

No.	Date	Ву	Revision Description	Designed By:	Issue Date:
				LAB	09/29/2023
				Drawn By:	PERMIT
				LAB	
				Checked By:	Project No.:
				GRL	2022-295

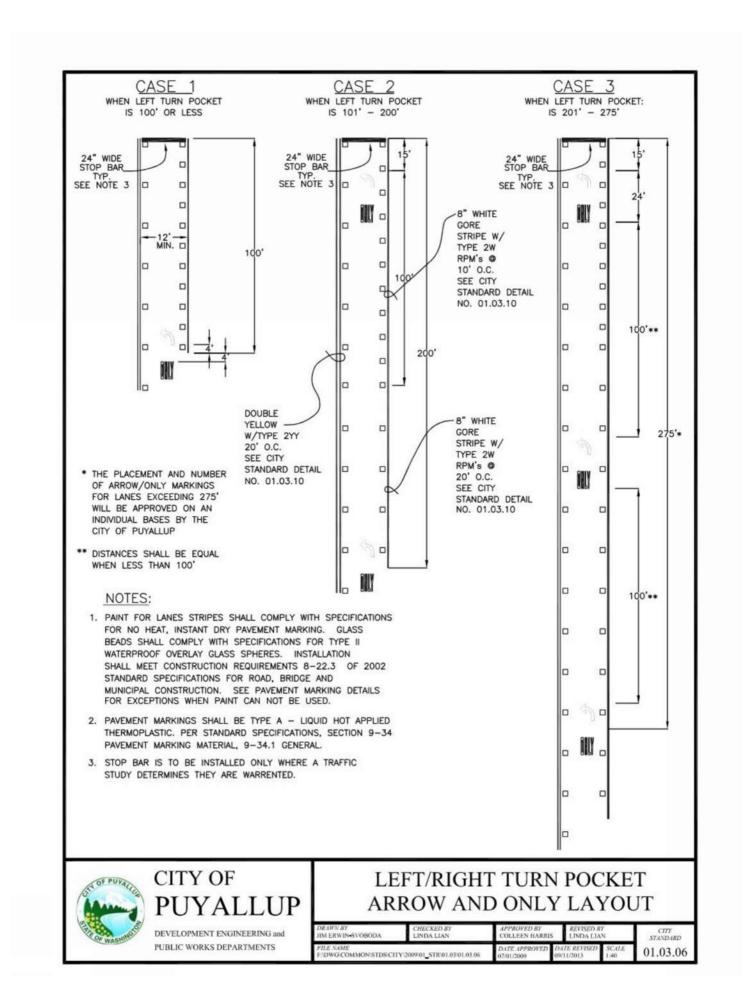


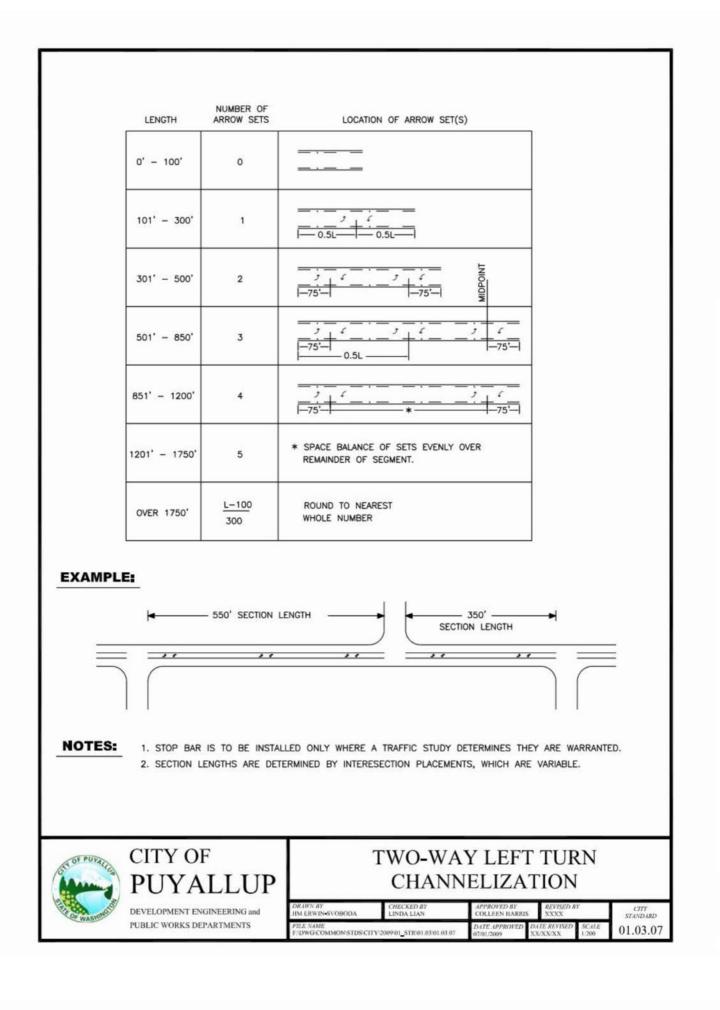


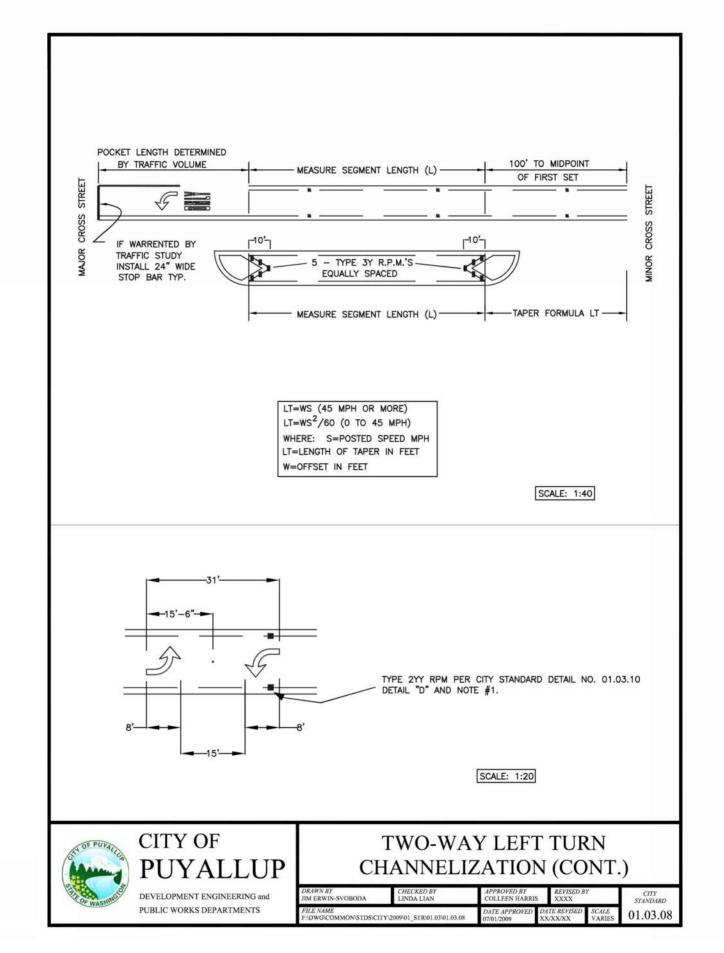
Phone: 206-914-3843

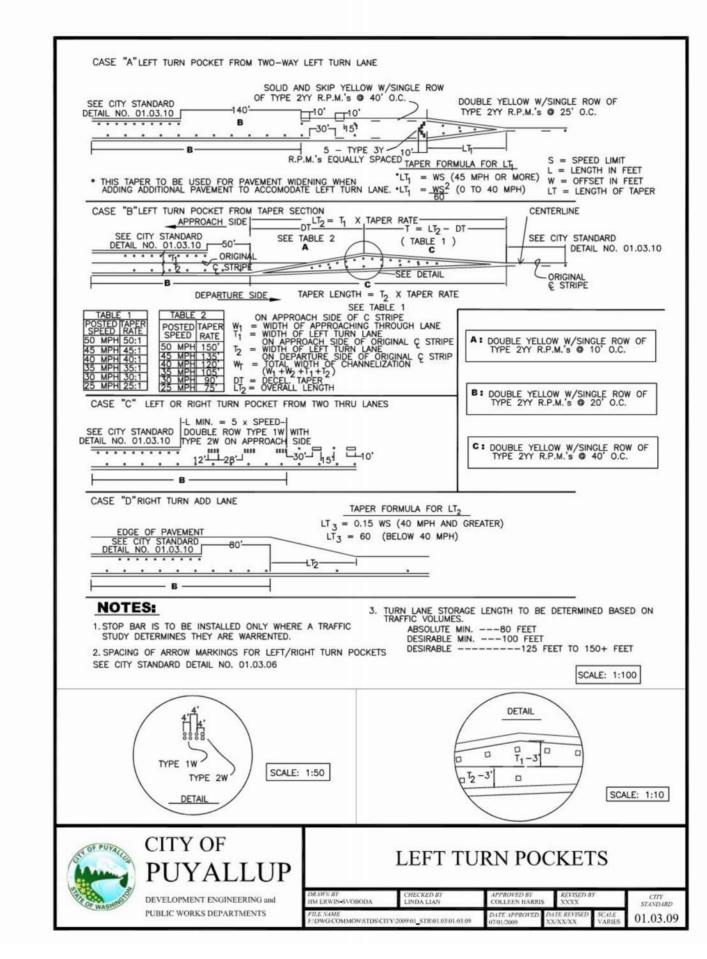
ASH DEVELOPMENT, LLC
EAST TOWN CROSSING
PUYALLUP, WA

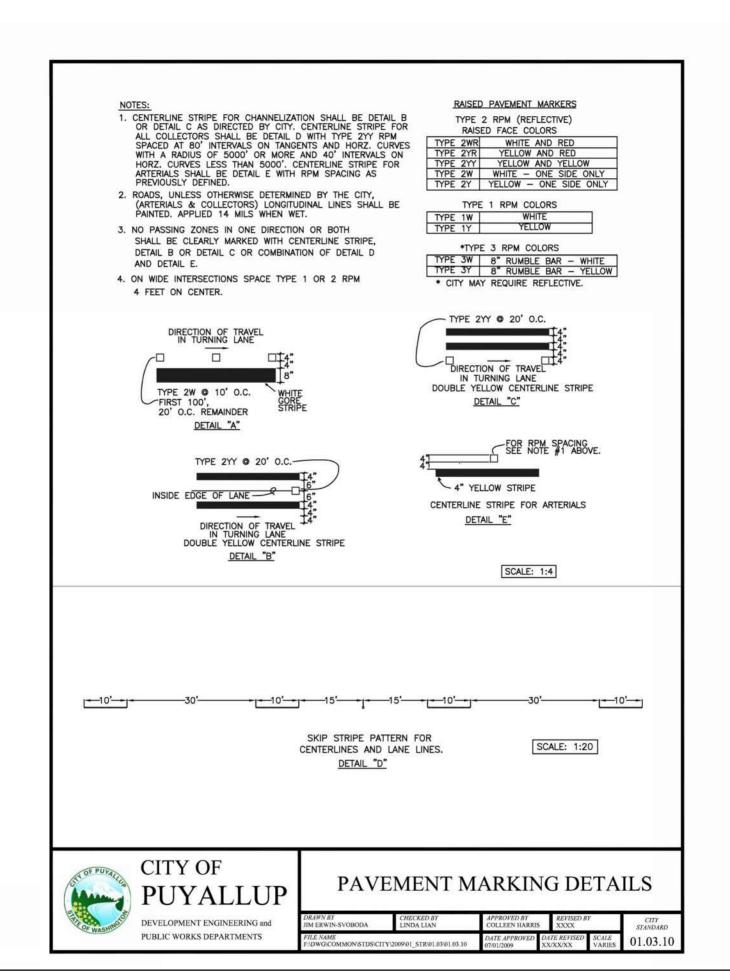
PAVEMENT MARKING & SIGNING PLANS — PHASE 1 PM-01
SHEET:
OF

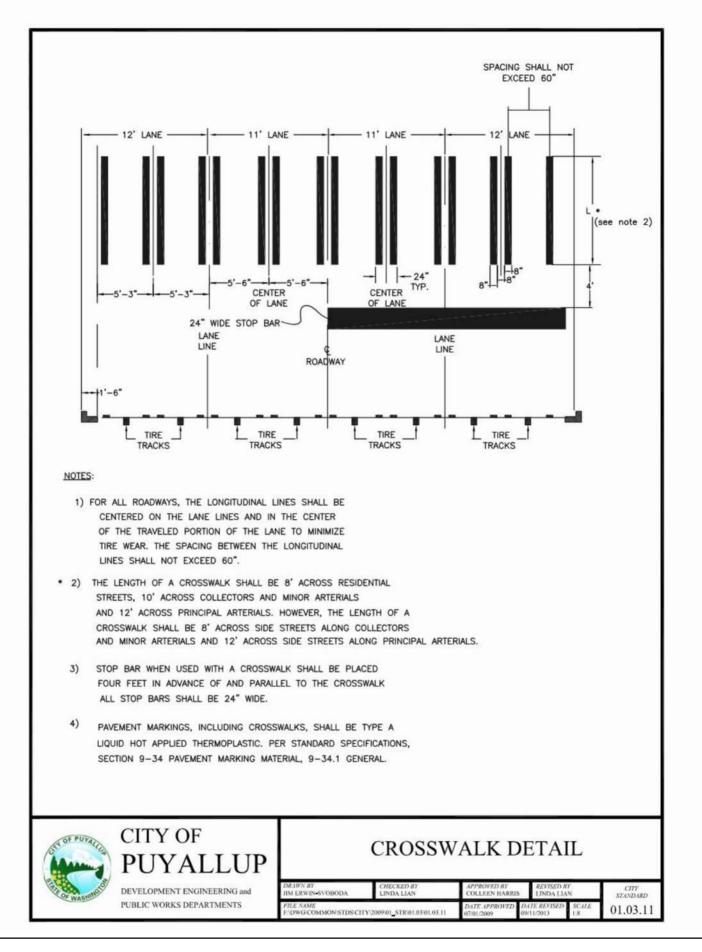


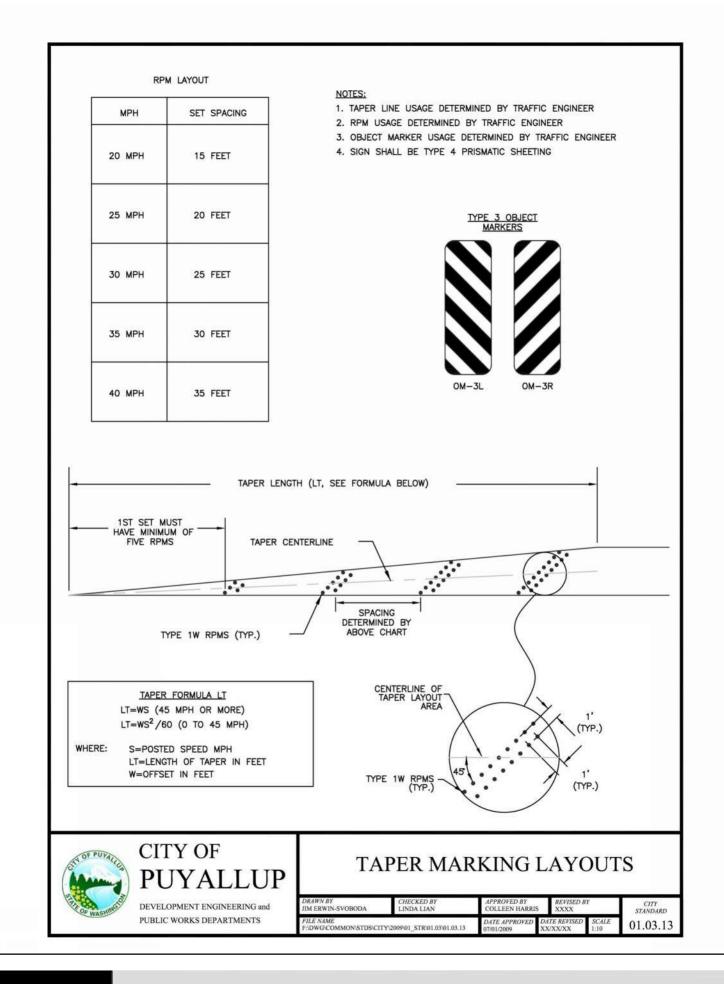


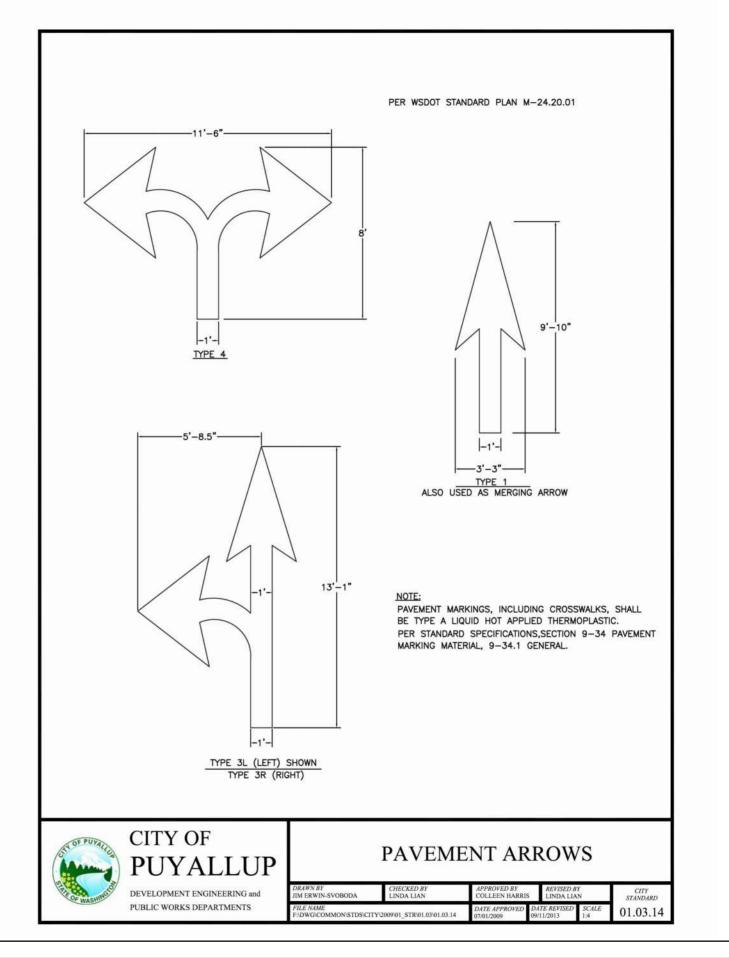


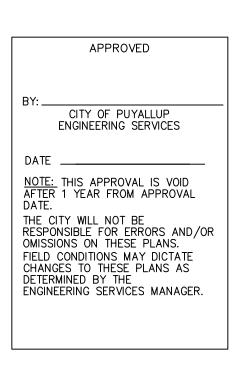










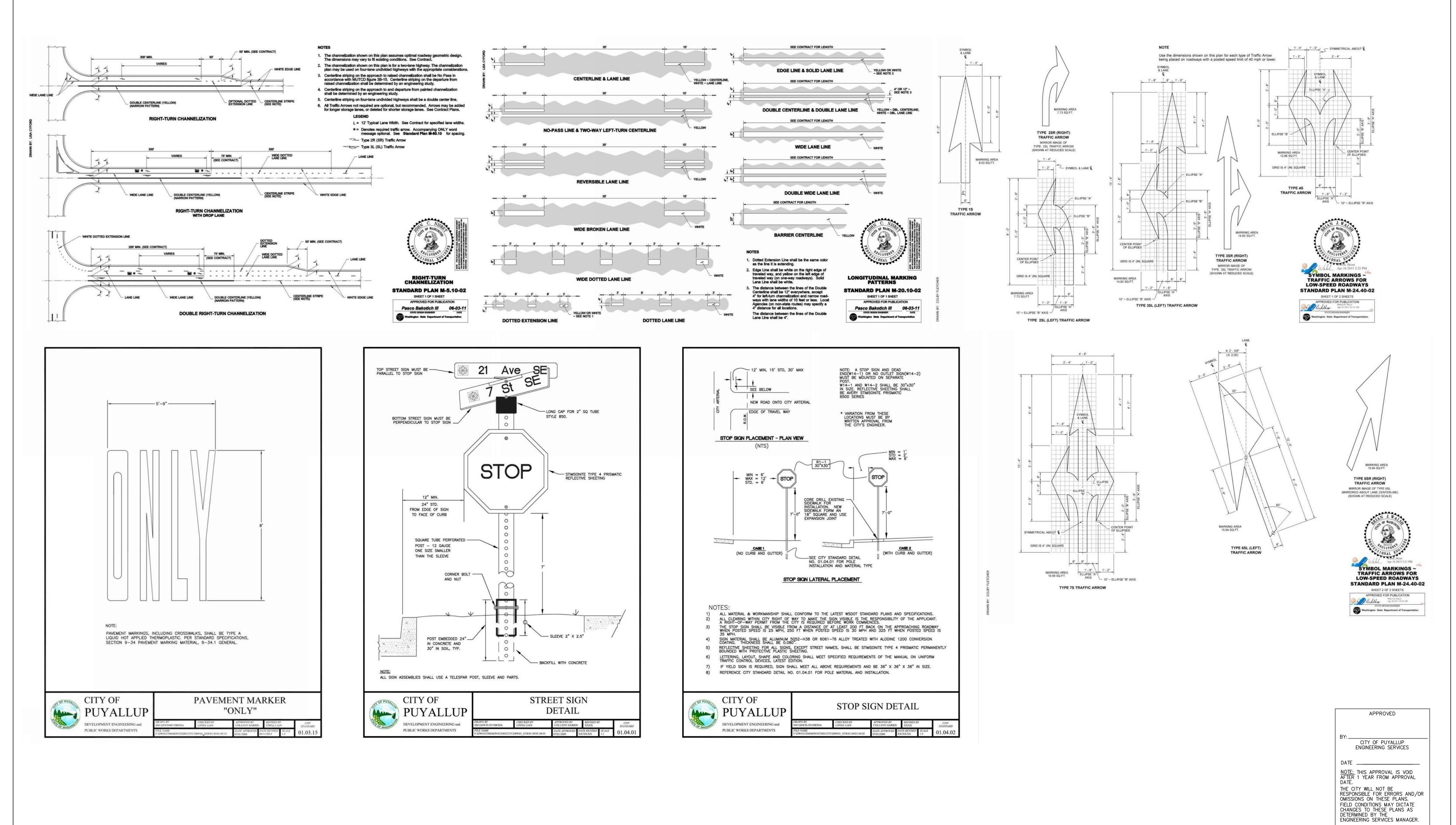


No.	Date	Ву	Revision Description	

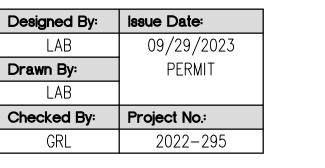
Issue Date:
09/29/2023
PERMIT
Project No.:
2022-295





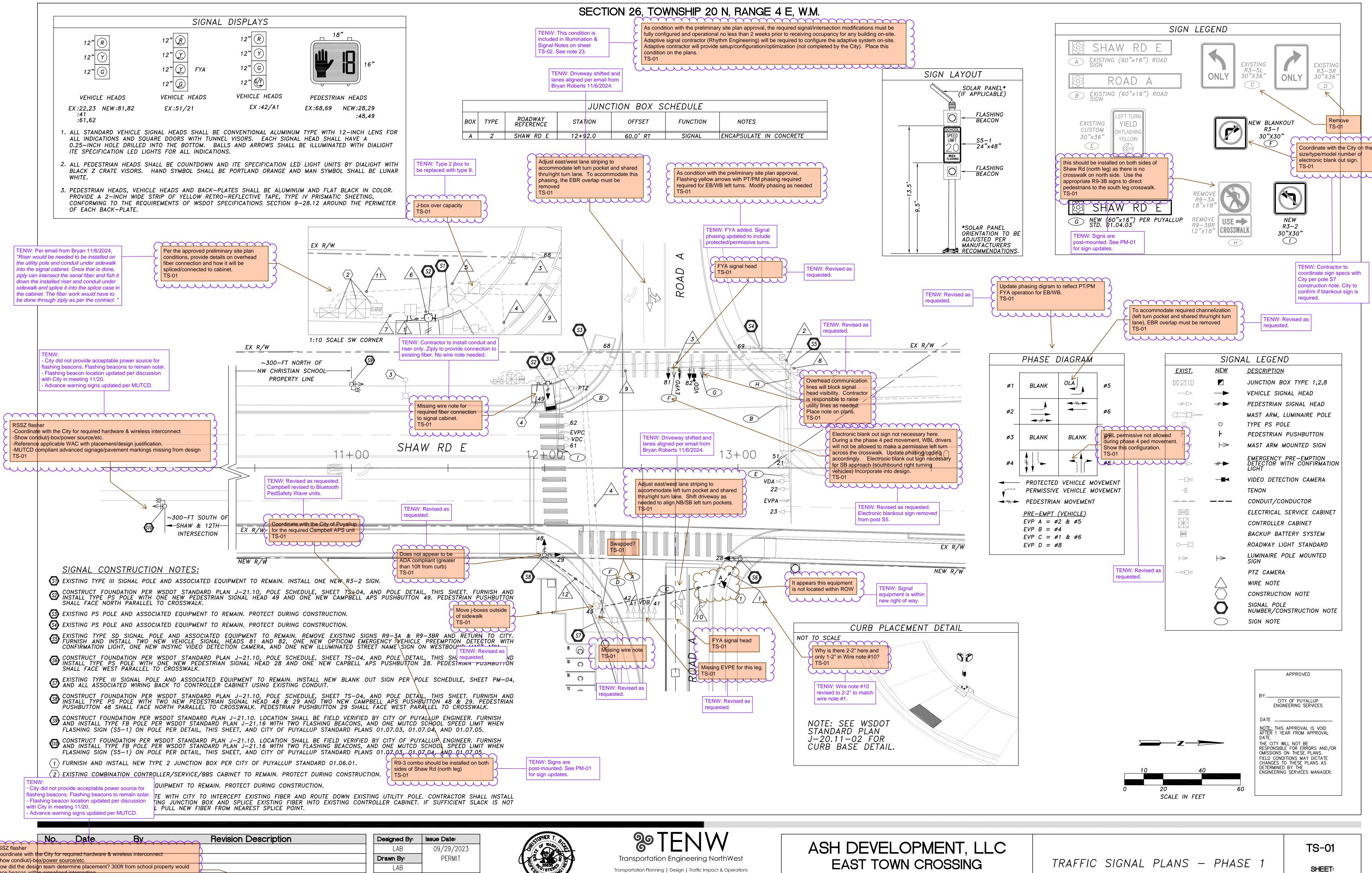


No.	Date	Bv	Revision Description	Designed By
		-,		LAB
				Drawn By:
				LAB
				Checked By
				GRI









11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747

Project Contact: Trevor Takara, P.E.

Phone: 206-914-3843

RSSZ flasher -Coordinate with the City for required hardware & wireless interconnection -Show condiut/j-b\psi/power source/etc. -How did the design team determine placement? 300ft from school property would place beacon with in signalized intersection. -Reference applicable WAC with placement/design justification -MUTCD compliant advanced signage/pavement markings missing from design  Checked By: Project No.: 2022-295



PUYALLUP, WA

SHEET:

OF

						WIR	ING .	SCH	EDUL	Ξ (Α	AFFE(	CTE	D RU	NS O	NLY	)							
	NO.	RACEWAY CONDUIT SIZE	E.V. DETECT. 3C(SH)	PRE- LIC 2C	EMPT SHT (SH)	VE HE 5	H. AD C	PPB C(SH)	PED HEAD/ 5C	PPB N	ILLUM S IAME SI 2C(SH,	ST IGN [	VIDEO DETECT. ***	EQUIP. GRND. *	ILLU #0	IM IN	TER 44 1FO	PTZ CAMERA	BLANK OUT 3C	PULL WIRE	CONDUIT FILL	ALLOV FII	VABLE LL
			EX. NEV	/ EX.	NEW	EX.	NEW EX	. NEW	EX. N	IEW	EX. NE	EW I	EX. NEW	EX. NEV	V EX.	VEW EX.	NEW	EX. NEW	EX. NEW	EX. NEV	/	EX.	NEW
	4	2" SCH40 PVC								1				1							0.28		0.86
	'	2" SCH40 PVC						1						1							0.18		0.86
	2	EX 2" SCH40 PVC**		1	1	2								1							0.60	1.32	
	2	EX 2" SCH40 PVC**	1 1				2						1 1	1							1.25	1.32	
		EX 2" SCH80 PVC**		1	1	2	2		1					1							1.02	1.15	
	7	EX 2" SCH80 PVC**	1				1						2	1							0.99	1.15	
	3	EX 4" SCH80 PVC**	1										1	1		1					1.30	4.39	
$(\gamma \gamma \gamma \gamma)$		EX 2" SCH80 PVC SPARE																		1		1.15	
No spares?	4	EX 2" SCH80 PVC**				2		3		3				1					1		1.18	1.15	
		EX 3" SCH40 PVC**		1	1	4			2	3				1					1		1.93	2.91	
	5	EX 2" SCH40 PVC**	1				2						2	1							1.08	1.32	
TENIM O. (OLIV Land Land	5	EX 4" SCH40 PVC**	1					3					1	1		1					1.57	4.93	
TENW: 2c(SH) have been		EX 2" SCH40 PVC SPARE																		1		1.32	
moved to spare conduit.	6	EX 2" SCH40 PVC**		1		2				1				1							0.65	1.32	
		EX 2" SCH40 PVC**	1										1	1				1			0.71	1.32	
		EX 3" SCH40 PVC**		2		6			2					1					1		1.51	2.91	
	7	EX 3" SCH40 PVC**	2 1				2	4					3 1	1				1			2.13	2.91	
		EX 4" SCH40 PVC**			1		2			4				1		1					1.89	4.93	
TENW: Revised	8	EX 2" SCH40 PVC**									1	1		1	2						0.42	1.32	
as requested.		EX 2" SCH80 PVC**									1	1		1	2						0.42	1.15	
as requested.		EX 2" SCH80 PVC SPARE																		1		1.15	
$\sim$	10	2" SCH80 PVC						1		1				1							0.37		0.75
Type PS pole receiving Type PS	11	EX 2" SCH40 PVC**									3	1		1	2						0.60	1.32	
pole?	12	2" SCH40 PVC								2				1							0.42		0.86
	12	2" SCH40 PVC						2						1							0.27		0.86

\* EQUIPMENT GROUND SIZE SHALL BE EQUAL TO OR LARGER THAN THE LARGEST WIRE SIZE IN THE CONDUIT. \*\* OTHER CONDUIT AND CONDUCTORS MAY BE PRESENT.

\*\*\* VIDEO DETECTION CABLE SHALL BE 14/3 CABLE AND SHIELDED CAT5.

### GENERAL NOTES

- 1. ALL WORK IN CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE APPROVED ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEER SERVICES AT (253-841-5568) TO SCHEDULE THE MEETING. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN SET OF APPROVED PLANS AT THE MEETING.
- 2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER
- 3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS").
- 4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.
- 5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE CITY PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.
- 6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.
- 7. ANY STRUCTURE AND/OR OBSTRUCTION THAT REQUIRES REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.
- 8. LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE TRUE ELEVATIONS AND LOCATIONS OF HIDDEN UTILITIES. ALL VISIBLE ITEMS SHALL BE THE
- 9. THE CONTRACTOR SHALL INSTALL, REPLACE, OR RELOCATE ALL SIGNS, AS SHOWN ON THE PLANS OR AS AFFECTED BY CONSTRUCTION, PER CITY STANDARDS.
- 10. POWER, STREET LIGHT, CABLE AND TELEPHONE LINES SHALL BE IN A TRENCH LOCATED WITHIN A 10-FOOT UTILITY EASEMENT ADJACENT TO PUBLIC RIGHT-OF-WAY. RIGHT-OF-WAY CROSSINGS SHALL HAVE A MINIMUM HORIZONTAL SEPARATION FROM OTHER UTILITIES (SEWER, WATER, AND STORM) OF 5 FEET.
- 11. ALL CONSTRUCTION SURVEYING FOR EXTENSIONS OF PUBLIC FACILITIES SHALL BE DONE UNDER THE DIRECTION OF A WASHINGTON STATE LICENSED LAND SURVEYOR OR A WASHINGTON LICENSED PROFESSIONAL CIVIL ENGINEER.
- 12. DURING CONSTRUCTION, ALL PUBLIC STREETS ADJACENT TO THIS PROJECT SHALL BE KEPT CLEAN OF ALL MATERIAL DEPOSITS RESULTING FROM ON—SITE CONSTRUCTION, AND EXISTING STRUCTURES SHALL BE PROTECTED AS DIRECTED BY THE CITY.
- 13. CERTIFIED RECORD DRAWINGS ARE REQUIRED PRIOR TO PROJECT ACCEPTANCE.
- 14. A NPDES STORMWATER GENERAL PERMIT MAY BE REQUIRED BY THE DEPARTMENT OF ECOLOGY FOR THIS PROJECT. FOR INFORMATION CONTACT THE DEPARTMENT OF ECOLOGY, SOUTHWEST REGION OFFICE AT (360-407-6300).
- 15. ANY DISTURBANCE OR DAMAGE TO CRITICAL AREAS AND ASSOCIATED BUFFERS, OR SIGNIFICANT TREES DESIGNATED FOR PRESERVATION AND PROTECTION SHALL BE MITIGATED IN ACCORDANCE WITH A MITIGATION PLAN REVIEWED AND APPROVED BY THE CITY'S PLANNING DIVISION. PREPARATION AND IMPLEMENTATION OF THE MITIGATION PLAN SHALL BE AT THE DEVELOPER'S EXPENSE.
- 16. ALL WORK SHALL BE IN ACCORDANCE WITH CITY OF PUYALLUP PUBLIC WORKS STANDARDS AND WSDOT STANDARDS AND SPECIFICATIONS.
- 17. THE LOCATIONS OF FEATURES SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION START.
- 18. UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ANY ILLUMINATION WORK.
- 19. ALL WORK SHALL BE CONSISTENT WITH UTILITY AGENCY REQUIREMENTS. THE CONTRACTOR SHALL COORDINATE WITH AFFECTED UTILITY AGENCIES THROUGHOUT THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.
- 20. CONDUIT LOCATIONS ARE SHOWN FOR ILLUSTRATIVE PURPOSES. ACTUAL LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD.
- 21. CONTRACTOR SHALL COORDINATE WITH THE CITY SIGNAL/ILLUMINATION TECHNICIAN AT 253.405.4390 PRIOR TO CONSTRUCTION.
- 22. THE LOCATION OF ALL CONDUITS, JUNCTION BOXES, POLES, AND CABINETS SHOWN ON THIS PLAN MAY BE ADJUSTED IN THE FIELD TO AVOID CONFLICTS AND MEET ADA REQUIREMENTS. ALL FINAL LOCATIONS SHALL BE APPROVED BY THE CITY TRAFFIC ENGINEER PRIOR TO CONSTRUCTION.
- 23. JUNCTION BOX LOCATIONS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. JUNCTION BOXES SHALL BE FIELD LOCATED BY THE CONTRACTOR WITH DIRECTION FROM THE CITY.
- 24. CONTRACTOR SHALL ADJUST JUNCTION BOX LIDS TO BE FLUSH WITH TOP OF SIDEWALK.
- 25. JUNCTION BOXES, CABLE VAULTS, AND PULL BOXES WHICH ARE PLACED WITHIN THE SIDEWALK SHALL HAVE SLIP RESISTANT LIDS WHICH MEET THE REQUIREMENTS OF AMERICANS WITH DISABILITIES ACT (ADA) AND PUBLIC RIGHT—OF—WAY ACCESSIBILITY GUIDELINES (PROWAG). APPROVED PRODUCTS ARE SLIPNOT GRIP PLATE GRADE 3 SURFACE AND IKG INDUSTRIES MEBAC#1.
- 26. ILLUMINATION CONDUIT SHALL BE PLACED IN THE SAME TRENCH AS OTHER UTILITIES WHERE POSSIBLE. THE JUNCTION BOX AND CONDUIT LOCATIONS SHOWN ARE APPROXIMATE.
- 27. THE CONTRACTOR SHALL SUBMIT A REQUEST TO THE CITY OF PUYALLUP FOR MATERIALS APPROVAL AT THE EARLIEST POSSIBLE DATE.
- 28. LIGHT STANDARD FOUNDATIONS SHALL NOT BE EXCAVATED AND POURED BEFORE POLE LOCATIONS ARE APPROVED BY THE ENGINEER.
- 29. THE CONTRACTOR SHALL CONFIRM THAT 10 FEET MINIMUM CIRCUMFERENTIAL CLEARANCE IS PROVIDED BETWEEN LUMINAIRE POLES AND OVERHEAD POWER LINES PRIOR TO FOUNDATION INSTALLATION. IF A CONFLICT IS DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO FOUNDATION INSTALLATION.

T BREAKER SC ' RD AND ROA	
BREAKER	CONTACTOR
1P-100 AMP	
1P-20 AMP	
1P-50 AMP	30 AMP
2P-20 AMP	30 AMP
2P-30 AMP	30 AMP
	RD AND ROA  BREAKER  1P-100 AMP  1P-20 AMP  1P-50 AMP  2P-20 AMP

- ILLUMINATION & SIGNAL GENERAL NOTES
- 1. ALL VEHICLE SIGNAL HEADS SHALL USE TYPE M MOUNTS (CONNECTED BETWEEN THE RED AND YELLOW SIGNAL FACES). ALL PEDESTRIAN SIGNAL HEADS SHALL USE TYPE E CLAMSHELL MOUNTS.
- 2. ALL PEDESTRIAN PUSH BUTTONS SHALL BE ACCESSIBLE PEDESTRIAN SIGNALS (APS) AND SHALL BE INSTALLED PER MUTCD STANDARDS. ALL CURB RAMPS SHALL MEET PROWAG STANDARDS.
- 3. THE LOCATION OF ALL CONDUITS, JUNCTION BOXES, POLES AND CABINETS SHOWN ON THIS PLAN MAY BE SLIGHTLY ADJUSTED IN THE FIELD TO AVOID CONFLICTS. ALL FINAL LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
- 4. ALL NEW FOUNDATION LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO EXCAVATION. CONTRACTOR SHALL CHECK FOR MINIMUM OVERHEAD CLEARANCE OF 16'6" FOR ALL SIGNAL HEADS ABOVE THE STREET PRIOR TO POURING THE FOUNDATION.
- ALL TRAFFIC SIGNAL AND PEDESTRIAN HEADS, AND PUSH BUTTONS SHALL BE SECURELY AND COMPLETELY COVERED WHILE SIGNAL IS NOT IN OPERATION. SIGNAL HEADS WILL BE BAGGED WITH A SMALL HOLE IN LINE WITH EACH SIGNAL LENS.
- 6. ALL CONDUCTORS FOR ALL ELECTRICAL EQUIPMENT SHALL BE LABELED IN EACH JUNCTION BOX.
- 7. ALL CONDUITS SHALL BE RIGID HOT-DIPPED GALVANIZED STEEL OR SCHEDULE 80 PVC WHEN EXPOSED ABOVE THE GROUND. SEE
- 8. ALL SIGNS SHALL BE VIP DIAMOND GRADE SHEETING FOR BOTH MAST ARM AND SHOULDER MOUNTS. STREET NAME SIGNS SHALL BE LED LIGHTED UNITS WITH THE CITY'S DAFFODIL LOGO. STREET NAME SIGNS WILL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. ALL LIGHTED STREET NAME SIGN LAYOUTS SHALL BE APPROVED BY THE CITY SIGN TECHNICIAN PRIOR TO
- 9. ALL JUNCTION BOXES SHALL BE PLACED BEHIND SIDEWALK. UNLESS OTHERWISE NOTED.
- 10. ALL WORK SHALL BE IN ACCORDANCE WITH CITY OF PUYALLUP STANDARDS AND SPECIFICATIONS.
- 11. THE LOCATIONS OF FEATURES SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR AS NECESSARY.
- 12. THE CONTRACTOR SHALL SUBMIT A REQUEST TO THE INSPECTOR FOR MATERIALS APPROVAL AT THE EARLIEST POSSIBLE DATE.
- 13. ALL WORK SHALL BE CONSISTENT WITH UTILITY AGENCY REQUIREMENTS. THE CONTRACTOR SHALL CONTACT ALL PERTINENT UTILITY AGENCIES 48 HOURS BEFORE COMMENCING WORK, AND SHALL COORDINATE WITH AFFECTED UTILITY AGENCIES THROUGHOUT THE PROJECT.
- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY THE AFFECTED UTILITY COMPANY AND THE CITY OF PUYALLUP IMMEDIATELY UPON DAMAGE.
- 15. EXISTING FEATURES TO REMAIN UNLESS OTHERWISE NOTED.
- 16. ALL JUNCTION BOXES CARRYING SIGNAL EQUIPMENT AND/OR INTERCONNECT SHALL HAVE THE LETTERS "TS" INSCRIBED ON THE LID. ALL JUNCTION BOXES CARRYING ONLY INTERCONNECT EQUIPMENT SHALL HAVE THE LETTERS "INTC" INSCRIBED ON THE LID.
- 17. ALL WORK SHALL MEET THE REQUIREMENTS OF THE PROJECT SPECIAL PROVISIONS AND THE CITY OF PUYALLUP STANDARD DRAWINGS.
- 18. THE TOP ELEVATION OF ALL POLE FOUNDATIONS SHALL BE APPROVED BY THE INSPECTOR PRIOR TO PLACING CONCRETE.
- 19. ANY NEW JUNCTION BOX WHICH WILL BE LOCATED WITHIN OR PARTIALLY WITHIN SIDEWALK SHALL HAVE LIDS AND FRAMES WITH A NON-SLIP COATING ON THE TOP SURFACE EQUAL TO MEBAC1 OR SLIPNOT#3.
- 20. A COPY OF THE LOAD CALCULATIONS SHALL BE PROVIDED TO THE CITY'S SIGNAL TECHNICIAN PRIOR TO INSTALLATION.
- 21. CONTRACTOR SHALL CONTACT THE CITY'S SIGNAL TECHNICIAN WHEN THE LIGHTS ARE READY TO BE ENERGIZED.
- 22. THE APPLICANT SHALL PURCHASE INSYNC ADAPTIVE CAMERAS DIRECTLY FROM RHYTHM ENGINEER (CHRIS FEES AT 913-227-0603 EXT. 145 OR SAWYER BRESLOW 913-227-0603 EXT. 136) AND PROVIDE TO THE CONTRACTOR FOR INSTALLATION. CITY STAFF CAN ASSIST WITH PREPARING AN AGREEMENT BETWEEN THE APPLICANT AND RHYTHM ENGINEERING. THE CONTRACTOR SHALL INSTALL COMPLETE INSYNC ADAPTIVE SYSTEMS AT THE SHAW/SITE ACCESS INTERSECTIONS AND COORDINATE DIRECTLY WITH RHYTHM ENGINEERING FOR PROGRAMMING.
- 23. THE REQUIRED SIGNAL MODIFICATIONS MUST BE FULLY CONFIGURED AND OPERATIONAL NO LESS THAN 2 WEEKS PRIOR TO RECEIVING OCCUPANCY FOR ANY BUILDING ON-SITE. ADAPTIVE SIGNAL CONTRACTOR (RHYTHM ENGINEERING) WILL BE REQUIRED TO CONFIGURE THE ADAPTIVE SYSTEM ON-SITE.

BY: CITY OF PUYALLUP ENGINEERING SERVICES
DATE  NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE.  THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER

APPROVED

No.	Date	Ву	Revision Description	Designed By:	Issue Date:	
				LAB	09/29/2023	
				Drawn By:	PERMIT	
				LAB		
				Checked By:	Project No.:	İ
•				GRL	2022-295	

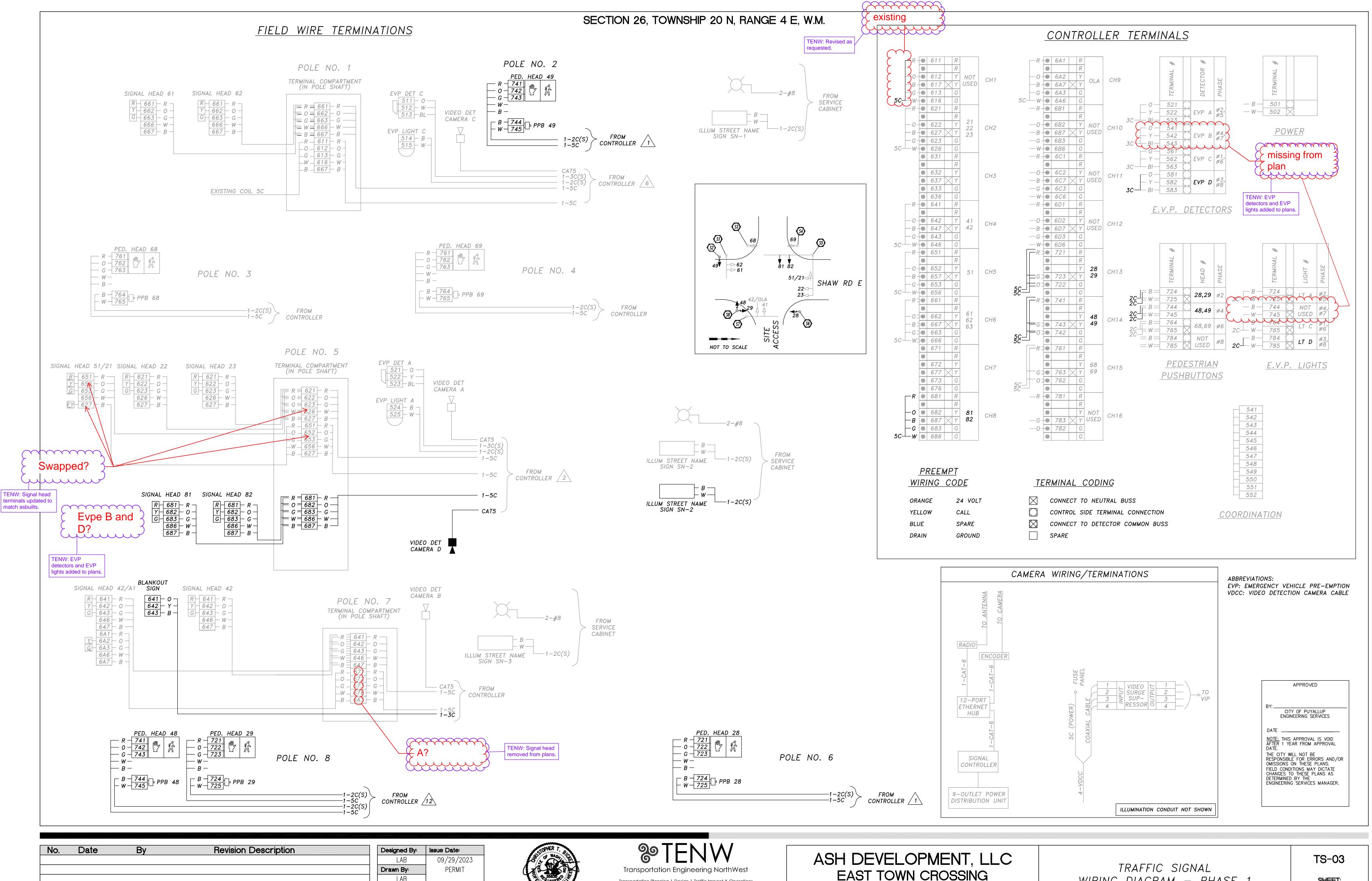




ASH DEVELOPMENT, LLC EAST TOWN CROSSING PUYALLUP, WA

TRAFFIC SIGNAL WIRE SCHEDULE - PHASE

TS-02



Date	Ву	Revision Description	Designed By:	Issue Date:
			LAB	09/29/2023
			Drawn By:	PERMIT
			LAB	
			Checked By:	Project No.:
			GRL	2022-295

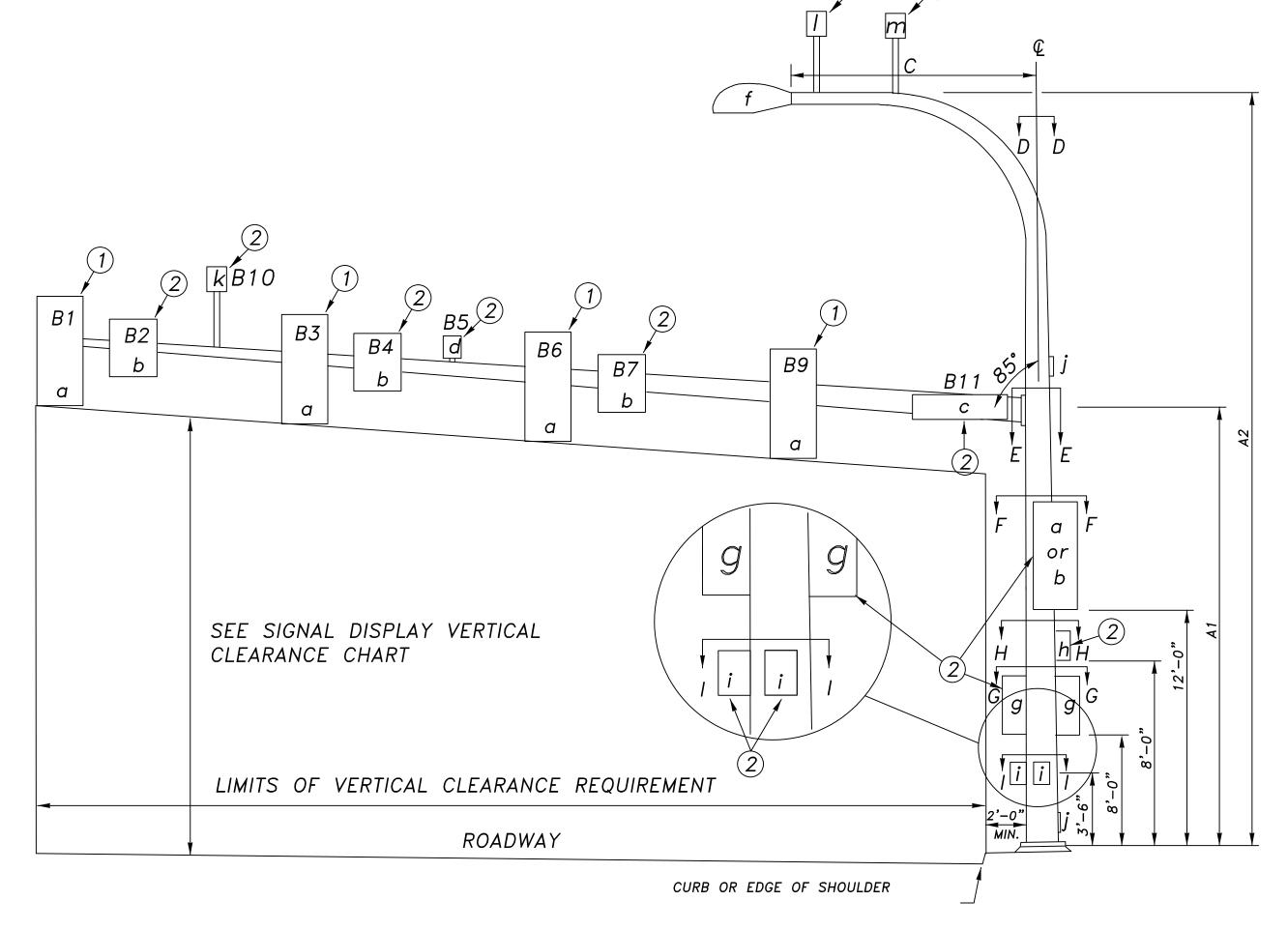




EAST TOWN CROSSING PUYALLUP, WA

WIRING DIAGRAM - PHASE

SHEET:



LEGEND

- a. VEHICLE SIGNAL HEAD
- b. SIGN
- c. ILLUMINATED STREET NAME SIGN
- d. PRE-EMPT DETECTOR
- e. DELETED (10/22/90)
- f. LUMINIARE g. PEDESTRIAN SIGNAL HEAD
- h. RECESSED TERMINAL COMPARTMENT
- i. PEDESTIAN PUSHBUTTON ASSEMBLY
- j. HANDHOLE
- k. VIDEO DETECTION CAMERA
- I. PTZ CAMERA
- m. BROADBAND PANEL ANTENNA

ALTERNATE NOTE 1 FOR TYPE N MOUNT ONLY:

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

#### NOTE.

- 1 MOUNTING COUPLING INSTALLED AT OFFSET DISTANCE INDICATED IN
- (2) FIELD INSTALLED.

TYPE II MAST ARM SIGNAL STANDARD TYPE III COMBINATION LIGHTING AND MAST ARM SIGNAL STANDARD

SIGNAL DISPLAY VERTICAL CLEARANCE (FEET)

DISTANCE FROM STOP LINE	4	0'	4.	5'	5	0'	53' OF	MORE			
DISTANCE FROM STOP LINE	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.			
3 SECTION 12" 5 SECTION (DOGHOUSE) 12"	16.5	17.5	16.5	19.2'	16.5	20.9	16.5	22.0'			
4 SECTION 12"	16.5	17.0'	16.5	18.0'	16.5	19.7'	16.5	20.8'			
5 SECTION (VERTICAL) 12"	16.5	17.0'	16.5	17.5	16.5	18.5	16.5	19.6'			
	M	EASURED	FROM I	воттом	OF SIGN	AL HEAD	HOUSIN	IG			
	(BACKPLATE) TO ROADWAY										

Verify new signage is included for new wind area loading TS-04

TENW: Confirmed. Proposed windload including new sign is 921 ft<sup>3</sup>.

																•	SIGN	IAL S	TANL	DARD	DE	TAIL	CHAF	RT														
STD. NO.	REFERENCE ROADWAY		LOCATION	114		MOUNTING EIGHT (FT		MAST	DOLE ATTACHMENT DOINT ANGLES TORGET							REMARKS																						
$\bigcirc$	ROADWAT	STATION	OFFSET LT.R	T.P.O.A.	A1	A	2		B1	B2	В3	В4	B5	В6	B7	В9	B10	B11	B1	B2	B3	B4	B6 I	37 B9	9 B10	) B11	TOTAL(FT	')' / C		E1	F1 F	-2 G1	G2	Н	<b>I</b> 1	12 3'	RD. 3' SQ. 4' RD.	
1   9	SHAW RD E	EX	EX X	O° EX	III 18.	0' 30.	.0'	43.0'	-	39.0'	34.0'	_	27.0'	23.0'	_	_	_	16.5	_	6.3	9.2	_	9.2	_   _	_	6.7	1381	12'	_	_	-   -	-   -	_	135	-	- 1	1 9 9	
2 3	SHAW RD E	12+01.5	44.0'X	_ PS	;   -	-	-	-	-	-	-	_	-	_	_	_	_	_	_	_	_	-	_	-   -	-	-	_	_		-	_   .	- (3)	-	- 2	70	-   -	_	FDN PER WSDOT J-21.10
3 5	SHAW RD E	EX	EX X	- EX I	PS -	-	-	-	-	-	-	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_	-	_	-	- (3)	_	_	0			
4 5	SHAW RD E	EX	EX X	- EX I	-S -	-	-	-	-	-	_	_	_	_	_	_	_	_	_	_	_	_	_	-   -	_	_	_	_	-	-	-	- (3)	-	_	0		-   -   -	
E / /3	SHAW RD E	EX	EX X	0° [V	17.	0' 30.	.0' 7	75.0' 7	75.0'	-	63.5	56.0'	69.5	51.5	_	_	_	20.5	9.2	_	9.2	7.5	11.6	_	_	6.7	2429	12'	_	0	0 -	-   -	_	270	-	-	12	
52 3	SHAW KU E		[ ]	O° EX	17.	0' -	- 6	52.0' 62	2.0′(2)	59.0'	51.0(2)	_	_	43.0′(2)	_	_	_	33.0'	11.6	7.5	9.2	-	9.2	-   -		6.7	2220	_	_	90	-		_	2/0	-	-		
6 5	SHAW RD E	13+01.0	47.0° X	( – PS	; –	_	-	-	-	-	_	_	-	_	_	_	_	_	_	_	_	-	_	-   -	-	_	_	_	-	-	-	- (3)	_	_	0			FDN PER WSDOT J-21.10
7 5	SHAW RD E	EX	EX X	( 90° EX	III 18.	0' 30	.0' 3	38.0' 3	30.0'	26.5'	16.5	_	11.5	_	3.0	_	_	23.0'	11.6	7.5	9.2	_	9.2 6	.3 –	_	6.7	1477	12'	_	_	0		_	135	-	- 1	1 9 9	
8	SHAW RD E	12+12.0	45.0' X	( – PS	; –	_	-	-	-	-	_	_	-	-	_	_	_	_	_	_	_	-	_	-   -	-	_	_	_	-	_	_	- (3)	_	_	0 !	90 -	-   -   -	FDN PER WSDOT J-21.10
· · · · · ·			$\sim$			1	· ·						1	1		•		1		'	1		•					I	-		· · · · ·							•

SIGNAL STANDARD DETAIL CHART NOTES

- (1) FOUNDATION DEPTHS ARE BASED ON AN ALLOWABLE LATERAL BEARING CAPACITY OF 1,000 PSF. RECOMMENDED PER COORDINATION WITH EARTH SOLUTIONS NW, LLC ON 1/3/2019.
- (2) INSTALL NEW VEHICLE HEAD ON EXISTING TENON.
- (3) N/A: PEDESTRIAN SIGNAL HEAD SHALL USE TYPE "D" TOP MOUNT.
- (4) CALCULATED WINDLOAD PLUS 500 FT<sup>3</sup> FOR FUTURE UNKNOWN CONDITIONS.
- (5) NOT APPLICABLE. PEDESTRIAN SIGNAL HEAD SHALL BE MOUNTED WITH A TYPE D TOP MOUNT.

ENGINEERING SERVICES  DATE  NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE.  THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

APPROVED

No.	Date	Ву	Revision Description	Designed By:	Issue Date:
				LAB	09/29/2023
				Drawn By:	PERMIT
				LAB	
				Checked By:	Project No.:
				GRL	2022-295

TENW: Revised as requested.

POLE ORIENTATION AND ATTACHMENT POINT DETAIL

BASE PLATE

- LOCATION STATION

 $\sim\sim\sim\sim$ 

TENW: Revised as requested.

Update based PT/PM

FYA phasing, FYA

signage, etc.

ALL HANDHOLES

AT 180°

TYPICAL E1 SIGNAL ARM ATTACHMENT

POINT

POLE ORIENTATION

0° POINT

ANGLE (P.O.A.) DEGREES CLOCKWISE

FROM OFFSET LINE TO

SIGNAL STANDARD DETAILS

TYPE PS

PED. HEAD STANDARD

Update based PT/PM FYA phasing, FYA signage, overlap removal, electronic

blank-out sign, etc.



Transportation Engineering NorthWest

Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747

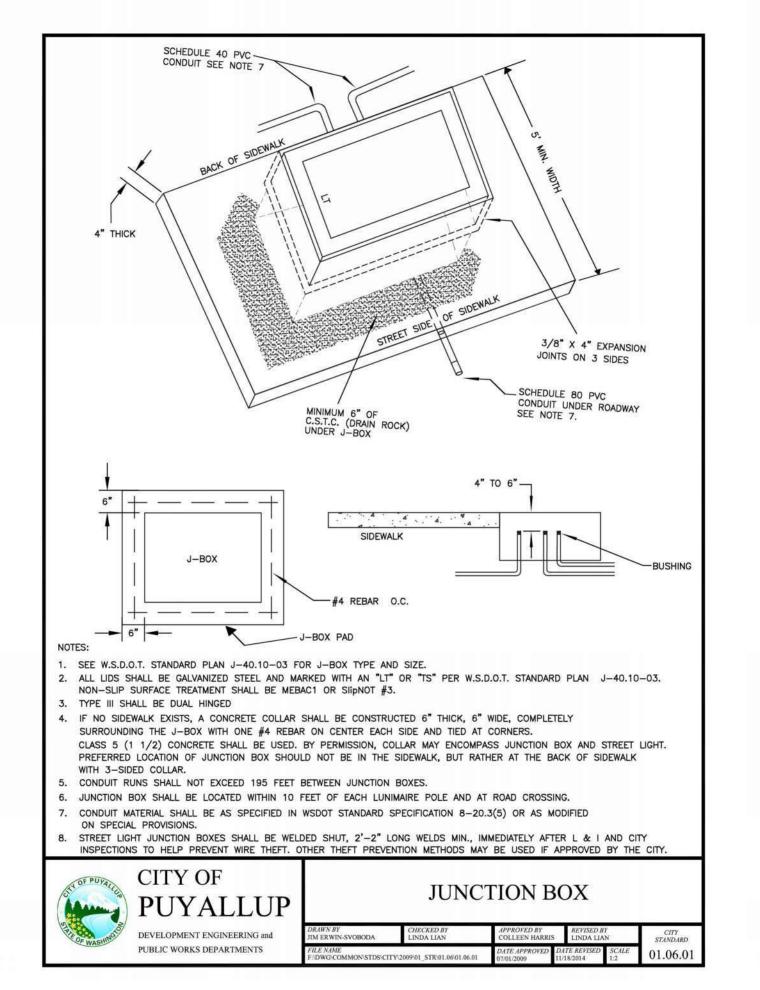
Project Contact: Trevor Takara, P.E.

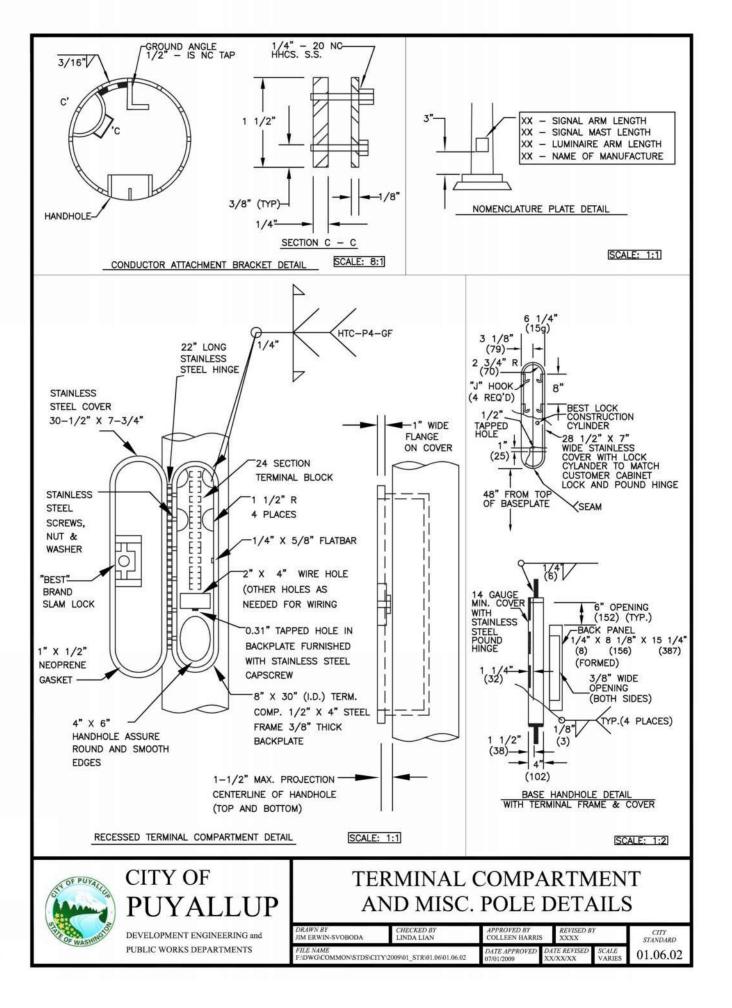
Phone: 206-914-3843

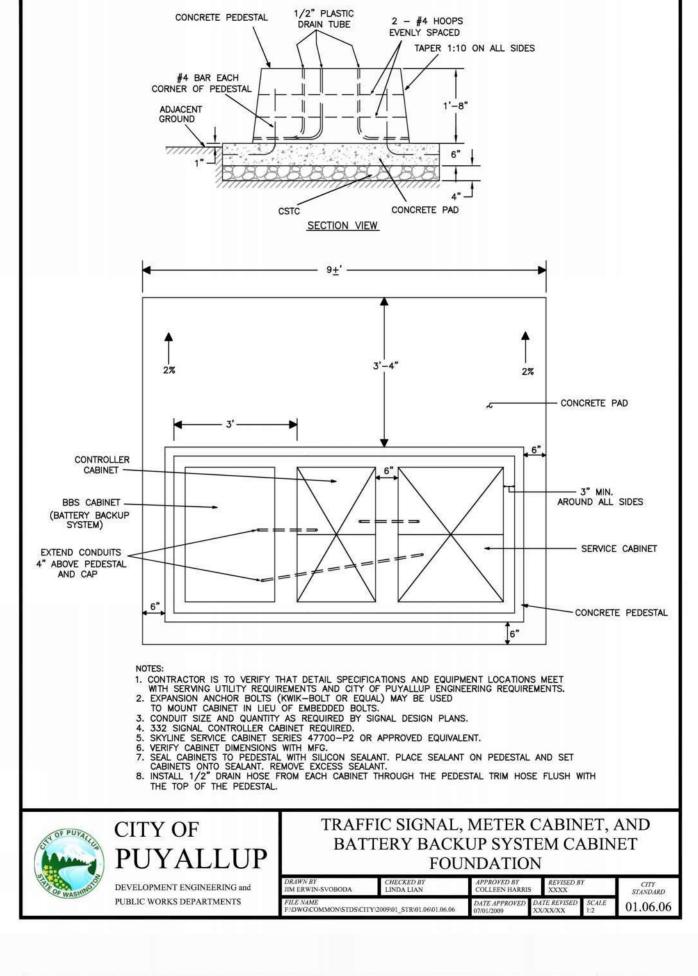
ASH DEVELOPMENT, LLC
EAST TOWN CROSSING
PUYALLUP, WA

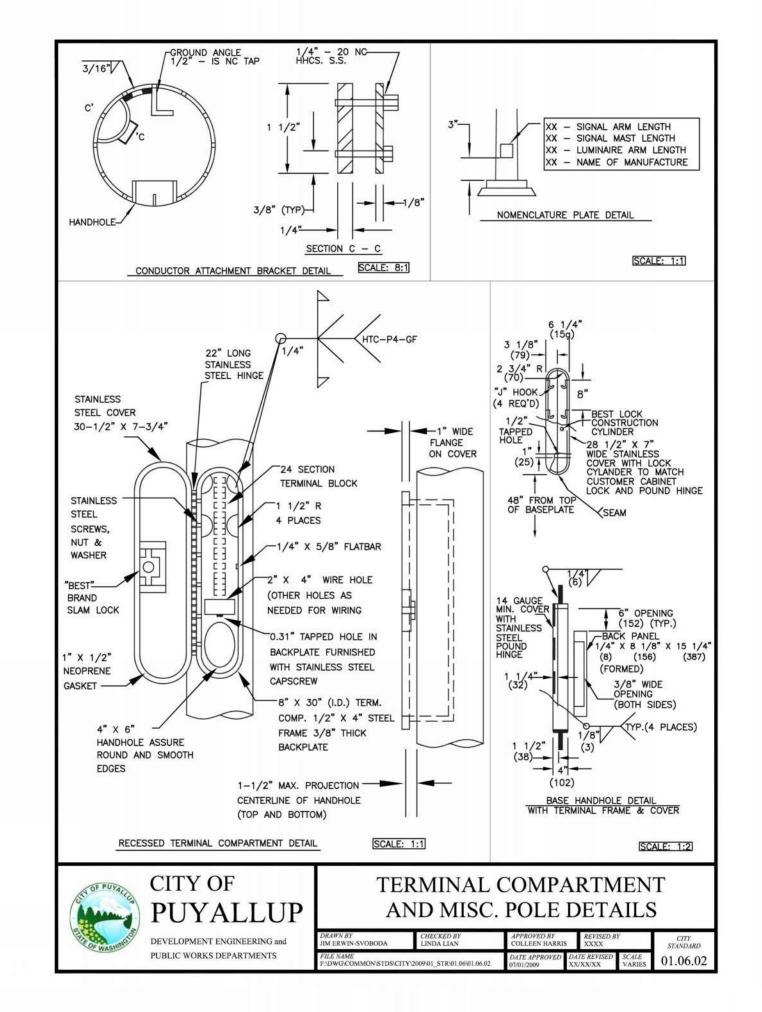
TRAFFIC SIGNAL POLE SCHEDULE — PHASE 1 TS-04 SHEET:

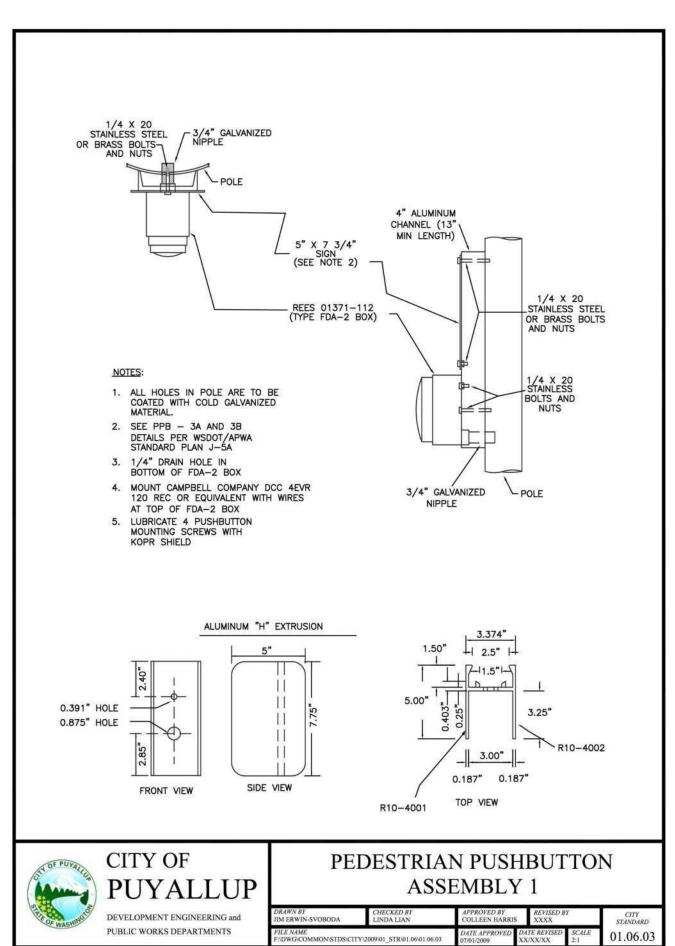
OF

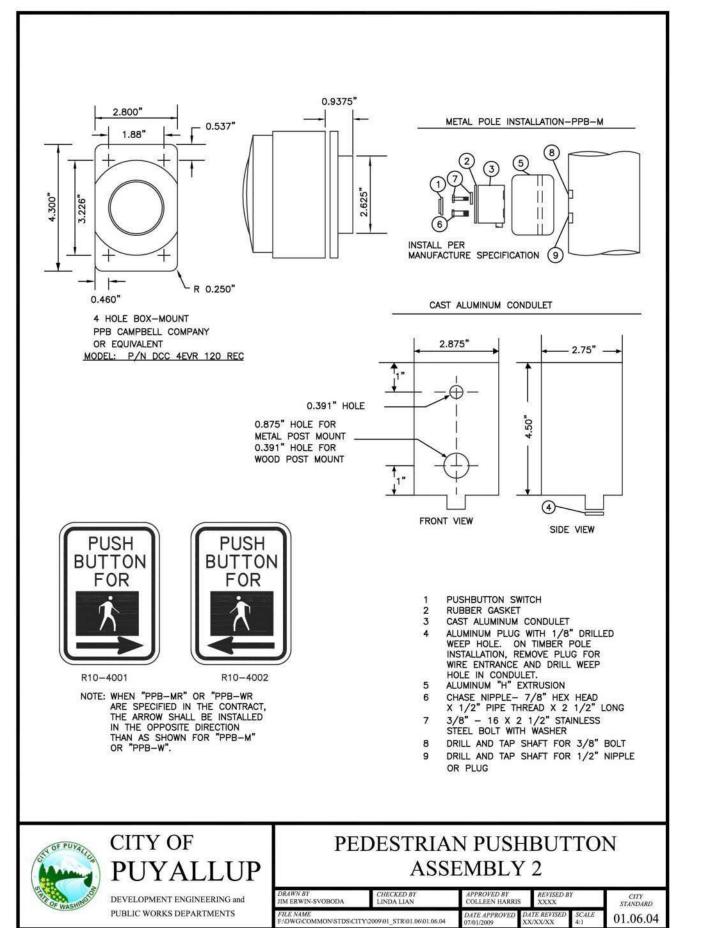


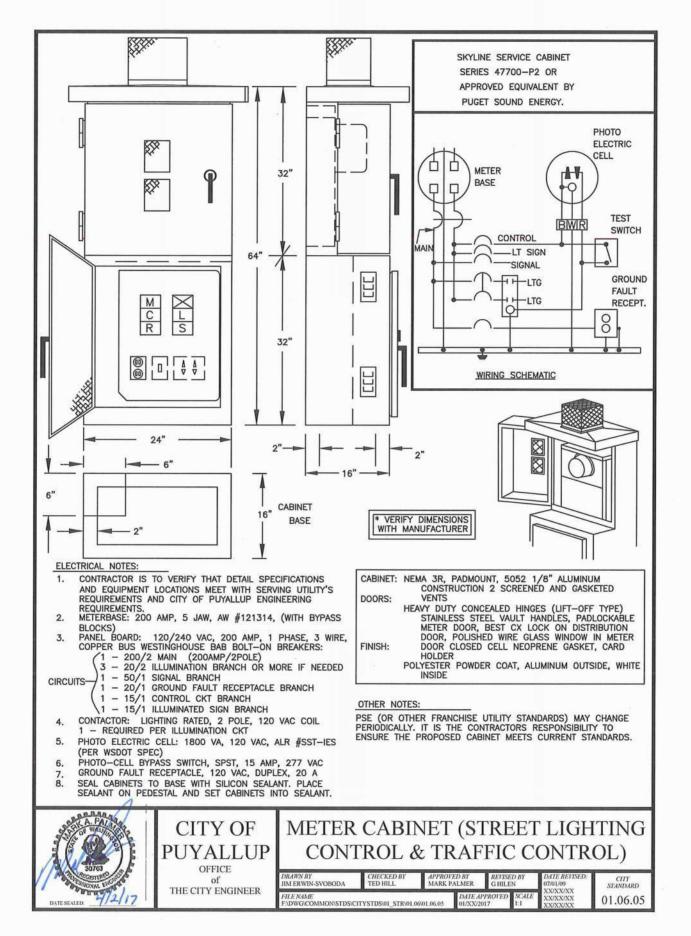


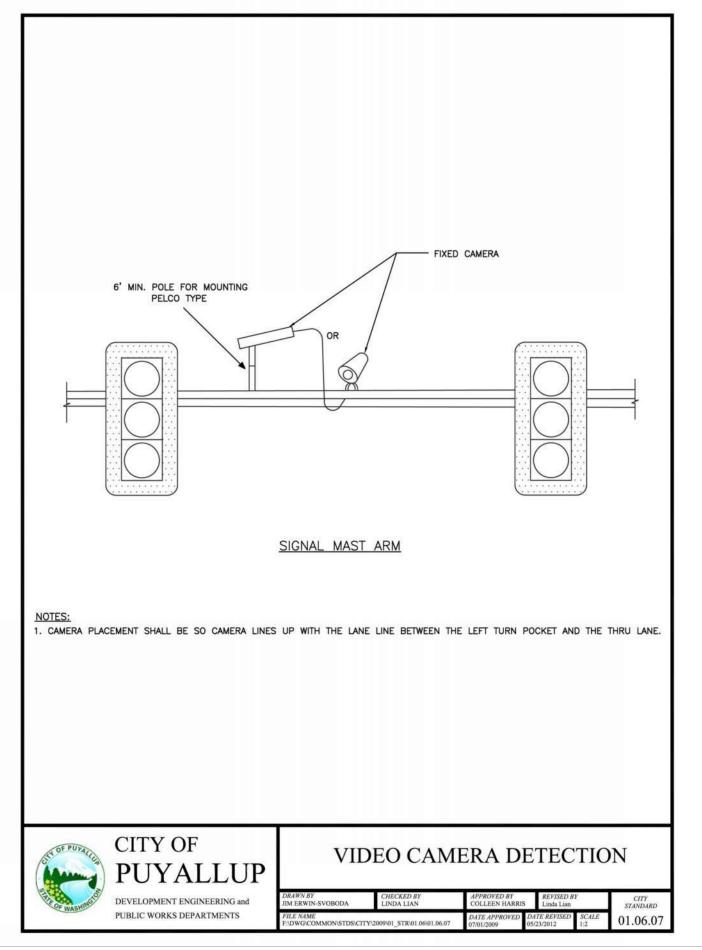


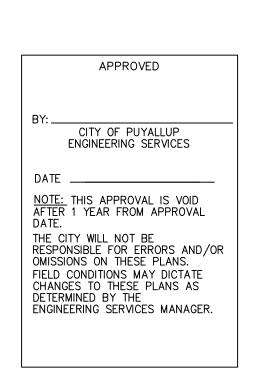












No.	Date	Bv	Revision Description	
INO.	Date	Бу	Hevision Description	

Designed By:	Issue Date:		
LAB	09/29/2023		
Drawn By:	PERMIT		
LAB			
Checked By:	Project No.:		
GRL	2022-295		





Phone: 206-914-3843

#### OENERAL:

THE INTENT OF THE FOLLOWING SPECIFICATION IS TO PROVIDE A COMPLETE, READY TO INSTALL, 2-WAY PAGING CONTROL, SOLAR POWERED SCHOOL ZONE FLASHING BEACON SYSTEM.

#### DESCRIPTION:

THE PURPOSE OF THIS SPECIFICATION IS TO DESCRIBE THE MINIMUM ACCEPTABLE DESIGN FOR A 2-WAY PAGING SOLAR POWERED, DUAL BEACON SCHOOL ZONE FLASHING BEACON SYSTEM. THE SYSTEM WILL BE DESIGNED TO OPERATE FOR A PERIOD OF 4 HOURS PER DAY, 5 DAYS PER WEEK. THE SYSTEM SHALL BE DESIGNED TO OPERATE WITH A PROBABILITY OF NO LOSS OF LOAD DURING ALL MONTHS OF THE YEAR.

#### 1 CARNE

THE CABINET SHALL BE MANUFACTURED OF 0.125" SHEET ALUMINUM. NOMINAL CABINET DIMENSIONS SHALL BE 26.25" H x 15.5" W x 14.75" D. THE CABINET SHALL BE A TWO (2)COMPARTMENT TYPE, THE BOTTOM COMPARTMENT SHALL HAVE A NEOPRENE GASKET SEAL SO AS TO PREVENT BATTERY GASES FROM SEEPING INTO THE TOP COMPARTMENT. THE CABINET SHALL HAVE WIRE SCREENED INSECT PROOF LOUVERS ON EACH SIDE OF BOTH COMPARTMENTS FOR VENTILATION. THE LOUVERS SHALL BE DESIGNED TO NOT ALLOW ANY RAIN TO ENTER THE CABINET. ON THE BOTTOM OF THE CABINET THERE SHALL BE TWO SCREENED INSECT PROOF DRAIN HOLES.

THE DOOR SHALL BE A SINGLE UNIT WITH A CONTINUOUS PIANO HINGE RIVETED TO THE DOOR AND THE CABINET. THE DOOR SHALL INCORPORATE A NEOPRENE GASKET WHICH, WHEN CLOSED, FORMS A SNUG WEATHER TIGHT SEAL. THE DOOR LOCK SHALL BE A STANDARD POLICE LOCK, REINFORCED WITH A STEEL PLATE.

EACH CABINET SHALL BE EQUIPPED WITH THE NECESSARY RIGID TOP AND BOTTOM MOUNT FOR A 4" ID POLE WITH 4.5" OD POLE CLAMPS. ALL NECESSARY HARDWARE FOR PROPER MOUNTING SHALL BE INCLUDED.

#### 2. CONTROL PANE

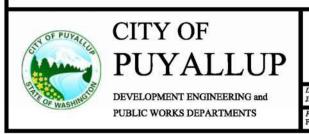
THE CONTROL PANEL CONTAINING THE ELECTRONICS (SOLAR CHARGE CONTROLLER AND FLASHER) AND 2-WAY PAGING TIME CLOCK SHALL BE MOUNTED IN THE TOP COMPARTMENT OF THE CABINET USING BOLTS WITH WING NUTS FOR QUICK AND EASY REMOVAL. THE SOLAR PANEL BEACON AND BATTERY SHALL BE CONNECTED THROUGH A MAIN WIRING HARNESS VIA A CIRCULAR PIN CONNECTED (CRO.)

THE SOLAR PANELS, LOAD, AND BATTERY SHALL BE FUSED FOR SHORT CIRCUIT PROTECTION AND EASE OF SYSTEM MAINTENANCE.

## SOLAR CHARGE CONTROLLER

THE SOLAR CHARGE CONTROLLER SHALL CONTROL BATTERY CHARGING THROUGH PULSE WIDTH, MODULATED, TEMPERATURE COMPENSATING, CONSTANT CHARGING ALGORITHM. THE SOLAR CHARGE CONTROLLER WILL HAVE BOTH A LOW VOLTAGE DISCONNECT (LVD) OF 11.4 VDC AND A HIGH VOLTAGE DISCONNECT (HVD) OF 15.5 VDC. A LIQUID CRYSTAL DISPLAY (LCD) OF BATTERY VOLTAGE, SOLAR ARRAY CURRENT, AND LOAD CURRENT WILL BE AVAILABLE WITH THE SOLAR CHARGE CONTROLLER. IN ADDITION, COLORED LED'S WILL DISPLAY BATTERY STATE. A GREEN LED WILL INDICATE FULL CHARGE, AMBER LED WILL INDICATE HALF CHARGE, AND A FLASHING RED LED WILL INDICATE LOW CHARGE. A SOLID GLOWING RED LED WILL INDICATE THE LOAD HAS BEEN DISCONNECTED. A SEPARATE GREEN LED WILL INDICATE THE BATTERY IS BEING CHARGED.

THE SOLAR CHARGE CONTROLLER WILL HAVE A LOAD DISCONNECT PUSHBUTTON. WHEN THE LOAD IS DISCONNECTED THE BUTTON WILL GLOW RED.



SOLAR POWERED SCHOOL ZONE FLASHING BEACON SYSTEM NOTES

	II (O DEII)	001, 01	~		0120
Y N-SVOBODA	CHECKED BY LINDA LIAN	APPROVED BY COLLEEN HARRIS			CITY STANDARD
E CONCERNO CITACOTO CITACO CO C		DATE APPROVED I	DATE REVISED	SCALE	01 07 03

THE SOLAR CHARGE CONTROLLER WILL BE CAPABLE OF OPERATING IN A TEMPERATURE RANGE OF -40 DEGREES C AND +85 DEGREES C.

#### FLASHER

THE FLASHER SHALL BE SOLID STATE, 2 CIRCUIT DEVICE WHICH CONTROLS THE FLASHING SEQUENCE OF THE BEACON. THE FLASHER WILL HAVE A SELECTABLE FLASH RATE OF 35-70 FLASHES PER MINUTE AND WILL FLASH A DUTY CYCLE OF 50% ON AND 50%

THE FLASHER WILL BE CAPABLE OF OPERATING IN A TEMPERATURE RANGE OF -40 DEGREES C AND +85 DEGREES C.

### 8. 2-WAY PAGING TIME CLOCK

THE 2-WAY PAGING TIME CLOCK WILL CONTAIN BOTH THE CAPABILITY OF RECEIVING PAGES FROM A CENTRAL LOCATION AND RESPONDING VIA EMAIL TO A DESIGNATED ADDRESS. THE 2-WAY PAGING TIME CLOCK WILL BE ABLE TO RECEIVE AND STORE AN ANNUAL PROGRAM OF UP TO 960 CHARACTERS INCLUDING STEPS AND EXCEPTIONS, AN ALTERNATE PROGRAM, AND AN IMMEDIATE PROGRAM. THE 2-WAY PAGING TIME CLOCK WILL SELECT THE APPROPRIATE PROGRAM AND/OR EXCEPTION FOR TODAY AND WILL RUN THAT PROGRAM. THE 2-WAY PAGING TIME CLOCK WILL ALSO HAVE THE CAPABILITY OF BEING PROGRAMMED VIA A KEY PAD ON THE TIME CLOCK.

THE 2-WAY PAGING TIME CLOCK WILL CONTAIN WATCH DOG CIRCUITS TO ENSURE THAT THE CLOCK RESETS ITSELF SHOULD IT FAULT FOR A PERIOD GREATER THAN SPECIFIED. THE CLOCK WILL CONTAIN 2 OUTPUT CIRCUITS, EACH CIRCUIT RATED AT 16 AMPS. THE CLOCK WILL BE CAPABLE OF BEING POWERED BY EITHER DC OR AC POWER. THE CLOCK WILL CONTAIN NON-VOLATILE MEMORY SO THAT A POWER FAILURE WILL NOT ERASE THE PROGRAM. THE CLOCK WILL HAVE CAPACITIVE BACKUP POWER RATED AT 168 HOURS IN THE EVENT OF POWER FAILURE. THE CLOCK WILL BE CAPABLE OF LEAP YEAR COMPENSATION AND WILL AUTOMATICALLY

SYSTEM SOFTWARE WILL BE PROVIDED FOR OPERATION OF THE SYSTEM. FUNCTIONS AND FEATURES OF THE SOFTWARE ARE DESCRIBED IN SECTION 3.1.

THE 2-WAY PAGING TIME CLOCK WILL BE CAPABLE OF OPERATING IN A TEMPERATURE RANGE OF -40 DEGREES C AND +85 DEGREES C

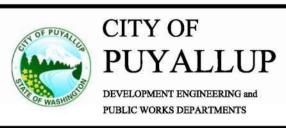
#### 3.1 2-WAY PAGING SYSTEM SOFTWARE

THE 2-WAY PAGING SYSTEM SOFTWARE WILL RUN ON A STANDARD PC USING A WINDOWS 2000, XP, OR VISTA OPERATING

THE SOFTWARE WILL HAVE THE CAPABILITY TO ASSIGN 99 GROUPS WITH 99 UNITS PER GROUP. THE SOFTWARE WILL ALLOW THE USER TO CREATE AN ANNUAL PROGRAM WITH EXCEPTIONS FOR EACH GROUP AND WILL ALLOW THE USER TO COPY PROGRAMS FROM ONE GROUP TO ANOTHER GROUP. THE SOFTWARE WILL ALLOW THE USER TO CREATE AN ALTERNATE PROGRAM WHICH OVERRIDES THE ANNUAL PROGRAM FOR A SPECIFIED PERIOD. THE SOFTWARE WILL ALLOW THE USER TO CREATE AN IMMEDIATE EXECUTABLE PROGRAM WHICH OPERATES ONLY ON THE DATE OF THE PROGRAM. THE SOFTWARE WILL ALSO ALLOW THE USER TO CONTROL THE CLOCK MANUALLY.

THE SOFTWARE WILL ALLOW THE USER TO PRINT A HARDCOPY LISTING OF ALL SCHOOL PROGRAMS. IT WILL ALLOW THE USER TO PRINT A LISTING OR ALL REMOTE SITES. IT WILL MAINTAIN A HISTORY OF THE LAST 500 PAGE MESSAGES SENT TO REMOTE LINITS

THE SOFTWARE WILL ALLOW THE USER TO ADDRESS AND SEND A PAGE MESSAGE TO ALL UNITS WITH ONE COMMAND, ANY GROUP OF UNITS WITH ONE COMMAND, OR A SINGLE UNIT WITH ONE COMMAND.



CITY OF SOLAR POWERED SCHOOL ZONE FLASHING BEACON SYSTEM NOTES

ODA CHECKED BY APPROVED BY CITY STANDARD ON STDSICITYSTDSISTRIOLO701.07.04

APPROVED BY CUTY XXXX STANDARD ON STDSICITYSTDSISTRIOLO701.07.04

APPROVED BY XXXX STANDARD ON STANDARD ON STDSICITYSTDSISTRIOLO701.07.04

THE SOFTWARE WILL ALLOW THE USER TO CHANGE THE EMAIL ADDRESS TO WHICH THE UNIT RESPONDS, TO SEND AN ANNUAL PROGRAM WITH EXCEPTIONS, TO SEND AN ALTERNATE PROGRAM, TO SEND AN IMMEDIATE PROGRAM, TO TURN ON OR TURN OFF THE RELAYS MANUALLY, TO SEND A TIME UPDATE, OR TO QUERY THE UNITS REGARDING STATUS (DATE, TIME, UNIT IDENTIFICATION, PROGRAM RUNNING, AND RELAY STATE).

#### 4. SOLAR PANEL

THE SOLAR PANEL WILL BE HIGH EFFICIENCY, SINGLE CRYSTAL SILICON SOLAR CELLS THAT ARE LAMINATED TO GLASS WITH LAYERS OF ETHYLENE VINYL ACETATE (EVA). THE PANEL WILL BE SELF-CLEANING, IMPACT RESISTANT, HIGHLY TRANSMISSIVE, TEMPERED GLASS SUPERSTATE. THE PANEL MODULE FRAME WILL BE MADE OF EXTRUDED, POLYMER COATED ALUMINUM ALLOY OR SIMILAR APPROVED CONSTRUCTION. THE PANEL MODULE JUNCTION BOX WILL BE A UV RESISTANT, WEATHERPROOF WIRE TERMINATION SYSTEM WHICH HANDLES #14 AWG WIRING. THE MINIMUM ACCEPTABLE WATTAGE OF THE SOLAR PANEL WILL BE 85 WATTS.

#### 5. BATTERES

THE BATTERIES WILL BE A TYPE 27 ABSORBED GLASS MAT (AGM) LEAD ACID TYPE 12 VOLT DC BATTERY. THE BATTERIES WILL CONTAIN VALVE REGULATION WITH A SELF DISCHARGE RATE OF 1% PER MONTH OR LESS (AT 68 DEGREES F). THE BATTERIES WILL UTILIZE T881 TERMINALS. THE POSITIVE TERMINAL WILL BE COVERED WITH A RUBBER BOOT TO PROTECT THE BATTERIES FROM ACCIDENTAL SHORTING.

#### 6. SIGNAL BEACO

THE SIGNAL BEACONS WILL CONSIST OF THE HEAD, AMBER LENS, VISOR, SIGNAL CLOSURE CAP, AND MOUNTING HARDWARE FOR A 4.5" OD ALUMINUM POLE. THE LENS WILL BE A 12VDC 12" AMBER LED BEACON USING ALLnGaP TECHNOLOGY. THE HEAD WILL BE A ONE PIECE POLYCARBONATE SHELL WITH THE POLYCARBONATE DOOR USING STAINLESS STEEL HINGE PINS. THUMBSCREWS WILL HOLD THE DOOR AGAINST THE BODY. THE VISOR SHALL BE A ONE PIECE POLYCARBONATE TUNNEL UNIT WHICH SHALL BE DURALOCKED AT FOUR POINTS TO THE HEAD DOOR.

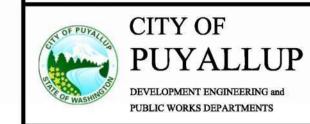
THE SIGNAL BEACON WILL BE ASSEMBLED AND WIRED AS A UNIT.

#### 7. POLE AND BASE

THE POLE WILL BE A SCHEDULE 80 SPUN ALUMINUM 4" ID (4.5" OD) x 16' H. THE BASE WILL BE A BREAKAWAY BASE SIMILAR TO PELCO PART NUMBER PB-5340. A SET OF 4 ANCHOR BOLTS WILL BE PROVIDED. THE ANCHOR BOLTS WILL BE 3/4" x 10" AND WILL BE SIMILAR TO PELCO PART NUMBER PB-5306. A POLE COLLAR ASSEMBLY AND A POLE CAP WILL ALSO BE PROVIDED.

## 8. WARRANTY

A MINIMUM OF ONE YEAR WARRANTY FROM THE DATE OF SYSTEM INSTALLATION WILL BE REQUIRED FOR ALL SYSTEM COMPONENTS. THE BATTERY WILL BE PRO—RATED WARRANTED FOR 5 YEARS. THE SOLAR PANEL WILL BE WARRANTED FOR 20 YEARS. ALL SHIPPING COSTS FOR WARRANTY REPAIRS WILL BE PAID BY THE VENDOR.



SOLAR POWERED SCHOOL ZONE FLASHING BEACON SYSTEM NOTES

DRAWN BY
JIM ERWIN-SVOBODA

CHECKED BY
LINDA LIAN

CHECKED BY
LINDA LIAN

APPROVED BY
COLLEEN HARRIS

XXXX

CITY
STANDARD

FILE NAME
F-IDWGCOMMONISTDSICITYSTDSISTR\0.1.07\0.107\0.107\0.05

APPROVED

CITY OF PUYALLUP ENGINEERING SERVICES

No. Date By Revision Description

LAB

Drawn By:

LAB

Checked By:

GRL



Issue Date:

Project No.:

09/29/2023

PERMIT

2022-295



Project Contact: Trevor Takara, P.E.

Phone: 206-914-3843