ABBREVIATIONS

A.F.F

A.D.

ADJ

ASB.

BD.

BM.

BOT

CAB.

CEM.

CER.

CLG.

CLO.

C.O.

COL

CTR.

DBL

DET.

DIA.

DIM.

DISP.

DN.

D.O.

DR.

D.S.

E.J.

ELEC

E.P.

EQ.

EXP

EXT.

F.E.

F.F.

FDN.

FIN.

F.O.F

F.S.

FTG.

FUT.

G.A.

GR.

GSM

GYP.

H.B.

H.C.

H.M.

HR.

HT.

FT

DWG.

DWR.

C.I.

I.D.

INSUL.

INT.

KIT.

LAM.

LAV.

L.E.D.

MAX.

M.C.

MECH.

MEMB.

MTL.

MFR.

MIN.

MIR.

MISC.

М.О.

MTD.

MUL.

N.I.C.

NOM.

N.T.S.

0.A.

0.C.

0.D.

OFF.

OPP.

PL.

OPNG.

P.LAM.

PLAS.

PLYWD.

PR.

PTN.

QSR

R.D.

REF.

REFR.

RGTR.

REINF.

REQ'D

RESIL

RM.

R.O.

R.W.L.

S.C.

S.D.

SH.

SECT.

SHR.

SHT.

SIM.

SPEC.

SQ.

STD.

STOR.

STRL.

SYM.

T.B.S.

TRD

T.C.

TEL.

TER.

T&G

THK.

T.P.

T.V.

T.W.

TYP.

UNF.

U.N.O.

V.C.T.

W.

W/

W.B.

W.C.

WD.

W/O

WT.

WSCT.

VERT.

T.P.D.

STL.

SCHED.

Q.T.

PT.

OBS.

Ν.

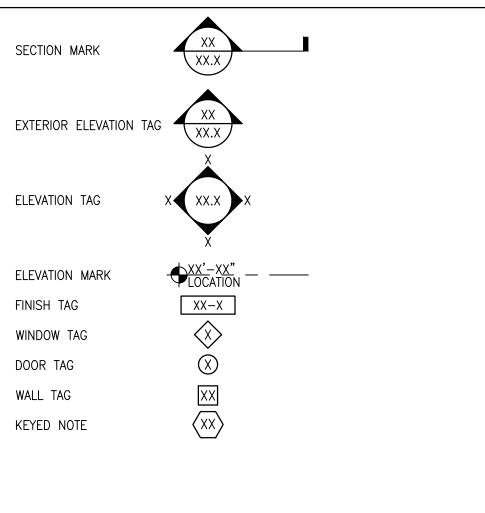
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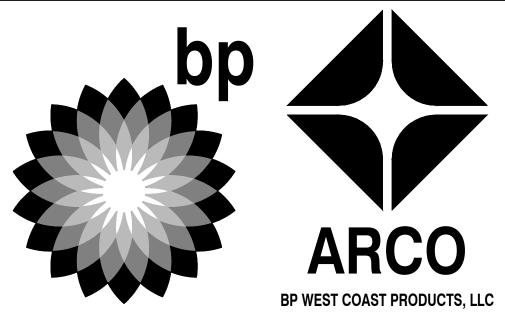
AND ANGLE ΔT CENTERLINE DIAMETER OF ROUND POUND OR NUMBER EXISTING RELOCATED NEW ABOVE FINISH FLOOR AREA DRAIN ADJUSTABLE AGGR. AGGREGATE ALUMINUM APPRO) APPROXIMAT ARCH. ARCHITECTURAL ASBESTOS ASPH. ASPHAL[®] BOARD BITUM BITUMINOUS BLDG. BUILDING BLKG BLOCKING BFAM BOTTOM CABINE CEMENT CFRAM CAST IRON CEILING CLKG CAULKING CLOSET CLR./CL CLEAR CASED OPENING COLUMN CONC. CONCRETE CONN. CONNECTION CONSTR. CONSTRUCTIO CONT. CONTINUOUS CTSK. COUNTERSUN CNTR. COUNTER CENTER DOUBLE DEPT. DEPARTMEN DETAIL DIAMETER DIMENSION DISPENSER DOWN DOOR OPENING DOOR DRAWER DOWNSPOU⁻ DRAWING EAST EACH EXPANSION JOINT ELEVATION ELECTRICAL ELECTRICAL PANELBOARD EQUAL EQPT. EQUIPMENT EXST. EXISTING EXPANSION EXTERIOR s.s. FIRE EXTINGUISHER FLOOR FINISH FOUNDATION FINISH FLOOF FLASH'G FLASHING FLUOR. FLUORESCENT F.O.C. FACE OF CONCRETE FACE OF FINISH F.O.S. FACE OF STUD FPRF. FIREPROOF FLOOR SINK FOOT OR FEET FOOTING FURR. FURRING FUTURE GAUGE GALV. GALVANIZED GLASS GRADE GALVANIZED SHEET METAL GYPSUM G.W.B. GYPSUM WALL BOARD HOSE BIBB HOLLOW CORE HDWD. HARDWOOD HDWE. HARDWARE HOLLOW METAL HORIZ. HORIZONTAL HOUR

INSIDE DIAMETER INSULATION INTERIOR JOINT KITCHEN LAMINATE LAVATORY LIGHT LIGHT EMITTING DIODE MAXIMUM MEDICINE CABINET MECHANICAL MEMBRANE METAL MANUFACTUREF MINIMUM MIRROR MISCELLANEOUS MASONRY OPENING MOUNTED MULLION NORTH NOT IN CONTRACT NO. OR # NUMBER NOMINAL NOT TO SCALE OVERALL OBSCURE ON CENTER OUTSIDE DIAMETER OFFICE OPENING OPPOSITE PLATE PLASTIC LAMINATE PLASTER PLYWOOD PAIR POINT PARTITION QUARRY TILE QUICK SERVE RESTAURANT R OR RAD. RADIUS ROOF DRAIN REFERENCE REFRIGERATOR REGISTER REINFORCED REQUIRED RESILIENT ROOM ROUGH OPENING RAIN WATER LEADER SOUTH SOLID CORE SCHEDULE SOAP DISPENSER SECTION SHELF SHOWER SHEET SIMILAR SPECIFICATION SQUARE STAINLESS STEEL STANDARD STEEL STORAGE STRUCTURAL SYMMETRICAL TO BE SPECIFIED TREAD TOWEL BAR TOP OF CURB TELEPHONE TERRAZZO TONGUE & GROOVE THICK TOP OF PAVEMENT TOILET PAPER DISPENSER TELEVISION TOP OF WALL TYPICAL UNFINISHED UNLESS NOTED OTHERWISE VERTICAL VINYL COMPOSITE TILE WEST WITH WALL BASE WATER CLOSET WOOD WITHOUT WATERPROOF WAINSCOT WEIGHT

SYMBOLS

HEIGHT

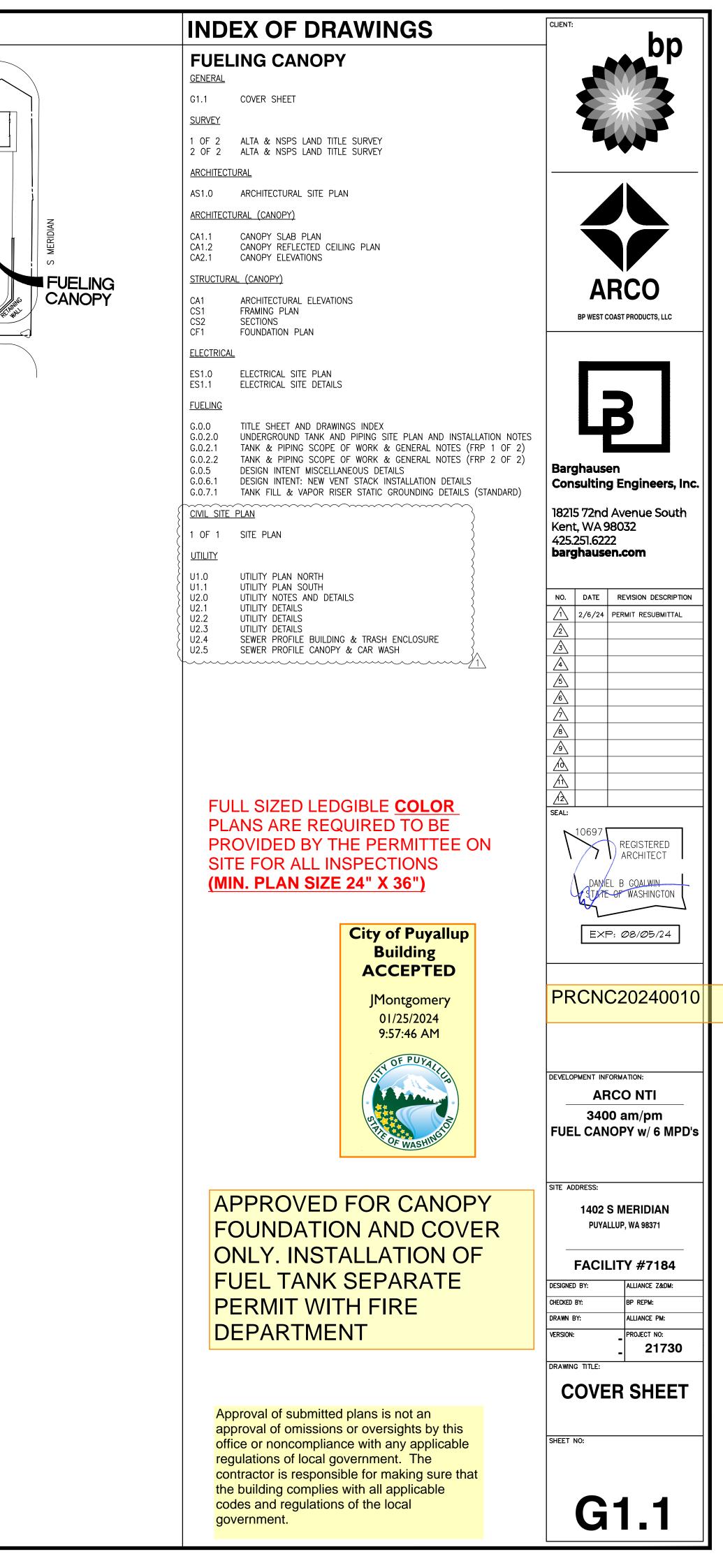


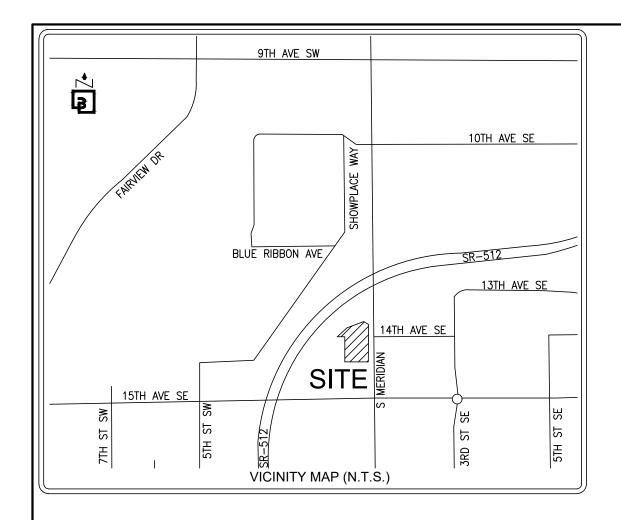


ARCO 3400 am/pm **1402 S MERIDIAN PUYALLUP, WA 98371 GENERAL PROJECT NOTES**

- ALL CONSTRUCTION SHALL COMPLY WITH APPLICABLE BUILDING CODES AND LOCAL RESTRICTIONS. CONTRACTORS MUST COMPLY WITH CONTRACTOR REGISTRATION REQUIREMENTS OF ALL GOVERNING AUTHORITIES. THE GENERAL BUILDING PERMITS SHALL BE PAID FOR BY THE OWNER UNLESS AGREED OTHERWISE. ALL OTHER PERMITS SHALL BE SECURED AND PAID FOR BY THE SUBCONTRACTOR DIRECTLY RESPONSIBLE. ALL REQUIRED CITY, COUNTY AND/OR STATE LICENSES SHALL BE ACQUIRED AND PAID FOR BY THE INDIVIDUAL SUBCONTRACTOR
- IT IS THE INTENT OF THE OWNER, THE ARCHITECT AND THEIR CONSULTANTS, THAT ALL WORK DEPICTED IN THESE DRAWINGS AND SPECIFICATIONS IS TO BE PROVIDED BY THE GENERAL CONTRACTOR. ANY REFERENCES TO THE CONTRARY THROUGHOUT THE CONSTRUCTION DOCUMENTS OR SPECIFICATIONS IS NOT INTENDED. ADDITIONALLY CONTRACTOR IS TO REFER TO THE BID DOCUMENT PACKET AND/OR OWNER'S SCOPE OF WORK DOCUMENT(S) WHICH SHALL TAKE PRECEDENCE OVER SCOPE THAT MAY BE PRESENTED IN THIS SET OF CONSTRUCTION DOCUMENTS OR SPECIFICATIONS. THE SCOPE OF WORK DOCUMENT IS INTENDED TO IDENTIFY ALL OWNER SUPPLIED ITEMS OR WORK PROVIDED BY OTHERS. ABSENCE OF THESE DOCUMENTS MEANS ALL WORK NOTED IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR UNLESS THE OWNER HAS SPECIFIED OTHERWISE DURING THE BID PROCESS
- APPROVED PLANS SHALL BE KEPT IN A PLAN BOX AND SHALL NOT BE USED BY WORKMEN. ALL CONSTRUCTION SETS SHALL REFLECT SAME INFORMATION AS THE APPROVED PLANS. CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF PLANS ON THE PREMISES IN GOOD CONDITION AT ALL TIMES. THIS SHALL INCLUDE ALL ADDENDA AND CHANGE ORDERS
- DISCREPANCIES BETWEEN PORTIONS OF THE CONTRACT DOCUMENTS, DRAWINGS AND SPECIFICATIONS ARE NOT INTENDED. THE CONTRACTOR IS TO CLARIFY ANY SUCH DISCREPANCIES WITH THE ARCHITECT OR PROJECT MANAGER PRIOR TO COMMENCING WORK. STATED DIMENSIONS TAKE PRECEDENCE OVER GRAPHICS, DO NOT SCALE DRAWINGS TO DETERMINE LOCATIONS. THE ARCHITECT OR PROJECT MANAGER SHALL BE NOTIFIED OF ANY SUCH DISCREPANCIES PRIOR TO CONTINUING WITH WORK.
- IT IS THE INTENT OF THE ARCHITECT THAT THIS WORK BE IN CONFORMANCE WITH ALL REQUIREMENTS OF THE BUILDING AUTHORITIES HAVING JURISDICTION OVER THIS TYPE OF CONSTRUCTION AND OCCUPANCY. THE CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY OF CONFLICTS WITH GOVERNING CODE REQUIREMENTS BEFORE PROCEEDING FURTHER WITH THE AFFECTED WORK.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES AND TO PROTECT THEM FROM DAMAGE. CONTRACTOR SHALL BEAR THE EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE EXECUTION OF THE WORK.
- THE CONTRACTOR TO PROVIDE FIRE SPRINKLER SYSTEM AND ALARM SYSTEM (WHEN REQUIRED BY CODE AND NOTED AS REQUIRED BY THESE PLANS) IN ACCORDANCE WITH NFPA REQUIREMENTS. FIRE SPRINKLER CONTRACTOR IS TO SUBMIT COMPLETE SHOP DRAWINGS, LAYOUT AND RELATED DATA TO BUILDING DEPARTMENT AND FIRE MARSHAL FOR APPROVAL PRIOR TO INSTALLATION.
- B. FOR CONSTRUCTION DETAILS NOT SHOWN, USE THE MANUFACTURER'S APPROVED SHOP DRAWINGS/DATA SHEETS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE IN THE WORK EXCEPT WHERE A DIFFERENT DETAIL IS SHOWN.
- THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL FOOD SERVICE EQUIPMENT AND COORDINATE LOCATION OF ALL UTILITIES INCLUDING FLOOR SINKS, FLOOR DRAINS, SLOPES/SLAB DEPRESSIONS AND RAISED CURBS, ELECTRICAL AND PLUMBING AND STUBOUTS FOR FUTURE EQUIPMENT WHERE NOTED.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE WHILE JOB IS IN PROGRESS AND UNTIL BUILDING IS OCCUPIED. 11. ALL DEBRIS SHALL BE REMOVED FROM PREMISES REGULARLY AND ALL AREAS SHALL
- BE LEFT IN A CLEAN (BROOM) CONDITION AT ALL TIMES. 12. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF
- THE OCCUPANTS AND WORKERS AT ALL TIMES. 13. CONTRACTOR SHALL PROVIDE TEMPORARY WATER, POWER, TELEPHONE, FACSIMILE OR METHOD TO RECEIVE E-MAIL, PRINTER AND TOILET FACILITIES AS REQUIRED.
- GENERAL CONTRACTOR IS RESPONSIBLE FOR RECEIVING, UNLOADING, UN-CRATING, INSTALLATION AND HOOKUP OF ALL FOOD SERVICE EQUIPMENT AND OTHER OWNER OR VENDOR FURNISHED ITEMS. GENERAL CONTRACTOR IS REQUIRED TO LABEL ALL ELECTRICAL PANELS, PLUMBING
- VALVES, AND ROOF TOP EQUIPMENT WITH PLASTIC PHENOLIC ENGRAVED PLATES ATTACHED TO IDENTIFY THE EQUIPMENT USE OR PURPOSE CONTRACTOR SHALL SUPPLY, LOCATE AND BUILD INTO THE WORK ALL INSERTS,
- ANCHORS, ANGLES, PLATES, OPENINGS, SLEEVES, HANGERS, SLAB DEPRESSIONS AND PITCHES AS MAY BE REQUIRED TO ATTACH AND ACCOMMODATE OTHER WORK. SPECIAL INSPECTION REQUIREMENTS MAY APPLY TO ALL STRUCTURAL EMBEDMENTS OR POST INSTALLED ANCHORS. CONTRACTOR SHALL CONFIRM REQUIREMENTS PRIOR TO INSTALLATION
- 17. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE MEANS AND METHODS FOR ERECTION PROCEDURE AND SEQUENCE OF THE CONSTRUCTION. CONTRACTOR TO INSURE THE SAFETY OF ALL INSTALLED IMPROVEMENTS, BUILDINGS AND THEIR COMPONENT PARTS DURING ERECTION.
- 18. MATERIALS LISTED IN DRAWINGS ARE BASED ON DESIGN INTENT. ALTERNATE SPECIFICATIONS MAY BE ACCEPTED PROVIDED THEY CLOSELY MATCH AND ARE DEEMED EQUAL TO SPECIFIED MATERIAL. GENERAL CONTRACTOR IS TO SUBMIT PROPOSED SAMPLES OF SUBSTITUTIONS, ALONG WITH SAMPLE OF THAT SPECIFIED IN DRAWINGS FOR REVIEW BY THE ARCHITECT OR PROJECT MANAGER. SUBSTITUTIONS WILL ONLY BE APPROVED IF SPECIFIED MATERIAL IS PROVEN TO BE UNAVAILABLE WITHIN A REASONABLE TIME FRAME OR THE SUBSTITUTION IS A BENEFIT TO THE OWNER RELATED TO COST OR SCHEDULE TIME SAVINGS.
- 19. THE PROJECT BOUNDARIES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE OWNERS ATTENTION IMMEDIATELY BEFORE PROCEEDING WITH CONSTRUCTION
- 20. ALL LABOR, MATERIALS AND INSTALLATIONS MUST COMPLY WITH THE CODES AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION. ANY DISCREPANCY WHICH EXISTS BETWEEN THE REQUIREMENTS BY THE PLANS, SPECIFICATIONS, SAID CODES, RULES AND REGULATIONS, SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT, IN WRITING FOR RESOLUTION. IF ANY CHANGE IN THE PLANS AND / OR SPECIFICATIONS OCCURS AS A RESULT OF THE REQUIREMENTS OF THE LIFE SAFETY CODE (NFPA 101) OR ANY OTHER AUTHORITIES HAVING JURISDICTION AFTER THE SUBMISSION OF BIDS, THEN THE BIDDERS WILL BE GIVEN THE OPPORTUNITY TO ADJUST THEIR BIDS, IF NECESSARY, ONLY FOR THE CHANGE.
- 21. THE CONTRACTOR SHALL COORDINATE THE WORK WITH MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR ALL NECESSARY OPENINGS AND PENETRATIONS THROUGH WALLS, CEILING AND FLOORS.
- 22. ALL EXPOSED PIPES, CONDUITS OR DUCTS IN FINISHES AREAS, WHETHER SHOWN ON DRAWINGS OR NOT, SHALL BE FURRED OUT WITH GYPSUM BOARD. 23. LOCATION OF ACCESS DOORS SUPPLIED BY MECHANICAL TRADES AND INSTALLED BY
- OTHERS SHALL BE DETERMINED IN THE FIELD THROUGH COORDINATION OF TRADES, LOCATION OF LIGHT FIXTURES SHALL GOVERN POSITION OF DUCTS AND PIPES FOR WHICH ACCESS DOORS ARE REQUIRED. ACCESS DOORS SHALL NOT BE PLACED IN INACCESSIBLE POSITIONS OR IN THE WAY OF LIGHTS, GRILLS, REGISTERS, CONCEALED BY CASEWORK, ECT.

PROJECT DATA	SITE VICINITY MAP	SITE KEY PLAN
PROJECT DATA Project ADDRESS: 1402 SOUTH MERDIAN, PUXILUP, WA 98371 ASSESSOR'S PARCEL NUMBER 773000-028-1 & 773000-028-8: TITLE PARCEL A 773000-028-1 & 773000-028-8: TITLE PARCEL B 20NNC: CENERAL COMMERCIAL (CC) SITE AREA: 51,520 S.F. (1.18 AC) HULDINGS: CONSTRUCTION TYPE: V-B (NON SPRINKLERED) USE GROUP: M GROSS AREA: 3,349 S.F. CANOPY CONSTRUCTION TYPE: V-B USE CROUP: B GROSS AREA: 1,188 S.F. PARKING ERCUREMENTS NO. OF SPACES REQUIRED: 1 SPACE PER 300 SQUARE FEET	SITE VICINITY MAP SITE VICINITY MAP SITE VICINITY MAP SITE VICINITY MAP SITE VICINITY MAP SITE VICINITY MAP PORTON SOLUTION PROJECT DIRECTORY PROJECT DIRECTORY PROJECT DIRECTORY SITE VICINITY AND PROJECTION PRODUCTS, NA PRODUCTS, NA SAN ANTONO, TX 72628–9931 COMACT. RANALL ARNOL ROMALLARNOLDBSP.COM PHONE ACHIECT BARCHAUSEN CONSULTING ENGNEERS, NC. 12215 72ND AVE. SOUTH KENT, WA 98032 COMACT. RANALL ARNOL ENGNEERS, NC. 12215 72ND AVE. SOUTH KENT, WA 98032 COMACT. ALEX WHTE PHONE 425.251.6222 STRUCTURAL ENGNEER PROFEWED CONSULTING ENGNEERS, NC. 12215 72ND AVE. SOUTH KENT, WA 98032 COMACT. ALEX WHTE PHONE 425.251.6222 STRUCTURAL ENGNEER PROSC COMACT. ALEX WHTE PHONE 425.251.6222 STRUCTURAL ENGNEER PROSC STRUCTURAL ENGNEER PROSC COMACT. ALEX WHTE PHONE 425.251.6222 STRUCTURAL ENGNEER PROSC STRUCTURAL ENGNEER PROSC STRUCTURAL ENGNEER PROSC STRUCTURAL PROSC PROSC STRUCTURAL PROSC PROSC STRUCTURAL PROSC PROSC STRUCTURAL PROSC PROSC STRUCTURAL PROSC PROSC STRUCTURAL PROSC PROSC STRUCTURAL PROSC PROSC STRUCTURAL PROSC PROSC STRUCTURAL PROSC STRUCTURAL PROSC STRUCTURAL PROSC STRUCT	TRASH ENCLOSURE C-STORE C-STORE CAR WASH
CONSTRUCTION OF NEW 3,349 S.F. ARCO AM/PM CONVENIENCE STORE WITH 4,607 S.F. FUEL CANOPY (49'x94') WITH EIGHT (8) MULTI PRODUCT DISPENSERS, AND TWO (2) UNDERGROUND STORAGE TANKS. CAR WASH AND ASSOCIATED SITE IMPROVEMENTS.	3629 S. D STREETSEATTLE, WA 98101TACOMA, WA 98418206-689-4063253-649-1706ELECTRICSTORMWATER, WATER QUALITY, SANITARY SEWERWASHINGTON STATE DEPARTMENT OF LABOR ANCITY OF PUYALLUP PUBLIC WORKSINDUSTRIES (L&I) P.O.PUBLIC WORKS 1100 39TH AVENUE S.E.P.O. OLYMPIA, STATE 98504 360-902-5800PUYALLUP, WA 98371 253-841-5505360-902-5800	
 PERMITTED SEPERATELY SIGNAGE UNDER SEPARATE PERMIT ELECTRICAL SHEETS ARE FOR REFERENCE ONLY – PERMIT WILL BE ISSUED BY L&I 	PERMIT SUBMITTAL DATES 10/04/2023 	
APPLICABLE CODES	PERMIT ISSUE DATES	
BUILDINGCODE :2018 INTERNATIONALBUILDINGCODE*PLUMBINGCODE:2018UNIFORMPLUMBINGCODE*ELECTRICALCODE:2018NATIONALELECTRICALCODEMECHANICALCODE:2018INTERNATIONALMECHANICALCODE AND INTERNATIONALFUELGASCODE*ENERGYCODE:2018WASHINGTONSTATEENERGYCODEFIRECODE:2018INTERNATIONALFIRECODE*ACCESSIBILITYCODE:ICC/ANSIA117.1-2009ICC/ANSICODELOCALCODES:PUYALLUPMUNICIPALCODE*ASAMENDEDBYSTATEANDLOCALJURISDICTION	ARCO APPROVAL DATES	





SURVEY INFORMATION:

HORIZONTAL DATUM - BASIS OF BEARINGS: NAD 83/2011 WASHINGTON STATE COORDINATE SYSTEM, SOUTH ZONE, ESTABLISHED BY GPS OBSERVATION UTILIZING THE WASHINGTON STATE REFERENCE NETWORK. THE BASIS OF BEARINGS IS N 00°33'46" E BETWEEN THE FOUND 2" BRASS DISK AT THE INTERSECTION OF S. MERIDIAN ST. & 15TH AVE SW AND THE FOUND 2" IRON PIPE W/TACK IN MONUMENT CASE AT THE INTERSECTION OS S. MERIDIAN ST. & THE ON/OFF RAMP TO SR 512.

VERTICAL DATUM VERTICAL DATUM FOR THIS SURVEY IS NAVD88 ESTABLISHED FROM WSDOT MONUMENT ID NO. 247. ELEVATION = 80.449' (NAVD88)

LOT AREA $52,078 \pm SF (1.20 \pm AC)$

ADDRESS 1402 S. MERIDIAN, PUYALLUP, WA 98371

TAX PARCEL NUMBER

773000-028-1 & 773000-028-8: TITLE PARCEL A 773000-003-1 & 773000-002-1: TITLE PARCEL B REFERENCE SURVEYS:

PIERCE COUNTY SHORT PLAT – AFN 8706010381 (1987) WSDOT SR 512 96TH ST TO JCT. SR 167, DATED MAY 23, 1968

DATE OF SURVEY: THIS SURVEY REPRESENTS VISIBLE PHYSICAL IMPROVEMENT CONDITIONS EXISTING ON MARCH 22, 2022 & JULY 14, 2023. ALL SURVEY CONTROL INDICATED AS "FOUND" WAS RECOVERED FOR THIS PROJECT IN MARCH OF 2022 & JULY OF 2023.

FLOOD INFORMATION:

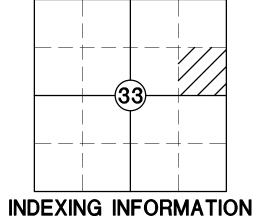
FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) INFORMATION: FIRM (FLOOD INSURANCE RATE MAP) MAP NO. 53053C0341E PANEL 341 OF 1375, DATED MARCH 7, 2017. THE SUBJECT PROPERTY IS IN ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

ZONING INFORMATION:

(A ZONING REPORT WAS NOT FURNISHED FOR THIS SITE) SURVEYOR'S NOTES:

- THE BOUNDARY CORNERS AND LINES DEPICTED ON THIS MAP REPRESENT DEED LINES ONLY, AND DON'T PURPORT TO SHOW OWNERSHIP LINES THAT MAY OTHERWISE BE DETERMINED BY A COURT OF LAW. NO GUARANTEE OF OWNERSHIP IS EXPRESSED OR IMPLIED.
- UNDERGROUND UTILITIES AND FEATURES DEPICTED HEREON ARE BASED ON FIELD OBSERVATION, MARKINGS, DEVELOPMENT PLANS, AND/OR AVAILABLE RECORD DOCUMENTS ONLY. THE TRUE LOCATION, NATURE AND/OR EXISTENCE OF BELOW GROUND FEATURES, DETECTED OR UNDETECTED, SHOULD BE VERIFIED.
- ABOVE REFERENCED TITLE REPORT UNLESS OTHERWISE NOTED.
- THIS SURVEY HAS DEPICTED ALL VISIBLE OCCUPATIONAL INDICATORS (IE. FENCE LINES, BUILDINGS, WALLS, ETC. - SEE MAP FOR PARTICULARS) PER W.A.C. 332-130. LINES OF OCCUPATION, AS DEPICTED, MAY INDICATE AREAS OF POTENTIAL CLAIMS OF UNWRITTEN OWNERSHIP. THIS SURVEY HAS ONLY DEPICTED THE RELATIONSHIP BETWEEN LINES OF OCCUPATION AND DEEDED LINES OF RECORD. NO RESOLUTION OF OWNERSHIP BASED ON UNWRITTEN RIGHTS HAS BEEN MADE BY THIS SURVEY OR BY ANY PERSONNEL OF BARGHAUSEN CONSULTING ENGINEERS, INC.
- THIS IS A FIELD TRAVERSE SURVEY. TOPCON GT AND TOPCON HYPER HR GPS AND DELL TABLET DATA COLLECTOR WERE USED TO MEASURE THE ANGULAR AND DISTANCE RELATIONSHIPS BETWEEN THE CONTROLLING MONUMENTATION AS SHOWN. CLOSURE RATIOS OF THE TRAVERSE MET OR EXCEEDED THOSE SPECIFIED IN W.A.C. 332-130-090. ALL INSTRUMENTS AND EQUIPMENT HAVE BEEN MAINTAINED IN ADJUSTMENT ACCORDING TO MANUFACTURERS' SPECIFICATIONS AND USED BY APPROPRIATELY TRAINED PERSONNEL.
- SET FORTH IN THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS IN SECTION 3(E).
- ELEMENTS AND FEATURES DEPICTED HEREON SATISFY THE REQUIREMENTS STATED WITHIN W.A.C. 332-130-145 FOR TOPOGRAPHIC MAPS, INCLUDING THE FOLLOWING: THE SOURCE OF THE CONTOURS SHOWN HEREON ARE BASED UPON DIRECT FIELD OBSERVATIONS. THE CONTOUR ACCURACY IS PER NATIONAL MAPPING STANDARDS, ONE HALF OF THE CONTOUR INTERVAL (1'). THE PURPOSE OF THIS SURVEY IS TO MAP THE CURRENT CONDITIONS FOR ENGINEÈRING DESIGN.
- BARGHAUSEN CONSULTING ENGINEERS, INC. SURVEY CREWS DETECTED NO OBSERVABLE EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS ON THE SUBJECT PROPERTY.
- EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
- THERE IS EVIDENCE OF PHYSICAL ACCESS TO PUBLIC RIGHT-OF-WAY.

TWP. 20N R.4E



N.T.S.

ALTA/NSPS LAND TITLE SURVEY

PIERCE COUNTY SHORT PLAT OF MERIDIAN CENTER – AFN 77–315 (1977) PLAT OF SOURWINE'S ACRE LOTS - VOL 8 PLATS, PAGE 10 (1905)

ALL DISTANCES SHOWN HEREON ARE GROUND MEASUREMENTS IN U.S. SURVEY FEET.

THE LEGAL DESCRIPTION AND SPECIAL EXCEPTIONS SHOWN HEREON ARE PER THE

• THIS SURVEY MEETS OR EXCEEDS THE "RELATIVE POSITIONAL PRECISION" REQUIREMENTS

• THE RECORD DESCRIPTION FOR THE SUBJECT PROPERTY MATHEMATICALLY CLOSES.

• BARGHAUSEN CONSULTING ENGINEERS, INC. SURVEY CREWS DETECTED NO OBSERVABLE • THERE IS NO VISIBLE EVIDENCE OF ANY CEMETERIES OR BURIAL GROUNDS.

TITLE INFORMATION:

TITLE COMMITMENT

ALL TITLE INFORMATION SHOWN ON THIS MAP HAS BEEN EXTRACTED FROM STEWART TITLE GUARANTY COMPANY COMMITMENT NO. 21000200719, DATED JULY 29, 2021 AT 8:00 AM. INCLUDED ARE APPURTENANT EASEMENTS AND ADJOINING DEEDS FOR UNPLATTED LOTS, IF ANY. IN PREPARING THIS MAP, BARGHAUSEN CONSULTING ENGINEERS, INC. HAS CONDUCTED NO INDEPENDENT TITLE SEARCH NOR IS BARGHAUSEN CONSULTING ENGINEERS, INC. AWARE OF ANY TITLE ISSUES AFFECTING THE SURVEYED PROPERTY OTHER THAN THOSE SHOWN ON THE MAP AND DISCLOSED BY SAID COMMITMENT. BARGHAUSEN CONSULTING ENGINEERS, INC. HAS RELIED WHOLLY ON SAID TITLE COMPANY'S REPRESENTATIONS OF THE TITLE'S CONDITION TO PREPARE THIS SURVEY AND THEREFORE BARGHAUSEN CONSULTING ENGINEERS, INC. QUALIFIES THE MAP'S ACCURACY AND COMPLETENESS TO THAT EXTENT.

LEGAL DESCRIPTION

(PER ABOVE REFERENCED TITLE REPORT) PARCEL A: (773000-028-1 & 773000-028-8)

LOT 1 AND THE NORTH 15 FEET OF THE EAST 178.33 FEET OF "COMMON ACCESS TRACT A", OF PIERCE COUNTY SHORT PLAT RECORDED UNDER RECORDING NO. 77-315, RECORDS OF PIERCE COUNTY WASHINGTON, FORMERLY BEING DESCRIBED AS THE NORTH 161.5 FEET OF THE WEST 178.33 FEET OF THE EAST 188.33 FEET OF LOT 20, SOURWINE'S ACRE LOTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 8 OF PLATS, PAGE 10, RECORDS OF PIERCE COUNTY, WASHINGTON; TOGETHER WITH THAT PORTION OF 14TH AVENUE SW, VACATED BY ORDINANCE NO. 2304 ABUTTING THEREON AND ATTACHED THERETO, RECORDED UNDER RECORDING NO. 9206040385.

PARCEL A1: RIGHTS TO USE THAT PORTION OF THE WITHIN DESCRIBED PROPERTY LYING WITHIN COMMON ACCESS TRACT "A" OF SIDE SHORT PLAT, FOR INGRESS, EGRESS, AND INSTALLATION AND MAINTENANCE OF UTILITIES, AS SET FORTH AND DELINEATED ON PIERCE COUNTY SHORT PLAT NO. 77-315;

EXCEPT ANY PORTION LYING WITHIN PARCEL A ABOVE. PARCEL A2

AN EASEMENT FOR INGRESS AND EGRESS AS SET FORTH IN DOCUMENTS ENTITLED "STATUTORY WARRANTY DEED" AS RECORDED UNDER RECORDING NUMBERS 2741876 AND 2792268. PARCEL B: (773000-003-1 & 773000-002-1)

LOT 2, SOURWINE'S ACRE LOTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 8 OF PLATS, PAGE 10, RECORDS OF PIERCE COUNTY, WASHINGTON; EXCEPT THAT PORTION LYING WITHIN STATE HIGHWAY NO. SR-512, 96TH STREET TO JUNCTION SR-167;

TOGETHER WITH THAT PORTION OF 14TH AVENUE SW, VACATED BY ORDINANCE NO. 2304 ABUTTING THEREON AND ATTACHED THERETO, RECORDED UNDER RECORDING NO. 9206040385 SITUATE IN THE COUNTY OF PIERCE, STATE OF WASHINGTON.

SPECIAL EXCEPTIONS:

(PER ABOVE REFERENCED TITLE REPORT) ITEMS 1 THOUGH 18 ARE NOT SURVEY RELATED.

19. TEMPORARY RIGHT, PERMIT, LICENSE AND EASEMENT TO USE AND OCCUPY A PORTION OF SAID LOT 20 FOR THE PURPOSE OF CONSTRUCTING HIGHWAY SLOPES AND OPERATING ALL NECESSARY MACHINERY AND EQUIPMENT THEREON AT ANY AND ALL TIMES UNTIL COMPLETION OF CONSTRUCTION FOR STATE RAD NO. 512 AS APPROPRIATED BY THE STATE OF WASHINGTON IN PIERCE COUNTY SUPERIOR COURT CAUSE NO. 198127. AFTER COMPLETION OF CONSTRUCTION, ALL RIGHTS OF EASEMENT SHALL BE EXTINGUISHED. AFFECTS PARCEL A

(BLANKET IN NATURE)(POTENTIALLY EXTINGUISHED)

20. RELINQUISHMENT OF ACCESS TO STATE HIGHWAY AND OF LIGHT, VIEW AND AIR BY DEED TO THE STATE OF WASHINGTON: RECORDED: NOVEMBER 19, 1966 RECORDING NO .: 2321816

AFFFCTS: PARCEL A (APPLIES TO OFFSITE ADJACENT PROPERTY)

21. RELINQUISHMENT OF ACCESS TO STATE HIGHWAY AND OF LIGHT, VIEW AND AIR BY DEED TO THE STATE OF WASHINGTON: OCTOBER 20, 1975 RECORDED:

2632004 RECORDING NO .: AFFECTS: PARCEL B

(BLANKET IN NATURE)

22.	EASEMENT	AND	THE	TERMS	AND	COND	ITIONS	THER	EOF:		
	GRANTEE:			PU(GET SO	DUND	POWER	r and) LIGHT	COMPANY	
	PURPOSE:			ELE	CTRIC	TRAN	ISMISSI	DN AI	ND/OR	DISTRIBUTION	SYSTEM

EAST 10 FEET OF PARCEL A AND INCLUDES OTHER PROPERTY MAY 26, 1976

RECORDING NO .: (PLOTTED HEREON)

AFFECTS

RECORDED:

23. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: GRANTEE: PUGET SOUND POWER AND LIGHT COMPANY ELECTRIC TRANSMISSION AND/OR DISTRIBUTION SYSTEM PURPOSE:

2667305

AFFECTS: PORTION OF PARCEL A AND INCLUDES OTHER PROPERTY RECORDED: MAY 26, 1976 RECORDING NO .: 2667306

(BLANKET IN NATURE)

24. COVENANTS, CONDITIONS AND RESTRICTIONS AND EASEMENTS CONTAINED IN SHORT PI AT· RECORDED: MAY 25, 1977 RECORDING NO.: 77-315

(PLOTTED HEREON)(COMMON ACCESS TRACT "A")

MA MATTHEW K. WASHINGTON MABBAS@BA

25. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: PURPOSE: INGRESS, EGRESS AND UTUITIES AFFECTS: PORTION OF TRACT A LYING WITHIN PARCEL A RECORDING, NO.: 2792288 (PUOTED HEREON) 200 26. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: PURPOSE: INGRESS AND EGRESS AFFECTS: PURPOSE: INGRESS AND CONDITIONS THEREOF: PURPOSE: (PLOTTED HEREON) 27. 27. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: GRANTEE: CITY OF PUYALLUP PURPOSE: 27. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: GRANTEE: CITY OF PUYALLUP PURPOSE: 27. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: GRANTEE: CITY OF PUYALLUP PURPOSE: 27. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: GRANTEE: CITY OF PUYALLUP PURPOSE: 27. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: GRANTEE: CITY OF PUYALLUP PURPOSE: 27. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: GRANTEE: CITY OF PUYALLUP PURPOSE: 28. CONSTRUCTING, INSTALLUP STREET IMPROVEMENTS ACCORDING TO THE PLAN ENTITLED "SOUTH MENTONA STREET IMPROVEMENTS" AFFECTS: AFFECTS: PARCEL A RECORDED: JUNE TO, JUNE TO, JUNE TO, JUNE TO, JUNE	7/18/23 KJR MKA MKA ADDED TOPO AND UTILITIES TC	Title: ALTA/NSPS LAND TITLE SURVEY PTN OF THE SE1/4, OF THE NE1/4 OF SEC. 33, TWP. 20 N., RGE 4 E., W. M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON STATE
RECORDING NO.: 8706100397 (PLOTTED HEREON) 28. MUTUAL MAINTENANCE AGREEMENT AND THE TERMS AND CONDITIONS THEREOF: RECORDED: MAY 17, 1991 RECORDING NO.: 9105170239 AFFECTS: PARCEL A (NOT SURVEY RELATED) 29. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: GRANTEE: WASHINGTON NATURAL GAS PURPOSE: GAS PIPELINE OR PIPELINES AFFECTS: NORTHERLY PORTION OF PARCEL A RECORDED: MARCH 30, 1992 RECORDING NO.: 9203300111 (PLOTTED HEREON) 30. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: GRANTEE: CITY OF PUYALLUP PURPOSE: STORMWATER, SANTARY AND WATERMAIN PIPE LINE AND APPURTENANCES AFFECTS: SOUTH 30 FEET OF PARCEL B RECORDED: JUNE 4, 1992 RECORDED ING NO.: 9206040382 (PLOTTED HEREON) 31. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: GRANTEE: CITY OF PUYALLUP PURPOSE: STORMWATER, SANTARY AND WATERMAIN PIPE LINE AND APPURTENANCES AFFECTS: NORTH 30 FEET OF PARCEL B RECORDED JUNE 4, 1992 RECORDED INC 9206040382 (PLOTTED HEREON) 31. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: GRANTEE: CITY OF PUYALLUP PURPOSE: STORMWATER, SANTARY AND WATERMAIN PIPE LINE AND APPURTENANCES AFFECTS: NORTH 30 FEET OF PARCEL A RECORDED ING NO: 9206040383 (PLOTTED HEREON)(OFFSITE ADJACENT EASEMENT) 32. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: GRANTEE: CITY OF PUYALLUP PURPOSE: STORMWATER, SANTARY AND WATERMAIN PIPE LINE AND APPURTENANCES AFFECTS: NORTH 30 FEET OF PARCEL A RECORDING NO: 9206040384		For BP FUELS NA
 (PLOTTED HEREON) 33. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: GRANTEE: PUGET SOUND POWER AND LIGHT COMPANY PURPOSE: ELECTRIC TRANSMISSION AND/OR DISTRIBUTION SYSTEM AFFECTS: PORTION OF PARCEL B RECORDED: JULY 28, 1992 RECORDING NO.: 9207280563 (PLOTTED HEREON)(OFFSITE ADJACENT EASEMENT) 34. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: GRANTEE: PUGET SOUND POWER AND LIGHT COMPANY PURPOSE: ELECTRIC TRANSMISSION AND/OR DISTRIBUTION SYSTEM AFFECTS: PORTION OF PARCEL A RECORDED: JULY 28, 1992 RECORDING NO.: 9207280564 (PLOTTED HEREON) 		Designed Scale: Drawn AF Drawn AF Drawn MKA Checked MKA Approved MKA Date 7/19/23
SURVEYOR'S CERTIFICATION: To: BP PRODUCTS NORTH AMERICA INC., A MARYLAND CORPORATION AND STEWART TITLE GUARANTY COMPANY THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WEB ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LA SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS AND INCLUDES ITEMS 2, 7(b)(1), 7(c), 8, 9, 11, 13, 14, 16, 17, 18, AND 19 OF TABLE A THEREOF. THE FIELDWON COMPLETED ON MARCH 22, 2022. DATE OF PLAT OR MAP: JULY 19, 2023.	AND TITLE $(a), (b)$ (b) (c) $($	 Parghausen Barghausen Barghausen Barghausen Barghausen Barghausen Barghausen Barghausen MA 98032 Barghausen.com Z30\surve\21730-T001.dwg

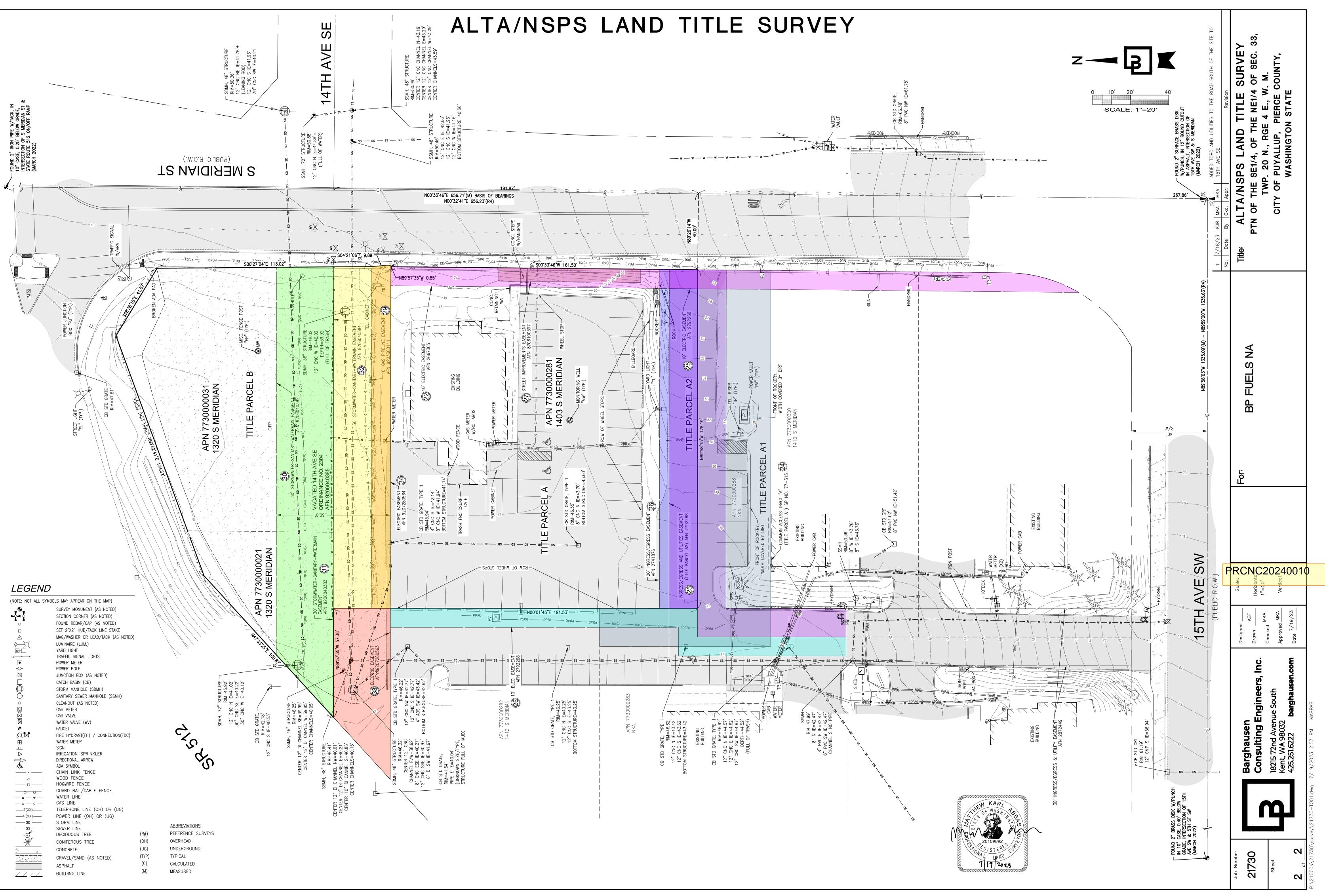
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ABBAS, PLS REGISTRATION RGHAUSEN.COM	NO. 20109892

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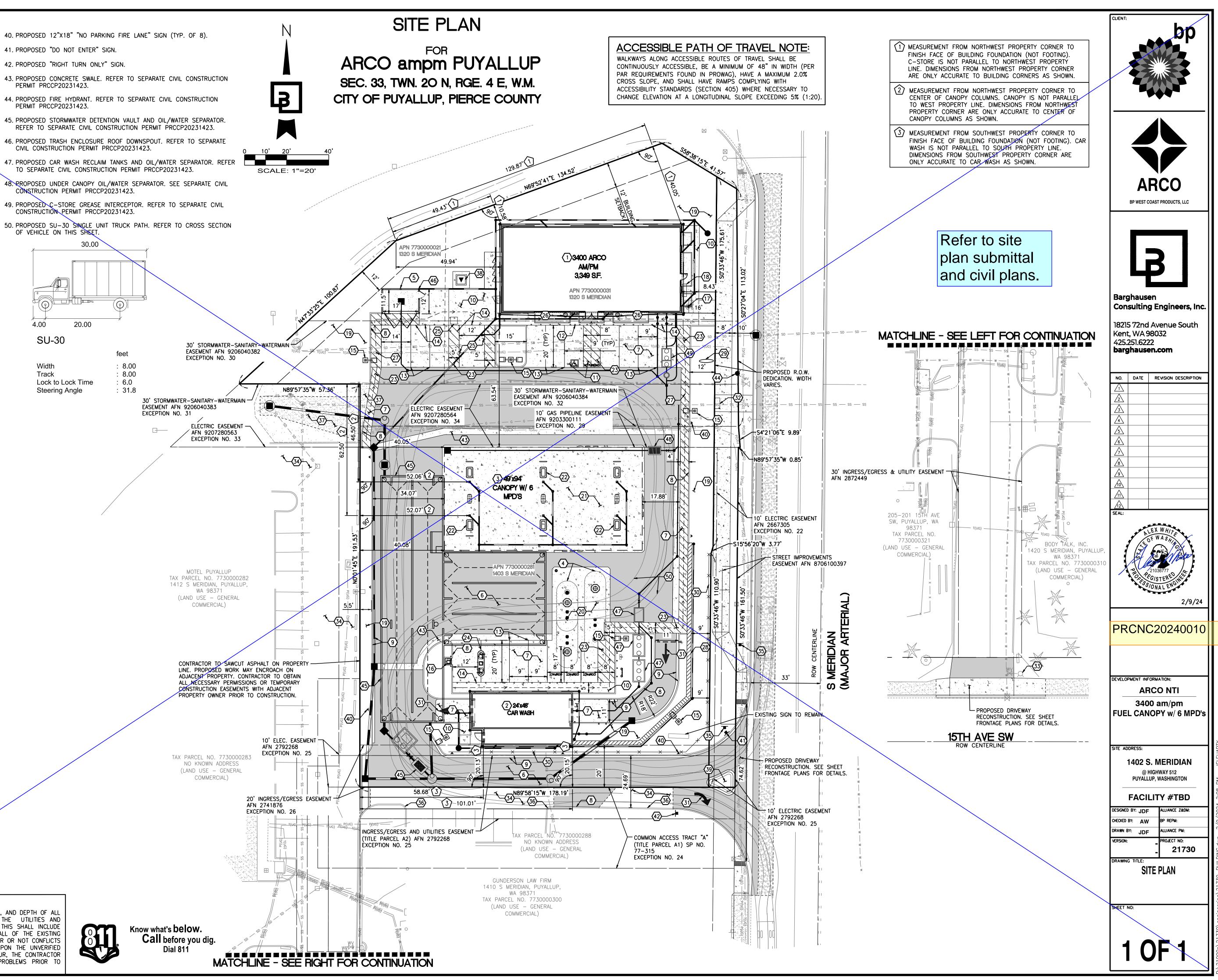
CONSTRUCTION NOTES:

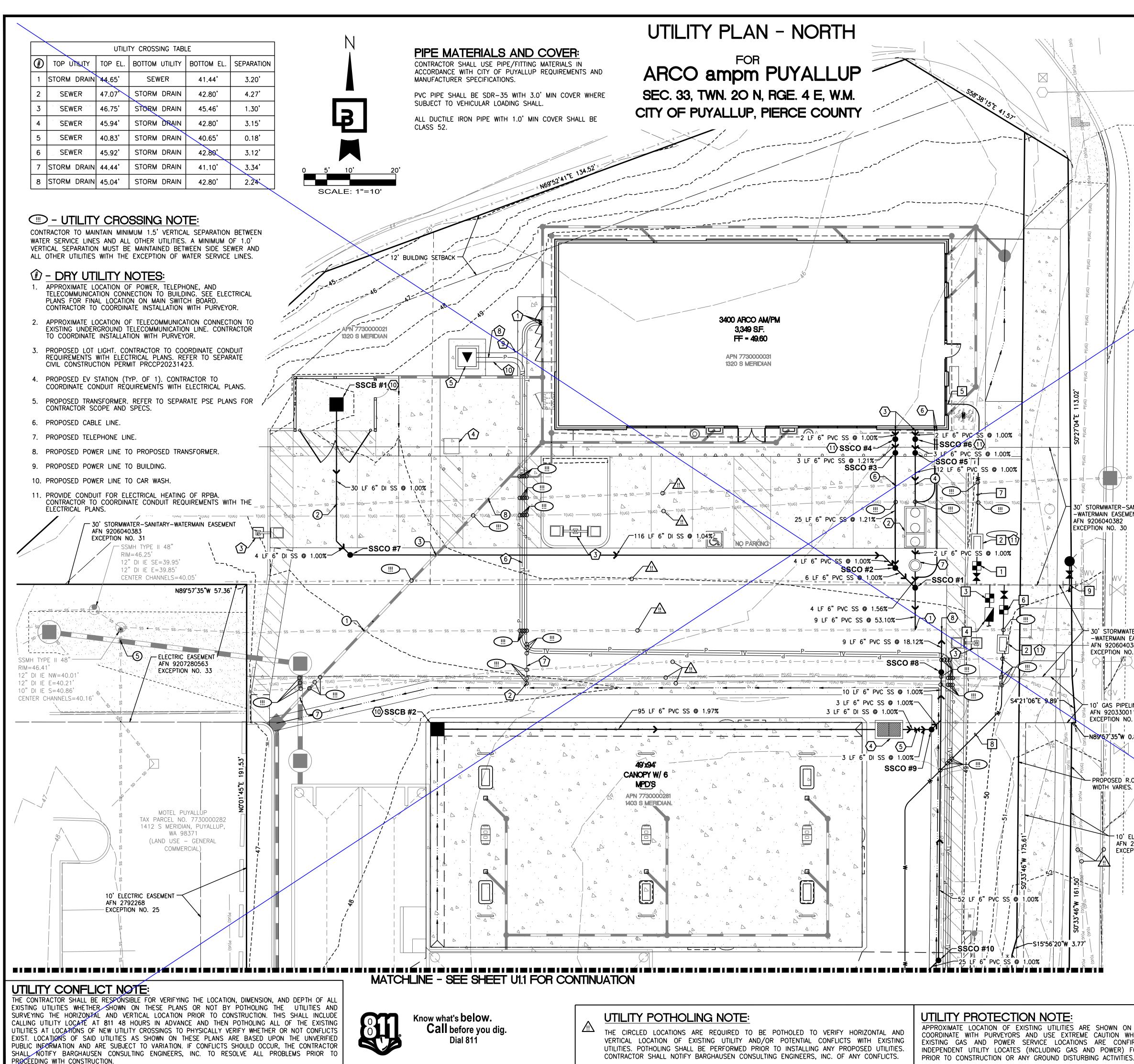
- PROPOSED CONVENIENCE STORE. CONFIRM ALL DIMENSIONS WITH ARCHITESTURAL PLANS. SEE ARCHITECTURAL PLANS FOR DETAILS.
- PROPOSED CAR WASH. CONFIRM ALL DIMENSIONS WITH ARCHITECTURAL PLANS. SEE ARCHITECTURAL PLANS FOR DETAILS.
- PROPOSED LOCATION OF FUEL CANOPY. CONFIRM ALL DIMENSIONS WITH THE ARCHITECTURAL AND FUEL PLANS. SEE ARCHITECTURAL PLANS AND FUEL PLANS FOR DETAILS.
- PROPOSED 25K AND 22K SPLIT UNDERGROUND STORAGE TANKS. SEE FUEL PLANS FOR DETAILS.
- 5. PROPOSED TRASH ENCLOSURE AND CONCRETE TRASH ENCLOSURE SLAB. SEE ARCHITECTURAL PLANS FOR DETAILS.
- PROPOSED ON-SITE ASPHALT PAVEMENT. REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- PROPOSED ON-SITE CONCRETE PAVEMENT. REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- PROPOSED BARRIER CURB. REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- 9. PROPOSED CURB AND GUTTER. REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- 10. PROPOSED CONCRETE SIDEWALK, WIDTH VARIES, REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- 11. PROPOSED ACCESSIBLE PARKING STALL AND AISLE. REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- 12. PROPOSED BOLLARD MOUNTED ACCESSIBLE PARKING STALL SIGNAGE. REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- 13. PROPOSED PARKING STALL WITH 4" WIDE WHITE REFLECTIVE PAINT STRIPE (TYP.). REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- 14. PROPOSED BOLLARD (TYP.). REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- 15. PROPOSED LOT LIGHT. SEE DETAIL ON-SITE PHOTOMETRIC PLANS FOR MORE DETAILS. COORDINATE ALL CONDUIT RUNS, WIRING REQUIREMENTS, ETC. WITH ELECTRICAL PLANS. REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- 16. PROPOSED AIR/WATER UNIT. SEE ARCHITECTURAL PLANS FOR DETAILS.
- 17. PROPOSED BICYCLE STORAGE. REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- 18. PROPOSED SEATING BENCH. SEE ARCHITECTURAL PLANS FOR DETAILS.
- 19. PROPOSED LANDSCAPING. SEE LANDSCAPE PLANS.
- 20. PROPOSED CONCRETE TANK FUEL SLAB. SEE FUEL PLANS FOR DESIGN.
- 21. PROPOSED UNDER CANOPY CONCRETE SLAB. SEE ARCHITECTURAL PLANS FOR DETAILS.
- 22. PROPOSED FUEL DISPENSERS WITH HOOP BOLLARDS (TYP.). SEE FUEL PLANS FOR DETAILS.
- 23. PAVEMENT MARKINGS 4" WIDE WHITE PAINTED STRIPES @ 2' O.C/45" ANGLE. REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- 24. PROPOSED VACUUM UNIT. SEE ARCHITECTURAL PLANS FOR DETAILS.
- 25. PROPOSED FUTURE VAN ACCESSIBLE AND STANDARD EV CHARGING STATION. FREEWIRE EV CHARGING STATION TO BE INSTALLED, REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- 26. PROPOSED TRASH RECEPTACLE (TYP).
- 27. PROPOSED ACCESSIBLE PATH. REFER TO ACCESSIBLE PATH NOTE THIS SHFFT.
- 28. PROPOSED BLOCK RETAINING WALL. REFER TO STRUCTURAL ENGINEERING PLANS FOR DETAILS. REFER TO RETAINING WALL BUILDING PERMIT PRRWF20231581.
- 29. PROPOSED ON-SITE MONUMENT SIGN. REFER TO SEPARATE SIGNAGE PLANS.
- 30. PROPOSED SITE FENCE. REFER TO ARCHITECTURAL PLANS FOR MORE DETAILS.
- 31. PROPOSED DIRECTIONAL ARROWS. REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- 32. PROPOSED BUS STOP BENCH PER PIERCE TRANSIT STANDARD BENCH. REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423. CONTRACTOR TO GIVE PIERCE TRANSIT TWO (2) WEEKS NOTICE PRIOR TO CONSTRUCTION TO ALLOW PIERCE TRANSIT TO REMOVE THE BUS STOP SIGN AND BENCH. UPON COMPLETION OF CONSTRUCTION CONTRACTOR TO COORDINATE REINSTALLATION OF BUS STOP WITH PIERCE TRANSIT.
- 33. EXISTING FIRE HYDRANT TO REMAIN.
- 34. EXISTING ASPHALT TO REMAIN.
- 35. EXISTING DIRECTIONAL HOSPITAL ROAD SIGN TO BE RE-SET. FINAL LOCATION TO BE APPROVED WITH ROW INSPECTOR. THE PERMIT HOLDER SHALL NOTIFY MULTICARE GOOD SAMARITAN HOSPITAL BY CONTACTING AARON PICHE, MANAGER OF ENGINEERING SERVICES, AT AARON.PICHE@MULTICARE.ORG AND HEIDI ROCK AT HEIDI.ROCK@MULTICARE.ORG WITH THE PROPOSED IMPACTS AND SIGN DISPLACEMENT DURATION AT LEAST 48 HOURS IN ADVANCE OF JOB START. NO EMERGENCY SERVICE VEHICLE TRAVEL ROUTES SHALL BE BLOCKED OR REROUTED.
- 36. EXISTING CURB TO REMAIN
- 37. RESTORE GRAVEL SURFACE.
- 38. PROPOSED TRANSFORMER.
- 39. PROPOSED MOUNTABLE CURB ISLAND. REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.

UTILITY CONFLICT NOTE:

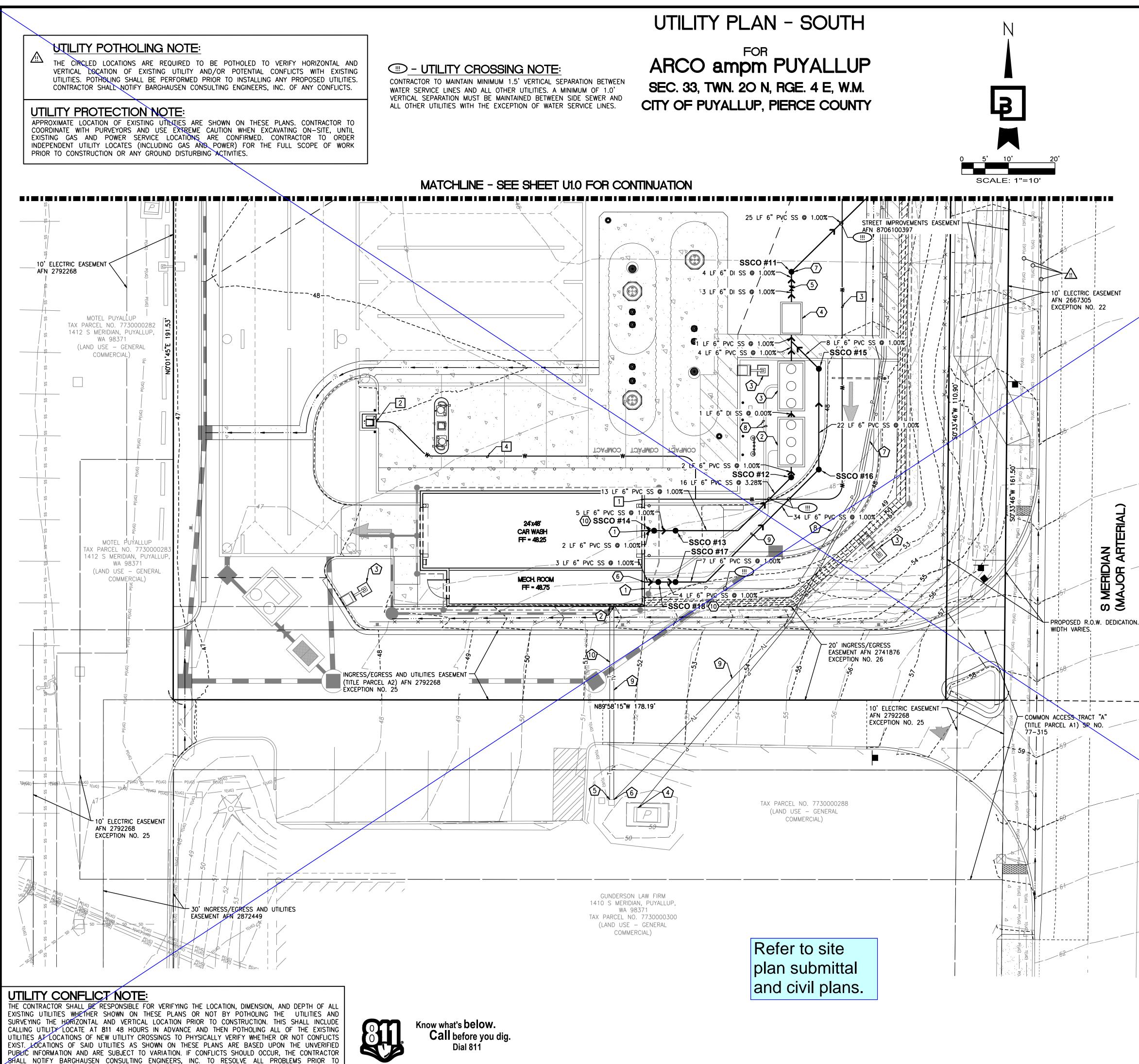
THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HOBIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR T PROCEEDING WITH CONSTRUCTION.

- 40. PROPOSED 12"X18" "NO PARKING FIRE LANE" SIGN (TYP. OF 8).
- 42. PROPOSED "RIGHT TURN ONLY" SIGN.
- 43. PROPOSED CONCRETE SWALE. REFER TO SEPARATE CIVIL CONSTRUCTION
- 44. PROPOSED FIRE HYDRANT. REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- 45. PROPOSED STORMWATER DETENTION VAULT AND OIL/WATER SEPARATOR. REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- 48. PROPOSED UNDER CANOPY OIL/WATER SEPARATOR. SEE SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.
- CONSTRUCTION PERMIT PRCCP20231423.
- 50. PROPOSED SU-30 SINGLE UNIT TRUCK PATH. REFER TO CROSS SECTION OF VEHICLE ON THIS SHEET





	(#) - SEWER NOTES:	
SANITARY SEWER STRUCTURES	1. APPROXIMATE LOCATION OF SEWER CONNECTION TO EXISTING SEWER LINE PER CITY OF PUYALLUP STANDARD	
TABLE SSCB #1, TYPE 1 W/STANDARD GRATE	DETAIL 04.02.01 – SEWER MAIN TAP. SEE DETAIL $4/U2.2$. IE = 40.81	
RIM=48.93 IE=47.33 (6" OUT S)	2. PROPOSED 1,000 GALLON GREASE INTERCEPTOR. SEE CITY OF PUYALLUP STANDARD DETAIL 4.06.01. DETAIL 3/U2.3. RIM = ±49.46	
SSCB #2, TYPE 1 W/STANDARD GRATE RIM=48.08	IE = 45.93 (6" N) IE = 45.76 (6" S)	
IE=44.58 (6" OUT E) SSCO #1, W/SOLID LOCKING TRAFFIC RATED LID	 APPROXIMATE LOCATION OF SEWER CONNECTION TO BUILDING. SEE PLUMBING PLANS FOR CONTINUATION. CONFIRM EXACT LOCATION WITH PLUMBING PLANS. IE = 46.10 (6" S) 	
RIM=49.11 IE=45.68 (6" IN N) IE=45.68 (6" IN NW) IE=45.68 (6" OUT S)	4. PROPOSED OIL/WATER SEPARATOR PER OLDCASTLE 660-CPS. SEE DETAIL 1/U2.0. RIM = ±48.60	
SSCO #2, W/SOLID LOCKING TRAFFIC RATED LID RIM=49.24	IE = 42.70 (6" W) $IE = 42.70 (6" E)$	ARCO
IE = 45.74 (6" IN N) IE = 45.74 (6" IN NW) IE = 45.74 (6" OUT SE)	5. PROPOSED 6" GATE VALVE (MJ) IN TRAFFIC RATED VALVE BOX.	BP WEST COAST PRODUCTS, LLC
SSCO #3, W/SOLID LOCKING ADA COMPLIANT LID	6. 2 – 3" GREASE INTERCEPTOR VENT LINES. REFER TO MEP PLANS FOR MORE DETAIL.	
RIM=49.56 IE=46.04 (6" JN N) IE=46.04 (6" OUT S)	7. PROPOSED SAMPLING BOX. SEE DETAIL $4/U2.3$ RIM = ± 49.36 IE = 45.74 (6" N)	
SSCO #4, W/SOLID LOCKING ADA COMPLIANT LID RIM=49.58	IE = 45.74 (6" S) 8. APPROXIMATE LOCATION OF SEWER CONNECTION TO	
IE=46.08 (6" IN N) IE=46.08 (6" OUT S) SSCO #5, W/SOLID LOCKING	EXISTING SEWER LINE PER CITY OF PUYALLUP STANDARD DETAIL 04.02.01 – SEWER MAIN TAP. SEE DETAIL 4/U2.2. IE = 40.83	Barghausen Consulting Engineers, Inc.
ADA COMPLIANT LID RIM=49.56 IE=46.05 (6" IN N) IE=46.05 (6" OUT S)	10. SANITARY SEWER CATCH BASIN TYPE I PER CITY OF PUYALLUP STANDARD DETAIL 02.01.03. REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423.	18215 72nd Avenue South Kent, WA 98032
SSCO #6, W/SOLID LOCKING ADA COMPLIANT LID	11. SAMPLING TEE PER CITY OF PUYALLUP STANDARD DETAIL 04.03.04. SEE DETAIL 5/U2.3.	425.251.6222 barghausen.com
RIM=49.59 IE=46.08 (6" IN N) IE=46.08 (6" OUT S)	— WATER NOTES:	NO. DATE REVISION DESCRIPTION
SSCO #7, W/SOLID LOCKING TRAFFIC RATED LID RIM=48.49	 PROPOSED DOMESTIC 1-1/2" WATER METER PER CITY OF PUYALLUP STANDARD DETAILS 03.03.02. SEE DETAIL 2/U2.2. 	
IE=46.99 (6" IN NW) IE=46.99 (6" OUT E)	2. PROPOSED 1–1/2" RPBA PER CITY OF PUYALLUP STANDARD DETAIL 03.04.02. SEE DETAIL 3/U2.2. RPBA	
SSCO #8, W/SOLID LOCKING TRAFFIC RATED LID RIM=48.46	IS TO BE ELECTRICALLY HEATED FOR FREEZE PROTECTION.	
IE=42.50 (6" IN S) -SANITARY EMENT SSCO #9, W/SOLID LOCKING	 PROPOSED IRRIGATION 1" WATER METER PER CITY OF PUYALLUP STANDARD DETAILS 03.03.01-2. SEE DETAIL 1/U2.3. 	7 8 9
0 TRAFFIC RATED LID RIM=48.41 IE=42.64 (6" IN W)	 PROPOSED 1" DCVA PER CITY OF PUYALLUP STANDARD DETAIL 03.04.01. SEE DETAIL 2/U2.3. 	
IE=42.64 (6" OUT NE) SSCO #10, W/SOLID LOCKING TRAFFIC RATED LID RIM=48.60	5. WATER SUPPLY CONNECTION TO PROPOSED BUILDING. SEE PLUMBING PLANS FOR CONTINUATION. CONTRACTOR TO VERIFY EXACT POINT OF CONNECTION WITH	12 SEAL:
IE=43.13 (6" IN SW) IE=43.13 (6" OUT N)	PLUMBING PLANS. 6. PROPOSED CAR WASH 1–1/2" WATER METER PER CITY OF PUYALLUP STANDARD DETAIL 03.03.02. SEE DETAIL	ALEX WHITE OF WASHING
WATER-SANITARY	2/U2.2. 7. 34 LF – 1–1/2" AMERICAN, TYPE K COPPER, RIGID, SEAMLESS PIPE, CONFORMING TO ASTM B88.	21036777 PC G/STERED
N EASEMENT 040384 NO. 32	8. 183 LF – 1–1/2" AMERICAN, TYPE K COPPER, RIGID, SEAMLESS PIPE, CONFORMING TO ASTM B88.	2/9/24
	 9. PROPOSED FIRE HYDRANT ASSEMBLY PER CITY OF PUYALLUP STANDARD DETAIL 03.05.02. SEE DETAIL 	
GV PELINE EASEMENT 001111 NO. 29 W 0.85'	2/U2.0. 1 - 8"x6" TEE (FL×MG) 1 - 6" AUXILIARY GATE VALVE (FL×MJ)	
	5 LF – 6" CL 52 DUCTILE IRON PIPE (MJ) CONCRETE TEE THRUST BLOCK PER CITY OF PUYALLUP STANDARD DETAIL 03.02.01. SEE DETAIL 3/U2.0	
	STANDARD DETAL 05.02.01. SEE DETAL 57.02.0	DEVELOPMENT INFORMATION: ARCO NTI
R.O.W. DEDICATION.		3400 am/pm FUEL CANOPY w/ 6 MPD's
NES.	Refer to site	FUEL CANOF T W/ 0 WFDS
	plan submittal and civil plans.	SITE ADDRESS:
ELECTRIC EASEMENT N 2667305 CEPTION NO. 22		1402 S. MERIDIAN @ HIGHWAY 512 PUYALLUP, WASHINGTON
		FACILITY #TBD
		DESIGNED BY: JDF ALLIANCE Z&DM: CHECKED BY: AW BP REPM:
		DRAWN BY: JDF ALLIANCE PM: VERSION: PROJECT NO:
		UTILITY PLAN - NORTH
		SHEET NO:
ON THESE PLANS. CONTRACTOR TO WHEN EXCAVATING ON-SITE, UNTIL ONFIRMED. CONTRACTOR TO ORDER		U1.0



PROCEEDING WITH CONSTRUCTION.

SANITARY SEWER STRUCTURES TABLE SSCO #11, W/SOLID LOCKING TRAFFIC RATED LID RIM=48.41 IE=43.39 (6" IN S) IE=43.39 (6" OUT NE) SSCO #12, W/SOLID LOCKING LID RIM=48.47 IE = 44.02 (6" IN SW) IE = 44.02 (6" OUT N) SSCO #13, W/TRAFFIC RATED SOLID LOCKING LID RIM=48.12 IE=44.68 (6" IN W) IE=44.68 (6" OUT E) SSCO #14, W/SOLID LOCKING TRAFFIC RATED LID RIM=48.21 IE=44.73 (6" IN W) IE=44.73 (6" OUT E) SSCO #15, W/SOLID LOCKING LID RIM=48.52 IE=44.06 (6" IN S) IE=44.06 (6" OUT NW) SSCO #16, W/SOLID LOCKING TRAFFIC RATED LID RIM=47,91 IE=44.28 (6" IN SW) E=44.28 (6" OUT N) SSCO #17, W/SOLID LOCKING LID RIM=48.76 IE = 44.68 (6" IN W)

SSCO #18, W/SOLID LOCKING LID RIM=48.67 IE=44.72 (6" IN W) IE=44.72 (6" OUT E)

IE=44.68 (6" OUT E)

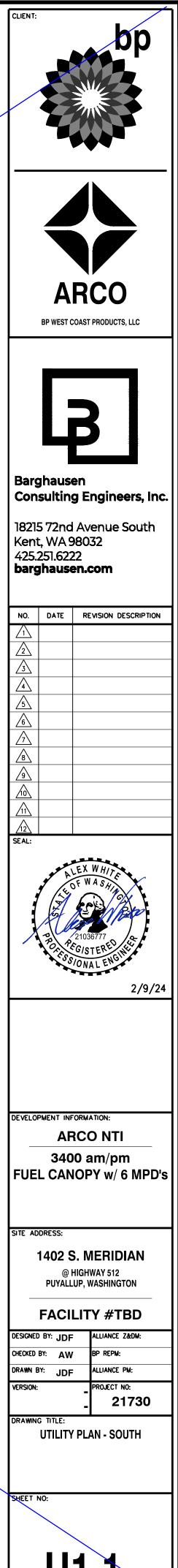
- $\langle \# \rangle$ SEWER NOTES: APPROXIMATE LOCATION OF SANITARY SEWER TO CAR WASH. SEE PLUMBING PLANS FOR CONTINUATION. CONFIRM EXACT LOCATION WITH PLUMBING PLANS. IE = 44.75 (6" E)RECLAIM TANK #1, SEE DETAIL 1/U2.1 FOR RECLAIM TANK OLD CASTLE PRECAST 1,500 GAL RECLAIM TANK RIM = 48.04INLET IE = 44.00 (6° S) OUTLET IE = 44.00 (6" N) RECLAIM TANK #2, SEE DETAIL 2/U2.1 FOR RECLAIM TANK OLD CASTLE PRECAST 1,500 GAL RECLAIM TANK RIM = 48.11INLET IE = 44.00 (6° S) OUTLET IE = 44.00 (6" N) OLD CASTLE OIL/WATER 577-SA SEPARATOR SEE DETAIL 1/U2.2. RIM = 48.25 INLET IE = 43.96 (6" S)OUTLET IE = 43.46 (6" N) PROPOSED 6" GATE VALVE (MJ) (TYP.) IN TRAFFIC RATED VALVE BOX. APPROXIMATE LOCATION OF SANITARY SEWER TO CAR WASH. SEE PLUMBING PLANS FOR CONTINUATION. CONFIRM EXACT LOCATION WITH PLUMBING PLANS. IE = 44.75 (6" E)7. PROVIDE ADAPTOR FOR PIPE MATERIAL CHANGE. 8. 2-2" SCHD-80 PVC RECLAIM LINES FROM RECLAIM TANK #2 BACK TO PROPOSED CAR WASH. 9. 1-1" SCHD-80 PVC OZONE SENSOR CONDUIT LINE FROM RECLAIM TANK #1 BACK TO PROPOSED CAR WASH. 10. SAMPLING TEE PER CITY OF PUYALLUP STANDARD DETAIL 425.251.6222 04.03.04. SEE DETAIL 5/U2.3 I → WATER NOTES: WATER SUPPLY CONNECTION TO PROPOSED CAR WASH. SEE PLUMBING PLANS FOR CONTINUATION. CONTRACTOR TO VERIFY EXACT POINT OF CONNECTION WITH PLUMBING PLANS. 2. WATER SUPPLY CONNECTION TO PROPOSED AIR/WATER UNIT. SEE PLUMBING PLANS FOR CONTINUATION. CONTRACTOR TO VERIFY EXACT POINT OF CONNECTION WITH PLUMBING PLANS. 3. 183 LF - 1-1/2" AMERICAN, TYPE K COPPER, RIGID, SEAMLESS PIPE, CONFORMING TO ASTM B88. 4. 80 LF - 1/2" AMERICAN, TYPE K COPPER, RIGID, SEAMLESS PIPE, CONFORMING TO ASTM B88. 1. APPROXIMATE LOCATION OF POWER CONNECTION TO CAR WASH. SEE ELECTRICAL PLANS FOR FINAL LOCATION ON MAIN SWITCH BOARD. CONTRACTOR TO COORDINATE INSTALLATION WITH PURVEYOR. APPROXIMATE LOCATION OF TELEPHONE AND CABLE 2. CONNECTION TO CAR WASH. CONTRACTOR TO COORDINATE INSTALLATION WITH PURVEYOR. PROPOSED LOT LIGHT (TYP. OF 6). CONTRACTOR TO COORDINATE CONDUIT REQUIREMENTS WITH ELECTRICAL PLANS. REFER TO SEPARATE CIVIL CONSTRUCTION PERMIT PRCCP20231423. 4. PROPOSED POWER LINE CONNECTION TO EXISTING POWER VAULT. CONTRACTOR TO COORDINATE CONNECTION WITH PURVEYOR.
 - 5. PROPOSED TELEPHONE LINE CONNECTION TO EXISTING TELEPHONE RISER. CONTRACTOR TO COORDINATE CONNECTION WITH PURVEYOR.
 - 6. PROPOSED CABLE LINE CONNECTION TO EXISTING TELEPHONE RISER. CONTRACTOR TO COORDINATE CONNECTION WITH PURVEYOR.
 - 7. PROPOSED POWER LINE TO PROPOSED TRANSFORMER.
 - 8. PROPOSED POWER LINE TO CAR WASH.
 - 9. PROPOSED CABLE LINE.
 - 10. PROPOSED TELEPHONE LINE.

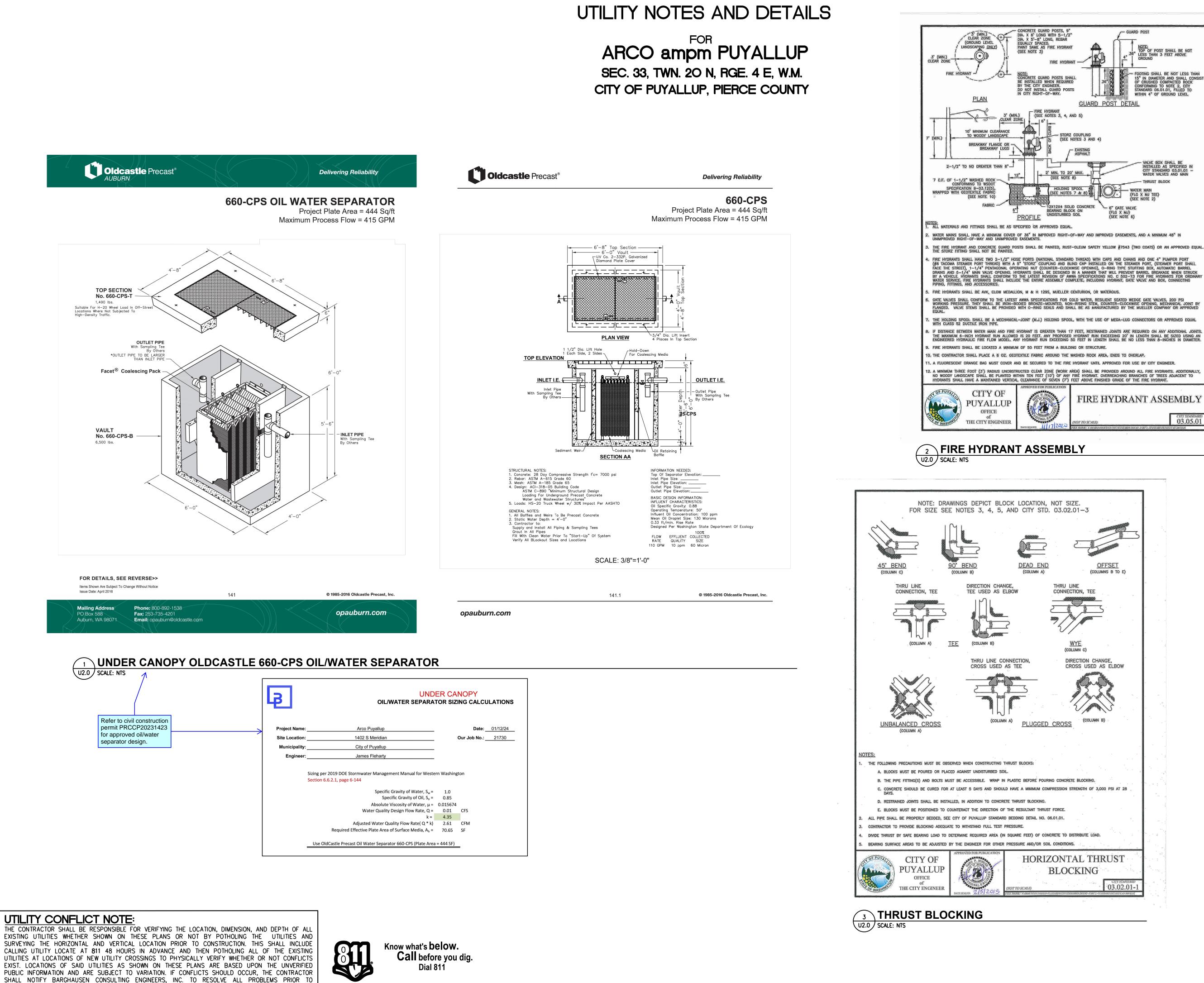
PIPE MATERIALS AND COVER:

CONTRACTOR SHALL USE PIPE/FITTING MATERIALS IN ACCORDANCE WITH CITY OF PUYALLUP REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.

PVC PIPE SHALL BE SDR-35 WITH 3.0' MIN COVER WHERE SUBJECT TO VEHICULAR LOADING SHALL.

ALL DUCTILE IRON RIPE WITH 1.0' MIN COVER SHALL BE CLASS 52.





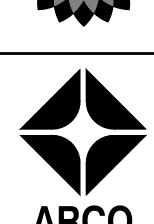
PROCEEDING WITH CONSTRUCTION.

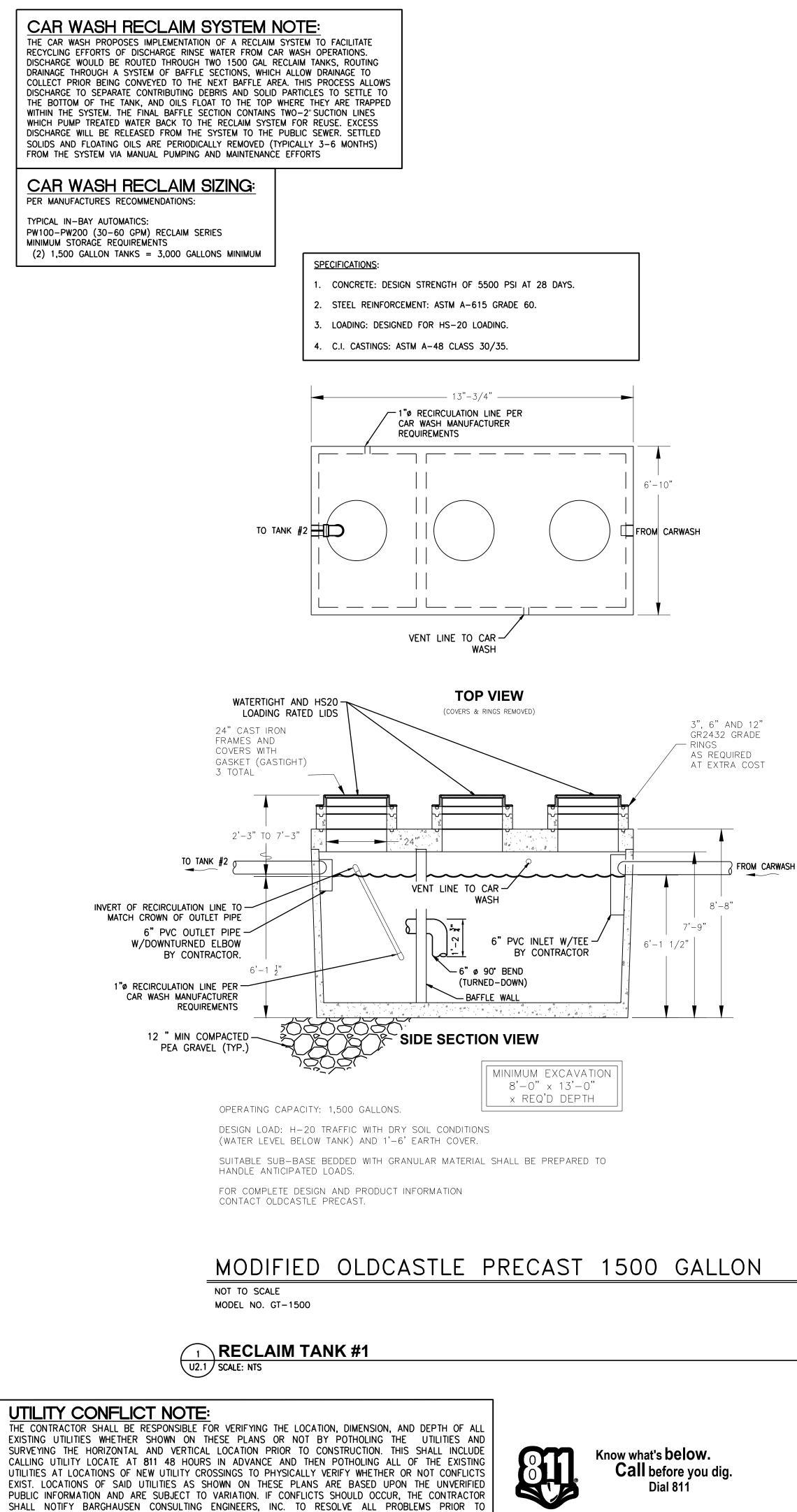
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Barghausen Consulting Engineers, Inc. 18215 72nd Avenue South Kent, WA 98032 425.251.6222 barghausen.com NO. DATE REVISION DESCRIPTION Λ 2/9/2 DEVELOPMENT INFORMATION: ARCO NTI 3400 am/pm FUEL CANOPY w/ 6 MPD's SITE ADDRESS: 1402 S. MERIDIAN @ HIGHWAY 512 PUYALLUP, WASHINGTON FACILITY #TBD DESIGNED BY: JDF LLIANCE Z&DM: CHECKED BY: AW IP REPM: LLIANCE PM: DRAWN BY: JDF ROJECT NO: VERSION 21730 DRAWING TITLE: UTILITY NOTES AND DETAILS SHEET NO







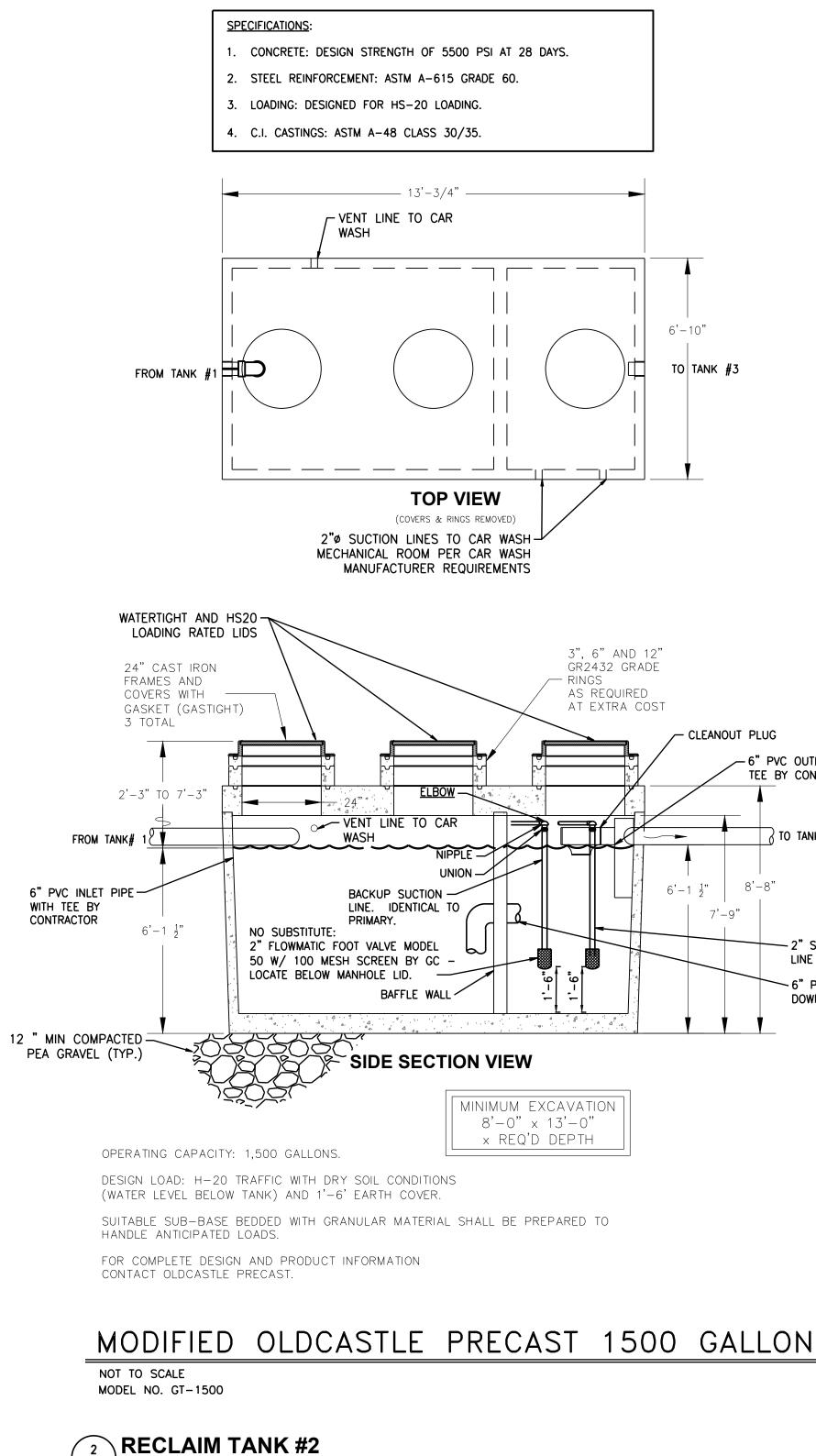


PROCEEDING WITH CONSTRUCTION.

UTILITY DETAILS

ARCO ampm PUYALLUP SEC. 33, TWN. 20 N, RGE. 4 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY

U2.1 SCALE: NTS



- 6" PVC OUTLET PIPE WITH TEE BY CONTRACTOR.

TO TANK# 3

- 2" SUCTION LINE

-6" PVC W/ DOWNTURNED ELBOW

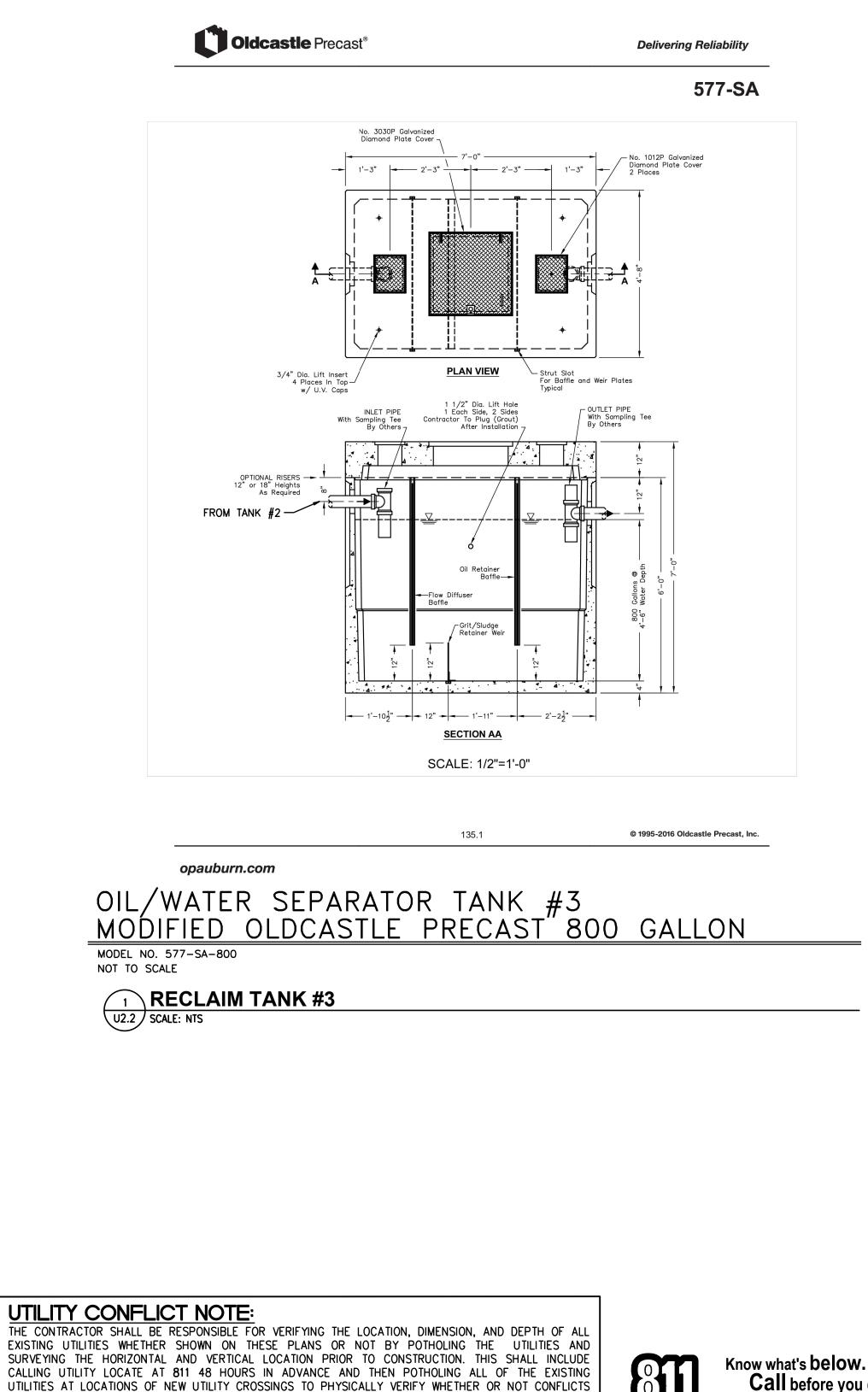
ARCO **BP WEST COAST PRODUCTS, LLC** Barghausen **Consulting Engineers, Inc** 18215 72nd Avenue South Kent, WA 98032 425.251.6222 barghausen.com NO. DATE REVISION DESCRIPTION ÷XWH/ 2/9/2 DEVELOPMENT INFORMATION: **ARCO NTI** 3400 am/pm FUEL CANOPY w/ 6 MPD's SITE ADDRESS: 1402 S. MERIDIAN @ HIGHWAY 512 PUYALLUP, WASHINGTON FACILITY #TBD DESIGNED BY: JDF LLIANCE Z&DM: P REPM: CHECKED BY: AW LIANCE PM: DRAWN BY: JDF ROJECT NO: 21730 DRAWING TITLE: UTILITY DETAILS SHEET NO U2.⁻

OIL WATER SEPARATOR SIZING CALCULATIONS THE FOLLOWING ARE CALCUATIONS DEMONSTRATING ADEQUATE SIZE OF THE OIL/WATER SEPARATORS FOR THE CAR WASH.

CAR WASH OIL/WATER SEPARATOR GALLONS OF FRESH WATER USED PER CAR = 18 GALLONS TOTAL CARS WASHED IN 30 MINUTES = 5 TOTAL GALLONS OF FRESH WATER USED PER 30 MINUTES = 90 GALLONS PER TABLE 1014.3.6 OF THE UNIFORM PLUMBING CODE GREASE

INTERCEPTOR VOLUME SHALL BE EQUAL TO THE KNOWN FLOW RATE MULTIPLIED BY 30 MINUTES.

VOLUME PROVIDED BY 577-SA SEPARATOR = 800 GALLONS.



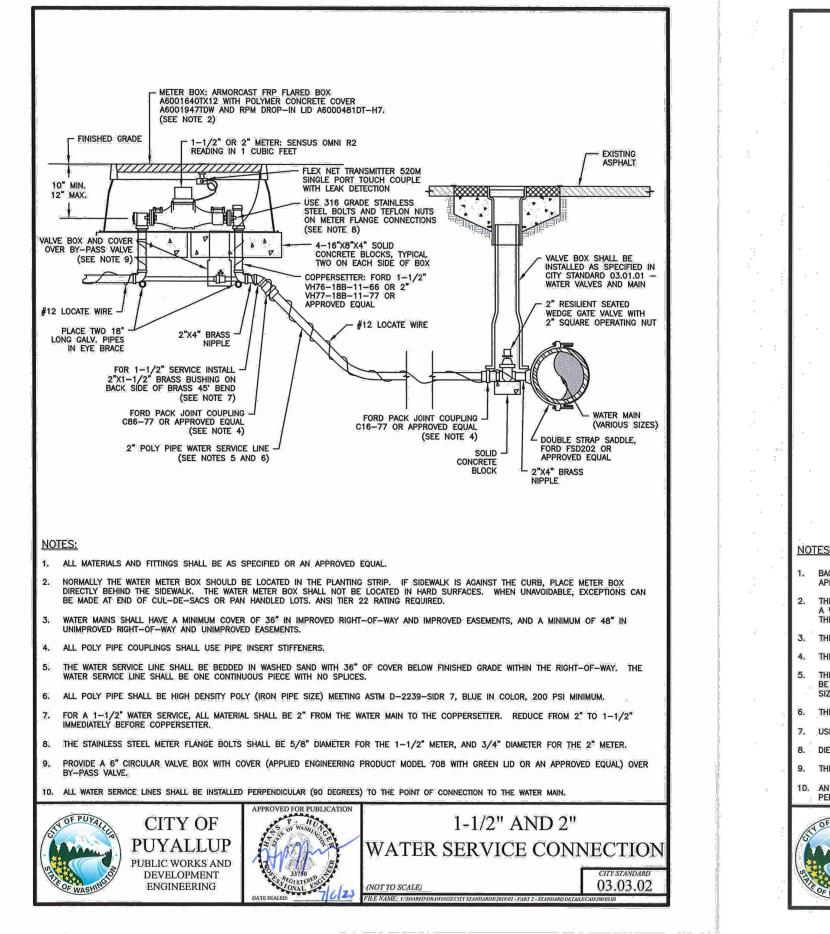
EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED

PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR T

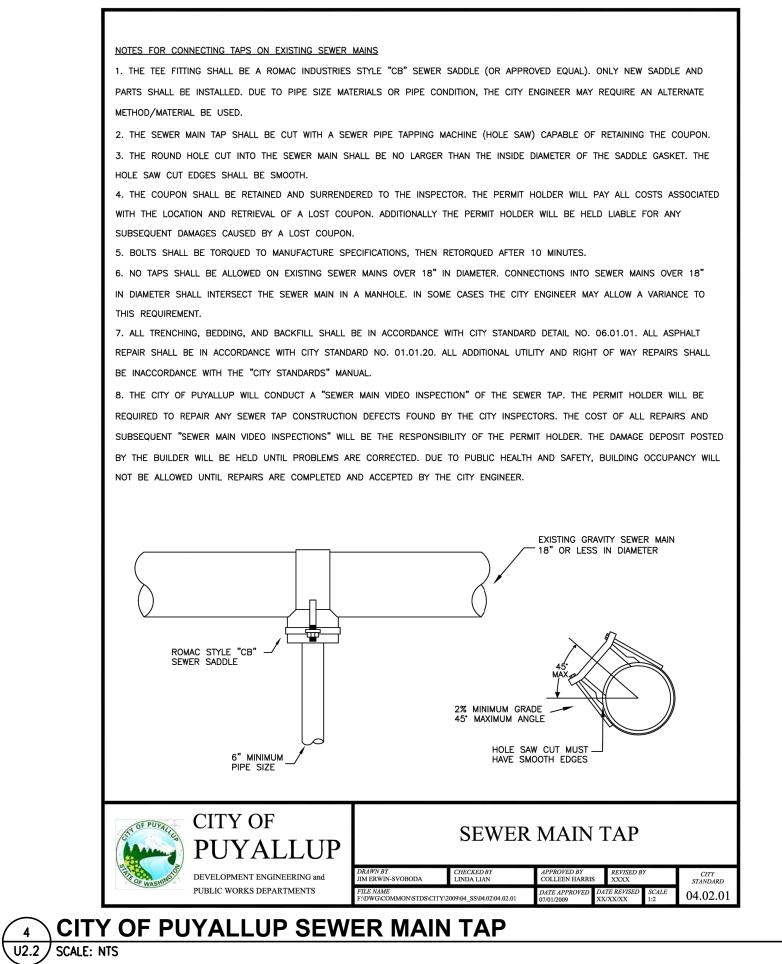
PROCEEDING WITH CONSTRUCTION.

UTILITY DETAILS

ARCO ampm PUYALLUP SEC. 33, TWN. 20 N, RGE. 4 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY



CITY OF PUYALLUP 1-1/2" AND 2" WATER SERVICE CONNECTION U2.2 SCALE: NTS



U2.2 SCALE: NTS

CITY OF

OFFICE

of

(SEE NOTES 7

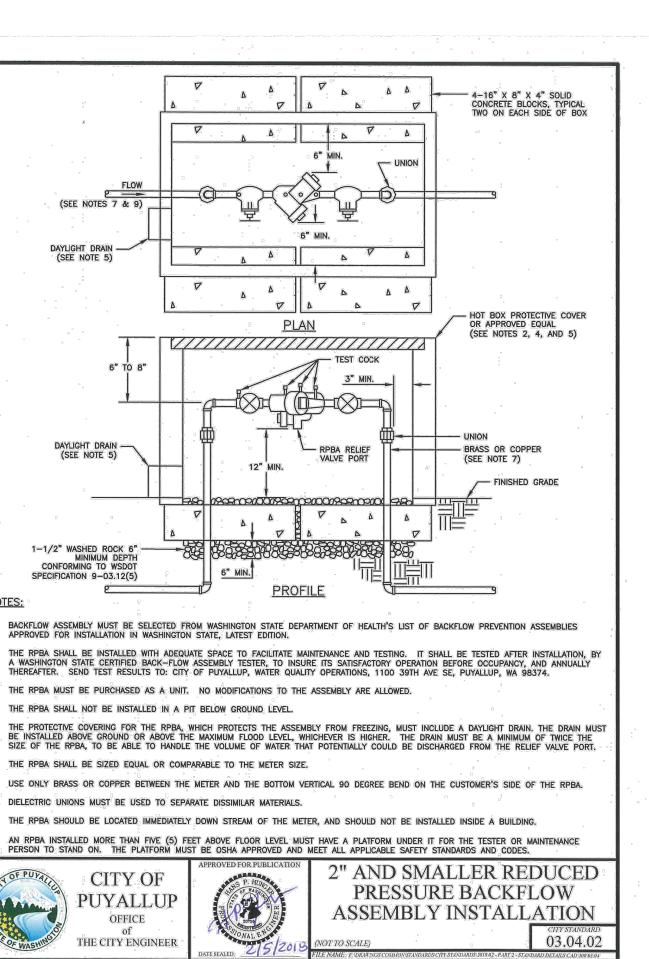
DAYLIGHT DRAIN -(SEE NOTE 5)

1-1/2" WASHED ROCK 6" -MINIMUM DEPTH CONFORMING TO WSDOT

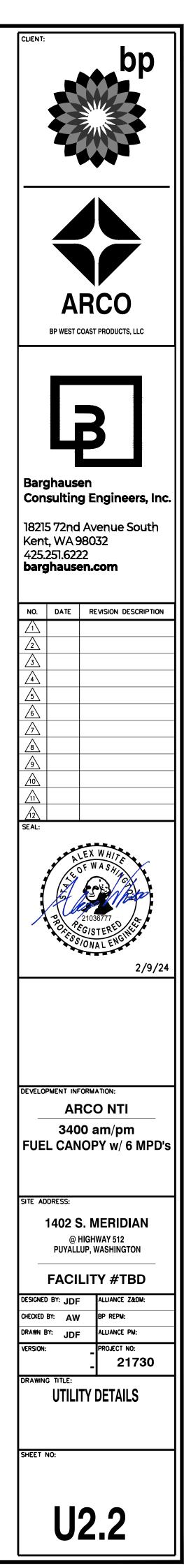
SPECIFICATION 9-03.12(5)

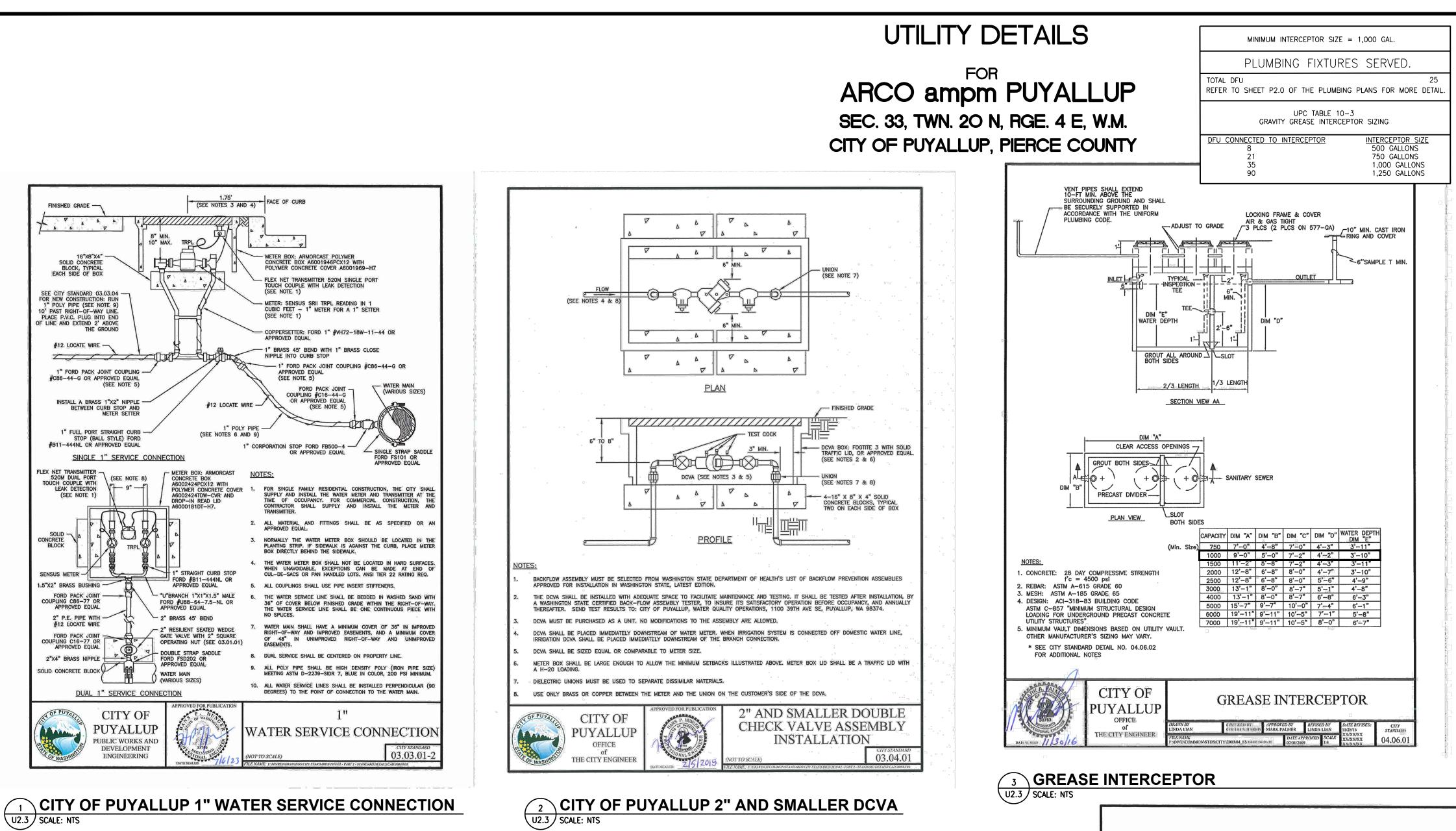
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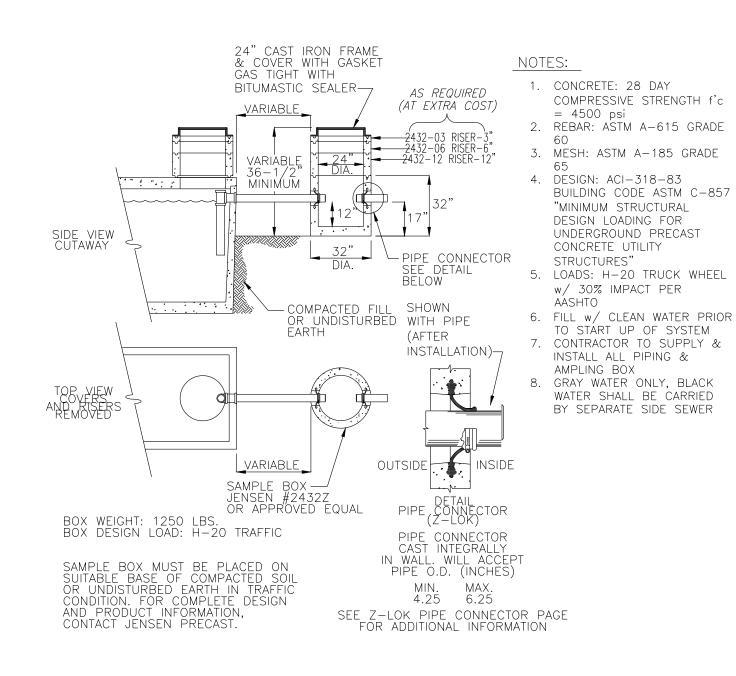
6" TO



✓ 3 CITY OF PUYALLUP 2" AND SMALLER RPBA







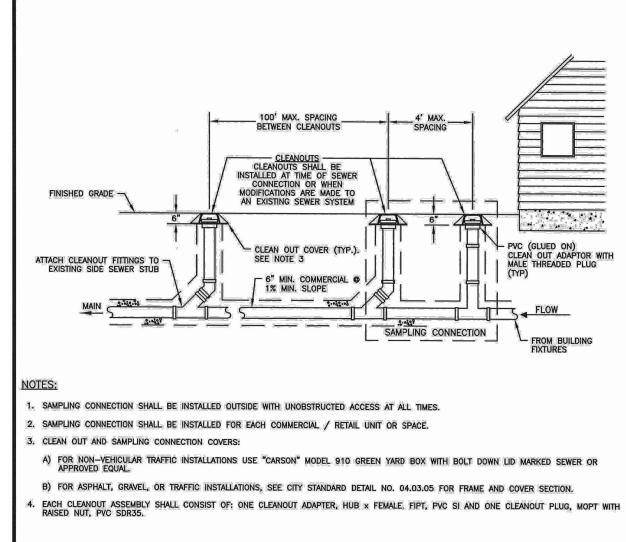
GREASE INTERCEPTOR SAMPLING BOX U2.3 SCALE: NTS

UTILITY CONFLICT NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.



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





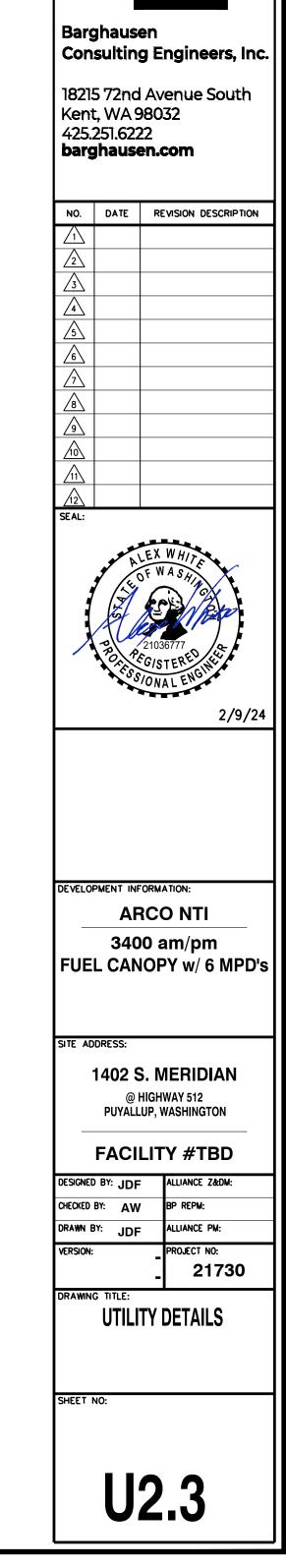
SAMPLING TEE CONNECTION U2.3 SCALE: NTS

NO	TES FOR GREASE INTERCEPTORS:
1.	THE PLANS & SPECIFICATIONS SHALL ILLUSTRATE PROPERTY BOUNDARIES, PIPING/DRAINAGE DETAILS AND CONNECTIONS TO THE SANITARY SEWER. DETAIL AND ELEVATION DRAWINGS OF THE GREASE INTERCEPTOR SHALL INCLUDE SIZING CALCULATIONS IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE CURRENTLY ADOPTED BY THE CITY OF PUYALLUP.
2.	VENTING OF THE INTERCEPTOR SHALL BE IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE CURRENTLY ADOPTED BY THE CITY OF PUYALLUP.
3.	EFFLUENT FROM GREASE INTERCEPTORS SHALL NOT EXCEED 100 mg/L FAT, OIL, AND/OR GREASE DISCHARGED TO THE DOWNSTREAM SANITARY SEWER SYSTEM.
4.	GREASE INTERCEPTORS INSTALLED IN PAVED AREAS SHALL COMPLY WITH H-20 LOADING CRITERIA.
5.	THE GREASE INTERCEPTOR SHALL BE INSTALLED AND CONNNECTED SUCH THAT IT SHALL BE EASILY ACCESSIBLE FOR INSPECTION, CLEANING, AND REMOVAL AT ALL TIMES. MANHOLE COVERS SHALL BE GAS TIGHT AND HAVE A MINIMUM OPENING OF 24-INCHES IN DIAMETER.
6.	NO SANITARY WASTEWATER SHALL BE CONVEYED TO THE SEPARATOR. A SEPARATE SIDE SEWER SHALL BE REQUIRED TO CARRY SANITARY WASTEWATER TO THE SEWER MAIN AND SHALL BE PLACED AS CLOSE TO THE SERVICE AREA AS PRACTICAL.
7.	PLUMBING/PIPING SHALL BE CONSTRUCTED TO ESTABLISH "PARALLEL FLOW" (90-DEGREES TO THE TANK BAFFLE) THROUGH THE GREASE INTERCEPTOR. NO RADIUS, BEND, OR ELBOW SHALL BE ALLOWED IN THE INLET PIPE UPSTREAM OF THE INTERCEPTOR FOR A MINIMUM OF 10-FEET, OR 20-PIPE DIAMETERS, WHICHEVER IS GREATER.
8.	ANY PUMP MECHANISM SHALL BE INSTALLED DOWNSTREAM OF THE INTERCEPTOR TO PREVENT FAT, OIL AND GREASE EMULSIFICATION. A "TEE" CONNECTION SHALL BE INSTALLED IN THE DISCHARGE PIPING TO PROVIDE FOR SAMPLE COLLECTION
9.	ALL GREASE INTERCEPTORS SHALL BE FILLED WITH CLEAN WATER BEFORE USE.
10.	THE DESIGN ENGINEER SHALL PROVIDE ENGINEERING SERVICES STAFF WITH A LETTER OF INSPECTION CERTIFYING THAT THE INSTALLATION WAS PERFORMED IN ACCORDANCE WITH ALL REGULATIONS AND THE APPROVED PLAN.
11.	FINAL INSPECTION IS REQUIRED BY ENGINEERING SERVICES STAFF PRIOR TO CONNECTING TO THE SANITARY SEWER.
12.	THE PROPERTY OWNER SHALL RETAIN OWNERSHIP OF THE GREASE INTERCEPTOR AND SIDE SEWER LINES AND SHALL BE RESPONSIBLE FOR THEIR OPERATION AND MAINTENANCE. A SERVICE/MAINTENANCE RECORD SHALL BE KEPT ON THE PREMISES AT ALL TIMES AND SHALL BE

THE PROPERTY OWNER SHALL REPORT IMMEDIATELY TO THE CITY'S INDUSTRIAL PRETREATMENT SPECIALIST ANY SPILL, SURCHARGE, BYPASS, OR MECHANICAL FAULT AND/OR FAILURE WHICH INTERRUPTS, OR OTHERWISE REDUCES THE CAPACITY OR REMOVAL EFFICIENCY OF THE GREASE INTERCEPTOR BY CALLING (253) 841-5523.

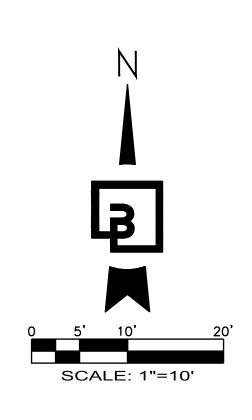
IMMEDIATELY AVAILABLE TO CITY OF PUYALLUP STAFF UPON REQUEST.

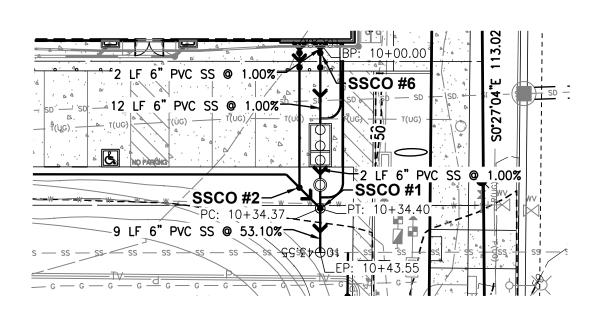
	CITY OF PUYALLUP		GREASI	E INTE (NOTE	*****	TOR	2-24 0
Contraction of the	of THE CITY ENGINEER	DRAWN BY LINDA LIAN	CHECKED BY COLLEIN HARRIS	APPROFED BY MARK PALMER	REVISED BY LINDA LIAN	DATE REFISED: 11/28/16 XX/XX/XX	CITY STANDARD
DATE SPALED 11/30/16		FILE NAME FADWG/COMMON/STDS	CITY/2009.04 SS 04.06.04		PROVED SCALE	XX/XX/XX	04.06.02



ARCO

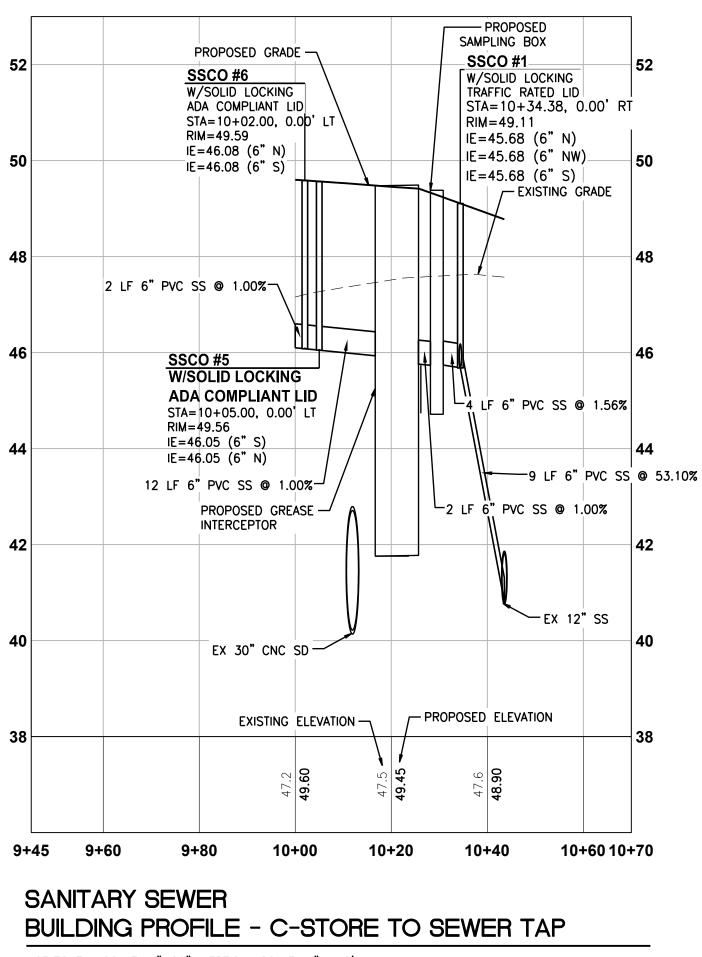
BP WEST COAST PRODUCTS, LLC





SANITARY SEWER BUILDING ALIGNMENT EXHIBIT - C-STORE TO SEWER TAP

HORIZONTAL SCALE: 1"=20'



HORIZONTAL SCALE: 1"=20", VERTICAL SCALE: 1" = 2'

UTILITY CONFLICT NOTE:

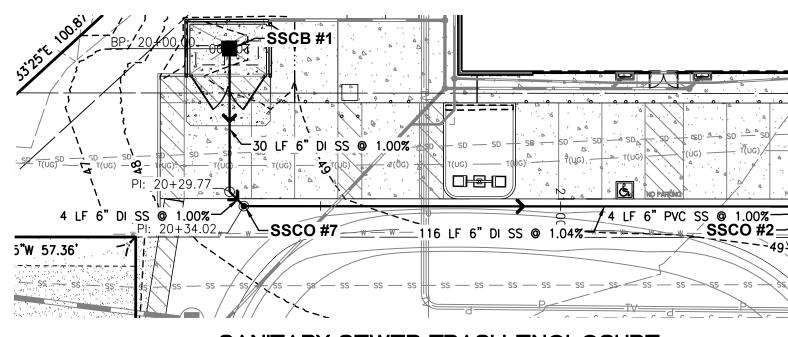
THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.



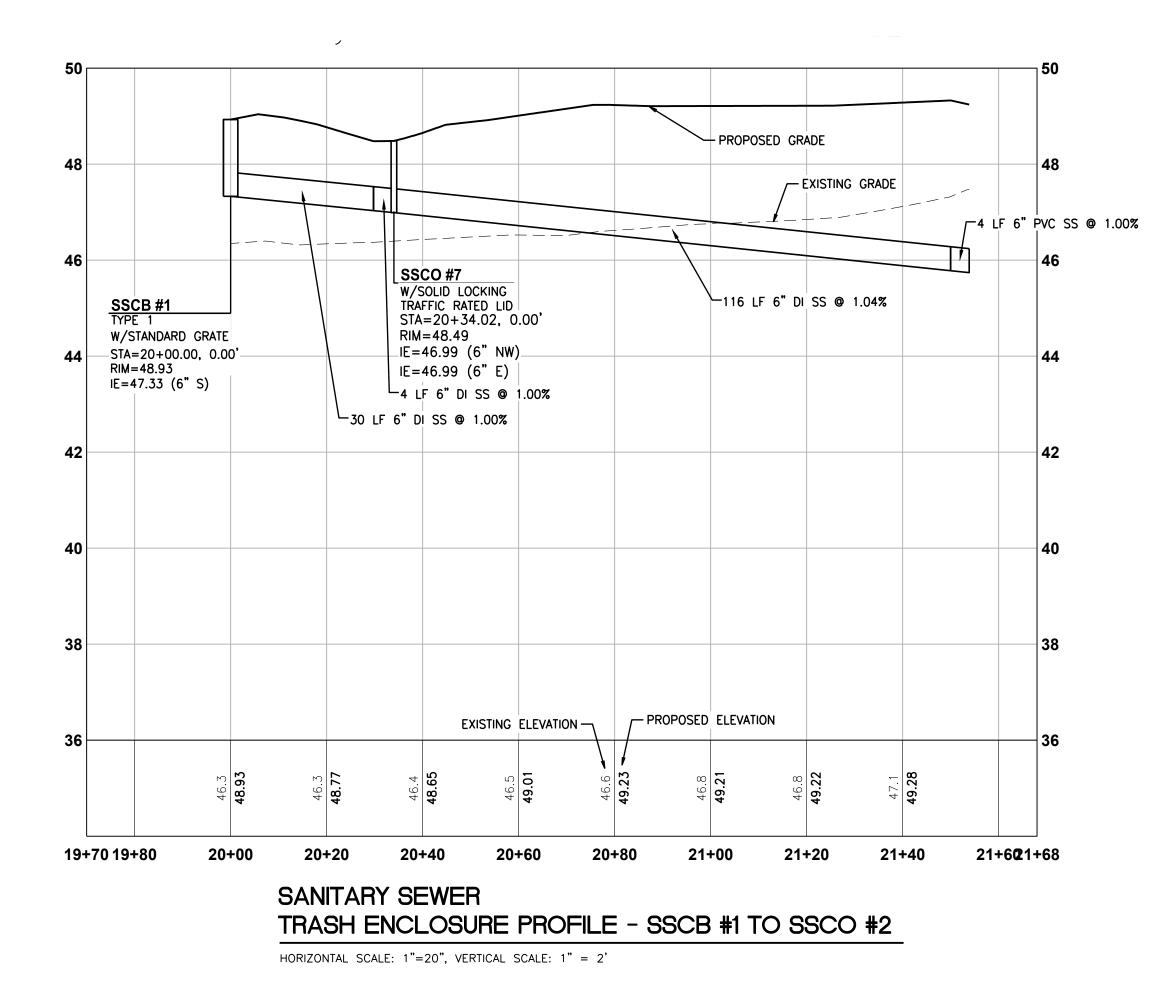
Know what's **below**. Call before you dig. Dial 811

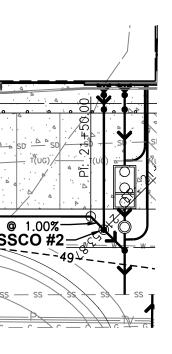
SEWER PROFILE - BUILDING + TRASH ENCLOSURE

ARCO ampm PUYALLUP SEC. 33, TWN. 20 N, RGE. 4 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY

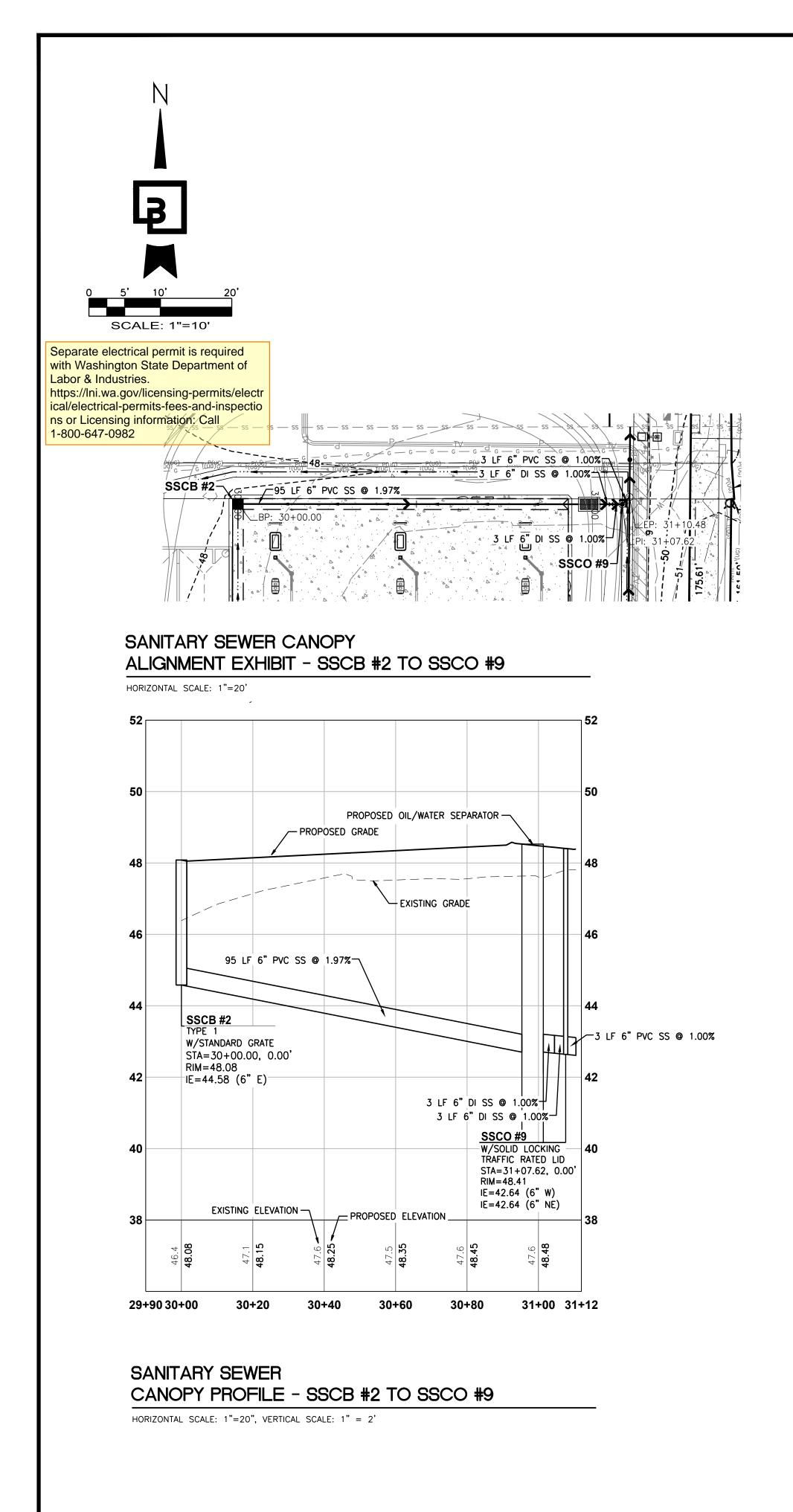


SANITARY SEWER TRASH ENCLOSURE ALIGNMENT EXHIBIT - SSCB #1 TO SSCO #2 HORIZONTAL SCALE: 1"=20'





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UTILITY CONFLICT NOTE:

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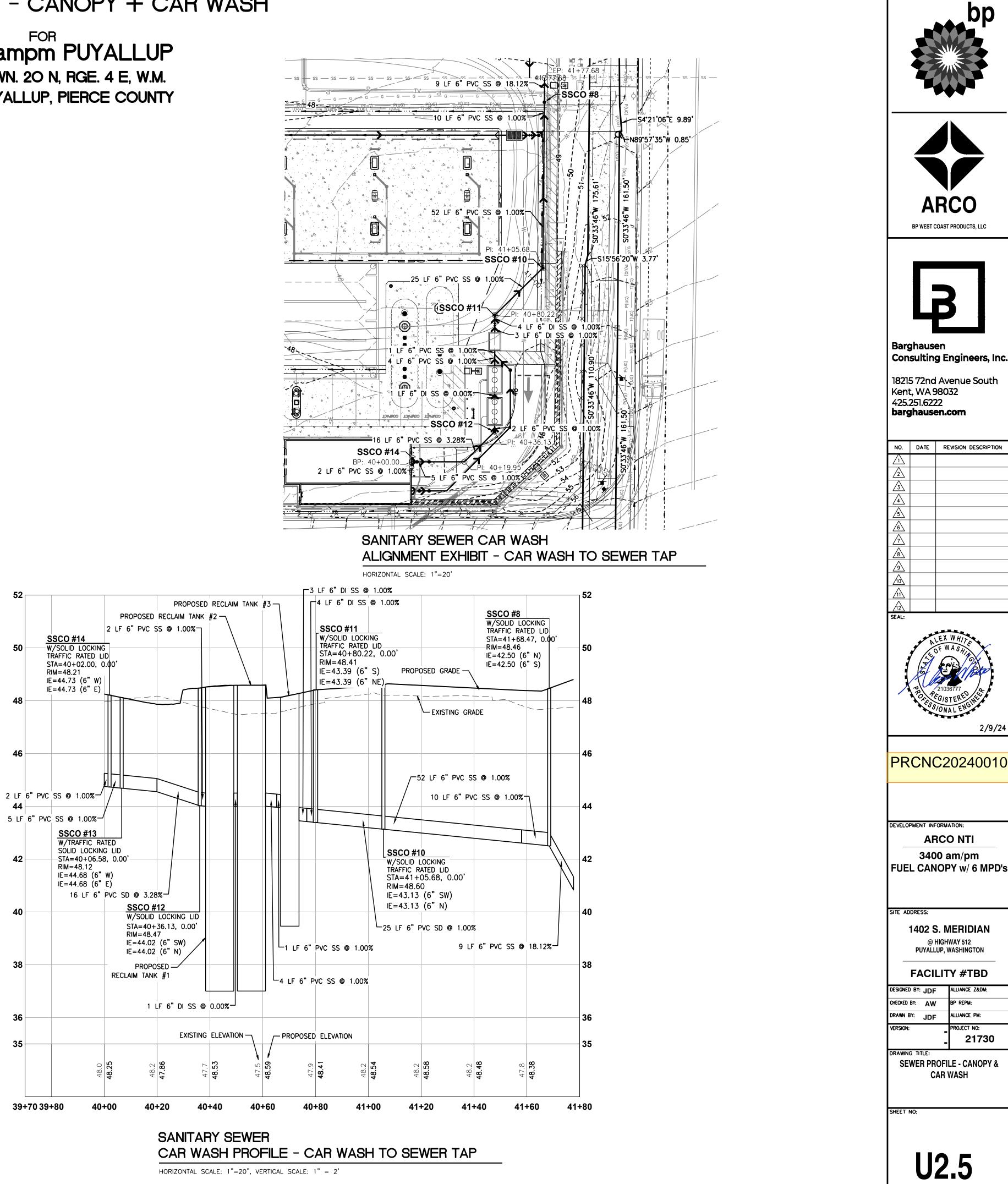
Know what's **below**. Call before you dig. Dial 811

SEWER PROFILE - CANOPY + CAR WASH

ARCO ampm PUYALLUP SEC. 33, TWN. 20 N, RGE. 4 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY

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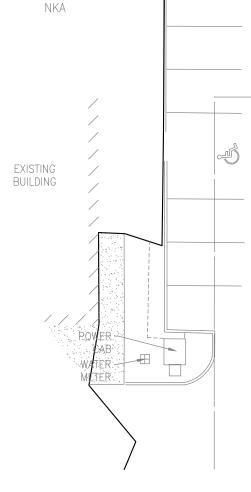
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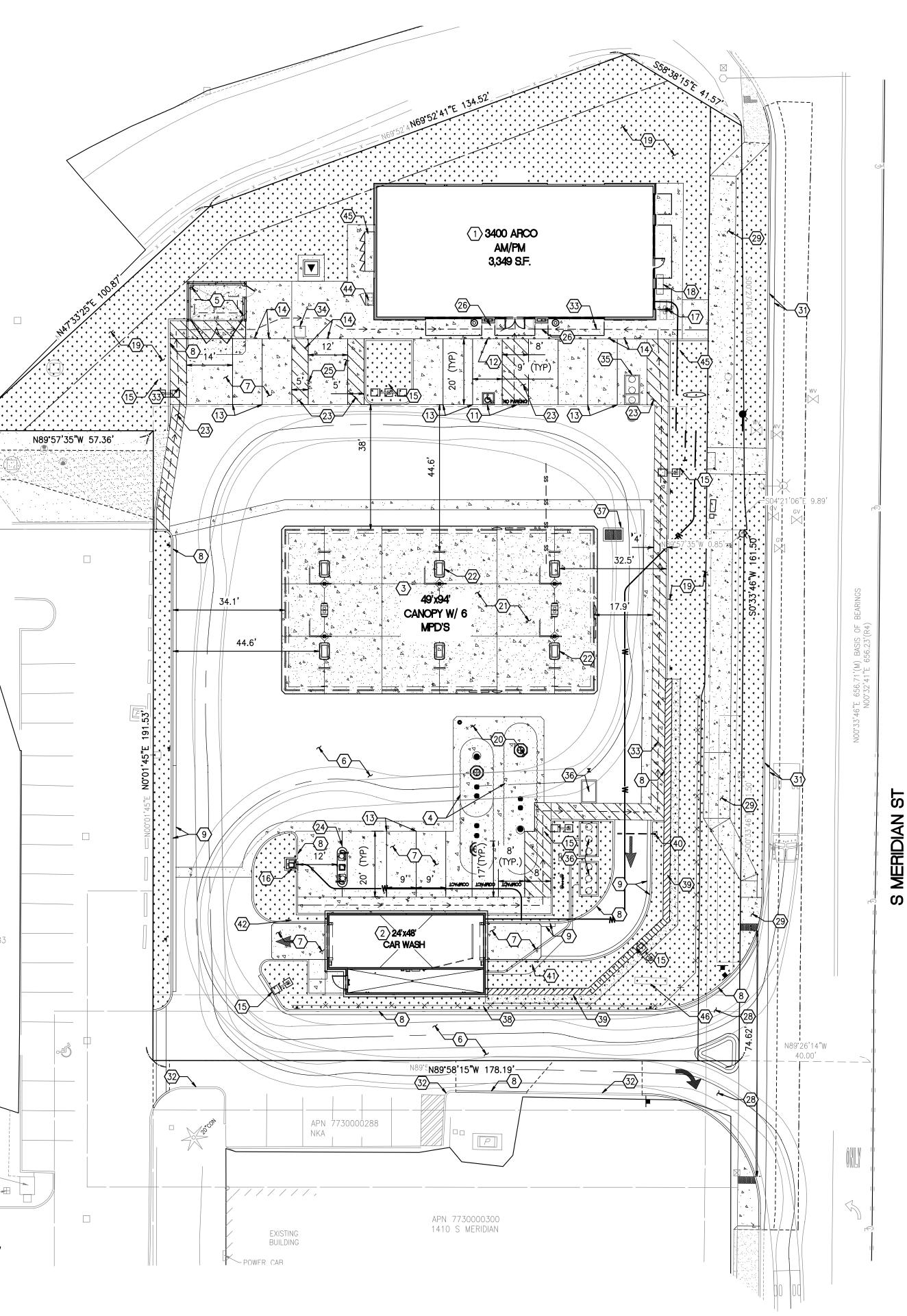
- 1. CONVENIENCE STORE.
- 2. CAR WASH.
- 3. FUEL CANOPY.
- 4. UNDERGROUND STORAGE TANKS. SEE FUEL PLANS FOR DETAILS.
- 5. TRASH ENCLOSURE AND CONCRETE TRASH ENCLOSURE SLAB. TRASH
- ENCLOSURE UNDER SEPARATE PERMIT. 6. ON-SITE ASPHALT PAVEMENT. SEE CIVIL DRAWINGS.
- 7. ON-SITE CONCRETE PAVEMENT. SEE CIVIL DRAWINGS. PROVIDE EXPANSION AND CONTROL JOINTS PER CIVIL DRAWINGS.
- 8. BARRIER CURB. SEE CIVIL DRAWINGS.
- 9. CURB AND GUTTER. SEE CIVIL DRAWINGS.
- 10. CONCRETE SIDEWALK, WIDTH VARIES. SEE CIVIL DRAWINGS.
- 11. ACCESSIBLE PARKING STALL AND AISLE. SEE CIVIL DRAWINGS.
- 12. BOLLARD MOUNTED ACCESSIBLE PARKING STALL SIGNAGE. SEE CIVIL DRAWINGS.
- 13. PARKING STALL WITH 4" WIDE WHITE REFLECTIVE PAINT STRIPE (TYP.). SEE CIVIL DRAWINGS.
- 14. BOLLARD (TYP.). SEE CIVIL DRAWINGS.
- 15. LOT LIGHT. SEE DETAIL ON-SITE PHOTOMETRIC PLANS FOR MORE DETAILS. COORDINATE ALL CONDUIT RUNS, WIRING REQUIREMENTS, LOT LIGHT BASE, ETC. WITH ELECTRICAL PLANS. SEE CIVIL DRAWINGS.
- 16. AIR/WATER UNIT. ARCHITECTURAL PLANS FOR MORE DETAILS.
- 17. BICYCLE STORAGE. SEE CIVIL DRAWINGS.
- 18. SEATING BENCH.
- **19. LANDSCAPING.** SEE LANDSCAPE PLANS.
- 20. CONCRETE TANK FUEL SLAB. SEE FUEL PLANS FOR DESIGN.
- 21. UNDER CANOPY CONCRETE SLAB. SEE ARCHITECTURAL PLANS FOR DETAILS.
- 22. FUEL DISPENSERS WITH HOOP BOLLARDS (TYP.). SEE FUEL PLANS FOR DETAILS.
- 23. PAVEMENT MARKINGS 4" WIDE WHITE PAINTED STRIPES @ 2' 0.C/45" ANGLE. SEE CIVIL DRAWINGS.
- 24. VACUUM UNIT. REFER TO ARCHTIECTURAL CAR WASH DRAWINGS, 01/CWA4.2.
- 25. VAN ACCESSIBLE AND STANDARD EV CHARGING STATION, SEE CIVIL DRAWINGS.
- 26. TRASH RECEPTACLE (TYP).
- 27. CONCRETE DRIVEWAY PER CITY OF PUYALLUP STANDARD DRAWING NO. 01.02.17. CIVIL DRAWINGS.
- 28. CONCRETE DRIVEWAY PER CITY OF PUYALLUP STANDARD DRAWING NO. 01.02.16. CIVIL DRAWINGS. 29. CONCRETE SIDEWALK PER CITY OF PUYALLUP STANDARD DRAWING NO.
- 01.02.01. SEE CIVIL DRAWINGS. 30. TYPE I CURB RAMP PER CITY OF PUYALLUP STANDARD DRAWING NO.
- **01.02.19.** SEE CIVIL DRAWINGS. 31. OFF-SITE CURB AND GUTTER PER CITY OF PUYALLUP STANDARD DRAWING
- NO. 01.02.09. SEE CIVIL DRAWINGS.
- 32. PROTECT EXISTING CURB/CURB AND GUTTER TO REMAIN.
- 33. ACCESSIBLE PATH. REFER TO CIVIL GRADING PLAN FOR SLOPE REQUIREMENTS.
- 34. FREEWIRE EV CHARGING STATION TO BE INSTALLED
- 35. GREASE INTERCEPTOR. REFER TO CIVIL AND PLUMBING DRAWINGS.
- 36. WATER RECLAIM TANKS AND SEPARATOR. REFER TO CAR WASH, PLUMBING AND CIVIL DRAWINGS FOR CONTINUATION
- **37. SAND-OIL-WATER SEPARATOR.** REFER TO CIVIL DRAWINGS.
- 38. VEHICLE GUARD RAIL. REFER TO CIVIL AND STRUCTURAL DRAWINGS.
- **39. RETAINING WALL.** REFER TO CIVIL AND STRUCTURAL DRAWINGS.
- 40. CAR WASH OVERHEAD HEIGHT WARNING BAR. REFER TO ARCHITECTURAL CAR WASH DRAWINGS AND STRUCTURAL DETAILS.
- 41. CAR WASH PAY STATION. REFER TO ARCHITECTURAL CAR WASH DRAWINGS.
- 42. DRYER COUNT DOWN DISPLAY. REFER TO CAR WASH DRAWINGS.
- 43. PROPANE EXCHANGE CAGE
- 44. ELECTRICAL SWITCHGEAR. REFER TO ELECTRICAL DRAWINGS.
- 45. PROPOSED NEW MONUMENT SIGN. PERMITTED SEPARATELY.
- 46. EXISTING POLE SIGN TO BE RESURFACED WITH ARCO/AMPM SIGNAGE. PERMITTED SEPARATELY.

APN 7730000282 1412 S MERIDIAN

APN 7730000283



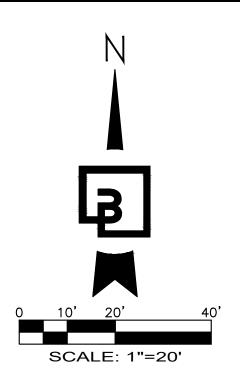




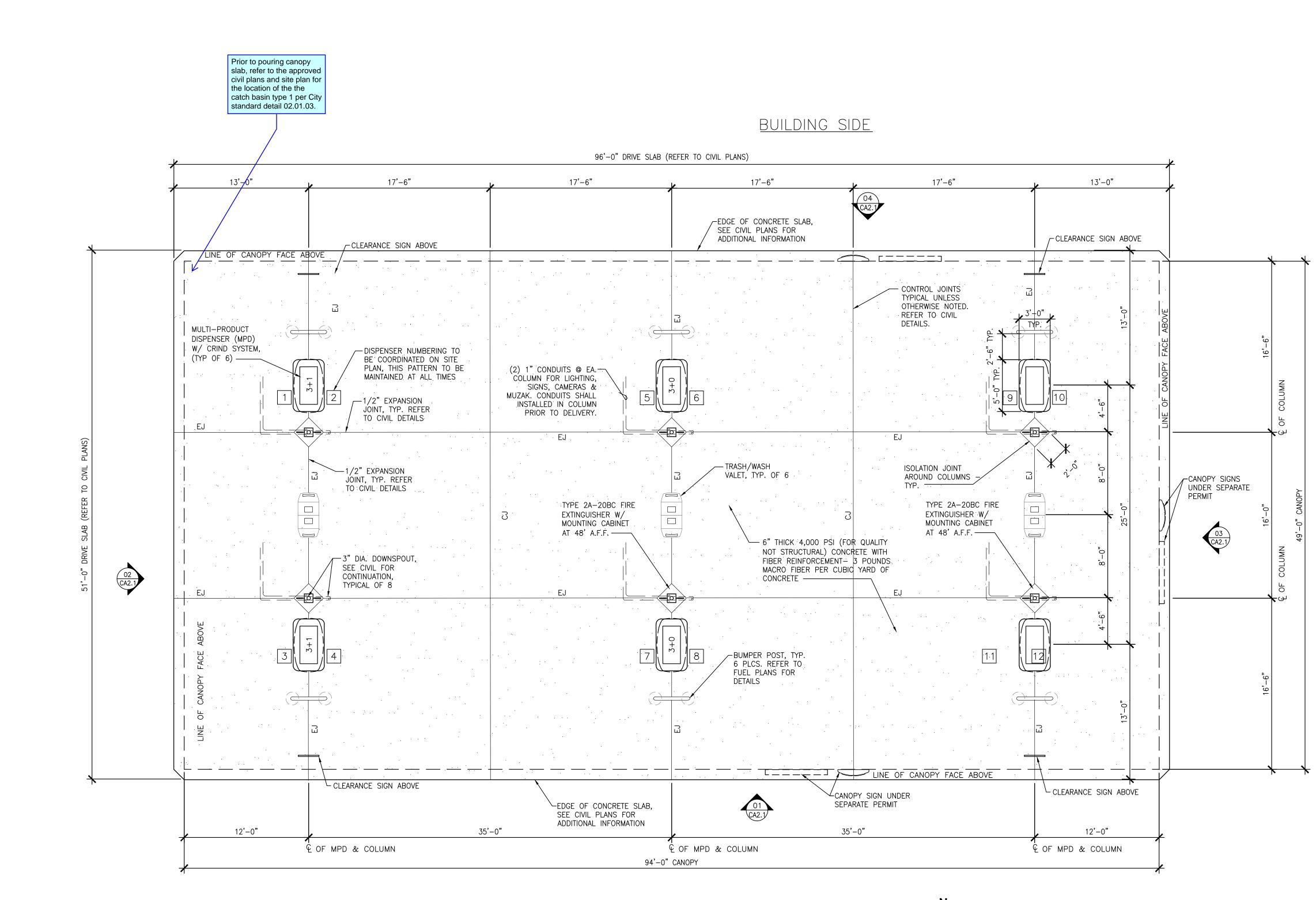
GENERAL NOTES

1. SEE CIVIL FOR ADDITIONAL INFO 2. SEE ELECTRICAL FOR ADDITIONAL INFO

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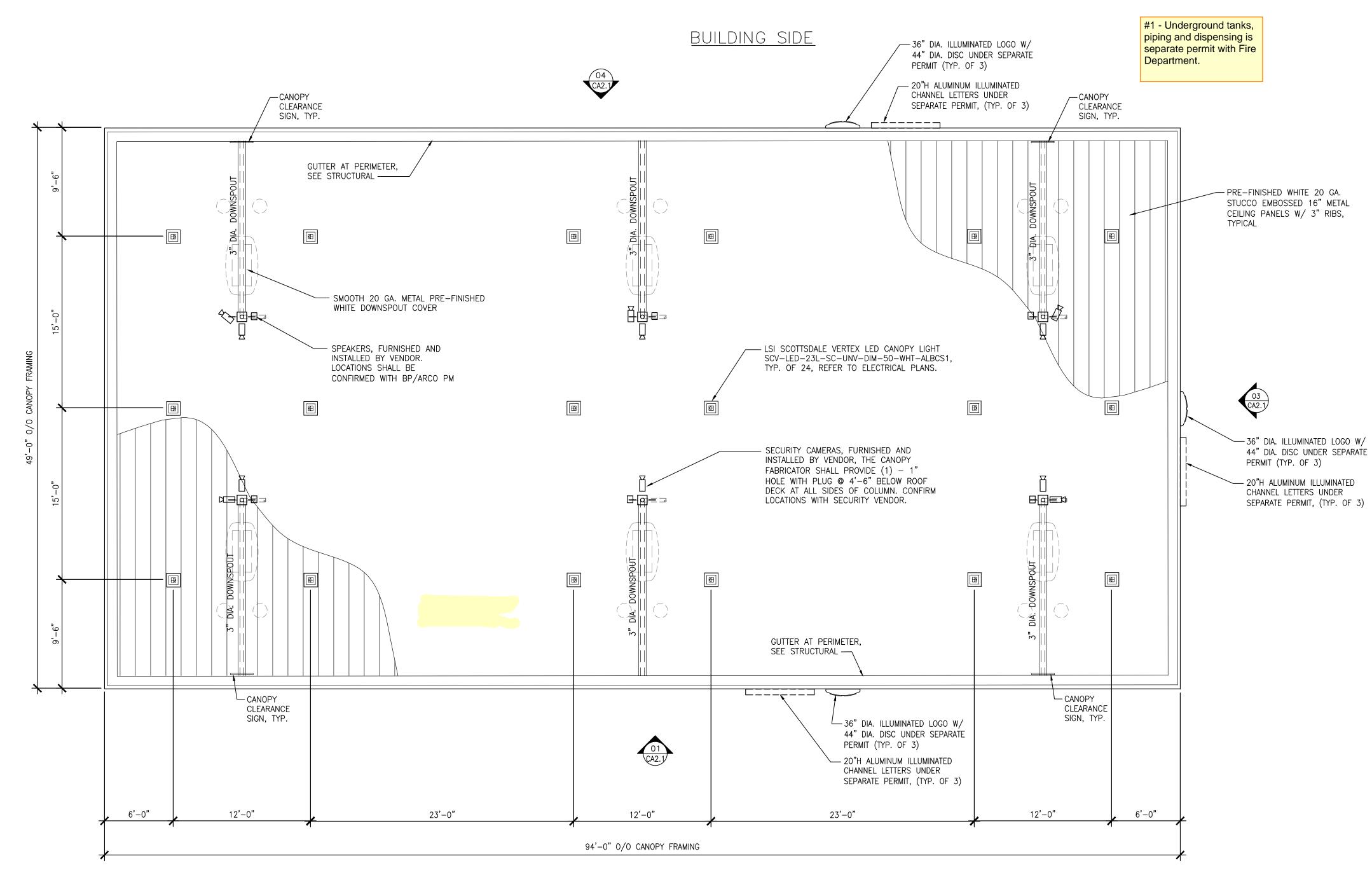
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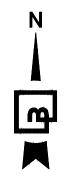
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ARCO
BP WEST COAST PRODUCTS, LLC
Barghausen
Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032 425.251.6222
barghausen.com
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DEVELOPMENT INFORMATION: ARCO NTI 3400 am/pm FUEL CANOPY w/ 6 MPD's SITE ADDRESS: 1402 S MERIDIAN PUYALLUP, WA 98371
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DEVELOPMENT INFORMATION: ARCO NTI 3400 am/pm FUEL CANOPY w/ 6 MPD's SITE ADDRESS: 1402 S MERIDIAN PUYALLUP, WA 98371 FACILITY #7184
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DEVELOPMENT INFORMATION: ARCO NTI 3400 am/pm FUEL CANOPY w/ 6 MPD's SITE ADDRESS: 1402 S MERIDIAN PUYALLUP, WA 98371 FACILITY #7184 DESIGNED BY: ALLIANCE Z&DM: CHECKED BY: BP REPM: DRAWN BY: ALLIANCE PM: VERSION: PROJECT NO: 21730
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DEVELOPMENT INFORMATION: ARCO NTI 3400 am/pm FUEL CANOPY w/ 6 MPD's SITE ADDRESS: 1402 S MERIDIAN PUYALLUP, WA 98371 FACILITY #7184 DESIGNED BY: ALLIANCE Z&DM: CHECKED BY: BP REPM: DRAWN BY: ALLIANCE PM: VERSION: PROJECT NO: 21730 DRAWING TITLE: CANOPY
DEVELOPMENT INFORMATION: ARCO NTI 3400 am/pm FUEL CANOPY w/ 6 MPD's SITE ADDRESS: 1402 S MERIDIAN PUYALLUP, WA 98371 FACILITY #7184 DESIGNED BY: ALLIANCE Z&DM: CHECKED BY: BP REPM: DRAWN BY: ALLIANCE Z&DM: CHECKED BY: BP REPM: DRAWN BY: ALLIANCE Z&DM: VERSION: PROJECT NO: 21730 DRAWING TITLE:
DEVELOPMENT INFORMATION: ARCO NTI 3400 am/pm FUEL CANOPY w/ 6 MPD's SITE ADDRESS: 1402 S MERIDIAN PUYALLUP, WA 98371 FACILITY #7184 DESIGNED BY: ALLIANCE Z&DM: CHECKED BY: BP REPM: DRAWN BY: ALLIANCE PM: VERSION: PROJECT NO: 21730 DRAWING TITLE: CANOPY SLAB PLAN
DEVELOPMENT INFORMATION: ARCO NTI 3400 am/pm FUEL CANOPY w/ 6 MPD's SITE ADDRESS: 1402 S MERIDIAN PUYALLUP, WA 98371 FACILITY #7184 DESIGNED BY: ALLIANCE Z&DM: CHECKED BY: BP REPM: DRAWN BY: ALLIANCE Z&DM: CHECKED BY: BP REPM: DRAWN BY: ALLIANCE Z&DM: VERSION: PROJECT NO: 21730 DRAWING TITLE:

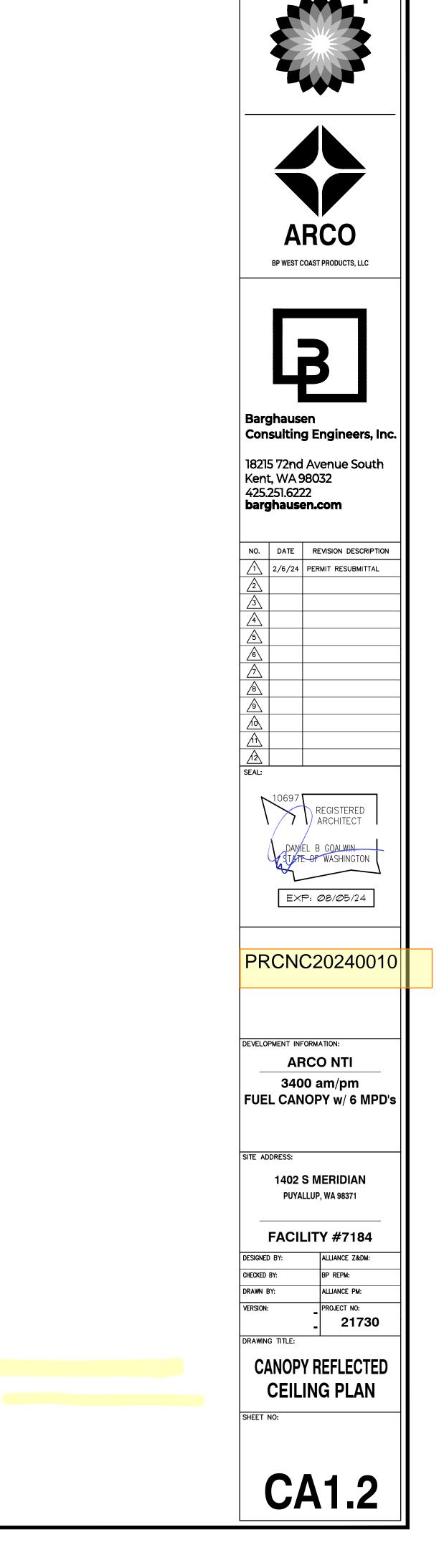




02 CA2.1

CANOPY REFLECTED CEILING PLAN



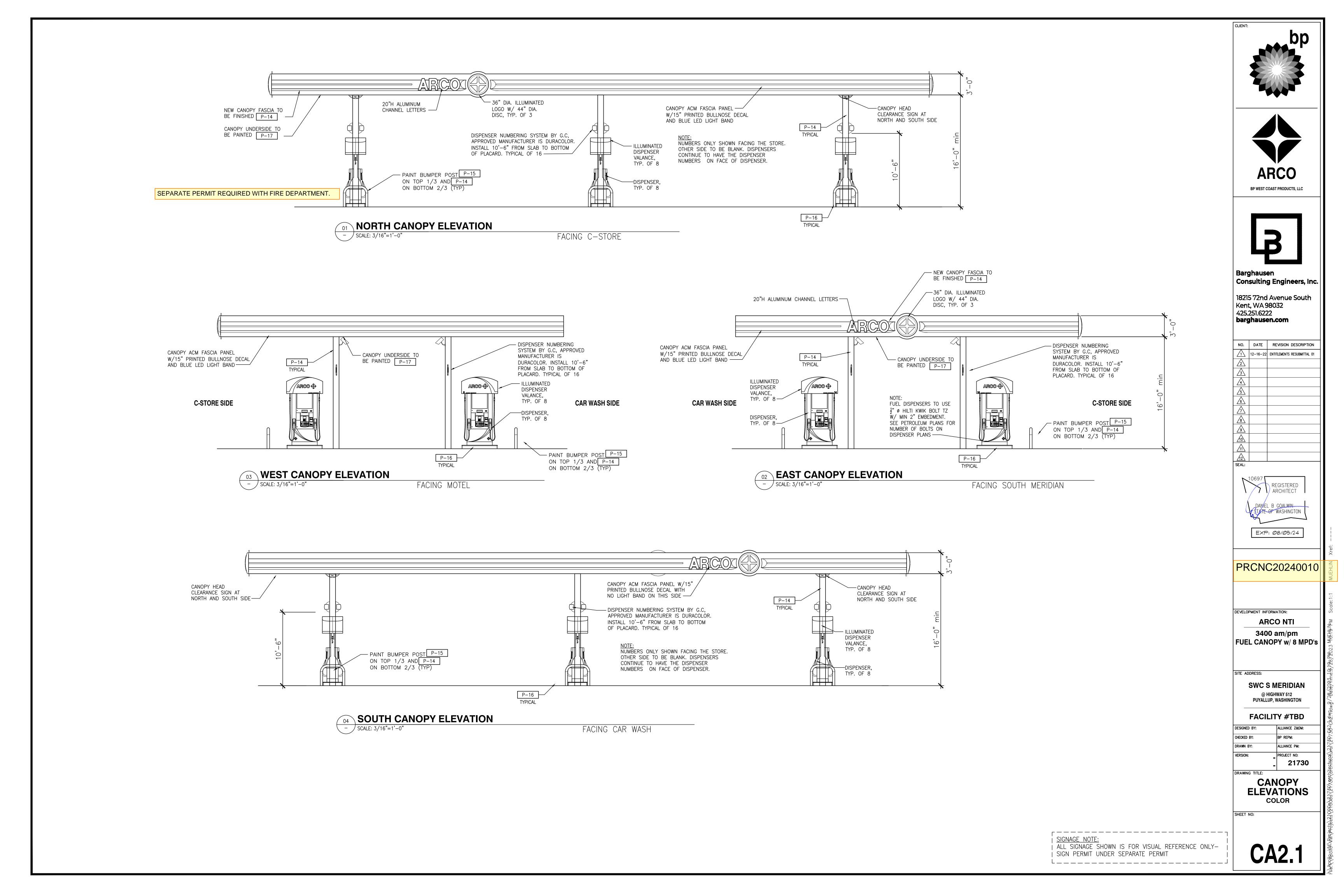


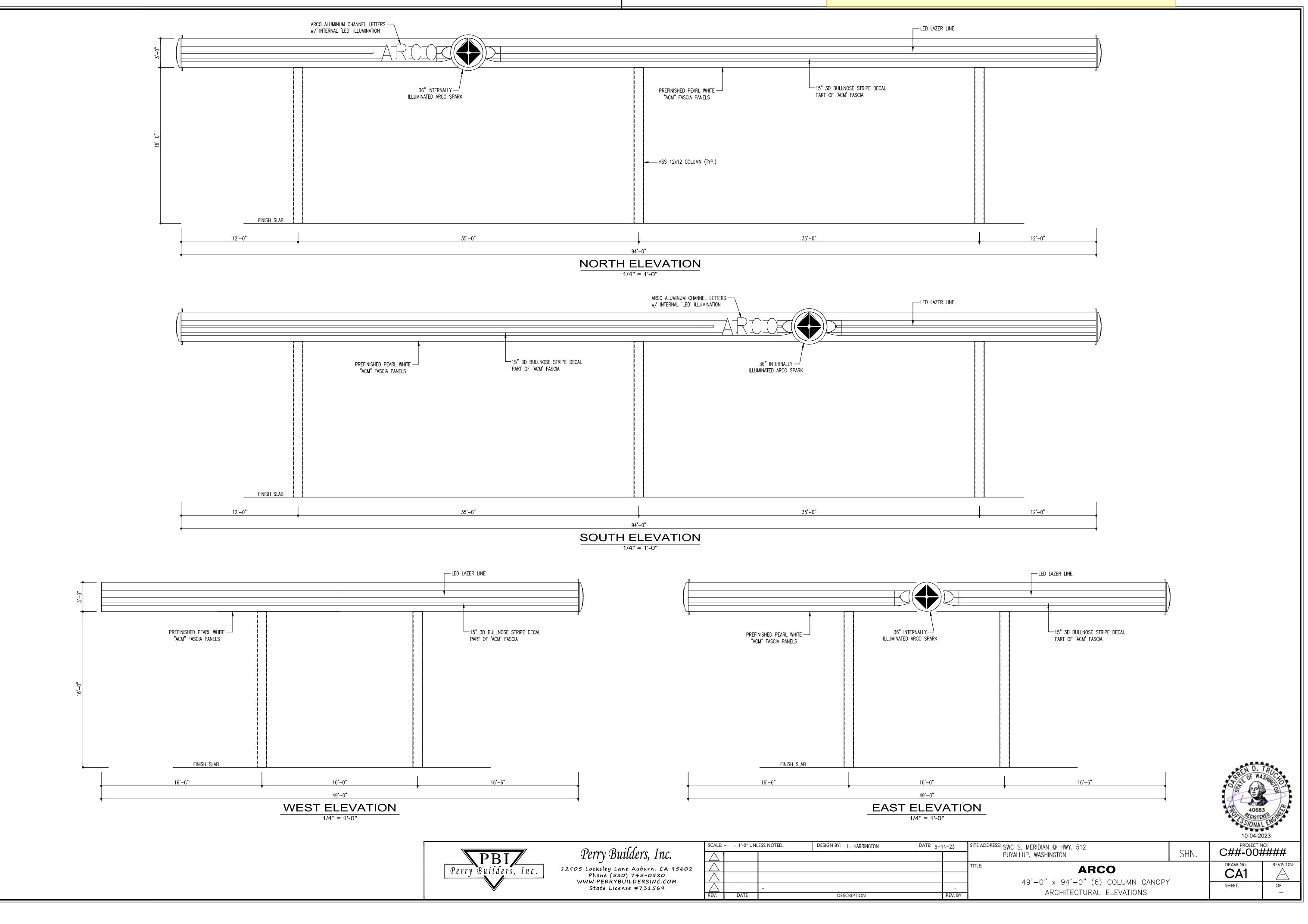
CLIENT:

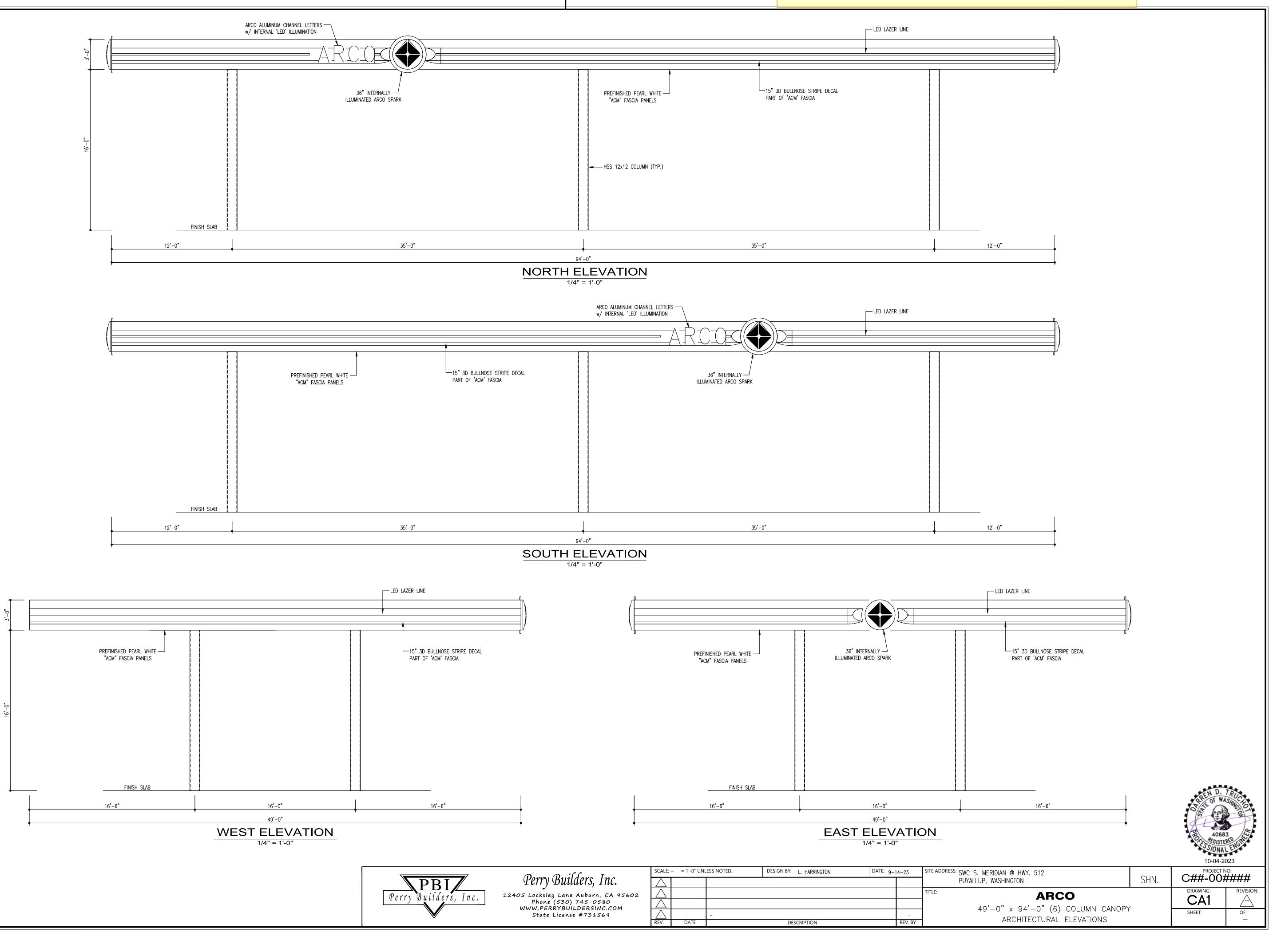
hn

- 36" DIA. ILLUMINATED LOGO W/ 44" DIA. DISC UNDER SEPARATE PERMIT (TYP. OF 3)

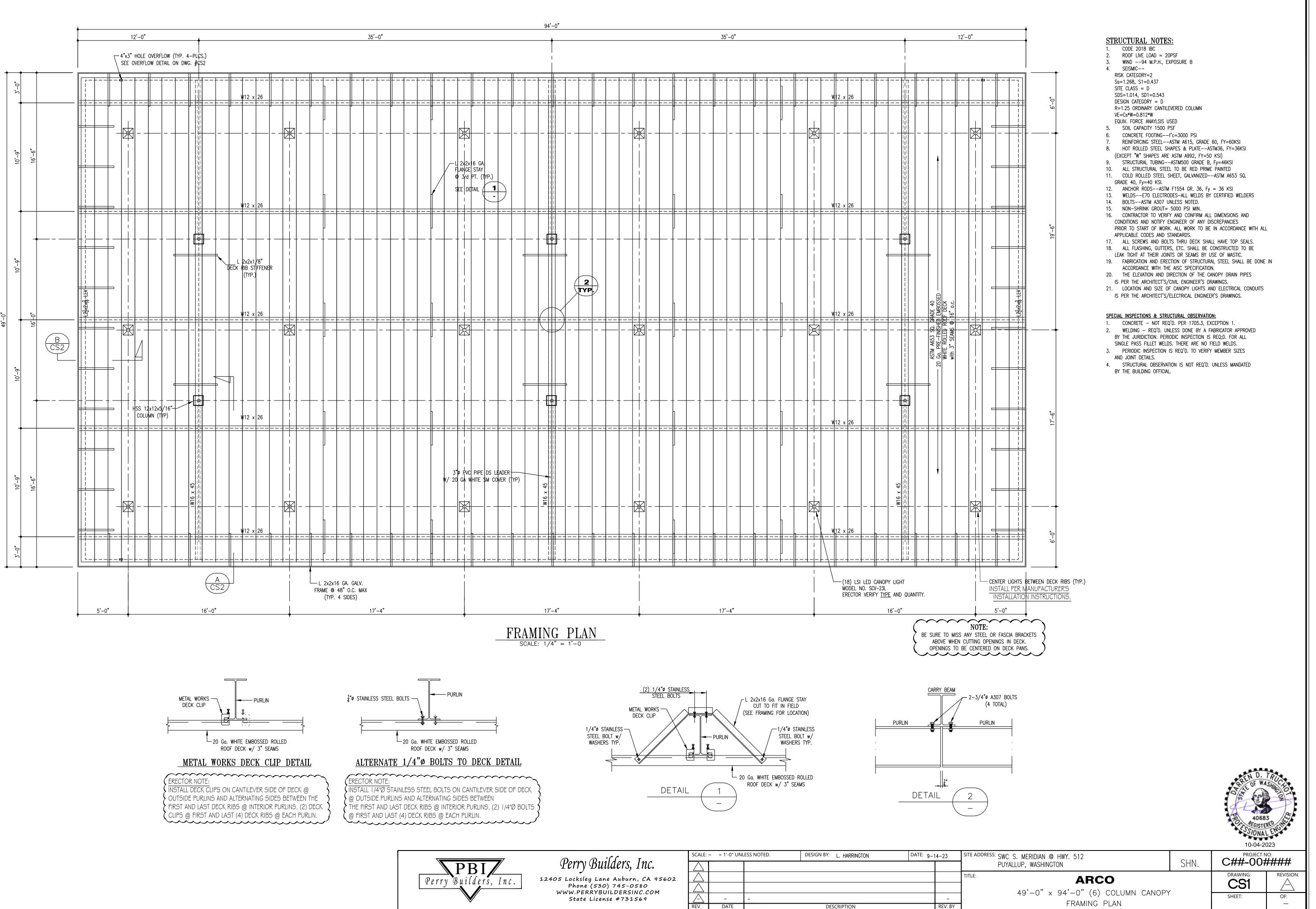
– 20"H ALUMINUM ILLUMINATED

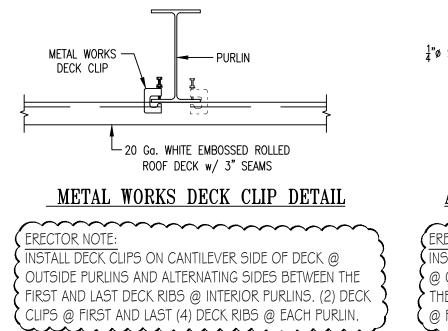






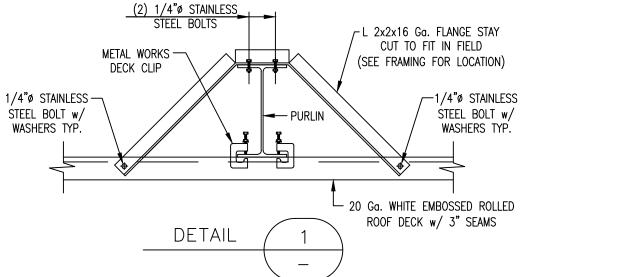


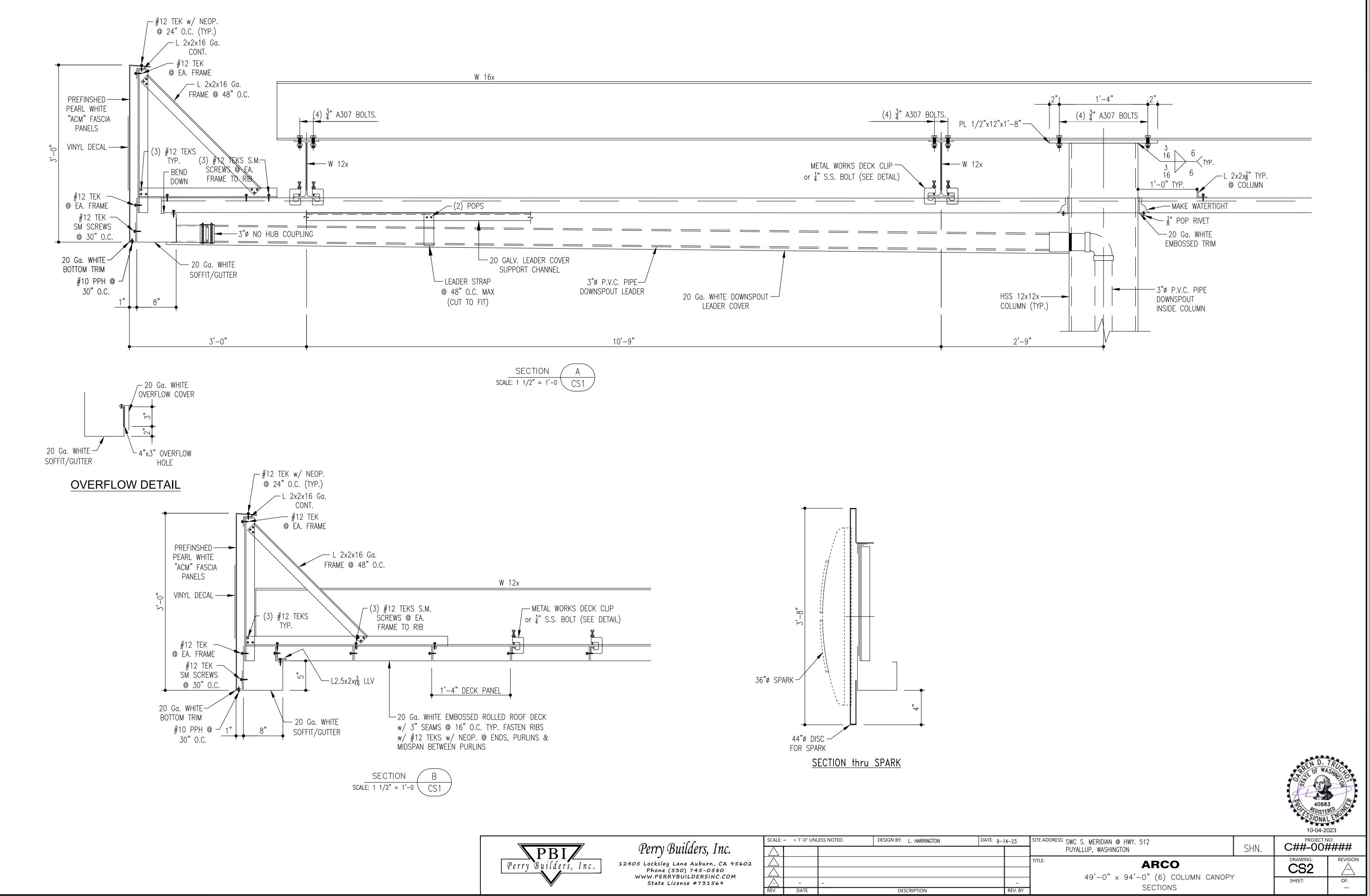


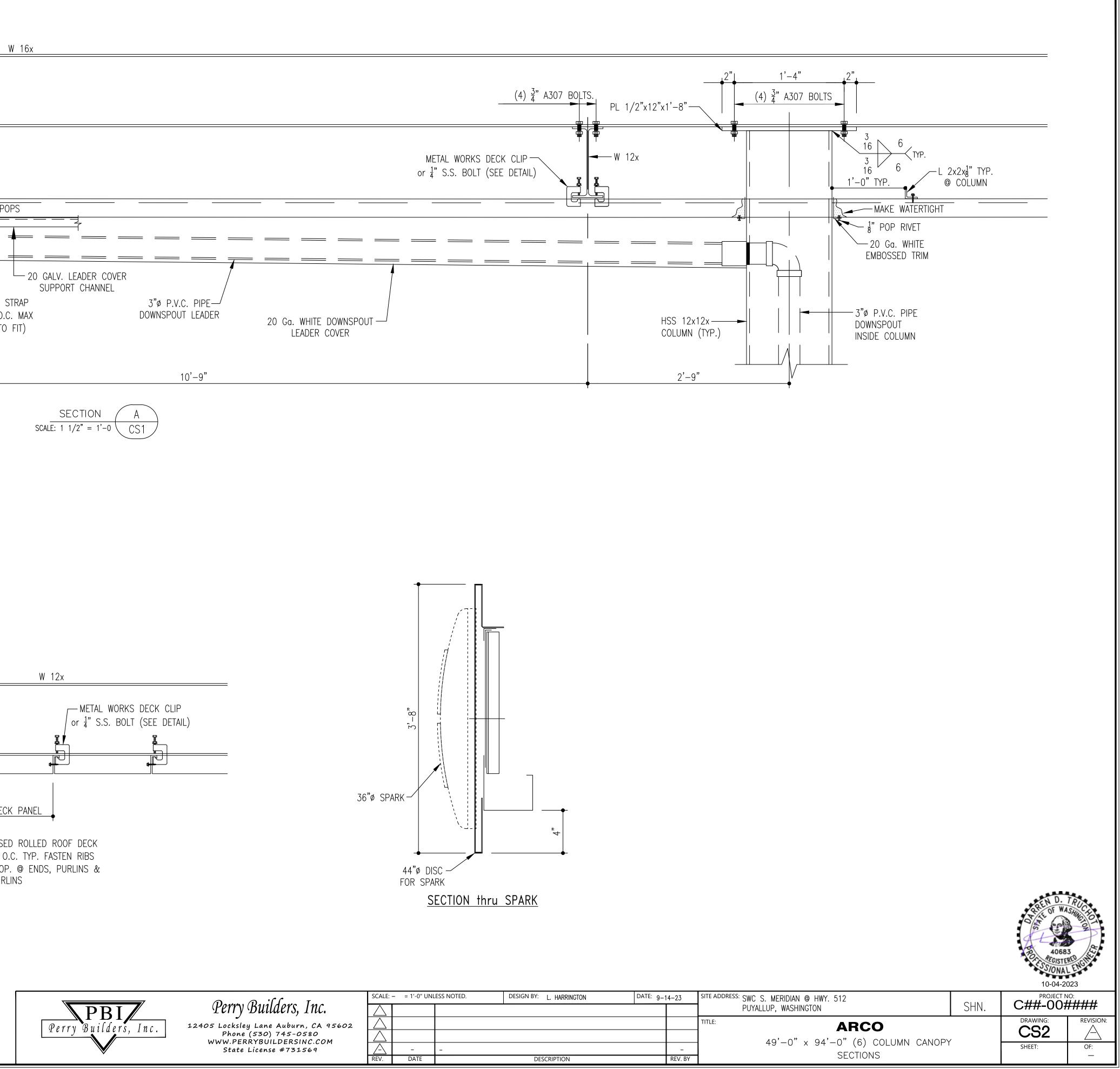


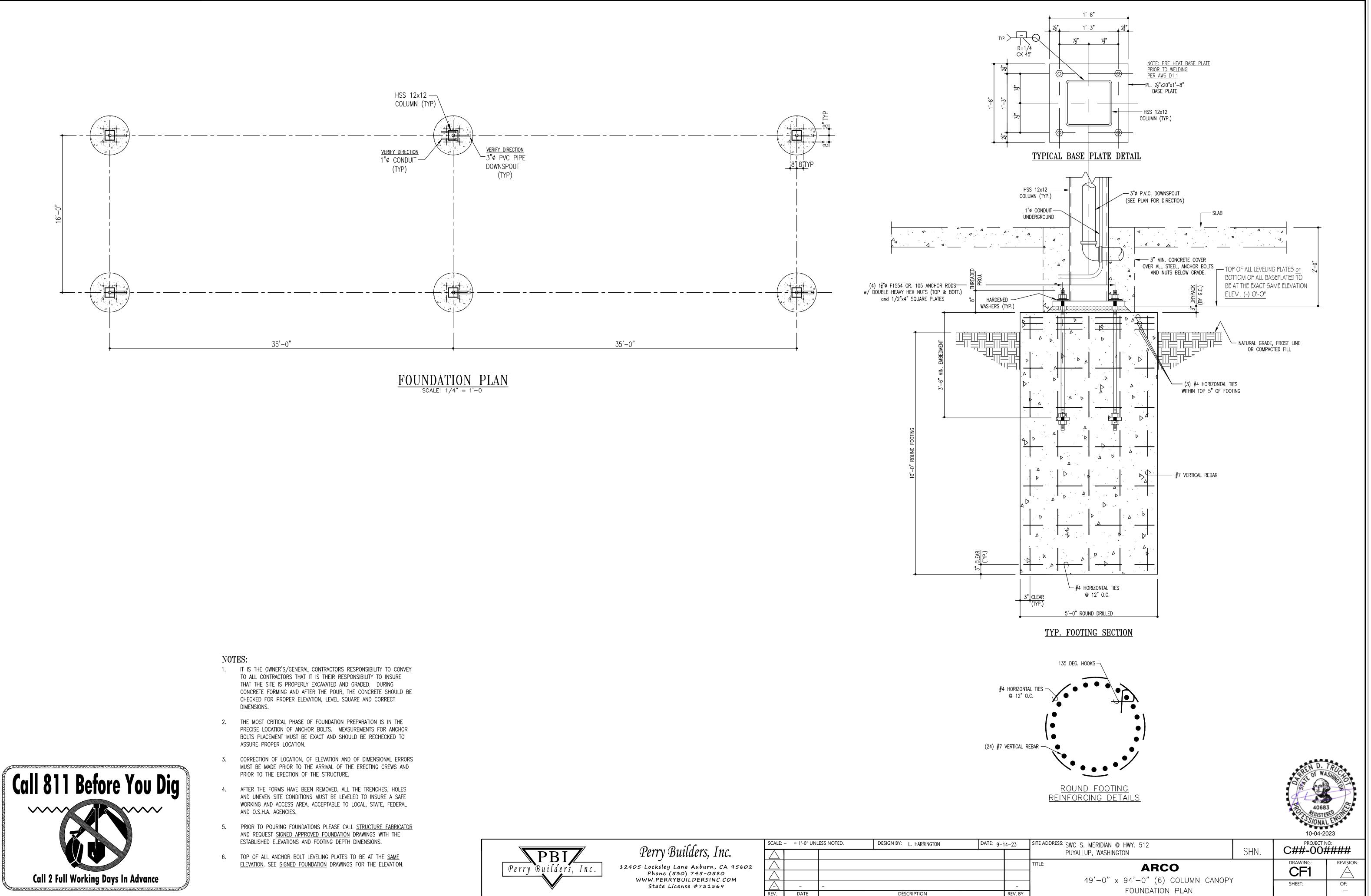
		SCALE:	- = 1'-0" UNI	LESS NOTED.	DESIGN BY: L. HARRINGTON
PRI	Perry Builders, Inc.	\square			
Perry Builders, Inc.	2 12405 Locksley Lane Auburn, CA 95602	\square			
terry Duttuers, Inc.	Phone (530) 745-0580 WWW.PERRYBUILDERSINC.COM				
\mathbf{V}	State License #731569	\square	_	-	
		REV.	DATE		DESCRIPTION











ſ			SCALE: ·	– = 1'-0" UNL	LESS NOTED.	DESIGN BY: L. HARRINGTON	D
	PRI	Perry Builders, Inc.	\square				
	Perry Builders. Inc.	12405 Locksley Lane Auburn, CA 95602	\bigtriangleup				
	Terry Builders, Inc.	Phone (530) 745-0580 WWW.PERRYBUILDERSINC.COM	\bigtriangleup				
	\mathbf{V}	State License #731569	$[\triangle]$	-	-		
			REV.	DATE		DESCRIPTION	

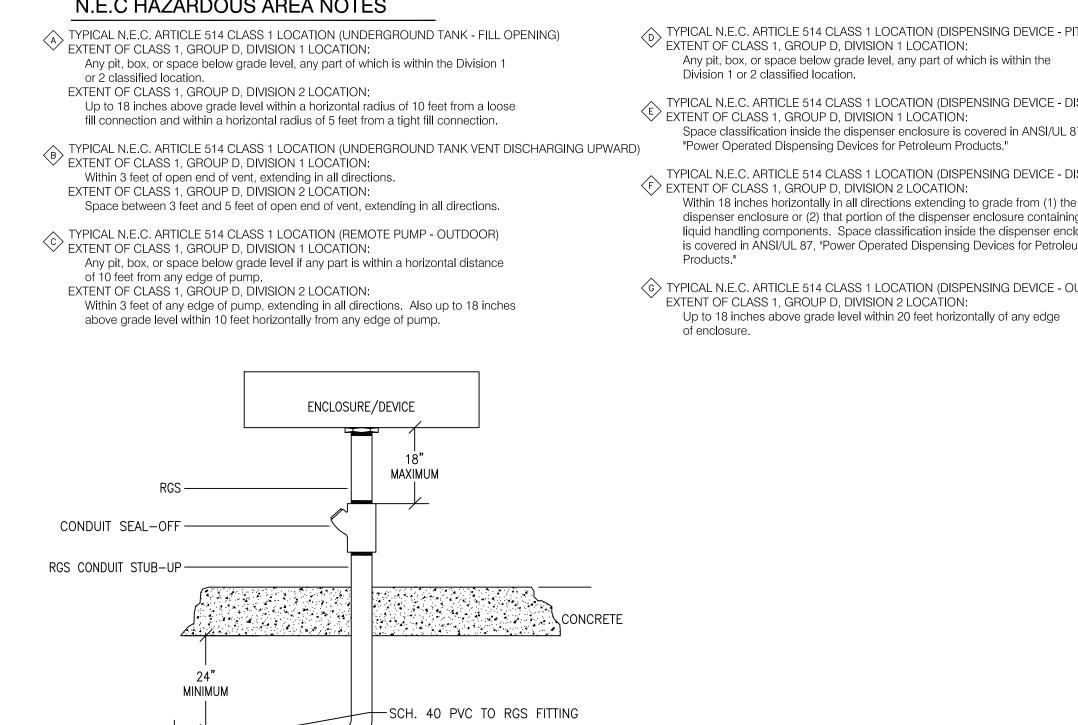
GENERAL NOTES:

- 1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH POWER COMPANY FOR EXACT SERVICE CONNECTION REQUIREMENTS AND INCLUDE ALL NECESSARY COST IN BID.
- 2. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH TELEPHONE COMPANY FOR EXACT SERVICE CONNECTION REQUIREMENTS AND INCLUDE ALL NECESSARY COST IN BID.
- 3. ALL ELECTRICAL EQUIPMENT SHALL HAVE AIC RATINGS EQUIVALENT OR HIGHER THAN AVAILABLE FAULT CURRENTS PROVIDED BY POWER COMPANY.
- 4. A UTILITY LOCATE SHALL BE PERFORMED PRIOR TO COMMENCEMENT OF TRENCHING.
- 5. LIGHTING CONTACTOR (INTERIOR LIGHTING ONLY) IS LOCATED WITHIN CPI CABINET.
- 6. ALL LIGHTING FIXTURES TO BE FURNISHED AND INSTALLED BY CONTRACTOR.
- 7. 'EM' AT LIGHT FIXTURE INDICATES LIGHT FIXTURE WITH EMERGENCY BACK UP. ALL EMERGENCY LIGHT FIXTURES SHALL BE SERVED FROM BATTERY BACKUP. EMERGENCY AND EXIT LIGHTS SHALL BE INSTALLED AND CIRCUITED PER THE LATEST CALIFORNIA ELECTRICAL CODE AND ALL LOCAL CODES (INSTALL A CENTRAL BATTERY SYSTEM WHERE THE USE OF INDIVIDUAL BATTERY UNITS ARE PROHIBITED BY LOCAL CODES). ALL EMERGENCY FIXTURES AND EXIT SIGNS SHALL BE CONNECTED TO UN-SWITCHED HOT LEG OF THE LOCAL LIGHTING CIRCUIT.
- 8. ALL EXTERIOR LIGHT FIXTURES TO BE CONTROLLED THROUGH THE LSI AIRLINK BLUE COMPLETE OUTDOOR LIGHTING WIRELESS MESH SYSTEM. AIRLINK BLUE SYSTEM INCLUDES DAYLIGHT AND MOTION SENSORS WITH DIMMING CONTROL CAPABLE OF AUTOMATICALLY SHUTTING OFF OUTDOOR LIGHTING WHEN DAYLIGHT IS AVAILABLE, EMPLOY AUTO FUNCTIONALITY WHEN AREA BECOMES OCCUPIED, AND CAPABLE OF PROVIDING CONTINUOUS DIMMING THROUGH A 50%-90% RANGE PER 2018 WSEC REQUIREMENTS. AIRLINK BLUE SYSTEM TO INCLUDE ASTRONOMICAL CLOCK AND TIME KEEPER AIRLINK BLUE COMPONENT FOR SCHEDULING CONTROLS SET PER 2018 WSEC REQUIREMENTS. ALL EXTERIOR LUMINAIRES TO INCLUDE FACTORY INTEGRATED BLUETOOTH RADIO/SENSOR CONTROLLERS. AIRLINK BLUE SYSTEM TO BE INITIALIZED VIA WEB APP AND FIELD COMMISSIONED VIA MOBILE APP TO THE OWNER'S REQUIREMENTS. ANY CHANGES OR UPDATES TO BE ACCOMPLISHED ON SITE VIA MOBILE APP.

SHEET NOTES:

- 1 PROVIDE NEW LIGHT FIXTURE. INSTALL 3/4" PVC UNDERGROUND CONDUIT CONTAINING: (2) #10 THWN CU. AND (1) #10 CU EGC. FOR PARKING LOT LIGHTING. EXTEND CONDUIT BACK TO AIRLINK BLUE CONTROLS.
- (2) PROVIDE AND INSTALL ESO SWITCH. INCLUDE ALL ASSOCIATED CONDUIT AND WIRE FOR COMPLETE INSTALLATION PER CEC 514.11 AND NFPA 30A SECTION 6.7. RUN WIRE IN 1" PVC-COATED RGS CONDUIT AND STUB UP WITH RGS. SEE DETAIL 3/E2.3. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO INSTALLATION. SEE DETAIL IN TANK DRAWINGS FOR ELEVATION.
- 3 PROVIDE AND INSTALL ESO SWITCH. COORDINATE EXACT LOCATION(S) WITH OWNER PRIOR TO INSTALLATION.
- (4) PROVIDE 3/4" PVC UNDERGROUND CONDUIT AND (3) #10 THHN CU. WIRE (U.O.N.) FOR NEW AIR STATION. MAKE CONNECTION WITH WATER TIGHT FLEX, BOXES AND COVERS AS REQUIRED BY MANUFACTURER. FIELD VERIFY EXACT LOCATION WITH OWNER PRIOR TO INSTALLATION.
- 5 PROVIDE (1) 3" PVC CONDUIT WITH 1/4" PULL STRING FOR TELEPHONE. FIELD VERIFY EXACT VAULT LOCATION WITH SERVICE PROVIDER PRIOR TO INSTALLATION.
- (6) PROVIDE (1) 1–1/2" CONDUIT FOR INSTALLATION OF ELECTRIC VEHICLE CHARGING STATION. 100A 208 VOLT 30 MIN. CAP AND MARK CONDUIT AS REQUIRED FOR ACCESS.
- (7) PROVIDE (2) 1" PVC-COATED RGS SPARE UNDERGROUND CONDUITS TO FOR FUTURE VENT DIAGNOSTICS TO INTRINSICALLY SAFE AND POWER WIRÉWAYS INSIDE STORE (NEXT TO EPC CABINET).
- (8) ALL SITE LIGHT POLE FIXTURES TO INCLUDE LSI AIRLINK BLUE LIGHTING SYSTEM MOTION DETECTOR MOUNTED ON LIGHT POLE. UPON ACTIVATION OF EITHER
- MOTION DETECTOR, ALL SITE POLE LIGHTS TO TRIGGER AT FULL BRIGHTNESS AND RETURN TO 50% BRIGHTNESS AFTER 15 MINUTES OF VACANCY. (9) 60W HEAT TRACER LOCATED IN RPBA HOT BOX, REFER TO CIVIL UTILITY PLANS FOR EXACT LOCATION.
- (10) PROPOSED SOLAR ZONE PER 2018 WSEC REQUIREMENTS.
- (1) PROVIDE (1) 3/4" CONDUIT AND CONTROL WIRE TO CLOSEST EMERGENCY STOP BUTTON FOR CONNECTION TO VEHICLE CHARGING STATION.
- (12) PROPOSED UTILITY TRANSFORMER EXACT LOCATION TO BE VERIFIED.

N.E.C HAZARDOUS AREA NOTES





SCH. 40

PVC CONDUIT

CALLOUT	SYMBOL		DESCRIPTION	BALLAST	MOUNTING	MODEL	INPUT VA	TOTAL VA	LUMENS / LAMP	VOLTS	NOTES	QUANTII
51	_	(1) 31.59W LED	SURFACE MOUNTED STRIP LIGHT	0-10V DIMMABLE	SURFACE	LSI EG3-4-LED-4L-DA-S-UNV-DIM-50-80	31.59	31.59	4508	120V 1P 2W	TRASH/RECYCLE ROOM W/ EMERGENCY BATTERY PACK FOR 90 MINUTE ILLUMINATION, 4508 LUMENS, 143.42 LUMENS/WATT	
S2	┏-□	(1) 63W LED	LED POLE LIGHT	ELECTRONIC	POLE	LSI SLM-LED-09L-SIL-FT-50-70CRI-SINGLE-16'POLE+2'BASE	63	63	9657	208V 2P 2W	PARKING LOT, INCLUDE LSI AIRLINK BLUE SENSOR.	6

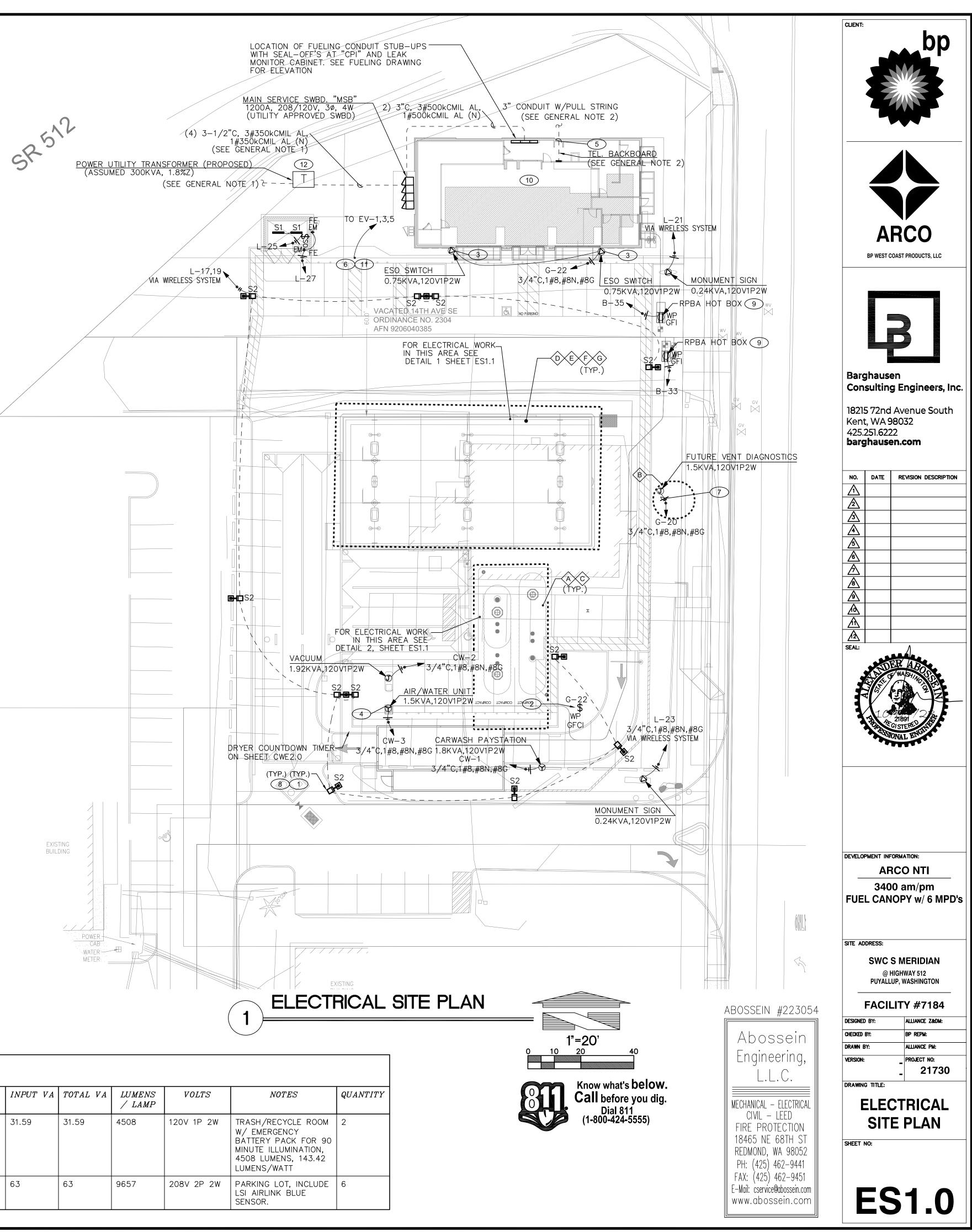
TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (DISPENSING DEVICE - PITS) Any pit, box, or space below grade level, any part of which is within the

TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (DISPENSING DEVICE - DISPENSER) Space classification inside the dispenser enclosure is covered in ANSI/UL 87,

TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (DISPENSING DEVICE - DISPENSER)

dispenser enclosure or (2) that portion of the dispenser enclosure containing liquid handling components. Space classification inside the dispenser enclosure is covered in ANSI/UL 87, "Power Operated Dispensing Devices for Petroleum

C TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (DISPENSING DEVICE - OUTDOOR) Up to 18 inches above grade level within 20 feet horizontally of any edge



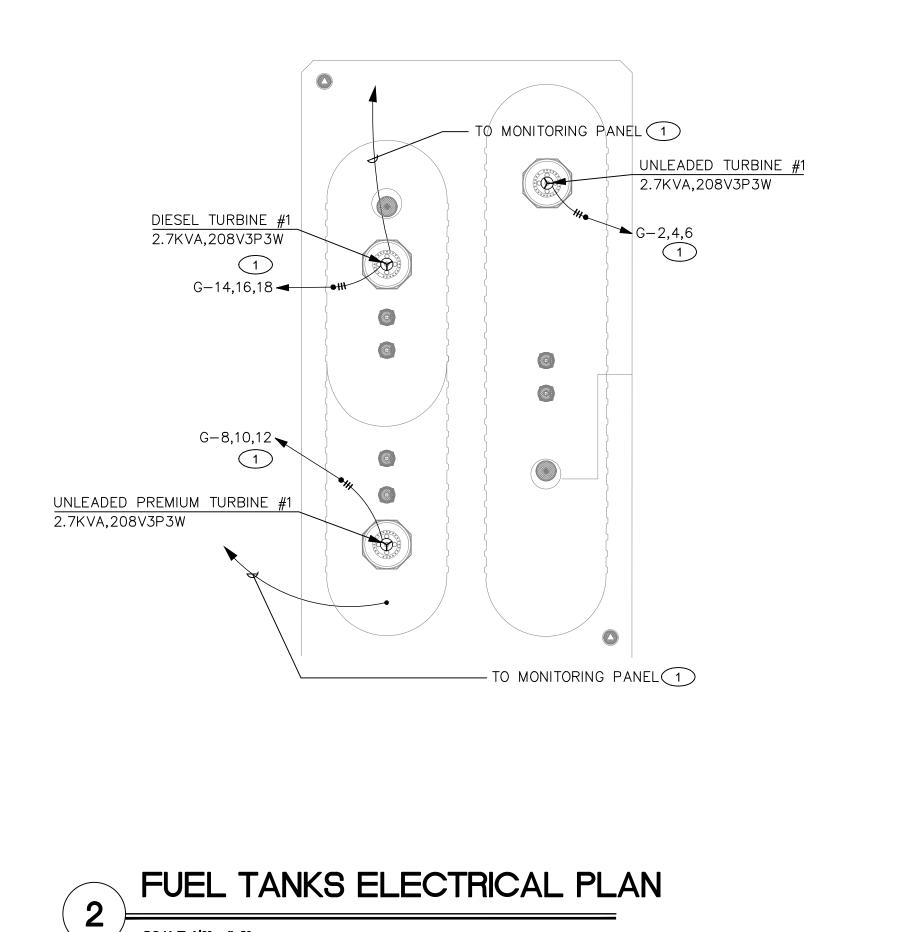
GENERAL NOTES:

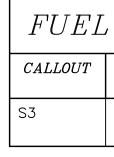
- 1. ALL EXTERIOR LIGHTING TO BE CONTROLLED BY LSI AIRLINK BLUE WIRELESS BLUETOOTH MESH OUTDOOR LIGHTING CONTROL SYSTEM. REFER TO LSI AIRLINK BLUE SPECIFICATION SHEETS FOR EXACT INFORMATION ON SYSTEM.
- 2. REFER TO TANK ELECTRICAL DRAWINGS FOR FUELING CONDUIT FILL AND WIRE TYPES.
- 3. SEE TANK ELECTRICAL DRAWINGS FOR FURTHER REQUIREMENTS.
- 4. ALL LIGHTING FIXTURES TO BE FURNISHED AND INSTALLED BY CONTRACTOR.

5. ALL EXTERIOR LIGHT FIXTURES TO BE CONTROLLED THROUGH THE LSI AIRLINK BLUE COMPLETE OUTDOOR LIGHTING WIRELESS MESH SYSTEM. AIRLINK BLUE SYSTEM INCLUDES DAYLIGHT AND MOTION SENSORS WITH DIMMING CONTROL CAPABLE OF AUTOMATICALLY SHUTTING OFF OUTDOOR LIGHTING WHEN DAYLIGHT IS AVAILABLE, EMPLOY AUTO FUNCTIONALITY WHEN AREA BECOMES OCCUPIED, AND CAPABLE OF PROVIDING CONTINUOUS DIMMING THROUGH A 50%-90% RANGE PER 2018 WSEC REQUIREMENTS. AIRLINK BLUE SYSTEM TO INCLUDE ASTRONOMICAL CLOCK AND TIME KEEPER AIRLINK BLUE COMPONENT FOR SCHEDULING CONTROLS SET PER 2018 WSEC REQUIREMENTS. ALL EXTERIOR LUMINAIRES TO INCLUDE FACTORY INTEGRATED BLUETOOTH RADIO/SENSOR CONTROLLERS. AIRLINK BLUE SYSTEM TO BE INITIALIZED VIA WEB APP AND FIELD COMMISSIONED VIA MOBILE APP TO THE OWNER'S REQUIREMENTS. ANY CHANGES OR UPDATES TO BE ACCOMPLISHED ON SITE VIA MOBILE APP.

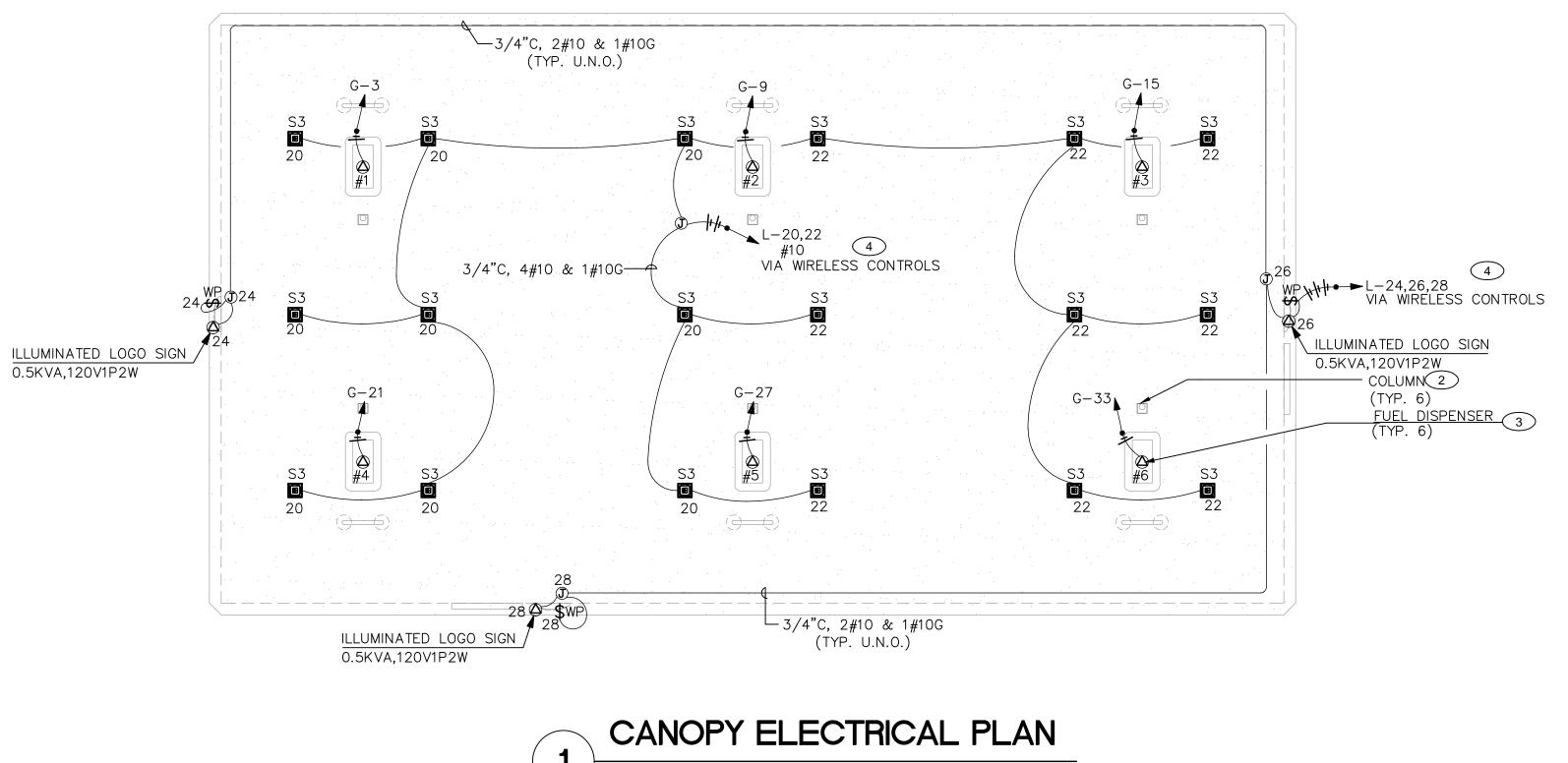
FLAG NOTES:

- 1) PROVIDE (6) 1" PVC-COATED RGS UNDERGROUND CONDUITS TO LEAK DETECTION PANEL.
 - (3) 1" CONDUITS FOR TURBINE POWER - (3) 1" INTRINSICALLY SAFE CONDUITS FOR TANK MONITORING
- 2 PROVIDE (3) 1" PVC-COATED RGS UNDERGROUND CONDUITS FOR MUSAK AND SECURITY SYSTEMS. STUB IN COLUMN AND EXTEND CONDUITS BACK TO MUSAK AND SECURITY SYSTEMS LOCATED PER ARCO REPRESENTATIVE. ALL CONDUIT STUB-UPS SHALL BE RGS WITH SEAL OFFS AND MEET THE REQUIREMENTS SPECIFIED IN ARTICLE 514 OF THE NEC. FIELD VERIFY EXACT LOCATIONS. - (2) 1" CONDUITS FOR MUSAK AND CAMERA WITH PULL ROPE - (1) 1" CONDUIT FOR MUSAK LOOP TO EACH COLUMN
- 3 PROVIDE (3) 1" PVC-COATED RGS UNDERGROUND CONDUITS FOR FUEL DISPENSER. ALL CONDUIT TO STUB-UP SHALL BE RGS WITH SEAL OFFS AND MEET THE REQUIREMENTS SPECIFIED IN ARTICLE 514 OF THE NEC. FIELD VERIFY EXACT LOCATION OF STUB-UPS. FIELD WRAP STEEL CONDUIT WITH A 100 MIL. COATING OF COAL TAR EPOXY. - (1) 1" CONDUIT FOR POWER & DATA
 - (1) 1" CONDUIT FOR MONITORING
 - (1) 1" CONDUIT FOR INTERCOM
- 4 PROVIDE (1) 3/4" PVC-COATED RGS UNDERGROUND CONDUITS FOR CANOPY LIGHTING AND SIGNS. ALL CONDUIT TO STUB-UP SHALL BE RGS WITH SEAL OFFS AND MEET THE REQUIREMENTS SPECIFIED IN ARTICLE 514 OF THE NEC. FIELD VERIFY EXACT LOCATIONS. EXTEND CONDUIT BACK TO LIGHTING CONTACTOR AND ASTRONOMIC TIME CLOCK. USE #10 CONDUCTORS FOR CANOPY LIGHTING AND SIGNS CIRCUITS.

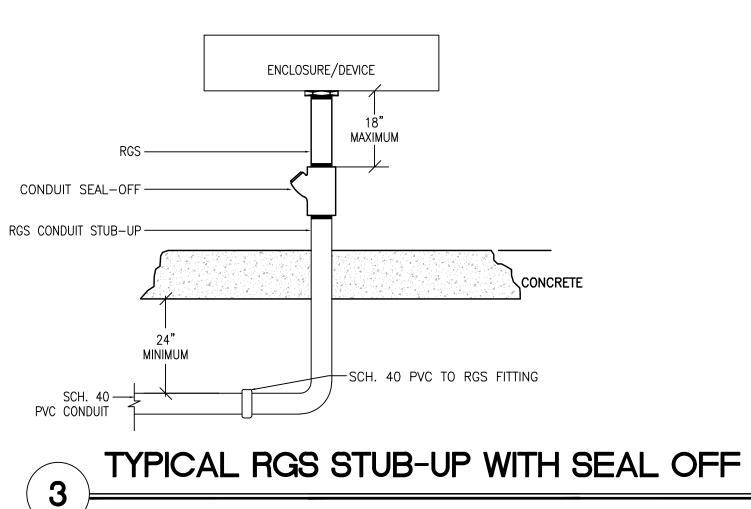




CANOPY LUMINAIRE SCHEDULE											
SYMBOL	LAMP	DESCRIPTION	BALLAST	MOUNTING	MODEL	INPUT VA	TOTAL VA	TOTAL LUMENS	VOLTS	NOTES	QUANTITY
B	(1) 102W LED	LED SURFACE MOUNT CANOPY FIXTURE; 5000K	ELECTRONIC	SURFACE	LSI SCV-LED-15L-SC-50	102	102	14963	120V 1P 2W	FUEL CANOPY, DIMMED 80%	18



SCALE: 1/8" = 1'-0"



SCALE: NTS

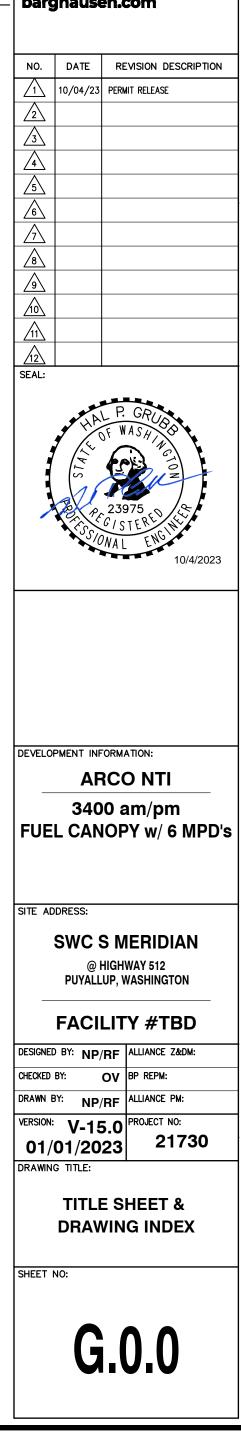
	ARCO BP WEST COAST PRODUCTS, LLC
(4) (7)	Barghausen Consulting Engineers, Inc. 18215 72nd Avenue South Kent, WA 98032 425.251.6222 barghausen.com
	NO. DATE REVISION DESCRIPTION A
	DEVELOPMENT INFORMATION: ARCO NTI 3400 am/pm FUEL CANOPY w/ 6 MPD's
ABOSSEIN #223054 Abossein Engineering, L.L.C.	SITE ADDRESS: SWC S MERIDIAN @ HIGHWAY 512 PUYALLUP, WASHINGTON FACILITY #7184 DESIGNED BY: ALLIANCE Z&DM: CHECKED BY: BP REPM: DRAWN BY: ALLIANCE PM: VERSION: PROJECT NO: 21730
MECHANICAL - ELECTRICAL CIVIL - LEED FIRE PROTECTION 18465 NE 68TH ST REDMOND, WA 98052 PH: (425) 462-9441 FAX: (425) 462-9451 E-Mail: cservice@abossein.com www.abossein.com	drawing title: ELECTRICAL SITE DETAILS Sheet no: ES1.1

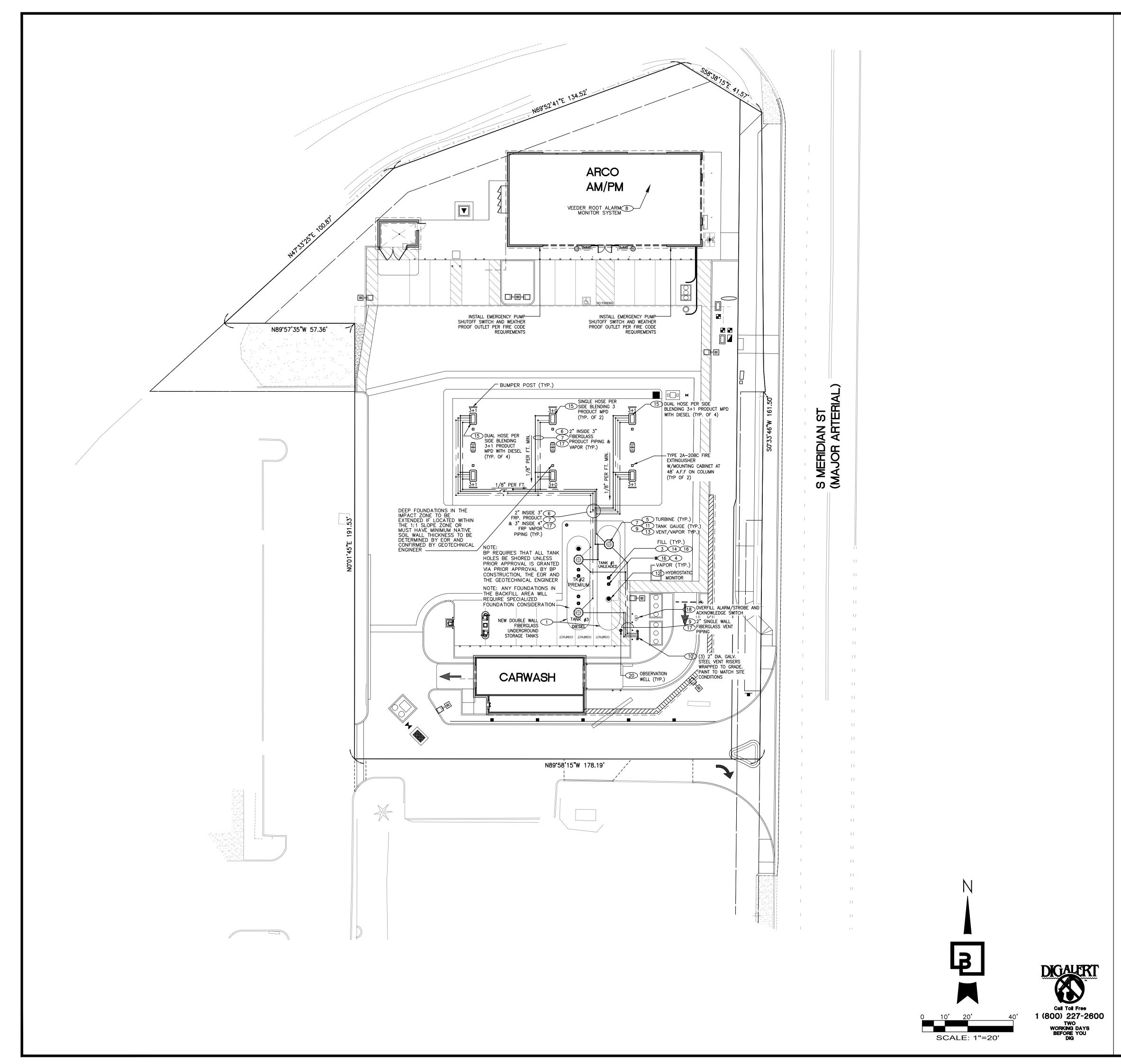
ARCO FUELING CANOPY W/6 MPDs SWC S MERIDIAN

IGHWAY 512 PUYALLUP, WASHINGTON



G0.0 TITLE SHEET AND DRAWING INDEX G0.2.0 UNDERGROUND TANK AND PIPING SITE PLAN AND INSTALLATION NOTES G0.2.1 TANK & PIPING SCOPE OF WORK & GENERAL, NOTES (FRP 1 OF 2) G0.2.2 TANK & PIPING SCOPE OF WORK & GENERAL, NOTES (FRP 2 OF 2) G0.5 DESIGN INTENT MISCULANEOUS DETAILS G0.6.1 DESIGN INTENT MISCULANEOUS DETAILS G0.7.1 TANK AUPPING SCOPE OF WORK & GENERAL, NOTES (FRP 2 OF 2) G0.6.1 DESIGN INTENT MISCULANEOUS DETAILS G0.7.1 TANK PLI & VAROR RSER STATIC GROUNDING DETAILS (STANDARD) M.5.1.00 TANK AND PIPING MATERIALS UST (1 OF 2) M.5.1.01 TANK AND PIPING MATERIALS UST (2 OF 2) M.5.1.02 TANK AND PIPING MATERIALS UST (2 OF 2) M.5.1.03 UST INSTALLATION DETAILS (2 OF 2) M.5.1.04 TYPICAL 10' DIA. 12,000/10,000 GALON DOUBLE WALL FIBERGLASS TANK INSTALLATION DETAILS M.5.1.28 UST INSTALLATION DETAILS (STANDARD OPW) M.5.1.30 DESENT TANK SUMP & TITUNG DETAILS M.5.1.31 DESENT TANK SUMP AUTITING DETAILS (STANDARD OPW) M.5.1.41 TANK SLAB CONCRETE SPECIFICATION MARKING DETAILS ON ISLANDS M.5.1.42 DESENT TANK SUMP AUTITING DETAILS (STANDARD OPW) M.5.1.43 DESPENSER DETAI	DRA	WING INDEX	CLIENT:
G.0.2.1 TANK & PIPING SCOPE OF WORK & GENERAL NOTES (FRP 1 OF 2) G.0.2.2 TANK & PIPING SCOPE OF WORK & GENERAL NOTES (FRP 2 OF 2) G.0.5 DESIGN INTENT MISOELLANEOUS DETAILS G.0.6.1 DESIGN INTENT MISOELLANEOUS DETAILS G.0.7.1 TANK # PIPING SCOPE OF WORK & GENERAL NOTES (FRP 2 OF 2) G.0.7.1 TANK # MID PIPING MATERIALS LIST (C ROUNDING DETAILS (STANDARD) M.5.1.0 TANK AND PIPING MATERIALS LIST (C OF 2) M.5.1.01 TANK AND PIPING MATERIALS LIST (2 OF 2) M.5.1.02 TANK AND PIPING MATERIALS LIST (2 OF 2) M.5.1.04 TYPICAL 10' DIA. 25,000' GALION DOUBLE WALL FIBERGLASS TANK INSTALLATION DETAILS M.5.1.15 TYPICAL 10' DIA. 12,000/10,000 GALION DOUBLE WALL FIBERGLASS TANK INSTALLATION DETAILS M.5.1.28 UST INSTALLATION (2) 10' DIA. 25K/22K BLENDING M.5.1.31 DIESEL TANK SUMP # FITTING INSTALLATION DETAILS (STANDARD OPW) M.5.1.33 DIESEL TANK SUMP # FITTING INSTALLATION DETAILS (STANDARD OPW) M.5.1.41 TANK SIAB CONCRETE SPECIFICATION S& ALDENTIFICATION MARING DETAILS M.5.1.42 ELECTRICAL FUELING SITE PLAN & CLASS 1, DIVISION 1 AND 2 HAZARDOUS AREA PLAN M.5.1.44 WATNE DISPENSER DETAILS: WATHE OVADION (3+1) BLENDING DIAGRAM (SINGLE MASTER) M.5.1.45 VEEDER ROOT 450 AND FE P	G.0.0	TITLE SHEET AND DRAWING INDEX	
G.0.2.2 TANK & PIPING SCOPE OF WORK & GENERAL NOTES (FRP 2 OF 2) G.0.5 DESIGN INTENT MISCELLANEOUS DETALS G.0.6.1 DESIGN INTENT MISCELLANEOUS DETALS G.0.7.1 TANK FUL & VAPOR RISER STATIC GROUNDING DETALS (STANDARD) M.S.1.01 TANK AND PIPING MATERIALS LIST (1 OF 2) M.S.1.02 TANK AND PIPING MATERIALS LIST (2 OF 2) M.S.1.03 TANK AND PIPING MATERIALS LIST (2 OF 2) M.S.1.04 TANK AND PIPING MATERIALS LIST (2 OF 2) M.S.1.05 TYPIGAL 10' DIA. 22,000/10,000 GALLON DOUBLE WALL FIBERGLASS TANK INSTALLATION DETALS M.S.1.15 TYPIGAL 10' DIA. 12,000/10,000 GALLON DOUBLE WALL FIBERGLASS TANK INSTALLATION DETALS M.S.1.30 INSTALLATION (2) 10' DIA. 25K/22K BLENDING M.S.1.31 DIESEL TANK SUMP AFTITING IDSTALLATION DETALS (STANDARD OPW) M.S.1.33 DIESEL TANK SUMP AFTITING DETALS (STANDARD OPW) M.S.1.34 FILL/VAPOR II INSTALLATION DETALS (STANDARD OPW) M.S.1.34 DILLYAPOR II INSTALLATION OLTALS (STANDARD OPW) M.S.1.34 DILLYAPOR II INSTALLATION OLTALS (STANDARD OPW) M.S.1.44 DISPENSER DETALS: WAYNE GVATION (3-1) BLENDING DISPENSER INSTALLATION DETALS ON ISLANDS M.S.1.45 ILL SYSTEM ELECTRICAL COMODUT POINT TO POINT PLAN M.S.1.44 H	G.0.2.0	UNDERGROUND TANK AND PIPING SITE PLAN AND INSTALLATION NOTES	
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M.5.1.50 EMERGENCY SHUTDOWN SCHEMATIC FUELING CONTROLS W/VFC's 425.251.6222	M.5.1.48	ELECTRICAL PANEL E-STOP CONTROL WIRING SCHEMATIC AND TYPICAL FUELING ELEVATION	18215 72nd Avenue South
	M.5.1.49	ELECTRICAL LOW VOLTAGE DISCONNECT FOR DATA/INTERCOM/MEDIA WIRING DIAGRAMS	
	M.5.1.50	EMERGENCY SHUTDOWN SCHEMATIC FUELING CONTROLS W/VFC's	425.251.6222 barghausen.com





<u>PIPING LEGEND</u>

FIBERGLASS PRODUCT PIPING FIBERGLASS VAPOR RECOVERY PIPING ----- FIBERGLASS VENT PIPING

CONTRACTOR ASSUMES RESPONSIBILITY TO ASSURE THAT THE OPERABLE SYSTEM MEETS THE DESIGN INTENT AND THE CONTRACTOR IS PERMITTED TO ADJUST PIPING LOCATIONS BASED ON ACTUAL FIELD CONDITIONS AND INSTALLATION TECHNIQUES. * PRODUCT, VAPOR AND VENT PIPING IS TO SLOPE TOWARD TANK 1/8" PER FOOT MINIMUM, 1/4" PER FOOT PREFERRED. IF INSTALLED, SIPHON PIPING TO SLOPE 1/4" PER FOOT.

* SECONDARY CONTAINMENT PIPING IS SHOWN BY NOTE ONLY, NOT GRAPHICALLY. ALL PRODUCT PIPING TO BE DOUBLE CONTAINMENT PIPE. VENT AND VAPOR RECOVERY SHALL BE SINGLE WALL

GENERAL NOTES

-) INSTALL (1) 25K REGULAR UNLEADED, ONE (1) 12K/10K PREMIUM UNLEADED/DIESEL DUAL COMPARTMENT "CONTAINMENT SOLUTIONS" DOUBLE WALL FIBERGLASS TANKS WITH CONTINUOUS MONITORING OF HYDROSTATIC ANNULAR SPACES BY "VEEDER ROOT" TLS-450 PLUS TANK AND PIPING MONITOR AND ALARM SYSTEM. ALL TANK. SUMPS SHALL BE INDIVIDUALLY CONTINUOUSLY MONITORED BY "VEEDER ROOT" LIQUID SENSORS TIED INTO THE TLS-450 PLUS TANK & PIPING MONITOR SYSTEM. TANKS TO BE SET MIN. 60" BELOW FINISH GRADE. TANK INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S \bigcirc INSTALLATION INSTRUCTIONS.
- 2 INSTALL A CONCRETE SLAB OVER TANKS. SURFACE WATER SHALL BE DIVERTED AWAY FROM EACH MANHOLE BY FORMING A CONCRETE CROWN WITH A 1–1/2" DROP IN 18" FROM THE EDGE OF THE MANHOLE RING TO THE SURROUNDING SLAB ELEVATION. CONSTRUCT SLAB PER CIVIL SLAB INSTALLATION DETAILS AND SPECIAL REQUIREMENTS SHOWN ON DETAILS.
- (3) INSTALL DIRECT BURY FILL SPILL BUCKET 5 GALLON WITH ADAPTERS AND CAPS.
- (4) INSTALL DIRECT BURY VAPOR SPILL BUCKET 5 GALLON WITH ADAPTERS AND CAPS.
- INSTALL ONE (1) 2HP VARIABLE SPEED TURBINES IN UNLEADED TANK, ONE (1) 2HP IN PREMIUM TANK & ONE (1) 2HP IN DIESEL TANK. TURBINE SYSTEMS TO BE EQUIPPED WITH 3 GPH ELECTRONIC LINE LEAK DETECTION. LEAK DETECTORS ARE TO BE TESTED FOR THE 3 GPH LEAK DETECTION PRIOR TO START UP. CONTRACTOR TO PROVIDE TEST DATA AT THE TIME OF PUNCH LIST AS WELL AS INCLUDE IN CLOSE OUT BINDER. SET TURBINE INTAKES AT 5" FROM BOTTOM OF TANKS. TURBINES TO BE EQUIPPED WITH INTAKE FILTER SCREENS, CONTRACTOR IS TO LABEL TURBINES AND CONTROLLERS AS TO WHICH PRODUCT THEY SERVE. GREEN CONTROLLER LIGHTS ARE TO GO OUT WHEN TURBINES ARE OFF OR LOSE POWER.
- 6 INSTALL 2" INSIDE 3" DOUBLE WALL FIBERGLAS PRODUCT SUPPLY LINES TO DISPENSERS. PIPING SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS. PIPING SHALL BE INSTALLED WITH A MINIMUM SLOPE OF 1/8" PER FOOT FROM THE FURTHEST DISPENSER SUMP DOWN TO THE TURBINE SUMPS. CONTRACTOR TO INSTALL TRACER TAPE WITH PRODUCT PIPING. TESTING OF PRODUCT LINES SHALL BE PERFORMED PRIOR TO BACKFILL, PRIOR TO PAVING AND BEFORE STATION OPERATION.
- INSTALL 3" FIBERGLASS STAGE II VAPOR RECOVERY HEADER FOR VAPOR RECOVERY SYSTEM. SLOPE 1/8" PER FOOT MINIMUM TO TANKS. INSTALL 3" TO 2" REDUCING TEES WHERE HEADERS BRANCH TO DISPENSERS. CONTRACTOR TO INSTALL TRACER TAPE WITH VAPOR PIPING. TESTING OF VAPOR LINES SHALL BE PERFORMED PRIOR TO BACKFILL, PRIOR TO PAVING AND BEFORE STATION OPERATION. SECONDARY CONTAINMENT TO BE INSTALLED WHEN REQUIRED BY LOCAL JURISDICTION ONLY. SEE DETAILS AND SCOPE OF WORK ON SHEETS G.0.2.1 & G.0.2.2 FOR PIPE SIZING AT UNDERGROUND STORAGE TANKS.
- 8 INSTALL "VEEDER ROOT" TANK AND LINE ALARM CONTROL PANEL MODEL # TLS-450PLUS IN BUILDING AT NORMALLY OCCUPIED LOCATION IN BUILDING. SEE ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR EXACT LOCATION.
- 9 INSTALL A SINGLE 2" FRP VENT LINE FOR EACH UNDERGROUND STORAGE TANK. SLOPE 1/4" PER FOOT (1/8" PER FOOT MINIMUM) TO TANKS AS SHOWN. CONTRACTOR TO INSTALL TRACER TAPE WITH VENT PIPING.
- 10 TERMINATION POINT OF TANK VENTS TO BE A MINIMUM OF 12' ABOVE GRADE AND NOT WITHIN 5' FROM ANY BUILDING OPENING OR PROPERTY LINE THAT CAN BE BUILT UPON. VENT RISERS SHALL BE INSTALLED IN ACCORDANCE WITH UNIFORM FIRE CODE REQUIREMENTS. VERIFY LOCAL REGULATIONS FOR ADDITIONAL EQUIPMENT OR INSTALLATION REQUIREMENTS. (1) INSTALL A SINGLE 1" RIGID GALVANIZED CONDUIT FOR EACH NEWLY INSTALLED TURBINE PUMP.
- 12 INSTALL DUAL FLOAT TANK ANNULAR SPACE HYDROSTATIC MONITORING SENSORS. SEE DETAILS FOR CONDUIT LOOPING BETWEEN ANNULAR RISER AND SUMPS.
- (13) INSTALL .1 GPH MAG PROBE TANK LEVEL GAUGES AT TURBINE SUMP AS SHOWN.
- (14) TANKS SHALL BE PROPERLY MARKED AND TAGGED WITH STANDARD API IDENTIFICATION MARKINGS AT FILL MANHOLES. 15 INSTALL (4) FOUR WAYNE OVATION SERIES 3+1 & (2) TWO 3+0 DISPENSERS TO BE FITTED WITH STAGE II HOSES, NOZZLES AND BREAKAWAY VALVES PER LOCAL REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING HOSES, NOZZLES AND BREAKAWAY VALVES PER LOCAL REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING HOSES, NOZZLES AND BREAKAWAYS. INSTALL UNDER DISPENSER CONTAINMENT INCLUDING PRODUCT SHEAR VALVES AND MONITORING SENSORS. START UP BY MANUFACTURER REPRESENTATIVE. GENERAL CONTRACTOR TO PURGE LINES WITH A MINIMUM OF 200 GALLONS THROUGH EACH HOSE/NOZZLE. ANY AIR POCKETS OR START UP PROBLEMS DUE TO IMPROPER INSTALLATION OR INCORRECT WIRING THAT DESTROYS ELECTRONICS WILL BE BILLED BACK TO THE CONTRACTOR. AFTER PURGING THE PRODUCT LINES OF AIR AND BEFORE VAPOR RECOVERY TESTING, CONTRACTOR IS TO REPLACE THE FACTORY INSTALLED GASOLINE FILTERS WITH NEW FILTERS NEW FILTERS.
- (16) FILL AND STAGE I VAPOR RECOVERY RISERS & ANNULAR RISER SHALL BE GROUNDED TO PREVENT STATIC DISCHARGE DURING FILLING OPERATIONS. SEE DWG. G.0.7.1 FOR STANDARD DETAILS
- 17 ALL NEW PIPING AND TANKS TO BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS.
- 18 INSTALL OVERFILL ALARM & ACKNOWLEDGMENT SWITCH, AND ESO IN LOCATION SHOWN. ALARM AND SWITCH TO BE LOCATED TO PROVIDE AN UNOBSTRUCTED VIEW TO TRUCK DRIVER. PROVIDE BOLLARD PROTECTION OF FREE STANDING POLE. SEE WIRING DIAGRAM AND DETAIL FOR MOUNTING REQUIREMENTS.

19 FINAL FACILITY EQUIPMENT LOCATIONS TO BE APPROVED BY DISTRIBUTION TERMINAL MANAGER PRIOR TO SUBMITTAL FOR PERMITS TO ENSURE CLEAR AND SAFE ACCESS TO THE UNDERGROUND TANKS FOR UNLOADING OPERATIONS. (20) INSTALL (2) TWO OBSERVATION WELL

GENERAL COMPLIANCE NOTES

- 1. ARCHITECTURAL AND CIVIL DRAWINGS SHALL TAKE PRECEDENCE FOR REFERENCING ALL DIMENSIONS, PROPERTY LINES, ELEVATIONS AND EQUIPMENT LOCATIONS
- 2. ALL DIMENSIONS AND CONDITIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BEFORE STARTING ANY WORK. ANY DISCREPANCY SHALL BE CALLED TO THE ATTENTION OF THE OWNERS ENGINEER FOR HIS DECISION BEFORE PROCEEDING WITH THE WORK.
- 3. GENERAL CONTRACTOR SHALL OBTAIN NECESSARY PERMIT FROM APPLICABLE AGENCIES FOR EXCAVATIONS OF TRENCHES 5'-0" OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND.
- 4. AN UNAUTHORIZED RELEASE RESPONSE PLAN MUST BE SUBMITTED AND APPROVED BY GOVERNING AGENCY PRIOR TO TANK OPERATIONS. 5. ALL MATERIALS SHALL BE COMPATIBLE WITH USE FOR THE INTENDED PURPOSE AS PER NATIONALLY RECOGNIZED CODES, LOCAL
- CODES AND GOVERNING AUTHORITIES. 6. THE UNDERGROUND STORAGE TANK SYSTEM SHALL BE COMPATIBLE WITH THE PRODUCT STORED.
- 7. ALL MONITORING DEVICES SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- 8. GENERAL CONTRACTOR IS REQUIRED TO PROVIDE 72 HOUR (TYPICAL) NOTIFICATION TO GOVERNING AGENCY PRIOR TO TANK INSTALLATION. 9. TANK AND PIPING SYSTEM TO BE INSPECTED BY OWNER'S THIRD PARTY INSPECTOR & GOVERNING AGENCY AT FOUR (4)
- SEPARATE CONSTRUCTION PHASES (SEE SPECIFICATIONS): A. TANK AIR TEST BEFORE SETTING IN HOLE AND SOAP TEST. B. TANKS AND PRIMARY PIPING HYDROSTATICALLY OR PNEUMATICALLY TESTED FOR 30 MINUTES. C. INSPECTION OF ALL SECONDARY CONTAINMENT, INCLUDING TESTING, IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES.
- D. FINAL INSPECTION INCLUDING ALL PORTIONS OF THE LEAK DETECTION SYSTEM.
- 10. ALL TANK SUMPS AND UNDER DISPENSER CONTAINMENT SUMPS SHALL BE HYDROSTATICALLY TESTED (LAKE TEST) WITH STANDING WATER TO TOP OF REDUCING COLLAR FOR A PERIOD OF 24 HOURS TO INSURE THAT THE SUMPS ARE WATERTIGHT. RECORD THE TEST RESULTS AND SUBMIT TO OWNER.
- 11. TANK SYSTEM, LEAK DETECTORS AND MONITORING SYSTEM INTEGRITY TESTS FORWARDED AND APPROVED BY GOVERNING AGENCY PRIOR TO TANK SYSTEM BEING PLACED IN OPERATION. 12. PRIOR TO FUEL BEING PUMPED, STATION MUST HAVE VEEDER ROOT FUNCTIONAL AND MONITORING ANNULAR SPACES OF TANK
- AND DISPENSER SUMPS. 13. PAYMENT OF ALL APPLICABLE UST OPERATING FEES SHALL BE SUBMITTED TO THE GOVERNING JURISDICTION
- WITHIN 30 DAYS OF THE FINAL INSPECTION. 14. EVIDENCE OF FINANCIAL RESPONSIBILITY SHALL BE SUBMITTED TO GOVERNING AGENCY (BY BP).
- 15. MEASUREMENTS OF BRINE LEVELS IN TANKS SHALL BE TAKEN BY BP REPRESENTATIVE DURING THREE SEPARATE VISITS TO SITE
- AND PRIOR TO FUELING OPERATIONS. REFER TO TANK MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR REQUIREMENTS. UTILITY CONFLICT NOTE:

CAUTION:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POT HOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE @ 1 (800) 227-2600 AND THEN POT HOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT THE OWNERS CIVIL ENGINEER TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION. CAUTION:

POTENTIAL UTILITY CONFLICT. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING AND NEW UTILITIES PRIOR TO CONSTRUCTION. SEE UTILITY CONFLICT NOTE THE EXISTING WATER, STORM, AND SANITARY SEWER SERVICE SHOWN IS APPROXIMATE, BASED ON FIELD SURVEYS AND "AS-BUILT" RECORDS. THE GENERAL CONTRACTOR SHALL "POTHOLE" THE EXISTING UTILITIES TO VERIFY THE DIAMETER AND LOCATION (INCL. ELEVATIONS) PRIOR TO CONSTRUCTION. ANY DISCREPANCIES IN THE LOCATION OF THE EXISTING PIPE OR INCOMPATIBILITY OF THE DESIGN SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNERS REPRESENTATIVE, AND OWNERS CIVIL ENGINEER.

TANK EXCAVATION NOTE:

TANK EXCAVATIONS SHALL BE PER OSHA REQUIREMENTS AND BE PERFORMED FOLLOWING THE RECOMMENDATIONS OF THE SOILS REPORT. TANKS EXCAVATIONS THAT REQUIRE SHORING SHALL BE ENGINEERED AND PERMITTED SEPARATELY AND SHALL BE THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR. HIGH WATER TABLE IS ANTICIPATED. CONTRACTOR TO SHORE AND DEWATER TANK HOLE EXCAVATION. FOLLOW TANK MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR WET HOLE TANK INSTALLATION.

DEWATERING NOTE

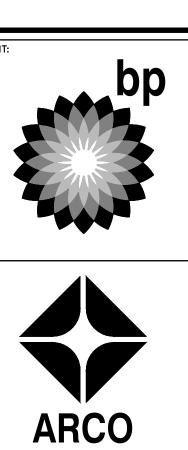
THE GENERAL CONTRACTOR SHALL REVIEW PLANS. NOTES. AND GEOTECHNICAL ENGINEER RECOMMENDATIONS FOR IF DEWATERING MEASURES REQUIRED FOR EXCAVATIONS. COSTS FOR PROVIDING AND IMPLEMENTING THESE MEASURES ON THIS PROJECT SHALL BE SPECIFICALLY INCLUDED IN THE CONTRACTOR'S BID PROPOSALS. GEOTECHNICAL ENGINEER

KRAZAN & ASSOCIATES, INC. 825 CENTER STREET, STE A

TACOMA, WASHINGTON 98409 PHONE: (253) 939-2500 CONTACT: THERESA R. NUNAN

GROUND WATER LEVEL NOTE:

REVEALED THAT GROUNDWATER WAS ENCOUNTERED RETWEEN 1.2 AND 3.7 FEET **below the ground** SURFACE WITH A MAXIMUM EXPLORED DEPTH OF 7.1 FEET. TANKS SHALL BE INSTALLED WITH CONCRETE DEADMEN AND FILTER FABRIC PER MANUFACTURERS' GUIDELINES.



BP WEST COAST PRODUCTS, LLC



Barghausen Consulting Engineers, Inc.

18215 72nd Avenue South Kent, WA 98032 425.251.6222 barghausen.com

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3400 am/pm FUEL CANOPY w/ 6 MPD's

ARCO NTI

DEVELOPMENT INFORMATION:

SITE ADDRESS:
SWC S MERIDIAN

@ HIGHWAY 512 PUYALLUP, WASHINGTON

FACILITY #TBD DESIGNED BY: NP/RF ALLIANCE Z&DM:

CHECKED BY: OV BP REPM: DRAWN BY: NP/RF ALLIANCE PM: VERSION: V-15.0 PROJECT NO: 01/01/2023 21730 DRAWING TITLE:

UNDERGROUND TANK AND PIPING SITE PLAN AND INSTALLATION NOTES

SHEET NO:

A SOILS REPORT OF THIS SITE LOCATION HAS

<u>GENERAL</u>

SCOPE OF WORK: UNLESS SPECIFIED OTHERWISE ON THESE DRAWINGS, THE GENERAL CONTRACTOR SHALL FURNISH ALL WORK AND MATERIALS TO COMPLETE THE INSTALLATION OF THE SYSTEMS AND EQUIPMENT SHOWN IN THESE DRAWINGS AND AS REQUIRED BY PROJECT DOCUMENTS PROVIDED TO THE CONTRACTOR.

WHERE THESE DRAWINGS DIFFER FROM LOCAL REGULATIONS, LOCAL REGULATIONS WILL SUPERSEDE THESE DRAWINGS IF THEY ARE MORE STRINGENT. <u>NOTE</u>:

THESE GUIDELINES APPLY ONLY TO UNDERGROUND STORAGE TANKS AND PRODUCT PIPING. REFER TO BALANCE OF SITE SPECIFIC DOCUMENTS/ DRAWINGS FOR SPECIFICATIONS REGARDING CONCRETE/ASPHALT INSTALLATION, ELECTRICAL REQUIREMENTS, AND SANITARY & STORM SEWERS INSTALLATION.

> *** WHERE MULTIPLE VERSIONS OF THE SAME SHEET EXIST, INSERT *** THE SHEET APPROPRIATE FOR THE SPECIFIC STATION LAYOUT.

ARCHITECTURAL AND CIVIL DRAWINGS SHALL TAKE PRECEDENCE FOR REFERENCING ALL DIMENSIONS, PROPERTY LINES, ELEVATIONS AND EQUIPMENT LOCATIONS

ALL DIMENSIONS AND CONDITIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BEFORE STARTING ANY WORK. ANY DISCREPANCY SHALL BE CALLED TO THE ATTENTION OF THE OWNERS ENGINEER FOR HIS DECISION BEFORE PROCEEDING WITH THE WORK. ALL REQUESTS TO ADD, DELETE, OR SUBSTITUTE MATERIAL AND EQUIPMENT SHOWN ON THESE DRAWINGS MUST BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE OR HIS AGENT, THE BP PROJECT MANAGER, IN CHARGE OF THE PROJECT. ALL CHANGES MUST BE REVIEWED WITH

THE MARKETING FUELS MANAGER. THE CONTRACTOR IS REQUIRED TO FURNISH AS-BUILT DRAWINGS TO LOCATE TANKS AND PIPING AS INSTALLED AFTER THE COMPLETION OF THE PROJECT.

(1) TANK INSTALLATION:

STANDARD: CONTRACTOR TO INSTALL DOUBLE WALL FIBERGLASS TANKS WITH COMPLETE "VEEDER ROOT PANEL" TANK AND PIPING MONITORING AND ALARM SYSTEM. TANKS TO BE SET MIN. 60" BELOW FINISH GRADE. SEE SITE SPECIFIC INSTALLATION DETAILS FOR TANK SIZES AND LOCATIONS.

NYC VARIANT: INSTALL TOP AND BOTTOM SLAB AND SLAB PIER SUPPORT SYSTEM PER NYC STANDARDS.

TANK SIZING GUIDELINES: SPECIFIC BUSINESS UNIT TANK SIZE REQUIREMENTS ARE RECOMMENDED. TANK SIZING MODELS CAN BE RUN BY CONTACTING FUEL SYSTEM DESIGN MANAGER – AMERICAS.

LOCATION OF TANKS AND ASSOCIATED EQUIPMENT ON PROPERTY: FINAL FACILITY EQUIPMENT LOCATIONS INCLUDING PLACEMENT AND ORIENTATION OF TANKS, EMERGENCY SHUTOFF SWITCHES, OVERFILL ALARMS (IF PRESENT) TO BE APPROVED BY BP DISTRIBUTION PRIOR O SUBMITTAL FOR PERMITS TO ENSURE CLEAR AND SAFE ACCESS TO THE ÙNDERGROUŃD TANKS FOR UNLOADING OPERATIONS. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CONFIRMING APPROVED TANK AND EQUIPMENT LOCATIONS HAS BEEN DOCUMENTED W/ BP DISTRIBUTION, THE SITE ENGINEER AND/OR OWNER'S REPRESENTATIVE OR HIS AGENT, THE BP PROJECT MANAGER PRIOR TO THE COMMENCEMENT OF WORK.

"TANK EXCLUSION ZONE NOTE" THE UST STRUCTURAL EXCLUSION ZONE SHALL BE ESTABLISHED AS 16'-0" AS MEASURED FROM THE EXTERIOR FACE. OF ANY UNDERGROUND STORAGE TANKS LOCATED WITHIN THE SITE PLAN. THE PURPOSE OF THIS ZONE IS TO ACT AS AN ENGINEERING BARRIER TO PREVENT THE RISK OF DAMAGE TO OUR UST'S FROM STRUCTURAL ELEMENTS THAT ARE TOO CLOSE TO THE EXCAVATION WALLS, RESULTING IN LATERAL INSTABILITY AND TRANSFER OF LOADS INTO THE TANK HOLE AND POTENTIALLY DAMAGING OUR TANKS

<u>TANKS:</u> SHALL BE UNDERWRITERS LABORATORY APPROVED LISTED FOR THE UNDERGROUND STORAGE OF ALL FLAMMABLE AND COMBUSTIBLE MOTOR FUELS AS CALLED FOR ON THE SITE SPECIFIC DRAWING OR AS DESIGNATED ON THE SUPPLEMENTAL CONDITIONS AND SHALL BE DOUBLE WALL TANKS OF FIBERGLASS REINFORCED PLASTIC (FRP). INSTALLATION OF TANKS AND PIPING SHALL BE IN ACCORDANCE WITH U.L. LISTED MANUFACTURER'S INSTRUCTIONS. INSTALLATION SHALL CONFORM TO NFPA-30/30A AND ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. TANKS SHALL ONLY BE INSTALLED BY QUALIFIED INSTALLERS CERTIFIED BY THE STATE IN WHICH THE TANKS ARE TO BE INSTALLED AND BY THE TANK MANUFACTURER.

THE UNDERGROUND STORAGE TANK SYSTEM SHALL BE COMPATIBLE WITH THE PRODUCT STORED. ALL CONTINUOUS MONITORING DEVICES SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

ALL MATERIALS USED IN THE INSTALLATION SHALL BE COMPATIBLE WITH USE FOR THE INTENDED PURPOSE AS PER NATIONALLY RECOGNIZED CODES, LOCAL CODES AND GOVERNING AUTHORITIES. METHANOL COMPATIBILITY: FOR ALL METHANOL COMPATIBLE STORAGE SYSTEMS, ALL READILY ACCESSIBLE COMPONENTS SHALL BE METHANOL

COMPATIBLE FOR THE IMMEDIATE INTENDED SERVICE.

BIO-DIESEL COMPATIBILITY: CURRENTLY AT THIS TIME, NO TANKS ARE LISTED FOR BIO-DIESEL SERVICE APPLICATIONS INITIAL TANK TESTING

NEW TANKS SHALL BE INSPECTED UPON ARRIVAL AT SITE, AFTER UNLOADING FROM THE TRUCK, FOR VISUAL DAMAGE PRIOR TO INSTALLATION. - FOR DRY ANNULAR SPACE TANKS AIR/SOAP TESTS MUST BE PERFORMED AT THE JOB SITE PRIOR TO INSTALLATION TO VERIFY THE ABSENCE OF DAMAGE.

FOR LIQUID FILLED ANNULAR SPACE TANKS – AIR/SOAP TESTS ON ACCESSORIES AND FITTINGS CAN BE PERFORMED AFTER THE TANK IS IN THE EXCAVATION BEFORE OR AFTER BACKFILLING.

CONTRACTOR SHALL COMPLETE ALL TESTING ACCORDING TO MANUFACTURER'S INSTRUCTIONS FOR THE TANKS. CONTRACTOR SHALL COMPLETE ALL WARRANTY VALIDATION TESTING AND PROVIDE DOCUMENTATION TO OWNER'S REPRESENTATIVE OR HIS AGENT, THE BP PROJECT MANAGER.

HYDROSTATICALLY MONITORED DOUBLE WALL TANKS SHALL BE TESTED ACCORDING TO MANUFACTURER'S INSTRUCTIONS BY: INSPECT AND ADJUST RESERVOIR LEVEL OF THE MONITORING FLUID (TO COVER THE RIBE INSIDE THE RESERVOIR.

- REMOVE ENOUGH TANK FITTING PLUGS TO SEE INSIDE THE PRIMARY TANK. VISUALLY INSPECT THE TANK INTERIOR FOR COLORED MONITORING FLUID TRACES. CONNECT TANK TEST MANIFOLD AND PRESSURIZE THE PRIMARY TANK TO 5 PSIG MAX. (3 PSIG MAX. FOR 12' TANKS). MONITOR THE
- PRESSURE FOR 30 MINUTES FOR ANY LOSS IN PRESSURE THAT MAY INDICATE A LEAK.
- DO NOT PRESSURIZE THE ANNULAR SPACE. DOING SO MAY DAMAGE THE PRIMARY TANK OR CAUSE TANK FAILURE. WHILE UNDER PRESSURE, COVER FITTINGS AND MANWAY(S) WITH SOAP SOLUTION AND INSPECT.
- AFTER COMPLETING AIR TEST, RELEASE PRESSURE; REMOVE ALL GAUGES, VALVES, AND HOSE ASSEMBLIES; REPLACE AND TIGHTEN FITTING PLUGS: AND REPLACE THE PLASTIC VENT PLUG IN THE OPEN FITTINGS.

NOTE HYDROSTATIC FLUID RESERVOIR LEVEL MUST BE RECHECKED TO VERIFY TANK INTEGRITY PRIOR TO INTRODUCING BALLAST INTO TANKS. FIELD REPAIR OF TANKS: IT IS ALLOWABLE TO FIELD REPAIR DAMAGED TANKS AFTER APPROVAL BY BP FILED ENGINEER. ALL TANKS DAMAGED IN TRANSPORT OR OFF LOADING OPERATIONS SHALL BE FIELD REPAIRED BY A TANK MANUFACTURER'S CERTIFIED FIELD SERVICE REPRESENTATIVE. TANK MANUFACTURER SHALL RE-CERTIFY REPAIRED TANKS FOR USE. ALL FIELD SERVICE WORK SHALL BE DOCUMENTED. COPIES OF ANY AND ALL FIELD

TANK MEASUREMENTS:

THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE COMPLETION OF THE FOLLOWING TANK MEASUREMENT ACTIVITIES:

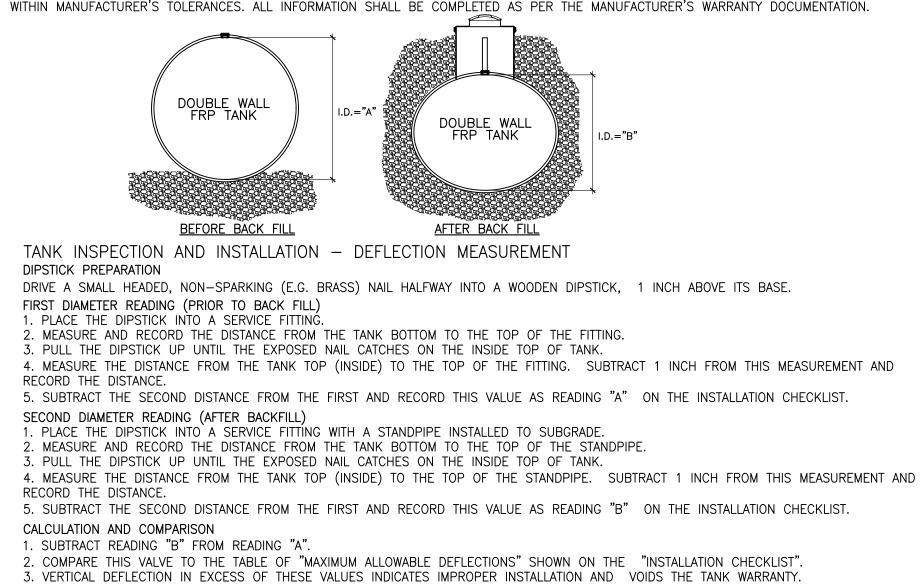
. VERIFY THE EXTERNAL SIZE OF THE TANK TO MATCH WITH MANUFACTURER SUPPLIED SHOP MEASUREMENTS. TRANSFER THE SIZE, SERIAL NUMBER, AND PRODUCT INSTALLED, AND POSITION OF TANK TO THE AS-BUILT PLAN.

2. TRANSFER TANK DIMENSIONAL AND PRODUCT INFORMATION TO THE DATA SHEET IN THE TANK GAUGE CONSOLE. 3. PROVIDE THE TOP OF TANK ELEVATION READING AT BOTH ENDS OF EACH TANK.

SERVICE DOCUMENTATION SHALL BE PLACED IN THE PROJECT FILE AND INTO OWNERS OPERATING FILE.

TANK DEFLECTION MEASUREMENT PROCEDURE:

DEFLECTION MEASUREMENT BEFORE AND AFTER TANK INSTALLATION SHALL BE ACCORDING TO MANUFACTURER'S REQUIREMENTS AND SHALL BE WITHIN MANUFACTURER'S TOLERANCES. ALL INFORMATION SHALL BE COMPLETED AS PER THE MANUFACTURER'S WARRANTY DOCUMENTATION.



MAXIMUM DEFLECTION FOR 8'-0'' TANKS = 1-1/4''MAXIMUM DEFLECTION FOR 10'-0'' TANKS = 1-1/2''

TANK AND PIPING INSTALLATION SCOPE OF WORK:

TOP OF TANK ELEVATION: CONTRACTOR TO CALCULATE TOP OF TANK ELEVATION. START WITH 18" MINIMUM DEPTH OF VAPOR RECOVERY LINE AT THE FARTHEST DISPENSER AND SLOPE 1/4" PER FOOT MAXIMUM TO 1/8" PER FOOT MINIMUM. ADD 12" AT THE TANK. ADD 13" (FOR 3" PIPE) OR 8" (FOR 2") FOR A CHANGE IN PIPING DIRECTION OTHER THAN 90 OR 45 DEGREES. SET TANKS 6" DEEPER THAN CALCULATED AS PRECAUTION. IN NO EVENT SHALL THE TANK BE BURIED LESS THAN 4'-0" BELOW FINISHED GRADE OR DEEPER THAN 7'-0" BELOW FINISHED GRADE. SEE MANUFACTURERS INSTALLATION INSTRUCTIONS FOR MINIMAL TANK BURY WHEN DEADMEN ANCHORING IS NOT PROVIDED. ANY VARIATIONS IN SLOPE FROM 1/4" PER FOOT SHALL BE REPORTED TO OWNER'S ENGINEER. TANK EXCAVATION:

CONTRACTOR TO EXCAVATE TANK HOLE. CONTRACTOR SHALL ADHERE TO O.S.H.A. STANDARDS ON EXCAVATIONS. CONTRACTOR MAY SELECT ANY OF THE RECOMMENDED PRACTICES FOR TANK EXCAVATION AND MUST PROVIDE ALL NECESSARY PROTECTIVE BARRICADES.

SLOPE SIDES OF TANK HOLE (USE OF SLOPING MUST BE RECEIVE PRIOR APPROVAL ON INDIVIDUAL SITE BASIC FROM "BP") OR USE SHORING FOR ALL TANK EXCAVATIONS IN ACCORDANCE WITH OSHA 1926 SUBPART P. OSHA STANDARDS - EXCAVATIONS; FINAL RULE OCTOBER 1, 1989. WHEN ENGINEERED SHORING IS REQUIRED DUE TO SITE CONDITIONS AN ENGINEERED SHORING PLAN UTILIZING INTERLOCKING STEEL SHEET PILING SHALL BE PROVIDED AND SHALL INCLUDE SUPPORTING ENGINEERING CALCULATIONS BY A STATE CERTIFIED ENGINEER AND SHALL BE THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR.

GENERAL CONTRACTOR SHALL OBTAIN NECESSARY PERMIT FROM APPLICABLE AGENCIES FOR EXCAVATIONS OF TRENCHES 5'-O" OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND. TANK EXCAVATIONS SHALL BE THE MINIMUM SIZE REQUIRED TO PROVIDE FOR BEDDING AND CLEARANCES INDICATED IN THESE DRAWINGS. TANK BURIAL DEPTH FIELD DETERMINED TO PROVIDE FOR 1/4" (1/8" PER FOOT MIN.) PER FOOT FOR STAGE II VAPOR RECOVERY PIPING & 1/8" MINIMUM PER FOOT FOR PRODUCT PIPING SLOPE BACK FROM DISPENSERS TO TANK.

TANK STABILITY BUOYANCY CALCULATIONS: TANK STABILITY SHALL BE RE-CHECKED AGAINST FLOATATION BY INSTALLING CONTRACTOR. SEE BUOYANCY CALCULATIONS ON TANK DETAILING SHEETS. TANK ANCHORING:

CONTRACTOR TO INSTALL MANUFACTURER SUPPLIED TANK HOLD DOWN STRAPS & ANCHORS WHEN REQUIRED DUE TO HIGH WATER TABLE, LOCAL REGULATIONS, OR SPECIFIED BY SITE ENGINEER/DESIGNER AND/OR OWNER'S REPRESENTATIVE OR HIS AGENT. THE BP PROJECT MANAGER. WHEN REQUIRED, THE ANCHORING SYSTEM SHALL BE IN COMPLIANCE WITH AUTHORITY HAVING JURISDICTION. ANCHOR & STRAPS TO BE INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS

** ALTERNATE ANCHORING BY USE OF A CONCRETE ANCHORING SLAB IS PERMITTED. WHEN GROUNDWATER LEVEL IS ANTICIPATED TO BE WITHIN 5 FT. OF GRADE CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE FOR DIRECTION ON ANCHORING METHOD TO BE USED (DEADMAN OR ANCHORING SLAB) AND SUCH SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATION. ** THIS PROCEDURE IS REQUIRED IN NYC AND CONSIDERED PART OF SCOPE OF WORK WHEN INSTALLING TANKS IN NYC.

NYC VARIANT: IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE FOR THE INSTALLATION OF A 12" CONCRETE ANCHORING SLAB. 4,000 PSI AT 28 DAYS WITH (2) LAYERS OF 6x6-w5.5xw5.5 ON 2" STEEL CHAIRS TOP & BOTTOM

FILTER FABRIC: IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE FOR THE INSTALLATION OF FILTER FABRIC (DUPONT TYPAR OR MIRAFI 500X) WHICH IS REQUIRE FOR WET HOLE INSTALLATIONS OR UNSUITABLE SOILS. (NOTE: A WET HOLE/ UNSUITABLE AREA REQUIRING FILTER FABRIC IS ANY TANK EXCAVATION IN WHICH THE AREA IS SUBJECT TO: TIDAL INFLUENCES, OR AREAS SUBJECT TO FREQUENTLY CHANGING GROUND WATER LEVELS, OR WATER CONDITIONS WITH SILTY SOIL, OR MUCK, BOG, PEAT, SWAMP, LANDFILL TYPE AREAS OR ANY OTHER SITUATION WHERE THE SOIL IS INHERENTLY UNSTABLE, OR SOILS WITH LESS THAN 250 LBS./SQ. FT. COHESION, OR WITH ULTIMATE BEARING CAPACITY OF LESS THAN 500 LBS./SQ. FT., OR AT THE REQUEST OF THE TANK OWNER. ALL WET HOLE BALLAST INSTALLS (AS DESCRIBED IN SECTION BELOW) SHALL USE FILTER FABRIC.

FILTER FABRIC SHALL EXTEND 1 FOOT ABOVE MAX HIGH WATER TABLE AND SEAMS SHALL BE OVERLAPPED BY 1 FOOT. MATERIAL SHALL BE PINNED OR OTHERWISE SECURED ALLOW BACKFILL WITHOUT DISTURBANCE. USE OF PLASTIC, OR ANY OTHER MATERIAL THAT MAY TEAR, OR DEGRADE OVERTIME IS PROHIBITED.

WET HOLE BALLAST METHOD:

WATER IS THE SUITABLE MEDIUM FOR BALLAST DURING WET HOLE TANK INSTALLATIONS. A PROPERLY INSTALLED 12 FOOT HIGH TEMPORARY VENT PIPE MUST BE INSTALLED BY THE CONTRACTOR. IF WATER IS USED TO BALLAST TANKS, THE WATER IS TO BE COMPLETELY PUMPED OUT & MOPPED DRY IN ORDER TO PROTECT FUEL INTEGRITY. CONTRACTOR IS REQUIRED TO COORDINATE BALLASTING OPERATIONS WITH OWNER'S REPRESENTATIVE OR HIS AGENT, THE BP PROJECT MANAGER. IT IS THE INSTALLING CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE JURISDICTIONAL REQUIREMENTS AND ACCEPTANCE FOR BALLASTING THE TANKS AND TO PROVIDE FOR PROPER DISPOSAL OF THE BALLASTING MEDIUM UNDER THE REGULATIONS OF THE GOVERNING AUTHORITY.

CONTRACTOR TO PROVIDE ALL BACK FILL REQUIRED FOR THE PROJECT SCOPE. PEA GRAVEL SHALL CONSIST OF NATURALLY ROUNDED AGGREGATE, MINIMUM 1/8" AND MAXIMUM 3/4" SIZE. FREE OF CLAY, SLAG, CINDERS, OR DEBRIS. ALL SUBSTITUTES MUST BE APPROVED BY MANUFACTURER AND OWNERS FIFLD REPRESENTATIVE.

NO MORE THAN 5% (BY WEIGHT) MAY PASS THE #8 SIEVE FOR BACK FILLING NONMETALLIC TANKS WITH A 96% TO 98% FREE FALL COMPACTION. DRY PEA GRAVEL DENSITY MINIMUM OF 95 POUNDS PER CUBIC FOOT IS REQUIRED. SUPPLY QUARRY CERTIFICATION MEETING ASTM C-33, PARAGRAPH 9.1 REQUIREMENTS.

BACK FILLING OF TANK EXCAVATIONS SHALL BE PROVIDED IN LIFTS AS PER TANK MANUFACTURER'S INSTALLATION INSTRUCTIONS.

PRODUCT, VENT, AND VAPOR PIPING SHALL BE LAID AND CONTINUOUSLY SUPPORTED ON A 6" BED OF COMPACTED PEA GRAVEL. BLOCKS, PLANKS, OR OTHER DEBRIS SHALL NOT BE USED TO SUPPORT PIPING IN FINAL INSTALLATION. NOTE: UNDER NO CIRCUMSTANCES SHALL DIRT, PAVING MATERIALS, WOOD, OR OTHER CONSTRUCTION DEBRIS BE ALLOWED TO REMAIN IN TANK AND PIPE EXCAVATIONS.

(2) ANNULAR SPACE HYDROSTATIC MONITOR AND RISER INSTALLATION:

STANDARD: CONTRACTOR TO INSTALL 4" FIBERGLASS RISER AND VEEDER ROOT HYDROSTATIC SENSOR AT TANK ANNULAR SPACE LOCATION NOTED ON THE PLANS PER MANUFACTURERS INSTRUCTIONS.

(3) TANK SUMP INSTALLATION:

STANDARD: CONTRACTOR TO INSTALL 42" OR 48" DIAMETER TURBINE SIDE FIBERGLASS POLYSIDED SUMPS ON TANKS PER MANUFACTURER'S INSTRUCTIONS. NOTE THAT THE ORIENTATION OF THE TANK SUMPS MUST BE CORRECT IN ORDER TO FACILITATE CORRECT PIPING INSTALLATION INTO THE SUMPS. SEE ACCOMPANYING DETAILS IN PLAN SET AND NOTE SIZES OF SUMPS PER PROJECT DEMOGRAPHICS.

NYC VARIANT: 42" DIAMETER TURBINE SUMPS ARE INSTALLED.

LONG ISLAND/NY VARIANT: ON TANKS INSTALLED IN LONG ISLAND, FILL SUMPS ARE REQUIRED. SEE ENCLOSED DRAWINGS FOR DETAILS ARCO BRANDED VARIANT: 48" DIAMETER TURBINE SUMPS ARE INSTALLED.

CALIFORNIA VARIANT: 42" DIAMETER FILL SUMPS TO BE DOUBLE WALLED AND INSTALLED WITH CONTINUOUS HYDROSTATIC MONITORING DEVICE PER AB-2481 REQUIREMENTS.

(4) TANK LEVEL GAUGE / OVERFLOW PROTECTION:

STANDARD: CONTRACTOR TO INSTALL VEEDER ROOT MAGNOSTRICTIVE PROBE LEVEL GAUGE AT LOCATION NOTED ON PLANS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

OVERFLOW PROTECTION: UST OVERFLOW COMPLIANCE IS ACHIEVED BY USE OF OVERFLOW PREVENTION DROP TUBE FLAPPER VALVE SET AT 95% AND IS IN ACCORDANCE WITH FEDERAL AND STATE GUIDELINES FOR UST OVERFILL REQUIREMENTS.

AN OVERFILL ALARM AND ACKNOWLEDGE SWITCH TIED INTO THE VEEDER ROOT AUTOMATIC TANK GAUGE SYSTEM. THE MONITORING SYSTEM PROVIDES AN AUDIBLE AND VISUAL ALARM WHEN THE TANK(S) ARE FILLED TO THE 90% LEVEL.

(5) FILL AND STAGE I VAPOR RECOVERY INSTALLATION:

STANDARD: CONTRACTOR TO INSTALL 4" GALVANIZED FILL AND STAGE I VAPOR RECOVERY RISERS. CONTRACTOR TO INSTALL DROP TUBE ASSEMBLY. WITH OVERFILL PREVENTION DROP TUBE. CONTRACTOR TO INSTALL VENT AND STAGE II FLEX CONNECTORS AND FRP ADAPTERS. LOCATE AND CUT PENETRATIONS INTO SUMPS FOR THE ROUTING OF VENT AND STAGE II VAPOR PIPING INTO TURBINE SUMPS AND MAKE CONNECTIONS TO VENT AND VAPOR PIPING FIBERGLASS PIPING. CONTRACTOR TO INSTALL DOUBLE SIDED PENETRATION ENTRY BOOTS FOR ALL ENTRIES INTO SUMPS. CONTRACTOR TO INSTALL STATIC GROUNDING SYSTEM AT ALL FILL AND VAPOR RISERS PER INSTALLATION DETAILS SHOWN ON SHEET G.O.7.

CONTRACTOR TO INSTALL CARB APPROVED STAGE I MANHOLES WITH 5 GALLON SPILL COLLECTION BUCKETS. INSTALL PRODUCT AND FILL ADAPTERS AND CAPS. SEE ACCOMPANYING DETAILS IN SITE SPECIFIC PLAN SET FOR MANUFACTURER AND INSTALLATION REQUIREMENTS.

NYC VARIANT: CONTRACTOR TO PROVIDE THE INSTALLATIONS OF A SEPARATE UNOBSTRUCTED VENT CONNECTION AT EACH TANK AT THE TURBINE SIDE OF THE TANK AS PER PLANS AND PER NYC CODE REQUIREMENTS. A 15 GALLON PRODUCT SPILL COLLECTION BUCKET IS REQUIRED BY NYC FIRE CODE. FILL SPILL BUCKETS MUST HAVE A NYC CERTIFICATE OF APPROVAL FROM FIRE DEPARTMENT.

(6) TURBINE INSTALLATION:

STANDARD: CONTRACTOR TO INSTALL FE PETRO IST 2 HP VARIABLE SPEED TURBINES AND PIPING CONNECTION VALVES AND FITTINGS IN TANK SUMPS AS SHOWN ON SITE SPECIFIC DETAIL DRAWINGS. ALL PRODUCT LINES TO TURBINES TO BE EQUIPPED WITH 3 GPH ELECTRONIC LINE LEAK DETECTION. LEAK DETECTORS ARE TO BE TESTED FOR THE 3 GPH LEAK DETECTION PRIOR TO START UP. CONTRACTOR TO PROVIDE TEST DATA AT THE TIME OF PUNCH LIST AS WELL AS INCLUDE IN CLOSE OUT BINDER. ALL TURBINES ARE EQUIPPED WITH STANDARD "R" CHECK VALVE AS A STANDARD FROM FACTORY. SET TURBINE INTAKES AT 5" FROM BOTTOM OF TANKS. TURBINES TO BE EQUIPPED WITH INTAKE FILTER SCREENS. CONTRACTOR TO INSTALL 1" RIGID STEEL CONDUITS FOR SUBMERSIBLE PUMP POWER. (ONE FOR EACH TURBINE). CONTRACTOR IS TO LABEL TURBINES AND CONTROLLERS AS TO WHICH PRODUCT THEY SERVE. GREEN CONTROLLER LIGHTS ARE TO GO OUT WHEN TURBINES ARE OFF OR LOSE POWER. IST PUMP CONTROLS ARE TIED TO VEEDER ROOT CONTROL PANEL. SEE APPROPRIATE TURBINE CONFIGURATION AND PROGRAMMING SHEETS.

SINGLE MASTER TURBINE CONFIGURATIONS - EQUIPPED AS NOTED ABOVE. SEE APPROPRIATE SITE SPECIFIC DRAWINGS FOR INSTALLATION DETAILS.

MASTER-SATELLITE TURBINE CONFIGURATIONS - EQUIPPED AS NOTED ABOVE EXCEPT: ONLY THE MASTER TURBINE SHALL HAVE THE PLLD LEAK DETECTOR INSTALLED. CONTRACTOR TO REMOVE THE STANDARD "R" CHECK VALVE OUT OF THE SATELLITE TURBINE. THE BALL VALVE ON MANIFOLD LINE BETWEEN TURBINES SHALL BE SET IN THE "OPEN" POSITION AND A SINGLE PLLD PART #848-480-001 (TLS350) OR DPLLD PART #859080-001 (TLS450) IS TO BE INSTALLED ON THE MASTER IST WITH AN FE. PETRO NON-VENTED PRECISION CHECK VALVE (PART #65 PSI) INSTALLED ON THE SATELLITE IST PREVENTING BACKFILLING OF USTS. SEE APPROPRIATE SITE SPECIFIC DRAWINGS FOR INSTALLATION DETAILS.

MASTER-MASTER TURBINE CONFIGURATIONS - EQUIPPED AS NOTED ABOVE EXCEPT: THE BALL VALVE ON MANIFOLD LINE BETWEEN TURBINES SHALL BE SET IN THE "CLOSED" POSITION DURING NORMAL OPERATION. SEPARATE LINES & (2) PLLDs PART #848-480-001 (TLS350) OR (2) DPLLDs PART #859080-001 (TLS450) SHALL BE INSTALLED. IN CASE OF FAILURE OF AN INDIVIDUAL IST. THE PRODUCT CROSS-OVER LINE CAN BE PLACED INTO OPERATION BY OPENING THE CROSS CONNECTING VALVE. THE FAILED IST MUST HAVE ITS PLLD DISABLED & DISPENSER SIGNAL WIRES NEED TO BE MODIFIED FOR THIS TEMPORARY SET-UP. SEE APPROPRIATE SITE SPECIFIC DRAWINGS FOR INSTALLATION DETAILS.

ARCO LARGE SITE VARIANT - IF SITE HAS 9 OR MORE MPD'S, TWO (2) 2 HP VARIABLE SPEED TURBINES ARE TO BE INSTALLED IN THE PRIMARY REGULAR UNLEADED TANK. THE REGULAR UNLEADED TURBINES SHALL BE SET UP AS "MASTER/SATELLITE/SATELLITE" AND THE CROSS CONNECTION MANIFOLD BETWEEN TANKS SHALL BE OPENED ALLOWING ALL THREE TURBINES TO SERVE THE ENTIRE SITE.

NYC VARIANT: MASTER-MASTER TURBINE CONFIGURATION W/ ROTATING STARTS - EQUIPPED AS NOTED ABOVE FOR MASTER-SATELLITE CONFIGURATION EXCEPT WITHOUT SIPHON LINE BETWEEN TANKS: THE UST PRODUCT LEVEL BALANCING IS ACHIEVED BY ROTATING THE STARTING OF INDIVIDUAL IST'S WITH CONTROL LOGIC LINKED TO THE VEEDER ROOT ATG. THE PRODUCT LINES ARE CONNECTED BY A CROSS OVER MANIFOLD BETWEEN TURBINES. ONI IST, THE MASTER, SHALL HAVE A PLLD LEAK DETECTION DEVICE INSTALLED PLLDs PART #848-480-001 (TLS350) OR (2) DPLLDs PART #859080-001 (TLS450) AND THE SATELLITE SHALL HAVE AN FE PETRO NON-VENTED PRECISION CHECK VALVE (PART #65 PSI) INSTALLED. THE BALL VALVE ON MANIFOLD LINE BETWEEN TURBINES SHALL BE SET IN THE "OPEN" POSITION DURING NORMAL OPERATION. IN CASE OF FAILURE OF AN INDIVIDUAL IST. NO ADJUSTMENT TO THE DISPENSER SIGNAL WIRES WILL BE REQUIRED AS THE IST CONTROLLERS WILL ACCOMMODATE THE IST STARTING VIA THE VEEDER ROOT ATG LINK. THE PRODUCT IN THE UST WITH THE FAILED IST WILL HAVE THE PRODUCT LEFT IN A STATIC STATE AND NOT AVAILABLE FOR DISPENSING UNTIL A REPAIR IS MADE. SEE APPROPRIATE SITE SPECIFIC DRAWINGS FOR INSTALLATION DETAILS. (7) SIPHON LINE INSTALLATION

STANDARD: WHEN SITE SPECIFIC TANK CONFIGURATION SHOWS MULTIPLE TANKS FOR IDENTICAL PRODUCTS, CONTRACTOR TO INSTALL 4" OVER 3" DOUBLE WALL FIBERGLASS SIPHON LINES AND PIPING CONNECTION VALVES AND FITTINGS BETWEEN TANKS. INSTALL SIPHON PIPING AS LOW AS POSSIBLE IN SUMP. NOTE LIMITATION ON MAXIMUM SIPHON PIPING SYSTEM HEIGHT ON DETAILS. ADJUST HEIGHT DOWN FOR SMALLER DIAMETER TANKS. CONTRACTOR TO INSTALL VEEDER ROOT SIPHON BREAK, IF APPROPRIATE FOR MARKET CONDITIONS. SEE APPROPRIATE SITE SPECIFIC DRAWINGS FOR INSTALLATION DETAILS.

NYC VARIANT: SIPHON PIPING IS NOT INSTALLED. SEE TURBINE INSTALLATION NOTE ABOVE. SEE SITE SPECIFIC DRAWINGS FOR INSTALLATION DETAILS. ARCO BRANDED VARIANT: CONTRACTOR TO INSTALL 4" OVER 3" DOUBLE WALL FIBERGLASS SIPHON PIPING. SIPHON BREAK IS NOT INSTALLED. INSTALL SIPHON PIPING AS LOW AS POSSIBLE IN SUMP. NOTE LIMITATION ON MAXIMUM SIPHON PIPING SYSTEM HEIGHT ON DETAILS. ADJUST HEIGHT DOWN FOR SMALLER DIAMETER TANKS. SEE APPROPRIATE SITE SPECIFIC DRAWINGS FOR INSTALLATION DETAILS.

CALIFORNIA VARIANT: SIPHON PIPING TO BE INSTALLED WITH CONTINUOUS VACUUM MONITORING DEVICE PER AB-2481 REQUIREMENTS (8) PRODUCT PIPING INSTALLATION:

STANDARD: CONTRACTOR TO INSTALL DOUBLE WALL FIBERGLASS PRODUCT PIPING, CONNECTORS, VALVES AND FITTINGS IN TANK AND DISPENSER SUMPS AS SHOWN ON SITE SPECIFIC DETAIL DRAWINGS TO SUPPLY DISPENSERS, PRODUCT PIPING TO BE N.O.V. RED THREAD IIA, 2" INSIDE 3" DIAMETER AS INDICATED ON SITE SPECIFIC FUELING PLAN. ALL PIPING AND FITTINGS SHALL BE UL-971 LISTED IN COMPLIANCE WITH THE JULY 2005 PERFORMANCE STANDARDS, AND SHALL BE COMPATIBLE WITH ETHANOL, INCLUDING BUT NOT LIMITED TO "E25/B20" (25% ETHANOL 75% GASOLINE). PRODUCTS LINES TO BE EQUIPPED 3 GPH PRESSURE LINE LEAK DETECTORS (PLLD) ON TURBINES AND WITH LIQUID LEAK MONITORING SENSORS LOCATED IN TURBINE PIPING SUMPS ATTACHED TO TANKS WIRED FOR TURBINE SHUT DOWN. PRODUCT PIPING IN TURBINE SUMPS, PRODUCT PIPING CROSS CONNECTION MANIFOLDS BETWEEN SUMPS AND SIPHON PIPING PENETRATIONS ARE TO ENTER THE SAME SIDE OF THE SUMP IF POSSIBLE. IF PRODUCT PENETRATION ENTERS ON BOTH SIDES OF SUMP DUE TO FIELD CONDITIONS, THEN DUAL SENSORS AT TURBINE SUMP MAY BE REQUIRED TO BE INSTALLED BY LOCAL REGULATIONS. IF THE BP PROJECT MANAGER DETERMINES THAT THE ALL THE PIPING ENTRIES NOTED ABOVE COULD HAVE BEEN MADE TO THE SAME SIDE OF THE SUMP, THEN ANY COSTS ASSOCIATED WITH EXTRA SENSORS SHALL BE BORNE BY THE INSTALLING CONTRACTOR. PIPING TO BE INSTALLED WITH A SLOPE OF 1/8" PER FOOT MINIMUM TO TANKS UNLESS APPROVED BY OWNER. CONTRACTOR TO INSTALL TRACER TAPE WITH PRODUCT PIPING PER TRENCHING DETAILS. PENETRATIONS INTO ALL SUMPS SHALL BE MADE WITH DOUBLE WALL FRP ENTRY FITTINGS. TESTING OF PRODUCT LINES SHALL BE PERFORMED PRIOR TO BACK FILL, PRIOR TO PAVING AND BEFORE STATION OPERATION. SEE SITE SPECIFIC DETAIL SHEETS FOR INSTALLATION DETAILS.

NOTE "FIBERCAST SYSTEMS" PIPING TO BE INSTALLED PER MANUFACTURER'S INSTALLATION MANUAL AND SHALL ONLY BE INSTALLED BY QUALIFIED INSTALLERS CERTIFIED BY THE MANUFACTURER. CALIFORNIA VARIANT: IN ADDITION TO THE ABOVE, PIPING TO BE INSTALLED WITH CONTINUOUS VACUUM MONITORING DEVICE PER AB-2481 REQUIREMENTS

(9) VENT PIPING INSTALLATION:

STANDARD: CONTRACTOR TO INSTALL 2" INDIVIDUAL SINGLE WALL FIBERGLASS VENT PIPING, CONNECTORS, VALVES AND FITTINGS ON TANKS AS INDICATED ON SITE SPECIFIC FUELING PLAN AND ACCOMPANYING DETAILS. CONTRACTOR TO PROVIDE AT LEAST 4 FEET OF PIPING RUN BEFORE A CHANGE OF DIRECTION OF 30 DEGREES OR MORE IN ORDER TO PROVIDE MECHANICAL FLEXIBILITY PER CODE REQUIREMENTS. CONTRACTOR TO INSTALL TRACER TAPE WITH VENT PIPING PER TRENCHING DETAILS. PENETRATIONS INTO ALL SUMPS SHALL BE MADE WITH SINGLE WALL ENTRY FITTINGS. VENT PIPING SHALL BE DESIGNED AND INSTALLED FOR SLOPE 1/4" PER FOOT MINIMUM BACK TO TANKS. FOR LONG PIPING RUNS 1/8" PER FOOT IS ACCEPTABLE.

CONTRACTOR TO INSTALL ABOVE GROUND RISERS AND MOUNTING RACK AS DETAILED ON THESE PLANS. TERMINATION POINT OF TANK VENTS TO BE A MINIMUM OF 12' ABOVE GRADE AND NOT WITHIN 5' FROM ANY BUILDING OPENING OR PROPERTY LINE THAT CAN BE BUILT UPON. VENT RISERS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA-30, INTERNATIONAL AND UNIFORM FIRE CODE REQUIREMENTS AND CARB EVR REQUIREMENTS.

CONTRACTOR TESTING OF VENT LINES SHALL BE PERFORMED PRIOR TO BACK FILL, PRIOR TO PAVING AND BEFORE STATION OPERATION. SEE SITE SPECIFIC DETAIL SHEETS FOR INSTALLATION DETAILS. SEE FIBERGLASS PIPING MANUFACTURER SPECIFICATION BELOW.

VENT PIPING SPECIFICATION:

FIBERCAST SYSTEMS: RED THREAD II PIPE AND FITTINGS (USED FOR SINGLE WALL). WHERE DOUBLE WALL SYSTEMS ARE REQUIRED FOR ALL VENT AND VAPOR PIPING, USE SIZE OVER SIZE RED THREAD IN PIPING AND FITTINGS. USE ONLY FIBERCAST SYSTEMS ALCOHOL COMPATIBLE ADHESIVES. ALL PIPING AND FITTINGS SHALL BE UL-971 LISTED IN COMPLIANCE WITH THE JULY 2005 PERFORMANCE STANDARDS

PIPING TO BE INSTALLED PER MANUFACTURER'S LISTED INSTRUCTIONS AND SHALL ONLY BE INSTALLED BY QUALIFIED INSTALLERS CERTIFIED BY THE MANUFACTURER. PROVIDE AT LEAST 4' OF STRAIGHT PIPING RUN BEFORE A CHANGE OF DIRECTION OF MORE THAN 30 DEGREES AND INSTALL FLEXIBLE CONNECTORS AT THE VENT AND VAPOR CONNECTION AT THE TANK SUMPS, AND DISPENSER SUMPS.

NYC VARIANT: SAME AS ABOVE EXCEPT: VENT CONNECTIONS ARE ROUTED TO A SEPARATE UNOBSTRUCTED EXTRACTOR FITTING LOCATED IN THE TURBINE SIDE. VENT TERMINATION TO BE A MINIMUM OF 15' ABOVE GRADE.

JURISDICTIONAL VARIANT: INSTALL DOUBLE WALL SIZE OVER SIZE FIBERGLASS PIPING WHEN REQUIRED BY AUTHORITY HAVING JURISDICTION. CALIFORNIA VARIANT: VENT PIPING TO BE DOUBLE WALLED AND INSTALLED WITH CONTINUOUS VACUUM MONITORING DEVICE PER AB-2481 REQUIREMENTS

(10) STAGE II VAPOR RECOVERY PIPING INSTALLATION:

STANDARD: CONTRACTOR TO INSTALL 3" SINGLE WALL FIBERGLASS STAGE II VAPOR RECOVERY HEADER, CONNECTORS, VALVES AND FITTINGS TO THE LOWEST OCTANE GRADE AS INDICATED ON SITE SPECIFIC FUELING PLAN AND ACCOMPANYING DETAILS. NOTE THAT THE 1ST CONNECTION FROM STAGE I VAPOR RECOVERY HEADER TO LOWEST OCTANE TANK SHALL BE 3". ALL OTHER CONNECTIONS TO ADDITIONAL TANKS SHALL BE MADE WITH 2". CONTRACTOR TO INSTALL 3" TO 2" REDUCING TEES WHERE HEADERS BRANCH TO DISPENSERS. MAXIMUM (2) DISPENSERS PER 2" BRANCH. CONTRACTOR TO PROVIDE AT LEAST 4 FEET OF STRAIGHT PIPING RUN BEFORE A CHANGE OF DIRECTION OF 30 DEGREES OR MORE IN ORDER TO PROVIDE MECHANICAL FLEXIBILITY PER CODE REQUIREMENTS. CONTRACTOR TO INSTALL TRACER TAPE WITH VAPOR PIPING PER TRENCHING DETAILS. PENETRATIONS INTO ALL SUMPS SHALL BE MADE WITH DOUBLE WALL ENTRY FITTINGS. STAGE II VAPOR RECOVERY PIPING SHALL BE DESIGNED AND INSTALLED FOR 1/4" PER FOOT MINIMUM SLOPE BACK TO TANKS. AT LARGE SITE LAYOUTS, 1/8" PER FOOT MINIMUM IS ACCEPTABLE IF IT AVOIDS USING A KNOCK OUT SUMP (VAPOR POT) OR HAVING EXCESSIVE TANK DEPTH. CONSULT OWNER'S REPRESENTATIVE OR HIS AGENT, THE BP PROJECT MANAGER, WHERE DISCREPANCIES OCCUR.

CONTRACTOR TESTING OF STAGE II VAPOR LINES SHALL BE PERFORMED PRIOR TO BACK FILL, PRIOR TO PAVING AND BEFORE STATION OPERATION. SEE SITE SPECIFIC DETAIL SHEETS FOR INSTALLATION DETAILS. SEE FIBERGLASS PIPING MANUFACTURER SPECIFICATION BELOW.

STAGE II PIPING SPECIFICATION:

FIBERCAST SYSTEMS: RED THREAD II PIPE AND FITTINGS (USED FOR SINGLE WALL). WHERE DOUBLE WALL SYSTEMS ARE REQUIRED FOR ALL VENT AND VAPOR PIPING, USE SIZE OVER SIZE RED THREAD II PIPING AND FITTINGS. USE ONLY FIBERCAST SYSTEMS ALCOHOL COMPATIBLE ADHESIVES. ALL PIPING AND FITTINGS SHALL BE UL-971 LISTED IN COMPLIANCE WITH THE JULY 2005 PERFORMANCE STANDARDS

PIPING TO BE INSTALLED PER MANUFACTURER'S LISTED INSTRUCTIONS AND SHALL ONLY BE INSTALLED BY QUALIFIED INSTALLERS CERTIFIED BY THE MANUFACTURER. PROVIDE AT LEAST 4' OF STRAIGHT PIPING RUN BEFORE A CHANGE OF DIRECTION OF MORE THAN 30 DEGREES AND INSTALL FLEXIBLE CONNECTORS AT THE VENT AND VAPOR CONNECTION AT THE TANK SUMPS, AND DISPENSER SUMPS.

JURISDICTIONAL VARIANT: INSTALL DOUBLE WALL SIZE OVER SIZE FIBERGLASS PIPING WHEN REQUIRED BY AUTHORITY HAVING JURISDICTION.

CALIFORNIA VARIANT: STAGE II VAPOR PIPING TO BE DOUBLE WALLED AND INSTALLED WITH CONTINUOUS VACUUM MONITORING DEVICE PER AB-2481 REQUIREMENTS. ALL CONNECTIONS TO THE TANKS SHALL BE MADE WITH 3".

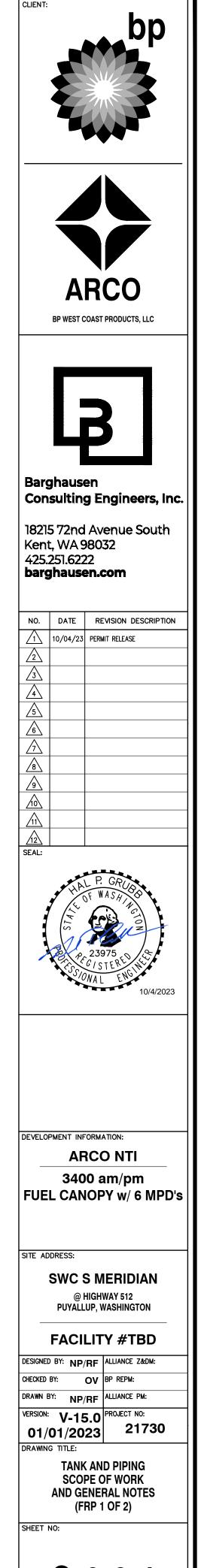
THERE ARE (4) FOUR STAGE II EVR WITH ISD DESIGN CHOICES THAT MAY BE INCORPORATED INTO THE UST SYSTEMS IN CALIFORNIA. VEEDER ROOT CARBON CANISTER VAPOR POLISHER WITH VST BALANCE HANGING HARDWARE AND VEEDER ROOT ISD COMPONENTS. HEALY CLEAN AIR SEPARATOR WITH HEALY VACUUM ASSIST HANGING HARDWARE AND VEEDER ROOT ISD COMPONENTS. . VST ECS VAPOR PROCESSOR WITH VST BALANCE HANGING HARDWARE AND VEEDER ROOT ISD COMPONENTS. 4. VST BALANCE HANGING HARDWARE WITH FRANKLIN FUELING/HEALY CLEAN AIR SEPARATOR AND VEEDER ROOT ISD COMPONENTS.

SEE GENERAL SHEETS G.O.6 SERIES DRAWINGS FOR DESIGN INTENT DETAILS ON THE ABOVE SYSTEMS.

NYC VARIANT: STAGE II VAPOR RECOVERY IS CURRENTLY NOT REQUIRED IN NYC & NEW JERSEY MARKET

NOTE: CONTACT BP FUEL SYSTEM DESIGN MANAGER FOR CURRENT STATES NO LONGER REQUIRING STAGE II VAPOR RECOVERY (10A) DECOMMISSIONING STAGE II VAPOR RECOVERY:

STANDARD: FOR PROJECTS INVOLVING THE DECOMMISSIONING OF STAGE II VAPOR RECOVERY SYSTEMS, G.C. IS TO VERIFY WITH THE AUTHORITY HAVING JURISDICTION THAT STAGE II IS NO LONGER REQUIRED AT A SPECIFIC FACILITY BEFORE INITIATING THE DECOMMISSIONING WORK AND WHICH DECOMMISSIONING PROCEDURES ARE REQUIRED TO BE IMPLEMENTED. SEE SHEET G.O.6.15. FOR GENERAL REQUIREMENTS AND PROCEDURES. CONSULT OWNER'S REPRESENTATIVE OR HIS AGENT. THE BP PROJECT MANAGER. WHERE DISCREPANCIES OCCUR BETWEEN THE CONTRACT DOCUMENTS AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.





TANK AND PIPING INSTALLATION SCOPE OF WORK:

CONCRETE MIX RECIPE. PREMIX UNIFORMLY THROUGHOUT CONCRETE. REINFORCEMENT BARS TO BE NO LESS THAN 2" AND NO MORE THAN 4" FROM SURFACE. UNLESS OTHERWISE NOTED ON THESE DRAWINGS:

a. CONCRETE – REGULAR WEIGHT HARD ROCK CONCRETE (150 LBS/CU FT)

 TYPE I/II, SULFATE RESISTANT c. AGGREGATES – ASTM C33, (MAXIMUM SIZE 3/4 INCHES)

d. 28 DAY CONCRETE STRENGTH (f'c):

4,000 PSI - SLAB (DESIGN BASED ON 2,000 PSI NO SPECIAL INSPECTION REQUIRED) SLUMP - 3"+ 1" - 4" MAXIMUM AT POINT OF PLACEMENT

SHRINKAGE – 0.05% MAXIMUM ENTRAINED AIR RANGE - 2% TO 4%

CONCRETE SHALL BE NORMAL WEIGHT WITH A MIX OF 1 : 2 1/2 : 3 1/2, WITH A MAXIMUM 7 1/2 GALLONS OF WATER PER SACK. ADD 3.0 LB MACRO (STRUCTURAL) FIBER PER CU. YD. REINFORCING CONCRETE.

REINFORCING STEEL FOR TANK SUMP CAGES SHALL BE #4 REBAR.

MAINTAIN CONCRETE IN A MOIST CONDITION FOR AT LEAST 7 DAYS AFTER PLACEMENT.

PLACE CONCRETE DIRECTLY FROM TRUCK INTO FORMS. DO NOT PUMP CONCRETE UNLESS SPECIAL INSPECTION, IN ACCORDANCE WITH CHAPTER 3 OF THE IBC, IS PROVIDED. SUBMIT MIX DESIGNS, WITH STRENGTH AND SHRINKAGE TEST RESULTS, TO OWNER'S ENGINEER AT LEAST 7 DAYS BEFORE PLACING CONCRETE

CONSOLIDATE CONCRETE IN PLACE USING A MECHANICAL VIBRATOR. BEFORE PLACING CONCRETE, SECURE REINFORCING STEEL, ANCHOR BOLTS, DOWELS, AND OTHER INSERTS IN POSITION TO PREVENT

MATERIALS AND WORKMANSHIP SHALL CONFORM TO A.C.I. - 318 (SPECIFICATIONS OF THE DESIGN AND PLACEMENT OF CONCRETE).

ALL MANHOLE OPENINGS ON THE TANK SLAB SHALL BE INSTALLED WITH A 1-1/2" CROWN (1" RISE OVER 12" RUN) OF CONCRETE TO PREVENT WATER INTRUSION INTO THE MANHOLE. THE OWNER'S ENGINEER, THE BP PROJECT MANAGER WILL BE REQUIRED TO SIGN OFF ON THIS ITEM ON THE TANK INSTALLATION CHECKLIST.

PRODUCT IDENTIFICATION MARKINGS:

CONTRACTOR TO INSTALL PRODUCT IDENTIFICATION TAGS AT ALL MANHOLE OPENING PER SITE SPECIFIC DETAIL DRAWINGS.

CONTRACTOR SHALL COMPLETE ALL TESTING ACCORDING TO MANUFACTURER'S INSTRUCTIONS FOR TANKS AND PIPING AND PER INDUSTRY RECOMMENDED PRACTICES (API & PEI). CONTRACTOR SHALL COMPLETE ALL WARRANTY VALIDATION TESTING AND PROVIDE DOCUMENTATION TO OWNER'S REPRESENTATIVE OR HIS AGENT, THE BP PROJECT MANAGER.

ISOLATE THE PRODUCT TANKS AND DISPENSERS DURING PRESSURE TESTING OF LINES IN ORDER TO PREVENT DAMAGE.

THE DESIGN, ASSEMBLY, AND TESTING OF THE PIPING SYSTEM SHALL BE IN CONFORMANCE WITH THE APPLICABLE SECTION OF ANSI-B31, AMERICAN NATIONAL STANDARD CODE FOR PRESSURE PIPING, NFPA 30, FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE, AND AMERICAN PETROLEUM INSTITUTES RECOMMENDED PRACTICE 1615.

DURING CONSTRUCTION, BEFORE BACK FILLING, PIPING SHOULD BE ISOLATED FROM THE TANKS AND SUBJECTED TO A PIPE TIGHTNESS TEST. OTHER TESTING METHODS MAY ALSO BE ACCEPTABLE IF APPROVED BY THE AUTHORITY HAVING JURISDICTION. A CONSTRUCTION PIPE TEST IS CONDUCTED AS FOLLOWS:

A. THE PRODUCT PIPING TO BE TESTED IS ISOLATED AND PRESSURIZED WITH COMPRESSED AIR TO 150 PERCENT OF THE MAXIMUM SYSTEM OPERATING PRESSURE (OR A MINIMUM OF 50 POUNDS PER SQUARE INCH GAUGE; MAXIMUM AS RECOMMENDED BY COMPONENT MANUFACTURER) FOR AT LEAST 30 MINUTES AND NOT MORE THAN 1 HOUR. B. ALL PIPING SURFACES INCLUDING VALVES, FITTINGS, JOINTS, AND SO FORTH ARE WETTED WITH A SOAP SOLUTION AND INSPECTED FOR

C. LEAKS, AS INDICATED BY BUBBLES, ARE REPAIRED OR REPLACED, AND THE PIPING RE-TESTED AS NECESSARY D. THE INNER PIPE WALLS SHALL BE TESTED FOR TIGHTNESS BEFORE CLOSING THE OUTER PIPE. THE OUTER PIPE MUST BE TESTED AT A 5 POUNDS PER SQUARE INCH GAUGE MAXIMUM BEFORE BACKFILLING. CARE SHOULD BE TAKEN TO PREVENT OVER PRESSURIZATION OF THE INTERSTICE. IT IS IMPORTANT THAT THE MANUFACTURER'S INSTRUCTIONS BE FOLLOWED. REPEAT BOTH TESTS AFTER BACKFILLING.

WHEN THE PIPING IS INSTALLED AND OPERATIONAL, A HYDROSTATIC TEST OF THE PIPING, AS SPECIFIED IN NEPA 329, MAY BE REQUIRED BY

CAUTION: EXTREME CARE SHOULD BE EXERCISED IN CONDUCTING PIPE TIGHTNESS TEST. PRESSURIZED PIPING IS POTENTIALLY DANGEROUS BECAUSE OF THE POSSIBILITY OF VIOLENT RUPTURE. THIS TEST SHOULD BE CONDUCTED WITH MINIMUM EXPOSURE OF PERSONNEL AND WITHOUT MOVING OR DISTURBING THE PIPING BEING TESTED. WHEN THE TEST IS COMPLETED, THE PIPING PRESSURE CAN BE REDUCED OR RELEASED COMPLETELY FOR THE REMAINDER OF CONSTRUCTION. REFER TO THE PIPING MANUFACTURER'S RECOMMENDATIONS.

N.O.V. PIPING SHALL BE TESTED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

VAPOR RECOVER PIPING MUST PASS ALL CARB BLOCKAGE TESTING RELATIVE TO TIGHTNESS, PRESSURE DECAY, & BLOCKAGE RATES. A/L TESTING IS REQUIRED FOR "ASSISTED" STAGE II SYSTEMS (IF INSTALLED). NOTIFY THE BP PROJECT MANAGER TO COORDINATE.

CONTAINMENT SUMP TESTING:

ALL TANK SUMPS AND UNDER DISPENSER CONTAINMENT SUMPS SHALL BE HYDROSTATICALLY TESTED (LAKE TEST) WITH STANDING WATER ABOVE THE LEVEL OF THE HIGHEST PIPE OR CONDUIT PENETRATION FOR A PERIOD OF 24 HOURS AFTER ALL WORK IS COMPLETED TO INSURE THAT THE SUMPS ARE WATERTIGHT OR CERTIFIED USING SUMP MANUFACTURER'S APPROVED TEST PROCEDURE TO INSURE THAT SUMPS ARE WATERTIGHT PER UST REGULATIONS. THE OWNER'S ENGINEER MUST SIGN OFF ON THIS TESTING ON THE TANK INSTALLATION

CALIFORNIA VARIANT: ALL DOUBLE WALL SUMPS SHALL BE BRINE FILLED AND INSPECTED FOR TIGHTNESS THROUGHOUT THE INSTALLATION PROCESS ONCE SUMPS HAVE BEEN FILLED WITH BRINE SOLUTION.

FINAL SYSTEM TESTING:

AFTER COMPLETE INSTALLATION OF THE ENTIRE FUEL SYSTEM AND ALL PAVING, THE OWNER'S REPRESENTATIVE OR HIS AGENT, THE BP PROJECT MANAGER, SHALL ARRANGE FOR A PRECISION TANK AND LINE TEST TO BE PERFORMED ON THE COMPLETE SYSTEM. SUCCESSFUL COMPLETION OF THIS TEST WILL BE REQUIRED FOR FINAL APPROVAL. THIS TEST SHALL ENSURE THAT ALL NEW TANK & PIPING SHALL MEET ALL FEDERAL, STATE, & LOCAL REQUIREMENTS FOR TIGHTNESS INTEGRITY, PRIOR TO START-UP OF SYSTEM. OPERATIONALLY TEST ALL OTHER EQUIPMENT, INCLUDING IMPACT (SHEAR) VALVES, LINK LEAK DETECTORS, LEAK DETECTOR ALARMS, AND EMERGENCY SHUTDOWN SWITCHES IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. CONTRACTOR SHALL PROVIDE (3) COPIES OF ALL CERTIFICATIONS & TEST RESULTS TO OWNER'S REPRESENTATIVE OR HIS AGENT. THE BP PROJECT MANAGER.

TANK SYSTEM TEST METHOD CALIFORNIA ONLY AB-2481:

BEFORE THE UNDERGROUND STORAGE TANK IS PLACED INTO USE, THE UNDERGROUND STORAGE TANK SHALL BE TESTED AFTER INSTALLATION USING ONE OF THE FOLLOWING METHODS TO DEMONSTRATE THAT THE TANK IS PRODUCT TIGHT: 1) ENHANCED LEAK DETECTION (ELD) BY TRACER CORPORATION.

2) AN INERT GAS PRESSURE TEST THAT HAS BEEN CERTIFIED BY A THIRD PARTY AND APPROVED BY THE BOARD.

3) A TEST METHOD DEEMED EQUIVALENT TO ENHANCED LEAK DETECTION OR AN INERT GAS PRESSURE TEST BY THE BOARD IN REGULATIONS ADOPTED PURSUANT TO THE APPLICABLE CHAPTER IN THE CODE. AN UNDERGROUND STORAGE TANK INSTALLED AND TESTED IN ACCORDANCE WITH THIS SECTION IS EXEMPT FROM THE REQUIREMENTS OF SECTION 25292.5.

(19) CHECKING FOR PRODUCT QUALITY: INITIAL SITE COMMISSIONING RECOMMENDED PRACTICES BEFORE OPENING YOUR STORE, IT IS APPROPRIATE AND PROPER PROCEDURE TO CHECK YOUR FUELING EQUIPMENT TO MINIMIZE POSSIBLE PRODUCT QUALITY ISSUES. THIS GUIDANCE MUST BE FOLLOWED TO ENSURE THAT PRODUCT QUALITY HAS BEEN MAINTAINED. AND IS ACCEPTABLE FOR OUR CUSTOMERS.

THE UNDERLYING ASSUMPTION IS THAT THE GENERAL CONTRACTOR, WHO WAS RESPONSIBLE FOR BUILDING YOUR STATION, HAS PROPERLY PERFORMED THEIR JOB AND CHECKED THAT TANKS AND PIPING HAVE BEEN PROPERLY INSTALLED, TESTED, CLEANED, AND LABELED AT A MINIMUM. ANY BP AREA MAINTENANCE MANAGER, OR BP PROJECT MANAGER, HAS A CHECKLIST SHOWING KEY POINTS TO LOOK FOR BEFORE ACCEPTING A SITE AS "COMPLETE" FROM THE CONTRACTOR. SOME KEY AREAS ARE AS FOLLOWS:

1. CONFIRM THAT APPROPRIATE PRODUCT TAGS HAVE BEEN INSTALLED AT THE FILL RISERS.

2. PERFORM A FINAL INSPECTION FOR THE PRESENCE OF WATER IN THE PIPING TO THE DISPENSERS BY OPENING THE TURBINE DISCHARGE CONNECTION AT EACH TURBINE SUMP. AND OPENING/REMOVING THE BLEEDER/TEST PLUG ON IMPACT VALVE. ANY TRAPPED LIQUIDS SHOULD DRAIN BACK TO THE TURBINE SUMP FOR REMOVAL.

3. CONFIRM THAT BOTH GASOLINE AND DIESEL DISPENSERS ARE INSTALLED WITH A MINIMUM (MEANING A MESH SIZE NOT GREATER THAN) 10 MICRON FILTER. ANY FACTORY INSTALLED FILTER AFTER STARTUP MUST BE DISCARDED IN ACCORDANCE WITH USED FUEL FILTER WASTE MANAGEMENT ENVIRONMENTAL GUIDELINES.

CONTRACTUAL AGREEMENTS ARE INSTALLED.

5. PERFORM A FINAL INSPECTION FOR THE PRESENCE OF WATER WITHIN THE UNDERGROUND STORAGE TANKS, OR IN THE PIPING GOING TO THE DISPENSERS. INSPECTION FOR WATER IN THE TANK SHALL BE PERFORMED USING SARGEL'S WATER FINDING PASTE (OR EQUAL), AND CONDUCTED AT BOTH ENDS OF THE TANK. IF LEVELS OF WATER GREATER THAN 1/4" ARE DETECTED, PROCEED WITH WATER ELIMINATION PROCEDURES. AND REQUEST THAT THE CONTRACTOR DO THIS AS PART OF THEIR SCOPE OF WORK.

6. THE BP REPRESENTATIVE (REGIONAL ACCOUNT EXECUTIVE OR FRANCHISE CONSULTANT) SHALL BE INFORMED OF ALL MAJOR MILESTONES LEADING UP TO SITE START-UP. BP RESERVES THE RIGHT TO REQUEST COPIES OF INSPECTION REPORTS BEFORE INITIAL SITE START-UP.

7. AFTER DELIVERY OF THE FIRST LOAD OF PRODUCTS, EACH PRODUCT MUST BE TESTED AND THE RESULTS PROVIDED TO THE BP AREA MAINTENANCE MANAGER AND TO THE BP PROJECT MANAGER, PRIOR TO ANY SALE.

COSTS OF THE SAMPLING AND ANALYSIS ARE TO BE INCLUDED IN THE CONTRACTOR'S SCOPE OF WORK. A LABORATORY CERTIFIED TO CONDUCT FUELS SAMPLING AND TESTING MUST BE USED

(20) TANK ELECTRICAL SPECIFICATIONS GENERAL:

AND UTILITY COMPANY REQUIREMENTS.

WORK. NO ALLOWANCES WILL BE MADE AFTER THE BID FOR EXISTING CONDITIONS OR THE CONTRACTORS FAILURE TO VERIFY EXISTING CONDITIONS.

IMPLIED - NOT LIMITED TO WHAT IS SHOWN. ALL DRAWINGS ARE SCHEMATIC IN NATURE AND ALL APPURTENANCES NOT INDICATED TO MAKE A WORKING SYSTEM MUST BE INCLUDED IN CONTRACTOR'S BID.

IF THERE APPEARS TO BE ANY ITEMS IN CONFLICT WITH THE DRAWINGS, INCONSISTENCIES WITH DESIGN OR INTENT, OR NEED FOR CLARIFICATION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLARIFY THESE ITEMS PRIOR TO BID IN WRITING WITH THE ENGINEER. IF THE CONTRACTOR FAILS TO CLARIFY ANY QUESTIONS OR INCONSISTENCY, THEY ACCEPT RESPONSIBILITY TO CORRECT AT THEIR COST ANY SUCH ITEM SO AS TO MEET INTENT AS DEFINED BY ENGINEER. UTILITIES:

CONTRACTOR WILL SUPPLY INFORMATION AS REQUIRED TO ALL SERVING UTILITIES IN A TIMELY MANNER TO PROVIDE SERVICE REQUIRED.

RSG FITTINGS & CONDUIT:

RGS FITTINGS MUST BE STEEL COMPRESSION TYPE; EACH WITH CODE SIZED COPPER BOND WIRE. MINIMUM CONDUIT 1" C. EXCEPT AS NOTED. ALL WORK WILL BE IN CONDUIT; COMPLETED SYSTEM REAMED, AND SWABBED PRIOR TO CONDUCTOR INSTALL ALL CONDUITS TO BE CONCEALED EXCEPT TO SURFACE MOUNTED PANELS TIE WIRE, PERFORATED STRAPS, OR OTHER PIPING OR

CONDUIT ARE NOT ACCEPTABLE SUPPORTS. NO TIE WIRE WILL BE ALLOWED ON PROJECT.

CALIFORNIA VARIANT - THE LAST 2 FEET (MINIMUM) OF ALL CONDUITS THAT ARE ROUTED TO AND PENETRATE TANK SUMPS. DISPENSER SUMPS AND VENT TRANSITION SUMPS SHALL BE PVC COATED RIGID STEEL GALVANIZED WHERE PENETRATIONS TO THE BRINE FILLED SUMPS ARE MADE. ROBROY CONDUIT MUST BE USED WITH THE BRAVO PENETRATION FITTING - NO SUBSTITUTE PERMITTED.

CONDUCTORS

CONDUCTORS TO BE 600V., COPPER (98% CONDUCTIVITY). BRANCH CIRCUITS TO HAVE THHN/THWN GAS & OIL RESISTANT INSULATION. CONDUCTORS WILL BE STRANDED, HYDRAULIC CRIMP ALL CONNECTIONS. CONDUCTOR INSULATION WILL BE CONTINUOUSLY COLOR COATED. ALL GROUNDING/BUILDING CONDUCTORS WILL BE MULTI-CONDUCTOR TYPE (U.L. LABELED - ROPE STRAND BUILDING WIRE CLASS 'M') BARE OR INSULATED AS NOTED OR REQUIRED. MINIMUM LINE VOLTAGE WIRE SIZE IS #12 AWG (STRANDED) FOR LINE VOLTAGE WIRING DEVICES TO BE SPECIFICATION GRADE. MINIMUM 20 AMPS FOR RECEPTACLES. HUBBELL OR ENGINEER APPROVED. ALL SPECIAL RECEPTACLES AND GROUND FAULT PROTECTED DEVICES MUST BE PERMANENTLY MARKED WITH ENGRAVED COVER PLATES.

FILL RISER GROUNDING:

ALL RISERS IN THE FILL SUMP SHALL BE GROUNDED AND BONDED. INSTALL 1/2" x 10'-0" LONG CONTINUOUS COPPER CLAD GROUND ROD IN NATIVE SOIL FOR TANK SYSTEM GROUNDING. PROVIDE MANHOLE ACCESS TO GROUND ROD AND COPPER GROUND WIRE, SEE DETAILS ON SHEET G.O.7

EMERGENCY SHUTDOWN:

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CONTRACTOR PERFORMANCE:

THE CONTRACTOR WILL GUARANTEE ALL MATERIALS AND WORKMANSHIP FURNISHED BY HIM UNDER THIS CONTRACTOR FOR A PERIOD OF TWO YEARS FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK OF THIS CONTRACT BY THE OWNER AND THE ENGINEER AND PROVIDE A BOND TO VALIDATE THIS GUARANTEE. ANY DEFECTS DEVELOPING WITHIN THE PERIOD TRACEABLE TO MATERIALS OR WORKMANSHIP PERFORMED HERE UNDER, WILL BE MADE GOOD AT THE EXPENSE OF THE CONTRACTOR NOT THE OWNER OR ENGINEER. THE CONTRACTOR WILL ACCEPT AND FULLY UNDERSTAND THIS PROVISION PRIOR TO CONTRACT BEING AWARDED, AS NO CLAIM FOR EXTRA COMPENSATION WILL BE ALLOWED FOR CORRECTION OF FAULTY WORK OR DEFECTIVE MATERIALS. ANYTIME DURING THE CONSTRUCTION PERIOD. THE OWNERS REPRESENTATIVES AND THE FNGINFER RETAIN THE RIGHT TO REQUIRE THE CONTRACTOR TO REMOVE AND REINSTALL ANY EQUIPMENT OR MATERIALS NOT FOLLOWING THE STANDARDS AS PRESENTED HEREIN OR ON THE DRAWINGS WITHOUT COST TO THE OWNER OR ENGINEER.

CONTRACTOR WILL PROVIDE PROOF OF PERFORMANCE BOND WITH SHOP DRAWINGS PROVIDE 3 SETS OF SHOP DRAWINGS & SAMPLES FOR ALL EQUIPMENT, PRIOR TO ORDERING AND IN A TIMELY MANNER (AS DETERMINED BY THE ENGINEER) SO NOT TO DELAY WORK, TO THE ENGINEER FOR APPROVAL. (CONDUIT, SWITCHES, CONDUCTORS, ECT.) WHERE SUBSTITUTIONS ARE MADE. CONTRACTOR WILL INCLUDE COMPARISON DATA & SAMPLES FOR BOTH THE SUBSTITUTE AND SPECIFIED ITEMS FOR REFERENCE PURPOSES. CONTRACTOR WILL PROVIDE LETTER TO ENGINEER CONFIRMING ALL EQUIPMENT AND TERMINATIONS ARE PROPERLY TORQUED - SIGNED BY

LICENSED CONTRACTOR.

CONTRACTOR WILL PROVIDE ACCURATE AND COMPLETE "AS BUILT" DRAWINGS TO OWNER AND ENGINEER AT TIME OF OWNER ACCEPTANCE. ALL "AS BUILT" DRAWINGS TO BE 4 SETS OF "BLUELINES" OR PHOTO COPY PRINTS 24" X 36" AND TWO SETS (OWNER/ENGINEER) ON MAGNETIC MEDIA & AUTOCAD 2010 (BY AUTODESK) COMPATIBLE. FAILURE TO DO SO WILL CONSTITUTE FORFEITURE OF ALL PAYMENTS DUE AND HOURLY RATES OR \$99.00/HOUR/MAN MINIMUM TO ENGINEER PAID BY CONTRACTOR FOR "AS BUILT" DEVELOPMENT.

4. CONFIRM THAT PROPER DECALS, TAX NUMBERS, AND OTHER SIGNAGE REQUIRED PER PLANS, REGULATORY REQUIREMENTS, AND

ALL MATERIALS AND WORKMANSHIP WILL CONFORM TO THE MOST RECENT EDITIONS OF THE NATIONAL ELECTRICAL CODE, N.E.T.A., B.I.C.S.I., U.B.C. & NFPA AS REQUIRED BY THE ENGINEER, LOCAL AND STATE CODES AND ORDINANCES, AMERICANS WITH DISABILITIES ACT, E.P.A.,

THE CONTRACTOR WILL VISIT THE JOB SITE AND FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS WHICH MAY AFFECT HIS BID OR

FURNISH AND INSTALL A COMPLETE ELECTRICAL SYSTEM AS DEPICTED FROM THE PLANS AND SPECIFICATIONS HEREIN - AS NOTED OR

THE HOT AND NEUTRAL WIRES TO THE DISPENSERS THE HOT AND NEUTRAL WIRES TO THE TURBINES SOLATED TO AVOID FEEDBACK VOLTAGE THE LOW VOLTAGE WIRES TO THE DISPENSER (I.E. DATA, INTERCOM, MEDIA) R BREAKERS ARE CLEARLY IDENTIFIED / LABELED OWN DEDICATED CIRCUIT DEDICATED CIRCUIT IS GROUNDED PER NEC L OF THE DISPENSING EQUIPMENT MEETS NEC LOCK OUT/TAG OUT CODES.

