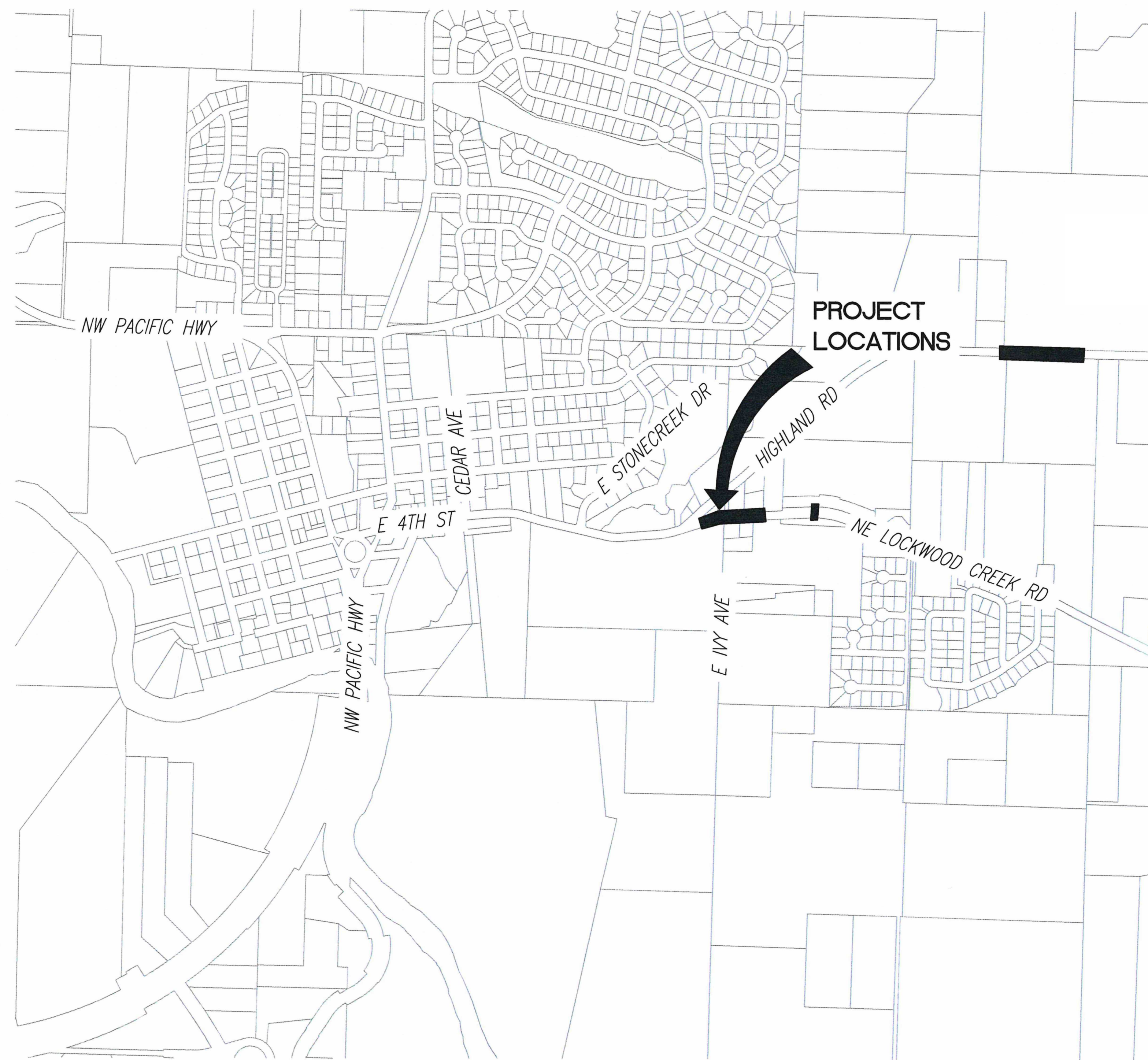


CITY OF LA CENTER

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL

PLANS FOR THE CONSTRUCTION OF TRAFFIC SIGNAL, SIGNING, STRIPING, AND STREET IMPROVEMENTS



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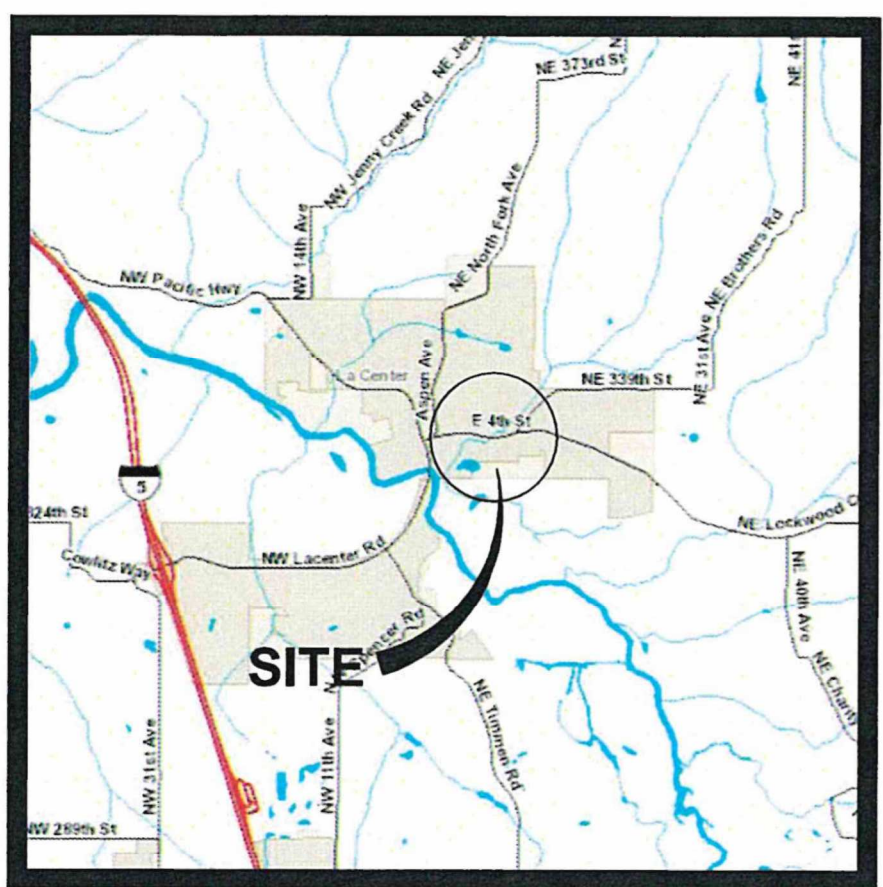
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VICINITY MAP
NOT TO SCALE

VICINITY MAP
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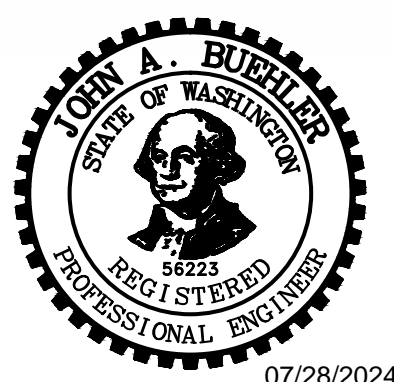
CITY OF LA CENTER PROJECT NO. PW 2024-02



No.	Revision	Date	By	App'd
1				

FEDERAL AID No. HLP-SR23 (020)
CONTRACT No. TA 8036

CITY OF LA CENTER
AUTHORIZED FOR ADVERTISEMENT/BIDDING/CONSTRUCTION BY:
Anthony Cooper
Approved Date 07/26/2024



FINAL PLANS



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JULY 2024
SHEET ID
G01
SHEET 1 OF 50

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HATCH LEGEND		PROPOSED SYMBOL LEGEND		PROPOSED LINETYPE LEGEND		EXISTING LINETYPE LEGEND		A		E		N		S	
Proposed Asphalt Concrete		Proposed Irrigation Meter		Proposed Irrigation Lateral		Existing Irrigation Pipe		Ac	Acres	E	East	N	North	SF	Square Feet
		Proposed Irrigation Backflow Device		Proposed Irrigation Pipe		Existing 4" Irrigation Pipe		AC	Asphalt Concrete	EG	Extg Ground	NA	Not Applicable	SHLDR	Shoulder
		Proposed Irrigation Valve		Proposed Sanitary Force Main		Existing 6" Irrigation Pipe		AD	Area Drain	EL	Elevation	No or #	Number	SHT	Sheet
Proposed Cement Concrete		Proposed Irrigation Bend Tee W/ TB		Proposed Sanitary Lateral		Existing 8" Irrigation Pipe		ADS	Advanced Drainage Systems	ELEC	Electric	NE	Northeast	SLV	Sleeve
		Proposed Irrigation Bend Tee W/ Valve		Proposed Sanitary Sewer Pipe		Existing 10" Irrigation Pipe		APPD	Approved	EOP	End Of Project	NIC	Not In Contract	SPEC	Specification
Proposed Truncated Domes		Proposed Irrigation Stand Pipe		Proposed Storm Pipe		Existing 12" Irrigation Pipe		ASSY	Assembly	EP	Edge Of Pavement	NOM	Nominal	SQ	Square
		Proposed Irrigation Bend X		Proposed Storm Rain Drain		Existing Irrigation Lateral		ASTM	American Society for Testing & Materials	ER	End Curb Return	NTS	Not to Scale	SS	Sanitary Sewer
Proposed Gravel Road		Proposed Irrigation Temporary Blowoff		Proposed Storm Under Drain		Existing Sanitary Force Main		AVE	Avenue	ESMT	Easement	NW	Northwest	S/S	Stainless Steel
		Proposed Irrigation Standard Blowoff		Existing Sanitary Sewer Pipe		Existing 4" Sanitary Sewer Pipe				EVC	End Vertical Curve			SSMH	Sanitary Sewer Manhole
		Proposed Irrigation Reducer		Proposed Water Lateral		Existing 6" Sanitary Sewer Pipe						OC	On Center	ST	Steel
		Proposed Irrigation Thrust Block		Proposed Water Pipe		Existing 8" Sanitary Sewer Pipe						OD	Outside Diameter	ST	Street
		Proposed Sanitary Cap		Proposed Building		Existing 10" Sanitary Sewer Pipe		BC	Back Of Curb	FF	Finished Floor Elevation	OHP	Overhead Power	ST W	Storm Water
		Proposed Sanitary Reducer		Proposed Centerline		Existing 12" Sanitary Sewer Pipe		BF	Butterfly			FG	Finish Grade	OZ	Ounce
		Proposed Sanitary Cleanout		Proposed Contour		Existing 15" Sanitary Sewer Pipe		BLVD	Boulevard	FL	Flow Line	PAVT	Pavement	STD	Standard
		Proposed Sanitary Manhole		Proposed Curb & Gutter		Existing 18" Sanitary Sewer Pipe		BM	Benchmark	FH	Fire Hydrant	P		SVC	Service
		Proposed Catch Basin		Proposed Easement		Existing 24" Sanitary Sewer Pipe		BO	Blowoff	FM	Force Main	PC	Point Of Curvature	SW or S/W	Sidewalk
		Proposed Area Drain		Proposed End of Pavement		Existing 30" Sanitary Sewer Pipe		BOP	Beginning Of Project	FT	Foot/Feet	PCC	Point Of Compound Curvature	SYM	Symbol
		Proposed Combination Curb Inlet		Proposed Erosion Control Filter Fabric Fence		Existing Storm Sewer Pipe		BOT	Bottom			PCC	Portland Cement Concrete	T	
		Proposed Storm Reducer		Proposed Fence		Existing 4" Storm Sewer Pipe		BR	Begin Curb Return					T	
		Proposed Storm Cleanout		Proposed Flow Line		Existing 6" Storm Sewer Pipe		BVC	Begin Vertical Curve					T	
		Proposed Storm Manhole		Proposed Lot Line		Existing 8" Storm Sewer Pipe		BW	Bottom Of Wall			PE	Plain End	T	Tangent
		Proposed Sedimentation Manhole		Proposed Paint Stripe		Existing 10" Storm Sewer Pipe						PERC	Percolation	T&G	Tongue and groove
		Proposed Drywell		Proposed Property Line		Existing 12" Storm Sewer Pipe				G	Natural Gas	PERF	Perforated	TA	Top of Asphalt
		Proposed Fire Protection Vault		Proposed Right-Of-Way		Existing 15" Storm Sewer Pipe		C		G	Guage	PH	Phase	TB	Thrust Block
		Proposed Water Meter		Proposed Sawcut Line		Existing 18" Storm Sewer Pipe		C&G	Curb And Gutter	GA	Ground	PI	Point Of Intersection	TBC	Top Back of Curb
		Proposed Water Backflow Device		Proposed Score Line		Existing 24" Storm Sewer Pipe		CAT	Category	GND	Grade	PKWY	Parkway	TBM	Temp Benchmark
		Proposed Water Valve		Proposed Sidewalk		Existing 30" Storm Sewer Pipe		CB	Catch Basin	GRD	Grade	PL	Place	TC	Top Of Curb
		Proposed Water Bend Tee W/ Valve		Proposed Wall		Existing 36" Storm Sewer Pipe		CCI	Combination Curb Inlet	GV	Gate Valve	PL	Property Line	TEL	Telephone
		Proposed Water Bend Tee W/ TB		Proposed Power Line		Existing 48" Storm Sewer Pipe		CEM	Cement			PL	Property Line	TEMP	Temporary
		Proposed Water 22½" Bend W/ TB		Proposed Traffic Signal Wiring		Existing Water Pipe		CF	Cubic Feet			POC	Point Of Connection	TFC	Top Face of Curb
		Proposed Water 11¼" Bend W/ TB		Proposed Wetland Buffer		Existing 4" Water Pipe		CHK	Check	HDPE	High Density Polyethylene	PP	Power Pole	TOP	Top Of Manhole Rim Elevation
		Proposed Water 45° Bend W/ TB		Proposed Wetland Perimeter		Existing 6" Water Pipe		CI	Curb Inlet	HMA	Hot Mix Asphalt	PRC	Point Of Reverse Curve	TOPO	Topography
		Proposed Water 90° Bend W/ TB		FUTURE LINETYPE LEGEND		Existing 8" Water Pipe		CIP	Cast In Place	HORIZ	Horizontal	PRELIM	Preliminary	TP	Test Pit
		Proposed Water Stand Pipe		Future Storm Pipe		Existing 10" Water Pipe		CIR	Circle	HW	High Water Elevation	PRVC	Point Of Reverse Vert Curve	TSW	Top of Sidewalk
		Proposed Water Bend X		Future Sanitary Lateral		Existing 12" Water Pipe		CL	Centerline	HWY	Highway	PSI	Pound per Square Inch	TV	Cable Television
		Proposed Water Temporary Blowoff		Future Sanitary Pipe		Existing 15" Water Pipe		CL	Class	HYD	Hydrant	PT	Point	TW	Top Of Wall
		Proposed Water Reducer		Future Water Pipe		Existing 18" Water Pipe		CM/SEC	Centimeters per Second			PT	Point	TYP	Typical
		Proposed Water Thrust Block		Future Centerline		Existing 20" Water Pipe		CMP	Corrugated Metal Pipe	ID	Inside Diameter	PT	Point Of Tangency	U	
		Proposed Fire Hydrant		Future Contour		Existing 24" Water Pipe		CO	Cleanout	IE	Invert Elevation	PVC	Polyvinylchloride	UGP	Underground Power
		Proposed Bollard		Future Curb		Existing 30" Water Pipe		COMB	Combination	IN/HR	Inches per Hour	PVI	Point Of Vertical Intx	UTIL	Utility
		Proposed Street Light		Future Lot Line		Existing Water Lateral		COMP	Compaction	INTX	Intersection				
		Proposed Signal Controller Cabinet		Future Right-Of-Way		Existing Building		CONC	Concrete	INV	Invert	R		V	
		Proposed Service Cabinet		Future Sidewalk		Existing Cable Tv Line		CONST	Construction	IPS	Iron Pipe Size	R	Radius	VC	Vertical Curve
		Proposed Battery Backup System		EXISTING SYMBOL LEGEND		Existing Centerline		CPE	Corrugated Polyethylene	IRR	Irrigation Water	RAD	Radius	VERT	Vertical
		Proposed Electrical Junction Box		FUTURE SYMBOL LEGEND		Existing Contour		CT	Court			RD	Road		
		Proposed Road Barrier		Existing Area Drain		Existing Curb		CY	Cubic Yard			L	Length	REINF	Reinforced
		Proposed Road Sign		Existing Catch Basin		Existing Curb & Gutter						LAT	Lateral	REQD	Required
		Proposed Flow Arrow		Existing Cleanout		Existing Fence						LBS	Pounds	REV	Revision
		Proposed Inlet Protection Pillow		Existing Combo Inlet		Existing Fiber Optic Line						LF	Linear Feet	ROW	Right Of Way
		Proposed Gravel Construction Entrance		Existing Ditch Inlet		Existing Flow Line						LT	Left	RR	Railroad
		Proposed Sedimentation Trap		Existing Coniferous Tree		Existing Gas Line						LUM	Luminaire	RT	Right
		Proposed BMP Type (Puget Sound)		Existing Deciduous Tree		Existing Gravel Road		D							
		Proposed Erosion Control Feature Code & ID Number (Puget Sound)		Existing Bend Tee W/ TB		Existing Lot Line		Δ	Delta						
				Existing Bend Tee W/ Valve		Existing Over Head Power Line		D	Depth						
				Existing Bend X		Existing Paint Stripe		DBL	Double						
				Future Catch Basin		Existing Quarter Section		DCVA	Double Check Valve Assembly						
				Future Fire Hydrant		Existing Railroad		DEMO	Demolition			M		S	
				Future Fire Protection Vault		Existing Right-Of-Way		DET	Detail	MAX	Maximum	S	South		
				Future Fire Hydrant		Existing Telephone Line		Ø or DIA	Diameter	MB	Mail Box	S=	Slope Equals		
				Future Reducer		Existing Undergroud Utility Line		DI or DIP	Ductile Iron Pipe	MFR	Manufacturer	SCHED	Schedule		
				Future Sanitary Cap		Existing Traffic Signal Wiring		DR	Drive	MH	Manhole	SD	Storm Drain		
				Future Sanitary Manhole		Existing Utility Easement		DS	Downspout	MIL	Millimeter	SDMH	Storm Drain Manhole		
				Future Stand Pipe		Existing Wall		DW	Drywell	MIN	Minimum	SE	Southeast		
				Future Standard Blowoff		Existing Wetland Buffer		DWY	Driveway	MISC	Miscellaneous	SECT	Section		
				Future Storm Manhole		Existing Wetland Boundary				MJ	Mechanical Joint				
				Future Temporary Blowoff											
				Future Thrust Block											
				Future Valve											
				Future Water Meter											
				Future Water Valve											

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3	G03	SHEET INDEX
4	G04	NOTES
5	TS01	TYPICAL SECTIONS
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7	SP01	SITE PREPARATION
8	SP02	SITE PREPARATION
9	CS01	CONSTRUCTION STAGING - STAGE 1
10	CS02	CONSTRUCTION STAGING - STAGE 2
11	CS03	CLASS A SIGNING
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28	TL07	TRAFFIC SIGNAL CABINET DETAILS
29	TL08	TRAFFIC SIGNAL CONTROLLER CABINET
30	TL09	CONTROLLER CABINET AND TRAFFIC SIGNAL WSDOT DETAILS
31	TL10	TRAFFIC SIGNAL WSDOT DETAILS
32	TL11	TRAFFIC SIGNAL WSDOT DETAILS
33	TL12	TRAFFIC SIGNAL WSDOT DETAILS
34	TL13	TRAFFIC SIGNAL WSDOT DETAILS
35	TL14	TRAFFIC SIGNAL WSDOT DETAILS
36	TL15	TRAFFIC SIGNAL WSDOT DETAILS
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38	TL17	TRAFFIC SIGNAL WSDOT DETAILS
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FINAL PLANS

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SHEET INDEX FOR:
4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL
A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



Know what's below.
Call before you dig.



DESIGNED:
JAB

CHECKED:
CMK

JULY 2024
71486.000

SHEET ID

G03

SHEET 3 OF 50

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GENERAL NOTES:

1.

THE VERTICAL DATUM FOR THIS SURVEY IS NAVD88, SITE BENCHMARK: PBS CP#2
N: 206628.03'
E: 1087852.88'
THE VERTICAL BENCHMARK IS A MAG NAIL SET IN THE SIDEWALK LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF E 4TH STREET AND E CEDAR AVE, 1.2' WEST OF THE FACE OF CURB, 9' SOUTH OF A FIRE HYDRANT, 15' NE OF A STORM MANHOLE LID.
*ELEVATION WAS DETERMINED BY GPS OBSERVATION USING CORRECTIONS OBTAINED THROUGH THE WASHINGTON STATE REFERENCE NETWORK (WSRN)
2.

THE BASIS OF BEARINGS FOR THIS SURVEY IS BASED ON OBSERVATIONS WASHINGTON STATE REFERENCE NETWORK (WSRN) HORIZONTAL DATUM: NAD 83 .2011, STATE PLANE COORDINATES, (WASHINGTON SOUTH ZONE 4602). DISTANCES SHOWN HERE ARE GROUND DISTANCES.
3.

ALL CONSTRUCTION AND MATERIALS, UNLESS OTHERWISE SPECIFIED, SHALL BE IN CONFORMANCE WITH THE 2024 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS PREPARED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND APWA, AND THE CITY OF LA CENTER PUBLIC WORKS ENGINEERING STANDARDS FOR CONSTRUCTION MANUAL.
4.

THE UNDERGROUND UTILITIES SHOWN HEREON WERE BASED ON UTILITY LOCATE PAINT MARKS SUPPLIED BY THE WASHINGTON UTILITY NOTIFICATION CENTER (PRE-SURVEY TICKET REQUEST SUBMITTED ON 12/20/2018 AND PROCESSED AS TICKET NUMBER 18535624.) AS WELL AS SURFACE EVIDENCE AND PRIVATE ASBUILT RECORDS. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. WHERE ADDITIONAL OR MORE DETAILED INFORMATION IS REQUIRED, THE CONTRACTOR IS ADVISED THAT EXCAVATION MAY BE NECESSARY. ADDITIONALLY, CERTAIN UTILITIES ONSITE (WATER, SANITARY, STORM, GAS, ETC.) MAY NOT HAVE CONDUCTIBLE OR TRACEABLE LINES AND MAY BE PRESENT. UTILITIES SHOWN ON THE PLANS ARE PER SURFACE LOCATES AND RECORD DRAWINGS. THE CONTRACTOR SHALL POTHOLE TO VERIFY LOCATION OF UNDERGROUND UTILITIES. IF CONFLICTS EXIST, NOTIFY THE ENGINEER.
5.

CONTRACTOR SHALL NOTIFY OTHER PUBLIC UTILITIES (GAS, PHONE, ELECTRIC, CABLE TV, ETC.) TO MAKE ALL NECESSARY ADJUSTMENTS TO RESPECTIVE FACILITIES.
6.

THE CONTRACTOR SHALL HAVE A COPY OF THESE PLANS, PROJECT SPECIFICATIONS, ADDENDA, AND CHANGE ORDERS ON THE JOB SITE AT ALL TIMES. THE CONTRACTOR SHALL MAINTAIN AND UPDATE A FULL-SIZE SET OF AS-BUILTS.
7.

AT THE END OF EACH DAY, THE CONTRACTOR SHALL CLEAN UP THE PROJECT AREA AND LEAVE IT IN A NEAT AND SECURED MANNER. UPON COMPLETION, THE CONTRACTOR SHALL LEAVE THE PROJECT FREE OF DEBRIS AND UNUSED MATERIAL.
8.

IF EXISTING CURB AND SIDEWALK DESIGNATED TO REMAIN ARE DAMAGED, THE CURB AND/OR SIDEWALK SHALL BE REMOVED AND REPLACED TO THE ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
9.

ALL CONSTRUCTION WITHIN CITY OF LA CENTER RIGHT-OF-WAY SHALL HAVE AN APPROVED TRAFFIC CONTROL PLAN AND RIGHT-OF-WAY PERMIT PRIOR TO ANY ON-SITE CONSTRUCTION ACTIVITY.
10.

ALL PAVEMENT SHALL BE SAWCUT PRIOR TO PAVING. EXISTING PAVEMENT SHALL BE REMOVED AS NECESSARY TO PROVIDE A SMOOTH TRANSITION FOR BOTH RIDE AND DRAINAGE.
11.

CONTRACTOR SHALL REPORT ALL DAMAGES IMMEDIATELY TO THE CITY'S CONSTRUCTION SERVICES OFFICE OR CONTACT THE INSPECTOR ON THE JOB.
12.

AN ALTERNATE PEDESTRIAN ACCESSIBLE ROUTE OF TRAVEL IS REQUIRED WHEN AN EXISTING ACCESSIBLE ROUTE IS BLOCKED DURING CONSTRUCTION. THE ALTERNATE ACCESSIBLE ROUTE SHALL MEET MINIMUM ACCESSIBLE STANDARDS AS SET FORTH IN THE LATEST VERSION OF THE AMERICAN DISABILITIES ACT ACCESSIBILITY GUIDELINES MANUAL, WSDOT'S WORK ZONE ACCOMMODATION POLICY AS REFERENCED IN CHAPTER 1520 OF THE WSDOT DESIGN MANUAL (MOST CURRENT EDITION), AND THE 2022 EDITION OF THE "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION" AS PREPARED BY WSDOT AND APWA.
13.

CONTRACTOR SHALL MAINTAIN INGRESS/EGRESS FROM ALL PRIVATE PROPERTY DRIVEWAYS DURING CONSTRUCTION.
14.

AT THE END OF EACH WORKDAY THE CONTRACTOR SHALL CLEAN THE PROJECT AREA AND LEAVE IT IN A NEAT AND SECURED MANNER. UPON COMPLETION, THE CONTRACTOR SHALL LEAVE THE PROJECT AREA FREE OF DEBRIS AND UNUSED MATERIAL.

15.

PROTECTION OF THE ENVIRONMENT: NO CONSTRUCTION RELATED ACTIVITIES SHALL CONTRIBUTE TO THE DEGENERATION OF THE ENVIRONMENT, ALLOW MATERIAL TO ENTER SURFACE OR GROUND WATERS, OR ALLOW PARTICULATE EMISSIONS TO ENTER THE ATMOSPHERE, WHICH EXCEED STATE OR FEDERAL STANDARDS. ANY ACTION THAT POTENTIALLY ALLOWS A DISCHARGE TO STATE WATERS MUST HAVE PRIOR APPROVAL OF THE STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY. IT IS CRITICAL THAT NO SEDIMENT BE ALLOWED TO MIGRATE FROM THE CONSTRUCTION AREA OR DURING TRANSPORTATION OF EQUIPMENT AND MATERIALS TO THE WORK AREA. THE CONTRACTOR SHALL BE FAMILIAR WITH THE CITY OF LA CENTER MUNICIPAL CODE. A STOP WORK ORDER WILL BE ISSUED UPON ANY OCCURRENCE OF SEDIMENT TRANSPORT, TRACKING, OR OTHER RELATED PROBLEMS. VIOLATIONS OF THE LA CENTER MUNICIPAL CODE AND THE CLEAN WATER ACT ARE SUBJECT TO ENFORCEMENT ACTIONS AND FINES BY THE CITY OF LA CENTER AND THE DEPARTMENT OF ECOLOGY.
16.

TOXIC CLEANUP: NO CONTAMINATED SITES ARE LOCATED WITHIN APPROXIMATELY A HALF A MILE OF THE PROJECT. THE PROJECT SHOULD NOT COVER OR INTERFERE WITH EXISTING MONITORING WELLS OR STRUCTURES RELATED TO CLEANUP ACTIVITY, IF ANY ARE PRESENT. IF ENVIRONMENTAL CONTAMINATION IS ENCOUNTERED IT SHOULD BE MANAGED SO IT DOES NOT SPREAD TO OTHER MEDIA OR OFF-SITE, AND DISCOVERY AND CLEANUP SHOULD BE DOCUMENTED FOR AND REPORTED TO ECOLOGY'S SOUTHWEST REGIONAL OFFICE BY CONTACTING THE ENVIRONMENTAL REPORT TRACKING SYSTEM COORDINATOR AT (360) 407-6300.
17.

INADVERTENT DISCOVERY PLAN: IN THE EVENT ANY ARCHAEOLOGICAL OR HISTORIC MATERIALS ARE ENCOUNTERED DURING PROJECT ACTIVITY, WORK IN THE IMMEDIATE AREA (INITIALLY ALLOWING FOR A 100' BUFFER; THIS NUMBER MAY VARY BY CIRCUMSTANCE) MUST STOP AND THE FOLLOWING ACTIONS TAKEN:

A.

ADVISE OWNER; AND

B.

IMPLEMENT REASONABLE MEASURES TO PROTECT THE DISCOVERY SITE, INCLUDING ANY APPROPRIATE STABILIZATION OR COVERING; AND

C.

TAKE REASONABLE STEPS TO ENSURE THE CONFIDENTIALITY OF THE DISCOVERY SITE; AND,

D.

TAKE REASONABLE STEPS TO RESTRICT ACCESS TO THE SITE OF DISCOVERY.

E.

THE CITY WILL NOTIFY THE CONCERNED TRIBES AND ALL APPROPRIATE COUNTY, STATE, AND FEDERAL AGENCIES, INCLUDING THE DEPARTMENT OF ARCHAEOLOGY AND HISTORIC RESERVATION. THE AGENCIES AND TRIBE(S) WILL DISCUSS POSSIBLE MEASURES TO REMOVE OR AVOID CULTURAL MATERIAL, AND WILL REACH AN AGREEMENT WITH THE PROJECT PROPONENT REGARDING ACTIONS TO BE TAKEN AND DISPOSITION OF MATERIAL. IF HUMAN REMAINS ARE UNCOVERED, APPROPRIATE LAW ENFORCEMENT AGENCIES SHALL BE NOTIFIED FIRST, AND THE ABOVE STEPS FOLLOWED. IF THE REMAINS ARE DETERMINED TO BE NATIVE, CONSULTATION WITH THE AFFECTED TRIBES WILL TAKE PLACE IN ORDER TO MITIGATE THE FINAL DISPOSITION OF SAID REMAINS. SEE THE REVISED CODE OF WASHINGTON, CHAPTER 27.53, "ARCHAEOLOGICAL SITES AND RESOURCES;" FOR APPLICABLE STATE LAWS AND STATUTES. SEE ALSO WASHINGTON STATE EXECUTIVE ORDER 21-02, "ARCHAEOLOGICAL AND CULTURAL RESOURCES." ADDITIONAL STATE AND FEDERAL LAW(S) MAY ALSO APPLY.
- GRADING NOTES:
1.

ALL GRADING SHALL CONFORM TO THE 2024 EDITION OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AND THE CITY OF LA CENTER PUBLIC WORKS ENGINEERING STANDARDS FOR CONSTRUCTION MANUAL.

2.

THE CONTRACTOR SHALL READ THE GEOTECHNICAL REPORT IN FULL PREPARED BY PBS ENGINEERING + ENVIRONMENTAL, INC TITLED "GEOTECHNICAL ENGINEERING REPORT BREZEE CREEK CULVERT REPLACEMENT." THE CONTRACTOR SHALL FOLLOW ALL RECOMMENDATIONS AS DETAILED IN THE REPORT.

3.

THE LIMITS OF CLEARING SHALL BE FLAGGED PRIOR TO CLEARING AND GRUBBING OF THE SITE.

4.

PRIOR TO ANY FILL PLACEMENT, ALL AREAS WHICH WILL RECEIVE STRUCTURAL FILL SHALL BE EXCAVATED TO FIRM, NON-ORGANIC, UNDISTURBED NATIVE GROUND. THE STRIPPED AREAS SHALL BE OBSERVED AND ACCEPTED BY THE GEOTECHNICAL ENGINEER AND THE CITY OF LA CENTER INSPECTOR.

5.

ALL RIGHT-OF-WAY FILLS SHALL MEET 95% OF AASHTO T-180 COMPACTION.

6.

FILLS SHALL BE INSTALLED IN VERTICAL LIFTS NOT EXCEEDING 8 INCHES IN THICKNESS AND SHALL BE COMPACTED AS PREVIOUSLY NOTED.
7.

FILLS PLACED ON SLOPES EXCEEDING 5H: 1V SHALL BE KEYED AND BENCHED, GEOTECHNICAL APPROVAL REQUIRED PRIOR TO ANY FILL PLACEMENT.

8.

ALL SURFACES SHALL BE GRADED SMOOTH AND BE FREE OF IRREGULARITIES THAT MIGHT ACCUMULATE SURFACE WATER.

9.

ALL CUT AND FILL SLOPES SHALL NOT EXCEED 2:1 SLOPES.

10.

ANY EXCESS MATERIAL NOT REQUIRED TO MEET THE GRADES SHOWN ON THE PLANS SHALL BE HAULED FROM THE SITE TO A CONTRACTOR PROVIDED WASTE SITE. IF WASTE SITE IS WITHIN CITY LIMITS, A GRADING PERMIT MAYBE REQUIRED.

11.

ALL EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED BY SUITABLE APPLICATION OF EROSION CONTROL BMP'S.
- EROSION/SEDIMENT CONTROL NOTES:
1.

THE GRADING & EROSION CONTROL (EC01-EC02) PLAN IS TO BE UTILIZED AS A GUIDE TO CONTROL THE TRANSPORT OF LOOSE SOILS TO THE PROPERTY OUTSIDE OF THE CONSTRUCTION AREA AND AROUND THE CONSTRUCTION SITE. THE EROSION/SEDIMENT CONTROL MEASURES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DOES NOT LEAVE THE SITE.

2.

THE IMPLEMENTATION OF THE GRADING & EROSION CONTROL (EC01-EC02) PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF THE EROSION/SEDIMENT CONTROL MEASURES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED, APPROVED, AND PERMANENT VEGETATION/LANDSCAPING IS ESTABLISHED.

3.

IF THE CITY INSPECTOR OR ENGINEER(S) HAS EVIDENCE OF POOR CONSTRUCTION PRACTICES OR EROSION CONTROL TECHNIQUES, A "STOP WORK" ORDER SHALL BE ISSUED UNTIL PROPER MEASURES HAVE BEEN TAKEN AND APPROVED BY THE CITY ENGINEERING STAFF.

4.

THE CONTRACTORS SHALL BE RESPONSIBLE TO FAMILIARIZE THEMSELVES WITH THE MOST RECENTLY ADOPTED EDITION OF THE CITY OF LA CENTER MUNICIPAL CODE CHAPTER 18.320.

5.

ALL EROSION/SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND IN WORKING CONDITION PRIOR TO DISTURBING AND EXPOSING ANY SOIL SURFACES (I.E. CONSTRUCTION ENTRANCES, FILTER FABRIC SEDIMENT BARRIERS, AND SEDIMENTATION TRAPS) AND MAINTAINED FOR THE DURATION OF THE PROJECT. TRAPPED SEDIMENT IN EXCESS OF 1 FOOT SHALL BE REMOVED OR STABILIZED ON-SITE. DISTURBED SOIL AREAS RESULTING FROM VEGETATION REMOVAL SHALL BE PERMANENTLY STABILIZED. ADDITIONAL MEASURES MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

6.

THE CONTRACTOR SHALL BE RESPONSIBLE TO HAVE CLEARING LIMITS AND/OR ANY EASEMENTS, SENSITIVE OR CRITICAL AREAS, AND THEIR BUFFERS, TREES, AND DRAINAGE COURSES FLAGGED PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. FLAGGING LIMITS ARE TO BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION.

7.

REMOVE ONLY THOSE TREES AND SHRUBS THAT NEED TO BE REMOVED FOR THE CONSTRUCTION OF ROADS, SIDEWALKS, UTILITIES, AND STORMWATER FACILITIES. SEE SITE PREPARATION PLAN FOR PROTECT/REMOVE INFORMATION, SHEETS SP01-SP02.

8.

ALL EXISTING AND NEWLY CONSTRUCTED ROAD CATCH BASINS AND CURB INLETS AFFECTED BY CONSTRUCTION SHALL BE PROTECTED AGAINST SEDIMENT DEPOSITS. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED 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.

9.

ALL POLLUTANTS THAT OCCUR ON-SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF THE STORMWATER SYSTEM.

10.

ALL DISTURBED SOIL SURFACES ARE TO BE STABILIZED BY A SUITABLE APPLICATION OF "BEST MANAGEMENT PRACTICES" (BMP'S). DURING THE PERIOD OF OCTOBER 1 THROUGH JULY 5 DISTURBED SOILS MAY REMAIN UNSTABILIZED FOR UP TO TWO DAYS WHEN NOT BEING WORKED. FROM JULY 5 THROUGH OCTOBER 1, DISTURBED SOILS MAY REMAIN UNSTABILIZED FOR UP TO 7 DAYS WHEN NOT BEING WORKED. STABILIZATION OF DISTURBED SOIL AREAS MAY CONSIST OF HYDROSEEDING, HAND-SEEDING AND MULCHING, PLACEMENT OF EROSION CONTROL BLANKETS OR PLASTIC. ALL SEEDED AREAS ARE TO BE FERTILIZED, WATERED, AND MAINTAINED TO ENSURE THAT THE GROWTH OF VEGETATION OCCURS AS SOON AS POSSIBLE.
11.

ALL TEMPORARY SEDIMENT AND EROSION CONTROL BMP'S SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY BMP'S ARE NO LONGER NEEDED.

12.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR POLICING THE JOB SITE DAILY AND MAINTAINING THE EROSION/SEDIMENT CONTROL MEASURES THROUGHOUT ALL PHASES OF CONSTRUCTION. AN INSPECTION LOG SHALL BE KEPT AND MADE AVAILABLE TO THE CITY OF LA CENTER. THE POLICING AND MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO:

•

VERIFYING THAT ALL AREAS ARE GRADED SUCH THAT ALL RUNOFF IS DIRECTED TO A SEDIMENTATION DEVICE BEFORE DISCHARGE TO SURFACE.

•

REMOVAL OF TRAPPED SILT A T SILT BARRIERS, SILT TRAPS, OR POINTS OF ACCUMULATION.

•

ADDITIONAL PROTECTIVE MEASURES DUE TO JOB SITE OR WEATHER CONDITIONS AS REQUIRED BY THE CITY OF LA CENTER.

•

MONITORING OF VEHICLES LEAVING THE SITE TO MINIMIZE TRANSMISSION OF LOOSE SOILS TO THE PUBLIC ROADWAYS.

•

VERIFY THAT ALL PROPERTIES ADJACENT TO THE PROJECT SITE ARE PROTECTED FROM SEDIMENTATION DEPOSITION. THIS MAY BE ACCOMPLISHED BY INSTALLING PERIMETER CONTROLS SUCH AS SEDIMENTATION BARRIERS, FILTERS OR DIKES, SEDIMENTATION BASINS/TRAPS, OR BY A COMBINATION OF SUCH MEASURES.

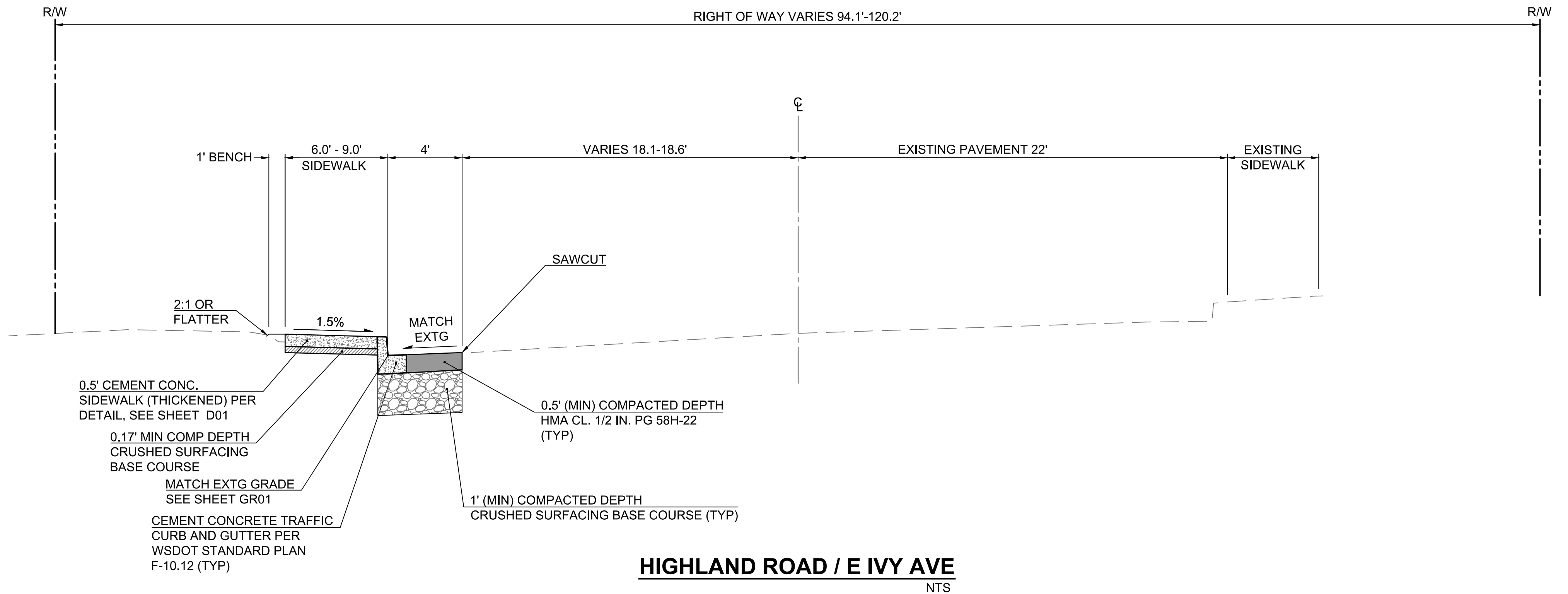
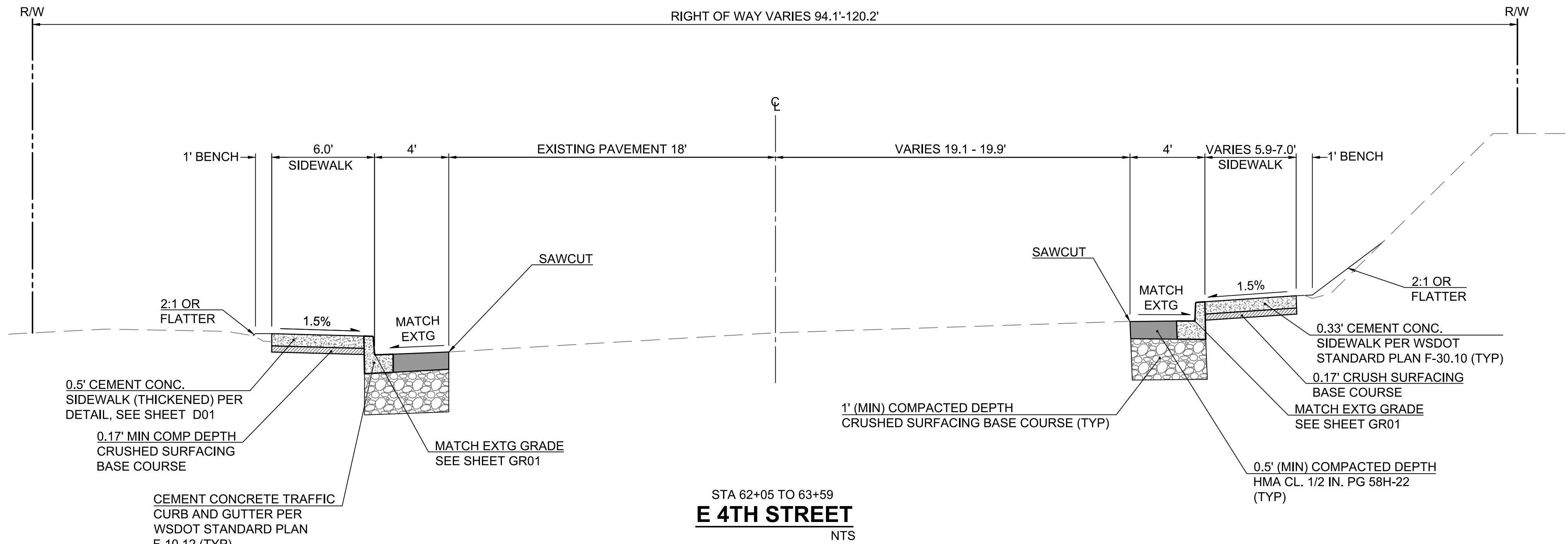
13.

CUT AND FILL SLOPES SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES SHALL BE STABILIZED IN ACCORDANCE WITH EROSION/SEDIMENT CONTROL NOTE 10. SLOPES FOUND TO BE ERODING EXCESSIVELY WITHIN TWO YEARS OF CONSTRUCTION MUST BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES. THESE MEASURES MAY CONSIST OF ROUGHENED SOIL SURFACES, INTERCEPTORS, DIVERSIONS OR TERRACES, TEMPORARY OR PERMANENT CHANNELS, ADDITIONAL VEGETATION, OR PIPE SLOPE DRAINS AS REQUIRED BY THE CITY OF LA CENTER UNTIL THE PROBLEM IS CORRECTED.

14.

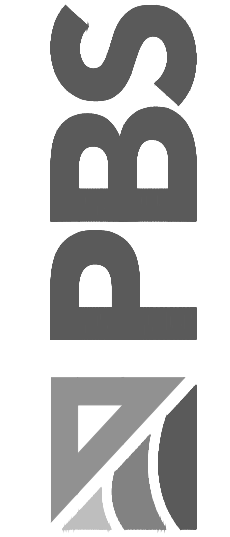
THE ESC MEASURES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 24 HOURS FOLLOWING ANY STORM EVENT.
- NOTES FOR:
- 4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL
A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON
-
-
- | |
|------------------------|
| DESIGNED:
JAB |
| CHECKED:
CMK |
| JULY 2024
71486.000 |
| SHEET ID |
| G04 |
| SHEET 4 OF 50 |
- FINAL PLANS
- Full Size Sheet Format Is 22x34; If Printed Size Is Not 22x34, Then This Sheet Format Has Been Modified & Indicated Drawing Scale Is Not Accurate.

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TYPICAL SECTIONS FOR:
4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL
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DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. VARIABLE INVERT, SUMP, AND BASIN BODY HEIGHT AVAILABLE. RISERS ARE NEEDED FOR BASINS OVER 84" (IN) DUE TO SHIPPING RESTRICTIONS. THE MAXIMUM DEPTH FROM FINISHED GRADE TO THE LOWEST INVERT SHALL BE 8' (FT).

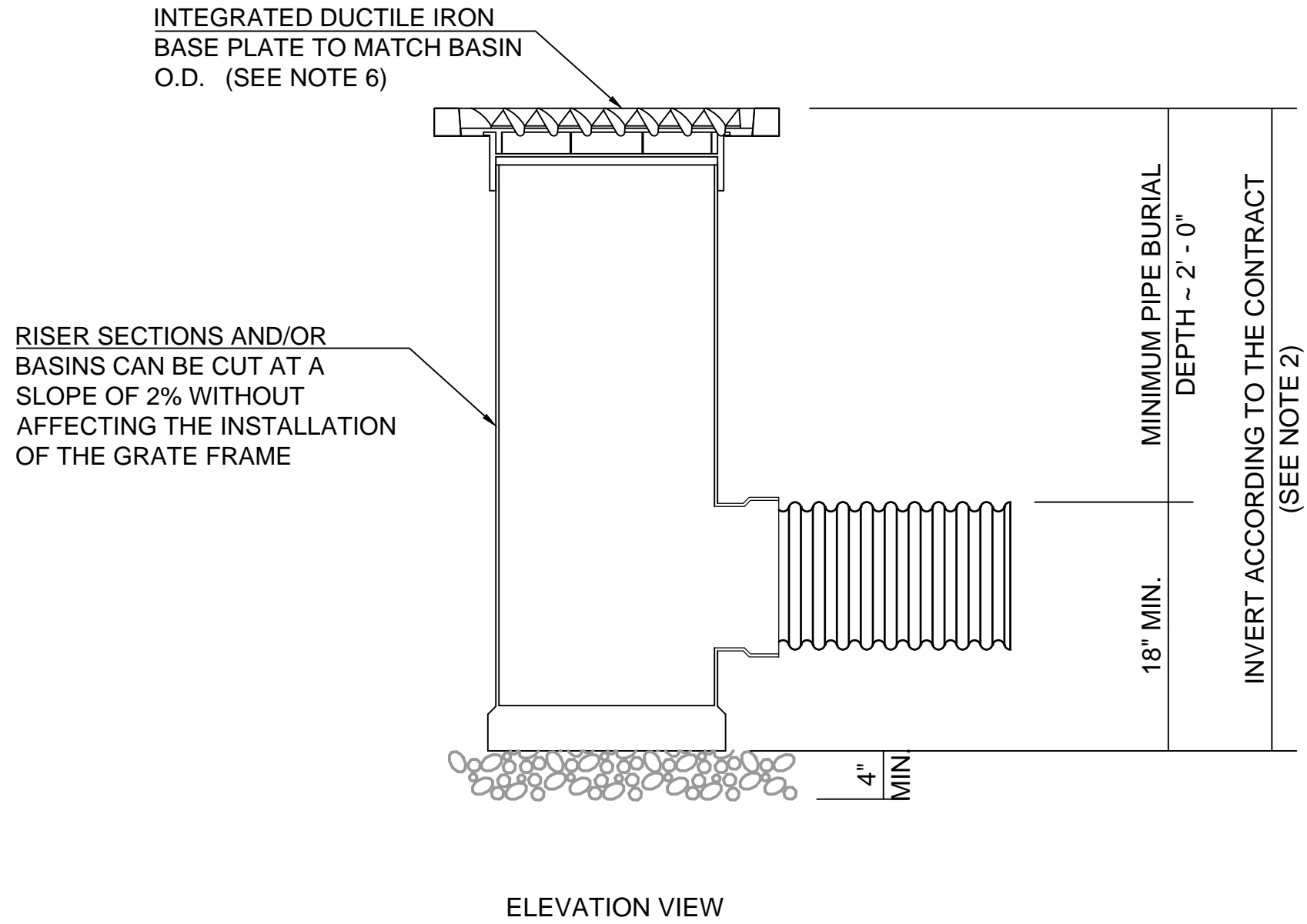
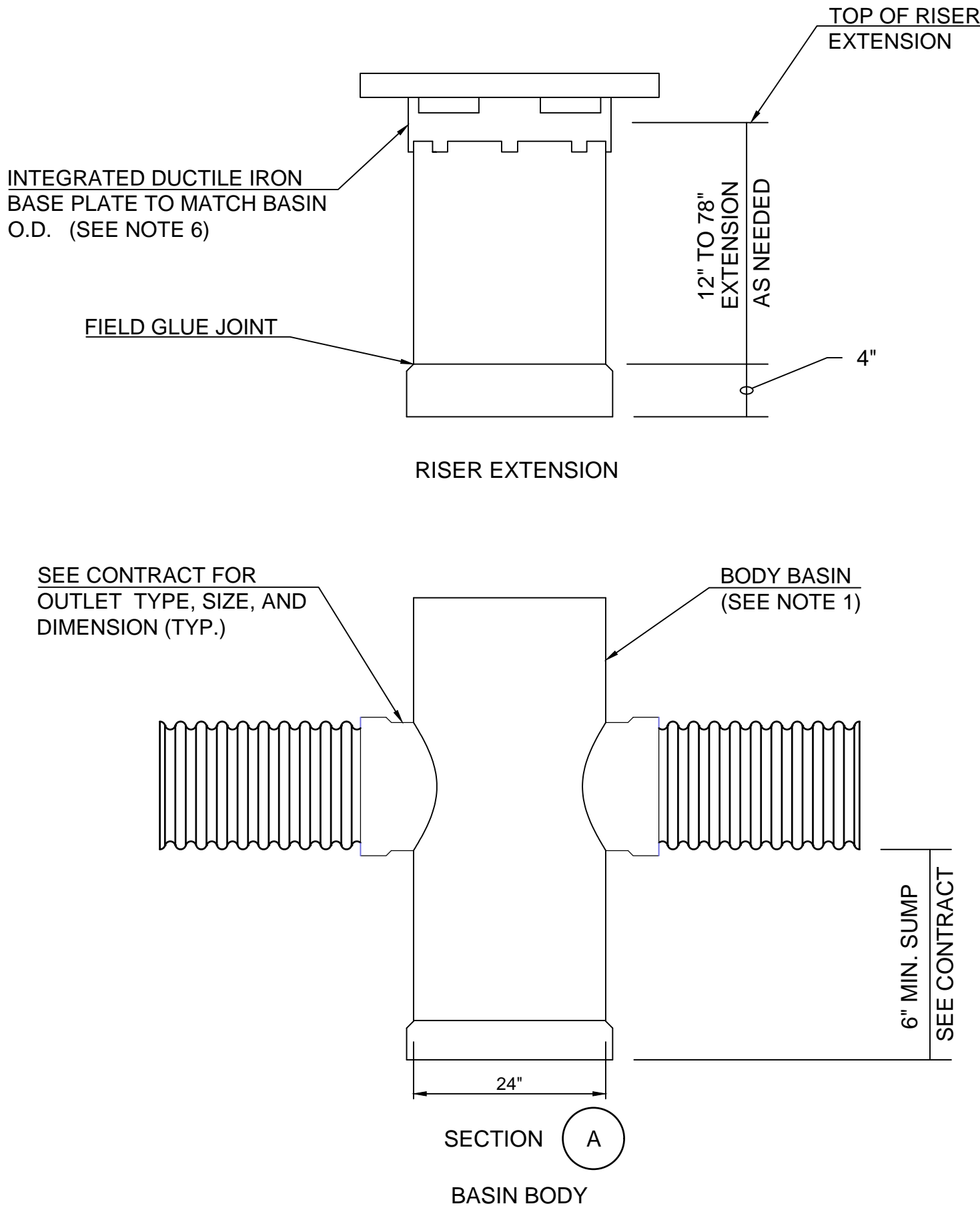
DRAINAGE CONNECTIONS STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE AND PVC SEWER (4" (IN) - 24" (IN)).

RISERS CAN BE TRIMMED DOWN TO 3" (IN) EXTENSION WITHOUT INTERFERING WITH THE INSTALLATION OF THE FRAME.

THE MAXIMUM DEPTH FROM FINISHED GRADE TO THE LOWEST INVERT SHALL BE 8' (FT).

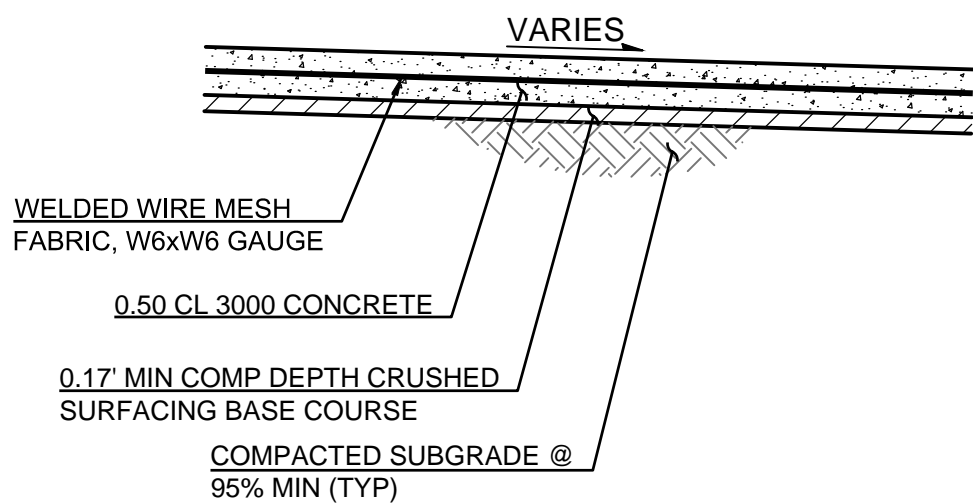
SOLID LID TO BE USED

DUCTILE IRON CASTINGS FOR PVC CATCH BASINS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A536, GRADE 70-50-05, AND SHALL MEET THE PROOF LOAD TESTING REQUIREMENTS OF AASHTO M 306.



PVC CATCH BASIN

PVC CATCH BASIN
NTS



CEMENT CONC. SIDEWALK
(THICKENED) SECTION
NTS

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MISCELLANEOUS DETAILS FOR:
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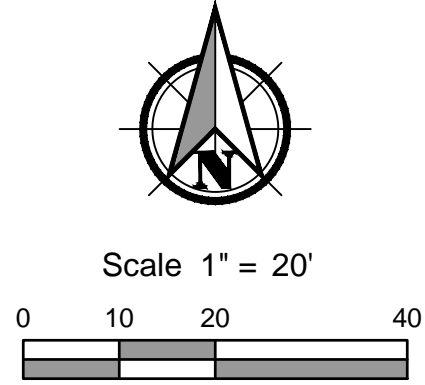
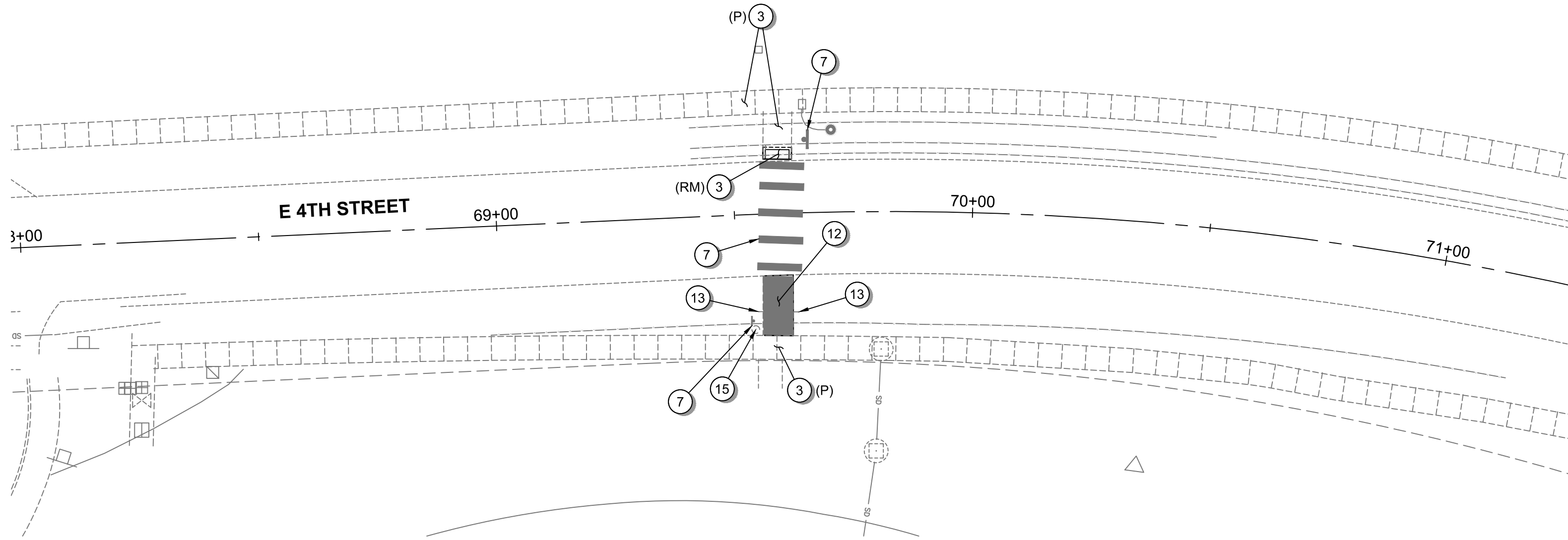
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D01

SHEET 6 OF 50

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GENERAL NOTES:

- SEE TREE REMOVAL PLAN SHEET ##### FOR TREE PROTECTION AND REMOVAL INFORMATION.

CONSTRUCTION NOTES:

- PROTECT EXISTING UTILITY.
- EXISTING POLE TO BE RELOCATED BY OTHERS.
- PROTECT (P) OR REMOVE (RM) EXISTING CONCRETE CURB AND SIDEWALK.
- ADJUST CATCH BASIN TO FINISHED GRADE.
- PROTECT EXISTING MONUMENT.
- REMOVE EXISTING CATCH BASIN.
- SEE SIGNING AND STRIPING PLAN FOR PROTECT/ REMOVE/ RELOCATE INFORMATION.
- PROTECT (P) EXISTING WATER VALVE.
- REMOVE (RM) OR PROTECT (P) EXISTING ILLUMINATION POLE.
- REMOVE (RM), PROTECT (P), OR REMOVE AND RESET (RE) EXISTING FENCE.
- PROTECT (P) OR ADJUST (A) EXISTING JUNCTION BOX.
- REMOVE EXISTING ASPHALT RAMP.
- PROTECT EXISTING CULVERT PIPE.
- REMOVE EXISTING TREE.
- RELOCATE EXISTING TRASH RECEPTACLE.

SITE PREP - ABBREVIATION LEGEND

- (CB) CATCH BASIN
(COMM) COMMUNICATION CONDUIT/STRUCTURE
(GAS) NORTHWEST NATURAL GAS
(IRR) IRRIGATION
(PED) PEDESTAL
(SD) CITY OF LA CENTER STORM WATER
(SS) CITY OF LA CENTER SANITARY SEWER
(SW) SIDEWALK
(WTR) CPU WATER MAIN

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SITE PREPARATION FOR:
4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL
A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



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SP02

SHEET **8** OF **50**

GENERAL NOTES:

- 1) ***11:1 TAPER WHERE POSTED SPEED IS 25 MPH THROUGH STAGED CONSTRUCTION ZONES.

2) CONSTRUCTION ZONE SHALL BE POSTED FOR 25 MPH .

3) ALL CONSTRUCTION STAGING SHALL ADHERE TO WSDOT STANDARD PLANS.

4) TEMPORARY LONG TERM STRIPING SHALL BE REVISED FOR STAGE 1 TO SHIFT TRAFFIC TO NORTH SIDE OF E 4TH STREET ADDED AS SHOWN IN PLAN BELOW.

5) CONTRACTOR SHALL MAINTAIN 11' MIN. TRAVEL LANES DURING CONSTRUCTION UNLESS NOTED OTHERWISE DURING CONSTRUCTION.
- 6) WHERE CONTRACTOR BLENDS EXISTING ROAD GRADES WITH PROPOSED ROAD GRADES, THE TRANSITION SHALL BE NO STEEPER THAN 5-10%.

7) FOR CLASS A SIGNING, SEE CS03.

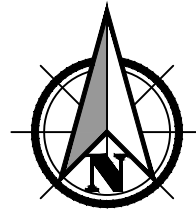
8) EXISTING PEDESTRIAN OR BICYCLE FACILITIES TO BE MAINTAINED THROUGHOUT CONSTRUCTION.

9) ALL ADJACENT ACCESSES TO BE MAINTAINED DURING CONSTRUCTION UNLESS OTHERWISE NOTED.

10) LIMITS OF WORK SHALL BE TO THE MAXIMUM EXTENT FEASIBLE FOR THE AREAS SHOWN WHILE NOT IMPACTING THE EXISTING ROADWAY, UNLESS NOTED OTHERWISE.
- 11) ALL PAVING COMPLETED SHALL INCLUDE BASE AND LEVELING COURSE ONLY.

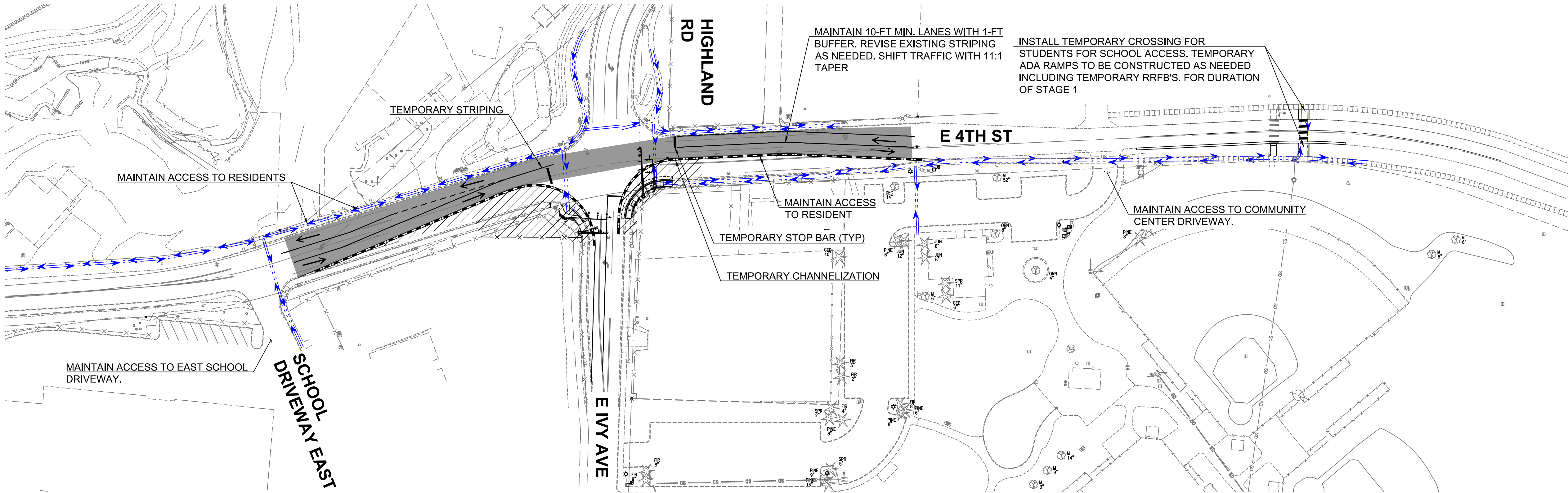
12) CONTRACTOR TO PROVIDE LONG TERM TRAFFIC CONTROL AND PEDESTRIAN ROUTING PLANS TO WSDOT & CITY ENGINEER NO SOONER THAN 2 WEEKS PRIOR TO TRAFFIC SHIFTS.

13) WHEN CHANNELIZATION IS USED TO DELINEATE A PEDESTRIAN PATHWAY, A CONTINUOUS DETECTABLE EDGING SHALL BE PROVIDED THROUGHOUT THE LENGTH OF THE FACILITY SUCH THAT PEDESTRIANS USING A CANE CAN FOLLOW IT. EDGING SHALL PROTRUDE AT LEAST 6-IN ABOVE THE SURFACE OF THE PATHWAY WITH THE BOTTOM EDGING A MAXIMUM OF 2.5-IN ABOVE THE SURFACE.
- 14) PEDESTRIAN AND BICYCLE ROUTING PROVIDED IS PRELIMINARY. CONTRACTOR TO PROVIDE FINAL ACCESSIBLE PEDESTRIAN/BICYCLE CHANNELIZATION PLAN TO CITY FOR REVIEW, COMMENT AND APPROVAL PRIOR TO IMPLEMENTATION. 5-FOOT MINIMUM HARD SURFACE ACCESS ON ONE SIDE OF THE ROADWAY SHALL BE MAINTAINED AT ALL TIMES, UNLESS NOTED OTHERWISE.



Scale 1" = 60'

0 30 60 120



LEGEND

- ---

REFLECTIVE CHANNELIZATION DEVICE
- →

PEDESTRIAN ACCESS ROUTE
- ▨

WORK ZONE AREA
- TRAFFIC TRAVEL ZONE
- ←

TRAFFIC FLOW DIRECTION

STAGING CONSTRUCTION SUMMARY

CONSTRUCT ALL IMPROVEMENTS IN WORK ZONE AS SHOWN ABOVE EXCEPT LANDSCAPE, STRIPING, AND FINAL LIFT OF HMA UNLESS OTHERWISE NOTED. WORK SHALL TYPICALLY INCLUDE THE FOLLOWING:

- BUILD SOUTHWEST AND SOUTHEAST CURB RETURNS AT INTERSECTION, INCLUDING SIDEWALK, CURB AND PAVEMENT.
- MAINTAIN EXISTING SIGNAL POLES DURING CONSTRUCTION.
- CONSTRUCT PROPOSED SIGNAL POLES AT THE SW AND SE CORNER AND LEAVE SIGNALS INACTIVE DURING CONSTRUCTION.
- MAINTAIN EAST SCHOOL DRIVEWAY AND COMMUNITY CENTER DRIVEWAY ACCESS.

FINAL PLANS

CONSTRUCTION STAGING - STAGE 1 FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL

A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



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SHEET 9 OF 50

GENERAL NOTES:

- 1) ***11:1 TAPER WHERE POSTED SPEED IS 25 MPH THROUGH STAGED CONSTRUCTION ZONES.

2) CONSTRUCTION ZONE SHALL BE POSTED FOR 25 MPH .

3) ALL CONSTRUCTION STAGING SHALL ADHERE TO WSDOT STANDARD PLANS.

4) TEMPORARY LONG TERM STRIPING SHALL BE REVISED FOR STAGE 1 TO SHIFT TRAFFIC TO NORTH SIDE OF E 4TH STREET ADDED AS SHOWN IN PLAN BELOW.

5) CONTRACTOR SHALL MAINTAIN 11' MIN. TRAVEL LANES DURING CONSTRUCTION UNLESS NOTED OTHERWISE DURING CONSTRUCTION.
- 6) WHERE CONTRACTOR BLENDS EXISTING ROAD GRADES WITH PROPOSED ROAD GRADES, THE TRANSITION SHALL BE NO STEEPER THAN 5-10%.

7) FOR CLASS A SIGNING, SEE CS03.

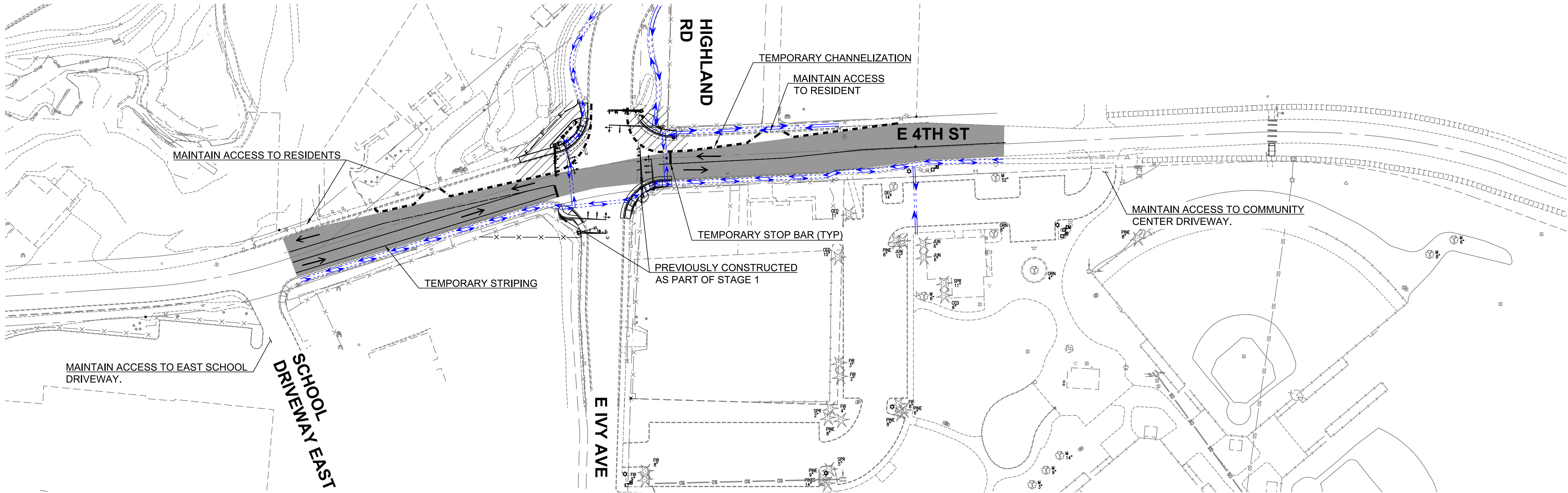
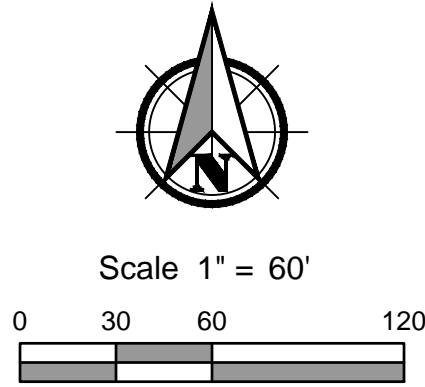
8) EXISTING PEDESTRIAN OR BICYCLE FACILITIES TO BE MAINTAINED THROUGHOUT CONSTRUCTION.


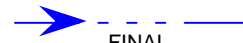



9) ALL ADJACENT ACCESSES TO BE MAINTAINED DURING CONSTRUCTION UNLESS OTHERWISE NOTED.

10) LIMITS OF WORK SHALL BE TO THE MAXIMUM EXTENT FEASIBLE FOR THE AREAS SHOWN WHILE NOT IMPACTING THE EXISTING ROADWAY, UNLESS NOTED OTHERWISE.
- 11) ALL PAVING COMPLETED SHALL INCLUDE BASE AND LEVELING COURSE ONLY.

12) CONTRACTOR TO PROVIDE LONG TERM TRAFFIC CONTROL AND PEDESTRIAN ROUTING PLANS TO WSDOT & CITY ENGINEER NO SOONER THAN 2 WEEKS PRIOR TO TRAFFIC SHIFTS.

13) WHEN CHANNELIZATION IS USED TO DELINEATE A PEDESTRIAN PATHWAY, A CONTINUOUS DETECTABLE EDGING SHALL BE PROVIDED THROUGHOUT THE LENGTH OF THE FACILITY SUCH THAT PEDESTRIANS USING A CANE CAN FOLLOW IT. EDGING SHALL PROTRUDE AT LEAST 6-IN ABOVE THE SURFACE OF THE PATHWAY WITH THE BOTTOM EDGING A MAXIMUM OF 2.5-IN ABOVE THE SURFACE.
- 14) PEDESTRIAN AND BICYCLE ROUTING PROVIDED IS PRELIMINARY. CONTRACTOR TO PROVIDE FINAL ACCESSIBLE PEDESTRIAN/BICYCLE CHANNELIZATION PLAN TO CITY FOR REVIEW, COMMENT AND APPROVAL PRIOR TO IMPLEMENTATION. 5-FOOT MINIMUM HARD SURFACE ACCESS ON ONE SIDE OF THE ROADWAY SHALL BE MAINTAINED AT ALL TIMES, UNLESS NOTED OTHERWISE.



LEGEND	
	REFLECTIVE CHANNELIZATION DEVICE
	PEDESTRIAN ACCESS ROUTE
	WORK ZONE AREA
	TRAFFIC TRAVEL ZONE
	TRAFFIC FLOW DIRECTION

STAGING CONSTRUCTION SUMMARY

CONSTRUCT ALL IMPROVEMENTS IN WORK ZONE AS SHOWN ABOVE EXCEPT LANDSCAPE, STRIPING, AND FINAL LIFT OF HMA UNLESS OTHERWISE NOTED. WORK SHALL TYPICALLY INCLUDE THE FOLLOWING:

- BUILD NORTHWEST AND NORTHEAST CURB RETURNS AT INTERSECTION, INCLUDING SIDEWALK, CURB AND PAVEMENT.
- MAINTAIN EXISTING SIGNAL POLES DURING CONSTRUCTION.
- CONSTRUCT PROPOSED SIGNAL POLES AT THE NW AND NE CORNER AND LEAVE SIGNALS INACTIVE DURING CONSTRUCTION.
- MAINTAIN EAST SCHOOL DRIVEWAY AND COMMUNITY CENTER DRIVEWAY ACCESS.

CONSTRUCTION STAGING - STAGE 2 FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL

A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



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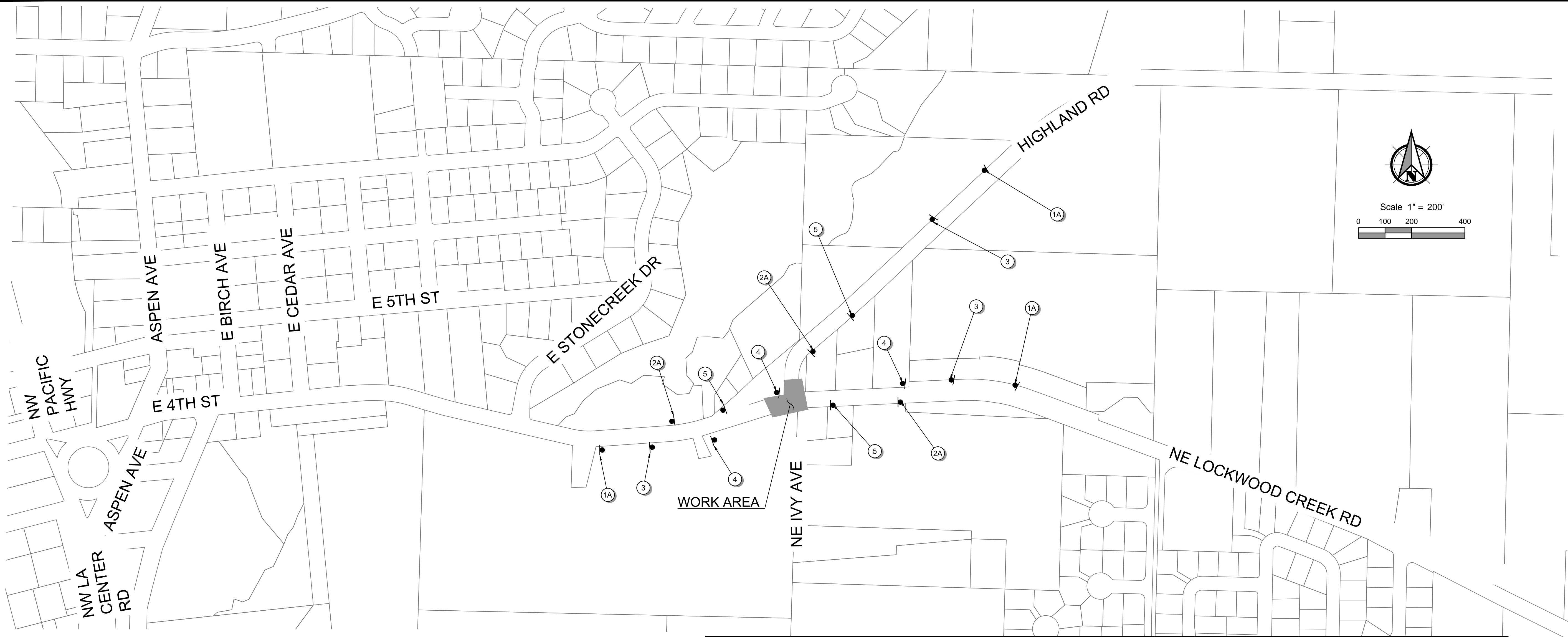
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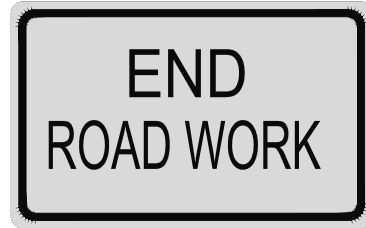
SHEET 10 OF 50

FINAL PLANS

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1A
W20-1
36" x 36"



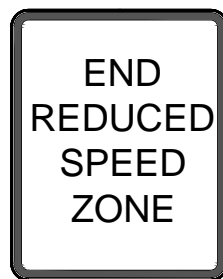
2A
G20-2
36" x 18"



3
W3-5
36" x 36"



4
R2-1
30" x 36"



5
CUSTOM
SIGN
36" x 48"

CLASS A CONSTRUCTION SIGNS

	INCLUDE THIS SIGN WITH THE MOTORCYCLE CAUTION SIGN WHEN THERE IS AN ABRUPT LANE EDGE		INCLUDE THIS SIGN WITH THE MOTORCYCLE CAUTION SIGN WHEN THE PAVEMENT IS GROOVED		WAC 468-95-306 & RCW 47.36.200 SIGN FOR COMPLIANCE WITH CURRENT LAW.
	INCLUDE THIS SIGN WITH THE MOTORCYCLE CAUTION SIGN WHEN THERE IS LOOSE GRAVEL ON THE ROAD		INCLUDE THIS SIGN WITH THE MOTORCYCLE CAUTION SIGN WHEN THE STEEL PLATES ARE ON THE ROAD	USE OF THE "MOTORCYCLES USE EXTREME CAUTION" SIGN SHALL ONLY BE USED WHEN THE FOLLOWING CONDITIONS ARE PRESENT: <ul style="list-style-type: none">GROOVED PAVEMENTABRUPT LANE EDGESSTEEL PLATESGRAVEL OR EARTH ON ROADWAY SURFACES SUPPLEMENTAL SIGNS SHALL BE ADDED IN ADDITION TO THE "MOTORCYCLES USE EXTREME CAUTION" SIGN WHEN CERTAIN ROADWAY CONDITIONS ARE PRESENT, SEE BELOW.	

GENERAL TCP NOTES

- ALL LOCATIONS APPROXIMATE.
- SIGNS SHALL BE ORANGE WITH BLACK LEGEND, UNLESS NOTED OTHERWISE.
- SPEED LIMIT REDUCTIONS WILL BE A CONTINUOUS REGULATORY REDUCTION BUT WILL NOT BE IMPLEMENTED UNTIL IT IS NEEDED ON EACH HIGHWAY. IF THERE IS MINIMAL WORK OCCURRING THAT AFFECTS TRAFFIC AT THE START OF THE PROJECT, THE TEMPORARY SIGNS INSTALLED FOR THE SPEED REDUCTION SHALL BE COVERED UNTIL THE NEED FOR THE SPEED LIMIT REDUCTION IS REQUIRED. SPEED RADAR TRAILERS MAY BE DEPLOYED DURING THIS TIME, BUT SPEED LIMIT SIGNS (R2-1) POSTED ON TRAILERS SHALL BE COVERED UNTIL SPEED LIMIT REDUCTION IS REQUIRED.
- CONTRACTOR SHALL PROVIDE NO LESS THAN 2 WEEKS NOTICE TO WSDOT PRIOR TO INTENT ON IMPLEMENTATION OF TEMPORARY SPEED LIMIT REDUCTION.
- SPEED LIMIT REDUCTION SIGNING SHALL BE IMPLEMENTED ONLY WHEN WORK CONDITIONS REQUIRE CONTRACTOR'S USE OF EXISTING LANES FOR VEHICLE STAGING TO COMPLETE WIDENING WORK OR WHEN WORK FOR ISLANDS IS STARTED (WHICHEVER COMES FIRST).

LEGEND

- CLASS A SIGN

FINAL PLANS

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CLASS A SIGNING FOR:
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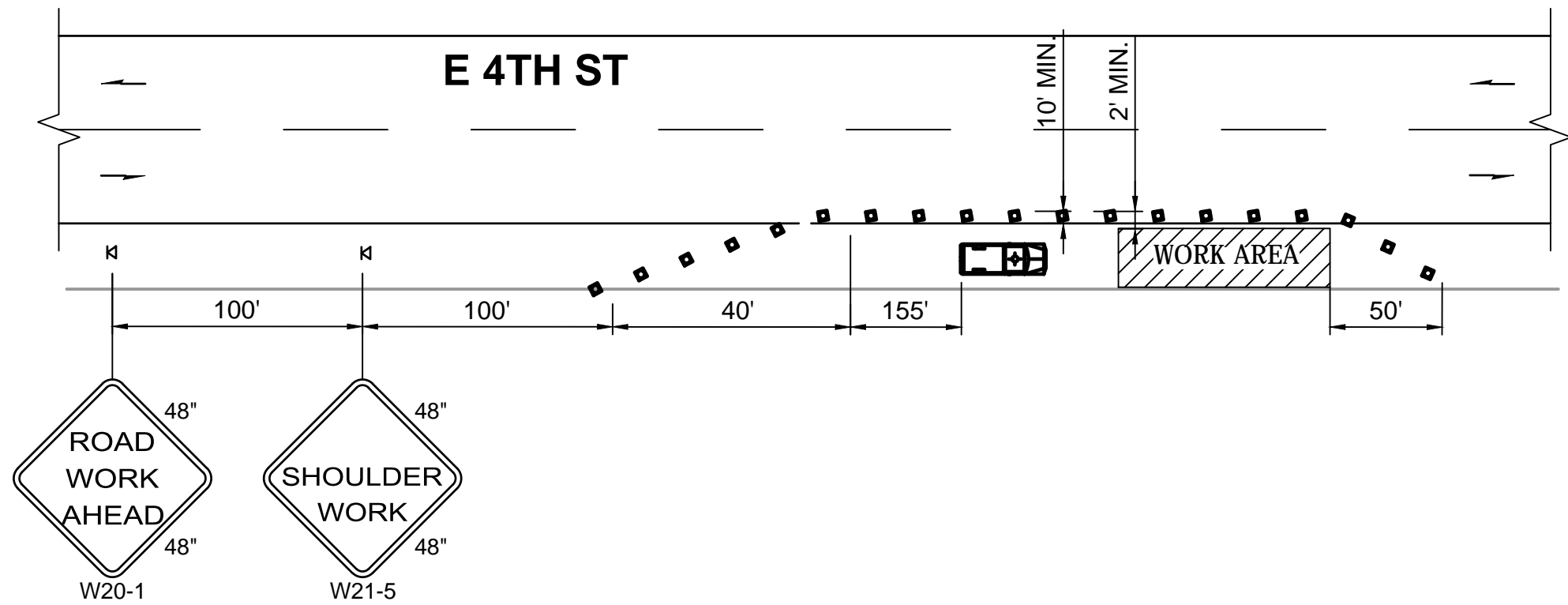
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SHEET **11** OF **50**

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SHOULDER CLOSURE - PHASE 1 NTS



NOTES:

1. DEVISE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20FT.
2. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.

LEGEND

K

TEMPORARY SIGN LOCATION

■

CHANNELIZING DEVICES

PROTECTIVE VEHICLE - RECOMMENDED

MINIMUM TAPER LENGTH = L (feet)											
LANE WIDTH (feet)	Posted Speed (mph)										
	25	30	35	40	45	50	55	60	65	70	
11	115	165	225	295	495	550	605	660	-	-	

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
25/30	20	40

SIGN SPACING = X (1)			
RURAL ROADS & URBAN ARTERIALS	25 / 30 MPH	200'	(2)
RESIDENTIAL & BUSINESS DISTRICTS			
URBAN STREETS	25 MPH OR LESS	100'	(2)
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.			
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.			

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	730

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SHOULDER TRAFFIC CONTROL PLAN FOR:
4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL
A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



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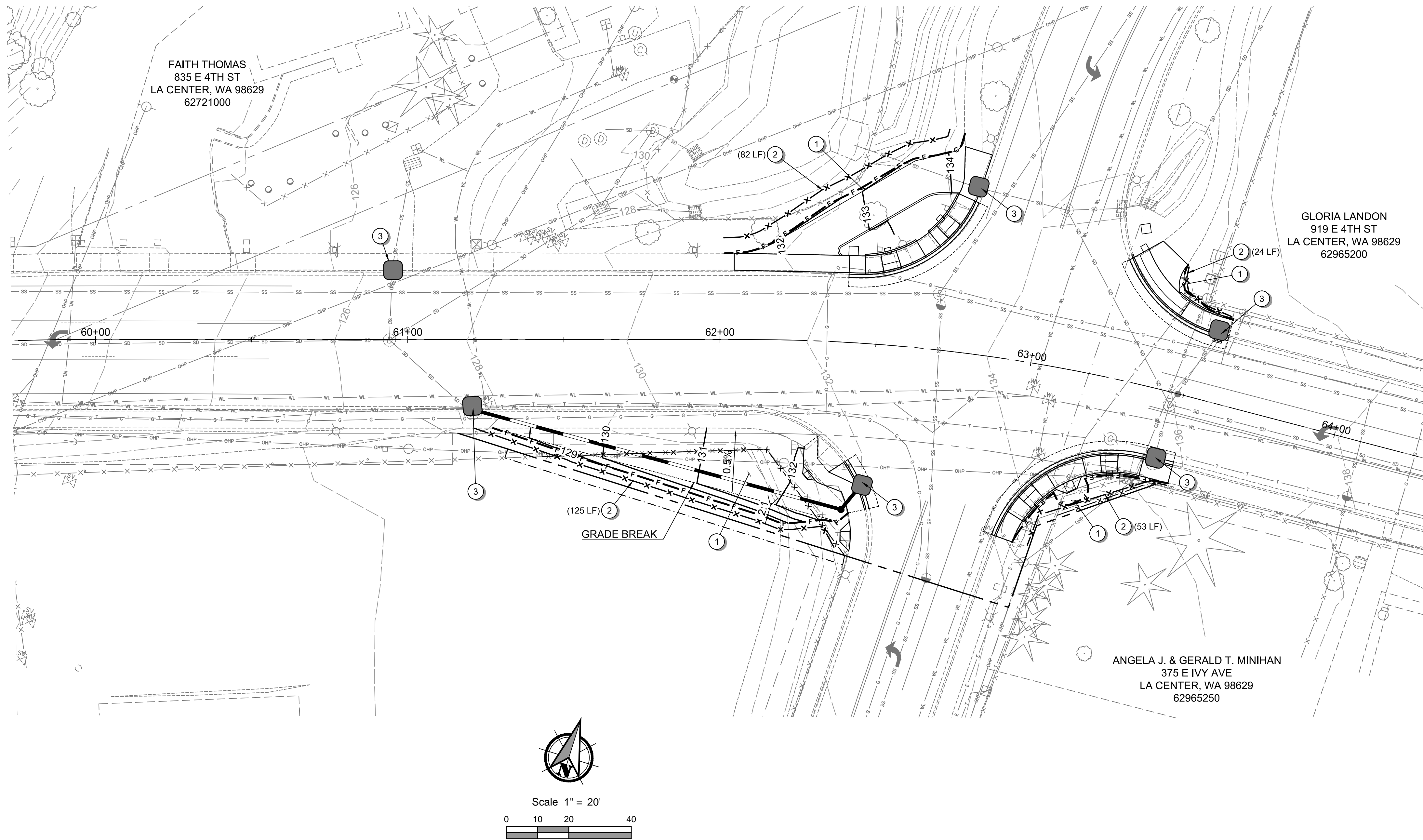
DESIGNED:
JAB
CHECKED:
CMK
JULY 2024
71486.000

SHEET ID
TC02

SHEET **13** OF **50**

FINAL PLANS

Filename: L:\Projects\71000\71486\71486-000\Civil\CAD\Working\Sheets(Signal Plans)\71486-000-EC01.dwg Layout Tab: EC-01 User: Tanner Scherer CAD Plot Date/Time: 8/2/2024 12:42:17 PM



GENERAL NOTES

1. SEE SHEET G02 AND G03 FOR LEGEND AND GENERAL NOTES

CONSTRUCTION NOTES:

- 1 CUT AND FILL SLOPES AND DISTURBED AREAS OUTSIDE OF PROPOSED CONSTRUCTION SHALL BE RESTORED.
- 2 INSTALL SILT FENCE PER WSDOT STANDARD PLAN I-30.15
- 3 INSTALL STORM DRAIN INLET PROTECTION PER WSDOT STANDARD PLAN I-40.20

LEGEND:

EXISTING CONTOUR ——— 410 ———
SILT FENCE —X—X—X—X—X—X—
INLET PROTECTION [Symbol]

GRADING & EROSION CONTROL FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL

A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



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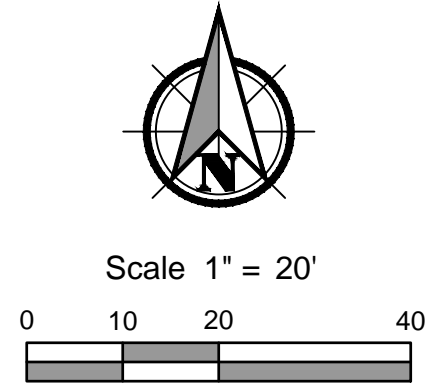
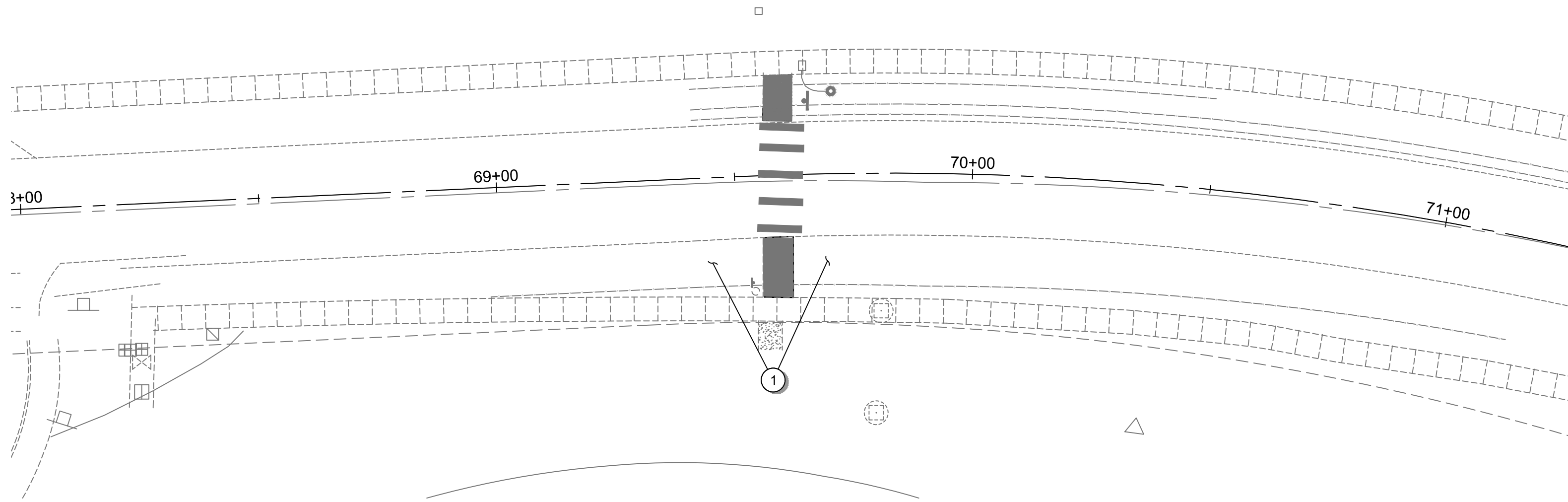
SHEET ID

EC01

SHEET **14** OF **50**

FINAL PLANS

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GENERAL NOTES

1. SEE SHEET G02 AND G03 FOR LEGEND AND GENERAL NOTES

CONSTRUCTION NOTES:

- 1 CUT AND FILL SLOPES AND DISTURBED AREAS OUTSIDE OF PROPOSED CONSTRUCTION SHALL BE RESTORED.
- 2 INSTALL SILT FENCE PER WSDOT STANDARD PLAN I-30.15
- 3 INSTALL STORM DRAIN INLET PROTECTION PER WSDOT STANDARD PLAN I-40.20

LEGEND:

- EXISTING CONTOUR ——— 410 ———
- SILT FENCE —x—x—x—x—x—
- INLET PROTECTION [Symbol]

FINAL PLANS



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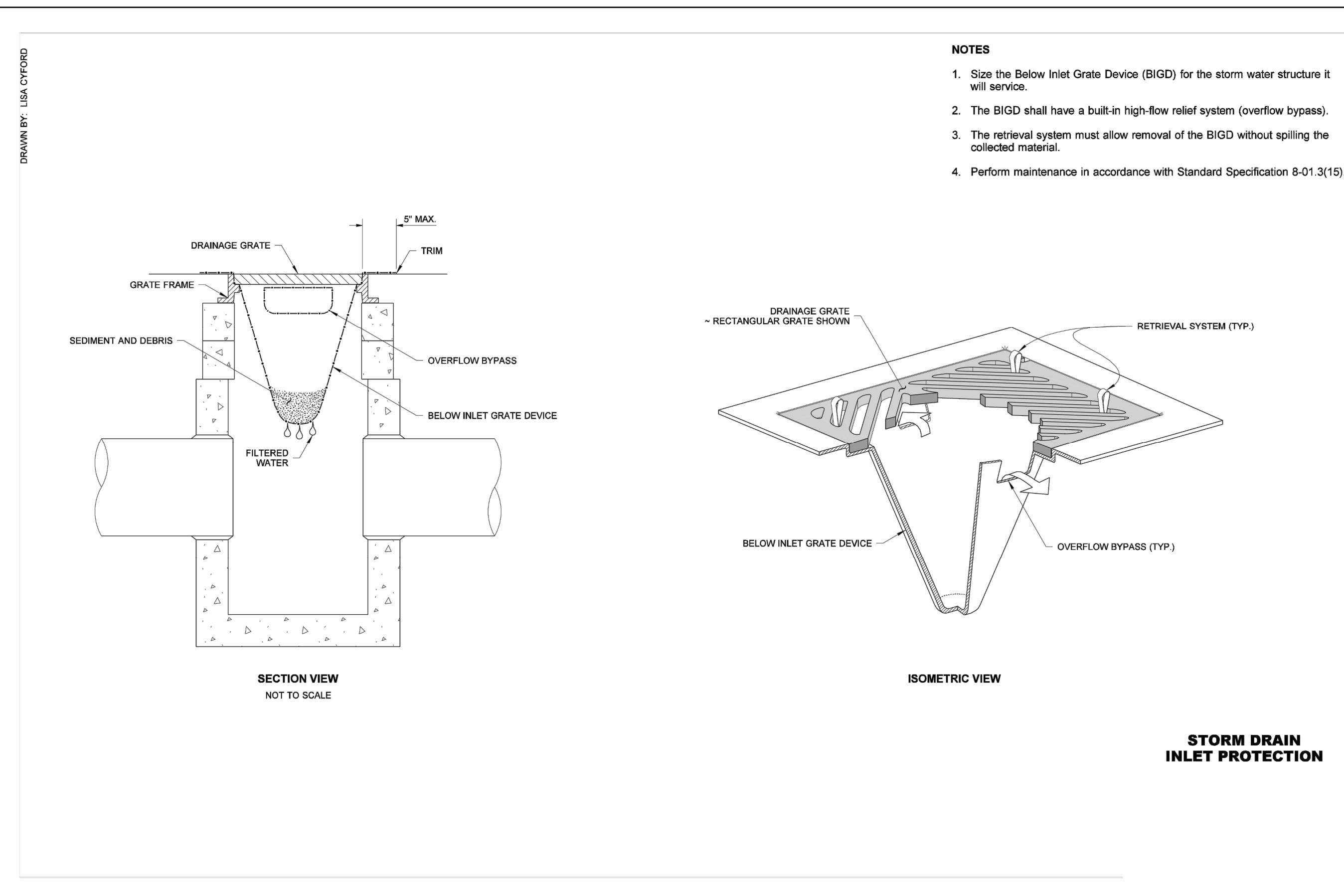
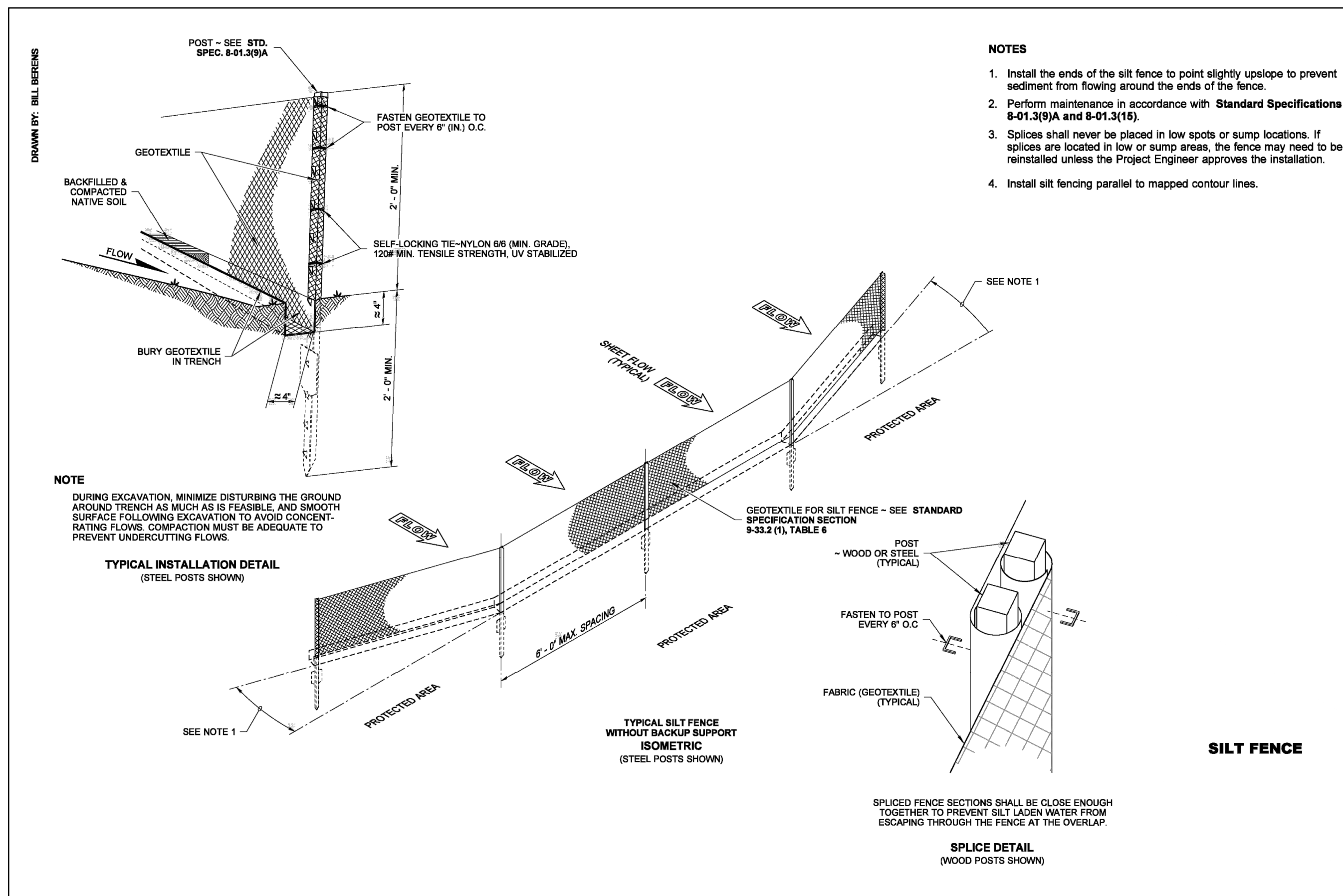
SHEET ID
EC02

SHEET **15** OF **50**

GRADING & EROSION CONTROL FOR:
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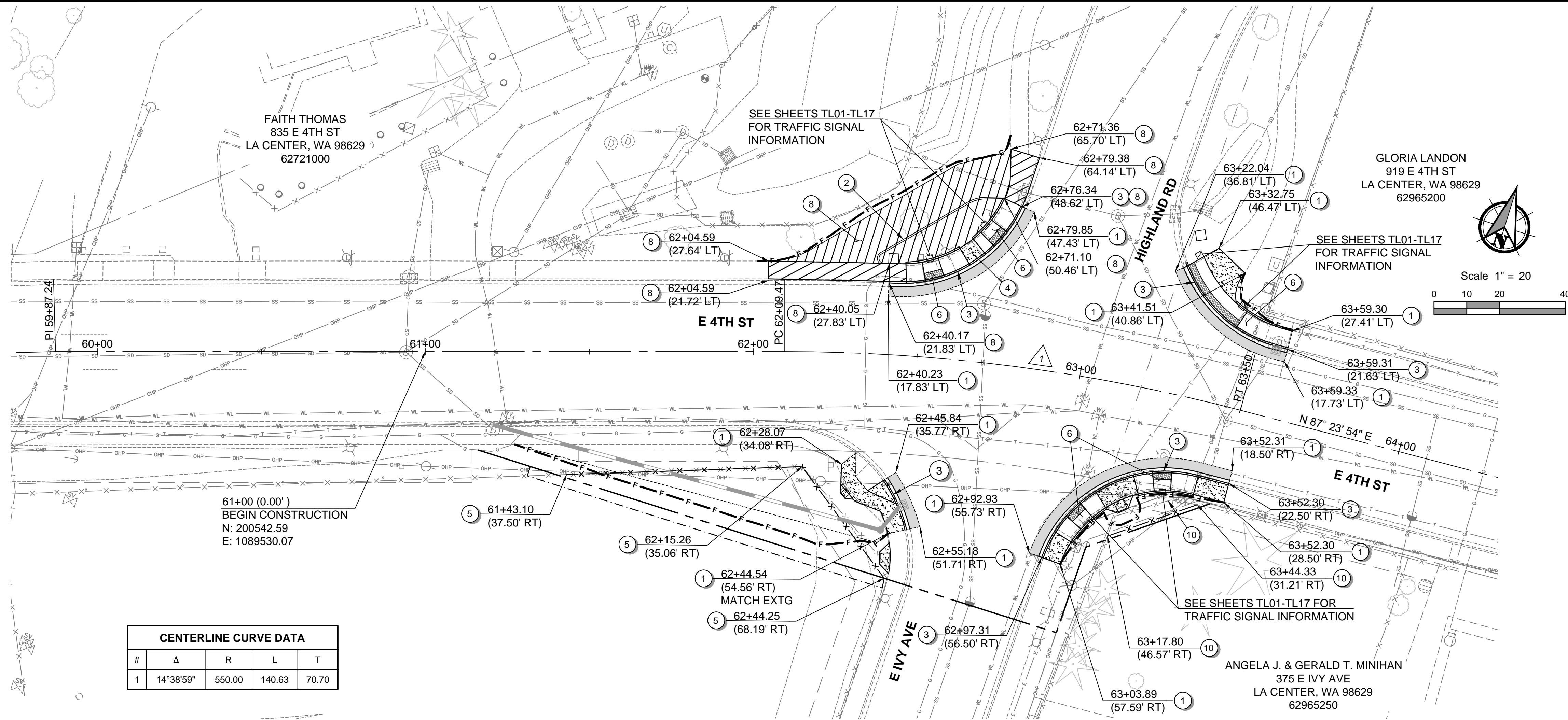
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FINAL PLANS

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CENTERLINE CURVE DATA				
#	Δ	R	L	T
1	14°38'59"	550.00	140.63	70.70

CONSTRUCTION NOTES:

GENERAL NOTES:

- SEE TYPICAL SECTIONS SHEET TS01 FOR ADDITIONAL INFORMATION.
- TREES TO BE REMOVED NOTED ON TR01-TR02 HAVE BEEN REMOVED FOR PLAN CLARITY.

STREET NOTES:

- SAWCUT EXISTING HMA, CURB, AND/OR SIDEWALK, AND MATCH EXISTING.
- CONSTRUCT CEMENT CONCRETE TRAFFIC CURB. SEE WSDOT STANDARD PLAN F-10.12, SEE SHEET STD01.
- CONSTRUCT CEMENT CONCRETE TRAFFIC CURB & GUTTER. SEE WSDOT STANDARD PLAN F-10.12, SEE SHEET STD01.
- CONSTRUCT CEMENT CONCRETE SIDEWALK. SEE WSDOT STANDARD PLAN F-30.10, SEE SHEET STD01.
- SITE SPECIFIC CHAIN LINK FENCE TYPE 4 PER WSDOT STANDARD PLAN L-20.10 WITH BLACK VINYL COATED FENCE FABRIC, BLACK PAINTED POSTS AND HARDWARE. USE 2 1/2" NOMINAL DIAMETER, SCHEDULE 40, PIPE SECTIONS FOR ALL END, CORNER, LINE, BRACE, OR PULL POSTS. MAXIMUM POST SPACING SHALL BE 6'-0" O.C., SEE SHEET STD02.
- CEMENT CONCRETE PARALLEL CURB RAMP PER WSDOT STANDARD PLAN F-40.12, SEE SHEET STD01 FOR INFORMATION. SEE SHEET (GR01) FOR GRADING INFORMATION.
- CEMENT CONCRETE PERPENDICULAR CURB RAMP PER WSDOT STANDARD PLAN F-40.15, SEE SHEET STD02 FOR INFORMATION. SEE SHEET (GR02) FOR GRADING INFORMATION.
- CEMENT CONC. SIDEWALK (THICKENED) PER DETAIL, SEE SHEET D01.
- INSTALL DETECTABLE WARNING SURFACE AND RECONSTRUCT EXISTING CONCRETE RAMP TO FULL WIDTH
- REMOVE AND RESET EXISTING FENCE 1-2FT IN FRONT OF RIGHT OF WAY LINE. CONNECT TO EXISTING FENCE POST AND REPLACE FENCE POSTS AS NEEDED. ALL WORK TO BE WITHIN RIGHT OF WAY. FENCE SHALL MAINTAIN THE SAME HEIGHT AS EXISTING FENCE.

HATCHING LEGEND

- NEW PAVED ROADWAY AREA
- NEW CONCRETE AREA
- CEMENT CONCRETE SIDEWALK (THICKENED)

4TH STREET - STREET PLAN FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL

A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



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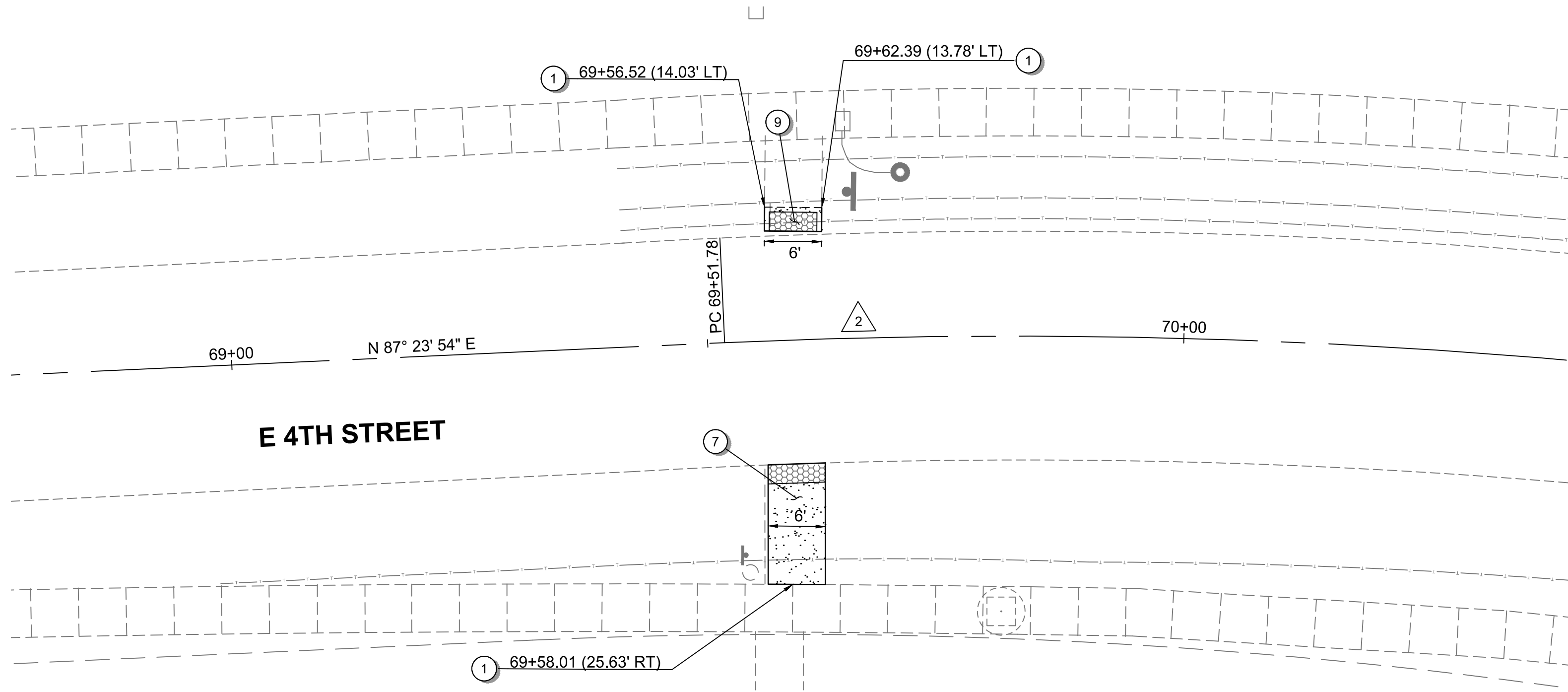
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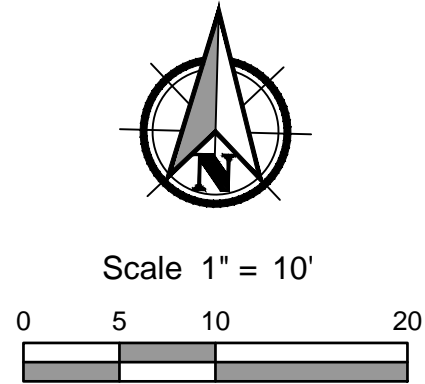


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CENTERLINE CURVE DATA				
#	Δ	R	L	T
2	22°51'18"	670.00	267.26	135.43

HATCHING LEGEND	
	NEW PAVED ROADWAY AREA
	NEW CONCRETE AREA
	CEMENT CONCRETE SIDEWALK (THICKENED)



CONSTRUCTION NOTES:

GENERAL NOTES:

- SEE TYPICAL SECTIONS SHEET TS01 FOR ADDITIONAL INFORMATION.
- TREES TO BE REMOVED NOTED ON TR01-TR02 HAVE BEEN REMOVED FOR PLAN CLARITY.

STREET NOTES:

- SAWCUT EXISTING HMA, CURB, AND/OR SIDEWALK, AND MATCH EXISTING.
- CONSTRUCT CEMENT CONCRETE TRAFFIC CURB. SEE WSDOT STANDARD PLAN F-10.12, SEE SHEET STD01.
- CONSTRUCT CEMENT CONCRETE TRAFFIC CURB & GUTTER. SEE WSDOT STANDARD PLAN F-10.12, SEE SHEET STD01.
- CONSTRUCT CEMENT CONCRETE SIDEWALK. SEE WSDOT STANDARD PLAN F-30.10, SEE SHEET STD01.
- SITE SPECIFIC CHAIN LINK FENCE TYPE 4 PER WSDOT STANDARD PLAN L-20.10 WITH BLACK VINYL COATED FENCE FABRIC, BLACK PAINTED POSTS AND HARDWARE. USE 2 1/2" NOMINAL DIAMETER, SCHEDULE 40, PIPE SECTIONS FOR ALL END, CORNER, LINE, BRACE, OR PULL POSTS. MAXIMUM POST SPACING SHALL BE 6'-0" O.C., SEE SHEET STD02.
- CEMENT CONCRETE PARALLEL CURB RAMP PER WSDOT STANDARD PLAN F-40.12, SEE SHEET STD01 FOR INFORMATION. SEE SHEET (GR01) FOR GRADING INFORMATION.
- CEMENT CONCRETE PERPENDICULAR CURB RAMP PER WSDOT STANDARD PLAN F-40.15, SEE SHEET STD02 FOR INFORMATION. SEE SHEET (GR02) FOR GRADING INFORMATION.
- CEMENT CONC. SIDEWALK (THICKENED) PER DETAIL. SEE SHEET D01.
- INSTALL DETECTABLE WARNING SURFACE AND RECONSTRUCT EXISTING CONCRETE RAMP TO FULL WIDTH
- REMOVE AND RESET EXISTING FENCE 1-2FT IN FRONT OF RIGHT OF WAY LINE. CONNECT TO EXISTING FENCE POST AND REPLACE FENCE POSTS AS NEEDED. ALL WORK TO BE WITHIN RIGHT OF WAY. FENCE SHALL MAINTAIN THE SAME HEIGHT AS EXISTING FENCE.

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4TH STREET - STREET PLAN FOR:
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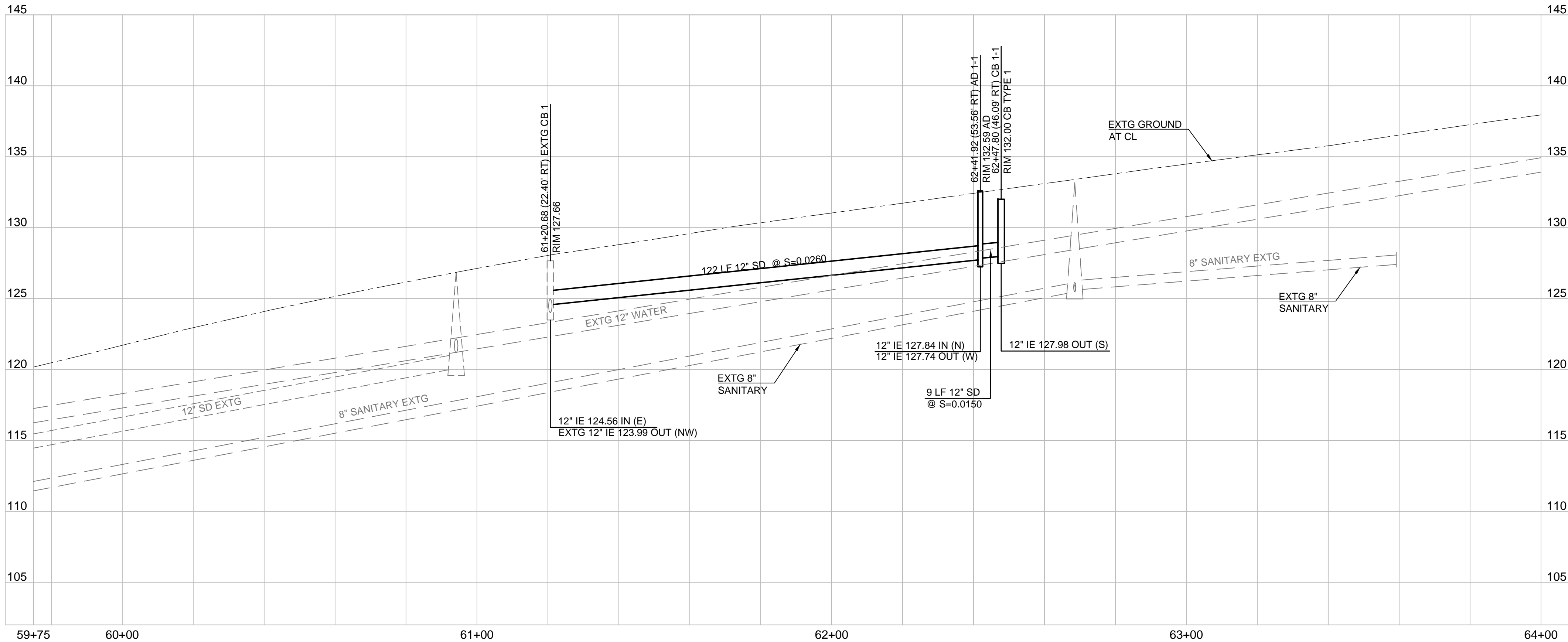
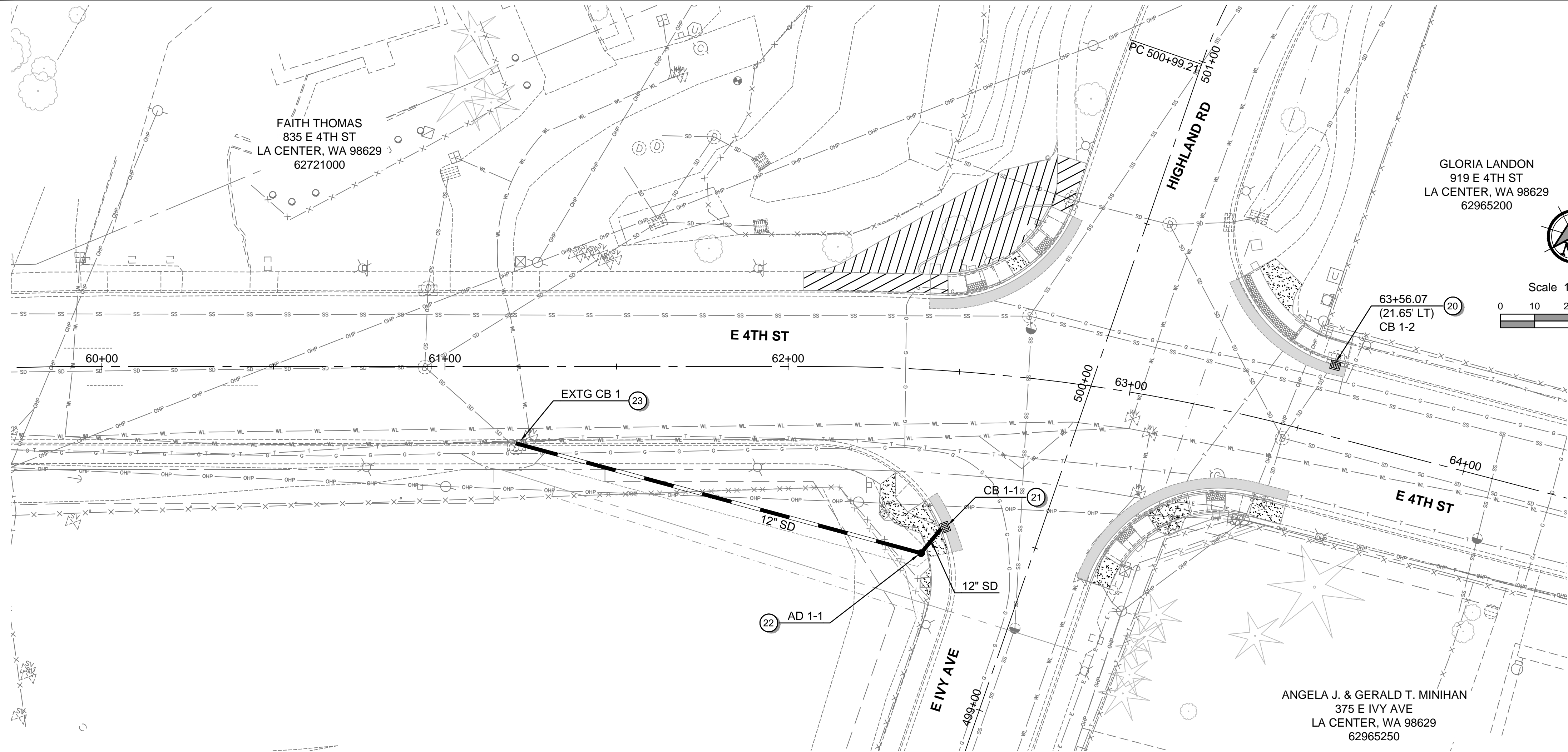
SHEET ID

C02

SHEET **18** OF **50**

FINAL PLANS

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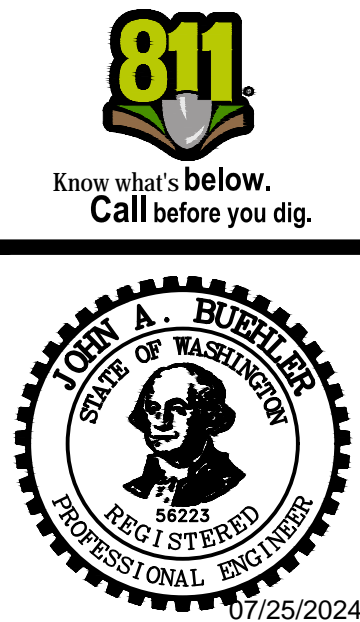


- CONSTRUCTION NOTES:**
- GENERAL NOTES:**
- SEE TYPICAL SECTIONS SHEET TS01 FOR ADDITIONAL INFORMATION.
 - TREES TO BE REMOVED NOTED ON TR01-TR02 HAVE BEEN REMOVED FOR PLAN CLARITY.
- STORM DRAINAGE NOTES:**
- INSTALL CATCH BASIN TYPE 1 PER WSDOT STANDARD PLAN B-5.20, SEE SHEET STD02. CONNECTION TO EXISTING STORM PIPE.
 - INSTALL CATCH BASIN TYPE 1 WITH SOLID LOCKING LID PER WSDOT STANDARD PLAN B-5.20, SEE SHEET STD02.
 - INSTALL PVC CATCH BASIN 24" DIAM. W/ SOLID GRATE PER DETAIL, SHEET D01.
 - CONNECT TO EXISTING DRAINAGE STRUCTURE.

HATCHING LEGEND	
	NEW PAVED ROADWAY AREA
	NEW CONCRETE AREA
	CEMENT CONCRETE SIDEWALK (THICKENED)

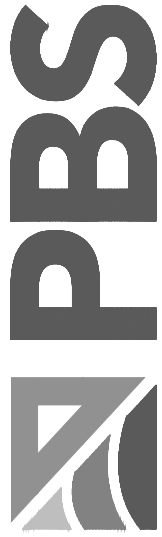
FINAL PLANS

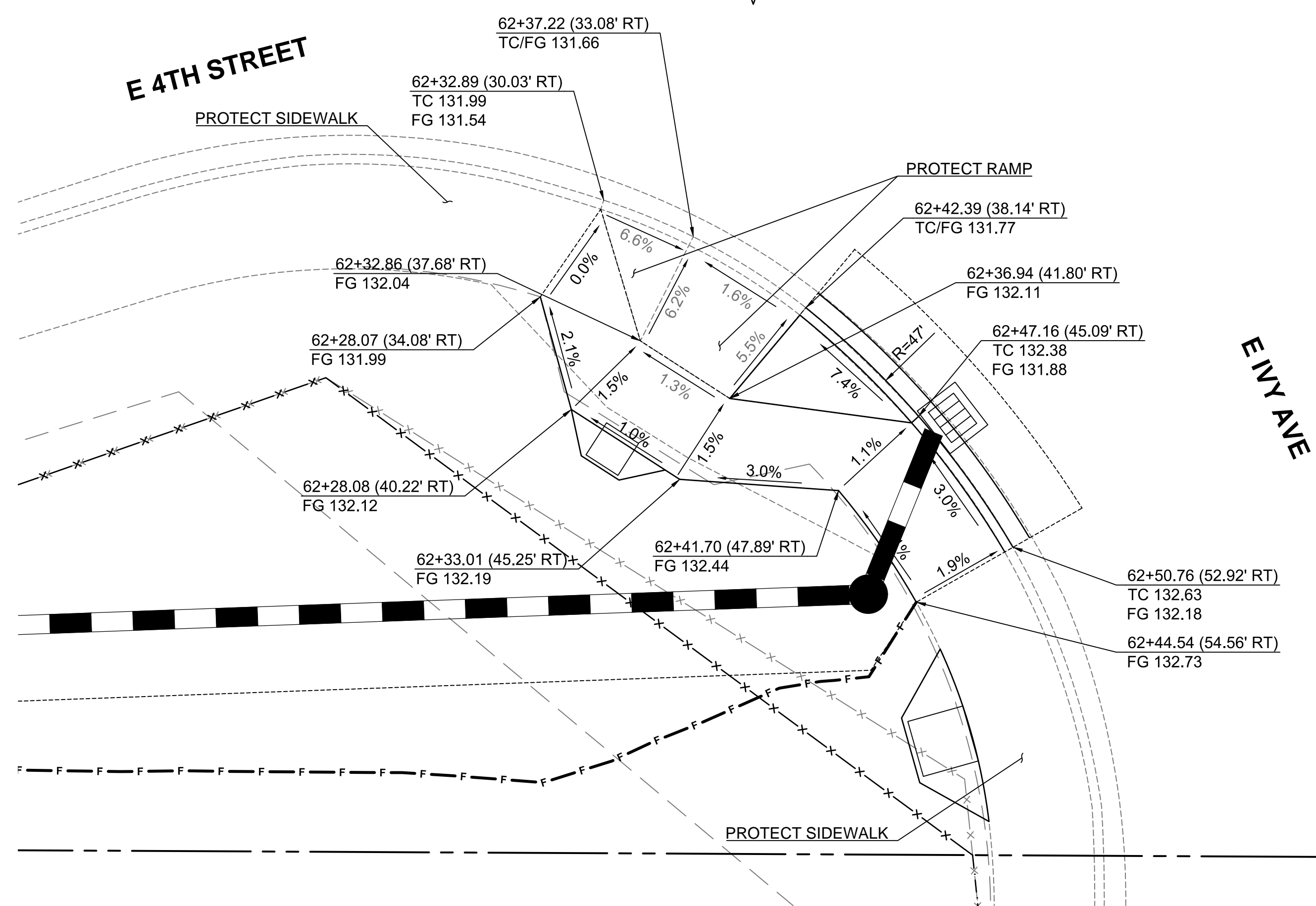
4TH STREET - STORM DRAINAGE PLAN AND PROFILE FOR:
4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL
A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



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SHEET 19 OF 50

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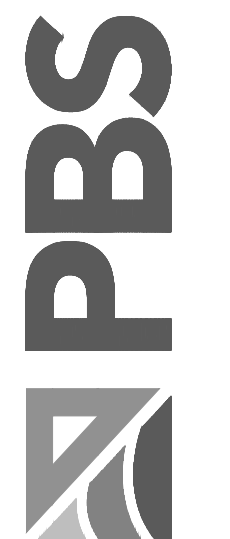


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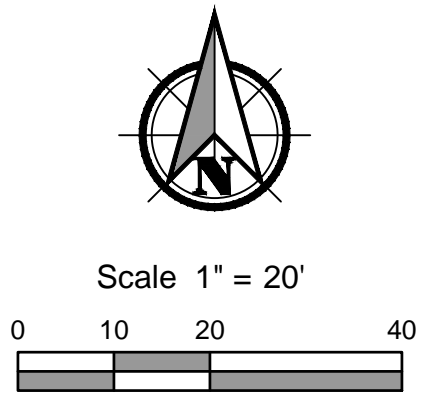
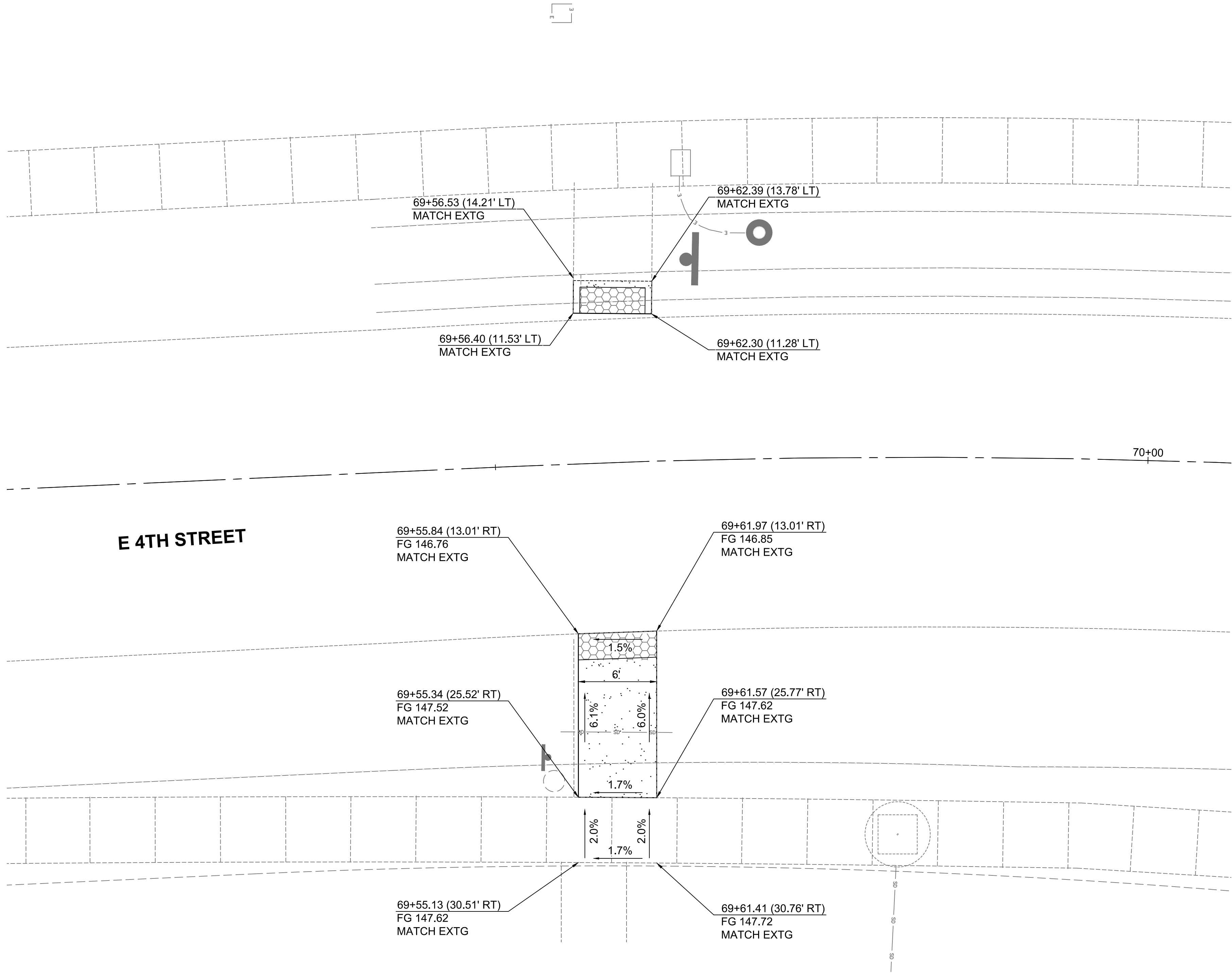


SHEET ID

GR01
SHEET 20 OF 50



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FINAL PLANS

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RAMP GRADING FOR:
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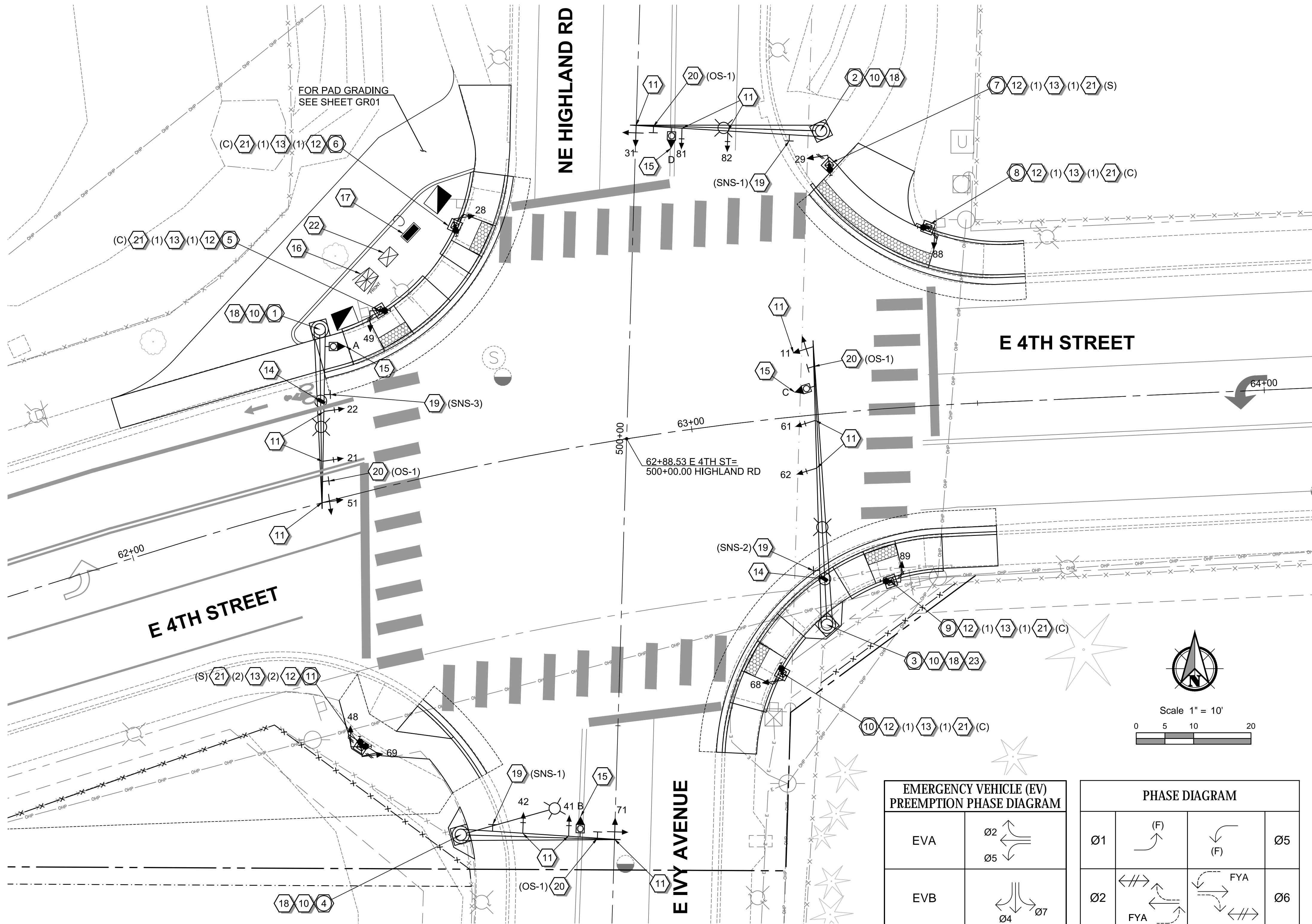
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GR02

SHEET **21** OF **50**

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DESIGN SPEED CHART		
STREET	APPROACH	POSTED SPEED (MPH)
E 4TH ST	WB	25
NE HIGHLAND RD	SB	25
E 4TH ST	EB	25
E IVY AVE	NB	N/A

EMERGENCY VEHICLE (EV) PREEMPTION PHASE DIAGRAM	
EVA	
EVB	
EVC	
EVD	

PHASE DIAGRAM			
Ø1			Ø5
Ø2			Ø6
Ø3			Ø7
Ø4			Ø8

- PROTECTED VEHICLE MOVEMENT
--- PERMITTED VEHICLE MOVEMENT
←//→ PEDESTRIAN MOVEMENT
FYA FLASHING YELLOW ARROW
(F) FUTURE PHASE NOT PROPOSED AT THIS TIME

GENERAL NOTES:

- SEE SHEETS SS01 TO SS04 FOR SIGNING AND STRIPING PLANS.
- SEE SHEET TL04 FOR TRAFFIC SIGNAL WIRING DETAILS.
- SEE SHEET GR01 FOR ADA RAMP GRADING.
- CONTRACTOR SHALL USE NON-DESTRUCTIVE POTHOLE METHODS TO LOCATE UTILITIES NEAR ANY UNDERGROUND WORK. INSTALL SIGNAL EQUIPMENT AROUND CONFLICTING UTILITIES THAT MAY NOT BE SHOWN ON PLANS AND CONFIRM WITH ENGINEER PRIOR TO INSTALLATION.

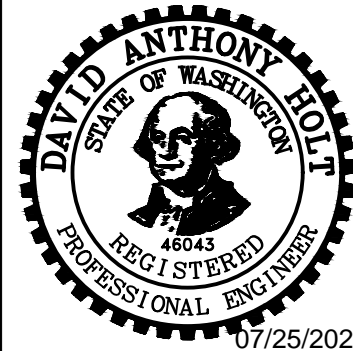
TRAFFIC SIGNAL NOTES:

- TRAFFIC SIGNAL STANDARD POLE NUMBER (#). SEE TRAFFIC SIGNAL AND LIGHTING POLE SCHEDULE, SHEET TL04.
- INSTALL BLACK POWDER-COATED TYPE III TRAFFIC SIGNAL POLE, INCLUDING FOUNDATION AND TERMINAL CABINET, PER MAST ARM DETAILS, SHEET TL05.
- INSTALL TRAFFIC SIGNAL HEAD (##) INCLUDING WIRE FROM HEAD TO TERMINAL CABINET. SEE SHEETS TL04 TO TL05. ## = HEAD NUMBER NOTED ON PLAN.
- INSTALL (X) PEDESTRIAN HEAD (##) AND MOUNT INCLUDING WIRE FROM HEAD TO TERMINAL CABINET PER WSDOT STD PLAN J-20.20. SEE SHEETS TL04 TO TL05. X = TOTAL NUMBER OF PEDESTRIAN DISPLAYS. ## = HEAD NUMBER NOTED ON PLAN.
- INSTALL (X) ACCESSIBLE PEDESTRIAN PUSHBUTTON SYSTEM INCLUDING WIRE FROM PUSHBUTTON TO TERMINAL CABINET PER WSDOT STD PLAN J-20.26, SEE SHEETS TL04 TO TL05. X = TOTAL NUMBER OF PEDESTRIAN PUSHBUTTONS.
- INSTALL GRIDSMART BELL CAMERA INCLUDING POLE ASSEMBLY, MOUNTING BRACKET, JUNCTION BOX, MOUNTING HARDWARE, AND CONTINUOUS CABLE FROM CAMERA TO TRAFFIC SIGNAL CABINET AS SHOWN ON THE PLANS. SEE DETAIL ON SHEET TL05.
- INSTALL OPTICAL PREEMPTION DETECTION (N) INCLUDING FIELD WIRE FROM DETECTOR TO TERMINAL CABINET. SEE SHEETS TL04 TO TL05. N = PREEMPTION PHASE NOTED ON PLAN.
- INSTALL SIGNAL CONTROLLER CABINET ON CONCRETE PAD PER WSDOT STD PLAN J-10.10, SHEETS TL10 TO TL11, CONTROLLER CABINET DETAIL, SHEET TL09, AND RISER ADAPTER BASE DETAIL, SHEET TL08. COORDINATE WITH COMCAST (RON COX, 971-439-9519) FOR CABLE CONNECTION.
- INSTALL ELECTRICAL SERVICE CABINET ON CONCRETE PAD PER CLARK COUNTY STANDARDS. SEE SHEETS TL06 TO TL07.
- INSTALL LUMINAIRE ARM & LED LUMINAIRE HEAD PER SIGNAL POLE SCHEDULE, SHEET TL04.
- INSTALL STREET NAME SIGN SNS-(#) ON MAST ARM PER SIGN DETAIL, SHEET TL05, AND WSDOT STD PLAN G-30.10, SHEET TL09. # = STREET NAME SIGN NUMBER.
- INSTALL OVERHEAD REGULATORY SIGN OS-(#) ON MAST ARM PER SIGN DETAIL, SHEET TL05, AND WSDOT STD PLAN G-30.10, SHEET TL09. # = OVERHEAD SIGN NUMBER.
- INSTALL BLACK POWDER-COATED TYPE PEDESTRIAN SIGNAL (PS) POLE COMPLETE WITH PEDESTRIAN SIGNAL HEADS AND ACCESSIBLE PEDESTRIAN SIGNAL (APS) PUSHBUTTONS AS IDENTIFIED IN TRAFFIC SIGNAL NOTES 12 AND 13, THIS SHEET, PER WSDOT STD PLAN J-20.16 (SHEET TL12). INSTALL PS POLE ON (N) FOUNDATION. SEE SHEET TL04 FOR THE TRAFFIC SIGNAL SCHEDULE. SEE SHEET TL05 FOR APPURTENANCE ORIENTATION. N = FOUNDATION TYPE, AS FOLLOWS:
*C = CURB BASE FOUNDATION PER WSDOT STD PLAN J-20.11 (SHEET TL12)
*S = STANDARD FOUNDATION PER WSDOT STD PLAN J-21.10 (SHEET TL13)
- INSTALL UNIVERSAL POWER SYSTEM (UPS) IN TYPE 334 SIGNAL CABINET ON CONCRETE PAD PER WSDOT STD PLAN J-12.15 (SHEET TL11). SEE SPECIAL PROVISIONS FOR CABINET EQUIPMENT.
- INSTALL GRIDSMART REPEATER MODEL GS-3-REP IN SIGNAL POLE AT LOWER HANDHOLE.

ABOVE-GROUND SIGNAL EQUIPMENT PLAN FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL

A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



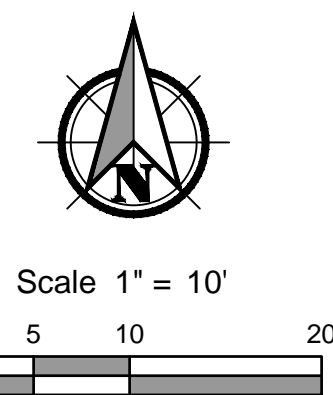
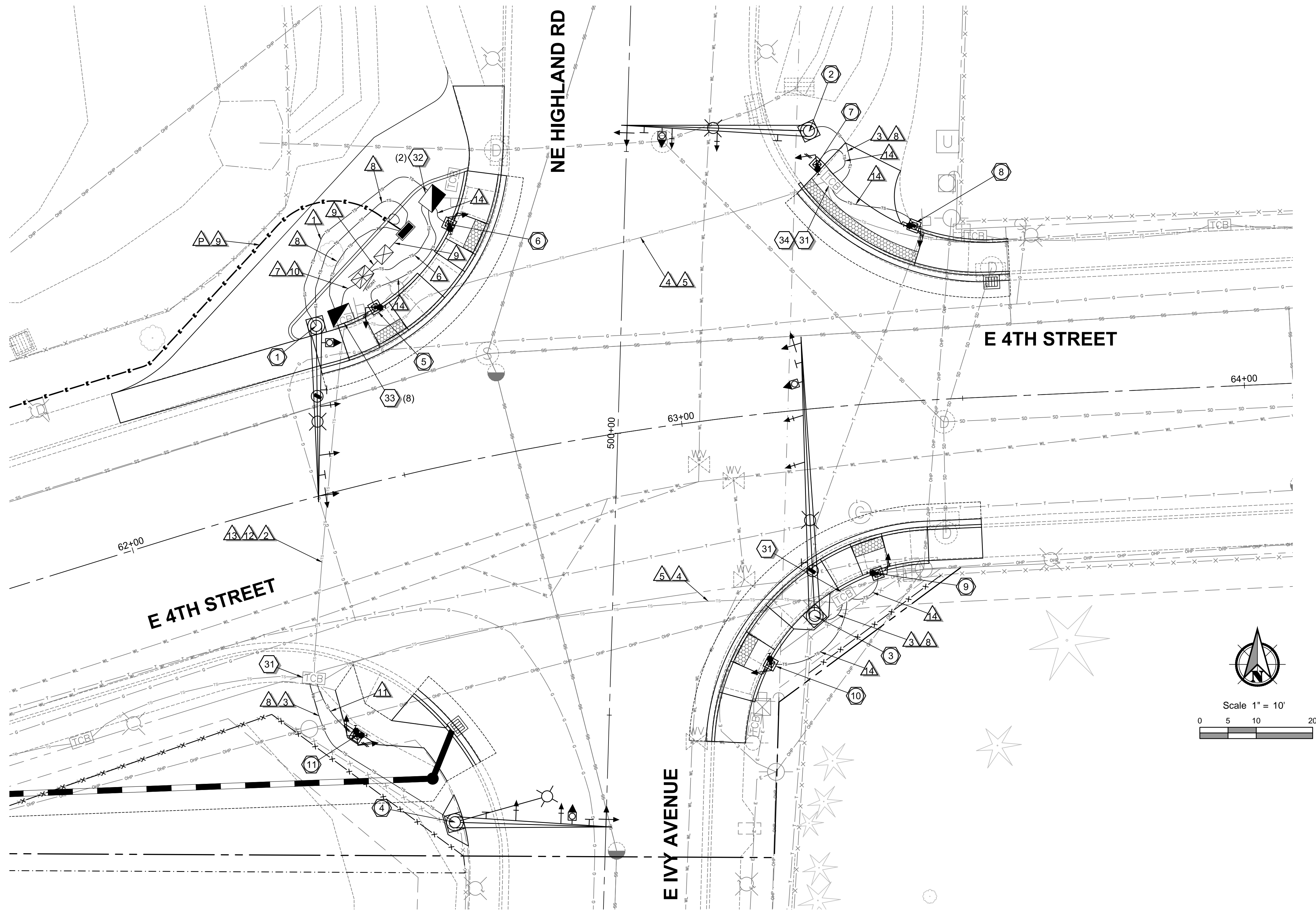
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TL01

SHEET **22** OF **50**

FINAL PLANS

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GENERAL NOTES:

- SEE SHEETS SS01 TO SS07 FOR SIGNING AND STRIPING PLANS.
- CONDUIT LAYOUT IS DEPICTED SCHEMATICALLY. CONTRACTOR SHALL USE NON-DESTRUCTIVE POT HOLE METHODS TO LOCATE UTILITIES NEAR ANY UNDERGROUND WORK. LOCATION OF SIGNAL POLE FOUNDATION LOCATED WITH FUTURE IMPROVEMENTS IN CONSIDERATION. INSTALL AROUND CONFLICTING UTILITIES THAT MAY NOT BE SHOWN ON PLANS AND CONFIRM WITH ENGINEER PRIOR TO INSTALLATION.

WIRING NOTES:

- #** TRAFFIC SIGNAL STANDARD POLE NUMBER (#). SEE TRAFFIC SIGNAL POLE SCHEDULE, SHEET TL04.
- #** TRAFFIC SIGNAL WIRING NUMBER (#) PER WIRING SCHEDULE, SHEET TL04.
- P** DRAW POWER FROM EXISTING SECONDARY PEDESTAL (STA 61+20, 31' LT). COORDINATE WITH CLARK PUBLIC UTILITIES (CPU): CALL 360-992-8839 FOR STANDBY TO PLUMB CONDUIT AND WIRE INTO PEDESTAL. CPU WILL MAKE THE CONNECTIONS.

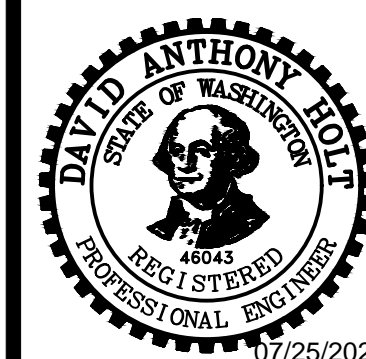
TRAFFIC SIGNAL NOTES:

- 31** CONTRACTOR TO VERIFY EXISTING TRAFFIC SIGNAL JUNCTION BOX, CONDUITS, MULE TAPES, AND LOCATOR WIRES ARE PRESENT AND SERVICEABLE.
- 32** INSTALL TYPE (#) JUNCTION BOX:
TYPE 1 & 2 - SEE WSDOT STD PLAN J-40.10, SHEET TL15.
TYPE 8 - SEE WSDOT STD PLAN J-40.30, SHEET TL15.
- 33** REPLACE EXISTING TYPE 2 JUNCTION BOX WITH TYPE 8 JUNCTION BOX PER WSDOT STD PLAN J-40.30, SHEET TL15.
ADJUST EXISTING CONDUITS TO FIT WITHIN NEW JUNCTION BOX.
- 34** REPLACE EXISTING JUNCTION BOX LID WITH NEW NON-SLIP LID.

BELOW-GROUND SIGNAL EQUIPMENT PLAN FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL

A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



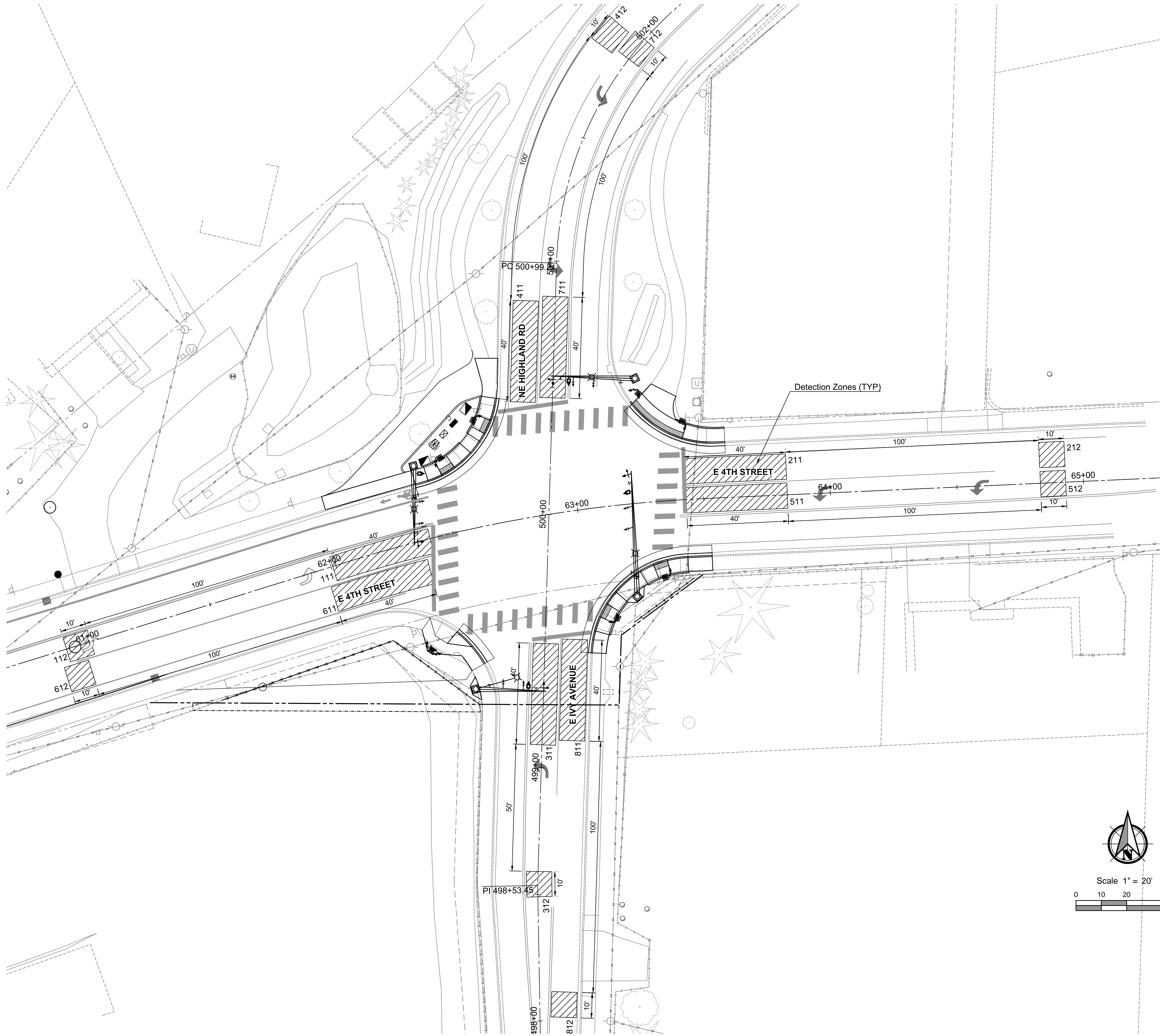
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TL02

SHEET **23** OF **50**

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	DETECTION ZONE NOTES				
ZONE	PHASE	LANE	NUMBER	FUNCTION	
111	1	1	1	CALL AND EXTEND	
112	1	1	2	EXTEND	
211	2	1	1	CALL AND EXTEND	
212	2	1	2	EXTEND	
311	3	1	1	CALL AND EXTEND	
312	3	1	2	EXTEND	
411	4	1	1	CALL AND EXTEND	
412	4	1	2	EXTEND	
511	5	1	1	CALL AND EXTEND	
512	5	1	2	EXTEND	
611	6	1	1	CALL AND EXTEND	
612	6	1	2	EXTEND	
711	7	1	1	CALL AND EXTEND	
712	7	1	2	EXTEND	
811	8	1	1	CALL AND EXTEND	
812	8	1	2	EXTEND	

GRIDSMART REPRESENTATIVE SHALL CONFIGURE CAMERAS TO RECOGNIZE THESE DETECTION ZONES AND TO SEND FUNCTION CALLS AS SHOWN ON THE SIGNAL CONTROLLER.

DETECTION PLAN FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL

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TRAFFIC SIGNAL POLE SCHEDULE																												
TRAFFIC SIGNAL SYSTEM																		ILLUMINATION SYSTEM								CAMERA SYSTEM		
POLE #	STATION	OFFSET (M)	TOP OF FOUN-DATION ELEV.	POLE TYPE (6)	MAST ARM LENGTH (6)	A	B	C ⁽²⁾	D	E	F ⁽³⁾	H	SIGNAL HEADS		OPTICAL ⁽²⁾ PREEMPTION	PEDESTRIAN PUSH BUTTON	TRAFFIC SIGNS & OTHER OBJECTS	TERMINAL CABINET	LUMINAIRE	SHORTING CAP	J	K	L	WATTAGE (MAX.)	CLARK COUNTY LUMINAIRE SCENARIO ⁽⁵⁾	N	P ⁽⁴⁾	POLE #
													TRAFFIC	PEDESTRIAN														
①	E 4TH ST 62+41.17	29.35' LT	132.75	III	30.2	30.2	26.5	3.0	23.0	14.3	11.4	19.0	SEE NEW SIGNAL HEAD NOTES TABLE, THIS SHEET	A	-	NEW STREET NAME SIGN, NEW REGULATORY SIGN, AND GRIDSMART CAMERA	YES	YES	YES	30	31.5	16	95	1 (THREE-LANE)	12.5	33	①	
②	HIGHLAND RD 500+54.63	32.23' RT	134.64	III	33.2	32.2	29.2	26.1	24.2	16.4	6.5	19.0		D	-	NEW STREET NAME SIGN, NEW REGULATORY SIGN	YES	YES	YES	30	31.5	16	95	1 (THREE-LANE)	-	-	②	
③	E 4TH ST 63+20.04	36.61' RT	135.29	III	49.5	48.5	45.0	41.6	35.6	27.3	9.5	19.0		C (14.5° OFF PERDICULAR)	-	NEW STREET NAME SIGN, NEW REGULATORY SIGN, AND GRIDSMART CAMERA	YES	YES	YES	30	31.5	16	95	1 (THREE-LANE)	12.5	33	③	
④	E IVY AVE 499+30.18	26.79' LT	132.83	III	27.8	26.8	23.8	20.8	18.8	10.8	6.5	19.0		B	-	NEW STREET NAME SIGN, NEW REGULATORY SIGN	YES	YES ⁽⁷⁾	YES	30	31.5	16	95	1 (THREE-LANE)	-	-	④	
⑤	E 4TH ST 62+51.58	30.09' LT	132.99	PS	-	-	-	-	-	-	-	-		-	1 APS	-	-	NO	NONE					NONE	⑤			
⑥	HIGHLAND RD 500+36.15	31.03' LT	133.68	PS	-	-	-	-	-	-	-	-		-	1 APS	-	-	NO	NONE					NONE	⑥			
⑦	HIGHLAND RD 500+48.71	33.84' RT	134.98	PS	-	-	-	-	-	-	-	-		-	1 APS	-	-	NO	NONE					NONE	⑦			
⑧	E 4TH ST 63+43.16	30.96' LT	135.28	PS	-	-	-	-	-	-	-	-		-	1 APS	-	-	NO	NONE					NONE	⑧			
⑨	E 4TH ST 63+32.49	30.09' RT	135.78	PS	-	-	-	-	-	-	-	-		-	1 APS	-	-	NO	NONE					NONE	⑨			
⑩	E IVY AVE 499+60.02	28.32' RT	134.74	PS	-	-	-	-	-	-	-	-		-	1 APS	-	-	NO	NONE					NONE	⑩			
⑪	E 4TH ST 62+29.74	42.80' RT	131.94	PS	-	-	-	-	-	-	-	-		-	2 APS	-	-	NO	NONE					NONE	⑪			

TRAFFIC SIGNAL POLE SCHEDULE NOTES:

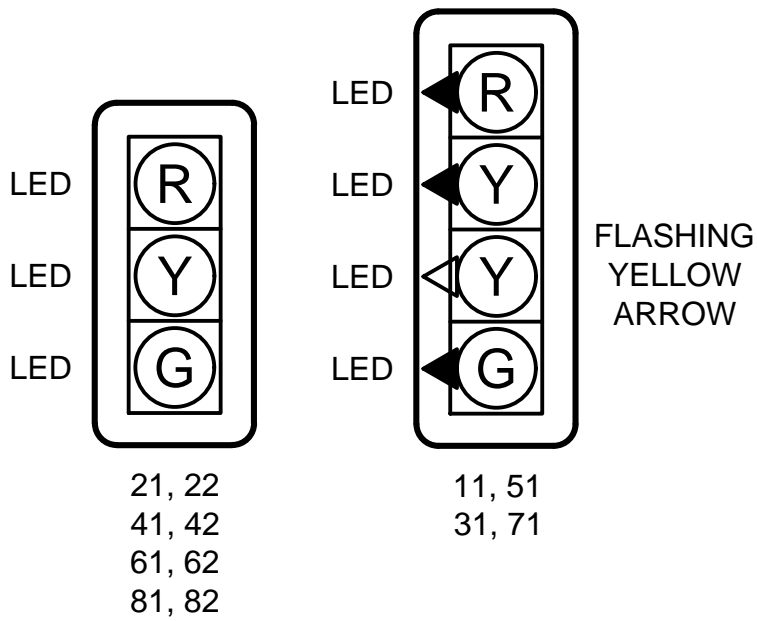
- SEE SHEET TL05 FOR LETTER CODE DIMENSIONS ALONG MAST ARMS.
- OPTICAL PREEMPTION DETECTORS ON MAST ARMS ARE TO BE FIELD-DRILLED AND TAPPED USING SCHEDULE 80 THREADED GALVANIZED 90° ELBOWS AND THREADED GALVANIZED SCHEDULE 80 PIPE, OR ENGINEER-APPROVED EQUAL. THE MAST ARM IS NOT REQUIRED TO BE PROVIDED WITH THE TENONS OR FITTINGS FOR OPTICAL PREEMPTION. THE CONTRACTOR SHALL DRILL THE TAP HOLE FOR THE MAST ARM AT THE CENTER OF THE MAST ARM. PRIOR TO DRILLING AND TAPPING OF OPTICAL PREEMPTION, THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER THE LOCATION OF THE TAP HOLE.
- MEASUREMENT TO STEEL STRAP FARTHEST FROM POLE CENTERLINE PER WSDOT STD PLAN G-30.10, SHEET TL09.
- SEE MANUFACTURER'S RECOMMENDATIONS FOR MOUNTING GUIDANCE, HOWEVER NO PORTION OF THE CAMERA ASSEMBLY SHALL EXCEED A MAXIMUM HEIGHT OF 35FT TO MAINTAIN MINIMUM 10FT CLEARANCE TO OVERHEAD POWER LINES.
- LUMINAIRE MODEL SHALL BE AS SPECIFIED IN SECTION 9-29.10 OR APPROVED EQUAL FOLLOWING ACCEPTANCE GUIDELINES IN SECTION 9-29.10 AND 9-29.10(1).
- ALL POLES AND MAST ARMS SHALL HAVE A BLACK POWDER-COAT FINISH APPLIED BY THE MANUFACTURER.
- ON POLE #4 ONLY, ORIENT LUMINAIRE MAST ARM 343° CLOCKWISE FROM THE SIGNAL MAST ARM.

NEW SIGNAL HEAD NOTES							
POLE NUMBER	SIGNAL HEAD	TYPE ⁽¹⁾⁽²⁾	DISPLAY	ANGLE (°) OFF PER- PENDIC- ULAR	MOUNT ⁽³⁾⁽⁴⁾		NOTES
					TYPE	LOCATION	
①	51	4-SECTION	ARROW	7.5	N	MAST ARM	NEW
	21	3-SECTION	CIRCLE	7.5	N	MAST ARM	NEW
	22	3-SECTION	CIRCLE	7.5	N	MAST ARM	NEW
②	31	4-SECTION	ARROW	0	N	MAST ARM	NEW
	81	3-SECTION	CIRCLE	0	N	MAST ARM	NEW
	82	3-SECTION	CIRCLE	0	N	MAST ARM	NEW
③	11	4-SECTION	ARROW	14.5	N	MAST ARM	NEW
	61	3-SECTION	CIRCLE	14.5	N	MAST ARM	NEW
	62	3-SECTION	CIRCLE	14.5	N	MAST ARM	NEW
④	71	4-SECTION	ARROW	0	N	MAST ARM	NEW
	41	3-SECTION	CIRCLE	0	N	MAST ARM	NEW
	42	3-SECTION	CIRCLE	0	N	MAST ARM	NEW
⑤	49	PEDESTRIAN	PED	-	N	POLE	NEW
⑥	28	PEDESTRIAN	PED	-	N	POLE	NEW
⑦	29	PEDESTRIAN	PED	-	N	POLE	NEW
⑧	88	PEDESTRIAN	PED	-	N	POLE	NEW
⑨	89	PEDESTRIAN	PED	-	N	POLE	NEW
⑩	68	PEDESTRIAN	PED	-	N	POLE	NEW
⑪	48	PEDESTRIAN	PED	-	N	POLE	NEW
	69	PEDESTRIAN	PED	-	N	POLE	NEW

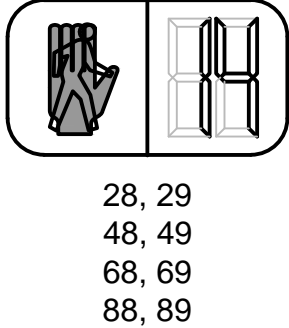
SIGNAL HEAD NOTES:

- 3-SECTION AND 4-SECTION VEHICLE HEADS SHALL BE PER SECTION 9-29.16. ALL VEHICLE SIGNAL HEADS SHALL HAVE 12-IN DIAMETER LED DISPLAYS IN EACH SECTION PLUS BACK PLATES AND REFLECTOR TAPE AROUND THE SIGNAL HEAD ASSEMBLY.
- PEDESTRIAN HEADS SHALL BE PER SECTION 9-29.20. NEW PEDESTRIAN SIGNAL HEADS ARE 16-IN (H) x 19.5-IN (W) x 10.5-IN (D) WITH TYPE N MOUNTS, Z-CRATE VISORS, AND WALKER/HAND DISPLAY WITH WHITE LED SOLID-FILLED WALKER AND ORANGE LED SOLID-FILLED HAND PLUS ORANGE LED NUMERICAL COUNTDOWN TIMER DISPLAY.
- MOUNT TYPE NOMENCLATURE SHALL BE PER WSDOT STD PLANS J-75.10 & J-75.20, SHEET TL17.
- TYPE "N" MOUNTS SHALL BE MOUNTED INCLUDING TETHER LINE AND WIRE ROPE (CABLE MOUNT), NOT METAL BAND STYLE MOUNTING. THE CABLES SHALL BE PROVIDED WITH SUFFICIENT LENGTH TO INSTALL THE MOUNT. TYPE "N" MOUNTS SHALL BE PROVIDED TO ALLOW THE SIGNAL HEAD TO MOVE VERTICALLY, ROTATE AND SWIVEL.

VEHICLE HEADS



PEDESTRIAN HEADS



TRAFFIC SIGNAL WIRING SCHEDULE													
RUN NUMBER <div>⚠️</div>	CONDUIT			TRAFFIC SIGNAL	TRAFFIC SIGNAL	PEDESTRIAN DETECTION	PEDESTRIAN SIGNAL	OPTICAL PREEMPTION	GRIDSMART	ILLUMINATION	DRY CONDUIT	POWER	RUN NUMBER <div>⚠️</div>
	SIZE	MATERIAL	EXISTING (E) OR PROPOSED (P)	#14-7c	#14-5c	#14-7c	#14-2cs	#18-4cs	Cat 5e	#8	Mule Tape, Locator Wire	3 - #6	
1	2	SCHEDULE 80 PVC	P	1	1			1	1				1
2	3	SCHEDULE 40 PVC	E	2	2	4	4	2	1				2
3	2	SCHEDULE 80 PVC	P	1	1			1	1				3
4	3	SCHEDULE 40 PVC	E	1	1	2	2	1					4
5	3	SCHEDULE 40 PVC	E							2			5
6	2	SCHEDULE 80 PVC	P	1	1	2	2	1	1				6
7	3	SCHEDULE 80 PVC	P								1		7
8	2	SCHEDULE 80 PVC	P							2			8
9	3	SCHEDULE 80 HDPE	P									1	9
10	4	SCHEDULE 80 PVC	P	3	3	6	6	3	1				10
11	2	SCHEDULE 80 PVC	P			2	2						11
12	3	SCHEDULE 40 PVC	E								1		12
13	2	SCHEDULE 40 PVC	E							2			13
14	2	SCHEDULE 80 PVC	P			1	1						14

WIRING NOTES:

ALL CONDUITS SHALL INCLUDE MULE TAPE AND LOCATOR WIRE (PULL TAPE AND GROUNDING CONDUCTOR) AS SPECIFIED IN SECTION 8-20.3(5). ALL (#) VALUES REFER TO AMERICAN WIRE GAUGE (AWG).

PVC = RIGID POLYVINYL CHLORIDE (PLASTIC) CONDUIT

HDPE = HIGH-DENSITY POLYETHYLENE (PLASTIC) CONDUIT

2cs = 2-CONDUCTOR SHIELDED CABLE FOR PEDESTRIAN DETECTION MEETING THE REQUIREMENTS OF SECTION 9-29.3(2)E

4cs = 4-CONDUCTOR SHIELDED CABLE FOR OPTICAL PREEMPTION MEETING THE REQUIREMENTS OF SECTION 9-29.3(2)G

5c = MULTI-CONDUCTOR TRAFFIC/PEDESTRIAN SIGNAL CABLE MEETING THE REQUIREMENTS OF SECTION 9-29.3(2)B

7c = MULTI-CONDUCTOR TRAFFIC/PEDESTRIAN SIGNAL CABLE MEETING THE REQUIREMENTS OF SECTION 9-29.3(2)B

Cat 5e = CATEGORY 5E ETHERNET CABLE MEETING THE REQUIREMENTS OF SECTION 9-29.3(2)J

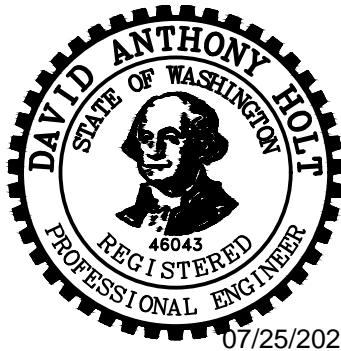
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TRAFFIC SIGNAL WIRING DETAILS FOR:
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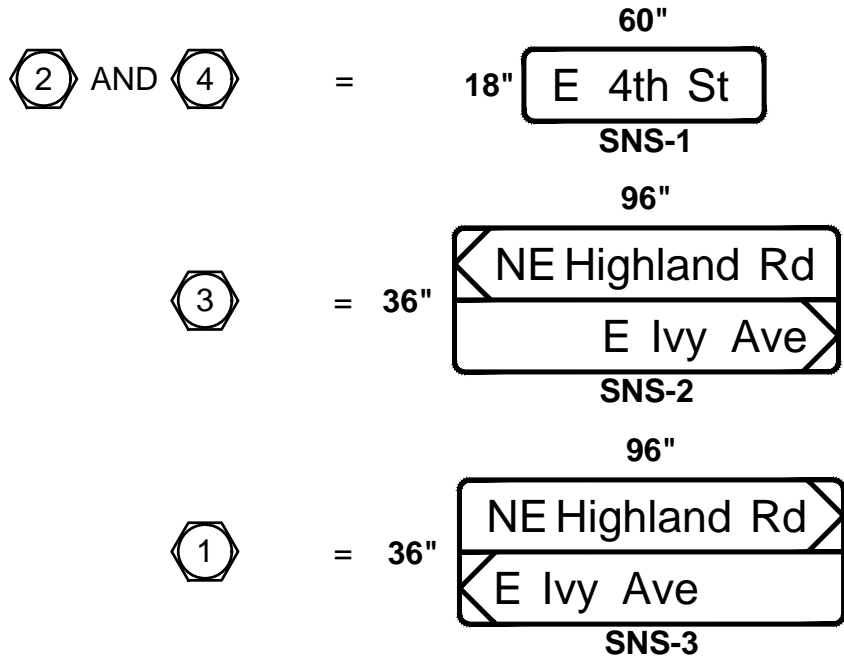
SHEET 25 OF 50

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MUTCD R3-5L SIGN SHALL PRESENT BLACK LETTERS AND LEGEND ON TYPE IV WHITE SHEETING.

STREET NAME SIGNS ARE 18-IN HIGH. LETTERS (12-IN UPPER CASE AND 9-IN LOWER CASE SERIES "C") AND BORDERS SHALL BE TYPE XI WHITE SHEETING. BACKGROUND SHALL BE TYPE IV GREEN SHEETING. SIGNS SHALL INCLUDE BORDERS, MARGINS, AND CORNER RADII.

STREET NAME SIGN LEGENDS ARE AS FOLLOWS:



MOUNT OVERHEAD SIGNS AND STREET NAME SIGNS TO MAST ARMS PER WSDOT STD PLAN G-30.10, SHEET TL09.

SIGN DETAILS
NTS

- 1 = ILLUMINATION PHOTOELECTRIC CELL
2 = HANDHOLE
3 = PEDESTRIAN SIGNAL HEAD
4 = TERMINAL CABINET
5 = PEDESTRIAN PUSHBUTTONS WITH SIGNS
6 = HANDHOLE
7 = GRIDSMART CAMERA

- NOTES:
- THE ARROW ON EACH PEDESTRIAN PUSHBUTTON AND THE INDICATION ON EACH PEDESTRIAN SIGNAL HEAD SHALL BE ORIENTED TOWARDS THE CROSSWALK THEY SERVE.
 - ALL TYPE III POLES SHALL INCLUDE TERMINAL CABINETS ORIENTED SUCH THAT, WHEN FACING DIRECTLY AT THE OPEN TERMINAL CABINET, ONE IS FACING THE CENTER OF THE INTERSECTION, UNLESS SHOWN OTHERWISE ON THE PLANS.
 - PROVIDE 16.5 FT. MIN. TO 19 FT. MAX. (TYP) FROM TOP OF PAVEMENT TO BOTTOM OF TRAFFIC SIGNAL BACKPLATE.

APPURTENANCE ORIENTATION

SIGNAL STANDARD	1	2	3	4	5	6	7	8	9	10	11
REFERENCE ALIGNMENT	PERPENDICULAR TO CENTERLINE OF E 4TH ST	PERPENDICULAR TO CENTERLINE OF HIGHLAND RD	PERPENDICULAR TO CENTERLINE OF NE LOCKWOOD CREEK RD	PERPENDICULAR TO CENTERLINE OF E IVY AVE	PERPENDICULAR TO CENTERLINE OF E 4TH ST	PERPENDICULAR TO CENTERLINE OF HIGHLAND RD	PERPENDICULAR TO CENTERLINE OF HIGHLAND RD	PERPENDICULAR TO CENTERLINE OF E 4TH ST	PERPENDICULAR TO CENTERLINE OF E 4TH ST	PERPENDICULAR TO CENTERLINE OF E IVY AVE	PERPENDICULAR TO CENTERLINE OF E 4TH ST
LUMINAIRE MAST ARM	13°	0°	3°	0°	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	180°	180°	180°	180°	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A	102°	259°	79°	277°	98°	261°	188°/284°
4	110°	121°	136°	111°	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5	N/A	N/A	N/A	N/A	282°	79°	259°	97°	278°	81°	8°/104°
6	180°	180°	180°	180°	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	270°	N/A	270°	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

ON TYPE III POLES, THE TRAFFIC SIGNAL MAST ARM ORIENTATION IS MEASURED IN DEGREES CLOCKWISE FROM THE STATION/OFFSET LINE PERPENDICULAR TO THE CENTERLINE OF THE ADJACENT ROAD. THE APPURTENANCE MOUNTING ANGLES ARE MEASURED IN DEGREES CLOCKWISE FROM THE TRAFFIC SIGNAL MAST ARM.

ON TYPE PS POLES, THE APPURTENANCE MOUNTING ANGLES ARE MEASURED IN DEGREES CLOCKWISE FROM THE STATION/OFFSET LINE PERPENDICULAR TO THE CENTERLINE OF THE ADJACENT ROAD.

SEE APPURTENANCE ORIENTATION TABLE, THIS SHEET, FOR MOUNTING ANGLES.

CL STREET

SEE APPURTENANCE NOTE 3 (TYP)

INSTALL TRAFFIC SIGNAL HEAD PER NEW SIGNAL HEAD NOTES, SHEET TL04 (TYP)

INSTALL OVERHEAD REGULATORY SIGN OS-1 AS SHOWN ON THIS SHEET

INSTALL OPTICAL EMERGENCY VEHICLE PREEMPTION DETECTOR, SEE SHEET TL04.

STANDARD SAFETY LIGHT MAST ARM

INSTALL STREET NAME SIGN SNS-# AS SHOWN ON THIS SHEET

STREET NAME

SEE TRAFFIC SIGNAL POLE SCHEDULE ON SHEET TL04 FOR NUMERICAL VALUES OF EACH LETTER DIMENSION SHOWN, A THROUGH P.

SEE SPECIAL PROVISION 8-20.3(4) AND FOUNDATION DEPTH "D" TABLE ON WSDOT STD PLAN J-26.10, SHEET TL14, FOR SIGNAL STANDARD FOUNDATION DETAILS. USE A CALCULATED MOMENT LOAD (XYZ) OF UP TO 1900 FT³ AND AN ALLOWABLE LATERAL BEARING PRESSURE OF 1000 POUNDS PER SQUARE FOOT (PSF). FOUNDATIONS ARE SHOWN AS 3-FOOT SQUARE, ASSUMING A 10-FOOT DEPTH. CONTRACTOR SHALL CONFIRM ALTERNATE SHAPE AND/OR SIZE WITH ENGINEER BEFORE PROCEEDING. SEE WSDOT STD PLAN J-26.15, SHEET TL14, FOR FOUNDATION PLACEMENT CONDITIONS.

ELEVATION VIEW

FINAL PLANS

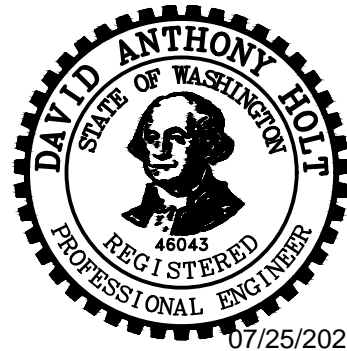
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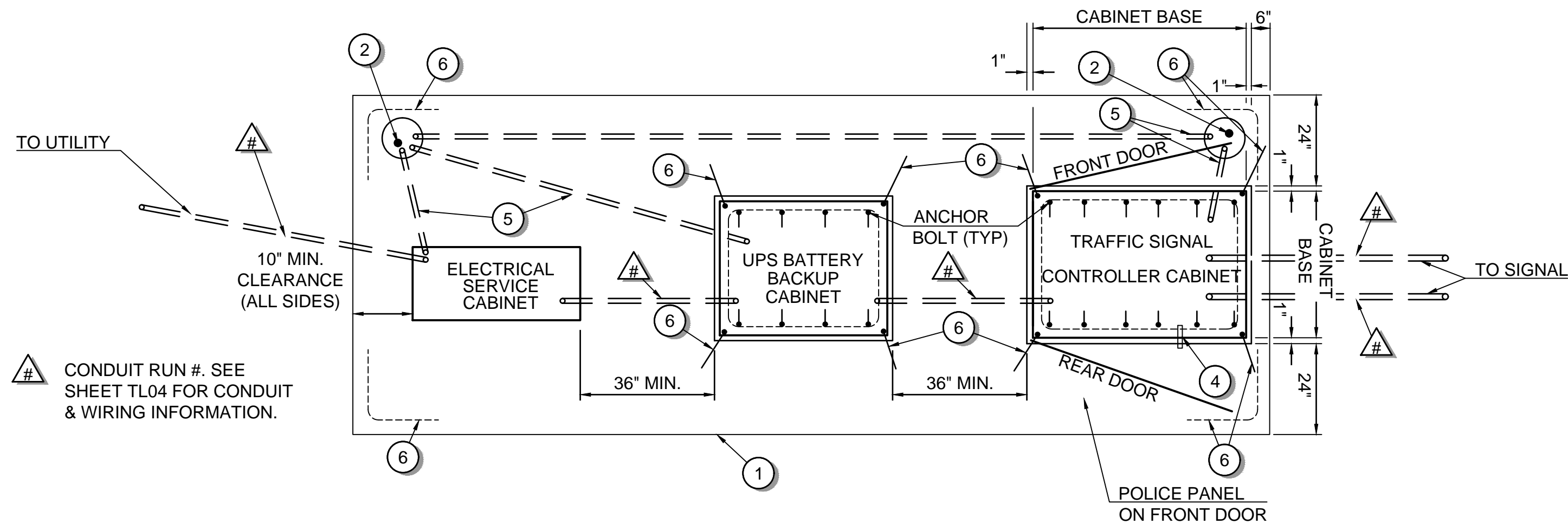
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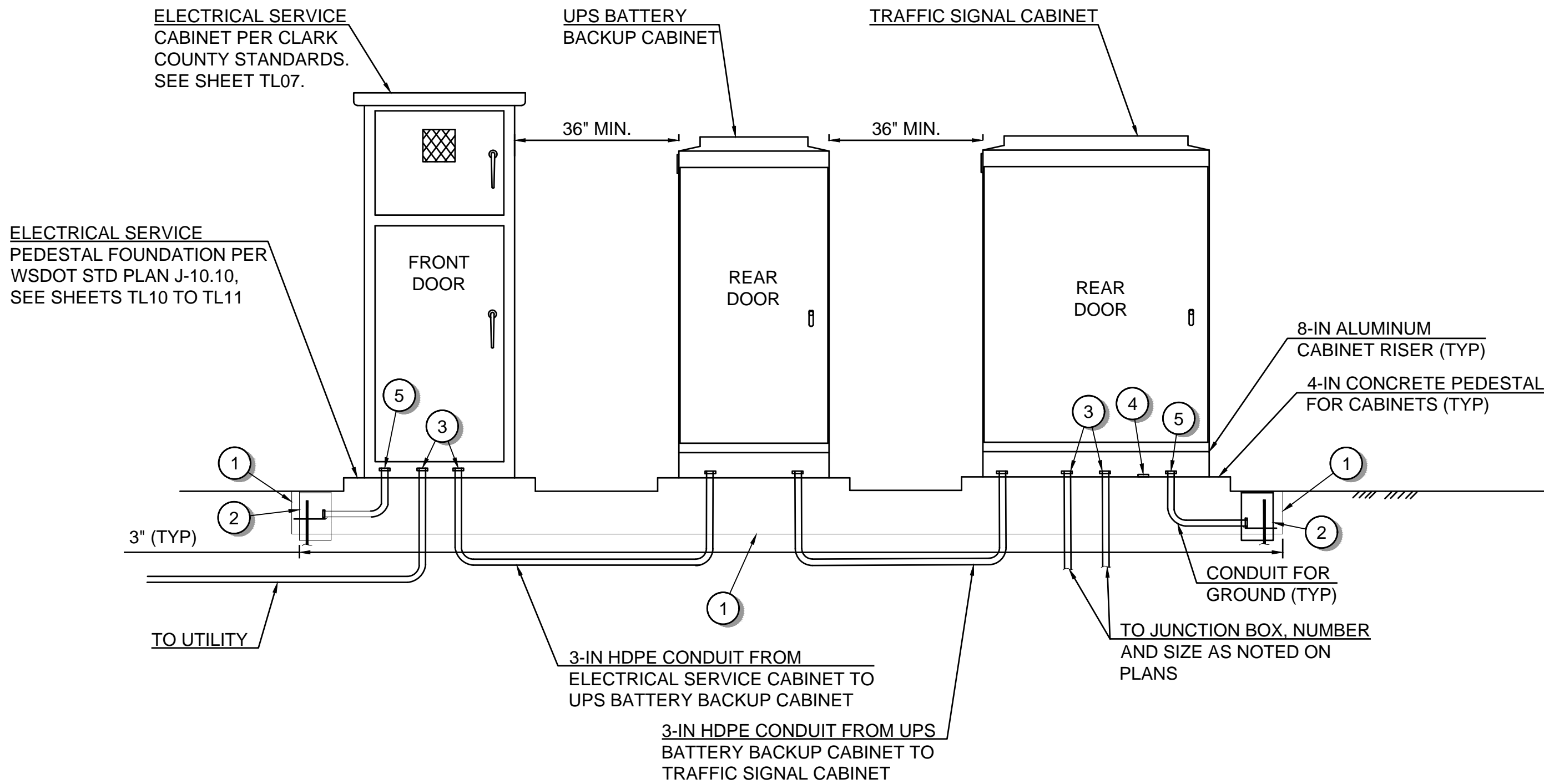


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PLAN VIEW OF TRAFFIC SIGNAL CABINETS

CONCRETE PAD DETAIL FOR ELECTRIC SERVICE CABINET, UPS CABINET, AND TRAFFIC CONTROL CABINET
NORTHWEST CORNER OF NE HIGHLAND ROAD & E 4TH STREET INTERSECTION



ELEVATION VIEW OF TRAFFIC SIGNAL CABINETS

CONCRETE PAD DETAIL FOR ELECTRIC SERVICE CABINET, UPS CABINET, AND TRAFFIC CONTROL CABINET
NORTHWEST CORNER OF NE HIGHLAND ROAD & E 4TH STREET INTERSECTION

GENERAL NOTES:

1. SEE WSDOT STD PLAN J-10.10 ON SHEETS TL10 TO TL11 FOR DETAILS NOT SHOWN.

WIRING NOTES:

1. INSTALL 6-IN THICK CONCRETE PAD, ENTIRE WIDTH OF PAD, BETWEEN THE FACE OF CABINET (FRONT SIDE) AND BACK OF WALK, OR IF NO ADJACENT WALK, 24-IN MINIMUM.
2. DRIVE GROUND RODS BEFORE PLACING CONCRETE. MOVE ROD(S) AND DRAIN TILE(S) WITH COVER(S) AS REQUIRED TO ACHIEVE FULL GROUND PENETRATION. MAINTAIN A 6-FT MINIMUM CLEARANCE BETWEEN GROUND RODS AS DETAILED ON WSDOT STD PLAN J-60.05, SHEET TL13.
3. ALL METAL CONDUITS PENETRATING CABINET SHALL BE TERMINATED WITH GROUNDING END BELL BUSHING AND BONDED TO THE CABINET GROUNDING BUS. THE END BELL BUSHING ON PVC CONDUIT SHALL EXTEND 2-IN MINIMUM AND 3-IN MAXIMUM ABOVE THE COUPLING.
4. 3/8 IN. WEEP DRAIN IN TOP OF CONCRETE PEDESTAL FOR CABINET. SLOPE CONCRETE PEDESTAL TO DRAIN TO WEEP HOLE (AT THE BACK SIDE OF THE CABINET FOUNDATION).
5. CONDUITS FOR SERVICE GROUNDING ELECTRODES PER WSDOT STD PLAN J-60.05, SHEET TL13.
6. ALL REINFORCING STEEL SHALL BE EMBEDDED 2-IN BELOW SURFACE OF CONCRETE. USE #4 HOOPS AND REBAR FOR CABINET FOOTING PER WSDOT STD PLAN J-10.10, SHEETS TL10 TO TL11.

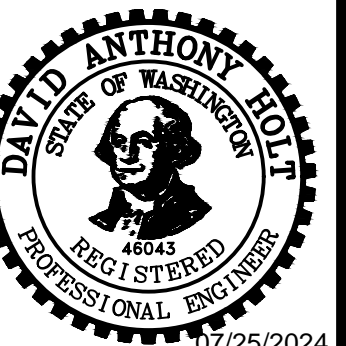
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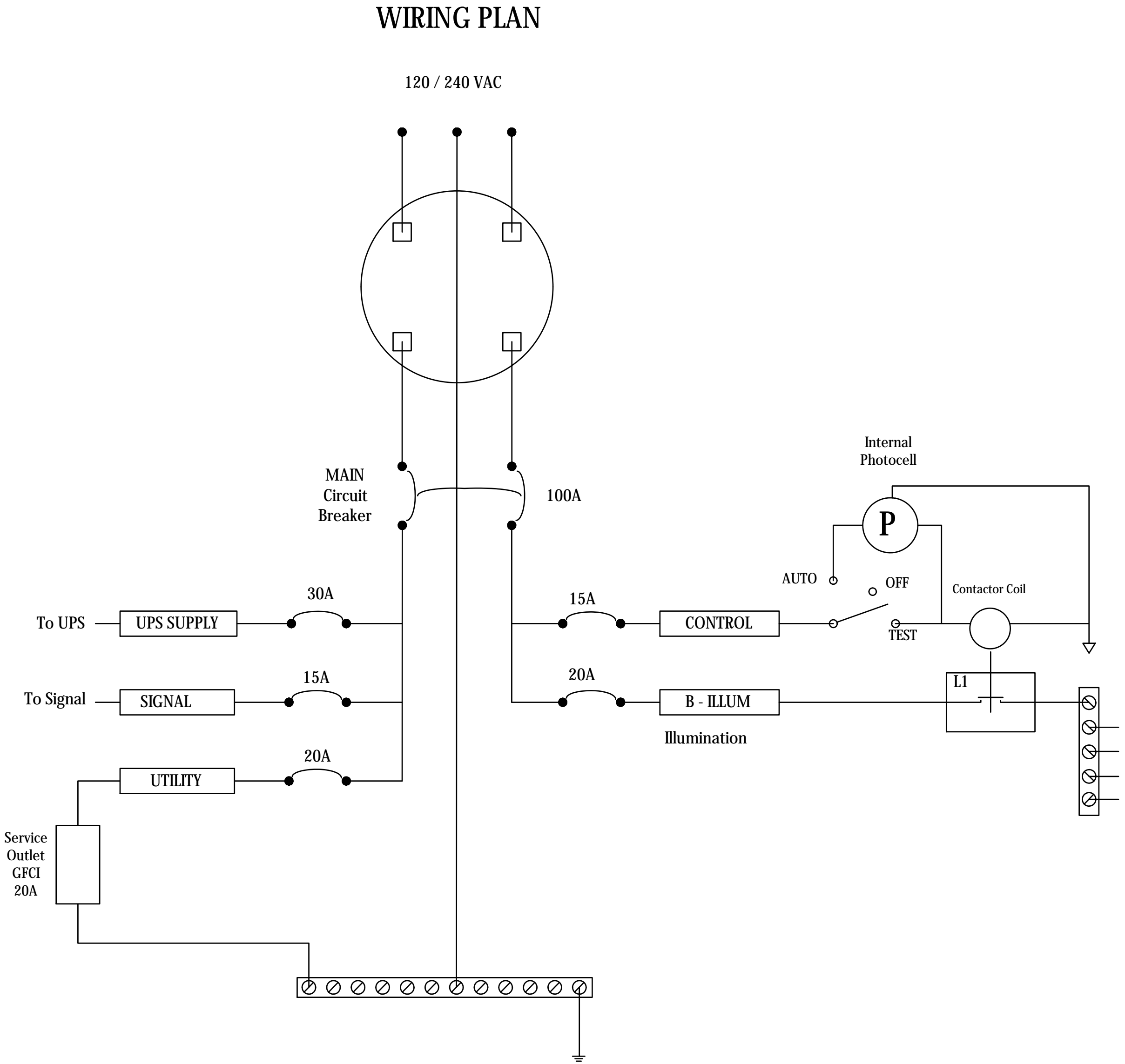
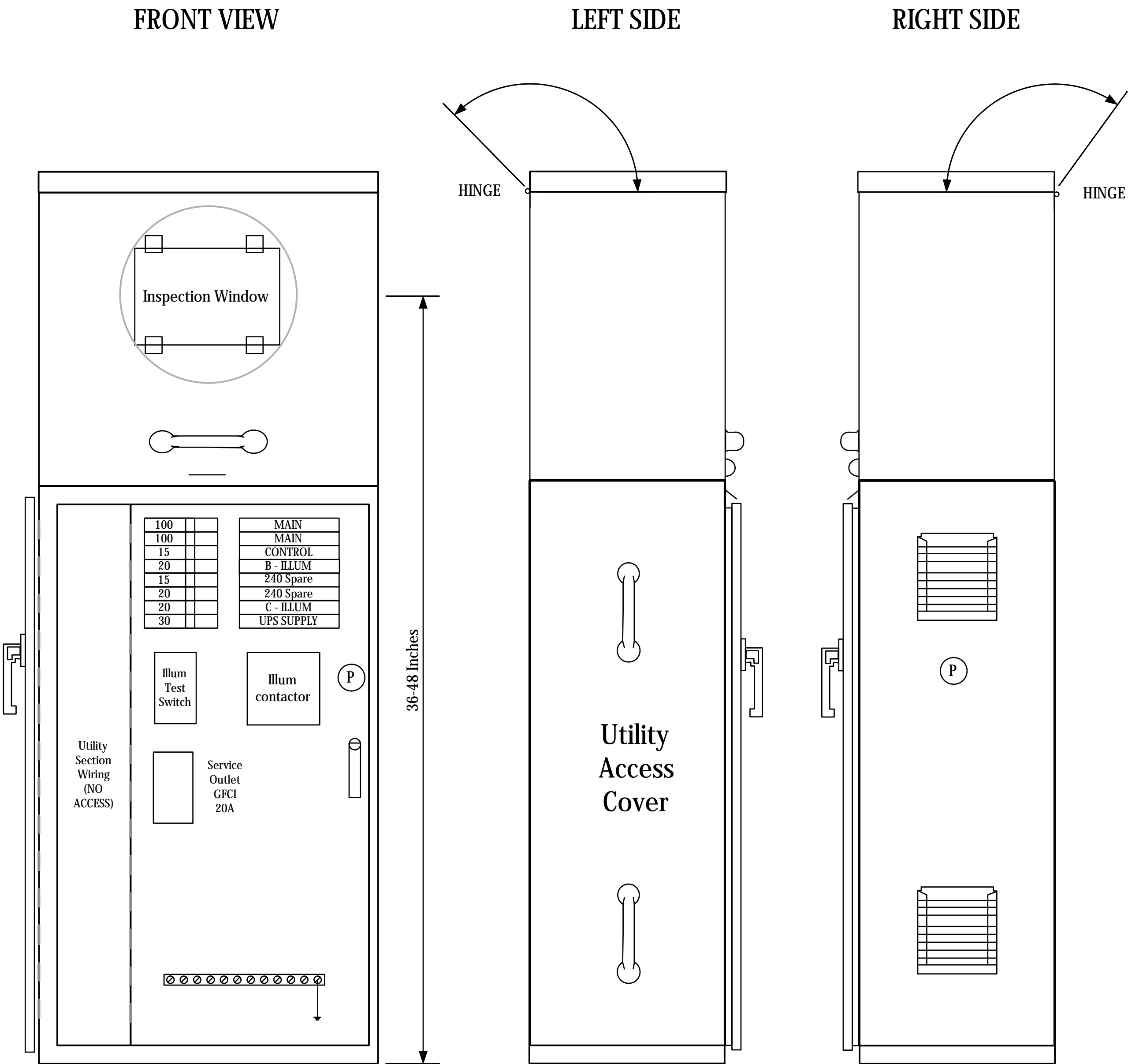
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SHEET **27** OF **50**

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Clark County Electrical Service Cabinet
100 AMP



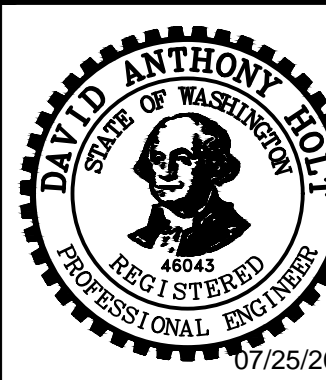
GENERAL NOTES:

1. INTERNAL PHOTOELECTRIC CONTROL UNIT SHALL BE PER SECTION 9-29.11(2).

TRAFFIC SIGNAL CABINET DETAILS FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL

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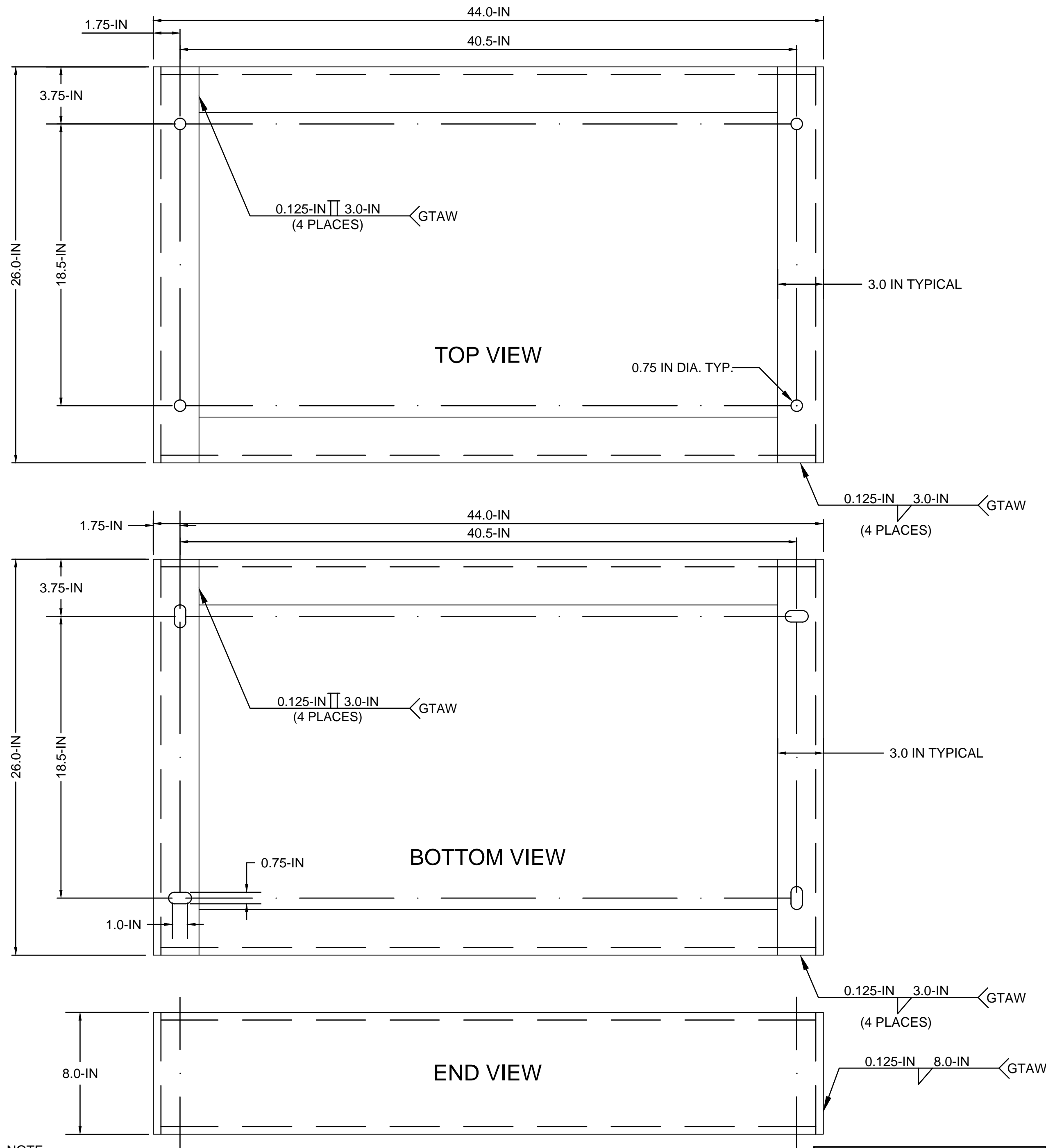
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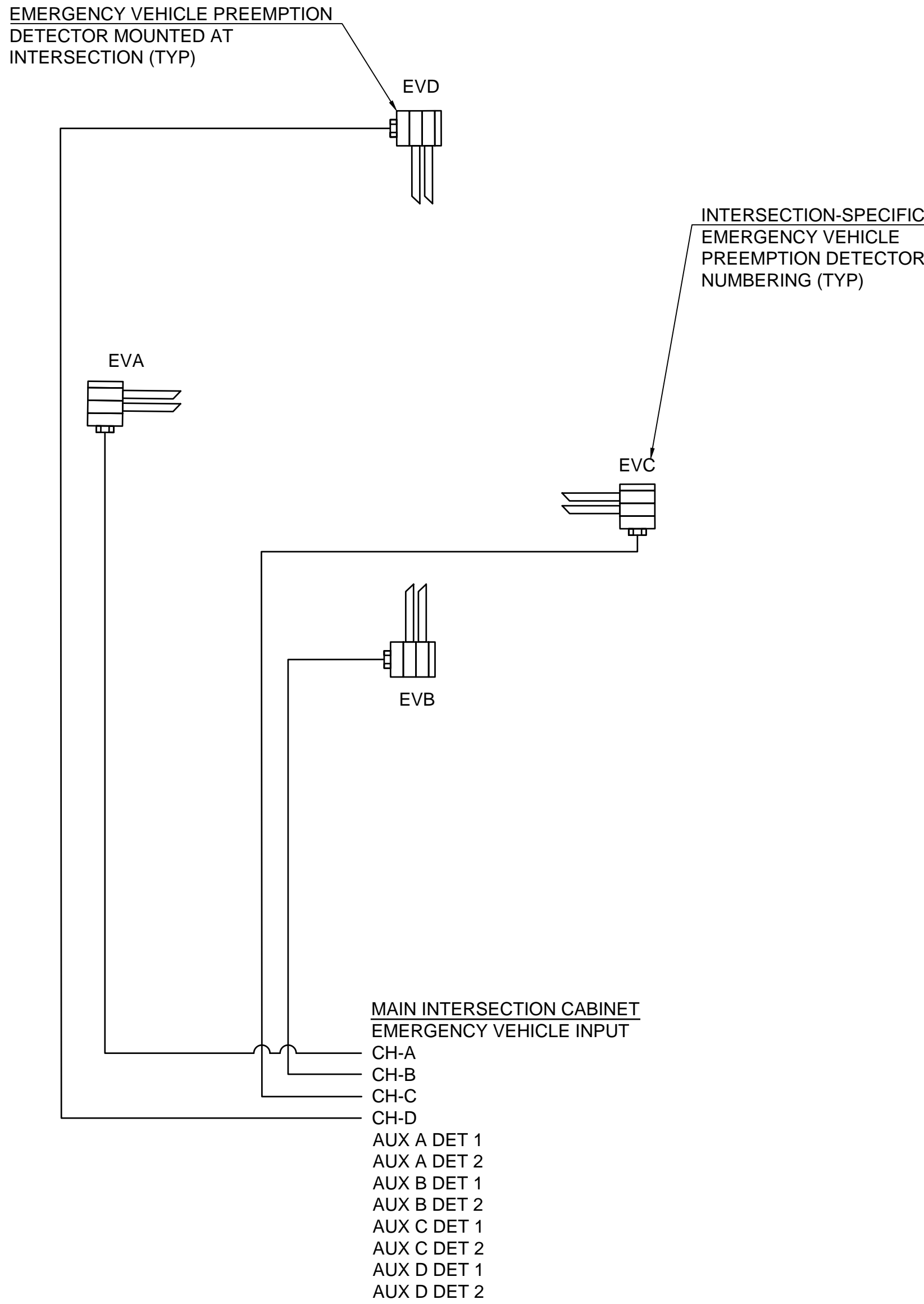
- NOTE:**
1. FIELD VERIFY BOLT PATTERN & LOCATION PRIOR TO FABRICATION
 2. GROOVE SIZE AND FILLET SIZE ARE EQUAL TO MATERIAL THICKNESS
 3. RISER ADAPTER BASE TO BE COATED WITH THE SAME INSIDE AND OUTSIDE MATERIAL AND COLORS AS THE CONTROLLER CABINET
 4. MATERIAL SHALL BE 0.125-IN SHEET ALUMINUM (5052-H32), MINIMUM THICKNESS.

TOLERANCES:	
ANGLE	± 1°
X.XX	= ± 0.125
HOLES	+0.005 -0.002

GTAW = TIG WELDS

RISER ADAPTER BASE

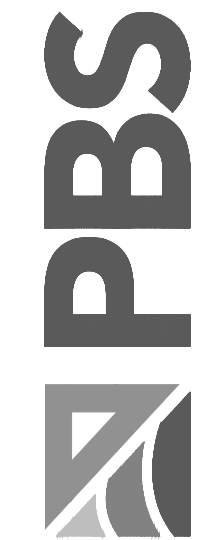
SPECIAL EMERGENCY VEHICLE PREEMPTION OPERATIONS AND WIRING



NOTE:
THE CONTRACTOR SHALL PROVIDE THE CABINETS FOR THE SIGNALS WITH THE EMERGENCY VEHICLE PREEMPTION AUXILIARY INTERFACE PANEL WITH ALL WIRING NECESSARY TO CONNECT THE WIRES AS SHOWN.

FINAL PLANS

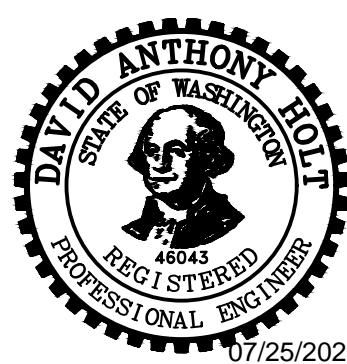
PBS Engineering and
Environmental LLC
1325 SE Tech Center Drive
Vancouver, WA 98683
360.895.3489
pbsusa.com



TRAFFIC SIGNAL CONTROLLER CABINET FOR:
4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL
A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



Know what's below.
Call before you dig.



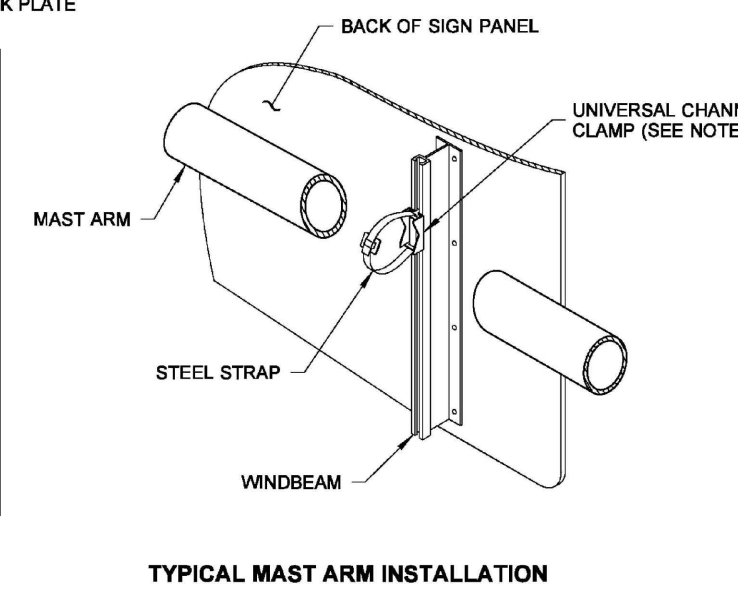
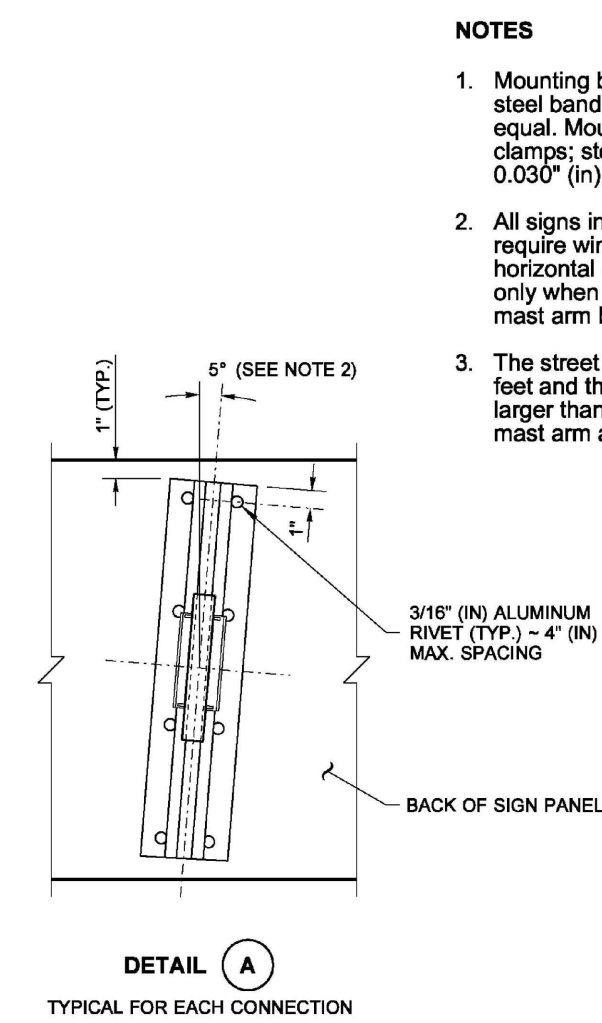
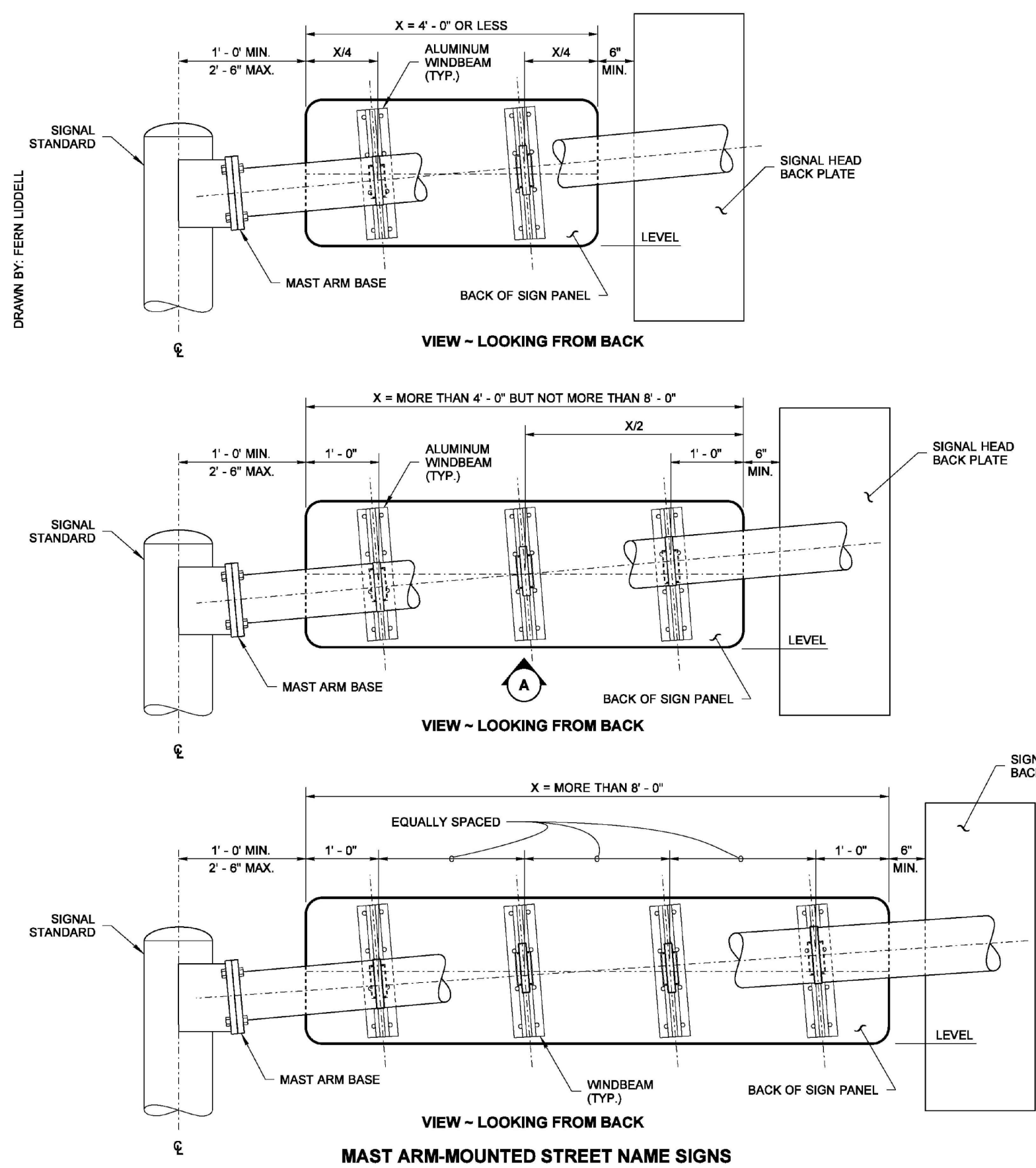
DESIGNED:
B.J./BMK/ASW
CHECKED:
DAH

JULY 2024
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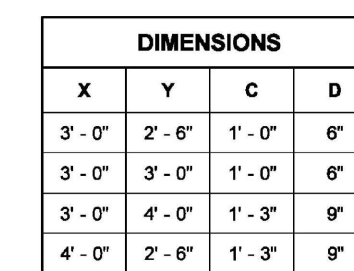
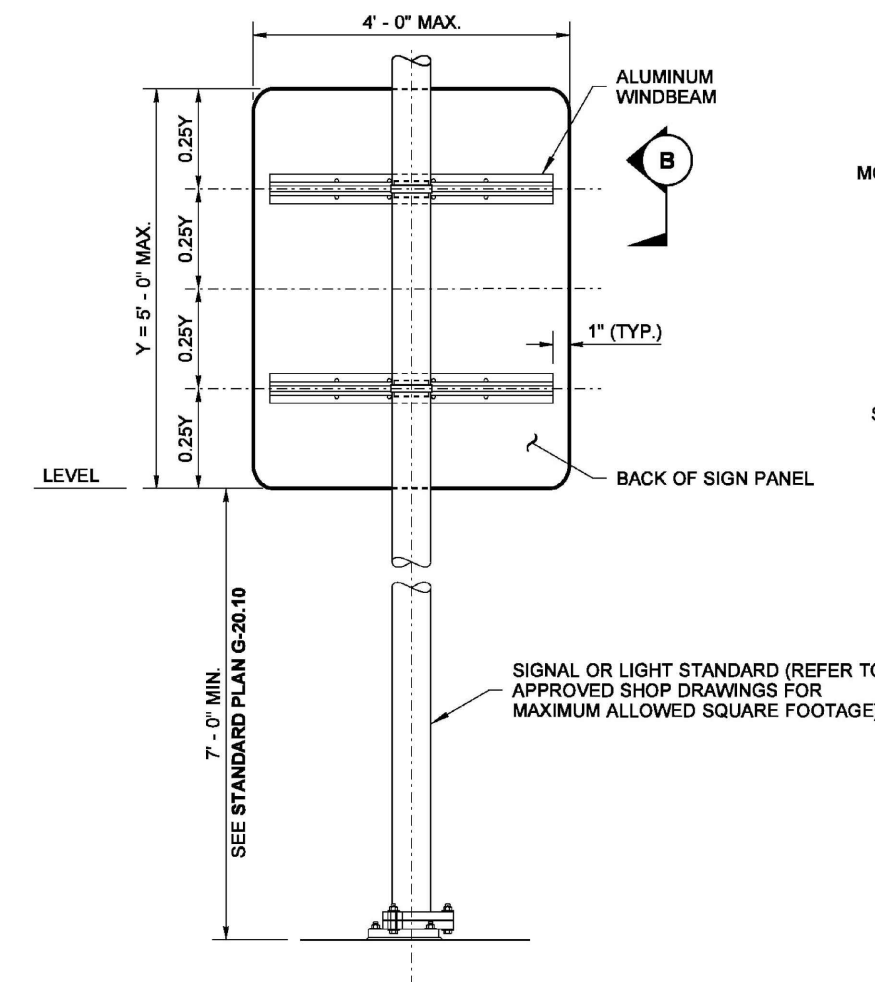
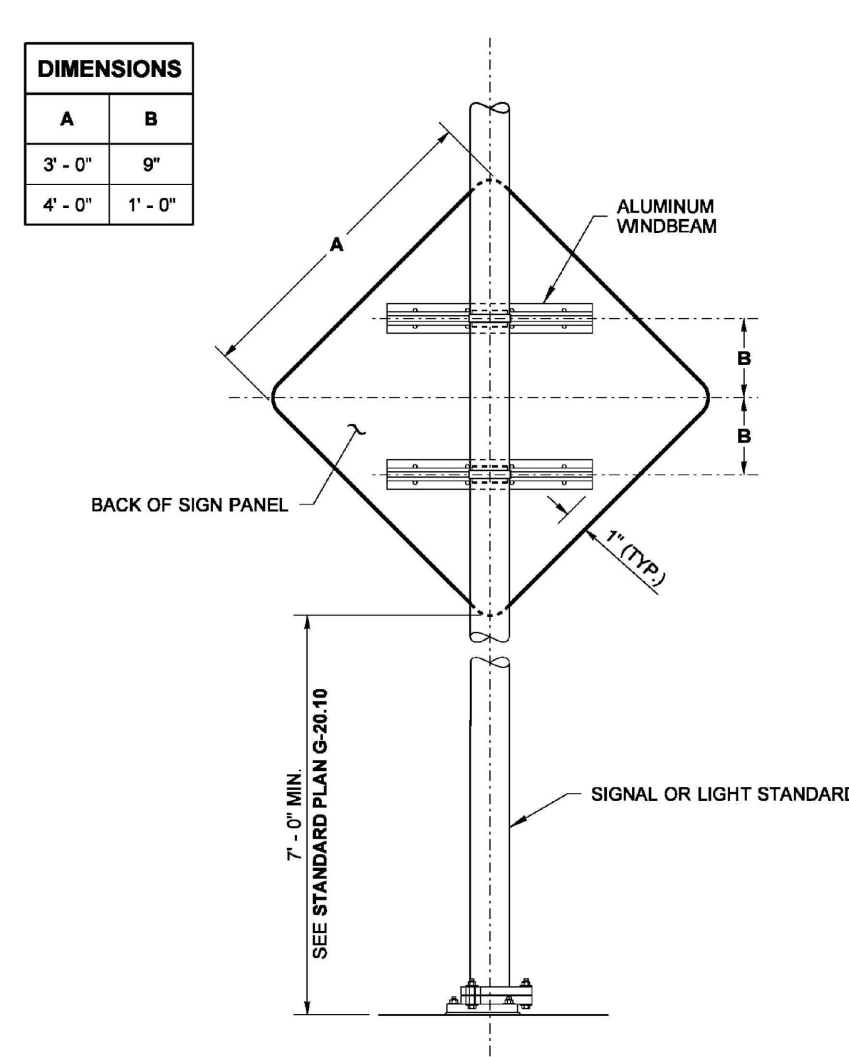
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SHEET **29** OF **50**

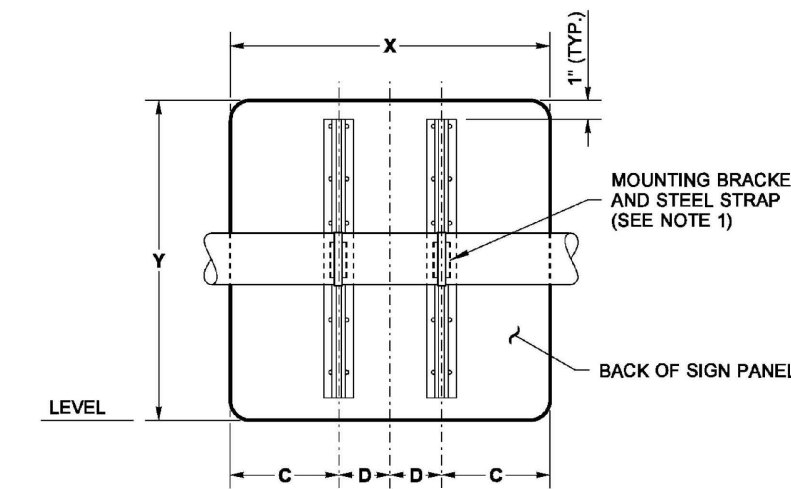


SIGN INSTALLATION ON SIGNAL AND LIGHT STANDARDS

- ## NOTES
1. Mounting brackets with steel straps shall be a stainless steel band and buckle system produced to an approved quality. Mounting brackets shall be universal channel clamps; steel straps shall be 3/4" (in) wide and 0.030" (in) thick.
 2. All signs installed on mast arms or standards (poles) require windbrams. All signs shall be installed with horizontal edges level. A skewed windbram is required when the sign is mounted within 12" (in) of the mast arm base (see Detail "A").
 3. The street name sign shall be a maximum of 36 square feet and the sign height is a maximum of 3' (ft); signs larger than 36 square feet require a special design mast arm and signal pole.



NOTE:
Any Lane Use Sign greater than 7.5 sq ft requires a Special Design Mast Arm and Signal Pole.



MAST ARM-MOUNTED LANE USE SIGNS

SIGN INSTALLATION ON SIGNAL AND LIGHT STANDARDS

THIS DRAWING SHOWS THE GENERAL
CABINET LAYOUT FOR CLARK COUNTY
NEMA TS2 TYPE 1 "STRETCH P" TYPE
CABINET.

SOME COMPONENTS ARE SHOWN IN THE
DRAWING THAT MAY NOT BE
SPECIFICALLY REQUIRED BY THIS
PARTICULAR PROJECT FOR EACH
CABINET.

SECTIONS 8-20 AND 9-29 OF THE SPECIAL PROVISIONS HAVE THE SPECIFIC EQUIPMENT THAT IS TO BE PROVIDED FOR THE CABINET TO BE DELIVERED FOR THIS PROJECT.

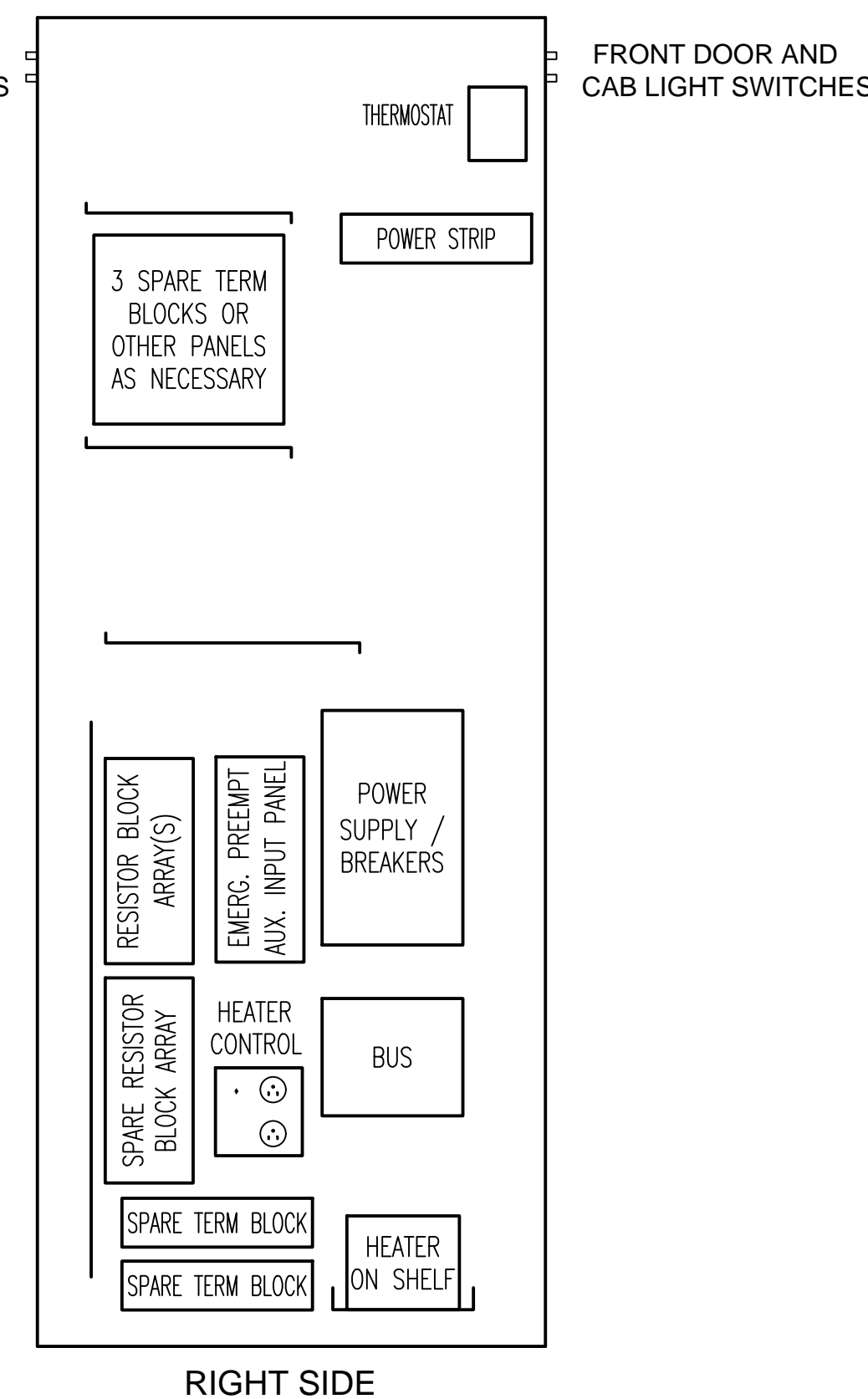
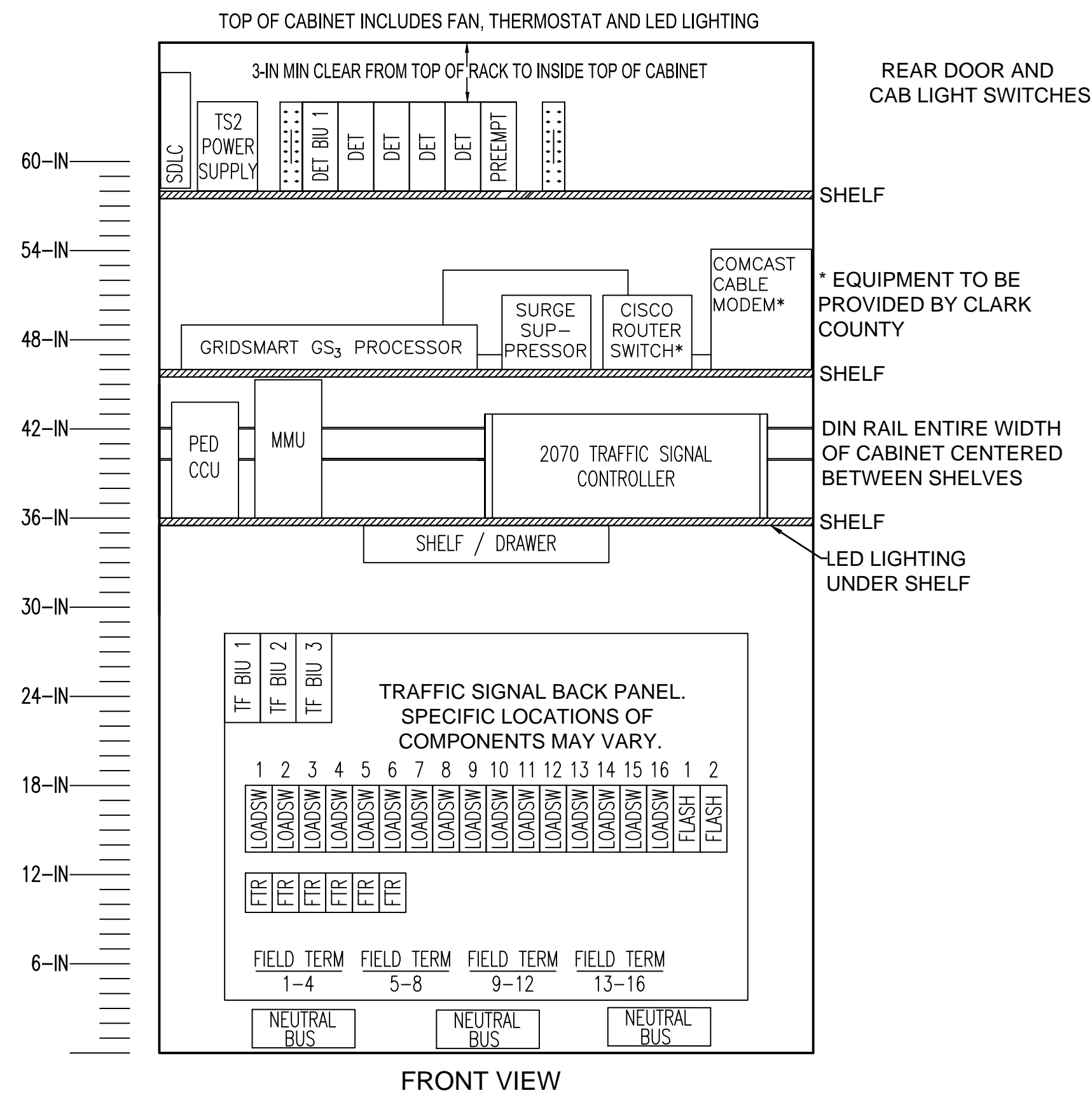
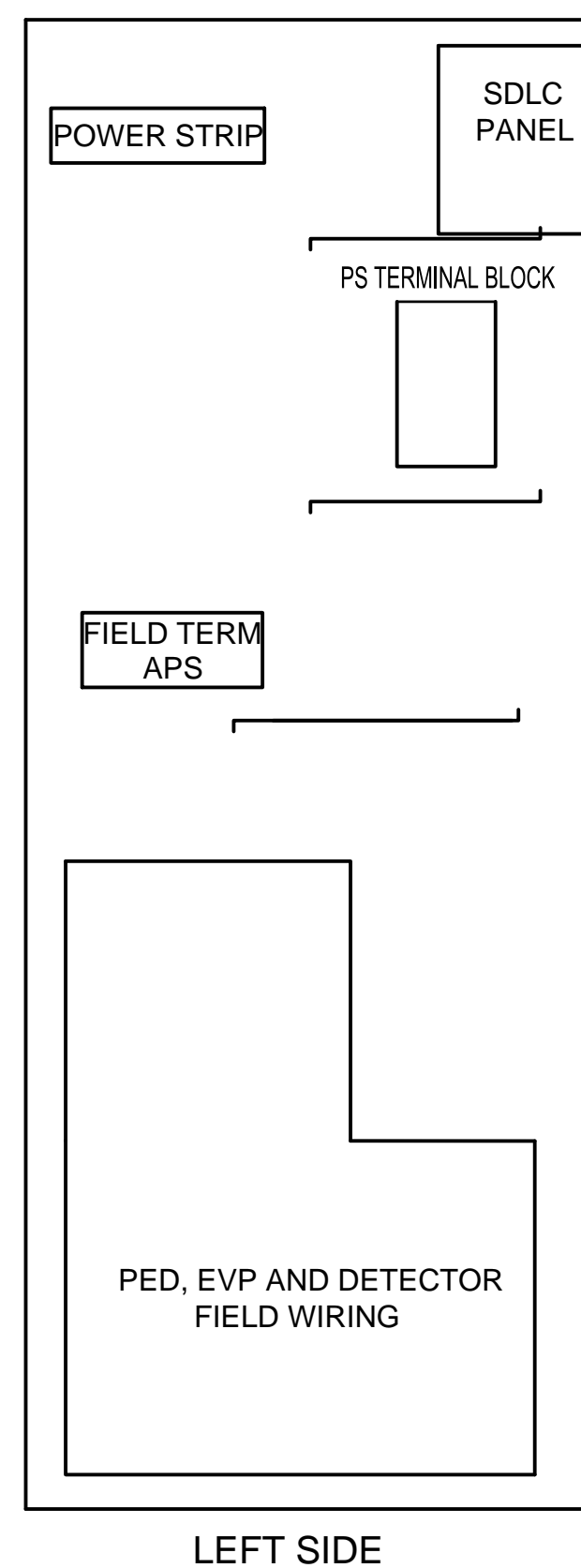
THE CABINET VENDOR MAY PROPOSE
ALTERNATE CONFIGURATIONS DEPENDING
ON THE SPECIFIC REQUIREMENTS OF
THE PROJECT.

THE VIDEO DETECTION FIELD WIRING
 PANEL SHALL BE MOUNTED SUCH THAT
 ALL PLUGS, AND CONNECTIONS CAN BE
 ACCESSED WITHOUT CONFLICTING THE
 LOAD SWITCHES, BIU'S OR OTHER
 EQUIPMENT IN THE CABINET.

ALL EQUIPMENT IN THE CABINET SHALL BE CONNECTED TO A SHELF, SIDE-WALL, OR DIN RAIL, EXCEPT THE ON-STREET MASTER, CONTROLLER, MMU AND NEMA TS2 POWER SUPPLY.

THE 2-POSITION CARD CAGE FOR ALL THE CABINETS SHALL BE DELIVERED WITH GPS TIME SOURCE, EVEN IF THE CABINET IS NOT TO BE DELIVERED WITH EITHER OF THESE PLUGGABLE COMPONENTS. THE CARD CAGE SHALL BE BOLTED TO THE SHELF.

COORDINATE WITH COMCAST FOR
INSTALLATION OF CABLE DATA SERVICE.



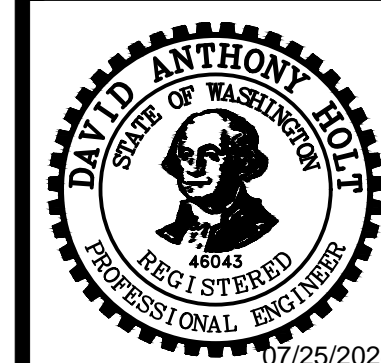
NEMA "STRETCH P" CONTROLLER CABINET LAYOUT

FINAL PLANS

CONTROLLER CABINET AND TRAFFIC SIGNAL WSDOT DETAILS FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL

A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



DESIGNED:
BJ/BMK/ASW

CHECKED:
DAH

JULY 2024
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SHEET ID

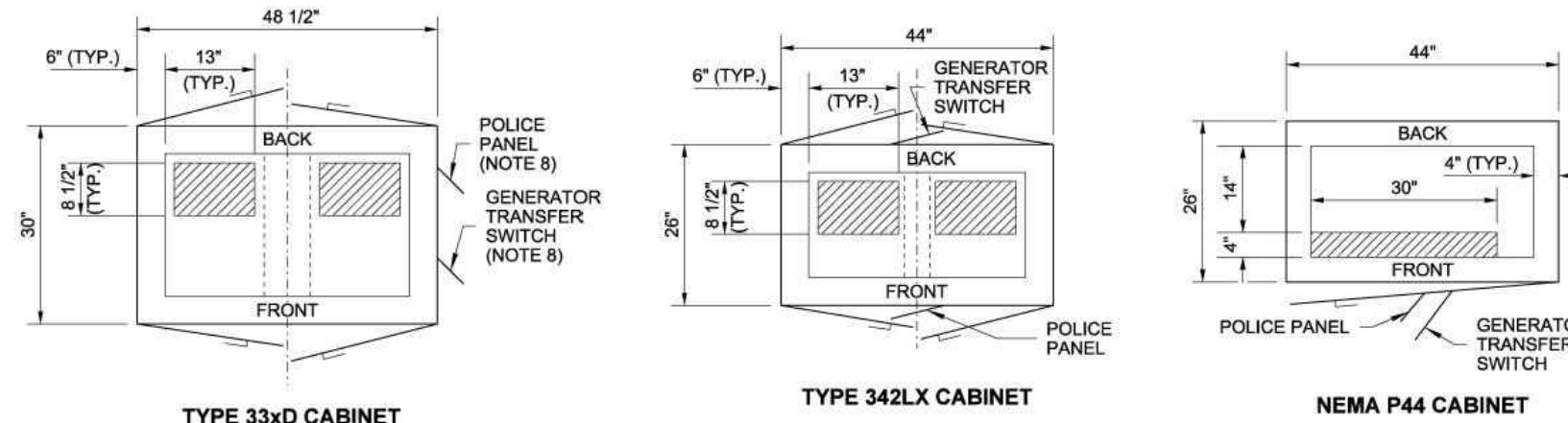
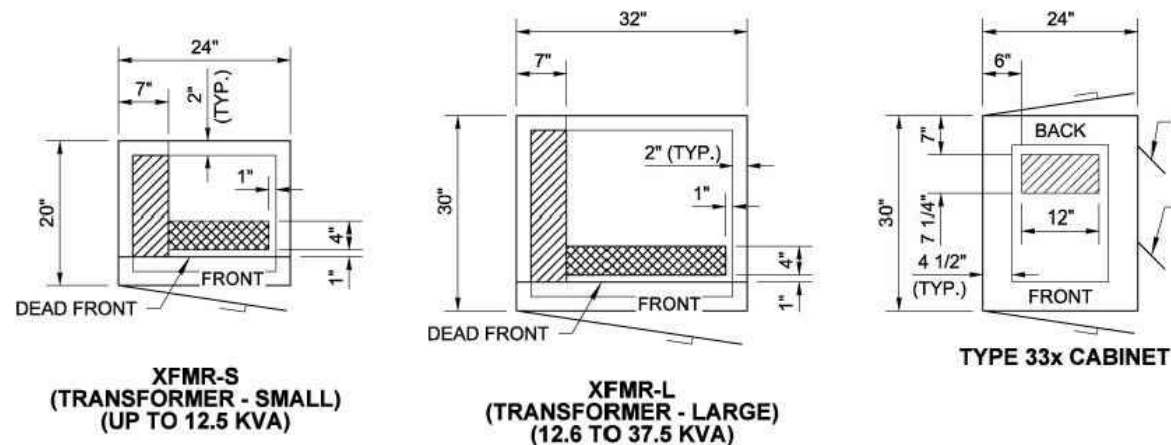
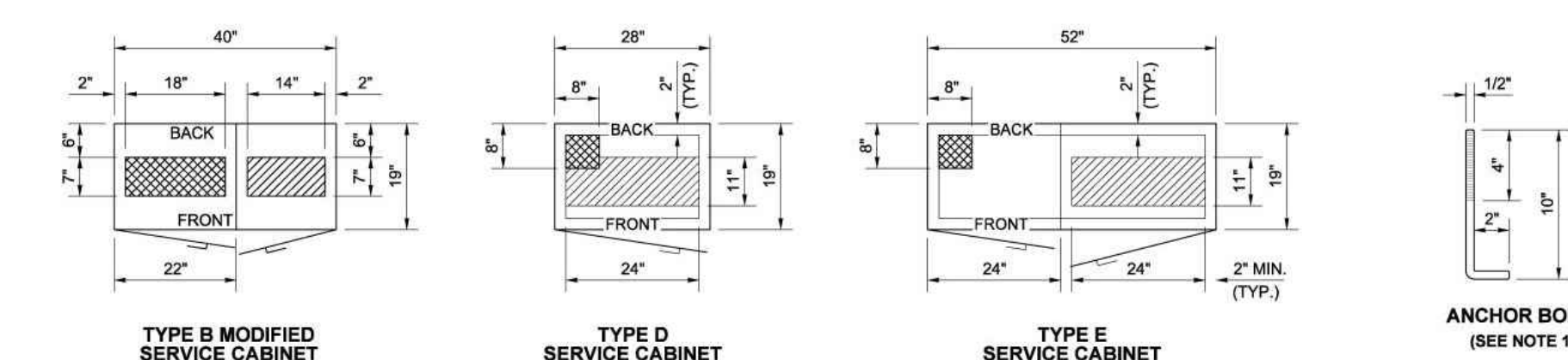
TL09

SHEET **30** OF **50**

Filename: \\Projects\71000\71486\71486-000\Civil\CAD\Working\Sheets\signal plans\71486-000-TL01-TL09.dwg Layout Tab: TL09 User: Tanner Scharer CAD Plot Date/Time: 7/25/2024 1:37:38 PM

DRAWN BY: BILL BERENS

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PLAN VIEWS
CABINET ORIENTATION, FOOTPRINT, AND CONDUIT PLACEMENT LOCATIONS

CABINET REFERENCE TABLE				
SERVICE CABINETS	SIZE W x D (IN)	CAPACITY CONDUIT DIAMETER (IN)	STANDARD PLAN	
TYPE B MOD.	40" x 19"	12"	J-10.20	
TYPE D	28" x 19"	24"	J-10.21	
TYPE E	52" x 19"	48"	J-10.22	
TRANSFORMER CABINETS	SIZE W x D (IN)	CAPACITY CONDUIT DIAMETER (IN)	STANDARD PLAN	
XFMR-S (UP TO 12.5 KVA)	24" x 20"	12"	J-10.25	
XFMR-L (12.6 TO 37.5 KVA)	32" x 30"	15"	J-10.25	
SIGNAL AND ITS CABINETS	SIZE W x D (IN)			
TYPE 33x	24" x 30"	12"	J-12.15	
TYPE 33xD	48.5" x 30"	24"	J-12.16	
TYPE 342LX	44" x 26"	24"	J-12.16	
NEMA P44	44" x 26"	15"	N/A	

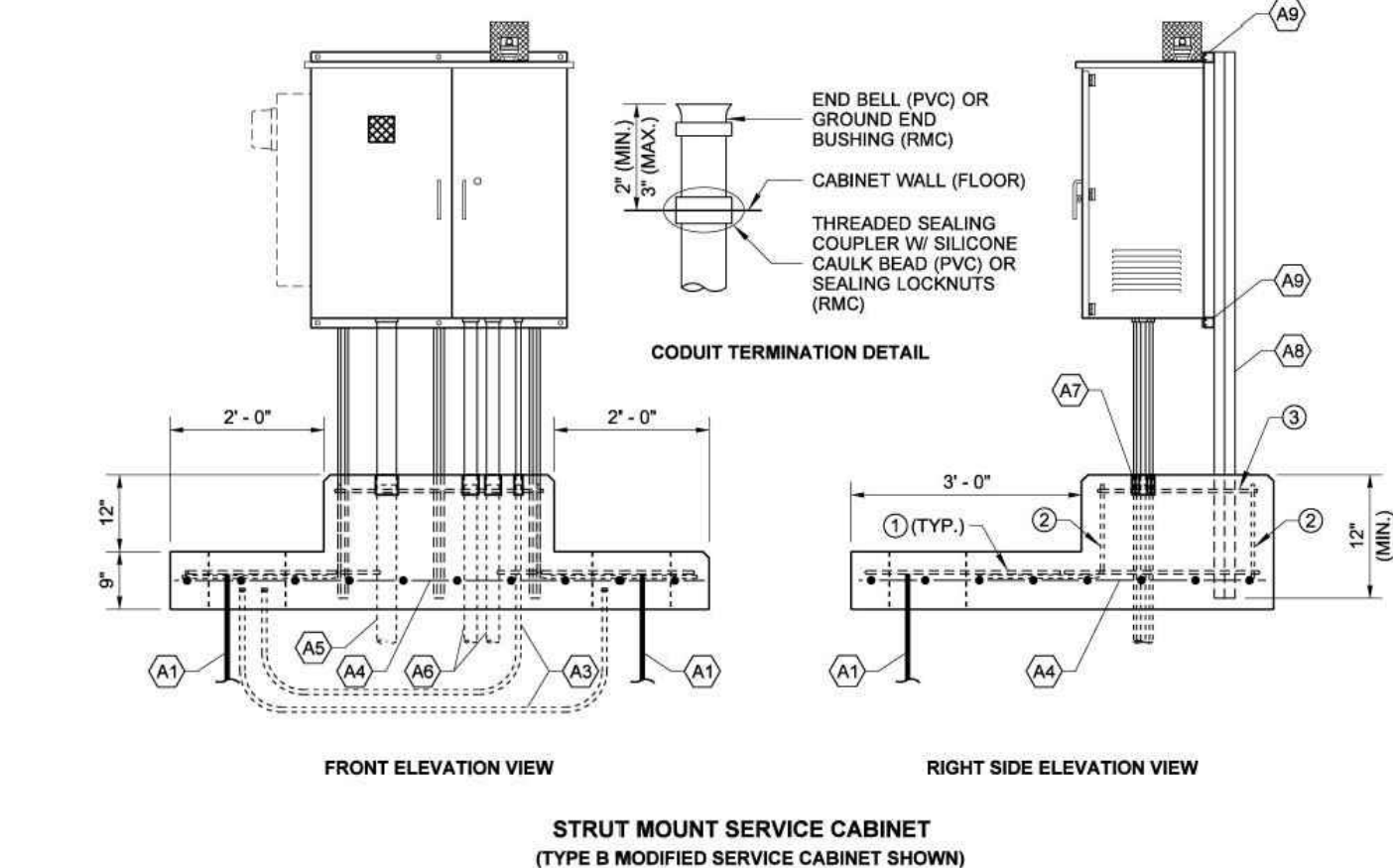
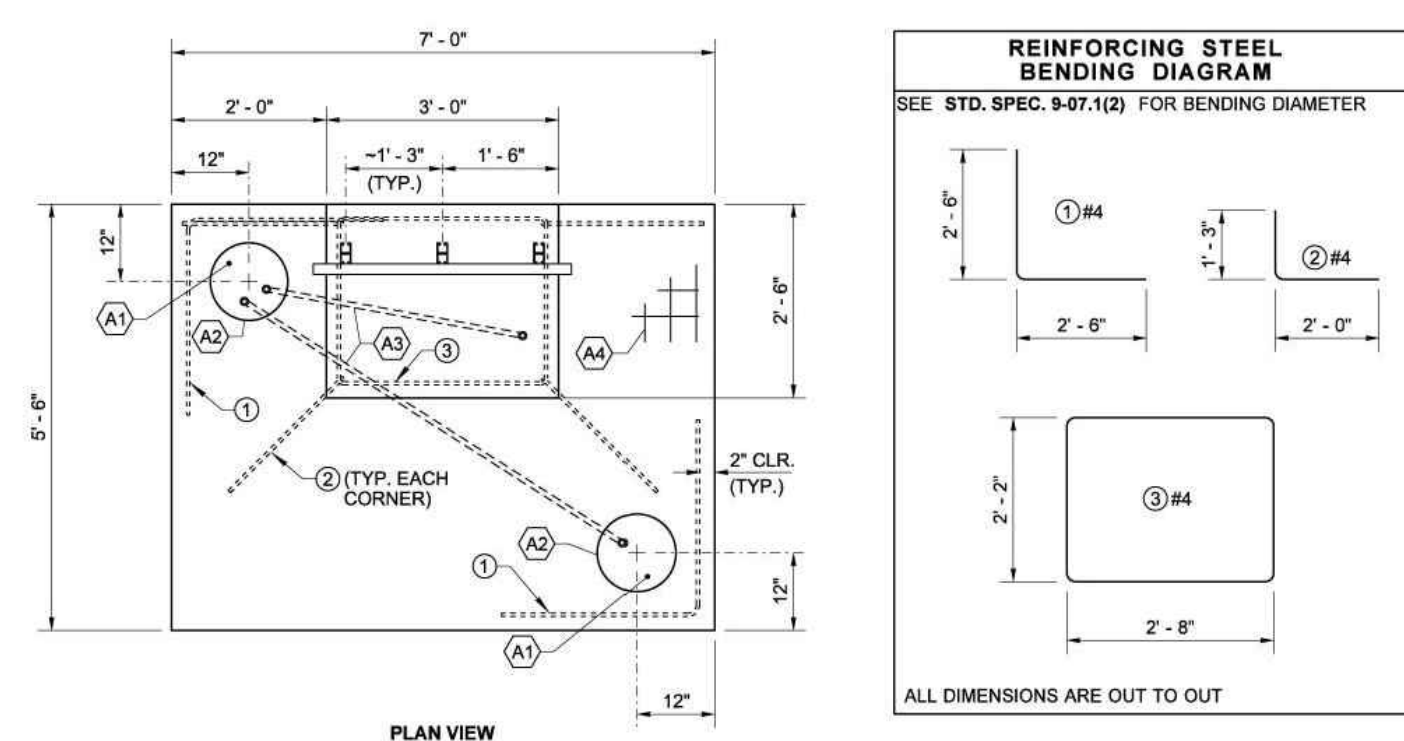
12" (IN) OF CONDUIT IN EACH LOCATION SHOWN

GENERAL NOTES

- Each pad mounted cabinet shall be attached to the foundation with four 1/2" (in.) x 10" (in.) x 2" (in.) x 4" (in.) anchor bolts (see Anchor Bolt Detail this Sheet). Bolts, washers, and nuts shall be hot-dip galvanized in accordance with **AASHTO M232** and meet the requirements of Standard Specification 9-06.5(1). Stainless steel epoxy anchors may be used as an alternative, and shall be 1/2" (in.) diameter x 9" (in.) or 5/8" (in.) diameter x 8" (in.). Epoxy anchors shall use Type 304 stainless steel hardware: ASTM F593 all threaded rod, ASTM A240 washers, and ASTM F594 nuts. Anchor bolts shall extend 1 1/2" (in.) min. to 2" (in.) max. above the concrete pad.
- All reinforcing steel shall be embedded 2" (in.) below the surface of concrete.
- A 1/2" (in.) bead of silicone is required between each cabinet and the concrete foundation.
- Concrete shall be Class 3000, in accordance with **Standard Specification 9-20.3(4)**. All concrete corners shall have a 1" (in.) chamfer, unless abutting sidewalk, where it shall be square and separated from the sidewalk with joint filler.
- Foundations installed in, or adjacent to, sidewalks shall be constructed with the top flush with the sidewalk surface and grade, not including concrete risers for cabinets.
- Foundations require additional level clear space to achieve a minimum of 4 feet of level clear space between the face of any cabinet or cabinet riser and the edge of the level clear space. Clear space beyond the edge of the concrete pad shall be made up of crushed surface meeting the requirements of **Standard Specification 9-03.9(1)**. Special design may be required where slopes are 3:1 or steeper. As an alternative, the concrete pad may be extended out to provide the required clear space.
- Verify overall pad and concrete riser dimensions with the Engineer prior to placing concrete.
- Not all Type 33x and 33xD cabinets have a police panel and/or a generator transfer switch (GTS) panel. See Contract for specific cabinet requirements.

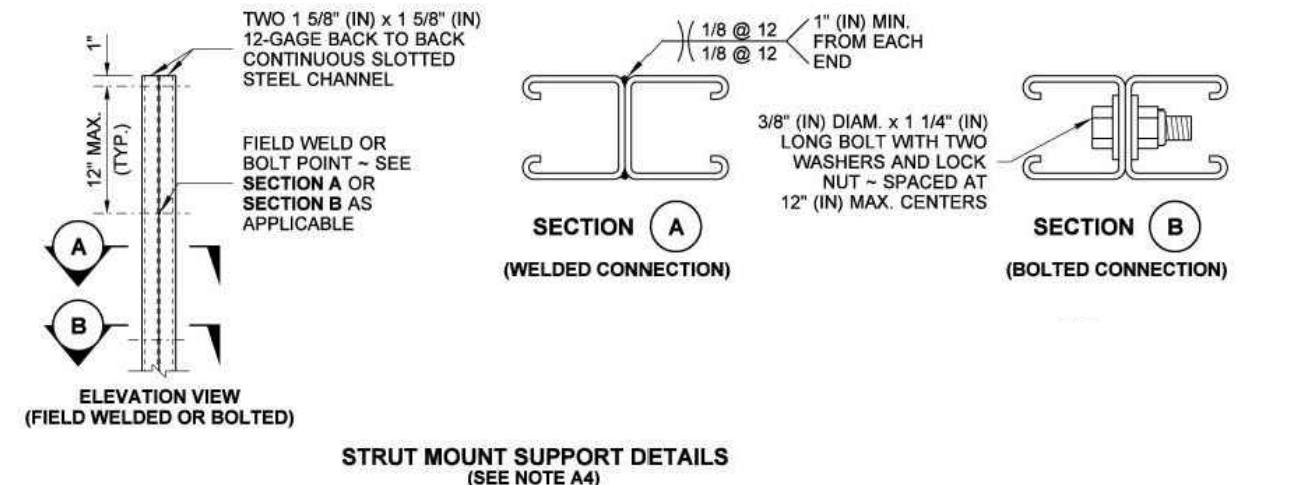
CABINET ORIENTATION CONDUIT LAYOUT AND FOUNDATION DETAIL

DRAWN BY: BILL BERENS



NOTES - SINGLE STRUT MOUNT CABINET (SHEET 2 OF 6)

- Drive ground rods before placing concrete. Ground rods shall be a minimum of 6 feet apart. See **Standard Plan J-60.05** for additional details.
- Welded Wire Fabric (WWF) shall be 4.0 (in.) x 4.0 (in.) ~ W4.0 x W4.0 ~ meeting the requirements of **Standard Specification 9-07.7**. As an alternative, a grid of #3 rebar may be used, with bars spaced at 1'-0" centers laterally and longitudinally.
- Install conduit couplings on all conduits. Couplers shall be installed with the top of the coupler flush with the top of concrete. For PVC conduits, the conduit segment above the coupler shall not be glued to the coupler.
- Vertical steel supports shall be two continuous 1 5/8" (in.) x 1 5/8" (in.) 12-gage slotted steel channels installed back-to-back (3 pairs required) ~ see Strut Mount Support Details this sheet for connection details. As an alternative, continuous 1 5/8" (in.) x 3 1/4" (in.) 12-gage slotted steel channel may be used in place of each channel pair. Channels shall be embedded a minimum of 12" (in.) into the concrete foundation. Supports shall be evenly spaced, with the center support centered in the concrete riser, and the outer supports tied to the riser rebar hoop.
- Horizontal steel supports shall be continuous 1 5/8" (in.) x 1 5/8" (in.) 12-gage slotted steel channels (two required).
- Cabinet height shall be determined by the required height of the utility meter - verify height with serving utility (typically 5 to 6 feet).
- Serving utility may require meter socket to be installed on the outside of the cabinet. Utility feeder conduit shall still terminate in the utility section of the cabinet unless otherwise required by the utility.
- Additional gravel pad not shown. Gravel pad shall extend two feet in front of the concrete pad for the full width of the concrete pad. If the utility meter socket is installed on the outside of the service cabinet, gravel pad shall also extend three feet from the utility side of the cabinet pad. Final gravel area shall be a rectangle.



KEY NOTES - SHEET 2 OF 6

- A1 Ground rod ~ See Note A1, this sheet.
- A2 Ground rod well (Ground tile) - 12" diameter concrete
- A3 Service ground electrode conduits.
- A4 Welded wire fabric ~ See Note A2, this sheet.
- A5 Utility entrance conduit. Conduit shall terminate in the utility section of the service cabinet.
- A6 Conduits to field equipment. Conduits shall terminate in the customer section of the service cabinet.
- A7 Conduit couplers ~ See Note A3, this sheet.
- A8 Vertical support steel channel ~ See Note A4, this sheet.
- A9 Horizontal support steel channel ~ See Note A5, this sheet.

CABINET ORIENTATION CONDUIT LAYOUT AND FOUNDATION DETAIL

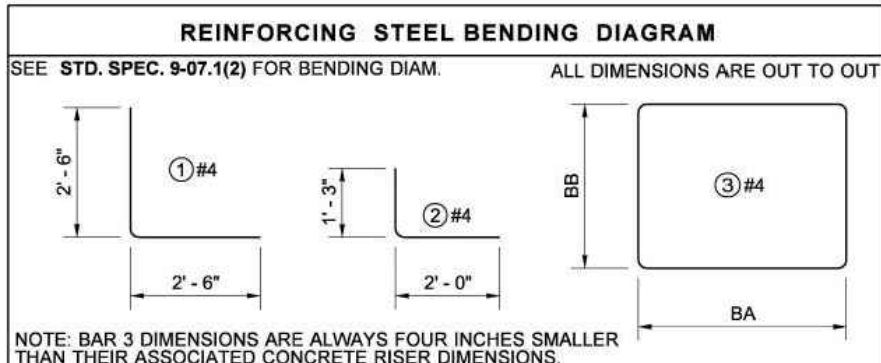
KEY NOTES - SHEET 3 OF 6

- B1 Ground rod ~ See Note B1, this sheet.
- B2 Ground rod well (Ground tile) - 12" diameter concrete
- B3 Service ground electrode conduits.
- B4 Welded wire fabric ~ See Note B2, this sheet.
- B5 Utility entrance (service cabinet) or input power (transformer cabinet) conduit. Conduit shall terminate in the utility or high-voltage section of the cabinet (as applicable).
- B6 Conduits to field equipment. Conduits shall terminate in the customer section (service cabinet) or low-voltage (transformer cabinet) of the cabinet.
- B7 Conduit couplers ~ See Note B4, this sheet.
- B8 4" (in.) diam. x 1/2" (in.) deep sump. Slope foundation within cabinet footprint toward sump.
- B9 3/8" (in.) diam. polyethylene or copper tubing for drain. Tubing shall be straight, but slope downward a minimum of 1" (in.).

NOTES - SINGLE PAD MOUNT SERVICE OR TRANSFORMER CABINET (SHEET 3 OF 6)

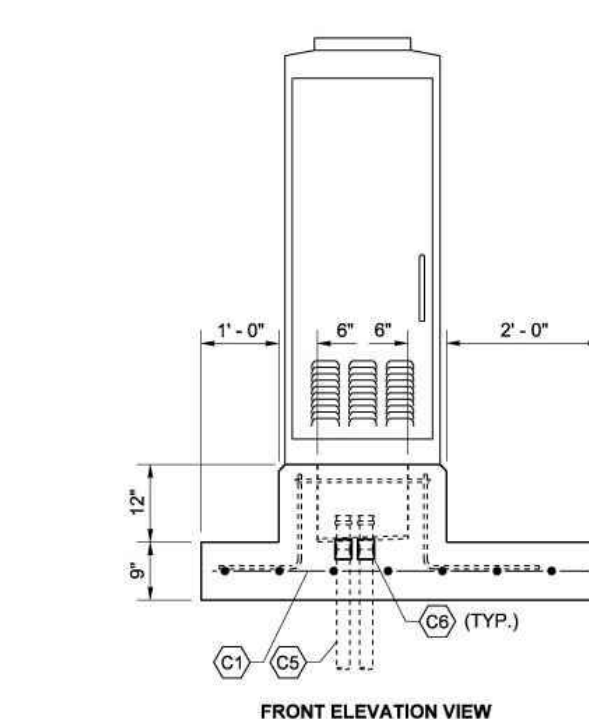
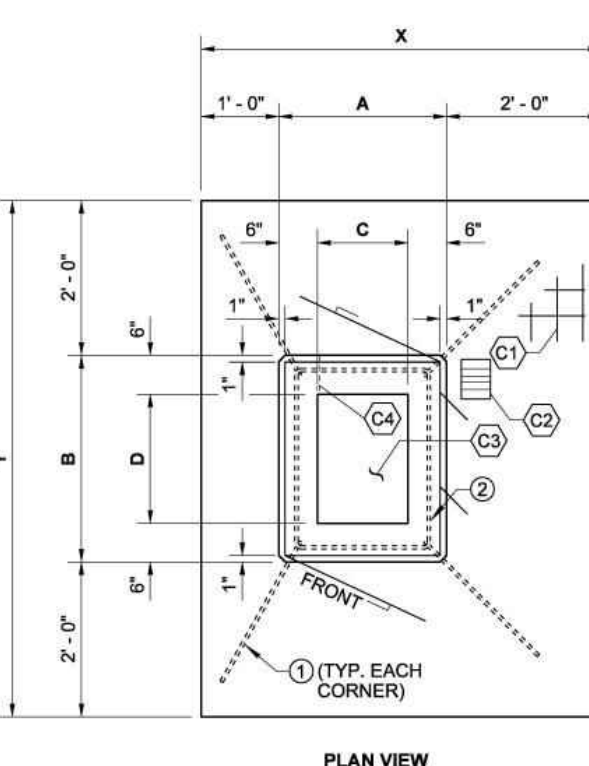
- Drive ground rods before placing concrete. Ground rods shall be a minimum of 6 feet apart. See **Standard Plan J-60.05** for additional details.
- Welded Wire Fabric (WWF) shall be 4.0 (in.) x 4.0 (in.) ~ W4.0 x W4.0 ~ meeting the requirements of **Standard Specification 9-07.7**. As an alternative, a grid of #3 rebar may be used, with bars spaced at 1'-0" centers laterally and longitudinally.
- Omit concrete riser and bar #3 for Type D and Type E service cabinets.
- Install conduit couplings on all conduits. Couplers shall be installed with the top of the coupler flush with the top of concrete. For PVC conduits, the conduit segment above the coupler shall not be glued to the coupler.
- Conduits shall extend a minimum of 2" (in.) and a maximum of 3" (in.) into the cabinet, as measured from the concrete surface to the top of the end bell (PVC) or ground bushing (RMC).
- Serving utility may require meter socket to be installed on the outside of the cabinet. Utility feeder conduit shall still terminate in the utility section of the cabinet unless otherwise required by the utility.
- Additional gravel pad not shown. Gravel pad shall extend two feet in front of the concrete pad for the full width of the concrete pad. If the utility meter socket is installed on the outside of the service cabinet, gravel pad shall also extend three feet from the side of the cabinet pad where the meter is installed. Final gravel area shall be a rectangle.
- See **Standard Plan J-10.14** for additional details when service or transformer cabinet is installed in fence line.

FOUNDATION SIZE REFERENCE TABLE						
SERVICE CABINETS	PAD WIDTH (X)	PAD DEPTH (Y)	RISER WIDTH (A)	RISER DEPTH (B)	HOOP (3) WIDTH (BA)	HOOP (3) DEPTH (BB)
TYPE D	6'-4"	3'-8"	N/A	N/A	N/A	N/A
TYPE E	8'-4"	3'-8"	N/A	N/A	N/A	N/A
TRANSFORMER CABINETS	PAD WIDTH (X)	PAD DEPTH (Y)	RISER WIDTH (A)	RISER DEPTH (B)	HOOP (3) WIDTH (BA)	HOOP (3) DEPTH (BB)
XFMR-S (UP TO 12.5 KVA)	6'-2"	4'-11"	2'-2"	1'-11"	1'-10"	1'-7"
XFMR-L (12.6 TO 37.5 KVA)	6'-10"	5'-8"	2'-10"	2'-8"	2'-6"	2'-4"



CABINET ORIENTATION CONDUIT LAYOUT AND FOUNDATION DETAIL

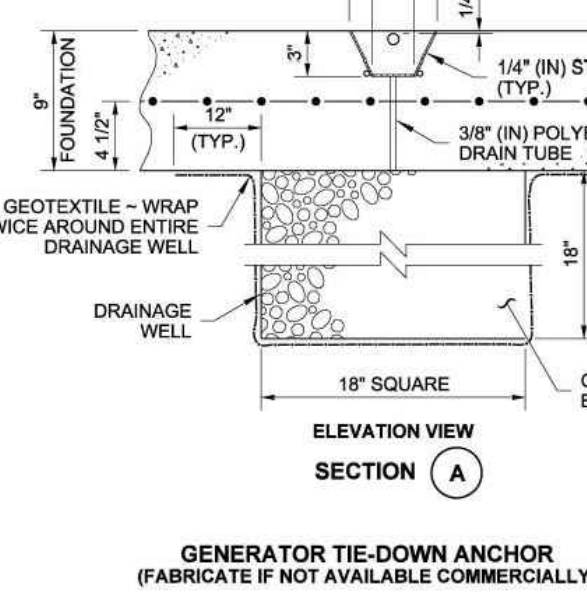
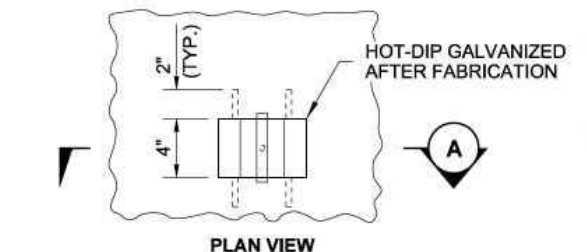
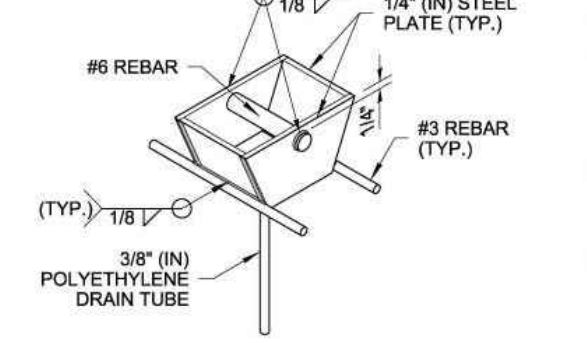
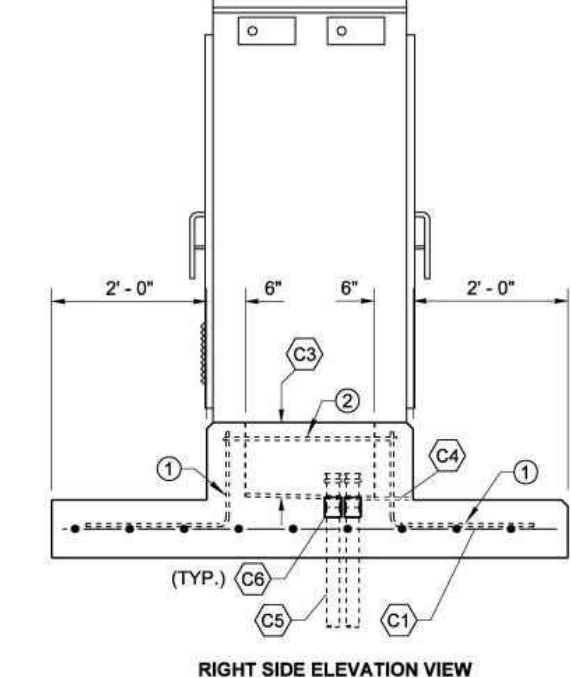
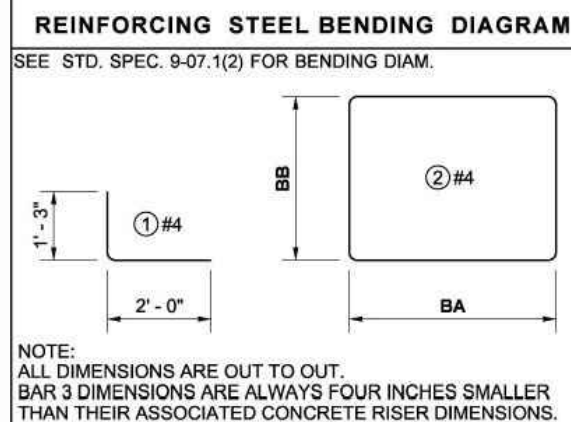
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SINGLE PAD MOUNT
TRAFFIC SIGNAL OR ITS CABINET
(TYPE 33x CABINET SHOWN)

KEY NOTES - SHEET 4 OF 6

- C1 Welded wire fabric ~ See Note C1, this sheet.
- C2 Generator Tie-Down Anchor ~ See Note C2, this sheet.
- C3 Cabinet Well ~ See Note C3, this sheet.
- C4 3/8" (in.) diam. polyethylene or copper tubing for drain. Tubing shall be straight, but slope downward a minimum of 1" (in.).
- C5 Conduits ~ See Contract Plans for number, type, and function.
- C6 Conduit couplers ~ See Note C4, this sheet.



FOUNDATION SIZE REFERENCE TABLE						
SIGNAL AND ITS CABINETS	PAD WIDTH (X)	PAD DEPTH (Y)	RISER WIDTH (A)	RISER DEPTH (B)	HOOP (2) WIDTH (BA)	HOOP (2) DEPTH (BB)
TYPE 33x	5'-2"	6'-8"	2'-2"	2'-8"	1'-10"	2'-4"
TYPE 33xD	6'-3"	6'-8"	4'-3"	2'-8"	3'-11"	2'-4"
TYPE 342LX / NEMA P44	5'-10"	6'-4"	3'-10"	2'-4"	3'-6"	2'-0"

FINAL PLANS

TRAFFIC SIGNAL WSDOT DETAILS FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL
A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



DESIGNED:
BJ/PPG
CHECKED:
DAH

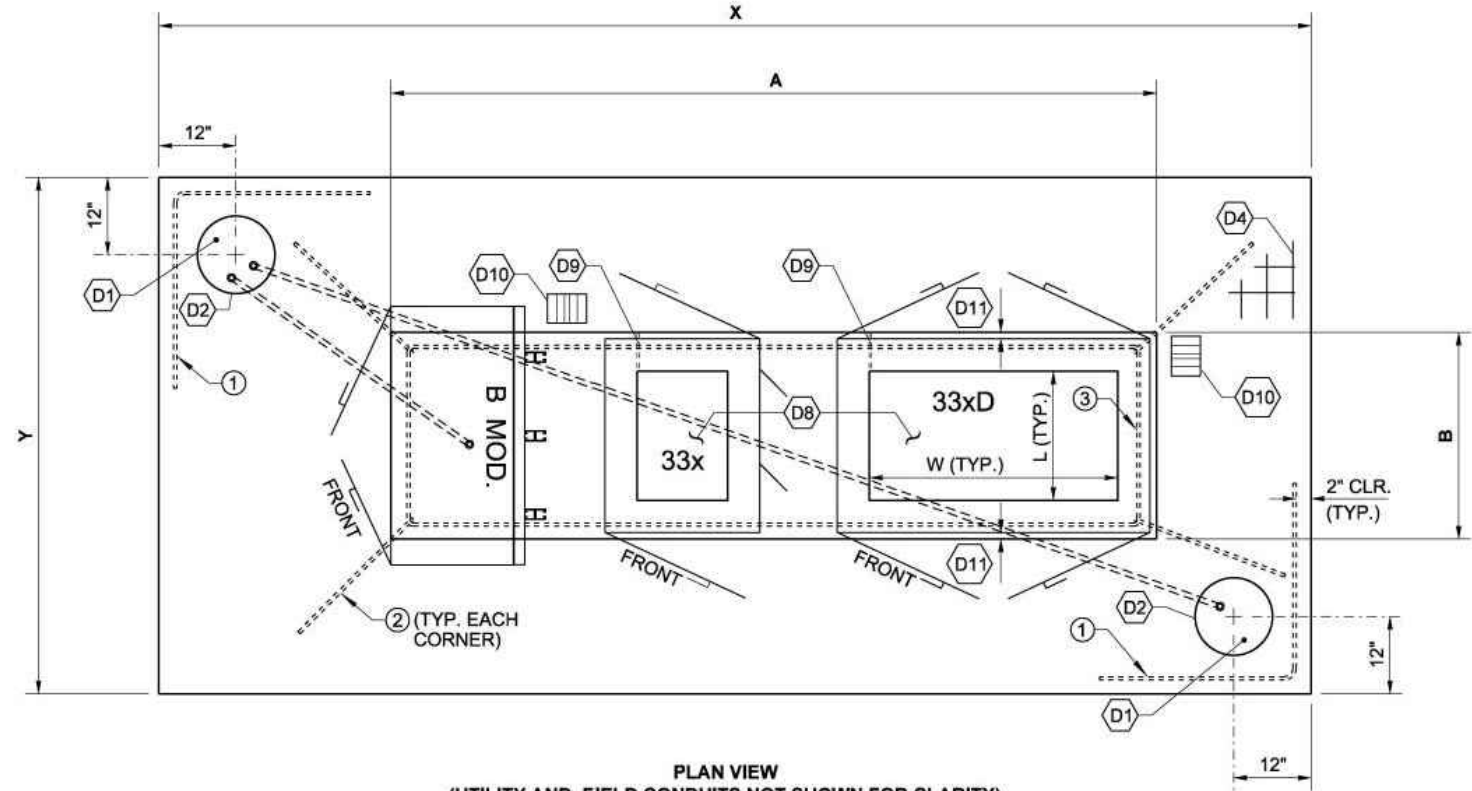
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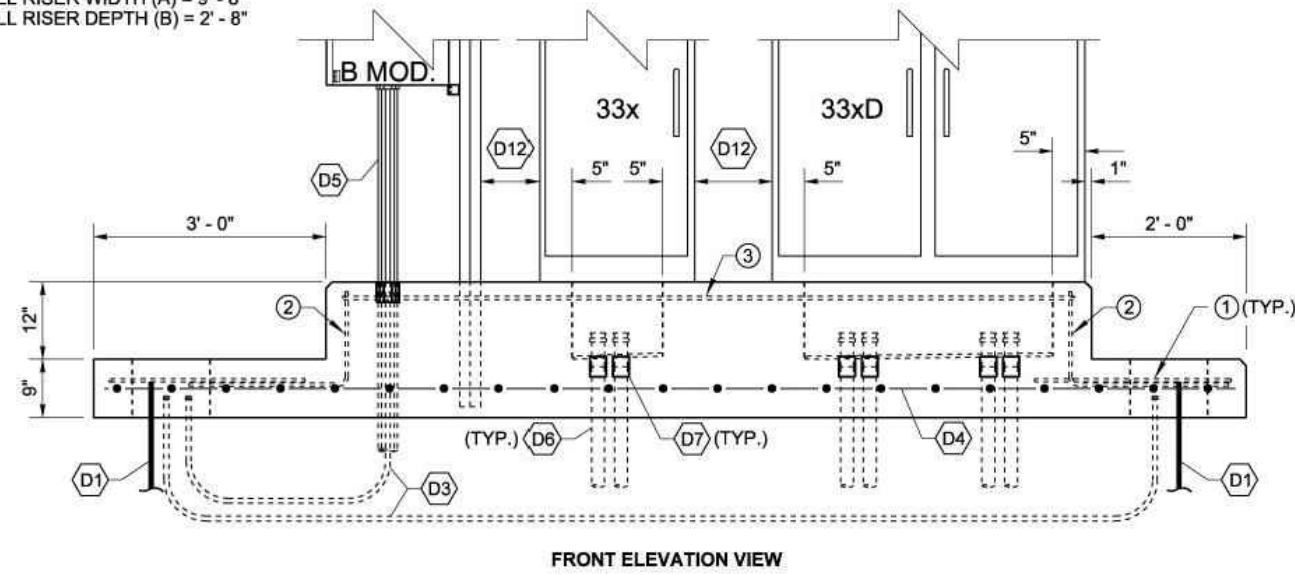
SHEET 31 OF 50

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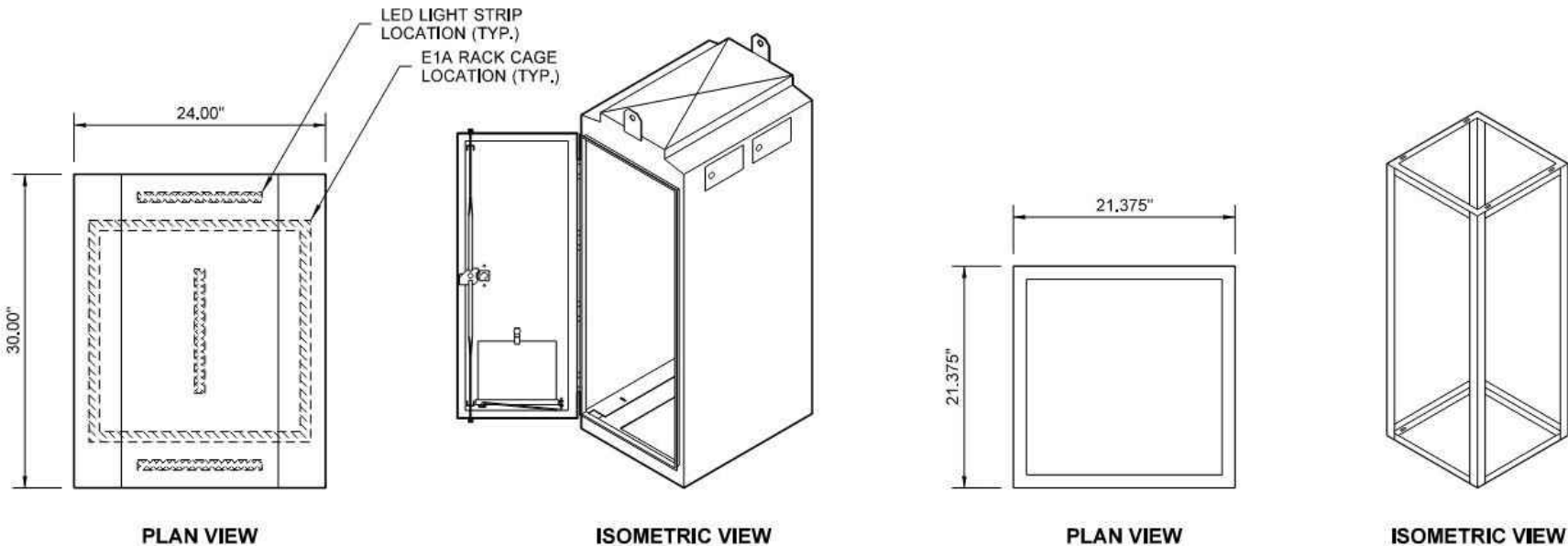


FOR THE EXAMPLE PAD SHOWN HERE:
- SPACE BETWEEN TYPE B MOD. CABINET AND 33x CABINET IS 6" (IN.)
- SPACE BETWEEN 33x AND 33xD CABINET IS 1' - 0"
- OVERALL PAD WIDTH (X) = 14' - 8"
- OVERALL PAD DEPTH (Y) = 6' - 8"
- OVERALL RISER WIDTH (A) = 8' - 8"
- OVERALL RISER DEPTH (B) = 2' - 8"

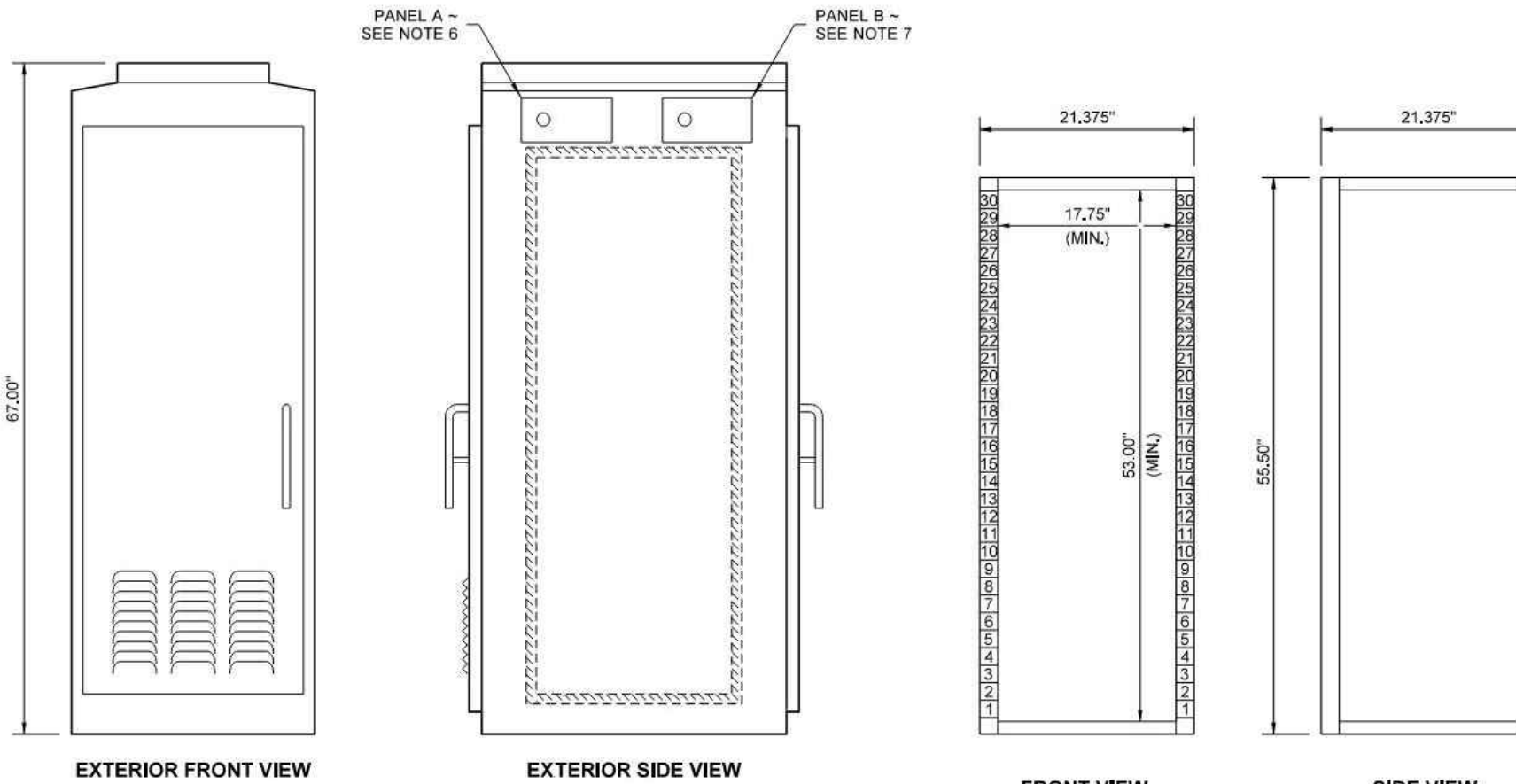
FOUNDATION PAD DIMENSIONS X, Y, A, AND B SHOULD BE PROVIDED IN THE CONTRACT PLANS.



TYPE A (NARROW) MULTI-CABINET FOUNDATION PAD
(TYPE B MODIFIED SERVICE CABINET, TYPE 33x CABINET, AND TYPE 33xD CABINET SHOWN)

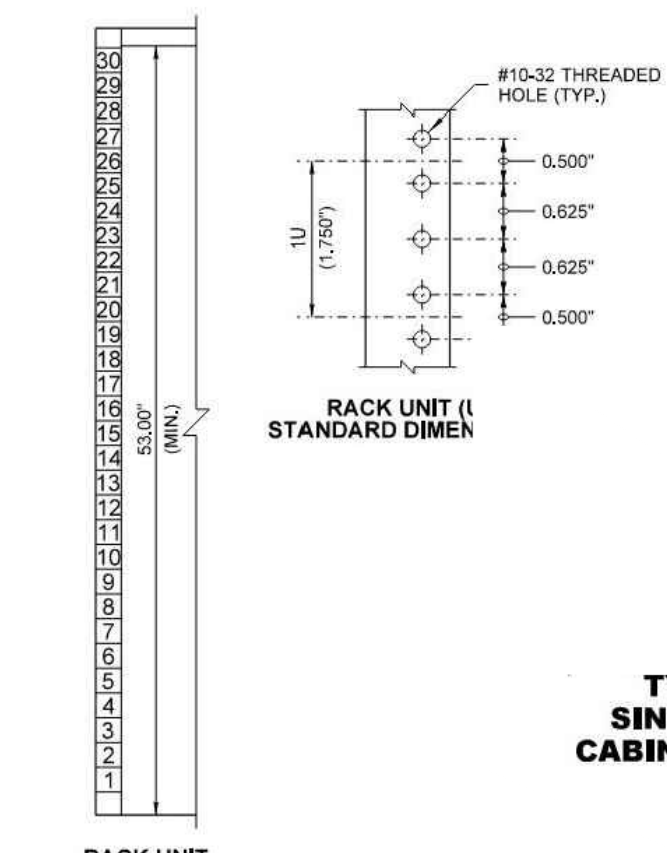


NOTE: DIMENSIONS NOT SHOWN SHALL BE IN ACCORDANCE WITH THE TEES



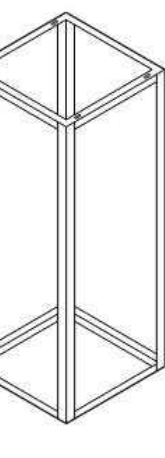
CABINET HOUSING #1B

CAGE #1 (EIA RACK)



RACK UNIT NUMBERING EXAMPLE
SEE NOTE 5

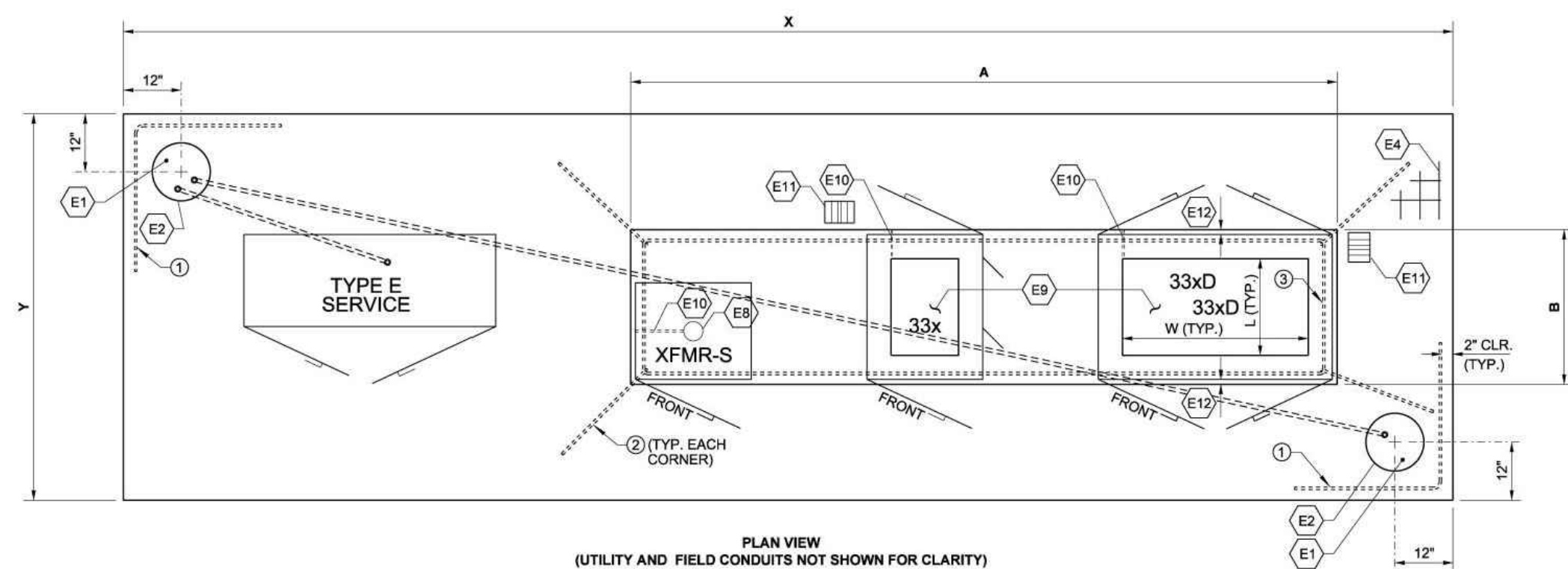
TYPE 33xL SINGLE-WIDTH CABINET HOUSING



ISOMETRIC VIEW

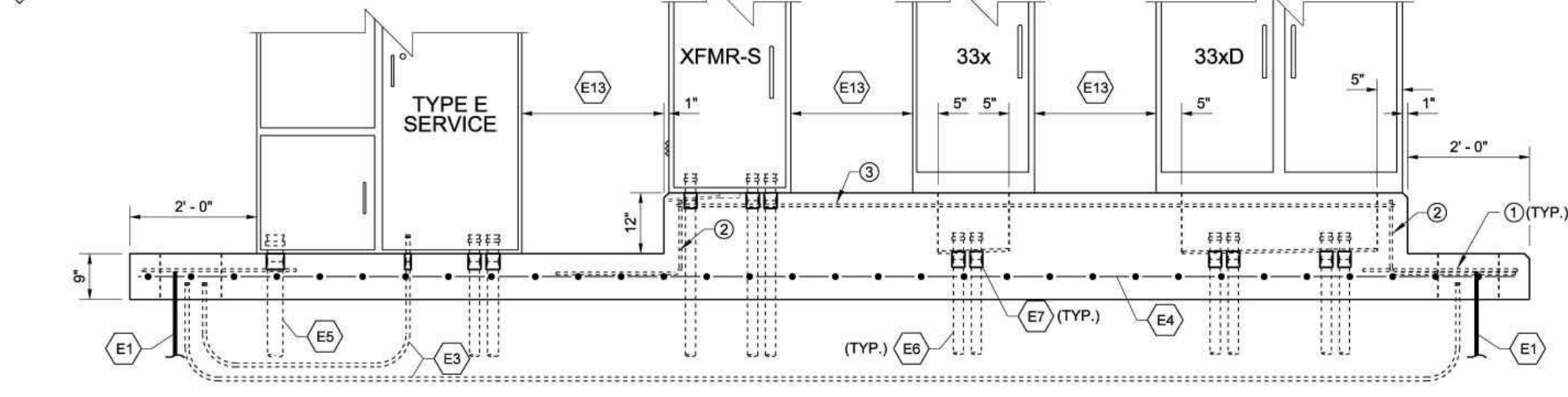
- NOTES
- Cabinet construction shall meet the requirements of **Standard Specification Section 9-29.13(10)**. Aluminum cabinets shall have mill finish.
 - Cabinet construction shall conform to the requirements of Chapter 6, Section 2, of the **California Department of Transportation (CalTrans) Transportation Electrical Equipment Specifications (TEES)** as currently published, including all errata, with modifications as described in **Standard Specification Section 9-29.13(10)**.
 - The Housing and Cage numbers refer to the designations shown in the **TEES**. Cabinet Housing #2 (ALT) and Cage #2 (ALT) are modified versions of Cabinet Housing #2 and Cage #2, respectively, using the shorter vertical dimensions shown. All other dimensions and features are the same.
 - Housing #1B shall always use Cage #1. Housing #2 shall always use Cage #2. Housing #2 (ALT) shall always use Cage #2 (ALT).
 - Cage mounting points are designated by rack units (U), which are numbered starting from the bottom of the cage.
 - Install the following in PANEL A location for the applicable cabinet type:
 - Type 331L and 334L Cabinets: Do not install PANEL A.
 - Type 332L Cabinets: Install Generator Transfer Switch.
 - Install the following in PANEL B location for the applicable cabinet type:
 - Type 331L Cabinets: Install Generator Transfer Switch when specified in the contract.
 - Type 332L and 334L Cabinets: Install Police Panel.
 - All cabinet locks shall accept Best 6-pin or 7-pin cores, with the exception of the Police Panel. The Police Panel shall use a standard Police Panel Lock and Keys.

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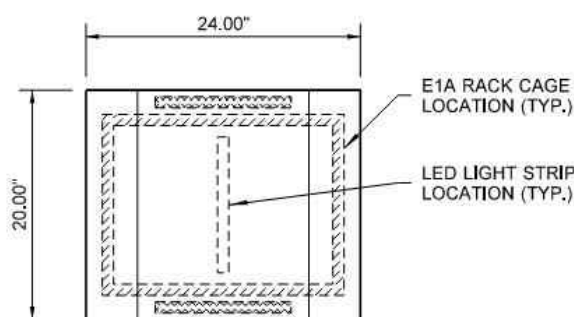


CABINET CLEARANCE REFERENCE TABLE								
SERVICE CABINETS	LEFT SIDE	RIGHT SIDE	TRANSFORMER CABINETS	LEFT SIDE	RIGHT SIDE	SIGNAL AND ITS CABINETS	LEFT SIDE	RIGHT SIDE
TYPE B MOD.	1' - 10"	1' - 6"	XFMR-S (UP TO 12.5 KVA)	2' - 0"	6"	TYPE 33x	2' - 0"	2' - 0"
TYPE D	2' - 4"	6"	XFMR-L (12.6 TO 37.5 KVA)	3' - 8"	6"	TYPE 33xD	2' - 0"	2' - 0"
TYPE E	2' - 0"	2' - 4"				TYPE 342XL	1' - 10"	1' - 10"
						NEMA P44	3' - 8"	3' - 8"

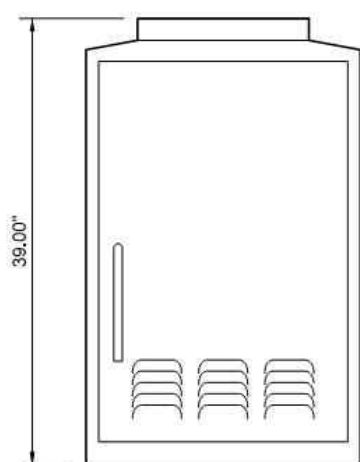
① 6" FOR NEMA P44 CABINETS WITHOUT A REAR DOOR



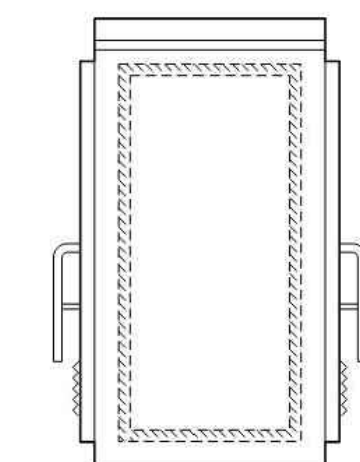
TYPE B (WIDE) MULTI-CABINET FOUNDATION PAD
(TYPE E SERVICE CABINET, XFMR-S CABINET, TYPE 33x CABINET, AND TYPE 33xD CABINET SHOWN)



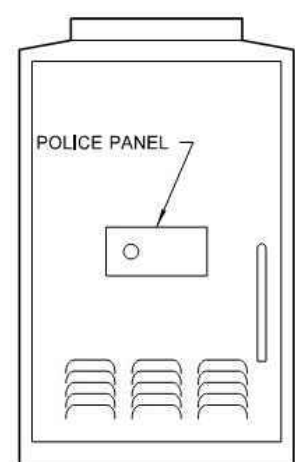
PLAN VIEW



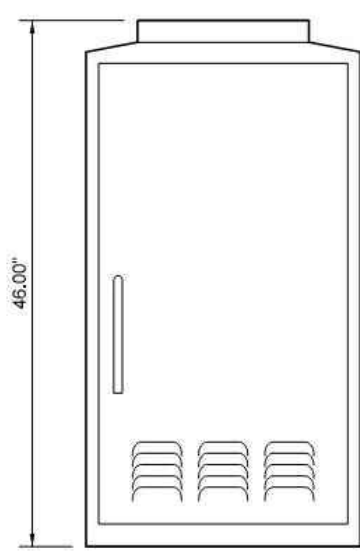
EXTERIOR FRONT VIEW



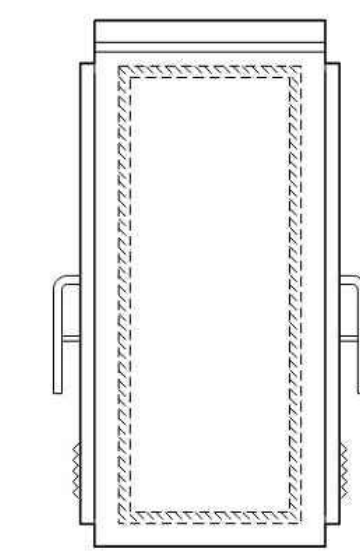
EXTERIOR SIDE VIEW
CABINET HOUSING #2 (ALT)



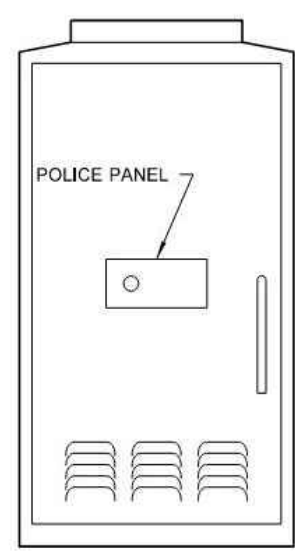
EXTERIOR REAR VIEW



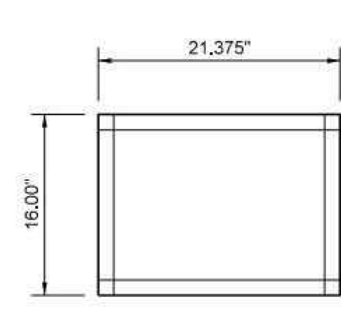
EXTERIOR FRONT VIEW



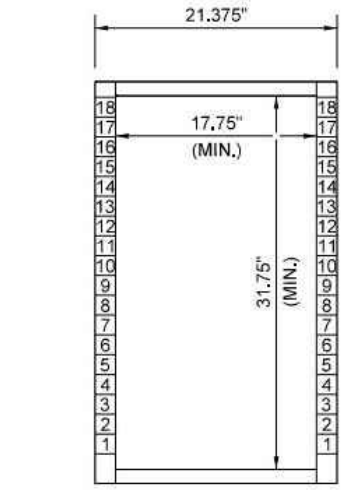
EXTERIOR SIDE VIEW
CABINET HOUSING #2



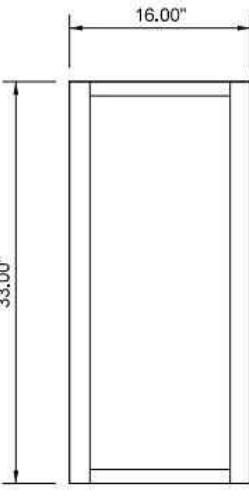
EXTERIOR REAR VIEW



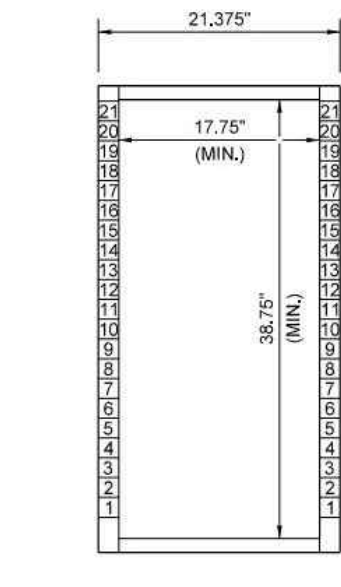
PLAN VIEW



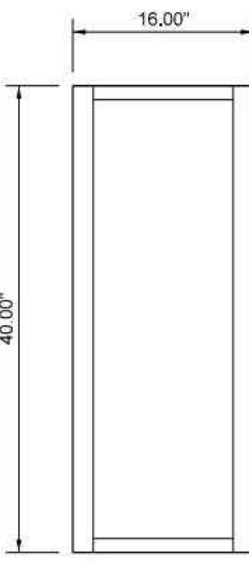
FRONT VIEW



SIDE VIEW



FRONT VIEW

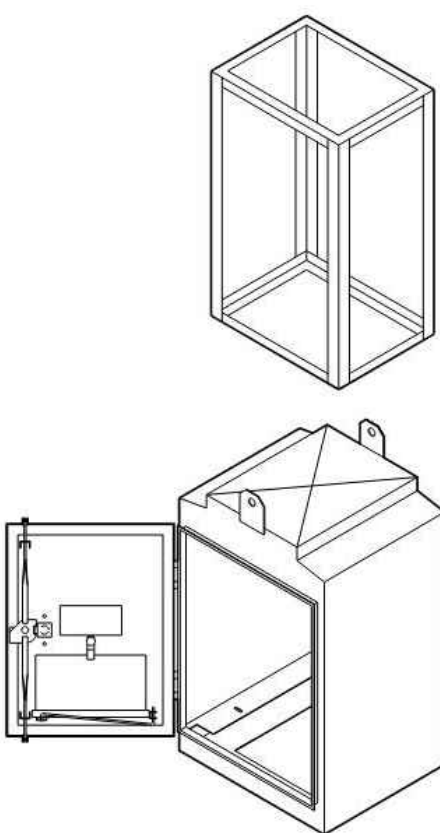


SIDE VIEW

CAGE #2 (EIA RACK)

- KEY NOTES - SHEET 6 OF 6
- E1 Ground rod ~ See Note D1, Sheet 5 of 6.
 - E2 Ground rod well (Ground tie) - 12" diameter concrete
 - E3 Service ground electrode conduits.
 - E4 Welded wire fabric ~ See Note D2, Sheet 5 of 6.
 - E5 Utility entrance (service cabinet) or input power (transformer cabinet) conduit. Conduit shall terminate in the utility or high voltage section of the cabinet (as applicable).
 - E6 Conduits to field equipment. Conduits shall terminate in the customer section (service cabinet) or low-voltage (transformer cabinet) of the cabinet.
 - E7 Conduit couplers ~ See Note D5, Sheet 5 of 6.
 - E8 4" (in.) diam. x 1/2" (in.) deep sump. Slope foundation within cabinet footprint toward sump.
 - E9 Cabinet Well ~ See Note D9, Sheet 5 of 6.
 - E10 3/8" (in.) diam. polyethylene or copper tubing for drain. Tubing shall be straight, but slope downward a minimum of 1" (in.)
 - E11 Generator Tie-Down Anchor ~ See Note D10, Sheet 5 of 6.
 - E12 Riser lip shall be 1" (in.) from the base edge of the largest cabinet to the face of the concrete riser. Smaller cabinets shall be positioned so that the front riser lip is 1" (in.) wide.
 - E13 For a Type B (Wide) Pad, spacing between the cabinets shall match the widest door of the two adjacent cabinets. For Type D and Type E Service Cabinets, the clearance is to the face of the adjacent concrete riser (when present). See left and right clearance table this sheet.

CABINET ORIENTATION
CONDUIT LAYOUT AND
FOUNDATION DETAIL



ISOMETRIC VIEWS
(HOUSING #2 (ALT) AND
CAGE #2 (ALT) SHOWN)

TYPE 33xL SINGLE-WIDTH CABINET HOUSING

TRAFFIC SIGNAL WSDOT DETAILS FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL
A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON

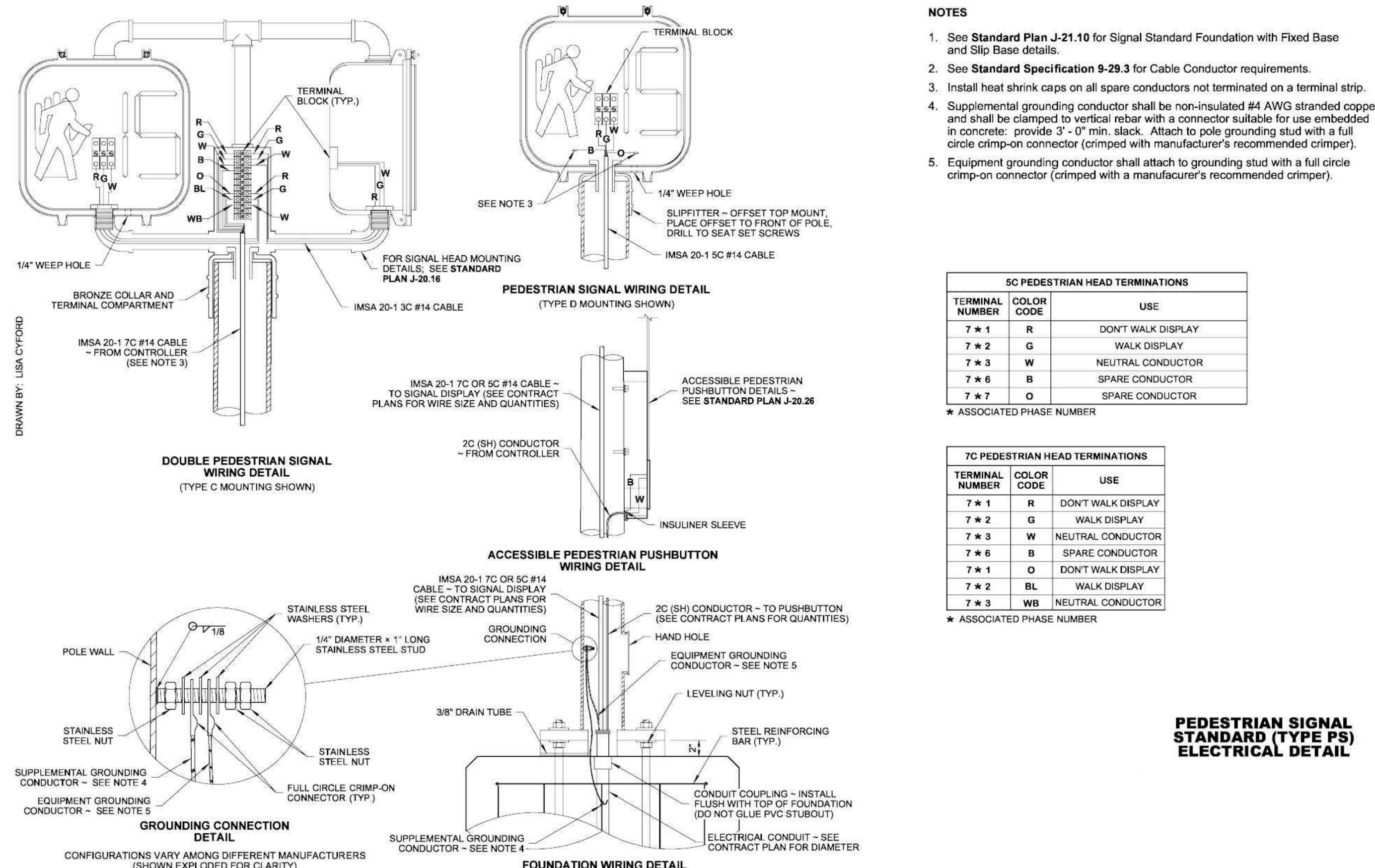
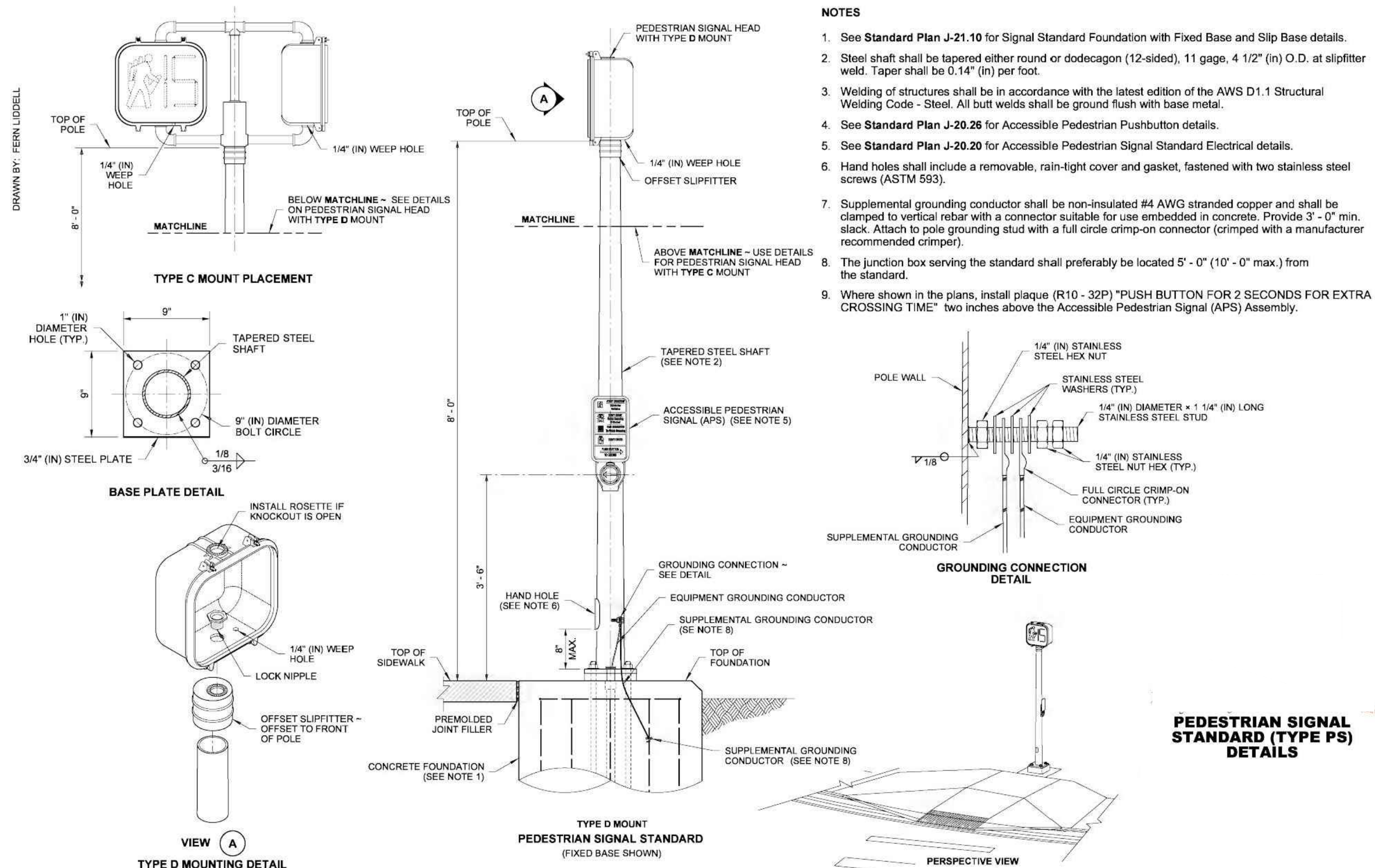
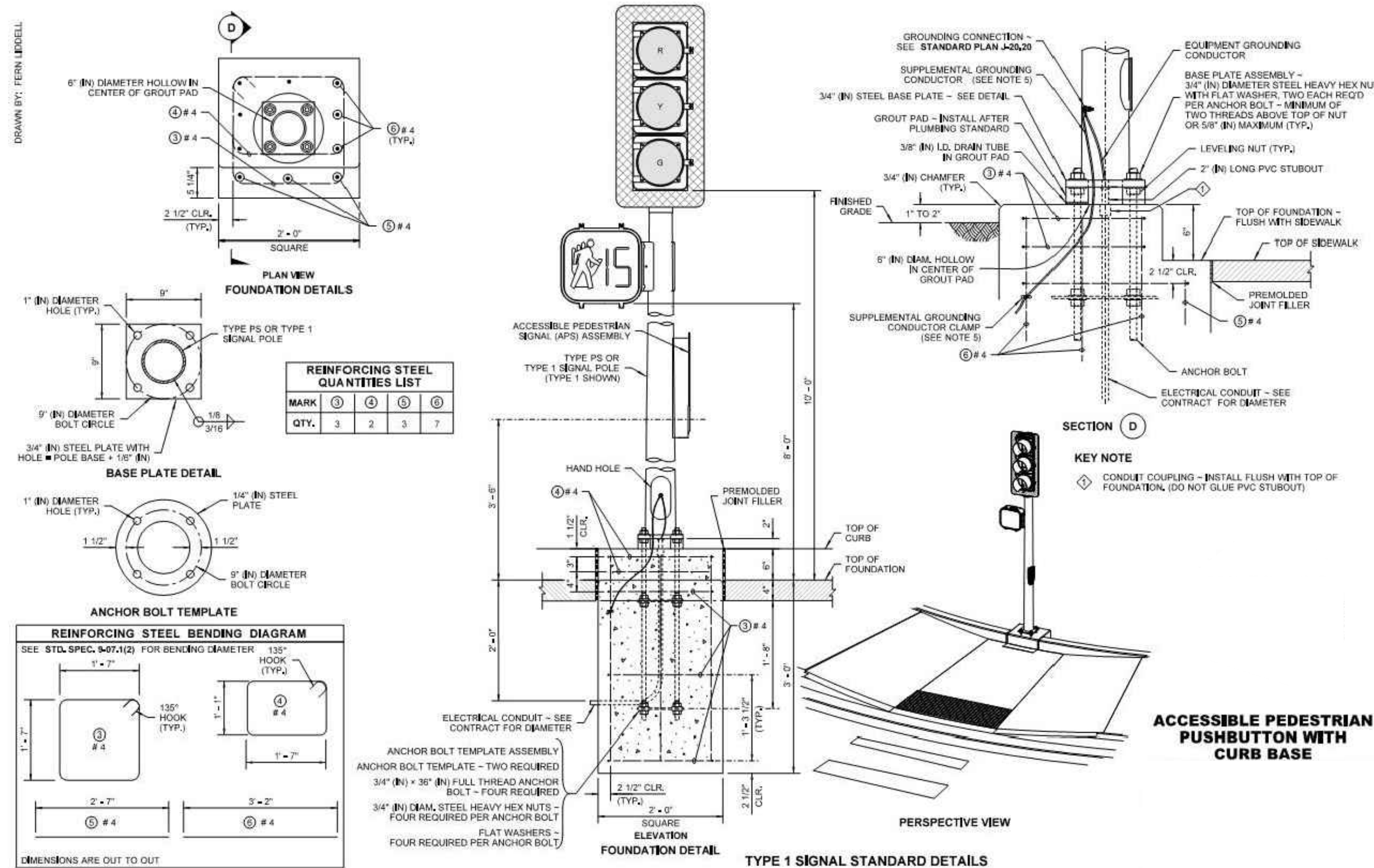
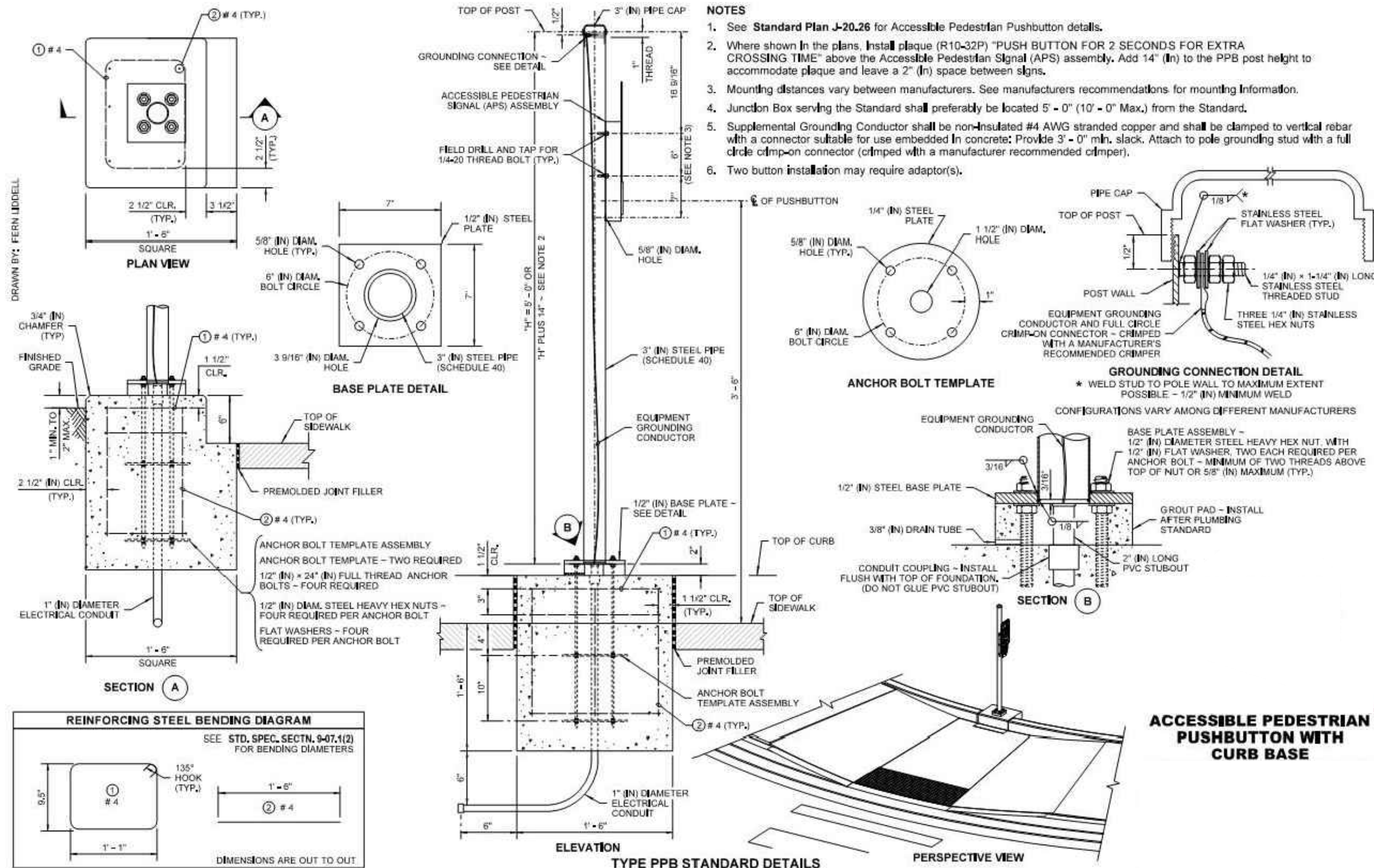


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JULY 2024
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SHEET ID
TL11

SHEET 32 OF 50

FINAL PLANS



TERMINAL NUMBER	COLOR CODE	USE
7 * 1	R	DONT WALK DISPLAY
7 * 2	G	WALK DISPLAY
7 * 3	W	NEUTRAL CONDUCTOR
7 * 6	B	SPARE CONDUCTOR
7 * 7	O	SPARE CONDUCTOR

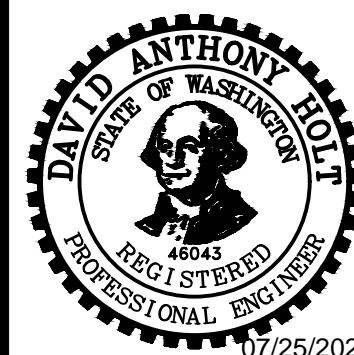
TERMINAL NUMBER	COLOR CODE	USE
7 * 1	R	DONT WALK DISPLAY
7 * 2	G	WALK DISPLAY
7 * 3	W	NEUTRAL CONDUCTOR
7 * 6	B	SPARE CONDUCTOR
7 * 7	O	DONT WALK DISPLAY
7 * 2	BL	WALK DISPLAY
7 * 3	WB	NEUTRAL CONDUCTOR

PEDESTRIAN SIGNAL STANDARD (TYPE PS) ELECTRICAL DETAIL

TRAFFIC SIGNAL WSDOT DETAILS FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL
A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON

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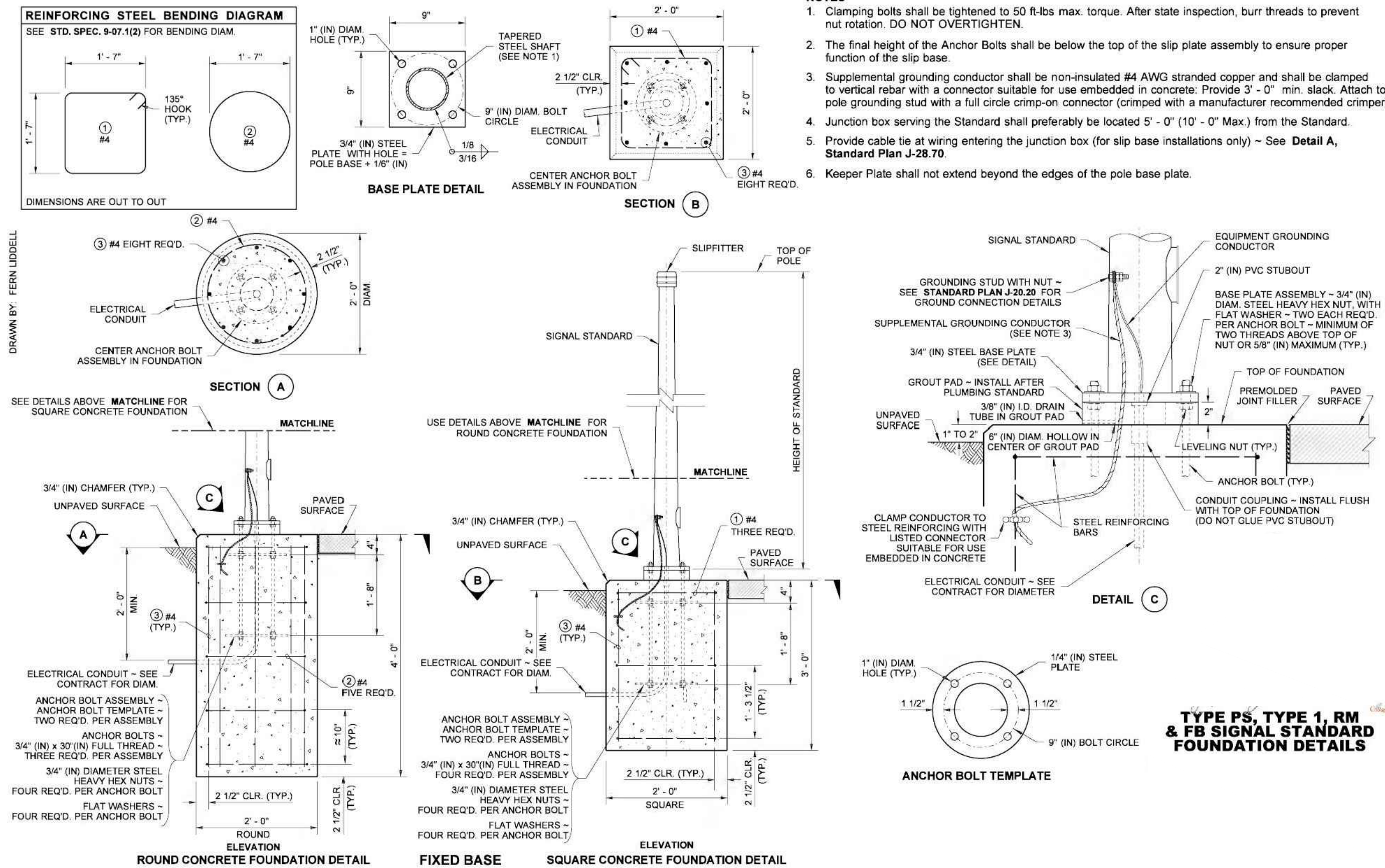
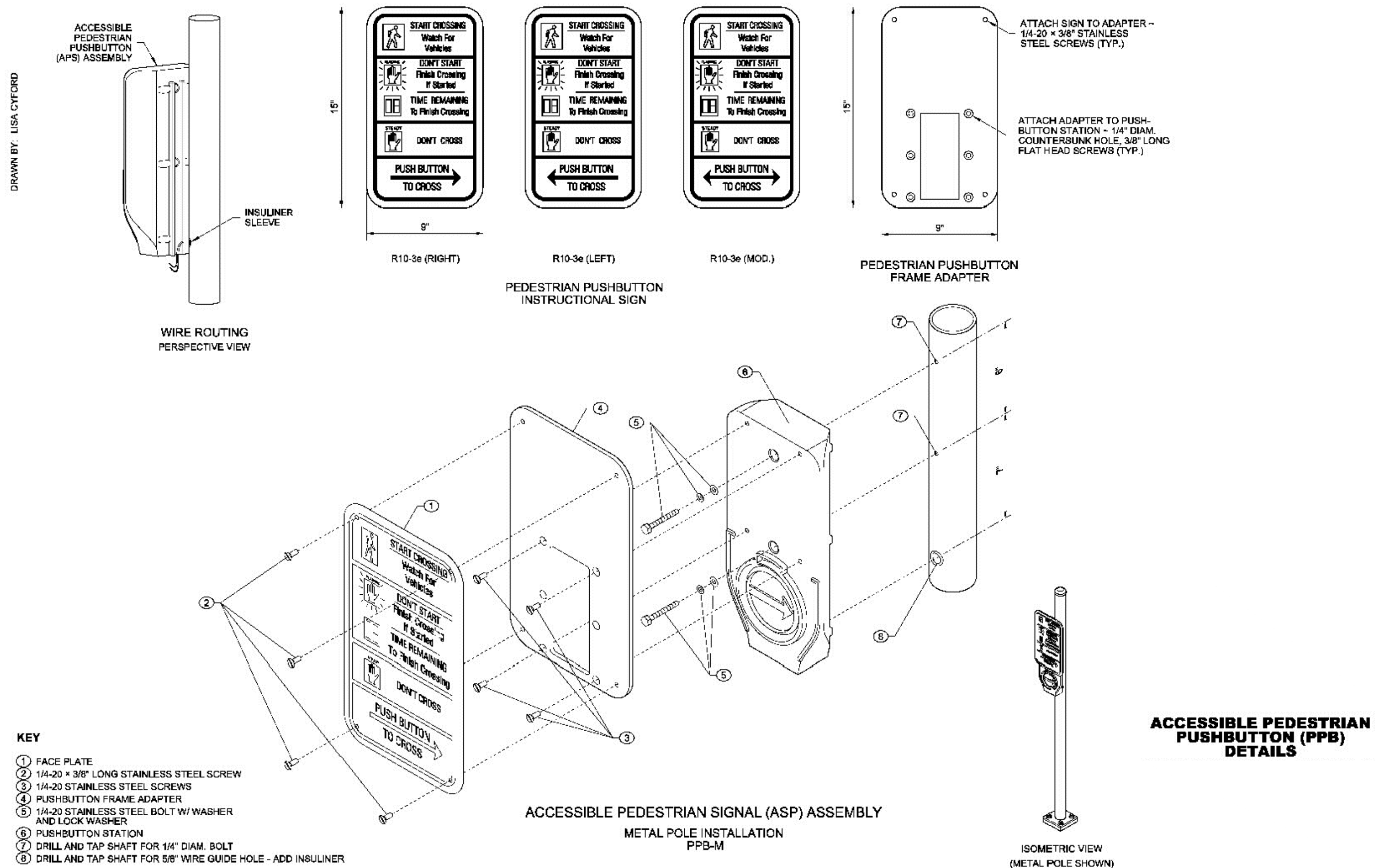


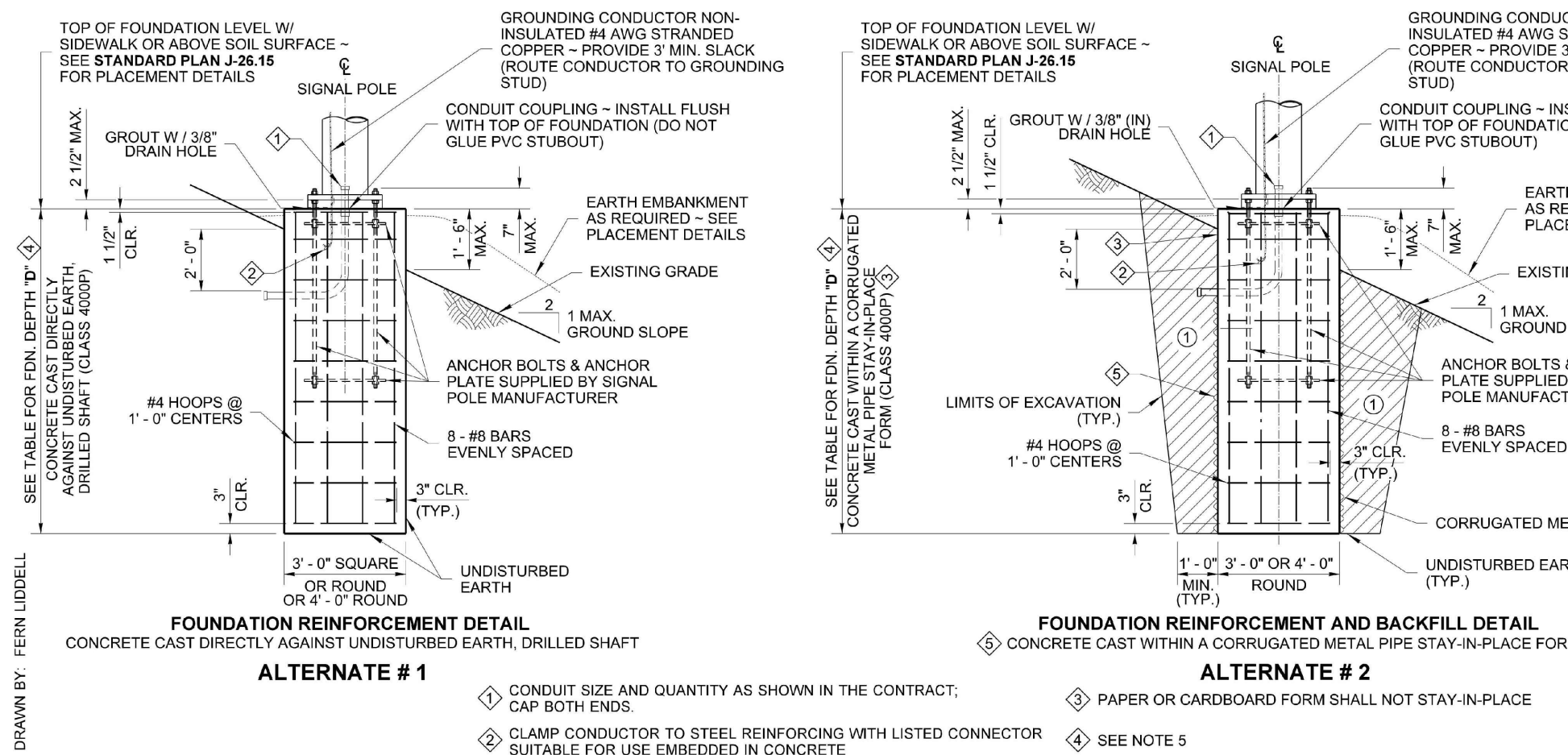
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SHEET **33** OF **50**

FINAL PLANS





FOUNDATION DEPTH "D" TABLE	
ALTERNATE #1 DRILLED SHAFT-TYPE CONSTRUCTION	
FOR LATERAL BEARING PRESSURE = 2500 PSF & Ø = 34", 1500 PSF & Ø = 28", 1000 PSF & Ø = 26"	
GROUND SLOPE = 3H : 1V OR FLATTER	XYZ (FT)
ALLOWABLE LATERAL BEARING PRESSURE	FOUNDATION TYPE
1000 PSF	3'-0" ROUND 3'-0" SQUARE 4'-0" ROUND 4'-0" SQUARE
1500 PSF	3'-0" ROUND 3'-0" SQUARE 4'-0" ROUND 4'-0" SQUARE
2500 PSF OR GREATER	3'-0" ROUND 3'-0" SQUARE 4'-0" ROUND 4'-0" SQUARE
ALTERNATE #2 CORRUGATED METAL PIPE TYPE CONSTRUCTION	
FOR LATERAL BEARING PRESSURE = 2500 PSF & Ø = 23", 1500 PSF & Ø = 18", 1000 PSF & Ø = 17"	
GROUND SLOPE = 3H : 1V OR FLATTER	XYZ (FT)
ALLOWABLE LATERAL BEARING PRESSURE	FOUNDATION TYPE
1000 PSF	3'-0" ROUND 4'-0" ROUND 4'-0" SQUARE
1500 PSF	3'-0" ROUND 4'-0" ROUND 4'-0" SQUARE
2500 PSF OR GREATER	3'-0" ROUND 4'-0" ROUND 4'-0" SQUARE

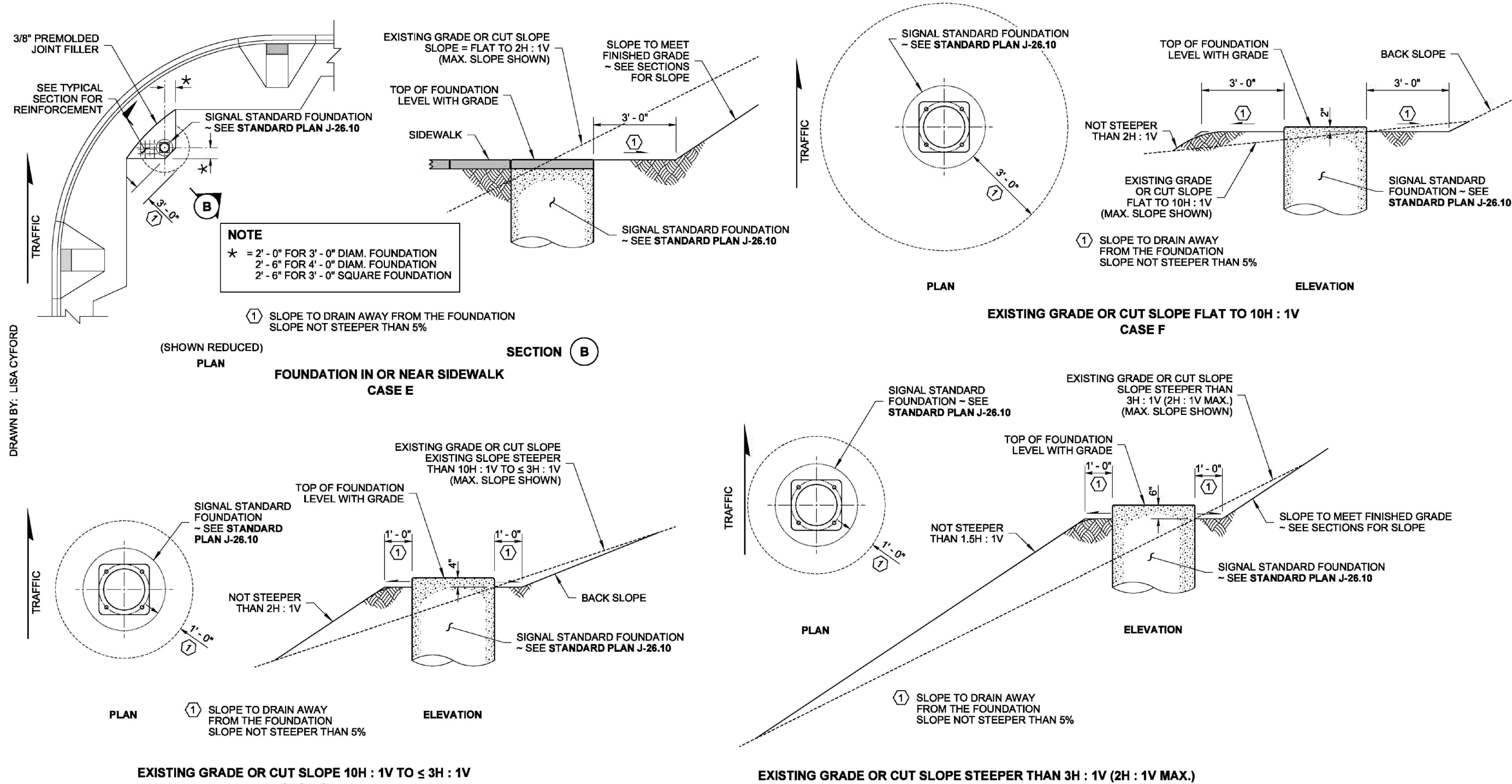
When the existing soil will not retain a vertical face, over-excavate the foundation area and install a 36" or 48" diameter corrugated metal (pipe) form. The top of the corrugated metal form shall terminate 1 foot below final grade. Continue forming to full height using paper or cardboard form to achieve a smooth finish on final exposed cement concrete. Support the form as necessary to remain plumb.

Place the concrete foundation.

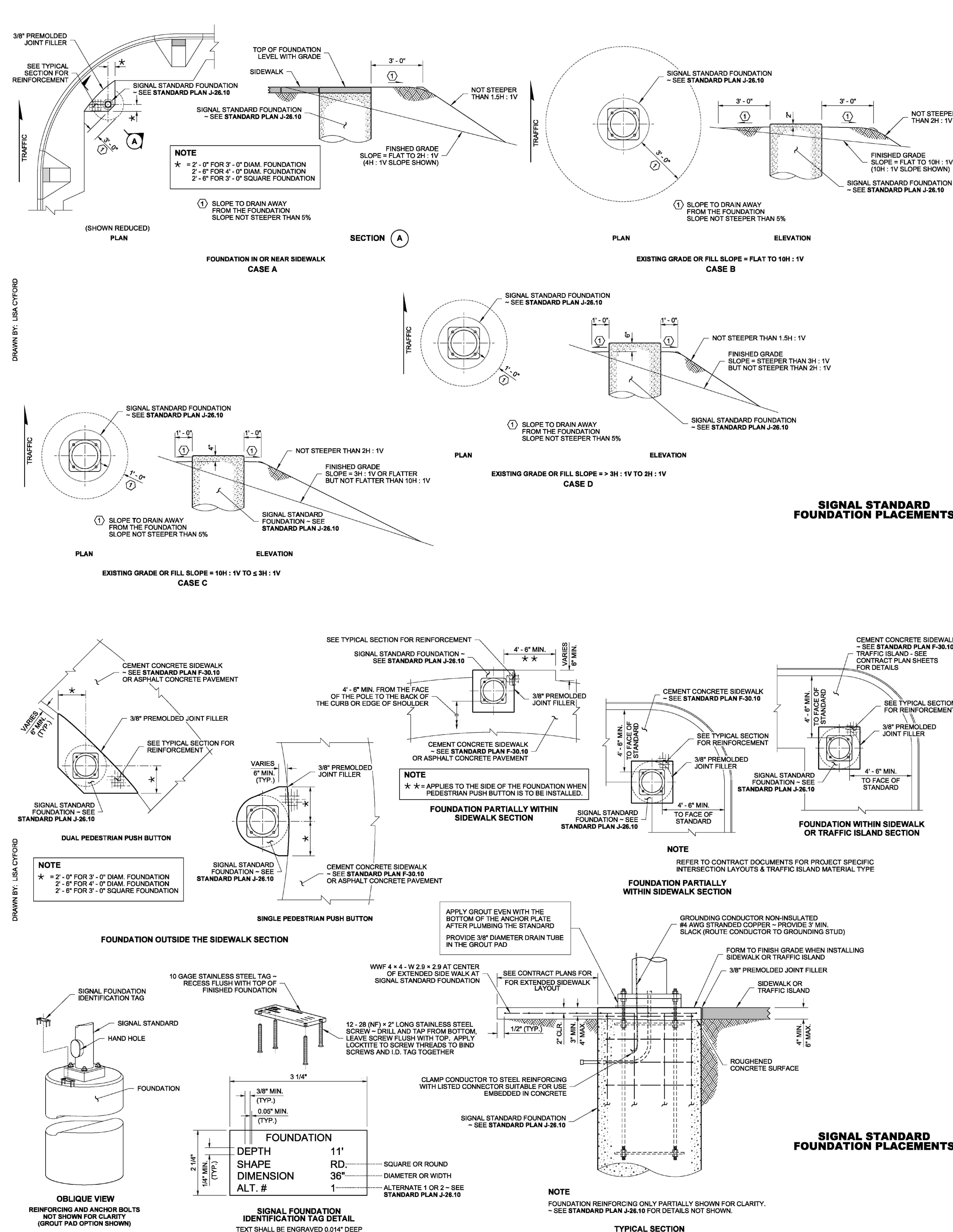
After concrete has cured, remove the entire paper or cardboard form portion.

Shoring or Extra Excavation as required. Excavated area shall be backfilled with Controlled-Density Fill (CDF), or with soil in accordance with Standard Specification Section 8-20.3(2) and Compaction Method 1 of Standard Specification Section 2-09.3(1)E.

TRAFFIC SIGNAL STANDARD FOUNDATION



SIGNAL STANDARD FOUNDATION PLACEMENTS



FINAL PLANS

TRAFFIC SIGNAL WSDOT DETAILS FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL
A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON

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STATE OF WASHINGTON

PROFESSIONAL ENGINEER

46043

07/25/2024

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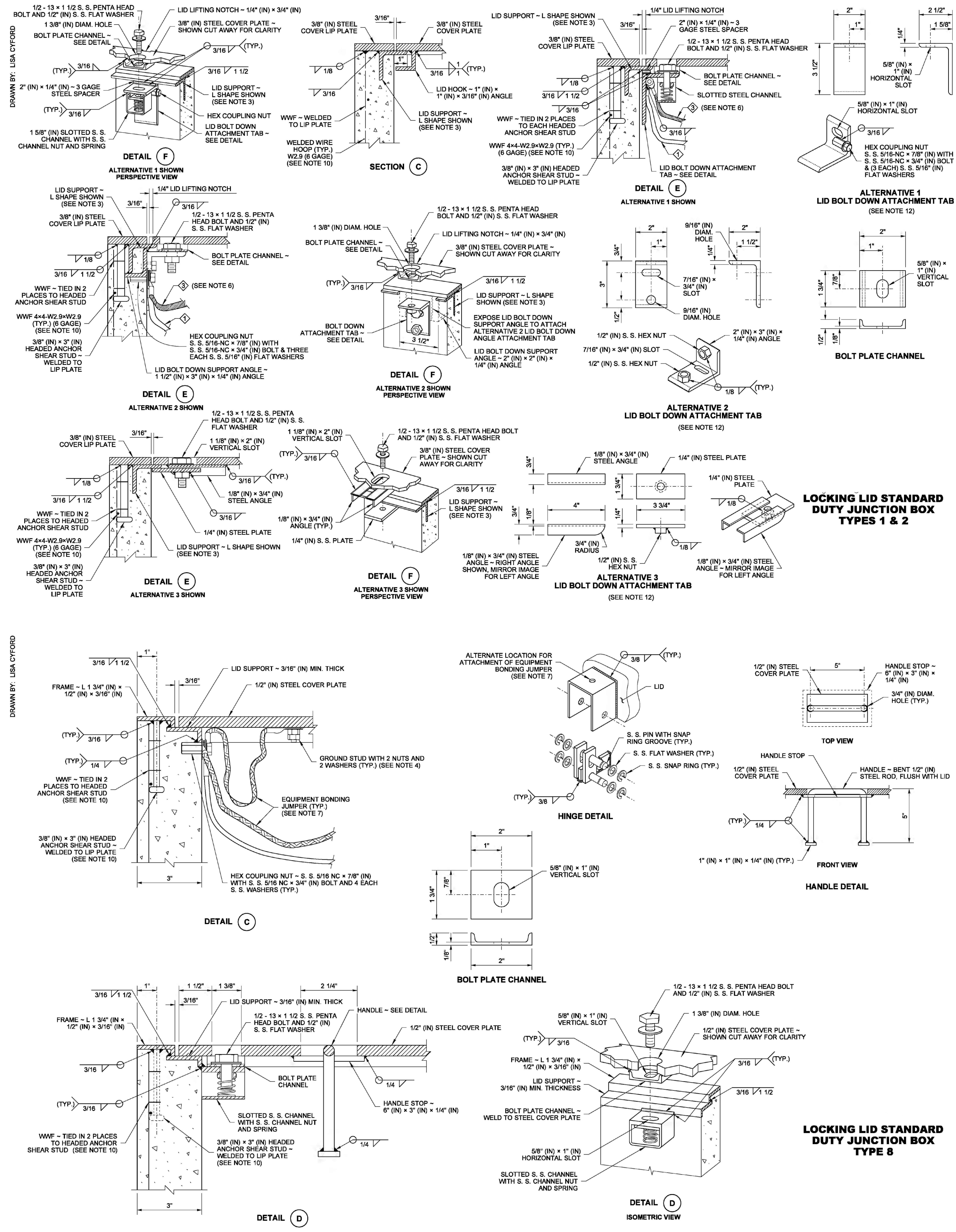
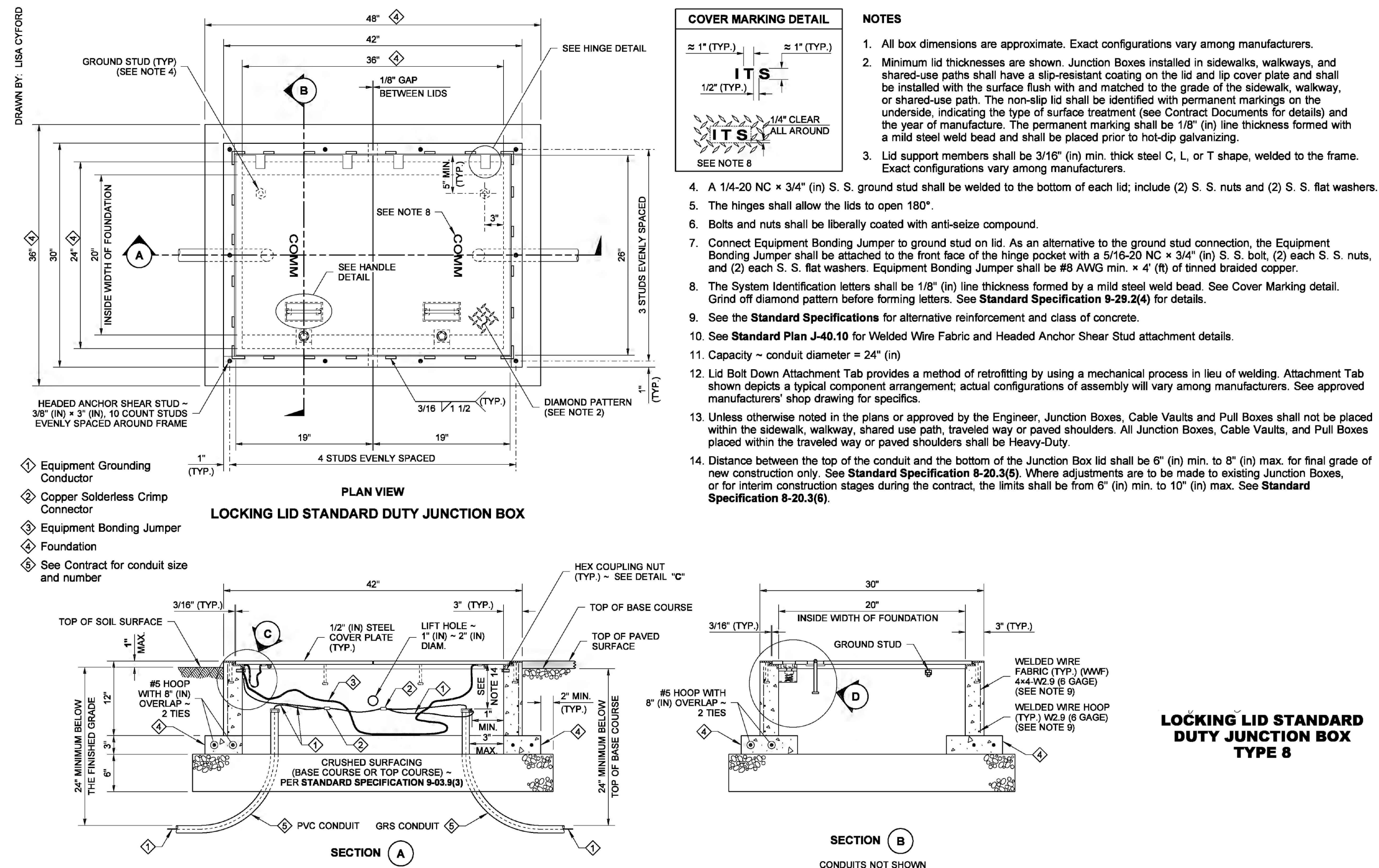
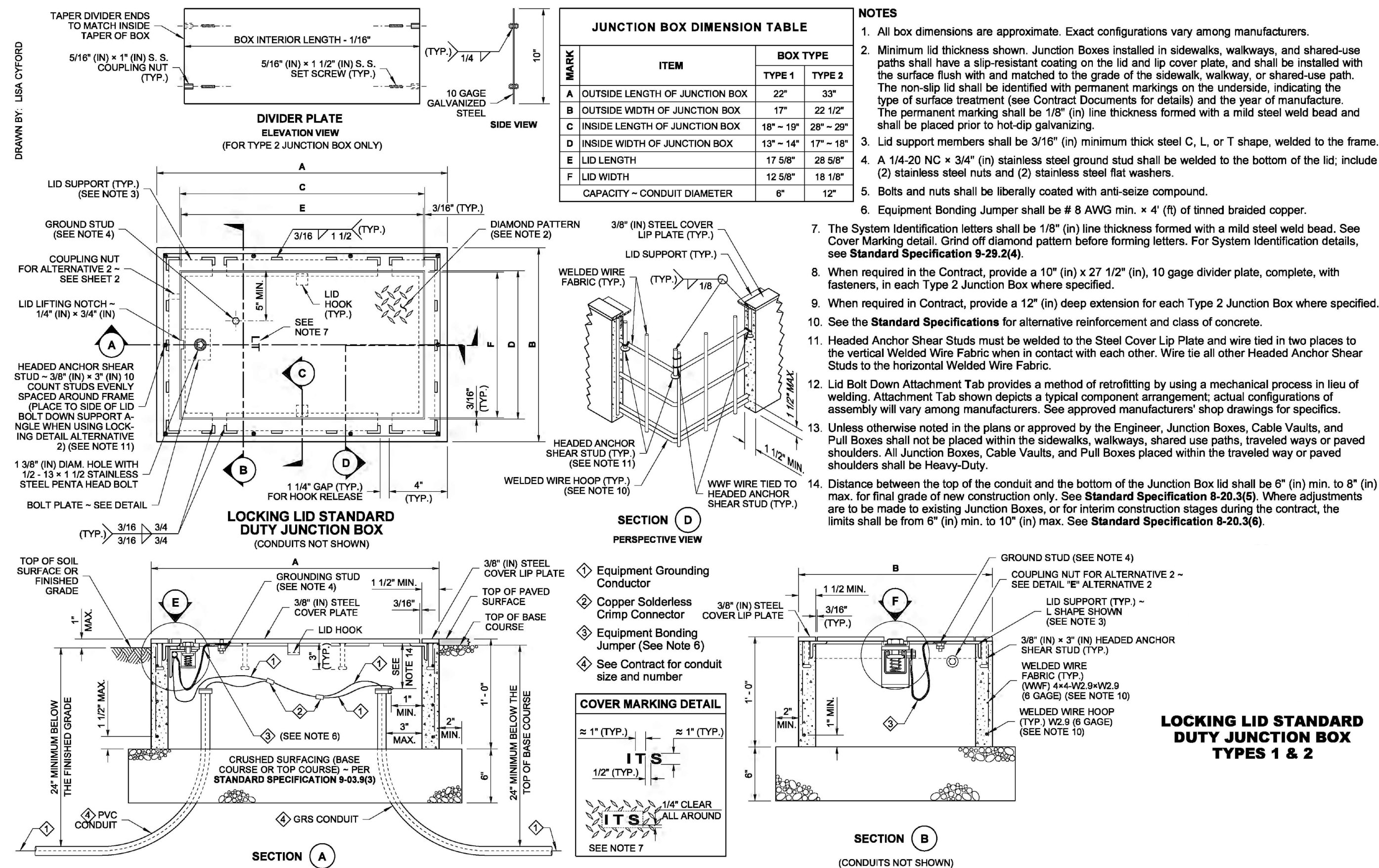
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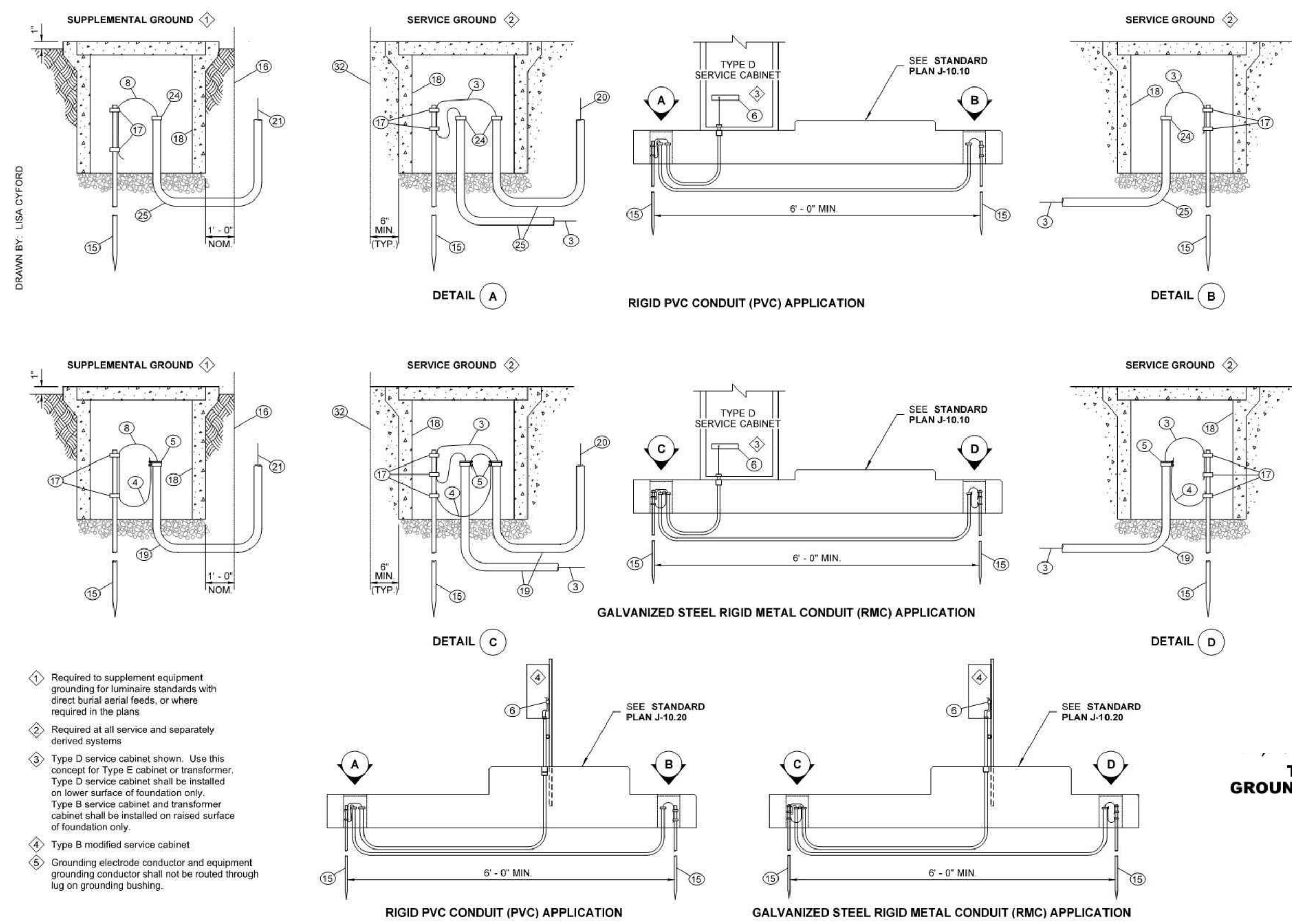
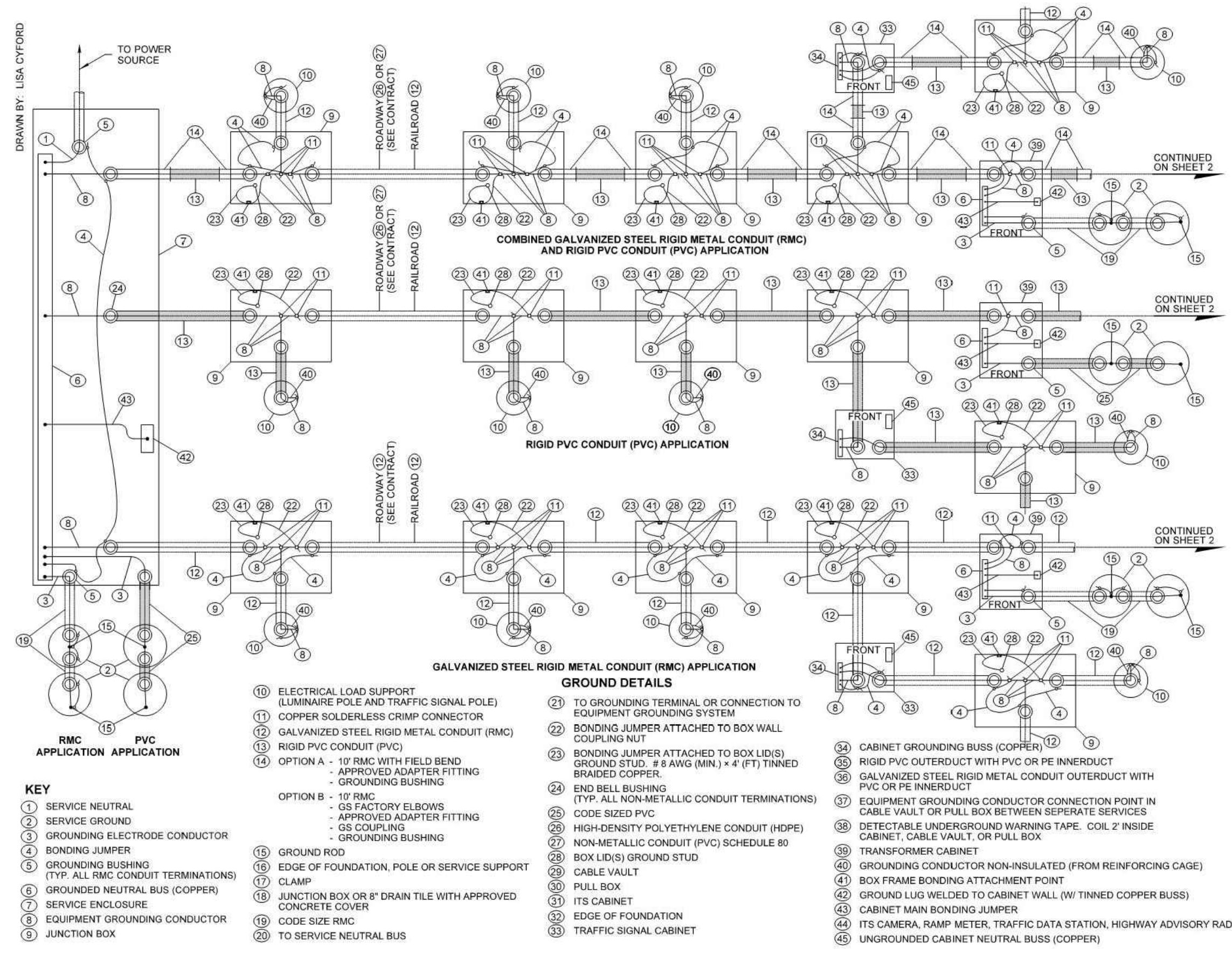
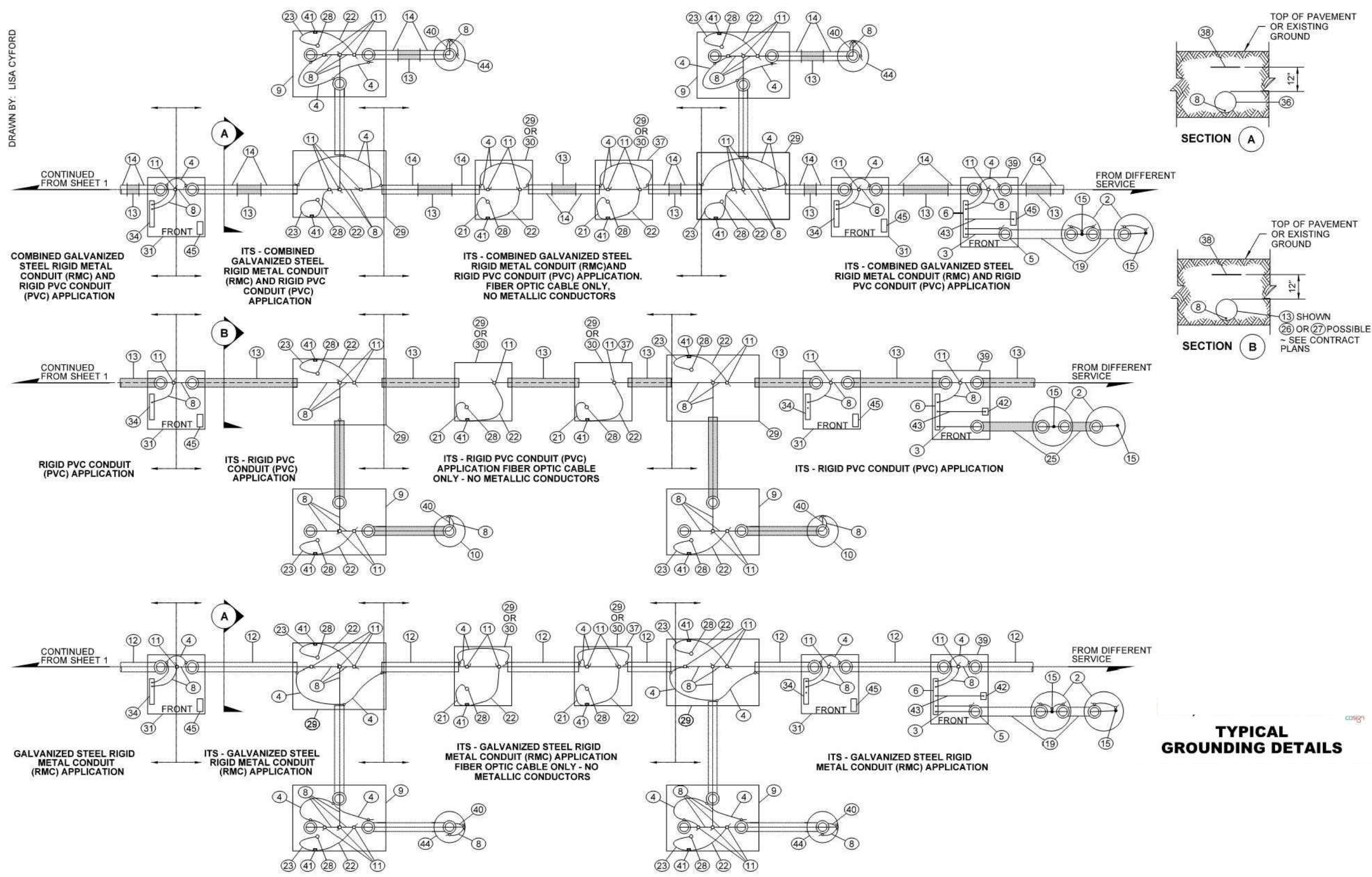
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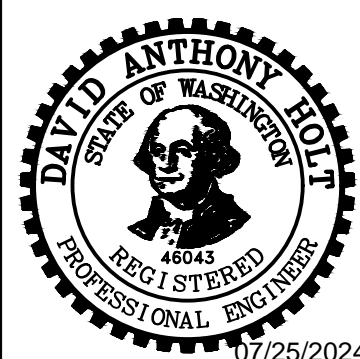
TRAFFIC SIGNAL WSDOT DETAILS FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL

A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



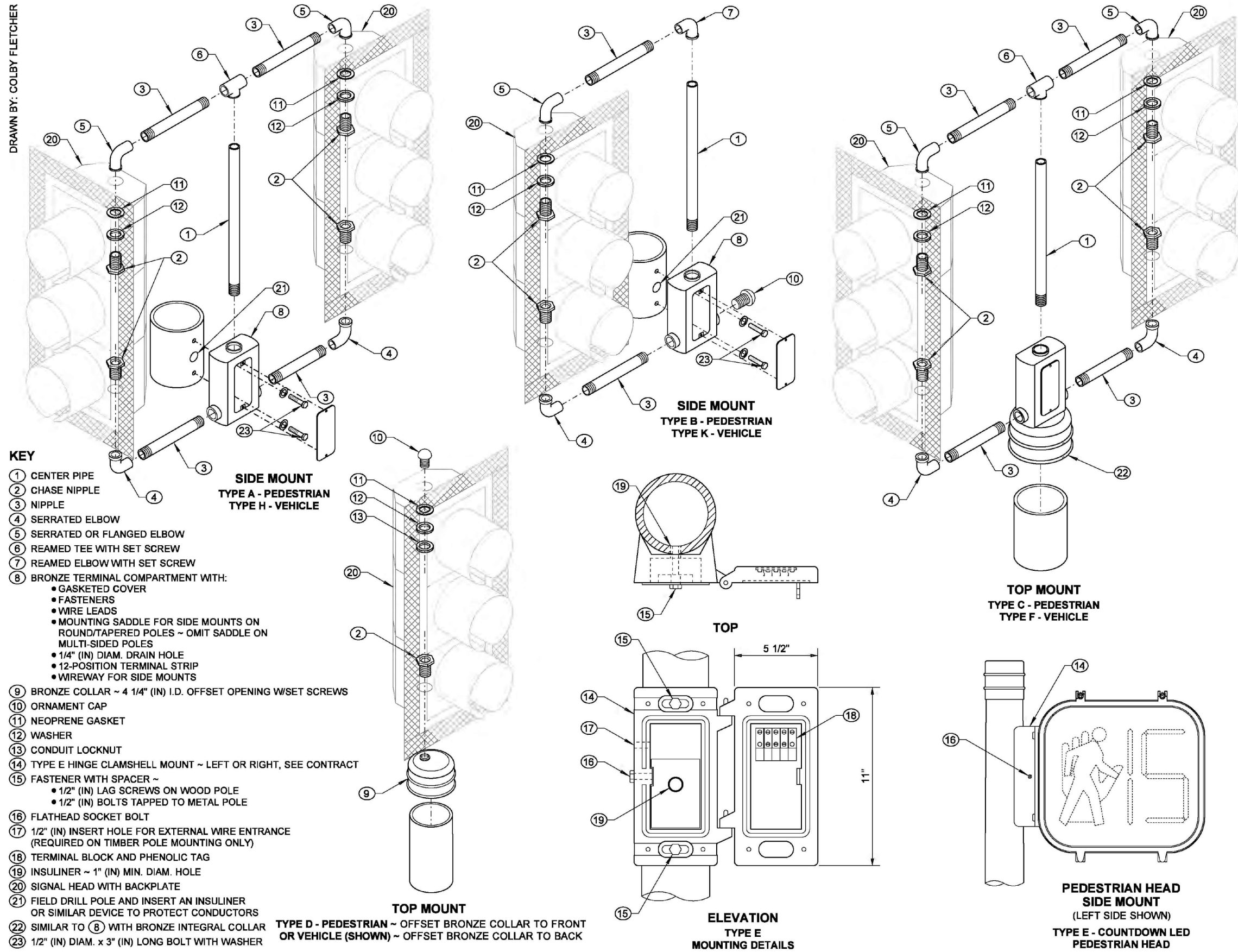
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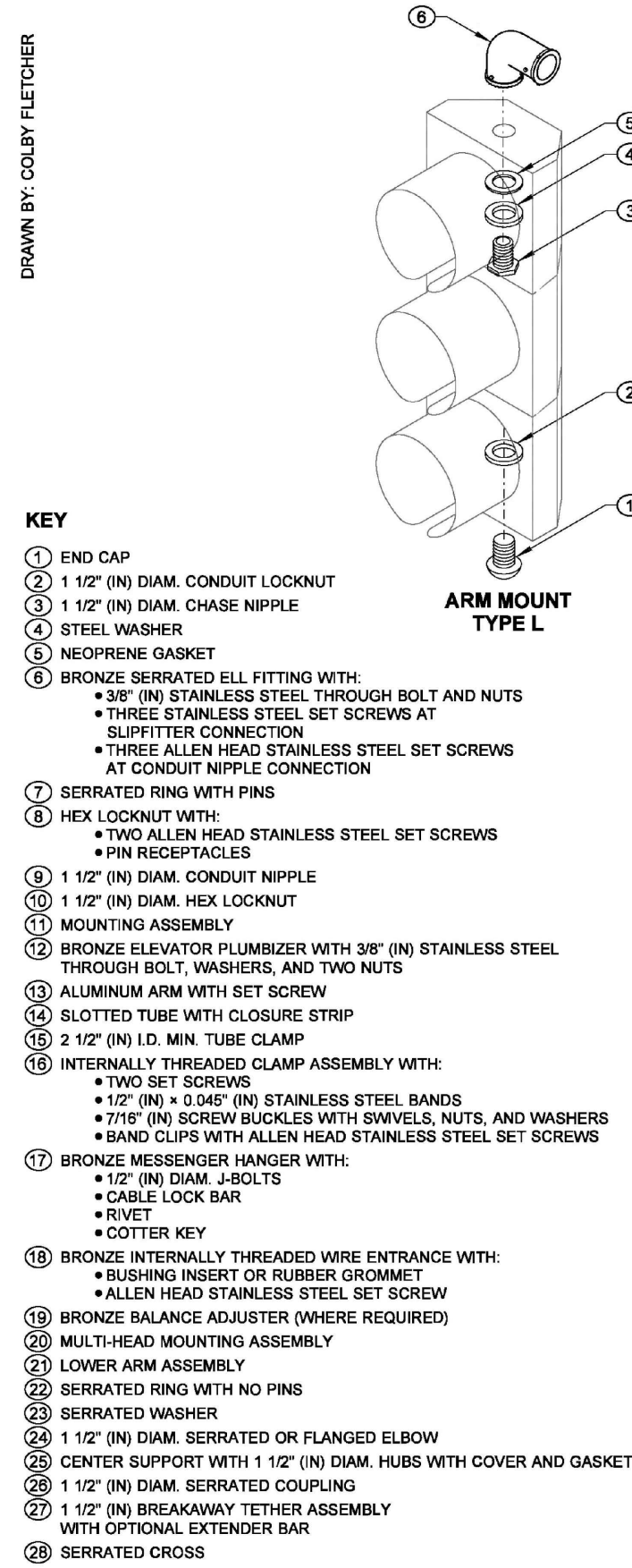
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- NOTES**
- See Contract for head type, mounting height, and orientation.
 - All nipples, fittings, and center pipes shall be 1 1/2" (in) diameter.
 - Install neoprene gasket inside head when flanged elbows are supplied.
 - Extend wire sheath a minimum of 1" (in) inside all signal and sign housings and terminal compartments.
 - Apply bead of silicone to the serrated ring and around the perimeter of all top openings prior to installation of fittings.
 - See **Standard Specification 9-29.16** for backplate requirements. Where required, prismatic sheeting shall be applied in accordance with the manufacturer's recommendations. The application surface of the backplate shall be cleaned, degreased with isopropyl alcohol, and dried prior to application of the sheeting.
 - Drill a 1/4" (in) drain hole in the bottom of each signal display assembly, and one in the bottom of each pedestrian head. When signal display assembly is mounted horizontally, drill a 1/4" (in) drain hole at the lowest point of each section of the signal assembly.

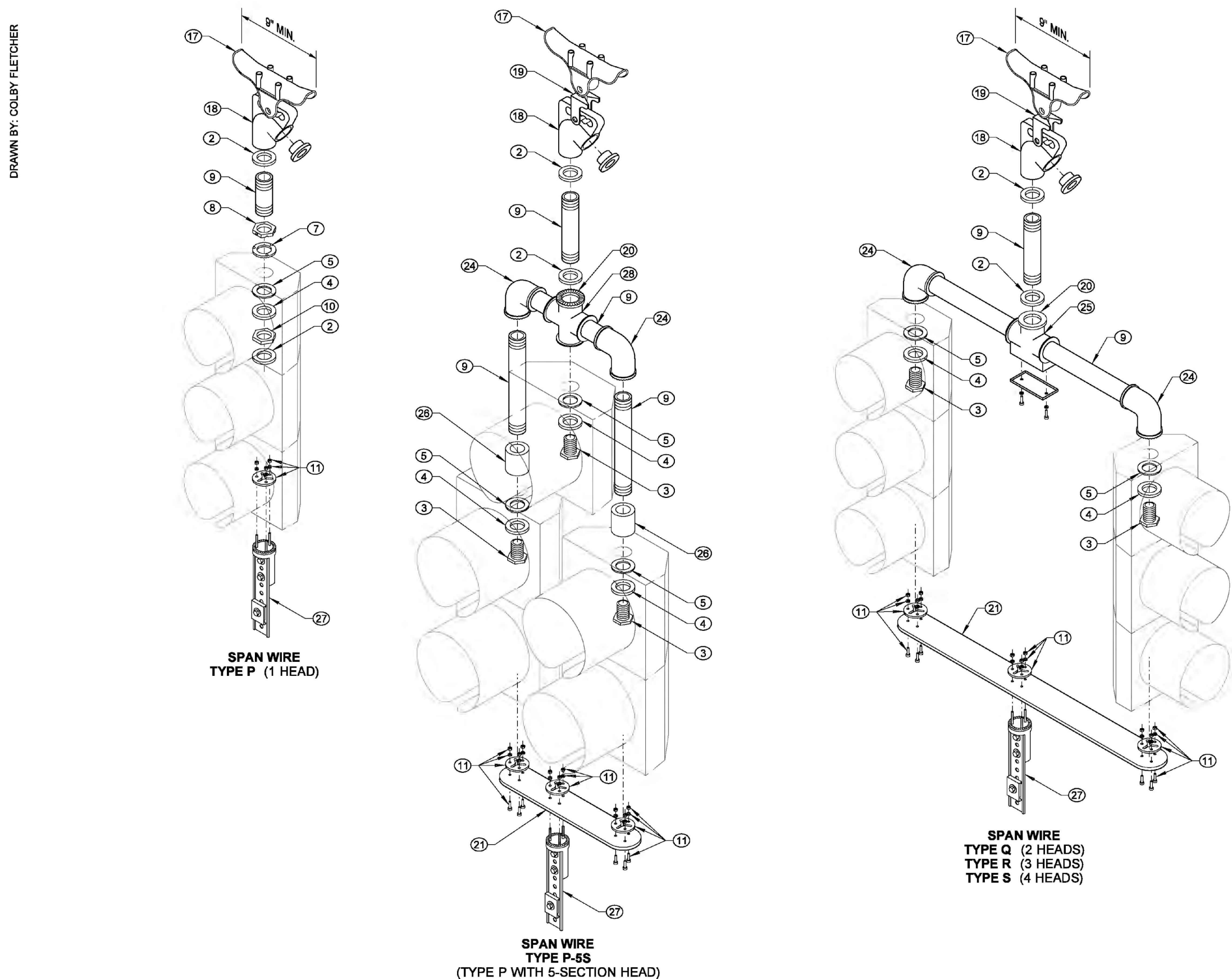
SIGNAL HEAD MOUNTING DETAILS - POLE AND POST TOP MOUNTINGS



- NOTES**
- Type M mounting shall have "O" ring groove and seal on top and bottom of signal attachment.
 - Type M mounting for conventional heads shall have a 2" (in) diameter opening at the signal attachment.
 - Type M mounting for optically programmed heads shall have a 3 1/2" (in) diameter opening at the signal attachment.
 - Type N mounting with optically programmed heads shall be installed with 14" (in) nominal arms.
 - See **Standard Plan J-75.30** for tether wire and backplate requirements.
 - Apply bead of silicone around the perimeter of all top end cap openings prior to installation of the end cap assembly.
 - See **Standard Specification 9-29.16** for backplate requirements. Where required, prismatic sheeting shall be applied in accordance with the manufacturer's recommendations. The application surface of the backplate shall be cleaned, degreased with isopropyl alcohol, and dried prior to application of the sheeting.
 - Drill a 1/4" (in) drain hole in the bottom of each signal assembly. When signal display assembly is mounted horizontally, drill a 1/4" (in) drain hole at the lowest point of each section of the signal assembly.

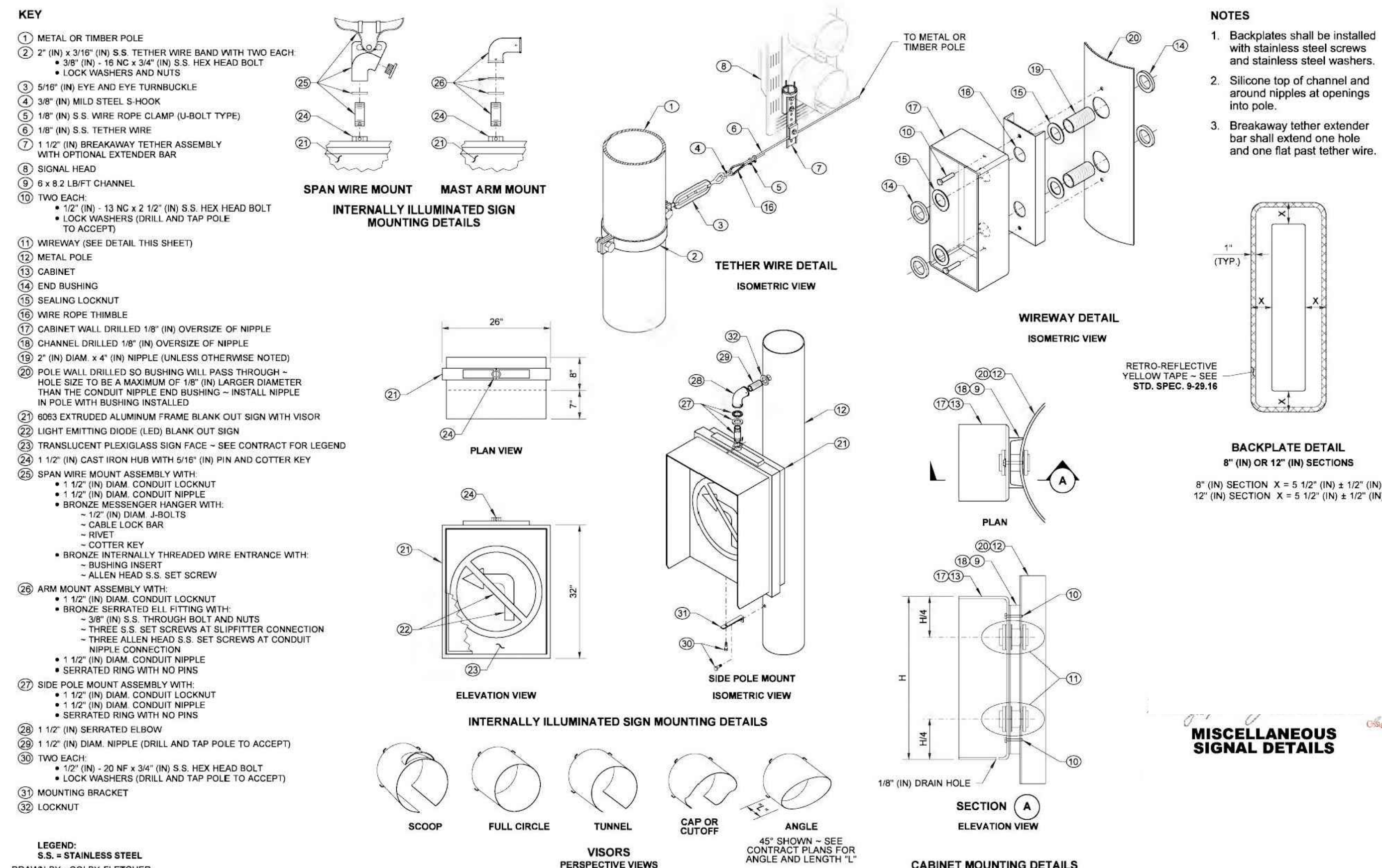
NOTE: BACKPLATES NOT SHOWN FOR CLARITY

SIGNAL HEAD MOUNTING DETAILS - MAST ARM AND SPAN WIRE MOUNTINGS



NOTE: BACKPLATES NOT SHOWN FOR CLARITY

SIGNAL HEAD MOUNTING DETAILS - MAST ARM AND SPAN WIRE MOUNTINGS



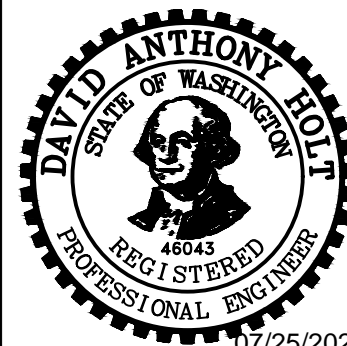
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TRAFFIC SIGNAL WSDOT DETAILS FOR:

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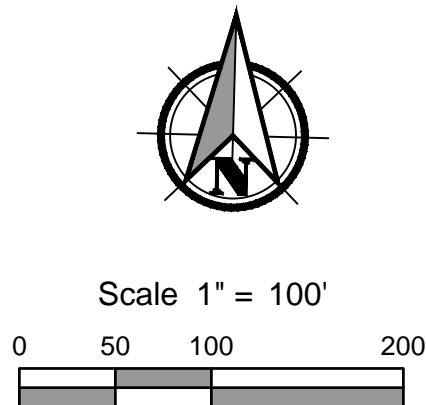
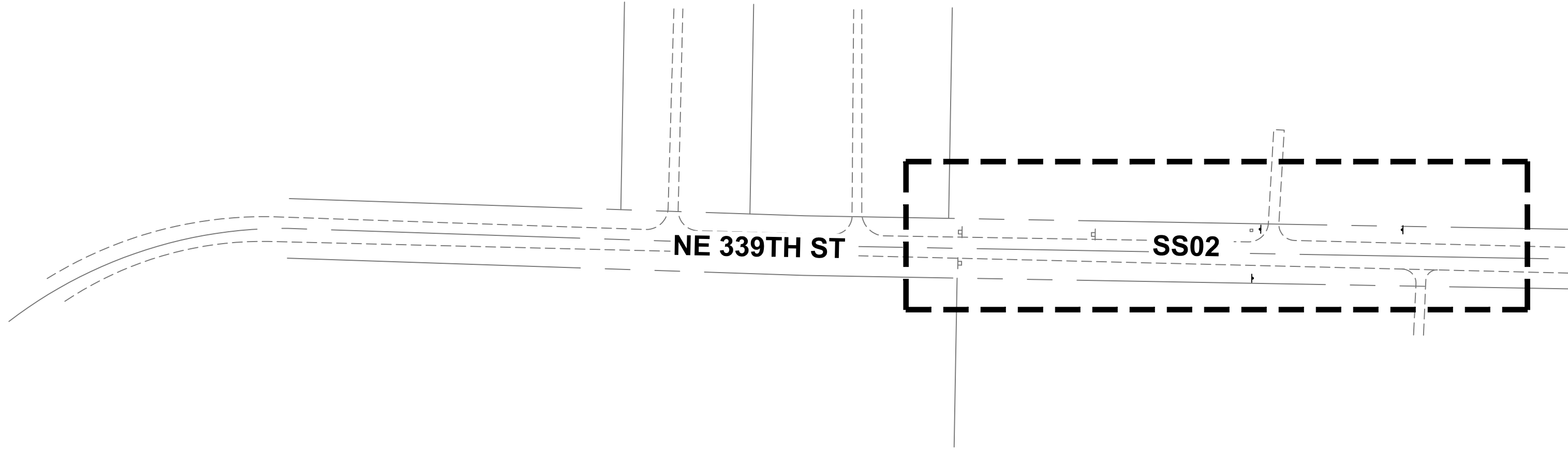
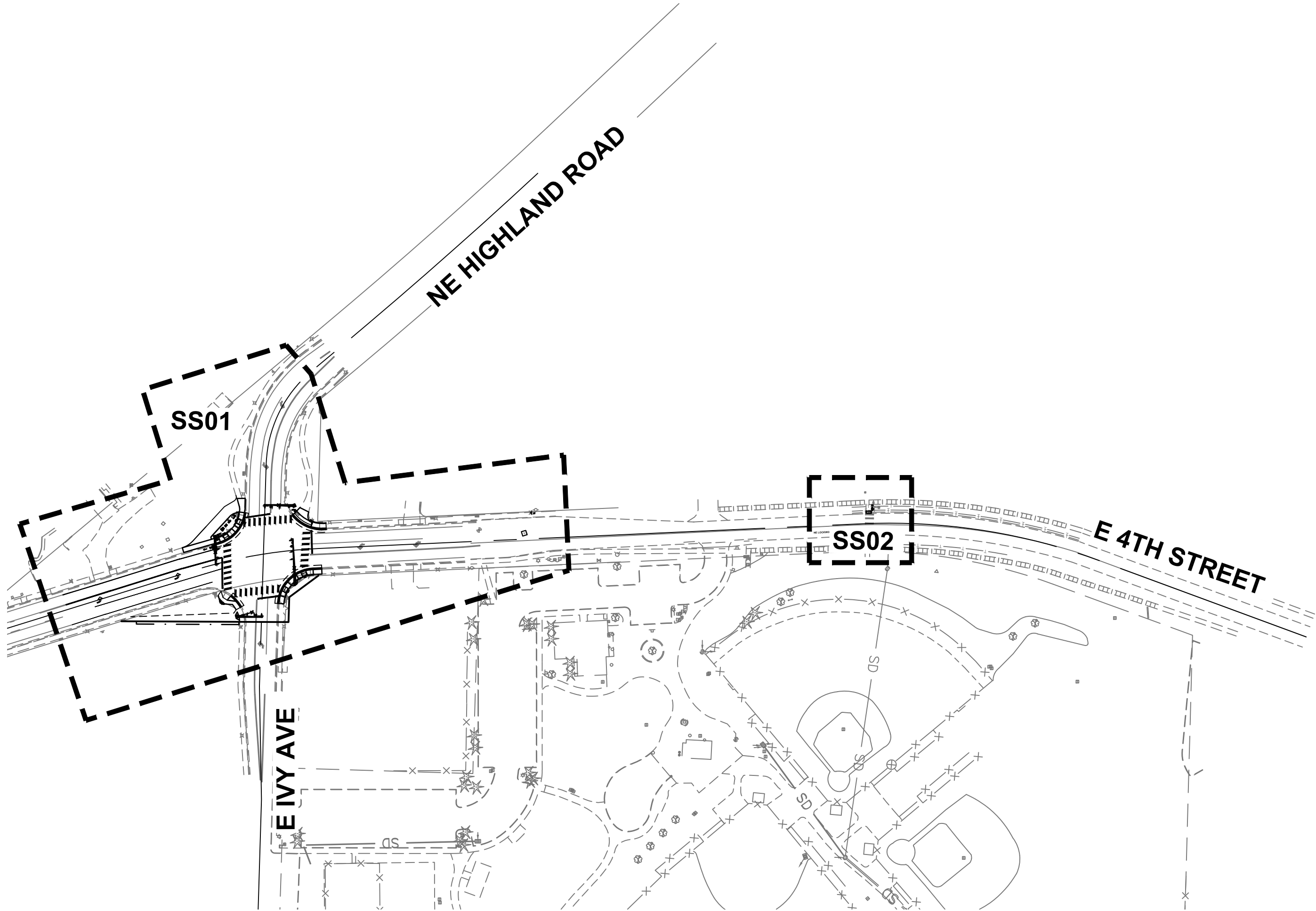


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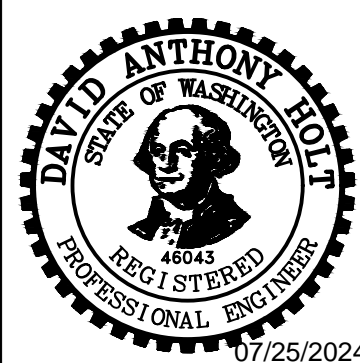
FINAL PLANS

Full Size Sheet Format Is 22x34; If Printed Size Is Not 22x34, Then This Sheet Format Has Been Modified & Indicated Drawing Scale Is Not Accurate.


SIGNING AND STRIPING KEY SHEET FOR:
4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL
A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



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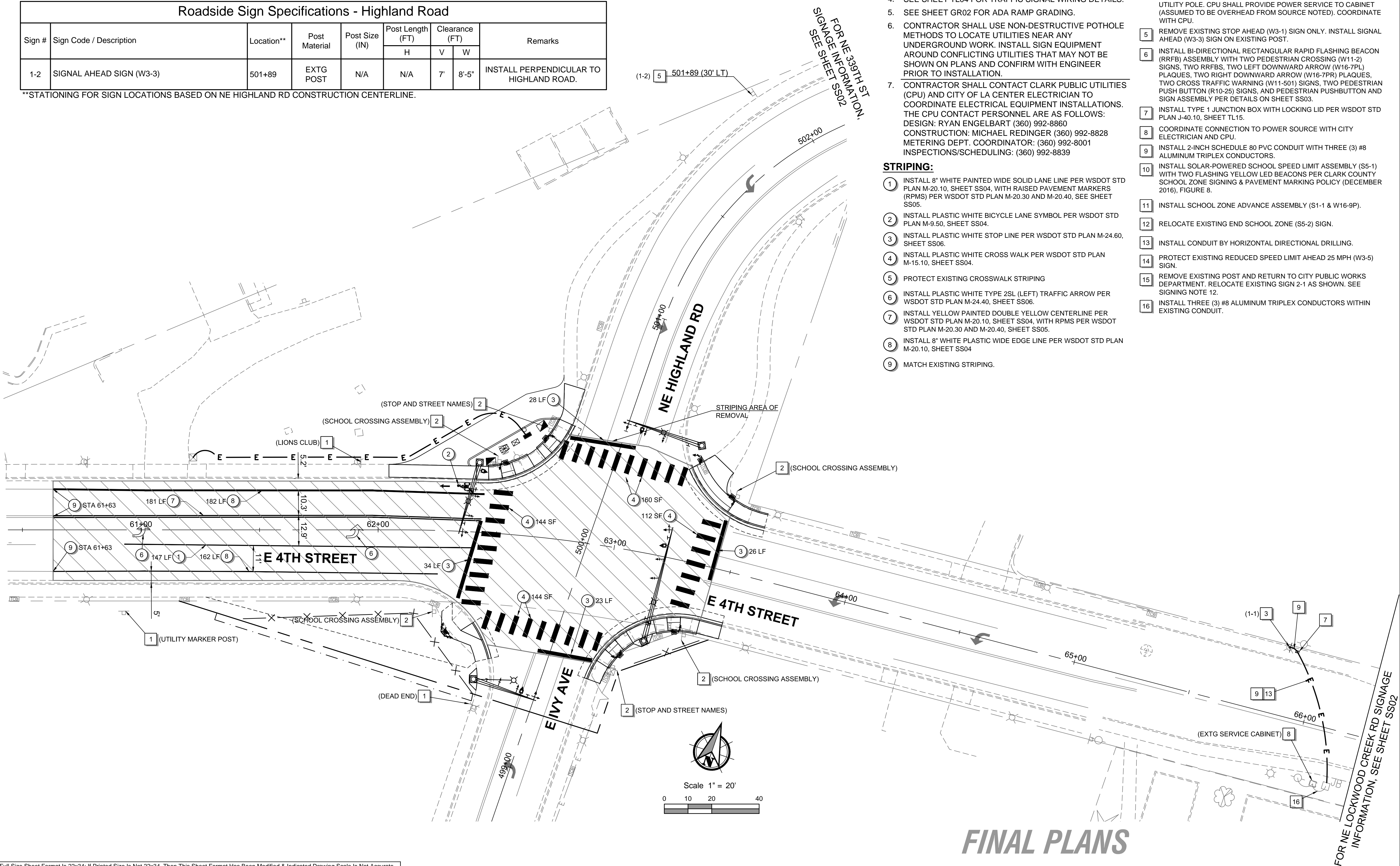
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Roadside Sign Specifications - 4th Street								
Sign #	Sign Code / Description	Location*	Post Material	Post Size (IN)	Post Length (FT)	Clearance (FT)		Remarks
					H	V	W	
1-1	RADAR SPEED FEEDBACK SIGN	65+86	EXTG LIGHT POLE	N/A	N/A	7'	5'-6"	INSTALL PERPENDICULAR TO 4TH STREET.

*STATIONING FOR SIGN LOCATIONS BASED ON 4TH STREET CONSTRUCTION CENTERLINE.

Roadside Sign Specifications - Highland Road								
Sign #	Sign Code / Description	Location**	Post Material	Post Size (IN)	Post Length (FT)	Clearance (FT)		Remarks
					H	V	W	
1-2	SIGNAL AHEAD SIGN (W3-3)	501+89	EXTG POST	N/A	N/A	7'	8'-5"	INSTALL PERPENDICULAR TO HIGHLAND ROAD.

**STATIONING FOR SIGN LOCATIONS BASED ON NE HIGHLAND RD CONSTRUCTION CENTERLINE.



STRIPING AND SIGNING NOTES:

GENERAL NOTES:

- SEE SIGN INSTALLATION DETAIL, SHEET SS03, FOR ALL PROPOSED SIGN INSTALLATIONS.
- REMOVE ALL STRIPING WITHIN STRIPING REMOVAL AREA SHOWN. PROTECT ALL OTHER STRIPING.
- SEE SHEETS TL01 TO TL17 FOR TRAFFIC SIGNAL PLANS.
- SEE SHEET TL04 FOR TRAFFIC SIGNAL WIRING DETAILS.
- SEE SHEET GR02 FOR ADA RAMP GRADING.
- CONTRACTOR SHALL USE NON-DESTRUCTIVE POTHOLE METHODS TO LOCATE UTILITIES NEAR ANY UNDERGROUND WORK. INSTALL SIGN EQUIPMENT AROUND CONFLICTING UTILITIES THAT MAY NOT BE SHOWN ON PLANS AND CONFIRM WITH ENGINEER PRIOR TO INSTALLATION.
- CONTRACTOR SHALL CONTACT CLARK PUBLIC UTILITIES (CPU) AND CITY OF LA CENTER ELECTRICIAN TO COORDINATE ELECTRICAL EQUIPMENT INSTALLATIONS. THE CPU CONTACT PERSONNEL ARE AS FOLLOWS: DESIGN: RYAN ENGELBART (360) 992-8860 CONSTRUCTION: MICHAEL REDINGER (360) 992-8828 METERING DEPT. COORDINATOR: (360) 992-8001 INSPECTIONS/SCHEDULING: (360) 992-8839

STRIPING:

- INSTALL 8" WHITE PAINTED WIDE SOLID LANE LINE PER WSDOT STD PLAN M-20.10, SHEET SS04, WITH RAISED PAVEMENT MARKERS (RPMS) PER WSDOT STD PLAN M-20.30 AND M-20.40, SEE SHEET SS05.
- INSTALL PLASTIC WHITE BICYCLE LANE SYMBOL PER WSDOT STD PLAN M-9.50, SHEET SS04.
- INSTALL PLASTIC WHITE STOP LINE PER WSDOT STD PLAN M-24.60, SHEET SS06.
- INSTALL PLASTIC WHITE CROSS WALK PER WSDOT STD PLAN M-15.10, SHEET SS04.
- PROTECT EXISTING CROSSWALK STRIPING
- INSTALL PLASTIC WHITE TYPE 2SL (LEFT) TRAFFIC ARROW PER WSDOT STD PLAN M-24.40, SHEET SS06.
- INSTALL YELLOW PAINTED DOUBLE YELLOW CENTERLINE PER WSDOT STD PLAN M-20.10, SHEET SS04, WITH RPMS PER WSDOT STD PLAN M-20.30 AND M-20.40, SHEET SS05.
- INSTALL 8" WHITE PLASTIC WIDE EDGE LINE PER WSDOT STD PLAN M-20.10, SHEET SS04
- MATCH EXISTING STRIPING.

SIGNING:

- PROTECT EXISTING SIGN.
- REMOVE EXISTING POST AND SIGN AND RETURN TO CITY PUBLIC WORKS DEPARTMENT.
- INSTALL RADAR SPEED FEEDBACK SIGN WITH DIRECTIONAL RADAR UNIT INCLUDING A "YOUR SPEED" LEGEND AND AN LED SPEED INDICATOR THAT DISPLAYS THE APPROACHING VEHICLE'S SPEED AND FLASHES WHEN THE VEHICLE'S SPEED EXCEEDS THE POSTED SPEED LIMIT. SEE DETAIL ON SHEET SS03.
- INSTALL 2-INCH SCHEDULE 40 PVC CONDUIT FROM EXISTING UTILITY POLE TO RADAR SPEED FEEDBACK SIGN. INSTALL CPU-APPROVED METER AND DISCONNECT CABINET ON EXISTING UTILITY POLE. CPU SHALL PROVIDE POWER SERVICE TO CABINET (ASSUMED TO BE OVERHEAD FROM SOURCE NOTED). COORDINATE WITH CPU.
- REMOVE EXISTING STOP AHEAD (W3-1) SIGN ONLY. INSTALL SIGNAL AHEAD (W3-3) SIGN ON EXISTING POST.
- INSTALL BI-DIRECTIONAL RECTANGULAR RAPID FLASHING BEACON (RRFB) ASSEMBLY WITH TWO PEDESTRIAN CROSSING (W11-2) SIGNS, TWO RRFBs, TWO LEFT DOWNWARD ARROW (W16-7PL) PLAQUES, TWO RIGHT DOWNWARD ARROW (W16-7PR) PLAQUES, TWO CROSS TRAFFIC WARNING (W11-501) SIGNS, TWO PEDESTRIAN PUSH BUTTON (R10-25) SIGNS, AND PEDESTRIAN PUSHBUTTON AND SIGN ASSEMBLY PER DETAILS ON SHEET SS03.
- INSTALL TYPE 1 JUNCTION BOX WITH LOCKING LID PER WSDOT STD PLAN J-40.10, SHEET TL15.
- COORDINATE CONNECTION TO POWER SOURCE WITH CITY ELECTRICIAN AND CPU.
- INSTALL 2-INCH SCHEDULE 80 PVC CONDUIT WITH THREE (3) #8 ALUMINUM TRIPLEX CONDUCTORS.
- INSTALL SOLAR-POWERED SCHOOL SPEED LIMIT ASSEMBLY (S5-1) WITH TWO FLASHING YELLOW LED BEACONS PER CLARK COUNTY SCHOOL ZONE SIGNING & PAVEMENT MARKING POLICY (DECEMBER 2016), FIGURE 8.
- INSTALL SCHOOL ZONE ADVANCE ASSEMBLY (S1-1 & W16-9P).
- RELOCATE EXISTING END SCHOOL ZONE (S5-2) SIGN.
- INSTALL CONDUIT BY HORIZONTAL DIRECTIONAL DRILLING.
- PROTECT EXISTING REDUCED SPEED LIMIT AHEAD 25 MPH (W3-5) SIGN.
- REMOVE EXISTING POST AND RETURN TO CITY PUBLIC WORKS DEPARTMENT. RELOCATE EXISTING SIGN 2-1 AS SHOWN. SEE SIGNING NOTE 12.
- INSTALL THREE (3) #8 ALUMINUM TRIPLEX CONDUCTORS WITHIN EXISTING CONDUIT.

SIGNING AND STRIPING PLAN FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL

A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



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JULY 2024 71486.000

SHEET ID

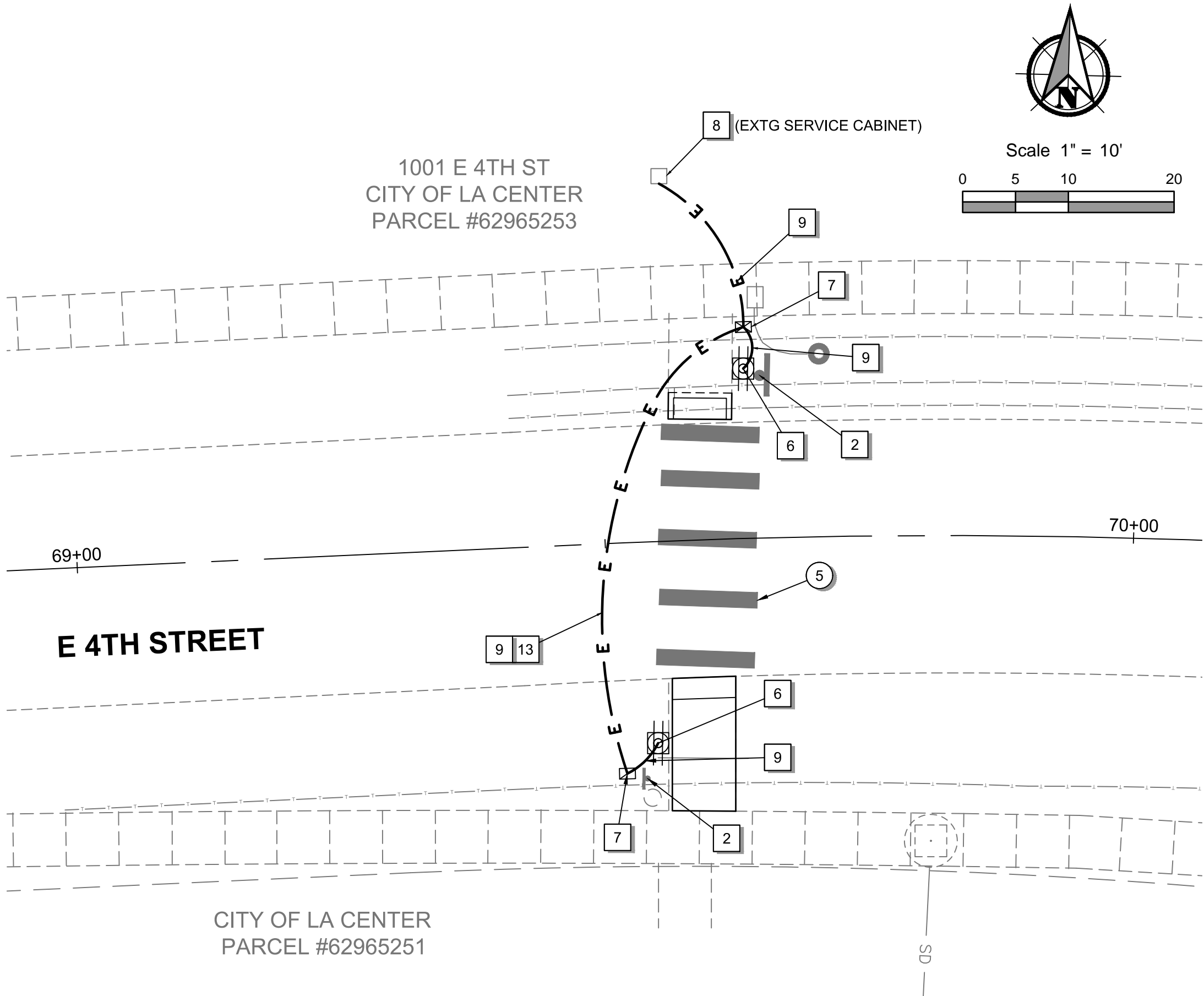
SS01

SHEET 40 OF 50

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FOR E 4TH ST / E HIGHLAND RD SIGNAGE INFORMATION, SEE SHEET SS01

FOR E 4TH ST / E HIGHLAND RD SIGNAGE INFORMATION, SEE SHEET SS01



STRIPING AND SIGNING NOTES:

GENERAL NOTES:

- SEE SIGN INSTALLATION DETAIL, SHEET SS03, FOR ALL PROPOSED SIGN INSTALLATIONS.
- REMOVE ALL STRIPING WITHIN STRIPING REMOVAL AREA SHOWN. PROTECT ALL OTHER STRIPING.
- SEE SHEETS TL01 TO TL17 FOR TRAFFIC SIGNAL PLANS.
- SEE SHEET TL04 FOR TRAFFIC SIGNAL WIRING DETAILS.
- SEE SHEET GR02 FOR ADA RAMP GRADING.
- CONTRACTOR SHALL USE NON-DESTRUCTIVE POTHOLE METHODS TO LOCATE UTILITIES NEAR ANY UNDERGROUND WORK. INSTALL SIGN EQUIPMENT AROUND CONFLICTING UTILITIES THAT MAY NOT BE SHOWN ON PLANS AND CONFIRM WITH ENGINEER PRIOR TO INSTALLATION.
- CONTRACTOR SHALL CONTACT CLARK PUBLIC UTILITIES (CPU) AND CITY OF LA CENTER ELECTRICIAN TO COORDINATE ELECTRICAL EQUIPMENT INSTALLATIONS. THE CPU CONTACT PERSONNEL ARE AS FOLLOWS:
DESIGN: RYAN ENGELBART (360) 992-8860
CONSTRUCTION: MICHAEL REDINGER (360) 992-8828
METERING DEPT. COORDINATOR: (360) 992-8001
INSPECTIONS/SCHEDULING: (360) 992-8839

STRIPING:

- INSTALL 8" WHITE PAINTED WIDE SOLID LANE LINE PER WSDOT STD PLAN M-20.10, SHEET SS04, WITH RAISED PAVEMENT MARKERS (RPMS) PER WSDOT STD PLAN M-20.30 AND M-20.40, SEE SHEET SS05.
- INSTALL PLASTIC WHITE BICYCLE LANE SYMBOL PER WSDOT STD PLAN M-9.50, SHEET SS04.



- INSTALL PLASTIC WHITE STOP LINE PER WSDOT STD PLAN M-24.60, SHEET SS06.
- INSTALL PLASTIC WHITE CROSS WALK PER WSDOT STD PLAN M-15.10, SHEET SS04.
- PROTECT EXISTING CROSSWALK STRIPING
- INSTALL PLASTIC WHITE TYPE 2SL (LEFT) TRAFFIC ARROW PER WSDOT STD PLAN M-24.40, SHEET SS06.
- INSTALL YELLOW PAINTED DOUBLE YELLOW CENTERLINE PER WSDOT STD PLAN M-20.10, SHEET SS04, WITH RPMS PER WSDOT STD PLAN M-20.30 AND M-20.40, SHEET SS05.
- INSTALL 8" WHITE PLASTIC WIDE EDGE LINE PER WSDOT STD PLAN M-20.10, SHEET SS04
- MATCH EXISTING STRIPING.

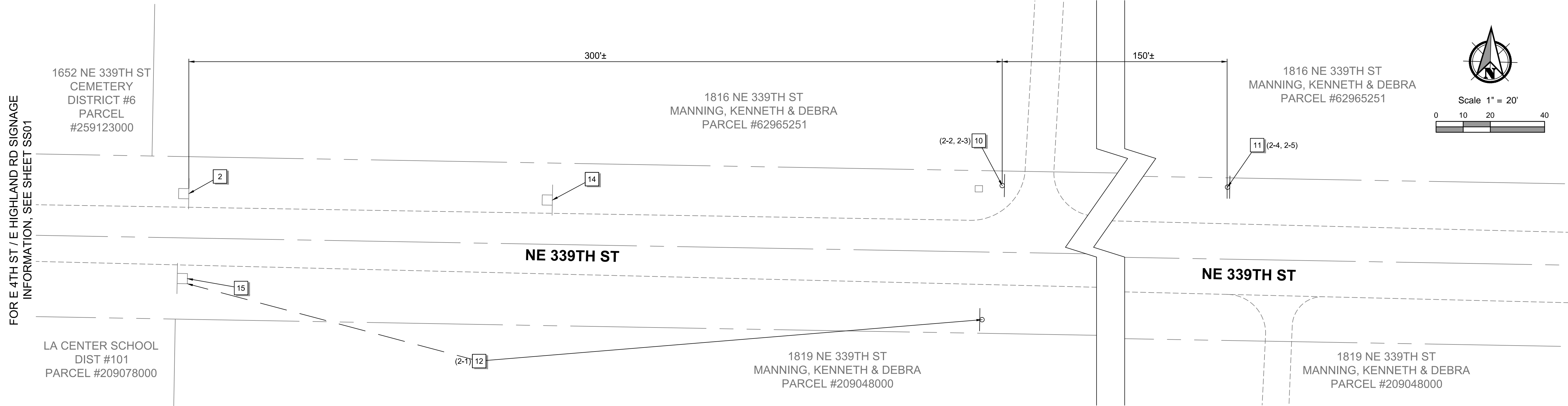
SIGNING:

- PROTECT EXISTING SIGN.
- REMOVE EXISTING POST AND SIGN AND RETURN TO CITY PUBLIC WORKS DEPARTMENT.
- INSTALL RADAR SPEED FEEDBACK SIGN WITH DIRECTIONAL RADAR UNIT INCLUDING A "YOUR SPEED" LEGEND AND AN LED SPEED INDICATOR THAT DISPLAYS THE APPROACHING VEHICLE'S SPEED AND FLASHES WHEN THE VEHICLE'S SPEED EXCEEDS THE POSTED SPEED LIMIT. SEE DETAIL ON SHEET SS03.
- INSTALL 2-INCH SCHEDULE 40 PVC CONDUIT FROM EXISTING UTILITY POLE TO RADAR SPEED FEEDBACK SIGN. INSTALL CPU-APPROVED METER AND DISCONNECT CABINET ON EXISTING UTILITY POLE. CPU SHALL PROVIDE POWER SERVICE TO CABINET (ASSUMED TO BE OVERHEAD FROM SOURCE NOTED). COORDINATE WITH CPU.
- REMOVE EXISTING STOP AHEAD (W3-1) SIGN ONLY. INSTALL SIGNAL AHEAD (W3-3) SIGN ON EXISTING POST.

- INSTALL BI-DIRECTIONAL RECTANGULAR RAPID FLASHING BEACON (RRFB) ASSEMBLY WITH TWO PEDESTRIAN CROSSING (W11-2) SIGNS, TWO RRFBS, TWO LEFT DOWNWARD ARROW (W16-7PL) PLAQUES, TWO RIGHT DOWNWARD ARROW (W16-7PR) PLAQUES, TWO CROSS TRAFFIC WARNING (W11-501) SIGNS, TWO PEDESTRIAN PUSH BUTTON (R10-25) SIGNS, AND PEDESTRIAN PUSHBUTTON AND SIGN ASSEMBLY PER DETAILS ON SHEET SS03.
- INSTALL TYPE 1 JUNCTION BOX WITH LOCKING LID PER WSDOT STD PLAN J-40.10, SHEET TL15.
- COORDINATE CONNECTION TO POWER SOURCE WITH CITY ELECTRICIAN AND CPU.
- INSTALL 2-INCH SCHEDULE 80 PVC CONDUIT WITH THREE (3) #8 ALUMINUM TRIPLEX CONDUCTORS.
- INSTALL SOLAR-POWERED SCHOOL SPEED LIMIT ASSEMBLY (S5-1) WITH TWO FLASHING YELLOW LED BEACONS PER CLARK COUNTY SCHOOL ZONE SIGNING & PAVEMENT MARKING POLICY (DECEMBER 2016), FIGURE 8.
- INSTALL SCHOOL ZONE ADVANCE ASSEMBLY (S1-1 & W16-9P).
- RELOCATE EXISTING END SCHOOL ZONE (S5-2) SIGN.
- INSTALL CONDUIT BY HORIZONTAL DIRECTIONAL DRILLING.
- PROTECT EXISTING REDUCED SPEED LIMIT AHEAD 25 MPH (W3-5) SIGN.
- REMOVE EXISTING POST AND RETURN TO CITY PUBLIC WORKS DEPARTMENT. RELOCATE EXISTING SIGN 2-1 AS SHOWN. SEE SIGNING NOTE 12.
- INSTALL THREE (3) #8 ALUMINUM TRIPLEX CONDUCTORS WITHIN EXISTING CONDUIT.

Roadside Sign Specifications - NE 339th Street

Sign #	Sign Code / Description	Location	Post Material	Post Size (IN)	Post Length (FT)	Clearance (FT)			Remarks
						H	V	W	
2-1	END SCHOOL ZONE SIGN (S5-2)	SEE PLAN VIEW	PSST	2	10.5'		7'	13'	INSTALL EXISTING SIGN ON NEW POST. PERPENDICULAR TO NE 339TH STREET
2-2	SCHOOL SPEED LIMIT 20 WHEN FLASHING (S5-1)	SEE PLAN VIEW	—	—	—		8'-6"	13'	INSTALL PERPENDICULAR TO NE 339TH STREET AS PART OF SCHOOL SPEED LIMIT ASSEMBLY PER CLARK COUNTY SCHOOL ZONE SIGNING & PAVEMENT MARKING POLICY (DECEMBER 2016), FIGURE 8. INSTALL SIGN 2-2 ABOVE SIGN 2-3.
2-3	FINES DOUBLE (R2-6aP)	SEE PLAN VIEW					7'	13'	
2-4	SCHOOL SIGN (S1-1)	SEE PLAN VIEW	PSST	2	12'		8'	13'-6"	INSTALL PERPENDICULAR TO NE 339TH STREET. INSTALL SIGN 2-4 ABOVE SIGN 2-5.
2-5	AHEAD SIGN (W16-9P)	SEE PLAN VIEW					7'	13'-6"	

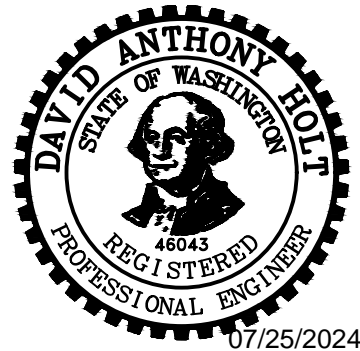


FINAL PLANS

SIGNING AND STRIPING PLAN FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL

A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON

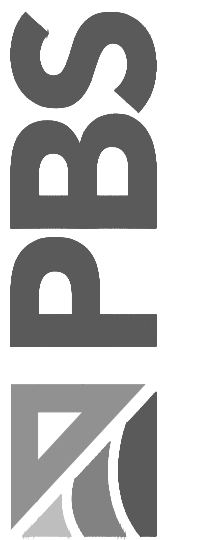


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B.J./BMK/ASW
CHECKED:
DAH
JULY 2024
71486.000

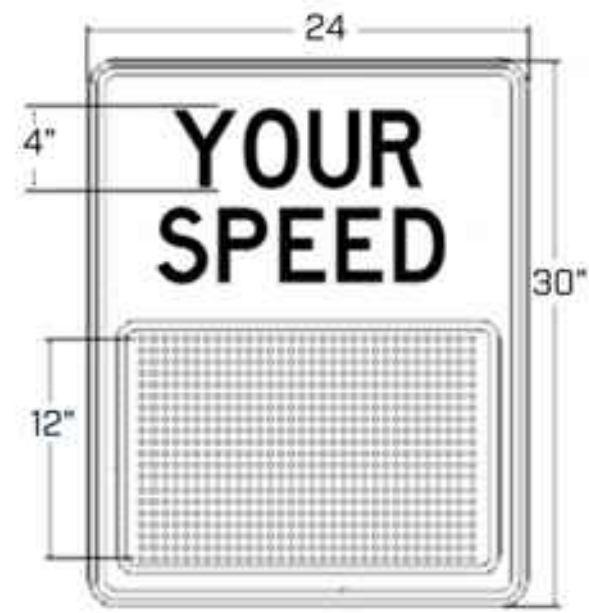
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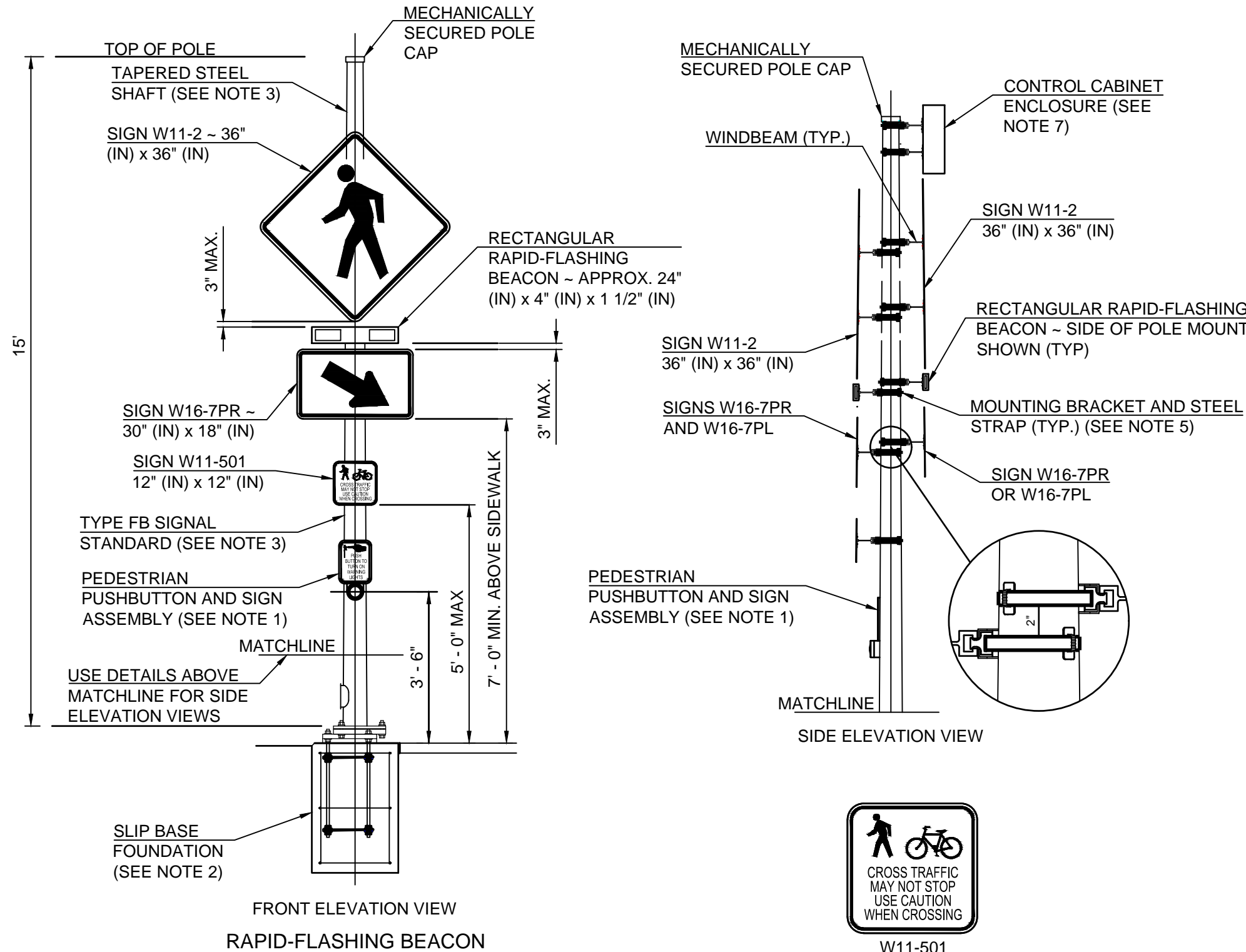
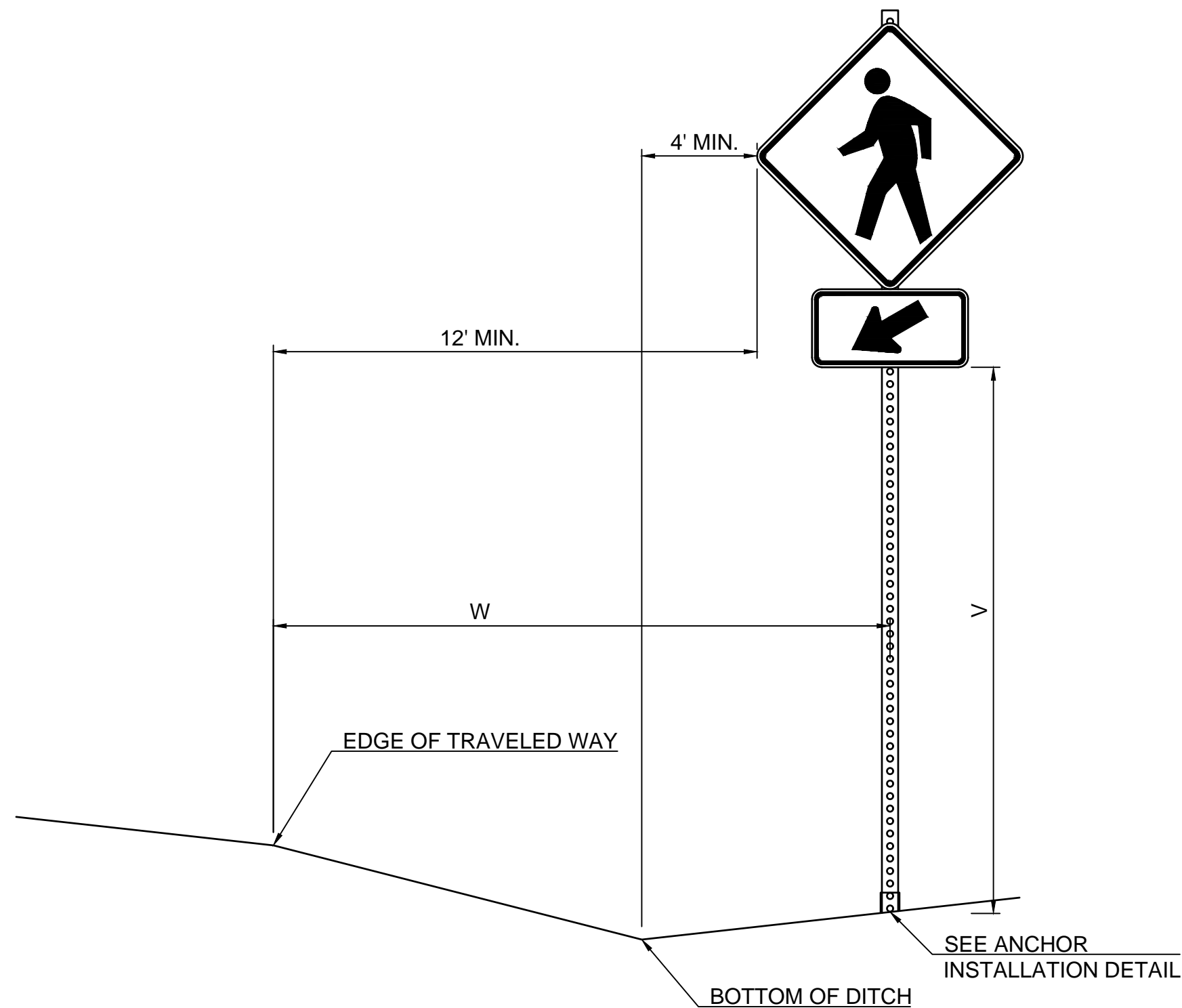


LETTERS - 4" C
LEGEND - BLACK
BACKGROUND - YELLOW
LED DISPLAY: 12" C

SEE SECTION 8-20.2 FOR ADDITIONAL SPECIFICATIONS.

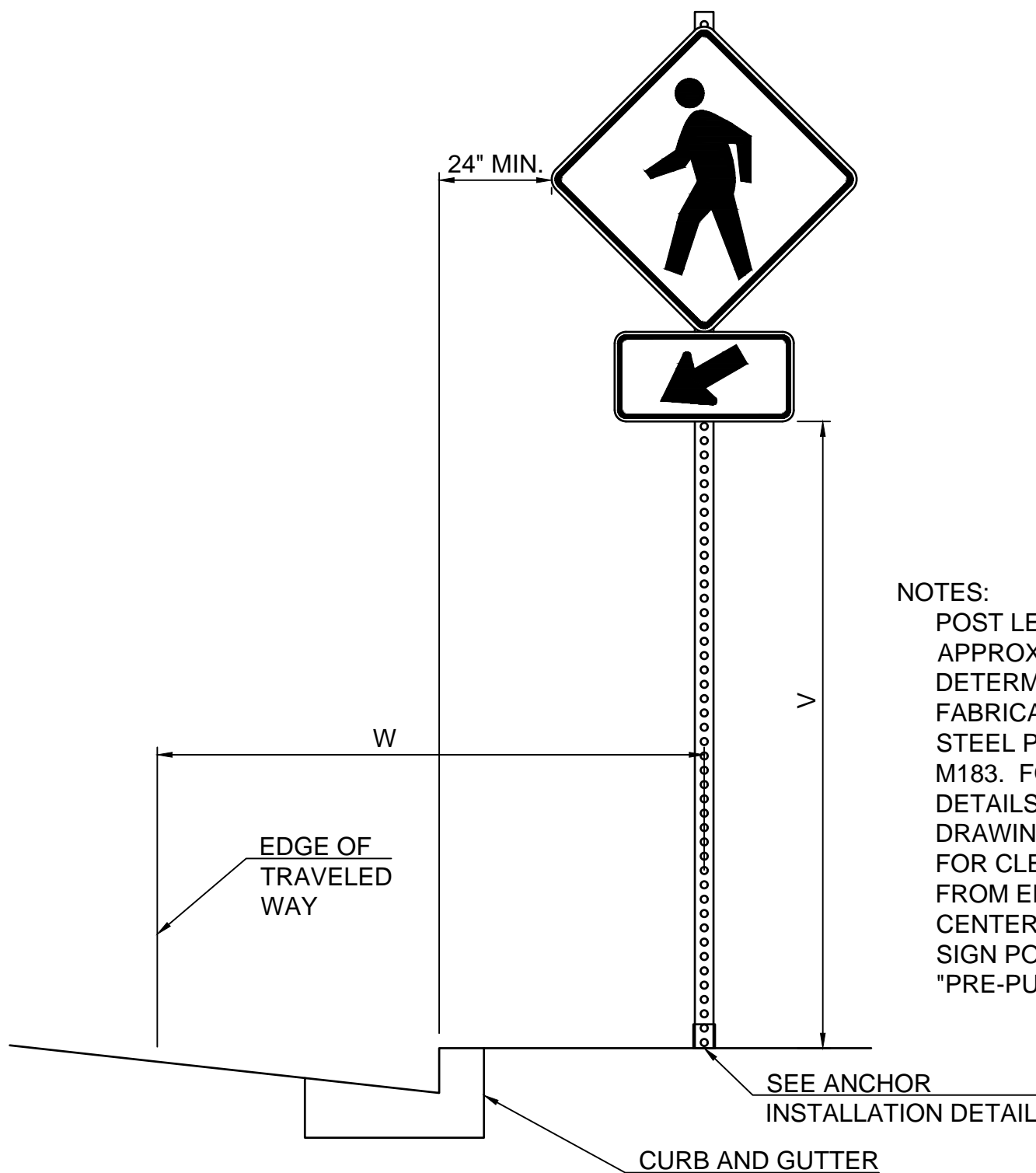
RADAR SPEED FEEDBACK SIGN DETAILS

NTS



RRFB DETAILS

NTS



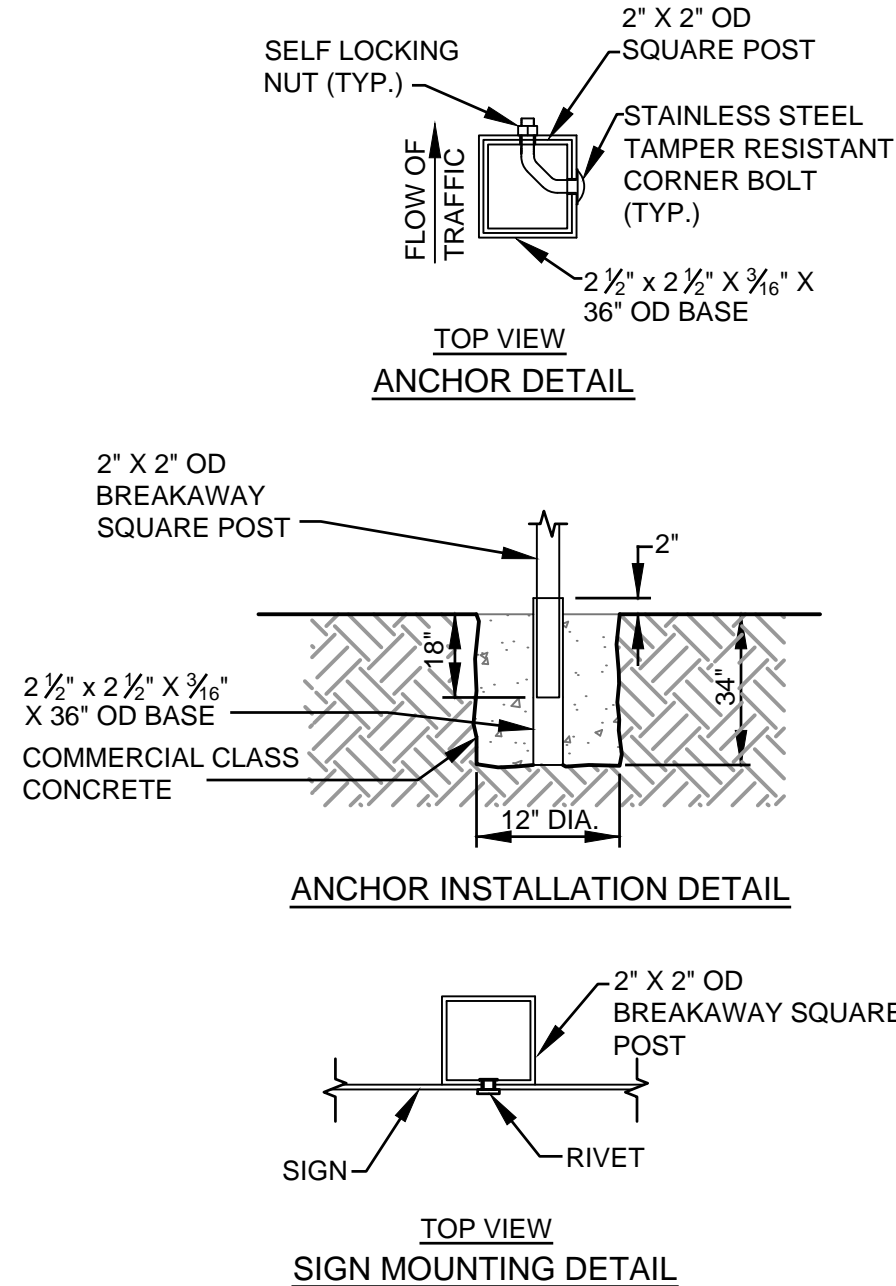
NOTES:
POST LENGTHS SHOWN ARE APPROXIMATE; FINAL VALUES SHALL BE DETERMINED IN THE FIELD PRIOR TO FABRICATION.
STEEL POST SIZES SHOWN ARE AASHTO M183. FOR STRUCTURE AND MOUNTING DETAILS, SEE WSDOT STANDARD DRAWINGS SERIES G.
FOR CLEARANCES, "W" IS DIMENSION FROM EDGE OF TRAVELED WAY TO CENTER OF SIGN POST.
SIGN POSTS SHALL BE BREAKAWAY AND "PRE-PUNCHED".

RRFB NOTES

1. PEDESTRIAN PUSHBUTTON AND SIGN ASSEMBLY - MAY BE SEPARATE PARTS. USE 9" (IN) X 12" (IN) R10-25 SIGN IN ACCORDANCE WITH 2009 MUTCD. SEE WSDOT STD PLAN J-20.26, SHEET TL13, EXCEPT USE PUSHBUTTON FRAME ADAPTER FOR 12" SIGN HEIGHT
2. SEE WSDOT STD PLAN J-21.10, SHEET TL13, FOR SIGNAL STANDARD FOUNDATION WITH SLIP BASE DETAILS.
3. SEE WSDOT STD PLAN J-21.16, SHEET TL13, FOR SIGNAL STANDARD DETAILS NOT SHOWN.
4. SEE WSDOT STD PLAN J-21.17 DETAIL C, SHEET TL13, FOR WIRING DETAILS NOT SHOWN.
5. SEE WSDOT STD PLAN G-30.10, SHEET TL09, FOR SIGN INSTALLATION ON SIGNAL STANDARD DETAILS.
6. TERMINATE RRFB CONNECTIONS PER MANUFACTURER'S RECOMMENDATION
7. CONTROL CABINET ENCLOSURE SHALL BE SIZED BY THE RRFB MANUFACTURER. THE CONTROL CABINET SHALL BE MANUFACTURED PER TERMINAL CABINET REQUIREMENTS OF SECTION 9-29.25.
8. RRFB DISPLAYS SHALL BE LED TYPE MEETING THE INTENSITY REQUIREMENTS OF SAE J595 FOR CLASS 1 YELLOW, BUT SHALL NOT EXCEED 1000 CANDELAS DURING DAYLIGHT AND 500 CANDELAS AFTER DARK.

GENERAL SIGNING NOTES

1. ALL SIGNS SHALL CONFORM WITH THE MUTCD.
2. ALL SIGNS SHALL BE MUTCD STANDARD SIZE WITH TYPE IV SHEETING UNLESS OTHERWISE NOTED.
3. SEE TRAFFIC SIGNAL SHEETS TL01-TL17 FOR SIGNS MOUNTED OVERHEAD ON TRAFFIC SIGNAL MAST ARMS.
4. FOR RRFB INSTALLATIONS, SEE RRFB DETAILS, THIS SHEET.



SIGN INSTALLATION DETAILS

NTS

FINAL PLANS

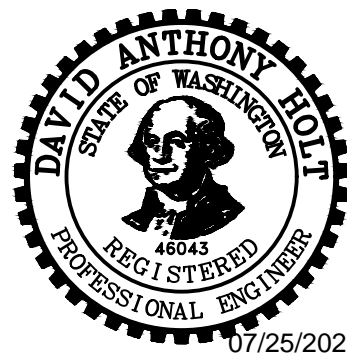
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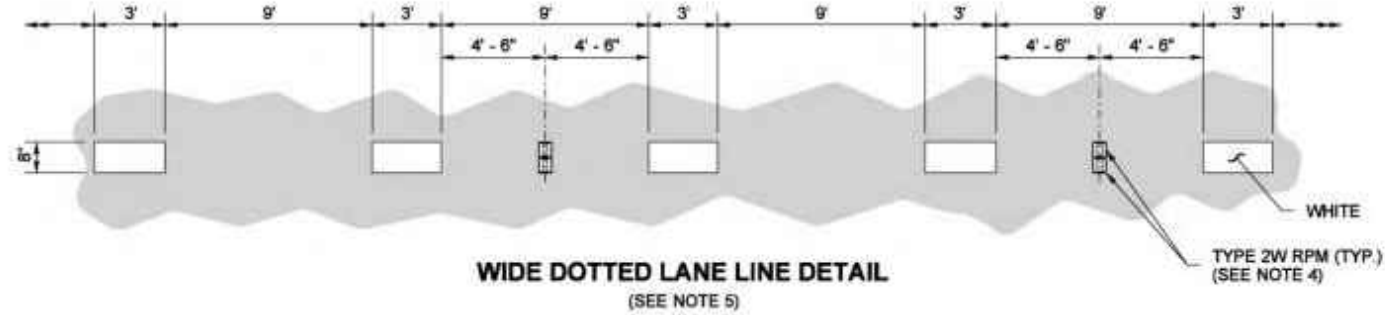
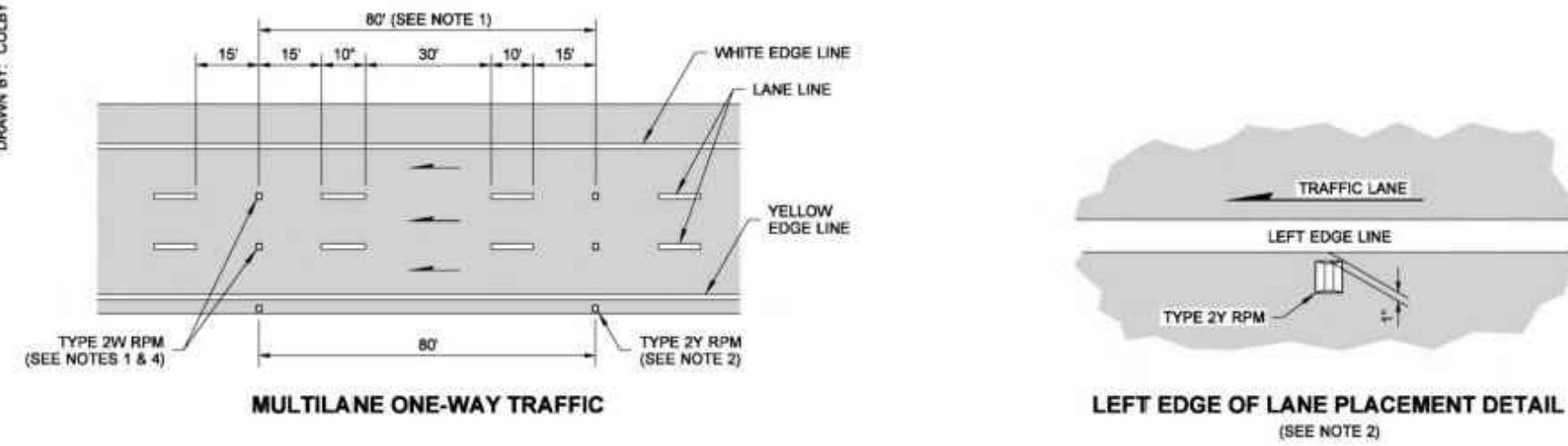
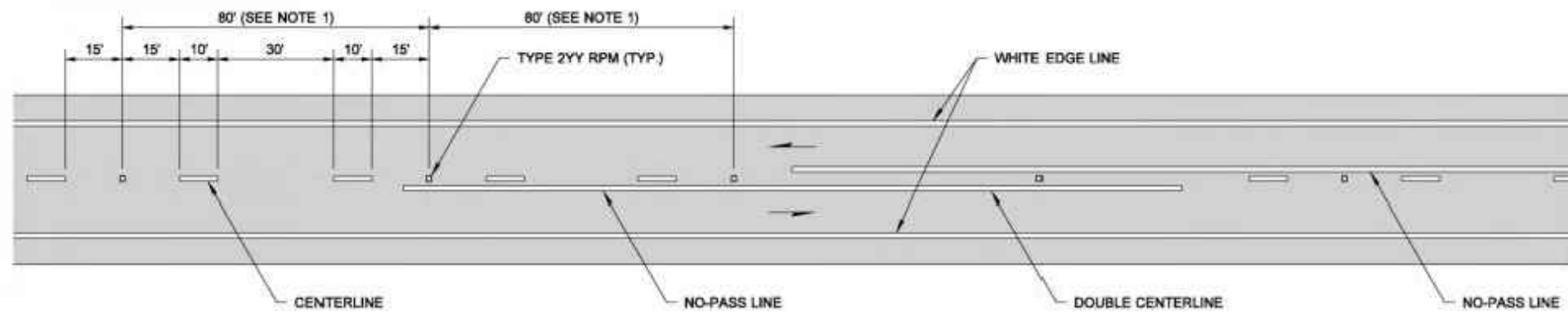
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SHEET **42** OF **50**

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DRAWN BY: COLBY FLETCHER

DRAWN BY: LISA OXFORD



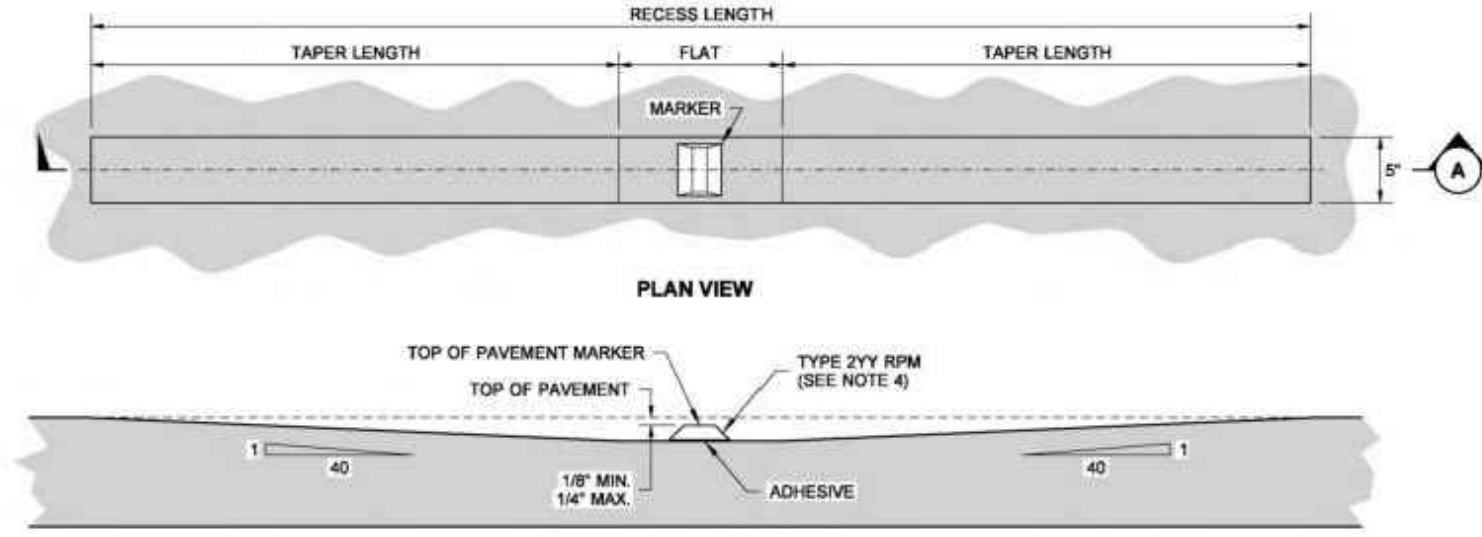
NOTES

1. Raised Pavement Markers Types 2YY and 2W shall be spaced at 80' (ft) intervals on tangents and on horizontal curves with a radius of 1500' (ft) or more, and at 40' (ft) intervals on horizontal curves having radii of less than 1500' (ft). Center the RPMs in the gaps between the pavement marking lines.
2. Type 2Y RPMs, when specified, shall be placed outside the left Edge Line at 80' (ft) intervals. See "LEFT EDGE OF LANE PLACEMENT DETAIL."
3. Recessed pavement markers, when specified, shall be installed at the locations shown for Type 2W RPMs on multilane one-way roadways, and Type 2YY RPMs on two-lane two-way roadways.
4. The Type 2W RPMs placed on multilane one-way roadways and all RPMs set in recesses shall have an abrasion-resistant coating.
5. Do not recess side-to-side RPMs on Wide Dotted Lane Lines.

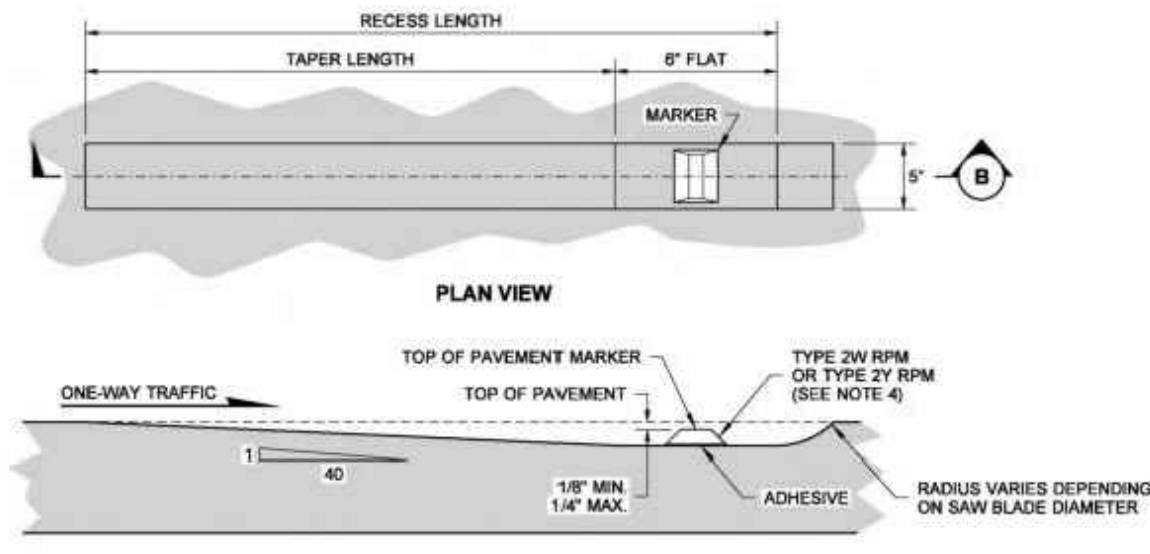
TYPE 2 RPM RAISED FACE COLORS	
TYPE 2YY	YELLOW AND YELLOW
TYPE 2W	WHITE - ONE SIDE ONLY
TYPE 2Y	YELLOW - ONE SIDE ONLY

LONGITUDINAL MARKING SUPPLEMENT WITH RAISED PAVEMENT MARKERS

DRAWN BY: COLBY FLETCHER

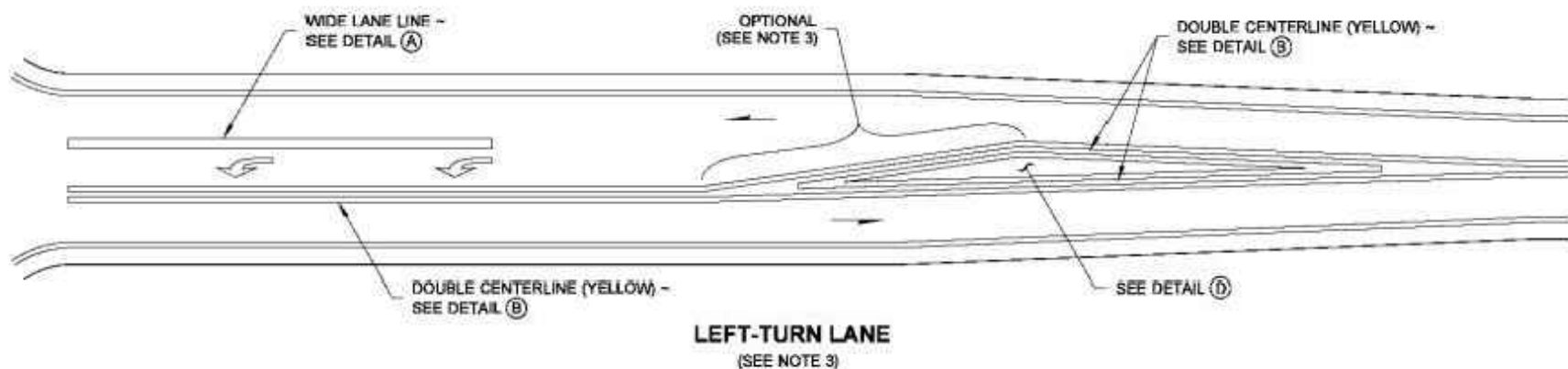


SECTION A TWO-WAY ROADWAY RECESSED PAVEMENT MARKER DETAILS



SECTION B ONE-WAY ROADWAY RECESSED PAVEMENT MARKER DETAILS

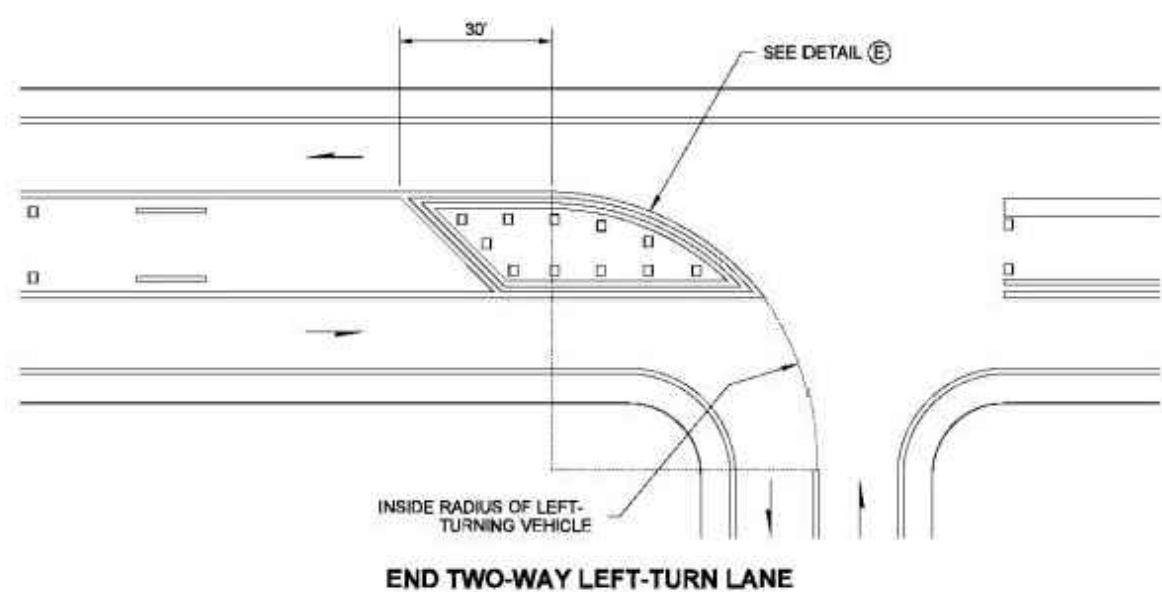
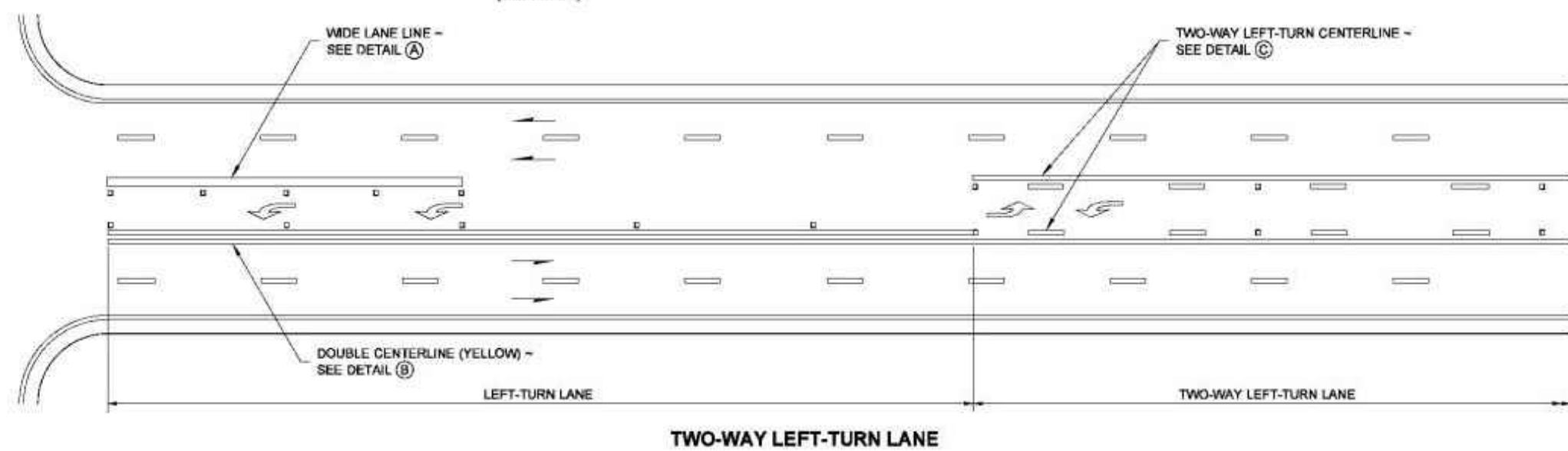
LONGITUDINAL MARKING SUPPLEMENT WITH RAISED PAVEMENT MARKERS



NOTES

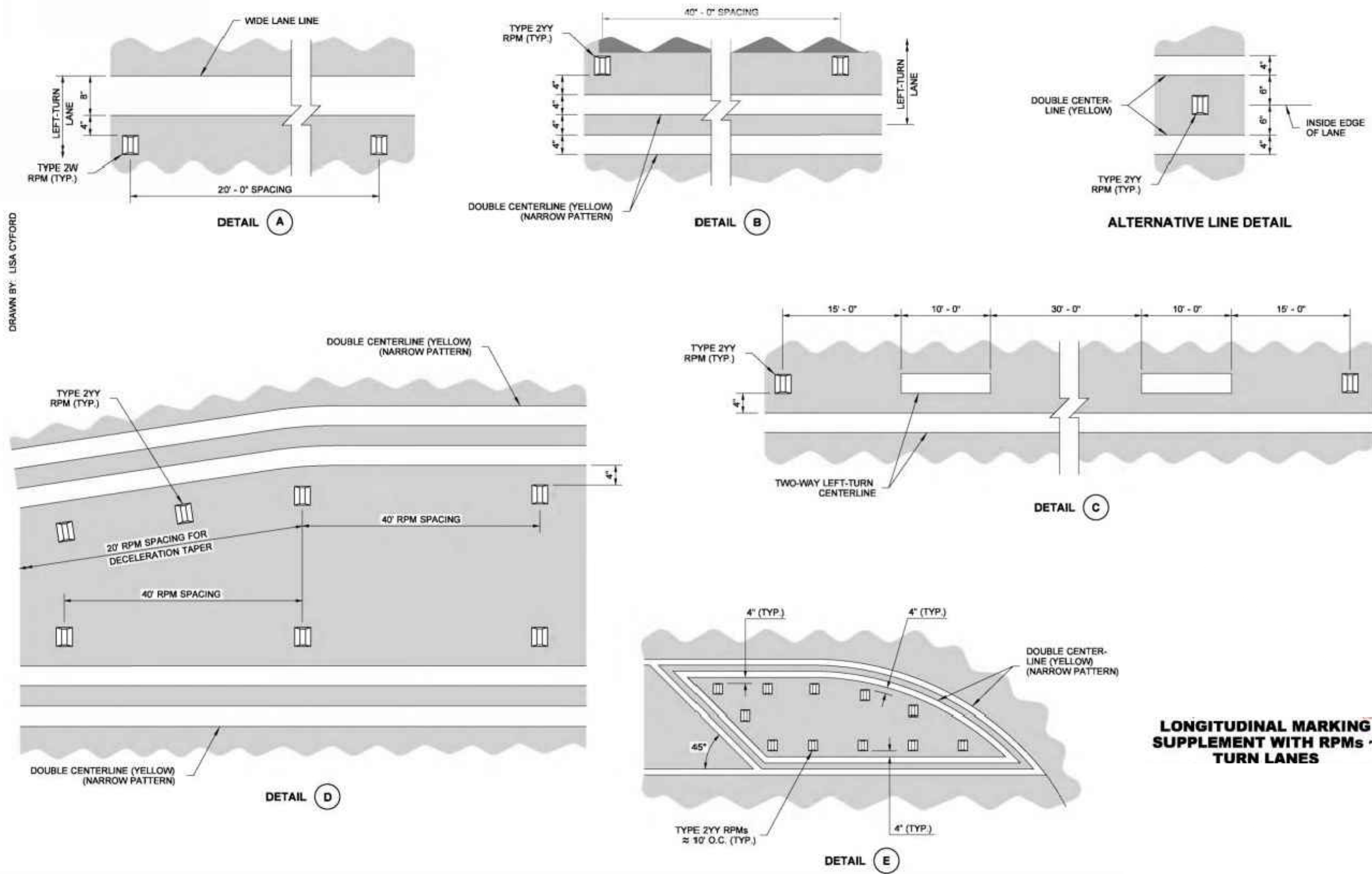
1. Raised pavement markers shall be installed only when specified in the Contract Plans.
2. See the Standard Plans for marker designation.
3. The portion labeled "OPTIONAL" is used only when the Optional Marked Deceleration Taper (see Standard Plans M-3.10 and M-3.20) is specified in the Contract Plans.

Type 2L (SL) Traffic Arrow



LONGITUDINAL MARKING SUPPLEMENT WITH RPMs - TURN LANES

DRAWN BY: LISA OXFORD



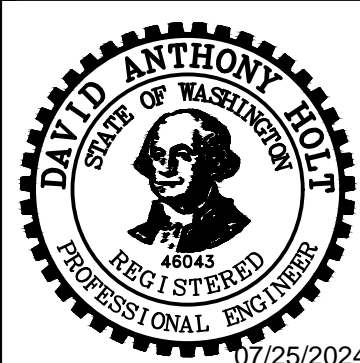
LONGITUDINAL MARKING SUPPLEMENT WITH RPMs - TURN LANES

FINAL PLANS

SIGNING AND STRIPING WSDOT DETAILS FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL

A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON

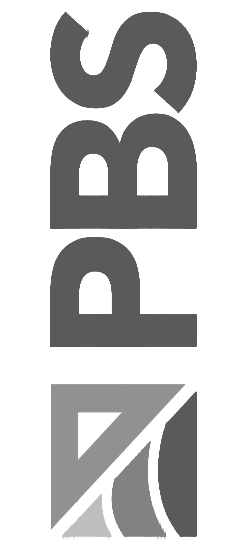


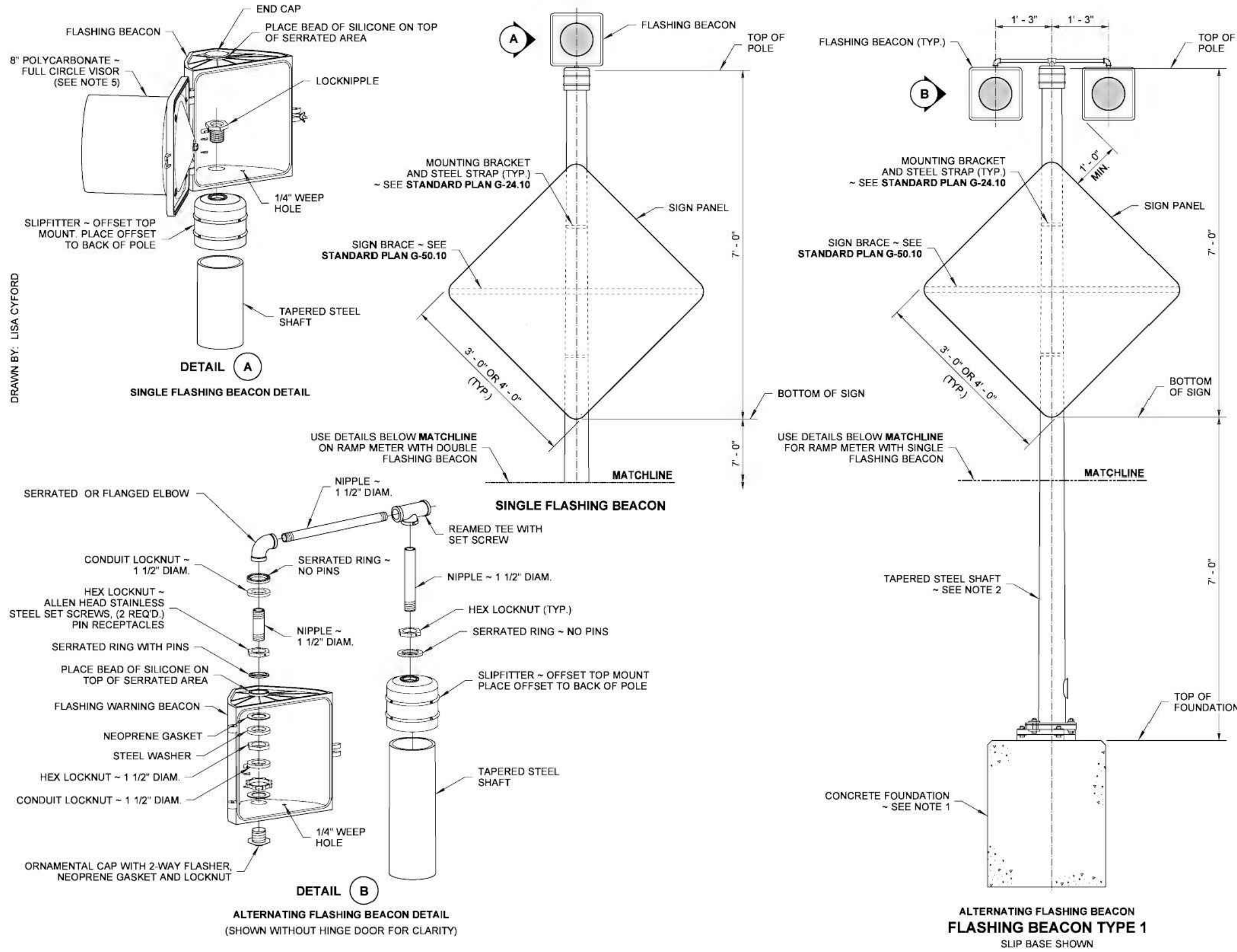
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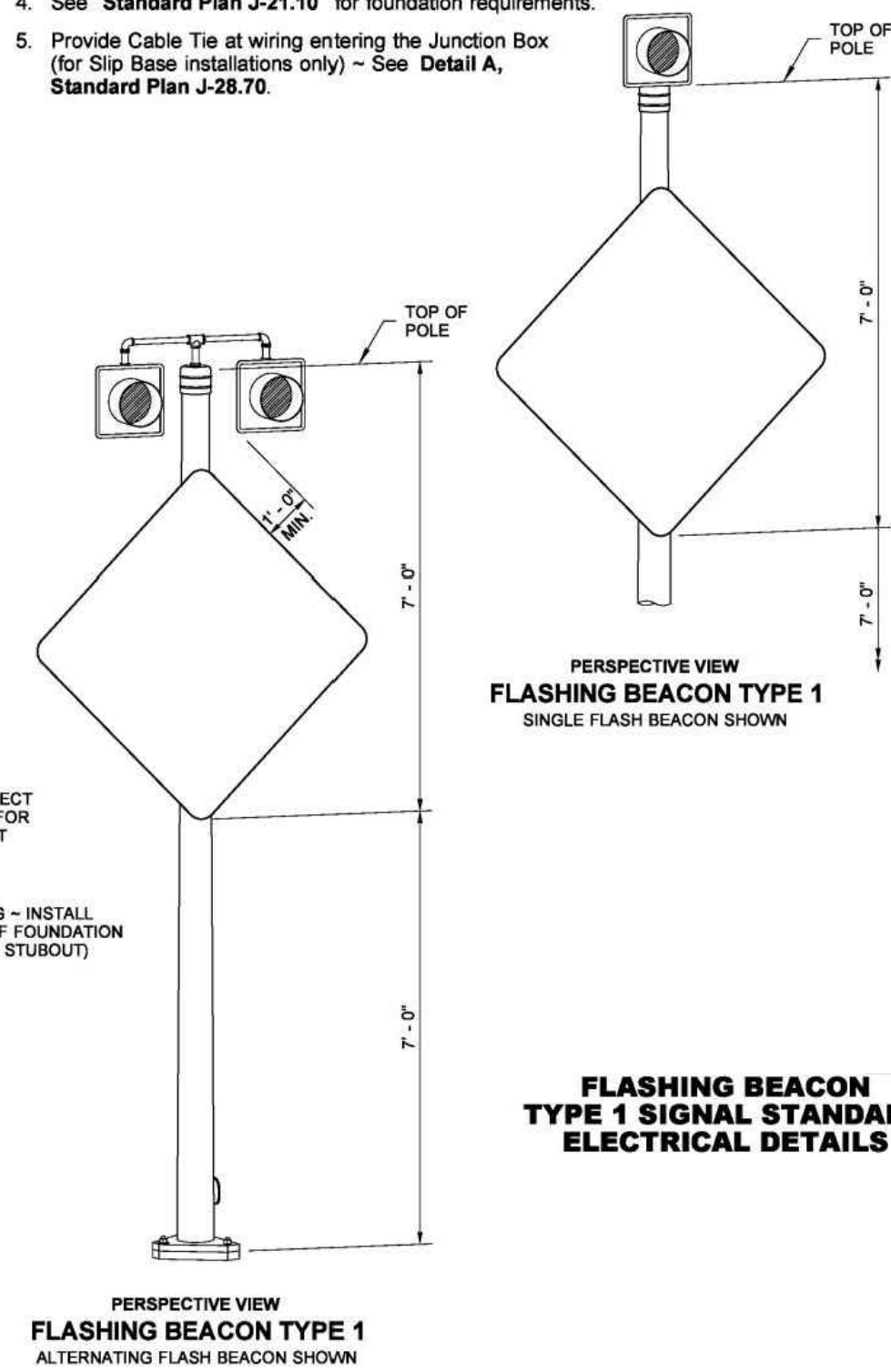
NOTES

1. See **Standard Plan J-21.10** for Signal Standard Foundation details.
2. All poles shall be hot dip galvanized per AASHTO M111.
3. Welding of structures shall be in accordance with the latest edition of the AWS D1.1 Structural Welding Code - Steel. All butt welds shall be ground flush with base metal.
4. Visor shall be 8" Polycarbonate, fully enclosed circle at bottom to reduce glare on sign. Display shall be of appropriate color needed.
5. See **Standard Plan J-21.17** for Electrical details.
6. Junction Box serving the Standard shall preferably be located 5' - 0" (10' - 0" Max.) from the Standard.

DRAWN BY: FERN LIDELL

NOTES

1. See **Standard Specification 9-29.3** for Cable Conductor requirements.
2. See **Standard Plan J-21.16** for Flashing Beacon Type 1 Signal Standard details.
3. Supplemental Grounding Conductor shall be non-insulated #4 AWG stranded copper, provide 3' - 0" min. slack. Clamp to vertical steel reinforcing bar with listed connector suitable for use embedded in concrete.
4. See **Standard Plan J-21.10** for foundation requirements.
5. Provide Cable Tie at wiring entering the Junction Box (for Slip Base installations only) ~ See **Detail A**, **Standard Plan J-28.70**.



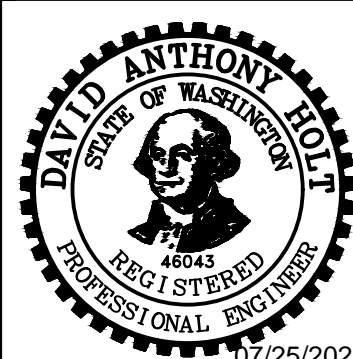
SIGNING AND STRIPING WSDOT DETAILS FOR:

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A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



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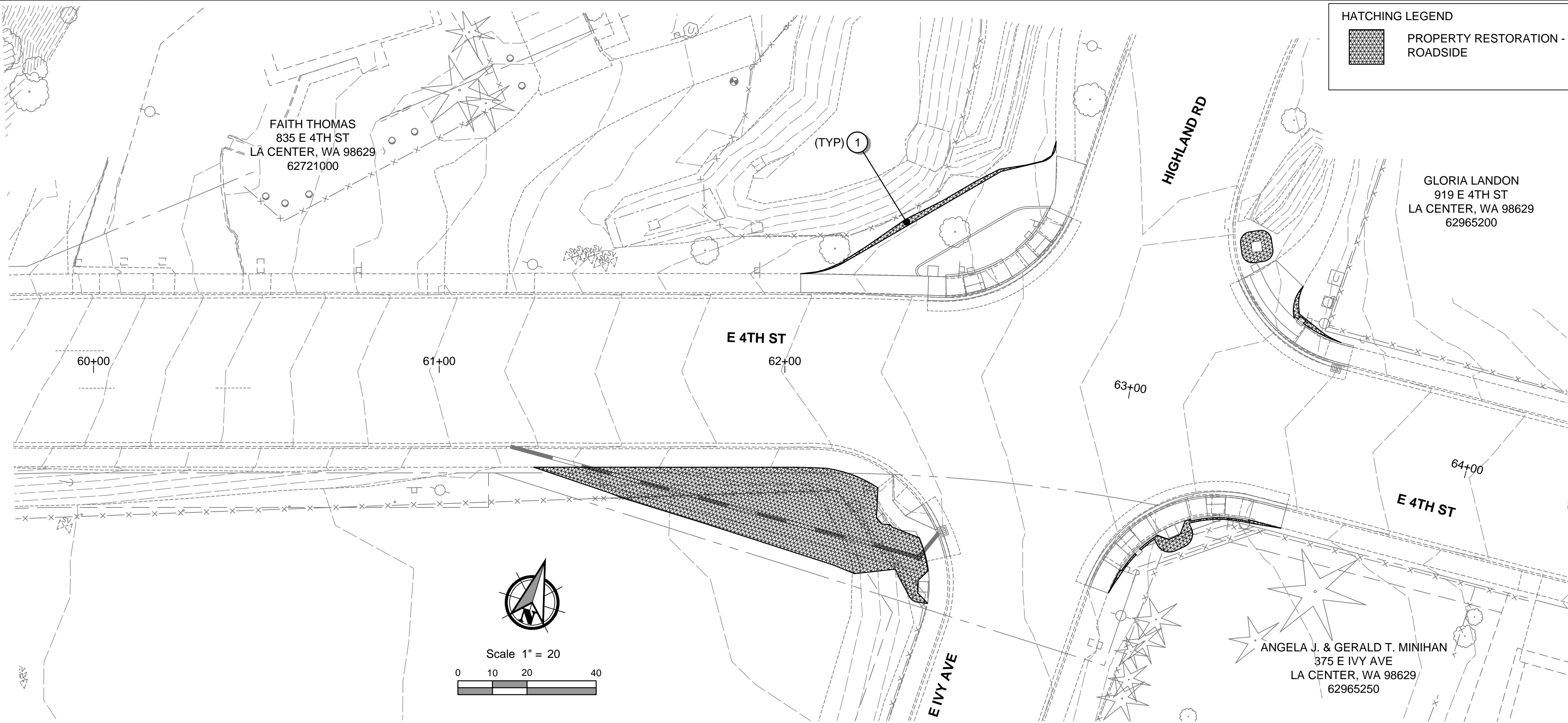
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SHEET **46** OF **50**

FINAL PLANS

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HATCHING LEGEND

PROPERTY RESTORATION - ROADSIDE

PROPERTY RESTORATION NOTES

- ① SITE PROPERTY RESTORATION - ROADSIDE. AREAS TO BE RESTORED TO PREVIOUS EXISTING CONDITION. SEE SPECIAL PROVISIONS.

SUMMARY OF QUANTITIES		
BID ITEM	UNIT	TOTAL
PROPERTY RESTORATION AREA	SF	275

FINAL PLANS

PROPERTY RESTORATION FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL

A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON

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STATE OF WASHINGTON
PROFESSIONAL ENGINEER
56223
12/31/2023

DESIGNED: LMF

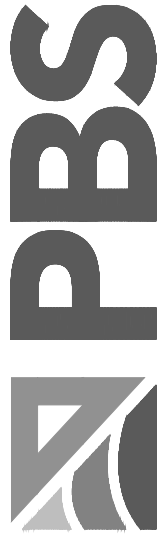
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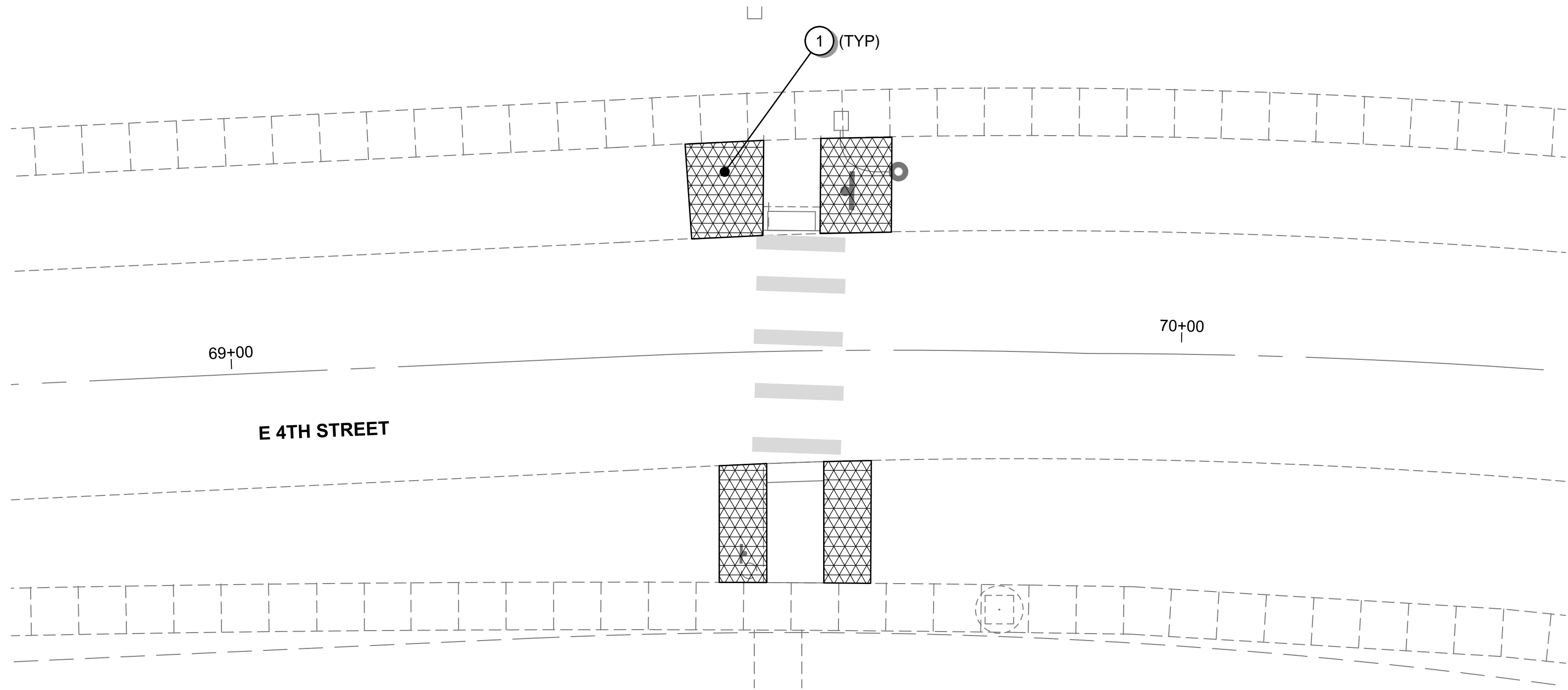
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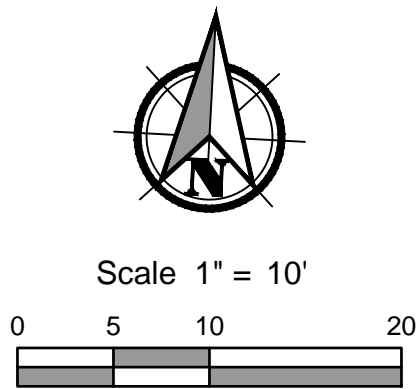


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HATCHING LEGEND

 PROPERTY RESTORATION - ROADSIDE



SUMMARY OF QUANTITIES		
BID ITEM	UNIT	TOTAL
PROPERTY RESTORATION AREA	SF	280

PROPERTY RESTORATION NOTES

- ① SITE PROPERTY RESTORATION - ROADSIDE. AREAS TO BE RESTORED TO PREVIOUS EXISTING CONDITION. SEE SPECIAL PROVISIONS.



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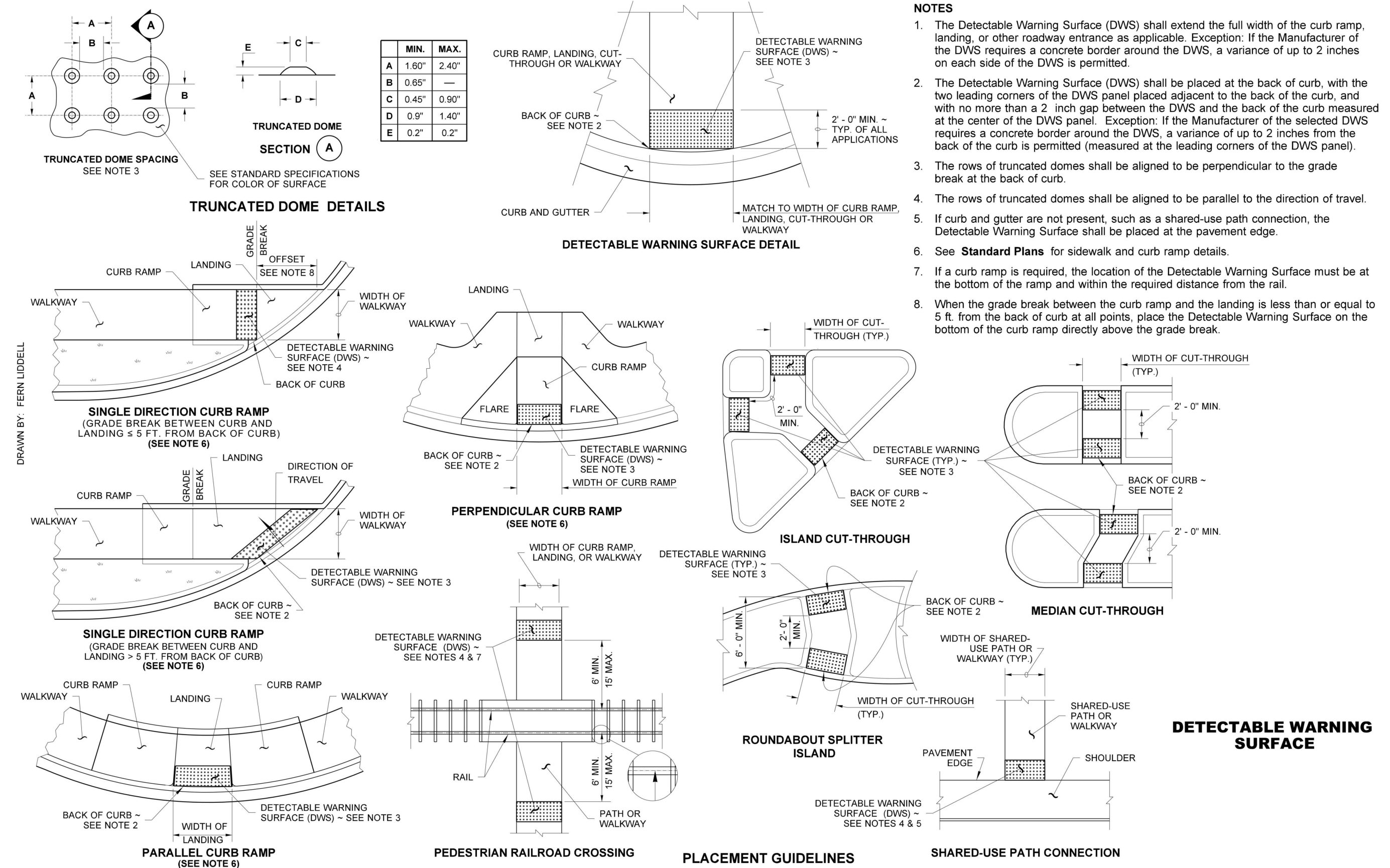
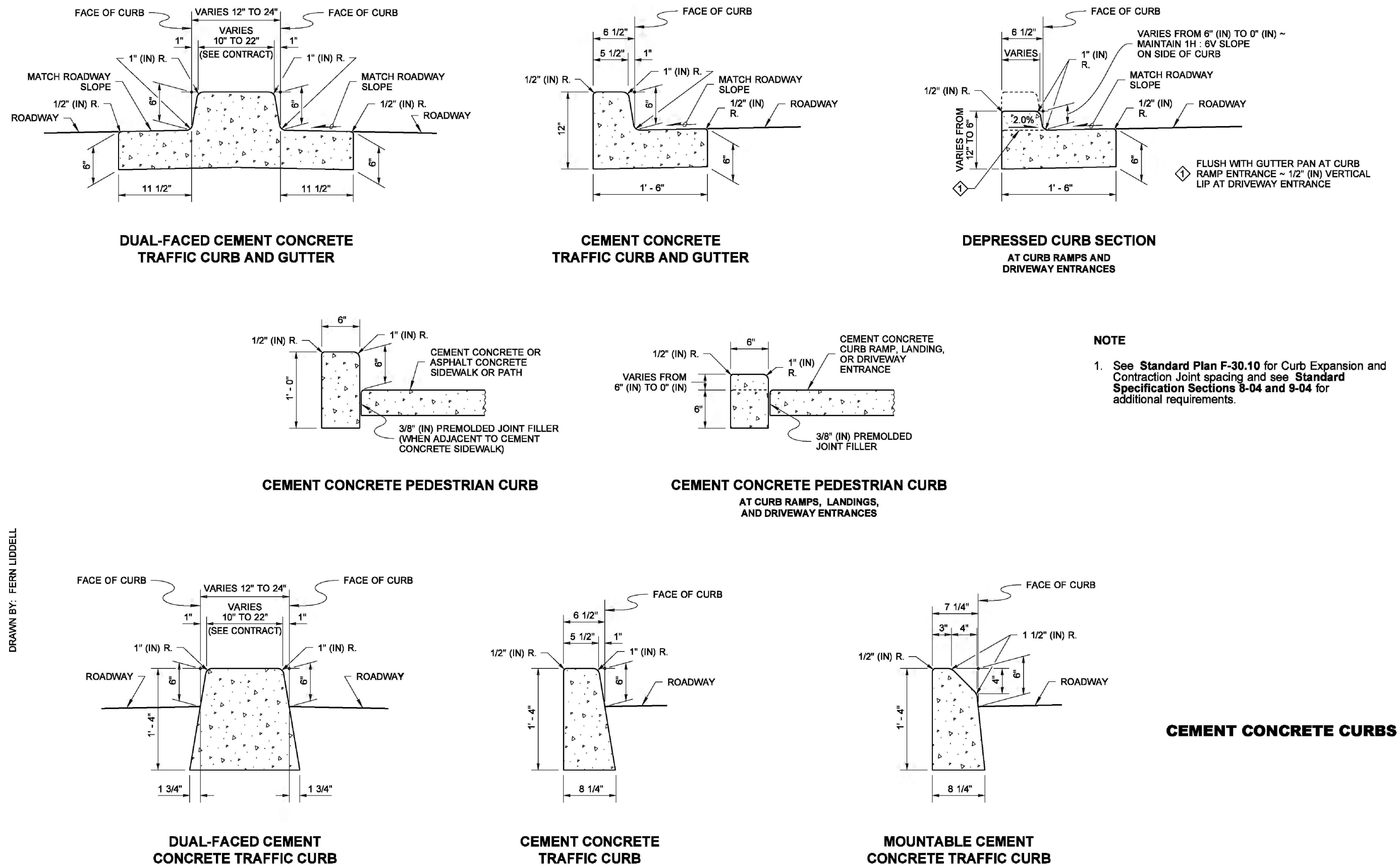
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PROPERTY RESTORATION FOR:
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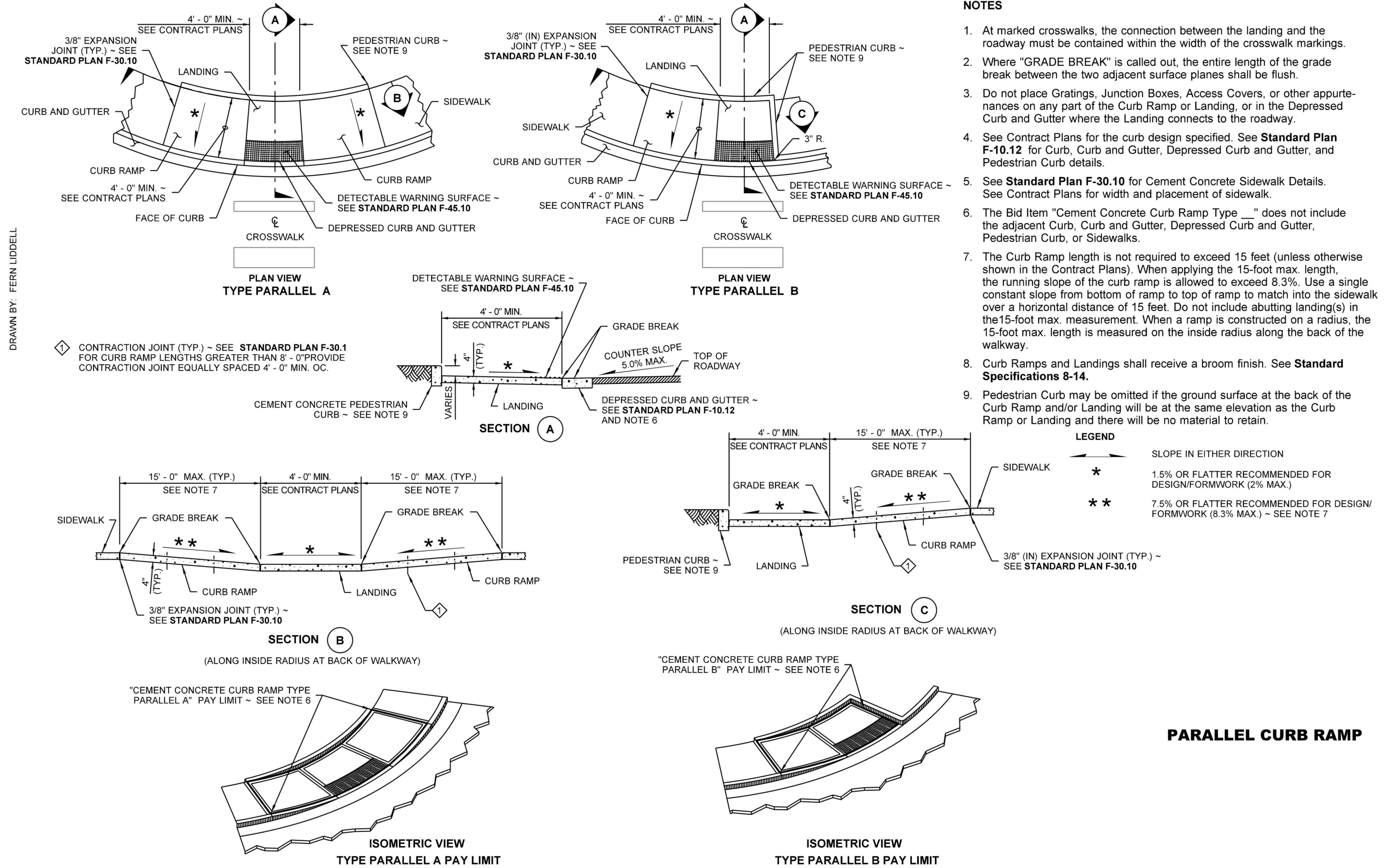
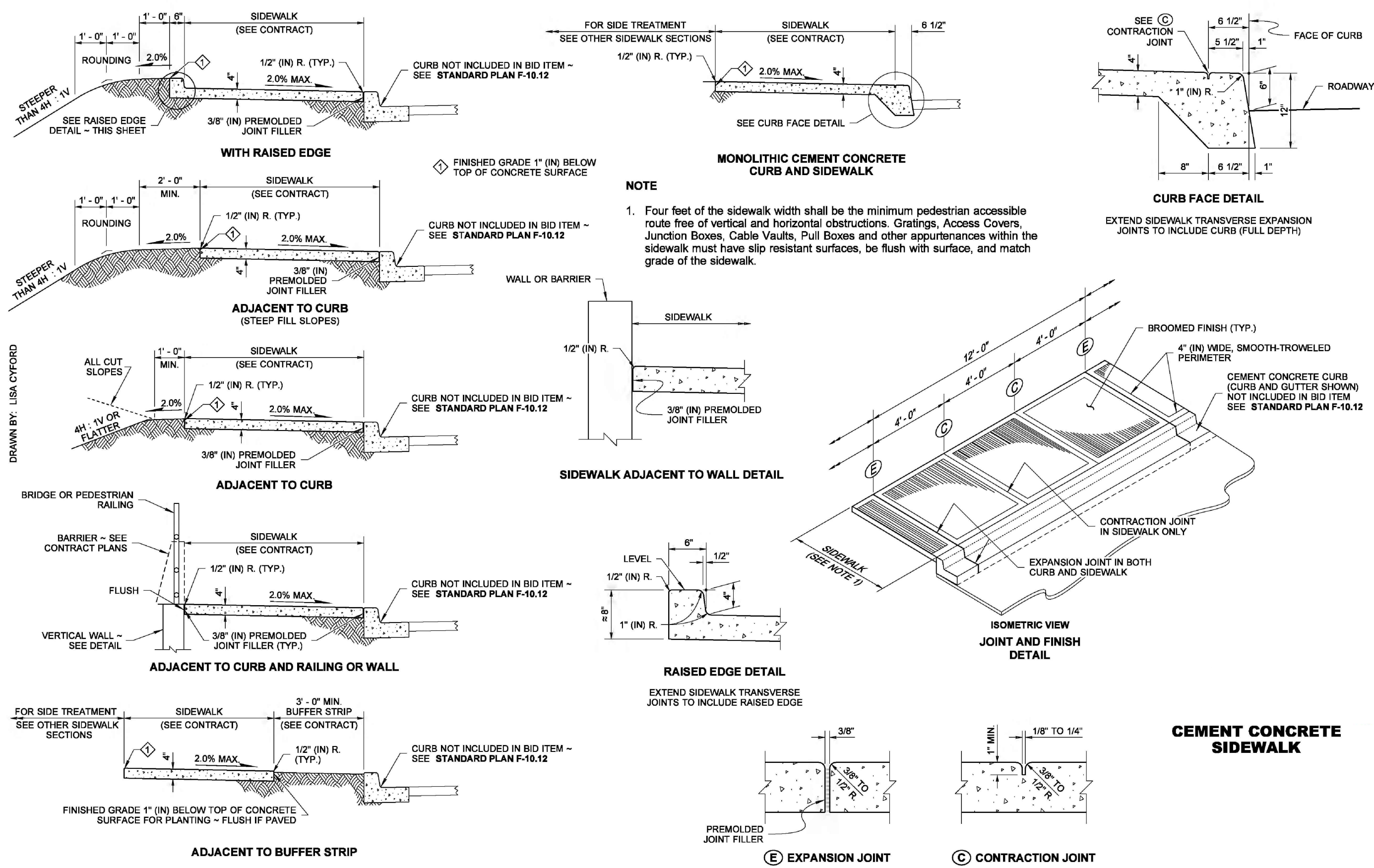
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FINAL PLANS



DETECTABLE WARNING SURFACE

- NOTES**
- The Detectable Warning Surface (DWS) shall extend the full width of the curb ramp, landing, or other roadway entrance as applicable. Exception: If the Manufacturer of the DWS requires a concrete border around the DWS, a variance of up to 2 inches on each side of the DWS is permitted.
 - The Detectable Warning Surface (DWS) shall be placed at the back of curb, with the two leading corners of the DWS panel placed adjacent to the back of the curb, and with no more than a 2 inch gap between the DWS and the back of the curb measured at the center of the DWS panel. Exception: If the Manufacturer of the selected DWS requires a concrete border around the DWS, a variance of up to 2 inches from the back of the curb is permitted (measured at the leading corners of the DWS panel).
 - The rows of truncated domes shall be aligned to be perpendicular to the grade break at the back of curb.
 - The rows of truncated domes shall be aligned to be parallel to the direction of travel.
 - If curb and gutter are not present, such as a shared-use path connection, the Detectable Warning Surface shall be placed at the pavement edge.
 - See **Standard Plans** for sidewalk and curb ramp details.
 - If a curb ramp is required, the location of the Detectable Warning Surface must be at the bottom of the ramp and within the required distance from the rail.
 - When the grade break between the curb ramp and the landing is less than or equal to 5 ft. from the back of curb at all points, place the Detectable Warning Surface on the bottom of the curb ramp directly above the grade break.



FINAL PLANS

WSDOT STANDARD DETAILS FOR:

4TH STREET & HIGHLAND ROAD TRAFFIC SIGNAL

A SITE LOCATED IN THE CITY OF LA CENTER, WASHINGTON



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