 - 30th St Widening\900 WORKING DOCS-CAD\Sheets\TC2.dwg

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NOTES

1. ALL DIMENSIONS TO CURB ARE TO FACE OF CURB.
2. REMOVE CONFLICTING PAINT STRIPES.
3. A PROTECTIVE VEHICLE IS REQUIRED REGARDLESS IF A TRUCK MOUNTED ATTENUATOR (TMA) IS AVAILABLE; A WORK VEHICLE MAY BE USED. WHEN NO TMA IS USED, THE PROTECTIVE VEHICLE SHALL BE STRATEGICALLY LOCATED TO SHIELD WORKERS, WITH NO SPECIFIC ROLL-AHEAD DISTANCE.
4. MOTORCYCLES USE EXTREME CAUTION SIGNS (W21-1701) SHALL BE INSTALLED WHEN THE FOLLOWING ROADWAY CONDITIONS EXIST:
   - GROOVED PAVEMENT (W8-2001)
   - STEEL PLATES (W21-1801)
   - ABRUPT LANE EDGE (W21-801)
   - LOOSE GRAVEL (W8-7)

   SPECIFIC SIGNS FOR EACH OF THE CONDITIONS NOTED SHALL BE INSTALLED ALONG WITH MOTORCYCLES USE EXTREME CAUTION SIGNS.
5. STEEL PLATES, IF USED SHALL BE ROAD PLATES MANUFACTURED FOR THIS PURPOSE AND SHALL BE SKID RESISTANT (ANTI-SKID SURFACE).
6. EXTEND DEVICE TAPER (L/3) ACROSS SHOULDERS - RECOMMENDED.
7. MAINTAIN A MINIMUM OF ONE ACCESS POINT FOR EACH BUSINESS AND RESIDENT WITHIN THE WORK AREA LIMITS.
8. NO STEEL PLATES ON SR-9.
9. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS FOR LOOP INSTALLATION. TRAFFIC CONTROL PLANS SHALL BE APPROVED BY ENGINEER 72 HOUR PRIOR TO IMPLEMENTATION.

TYPICAL ONE LANE CLOSURE NOTES

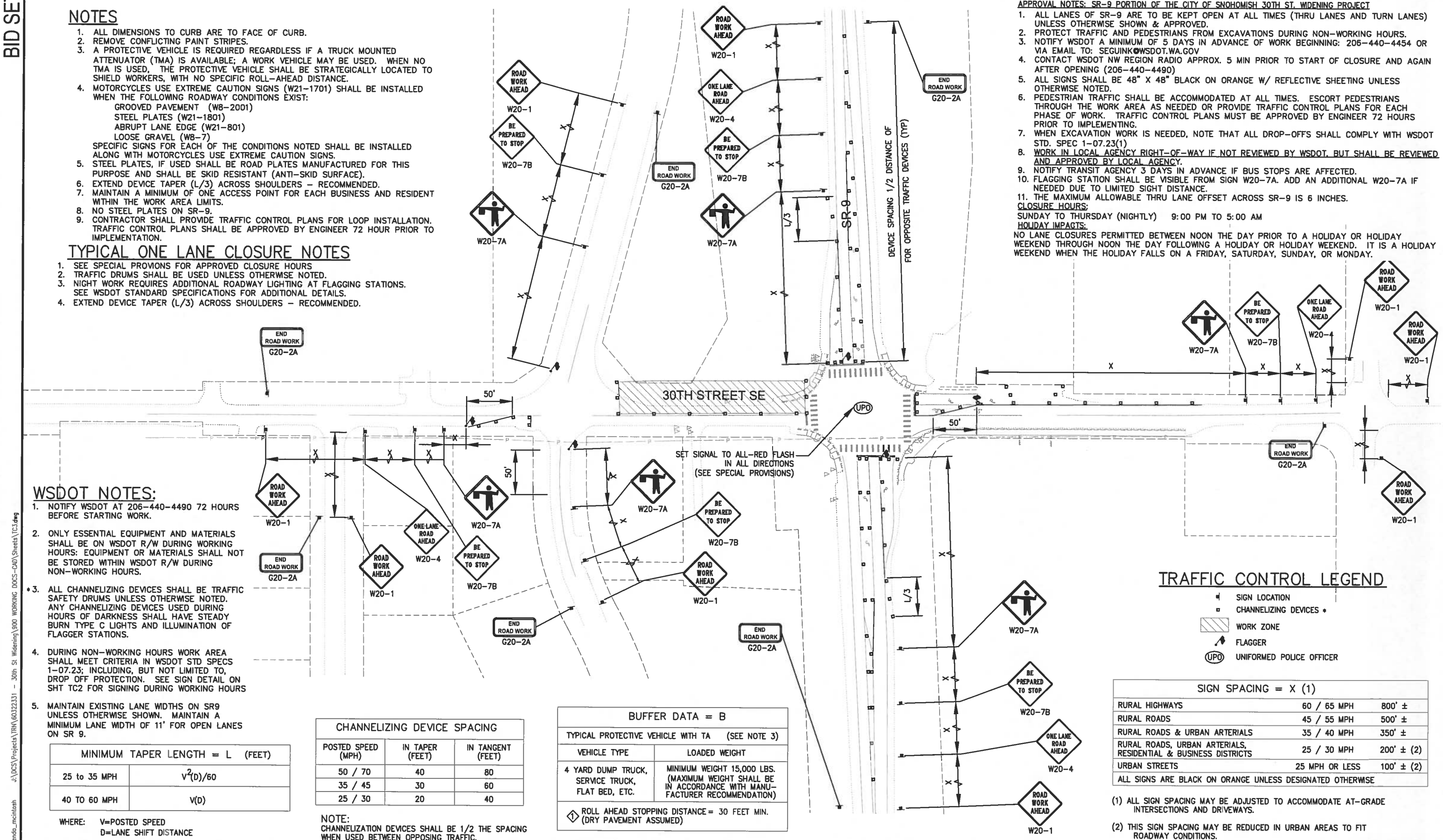
1. SEE SPECIAL PROVIONS FOR APPROVED CLOSURE HOURS
2. TRAFFIC DRUMS SHALL BE USED UNLESS OTHERWISE NOTED.
3. NIGHT WORK REQUIRES ADDITIONAL ROADWAY LIGHTING AT FLAGGING STATIONS. SEE WSDOT STANDARD SPECIFICATIONS FOR ADDITIONAL DETAILS.
4. EXTEND DEVICE TAPER (L/3) ACROSS SHOULDERS - RECOMMENDED.

APPROVAL NOTES: SR-9 PORTION OF THE CITY OF SNOHOMISH 30TH ST. WIDENING PROJECT

1. ALL LANES OF SR-9 ARE TO BE KEPT OPEN AT ALL TIMES (THRU LANES AND TURN LANES) UNLESS OTHERWISE SHOWN & APPROVED.
2. PROTECT TRAFFIC AND PEDESTRIANS FROM EXCAVATIONS DURING NON-WORKING HOURS.
3. NOTIFY WSDOT A MINIMUM OF 5 DAYS IN ADVANCE OF WORK BEGINNING: 206-440-4454 OR VIA EMAIL TO: SEGUINK@WSDOT.WA.GOV
4. CONTACT WSDOT NW REGION RADIO APPROX. 5 MIN PRIOR TO START OF CLOSURE AND AGAIN AFTER OPENING (206-440-4490)
5. ALL SIGNS SHALL BE 48" X 48" BLACK ON ORANGE W/ REFLECTIVE SHEETING UNLESS OTHERWISE NOTED.
6. PEDESTRIAN TRAFFIC SHALL BE ACCOMMODATED AT ALL TIMES. ESCORT PEDESTRIANS THROUGH THE WORK AREA AS NEEDED OR PROVIDE TRAFFIC CONTROL PLANS FOR EACH PHASE OF WORK. TRAFFIC CONTROL PLANS MUST BE APPROVED BY ENGINEER 72 HOURS PRIOR TO IMPLEMENTING.
7. WHEN EXCAVATION WORK IS NEEDED, NOTE THAT ALL DROP-OFFS SHALL COMPLY WITH WSDOT STD. SPEC 1-07.23(1)
8. WORK IN LOCAL AGENCY RIGHT-OF-WAY IF NOT REVIEWED BY WSDOT, BUT SHALL BE REVIEWED AND APPROVED BY LOCAL AGENCY.
9. NOTIFY TRANSIT AGENCY 3 DAYS IN ADVANCE IF BUS STOPS ARE AFFECTED.
10. FLAGGING STATION SHALL BE VISIBLE FROM SIGN W20-7A. ADD AN ADDITIONAL W20-7A IF NEEDED DUE TO LIMITED SIGHT DISTANCE.
11. THE MAXIMUM ALLOWABLE THRU LANE OFFSET ACROSS SR-9 IS 6 INCHES.

CLOSURE HOURS:
SUNDAY TO THURSDAY (NIGHTLY) 9:00 PM TO 5:00 AM

HOLIDAY IMPACTS:
NO LANE CLOSURES PERMITTED BETWEEN NOON THE DAY PRIOR TO A HOLIDAY OR HOLIDAY WEEKEND THROUGH NOON THE DAY FOLLOWING A HOLIDAY OR HOLIDAY WEEKEND. IT IS A HOLIDAY WEEKEND WHEN THE HOLIDAY FALLS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY.



WSDOT NOTES:

1. NOTIFY WSDOT AT 206-440-4490 72 HOURS BEFORE STARTING WORK.
2. ONLY ESSENTIAL EQUIPMENT AND MATERIALS SHALL BE ON WSDOT R/W DURING WORKING HOURS: EQUIPMENT OR MATERIALS SHALL NOT BE STORED WITHIN WSDOT R/W DURING NON-WORKING HOURS.
3. ALL CHANNELIZING DEVICES SHALL BE TRAFFIC SAFETY DRUMS UNLESS OTHERWISE NOTED. ANY CHANNELIZING DEVICES USED DURING HOURS OF DARKNESS SHALL HAVE STEADY BURN TYPE C LIGHTS AND ILLUMINATION OF FLAGGER STATIONS.
4. DURING NON-WORKING HOURS WORK AREA SHALL MEET CRITERIA IN WSDOT STD SPECS 1-07.23; INCLUDING, BUT NOT LIMITED TO, DROP OFF PROTECTION. SEE SIGN DETAIL ON SHT TC2 FOR SIGNING DURING WORKING HOURS
5. MAINTAIN EXISTING LANE WIDTHS ON SR9 UNLESS OTHERWISE SHOWN. MAINTAIN A MINIMUM LANE WIDTH OF 11' FOR OPEN LANES ON SR 9.

MINIMUM TAPER LENGTH = L (FEET)	
25 to 35 MPH	$V^2(D)/60$
40 TO 60 MPH	V(D)

WHERE: V=POSTED SPEED
D=LANE SHIFT DISTANCE

CHANNELIZING DEVICE SPACING		
POSTED SPEED (MPH)	IN TAPER (FEET)	IN TANGENT (FEET)
50 / 70	40	80
35 / 45	30	60
25 / 30	20	40

NOTE:
CHANNELIZATION DEVICES SHALL BE 1/2 THE SPACING WHEN USED BETWEEN OPPOSING TRAFFIC.

BUFFER DATA = B	
TYPICAL PROTECTIVE VEHICLE WITH TA (SEE NOTE 3)	
VEHICLE TYPE	LOADED WEIGHT
4 YARD DUMP TRUCK, SERVICE TRUCK, FLAT BED, ETC.	MINIMUM WEIGHT 15,000 LBS. (MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATION)
1 ROLL AHEAD STOPPING DISTANCE = 30 FEET MIN. (DRY PAVEMENT ASSUMED)	

TRAFFIC CONTROL LEGEND

- SIGN LOCATION
- CHANNELIZING DEVICES *
- WORK ZONE
- FLAGGER
- UPO UNIFORMED POLICE OFFICER

SIGN SPACING = X (1)		
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)
ALL SIGNS ARE BLACK ON ORANGE UNLESS DESIGNATED OTHERWISE		

(1) ALL SIGN SPACING MAY BE ADJUSTED TO ACCOMMODATE AT-GRADE INTERSECTIONS AND DRIVEWAYS.

(2) THIS SIGN SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

AECOM
1111 Third Avenue, Suite 1600
Seattle, WA 98101
T: 206-438-2700

NO.	REVISION	DATE	BY	CK
1	-	-		
2				
3				
4				
5				

RYAN J. HUSNIK STATE OF WASHINGTON 40404 PROFESSIONAL ENGINEER 6-23-16

CITY OF SNOHOMISH
116 UNION AVENUE
SNOHOMISH, WA 98290
PHONE: (360) 568-3115

PROJECT INFORMATION
30TH STREET WIDENING PROJECT

SHEET TITLE:
TRAFFIC CONTROL
TYPICAL ONE LANE CLOSURE

DATE: 5-23-16	CHECKED BY: BJH
DESIGNED BY: MCR	PROJECT NO.: 60322331
DRAWN BY: MCR	SCALE: NTS
SHEET 24 OF 24	
DRAWING NO.: TC3	

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