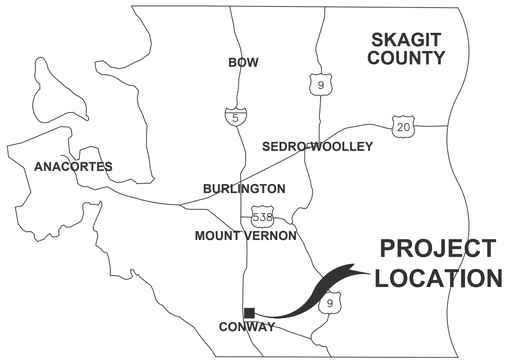
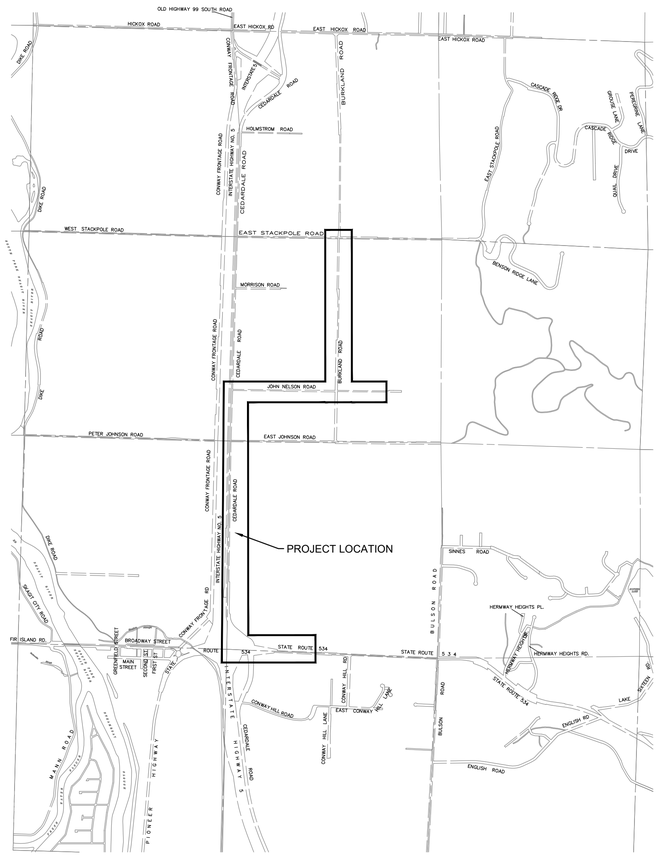


BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

CONWAY, SKAGIT COUNTY, WA
P.N. 3514
CO 4820
JULY 16, 2021

ISSUED FOR BIDDING



VICINITY MAP
NOT TO SCALE

DRAWING INDEX

COVER
1. LEGEND
2. GENERAL NOTES
3. SHUTDOWN MAP
4. EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS
5. SR534 PLAN & PROFILE : STA 8+50 TO STA 13+70
6. SR534 PLAN & PROFILE : STA 5+00 TO STA 8+50
7. CEDARDALE RD PLAN & PROFILE : STA 2+00 TO STA 6+00
8. CEDARDALE RD PLAN & PROFILE : STA 6+00 TO STA 11+50
9. CEDARDALE RD PLAN & PROFILE : STA 11+50 TO STA 15+50
10. CEDARDALE RD PLAN & PROFILE : STA 15+50 TO STA 20+50
11. CEDARDALE RD PLAN & PROFILE : STA 20+50 TO STA 25+50
12. CEDARDALE RD PLAN & PROFILE : STA 25+50 TO STA 31+00
13. CEDARDALE RD PLAN & PROFILE : STA 31+00 TO STA 36+00
14. CEDARDALE RD PLAN & PROFILE : STA 36+00 TO STA 40+50
15. CEDARDALE RD PLAN & PROFILE : STA 40+50 TO STA 45+50
16. CEDARDALE RD PLAN & PROFILE : STA 45+50 TO STA 50+50
17. CEDARDALE RD PLAN & PROFILE : STA 50+50 TO STA 55+50
18. CEDARDALE RD PLAN & PROFILE : STA 55+50 TO STA 60+50
19. CEDARDALE RD PLAN & PROFILE : STA 60+50 TO STA 65+50
20. CEDARDALE RD PLAN & PROFILE : STA 65+50 TO STA 70+01
21. JOHN NELSON RD PLAN & PROFILE : STA 0+85 TO STA 5+50
22. JOHN NELSON RD PLAN & PROFILE : STA 5+50 TO STA 11+00
23. JOHN NELSON RD PLAN & PROFILE : STA 11+00 TO STA 16+00
24. JOHN NELSON RD PLAN & PROFILE : STA 16+00 TO STA 21+50
25. JOHN NELSON RD PLAN & PROFILE : STA 21+50 TO STA 27+00
26. JOHN NELSON RD PLAN & PROFILE : STA 27+00 TO STA 29+01
27. BURKLAND RD PLAN & PROFILE : STA 69+00 TO STA 73+00
28. BURKLAND RD PLAN & PROFILE : STA 73+00 TO STA 78+00
29. BURKLAND RD PLAN & PROFILE : STA 78+00 TO STA 83+50
30. BURKLAND RD PLAN & PROFILE : STA 83+50 TO STA 88+00
31. BURKLAND RD PLAN & PROFILE : STA 88+00 TO STA 92+50
32. BURKLAND RD PLAN & PROFILE : STA 92+50 TO STA 98+00
33. BURKLAND RD PLAN & PROFILE : STA 98+00 TO STA 103+50
34. BURKLAND RD PLAN & PROFILE : STA 103+50 TO STA 107+65
35. STANDARD DETAILS
36. STANDARD DETAILS
37. TRAFFIC CONTROL PLAN

Skagit PUD
PUBLIC UTILITY DISTRICT
NO. 1 OF SKAGIT COUNTY

DISTRICT OFFICIALS

JOE LINDQUIST	PRESIDENT
GERMAINE KORNEGAY	VICE PRESIDENT
ANDREW MILLER	SECRETARY
GEORGE SIDHU, P.E.	GENERAL MANAGER
MARK C. HANDZLIK, P.E.	ENGINEERING MANAGER
MICHAEL FOX	OPERATIONS MANAGER

UTILITY CONTACTS

CASCADE NATURAL GAS
1520 SOUTH 2nd STREET
MOUNT VERNON, WA 98273
CONTACT: JAMES HOBBS
TEL: (360) 336-3876

FRONTIER COMMUNICATION
595 PEASE ROAD
BURLINGTON, WA 98233
CONTACT: BRET MURDOCK
TEL: (360) 707-0641

COMCAST XFINITY
400 SEQUOIA DRIVE
BELLINGHAM, WA 98226
CONTACT: CASEY JONES
TEL: (360) 527-8243

ATT FIBER OPTICS
C/O SIENA ENGINEERING GROUP, INC.
11241 WILLOW RD NE, SUITE 130
REDMOND, WA 98052
CONTACT: LOUIE VAN HOLLEBEKE
TEL: (425) 896-9850

PUGET SOUND ENERGY
PO BOX 90868 - MAIL STOP BOT01G
BELLEVUE, WA 98009-0868
CONTACT: CUSTOMER CONSTRUCTION SERVICES
TEL: (888) 321-7779

APPROVED FOR CONSTRUCTION
Mark Handzlik 5/5/2021
CHIEF OF FIRE PREVENTION DATE
APPROVAL VOID ONE YEAR FROM DATE SHOWN

APPROVED FOR CONSTRUCTION — DATE
SKAGIT COUNTY ENGINEER

ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

MARK C. HANDZLIK — 20997 — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — 7/16/2021

DATUM:	DSGN BY: CJS	
HOR: NAD 83	DWN BY: KAN	
VERT: NAVD 88	APPVD BY: MCH	
DATE PRINTED: 7/12/21	SEC: 5, 8, 17	
	TWP: 33 N	
	RGE: 4 E	

Skagit PUD PUBLIC UTILITY DISTRICT
PUBLIC UTILITY DISTRICT NO. 1 of SKAGIT COUNTY
1415 Freeway Drive
P.O BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
www.SkagitPud.org

BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

COVER

SCALE: NONE	P.N. 3514	SHEET:
	C.O. 4820	COVER

SURVEY SYMBOLS

SYMBOL	DESCRIPTION	BLOCK	LAYER
	MONUMENT	SMON	SV–CTRL–EXST–SYM
	MONUMENT IN CASE	SMIC	SV–CTRL–EXST–SYM
	REBAR & CAP	RCS	SV–CTRL–EXST–SYM
	SCRIBED "X"	SAP	SV–CTRL–EXST–SYM
	PK NAIL	PK	SV–CTRL–EXST–SYM
B–101	SOIL BORING	BORE	SV–SOIL–EXST–SYM
TP–101	SOIL TEST PIT	TP	SV–SOIL–EXST–SYM
	UTILITY POTHOLE/ GROUND WATER MONITORING WELL	P_SSB	UT–MISC–EXST–SYM

SURFACE FEATURE SYMBOLS

SYMBOL	DESCRIPTION	BLOCK	LAYER
	METAL SIGN POST	E1S1	SF–SIGN–EXST–SYM
	WOOD SIGN POST	SFSN	SF–SIGN–EXST–SYM
GTP	GATE POST	POST	SF–FENC–EXST–SYM
	CONIFEROUS TREE	SFC	SF–VEGE–EXST–SYM
	DECIDUOUS TREE	SFD	SF–VEGE–EXST–SYM
	BUSH/SHRUB	PUDBUSH	SF–VEGE–EXST–SYM
	STUMP	STUMP	SF–VEGE–EXST–SYM

UTILITY SYMBOLS

SYMBOL	DESCRIPTION	BLOCK	LAYER
	SANITARY SEWER MANHOLE	PUDMH	SS–STCR–EXST–SYM
	STORM DRAIN MANHOLE	SDMH	SD–STCR–EXST–SYM
	CATCH BASIN	CBIN	SD–STCR–EXST–SYM
	INLET/YARD DRAIN	SDGI	SD–STCR–EXST–SYM
	GAS VALVE	GV	GS–VALV–EXST–SYM
	GAS METER	P_GMET	GS–VALV–EXST–SYM
TR	TRAFFIC JUNCTION BOX	TJB1	TF–STCR–EXST–SYM
EL	ELEC. JUNCTION BOX	TJB1	PO–STCR–EXST–SYM
PM	POWER METER	EM	PO–STCR–EXST–SYM
TC	TELECOM. JUNCTION BOX	TJB1	TL–STCR–EXST–SYM
TV	CABLE TV JUNCTION BOX	TJB1	TV–STCR–EXST–SYM
	JUNCTION BOX	TJB1	UT–STCR–EXST–SYM
T	TELEPHONE RISER	TELR	TL–STCR–EXST–SYM
	UTILITY POLE	UP	PO–STCR–EXST–SYM
UG	UTILITY POLE W/CONDUIT	UP	PO–STCR–EXST–SYM
	GUY ANCHOR	UPA	PO–STCR–EXST–SYM
GP	GUY POLE	GUP	PO–STCR–EXST–SYM
	TRANSFORMER	TRAN	PO–STCR–EXST–SYM
P	POWER VAULT	POWRV	PO–STCR–EXST–SYM
	TRANSMISSION TOWER	PTWR	PO–STCR–EXST–SYM
T	TELEPHONE VAULT	TV	TL–STRC–EXST–SYM
	PEDESTRIAN SIGNAL HEAD	TPSH	TF–SIGL–EXST–SYM
	PEDESTRIAN SIGNAL BUTTON	TPB	TF–SIGL–EXST–SYM
	TRAFFIC SIGNAL POLE W/LIGHT	TSPL	TF–SIGL–EXST–SYM
	LUMINAIRE	TSLA	PO–STCR–EXST–SYM
	YARD LIGHT	SFL	PO–STCR–EXST–SYM
MW	MONITORING WELL		UT–STCR–EXST–SYM
W	WATER MANHOLE	WMH	WA–STRC–EXST–SYM
SH	SPRINKLER HEAD	SPRHD	WA–MISC–EXST–SYM
IRBX	IRRIGATION BOX	ICV	WA–MISC–EXST–SYM

WATER SYMBOLS

SYMBOL EXIST.	SYMBOL PROP.	DESCRIPTION	BLOCK	LAYER (USE EXST/PROP)
		CAP/PLUG	X_CAP/P_CAP	WA–FITT–XXXX–SYM
		COUPLING	X_COUP/P_COUP	WA–FITT–XXXX–SYM
		SLEEVE	X_SLV/P_SLV	WA–FITT–XXXX–SYM
		GUARD POST	X_GPOST/P_GPOST	WA–FITT–XXXX–SYM
		REDUCER	X_RED/P_RED	WA–FITT–XXXX–SYM
		THRUST BLOCK	X_TB/P_TB	WA–FITT–XXXX–SYM
		WATER METER	X_MTR/P_MTR	WA–METR–XXXX–SYM
FIRE HYDRANTS:				
		2 NOZZLE	X_HYD2/P_HYD2	WA–FHYD–XXXX–SYM
		3 NOZZLE	X_HYD3/P_HYD3	WA–FHYD–XXXX–SYM
JOINTS:				
		FLANGE/BLIND FL	X_FL/P_FL	WA–FITT–XXXX–SYM
		MECHANICAL	X_MJ/P_MJ	WA–FITT–XXXX–SYM
		PUSH–ON/HUB	X_PHUB/P–PHUB	WA–FITT–XXXX–SYM
		THREAD	X_THREAD/P_THREAD	WA–FITT–XXXX–SYM
VALVES				
		AIR RELIEF VALVE	X_AR/P_AR	WA–VALV–XXXX–SYM
		BLOW–OFF VALVE	X_BO/P_BO	WA–VALV–XXXX–SYM
		BUTTERFLY VALVE	X_BFV/P–BFV	WA–VALV–XXXX–SYM
		CHECK VALVE	X_CV/P_CV	WA–VALV–XXXX–SYM
		GATE VALVE	X_GV/P_GV	WA–VALV–XXXX–SYM
		PLUG VALVE	X_PLUGV/P_PLUGV	WA–VALV–XXXX–SYM
ELBOWS				
		90° ELBOW MJxMJ		WA–FITT–XXXX–SYM
		45° ELBOW MJxMJ		WA–FITT–XXXX–SYM
		22.5° ELBOW MJxMJ		WA–FITT–XXXX–SYM
		11.25° ELBOW MJxMJ		WA–FITT–XXXX–SYM
		CROSS MJxMJ		WA–FITT–XXXX–SYM
		TEE MJxMJ		WA–FITT–XXXX–SYM
		VERTICAL ELBOW MJxMJ		WA–FITT–XXXX–SYM
		45° ELBOW MJxFL		WA–FITT–XXXX–SYM
		22.5 ELBOW MJxFL		WA–FITT–XXXX–SYM
		11.25° ELBOW MJxFL		WA–FITT–XXXX–SYM
		CROSS MJxFL		WA–FITT–XXXX–SYM
		TEE MJxFL		WA–FITT–XXXX–SYM
		CROSS FLxFL		WA–FITT–XXXX–SYM
		TEE FLxFL		WA–FITT–XXXX–SYM
		VERTICAL MJxFL		WA–FITT–XXXX–SYM
		VERTICAL FLxFL		WA–FITT–XXXX–SYM
		TAPPING SLEEVE		WA–FITT–XXXX–SYM

NOTATION SYMBOLS

SYMBOL	DESCRIPTION	BLOCK	LAYER
B	CATHODIC PROTECTION TEST STATION	CATH	G–ANNO–PROP–SYM
	CHANGE IN PIPING MATERIAL	PMAT	G–ANNO–PROP–SYM
A	TRENCH BACKFILL AND SURFACE RESTORATION CODE	KEYNOTE	G–ANNO–PROP–SYM
1	CONSTRUCTION NOTE	KEYNOTES	G–ANNO–PROP–SYM

TEXT

	DESCRIPTION	HEIGHT	LAYER
	ROAD STATIONING	.10	SV–CNTL–EXST–TXT
P77481	PARCEL NUMBER	.20	SV–PRCL–EXST–TXT
702	ADDRESS	.15	G–MISC–EXST–TXT

LINE TYPES

LINETYPE	DESCRIPTION	LAYER
GAS	GENERIC GAS LINE	GS–PLIN–EXST–LIN
GAS	HIGH PRESSURE GAS	GS–PLIN–EXST–LIN
GAS	LOW PRESSURE GAS	GS–PLIN–EXST–LIN
IRR	IRRIGATION	WA–IRRI–EXST–LIN
SD	STORM DRAIN	SD–GLIN–EXST–LIN
	EXISITNG CULVERT	SD–CULV–EXST–LIN
SS	SANITARY SEWER	SS–GLIN–EXST–LIN
SS	SS FORCEMAIN	SS–PLIN–EXST–LIN
W W	WATER LINE	WA–PLIN–EXST–LIN
UGE	UNDERGROUND POWER	PO–BLIN–EXST–LIN
UGF	UNDERGROUND FIBER OPTIC	FO–BLIN–EXST–LIN
UGT	UNDERGROUND TELEPHONE	TL–BLIN–EXST–LIN
UGTV	UNDERGROUND TELEVISION	TV–BLIN–EXST–LIN
OHE	OVERHEAD ELECTRIC	PO–ALIN–EXST–LIN
OHF	OVERHEAD FIBER OPTIC	FO–ALIN–EXST–LIN
OHT	OVERHEAD TELEPHONE	TL–ALIN–EXST–LIN
OHTV	OVERHEAD TELEVISION	TV–ALIN–EXST–LIN
	VEGETATION LINE	SF–VEGE–EXST–LIN
	EDGE OF GRAVEL	SF–GRVL–EXST–LIN
	EDGE OF ASPHALT	SF–ASPH–EXST–LIN
	CURB/CONCRETE LINE	SF–CONC–EXST–LIN
	DITCH FLOWLINE	SF–DTCH–EXST–LIN
X X	EXISTING FENCE	SF–FENC–EXST–LIN
	TOP/TOE OF SLOPE	SF–GRAD–EXST–LIN
	RAILROAD TRACKS	SF–RAIL–EXST–LIN
	CENTERLINE	SV–CNTL–EXST–LIN
	RIGHT OF WAY	SV–ROFW–EXST–LIN
	EASEMENT LINE	SV–ESMT–EXST–LIN
	PROPERTY LINE	SV–PROP–EXST–LIN
	PROPOSED WATERLINE	WA–PLIN–PROP–LIN
	PROPOSED METER LINE	WA–METR–PROP–LIN
	RECLAIMED WATER LINE	WA–RCW–EXST–LIN
RCW	FOG LINE	SF–STRP–EXST–LIN
	SHUTOFF DETAIL LINES	VARIES

HATCHING

DESCRIPTION	LAYER
ASPHALT – SOLID	SF–ASPH–EXST–HCH
GRAVEL – AR–SAND, 0", SCALE=1.6667	SF–FEAT–EXST–HCH
CONCRETE – AR–CONC, 0", SCALE=1.6667	SF–FEAT–EXST–HCH
WETLAND – GRASS, 0", SCALE=.10 OF DWG SCALE	SF–FEAT–EXST–HCH
PAVEMENT RESTORATION:	
TEMP PVMT. PATCH – DASH, 0", SCALE=0.30 OF DWG SCALE	SF–ASPH–PROP–HCH

ISSUE	REVISIONS	BY	DATE
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DATUM:	DSGN BY: CJS
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DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

Skagit PUD PUBLIC UTILITY DISTRICT

PUBLIC UTILITY DISTRICT NO. 1 of SKAGIT COUNTY
1415 Freeway Drive
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Mount Vernon, WA 98273
(360) 424-7104
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BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

LEGEND

SCALE: NONE | P.N. 3514 | C.O. 4820 | SHEET: 1 OF 37

DISTRICT STANDARD GENERAL NOTES

(Minimum Requirements)

1. UNLESS STATED OTHERWISE, ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE MOST CURRENT WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AND THE DISTRICT REQUIREMENTS AS OUTLINED IN THE DISTRICT'S WATER POLICY MANUAL.
2. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION CONFERENCE WITH THE DISTRICT ENGINEERING DEPARTMENT, (360) 424-7104, A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION.
3. PERMITS FOR THE INSTALLATION OF THE PROPOSED WATER SYSTEM IMPROVEMENTS ARE ATTACHED IN APPENDIX B OF THE TECHNICAL SPECIFICATIONS.
4. DISTRICT REFERENCE DOCUMENTS, SUCH AS STANDARD DETAILS, WATER POLICY MANUAL, DRAWING STANDARDS, ETC., CAN BE FOUND ON THE DISTRICT WEBSITE AT WWW.SKAGITPUD.ORG.
5. ALL TIE-INS, SHUTDOWN, FLUSHING, AND HEALTH SAMPLES SHALL BE COORDINATED WITH THE DISTRICT. THE CONTRACTOR SHALL NOT OPERATE ANY VALVES. DISTRICT CREWS ARE REQUIRED TO MAKE ALL FINAL CONNECTIONS TO EXISTING WATER LINES.
6. A LIST OF ALL MATERIALS, INDICATING THE MANUFACTURER, MODEL, AND SIZE, FOR THE WATER SYSTEM IMPROVEMENTS WILL BE APPROVED BY THE DISTRICT PRIOR TO CONSTRUCTION. CONTACT DISTRICT FOR SUBMITTAL REQUIREMENTS.
7. DUCTILE IRON PIPE WILL BE MINIMUM CLASS 50 AWWA C151 PER WSDOT STANDARD SPECIFICATIONS 9-30.1 AND 9-30.1(1). ALL DUCTILE IRON WATER PIPE AND FITTINGS SHALL BE COMPLETELY WRAPPED WITH A MINIMUM OF EIGHT-MIL POLYETHYLENE PIPE ENCASEMENT AND INSTALLED IN ACCORDANCE WITH AWWA C105 AND WSDOT STANDARD SPECIFICATIONS 7-09.3(17) AND 9-30.1(2).
8. ALL BOLTS USED IN BURIED FLANGES SHALL BE ASTM A307 GRADE B UNFINISHED WITH NUTS TO ASTM A563 GRADE A AND WASHERS TO ASTM F8444, OR ASTM A325 TYPE 3 (CORTEN STEEL) UNFINISHED, WITH NUTS TO ASTM A563C3 OR A563DH3 AND WASHERS TO ASTM F436-1. ALL BOLTS, NUTS AND WASHERS USED IN EXPOSED OR ABOVE GROUND LOCATIONS SHALL BE ASTM A307 GRADE B UNFINISHED OR HOT-DIP GALVANIZED.
9. ALL GATE VALVES TO BE RESILIENT SEATED GATE VALVES, AWWA C515 OR C509 (DUCTILE IRON BODY ONLY) WITH STAINLESS STEEL NUTS, BOLTS AND TRIM.
10. ALL BUTTERFLY VALVES TO BE RUBBER SEATED BUTTERFLY VALVES, AWWA C504 WITH STAINLESS STEEL NUTS, BOLTS AND TRIM.
11. RESTRAINED JOINTS MAY BE USED IN PLACE OF CONCRETE BLOCKING AS DIRECTED BY THE PROJECT'S DESIGN ENGINEER AND ACCEPTED BY THE DISTRICT.
12. ALL FIRE HYDRANTS SHALL CONFORM TO AWWA C502 WITH STORZ ADAPTORS. ACCEPTABLE FIRE HYDRANTS INCLUDE CLOW MEDALLION, MUELLER CENTURION OR SUPER CENTURION, AMERICAN DARLING B62B AND AMERICAN AVK NOSTALGIC.
13. A #10 SOLID COPPER WIRE WITH BLUE INSULATION IS TO BE INSTALLED WITH/AND ATTACHED TO ALL NEW WATER PIPELINES AND SERVICE PIPELINES. REFER TO DISTRICT DETAILS FOR INSTALLATION REQUIREMENTS.
14. UNLESS OTHERWISE SPECIFIED, ALL WATER PIPELINE INSTALLATIONS REQUIRE A 36-INCH MINIMUM COVER AND 48-INCH TYPICAL TRENCH DEPTH TO EXISTING OR FUTURE FINISH GRADE AND A MINIMUM OF 1-FOOT VERTICAL AND 5-FOOT HORIZONTAL CLEARANCE BETWEEN WATER PIPELINE AND ALL OTHER UTILITIES UNLESS OTHERWISE SPECIFIED.
15. WHEN INSTALLING WATER PIPELINE ACROSS EXISTING OR PROPOSED SANITARY SEWER, A FULL LENGTH OF PIPE SHALL BE INSTALLED WITH MID-SPAN OF THE WATER PIPE OVER THE SEWER. A MINIMUM 10-FOOT HORIZONTAL SEPARATION AND 18-INCH VERTICAL SEPARATION BETWEEN WATER PIPELINES AND SANITARY SEWER PIPELINES IS REQUIRED, UNLESS AN ALTERNATIVE PROPOSAL FROM THE DESIGN ENGINEER IS SUBMITTED TO AND APPROVED BY THE DISTRICT.
16. BEDDING MATERIAL FOR WATERLINES SHALL BE A MAXIMUM SIZE OF 1 INCH PER WSDOT SPECIFICATION 7-09.3(9) AND 9-03.12(3). PEA GRAVEL AND BUCKSHOT ARE NOT ACCEPTABLE.
17. BACKFILL TRENCHES IN PAVEMENT AREAS WITH PIT-RUN GRAVEL COMPACTED TO AT LEAST 95 PERCENT MINIMUM DENSITY PER WSDOT SPECIFICATION 7-09.3(11). AND 9-03.14(1). THE CONTRACTOR SHALL MAKE ALL PAVEMENT REPAIRS AND PERFORM ALL RESTORATION.
18. DISINFECTION AND FLUSHING OF THE WATER PIPELINES ARE TO BE PER WSDOT SPECIFICATIONSAND AWWA C654-14. USE DE-CHLORINATION EQUIPMENT WHEN FLUSHING OR, WITH PERMISSION OF THE APPROPRIATE SEWER UTILITY, FLUSH INTO SANITARY SEWER MANHOLES. DO NOT FLUSH INTO OR ALLOW CHLORINATED WATER TO DRAIN INTO ANY CREEK, WETLAND, OR CATCH BASIN. THE CONTRACTOR WILL SUBMIT A PRESSURE TESTING, DISINFECTION, AND FLUSHING PLAN TO THE DISTRICT PRIOR TO CONSTRUCTION.
19. ALL SALVAGED USABLE DISTRICT OWNED MATERIALS ARE TO BE DELIVERED TO THE DISTRICT OFFICE AT 1415 FREEWAY DRIVE, MOUNT VERNON, OR AS DIRECTED BY THE DISTRICT.
20. THE UTILITY LOCATIONS MARKED ON THIS MAP ARE APPROXIMATE. THE CONTRACTOR IS TO VERIFY ACTUAL LOCATION AND DEPTH PRIOR TO CONSTRUCTION. CALL THE UNDERGROUND UTILITY LOCATE CENTER AT 800-424-5555.
21. ALL PRIVATE FIRE SPRINKLERS OR PRIVATE FIRE HYDRANT PIPELINES ARE REQUIRED TO BE INSTALLED WITH A WASHINGTON STATE DEPARTMENT OF HEALTH (WSDOH) APPROVED DOUBLE CHECK DETECTOR ASSEMBLY(IES) OR REDUCED PRESSURE DETECTOR ASSEMBLY(IES), LOCATED IMMEDIATELY AFTER THE FIRE SERVICE CONNECTION. A BADGER RECORDALL METER WITH A REMOTE TOUCH-READ PAD WILL BE SUPPLIED AND INSTALLED BY THE DISTRICT WITHIN 6-INCHES OF THE VAULT LID'S HINGE AND BRASS PLUGS IN THE TEST PORTS. METER SUPPLY AND INSTALLATION WILL BE INCLUDED WITH THE CHARGES IN THE WORK ORDER.
22. A LEAD FREE, WASHINGTON STATE APPROVED, REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED AT TEMPORARY CONNECTIONS BETWEEN THE EXISTING DISTRICT PIPELINES AND NEW WATER PIPELINES FOR FILLING, FLUSHING AND PRESSURE TESTING OF THE IMPROVEMENTS. UPON TEMPORARY CONNECTION, AND PRIOR TO FILLING, THE ASSEMBLY SHALL HAVE BEEN SUCCESSFULLY TESTED BY A BACKFLOW ASSEMBLY TESTER (BAT) AND THE TEST REPORT IS TO BE PROVIDED TO THE DISTRICT.
23. BEFORE FINAL CONNECTION TO THE EXISTING DISTRICT SYSTEM, ALL NEW WATER PIPELINES AND REPAIRED PORTIONS OF/OR EXTENSION TO EXISTING PIPELINES SHALL BE ADEQUATELY DISINFECTED AND A SATISFACTORY BACTERIOLOGICAL REPORT OBTAINED.
24. C-900 PVC PIPE WILL BE MINIMUM CLASS 50 AWWA C151 PER WSDOT STANDARD SPECIFICATIONS 9-30.1 AND 9-30.1(5). ALL C-900 PVC WATER PIPE AND FITTINGS SHALL BE COMPLETELY WRAPPED WITH A MINIMUM OF EIGHT-MIL POLYETHYLENE PIPE ENCASEMENT AND INSTALLED IN ACCORDANCE WITH AWWA C105 AND WSDOT STANDARD SPECIFICATIONS 7-09.3(17) AND 9-30.1(2).
25. PRESSURE TEST NEW PIPELINE, INCLUDING FIRE HYDRANTS AND SERVICE LINES AS PER WSDOT STANDARDS.

TEST DATE	_____	TEST PRESSURE	_____
TIME START	_____	TIME END	_____
PRESSURE DROP	_____	MAKE-UP WATER	_____
TEST DATE	_____	TEST PRESSURE	_____
TIME START	_____	TIME END	_____
PRESSURE DROP	_____	MAKE-UP WATER	_____
TEST DATE	_____	TEST PRESSURE	_____
TIME START	_____	TIME END	_____
PRESSURE DROP	_____	MAKE-UP WATER	_____
TEST DATE	_____	TEST PRESSURE	_____
TIME START	_____	TIME END	_____
PRESSURE DROP	_____	MAKE-UP WATER	_____
TEST DATE	_____	TEST PRESSURE	_____
TIME START	_____	TIME END	_____
PRESSURE DROP	_____	MAKE-UP WATER	_____

CONSTRUCTION NOTES

1. VERIFY THE LOCATIONS, ELEVATIONS, DIAMETERS, MATERIALS, AND OTHER PARAMETERS OF EXISTING FACILITIES TO WHICH NEW FACILITIES CONNECT BEFORE BEGINNING ANY WORK.
2. VERIFY INVERT ELEVATION OF EXISTING UTILITIES BY POTHOLING A MINIMUM OF 200 FEET AHEAD OF WATERLINE INSTALLATION.
3. PROTECT ALL EXISTING UTILITIES, SERVICE CONNECTIONS AND ALL SURFACE IMPROVEMENTS. CONTRACTOR SHALL REPAIR ALL SERVICE CONNECTIONS WHETHER SHOWN ON THESE PLANS OR NOT.
4. PROTECT ALL EXISTING UTILITIES AND SURFACE IMPROVEMENTS. CONTRACTORS SHALL COORDINATE WITH PROPERTY OWNERS DURING CONSTRUCTION TO AVOID DAMAGING EXISTING FACILITIES. CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY AND LOCATE ALL EXISTING UTILITIES ON PRIVATE PROPERTY.
5. CONSTRUCTION ACTIVITIES SHALL NOT EXTEND BEYOND THE LIMITS SHOWN IN THE PLANS WITHOUT PRIOR APPROVAL OF THE ENGINEER.
6. CONTRACTOR TO COORDINATE WORK WITH & WITHIN APPROVED TRAFFIC CONTROL PLANS.
7. REFER TO EROSION AND SEDIMENTATION CONTROL DRAWINGS FOR PROTECTION AND RESTORATION REQUIREMENTS.
8. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING, MAINTAINING AND REMOVING TEMPORARY ACCESS ROADS AND RESTORATION OF CONSTRUCTION AREAS TO PRE-CONSTRUCTION CONDITION OR BETTER.
9. PROVIDE AND MAINTAIN TEMPORARY PAVEMENT MARKINGS UNTIL PERMANENT MARKINGS RESTORATION. PROVIDE PERMANENT RESTORATION OF PAVEMENT MARKINGS AFTER PAVEMENT RESTORATION IS COMPLETED.
10. SUPPORT POWER AND TELEPHONE POLES DURING PIPELINE INSTALLATION. COORDINATE WITH PUGET SOUND ENERGY TO PROVIDE TEMPORARY GUYS OR SUPPORTS AS NECESSARY.
11. EXCESS TRENCH MATERIALS MUST BE HAULED OFF SITE. NO SPOILS SHALL BE SPREAD IN WETLANDS OR WETLAND BUFFERS. NO MATERIALS SHALL BE STOCKPILED IN WETLANDS OR WETLAND BUFFERS.
12. REMOVE AND REPLACE ALL MAILBOXES AS REQUIRED FOR CONSTRUCTION OF THE PIPELINE.
13. REMOVE AND REPLACE ALL TRAFFIC AND ROADWAY SIGNS AS REQUIRED FOR CONSTRUCTION.
14. MINIMUM 12-INCH SAND CUSHION IS DESIRED BETWEEN WATERLINE AND EXISTING PIPELINES OR OTHER CONDUITS WHEN ENCOUNTERED DURING CONSTRUCTION. NOTIFY DISTRICT INSPECTOR IF LESS THAN 12-INCHES OF CUSHION WILL OCCUR.
15. TURBID WATER GENERATED FROM CONSTRUCTION ACTIVITIES, INCLUDING TURBID DEWATERING WATER, SHALL NOT BE DISCHARGED DIRECTLY TO ANY SURFACE WATER. TEMPORARY SEDIMENT PONDS OR BAKER TANKS SHALL BE USED, AS NECESSARY, TO ALLOW THE TURBID WATER TO SETTLE BEFORE DISCHARGE. DEWATERED GROUNDWATER CAN BE TREATED USING BAKER TANKS ONSITE OR TREATED AND DISPOSED OFFSITE, UPON APPROVAL OF ENGINEER, AND PER APPLICABLE RULES AND GUIDELINES OF DEPARTMENT OF ECOLOGY AND OTHER REQUIREMENTS OF APPLICABLE JURISDICTIONS.

ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

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MARK C. HANDLAN — STATE OF WASHINGTON — 39691 — REGISTERED PROFESSIONAL ENGINEER — 7/16/2021

DATUM:	DSGN BY: CJS
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VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

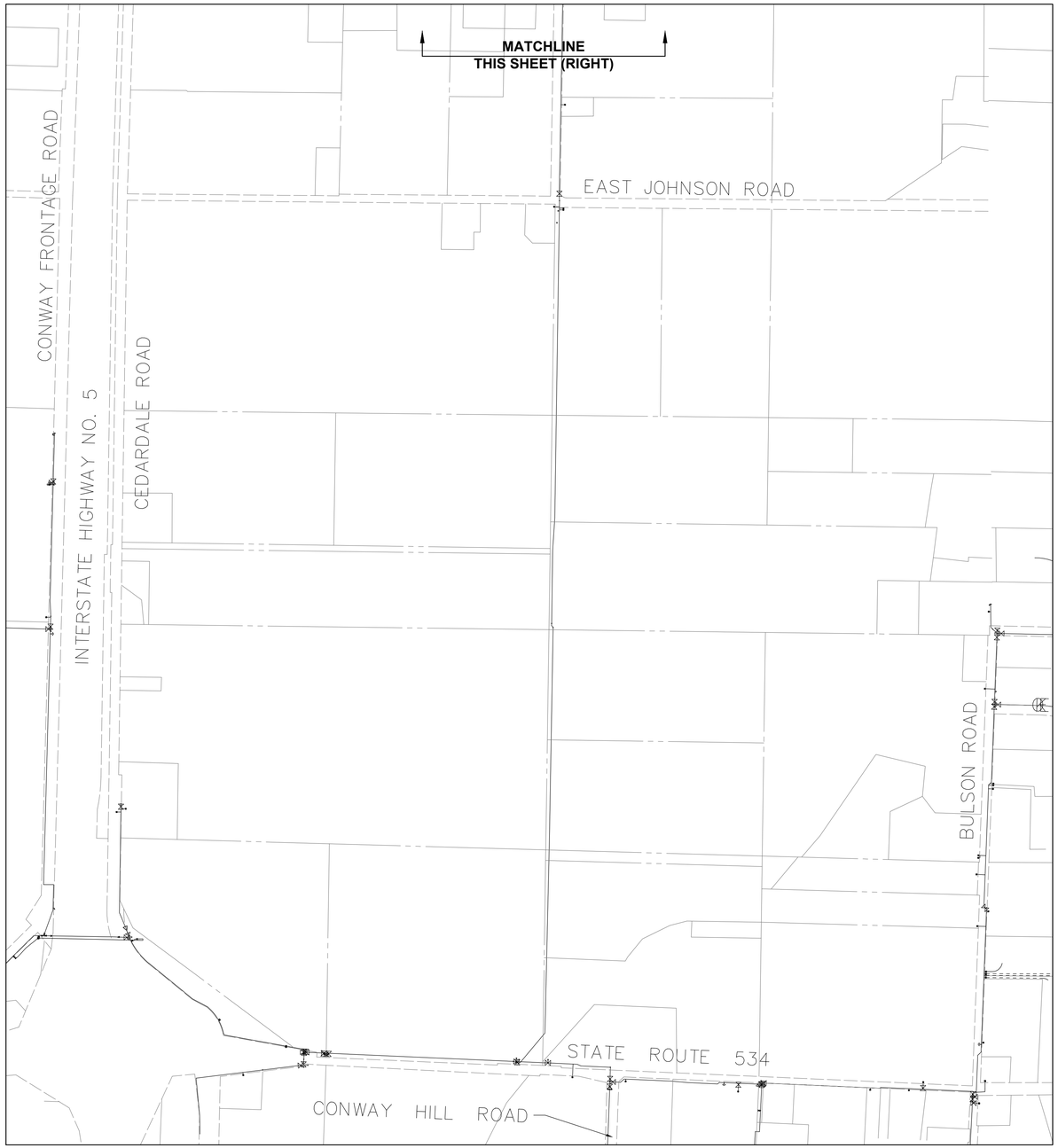
Skagit PUD PUBLIC UTILITY DISTRICT

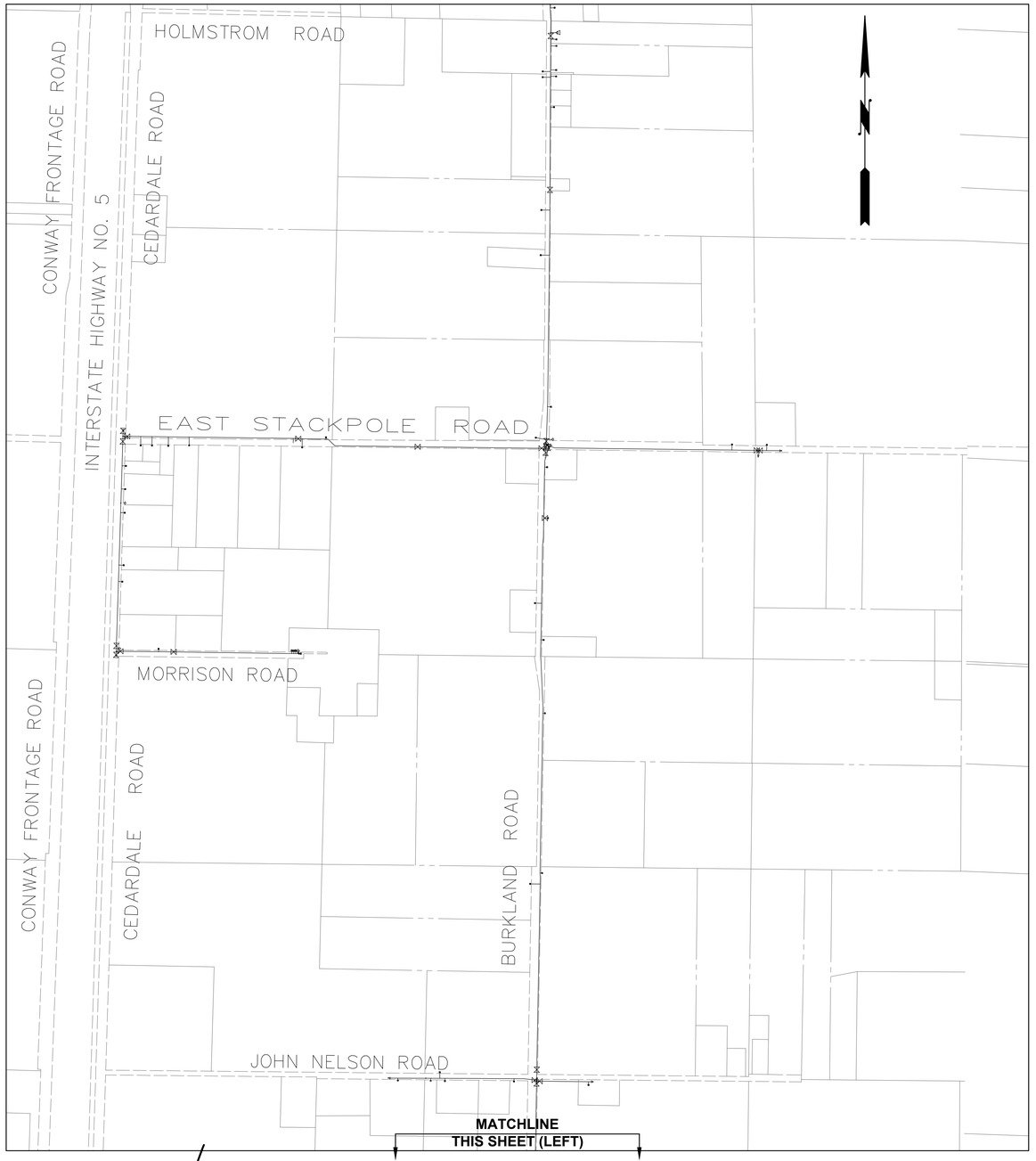
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(360) 424-7104
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BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

GENERAL NOTES

SCALE: NONE | P.N. 3514 | C.O. 4820 | SHEET: 2 OF 37





ISSUE	REVISIONS	BY	DATE
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BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

SHUTDOWN MAP

SCALE: NONE	P.N. 3514	SHEET:
	C.O. 4820	3 OF 37

Standard ESC Plan Notes

1. AS DIRECTED BY PUBLIC WORKS DIRECTOR PRIOR TO COMMENCING CONSTRUCTION, ALL CRITICAL AREAS, INCLUDING WETLAND BUFFERS, STREAM CORRIDOR, LANDFILL AREAS, AND STEEP SLOPES SHALL BE CONTINUOUSLY DEMARCATED IN THE FIELD USING FLAGGING TAPE OR FENCING.

2. EROSION CONTROL METHODS AND MATERIALS SHALL MEET REQUIREMENTS OF SECTION 8-01 OF THE APWA/WASHINGTON STATE DEPARTMENT OF TRANSPORTATION 1998 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, AND REQUIREMENTS SET FORTH IN VOLUME II OF THE "STORMWATER MANAGEMENT MANUAL FOR THE PUGET SOUND BASIN (THE TECHNICAL MANUAL)", BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY, CURRENT EDITION. THE CONTRACTOR SHALL FOLLOW RECOMMENDATIONS MADE BY SUPPLIERS AND MANUFACTURERS OF MATERIALS AND EQUIPMENT USED.

3. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS, AND MUST BE INSTALLED AND IN OPERATION PRIOR TO ANY GRADING OR LAND CLEARING. WHEREVER POSSIBLE, MAINTAIN NATURAL VEGETATION FOR SILT CONTROL.

4. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED (E.G., ADDITIONAL SUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.) AS NEEDED FOR UNEXPECTED STORM EVENTS. ADDITIONALLY, MORE ESC FACILITIES MAY BE REQUIRED TO ENSURE COMPLETE SILTATION CONTROL. THEREFORE, DURING THE COURSE OF CONSTRUCTION, IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES OVER AND ABOVE THE MINIMUM REQUIREMENTS AS MAY BE NEEDED.

5. ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE PERMANENT FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION OR DISPERSION SYSTEM, THE FACILITY SHALL NOT BE USED AS A TEMPORARY SETTLING BASIN. NO UNDERGROUND DETENTION TANK, DETENTION VAULT, OR SYSTEM, WHICH BACKS UNDER OR INTO A POND, SHALL BE USED AS A TEMPORARY SETTLING BASIN.

6. WHERE SEEDING FOR TEMPORARY EROSION CONTROL IS REQUIRED, FAST GERMINATING GRASSES SHALL BE APPLIED AT AN APPROPRIATE RATE (EXAMPLE: ANNUAL OR PERENNIAL RYE APPLIED AT APPROXIMATELY 80 POUNDS PER ACRE).

7. WHERE STRAW MULCH IS REQUIRED FOR TEMPORARY EROSION CONTROL, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF TWO (2) INCHES.

8. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH SPECIFICATIONS OF THE CITY OR COUNTY IN WHICH THE WORK OCCURS.

9. THE ESC FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS ON THE APPROVED PLANS. LOCATIONS MAY BE MOVED TO SUIT FIELD CONDITIONS, SUBJECT TO APPROVAL.

10. A COPY OF THE APPROVED EROSION CONTROL PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.

11. OFF-SITE STREETS MUST BE KEPT CLEAN AT ALL TIMES. IF DIRT IS DEPOSITED ON THE PUBLIC STREET SYSTEM, THE STREET SHALL BE IMMEDIATELY CLEANED WITH POWER SWEEPER OR OTHER EQUIPMENT. ALL VEHICLES SHALL LEAVE THE SITE BY WAY OF THE CONSTRUCTION ENTRANCE AND SHALL BE CLEANED OF ALL DIRT THAT WOULD BE DEPOSITED ON THE PUBLIC STREETS.

12. ANY CATCH BASINS COLLECTING RUNOFF FROM THE SITE, WHETHER THEY ARE ON OR OFF THE SITE, SHALL HAVE THEIR GRATES COVERED WITH FILTER FABRIC DURING CONSTRUCTION.

13. THE WASHED GRAVEL BACKFILL ADJACENT TO THE FILTER FABRIC FENCE SHALL BE REPLACED AND THE FILTER FABRIC CLEANED IF IT IS NONFUNCTIONAL BY EXCESSIVE SILT ACCUMULATION, ALL INTERCEPTOR SWALES SHALL BE CLEANED IF SILT ACCUMULATION EXCEEDS ONE-QUARTER DEPTH.

14. ROCK FOR EROSION PROTECTION OF ROADWAY DITCHES, WHERE REQUIRED, MUST BE OF SOUND QUARRY ROCK, PLACED TO DEPTH OF ONE (1) FOOT AND MUST MEET THE FOLLOWING SPECIFICATIONS: 4" - 8" ROCK/40%-70% PASSING; 2"-4" ROCK/30%-40% PASSING; AND 1"-2" ROCK/10%-20% PASSING.

15. IF ANY PART (S) OF THE CLEARING LIMIT; BOUNDARY OR TEMPORARY EROSION/SEDIMENTATION CONTROL PLAN IS/ARE DAMAGED, IT SHALL BE REPAIRED IMMEDIATELY.

16. ALL PROPERTIES ADJACENT TO THE PROJECT SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND RUNOFF.DO NOT FLUSH CONCRETE BY-PRODUCTS OR TRUCKS NEAR OR INTO THE STORM DRAINAGE SYSTEM. IF EXPOSED AGGREGATE IS FLUSHED INTO THE STORM SYSTEM, IT COULD MEAN RECLEANING THE ENTIRE DOWNSTREAM STORM SYSTEM, OR POSSIBLY RELAYING THE STORM LINE

17. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.

18. THE ESC LEAD'S NAME IS: _____

19. THE APPLICANT'S NAME IS : PUD NO. 1 OF SKAGIT COUNTY, 24 HR. CONTACT NUMBER: 360-424-7104.

20. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC LEAD AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES DURING THE WET SEASON (OCT. 1 TO APRIL 30) AND OF THE MONTHLY REVIEWS DURING THE DRY SEASON (MAY 1 TO SEPT. 30).

21. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).

22. ANY AREA NEEDING ESC MEASURES NOT REQUIRING IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN FIFTEEN (15) DAYS.

23. THE ESC FACILITIES ON ACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN FORTY-EIGHT (48) HOURS FOLLOWING A STORM EVENT.

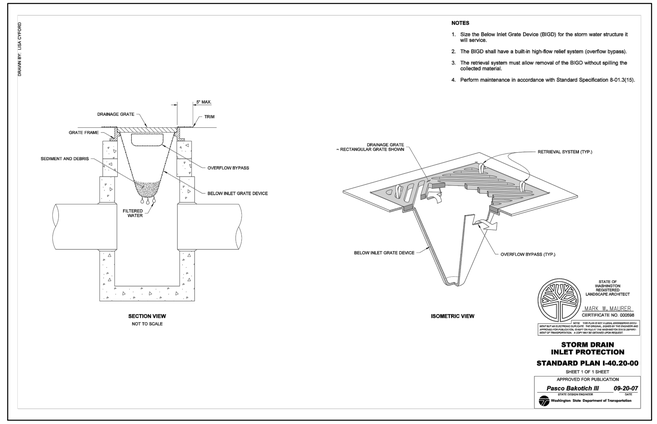
24. AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT -LADEN WATER INTO THE DOWNSTREAM SYSTEM.

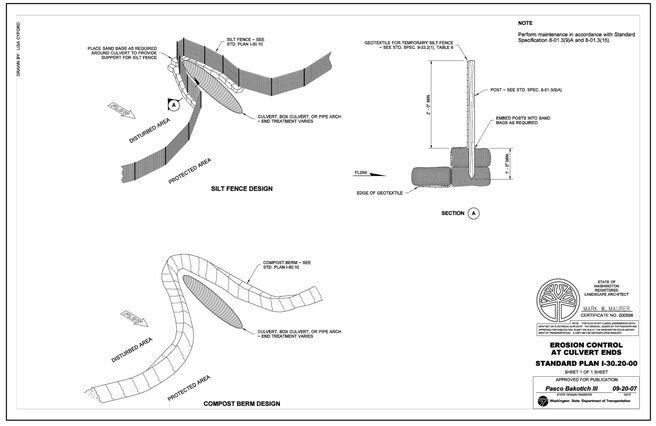
25. STABILIZED CONSTRUCTION ENTRANCES AND ROADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

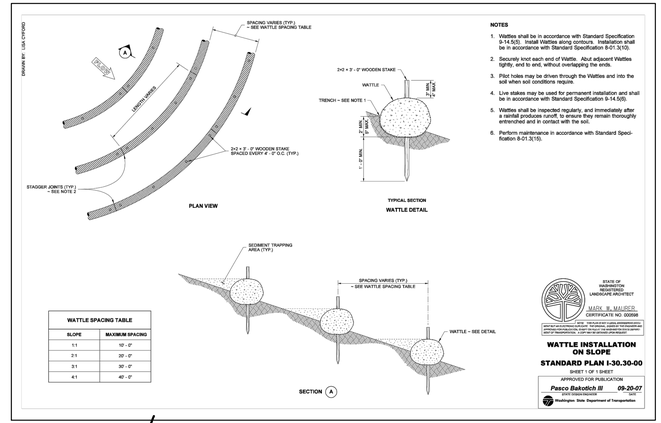
26. ANY PERMANENT FLOW CONTROL FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE FACILITY IS TO FUNCTION AS ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.

27. PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON. A SKETCH MAP OF THOSE AREAS TO BE SEEDED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE CITY INSPECTOR. THE CITY INSPECTOR CAN REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES, OR DRAINAGE FACILITIES.

28. CONTRACTOR SHALL MAINTAIN ALL BMP'S UNTIL DISTURBED AREAS HAVE STABILIZED.







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4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

MARK C. RANDALL — STATE OF WASHINGTON — 39691 — REGISTERED PROFESSIONAL ENGINEER — 7/16/2021

DATUM:	DSGN BY: CJS
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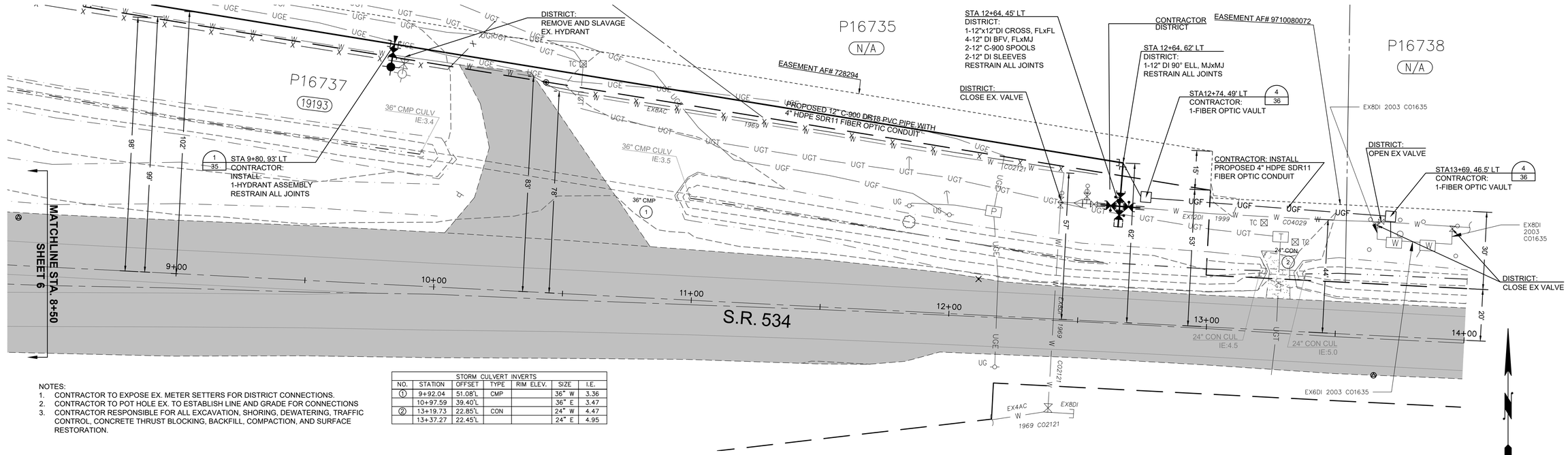
Skagit PUD — PUBLIC UTILITY DISTRICT

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BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

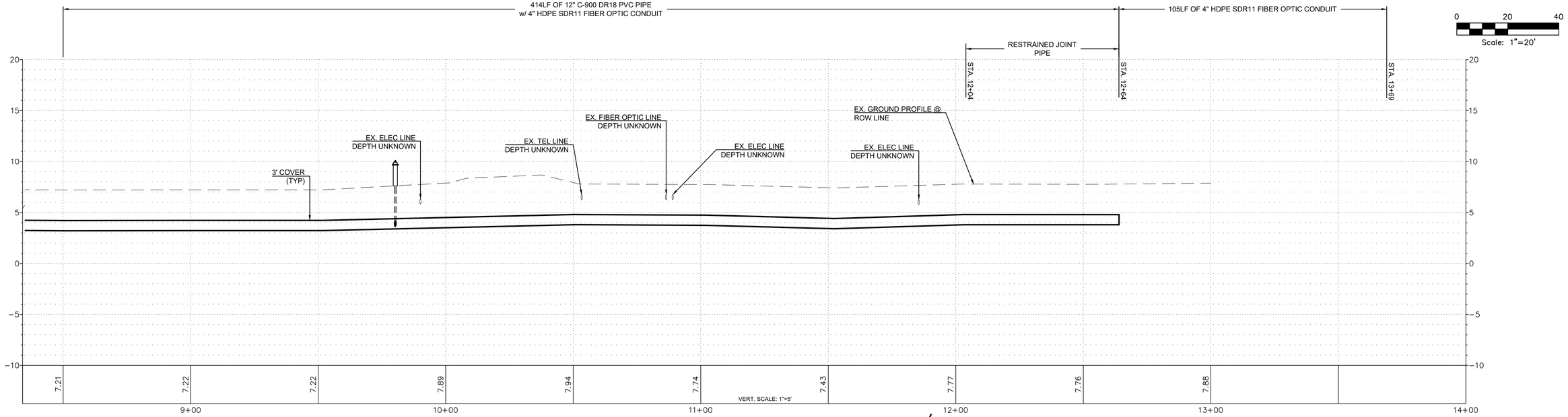
EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS

SCALE: NONE | P.N. 3514 | C.O. 4820 | SHEET: 4 OF 37



NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.

STORM CULVERT INVERTS							
NO.	STATION	OFFSET	TYPE	RIM ELEV.	SIZE	I.E.
①	9+92.04	51.08'L	CMP		36" W	3.36
	10+97.59	39.40'L			36" E	3.47
②	13+19.73	22.85'L	CON		24" W	4.47
	13+37.27	22.45'L			24" E	4.95



0 20 40
Scale: 1"=20'

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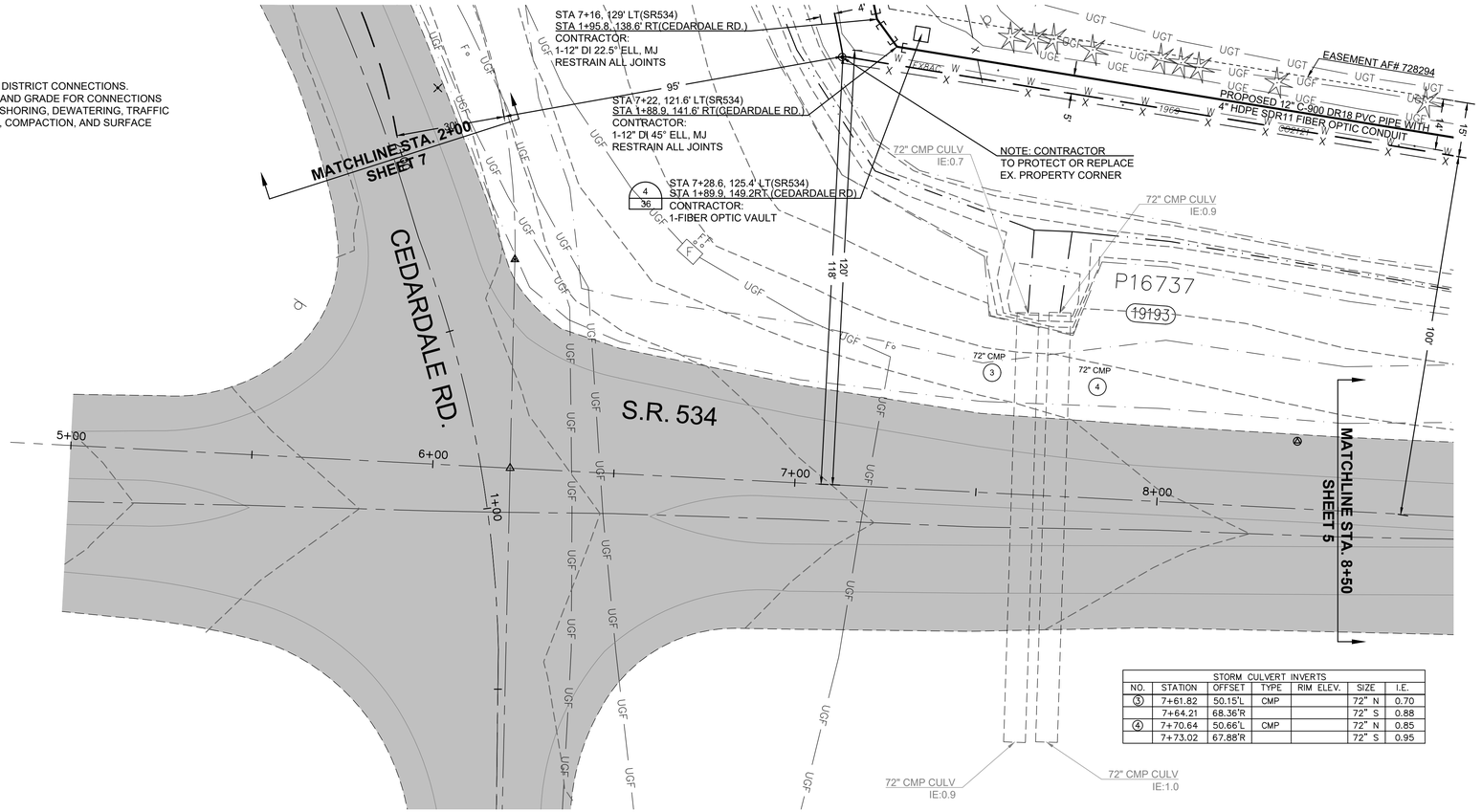
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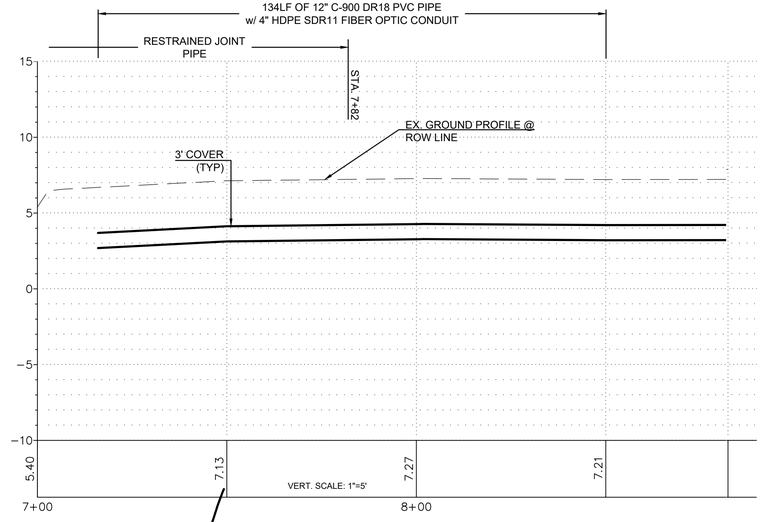
SR 534
PLAN AND PROFILE
STA 8+50 TO STA 13+70

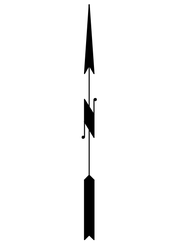
SCALE: 1"=20'	P.N. 3514	SHEET:
	C.O. 4820	5 OF 37

NOTES:
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NO.	STATION	OFFSET	TYPE	RIM ELEV.	SIZE	I.E.
3	7+61.82	50.15'L	CMP		72" N	0.70
	7+64.21	68.36'R			72" S	0.88
4	7+70.64	50.66'L	CMP		72" N	0.85
	7+73.02	67.88'R			72" S	0.95







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MARK C. HENDRICKSON — STATE OF WASHINGTON — 22889 — REGISTERED PROFESSIONAL ENGINEER — 7/16/2021

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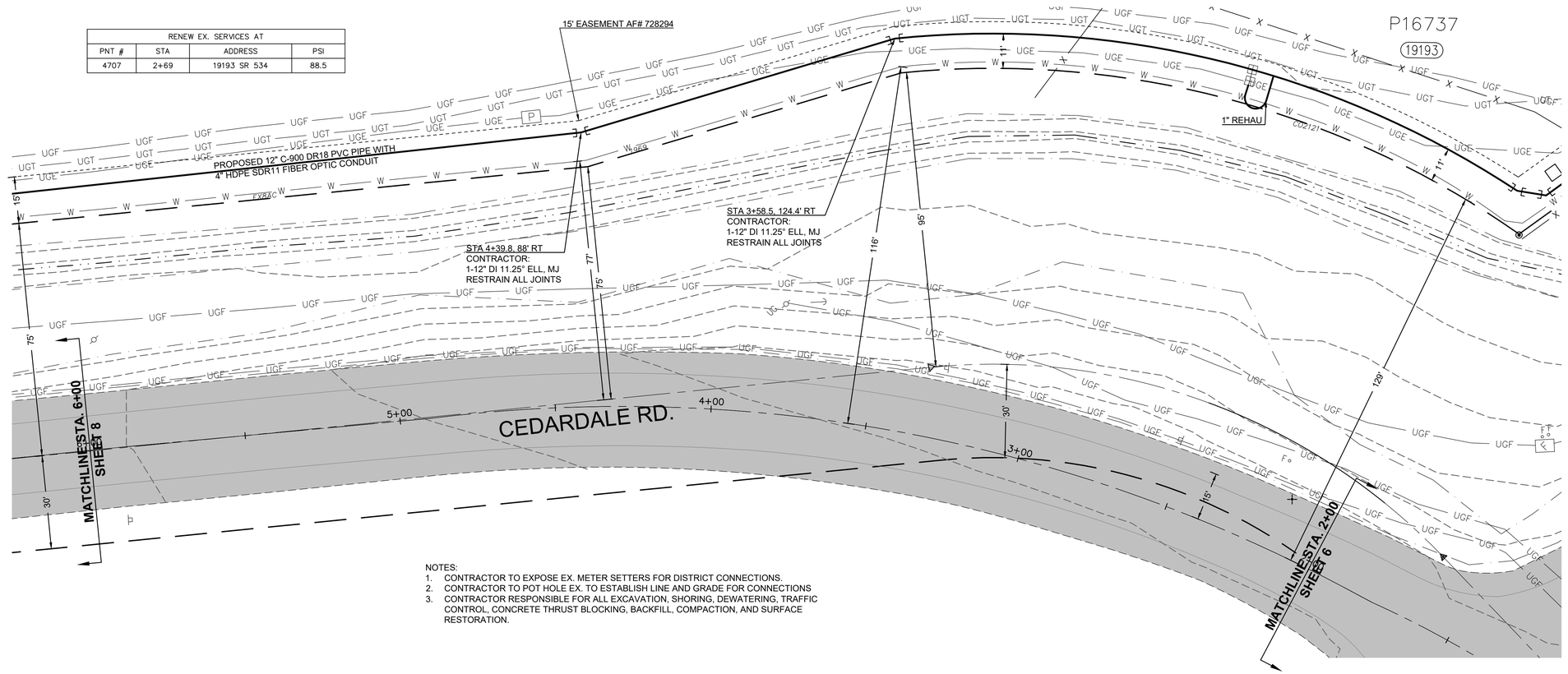
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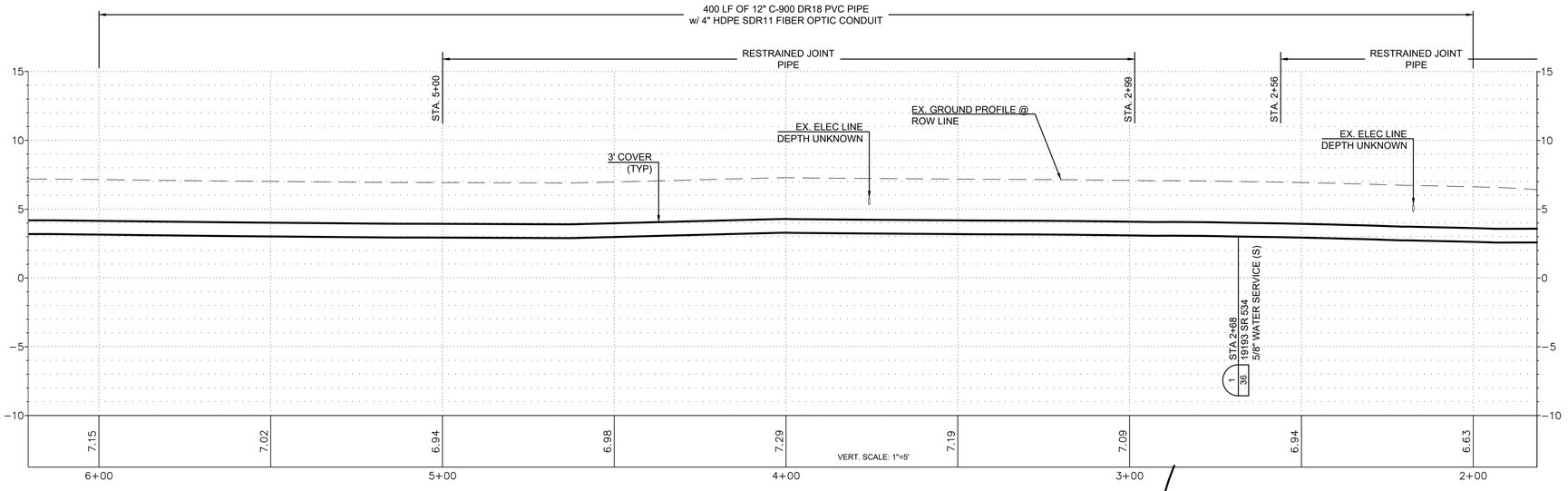
SR 534
PLAN AND PROFILE
STA 5+00 TO STA 8+50

SCALE: 1"=20' | P.N. 3514 | C.O. 4820 | SHEET: 6 OF 37

RENEW EX. SERVICES AT			
PNT #	STA	ADDRESS	PSI
4707	2+69	19193 SR 534	88.5



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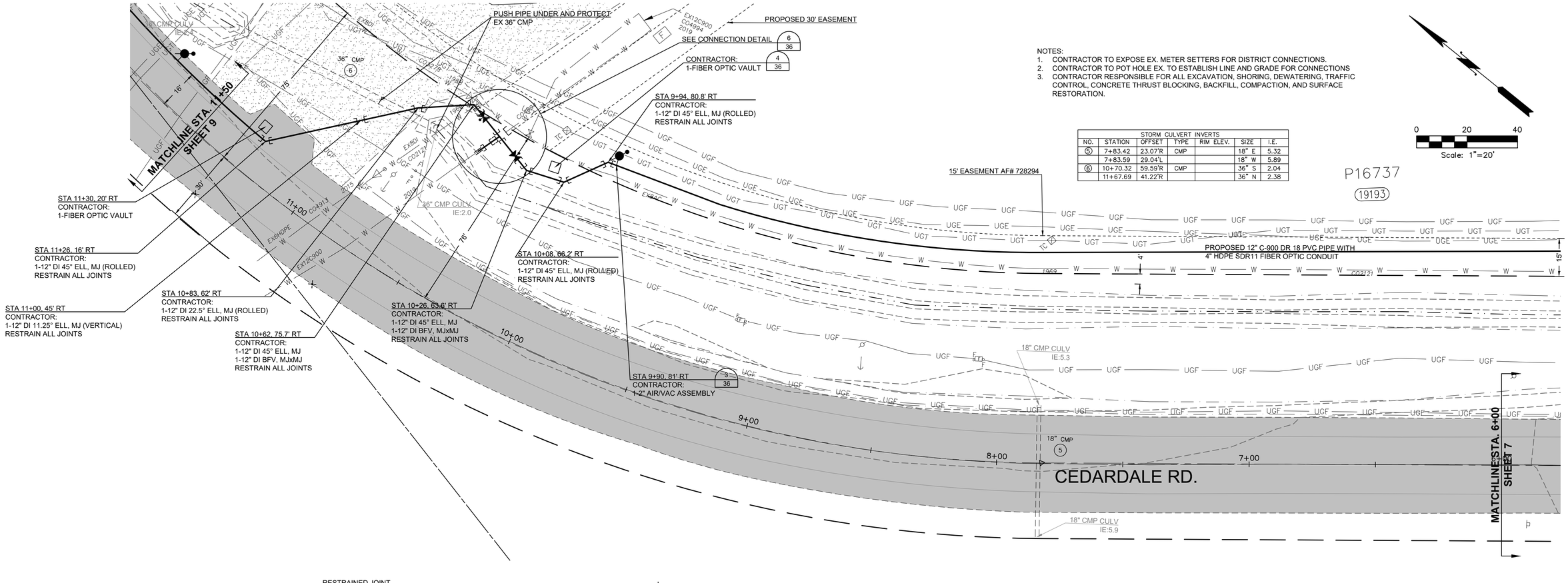
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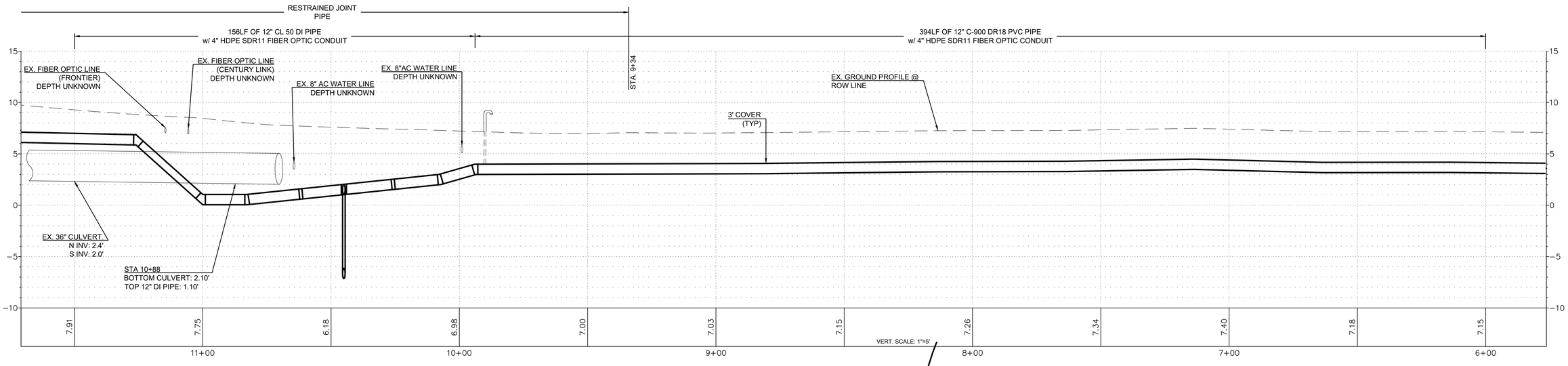
BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

CEDARDALE RD.
PLAN AND PROFILE
STA 2+00 TO STA 6+00

SCALE: 1"=20'	P.N. 3514	SHEET:
	C.O. 4820	7 OF 37



STORM CULVERT INVERTS						
NO.	STATION	OFFSET	TYPE	RIM ELEV.	SIZE	I.E.
⑤	7+83.42	23.07'R	CMP		18" E	5.32
	7+83.59	29.04'L			18" W	5.89
⑥	10+70.32	59.59'R	CMP		36" S	2.04
	11+67.69	41.22'R			36" N	2.38



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

MARK C. HENDRON — STATE OF WASHINGTON — 22800 — REGISTERED PROFESSIONAL ENGINEER — 7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

Skagit PUD PUBLIC UTILITY DISTRICT

PUBLIC UTILITY DISTRICT
NO. 1 of SKAGIT COUNTY
1415 Freeway Drive
P.O BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
www.SkagitPud.org

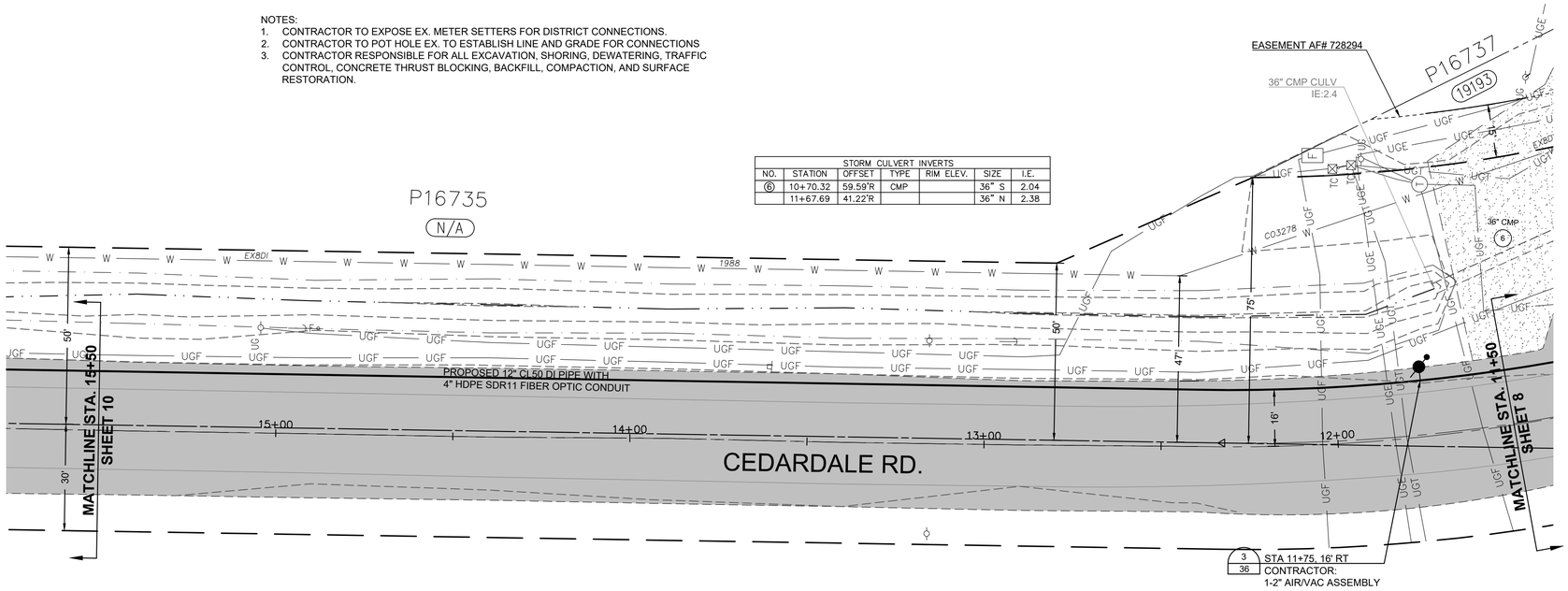
BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

CEDARDALE RD
PLAN AND PROFILE
STA 6+00 TO STA 11+50

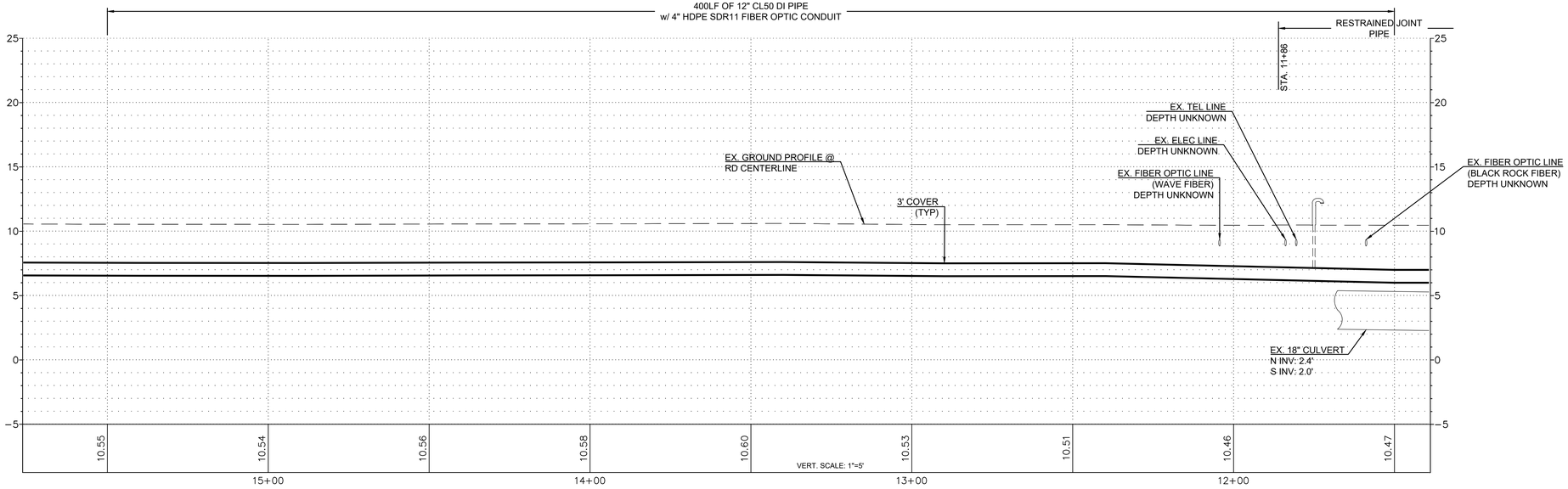
SCALE: 1"=20' | P.N. 3514 | C.O. 4820 | SHEET: 8 OF 37

NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.

STORM CULVERT INVERTS						
NO.	STATION	OFFSET	TYPE	RIM ELEV.	SIZE	I.E.
(6)	10+70.32	59.59'R	CMP		36" S	2.04
	11+67.69	41.22'R			36" N	2.38



0 20 40
Scale: 1"=20'



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

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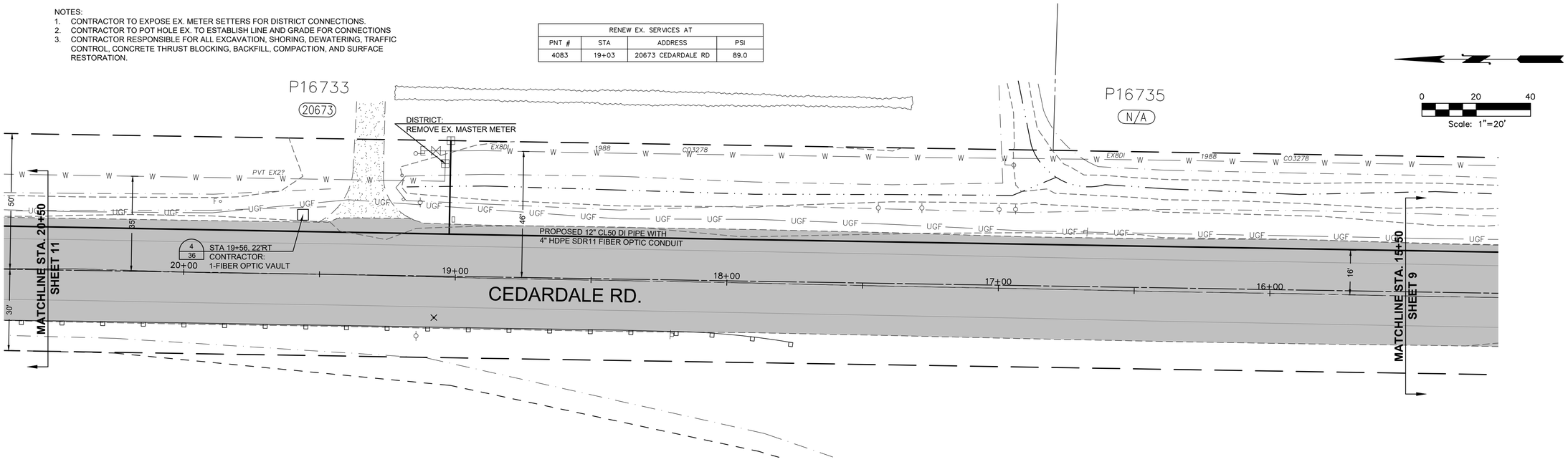
BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

CEDARDALE RD
PLAN AND PROFILE
STA 11+50 TO STA 15+50

SCALE: 1"=20' | P.N. 3514 | C.O. 4820 | SHEET: 9 OF 37

NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.

RENEW EX. SERVICES AT			
PNT #	STA	ADDRESS	PSI
4083	19+03	20673 CEDARDALE RD	89.0



500LF OF 12" CL50 DI PIPE
w/ 4" HDPE SDR11 FIBER OPTIC CONDUIT



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

MARK C. HANDZLIK — STATE OF WASHINGTON — 20691 — REGISTERED PROFESSIONAL ENGINEER — 7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

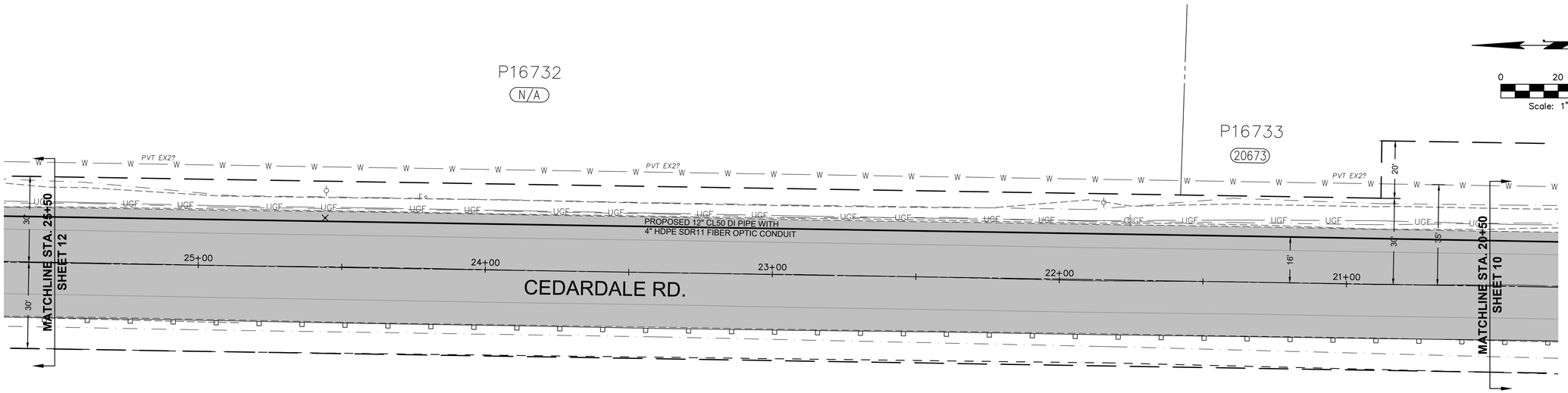
Skagit PUD — PUBLIC UTILITY DISTRICT

PUBLIC UTILITY DISTRICT NO. 1 of SKAGIT COUNTY
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P.O BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
www.SkagitPud.org

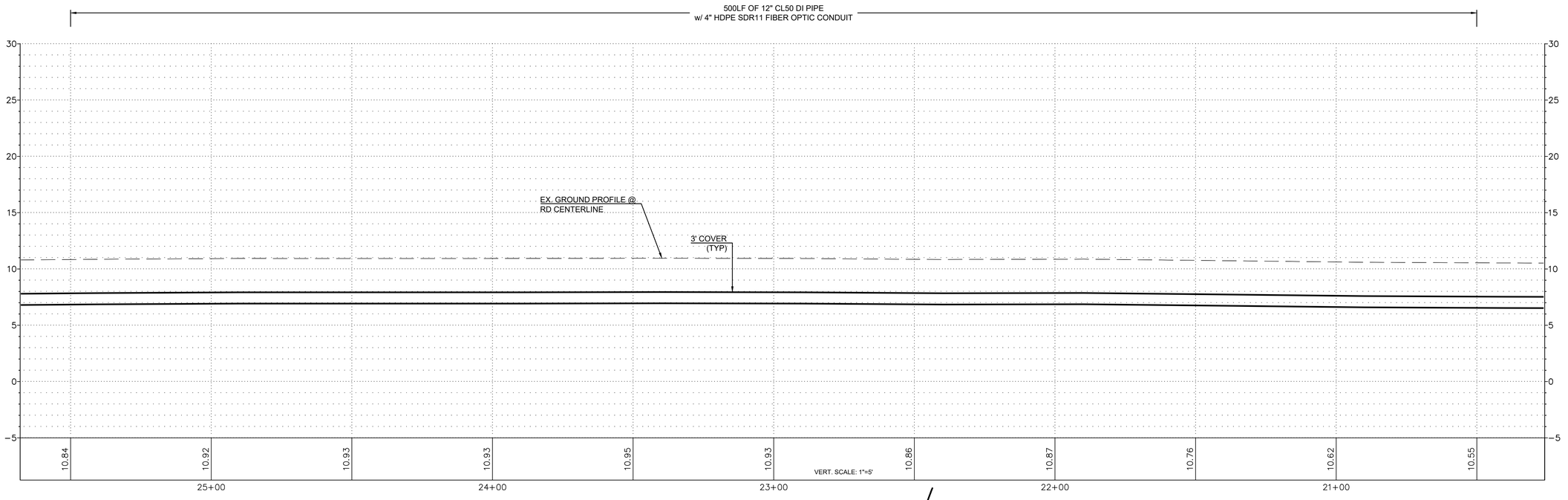
BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

CEDARDALE RD
PLAN AND PROFILE
STA 15+50 TO STA 20+50

SCALE: 1"=20' | P.N. 3514 | C.O. 4820 | SHEET: 10 OF 37



NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's **below.** **Call** before you dig.

MICHAEL C. HANDALAK — STATE OF WASHINGTON — 39691 — REGISTERED PROFESSIONAL ENGINEER — 7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

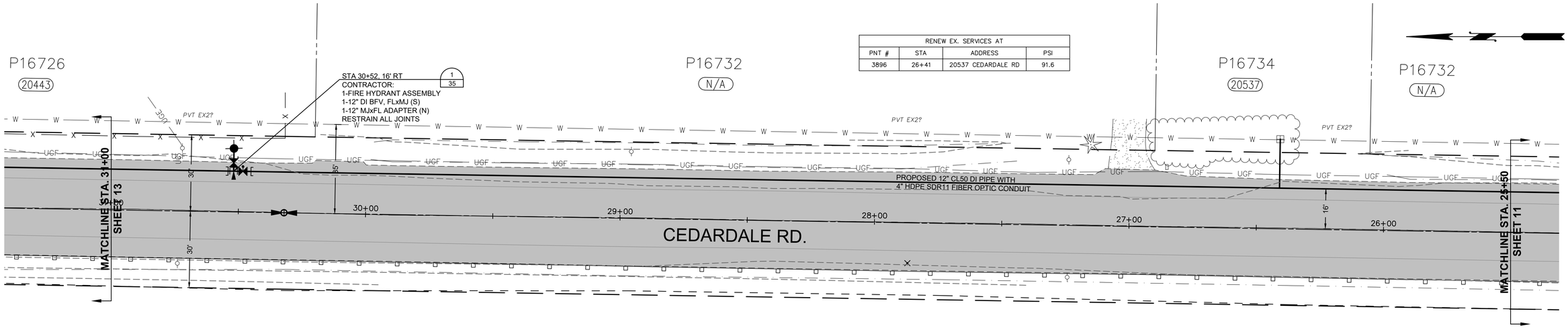
Skagit PUD PUBLIC UTILITY DISTRICT

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BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

CEDARDALE RD
PLAN AND PROFILE
STA 20+50 TO STA 25+50

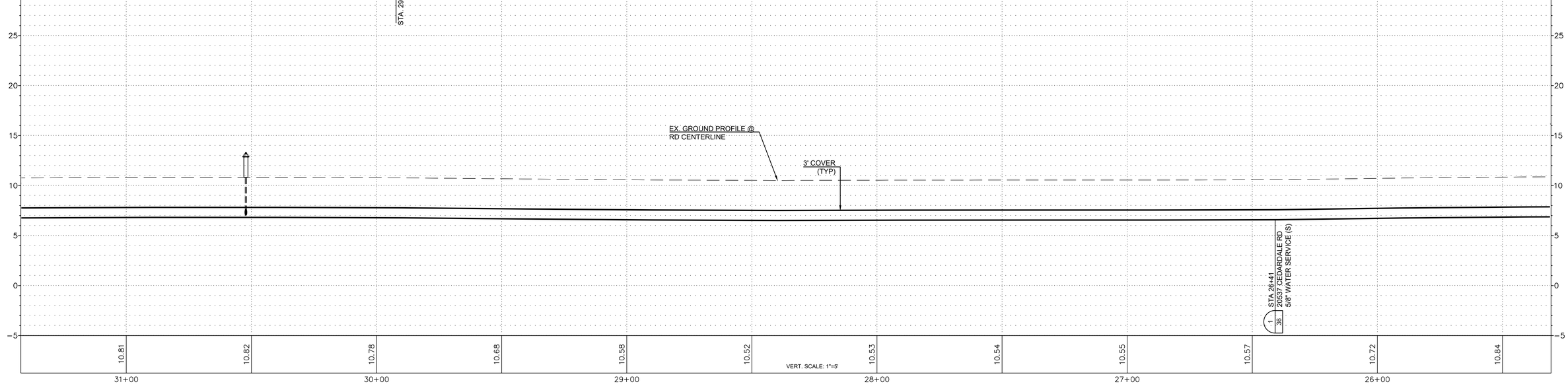
SCALE: 1"=20' | P.N. 3514 | C.O. 4820 | SHEET: 11 OF 37



RENEW EX. SERVICES AT			
PNT #	STA	ADDRESS	PSI
3896	26+41	20537 CEDARDALE RD	91.6

NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.

0 20 40
Scale: 1"=20'



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

MICHAEL C. HANDYSIDE — STATE OF WASHINGTON — 20691 — REGISTERED PROFESSIONAL ENGINEER
7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

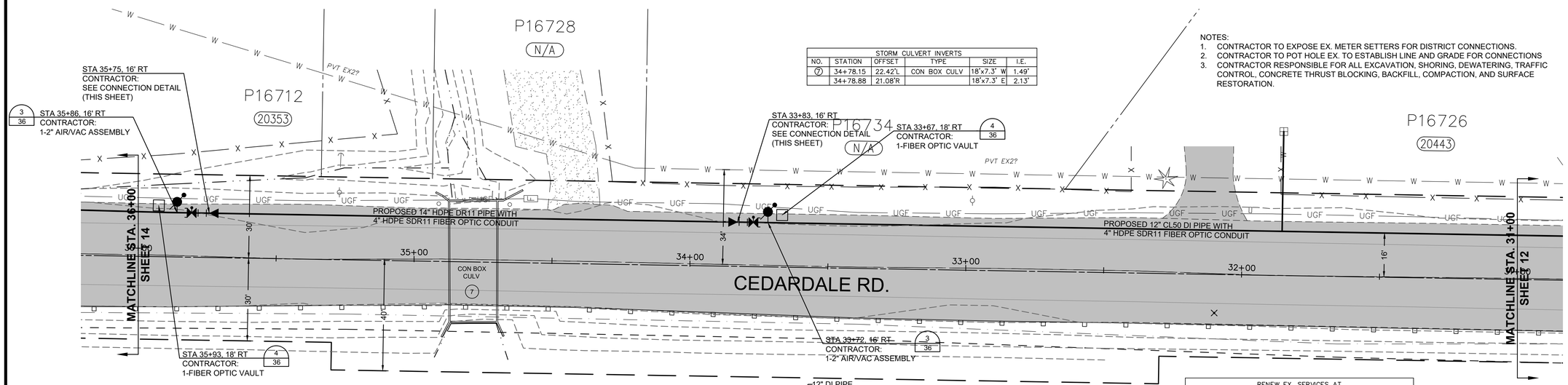
Skagit PUD — PUBLIC UTILITY DISTRICT

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1415 Freeway Drive
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BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

CEDARDALE RD
PLAN AND PROFILE
STA 25+50 TO STA 31+00

SCALE: 1"=20'
P.N. 3514
C.O. 4820
SHEET: 12 OF 37

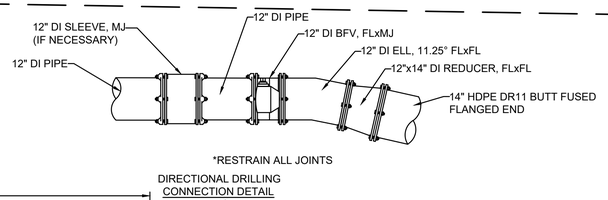


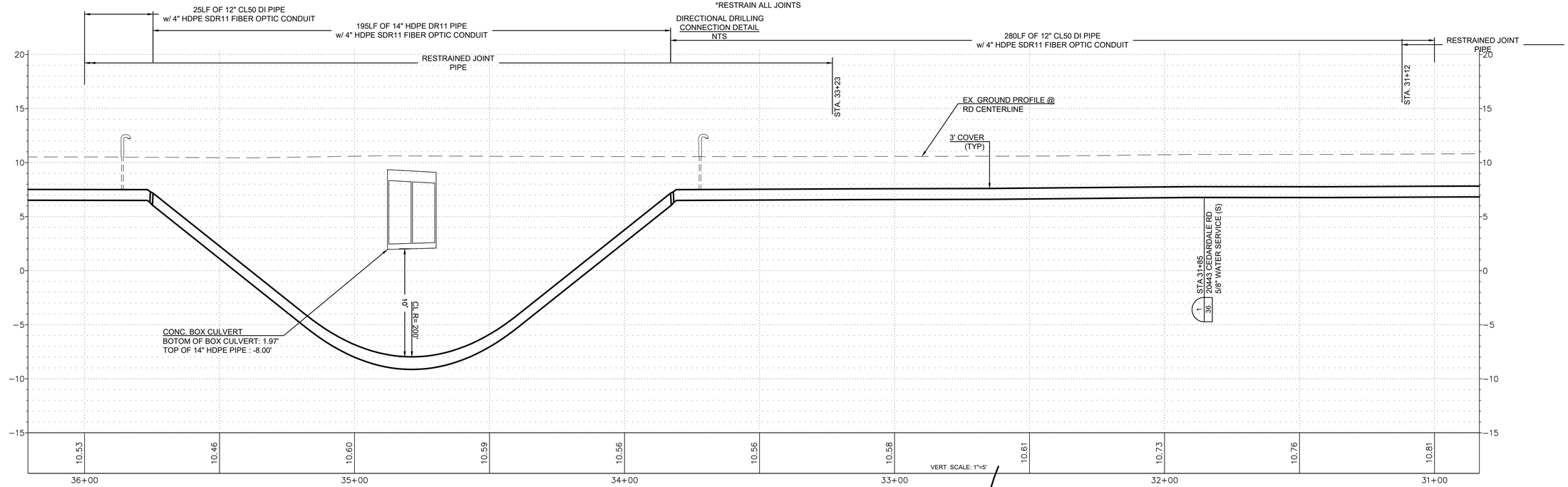
STORM CULVERT INVERTS					
NO.	STATION	OFFSET	TYPE	SIZE	I.E.
7	34+78.15	22.42'L	CON BOX CULV	18'x7.3' W	1.49'
	34+78.88	21.08'R		18'x7.3' E	2.13'

NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.

0 20 40
Scale: 1"=20'

RENEW EX. SERVICES AT			
PNT #	STA	ADDRESS	PSI
3760	31+85	20443 CEDARDALE RD	91.4





ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

MARK C. HENDRICKSON — STATE OF WASHINGTON — 20801 — REGISTERED PROFESSIONAL ENGINEER — 7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

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www.SkagitPud.org

BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

CEDARDALE RD
PLAN AND PROFILE
STA 31+00 TO STA 36+00

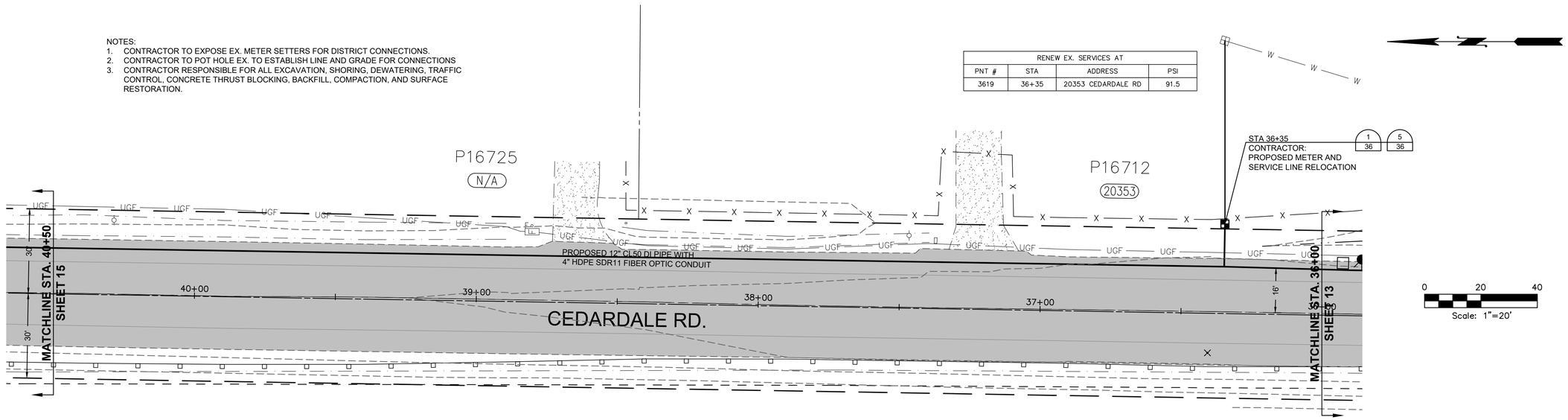
SCALE: 1"=20'

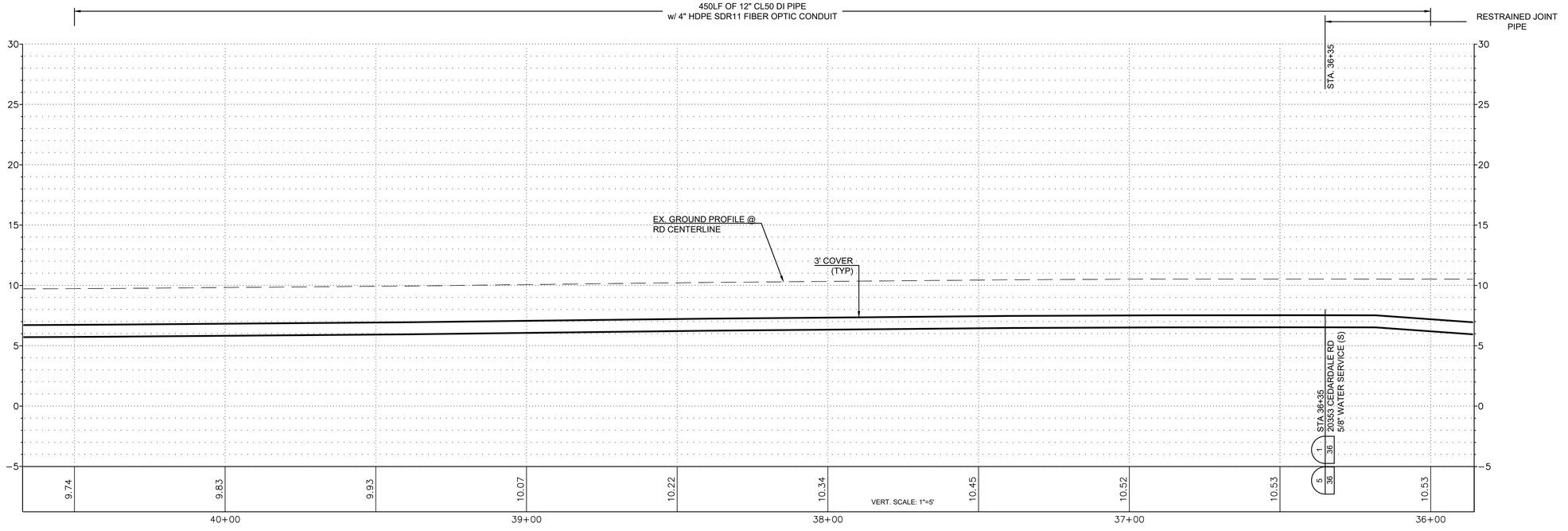
P.N. 3514
C.O. 4820

SHEET: 13 OF 37

NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.

RENEW EX. SERVICES AT			
PNT #	STA	ADDRESS	PSI
3619	36+35	20353 CEDARDALE RD	91.5





ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

MARK C. HANDALEN — STATE OF WASHINGTON — 23691 — REGISTERED PROFESSIONAL ENGINEER — 7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

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1415 Freeway Drive
P.O BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
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BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

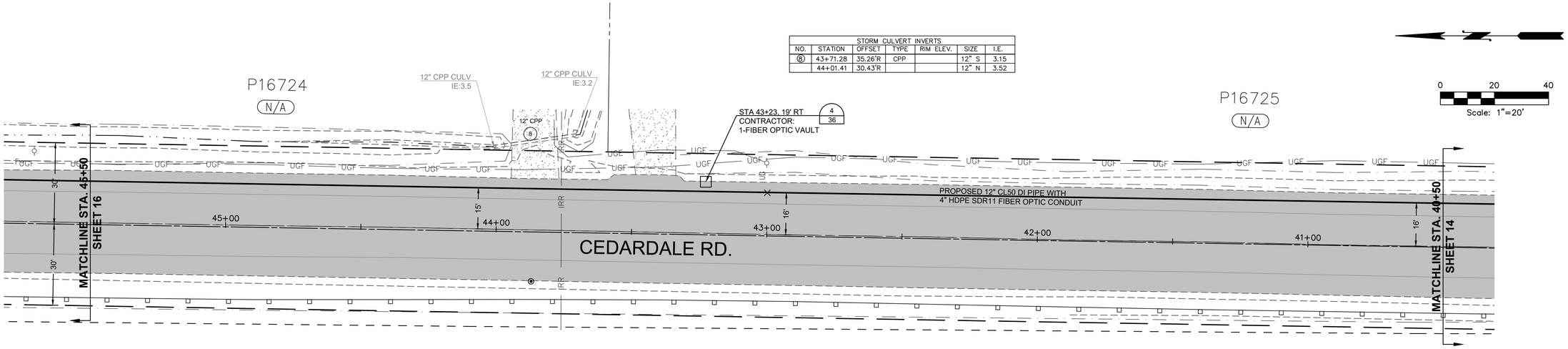
CEDARDALE RD
PLAN AND PROFILE
STA 36+00 TO STA 40+50

SCALE: 1"=20'

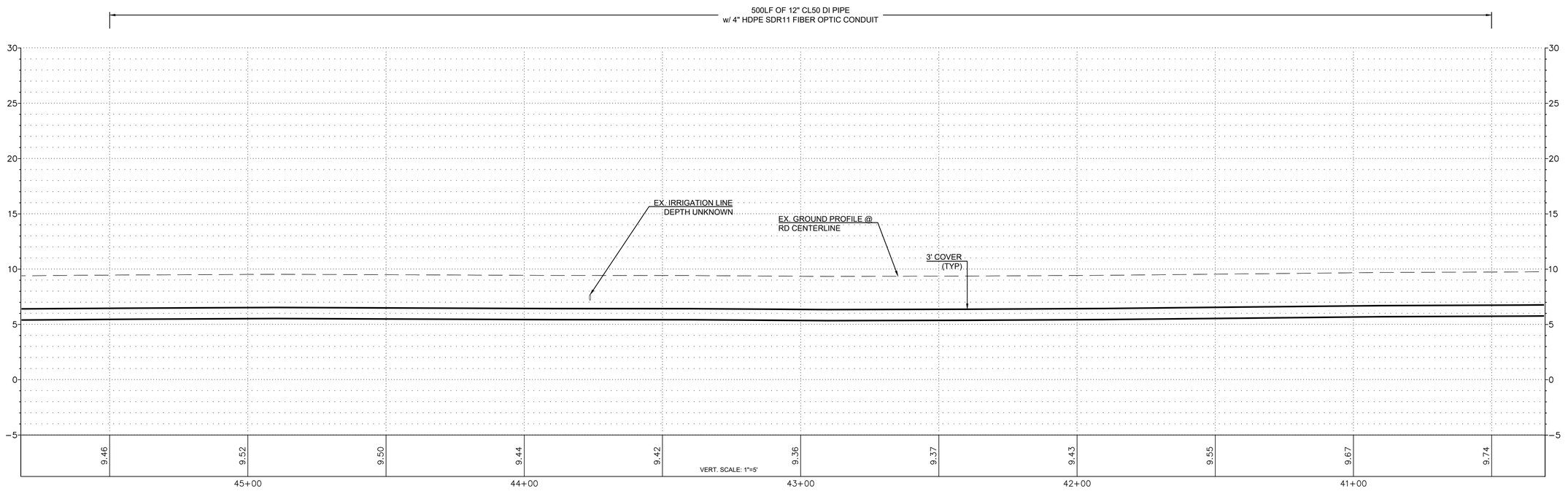
P.N. 3514
C.O. 4820

SHEET: 14 OF 37

STORM CULVERT INVERTS						
NO.	STATION	OFFSET	TYPE	RIM ELEV.	SIZE	I.E.
Ⓑ	43+71.28	35.26'R	CPP		12" S	3.15
	44+01.41	30.43'R			12" N	3.52



NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

MARK C. HANDLIR — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — 19691 — 7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

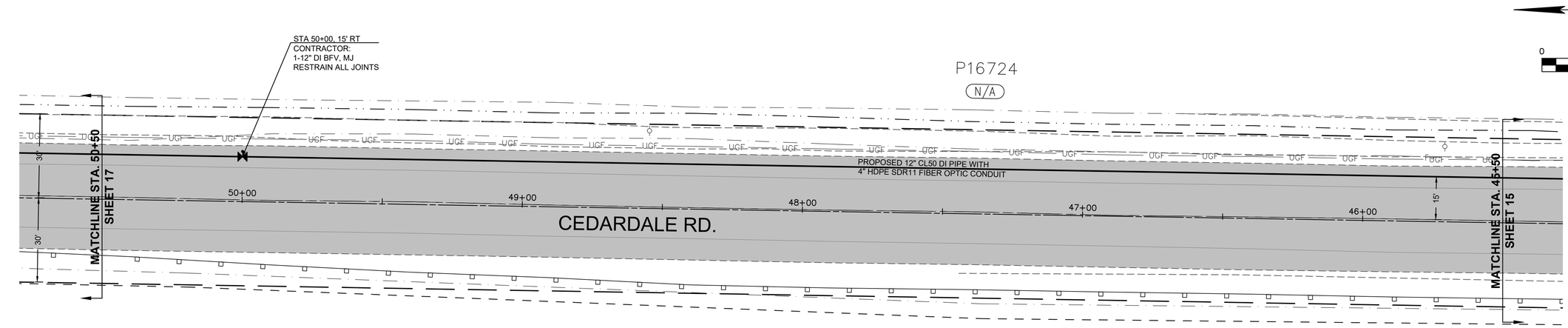
Skagit PUD — PUBLIC UTILITY DISTRICT

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Mount Vernon, WA 98273
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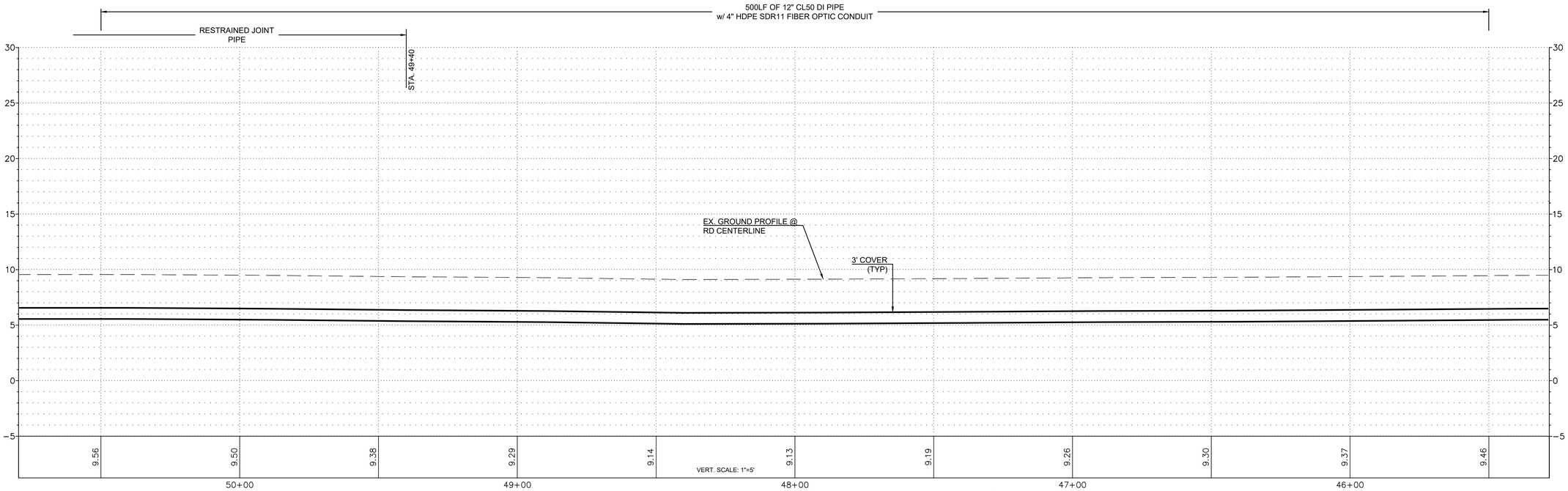
BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

CEDARDALE RD
PLAN AND PROFILE
STA 40+50 TO STA 45+50

SCALE: 1"=20' | P.N. 3514 | C.O. 4820 | SHEET: 15 OF 37



NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

MARK C. HANDZLIK — STATE OF WASHINGTON — 19691 — REGISTERED PROFESSIONAL ENGINEER — 7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

Skagit PUD — PUBLIC UTILITY DISTRICT

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Mount Vernon, WA 98273
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www.SkagitPud.org

BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

CEDARDALE RD
PLAN AND PROFILE
STA 45+50 TO STA 50+50

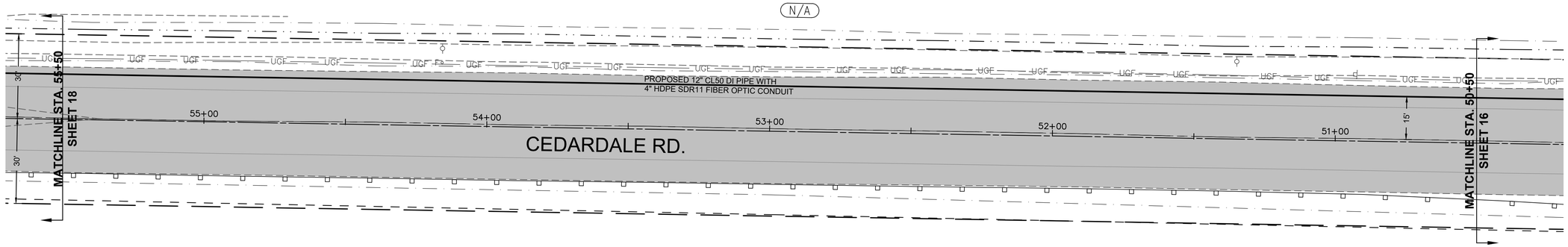
SCALE: 1"=20'

P.N. 3514
C.O. 4820

SHEET: 16 OF 37

P16724

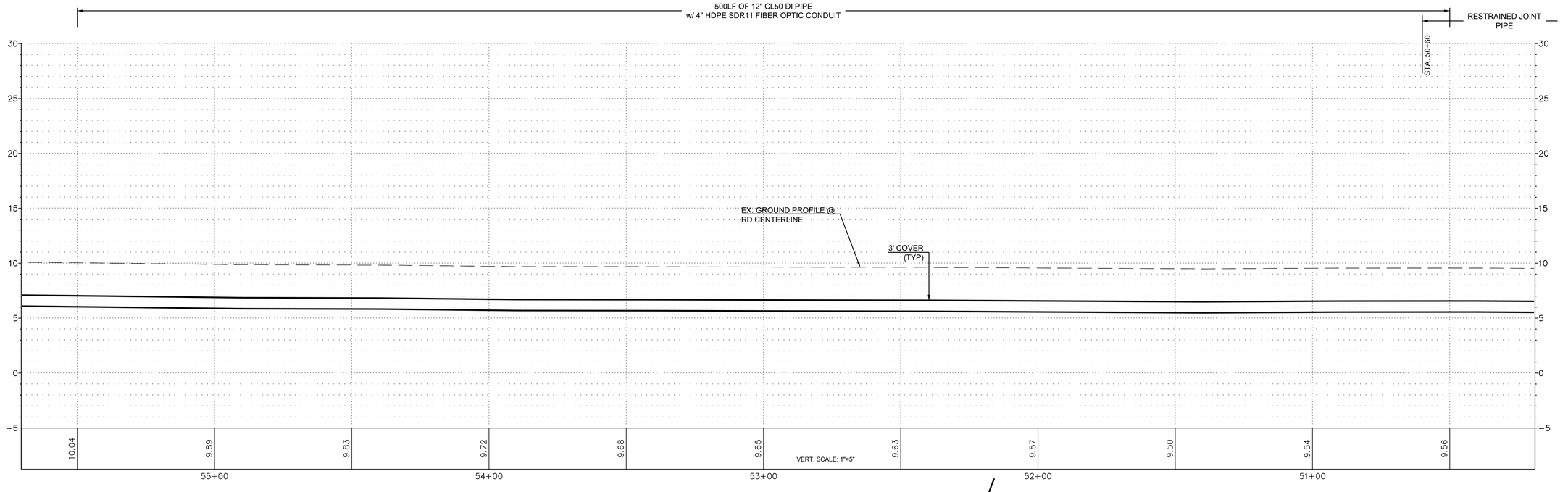
N/A



0 20 40

Scale: 1"=20'

NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

MARK C. HENDRICKSON — STATE OF WASHINGTON — 20601 — REGISTERED PROFESSIONAL ENGINEER

7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

Skagit PUD PUBLIC UTILITY DISTRICT

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BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

CEDARDALE RD
PLAN AND PROFILE
STA 50+50 TO STA 55+50

SCALE: 1"=20'

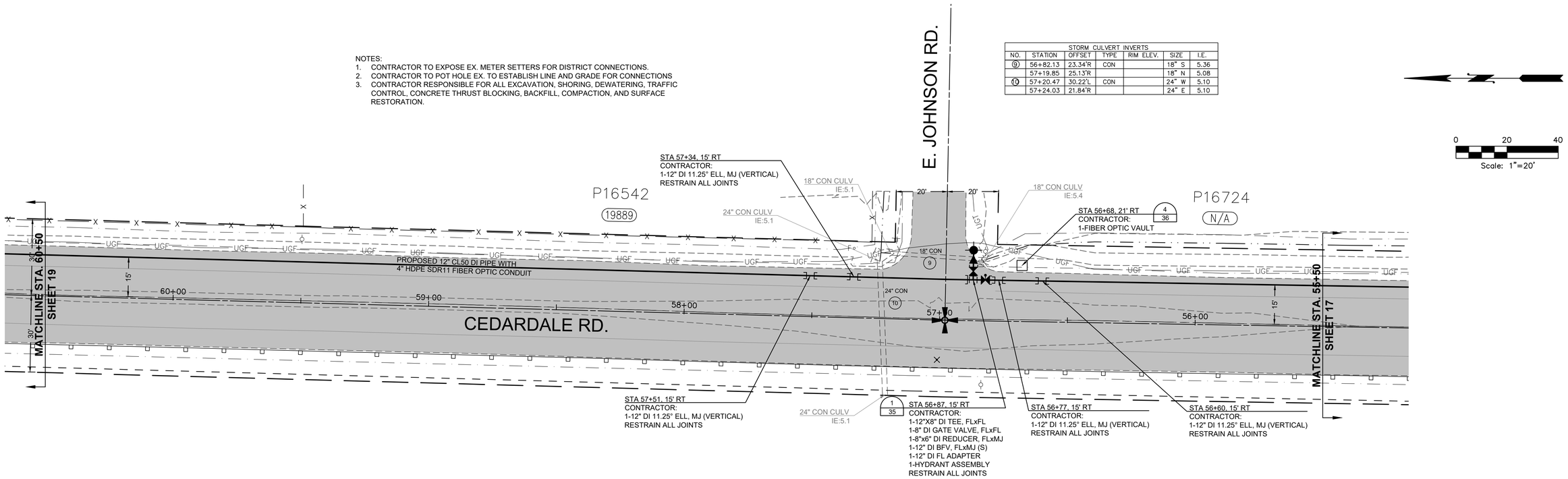
P.N. 3514

C.O. 4820

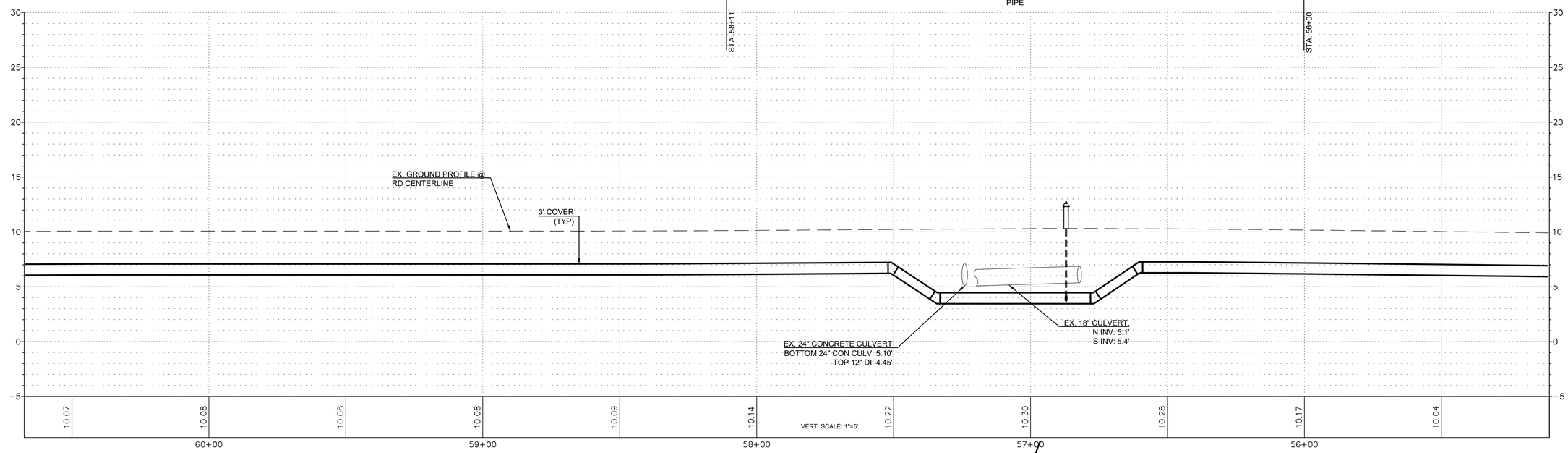
SHEET: 17 OF 37

NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.

STORM CULVERT INVERTS							
NO.	STATION	OFFSET	TYPE	RIM ELEV.	SIZE	I.E.
9	56+82.13	23.34'R	CON		18" S	5.36
	57+19.85	25.13'R			18" N	5.08
10	57+20.47	30.22'L	CON		24" W	5.10
	57+24.03	21.84'R			24" E	5.10



0 20 40
Scale: 1"=20'



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

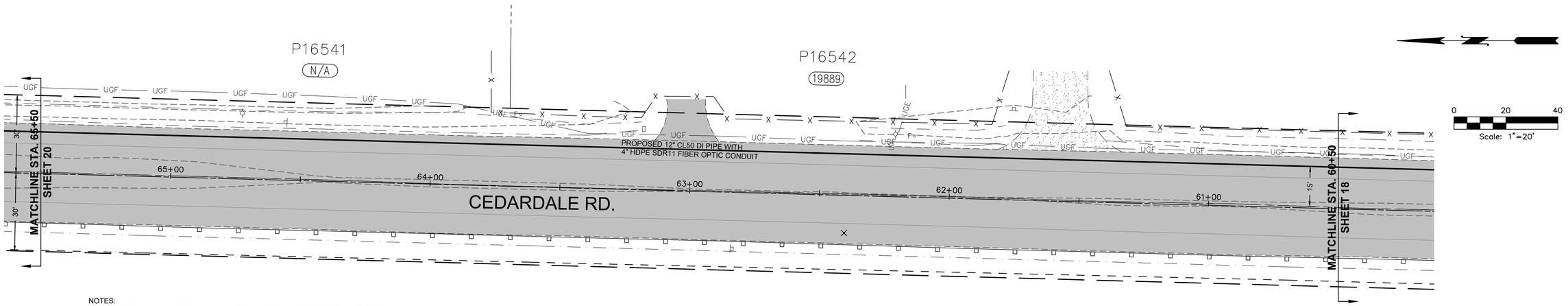
Skagit PUD PUBLIC UTILITY DISTRICT

PUBLIC UTILITY DISTRICT
NO. 1 of SKAGIT COUNTY
1415 Freeway Drive
P.O BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
www.SkagitPud.org

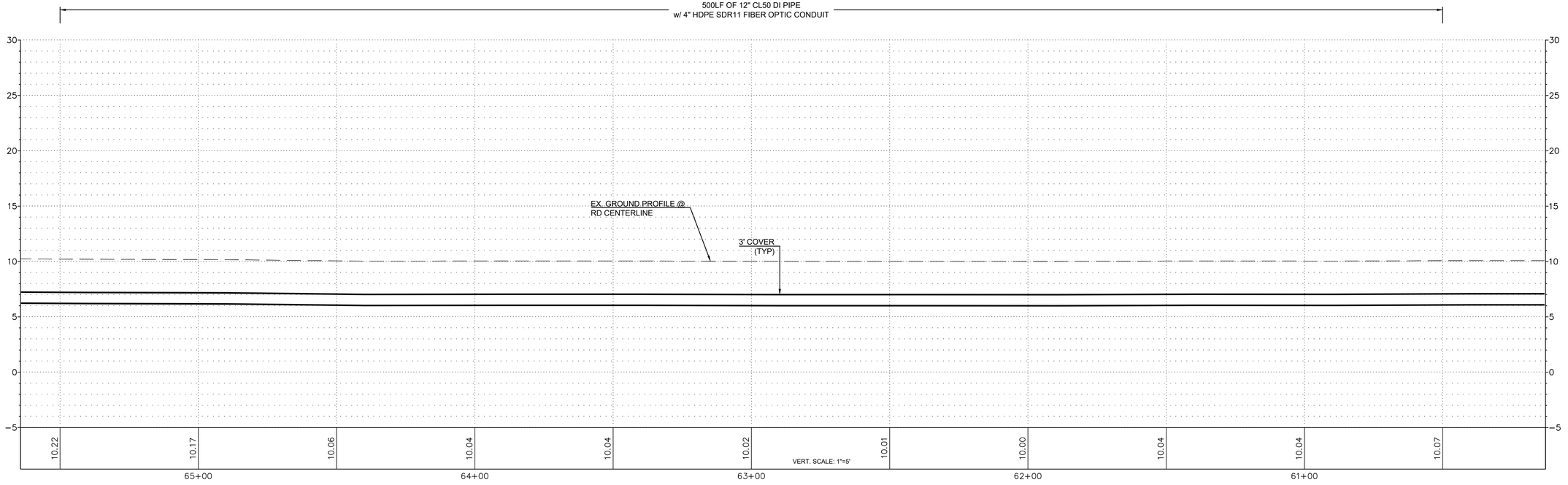
BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

CEDARDALE RD
PLAN AND PROFILE
STA 55+50 TO STA 60+50

SCALE: 1"=20'	P.N. 3514	SHEET: 18 OF 37
	C.O. 4820	



NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

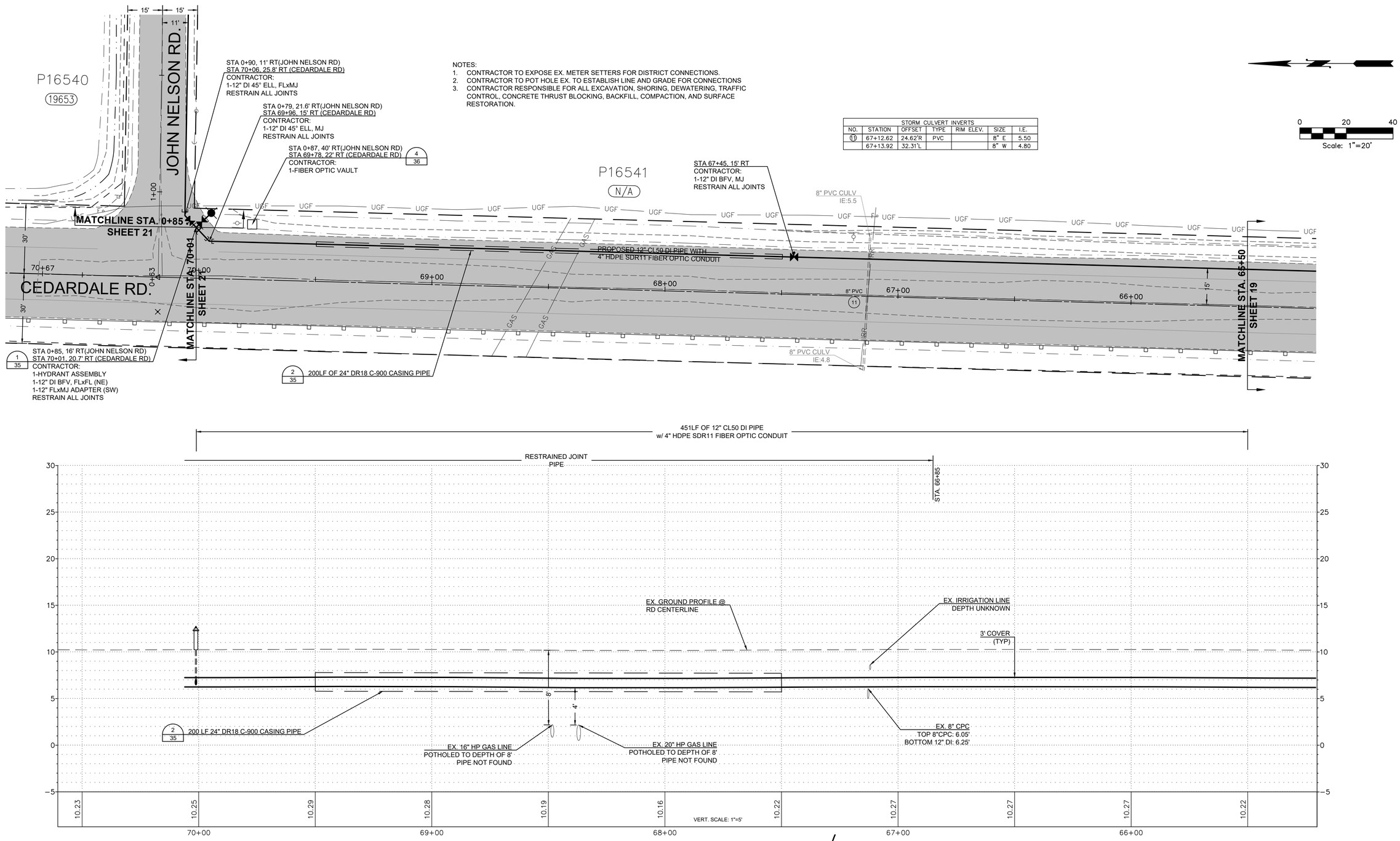
Skagit PUD PUBLIC UTILITY DISTRICT

PUBLIC UTILITY DISTRICT
NO. 1 of SKAGIT COUNTY
1415 Freeway Drive
P.O BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
www.SkagitPud.org

BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

CEDARDALE RD
PLAN AND PROFILE
STA 60+50 TO STA 65+50

SCALE: 1"=20'	P.N. 3514	SHEET: 19 OF 37
	C.O. 4820	



STORM CULVERT INVERTS						
NO.	STATION	OFFSET	TYPE	RIM ELEV.	SIZE	I.E.
11	67+12.62	24.62'R	PVC		8" E	5.50
	67+13.92	32.31'L			8" W	4.80

NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.

0 20 40
Scale: 1"=20'

ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

7/16/2021

DATUM: HOR: NAD 83 VERT: NAVD 88
DSGN BY: CJS
DWN BY: KAN
APPVD BY: MCH
DATE PRINTED: 7/12/21
SEC: 5, 8, 17
TWP: 33 N
RGE: 4 E

Skagit PUD PUBLIC UTILITY DISTRICT

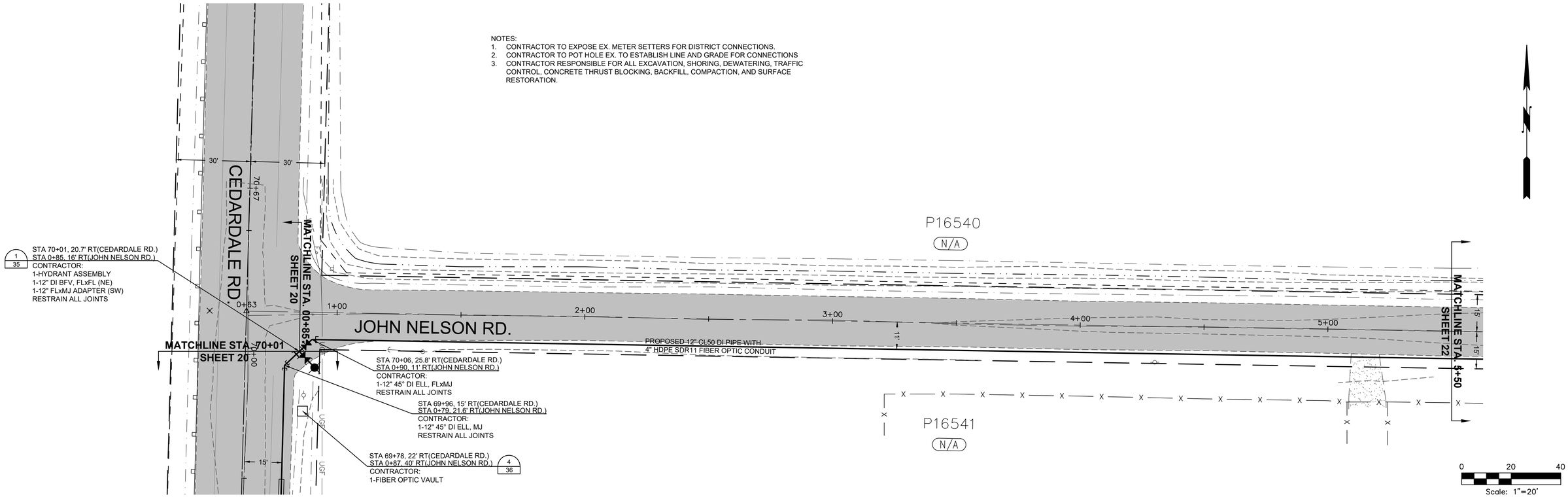
PUBLIC UTILITY DISTRICT NO. 1 of SKAGIT COUNTY
1415 Freeway Drive
P.O BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
www.SkagitPud.org

BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

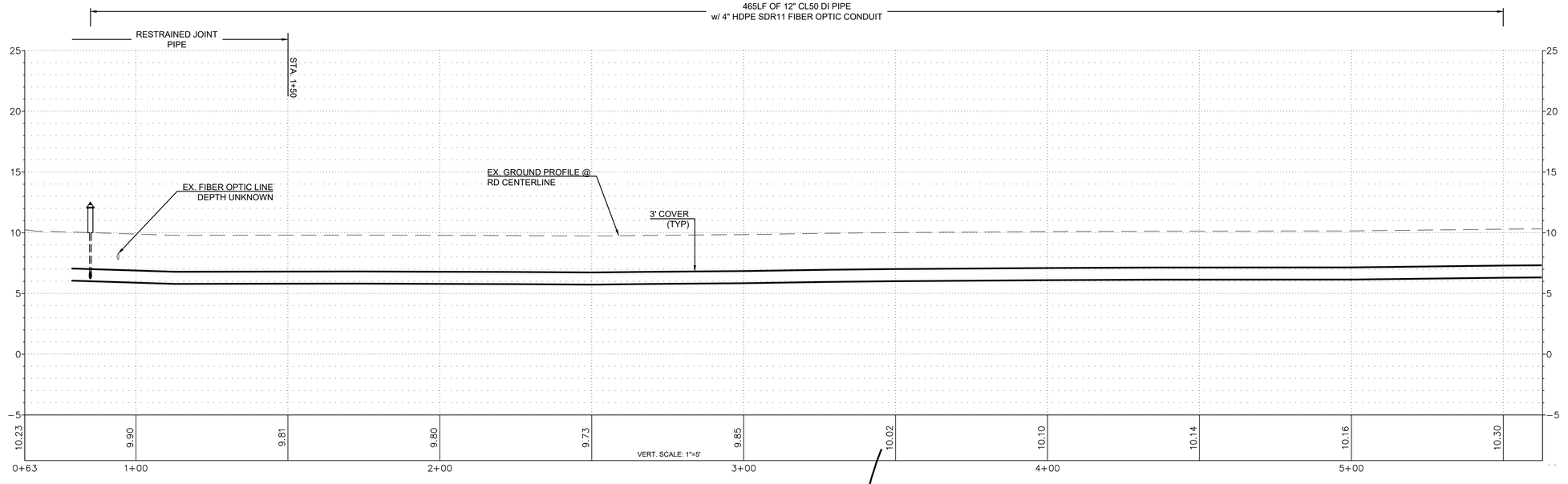
CEDARDALE RD
PLAN AND PROFILE
STA 65+50 TO STA 70+01

SCALE: 1"=20'
P.N. 3514
C.O. 4820
SHEET: 20 OF 37

NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.



0 20 40
Scale: 1"=20'



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

MORRIS C. HANDLEY 39891 REGISTERED PROFESSIONAL ENGINEER 7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

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BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

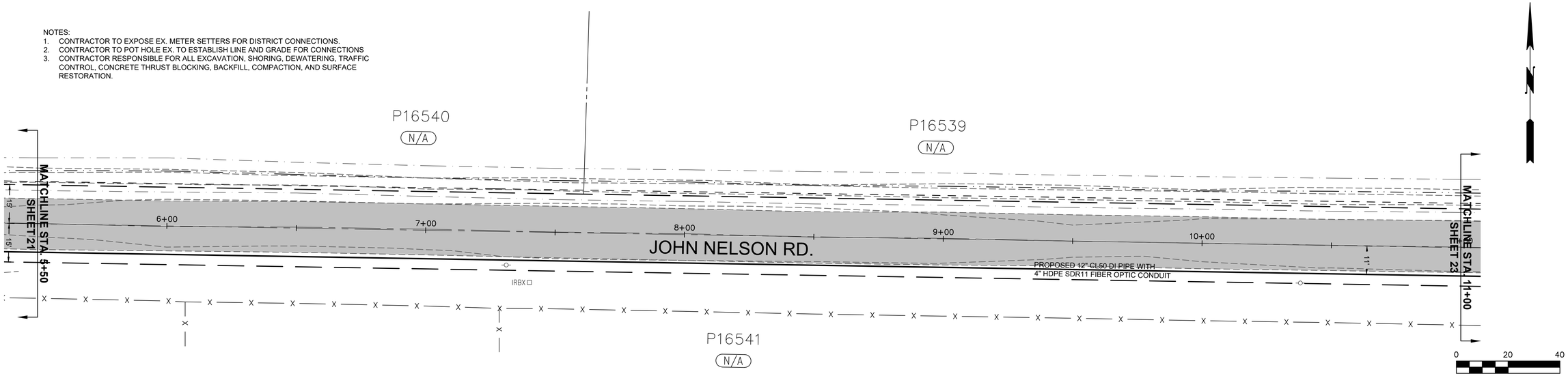
JOHN NELSON RD
PLAN AND PROFILE
STA 0+85 TO STA 5+50

SCALE: 1"=20'

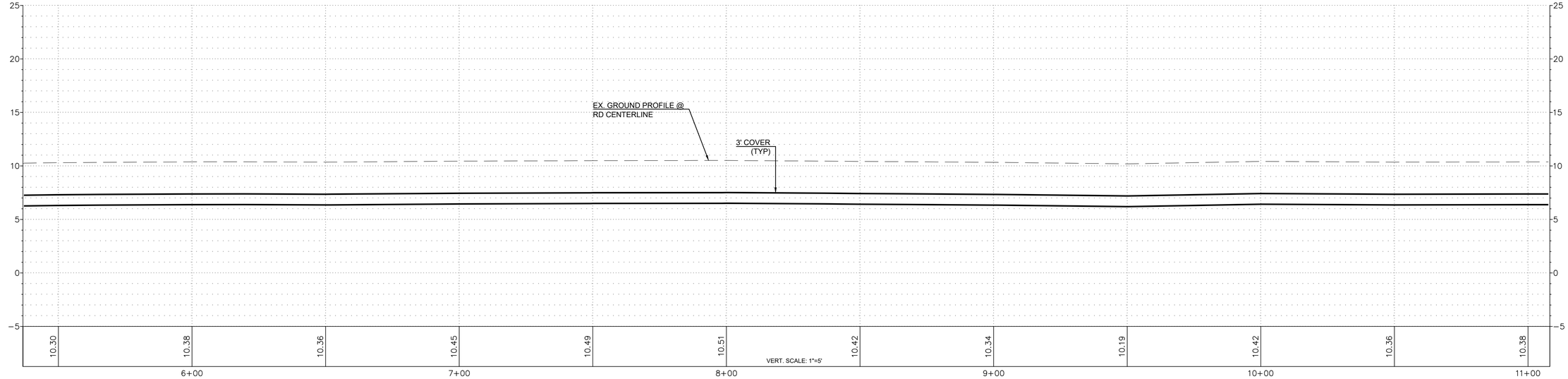
P.N. 3514
C.O. 4820

SHEET: 21 OF 37

NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.



550LF OF 12" CL50 DI PIPE
w/ 4" HDPE SDR11 FIBER OPTIC CONDUIT



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's **below.** **Call** before you dig.

MARK C. HENDRICKSON — STATE OF WASHINGTON — 39691 — REGISTERED PROFESSIONAL ENGINEER — 7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

Skagit PUD PUBLIC UTILITY DISTRICT

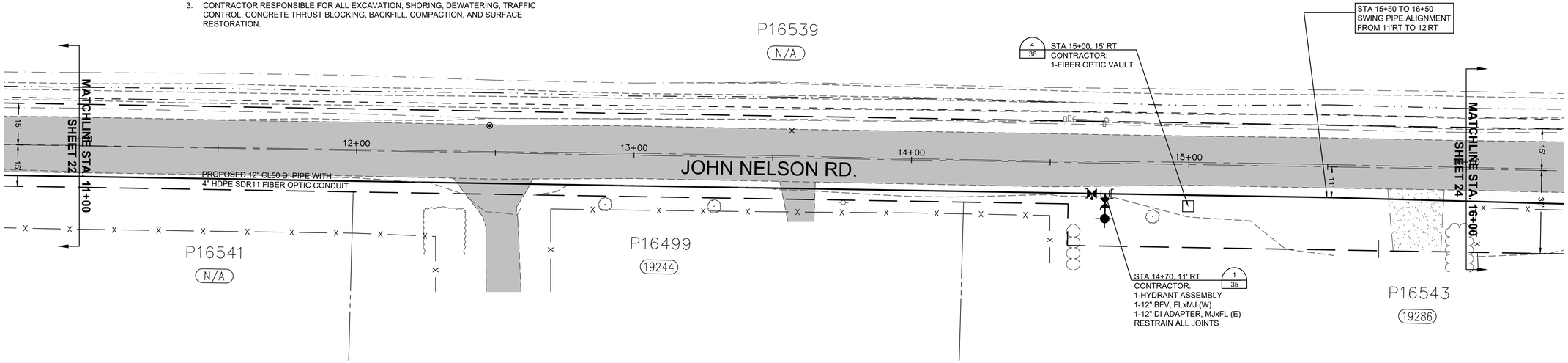
PUBLIC UTILITY DISTRICT
NO. 1 of SKAGIT COUNTY
1415 Freeway Drive
P.O BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
www.SkagitPud.org

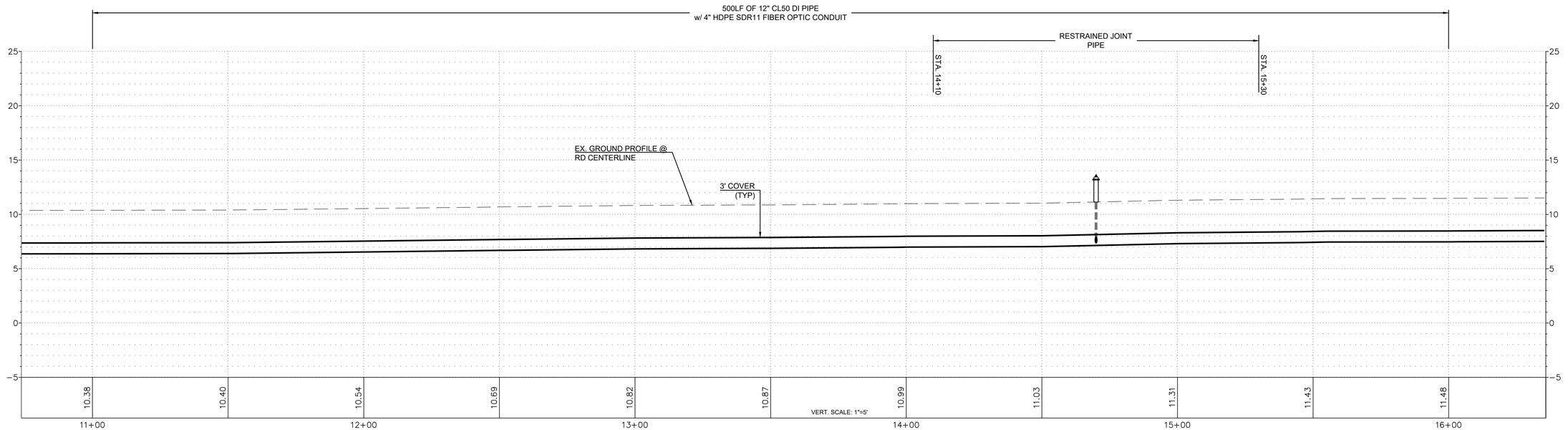
BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

JOHN NELSON RD
PLAN AND PROFILE
STA 5+50 TO STA 11+00

SCALE: 1"=20' | P.N. 3514 | C.O. 4820 | SHEET: 22 OF 37

NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.





ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

Skagit PUD PUBLIC UTILITY DISTRICT

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P.O BOX 1436
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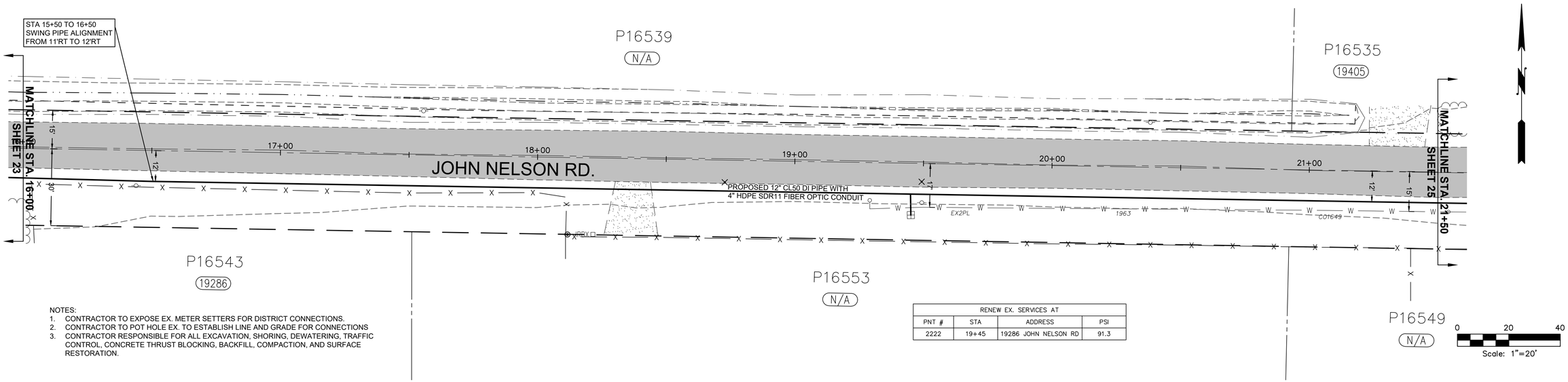
BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

JOHN NELSON RD
PLAN AND PROFILE
STA 11+00 TO STA 16+00

SCALE: 1"=20'

P.N. 3514
C.O. 4820

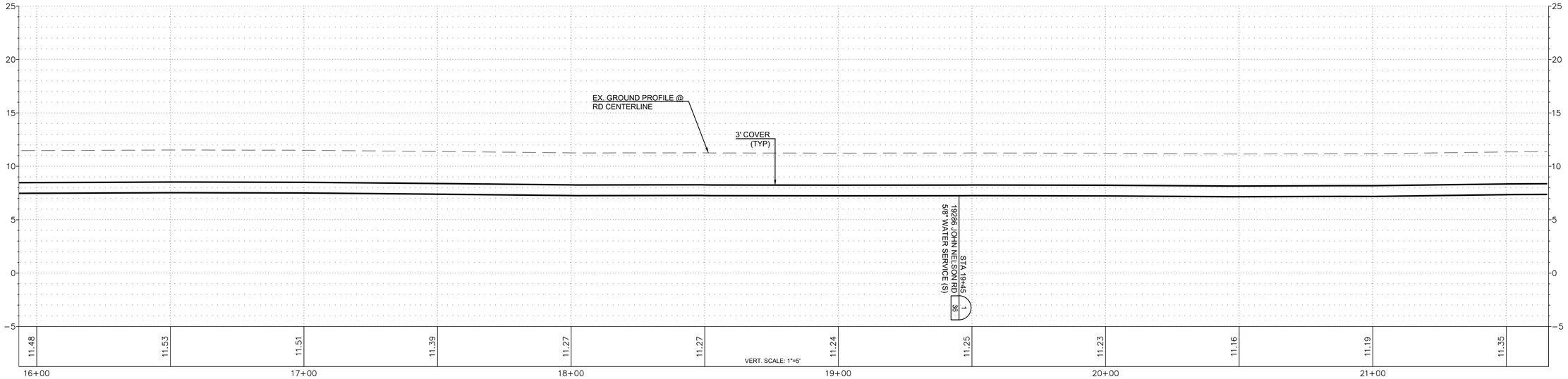
SHEET: 23 OF 37



NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.

RENEW EX. SERVICES AT			
PNT #	STA	ADDRESS	PSI
2222	19+45	19286 JOHN NELSON RD	91.3

550LF OF 12" CL50 DI PIPE
w/ 4" HDPE SDR11 FIBER OPTIC CONDUIT



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

MARK C. HENDRICKSON — STATE OF WASHINGTON — 19691 — REGISTERED PROFESSIONAL ENGINEER — 7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

Skagit PUD — PUBLIC UTILITY DISTRICT

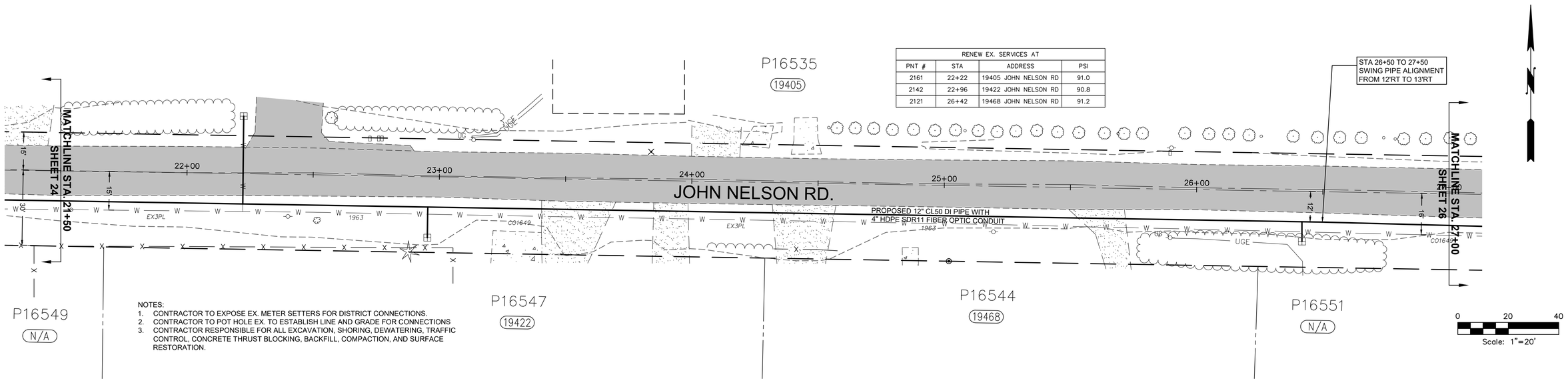
PUBLIC UTILITY DISTRICT
NO. 1 of SKAGIT COUNTY
1415 Freeway Drive
P.O BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
www.SkagitPud.org

BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

JOHN NELSON RD
PLAN AND PROFILE
STA 16+00 TO STA 21+50

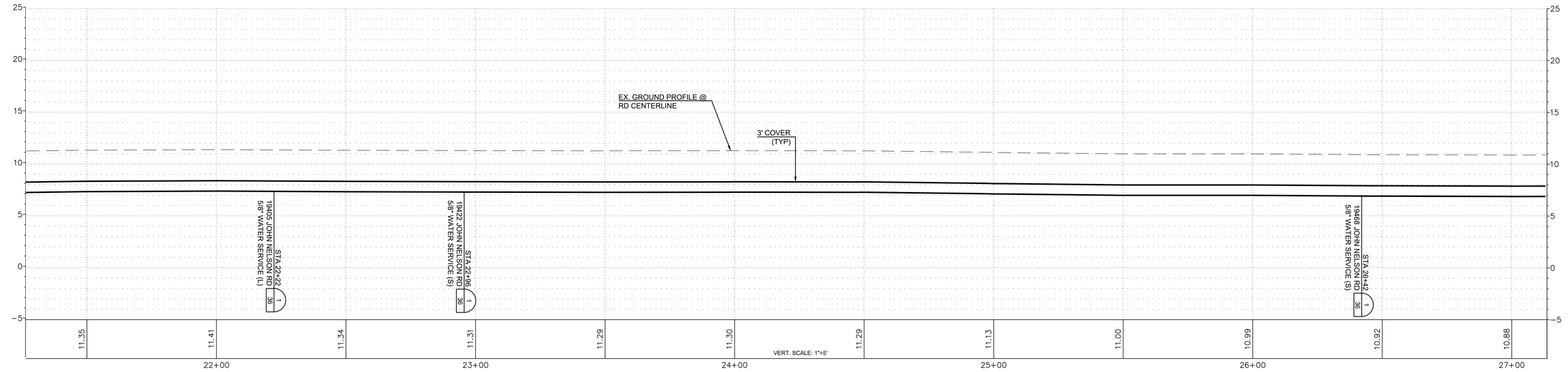
SCALE: 1"=20'	P.N. 3514	SHEET:
	C.O. 4820	24 OF 37

RENEW EX. SERVICES AT			
PNT #	STA	ADDRESS	PSI
2161	22+22	19405 JOHN NELSON RD	91.0
2142	22+96	19422 JOHN NELSON RD	90.8
2121	26+42	19468 JOHN NELSON RD	91.2



NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
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550LF OF 12" CL50 DI PIPE
w/ 4" HDPE SDR11 FIBER OPTIC CONDUIT



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

7/16/2021

DATUM:	DSGN BY: CJS	
HOR: NAD 83	DWN BY: KAN	
VERT: NAVD 88	APPVD BY: MCH	
DATE PRINTED: 7/12/21	SEC: 5, 8, 17	
	TWP: 33 N	
	RGE: 4 E	

Skagit PUD PUBLIC UTILITY DISTRICT

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BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

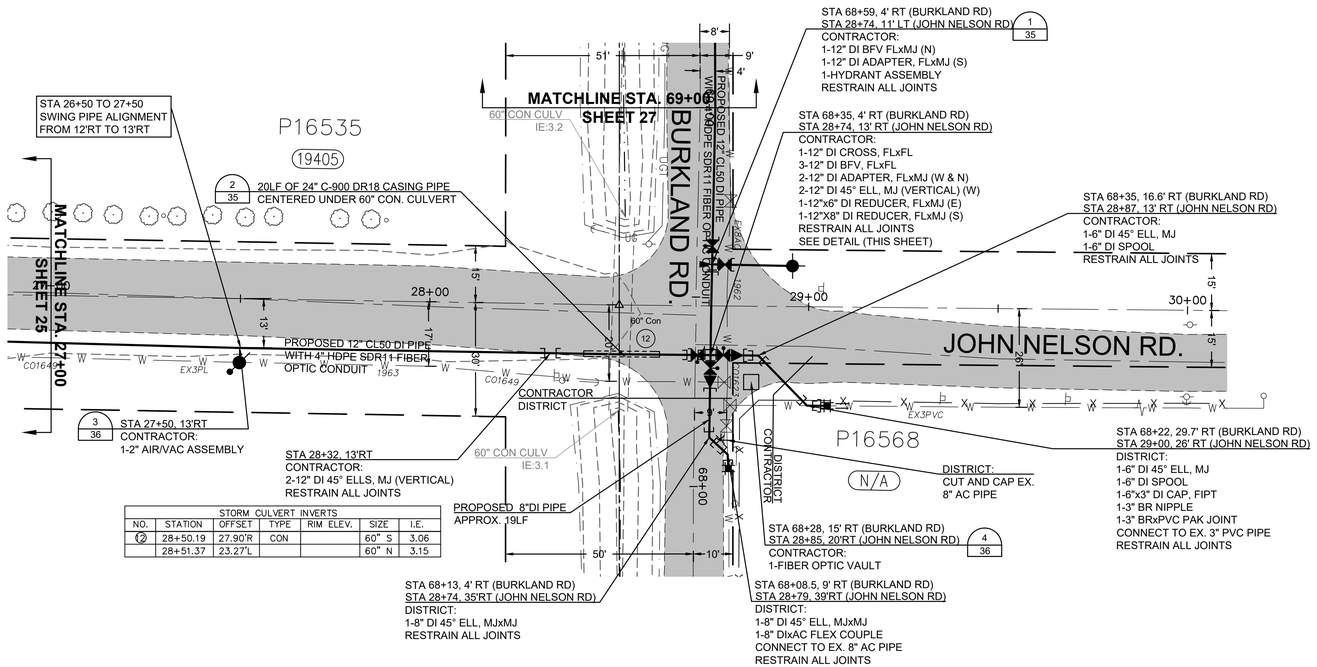
JOHN NELSON RD
PLAN AND PROFILE
STA 21+50 TO STA 27+00

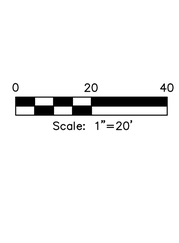
SCALE: 1"=20'

P.N. 3514

C.O. 4820

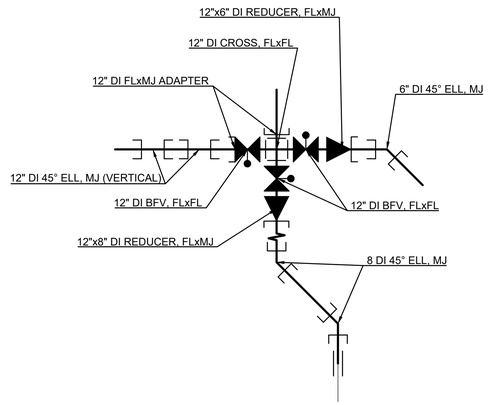
SHEET: 25 OF 37



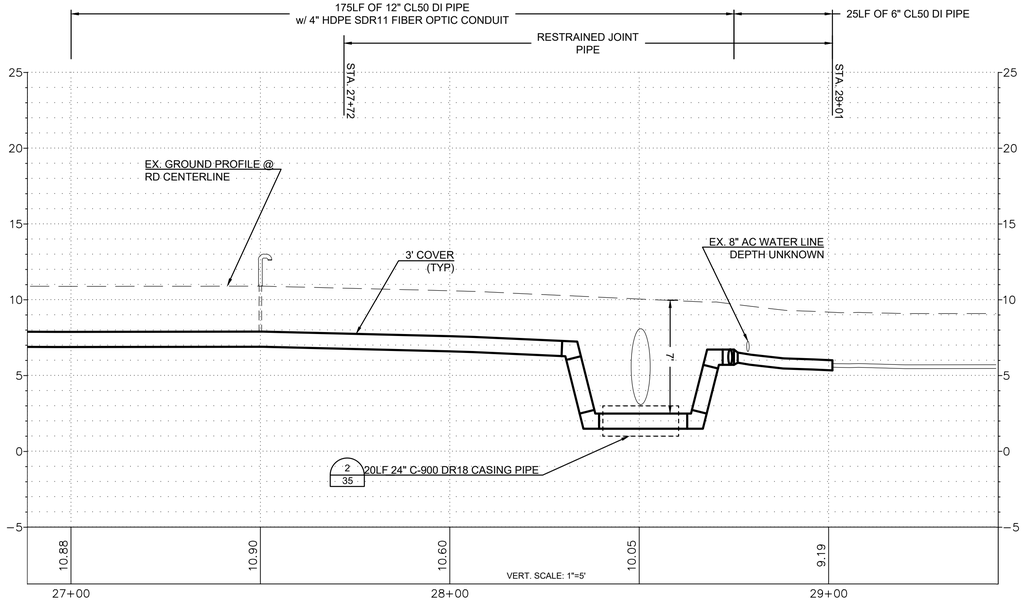


NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.

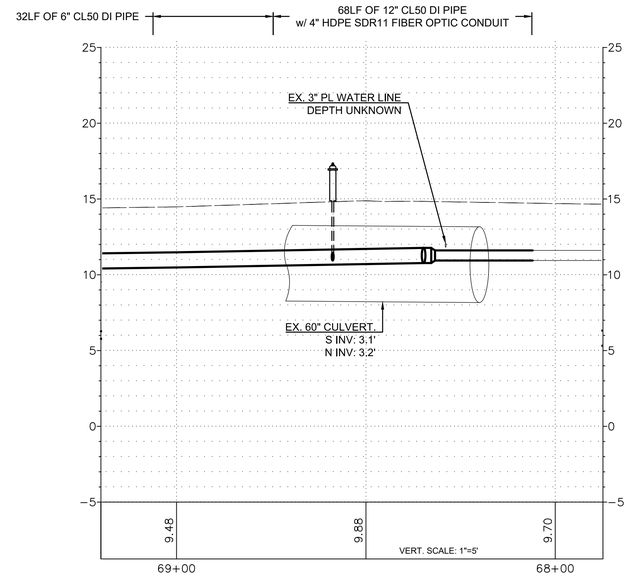
0 20 40
Scale: 1"=20'



INTERSECTION DETAIL
N.T.S.



JOHN NELSON ROAD PROFILE



BURKLAND ROAD PROFILE

ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

MARK C. HANDYLIK — 39691 — REGISTERED PROFESSIONAL ENGINEER — 7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

Skagit PUD — PUBLIC UTILITY DISTRICT

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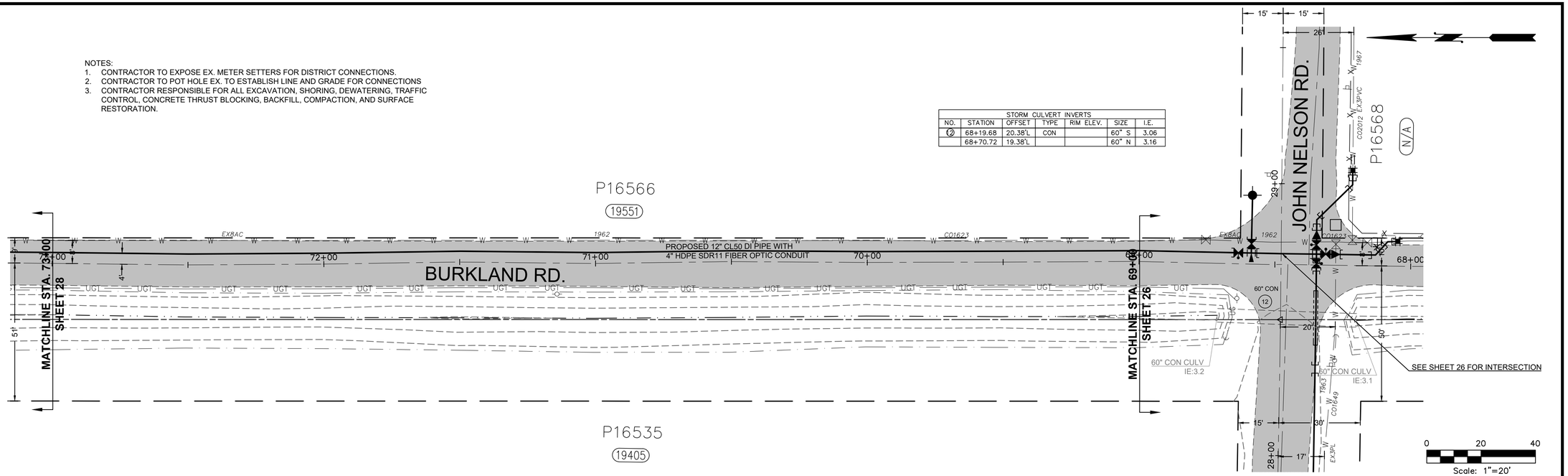
BURKLAND ROAD, EAST STACKPOLE
ROAD TO EAST JOHNSON ROAD

JOHN NELSON RD
PLAN AND PROFILE
STA 27+00 TO STA 29+01

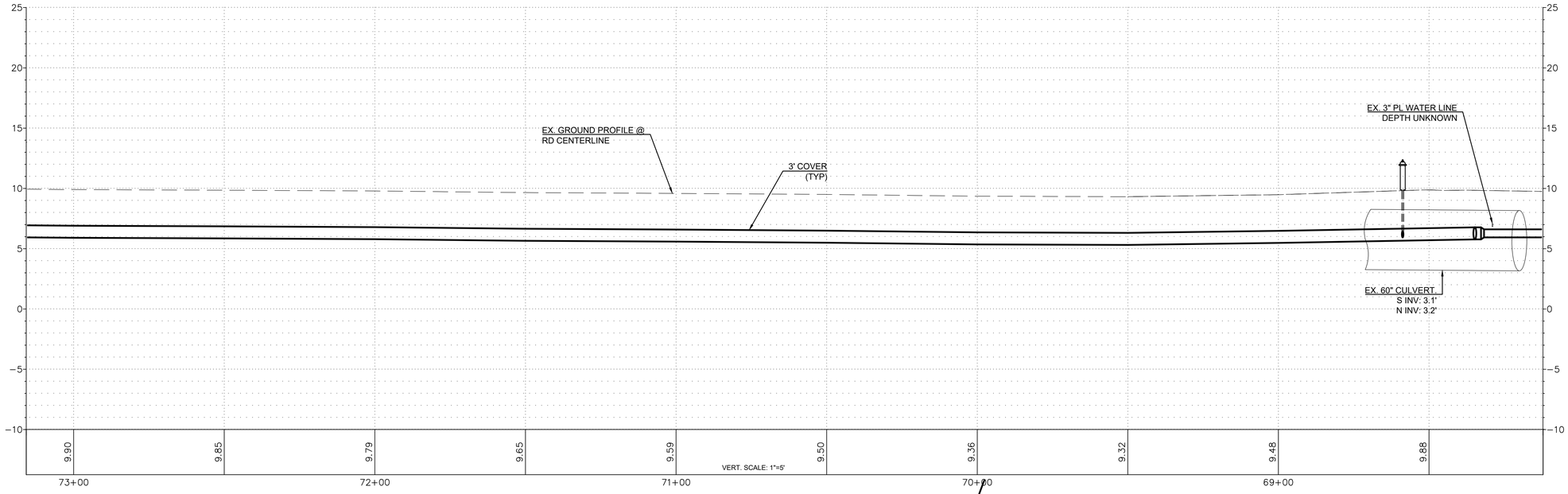
SCALE: 1"=20' | P.N. 3514 | C.O. 4820 | SHEET: 26 OF 37

NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.

STORM CULVERT INVERTS						
NO.	STATION	OFFSET	TYPE	RIM ELEV.	SIZE	I.E.
(12)	68+19.68	20.38'L	CON		60" S	3.06
	68+70.72	19.38'L			60" N	3.16



400LF OF 12" CL50 DI PIPE
w/ 4" HDPE SDR11 FIBER OPTIC CONDUIT



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

Skagit PUD PUBLIC UTILITY DISTRICT

PUBLIC UTILITY DISTRICT
NO. 1 of SKAGIT COUNTY
1415 Freeway Drive
P.O BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
www.SkagitPud.org

BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

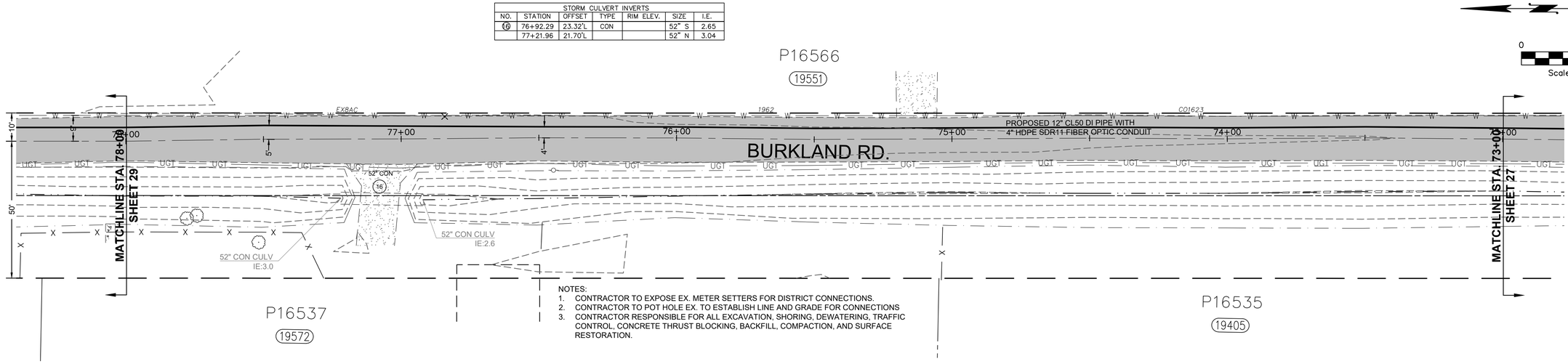
BURKLAND RD
PLAN AND PROFILE
STA 69+00 TO STA 73+00

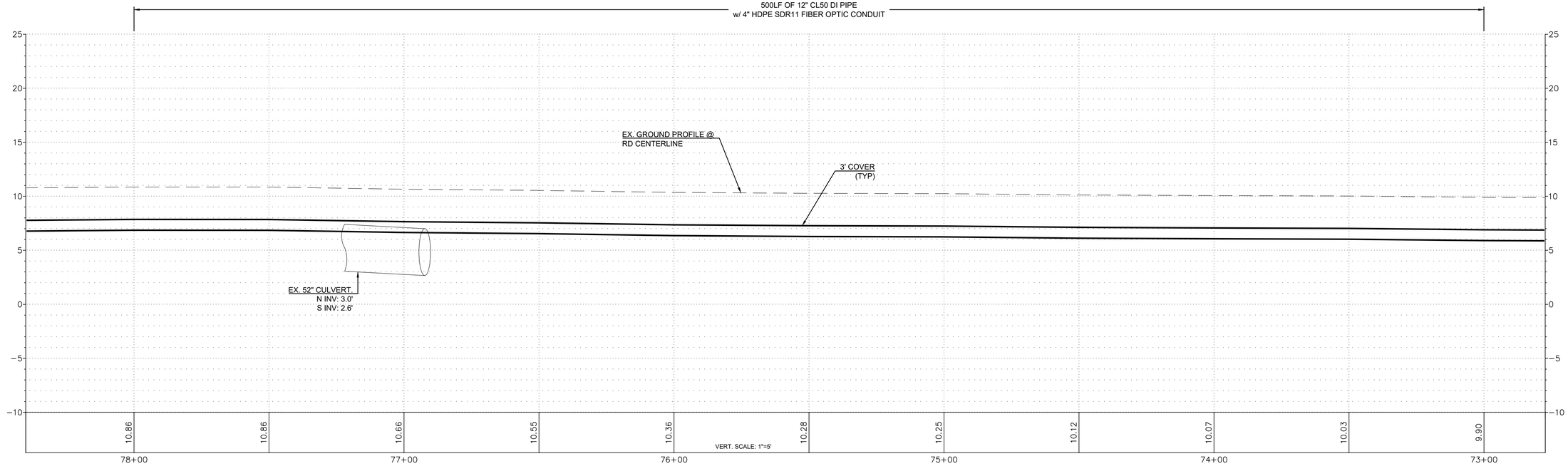
SCALE: 1"=20'

P.N. 3514
C.O. 4820

SHEET: 27 OF 37

STORM CULVERT INVERTS						
NO.	STATION	OFFSET	TYPE	RIM ELEV.	SIZE	I.E.
(16)	76+92.29	23.32'L	CON		52" S	2.65
	77+21.96	21.70'L			52" N	3.04





ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's **below.** **Call** before you dig.

MARK C. HANDLAN — STATE OF WASHINGTON — 19691 — REGISTERED PROFESSIONAL ENGINEER — 7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

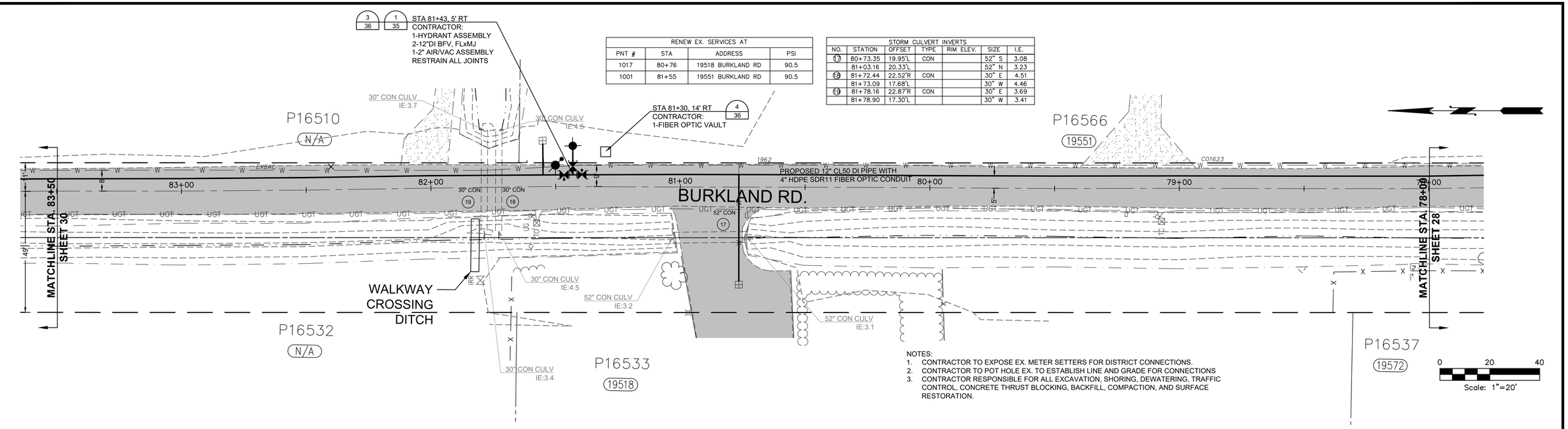
Skagit PUD
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BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

BURKLAND RD
PLAN AND PROFILE
STA 73+00 TO STA 78+00

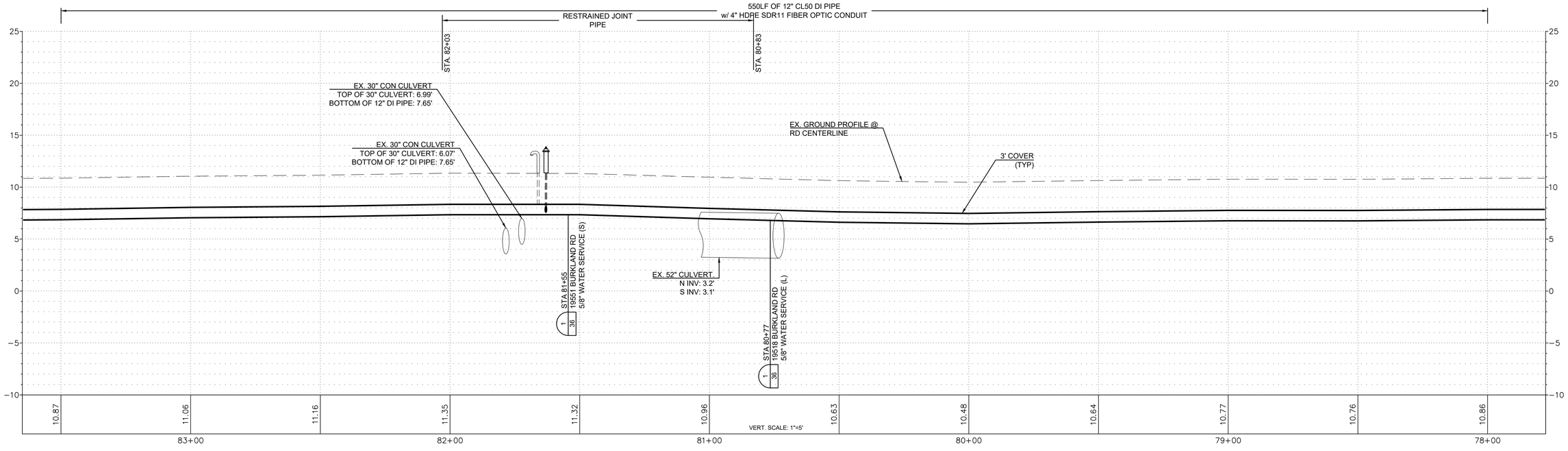
SCALE: 1"=20' | P.N. 3514 | C.O. 4820 | SHEET: 28 OF 37



RENEW EX. SERVICES AT			
PNT #	STA	ADDRESS	PSI
1017	80+76	19518 BURKLAND RD	90.5
1001	81+55	19551 BURKLAND RD	90.5

STORM CULVERT INVERTS						
NO.	STATION	OFFSET	TYPE	RIM ELEV.	SIZE	I.E.
17	80+73.35	19.95'L	CON		52" S	3.08
	81+03.16	20.33'L			52" N	3.23
18	81+72.44	22.52'R	CON		30" E	4.51
	81+73.09	17.68'L			30" W	4.46
19	81+78.16	22.87'R	CON		30" E	3.69
	81+78.90	17.30'L			30" W	3.41

NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
2. CONTRACTOR TO POT HOLE EX. TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
3. CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

MICHAEL C. HANDLAN — STATE OF WASHINGTON — 20691 — REGISTERED PROFESSIONAL ENGINEER — 7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

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BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

BURKLAND RD
PLAN AND PROFILE
STA 78+00 TO STA 83+50

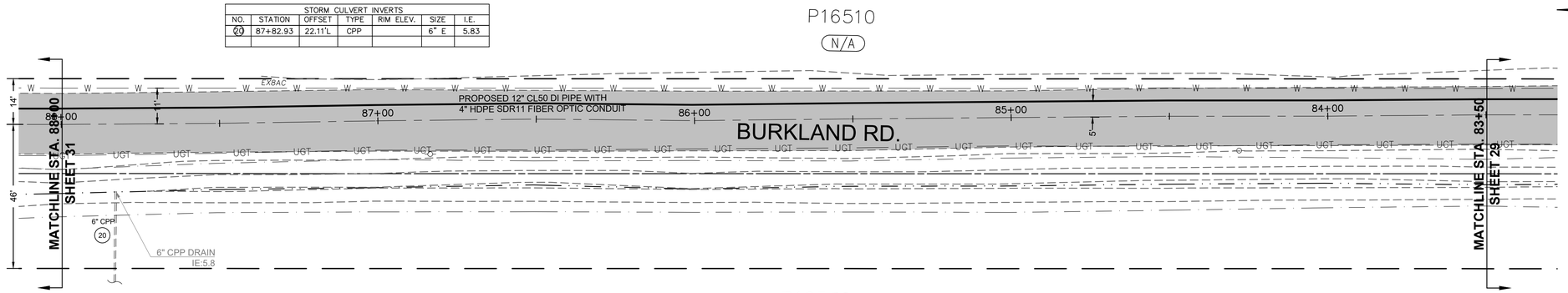
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P.N. 3514

C.O. 4820

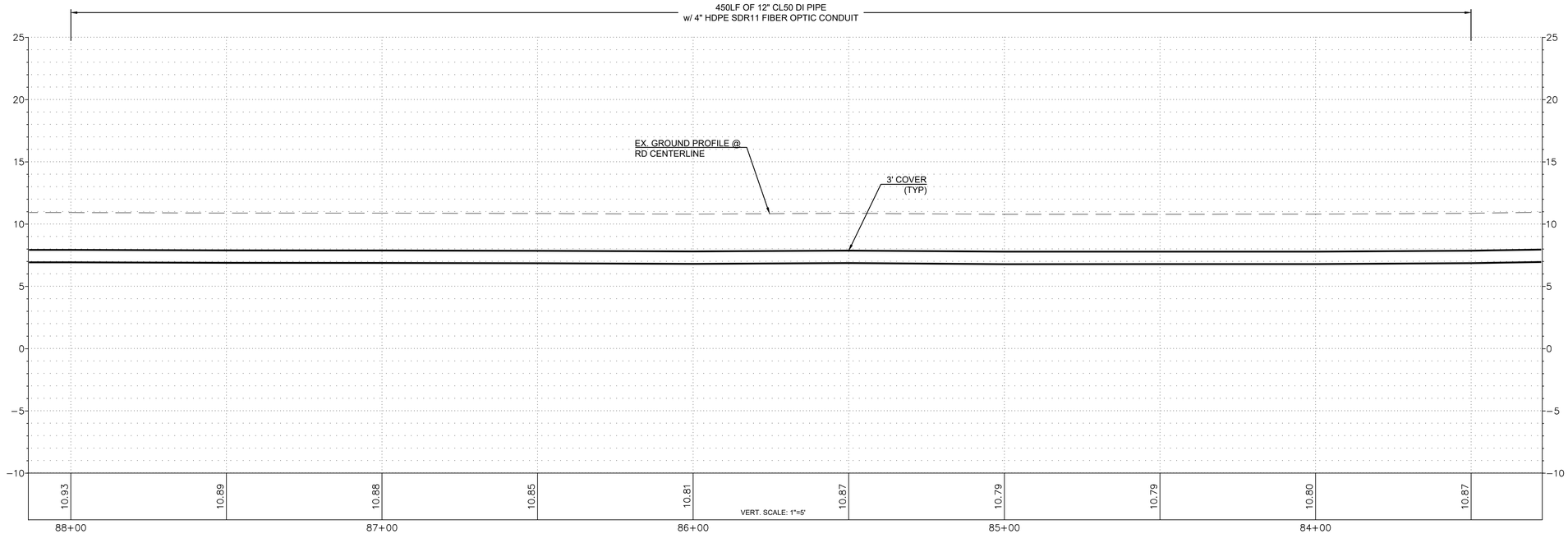
SHEET: 29 OF 37

STORM CULVERT INVERTS						
NO.	STATION	OFFSET	TYPE	RIM ELEV.	SIZE	I.E.
20	87+82.93	22.11'L	CPP		6" E	5.83



NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
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0 20 40
Scale: 1"=20'



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
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5.	ISSUED FOR BIDDING	MCH	7/16/21

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7/16/2021

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BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

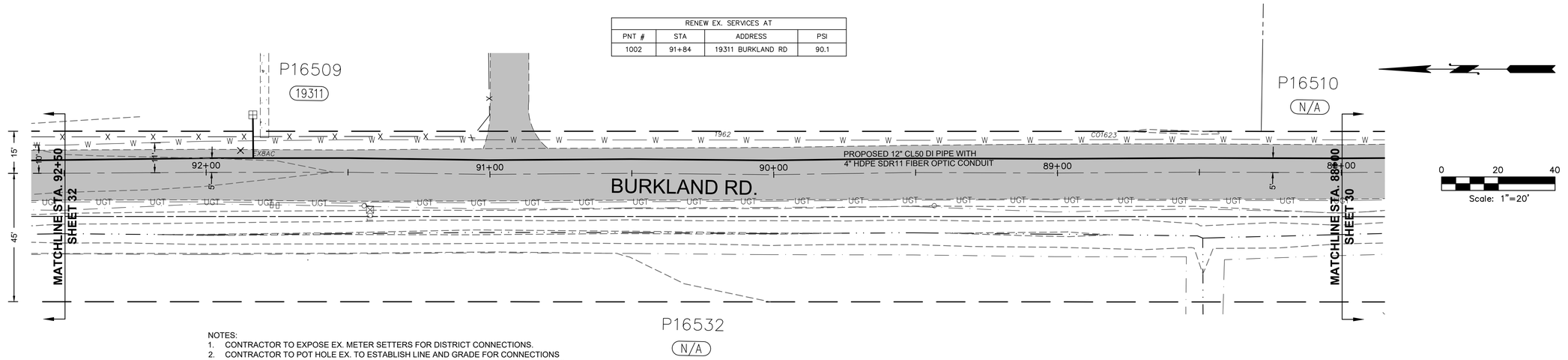
BURKLAND RD
PLAN AND PROFILE
STA 83+50 TO STA 88+00

SCALE: 1"=20'

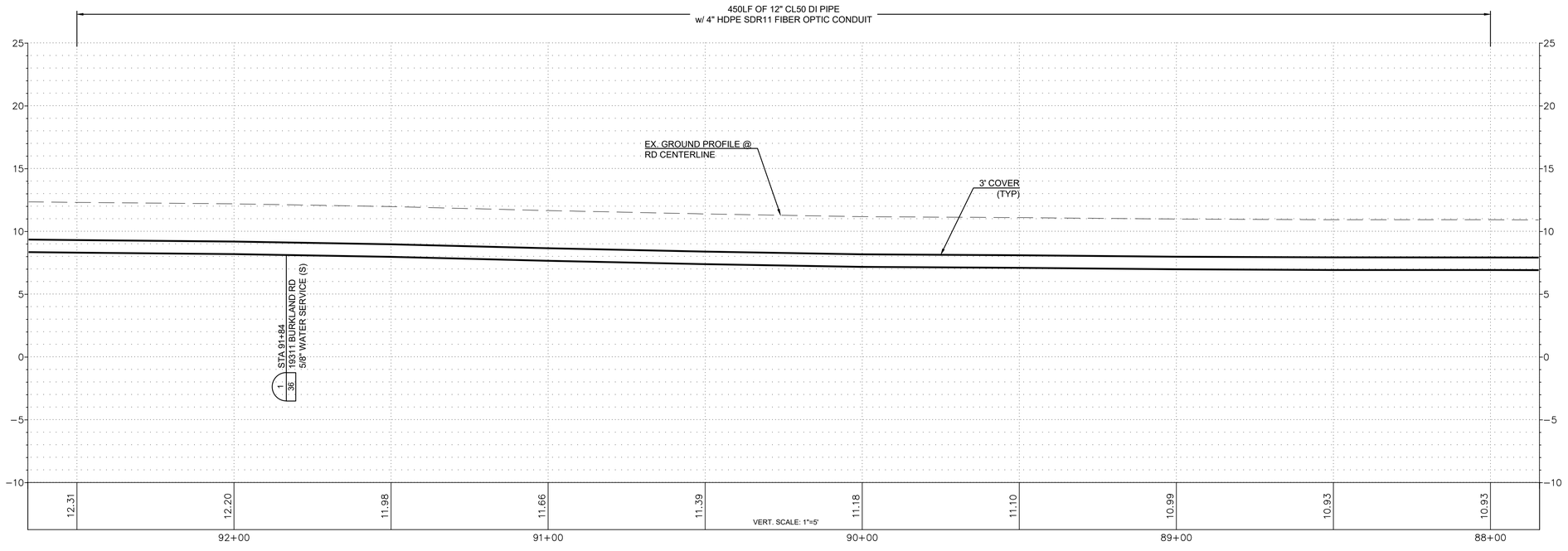
P.N. 3514
C.O. 4820

SHEET: 30 OF 37

RENEW EX. SERVICES AT			
PNT #	STA	ADDRESS	PSI
1002	91+84	19311 BURKLAND RD	90.1



NOTES:
1. CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
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3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's **below.** **Call** before you dig.

MICHAEL C. HANDLAND — STATE OF WASHINGTON — 39891 — REGISTERED PROFESSIONAL ENGINEER — 7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
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BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

BURKLAND RD
PLAN AND PROFILE
STA 88+00 TO STA 92+50

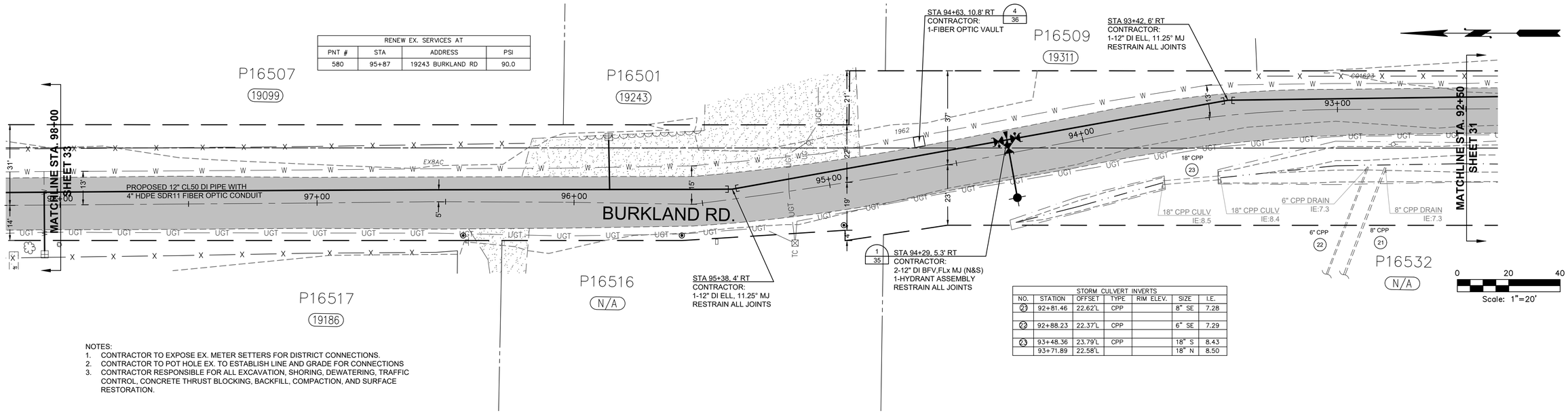
SCALE: 1"=20'

P.N. 3514

C.O. 4820

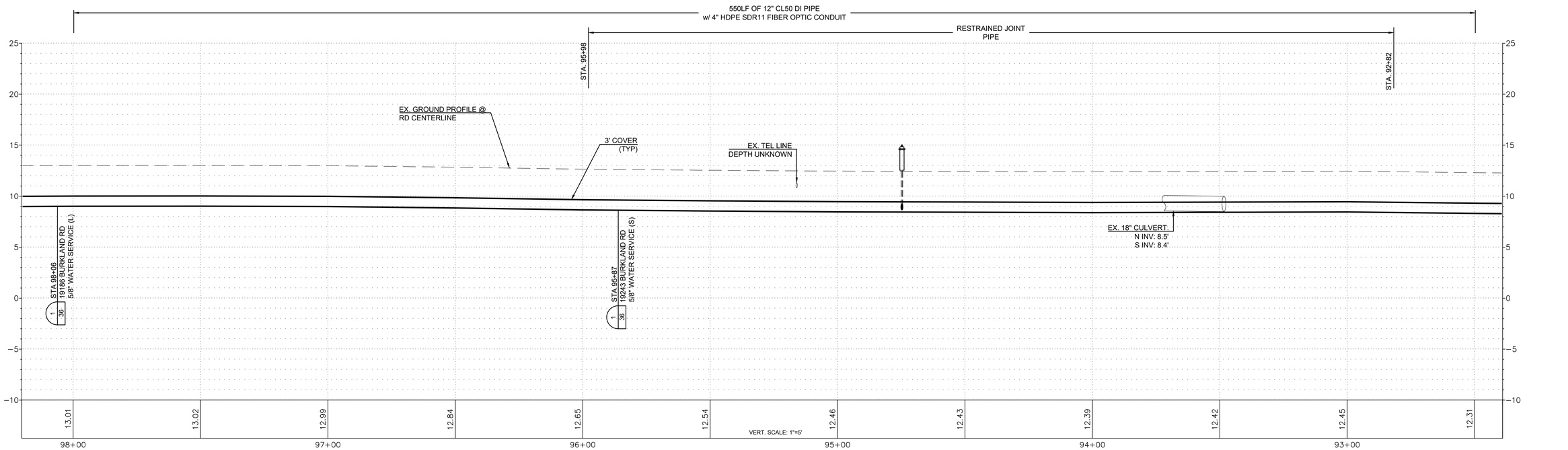
SHEET: 31 OF 37

RENEW EX. SERVICES AT			
PNT #	STA	ADDRESS	PSI
580	95+87	19243 BURKLAND RD	90.0



NOTES:
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STORM CULVERT INVERTS						
NO.	STATION	OFFSET	TYPE	RIM ELEV.	SIZE	I.E.
21	92+81.46	22.62'L	CPP		8" SE	7.28
22	92+88.23	22.37'L	CPP		6" SE	7.29
23	93+48.36	23.79'L	CPP		18" S	8.43
	93+71.89	22.58'L			18" N	8.50



ISSUE	REVISIONS	BY	DATE
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4.	ISSUED FOR BIDDING	MCH	6/16/21
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7/16/2021

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VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
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	RGE: 4 E

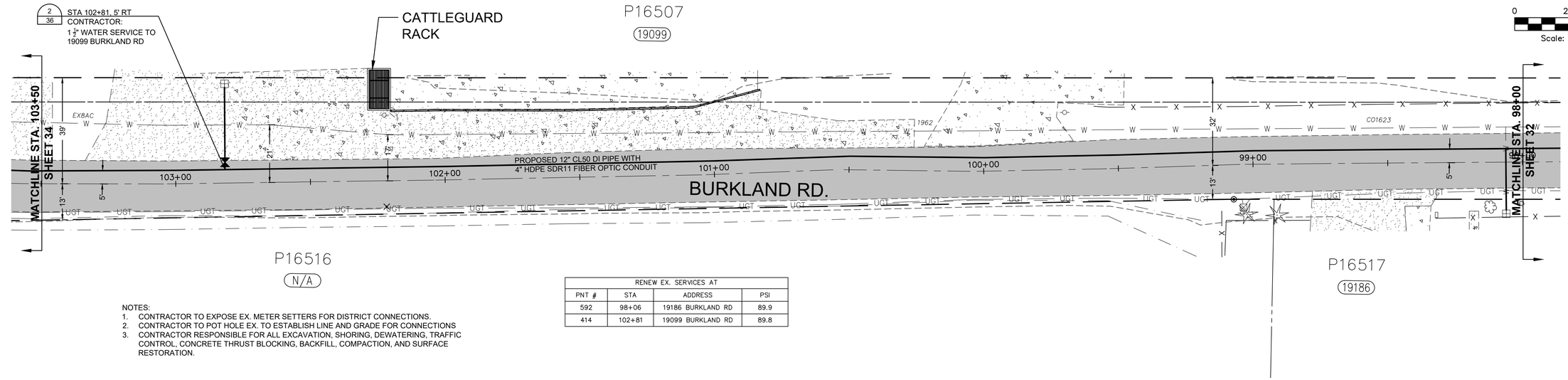
Skagit PUD PUBLIC UTILITY DISTRICT

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BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

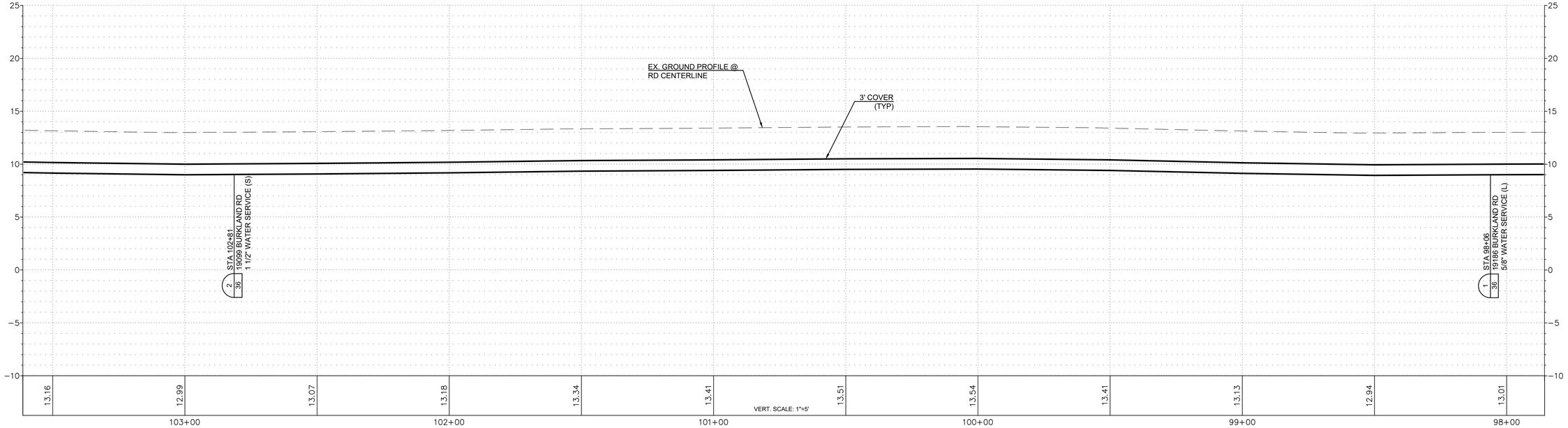
BURKLAND RD
PLAN AND PROFILE
STA 92+50 TO STA 98+00

SCALE: 1"=20'	P.N. 3514	SHEET:
	C.O. 4820	32 OF 37



RENEW EX. SERVICES AT			
PNT #	STA	ADDRESS	PSI
592	98+06	19186 BURKLAND RD	89.9
414	102+81	19099 BURKLAND RD	89.8

NOTES:
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7/16/2021

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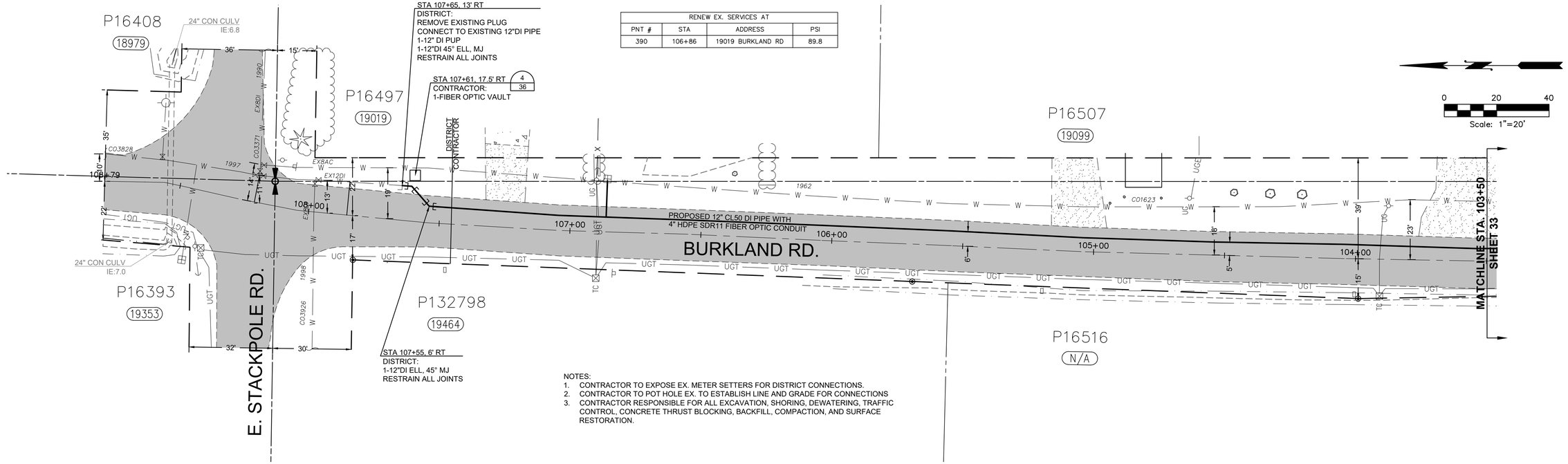
BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

BURKLAND RD
PLAN AND PROFILE
STA 98+00 TO STA 103+50

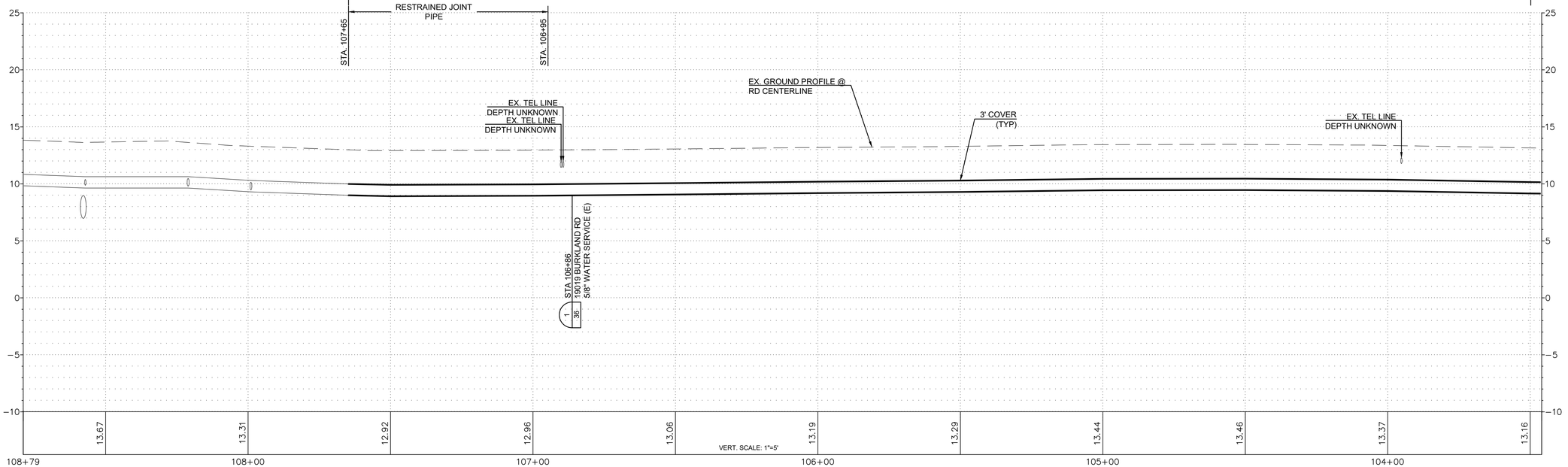
SCALE: 1"=20'

P.N. 3514
C.O. 4820

SHEET: 33 OF 37



NOTES:
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4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

MORRIS C. MANDALFE — STATE OF WASHINGTON — 39891 — REGISTERED PROFESSIONAL ENGINEER — 7/16/2021

DATUM: HOR: NAD 83 VERT: NAVD 88 | DSGN BY: CJS | DWN BY: KAN | APPVD BY: MCH

DATE PRINTED: 7/12/21 | SEC: 5, 8, 17 | TWP: 33 N | RGE: 4 E

Skagit PUD PUBLIC UTILITY DISTRICT

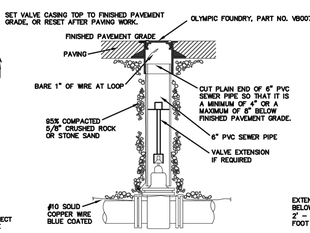
PUBLIC UTILITY DISTRICT NO. 1 of SKAGIT COUNTY
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www.SkagitPud.org

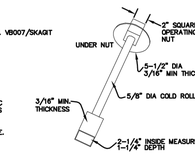
BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

BURKLAND RD
PLAN AND PROFILE
STA 103+50 TO STA 107+65

SCALE: 1"=20' | P.N. 3514 | C.O. 4820 | SHEET: 34 OF 37





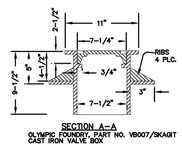


MAINLINE WIRE CONNECTION DETAIL
NTS

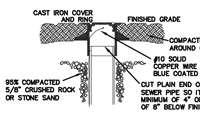
NOTE: BARE 5/8" OF WIRES. CONNECT WITH #52225 KING WATERPROOF WIRE CONNECTOR."

VALVE CASING IN PAVED AREAS, STREETS AND SIDEWALKS

REFER TO "RECOMMENDED PROCEDURE FOR SETTING VALVE BOXES IN ASPHALT PAVING" (SHEET 2)



SECTION A–A
OLYMPIC FOUNDRY, PART NO. VB007/SKAGIT
CAST IRON VALVE BOX



VALVE CASING IN UNPAVED AREAS

VALVE OPERATING NUT EXTENSION

EXTENSIONS ARE REQUIRED WHEN THE VALVE NUT IS MORE THAN THREE (3) FEET BELOW FINISHED GRADE. THE FINISH ELEVATION OF THE OPERATING NUT IS TO BE 2" – 3" BELOW FINISH GRADE. EXTENSIONS ARE TO BE A MINIMUM OF ONE (1) FOOT LONG, ONLY ONE EXTENSION TO BE USED PER VALVE.

NOTE: 1) ALL EXTENSIONS ARE TO BE MADE OF STEEL SIZED AS NOTED, AND PAINTED WITH TWO COATS OF METAL PAINT. WELD ALL PARTS.
2) A CARSONITE CWV-116 BLUE MARKER POST WILL BE INSTALLED AT ALL VALVE(S) LOCATIONS UNLESS DIRECTED OTHERWISE BY DISTRICT REPRESENTATIVE.

VALVE CASING EXTENSION

IF THE 6" PVC VALVE CASING PIPE DOES NOT EXTEND HIGH ENOUGH TO SUPPORT THE CAST IRON VALVE BOX, AN EXTENSION CAN BE ADDED FOLLOWING THE PROCEDURE BELOW:

1. CUT A 6" PVC SEWER PIPE 6" – 8" LONGER THAN THE RISE NECESSARY.
2. SPLIT THE 6" PVC SEWER PIPE THE FULL LENGTH.
3. CURL CASING EXTENSION INTO ITSELF AND PLACE INSIDE EXISTING PVC VALVE CASING THE 6"–8" ALLOWED FOR IN STEP 1. INSTALL VALVE BOX.

PUD NO. 1 OF SKAGIT COUNTY ENGINEERING MANAGER

APPROVED ON: MAY 6, 2014

Skagit PUD PUBLIC UTILITY DISTRICT

STANDARD INSTALLATION OF CAST IRON VALVE BOX & VALVE OPERATING NUT EXTENSION

SHEET 1/2

SCALE: NTS	STANDARD
DATE: 3-25-05	
REVISED: 5/6/14	WV-1a
DRAWN BY: CAS	
APPROVED BY: GJS	

RECOMMENDED PROCEDURE FOR RAISING AND SETTING CAST IRON VALVE BOX IN ASPHALT PAVING

1. LOCATE BURIED VALVE BOX USING REFERENCE MEASUREMENTS AND/OR ELECTRONIC OR MAGNETIC LOCATOR. MARK LOCATION WITH WHITE PAINT.
2. BREAK OUT SMALL HOLE IN PAVEMENT AND LOCATE THE VALVE BOX COVER.
3. CAREFULLY BREAK OUT AN 18–INCH DIAMETER HOLE WITH 9–INCH RADIUS FROM THE CENTER OF THE VALVE BOX. A CIRCLE TEMPLATE 18 INCHES IN DIAMETER IS HANDY TO MARK OUT THE PERIMETER OF THIS HOLE. USE A CURVED SPADE WITH A JACKHAMMER TO CUT A NEAT VERTICAL FACE HOLE IN THE ASPHALTIC CONCRETE PAVEMENT. DO NOT CRACK OR DAMAGE THE PAVEMENT BEYOND THIS HOLE. IF IT IS SUSPECTED THE VALVE CASING IS NOT VERTICAL OR CENTERED OVER THE VALVE OPERATING NUT, REMOVE JUST ENOUGH PAVEMENT TO ALLOW REMOVAL OF THE VALVE BOX LID SO IT CAN BE DETERMINED IF CASING ADJUSTMENT IS NEEDED. IT IS VERY IMPORTANT TO NOT REMOVE ANY MORE FINISHED PAVEMENT THAN ABSOLUTELY NECESSARY.
4. COMPLETELY REMOVE THE WHOLE VALVE BOX. DO NOT DISTURB THE SURROUNDING EARTH ANY MORE THAN NECESSARY. EXAMINE THE CASING PIPE. MAKE SURE IT IS VERTICAL, SYMMETRICAL AROUND THE VALVE NUT AND CLEAN OF ALL ROCKS, DEBRIS AND DIRT. CLEAN AND CORRECT AS NECESSARY. CHECK WITH A VALVE WRENCH TO VERIFY OPERATION IS SMOOTH.
5. TRIM OR ADD TO THE CASING PIPE (6–INCH PVC PLASTIC OR CONCRETE) AS NEEDED SO THE TOP OF THE CASING PIPE IS A MINIMUM OF 4 INCHES TO MAXIMUM OF 8 INCHES BELOW THE FINISHED PAVEMENT GRADE. THE LID WILL NOT FIT TIGHT IF THE CASING IS HIGHER. VALVE BOX WILL HAVE POOR SUPPORT IF THE CASING PIPE IS LOWER. TO ADD CASING PIPE, USE A PIECE OF 6–INCH PVC PLASTIC SEWER PIPE CUT 12 INCHES LONGER THAN NEEDED. SAW–CUT THIS PIECE ALONG ONE SIDE IN A STRAIGHT LINE THE FULL LENGTH. FOLD THE PIPE OVER THE SAW–CUT AND INSERT IT INSIDE THE CASING PIPE IN THE GROUND. SLIDE UP OR DOWN TO ACHIEVE DESIRED LEVEL.
6. IF THE VALVE OPERATING NUT IS OVER 3 FEET BELOW FINISH PAVEMENT GRADE, INSTALL A STANDARD VALVE OPERATING EXTENSION, PER STANDARD SPECIFICATIONS.
7. USING A 1–INCH ROD OR CAPPED 3/4–INCH PIPE, THOROUGHLY POUND THE EARTH ALL AROUND THE CASING PIPE TO OBTAIN MAXIMUM EARTH COMPACTION.
8. FILL THE VOID BETWEEN THE CASING PIPE AND EARTH WALL UP TO EXACTLY 12 INCHES (1 FOOT) BELOW FINISH PAVEMENT GRADE WITH 5/8–INCH MINUS CRUSHED ROCK AND THOROUGHLY COMPACT USING ROD OR PIPE AS IN STEP 7. KEEP ADDING AND COMPACTING CRUSHED ROCK UNTIL HARD, TIGHT LEVEL SURFACE IS EXACTLY 12 INCHES BELOW PAVEMENT GRADE.
9. INSERT THE VALVE BOX. USING A STRAIGHT BOARD OR ROD, CHECK THAT THE TOP RIM OF THE VALVE BOX IS EXACTLY LEVEL WITH THE FINISHED PAVEMENT. THE BOX MUST SET EVENLY ON THE CRUSHED ROCK BASE. IT MUST NOT ROCK OR WIGGLE. REMOVE THE BOX AND ADJUST THE CRUSHED ROCK AS OFTEN AS NECESSARY TO ACHIEVE EXACT GRADE WITH PAVEMENT AND UNIFORM BOX SUPPORT. PUT CAST IRON LID ON THE BOX. MAKE SURE IT FITS CORRECTLY AND IS FLUSH WITH THE BOX RIM. REPLACE LID IF INCORRECT FIT. REPLACE ENTIRE VALVE BOX IF BOX RIM PREVENTS A SNUG FIT OF THE LID.
10. ADD 5/8–INCH MINUS CRUSHED ROCK UNIFORMLY IN THE SPACE BETWEEN THE VALVE BOX AND OUTSIDE EARTH WALL IN MAXIMUM 4–INCH LIFTS. COMPACT EACH LIFT COMPLETELY WITH 1–INCH ROD OR PIPE AS BEFORE. FILL AND COMPACT THE SPACE UP TO 2 INCHES BELOW FINISHED PAVEMENT GRADE.
11. ADD HOT MIX ASPHALTIC CONCRETE MATERIAL AND THOROUGHLY COMPACT WITH ROD OR PIPE TO THE FINISH PAVEMENT GRADE. SMOOTH OFF THE SURFACE AS MUCH AS POSSIBLE.
12. USING A BRUSH, PAINT THE SURFACE OF THE PATCH WITH ASPHALT TACK MATERIAL, EXTENDING MINIMUM OF 1 INCH OVER PAVEMENT AND ONTO EDGE OF VALVE BOX METAL RIM. DO NOT ALLOW ANY TACK MATERIAL TO FLOW INTO METAL RIM OR ON BOX COVER. USE A BRUSH TO CONTROL APPLICATION OF THIS TACK COAT AND PROVIDE A NEAT SEAL SURFACE.
13. CHECK AGAIN THAT VALVE CASING IS CLEAR, THAT VALVE WRENCH CAN BE PUT ON OPERATING NUT AND VALVE CAN BE OPERATED PROPERLY.
14. SPREAD CLEAN FINE SAND OVER THE TACK COAT SO THAT VEHICLE TIRES WILL NOT LIFT THE TACK MATERIAL BEFORE IT CURES AND SETS UP.
15. EACH VALVE BOX IN A CLUSTER OF TWO TO FOUR VALVES MUST BE ADJUSTED INDEPENDENTLY AS OUTLINED ABOVE. CUTTING OUT TRIANGLES OR SQUARES OF FINISHED PAVEMENT RESULTS IN VALVE BOXES THAT DO NOT REMAIN EVEN WITH PAVEMENT, LEAN TOGETHER, AND BREAK OUT UNDER TRAFFIC BEATING.

CAREFULLY FOLLOWING THIS OUTLINED PROCEDURE RESULTS IN VALVE BOX SETTINGS THAT WILL REMAIN FIRM AND IN PLACE, AND ARE VIRTUALLY UNNOTICED BY THE PUBLIC PASSING OVER THEM IN THEIR VEHICLES.

PUD NO. 1 OF SKAGIT COUNTY ENGINEERING MANAGER

APPROVED ON: MAY 6, 2014

Skagit PUD PUBLIC UTILITY DISTRICT

STANDARD INSTALLATION OF CAST IRON VALVE BOX & VALVE OPERATING NUT EXTENSION

SHEET 2/2

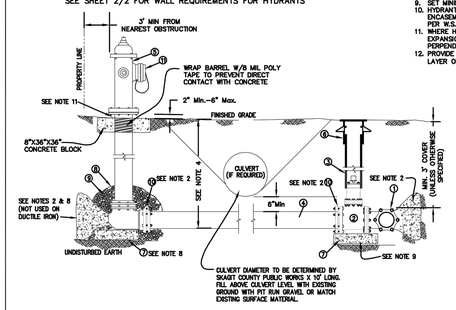
SCALE: NTS	STANDARD
DATE: 3-25-05	
REVISED: 5/6/14	WV-1b
DRAWN BY: CAS	
APPROVED BY: GJS	

BILL OF MATERIALS

NO.	NOMENCLATURE	REQ'D.
1	TEE WITH FLANGED BRANCH	1
2	6" VALVE WITH FLG-MJ CONNECTIONS (SEE NOTE 6)	1
3	CASING, 6" PVC SEWER PIPE	1
4	PIPE, 6" CLASS 50 DUCTILE IRON, FIELD CUT	
5	FIRE HYDRANT WITH PUMPER PORT, CLOW MEDALLION, OR AS APPROVED BY JURISDICTIONAL FIRE DEPARTMENT DISTRICT	1
6	VALVE BOX, CAST IRON OLYMPIC FOUNDRY VB007/SKAGIT (SEE P.U.D. DETAIL)	1
7	BLOCK, PRECAST CONCRETE, SEE NOTE 8.	1
8	FABRIC, GEOTEXTILE, NON–WOVEN (MIRAFI 140N)*	
9	1/4 CY DRAIN ROCK 1–1/2"–3/4", NO FINES	
10	MEG–A–LUG, 6"/DIRP RING 6"	2
11	HYDRANT ADAPTER STORZ STYLE 5–37 W/5C CAP & CABLE, 5"x4"PCT	1

*OR EQUIVALENT APPROVED BY THE DISTRICT

SEE SHEET 2/2 FOR WALL REQUIREMENTS FOR HYDRANTS



NOTES:

1. ALL MATERIALS AND BRANDS MUST BE APPROVED BY P.U.D.
2. BLOCK TEE AND HYDRANT WITH POURED CONCRETE ON ALL WATER MAINS OTHER THAN DUCTILE IRON AND ON ALL TAPPING SLEEVES AS REQUIRED PER DISTRICT BLOCKING DETAIL. IN ADDITION, 8" "MEGALUGS" (OR APPROVED EQUIVALENT) ARE TO BE INSTALLED AT VALVE AND HYDRANT M.J. OUTLETS, RESTRAIN ANY JOINTS IN THE PIPELINE WITH "FIELD LOK" GASKETS (OR APPROVED EQUIVALENT) INSTALLED IN THE BELLS OF TYTON JOINT PIPE OR "MEGALUGS" ON M.J. BELLS.
NO–THRUST BLOCK REQUIRED BEHIND TEE ON 8" DUCTILE IRON OR LARGER MAINS.
3. PROTECTIVE BARRIER POSTS MAY BE NECESSARY AT SOME HYDRANT INSTALLATIONS. CONTACT FIRE DEPARTMENT/DISTRICT FOR SPECIFIC REQUIREMENTS.
4. HYDRANT LENGTH AND TRENCH DEPTH SHALL BE SO AS TO PROVIDE FOR HYDRANT SETTING AT 2" MIN. AND 6" MAX. ELEVATION ABOVE FINISH GRADE.
5. SET HYDRANT VERTICAL USE LEVEL. COMPACT ALL BACKFILL.
6. VALVE SHALL BE AWWA STANDARD GATE, "O" RING PACKING, NON–RISING STEM, 2" OPERATING NUT, RESILIENT WEDGE.
7. HYDRANT LOCATIONS ARE DETERMINED BY THE FIRE MARSHAL WITH AUTHORITY FOR AREA CONCERNED.
8. CONCRETE BLOCK WILL BE BELOW THE DRAIN HOLES AND DRAIN ROCK. TAKE CARE TO NOT PLUG DRAIN HOLES OR CONTAMINATE DRAIN ROCK.
9. SET MINIMUM 1 SQ.FT. CONCRETE SUPPORT TIGHT UP UNDER VALVE AND HYDRANT.
10. HYDRANT BARREL, LEAD, TEE, AND VALVE MUST BE WRAPPED WITH POLYETHYLENE PIPE ENCASEMENT TAPE WHICH IS A MINIMUM OF 8–MIL THICK. IT MUST BE INSTALLED AS PER W.S.D.O.T. STANDARDS AND IN ACCORDANCE WITH A.W.W.A. C105.
11. WHERE HYDRANTS ARE INSTALLED IN THE SIDEWALK, THERE SHALL BE A MINIMUM 3/8" EXPANSION JOINT AROUND THE BARREL OF THE HYDRANT AND AN EXPANSION JOINT PERPENDICULAR ACROSS THE SIDEWALK, INTERSECTING THE HYDRANT BARREL.
12. PROVIDE A MINIMUM OF 3'–0" LEVEL WORKING AREA AROUND HYDRANT USING 6" THICK LAYER OF 5/8" MINUS CRUSHED ROCK COMPACTED TO 95%

ALL FIRE HYDRANTS SHALL COMPLY WITH THE STANDARDS ISSUED BY THE SKAGIT COUNTY FIRE MARSHAL. HYDRANTS SHALL BE THE DRY BARREL TYPE WITH TWO HOSE OUTLETS WITH AN INSIDE DIAMETER OF 2–1/2 INCHES AND ONE LARGE PUMPER OUTLET WITH AN INSIDE DIAMETER OF 4 INCHES. SMALL PORTS SHALL HAVE NATIONAL STANDARD THREADS MEASURING 3.0626 INCHES OUTSIDE DIAMETER AT 7–1/2 THREADS PER INCH. PUMPER PORTS SHALL BE NO. 3 PACIFIC COAST THREADS MEASURING 4.828 INCHES OUTSIDE DIAMETER AT 6 THREADS PER INCH. THE OPERATING NUT SHALL BE 1–1/4 INCH PENTAGON.

A STORZ QUICK COUPLER CONNECTED TO THE PUMPER PORT MAY BE REQUIRED. CONTACT FIRE DISTRICT/DEPARTMENT.

PUD NO. 1 OF SKAGIT COUNTY ENGINEERING MANAGER

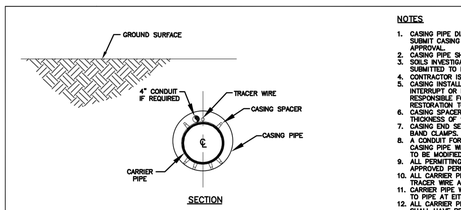
APPROVED ON: May 6, 2014

Skagit PUD PUBLIC UTILITY DISTRICT

STANDARD INSTALLATION OF FIRE HYDRANT "CENTER STEM TYPE"

1 – SHEET 1/2

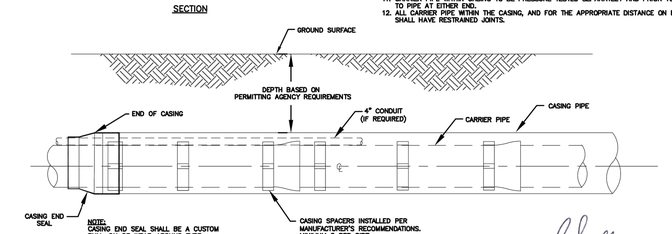
SCALE: NTS	STANDARD
DATE: 3-25-05	
REVISED: 5/6/14	WH-1a
DRAWN BY: CAS	
APPROVED BY: GJS	



SECTION

NOTES

1. CASING PIPE DIAMETER AND THICKNESS DEPENDS ON SPECIFIC APPLICATION AND DESIGN LOAD. SUBMIT CASING PIPE DIAMETER AND THICKNESS TO DISTRICT ENGINEERING DEPARTMENT FOR APPROVAL.
2. CASING PIPE SHALL MEET ASTM A36, WITH MINIMUM 35,000 PSI YIELD STRENGTH.
3. SOILS INVESTIGATION REPORT SHALL BE CONDUCTED PRIOR TO CONSTRUCTION AND REPORT SUBMITTED TO DISTRICT FOR REVIEW.
4. CONTRACTOR IS RESPONSIBLE FOR DESIGN JACKING/RECEIVING PITS, INCLUDING DEWATERING.
5. CASING INSTALLATION SHALL BE PERFORMED IN A MANNER THAT WILL NOT INTERFERE WITH, INTERRUPT OR ENDANGER GROUND SURFACE AND OTHER ADJACENT UTILITIES. CONTRACTOR IS RESPONSIBLE FOR ALL SETTLEMENT FROM CASING PIPE INSTALLATION AND SHALL MAKE RESTORATION TO ALL DAMAGED PROPERTY.
6. CASING SPACER SHALL BE CONSTRUCTED OF TYPE 304 STAINLESS STEEL WITH MINIMUM THICKNESS OF 12 GAUGE. RUNNERS SHALL BE MADE OF REINFORCED POLYMER.
7. CASING END SEAL SHALL BE A SYNTHETIC RUBBER SLEEVE ATTACHED WITH STAINLESS STEEL BAND CLAMPS. GROUT MAY BE USED IF APPROVED BY DISTRICT.
8. A CONDUIT FOR FIBER OPTIC CABLE MAY BE REQUIRED TO BE INSTALLED. IN THAT CASE, THE CASING PIPE WILL NEED TO BE LARGER AND THE CASING SPACERS AND END SEALS MAY NEED TO BE MODIFIED.
9. ALL PERMITTING FOR CASING PIPE INSTALLATION TO BE COMPLETED BY CONTRACTOR AND APPROVED PERMITS SHALL BE SUBMITTED TO DISTRICT.
10. ALL CARRIER PIPE WITHIN CASING TO BE POLY ENCASED PER DISTRICT STANDARDS, WITH TRACER WIRE ATTACHED.
11. CARRIER PIPE WITHIN CASING TO BE PRESSURE TESTED SEPARATELY AND PRIOR TO CONNECTING TO PIPE AT EITHER END.
12. ALL CARRIER PIPE WITHIN THE CASING, AND FOR THE APPROPRIATE DISTANCE ON EITHER SIDE, SHALL HAVE RESTRAINED JOINTS.



PROFILE

PUD NO. 1 OF SKAGIT COUNTY ENGINEERING MANAGER

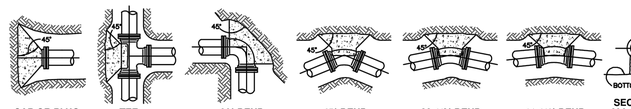
APPROVED ON: MAY 22, 2014

Skagit PUD PUBLIC UTILITY DISTRICT

STANDARD PIPE CASING INSTALLATION

2 – 20, 26

SCALE: NO SCALE	STANDARD
DATE: 10/22/12	
REVISED: 5/22/14	WC-1
DRAWN BY: KDM	
APPROVED BY: GJS	



CAP OR PLUG | TEE | 90° BEND | 45° BEND | 22-1/2° BEND | 11-1/4° BEND

SECTION AT ALL FITTINGS

THRUST BLOCK REQUIREMENTS

	BEARING AREA REQUIRED IN SQUARE FEET											
	KEY BLOCK** & TEE/CAP OR PLUG test pressures			90 Degree BEND test pressures			45 Degree BEND test pressures			22.5 Degree BEND test pressures			11.25 Degree BEND test pressures		
PIPE SIZE PIPE STYLE nominal	outside dia	200 psi	225 psi	250 psi	200 psi	225 psi	250 psi	200 psi	225 psi	250 psi	200 psi	225 psi	250 psi	200 psi	225 psi	250 psi
4	4.80	1.8	2.0	2.3	2.6	2.9	3.2	1.4	1.6	1.7	0.7	0.8	0.9	0.4	0.4	0.4
6	6.90	3.7	4.2	4.7	5.3	5.9	6.6	2.9	3.2	3.6	1.5	1.6	1.8	0.7	0.8	0.9
8	9.05	6.4	7.2	8.0	9.1	10.3	11.4	4.9	5.5	6.1	2.5	2.8	3.1	1.3	1.4	1.6
12	13.20	13.7	15.4	17.1	19.4	21.8	24.2	10.5	11.8	13.1	5.3	6.0	6.7	2.7	3.0	3.4
16	17.40	23.8	26.8	29.7	33.8	37.9	42.0	18.2	20.5	22.7	9.3	10.4	11.6	4.7	5.3	5.9
18	19.50	29.9	33.6	37.3	42.4	47.6	52.8	22.8	25.7	28.6	11.7	13.1	14.6	5.9	6.6	7.3
24	25.80	52.3	58.8	65.3	74.9	83.9	92.4	40.0	45.0	50.0	20.4	22.9	25.5	10.2	11.5	12.8

NOTES:

1. ALL CONCRETE BLOCKING SHALL BE POURED AGAINST DRY, UNDISTURBED SUBGRADE. TABLE IS BASED ON 2000 POUNDS PER SQUARE FOOT ALLOWABLE SOIL BEARING. WEAKER SOIL WILL REQUIRE INCREASED BEARING AREA. SEE SOIL BEARING LOAD CHART.
2. KEEP CONCRETE CLEAR OF JOINTS AND ACCESSORIES. USE FORMING AS NECESSARY.
3. HORIZONTAL ANCHOR BLOCKING CONFIGURATIONS FOR FITTINGS NOT SHOWN SHALL HAVE APPROVAL OF THE P.U.D.
4. THE SQUARE FOOT AREAS REQUIRED FOR BEARING ARE CALCULATED BY THE FOLLOWING FORMULAS:
FORMULA AT TEE & CAP OR PLUG:
T = PA
T + K = BEARING AREA REQUIRED IN SQUARE FEET
FORMULA AT ALL PIPE BENDS:
T = 2PA (SIN 1/2 ANGLE) WHERE ANGLE = THE DEGREE BEND OF THE FITTING
T + K = BEARING AREA REQUIRED IN SQ. FEET
WHEN:
T = THRUST IN POUNDS
P= TEST PRESSURE IN PSI
A= CROSS–SECTIONAL AREA OF PIPE IN SQ. INCHES
K= ASSUMED 2000 PSF SOIL BEARING PRESSURE
5. FITTINGS SHALL BE WRAPPED WITH POLYETHYLENE ENCASEMENT WITH A MIN. OF 8–MIL THICKNESS. IT MUST BE INSTALLED AS PER W.S.D.O.T. STANDARDS AND IN ACCORDANCE WITH A.W.W.A. C105.

BEARING AREA REQUIRED IN SQUARE FEET

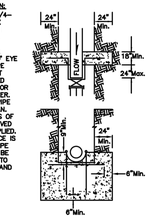
THE SAFE SOIL BEARING LOADS SHOWN BELOW ARE FOR HORIZONTAL THRUSTS WHEN THE DEPTH OF COVER OVER THE PIPE EXCEEDS 2 FEET.

SOIL	SAFE BEARING LOAD LBS/SQ. FT.
*MUCK, PEAT, ETC.	0
SOFT CLAY, SILT	1,000
SAND, SANDY SILT	2,000
SAND AND GRAVEL	3,000
SAND AND GRAVEL CEMENTED W/ CLAY	4,000
HARD SHALE	10,000

*IN MUCK OR PEAT, ALL THRUSTS SHALL BE RESTRAINED BY PILES OR TIE RODS TO SOLID FOUNDATIONS OR BY REMOVAL OF MUCK OR PEAT AND REPLACEMENT WITH BALLAST OF SUFFICIENT STABILITY TO RESIST THRUSTS.

KEY BLOCK USE
THE INSTALLATION OF A KEY BLOCK IS TO BE CONSIDERED ONLY FOR TEMPORARY BLOCKING FOR 5–10 YEARS. IF THE PIPELINE IS TO REMAIN A DEADEND OR AN EXTENSION IS LIKELY TO BE MORE THAN 10 YEARS AWAY, THEN A STANDARD BLOCK FOR CAP OR PLUG WILL BE INSTALLED. USE OF KEY BLOCK IS TO BE APPROVED BY THE DISTRICT.

KEY BLOCKING SPECIFICATION:
MATERIALS SHALL INCLUDE 3/4–INCH RESTRAINING RODS, HEX NUTS AND WASHERS OF HIGH STRENGTH LOW ALLOY STEEL MEETING AWWA C–111–90 COMPOSITION SPECIFICATIONS, ROMAC "DUCTILE LUG" OR 90° EYE BOLTS AND "500" SERIES PIPE RESTRAINING SYSTEM. THRUST RESTRAINT TO BE CALCULATED AT 7500 POUNDS PER BOLT OR AS RECOMMENDED BY ENGINEER. ALL RODS, EYE BOLTS AND PIPE RESTRAINTS ARE TO BE CLEAN. TWO SEPARATE BRUSH COATS OF ASPHALT COATING AS APPROVED BY THE ENGINEER TO BE APPLIED. A 3–INCH MINIMUM CLEARANCE IS REQUIRED BETWEEN WATER PIPE AND CONCRETE. SOIL IS TO BE COMPACTED TO 95% REBAR TO BE MINIMUM #6 (3/4") SIZE AND HAVE A MINIMUM 9–INCH CLEARANCE FROM ANY CONCRETE SURFACE.



KEY BLOCK

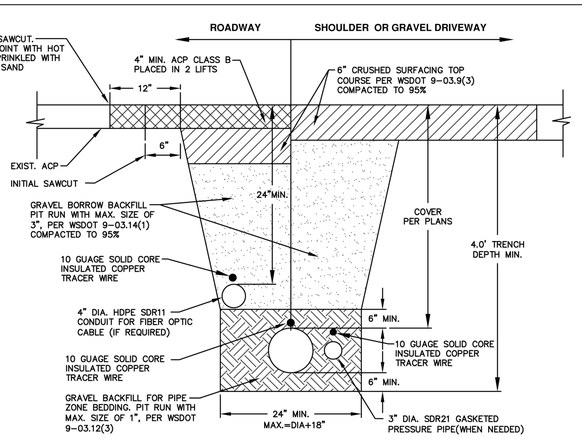
PUD NO. 1 OF SKAGIT COUNTY ENGINEERING MANAGER

APPROVED ON: MAY 6, 2014

Skagit PUD PUBLIC UTILITY DISTRICT

HORIZONTAL THRUST BLOCKING DETAILS

SCALE: NTS	STANDARD
DATE: 3-05-05	
REVISED: 5/6/14	WT-1
DRAWN BY: CAS	
APPROVED BY: GJS	



NOTES:

1. DEPTH OF BEDDING BELOW PIPE DEPENDANT ON SOIL CONDITIONS. CONSULT WITH ENGINEER.
2. ALTERNATE TRENCH BACKFILL MATERIAL TO BE USED ONLY WITH ENGINEER'S APPROVAL.
3. SURFACE RESTORATION TO MATCH EXISTING PAVEMENT / SHOULDER SECTION.

Skagit PUD PUBLIC UTILITY DISTRICT

TRENCH RESTORATION SECTION

SCALE: 1" = 1'	
DATE: 12-10-19	
REVISED: 12/10/19	WT1-2
DRAWN BY: JLB	
APPROVED BY: MCH	

ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/12/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

Skagit PUD PUBLIC UTILITY DISTRICT

PUBLIC UTILITY DISTRICT NO. 1 of SKAGIT COUNTY
1415 Freeway Drive
P.O BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
www.SkagitPud.org

BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

STANDARD DETAILS

SCALE: NONE	P.N. 3514	SHEET: 35 OF 37
	C.O. 4820	

BILL OF MATERIALS

NO.	NOMENCLATURE	REQ'D.	NO.	NOMENCLATURE	REQ'D.
1	WATER MAIN		10	METER, BADGER MODEL M25 (5/8") OR M35 (3/4") BRONZE METER	1
2	CLAMP, SERVICE, DOUBLE STRAP x 1" I.P.T., ALL BRASS, (FORD #202B)[1]	1	11	NIPPLE, BRASS, 1"x6"	1
			12	ADAPTER, BRASS, 1" F.I.P.T. x 1" INSERT	1
3	COPP, 1" (FORD #B5000--4)*	1	13	METER BOX & COVER, (CARSON INDUSTRIES LLC, L SERIES 1419--12 W/COVER 1419--3)*	1
4	VALVE, 2" DUCTILE IRON, RESILIENT WEDGE, I.P.T.x I.P.T.	1			
5	INSERT, STIFFENER, 1--1/2" (FORD #74)*	2	14	EXTENSION, METER BOX, CARSON INDUSTRIES LLC, L SERIES 1419--6*	1
6	WIRE, #10 SOLID COPPER, BLUE COATED, EXTEND MIN.18" INTO BOX, NEAR LID		15	CLAMP, 1", ALL STAINLESS(STUB ONLY)	1
			16	ADAPTER, 3/4" M.I.P.T x 3/4" INSERT W/CAP (GALV.) FORD P7M--1--NL(STUB ONLY)	1
7	PIPE, 1" REHAU WATERPEX TYPE A, 200 P.S.I.				
8	BRASS PAC JOINT, 1" M.I.P.T. x 1" COP (FORD #C84--77--Q--NL)*	1	17	HOSE CLAMP, 1--1/4" STAINLESS STEEL(STUB ONLY)	1
			18	POST, 4'--0" MIN. METAL FENCE POST W/SPADE REMOVE(STUB ONLY)	1
9	COPPERSETTER, 3/4", (FORD #V89H73--2W--11--44--NL FPT)*	1			

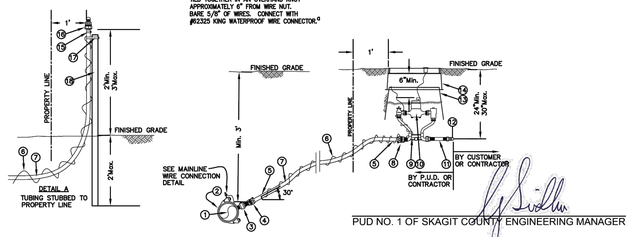
*OR EQUIVALENT APPROVED BY THE DISTRICT
[1]ELL, 90° STREET, 3/4" M X F I.P.T. (IF NEEDED)

ALL BRASS FITTINGS TO BE LEAD FREE DOMESTIC BRASS PER UNITED STATES BILL S.3874.

#10 WIRE

MAINLINE WIRE CONNECTION DETAIL
NTS

NOTE: ALL THREE WIRES ARE TO BE TIED TOGETHER IN AN OVERHAND KNOT APPROXIMATELY 6" FROM WIRE NUT. BARE 5/8" OF WIRES. CONNECT WITH #2325 KING WATERPROOF WIRE CONNECTOR.*



NOTES

1. CORP TO BE IN FULL OPEN POSITION BEFORE BACKFILL.
2. INSTALL SERVICE LINE PERPENDICULAR TO MAIN UNLESS OTHERWISE SHOWN ON WATER CONSTRUCTION PLAN.
3. SERVICE LINE IS TYPICALLY 1'6" TO NORTH OR WEST OF PROPERTY CORNER OR AS OTHERWISE SPECIFIED.
4. WATER SERVICE TUBING INSTALLATION IN PLATTED AREAS WILL BE COMPLETED BY THE CONTRACTOR/DEVELOPER FROM THE PIPELINE TO BEYOND THE PROPERTY LINE. IF METER BOX AND COPPERSETTER ARE NOT INSTALLED AT TIME OF SERVICE PIPE INSTALLATION, THEN TUBING IS TO BE STUBBED UP AND COMPLETED AS PER DETAIL A. THE DISTRICT WILL COMPLETE THE ACTUAL METER AND BOX INSTALLATION WHEN NEEDED.
5. IF METER IS NOT INSTALLED IN COPPERSETTER, INSTALL PLUGS IN METER CONNECTIONS. IF CONNECTION IS NOT MADE TO CUSTOMER'S PLUMBING, INSTALL A WATERTIGHT WRAP OF ELECTRICAL TAPE OVER END OF NIPPLE. SET COPPERSETTER PLUGS IN BLUE AND CENTERED IN BOX.
6. FLUSH OUT SERVICE TUBING AND COPPERSETTER BEFORE INSTALLING METER. DO NOT ALLOW MUD OR FOREIGN MATERIAL TO ENTER ANY TUBING OR FITTINGS.
7. FILL BOX WITH FINE DIRT TO TOP OF METER.
8. IF THE METER BOX IS LOCATED IN ASPHALT OR CONCRETE AREA, A TRAFFIC BOX (MID--STATES PLASTICS, INC., MSBCP1324--402679 WILL BE REQUIRED. NOT FOR THROUGH--WAY TRAFFIC APPLICATIONS.
9. IF THERE IS PETROLEUM--BASED CONTAMINATED SOIL PRESENT, THE PIPELINE SHALL BE OF TYPE K COPPER WITH BRASS AND COPPER FITTINGS. SEE STANDARD P.U.D. COPPER SERVICE DETAIL.
10. IF SERVICE LINE HAS LESS THAN 2'0" OF COVER, CONTACT DISTRICT ENGINEERING DEPARTMENT FOR FREEZE PROTECTION REQUIREMENTS.
11. A SHUTOFF VALVE SHALL BE INSTALLED ON CUSTOMER'S PLUMBING AFTER DISTRICT'S METER, PER U.P.C. SUCH VALVE SHALL BE ACCESSIBLE AT ALL TIMES.

PUD NO. 1 OF SKAGIT COUNTY ENGINEERING MANAGER

APPROVED ON: OCTOBER 15, 2015

Skagit PUD PUBLIC UTILITY DISTRICT

STANDARD INSTALLATION OF SINGLE 5/8" OR 3/4" METERED SERVICE WITH 200 P.S.I. REHAU SERVICE LINE

1 / -

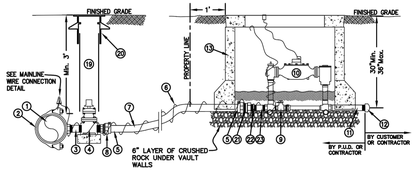
SCALE: 1"=2'	STANDARD
DATE: 11-14-14	
REVISED: 10/13/16	WS58-1
DRAWN BY: JLB	
APPROVED BY: GJS	

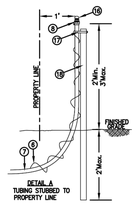
BILL OF MATERIALS

NO.	NOMENCLATURE	REQ'D.
1	WATER MAIN	
2	CLAMP, SERVICE, DOUBLE STRAP x 2" I.P.T., ALL BRASS, (FORD #202B)[1]	1
3	NIPPLE, BRASS 2"x6"	1
4	VALVE, 2" DUCTILE IRON, RESILIENT WEDGE, I.P.T.x I.P.T.	1
5	INSERT, STIFFENER, 1--1/2" (FORD #74)*	2
6	WIRE, #10 SOLID COPPER, BLUE COATED, EXTEND MIN.18" INTO BOX, NEAR LID	
7	PIPE, 2" REHAU MUNICPEX TYPE A, 200 P.S.I.	
8	BRASS PAC JOINT, 2" M.I.P.T. x 2" COP (FORD #C84--77--Q--NL)*	2
9	COPPERSETTER, 1--1/2", (FORD #V89H76--12B--11--66--NL FPT)*	1
10	METER, BADGER, MODEL M120 1--1/2" BRONZE METER	1
11	NIPPLE, BRASS 1--1/2"x12"	1
12	CAP, 1--1/2" GALVANIZED	1
13	UTILITY VAULT 3642--LA W/COVER 3642--2436P*	1
14	VACANT	
15	VACANT	
16	CAP, 2" GALVANIZED(STUB ONLY)	1
17	HOSE CLAMP, 2--1/2" STAINLESS STEEL(STUB ONLY)	1
18	POST, 4'--0" MIN. METAL FENCE POST W/SPADE REMOVED(STUB ONLY)	1
19	CASING, 6" PVC SEWER PIPE	1
20	VALVE BOX, CAST IRON OLYMPIC FOUNDRY V8--007--SKAGIT (SEE P.U.D. DETAIL)	1
21	ADAPTER, BRASS PAK JOINT, 2" F.I.P.T. x 2" COP (FORD #C14--77--NL)* [2]	1
22	BUSHING, BRASS 2" M.I.P.t.x 1--1/2" F.I.P.T.	1
23	NIPPLE, BRASS 1--1/2"x6"	1

*OR EQUIVALENT APPROVED BY THE DISTRICT
[1]ELL, 90° STREET, 2" M X F I.P.T. (IF NEEDED)

ALL BRASS FITTINGS TO BE LEAD FREE DOMESTIC BRASS PER UNITED STATES BILL S.3874.





#10 WIRE

MAINLINE WIRE CONNECTION DETAIL
NTS

NOTE: ALL THREE WIRES ARE TO BE TIED TOGETHER IN AN OVERHAND KNOT APPROXIMATELY 6" FROM WIRE NUT. BARE 5/8" OF WIRES. CONNECT WITH #2325 KING WATERPROOF WIRE CONNECTOR.*

NOTES

1. CORP TO BE IN FULL OPEN POSITION BEFORE BACKFILL.
2. INSTALL SERVICE LINE PERPENDICULAR TO MAIN UNLESS OTHERWISE SHOWN ON WATER CONSTRUCTION PLAN.
3. SERVICE LINE IS TYPICALLY 1'6" TO NORTH OR WEST OF PROPERTY CORNER OR AS OTHERWISE SPECIFIED.
4. WATER SERVICE TUBING INSTALLATION IN PLATTED AREAS WILL BE COMPLETED BY THE CONTRACTOR/DEVELOPER FROM THE PIPELINE TO BEYOND THE PROPERTY LINE. IF METER BOX AND COPPERSETTER ARE NOT INSTALLED AT TIME OF SERVICE PIPE INSTALLATION, THEN TUBING IS TO BE STUBBED UP AND COMPLETED AS PER DETAIL A. THE DISTRICT WILL COMPLETE THE ACTUAL METER AND BOX INSTALLATION WHEN NEEDED.
5. IF METER IS NOT INSTALLED IN COPPERSETTER, INSTALL PLUGS IN METER CONNECTIONS. IF CONNECTION IS NOT MADE TO CUSTOMER'S PLUMBING, INSTALL A WATERTIGHT WRAP OF ELECTRICAL TAPE OVER END OF NIPPLE. SET COPPERSETTER PLUGS IN BLUE AND CENTERED IN BOX.
6. FLUSH OUT SERVICE TUBING AND COPPERSETTER BEFORE INSTALLING METER. DO NOT ALLOW MUD OR FOREIGN MATERIAL TO ENTER ANY TUBING OR FITTINGS.
7. FILL BOX WITH FINE DIRT TO TOP OF METER.
8. IF THE METER BOX IS LOCATED IN ASPHALT OR CONCRETE AREA, A TRAFFIC BOX (MID--STATES PLASTICS, INC., MSBCP1324--402679 WILL BE REQUIRED. NOT FOR THROUGH--WAY TRAFFIC APPLICATIONS.
9. IF THERE IS PETROLEUM--BASED CONTAMINATED SOIL PRESENT, THE PIPELINE SHALL BE OF TYPE K COPPER WITH BRASS AND COPPER FITTINGS. SEE STANDARD P.U.D. COPPER SERVICE DETAIL.
10. IF SERVICE LINE HAS LESS THAN 2'0" OF COVER, CONTACT DISTRICT ENGINEERING DEPARTMENT FOR FREEZE PROTECTION REQUIREMENTS.
11. A SHUTOFF VALVE SHALL BE INSTALLED ON CUSTOMER'S PLUMBING AFTER DISTRICT'S METER, PER U.P.C. SUCH VALVE SHALL BE ACCESSIBLE AT ALL TIMES.

PUD NO. 1 OF SKAGIT COUNTY ENGINEERING MANAGER

APPROVED ON: OCTOBER 15, 2015

Skagit PUD PUBLIC UTILITY DISTRICT

STANDARD INSTALLATION OF 1-1/2" METERED SERVICE WITH 200 P.S.I. REHAU SERVICE LINE

2 / 33

SCALE: 1" = 2'	STANDARD
DATE: 3-01-05	
REVISED: 10/15/15	WS1.5-1
DRAWN BY: JLB	
APPROVED BY: GJS	

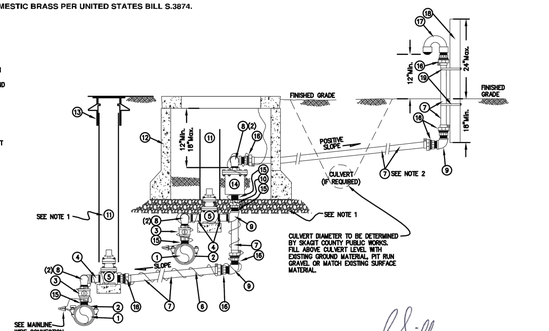
BILL OF MATERIALS

NO.	NOMENCLATURE	REQ'D.	NO.	NOMENCLATURE	REQ'D.
1	WATER MAIN		11	CASING, 6" P.V.C. SEWER PIPE	1
2	CLAMP, SERVICE, DOUBLE STRAP 2" X 2" I.P.T., ALL BRASS, (FORD #202B)*	1	12	UTILITY VAULT 3642--LA W/#2436P LOCKING STEEL COVER	1
			13	VALVE BOX, CAST IRON OLYMPIC FOUNDRY V8--007--SKAGIT (SEE P.U.D. DETAIL)	1
3	VALVE, 2" BALL, BRASS, FTxIPT (FORD #BF13--777W)*	1			
4	NIPPLE, BRASS 2X4	1--2	14	VALVE, 2" COMBINATION AIR (APCO 145C-2 SERIES) W/SST. TRIM	1
5	VALVE, 2"DUCTILE IRON, RESILIENT WEDGE	1	15	NIPPLE, BRASS, 2"x4"LONG	
6	WIRE, #10 SOLID COPPER, BLUE COATED, EXTEND MIN. 18" INTO BOX, NEAR LID		16	ADAPTER, BRASS PAK JOINT, 2" M.I.P.T. X PVC (FORD #C87--777)*	4--7
7	PIPE, 2" P.V.C. SCH. 80 (LENGTHS AS REQUIRED)		17	BEND, 2" COPPER, 180° WITH INSECT SCREEN	1
8	TEE, 2" BRASS, 90°, STREET	4	18	POST, 4'--0" MIN. METAL FENCE POST W/SPADE REMOVED	1
9	ELL, 2" BRASS, 90°	2	19	HOSE CLAMP, 2", STAINLESS STEEL	2
10	FLANGE, 2" BRASS	1			

*OR EQUIVALENT APPROVED BY THE DISTRICT
ALL BRASS FITTINGS TO BE LEAD FREE DOMESTIC BRASS PER UNITED STATES BILL S.3874.

NOTES:

1. SET VALVE CASING AND VAULT/BOX TO FINISH GRADE. DO NOT REST CASING OR VAULT ON NIPPLES OR PIPE. PLACE 6 INCHES OF 3/4" MINUS CRUSHED GRAVEL, COMPACTED TO 90% UNDER CONCRETE VAULTS. SUPPORT VALVE CASING WITH 0.3 SQ.FT. OF CONCRETE ON EACH SIDE OF VALVE. SUPPORT 2" VALVE WITH MIN. OF 1 SQ.FT. OF CONCRETE BLOCK ON UNDISTURBED GROUND OR COMPACTED 3/4" CRUSHED GRAVEL.
2. INSTALL LINE PERPENDICULAR TO MAIN OR AS SHOWN ON WATER PLAN.
3. IF THERE IS A GROUND DEPRESSION OR DITCH BETWEEN AIR VALVE LOCATION AND VENT PIPE WHICH AFFECTS THE SLOPE OF THE HORIZONTAL VENT PIPE, INSTALL A CULVERT IF IT IS A DRAINAGE PATH OR FILL WITH DIRT.



#10 WIRE

MAINLINE WIRE CONNECTION DETAIL
NTS

NOTE: ALL THREE WIRES ARE TO BE TIED TOGETHER IN AN OVERHAND KNOT APPROXIMATELY 6" FROM WIRE NUT. BARE 5/8" OF WIRES. CONNECT WITH #2325 KING WATERPROOF WIRE CONNECTOR.*

PUD NO. 1 OF SKAGIT COUNTY ENGINEERING MANAGER

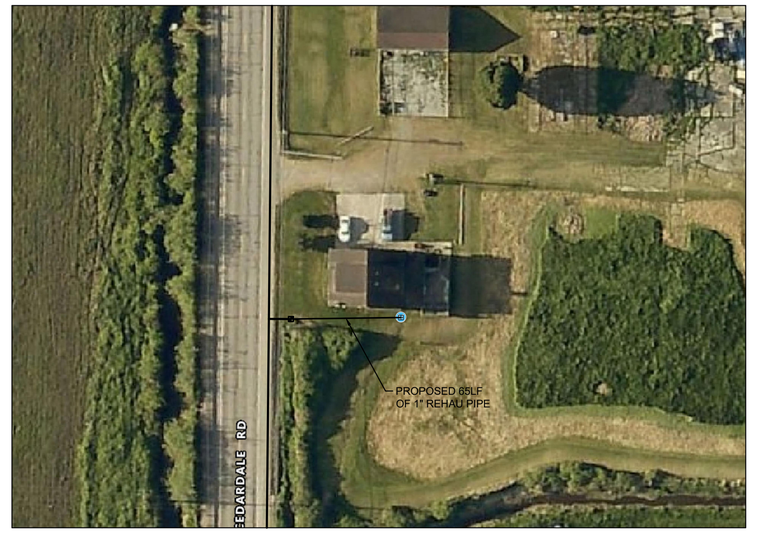
APPROVED ON: MAY 21, 2014

Skagit PUD PUBLIC UTILITY DISTRICT

STANDARD INSTALLATION OF 2" COMBINATION AIR VALVE ASSEMBLY

3 / -

SCALE: 1" = 2'	STANDARD
DATE: 3-25-05	
REVISED: 5/21/14	WV2-1
DRAWN BY: CAS	
APPROVED BY: GJS	

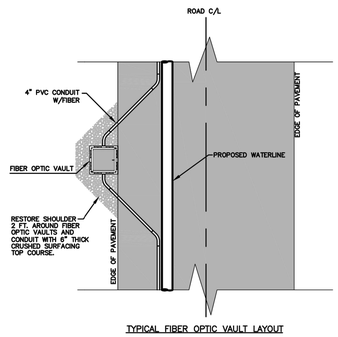


5 / 14 SVC DETAIL P16712

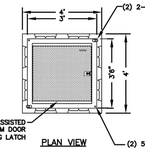
0 25 50 100 Feet

NOTES

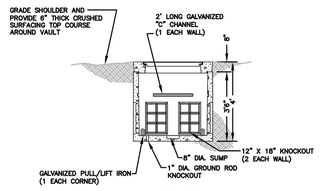
1. VAULTS SHALL BE PRE--CAST CONCRETE MEETING ASTM C478. TOP SLAB SHALL BE DESIGNED TO CARRY HS--20 LOADING.
2. RIGID NON--METALLIC CONDUIT (PVC) FOR FIBER SHALL BE U.L. 651 LISTED, NEMA TC--2, SCHEDULE 40 APPROVED FOR CONCRETE ENCASEMENT. PVC CONDUIT SWEEPS SHALL NOT BE USED.
3. FIBERGLASS CONDUIT FOR FIBER SHALL BE U.L. 1684 LISTED, NEMA TC--14, APPROVED FOR CONCRETE ENCASEMENT. FIBERGLASS CONDUIT SWEEPS SHALL BE A MINIMUM RADIUS OF 36 INCHES.
4. CONDUITS SHALL CONTAIN NO MORE THAN THREE--QUARTER BENDS (270 CUMULATIVE DEGREES) BETWEEN FIBER OPTIC VAULTS.
5. DURING FIBER OPTIC CABLE INSTALLATION, A MINIMUM OF 150 FEET OF SLACK CABLE SHALL BE INSTALLED ON MOUNTING HARDWARE WITHIN EACH FIBER OPTIC VAULT.
6. FIBER OPTIC VAULTS SHALL BE A MAXIMUM OF 2,500 FEET APART.



TYPICAL FIBER OPTIC VAULT LAYOUT



PLAN VIEW



ELEVATION

PUD NO. 1 OF SKAGIT COUNTY ENGINEERING MANAGER

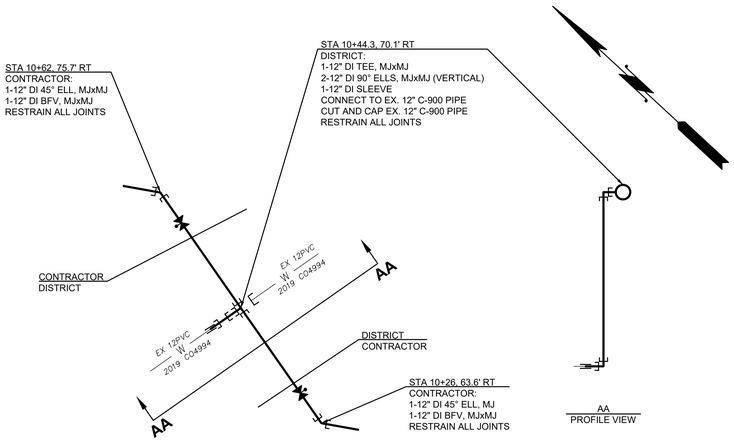
APPROVED ON: SEPTEMBER 23, 2019

Skagit PUD PUBLIC UTILITY DISTRICT

STANDARD FIBER OPTIC VAULT AND STANDARD FIBER OPTIC VAULT LAYOUT

4 / -

SCALE: NO SCALE	STANDARD
DATE: 10/22/12	
REVISED: 9/25/19	WFO-1
DRAWN BY: KDM	
APPROVED BY: MCH	



PLAN VIEW

*NOTE: CONTRACTOR TO PROVIDE ALL EXCAVATION AND PLACE SHORING FOR DISTRICT WORK

6 / 8 CONNECTION DETAIL

NOT TO SCALE

ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

7/16/2021

DATUM:	DSGN BY: CJS
HOR: NAD 83	DWN BY: KAN
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 7/16/21	SEC: 5, 8, 17
	TWP: 33 N
	RGE: 4 E

Skagit PUD PUBLIC UTILITY DISTRICT

PUBLIC UTILITY DISTRICT NO. 1 of SKAGIT COUNTY
1415 Freeway Drive
P.O BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
www.SkagitPud.org

BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

STANDARD DETAILS (CONTINUED)

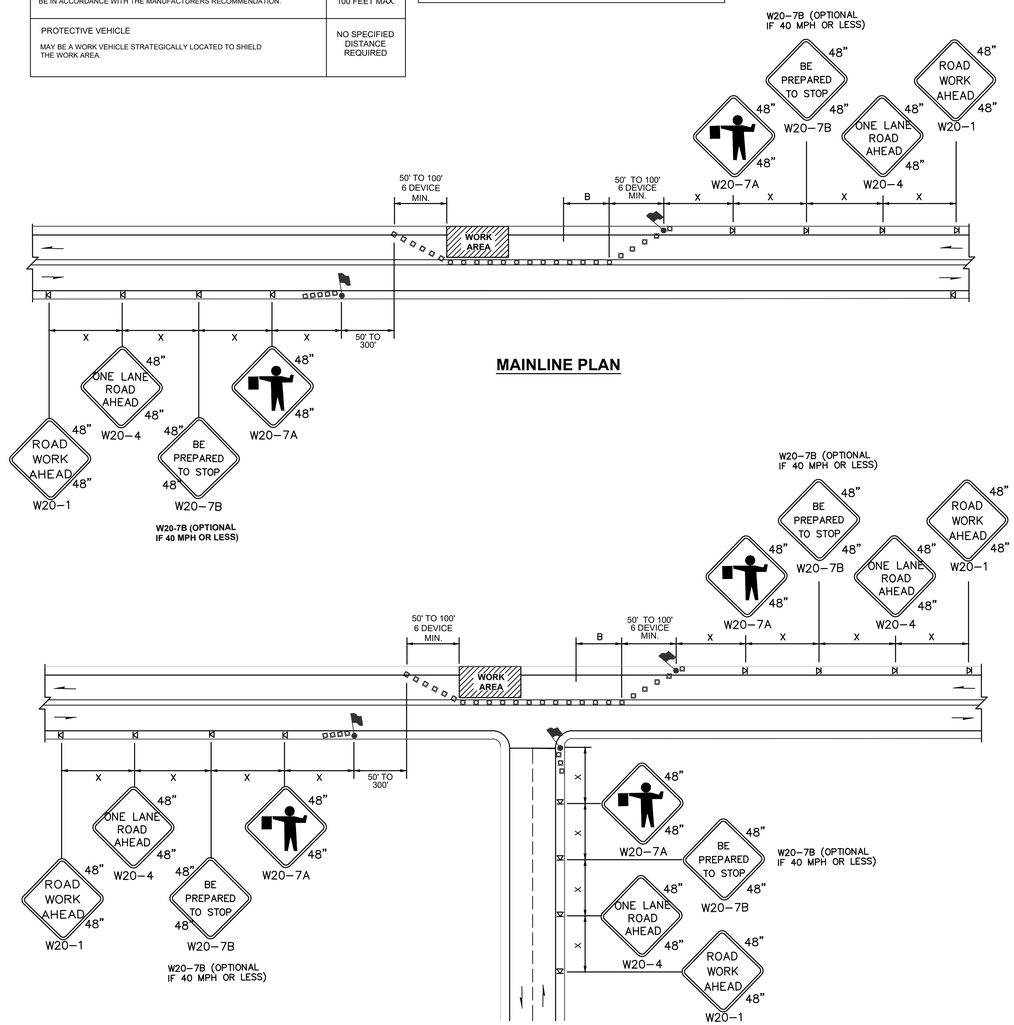
SCALE: NONE	P.N. 3514	SHEET: 36 OF 37
	C.O. 4820	

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	–
BUFFER VEHICLE ROLL AHEAD DISTANCE = R										
TRANSPORTABLE ATTENUATOR MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.										30 FEET MIN. TO 100 FEET MAX.
PROTECTIVE VEHICLE MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.										NO SPECIFIED DISTANCE REQUIRED

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)

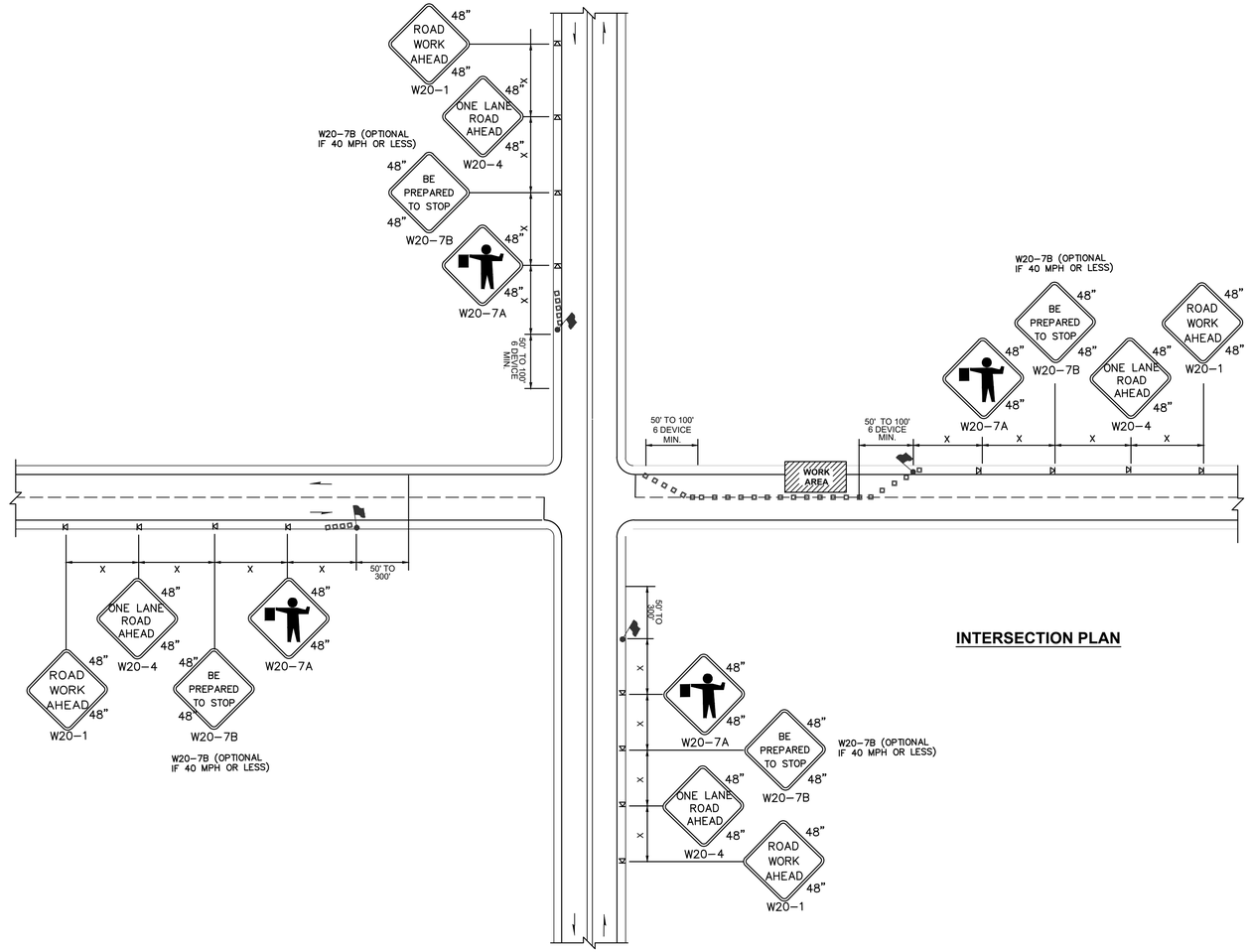
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/65	10 to 20	80
35/45	10 to 20	60
25/30	10 to 20	40



MAINLINE PLAN

INTERSECTION PLAN



INTERSECTION PLAN

ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	10/23/19
2.	30% DESIGN	MCH	4/9/21
3	90% DESIGN	MCH	4/30/21
4.	ISSUED FOR BIDDING	MCH	6/16/21
5.	ISSUED FOR BIDDING	MCH	7/16/21

811 Know what's below. Call before you dig.

MARK HANDYLIK — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — 19969 — 7/16/2021

DATUM:		DSGN BY: CJS	
HOR: NAD 83		DWN BY: KAN	
VERT: NAVD 88		APPVD BY: MCH	
DATE PRINTED: 7/12/21	SEC: 5, 8, 17		
	TWP: 33 N		
	RGE: 4 E		

Skagit PUD — PUBLIC UTILITY DISTRICT
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1415 Freeway Drive
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Mount Vernon, WA 98273
(360) 424-7104
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BURKLAND ROAD, EAST STACKPOLE ROAD TO EAST JOHNSON ROAD

TRAFFIC CONTROL PLAN

SCALE: NONE | P.N. 3514 | C.O. 4820 | SHEET: 37 OF 37