<u>ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION</u> SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).		DUNDATION NOTE ALUES LISTED OF IEREFORE MUST
DESIGN LOADING CRITERIA		DTIFY THE STRUC
ROOF SNOW LOAD25 PSFFLOOR LIVE LOAD125 PSF OR 2,000 LBSSTAIR AND EXITS LIVE LOAD100 PSFGUARDRAILS/BALCONY RAILS (EXIT FACILITY)50 PLF OR 200 LBS.GUARDRAILS/BALCONY RAILS (OTHER THAN EXIT FACILITY)20 PLF OR 200 LBS.	07 5+ 07	DOTINGS SHALL R BOTH) AT LEA HOWN ON PLANS F FOOTINGS MUS DOTINGS SHALL
GUARDRAILS/BALCONY RAILS (OTHER THAN EXIT FACILITY) 20 PLF OR 200 LBS. MECHANICAL UNITS WEIGHTS FURNISHED BY MANUFACTURER		ACKFILL BEHIND IBSURFACE DRA
<u>MIND</u> : ANALYSIS PROCEDURE: ASCE 7-16 CHAPTER 27 "PART I - BUILDINGS OF ALL HEIGHTS" RISK CATEGORY II 104 MPH EXPOSURE "B" TOPOGRAPHIC FACTOR Kzt = 1.0	R	<u>IE STRUCTURAL</u> EPORT: LOWABLE SOIL
EARTHQUAKE : ANALYSIS PROCEDURE: IBC "EQUIVALENT LATERAL FORCE PROCEDURE" SEISMIC DESIGN CATEGORY (SDC) = D RISK CATEGORY = II SEISMIC SITE CLASS = D IMPORTANCE FACTOR Ie = I.0 MAPPED MCE Ss = I.26; SI = I.0I DESIGN ACCELERATION Sds = 0.43; SdI = 0.54	SE P/ SC	ATERAL EARTH I EISMIC SURCHAR ASSIVE SOIL PR DIL COEFFICIENT DIL DENSITY
<u>LATERAL LOADS</u> ARE TRANSFERRED BY THE ROOF AND FLOOR DIAPHRAGMS TO THE SHEAR WALLS OR BRACED FRAMES. MOMENTS, SHEARS AND ROTATIONAL FORCES ARE BASED ON THE RIGIDITY OF EACH SHEAR WALL OR BRACED FRAME AND ARE CARRIED BY THE SHEAR WALLS OR BRACED FRAMES TO THE FOUNDATION.	SH TC PL	EMOLITION: VE1 HALL BE INSTAL THE WORK SEC LANS. SAW CUT AVED. DEMOLIT
<u>STRUCTURAL DRAWINGS</u> SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.	ST ST	A. ALL NEW OPE
<u>CONTRACTOR</u> SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED.		SAW CUTTING B. VERIFY ALL C. SMALL ROUN
<u>CONTRACTOR</u> SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.		D. WHERE NEW F EXISTING COI OTHERWISE N
<u>CONTRACTOR</u> SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THEIR WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.	CC 28	<u>ONCRETE</u> SHALL ONSTRUCTION TO 3-DAY STRENGT LABS-ON-GRADE
<u>CONTRACTOR-INITIATED</u> CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.	CE (B	ECTION 1904.1. A EMENT PER CUBI EFORE THE ADI DOTINGS AND 0.
<u>DRAWINGS</u> INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. WHERE INFORMATION ON THE DRAWINGS IS IN CONFLICT WITH THE SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. DO NOT SCALE THE DRAWINGS.	FC TH PE Af	E MINIMUM AMO R FOOTINGS AN RFORMANCE MI PROVAL TWO N E PERFORMANC DARSE AGGREG
<u>ALL STRUCTURAL SYSTEMS</u> WHICH ARE COMPOSED OF FIELD ERECTED COMPONENTS SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.	CC AI PE	ONCRETE YIELD OMIXTURES AND ERCENTAGE OF ERFORMANCE M
<u>SHOP DRAWINGS</u> FOR REINFORCING STEEL (FOR BOTH CONCRETE AND MASONRY CONSTRUCTION), STRUCTURAL STEEL, AND METAL DECKING, SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.	TH ON	NEY THAT INFOR
CONTRACTOR SHALL SUBMIT WALL ELEVATION DRAWINGS OF AT LEAST 1/8" = 1'-0" SCALE INDICATING LOCATIONS OF CONNECTION EMBEDMENTS AND WALL OPENINGS FOR REVIEW PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH REINFORCEMENT SHOP DRAWINGS.	AI CC	L CONCRETE M R-ENTRAINING / ONCRETE SHALL TEEL TROWELED
SHOP DRAWING REVIEW: DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, AND THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO.	20. RE	EINFORCING STE ETAILED (INCLUD ONTINUOUS REINF ARS AT ALL WA AMETERS OR 2'
SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL	31, SL 21, <u>CC</u> FC	8, CLASS B. PR .ABS EXTENDING ONCRETE PROTE OOTINGS AND O ⁻
CONTROL AND SHALL BE FOLLOWED. <u>DEFERRED SUBMITTALS OF DESIGN BUILD COMPONENTS</u> SHALL BEAR THE STAMP AND SIGNATURE OF A STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER AND SHALL BE APPROVED BY THE	(#¢ (#5	ORMED SURFACE 6 BARS OR LAR 5 BARS OR SMA OLUMN TIES OR 3
COMPONENT DESIGNER PRIOR TO CURSORY REVIEW BY THE ENGINEER OF RECORD FOR LOADS IMPOSED ON THE BASIC STRUCTURE. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. DEFERRED SUBMITTALS SHALL INDICATE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON BASIC STRUCTURE AND SHALL INCLUDE DESIGN CALCULATIONS	SL 22. <u>C</u> A	ABS AND WALL
WITH THE ENGINEER'S STAMP. THE FOLLOWING COMPONENTS SHALL BE DEFERRED SUBMITTALS FOR THIS PROJECT: STAIRS, RAILINGS, AND METAL BUILDINGS	AN AF TE	ND LOCATION O RCHITECTURAL I EXTURE, AND OTI
MECHANICAL UNIT CONNECTIONS TO THE BUILDING SHALL BE DESIGNED BY THE MANUFACTURER FOR THE DESIGN CRITERIA AND CONDITIONS SHOWN ON THE STRUCTURAL DRAWINGS. [®] MANUFACTURER SHALL SUBMIT DETAIL DRAWINGS AND CALCULATIONS, BOTH OF WHICH BEAR THE STAMP AND SIGNATURE OF A STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER. [®] MANUFACTURER'S ENGINEER SHALL BE RESPONSIBLE FOR DESIGN, CODE CONFORMANCE, AND CONNECTION OF THE UNIT TO THE BASIC STRUCTURE. [®] ALL NECESSARY BRACING, TIES, ANCHORAGE, DISTRIBUTION MEMBERS, AND SIMILAR ELEMENTS SHALL BE FURNISHED AND INSTALLED IN CONFORMANCE WITH SUBMITTED DRAWINGS AND CALCULATIONS.	23. <u>NC</u> AF M/ TH 24. <u>PC</u>	ND PRECAST. <u>DN-SHRINK GROU</u> PROVED MANU ANUFACTURER'S IE MATERIAL <i>O</i> N <u>DLYSTYRENE (RI</u> IALL BE RIGID (
SPECIAL INSPECTION: CONCRETE CONSTRUCTION, MASONRY CONSTRUCTION, STRUCTURAL STEEL FABRICATION AND ERECTION (INCLUDING FIELD WELDING AND HIGH-STRENGTH FIELD BOLTING), METAL DECK INSTALLATION, EXPANSION BOLTS AND THREADED EXPANSION INSERTS, SCREW ANCHORS, AND EPOXY GROUTED INSTALLATIONS SHALL BE SUPERVISED IN ACCORDANCE WITH IBC SECTIONS 1704 & 1705 AND THE PROJECT SPECIFICATIONS BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE OWNER. THE TESTING AGENCY AND INSPECTOR SHALL BE REGISTERED WITH WABO AND SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE OWNER, ARCHITECT, STRUCTURAL ENGINEER, CONTRACTOR AND BUILDING OFFICIAL. ANY MATERIALS WHICH FAIL TO MEET PROJECT SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.	MI RE BL	NIMUM COMPRES ESISTANCE OF 1 LOCK JOINTS BE ECOMMENDATIO

GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

<u>GEOTECHNICAL</u>

ALLOWABLE SOIL PRESSURE AND LATERAL EARTH PRESSURE ARE BASED ON PREVIOUSLY PERMITTED BUILDING PLANS DATED DECEMBER 22, 1995 AND E VERIFIED IN THE FIELD. IF SOILS ARE FOUND TO BE OTHER THAN ASSUMED, TURAL ENGINEER FOR POSSIBLE FOUNDATION REDESIGN.

3EAR ON FIRM, UNDISTURBED EARTH (CONTROLLED, COMPACTED STRUCTURAL FILL 5T 18" BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD. UNLESS OTHERWISE NOTED, BE CENTERED UNDER COLUMNS OR WALLS ABOVE.

ALL RETAINING WALLS WITH FREE DRAINING, GRANULAR FILL AND PROVIDE FOR NAGE.

DESIGN IS BASED ON THE FOLLOWING VALUES FROM THE REFERENCED GEOTECHNICAL

BEARING PRESSURE	2,000 PSF
PRESSURE (RESTRAINED/UNRESTRAINED)	55 PCF/35 PCF
GE PRESSURE (RESTRAINED/UNRESTRAINED)	8H PSF/5H PSF
ESSURE	350 PCF
OF FRICTION	0.35
	120 PCF

<u>RENOVATION</u>

RIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. SHORING ED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED AND IN A MANNER SUITABLE VENCES. EXISTING REINFORCING SHALL BE SAVED WHERE AND AS NOTED ON THE ING, IF AND WHERE USED, SHALL NOT CUT EXISTING REINFORCING THAT IS TO BE ON DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING CONSTRUCTION LOADING (INCLUDING DEMOLITION DEBRIS) ON EXISTING FLOOR

NINGS THROUGH EXISTING WALLS, SLABS AND BEAMS SHALL BE ACCOMPLISHED BY WHEREVER POSSIBLE

EXISTING CONDITIONS AND LOCATION OF MEMBERS PRIOR TO CUTTING ANY OPENINGS. OPENINGS SHALL BE ACCOMPLISHED BY CORE DRILLING, IF POSSIBLE EINFORCING TERMINATES AT EXISTING CONCRETE, REBAR DOWELS EPOXIED INTO THE ICRETE SHALL BE PROVIDED TO MATCH HORIZONTAL REINFORCING, UNLESS DTED ON PLANS.

CONCRETE

BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301. LERANCES SHALL NOT EXCEED THOSE LISTED IN ACI 117. CONCRETE SHALL ATTAIN A OF I'C = 3,000 PSI. ALL CONCRETE EXPOSED TO THE WEATHER AND ALL GARAGE SHALL ATTAIN A 28-DAY STRENGTH 1'C OF 3,500 PSI IN ACCORDANCE WITH IBC ND ACI 318 TABLE 19.3.2.1. MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF , YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS ITION OF ADMIXTURES). THE WATER/CEMENT RATIO SHALL NOT EXCEED 0.55 FOR 45 FOR ALL SLABS AND EXPOSED CONCRETE UNLESS OTHERWISE NOTED. EXCEPT D SLAB ON GRADE, AGGREGATE SIZE SHALL NOT EXCEED 3/4".

UNT OF CEMENT AND THE MAXIMUM SLUMP MAY BE CHANGED IF A CONCRETE IS SUBMITTED TO THE STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT FOR NEEKS PRIOR TO PLACING ANY CONCRETE. (THE W/C RATIO LIMITS STILL APPLY). MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, CEMENTITIOUS MATERIAL, FINE AND ATE, WATER AND ADMIXTURES AS WELL AS THE WATER CEMENT RATIO, SLUMP, AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 301. CHEMICAL FLY ASH SHALL CONFORM TO ASTM C494 AND C618 RESPECTIVELY. FLY ASH OTAL CEMENTITIOUS MATERIAL SHALL NOT EXCEED 20%. THE USE OF A REQUIRES BATCH PLANT INSPECTION, THE COST OF WHICH SHALL BE BROUGHT TO THE OWNER. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES MATION PRESENTED CONFORMS GENERALLY TO CONTRACT DOCUMENTS. NTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.

ITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AGENT CONFORMING TO ASTM C260. TOTAL AIR CONTENT FOR FROST-RESISTANT BE IN ACCORDANCE WITH ACI 318-14 TABLE 19.3.3.1. ALL CONCRETE TO RECEIVE A FINISH SHALL NOT BE AIR-ENTRAINED.

"L SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT SI), AND SHALL BE ING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 315 AND 318. LAP ALL ORCEMENT #5 AND SMALLER 60 BAR DIAMETERS, 2'-0" MINIMUM. PROVIDE CORNER . AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 60 BAR -O" MINIMUM. LAPS OF LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI OVIDE (2) #5 MIN. U.N.O. TRIM BARS AROUND ALL OPENINGS IN CONCRETE WALLS OR 5 2'-6" PAST CORNERS, TYPICAL.

CTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

HER UNFORMED SURFACES CAST AGAINST EARTH	3"
IS EXPOSED TO EARTH (I.E. WALLS BELOW GROUND) OR WEATHER GER) LLER)	2" - /2"
BPIRALS AND BEAM STIRRUPS	- /2"

(INTERIOR FACE) GREATER OF (BAR DIAMETER PLUS 1/8") OR 3/4"

DNCRETE: SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS IDOW OPENINGS IN ALL CONCRETE WALLS. SEE MECHANICAL DRAWINGS FOR SIZE MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE RAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, IER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES, BOTH CAST-IN-PLACE

SHALL BE NON-METALLIC CONFORMING TO ASTM CILOT AND BE FURNISHED BY AN ACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO WHICH IT IS PLACED (5000 PSI MINIMUM).

IGID INSULATION) LIGHTWEIGHT STRUCTURAL FILL PLACED BELOW CONCRETE SLABS ELLULAR POLYSTYRENE CONFORMING TO ASTM D6817 OR ASTM C578, WITH A SIVE RESISTANCE OF 5 PSI @ 1% DEFORMATION AND A MINIMUM COMPRESSIVE 5 PSI @ 10 % DEFORMATION, U.O.N. MAXIMUM DENSITY SHALL BE 2.0 PCF. OFFSET TWEEN ADJACENT LAYERS AND ATTACH BLOCKS PER THE MANUFACTURER'S

25. EXPANSION BOLTS INTO CONCRETE SHALL BE "KWIK BOLT 3" EXPANSION ANCHORS AS MANUFACTURED BY HILTI CORP. INSTALLED IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-2302 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR JAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS REQUIRED FOR ALL EXPANSION BOLT INSTALLATION.

<u>ANCHORAGE</u>

- 26. EXPANSION BOLTS INTO GROUT FILLED CMU SHALL BE "KWIK BOLT 3" EXPANSION ANCHORS AS MANUFACTURED BY HILTI CORP. INSTALLED IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-1385 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS REQUIRED FOR ALL EXPANSION BOLT INSTALLATION.
- 27. EXPANSION BOLTS INTO CONCRETE SHALL BE "STRONG-BOLT 2 WEDGE ANCHOR", AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-3037 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS REQUIRED FOR ALL EXPANSION BOLT INSTALLATION.
- 28. EXPANSION BOLTS INTO GROUT FILLED CMU SHALL BE "STRONG-BOLT 2 WEDGE ANCHOR", AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH IAPMO UES REPORT NO. ER-240 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS REQUIRED FOR ALL EXPANSION BOLT INSTALLATION.
- 29. SCREW ANCHORS INTO CONCRETE SHALL BE "KWIK HUS-EZ", AS MANUFACTURED BY HILTI, INC. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-3027 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS REQUIRED FOR ALL SCREW ANCHOR INSTALLATION.
- 30. SCREW ANCHORS INTO GROUT FILLED CMU SHALL BE "KWIK HUS-EZ", AS MANUFACTURED BY HILTI, INC. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-3056 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS REQUIRED FOR ALL SCREW ANCHOR INSTALLATION.
- 31. DRIVE PINS, SHOT PINS AND OTHER POWDER-ACTUATED FASTENERS SHALL BE LOW VELOCITY TYPE FASTENERS AS MANUFACTURED BY HILTI CORPORATION. WHEN CALLED FOR IN THE DRAWINGS, PROVIDE THE APPROPRIATE FASTENER AS NOTED IN THE TABLE BELOW FOR EACH GIVEN APPLICATION. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORTS NO. ESR-2269 FOR THE X-U FASTENERS AND ESR-2379 FOR THE X-CP FASTENERS. MINIMUM EMBEDMENT IN CONCRETE SHALL BE I" UNLESS OTHERWISE NOTED. MAINTAIN AT LEAST 3" TO NEAREST CONCRETE EDGE AND 4" CENTER TO CENTER SPACING. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES.

ALLOWABLE APPLICATION	ALLOWABLE FASTENER TYPE	<u>SHEAR CAF</u>
	X-CP 72 P8 523 w/ 1.33" EMBED	250
LIGHT GAUGE STEEL 33 MILS (20 GA.) MIN. TO CONCRETE (2000 PSI MIN.)	X-U 27 P8 515	190
	X-U 52 MX PLUS R-23 WASHERS	250
LIGHT GAUGE STEEL 43 & 33 MILS (18 & 20 GA.) TO STRUCTURAL STEEL (3/16" MIN. TO 11/16" MAX)	X-U 19 P8 TH	445
LIGHT GAUGE STEEL 97, 68 \$ 54 MILS (12, 14 \$ 16 GA.) TO STRUCTURAL STEEL (3/16" MIN. TO 11/16" MAX)	X-U 19 P8 TH	720
LIGHT GAUGE STEEL (ALL GA.) TO STRUCTURAL STEEL (3/4" AND GREATER)	X-U 19 P8 TH	350
2X TREATED LUMBER TO GROUTED CMU	X-CP 72 P8 523	105
	V 11 22 PA CIE	220

LIGHT GAUGE STEEL	X-U 32 P8 515	220
33 MILS (20 GA.) MIN.		
TO GROUTED CMU		

- 32. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) INTO CONCRETE SHALL BE INSTALLED USING "HIT-RE 500 V3" AS MANUFACTURED BY HILTI CORP. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-3814, INCLUDING STANDARD EMBEDMENT REQUIREMENTS, U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED.
- 33. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) INTO GROUT FILLED CMU SHALL BE INSTALLED USING "HIT HY 270" AS MANUFACTURED BY HILTI CORP. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-4143, INCLUDING STANDARD EMBEDMENT REQUIREMENTS, U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED.

MASONRY

34. CONCRETE MASONRY UNIT WALLS SHALL BE CONSTRUCTED OF MEDIUM WEIGHT UNITS CONFORMING TO ASTM C90, LAID IN A RUNNING BOND. CONTACT ENGINEER FOR RE-DESIGN OF REINFORCING WHERE STACK BOND LAYOUT IS REQUIRED. LINEAR SHRINKAGE SHALL NOT EXCEED 0.065%. MORTAR SHALL BE TYPE "S" IN ACCORDANCE WITH ASTM C270. GROUT SHALL CONFORM TO IBC REQUIREMENTS AND ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI AT 28 DAYS, DESIGN F'M = 2,000 PSI. FULL STRESSES ARE REQUIRED. STRENGTH SHALL BE VERIFIED BY THE UNIT STRENGTH METHOD IN ACCORDANCE WITH TMS 602-16.

PROVIDE (2) #5 ((2)#4 @ 6" AND 4" WALLS) VERT. AT EACH SIDE OF OPENINGS, AT WALL CORNERS AND INTERSECTIONS AND AT FREE ENDS OF WALLS AND (2) #4 HORIZ. AT ELEVATED FLOOR AND ROOF LEVELS, AT TOPS OF WALLS AND ABOVE AND BELOW ALL OPENINGS. ALL HORIZONTAL REINFORCEMENT SHALL BE PLACED IN BOND BEAMS. EXTEND REINFORCEMENT AROUND OPENINGS 2'-O" BEYOND FACE OF OPENING. IF 2'-O" IS UNAVAILABLE, EXTEND AS FAR AS POSSIBLE AND HOOK. PROVIDE CORNER BARS TO LAP HORIZONTAL REINFORCING AT CORNERS AND INTERSECTIONS. UNLESS NOTED OTHERWISE, LAP ALL REINFORCING STEEL IN CMU 48 BAR DIAMETERS, 2'-O" MINIMUM.

ALL CELLS ARE TO BE SOLID GROUTED UNLESS NOTED AS PARTIAL GROUTING. FOR PARTIAL GROUTING FILL ALL CELLS CONTAINING REINFORCEMENT OR EMBEDDED ITEMS AND ALL CELLS BELOW GRADE WITH GROUT. ALL REINFORCEMENT SHALL BE IN PLACE PRIOR TO GROUTING AND SHALL BE HELD AT TOP, BOTTOM AND 192 BAR DIAMETERS (MAX.) O.C. PER TMS 602 SPECIFICATION 3.5, GROUT POURS SHALL NOT EXCEED 5'-4" IN HEIGHT UNLESS A TEST PANEL IS CONSTRUCTED BY THE MASON AND APPROVED BY THE STRUCTURAL ENGINEER. PROVIDE CLEANOUT HOLES AT BOTTOM OF ALL CELLS CONTAINING REINFORCEMENT FOR ALL GROUT POURS OVER 5'-4" IN HEIGHT. PROVIDE 1 1/2 IN. GROUT KEYS BETWEEN EACH POUR.

APACITY (LBS) TENSION CAPACITY (LBS)

ירו	5	
16	5	
ידו	5	
36	60	
53	35	
3-	15	
IO	0	
2:	25	

35. STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION SHALL BE BASED ON THE LATEST EDITIONS OF THE A.I.S.C. SPECIFICATIONS AND CODES:

A. AISC - STEEL CONSTRUCTION MANUAL, 15TH EDITION

B. AISC 303-16 - CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.

C. 2014 RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS.

36. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

TYPE OF MEMBER

		2
A. WIDE FLANGE (W AND WT) SHAPES	A992	50 KSI
B. ALL OTHER SHAPES	A36	36 KSI
C. PLATE	A36 OR A572	36 KSI (MIN)
D. PIPE SECTIONS	A53 (TYPE E OR S, GRADE B)	35 KSI
E. STRUCTURAL TUBING (SQUARE OR RECTANGULAR)	A500 (GRADE C)	50 KSI
F. ANCHOR BOLTS AND THREADED RODS	F1554 (GRADE 36) OR	36 KSI
(EMBEDDED IN MASONRY OR CONCRETE)	FI554 (GRADE 55, SUPP. SI)	55 KSI
G. CONNECTION BOLTS	F3125 GRADE A325-N	92 KSI
(7/8" ROUND, UNLESS SHOWN OTHERWISE)		
H. HEADED SHEAR STUDS	A29	49 KSI
I. THREADED RODS	A36	36 KSI
J. STAINLESS STEEL	AISI 316L	30 KSI

ASTM SPECIFICATION

Fy

SUBSTITUTION OF MEMBER SIZES OR STEEL GRADE SHALL NOT BE ALLOWED WITHOUT PRIOR APPROVAL OF THE ENGINEERALL STEEL TO BE FIREPROOFED SHALL BE LEFT UNPAINTED. ALL OTHER STEEL SHALL HAVE ONE COAT OF APPROVED SHOP PAINT.

STRUCTURAL STEEL AND CONNECTIONS EXPOSED TO WEATHER OR EARTH SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION IN COMPLIANCE WITH ASTM A123. GALVANIZE BOLTS AND SIMILAR THREADED FASTENERS EXPOSED TO WEATHER OR EARTH IN ACCORDANCE WITH ASTM A153. ALL FIELD WELDS EXPOSED TO WEATHER OR EARTH SHALL BE COATED WITH BRUSH APPLIED ZINC RICH PAINT COMPLYING WITH ASTM A780 (Z.R.C. OR EQUIVALENT).

A MINIMUM OF TWO BOLTS ARE REQUIRED FOR ALL CONNECTIONS. ALTERNATE CONNECTIONS TO THOSE SHOWN ON THESE DRAWINGS WILL REQUIRE PRIOR APPROVAL OF THE ENGINEER.

ALL MEMBERS ARE TO BE ERECTED WITH THE NATURAL MILL CAMBER OR INDUCED CAMBER UP, UNLESS OTHERWISE NOTED ON THE DRAWINGS. BEAM CAMBER ON THE DRAWINGS IS THE UPWARD CAMBER REQUIRED IN THE BEAM AS DELIVERED TO THE JOBSITE. CONTRACTOR TO CONSIDER CAMBER LOSS, IF ANY, DUE TO SHIPPING AND HANDLING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ERECTION AIDS AND JOINT PREPARATIONS THAT INCLUDE, BUT ARE NOT LIMITED TO, ERECTION ANGLES, LIFT HOLES, AND OTHER AIDS, WELDING PROCEDURES, REQUIRED ROOT OPENINGS, ROOT FACE DIMENSIONS, GROOVE ANGLES, BACKING BARS, COPES, SURFACE ROUGHNESS VALUES AND UNEQUAL PARTS.

37. ARCHITECTURALLY EXPOSED STRUCTURAL STEEL SHALL CONFORM TO SECTION 10 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.

38. ALL A325 CONNECTION BOLTS SHALL BE INSTALLED TO THE SNUG-TIGHT CONDITION PER RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. ALL NUTS SHALL CONFORM TO ASTM A563. ALL WASHERS SHALL CONFORM TO ASTM F436 OR ASTM F959 TYPE 325. ALL BOLT HOLES SHALL BE STANDARD SIZE UNLESS OTHERWISE NOTED.

39. ALL WELDING SHALL BE IN CONFORMANCE WITH A.I.S.C. AND A.W.S. STANDARDS AND SHALL BE PERFORMED BY W.A.B.O. CERTIFIED WELDERS USING ETO XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY A.W.S.) SHALL BE USED. ALL WELDING OF STAINLESS STEEL SHALL USE E309 ELECTRODES WITH A GMAW PROCESS. ALL WELDING SHALL BE PERFORMED BY WELDERS WITH AWS / W.A.B.O. CERTIFICATION WITH THE MATERIAL AND METHOD REQUIRED.

SHOP DRAWINGS SHALL SHOW ALL WELDING WITH AWS A2.4 SYMBOLS. WELDS SHOWN ON DRAWINGS ARE MINIMUM SIZES. INCREASE WELD SIZE TO AWS MINIMUM SIZES BASED ON PLATE THICKNESS. MINIMUM WELDING SHALL BE 3/16-INCH. THE WELDS SHOWN ARE FOR THE FINAL CONNECTIONS. FIELD WELD ARROWS ARE SHOWN WHERE A FIELD WELD IS REQUIRED BY THE STRUCTURAL DESIGN; THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING IF A WELD SHOULD BE SHOP OR FIELD WELDED IN ORDER TO FACILITATE THE STRUCTURAL STEEL DELIVERY AND ERECTION. SEE THE SPECIFICATIONS AND DRAWINGS FOR ADDITIONAL WELDING REQUIREMENTS, ESPECIALLY AT SPECIAL MOMENT RESISTING FRAMES AND OTHER SEISMIC CRITICAL WELDS.

40. WELDING OF LATERAL FORCE RESISTING MEMBERS SHALL BE PERFORMED IN ACCORDANCE WITH A WELDING PROCEDURE SPECIFICATION (WPS) AS REQUIRED IN AWS DI.I (INCLUDING AWS DI.8 SEISMIC SUPPLEMENT) AND APPROVED BY THE STRUCTURAL ENGINEER BEFORE WORK BEGINS. THE WPS VARIABLES SHALL BE WITHIN THE PARAMETERS ESTABLISHED BY THE FILLER METAL MANUFACTURER. WELDING ELECTRODES SHALL BE ETOTT-K2 OR ETOT-6 WITH A MINIMUM SPECIFIED CHARPY V-NOTCH (CVN) OF 20 ft-lbs AT -20 DEGREES FAHRENHEIT AND 40 ft-lbs AT 70 DEGREES FAHRENHEIT. REMOVE BOTTOM FLANGE WELD TAB AT MOMENT FRAME CONNECTIONS AND REINFORCE WITH 5/16" FILLET WELD IN CONFORMANCE WITH FEMA-353 RECOMMENDATIONS. WELD ACCESS HOLE DETAILING AT MOMENT FRAME CONNECTIONS SHALL CONFORM WITH FEMA-350 AND FEMA-353 RECOMMENDATIONS.

41. METAL FLOOR AND ROOF DECKING - PROVIDE SIZE, TYPE, GAUGE, AND ATTACHMENT TO THE SUPPORTING STRUCTURE AS SHOWN ON THE PLANS. ALTERNATES MUST BE CONNECTED ACCORDING TO PUBLISHED I.C.C. OR IAPMO UES CRITERIA FOR DIAPHRAGM SHEARS SHOWN. PROVIDE SHORING WHERE REQUIRED PER MANUFACTURER'S PUBLISHED CRITERIA. ALL DECKING SHALL CONFORM TO THE REQUIREMENTS OF THE STEEL DECK INSTITUTE.

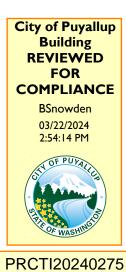
42. HEADED STUDS FOR COMPOSITE CONNECTION OF STRUCTURAL STEEL TO CAST-IN-PLACE CONCRETE SHALL BE MANUFACTURED FROM MATERIAL CONFORMING TO ASTM A29 AND SHALL BE WELDED IN CONFORMANCE WITH A.W.S. REQUIREMENTS.

43. DEFORMED BAR ANCHORS (DBA) SHALL BE TYPE D2L ANCHORS BY NELSON STUD WELDING DIVISION, TRW ASSEMBLIES AND FASTENERS GROUP (OR EQUIVALENT). ANCHORS SHALL BE MADE FROM COLD ROLLED, DEFORMED STEEL CONFORMING TO ASTM A1064.

> Approval of submitted plans is not an approval of omissions or oversights by this office or non compliance with any applicable egulations of local government. The contractor is responsible for making sure that the building complies with all applicable codes and regulations of the local government.

The approved construction plans, documents, and all engineering must be posted on the job at all inspections in a visible and readily accessible location.

Full sized legible color plans are required to be provided by the permitee on site for inspection.





GENERAL STRUCTURAL **NOTES** SHEET NO.

$\overline{\wedge}$	PIPE FRAMES		3/27/24	
	PIPE FRAMES		2/22/24	
NO.	DESCRIPTION		DATE	BY
ISSU	ES:	RE	VISIONS:	$\overline{\bigtriangleup}$
P.M .		SHT		
P.E.		TVM		
DRAWN BY:		SC		
SCALE:		AS SHO	OWN	
DATE:		3/27/2	4	
JOB NO.		23444.0	01	
SHEI	ET TITLE:			

City of Puyallup Development & Permitting Services ISSUED PERMIT			
Building	Planning		
Engineering	Public Works		
Fire	Traffic		

1023 39TH AVENUE SOUTHEAST **PUYALLUP, WASHINGTON**

APPROVAL:

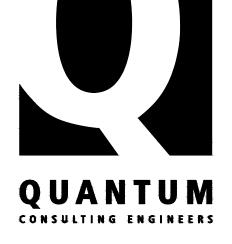


SEAL:





Centers for Information Systems



1511 THIRD AVENUE

SEATTLE, WA 98101

TEL 206.957.3900

FAX 206.957.3901

www.quantumce.com

SUITE 323

	<u>COLD-FORMED STEEL FRAMING MEMBERS</u> SHALL BE OF THE SHAPE, SIZE, AND GAUGE SHOWN ON
Α.	COLD-LORMED STELL TRAMING MEMBERS SHALL OL OF THE SHAPE, SIZE, AND GAUGE SHOWN ON THE PLANS. ALL FRAMING MEMBERS SHALL COMPLY WITH I.C.C. REPORT NO. ESR-3064P. NOTATIONS ON THE DRAWINGS, RELATING TO MEMBER TYPES AND SIZES OR MISCELLANEOUS FRAMING ITEMS, REFER TO CATALOG NUMBERS OF MEMBERS MANUFACTURED BY THE STEEL STUD MANUFACTURERS ASSOCIATION (SSMA). PRODUCTS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED FOR FRAMING SHOWN, PROVIDED THEY ARE EQUIVALENT IN SHAPE, SIZE, STIFFNESS, AND STRENGTH. ALTERNATE FRAMING SHALL BE SUBJECT TO REVIEW BY THE ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO FABRICATION. ALL COLD-FORMED STEEL FRAMING SHALL CONFORM TO THE A.I.S.I. "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS."
B.	MATERIAL: METAL FRAMING SHALL BE GALVANIZED UNLESS OTHERWISE NOTED, CONFORMING AS FOLLOWS:
	ASTM A653 SS GRADE 50, CLASS I OR 3 Fy = 50 KSI 118, 97, 68, AND 54 MIL
	ASTM A653 SS GRADE 33 WHERE NOTED, PAINTED STUDS SHALL CONFORM TO:
C.	ASTM AIOII SS GRADE 50 Fy = 50 KSI II8, 97, 68, AND 54 MIL <u>WELDING</u> OF COLD-FORMED METAL FRAMING SHALL CONFORM TO AWS DI.3 AND SHALL BE
D.	PERFORMED BY WELDERS QUALIFIED TO PRODUCE THE SPECIFIED CLASSES OF WELD. <u>WALL FRAMING</u> : ALL STUD WALLS SHOWN AND NOT OTHERWISE NOTED SHALL BE 400SI62-43 @ 16" O.C. AT INTERIOR WALLS AND 600SI62-43 AT 16" O.C. AT EXTERIOR WALLS. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS. TWO 800SI62-54 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS UNLESS OTHERWISE NOTED JOISTS SHALL BE LOCATED DIRECTLY OVER BEARING STUDS. SOLID BLOCKING FOR MULTI-STUD OR STEEL COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. PROVIDE CONTINUOUS FULL WIDTH BLOCKING AT 1/3 POINTS OF ALL STUD WALLS UNLESS NOTED OTHERWISE MAXIMUM GAP BETWEEN STUD AND TRACK AT ANY POINT SHALL NOT EXCEED 1/16-INCH. NO SPLICES ARE PERMITTED IN STUDS.
	ALL STUD WALLS SHALL HAVE THEIR BOTTOM TRACKS ATTACHED TO FRAMING BELOW WITH #10 SCREWS AT 16" O.C. OR ATTACHED TO CONCRETE WITH 5/32" DIAMETER DRIVE-PINS @ 16" O.C. UNLESS INDICATED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE WELDED OR SCREWED TO EACH OTHER IN ACCORDANCE WITH THE DETAILS. REFER TO THE PLANS AND SHEAF WALL SCHEDULE FOR REQUIRED SHEATHING AND STRAP BRACING. WHEN NOT OTHERWISE NOTED, PROVIDE GYPSUM WALLBOARD ON INTERIOR SURFACES AND GYPSUM SHEATHING ON EXTERIOR SURFACES SCREWED TO ALL STUDS, TOP AND BOTTOM TRACKS, AND BLOCKING WITH SCREWS AT 12" O.C. ALL SCREWS SHALL BE "GRABBER" TYPE FASTENERS COMPLYING WITH I.C.C. REPORT NC ESR-1271 ALL SPECIFIED PNEUMATIC FASTENERS SHALL BE ET&F, COMPLYING WITH I.C.C. REPORT NC ALL BEARING STUDS SHALL BE LATERALLY SUPPORTED TO PREVENT WEAK AXIS BUCKLING WITH J
	CENTER U-CHANNEL AT 1/3 POINTS AS SHOWN IN THE DETAILS AND CONNECTING EACH FLANGE TO GYPSUM WALLBOARD PER IBC SECTION 2508.1.
	TRACK SECTIONS SHALL BE UNPUNCHED AND HAVE AT LEAST I" FLANGES AND MATCH STUD THICKNESS.
	WALLS WHICH HAVE SHEATHING CONNECTED ON ONE SIDE ONLY SHALL HAVE UNSHEATHED FLANGES LATERALLY SUPPORTED IN ACCORDANCE WITH THE DETAILS.
45. <u>MET</u> /	AL BUILDING SYSTEM (MBS)
A.	BUILDING MANUFACTURER SHALL DESIGN BUILDINGS FOR THE LOADS, SPANS AND CONDITIONS SHOWN ON THESE DRAWINGS.
B.	ALL COLUMNS SHALL BE DESIGNED ASSUMING THEY ARE FREE TO ROTATE, DO NOT FIX COLUMN BASES.
C.	DESIGN AND PROVIDE SUPPORTS AROUND OVERHEAD DOORS. A MINIMUM COLLATERAL LOADING OF IO PSF SHALL BE INCLUDED IN THE DESIGN OF THE ROOF TO ACCOUNT FOR MISCELLANEOUS DEAD LOAD. THE LATERAL DRIFT OF THE BUILDING SHALL BE LIMITED TO 0.02H, WHERE H IS THE HEIGHT OF THE BUILDING. ALL ROOF MEMBERS SHALL BE LIMITED TO A MAXIMUM TOTAL DEFLECTION OF L/180.
D.	COORDINATE ALL DETAILS WHICH ARE SHOWN ON THESE DRAWINGS WITH THE PREFABRICATED BUILDING DESIGN.
E.	COORDINATE THE FINAL FOUNDATION LOADING AND BASE PLATE CONFIGURATION WITH THE STRUCTURAL ENGINEER. FOUNDATION DESIGN SHOWN IN THESE PLANS MAY NEED TO BE REVISED BASED UPON THE FINAL DESIGN AND/OR COLUMN LOCATIONS.
F.	SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION. DESIGN SUBMITTALS SHALL BEAR THE STAMP AND SIGNATURE OF A STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER. THE BUILDING MANUFACTURER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS. SHOP DRAWINGS SHALL INDICATE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON THE BASIC STRUCTURE.
	STRUCTURAL OBSERVATION
STRI BUT THE SPEC	NOTED IN IBC SECTION 1704.6, STRUCTURAL OBSERVATION IS REQUIRED FOR THIS PROJECT. ICTURAL OBSERVATION MEANS THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM, INCLUDING NOT LIMITED TO, THE ELEMENTS AND CONNECTIONS AT SIGNIFICANT CONSTRUCTION STAGES AND COMPLETED STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND CIFICATIONS. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY OF INSPECTIONS REQUIRED BY IBC SECTIONS IIO AND 1704.
AS C SPEC ACC INDIC	JR STRUCTURAL OBSERVATION, WE WILL SELECT PORTIONS OF WORK TO REVIEW CLOSELY AS WEL DESERVE THE STRUCTURAL SYSTEM FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND CIFICATIONS. SUCH REVIEW PROCEDURES WILL BE CONDUCTED IN ACCORDANCE WITH COMMONLY EPTED STANDARDS OF PRACTICE. THE BUILDING OFFICIAL UNDERSTANDS THAT SUCH PROCEDURE CATE ACTUAL CONDITIONS ONLY WHERE THE REVIEW IS PERFORMED AND THAT THE RESULTS WILL NFERRED TO EXIST IN OTHER AREAS NOT REVIEWED.
MINI	BUILDING OFFICIAL ALSO RECOGNIZES THAT STRUCTURAL REVIEW IS A TECHNIQUE EMPLOYED TO MIZE THE RISK OF PROBLEMS ARISING DURING CONSTRUCTION. STRUCTURAL OBSERVATION BY THE GN PROFESSIONAL DOES NOT CONSTITUTE WARRANTY OR GUARANTEE OF ANY TYPE. IN ALL

GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

ABBREVI	ATIONS	
At	L	Angle
Penny (Nails)	LB.	Pound
-	LL.	
Diameter		Live Load
Degrees Pounds	LLH	Long Leg Horizontal
	LLV	Long Leg Vertical
Number	LONGIT.	Longitudinal
	LT. MT.	Lightweight
Above		
Anchor Bolt	MAX.	Maximum
Additional	MECH.	Mechanical
Alternate	MEZZ.	Mezzanine
Approximate	MF	Moment Frame
Architect	MFR.	Manufacturer
: Stress Design	MIN.	Minimum
	MISC.	Miscellaneous
Below	MK.	Mark
Bottom of		
Braced Frame	(N)	New
Blocking	N.	North
Building	N.S.	Near Side
Beam	NOM.	Nominal
Bottom	NTS	Not to Scale
Bearing Between	O.C.	On Center
Detheen	0.D.	Outside Diameter
Cantalina	0.F.	
Centerline		Outside Face
Camber	0.H.	Overhang
Cast In Place	OPNG.	Opening
or Control Joint	OPP.	Opposite
oint Penetration		
Ceiling	PAF	Powder Actuated Fastener
Clear	PC	Precast
te Masonry Unit	PERM.	Permanent
Column	PERP.	Perpendicular
Concrete	pjp	Partial Joint Penetration
Connections		Plate
Construction	PL or PL PLF	
		Pounds per linear Foot
Continuous	PLYWD	Plywood
Countersink	PREFAB.	Prefabricated
	PSF	Pounds per Square Foot
ied Bar Anchor	PSI	Pounds per Square Inch
Double	P.T. or PT	Post-Tensioning
Degree	P/T	Pressure-Treated
Doug Fir-Larch		
⁻ Diameter	RAD.	Radius
Diagonal	REF.	Reference
Diaphragm	REINF.	Reinforce or Reinforcement
Dimension	REQD.	Required
Down	REV.	Revise
Ditto	R.O.	Rough Opening
Detail	Ν.Ο.	Rough opening
	6	Gauth
puble Top Plate	S.	South
Drawing	SCH. or SCHED	
-	SECT.	Section
Existing	SHT.	Sheet
East	SIM.	Similar
Each	50G	Slab On Grade
Each Face	SPEC.	Specification
Elevation	SQ.	Square
Elevator	SQ. FT.	Square Feet
pedment Length	5Q. IN.	
		Square Inch(es)
Engineer	SPF	Spruce-Pine-Fir
Equal	S.S.	Stainless Steel
Each Way	STD.	Standard
Expansion	STIFF.	Stiffener
Exterior	STL.	Steel
	STR.	Structural
Foundation	SUB.	Substitute
Finish	SYM.	Symmetrical
Floor		-
forced Polymer	T/	Top of
Far Side	T₿B	Top and Bottom
Foot or Feet	T\$G	Tongue & Groove
Footing	TEMP.	J
	THRU	Through
Gauge	T.O.C.	Top of Concrete
Galvanized	T.O.S.	Top of Steel
Glue Laminated	T.O.W.	•
		Top of Wall
sum Wall Board	TRANS.	Transverse
and Calvanizad	TS TYP	Tube Steel
ped Galvanized	TYP.	Typical
Header		
Hem Fir	U.O.N.	Unless Otherwise Noted
Hanger		.
Horizontal	VERT.	Vertical
ructural Section	VIF	Verify in Field
Height		
<i>.</i>	Μ.	West
nside Diameter	W/ or w/	With
Inside Face	W.H.S.	Welded Headed Stud
Inch	W/0	Without
Information	W.P.	Work Point
Interior	W.T.S.	Welded Threaded Stud
	MMF	Welded Wire Fabric
Joint		
	X SECT.	Cross Section
Kips	X-STR	Extra Strong
er Square Foot	XX-STR	Double Extra Strong
per Square Inch		

	ABBR	EVIA
@ d φ	At Penny (Nails) Diameter Degrees	
# #	Degrees Pounds Number	
(A) A.B. ADD'L ALT. APPROX ARCH. A.S.D.	Above Anchor Bolt Additional Alternate Approximate Architect Allowable Stress Design	
(B) B/ BF BLKG. BLDG. BM. BOT. BRG. BTWN.	Below Bottom of Braced Frame Blocking Building Beam Bottom Bearing Between	
CL or Q C CIP C.J.P CLG. CLR. COL. CONC. CONST. CONT. CSK.	Centerline Camber Cast In Place Construction Joint or Control Joint Complete Joint Penetration Ceiling Clear Concrete Masonry Unit Column Concrete Connections Construction Construction Continuous Countersink	
DBA DBL. DEG. DF DIA. DIAG. DIAPH. DIM. DN. DO DTL. DTP DWG.	Deformed Bar Anchor Double Degree Doug Fir-Larch Diameter Diagonal Diaphragm Dimension Down Ditto Detail Double Top Plate Drawing	
(E) E. EA. E.F. EL. ELEV. EMBED. ENGR. E.W. E.W. E.XP. EXT.	Existing East Each Each Face Elevation Elevator Embedment Length Engineer Equal Each May Expansion Exterior	
FDN. FIN. FLR. FRP F.S. FT. FTG.	Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing	
GA. GALV. GL GWB	Gauge Galvanized Glue Laminated Gypsum Wall Board	
HDG HDR. HF HGR. HORIZ. HSS HT.	Hot Dipped Galvanized Header Hem Fir Hanger Horizontal Hollow Structural Section Height	
I.D. I.F. IN. INFO. INT.	Inside Diameter Inside Face Inch Information Interior	
JT.	Joint	
K KSF KSI	Kips Kips per Square Foot Kips per Square Inch	



GENERAL STRUCTURAL NOTES SHEET NO.

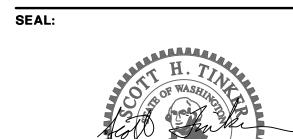
$\overline{\wedge}$	PIPE FRAMES		3/27/24		
	PIPE FRAMES		2/22/24		
NO.	DESCRIPTION		DATE	B	
ISSU	IES:		REVISIONS:	7	
P.M .		SHT			
P.E.		TVM			
DRA	WN BY:	SC			
SCA	LE:	AS SHOWN			
DAT	E:	3/27/24			
		23444.01			
JOB	NO.	23444	4.01		

City of Puyallup Development & Permitting Services ISSUED PERMIT							
Building Planning							
Engineering Public Works							
Fire							

1023 39TH AVENUE SOUTHEAST PUYALLUP, WASHINGTON

APPROVAL:

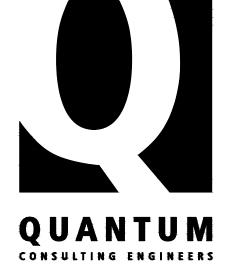


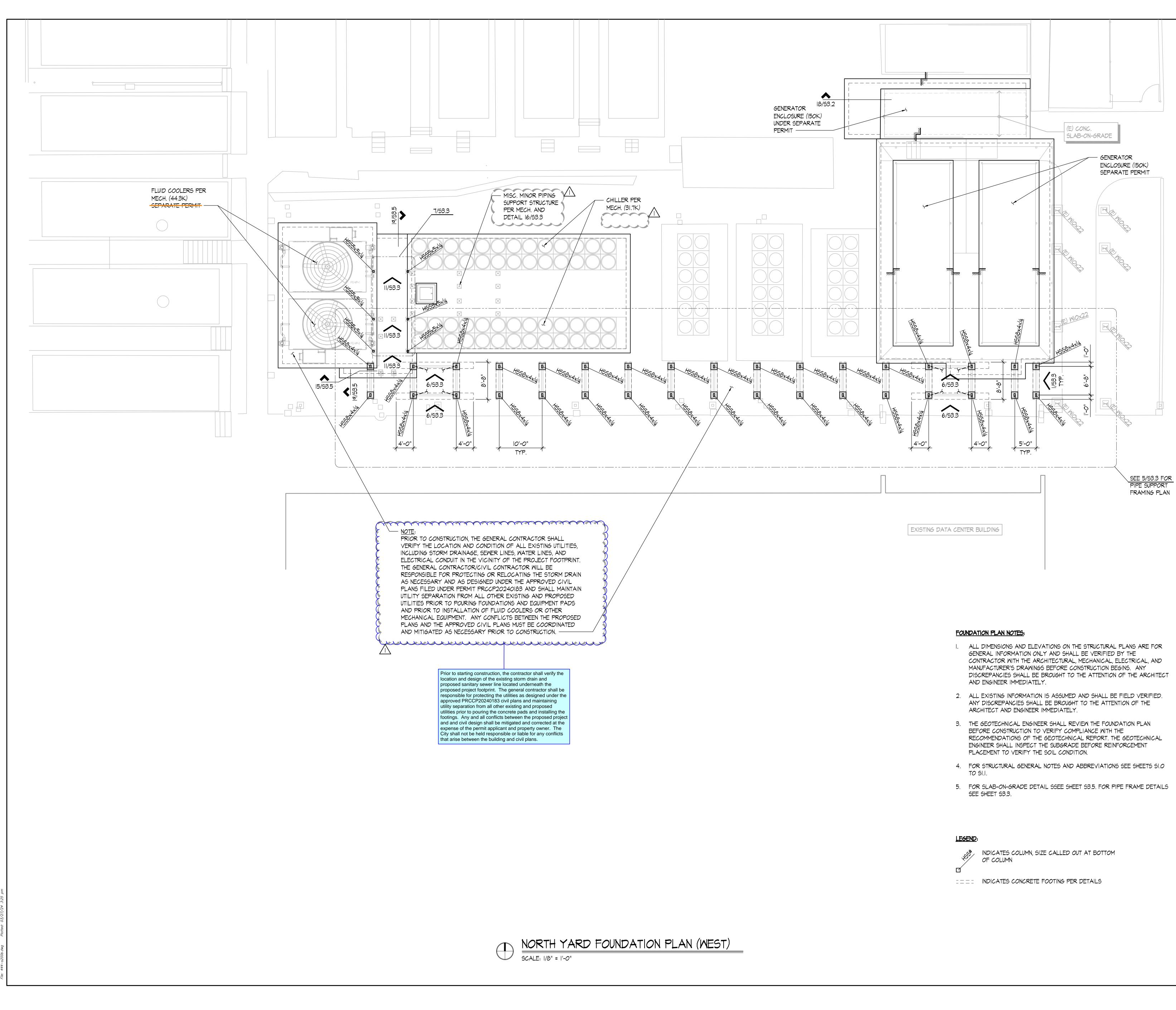




centeris

Centers for Information Systems







NORTH YARD FOUNDATION PLAN (WEST) SHEET NO.

$\overline{\wedge}$	PIPE FRAMES		3/27/24	
	PIPE FRAMES		2/22/24	
NO.	DESCRIPTION		DATE	BY
issu	ES: ()	RE	VISIONS:	$\overline{\wedge}$
Р.М .		SHT		<u> </u>
P.E.		TVM		
DRA	WN BY:	SC		
SCA	LE:	AS SHO	NWC	
DAT	E:	3/27/2	4	
JOB	NO.	23444.0	01	
SHE	ET TITLE:			

City of Puyallup Development & Permitting Services ISSUED PERMIT						
Building	Planning					
Engineering	Public Works					
Fire						

APPROVAL:

SEAL:

1023 39TH AVENUE SOUTHEAST PUYALLUP, WASHINGTON



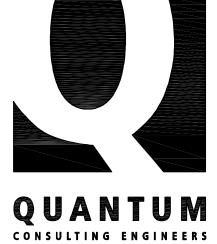


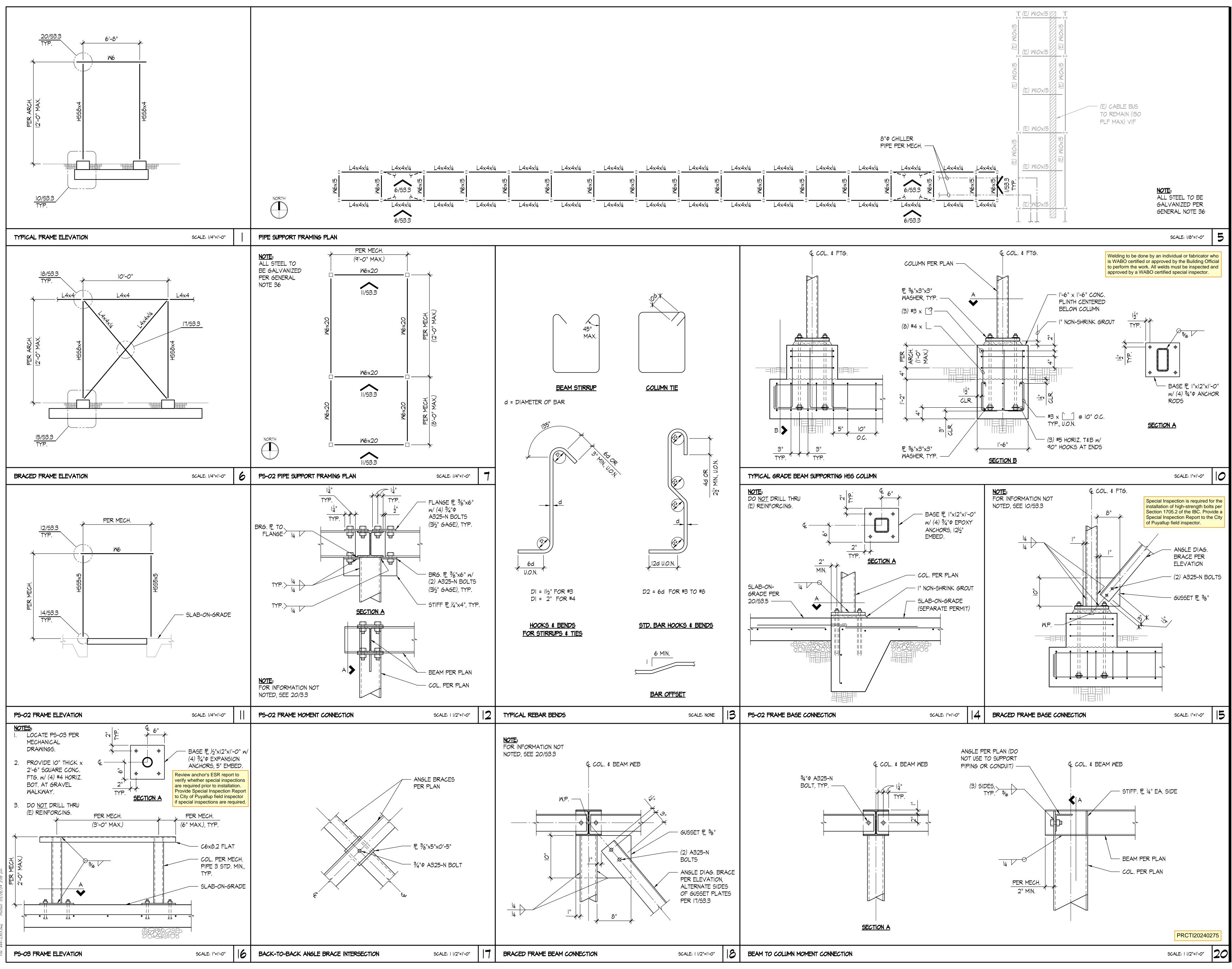


Centers for Information Systems

1511 THIRD AVENUE SUITE 323 SEATTLE, WA 98101 TEL 206.957.3900

FAX 206.957.3901 www.quantumce.com







SHEET NO.

DETAILS

$\overline{\wedge}$	PIPE FRAMES		3/27/24	
\square	PIPE FRAMES PIPE FRAMES		3/27/24 2/22/24	
NO .				BY
	PIPE FRAMES DESCRIPTION	RE	2/22/24	BY
	PIPE FRAMES DESCRIPTION	RE	2/22/24 DATE	ВҮ
ISSU	PIPE FRAMES DESCRIPTION		2/22/24 DATE	BY
ISSU P.M. P.E.	PIPE FRAMES DESCRIPTION	SHT	2/22/24 DATE	BY
ISSU P.M. P.E.	PIPE FRAMES DESCRIPTION ES:	SHT TVM	2/22/24 DATE VISIONS:	BY
ISSU P.M. P.E. DRAY	PIPE FRAMES DESCRIPTION ES:	SHT TVM SC	2/22/24 DATE VISIONS:	BY
ISSU P.M. P.E. DRAV	PIPE FRAMES DESCRIPTION ES:	SHT TVM SC AS SHO	2/22/24 DATE VISIONS: DWN	ВY

City of Puyallup Development & Permitting Services ISSUED PERMIT					
Building	Planning				
Engineering	Public Works				
Fire	Traffic				

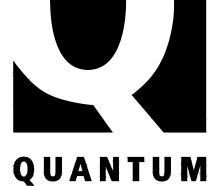
APPROVAL:

1023 39TH AVENUE SOUTHEAST PUYALLUP, WASHINGTON



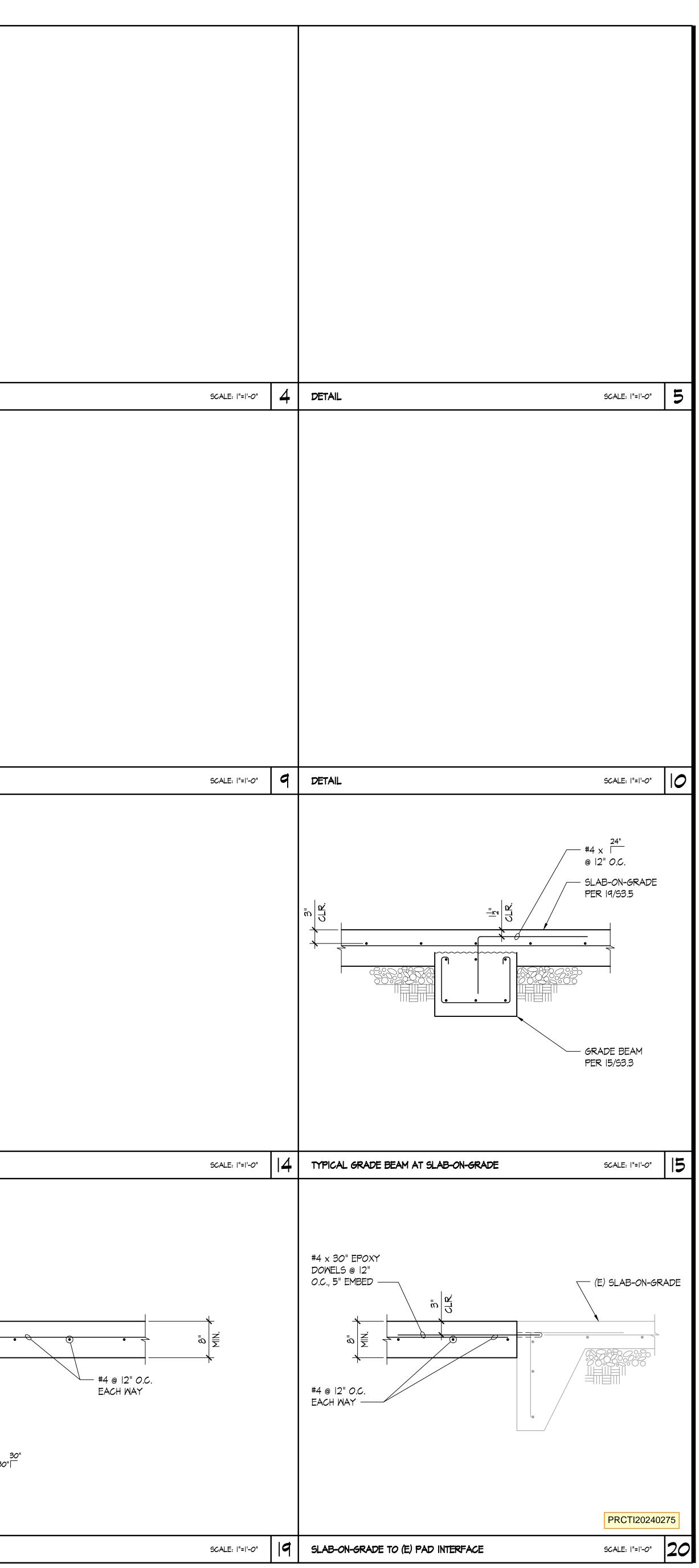






DETAIL	SCALE: "= '-0"		DETAIL
DETAIL	SCALE: "= '-0"	6	DETAIL
DETAIL	SCALE: "=I'-O"		DETAIL
DETAIL	SCALE: "= '-0"		DETAIL
DETAIL	SCALE: "=1'-O"		DETAIL
DETAIL	SCALE: "=I'-O"		DETAIL
DETAIL	SCALE: "= '-O"		DETAIL
DETAIL	SCALE: "= '-0"		DETAIL
DETAIL	SCALE: "= '-O"		DETAIL
DETAIL	SCALE: "= '-O"		DETAIL
DETAIL	SCALE: "= '-O"		DETAIL
DETAIL	SCALE: "=I'-O"		DETAIL
DETAIL	SCALE: "= '-O"		DETAIL
DETAIL	SCALE: "=I'-O"		DETAIL
DETAIL	SCALE: I"=I'-O"		DETAIL
DETAIL	SCALE: I"=I'-O"		DETAIL
DETAIL	SCALE: "= '-O"		DETAIL
DETAIL	SCALE: I"=I'-O"		DETAIL
DETAIL	SCALE: "=I'-0"		DETAIL

SCALE: "=1'-0	2"	2	DETAIL	SCALE: "=1'-0"	n	DETAIL
		4				
SCALE: "= '-0) "	7	DETAIL	SCALE: "= '-0"	8	DETAIL
SCALE: "= '-() "	12	DETAIL	SCALE: "= '-0"	13	DETAIL
				AIR-ENTRAINED CONCRETE PER THE STRUCTURAL		
				GENERAL NOTES		
					CLR.	
					•	• •
				<u>3" CLR.</u>		
					_] 2 [≕] 	
						-
				#4 x 📅 @ 2" O.C.	00	8 CONTINUOUS w/ #4 x 30" ORNER BARS 12" O.C. MAX.)
				FIRM BEARING SOIL/CEMENTITIOUS FILL	, -	
SCALE: "= '-0	2"	17	TYPICAL PAD			
	1					





SHEET NO.

DETAILS

					_		
$\overline{\wedge}$	PIPE	FRAMES		3/27/24			
	PIPE	FRAMES		2/22/24			
NO.		DESCRIPTIO	N	DATE	BY		
ISSU	ES:)	RI	VISIONS:	\square		
P.M.			SHT				
P.E.			тум				
DRA	WN B	Y:	SC				
SCA	LE:		AS SH	AS SHOWN			
DATE:			3/27/2	3/27/24			
DAI	JOB NO.						

City of Puyallup Development & Permitting Services ISSUED PERMIT							
Building Planning							
Engineering	Public Works						
Fire Traffic							

APPROVAL:

1023 39TH AVENUE SOUTHEAST PUYALLUP, WASHINGTON









