SW14-00037

KING COUNTY

CITY OF ISSAQUAH

WASHINGTON

EAST LAKE SAMMAMISH PARKWAY SE WIDENING

(SE 56TH STREET TO SE ISSAQUAH-FALL CITY ROAD)

CONTACT PERSONNEL

NAME	AGENCY	PHONE No.
GARY COSTA	CITY TRANSPORTATION MANAGER	425-837-3443
TONY NGUYEN	CITY ENGINEER	425-837-3437
ANDY SWAYNE	PUGET SOUND ENERGY	425-462-3852
JOSHUA GRENNER	PSE / POTELCO	253-606-4745
JIM KONIGSFELD	SAMMAMISH PLATEAU WATER AND SEWER DISTRICT	425-392-4931 (x 217)
JOHN ANDERSON	SAMMAMISH PLATEAU WATER AND SEWER DISTRICT	425-392-4931 (x 226)
JIM BROOKE	COMCAST	253-261-2895
PETER STOCKTON	CENTURYLINK	206-345-3963
BRIAN SOURWINE	GRAY & OSBORNE, INC.	206-284-0860

REVIEWED AND CONCURRED WITH: _____
CITY OF ISSAQUAH

DATE: _____

BRIAN L. SOURWINE
STATE OF WASHINGTON
36091
REGISTERED
PROFESSIONAL ENGINEER

CITY OFFICIALS

FRED BUTLER	MAYOR
MARY LOU PAULY	COUNCILMEMBER
NINA MILLIGAN	COUNCILMEMBER
EILEEN BARBER	COUNCILMEMBER
JOSHUA SCHAER	COUNCILMEMBER
STACY GOODMAN	COUNCILMEMBER
PAUL WINTERSTEIN	COUNCILMEMBER
TOLA MARTS	COUNCILMEMBER
ROBERT HARRISON	CITY ADMINISTRATOR
TINA EGGERS	CITY CLERK
SHELDON LYNNE	PUBLIC WORKS ENGINEERING DIRECTOR

FEDERAL AID NUMBER: STPUL-1915(009)
FEDERAL CONTRACT NUMBER: LA8153
T.I.B. PROJECT NUMBER: 8-1-108(010)-1

CITY OF ISSAQUAH WASHINGTON

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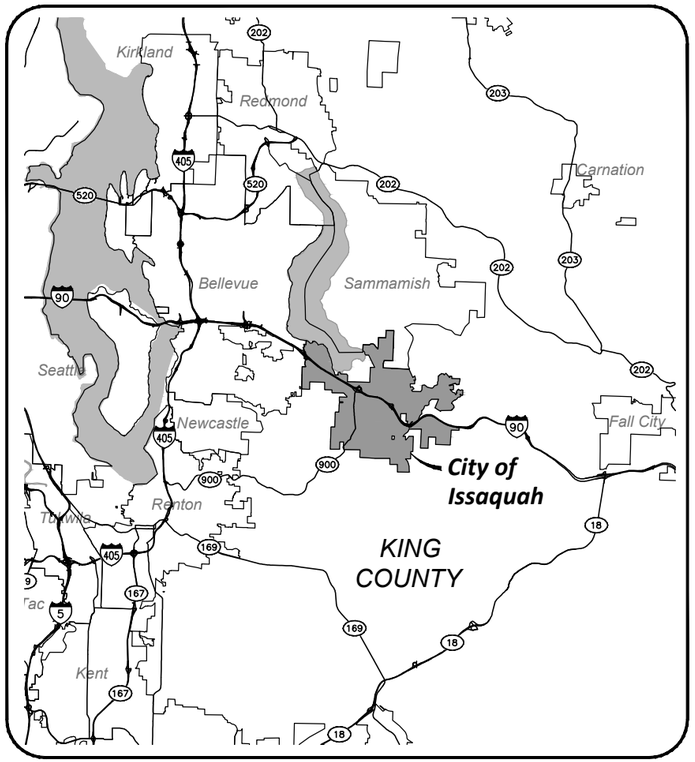
CITY OF ISSAQUAH - ENGINEERING REVIEW
APPROVED
TN
04/27/2015
ALL WORK SUBJECT TO FIELD INSPECTION

Gray & Osborne, Inc.
CONSULTING ENGINEERS



VICINITY MAP
NOT TO SCALE

CITY OF ISSAQUAH
PUBLIC WORKS ENGINEERING
CITY HALL NORTHWEST
1775 12TH AVENUE NW
ISSAQUAH, WASHINGTON 98027

APRIL 2015

ABBREVIATIONS

AVE	AVENUE
AC	ASBESTOS CEMENT PIPE
ADJ	ADJUST
ALT	ALTERNATE
ALUM	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AP	ANGLE POINT
ASPH	ASPHALT
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
ASSY	ASSEMBLY
BLDG	BUILDING
BLK	BLOCK
BO	BLOW OFF
BOP	BEGINNING OF PROJECT
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
CTR	CENTER
CAP	CORRUGATED ALUMINUM PIPE
CB	CATCH BASIN
CDF	CONTROLLED DENSITY FILL
CI	CAST IRON
℄	CENTER LINE
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
CONN	CONNECTION
CPEP	CORRUGATED POLYETHYLENE PIPE
CPLG	COUPLING
CY	CUBIC YARD
CONT	CONTINUED
CL	CLASS
CF	CUBIC FEET
CFS	CUBIC FEET PER SECOND
DC	DEGREE OF CURVATURE
DI	DUCTILE IRON
DIA	DIAMETER
DIM	DIMENSION
DWGS	DRAWING(S)
E	EAST
EA	EACH
EL	ELEVATION
ELEC	ELECTRICAL
EOA	EDGE OF ASPHALT
EOP	END OF PROJECT
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EXIST	EXISTING
FIG	FIGURE
FIN	FINISHED
FL	FLANGE
FT	FEET
GALV	GALVANIZED
GI	GALVANIZED IRON
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
INV	INVERT
IN	INCH
L	LENGTH
LB	POUND
LF	LINEAR FEET
MAX	MAXIMUM
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
MISC	MISCELLANEOUS
N	NORTH
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
PI	POINT OF INTERSECTION
PP	POWER POLE
PVI	POINT OF VERTICAL INTERSECTION
PE	PLAIN END
PERF	PERFORATED
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
PVT	POINT OF VERTICAL TANGENT
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
QTY	QUANTITY
RET	RETAINING
RR	RAILROAD
R	RADIUS
REQD	REQUIRED
R/W	RIGHT-OF-WAY

LINETYPES

EXISTING	PROPOSED	DESCRIPTION
SURFACE FEATURES		
		CURB (TYPE AS NOTED)
		CURB & GUTTER
		ASPHALT PAVEMENT
		PAVEMENT PLANING AND ASPHALT PATCH REPAIR
		GRAVEL SURFACING
		CONCRETE SURFACING
		CEMENT CONC. SIDEWALK
		CREEK WATER MARK
		FENCE/RAILING (TYPE AS NOTED)
		FENCE WITH GATE
		GUARD RAIL
		SHRUB/TREE/VEGETATION LINE
		EDGE OF LANDSCAPING
SURVEY		
		RIGHT-OF-WAY LINE
		CENTERLINE OF RIGHT-OF-WAY
	10+00	CENTERLINE OF CONSTRUCTION
		PROPERTY LINE
		PERMANENT EASEMENT LINE
TCE	TCE	TEMPORARY EASEMENT LINE
10	10	CONTOUR LINE
	C	APPROXIMATE TOP OF CUT
	F	APPROXIMATE TOE OF FILL
		SAWCUT LINE (APPROXIMATE LOCATION)
UTILITIES		
OH		OVERHEAD UTILITIES
E	E	BURIED ELECTRICAL
T		BURIED TELEPHONE/COMMUNICATIONS
TV		BURIED CABLE TELEVISION
FO		BURIED FIBER-OPTIC LINE
	JT	JOINT TRENCH
G		GAS MAIN (SIZE AS NOTED)
W	W	WATER MAIN (SIZE AS NOTED)
S		SANITARY SEWER MAIN (SIZE AS NOTED)
FM		SANITARY SEWER FORCE MAIN (SIZE AS NOTED)
D	D	STORM DRAIN (SIZE AS NOTED)
D	D	CULVERT (SIZE & TYPE AS NOTED)
	IR IR	IRRIGATION LINE
		DITCH CENTERLINE/THALWEG

ABBREVIATIONS (CONT.)

SL	SLOPE
S	SOUTH
SCH	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SPECS	SPECIFICATIONS
SQ	SQUARE
STA	STATION
STD	STANDARD
TB	THRUST BLOCK
TESC	TEMPORARY EROSION AND SEDIMENT CONTROL
THRU	THROUGH
TYP	TYPICAL
VERT	VERTICAL
W	WEST
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
W/	WITH
W/O	WITHOUT

WATER SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		GUARD POST
		REDUCER
		THRUST BLOCK
		WATER METER
		WATER SPIGOT
W		WELL
W		WATER VAULT (SIZE VARIES)
FIRE HYDRANT		
		FIRE HYDRANT (2-NOZZLE)
		FIRE HYDRANT (3-NOZZLE)
VALVES		
		AIR RELIEF
		BLOW-OFF
		WATER VALVE

GAS/POWER/TELEPHONE SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		GAS METER
		GAS VALVE
		PAD MOUNT TRANSFORMER
P		POWER VAULT (SIZE VARIES)
		UTILITY POLE/FOUNDATION
		UTILITY POLE ANCHOR
		JUNCTION BOX (TYPE I, II, III)
		UTILITY PEDESTAL
T		TELEPHONE VAULT (SIZE VARIES)

SURVEY SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		SURVEY SET CONTROL
		MONUMENT (IN CASE)
		MONUMENT (SURFACE)
		SOIL BORING/TEST PIT

ILLUMINATION SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		STREET LIGHT ASSEMBLY/LUMINAIRE
		POST MOUNTED LIGHT

SANITARY/STORM SEWER SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
C.O.		CLEAN OUT (SAN. SEWER OR STORM)
S		SANITARY SEWER MANHOLE
		STORM DRAIN CATCH BASIN, CONC. INLET, OR YARD/AREA DRAIN
D	D	STORM DRAIN MANHOLE/ TYPE 2 CATCH BASIN
		STORM TREATMENT VAULT

PSE POWER SYMBOLS

DESCRIPTION
HANDHOLE
TRANSFORMER
JUNCTION BOX VAULT
PULL VAULT
SWITCH VAULT
POWER POLE

SURFACE FEATURES/LANDSCAPING

EXISTING	PROPOSED	DESCRIPTION
		BUILDING
		APPROXIMATE DOORWAY LOCATION
		BUILDING EAVES
BUS		BUS STOP
		MAIL BOX (NOTED)
		SIGN
		RIP RAP
		MODULAR BLOCK WALL
		SEGMENTAL BLOCK WALL
		SHRUB
NOTED	SEE ROADSIDE PLANTING SHEETS	TREE (CONIFER)
NOTED		TREE (DECIDUOUS)
		WETLAND
		EDGE OF CREEK/STREAM OR OHWM

SEE TRAFFIC SIGNAL PLANS AND ILLUMINATION/UTILITY UNDERGROUDING PLANS FOR ADDITIONAL SYMBOL LEGEND.

PROJECT LOCATION MAP

SCALE: 1"=600'

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015	SCALE: AS NOTED
DRAWN: C.N.T.	CHECKED: C.B.W.
APPROVED: B.L.S.	

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

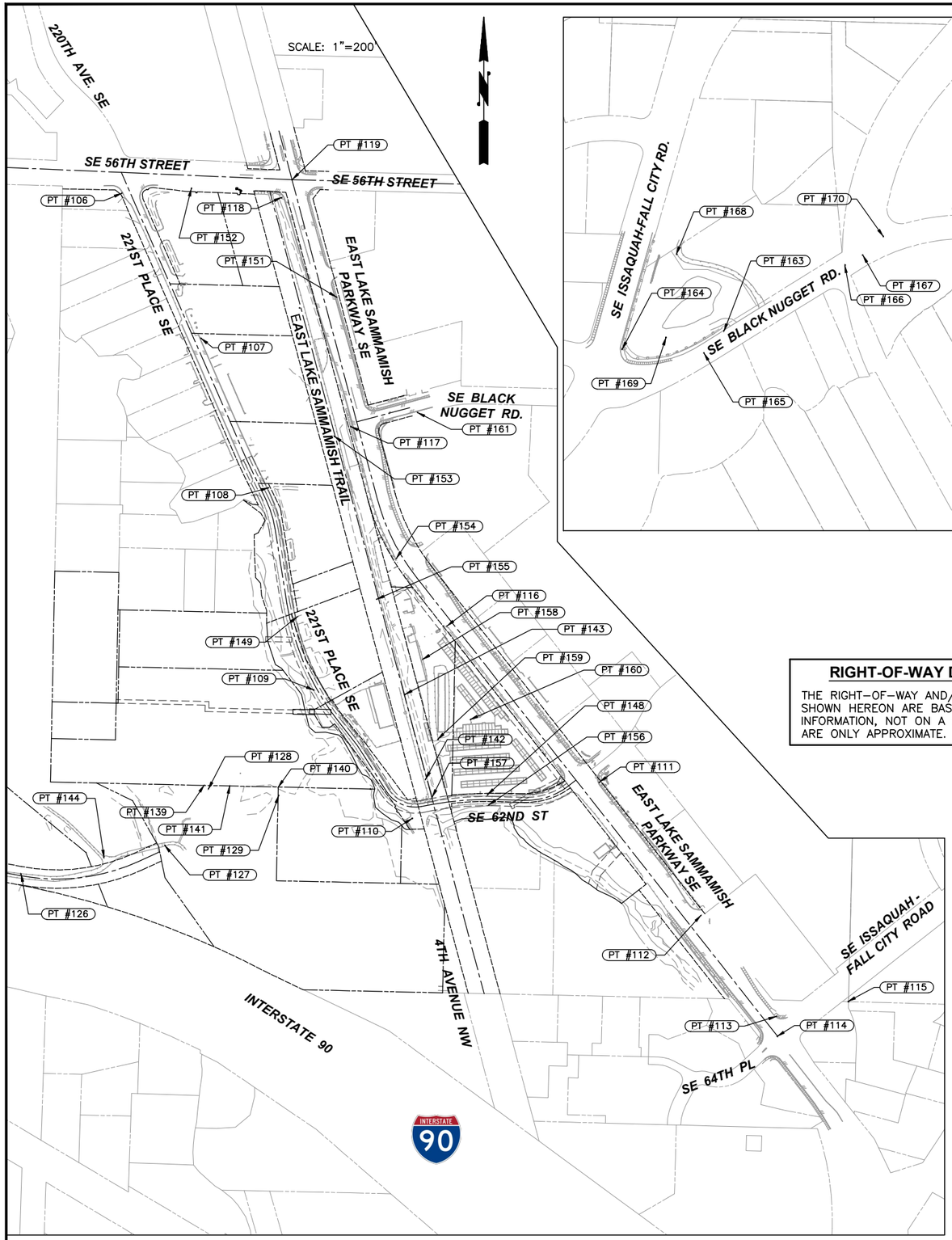
BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

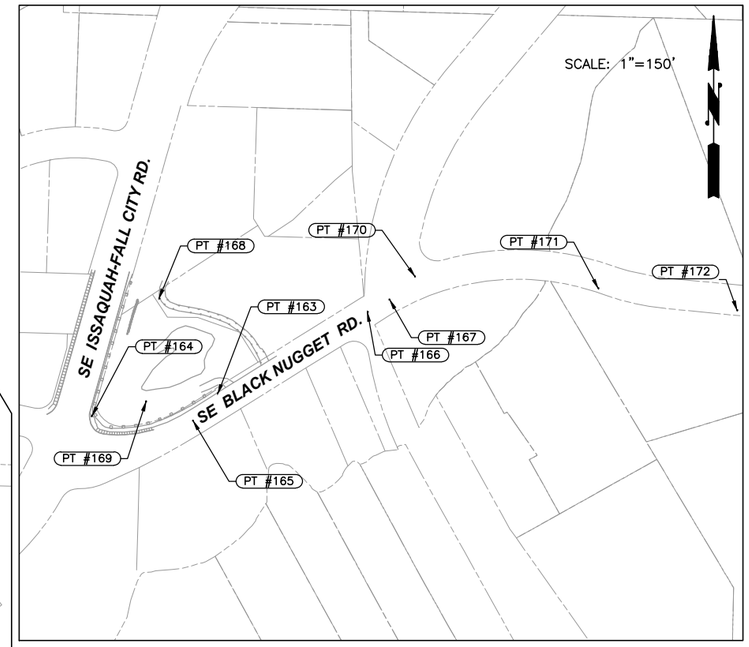
CHENG WANG — STATE OF WASHINGTON — 39930 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
ABBREVIATIONS, SYMBOL LEGEND, AND LOCATION MAP

SHEET: 1
OF: 101

JOB NO.: 13570
DWG: LEGEND





RIGHT-OF-WAY DISCLAIMER

THE RIGHT-OF-WAY AND/OR PROPERTY LINES SHOWN HEREON ARE BASED ON AVAILABLE INFORMATION, NOT ON A SURVEYED LOCATION AND ARE ONLY APPROXIMATE.

HORIZONTAL DATUM:
NAD 83/91, WSPCS N ZONE
VERTICAL DATUM
NAVD 88

SURVEY CONTROL TABLE

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
106	203,634.74	1,340,975.20	54.92	SFNT, BCE TRAV PT. TAG & MAG NAIL. SW'LY COR INTX SE 56TH ST/221 PL SE. +/- 10' S-SE FROM CROSSWALK. 7.7' N-NW FROM END OF SIDEWALK.
107	203,160.89	1,341,234.76	57.06	SSN, 14.5' S-SE FROM N'LY END OF SIDEWALK. 2.7' E'LY FROM TBC. +/- 12' W-NW FROM PP ON BUSH LANE. JUST S. OF INTEGRITY AUTOMOTIVE.
108	202,672.58	1,341,454.31	58.45	SSN, 3.3' E OF E'LY TBC ON "BUSH LANE" 221ST PL. 11' S-SW FROM PP. +/-45' S OF S ENTRANCE TO CLOSED BUSINESS LOT. JUST WEST OF CREEK CROSSING.
109	202,011.96	1,341,602.35	57.92	SSNT, 0.8' NE FROM SW EOP. +/- 36' NW FROM SE 61ST. JUST NORTH OF ESI LOT.
110	201,592.90	1,341,924.19	63.12	SFMC, 1 3/4" BRASSY W/NO PUNCH. IN 4X4 CONC POST DOWN 0.4'.
111	201,711.12	1,342,535.09	67.08	SSNT, 2.5' E-SE FROM TBC ON E'LY CORNER SE 62ND ST/ E.LK SAMMAMISH PKWY SE. +/-, 13.5' NW FROM DMH. +/- 8' SW FROM TSJB.
112	201,276.62	1,342,867.55	68.94	SFNT, PACE TAG & NAIL. IN TRAFFIC ISLAND ALONG N. SIDE E.LK SAMM. PKWY. S OF HOME DEPOT, N. OF WALGREENS.
113	200,946.87	1,343,113.00	69.33	SSNT, 2' N. OF TBC ON N'LY COR. INTX. OF E. LK SAMM. PKWY SE & SE ISSAQUAH-FALL CITY ROAD. @ NW EDGE OF NW'LY ADA RAMP.
114	200,881.86	1,343,116.87	68.71	SFMC, BRASS TACK SET IN CONC. DOWN 1.25' IN CASE. C/L INTX OF E. LK. SAMM. PKWY & SE ISSAQUAH-FALL CITY RD.
115	200,995.15	1,343,349.01	74.49	SFMC, BRASS PIN/NAIL IN 3X3 CC POST. @ENTRANCE TO EVERGREEN AUTOBODY. 8.5' S. OF RCE.
116	202,221.52	1,342,038.17	63.19	SSNT, 2.8' NE FROM SW EOP. 5.8' NE FROM NE PVC. ALONG E.LK. SAMM. PKWY. E'LY SIDE OF ENTRANCE TO BUDGET RENTAL. +/- 14' NW FROM WFHT.
117	202,872.93	1,341,724.01	59.25	SSNT, 2.5' E OF W. RWB ALONG E.LK.SAMM.PKWY. 4.5' E'LY FROM TSPL @ INTX W/BLACK NUGGET RD.
118	203,620.02	1,341,497.81	54.34	SSNT, SW COR INTX SE 56 ST & E.LK.SAMM.PKWY. @ SE COR ADA RAMP. +/- 8.5' SE FROM TSLP.
119	203,678.94	1,341,531.49	53.51	SFMC, 1 3/4" BRASSY W/PUNCH IN 4X4 CONC POST DOWN 0.55'. C/L INTX SE 56TH ST & E.LK.SAMM. PKWY.
126	201,411.74	1,340,646.43	62.65	SSNT, @ N. EOP OF TRAIL. +/- 36' W OF E. END OF FGT/BLUFF.
127	201,505.20	1,341,116.89	64.01	SSNT, 1' N OF S. EOP. 8.5' E'LY OF E'LY SIDE OF FOOT BRIDGE.
128	201,689.36	1,341,258.62	58.68	SSS, 60D NAIL IN WETLAND AREA.
129	201,667.45	1,341,488.34	56.88	SSS, 60D NAIL W/WHISKERS IN WETLAND AREA.
139	201,700.77	1,341,244.36	59.33	SFRC, 1/2" REBAR W/YPC "LS 33487 BOGDON"
140	201,695.47	1,341,486.61	57.11	SFRC, 1/2" REBAR W/OPC "LS 33487 BOGDON"
141	201,699.00	1,341,328.28	58.24	SFRC, 1/2" REBAR W/YPC "LS 33487 BOGDON"
142	201,720.85	1,341,967.64	61.45	SSN, 60D NAIL W/WHISKER 10.5' W OF E. FFW ALONG TRAIL. +/- 60' N OF N. FEA @ TRAIL INTX W/62ND AVE.
143	201,998.39	1,341,901.06	60.52	SSN, 60D NAIL W/WHISKERS. 3' W OF E. FFW ALONG TRAIL.
144	201,465.38	1,340,917.08	61.09	SSNT, SET MAG NAIL & "G&O CONTROL" TAG AT NE COR OF INTX OF TRAIL. W OF BRIDGE, 7' SW OF W'LY POST OF BENCH.
148	201,670.36	1,342,170.40	62.53	SSHT, SET HUB & MAG NAIL ON N. SIDE OF SE 62ND ST. E. OF TRAIL 0.7' NE OF SIGN (LEFT LANE MUST TURN LEFT)
149	202,251.01	1,341,547.87	58.043	SSS, SET MAG NAIL IN MOST N. SIDE OF NORTHERN D/WAY TO PICKERING SUBSTATION NEXT TO PRECISION COLLISION. IN SEAM WHERE ASPHALT MEETS BACK OF WALK.
151	203,295.57	1,341,677.30	55.78	SFNT, "PACE" TAG & NAIL. 0.9' W. OF E. BACK OF WALK OF E. LAKE SAMMAMISH PARKWAY. IN FRONT OF BARTELLS. +/- 7.5' SW FROM LIGHT POLE.
152	203,650.88	1,341,203.42	55.45	SSN, MAG NAIL IN TOP BACK OF CURB ALONG S. SIDE OF SE 56TH ST. 13.5' E. OF E. SIDE ENTRANCE TO CHEVRON/BROWN BEAR. 6.5' SW FROM DCB.
153	202,840.64	1,341,670.30	58.21	SSNT, 1' E. OF W. EDGE OF ASPHALT ALONG TRAIL. +/- 28' S. OF EXTENDED CENTERLINE OF BLACK NUGGET RD. +/- 48' N-NW FROM 14" BIRCH TREE.
154	202,442.81	1,341,872.70	64.59	SSNT, 3' E. OF W. EDGE OF ASPHALT. 4.5' NE FROM END OF GUARD RAIL. 6' S. OF GAS VALVE.
155	202,308.56	1,341,808.61	59.75	SSNT, 1' E. OF W. EDGE OF ASPHALT ALONG TRAIL. +/- 50' S. OF S. PROP/FENCE LINE TO PRECISION COLLISION.
156	201,637.26	1,342,174.80	61.70	SSRC, 4' S. OF S. EDGE OF ASPHALT. ALONG 62ND.
157	201,664.50	1,341,989.77	61.78	SSNT, 5' S. OF E'LY BOLLARD @ END OF TRAIL. N. SIDE OF 62ND ST. 4.5' W. OF E'LY END OF WOOD FENCE.
158	202,112.56	1,341,958.97	61.96	SSN, PK NAIL +/- 15' S. OF KEYPAD INSIDE STORAGE FACILITY. 0.5' E. OF W. EDGE OF ASPHALT IN FRONT OF BAY #507.
159	201,851.57	1,342,008.73	62.11	SSN, 1' W. OF E. EDGE OF ASPHALT. +/- 7' NW FROM W. END OF CHAIN LINK FENCE AND GATE POST.
160	201,916.16	1,342,115.48	63.49	SSN
161	202,919.01	1,341,941.65	62.04	SSNT, E. SIDE OF BLACK NUGGET RD. 17.5' S-SW OF 25MPH SIGN AT CENTER OF SIDEWALK IN SEAM.
STORM POND AREA NEAR SE ISSAQUAH-FALL CITY RD. AND SE BLACK NUGGET RD. INTERSECTION				
163	202777.03	1346333.39	347.42	SSNT, 1.0' SE OF NW BACK OF WALK ALONG NW SIDE BLACK NUGGET RD @ N.END OF GUARD RAIL, 11.5'± W/SW FROM ENTRANCE T POIND.
164	202731.90	1346084.17	354.69	SSNT.
165	202722.52	1346284.67	349.92	SFMC, 2 1/2" BRASSY W/PUNCH "KING COUNTY 2003", CL BLACK NUGGET RD @ PC, IN MON CASE, DOWN 0.35'.
166	202938.00	1346630.5700	350.65	SFMC, 3" BRASSY W/PUNCH "KING COUNTY SURVEY DEPT 2003" CL BLACK NUGGET RD. IN CROSSWALK INTX. W/HIGHLANDS DR. IN MON CASE, DOWN 0.35'. KC 2444
167	202962.14	1346673.65	348.26	SFMC, 2 1/2" BRASSY W/PUNCH, "KING COUNTY 2003" CL INTX. BLACK NUGGET & HIGHLANDS DR., IN MON CASE, DOWN 0.35'.
168	202964.52	1346217.96	350.84	SSHT, SET HUB & TACK 1.0' SW'LY OF EDGE ASPH. @ CURVE, 13.5' NE OF LARGE MAPLE TREE.
169	202760.89	1346191.47	344.21	SFM, 3" DOMED BRASSY W/PUNCH, KING COUNTY 1995 DS-3.
170	203008.32	1346723.85	347.03	SSNT, IN CONC. SEAM, E.SIDE OF E'LY ISLAND N'LY COR INTX. SE BLACK NUGGET RD/HIGHLANDS DR. IN LINE W/STOP BAR.
171	202984.71	1347087.25	345.45	SFMC, 2" DOMED BRASS W/PUNCH IN 4X4 CONC POST, "LS 29961" CL E. BOUND LANE, IN MON CASE., KC 2423.
172	202941.34	1347362.17	347.02	SFMC, 2" I.P. FILLED W/CONC W/NAIL, IN MON CASE, DOWN 0.6' KC 2424.

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

No.	REVISION	DATE	APPD
	PRELIMINARY NOT FOR CONSTRUCTION		

BRIAN L. SOURWINE — STATE OF WASHINGTON — 30991 — REGISTERED PROFESSIONAL ENGINEER

RICHARD A. BOND — STATE OF WASHINGTON — 40097 — REGISTERED PROFESSIONAL LAND SURVEYOR

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
SURVEY CONTROLS

SHEET: 2
OF: 101
JOB NO.: 13570
DWG: SV_CTRL

GENERAL NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL BE FURNISHED AND SUPPLIED IN ACCORDANCE WITH THE 2014 WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AND THE CITY OF ISSAQUAH PUBLIC WORKS STANDARDS UNLESS OTHERWISE SPECIFICALLY NOTED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT AND COORDINATE WITH ALL UTILITY COMPANIES IN ORDER TO ASSURE THAT ALL LINES, PIPES, POLES AND OTHER APPURTENANCES ARE PROPERLY LOCATED, SECURED, AND/OR PROTECTED. BURIED UTILITIES (WHERE KNOWN) ARE SHOWN IN THEIR APPROXIMATE LOCATION. THE CONTRACTOR SHALL HAVE UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. NOTIFY THE UNDERGROUND UTILITIES LOCATE CENTER: 1–800–424–5555.
3. THE CONTRACTOR SHALL HAVE A COPY OF THESE PLANS, ANY ADDENDA, CHANGE ORDERS AND THE CONTRACT SPECIFICATIONS ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
4. THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER IN THE EVENT OR DISCOVERY OF UNSUITABLE SOILS OR HIGH GROUND WATER CONDITIONS OR DISCREPANCIES FROM THE PLANS.
5. WHEREVER PLANS REFER TO "SAWCUT" OF ASPHALT CONCRETE PAVEMENT OR OIL MAT, OR CONCRETE SURFACE, THE CONTRACTOR SHALL PERFORM A "NEAT LINE CUT" PER SPECIFICATIONS.
6. CATCH BASINS AND CURB INLETS AT FLOWLINES HAVE BEEN SHOWN IN GENERAL WITH A RELATIVE STATION AND OFFSET. THE INTENT OF THIS PROJECT IS TO LOCATE THE CATCH BASINS AND CURB INLETS IN THE FLOWLINE AT THEIR RESPECTIVE ELEVATIONS.
7. THE CONTRACTOR SHALL MAINTAIN A CLEAN LEGIBLE SET OF RECORD DRAWINGS AND PROVIDE A SET TO THE OWNER PRIOR TO DEMOBILIZATION OF THE SITE. SEE SPECIFICATIONS.

ORDER OF WORK

THE ORDER OF WORK EXCEPT AS MAY OTHERWISE BE OUTLINED HEREIN WILL BE AT THE CONTRACTOR'S OPTION, IN KEEPING WITH GOOD CONSTRUCTION PRACTICE. THE WORK SHALL BE SCHEDULED AND CONSTRUCTED IN ACCORDANCE WITH THE VARIOUS PERMITS AND FRANCHISE REQUIREMENTS AND/OR CONDITIONS.

PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL FURNISH THE CONTRACTING AGENCY WITH AN EROSION CONTROL PLAN, A SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN (SPCC PLAN), PROGRESS SCHEDULE, AND A TRAFFIC CONTROL PLAN. ALL PLANS SHALL BE APPROVED BY THE CONTRACTING AGENCY PRIOR TO COMMENCING ANY CONSTRUCTION OPERATIONS.

AS A FIRST ORDER OF WORK, THE CONTRACTOR SHALL ATTEND A MANDATORY PRE–CONSTRUCTION MEETING.

AS A SECOND ORDER OF WORK, THE CONTRACTOR SHALL PROVIDE PUBLIC NOTICE TO PROPERTY OWNERS ABUTTING THE PROJECT LIMITS.

AS A THIRD ORDER OF WORK, THE CONTRACTOR SHALL PROVIDE MATERIAL SUBMITTALS. THE CONTRACTOR SHALL ALSO PROVIDE A SCHEDULE OF VALUE FOR ALL LUMP SUM BID ITEMS.

AS A FOURTH ORDER OF WORK, THE CONTRACTOR SHALL CALL 1–CALL AND HAVE UTILITIES MARKED IN THE FIELD BY THE VARIOUS UTILITY OWNERS.

AS A FIFTH ORDER OF WORK, AFTER THE UTILITIES HAVE BEEN MARKED, THE CONTRACTOR SHALL PROVIDE FOR THE PHOTOGRAPHING OF THE ENTIRE PROJECT SITE. THIS ACTIVITY MUST BE COMPLETED AND THE PHOTOGRAPHS AND DIGITAL FILES DELIVERED TO THE CONTRACTING AGENCY AS REQUIRED AND FURTHER SPECIFIED IN SECTION 8 PRIOR TO ANY EXCAVATION, ASPHALT CUTTING, MOBILIZATION, STAGING, OR ANY OTHER WORK ITEMS BEING PERFORMED.

AS A SIXTH ORDER OF WORK, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TEMPORARY FACILITIES, EROSION CONTROL ITEMS, AND SIGNS/BARRICADES FOR DETOUR ROUTES, UNLESS INDICATED OTHERWISE ON THE PLANS.

AS A SEVENTH ORDER OF WORK, THE CONTRACTOR SHALL POTHOLE EXISTING UTILITIES AS SPECIFICALLY NOTED ON THE PLANS, AS WELL AS IN OTHER AREAS THE CONTRACTOR DEEMS NECESSARY.

AS A EIGHTH ORDER OF WORK, THE CONTRACTOR SHALL INSTALL ALL UNDERGROUND UTILITIES PRIOR TO GRADING THE ROADWAY SECTION, UNLESS OTHERWISE APPROVED BY THE CONTRACTING AGENCY.

THE REMAINING ORDER OF WORK SHALL BE AT THE CONTRACTOR'S OPTION, IN KEEPING WITH GENERALLY ACCEPTED, GOOD CONSTRUCTION PRACTICE. HOWEVER, THE CONTRACTOR SHALL COORDINATE WORK BY OTHERS WHICH WILL AFFECT HIS PRODUCTION, SCHEDULE, MOBILIZATION AND DEMOBILIZATION EFFORTS.

AS A SECOND TO LAST ORDER OF WORK, THE CONTRACTOR SHALL SUBMIT PROPERTY RELEASE FORMS AND RECORD DRAWINGS. AFTER ALL PRELIMINARY AND FINAL "PUNCH LIST" ITEMS HAVE BEEN SATISFACTORILY COMPLETED, THEN, AS A LAST ORDER OF WORK, THE CONTRACTOR SHALL PROVIDE POST–CONSTRUCTION PHOTOGRAPHS.

THE CONTRACTOR SHALL CONDUCT THE ORDER OF WORK TO ALLOW ALL EXISTING FACILITIES TO REMAIN OPERATIONAL EXCEPT AS NOTED HEREIN DURING THE CONSTRUCTION OF THIS PROJECT, AND TO MINIMIZE DISRUPTION OF ANY UTILITY SERVICE. THE ORDER OF WORK FOR THE CONTRACT SHALL BE SO PLANNED AS TO COMPLETE ALL WORK WITHIN THE TIME LIMITS ESTABLISHED WITHIN THE CONTRACT PROVISIONS.

EAST LAKE SAMMAMISH PKWY SE - CONSTRUCTION CENTERLINE ALIGNMENT TABLE

ANGLE PT.	STATION	NORTHING	EASTING	DISTANCE *	BEARING	RADIUS	TANGENT	CURVE LENGTH	DELTA
PI1	0+00.00	200,881.86	1,343,116.87						
				1,904.96	N 38° 11' 35" W				
PC2	19+04.96	202,379.02	1,341,939.01						
PI2		202,494.75	1,341,847.97			716.34	147.24	290.44	23° 13' 49.00"
PT2	21+95.40	202,636.99	1,341,809.95						
				1,078.51	N 26° 34' 40.5" W				
PI3	32+73.91	203,678.94	1,341,531.49						
				126.07	N 14° 57' 46" W				
PI4	34+00.00	203,800.75	1,341,498.94						

SE 62ND STREET - CONSTRUCTION CENTERLINE ALIGNMENT TABLE

ANGLE PT.	STATION	NORTHING	EASTING	DISTANCE *	BEARING	RADIUS	TANGENT	CURVE LENGTH	DELTA
PI1	120+30.00	201,650.41	1,342,013.68						
				178.33	N 88° 50' 50.9" E				
PC2	122+08.33	201,653.99	1,342,191.98						
PI2		201,655.26	1,342,255.04			1,375.00	63.08	126.07	05° 15' 11.09"
PRC	123+34.40	201,650.75	1,342,317.96	132.70	S 85° 53' 58.0" E				
PI3		201,645.77	1,342,387.40			180.00	69.63	132.87	42° 17' 38.37"
PT3	124+67.27	201,688.82	1,342,442.12						
				149.68	N 51° 48' 23.7" E				
P4	126+16.95	201,781.37	1,342,559.76						

* BETWEEN PI'S OR FROM PI TO PC/PT

ROADWAY & STORM DRAINAGE NOTES

THE FOLLOWING IS A COMPREHENSIVE LIST OF THE CONSTRUCTION NOTES THAT ARE REFERENCED THROUGHOUT THE ROADWAY PLAN AND PROFILE SHEETS, FROM SHEET XX THRU SHEET 13, AND OFFSITE DETENTION POND MODIFICATION PLAN, SHEET 31. REFERENCED NOTES WILL BE NUMBERED ACCORDINGLY:

1. CAUTION: POTENTIAL UTILITY CONFLICT. CONTRACTOR SHALL VERIFY (POTHOLE) EXACT LOCATION AND DEPTH OF EXISTING UTILITY. SEE ORDER OF WORK ON SHEET 3.
2. EXISTING UTILITY TO BE REMOVED OR RELOCATED "BY OTHERS". CONTRACTOR SHALL COORDINATE. SEE GENERAL NOTE 2, SHEET 3.
3. CONTRACTOR SHALL REMOVE AND WASTEHAUL EXISTING WOOD POLE AND REINSTALL LUMINAIRE ON NEW POLE PER SPECIFICATIONS.
4. CONTRACTOR SHALL REMOVE AND WASTEHAUL EXISTING DRAINAGE STRUCTURE/PIPE, CURB & GUTTER, SIDEWALK, PAVEMENT, CONC. FOUNDATION, RETAINING WALL, PRECAST CURB, J–BOXES, BOLLARDS, POST, FENCE, GATE, RAILING, GUARDRAIL PER THE SPECIFICATIONS. COORDINATE WITH PROPERTY OWNER(S) PRIOR TO REMOVAL. THIS WORK TO BE INCLUDED IN REMOVAL OF STRUCTURES & OBSTRUCTIONS.
5. EXISTING FIRE HYDRANT/WATER METER TO BE REMOVED AND RELOCATED "BY OTHERS". CONTRACTOR SHALL COORDINATE.
6. CONTRACTOR SHALL PROTECT EXISTING UTILITY POLE, SIGNAL POLE, LUMINAIRE, VAULT, J–BOX, OR MANHOLE DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH UTILITY, OR CONTRACTING AGENCY FOR SIGNAL AND LUMINAIRE.
7. CONTRACTOR SHALL PROTECT EXISTING CURB, SIDEWALK, FENCE, BOLLARD, PLANTER, PAVEMENT, ROCKERY, GUARDRAIL, WALL, IRRIGATION SYSTEM, LANDSCAPING, TREE DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER(S).
8. CONTRACTOR SHALL SAWCUT EXISTING CURB AND/OR SIDEWALK TO NEAREST FULL JOINT AND PROVIDE CLEAN EDGE.
9. CONTRACTOR SHALL SAWCUT EXISTING ASPHALT PAVEMENT, SEAL JOINT (WHERE APPLICABLE) THEN APPLY SAND BLANKET TO THE SURFACE JOINT.
10. CONTRACTOR SHALL CONNECT NEW STORM DRAIN PIPE TO EXISTING CATCH BASIN. (CORE DRILL IF KNOCKOUT IS NOT PRESENT.)
11. CONTRACTOR SHALL CONNECT NEW STORM DRAIN PIPE TO EXISTING STORM DRAIN PIPE.
12. CONTRACTOR SHALL FURNISH AND CONSTRUCT PERPENDICULAR CURB RAMP PER CITY STD. DETAILS T–07 AND T–08.
13. CONTRACTOR SHALL REMOVE AND RELOCATE EXISTING MAILBOX(ES). SEE DETAIL SHEET 19.
14. CONTRACTOR SHALL FURNISH AND INSTALL SEGMENTAL CONCRETE RETAINING WALL. SEE DETAIL, SHEET 34.
15. CONTRACTOR SHALL FURNISH AND INSTALL NEW FENCE. SEE FENCE SCHEDULE ON DETAIL SHEET 18.
16. CONTRACTOR SHALL FURNISH AND INSTALL BEAM GUARDRAIL TYPE 31 AND NON–FLARED TERMINAL PER WSDOT STANDARD PLANS C–20.10–00 AND C–22.41–00.
17. CONTRACTOR SHALL FURNISH AND INSTALL REMOVABLE BOLLARD PER CITY STANDARD DETAIL NO. T–56.
18. CONTRACTOR SHALL PLANE EXISTING PAVEMENT. SEE DETAIL SHEET 16.
19. CONTRACTOR SHALL CONNECT EXISTING STORM PIPE TO NEW CATCH BASIN.
20. CONTRACTOR SHALL FURNISH AND INSTALL ASPHALT DRIVEWAY REPAIR. SEE DETAIL SHEET 16.
21. CONTRACTOR SHALL ADJUST EXISTING STORM STRUCTURE TO GRADE.
22. CONTRACTOR SHALL FURNISH AND CONSTRUCT CAST–IN–PLACE REINFORCED CONCRETE RETAINING WALL WITH TRAFFIC BARRIER AND RAILING. SEE DETAIL SHEETS 35–39.
23. CONTRACTOR SHALL FURNISH AND CONSTRUCT CEMENT CONCRETE DRIVEWAY ENTRANCE PER DETAIL, SHEET 16.
24. EXISTING UTILITY TO BE ADJUSTED "BY OTHERS". CONTRACTOR SHALL COORDINATE. SEE GENERAL NOTE 2, SHEET 3.
25. CONTRACTOR SHALL CONNECT RELOCATED WATER METER TO EXISTING PRIVATE WATER SERVICE LINE, INCLUDING SLEEVE UNDER WALL PER SEGMENTAL CONCRETE RETAINING WALL DETAIL, SHEET 34.
26. NEW IRRIGATION METER AND SERVICE TO BE FURNISHED AND INSTALLED BY OTHERS. CONTRACTOR SHALL COORDINATE.

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284–0860

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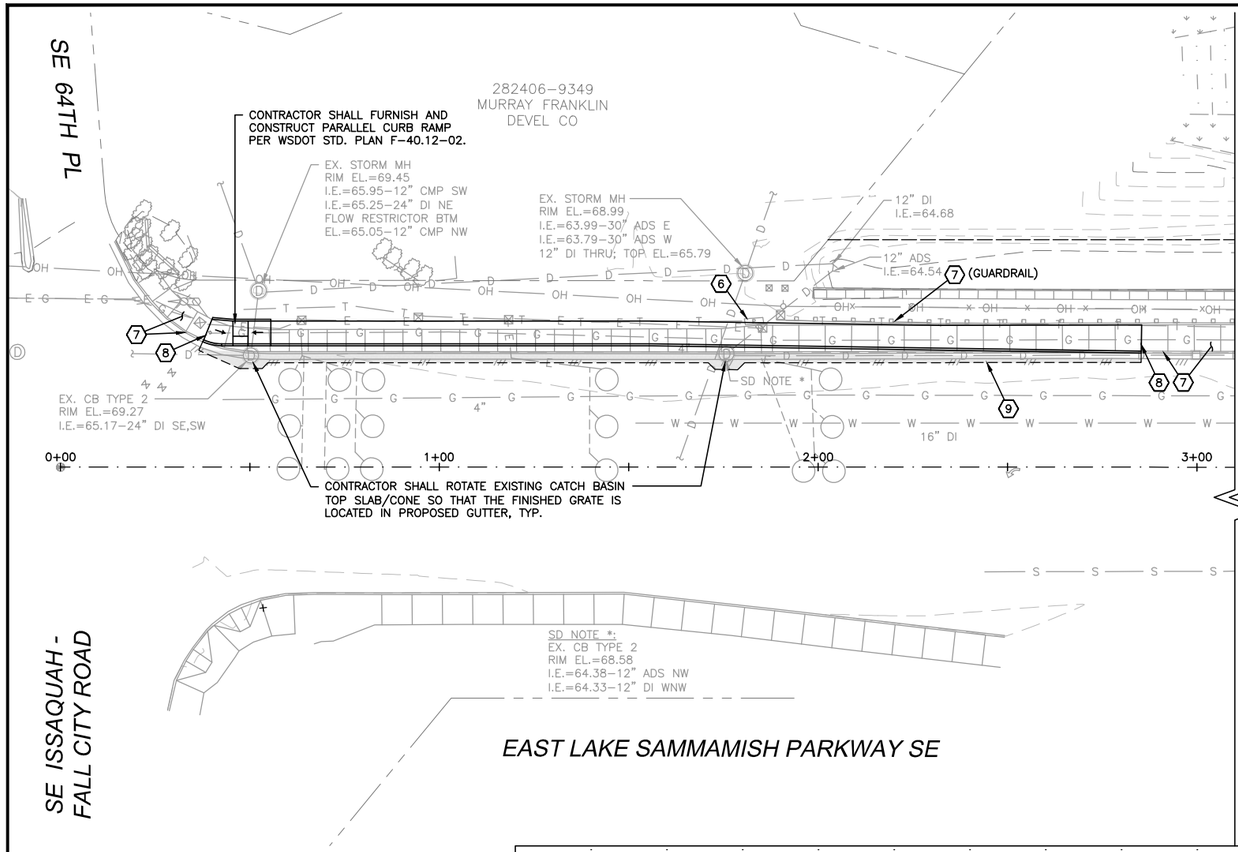
No.	REVISION	DATE	APPD
	PRELIMINARY NOT FOR CONSTRUCTION		

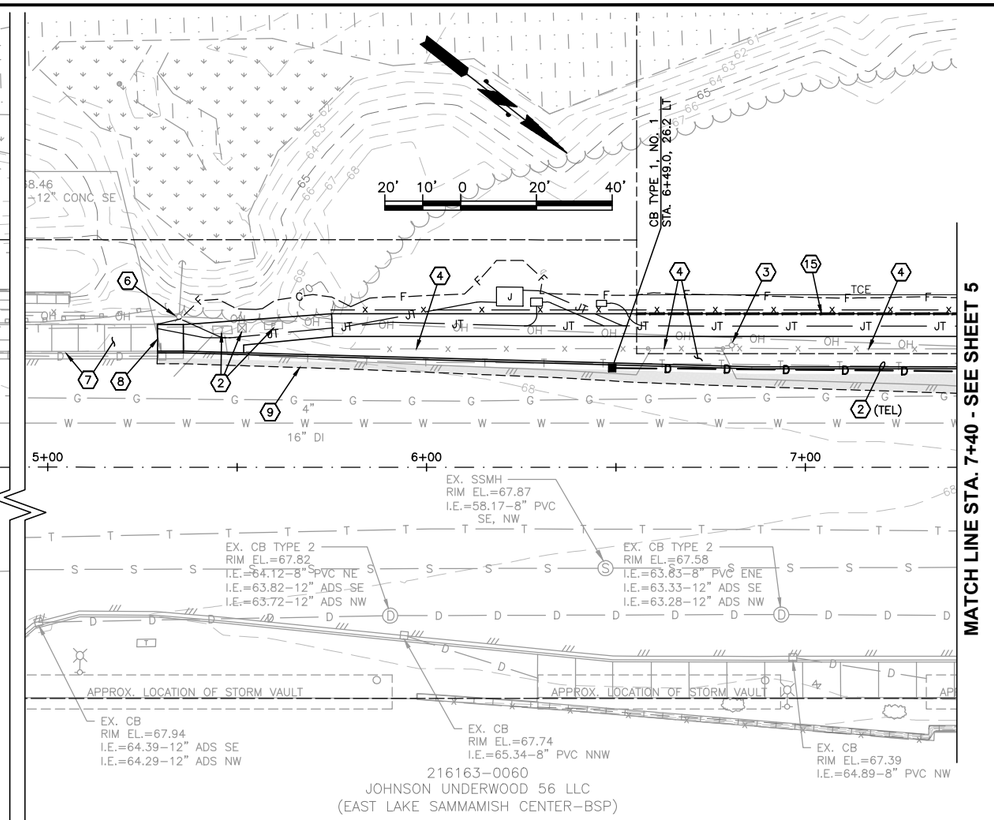
BRIAN L. SOURINE — STATE OF WASHINGTON — 36591 — REGISTERED PROFESSIONAL ENGINEER

CHI-HENG WANG — STATE OF WASHINGTON — 38950 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
GENERAL NOTES AND CONSTRUCTION CENTERLINE ALIGNMENT TABLES

SHEET: 3
OF: 101
JOB NO.: 13570
DWG: ALIGNMENT





ROADWAY & STORM DRAINAGE NOTES

2 EXISTING UTILITY TO BE REMOVED OR RELOCATED "BY OTHERS". CONTRACTOR SHALL COORDINATE. SEE GENERAL NOTE 2, SHEET 3.

3 CONTRACTOR SHALL REMOVE AND WASTEHAUL EXISTING WOOD POLE AND REINSTALL LUMINAIRE ON NEW POLE PER SPECIFICATIONS.

4 CONTRACTOR SHALL REMOVE AND WASTEHAUL EXISTING DRAINAGE STRUCTURE/PIPE, CURB & GUTTER, SIDEWALK, PAVEMENT, CONC. FOUNDATION, RETAINING WALL, PRECAST CURB, J-BOXES, BOLLARDS, POST, FENCE, GATE, RAILING, GUARDRAIL PER THE SPECIFICATIONS. COORDINATE WITH PROPERTY OWNER(S) PRIOR TO REMOVAL. THIS WORK TO BE INCLUDED IN REMOVAL OF STRUCTURES & OBSTRUCTIONS.

6 CONTRACTOR SHALL PROTECT EXISTING UTILITY POLE, SIGNAL POLE, LUMINAIRE, VAULT, J-BOX, OR MANHOLE DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH UTILITY, OR CONTRACTING AGENCY FOR SIGNAL AND LUMINAIRE.

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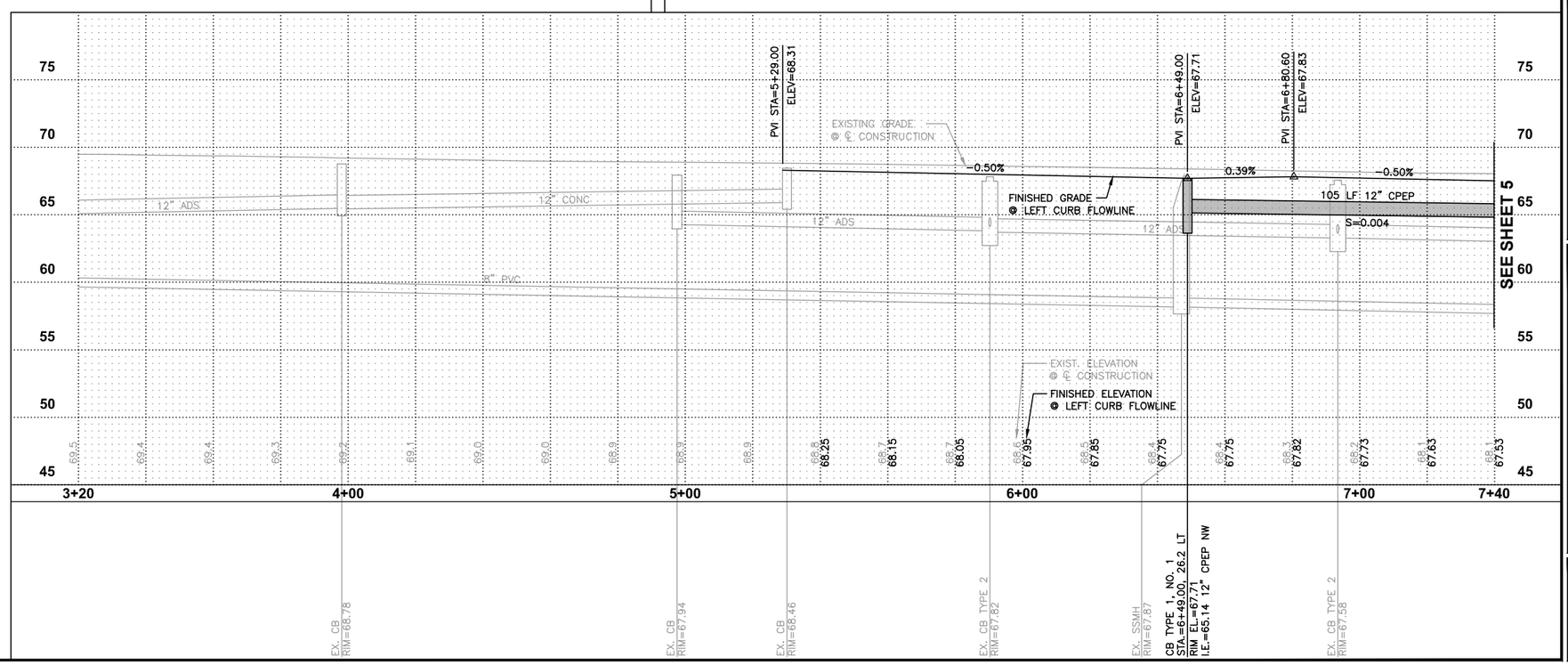
8 CONTRACTOR SHALL SAWCUT EXISTING CURB AND/OR SIDEWALK TO NEAREST FULL JOINT AND PROVIDE CLEAN EDGE.

9 CONTRACTOR SHALL SAWCUT EXISTING ASPHALT PAVEMENT, SEAL JOINT (WHERE APPLICABLE) THEN APPLY SAND BLANKET TO THE SURFACE JOINT.

15 CONTRACTOR SHALL FURNISH AND INSTALL NEW FENCE. SEE FENCE SCHEDULE ON DETAIL SHEET 18.



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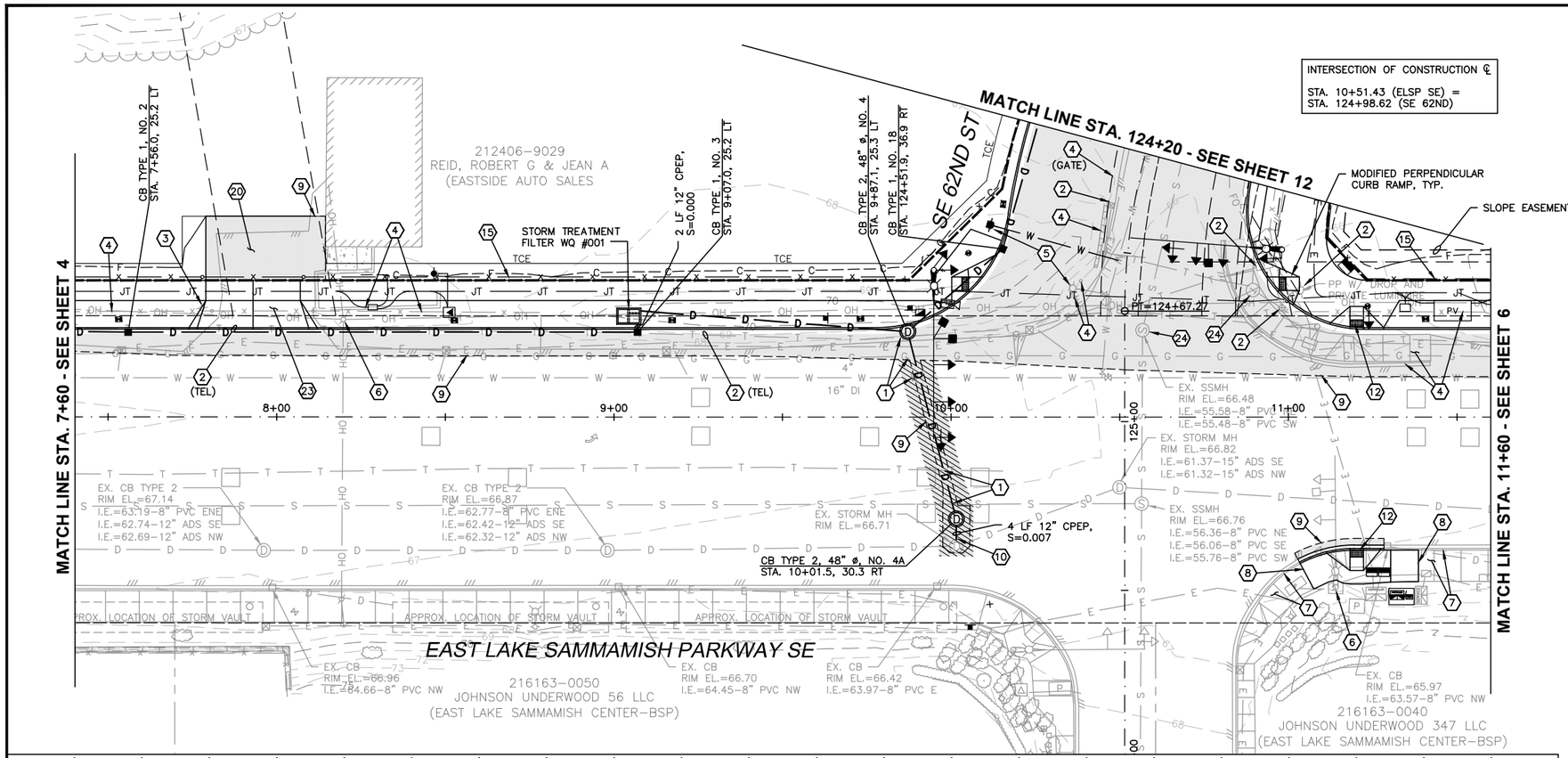
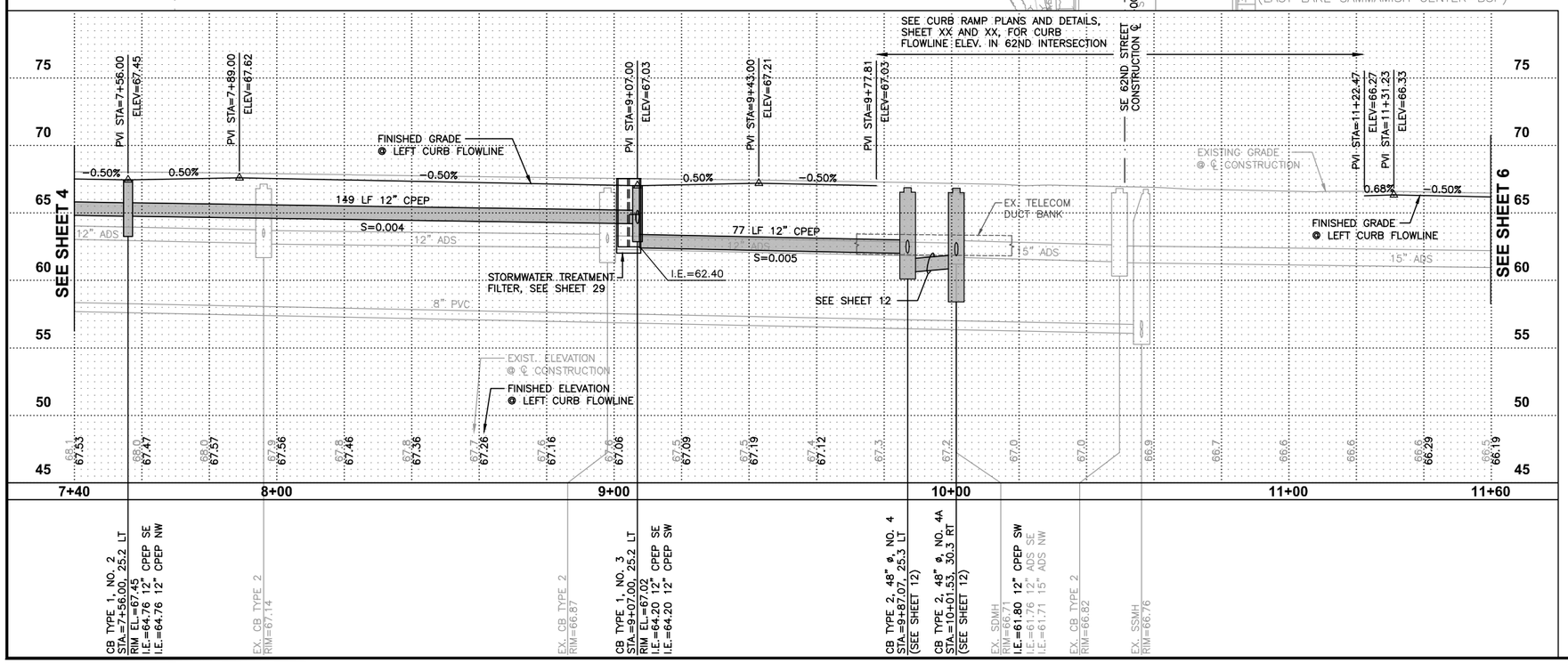
CHENG WANG — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER — 39930

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
PLAN AND PROFILE
STA. 0+00 TO 7+40

SHEET: 4
OF: 101
JOB NO.: 13570
DWG: ELSP_PP





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20 CONTRACTOR SHALL FURNISH AND INSTALL ASPHALT DRIVEWAY REPAIR. SEE DETAIL SHEET 16.

23 CONTRACTOR SHALL FURNISH AND CONSTRUCT CEMENT CONCRETE DRIVEWAY ENTRANCE PER DETAIL, SHEET 16.

24 EXISTING UTILITY TO BE ADJUSTED "BY OTHERS". CONTRACTOR SHALL COORDINATE. SEE GENERAL NOTE 2, SHEET 3.

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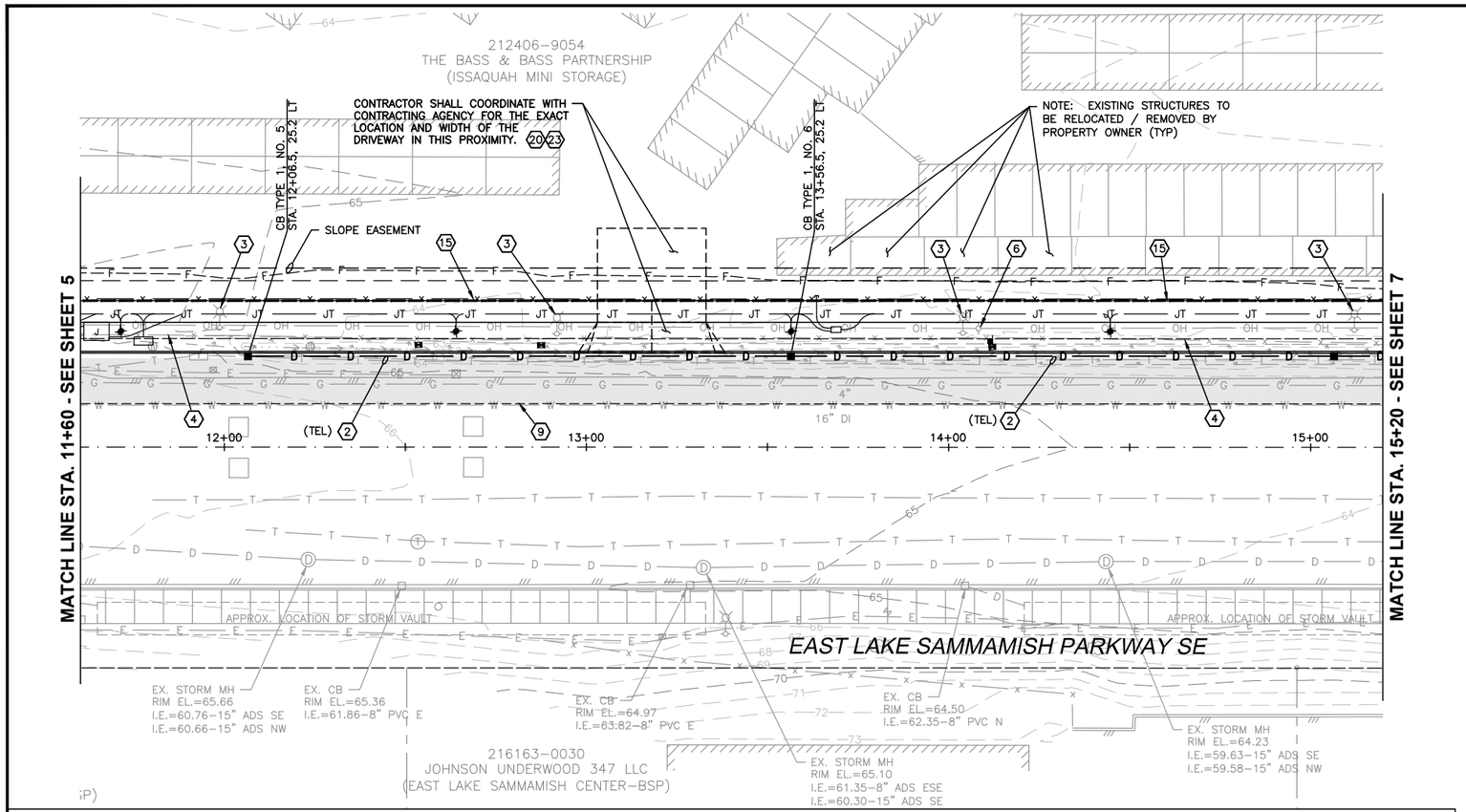
No.	REVISION	DATE	APP'D

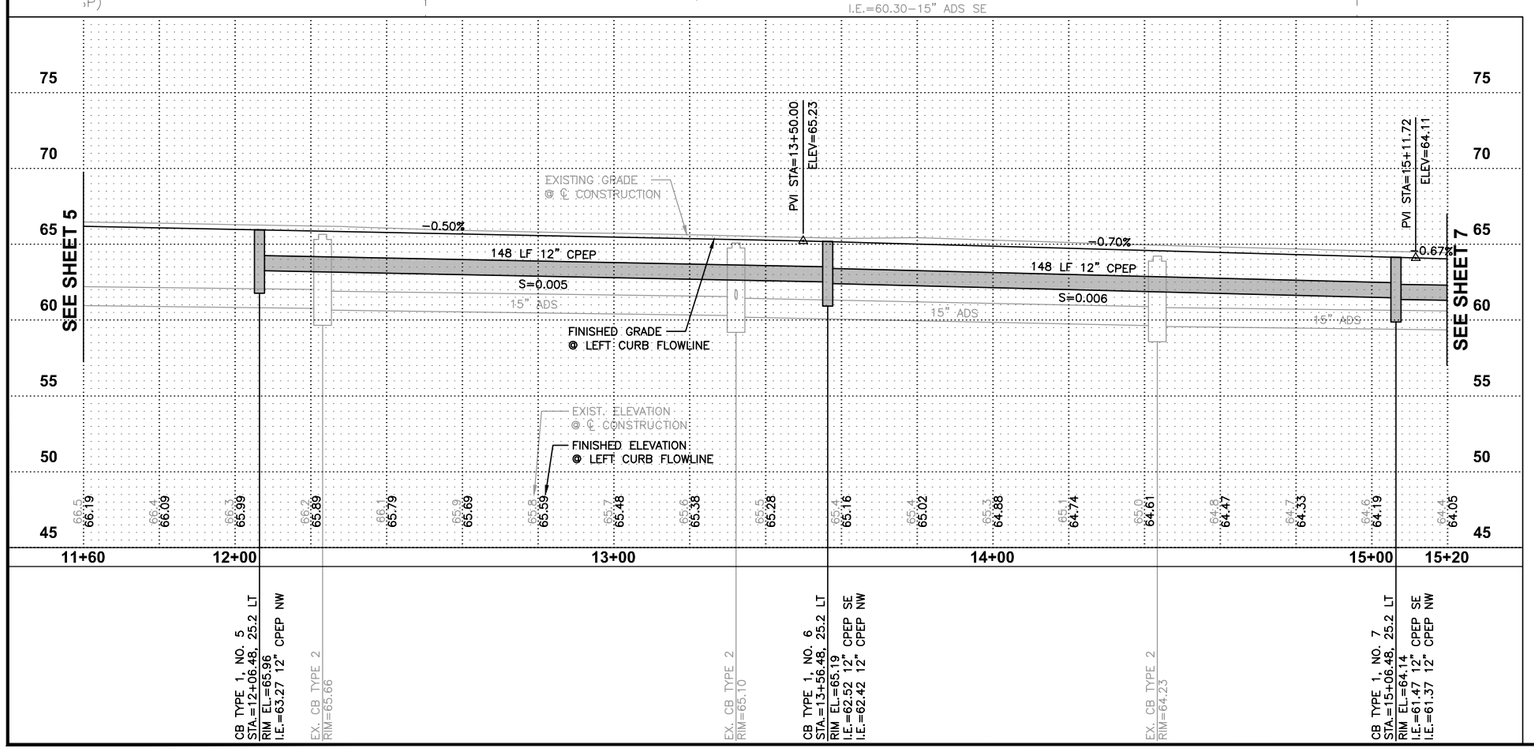
BRIAN L. SOURWINE, STATE OF WASHINGTON, 35091, REGISTERED PROFESSIONAL ENGINEER

CHENG WANG, STATE OF WASHINGTON, 39930, REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
PLAN AND PROFILE
STA. 7+40 TO 11+60

SHEET: 5
OF: 101
JOB NO.: 13570
DWG: ELSP_PP





20' 10' 0 20' 40'

ROADWAY & STORM DRAINAGE NOTES

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APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

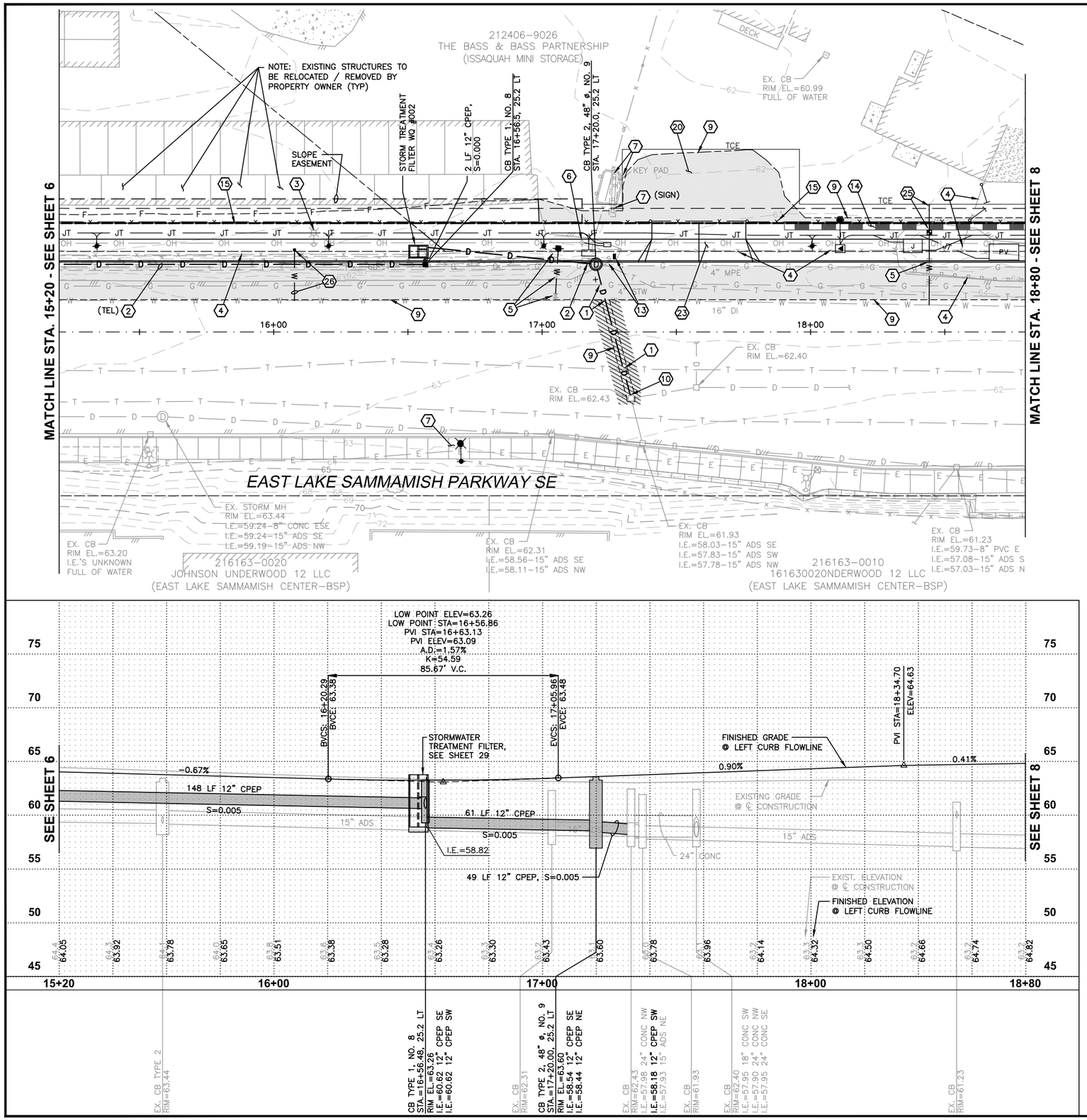
BRIAN L. SOURWINE STATE OF WASHINGTON 50091 REGISTERED PROFESSIONAL ENGINEER

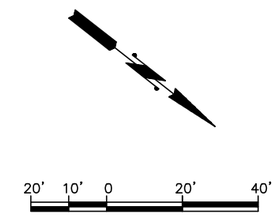
CHI-FENG KANG STATE OF WASHINGTON 39930 REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
PLAN AND PROFILE
STA. 11+60 TO 15+20

SHEET: 6
OF: 101

JOB NO.: 13570
DWG: ELSP_PP





ROADWAY & STORM DRAINAGE NOTES

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14 CONTRACTOR SHALL FURNISH AND INSTALL SEGMENTAL CONCRETE RETAINING WALL. SEE DETAIL, SHEET 34.

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25 CONTRACTOR SHALL CONNECT RECONSTRUCTED WATER METER TO EXISTING PRIVATE WATER SERVICE LINE, INCLUDING SLEEVE UNDER WALL PER SEGMENTAL CONCRETE RETAINING WALL DETAIL, SHEET 34.

26 NEW IRRIGATION METER AND SERVICE TO BE FURNISHED AND INSTALLED BY OTHERS. CONTRACTOR SHALL COORDINATE.

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BRIAN L. SOURWINE — STATE OF WASHINGTON — 36691 — REGISTERED PROFESSIONAL ENGINEER

CHI-HENG WANG — STATE OF WASHINGTON — 39930 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
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EAST LAKE SAMMAMISH PARKWAY SE WIDENING
PLAN AND PROFILE
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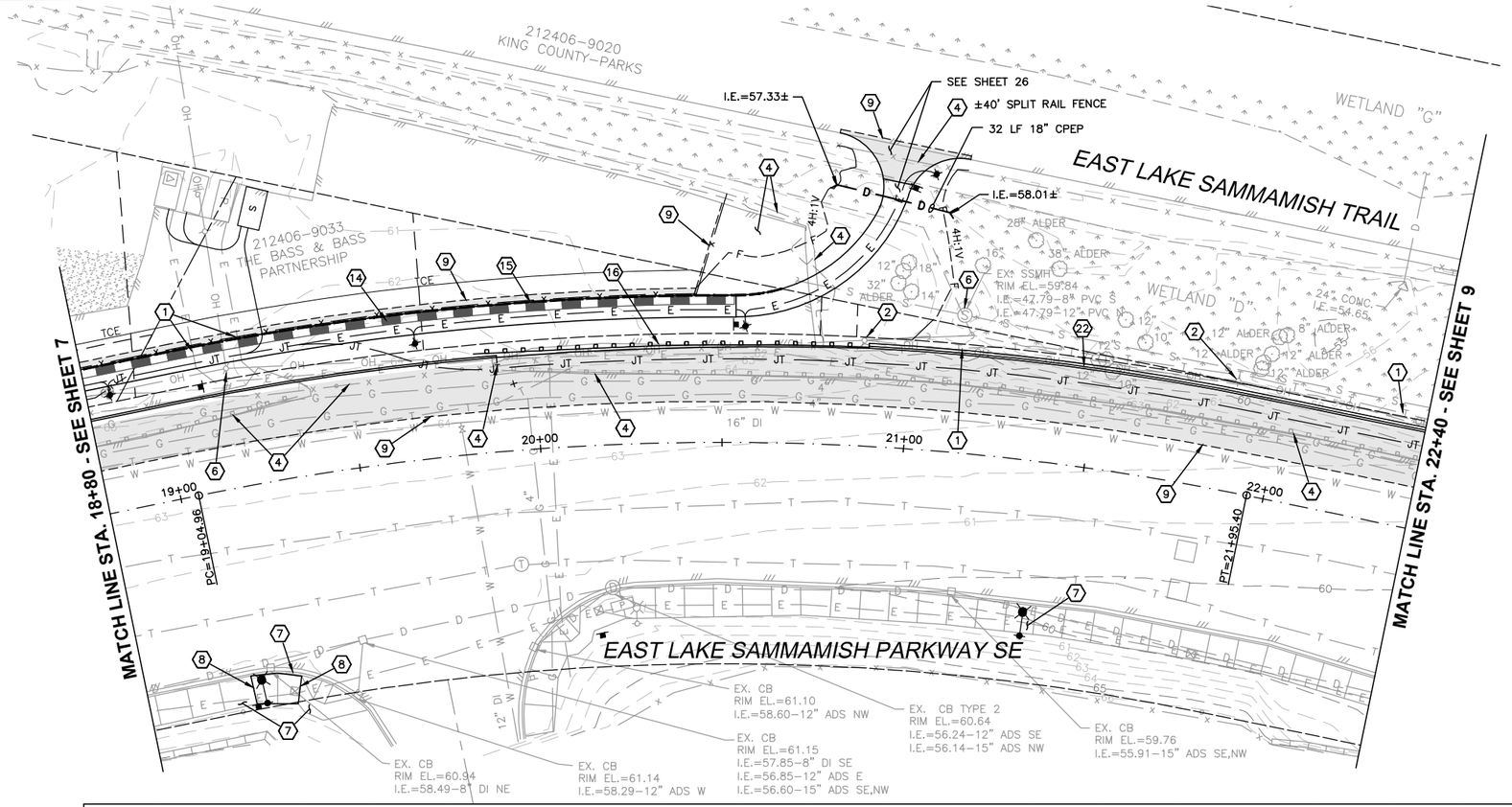
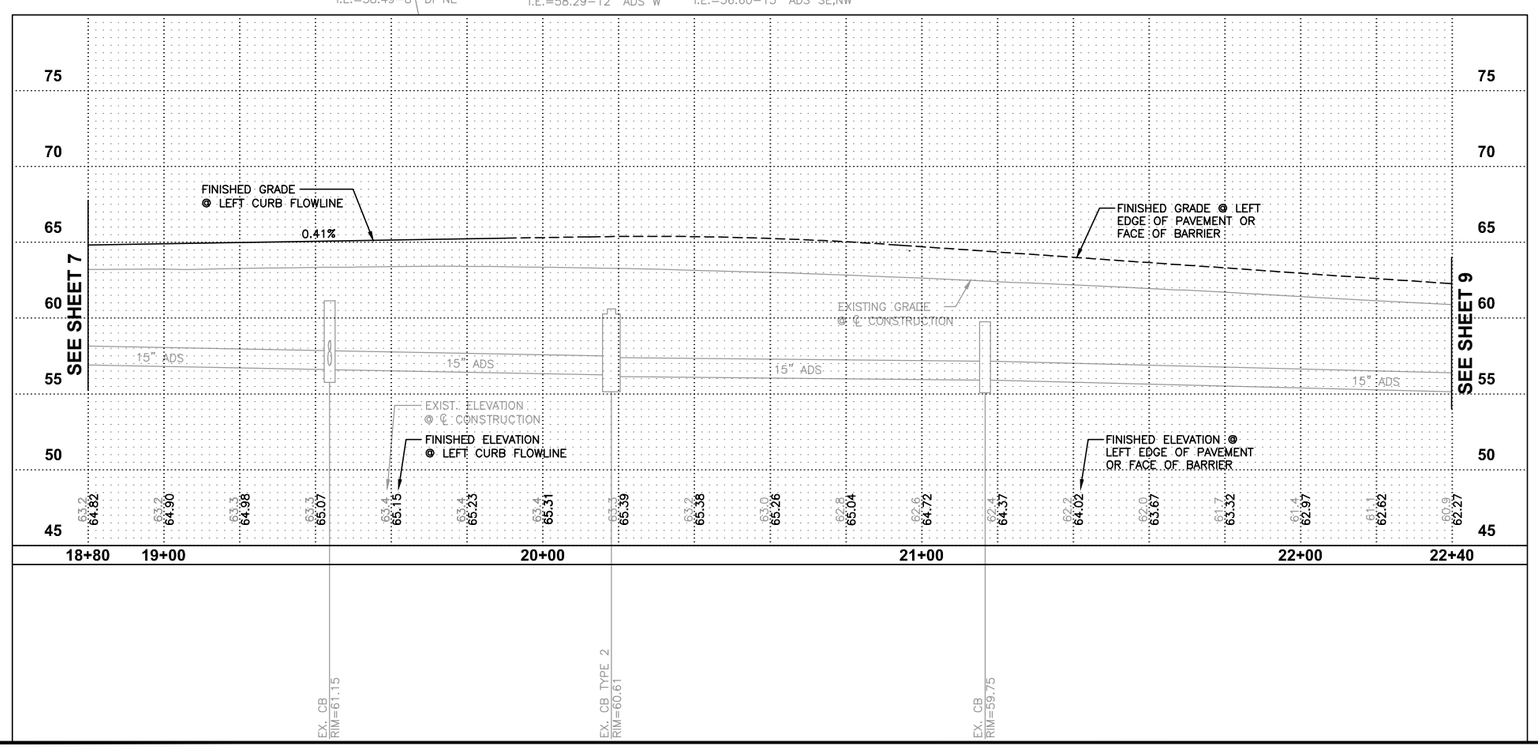
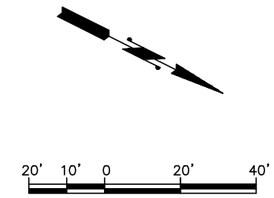
SHEET: 7
OF: 101
JOB NO.: 13570
DWG: ELSP_PP







ROADWAY & STORM DRAINAGE NOTES

1 CAUTION: POTENTIAL UTILITY CONFLICT. CONTRACTOR SHALL VERIFY (POTHOLE) EXACT LOCATION AND DEPTH OF EXISTING UTILITY. SEE ORDER OF WORK ON SHEET 3.

2 EXISTING UTILITY TO BE REMOVED OR RELOCATED "BY OTHERS". CONTRACTOR SHALL COORDINATE. SEE GENERAL NOTE 2, SHEET 3.

4 CONTRACTOR SHALL REMOVE AND WASTEHAUL EXISTING DRAINAGE STRUCTURE/PIPE, CURB & GUTTER, SIDEWALK, PAVEMENT, CONC. FOUNDATION, RETAINING WALL, PRECAST CURB, J-BOXES, BOLLARDS, POST, FENCE, GATE, RAILING, GUARDRAIL PER THE SPECIFICATIONS. COORDINATE WITH PROPERTY OWNER(S) PRIOR TO REMOVAL. THIS WORK TO BE INCLUDED IN REMOVAL OF STRUCTURES & OBSTRUCTIONS.

6 CONTRACTOR SHALL PROTECT EXISTING UTILITY POLE, SIGNAL POLE, LUMINAIRE, VAULT, J-BOX, OR MANHOLE DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH UTILITY, OR CONTRACTING AGENCY FOR SIGNAL AND LUMINAIRE.

7 CONTRACTOR SHALL PROTECT EXISTING CURB, SIDEWALK, FENCE, BOLLARD, PLANTER, PAVEMENT, ROCKERY, GUARDRAIL, WALL, IRRIGATION SYSTEM, LANDSCAPING, TREE DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER(S).

8 CONTRACTOR SHALL SAWCUT EXISTING CURB AND/OR SIDEWALK TO NEAREST FULL JOINT AND PROVIDE CLEAN EDGE.

9 CONTRACTOR SHALL SAWCUT EXISTING ASPHALT PAVEMENT, SEAL JOINT (WHERE APPLICABLE) THEN APPLY SAND BLANKET TO THE SURFACE JOINT.

14 CONTRACTOR SHALL FURNISH AND INSTALL SEGMENTAL CONCRETE RETAINING WALL. SEE DETAIL, SHEET 34.

15 CONTRACTOR SHALL FURNISH AND INSTALL NEW FENCE. SEE FENCE SCHEDULE ON DETAIL SHEET 18.

16 CONTRACTOR SHALL FURNISH AND INSTALL BEAM GUARDRAIL TYPE 31 AND NON-FLARED TERMINAL PER WSDOT STANDARD PLANS C-20.10-00 AND C-22.41-00.

22 CONTRACTOR SHALL FURNISH AND CONSTRUCT CAST-IN-PLACE REINFORCED CONCRETE RETAINING WALL WITH TRAFFIC BARRIER AND RAILING. SEE DETAIL SHEETS 35-39.

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015
SCALE: H: 1"=20' V: 1"=5'
DRAWN: C.B.W.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

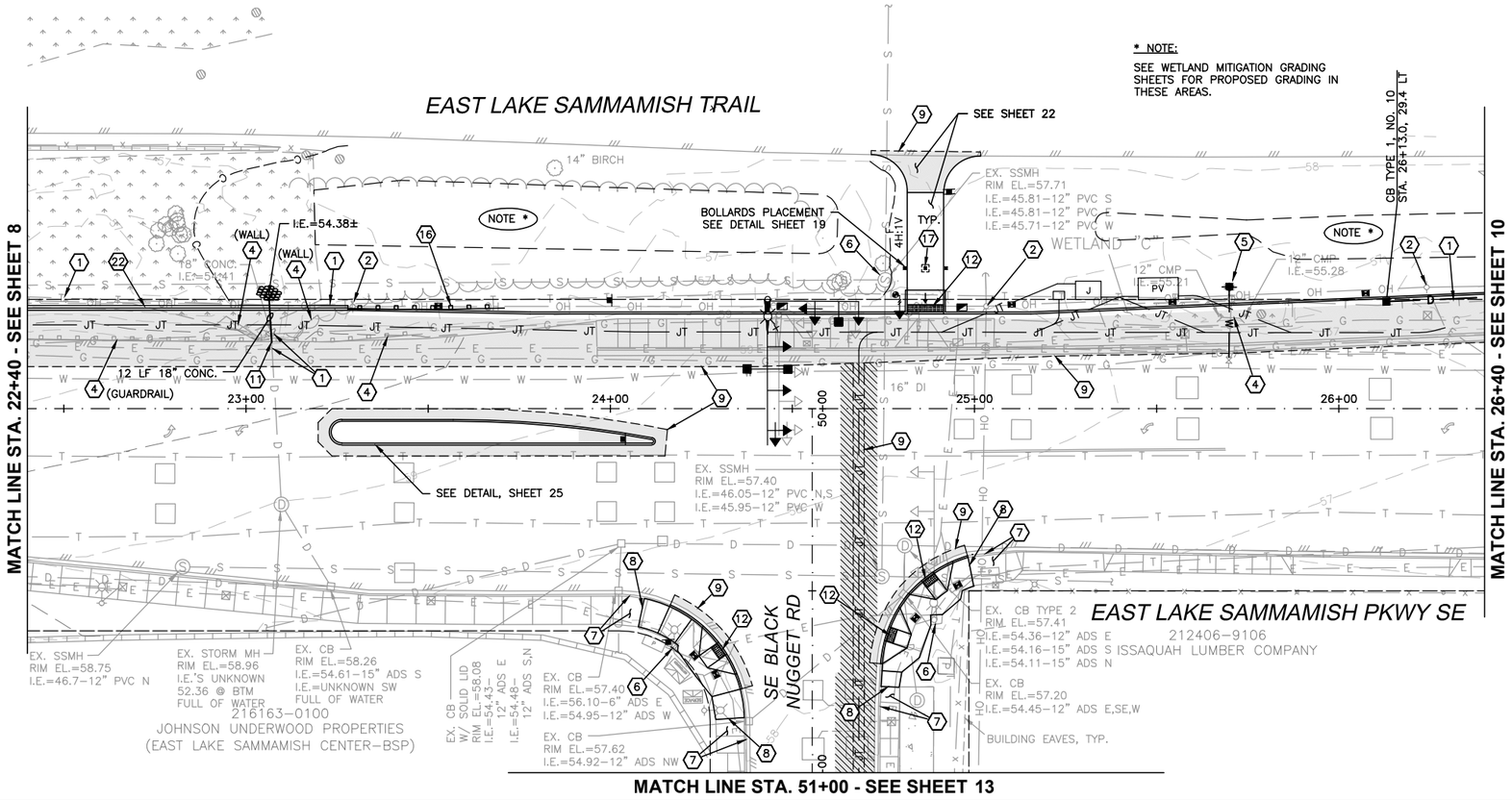
BRIAN L. SOURWINE, STATE OF WASHINGTON, 50091, REGISTERED PROFESSIONAL ENGINEER

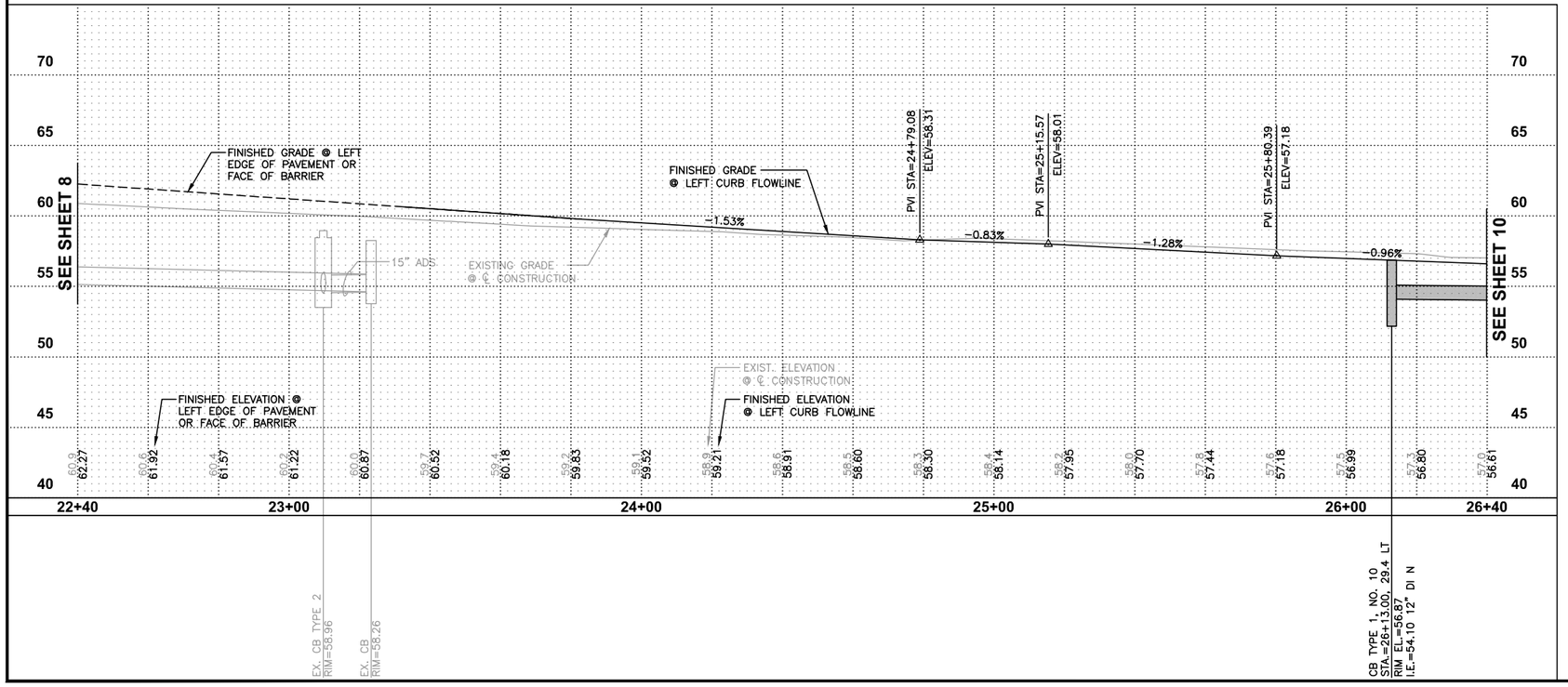
CHENG WANG, STATE OF WASHINGTON, 39930, REGISTERED PROFESSIONAL ENGINEER

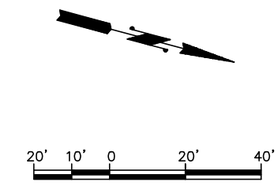
CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
PLAN AND PROFILE
STA. 18+80 TO 22+40

SHEET: 8
OF: 101

JOB NO.: 13570
DWG: ELSP_PP







ROADWAY & STORM DRAINAGE NOTES

1 CAUTION: POTENTIAL UTILITY CONFLICT. CONTRACTOR SHALL VERIFY (POTHOLE) EXACT LOCATION AND DEPTH OF EXISTING UTILITY. SEE ORDER OF WORK ON SHEET 3.

2 EXISTING UTILITY TO BE REMOVED OR RELOCATED "BY OTHERS". CONTRACTOR SHALL COORDINATE. SEE GENERAL NOTE 2, SHEET 3.

4 CONTRACTOR SHALL REMOVE AND WASTEHAUL EXISTING DRAINAGE STRUCTURE/PIPE, CURB & GUTTER, SIDEWALK, PAVEMENT, CONC. FOUNDATION, RETAINING WALL, PRECAST CURB, J–BOXES, BOLLARDS, POST, FENCE, GATE, RAILING, GUARDRAIL PER THE SPECIFICATIONS. COORDINATE WITH PROPERTY OWNER(S) PRIOR TO REMOVAL. THIS WORK TO BE INCLUDED IN REMOVAL OF STRUCTURES & OBSTRUCTIONS.

5 EXISTING FIRE HYDRANT/WATER METER TO BE REMOVED AND RELOCATED "BY OTHERS". CONTRACTOR SHALL COORDINATE.

6 CONTRACTOR SHALL PROTECT EXISTING UTILITY POLE, SIGNAL POLE, LUMINAIRE, VAULT, J–BOX, OR MANHOLE DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH UTILITY, OR CONTRACTING AGENCY FOR SIGNAL AND LUMINAIRE.

7 CONTRACTOR SHALL PROTECT EXISTING CURB, SIDEWALK, FENCE, BOLLARD, PLANTER, PAVEMENT, ROCKERY, GUARDRAIL, WALL, IRRIGATION SYSTEM, LANDSCAPING, TREE DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER(S).

8 CONTRACTOR SHALL SAWCUT EXISTING CURB AND/OR SIDEWALK TO NEAREST FULL JOINT AND PROVIDE CLEAN EDGE.

9 CONTRACTOR SHALL SAWCUT EXISTING ASPHALT PAVEMENT, SEAL JOINT (WHERE APPLICABLE) THEN APPLY SAND BLANKET TO THE SURFACE JOINT.

11 CONTRACTOR SHALL CONNECT NEW STORM DRAIN PIPE TO EXISTING STORM DRAIN PIPE.

12 CONTRACTOR SHALL FURNISH AND CONSTRUCT PERPENDICULAR CURB RAMP PER CITY STD. DETAILS T–07 AND T–08.

16 CONTRACTOR SHALL FURNISH AND INSTALL BEAM GUARDRAIL TYPE 31 AND NON–FLARED TERMINAL PER WSDOT STANDARD PLANS C–20.10–00 AND C–22.41–00.

17 CONTRACTOR SHALL FURNISH AND INSTALL REMOVABLE BOLLARD PER CITY STANDARD DETAIL NO. T–56.

22 CONTRACTOR SHALL FURNISH AND CONSTRUCT CAST–IN–PLACE REINFORCED CONCRETE RETAINING WALL WITH TRAFFIC BARRIER AND RAILING. SEE DETAIL SHEETS 35–39.

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284–0860

DATE: APR. 2015
SCALE: H: 1"=20' V: 1"=5'
DRAWN: C.B.W.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

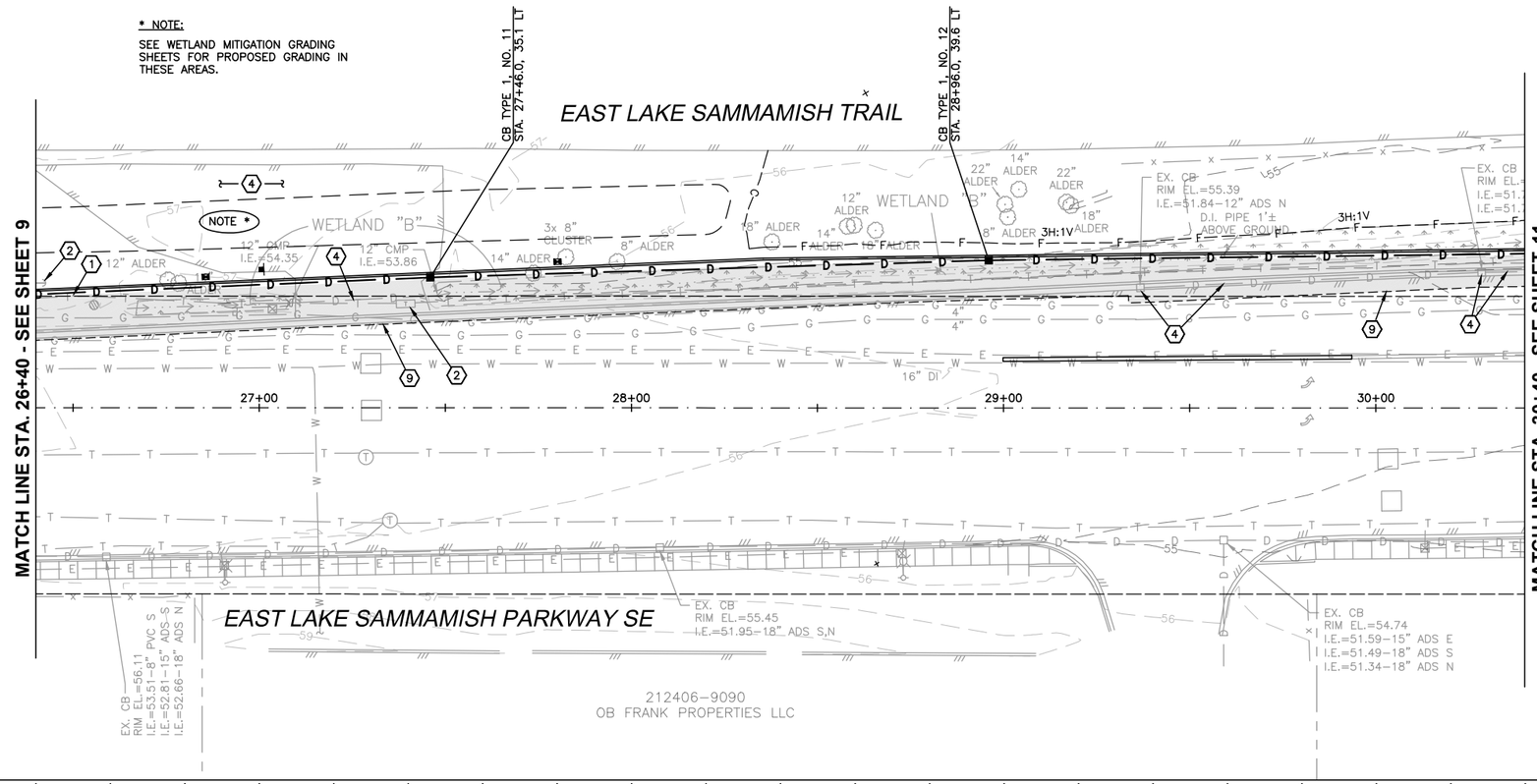
No.	REVISION	DATE	APPD

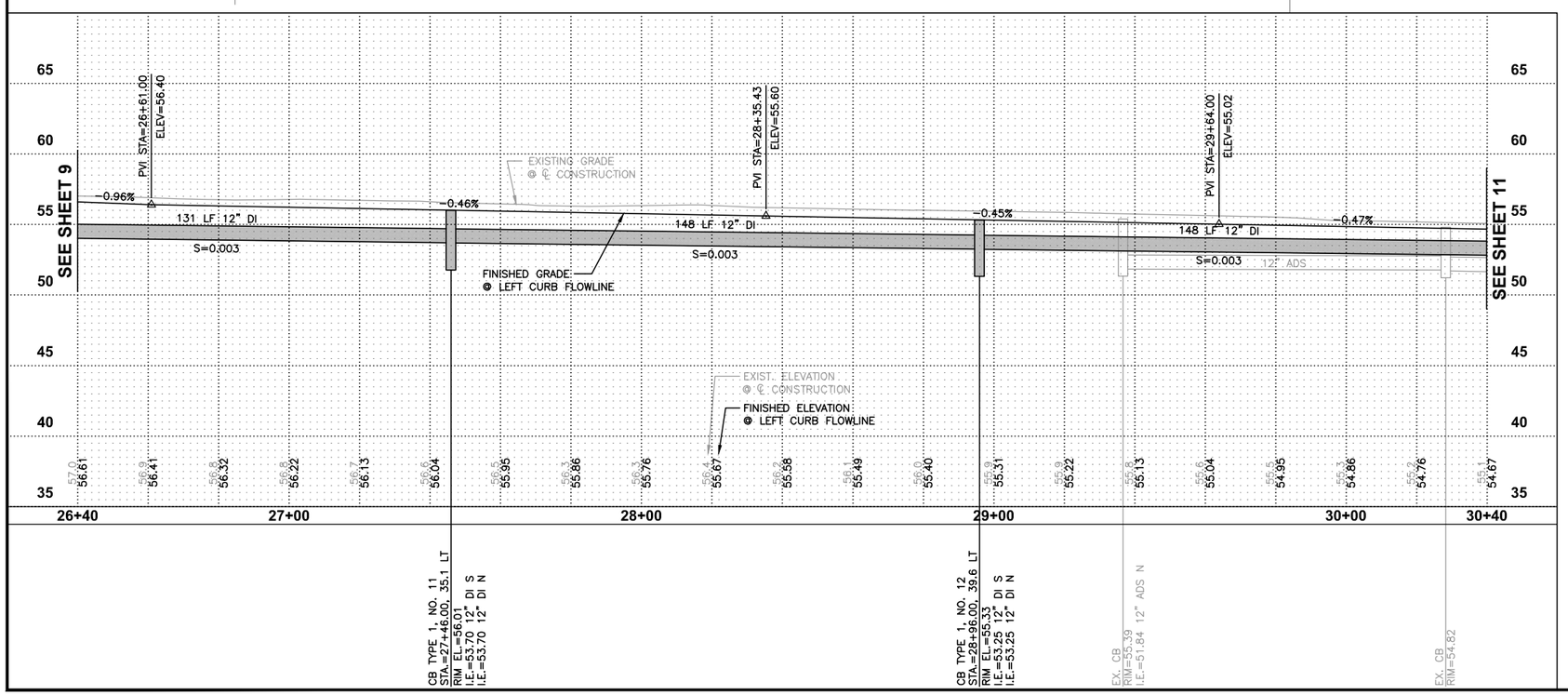
BRIAN L. SOURWINE — STATE OF WASHINGTON — 36691 — REGISTERED PROFESSIONAL ENGINEER

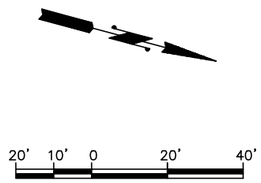
CHI-HENG WANG — STATE OF WASHINGTON — 39950 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
PLAN AND PROFILE
STA. 22+40 TO 26+40

SHEET: 9
OF: 101
JOB NO.: 13570
DWG: ELSP_PP







ROADWAY & STORM DRAINAGE NOTES

1 CAUTION: POTENTIAL UTILITY CONFLICT. CONTRACTOR SHALL VERIFY (POTHOLE) EXACT LOCATION AND DEPTH OF EXISTING UTILITY. SEE ORDER OF WORK ON SHEET 3.

2 EXISTING UTILITY TO BE REMOVED OR RELOCATED "BY OTHERS". CONTRACTOR SHALL COORDINATE. SEE GENERAL NOTE 2, SHEET 3.

4 CONTRACTOR SHALL REMOVE AND WASTEHAUL EXISTING DRAINAGE STRUCTURE/PIPE, CURB & GUTTER, SIDEWALK, PAVEMENT, CONC. FOUNDATION, RETAINING WALL, PRECAST CURB, J-BOXES, BOLLARDS, POST, FENCE, GATE, RAILING, GUARDRAIL PER THE SPECIFICATIONS. COORDINATE WITH PROPERTY OWNER(S) PRIOR TO REMOVAL. THIS WORK TO BE INCLUDED IN REMOVAL OF STRUCTURES & OBSTRUCTIONS.

9 CONTRACTOR SHALL SAWCUT EXISTING ASPHALT PAVEMENT, SEAL JOINT (WHERE APPLICABLE) THEN APPLY SAND BLANKET TO THE SURFACE JOINT.

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015
SCALE: H: 1"=20' V: 1"=5'
DRAWN: C.B.W.
CHECKED: C.B.W.
APPROVED: B.L.S.

No.	REVISION	DATE	APPD

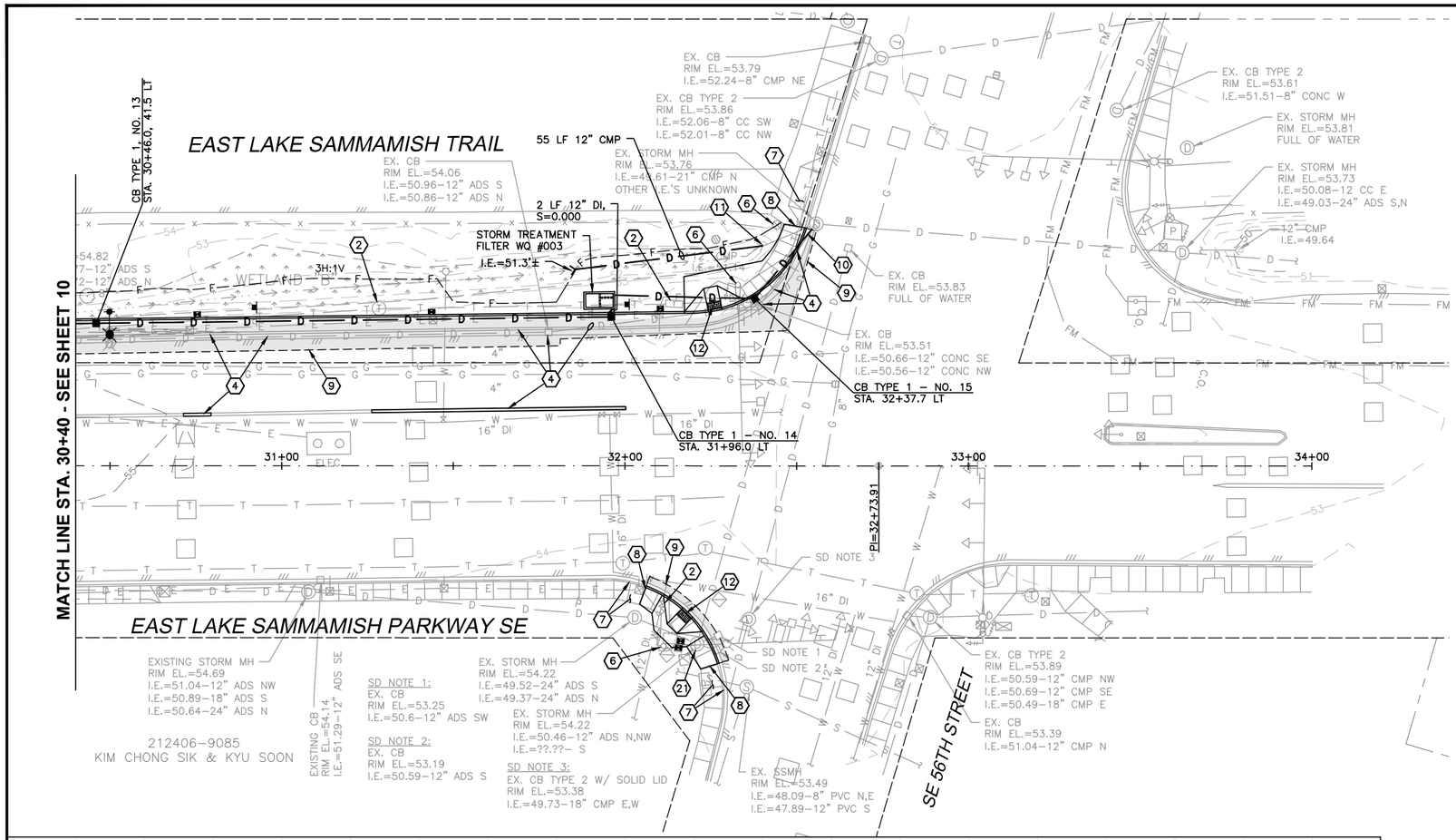
PRELIMINARY NOT FOR CONSTRUCTION

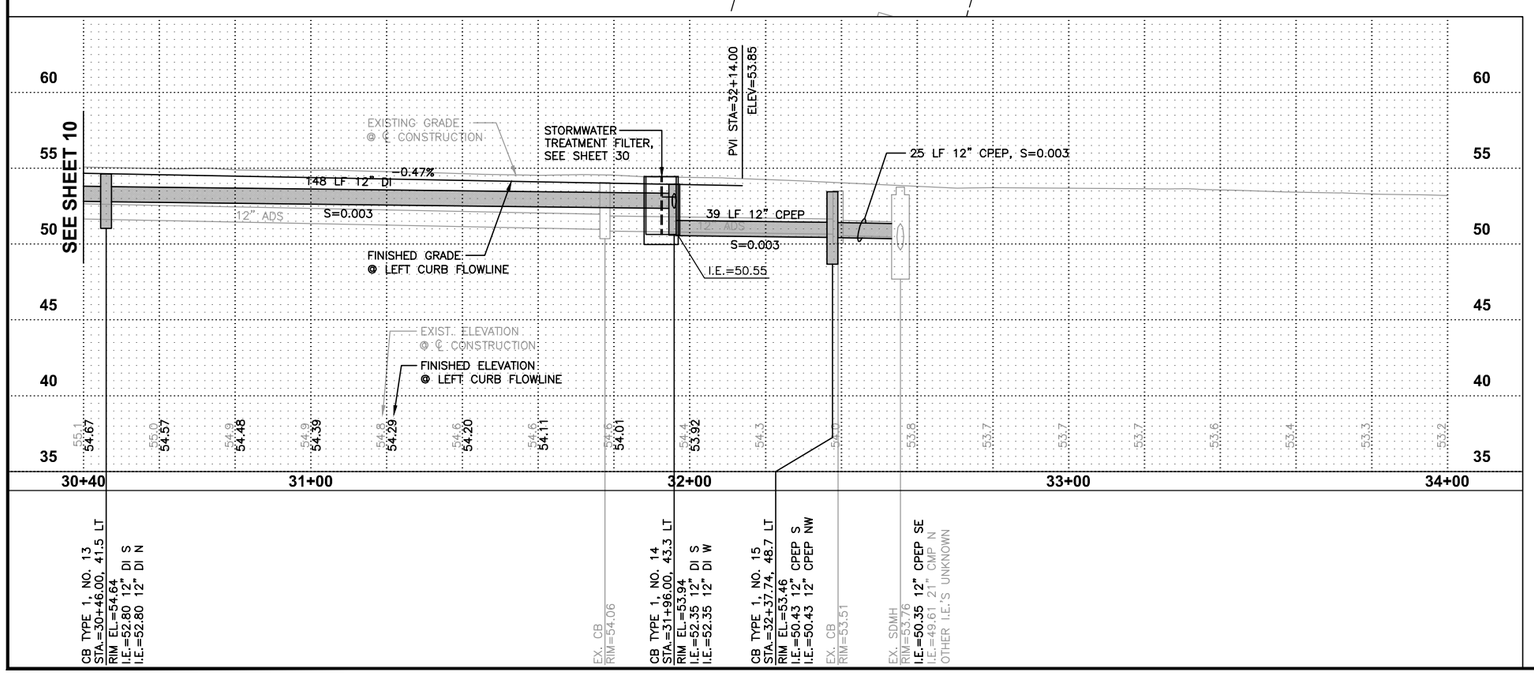
BRIAN L. SOURWINE STATE OF WASHINGTON 36091 REGISTERED PROFESSIONAL ENGINEER

CHI-HENG WANG STATE OF WASHINGTON 39930 REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
PLAN AND PROFILE
STA. 26+40 TO 30+40

SHEET: 10
OF: 101
JOB NO.: 13570
DWG: ELSP_PP





20' 10' 0 20' 40'

ROADWAY & STORM DRAINAGE NOTES

2 EXISTING UTILITY TO BE REMOVED OR RELOCATED "BY OTHERS". CONTRACTOR SHALL COORDINATE. SEE GENERAL NOTE 2, SHEET 3.

4 CONTRACTOR SHALL REMOVE AND WASTEHAUL EXISTING DRAINAGE STRUCTURE/PIPE, CURB & GUTTER, SIDEWALK, PAVEMENT, CONC. FOUNDATION, RETAINING WALL, PRECAST CURB, J–BOXES, BOLLARDS, POST, FENCE, GATE, RAILING, GUARDRAIL PER THE SPECIFICATIONS. COORDINATE WITH PROPERTY OWNER(S) PRIOR TO REMOVAL. THIS WORK TO BE INCLUDED IN REMOVAL OF STRUCTURES & OBSTRUCTIONS.

6 CONTRACTOR SHALL PROTECT EXISTING UTILITY POLE, SIGNAL POLE, LUMINAIRE, VAULT, J–BOX, OR MANHOLE DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH UTILITY, OR CONTRACTING AGENCY FOR SIGNAL AND LUMINAIRE.

7 CONTRACTOR SHALL PROTECT EXISTING CURB, SIDEWALK, FENCE, BOLLARD, PLANTER, PAVEMENT, ROCKERY, GUARDRAIL, WALL, IRRIGATION SYSTEM, LANDSCAPING, TREE DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER(S).

8 CONTRACTOR SHALL SAWCUT EXISTING CURB AND/OR SIDEWALK TO NEAREST FULL JOINT AND PROVIDE CLEAN EDGE.

9 CONTRACTOR SHALL SAWCUT EXISTING ASPHALT PAVEMENT, SEAL JOINT (WHERE APPLICABLE) THEN APPLY SAND BLANKET TO THE SURFACE JOINT.

10 CONTRACTOR SHALL CONNECT NEW STORM DRAIN PIPE TO EXISTING CATCH BASIN. (CORE DRILL IF KNOCKOUT IS NOT PRESENT.)

11 CONTRACTOR SHALL CONNECT NEW STORM DRAIN PIPE TO EXISTING STORM DRAIN PIPE.

12 CONTRACTOR SHALL FURNISH AND CONSTRUCT PERPENDICULAR CURB RAMP PER CITY STD. DETAILS T–07 AND T–08.

21 CONTRACTOR SHALL ADJUST EXISTING STORM STRUCTURE TO GRADE.

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284–0860

DATE: APR. 2015	
SCALE: H: 1"=20' V: 1"=5'	
DRAWN: C.B.W.	
CHECKED: C.B.W.	
APPROVED: B.L.S.	

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

BRIAN L. SOURNINE, STATE OF WASHINGTON, 36591, REGISTERED PROFESSIONAL ENGINEER

CHI-HENG WANG, STATE OF WASHINGTON, 39950, REGISTERED PROFESSIONAL ENGINEER

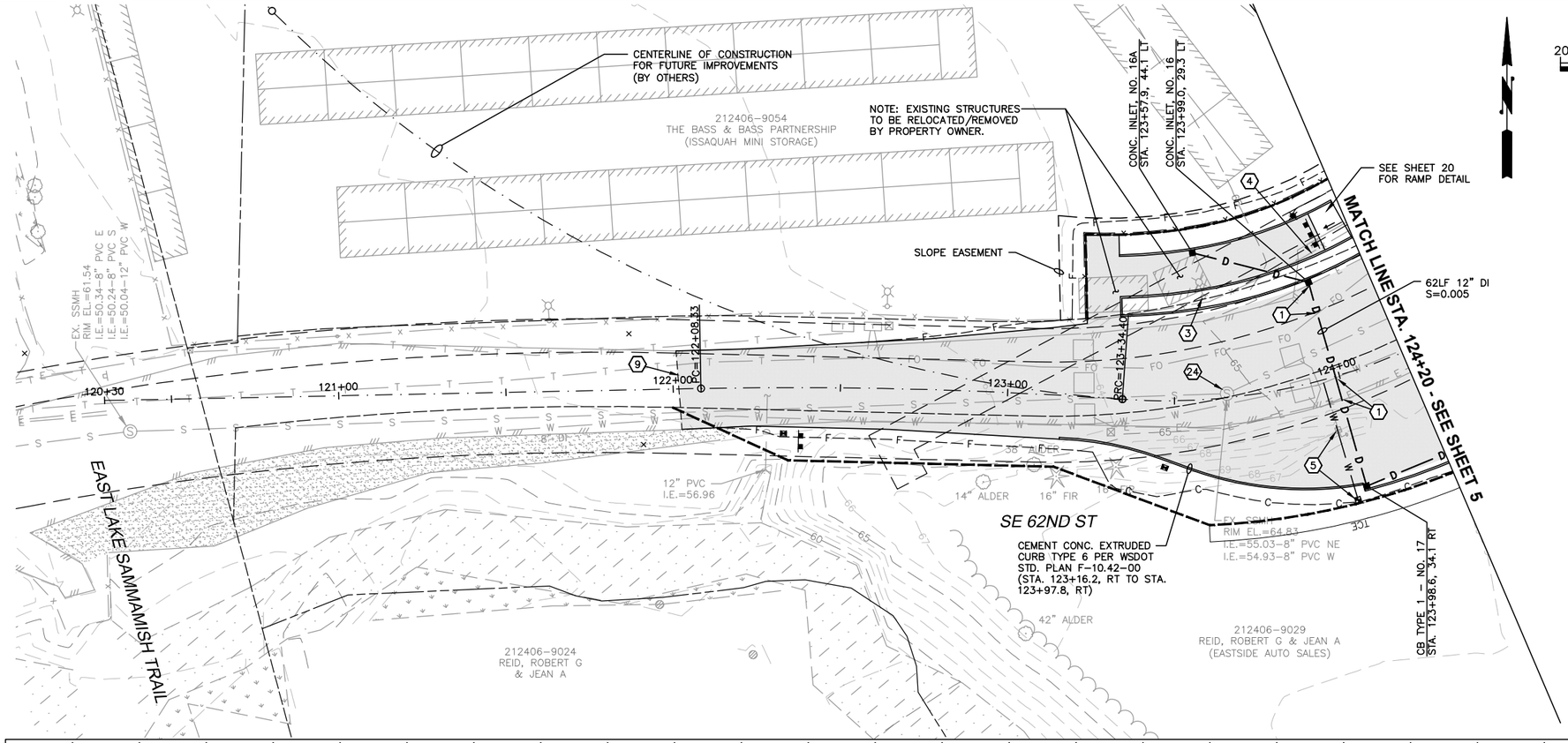
CITY OF ISSAQUAH
WASHINGTON
KING

EAST LAKE SAMMAMISH PARKWAY SE WIDENING

PLAN AND PROFILE
STA. 30+40 TO 34+00

SHEET: 11
OF: 101

JOB NO.: 13570
DWG: ELSP_PP



20' 10' 0 20' 40'

ROADWAY & STORM DRAINAGE NOTES

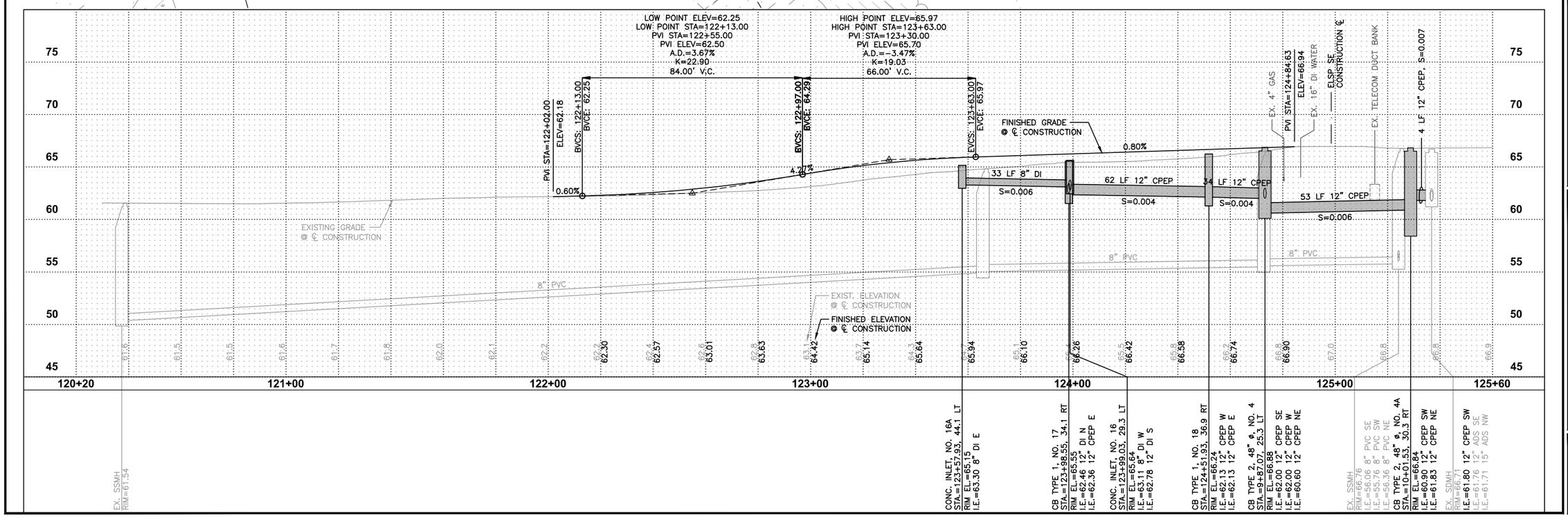
1 CAUTION: POTENTIAL UTILITY CONFLICT. CONTRACTOR SHALL VERIFY (POTHOLE) EXACT LOCATION AND DEPTH OF EXISTING UTILITY. SEE ORDER OF WORK ON SHEET 3.

3 CONTRACTOR SHALL REMOVE AND WASTEHAUL EXISTING WOOD POLE AND REINSTALL LUMINAIRE ON NEW POLE PER SPECIFICATIONS.

4 CONTRACTOR SHALL REMOVE AND WASTEHAUL EXISTING DRAINAGE STRUCTURE/PIPE, CURB & GUTTER, SIDEWALK, PAVEMENT, CONC. FOUNDATION, RETAINING WALL, PRECAST CURB, J-BOXES, BOLLARDS, POST, FENCE, GATE, RAILING, GUARDRAIL PER THE SPECIFICATIONS. COORDINATE WITH PROPERTY OWNER(S) PRIOR TO REMOVAL. THIS WORK TO BE INCLUDED IN REMOVAL OF STRUCTURES & OBSTRUCTIONS.

5 EXISTING FIRE HYDRANT/WATER METER TO BE REMOVED AND RELOCATED "BY OTHERS". CONTRACTOR SHALL COORDINATE.

24 EXISTING UTILITY TO BE ADJUSTED "BY OTHERS". CONTRACTOR SHALL COORDINATE. SEE GENERAL NOTE 2, SHEET 3.



Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015	SCALE: AS NOTED	DRAWN: C.N.T.	CHECKED: C.B.W.	APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

BRIAN L. SOURWINE, STATE OF WASHINGTON, 36091, REGISTERED PROFESSIONAL ENGINEER

CHENG WANG, STATE OF WASHINGTON, 39930, REGISTERED PROFESSIONAL ENGINEER

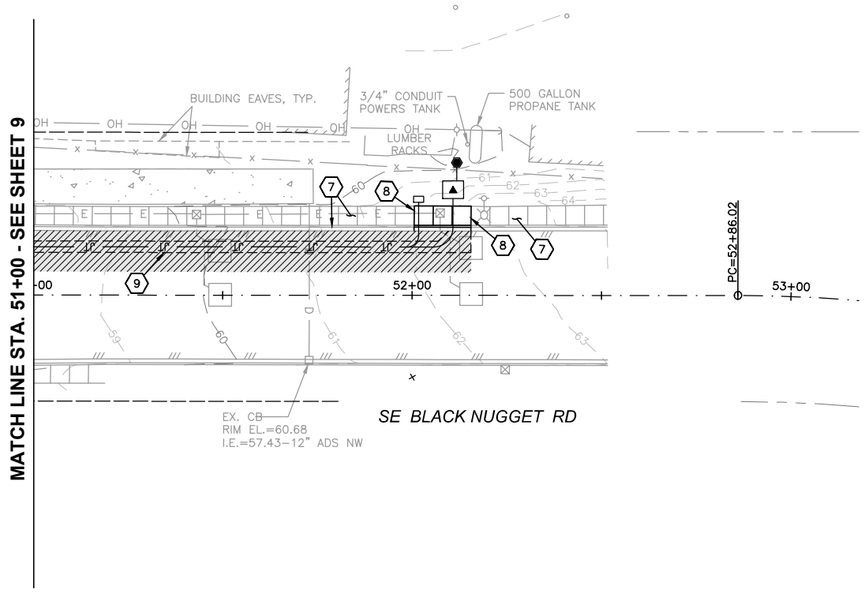
CITY OF ISSAQUAH
KING WASHINGTON

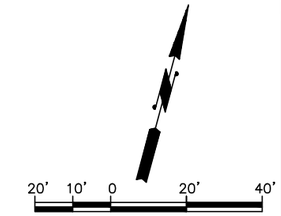
EAST LAKE SAMMAMISH PARKWAY SE WIDENING

SE 62ND STREET
PLAN AND PROFILE

SHEET: 12
OF: 101

JOB NO.: 13570
DWG: 62ND_PP





ROADWAY & STORM DRAINAGE NOTES

7 CONTRACTOR SHALL PROTECT EXISTING CURB, SIDEWALK, FENCE, BOLLARD, PLANTER, PAVEMENT, ROCKERY, GUARDRAIL, WALL, IRRIGATION SYSTEM, LANDSCAPING, TREE DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER(S).

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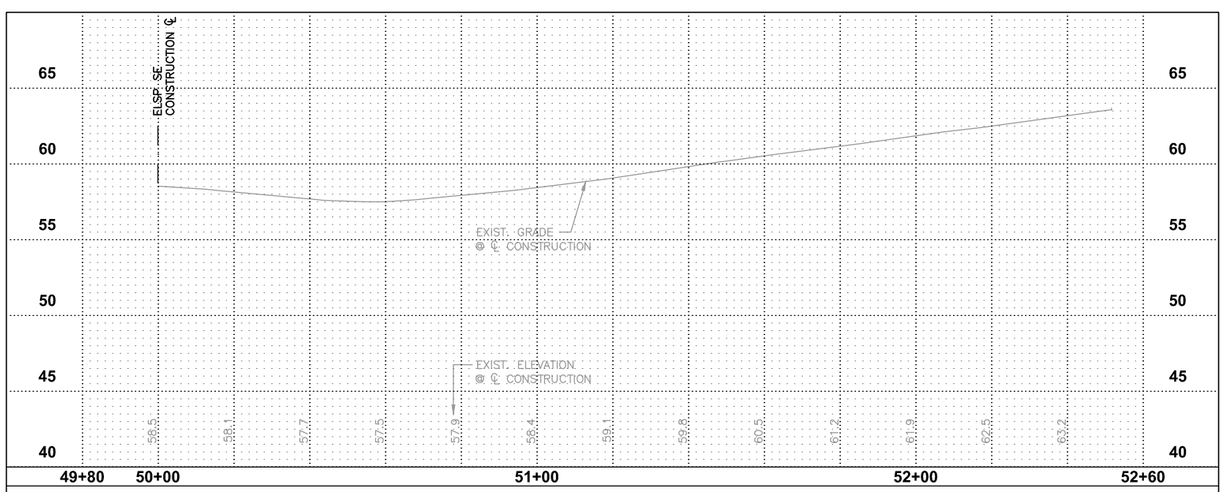

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015
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PRELIMINARY NOT FOR CONSTRUCTION

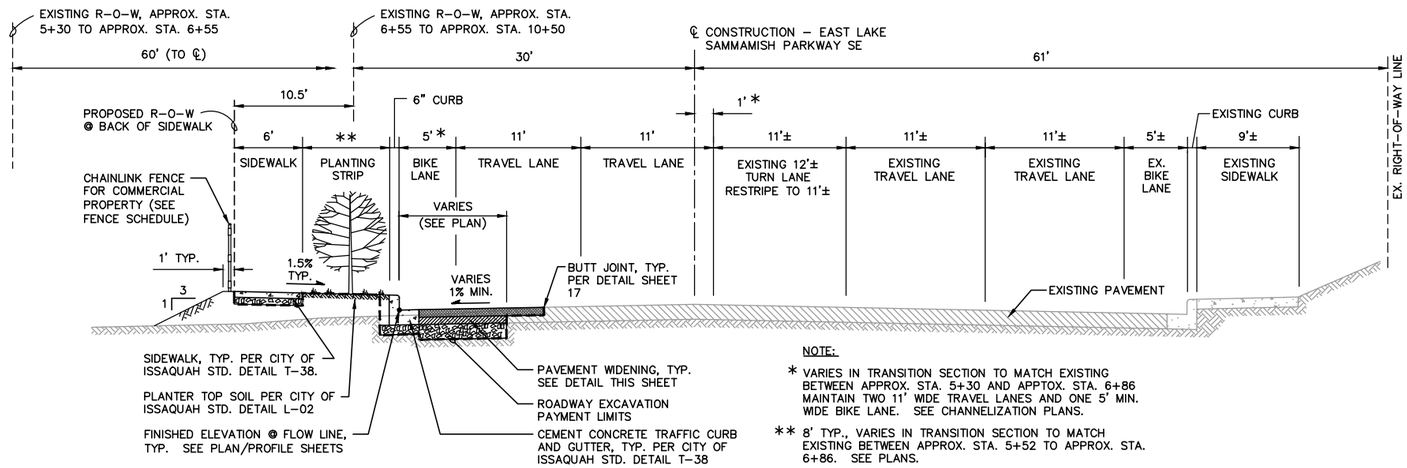
No.	REVISION	DATE	APPD

BRIAN L. SOURINE — STATE OF WASHINGTON — 35591 — REGISTERED PROFESSIONAL ENGINEER

CHI-HENG WANG — STATE OF WASHINGTON — 39930 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
SE BLACK NUGGET ROAD
PLAN AND PROFILE

SHEET: 13
OF: 101
JOB NO.: 13570
DWG: ELSP_PP2



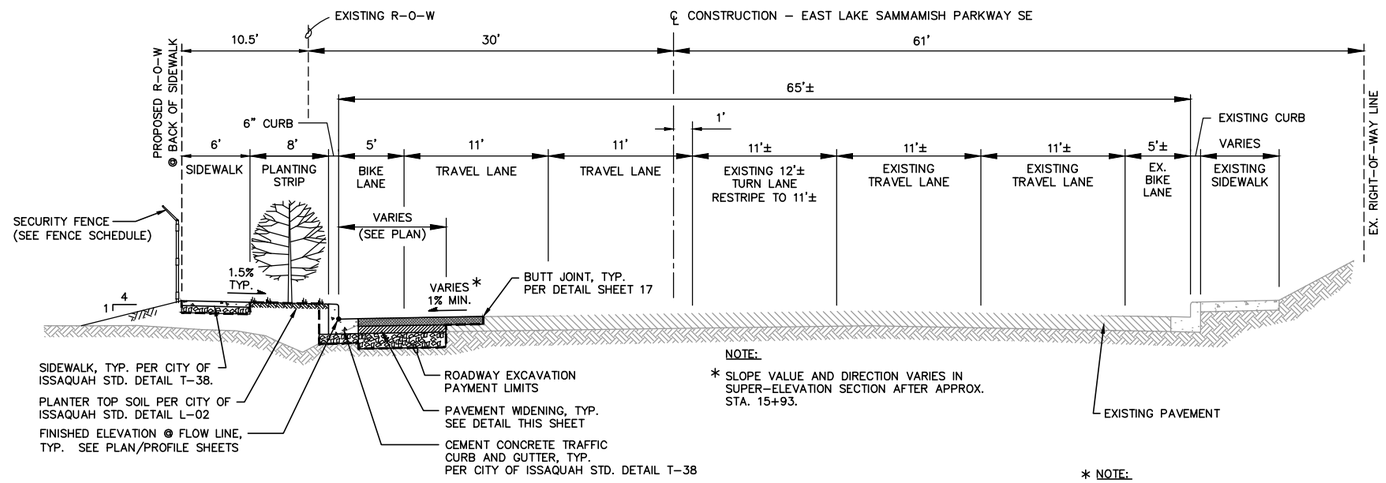
NOTE:

* VARIES IN TRANSITION SECTION TO MATCH EXISTING BETWEEN APPROX. STA. 5+30 AND APPTOX. STA. 6+86 MAINTAIN TWO 11' WIDE TRAVEL LANES AND ONE 5' MIN. WIDE BIKE LANE. SEE CHANNELIZATION PLANS.

** 8' TYP., VARIES IN TRANSITION SECTION TO MATCH EXISTING BETWEEN APPROX. STA. 5+52 TO APPROX. STA. 6+86. SEE PLANS.

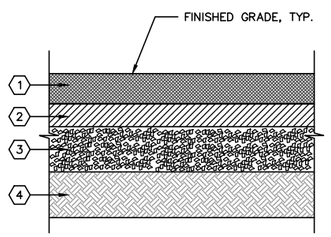
TYPICAL CROSS-SECTION: EAST LAKE SAMMAMISH PARKWAY SE
APPROX. STATION 5+30 TO APPROX. STATION 10+50

NOT TO SCALE



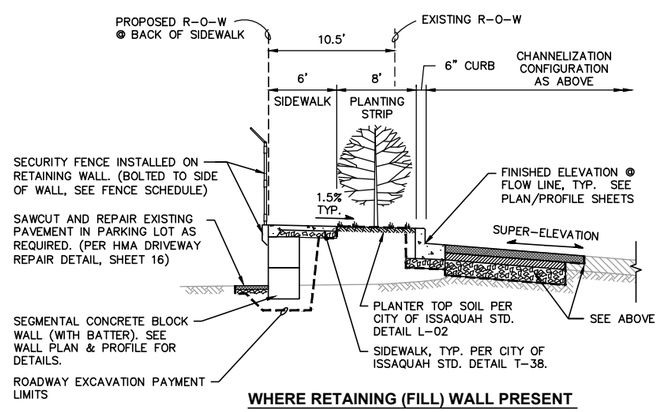
NOTE:

* SLOPE VALUE AND DIRECTION VARIES IN SUPER-ELEVATION SECTION AFTER APPROX. STA. 15+93.



NEW PAVEMENT ROADWAY/PAVEMENT WIDENING

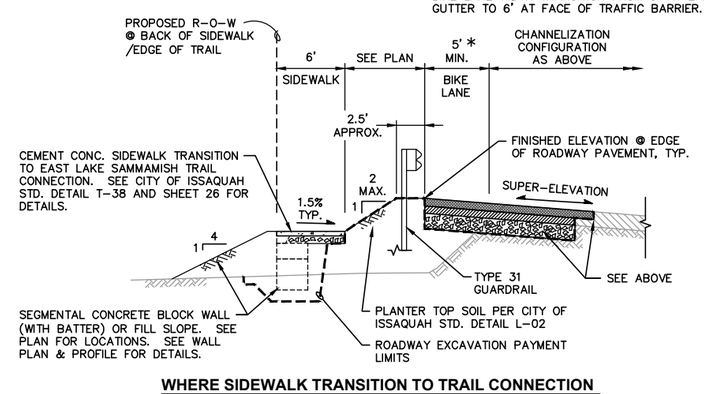
1. 3" COMPACTED DEPTH HMA CLASS 1/2".
2. 4" COMPACTED DEPTH ASPHALT TREATED BASE
3. 9" COMPACTED DEPTH CRUSHED SURFACING BASE COURSE
4. SUITABLE NATIVE, AND/OR GRAVEL BORROW.



WHERE RETAINING (FILL) WALL PRESENT

* NOTE:

BIKE LANE WIDTH TRANSITION FROM 5' AT END OF CURB & GUTTER TO 6' AT FACE OF TRAFFIC BARRIER. SEE PLAN.



WHERE SIDEWALK TRANSITION TO TRAIL CONNECTION

TYPICAL CROSS-SECTION: EAST LAKE SAMMAMISH PARKWAY SE
APPROX. STATION 10+50 TO APPROX. STATION 20+87

NOT TO SCALE

0 1" 2"
TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

BRIAN L. SOURWINE, STATE OF WASHINGTON, 36061, REGISTERED PROFESSIONAL ENGINEER

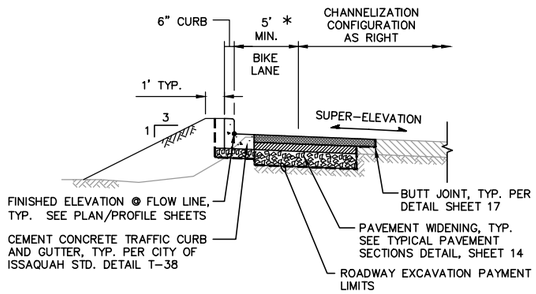
CHI HENG WANG, STATE OF WASHINGTON, 39905, REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
TYPICAL ROADWAY CROSS SECTIONS

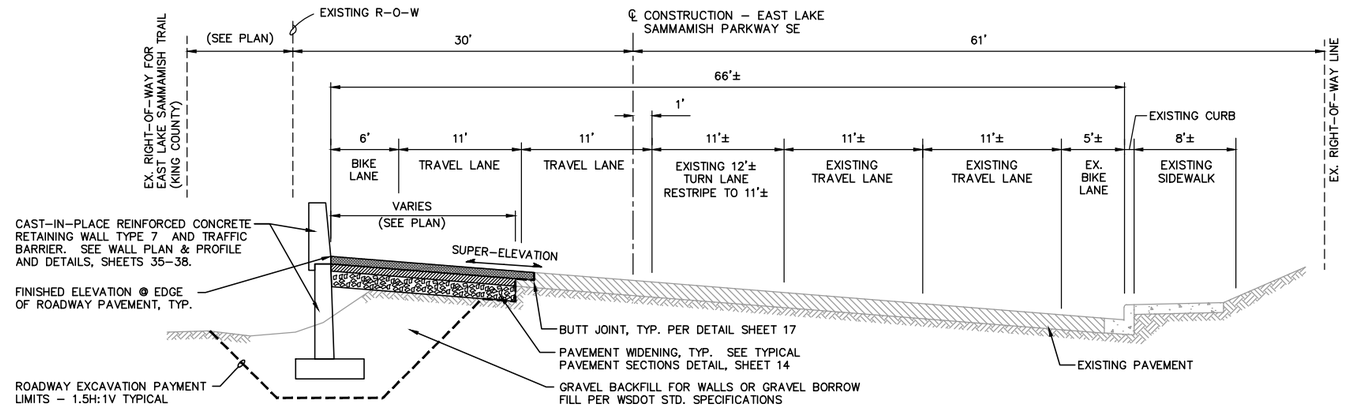
SHEET: 14
OF: 101
JOB NO.: 13570
DWG: TYPSEC

NOTE:

* BIKE LANE 6' WIDE AT FACE OF TRAFFIC BARRIER; 5' WIDE AT CURB SECTION. SEE PLANS.

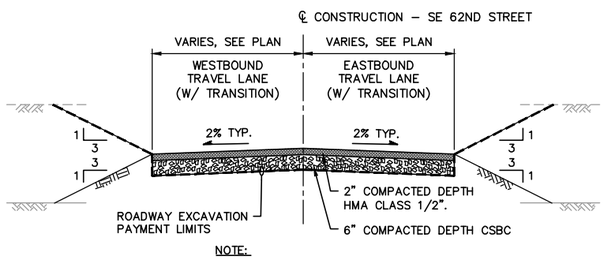


WHERE CURB & GUTTER PRESENT



TYPICAL CROSS-SECTION: EAST LAKE SAMMAMISH PARKWAY SE
APPROX. STATION 20+87 TO APPROX. STATION 24+60

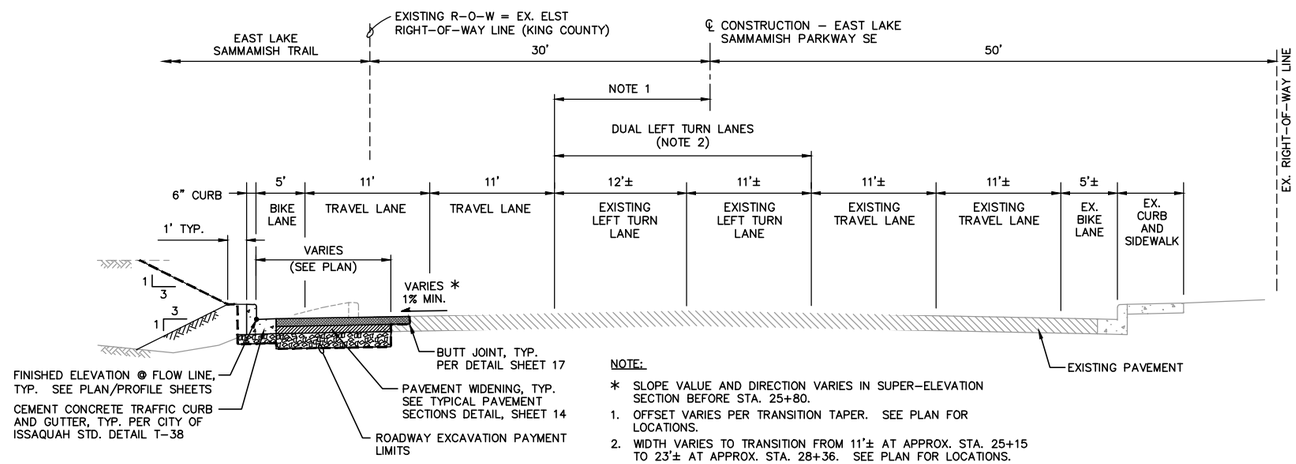
NOT TO SCALE



NOTE:
SEE PLAN FOR CHANNELIZATION.

TYPICAL CROSS-SECTION: SE 62ND STREET
APPROX. STATION 122+02 TO APPROX. STATION 123+16

NOT TO SCALE

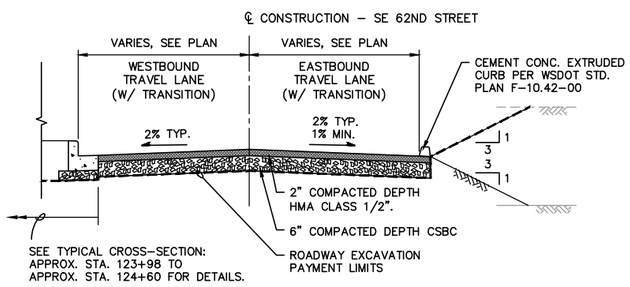


NOTE:

* SLOPE VALUE AND DIRECTION VARIES IN SUPER-ELEVATION SECTION BEFORE STA. 25+80.
1. OFFSET VARIES PER TRANSITION TAPER. SEE PLAN FOR LOCATIONS.
2. WIDTH VARIES TO TRANSITION FROM 11'± AT APPROX. STA. 25+15 TO 23'± AT APPROX. STA. 28+36. SEE PLAN FOR LOCATIONS.

TYPICAL CROSS-SECTION: EAST LAKE SAMMAMISH PARKWAY SE
APPROX. STATION 24+60 TO APPROX. STATION 32+70

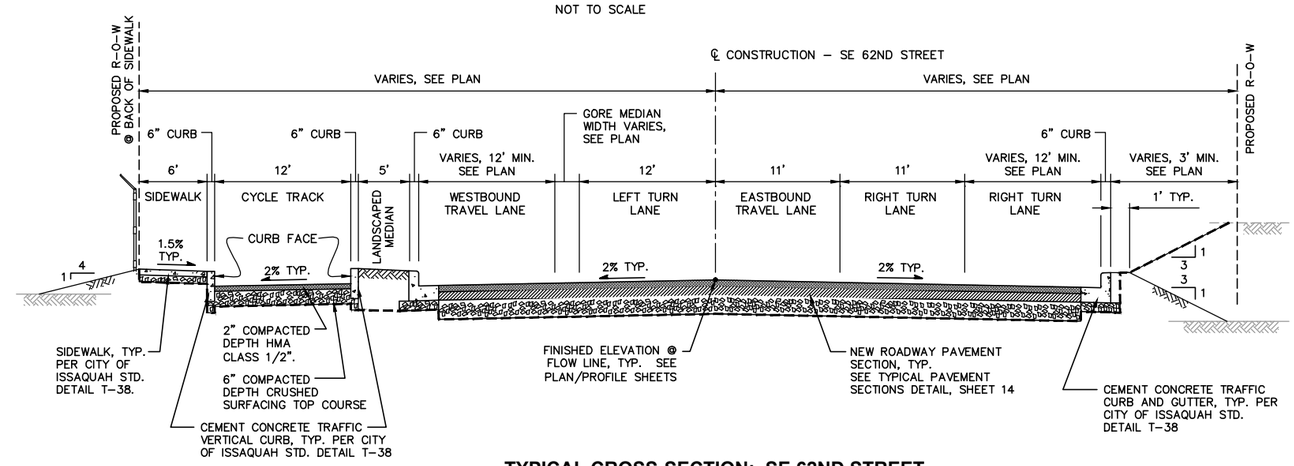
NOT TO SCALE



NOTE:
SEE PLAN FOR CHANNELIZATION.

TYPICAL CROSS-SECTION: SE 62ND STREET
APPROX. STATION 123+16 TO APPROX. STATION 123+98

NOT TO SCALE



TYPICAL CROSS-SECTION: SE 62ND STREET
APPROX. STATION 123+98 TO APPROX. STATION 124+60

NOT TO SCALE

0 1" 2"
TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

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DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

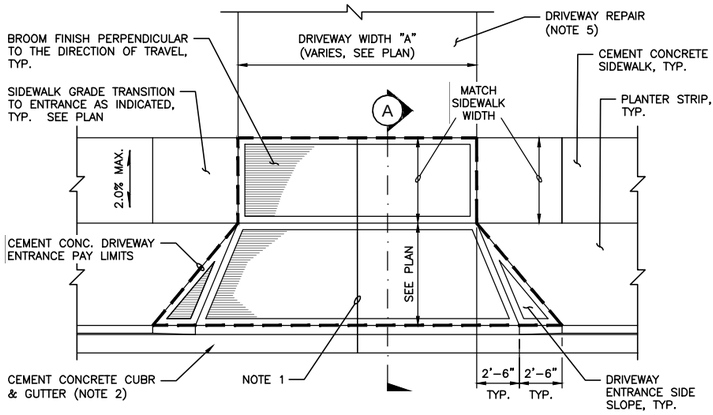
No.	REVISION	DATE	APPD

BRIAN L. SOURWINE — STATE OF WASHINGTON — 16906 — REGISTERED PROFESSIONAL ENGINEER

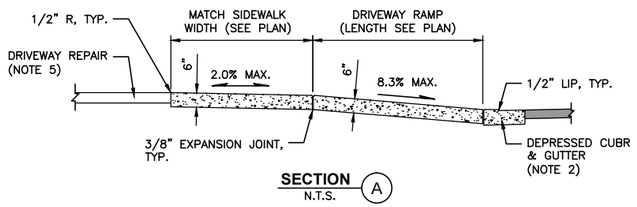
CHI-HENG WANG — STATE OF WASHINGTON — 39930 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
TYPICAL ROADWAY CROSS SECTIONS

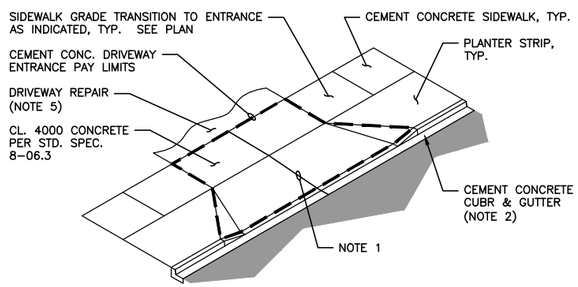
SHEET: 15
OF: 101
JOB NO.: 13570
DWG: TYPSEC



PLAN VIEW



SECTION (A)
N.T.S.



ISOMETRIC VIEW

NOTES:

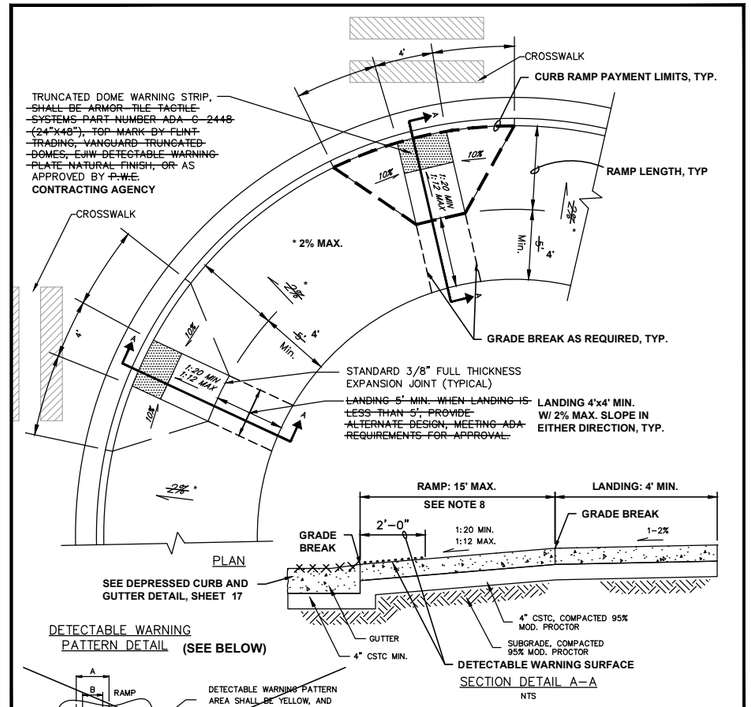
1. WHEN THE DRIVEWAY WIDTH EXCEEDS 15' (FT), CONSTRUCT A FULL DEPTH EXPANSION JOINT WITH 3/8" (IN) JOINT FILLER ALONG THE DRIVEWAY CENTERLINE. CONSTRUCT EXPANSION JOINTS PARALLEL WITH THE CENTERLINE AS REQUIRED AT 15' (FT) MAXIMUM SPACING WHEN DRIVEWAY WIDTHS EXCEED 30' (FT).
2. CURB AND GUTTER SHOWN; SEE THE CONTRACT PLANS FOR THE CURB DESIGN SPECIFIED. SEE CITY STD. DETAIL T-38 FOR SIDEWALK AND CURB DETAILS.
3. AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF DRIVEWAY ENTRANCES.
4. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE LINE BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
5. SEE PLAN AND SCHEDULE FOR MATERIAL AND REPAIR LIMITS.

CEMENT CONCRETE DRIVEWAY ENTRANCE

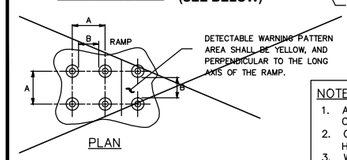
NOT TO SCALE

DRIVEWAY SCHEDULE

	CONCRETE DRIVEWAY ENTRANCE					DRIVEWAY REPAIR (BEYOND ENTRANCE)	
STREET	DRIVEWAY #	STATION	SIDE	WIDTH "A"	CEMENT CONC. PVMT. AREA (SY)	MATERIAL	AREA (SY)
EAST LAKE SAMMAMISH PKWY SE	1	7+93	LEFT	28'	48.0	HMA	74.9
	2						
	3	17+58.35	LEFT	35'	58.9	HMA	170.9



DETECTABLE WARNING PATTERN DETAIL (SEE BELOW)



NOTES:

1. ALL JOINTS SHALL BE CLEANED AND EDGED- 1/4" MAX. VERTICAL OFFSET.
2. CONCRETE SHALL BE P.C.C. CLASS 3000 (USE 4000 IF SUBJECT TO HIGH TRUCK TRAFFIC).
3. WHEEL CHAIR RAMPS SHALL MEET ADA REQUIREMENTS.
4. NO VAULTS OR VALVE BOXES WITHIN RAMPS OR FLAIRS.
5. NO DRAINAGE STRUCTURES IN FRONT OF RAMPS.

(SEE ADDITIONAL NOTES BELOW)

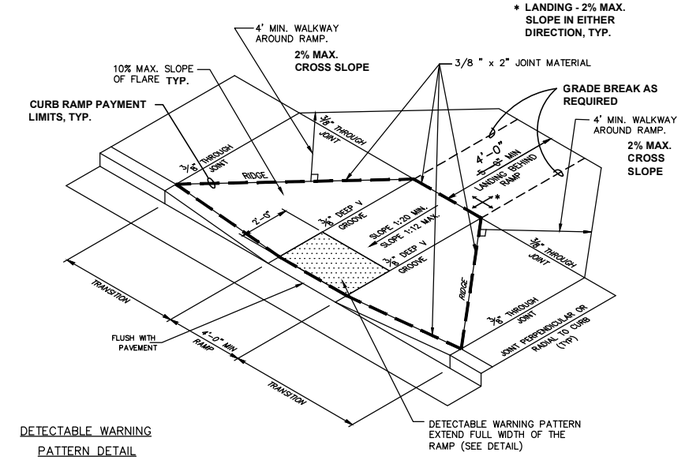
NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT
AUGUST 2010

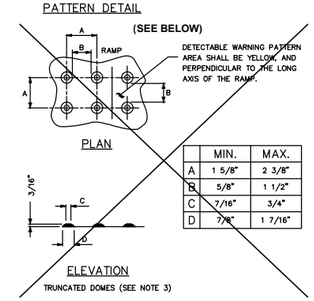
PERPENDICULAR CURB RAMP (1 OF 2) (MODIFIED)

STANDARD DETAIL NO. T-07
REV:

6. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE GRADE BREAK BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
7. SEE CITY OF ISSAQUAH STD. DETAIL T-38 FOR CEMENT CONCRETE SIDEWALK DETAILS. SEE CONTRACT PLANS FOR WIDTH AND PLACEMENT OF SIDEWALK.
8. THE CURB RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15-FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15-FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE CURB RAMP SHALL AS FLAT AS FEASIBLE.
9. CURB RAMP, LANDING, AND FLARES SHALL RECEIVE BROOM FINISH. SEE STANDARD SPECIFICATIONS 8-14.



DETECTABLE WARNING PATTERN DETAIL (SEE BELOW)



	MIN.	MAX.
A	1 5/8"	2 3/8"
B	5/8"	1 1/2"
C	7/16"	3/4"
D	7/16"	1 7/16"

NOTES:

1. INSTALL WHEELCHAIR RAMP AS LOCATED ON APPROVED PLANS OR AS DIRECTED BY THE TRAFFIC ENGINEER.
2. SEE T-07 FOR CURB RAMP LAYOUT.
3. TRUNCATED DOME WARNING STRIP. SHALL BE ~~ARMOR-TILE TACTILE SYSTEMS PART NUMBER ADA-C-2448 (24"X48") TOP MARK BY FLINT TRADING, VANGUARD TRUNCATED DOMES, OR~~ AS APPROVED BY ~~P.W.E.~~ **CONTRACTING AGENCY** ~~• EAST JORDAN IRONWORKS (NATURAL) CAST IRON • ADA SOLUTIONS SURFACE~~
4. FLARES SHALL NOT BE USED WITH PLANTER STRIP. REFER TO WSDOT SIDEWALK RAMP STANDARD PLANS AS DIRECTED BY CITY TRAFFIC ENGINEER FOR ALTERNATE PERPENDICULAR CURB RAMP DETAILS.

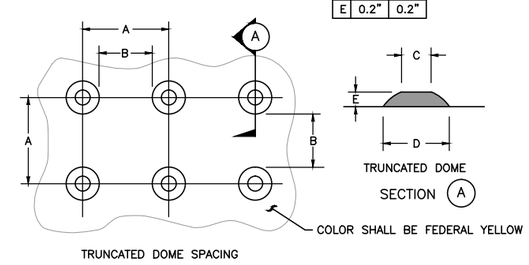
PERPENDICULAR CURB RAMP DETAILS
NO SCALE

NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT
AUGUST 2010

PERPENDICULAR CURB RAMP (2 OF 2) (MODIFIED)

STANDARD DETAIL NO. T-08
REV:



	MIN.	MAX.
A	1.60"	2.40"
B	0.65"	—
C	0.45"	0.90"
D	0.9"	1.40"
E	0.2"	0.2"

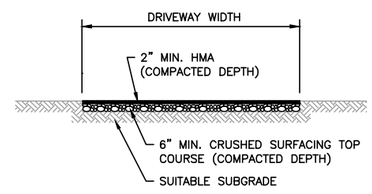
TRUNCATED DOME DETAILS

NOTE:

THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED TO BE PERPENDICULAR TO THE LONG AXIS OF THE RAMP.

DETECTABLE WARNING PATTERN

NOT TO SCALE



HMA DRIVEWAY REPAIR

NOT TO SCALE

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DATE: MAR. 2015
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CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

BRIAN L. SOURWINE — STATE OF WASHINGTON — 36061 — REGISTERED PROFESSIONAL ENGINEER

CHI-HENG WANG — STATE OF WASHINGTON — 35930 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
ROADWAY DETAILS

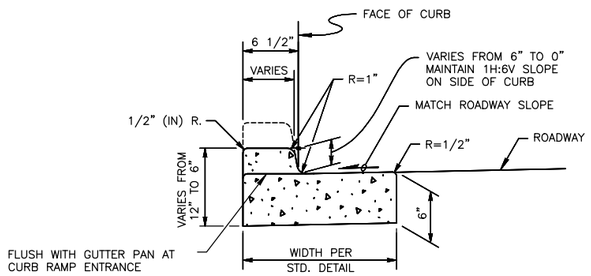
SHEET: 16
OF: 101

JOB NO.: 13570
DWG: ROAD_DET1

* GUTTER SLOPE SHALL BE 3% OR MATCH ROADWAY SUPER-ELEVATION SLOPE FOR DRAINAGE.

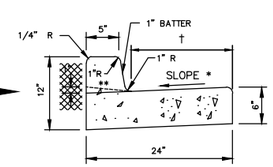
** CURB DEPRESSED TO 1/2" LEVEL LIP AT DRIVEWAY ENTRANCE.

† GUTTER PAN WIDTH SHALL MATCH EXISTING (12" TYP.) ON EAST SIDE OF EAST LAKE SAMMAMISH PKWY SE

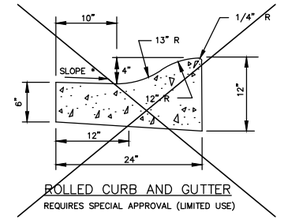


DEPRESSED CURB SECTION AT CURB RAMPS

NOT TO SCALE



TYPE A CURB AND GUTTER

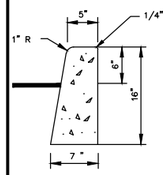


ROLLED CURB AND GUTTER

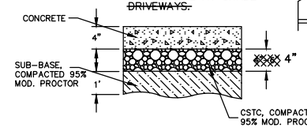
REQUIRES SPECIAL APPROVAL (LIMITED USE)

~~* CURB SLOPE SHALL BE 3% OR 1% GREATER THAN ROAD CROWN (UNLESS DRAINING AWAY THEN MATCH ROAD CROWN).~~

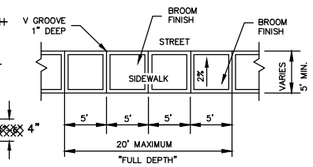
~~** TOP OF CURB AT COMMERCIAL AT GRADE DRIVEWAYS.~~



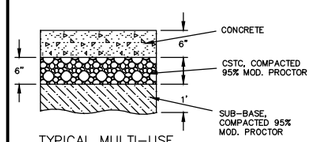
VERTICAL CURB



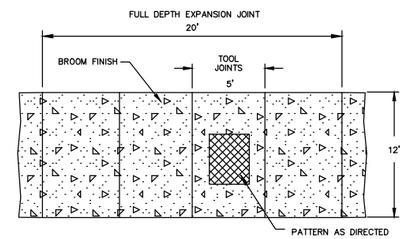
SIDEWALK AND CURB SECTION



PLAN VIEW SIDEWALK



TYPICAL MULTI-USE URBAN TRAIL SECTION



MULTI-USE URBAN TRAIL

NOTES:

1. MATERIAL – CONCRETE SHALL BE CLASS 3000, AIR ENTRAINED.
2. ALL MATERIAL SHALL BE TESTED PER ASTM C150 TYPE II.
3. ALL SIDEWALKS SHALL MEET ADA REQUIREMENTS.
4. DYED CONCRETE SHALL BE SEALED.
5. PATTERNS MAY VARY BY LOCATION.
6. PAVERS ARE NOT ALLOWED.

MINIMUM WIDTHS	
SIDEWALK – STANDARD	5'
SIDEWALK – COMMERCIAL	8'
URBAN TRAIL	12'

NO SCALE

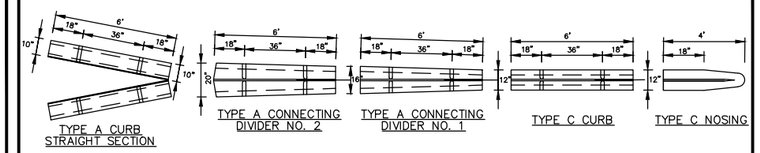
CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT AUGUST 2010

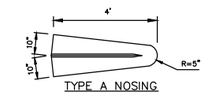
EXPIRES: EXPIRES: 12-13-2011

SIDEWALKS/CURBS/URBAN TRAILS (MODIFIED)

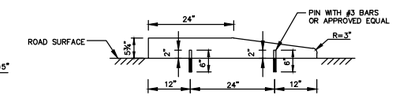
STANDARD DETAIL NO. T-38

REV:

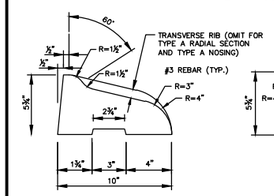




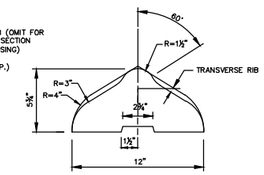
TYPE A NOSING



ELEVATION – TYPE A NOSING AND C NOSING



SECTION – TYPE A CURB



SECTION – TYPE C CURB

NOTES:

1. ONLY 6' SECTIONS OF TYPE C AND TYPE A CURB SHALL BE USED ON ALL INSTALLATIONS, EXCEPT FOR NOTE 2.
2. THE USE OF 1' BLOCK SECTIONS OF TYPE C AND TYPE A CURB SHALL ONLY BE USED TO FORM SMALL RADIUS CURVES OR ADJUSTMENTS IN FINAL LENGTH, AS APPROVED BY THE ENGINEER.
3. ALL PRECAST TRAFFIC CURBS SHALL BE SECURED USING WSDOT APPROVED 2 PART EPOXY RESIN.
4. PRECAST CURB NOSINGS SHALL BE PINNED AND EPOXYED TO THE ROAD SURFACE.
5. NOSE PIN SHALL ONLY BE USED IF HOLE IS PRECAST.
6. INSTALL TUBULAR MARKER ~~BY "SAFE HIT"~~ AS APPROVED BY CONTRACTING AGENCY ~~MULTI PURPOSE SURFACE MOUNT DELINEATOR SYSTEM 36" HIGH~~ IN FRONT OF NOSING SECTION.
7. THE CURBS SHALL BE PAINTED TRAFFIC YELLOW, OR MATCH EXISTING, PER DIRECTION OF THE CONTRACTING AGENCY.

NO SCALE

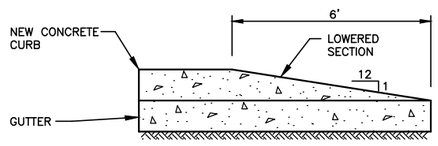
CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT AUGUST 2010

EXPIRES: EXPIRES: 12-13-2011

A & C CURBING (MODIFIED)

STANDARD DETAIL NO. T-39

REV:

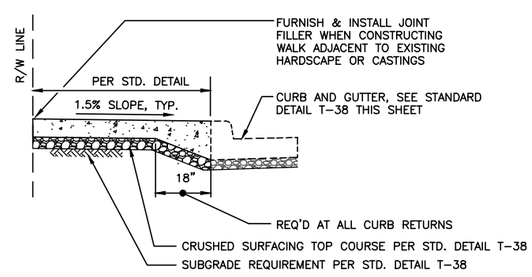


NOTE:

CONCRETE CURB END SECTION TO BE USED AT ALL LOCATIONS WHERE NEW CURB DOES NOT MEET EXISTING CURB, AT SIDEWALK TRANSITION SECTIONS AND/OR AS REQUIRED IN THE FIELD BY THE ENGINEER.

CONCRETE CURB END SECTION

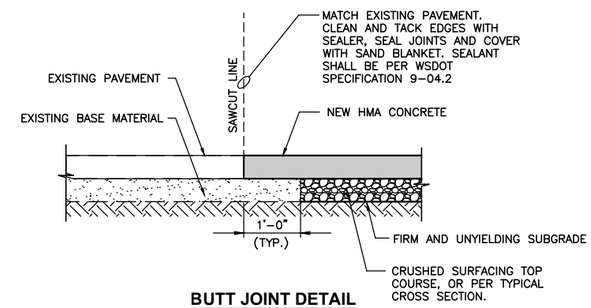
NOT TO SCALE



SECTION

SIDEWALK WITHOUT PLANTER STRIP

NOT TO SCALE



BUTT JOINT DETAIL

NOT TO SCALE

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CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015 | SCALE: AS NOTED | DRAWN: C.N.T. | CHECKED: C.B.W. | APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

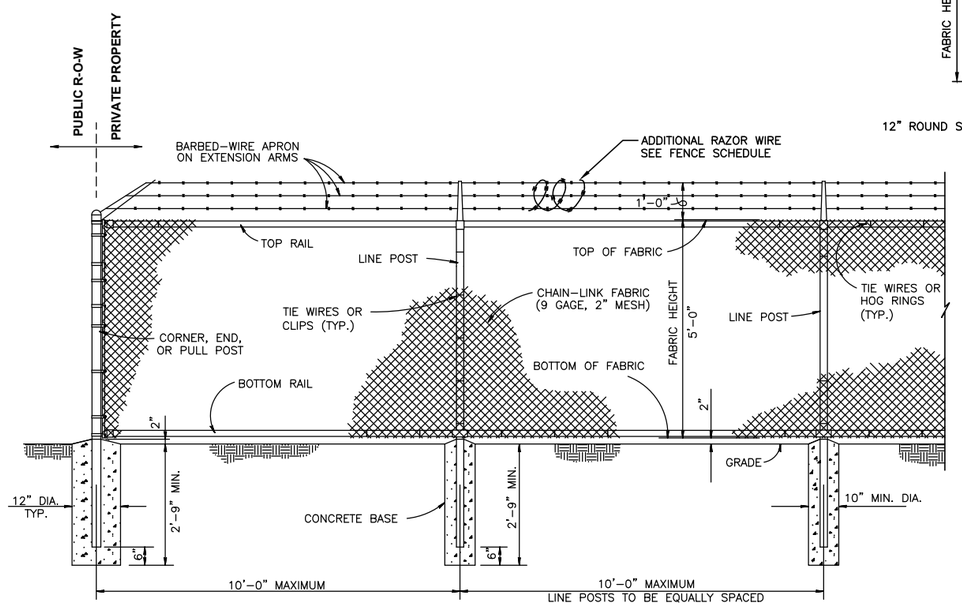
BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

CHI-HENG WANG — STATE OF WASHINGTON — 39930 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
ROADWAY DETAILS

SHEET: 17
OF: 101

JOB NO.: 13570
DWG: ROAD_DET2

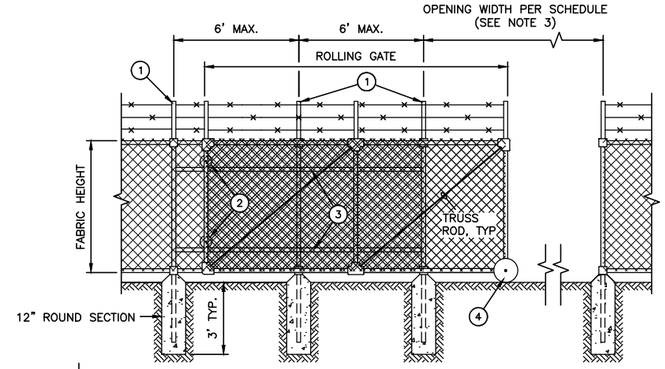


NOTES

1. CONTRACTOR SHALL FURNISH AND INSTALL CHAIN LINK FENCE TO OUTSIDE OF RETAINING WALL (FILL SECTION) WITH MOUNTING PLATE. SEE DETAIL THIS SHEET, AND PLAN FOR LOCATION.

CHAIN LINK FENCE TYPE 1, WITH BARBED WIRE

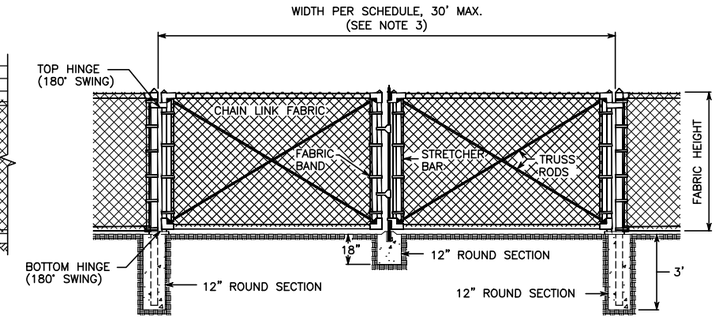
NOT TO SCALE



1. GATE GUIDE POST.
2. REAR WHEEL ASSEMBLY TOP & BOTTOM, MOUNT TO GATE FRAME
3. GATE SUPPORT RAIL, MOUNT TO POSTS (2 TYP. TOP & BOTTOM)
4. WHEEL CARRIER, 6" MIN. WHEEL DIA.

CHAIN LINK GATE (ROLLING)

NOT TO SCALE



NOTES:

1. FENCE FABRIC SHALL BE SECURED TO GATE FRAMES WITH KNUCKLED SELVAGE ALONG TOP EDGE FOR TYPE 6 CHAIN LINK FENCE INSTALLATIONS.
2. MINIMUM POST LENGTH: 8'-8"
3. CONTRACTOR SHALL FIELD VERIFY LOCATION/DIMENSION OF GATE WITH CONTRACTING AGENCY PRIOR TO WORK.
4. GATES FOR SECURITY FENCE SHALL HAVE BARBED WIRE AND/OR RAZOR WIRE PER CHAIN LINK SECURITY FENCE DETAIL AND FENCE SCHEDULE.

CHAIN LINK GATE (SWING)

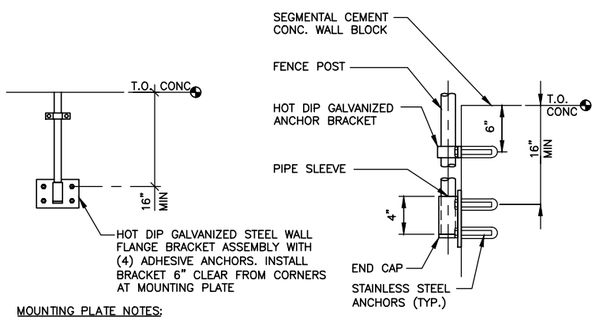
NOT TO SCALE

FENCE SCHEDULE

APPROXIMATE LOCATION	ACTION	TYPE	APPROX. LENGTH	NOTES
STA. 5+75, LT TO STA. 10+14, LT	N	6' CHAIN LINK FENCE TYPE 6	450' (INCLUDING A 28' WIDE GATE (SWING) AT APPROX. STA. 7+93)	
STA. 123+22, LT (62ND) TO STA. 20+52, LT (ELSP)	N	6' CHAIN LINK FENCE TYPE 1 WITH BARBED WIRE	1084' (INCLUDING A 35' WIDE GATE (ROLLING) AT APPROX. STA. 17+58)	FENCE MOUNTED TO OUTSIDE OF RETAINING WALL BETWEEN APPROX. STA. 17+90 AND APPROX. STA. 20+43
STA. 18+62, LT (ELSP) INSIDE BASS&BASS PARTNERSHIP PROPERTY	N	6' CHAIN LINK FENCE TYPE 6	17' (INCLUDING A 14' WIDE GATE)	COORDINATE WITH PROPERTY OWNER
STA. 0+05 TO STA. 3+25 (OFFSITE DETENTION POND WALL ALIGNMENT)	N	4' CHAIN LINK FENCE TYPE 6	324'	

ACTION LEGEND:

N: NEW FENCE.
R: RELOCATE OR REINSTALL EXISTING FENCE.

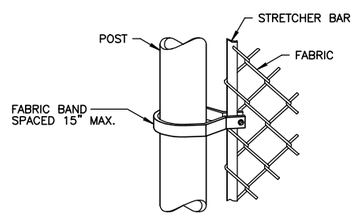


MOUNTING PLATE NOTES:

1. BRACKET SHALL BE CAPABLE OF RESISTING A 50 lb/ft CONTINUOUS LOAD APPLIED HORIZONTALLY AT THE TOP OF THE FENCE.
2. THE BASE OF THE FENCE POST SHALL BE WELDED TO THE PIPE SLEEVE TO PREVENT THE REMOVAL OF THE POST FROM THE SLEEVE.
3. GALVANIZING SHALL BE IN ACCORDANCE WITH ASTM A123. PROVIDE STAINLESS STEEL FASTENERS.

FENCE POST MOUNTING PLATE

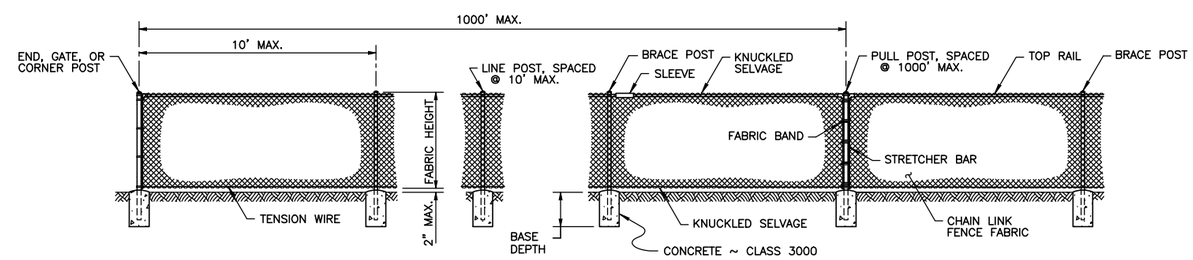
NOT TO SCALE



METHOD OF FASTENING STRETCHER BAR TO POST
(SHOWN FOR ROUND POST)

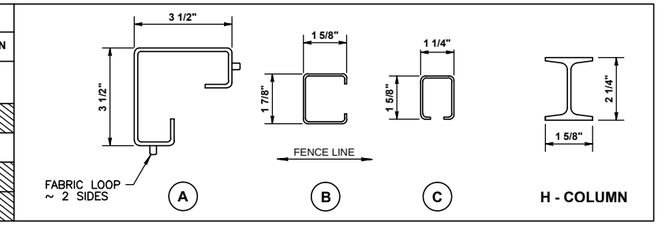
NOTES

1. THE FENCE HARDWARE TABLE RIGHT APPLES TO BOTH TYPE 1 AND TYPE 6.
2. ALL CONCRETE POST BASES SHALL BE 10" MINIMUM DIAMETER.
3. TENSION WIRE SHALL BE PLACED WITHIN THE LIMITS OF THE FIRST FULL FABRIC WEAVE.
4. DETAILS ARE ILLUSTRATIVE AND SHALL NOT LIMIT HARDWARE DESIGN OR POST SELECTION OF ANY PARTICULAR FENCE TYPE.



POST AND RAIL SPECIFICATIONS

MEMBER	PIPE	ROLL FORMED		H - COLUMN
	NOM. SIZE (SCH. 40)	SECTION	WEIGHT (lb/ft)	WEIGHT (lb/ft)
END, CORNER, OR PULL POST	2 1/2" DIAM.	A	5.10	
LINE OR BRACE POST	2" DIAM.	B	2.40	3.26
BRACE OR TOP RAIL	1 1/4" DIAM.	C	1.35	
GATE POST	3 1/2" DIAM.			



CHAIN LINK FENCE TYPE 6

NOT TO SCALE

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015	SCALE: AS NOTED
DRAWN: C.N.T.	CHECKED: C.B.W.
APPROVED: B.L.S.	

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

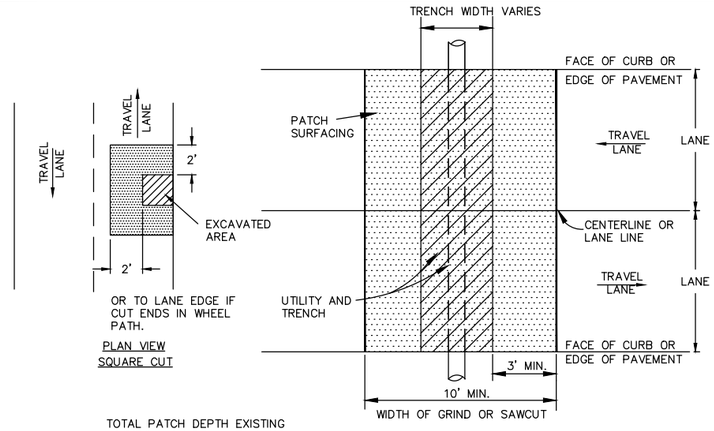
BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

CHI-HENG WANG — STATE OF WASHINGTON — 39930 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
ROADWAY DETAILS

SHEET: 18
OF: 101

JOB NO.: 13570
DWG: ROAD_DET3



CROSS SECTION OF TRANSVERSE OR SQUARE CUT

NOTES:

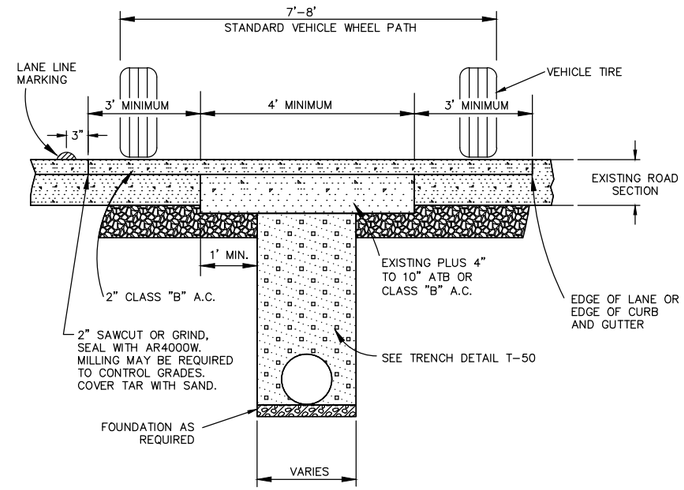
1. ALL TRENCHES SHALL BE BACKFILLED AND PATCHED WITH TEMPORARY ASPHALT OR COVERED WITH STEEL PLATES AND SPIKED IN PLACE AT THE END OF EACH WORK DAY. PLATES SHALL BE REMOVED WITHIN 3 DAYS. 12" ASPHALT TAPER UP TO PLATE. PROVIDE APPROPRIATE SIGNAGE.
2. TEMPORARY PATCHES SHALL BE PLACED AT A MINIMUM 6" DEPTH, AND MAINTAINED AS NEEDED FOR A SMOOTH SURFACE.
3. ALL TEMPORARY PATCHES SHALL BE PERMANENTLY PATCHED WITHIN TWO (2) WEEKS.
4. PATCHES WITHIN 25' OF EACH OTHER REQUIRE REPLACEMENT OF THE TOTAL AREA, INCLUDING THE AREA BETWEEN THE PATCHES.
5. ALL PAVEMENT MARKINGS SHALL BE REPLACED WITH MATERIALS SPECIFIED IN STANDARDS WITHIN 14 DAYS (DURASET REQUIREMENT)
6. ALL PATCHES SHALL ABUT COMPETENT MATERIAL AS DIRECTED IN THE FIELD (MUST BE FLUSH). 10' WIDTH APPLIES TO ARTERIALS

NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT — AUGUST 2010

PATCHING FLEXIBLE PAVEMENTS TRANSVERSE OR SQUARE CUTS (MODIFIED)

STANDARD DETAIL NO. T-48 REV:



NOTES:

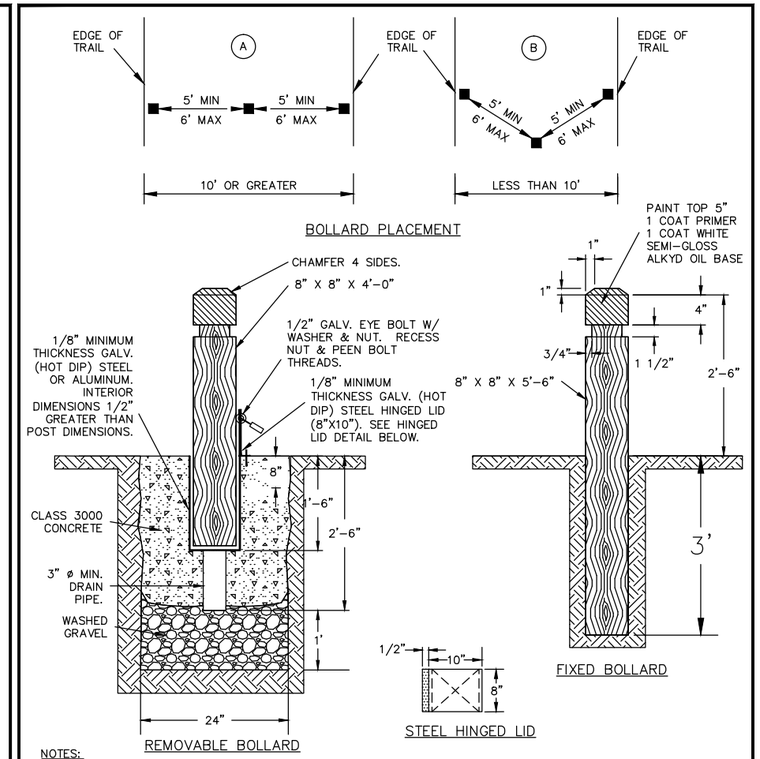
1. ALL TRENCHES SHALL BE BACKFILLED AND PATCHED WITH TEMPORARY ASPHALT OR COVERED WITH STEEL PLATES AND SPIKES IN PLACE AT END OF EACH WORK DAY. PLATES SHALL BE REMOVED WITHIN 3 DAYS.
2. TEMPORARY PATCHES SHALL BE PLACED AT A MINIMUM 6" DEPTH, AND MAINTAINED AS NEEDED FOR A SMOOTH SURFACE.
3. ALL TEMPORARY PATCHES SHALL BE PERMANENTLY PATCHED WITHIN TWO (2) WEEKS WITH TEMPORARY MARKINGS.
4. ALL PAVEMENT MARKINGS SHALL BE REPLACED WITH MATERIALS SPECIFIED IN STANDARDS IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
5. ALL PATCHES SHALL ABUT COMPETENT MATERIAL AS DIRECTED IN THE FIELD.

NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT — AUGUST 2010

PATCHING FLEXIBLE PAVEMENTS LONGITUDINAL CUTS

STANDARD DETAIL NO. T-49 REV:



NOTES:

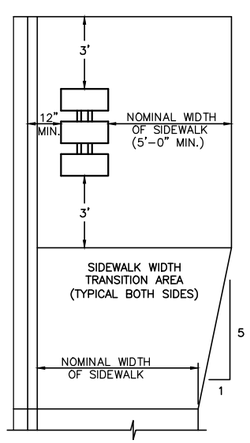
1. TIMBER SHALL BE DOUGLAS FIR, DENSE CONSTRUCTION GRADE, AND SHALL BE PRESSURE TREATED BY EMPTY CELL PROCESS WITH MINIMUM NET RETENTION OF 0.05 LBS./CU. FT. OF THE DRY SALT. (USE LIGHT PETROLEUM SOLVENT).
2. NUTS, BOLTS, AND WASHERS SHALL CONFORM TO ASTM A307.
3. ALL STEEL PARTS SHALL BE GALVANIZED.
4. CONCRETE SHALL BE CLASS 3000.
5. PROVIDE ~~"BEST" BRAND~~ PADLOCK W/CONSTRUCTION CORE. CONTRACTOR SHALL COORDINATE WITH CITY INSPECTOR TO SUPPLY CORRECT PERMANENT CORE TO CITY.

NO SCALE

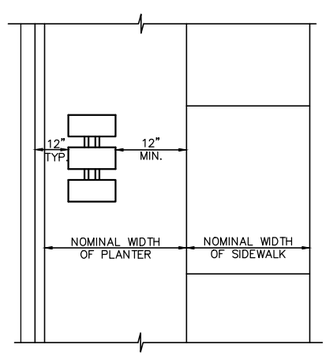
CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT — AUGUST 2010

TYPICAL BOLLARD PLACEMENT ON PATHWAYS (MODIFIED)

STANDARD DETAIL NO. T-56 REV:

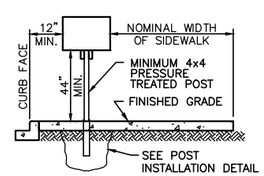


PLAN - MAILBOX IN SIDEWALK

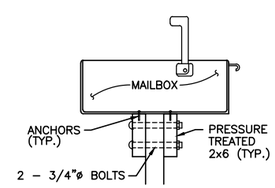


PLAN - MAILBOX IN PLANTER

NOTE: SLEEVE AND BACKFILL NOT REQUIRED WHEN PLACING MAILBOX IN PLANTER STRIP.

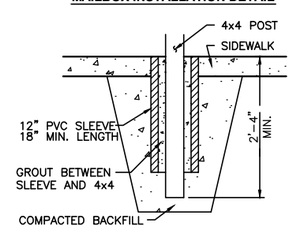


SECTION



MAILBOX INSTALLATION DETAIL

MAILBOX RELOCATION SCHEDULE			
EX. STA.	PROP. STA.	# OF BOXES	PLAN SHEET #
17+25, LT	17+27, LT	1	7



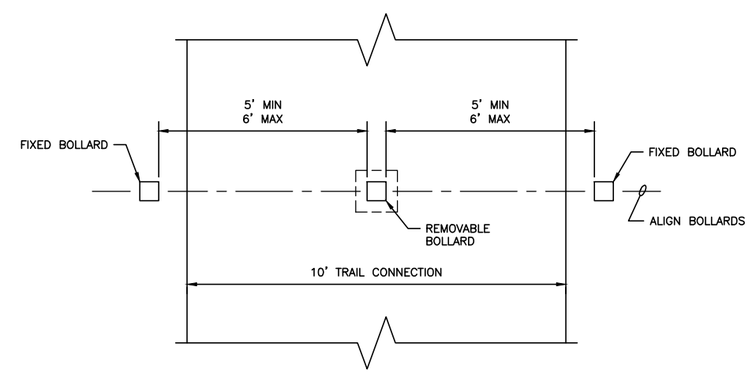
POST INSTALLATION DETAIL

NOTE:

MAX. 4 MAILBOXES PER TYPE 1 MAILBOX SUPPORT

MAILBOX SUPPORT DETAIL (TYPE 1)

NOT TO SCALE



BOLLARD PLACEMENT DETAIL

NOT TO SCALE

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

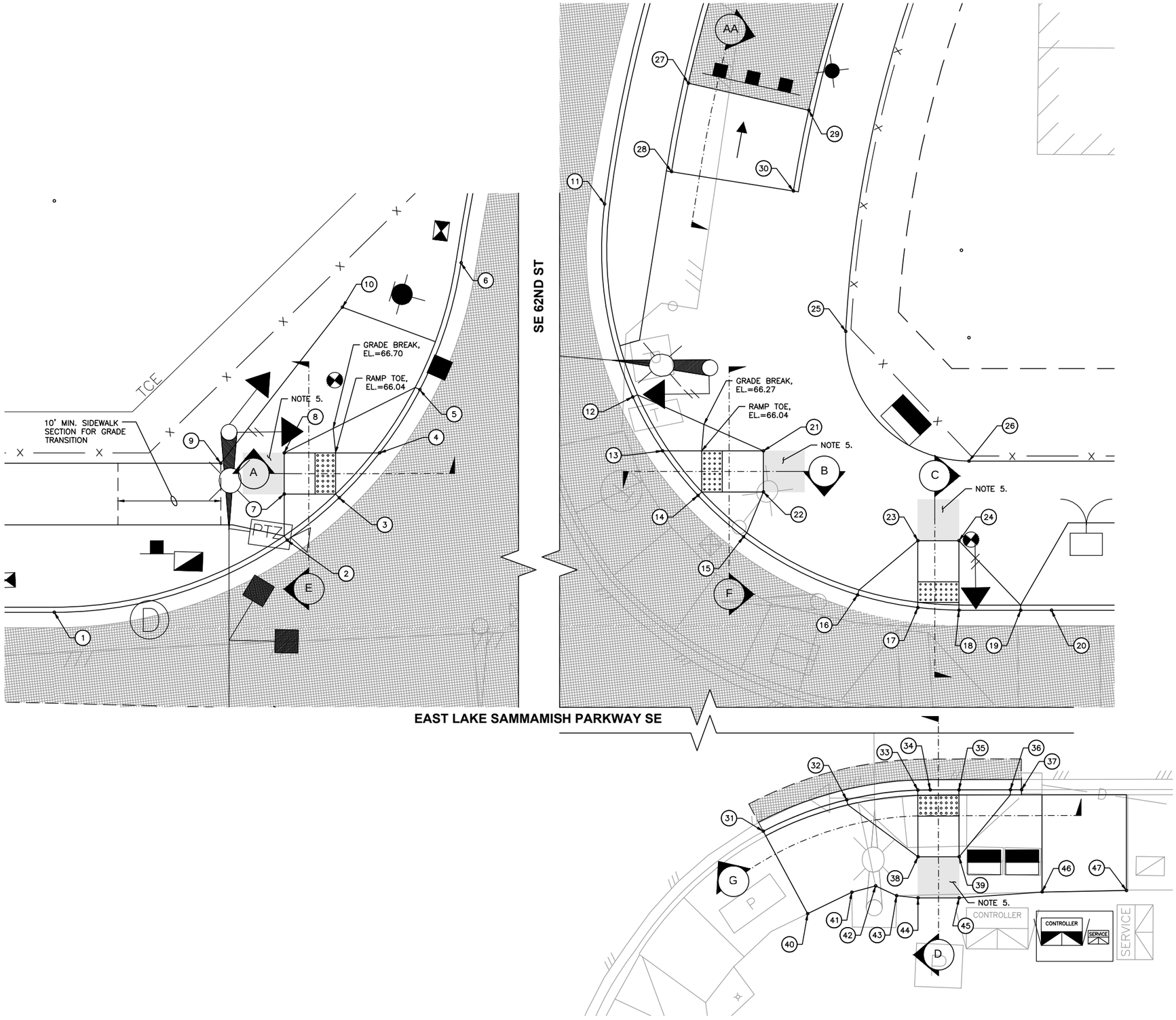
BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

CHI-HENG WANG — STATE OF WASHINGTON — 39930 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
ROADWAY DETAILS

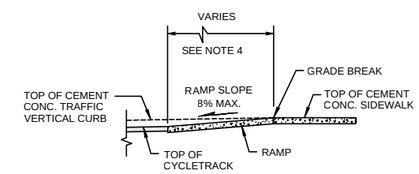
SHEET: 19
OF: 101

JOB NO.: 13570
DWG: ROAD_DET4

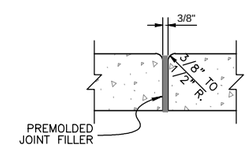


CURB RAMP NOTES

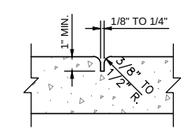
1. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE GRADE BREAK BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
2. DO NOT PLACE GRATINGS, JUNCTION BOXES, ACCESS COVERS, OR OTHER APPURTENANCES IN FRONT OF THE CURB RAMP OR ON ANY PART OF THE CURB RAMP OR LANDING.
3. SEE CONTRACT PLANS FOR THE CURB DESIGN SPECIFIED. SEE SHEET 17 FOR CURB AND GUTTER AND DEPRESSED CURB DETAILS.
4. RAMP LENGTH FOR REFERENCE ONLY. CONTRACTOR TO FIELD VERIFY AND ADJUST LENGTH TO MEET RAMP SLOPE REQUIREMENTS PER DETAILS.
5. LANDING AT TOP OF RAMP. SEE CURB RAMP DETAILS (CITY STD. DETAIL T-07 AND T-08).



SECTIONS AA
(CYCLE TRACK RAMP)
NOT TO SCALE



EXPANSION JOINT
NOT TO SCALE



CONTRACTION JOINT
NOT TO SCALE

0 1" 2"
TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015
SCALE: AS NOTED
DRAWN: B.J.B.
CHECKED: C.B.W.
APPROVED: B.L.S.

No.	REVISION	DATE	APPD
	PRELIMINARY NOT FOR CONSTRUCTION		

BRIAN L. SOURWINE STATE OF WASHINGTON 50591 REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN STATE OF WASHINGTON 50382 REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
CURB RAMPS PLAN AND DETAILS

SHEET: 20
OF: 101
JOB NO.: 13570
DWG: INTX_ALT

CURB RETURN TABLE

NUMBER	STATION	OFFSET	ELEV.	DESCRIPTION	CURVE DATA	CURVE CENTER POINT	
1	9+77.81	26.00 LT	67.03	FL CURB AT PC	R=40.00' L=56.78' Δ 081°20'10"	9+77.81	66.00 LT
2	10+00.45	33.02 LT	66.63	FL CURB AT RAMP TOP			
3	10+05.51	37.14 LT	66.52	FL CURB AT RAMP TOE			
4	10+09.43	41.50 LT	66.42	FL CURB AT RAMP TOE			
5	10+13.35	47.64 LT	66.29	FL CURB AT RAMP TOP			
6	10+17.36	59.97 LT	66.06	FL CURB AT PRC			
7	10+00.16	37.50 LT	66.92	FG AT RAMP TOP			
8	10+00.16	41.50 LT	66.87	FG AT RAMP TOP			
9	9+94.01	40.50 LT	66.99	FG AT BACK OF WALK			
10	10+05.83	55.66 LT	66.85	FG AT BACK OF WALK			
11	10+87.77	65.51 LT	65.80	FL CURB AT PCC			
12	10+90.51	46.74 LT	65.95	FL CURB AT RAMP TOP	R=35.00' L=48.81' Δ 079°54'20"	11+22.47	61.00 LT
13	10+93.41	41.50 LT	66.00	FL CURB AT LANDING			
14	10+96.85	37.16 LT	66.04	FL CURB AT RAMP TOE			
15	11+01.29	33.14 LT	66.09	FL CURB AT RAMP TOP			
16	11+12.37	27.49 LT	66.19	FL CURB AT RAMP TOP			
17	11+18.24	26.26 LT	66.24	FL CURB AT RAMP TOE			
18	11+22.24	26.00 LT	66.27	FL CURB AT RAMP TOE			
19	11+28.24	26.00 LT	66.29	FL CURB AT RAMP TOP			
20	11+31.23	26.00 LT	66.33	FL CURB AT PT			
21	11+03.22	41.50 LT	66.49	FG AT RAMP TOP			
22	11+03.22	37.50 LT	66.51	FG AT RAMP TOP			
23	11+18.24	32.76 LT	66.71	FG AT RAMP TOP			
24	11+22.24	32.76 LT	66.74	FG AT RAMP TOP			
25	11+11.22	53.13 LT	66.39	FG AT PCC BACK OF WALK	R=12.00' L=19.48' Δ 092°59'29"	11+23.21	52.50 LT
26	11+23.21	40.50 LT	66.88	FG AT PT BACK OF WALK			
27	10+95.93	77.25 LT	65.70	FG AT RAMP TOE			
28	10+94.28	68.65 LT	66.28	FG AT RAMP TOP			
29	11+07.64	74.62 LT	65.48	FG AT RAMP TOE			
30	11+06.13	66.76 LT	66.10	FG AT RAMP TOP			
31	11+03.20	42.99 RT	66.37*	FL CURB AT TIE IN *	R=35.00' L=16.89' Δ 027°39'09"	11+19.48	73.97 RT
32	11+11.31	39.94 RT	66.29	FL CURB AT RAMP TOP			
33	11+18.24	39.00 RT	66.19	FL CURB AT RAMP TOE			
34	11+19.44	38.97 RT	66.17	FL CURB AT PT			
35	11+22.24	38.97 RT	66.13	FL CURB AT RAMP TOE			

NOTES:
* APPROXIMATE EXISTING ELEVATION (MATCH)
PC = POINT OF CURVATURE
PT = POINT OF TANGENCY
PRC = POINT OF REVERSE CURVATURE
PCC = POINT OF COMPOUND CURVATURE
FL = FLOW LINE

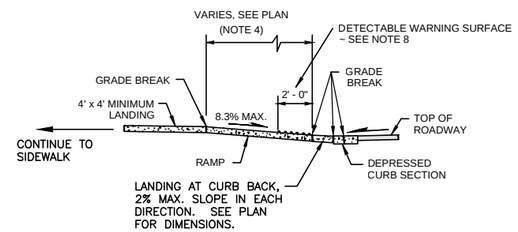
CURB RETURN TABLE

NUMBER	STATION	OFFSET	ELEV.	DESCRIPTION	CURVE DATA	CURVE CENTER POINT	
36	11+27.24	38.96 RT	66.06	FL CURB AT RAMP TOP			
37	11+28.31	38.96 RT	66.05*	FL CURB AT TIE IN *			
38	11+18.25	45.48 RT	66.66	FG AT RAMP TOP			
39	11+22.25	45.47 RT	66.60	FG AT RAMP TOP			
40	11+07.52	51.00 RT	67.01*	FG AT BACK OF WALK TIE IN *			
41	11+11.81	48.91 RT	66.86	FG AT BACK OF WALK			
42	11+14.14	48.30 RT	66.76	FG AT BACK OF WALK			
43	11+16.17	49.25 RT	66.74	FG AT BACK OF WALK			
44	11+18.25	49.48 RT	66.73	FG AT BACK OF WALK			
45	11+22.25	49.47 RT	66.67	FG AT BACK OF WALK			
46	11+30.32	48.88 RT	66.71	FG AT BACK OF WALK			
47	11+38.52	48.75 RT	66.67*	FG AT BACK OF WALK TIE IN *			

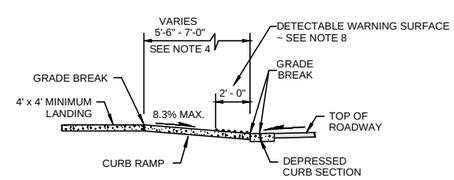
NOTES:
* APPROXIMATE EXISTING ELEVATION (MATCH)
PC = POINT OF CURVATURE
PT = POINT OF TANGENCY
PRC = POINT OF REVERSE CURVATURE
PCC = POINT OF COMPOUND CURVATURE
FL = FLOW LINE

CURB RAMP NOTES

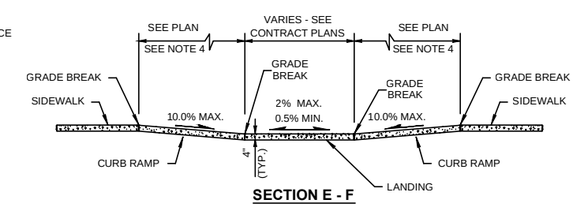
1. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE GRADE BREAK BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
2. DO NOT PLACE GRATINGS, JUNCTION BOXES, ACCESS COVERS, OR OTHER APPURTENANCES IN FRONT OF THE CURB RAMP OR ON ANY PART OF THE CURB RAMP OR LANDING.
3. SEE CONTRACT PLANS FOR THE CURB DESIGN SPECIFIED. SEE SHEET 17 FOR CURB AND GUTTER AND DEPRESSED CURB DETAILS.
4. RAMP LENGTH FOR REFERENCE ONLY. CONTRACTOR TO FIELD VERIFY AND ADJUST LENGTH TO MEET RAMP SLOPE REQUIREMENTS PER DETAILS.



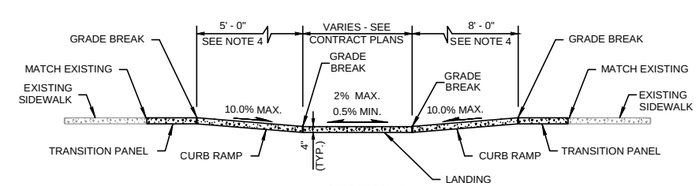
SECTIONS A - B
NOT TO SCALE



SECTIONS C - D
NOT TO SCALE



SECTION E - F
NOT TO SCALE



SECTION G
NOT TO SCALE

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015
SCALE: AS NOTED
DRAWN: B.J.B.
CHECKED: C.B.W.
APPROVED: B.L.S.

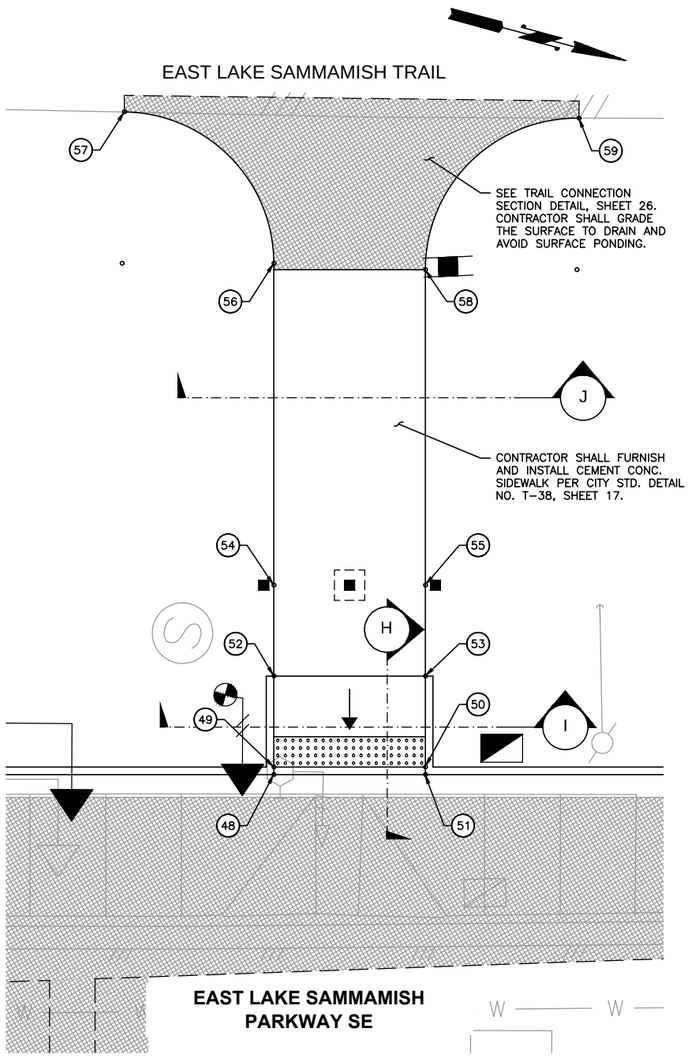
No.	REVISION	DATE	APPD
	PRELIMINARY NOT FOR CONSTRUCTION		

BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN — STATE OF WASHINGTON — 50362 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
CURB RAMPS PLAN AND DETAILS

SHEET: 21
OF: 101
JOB NO.: 13570
DWG: INTX_ALT

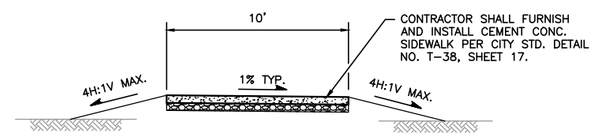


CURB RETURN TABLE

NUMBER	STATION	OFFSET	ELEV.	DESCRIPTION	CURVE DATA	CURVE CENTER POINT	
48	24+81.50	26.00 LT	58.29	FL CURB			
49	24+81.50	26.50 LT	58.29	CURB BACK AT RAMP TOE			
50	24+91.50	26.50 LT	58.21	CURB BACK AT RAMP TOE			
51	24+91.50	26.00 LT	58.21	FL CURB			
52	24+81.50	32.50 LT	58.59	FG AT RAMP TOP			
53	24+91.50	32.50 LT	58.50	FG AT RAMP TOP			
54	24+81.50	38.50 LT	58.62	FG AT WALK EDGE			
55	24+91.50	38.50 LT	58.52	FG AT WALK EDGE			
56	24+81.50	59.73 LT	58.51	FG AT PC	R=10.00' L=15.57' Δ 089°12'29"	24+71.50	59.73 LT
57	24+71.64	69.73 LT	58.42*	FG AT PT/TIE IN *			
58	24+91.50	59.31 LT	58.41	FG AT PC	R=10.00' L=15.85' Δ 090°47'33"	25+01.50	59.31 LT
59	25+01.64	69.31 LT	58.42*	FG AT PT/TIE IN *			

NOTES:

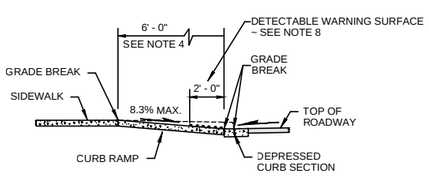
PC = POINT OF CURVATURE
PT = POINT OF TANGENCY
PRC = POINT OF REVERSE CURVATURE
PCC = POINT OF COMPOUND CURVATURE
FL = FLOW LINE



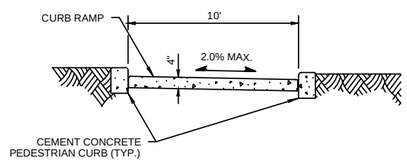
SECTION J
NOT TO SCALE

CURB RAMP NOTES

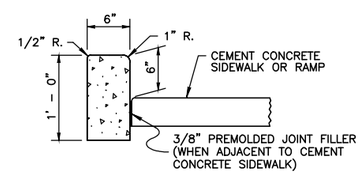
1. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE GRADE BREAK BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
2. DO NOT PLACE GRATINGS, JUNCTION BOXES, ACCESS COVERS, OR OTHER APPURTENANCES IN FRONT OF THE CURB RAMP OR ON ANY PART OF THE CURB RAMP OR LANDING.
3. SEE CONTRACT PLANS FOR THE CURB DESIGN SPECIFIED. SEE SHEET 17 FOR CURB AND GUTTER AND DEPRESSED CURB DETAILS.
4. RAMP LENGTH FOR REFERENCE ONLY. CONTRACTOR TO FIELD VERIFY AND ADJUST LENGTH TO MEET RAMP SLOPE REQUIREMENTS PER DETAILS.



SECTION H
NOT TO SCALE



SECTION I
NOT TO SCALE



CEMENT CONCRETE PEDESTRIAN CURB
NOT TO SCALE

5' 2.5' 0 5' 10'

0 1" 2"
TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015
SCALE: AS NOTED
DRAWN: B.J.B.
CHECKED: C.B.W.
APPROVED: B.L.S.

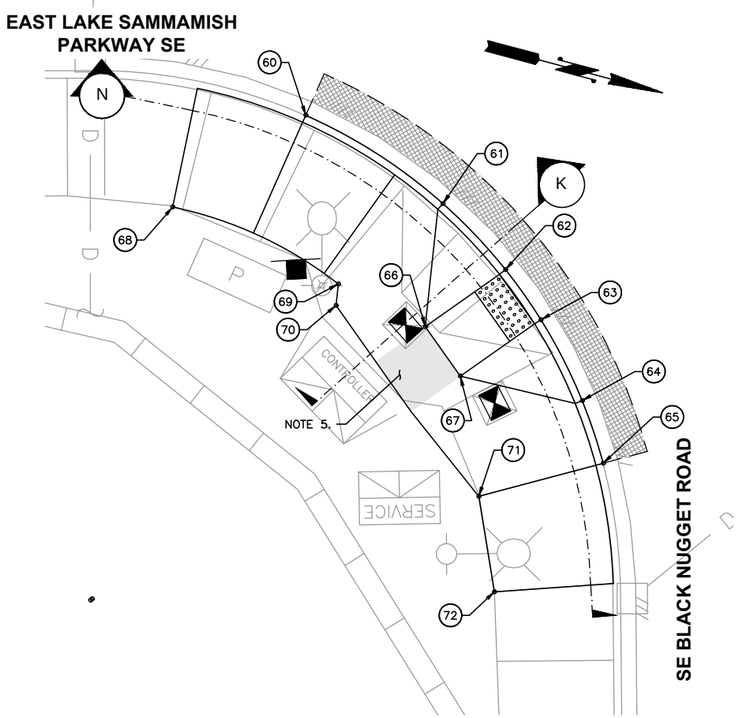
No.	REVISION	DATE	APPD
	PRELIMINARY NOT FOR CONSTRUCTION		

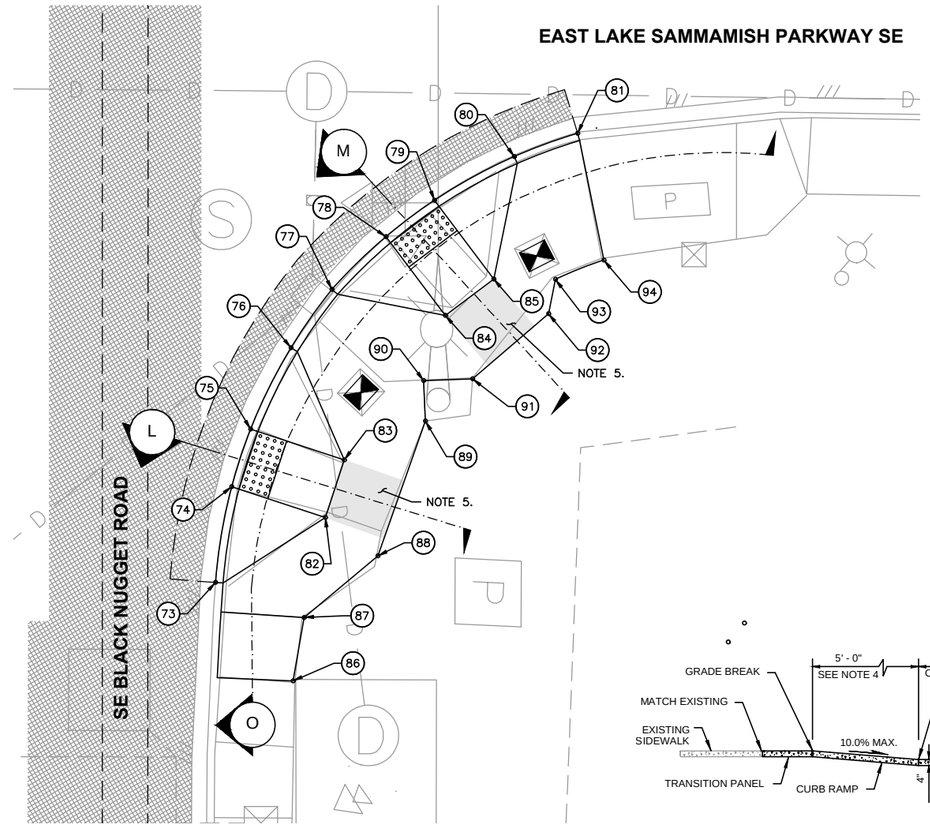
BRIAN L. SOURWINE STATE OF WASHINGTON 36091 REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN STATE OF WASHINGTON 50362 REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
CURB RAMPS PLAN AND DETAILS

SHEET: 22
OF: 101
JOB NO.: 13570
DWG: INTERSECTION

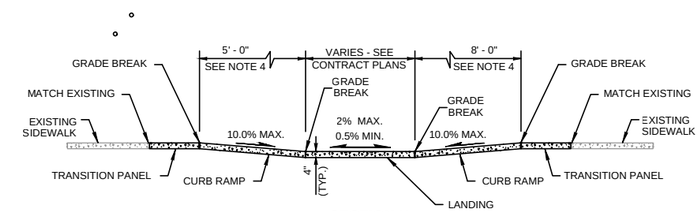




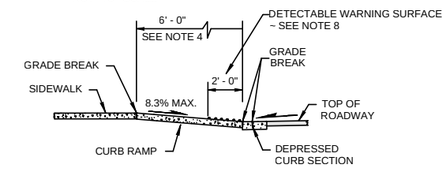
5' 2.5' 0 5' 10'

CURB RAMP NOTES

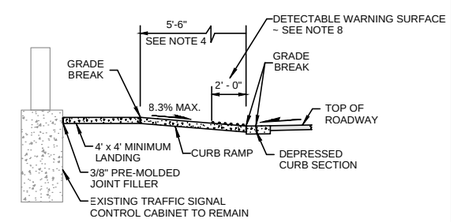
1. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE GRADE BREAK BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
2. DO NOT PLACE GRATINGS, JUNCTION BOXES, ACCESS COVERS, OR OTHER APPURTENANCES IN FRONT OF THE CURB RAMP OR ON ANY PART OF THE CURB RAMP OR LANDING.
3. SEE CONTRACT PLANS FOR THE CURB DESIGN SPECIFIED. SEE SHEET 17 FOR CURB AND GUTTER AND DEPRESSED CURB DETAILS.
4. RAMP LENGTH FOR REFERENCE ONLY. CONTRACTOR TO FIELD VERIFY AND ADJUST LENGTH TO MEET RAMP SLOPE REQUIREMENTS PER DETAILS.
5. LANDING AT TOP OF RAMP. SEE CURB RAMP DETAILS (CITY STD. DETAIL T-07 AND T-08).



SECTION N
NOT TO SCALE



SECTIONS L & M
NOT TO SCALE



SECTION K
NOT TO SCALE

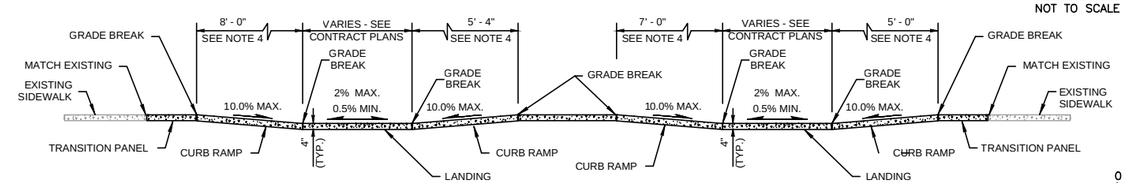
CURB RETURN TABLE

NUMBER	STATION	OFFSET	ELEV.	DESCRIPTION	CURVE DATA	CURVE CENTER POINT	
60	24+16.51	53.92 RT	57.52*	FL CURB AT TIE IN *	R=35.00' L=31.22' Δ 051°06'56"	24+02.42	85.83 RT
61	24+25.57	59.75 RT	57.54	FL CURB AT RAMP TOP			
62	24+29.69	64.10 RT	57.56	FL CURB AT RAMP TOE			
63	24+32.03	67.41 RT	57.57	FL CURB AT RAMP TOE			
64	24+34.75	72.75 RT	57.58	FL CURB AT RAMP TOP			
65	24+36.13	76.88 RT	57.59*	FL CURB AT TIE IN *			
66	24+24.40	67.87 RT	58.02	FG SIDEWALK AT RAMP TOP			
67	24+26.71	71.14 RT	58.03	FG SIDEWALK AT RAMP TOP			
68	24+07.73	59.97 RT	58.14*	FG AT BACK OF WALK TIE IN *	R=26.50' L=12.17' Δ 026°18'26"	24+02.32	85.92 RT
69	24+18.67	65.06 RT	58.14	FG AT BACK OF WALK			
70	24+18.51	66.48 RT	58.12	FG AT BACK OF WALK			
71	24+27.92	79.08 RT	58.23	FG AT BACK OF WALK			
72	24+28.95	85.37 RT	58.33*	FG AT BACK OF WALK TIE IN *			
73	24+74.17	70.03 RT	57.53*	FL CURB AT RAMP TOP/TIE IN *	R=35.00' L=21.12' Δ 034°33'57"	25+09.07	72.71 RT
74	24+75.24	63.71 RT	57.42	FL CURB AT RAMP TOE			
75	24+76.49	59.91 RT	57.36	FL CURB AT RAMP TOE			
76	24+79.15	54.54 RT	57.25	FL CURB AT RAMP TOP			
77	24+81.85	50.70 RT	57.20	FL CURB AT RAMP TOP/PCC	R=35.00' L=19.46' Δ 031°51'13"	25+08.00	73.96 RT
78	24+85.43	47.21 RT	57.23	FL CURB AT RAMP TOE			
79	24+88.63	44.81 RT	57.25	FL CURB AT RAMP TOE			
80	24+93.88	41.93 RT	57.28	FL CURB AT RAMP TOP			

NOTES:
* APPROXIMATE EXISTING ELEVATION (MATCH)
PC = POINT OF CURVATURE
PT = POINT OF TANGENCY
PRC = POINT OF REVERSE CURVATURE
PCC = POINT OF COMPOUND CURVATURE
FL = FLOW LINE

CURB RETURN TABLE

NUMBER	STATION	OFFSET	ELEV.	DESCRIPTION	CURVE DATA	CURVE CENTER POINT	
81	24+98.06	40.40 RT	57.30*	FL CURB AT PT/TIE IN *			
82	24+81.42	65.74 RT	57.89	FG SIDEWALK AT RAMP TOP			
83	24+82.67	61.94 RT	57.83	FG SIDEWALK AT RAMP TOP			
84	24+89.33	52.41 RT	57.70	FG SIDEWALK AT RAMP TOP			
85	24+92.53	50.01 RT	57.72	FG SIDEWALK AT RAMP TOP			
86	24+79.29	76.52 RT	58.19*	FG AT BACK OF WALK TIE IN *			
87	24+80.02	72.33 RT	58.05	FG AT BACK OF WALK			
88	24+84.88	68.28 RT	57.94	FG AT BACK OF WALK			
89	24+88.02	59.38 RT	57.83*	FG AT BACK OF WALK TIE IN *			
90	24+87.91	56.71 RT	57.74*	FG AT BACK OF WALK TIE IN *			
91	24+91.14	56.59 RT	57.78*	FG AT BACK OF WALK TIE IN *			
92	24+96.14	52.30 RT	57.80	FG AT BACK OF WALK			
93	24+96.61	50.04 RT	57.80	FG AT BACK OF WALK			
94	24+99.80	48.76 RT	57.90*	FG AT BACK OF WALK TIE IN *			



SECTION O
NOT TO SCALE

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015
SCALE: AS NOTED
DRAWN: B.J.B.
CHECKED: C.B.W.
APPROVED: B.L.S.

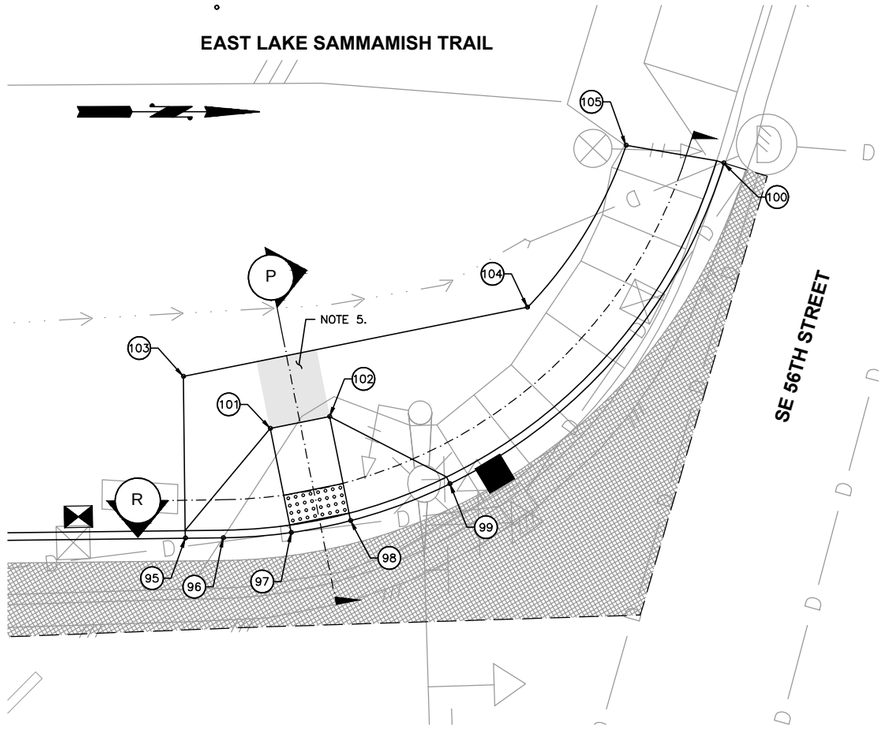
No.	REVISION	DATE	APPD
	PRELIMINARY NOT FOR CONSTRUCTION		

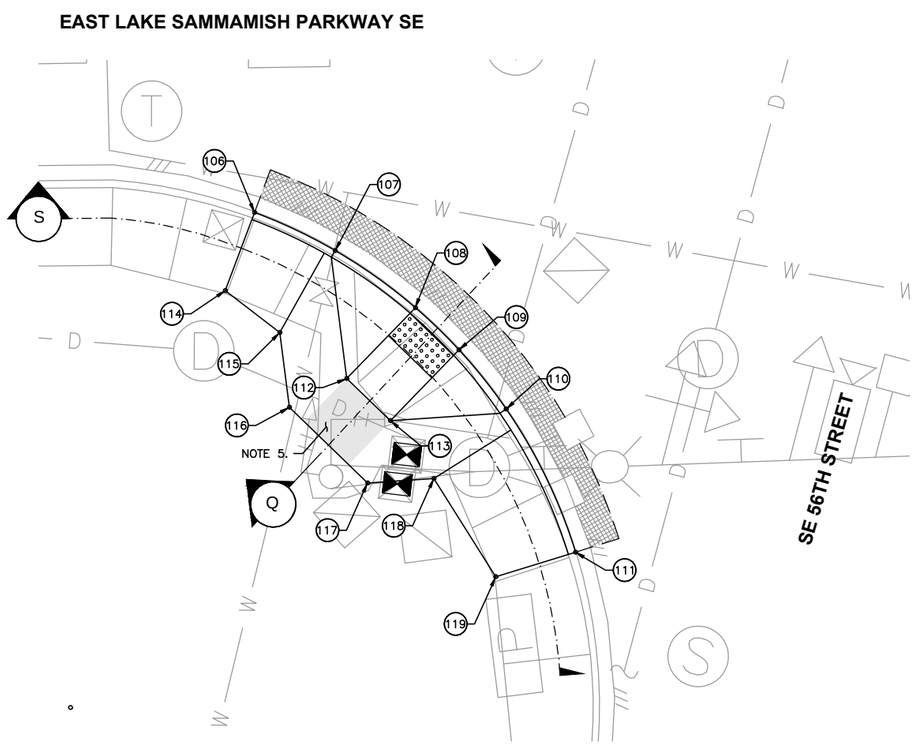
BRIAN L. SOURWINE — STATE OF WASHINGTON — 30091 — REGISTERED PROFESSIONAL ENGINEER

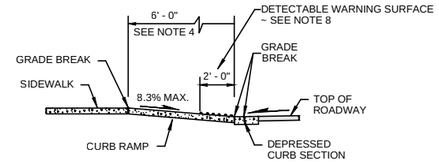
BRIAN J. BOLLEN — STATE OF WASHINGTON — 50382 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
CURB RAMPS PLAN AND DETAILS

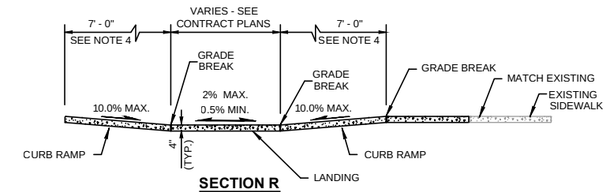
SHEET: 23
OF: 101
JOB NO.: 13570
DWG: INTERSECTION



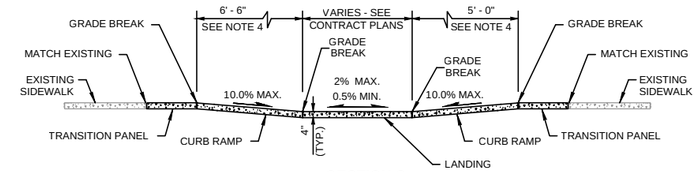




SECTIONS P & Q
NOT TO SCALE



SECTION R
NOT TO SCALE



SECTION S
NOT TO SCALE

CURB RAMP NOTES

1. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE GRADE BREAK BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
2. DO NOT PLACE GRATINGS, JUNCTION BOXES, ACCESS COVERS, OR OTHER APPURTENANCES IN FRONT OF THE CURB RAMP OR ON ANY PART OF THE CURB RAMP OR LANDING.
3. SEE CONTRACT PLANS FOR THE CURB DESIGN SPECIFIED. SEE SHEET 17 FOR CURB AND GUTTER AND DEPRESSED CURB DETAILS.
4. RAMP LENGTH FOR REFERENCE ONLY. CONTRACTOR TO FIELD VERIFY AND ADJUST LENGTH TO MEET RAMP SLOPE REQUIREMENTS PER DETAILS.
5. LANDING AT TOP OF RAMP. SEE CURB RAMP DETAILS (CITY STD. DETAIL T–07 AND T–08).

CURB RETURN TABLE

NUMBER	STATION	OFFSET	ELEV.	DESCRIPTION	CURVE DATA	CURVE CENTER POINT	
95	32+17.32	44.42 LT	53.81	FL CURB AT RAMP TOP	R=35.00' L=44.12' Δ 072°13'28"	32+19.39	79.45 LT
96	32+19.82	44.45 LT	53.80	FL CURB AT PC			
97	32+24.30	44.80 LT	53.71	FL CURB AT RAMP TOE			
98	32+28.22	45.58 LT	53.64	FL CURB AT RAMP TOE			
99	32+34.77	48.01 LT	53.51	FL CURB AT RAMP TOP			
100	32+52.84	69.18 LT	53.70*	FL CURB AT PT/TIE IN *			
101	32+22.92	51.66 LT	54.19	FG SIDEWALK AT RAMP TOP			
102	32+26.85	52.45 LT	54.12	FG SIDEWALK AT RAMP TOP			
103	32+17.19	55.10 LT	54.37	FG AT BACK OF WALK			
104	32+39.89	59.66 LT	54.09	FG AT PC BACK OF WALK	R=28.50' L=12.61' 025°21'36"	32+19.39	79.45 LT
105	32+46.39	70.35 LT	54.20*	FG AT PT BACK OF WALK *			
106	32+06.14	35.00 RT	53.63*	FL CURB AT PC/TIE IN *	R=35.00' L=31.92' Δ 052°15'32"	31+93.99	67.65 RT
107	32+11.47	37.52 RT	53.53	FL CURB AT RAMP TOP			
108	32+16.75	41.28 RT	53.43	FL CURB AT RAMP TOE			
109	32+19.63	44.06 RT	53.36	FL CURB AT RAMP TOE			
110	32+22.74	47.97 RT	53.28	FL CURB AT RAMP TOP			
111	32+27.32	57.40 RT	53.19*	FL CURB AT PT/TIE IN *			
112	32+12.23	45.95 RT	53.90	FG SIDEWALK AT RAMP TOP			
113	32+15.11	48.73 RT	53.83	FG SIDEWALK AT RAMP TOP			
114	32+04.22	40.15 RT	54.25*	FG AT BACK OF WALK TIE IN *			
115	32+07.82	42.91 RT	54.06	FG AT BACK OF WALK			
116	32+08.44	47.85 RT	53.97	FG AT BACK OF WALK			
117	32+13.60	52.84 RT	53.86	FG AT BACK OF WALK			
118	32+17.98	52.55 RT	53.83	FG AT BACK OF WALK			
119	32+22.06	59.03 RT	53.82*	FG AT BACK OF WALK TIE IN *			

NOTES:
* APPROXIMATE EXISTING ELEVATION (MATCH)
PC = POINT OF CURVATURE
PT = POINT OF TANGENCY
PRC = POINT OF REVERSE CURVATURE
PCC = POINT OF COMPOUND CURVATURE
FL = FLOW LINE

5' 2.5' 0 5' 10'

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015
SCALE: AS NOTED
DRAWN: B.J.B.
CHECKED: C.B.W.
APPROVED: B.L.S.

No.	REVISION	DATE	APPD

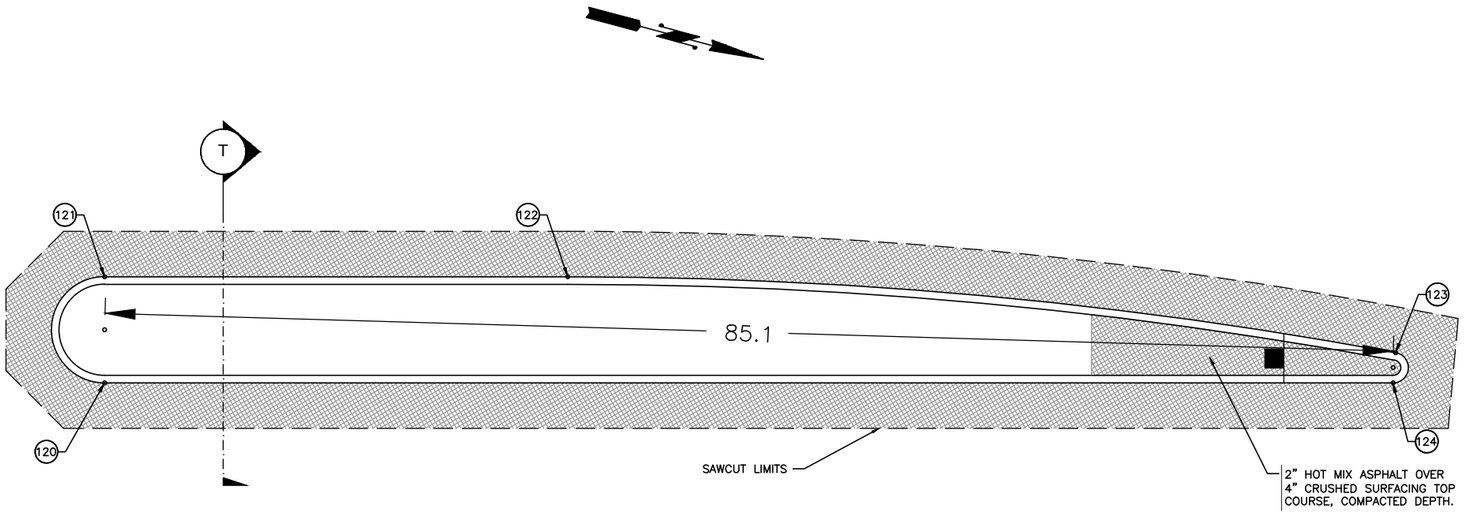
PRELIMINARY NOT FOR CONSTRUCTION

BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN — STATE OF WASHINGTON — 50362 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
CURB RAMPS
PLAN AND DETAILS

SHEET: 24
OF: 101
JOB NO.: 13570
DWG: INTERSECTION



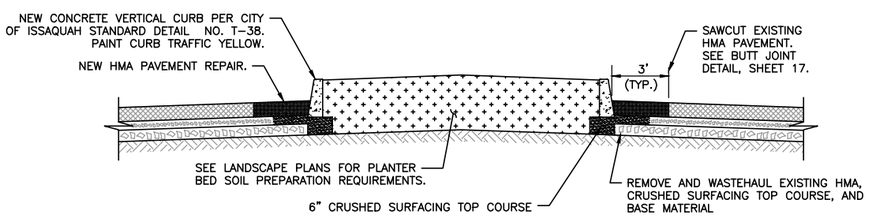
EAST LAKE SAMMAMISH PARKWAY SE

MEDIAN ISLAND DETAIL

5' 2.5' 0 5' 10'

NOTES:

1. SEE CHANNELIZATION PLANS FOR PAVEMENT MARKINGS.
2. SAWCUT EXISTING PAVEMENT FULL DEPTH.
   SEE PLAN AND PROFILE SHEET FOR SAWCUT LINE LOCATION
3. SEE LANDSCAPING PLANS FOR TOPSOIL AND PLANTING DETAILS.
4. HMA PAVEMENT REPAIR SHALL MATCH EXISTING HMA, ATB, AND CRUSHED SURFACING COURSES THICKNESS.
5. CONTRACTOR SHALL MAINTAIN EXISTING ROADWAY PAVEMENT SURFACE CROSS SLOPES, GRADE THE FINISHED SURFACE TO DRAIN, AND AVOID PONDING ON SURFACE OR AT THE CURB FACES.



LANDSCAPE ISLAND SECTION (T)
NOT TO SCALE

CURB RETURN TABLE

NUMBER	STATION	OFFSET	ELEV.	DESCRIPTION	CURVE DATA	CURVE CENTER POINT	
120	23+26.35	10.00 RT	59.48*	FL CURB AT PC	R=3.50' L=11.00' Δ 180°00'00"	23+26.35	6.50 RT
121	23+26.35	3.00 RT	59.77*	FL CURB AT PT			
122	23+56.92	3.00 RT	59.37*	FL CURB AT PC	R=300.00' L=54.94' Δ 010°29'34"	23+56.92	303.00 RT
123	24+11.55	8.02 RT	58.77*	FL CURB AT PCC	R=1.00' L=2.96' Δ 169°30'26"	24+11.37	9.00 RT
124	24+11.37	10.00 RT	58.72*	FL CURB AT PT			

NOTES:
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PC = POINT OF CURVATURE
PT = POINT OF TANGENCY
PRC = POINT OF REVERSE CURVATURE
PCC = POINT OF COMPOUND CURVATURE
FL = FLOW LINE

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: B.J.B.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

BRIAN L. SOURWINE STATE OF WASHINGTON 36091 REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN STATE OF WASHINGTON 50362 REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
LANDSCAPE MEDIAN ISLAND PLAN AND DETAILS

SHEET: 25
OF: 101
JOB NO.: 13570
DWG: INTERSECTION

CURB RETURN TABLE

NUMBER	STATION	OFFSET	ELEV.	DESCRIPTION	CURVE DATA	CURVE CENTER POINT	
120	1+09.12	3.00 LT	62.84	FG AT BACK OF WALK AT PRC	R=44.00' L=47.18' Δ 061°26'23"	1+09.12	47.00 LT
121	1+59.52	3.00 LT	60.47	FG AT BACK OF WALK AT PCC			
122	1+80.08	19.31 LT	59.55*	FG AT BACK OF WALK AT PT*	R=15.00' L=18.47' Δ 070°32'36"	1+59.52	18.00 LT
123	1+09.12	3.00 RT	62.75	FG AT FRONT OF WALK AT PRC	R=50.00' L=62.05' Δ 071°06'26"	1+74.09	45.00 LT
124	1+67.45	3.00 RT	60.00	FG AT FRONT OF WALK AT PCC			
125	1+80.08	17.43 RT	59.37*	FG AT FRONT OF WALK AT PT*	R=15.00' L=18.48' Δ 070°34'28"	1+67.63	19.93 RT

NOTES:
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PC = POINT OF CURVATURE
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PRC = POINT OF REVERSE CURVATURE
PCC = POINT OF COMPOUND CURVATURE
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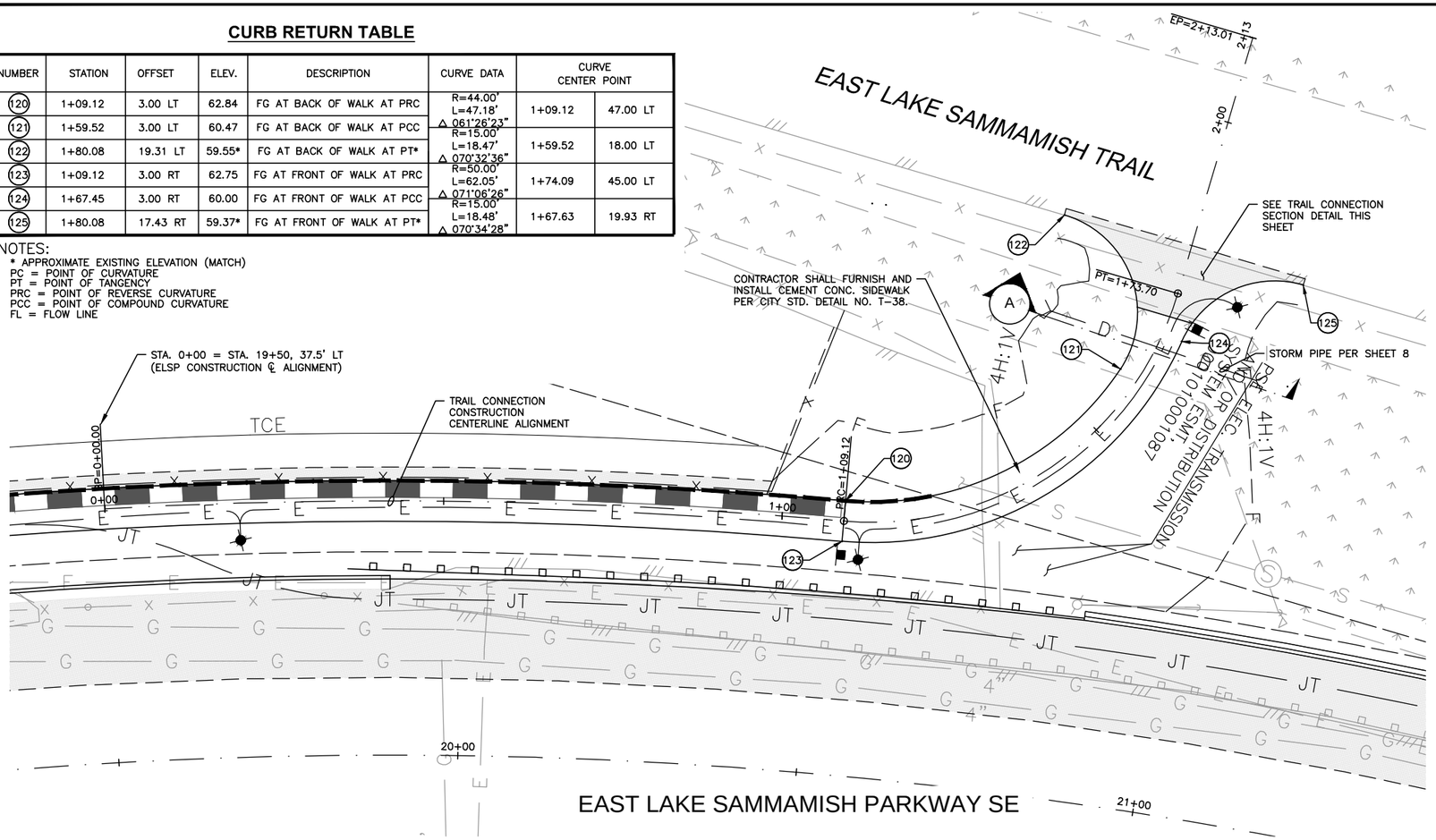
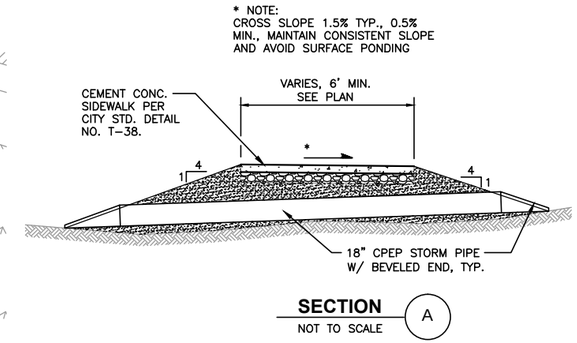
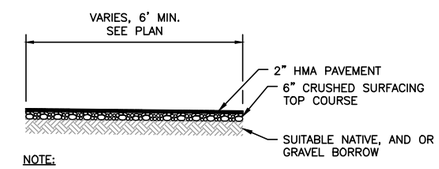




SECTION A
NOT TO SCALE



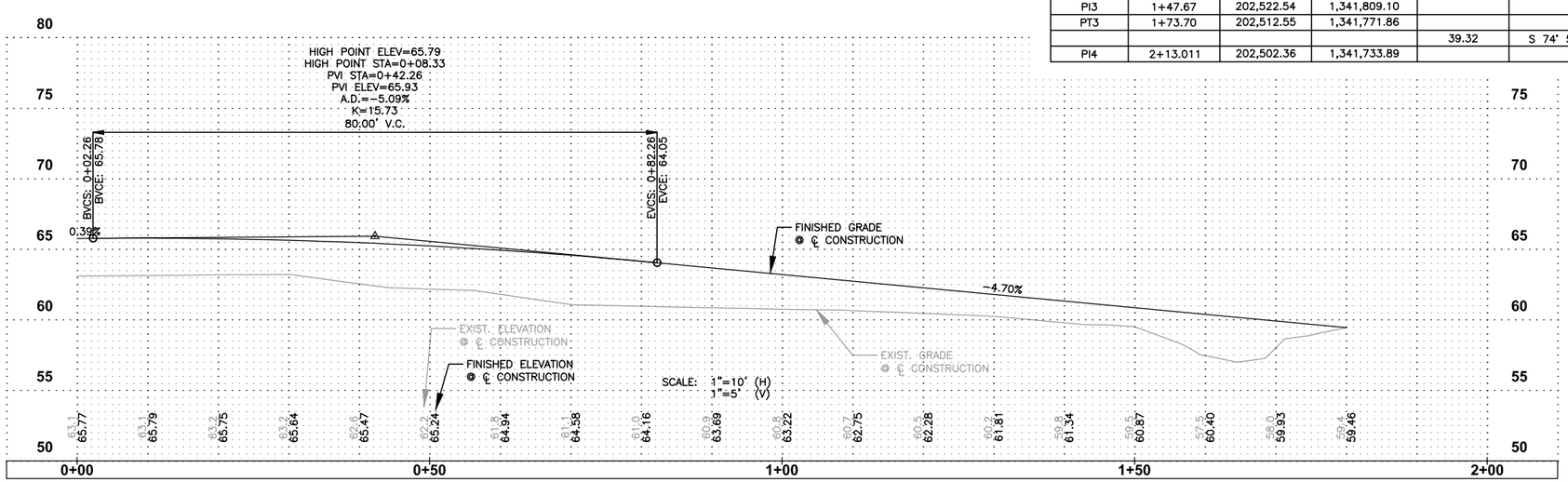
NOTE:

CONTRACTOR SHALL GRADE FINISHED SURFACE TO DRAIN AND AVOID SURFACE PONDING.

TRAIL CONNECTION SECTION
NOT TO SCALE

TRAIL CONNECTION - CONSTRUCTION CENTERLINE ALIGNMENT TABLE

ANGLE PT.	P.I. STATION	NORTHING	EASTING	DISTANCE P.I. TO P.I.	BEARING	RADIUS	TANGENT	LENGTH	DELTA
PC1	0+00.00	202,393.99	1,341,881.42						
PI2	0+54.65	202,438.98	1,341,850.39			753.84	54.65	109.12	08° 17' 36.44"
PRC2	1+09.12	202,487.98	1,341,826.18						
PI3	1+47.67	202,522.54	1,341,809.10			47.00	38.56	64.58	78° 43' 30.29"
PT3	1+73.70	202,512.55	1,341,771.86						
				39.32	S 74° 58' 40" W				
PI4	2+13.011	202,502.36	1,341,733.89						



0 1" 2"
TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: B.J.B.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

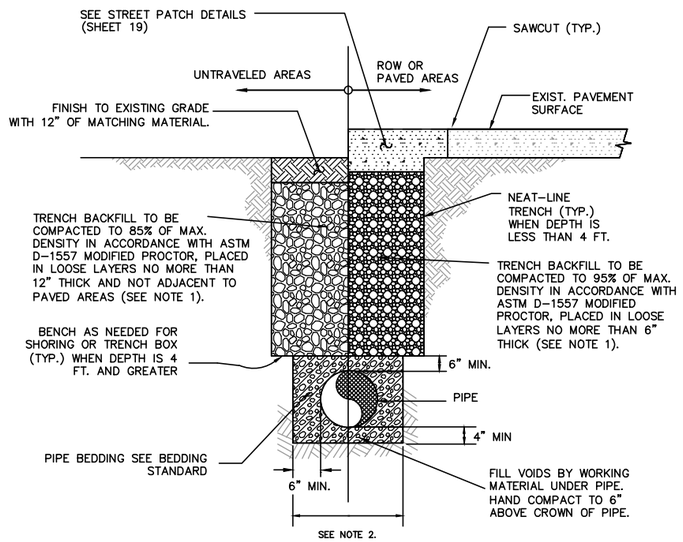
No.	REVISION	DATE	APPD

BRIAN L. SOURWINE STATE OF WASHINGTON 36091 REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN STATE OF WASHINGTON 50362 REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
SIDEWALK TO TRAIL CONNECTION DETAIL

SHEET: 26
OF: 101
JOB NO.: 13570
DWG: TRAIL_CONNECT

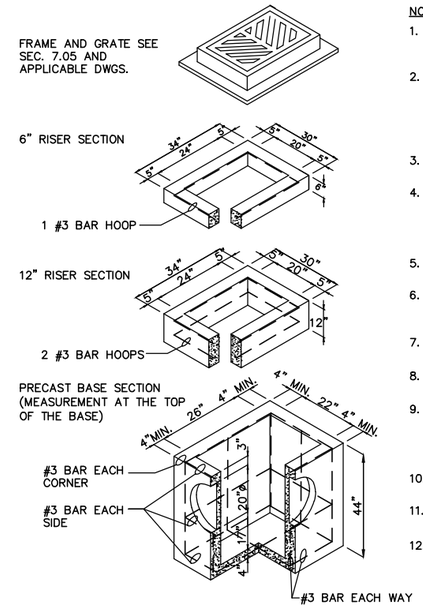


NOTES:

1. TRENCH BACKFILL MATERIAL TO BE WELL GRADED "COMMON BORROW" FREE OF CLODS OR ROCKS GREATER THAN 3" IN ANY DIMENSION WITH A MOISTURE CONTENT WITHIN 2% OF OPTIMUM – WSDOT STD SPEC 9-03.14 (3).
2. MAXIMUM WIDTH OF TRENCH AT TOP OF PIPE.
   30" FOR PIPE UP TO AND INCLUDING 12" NOMINAL DIAMETER.
   O.D. PLUS 16" FOR PIPE LARGER THAN 12" NOMINAL DIAMETER.
3. CDF EQUAL TO CADMAN PROFLOW 5 HOUR 11021 REQUIRED WHEN CROSSING EXISTING STREETS. THE MIN. CAP CAN BE 2' MIN. OVER 1' MIN. TRENCH FILL.
4. COMPACTION TESTING AND PROCTOR REQUIRED. ONE TEST PER LIFT PER 100' OF TRENCH. MINIMUM 2 TESTS PER LIFT.
5. MAXIMUM TYPICAL TRENCH DEPTH IS 48". DEEPER TRENCHES MUST BE IDENTIFIED VIA SEPARATE UTILITY PROFILE DESIGN AND APPROVED BY THE CITY ENGINEER OR DESIGNEE.
6. COMPACTION TESTING AT DEPTHS GREATER THAN 4' IN TRENCHES MAY BE ACCOMPLISHED BY MAINTAINING A COMPACTION PATTERN PROVEN TO MEET COMPACTION REQUIREMENTS.
7. TRENCHES LESS THAN 2' WIDE REQUIRE CDF.

NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT AUGUST 2010	EXPIRES:	EXPIRES: 12-13-2013	TRENCH DETAIL	STANDARD DETAIL NO. T-50 REV:

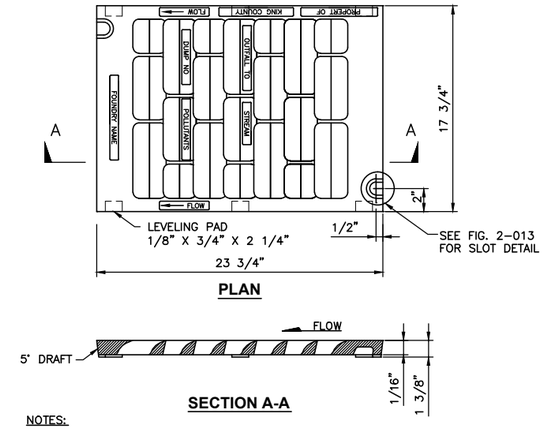


NOTES:

1. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 7-05 WSDOT/APWA STANDARD SPECIFICATIONS, UNLESS OTHERWISE SHOWN ON PLANS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS.
6. ROUND KNOCKOUTS MAY BE ON ALL 4 SIDES, WITH MAX. DIAM. OF 20". KNOCKOUTS MAY BE EITHER ROUND OR "D" SHAPE.
7. THE MAX. DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".
8. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2"/FT.
9. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD PECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621D. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
10. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
11. FOR CATCH BASINS IN PARKING LOTS REFER TO WSDOT/APWA STANDARD DWG. B1-b.
12. EDGE OF RISER OR BRICK SHALL NOT BE MORE THAN 2" FROM VERTICAL EDGE OF CATCH BASIN WALL.

CATCH BASIN TYPE 1

NOT TO SCALE

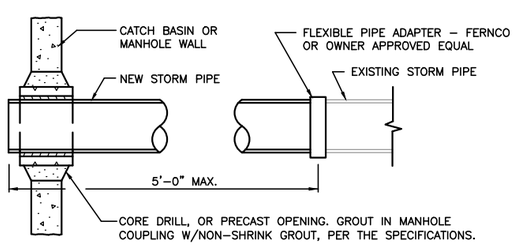


NOTES:

1. SELF-LOCK VANED GRATE MANUFACTURER SUBJECT TO APPROVAL BY ENGINEER.
2. USE WITH TWO LOCKING BOLTS 5/8"-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) BOLTS, 2" LONG. NOTE SLOT DETAIL. PROVIDE WHERE REQUIRED. PROVIDE WHERE REQUIRED. ALL LIDS OUTSIDE OF ROADWAY TO BE LOCKED.
3. MATERIAL IS DUCTILE IRON ASTM A536 GRADE 80-55-06.
4. "OUTFALL TO STREAM DUMP NO POLLUTANTS" IN RAISED LETTERS SHALL BE LOCATED ON GRATE AS SHOWN, OR ON BORDER AREA.
5. SHALL CONFORM TO SEC. 7.05 OF THE STANDARD SPECIFICATIONS.
6. WELDING IS NOT PERMITTED.
7. EDGES SHALL HAVE 0.125" RADIUS, 0.125" CHAMBER OR COMPLETE DEBURRING.
8. USE A BI-DIRECTIONAL VANED GRATE IN SAG VERTICAL CURVES.

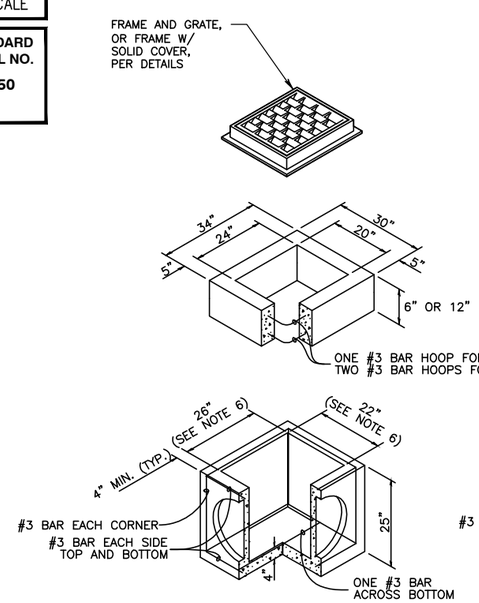
VANED GRATE

NOT TO SCALE



CONNECTION OF EXISTING STORM DRAIN USING FLEXIBLE PIPE ADAPTER

NOT TO SCALE

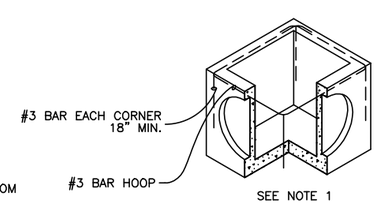


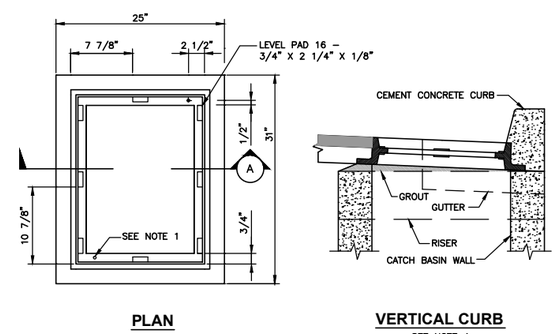
NOTES

1. AS AN ACCEPTABLE ALTERNATE TO REBAR, WIRE MESH HAVING A MINIMUM AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WIRE MESH SHALL NOT BE PLACED IN KNOCKOUTS.
2. THE KNOCKOUT DIAMETER SHALL NOT BE GREATER THAN 20". KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM TO 2 1/2" MAXIMUM.
3. THE MAXIMUM DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT SHALL BE 5'.
4. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO ADJUSTMENT SECTION.
5. THE PRECAST BASE SECTION MAY HAVE A ROUNDED FLOOR AND THE WALLS MAY BE SLOPED AT A RATE OF 1:24 OR STEEPER.
6. OPENING SHALL BE MEASURED AT THE TOP OF THE PRECAST BASE UNIT.
7. GROUT ALL JOINTS INSIDE AND OUTSIDE.
8. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 7-05 WSDOT/APWA STANDARD SPECIFICATIONS, UNLESS OTHERWISE SHOWN ON PLANS.

CONCRETE INLET DETAIL

NOT TO SCALE





NOTES:

1. DRILL AND TAP FOR, AND PROVIDE, TWO LOCKING BOLTS 5/8 IN.-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS 2 IN. LONG WHEN USED WITH SOLID COVER (FIG. 7-015) OR WHEN SPECIFIED BY ENGINEER.
2. FRAME MATERIAL IS DUCTILE IRON PER ASTM A48 CLASS 30.
3. SET FRAME TO GRADE AND CONSTRUCT ROAD AND GUTTER TO BE FLUSH WITH FRAME.
4. SEE STANDARD SPECIFICATION SEC. 7-5.

CATCH BASIN FRAME WITH VERTICAL CURB INSTALLATION

NOT TO SCALE

Gray & Osborne, Inc.
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DATE: MAR. 2015	SCALE: AS NOTED	DRAWN: C.N.T.	CHECKED: C.B.W.	APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

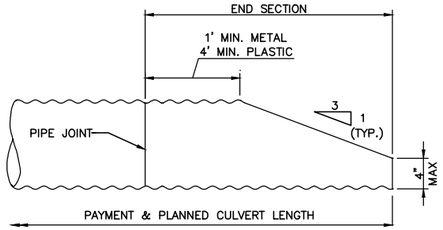
BRIAN L. SOUMAINE, STATE OF WASHINGTON, 36091, REGISTERED PROFESSIONAL ENGINEER

CHI-HENG WANG, STATE OF WASHINGTON, 38930, REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
STORM DRAINAGE DETAILS

SHEET: 27
OF: 101

JOB NO.: 13570
DWG: DRAINAGE_DET1

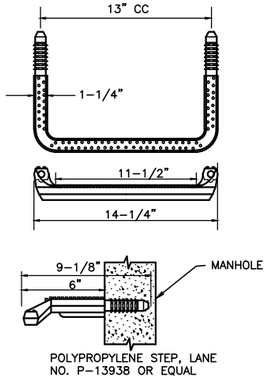


NOTE:

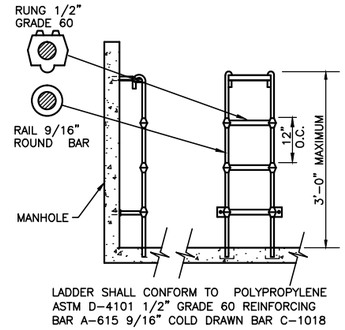
THE PIPE END SHALL BE BEVELED TO MATCH THE EMBANKMENT OR DITCH SLOPE IF SLOPE DIFFERS FROM 3H:1V, BUT SHALL NOT BE BEVELED FLATTER THAN 4H:1V. SHAPE THE SLOPE IN THE VICINITY OF THE CULVERT END TO ENSURE THAT NO PART OF THE CULVERT PROTRUDES MORE THAN 4" ABOVE THE GROUND LINE. WHEN CULVERT IS ON SKEW, BEVELED END SHALL BE ROTATED TO CONFORM TO SLOPE.

METAL AND PLASTIC PIPE BEVELED END SECTION

NOT TO SCALE

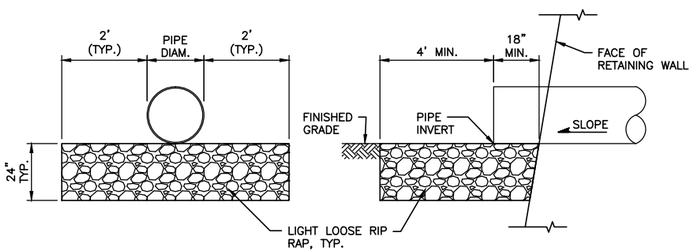


POLYPROPYLENE MANHOLE STEPS



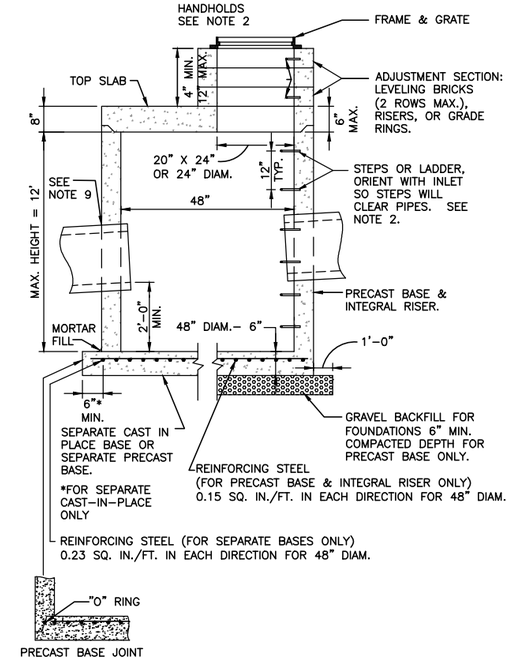
POLYPROPYLENE LADDER AND MANHOLE STEPS

NOT TO SCALE



CULVERT OULET PROTECTION DETAIL

NOT TO SCALE

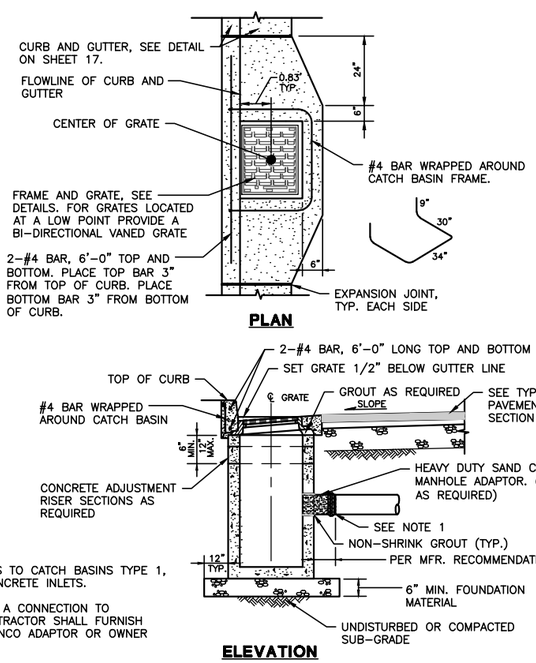


NOTES:

1. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M199) AND ASTM C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
2. HANDHOLDS IN ADJUSTMENT SECTION SHALL HAVE 3" MIN. CLEARANCE. STEPS IN CATCH BASIN SHALL HAVE 6" MIN. CLEARANCE. SEE DETAILS. HANDHOLDS SHALL BE PLACED IN ALTERNATING GRADE RINGS OR LEVELING BRICK COURSE WITH A MIN. OF ONE HANDHOLD BETWEEN THE LAST STEP AND TOP TO THE FINISHED GRADE. ALL STEPS AND HANDHOLDS SHALL BE MADE OF POLY PROPYLENE.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE WALL THICKNESS OF 2" MIN. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT. PIPES SHALL BE INSTALLED ONLY IN FACTORY KNOCKOUTS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. KNOCKOUT OR CUTOUT HOLE SIZE SHALL EQUAL PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS.
   MAX. HOLE SIZE SHALL BE 36" FOR 48" CATCH BASIN
   MIN. DISTANCE BETWEEN HOLES SHALL BE 8" FOR 48" CATCH BASIN
6. CATCH BASIN FRAMES AND GRATES OR COVERS SHALL BE IN ACCORDANCE WITH SEC. 7-05 OF THE STANDARD SPECIFICATIONS. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
7. ALL BASE REINFORCING STEEL SHALL HAVE A MIN. YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MIN. CLEARANCE.
8. MIN. SOIL BEARING VALUE SHALL EQUAL 3,300 POUNDS PER SQUARE FOOT.
9. INSTALL PIPE TO MANHOLE CONNECTION AS FOLLOWS:
   FOR HDPE USE KOR-N-SEAL
   FOR D.I. USE KOR-N-SEAL
   FOR PVC USE KOR-N-SEAL OR SAND COLLAR.
   FOR POLYETHYLENE FOLLOW MANUFACTURER RECOMMENDATIONS.

CATCH BASIN TYPE 2 (48" DIA.)

NOT TO SCALE

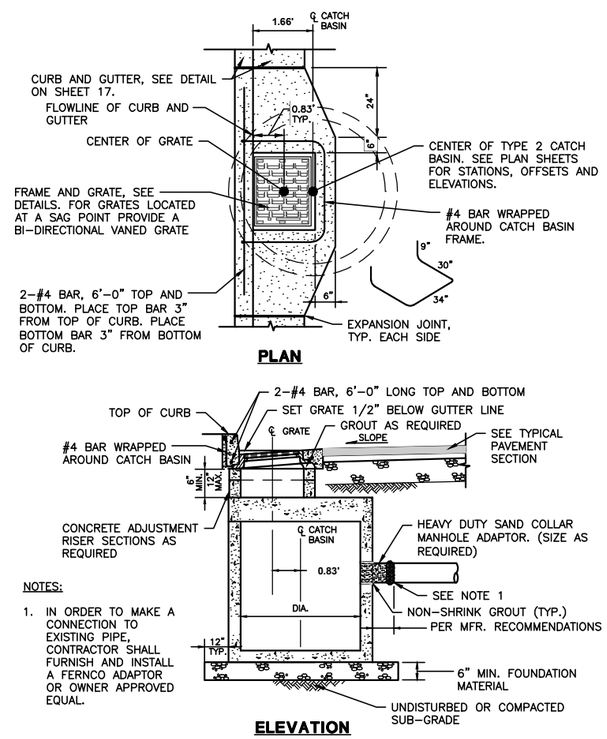


NOTES:

1. THIS DETAIL APPLIES TO CATCH BASINS TYPE 1, TYPE 1-L, AND CONCRETE INLETS.
2. IN ORDER TO MAKE A CONNECTION TO EXISTING PIPE, CONTRACTOR SHALL FURNISH AND INSTALL A FERNCO ADAPTOR OR OWNER APPROVED EQUAL.

TYPICAL TYPE 1 CATCH BASIN INSTALLATION DETAIL W/ CURB AND GUTTER

NOT TO SCALE

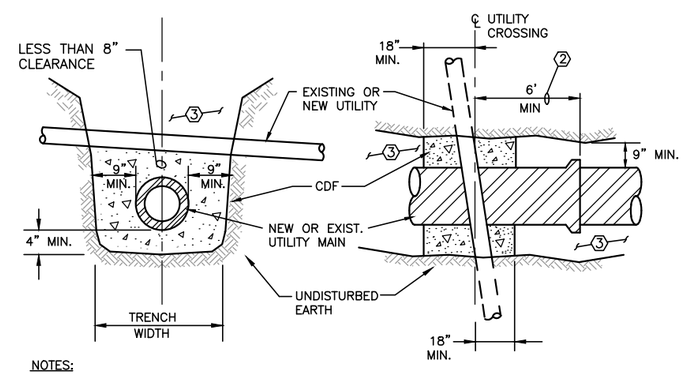


NOTES:

1. IN ORDER TO MAKE A CONNECTION TO EXISTING PIPE, CONTRACTOR SHALL FURNISH AND INSTALL A FERNCO ADAPTOR OR OWNER APPROVED EQUAL.

TYPICAL TYPE 2 CATCH BASIN INSTALLATION DETAIL W/ CURB AND GUTTER

NOT TO SCALE



NOTES:

1. CONTRACTOR SHALL PROVIDE CDF PIPE ENCASEMENT AT ALL EXISTING UTILITY CROSSINGS IN THE EVENT THAT AN 8" SEPARATION CANNOT BE PROVIDED. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE SITE UTILITIES TO ANTICIPATE PROVIDING AND INSTALLING CDF ENCASEMENTS WHERE NECESSARY.
2. CONTRACTOR SHALL NOT CONSTRUCT ANY NEW PIPE JOINT WITHIN 6 FEET OF THE EXISTING CENTERLINE OF THE UTILITY CROSSING.
3. SEE CITY STANDARD DETAIL T-50 "TRENCH DETAIL" FOR TRENCH BACKFILL REQUIREMENTS.

CDF PIPE ENCASEMENT DETAIL

NOT TO SCALE

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015 | SCALE: AS NOTED | DRAWN: C.N.T. | CHECKED: C.B.W. | APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APP'D

BRIAN L. SOURWINE, STATE OF WASHINGTON, 16506, REGISTERED PROFESSIONAL ENGINEER

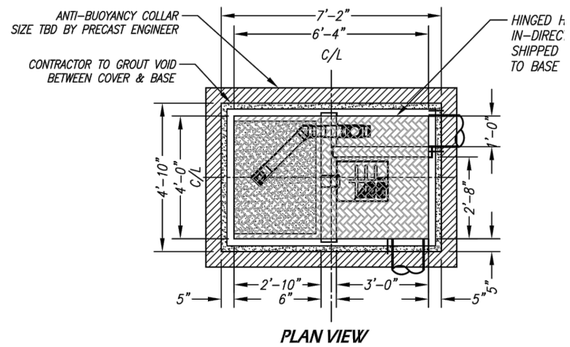
CHI HENG WANG, STATE OF WASHINGTON, 39930, REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
STORM DRAINAGE DETAILS

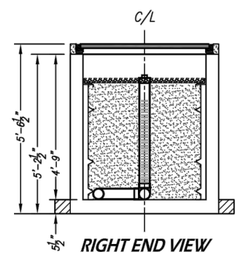
SHEET: 28
OF: 101

JOB NO.: 13570
DWG: DRAINAGE_DET2

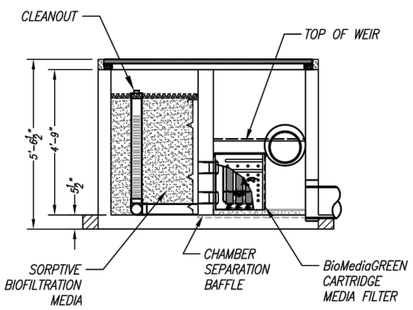
TREATMENT CAPACITY (CFS)	0.046
OPERATING HEAD (FT)	2.2
PRE-FILTER LOADING RATE (GPM/SF)	1.6
WETLAND LOADING RATE (GPM/SF)	1.0



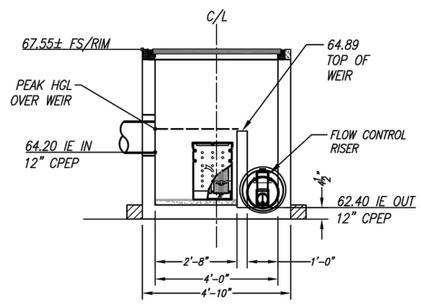
PLAN VIEW



RIGHT END VIEW
BIOFILTRATION CHAMBER



ELEVATION VIEW



LEFT END VIEW
PRETREATMENT/DISCHARGE CHAMBER

STORMWATER TREATMENT FILTER
(APPROX. STA. 9+10, LEFT)
NOT TO SCALE

SITE SPECIFIC DATA			
PROJECT NAME		EAST LAKE SAMMAMISH	
PROJECT LOCATION		ISSAQUAH, WA	
STRUCTURE ID		WQ #001	
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
		0.0361	
TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS) – IF APPLICABLE			0.196
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	64.20	CPEP	12"
INLET PIPE 2			
OUTLET PIPE	62.40	CPEP	12"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	67.55±		
SURFACE LOAD	H20 IN-DIRECT	H20 IN-DIRECT	H20 IN-DIRECT
FRAME & COVER	48" X 72"	N/A	N/A
WETLANDMEDIA VOLUME (CY)			2.1
WETLANDMEDIA DELIVERY METHOD			TBD
ORIFICE SIZE (DIA. INCHES)			ø1.08"
MAXIMUM PICK WEIGHT (LBS)			TBD
NOTES:			

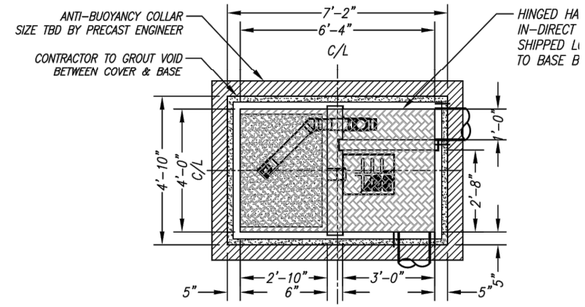
INSTALLATION NOTES

1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURERS CONTRACT.
2. MANUFACTURER RECOMMENDS A MINIMUM 6"LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE TO VERIFY PROJECT ENGINEERS RECOMMENDED BASE SPECIFICATIONS.
3. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. (PIPES CANNOT INTRUDE BEYOND FLUSH).
4. INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR.
5. CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES.
6. ALL GAPS AROUND PIPES SHALL BE SEALED WATER TIGHT WITH A NON-SHRINK GROUT PER MANUFACTURERS STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.
7. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.

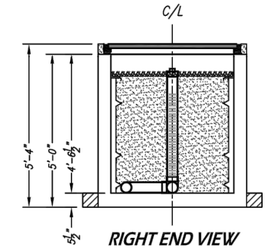
GENERAL NOTES

1. MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT MANUFACTURER.

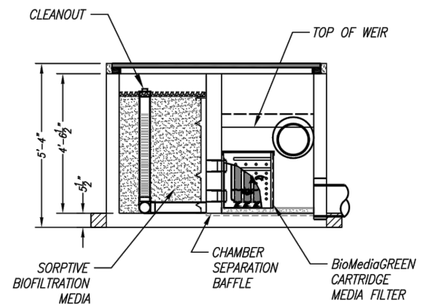
TREATMENT CAPACITY (CFS)	0.058
OPERATING HEAD (FT)	2.8
PRE-FILTER LOADING RATE (GPM/SF)	2.0
WETLAND LOADING RATE (GPM/SF)	1.0



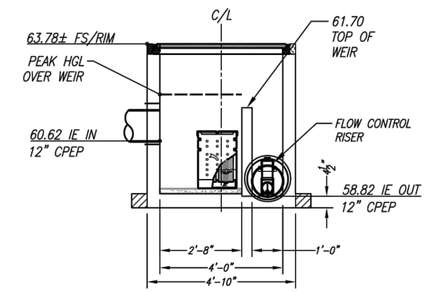
PLAN VIEW



RIGHT END VIEW
BIOFILTRATION CHAMBER



ELEVATION VIEW



LEFT END VIEW
PRETREATMENT/DISCHARGE CHAMBER

STORMWATER TREATMENT FILTER
(APPROX. STA. 16+60, LEFT)
NOT TO SCALE

SITE SPECIFIC DATA			
PROJECT NAME		EAST LAKE SAMMAMISH	
PROJECT LOCATION		ISSAQUAH, WA	
STRUCTURE ID		WQ #002	
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
		0.0533	
TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS) – IF APPLICABLE			0.294
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	60.62	CPEP	12"
INLET PIPE 2			
OUTLET PIPE	58.82	CPEP	12"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	63.78±	63.78±	63.78±
SURFACE LOAD	H20 IN-DIRECT	H20 IN-DIRECT	H20 IN-DIRECT
FRAME & COVER	48" X 75"	N/A	N/A
WETLANDMEDIA VOLUME (CY)			2.1
WETLANDMEDIA DELIVERY METHOD			TBD
ORIFICE SIZE (DIA. INCHES)			ø1.14"
MAXIMUM PICK WEIGHT (LBS)			TBD
NOTES:			

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY
NOT FOR
CONSTRUCTION

No.	REVISION	DATE	APPD

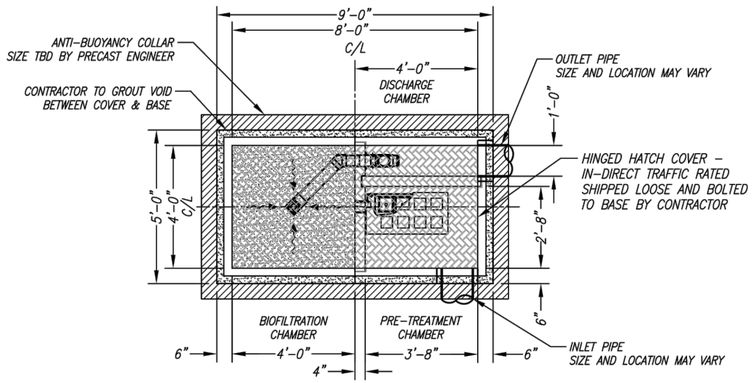
BRIAN L. SOURWINE
STATE OF WASHINGTON
35091
REGISTERED PROFESSIONAL ENGINEER

LEIGH K. NELSON
STATE OF WASHINGTON
44816
REGISTERED PROFESSIONAL ENGINEER

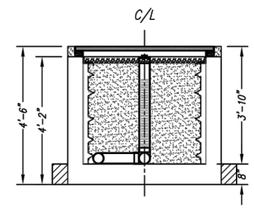
CITY OF ISSAQUAH
WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE
WIDENING
STORM DRAINAGE DETAILS

JOB NO.: 13570
DWG: DRAINAGE_MWS

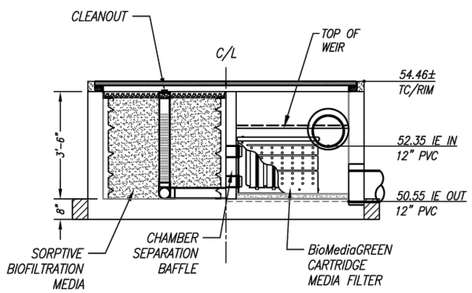
TREATMENT CAPACITY (CFS)	0.078
OPERATING HEAD (FT)	2.3
PRETREATMENT LOADING RATE (GPM/SF)	1.4
WETLAND LOADING RATE (GPM/SF)	1.0



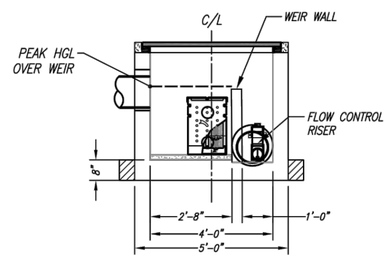
PLAN VIEW



LEFT END VIEW
PRETREATMENT/DISCHARGE CHAMBER



ELEVATION VIEW



RIGHT END VIEW
BIOFILTRATION CHAMBER

STORMWATER TREATMENT FILTER

(APPROX. STA. 31+99, LEFT)

NOT TO SCALE

INSTALLATION NOTES

1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURERS CONTRACT.
2. MANUFACTURER RECOMMENDS A MINIMUM 6"LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE TO VERIFY PROJECT ENGINEERS RECOMMENDED BASE SPECIFICATIONS.
3. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. (PIPES CANNOT INTRUDE BEYOND FLUSH).
4. INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR.
5. CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES.
6. ALL GAPS AROUND PIPES SHALL BE SEALED WATER TIGHT WITH A NON-SHRINK GROUT PER MANUFACTURERS STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.
7. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.

GENERAL NOTES

1. MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT MANUFACTURER.

SITE SPECIFIC DATA

PROJECT NAME		EAST LAKE SAMMAMISH	
PROJECT LOCATION		ISSAQUAH, WA	
STRUCTURE ID		WQ #003	
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
		0.0725	
TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS) - IF APPLICABLE			0.364
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	52.35	DI	12"
INLET PIPE 2			
OUTLET PIPE	50.55	CPEP	12"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	54.46±	54.46±	54.46±
SURFACE LOAD	H20 IN-DIRECT	H20 IN-DIRECT	H20 IN-DIRECT
FRAME & COVER	48" X 96"	N/A	N/A
WETLANDMEDIA VOLUME (CY)			2.03
WETLANDMEDIA DELIVERY METHOD			TBD
ORIFICE SIZE (DIA. INCHES)			ø1.53"
MAXIMUM PICK WEIGHT (LBS)			TBD
NOTES:			

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DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

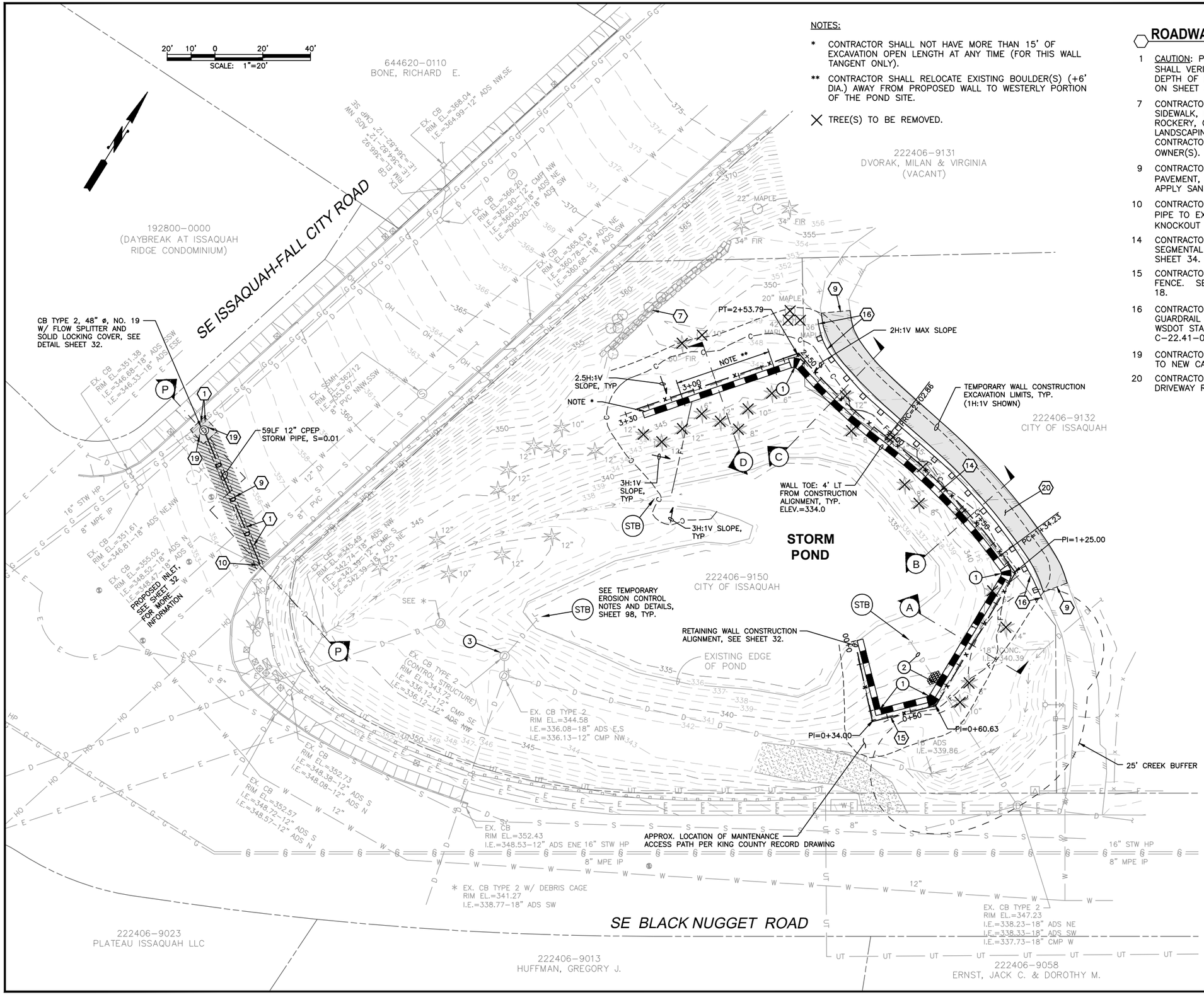
BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

JEFFREY K. NELSON — STATE OF WASHINGTON — 44816 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
STORM DRAINAGE DETAILS

SHEET: 30
OF: 101

JOB NO.: 13570
DWG: DRAINAGE_MWS



NOTES:

* CONTRACTOR SHALL NOT HAVE MORE THAN 15' OF EXCAVATION OPEN LENGTH AT ANY TIME (FOR THIS WALL TANGENT ONLY).

** CONTRACTOR SHALL RELOCATE EXISTING BOULDER(S) (+6' DIA.) AWAY FROM PROPOSED WALL TO WESTERLY PORTION OF THE POND SITE.

X TREE(S) TO BE REMOVED.

ROADWAY & STORM DRAINAGE NOTES

1 CAUTION: POTENTIAL UTILITY CONFLICT. CONTRACTOR SHALL VERIFY (POTHOLE) EXACT LOCATION AND DEPTH OF EXISTING UTILITY. SEE ORDER OF WORK ON SHEET 3.

7 CONTRACTOR SHALL PROTECT EXISTING CURB, SIDEWALK, FENCE, BOLLARD, PLANTER, PAVEMENT, ROCKERY, GUARDRAIL, WALL, IRRIGATION SYSTEM, LANDSCAPING, TREE DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER(S).

9 CONTRACTOR SHALL SAWCUT EXISTING ASPHALT PAVEMENT, SEAL JOINT (WHERE APPLICABLE) THEN APPLY SAND BLANKET TO THE SURFACE JOINT.

10 CONTRACTOR SHALL CONNECT NEW STORM DRAIN PIPE TO EXISTING CATCH BASIN. (CORE DRILL IF KNOCKOUT IS NOT PRESENT.)

14 CONTRACTOR SHALL FURNISH AND INSTALL SEGMENTAL CONCRETE RETAINING WALL. SEE DETAIL, SHEET 34.

15 CONTRACTOR SHALL FURNISH AND INSTALL NEW FENCE. SEE FENCE SCHEDULE ON DETAIL SHEET 18.

16 CONTRACTOR SHALL FURNISH AND INSTALL BEAM GUARDRAIL TYPE 31 AND NON-FLARED TERMINAL PER WSDOT STANDARD PLANS C-20.10-00 AND C-22.41-00.

19 CONTRACTOR SHALL CONNECT EXISTING STORM PIPE TO NEW CATCH BASIN.

20 CONTRACTOR SHALL FURNISH AND INSTALL ASPHALT DRIVEWAY REPAIR. SEE DETAIL SHEET 16.

STORM POND NOTES:

1. CONTRACTOR SHALL CONSTRUCT WALL CORNER COLUMN WITH SUITABLE SHAPED BLOCKS PER MANUFACTURER'S RECOMMENDATIONS.
2. CONTRACTOR TO FIELD LOCATE EXISTING CULVERT WITH UNKNOWN BURIAL DEPTH AND LOCATION. CONSTRUCT CEMENT CONCRETE PANEL FOR PIPE PENETRATION PER DETAIL SHEET 34. REMOVE AND WASTEHAUL EXTRA EXISTING PIPE.
3. CONTRACTOR SHALL REMOVE EXIST. STORM FLOW RESTRICTOR INSIDE CONTROL STRUCTURE. FURNISH AND INSTALL NEW STORM FLOW RESTRICTOR AND CONNECT EXISTING PIPE TO STRUCTURE PER DETAIL SHEET 32.
4. GENERAL NOTE: CONTRACTOR SHALL PUMP WATER FROM POND AND PROVIDE BYPASS PUMPING AS NEEDED DURING CONSTRUCTION. CONTRACTOR SHALL NOT DISCHARGE WATER TO CREEK.
5. GENERAL NOTE: CONTRACTOR SHALL MAINTAIN EX. DRIVEWAY ACCESS DURING CONSTRUCTION. COORDINATE WITH ADJACENT PROPERTY OWNER.

SEE SHEET 32 FOR SECTIONS, TYP.

Gray & Osborne, Inc.
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SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
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APPROVED: B.L.S.

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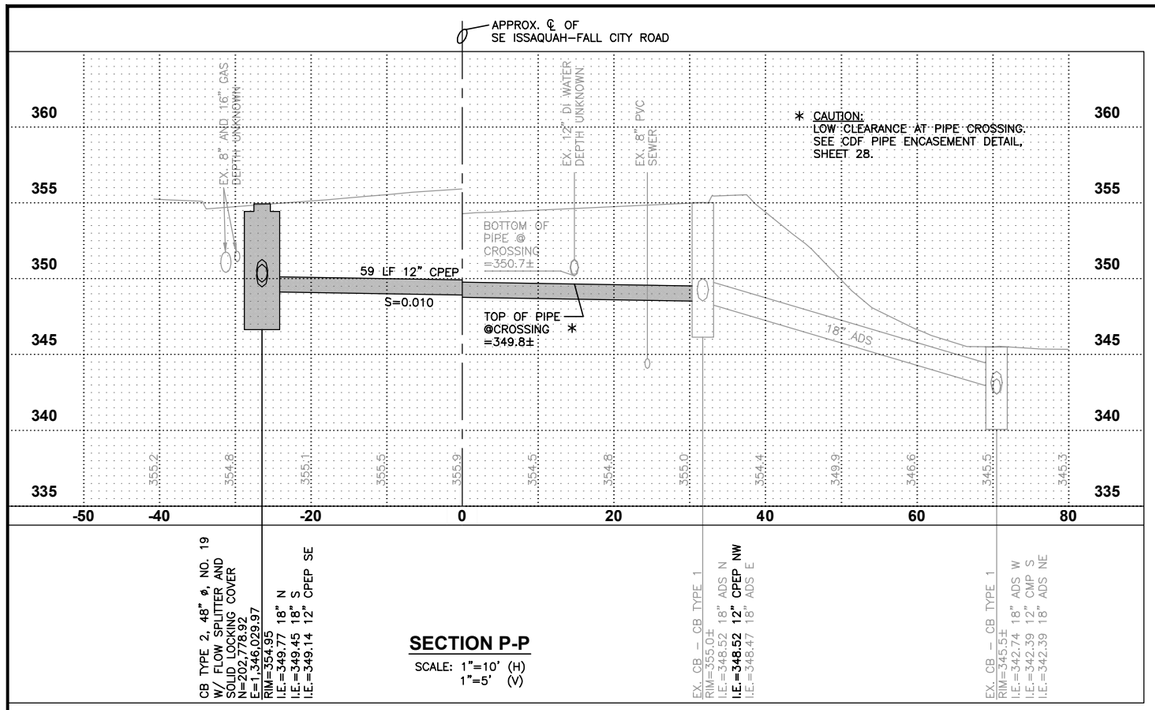
No.	REVISION	DATE	APPD

BRIAN L. SOURWINE
STATE OF WASHINGTON
36091
REGISTERED PROFESSIONAL ENGINEER

KATHERINE NELSON LEIGH
STATE OF WASHINGTON
44816
REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
OFFSITE STORM DETENTION POND MODIFICATION PLAN

SHEET: 31
OF: 101
JOB NO.: 13570
DWG: SD_OFFSITE_POND



SECTION P-P

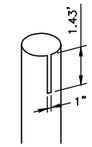
SCALE: 1"=10' (H)
1"=5' (V)

OFFSITE POND RETAINING WALL CONSTRUCTION ALIGNMENT P.I. TABLE

ANGLE PT.	P.I. STATION	NORTHING	EASTING
PI1	0+00.00	202,847.76	1,346,307.61
PI2	0+34.00	202,824.14	1,346,322.07
PI3	0+60.63	202,843.30	1,346,350.57
PI4	1+25.00	202,907.65	1,346,349.45
PC5	1+34.23	202,911.04	1,346,340.85
PRC6	2+02.86	202,926.94	1,346,274.33
PT7/PI7	2+53.79	202,937.13	1,346,224.53
PI8	3+30.00	202,878.09	1,346,176.34

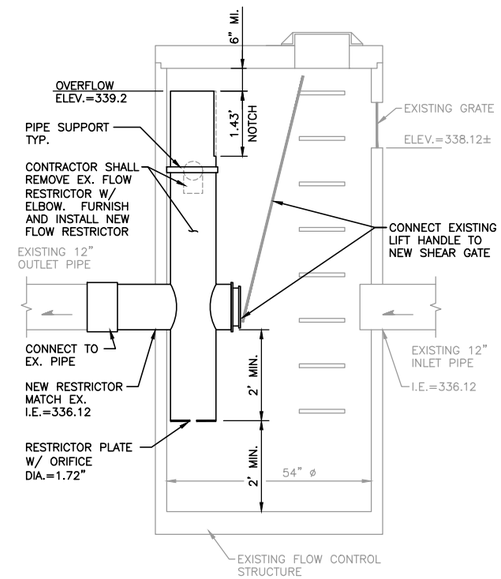
OFFSITE POND RETAINING WALL CONSTRUCTION ALIGNMENT CURVE TABLE

NO.	RADIUS	TANGENT	LENGTH	DELTA
C1 (PC5 – PRC6)	244.00	34.54	68.63	16° 06' 51.98"
C2 (PRC6 – PT7)	236.00	25.56	50.93	12° 21' 52.24"



RESTRICTOR NOTCH

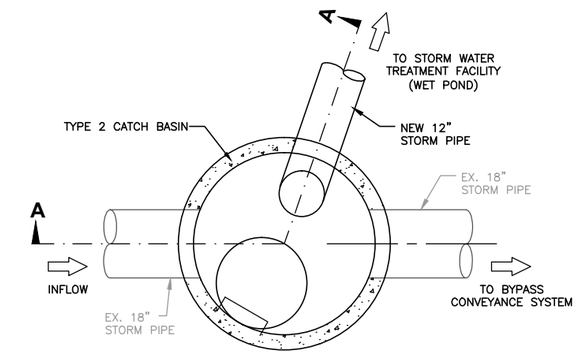
ISOMETRIC, NOT TO SCALE



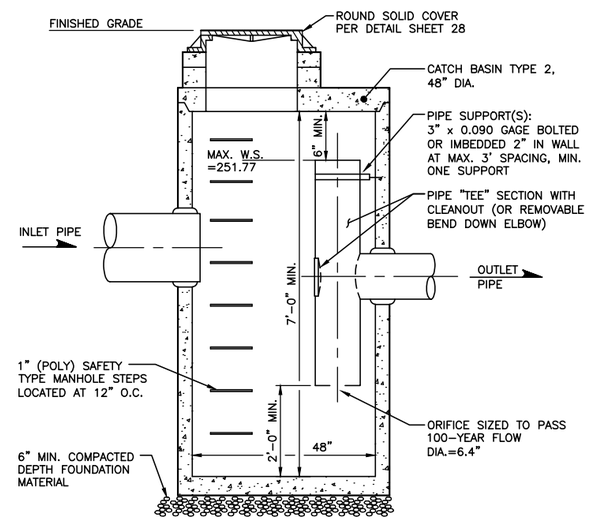
NOTE: SEE KING COUNTY ROAD SERVICE STD. PLANS 7–025 AND 7–026 FOR RESTRICTOR NOTES AND DETAILS.

EXISTING FLOW CONTROL STRUCTURE MODIFICATION DETAIL

NOT TO SCALE



PLAN VIEW



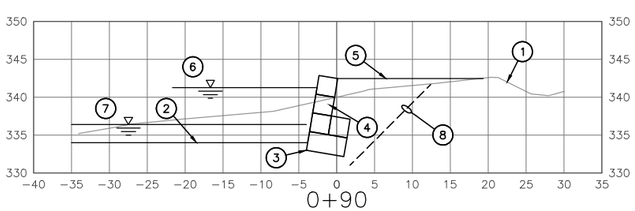
SECTION A-A

NOTES:

1. "TEE" SECTION SHALL BE CONSTRUCTED OF CORRUGATED POLYETHYLENE PIPE AASHTO M294 TYPE S, POLYVINYL CHLORIDE (PVC) ASTM D–3034 SCHEDULE 40, OR ALUMINIZED CMP.
2. FOR PVC APPLICATIONS, ALL CONNECTIONS SHALL BE MADE USING STANDARD FITTINGS, NO WELDING SHALL BE USED.
3. FRAME AND STEPS OFFSET SO:
   A. CLEANOUT GATE IS VISIBLE FROM TOP.
   B. CLIMB–DOWN SPACE IS CLEAR OF TEE AND CLEANOUT GATE.
   C. FRAME IS CLEAR OF CURB.

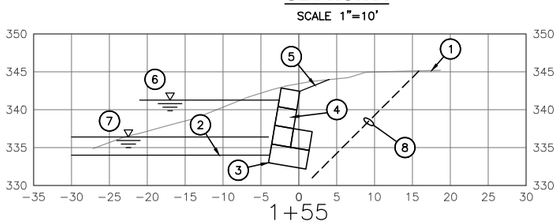
CATCH BASIN NO. 19 - TYPE 2, 48" DIA. W/ FLOW CONTROL AND SOLID LID

NOT TO SCALE



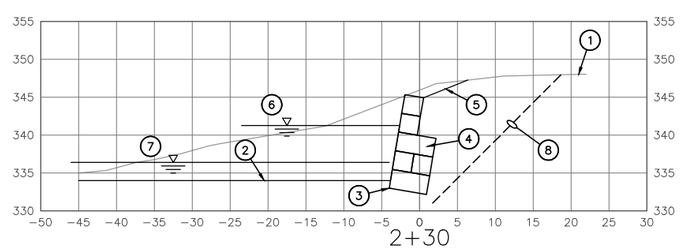
SECTION A

SCALE 1"=10'



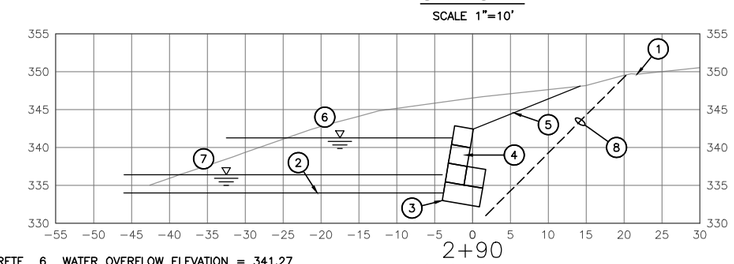
SECTION B

SCALE 1"=10'



SECTION C

SCALE 1"=10'



SECTION D

SCALE 1"=10'

(X) NOTES:

1 EXISTING GRADE.
2 FINISHED GRADE AT BTM. OF POND, EL.=334.0
3 BTM. OF BLOCK, EL. = 333.0, 4' LT OFFSET FROM WALL CONSTRUCTION ALIGNMENT, TYP.
4 WALL BLOCK, TYP. SEE SEGMENTAL CONCRETE RETAINING WALL DETAIL (FILL SECTION, WITH BATTER), SHEET 34.
5 WALL BACKFILL SLOPE, 2H:1V MAX.
6 WATER OVERFLOW ELEVATION = 341.27
7 PERMANENT WATER LEVEL AT 336.4±
8 TEMPORARY WALL CONSTRUCTION EXCAVATION LIMITS. (1H:1V SHOWN)

NOTE:

WALL PROFILES ARE TYPICAL ONLY. CONTRACTOR SHALL VERIFY AND ADJUST BLOCK LAYOUT AS REQUIRED. CONTRACTOR SHALL COORDINATE WITH ENGINEER.

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
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DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

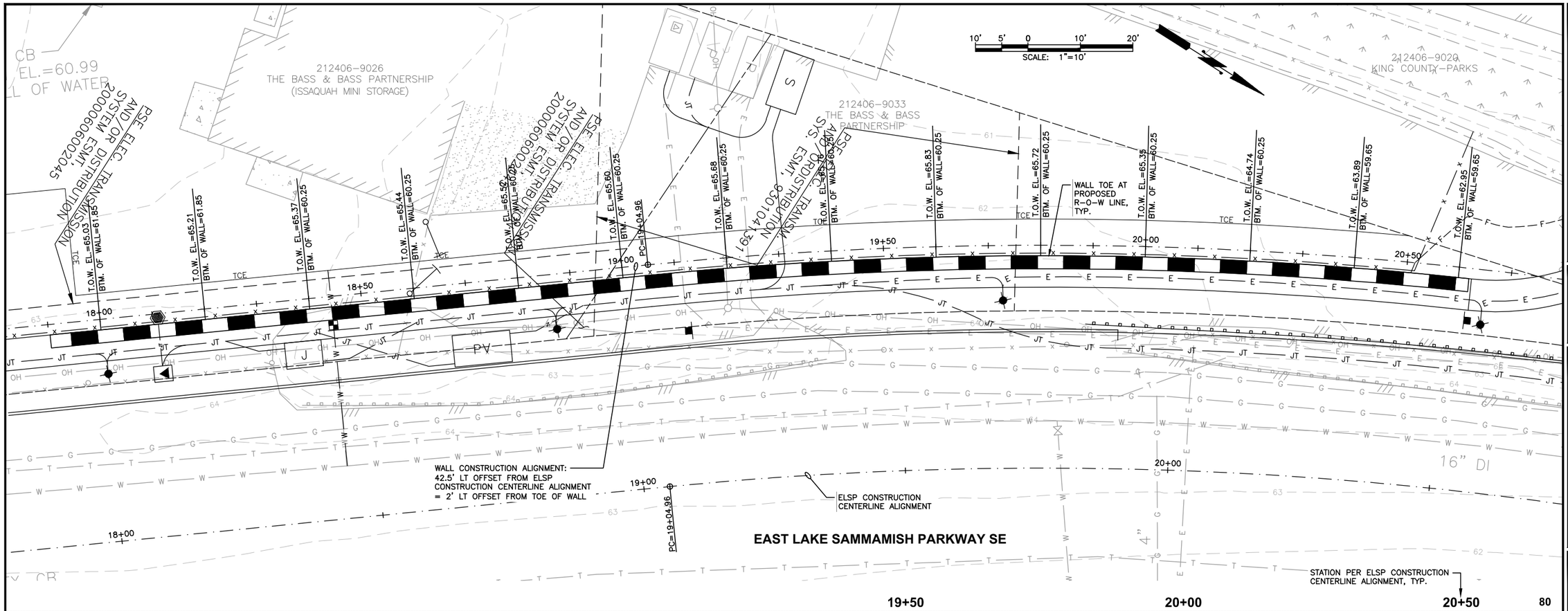
No.	REVISION	DATE	APPD

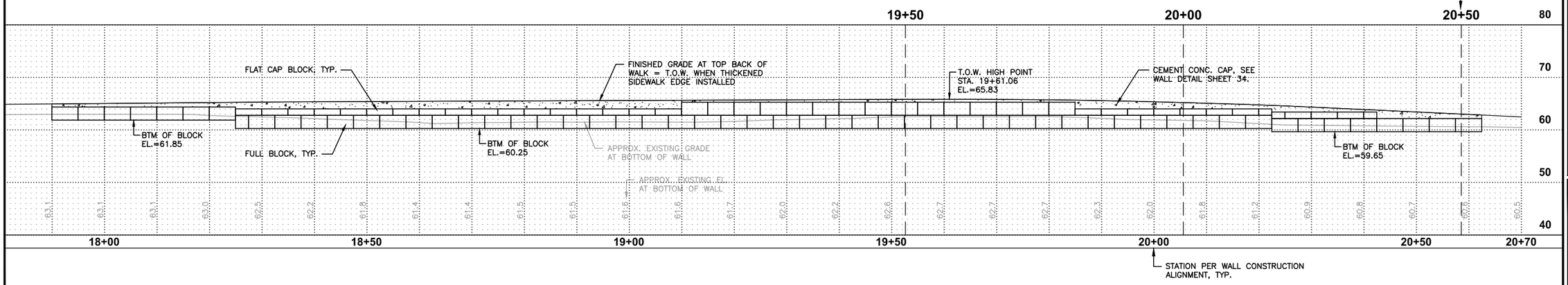
BRIAN L. SOUMINE, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER, 36091

KATHERINE NELSON LEIGH, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER, 44816

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
OFFSITE STORM DETENTION POND MODIFICATION
STORM DRAINAGE DETAILS

SHEET: 32
OF: 101
JOB NO.: 13570
DWG: SD_OFFSITE_POND





SEGMENTAL CONCRETE RETAINING WALL

SCALE: 1"=10' (H)
1"=10' (V)

RETAINING WALL CONSTRUCTION ALIGNMENT TABLE

ANGLE PT.	P.I. STATION	NORTHING	EASTING	DISTANCE P.I. TO P.I.	BEARING	RADIUS	TANGENT	LENGTH	DELTA
PC1	17+00.00	202,191.66	1,342,032.34						
				204.96	N 38° 11' 35" W				
PC2	19+04.96	202,352.75	1,341,905.61						
PI2		202,429.81	1,341,844.98			758.84	98.06	195.04	14° 43' 35.04"
PT2	21+00.00	202,519.77	1,341,805.93						

NOTE:

WALL PROFILES ARE TYPICAL ONLY. CONTRACTOR SHALL VERIFY AND ADJUST BLOCK LAYOUT AS REQUIRED. CONTRACTOR SHALL COORDINATE WITH ENGINEER.

0 1" 2"
TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

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DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.B.W.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

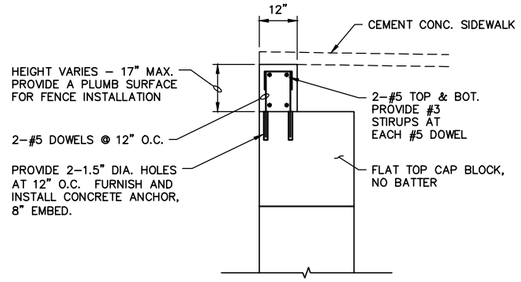
No.	REVISION	DATE	APPD

BRIAN L. SOURWINE, STATE OF WASHINGTON, 36591, REGISTERED PROFESSIONAL ENGINEER

CHI-FENG WANG, STATE OF WASHINGTON, 39950, REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
RETAINING WALL PLAN AND PROFILE

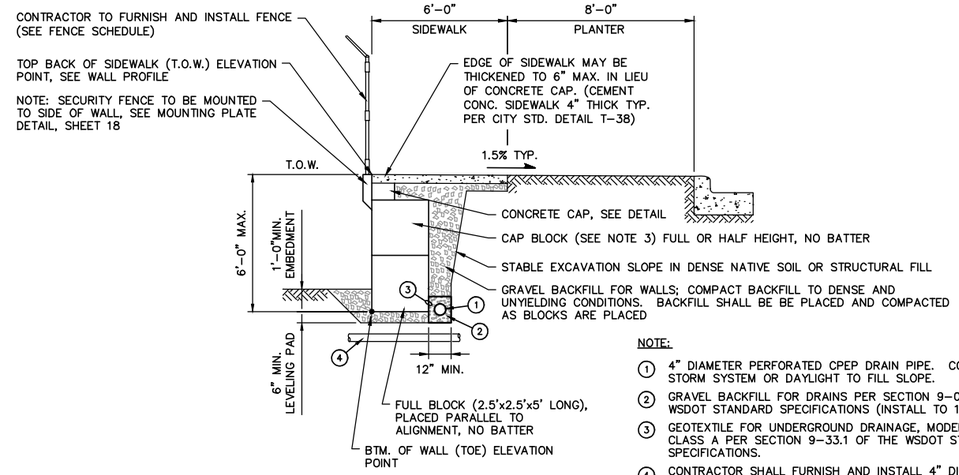
SHEET: 33
OF: 101
JOB NO.: 13570
DWG: WALL_PP



NOTE:

INSTALL CEMENT CONC. CAP AT WALL BLOCK STEPPING TO PROVIDE A CONTINUOUS AND SMOOTH TOP FOR CEMENT CONC. SIDEWALK INSTALLATION.

CONCRETE CAP DETAIL



2 BLOCK HIGH (AND LESS) WALL CROSS SECTION

NOTE:

1. 4" DIAMETER PERFORATED CPEP DRAIN PIPE. CONNECT TO NEW STORM SYSTEM OR DAYLIGHT TO FILL SLOPE.
2. GRAVEL BACKFILL FOR DRAINS PER SECTION 9–03.12(4) OF THE WSDOT STANDARD SPECIFICATIONS (INSTALL TO 12" ABOVE PIPE).
3. GEOTEXTILE FOR UNDERGROUND DRAINAGE, MODERATE SURVIVABILITY CLASS A PER SECTION 9–33.1 OF THE WSDOT STANDARD SPECIFICATIONS.
4. CONTRACTOR SHALL FURNISH AND INSTALL 4" DIA. SCH. 80 PVC SLEEVE FOR WATER SERVICE AT APPROX. STA. 18+45, LT. MIN. 1'–0" SEPARATION FROM BOTTOM OF WALL. EXTEND SLEEVE MIN. 1'–0" BEYOND WALL FACES.

BLOCK WALL NOTES:

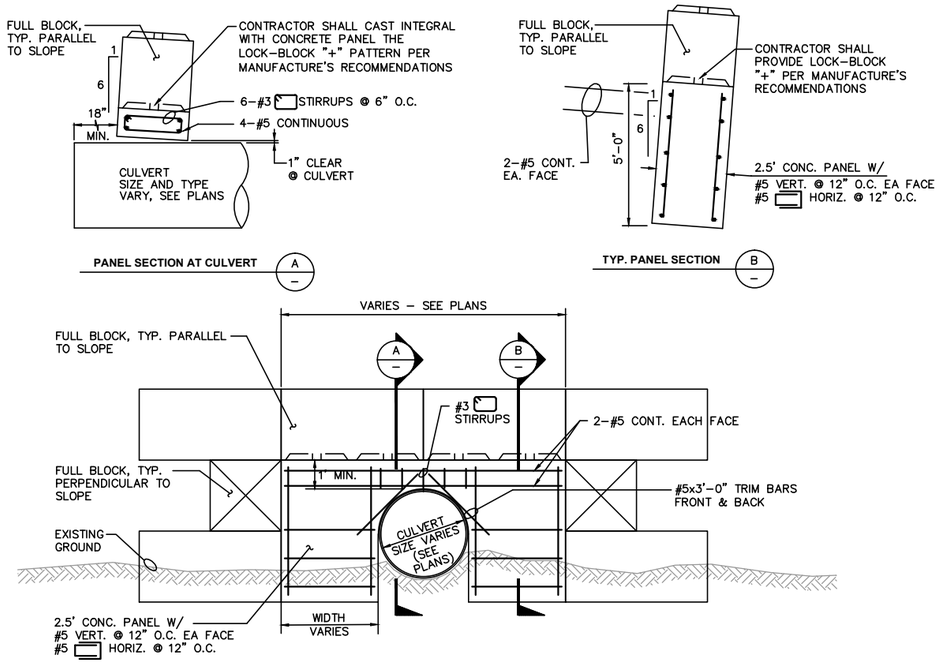
1. ALL LOOSE SOIL AT ROCKERY FOUNDATION SHALL BE OVER EXCAVATED AND REPLACED WITH COMPACTED BACKFILL AS DESCRIBED ABOVE. THE EXCAVATION SHALL BE KEPT FREE OF WATER. THE PREPARED WALL FOUNDATION SHALL BE EVALUATED BY A SOILS ENGINEER PRIOR TO PLACEMENT OF ANY BLOCKS.
2. ALL BLOCKS LOCATED ALONG THE TOP ROW SHALL BE FURNISHED WITH A FLAT TOP.

SEGMENTAL CONCRETE RETAINING WALL
(FILL SECTION, NO BATTER, EAST LAKE SAMMAMISH PKWY SE)

NOT TO SCALE

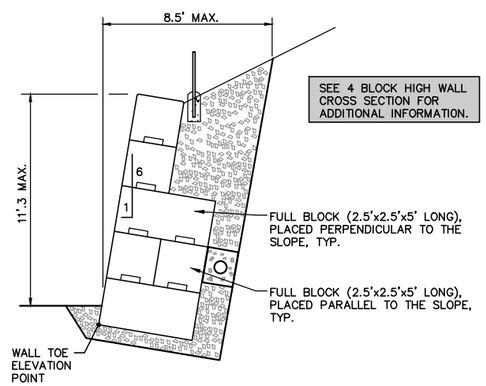
NOTE:

WALL PROFILES ARE TYPICAL ONLY. CONTRACTOR SHALL VERIFY AND ADJUST BLOCK LAYOUT AS REQUIRED. CONTRACTOR SHALL COORDINATE WITH ENGINEER.



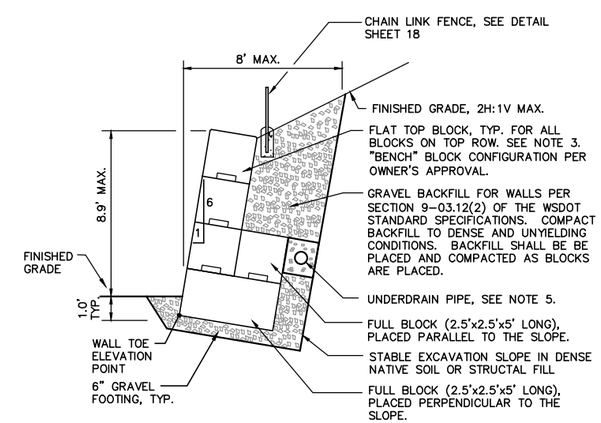
CEMENT CONCRETE PANEL (TYP.)

SCALE: 3/8"=1'–0"



5 BLOCK HIGH WALL CROSS SECTION

NOT TO SCALE



4 BLOCK HIGH WALL CROSS SECTION

NOT TO SCALE

NOTES:

1. ALL LOOSE SOIL AT FOUNDATION SHALL BE OVER EXCAVATED AND REPLACED WITH COMPACTED BACKFILL AS DESCRIBED ABOVE. THE EXCAVATION SHALL BE KEPT FREE OF WATER. THE PREPARED WALL FOUNDATION SHALL BE EVALUATED BY THE ENGINEER PRIOR TO PLACEMENT OF ANY BLOCKS.
2. FOR TALLER WALL, PLACE AN ADDITIONAL ROW OF BLOCK, PERPENDICULAR TO THE SLOPE AT THE BOTTOM OF THE WALL. DO NOT EXCEED 6 BLOCKS TALL.
3. ALL BLOCKS LOCATED ALONG THE TOP ROW SHALL BE FURNISHED WITH A FLAT TOP.
4. BLOCKS SHALL HAVE CUT STONE FACE AS MANUFACTURED BY ULTRABLOCK, OR OWNER APPROVED EQUAL.
5. 4" DIAMETER PERFORATED CPEP DRAIN PIPE. CONNECT TO NEW STORM SYSTEM OR DAYLIGHT TO FILL SLOPE (ABOVE PERMANENT WATER LEVEL) AS DIRECTED BY ENGINEER.

SEGMENTAL CONCRETE RETAINING WALL
(CUT SECTION, WITH BATTER, OFFSITE DETENTION POND)

NOT TO SCALE

0 1" 2"

TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

No.	REVISION	DATE	APPD
	PRELIMINARY NOT FOR CONSTRUCTION		

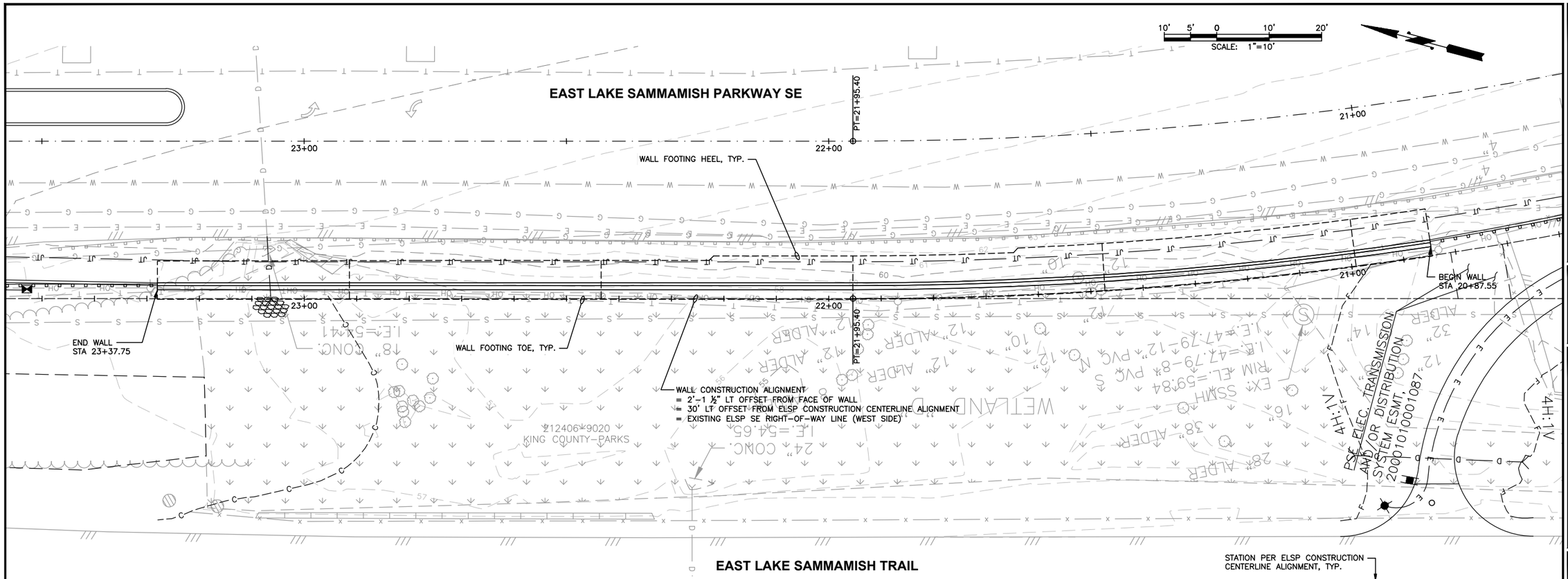
BRIAN L. SOURWINE — STATE OF WASHINGTON — 16906 — REGISTERED PROFESSIONAL ENGINEER

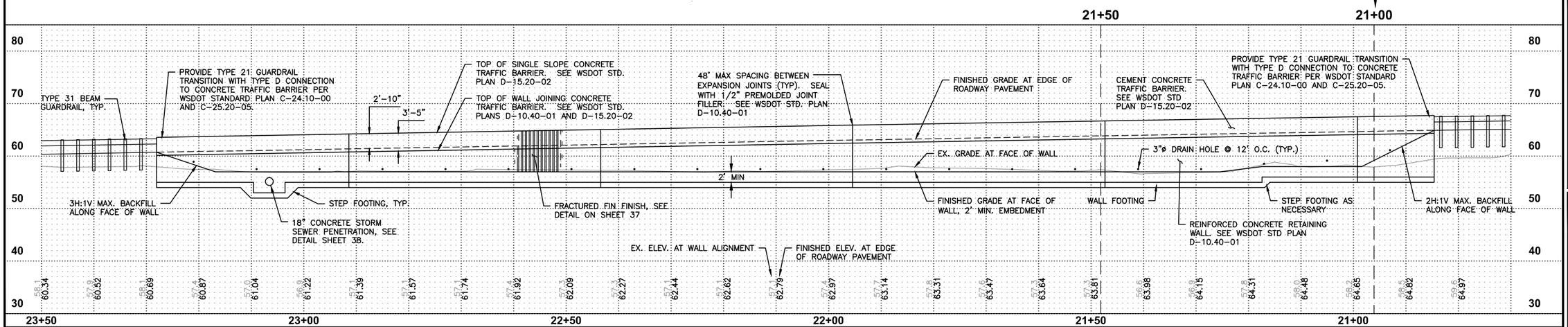
CHI-HENG WANG — STATE OF WASHINGTON — 39930 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
SEGMENTAL CONCRETE RETAINING WALL DETAILS

SHEET: 34
OF: 101

JOB NO.: 13570
DWG: WALL_1





CAST IN PLACE RETAINING WALL

SCALE: 1"=10' (H)
1"=10' (V)

RETAINING WALL CONSTRUCTION ALIGNMENT TABLE

ANGLE PT.	P.I. STATION	NORTHING	EASTING	DISTANCE P.I. TO P.I.	BEARING	RADIUS	TANGENT	LENGTH	DELTA
PC1	20+43.91	202,487.86	1,341,834.62						
PI1		202,555.82	1,341,800.59			746.34	76.00	151.49	11° 37' 45.74"
PT1	21+95.40	202,629.25	1,341,780.97						
				304.60	N 14° 57' 46" W				
PI2	25+00.00	202,923.52	1,341,702.33						

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: B.L.B.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY
NOT FOR
CONSTRUCTION

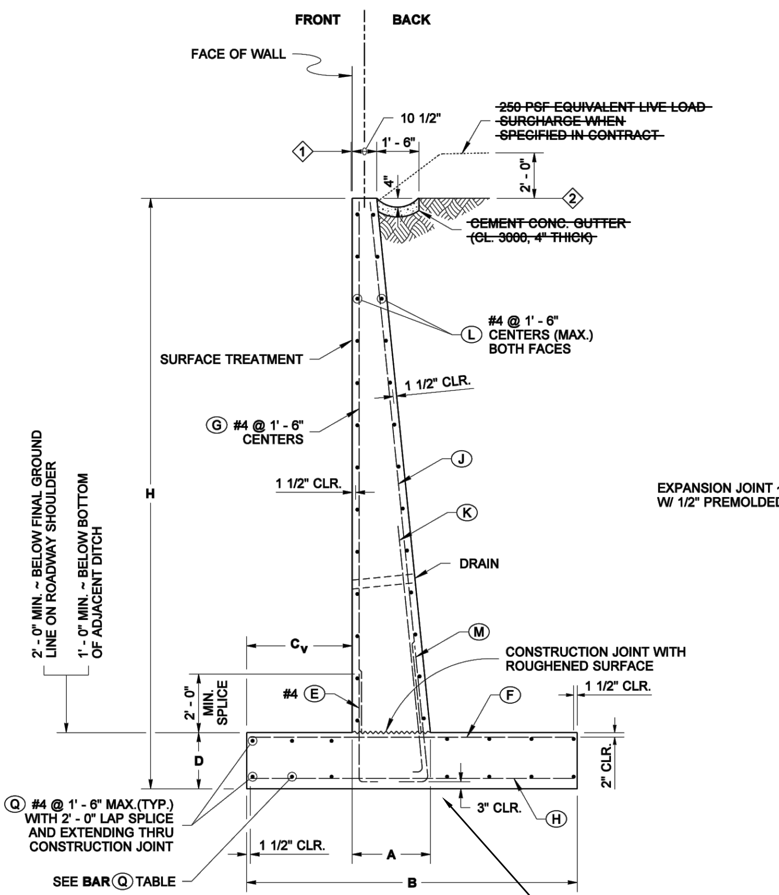
No.	REVISION	DATE	APPD

BRIAN L. SOURWINE
STATE OF WASHINGTON
16906
REGISTERED PROFESSIONAL ENGINEER

CHI-HENG WANG
STATE OF WASHINGTON
39930
REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
RETAINING WALL PLAN AND PROFILE

SHEET: 35
OF: 101
JOB NO.: 13570
DWG: WALL_PP



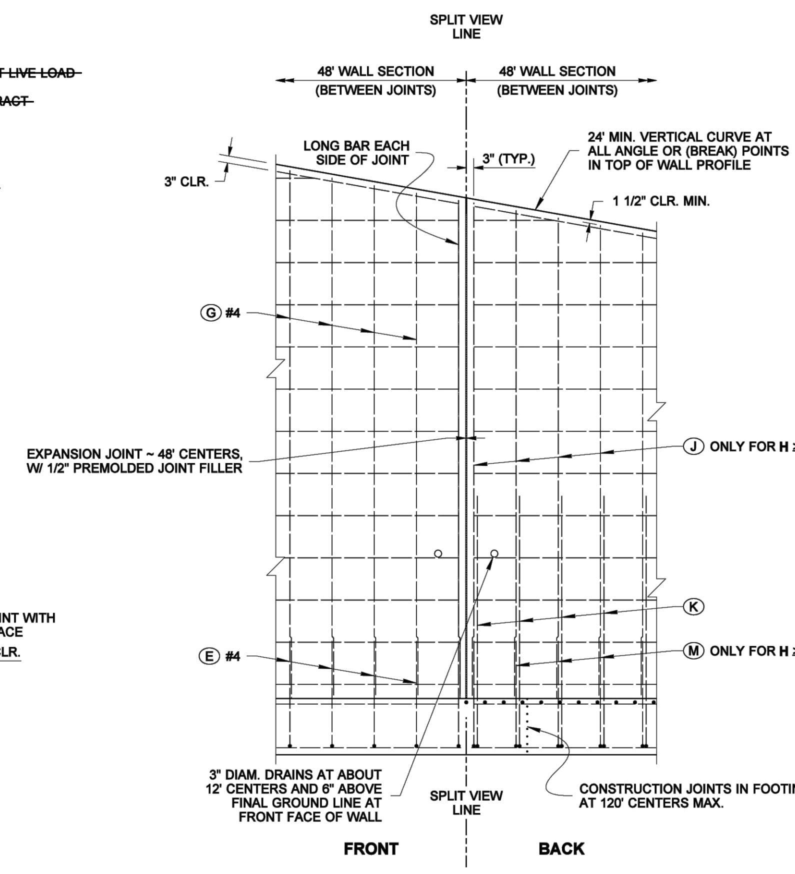
TYPICAL SECTION

FOUNDATION PREPARATION SEE SHEET 38.

BAR Ⓠ #4		
LOCATION	WALL HEIGHT (H)	QTY.
TOP OF FOOTING	≤ 16'	5
	16' ≤ 23'	7
	23' ≤ 28'	9
	29' ≤ 35'	11
BOTTOM OF FOOTING	≤ 16'	5
	16' ≤ 23'	7
	23' ≤ 28'	9
	29' ≤ 35'	11

⟨1⟩ OFFSET ~ SET TOP OF WALL BACK:
H ≤ 20' .... OFFSET = 1/2"
H ≥ 20' .... OFFSET (inches) = $\frac{H(ft)}{8} - 2$

⟨2⟩ WHEN THE CONTRACT SPECIFIES CABLE FENCE, BACKFILL AND THE CEMENT CONCRETE GUTTER SHALL BE PLACED 6" MIN. FROM THE TOP OF THE WALL



SPLIT ELEVATION VIEW
(SHOWING SEPARATE REBAR LAYERS)

NOTES

1. All concrete shall be Class 4000, except as noted.
2. For backfill requirements, see Standard Plan D-4.
3. Concrete in the 48 foot wall sections shall be placed separately between expansion joints with a minimum 24 hour period before placing concrete in the adjacent section.
4. This wall has been designed in accordance with the requirements of the AASHTO LRFD Bridge Design Specifications 4th Edition 2007 and interims through 2008. The seismic design of these walls has been completed using an effective PGA of 0.20 g.
5. If Traffic Barriers are required, See Standard Plans D-15.10, D-15.20 and D-15.30.

VERTICAL FACE WALL DESIGN WITH A 250 PSF SURCHARGE OR TRAFFIC BARRIER

BIJAN KHALEGHI — STATE OF WASHINGTON — 27695 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL, SIGNED BY THE ENGINEER AND APPROVED FOR PUBLICATION, IS KEPT ON FILE AT THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

(MODIFIED)
REINFORCED CONCRETE RETAINING WALL TYPE 7
STANDARD PLAN D-10.40-01

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION
Pasco Bakotich III — 12-02-08
STATE DESIGN ENGINEER — DATE
Washington State Department of Transportation

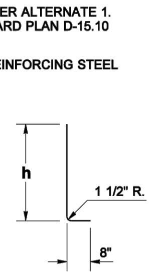
SEE TABLES BELOW

WALL HT H	DIMENSIONS B	DIMENSIONS C_v	DIMENSIONS D	DIMENSIONS A	FOOTING BAR Ⓔ #4 LENGTH	BAR Ⓔ #4 h	BAR Ⓕ SIZE	BAR Ⓕ SPA.	BAR Ⓕ LENGTH	BAR Ⓗ SIZE	BAR Ⓗ SPA.	BAR Ⓗ LENGTH	BAR Ⓚ SIZE	BAR Ⓚ SPA.	BAR Ⓚ LENGTH	BAR Ⓚ h	BAR Ⓚ b	BAR Ⓜ SIZE	BAR Ⓜ SPA.	BAR Ⓜ LENGTH	BAR Ⓜ h	BAR Ⓜ b	STEM BAR Ⓙ SIZE	BAR Ⓙ SPA.	BAR Ⓙ LENGTH	Ⓖ #4 LENGTH	MATERIAL QUANTITY CONC. CY / LF	STEEL LBS / LF	MAX. SOIL PRESSURE (PSF) SERVICE	STRENGTH	EXTREME EVENT 1	EXTREME EVENT 2
5'	6' - 6"	2' - 0"	1' - 0"	1' - 4"	3' - 4"	2' - 9"	#4	1' - 0"	6' - 3"	#4	1' - 6"	6' - 3"	#4	1' - 6"	5' - 2"	4' - 7 1/2"	8"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4' - 4"	0.40	25.7	915	1260	1108	1623
6'	6' - 6"	2' - 0"	1' - 0"	1' - 5 1/2"	3' - 4"	2' - 9"	#4	1' - 0"	6' - 3"	#4	1' - 6"	6' - 3"	#4	1' - 6"	6' - 2"	5' - 7 1/2"	8"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5' - 4"	0.45	28.2	992	1350	1272	1850
7'	~~6' - 6"~~	2' - 3"	1' - 0"	1' - 6 1/2"	3' - 4"	2' - 9"	#4	1' - 0"	~~6' - 3"~~	#4	1' - 6"	~~6' - 3"~~	#4	1' - 6"	7' - 2 1/2"	6' - 7 1/2"	8"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6' - 4"	0.51	29.3	1046	1443	1384	2049
8'	~~6' - 9"~~	2' - 3"	1' - 0"	1' - 7 1/2"	3' - 4"	2' - 9"	#4	1' - 0"	~~6' - 6"~~	#4	1' - 6"	~~6' - 6"~~	#4	1' - 0"	8' - 2 1/2"	7' - 7 1/2"	8"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7' - 4"	0.58	33.8	1176	1631	1572	2217
9'	~~7' - 0"~~	2' - 3"	1' - 0"	1' - 9"	3' - 4"	2' - 9"	#4	~~1' - 0"~~	~~6' - 9"~~	#4	1' - 0"	~~6' - 9"~~	#4	1' - 0"	9' - 2 1/2"	8' - 7 1/2"	8"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8' - 4"	0.65	39.6	1318	1836	1781	2402
10'	~~7' - 3"~~	2' - 3"	1' - 0"	1' - 10"	3' - 4"	2' - 9"	#4	10"	~~7' - 0"~~	#4	1' - 0"	~~7' - 0"~~	#4	1' - 0"	10' - 2 1/2"	9' - 7 1/2"	8"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9' - 4"	0.72	43.6	1471	2060	2011	2604
11'	7' - 6"	2' - 3"	1' - 0"	1' - 11 1/2"	3' - 4"	2' - 9"	#4	9"	7' - 3"	#4	1' - 0"	7' - 3"	#4	10"	11' - 2 1/2"	10' - 8"	8"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10' - 4"	0.80	48.8	1636	2303	2264	2822
[illegible]	[illegible]	2' - 6"	1' - 0"	2' - 3"	3' - 4"	2' - 9"	#4	7"	8' - 0"	#4	8"	8' - 0"	#4	7"	14' - 2 1/2"	13' - 8"	8"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13' - 4"	1.05	65.9	2109	3022	2995	[illegible]
[illegible]	[illegible]	2' - 6"	1' - 0"	2' - 4"	3' - 4"	2' - 9"	#5	8"	8' - 6"	#4	8"	8' - 6"	#5	10"	15' - 4"	14' - 8"	10"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14' - 4"	1.16	77.5	2277	3261	3287	[illegible]
[illegible]	[illegible]	2' - 9"	1' - 3"	2' - 5"	3' - 7"	3' - 0"	#5	8"	9' - 0"	#4	8"	9' - 0"	#5	10"	16' - 4"	15' - 8"	10"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15' - 1"	1.33	82.0	2377	3403	3466	[illegible]
[illegible]	[illegible]	3' - 0"	1' - 3"	2' - 6 1/2"	3' - 7"	3' - 0"	#5	8"	9' - 6"	#4	8"	9' - 6"	#5	8"	17' - 4"	16' - 8"	10"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	16' - 1"	1.44	93.3	2453	3514	3585	[illegible]
[illegible]	[illegible]	3' - 3"	1' - 3"	2' - 7 1/2"	3' - 7"	3' - 0"	#5	7"	10' - 0"	#5	10"	10' - 0"	#5	8"	18' - 4"	17' - 8"	10"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	17' - 1"	1.56	102.9	2530	3625	3705	[illegible]
[illegible]	[illegible]	3' - 6"	1' - 3"	2' - 8 1/2"	3' - 7"	3' - 0"	#6	10"	10' - 3"	#5	8"	10' - 3"	#6	10"	19' - 5 1/2"	18' - 8 1/2"	1' - 0"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18' - 1"	1.66	115.4	2642	3809	3864	[illegible]
[illegible]	[illegible]	3' - 6"	1' - 3"	2' - 10"	3' - 7"	3' - 0"	#6	7"	10' - 9"	#5	7"	10' - 9"	#6	9"	20' - 5 1/2"	19' - 8 1/2"	1' - 0"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19' - 1"	1.79	132.9	2808	4043	4169	[illegible]
[illegible]	[illegible]	3' - 9"	1' - 3"	2' - 11"	3' - 7"	3' - 0"	#6	7"	11' - 3"	#5	6"	11' - 3"	#5	8"	4' - 8 1/2"	4' - 1"	10"	#5	8"	3' - 10 1/2"	3' - 2"	10"	#5	8"	20' - 3 1/2"	20' - 1"	1.92	148.7	2883	4152	4288	[illegible]
[illegible]	[illegible]	4' - 0"	1' - 6"	3' - 0"	3' - 10"	3' - 3"	#6	7"	11' - 9"	#5	7"	11' - 9"	#5	8"	6' - 5"	5' - 9"	10"	#5	8"	4' - 1 1/2"	3' - 5"	10"	#5	8"	21' - 0 1/2"	20' - 10"	2.13	152.3	2985	4296	4481	[illegible]
[illegible]	[illegible]	4' - 3"	1' - 6"	3' - 1"	3' - 10"	3' - 3"	#6	6"	12' - 6"	#5	6"	12' - 6"	#5	8"	8' - 0"	7' - 4 1/2"	10"	#5	8"	4' - 1 1/2"	3' - 5"	10"	#5	8"	22' - 0 1/2"	21' - 10"	2.28	170.8	3026	4335	4561	[illegible]
[illegible]	[illegible]	4' - 3"	1' - 9"	3' - 2"	4' - 1"	3' - 6"	#6	6"	12' - 9"	#5	6"	12' - 9"	#5	8"	9' - 7"	8' - 11"	10"	#5	8"	4' - 4 1/2"	3' - 8"	10"	#5	8"	22' - 9 1/2"	22' - 7"	2.50	178.0	3252	4672	4990	[illegible]
[illegible]	[illegible]	4' - 6"	1' - 9"	3' - 3 1/2"	4' - 1"	3' - 6"	#6	6'	13' - 3"	#6	8"	13' - 3"	#5	8"	11' - 1 1/2"	10' - 5 1/2"	10"	#5	8"	4' - 4 1/2"	3' - 8"	10"	#5	8"	23' - 9 1/2"	23' - 7"	2.65	190.1	3328	4782	5112	[illegible]
[illegible]	[illegible]	4' - 9"	2' - 0"	3' - 4"	4' - 4"	3' - 9"	#7	7"	14' - 0"	#6	7"	14' - 0"	#5	8"	12' - 7"	11' - 11 1/2"	10"	#5	8"	4' - 7 1/2"	3' - 11"	10"	#5	8"	24' - 6 1/2"	24' - 4"	2.93	212.7	3395	4855	5268	[illegible]
[illegible]	[illegible]	5' - 0"	2' - 0"	3' - 5 1/2"	4' - 4"	3' - 9"	#7	7"	14' - 6"	#6	7"	14' - 6"	#5	8"	14' - 0 1/2"	13' - 4 1/2"	10"	#5	8"	4' - 7 1/2"	3' - 11"	10"	#5	8"	25' - 6 1/2"	25' - 4"	3.09	221.6	3472	4966	5393	[illegible]
[illegible]	[illegible]	5' - 3"	2' - 3"	3' - 6 1/2"	4' - 7"	4' - 0"	#7	6"	15' - 0"	#6	7"	15' - 0"	#6	1' - 0"	16' - 4"	15' - 6 1/2"	1' - 0"	#6	1' - 0"	5' - 5 1/2"	4' - 7"	1' - 0"	#6	1' - 0"	26' - 4"	26' - 1"	3.36	238.4	3576	5112	5600	[illegible]
[illegible]	[illegible]	5' - 6"	2' - 3"	3' - 7 1/2"	4' - 7"	4' - 0"	#7	6"	15' - 9"	#6	6"	15' - 9"	#6	1' - 0"	17' - 8 1/2"	16' - 11"	1' - 0"	#6	1' - 0"	5' - 5 1/2"	4' - 7"	1' - 0"	#6	1' - 0"	27' - 4"	27' - 1"	3.55	255.7	3623	5162	5686	[illegible]
[illegible]	[illegible]	5' - 9"	2' - 6"	3' - 8 1/2"	4' - 10"	4' - 3"	#7	6"	16' - 3"	#6	6"	16' - 3"	#6	1' - 0"	19' - 1"	18' - 3 1/2"	1' - 0"	#6	1' - 0"	5' - 8 1/2"	4' - 10"	1' - 0"	#6	1' - 0"	28' - 1"	27' - 10"	3.85	263.4	3727	5308	5897	[illegible]
[illegible]	[illegible]	6' - 0"	2' - 6"	3' - 9 1/2"	4' - 10"	4' - 3"	#7	6"	16' - 9"	#6	6"	16' - 9"	#6	1' - 0"	20' - 5"	19' - 7 1/2"	1' - 0"	#6	1' - 0"	5' - 8 1/2"	4' - 10"	1' - 0"	#6	1' - 0"	29' - 1"	28' - 10"	4.03	273.8	3805	5421	6027	[illegible]
[illegible]	[illegible]	6' - 3"	2' - 9"	3' - 10 1/2"	5' - 1"	4' - 6"	#7	6"	17' - 3"	#7	7"	17' - 3"	#6	1' - 0"	21' - 8 1/2"	20' - 11 1/2"	1' - 0"	#6	1' - 0"	5' - 11 1/2"	5' - 1"	1' - 0"	#6	1' - 0"	29' - 10"	29' - 7"	4.35	291.4	3910	5568	6242	[illegible]
35	19' - 3"	7' - 0"	3' - 3"	4' - 1 1/2"	5' - 7"	5' - 0"	#8	7"	19' - 0"	#7	7"	19' - 0"	#7	8"	21' - 9 1/2"	20' - 10 1/2"	1' - 2"	#7	8"	7' - 3"	6' - 3"	1' - 2"	#7	8"	32' - 4"	32' - 1"	5.25	423.0	4173	5922	6776	5440

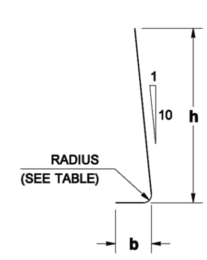
REINFORCEMENT NOTES

⟨1⟩ IF TRAFFIC BARRIER IS USED, ADD 0.100 CY/LF OF CONCRETE CLASS 4000 FOR BARRIER ALTERNATE 1. ADD 0.123 CY/LF OF CONCRETE CLASS 4000 FOR BARRIER ALTERNATE 2. SEE STANDARD PLAN D-15.10

⟨2⟩ ADD 28 LB/LF OF REINFORCING STEEL FOR BARRIER ALTERNATE 1 OR 19 LB/LF OF REINFORCING STEEL FOR BARRIER ALTERNATE 2. SEE STANDARD PLAN D-15.10



BAR Ⓔ
@ 1' - 6" CENTERS



BAR	RADIUS
#4	1 1/2"
#5	1 7/8"
#6	2 1/4"
#7	2 5/8"
#8	3"
#9	4 3/4"
#10	5 3/8"
#11	6"

BARS Ⓚ AND Ⓜ

BAR	MIN. SPLICE
#4	2' - 0"
#5	2' - 0"
#6	2' - 0"
#7	2' - 6"
#8	3' - 3"
#9	4' - 2"
#10	5' - 3"

VERTICAL FACE WALL DESIGN WITH A 250 PSF SURCHARGE OR TRAFFIC BARRIER

BIJAN KHALEGHI — STATE OF WASHINGTON — 27695 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

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(MODIFIED)
REINFORCED CONCRETE RETAINING WALL TYPE 7
STANDARD PLAN D-10.40-01

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION
Pasco Bakotich III — 12-02-08
STATE DESIGN ENGINEER — DATE
Washington State Department of Transportation

WALL HT H	DIMENSIONS B	Cv	D	A
7'	7'-3 1/2"	2'-3"	1'-0"	1'-6 1/2"
8'	7'-4 1/2"	2'-3"	1'-0"	1'-7 1/2"
9'	8'-3"	2'-3"	1'-0"	1'-9"
10'	9'-1"	2'-3"	1'-0"	1'-10"

BAR Ⓕ SIZE	SPA.	LENGTH	BAR Ⓗ SIZE	SPA.	LENGTH
#4	1'-0"	7'-0 1/2"	#4	1'-6"	7'-0 1/2"
#4	1'-0"	7'-1 1/2"	#4	1'-6"	7'-1 1/2"
#4	10"	8'-0"	#4	1'-0"	8'-0"
#4	10"	8'-10"	#4	1'-0"	8'-10"

DRAWN BY: BILL BERENS

DRAWN BY: BILL BERENS

CITY OF ISSAQUAH
KING — WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
CAST-IN-PLACE REINFORCED CONCRETE RETAINING WALL DETAILS

CHI-HENG WANG — STATE OF WASHINGTON — 39930 — REGISTERED PROFESSIONAL ENGINEER
BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

PRELIMINARY NOT FOR CONSTRUCTION

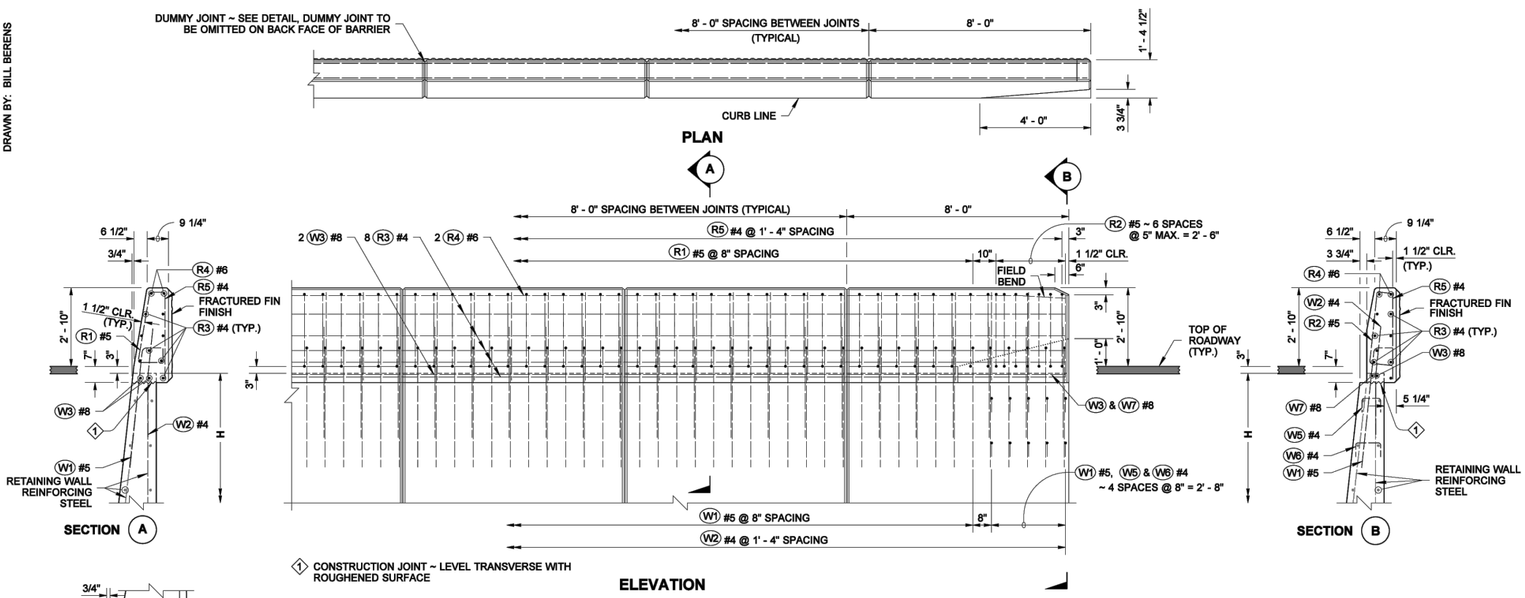
No.	REVISION	DATE	APPD

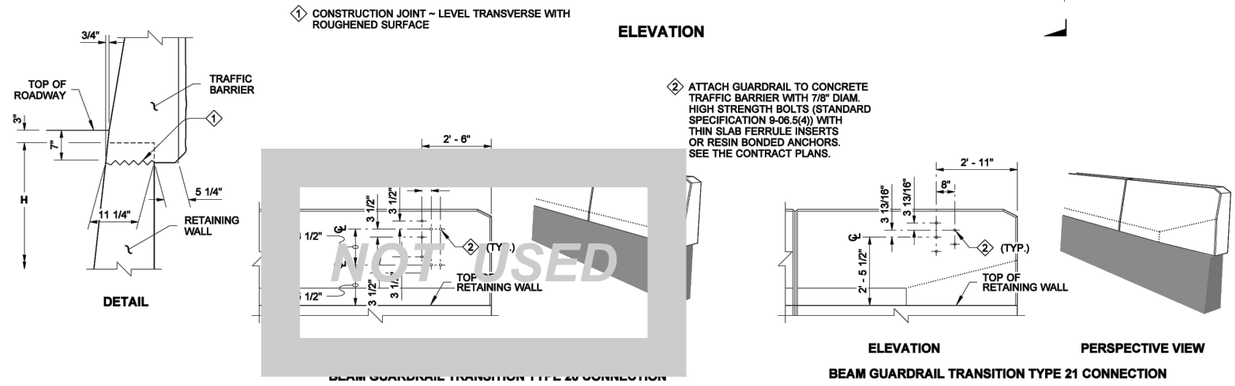
DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

SHEET: 36 OF: 101
JOB NO.: 13570
DWG: RC_WALL_DET

DRAWN BY: BILL BERENS





SINGLE SLOPE TRAFFIC BARRIER ON RETAINING WALL

BRIAN KHALEGHI — STATE OF WASHINGTON — 27695 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT BUT ONLY REPRESENTS THE ENGINEER'S WORK AS ADVISED TO THE ENGINEER AND APPROVED FOR PUBLICATION. IS SUPPLIED AS A GENERAL REPRESENTATION OF WORK PERFORMED FOR THE STATE. A COPY MAY BE OBTAINED UPON REQUEST.

(MODIFIED)

TRAFFIC BARRIER DETAILS FOR REINFORCED CONCRETE RETAINING WALLS

STANDARD PLAN D-15.20-02

SHEET 1 OF 2 SHEETS

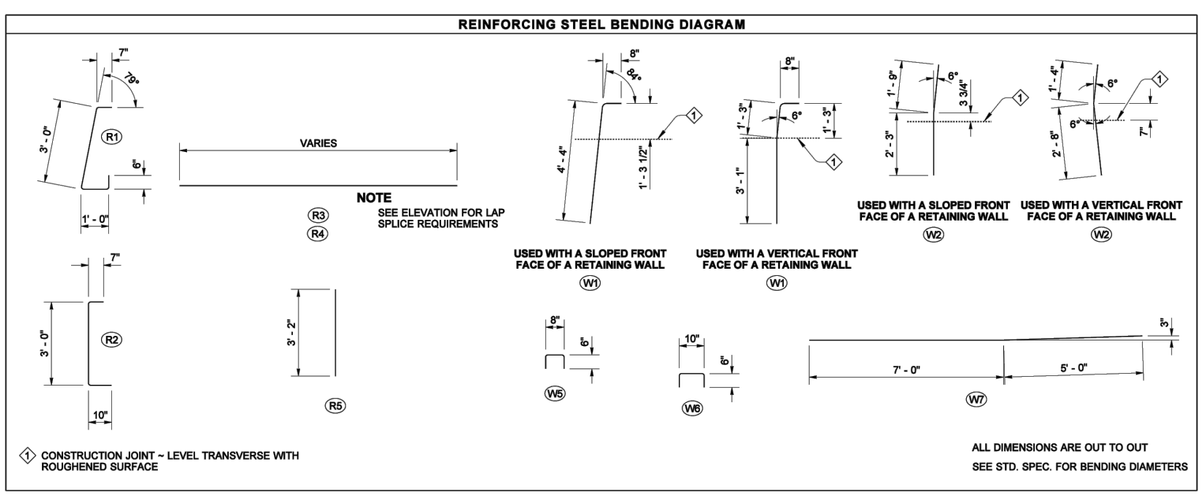
APPROVED FOR PUBLICATION

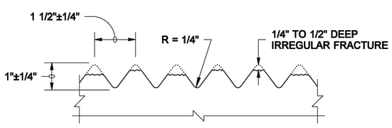
Pasco Bakotich III — 06-02-11

STATE DESIGN ENGINEER — DATE

Washington State Department of Transportation

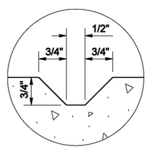
DRAWN BY: BILL BERENS





PLAN VIEW

FRACTURED FIN FINISH DETAIL



DUMMY JOINT DETAIL

BRIAN KHALEGHI — STATE OF WASHINGTON — 27695 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

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TRAFFIC BARRIER DETAILS FOR REINFORCED CONCRETE RETAINING WALLS

STANDARD PLAN D-15.20-02

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION

Pasco Bakotich III — 06-02-11

STATE DESIGN ENGINEER — DATE

Washington State Department of Transportation

JOB NO.: 13570	SHEET: 37	CITY OF ISSAQUAH, KING WASHINGTON	CHI-HENG WANG, STATE OF WASHINGTON, 39930, REGISTERED PROFESSIONAL ENGINEER	PRELIMINARY NOT FOR CONSTRUCTION	DATE: MAR. 2015
DWG: RC_WALL_DET	OF: 101	EAST LAKE SAMMAMISH PARKWAY SE WIDENING	BRIAN L. SOUWINE, STATE OF WASHINGTON, 36091, REGISTERED PROFESSIONAL ENGINEER		SCALE: AS NOTED
		CAST-IN-PLACE REINFORCED CONCRETE RETAINING WALL TRAFFIC BARRIER DETAILS			DRAWN: C.N.T.
					CHECKED: C.B.W.
				No. / REVISION / DATE / APPD	APPROVED: B.L.S.

Gray & Osborne, Inc.
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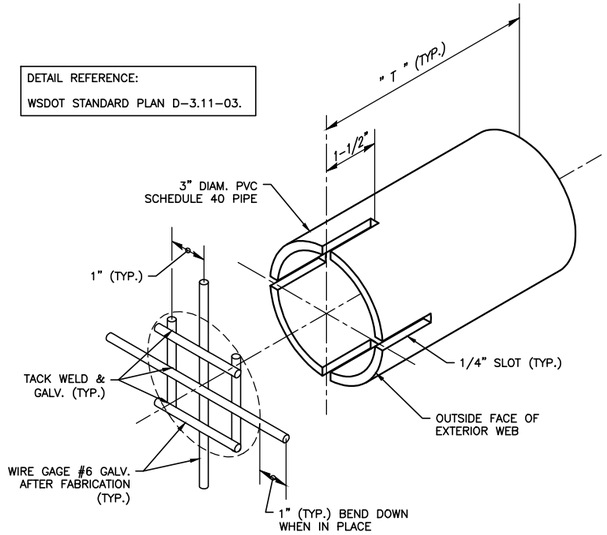
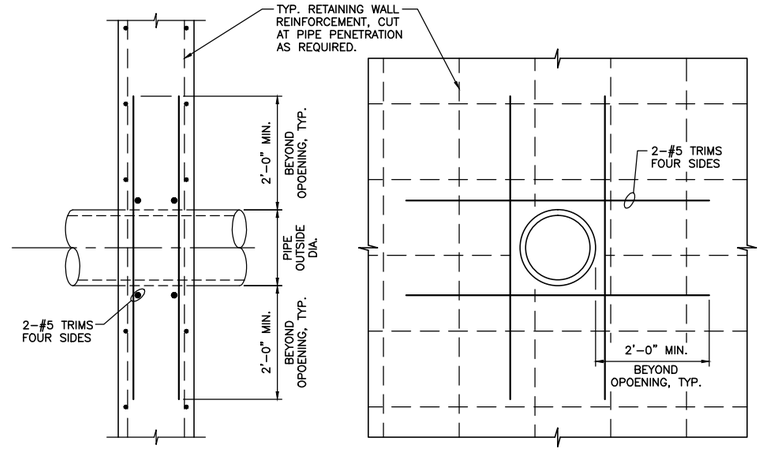
SEATTLE, WASHINGTON 98109 • (206) 284-0860



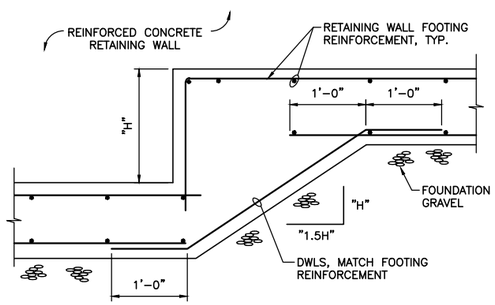
WEEP HOLE ASSEMBLY

NOT TO SCALE



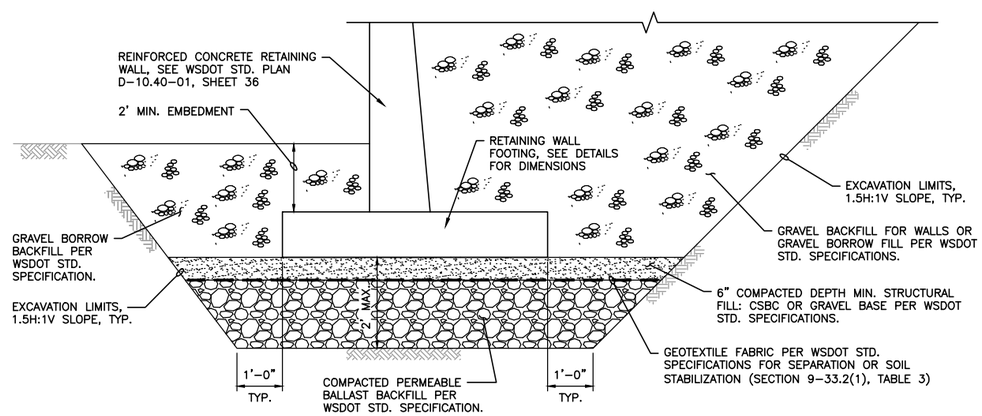
RETAINING WALL PIPE PENETRATION DETAIL

NOT TO SCALE



RETAINING WALL FOOTING STEP DETAIL

NOT TO SCALE



RETAINING WALL FOUNDATION PREPARATION

NOT TO SCALE

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CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

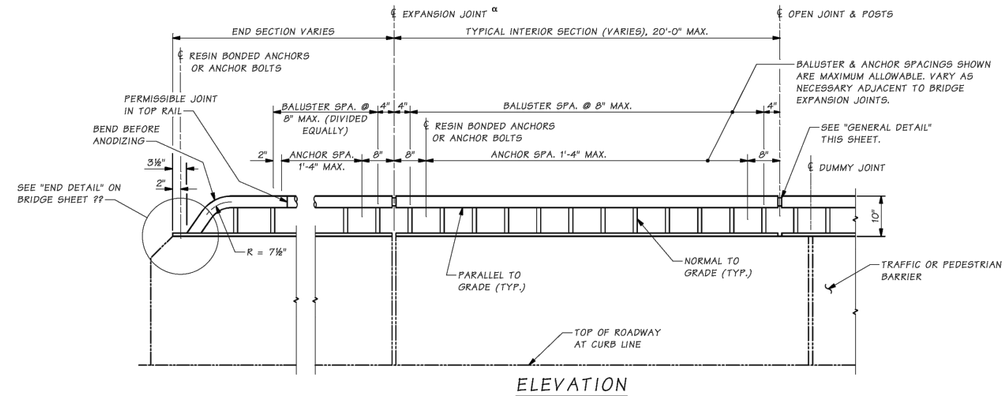
BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

CHI-HENG WANG — STATE OF WASHINGTON — 39930 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
CAST-IN-PLACE REINFORCED CONCRETE RETAINING WALL DETAILS

SHEET: 38
OF: 101

JOB NO.: 13570
DWG: RC_WALL_DET



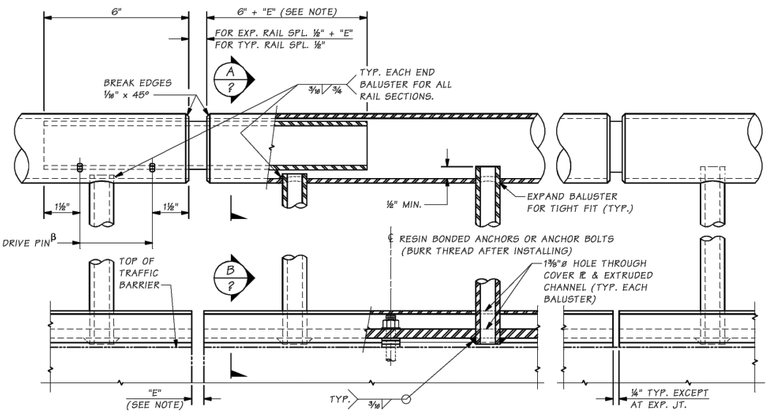
ELEVATION

BALUSTER AND GUARDRAIL SECTION ATTACHMENT DETAILS NOT SHOWN.

NOTES

1. PIPE RAILING, PIPE RAILING SPLICES, COVER PLATES AND BOTTOM EXTRUDED CHANNELS SHALL BE BENT TO THE HORIZONTAL CURVE WHERE THE RADIUS OF CURVATURE IS LESS THAN 200'. THESE ITEMS MAY BE HEATED TO NOT MORE THAN 400°F FOR A PERIOD NOT TO EXCEED 30 MINUTES TO FACILITATE FORMING OR BENDING TO HORIZONTAL CURVATURE.
2. SHOP DRAWINGS OF RAILING SHALL BE SUBMITTED FOR APPROVAL SHOWING COMPLETE DIMENSIONS AND DETAILS OF FABRICATION AND INCLUDING AN ERECTION DIAGRAM. MATERIAL SPECIFICATIONS SHALL BE PROVIDED IN THE SHOP DRAWINGS FOR ALL COMPONENTS.
3. CUTTING SHALL BE DONE BY SAWING OR MILLING AND ALL CUTS SHALL BE TRUE AND SMOOTH. FLAME CUTTING WILL NOT BE PERMITTED.
4. WELDING OF ALUMINUM SHALL CONFORM TO STD. SPEC. SECTION 9-28.14(3).
5. ALL ALUMINUM PARTS SHALL BE GIVEN A *[CLEAR OR BRONZE] ANODIC COATING OF AT LEAST 0.0006" THICK AND SEALED TO MEET THE REQUIREMENTS OF ASTM B 580 WITH A UNIFORM FINISH.
6. PIPE RAILING, PIPE BALUSTERS AND PIPE RAILING SPLICES SHALL BE ADEQUATELY WRAPPED TO INSURE SURFACE PROTECTION DURING HANDLING AND TRANSPORTATION TO THE JOB SITE.

* NOTE TO DESIGNER:
Designer to choose color for their project in consultation with the Bridge Architect.



GENERAL DETAIL

α PROVIDE EXPANSION RAIL SPLICE AT TRAFFIC BARRIER EXPANSION JOINTS. RAIL SPLICE JOINTS ARE NOT REQUIRED AT TRAFFIC BARRIER DUMMY JOINTS.

β LOCATE ON OPPOSITE SIDE OF TRAFFIC. DRIVE PINS SHALL BE DRIVEN FLUSH WITH THE OUTSIDE FACE OF THE RAILING.

NOTE:
"E" DIMENSION SHALL BE EQUAL TO OPENING OF TRAFFIC BARRIER EXPANSION JOINTS.

Bridge Design Engr.	M:\STANDARDS\BP Rails\Ped_Rail1.MAN								
Supervisor									
Designed By									
Checked By									
Detailed By									
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist	DATE	REVISION	BY	APPD					

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER				

BRIDGE AND STRUCTURES OFFICE

Washington State Department of Transportation

STANDARD RAILINGS

BRIDGE RAILING TYPE PEDESTRIAN DETAILS 1 OF 2

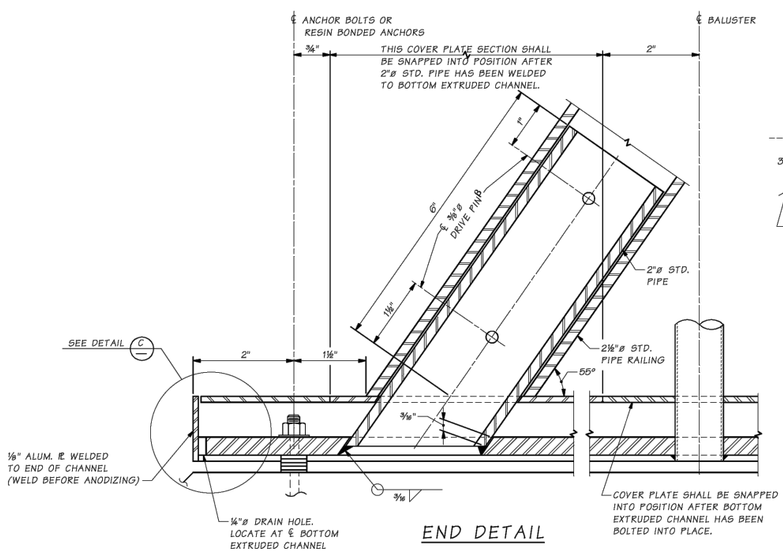
BRIDGE SHEET NO. — SHEET — OF — SHEETS

Mon May 07 08:54:44 2012

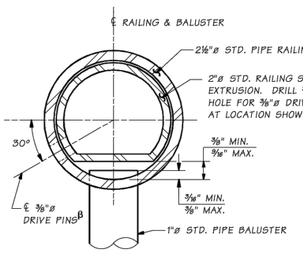
Last revised on : 08/26/2010

SHEET ___ OF ___

JOB NO. 10 5-A1-1



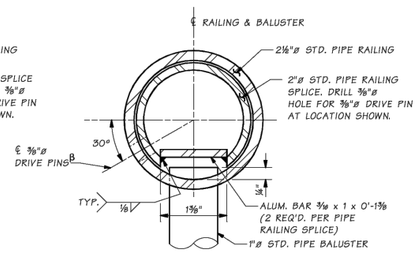
END DETAIL



SECTION A ?

OPTION #1

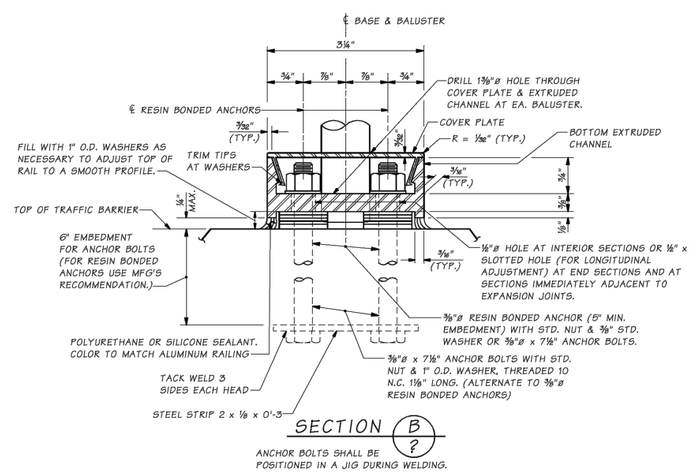
β LOCATE ON OPPOSITE SIDE OF TRAFFIC. DRIVE PINS SHALL BE DRIVEN FLUSH WITH THE OUTSIDE FACE OF THE RAILING.



SECTION A ?

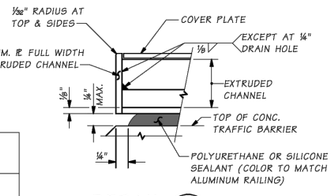
OPTION #2

β LOCATE ON OPPOSITE SIDE OF TRAFFIC. DRIVE PINS SHALL BE DRIVEN FLUSH WITH THE OUTSIDE FACE OF THE RAILING.



SECTION B ?

ANCHOR BOLTS SHALL BE POSITIONED IN A JIG DURING WELDING.



DETAIL C

DRAIN HOLES NOT SHOWN

	PART	MATERIAL SPECIFICATION
ALUMINUM MAT'L	PIPES	ASTM B 221- 6005-T5 OR 6005A-T5 ASTM B 241 OR B 429 6061-T6
	EXTRUDED CHANNELS, COVER PLATES & BAR	ASTM B 221- 6005-T5
STEEL	ANCHOR BOLTS, NUTS & WASHERS	STANDARD SPECIFICATION SECTION 9-06.5(4) (GALVANIZE IN ACCORDANCE WITH AASHTO SPECIFICATION M 232)
	STRIP	ASTM A 36
	DRIVE PINS	ASTM A 276 TYPE 302 STAINLESS STEEL

Bridge Design Engr.	M:\STANDARDS\BP Rails\Ped_Rail2.MAN								
Supervisor									
Designed By									
Checked By									
Detailed By									
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist	DATE	REVISION	BY	APPD					

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER				

BRIDGE AND STRUCTURES OFFICE

Washington State Department of Transportation

STANDARD RAILINGS

BRIDGE RAILING TYPE PEDESTRIAN DETAILS 2 OF 2

BRIDGE SHEET NO. — SHEET — OF — SHEETS

Mon May 07 08:54:48 2012

Last revised on : 08/26/2010

SHEET ___ OF ___

JOB NO. 10 5-A1-2

SHEET: 39 OF: 101

JOB NO.: 13570

DWG: RC_WALL_DET

CITY OF ISSAQUAH
KING WASHINGTON

EAST LAKE SAMMAMISH PARKWAY SE WIDENING

CAST-IN-PLACE REINFORCED CONCRETE RETAINING WALL - BRIDGE RAILING TYPE PEDESTRIAN DETAILS

CHI-HENG WANG — STATE OF WASHINGTON — 39930 — REGISTERED PROFESSIONAL ENGINEER

BRIAN L. SOUWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

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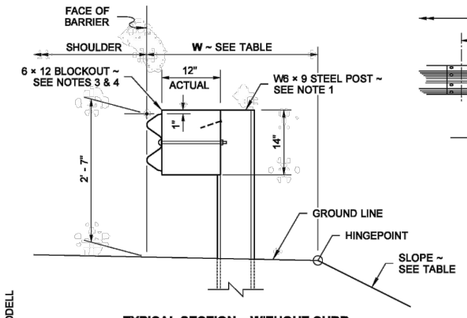
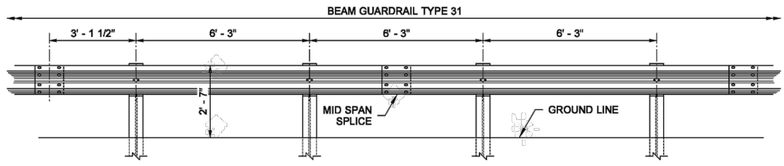
SEATTLE, WASHINGTON 98109 • (206) 284-0860

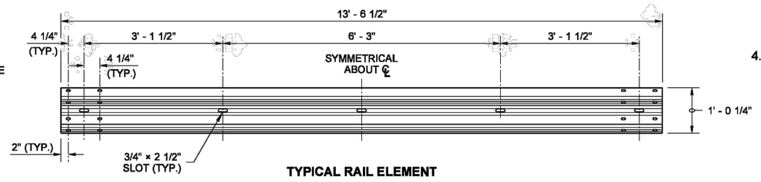
DRAWN BY: FERN LIDDELL



TYPICAL SECTION ~ WITHOUT CURB
(6' - 0" LONG POSTS)



TYPICAL ELEVATION

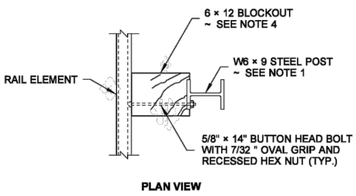


TYPICAL RAIL ELEMENT

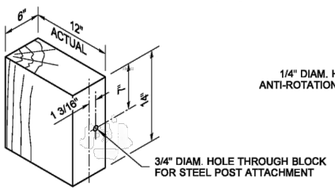
NOTES

1. Refer to **Standard Plan C-1** and **C-1b** for additional details not shown on this plan.
2. Extend shoulder pavement to provide a base for the extruded curb. See Contract Plans for exceptions to distances shown.
3. Use a single block or combination of blocks (no more than 2) to achieve the actual 12" offset. See **Standard Specification 9-16.3(2)**. Wood blocks shall be secured to the steel posts with anti-rotation nails as detailed. If combination blocks are used, the adjacent blocks shall be toe nailed with two 16d galvanized nails to prevent block rotation.
4. Wood blocks are shown. Blocks of an approved alternative material may be used. See **Standard Specification 9-16.3(2).**

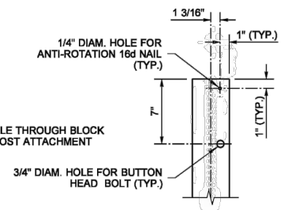
SLOPE \ EMBANKMENT TABLE	
SLOPE	W
2H : 1V OR FLATTER	2.5' MIN.
STEEPER THAN 2H : 1V BUT NOT STEEPER THAN 1H : 1V	4.0' MIN.



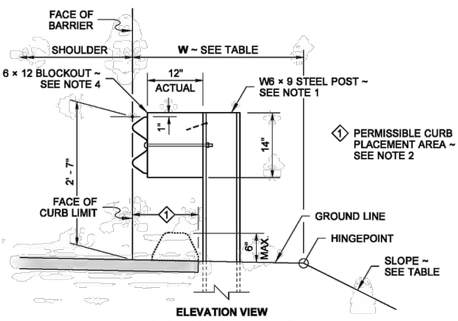
PLAN VIEW



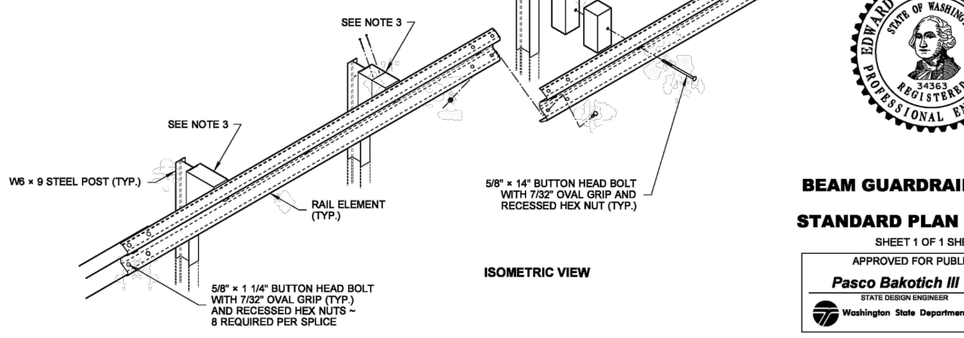
WOOD BLOCK



STEEL POST



ELEVATION VIEW
TYPICAL SECTION ~ WITH CURB
(6' - 0" LONG POSTS)



ISOMETRIC VIEW

EDWARD PATRICK BARRY — STATE OF WASHINGTON — 34363 — REGISTERED PROFESSIONAL ENGINEER

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BEAM GUARDRAIL TYPE 31

STANDARD PLAN C-20.10-01

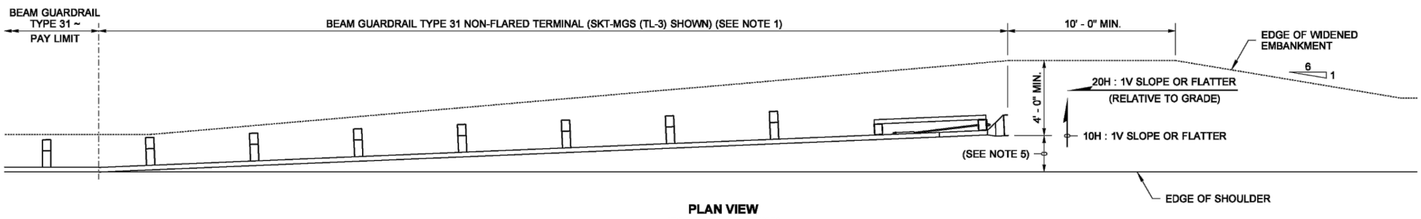
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Pasco Bakotich III — 6/20/13
STATE DESIGN ENGINEER — DATE
Washington State Department of Transportation

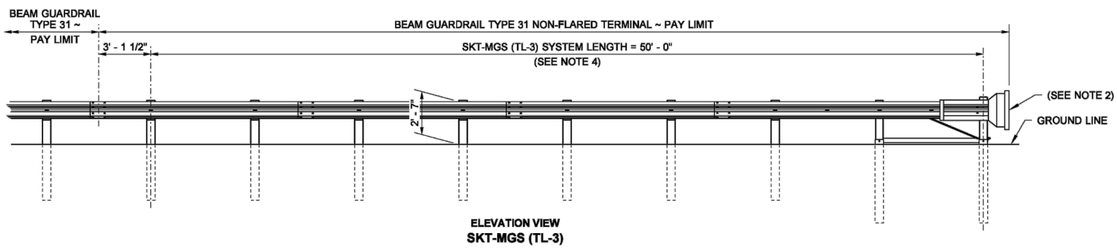
DRAWN BY: COLBY FLETCHER

NOTES

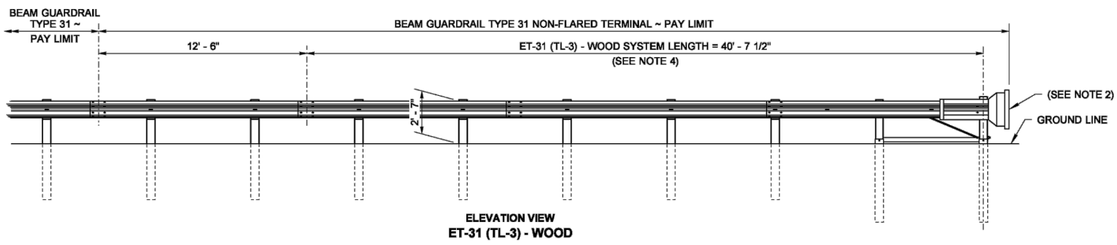
1. An ET-31 (TL-3) - Wood as manufactured by Trinity Industries, Inc. or an SKT-MGS (TL-3) as manufactured by Road Systems, Inc. shall be installed according to the manufacturer's recommendations.
2. A reflectorized object marker shall be installed according to the manufacturer's recommendations.
3. When snow load post washers and snow load rail washers are required by the Contract, the snow load rail washers shall not be installed within the terminal limits.
4. Terminal shall be installed at a widening, ensuring the end piece is entirely off the shoulder.
5. While these terminals do not require an offset at the end, a flare is recommended. A maximum flare rate of 25 : 1 or flatter over the length of the terminal is allowed for either the ET-31 (TL-3) - Wood or SKT-MGS (TL-3).
6. These terminals are FHWA accepted at Test Level Three (TL-3) and may be used for all posted speeds.
7. For terminal details, see WSDOT approved manufacturer's drawings.



PLAN VIEW
(FOR BOTH SYSTEMS)



ELEVATION VIEW
SKT-MGS (TL-3)



ELEVATION VIEW
ET-31 (TL-3) - WOOD

EDWARD PATRICK BARRY — STATE OF WASHINGTON — 34363 — REGISTERED PROFESSIONAL ENGINEER

Barry, Ed
May 22 2014 12:48 PM

BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL WOOD POSTS (ALL POSTED SPEEDS) STANDARD PLAN C-22.41-00

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Bakotich, Pasco
Jun 11 2014 1:10 PM
STATE DESIGN ENGINEER
Washington State Department of Transportation

JOB NO.:	13570
SHEET:	40
OF:	101
DWG:	GRAIL_DET

CITY OF ISSAQUAH
KING WASHINGTON

EAST LAKE SAMMAMISH PARKWAY SE WIDENING

GUARDRAIL DETAILS

CHI-HENG WANG — STATE OF WASHINGTON — 39930 — REGISTERED PROFESSIONAL ENGINEER

BRIAN L. SOUWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

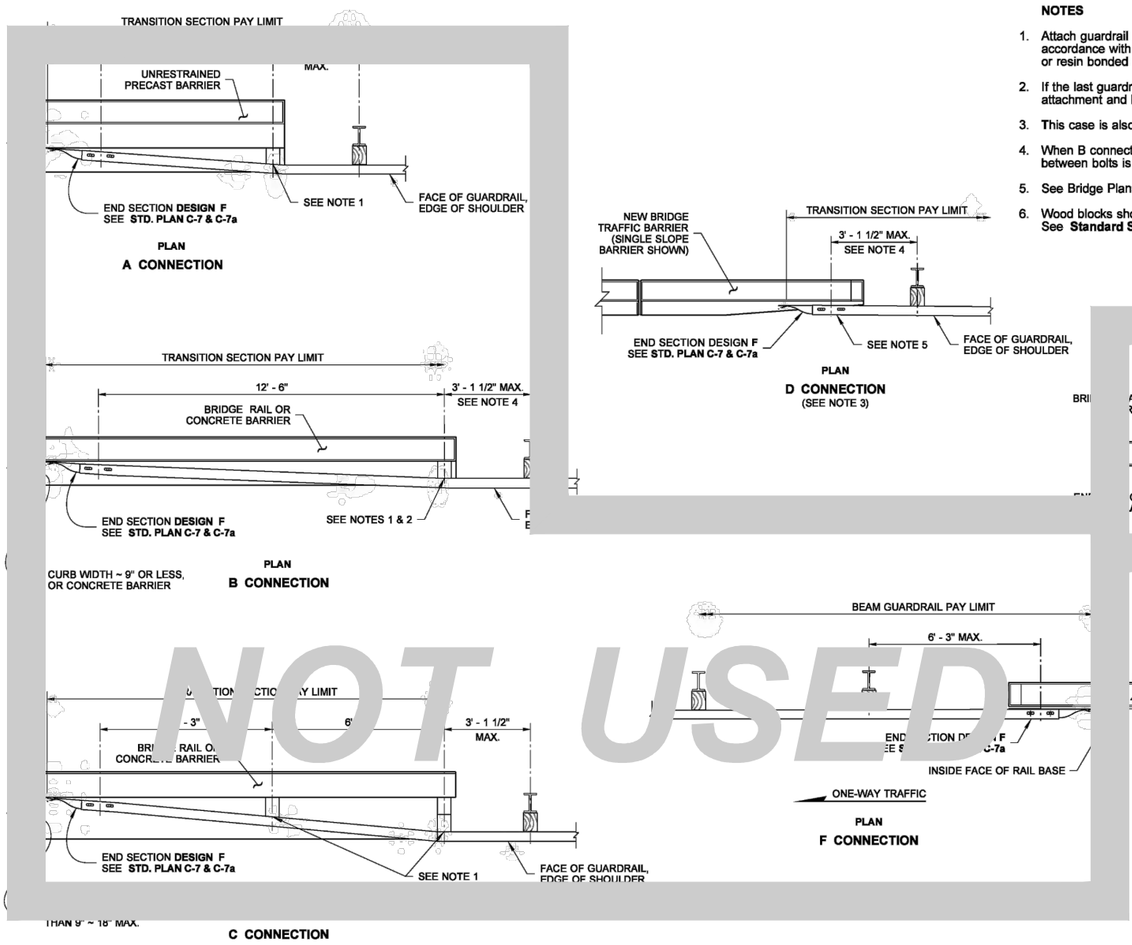
PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DRAWN BY: FERN LIDDELL



NOT USED

NOTES

1. Attach guardrail to bridge rail or concrete barrier with 7/8" diameter bolts in accordance with **Standard Spec. 9-06.5(4),** with thin slab ferrule inserts or resin bonded anchors. See Contract Plans.
2. If the last guardrail post is 3" or less from the end of the bridge barrier, this attachment and blockout is not necessary.
3. This case is also applicable for F-shape and vertical faces with no curbs.
4. When B connection is used with Type 1A Transition, the maximum spacing between bolts is 6' - 3".
5. See Bridge Plans for additional connection details.
6. Wood blocks shown. Blocks of alternate material may be used. See **Standard Specification 9-16.3 (2).**

EDWARD PATRICK BARRY — STATE OF WASHINGTON — 34363 — REGISTERED PROFESSIONAL ENGINEER

NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT UNLESS AND UNTIL IT BEARS THE ORIGINAL WET SEAL OF THE ENGINEER AND APPROVED FOR PUBLICATION. IS SUPPLIED IN ELECTRONIC FORMAT ONLY AS A REFERENCE TO THE ENGINEER'S INTENT. A COPY MAY BE OBTAINED UPON REQUEST.

GUARDRAIL CONNECTION TO BRIDGE RAIL OR CONCRETE BARRIER STANDARD PLAN C-24.10-00

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Pasco Bakotich III — 07/2/12

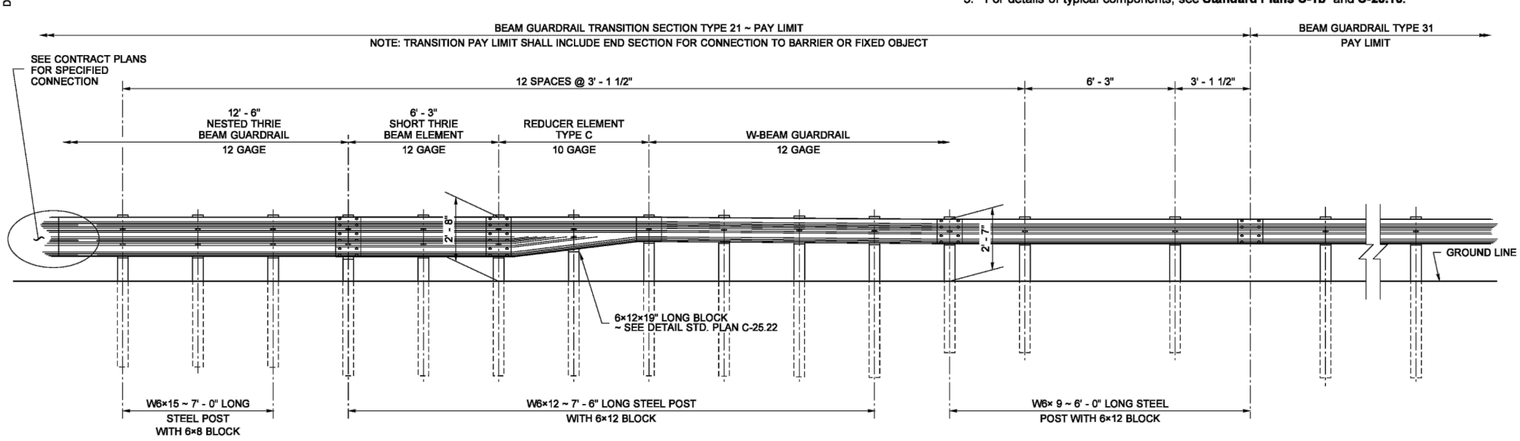
STATE DESIGN ENGINEER — DATE

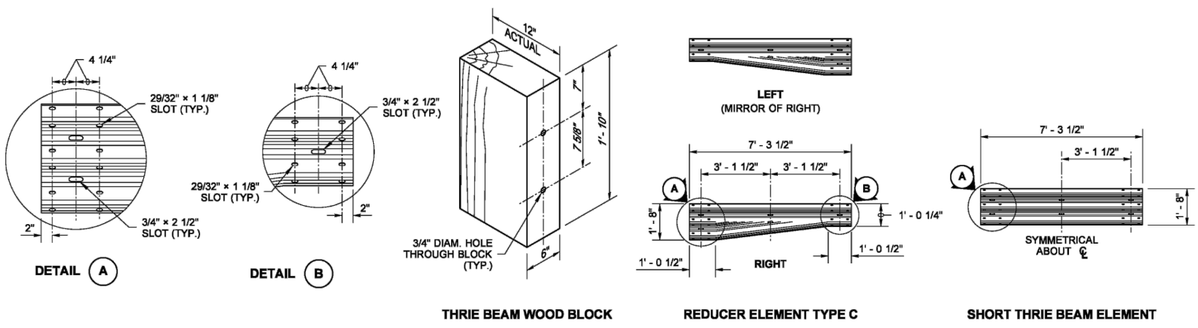
Washington State Department of Transportation

DRAWN BY: FERN LIDDELL

NOTES

1. This guardrail transition is for connection to a vertical concrete shape, a single slope, or a safety shape barrier. The toe of the single slope and the safety shaped barrier shall be tapered or the barrier blocked out so that the toe of the barrier does not project past the face of the approach guardrail.
2. See **Standard Plan C-24.10** for details regarding connection to Bridge rail or traffic barrier.
3. For details of typical components, see **Standard Plans C-1b** and **C-20.10**.





EDWARD PATRICK BARRY — STATE OF WASHINGTON — 34363 — REGISTERED PROFESSIONAL ENGINEER

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BEAM GUARDRAIL (TYPE 31) TRANSITION SECTION TYPE 21 STANDARD PLAN C-25.20-05

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Pasco Bakotich III — 07/2/12

STATE DESIGN ENGINEER — DATE

Washington State Department of Transportation

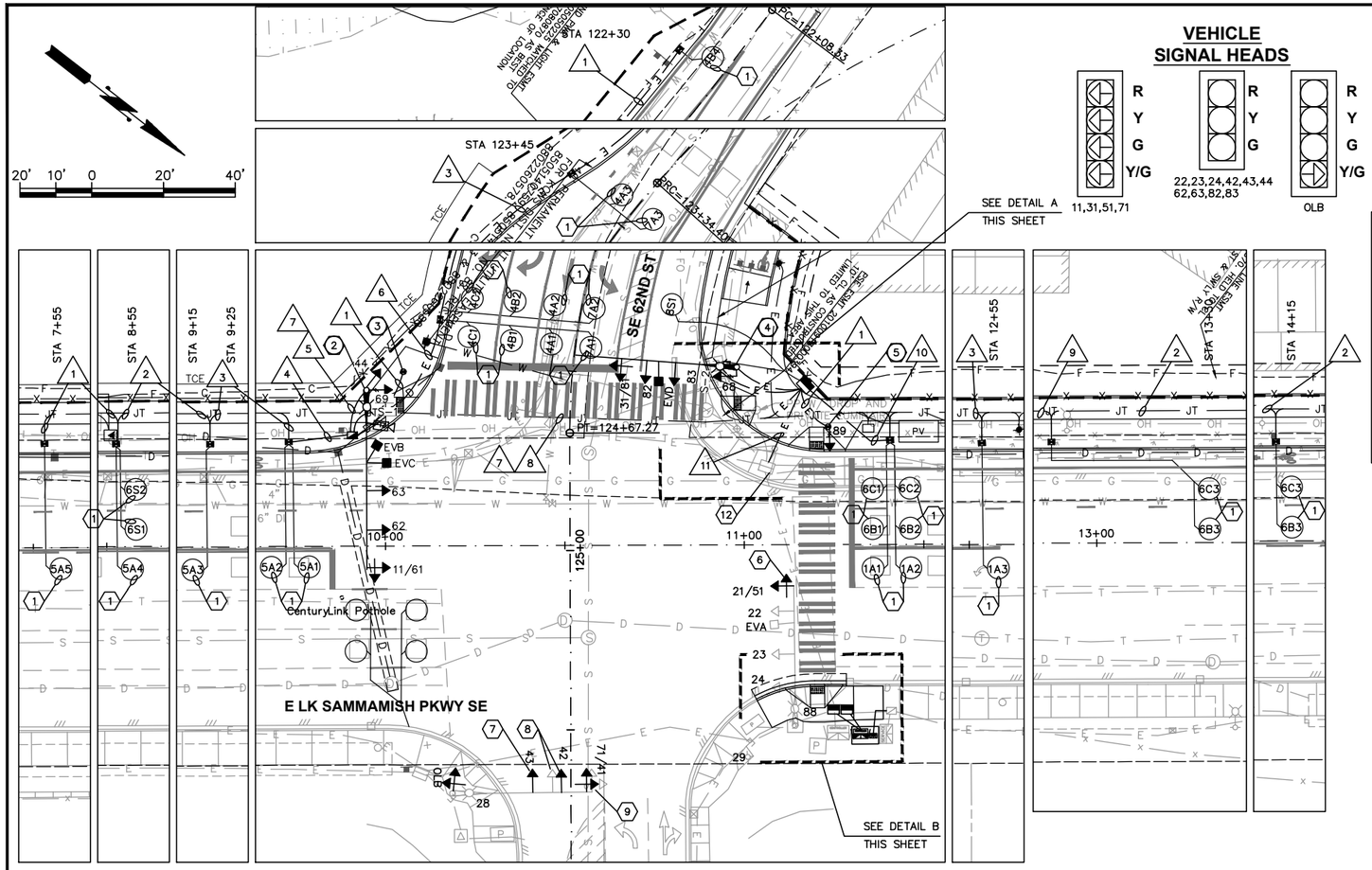
JOB NO.: 13570	SHEET: 41	CITY OF ISSAQUAH KING WASHINGTON EAST LAKE SAMMAMISH PARKWAY SE WIDENING GUARDRAIL DETAILS	CHI-HENG WANG — STATE OF WASHINGTON — 39930 — REGISTERED PROFESSIONAL ENGINEER BRIAN L. SOUWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER
DWG: GRAIL_DET	OF: 101		

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

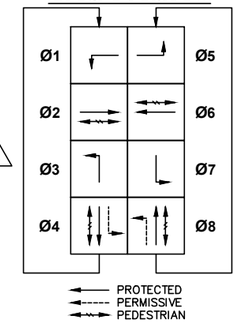


VEHICLE SIGNAL HEADS

PEDESTRIAN SIGNAL HEADS

28,29,
68,69,88,89

PHASE DIAGRAM



PREEMPTION SCHEDULE

PHASE	CHANNEL
Ø2,5,A	A
Ø4,7,B	B
Ø1,6,C	C
Ø3,8,D	D

TRAFFIC SIGNAL CONSTRUCTION NOTES

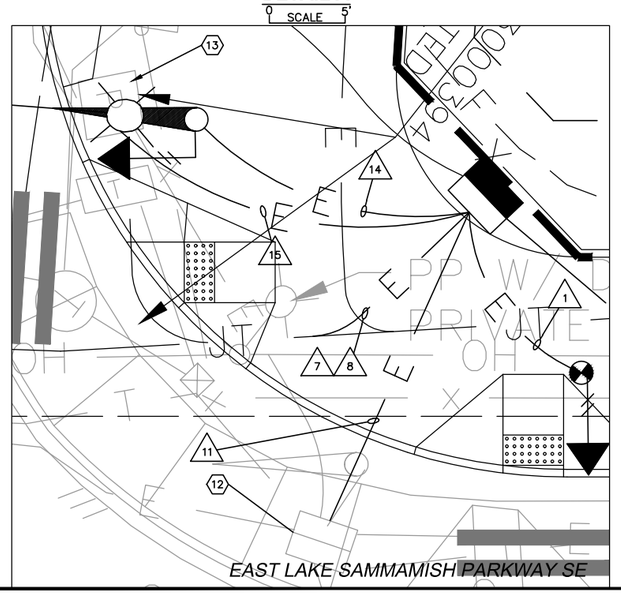
1. CONTRACTOR SHALL PROVIDE AND INSTALL ROUND TRAFFIC DETECTOR LOOP PER CITY OF ISSAQUAH STANDARD PLAN TS-02 AND TS-03.
2. EXCAVATE AND CONSTRUCT FOUNDATION PER SIGNAL STANDARD SHEET AND WSDOT STD. PLAN J-26.10-02. PROVIDE AND INSTALL TYPE III SIGNAL POLE AND MAST ARM PER SIGNAL STANDARD SHEET, 1-AUTOBAHN SERIES 40B ATB2 SERIES 146W LED 1A TYPE 3 4000K CCT FIXTURE AND 16' LUMINAIRE ARM, 2 EMERGENCY PREEMPTION DETECTOR, 3 VEHICLE SIGNAL HEADS, 1 PEDESTRIAN SIGNAL HEAD, 1 PAN-TILT-ZOOM(PTZ) CAMERA. PROVIDE AND INSTALL STREET NAME SIGN.
3. EXCAVATE AND CONSTRUCT FOUNDATION PER SIGNAL STANDARD SHEET AND WSDOT STD. PLAN J-21.10-03. PROVIDE AND INSTALL TYPE PPB SIGNAL POLE WITH SLIP BASE, AND 1 ACCESSIBLE PEDESTRIAN DETECTOR.
4. EXCAVATE AND CONSTRUCT FOUNDATION PER SIGNAL STANDARD SHEET AND WSDOT STD. PLAN J-26.10-02. PROVIDE AND INSTALL TYPE III SIGNAL POLE AND MAST ARM PER SIGNAL STANDARD SHEET, 1-AUTOBAHN SERIES 40B ATB2 SERIES 146W LED 1A TYPE 3 4000K CCT FIXTURE AND 16' LUMINAIRE ARM, 1 EMERGENCY PREEMPTION DETECTOR, 3 VEHICLE SIGNAL HEADS, 1 PEDESTRIAN SIGNAL HEAD. PROVIDE AND INSTALL STREET NAME SIGN.
5. EXCAVATE AND CONSTRUCT FOUNDATION PER SIGNAL STANDARD SHEET AND WSDOT STD. PLAN J-21.10-03. PROVIDE AND INSTALL TYPE PPB SIGNAL POLE WITH SLIP BASE, 1 PEDESTRIAN SIGNAL HEAD, 1 ACCESSIBLE PEDESTRIAN DETECTOR.
6. REMOVE EXISTING 3 SECTION SIGNAL DISPLAY. PROVIDE AND INSTALL 4-SECTION SIGNAL DISPLAY WITH FLASHING YELLOW ARROW. PROVIDE AND INSTALL ASSOCIATED WIRING TO TERMINAL CABINET AND CONTROLLER.
7. PROVIDE AND INSTALL 3-SECTION SIGNAL DISPLAY WITH ASTROBRACKET MOUNT. PROVIDE AND INSTALL ASSOCIATED WIRING TO TERMINAL CABINET AND CONTROLLER.
8. RELOCATE EXISTING 3-SECTION SIGNAL HEAD TO EXISTING TENON AS SHOWN. PROVIDE AND INSTALL ASSOCIATED WIRING TO TERMINAL CABINET AND CONTROLLER.
9. REMOVE EXISTING 5-SECTION (DOGHOUSE) SIGNAL DISPLAY. PROVIDE AND INSTALL 4-SECTION SIGNAL DISPLAY WITH FLASHING YELLOW ARROW. PROVIDE AND INSTALL ASSOCIATED WIRING TO TERMINAL CABINET AND CONTROLLER.
10. EXCAVATE AND CONSTRUCT SERVICE AND CONTROLLER FOUNDATION PER CITY OF ISSAQUAH STANDARD PLAN TS-11. PROVIDE AND INSTALL SERVICE WITH BATTERY BACKUP SYSTEM AND CONTROLLER CABINET WITH ASSOCIATED CONTROLLER EQUIPMENT. CONTRACTOR SHALL COORDINATE WITH CITY OF ISSAQUAH FOR SLAVAGE OF EXISTING CONTROLLER AND UPS, AND DELIVERY AND PROPOSED CONTROLLER DELIVERY AND TESTING.
11. REMOVE AND WASTEHAUL EXISTING JUNCTION BOX; FURNISH AND INSTALL NEW JUNCTION BOX WITH NO-SKID LID PER ISSAQUAH STD. DETAIL NO. TS-06.
12. REMOVE AND WASTEHAUL EXISTING JUNCTION BOX. SPLICE PROPOSED CONDUIT TO EXISTING CONDUIT.
13. CONTRACTOR SHALL ADJUST EXISTING VAULT(CITY OF ISSAQUAH) TO GRADE.

SIGNAL DISPLAY NOTES

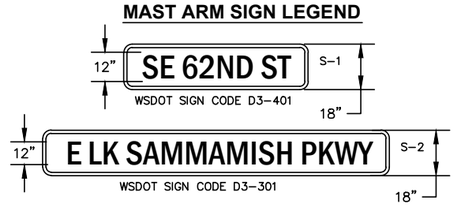
1. ALL VEHICLE AND PEDESTRIAN SIGNAL HEADS SHALL HAVE LED DISPLAYS.
2. ALL VEHICLE HEADS SHALL BE ALUMINUM WITH 12" LENSES AND ALUMINUM TUNNEL VISORS. BACKPLATES SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD SPECIFICATION 9-29.16.
3. VEHICLE SIGNAL HEADS SHALL HAVE TYPE M MOUNT PER WSDOT STD PLAN J-75.20-00
4. PEDESTRIAN SIGNAL HEADS SHALL HAVE COUNTDOWN DISPLAYS.
5. PEDESTRIAN SIGNAL HEAD 68,69,88 AND 89 SHALL HAVE TYPE E MOUNT PER WSDOT STD PLAN J-75.10-01.

DETAIL A

0 SCALE 5'

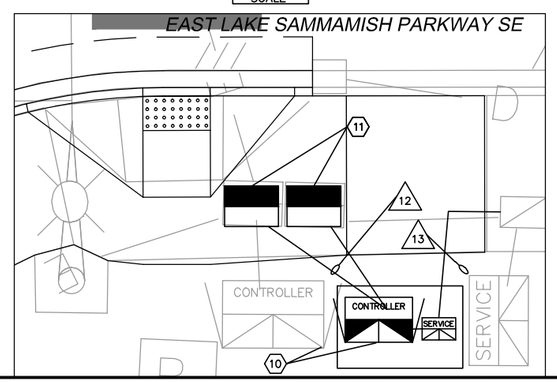


MAST ARM SIGN LEGEND



DETAIL B

0 SCALE 5'



TRAFFIC SIGNAL SYMBOL LEGEND

EXISTING	PROPOSED	DESCRIPTION
	CONTROLLER	CONTROLLER CABINET
	SERVICE	SERVICE / ILLUMINATION CABINET
		TYPE III STEEL-MASTARM-SIGNAL POLE WITH LUMINAIRE
		TYPE II STEEL MAST-ARM SIGNAL POLE
		VEHICLE SIGNAL HEAD
		PEDESTRIAN SIGNAL HEAD
		OPTICAL DETECTOR

EXISTING	PROPOSED	DESCRIPTION
		TYPE 1 JUNCTION BOX
		TYPE 2 JUNCTION BOX
		TYPE 8 JUNCTION BOX
— E —	— E —	CONDUIT
	PTZ	PAN-TILT-ZOOM VIDEO CAMERA
		VIDEO DETECTION ZONES
		MAST ARM SIGN
		SIGNAL POLE CONSTRUCTION NOTE
		WIRE NOTE

WIRE SCHEDULE

NOTE: ALL CONDUITS SHALL HAVE PULL WIRE

RUN #	RACEWAY CONDUIT SIZE SCHEDULE 80 PVC	FIBEROPTICS	PED/VEH DET 2CSH	EVP 3CSH	VIDEO RG59/U/5CSH	SIGNAL 5C	WIRELESS INTERCONNECT CAT 5	#8 GROUND	POWER ILLUM #8	POWER SIGNAL #6	ACTUAL FILL (IN)	26% FILL (IN)	NOTES
1	2"		1					1			0.15	0.75	
2	2"		2					1			0.24	0.75	
3	2"		5					1			0.51	0.75	
4	2"		6					1			0.60	0.75	
5	2"			2	1	4		1			0.88	0.75	
6	2"		9					1			0.87	0.75	
7	2"							1	2		0.17	0.75	
8	3"		16	2	1	4		1			2.32	1.68	
9	3"		4					1			0.42	1.68	
10	2"		8					1			0.78	0.75	
11	4"		26					1			2.40	2.93	
	3"			3	1	8		1			1.51	1.68	
	2"							1	2		0.17	0.75	
12	4"		20					1			1.86	2.93	
	4"			4	1	15		1			2.56	2.93	
	3"		21					1			1.95	1.68	
13	2"							1		3	0.46	0.75	
14	3"		1	2		4		1			0.85	1.68	
15	2"	1	1	2		4		1			0.94	0.75	

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SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: H: 1"=20' V: 1"=2'
DRAWN: R.C.
CHECKED: R.C.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

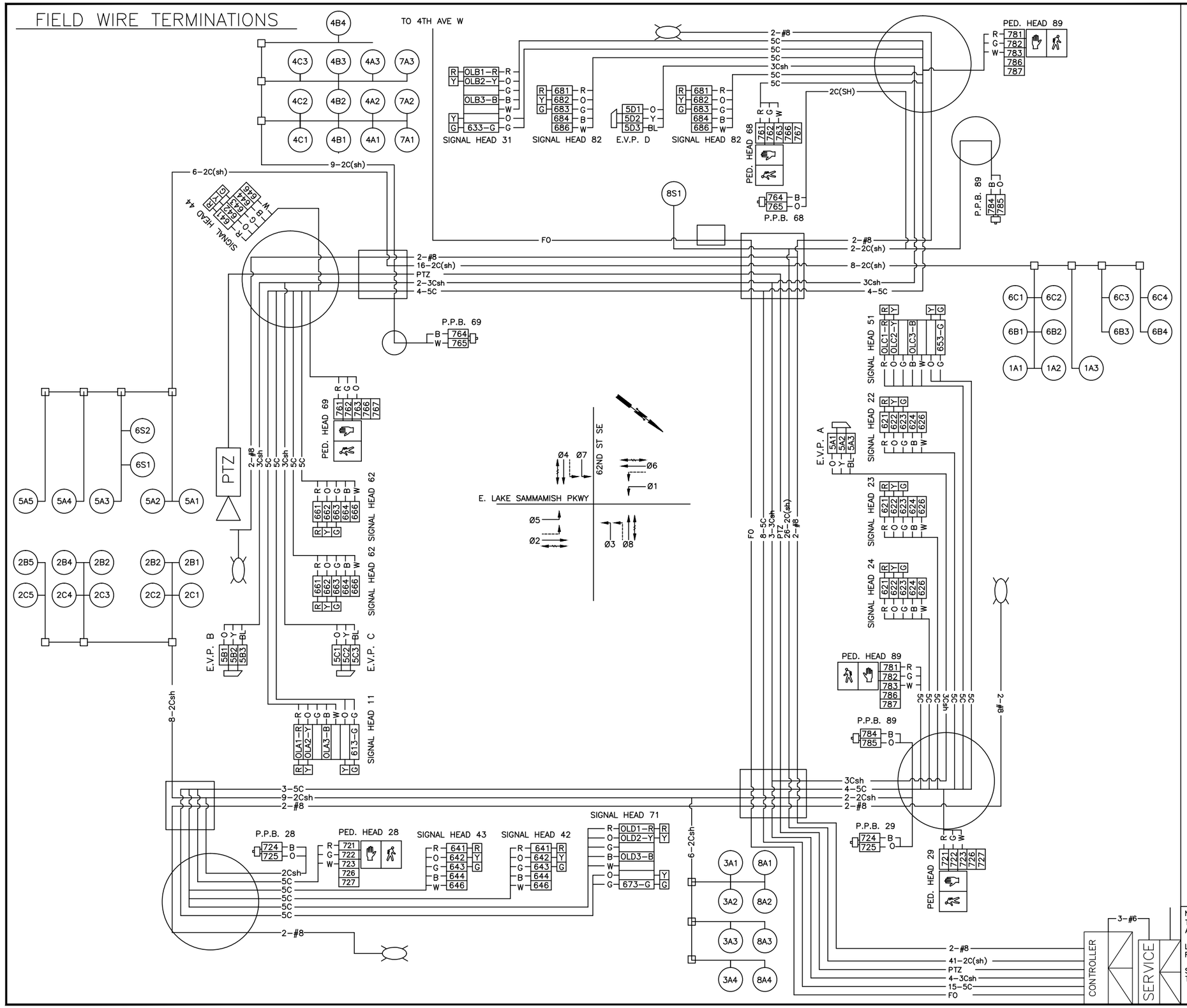
BRIAN L. SOUSWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

RORY CAMERON — STATE OF WASHINGTON — 40009 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
WASHINGTON
KING COUNTY
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS
SIGNAL PLAN 1

SHEET: 42
OF: 101

JOB NO.: 13570
DWG: SIGNAL



CABINET WIRE TERMINATIONS

VEHICLE DISPLAYS

R	OLA1-R	11	Ø1
O	OLA2-Y		
G	OLA3-B		
B			
W	613-G		
R	621	21,22	Ø2
O	622		
G	623		
B	624		
W	626		
R	631-R	31	Ø3
O	632-Y		
G	633-B		
B	646-W		
W	OLB-2-G		
R	641	41,42	Ø4
O	642		
G	643		
B	644		
W	646		
R	OLC1-R	51	Ø5
O	OLC2-Y		
G	OLC3-B		
B			
W	653-G		
R	661	61,62	Ø6
O	662		
G	663		
B	664		
W	666		
R	OLD1-R	71	Ø7
O	OLD2-Y		
G	OLD3-B		
B			
W	673-G		
R	681	81,82	Ø8
O	682		
G	683		
B	684		
W	686		

PEDESTRIAN DISPLAYS

R	721	28,29	Ø2
G	722		
W	723		
R	741	48,49	Ø4
G	742		
W	743		
R	761	68,69	Ø6
G	762		
W	763		
R	781	88,89	Ø8
G	782		
W	783		

PEDESTRIAN DETECTION

O	724	28,29	Ø2
B	725		
O	744		
B	745	48,49	Ø4
O	764		
B	765	68,69	Ø6
O	784		
B	785	88,89	Ø8

SERVICE PANEL

TBS

B	501	1	AC+
GRD		2	CG
W	502	3	AC-
		4	
		5	

EVP DETECTION

O	5A1	A	Ø2,Ø5
Y	5A2		
BL	5A3		
O	5B1	B	Ø4,Ø7
Y	5B2		
BL	5B3		
O	5C1	C	Ø1,Ø6
Y	5C2		
BL	5C3		
O	5D1	D	Ø3,Ø8
Y	5D2		
BL	5D3		

TERMINAL LEGEND

- CONNECT TO TERMINAL BUS
- CONNECT TO SIDE TERMINAL CONNECTION
- CONNECT TO DETECTOR COMMON BUS
- SPARE

NOTE:
TERMINATE ALL WIRING IDENTIFIED AS AC- (6*6 AND 7*3) AT THE AC- BUSS.

LOOP DETECTION WIRE TERMINATIONS IN SIGNAL CABINET WILL BE PERFORMED BY CITY OF ISSAQUAH SIGNAL TECHNICIAN.

SEAL AND COIL ALL SPARE CONDUCTORS AND STORE NEATLY ON THE CABINET FLOOR.

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CONSULTING ENGINEERS
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SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: H:1"=20' V:1"=2'
DRAWN: R.C.
CHECKED: R.C.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

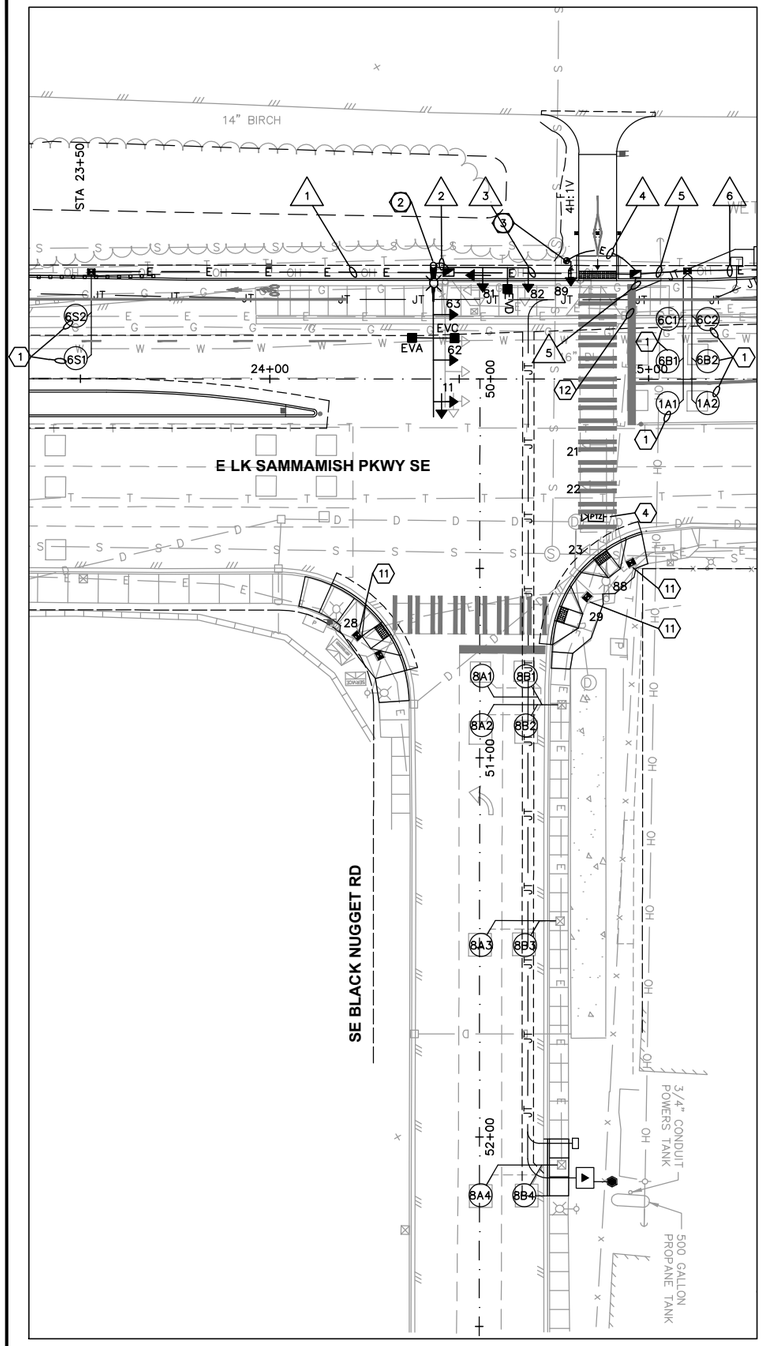
No.	REVISION	DATE	APPD

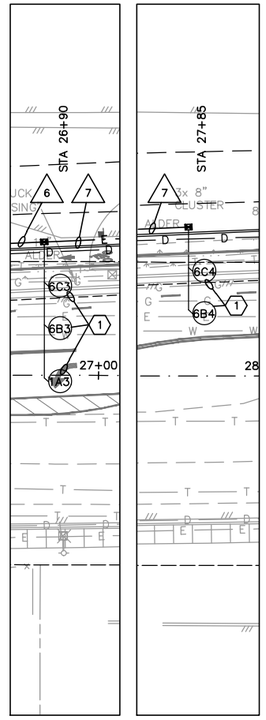
BRIAN L. SOUSWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

RORY CAMERON — STATE OF WASHINGTON — 47008 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
WASHINGTON
KING COUNTY
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS
SIGNAL WIRING DIAGRAM 1

SHEET: 43
OF: 101
JOB NO.: 13570
DWG: SIGNAL





20' 10' 0 20' 40'

TRAFFIC SIGNAL SYMBOL LEGEND

EXISTING	PROPOSED	DESCRIPTION
	CONTROLLER	CONTROLLER CABINET
	SERVICE	SERVICE / ILLUMINATION CABINET
		TYPE III STEEL-MASTARM-SIGNAL POLE WITH LUMINAIRE
		TYPE II STEEL MAST-ARM SIGNAL POLE
		VEHICLE SIGNAL HEAD
		PEDESTRIAN SIGNAL HEAD
		OPTICAL DETECTOR
		TYPE I JUNCTION BOX
		TYPE 2 JUNCTION BOX
		TYPE 8 JUNCTION BOX
—E—	—E—	CONDUIT
		VIDEO CAMERA
		VIDEO DETECTION ZONES
		MAST ARM SIGN
		SIGNAL POLE CONSTRUCTION NOTE
		WIRE NOTE

MAST ARM SIGN LEGEND

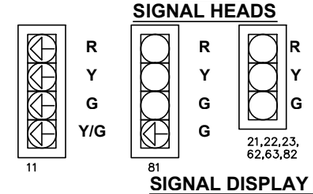
12" BLACK NUGGET RD S-1 18"
WSDOT SIGN CODE D3-401

12" E LK SAMMAMISH PKWY S-2 18"
WSDOT SIGN CODE D3-301

TRAFFIC SIGNAL CONSTRUCTION NOTES

1. CONTRACTOR SHALL PROVIDE AND INSTALL ROUND TRAFFIC DETECTOR LOOP PER CITY OF ISSAQUAH STANDARD PLAN TS-02 AND TS-03.
2. EXCAVATE AND CONSTRUCT FOUNDATION PER SIGNAL STANDARD SHEET AND WSDOT STD. PLAN J-26.10-02. PROVIDE AND INSTALL TYPE III SIGNAL POLE AND DUAL MAST ARM PER SIGNAL STANDARD SHEET, 1-AUTOBAHN SERIES 40B ATB2 SERIES 146W LED 1A TYPE 3 4000K CCT FIXTURE AND 16' LUMINAIRE ARM, 3 EMERGENCY PREEMPTION DETECTOR, 5 VEHICLE SIGNAL HEADS. PROVIDE AND INSTALL PAN-TILT-ZOOM(PTZ) CAMERA. PROVIDE AND INSTALL 2 STREET NAME SIGNS.
3. EXCAVATE AND CONSTRUCT FOUNDATION PER SIGNAL STANDARD SHEET AND WSDOT STD. PLAN J-21.10-03. PROVIDE AND INSTALL TYPE PS SIGNAL POLE WITH SLIP BASE, 1 PEDESTRIAN DISPLAY, AND 1 ACCESSIBLE PEDESTRIAN DETECTOR.
4. PROVIDE AND INSTALL PAN-TILT-ZOOM(PTZ) CAMERA ON EXISTING LUMINAIRE ARM, WIRING TO CONTROLLER, AND ASSOCIATED CONTROLLER EQUIPMENT. CONNECT TO PTZ CAMERA CONTROLLER TO THE CITY'S FIBER NETWORK.
8. RELOCATE EXISTING 3-SECTION SIGNAL HEAD TO EXISTING TENON AS SHOWN. PROVIDE AND INSTALL ASSOCIATED WIRING TO TERMINAL CABINET AND CONTROLLER.
11. REMOVE AND WASTEHAUL EXISTING JUNCTION BOX; FURNISH AND INSTALL NEW JUNCTION BOX WITH NO-SKID LID PER ISSAQUAH STD. DETAIL NO. TS-06.
12. REMOVE AND WASTHAUL EXISTING JUNCTION BOX. SPLICE PROPOSED CONDUIT TO EXISTING CONDUIT.

VEHICLE SIGNAL HEADS



PEDESTRIAN SIGNAL HEADS

SIGNAL DISPLAY NOTES

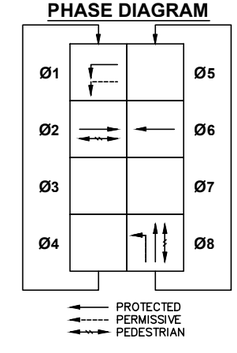
1. ALL VEHICLE AND PEDESTRIAN SIGNAL HEADS SHALL HAVE LED DISPLAYS.
2. ALL VEHICLE HEADS SHALL BE ALUMINUM WITH 12" LENSES AND ALUMINUM TUNNEL VISORS. BACKPLATES SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD SPECIFICATION 9-29.16.
3. VEHICLE SIGNAL HEADS SHALL HAVE TYPE M MOUNT PER WSDOT STD PLAN J-75.20-00
4. PEDESTRIAN SIGNAL HEADS SHALL HAVE COUNTDOWN DISPLAYS.
5. PEDESTRIAN SIGNAL HEAD 89 SHALL HAVE TYPE D MOUNT PER WSDOT STD PLAN J-75.10-01.

WIRE SCHEDULE

RUN #	RACEWAY CONDUIT SIZE SCHEDULE 80 PVC	2-#14 TWISTED	PED/VEH DET 2CSH	EVP 3CSH	VIDEO RG59/U/5CSH	SIGNAL 5C	WIRELESS INTERCONNECT CAT 5	#6 GROUND	POWER ILLUM #6	POWER SIGNAL #6	ACTUAL FILL (IN)	26% FILL (IN)	NOTES
1	2"		2					1			0.24	0.75	
2	2"			2		3		1			0.62	0.75	
3	3"		2	2		3		1			0.80	1.68	
4	2"		1			1		1			0.29	0.75	
5	3"		8					1			0.78	1.68	
6	3"		5					1			0.51	1.68	
7	2"		2					1			0.24	0.75	
8	3"		11	2		4		1			1.75	1.68	
9	3"							1			0.06	1.68	
10	2"							1			0.06	0.75	
11	4"							1			0.06	2.93	
	3"							1			0.06	1.68	
	2"							1			0.06	0.75	
12	3"							1			0.06	1.68	
13	3"							1			0.06	1.68	
14	3"							1			0.06	1.68	

ALL CONDUITS SHALL HAVE PULL CORDS

PHASE DIAGRAM



PREEMPTION SCHEDULE

PHASE	CHANNEL
Ø2	A
Ø6	C
Ø8	D

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: H: 1"=20' V: 1"=2'
DRAWN: R.C.
CHECKED: R.C.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

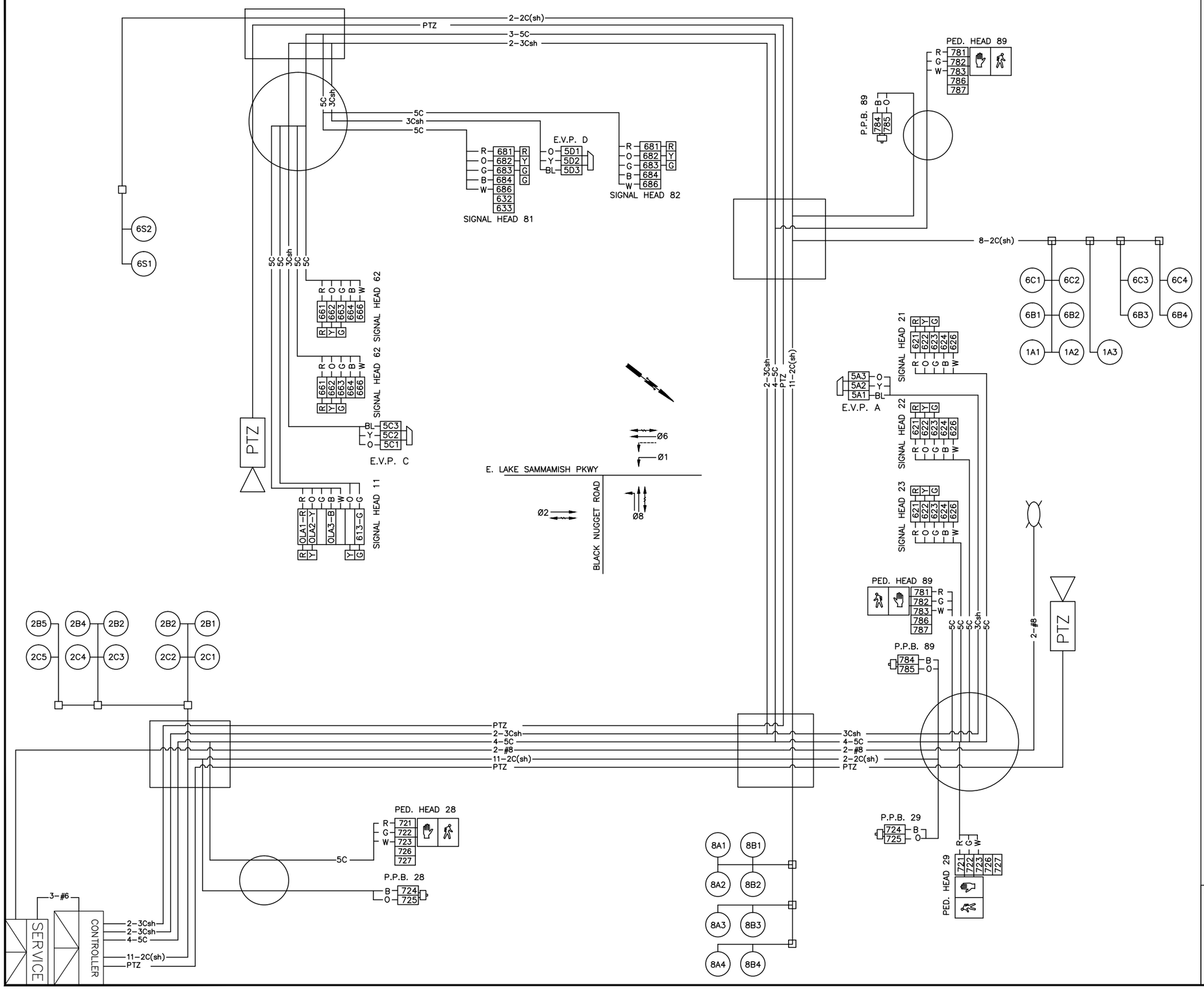
BRIAN L. SOURBEAR STATE OF WASHINGTON 36091 REGISTERED PROFESSIONAL ENGINEER

ROY CAMERON STATE OF WASHINGTON 42008 REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
WASHINGTON
KING COUNTY
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS
SIGNAL PLAN 2

SHEET: 44
OF: 101
JOB NO.: 13570
DWG: SIGNAL

FIELD WIRE TERMINATIONS



CABINET WIRE TERMINATIONS

VEHICLE DISPLAYS

R	OLA1-R	11	Ø1
O	OLA2-Y		
G	OLA3-B		
B			
W	613-G		
R	621	21,22	Ø2
O	622		
G	623		
B	624		
W	626		
R	OLB1-R	31	Ø3
O	OLB2-Y		
G	OLB3-B		
B			
W	633-G		
R	641	41,42	Ø4
O	642		
G	643		
B	644		
W	646		
R	OLC1-R	51	Ø5
O	OLC2-Y		
G	OLC3-B		
B			
W	653-G		
R	661	61,62	Ø6
O	662		
G	663		
B	664		
W	666		
R	OLD1-R	71	Ø7
O	OLD2-Y		
G	OLD3-B		
B			
W	673-G		
R	681	81,82	Ø8
O	682		
G	683		
B	684		
W	686		

PEDESTRIAN DISPLAYS

R	721	28,29	Ø2
G	722		
W	723		
R	741	48,49	Ø4
G	742		
W	743		
R	761	68,69	Ø6
G	762		
W	763		
R	781	88,89	Ø8
G	782		
W	783		

PEDESTRIAN DETECTION

O	724	28,29	Ø2
B	725	48,49	Ø4
O	744		
B	745	68,69	Ø6
O	764		
B	765	88,89	Ø8
O	784		
B	785		

SERVICE PANEL

TBS

B	501	1	AC+
GRD		2	CG
W	502	3	AC-
		4	
		5	

EVP DETECTION

O	5A1	A	Ø2,Ø5
Y	5A2		
BL	5A3		
O	5B1	B	Ø4,Ø7
Y	5B2		
BL	5B3		
O	5C1	C	Ø1,Ø6
Y	5C2		
BL	5C3		
O	5D1	D	Ø3,Ø8
Y	5D2		
BL	5D3		

TERMINAL LEGEND

- CONNECT TO TERMINAL BUS
- CONNECT TO SIDE TERMINAL CONNECTION
- CONNECT TO DETECTOR COMMON BUS
- SPARE

NOTE:
TERMINATE ALL WIRING IDENTIFIED AS AC- (6*6 AND 7*3) AT THE AC- BUSS.

LOOP DETECTION WIRE TERMINATIONS IN SIGNAL CABINET WILL BE PERFORMED BY CITY OF ISSAQUAH SIGNAL TECHNICIAN.

SEAL AND COIL ALL SPARE CONDUCTORS AND STORE NEATLY ON THE CABINET FLOOR.

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: H:1"=20' V:1"=2'
DRAWN: R.C.
CHECKED: R.C.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

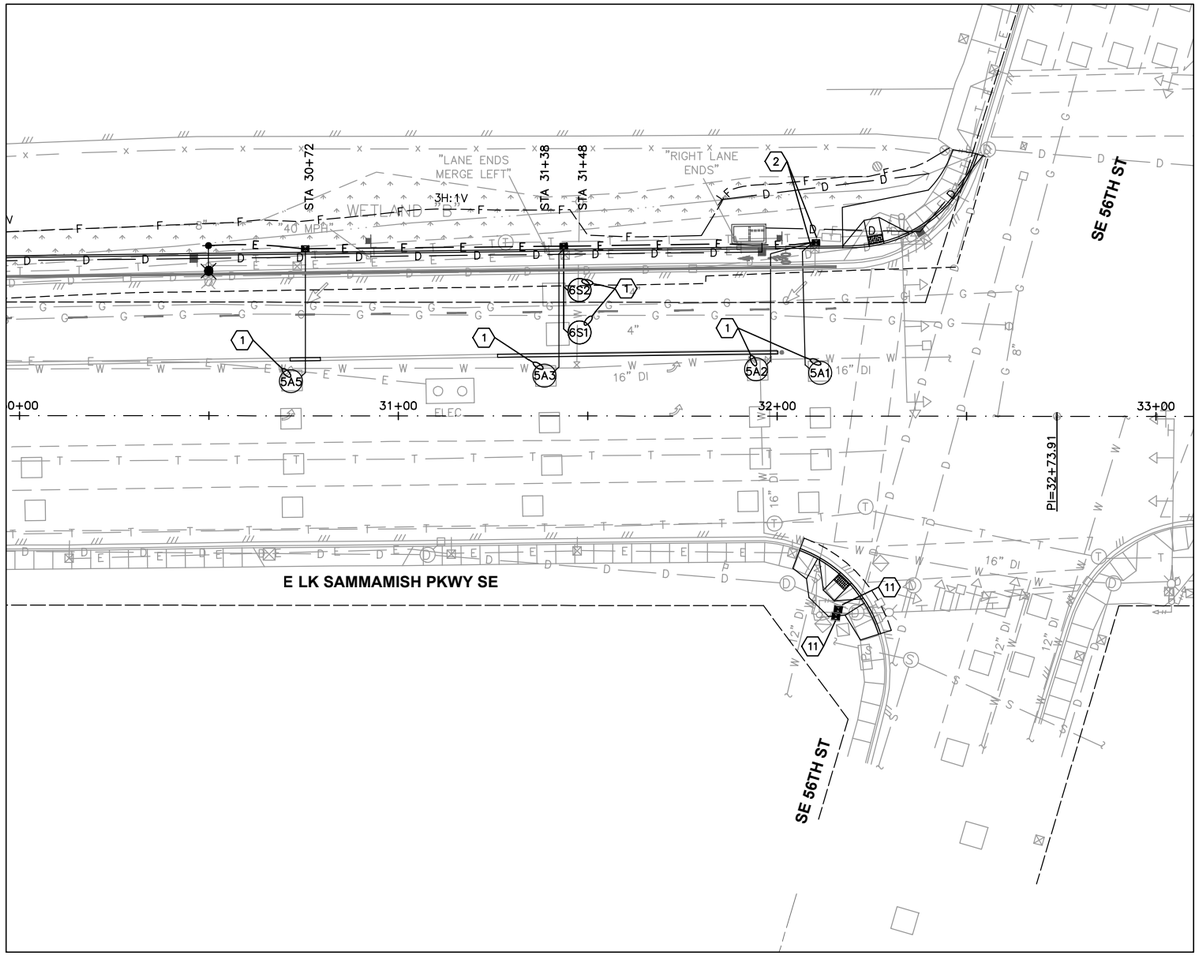
No.	REVISION	DATE	APPD

BRIAN L. SOURWINE — STATE OF WASHINGTON — 36006 — REGISTERED PROFESSIONAL ENGINEER

RORY CAMERON — STATE OF WASHINGTON — 42008 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
WASHINGTON
KING COUNTY
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS
SIGNAL WIRING DIAGRAM 2

SHEET: 45
OF: 101
JOB NO.: 13570
DWG: SIGNAL



20' 10' 0 20' 40'

TRAFFIC SIGNAL SYMBOL LEGEND

EXISTING	PROPOSED	DESCRIPTION
	CONTROLLER	CONTROLLER CABINET
	SERVICE	SERVICE / ILLUMINATION CABINET
		TYPE III STEEL-MASTARM-SIGNAL POLE WITH LUMINAIRE
		TYPE II STEEL MAST-ARM SIGNAL POLE
		VEHICLE SIGNAL HEAD
		PEDESTRIAN SIGNAL HEAD
		OPTICAL DETECTOR
		TYPE I JUNCTION BOX
		TYPE 2 JUNCTION BOX
		TYPE 8 JUNCTION BOX
— E —	— E —	CONDUIT
		VIDEO CAMERA
		VIDEO DETECTION ZONES
		MAST ARM SIGN
		SIGNAL POLE CONSTRUCTION NOTE
		WIRE NOTE

TRAFFIC SIGNAL CONSTRUCTION NOTES

1. CONTRACTOR SHALL PROVIDE AND INSTALL ROUND TRAFFIC DETECTOR LOOP PER CITY OF ISSAQUAH STANDARD PLAN TS-02 AND TS-03.
2. PULL EXISTING WIRE IN EXISTING JUNCTION BOX TO NEAREST JUNCTION BOX TO MAINTAIN CONTINUOUS LINE TO CONTROLLER. INTERCEPT EXISTING CONDUIT AND ROUTE EXISTING CONDUIT TO PROPOSED JUNCTION BOX PER CITY OF ISSAQUAH STANDARD PLAN TS-06
11. REMOVE AND WASTEHAUL EXISTING JUNCTION BOX; FURNISH AND INSTALL NEW JUNCTION BOX WITH NO-SKID LID PER ISSAQUAH STD. DETAIL NO. TS-06.

WIRE SCHEDULE

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701 DEXTER AVENUE NORTH SUITE 200
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DATE: MAR. 2015
SCALE: H:1"=20' V:1"=2'
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CHECKED: R.C.
APPROVED: B.L.S.

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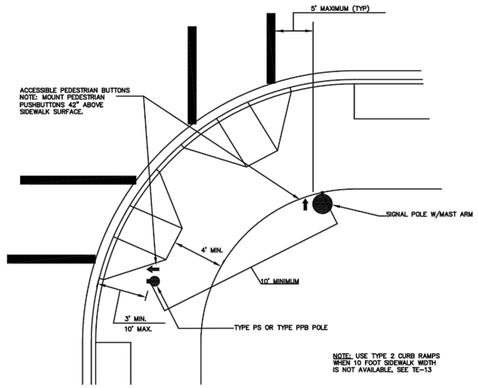
No.	REVISION	DATE	APPD

BRIAN L. SOURWINE STATE OF WASHINGTON 36091 REGISTERED PROFESSIONAL ENGINEER

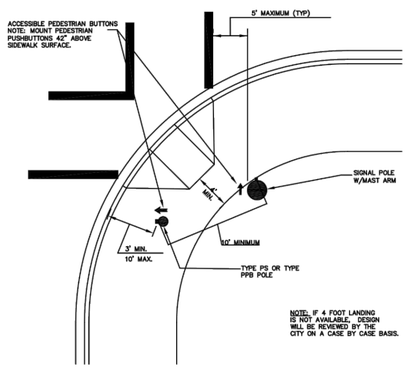
RORY CAMERON STATE OF WASHINGTON 47008 REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
WASHINGTON
KING COUNTY
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS
SIGNAL PLAN 3

SHEET: 46
OF: 101
JOB NO.: 13570
DWG: SIGNAL



TWO CURB-CUT RAMPS



ONE CURB-CUT RAMP

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NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT

AUGUST 2010

EXPIRES:

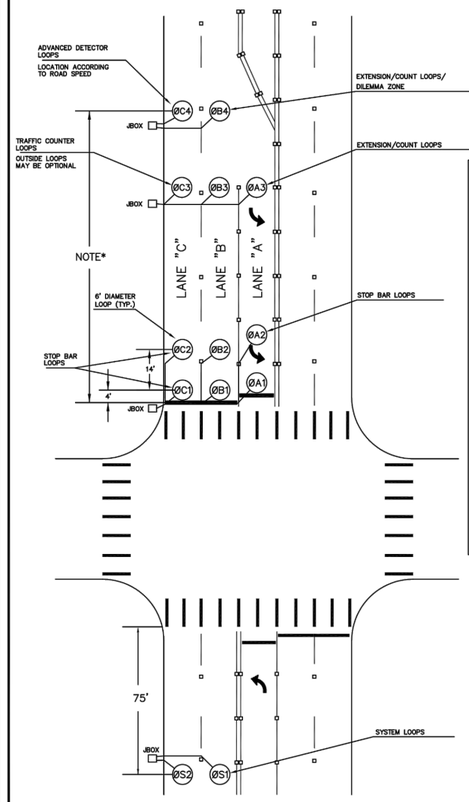
EXPIRES: 12-13-2011

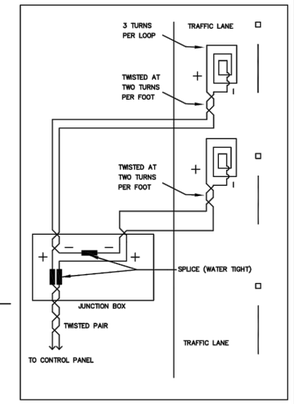
TYPICAL ACCESSIBLE PEDESTRIAN SIGNAL DEVICE LOCATIONS (TYPE 1 RAMPS)

NOTE: THE ORIGINAL IS SIGNED BY THE ENGINEER, APPROVED FOR PUBLICATION AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. TS-01

REV:





SERIES LOOPS
ELECTRICAL DETAIL

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CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT

AUGUST 2010

EXPIRES:

EXPIRES: 12-13-2011

TRAFFIC LOOP DETAIL (SHEET 1 OF 3)

NOTE: THE ORIGINAL IS SIGNED BY THE ENGINEER, APPROVED FOR PUBLICATION AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. TS-02

REV:

85TH PERCENTILE SPEED<35MPH
NO DILEMMA ZONE

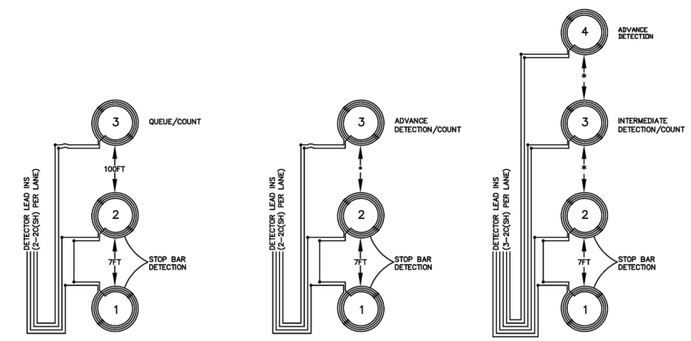
SERIES CONNECTED
LOOPS 1 AND 2;
QUEUE/COUNT LOOP 3

85TH PERCENTILE SPEED>=35MPH
SINGLE ADVANCE LOOP FOR DILEMMA ZONE*

SERIES CONNECTED
LOOPS 1 AND 2;
COUNT LOOP 3

85TH PERCENTILE SPEED>=35MPH
DOUBLE ADVANCE LOOPS FOR DILEMMA ZONE*

SERIES CONNECTED
LOOPS 1, 2, COUNT LOOP 3 AND DEILEMMA ZONE LOOP 4



ROUND LOOPS

NOTE:
WIRING FOR ALL LOOPS TO BE LABELLED WITH NUMBERS PER EXAMPLE BELOW.

* LOOPS TO BE SPACED PER PLANS. SPACING CALCULATIONS AND DILEMMA ZONE REQUIREMENTS TO BE CALCULATED PER WSDOT DESIGN MANUAL EXHIBIT 1330-7.

LOOP LEAD IN WIRE LABEL:

L X X X – X X – X X

DETECTOR INPUT

DASH

LANE LETTER

LOOP SERIES NUMBER

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NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT

AUGUST 2010

EXPIRES:

EXPIRES: 12-13-2011

TRAFFIC LOOP DETAIL (SHEET 2 OF 3)

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STANDARD DETAIL NO. TS-03

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CHECKED: R.C.
APPROVED: B.L.S.

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No.	REVISION	DATE	APPD

BRIAN L. SOURWINE — STATE OF WASHINGTON — 18056 — REGISTERED PROFESSIONAL ENGINEER

RORY CAMERON — STATE OF WASHINGTON — 42008 — REGISTERED PROFESSIONAL ENGINEER

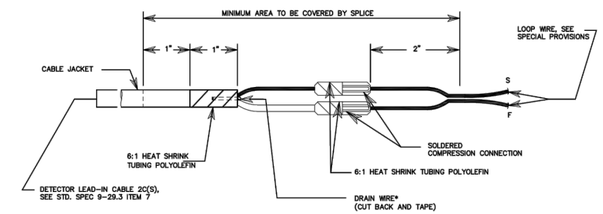
CITY OF ISSAQUAH
WASHINGTON
KING COUNTY

EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS

SIGNAL DETAILS 1

SHEET: 47
OF: 101

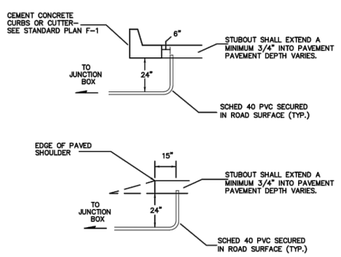
JOB NO.: 13570
DWG: SIGNAL



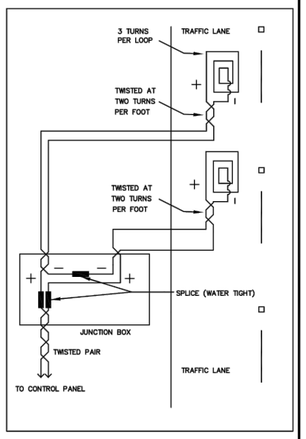
* GROUND DRAIN WIRE AT AMPLIFIER ONLY. SEE SPECIAL PROVISIONS FOR SPLICE MATERIAL.

NOTE:
SPLICE KITS SHALL BE CENTERED ON CONDUCTORS AND SUFFICIENT SLACK SHALL BE PROVIDED THAT THE SPLICE CAN BE RAISED A MINIMUM OF 18" ABOVE GROUND LINE.

SPLICE DETAIL



LOOP STUBOUT
CONDUIT PLACEMENT DETAILS



SERIES LOOPS
ELECTRICAL DETAIL

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CITY OF ISSAQUAH
PUBLIC WORKS DEPARTMENT
AUGUST 2010

EXPIRES: 12-13-2011

TRAFFIC LOOP DETAIL (SHEET 3 OF 3)

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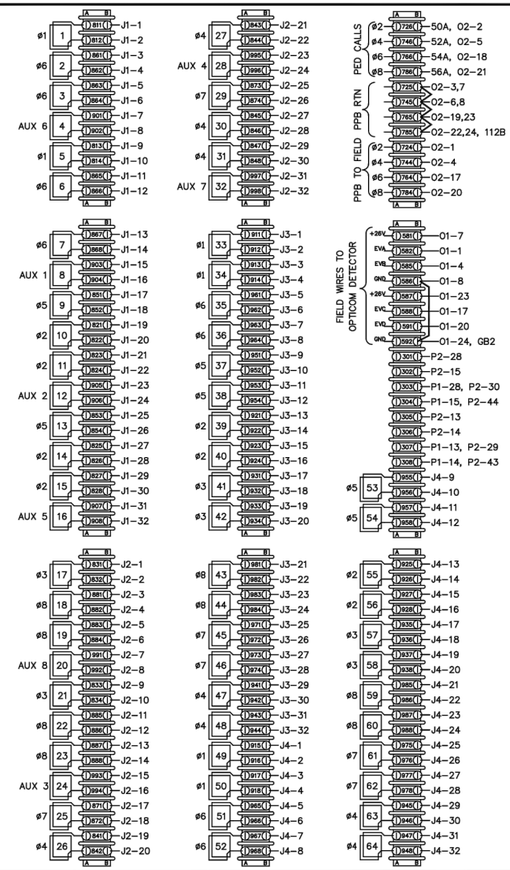
STANDARD DETAIL NO. TS-04
REV:



NO SCALE

CITY OF ISSAQUAH
PUBLIC WORKS DEPARTMENT
AUGUST 2010

EXPIRES: 12-13-2011

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LOOP DETECTION INPUT TERMINATIONS

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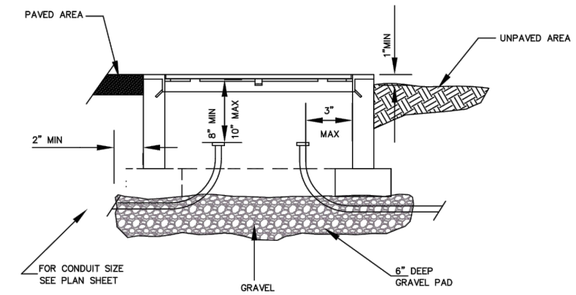
STANDARD DETAIL NO. TS-05
REV:



TYP J-BOX INSTALLATION

NOTES:

1. ALL DIMENSIONS ARE MINIMUM. EXACT CONFIGURATIONS VARY AMONG DIFFERENT MANUFACTURERS.
2. THE NOTED LID THICKNESSES ARE OVERALL MINIMUMS. THE DIAMOND PATTERN FOR TYPE 1 OR TYPE 2 BOXES SHALL BE 28% MINIMUM OF OVERALL THICKNESS. THE DIAMOND PATTERN FOR TYPE 8 BOXES SHALL BE 3/32" MINIMUM THICK.
3. LID SUPPORT MEMBERS SHALL BE WELDED TO FRAME.
4. 4000 PSI CONCRETE IS ALLOWED IF BOX REINFORCEMENT CONSISTS OF 6x6 – W3xW3 WELDED WIRE FABRIC WELDED TO THE FRAME.
5. WHEN NOTED IN THE CONTRACT TYPE 2 AND TYPE 8 BOXES SHALL BE PROVIDED WITH 12" DEEP EXTENSION BOXES.
6. WHEN NOTED IN THE CONTRACT TYPE 2 BOXES SHALL BE PROVIDED WITH A 10"x27 1/2" 10 GAGE DIVIDER PLATE COMPLETE WITH FASTENERS.
7. NON CONCRETE BOXES MAY BE SUBMITTED FOR APPROVAL EVALUATION WILL INCLUDE AN H-20 LOAD TEST.
8. ALL BOXES WILL BE CITY OF ISSAQUAH ENGINEER APPROVED AND CERTIFIED.
9. LEGEND FOR TRAFFIC SIGNAL SYSTEM BOXES WILL BE "TS", AND "LT" FOR ILLUMINATION SYSTEMS. LEGEND FOR COMMUNICATIONS OR FIBER SYSTEM BOXES WILL BE "COM". LEGEND LETTERS WILL BE FORMED WITH 1/8" WELD BEAD. GRIND OFF DIAMOND PATTERN BEFORE FORMING LETTERS.
10. JUNCTION BOXES WITHIN SIDEWALK SHALL HAVE NO-SKID LIDS.

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NO SCALE

CITY OF ISSAQUAH
PUBLIC WORKS DEPARTMENT
AUGUST 2010

EXPIRES: 12-13-2011

TRAFFIC SIGNAL JUNCTION BOX DETAILS

NOTE: THE ORIGINAL IS SIGNED BY THE ENGINEER, APPROVED FOR PUBLICATION AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. TS-06
REV:

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CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: H: 1"=20' V: 1"=2'
DRAWN: R.C.
CHECKED: R.C.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

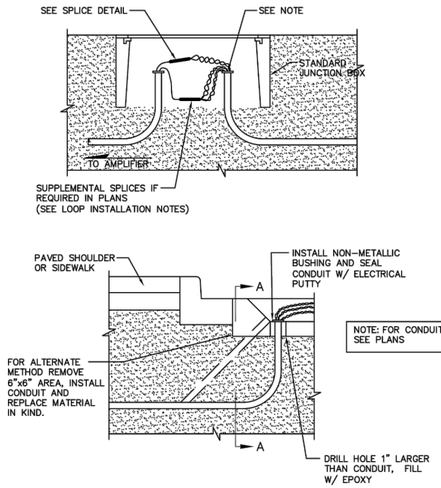
No.	REVISION	DATE	APPD

BRIAN L. SOURWINE, STATE OF WASHINGTON, 19095, REGISTERED PROFESSIONAL ENGINEER

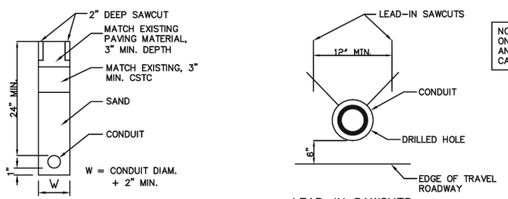
ROBERT CAMERON, STATE OF WASHINGTON, 42008, REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
WASHINGTON
KING COUNTY
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS
SIGNAL DETAILS 1

SHEET: 48
OF: 101
JOB NO.: 13570
DWG: SIGNAL



TYPICAL CONDUIT PLACEMENT FOR LOOP LEAD-IN WIRES



SECTION A-A

LEAD-IN SAWCUTS AND CONDUIT PLACEMENT DETAIL

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NO SCALE

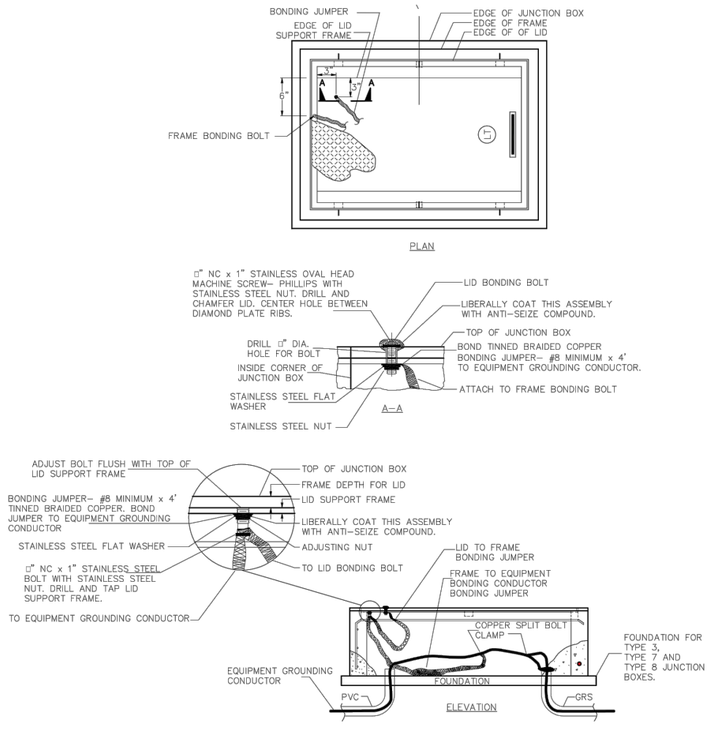
CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT AUGUST 2010

TYPICAL CONDUIT PLACEMENT FOR LOOP DETECTORS

NOTE: THE ORIGINAL IS SIGNED BY THE ENGINEER, APPROVED FOR PUBLICATION AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. TS-07

REV:



NOTES:

1. BOND LIDS TO FRAME.
2. BONDING JUMPER IS TINNED BRAIDED COPPER – #8 MINIMUM x 4 FEET.
3. BOND FRAME TO EQUIPMENT GROUNDING CONDUCTOR.

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NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT AUGUST 2010

TYPE 1,2,3,7, & 8 JUNCTION BOX EXISTING FRAME & LID BONDING DETAIL

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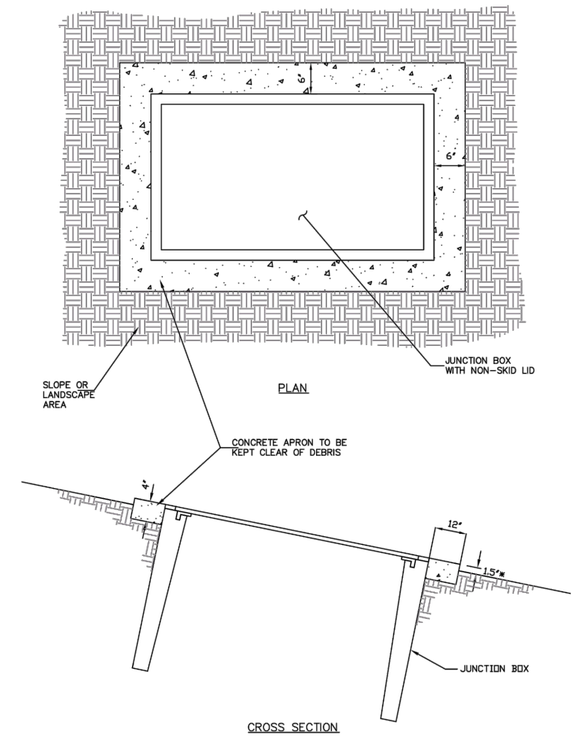
STANDARD DETAIL NO. TS-08

REV:



CROSS SECTION

* NOTE: DO NOT PROVIDE 1.5" CLEARANCE WITHIN PEDESTRIAN FACILITIES

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NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT AUGUST 2010

JUNCTION BOX ON GRADE FOR LANDSCAPE AREAS

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STANDARD DETAIL NO. TS-09

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DATE: MAR. 2015
SCALE: H: 1"=20' V: 1"=2'
DRAWN: R.C.
CHECKED: R.C.
APPROVED: B.L.S.

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No.	REVISION	DATE	APPD

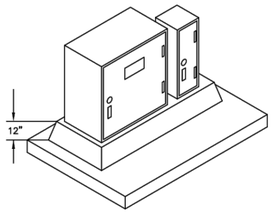
BRIAN L. SOURWINE STATE OF WASHINGTON 40096 REGISTERED PROFESSIONAL ENGINEER

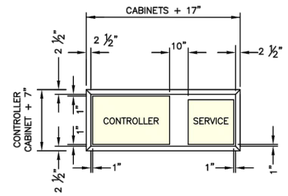
ROBERT CAMERON STATE OF WASHINGTON 42068 REGISTERED PROFESSIONAL ENGINEER

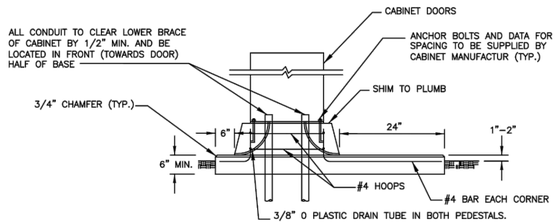
CITY OF ISSAQUAH WASHINGTON
KING COUNTY
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS
SIGNAL DETAILS 1

SHEET: 49
OF: 101

JOB NO.: 13570
DWG: SIGNAL







NOTES:

1. CABINET FOUNDATION SHALL BE CLASS 3000 AIR ENTRAINED CONCRETE.
2. WHERE CABINET FOUNDATION IS LOCATED ADJACENT TO A SIDEWALK, CONSTRUCT THE TOP FLUSH WITH SIDEWALK GRADE, OMITTING CHAMFER WHERE TOP AND SIDEWALK ABUT.
3. FOUNDATION DESIGN IS TYPICAL, CONTRACTOR SHALL UTILIZE CABINET MANUFACTURE'S SPECIFICATIONS TO ASSURE PROPER FIT OF CABINET ON BASE WITH RESPECT TO CONDUIT PLACEMENT. ENGINEER MUST APPROVE FORM WORK BEFORE PLACEMENT OF CONCRETE.
4. EXPANSION ANCHOR BOLTS (KWIK- BOLT, WEJ-IT, OR EQUAL) MAY BE USED TO FIT CABINETS TO EXISTING FOUNDATION. SILICON SEAL SHALL BE PLACED BETWEEN CABINET AND BASE.
5. SEE PLANS FOR DOOR ORIENTATION.
6. A SPARE 3"Ø CONDUIT SHALL BE INSTALLED FROM CONTROLLER CABINET TO NEAREST J-BOX.
7. A 1"Ø CONDUIT SHALL BE INSTALLED UNDER SERVICE CABINET FOR GROUND.

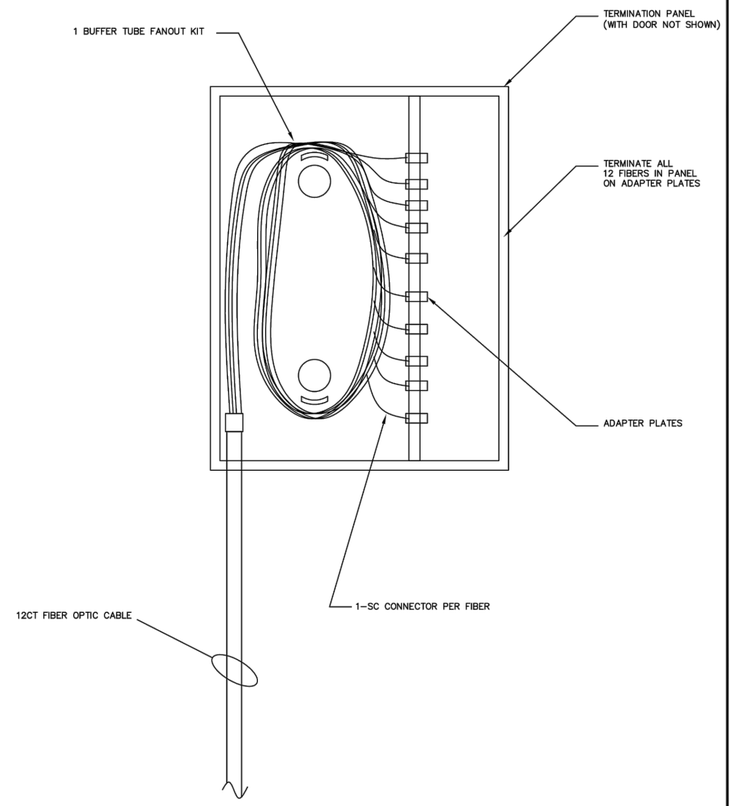
Back to Table of Contents NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT
AUGUST 2010

CABINET FOUNDATION DETAILS

NOTE: THE ORIGINAL IS SIGNED BY THE ENGINEER, APPROVED FOR PUBLICATION AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. TS-11
REV:



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CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT
AUGUST 2010

FIBER TERMINATION PANEL IN CONTROLLER CABINET

NOTE: THE ORIGINAL IS SIGNED BY THE ENGINEER, APPROVED FOR PUBLICATION AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. TS-10
REV:

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CHECKED: R.C.
APPROVED: B.L.S.

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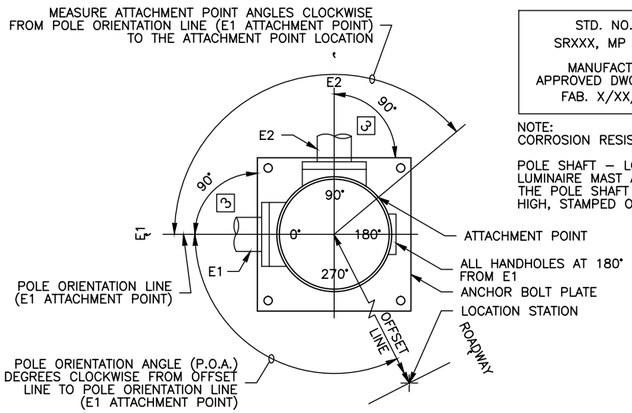
No.	REVISION	DATE	APPD

BRIAN L. SOUSANE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

RORY CAMERON — STATE OF WASHINGTON — 47008 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH WASHINGTON
KING COUNTY
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS
SIGNAL DETAILS 1

SHEET: 50
OF: 101
JOB NO.: 13570
DWG: SIGNAL



POLE ORIENTATION AND ATTACHMENT POINT DETAIL

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

SIGNAL STANDARD IDENTIFICATION TAG DETAIL

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

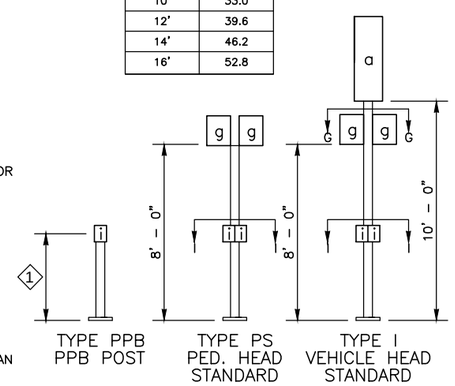
EXAMPLE

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

NOTE:
CORROSION RESISTANT METAL TAG SECURED WITH (2) 0.125" RIVETS AS FOLLOWS:

POLE SHAFT – LOCATED WITHIN 6" ABOVE HAND HOLE (TYPE II & III). SIGNAL AND LUMINAIRE MAST ARM (TYPE II & III) – LOCATED WITHIN 6" OF THE LUMINAIRE ARM AND THE POLE SHAFT CONNECTION POINT (TYPE III). TEXT SHALL BE A MINIMUM OF 3/16" HIGH, STAMPED OR EMBOSSED.

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



1. HEIGHT OF PEDESTRIAN PUSH BUTTON: 42"
2. PLACEMENT SHALL BE:
   2' – 0" MIN. FROM FACE OF CURB OR EDGE OF SHOULDER;
   3' – 0" MIN. FROM FACE OF GUARDRAIL;
   4' – 0" MIN. FROM CONC. BARRIER TYPE 2 (MEASURED FROM A POINT WHERE THE BARRIER BASE MEETS THE SHOULDER SURFACE (TOE). MEASUREMENT TAKEN FROM TRAFFIC SIDE OF BARRIER; TO FACE OF POLE
3. DMS OR VMS IS NOT ALLOWED ON THIS POLE.
4. FOR POST MOUNTED SIGNS THERE SHALL BE 2' – 0" MIN. FROM THE FACE OF THE CURB OR THE EDGE OF THE SHOULDER TO THE EDGE OF THE SIGN

LEGEND

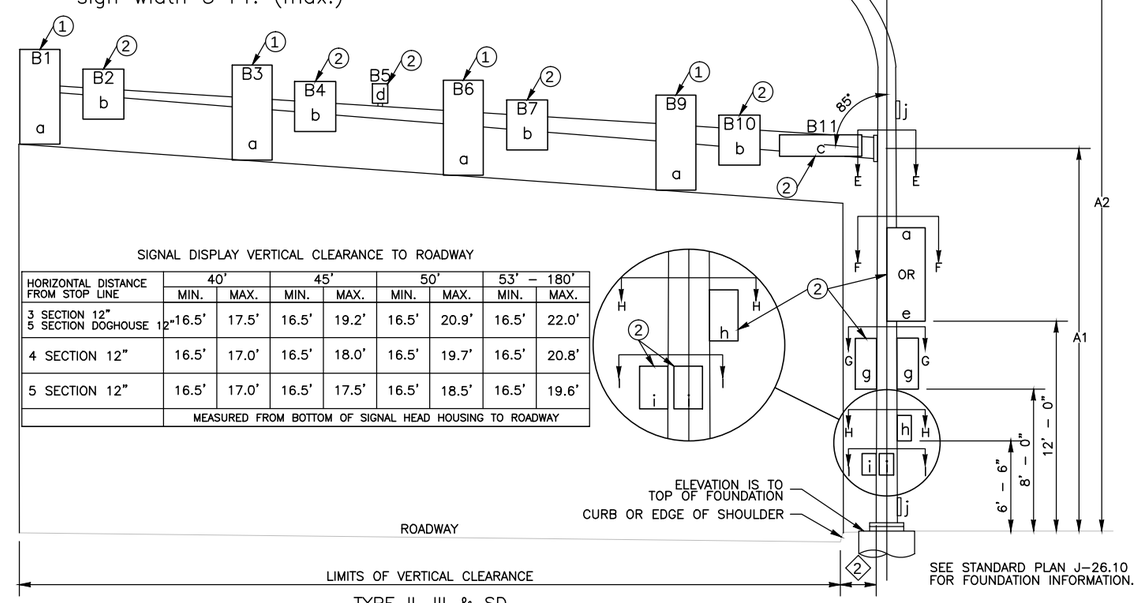
a. VEHICLE DISPLAY
b. MAST ARM MOUNTED SIGN
c. STREET NAME SIGN
d. PRE–EMPT DETECTOR
e. POST MOUNTED SIGN
f. LUMINAIRE
g. PEDESTRIAN DISPLAY
h. CABINET
i. PPB–M
j. HANDHOLE

NOTES

1. Mounting Coupling installed at offset distance indicated in chart.
2. Field installed.
   Sign b – 7.5 SQ. FT. sign area (max.) and sign height 3 FT. (max.)
   Sign c – 36 SQ. FT. sign area (max.) installed 1'–0" min. and 2'–6" max. to sign edge from centerline of the post and sign height 3 FT. (max.)
   Sign e – 15 SQ. FT. sign area (max.) and sign width 3 FT. (max.)

ALTERNATE NOTE 1 FOR TYPE N MOUNT ONLY.

1. Drill 1" diam. hole in mast arm and install plastic split bushing for cable entrance.



TYPE II, III & SD
SIGNAL STANDARD

SEE STANDARD PLAN J–26.10 FOR FOUNDATION INFORMATION.

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

SIGNAL DISPLAY VERTICAL CLEARANCE TO ROADWAY

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

STANDARD NUMBER	FIELD LOCATION						POLE	MOUNTING		OFFSET DISTANCES (FT) (Z) (POLE TO ATTACHMENT POINT)											WINDLOAD AREAS (FT^2) (XY)											CALCULATED POLE XYZ	LUMINAIRE	POLE ATTACHMENT POINT ANGLES (DEG)									FOUNDATION DESIGN XYZ	FOUNDATION DEPTH					SOIL	REMARKS
	LINE	STATION	OFFSET	LT.	RT.	ELEV. *	P.O.A.	TYPE	A1	A2	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	(FT^3) **	ARM (FT)	D	E1	E2	F	G1	G2	H	I1	I2	(FT^3)	ALTERNATE 1 3' RD.	ALTERNATE 1 3' SQ.	ALTERNATE 1 4' RD.	ALTERNATE 2 3' RD.	ALTERNATE 2 4' RD.	PSF	
1	ELSP	9+90	43.5	X			0	III	18	35	50		39		20	28					10	11.6		9.2			9.2					36	1556.4	16	0	0	N/A	N/A	90	N/A	180	0	N/A	1900	15	10	10	20	13	1000	
2	ELSP	10+05	48.5	X			0	PPB																																											
3	62ND	124+39	62	X			0	III	18	35	60*		47		36	40			32		10	9.2		11.6			9.2			9.2		36	2119.6	16	0	0	N/A	N/A	90	N/A	180	0	N/A	2300	18	11	11	25	14	1000	
4	ELSP	11+23	33	X			0	PPB																																											
5	ELSP	24+43	28	X			0	III-A	18	35	34		23		17	11					5	11.6		9.2			9.2					36	887.2	16	0	0	270	N/A	90	N/A	180	0	N/A	900	10	8	8	10	8	1000	
6	ELSP	24+43	28	X			0	III-B	18				25		20	13					3			9.2			11.6					36	488.8																			
7	ELSP	24+78	31	X			0	PS																											0	0	N/A	N/A	90	N/A	180	0	N/A							1000	
8																																																			

* ELEVATION IS TO TOP OF FOUNDATION. FIELD VERIFY ELEVATION PRIOR TO ORDERING SIGNAL STANDARDS.

** CALCULATED POLE X Y Z (ft)³ IS THE SUM OF THE TOTAL X Y Z (ft)³ FOR THE SIGNAL ARM AND THE X Y Z (ft) FOR THE LUMINAIRE ARM (IF PRESENT)

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: H:1"=20' V:1"=2'
DRAWN: R.C.
CHECKED: R.C.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

BRIAN L. SOURBEINE, STATE OF WASHINGTON, 36091, REGISTERED PROFESSIONAL ENGINEER

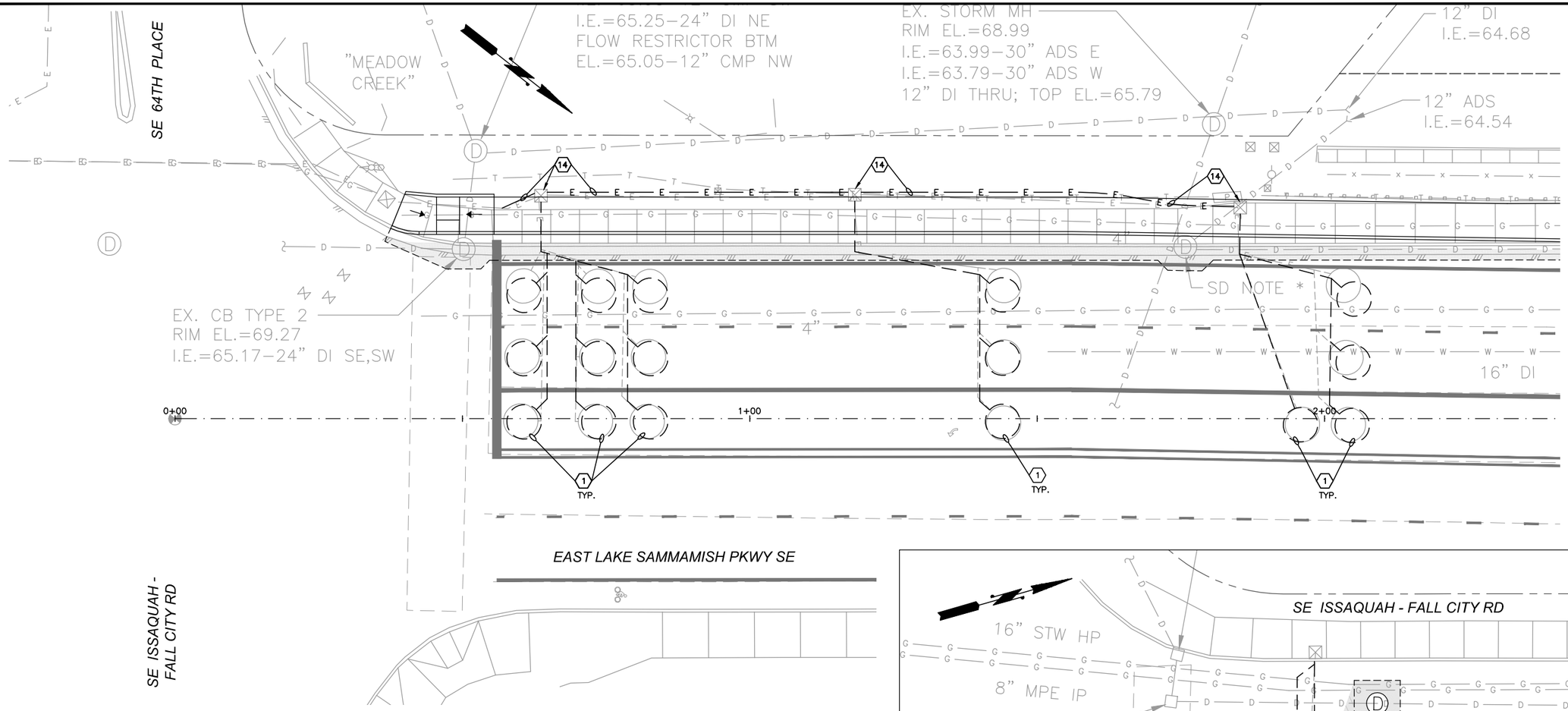
ROY A. CAMERON, STATE OF WASHINGTON, 42008, REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
WASHINGTON
KING COUNTY
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS

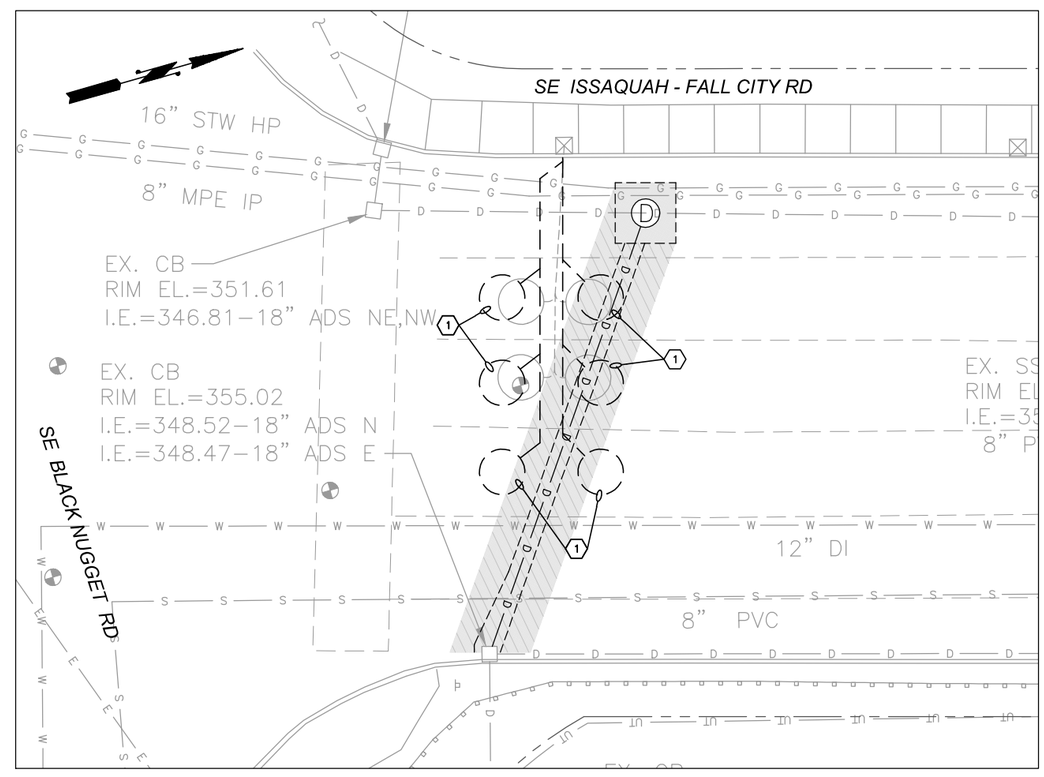
SIGNAL STANDARD

SHEET: 51
OF: 101

JOB NO.: 13570
DWG: SIGNAL



SIGNAL LOOPS REPAIR
(EAST LAKE SAMMAMISH PKWY SE / SE ISSAQUAH-FALL CITY ROAD INTERSECTION)
SCALE: 1"=10'



SIGNAL LOOPS REPAIR
(SE ISSAQUAH-FALL CITY ROAD / SE BLACK NUGGET ROAD INTERSECTION)
SCALE: 1"=10'

TRAFFIC SIGNAL CONSTRUCTION NOTES

1. CONTRACTOR SHALL PROVIDE AND INSTALL ROUND TRAFFIC DETECTOR LOOP PER CITY OF ISSAQUAH STANDARD PLAN TS-02 AND TS-03..
14. CONTRACTOR SHALL PROTECT AND MAINTAIN EXISTING JUNCTION BOX. SPLICE NEW CONDUIT TO EXISTING, OR INSTALL NEW CONDUIT AS REQUIRED.

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.B.W.
CHECKED: R.C.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

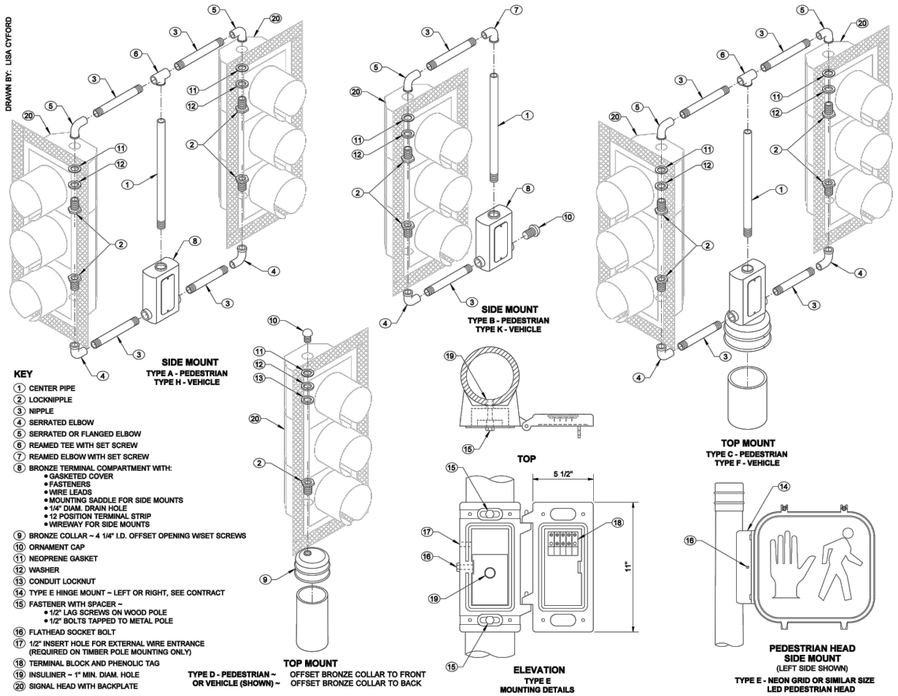
BRIAN L. SOURWINE — STATE OF WASHINGTON — 19006 — REGISTERED PROFESSIONAL ENGINEER

ROBERT CAMERON — STATE OF WASHINGTON — 42008 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
WASHINGTON
KING COUNTY
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS
TRAFFIC DETECTION LOOPS REPAIR

SHEET: 52
OF: 101
JOB NO.: 13570
DWG: SIG_DETAILS

DRAWN BY: LISA CYFORD



KEY

1. CENTER PIPE
2. LOCKNIPPLE
3. NIPPLE
4. SERRATED ELBOW
5. SERRATED OR FLANGED ELBOW
6. REAMED TEE WITH SET SCREW
7. REAMED ELBOW WITH SET SCREW
8. BRONZE TERMINAL COMPARTMENT WITH:
   - GASKETED COVER
   - FASTENERS
   - WIRE LEADS
   - MOUNTING SADDLE FOR SIDE MOUNTS
   - 1/4" DIAM. DRAIN HOLE
   - 12 POSITION TERMINAL STRIP
   - WIREWAY FOR SIDE MOUNTS
9. BRONZE COLLAR ~ 4 1/4" I.D. OFFSET OPENING WISET SCREWS
10. ORNAMENT CAP
11. NEOPRENE GASKET
12. WASHER
13. CONDUIT LOCKNUT
14. TYPE E HINGE MOUNT ~ LEFT OR RIGHT, SEE CONTRACT
15. FASTENER WITH SPACER ~
    - 1/2" LAG SCREWS ON WOOD POLE
    - 1/2" BOLTS TAPPED TO METAL POLE
16. FLATHEAD SOCKET BOLT
17. 1/2" INSERT HOLE FOR EXTERNAL WIRE ENTRANCE (REQUIRED ON TIMBER POLE MOUNTING ONLY)
18. TERMINAL BLOCK AND PHENOLIC TAG
19. INSULINER ~ 1" MIN. DIAM. HOLE
20. SIGNAL HEAD WITH BACKPLATE

NOTES

1. See Contract for head type, mounting height, and orientation.
2. All nipples, fittings, and center pipes shall be 1 1/2" diameter.
3. Install neoprene gasket inside head when flanged elbows are supplied.
4. Extend wire sheath a minimum of 1" inside all signal and sign housings and terminal compartments.
5. Apply bead of silicone to the serrated ring and around the perimeter of all top openings prior to installation of fittings.
6. Back plates shall be constructed of anodized aluminum and shall be mounted with stainless steel hardware. A 2-inch-wide strip of yellow retro-reflective, type IV prismatic sheeting, conforming to the requirements of **Standard Specification 9-28.12**, shall be applied in accordance with the manufacturer's recommendations. The application surface of the back plate shall be cleaned, degreased with isopropyl alcohol, and dried prior to application of the sheeting. See **Standard Specification 9-29.16(2)D.**
7. Drill a 1/4" drain hole in the bottom of each signal assembly, and one in the bottom of each pedestrian head. When signal assembly is mounted horizontally, drill a 1/4" drain hole at the lowest point of each section of the signal assembly.

JOHN C. NISBET — STATE OF WASHINGTON — 29918 — REGISTERED PROFESSIONAL ENGINEER

SIGNAL HEAD MOUNTING DETAILS ~ POLE AND POST TOP MOUNTINGS

STANDARD PLAN J-75.10-01

SHEET 1 OF 1 SHEET

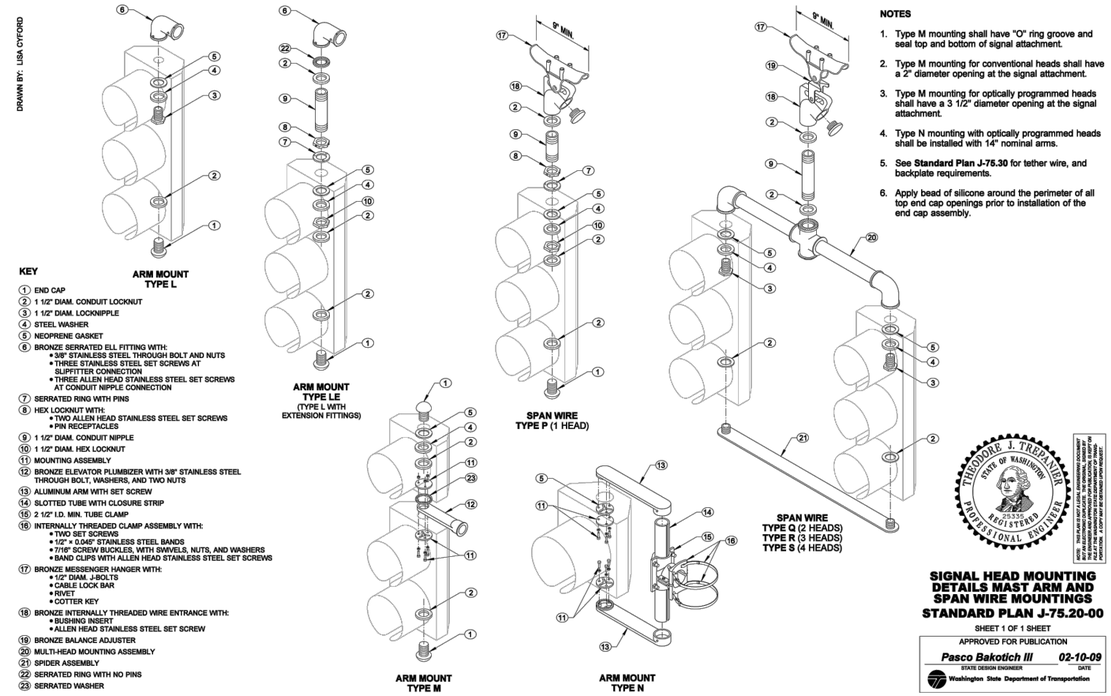
APPROVED FOR PUBLICATION

Pasco Bakotich III 05-11-11

STATE DESIGN ENGINEER — DATE

Washington State Department of Transportation

DRAWN BY: LISA CYFORD



KEY

1. END CAP
2. 1 1/2" DIAM. CONDUIT LOCKNUT
3. 1 1/2" DIAM. LOCKNIPPLE
4. STEEL WASHER
5. NEOPRENE GASKET
6. BRONZE SERRATED ELL FITTING WITH:
   - 3/8" STAINLESS STEEL THROUGH BOLT AND NUTS
   - THREE STAINLESS STEEL SET SCREWS AT SUPFITTER CONNECTION
   - THREE ALLEN HEAD STAINLESS STEEL SET SCREWS AT CONDUIT NIPPLE CONNECTION
7. SERRATED RING WITH PINS
8. HEX LOCKNUT WITH:
   - TWO ALLEN HEAD STAINLESS STEEL SET SCREWS
   - PIN RECEPTACLES
9. 1 1/2" DIAM. CONDUIT NIPPLE
10. 1 1/2" DIAM. HEX LOCKNUT
11. MOUNTING ASSEMBLY
12. BRONZE ELEVATOR PLUMBIZER WITH 3/8" STAINLESS STEEL THROUGH BOLT, WASHERS, AND TWO NUTS
13. ALUMINUM ARM WITH SET SCREW
14. SLOTTED TUBE WITH CLOSURE STRIP
15. 2 1/2" I.D. MIN. TUBE CLAMP
16. INTERNALLY THREADED CLAMP ASSEMBLY WITH:
    - TWO SET SCREWS
    - 1/2" × 0.045" STAINLESS STEEL BANDS
    - 7/16" SCREW BUCKLES, WITH SWIVELS, NUTS, AND WASHERS
    - BAND CLIPS WITH ALLEN HEAD STAINLESS STEEL SET SCREWS
17. BRONZE MESSENGER HANGER WITH:
    - 1/2" DIAM. J-BOLTS
    - CABLE LOCK BAR
    - RIVET
    - COTTER KEY
18. BRONZE INTERNALLY THREADED WIRE ENTRANCE WITH:
    - BUSHING INSERT
    - ALLEN HEAD STAINLESS STEEL SET SCREW
19. BRONZE BALANCE ADJUSTER
20. MULTI-HEAD MOUNTING ASSEMBLY
21. SPIDER ASSEMBLY
22. SERRATED RING WITH NO PINS
23. SERRATED WASHER

NOTES

1. Type M mounting shall have "O" ring groove and seal top and bottom of signal attachment.
2. Type M mounting for conventional heads shall have a 2" diameter opening at the signal attachment.
3. Type M mounting for optically programmed heads shall have a 3 1/2" diameter opening at the signal attachment.
4. Type N mounting with optically programmed heads shall be installed with 14" nominal arms.
5. See **Standard Plan J-75.30** for tether wire, and backplate requirements.
6. Apply bead of silicone around the perimeter of all top end cap openings prior to installation of the end cap assembly.

THEODORE J. TREANOR — STATE OF WASHINGTON — 29335 — REGISTERED PROFESSIONAL ENGINEER

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SIGNAL HEAD MOUNTING DETAILS MAST ARM AND SPAN WIRE MOUNTINGS

STANDARD PLAN J-75.20-00

SHEET 1 OF 1 SHEET

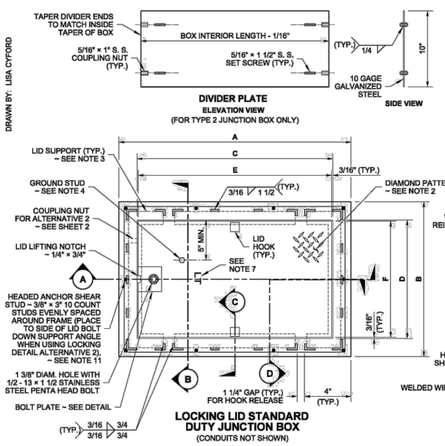
APPROVED FOR PUBLICATION

Pasco Bakotich III 02-10-09

STATE DESIGN ENGINEER — DATE

Washington State Department of Transportation

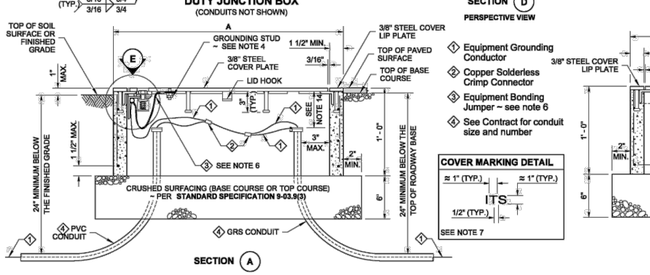
DRAWN BY: LISA CYFORD

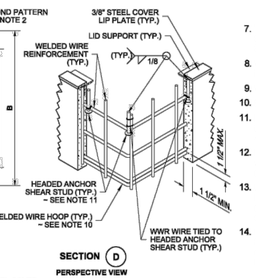


JUNCTION BOX DIMENSION TABLE			
MARK	ITEM	BOX TYPE	
		TYPE 1	TYPE 2
A	OUTSIDE LENGTH OF JUNCTION BOX	22"	33"
B	OUTSIDE WIDTH OF JUNCTION BOX	17"	22 1/2"
C	INSIDE LENGTH OF JUNCTION BOX	18" ~ 19"	28" ~ 29"
D	INSIDE WIDTH OF JUNCTION BOX	13" ~ 14"	17" ~ 18"
E	LID LENGTH	17 5/8"	28 5/8"
F	LID WIDTH	12 5/8"	18 1/8"
	CAPACITY ~ CONDUIT DIAMETER	6"	12"

NOTES

1. All box dimensions are approximate. Exact configurations vary among manufacturers.
2. Minimum lid thickness shown. The diamond pattern shall be a minimum of 28% of the overall thickness. Junction Boxes installed in sidewalks, walkways, and shared-use paths shall have a slip-resistant coating on the lid and lip cover plate, and shall be installed with the surface flush with and matched to the grade of the sidewalk, walkway, or shared-use path. The non-slip lid shall be identified with permanent markings on the underside, indicating the type of surface treatment (see Contract Documents for details) and the year of manufacture. The permanent marking shall be 1/8" inch line thickness formed with a stainless steel weld bead and shall be placed prior to hot-dip galvanizing.
3. Lid support members shall be 3/16" minimum thick steel C, L, or T shape, welded to the frame.
4. A 1/4-20 NC × 3/4" stainless steel ground stud shall be welded to the bottom of the lid; include (2) stainless steel nuts and (2) stainless steel flat washers.
5. Bolts and nuts shall be liberally coated with anti-seize compound.
6. Equipment Bonding Jumper shall be # 8 AWG min. × 4' of tinned braided copper.
7. The System Identification letters shall be 1/8" line thickness formed by engraving, stamping, or with a S. S. weld bead. See Cover Marking detail. Grind off diamond pattern before forming letters. For System Identification details, see **Standard Specification 9-29.2(4).**
8. When required in the Contract, provide a 10" × 27 1/2", 10 gage divider plate, complete, with fasteners, in each Type 2 Junction Box where specified.
9. When required in Contract, provide a 12" deep extension for each Type 2 Junction Box where specified.
10. See the Standard Specifications for alternative reinforcement and class of concrete.
11. Headed Anchor Shear Studs must be welded to the Steel Cover Lip Plate and wire tied in two places to the vertical Welded Reinforcement Wire when in contact with each other. Wire tie all other Headed Anchor Shear Studs to the horizontal Welded Reinforcement Wire.
12. Lid Bolt Down Attachment Tab provides a method of retrofitting by using a mechanical process in lieu of welding. Attachment Tab shown depicts a typical component arrangement; actual configurations of assembly will vary among manufacturers. See approved manufacturers' shop drawings for specifics.
13. Unless otherwise noted in the plans or approved by the Engineer, Junction Boxes, Cable Vaults, and Pull Boxes shall not be placed within the sidewalks, walkways, shared use paths, traveled ways or paved shoulders. All Junction Boxes, Cable Vaults, and Pull Boxes placed within the traveled way or paved shoulders shall be Heavy-Duty.
14. Distance between the top of the conduit and the bottom of the Junction Box lid shall be 6" min. to 8" max. for final grade of new construction only. See **Standard Specification 8-20.3(5).** Where adjustments are to be made to existing Junction Boxes, or for interim construction stages during the contract, the limits shall be from 6" min. to 10" max. See **Standard Specification 8-20.3(6).**

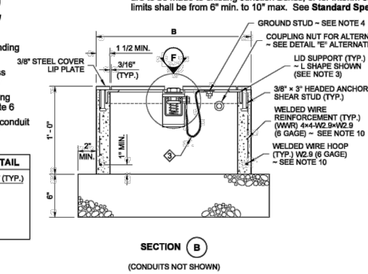




1. Equipment Grounding Conductor
2. Copper Solderless Crimp Connector
3. Equipment Bonding Jumper ~ see note 6
4. See Contract for conduit size and number

COVER MARKING DETAIL

≈ 1" (TYP.) ≈ 1" (TYP.)
ITS
1/2" (TYP.)
SEE NOTE 7



JOSEPH BAILEY — STATE OF WASHINGTON — 39920 — REGISTERED PROFESSIONAL ENGINEER

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LOCKING LID STANDARD DUTY JUNCTION BOX TYPES 1 & 2

STANDARD PLAN J-40.10-03

SHEET 1 OF 2 SHEETS

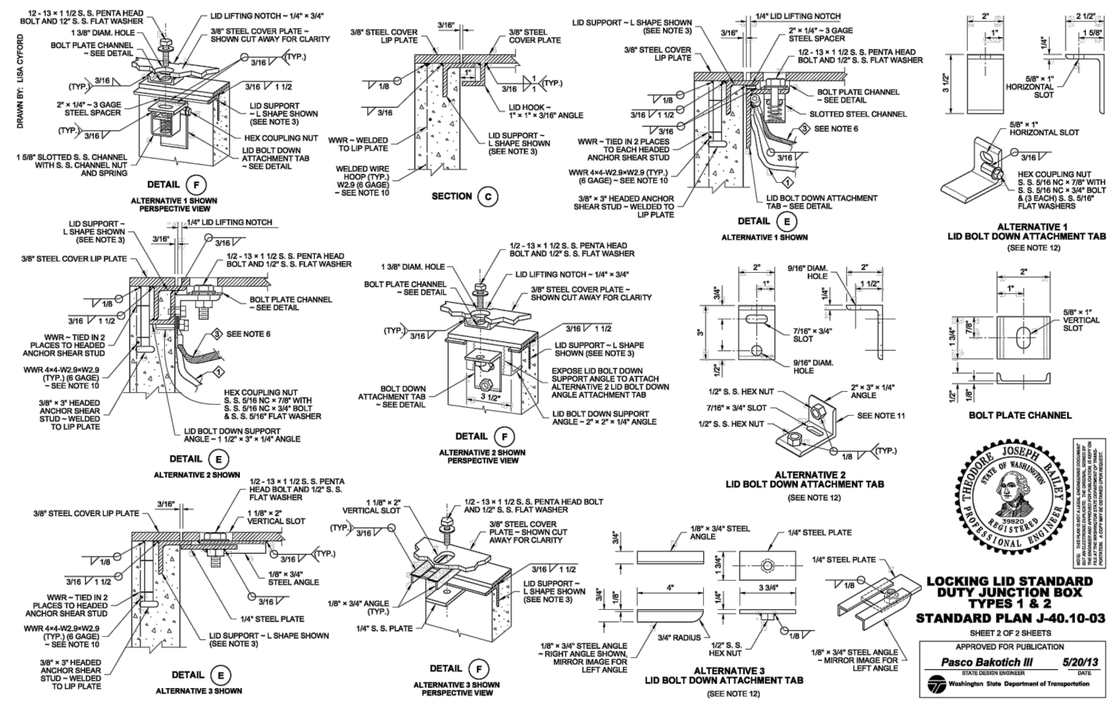
APPROVED FOR PUBLICATION

Pasco Bakotich III 5/20/13

STATE DESIGN ENGINEER — DATE

Washington State Department of Transportation

DRAWN BY: LISA CYFORD



THEODORE JOSEPH BAILEY — STATE OF WASHINGTON — 39920 — REGISTERED PROFESSIONAL ENGINEER

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LOCKING LID STANDARD DUTY JUNCTION BOX TYPES 1 & 2

STANDARD PLAN J-40.10-03

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION

Pasco Bakotich III 5/20/13

STATE DESIGN ENGINEER — DATE

Washington State Department of Transportation

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015	
SCALE: AS NOTED	
DRAWN: C.B.W.	
CHECKED: R.C.	
APPROVED: B.L.S.	

PRELIMINARY
NOT FOR
CONSTRUCTION

No.	REVISION	DATE	APPD

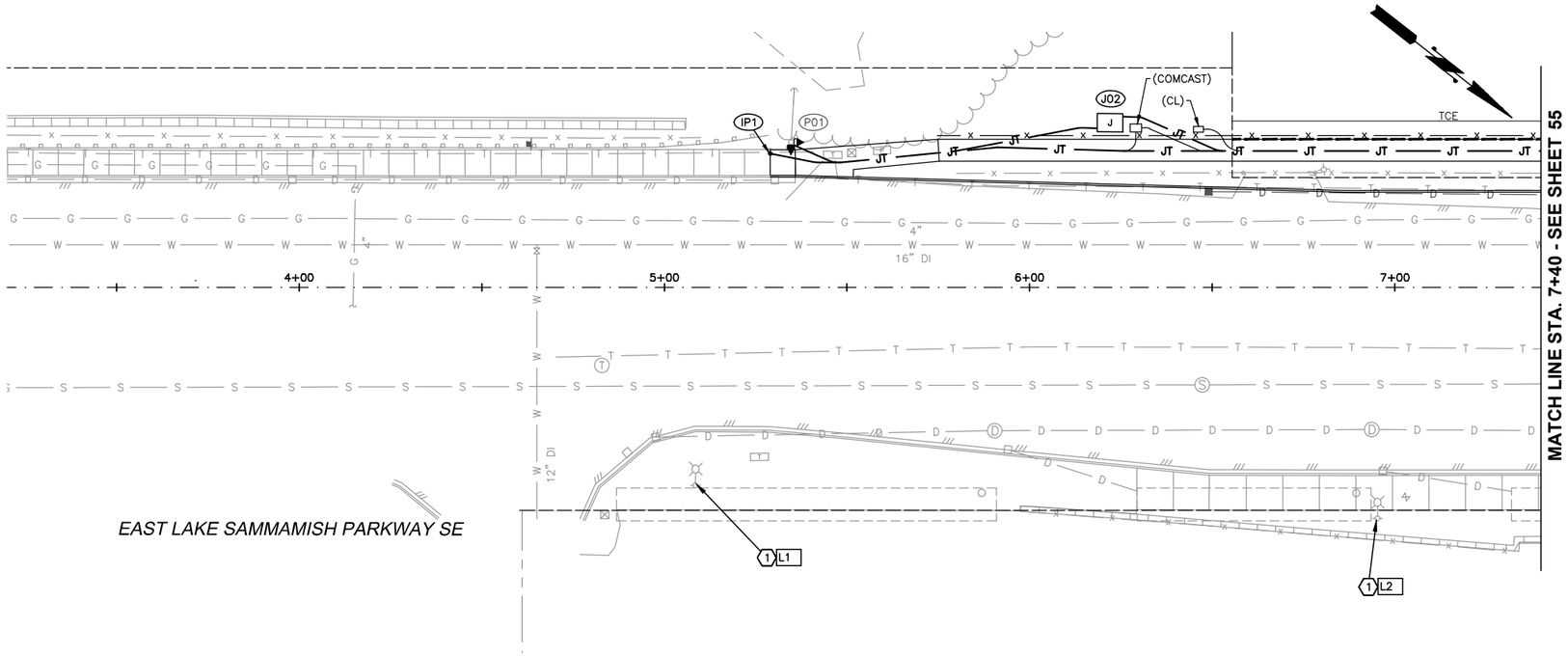
BRIAN L. SOLIMAINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

ROY A. CAMERON — STATE OF WASHINGTON — 20208 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING COUNTY WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE
IMPROVEMENTS
ADDITIONAL SIGNAL DETAILS

SHEET: 53
OF: 101

JOB NO.: 13570
DWG: SIG_DETAILS



20' 10' 0 20' 40'

ILLUMINATION CONSTRUCTION NOTES

1. CONTRACTOR SHALL REMOVE AND WASTEHAUL THE EXISTING HPS COBRAHEAD. CONTRACTOR SHALL FURNISH AND INSTALL TO EXISTING LUMINAIRE ARM AUTOBAHN SERIES 80B ATB2 SERIES 284W LED 1A TYPE 3 4000K CCT FIXTURE.
2. CONTRACTOR SHALL REMOVE AND WASTEHAUL THE EXISTING HPS COBRAHEAD. CONTRACTOR SHALL FURNISH AND INSTALL TO EXISTING LUMINAIRE ARM AUTOBAHN SERIES 40B ATB2 SERIES 146W LED 1A TYPE 3 4000K CCT FIXTURE.
3. CONTRACTOR SHALL REMOVE AND WASTEHAUL THE EXISTING HPS COBRAHEAD. CONTRACTOR SHALL FURNISH AND INSTALL TO EXISTING LUMINAIRE ARM AUTOBAHN SERIES 60B ATB2 SERIES 216W LED 1A TYPE 3 4000K CCT FIXTURE.
4. CONTRACTOR SHALL FURNISH AND INSTALL STREET LIGHT TUBE FOR DIRECT BURY POLE PER STREET LIGHT TUBE INSTALLATION DETAIL ON SHEET 60. CONTRACTOR SHALL COORDINATE WITH INTOLIGHT FOR INSTALLATION OF 15' DIRECT BURY POLE AND KING K584 TYPE III 75 WATT 8000 SERIES LED DRIVER ENGINE FIXTURE.
5. SEE SIGNAL PLAN FOR LIGHTING DETAILS.
6. CONTRACTOR SHALL FURNISH AND INSTALL TYPE A FOUNDATION PER WSDOT STD. PLAN J-28.30-03 ON SHEET 61. CONTRACTOR SHALL FURNISH AND INSTALL 35' WSDOT LIGHTING STANDARD POLE AND 12' TYPE 1 ARM PER WSDOT STD. PLAN J-28.10-01 ON SHEET 61, AND AUTOBAHN SERIES 40B ATB2 SERIES 146W LED 1A TYPE 3 4000K CCT FIXTURE.
7. CONTRACTOR SHALL FURNISH AND INSTALL TYPE A FOUNDATION PER WSDOT STD. PLAN J-28.30-03 ON SHEET 61. CONTRACTOR SHALL RELOCATE EXISTING LUMINAIRE POLE AND ARM TO NEW FOUNDATION WITH NEW AUTOBAHN SERIES 80B ATB2 SERIES 284W LED 1A TYPE 3 4000K CCT FIXTURE, OR EQUIVALENT. CONTRACTOR SHALL REMOVE EXISTING FOUNDATION'S CONCRETE, ANCHOR BOLTS, AND REBAR TO 6" BELOW EXISTING GRADE.
8. CONTRACTOR SHALL FURNISH AND INSTALL TYPE A FOUNDATION PER WSDOT STD. PLAN J-28.30-03 ON SHEET 61. CONTRACTOR SHALL PROVIDE AND INSTALL 35' WSDOT LIGHTING STANDARD POLE AND 12' TYPE 1 ARM PER WSDOT STD. PLAN J-28.10-01 ON SHEET 61, AND AUTOBAHN SERIES 80B ATB2 SERIES 284W LED 1A TYPE 3 4000K CCT FIXTURE.
9. CONTRACTOR SHALL FURNISH AND INSTALL PROPOSED CONDUIT AND WIRING INTO EXISTING JUNCTION BOX, AND MAKE ALL CONNECTIONS TO EXISTING ILLUMINATION CIRCUIT.

LUMINAIRE SCHEDULE

POLE NUMBER	STATION	OFFSET	MOUNT HEIGHT	POLE TYPE	FIXTURE TYPE	FOUNDATION TYPE	ILLUMINATION CIRCUIT NO.	NOTES
L1	5+08.50	(54.00' RT)	EXISTING	EXISTING	AUTOBAHN 80B	EXISTING		REPLACE EXISTING FIXTURE AS NOTED
L2	6+95.00	(63.00' RT)	EXISTING	EXISTING	AUTOBAHN 80B	EXISTING		REPLACE EXISTING FIXTURE AS NOTED

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: H: 1"=20'
DRAWN: B.J.B.
CHECKED: R.C.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

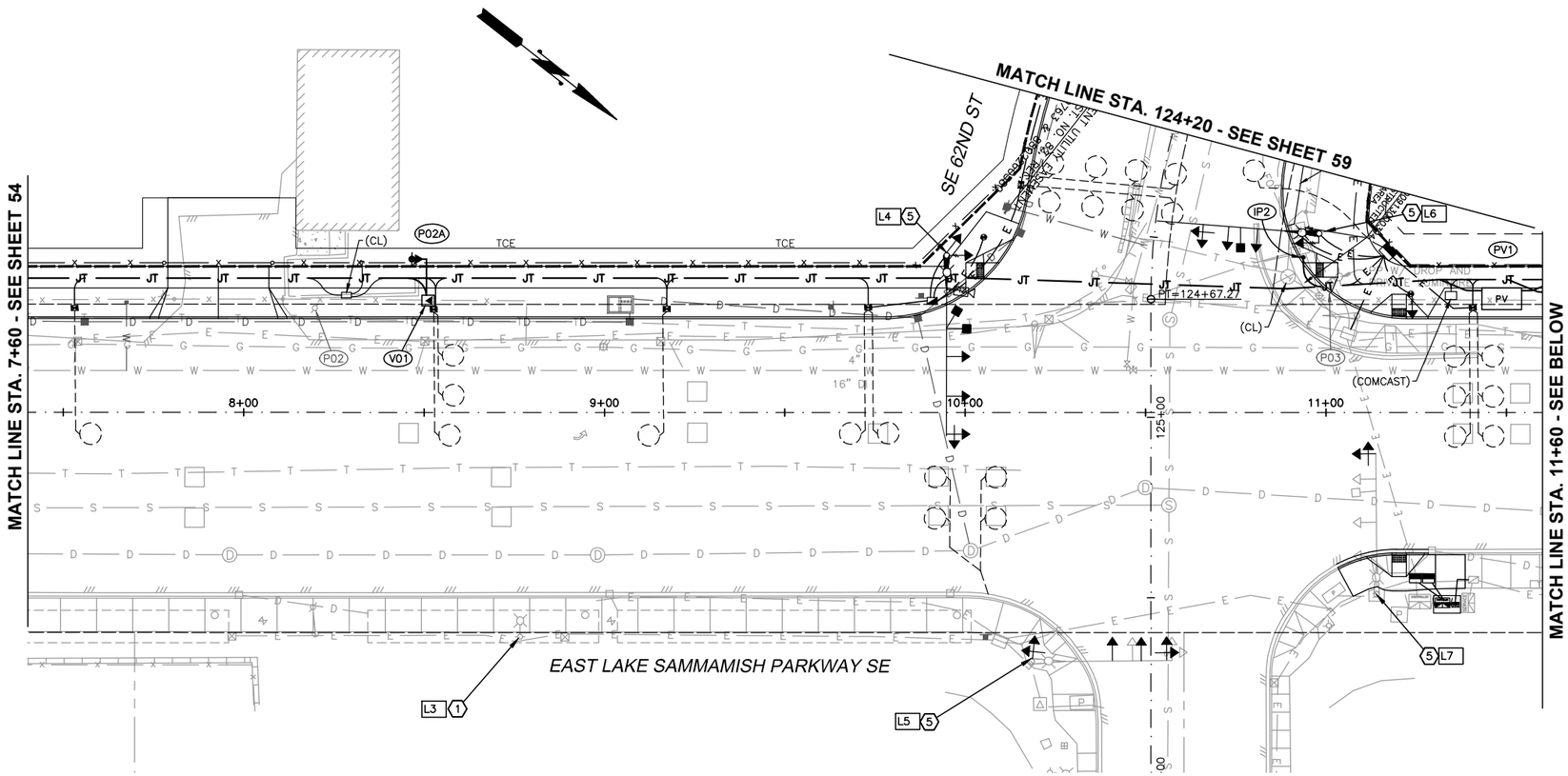
No.	REVISION	DATE	APPD

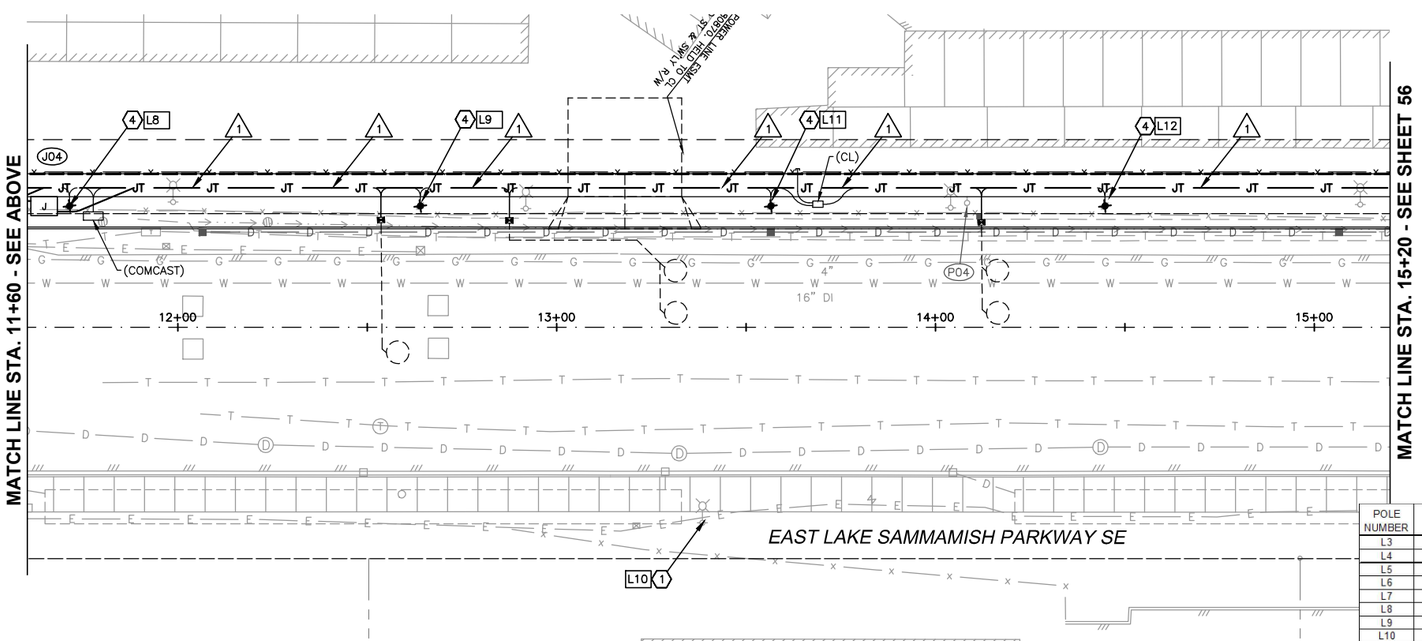
BRIAN L. SOUSANE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

RORY CAMERON — STATE OF WASHINGTON — 47008 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
WASHINGTON
KING COUNTY
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS
ILLUMINATION AND UTILITY UNDERGROUNDING PLAN

SHEET: 54
OF: 101
JOB NO.: 13570
DWG: ILLUMINATION





20' 10' 0 20' 40'

ILLUMINATION CONSTRUCTION NOTES

1. CONTRACTOR SHALL REMOVE AND WASTEHAUL THE EXISTING HPS COBRAHEAD. CONTRACTOR SHALL FURNISH AND INSTALL TO EXISTING LUMINAIRE ARM AUTOBAHN SERIES 80B ATB2 SERIES 284W LED 1A TYPE 3 4000K CCT FIXTURE.
2. CONTRACTOR SHALL REMOVE AND WASTEHAUL THE EXISTING HPS COBRAHEAD. CONTRACTOR SHALL FURNISH AND INSTALL TO EXISTING LUMINAIRE ARM AUTOBAHN SERIES 40B ATB2 SERIES 146W LED 1A TYPE 3 4000K CCT FIXTURE.
3. CONTRACTOR SHALL REMOVE AND WASTEHAUL THE EXISTING HPS COBRAHEAD. CONTRACTOR SHALL FURNISH AND INSTALL TO EXISTING LUMINAIRE ARM AUTOBAHN SERIES 60B ATB2 SERIES 216W LED 1A TYPE 3 4000K CCT FIXTURE.
4. CONTRACTOR SHALL FURNISH AND INSTALL STREET LIGHT TUBE FOR DIRECT BURY POLE PER STREET LIGHT TUBE INSTALLATION DETAIL ON SHEET 60. CONTRACTOR SHALL COORDINATE WITH INTOLIGHT FOR INSTALLATION OF 15' DIRECT BURY POLE AND KING K584 TYPE III 75 WATT 8000 SERIES LED DRIVER ENGINE FIXTURE.
5. SEE SIGNAL PLAN FOR LIGHTING DETAILS.
6. CONTRACTOR SHALL FURNISH AND INSTALL TYPE A FOUNDATION PER WSDOT STD. PLAN J-28.30-03 ON SHEET 61. CONTRACTOR SHALL FURNISH AND INSTALL 35' WSDOT LIGHTING STANDARD POLE AND 12' TYPE 1 ARM PER WSDOT STD. PLAN J-28.10-01 ON SHEET 61, AND AUTOBAHN SERIES 40B ATB2 SERIES 146W LED 1A TYPE 3 4000K CCT FIXTURE.
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9. CONTRACTOR SHALL FURNISH AND INSTALL PROPOSED CONDUIT AND WIRING INTO EXISTING JUNCTION BOX, AND MAKE ALL CONNECTIONS TO EXISTING ILLUMINATION CIRCUIT.

WIRE SCHEDULE

△	RACEWAY		POWER	POWER	POWER	ACTUAL	26%	CIRCUIT	
	CONDUIT SIZE	GROUND				FILL	FILL		NOTES
RUN #	SCHEDULE 80 PVC	#8	#8	#4	#2	(IN)	(IN)		
1	2"	1				0.06	0.75		CONTRACTOR WILL TRENCH,PLACE CONDUIT, AND BACKFILL. PSE WILL SUPPLY AND INSTALL CONDUCTOR
2	2"	1	2			0.17	0.75		CONNECT TO EXISTING ILLUMINATION CIRCUIT
3	2"	1	2			0.17	0.75		CONTRACTOR WILL TRENCH,PLACE CONDUIT, PULL WIRE AND BACKFILL

ALL CONDUITS SHALL HAVE PULL CORDS

LUMINAIRE SCHEDULE

POLE NUMBER	STATION	OFFSET	MOUNT HEIGHT	POLE TYPE	FIXTURE TYPE	FOUNDATION TYPE	ILLUMINATION CIRCUIT NO.	NOTES
L3	8+76.00	(62.00' RT)	EXISTING	EXISTING	AUTOBAHN 80B	EXISTING		REPLACE EXISTING FIXTURE AS NOTED
L4	9+95.00	(43.50' LT)	35'	SEE SIGNAL PLAN	AUTOBAHN 80B	SEE SIGNAL PLAN		SEE SIGNAL PLAN
L5	10+18.00	(69.00' RT)	EXISTING	EXISTING	AUTOBAHN 80B	EXISTING		REPLACE EXISTING FIXTURE AS NOTED
L6	10+98.00	(49.50' LT)	35'	SEE SIGNAL PLAN	AUTOBAHN 80B	SEE SIGNAL PLAN		SEE SIGNAL PLAN
L7	11+14.00	(50.50' RT)	EXISTING	EXISTING	AUTOBAHN 80B	EXISTING		REPLACE EXISTING FIXTURE AS NOTED
L8	11+72.00	(28.00' LT)	15'	FIBERGLASS	KING K584	DIRECT BURY		INTOLIGHT SUPPLIED FIXTURE AND POLE
L9	12+64.00	(32.00' LT)	15'	FIBERGLASS	KING K584	DIRECT BURY		INTOLIGHT SUPPLIED FIXTURE AND POLE
L10	13+34.00	(51.50' RT)	EXISTING	EXISTING	AUTOBAHN 80B	EXISTING		REPLACE EXISTING FIXTURE AS NOTED
L11	13+56.50	(32.00' LT)	15'	FIBERGLASS	KING K584	DIRECT BURY		INTOLIGHT SUPPLIED FIXTURE AND POLE
L12	14+45.00	(32.00' LT)	15'	FIBERGLASS	KING K584	DIRECT BURY		INTOLIGHT SUPPLIED FIXTURE AND POLE

Gray & Osborne, Inc.
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SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
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DRAWN: B.J.B.
CHECKED: R.C.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

BRIAN L. SOUSSINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

RORY CAMERON — STATE OF WASHINGTON — 47008 — REGISTERED PROFESSIONAL ENGINEER

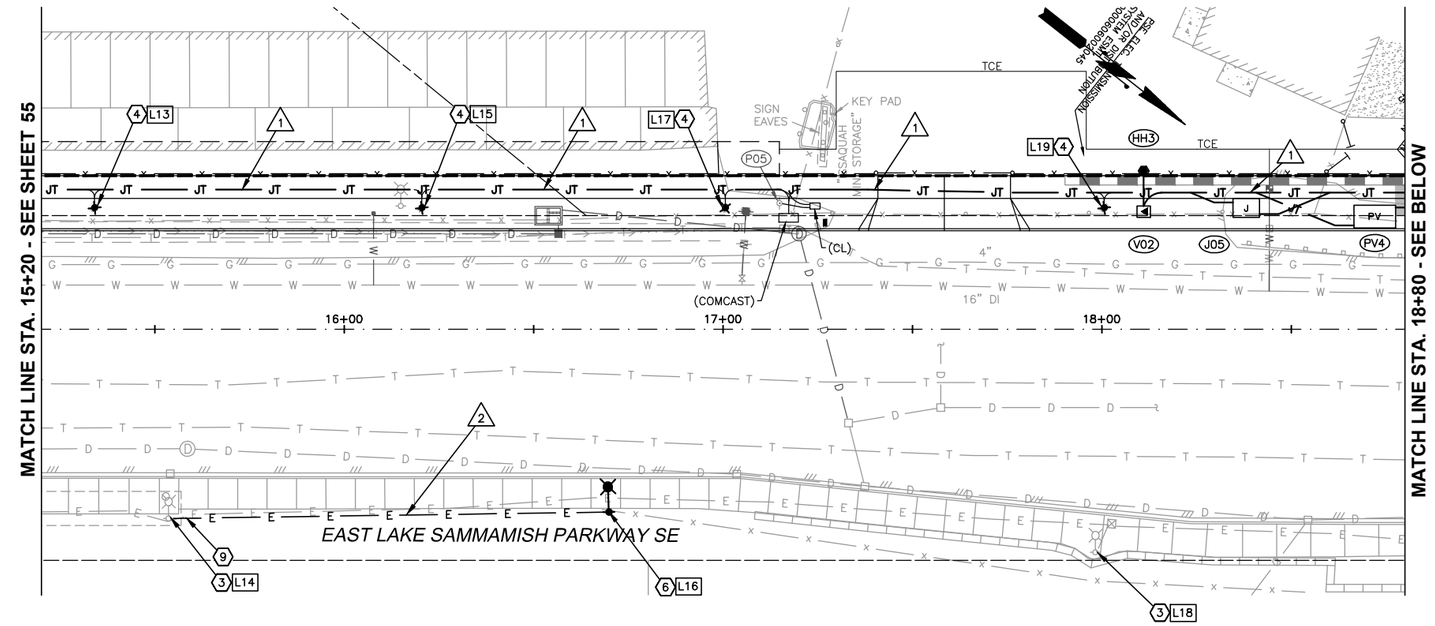
CITY OF ISSAQUAH
WASHINGTON
KING COUNTY

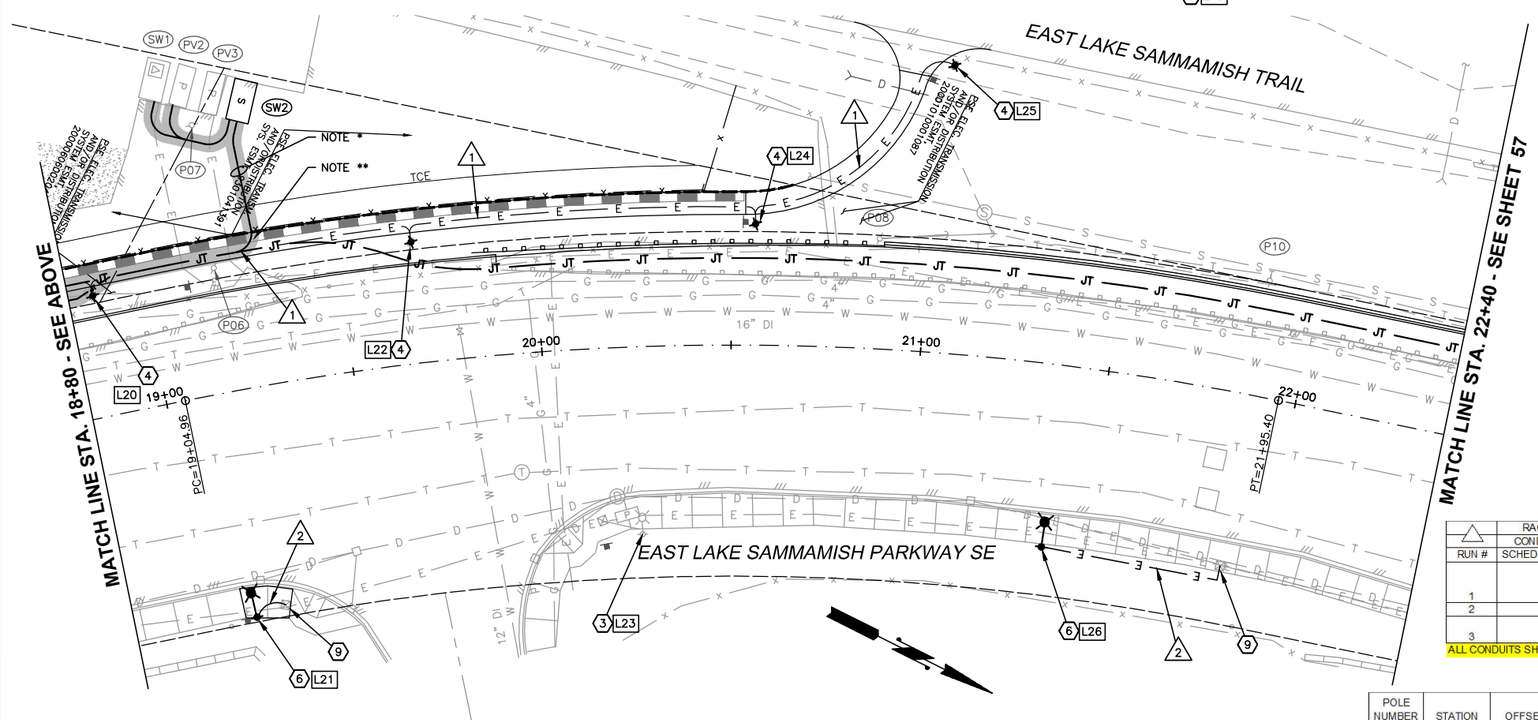
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS

ILLUMINATION AND UTILITY UNDERGROUNDING PLAN

SHEET: 55
OF: 101

JOB NO.: 13570
DWG: ILLUMINATION





20' 10' 0 20' 40'

ILLUMINATION CONSTRUCTION NOTES

1. CONTRACTOR SHALL REMOVE AND WASTEHAUL THE EXISTING HPS COBRAHEAD. CONTRACTOR SHALL FURNISH AND INSTALL TO EXISTING LUMINAIRE ARM AUTOBAHN SERIES 80B ATB2 SERIES 284W LED 1A TYPE 3 4000K CCT FIXTURE.
2. CONTRACTOR SHALL REMOVE AND WASTEHAUL THE EXISTING HPS COBRAHEAD. CONTRACTOR SHALL FURNISH AND INSTALL TO EXISTING LUMINAIRE ARM AUTOBAHN SERIES 40B ATB2 SERIES 146W LED 1A TYPE 3 4000K CCT FIXTURE.
3. CONTRACTOR SHALL REMOVE AND WASTEHAUL THE EXISTING HPS COBRAHEAD. CONTRACTOR SHALL FURNISH AND INSTALL TO EXISTING LUMINAIRE ARM AUTOBAHN SERIES 60B ATB2 SERIES 216W LED 1A TYPE 3 4000K CCT FIXTURE.
4. CONTRACTOR SHALL FURNISH AND INSTALL STREET LIGHT TUBE FOR DIRECT BURY POLE PER STREET LIGHT TUBE INSTALLATION DETAIL ON SHEET 60. CONTRACTOR SHALL COORDINATE WITH INTOLIGHT FOR INSTALLATION OF 15' DIRECT BURY POLE AND KING K584 TYPE III 75 WATT 8000 SERIES LED DRIVER ENGINE FIXTURE.
5. SEE SIGNAL PLAN FOR LIGHTING DETAILS.
6. CONTRACTOR SHALL FURNISH AND INSTALL TYPE A FOUNDATION PER WSDOT STD. PLAN J-28.30-03 ON SHEET 61. CONTRACTOR SHALL FURNISH AND INSTALL 35' WSDOT LIGHTING STANDARD POLE AND 12' TYPE 1 ARM PER WSDOT STD. PLAN J-28.10-01 ON SHEET 61, AND AUTOBAHN SERIES 40B ATB2 SERIES 146W LED 1A TYPE 3 4000K CCT FIXTURE.
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9. CONTRACTOR SHALL FURNISH AND INSTALL PROPOSED CONDUIT AND WIRING INTO EXISTING JUNCTION BOX, AND MAKE ALL CONNECTIONS TO EXISTING ILLUMINATION CIRCUIT.

WIRE SCHEDULE

△	RACEWAY		POWER	POWER	POWER	ACTUAL	26%	CIRCUIT	
	CONDUIT SIZE	GROUND				FILL	FILL		NOTES
RUN #	SCHEDULE 80 PVC	#8	#8	#4	#2	(IN)	(IN)		
1	2"	1				0.06	0.75		CONTRACTOR WILL TRENCH,PLACE CONDUIT, AND BACKFILL. PSE WILL SUPPLY AND INSTALL CONDUCTOR
2	2"	1	2			0.17	0.75		CONNECT TO EXISTING ILLUMINATION CIRCUIT
3	2"	1	2			0.17	0.75		CONTRACTOR WILL TRENCH,PLACE CONDUIT, PULL WIRE AND BACKFILL

ALL CONDUITS SHALL HAVE PULL CORDS

LUMINAIRE SCHEDULE

POLE NUMBER	STATION	OFFSET	MOUNT HEIGHT	POLE TYPE	FIXTURE TYPE	FOUNDATION TYPE	ILLUMINATION CIRCUIT NO.	NOTES
L13	15+34.00	(32.00' LT)	15'	FIBERGLASS	KING K584	DIRECT BURY		INTOLIGHT SUPPLIED FIXTURE AND POLE
L14	15+53.00	(50.00' RT)	EXISTING	EXISTING	AUTOBAHN 80B	EXISTING		REPLACE EXISTING FIXTURE AS NOTED
L15	16+20.00	(32.00' LT)	15'	FIBERGLASS	KING K584	DIRECT BURY		INTOLIGHT SUPPLIED FIXTURE AND POLE
L16	16+70.00	(48.00' RT)	35'	WSDOT TYPE 1	AUTOBAHN 80B	TYPE 2		WSDOT 35' Std
L17	17+09.00	(32.00' LT)	15'	FIBERGLASS	KING K584	DIRECT BURY		INTOLIGHT SUPPLIED FIXTURE AND POLE
L18	17+98.00	(59.00' RT)	EXISTING	EXISTING	AUTOBAHN 80B	EXISTING		Existing
L19	18+00.00	(32.00' LT)	15'	FIBERGLASS	KING K584	DIRECT BURY		INTOLIGHT SUPPLIED FIXTURE AND POLE
L20	18+87.00	(32.00' LT)	15'	FIBERGLASS	KING K584	DIRECT BURY		INTOLIGHT SUPPLIED FIXTURE AND POLE
L21	19+12.50	(60.00' RT)	35'	WSDOT TYPE 1	AUTOBAHN 80B	TYPE 2		WSDOT 35' Std
L22	19+69.00	(32.00' LT)	15'	FIBERGLASS	KING K584	DIRECT BURY		INTOLIGHT SUPPLIED FIXTURE AND POLE
L23	20+25.00	(49.50' RT)	EXISTING	EXISTING	AUTOBAHN 80B	EXISTING		Existing
L24	20+56.00	(32.00' LT)	15'	FIBERGLASS	KING K584	DIRECT BURY		INTOLIGHT SUPPLIED FIXTURE AND POLE
L25	21+03.00	(76.00' LT)	15'	FIBERGLASS	KING K584	DIRECT BURY		INTOLIGHT SUPPLIED FIXTURE AND POLE
L26	22+00.00	(48.00' RT)	35'	WSDOT TYPE 1	AUTOBAHN 80B	TYPE 2		WSDOT 35' Std

NOTE:

* FLUIDIZED THERMAL BACKFILL FOR TRENCH BACKFILL (PV4 TO SW2; SW2 TO PV2/SW1)

** PROVIDE MIN. 36" CLEARANCE FROM BOTTOM OF RETAINING WALL TO TOP OF NEW 6" CONDUIT.

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: H: 1"=20'
DRAWN: B.J.B.
CHECKED: R.C.
APPROVED: B.L.S.

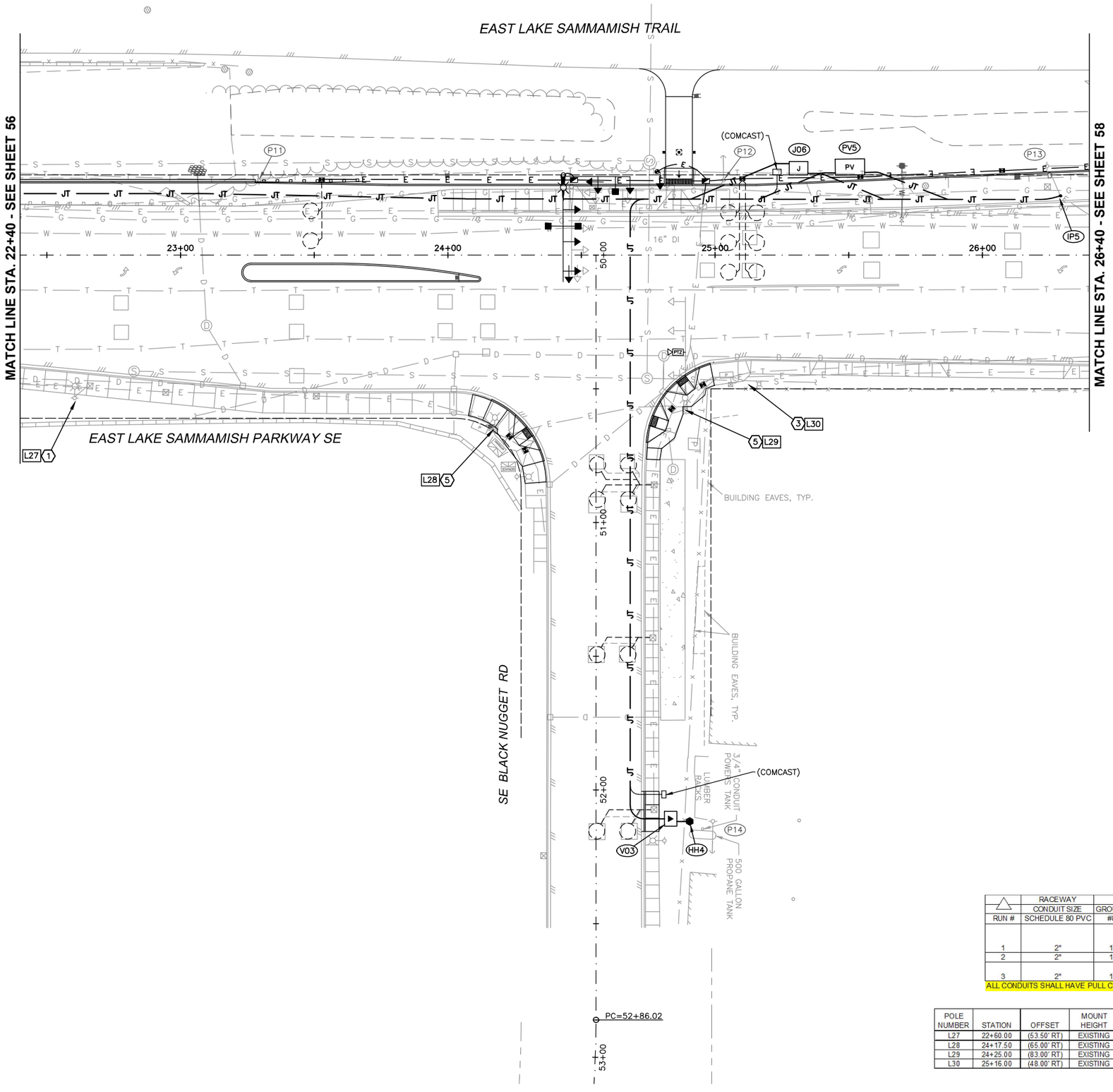
No.	REVISION	DATE	APPD
	PRELIMINARY NOT FOR CONSTRUCTION		

BRIAN L. SOUSWINE — STATE OF WASHINGTON — 36591 — REGISTERED PROFESSIONAL ENGINEER

RORY CAMERON — STATE OF WASHINGTON — 47008 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
WASHINGTON
KING COUNTY
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS
ILLUMINATION AND UTILITY UNDERGROUNDING PLAN

SHEET: 56
OF: 101
JOB NO.: 13570
DWG: ILLUMINATION



20' 10' 0 20' 40'

ILLUMINATION CONSTRUCTION NOTES

1. CONTRACTOR SHALL REMOVE AND WASTEHAUL THE EXISTING HPS COBRAHEAD. CONTRACTOR SHALL FURNISH AND INSTALL TO EXISTING LUMINAIRE ARM AUTOBAHN SERIES 80B ATB2 SERIES 284W LED 1A TYPE 3 4000K CCT FIXTURE.
2. CONTRACTOR SHALL REMOVE AND WASTEHAUL THE EXISTING HPS COBRAHEAD. CONTRACTOR SHALL FURNISH AND INSTALL TO EXISTING LUMINAIRE ARM AUTOBAHN SERIES 40B ATB2 SERIES 146W LED 1A TYPE 3 4000K CCT FIXTURE.
3. CONTRACTOR SHALL REMOVE AND WASTEHAUL THE EXISTING HPS COBRAHEAD. CONTRACTOR SHALL FURNISH AND INSTALL TO EXISTING LUMINAIRE ARM AUTOBAHN SERIES 60B ATB2 SERIES 216W LED 1A TYPE 3 4000K CCT FIXTURE.
4. CONTRACTOR SHALL FURNISH AND INSTALL STREET LIGHT TUBE FOR DIRECT BURY POLE PER STREET LIGHT TUBE INSTALLATION DETAIL ON SHEET 60. CONTRACTOR SHALL COORDINATE WITH INTOLIGHT FOR INSTALLATION OF 15' DIRECT BURY POLE AND KING K584 TYPE III 75 WATT 8000 SERIES LED DRIVER ENGINE FIXTURE.
5. SEE SIGNAL PLAN FOR LIGHTING DETAILS.
6. CONTRACTOR SHALL FURNISH AND INSTALL TYPE A FOUNDATION PER WSDOT STD. PLAN J-28.30-03 ON SHEET 61. CONTRACTOR SHALL FURNISH AND INSTALL 35' WSDOT LIGHTING STANDARD POLE AND 12' TYPE 1 ARM PER WSDOT STD. PLAN J-28.10-01 ON SHEET 61, AND AUTOBAHN SERIES 40B ATB2 SERIES 146W LED 1A TYPE 3 4000K CCT FIXTURE.
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WIRE SCHEDULE

△ RUN #	RACEWAY CONDUIT SIZE SCHEDULE 80 PVC	GROUND #8	POWER #8	POWER #4	POWER #2	ACTUAL FILL (IN)	26% FILL (IN)	CIRCUIT	NOTES
1	2"	1				0.06	0.75		CONTRACTOR WILL TRENCH,PLACE CONDUIT, AND BACKFILL. PSE WILL SUPPLY AND INSTALL CONDUCTOR
2	2"	1	2			0.17	0.75		CONNECT TO EXISTING ILLUMINATION CIRCUIT
3	2"	1	2			0.17	0.75		CONTRACTOR WILL TRENCH,PLACE CONDUIT, PULL WIRE AND BACKFILL

ALL CONDUITS SHALL HAVE PULL CORDS

LUMINAIRE SCHEDULE

POLE NUMBER	STATION	OFFSET	MOUNT HEIGHT	POLE TYPE	FIXTURE TYPE	FOUNDATION TYPE	ILLUMINATION CIRCUIT NO.	NOTES
L27	22+60.00	(53.50' RT)	EXISTING	EXISTING	AUTOBAHN 80B	EXISTING		Existing
L28	24+17.50	(65.00' RT)	EXISTING	EXISTING	AUTOBAHN 80B	EXISTING		Signal
L29	24+25.00	(83.00' RT)	EXISTING	EXISTING	AUTOBAHN 80B	EXISTING		Existing
L30	25+16.00	(48.00' RT)	EXISTING	EXISTING	AUTOBAHN 80B	EXISTING		Existing

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No.	REVISION	DATE	APPD

PRELIMINARY NOT FOR CONSTRUCTION

BRIAN L. SOUKHINE — STATE OF WASHINGTON — 19006 — REGISTERED PROFESSIONAL ENGINEER

RORY CAMERON — STATE OF WASHINGTON — 42008 — REGISTERED PROFESSIONAL ENGINEER

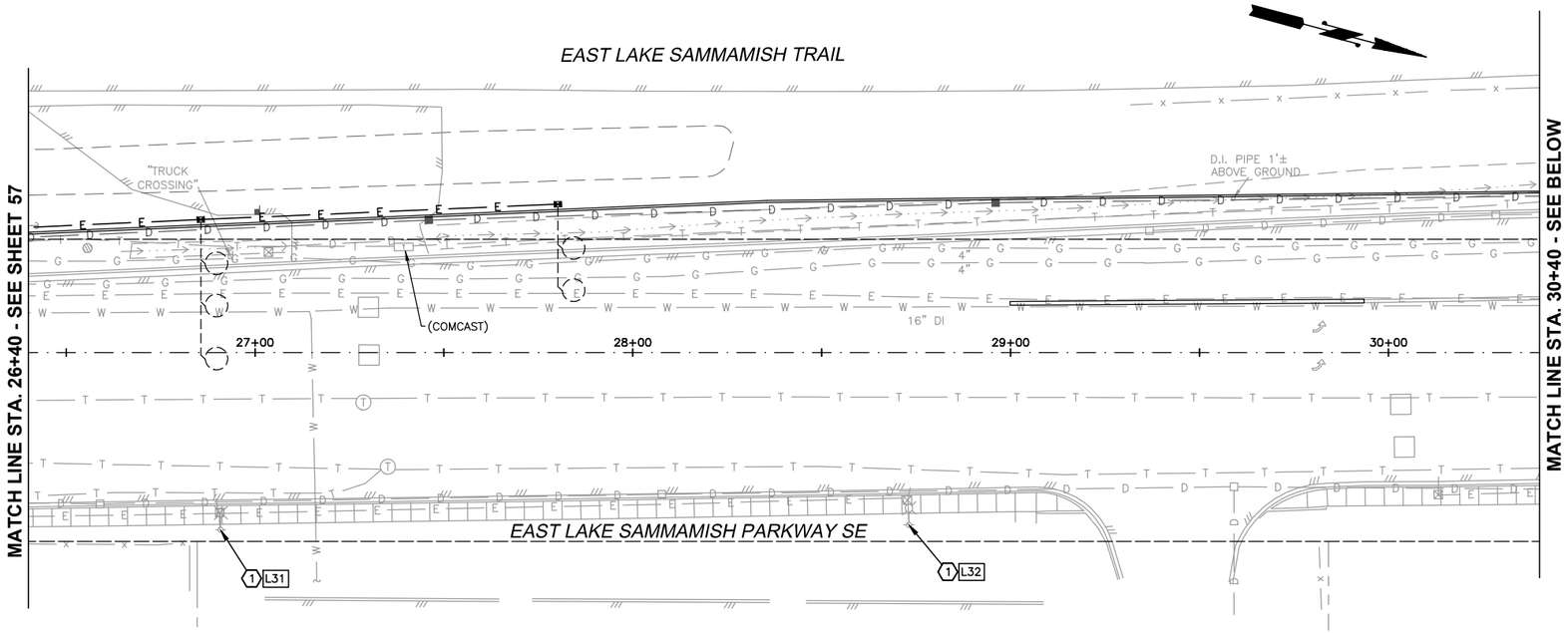
CITY OF ISSAQUAH
WASHINGTON
KING COUNTY

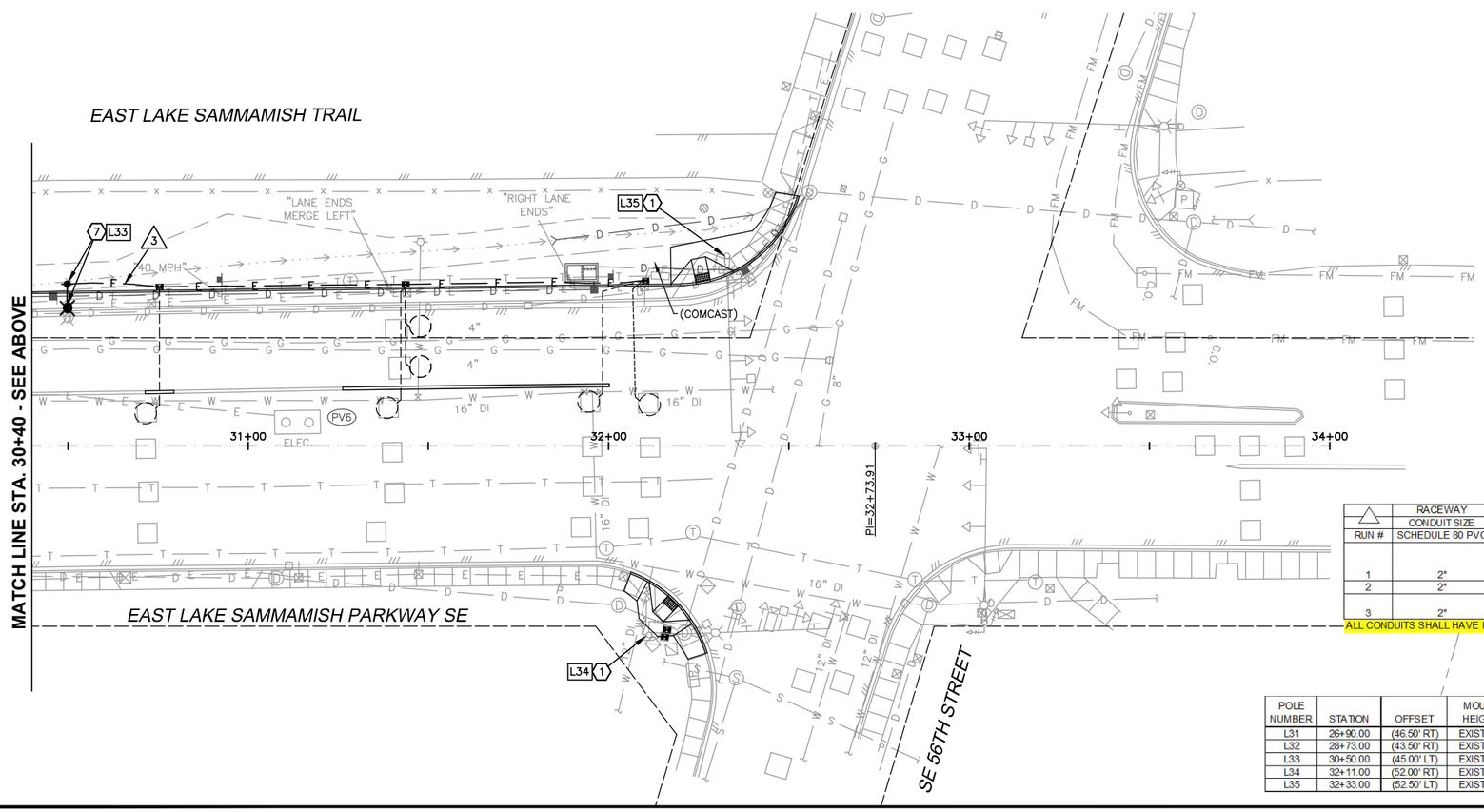
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS

ILLUMINATION AND UTILITY UNDERGROUNDING PLAN

SHEET: 57
OF: 101

JOB NO.: 13570
DWG: ILLUMINATION





20' 10' 0 20' 40'

ILLUMINATION CONSTRUCTION NOTES

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4. CONTRACTOR SHALL FURNISH AND INSTALL STREET LIGHT TUBE FOR DIRECT BURY POLE PER STREET LIGHT TUBE INSTALLATION DETAIL ON SHEET 60. CONTRACTOR SHALL COORDINATE WITH INTOLIGHT FOR INSTALLATION OF 15' DIRECT BURY POLE AND KING K584 TYPE III 75 WATT 8000 SERIES LED DRIVER ENGINE FIXTURE.
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ALL CONDUITS SHALL HAVE PULL CORDS

LUMINAIRE SCHEDULE

POLE NUMBER	STATION	OFFSET	MOUNT HEIGHT	POLE TYPE	FIXTURE TYPE	FOUNDATION TYPE	ILLUMINATION CIRCUIT NO.	NOTES
L31	26+90.00	(46.50' RT)	EXISTING	EXISTING	AUTOBAHN 80B	EXISTING		Existing
L32	28+73.00	(43.50' RT)	EXISTING	EXISTING	AUTOBAHN 80B	EXISTING		Existing
L33	30+50.00	(45.00' LT)	EXISTING	EXISTING	AUTOBAHN 80B	TYPE 2		RELOCATE EXISTING POLE TO NEW FOUNDATION
L34	32+11.00	(52.00' RT)	EXISTING	EXISTING	AUTOBAHN 80B	EXISTING		Signal
L35	32+33.00	(52.50' LT)	EXISTING	EXISTING	AUTOBAHN 80B	EXISTING		Signal

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DATE: MAR. 2015
SCALE: H: 1"=20'
DRAWN: B.J.B.
CHECKED: R.C.
APPROVED: B.L.S.

No.	REVISION	DATE	APPD

PRELIMINARY NOT FOR CONSTRUCTION

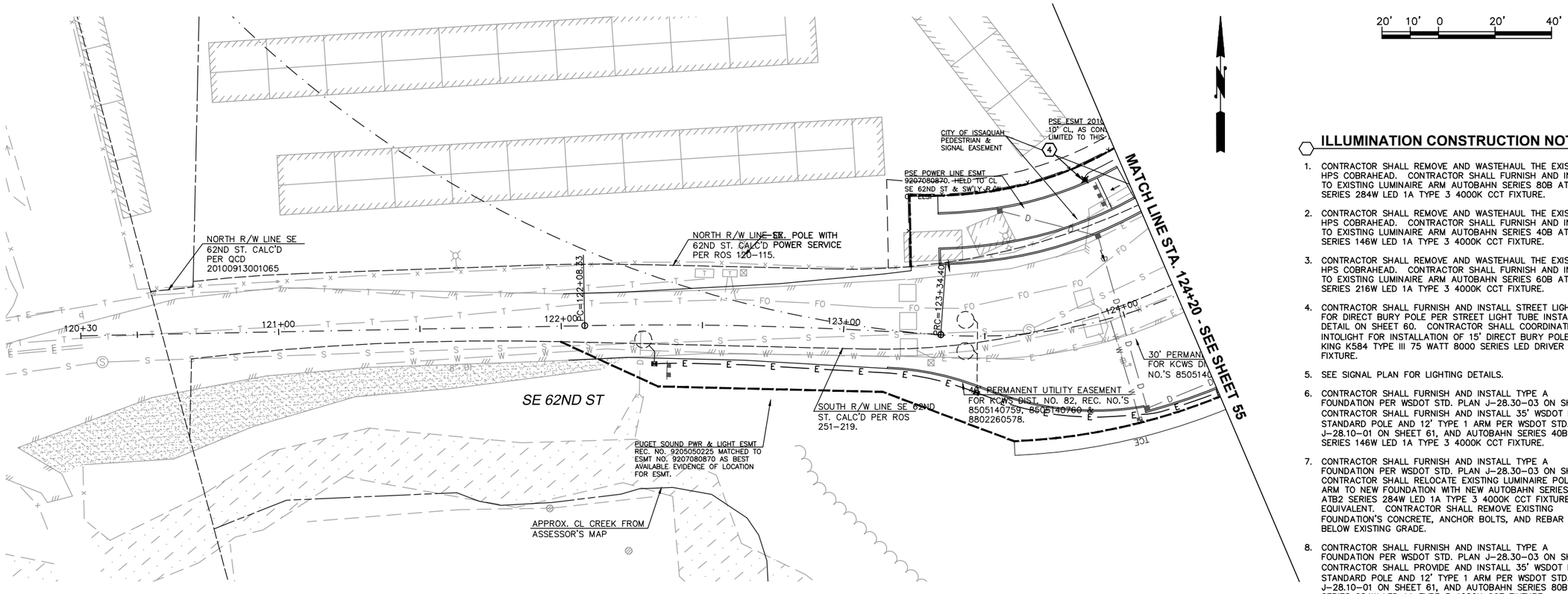
BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

ROBERT CAMERON — STATE OF WASHINGTON — 42008 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH WASHINGTON
KING COUNTY
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS
ILLUMINATION AND UTILITY UNDERGROUNDING PLAN

SHEET: 58
OF: 101

JOB NO.: 13570
DWG: ILLUMINATION



ILLUMINATION CONSTRUCTION NOTES

1. CONTRACTOR SHALL REMOVE AND WASTEHAUL THE EXISTING HPS COBRAHEAD. CONTRACTOR SHALL FURNISH AND INSTALL TO EXISTING LUMINAIRE ARM AUTOBAHN SERIES 80B ATB2 SERIES 284W LED 1A TYPE 3 4000K CCT FIXTURE.
2. CONTRACTOR SHALL REMOVE AND WASTEHAUL THE EXISTING HPS COBRAHEAD. CONTRACTOR SHALL FURNISH AND INSTALL TO EXISTING LUMINAIRE ARM AUTOBAHN SERIES 40B ATB2 SERIES 146W LED 1A TYPE 3 4000K CCT FIXTURE.
3. CONTRACTOR SHALL REMOVE AND WASTEHAUL THE EXISTING HPS COBRAHEAD. CONTRACTOR SHALL FURNISH AND INSTALL TO EXISTING LUMINAIRE ARM AUTOBAHN SERIES 60B ATB2 SERIES 216W LED 1A TYPE 3 4000K CCT FIXTURE.
4. CONTRACTOR SHALL FURNISH AND INSTALL STREET LIGHT TUBE FOR DIRECT BURY POLE PER STREET LIGHT TUBE INSTALLATION DETAIL ON SHEET 60. CONTRACTOR SHALL COORDINATE WITH INTOLIGHT FOR INSTALLATION OF 15' DIRECT BURY POLE AND KING K584 TYPE III 75 WATT 8000 SERIES LED DRIVER ENGINE FIXTURE.
5. SEE SIGNAL PLAN FOR LIGHTING DETAILS.
6. CONTRACTOR SHALL FURNISH AND INSTALL TYPE A FOUNDATION PER WSDOT STD. PLAN J-28.30-03 ON SHEET 61. CONTRACTOR SHALL FURNISH AND INSTALL 35' WSDOT LIGHTING STANDARD POLE AND 12' TYPE 1 ARM PER WSDOT STD. PLAN J-28.10-01 ON SHEET 61, AND AUTOBAHN SERIES 40B ATB2 SERIES 146W LED 1A TYPE 3 4000K CCT FIXTURE.
7. CONTRACTOR SHALL FURNISH AND INSTALL TYPE A FOUNDATION PER WSDOT STD. PLAN J-28.30-03 ON SHEET 61. CONTRACTOR SHALL RELOCATE EXISTING LUMINAIRE POLE AND ARM TO NEW FOUNDATION WITH NEW AUTOBAHN SERIES 80B ATB2 SERIES 284W LED 1A TYPE 3 4000K CCT FIXTURE, OR EQUIVALENT. CONTRACTOR SHALL REMOVE EXISTING FOUNDATION'S CONCRETE, ANCHOR BOLTS, AND REBAR TO 6" BELOW EXISTING GRADE.
8. CONTRACTOR SHALL FURNISH AND INSTALL TYPE A FOUNDATION PER WSDOT STD. PLAN J-28.30-03 ON SHEET 61. CONTRACTOR SHALL PROVIDE AND INSTALL 35' WSDOT LIGHTING STANDARD POLE AND 12' TYPE 1 ARM PER WSDOT STD. PLAN J-28.10-01 ON SHEET 61, AND AUTOBAHN SERIES 80B ATB2 SERIES 284W LED 1A TYPE 3 4000K CCT FIXTURE.
9. CONTRACTOR SHALL FURNISH AND INSTALL PROPOSED CONDUIT AND WIRING INTO EXISTING JUNCTION BOX, AND MAKE ALL CONNECTIONS TO EXISTING ILLUMINATION CIRCUIT.

LUMINAIRE SCHEDULE

POLE NUMBER	STATION	OFFSET	MOUNT HEIGHT	POLE TYPE	FIXTURE TYPE	FOUNDATION TYPE	ILLUMINATION CIRCUIT NO.	NOTES
L36	124+02.00	(49.50' LT)	15'	FIBERGLASS	KING K584	DIRECT BURY		INTOLIGHT SUPPLIED FIXTURE AND POLE

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CHECKED: R.C.
APPROVED: B.L.S.

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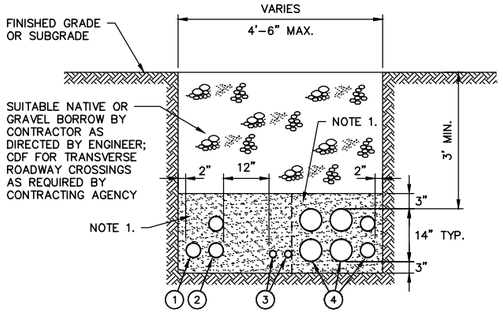
No.	REVISION	DATE	APPD

BRIAN L. SOLIMANE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

ROBY CAMERON — STATE OF WASHINGTON — 42008 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
WASHINGTON
KING COUNTY
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS
ILLUMINATION AND UTILITY UNDERGROUNDING PLAN

SHEET: 59
OF: 101
JOB NO.: 13570
DWG: ILLUMINATION



TYPICAL JOINT UTILITY TRENCH CROSS SECTION

NOT TO SCALE

NOTES:

1. SAND PIPE ZONE BEDDING BY CONTRACTOR. FTB (FLUIDIZED THERMAL BACKFILL, 6" MIN. COVER AND EXTENDS TO SIDES, 2" MIN. BEDDING) FOR PSE CONDUITS AT LOCATIONS INDICATED ON PLANS. PROVIDE TEMPORARY FORMING OF FTB FOR PSE PORTION OF TRENCH.

(1) CENTURYLINK CONDUIT (1– 4" TYP.) – FURNISHED AND INSTALLED BY CENTURYLINK. CONTRACTOR TO COORDINATE.

(2) COMCAST CONDUIT (1– 4" TYP.) – FURNISHED AND INSTALLED BY COMCAST. CONTRACTOR TO COORDINATE.

(3) CITY OWNED SIGNAL AND ILLUMINATION CONDUITS (2" TYP.) – FURNISHED AND INSTALLED BY CONTRACTOR. QUANTITY VARIES.

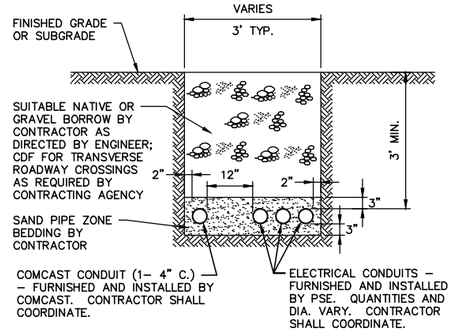
(4) ELECTRICAL CONDUITS – FURNISHED AND INSTALLED BY PSE. QUANTITIES AND DIA. VARY. CONTRACTOR TO COORDINATE. SEE PSE PLANS.

TRENCHING NOTES:

1. THE TRENCH SECTIONS SHOWN ON THE PLANS ARE FOR THE PAYMENT LIMITS FOR FOUNDATION MATERIAL AND BANK RUN GRAVEL FOR TRENCH BACKFILL. PAYMENT FOR ALL FOUNDATION MATERIAL AND BANK RUN GRAVEL FOR TRENCH BACKFILL SHALL BE COMPUTED FROM THE MEASUREMENT OF THE CONSTRUCTED TRENCH SECTION, TO THE MAXIMUM LIMITS AS INDICATED IN THE TABLES.

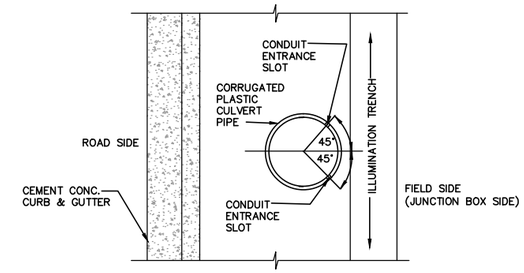
2. WHERE A "NEW ROADWAY SECTION" OR PAVEMENT REPAIR IS PROPOSED, THE TRENCH SECTION PAYMENT LIMIT LINE WILL BE BOUNDED AT THE TOP BY BOTTOM OF NEW ROAD BALLAST, PER TYPICAL ROADWAY SECTION DETAILS.

3. FOR TRENCHING IN EXISTING PAVED AREAS, SEE CITY OF ISSAQUAH STD. DETAILS T–48 AND T–49, PAVEMENT PATCHING DETAILS, SHEET 19.

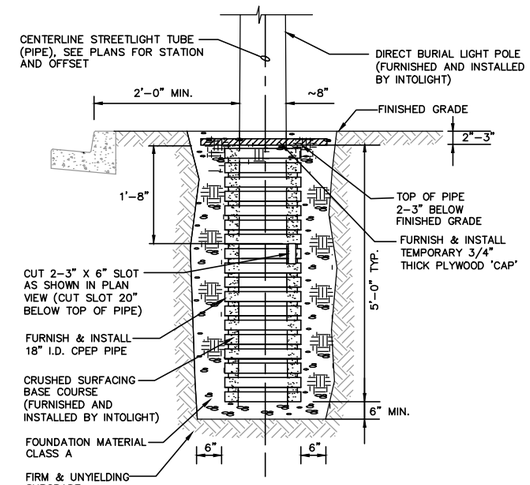


TYPICAL JOINT UTILITY TRENCH CROSS SECTION (BLACK NUGGET ROAD)

NOT TO SCALE



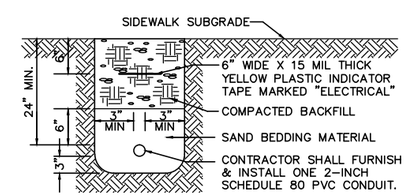
PLAN



SECTION

STREET LIGHT TUBE INSTALLATION DETAIL

NOT TO SCALE



TYPICAL ELECTRICAL TRENCH SECTION DETAIL

NOT TO SCALE

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CHECKED: R.C.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

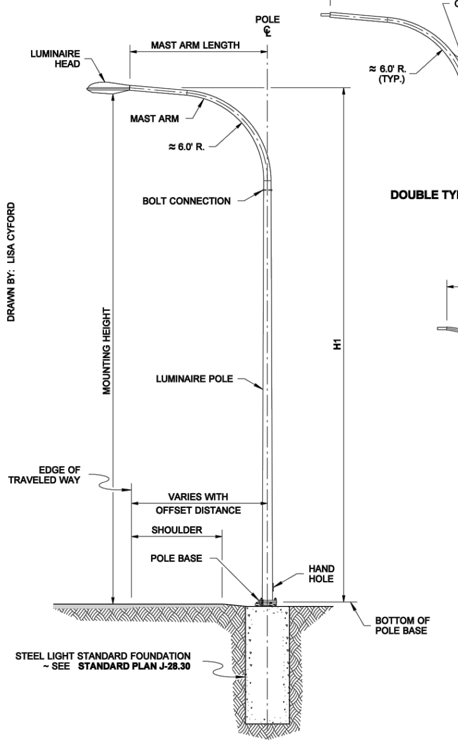
No.	REVISION	DATE	APPD

BRIAN L. SOURWINE STATE OF WASHINGTON 36006 REGISTERED PROFESSIONAL ENGINEER

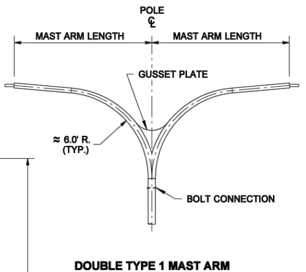
ROBY CAMERON STATE OF WASHINGTON 42008 REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING COUNTY WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS
ILLUMINATION AND UTILITY UNDERGROUNDING DETAILS

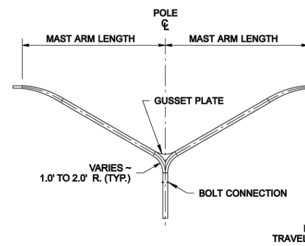
SHEET: 60
OF: 101
JOB NO.: 13570
DWG: ILLUM_DET



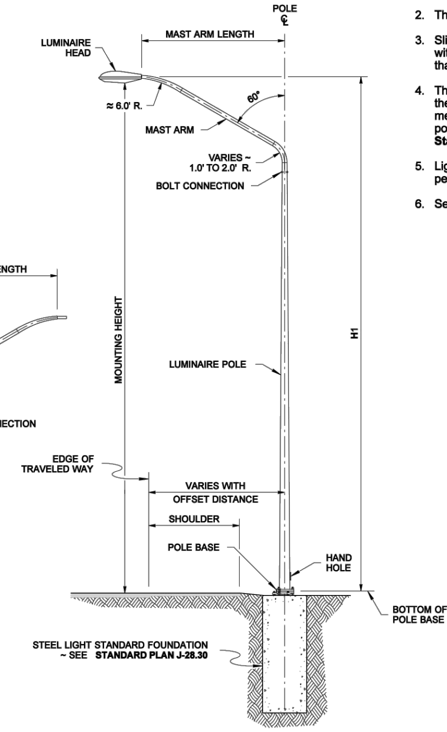
LIGHT STANDARD
WITH TYPE 1 (DAVIT) MAST ARM
(SLIP BASE SHOWN)



DOUBLE TYPE 1 MAST ARM



DOUBLE TYPE 2 MAST ARM



LIGHT STANDARD
WITH TYPE 2 (ELBOW) MAST ARM
(SLIP BASE SHOWN)

NOTES

1. This plan depicts the Steel Light Standard types and terms commonly referred to in the Contract. All Steel Light Standards are fabricated in accordance with the Standard Specifications and the Contract Provisions.
2. The Luminaire Pole height shall not exceed 50' (**H**1).
3. Slip Bases shall not be installed on 50' (**H**1) poles with Double Mast Arms, nor on poles weighing more than 1000 lbs.
4. The optimal location of the Luminaire head is over the edge of the traveled way. Based on the placement of the Steel Light Standard foundation, the position of the Luminaire head may vary. See **Standard Plan J-28.22.**
5. Light Standard mast arm orientation is typically perpendicular to roadway centerline.
6. See **Standard Plan J-28.50** for Hand Hole details.

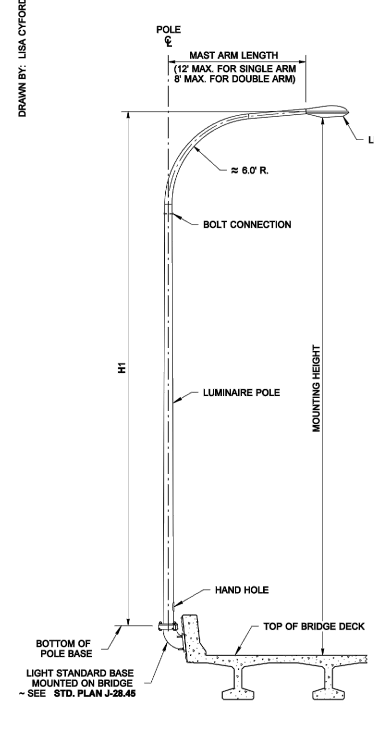
STEEL LIGHT STANDARD

STANDARD PLAN J-28.10-01

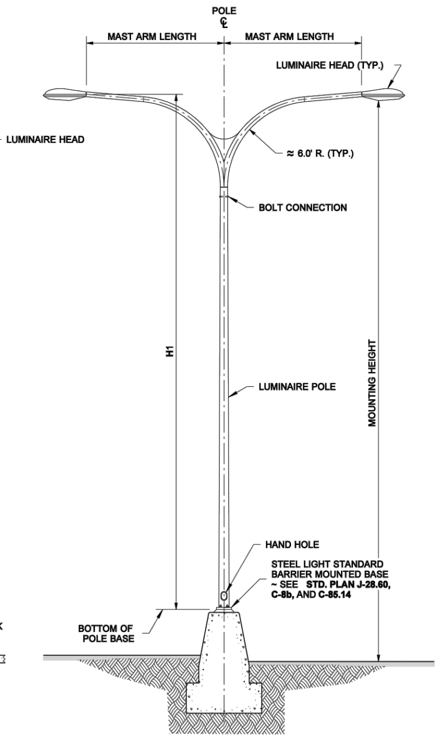
SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION
Pasco Bakotich III 05-11-11
STATE DESIGN ENGINEER — DATE
Washington State Department of Transportation

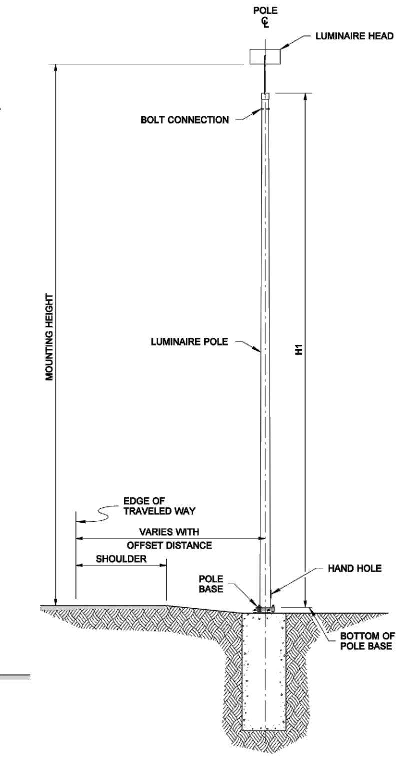
DRAWN BY: LISA CYFORD



BRIDGE-MOUNTED LUMINAIRE
(TYPE 1 MAST ARM SHOWN)



MEDIAN BARRIER-MOUNTED LUMINAIRE
(TYPE 1 MAST ARM SHOWN)



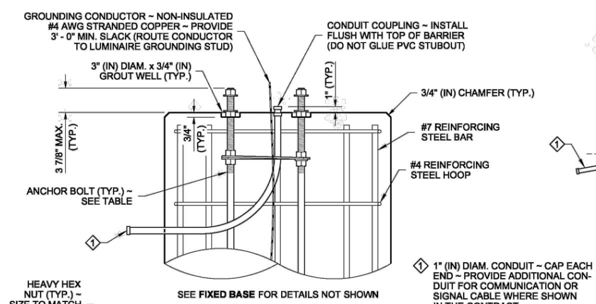
POST TOP-MOUNTED LUMINAIRE
(SLIP BASE SHOWN)

STEEL LIGHT STANDARD

STANDARD PLAN J-28.10-01

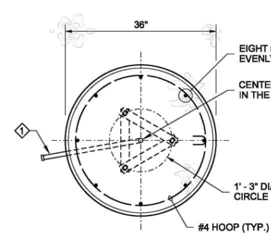
SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION
Pasco Bakotich III 05-11-11
STATE DESIGN ENGINEER — DATE
Washington State Department of Transportation



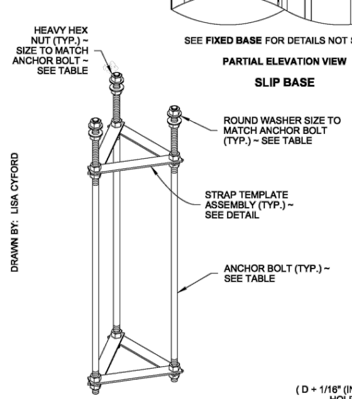
PARTIAL ELEVATION VIEW

SLIP BASE



TOP VIEW

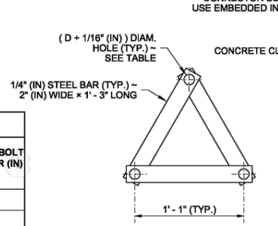
FIXED BASE



ISOMETRIC VIEW

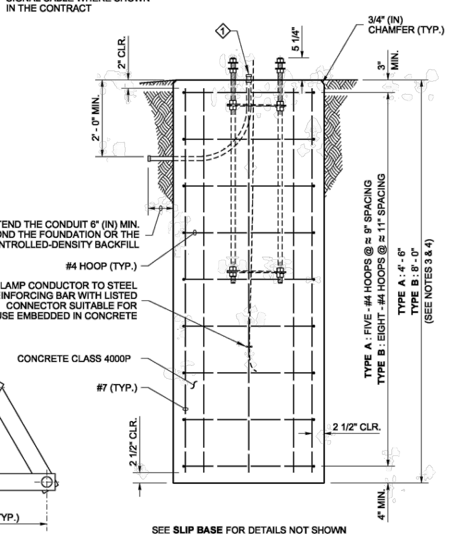
ANCHOR BOLT ASSEMBLY
(SLIP BASE SHOWN)

ANCHOR BOLT TABLE			
LUMINAIRE HEIGHT (FT) (H1)	MAST ARM TYPE	MAST ARM LENGTH (FT)	ANCHOR BOLT DIAMETER (IN) "D"
20' TO 50'	SINGLE	6' TO 16'	1"
20' TO 50'	DOUBLE	6' TO 8'	1"
20' TO 45'	DOUBLE	10' TO 16'	1"
46' TO 50'	DOUBLE	10' TO 16'	1 1/8"



TOP VIEW

STRAP TEMPLATE ASSEMBLY



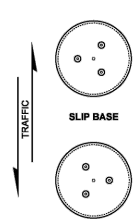
SEE **SLIP BASE** FOR DETAILS NOT SHOWN

ELEVATION VIEW

FIXED BASE

NOTES

1. See **Standard Plan J-28.40** for Luminaire Pole base mounting details.
2. The Strap Templates shall be held in place by nuts, 6" (in) from the top of the foundation and 3" (in) from the bottom of the anchor bolts. Eighteen heavy duty hex nuts and six round washers are required for a slip base assembly. Eighteen heavy duty hex nuts and six plate washers are required for a fixed base assembly.
3. Use Steel Light Standard Foundation **Type A** on level ground or slopes not exceeding 4H : 1V. Use **Type B** for slopes steeper than 4H : 1V, but not exceeding 2H : 1V. Slopes steeper than 2H : 1V shall require a special design.
4. These foundations are designed for a minimum of 2000 PSF **(TYPE A)** or 1500 PSF **(TYPE B)** allowable lateral bearing pressure for the soil. A special foundation shall be required for soil with allowable lateral bearing pressure lower than 1500 PSF.
5. The Luminaire Pole height shall not exceed 50' (ft) (**H1**).
6. Slip bases shall not be installed on 50' (ft) (**H1**) poles with Double Mast Arms, nor on poles weighing more than 1000 lbs.
7. Slip bases are required on poles installed inside the Design Clear Zone, and on poles installed behind traffic barrier that are within the traffic barrier deflection zone.
8. Foundations constructed within Media Filter Drains shall be increased in depth by the depth of the Media Filter Drain.
9. Exposed portions of the foundation shall be formed to create a Class 2 surface finish. All forming shall be removed upon completion of foundation construction.
10. For excavation, concrete placement, and backfill options, see METHOD 1 and METHOD 2 on Sheet 2 of 2.
11. The anchor bolts shall be high-strength steel, manufactured from ASTM F1554 Grade 105, with heavy hex nuts and hardened washers. Galvanize the anchor bolts according to ASTM F2329.
12. The foundation shall be grounded in accordance with the requirements of **Standard Specification 8-20.3(4).**
13. See **Standard Plans C-8b** and **C-85.14** for steel light standards on traffic barrier.



ANCHOR BOLT LAYOUT

Zeldenrust, Richard
Jun 10 2014 10:37 AM

STEEL LIGHT STANDARD FOUNDATION TYPES A & B

STANDARD PLAN J-28.30-03

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION
Bakotich, Pasco
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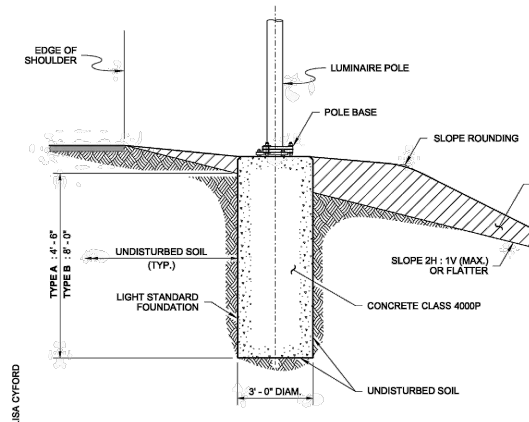
Washington State Department of Transportation



(CASE A SHOWN)

METHOD 1

NO SUBSURFACE FORM

This option is used only when the existing soil in the hole will remain standing and the cement concrete can be placed without causing the soil to collapse. Concrete shall be cast directly against undisturbed soil.

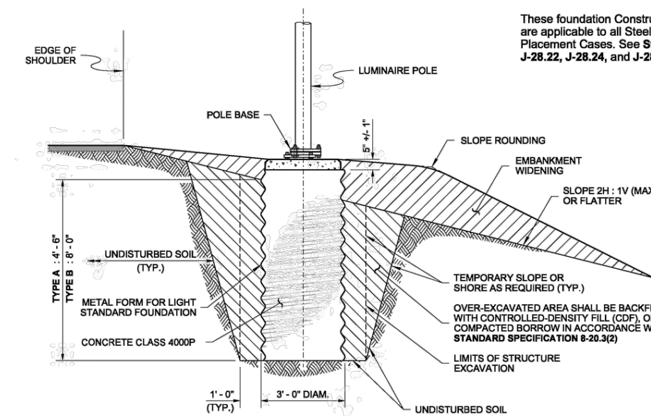
Auger the hole for the foundation. Use a paper or cardboard form to achieve a smooth finish on the final exposed cement concrete. Support the form as necessary to remain plumb.

See **Standard Plans J-28.24** and **J-28.26** for maximum heights of exposed foundation when no embankment widening is to be installed.

Place the concrete foundation.

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

Construct the embankment widening (if required).



(CASE A SHOWN)

METHOD 2

METAL (SUBSURFACE) FORM REQUIRED

When the existing soil will not retain a vertical face, over-excavate the foundation area and install a 36" (in) diameter corrugated metal (pipe) form. The corrugated metal form shall not extend more than 5" (in) +/- 1" (in) below any portion of the foundation that will remain exposed upon final grading. Continue forming to full height using a paper or cardboard form to achieve a smooth finish on final exposed cement concrete. Support the form as necessary to remain plumb.

See **Standard Plans J-28.24** and **J-28.26** for maximum heights of exposed foundation when no embankment widening is to be installed.

Place the concrete foundation.

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

Backfill with controlled-density fill or compacted borrow in accordance with **Standard Specification 8-20.3(2).**

Construct the embankment widening (if required).

CONSTRUCTION METHODS

NOTE

These foundation Construction Methods are applicable to all Steel Light Standard Placement Cases. See **Standard Plans J-28.22, J-28.24, and J-28.26.**

Zeldenrust, Richard
Jun 10 2014 10:38 AM

STEEL LIGHT STANDARD FOUNDATION TYPES A & B

STANDARD PLAN J-28.30-03

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION
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Washington State Department of Transportation

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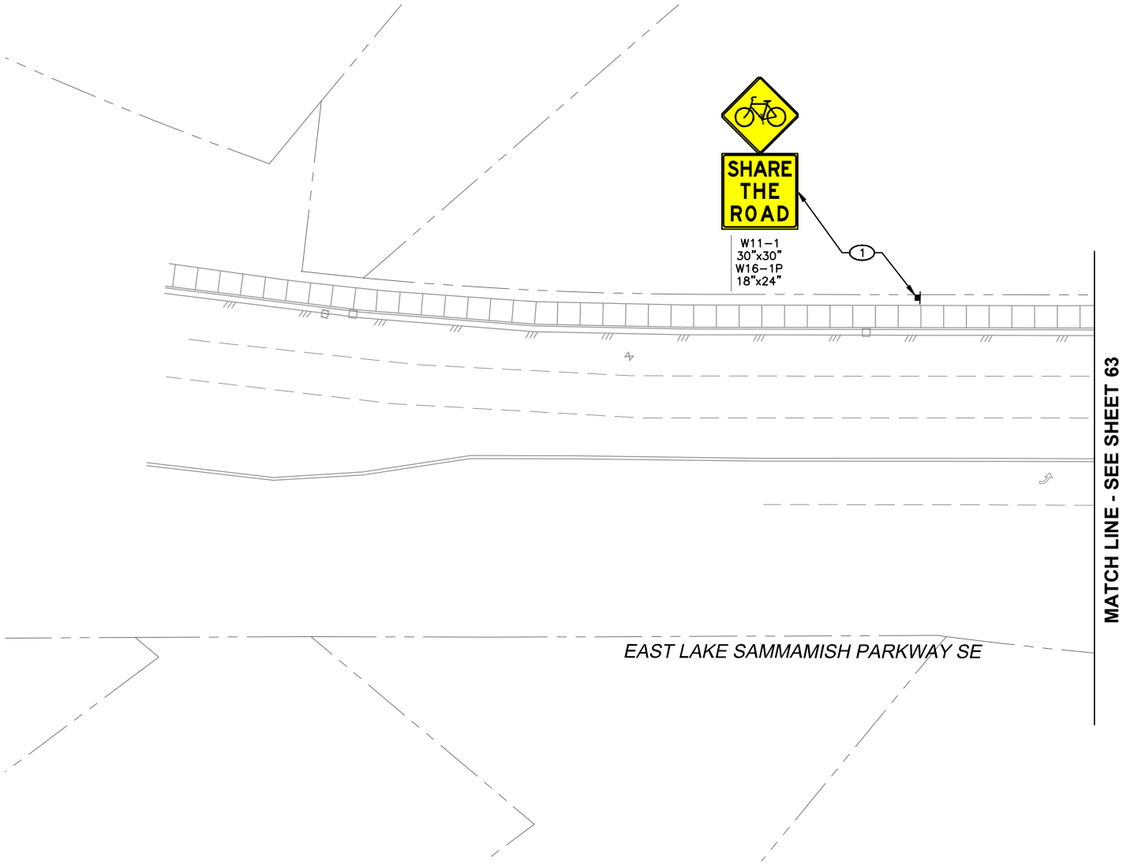
DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: R.C.
CHECKED: R.C.
APPROVED: B.L.S.

No.	REVISION	DATE	APPD

PRELIMINARY NOT FOR CONSTRUCTION

CITY OF ISSAQUAH
KING COUNTY — WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE IMPROVEMENTS
ILLUMINATION AND UTILITY UNDERGROUNDING DETAILS

JOB NO.: 13570
DWG: ILLUM_DET



20' 10' 0 20' 40'

GENERAL

1. ALL SIGN TYPES, COLORS, AND DIMENSIONS ARE STANDARD PER THE MUTCD, UNLESS OTHERWISE INDICATED.
2. STREET NAME SIGNS SHALL MEET CITY STANDARD SIZE, DIMENSION, COLOR, ETC.
3. DIMENSIONS WITH A * ARE APPROXIMATE.

CHANNELIZATION NOTES:

1. CONTRACTOR SHALL REMOVE EXISTING PAVEMENT MARKINGS/ PRM'S/ OTHER CHANNELIZATION MARKINGS. COORDINATE WORK WITH THE ENGINEER.
2. CONTRACTOR SHALL FURNISH AND INSTALL WHITE WIDE LANE LINE PER CITY OF ISSAQUAH STANDARD DETAIL T-19.
3. CONTRACTOR SHALL FURNISH AND INSTALL WHITE BROKEN LINE PER CITY OF ISSAQUAH STANDARD DETAIL T-19.
4. CONTRACTOR SHALL FURNISH AND INSTALL YELLOW DOUBLE LINE PER CITY OF ISSAQUAH STANDARD DETAIL T-19.
5. CONTRACTOR SHALL FURNISH AND INSTALL TWO-WAY LEFT TURN LINE PER CITY OF ISSAQUAH STANDARD DETAIL T-19.
6. CONTRACTOR SHALL FURNISH AND INSTALL 6" WHITE METHYL METHACRYLATE FOG LINE PER CITY OF ISSAQUAH STANDARD DETAIL T-23.
7. CONTRACTOR SHALL FURNISH AND INSTALL DOTTED EXTENSION LINE PER CITY OF ISSAQUAH STANDARD DETAIL T-19.
8. CONTRACTOR SHALL FURNISH AND INSTALL YELLOW SOLID LINE PER CITY OF ISSAQUAH STANDARD DETAIL T-19.
9. CONTRACTOR SHALL FURNISH AND INSTALL YELLOW BROKEN LINE PER CITY OF ISSAQUAH STANDARD DETAIL T-19.
10. CONTRACTOR SHALL INSTALL WHITE PAVEMENT ARROW(S) PER CITY OF ISSAQUAH STANDARD DETAIL T-35.
11. CONTRACTOR SHALL FURNISH AND INSTALL BICYCLE LANE SYMBOLS PER CITY OF ISSAQUAH STANDARD DETAIL T-27.
12. CONTRACTOR SHALL FURNISH AND INSTALL WHITE SOLID EDGE LINE PER CITY OF ISSAQUAH STANDARD DETAIL T-19.
13. CONTRACTOR SHALL FURNISH AND INSTALL BICYCLE DETECTOR PAVEMENT MARKING SYMBOL PER DETAIL ON SHEET 65.
14. CONTRACTOR SHALL FURNISH AND INSTALL STOP BAR AND CROSSWALK STRIPES PER CITY OF ISSAQUAH STANDARD DETAIL T-36.
15. CONTRACTOR SHALL FURNISH AND INSTALL TYPE A CURBING PER CITY OF ISSAQUAH STANDARD DETAIL T-39.
16. CONTRACTOR SHALL FURNISH AND INSTALL VERTICAL CONCRETE CURB PER CITY OF ISSAQUAH STANDARD DETAIL T-38.
17. CONTRACTOR SHALL FURNISH AND INSTALL FLEXIBLE DELINEATOR POST PER DETAIL ON SHEET 65.

SIGNING NOTES:

1. CONTRACTOR SHALL FURNISH AND INSTALL NEW SIGN AND POST PER CITY OF ISSAQUAH STANDARD DETAIL T-44.
2. CONTRACTOR SHALL REMOVE AND WASTE HAUL EXISTING SIGN POST AND FOUNDATION AND DELIVER SIGN TO CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT.
3. CONTRACTOR SHALL FURNISH AND INSTALL NEW SIGN AND MOUNT ON TRAFFIC BARRIER TERMINAL PER MANUFACTURERS RECOMMENDATIONS.

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015
SCALE: H: 1"=20'
DRAWN: B.J.B.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

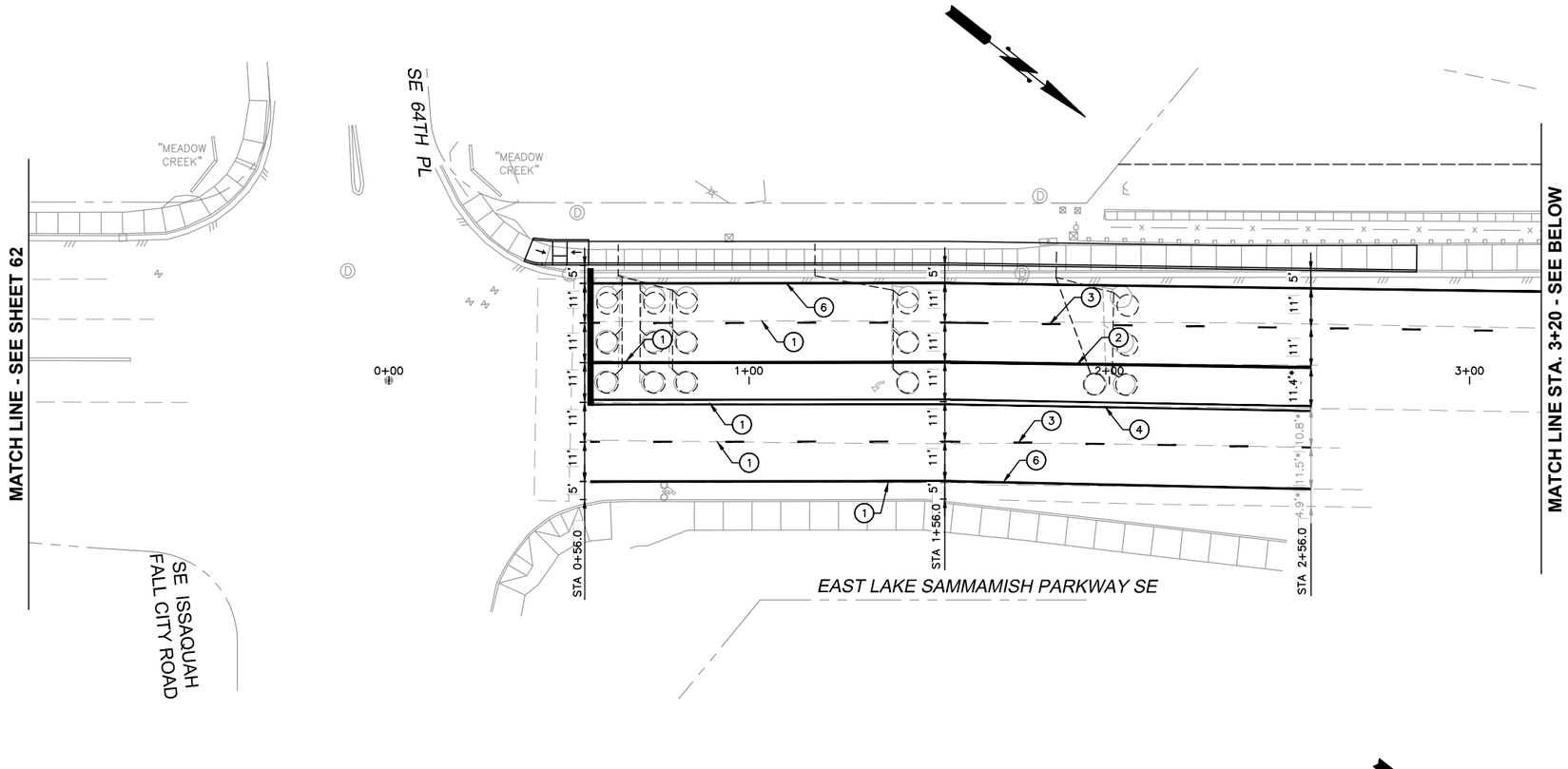
No.	REVISION	DATE	APPD

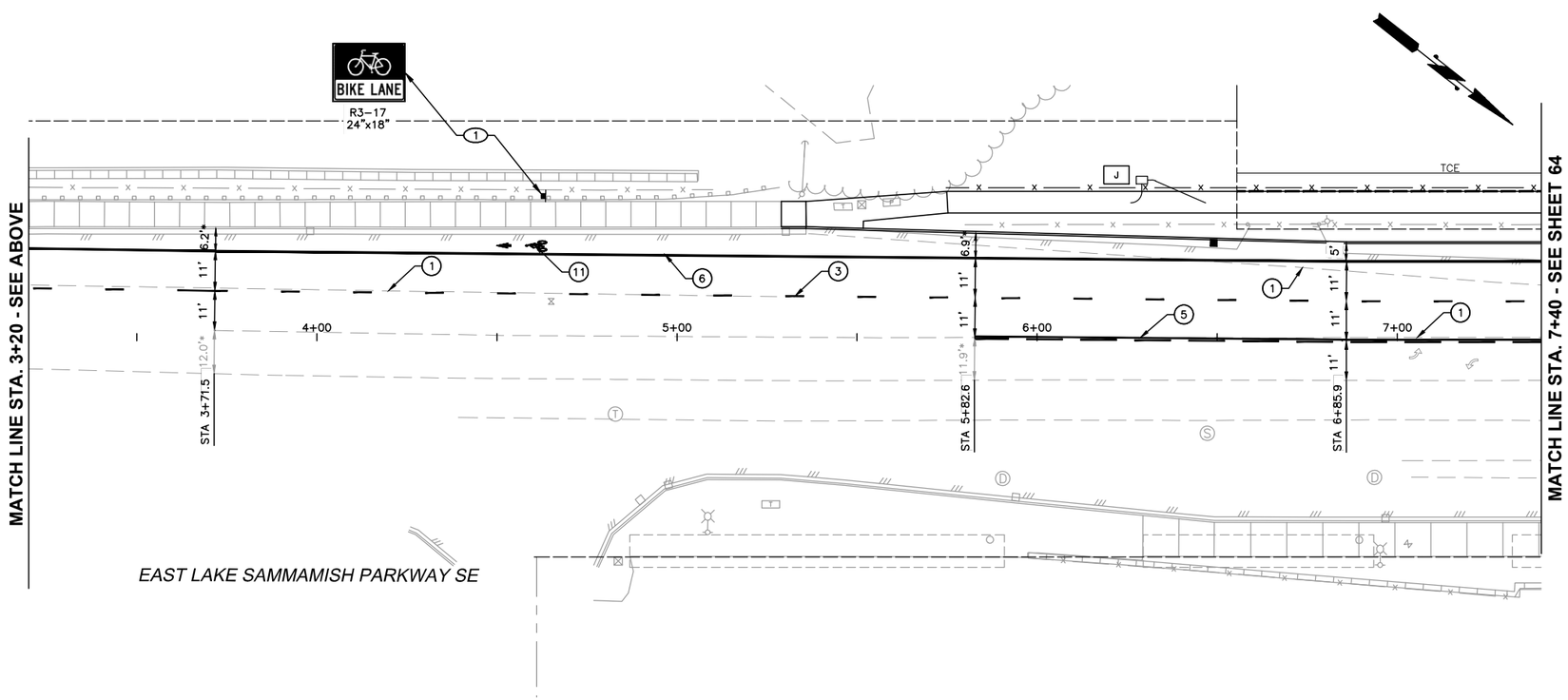
BRIAN L. SOURWINE — STATE OF WASHINGTON — 50591 — REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN — STATE OF WASHINGTON — 50392 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
CHANNELIZATION AND SIGNING PLAN

SHEET: 62
OF: 101
JOB NO.: 13570
DWG: CHANNELIZATION





20' 10' 0 20' 40'

GENERAL

1. ALL SIGN TYPES, COLORS, AND DIMENSIONS ARE STANDARD PER THE MUTCD, UNLESS OTHERWISE INDICATED.
2. STREET NAME SIGNS SHALL MEET CITY STANDARD SIZE, DIMENSION, COLOR, ETC.
3. DIMENSIONS WITH A * ARE APPROXIMATE.

CHANNELIZATION NOTES:

1. CONTRACTOR SHALL REMOVE EXISTING PAVEMENT MARKINGS/ PRM'S/ OTHER CHANNELIZATION MARKINGS. COORDINATE WORK WITH THE ENGINEER.
2. CONTRACTOR SHALL FURNISH AND INSTALL WHITE WIDE LANE LINE PER CITY OF ISSAQUAH STANDARD DETAIL T-19.
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0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015
SCALE: H: 1"=20'
DRAWN: B.J.B.
CHECKED: C.B.W.
APPROVED: B.L.S.

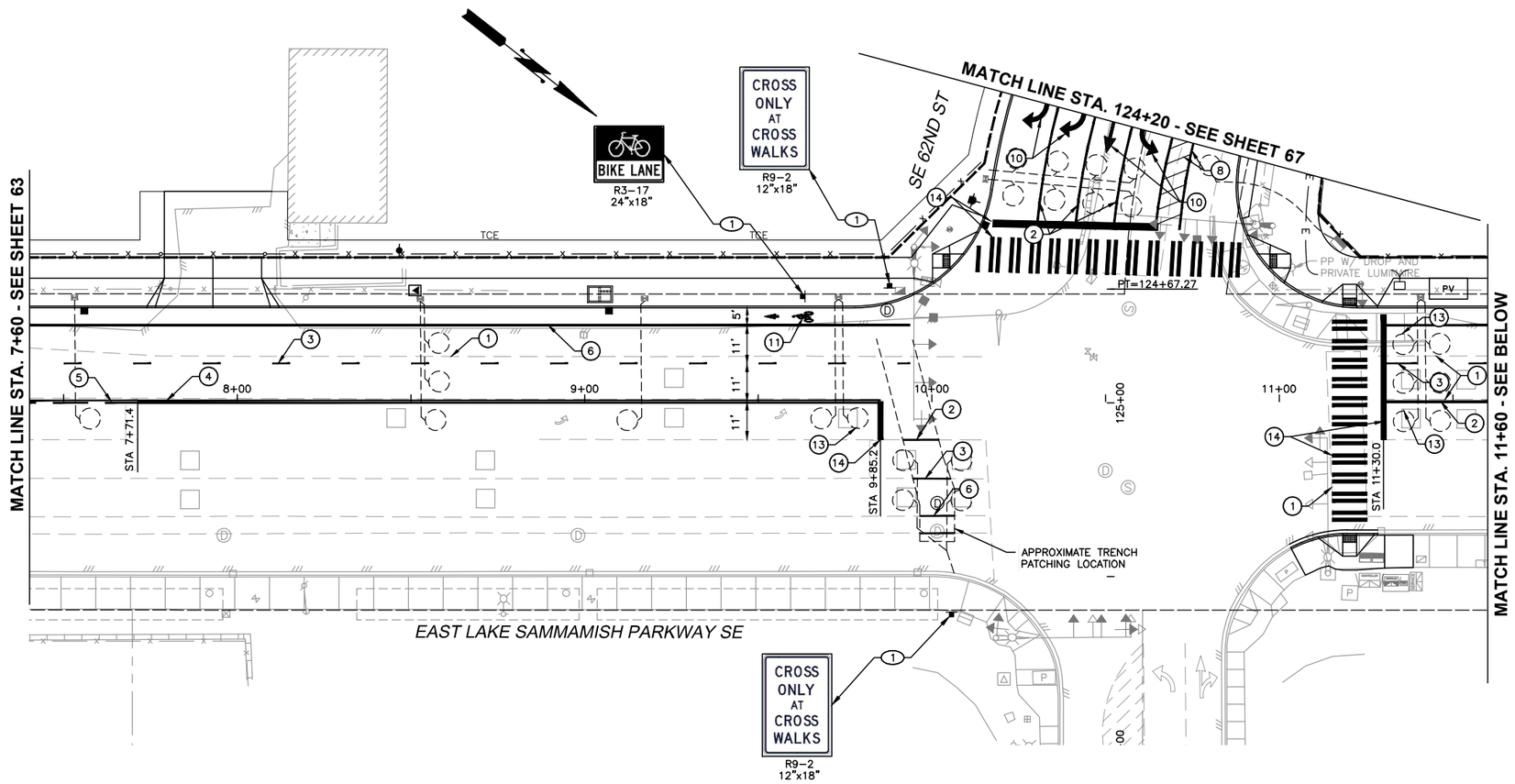
PRELIMINARY NOT FOR CONSTRUCTION

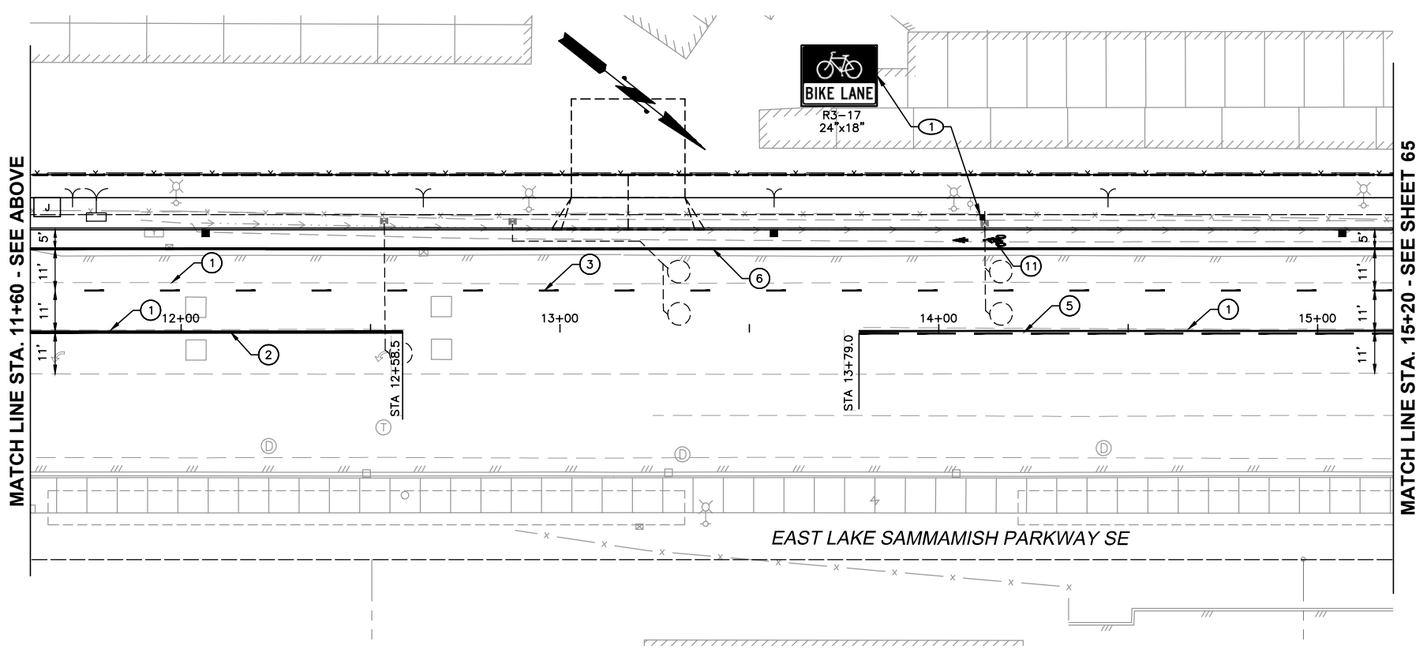
No.	REVISION	DATE	APPD

BRIAN L. SOURINE — STATE OF WASHINGTON — 50591 — REGISTERED PROFESSIONAL ENGINEER
BRIAN J. BOLLEN — STATE OF WASHINGTON — 50392 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
CHANNELIZATION AND SIGNING PLAN

SHEET: 63
OF: 101
JOB NO.: 13570
DWG: CHANNELIZATION





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DATE: APR. 2015
SCALE: H: 1"=20'
DRAWN: B.J.B.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

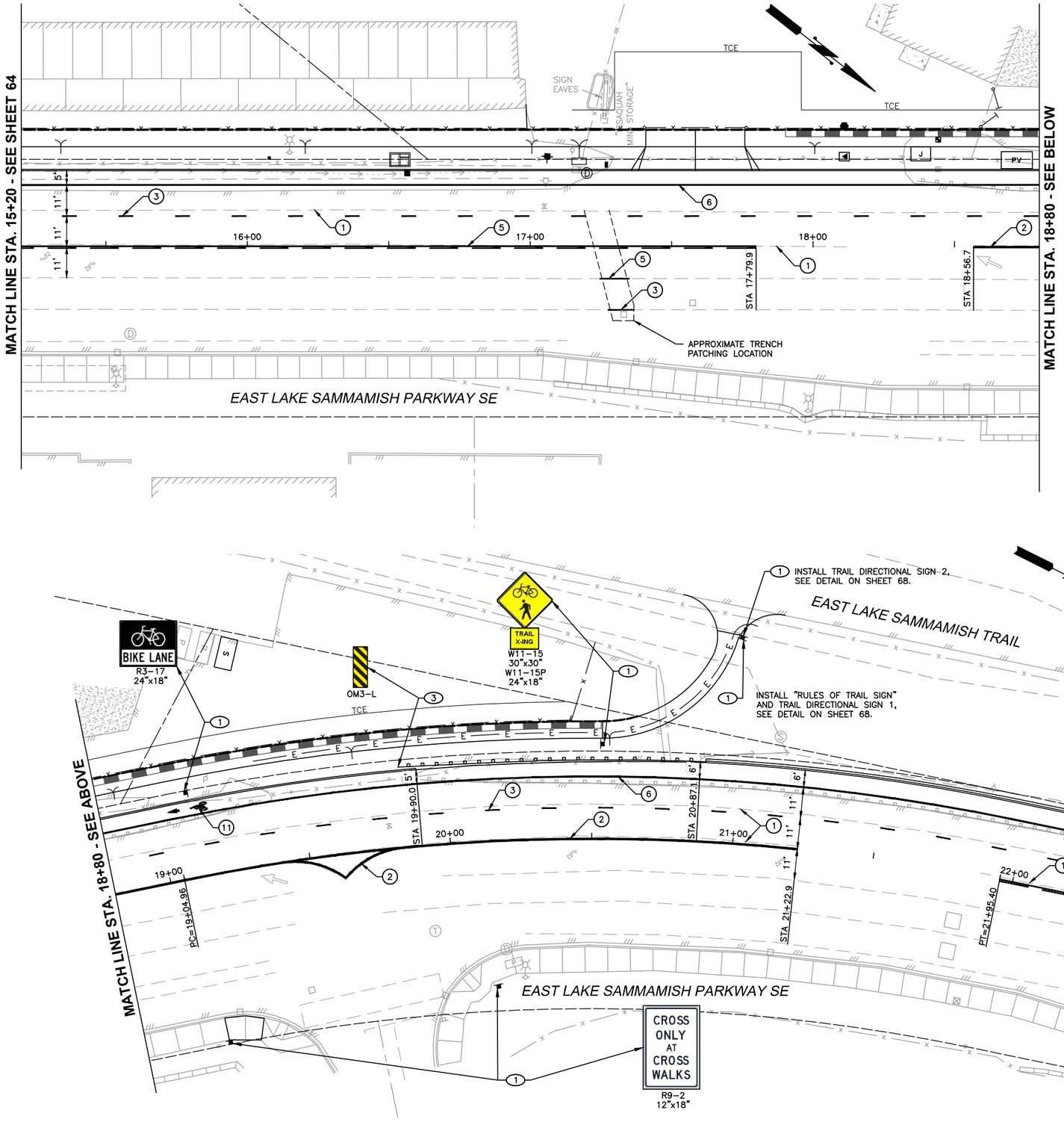
No.	REVISION	DATE	APPD

BRIAN L. SOURINE — STATE OF WASHINGTON — 50591 — REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN — STATE OF WASHINGTON — 50392 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
CHANNELIZATION AND SIGNING PLAN

SHEET: 64
OF: 101
JOB NO.: 13570
DWG: CHANNELIZATION



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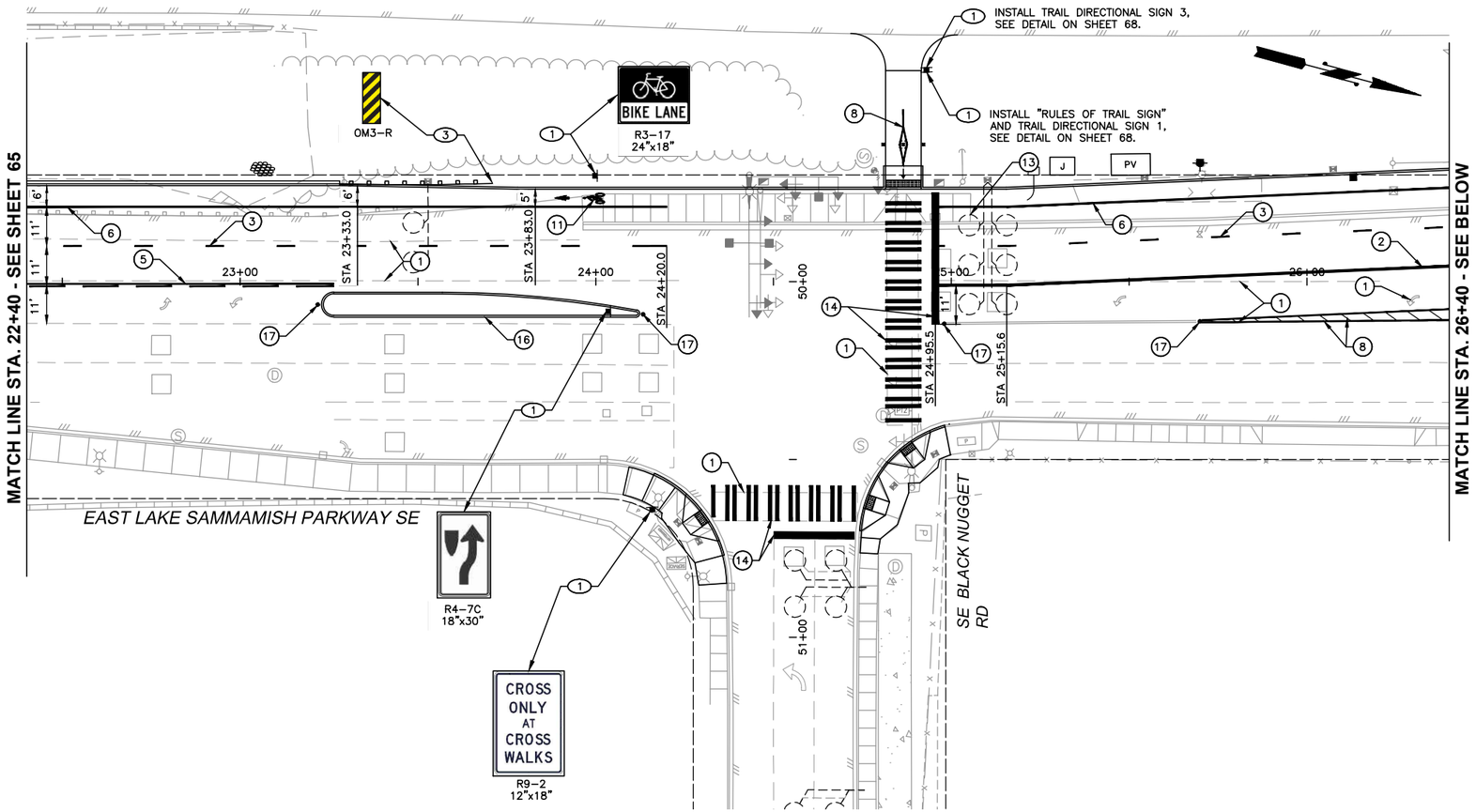
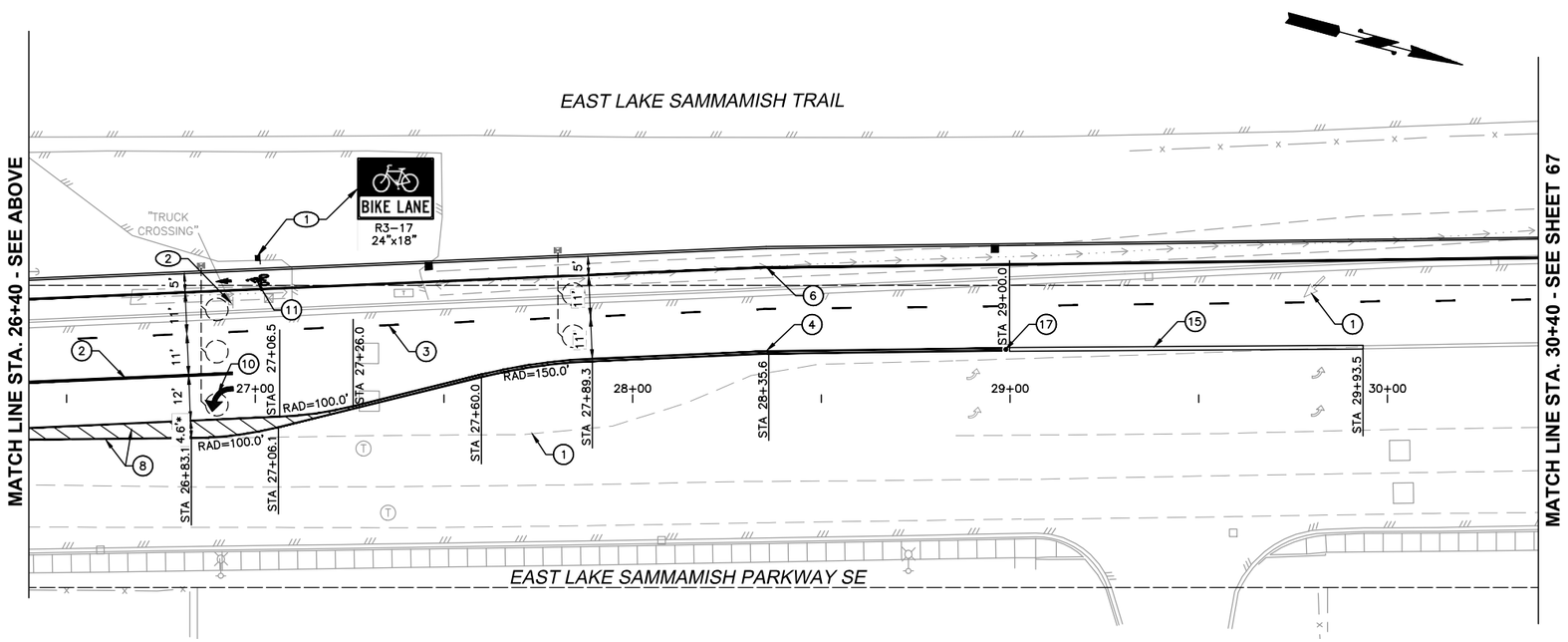
BRIAN L. SOURINE — STATE OF WASHINGTON — 36691 — REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN — STATE OF WASHINGTON — 50352 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
CHANNELIZATION AND SIGNING PLAN

SHEET: 65
OF: 101
JOB NO.: 13570
DWG: CHANNELIZATION





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BRIAN J. BOLLEN — STATE OF WASHINGTON — 50362 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
CHANNELIZATION AND SIGNING PLAN

SHEET: 66
OF: 101

JOB NO.: 13570
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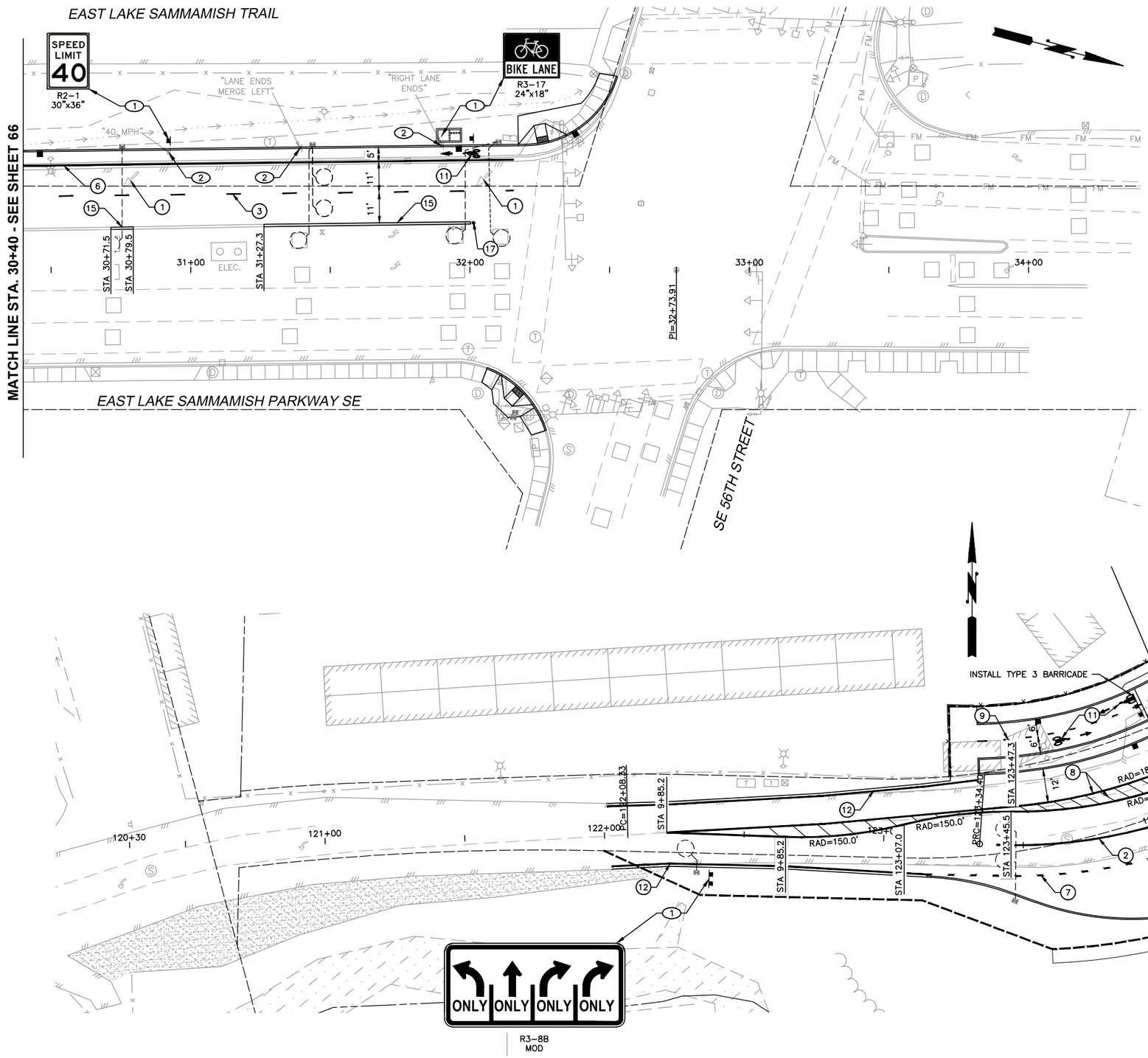

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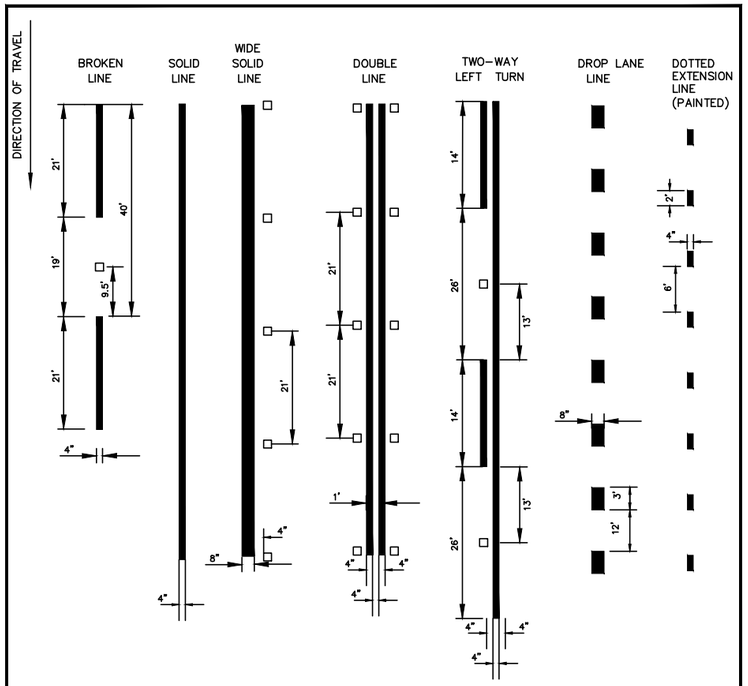


NOTES:

1. ARTERIALS ON VALLEY FLOOR SHALL BE MARKED WITH RAISED PAVEMENT MARKERS.
2. COLLECTORS SHALL BE MARKED WITH METHYL METHACRYLATE (DURASET). SEE APPLICABLE MATERIAL LIST
3. LOCAL/RESIDENTIAL STREETS, TYPICALLY NOT MARKED.
4. TYPE 2 MARKER ON LEFT & RIGHT TURN POCKETS ARE PLACED INSIDE THE POCKET SIDE OF THE 8" STRIPE.

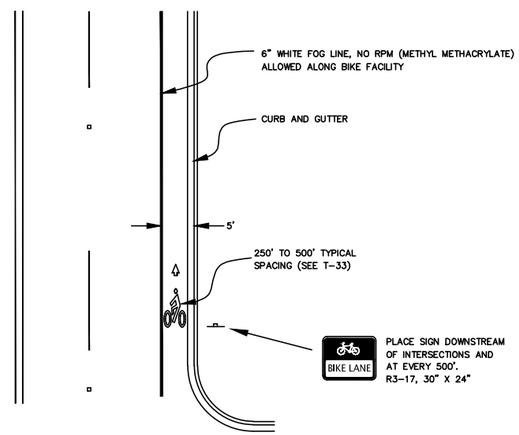
☐ TYPE 2 LANE MARKER

NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT — AUGUST 2010

CHANNELIZATION - METHYL METHACRYLATE MARKINGS

STANDARD DETAIL NO. T-19 REV:

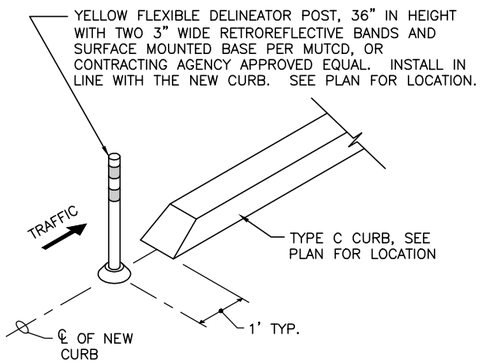


NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT — AUGUST 2010

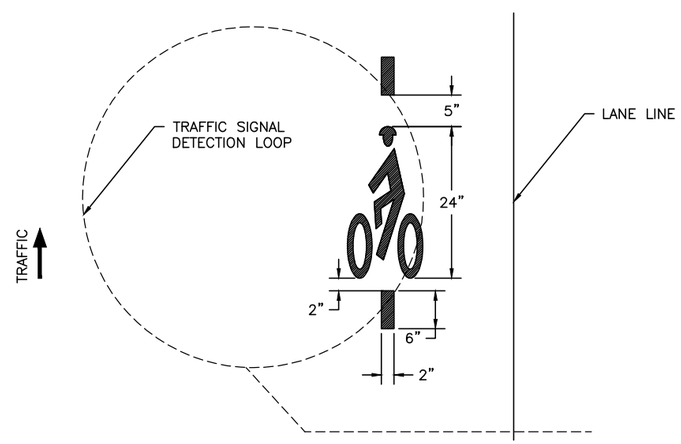
TYPICAL BICYCLE LANE- WIDTH, SIGNING, AND MARKING

STANDARD DETAIL NO. T-24 REV:



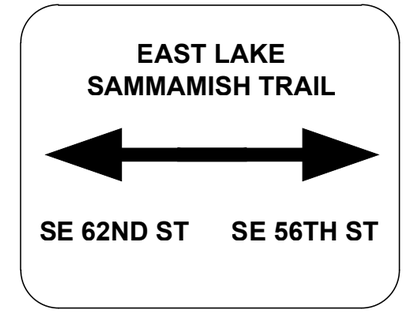
FLEXIBLE DELINEATOR POST AT CURB END

NOT TO SCALE



BICYCLE DETECTOR PAVEMENT MARKING SYMBOL

NOT TO SCALE

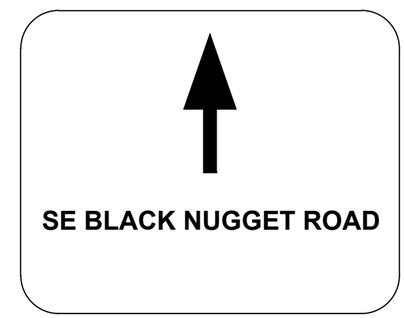


TRAIL DIRECTIONAL SIGN 1

NOT TO SCALE

TRAIL DIRECTIONAL SIGN 2

NOT TO SCALE



TRAIL DIRECTIONAL SIGN 3

NOT TO SCALE

NOTES:
1. SIGN AND DIRECTIONAL PLAQUES MATERIALS SHALL MATCH EXISTING SIGNS INSTALLED ALONG EAST LAKE SAMMAMISH TRAIL.

2. SIGN LETTERING AND COLOR SHALL BE THE SAME FONT AND SIZE AS EXISTING SIGNS INSTALLED ALONG EAST LAKE SAMMAMISH TRAIL.

TRAIL RULES

KEEP THE TRAIL SAGE AND ENJOYABLE FOR ALL!

OBSERVE THE FOLLOWING RULES FOR USE OF FACILITIES.
KING COUNTY CODE 7.12.295

- NO MOTORIZED VEHICLES ALLOWED ON TRAIL.
- OBEY THE 15 MPH SPEED LIMIT.
- STAY ON TRAIL; RESPECT PRIVATE PROPERTY.
- PASS ON LEFT; USE BELL OR VOICE.
- YIELD TO TRAFFIC WHERE SIGNAGE INDICATES.
- USE LIGHTS AND REFLECTORS AT DAWN AND DUSK.
- TRAIL IS CLOSED 1/2 HOUR AFTER SUNSET AND OPENS 1/2 HOUR BEFORE SUNRISE.
- KEEP PETS ON LEASH. OBEY SCOOP LAWS.
- RESPECT OTHERS; SHATE THE TRAIL.

ENJOY YOUR TRAIL.

THANK YOU

KING COUNTY

TRAIL RULES SIGN

NOT TO SCALE

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015 | SCALE: AS NOTED | DRAWN:AS NOTED | CHECKED: C.B.W. | APPROVED: B.L.S.

No.	REVISION	DATE	APPD
	PRELIMINARY NOT FOR CONSTRUCTION		

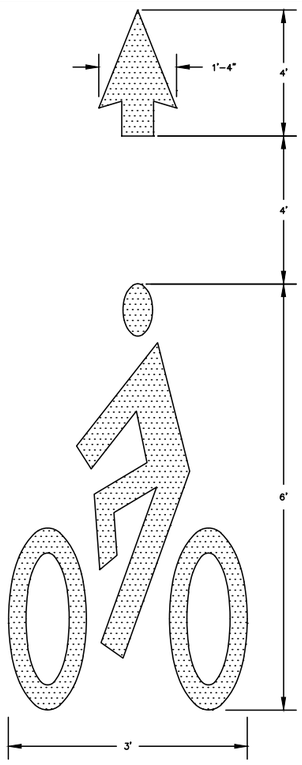
BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN — STATE OF WASHINGTON — 50362 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
CHANNELIZATION AND SIGNING DETAILS

SHEET: 68
OF: 101

JOB NO.: 13570
DWG: CHAN_DET1

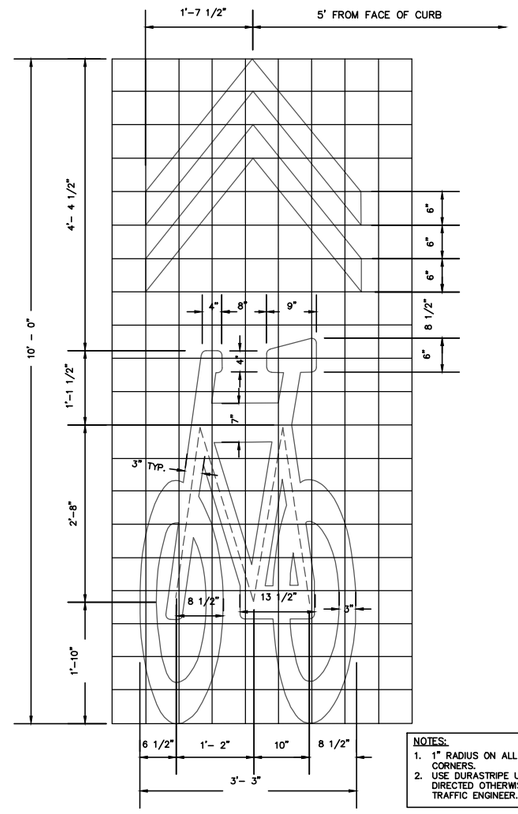


NOTES:

1. MATERIAL:
   - METHYL METHACRYLATE

NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT AUGUST 2010	EXPIRES:	EXPIRES: 12-13-2011	BICYCLE LANE MARKINGS	STANDARD DETAIL NO. T-27 REV:

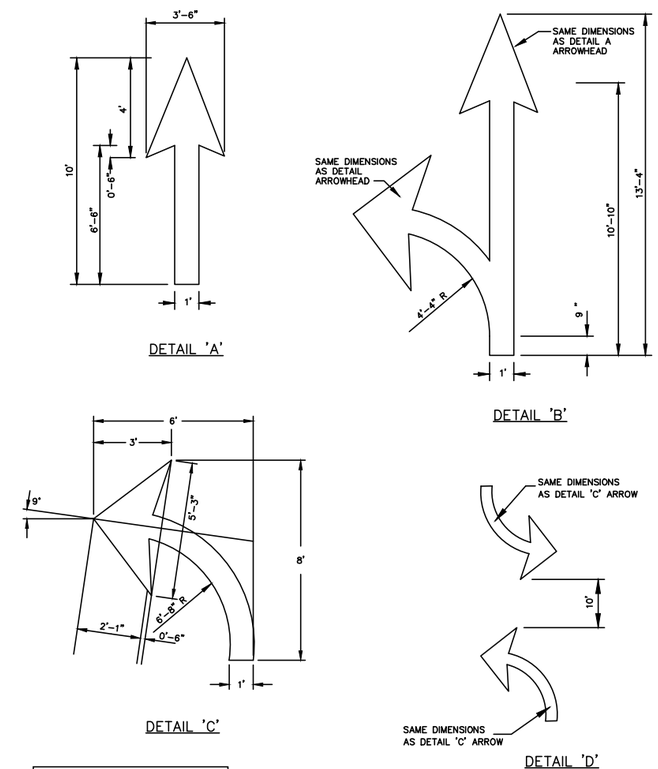


NOTES:

1. 1" RADIUS ON ALL ROUNDED CORNERS.
2. USE DURASTRIPE UNLESS DIRECTED OTHERWISE BY THE TRAFFIC ENGINEER.

NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT AUGUST 2010	EXPIRES:	EXPIRES: 12-13-2011	SHARROW BICYCLE SYMBOL	STANDARD DETAIL NO. T-28 REV:



NOTES:

MATERIALS: METHYL METHACRYLATE

NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT AUGUST 2010	EXPIRES:	EXPIRES: 12-13-2011	PAVEMENT ARROWS	STANDARD DETAIL NO. T-35 REV:

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015	SCALE: AS NOTED	DRAWN:AS NOTED	CHECKED: C.B.W.	APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN — STATE OF WASHINGTON — 50362 — REGISTERED PROFESSIONAL ENGINEER

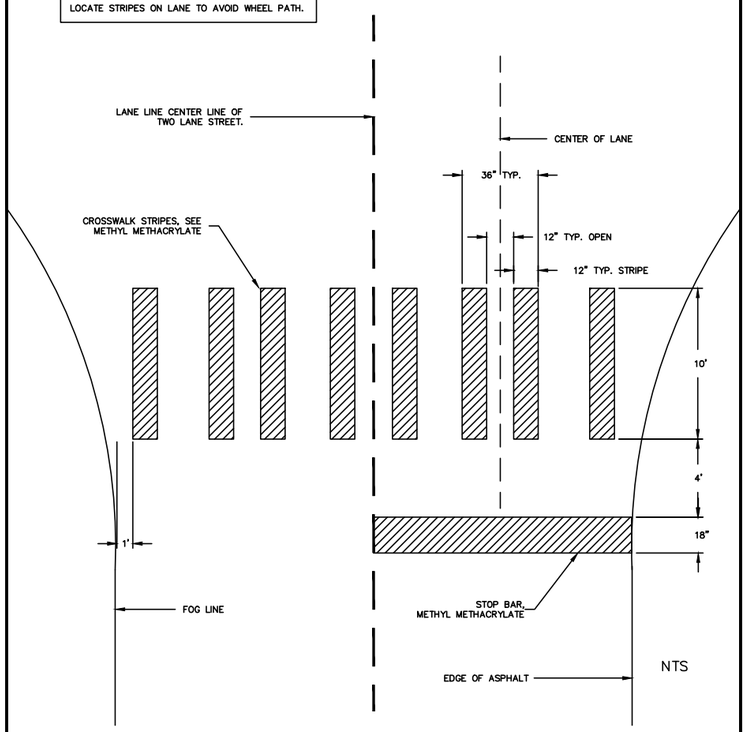
CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
CHANNELIZATION AND SIGNING DETAILS

SHEET: 69
OF: 101

JOB NO.: 13570
DWG: CHAN_DET2

NOTE:

LOCATE STRIPES ON LANE TO AVOID WHEEL PATH.



NTS

NO SCALE

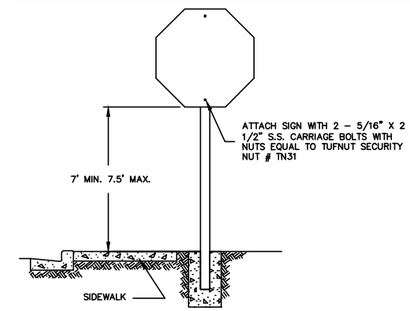
CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT AUGUST 2010

EXPIRES: EXPIRES: 12-13-2011

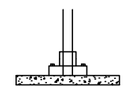
TYPICAL CROSSWALK STRIPE

STANDARD DETAIL NO. T-36

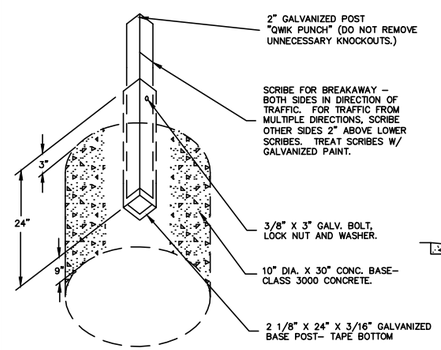
REV:

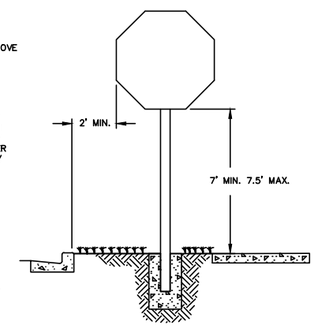


TYPICAL INSTALLATION WITH ADJACENT SIDEWALK



PROVIDE ALTERNATE INSTALLATION FOR MOUNTING TO SIDEWALK QUICK PUNCH SURFACE MOUNT #12101600





TYPICAL INSTALLATION

PARKWAY AREA

NOTES:

1. ALL SIGNS SHALL BE PER MUTCD UNLESS OTHERWISE APPROVED OR DIRECTED BY THE CITY ENGINEER.
2. STREET NAME SIGNS MAY BE INSTALLED AT THE TOP OF SIGN POSTS (SEE STANDARD DETAIL T–45).
3. POSTS SHALL BE INSTALLED PLUMB.
4. SEAMED CORNER– RIGHT SIDE FACING SIGN.
5. ALL PUBLIC STOP SIGNS SHALL BE 30"X30".
6. SIGN SHEETING SHALL BE DIAMOND GRADE.

NO SCALE

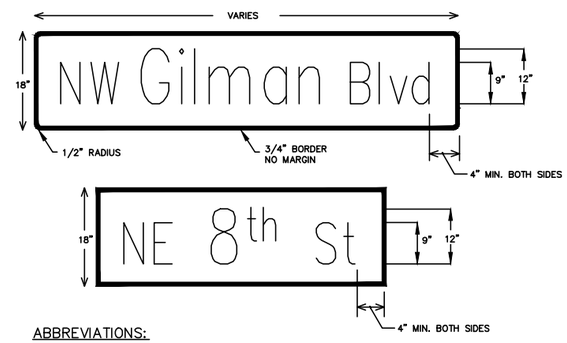
CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT AUGUST 2010

EXPIRES: EXPIRES: 12-13-2011

TRAFFIC SIGN INSTALLATION

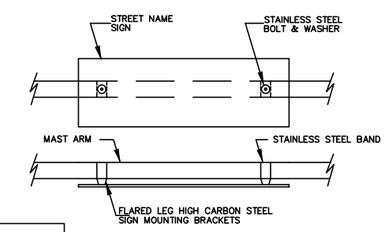
STANDARD DETAIL NO. T-44

REV:



ABBREVIATIONS:

STREET=	St
AVENUE=	Ave
PLACE=	Pl
WAY=	Way
BOULEVARD=	Blvd
PARKWAY=	Pkwy
LANE=	Ln
COURT=	Ct
DRIVE=	Dr
ROAD=	Rd
KEY=	Key
CONNECTOR=	Conn
CIRCLE=	Cir



NOTES:

1. SIGN:
   18" X VARIES EXTRUDED ALUMINUM, TREATED, 0.080 GAUGE ROUNDED CORNERS
2. BACKGROUND:
   GREEN, 3M DIAMOND GRADE OR HIGH REFLECTIVE PRISMATIC (HIP). VISUAL IMPACT PERFORMANCE (VIP) SHEETING, 3/4" WHITE BORDER, NO MARGIN
3. COPY:
   WHITE DIAMOND GRADE VIP CUT–OUT LETTERS OR 3M SCOTCHLITE EC FILM SERIES 1170

   NAMES:
   12" SERIES C FIRST LETTER U.C.

   NUMBERS:
   12" SERIES C UC

   QUADRANT (NE or SE):
   9" SERIES C UC

   DESIGNATION (Ave,St,etc):
   SERIES C 9" FIRST LETTER U.C.

   SUFFIX (th,st,etc):
   9" SERIES C FIRST LETTER U.C.

NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT AUGUST 2010

EXPIRES: EXPIRES: 12-13-2011

STREET NAME SIGN MAST ARM

STANDARD DETAIL NO. T-46

REV:

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015 | SCALE: AS NOTED | DRAWN:AS NOTED | CHECKED: C.B.W. | APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

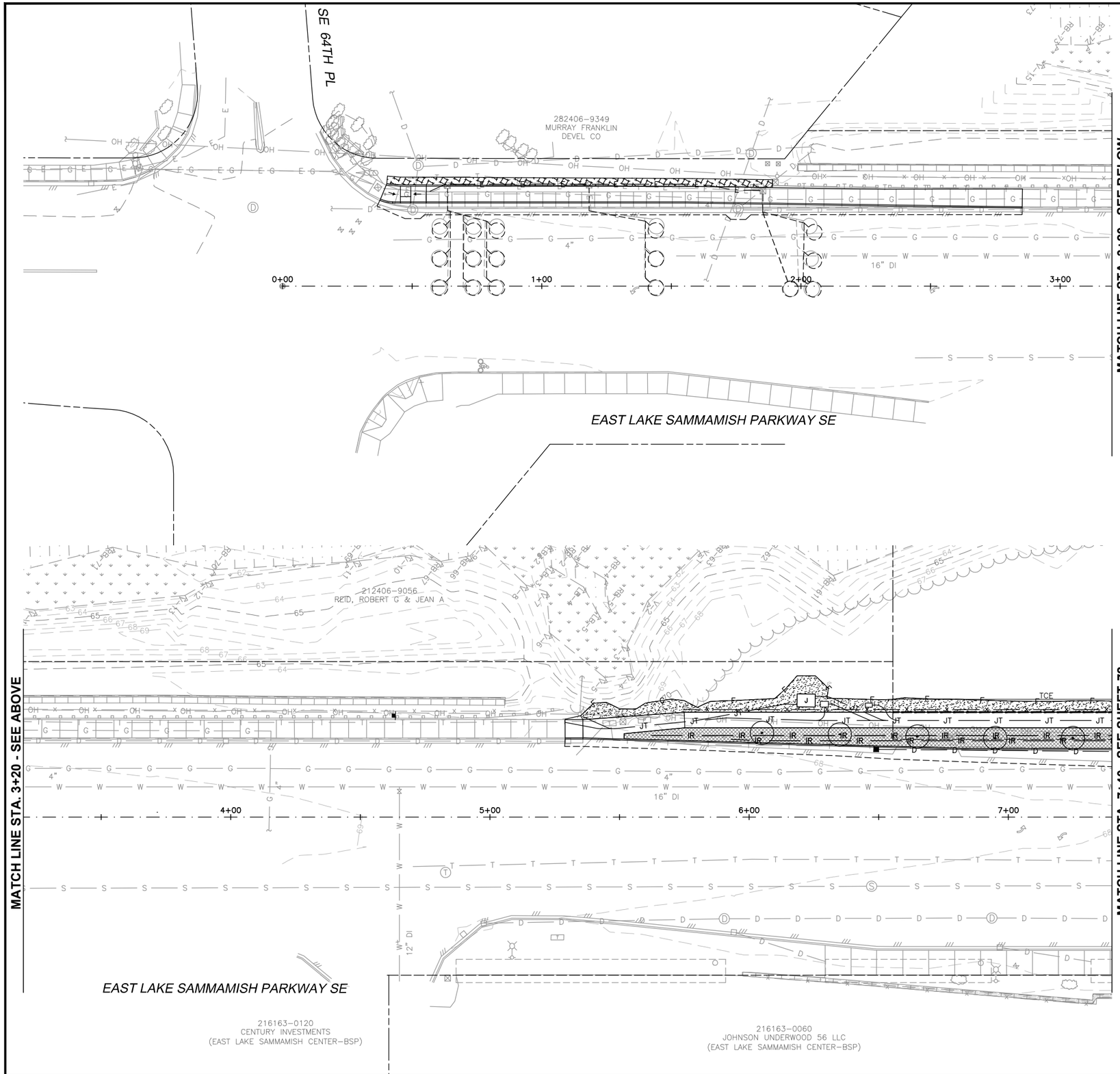
BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN — STATE OF WASHINGTON — 50362 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
CHANNELIZATION AND SIGNING DETAILS

SHEET: 70
OF: 101

JOB NO.: 13570
DWG: CHAN_DET3



20' 10' 0 20' 40'

PLANTING LEGEND

SYMBOL	DESCRIPTION	REMARKS
	STREETSCAPE	SEE ALSO LANDSCAPING DETAILS
	SEEDING, FERTILIZING, AND MULCHING	HAND OR HYDRO SEEDING. NO IMPORT OF TOPSOIL UNLESS APPROVED BY CONTRACTING AGENCY.
	4" CRUSHED SURFACING TOP COURSE	SEE DETAIL ON SHEET 76

NOTE: CONTRACTOR SHALL CONFIRM ALL LANDSCAPING LOCATIONS WITH CONTRACTING AGENCY PRIOR TO INSTALLATION.

PLANT LIST

SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING
	SORBUS DECORA	SHOWY MOUNTAIN ASH	2.0" CAL 8'-10' HT	30' TYP.
	QUERCUS RUBRA	RED OAK	2.0" CAL 8'-10' HT	30' MIN, 40' MAX

0 1" 2"
TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

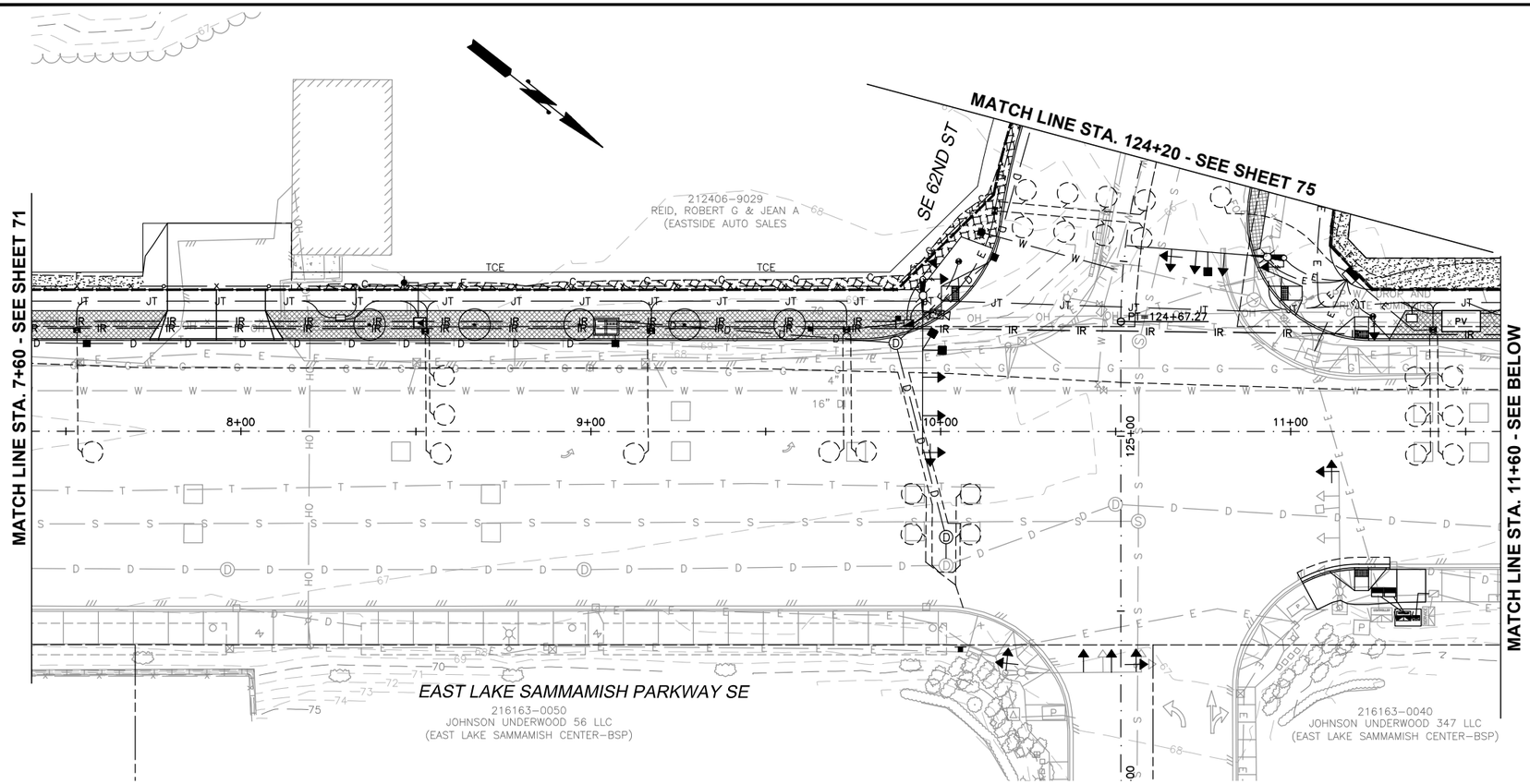
No.	REVISION	DATE	APPD

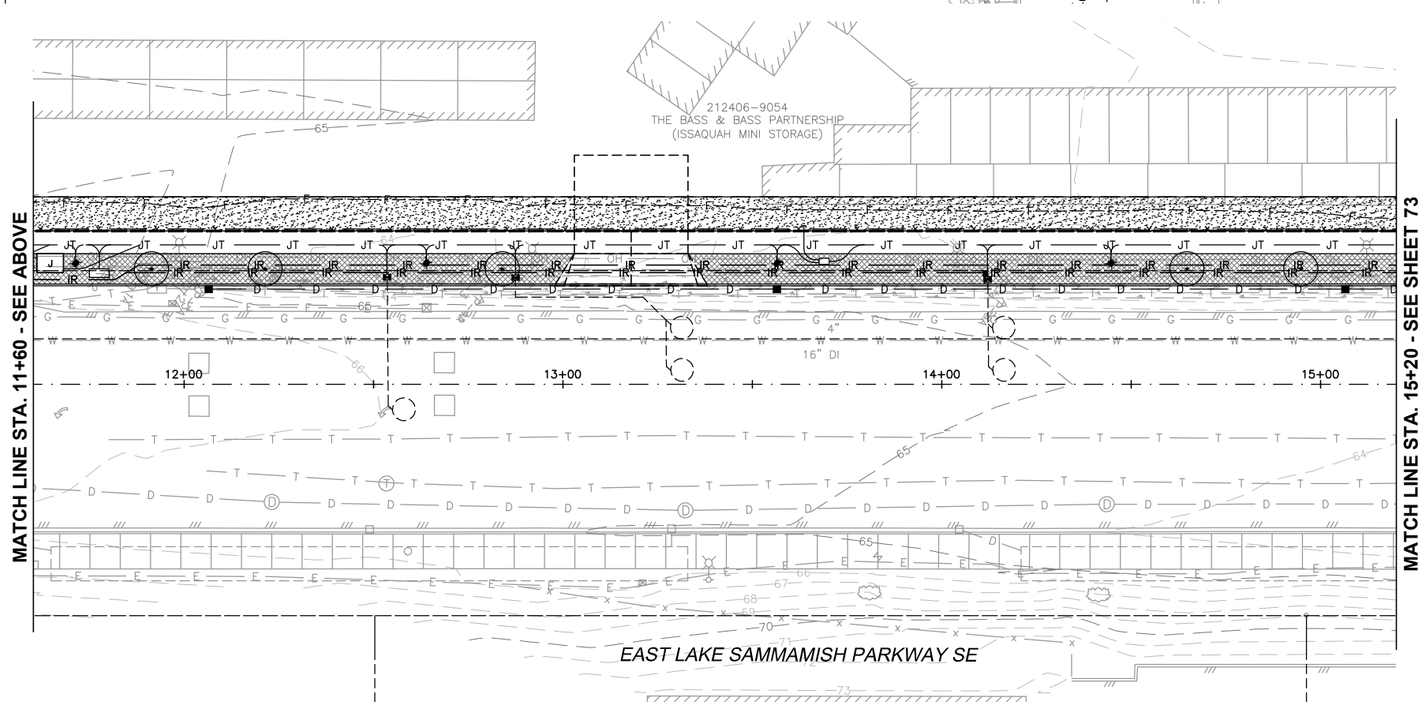
BRIAN L. SOUERWINE STATE OF WASHINGTON 36091 REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN STATE OF WASHINGTON 35352 REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
ROADSIDE PLANTING AND SURFACE RESTORATION PLAN

SHEET: 71
OF: 101
JOB NO.: 13570
DWG: ST_SCAPE





20' 10' 0 20' 40'

PLANTING LEGEND

SYMBOL	DESCRIPTION	REMARKS
	STREETSCAPE	SEE ALSO LANDSCAPING DETAILS
	SEEDING, FERTILIZING, AND MULCHING	HAND OR HYDRO SEEDING. NO IMPORT OF TOPSOIL UNLESS APPROVED BY CONTRACTING AGENCY.
	4" CRUSHED SURFACING TOP COURSE	SEE DETAIL ON SHEET 76

NOTE: CONTRACTOR SHALL CONFIRM ALL LANDSCAPING LOCATIONS WITH CONTRACTING AGENCY PRIOR TO INSTALLATION.

PLANT LIST

SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING
	SORBUS DECORA	SHOWY MOUNTAIN ASH	2.0" CAL 8'-10' HT	30' TYP.
	QUERCUS RUBRA	RED OAK	2.0" CAL 8'-10' HT	30' MIN, 40' MAX

0 1" 2"
TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH, SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

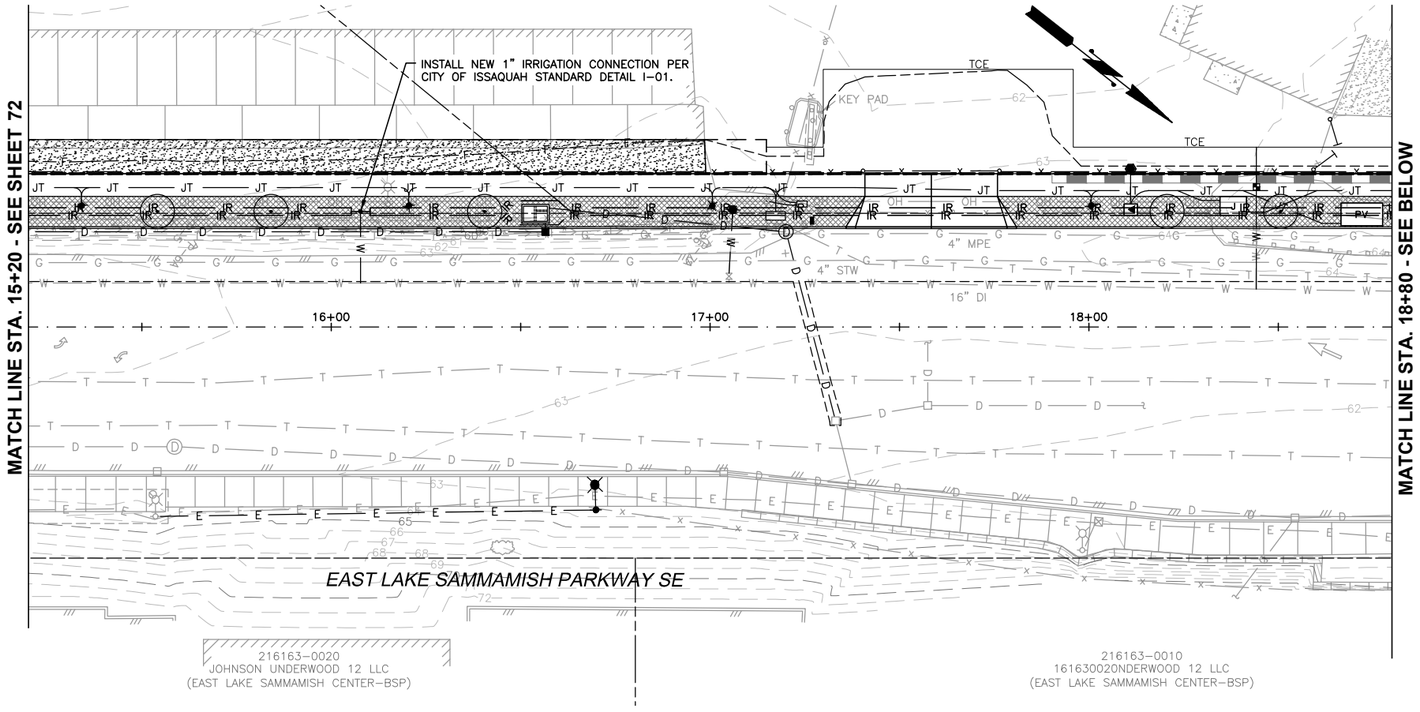
No.	REVISION	DATE	APPD

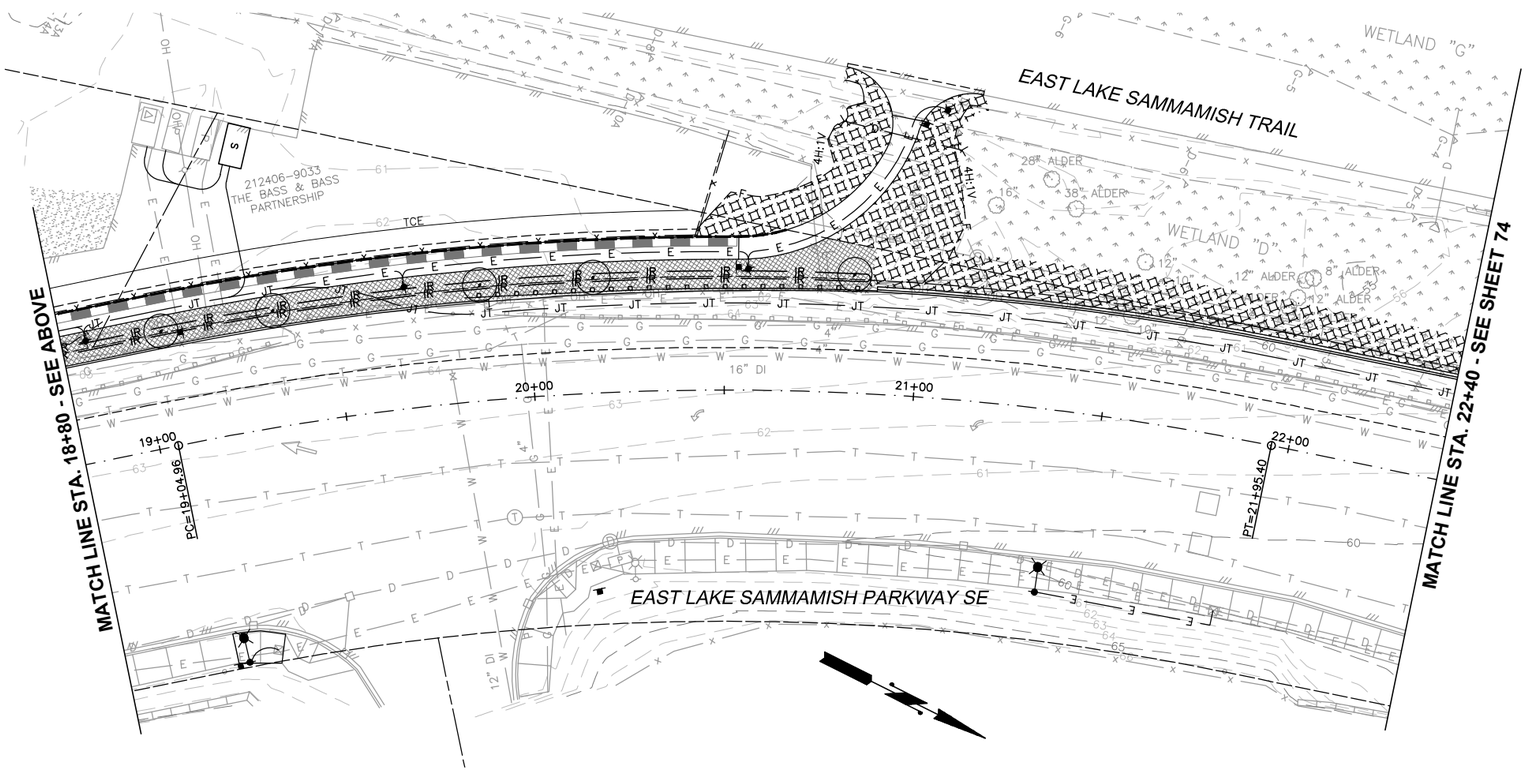
BRIAN L. SOURWINE STATE OF WASHINGTON 36591 REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN STATE OF WASHINGTON 50392 REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
ROADSIDE PLANTING AND SURFACE RESTORATION PLAN

SHEET: 72
OF: 101
JOB NO.: 13570
DWG: ST_SCAPE





20' 10' 0 20' 40'

PLANTING LEGEND

SYMBOL	DESCRIPTION	REMARKS
	STREETSCAPE	SEE ALSO LANDSCAPING DETAILS
	SEEDING, FERTILIZING, AND MULCHING	HAND OR HYDRO SEEDING. NO IMPORT OF TOPSOIL UNLESS APPROVED BY CONTRACTING AGENCY.
	4" CRUSHED SURFACING TOP COURSE	SEE DETAIL ON SHEET 76

NOTE: CONTRACTOR SHALL CONFIRM ALL LANDSCAPING LOCATIONS WITH CONTRACTING AGENCY PRIOR TO INSTALLATION.

PLANT LIST

SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING
	SORBUS DECORA	SHOWY MOUNTAIN ASH	2.0" CAL 8'-10' HT	30' TYP.
	QUERCUS RUBRA	RED OAK	2.0" CAL 8'-10' HT	30' MIN, 40' MAX

0 1" 2"
TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

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SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015
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APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

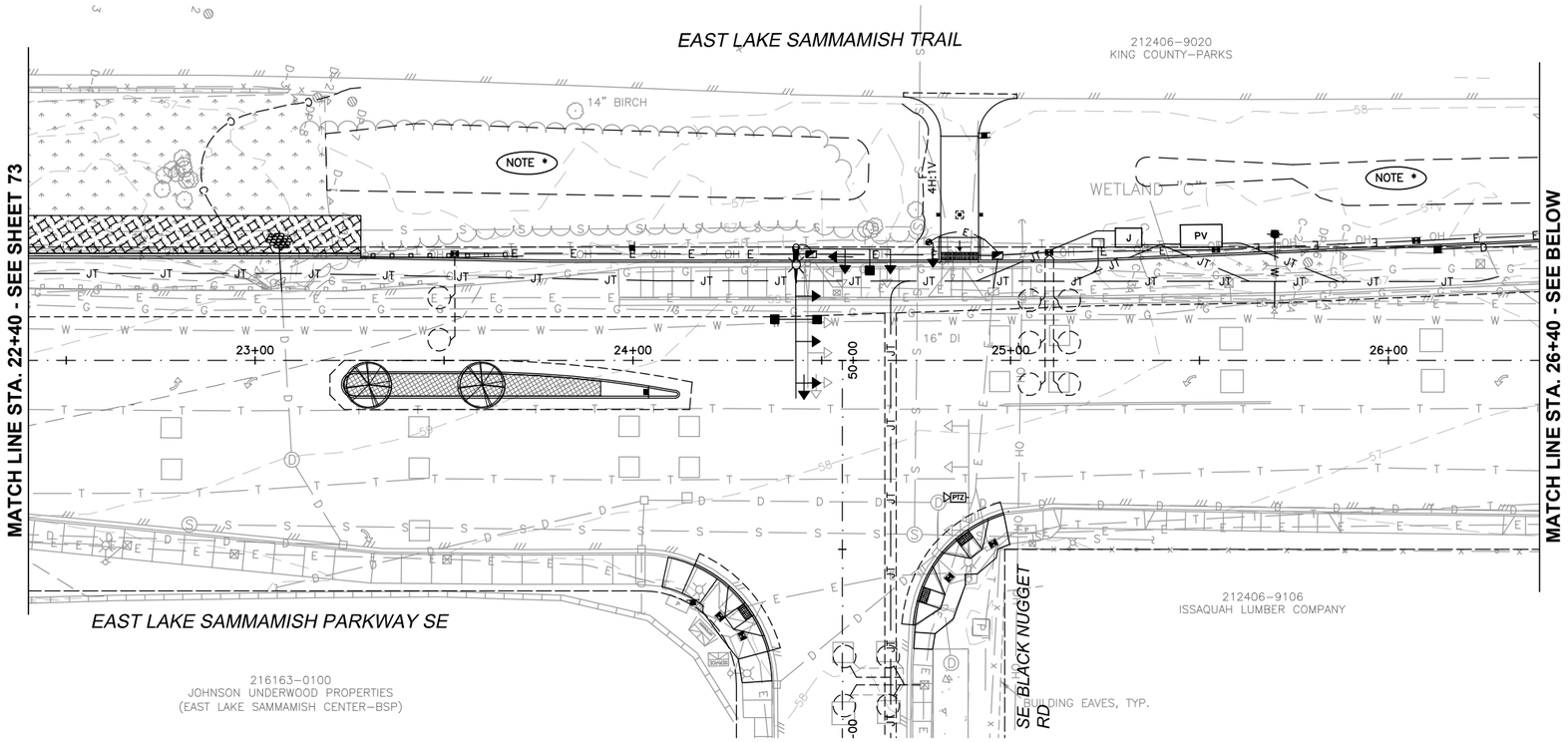
No.	REVISION	DATE	APPD

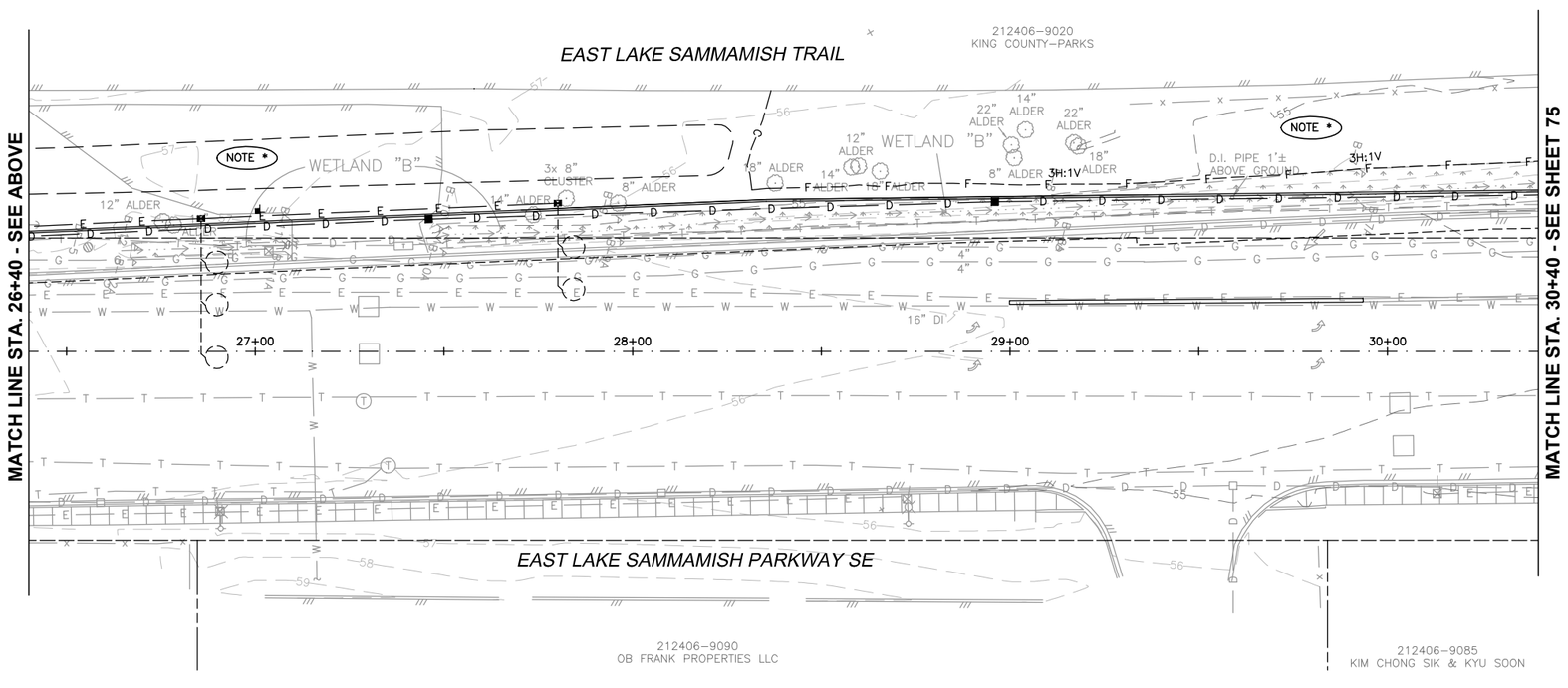
BRIAN L. SOURINE — STATE OF WASHINGTON — 50591 — REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN — STATE OF WASHINGTON — 50392 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
ROADSIDE PLANTING AND SURFACE RESTORATION PLAN

SHEET: 73
OF: 101
JOB NO.: 13570
DWG: ST_SCAPE





20' 10' 0 20' 40'

* NOTE:
SEE WETLAND MITIGATION PLANS FOR PROPOSED PLANTING IN THESE AREAS.

PLANTING LEGEND

SYMBOL	DESCRIPTION	REMARKS
	STREETSCAPE	SEE ALSO LANDSCAPING DETAILS
	SEEDING, FERTILIZING, AND MULCHING	HAND OR HYDRO SEEDING. NO IMPORT OF TOPSOIL UNLESS APPROVED BY CONTRACTING AGENCY.
	4" CRUSHED SURFACING TOP COURSE	SEE DETAIL ON SHEET 76

NOTE: CONTRACTOR SHALL CONFIRM ALL LANDSCAPING LOCATIONS WITH CONTRACTING AGENCY PRIOR TO INSTALLATION.

PLANT LIST

SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING
	SORBUS DECORA	SHOWY MOUNTAIN ASH	2.0" CAL 8'-10' HT	30' TYP.
	QUERCUS RUBRA	RED OAK	2.0" CAL 8'-10' HT	30' MIN, 40' MAX

0 1" 2"
TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

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SEATTLE, WASHINGTON 98109 • (206) 284-0860

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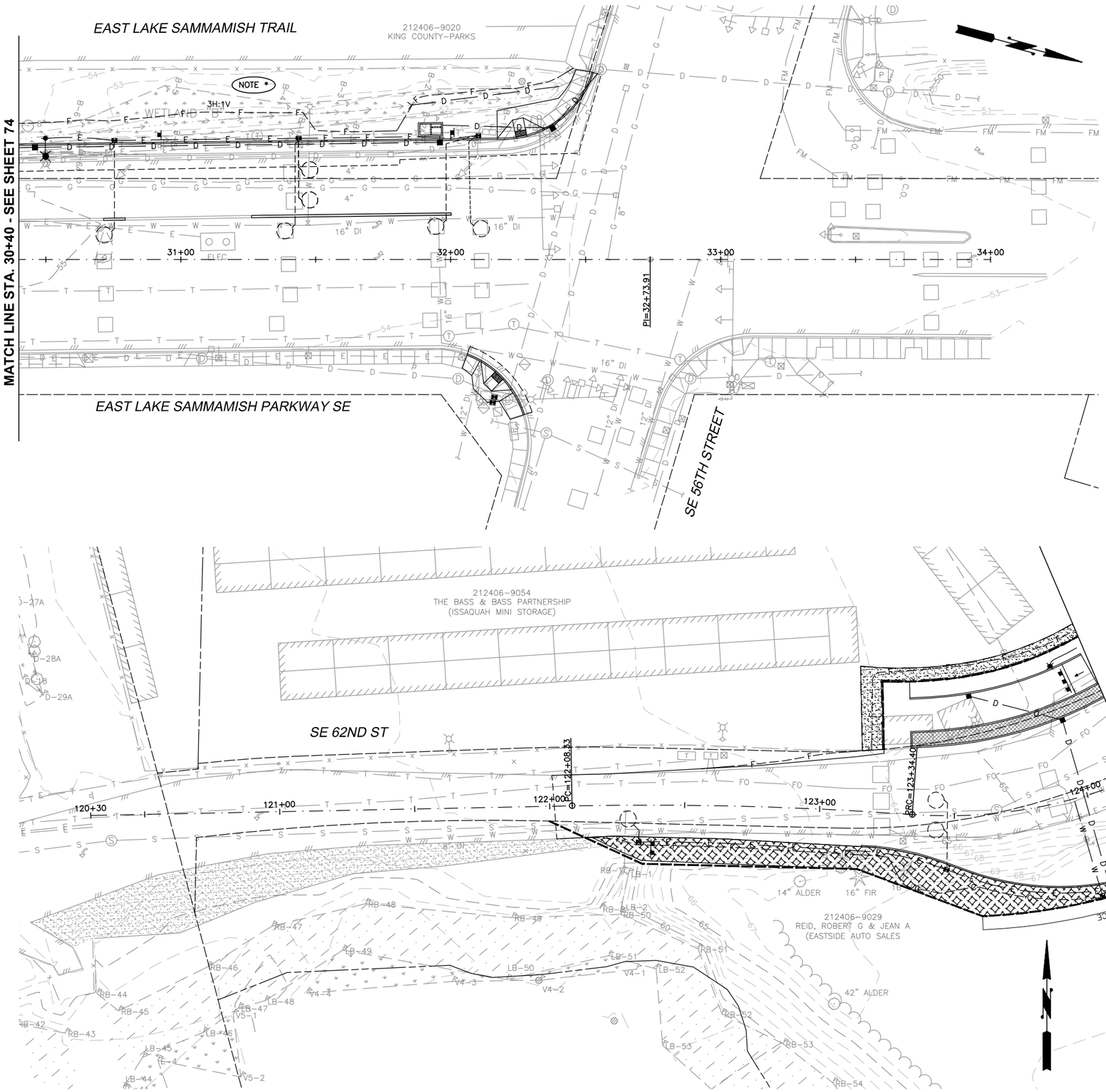
No.	REVISION	DATE	APPD

BRIAN L. SOURWINE STATE OF WASHINGTON 35091 REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN STATE OF WASHINGTON 50362 REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
ROADSIDE PLANTING AND SURFACE RESTORATION PLAN

SHEET: 74
OF: 101
JOB NO.: 13570
DWG: ST_SCAPE



20' 10' 0 20' 40'

*** NOTE:**

SEE WETLAND MITIGATION PLANS FOR PROPOSED PLANTING IN THESE AREAS.

PLANTING LEGEND

SYMBOL	DESCRIPTION	REMARKS
	STREETSCAPE	SEE ALSO LANDSCAPING DETAILS
	SEEDING, FERTILIZING, AND MULCHING	HAND OR HYDRO SEEDING. NO IMPORT OF TOPSOIL UNLESS APPROVED BY CONTRACTING AGENCY.
	4" CRUSHED SURFACING TOP COURSE	SEE DETAIL ON SHEET 76

NOTE: CONTRACTOR SHALL CONFIRM ALL LANDSCAPING LOCATIONS WITH CONTRACTING AGENCY PRIOR TO INSTALLATION.

PLANT LIST

SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING
	SORBUS DECORA	SHOWY MOUNTAIN ASH	2.0" CAL 8'-10' HT	30' TYP.
	QUERCUS RUBRA	RED OAK	2.0" CAL 8'-10' HT	30' MIN, 40' MAX

0 1" 2"

TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015
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APPROVED: B.L.S.

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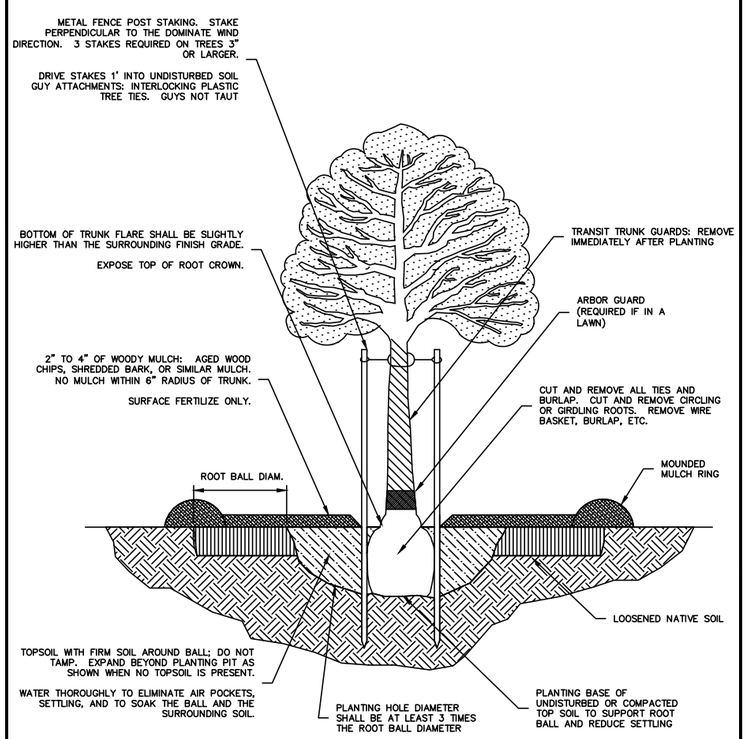
BRIAN J. BOLLEN — STATE OF WASHINGTON — 35362 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
ROADSIDE PLANTING AND SURFACE RESTORATION PLAN

SHEET: 75
OF: 101

JOB NO.: 13570
DWG: ST_SCAPE



APPROVED	DEPT.	DATE

NOTES:

1. TREE LOCATION TO BE VERIFIED NOT TO CONFLICT WITH UNDERGROUND UTILITIES A MIN. OF 3 FT CLEAR ZONE EACH SIDE.

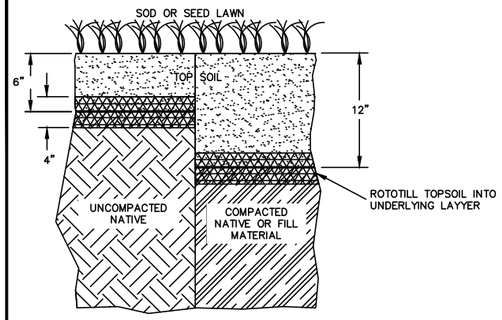
NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT APRIL 2010

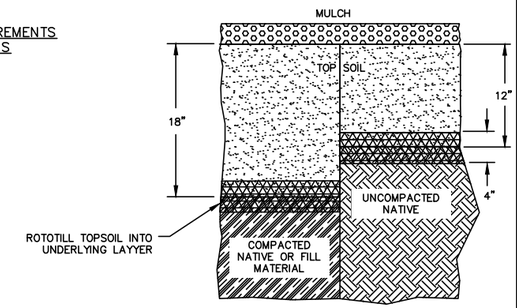
TREE PLANTING DETAIL

NOTE: THE ORIGINAL IS APPROVED FOR PUBLICATION BY PARKS DEPARTMENT AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. L-01 REV:



TOP SOIL REQUIREMENTS FOR LAWNS



TOP SOIL REQUIREMENTS FOR TREE AND SHRUB BEDS

NOTES:

1) ALL PLANT MATERIALS TO MEET THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z80.1–1900 OR MOST CURRENT VERSION.
2) PLANT, MAINTAIN AND WARRANTY AS PER SPECIAL PROVISIONS.
3) DO NOT SUBSTITUE SPECIES WITHOUT ENGINEER APPROVAL.

APPROVED	DEPT.	DATE

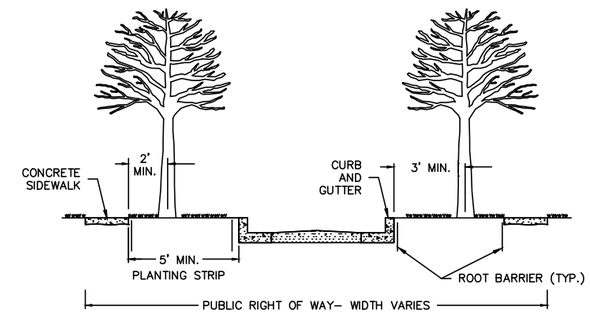
NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT APRIL 2010

TOP SOIL REQUIREMENTS FOR COMPACTED AND NON-COMPACTED SOILS

NOTE: THE ORIGINAL IS APPROVED FOR PUBLICATION BY PARKS DEPARTMENT AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. L-02 REV:



NOTES:

1. TREE SPACING IS DEPENDANT ON THE SIZE AND TYPE OF STREET TREE USED. SEE CONTRACT FOR SPACING.
2. TREES SHALL NOT BE PLACED IN SIGHT DISTANCE TRIANGLES PER MOST CURRENT VERSION OF AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) OR CITY STANDARDS.
3. COORDINATE WITH TRAFFIC SIGNAL ENGINEER SO THAT TREES DO NOT OBSTRUCT OPERATIONS OF TRAFFIC SIGNAL SYSTEMS.
4. PLANTING STRIP IRRIGATION SYSTEMS SHALL MEET IRRIGATION STANDARD AND INCORPORATE LATEST WATER CONSERVATION TECHNIQUES.
5. STREET TREES SHALL HAVE A MINIMUM OVERHEAD CLEARANCE OF SEVEN (7) FEET OVER PEDESTRIAN PATHWAYS AND FOURTEEN (14) FEET OVER STREETS. STREET TREES SHALL BE CENTERED A MINIMUM OF THIRTY (30) FEET FROM INTERSECTIONS, TWENTY (20) FEET FROM STREET LIGHTS, THREE (3) FEET FROM CURBS AND TWO (2) FEET FROM SIDEWALKS OR AS OTHERWISE APPROVED BY THE CITY.
6. STREET TREES SHALL BE PLANTED IN A PLANTING STRIP WITH A MINIMUM OF FIVE (5) FEET BETWEEN THE SIDEWALK AND THE BACK OF THE CURB
7. TREE PIT AREA SHALL BE A MINIMUM OF 24 SQUARE FEET.
8. ROOT BARRIER SHALL EXTEND A MINIMUM OF 5 FEET BEYOND TREE (REFER TO MANUFACTURERS DETAIL).

APPROVED	DEPT.	DATE

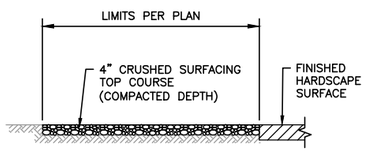
NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT APRIL 2010

TYPICAL STREET TREE LOCATION REQUIREMENTS

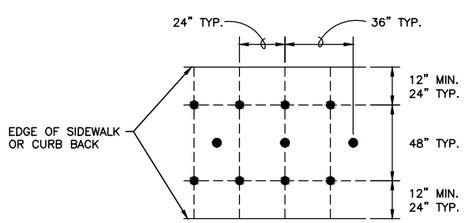
NOTE: THE ORIGINAL IS APPROVED FOR PUBLICATION BY PARKS DEPARTMENT AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. L-03 REV:



CRUSHED ROCK SURFACE RESTORATION

NOT TO SCALE

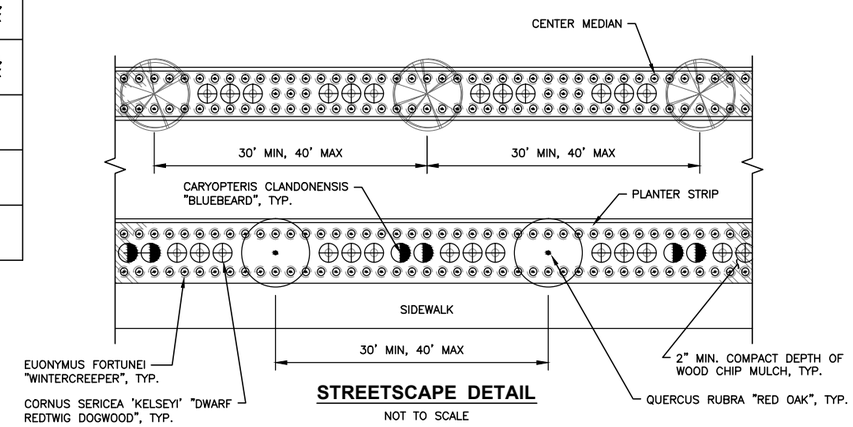


PLANTING SPACING

NOT TO SCALE

PLANT LIST

SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING
	SORBUS DECORA	SHOWY MOUNTAIN ASH	2.0" CAL 8'–10' HT	30' MIN, 40' MAX
	QUERCUS RUBRA	RED OAK	2.0" CAL 8'–10' HT	30' MIN, 40' MAX
	CARYOPTERIS CLANDONENSIS	BLUEBEARD	2 GALLON CONTAINER	3' OC
	CORNUS SERICEA 'KELSEYI'	DWARF REDOSIER DOGWOOD	2 GALLON CONTAINER	3' OC
	EUONYMUS FORTUNEI	WINTERCREEPER – BLONDY	1 GALLON CONTAINER	2' OC



STREETSCAPE DETAIL

NOT TO SCALE

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: APR. 2015 | SCALE: AS NOTED | DRAWN: C.N.T. | CHECKED: C.B.W. | APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

BRIAN L. SOURINE — STATE OF WASHINGTON — 50591 — REGISTERED PROFESSIONAL ENGINEER

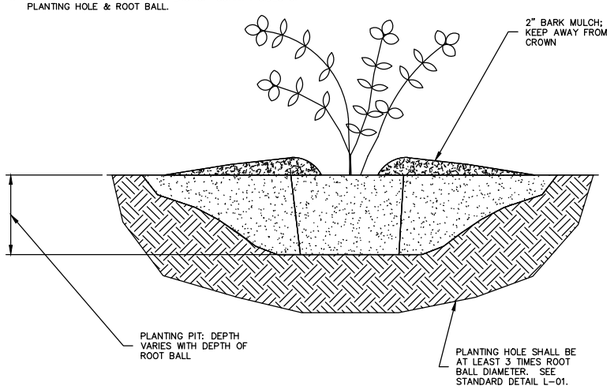
BRIAN J. BOLLEN — STATE OF WASHINGTON — 50392 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
PLANTING AND LANDSCAPE DETAILS

SHEET: 76
OF: 101

JOB NO.: 13570
DWG: LAND_DET1

NOTES:
1. CUT & REMOVE ALL TWINE & PLASTIC. SCARIFY SIDES OF PLANTING HOLE & ROOT BALL.



APPROVED	DEPT.	DATE

NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT APRIL 2010

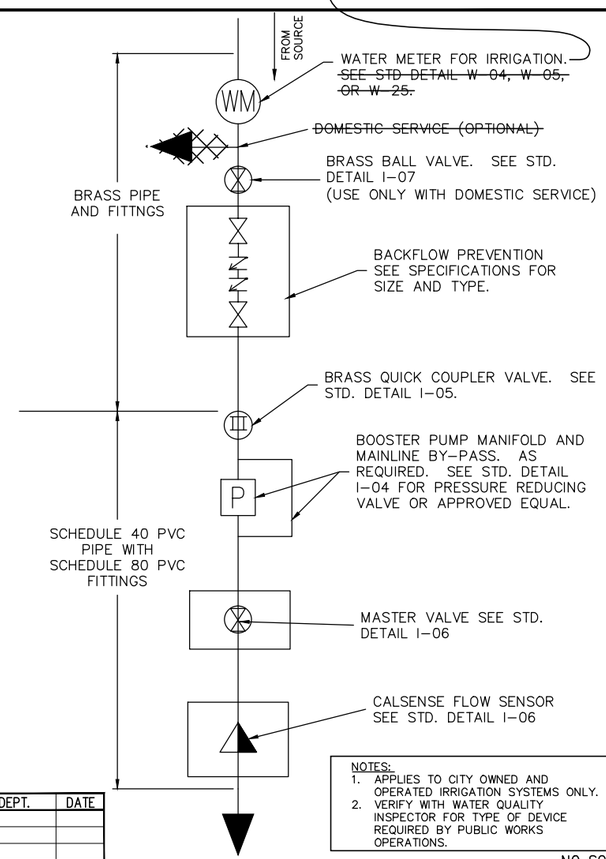
TYPICAL SHRUB GROUND COVER PLANTING

NOTE: THE ORIGINAL IS APPROVED FOR PUBLICATION BY PARKS DEPARTMENT AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. L-04

REV:

TO BE FURNISHED AND INSTALLED BY SAMMAMISH PLATEAU WATER AND SEWER DISTRICT, CONTRACTOR SHALL COORDINATE.



NOTES:
1. APPLIES TO CITY OWNED AND OPERATED IRRIGATION SYSTEMS ONLY.
2. VERIFY WITH WATER QUALITY INSPECTOR FOR TYPE OF DEVICE REQUIRED BY PUBLIC WORKS OPERATIONS.

APPROVED	DEPT.	DATE

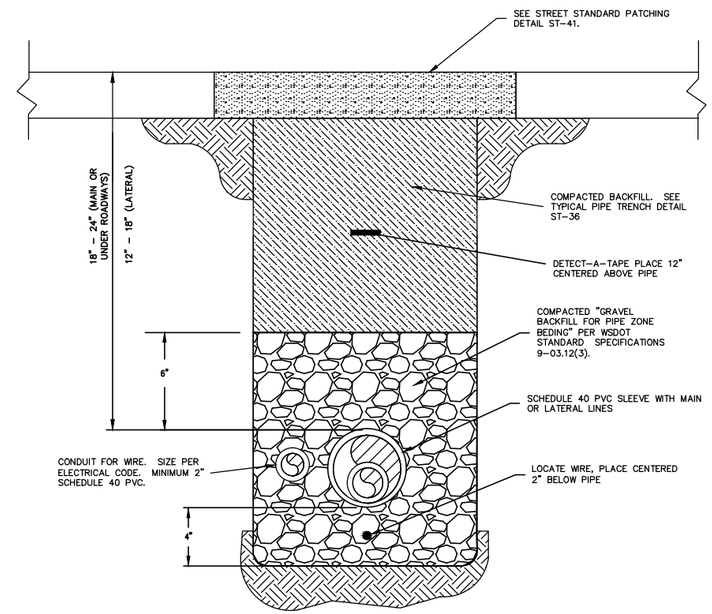
NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT APRIL 2010

IRRIGATION CONNECTION SCHEMATIC (MODIFIED)

STANDARD DETAIL NO. I-01

REV:



NOTES:
1) OUTER DIAMETER SLEEVE SIZE SHALL BE TWICE OUTER DIAMETER OF CARRIER PIPE.
2) SLEEVES REQUIRED UNDER ALL PAVED, SIDEWALK, DRIVEWAY, COMPACTED GRAVEL, AND WALL AREAS.
3) LOCATED WIRE TO BE SOLID #12 AWG, TYPE USE/UF

APPROVED	DEPT.	DATE

NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT APRIL 2010

IRRIGATION SLEEVE TRENCHING

STANDARD DETAIL NO. I-02

REV:

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015	SCALE: AS NOTED	DRAWN: C.N.T.	CHECKED: C.B.W.	APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

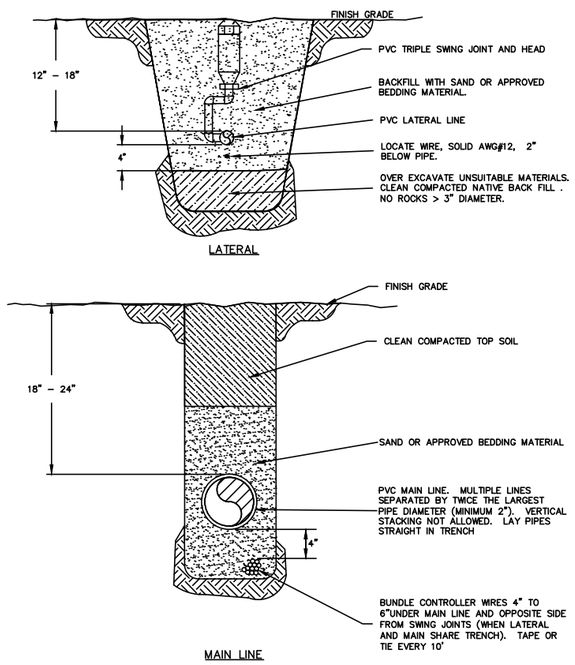
BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN — STATE OF WASHINGTON — 50362 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
PLANTING AND LANDSCAPE DETAILS

SHEET: 77
OF: 101

JOB NO.: 13570
DWG: LAND_DET2



NOTES:
1. MAINLINE PIPE SHALL BE SCHEDULE 40 PVC JOINED WITH "IPS WELD–ON P–70" BRAND PRIMER AND "IPS WELD–ON 711" BRAND GLUE PER MANUFATURERS RECOMMENDATIONS.
2. PIPE SHALL BE FREE OF DEBRIS PRIOR TO JOINING.
3. LATERAL PIPE SHALL BE PVC CLASS 200 JOINED WITH "IPS WELD–ON 721" BRAND GLUE PER MANUFACTURERS RECOMMENDATIONS.

APPROVED	DEPT.	DATE

NO SCALE

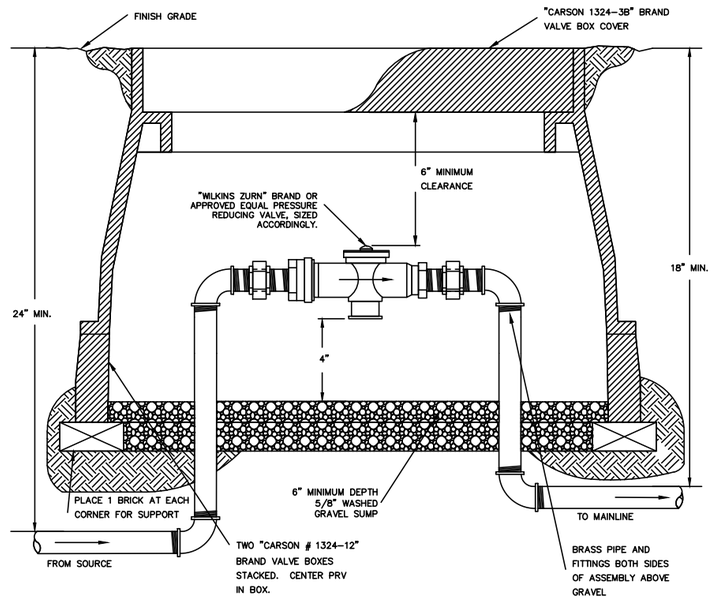
CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT APRIL 2010

TRENCHING FOR MAIN & LATERAL IRRIGATION LINES OUTSIDE PAVED AREAS

NOTE: THE ORIGINAL IS APPROVED FOR PUBLICATION BY PARKS DEPARTMENT AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. I-03

REV:



APPROVED	DEPT.	DATE

NO SCALE

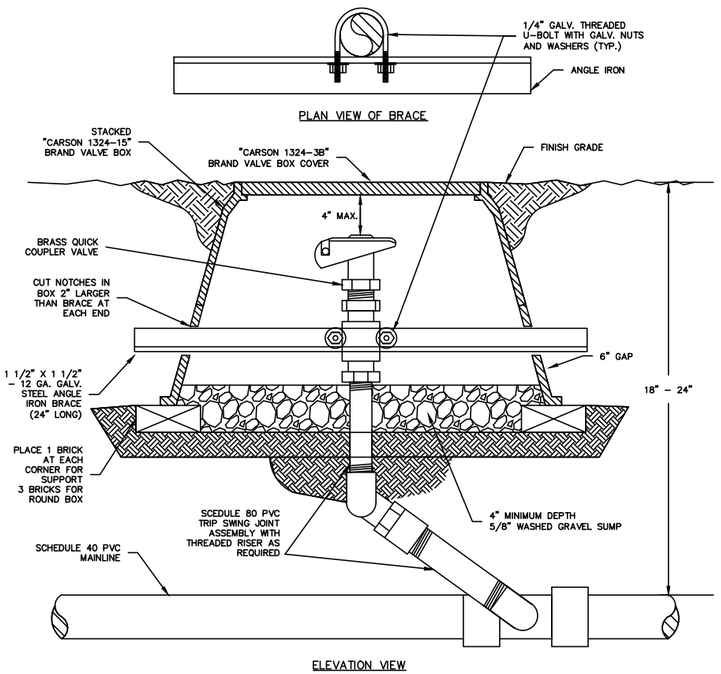
CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT APRIL 2010

PRESSURE REDUCING VALVE ASSEMBLY THROUGH 2" IRRIGATION LINES

NOTE: THE ORIGINAL IS APPROVED FOR PUBLICATION BY PARKS DEPARTMENT AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. I-04

REV:



APPROVED	DEPT.	DATE

NOTES:
1. USE TEFLON TAPE ON ALL THREADED FITTINGS

NO SCALE

CITY OF ISSAQUAH PUBLIC WORKS DEPARTMENT APRIL 2010

BRASS QUICK COUPLER VALVE (TURF OR BED AREAS) FOR IRRIGATION

NOTE: THE ORIGINAL IS APPROVED FOR PUBLICATION BY PARKS DEPARTMENT AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. I-05

REV:

Gray & Osborne, Inc.
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701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

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No.	REVISION	DATE	APPD

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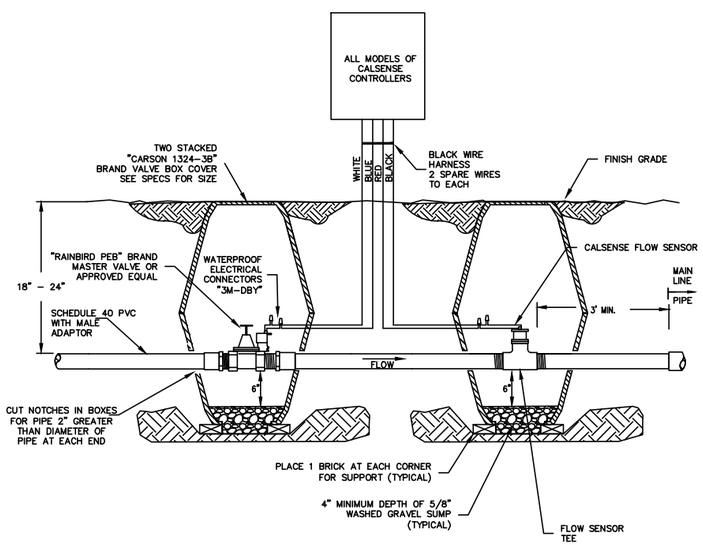
BRIAN J. BOLLEN — STATE OF WASHINGTON — 50362 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
PLANTING AND LANDSCAPE DETAILS

SHEET: 78
OF: 101

JOB NO.: 13570
DWG: LAND_DET3

PIPE SIZING CHART		
FLOW METER SIZE	UPSTREAM LENGTH	DOWNSTREAM LENGTH
1"	10"	5"
1.25"	12.5"	6.25"
1.5"	15"	7.5"
2"	20"	10"
3"	30"	15"



NOTE:
1. USE TEFLON TAPE ON ALL THREADED FITTINGS.

APPROVED	DEPT.	DATE

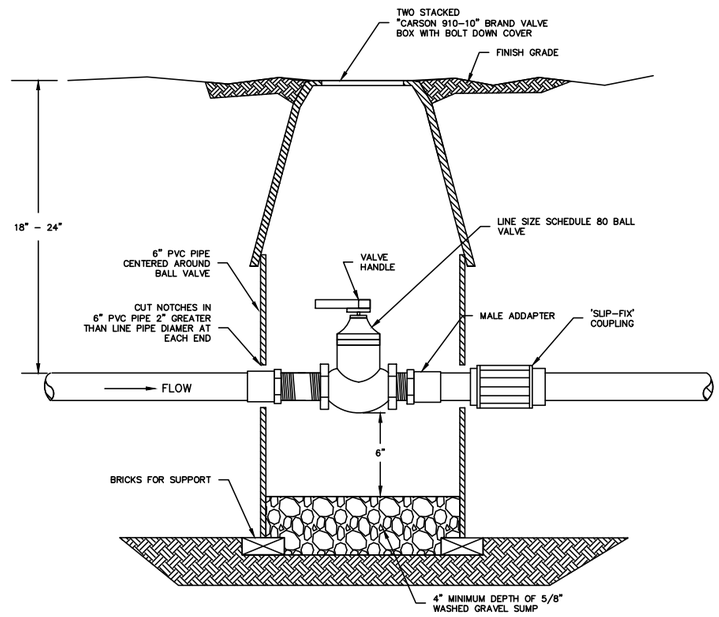
NO SCALE

CITY OF ISSAQUAH
PUBLIC WORKS DEPARTMENT
APRIL 2010

IRRIGATION MASTER VALVE AND FLOW SENSOR

NOTE: THE ORIGINAL IS APPROVED FOR PUBLICATION BY PARKS DEPARTMENT AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. I-06
REV:



NOTE:
1) USE TEFLON TAPE ON ALL THREADED FITTINGS.
2) PIPE TO BE SCH 40 PVC, NIPPLES AND FITTINGS TO BE SCH 80.

APPROVED	DEPT.	DATE

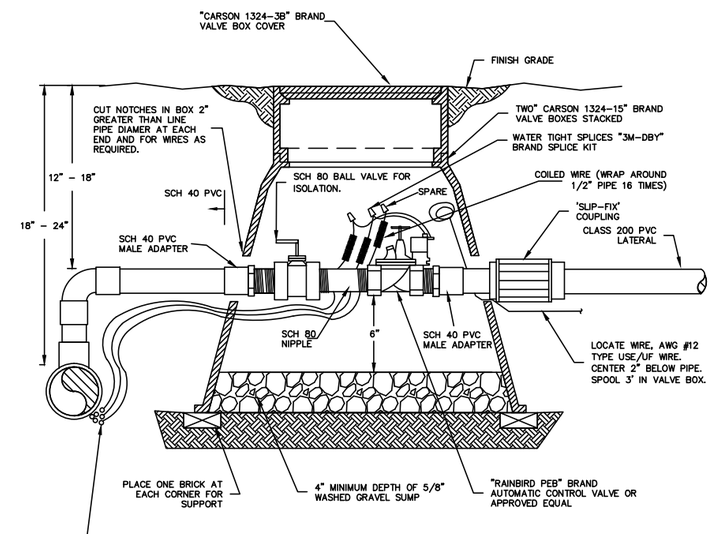
NO SCALE

CITY OF ISSAQUAH
PUBLIC WORKS DEPARTMENT
APRIL 2010

IRRIGATION BALL VALVE THROUGH 2"

NOTE: THE ORIGINAL IS APPROVED FOR PUBLICATION BY PARKS DEPARTMENT AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. I-07
REV:



NOTE:
1) USE TEFLON TAPE ON ALL THREADED FITTINGS.

APPROVED	DEPT.	DATE

NO SCALE

CITY OF ISSAQUAH
PUBLIC WORKS DEPARTMENT
APRIL 2010

AUTOMATIC IRRIGATION CONTROL VALVE

NOTE: THE ORIGINAL IS APPROVED FOR PUBLICATION BY PARKS DEPARTMENT AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. I-08
REV:

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DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

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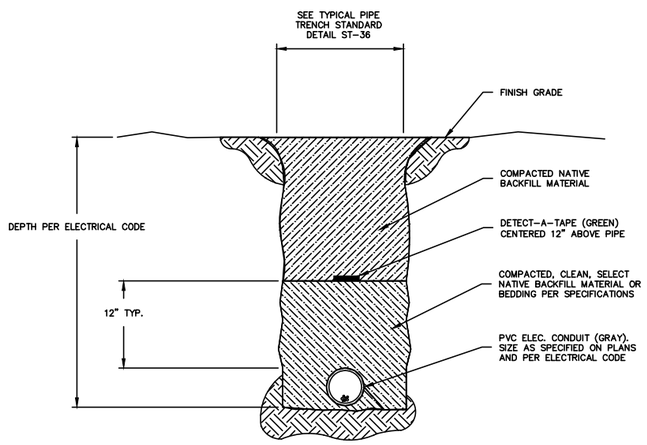
BRIAN J. BOLLEN — STATE OF WASHINGTON — 50362 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
PLANTING AND LANDSCAPE DETAILS

JOB NO.: 13570
DWG: LAND_DET4



NOTES:
1. FOR BACKFILL REQUIREMENTS IN TRAVELED AREAS, SEE STANDARD DETAIL T-57.
2. FOR STREET PATCHING REQUIREMENTS SEE STANDARD DETAIL T-49 & T-50.

APPROVED	DEPT.	DATE

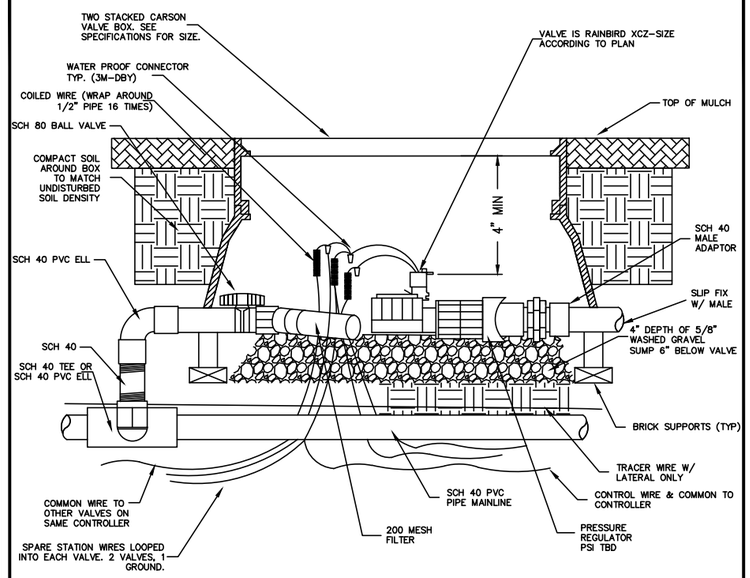
NO SCALE

CITY OF ISSAQUAH
PUBLIC WORKS DEPARTMENT
APRIL 2010

IRRIGATION POWER SUPPLY TRENCH

NOTE: THE ORIGINAL IS APPROVED FOR PUBLICATION BY PARKS DEPARTMENT AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. I-10
REV:



NOTE:
1) ALL WIRE SHALL BE TAPED AND BUNDLED EVERY TEN FEET AND SHALL BE INSTALLED AS PER LOCAL CODE.
2) USE TEFLON TAPE ON ALL THREADED FITTINGS.

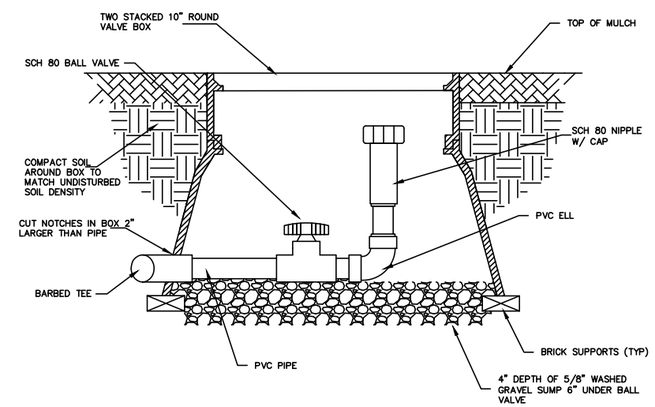
APPROVED	DEPT.	DATE

NO SCALE

CITY OF ISSAQUAH
PUBLIC WORKS DEPARTMENT
APRIL 2010

DRIP IRRIGATION VALVE ASSEMBLY

STANDARD DETAIL NO. I-12
REV:



APPROVED	DEPT.	DATE

NO SCALE

CITY OF ISSAQUAH
PUBLIC WORKS DEPARTMENT
APRIL 2010

IRRIGATION FLUSH VALVE

NOTE: THE ORIGINAL IS APPROVED FOR PUBLICATION BY PARKS DEPARTMENT AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. I-13
REV:

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

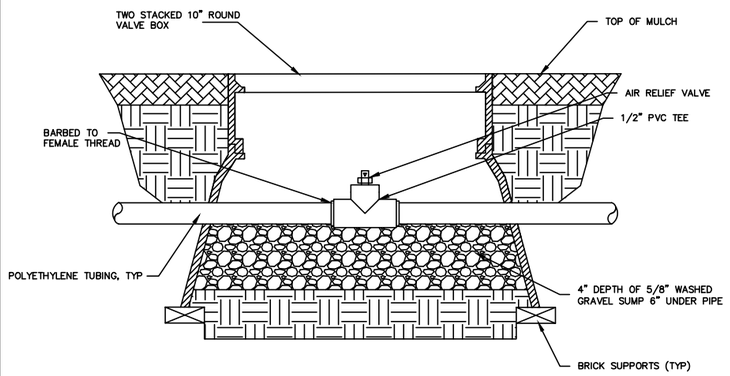
No.	REVISION	DATE	APPD

BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN — STATE OF WASHINGTON — 50362 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
PLANTING AND LANDSCAPE DETAILS

SHEET: 80
OF: 101
JOB NO.: 13570
DWG: LAND_DET5



NOTE:
1. AIR RELIEF VALVE SHALL BE INSTALLED AT THE HIGHEST POINT OF THE SYSTEM ABOVE ALL DRIPLINE LATERALS.

APPROVED	DEPT.	DATE

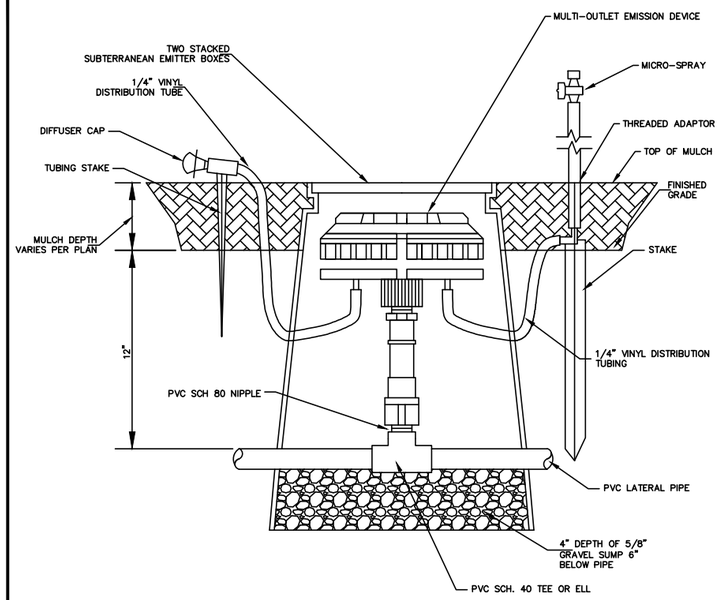
NO SCALE

CITY OF ISSAQUAH
PUBLIC WORKS DEPARTMENT
APRIL 2010

IRRIGATION
AIR RELIEF VALVE

NOTE: THE ORIGINAL IS APPROVED FOR PUBLICATION BY PARKS DEPARTMENT AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. I-14
REV:



APPROVED	DEPT.	DATE

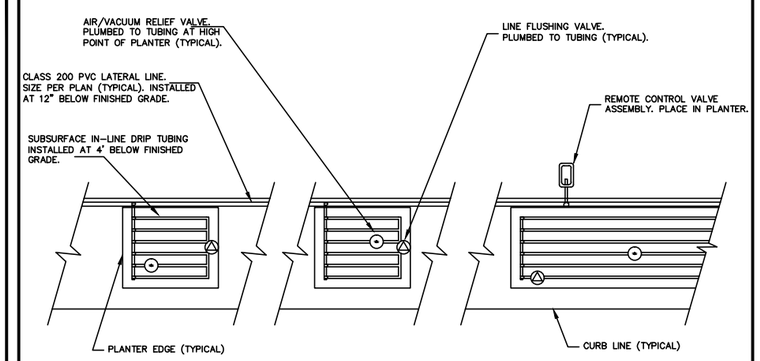
NO SCALE

CITY OF ISSAQUAH
PUBLIC WORKS DEPARTMENT
APRIL 2010

DRIP IRRIGATION
MULTI-OUTLET EMITTER

NOTE: THE ORIGINAL IS APPROVED FOR PUBLICATION BY PARKS DEPARTMENT AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. I-16
REV:



NOTE:
1. ALL DRIP TUBING FITTINGS SHALL BE BARBED

APPROVED	DEPT.	DATE

NO SCALE

CITY OF ISSAQUAH
PUBLIC WORKS DEPARTMENT
APRIL 2010

SUBSURFACE IN-LINE
DRIP IRRIGATION LAYOUT

NOTE: THE ORIGINAL IS APPROVED FOR PUBLICATION BY PARKS DEPARTMENT AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. I-17
REV:

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SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

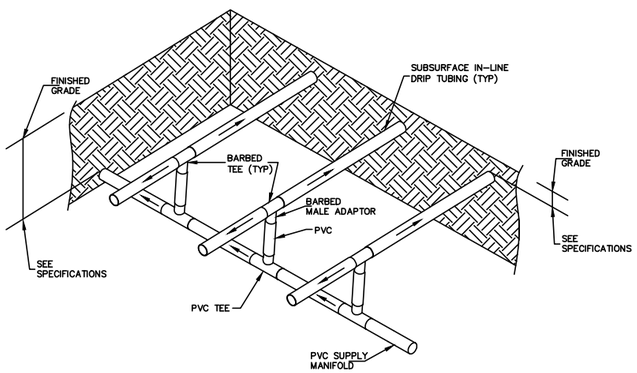
BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN — STATE OF WASHINGTON — 50362 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
PLANTING AND LANDSCAPE DETAILS

SHEET: 81
OF: 101

JOB NO.: 13570
DWG: LAND_DET6



APPROVED	DEPT.	DATE

NO SCALE

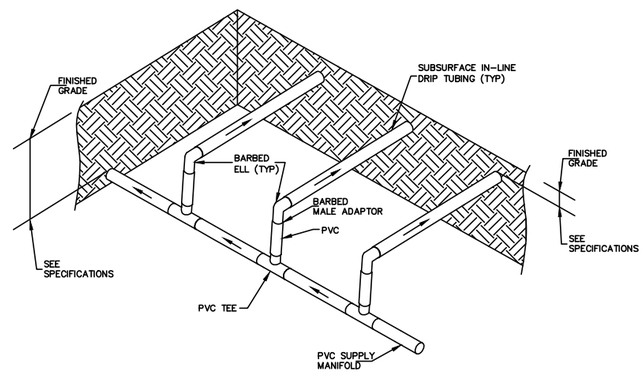
CITY OF ISSAQUAH
PUBLIC WORKS DEPARTMENT
APRIL 2010

SUBSURFACE IN-LINE DRIP IRRIGATION CENTER-FEED SUPPLY MANIFOLD

NOTE: THE ORIGINAL IS APPROVED FOR PUBLICATION BY PARKS DEPARTMENT AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. I-18

REV:



APPROVED	DEPT.	DATE

NO SCALE

CITY OF ISSAQUAH
PUBLIC WORKS DEPARTMENT
APRIL 2010

SUBSURFACE IN-LINE DRIP IRRIGATION END-FEED SUPPLY MANIFOLD

NOTE: THE ORIGINAL IS APPROVED FOR PUBLICATION BY PARKS DEPARTMENT AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

STANDARD DETAIL NO. I-19

REV:

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CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

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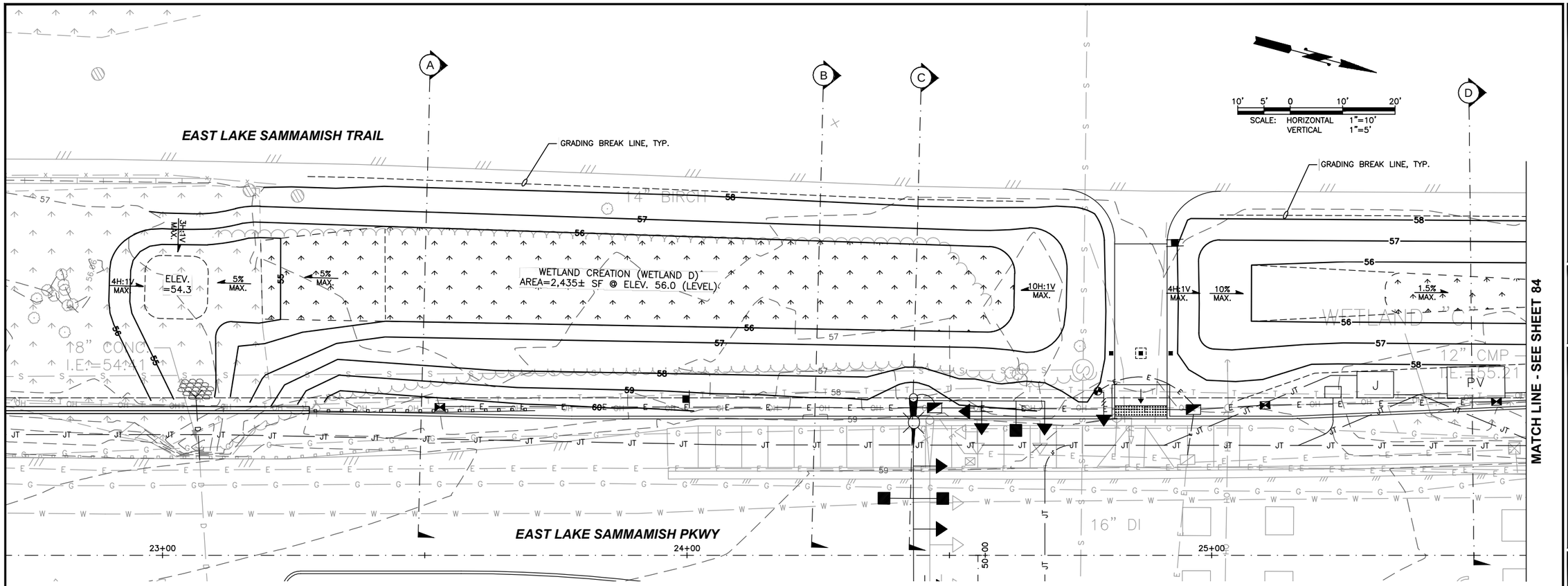
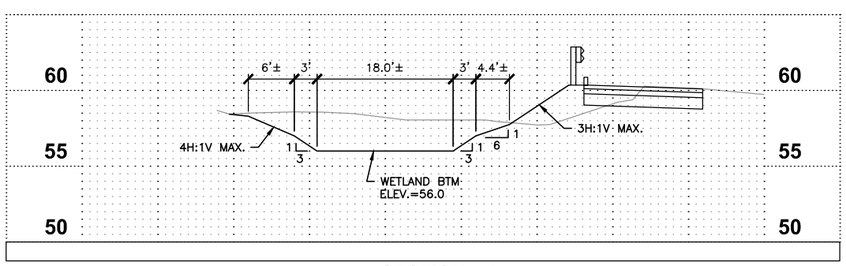
BRIAN J. BOLLEN — STATE OF WASHINGTON — 50362 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
PLANTING AND LANDSCAPE DETAILS

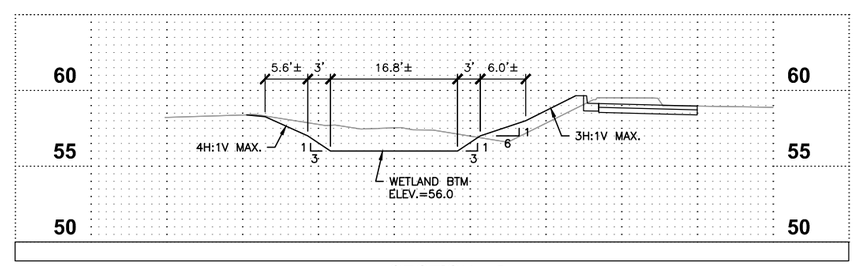
SHEET: 82
OF: 101

JOB NO.: 13570
DWG: LAND_DET7





SECTION (A)
SCALE: 1"=10'(H) 1"=5' (V)



SECTION (B)
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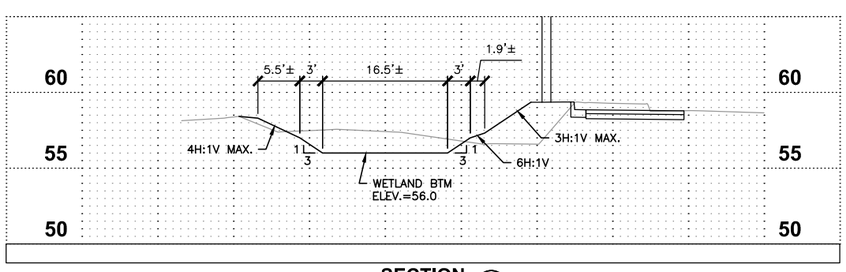

SECTION (C)
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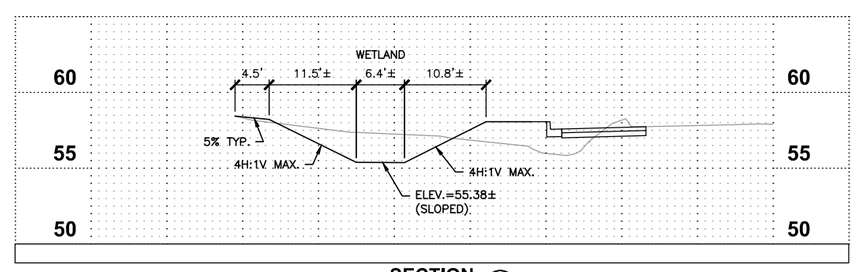

SECTION (D)
SCALE: 1"=10'(H) 1"=5' (V)

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
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DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.B.W.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

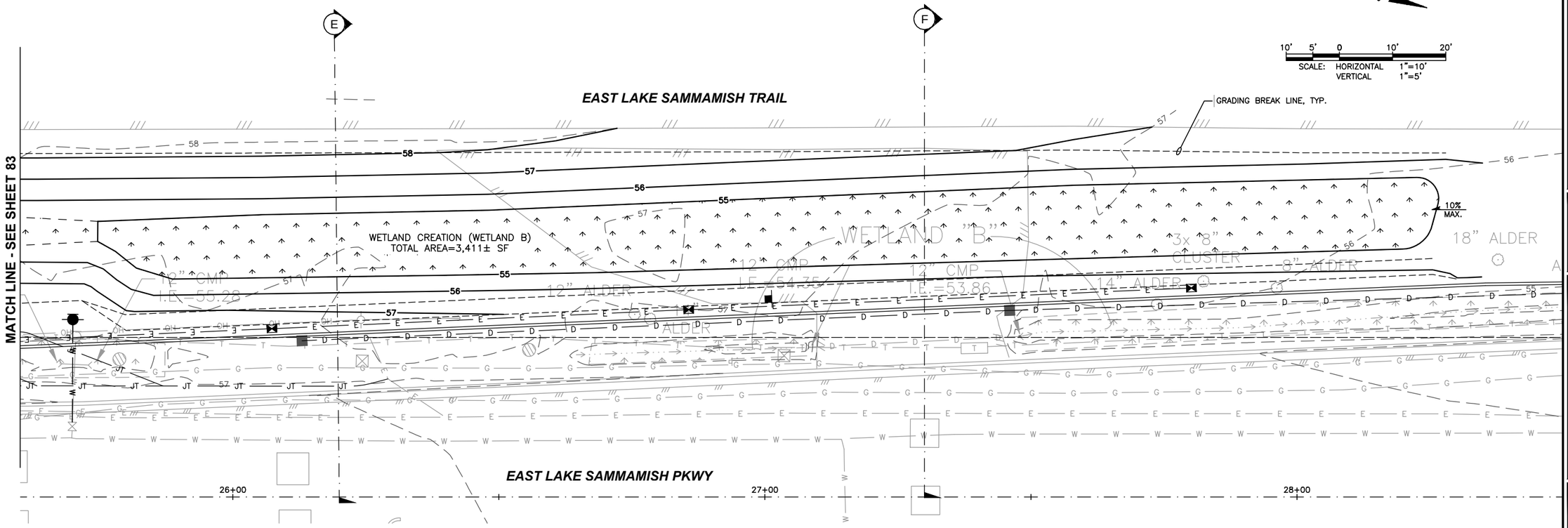
BRIAN L. SOURWINE, STATE OF WASHINGTON, 36091, REGISTERED PROFESSIONAL ENGINEER

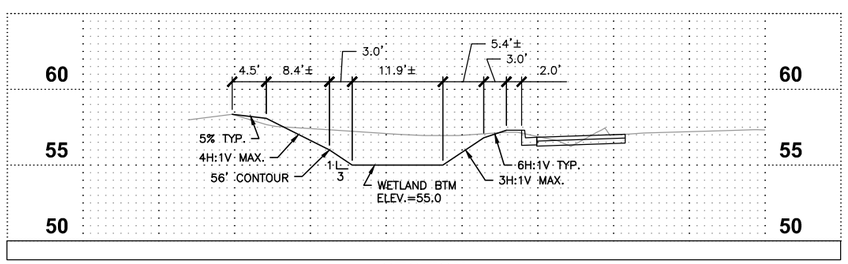
CHI HENG WANG, STATE OF WASHINGTON, 39930, REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
WETLAND MITIGATION GRADING PLAN

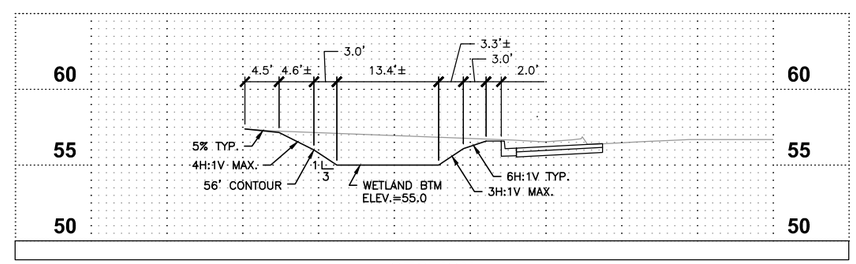
SHEET: 83
OF: 101

JOB NO.: 13570
DWG: WL_GRADING





SECTION (E)
SCALE: 1"=10'(H)
1"=5' (V)



SECTION (F)
SCALE: 1"=10'(H)
1"=5' (V)

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APPROVED: B.L.S.	

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BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

CHI-HENG WANG — STATE OF WASHINGTON — 39930 — REGISTERED PROFESSIONAL ENGINEER

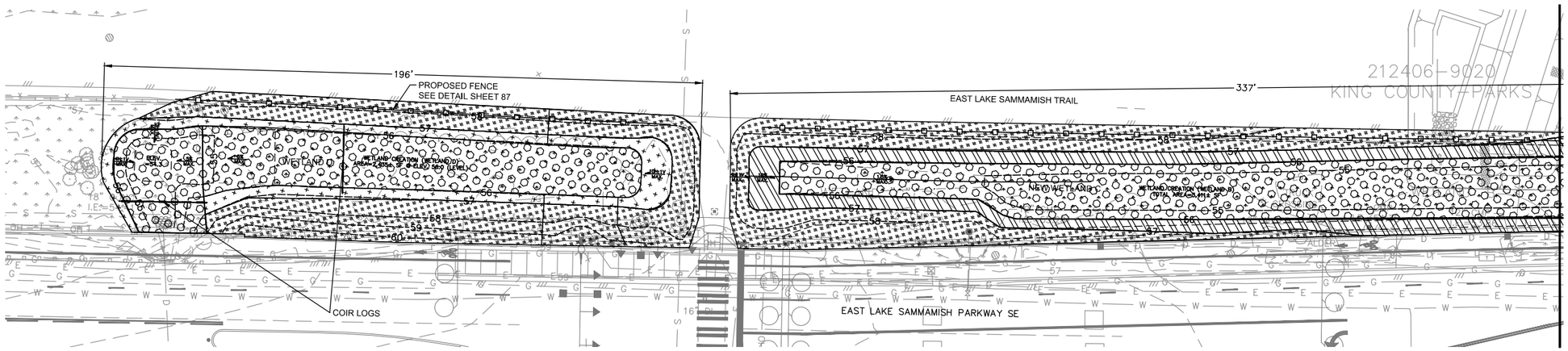
CITY OF ISSAQUAH
KING WASHINGTON

EAST LAKE SAMMAMISH PARKWAY SE
WIDENING

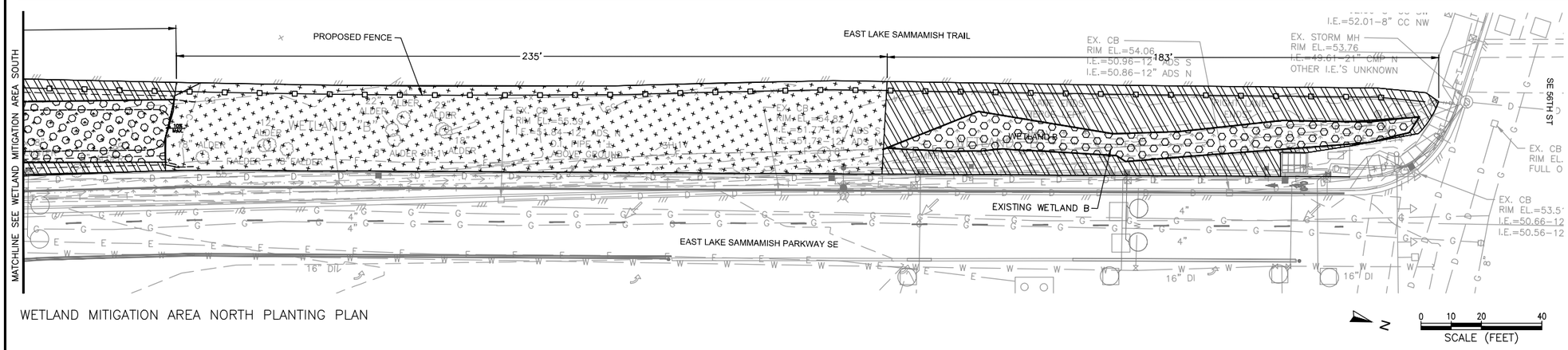
WETLAND MITIGATION GRADING PLAN

SHEET: 84
OF: 101

JOB NO.: 13570
DWG: WL_GRADING



WETLAND MITIGATION AREA SOUTH PLANTING PLAN



WETLAND MITIGATION AREA NORTH PLANTING PLAN

PLANT SCHEDULE

Planting Area 1 - At or Below EL 56 (13,089 SF)

Common Name	Botanical Name	Size	Spacing (FT. OC)	Quantity
Slough sedge	Carex obnupta	plug	2	1199
Beaked sedge	Carex rostrata	plug	2	1199
Small-fruited bulrush	Scirpus microcarpus	plug	2	1199

Planting Area 2 - EL 56 - 57 (9,671 SF)

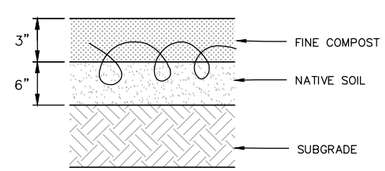
Common Name	Botanical Name	Size	Spacing (FT. OC)	Quantity
Red osier dogwood	Cornus stolonifera	1 gal	3	414
Tall Oregon grape	Mahonia aquifolium	1 gal	3	414
Snowberry	Symphoricarpos albus	1 gal	3	414

Planting Area 3 - EL 57+ (17,166 SF)

Common Name	Botanical Name	Size	Spacing (FT. OC)	Quantity
Pacific ninebark	Physocarpus capitatus	1 gal	3	734
Red-flowering currant	Ribes sanguineum	1 gal	3	734
Nootka rose	Rosa nutkana	1 gal	3	734

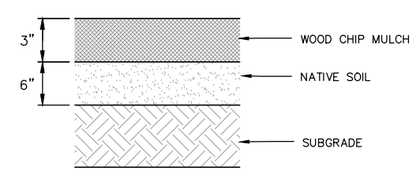
Planting Area 4 - EL 56 - 57 (8,245 SF)

Common Name	Botanical Name	Size	Spacing	Quantity
Red osier dogwood	Cornus stolonifera	1 gal	3	265
Beaked hazelnut	Corylus cornuta var californica	1 gal	3	265
Tall Oregon grape	Mahonia aquifolium	1 gal	3	265
Snowberry	Symphoricarpos albus	1 gal	3	265



NOTE:
1. MIX COMPOST INTO NATIVE SOIL

1 PLANTING AREA 1
SOIL PREPARATION DETAIL
NOT TO SCALE



2 PLANTING AREAS 2, 3 & 4
SOIL PREPARATION DETAIL
NOT TO SCALE

NOTES

CLEARING AND TREE PROTECTION:

1. ALL PLANTING AREAS SHALL BE CLEARED AND GRUBBED OF INVASIVE SPECIES AT THE DIRECTION OF THE CONTRACTING AGENCY.
2. EXISTING TREES AND VEGETATION TO REMAIN SHALL BE PROTECTED PER THE SPECIFICATIONS AND AT THE DIRECTION OF THE CONTRACTING AGENCY.

PLANTING:

1. CONTRACTOR SHALL COORDINATE WITH CONTRACTING AGENCY TO AVOID UTILITIES.
2. SEE SHEET 87 FOR PLANTING DETAILS.
3. COIR LOG INSTALLATION SHALL BE COMPLETED PER SECTION 9-14.5(7) OF THE SPECIFICATIONS.
4. PLANTING ZONES SHALL BE STAKED IN THE FIELD FOR ACCEPTANCE BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
5. ALL TREE AND SHRUB LOCATIONS SHALL BE APPROVED BY CONTRACTING AGENCY PRIOR TO INSTALLATION.
6. PLANT INSTALLATION IN BUFFER ENHANCEMENT AND WETLAND ENHANCEMENT AREAS SHALL BE FIELD LOCATED AROUND EXISTING TREES & SHRUBS TO REMAIN AS DIRECTED BY THE CONTRACTING AGENCY. TREES SHALL BE LOCATED 15 FT AWAY FROM ROADWAY AND TRAILS.
7. WOOD CHIP MULCH SHALL BE INSTALLED IN A CONTINUOUS LAYER THROUGHOUT BUFFER ENHANCEMENT AREAS. SEE SOIL PREPARATION DETAILS FOR TYPICAL DEPTH.
8. PLANTING ZONES SHALL BE PLANTED TO FULL EXTENTS AS SHOWN ON THE PLAN AND IN THE PLANTING LAYOUT DETAILS ON SHEET 87.

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

ESA
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F: (206) 789-9684

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: DEC. 2014
SCALE: AS NOTED
DRAWN: D.L.D
CHECKED: S.M.W.
APPROVED: A.C

No.	REVISION	DATE	APPD

PRELIMINARY NOT FOR CONSTRUCTION

STATE OF WASHINGTON LICENSED LANDSCAPE ARCHITECT
ALISA CARLSON
LICENSE NO. 1237
EXPIRES ON _____

CITY OF ISSAQUAH
KING COUNTY WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
WETLAND MITIGATION AREA 1
PLANTING PLANS, PLAN SCHEDULE, & SOIL PREP. DETAILS

JOB NO.: 13570
DWG: LSP_WL_PLANTINGPLAN

NOTES

GENERAL:

1. SURVEY WAS COMPLETED IN 2009, PRIOR TO 4TH AVE NW IMPROVEMENTS

CLEARING, TREE PROTECTION, AND GRAVEL REMOVAL:

1. ALL PLANTING AREAS SHALL BE CLEARED AND GRUBBED OF INVASIVE SPECIES AT THE DIRECTION OF THE CONTRACTING AGENCY.
2. EXISTING TREES AND VEGETATION TO REMAIN SHALL BE PROTECTED PER THE SPECIFICATIONS AND AT THE DIRECTION OF THE CONTRACTING AGENCY.
3. WITHIN BUFFER ENHANCEMENT AREA 2, REMOVE TOP 6–IN OF GRAVEL, DECOMPACT MINIMUM OF 12–IN DEEP, POST–REMOVAL, FOLLOW SOIL PREPARATION DETAIL HEREON.

PLANTING:

1. CONTRACTOR SHALL COORDINATE WITH CONTRACTING AGENCY TO AVOID UTILITIES.
2. SEE SHEET 85 FOR PLANT SCHEDULE FOR PLANTING AREAS 1, 2, AND 3.
3. SEE SHEET 87 FOR PLANTING DETAILS.
4. COIR LOG INSTALLATION SHALL BE COMPLETED PER SECTION 9–14.5(7) OF THE SPECIFICATIONS.
5. PLANTING ZONES SHALL BE STAKED IN THE FIELD FOR ACCEPTANCE BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
6. ALL TREE AND SHRUB LOCATIONS SHALL BE APPROVED BY CONTRACTING AGENCY PRIOR TO INSTALLATION.
7. PLANT INSTALLATION IN BUFFER ENHANCEMENT AND WETLAND ENHANCEMENT AREAS SHALL BE FIELD LOCATED AROUND EXISTING TREES & SHRUBS TO REMAIN AS DIRECTED BY THE CONTRACTING AGENCY. TREES SHALL BE LOCATED 15 FT AWAY FROM ROADWAY AND TRAILS.
8. WOOD CHIP MULCH SHALL BE INSTALLED IN A CONTINUOUS LAYER THROUGHOUT BUFFER ENHANCEMENT AREAS. SEE SOIL PREPARATION DETAILS FOR TYPICAL DEPTH.
9. PLANTING ZONES SHALL BE PLANTED TO FULL EXTENTS AS SHOWN ON THE PLAN AND IN THE PLANTING LAYOUT DETAILS ON SHEET 87.

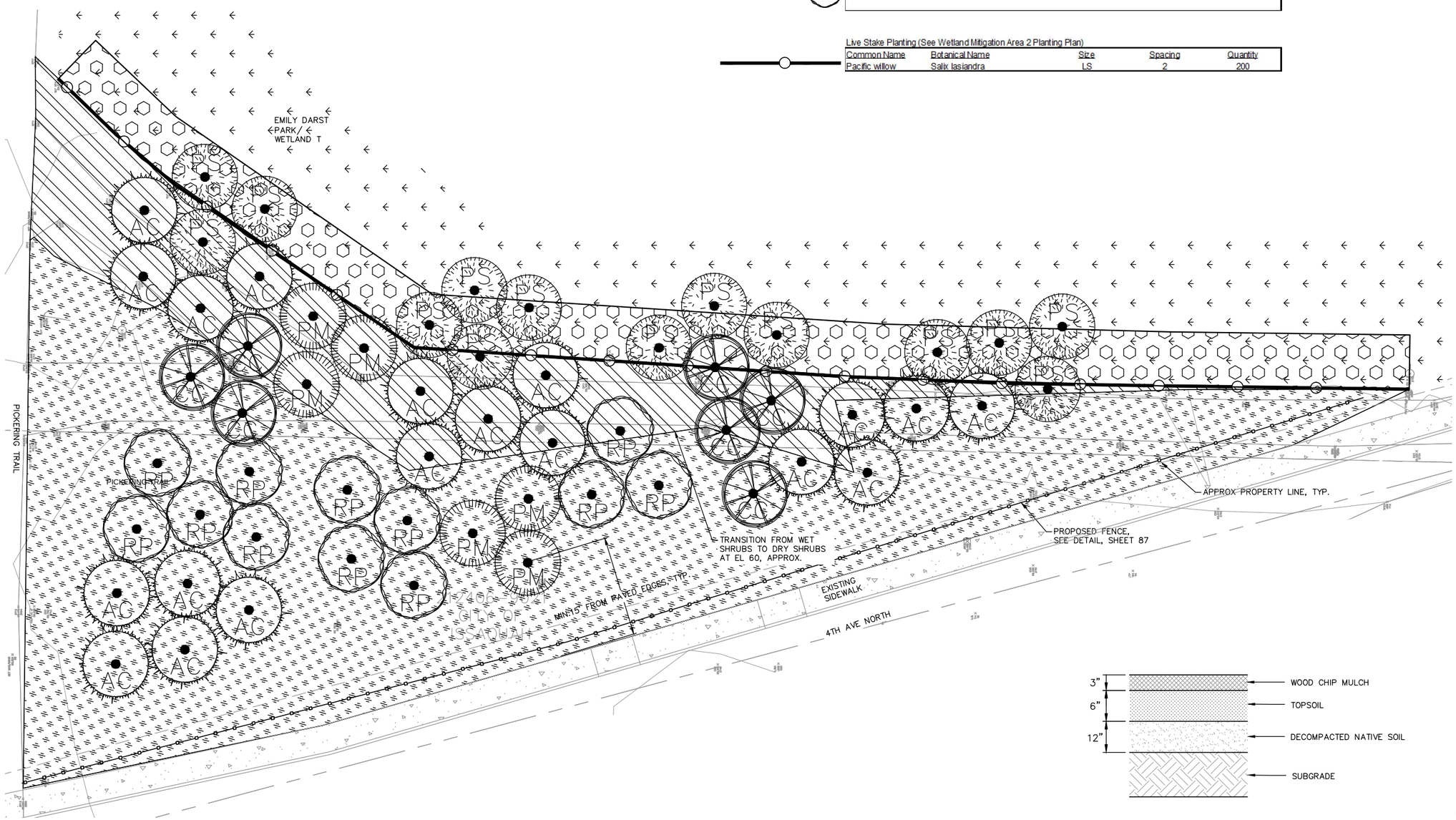
PLANT SCHEDULE

Trees (See Wetland Mitigation Area 2 Planting Plan)

	Common Name	Botanical Name	Size	Spacing	Quantity
AC	Vine maple	Acer circinatum	1 gal	10' MIN	19
	Beaked hazelnut	Corylus cornuta var californica	1 gal	10' MIN	7
PS	Sitka spruce	Picea sitchensis	1 gal	10' MIN	14
PM	Douglas fir	Pseudotsuga menziesii	1 gal	10' MIN	7
RP	Cascara	Rhamnus purshiana	1 gal	10' MIN	12

Live Stake Planting (See Wetland Mitigation Area 2 Planting Plan)

Common Name	Botanical Name	Size	Spacing	Quantity
Pacific willow	Salix lasiandra	LS	2	200



WETLAND MITIGATION AREA 2 PLANTING PLAN

1 BUFFER ENHANCEMENT AREA 2 SOIL PREPARATION DETAIL

NOT TO SCALE

0 1" 2"

TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

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No.	REVISION	DATE	APPD

PRELIMINARY NOT FOR CONSTRUCTION

STATE OF WASHINGTON LICENSED LANDSCAPE ARCHITECT
ALLISA CARLSON
LICENSE NO. 1237
EXPIRES ON _____

CITY OF ISSAQUAH
KING COUNTY WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
WETLAND MITIGATION AREA 2
PLANTING PLANS, PLAN SCHEDULE, & SOIL PREP. DETAILS

SHEET: 86
OF: 101

JOB NO.: 13570
DWG: LSP_WL_PLANTINGPLANS

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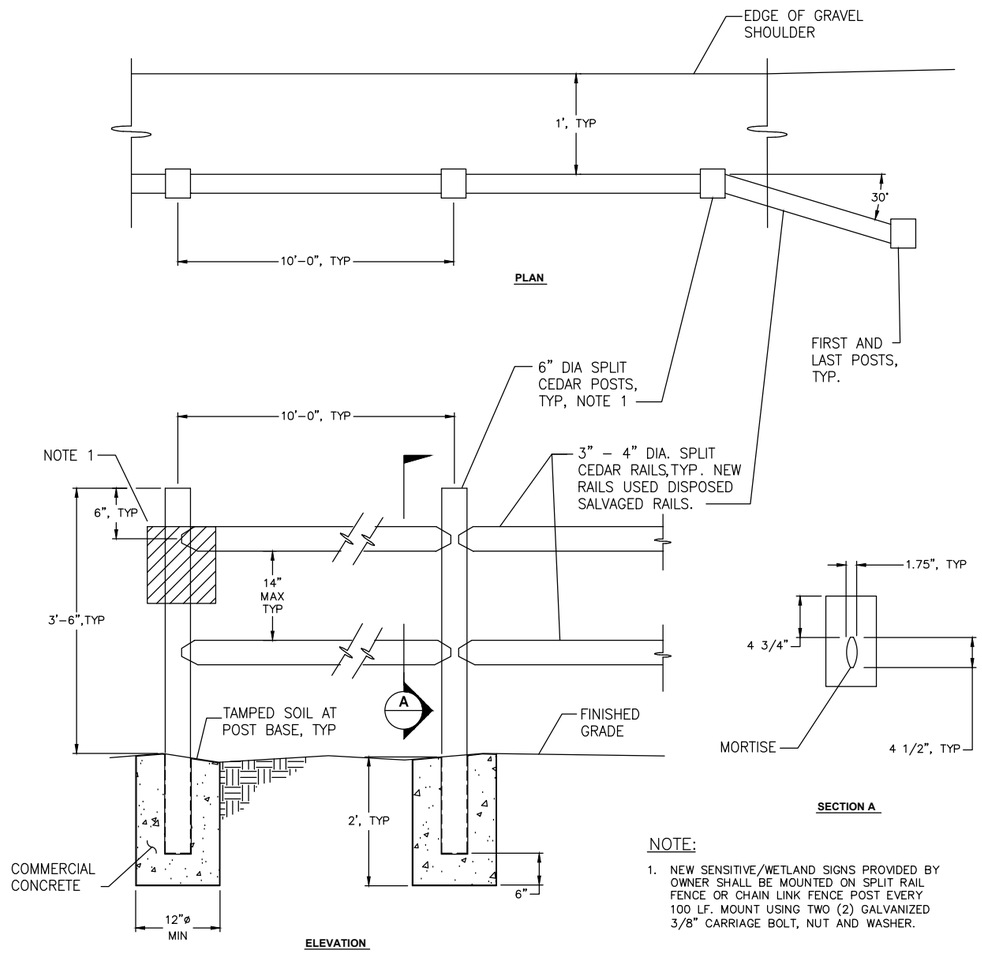
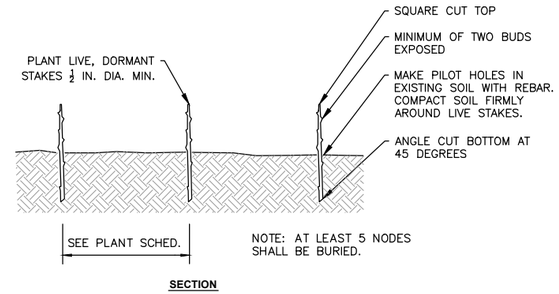


NOTE:

1. NEW SENSITIVE/WETLAND SIGNS PROVIDED BY OWNER SHALL BE MOUNTED ON SPLIT RAIL FENCE OR CHAIN LINK FENCE POST EVERY 100 LF. MOUNT USING TWO (2) GALVANIZED 3/8" CARRIAGE BOLT, NUT AND WASHER.

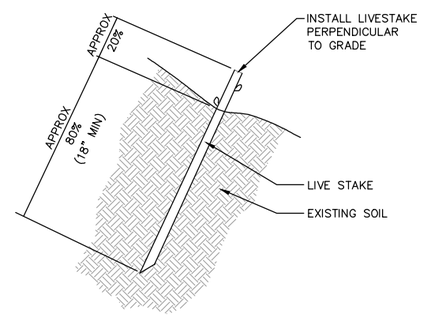
2 SPLIT RAIL FENCE - INSTALLATION ON GROUND DETAIL

NOT TO SCALE



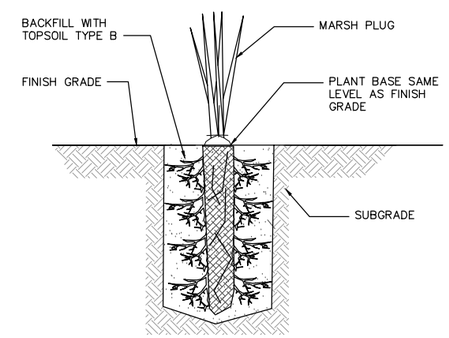
1 LIVESTAKE PLANTING

NOT TO SCALE



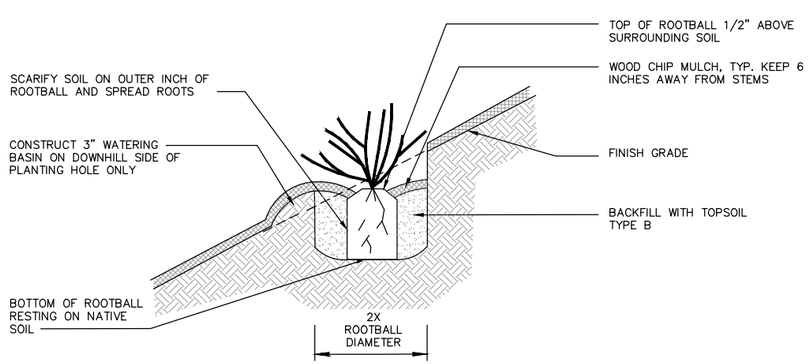
3 SLOPE LIVESTAKE PLANTING DETAIL TYPICAL

NOT TO SCALE



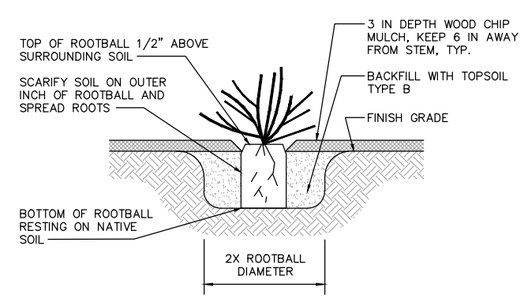
4 EMERGENT PLUG PLANTING

NOT TO SCALE



5 TREE/SHRUB (CONTAINER) PLANTING ON SLOPE

NOT TO SCALE



6 TREE/SHRUB (CONTAINER) PLANTING

NOT TO SCALE

0 1" 2"

TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

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CONSULTING ENGINEERS
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DATE: DEC. 2014
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No.	REVISION	DATE	APPD
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STATE OF WASHINGTON LICENSED LANDSCAPE ARCHITECT

ALISA CARLSON

LICENSE NO. 1237

EXPIRES ON _____

CITY OF ISSAQUAH
KING COUNTY WASHINGTON

EAST LAKE SAMMAMISH PARKWAY SE WIDENING

WETLAND MITIGATION DETAILS

SHEET: 87
OF: 101

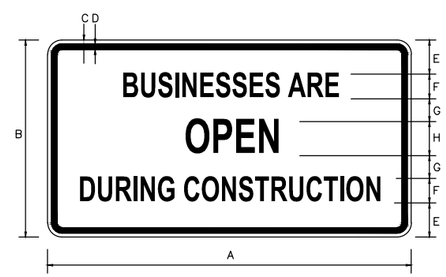
JOB NO.: 13570

DWG: LSP_WL_PLANTINGPLANS

GENERAL TRAFFIC CONTROL NOTES

1. APPROPRIATE METHODS OF PEDESTRIAN AND VEHICULAR TRAFFIC CONTROL, INCLUDING FLAGGERS, SHALL BE EMPLOYED BY THE CONTRACTOR TO THE EXTENT DEEMED NECESSARY BY THE TRAFFIC CONTROL SUPERVISOR AND AS REQUIRED BY THE APPLICABLE AGENCY TO PROTECT WORKERS OR THIRD PARTIES.
2. THE CONTRACTOR AND/OR HIS AGENTS SHALL NOT PARK IN ANY PRIVATE PARKING LOTS / DRIVEWAYS WITHOUT WRITTEN PERMISSION FROM THE PROPERTY OWNER.
3. CONTRACTOR SHALL COVER OPEN TRENCHES WITH STEEL PLATES DURING NON-WORKING HOURS OR AS DIRECTED.
4. SEE ALSO SPECIFICATIONS AND SPECIAL PROVISIONS, INCLUDING WSDOT STANDARD SPECIFICATION SECTION 1-07.23(1).
5. ALL WARNING SIGNS SHALL BE 48" X 48". FOR OTHER SIGN SIZES REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND WSDOT SIGN FABRICATION MANUAL M55-05.
6. CONTRACTOR AND/OR HIS AGENTS SHALL NOT ACCESS AND/OR IMPACT EAST LAKE SAMMAMISH TRAIL AS PART OF THE CONSTRUCTION PROJECT. (TRAIL NOT TO BE UTILIZED FOR CONSTRUCTION ACCESS, STORAGE, ETC.)
7. CONTRACTOR SHALL RESTORE THE DISTURBED AREAS WITHIN THE GRAVEL LOTS (BASS & BASS PARCELS AND REID PARCEL) AS SOON AS PRACTICAL AFTER COMPLETION OF CUT/FILL SLOPES. PERMANENT FENCING SHALL BE INSTALLED AND TEMPORARY FENCING REMOVED AS SOON AS PRACTICAL AFTER COMPLETION OF ADJACENT SIDEWALK.
8. CONTRACTOR SHALL SEQUENCE WORK TO MINIMIZE DURATION OF GRAVEL LOT (PARTIAL) CLOSURE.
9. CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN TEMPORARY 6' CHAIN LINK SECURITY FENCE AND LOCKABLE GATES AS INDICATED.
10. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL UTILITIES FOR UTILITY COMPANIES WITHIN ANY CLOSED/FENCED/ CONSTRUCTION AREAS.
11. WORK HOURS:

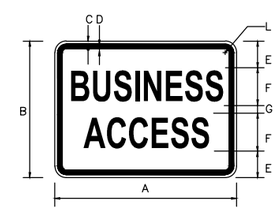
    CONTRACTOR SHALL NOT CLOSE LANES OR INTERSECTIONS DURING THE FOLLOWING HOURS:
    6:00 AM TO 9:00 AM
    3:00 PM TO 6:00 PM
    ALL OTHER LANE CLOSURES SHALL BE APPROVED BY PROJECT ENGINEER ON AN INDIVIDUAL BASIS.



DIMENSIONS (INCHES)							
A	B	C	D	E	F	G	H
48	30	1/2	3/4	4-1/2	3-1/4	3	4-1/2

NOTES:
1. COLORS SHALL BE BLACK ON ORANGE.
2. EACH SIGN SHALL BE SECURELY FASTENED TO A TYPE II BARRICADE.
3. CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND RELOCATE (AS REQUIRED) MIN. THREE (3) G20-X SIGNS THROUGHOUT THE COURSE OF CONSTRUCTION.
4. THE CONTRACTOR SHALL COORDINATE LOCATIONS WITH THE ENGINEER

G20-X SIGN DETAIL
NOT TO SCALE



DIMENSIONS (INCHES)							
A	B	C	D	E	F	G	L
24	18	1/2	3/4	3-1/2	5	1	1-1/2

NOTES:
1. COLORS SHALL BE BLACK ON ORANGE.
2. CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND RELOCATE (AS REQUIRED) M4-3 AND M6-1 ARROW SIGNS THROUGHOUT THE COURSE OF CONSTRUCTION.
3. THE CONTRACTOR SHALL COORDINATE LOCATIONS WITH THE ENGINEER.

M4-3 (MOD.) SIGN DETAIL
NOT TO SCALE

Gray & Osborne, Inc.
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DATE: MAR. 2015
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DRAWN: C.N.T.
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APPROVED: B.L.S.

No.	REVISION	DATE	APPD

BRIAN L. SOURWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

CHI-HENG WANG — STATE OF WASHINGTON — 39930 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
TEMPORARY TRAFFIC CONTROL NOTES AND DETAILS

SHEET: 88
OF: 101
JOB NO.: 13570
DWG: TC_DTLS

MINIMUM LANE CLOSURE TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	780	840

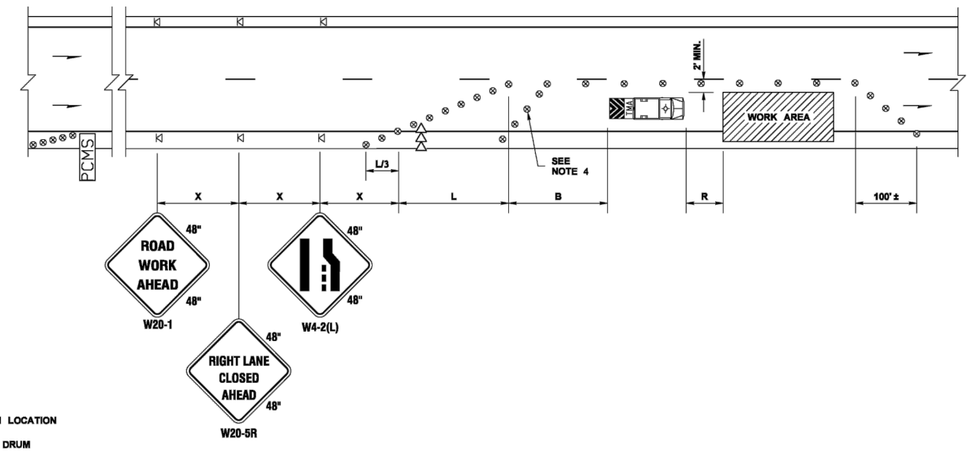
MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	40	40	60	90	120	130	150	160	170	190
10'	40	60	90	90	150	170	190	200	220	240
USE A MINIMUM 3 DEVICES TAPER FOR SHOULDER LESS THEN 8'.										

SIGN SPACING = X (1)		
FREEWAYS & EXPRESSWAYS	55 / 70 MPH	1500' ±
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730
BUFFER VEHICLE ROLL AHEAD DISTANCE = R										
TRANSPORTABLE ATTENUATOR MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.										30 FEET MIN. TO 100 FEET MAX.



PCMS	
1	2
RIGHT LANE CLOSURE	1 MILE AHEAD
2.0 SEC	2.0 SEC

FIELD LOCATE 1 MILE ± IN ADVANCE OF LANE CLOSURE SIGNING.

LEGEND

- TEMPORARY SIGN LOCATION
- TRAFFIC SAFETY DRUM
- SEQUENTIAL ARROW SIGN
- TRANSPORTABLE ATTENUATOR
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

SINGLE-LANE CLOSURE FOR MULTI-LANE ROADWAYS

NOT TO SCALE

NOTES:

1. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
2. EXTEND DEVICE TAPER AT L/3 ACROSS SHOULDER.
3. DEVICES SHALL NOT ENCROACH INTO THE ADJACENT LANE.
4. USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000' (FT) (RECOMMENDED).
5. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20' (FT).
6. ALL SIGNS ARE BLACK ON ORANGE.

FILE NAME	S:\Design R P& SI4-Standards\2-Plan Sheet Library\01-Published PSL\(TC) Work Zone Traffic Control\W(TC-3) Single-Lane Closure for Multi-Lane Roadways\TC-3.dgn			REGION NO. / STATE	FED.AID PROJ.NO.		Washington State Department of Transportation	TRAFFIC CONTROL PLAN	Plot 1
TIME	1:18:08 PM			WASH					PLAN REF NO TC3
DATE	9/18/2014			JOB NUMBER					SHEET OF SHEETS
PLOTTED BY	FletcCo								
DESIGNED BY				CONTRACT NO.	LOCATION NO.				
ENTERED BY									
CHECKED BY									
PROJ. ENGR.									
REGIONAL ADM.		REVISION	DATE	BY		P.E. STAMP BOX DATE	P.E. STAMP BOX DATE		

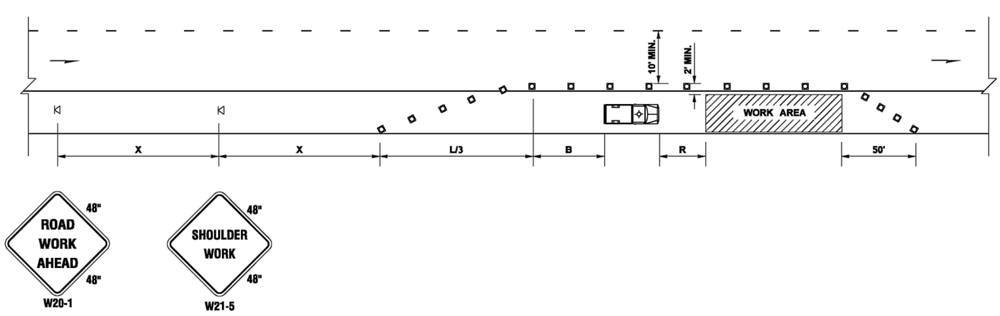
SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

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

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	40	40	60	90	-	-	-	-	-	-
10'	40	60	90	90	-	-	-	-	-	-
USE A 3 DEVICES TAPER FOR SHOULDERS LESS THEN 8'										

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/40	30	60
25/30	20	40

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



LEGEND

- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE

SHOULDER CLOSURE - LOW SPEED

(40 MPH OR LESS)

NOT TO SCALE

NOTES:

1. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20' (FT).
2. ALL SIGNS ARE BLACK ON ORANGE.

FILE NAME	S:\Design R P& SI4-Standards\2-Plan Sheet Library\01-Published PSL\(TC) Work Zone Traffic Control\W(TC-5) Shoulder Closure - Low Speed (40 MPH or Less)\TC-5.dgn			REGION NO. / STATE	FED.AID PROJ.NO.		Washington State Department of Transportation	TRAFFIC CONTROL PLAN	Plot 1
TIME	1:20:14 PM			WASH					PLAN REF NO TC5
DATE	9/18/2014			JOB NUMBER					SHEET OF SHEETS
PLOTTED BY	FletcCo								
DESIGNED BY				CONTRACT NO.	LOCATION NO.				
ENTERED BY									
CHECKED BY									
PROJ. ENGR.									
REGIONAL ADM.		REVISION	DATE	BY		P.E. STAMP BOX DATE	P.E. STAMP BOX DATE		

JOB NO.: 13570
DWG: TC_DTLS

SHEET: 89
OF: 101

CITY OF ISSAQUAH
KING WASHINGTON

EAST LAKE SAMMAMISH PARKWAY SE WIDENING

TEMPORARY TRAFFIC CONTROL PLANS

CHI-HENG WANG — STATE OF WASHINGTON — 39930 — REGISTERED PROFESSIONAL ENGINEER

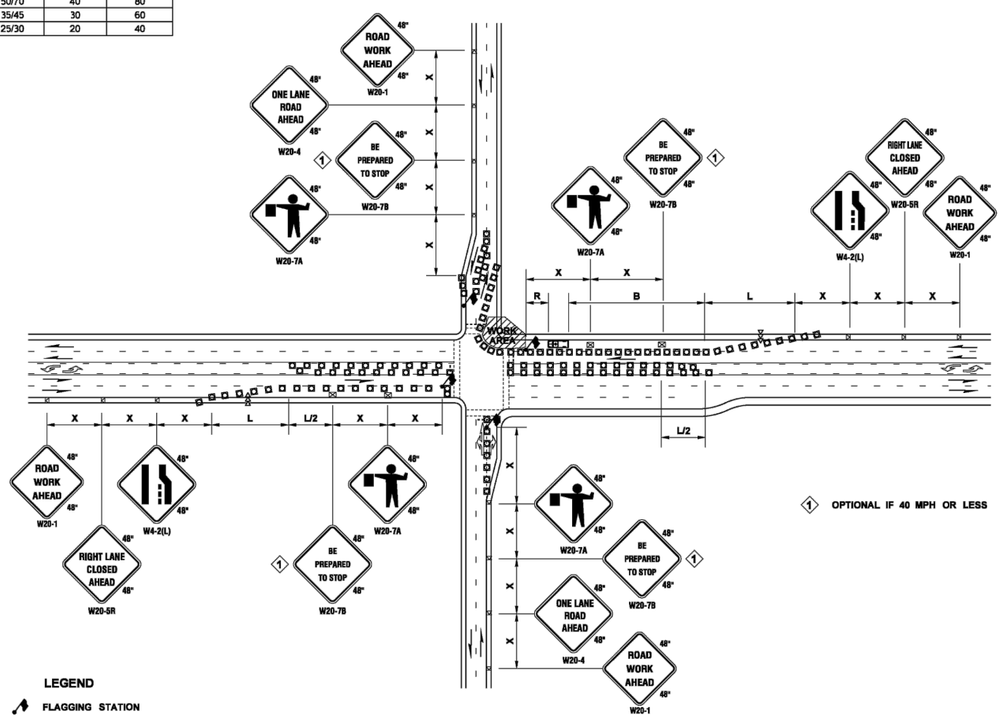
BRIAN L. SOUWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

No.	REVISION	DATE	APPD

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40



BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	-

BUFFER VEHICLE ROLL AHEAD DISTANCE = R	
TRANSPORTABLE ATTENUATOR MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.	30 FEET MIN. TO 100 FEET MAX.
PROTECTIVE VEHICLE MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.	NO SPECIFIED DISTANCE REQUIRED

MINIMUM TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	-	-

SIGN SPACING = X (1)		
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS RESIDENTAL & BUSINESS DISTREICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

LEGEND

- FLAGGING STATION
- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- SEQUENTIAL ARROW SIGN
- PROTECTIVE VEHICLE - RECOMMENDED
- TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

NOTES

1. RECOMMEND EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
2. IF A SIGNAL IS PRESENT, IT SHALL BE SET TO "RED FLASH MODE" OR TURNED OFF DURING FLAGGING OPERATIONS.
3. MAINTAIN A MINIMUM OF ONE ACCESS POINT FOR EACH BUSINESS WITHIN WORK AREA LIMITS.
4. ALL SIGNS ARE BLACK ON ORANGE.

INTERSECTION LANE CLOSURE ~ FIVE LANE ROADWAY

NOT TO SCALE

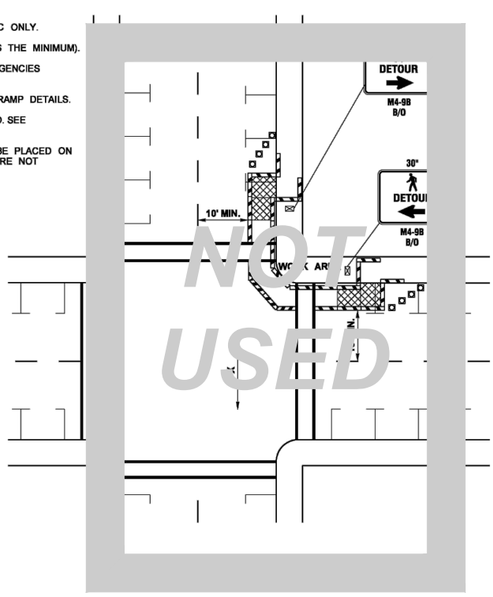
FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\01-Published PSL\(TC) Work Zone Traffic Control\W(TC-15) Intersection Lane Closure - Five Lane Roadway\TC-15.dgn							Plot 1
TIME	1:27:49 PM			REGION NO. / STATE	FED.AID PROJ.NO.		Washington State Department of Transportation	PLAN REF NO TC15
DATE	9/18/2014			WASH				
PLOTTED BY	FletcCo			JOB NUMBER				SHEET OF SHEETS
DESIGNED BY								
ENTERED BY								
CHECKED BY				CONTRACT NO.	LOCATION NO.			
PROJ. ENGR.						DATE / P.E. STAMP BOX	DATE / P.E. STAMP BOX	
REGIONAL ADM.		REVISION	DATE	BY				

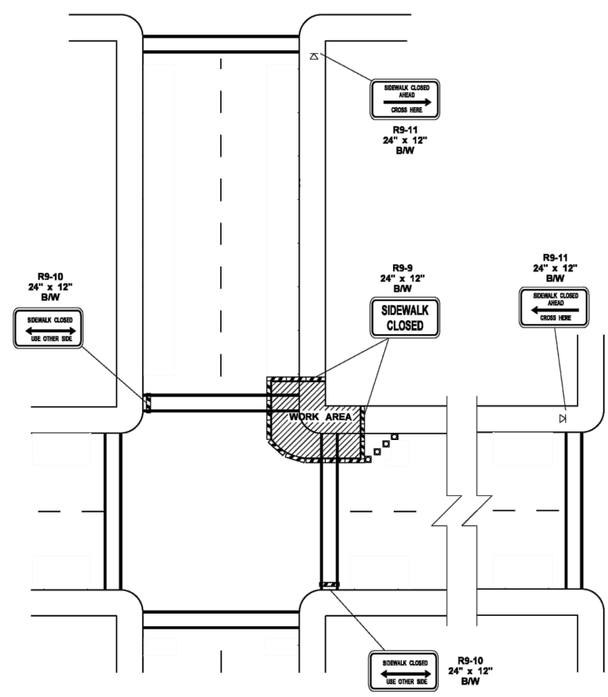
TRAFFIC CONTROL PLAN

NO PARKING	R8-3 24" x 30" R/W	INSTALL ON TYPE 2 BARRICADES THROUGHOUT THE WORK AREA 24 HOURS PRIOR TO IMPLEMENTING TRAFFIC CONTROL. PRIOR NOTIFICATION OF LOCAL LAW ENFORCEMENT REQUIRED.

NOTES

1. CONTROLS SHOWN ARE FOR PEDESTRIAN TRAFFIC ONLY.
2. A 60" PATH WIDTH SHOULD BE MAINTAINED (48" IS THE MINIMUM).
3. CONTACT AND COORDINATE IMPACTED TRANSIT AGENCIES PRIOR TO IMPLEMENTING ANY CLOSURES.
4. SEE SHEET TC-52 FOR TEMPORARY PEDESTRIAN RAMP DETAILS.
5. ADA PEDESTRIAN FACILITIES MUST BE MAINTAINED. SEE STANDARD SPECIFICATION 1-10.2(1)B.
6. TEMPORARY PEDESTRIAN PUSH BUTTONS SHALL BE PLACED ON THE DIVERTED PATH WHEN EXISTING BUTTONS ARE NOT ACCESSIBLE TO PEDESTRIANS.





SIDEWALK DETOUR

LEGEND

- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- PEDESTRIAN CHANNELIZING DEVICES
- TEMPORARY PEDESTRIAN RAMP FOR SIDEWALKS

(MODIFIED)
INTERSECTION PEDESTRIAN TRAFFIC CONTROL

NOT TO SCALE

FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\01-Published PSL\(TC) Work Zone Traffic Control\W(TC-16) Intersection Pedestrian Traffic Control\TC-16.dgn							Plot 1
TIME	1:28:42 PM			REGION NO. / STATE	FED.AID PROJ.NO.		Washington State Department of Transportation	PLAN REF NO TC16
DATE	9/18/2014			WASH				
PLOTTED BY	FletcCo			JOB NUMBER				SHEET OF SHEETS
DESIGNED BY								
ENTERED BY								
CHECKED BY				CONTRACT NO.	LOCATION NO.			
PROJ. ENGR.						DATE / P.E. STAMP BOX	DATE / P.E. STAMP BOX	
REGIONAL ADM.		REVISION	DATE	BY				

PEDESTRIAN CONTROL AND PROTECTION

JOB NO.: 13570	SHEET: 90	CITY OF ISSAQUAH KING WASHINGTON	CHI-HENG WANG, STATE OF WASHINGTON, 39930, REGISTERED PROFESSIONAL ENGINEER
DWG: TC_DTLS	OF: 101	EAST LAKE SAMMAMISH PARKWAY SE WIDENING TEMPORARY TRAFFIC CONTROL PLANS	BRIAN L. SOUWINE, STATE OF WASHINGTON, 36091, REGISTERED PROFESSIONAL ENGINEER

No.	REVISION	DATE	APPD

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

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CONSULTING ENGINEERS
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NOTE:

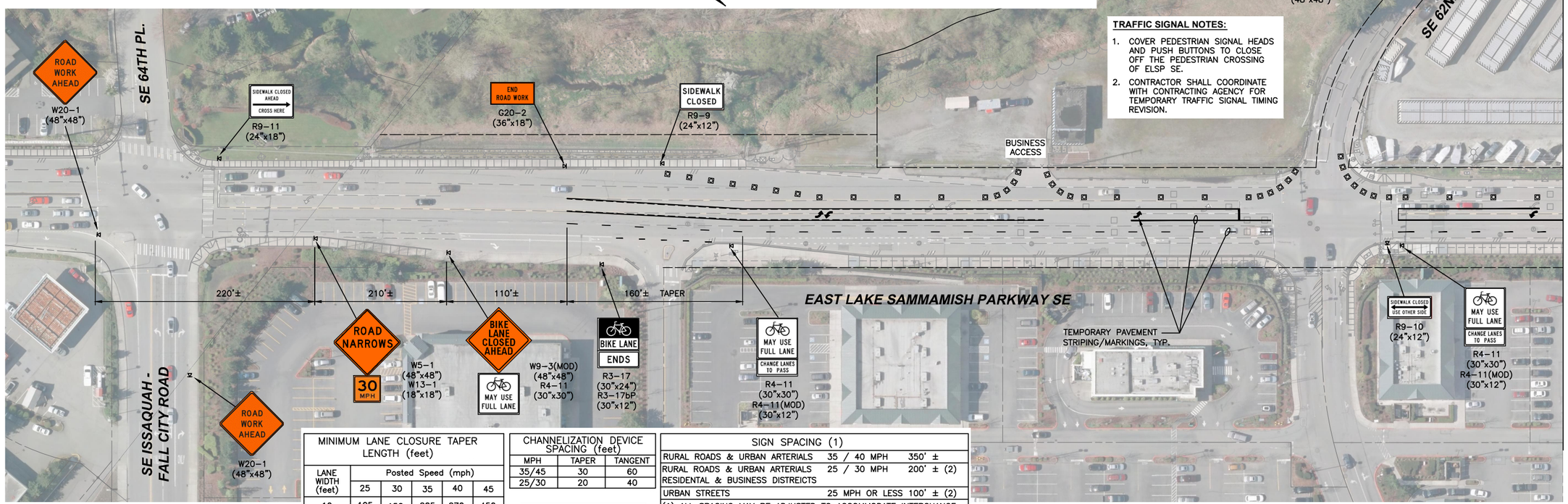
LOCATE PCMS APPROX. 500' SOUTHEASTERLY OF THE SE ISSAQUAH–FALL CITY RD. INTERSECTION, NORTHWESTERLY OF THE 229TH AVE SE INTERSECTION (FOR NORTHBOUND TRAFFIC)

50' 25' 0 50' 100'
SCALE: 1"=50'

NOTE:

1. INSTALL TWO "NO PEDESTRIANS" (R5–10C) SIGNS AT SE 62ND ST./4TH AVE. NW INTERSECTION TO CLOSE OFF WESTBOUND PEDESTRIAN TRAFFIC INTO SE 62ND ST.
2. LOCATE PCMS APPROX. 200' SOUTH OF 4TH AVE. NW/SE 62ND ST. INTERSECTION (FOR NORTHBOUND TRAFFIC.)

NO PEDESTRIANS



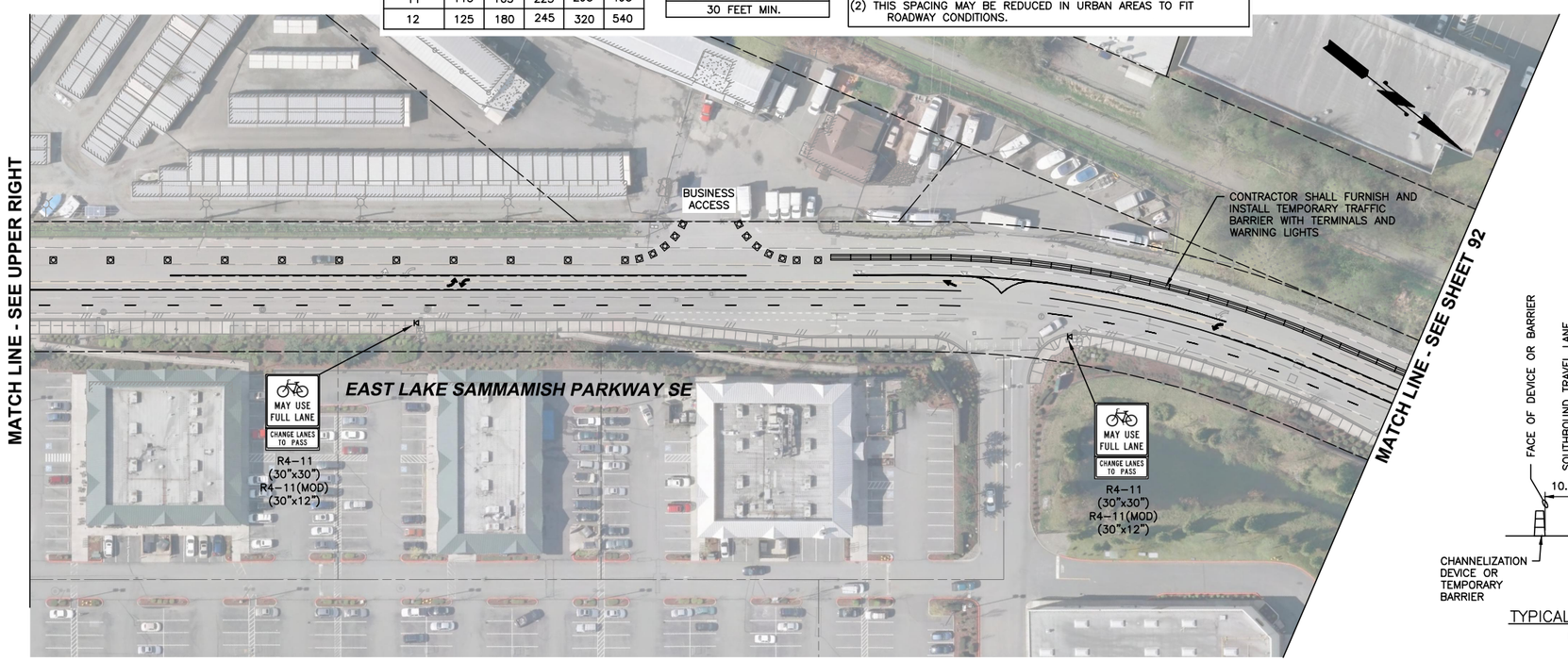
MINIMUM LANE CLOSURE TAPER LENGTH (feet)					
LANE WIDTH (feet)	Posted Speed (mph)				
	25	30	35	40	45
10	105	150	205	270	450
11	115	165	225	295	495
12	125	180	245	320	540

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/45	30	60
25/30	20	40

BUFFER VEHICLE ROLL AHEAD DISTANCE = R
30 FEET MIN.

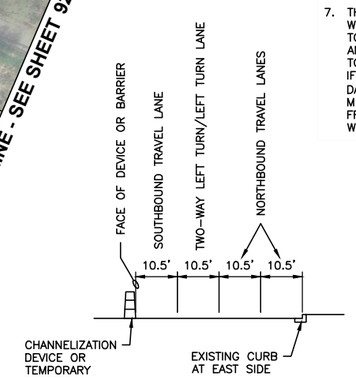
SIGN SPACING (1)		
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS RESIDENTAL & BUSINESS DISTREICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT–GRADE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.



NOTES:

1. INSTALL ONE TYPE A LOW–INTENSITY FLASHING WARNING LIGHT (PER MUTCD) ON THE TRAFFIC SIDE OF THE BARRICADE. INSTALL TWO PER BARRICADE WHEN THE BARRICADES ARE USED TO CLOSE A ROADWAY.
2. TYPE C STEADY BURNING WARNING LIGHTS (PER MUTCD) SHALL BE USED TO MARK CHANNELIZING DEVICES AT NIGHT.
3. DISTANCES MAY VARY AS APPROVED BY THE ENGINEER.
4. FLAGGERS REQUIRED TO CONTROL TRAFFIC WHENEVER THE CONTRACTOR MUST INTERRUPT TRAFFIC FLOW TO ACCESS THE WORK SITE WITH MATERIALS OR EQUIPMENT.
5. REMOVE EXISTING PAVEMENT STRIPING/MARKINGS AS REQUIRED.
6. INSTALL AND MAINTAIN TEMPORARY PAVEMENT STRIPING/MARKINGS AS REQUIRED.
7. THE CONTRACTOR SHALL, AT ALL TIME, SO CONDUCT THE WORK AS TO ENSURE THE LEAST POSSIBLE OBSTRUCTION TO TRAFFIC AND INCONVENIENCE TO THE GENERAL PUBLIC AND THE RESIDENTS IN THE VICINITY OF THE WORK, AND TO ENSURE THE PROTECTIONS OF PERSONS AND PROPERTY. IF THE PROJECT CONSTRUCTION TAKES PLACE OVER SALMON DAYS (THE FIRST WEEKEND IN OCTOBER) THE PROJECT MUST BE CLEANED UP AND WELL CORDONED OFF BY THE FRIDAY BEFORE AND NO WORK WILL BE ALLOWED ON THAT WEEKEND.



TYPICAL CHANNELIZATION
NOT TO SCALE

LEGEND:

- SIGN LOCATION
- CHANNELIZATION DEVICE(S)
- TYPE 3 BARRICADE(S)
- WORK AREA
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- PROTECTIVE VEHICLE
- TRAFFIC FLOW
- SEQUENTIAL ARROW PANEL

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DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

BRIAN L. SOURWINE — STATE OF WASHINGTON — 16091 — REGISTERED PROFESSIONAL ENGINEER

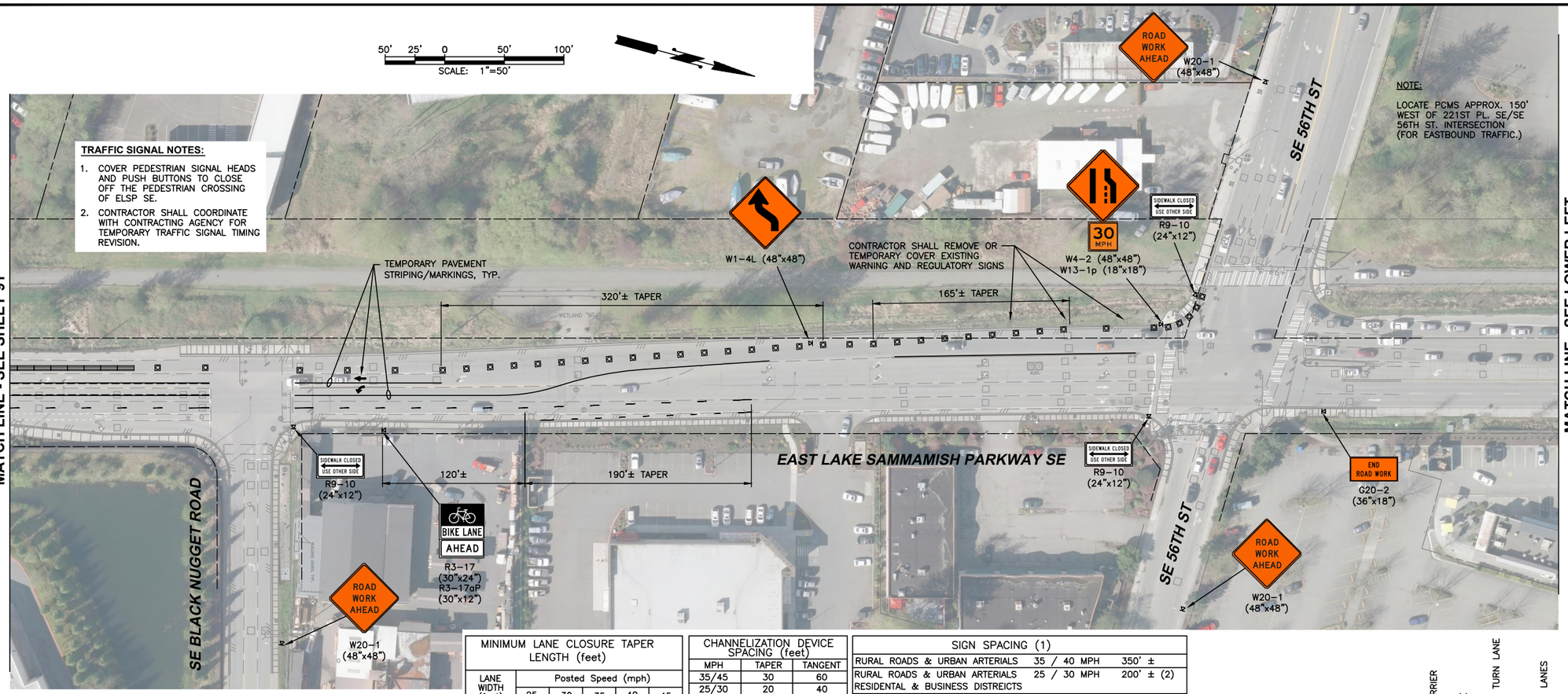
CHI-HENG WANG — STATE OF WASHINGTON — 39930 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
TEMPORARY TRAFFIC CONTROL PLANS

SHEET: 91
OF: 101

JOB NO.: 13570
DWG: TC_PLANS

50' 25' 0 50' 100'
SCALE: 1"=50'



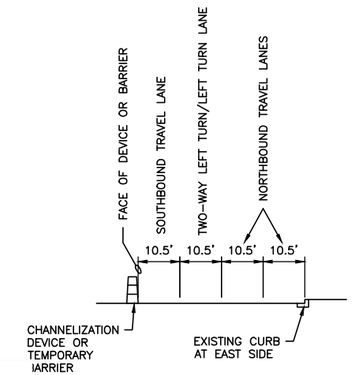
MINIMUM LANE CLOSURE TAPER LENGTH (feet)					
LANE WIDTH (feet)	Posted Speed (mph)				
	25	30	35	40	45
10	105	150	205	270	450
11	115	165	225	295	495
12	125	180	245	320	540

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/45	30	60
25/30	20	40

BUFFER VEHICLE ROLL AHEAD DISTANCE = R
30 FEET MIN.

SIGN SPACING (1)		
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS RESIDENTAL & BUSINESS DISTREICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.



TYPICAL CHANNELIZATION
NOT TO SCALE

NOTES:

1. INSTALL ONE TYPE A LOW-INTENSITY FLASHING WARNING LIGHT (PER MUTCD) ON THE TRAFFIC SIDE OF THE BARRICADE. INSTALL TWO PER BARRICADE WHEN THE BARRICADES ARE USED TO CLOSE A ROADWAY.
2. TYPE C STEADY BURNING WARNING LIGHTS (PER MUTCD) SHALL BE USED TO MARK CHANNELIZING DEVICES AT NIGHT.
3. DISTANCES MAY VARY AS APPROVED BY THE ENGINEER.
4. FLAGGERS REQUIRED TO CONTROL TRAFFIC WHENEVER THE CONTRACTOR MUST INTERRUPT TRAFFIC FLOW TO ACCESS THE WORK SITE WITH MATERIALS OR EQUIPMENT.
5. REMOVE EXISTING PAVEMENT STRIPING/MARKINGS AS REQUIRED.
6. INSTALL AND MAINTAIN TEMPORARY PAVEMENT STRIPING/MARKINGS AS REQUIRED.
7. THE CONTRACTOR SHALL, AT ALL TIME, SO CONDUCT THE WORK AS TO ENSURE THE LEAST POSSIBLE OBSTRUCTION TO TRAFFIC AND INCONVENIENCE TO THE GENERAL PUBLIC AND THE RESIDENTS IN THE VICINITY OF THE WORK, AND TO ENSURE THE PROTECTIONS OF PERSONS AND PROPERTY. IF THE PROJECT CONSTRUCTION TAKES PLACE OVER SALMON DAYS (THE FIRST WEEKEND IN OCTOBER) THE PROJECT MUST BE CLEANED UP AND WELL CORDONED OFF BY THE FRIDAY BEFORE AND NO WORK WILL BE ALLOWED ON THAT WEEKEND.

LEGEND:

- SIGN LOCATION
- CHANNELIZATION DEVICE(S)
- TYPE 3 BARRICADE(S)
- WORK AREA
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- PROTECTIVE VEHICLE
- TRAFFIC FLOW
- SEQUENTIAL ARROW PANEL

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DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

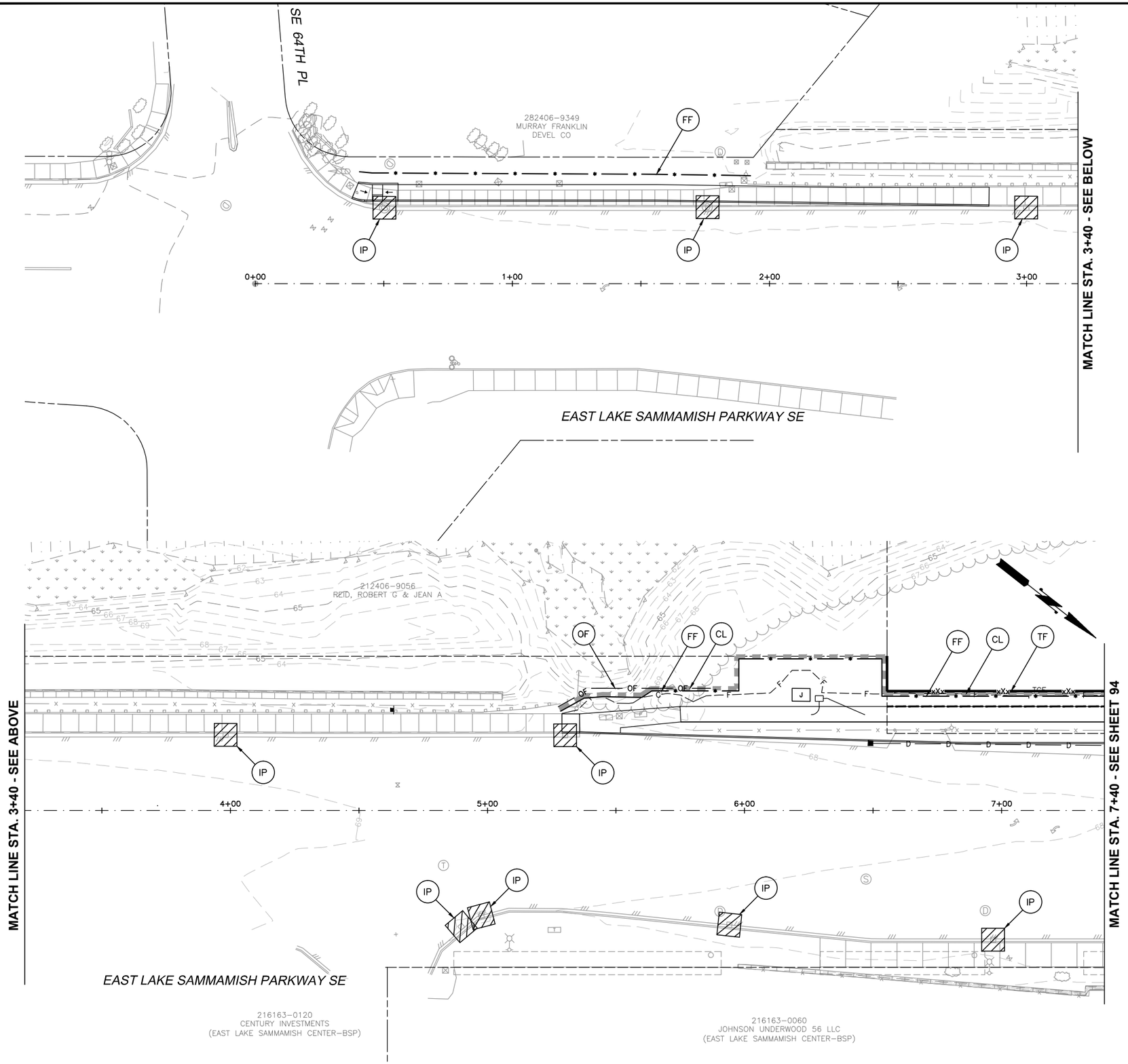
PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

BRIAN L. SOURWINE — STATE OF WASHINGTON 16906 — REGISTERED PROFESSIONAL ENGINEER
CHI-HENG WANG — STATE OF WASHINGTON 39930 — REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
TEMPORARY TRAFFIC CONTROL PLANS

SHEET: 92
OF: 101
JOB NO.: 13570
DWG: TC_PLANS



20' 10' 0 20' 40'

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
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SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

No.	REVISION	DATE	APPD

PRELIMINARY
NOT FOR
CONSTRUCTION

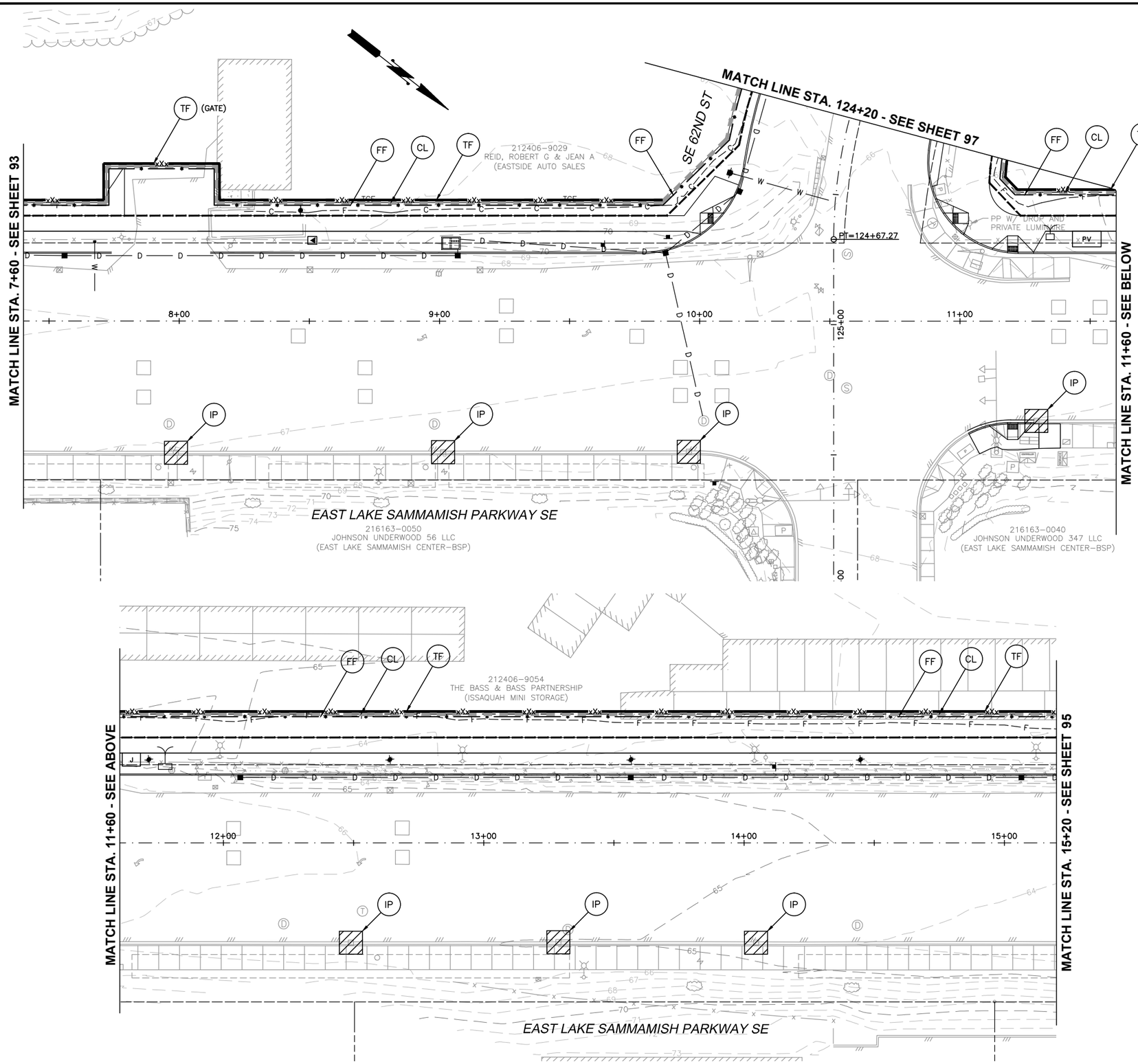
BRIAN L. SOURWINE
STATE OF WASHINGTON
16091
REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN
STATE OF WASHINGTON
50362
REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE
WIDENING
TESC PLAN

SHEET: 93
OF: 101

JOB NO.: 13570
DWG: TESC-PLAN



0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
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PRELIMINARY
NOT FOR
CONSTRUCTION

No.	REVISION	DATE	APPD

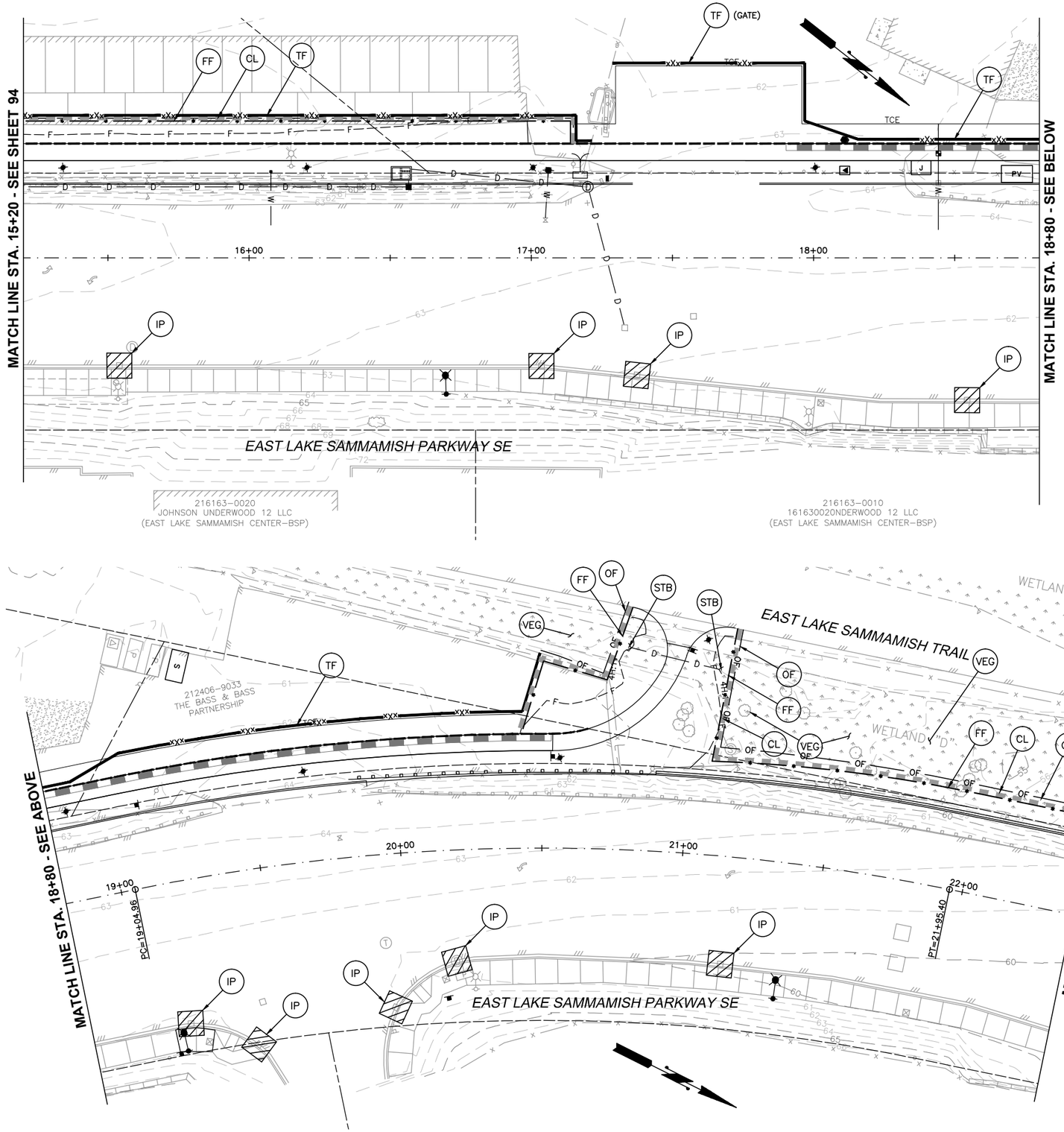
BRIAN L. SOURWINE
STATE OF WASHINGTON
36091
REGISTERED PROFESSIONAL ENGINEER

BRIAN J. BOLLEN
STATE OF WASHINGTON
50362
REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE
WIDENING
TESC PLAN

SHEET: 94
OF: 101

JOB NO.: 13570
DWG: TESC-PLAN



20' 10' 0 20' 40'

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
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SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY
NOT FOR
CONSTRUCTION

No.	REVISION	DATE	APPD

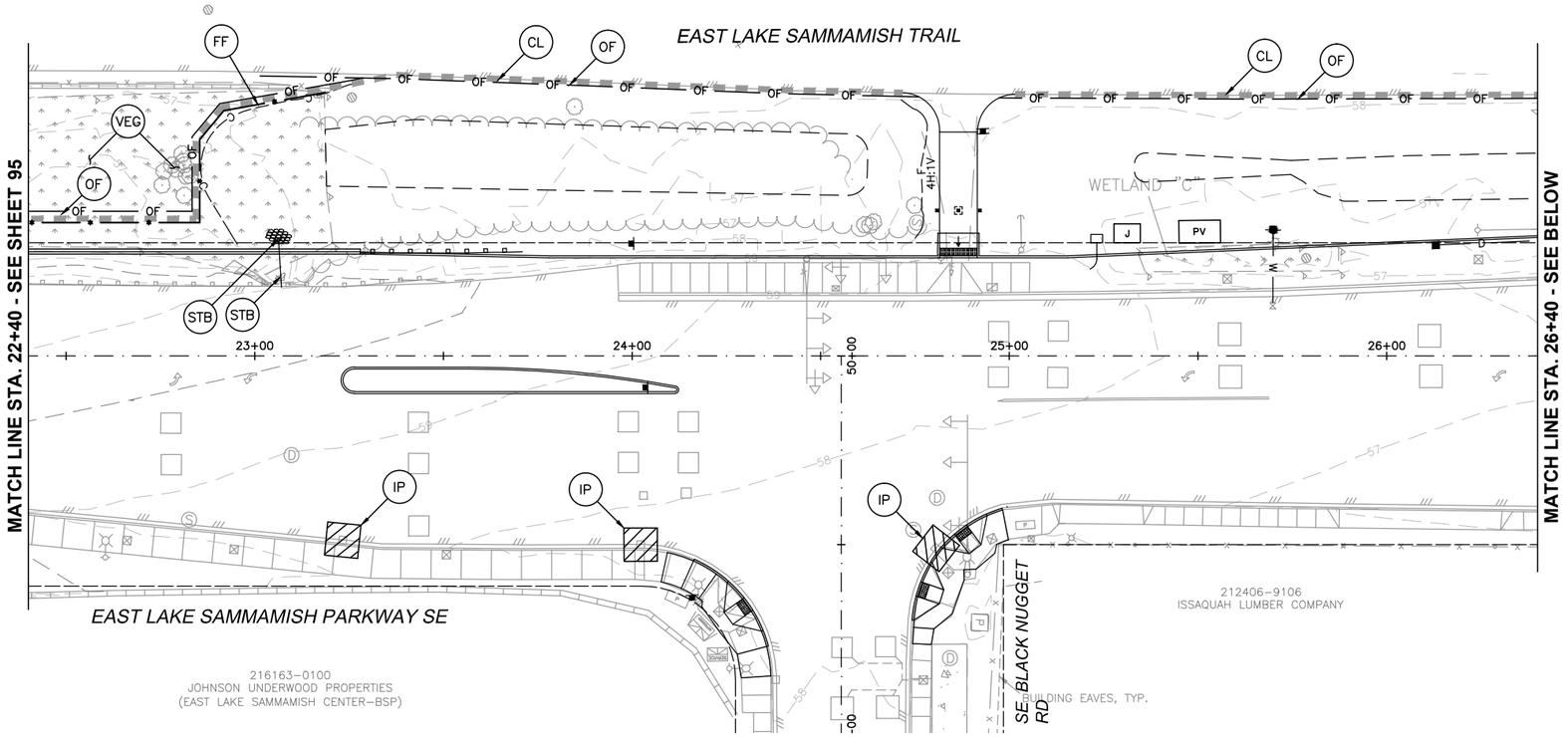
BRIAN L. SOURWINE
STATE OF WASHINGTON
36091
REGISTERED PROFESSIONAL ENGINEER

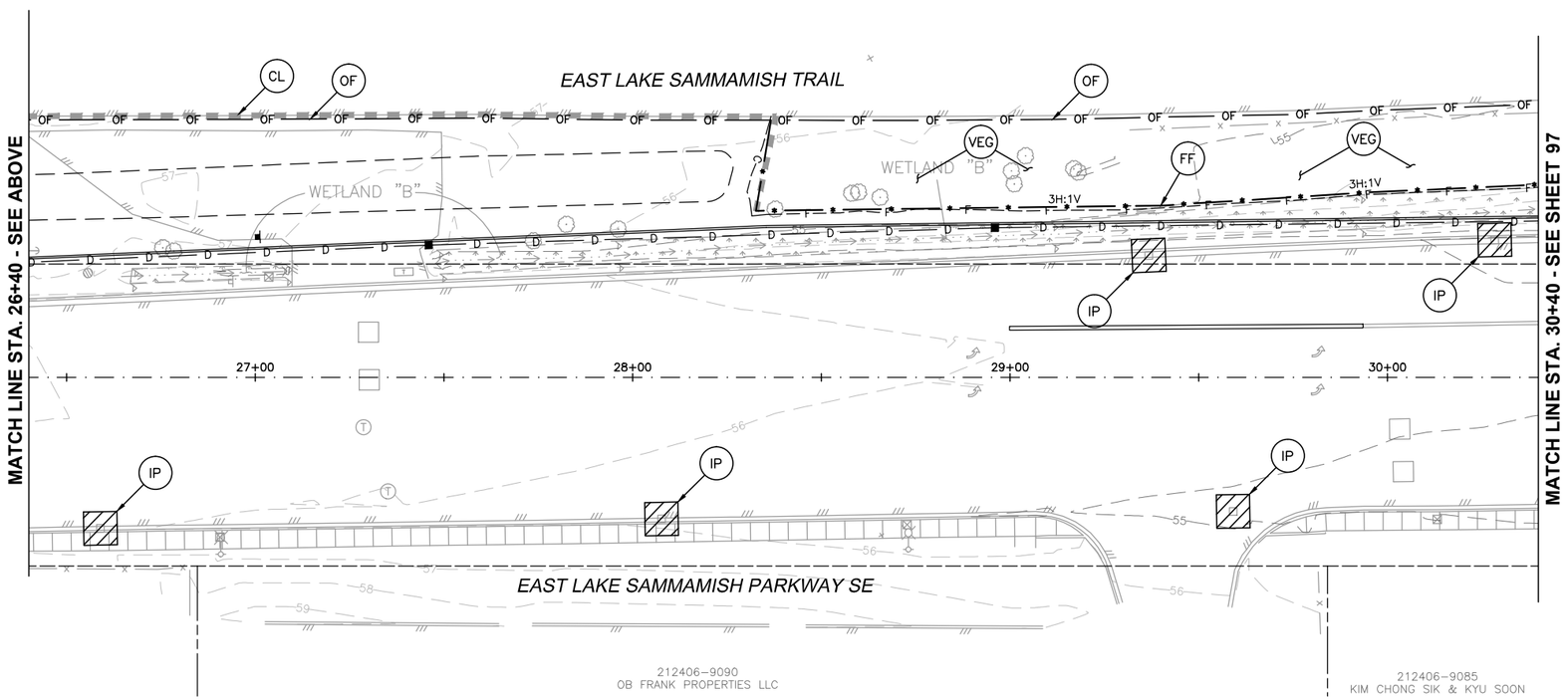
BRIAN J. BOLLEN
STATE OF WASHINGTON
50362
REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE
WIDENING
TESC PLAN

SHEET: 95
OF: 101

JOB NO.: 13570
DWG: TESC-PLAN





20' 10' 0 20' 40'

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
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DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

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50362
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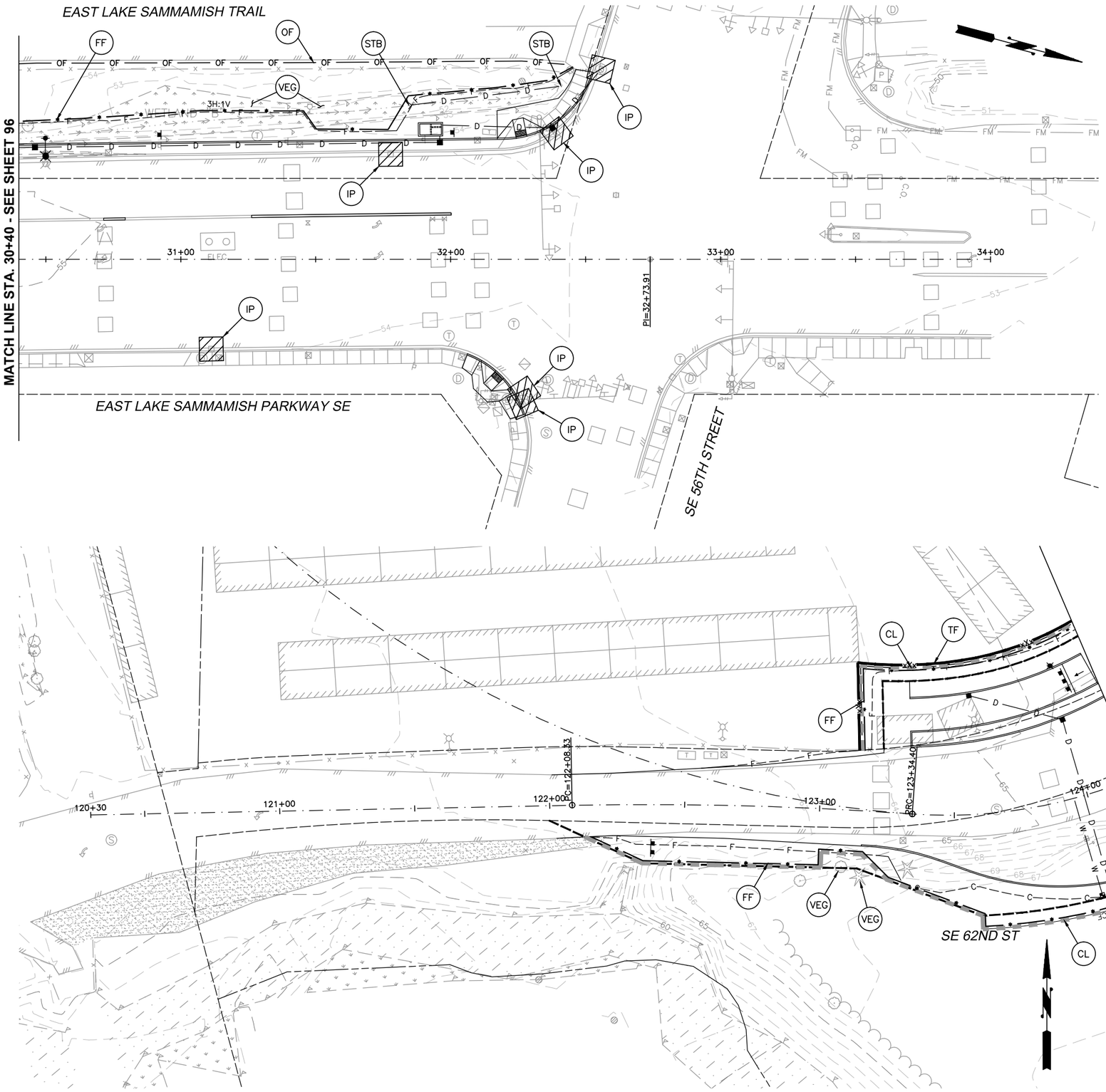
CITY OF ISSAQUAH
WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE
WIDENING
TESC PLAN

SHEET: 96
OF: 101

JOB NO.: 13570
DWG: TESC-PLAN



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CITY OF ISSAQUAH
KING WASHINGTON
EAST LAKE SAMMAMISH PARKWAY SE
WIDENING
TESC PLAN

SHEET: 97
OF: 101

JOB NO.: 13570
DWG: TESC-PLAN

EROSION/SEDIMENTATION CONTROL NOTES

1. CONTRACTOR SHALL SUBMIT TEMPORARY WATER POLLUTION/EROSION CONTROL PLAN PER THE CONTRACT SPECIFICATIONS.
2. ALL LIMITS OF CLEARING AND AREAS OF VEGETATION PRESERVATION SHALL BE OBSERVED DURING CONSTRUCTION.
3. ALL REQUIRED SEDIMENTATION/EROSION CONTROL FACILITIES MUST BE IN OPERATION PRIOR TO LAND CLEARING AND/OR OTHER CONSTRUCTION TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE NATURAL DRAINAGE SYSTEM. ALL EROSION AND SEDIMENT FACILITIES SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND /OR CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED. THE IMPLEMENTATION, MAINTENANCE, REPLACEMENT AND ADDITIONS TO EROSION/SEDIMENTATION CONTROL SYSTEMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. THE EROSION AND SEDIMENTATION CONTROL SYSTEMS DEPICTED ON THIS DRAWING ARE INTENDED TO BE MINIMUM REQUIREMENTS TO MEET ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND AS UNEXPECTED OR SEASONAL CONDITIONS DICTATE, THE CONTRACTOR SHOULD ANTICIPATE THAT MORE EROSION AND SEDIMENTATION CONTROL FACILITIES WILL BE NECESSARY TO ENSURE COMPLETE SILTATION CONTROL ON THE PROPOSED SITE. DURING THE COURSE OF CONSTRUCTION, IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES, OVER AND ABOVE THE MINIMUM REQUIREMENTS, AS MAY BE NEEDED TO PROTECT ADJACENT PROPERTIES AND THE WATER QUALITY OF THE RECEIVING DRAINAGE SYSTEM.
5. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF THE SEDIMENT. ALL CATCH BASINS, CONVEYANCE LINES AND DITCHES SHALL BE CLEANED PRIOR TO PAVING.
6. THE CONTRACTOR SHALL REMOVE MATERIAL DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO THE TOWN RIGHT-OF-WAY OR INTO THE EXISTING STORM DRAINAGE SYSTEM. DEBRIS SHALL NOT BE WASHED INTO THE STORM DRAINAGE SYSTEM.
7. TEMPORARY EROSION CONTROL FACILITIES SHALL BE INSPECTED WEEKLY AND MAINTAINED WITHIN 24 HOURS FOLLOWING A STORM EVENT. SEDIMENT SHALL BE REMOVED TO INSURE THE FACILITIES WILL FUNCTION PROPERLY. THE FACILITIES SHALL BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED.
8. ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT STORMWATER RUNOFF SHALL NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
9. NO DISTURBED SOIL SHALL REMAIN UNSTABILIZED FOR MORE THAN TWO DAYS.
10. CONTRACTOR SHALL CONFORM TO THE D.O.E. STORMWATER GENERAL PERMIT CONDITIONS.

RECOMMENDED TEMPORARY EROSION AND SEDIMENTATION CONTROL CONSTRUCTION SEQUENCE

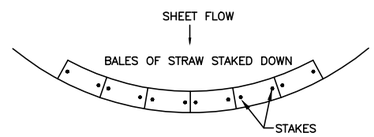
(1) PRE-CONSTRUCTION MEETING.
(2) FLAG AND/OR FENCE CLEARING LIMITS AND INSTALL PERIMETER PROTECTION AND TEMPORARY SECURITY FENCING, AS REQUIRED, FOR INSPECTION BY ENGINEER.
(3) POST SIGN WITH NAME AND PHONE NUMBER OF TESC SUPERVISOR.
(4) INSTALL INLET PROTECTION.
(5) GRADE AND INSTALL CONSTRUCTION/PARKING ENTRANCE(S).
(6) CONSTRUCT TEMPORARY AND PERMANENT SURFACE WATER CONTROLS (BERMS, DITCHES, BIOSWALES, AND STORM SYSTEM) SIMULTANEOUSLY WITH CLEARING AND GRADING. SEED AND INSTALL MATTING TO STABILIZE AS DIRECTED BY ENGINEER.
(7) RELOCATE EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE TESC STANDARD REQUIREMENTS. SURFACE ROUGHEN OR TEXTURE ALL "CUT" SLOPES PRIOR TO SEEDING.
(8) UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BMPS REMOVED, AS DIRECTED BY THE ENGINEER. THOSE TEMPORARY CULVERT PIPES, V-DITCHES AND CHECK DAMS TO REMAIN SHALL BE AS INDICATED BY THE ENGINEER.

SEE PLANS AND SPECIFICATIONS FOR ADDITIONAL CONSTRUCTION SEQUENCING.

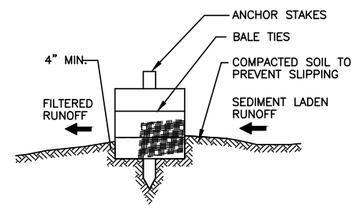
BEST MANAGEMENT PRACTICES - BMP'S LEGEND

SYMBOL	ABBREVIATION	DESCRIPTION
	CL	CLEARING LIMITS
	FF	SILT FENCE (SEE DETAILS)
	IP	STORM INLET PROTECTION (SEE DETAIL)
xXx	TF	TEMPORARY SECURITY FENCING (6' TALL GALVANIZED CHAIN LINK FENCE)
OF	OF	ORANGE CONSTRUCTION FENCING (SEE DETAIL)
	VEG	PRESERVE VEGETATION
	STB	STRAW BALE

NOTE: CONTRACTOR SHALL FURNISH, INSTALL, RELOCATE AND MAINTAIN TEMPORARY CONSTRUCTION AREA FENCING AS SHOWN HERE AND AS ADDITIONALLY DIRECTED BY THE CONTRACTING AGENCY.



PLAN



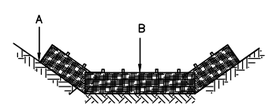
CROSS-SECTION

NOTE:

SINGLE ROW OF BALES OF STRAW TO BE PLACED PRIOR TO THE START OF ROUGH GRADING

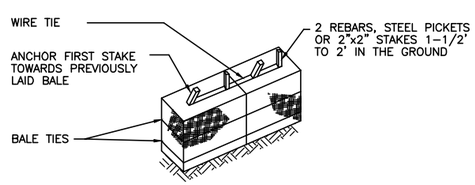
STRAW AND HAY BALE BARRIERS

NOT TO SCALE



POINT 'A' SHOULD BE HIGHER THAN POINT 'B'

PROPER PLACEMENT OF STRAW BALE BARRIER IN DRAINAGE WAY

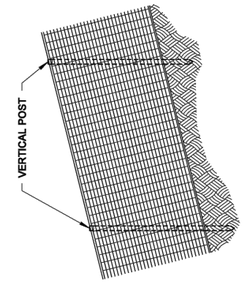


STRAW AND HAY BALE BARRIER ANCHOR DETAIL

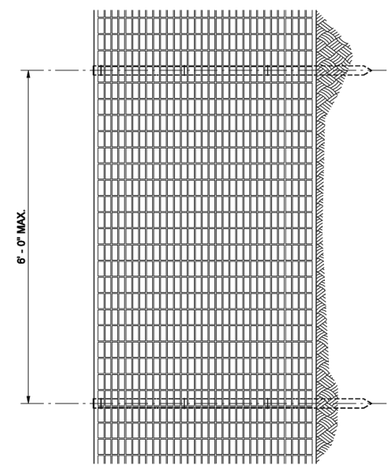
NOT TO SCALE

NOTE

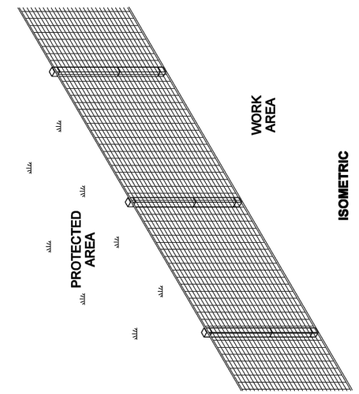
1. Post shall have sufficient strength and durability to support the fence through the life of the project.



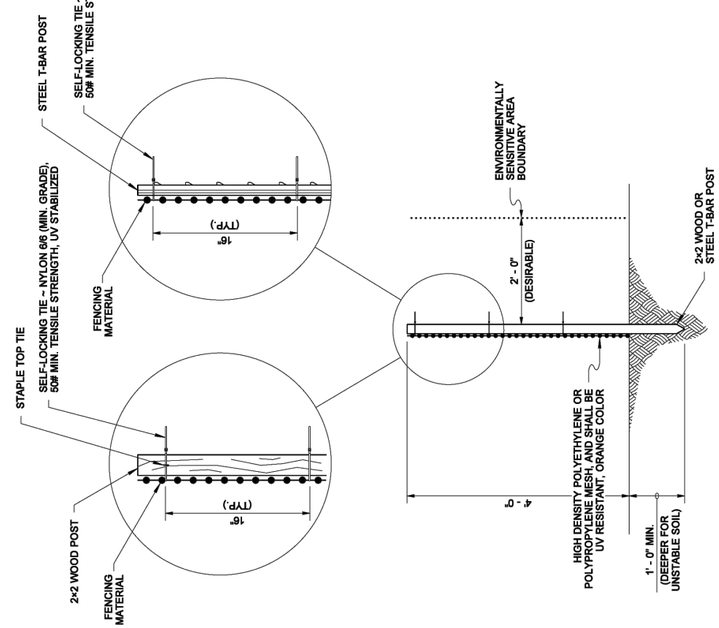
ELEVATION
FENCE ON SLOPE



ELEVATION



ISOMETRIC



TYPICAL SECTION

DRAWN BY: BILL BERENS

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
MARK W. MAURER
CERTIFICATE NO. 000598

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HIGH VISIBILITY FENCE

STANDARD PLAN I-10.10-01

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Pasco Bakotich III 08-11-09
STATE DESIGN ENGINEER DATE
Washington State Department of Transportation

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

BRIAN L. SOUMWINE STATE OF WASHINGTON 36091 REGISTERED PROFESSIONAL ENGINEER

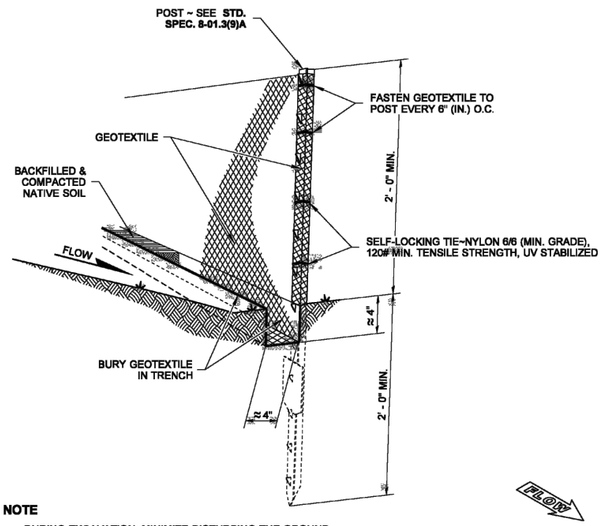
BRIAN J. BOLLEN STATE OF WASHINGTON 50362 REGISTERED PROFESSIONAL ENGINEER

CITY OF ISSAQUAH WASHINGTON
KING
EAST LAKE SAMMAMISH PARKWAY SE WIDENING
EROSION CONTROL NOTES AND DETAILS

SHEET: 98
OF: 101

JOB NO.: 13570
DWG: EROSION_DET1

DRAWN BY: BILL BERENS



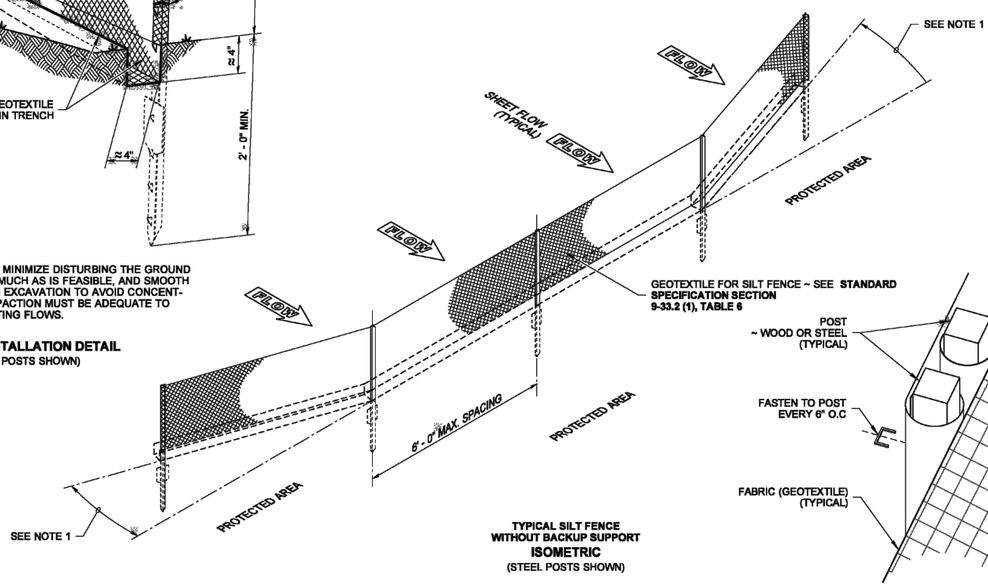
NOTES

1. Install the ends of the silt fence to point slightly upslope to prevent sediment from flowing around the ends of the fence.
2. Perform maintenance in accordance with **Standard Specifications 8-01.3(9)A and 8-01.3(15).**
3. Splices shall never be placed in low spots or sump locations. If splices are located in low or sump areas, the fence may need to be reinstalled unless the Project Engineer approves the installation.
4. Install silt fencing parallel to mapped contour lines.

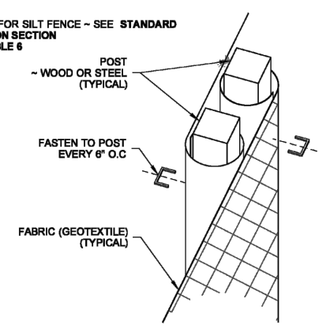
NOTE

DURING EXCAVATION, MINIMIZE DISTURBING THE GROUND AROUND TRENCH AS MUCH AS IS FEASIBLE, AND SMOOTH SURFACE FOLLOWING EXCAVATION TO AVOID CONCENTRATING FLOWS. COMPACTION MUST BE ADEQUATE TO PREVENT UNDERCUTTING FLOWS.

TYPICAL INSTALLATION DETAIL
(STEEL POSTS SHOWN)



TYPICAL SILT FENCE WITHOUT BACKUP SUPPORT
ISOMETRIC
(STEEL POSTS SHOWN)



SPLICED FENCE SECTIONS SHALL BE CLOSE ENOUGH TOGETHER TO PREVENT SILT LADEN WATER FROM ESCAPING THROUGH THE FENCE AT THE OVERLAP.

SPLICE DETAIL
(WOOD POSTS SHOWN)

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
SANDRA L. SALISBURY
CERTIFICATE NO. 000860

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SILT FENCE

STANDARD PLAN I-30.15-02

SHEET 1 OF 1 SHEET

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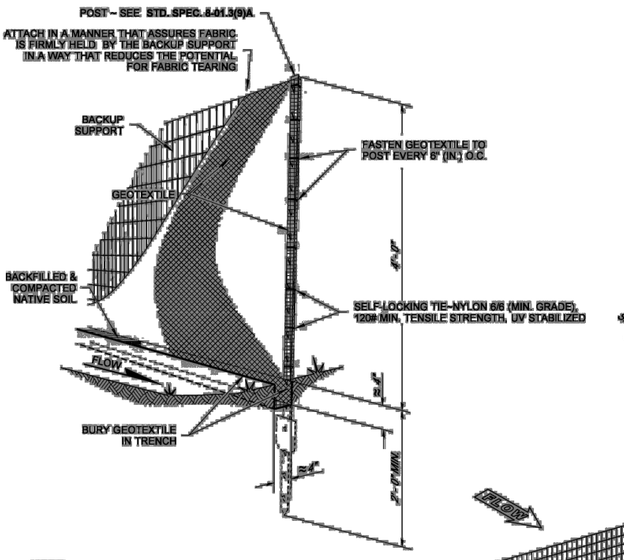
Pasco Bakotich III — STATE DESIGN ENGINEER — 3/22/13 DATE
Washington State Department of Transportation

DRAWN BY: BILL BERENS



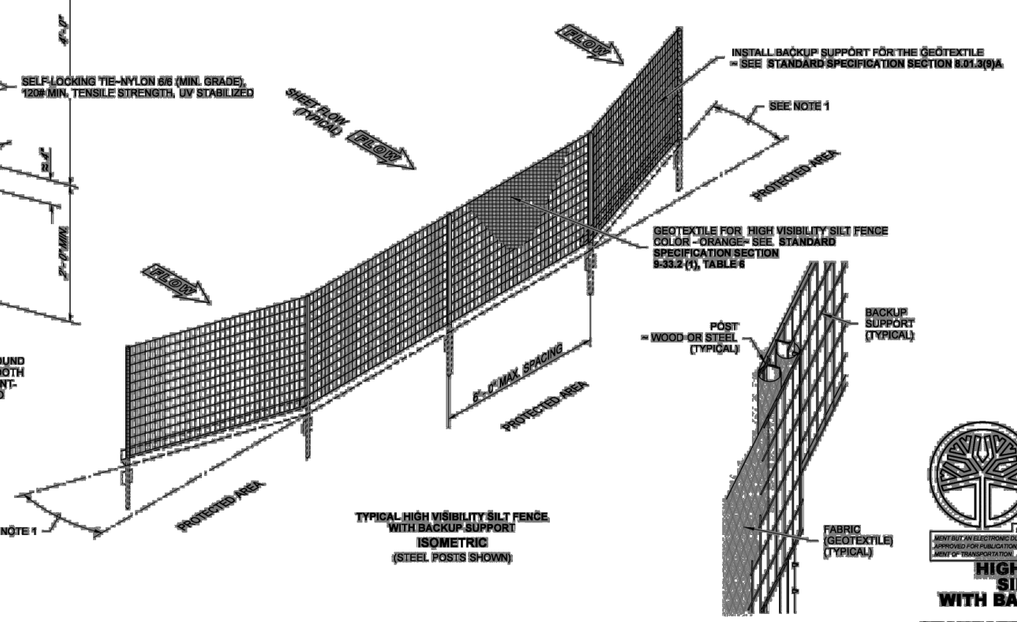
NOTES

1. Install the ends of the high visibility silt fence to point slightly upslope to prevent sediment from flowing around the ends of the fence.
2. Perform maintenance in accordance with **Standard Specifications 8-01.3(9)A and 8-01.3(15).**
3. Splices shall never be placed in low spots or sump locations. If splices are located in low or sump areas, the fence may need to be reinstalled unless the Project Engineer approves the installation.
4. Install silt fencing parallel to mapped contour lines.

NOTE

DURING EXCAVATION, MINIMIZE DISTURBING THE GROUND AROUND TRENCH AS MUCH AS IS FEASIBLE, AND SMOOTH SURFACE FOLLOWING EXCAVATION TO AVOID CONCENTRATING FLOWS. COMPACTION MUST BE ADEQUATE TO PREVENT UNDERCUTTING FLOWS.

TYPICAL INSTALLATION DETAIL
(STEEL POSTS SHOWN)



TYPICAL HIGH VISIBILITY SILT FENCE WITH BACKUP SUPPORT
ISOMETRIC
(STEEL POSTS SHOWN)

SPLICED FENCE SECTIONS SHALL BE CLOSE ENOUGH TOGETHER TO PREVENT SILT LADEN WATER FROM ESCAPING THROUGH THE FENCE AT THE OVERLAP.

SPLICE DETAIL
(STEEL POSTS SHOWN)

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
SANDRA L. SALISBURY
CERTIFICATE NO. 000860

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HIGH VISIBILITY SILT FENCE WITH BACKUP SUPPORT

STANDARD PLAN I-30.16-00

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Pasco Bakotich III — STATE DESIGN ENGINEER — 3/22/13 DATE
Washington State Department of Transportation

DRAWN BY: BILL BERENS

JOB NO.: 13570	SHEET: 99	CITY OF ISSAQUAH, KING WASHINGTON	BRIAN J. BOLLEN, STATE OF WASHINGTON, 50362, REGISTERED PROFESSIONAL ENGINEER
DWG: EROSION_DET2	OF: 101	EAST LAKE SAMMAMISH PARKWAY SE WIDENING	BRIAN L. SOUWINE, STATE OF WASHINGTON, 36091, REGISTERED PROFESSIONAL ENGINEER
		EROSION CONTROL DETAILS	

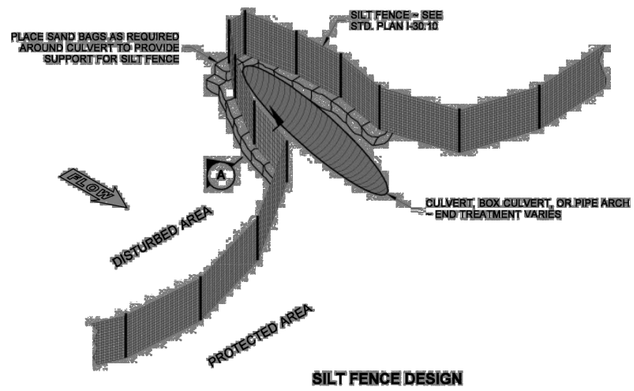
PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

DATE: MAR. 2015
SCALE: AS NOTED
DRAWN: C.N.T.
CHECKED: C.B.W.
APPROVED: B.L.S.

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

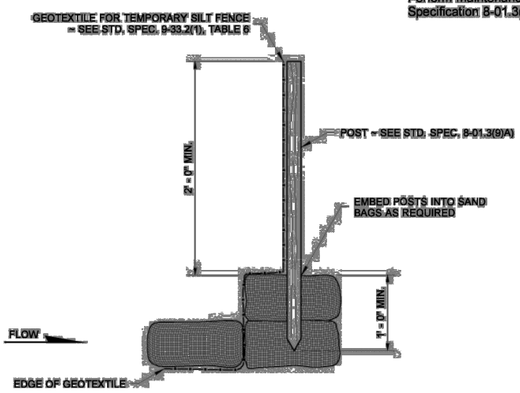
DRAWN BY: LISA CRFORD



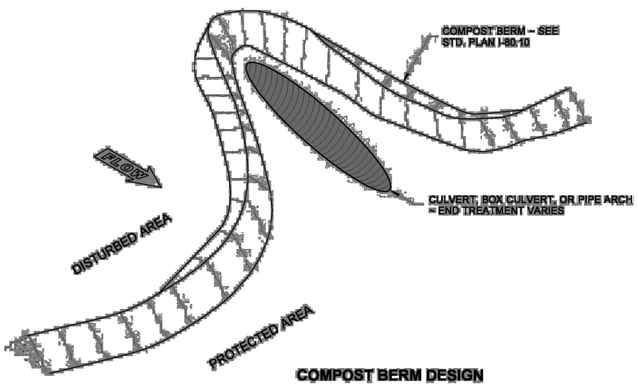
SILT FENCE DESIGN

NOTE

Perform maintenance in accordance with Standard Specification 8-01.3(9)A and 8-01.3(15).



SECTION A



COMPOST BERM DESIGN

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT

MARK W. MAURER

CERTIFICATE NO. 000598

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EROSION CONTROL AT CULVERT ENDS

STANDARD PLAN I-30.20-00

SHEET 1 OF 1 SHEET

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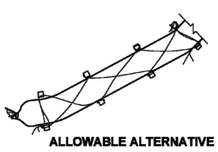
Pasco Bakotich III 09-20-07

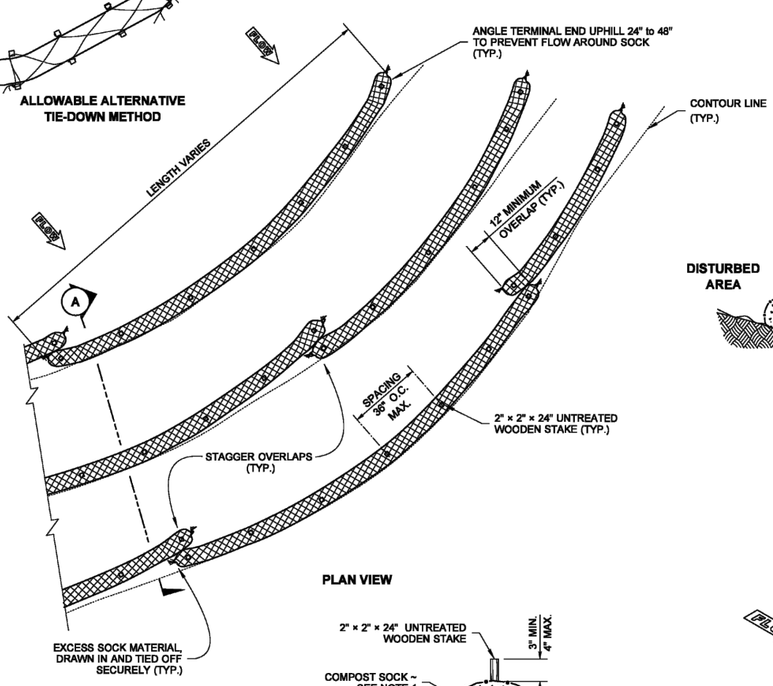
STATE DESIGN ENGINEER DATE

Washington State Department of Transportation

DRAWN BY: FERN LIDDELL



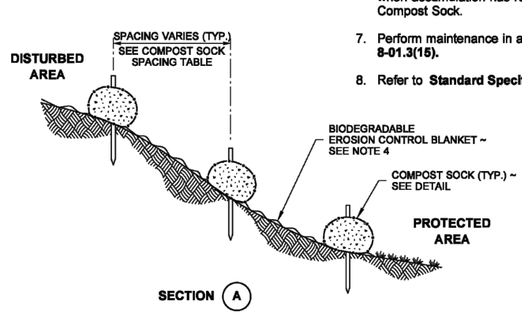
ALLOWABLE ALTERNATIVE TIE-DOWN METHOD



PLAN VIEW

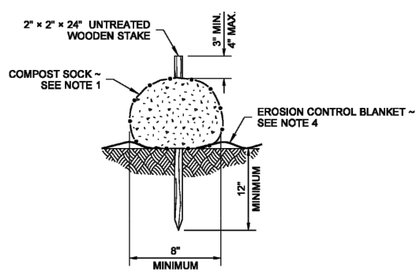
NOTES

1. Compost Sock shall be in accordance with **Standard Specification 9-14.5(6).**
2. Securely knot each end of Compost Sock. Overlap adjacent Compost Sock ends 12" behind one another and securley tie together.
3. Compost to be dispersed on site as determined by the Engineer, when vegetation covers the surface.
4. If Erosion Control Blanket is specified, place Compost Sock on top of blanket. See **Standard Plan I-60.10.**
5. Install Compost Sock perpendicular to flow along contours.
6. Remove sediment from the up slope side of the Compost Sock when accumulation has reached 1/2 of the effective height of the Compost Sock.
7. Perform maintenance in accordance with **Standard Specification 8-01.3(15).**
8. Refer to **Standard Specification 8-01.3(16)** for removal.

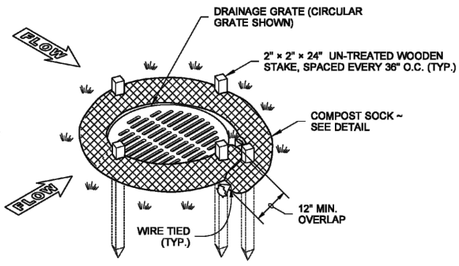


SECTION A

8" DIAMETER COMPOST SOCK SPACING TABLE	
SLOPE	MAXIMUM SPACING
1H : 1V	10' - 0"
2H : 1V	20' - 0"
3H : 1V	30' - 0"
4H : 1V	40' - 0"



COMPOST SOCK DETAIL



ISOMETRIC VIEW

CATCH BASIN INSTALLATION

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT

Sandra L. Salisbury

SANDRA L. SALISBURY

LICENSE NO. 860

DATE: June 6, 2013

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COMPOST SOCK

STANDARD PLAN I-30.40-01

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Pasco Bakotich III 6/10/13

STATE DESIGN ENGINEER DATE

Washington State Department of Transportation

SHEET: 100 OF: 101

JOB NO.: 13570

DWG: EROSION_DET2

CITY OF ISSAQUAH

KING WASHINGTON

EAST LAKE SAMMAMISH PARKWAY SE WIDENING

EROSION CONTROL DETAILS

BRIAN J. BOLLEN — STATE OF WASHINGTON — 50362 — REGISTERED PROFESSIONAL ENGINEER

BRIAN L. SOUWINE — STATE OF WASHINGTON — 36091 — REGISTERED PROFESSIONAL ENGINEER

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

DATE: MAR. 2015

SCALE: AS NOTED

DRAWN: C.N.T.

CHECKED: C.B.W.

APPROVED: B.L.S.

Gray & Osborne, Inc.

CONSULTING ENGINEERS

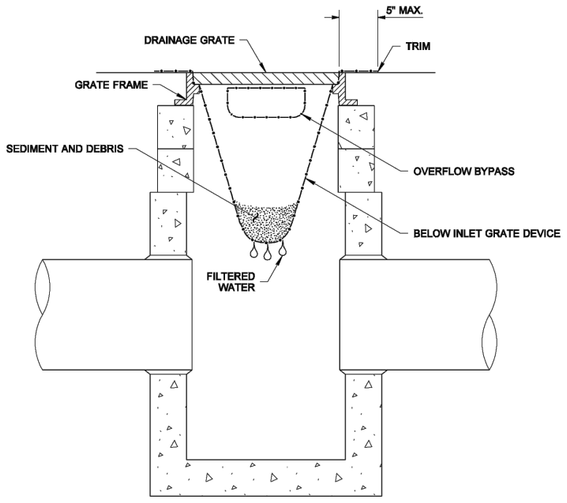
701 DEXTER AVENUE NORTH SUITE 200

SEATTLE, WASHINGTON 98109 • (206) 284-0860

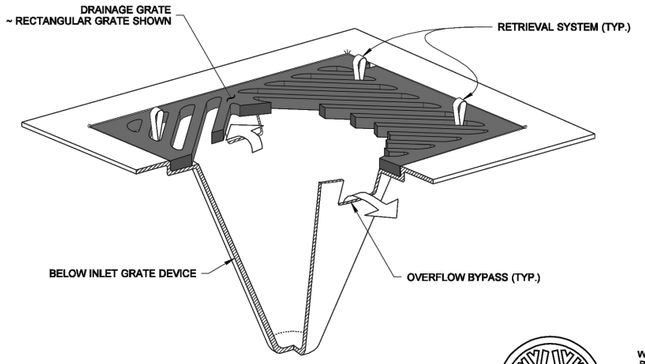
DRAWN BY: LISA CYFORD

NOTES

1. Size the Below Inlet Grate Device (BIGD) for the storm water structure it will service.
2. The BIGD shall have a built-in high-flow relief system (overflow bypass).
3. The retrieval system must allow removal of the BIGD without spilling the collected material.
4. Perform maintenance in accordance with Standard Specification 8-01.3(15).



SECTION VIEW
NOT TO SCALE



ISOMETRIC VIEW

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
MARK W. MAURER
CERTIFICATE NO. 000598

NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL, SIGNED BY THE ENGINEER AND APPROVED FOR PUBLICATION, IS KEPT ON FILE AT THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

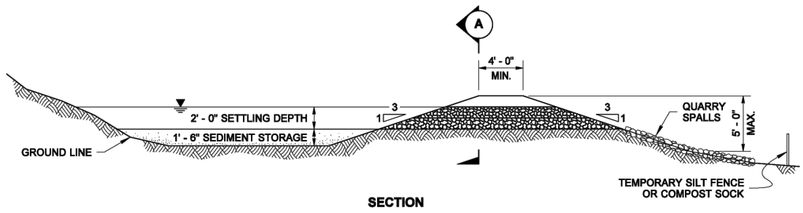
STORM DRAIN INLET PROTECTION

STANDARD PLAN I-40.20-00

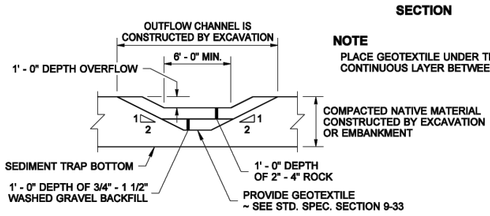
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Pasco Bakotich III *09-20-07*
STATE DESIGN ENGINEER DATE
Washington State Department of Transportation

DRAWN BY: BILL BERENS



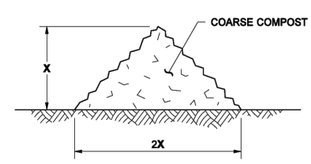
SECTION



NOTE
PLACE GEOTEXTILE UNDER THE SPILLWAY AND SIDE SLOPES. PROVIDE A CONTINUOUS LAYER BETWEEN THE GRAVEL/ROCK AND THE NATIVE EARTHEN MATERIAL.

SECTION (A)

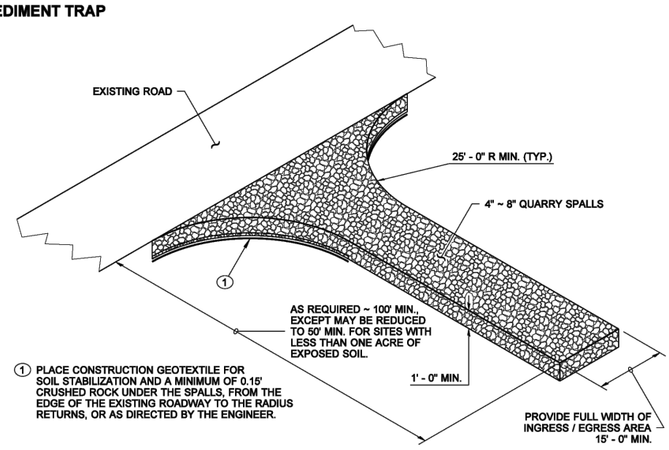
TEMPORARY SEDIMENT TRAP



X = 1' - 0" FOR SLOPES 4H:1V OR FLATTER
X = 1' - 6" FOR SLOPES STEEPER THAN 4H:1V

TYPICAL SECTION

COMPOST BERM DETAIL



(1) PLACE CONSTRUCTION GEOTEXTILE FOR SOIL STABILIZATION AND A MINIMUM OF 0.15' CRUSHED ROCK UNDER THE SPALLS, FROM THE EDGE OF THE EXISTING ROADWAY TO THE RADIUS RETURNS, OR AS DIRECTED BY THE ENGINEER.

ISOMETRIC VIEW
STABILIZED CONSTRUCTION ENTRANCE

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
MARK W. MAURER
CERTIFICATE NO. 000598

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MISCELLANEOUS EROSION CONTROL DETAILS

STANDARD PLAN I-80.10-01

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Pasco Bakotich III *08-11-09*
STATE DESIGN ENGINEER DATE
Washington State Department of Transportation

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