



RFQ No. DACW67-02-Q-0105

**US Army Corps
of Engineers®**
Seattle District

Project: PBX TELEPHONE SWITCH REPLACEMENT

**Location: CHIEF JOSEPH DAM PROJECT
BRIDGEPORT, WASHINGTON**

**SERVICE/SUPPLY SOLICITATION
AND SPECIFICATIONS**

Closing Date: 22 AUGUST 2002
Closing Time: 11:00 AM LOCAL TIME

REMARKS: Quotes may be faxed to (206) 764-6817, Attention: Renee Heerhartz, or mailed to US Army, Corps of Engineers, Seattle District, Attention: Renee Heerhartz, P.O. Box 3755, Seattle, WA 98124-3755.

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS <i>OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, AND 30</i>				1. REQUISITION NUMBER W68MD9-2213-3534		PAGE 1 OF 56		
2. CONTRACT NO.		3. AWARD/EFFECTIVE DATE	4. ORDER NUMBER		5. SOLICITATION NUMBER DACW67-02-Q-0105		6. SOLICITATION ISSUE DATE 14-Aug-2002	
7. FOR SOLICITATION INFORMATION CALL:		a. NAME RENEE R HEERHARTZ			b. TELEPHONE NUMBER (No Collect Calls) (206) 764-3478	8. OFFER DUE DATE/LOCAL TIME 11:00 AM 22 Aug 2002		
9. ISSUED BY USA ENGINEER DISTRICT, SEATTLE ATTN: CENWS-CT P.O. BOX 3755 SEATTLE WA 98124-3755 TEL: 206-764-3772 FAX: 206-764-6817		CODE DACW67	10. THIS ACQUISITION IS <input checked="" type="checkbox"/> UNRESTRICTED <input type="checkbox"/> SET ASIDE: % FOR <input type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> SMALL DISADV. BUSINESS <input type="checkbox"/> 8(A) SIC: 3661 SIZE STANDARD:1000			11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input type="checkbox"/> SEE SCHEDULE	12. DISCOUNT TERMS	
15. DELIVER TO CHIEF JOSEPH DAM PROJECT OFC. P.O. BOX 1120 BRIDGEPORT WA 98813-1120 TEL: FAX:		CODE G3R0C00	16. ADMINISTERED BY					CODE
17a. CONTRACTOR/OFFEROR		CODE	18a. PAYMENT WILL BE MADE BY					CODE
TEL.		FACILITY CODE						
<input type="checkbox"/> 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER			18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a. UNLESS BLOCK BELOW IS CHECKED <input type="checkbox"/> SEE ADDENDUM					
19. ITEM NO.	20. SCHEDULE OF SUPPLIES/ SERVICES				21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
SEE SCHEDULE								
25. ACCOUNTING AND APPROPRIATION DATA							26. TOTAL AWARD AMOUNT	
<input checked="" type="checkbox"/> 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1. 52.212-4. FAR 52.212-3. 52.212-5 ARE ATTACHED. ADDENDA <input checked="" type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED								
<input type="checkbox"/> 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED. ADDENDA <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED								
28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN <u>0</u> COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.					29. AWARD OF CONTRACT: REFERENCE <input type="checkbox"/> OFFER DATED . YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:			
30a. SIGNATURE OF OFFEROR/CONTRACTOR				31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)			31c. DATE SIGNED	
30b. NAME AND TITLE OF SIGNER (TYPE OR PRINT)			30c. DATE SIGNED	31b. NAME OF CONTRACTING OFFICER (TYPE OR PRINT)				
				TEL:		EMAIL:		
32a. QUANTITY IN COLUMN 21 HAS BEEN <input type="checkbox"/> RECEIVED <input type="checkbox"/> INSPECTED <input type="checkbox"/> ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED				33. SHIP NUMBER	34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR		
				PARTIAL	FINAL			
32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE			32c. DATE	36. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL			37. CHECK NUMBER	
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT				38. S/R ACCOUNT NUMBER	39. S/R VOUCHER NUMBER		40. PAID BY	
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER			41c. DATE	42a. RECEIVED BY (Print)				
				42b. RECEIVED AT (Location)				
				42c. DATE REC'D (YY/MM/DD)		42d. TOTAL CONTAINERS		

Section SF 1449 - CONTINUATION SHEET

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	Provide all labor and materials FFP (equipment) to install new PBX Telephone Switch and ancillary equipment at Chief Joseph Dam Project, Bridgeport, WA, in accordance with the attached Scope of Work and Drawings PURCHASE REQUEST NUMBER: W68MD9-2213-3534	1	Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002	Spare Parts and Operating Manuals FFP (Price List for part associated with the PBX telephone equipment) PURCHASE REQUEST NUMBER: W68MD9-2213-3534	1	Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003	Provide off-site training in operational FFP and maintenance for two government employees PURCHASE REQUEST NUMBER: W68MD9-2213-3534	1	Lump Sum		

NET AMT

FOB: Destination

NOTES

- Representation and Certification contained herein must be complete by quoter and returned with offer.
- Marking of Quote Envelopes:

Envelopes shall be plainly marked as follows:

QUOTE FOR: PBX TELEPHONE SWITCH REPLACEMENT
CHIEF JOSEPH DAM PROJECT
BRIDGEPORT, WASHINGTON

Request for Quotations No. DACW67-02-Q-0105

CLOSING DATE AND TIME: 22 AUG 02, 11:00 AM LOCAL TIME

AMENDMENTS NUMBERED _____ HAVE BEEN RECEIVED

- PROSPECTIVE OFFERORS: The Director of Defense Procurement has issued a final rule amending the Defense Federal Acquisition Regulation Supplement (DFARS) to require contractors to be registered in the DOD Central Contractor Registration (CCR) for awards resulting from solicitations issued after May 31, 1998.

This rule more efficiently implements the Debt Collection Improvement Act of 1996 as it requires contractors to be registered in CCR for consideration of future solicitations, awards, and payment. Registration is required prior to award of any contract, basic agreement, basic ordering agreement, or blanket purchase agreement from a solicitation issued after May 31, 1998. LACK OF REGISTRATION IN THE CCR DATABASE WILL MAKE AN OFFER INELIGIBLE FOR AWARD.

The WEB Site may be accessed at <http://www.ccr.dlis.dla.mil>. You may call 1-888-227-2423 to obtain a Registration Packet or to Register on Line at WWW.ACQ.OSD.MIL/EC.

- FACNET and NON-FACNET responses will be accepted. Responses may be faxed until the time and date set for closing. Attention Faxes to Renee' Heerhartz, (206) 764-6817
- Award will be made to the responsive responsible offeror with the lowest total price.

6. ELECTRONIC FUNDS TRANSFER (EFT): Effective 99Jun01, the Government will make all payments by EFT (unless the Government VISA credit card is accepted). The only exceptions are 1) Foreign Vendors; 2) Government Agencies; and 3) One-time payments. The EFT forms and instructions are on the USACE Finance Center (UFC) Web Page, www.fc.usace.army.mil. The UFC points of contract for this action are Ms. Nita Clower, 901/874-8542 and Mr. Michael Rye, 901/874-8543.

7. Please provide the following information:

Federal Tax ID Number: _____
DUNS Number: _____
Remit to Address:
 Company Name: _____
 Address: _____
 City/State/Zip: _____
e-mail address if available: _____

CLAUSES INCORPORATED BY FULL TEXT

52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

<http://www.arnet.gov/far>
<http://farsite.hill.af.mil>
<http://www.dtic.mil/dfars>

(End of provision)

CLAUSES INCORPORATED BY REFERENCE

52.212-1 Instructions to Offerors--Commercial Items OCT 2000

CLAUSES INCORPORATED BY FULL TEXT

52.212-3 OFFEROR REPRESENTATIONS AND CERTIFICATIONS--COMMERCIAL ITEMS (MAY 2002)

(a) Definitions. As used in this provision:

"Emerging small business" means a small business concern whose size is no greater than 50 percent of the numerical size standard for the NAICS code designated.

"Forced or indentured child labor" means all work or service-

(1) Exacted from any person under the age of 18 under the menace of any penalty for its nonperformance and for which the worker does not offer himself voluntarily; or

(2) Performed by any person under the age of 18 pursuant to a contract the enforcement of which can be accomplished by process of penalties.

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern" means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and size standards in this solicitation.

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern" means a small business concern--

(1) That is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of its stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

"Women-owned business concern" means a concern which is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Taxpayer Identification Number (TIN) (26 U.S.C. 6109, 31 U.S.C. 7701). (Not applicable if the offeror is required to provide this information to a central contractor registration database to be eligible for award.)

(1) All offerors must submit the information required in paragraphs (b)(3) through (b)(5) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the Internal Revenue Service (IRS).

(2) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(3) Taxpayer Identification Number (TIN).

TIN:-----

TIN has been applied for.

TIN is not required because:

Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

Offeror is an agency or instrumentality of a foreign government;

Offeror is an agency or instrumentality of the Federal Government.

(4) Type of organization.

Sole proprietorship;

Partnership;

Corporate entity (not tax-exempt);

Corporate entity (tax-exempt);

Government entity (Federal, State, or local);

Foreign government;

International organization per 26 CFR 1.6049-4;

Other-----

(5) Common parent.

Offeror is not owned or controlled by a common parent;

Name and TIN of common parent:

Name-----

TIN-----

(c) Offerors must complete the following representations when the resulting contract is to be performed inside the United States, its territories or possessions, Puerto Rico, the Trust Territory of the Pacific Islands, or the District of Columbia. Check all that apply.

(1) Small business concern. The offeror represents as part of its offer that it () is, () is not a small business concern.

(2) Veteran-owned small business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents as part of its offer that it () is, () is not a veteran-owned small business concern.

(3) Service-disabled veteran-owned small business concern. (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (c)(2) of this provision.) The offeror represents as part of its offer that it () is, () is not a service-disabled veteran-owned small business concern.

(4) Small disadvantaged business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents, for general statistical purposes, that it () is, () is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(5) Women-owned small business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents that it () is, () is not a women-owned small business concern.

Note: Complete paragraphs (c)(6) and (c)(7) only if this solicitation is expected to exceed the simplified acquisition threshold.

(6) Women-owned business concern (other than small business concern). (Complete only if the offeror is a women-owned business concern and did not represent itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents that it () is, a women-owned business concern.

(7) Tie bid priority for labor surplus area concerns. If this is an invitation for bid, small business offerors may identify the labor surplus areas in which costs to be incurred on account of manufacturing or production (by offeror or first-tier subcontractors) amount to more than 50 percent of the contract price:

(8) Small Business Size for the Small Business Competitiveness Demonstration Program and for the Targeted Industry Categories under the Small Business Competitiveness Demonstration Program. (Complete only if the offeror has represented itself to be a small business concern under the size standards for this solicitation.)

(i) (Complete only for solicitations indicated in an addendum as being set-aside for emerging small businesses in one of the four designated industry groups (DIGs).) The offeror represents as part of its offer that it () is, () is not an emerging small business.

(ii) (Complete only for solicitations indicated in an addendum as being for one of the targeted industry categories (TICs) or four designated industry groups (DIGs).) Offeror represents as follows:

(A) Offeror's number of employees for the past 12 months (check the Employees column if size standard stated in the solicitation is expressed in terms of number of employees); or

(B) Offeror's average annual gross revenue for the last 3 fiscal years (check the Average Annual Gross Number of Revenues column if size standard stated in the solicitation is expressed in terms of annual receipts).

(Check one of the following):

Average Annual

Number of Employees Gross Revenues

___ 50 or fewer ___ \$1 million or less

___ 51 - 100 ___ \$1,000,001 - \$2 million

___ 101 - 250 ___ \$2,000,001 - \$3.5 million

___ 251 - 500 ___ \$3,500,001 - \$5 million

___ 501 - 750 ___ \$5,000,001 - \$10 million

___ 751 - 1,000 ___ \$10,000,001 - \$17 million

___ Over 1,000 ___ Over \$17 million

(9) (Complete only if the solicitation contains the clause at FAR 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns or FAR 52.219-25, Small Disadvantaged Business Participation Program-Disadvantaged Status and Reporting, and the offeror desires a benefit based on its disadvantaged status.)

(i) General. The offeror represents that either--

(A) It () is, () is not certified by the Small Business Administration as a small disadvantaged business concern and identified, on the date of this representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net), and that no material change in disadvantaged ownership and control has occurred since its certification, and, where the concern is owned by one or more individuals claiming disadvantaged status, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); or

(B) It () has, () has not submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.

(ii) Joint Ventures under the Price Evaluation Adjustment for Small Disadvantaged Business Concerns. The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements in 13 CFR 124.1002(f) and that the representation in paragraph (c)(9)(i) of this provision is accurate for the small disadvantaged business concern that is participating in the joint venture. (The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture: _____.)

(10) HUBZone small business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents, as part of its offer, that--

(i) It () is, () is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal place of ownership, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and

(ii) It () is, () is not a joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (c)(10)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating on the joint venture. (The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture: _____.) Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(d) Representations required to implement provisions of Executive Order 11246--

(1) Previous Contracts and Compliance. The offeror represents that--

(i) It () has, () has not, participated in a previous contract or subcontract subject either to the Equal Opportunity clause of this solicitation; and

(ii) It () has, () has not, filed all required compliance reports.

(2) Affirmative Action Compliance. The offeror represents that--

(i) It () has developed and has on file, () has not developed and does not have on file, at each establishment, affirmative action programs required by rules and regulations of the Secretary of Labor (41 CFR Subparts 60-1 and 60-2), or

(ii) It () has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(e) Certification Regarding Payments to Influence Federal Transactions (31 U.S.C. 1352). (Applies only if the contract is expected to exceed \$100,000.) By submission of its offer, the offeror certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with the award of any resultant contract.

(f) Buy American Act Certificate. (Applies only if the clause at Federal Acquisition Regulation (FAR) 52.225-1, Buy American Act--Supplies, is included in this solicitation.)

(1) The offeror certifies that each end product, except those listed in paragraph (f)(2) of this provision, is a domestic end product as defined in the clause of this solicitation entitled ``Buy American Act--Balance of Payments Program--Supplies" and that the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States. The offeror shall list as foreign end products those end products manufactured in the United States that do not qualify as domestic end products.

(2) Foreign End Products:

Line Item No.:-----

Country of Origin:-----

(List as necessary)

(3) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.

(g)(1) Buy American Act--North American Free Trade Agreement--Israeli Trade Act Certificate. (Applies only if the clause at FAR 52.225-3, Buy American Act--North American Free Trade Agreement--Israeli Trade Act, is included in this solicitation.)

(i) The offeror certifies that each end product, except those listed in paragraph (g)(1)(ii) or (g)(1)(iii) of this provision, is a domestic end product as defined in the clause of this solicitation entitled ``Buy American Act--North American Free Trade Agreement--Israeli Trade Act" and that the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States.

(ii) The offeror certifies that the following supplies are NAFTA country end products or Israeli end products as defined in the clause of this solicitation entitled ``Buy American Act--North American Free Trade Agreement--Israeli Trade Act":

NAFTA Country or Israeli End Products

Line Item No.:-----

Country of Origin:-----

(List as necessary)

(iii) The offeror shall list those supplies that are foreign end products (other than those listed in paragraph (g)(1)(ii) of this provision) as defined in the clause of this solicitation entitled "Buy American Act--North American Free Trade Agreement--Israeli Trade Act." The offeror shall list as other foreign end products those end products manufactured in the United States that do not qualify as domestic end products.

Other Foreign End Products

Line Item No.:-----
Country of Origin:-----

(List as necessary)

(iv) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.

(2) (2) Buy American Act--North American Free Trade Agreements--Israeli Trade Act Certificate, Alternate I (May 2002). If Alternate I to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

(g)(1)(ii) The offeror certifies that the following supplies are Canadian end products as defined in the clause of this solicitation entitled "Buy American Act--North American Free Trade Agreement--Israeli Trade Act":

Canadian End Products:

Line Item No.

(List as necessary)

(3) Buy American Act--North American Free Trade Agreements--Israeli Trade Act Certificate, Alternate II (May 2002). If Alternate II to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

(g)(1)(ii) The offeror certifies that the following supplies are Canadian end products or Israeli end products as defined in the clause of this solicitation entitled "Buy American Act--North American Free Trade Agreement--Israeli Trade Act":

Canadian or Israeli End Products:

Line Item No.

Country of Origin

(List as necessary)

(4) Trade Agreements Certificate. (Applies only if the clause at FAR 52.225-5, Trade Agreements, is included in this solicitation.)

(i) The offeror certifies that each end product, except those listed in paragraph (g)(4)(ii) of this provision, is a U.S.-made, designated country, Caribbean Basin country, or NAFTA country end product, as defined in the clause of this solicitation entitled "Trade Agreements."

(ii) The offeror shall list as other end products those end products that are not U.S.-made, designated country, Caribbean Basin country, or NAFTA country end products.

Other End Products

Line Item No.:-----

Country of Origin:-----

(List as necessary)

(iii) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25. For line items subject to the Trade Agreements Act, the Government will evaluate offers of U.S.-made, designated country, Caribbean Basin country, or NAFTA country end products without regard to the restrictions of the Buy American Act. The Government will consider for award only offers of U.S.-made, designated country, Caribbean Basin country, or NAFTA country end products unless the Contracting Officer determines that there are no offers for such products or that the offers for such products are insufficient to fulfill the requirements of the solicitation.

(h) Certification Regarding Debarment, Suspension or Ineligibility for Award (Executive Order 12549). (Applies only if the contract value is expected to exceed the simplified acquisition threshold.) The offeror certifies, to the best of its knowledge and belief, that the offeror and/or any of its principals --

(1) () Are, () are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency; and

(2) () Have, () have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: Commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, state or local government contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or Commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(3) () Are, () are not presently indicted for, or otherwise criminally or civilly charged by a Government entity with, commission of any of these offenses.

(i) Certification Regarding Knowledge of Child Labor for Listed End Products (Executive Order 13126). [The Contracting Officer must list in paragraph (i)(1) any end products being acquired under this solicitation that are included in the List of Products Requiring Contractor Certification as to Forced or Indentured Child Labor, unless excluded at 22.1503(b).]

(1) Listed end products.

Listed End Product

Listed Countries of Origin

(2) Certification. (If the Contracting Officer has identified end products and countries of origin in paragraph (i)(1) of this provision, then the offeror must certify to either (i)(2)(i) or (i)(2)(ii) by checking the appropriate block.)

() (i) The offeror will not supply any end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product.

() (ii) The offeror may supply an end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product. The offeror certifies that it has made a good faith effort to determine whether forced or indentured child labor was used to mine, produce, or manufacture any such end product furnished under this contract. On the basis of those efforts, the offeror certifies that it is not aware of any such use of child labor.

(End of provision)

CLAUSES INCORPORATED BY REFERENCE

52.212-4 Contract Terms and Conditions--Commercial Items FEB 2002

CLAUSES INCORPORATED BY FULL TEXT

52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (MAY 2002)

(a) The Contractor shall comply with the following FAR clauses, which are incorporated in this contract by reference, to implement provisions of law or executive orders applicable to acquisitions of commercial items:

(1) 52.222-3, Convict Labor (E.O. 11755).

(2) 52.233-3, Protest after Award (31 U.S.C. 3553).

(b) The Contractor shall comply with the FAR clauses in this paragraph (b) that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items or components:

(Contracting Officer shall check as appropriate.)

 X (1) 52.203-6, Restrictions on Subcontractor Sales to the Government, with Alternate I (41 U.S.C. 253g and 10 U.S.C. 2402).

 (2) 52.219-3, Notice of HUBZone Small Business Set-Aside (Jan 1999).

 (3) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (Jan 1999) (if the offeror elects to waive the preference, it shall so indicate in its offer).

 (4) (i) 52.219-5, Very Small Business Set-Aside (Pub. L. 103-403, section 304, Small Business Reauthorization and Amendments Act of 1994).

- ___(ii) Alternate I to 52.219-5.
- ___(iii) Alternate II to 52.219-5.
- ___(5) 52.219-8, Utilization of Small Business Concerns (15 U.S.C. 637 (d)(2) and (3)).
- ___(6) 52.219-9, Small Business Subcontracting Plan (15 U.S.C. 637 (d)(4)).
- ___(7) 52.219-14, Limitations on Subcontracting (15 U.S.C. 637(a)(14)).
- ___(8)(i) 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Concerns (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323) (if the offeror elects to waive the adjustment, it shall so indicate in its offer).
- ___(ii) Alternate I of 52.219-23.
- ___(9) 52.219-25, Small Disadvantaged Business Participation Program--Disadvantaged Status and Reporting (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).
- ___(10) 52.219-26, Small Disadvantaged Business Participation Program--Incentive Subcontracting (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).
- _X_ (11) 52.222-21, Prohibition of Segregated Facilities (Feb 1999).
- _X_ (12) 52.222-26, Equal Opportunity (E.O. 11246).
- _X_ (13) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans (38 U.S.C. 4212).
- _X_ (14) 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793).
- _X_ (15) 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans (38 U.S.C. 4212).
- ___(16) 52.222-19, Child Labor--Cooperation with Authorities and Remedies (E.O. 13126).
- ___(17)(i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (42 U.S.C. 6962(c)(3)(A)(ii)).
- ___(ii) Alternate I of 52.223-9 (42 U.S.C. 6962(i)(2)(C)).
- ___(18) 52.225-1, Buy American Act--Supplies (41 U.S.C. 10a-10d).
- ___(19)(i) 52.225-3, Buy American Act--North American Free Trade Agreement--Israeli Trade Act (41 U.S.C. 10a-10d, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note).
- ___(ii) Alternate I of 52.225-3.
- ___(iii) Alternate II of 52.225-3.
- ___(20) 52.225-5, Trade Agreements (19 U.S.C. 2501, et seq., 19 U.S.C. 3301 note).
- ___(21) 52.225-13, Restriction on Certain Foreign Purchases (E.O. 12722, 12724, 13059, 13067, 13121, and 13129).

____(22) 52.225-15, Sanctioned European Union Country End Products (E.O. 12849).

____(23) 52.225-16, Sanctioned European Union Country Services (E.O.12849).

X (24) 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration (31 U.S.C. 3332).

X (25) 52.232-34, Payment by Electronic Funds Transfer--Other than Central Contractor Registration (31 U.S.C. 3332).

____(26) 52.232-36, Payment by Third Party (31 U.S.C. 3332).

____ (27) 52.239-1, Privacy or Security Safeguards (5 U.S.C. 552a).

____ (28) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (46 U.S.C. 1241).

____Alternate I of 52.247-64.

(c) The Contractor shall comply with the FAR clauses in this paragraph (c), applicable to commercial services, which the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

(Contracting Officer check as appropriate.)

____ (1) 52.222-41, Service Contract Act of 1965, As amended (41 U.S.C. 351, et. seq.).

____ (2) 52.222-42, Statement of Equivalent Rates for Federal Hires (29 U.S.C. 206 and 41 U.S.C. 351, et. seq.).

____ (3) 52.222-43, Fair Labor Standards Act and Service Contract Act -- Price Adjustment (Multiple Year and Option Contracts) (29 U.S.C.206 and 41 U.S.C. 351, et seq.).

____ (4) 52.222-44, Fair Labor Standards Act and Service Contract Act - Price Adjustment (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

____ (5) 52.222-47, SCA Minimum Wages and Fringe Benefits Applicable to Successor Contract Pursuant to Predecessor Contractor Collective Bargaining Agreement (CBA) (41 U.S.C. 351, et seq.).

(d) Comptroller General Examination of Record. The Contractor shall comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records--Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c) or (d) of this clause, the Contractor is not required to include any FAR clause, other than those listed below (and as may be required by an addenda to this paragraph to establish the reasonableness of prices under Part 15), in a subcontract for commercial items or commercial components--

(1) 52.222-26, Equal Opportunity (E.O. 11246);

(2) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans (38 U.S.C. 4212);

(3) 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793);

(4) 52.247-64, Preference for Privately-Owned U.S.- Flag Commercial Vessels (46 U.S.C. 1241)(flow down not required for subcontracts awarded beginning May 1, 1996)., and

(5) 52.222-41, Service Contract Act of 1965, As Amended (41 U.S.C. 351, et seq.).

(End of clause)

CLAUSES INCORPORATED BY REFERENCE

252.212-7000	Offeror Representations and Certifications- Commercial Items	NOV 1995
252.212-7001	Contract Terms and Conditions Required to Implement Statutes or Executive Orders Applicable to Defense Acquisitions of Commercial Items	MAY 2002

CLAUSES INCORPORATED BY FULL TEXT

Successor Contracting Officers (52.201-4001)

The Contracting Officer who signed this contract is the primary Contracting Officer for the contract. Nevertheless, any Contracting Officer assigned to the Seattle District and acting within his/her authority may take formal action on this contract when a contract action needs to be taken and the primary Contracting Officer is unavailable.

SECTION 00800 - PBX TELEPHONE

SECTION 00800 SPECIAL CONTRACT REQUIREMENTS

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PARAGRAPH NO.

PARAGRAPH TITLE

1. COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK

2. INSURANCE - WORK ON A GOVERNMENT INSTALLATION
3. CONTRACT DRAWINGS, MAPS AND SPECIFICATIONS

SECTION 00800
SPECIAL CONTRACT REQUIREMENTS

1. COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK

The Contractor shall be required to (a) commence work under this requisition within 10 calendar days after the date the Contractor receives the notice of award, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than 120 calendar days after date of award. The time stated for completion shall include final cleanup of the premises. Refer to Section 01005, SITE SPECIFIC SUPPLEMENTARY REQUIREMENTS for work scheduling requirements.

2. INSURANCE - WORK ON A GOVERNMENT INSTALLATION (SEP 1989) (FAR 52.228-5)

(a) The Contractor shall, at its own expense, provide and maintain during the entire performance period of this Contract at least the kinds and minimum amounts of insurance required in the Insurance Liability Schedule or elsewhere in the Contract.

(b) Before commencing work under this Contract, the Contractor shall certify to the Contracting Officer in writing that the required insurance has been obtained. The policies evidencing required insurance shall contain an endorsement to the effect that any cancellation or any material change adversely affecting the Government's interest shall not be effective:

(1) for such period as the laws of the State in which this Contract is to be performed prescribe; or

(2) until 30 days after the insurer or the Contractor gives written notice to the Contracting Officer, whichever period is longer.

(c) The Contractor shall insert the substance of this clause, including this paragraph (c), in subcontracts under this Contract that require work on a Government installation and shall require subcontractors to provide and maintain the insurance required in the Schedule or elsewhere in the Contract. The Contractor shall maintain a copy of all subcontractors' proofs of required insurance, and shall make copies available to the Contracting Officer upon request.

(d) Insurance Liability Schedule (FAR 28.307-2)

(1) Workers' compensation and employer's liability. Contractors are required to comply with applicable Federal and State workers' compensation and occupational disease statutes. If occupational diseases are not compensable under those statutes, they shall be covered under the employer's liability section of the insurance policy, except when Contract operations are so commingled with a Contractor's commercial operation that it would not be practical to require this coverage. Employer's liability coverage of at least \$100,000 shall be required, except in states with exclusive or monopolistic funds that do not permit workers' compensation to be written by private carriers.

(2) General Liability.

(a) The Contracting Officer shall require bodily injury liability insurance coverage written on the comprehensive form of policy of at least \$500,000 per occurrence.

(b) Property damage liability insurance shall be required only in special circumstances as determined by the agency.

(3) Automobile liability. The Contracting Officer shall require automobile liability insurance written on the comprehensive form of policy. The policy shall provide for bodily injury and property damage liability covering the

operation of all automobiles used in connection with performing the Contract. Policies covering automobiles operated in the United States shall provide coverage of at least \$200,000 per person and \$500,000 per occurrence for bodily injury and \$20,000 per occurrence for property damage. The amount of liability coverage on other policies shall be commensurate with any legal requirements of the locality and sufficient to meet normal and customary claims.

(4) Environmental Liability If this contract includes the transport, treatment, storage, or disposal of hazardous material waste the following coverage is required.

The Contractor shall ensure the transporter and disposal facility have liability insurance in effect for claims arising out of the death or bodily injury and property damage from hazardous material/waste transport, treatment, storage and disposal, including vehicle liability and legal defense costs in the amount of \$1,000,000.00 as evidenced by a certificate of insurance for General, Automobile, and Environmental Liability Coverage. Proof of this insurance shall be provided to the Contracting Officer.

3. CONTRACT DRAWINGS AND SPECIFICATIONS

- (a) The work shall conform to the specifications and the contract drawings.
- (b) The Contractor shall--
 - (1) check all drawings furnished immediately upon receipt;
 - (2) Compare all drawings and verify the figures before laying out the work;
 - (3) Promptly notify the Contracting Officer of any discrepancies; and
 - (4) Be responsible for any errors which might have been avoided by complying with this paragraph (b).
- (c) The work shall conform to the specifications and the reference drawings identified in the index of drawings, included under Attachment 00800A, at the end of these Clauses.

END OF SECTION

SECTION 00800A - PBX TELEPHONE

**ATTACHMENT A
INDEX OF DRAWINGS
PBX TELEPHONE SWITCH REPLACEMENT,
CHIEF JOSEPH DAM, BRIDGEPORT, WASHINGTON**

FILE NUMBER	PLATE NUMBER	TITLE	REVISION NUMBER	DATE
CJP-9-6-0-0/0	G1	Title Sheet, Location Maps and Drawing Index		29 APR 02
CJP-9-6-3A21/1	E1	Existing Telephone Switch One Line Diagram		29 APR 02
CJP-9-6-3A21/2	E2	New Telephone Switch One Line Diagram		29 APR 02

FILE NUMBER	PLATE NUMBER	TITLE	REVISION NUMBER	DATE
CJP-9-6-3A21/3	E3	EPN Block Diagram - Administration		29 APR 02
CJP-9-6-3A21/4	E4	EPN Block Diagram - Warehouse		29 APR 02
CJP-9-6-3A20/1	E5	PBX Interface Layout		29 APR 02
CJP-9-6-3A0/1	E6	Telephone Equipment Layout Technical Engineering Room - Administration		29 APR 02

END OF SECTION

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DIVISION 1 - GENERAL REQUIREMENTS	
01001	Supplementary Requirements
01005	Site Specific Supplementary Requirements
01270	Payment
01330	Submittal Procedures
01770	Warranty Provisions
01782	Operation and Maintenance Data

DIVISION 16 - ELECTRICAL

16712 Telephone System

END OF CONTENTS

SECTION 01001

**SECTION 01001
SUPPLEMENTARY REQUIREMENTS**

PART 1 GENERAL

1.1 WORK SCHEDULE

Provide to the Contracting Officer a work schedule within 5 days of receipt of notice of award showing the proposed sequence of work. The work schedule shall be reviewed and approved by the Contracting Officer prior to work in the areas proposed by the schedule. The schedule shall show the proposed schedule of activities, locations/phases including delivery date of materials to project site, preliminary site work and preparation, and cutover period(s).

1.1.1 Sequencing of Work

Refer to Section 01005 for allowable cutover periods for final installation work.

1.2 CORRESPONDENCE

All correspondence shall be addressed to the Contracting Officer, shall be serially numbered commencing with Number 1, with no numbers missing or duplicated and shall be forwarded in quintuplicate, as directed by the authorized representative of the Contracting Officer, and shall include an additional copy forwarded to a separate designated location. All copies provided shall be legible and shall also be furnished with the enclosures. The original copy of all correspondence including attachments and enclosures shall be addressed and sent to the Contracting Officer. Each serial letter shall make reference to the contract name, contract number and shall have only one subject.

1.3 IDENTIFICATION OF EMPLOYEES (1984 APR OCE):

The Contractor shall be responsible for furnishing identification data for each employee prior to the employees work on-site, and for requiring each employee engaged on the work to display Government furnished identification credentials in accordance with Section 01005, paragraph "General Access Requirements."

PARTS 2 AND 3 NOT USED

END OF SECTION

SECTION 01005

SECTION 01005 SITE SPECIFIC SUPPLEMENTARY REQUIREMENTS

1. CONDUCT OF WORK

1.1 COORDINATION AND WORK HOURS

1.1.1 Coordination with using agencies shall be made through the Contracting Officer to assist the Contractor in completing the work with a minimum of interference and inconvenience.

1.1.2 Normal Work Hours

Normal work hours at the Project are 7:00 a.m. to 5:30 p.m. daily, Monday through Thursday, excluding holidays. The Contractor is expected to work within these hours, except as described under paragraph "Special Work Hours" or as coordinated with and approved by the Contracting Officer.

1.1.3 Special Work Hours (Switch Cutover Period)

During the cutover period from the existing to new telephone switch the Contractor's work hours are restricted in accordance with paragraph 1.6.1.1 a. "Telephone Switch Installation Cutover Period."

1.2 GENERAL ACCESS REQUIREMENTS

Access to the powerhouse and dam structures will be controlled at an entrance security station. Incoming traffic will be restricted from entering the controlled area until proper identification is provided. All personnel entering this area will be required to pickup their Contractor badge and sign in/out at the security station. Access other than established working hours will require prior approval by the Contracting Officer's Representative. The government may search any vehicle or personnel passing through the security station for prohibited items including, but not limited to: weapons, incendiary devices, bombs, and ammunition.

1.2.1 Contractor Employees

The Contractor shall be responsible for obtaining national agency checks on employees, including subcontractor employees, working on this project. The Contractor shall submit, under their letterhead, a listing of the employees who will work on this project, verification that the national agency checks have been conducted, and two (2) clear sets of color photocopies of their employees' state issued ID card or driver's licenses to the Contracting Officer's Representative a minimum of two weeks before they will be working on site. If an employee cannot be positively identified from these photocopies, they will not be admitted to the site. Employees working for subcontractors must also be authorized in the same manner under the primary Contractor's letterhead. Upon an employee first arrival for work on the site, the Government will produce a Project photo identification tag on site before the employee will be allowed to enter the powerhouse and dam structures. This may take as long as 2 hours. This identification must be returned to the Contracting Officer's Representative when the work is complete or when the individual departs from the Project. The Government may take a digital photo of the employee on site as well. This identification tag will be prominently displayed on his person at all times when the employee is on the worksite.

1.2.2 Contractor's Vehicles

Contractor's vehicles shall only park in approved areas in accordance with the parking plan provided by the Contracting Officer. The quantity of these vehicles shall be as approved by the Contracting Officer's Representative and shall be limited to the bare minimum. These vehicles shall be labeled with the Contractor's company name. Magnetic signs are acceptable.

1.2.3 Contractor Employee Privately-Owned Vehicles

The parking of privately-owned vehicles (POV's) of Contractor personnel is prohibited beyond the entrance to the powerhouse access road bridge (Foster Creek Bridge), and on the spillway/intake structures top deck. While work is being performed in or near these areas, Contractor personnel shall park their POV's outside the prohibited areas and be transported to work site by the Contractor's vehicles.

1.2.4 Material Deliveries for the Contractor

All Material deliveries to the Project shall be coordinated with the Contracting Officers Representative. In no case shall a delivery be received after 2:30 p.m. Monday through Thursday, or on Holidays, if the Contractor needs to unload the material within the restricted area and cannot clearly show, to the Government's satisfaction, that the delivery will be complete before 5:00 p.m. No deliveries will be accepted by the Government, therefore in order for the Contractor to receive a delivery, he will need to make himself available, for expected deliveries, at all times during the work day. All material being delivered to the work area, past the Guard House, will be thoroughly inspected.

1.3 COORDINATION AND COOPERATION WITH OTHER CONTRACTORS/GOVERNMENT ACTIVITIES

Work by other Contractors as well as Government employees is anticipated to be performed in the vicinity or adjacent to the project site in concurrence with the scheduled performance of Work under these Contract Documents. Contractor shall coordinate construction work with other contractors and the Project Personnel to minimize conflicts and to maintain a cooperative effort in completion of the Work.

1.4 CONTRACTOR SECURITY

The Government will not be responsible for providing security for Contractor-owned/controlled equipment, supplies, or materials. The Contractor shall provide all necessary security measures to protect equipment and material.

1.5 KEYS

Keys are required for access to the construction area and will be provided by the Contracting Officer. The Contractor shall be responsible for Government-owned keys issued for this contract. Upon completion of the work, or upon request of the Contracting Officer, key or keys shall be returned. Should the Contractor lose a key:

- a. The Contracting Officer shall be notified, in writing, within three (3) working days after the loss is discovered, and report the time, date, location and circumstances under which the key(s) were lost.
- b. Should the key not be found before final acceptance, the final contract payment shall be reduced by \$150 per lost key for re-keying.

1.6 WORK SCHEDULE REQUIREMENTS

1.6.1 Special Work Period

1.6.1.1 In conjunction with the completion schedule under Section 00800, paragraph SC-1 the Contractor shall incorporate the following work periods into the work sequence:

- a. Telephone Switch Installation Cutover Period. For any Work requiring an outage of telephone system the Contractor shall only perform this work during a period starting 5:30 pm Thursday through 7:00 am Monday. Once the cutover period begins the Contractor shall complete all work and restore the system to operation prior to the end of the cutover period.

1.6.2 Constraints

The following special constraints have been identified as having an impact on the performance of the Work. It is not intended to be a comprehensive list of constraints that will result from the execution of the Work, but as an aid to the Contractor in development of schedules and in executing the Work. Additional constraints may exist or develop as a result of required Work execution or Contractor's proposed work methods or sequence. In any event, the Contractor is responsible for compliance with the requirements of the various specification sections and the work procedures and protection requirements contained therein and establishing all constraints associated with the Work execution and incorporating them into Work schedules and proposed construction activities.

- a. The Contractor shall have all required material and equipment, including spare parts, on-site prior to the start of any cutover period, before the Government will allow work to proceed.
- b. Testing: All contract requirements of Section 16712, TELEPHONE SYSTEM shall be fully completed, including all testing, prior to contract completion date.
- c. The Contractor must ensure that no damage results from leaving the work area in an unfinished (unprotected) state at any time. Therefore, the Contractor must protect the unfinished work in such a fashion that there is no damage to any portion of the new system or any Chief Joseph Dam resources. The Contractor will bear any costs due to damage resulting from not taking appropriate steps to protect the new system and Chief Joseph Dam resources.

1.6.3 Pre Work Meetings.

The Contracting Officer may require an on-site meeting prior to start of a work phase to review all conditions and features of the work and safety considerations. Unless otherwise approved, the meetings shall include the Contractor's Superintendent, CQC Manager, Safety Manager and the Contracting Officer's Representative and Chief Joseph Dam Project Office Representative.

2. PROTECTION OF GOVERNMENT PROPERTY

In addition to requirements of the CONTRACT CLAUSES, Contractor shall protect all Government property within the buildings in which he is working, except for such property as is required to be demolished. Property which is to be demolished shall be protected until its scheduled demolition time. Protection shall include, but not be limited to, protection from construction generated dust, debris, water, and vibration. Demolition debris shall promptly be removed from the project site in accordance with all Federal, state, and local rules and regulations. The Government's trash cans, dump boxes and other containers shall not be used. Liquid waste shall not be disposed of in the powerhouse drains.

3. CLEANUP

Leave premises "broom clean." Remove temporary labels, stains and foreign substances from all equipment. Remove waste and surplus materials, rubbish and construction facilities from the site.

END OF SECTION

SECTION 01270

**SECTION 01270
PAYMENT**

PART 1 GENERAL

1.1 GENERAL

The contract price for each item shall constitute full compensation for furnishing all plant, labor, materials, appurtenances, and incidentals and performing all operations necessary to furnish and install complete, the items in accordance with these specifications and the applicable drawings. Payment for each item shall be considered as full compensation, notwithstanding that minor features may not be mentioned herein. Work paid for under one item will not be paid for under any other item. No separate payment will be made for the work, services, or operations required by the Contractor, as specified in DIVISION 1, GENERAL REQUIREMENTS, to complete the project in accordance with these specifications; all costs thereof shall be considered as incidental to the work.

1.2 PAYMENT ITEMS

Payment will be made at the contract unit or lump sum prices for the following Items:

1.2.1 Item 0001, "Furnish and install new PBX telephone switch and ancillary equipment" at the contract lump sum price. Work includes furnishing of on-site telephone training and orientation for up to 80 employees.

1.2.2 Item 0002, "Furnish Spare Parts and operating manuals," at the contract lump sum price.

1.2.3 Item 0003, "Provide off-site training in system operation and maintenance" at the contract unit price. Measurement shall be based on EACH Government employee receiving the training. Payment includes Contractor costs only at the training facility. Government will furnish and pay expenses for transportation to and from off site training location and associated per diem costs.

END OF SECTION

SECTION 01330

**SECTION 01330
SUBMITTAL PROCEDURES**

PART 1 GENERAL

1.1 CONTRACT DATA REQUIREMENTS LIST

The Contractor shall submit all items listed on the Contract Data Requirements List (CDRL) (DD Form 1423) included as an attachment at the end of this section. Submittals required in the CONTRACT CLAUSES are in addition to those listed.

1.2 DEFINITIONS

1.2.1 Submittal

Items including product data and administrative submittals presented for review and approval or for information. Contract Clauses "FAR 52.236-5, Material and Workmanship," paragraph (b) apply to all "submittals."

1.3 PREPARATION

1.3.1 Marking

Permanent marking shall be provided on each submittal to identify it by contract number; transmittal date; Contractor's, Subcontractor's, and supplier's name, address(es) and telephone number(s); submittal name; specification or drawing reference; and similar information to distinguish it from other submittals. Submittal identification shall include space to receive the review action by the Contracting Officer.

1.3.2 Data Format

Required data submittals for each specific material, product, unit of work, or system shall be collected into a single submittal and marked for choices, options, and portions applicable to the submittal. Marking of each copy of product data submitted shall be identical. Partial submittals will not be accepted for expedition of the work effort unless previously requested by COR.

1.3.3 Drawing Format

- a. Detail drawings shall not be less than 8 1/2 by 11 inches nor more than 28 x 40 inches.
- b. 11 x 17 to 28 x 40 inches Drawing Size.

Include on each drawing a title block in lower right hand corner with a 3- by 4-inch clear area adjacent. Title block shall contain subcontractor's or fabricator's name, Contract number, drawing title, number, date, bid item number, and a revision block. Contractor shall submit the required number of prints of any type. Provide a blank margin of 3/4 inch at bottom, 2 inches at left, and 1/2 inch at top and right.

- c. Less than 11 x 17 inches Drawing Size.

Include on each drawing a title block with a 1-1/2 by 4-inch clear area adjacent. Title block shall contain subcontractor's or fabricator's name, Contract number, drawing title, number, date, bid item number, and a revision

block. Contractor shall submit the required number of copies of any type. Provide a blank margin of 3/4 inch at all sides.

d. Dimension all drawings, except diagrams and schematic drawings; prepare drawings demonstrating interface with other trades to scale. Identify materials and products for work shown.

e. Where drawings are submitted for assemblies of more than one piece of equipment or systems of components dependent on each other for compatible characteristics, complete information shall be submitted on all such related components at the same time. Contractor shall insure that information is complete and that sequence of drawing submittal is such that all information is available for reviewing each drawing. Drawings for all items and equipment, of special manufacture or fabrication, shall consist of complete assembly and detail drawings.

f. All revisions after initial submittal shall be shown by number, date, and subject in revision block.

1.4 SUBMISSION REQUIREMENTS

1.4.1 Transmittal Form

Transmittal Form 4025 (sample at end of this section) shall be used for submitting both GA and FIO submittals in accordance with the instructions on the reverse side of the form. Transmittal numbers shall be assigned sequentially. Electronic generated 4025 forms shall be printed on carbonless paper and be a reasonable facsimile of the original 4025. If electronic forms are not used, the original 4025 forms shall be used (do not photo copy) and will be furnished by the COR. These forms shall be filled in completely prior to submittal. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item. Each submittal item shall be listed separately on the form, naming subcontractor, supplier, or manufacturer, applicable specification paragraph number(s), drawing/sheet number, pay item number, and any other information needed to identify the item, define its use, and locate it in the work. One or more 4025 forms may be used per specification section, however, DO NOT include more than one specification section per transmittal.

1.4.2 Data and Drawing Submittals

When not indicated on the DD Form 1423, six complete sets of data and drawings shall be submitted. One set, marked with review notations by the Contracting Officer, will be returned to the Contractor.

1.5 GOVERNMENT'S REVIEW

1.5.1 Review Notations

Submittals will be returned to the Contractor with the following notations:

a. Action Code A (Approved as Submitted). Drawings which can be approved without correction will be stamped "Approved", two copies of catalog and other printed data, will be returned to the Contractor.

b. Action Code B (Approved, Except as Noted, Resubmission Not Required). Drawings which have only minor discrepancies will be corrected and stamped "Approved as Corrected" or "Except as Noted." Corrections will be identified. Distribution will be same as for "Approved" drawings.

c. Action Code C (Approved, Except as Noted, Resubmission Required). Two prints of drawings which are incomplete or require more than minor corrections will be marked in red to indicate necessary corrections. One marked copy will be returned to the Contractor stamped "Returned for Correction."

d. Action Code E (Disapproved). One print of drawings which are fundamentally in error, cover wrong equipment or construction, or require extensive corrections will be returned to the Contractor stamped "Disapproved." An explanation will be furnished on the print or on ENG Form 4025 indicating reason for disapproval.

1.5.2 Re-Submittal

Re-submittal will not be required for drawings with Action Code A or B unless subsequent changes are made by the Contractor or by a contract modification. For drawings with Action Code C or E, corrections required shall be made, any changes shall be noted by dating the revisions to correspond with the change request date, and the drawings shall be promptly resubmitted for review. Government costs incurred after the first re-submittal will be charged to the Contractor.

1.5.3 Contractor Responsibilities Upon Receiving Government Annotated Submittals

1.5.3.1 An A, B, or C Action Code will authorize the Contractor to proceed with the fabrication of the equipment covered by such drawings, subject to the corrections, if any, indicated thereon or described in the letter of transmittal. Required revisions shall be resubmitted by the same procedure as previously described. Every revision made during the life of the contract shall be shown by number, date, and subject in a revision block and a notation shall be made in the drawing margin to permit rapid location of the revision. The time consumed by the Contractor in submitting and obtaining approval of assembly and shop drawings shall be included in the time allowed for completion of the contract.

1.5.3.2 Submittal of Corrected Drawings

Upon receipt of prints which have Action Codes C or E the Contractor shall, within 30 calendar days after receipt, submit corrected (reproducibles and) prints of each drawing to the address(s) listed on the CDRL. If revisions are made after a drawing has been assigned an A or B code, the Contractor shall furnish corrected reproducibles and prints subsequent to each revision.

1.6 SUBMITTALS FOR GOVERNMENT APPROVAL

Any manufacturing work performed prior to the approval of drawings shall be at the responsibility of the Contractor. No claim for additional costs will be allowed for changes required due to manufacturing work prior to approval of a required submittal.

1.6.1 Approved Submittals

The approval of submittals by the Contracting Officer shall not be construed as a complete check, but will indicate only that the general method of work is satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor is responsible for the satisfactory performance of the work in accordance with the contract documents, including all applicable regulations.

1.6.2 Changes To Approved Submittals

If changes are necessary to approved submittals, the Contractor shall make such revisions and submission of the submittals in accordance with the procedures above. No item of work requiring a submittal change shall be accomplished until the changed submittals are approved. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting alternate methods or work procedures will be given consideration unless accompanied by an explanation as to why a substitution is necessary.

1.7 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies required for Government approval. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, notice as required under the Contract Clause entitled "Changes" shall be given promptly to the Contracting Officer.

1.8 SCHEDULING

Adequate time shall be allowed for Government review and approval. Items requiring Government approval shall allow for a minimum 30 calendar day period for Government review and approval of the initial submittal and a 7 calendar day period for Government review and approval for subsequent submittals, if required. Review periods are exclusive of mailing time.

1.9 OTHER SUBMITTALS

1.9.1 Bill Of Materials

One reproducible and two prints of a bill of materials listing each item necessary to complete each major equipment assembly shall be furnished at least 30 days prior to the first delivery of the equipment. This is in addition to the materials schedules required and any list of materials shown on the drawings. This bill of materials shall be complete enough to check each item by quantity, size, and other description as required to assure all material required under the contract has been delivered.

1.9.2 Purchase Orders

Two copies of all purchase orders for other than stock materials showing the firm(s) name and address and lists of material shall be submitted as soon as issued, and immediate notice shall be given of the receipt of any material for the work together with detailed lists of same. Orders shall be so worded and marked that each item may be identified in the plans for the work.

1.10 WITHHOLDING OF PAYMENT

Payment for materials and equipment incorporated or installed in the facility and not in compliance with the contract documents or if required approvals have not been obtained will not be made.

1.11 PAYMENT

Separate payment, except as identified in the Section B, SCHEDULE for SUPPLIES OR SERVICES AND PRICES/COSTS will not be made for submittals of contract data, and all costs associated therein shall be included in the applicable unit prices or lump sum prices contained in the schedule.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

Attachments follow

1. Form 4025 and instructions
2. CDRL and instructions

END OF SECTION

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INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.
 2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.
 3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288-R for each entry on this form.
 4. Submittals requiring expeditious handling will be submitted on a separate form.
 5. Separate transmittal form will be used for submittals under separate sections of the specifications.
 6. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications--also, a written statement to that effect shall be included in the space provided for "Remarks".
 7. Form is self-transmittal, letter of transmittal is not required.
 8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.
 9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I, column i to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g, to each item submitted.
- | | | | |
|------|--|-------|--|
| A -- | Approved as submitted. | E -- | Disapproved (See attached). |
| B -- | Approved, except as noted on drawings. | F -- | Receipt acknowledged. |
| C -- | Approved, except as noted on drawings.
Refer to attached sheet resubmission required. | FX -- | Receipt acknowledged, does not comply as noted with contract requirements. |
| D -- | Will be returned by separate correspondence. | G -- | Other (Specify) |
10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

(Reverse of ENG Form 4025-R)

INSTRUCTIONS FOR COMPLETING DD FORM 1423

ADDRESS AND CODES

1. Where the following office symbol is shown in Block 14 the material shall be addressed as follows:

<u>Symbol *</u>	<u>Copies *</u>	<u>Address</u>
A1	3	ATTN: Technical Section (P.O.C.: Richard D. Werner) CENWS-OD-CJ Department of the Army Seattle District, Corps of Engineers Chief Joseph Dam Project Office P.O. Box 1120 Bridgeport, WA 98813-1120 Telephone (509) 686-5501 x221
A2	1	ATTN: Maintenance Section (P.O.C.: Bill Walker) CENWS-OD-CJ Department of the Army Seattle District, Corps of Engineers Chief Joseph Dam Project Office P.O. Box 1120 Bridgeport, WA 98813-1120 Telephone (509) 686-5501 x243
A3	2	ATTN: Civil Projects (P.O.C.: J. Larry Scudder) CENWS-PM-CP Department of the Army Seattle District, Corps of Engineers P.O. Box 3755 Seattle, WA 98124-3755 Telephone (206) 764-6568

*Standard unless otherwise shown on CDRL.

2. The codes used are defined as follows:

<u>Code</u>	<u>Block</u>	<u>Definition</u>
(1) OTIME	10	One time.
(2) XX	7	Inspection and acceptance requirements specified elsewhere in contract.
(3) GA	8	Requires specific approval.
(4) FIO	8	For information only
(5) ONE/R	10	One time plus revisions.
(6) DAC	12	Days after receipt of contract.
(7) DBD	13	Days before delivery.
(8) ASREQ	6, 10, 11, 12, 13,	As required.
(9) MTHLY	10	Monthly.
(10) O	11	Submit on last day of the month.
(11) R/ASR	--	Revisions as required.
(12) CD	--	Calendar days
(13) DANTP	--	Days after notice to proceed.
(14) NLT		Not later than

SECTION 01770

SECTION 01770 WARRANTY PROVISIONS

PART 1 GENERAL

1.1 SUBMITTALS

Submit the following in accordance with Section 01330, "Submittal Procedures:"

Sample of Equipment/product warranty tags

1.2 EQUIPMENT/PRODUCT WARRANTIES

1.2.1 Warranty Of Supplies Of A Noncomplex Nature (1984 Apr)

1.2.1.1 Definitions: "Acceptance," as used in this clause, means the act of an authorized representative of the Government by which the Government assumes for itself, or as an agent of another, ownership of existing supplies, or approves specific services as partial or complete performance of the contract.

"Correction," as used in this clause, means the elimination of a defect.

"Supplies," as used in this clause, means the end item furnished by the Contractor and related services required under the contract. The word does not include "data."

1.2.1.2 Contractor's Obligations:

(1) Notwithstanding inspection and acceptance by the Government of supplies furnished under this contract or any condition of this contract concerning the conclusiveness thereof, the Contractor warrants that for 1 year or the period specified in the respective technical specification, whichever is greater, after successful completion of tests and acceptance by the Government:

(a) All supplies furnished under this contract will be free from defects in design, material, or workmanship and will conform with the specifications and all other requirements of this contract.

(b) The preservation, packaging, packing, and marking, and the preparation for, and method of, shipment of such supplies will conform with the requirements of this contract.

(2) When return, correction, or replacement is required, transportation charges and responsibility for the supplies while in transit shall be borne by the Contractor. However, the Contractor's liability for the transportation charges shall not exceed an amount equal to the cost of transportation by the usual commercial method of shipment between the place of delivery specified in this contract and the Contractor's plant, and return.

(3) Any supplies or parts thereof, corrected or furnished in replacement under this clause, shall also be subject to the terms of this clause to the same extent as supplies initially delivered. The warranty, with respect to supplies or parts thereof, shall be equal in duration to that in paragraph 1.2.1.2 (1) of this clause and shall run from the date of delivery of the corrected or replaced supplies.

(4) All implied warranties of merchantability and "fitness of a particular purpose" are excluded from any obligation contained in this contract.

1.2.2 Remedies available to the Government:

(1) The Contracting Officer shall give written notice to the Contractor of any breach of the warranties in paragraph 1.2.1 of this clause within 30 calendar days after discovery of the defect.

(2) Within a reasonable time after such notice, the Contracting Officer may either:

(a) Require, by written notice, the prompt correction or replacement of any supplies or parts thereof (including preservation, packaging, packing, and marking) that do not conform with the requirements of this contract within the meaning of paragraph 1.2.1 of this clause.

(b) Retain such supplies with payment, therefore, reduced by an amount equitable under the circumstances.

(3) (a) If the contract provides for inspection of supplies by sampling procedures, conformance of supplies or components subject to warranty action shall be determined by the applicable sampling procedures contained in the contract:

(a1) The Contracting Officer may for sampling purposes group any supplies delivered under this contract.

(a2) Shall require the size of the sample to be that required by sampling procedures specified in the contract for the quantity of supplies on which warranty action is proposed.

(a3) May project warranty sampling results over supplies in the same shipment or other supplies contained in other shipments even though all of such supplies are not present at the point of re-inspection, provided the supplies remaining are reasonably representative of the quantity on which warranty action is proposed.

(a4) Need not use the same lot size as on original inspection or reconstitute original inspection lots.

(b) Within a reasonable time after notice of any breach of warranties in paragraph 1.2.1 of this clause, the Contracting Officer may exercise one or more of the following options:

(b1) Require an equitable adjustment in the contract price for any group of supplies.

(b2) Screen the supplies grouped for warranty action under this clause at Contractor's expense and return all nonconforming supplies to the Contractor for correction or replacement.

(b3) Require the Contractor to screen the supplies at locations designated by the Government within the continental United States and to correct or replace all nonconforming supplies.

(b4) Return the supplies grouped for warranty action under this clause to the Contractor (irrespective of the f.o.b. point or the point of acceptance) for screening and correction or replacement.

(4) (a) The Contracting Officer may, by contract or otherwise, correct or replace the nonconforming supplies with similar supplies from another source and charge to the Contractor the cost occasioned to the Government thereby if the Contractor:

(a1) Fails to make redelivery of the corrected or replaced supplies within the time established for their return.

(a2) Fails either to accept return of the nonconforming supplies or fails to make progress after their return to correct or replace them so as to endanger performance of the delivery schedule, and in either of these two circumstances does not cure such failure within a period of ten (10) days (or such longer period as the Contracting Officer may authorize in writing) after receipt of notice from the Contracting Officer specifying such failure.

(b) Instead of correction or replacement by the Government, the Contracting Officer may require an equitable adjustment of the contract price. In addition, if the Contractor fails to furnish timely disposition instruction, the Contracting Officer may dispose of the nonconforming supplies for the Contractor's account in a reasonable manner. The Government is entitled to reimbursement from the Contractor or from the proceeds of such disposal for the reasonable expenses of the care and disposition of the nonconforming supplies, as well as for the excess costs incurred or to be incurred.

(5) The rights and remedies of the Government provided in this clause are in addition to and do not limit any rights afforded to the Government by any other clause of the contract. (FAR 57.246-17.)

1.4 ADDITIONAL WARRANTY REQUIREMENTS

1.4.1 Equipment Warranty Identification Tags

The Contractor shall provide warranty identification tags on all Contractor equipment which is Contractor installed.

The tags and information shall be suitable for interior and exterior locations, resistant to solvents, abrasion, and to fading caused by sunlight, precipitation, etc. These tags shall have a permanent pressure-sensitive adhesive back, and shall be installed in a position that is easily noticeable. If the equipment surface is not suitable for adhesive back tags, the Contractor shall submit an alternative to the Government for review and approval. Contractor furnished equipment that has differing warranties on its components will have each component tagged/identified. Lettering on the tags shall be block-type upper case and easily readable. Tags shall be similar in format to the following:

EQUIPMENT WARRANTY	
CONTRACTOR FURNISHED EQUIPMENT	
MFG _____	MODEL NO. _____
SERIAL NO. _____	
CONTRACT NO. _____	
CONTRACTOR NAME _____	
CONTRACTOR ADDRESS _____	
CONTRACTOR PHONE NO. _____	
DATE WARRANTY EXPIRES _____	
IN CASE OF WARRANTY ACTION FIRST CONTACT (Point of contact, including name and telephone number.)	

EQUIPMENT WARRANTY	
GOVERNMENT FURNISHED EQUIPMENT	
MFG _____	MODEL NO. _____
SERIAL NO. _____	
CONTRACT NO. _____	
DATE EQUIPMENT PLACED IN SERVICE _____	

In the case of equipment repaired or replaced by the Contractor during the warranty period, the Equipment Warranty tag shall be replaced or updated, as applicable, to indicate the scope of the repair/replacement and the new warranty expiration date in accordance with paragraph 1.2 EQUIPMENT/PRODUCT WARRANTIES.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01782

SECTION 01782 OPERATION AND MAINTENANCE DATA

1.1 GENERAL.

Parts catalogs and operating instructions needed or useful in operation, maintenance, repairs, dismantling, or assembling, and for repair and identification of parts for ordering replacements, shall be especially prepared. The parts catalogs and operating instructions shall cover all equipment furnished under this contract and shall be assembled under a suitable common cover. The assembled material shall include complete identification of the spare parts furnished in compliance with the requirements of these specifications.

1.2 SUBMITTAL REQUIREMENTS.

An initial submittal of three complete draft copies (not in final binding) of the above-mentioned material shall be made not less than 30 days prior to delivery of the equipment. Submittal shall be made in accordance with all applicable procedures for submittal of drawings, except as provided herein. The Contracting Officer will return one draft copy with appropriate approval of, or comment on, the acceptability of the submittal. The Contractor shall resubmit the one draft copy with such corrected and/or additional data sheets and drawings as may be directed by the Contracting Officer. One copy of each data sheet and drawings shall be furnished also for the two draft copies retained by the Contracting Officer. Upon final approval of the draft, the Contractor shall submit five copies of the final manuals in binders. The copies shall be furnished no later than the date specified for delivery of the equipment.

1.3 FORMAT

Binders shall be side-binding, telescoping-post, expandable-back, and shall have a supported vinyl cover with a stiff binder board for 8 1/2- by 11-inch sheets. Ring-type loose leaf binders will not be acceptable. One 11- by 17-inch copy of each of the drawings shall be furnished and shall be folded and bound for easy unfolding without removal from the binder. Each sheet in the binder shall be numbered and an index provided for ready reference to the data. All standard catalog cuts, manufacturer's printed data or descriptive literature, parts sheets, illustrations, etc., shall be

either original manufacturer sheets or reproduced copies of equal clarity and durability. The following identification shall be inscribed on the covers:

- (1) The words "OPERATIONS AND MAINTENANCE MANUAL."
- (2) The name and location of the building, facility, and/or project.
- (3) The volume number and total number of volumes.
- (4) The systems and/or equipment therein.
- (5) The name of the Contractor.
- (6) The contract number.
- (7) The year of completion of the contract.

Each manual shall contain a master table of contents. The master table of contents shall contain all chapters, appendixes, and a master index and shall be included in the front of the first volume if there is more than one volume. Each subsequent volume shall contain an index for the contents within that respective volume. Each volume shall not be broken between chapters, appendixes, and/or indexes. All chapters, appendixes, and indexes shall be adequately separated and identified by standard line indexes.

1.4 CATALOG DATA SHEETS AND SPARE PARTS LISTING.

All catalog data sheets and the spare parts listing shall be inserted in an appendix at the end of the manual following the preventative maintenance (PM) charts appendix. This appendix shall be for catalog data sheets and the spare parts listing only. An index of the catalog data sheets shall be provided to provide clear and concise reference to shop drawings and individual pages within the manual.

1.4.1 Catalog data sheets shall be inserted into the manual such that positive identification of all parts on catalog data sheets are clearly identified by:

- (1) Part Name. A clear and descriptive name shall be given to each component in the piece of equipment.
- (2) Manufacturer and Part Number. The name, address, and telephone number of the manufacturer shall be given along with the catalog part number.

Standard catalog data sheets will not be acceptable unless irrelevant parts are marked out (with black "x") and relevant parts clearly identified. Any data on catalog sheets which does not directly relate to purchased equipment shall be marked out. Parts shall be so identified that they can be readily ordered from local area industrial supply outlets if not of special manufacture. A cross-reference between items described in catalogs, instructions, and drawings shall be provided to facilitate ease of location of parts described. Highlighting and "scribble notes" will not be acceptable for identification purposes.

1.4.2 The spare parts listing shall clearly state the spare parts supplied and a list of recommended spare parts to be stocked. The spare parts listing shall clearly identify:

- (1) Part Name. A clear and descriptive name shall be given to each component listed as a spare part in the piece of equipment.
- (2) Manufacturer and Part Number. The name, address, and telephone number of the manufacturer shall be given along with the catalog part number.

(3) Quantity. The quantity of each part listed as a spare part shall be given.

(4) Reference to Catalog Data Sheets. Each spare part shall be referenced to the corresponding catalog data sheet by page number.

1.5 OPERATION DATA.

The operation data shall include specific operating instructions, functional description of operating parts, and special precautions or procedures to be considered. The Contractor shall be responsible for the necessary coordination between his subcontractors, suppliers, and manufacturers to assure complete submittals on individual interrelated equipment components.

1.6 MAINTENANCE DATA.

Maintenance data shall include instructions for inspection, testing, and maintenance; parts catalogs; and a list of special tools required.

1.7 PREVENTATIVE MAINTENANCE CHARTS.

PM charts shall be developed and provided in the manual. These charts shall include the following:

(1) Subject. A clear and descriptive name for the equipment requiring PM shall be given. Reference to shop drawings and catalog cuts shall be provided in a clear manner. "Checkpoints" shall be defined for each piece of equipment.

(2) Procedure. A detailed procedural description of the method in which to perform PM shall be provided for all equipment requiring PM work. Safety precautions shall be provided. Descriptions of "checkpoints" shall be provided.

(3) Dates. The PM charts shall include recommended PM intervals. The intervals shall be defined as requiring PM either daily, weekly, monthly, quarterly, semiannually, or annually. These charts shall be inserted in an appendix at the end of the manual. This appendix shall be for PM charts only. PM shall include inspection, testing, cleaning, replacement, and all routine maintenance work.

END OF SECTION

SECTION 16712

SECTION 16712 TELEPHONE SYSTEM

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI C62.61 (1993) Gas Tube Surge Arrestors on Wire Line Telephone Circuits

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 2239 (1996a) Polyethylene (PE) Plastic Pipe (SIDR-PR) Based on Controlled Inside Diameter

ELECTRONIC INDUSTRIES ASSOCIATION (EIA)

EIA ANSI/TIA/EIA -568A (1995) Commercial Building Telecommunications Cabling Standard

EIA ANSI/TIA/EIA -607 (1994) Commercial Building Grounding and Bonding Requirements for Telecommunications

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

IEEE C2 (2002) National Electrical Safety Code

INSULATED CABLE ENGINEERS ASSOCIATION (ICEA)

ICEA ANSI/ICEA S-85-625 (1996) Airecore, Polyolefin Insulated, Copper Conductor Telecommunications Cable

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 70 (2002; Errata 96-4) National Electrical Code

RURAL UTILITIES SERVICE (RUS)

RUS Bulletin 1755.910 RUS Specification for Outside Plant Housings and Serving Area Interface Systems

RUS REA Bulletin 345-39 (1985) REA Specification for Telephone Station Protectors (PE-42)

RUS REA Bulletin 345-72 (1985) REA Specification for Filled Splice Closures (PE-74)

RUS REA Bulletin 345-151 (1989) Specifications and Drawings for Conduit and Manhole Construction (Form 515c)

RUS REA Bulletin 1751F-641 (1995) Construction of Buried Plant

RUS REA Bulletin 1755I-100 (1991; Rev through Supple 11 Nov 92) List of Materials Acceptable for Use on Telephone System of REA Telephone Borrowers

RUS REA PC-4 (1976) Acceptance Tests and Measurements of Telephone Plant

RUS REA PE-33 (1985) Shield Bonding Connectors

RUS REA PE-39 (1993) REA Specification for Filled Telephone Cables

RUS REA PE-60 (1979) Trunk Carrier Systems

RUS REA PE-87	(1994) Terminating (TIP) Cable
RUS REA PE-89	(1993) Filled Telephone Cables with Expanded Insulation
RUS REA TE&CM 635-03	(1988; Addenda 1 through 4) Construction of Aerial Cable Plant

UNDERWRITERS LABORATORIES (UL)

UL 50	(1995; Rev thru Oct 1997) Enclosures for Electrical Equipment
UL 497	(1995; Rev Mar 1996) Protectors for Paired Conductor Communication Circuits

1.2 SYSTEM DESCRIPTION

The telephone PBX switch system with remote units shall consist of all hardware, software, cable, conduit, etc. required to provide signal paths from the new switch to the remote units in the location on the main distribution frame in the Communication Room, Microwave Room, and Technical Engineering Room including free standing frames, and cabinet terminating cables. The work consists of furnishing, installing, testing and making operational a complete telephone system for continuous use.

1.3 QUALIFICATIONS

1.3.1 Cable Installers

Installation shall be under the direct supervision of an individual with a minimum of 3 years experience in the installation of the specified copper and components.

1.3.2 Cable Splicing and Termination

All cable splicers shall have training in the proper techniques and have a minimum of 3 years experience in splicing and terminating the specified cables. Modular splices shall be performed by factory certified personnel or under direct supervision of factory-trained personnel for products used.

1.3.3 Manufacturers

The cable, equipment, software and hardware provided shall be from manufacturers that have a minimum of 3 years experience in producing the types of cable, equipment, software and hardware specified.

1.4 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted:

SD-01 Data

Spare Parts and Equipment List; FIO.

The Contractor shall submit a list of all spare parts and equipment supplied under this contract. Spare parts shall be delivered with the equipment to be installed.

Manufacturer's Data; FIO

Catalog cuts, brochures, circulars, specifications, product data, and printed information in sufficient detail and scope to verify compliance with the requirements of the contract documents shall be submitted not later than 30 days after award of the contract. This information shall also be included in the Operation and Maintenance manual.

SD-04 Drawings

Telephone System; GA.

Record drawings for the installed wiring system showing the actual location of all cable terminations, splices, routing, and size and type of all cables. The identifier for each termination and cable shall appear on the drawings. The drawings shall include gauge and pair for each cable, duct and inner duct arrangement, or conductor assignment of outside plant, and protector and connector block layout at the termination points after installation. Drawings shall show layout and anchorage of equipment and appurtenances, and equipment relationship to other parts of the work including clearance for maintenance and operations. Drawings shall include complete wiring and schematic diagrams and other details required to demonstrate that the system has been coordinated and will function properly as a system.

SD-08 Statements

Installation Schedule; GA.

The Contractor shall prepare an installation schedule for Government review and approval. Schedule shall be submitted within 30 days after award of the contract.

Acceptance Tests; GA.

Test plans defining all tests required ensuring that the system meets specified requirements. The test plans shall define milestones for the tests, equipment, personnel, facilities, and supplies required. The test plans shall identify the capabilities and functions to be tested.

Cutover and Records; GA.

A cutover plan shall be included with the installation schedule and shall provide procedures and schedules for relocation of facility station numbers without interrupting service to any active location. The cutover plan shall conform to the WORK SCHEDULE REQUIREMENTS, Section 01005, paragraph 1.6.1.1.

SD-09 Reports

Test Results; FIO.

Test result reports in booklet form showing all field tests performed, upon completion and testing of the installed system. Measurements shall be tabulated on a pair by pair or strand-by-strand basis.

SD-13 Certificates

Telephone System; GA.

The Contractor shall submit proof that the items furnished under this section conform to the specified requirements in FCC, ICEA, REA, RUS, ANSI, ASTM, NFPA, EIA, or UL, where materials and equipment are so specified.

Qualifications; GA.

The Contractor shall submit qualifications of the splicer, and installation supervisor in accordance with paragraph 1.3.

1.5 DELIVERIES AND STORAGE

1.5.1 Cable Requirements-

All cable shall be shipped on reels. The diameter of the drum shall be large enough to prevent damage to the cable during reeling and unreeling. The reels shall be constructed to prevent damage during shipment and handling. The outer end of the cable shall be securely fastened to the reel head to prevent the cable from becoming loose in transit. The inner end of the cable shall project into a slot in the side of the reel, or into housing on the inner slot of the drum, with sufficient length to make it available for testing. The inner end shall be fastened to prevent the cable from becoming loose during installation. End seals shall be applied to each of the cables to prevent moisture from entering the cable. The reels with cable shall be suitable for outside storage conditions when the temperature ranges from **minus 40 to plus 65 degrees C, (minus 40 to plus 148 degrees F)**, with relative humidity from 0 to 100 percent.

1.5.2 Equipment

All equipment shall be stored with protection from the weather, humidity and temperature variations, dirt and dust, or other contaminants, in accordance with the manufacturer's requirements.

PART 2 PRODUCTS

2.1 STANDARD PRODUCTS

Materials and equipment shall be the standard products of a manufacturer regularly engaged in the manufacture of such products and shall be the manufacturer's latest standard design that has been in satisfactory use for at least 2 years prior to bid opening. Each major component of equipment shall have the manufacturer's name and type identified on the equipment. All products supplied shall be specifically designed and manufactured for use with inside plant communications system. All items of the same class of equipment shall be the products of a single manufacturer.

2.2 TELEPHONE SWITCH

Telephone switch shall be state of the art digital communication; multimedia platform that can handles voice, image, data and video traffic. The followings are system features, hardware, software, and functions:

2.2.1 PBX and Remote Unit Architecture

The PBX shall employ stored program control architecture using digital pulse code modulation and time division multiplexing. The stored program control system shall automatically reload and reboot the switch in the event of a complete power failure. The PBX shall be designed to serve a minimum of 100 digital extensions and a minimum of 100 analog extensions.

The Remote Units are the basic building block in a multi-modular architecture, shall provide the growth capabilities. The Remote Units shall contain line and trunk ports that interface to lines and trunks. Under the supervision of the Switch Processing Element, the Remote Units shall connect its ports together, or to ports in the PBX and the other Remote Unit, in order to complete calls. Connections shall be direct.

2.2.1.1 System Power.

The telephone switch shall be designed to operate from the existing 120 Volt AC system.

2.2.1.2 Uninterruptible Power Supply (UPS)

The Contractor will provide three back up UPS for performance protection of advanced workstations, servers, Internetworking, and Telecom Equipment applications.

Description:

Model: Minuteman E 3200 with 1E PB2 Battery Pack or equal.

Features:

True Sine wave Output
Scalable Unlimited Runtime via External Battery Packs with Independent Chargers
Full Protection from Sags, Surges, spikes and Blackouts
Voltage Regulation Incorporating Double Boost and Double Buck
Optional SNMP Card for Remote Power Management
Includes MINUTEMAN Sentry II Power Management Software CD, or equal, and Communication Cable
Fax/Modem/Data Protection Slots
Front-Access, Hot Swappable Batteries
3-year warranty

Properties:

Device Type: Uninterruptible Power Supply
Input plug type: L5-30P
Input voltage: 120
Output voltage: 120
Number of fully protected outlets: 7 (NEMA 5-15R)
Number of surge protected only outlets: 1 (NEMA 5-15R)
Phone/Modem (RJ-11) protection: yes
Network (RJ-45) protection: yes
Number of Serial (DB-9) ports: 1
Number of dry contact ports: 0
User replaceable battery: yes
Number of internal batteries: 4
Replacement battery description: 12 Volt DC 12 Amp Hour
Replacement battery part number: 37000009

Technical Attributes:

SNMP manageable: yes

Power in Watts: 1920
EMI/RFI filtering: yes
Maximum Energy Dissipation: 508 Joules

Software:

Operating system shutdown software

Operating system supported by software Microsoft Window 95/98/ME/XP, Microsoft Window NT 4.0, Microsoft Window 2000, Novell NetWare 4.11 and 5.1, Red Hat Linux version 6.12 and 7.1, SCO UnixWare version 7.1.1, SCO Open Server version 5.06, HP-UX version 11, IBM AIX version 4, and other Unix/Linux system.

2.2.2 HARDWARE

2.2.2.1 T1 Line Interface Board

T1 line interface board shall be provided to serve as inward/outward trunks. The T1 line interface shall have minimum 24 channels with 2-Way DID line, which is used for both direct dial incoming and outgoing calls. The T1 line shall configure with the first 8 channels assigned for incoming/outgoing calls. The Government will coordinate with the Local Telephone Company to install the new T1 line (Government Provided).

2.2.2.2 Direct Inward Dialing Interface Board

Direct Inward Dialing (DID) interface board shall be provided to route all incoming calls directly to an internal station based on digit information received from serving central office. Eight (8) DID trunk ports shall be provided for serving a minimum of 100 DID numbers. The Government will coordinate with the Local Telephone Company to order Direct Inward Dial numbers (Government Provided)

2.2.2.3 Central Office Trunks

There are six (6) existing CO Trunks that will be re-utilized for this installation.

2.2.2.4 Microwave (Tie) Trunk Port.

Interface board shall be provided for eight (8) microwave tie trunks. The existing tie trunks are four- (4) wire E & M signal type.

2.2.2.5 Code Call Access

The existing Code Call system is a VALCOM V-9923A which uses an analog port.

Interface board shall be provided to allow attendant, end station users, and tie trunk users to access the existing Code Call system.

Drawing of the existing Code Call system can be provided by the Chief Joseph Project upon request.

2.2.2.6 Voice Terminal (Desk Phone), 8 (Minimum) Programmable Buttons

A minimum of 25 digital display voice terminals (Desk Phone) shall be provided. Each shall have a speakerphone and a minimum of eight (8) programmable buttons, and shall have simple access to a range of features including:

- a. Sending and receiving messages
- b. Last number redial
- c. Transferring calls
- d. Setting up conference calls
- e. Canceling call features in progress
- f. Placing and retrieving calls on hold
- g. Adjusting volume of receiver and volume and pitch of ringer
- h. Adjusting display screen contrast
- i. On-hook dialing

2.2.2.7 Voice Terminal (Desk Phone), 15 Programmable Buttons

A minimum of 40 digital display voice terminals (Desk Phone) shall be provided. Each shall have a speakerphone and a minimum of fifteen (15) programmable buttons, and shall have simple access to a range of features including:

- a. Sending and receiving messages
- b. Last number redial
- c. Transferring calls
- d. Setting up conference calls
- e. Canceling call features in progress
- f. Placing and retrieving calls on hold
- g. Adjusting volume of receiver and volume and pitch of ringer
- h. Adjusting display screen contrast
- i. On-hook dialing

2.2.2.8 Voice Terminal (Desk Phone), 25 Programmable Buttons

A minimum of 4 digital display voice terminals with speakerphone shall have minimum of twenty five (25) programmable buttons, and shall have simple access to a range of features including:

- a. Sending and receiving messages
- b. Last number redial
- c. Transferring calls
- d. Setting up conference calls
- e. Canceling call features in progress
- f. Placing and retrieving calls on hold
- g. Adjusting volume of receiver and volume and pitch of ringer
- h. Adjusting display screen contrast

- i. On-hook dialing

2.2.2.9 Attendant Console

One Attendant console shall be provided to monitor and supervise the general operation of voice communication with in the system. The Attendant Console will be located inside the Administration Building.

The Attendant Console shall provide the following functions:

- a. Answer and extend calls placed to the listed extension number
- b. Be a source of information for both internal and external callers
- c. Control access to specific trunk groups
- d. Control the restrictions assigned to certain voice terminal (Phone Desk)
- e. Verify the status of a voice terminal that appears to be out of order and faulty trunks.

2.2.3 Connecting Hardware

Connecting and cross-connecting hardware shall be rated for category 5e in accordance with ANSI/TIA/EIA-568-A.

2.2.3.1 Patch Panel

Patch panels shall consist of eight-position modular jacks, with rear mounted type 110 insulation displacement connectors, arranged in rows or columns on 19 inches rack mounted panels. Jack pin/pair configuration shall be T568A per ANSI/TIA/EIA-568-A. Jacks shall be unkeyed. Panels shall be labeled with alphanumeric x-y coordinates. The modular jacks shall conform to the requirements of ANSI/TIA/EIA-568-A, and shall be rated for use with Category 5e cable in accordance with ANSI/TIA/EIA-568-A-5 and shall meet the Link Test parameters as listed in TIA/EIA TSB 67 and supplemented by ANSI/TIA/EIA-568-A-5.

2.2.3.2 Terminal Blocks

Terminal blocks shall be wall mounted wire termination units consisting of insulation displacement connectors mounted in plastic blocks, frames or housings. Blocks shall be type 66 which meet the requirements of ANSI/TIA/EIA-568-A, and shall be rated for use with Category 5e cable in according with ANSI/TIA/EIA-568-A-5. Blocks shall be mounted on standoffs and shall include cable management hardware. Insulation displacement connectors shall terminate 22 or 24 gauge solid copper wire as a minimum, and shall be connected in pairs so that horizontal cable and connected jumper wires are on separate connected terminals.

2.2.4 Software

System software shall be provided for operation and interface across the telephone switch. System software shall be a real time operating system that supports multiprocessing applications with message passing between the processes. The system software shall consist of switched service software, administration software, and maintenance software. The system software shall be compatible with the PBX specified above. The system software shall have the following features.

2.2.4.1 Network Interfaces.

Software shall support the network interfaces, which provide analog and digital interfaces to external network. The network interfaces include, but are not limited to:

- a. Direct Inward Dial
- b. Central Office
- c. Tie Line
- d. Asynchronous Transfer Mode
- e. Paging
- f. Music on hold

2.2.4.2 Call Forwarding (all calls)

Call forwarding shall be provided to allow the station user to forward calls to another station, or to the attendant.

2.2.4.3 Call Holding

Call holding shall be provided to allow station users to place on hold any call in progress, freeing their line to initiate a second call or perform a second feature.

2.2.4.4 Call Picking-Up

Call picking-up shall be provided to allow a station user group to intercept a call direct to another station within its group. The ring station number need not be dialed.

2.2.4.5 Call Transferring

Call transferring shall be provided to allow station users to transfer the incoming call to another station or the attendant.

2.2.4.6 Call Waiting

Call waiting shall be provided to allow a busy station to receive a second incoming call. The busy station, upon receiving the second incoming call will hear a camp-on tone. The busy station can place the existing call on hold to answer the incoming call. The station then can alternate between both calls.

2.2.4.7 Conference Calling

Conference calling shall be provided to allow a station user to add another station within the same PBX system or other PBX switch. The station shall be able to accommodate a minimum of 5 conference calls.

2.2.4.8 Call Parking

Call parking shall be provided to allow users the ability to place a call on hold and then transfer the call to an answer back channel. The call can then be answered on any other voice terminal within the switch.

2.2.4.9 Speed Calling

Speed call station and system shall be provided to allow end user to access to personal speed calling cable. Speed calling station entry and speed calling system entry can be performed at the station by end user and Maintenance and Administration Terminal (MAT) respectively.

2.2.4.10 Last Number Dial

Last number dial shall be provided to allow end station user to re-dial last internal or external calls.

2.2.4.11 Intercom-Dialing

Intercom dial shall be provided to allow end station users to gain rapid access to a minimum of 32 other station users in the same intercom group.

2.2.4.12 Paging

Paging shall be provided to allow users, including attendant, to page people through the voice paging system.

2.3 VOICE MAIL

Voice mail shall be provided for minimum of 100 extensions. Voice mail shall be multimedia-messaging system to support all current messaging media such as voice, fax, email, and multiple file attachment. A minimum of 200 mailboxes shall be provided.

The voice mail system shall be compatible with the telephone switch specified above. The voice mail shall consist of software, hardware, server, interfaces, and administration and maintenance manager.

2.4 CODE CALL SYSTEM

The Contractor shall configure the program to access into the Code Call System. The Code Call system is a three digit paging system that activates bells through relay logic. Access is gained by dialing "50" through the telephone handset followed by the three digit number. To answer the code, the user dials "6" from any telephone handset to receive the call. Special code of "555" indicates an emergency in the plant. This code shall be sent to the Control Room extension. The existing Code Call system provides a 3 digit pulsed- sound signal corresponding to a 3 digit dialed number. The Code Call system shall be accessible from any telephone instrument in the telephone system. The Project will maintain the hardware.

2.5 PAGING SYSTEM

The Contractor shall supply all paging hardware equipment. The Project will install the wiring and the hardware.

The paging hardware equipment as following:

- a. 6 Zone Paging Module – 1 required
- b. 100 Watt Paging Amplifier – 1 required
- c. In-wall Speakers – 4 required
- d. Round Recessed Ceiling Speakers - 4 required
- e. 15 Watt Horns – 7 required
- f. Paging Wire & Installation – 13 required

2.5.1 Six (6) Zone Paging Module

Six (6) Zone Paging Module as a minimum conform to the following specifications:

Ringer Equivalence:	1.0B
Operating Voltage:	12V DC

The Contractor shall provide a power supply conforming to the following specifications:

Operating Current (Max):	1.5A
Audio Power Capability:	250W
Environmental Operating Temperature:	25 to 100 Degree F
Operating Humidity:	0 to 90% noncondensing

2.5.2 100 Watt Paging Amplifiers

100-Watt Paging Amplifier shall as a minimum conform to the following specifications:

Rated Power Output:	100 watts RMS
Frequency Response:	Plus or Minus 1 dB, 50 Hz to 15 KHz
Distortion:	Less than 2% at RPO, 50 Hz to 15 KHz
Inputs Impedance:	6 Lo-Z balanced, 55dB below rated output MICS; 2 Hi-Z AUX inputs with fader; 500/600 Ohm line input with optional WMT-1A accessory; Remote volume control for MIC 1-5 and AUX 1-2 inputs
Output Impedance:	Balanced 4, 6-8, and 16 ohms speaker taps

Output Voltage:	70 volts
Power Requirement:	120 Vac 60 Hz

2.5.3 Loudspeakers

2.5.3.1 Cylindrical Speaker: surface mount

The Cylindrical Speaker shall conform to the following specifications as a minimum:

Application:	Surface Mount
Frequency range:	60 to 12,000 Hz
Power Rating:	Normal - 7 watts Peak - 10 watts
Voice Coil Impedance:	8 ohms
Line Matching Transformer Type:	25/70 volt line
Capacity:	2 watts
Magnet:	8 ounces or greater
Primary Taps:	0.5, 1, and 2 watts
Primary Impedance:	25 volts - 1250, 625, and 312 ohms 70 volts - 10k, 5k, and 2.5k ohms
Frequency Response:	30 - 20,000 Hz
Insertion Loss:	Less than 1 dB

2.5.3.2 Round Recessed Ceiling Speaker

The Round Recessed Speaker shall as a minimum conform to the following specifications:

Application:	Recessed Mount with backbox
Frequency range:	60 to 12,000 Hz
Power Rating:	Normal - 7 watts Peak - 10 watts
Voice Coil Impedance:	8 ohms
Line Matching	

Transformer Type:	25/70 volt line
Capacity:	2 watts
Magnet:	8 ounces or greater
Primary Taps:	0.5, 1, and 2 watts
Primary Impedance:	25 volts - 1250, 625, and 312 ohms 70 volts - 10k, 5k, and 2.5k ohms
Frequency Response:	30 - 20,000 Hz
Insertion Loss:	Less than 1 dB

2.5.3.3 Horn Speaker

The horn speaker shall as a minimum conform to the following specifications:

Application:	Indoor
Frequency Response:	400 - 14,000 Hz
Power Taps:	70 volt line - .9, 1.8, 3.8, 7.5, and 15 watts
Impedance:	5000, 2500, 1300, 670, 330, 90, and 45 ohms
Power Rating:	Normal - 7 watts Peak - 15 watts

2.6 CABLE

2.6.1 Copper Cable

Horizontal cable shall meet the requirements of ANSI/TIA/EIA-568-A-5 for Category 5e. Copper cable shall be label-verified. Cable jacket shall be factory marked at regular intervals indicating verifying organization and performance level. Copper cable shall be rated CMP per NFPA 70.

2.6.2 Copper Installation

The Contractor shall install approximately 1800 feet (548.78 meter) copper cable in the Administration Building. For the Warehouse and Powerhouse shall use the existing wires. Approximately 30 pairs shall be terminated at the Warehouse and approximately 45 pairs shall be terminated at the Powerhouse.

2.7 EQUIPMENT RACKS

Distribution frames, cabinets, and backboards shall be provided as shown and designed to mount connector blocks, protector blocks, cross connects, and other hardware. These are required to terminate and protect the outside

telephone plant cable; to provide a demarcation point between inside and outside plant cable; and to allow inside and outside plant cable to be cross-connected.

2.7.1 Cable Guides

Cable guides shall be specifically manufactured for the purpose of routing cables, wires and patch cords horizontally and vertically on 19-inch (480 mm) equipment racks. Cable guides shall consist of ring or bracket-like devices mounted on rack panels for horizontal use or individually mounted for vertical use. Cable guides shall mount to racks by screws and/or nuts and lock-washers.

2.7.2 Free Standing Cabinets

The Contractor shall provide two free standing cabinets. One cabinet will be install at the Communication Room inside the Powerhouse and the other cabinet will be installed at the Technical Engineering room inside the Administration Building. Free standing cabinet as a minimum shall conform to the following specifications:

Equipment cabinets shall be freestanding enclosures with smoked Plexiglas removable front locking door, and top and bottom louvered removable rear locking doors, with push button lift-off locking solid side panels. The top panel of the enclosures shall be perforated for ventilation and optional fan mounting. The enclosure shall have adjustable leveling feet and removable cable entry panels in the base. A vertical cable management devices shall be integrated to the cabinet. Power strips with 12 outlets shall be mounted within the cabinet. Cabinets and equipment racks shall be sized to accommodate contractor's equipment. Cabinet exteriors shall be painted ivory/off-white. Contractor may use existing 19-inch wide rack in Warehouse.

2.8 MISCELLANEOUS ITEMS

2.8.1 Grounding Braid

Grounding braid shall provide low electrical impedance connections for dependable shield bonding. The braid shall be made from flat tin-plated copper.

2.9 SPARE PARTS & OPERATING/MAINTENANCE MANUALS

2.9.1 Spare Parts

- a. Attendant Console (1)
- b. Port Analog Card (1)
- c. Port Digital Card (1)
- d. 8 Port CO Trunk Card (1)
- e. Aux Trunk Card (1)
- f. T1 Interface Card (1)
- g. 4 Port – 4 Wire E&M Card (1)
- h. Telephone 8 Programmable Buttons (5)
- i. Telephone 15 Programmable Buttons (5)
- j. Telephone 25 Programmable Buttons (1)

2.9.2 Operating/Maintenance Manuals

The Contractor shall provide 5 copies operating and maintenance manuals for equipment provided under this contract and in accordance with requirements of Section 01782 OPERATION AND MAINTENANCE DATA.

PART 3 EXECUTIONS

3.1 INSTALLATION

All system components and appurtenances shall be installed in accordance with the manufacturer's instructions and as shown. All installation work shall be done in accordance with the safety requirements set forth in the general requirements of [IEEE C2](#) and [NFPA 70](#).

3.1.1 Cable Inspection and Repair

All cable and wire used in the construction of the project shall be handled with care. Each reel shall be inspected for cuts, nicks or other damage. All damage shall be repaired to the satisfaction of the Contracting Officer. The reel wrap shall remain intact on the reel until the cable or wire is ready to be placed.

3.1.2 Telephone Cable Bends

Copper and fiber optic cable bends shall have a radius of not less than 10 times the cable diameter or the manufacturer's recommendation.

3.2 CUTOVER AND RECORDS

The Contractor shall accomplish all necessary transfers and cut-over. Cut-over period shall be in accordance with Section 01005, paragraph 1.6 "Work Schedule Requirements."

3.3 ACCEPTANCE TESTS

The Contractor shall submit an acceptance test plan for Government review and approval within 30 days of the contract award. The test plans shall define all the tests required to ensure that the system meets technical, operational, and performance specifications. The test plans shall define milestones for the tests, equipment, personnel, facilities, and supplies required. The test plans shall identify the capabilities and functions to be tested. The contractor shall provide all personnel, equipment, instrumentation, and supplies necessary to perform all required testing. Notification of any planned testing shall be given to the Contracting Officer at least 14 days prior to any test; testing shall not proceed until after the Contractor has received written Contracting Officer's approval of the test plans as specified.

3.4 TRAINING.

3.4.1 On-site Training

On-site training shall be provided for up to 80 employees to allow the end users to maximize effective use of the new telephone system features. The training shall include the followings as minimum:

- a. Voice terminal user
- b. Voice Mail user
- c. Console attendant user

Training sessions shall be held at Government facility and each session shall have no more than 10 students. Training schedule shall be used no later than a day after the system is cut over. Out of hours training is considered additional training and will be billed in effect at the time. Government will provide temporary telephone cable to training room.

3.4.2 Maintenance Training

The Contractor shall provide up to 40 hours of off-site training in trouble shooting and repairing of system hardware, and programming of system software.

END OF SECTION

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A. Contract Line Item No.				B. Exhibit B		C. Category: TPD _____		Contract Data TM _____ OTHER _____	
D. System/Item					E. Contract/PR No.		F. Contractor		
1. Data Item No. A01		2. Title of Data Item Work Schedule				3. Subtitle			
4. Authority (Data Acquisition Document No.)				5. Contract Reference SECTION 01001, para 1.1.1			6. Requiring Office		
7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency ONE/R	12. Date of First Submission 10 DAC	14. Distribution Standard		b. Copies			
8. APP Code GA		11. As of Date Award	13. Date of Subsequent Submission ASREQ	a. Addressee		Draft		Final	
16. Remarks						Reg		Repro	
				15. Total ----->					
1. Data Item No. A02		2. Title of Data Item Employee Listing				3. Subtitle			
4. Authority (Data Acquisition Document No.)				5. Contract Reference SECTION 01005, para 1.2.1			6. Requiring Office		
7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency ONE/R	12. Date of First Submission 10 DAC	14. Distribution Standard		b. Copies			
8. APP Code FIO		11. As of Date	13. Date of Subsequent Submission ASREQ	a. Addressee		Draft		Final	
16. REMARKS						Reg		Repro	
				15. Total ----->					
1. Data Item No.		2. Title of Data Item				3. Subtitle			
4. Authority (Data Acquisition Document No.)				5. Contract Reference			6. Requiring Office		
7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission	14. Distribution		b. Copies			
8. APP Code		11. As of Date	13. Date of Subsequent Submission	a. Addressee		Draft		Final	
16. Remarks						Reg		Repro	
								0	
				15. Total ----->				0	
1. Data Item No.		2. Title of Data Item				3. Subtitle			
4. Authority (Data Acquisition Document No.)				5. Contract Reference			6. Requiring Office		
7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission	14. Distribution		b. Copies			
8. APP Code		11. As of Date	13. Date of Subsequent Submission	a. Addressee		Draft		Final	
16. Remarks						Reg		Repro	
								0	
				15. Total ----->				0	
G. Prepared By				H. Date		I. Approve By		J. Date	

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A. Contract Line Item No.				B. Exhibit B		C. Category: TPD _____		Contract Data TM _____ OTHER _____			
D. System/Item				E. Contract/PR No.		F: Contractor					
1. Data Item No. B01		2. Title of Data Item Bill of Materials				3. Subtitle					
4. Authority (Data Acquisition Document No.)				5. Contract Reference SECTION 01330, para 1.9.1			6. Requiring Office ASREQ				
7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission ASREQ	14. Distribution							
8. APP Code FIO		11. As of Date	13. Date of Subsequent Submission	a. Addressee		Draft		b. Copies			
								Final			
16. Remarks				A1				2			
				A2				1			
				15. Total ----->				3			
1. Data Item No. B02		2. Title of Data Item Purchase Orders				3. Subtitle					
4. Authority (Data Acquisition Document No.)				5. Contract Reference SECTION 01330, para 1.9.2			6. Requiring Office ASREQ				
7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission ASREQ	14. Distribution							
8. APP Code FIO		11. As of Date	13. Date of Subsequent Submission	a. Addressee		Draft		b. Copies			
								Final			
16. REMARKS				A1				2			
				A2				1		0	
				15. Total ----->				3		0	
1. Data Item No. B03		2. Title of Data Item Sample of Equipment/Warranty Tag				3. Subtitle					
4. Authority (Data Acquisition Document No.)				5. Contract Reference SECTION 01770, para 1.4			6. Requiring Office ASREQ				
7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission ASREQ	14. Distribution							
8. APP Code FIO		11. As of Date	13. Date of Subsequent Submission	a. Addressee		Draft		b. Copies			
								Final			
16. Remarks				A1				2			
				A2				1			
				15. Total ----->				3		0	
1. Data Item No.		2. Title of Data Item				3. Subtitle					
4. Authority (Data Acquisition Document No.)				5. Contract Reference			6. Requiring Office				
7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission	14. Distribution							
8. APP Code		11. As of Date	13. Date of Subsequent Submission	a. Addressee		Draft		b. Copies			
								Final			
16. Remarks								0			
				15. Total ----->						0	
G. Prepared By			H. Date		I. Approve By			J. Date			

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A. Contract Line Item No.				B. Exhibit B		C. Category: TPD		Contract Data TM OTHER				
D. System/Item				E. Contract/PR No.		F: Contractor						
1. Data Item No. C01		2. Title of Data Item O&M Data Manual				3. Subtitle						
4. Authority (Data Acquisition Document No.)				5. Contract Reference SECTION 01782, para 1.2			6. Requiring Office ASREQ					
7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission	14. Distribution								
			See Block 16	a. Addressee		b. Copies						
8. APP Code GA		11. As of Date AWARD	13. Date of Subsequent Submission		Draft	Final						
16. Remarks 30 DBD of equipment, see contract for resubmittal requirements						Reg	Repro					
				A1		1			0			
				A2		1		5				
				A3		1						
				15. Total ----->	3	5	0					
1. Data Item No. D01		2. Title of Data Item Spare Parts and Equipment List				3. Subtitle Product Data						
4. Authority (Data Acquisition Document No.)				5. Contract Reference SECTION 16712, para 1.4			6. Requiring Office ASREQ					
7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission	14. Distribution								
			30 DAC	a. Addressee		b. Copies						
8. APP Code FIO		11. As of Date AWARD	13. Date of Subsequent Submission		Draft	Final						
16. Remarks						Reg	Repro					
				A1				3				
				A2				1				
				15. Total ----->		4						
1. Data Item No. D02		2. Title of Data Item Manufacturer's Data				3. Subtitle Product Data						
4. Authority (Data Acquisition Document No.)				5. Contract Reference SECTION 16712, para 1.4			6. Requiring Office					
7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission	14. Distribution								
			30 DAC	a. Addressee		b. Copies		Standard				
8. APP Code FIO		11. As of Date AWARD	13. Date of Subsequent Submission		Draft	Final						
16. REMARKS						Reg	Repro					
				15. Total ----->								
1. Data Item No. D03		2. Title of Data Item Telephone System				3. Subtitle Shop Drawings						
4. Authority (Data Acquisition Document No.)				5. Contract Reference SECTION 16712, para 1.4			6. Requiring Office ASREQ					
7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission	14. Distribution								
			See Block 16	a. Addressee		b. Copies						
8. APP Code GA		11. As of Date AWARD	13. Date of Subsequent Submission		Draft	Final						
16. REMARKS NLT 21 CD after completion of installation work						Reg	Repro					
				A1		1		1				
				A2		1		1				
				15. Total ----->	2	2						
G. Prepared By				H. Date		I. Approve By		J. Date				

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A. Contract Line Item No.	B. Exhibit B	C. Category: TPD	Contract Data TM OTHER
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D. System/Item	E. Contract/PR No.	F: Contractor
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1. Data Item No. D04	2. Title of Data Item Installation Schedule	3. Subtitle Statement
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4. Authority (Data Acquisition Document No.)	5. Contract Reference SECTION 16712, para 1.4	6. Requiring Office
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7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission 30 DAC	14. Distribution Standard
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8. APP Code GA	11. As of Date AWARD	13. Date of Subsequent Submission	a. Addressee	Draft	Final	Reg	Repro
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16. Remarks				15. Total ----->			
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1. Data Item No. D05	2. Title of Data Item Acceptance Tests	3. Subtitle Statements
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4. Authority (Data Acquisition Document No.)	5. Contract Reference SECTION 16712, para 1.4	6. Requiring Office ASREQ
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7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission 30 DAC	14. Distribution
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8. APP Code GA	11. As of Date AWARD	13. Date of Subsequent Submission	a. Addressee	Draft	Final	Reg	Repro
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16. Remarks				A1		2	0
				A2		1	
				15. Total ----->		3	0

1. Data Item No. D06	2. Title of Data Item Cutover and Records	3. Subtitle Statements
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4. Authority (Data Acquisition Document No.)	5. Contract Reference SECTION 16712, para 1.4	6. Requiring Office ASREQ
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7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission 30 DAC	14. Distribution
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8. APP Code GA	11. As of Date AWARD	13. Date of Subsequent Submission	a. Addressee	Draft	Final	Reg	Repro
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16. Remarks				A1		2	
				A2		1	
				15. Total ----->		3	0

1. Data Item No. D07	2. Title of Data Item Test Results	3. Subtitle Reports
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4. Authority (Data Acquisition Document No.)	5. Contract Reference SECTION 16712, para 1.4	6. Requiring Office ASREQ
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7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission See Block 16	14. Distribution
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8. APP Code FIO	11. As of Date AWARD	13. Date of Subsequent Submission	a. Addressee	Draft	Final	Reg	Repro
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16. REMARKS Within 7 CD after completion of testing				A1		2	0
				A2		1	
				15. Total ----->		3	0

G. Prepared By	H. Date	I. Approve By	J. Date
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CONTRACT DATA REQUIREMENTS LIST

FORM APPROVED
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 440 hours per response including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspects of this collection or any aspects of of information including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and R 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington DC 20503. Please **DO NOT RETURN** your form to either of these addresses. Send completed form to the Government issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. Contract Line Item No.				B. Exhibit B		C. Category: TPD _____		Contract Data TM _____ OTHER _____	
D. System/Item				E. Contract/PR No.		F: Contractor			
1. Data Item No. D08		2. Title of Data Item Telephone System				3. Subtitle Certificates			
4. Authority (Data Acquisition Document No.)				5. Contract Reference SECTION 16712, para 1.4			6. Requiring Office A1		
7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission 30 DAC	14. Distribution					
8. APP Code GA		11. As of Date AWARD	13. Date of Subsequent Submission	a. Addressee		b. Copies			
						Draft	Final	Reg	Repro
16. Remarks				A1			2	0	
				A2			1		
				15. Total ----->			3	0	
1. Data Item No. D09		2. Title of Data Item Qualifications				3. Subtitle Reports			
4. Authority (Data Acquisition Document No.)				5. Contract Reference SECTION 16712, para 1.4			6. Requiring Office A1		
7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission 30 DAC	14. Distribution					
8. APP Code GA		11. As of Date AWARD	13. Date of Subsequent Submission	a. Addressee		b. Copies			
						Draft	Final	Reg	Repro
16. Remarks				A1			2	0	
				A2			1		
				15. Total ----->			3	0	
1. Data Item No.		2. Title of Data Item				3. Subtitle			
4. Authority (Data Acquisition Document No.)				5. Contract Reference			6. Requiring Office		
7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission	14. Distribution					
8. APP Code		11. As of Date	13. Date of Subsequent Submission	a. Addressee		b. Copies			
						Draft	Final	Reg	Repro
16. Remarks									
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1. Data Item No.		2. Title of Data Item				3. Subtitle			
4. Authority (Data Acquisition Document No.)				5. Contract Reference			6. Requiring Office		
7. DD 250 REQ.	9. Dist. Statement Required	10. Frequency	12. Date of First Submission	14. Distribution					
8. APP Code		11. As of Date	13. Date of Subsequent Submission	a. Addressee		b. Copies			
						Draft	Final	Reg	Repro
16. Remarks									
				15. Total ----->					
G. Prepared By				H. Date		I. Approve By		J. Date	



US Army Corps
of Engineers
Seattle District

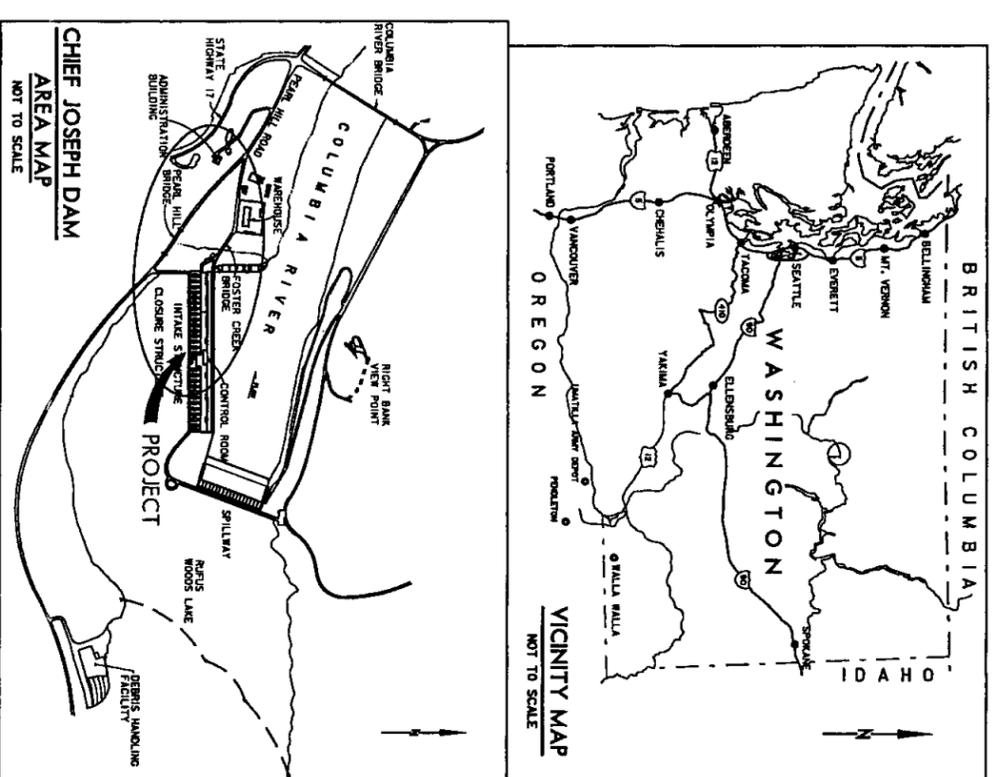
PBX TELEPHONE SWITCH REPLACEMENT

CHIEF JOSEPH DAM

BRIDGEPORT, WASHINGTON

FILE NO.	SHEET NO.	PLATE NO.	TITLE
	1	G1	TITLE SHEET, LOCATION MAPS AND DRAWING INDEX
	2	E1	EXISTING TELEPHONE SWITCH - ONE LINE DIAGRAM
	3	E2	NEW TELEPHONE SWITCH - ONE LINE DIAGRAM
	4	E3	EPN BLOCK DIAGRAM - ADMINISTRATION
	5	F4	EPN BLOCK DIAGRAM - WAREHOUSE
	6	E5	EXISTING PBX INTERFACE LAYOUT - ADMINISTRATION
	7	E6	TELEPHONE EQUIPMENT LAYOUT - ADMINISTRATION

SHEETS



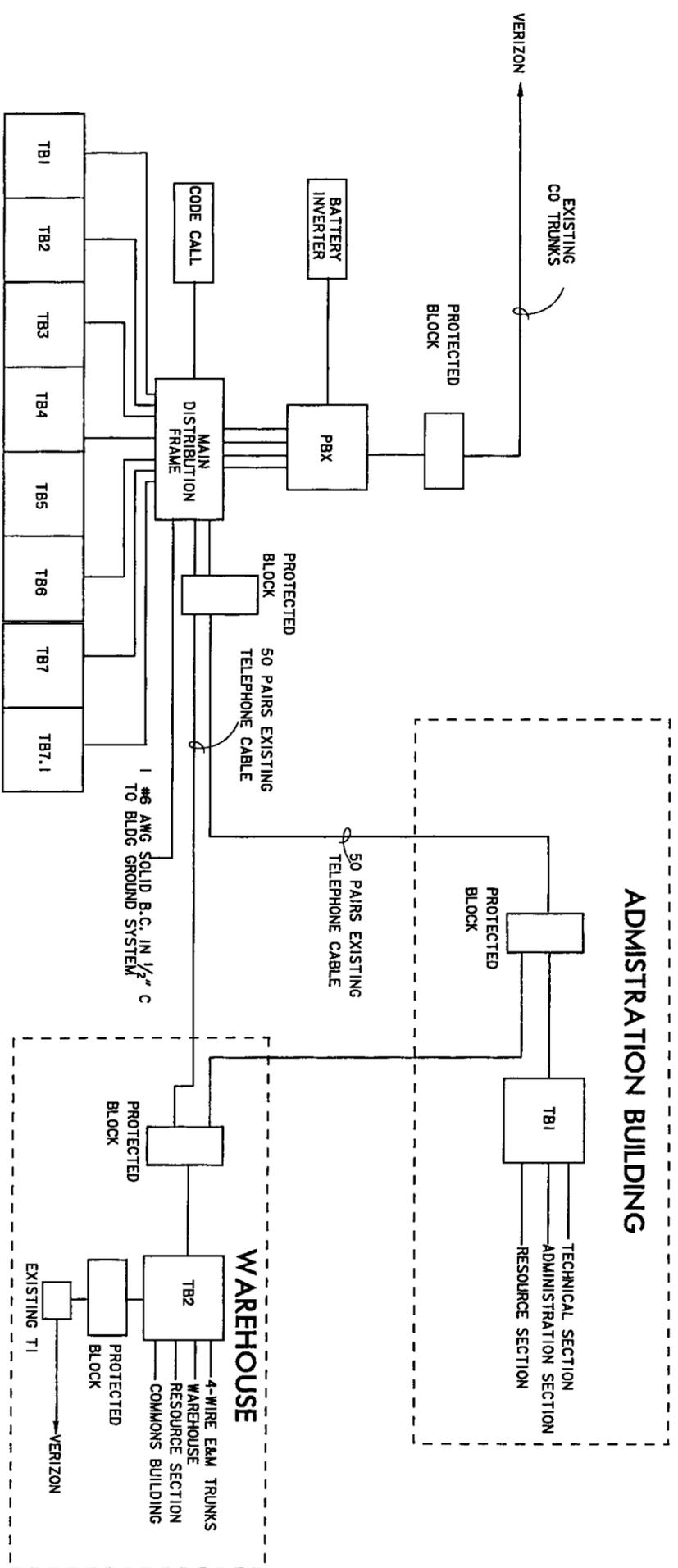
REDUCED TO SIZE OF FULL SIZE

U.S. ARMY ENGINEER DISTRICT, SEATTLE		WASHINGTON	
CORPS OF ENGINEERS		DATE	
SEATTLE, WASHINGTON		29 APRIL 02	
TELEPHONE SWITCH REPLACEMENT		PLATE	
CHIEF JOSEPH DAM		G1	
TITLE SHEET, LOCATION MAPS AND DRAWING INDEX			
BRIDGEPORT		DATE	
C-K		29 APRIL 02	
TL		SHEET	
		1	

The project was designed by the Seattle District, U.S. Army Corps of Engineers. The design of structures and equipment was prepared by the Seattle District of Engineers. The drawings were prepared by the Seattle District of Engineers. The project was designed by the Seattle District, U.S. Army Corps of Engineers.

DATE AND TIME PLOTTED: 02-AUG-2002 09:26
DESIGN FILE: I:\DESIGNS\M1\SC\ELECTE\TELE\J.C.PBXCOVER.DGN





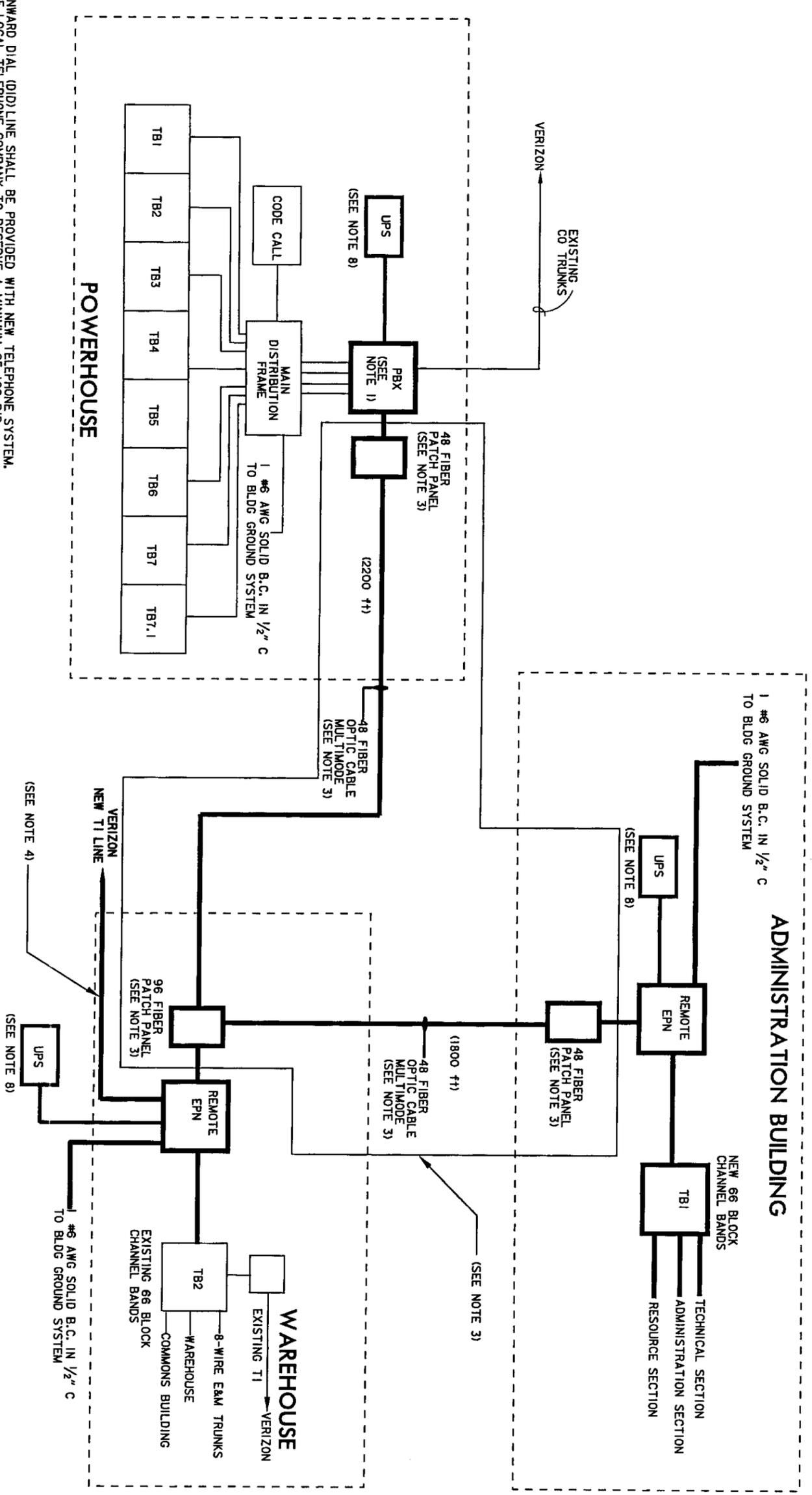
EXISTING TELEPHONE SYSTEM ONE-LINE

- NOTE:
1. THE EXISTING TELEPHONE SYSTEM HAS A PROTECTED BLOCK.
 2. SIX CENTRAL OFFICE (CO) TRUNKS TO USE FOR INCOMING AND OUTGOING CALLS. ALL INCOMING CALLS ARE GOING THROUGH THE RECEPTIONIST OR AUTO ATTENDANT.
 3. THE EXISTING T1 INCLUDED: CHANNELS: 1-17 TO USE FOR DATA ONLY (LAN, NETWORK, AND COMPUTER.) CHANNELS: 18-24 TO USE FOR VOICE FREQUENCY (CHANNELS: 18-21 ARE 4-WIRE E&M TIE LINES, CHANNELS: 22-23 ARE FAX MACHINES, AND CHANNEL 24 IS SPARE.)
 4. EXISTING SYSTEM CONDITION: THE COPPER LINES THAT LEAVE THE POWERHOUSE AND EXTENDING TO ALL OUTLYING BUILDINGS CREATE VOLTAGE/CURRENT PROBLEMS WHEN EITHER LIGHTNING OR POWER FAULTS GO TO GROUND IN THEIR AREA. THIS TRANSIENT VOLTAGE/CURRENT HAS PAST DESTROYED EQUIPMENT IN THE PBX AND OTHER ATTACHED EQUIPMENT, NORMAL PROTECTORS DO NOT STOP THIS VIOLENT TYPE OF FAULT.

The Office was designed by the Seattle, Washington, Office of the Corps of Engineers. The Office is responsible for the design and construction of the telephone system. The Office is not responsible for the design and construction of the power system. The Office is not responsible for the design and construction of the data system.

DATE AND TIME PLOTTED: 02-AUG-2002 09:45
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BRIDGEPORT				WASHINGTON	
FILE NO.	CUP-9-6-3A21/1	DATE	29APRIL02	SHEET	2
REDUCED TO SIZE OF FULL SIZE U.S. ARMY ENGINEER DISTRICT, SEATTLE CORPS OF ENGINEERS SEATTLE, WASHINGTON TELEPHONE SWITCH REPLACEMENT CHIEF: JOSEPH DAM EXISTING TELEPHONE SWITCH ONE LINE DIAGRAM					



NEW TELEPHONE SYSTEM - BLOCK DIAGRAM

NOTES:

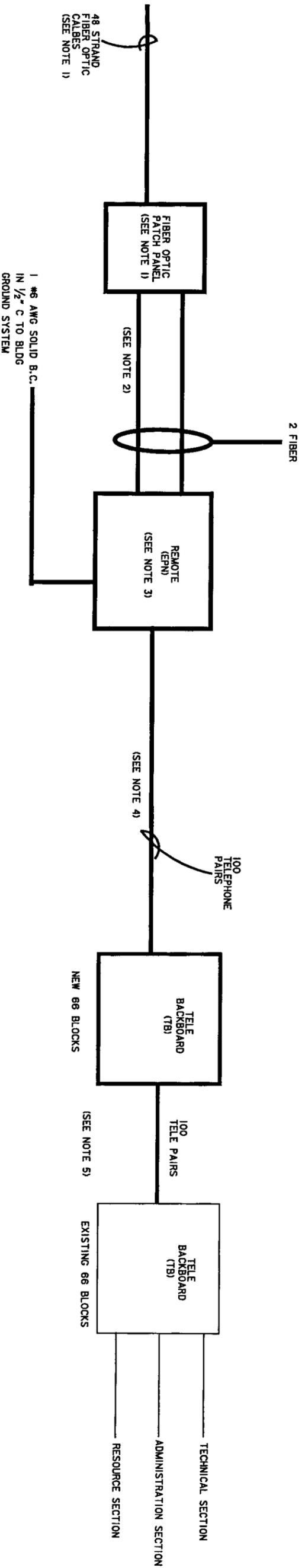
1. DIRECT INWARD DIAL (DID) LINE SHALL BE PROVIDED WITH NEW TELEPHONE SYSTEM. CONTACT THE LOCAL TELEPHONE COMPANY TO RESERVE A MINIMUM OF 100 DID NUMBERS WITH FTS-2000 FEATURE INSTALLED. EACH DID NUMBER WILL BE ASSIGNED TO EACH DIGITAL STATION.
2. NEW TELEPHONE SWITCH WILL BE MAINTAINABLE BY THE PROJECT AND SPARE PARTS SHALL BE PROVIDED AS PART OF THE SWITCH REPLACEMENT.
3. NEW FIBER CABLE WILL BE INSTALLED AND TERMINATED BY THE PROJECT.
4. NEW T1 - 2 WAY DID LINE SHALL BE INSTALLED BY THE LOCAL TELEPHONE COMPANY.
5. TWO REMOTE UNITS (EPNs) OPERATE WITH THE MAIN SWITCH (PBX). ONE REMOTE UNIT SHALL BE INSTALLED AT THE MICROWAVE ROOM INSIDE THE WAREHOUSE. THE OTHER SHALL BE INSTALLED AT THE TECHNICAL ENGINEERING ROOM INSIDE THE ADMINISTRATION BUILDING.
6. THE CONTRACTOR SHALL INSTALL & TERMINATE ALL COPPER CABLES FOR THE SYSTEM. SEE SPECIFICATION - SECTION 16712.
7. FOR THE WAREHOUSE & THE POWERHOUSE USE THE EXISTING COPPER HORIZONTAL DISTRIBUTION CABLES. FOR THE ADMINISTRATION BUILDING PROVIDE NEW WIRES CATEGORY 5 HORIZONTAL DISTRIBUTION CABLES.
8. THE CONTRACTOR WILL PROVIDE THREE UPS FOR BACK UP POWER. EACH UPS SHALL BE CONNECTED DIRECTLY TO THE SWITCH.

This project was designed by the Seattle Branch, U.S. Army Corps of Engineers, The Office of Engineers and Telecommunications Operations of Logistics Engineering Center, and the Office of Telecommunications Operations of Logistics Engineering Center. The design was prepared by the Office of Telecommunications Operations of Logistics Engineering Center, Seattle, Washington.

DATE AND TIME PLOTTED: 02-AUG-2002 08:48
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REDUCED TO SIZE OF FULL SIZE			
U.S. ARMY ENGINEER DISTRICT, SEATTLE			
CORPS OF ENGINEERS			
SEATTLE WASHINGTON			
TELEPHONE SWITCH REPLACEMENT			
CHIEF: JOSEPH DAM			
NEW TELEPHONE SWITCH			
ONE LINE DIAGRAM			
BRIDGEPORT	FILE NO.	DATE	WASHINGTON
SIZE C-K	CP-9-6-3A2/12	29APRIL02	PLATE E2
DESIGN	OK	SHEET 3	

ADMINISTRATION



EPN BLOCK DIAGRAM - ADMINISTRATION

NOT TO SCALE

- NOTE:
1. THE PROJECT WILL BRING FIBER TO FIBER PATCH PANEL. THE PROJECT WILL PROVIDE THE PATCH PANEL.
 2. THE PROJECT WILL PROVIDE CROSS CONNECT BETWEEN THE FIBER PATCH PANEL AND THE REMOTE UNIT (EPN).
 3. THE CONTRACTOR SHALL INS PROVIDE THE REMOTE UNIT.
 4. THE CONTRACTOR SHALL PROVIDE CONNECTIVITY BETWEEN THE REMOTE AND THE NEW TELEPHONE BACKBOARD. 100 TELEPHONE PAIRS WILL BE TERMINATED.
 5. THE PROJECT WILL TERMINATE THE WIRE FROM EXISTING TELEPHONE BACKBOARD TO THE NEW TELEPHONE BACKBOARD AND TO THE TELEPHONE LINE. THE PROJECT WILL PROVIDE NEW TELEPHONE BACKBOARD AND PUNCH DOWN BLOCKS.

The author and engineer for the Seattle District, U.S. Army Corps of Engineers, are responsible for the design and construction of the project. The project will be completed in accordance with the design and construction specifications.

DATE AND TIME PLOTTED: 02-AUG-2002 09:18
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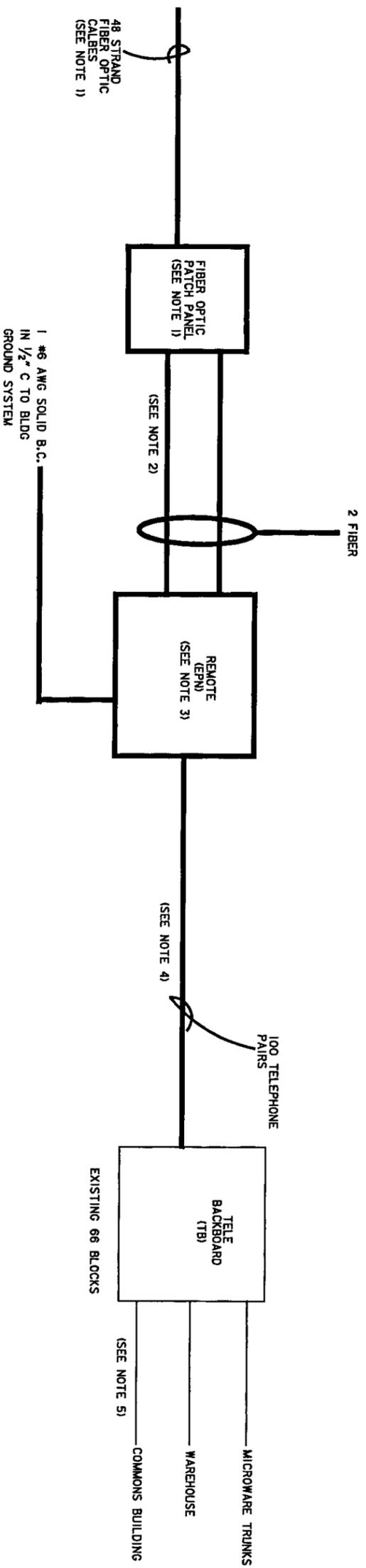


REDUCED TO 50% OF FULL SIZE

U.S. ARMY ENGINEER DISTRICT, SEATTLE
 CORPS OF ENGINEERS
 SEATTLE, WASHINGTON
 TELEPHONE SWITCH REPLACEMENT
 CHIEF JOSEPH DAM
 ADMINISTRATION

BRIDGEPORT		WASHINGTON	
SIZE	INVESTIGATION NO.	FILE NO.	SHEET
C-K		CJP-9-6-3A21/3	29 APR 02
DATE	DATE	DATE	DATE
TL	Dec	BR/AB	4
			E3

WAREHOUSE



- NOTE:
1. THE PROJECT WILL BRING FIBER TO FIBER PATCH PANEL. THE PROJECT WILL PROVIDE THE PATCH PANEL.
 2. THE PROJECT WILL PROVIDE THE CROSS CONNECT BETWEEN THE FIBER PATCH PANEL AND THE REMOTE UNIT (EPN).
 3. THE CONTRACTOR SHALL PROVIDE THE REMOTE UNIT.
 4. THE CONTRACTOR SHALL PROVIDE CONNECTIVITY BETWEEN THE REMOTE UNIT AND THE EXISTING TELEPHONE BACKBOARD. 100 TELEPHONE PAIRS WILL BE TERMINATED.
 5. THE PROJECT WILL TERMINATE THE WIRE TO INDIVIDUAL PHONE LINE.

EPN BLOCK DIAGRAM - WAREHOUSE

NOT TO SCALE

The project was designed by the Seattle District U.S. Army Corps of Engineers. The intent of this diagram is to show the general arrangement of the equipment and the interconnections between the equipment. It is not intended to be a final design. It is subject to change without notice.

DATE AND TIME PLOTTED: 02-AUG-2002 09:14
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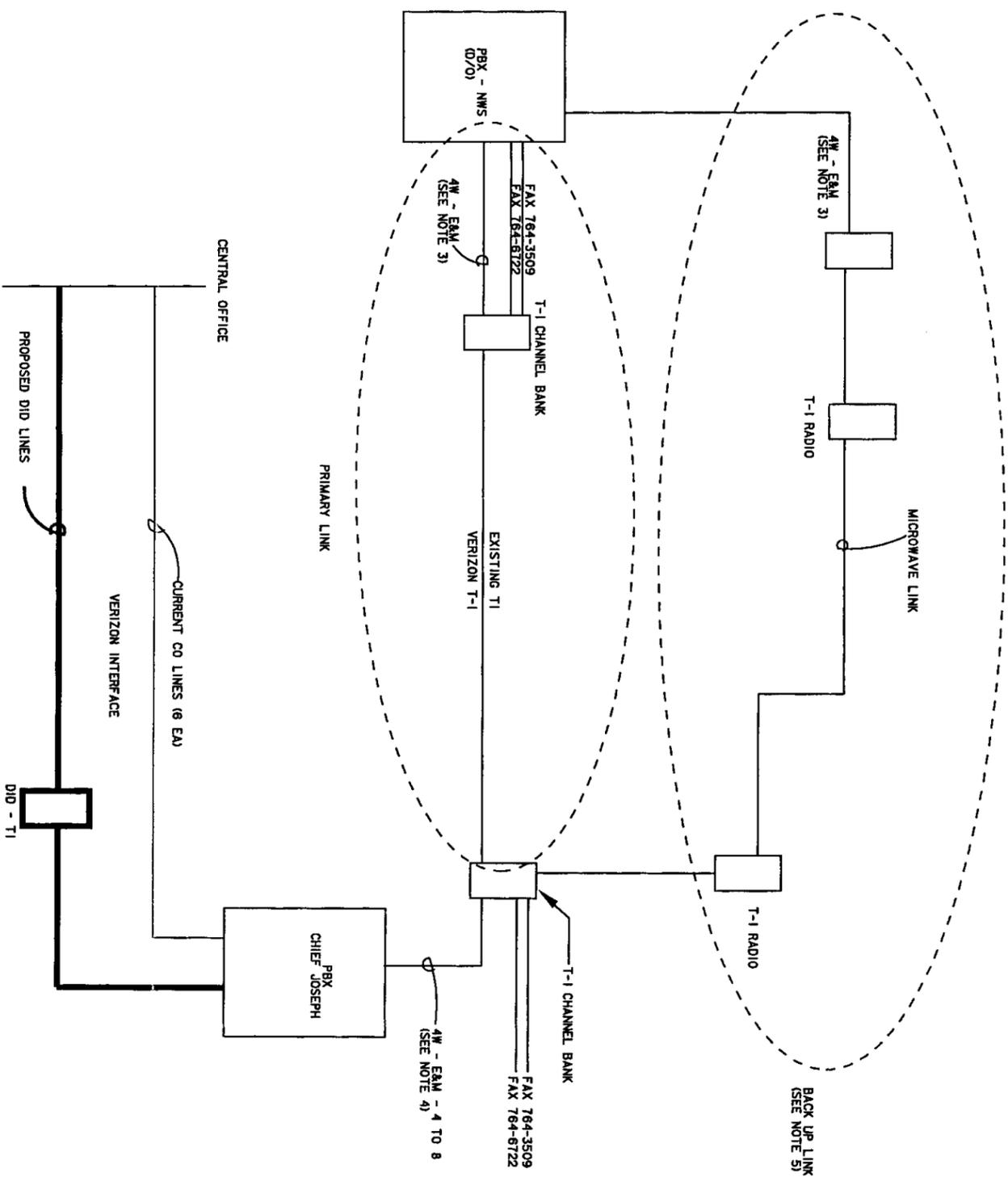
REDUCED TO 50% OF FULL SIZE

U.S. ARMY ENGINEER DISTRICT, SEATTLE
 CORPS OF ENGINEERS
 SEATTLE, WASHINGTON

TELEPHONE SWITCH REPLACEMENT
 CHIEF JOSEPH DAM
 EPN BLOCK DIAGRAM
 WAREHOUSE

BRIDGEPORT	WASHINGTON
SIZE: CK	DATE: 29 APR 02
INVTN NO.:	PLT: E4
FILE NO.:	
CJP-9-6-3A21/4	
CHK: BP	SHEET: 5
TL	

- NOTE:
1. THE LAYOUT SHOWS THE INTERFACE OF THE PBXS BETWEEN SEATTLE DISTRICT AND THE PROJECT.
 2. THE LAYOUT DOES NOT SHOW THE LOCATIONS OF TELEPHONE HARDWARE EQUIPMENT.
 3. 4W-EAM IS 4 WIRE EAM SIGNALING, WHICH CAN BE USED TO CONNECT THE PBX TO ANOTHER PBX OR THE POST'S CENTRAL OFFICE SWITCH CALLED THE TRUNK.
 4. CURRENTLY, THERE ARE 4 WIRE EAM INSTALLED AT THE PROJECT. NEW PROPOSAL SHALL BE EXPANDED TO DOUBLE OF THE EXISTING 4W-EAM TIE LINE TRUNKS.
 5. THE SCHEDULE COMPLETION BACK UP T1 SHALL BE THE END OF AUGUST.



EXISTING PBX INTERFACE LAYOUT

NOT TO SCALE

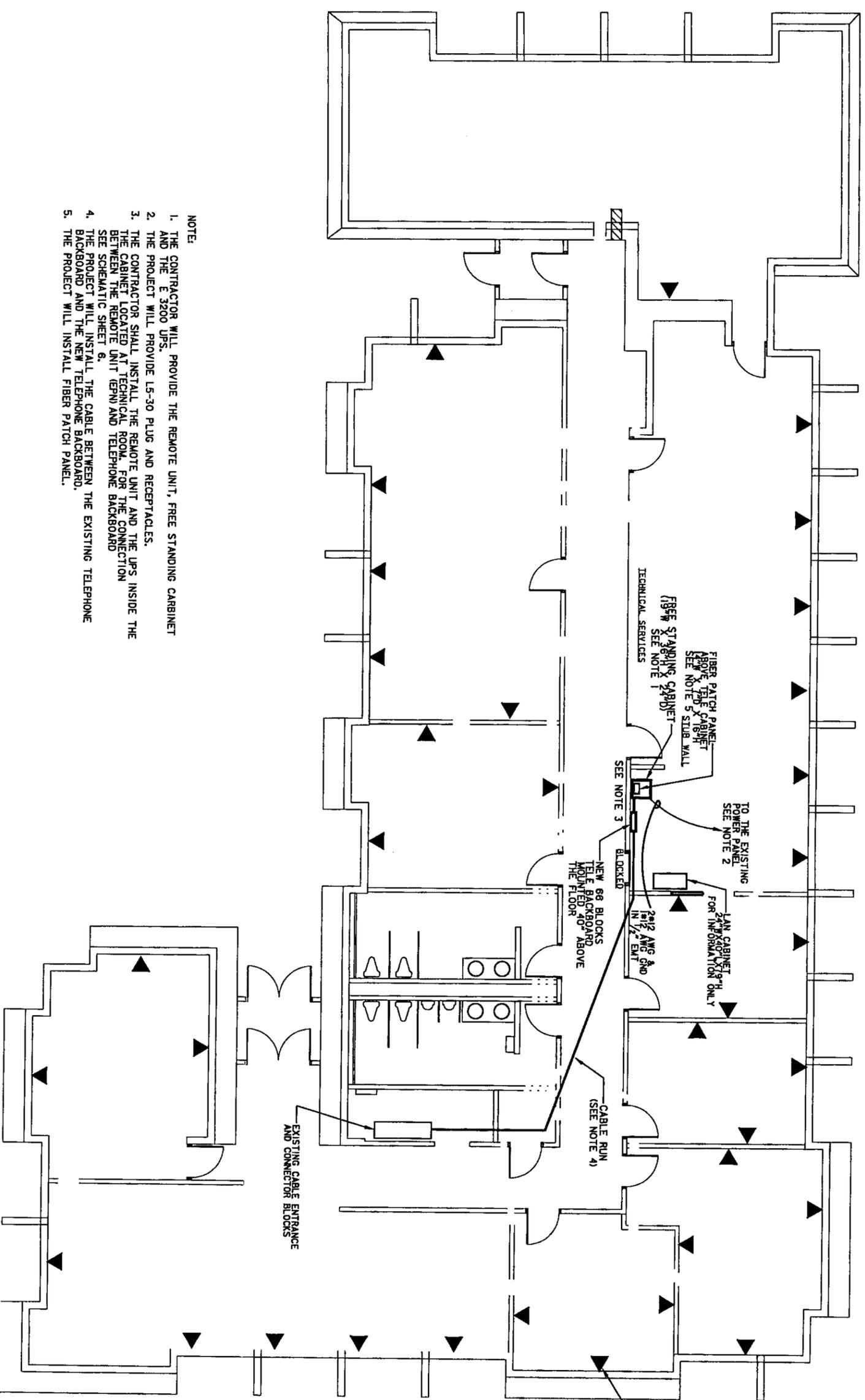
This project was designed by the Seattle Office U.S. Army Corps of Engineers, within the restrictions of the design documents shown. The scope of work and responsibility is defined by the contract and the design documents.

DATE AND TIME PLOTTED: 02-AUG-2002 09:17
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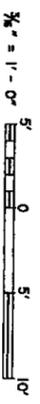


REDUCED TO 50% OF FULL SIZE U.S. ARMY ENGINEER DISTRICT, SEATTLE CORPS OF ENGINEERS SEATTLE, WASHINGTON TELEPHONE SWITCH REPLACEMENT CHIEF JOSEPH DAM PBX INTERFACE LAYOUT			
BRIDGEPORT	WASHINGTON NO.	FILE NO.	DATE
C-K		CJP-9-6-3A20/1	29 APRIL 02
SCALE: TL	CHK: BP	DATE: 29 APRIL 02	PLATE: E5
		SHEET: 6	

TELEPHONE EQUIPMENT LAYOUT ADMINISTRATION BLDG.



- NOTE:**
1. THE CONTRACTOR WILL PROVIDE THE REMOTE UNIT, FREE STANDING CABINET AND THE E 3200 UPS.
 2. THE PROJECT WILL PROVIDE L5-30 PLUG AND RECEPTACLES.
 3. THE CONTRACTOR SHALL INSTALL THE REMOTE UNIT AND THE UPS INSIDE THE CABINET LOCATED AT TECHNICAL ROOM. FOR THE CONNECTION BETWEEN THE REMOTE UNIT (EPN) AND TELEPHONE BACKBOARD SEE SCHEMATIC SHEET 6.
 4. THE PROJECT WILL INSTALL THE CABLE BETWEEN THE EXISTING TELEPHONE BACKBOARD AND THE NEW TELEPHONE BACKBOARD.
 5. THE PROJECT WILL INSTALL FIBER PATCH PANEL.



The project was designed by the Seattle District U.S. Army Corps of Engineers. The interior of this drawing and the information contained herein are the property of the U.S. Army Corps of Engineers and are not to be distributed, copied, or reproduced in any form without the written permission of the U.S. Army Corps of Engineers.

DATE AND TIME PLOTTED: 02-AUG-2002 09:28
 DESIGN FILE: I:\DESIGNS\MISC\ELECT\TELEC\JC\JPBX6.DGN

REDUCED TO 50% OF FULL SIZE U.S. ARMY ENGINEER DISTRICT, SEATTLE CORPS OF ENGINEERS SEATTLE, WASHINGTON TELEPHONE SWITCH REPLACEMENT CHIEF: JOSEPH DAW	
TELEPHONE EQUIPMENT LAYOUT TECHNICAL ENGINEERING ROOM - ADMINISTRATION	
BRIDGEPORT SIZE: C-K INVITATION NO.: FILE NO.: CIP-9-6-3A0/1 DATE: 29 APR 02 SHEET: 7	WASHINGTON DATE: 29 APR 02 PAGE: 68