



MULTNOMAH COUNTY OREGON

BOARD OF COUNTY COMMISSIONERS
ROOM 605, COUNTY COURTHOUSE
1021 S.W. FOURTH AVENUE
PORTLAND, OREGON 97204

GLADYS McCOY • Chair • 248-3308
PAULINE ANDERSON • District 1 • 248-5220
GRETCHEN KAFOURY • District 2 • 248-5219
CAROLINE MILLER • District 3 • 248-5217
POLLY CASTERLINE • District 4 • 248-5213
JANE McGARVIN • Clerk • 248-3277

AGENDA OF
MEETINGS OF THE MULTNOMAH COUNTY BOARD OF COMMISSIONERS
FOR THE WEEK OF
December 12 - 16, 1988

Tuesday, December 13, 1988 - 9:30 AM - Planning Items . . . Page 2
Tuesday, December 13, 1988 - 1:30 PM - Informal Meeting . . Page 3
Thursday, December 15, 1988 - 9:30 AM - Formal. Page 4

Tuesday, December 13, 1988 - 9:30 AM

Multnomah County Courthouse, Room 602

INFORMAL

1. Presentation of proposed joint letter to the Legislature from the Multnomah County Board of Commissioners, Portland City Council and the Portland School Board, regarding programs dealing with child care, teen clinics, juvenile justice services, drug and alcohol programs, and attention to child abuse, etc. - Fred Neal
2. Preliminary discussion about the impact of the recent federal court decision (Mattson vs. Multnomah County), related to County contracts and the County's affirmative action rules for minorities and women-owned businesses - Gretchen Kafoury and Lillie Walker
3. Update on Exempt Benefits Plan - Dr. Lloyd Williams and Merrie Ziady

Tuesday, December 13, 1988 - 1:30 PM

Multnomah County Courthouse, Room 602

INFORMAL

1. Informal Review of Bids and Requests for Proposals:
 - a) Drug Abuse Treatment Effectiveness Research
 - b) Courthouse Jury Room Remodel #302 and #412
2. Proposal to fund emergency MCCF security job at MCCF through Capital Improvement Budget Transfer
3. Annual Report to the Board concerning activities of the Citizen Involvement Committee in 1987-88 and future activities in 1988-89 - John Miller, CIC Chair; Merlin Reynolds
4. Informal Review of Formal Agenda of December 15

Thursday, December 15, 1988, 9:30 AM

Multnomah County Courthouse, Room 602

Formal Agenda

CONSENT CALENDAR

DEPARTMENT OF JUSTICE SERVICES

- C-1 Liquor License applications submitted by Sheriff's Office with recommendation that same be approved as follows:
RETAIL MALT BEVERAGE: Happy Landing Tavern, 520 SE 148th Ave.; Webb's Royal Tap Saloon, 13639 SE Powell; The Peanut Farm, 12646 SE Division; Shady Rest Tavern, 15920 SE Stark St.; Papa-Sons, 12525 SE Powell Blvd.; Rose Bowl, 3800 SE 164th Avenue; PACKAGE STORE: Columbia Ridge Marina, 18525 NE Marine Drive; Bob's Corner Grocery Deli, 13110 SE Division; Norwood's AM/PM Mini Market, 14801 SE Stark Street; Corbett Country Market, 36801 NE Crown Point Hwy., Corbett; Original Steer Market, 12348 SE Division; Larson's Marina, 14444 NW Larson Road; RESTAURANT: Kowloon City Restaurant, 2825 SE 122nd Ave.; Carrows Restaurant #7144, 16246 SE Stark; DISPENSER CLASS A: The Daily Planet, 11312 SE Powell Blvd.; Dales Restaurant and Maverick Room, 12424 SE Division; Woodshed Restaurant; 16015 SE Stark; The Grove, 11140 SE Powell Blvd.; Pier 101, 16321 SE Stark; DISPENSER CLASS B: The Racquet Club, 1853 SW Highland Road

DEPARTMENT OF ENVIRONMENTAL SERVICES

- C-2 Order in the matter of accepting Deed from Minnie Maud Bourlier and James Erwin Eber on NE 223rd Avenue for county road purposes
- C-3 Order in the matter of accepting a deed from Douglas B. Pratt on S.W. Englewood Drive for a Public Road

REGULAR AGENDA

DEPARTMENT OF ENVIRONMENTAL SERVICES

- R-4 Order in the Matter of Offering to Surrender Jurisdiction to the City of Portland all County Roads within the areas annexed to the City of Portland between January 1, 1988, and June 30, 1988, and portions of E. Burnside Road
- R-5 In the matter of the purchase of property site for future Inverness Jail Expansion

DEPARTMENT OF HUMAN SERVICES

- R-6 In the matter of ratification of an Intergovernmental Revenue Agreement with State Community Services for \$213,229 in Federal Low Income Energy Assistance Program (LIEAP) funds for period December 15, 1988 to November 30, 1989
- R-7 a In the matter of ratification of Amendments #20, #21, #22, and #23 to the State Mental Health Grant, whereby the County will receive a net total of \$96,945 additional revenues
- R-7 b Budget Modification DHS #15 reflecting adjustments in State Mental Health Contract Amendment #21, as a result of Amendment #18-R and appropriates additional revenues in the amount of \$224,900 for Pass Through for operating the Family Support Program in the DD Program as appropriated in Amendment #21, and corrects errors; and Adds 2 FTE Case Manager 2's and a .5 FTE PDS to monitor new Family Support Pilot Project
- R-7 c Budget Modification DHS #19 making a reduction of \$3,055 in Social Services, MED Contracts, to reflect Amendment #23 to the State Mental Health Grant
- R-8 Budget Modification DHS #20 making an appropriation transfer in the amount of \$6,000 within Health Division from Car Seat Loan Trust Fund to Supplies, to purchase both replacement seats for lost and damaged seats and an expansion of the service
- R-9 Budget Modification DHS #21 reflecting additional revenues in the amount of \$42,603 to Health Division, for larger than expected and budgeted AFDC Incentive funds, and reprograms salary savings in the amount of \$12,017 as a result of vacant position
- R-10 Budget Modification DHS #21-A reflecting an increase of \$1,800 from Cash Transfer to Vector Control, Professional Services, to allow the county to respond to nuisance control complaints from citizens in unincorporated area
- R-11 Budget Modification DHS #22 making adjustments in Health Division Personnel Services, in Clinic Services, as a result of changes in normally scheduled work hours, and in Dental Services to reclassifying an Office Assistant II to a Dental Assistant/Receptionist

- R-12 Budget Modification DHS #23 requesting an increase of \$54,000 in Capital Outlay, Health Systems, to allow completion of the purchase of Health Division MIS terminals, and an increase of \$17,001 in Pass Through for an increase in the Cleve Allen dental contract

DEPARTMENT OF JUSTICE SERVICES

- R-13 Budget Modification DJS #9 reclassifying one position of Office Assistant II to Office Assistant III in the District Attorney's Office for the OCN grant
- R-14 Notice of Intent to apply for a grant in the amount of \$185,570 through the Oregon Traffic Safety Commission for the Sheriff's Office, to combat drinking driving in Multnomah County
- R-15 Budget Modification DJS #10 making an appropriation transfer in the amount of \$26,828 within Multnomah County Inverness Jail budget, deleting one Carpenter/Maintenance position, and establishing a 1.5 Custodian positions
- R-16 Budget Modification DJS #7 restoring an Office Assistant II position in the Sheriff's Office, which was inadvertently left out of the Adopted budget, with funds coming from various Full Time line items in the budget in the amount of \$10,641

BOARD OF COUNTY COMMISSIONERS

- R-17 In the matter of ratification of amending the Intergovernmental Agreement which created the Oregon Tourism Alliance, to authorize OTA to receive and expend monies and operate as a public entity, revises appointment procedures of OTA Board members
- R-18 Resolution in the Matter of the Disposition of Tax-Foreclosed Properties
- R-19 In the matter of ratification of an Agreement with Portland Development Commission for Providing Business Recruitment and Marketing for Multnomah County

PUBLIC CONTRACT REVIEW BOARD

(Recess as the Board of County Commissioners and reconvene as the Public Contract Review Board)

- R-20 Order in the Matter of Exempting from Public Bidding a Contract to Remove Dry Rot and Repair Beam, Column, and Associated Structural Members at the Gresham District Court Building

(Recess as the Public Contract Review Board and reconvene as the Board of County Commissioners)

BOARD OF COMMISSIONERS

Remarks by Commissioner Caroline Miller

Thursday Meetings of the Multnomah County Board of Commissioners are recorded and can be seen at the following times:

Thursday, 10:00 PM, Channel 11 for East and West side subscribers

Friday, 6:00 P.M., Channel 27 for Rogers Multnomah East subscribers

Saturday 12:00 PM, Channel 21 for East Portland and East County subscribers

0460C.58-64

SUPPLEMENTAL AGENDA

TUESDAY, DECEMBER 13, 1988

INFORMAL MEETING - 9:30 A.M.

2. Preliminary discussion about the impact of the recent federal court decision (Mattson vs. Multnomah County), related to County contracts and the County's affirmative action rules for minorities and women-owned businesses - Gretchen Kafoury and Lillie Walker

NOTE: After the above Briefing, there will be an EXECUTIVE SESSION held, authorized by ORS 192.660(1)(h)

DATE SUBMITTED 12/8/88

(For Clerk's Use)
Meeting Date 12-13-88
Agenda No. Inf Am #1

REQUEST FOR PLACEMENT ON THE AGENDA

Subject: Legislative Briefing

Informal Only* 12/13/88
(Date)

Formal Only _____
(Date)

DEPARTMENT BCC DIVISION _____

CONTACT FRED NEAL TELEPHONE 248-3308

*NAME(s) OF PERSON MAKING PRESENTATION TO BOARD FRED NEAL

BRIEF SUMMARY Should include other alternatives explored, if applicable, and clear statement of rationale for the action requested.

Presentation of proposed joint letter to the legislature from the Multnomah County Board of County Commissioners, Portland City Council and Portland School Board.

(IF ADDITIONAL SPACE IS NEEDED, PLEASE USE REVERSE SIDE)

ACTION REQUESTED:

☐ INFORMATION ONLY ☒ PRELIMINARY APPROVAL ☐ POLICY DIRECTION ☐ APPROVAL

INDICATE THE ESTIMATED TIME NEEDED ON AGENDA 10 minutes

IMPACT:

☐ PERSONNEL
☐ FISCAL/BUDGETARY
☐ General Fund
☐ Other _____

RECEIVED
COUNTY COMMISSIONER
1988 DEC - 8 AM 11:23
MULTNOMAH COUNTY
OREGON

SIGNATURES:

DEPARTMENT HEAD, ELECTED OFFICIAL, or COUNTY COMMISSIONER: [Signature]

BUDGET / PERSONNEL _____

COUNTY COUNSEL (Ordinances, Resolutions, Agreements, Contracts) _____

OTHER _____
(Purchasing, Facilities Management, etc.)

NOTE: If requesting unanimous consent, state situation requiring emergency action on back.

JOINT LETTER
FOR COMMUNICATION TO LEGISLATORS
from
MULTNOMAH COUNTY BOARD OF COMMISSIONERS
PORTLAND CITY COUNCIL
PORTLAND SCHOOL BOARD

December, 1988

The elected officials of Multnomah County, the City of Portland and the Portland School Board want to be on record as jointly supporting several legislative initiatives in the 1989 Legislative Session.

We will work together to preserve a strong central urban core. We are concerned about the urban area and mutually support proper funding to each entity as is appropriate for the general and specific public services assigned to us.

We will work together to see a strong legislative response to issues of family support. The heart of our community's strength is in the health of our families and we will join with the legislature to gain the funding, services, policy direction and leadership necessary to achieve strong functioning of family units.

The specific areas of support that are currently most appropriate include an emphasis on child care, teen clinics, juvenile justice services, drug and alcohol programs and attention to child abuse.

We are directing our legislative liaison staff to provide all the information available and to promote the legislature's attention to the children's issues we have noted. We will ourselves be advocating for funding and expansion of services in these family support areas.

We support legislative spending outside the State's spending limit to accomplish proper funding for these family support needs, as well as other critical investments in Oregon's future. The state's economy has been robust and the anticipated revenue from a healthier state economy should be used to improve the state's future. That improvement will be enhanced by State spending on support to families and to children. We encourage State attention to child care, teen clinics, juvenile justice services, drug and alcohol treatment and services to children suffering physical, emotional or sexual abuse.

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

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_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

DATE SUBMITTED 12/6/88

(For Clerk's Use)

Meeting Date 12-13-88

Agenda No. Int Am #2

REQUEST FOR PLACEMENT ON THE AGENDA

County Contracting and Affirmative

Subject: Action After the Mattson Decision

Informational 12/13/88

Informal Only _____
(Date)

Formal Only _____
(Date)

DEPARTMENT Nondepartmental - BCC DIVISION Commissioner Kafoury

CONTACT Bill Vandever TELEPHONE 248-5219

*NAME(s) OF PERSON MAKING PRESENTATION TO BOARD Gretchen Kafoury, Lillie Walker

BRIEF SUMMARY Should include other alternatives explored, if applicable, and clear statement of rationale for the action requested.

Preliminary discussion about the impact of the recent federal court decision (Mattson vs Multnomah County), related to County contracts and the County's affirmative action rules for minority and women-owned businesses.

(IF ADDITIONAL SPACE IS NEEDED, PLEASE USE REVERSE SIDE)

ACTION REQUESTED:

☒ INFORMATION ONLY ☐ PRELIMINARY APPROVAL ☐ POLICY DIRECTION ☐ APPROVAL

INDICATE THE ESTIMATED TIME NEEDED ON AGENDA 30 minutes

IMPACT:

☐ PERSONNEL

☐ FISCAL/BUDGETARY

☐ General Fund

☐ Other _____

SIGNATURES:

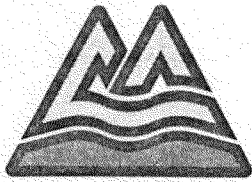
DEPARTMENT HEAD, ELECTED OFFICIAL, or COUNTY COMMISSIONER: Gretchen Kafoury / wml

BUDGET / PERSONNEL _____

COUNTY COUNSEL (Ordinances, Resolutions, Agreements, Contracts) _____

OTHER _____
(Purchasing, Facilities Management, etc.)

NOTE: If requesting unanimous consent, state situation requiring emergency action on back.




MULTNOMAH COUNTY OREGON

DEPARTMENT OF ENVIRONMENTAL SERVICES
DIVISION OF FACILITIES AND
PROPERTY MANAGEMENT
2505 S.E. 11TH AVENUE
PORTLAND, OREGON 97202
(503) 248-3322

GLADYS McCOY
MULTNOMAH COUNTY CHAIR

MEMORANDUM

TO: Kathy Busse, Director
Administrative Services Division

FROM:  Lillie M. Walker, Director
Purchasing Section

DATE: December 12, 1988

RE: IMPACT OF REDDEN OPINION ON MULTNOMAH COUNTY'S AFFIRMATIVE
ACTION PROGRAM FOR PUBLIC CONTRACTING-OPTIONS FOR REORGANIZATION
OF PROGRAM

The immediate impact of the opinion is to cease operation of the MBE set-aside and goal participation program as it presently exists, as the scope of the program is deemed not narrowly tailored.

Preliminary actions taken to comply with the opinion and anticipated order are:

1. Removal of all existing M/WBE "Boiler plate" language from contract documents.
2. Notified County agencies of the effect of the Redden opinion on goal setting activities.
3. Notified M/WBE organization and individual M/WBE businesses regarding the Opinion.

M/WBE PROGRAM INADEQUACIES CITED

The opinion that was issued by Judge Redden was based upon two issues: 1) whether the program is justified as serving a compelling governmental interest, and 2) if justified, whether the program is narrowly tailored.

The ruling against the County's Affirmative Program was for the following reasons:

1. Failure to justify the M/WBE Program based upon prior finding that the County discriminated against minorities and women in accordance with requirements set forth in the 9th Circuit Court opinion. Industry discrimination was also rejected due to failure to make requisite findings.
2. Lack of findings to justify the narrow tailoring of the M/WBE program, or that less restrictive alternatives were inadequate.
3. Failure to stipulate a review date to determine whether the program remedies are still necessary.

CONTINUED NEED FOR M/WBE PROGRAM

Although the M/WBE program was first implemented by Multnomah County in 1977 and later strengthened and revised in 1981, current contract statistics show that for fiscal year 1987-88, and the first quarter of 1988-89, the majority of the contract dollars were due to M/WBE participation goals or M/WBE set-aside contracts. Less than .01% of the contract awards were through competitive bid awards. MBEs indicate that they are not low bidder in open competition due to:

1. Lack of access to capital
2. Inability to obtain competitive bonding rates
3. Language barriers
4. Higher supply costs due to low volume of purchases and established lines of credit
5. Lack of staff for marketing
6. Business opportunity restrictions based upon racial stereotypes.

On those projects where M/WBE participation goals are not assigned, there appear to be no voluntary efforts by prime contractors to solicit subcontract bids from MBEs. The lack of voluntary efforts to subcontract with or to accept subcontract bids from MBE and WBEs indicates governmental bodies still need to provide incentives and encouragement to contractors to provide equal contracting opportunities.

OPTIONS/RECOMMENDATIONS FOR REORGANIZATION OF M/WBE PROGRAM

The Purchasing Section will focus on two areas: 1) maintaining the level of M/WBE participation that is legally acceptable, and 2) developing findings to establish a new M/WBE program.

M/WBE program maintenance plans include:

1. Developing equal contracting/subcontracting MBE language with MBE/WBEs to be reviewed by legal counsel and approved by the Chair.
2. Provide listing of certified M/WBEs to prime contractors.
3. Schedule a meeting to brief County user agencies and provide guidance for inclusion of MBEs and WBEs in informal bids and quotes.
4. Explore the use of computer programming for tracking:
 - A. Voluntary efforts by prime contractors to subcontract with M/WBEs.
 - B. Competitive M/WBE contracts by purchase categories.
 - C. Award of informal bids and quotes to M/WBEs.
5. Conduct periodic seminars for M/WBEs to orientate them to Multnomah County purchasing policies, procedures, and contract opportunities.
6. Identify County federal dollars requiring M/WBE participation and continue participation goals for those bids.

Activities to reorganize/revise an affirmative action program for public contracting include:.

1. Participate in Intergovernmental Task Force to:
 - A. Research and review findings used to establish successful M/WBE programs.
 - B. Review criteria for findings established by the 9th U.S. Circuit Court decision.
 - C. Develop format, statistical information and other methods to establish data base to produce findings.
 - D. Conduct market analysis to determine M/WBEs available to perform work.
2. Extract from local findings Multnomah County specific findings of internal County discrimination in purchasing practices, and industry discrimination against M/WBEs.

3. Seek legal review of data to determine the level of tailoring needed to correct discrimination.
4. Develop objective standards for M/WBE program implementation.
5. Provide ongoing program monitoring to determine whether program needs modification or continuation.

Another option is:

1. Good Faith Effort Program or Affirmative Action Opportunities for Minorities and Women. The BCC/PCRB could implement a temporary Administrative Rule consisting of "good faith effort" as outlined in State Statutes (ORS 200.45 and 279.059). A program of this type primarily serves as an equal subcontracting opportunity reminder to prime contractors, and would document efforts to include M/WBEs. We would be unable to establish project goals, however, some governmental bodies feel that this is an alternative to discontinuing M/WBE activities and that some contractors will solicit and award subcontract bids with M/WBEs.

The above are a partial listing of options/alternatives available. Research of successful M/WBE programs and findings may offer other options. Additional resources in the form of consultant fees will be necessary as existing staff is unable to absorb the magnitude of activity based upon the unexpected and unbudgeted suit against the County.

LMW:CLS

cc: Gladys McCoy
Linda Alexander
Board of County Commissioners

DATE SUBMITTED _____

(For Clerk's Use)
Meeting Date 12-13-88
Agenda No. Inf Am #3

REQUEST FOR PLACEMENT ON THE AGENDA

Subject: EXEMPT BENEFITS PLAN

DEC 8 1988

Informal Only* Tuesday, December 13, 1988
(Date)

Formal Only _____
(Date)

DEPARTMENT General Services

DIVISION Employee Services

CONTACT Lloyd Williams

TELEPHONE 248-5015 ext. 2206

*NAME(s) OF PERSON MAKING PRESENTATION TO BOARD Lloyd Williams and Merrie Ziady

BRIEF SUMMARY Should include other alternatives explored, if applicable, and clear statement of rationale for the action requested.

Discussion of changes made to exempt benefits plan.

(IF ADDITIONAL SPACE IS NEEDED, PLEASE USE REVERSE SIDE)

ACTION REQUESTED:

☒ INFORMATION ONLY ☐ PRELIMINARY APPROVAL ☐ POLICY DIRECTION ☐ APPROVAL

INDICATE THE ESTIMATED TIME NEEDED ON AGENDA _____

IMPACT:

PERSONNEL

☐ FISCAL/BUDGETARY

☐ -General Fund

Other _____

SIGNATURES:

DEPARTMENT HEAD, ELECTED OFFICIAL, or COUNTY COMMISSIONER: _____

BUDGET / PERSONNEL _____

COUNTY COUNSEL (Ordinances, Resolutions, Agreements, Contracts) _____

OTHER _____

(Purchasing, Facilities Management, etc.)

NOTE: If requesting unanimous consent, state situation requiring emergency action on back.



MULTNOMAH COUNTY OREGON

BOARD OF COUNTY COMMISSIONERS
GLADYS MCCOY, CHAIR
PAULINE ANDERSON
POLLY CASTERLINE
GRETCHEN KAFOURY
CAROLINE MILLER

DEPARTMENT OF GENERAL SERVICES
PORTLAND BUILDING
1120 SW FIFTH, 14TH FLOOR
PORTLAND, OR 97204-1934
(503) 248-3300

OFFICE OF THE DIRECTOR	(503) 248-3303
PLANNING AND BUDGET	(503) 248-3883
COUNTY COUNSEL	(503) 248-3138
EMPLOYEE SERVICES	(503) 248-5015
FINANCE	(503) 248-3312
LABOR RELATIONS	(503) 248-5135

MEMORANDUM

TO: Jack Horner, Planning & Budget Director

FROM: Merrie Ziady, Employee Health and Benefits Manager *mz*

DATE: December 8, 1988

SUBJECT: Budgetary Impact of Exempt Benefits Revisions

The budgetary impact of the changes made to the Exempt medical plans is expected to be revenue neutral. The change from the Blue Cross Basic/Major Medical Plan to the Comprehensive Plan Design is expected to reduce claims costs as follows:

Current Plan (Base Plan Plus Major Medical with \$100 deductible up to 3 deductibles per family, \$250,000 lifetime maximum) **estimated monthly claims cost per employee: \$155.61.**

Comprehensive Plan (\$100 deductible, 3 deductibles per family, 80% to \$2,500, 100% thereafter with \$1,000,000 lifetime maximum) **estimated monthly claims cost per employee: \$136.39.**

Estimated claims cost savings: \$19.22

In keeping with the revenue neutral, yet responsive to user requirement policy direction, this savings will allow us to:

- 1) add the following preventive features to the Blue Cross Plan:
Routine Physicals (employee & dependents): \$6 per month
Well Baby Care (1st two per employee years of life): \$1.25 per month per employee
- 2) add prescription drug coverage to the Kaiser Permanente Plan at a cost of about \$9.60 per month per employee.

I hope this gives you the information you need. Please call if you have questions or concerns.

4356F/MZ/js

cc: Lloyd Williams

REVISIONS IN THE MULTNOMAH COUNTY EMPLOYEE GROUP HEALTH PLANS - - A REVIEW

A review of the history of Multnomah County group health plans indicates that most changes or revisions over the years have been due to either State and Federal mandates or labor negotiations. True management of the plans with regard to industry trends, user requirements, and financial ramifications has been neglected or haphazard at best. In mid-1987 a review and assessment of the entire health and welfare package was initiated as part of the workplan of the Employee Health and Benefits Manager. The process and outcome of this assessment with regard to the group health plan follows:

November, 1987

Series of two-hour focus groups held. Approximately 175 randomly selected employees were invited to participate in structured discussion groups on the Multnomah County benefit package.

The objectives were to:

- 1) determine the level of understanding of the present health and welfare benefit package.
- 2) elicit feedback as to level of satisfaction/dissatisfaction with present package.
- 3) learn that changes, if any, were desired by employees.
- 4) begin process of benefits communication to employees.

November 1987 to March 1988

Reviewed results of Focus Groups with consultants. Presented results to Board of County Commissioners, labor union representatives, and focus group participants. Studied benefit options and alternatives. Received verbal and written feedback from employees. Communicated information about current benefit package to employees through Employee Bylines. Began process of bringing Blue Cross Medical Plan into compliance with 1984 and 1986 mandates regarding chemical dependency and mental health benefits. Requested and received the Fred S. James "Cost Containment" report on our benefits package.

April 1988

Presented desired benefit changes to Ken Upton, Labor Relations Manager, for negotiating purposes with Local 88 and ONA. Obtained

cost estimates and administrative requirements necessary from Blue Cross , Kaiser Permanente, and Fred S. James to effect changes. Finalized changes and presented to the Board of County Commissioners in an Executive Session on April 12, 1988, as follows:

- 1) Shift from Basic/Major Medical Plan Design to Comprehensive Plan (less costly to County, simpler to understand/communicate)
- 2) Increase catastrophic benefits in the form of a "stop-loss" (out-of-pocket maximum) and an increase in the lifetime benefit maximum from \$250,000 to \$1,000,000.
- 3) Improve preventive coverage, to include routine physicals well baby care.
- 4) Add prescription drug coverage to Kaiser Plan.
- 5) Improve life insurance and disability benefits where indicated.

The estimated claims costs savings as a result of #1 above would pay for the increased costs associated with #'s 2 - 5 above.

The Board of County Commissioners gave approval for this policy direction with the understanding that it was a revenue neutral change responsive to the needs of employees. Ken Upton, Labor Relations Manager indicated he would present this change in the health and welfare package to the labor unions currently in negotiations.

May/June 1988

Health and welfare changes presented to Local 88 and ONA.

July 1988

Proposal for health and welfare changes withdrawn from Local 88 negotiations due to impasse. ONA accepted proposal for changes.

August 1988

Ken Upton presented health and welfare outcome for Local 88 and ONA to Board of County Commissioners. All changes effective September 1, 1988.

September/October 1988

In keeping with the original policy direction, the process of changing the Exempt Employees benefit package was begun, following the lead of ONA. Basic changes included: the change to a

Comprehensive Plan Design, resulting in lower estimated claims costs and a plan design easier to understand and communicate; the addition of preventive benefits; improved catastrophic coverage; and prescription drug coverage for Kaiser members. Exempt employees already enjoy the disability and improved life insurance benefits given to ONA.

November 1988

Plan revisions communicated to Exempt Employees. Worked with carriers to ensure all changes effective January 1, 1989. In a nutshell the budgetary impact is in keeping with a revenue neutral position, as follows:

In changing from the current plan to a Comprehensive Plan Design (Blue Cross), claims costs are expected to be lower based on Fred S. James estimates. The savings will be used to purchase the additional and improved benefits.

Current Plan: estimated monthly claims cost per employee is \$155.61.

Comprehensive Plan: estimated monthly claims cost per employee is \$136.39.

Difference: \$19.22 (Will be used to cover cost of preventive care, catastrophic coverage, and prescription drugs)

**Exempt Employees
Blue Cross/Blue Shield Group Plan**

SUMMARY OF BENEFITS

Lifetime benefit maximum.....	\$1,000,000
Annual deductible per calendar year.....	\$ 100
Maximum annual family deductible.....	\$ 300
First \$2,500 in eligible expenses each year paid at.....	80%
Annual eligible expenses over \$2,500 paid at.....	100%
Accident care.....	80%/100%
Hospital, semi-private room (unlimited days).....	80%/100%
Skilled nursing facility, semi-private room (unlimited days).....	80%/100%
Intensive care unit or isolation unit.....	80%/100%
Additional hospital services.....	80%/100%
Emergency room care.....	80%/100%
Inpatient rehabilitation care.....	80%/100%
Maternity care for employee and insured spouse.....	80%/100%
Hospice care	
Home care.....	100% to max \$5,000
Inpatient care.....	100% to max 12 days
Respite care.....	120 hrs per 3 mos.
Mental and Emotional.....	80%/100%
Inpatient and residential care unlimited days	
Outpatient limited to \$2,000 per 24 month period	
Drug addiction.....	80%/100%
Inpatient and residential care unlimited days	
Outpatient limited to \$1,500 per 24 month period	
Alcoholism.....	80%/100%
Inpatient limited to \$4,500 per 24 month period	
Residential limited to \$3,000 per 24 month period	
Outpatient limited to \$1,500 per 24 month period	
Overall benefit maximum \$6,000 per 24 month period	
X-ray and radium therapy.....	80%/100%
Surgery.....	80%/100%
Referred specialist.....	80%/100%
Doctor visits in hospital.....	80%/100%
Home and office calls for illness or injury.....	80%/100%
Anesthesia supplies and administration.....	80%/100%
Diagnostic x-ray and tests.....	80%/100%
Ambulance service.....	80%/100%
Outpatient rehabilitation care.....	80%/100%
Limited to 60 treatments per calendar year	
Prescription drugs.....	80%/100%
Artificial limbs.....	80%/100%
Skilled nursing service in the home.....	80%/100%
Blood and blood plasma.....	80%/100%
Artificial appliance and durable medical equipment such as braces or wheelchair.....	80%/100%
Preventative care - routine physicals (employee and family members.....	80%/100%
Not subject to the deductible, maximum \$100	
1 every two years to the age of 60, 1 every year over 60	

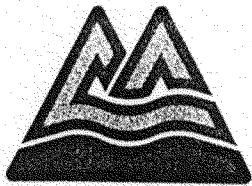
(OVER)

Exempt
Summary of Benefits
Page 2

Well baby care.....	80%/100%
Initial exam in hospital at birth	
Five exams the first year	
Two exams the second year	
Immunizations for the first two years	

Effective January 1, 1989

4269F/MZ/kd



MULTNOMAH COUNTY OREGON

DEPARTMENT OF GENERAL SERVICES
PURCHASING SECTION
2505 S.E. 11TH AVENUE
PORTLAND, OREGON 97202
(503) 248-5111

GLADYS MCCOY
COUNTY CHAIR

BOARD OF
COUNTY COMMISSIONERS
DEC - 8 AM 8 31
MULTNOMAH COUNTY
OREGON

MEMORANDUM

TO: Jane McGarvin, Clerk of the Board

FROM: Lillie M. Walker, Director, Purchasing Section

DATE: December 7, 1988

SUBJECT: FORMAL BIDS AND REQUESTS FOR PROPOSALS SCHEDULED FOR INFORMAL BOARD

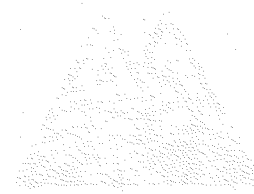
The following Formal Bids and/or Professional Services Request for Proposals (RFPs) are being presented for Board review at the Informal Board on Tuesday, December 13, 1988.

Bid/RFP No.	Description/Buyer	Initiating Department
RFP# 9P0971	DRUG ABUSE TREATMENT EFFECTIVENESS RESEARCH	DHS
		Contact: Norma Jaeger Phone: 3696
B61-100-3255	COURTHOUSE JURY ROOM REMODEL 302, 412	DES/FM
		Lennie Sobocinski Contact: Phone: 3322
		Contact: Phone:

cc: Gladys McCoy, County Chair
Board of County Commissioners
Linda Alexander, Director, DGS
Commissioner Caroline Miller/332

Copies of the bids and RFPs are available from the Clerk of the Board.

ROBERT WILLIAMS HARTFORD



LOWELL, MASS. 01854
1000 N. BROADWAY
BOSTON, MASS. 02108
1000 N. BROADWAY
BOSTON, MASS. 02108

1000 N. BROADWAY

Add'l
Carry over
Approved.

Add'l
Rev
AP.

TO:

DAILY JOURNAL OF COMMERCE

Please run the following Classified Advertisement as indicated below, under your "CALL FOR BID" section

MULTNOMAH COUNTY

Proposals Due: January 3, 1989 at 2:00 P.M.

Proposal No. RFP# 9P0971

Sealed proposals will be received by the Director of Purchasing, 2505 S.E. 11th Ave., Portland, OR 97202 for:

Researcher or research organization to conduct the evaluation
research component for a Federal Grant Application for funds
to carry out a demonstration research project to improve the
effectiveness of drug abuse treatment as an AIDS prevention
strategy.

***THERE WILL BE AN OPTIONAL PRE-PROPOSAL CONFERENCE DECEMBER 22,
1988, 9:00 AM IN THE 6th, FLOOR CONFERENCE ROOM, 426 SW STARK,
PORTLAND, OR.
Multnomah County reserves the right to reject any or all proposals.

Specifications may be obtained at: Multnomah County Purchasing Section

2505 S.E. 11th Avenue

Portland, OR 97202

(503) 248-5111

Lillie M. Walker, Director
Purchasing Section

PUBLISH: December 15, 1988

TO: DAILY JOURNAL OF COMMERCE

Please run the following Classified Advertisement as indicated below, under your CALL FOR BIDS section

MULTNOMAH COUNTY

Bids Due January 3, 1989 at 2:00 P.M.
Bid No. B61-100-3255

Sealed bids will be received by the Director of Purchasing, Multnomah County Purchasing Section, 2505 S.E. 11th Ave., Portland, OR 97202 for:

Remodeling of Lighting, HVAC, Walls, Carpeting & Finishes for New Jury Room. The Work includes some demolition of existing walls, HVAC, & Lighting.

Plans and Specifications are filed with the Purchasing Director and copies may be obtained from the above address for a \$5.00 non-refundable fee. **CHECKS AND MONEY ORDERS ONLY.** Plans and Specifications will not be mailed within the Tri-County area.

PREBID CONFERENCE: December 20, 1988, 9:30 AM, 1020 SW 4th Ave., Portland, OR, 4th Floor Stair Lobby, East Entry.

PREQUALIFICATION OF BIDDERS Pursuant to the Multnomah County Public Contract Review Board Administrative Rules (AR 40.030) Prequalification shall Be Required for this project for the following class(es) of work: General Building Construction

Prequalification applications or statements must be prepared during the period of one year prior to the bid date. Prequalification application and proof of prequalification by the Oregon Department of Transportation must be actually received or postmarked to Multnomah County Purchasing Section by not later than 10 days prior to bid opening.

All bidders must comply with the requirements of the prevailing wage law in ORS 279.350.

Details of compliance are available from the Purchasing Section, Department of General Services, 2505 S.E. 11th Avenue, Portland, OR 97202, (503) 248-5111.

Contractors and subcontractors must be licensed for asbestos abatement work if the project involves working with asbestos.

~~**MINORITY AND WOMEN BUSINESS UTILIZATION:** All bidders are hereby specifically advised that these conditions require a minimum of % of the total bid amount for Minority Business Enterprise participation in one or more of the following subcontract areas: bidders option, and % of the total bid amount for Women Business Enterprises participation in one or more of the following subcontract areas: bidders option.~~

NONDISCRIMINATION Bidders on this work will be required to comply with the provisions of Federal Executive Order 11246. The requirements for Bidders and Contractors are explained in the Specifications.

No proposal will be considered unless accompanied by a check payable to Multnomah County, certified by a responsible bank, or in lieu thereof, a surety bond for an amount equal to ten percent (10%) of the aggregate proposal. The successful bidder shall furnish a bond satisfactory to the Board in the full amount of the contract.

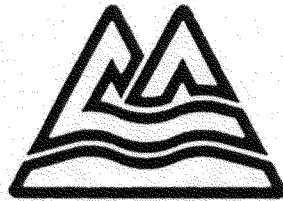
Multnomah County reserves the right to reject any or all bids.

LILLIE WALKER, DIRECTOR
PURCHASING SECTION

Publish December 15, 1988

PROJECT NUMBER CH 8802
PROJECT Courthouse Jury Room Remodel, 302, 412
LOCATION 1021 S.W. 4th Avenue
KIND OF WORK Remodeling (General Bldg. Construction)
SUBMITTED BY Facilities & Property Management
BID NUMBER B61-100-3255
BID ADVERTISEMENT DATES December 15, 1988
BID OPENING DATE January 3, 1989

BIDDING PAGES FOR CONSTRUCTION



**MULTNOMAH
COUNTY**

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES AND PROPERTY MANAGEMENT DIVISION
2505 S.E. 11TH AVENUE
PORTLAND, OREGON 97202
(503) 248-3322

BIDDER'S NAME _____
ADDRESS _____

TELEPHONE NUMBER _____

FOR BID RESULTS, CALL
248-5338
AFTER 3:00 P.M.

BIDDING PAGES FOR CONSTRUCTION

These Bidding Pages are Part I of the Bid Documents and contain the following:

- ☐ Section 00100 Bid Form
- ☐ Section 00130 Bid Bond
- ☐ Section 00160 Minority/Women Business Enterprise
(MBE/WBE) Utilization Form
- ☐ Section 00170 Bidder Residency Statement
- ☐ Return Envelope

Instructions to Bidders

Section 00100 Bid Form:

Complete form and sign where indicated.
See Section 00200, Article 4.

Section 00130 Bid Bond:

Bid Bond shall be made payable to Multnomah County, in an amount of ten (10) percent of the Bidder's maximum Bid price and in the form of a certified check, cashier's check or a Bid Bond on form similar to Section 00130 Bid Bond issued by a Surety meeting the requirements of paragraph 5.1 of the General Conditions.

**Section 00160 MBE/WBE
Utilization Form:**

This form will only be included if there is a requirement for MBE and/or WBE participation on this Bid. Fill out the form completely to be eligible for bidding. See Sections 00050 "Invitation to Bid" and 00800 "Supplementary Conditions" in the Project Manual.

**Section 00170 Bidder
Residency Statement:**

This form must be completed and signed to be eligible for bidding.

Return Envelope:

Submit these Bidding Pages in the sealed envelope before the deadline given in the Project Manual.

SECTION 00100 BID FORM

1. The undersigned Bidder proposes and agrees if this bid is accepted, to enter into an Agreement with Multnomah County in the form included in the Contract Documents to complete all Work as specified or indicated in the Contract Documents for the Contract Price, within the Contract Time indicated in this Bid, and in accordance with the Contract Documents.
2. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid Security. Bidder will sign the Agreement and submit the Performance Bond and other documents required by the Contract Documents within five (5) days after receiving Multnomah County's Notice of Award.
3. In submitting this Bid, Bidder represents as more fully set forth in the Agreement, that:

- (a) Bidder has examined copies of all the Bid Documents and of the following addenda:

Date _____	Number _____
Date _____	Number _____
Date _____	Number _____
Date _____	Number _____

(receipt of all of which is hereby acknowledged) and also copies of the Advertisement of Invitation to Bid and the Instructions to Bidders.

- (b) Bidder has examined the site and locality where the Work is to be performed, the legal requirements (federal, state and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as Bidder deems necessary.
- (c) This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or a corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for himself any advantage over any other Bidder or over Multnomah County.
- (d) The undersigned certifies conformance with provisions of ORS 279.350 (prevailing wages), Executive Order 11246, and with applicable federal acts, and state regulations concerning affirmative action toward equal employment opportunities, pursuant to Section 00820, Equal Employment Opportunity Provisions.

BIDDER will complete the Work for the following price(s):

BASIC BID:

_____ \$ _____

ALTERNATES:

NONE

TOTAL:

_____ \$ _____

This Work must be completed within 45 calendar days from the time the Notice to Proceed is given by the Owner.

BIDDER accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work on time.

Accompanying this proposal is _____
("Bidder's Bond", "Cash", or "Certified Check")
in the amount of _____ Dollars (\$ _____),
which amount is not less than ten (10) percent of the total amount of the bid.

The party submitting this proposal, and entering into the contract in case
the award is made to him, is: _____
("an individual", "a partnership", "a corporation")
entitled:

Name

Mailing Address

Telephone Number

State of Incorporation

The names of the president, treasurer and manager of the bidding cor-
poration, or the names and residences of all persons and parties intertested in
this proposal as partners or principals are as follows:

NAME	ADDRESS
_____	_____
_____	_____
_____	_____
_____	_____

Signature of Bidder: _____ Name
_____ Title
_____ Date

The name of the surety by which the surety bond covering the contract, if
awarded, will be furnished, and the name and address of the surety's local agent
are as follows:

Name of Surety _____

Name of Agent _____

Address _____

SECTION 00130

BID BOND

KNOW ALL MEN BY THESE PRESENTS, That we, _____

_____ as principal and the corporation
duly organized under the laws of the State of _____ having its
principal place of business at _____ in the

State of _____, and authorized to do business in the State
of Oregon, as surety, are held and firmly bound unto the County of Multnomah for
payment as liquidated damages in the amount of ten (10) percent of the total
amount of the bid of said principal for the work hereinafter described, for the
payment of which, well and truly to be made, we bind ourselves, our heirs, exe-
cutors, administrators and assigns and successors and assigns, firmly by the
presents.

The condition of this bond is such that, whereas the principal herein is
herewith submitting his or its proposal for the following construction, to-wit:

said bid and proposal, by reference thereto being hereby made a part thereof.

NOW, THEREFORE, if the said proposal and bid submitted by the said principal
be accepted, and the contract be awarded to said principal, and if the said
principal shall enter into and execute the said contract and shall furnish bond
as required by the County Executive within the time fixed by Multnomah County,
then this obligation shall be void; otherwise to remain in full force and
effect.

SIGNED and sealed this _____ day of _____

Principal

Countersigned at _____

this _____ day of _____.

Surety

SECTION 00170

BIDDER RESIDENCY STATEMENT

The 1987 Oregon Legislative Assembly enacted a reciprocal preference law which states, in part:

In determining the lowest responsible bidder, a public contracting agency shall, for the purpose of awarding the contract, add a percent increase on the bid of a non-resident bidder equal to the percent, if any, of the preference given to that bidder in the state in which the bidder resides.

"Resident bidder" means a bidder that has paid unemployment taxes or income taxes in this state during the 12 calendar months immediately preceding submission of the bid, has a business address in this state, and has stated in the bid whether the bidder is a "resident bidder" ...

"Nonresident bidder" means a bidder who is not a "resident bidder" as defined

1. CHECK ONE: Bidder is ☐ A resident bidder ☐ A nonresident bidder

2. If a resident bidder, enter your Oregon business address:

3. If a nonresident bidder, enter state of residency: _____

Bidder certifies that the information provided above is true and accurate.

Signature: _____ Title _____

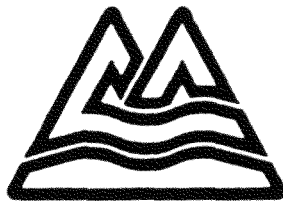
Name (Print or Type) _____

Firm: _____

Telephone: _____ Date _____

PROJECT NUMBER CH 8802
PROJECT Courthouse Jury Room Remodel, 302, 412
LOCATION 1021 S.W. 4th Avenue
KIND OF WORK Remodeling (General Bldg. Construction)
SUBMITTED BY Facilities & Property Management
BID NUMBER B61-100-3255
BID ADVERTISEMENT DATES December 15, 1988
BID OPENING DATE January 3, 1989

PROJECT MANUAL FOR CONSTRUCTION



**MULTNOMAH
COUNTY**

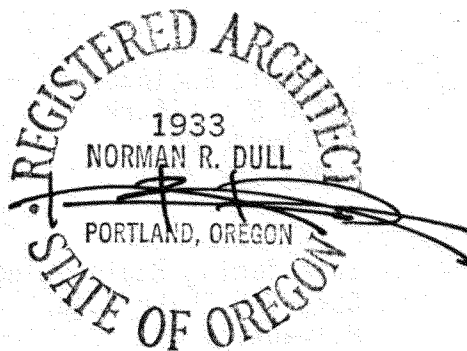
**DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES AND PROPERTY MANAGEMENT DIVISION**

**2505 S.E. 11TH AVENUE
PORTLAND, OREGON 97202**

(503) 248-3322

PROJECT MANUAL
for
JURY ROOM REMODEL
AT
MULTNOMAH COUNTY COURTHOUSE
PORTLAND, OREGON

November 1988



Dull Olson Weekes Architects
115 NW 1st Avenue, Suite 301
Portland, Oregon 97209

MULTNOMAH COUNTY PROJECT MANUAL

DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES AND PROPERTY MANAGEMENT DIVISION

2505 S.E. 11TH AVENUE

PORTLAND, OR 97202

(503) 248-3322

PROJECT NO. CH 8802

ARCHITECTS:

Dull Olsen Weeks Architects
115 N.W. 1st Avenue, Suite 301
Portland, OR 97209
(503) 226-6950

STRUCTURAL ENGINEERS:

None

MECHANICAL ENGINEERS:

McGinnis Engineering
12740 S.E. Stark
Portland, OR
(503) 252-2431

ELECTRICAL ENGINEERS:

Interfacing Engineering
6542 S.E. Lake Road
Milwaukie, OR
(503) 659-6394

PROJECT MANAGER:

Lennie Sobocinski
Facilities Management
2505 S.E. 11th
Portland, OR 97202
(503) 248-3322

PURCHASING DIRECTOR:

Lillie M. Walker
Purchasing Section
2505 S.E. 11th
Portland, OR 97202
(503) 248-5111

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00200	INSTRUCTIONS TO BIDDERS (3 PAGES) DEFINED TERMS COPIES OF BID DOCUMENTS BIDDING PAGES BID FORM BID BOND SUBMISSION OF BIDS MODIFICATION AND WITHDRAWAL OF BIDS PRIOR TO BID OPENINGS PREQUALIFICATION EXAMINATION OF BID DOCUMENTS AND SITE INTERPRETATIONS CANCELLATION
00500	PERFORMANCE PAYMENT BOND (2 PAGES)
00650	CONTRACT AWARD PROCEDURES (2 PAGES) WITHDRAWAL OF BIDS AFTER BID OPENING AWARD OF CONTRACT BID AND PERFORMANCE BONDS SIGNING OF AGREEMENT SPECIAL LEGAL REQUIREMENTS COMMENCING WORK
00700	CONTRACT AGREEMENT (3 PAGES) GUARANTEE AND MAINTENANCE OF CONSTRUCTION CONTRACT DOCUMENTS/PAYMENTS
00800	SUPPLEMENTARY CONDITIONS (2 PAGES) DEFINITIONS/BONDS AND INSURANCE CONTRACTOR'S RESPONSIBILITIES/OWNER'S RESPONSIBILITIES
00820	EQUAL EMPLOYMENT OPPORTUNITY PROVISIONS (7 PAGES)
00825	MONTHLY EMPLOYMENT UTILIZATION REPORT (2 PAGES)
00850	PREVAILING WAGE RATES (BOLI) (16 PAGES) PAYROLL AND CERTIFIED STATEMENT (2 PAGES) INSTRUCTIONS STATEMENT (6 PAGES)
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 CONTINUED OCCUPANCY/PARTIAL OCCUPANCY
 OWNER-FURNISHED PRODUCTS/SAFETY AND HEALTH STANDARDS

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END OF SECTION

DIVISION 0
SECTION 00050 INVITATION TO BID

Prospective bidders are invited to submit sealed bids for a General Contract with Multnomah County to perform work. The specific work is briefly described in Section 01010 "Summary of Work" and described in detail throughout the Project Manual and Drawings (if drawings are used).

BID DOCUMENTS

The Bid Documents (Bidding Pages, Project Manual, and Drawings) may be examined and copies may be obtained from the:

Multnomah County Purchasing Section
2505 S.E. 11th Avenue
Portland, Oregon 97202

BID SUBMITTAL

Sealed bids, prepared according to the following Section "Instructions to Bidders," should be addressed and submitted to:

Purchasing Director
Multnomah County Purchasing Section
2505 S.E. 11th Avenue
Portland, Oregon 97202

The Purchasing Director will receive sealed bids until exactly 2:00 p.m. on January 3, 1989, at the Purchasing Section. Bids received after that time will not be accepted. Bids will be opened publicly and read aloud.

<p>FAILURE TO MEET ANY OF THE REQUIREMENTS BELOW WILL BE SUFFICIENT JUSTIFICATION TO REJECT A BID.</p>

MANDATORY BIDDING REQUIREMENTS

Bidders are required to attend a prebid conference on Thursday, December 20, 1988, at 9:30 a.m., at 1020 S.W. 4th Avenue, Portland, Oregon, 4th Floor Stair Lobby, East Entry. Attendance is mandatory for bid eligibility. Participants will be required to sign an attendance roster to document participation in conference.

Bids must be on a single fixed price basis (see "Bidding Pages", Section 00100 "Bid Form").

Bidders must submit written bids on the Bid Form included in the Part I Bidding Pages. Fill in all blank spaces to demonstrate apparent intent to comply. Submit only Part I. The Project Manual (Part II) does not need to be returned with the Bidding Pages.

SECTION 00200

INSTRUCTIONS TO BIDDERS

ARTICLE 1: Defined Terms

- 1.1 Terms used in these Instructions to Bidders have the meanings which are assigned to them in the Standard General Conditions of the Construction Contract, NSPE-ACEC Document 1910-8, CSI 56465 (1978 editions).
- 1.2 The term "Successful Bidder," pursuant to Chapter 279 of the Oregon Revised Statutes, means the lowest, qualified, responsible Bidder to whom Multnomah County makes an award.

ARTICLE 2: Copies of Bid Documents

- 2.1 Complete sets of the Bid Documents for the fee stated in the Advertisement and Invitation may be obtained from the Purchasing Director of Multnomah County.
- 2.2 Complete sets of Bid Documents shall be used in preparing Bids; neither Multnomah County nor Architect/Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bid Documents.
- 2.3 Multnomah County makes copies of Bid Documents available on the above term solely for the purpose of obtaining Bids on the work and does not confer a license for any other use.

ARTICLE 3: Bidding Pages

- 3.1 The Bidding Pages, titled Part I of the Bid Documents, are separate from the Project Manual. Only (General) Contractors acting as Bidders need to receive and complete the Bidding Pages. Subcontractors and suppliers to the Bidders need only the Project Manual and Drawings.
- 3.2 The Bidding Pages consist of the Bid Form, the Bid Bond, the return envelope, and, when applicable, the Minority/Women Business Enterprise (MBE/WBE) Utilization Form.

ARTICLE 4: Bid Form

- 4.1 Section 00100 Bid Form is included in the Bidding Pages, Part I of the Bid Documents. Additional copies may be obtained from Multnomah County.
- 4.2 Bid Forms must be completed in ink or by typewriter. The Bid price of each item on the form must be stated in words and numerals; in case of a conflict, words will take precedence.
- 4.3 Bids by Corporations must be executed in the Corporate name by a Corporate officer authorized to sign. The Corporate address and state of incorporation shall be shown below the signature.

- 4.4 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature. The official address of the partnership must be shown below the signature.

ARTICLE 5: Bid Bond

Bid Bond shall be made payable to Multnomah County, in an amount of ten (10) percent of the Bidder's maximum Bid price and in the form of a certified check, cashier's check or a Bid Bond on form similar to Section 00130 Bid Bond issued by a Surety meeting the requirements of paragraph 5.1 of the General Conditions.

ARTICLE 6: Submission of Bids

Bids shall be submitted at the time and place indicated in the Invitation to Bid and shall be included in the envelope provided which shall be marked with the Project title, bid number, and name and address of the Bidder and accompanied by the Bid Security and the Bidding Pages.

ARTICLE 7: Modification and Withdrawal of Bids Prior to Bid Opening

Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

ARTICLE 8: Prequalification

Prequalification of contractors for public improvements in excess of \$50,000 shall be mandatory, pursuant to the Multnomah County Public Contract Review Board's Administrative Rule 40.030.

The County may, in its discretion, also require prequalification of contractors for public improvements to be less than \$50,000.

All persons desiring to bid for contracts requiring prequalification shall submit a completed prequalification statement. Such statements must be actually received or postmarked to Multnomah County Purchasing Section by not later than 10 days prior to bid opening.

Contractors may, if they choose, prequalify with the State of Oregon, such prequalification having the same effect as prequalification with the County. For County purposes, a copy of the letter of notification of prequalification and photocopy of the State application booklet shall constitute proof of presumed prequalification to the monetary level specified by the State, pursuant to ORS 279.047. Such statements of proof of prequalification must be actually received or postmarked to Multnomah County Purchasing Section by not later than 10 days prior to bid opening.

Details of compliance are available from the Purchasing Section, Department of General Services, 2505 S.E. 11th Avenue, Portland, Oregon 97202, (503) 248-5111.

ARTICLE 9: Examination of Bid Documents and Site

- 9.1 Before submitting a Bid, each Bidder must: (a) examine the Bid Documents thoroughly; (b) visit the site to become familiar with local conditions that may in any manner affect cost, progress or performance of the Work; (c) become familiar with federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost, progress or performance of the Work; and (d) study and carefully coordinate Bidder's observations with the Bid Documents.
- 9.2 Before submitting the Bid, each Bidder will, at no expense to the County, make such additional investigations and tests as the Bidder may deem necessary to determine the Bid for performance of the Work.
- 9.3 On request, and up to five (5) days before Bid opening, Owner will provide each Bidder access to the site to conduct such investigations and tests as each Bidder deems necessary for submission of the Bid.
- 9.4 The submission of a Bid will constitute an indisputable representation by the Bidder that Bidder has complied with every requirement of this Article 9 and that the Bid Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of Work.

ARTICLE 10: Interpretations

- 10.1 Questions about the meaning or intent of the Bid Documents shall be submitted to the Purchasing Director in writing. The envelope shall be clearly marked "QUESTION REGARDING BID NO. _____." Replies will be issued by Addenda mailed or delivered to all parties recorded by Multnomah County as having received the Bid Documents.
- 10.2 Questions received less than seven (7) days prior to the date for opening of Bids will not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

ARTICLE 11: Cancellation

- 11.1 Multnomah County reserves the right to cancel award of this contract at any time before execution of the contract by both parties if cancellation is deemed to be in Multnomah County's best interest. In no event shall Multnomah County have any liability for the cancellation of award. The bidder assumes the sole risk and responsibility for all expenses connected with the preparation of its bid.

PERFORMANCE - PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: That we _____
(Name of Contractor)

a _____ hereinafter called "Principal" and
(Corporation, Partnership, or Individual)

_____ of _____, State of _____,
(Surety)

hereinafter called the "Surety", are held and firmly bound unto Multnomah County, Oregon, hereinafter called "County"

in the penal sum of _____ Dollars (\$ _____)
in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs,
executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered into a certain contract with the
County, dated the _____ day of _____, 19____, a copy of which is hereto attached and made
a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, in accordance with all the
undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any
extensions thereof which may be granted by the County, with or without notice to the Surety, and if he shall satisfy all
claims and demands incurred under such contract, and shall fully indemnify and save harmless the County from all costs and
damages which it may suffer by reason of failure to do so, and shall reimburse and repay the County for all outlay and
expense which the County may incur in making good any default, and shall promptly make payment to all persons, firms,
subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in
such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil,
gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of
such work, and all insurance premiums on said work and shall pay and cause to be paid not less than the prevailing rate of
wages as of the date of his bid in Multnomah County, per hour, per day, and per week for and to each and every workman
who may be employed in and about the performance of his contract and shall pay all contributions or amounts due the State
of Oregon or departments thereof pursuant to state law from such contractor or subcontractors incurred in the performance
of said contract, and pay all sums of money withheld from the contractor's employees and payable to the State Tax
Commission pursuant to ORS; and shall pay all other debts, dues and demands incurred in the performance of the said
contract and shall pay the County of Multnomah, by and through its Board of County Commissioners, such damages as may
accrue to the County under said contract and for all labor performed in such work, whether by subcontractor or otherwise,
and shall in all respects perform said contract according to law, then this obligation shall be void; otherwise to remain in full
force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no charge, extension
of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications
accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such
change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that for one year after the completion of the construction described in said Contract, and in
addition to all previously stated obligations, undertakings, covenants, terms, conditions and agreements, the Surety agrees to
keep in force this bond to insure and guarantee that the Principal will fulfill his obligation of restoration and maintenance of
subject property for a period of one (1) year beginning immediately at the time of completion of construction described in
the Contract. The terms and conditions and agreements of restoration and maintenance are more particularly described in the
Proposal.

PROVIDED, FURTHER, that no final settlement between the County and the Principal shall abridge the right of any
beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in five (5) counterparts, each one of which shall be deemed as original, this the _____ day of _____, 19 ____.

ATTEST:

Principal

By _____ (S)

(Principal) Secretary

(SEAL)

(Address - Zip Code)

Witness as to Principal

(Address - Zip Code)

ATTEST:

Surety

By _____

(Surety) Secretary

Attorney-in-Fact

(SEAL)

(Address - Zip Code)

Witness to Surety

(Address - Zip Code)

APPROVED AS TO FORM:

JOHN B. LEAHY

County Counsel

By _____

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute bond.

ARTICLE 1: Withdrawal of Bids After Bid Opening

If, within twenty-four hours after Bids are opened, any Bidder files a duly signed written notice with Multnomah County Purchasing Director and promptly thereafter demonstrates to the reasonable satisfaction of Multnomah County that there was a material and substantial mistake in the preparation of his Bid, that Bidder may withdraw his Bid and the Bid Security will be returned.

ARTICLE 2: Award of Contract

- 2.1 Multnomah County reserves the right to reject any and all Bids, to waive any and all informalities and to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, unresponsive or conditional Bids. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.
- 2.2 If the contract is to be awarded, Multnomah County will give the Successful Bidder a Notice of Award within thirty days after the day of the Bid opening.

ARTICLE 3: Bid and Performance Bonds

- 3.1 Paragraph 5.1 of the General Conditions and the Supplementary Conditions set forth Multnomah County's requirements as to performance and other Bonds. When the Successful Bidder delivers the executed Agreement to Multnomah County, it shall be accompanied by a Performance Bond in the full amount of the contract. The bond must be satisfactory to the County Chair in the full amount of the contract price for the faithful performance of the contract in all respects. No contract shall be binding until said bond is furnished and approved by the County Chair of Multnomah County and, if said bond is not furnished within the said five (5) days herein specified, the contract shall be immediately terminated without any notice of further action by either party.
- 3.2 The Bid Bond of the Successful Bidder will be retained until such bidder has executed the Agreement and furnished the required Contract Performance Bond whereupon it will be returned.
- 3.3 The Bid Bond of the three apparent lowest Bidders may be retained by Owner until either the fifteenth day after the Notice of Award is given by Multnomah County and the required Contract Security is furnished, or the forty-sixth day after the Bid opening, whichever is less. Bid Bonds of other Bidders will be returned within fifteen days after the Bid opening.

ARTICLE 4: Signing of Agreement

When Multnomah County gives a Notice of Award to the Successful Bidder, it will be accompanied by at least four unsigned duplicates of the Agreement and all other Contract documents. Within five days thereafter, Contractor will sign and deliver at least four duplicates of the Agreement to Multnomah County with all other Contract Documents attached. Within ten days thereafter, Multnomah County will deliver all fully signed duplicates to Contractor.

ARTICLE 5: Special Legal Requirements

- 5.1 The Contract shall be made expressly conditional upon future appropriations by the Board of County Commissioners to fund its provisions, in the event that performance and payment extends into the fiscal year subsequent to the year of award.
- 5.2 The Contractor in performing his contract will pay and will cause to be paid by his subcontractors not less than the prevailing rate of wages as called out in the Project Manual for Multnomah County, per hour, per day, and per week for and to each and every workman who may be employed in and about the performance of his contract.

ARTICLE 6: Commencing Work

No work may be commenced by the Contractor until the contract and bond are submitted to the County Chair; and the Project Manager shall, in writing, notify the Contractor of a specific date when he shall proceed with the work and this will be used as a basis of beginning to determine working days.

SECTION 00700

CONTRACT AGREEMENT

THIS AGREEMENT, made and entered into, in quintuplicate, this
by and between Multnomah County, Oregon, hereinafter called the County, the part
of the first part, and *

hereinafter called the Contractor, part of the second part.

WITNESSETH, That the said Contractor, in consideration of the sums to be
paid to him by said County in the manner and at the times hereinafter provided,
and of the other covenants and agreements herein contained, hereby agrees, for
himself, his heirs, administrators, successors and assigns, to perform and to
complete the work hereinbefore described, furnishing the necessary machinery,
tools, apparatus, materials, and labor, and doing all things in accordance with
such modifications of the same and other directions as may from time to time be
made or given by the Director of Environmental Services.

GUARANTEE AND MAINTENANCE OF CONSTRUCTION:

The Contractor further guarantees any and all work performed by him under
this contract against defective or improper workmanship or materials, the terms
of the guarantee being set out in the general provisions, and he agrees to make
such repairs and to do such other work as may be necessary to maintain the same
in good condition, making such repairs and doing such other work under and in
accordance with the terms and conditions also described in the general
provisions.

* Give here the name of the contractor, the form of organization, the recognized
address and the names of the president, treasurer and manager or the names of
all co-partners.

CONTRACT DOCUMENTS:

It is further agreed that said plans and specifications on file with the Purchasing Director and also the general provisions, construction details, special provisions and schedule of contract prices, annexed to this contract agreement, are hereby specifically referred to and made a part of this contract, and shall have the same force and effect as though all of the same were fully inserted herein.

The Contractor further agrees to promptly, as due, make payments to all persons supplying to such Contractor labor or material for the prosecution of the work provided for herein, and that said Contractor shall not permit any lien or claim to be filed or prosecuted against the County, on account of any labor or material furnished, and that no person shall be employed by said Contractor for more than eight hours in any one day, or forty hours in any one week unless in case of necessity, emergency, or where the public policy absolutely requires it, and in such cases such laborer shall be paid at least time-and-a-half pay for all overtime in excess of eight hours a day, and for work performed Saturdays and on legal holidays.

The Contractor covenants and agrees that in performing his contract he will pay and cause to be paid not less than the prevailing rate of wages as of the date of his bid in Multnomah County, per hour, per day, and per week for and to each and every workman who may be employed in and about the performance of this contract.

In the event that said Contractor fails, neglects, or refuses to make prompt payment of any claim for labor or services furnished by any person in connection with this contract as said claim becomes due, whether said services and labor be performed for said Contractor or for a subcontractor, then, and in such event, the County may pay such claim to the person or persons furnishing such labor or services and charge the amount thereof against funds due or to become due said Contractor by reason of this contract. The payment of any such claim in the manner herein authorized shall not, however, relieve Contractor or his surety from his or its obligation with respect to any unpaid claims.

The Contractor further agrees that this contract may be cancelled at the election of the County for any wilful failure or refusal on his part to faithfully perform the contract according to its terms and the requirements of Law.

PAYMENTS:

In consideration of the faithful performance of the work herein embraced, as set forth in the contract agreement, general provisions, construction details, special provisions, schedule of contract prices and all general and detailed specifications and plans which are part hereof, in accordance with the directions of the Director of Environmental Services and to his satisfaction, the said County agrees to pay to said Contractor the amount earned computed from the actual quantities of work performed, and to make such payments in the manner and at the times provided in the general provisions hereto appended.

IN WITNESS WHEREOF, said County of Multnomah, acting through the duly authorized County Chair of Multnomah County, executes this contract and the said Contractor does sign and seal the same as of the day and year in this contract first above mentioned.

Attest:

MULTNOMAH COUNTY, OREGON

By

County Chair
Party of the First Part

Contractor
Party of the Second Part

APPROVED AS TO FORM:

In the presence of:

By

County Counsel

Witness

SECTION 00800

SUPPLEMENTARY CONDITIONS

PART 1 - GENERAL

1.1 STATUS OF GENERAL CONDITIONS:

- A. Supplements in this Section modify, change, delete from or add to Section 00900 GENERAL CONDITIONS of the Contract.
- B. Where any Article, Paragraph or subparagraph of the GENERAL CONDITIONS is modified or deleted by these supplements, the unaltered provisions of that Article, Paragraph or subparagraph shall remain in effect.

1.2 MODIFICATIONS TO GENERAL CONDITIONS:

A. DEFINITIONS

- 1. Owner: For the purposes of this Contract, Owner shall be Multnomah County, Oregon, as represented by its authorized representatives for contractual agreements.
- 2. Provide: To furnish, install, connect, finish and maintain a product or material until Substantial Completion.
- 3. Approved: And similar words like approval, acceptable, directed, required, and selected are in reference to the judgment of the Design Professional and/or Owner's Representative.
- 4. Indicated: As shown on Drawings, as called for in the Project Manual or both.

B. BONDS AND INSURANCE

- 1. The insurance required by Paragraphs 5.3 and 5.4 shall be written for not less than the following limits or greater if required by law:
 - a. \$100,000 for bodily injury, sickness, disease or death for each person.
 - b. \$300,000 for bodily injury, sickness, disease or death for each accident.
 - c. \$50,000 for property damage for each accident.
- 2. The Contractor shall furnish one copy each of Certificates of Insurance herein required for each copy of the Agreement which shall specifically set forth evidence of all coverage required by Paragraphs 5.3 and 5.4. The form of the certificate shall be AIA Document G705, Certificate of Insurance. The Contractor shall furnish to the Owner copies of any endorsements that are subsequently issued amending coverage or limits.

3. The form of policy for this coverage shall be completed value.
4. If by the terms of this insurance any mandatory deductibles are required, or if the Owner should elect to increase the mandatory deductible amounts or purchase this insurance with voluntary deductible amounts, the Owner shall be responsible for payment of the amount of the deductible in the event of a paid claim.

C. CONTRACTOR'S RESPONSIBILITIES

Contractor shall comply with applicable provisions of ORS Chapters 187 and 279 and other conditions and terms necessary to be inserted into public contracts in the State of Oregon, as if such provisions were part of this agreement.

D. OWNER'S RESPONSIBILITIES

In performing any acts required of any official of Multnomah County in exercising any power authorized by this Contract, there will be no liability upon said official or authorized agents either personally or as Multnomah County officials, it being understood that they act as agents for and on behalf of Multnomah County for this Contract.

SECTION 00800 SUPPLEMENTARY CONDITIONS

PART 1 - GENERAL

1.1 STATUS OF GENERAL CONDITIONS:

- A. Supplements in this Section modify, change, delete from or add to Section 00900 GENERAL CONDITIONS of the Contract.
- B. Where any Article, Paragraph or subparagraph of the GENERAL CONDITIONS is modified or deleted by these supplements, the unaltered provisions of that Article, Paragraph or subparagraph shall remain in effect.

1.2. MODIFICATIONS TO GENERAL CONDITIONS:

A. DEFINITIONS

- 1. Owner: For the purposes of this Contract, Owner shall be Multnomah County, Oregon, as represented by its authorized representatives for contractual agreements.
- 2. Provide: To furnish, install, connect, finish and maintain a product or material until Substantial Completion.
- 3. Approved: And similar words like approval, acceptable, directed, required, and selected are in reference to the judgment of the Design Professional and/or Owner's Representative.
- 4. Indicated: As shown on Drawings, as called for in the Project Manual, or both.

B. BONDS AND INSURANCE

- 1. The insurance required by Paragraphs 5.3 and 5.4 shall be written for not less than the following limits or greater if required by law:
 - a. \$100,000 for bodily injury, sickness, disease or death for each person.
 - b. \$300,000 for bodily injury, sickness, disease or death for each accident.
 - c. \$50,000 for property damage for each accident.
- 2. The Contractor shall furnish one copy each of Certificates of Insurance herein required for each copy of the Agreement which shall specifically set forth evidence of all coverage required by Paragraphs 5.3 and 5.4. The form of the certificate shall be AIA Document G705, Certificate of Insurance. The Contractor shall furnish to the Owner copies of any endorsements that are subsequently issued amending coverage or limits.

3. The form of policy for this coverage shall be completed value.
4. If by the terms of this insurance any mandatory deductibles are required, or if the Owner should elect to increase the mandatory deductible amounts or purchase this insurance with voluntary deductible amounts, the Owner shall be responsible for payment of the amount of the deductible in the event of a paid claim.

C. CONTRACTOR'S RESPONSIBILITIES

Contractor shall comply with applicable provisions of ORS Chapters 187 and 279 and other conditions and terms necessary to be inserted into public contracts in the State of Oregon, as if such provisions were part of this agreement.

D. OWNER'S RESPONSIBILITIES

In performing any acts required of any official of Multnomah County in exercising any power authorized by this Contract, there will be no liability upon said official or authorized agents either personally or as Multnomah County officials, it being understood that they act as agents for and on behalf of Multnomah County for this Contract.

E. MINORITY AND WOMEN BUSINESS ENTERPRISE UTILIZATION (MBE/WBE)

The following bid conditions specifically address the utilization of Minority and Women Business Enterprises in awarding public works contracts by Multnomah County in accordance with the Public Contract Review Board's (PCRB) Administrative Rules, Division 60.

1. Multnomah County uses the following definitions throughout the project manual:
 - a. Minority Business Enterprise: A business concern which is at least 51% owned by one or more minority individuals, or in the case of a corporation, at least 51% of the stock which is owned by one or more minority individuals and whose management and daily business operations are controlled by one or more of the minority stockholders.
 - b. Minority Individual: A person who is a citizen or lawful permanent resident of the United States and who also is a:
 - (1) Black American or person having origins in any of the Black racial groups of Africa.
 - (2) Hispanic American or person of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race.
 - (3) Native American or person who is an American Indian, Eskimo, Aleut or Native Hawaiian.

- (4) Asian-Pacific American or person whose origin is from Japan, China, Taiwan, Korea, Vietnam, Laos, Cambodia, the Phillipines, Samoa, Guam, the United States Trust Territories of the Pacific or the Northern Marianas.
 - (5) Asian-Indian American or person whose origin is from India, Pakistan or Bangladesh.
 - c. Women Business Enterprise (WBE): A business at least 51 percent of which is owned by women or, in the case of a corporation, at least 51 percent of the stock of which is owned by women and whose management and daily business operations are controlled by one or more women stockholders.
 - d. Set-Aside Program: Refers to contracts subject to bid and/or award to Minority Business Enterprises and Women Business Enterprises only.
 - e. Hereinafter Minority Business Enterprises and Women Business Enterprises may be abbreviated to read MBE and WBE, respectively.
- 2. All bidders are hereby advised that these conditions require a minimum of the percentage of the total bid amount for Minority and Women Business Enterprise participation as listed in Section 00050 "Invitation to Bid."
 - 3. Commitment to MBE/WBE utilization by the contractor shall be a condition of award of the contract pursuant to PCRB's Administrative Rules, Division 60.
 - 4. **Multnomah County honors Oregon State Executive Department's certification only.** Multnomah County will maintain a list of certified MBE/WBEs which may be obtained from the Purchasing Section, 2505 S.E. 11th Avenue, Portland, Oregon, 97202, (503) 248-5111. Multnomah County does not guarantee the current certification status of the firms listed in the directories. The furnishing of this information is neither a recommendation nor a representation of the qualifications or availability of the firms.
 - 5. The Prime Contractor shall be required to indicate MBE/WBE utilization equal to or greater than the project goal; or, indicated best efforts to attain the goal to be considered a responsive bidder.
 - a. To document the intent to fulfill the MBE/WBE utilization requirement, all Bidders are required to complete a Minority/Women Business Enterprise Utilization Form and include it with the bid documents. With submission of the bid, all bidders must identify MBE and WBE subcontractors to be utilized, the work to be performed, and dollar amount of subcontracted work. Subcontractors listed in the bid shall not be replaced without prior written approval of the County Purchasing Director; doing so shall be grounds for a contract award to be refused by the County.
 - b. If a bidder has not met the MBE/WBE requirements but had applied good faith efforts, the contractor must write in "good faith applied." No documentation of good faith effort would have to be included with bid forms. However, all good faith efforts must have been done prior to bid opening.

- b. If a bidder has not met the MBE/WBE requirements but had applied good faith efforts, the contractor must write in "good faith applied." No documentation of good faith effort would have to be included with bid forms. However, all good faith efforts must have been done prior to bid opening.
 - c. With submission of the bid, all Bidders must identify MBE and WBE subcontractors to be utilized, the work to be performed and dollar amount of subcontracted work. Subcontractors listed in the bid shall not be replaced without prior written approval of the County's Purchasing Director: doing so shall be grounds for a contract award to be refused by the County.
6. Only expenditures to MBE/WBEs that perform a substantial and commercially useful function in the work of a contract may be counted by a bidder toward the bidder's MBE/WBE goal.
- a. An MBE/WBE is considered to perform a substantial and commercially useful function when it is responsible for execution of a distinct element of the work of a contract in carrying out its responsibilities by actually performing, managing, and supervising the work involved.
 - b. In the event that questions arise, or an appeal or protest is filed, the County, at its option, may determine whether an MBE/WBE is performing a substantial and commercially useful function by evaluating the amount of work subcontracted, industry practices, experience, key personnel and equipment, and other relevant factors, including without limitation whether the supplier is supplying items from an inventory owned by the MBE/WBE and whether the MBE/WBE is at a bona fide selling level in the normal line of distribution for the product supplied and has a written agreement with the manufacturer for items not normally held in inventory such as large pieces of equipment.
 - c. It is possible for an MBE/WBE to be certified as MBE/WBE but be engaged in activities that are not considered a substantial and commercially useful function by the County. When this occurs, the County will not consider participation by these MBE/WBEs as counting toward fulfillment of the Bidder's MBE/WBE requirement.
7. Requirements for MBE and WBE participation is counted in accordance with the following:
- a. The total dollar value of a contract or subcontract awarded to MBE, prime contractors or subcontractors, is counted toward the MBE goals. If an MBE firm subcontracts to a non MBE firm, only that portion of the work performed by the MBE will be counted towards the goal.

- b. The total dollar value of a contract or subcontract awarded to WBE, prime contractors or subcontractors, is counted toward the WBE goals. If a WBE firm subcontracts to a non WBE firm, only that portion of the work performed by the WBE will be counted towards the goal. A business owned by minority women may be counted toward fulfillment of the goal for the participation of women business enterprises and/or minority business enterprises.
 - c. In joint venture contracts or subcontracts, the maximum dollar value counted toward the MBE or WBE goal is equal to the percentage of participation and control of the MBE/WBE partner.
 - d. Expenditures for materials or supplies obtained from MBEs or WBEs will be counted 100%. Where a MBE or WBE acts as a broker or agent, only the commission or fee earned may be counted towards the contractor's goals. This commission or fee will not be counted if the MBE or WBE performs no substantive service.
8. The prime contractor shall be required to indicate MBE/WBE utilization equal to or greater than the project goal, or indicate good faith effort to attain the goal to be considered a responsive bidder. Performing all of the following actions by a bidder constitutes a rebuttable presumption that the bidder has made a good faith effort to satisfy the subcontracting requirement:
- a. The bidder attended any presolicitation or prebid meetings that were scheduled by the contracting agency to inform minority business enterprises of contracting and subcontracting or material supply opportunities available on the project;
 - b. The bidder identified and selected specific economically feasible units of the projects to be performed by minority business enterprises in order to increase the likelihood of participation by such enterprises;
 - c. The bidder advertised in general circulation, trade association, minority and trade oriented publications, if any, concerning the subcontracting or material supply opportunities;
 - d. The bidder provided written notice to a reasonable number of specific minority business enterprises, identified from a list of certified minority business enterprises provided or maintained by the City, soliciting bids for the selected subcontracting or material supply work, in sufficient time to allow the enterprises to participate effectively;
 - e. The bidder followed up initial solicitations of interest by contacting the enterprises to determine with certainty whether the enterprises were interested;

- f. The bidder provided interested minority business enterprises with adequate information about the plans, specifications and requirements for the selected subcontracting or material supply work;
- g. The bidder negotiated in good faith with the enterprises, and did not without justifiable reason reject as unsatisfactory bids prepared by any minority business enterprises;
- h. Where applicable, the bidder advised and made efforts to assist interested minority business enterprises in obtaining bonding, lines of credit or insurance required by the contracting agency or contractor; and
- i. The bidder's efforts to obtain minority business enterprise participation were reasonably expected to produce a level of participation sufficient to meet the goals or requirement of the public contracting agency.

9. No substitutions of subcontractors is allowed after bid opening until the bid has been awarded.

MBE/WBE subcontractors listed in the bid may be replaced after the bid award only with prior approval of the Purchasing Director. Failure to obtain the Purchasing Director's approval may be grounds for the County to cancel the contract and/or assess liquidated damages.

10. If a circumstance arises after the award that reduces MBE and WBE participation, the following procedures will be followed:

- a. The contractor shall contact the Director of Purchasing in writing within five working days and request a meeting with the Director. Failure to do so may result in the cancellation of the contract and/or assessment of liquidated damages.
- b. At the meeting, the contractor shall present the Purchasing Director with the circumstances which brought about the reduction in MBE and WBE participation and what actions are planned to bring the MBE and WBE participation back to the goal.
- c. The Purchasing Director shall evaluate the circumstances that brought about the reduction and determine if the reduction warrants:
 - (1) Assessment of liquidated damages, or
 - (2) Acceptance of the contractor's circumstances as being beyond contractor's control.
 - (3) If the Purchasing Director assesses liquidated damages, the amount will be determined at the completion of the contract, based on the difference between the contract qualifying percentage and the actual percentage of MBE and WBE participation. The percentage difference will be multiplied by the contract price, excluding change orders, and the product will be the amount of liquidated damages.

Section 00820 EQUAL EMPLOYMENT OPPORTUNITY PROVISIONS
Portland Area Affirmative Action Plan
For All Construction Contracts to be Awarded in
Multnomah County, Oregon

EACH BIDDER, CONTRACTOR OR SUBCONTRACTOR (HEREINAFTER THE CONTRACTOR) MUST FULLY COMPLY WITH PART II OF THESE BID CONDITIONS AS TO EACH CONSTRUCTION TRADE IT INTENDS TO USE ON THIS CONSTRUCTION CONTRACT AND ALL OTHER CONSTRUCTION WORK IN MULTNOMAH COUNTY DURING THE PERFORMANCE OF THIS CONTRACT OR SUBCONTRACT. THE CONTRACTOR COMMITS ITSELF TO THE GOALS FOR MINORITY UTILIZATION IN PART II, AND ALL OTHER REQUIREMENTS, TERMS AND CONDITIONS OF THESE BID CONDITIONS BY SUBMITTING A PROPERLY SIGNED BID.

THE CONTRACTOR SHALL APPOINT A COMPANY EXECUTIVE TO ASSUME THE RESPONSIBILITY FOR THE IMPLEMENTATION OF THE REQUIREMENTS, TERMS AND CONDITIONS OF THESE BID CONDITIONS.

PART I

Effective December 1, 1975, the Office of Federal Contract Compliance Programs eliminated Part I of the bid conditions of the Portland Area Affirmative Action Plan and directed that all crafts be placed under Part II of said bid conditions.

PART II

A. Coverage. The provisions of Part II shall be applicable to all Multnomah County Contracts, since they are within the Portland Plan Area.

B. Requirement--An Affirmative Action Plan. Contractors described in "A. Coverage" above shall be subject to the provisions and requirements of Part II of these bid conditions including the goals and timetables for minority^{1/} utilization, and specific affirmative action steps set forth in Sections B.1 and 2 of this Part II. The contractor's commitment to the goals for minority utilization as required by this Part II constitutes a commitment that it will make every good faith effort to meet such goals.

^{1/} "Minority" is defined as including Blacks, Hispanics, American Indians, and Asian and Pacific Islanders, both men and women.

1. Goals and Timetables - The goals of minority utilization required of the contractor are applicable to each trade used by the contractor in the Portland Plan Area.

For all such trades the goals of minority utilization expressed in percentage terms shall be from 5.5% to 6.5%.

The goals of minority and female utilization above are expressed in terms of hours of training and employment as a proportion of the total number of hours to be worked by the contractor's aggregate work force, which includes all supervisory personnel, in each trade on all projects (both Federal and Non-Federal) in the Portland Plan Area during the performance of its contract (i.e., the period beginning with the first day of work on the construction contract and ending with the last day of work.)

The hours of minority employment and training must be substantially uniform throughout the length of the contract in each trade and minorities must be employed evenly on each of a contractor's projects. Therefore, the transfer of minority employees or trainees from contractor to contractor or from project-to-project for the purpose of meeting the contractor's goals shall be a violation of Part II of these Bid Conditions.

If the contractor counts the nonworking hours of trainees and apprentices in meeting the contractor's goals, such trainees and apprentices must be employed by the contractor during the training period; the contractor must have made a commitment to employ the trainees and apprentices at the completion of their training subject to the availability of employment opportunities; and the trainees must be trained pursuant to training programs approved by the Bureau of Apprenticeship and Training for "Federal Purposes" or approved as supplementing the Portland Plan.

2. Specific Affirmative Action Steps - No contractor shall be found to be in noncompliance with Executive Order 11246, as amended, solely on account of its failure to meet its goals, but shall be given an opportunity to demonstrate that the contractor has instituted all the specific affirmative action steps specified in this Part II and has made every good faith effort to make these steps work toward the attainment of its goals within the timetables, all to the purpose of expanding minority utilization in its aggregate work force in the Portland Plan Area. A contractor subject to Part II which fails to achieve its commitments to the goals for minority utilization has the burden of proving that it has engaged in an affirmative action program directed at increasing minority utilization and that such efforts were at least as extensive and as specific as the following:

a. The contractor should have notified minority organizations when employment opportunities were available and should have maintained records of the organizations' response.

b. The contractor should have maintained a file of the names and addresses of each minority referred to it by any individual or organization and what action was taken with respect to each such referred individual, and if the individual was not employed by the contractor, the reasons therefor. If such individual was sent to the union hiring hall for referral and not referred back by the union or if referred, not employed by the contractor, the file should have documented this and the reasons therefor.

c. The contractor should have promptly notified the contracting or administering agency and the Office of Federal Contract Compliance Programs when the union or unions with which the contractor has collective bargaining agreements did not refer to the contractor a minority sent by the contractor, or when the contractor had other information that the union referral process has impeded efforts to meet its goals.

d. The contractor should have disseminated its EEO policy within its organization by including it in any employee handbook or policy manual; by publicizing it in company newspapers and annual reports, and by advertising such policy at reasonable intervals in union publications. The EEO policy should be further disseminated by conducting staff meetings to explain and discuss the policy; by posting of the policy; and by review of the policy with minority employees.

e. The contractor should have disseminated its EEO policy externally by informing and discussing it with all recruitment sources; by advertising in news media, specifically including minority news media; and by notifying and discussing it with all subcontractors.

f. The contractor should have made both specific and reasonably recurrent written and oral recruitment efforts. Such efforts should have been directed at minority, organizations, schools with substantial minority enrollment, and minority recruitment and training organizations within the contractor's recruitment area.

g. The contractor should have evidence available for inspection that all tests and other selection techniques used to select from among candidates for hire, transfer, promotion, training or retention are being used in a manner that does not violate the OFCCP Testing Guidelines in 41 CFR Part 60-3.

h. The contractor where reasonable, should have developed on-the-job training opportunities and participated and assisted in all Department of Labor funded and/or approved training programs relevant to the contractor's employee needs consistent with its obligations under this Part II.

i. The contractor should have made sure that seniority practices and job classifications do not have a discriminatory effect.

j. The contractor should have made certain that all facilities were not segregated by race.

k. The contractor should have continually monitored all personnel activities to ensure that its EEO policy was being carried out including the evaluation of minority employees for promotional opportunities on a quarterly basis and the encouragement of such employees to seek those opportunities.

1. The contractor should have solicited bids for subcontracts from available minority subcontractors engaged in the trades covered by these Bid Conditions, including circulation of minority contractor associations.

NOTE: The Assistant Regional Administrator of the Office of Federal Contract Compliance Programs and the compliance agency staff will provide technical assistance on questions pertaining to minority recruitment sources, minority community organizations and minority news media upon receipt of a request for assistance from a contractor.

3. Nondiscrimination. In no event may a contractor utilize the goals and affirmative action steps required by this Part II in such a manner as to cause or result in discrimination against any person on account of race, color, religion, sex or national origin.

PART III COMPLIANCE AND ENFORCEMENT

In all cases, the compliance of a contractor will be determined in accordance with its obligations under the terms of these Bid Conditions. Therefore, contractors who are governed by the provisions of Part II shall be subject to the requirements of that Part regardless of the obligations of its prime contractor or lower tier subcontractors.

All contractors performing or to perform work on projects subject to these Bid Conditions hereby agree to inform their subcontractors in writing of their respective obligations under the terms and requirements of these Bid Conditions, including the provisions relating to goals of minority employment and training.

A. Contractors Subject to Part II. In regard to Part II of these Bid Conditions, if the contractor meets the goals set forth therein or can demonstrate that it has made every good faith effort to meet these goals, the contractor shall be presumed to be in compliance with Executive Order 11246, as amended, the implementing regulations and its obligations under Part II of these Bid Conditions. In that event, no formal sanctions or proceedings leading toward sanctions shall be instituted unless the contracting or administering agency otherwise determines that the contractor is violating the Equal Opportunity clause.

Where the agency finds that the contractor failed to comply with the requirements of Executive Order 11246, as amended, the implementing regulations and the obligations under Part II of these Bid Conditions, the agency shall take such action and impose such sanctions, which include suspension,

termination, cancellation, and debarment, as may be appropriate under the Executive Order and its regulations. When the agency proceeds with such formal action it has the burden of proving that the contractor has not met the goals contained in Part II of these Bid Conditions. The contractor's failure to meet its goals shall shift to it the requirement to come forward with evidence to show that it has met the good faith requirements of these Bid Conditions by instituting at least the specific affirmative action steps listed in Part II, Section 2. The pendency of such proceedings shall be taken into consideration by Federal agencies in determining whether such contractor can comply with the requirements of Executive Order 11246, as amended, and is therefore a "responsible prospective contractor" within the meaning of the basic principles of Federal procurement law.

It shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees. Discrimination in referral for employment, even if pursuant to provisions of a collective bargaining agreement, is prohibited by the National Labor Relations Act, as amended, and Title VII of the Civil Rights Act of 1964, as amended. It is the policy of the Office of Federal Contract Compliance Programs that contractors have a responsibility to provide equal employment opportunity if they wish to participate in federally involved contracts. To the extent they have delegated the responsibility for some of their employment practices to a labor organization and, as a result, are prevented from meeting their obligations pursuant to Executive Order 11246, as amended, such contractors cannot be considered to be in compliance with Executive Order 11246, as amended, its implementing rules and regulations.

PART IV GENERAL REQUIREMENTS

1. Contractors are responsible for informing their subcontractors in writing regardless of tier, as to their respective obligations under Part II hereof. Whenever a contractor subcontracts a portion of the work in any trade covered by these Bid Conditions, it shall include these Bid Conditions in such subcontracts and each subcontractor shall be bound by these Bid Conditions to the full extent as if it were the prime contractor. The contractor shall not, however, be held accountable for the failure of its subcontractors to fulfill their obligations under these Bid Conditions. However, the prime contractor shall give notice to the Assistant Regional Administrator of the Office of Federal Contract Compliance Programs of the Department of Labor and to the contracting or administering agency of any refusal or failure of any subcontractor to fulfill its obligations under these Bid Conditions. A subcontractor's failure to comply will be treated in the same manner as such failure by a prime contractor.

2. Contractors hereby agree to refrain from entering into any contract or contract modification subject to Executive Order 11246, as amended, with a contractor debarred from or who is determined not to be a "responsible" bidder for Government contracts and federally-assisted construction contracts pursuant to the Executive Order.

3. The Contractor shall carry out such sanctions and penalties for violation of these Bid Conditions and the Equal Opportunity clause including suspension, termination and cancellation of existing subcontracts and debarment from future contracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations by the contracting or administering agency and the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall also be deemed to be in noncompliance with these Bid Conditions and Executive Order 11246, as amended.

4. Nothing herein is intended to relieve any contractor during the term of its contract from compliance with Executive Order 11246, as amended, and the Equal Opportunity clause of its contract with respect to matters not covered in Part II of these Bid Conditions.

5. The procedures set forth in these Bid Conditions shall not apply to any contract which the head of the contracting or administering agency determines is essential to the national security and its award, without following such procedures, is necessary to the national security. Upon making such a determination, the agency head will notify, in writing, the Director of the Office of Federal Contract Compliance Programs within thirty days.

6. Requests for exemptions from these Bid Conditions must be made in writing, with justification, to the Director, Office of Federal Contract Compliance Programs, U.S. Department of Labor, Washington, D.C. 20210, and shall be forwarded through and with the endorsement of the head of the contracting or administering agency.

7. Contractors must keep such records and file such reports relating to the provisions of these Bid Conditions as shall be required by the contracting or administering agency or the Office of Federal Contract Compliance Programs.

8. Information relative to compliance with these Bid Conditions may be obtained from the County Engineer, Multnomah County, Oregon, 2115 S.E. Morrison Street, Portland, Oregon 97214. Phone (503) 248-3591.

RECORDS AND REPORTS

The contractor and each subcontractor (\$10,000 or more) shall submit to the engineer the following reports:

A "Monthly Employment Utilization Report" (Standard Form - 257) in accordance with the instructions given therein. Once the contractor and/or subcontractors have begun work, these reports are to be submitted even if no employees are working on the project during the reporting period. (Report is to be marked "negative".)

Failure of a contractor to submit the required reports (Standard Form 257 and all lists and statements called for thereon) within the time stipulated thereon may result in the issuance by Multnomah County of a 30-day Show Cause Notice indicating the contractor is in noncompliance for failure to submit required information and reports.

STANDARD FORM - 257 (Aug. 1976) As prescribed by the Dept. of Labor (OPCCP)				MONTHLY EMPLOYMENT UTILIZATION REPORT (See reverse for instructions)				Reporting Period (Month, Year)	
This report is required by Executive Order 11246, Section 203. Failure to report can result in sanction: which include suspension, termination, cancellations or debarment of contract.									
To: (Name and location of Compliance Agency) Multnomah County Department of Environmental Svcs. 2505 S.E. 11th Avenue Portland, Oregon 97202					From: (Name and location of contractor)				

1. Company's Name (I.D.)	2. Trade	3. Work Hours of Employment (See footnote)							4. % minority w/h of total w/h	5. Total number of minority employees	6. Total number of employees
		Classifications	a. Total	b. Black	c. Hispanic	d. Amer. Indian	e. Asian/Pacific Island	f. Total Female			
		C									
		Ap									
		Tr									
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7. Company Official's Signature and Title	8. Date Signed	9. Telephone Number (Include Area Code)

INSTRUCTIONS FOR FILING EMPLOYMENT UTILIZATION REPORT (SF-257)

The Employment Utilization Report is to be completed by each subject contractor (both prime and subcontractors) and signed by a responsible official of the company. The reports are to be filed on the day required, each month, during the term of the contract, and they shall include the total work-hours worked for each employee level in each designated trade for the entire reporting period. The prime contractor shall submit a report for its aggregate work force and shall collect and submit reports for each subcontractor's aggregate work force to the Federal Compliance Agency that is funding their construction project.

Reporting Period Self-explanatory.

Compliance Agency U.S. Government contracting or administering agency responsible for equal employment opportunity on the project.

Contractor Any contractor who has a construction contract with the U.S. Government or applicant (See OFCCP Regs. 60-1.3).

1. Company's Name Any contractor or subcontractor who has a federally involved contract.

2. Trade Only those crafts covered under applicable Federal EEO bid conditions.

3. Work-hours of Employment The total number of hours worked by all employees in each classification; the total number of hours worked by each minority group in each classification and the total work-hours for all women.

Classification The level of accomplishment or status of the worker in the trade. (C=Craftworker-Qualified; Ap=Apprentice; Tr=Trainee.)

4. Percent of minority work-hours of total work-hours The percentage of total minority work-hours worked of all work-hours worked. (The sum of columns b, c, d and e divided by column a.)

5. Total number of minority employees Number of minority employees working in contractor's aggregate work force during reporting period.

6. Total number of employees Number of all employees working in contractor's aggregate work force during reporting period.

*Minority is defined as including blacks, Hispanics, American Indians, and Asian and Pacific Islanders, both men and women.

PREVAILING WAGE RATES
for
Public Works Contracts in Oregon



BOLI

Mary Wendy Roberts
Commissioner
Bureau of Labor and Industries

Effective July 1, 1988



BUREAU OF LABOR AND INDUSTRIES

Mary Roberts, Commissioner

July 1, 1988

This booklet contains the Prevailing Wage Rates for the building and construction trades in the State of Oregon. These rates are effective July 1, 1988. These rates have been amended in accordance with ORS 279.348 through ORS 279.365.

Prevailing Wage Rates are the minimum wages that must be paid to all workers employed in the construction, reconstruction, major renovation or painting of any public works. Copies of these rates must be incorporated into all bid specifications when the advertisement for a public works contract is issued. A provision that Prevailing Wage Rates be paid must also be put in the contract. The rates in effect at the time the bid specifications are first advertised are those that apply for the duration of the project, with one exception; if during the bidding process the Prevailing Wage Rates change, the public contracting agency has the option of amending the bid specifications to reflect such changes.

If you identify any errors in the rates published, please bring them to the attention of the Prevailing Wage Rate Analyst in Portland (229-6655). If you have any questions about the manner in which the Prevailing Wage Rates are enforced, contact the Wage and Hour Division in Portland (229-5750).

MARY WENDY ROBERTS
Commissioner

Bureau of Labor and Industries

PORTLAND
1400 SW 5th Avenue
Portland, Oregon 97201

MEDFORD
700 E. Main
Medford, Oregon 97504

SALEM
3865 Wolverine St. NE; E-1
Salem, Oregon 97310

COOS BAY
320 Central Ave., Suite 510
Coos Bay, Oregon 97420

BEND
1230 NE Third, Suite A244
Bend, Oregon 97701

EUGENE
165 E. 7th Street, Suite 220
Eugene, Oregon 97401

PENDLETON
700 SE Emigrant, Suite 240
Pendleton, Oregon 97801

ANNOUNCEMENT

The Prevailing Wage Rates contained in this booklet generally reflect those rates determined for Oregon by the Secretary of Labor of the United States pursuant to the Davis-Bacon Act; certain changes have been made to better reflect prevailing practices in Oregon. Pursuant to ORS 279.348 to ORS 279.365, these rates have been adopted for use on public works contracts in Oregon. If you have specific questions regarding how rates are determined or if you would like a copy of this booklet, please contact:

Prevailing Wage Rate Analyst
Bureau of Labor and Industries
1400 S. W. 5th Avenue,
Portland, OR 97201
(503)229-6655

The first copy is free. Additional copies are available for 75¢ each.

GENERAL INFORMATION

Information in this section and in the "Commonly Asked Questions" is meant to provide a convenient reference to Oregon's Prevailing Wage Rate Law. It is in no way a complete statement of the laws and rules.

If you have questions about the enforcement of Prevailing Wage Rates, please contact the Wage and Hour Division. Division offices may be reached at the following phone numbers:

Bend	388-6330
Eugene	686-7623
Medford	776-6013
Pendleton	276-7884
Portland	229-5750
Salem	378-3292

Apprentices and Trainees

Apprentices and trainees may be employed on public works. To qualify as an apprentice or trainee, the worker must be registered in a bonafide apprenticeship or training program of the U.S. Department of Labor, Bureau of Apprenticeship and Training (BAT) or with any State Apprenticeship and Training Agency recognized by BAT. The apprentice or trainee is to receive all fringe benefits and a percentage of the journeyman's wage rate; the appropriate percentage shall be determined by the apprenticeship or training committee. All other workers must receive rates as published.

Zone Pay

In certain trades, the basic hourly rate of pay progressively increases based upon the distance between the job site and a designated landmark; this is commonly referred to as zone pay. To determine the hourly wage, find the correct zone based on the number of road miles the job site is from the closest designated city (based either on distance from city hall or from geographical center of the city, depending on the trade) and add the amount for that zone to the basic hourly rate. Zone pay, unlike travel pay, is the basic hourly wage upon which overtime is computed.

Bid Specifications

The specifications for every public works contract must include the current Prevailing Wage Rates in effect at the time the specifications are first advertised. A statement incorporating the existing rates by reference will not satisfy this requirement (ORS 279.352).

NOTE: If a public agency fails to include the Prevailing Wage Rates in the contract specifications or fails to include in the contract the provision that Prevailing Wage Rates must be paid, the liability for any unpaid prevailing wages could be exclusively that of the agency.

Fringe Benefits

Payments for fringe benefits are in addition to the basic hourly rate. Fringe benefits means the amount for:

- a) medical or hospital care; pensions on retirement or death; compensation for injuries or illness resulting from an occupational activity, or insurance to provide any of the foregoing;
- b) unemployment benefits, life insurance, disability and sickness insurance or accident insurance;
- c) vacation and holiday pay;
- d) defraying costs of apprenticeship or other similar programs; and
- e) other such bona fide benefits.

NOTE: For the purpose of Prevailing Wage Rates, fringe benefits do not include any benefits which may be required by federal, state or local law (e.g. Workers' Compensation, Unemployment Insurance, etc.).

Fringe benefits may be paid to the worker in cash or to a third party administering a fringe benefit program. When an hourly rate in excess of the required prevailing base rate is paid, the amount by which the rate is exceeded may be credited toward payment of fringe benefits.

Overtime

Workers employed on a public works job for more than eight hours in a day or 40 hours in a week must be paid overtime for each additional hour so worked (ORS 279.334). Overtime is calculated at no less than one and one-half times the basic hourly rate as determined by the Commissioner of Labor (not including fringe benefits which are paid at the straight rate for every hour worked). In the computation of overtime, travel pay does not need to be included but zone pay differentials do.

Work performed on Saturday, Sunday or legal holidays must also be compensated at time and one-half. Legal holidays for purposes of Prevailing Wage Rates include the following: 1) New Year's Day on January 1; 2) Memorial Day on the last Monday in May; 3) Independence Day on July 4; 4) Labor Day on the first Monday in September; 5) Thanksgiving Day on the fourth Thursday in November; 6) Christmas Day on December 25.

NOTE: Contractors who are signatory to a collective bargaining agreement may be subject to different overtime requirements (ORS 279.334[3]).

Certification of Payroll

The law requires every contractor and subcontractor to file certain information on wages paid to each worker employed on a public works contract. This statement must completely and accurately reflect payroll records for the work week immediately preceding the submission. A contractor or subcontractor must complete and submit the certified statement contained on Form WH-38 as well as the information required on the weekly payroll side of the form. A copy of Form WH-38 and instructions for completing it are included in the back of this booklet; xeroxed copies may be used for filing.

The schedule for submitting payroll information is as follows: once within 15 days of the date the contractor or subcontractor first began work on the project and once before the final inspection of the project by the public contracting agency; in addition, for projects exceeding 90 days, submissions are to be made at 90 day intervals. Payroll information is to be filed with both the public contracting agency and the Wage and Hour Division, Bureau of Labor and Industries, 1400 S.W. Fifth Avenue, Portland, Oregon 97201. The payroll information must be kept by the contractor and or subcontractor for three years.

COMMONLY ASKED QUESTIONS

1) What are "Prevailing Wage Rates?"

A prevailing wage rate is the minimum wage, including fringe benefits to be paid workers employed on contracts for public works. Different rates are established for specific trades and specific geographical areas.

2) Who must be paid "Prevailing Wage Rates?"

All employees of a contractor or subcontractor engaged on a public works project when the total price of the project is \$10,000 or more must receive at least the Prevailing Wage Rate (PWR) for time worked on the project, unless otherwise exempt.

Supervisory and office/clerical employees are not required to be paid the PWR. A person who owns and operates his/her own truck or other hauling equipment on construction projects (Owner/Operator) is not required to be paid the PWR.

3) What about contracts when Federal funds are used?

When more than \$2,000 of federal funds are involved, the contract is usually subject to the provisions of the Davis-Bacon Act, not Oregon statutes. Further information may be obtained from the U.S. Department of Labor, Wage and Hour Division, Portland, Oregon (221-3057). However, in the event that federal funds are involved, but the contract is not regulated under Davis-Bacon, Oregon's Prevailing Wage Rates Statutes may apply (ORS 279.348 - 279.365).

COMMONLY ASKED QUESTIONS (Continued)

4) I don't have a pension fund. How do I calculate fringe benefits?

Workers must receive at a minimum the sum of the basic hourly rate plus all fringe benefits for each hour worked on a public works contract. Fringe benefits may be paid either to a third party trust account or in cash directly to the worker.

5) What if the employees are not paid on an hourly basis?

All workers must receive at least the basic hourly rate of wage and fringe benefits for each hour worked on the project. If an employee is paid other than on an hourly basis, the equivalent hourly rate (for both wages and fringe benefits) must still be at least equal to the rates published.

6) How do I classify workers?

Virtually all of the job classifications/trades normally used in the construction industry are represented by the job classifications used in this PWR publication. These classification titles should be used according to common practice. Try to fit your workers into existing classifications. If you have questions about how to classify workers, contact the Wage and Hour Division at 229-5750 in Portland or at one of the offices listed on page 1 of this booklet.

Laborers who do basic work requiring no specific skills, training or knowledge are generally classified as Group 1 Laborers.

(Note that Landscapers are classified as Laborers, and Ornamental Ironworkers are classified as Ironworkers.)

7) When are new rates determined? How long are they effective?

Prevailing Wage Rates are determined once each year by the Commissioner of the Bureau of Labor and Industries. The Commissioner may amend the rates at any time. The rates are usually amended at least once each year. The rates in effect at the time the bid specifications are first advertised are those that apply for the duration of the contract, with one exception. If during the bidding process the prevailing wage rate changes, the public contracting agency (not the contractor) has the option of amending the bid specifications to reflect such change.

8) How do I post Prevailing Wage Rates?

Every contractor or subcontractor employing workers on a public works project is required to post the applicable Prevailing Wage Rates in a conspicuous and accessible place in or about the work-site.

Rates need to be posted for the duration of the job. Contractors and subcontractors who intentionally fail to post the PWR can be made ineligible to receive any public works contract for up to three years.

COMMONLY ASKED QUESTIONS (Continued)

- 9) What can I do about a contractor who is not complying with Oregon's PWR law?

File a complaint with the nearest office of the Oregon Bureau of Labor and Industries or contact the Wage and Hour Division, Bureau of Labor and Industries, 1400 S.W. 5th Avenue, Portland, Oregon 97201 (229-5750). Other Bureau offices are located in Bend (388-6330), Coos Bay (269-4575), Eugene (686-7623), Medford (776-6013), Pendleton (276-7884) and Salem (378-3292). You may also complain to the contracting agency, which has the contractual authority to pay PWR claims directly to a contractor's or subcontractor's workers (ORS 279.314).

- 10) What happens to contractors who do not comply with PWR statutes?

Contractors and subcontractors who pay less than the Prevailing Wage Rates may be liable to the workers affected for the amount found due plus an equal amount as liquidated damages (ORS 279.356). Contracting agencies also have the contractual authority to withhold payments due or to be due to the contractor or subcontractor in order to pay the unpaid prevailing wages directly to the worker (ORS 279.314).

Contractors and subcontractors who intentionally refuse to pay the Prevailing Wage Rate to workers employed on public works or to post the PWR on the job site may be determined to be ineligible to receive any public works contracts for a period of up to three years (ORS 279.361). Workers employed by the contractor or subcontractors have a right of action against the surety of the prime contractor for any unpaid prevailing wages.

A list is kept of all contractors, subcontractors, and other persons ineligible to receive public works contracts and subcontracts. When a contractor or subcontractor is a corporation, the individual officers and agents of the corporation can be debarred, in addition to the corporation. As a result, individuals who intentionally fail to pay or post the PWR are prevented from simply moving from one corporation to another.

- 11) How much do I pay apprentices?

To qualify as an apprentice, the worker must be registered in a bona fide apprenticeship program of the U.S. Department of Labor, Bureau of Apprenticeship and Training (BAT) or with any State Apprenticeship Agency recognized by BAT. The apprentice is to receive all fringe benefits and a percentage of the journeyman's wage rate; the appropriate percentage shall be determined by the apprenticeship committee. All other workers receive rates as published.

COMMONLY ASKED QUESTIONS (Continued)

12) What records must I keep? For how long?

Contractors and subcontractors are required to keep records necessary for determining if Prevailing Wage Rates were paid. These records must include the Payroll and Certified Statement Form (WH-38) as well as the following: The name and address of each employee; the work classification(s) of each employee; the rate(s) of wages and fringe benefits paid to each employee; the rate(s) of fringe benefit payments made in lieu of those required to be provided to each employee; total daily and weekly compensation paid to each employee; daily and weekly hours worked by each employee; apprenticeship and training agreements; any payroll and other such records pertaining to the employment of employees upon a public works contract.

These need to be kept for a period of three (3) years from the completion of the public work contract. Records relating to public works contracts must be maintained separately from records relating to private projects/contracts.

13) What forms are public agencies required to file with the Bureau of Labor and Industries?

Public agencies are required to prepare and file with the Commissioner of the Bureau of Labor and Industries a list of every public improvement that the agency intends to fund during the subsequent budget period (ORS 279.023[2]). If, after the original filing, the agency plans additional public improvements, a revised list is to be submitted (OAR 839-16-008[2]).

The "Notice of Award of Public Works Contract" is to be filed with the Wage and Hour Division within 30 days of the date when a contract is awarded which requires the payment of Prevailing Wage Rates (i.e., is regulated under ORS 279.348 to 279.365).

Copies of the "Planned Public Improvement Summary" (Form No. WH-118), the "Capital Improvement Project Cost Comparison Estimate" (WH-119), and the "Notice of Award of Public Works Contract" (WH-81) can be found at the back of this booklet.

14) Does a contracting agency have any power to enforce payment of Prevailing Wage Rates on its public works projects?

Yes. According to ORS 279.314, all public contracts for work or services must contain a clause or condition permitting the contracting agency to pay a worker's past due wage claim, charging the payment against funds due or to become due to the contractor.

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	
<u>ASBESTOS WORKERS</u>			
Including insulation of piping and other mechanical surfaces.			
	\$15.40	\$3.78	
<u>BOILERMAKERS</u>	19.67	4.50	
<u>BRICKLAYERS/Stonemasons</u>			
Area 1	18.28	3.68	
Area 2	16.25	3.88	
<u>Area 1</u>			
Baker	Hood River	Polk	Wallowa
Clackamas	Malheur (a)	Sherman	Wasco (b)
Clatsop	Marion	Tillamook	Washington
Columbia	Morrow	Umatilla	Yamhill
Gilliam	Multnomah	Union	
<u>Area 2</u>			
Benton	Douglas	Josephine	Linn
Crook	Grant	Klamath	Malheur (c)
Coos	Harney	Lake	Wasco (d)
Curry	Jackson	Lane	Wheeler
Deschutes	Jefferson	Lincoln	
a) North half			
b) North of the City of Maupin			
c) South half			
d) Including the City of Maupin and South thereof			
<u>CARPENTERS</u> (see page 11)			
<u>CEMENT MASONS</u> (see page 11)			
<u>DIVERS & DIVERS' TENDERS</u>			
o Divers	42.96	3.67	
o Divers' Tenders	18.86	3.67	
Depth Pay and Enclosure Pay are added to the Divers' Basic Hourly Rate to obtain the Total Hourly Rate for the diver.			
BASIC HOURLY RATE	HOURLY DEPTH PAY	HOURLY ENCLOSURE PAY	DIVERS' TOTAL HOURLY PAY
o Divers' Depth Pay			
Depth of Dive		Hourly Depth Pay	
50-100 ft		$[(\text{total ft} - 50) \times \$1.00]/\text{hr}$	
100-150 ft		$\$ 50 + [(\text{total ft} - 100) \times \$1.50]/\text{hr}$	
150-200 ft		$\$125 + [(\text{total ft} - 150) \times \$2.00]/\text{hr}$	
o Divers' Enclosure Pay(working without vertical escape)			
Distance Travelled In the Enclosure		Hourly Enclosure Pay	
5 - 50 ft		$\$.50/\text{hr}$	
50 - 100 ft		$\$.63/\text{hr}$	
100 - 150 ft		$\$ 2.13/\text{hr}$	
150 - 200 ft		$\$ 4.63/\text{hr}$	
200 - 300 ft		$\$ 4.63 + [(\text{total ft} - 200) \times \$.05]/\text{hr}$	
300 - 450 ft		$\$ 9.63 + [(\text{total ft} - 300) \times \$.10]/\text{hr}$	
450 - 600 ft		$\$24.63 + [(\text{total ft} - 450) \times \$.20]/\text{hr}$	

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
DREDGING		
o Leverman-Hydraulic	19.49	4.67
o Leverman-Dipper	20.27	4.67
o Asst. Engineer (including: Watch Engineer, Welder, Mechanic, Machinist)	18.88	4.67
o Tenderman (Boatman, Attending Dredge Plan); Fireman	18.43	4.67
o Assistant Mate (Deckhand); Oiler	18.04	4.67
DRYWALL/WETWALL		
o Drywall (Accoustical and Drywall Applicator)	15.95	4.02
o Wetwall (Lather)	15.10	4.87
ELECTRICIANS		
Area 1:		
o Electricians	16.33	3.15
o Cable Splicers	17.96	3.22
Area 2:		
o Electricians	20.71	5.63
o Cable Splicers	21.75	5.66
Area 3:		
o Electricians	16.50	4.94
Area 4:		
Where the cost of electrical work (labor and material) is <u>less</u> than or equal to \$100,000:		
o Electricians	17.10	3.03
o Cable Splicer	18.81	3.08
Where the cost of electrical work (labor and material) is <u>more</u> than \$100,000:		
o Electricians	17.95	3.06
o Cable Splicer	19.75	3.11
Area 5:		
o Electricians	19.80	4.29
o Cable Splicers	20.55	4.32
Area 6:		
o Electricians	16.95	4.11
o Cable Splicers	18.65	4.16
Area 1	Area 2	Area 2(cont)
Malheur	Baker	Umatilla
	Gilliam	Union
	Grant	Wallowa
	Morrow	Wheeler
		Coos
		Curry
		Lincoln
		Douglas (a)
		Lane (a)

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
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ELECTRICIANS (continued)

Area 4	Area 5	Area 6
Benton	Clackamas	Harney
Crook	Clatsop	Jackson
Deschutes	Columbia	Josephine
Jefferson	Hood River	Klamath
Lane (b)	Multnomah	Lake
Linn	Sherman	Douglas (b)
Marion	Tillamook	
Polk	Wasco	
Yamhill(c)	Washington	
	Yamhill (d)	

- a) Those portions lying west of a line North and South from the NE corner of Coos County to the SE corner of Lincoln County
b) That portion lying east of a line running North and South from the NE corner of Coos County to the SE corner of Lincoln County
c) South half
d) North half

ELEVATOR CONSTRUCTORS

Area 1

o Mechanic	18.88	4.33 + a
o Helper	13.22	4.33 + a
o Probationary Helper	9.44	-

Area 2

o Mechanic	19.45	3.88 + a
o Helper	13.62	3.88 + a
o Probationary Helper	9.73	-

- a) Plus 10.8% of basic hourly rate for employees with more than 5 years of service;
8.8% of basic hourly rate for 6 months to 5 years of service.

Area 1	Area 2
Umatilla	All
Wallowa	Remaining
Union	Counties
Baker	

GLAZIERS

Area 1	17.77	3.08
Area 2	13.76	1.72

Area 1	Area 2
All Counties except Malheur	Malheur

IRONWORKERS

o Structural, Reinforcing, Ornamental, Riggers, Fence Erectors, Signal Men	18.26	5.81
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TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
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LABORERS (see page 11)

LIMITED ENERGY ELECTRICIANS

May only be used for electrical work not exceeding 100 va:

Area 1	9.50	2.28
Area 2	9.95	1.53
Area 3	9.44	2.00
Area 4	9.69	2.14
Area 5	10.57	2.17
Area 6	9.55	2.28
Area 7	9.88	1.77
Area 8	9.40	2.18
Area 9	9.92	1.70
Area 10	9.81	1.59
Area 11	10.65	1.66
Area 12	12.78	1.69
Area 13	10.79	2.04
Area 14	10.54	1.84

Area 1	Clatsop, Columbia, Tillamook
Area 2	Clackamas, Multnomah, Washington
Area 3	Marion, Polk, Yamhill
Area 4	Benton, Lincoln, Linn
Area 5	Lane
Area 6	Douglas
Area 7	Coos, Curry
Area 8	Jackson, Josephine
Area 9	Hood River, Sherman, Wasco
Area 10	Crook, Deschutes, Jefferson
Area 11	Klamath, Lake
Area 12	Gilliam, Grant, Morrow, Umatilla, Wheeler
Area 13	Baker, Union, Wallowa
Area 14	Harney, Malheur

LINE CONSTRUCTION

Area 1

Zone 1 (Base Rate):

o Group 1	21.68	4.31
o Group 2	19.59	4.24
o Group 3	15.35	4.09
o Group 4	16.89	3.34
o Group 5	14.78	3.27
o Group 6	13.90	3.24

Zone Differential (Add to Zone 1 Rate)

Zone 2	2.40
Zone 3	3.15
Zone 4	3.90
Zone 5	5.15

Group 3 receives Zone 1 Rate ONLY

(No Zone Differential)

Area 2:

o Cable Splicers	18.06	2.88
o Journeyman Lineman	16.42	2.82
o Line Equip. Mech. (Right-of-way)	15.55	2.79
o Line Equip. Oper.	14.81	2.77
o Line Equip. Srvman	14.57	2.76
o Groundman	11.55	2.65

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	
<u>LINE CONSTRUCTION</u> (continued)			<u>PLASTERERS</u>			
<u>Area 1</u> All counties except Malheur County			Area 1	17.35	4.02	
			Area 2	16.93	4.01	
<u>Zone 1:</u>	0 to 3 miles from the geographical center of Medford and Portland		<u>Area 1</u>	<u>Area 1(cont)</u>	<u>Area 1(cont)</u>	<u>Area 2</u>
<u>Zone 2:</u>	0 to 20 miles from the geographical center of Astoria, Baker, Burns, Bend, Corvallis, Eugene, Klamath Falls, Lakeview, Longview, Pendleton, Salem, Roseburg, The Dalles, Umatilla (NOTE: for Portland and Medford, Zone 2 is 3 to 20 miles)		Benton	Deschutes	Lincoln (b)	All
<u>Zone 3:</u>	20 to 35 miles radius		Coos	Harney	Linn (b)	remaining
<u>Zone 4:</u>	35 to 50 miles radius		Crook	Jefferson	Wasco (b)	counties
<u>Zone 5:</u>	Over 50 miles radius		Curry	Klamath (a)	Wheeler (b)	
<u>Group 1</u>	<u>Group 2</u>		Douglas	Lane		
Cable Splicers	Certified Lineman Welder		a) Northern one-third b) South half			
Leadman Pole	Heavy Line Equipment Man		<u>PLUMBERS & STEAMFITTERS/PIPEFITTERS</u>			
Sprayer	Lineman		Area 1 (Both)	19.08	4.85	
	Pole Sprayer		Area 2 (Both)	21.75	4.91	
<u>Group 3</u>	<u>Group 4</u>		Area 3 (Both)			
Tree Trimmer	Line Equipment Man		-on projects less than 20,000 sq. ft.	13.70	3.13	
<u>Group 5</u>	<u>Group 6</u>		-on all other projects	17.25	4.00	
Head Groundman	Groundman		<u>Area 1</u>	<u>Area 2</u>	<u>Area 3</u>	
Jackhammer Man			Baker	Grant (b)	All remaining counties	
Powderman			Harney (a)	Morrow		
<u>Area 2</u>			Malheur	Umatilla		
Malheur County				Wallowa		
<u>MARBLE SETTERS</u> (Includes Granite)				Union		
Area 1	19.28	3.68	a) Except Northwest Portion			
<u>Area 1</u>			b) Except Southwest Corner			
Baker	Hood River	Sherman	<u>POWER EQUIPMENT OPERATORS</u> (see page 11)			
Clackamas	Malheur (a)	Tillamook	<u>ROOFERS</u>			
Clatsop	Morrow	Union	Area 1:			
Columbia	Multnomah	Umatilla	o Roofers	14.85	3.70	
Gilliam		Yamhill (a)	o Handling coal tar pitch	16.34	3.70	
a) North half			Area 2:			
b) North of the City of Maupin			o Roofers	14.75	2.22	
<u>PAINTERS & DRYWALL TAPERS</u>			o Application or removal of coal tar products	16.75	2.22	
Area 1			Area 3:			
o Painter & Drywall Tapers	12.02	2.01	o Roofers	13.05	2.70	
Area 2			(When working with coal tar, add \$1.50 for each hour of regular and overtime.)			
o Brush	13.21	3.26	Area 4:			
o Spray, sandblasting, other pressure blasting over 3000 psi, and steam cleaning	13.71	3.26	o Roofers(a)	14.75	3.10	
o Wall covering including: paper hanging, gilding, and mural painting	13.71	3.26	Area 5:			
o Bridges or Over 50'			o Roofers(a)	17.38	2.55	
-Brush	13.96	3.26	(a) When working with Irritable Bituminous materials, add \$2.00 for each hour of regular and overtime.			
-Spray	14.46	3.26	<u>Area 1</u>	<u>Area 1(cont)</u>	<u>Area 2</u>	<u>Area 2(cont)</u>
o Drywall Tapers	15.48	4.05	Baker	Multnomah	Benton	Klamath
<u>Area 1</u>	<u>Area 2</u>		Clackamas	Sherman	Coos	Lake
Malheur County	Remaining Counties		Clatsop	Tillamook	Crook	Lane
			Columbia	Wasco	Curry	Lincoln
			Jefferson	Washington	Deschutes	Linn
			Gilliam	Wheeler	Douglas	Marion
			Grant		Harney	Polk
			Hood River		Jackson	Yamhill
					Josephine	

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
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CARPENTERS, CEMENT MASONS, LABORERS, POWER
EQUIPMENT OPERATORS and TRUCK DRIVERS

Under the following circumstances a rate lower than the basic hourly rate may be used for these five trades:

The lower rate applies to all public works projects of less than \$1.0 million. The lower rate also applies to projects under \$1.5 million involving the construction, reconstruction, major renovation or painting of buildings, bridges or docks. (When the amount is between \$1.0 and \$1.5 million the work done on a building, bridge or dock must constitute at least 20% of the total project price to use the lower rates.) In determining the \$1.5 million figure, do not include the cost of underground utilities (i.e., the amount of the contract dedicated to facilities for electricity, water, gas, sewerage including storm water, and communications) which are five feet or more outside of and away from the building, bridge or dock and are subordinate and incidental to the major purpose of the project.

NOTE: In determining whether or not the lower rates are applicable, consider the total project cost, and not the cost of any individual contract (or schedule) within that project.

ZONE RATES AND DESCRIPTIONS

Zone Differential for Carpenters (Groups 1 and 2 only), Laborers, Power Equipment Operators and Truck Drivers

(Add to Zone 1 Rate)

Zone 2	.65
Zone 3	1.15
Zone 4	1.70
Zone 5	2.75

Zone 1: Projects within 30 miles of City Hall in the Cities listed below.

Zone 2: More than 30 miles but less than 40 miles.

Zone 3: More than 40 miles but less than 50 miles.

Zone 4: More than 50 miles but less than 80 miles.

Zone 5: More than 80 miles.

Cities

Albany	Eugene	Longview	Portland
Astoria	Goldendale	Madras	Port Orford
Baker	Grants Pass	Medford	Reedsport
Bend	Hermiston	McMinnville	Roseburg
Brookings	Hood River	Newport	Salem
Burns	Klamath Falls	Oregon City	The Dalles
Coos Bay	LaGrande	Ontario	Tillamook
Corvallis	Lakeview	Pendleton	

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
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CARPENTERS (See preceding column for description of when the lower rates may be used)

LESS THAN 100%	100%
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Zone 1 (Base Rate):*

o Group 1	14.54	17.52	3.67
o Group 2	14.66	17.67	3.67
o Group 3	14.74	17.77	3.67
o Group 4	14.86	17.92	3.67
o Group 5	14.62	17.62	3.67
o Group 6	14.70	17.72	3.67

*NOTE: Zone rates for Carpenter Groups 1 and 2 are listed in the preceding column. Zone rates for Carpenter Groups 3 through 6 are listed below.

Zone Differential for Groups 3 through 6 Only
(Add to Zone 1 Rate)

Zone 2	.85
Zone 3	1.25
Zone 4	1.70
Zone 5	1.95
Zone 6	2.80

Zones for Groups 3, 4, 5 and 6 Carpenters are determined by the distance between the project site and either 1) the worker's residence or 2) City Hall of a reference city for the appropriate group shown below, whichever is closer.

Zone 1:	0-30 miles.
Zone 2:	30-40 miles.
Zone 3:	40-50 miles.
Zone 4:	50-60 miles.
Zone 5:	60-70 miles.
Zone 6:	Over 70 miles.

Cities for Groups 3 and 4

Corvallis	Longview	North Bend	The Dalles
Eugene	Medford	Portland	

Cities for Groups 5 and 6

Astoria	Eugene	Newport	Salem
Bend	Klamath Falls	Portland	The Dalles
Coos Bay	Medford	Roseburg	

Group 1

Auto. Nailing Machine
Carpenters
Form Stripper
Manhole Builders

Group 2

Floor Layers & Finishers
Stationary Power Saw
Operators
Wall & Ceiling Insulators

Group 3

Millwrights
Machine Erectors

Group 4

Certified Welders

Group 5

Bridge, Dock & Wharf
Builders
Piledrivermen

Group 6

Boom Men

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
CEMENT MASONS¹		
	LESS THAN 100%	100%
Zone 1 (Base Rate):		
o Cement Masons	13.35	16.19 4.72
o Composition Workers (includes installation of epoxy & other resinous toppings), and Power Mach. Oper.	13.61	16.51 4.72
Zone Differential for Cement Masons (Add to Zone 1 Rate)		
Zone 2		.65
Zone 3		1.15
Zone 4		1.70
Zone 5		2.75
Zone 1: Projects within 30 miles of City Hall in the cities listed below.		
Zone 2: More than 30 miles but less than 400 miles.		
Zone 3: More than 40 miles but less than 50 miles.		
Zone 4: More than 50 miles but less than 80 miles.		
Zone 5: More than 80 miles.		

Cities

Astoria	Eugene	Newport	Roseburg
Bend	Klamath Falls	Pasco	Salem
Coos Bay	Longview	Pendleton	The Dalles
Corvallis	Medford	Portland	Vancouver

LABORERS¹

	LESS THAN 100%	100%
Zone 1 (Base Rate): ²		
o Group 1*	10.67	12.84 4.65
o Group 2	10.95	13.19 4.65
o Group 3	11.19	13.49 4.65
o Group 4	11.39	13.74 4.65
o Group 5	8.00	8.00 4.65

*Group 1 Laborers who meet the following description only:

Group 1 Laborers (not involved in the pouring of concrete) on projects of less than \$1.0 million involving the construction, reconstruction, major renovation or painting of buildings. (The work done on a building must constitute at least 20% of the total project price to use this rate.) In determining the \$1.0 million figure, do not include the cost of underground utilities (i.e. the amount of the contract dedicated to facilities for electricity, water, gas, sewerage including storm water, and communications) which are five feet or more outside of and away from the building and are subordinate and incidental to the major purpose of the project.

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
LABORERS (continued)		
Group 1		
Asphalt Plant Laborers		General Laborer ***
Asphalt Spreaders		Guardrail, Median
Batch Weighman		Rail (c)
Broomers		Leverman or Aggregate
Brush Burners/Cutters		Spreader (d)
Carpenter Tender		Material Yard Man (e)
Car & Truck Loaders		Powderman Tender
Change-House Man		Railroad Track Laborers
Choke Setter		Ribbon Setters (f)
Chipper Operator (a)		Rip Rap Man (Hand
Clean-up Laborers ***		Placed)
Concrete Laborers		Road Pump Tender
Culvert (hand labor)		Sewer Laborer
Curing, concrete		Signalman
Demolition, wrecking		Skipman
and moving ***		Slopers
Driller Tender		Sprayman
Dry-shack Man		Stake Chaser
Dumpers, road oiling		Stockpiler
crew		Timber Faller/Bucker
Dumpmen for grading		(Hand Labor)
crew		Toolroom Man (Job site)
Elevator Feeders		Tunnel Bull Gang
Fine Graders		(Above Ground)
Fire Watch		Weight-Man-Crusher (g)
Form Strippers (b)		

- a) Pittsburg or similar types
- b) Not swinging stages
- c) Reference Post, Guide Post, or Right-of Way Marker
- d) Flaherty, Loading Spotters or similar types
- e) Including electrical
- f) Including steel forms
- g) Aggregate when used

*** Laborers can tear off roofs, clean up or handle roofing materials only when at least one new story is added or in demolition work, where no reroofing will occur.

Group 2

Applicators (a)	Gunite or Pot Tender
Brush Cutters (b)	Handlers/Mixers (f)
Burners	Post Hole Digger, Air,
Choker Splicer	gas or electric
Clary Power Spreader(c)	Power Tool Operators (g)
Clean-up Nozzlemans	Sand Blasting (wet)
Green Cutter (d)	Stake Setter
Concrete Power Buggyman	Tampers
Crusher Feeder	Tunnel Muckers/Brakeman/
Demolition/Wrecking (e)	Concrete Crew/Bull
Grade Checker	Gang (underground)
Granite Nozzlemans	
Tender	

- a) Including Pot Tender for same, applying protective material by hand or nozzle on utility lines or storage tanks on project
- b) Power saw
- c) And similar types
- d) Concrete, rock, etc.
- e) Charred Materials
- f) Of all materials of an irritating nature including cement and lime
- g) Includes, but not limited to: Dry Pack Machine, Jackhammer, Chipping Guns, Paving Breakers, Vibrators (less than 4" diameter)

¹ See page 11 for description of when rates less than 100% may be used

² See page 11 for zone rates and descriptions

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<u>LABORERS (continued)</u>			<u>POWER EQUIPMENT OPERATORS (continued)</u>		
<u>Group 3</u>			<u>Group 1</u>		
Asbestos Removal	Power Saw Operators (d)		Assistant Conveyor	Partsman (tool room)	
Asphalt Rakers	Pumpcrete Nozzelman		Operator	Pump Operator (a)	
Bit Grinder	Sand Blasting (dry)		Brakeman/Switchman	Oiler (b)	
Concrete Saw Operator	Sewer Pipe Layers		Crusher Feeder	Scaffolding Operator (c)	
Drill Doctor	Sewer Timberman		Deckhand	Switchman	
Drill Operators (a)	Track Liners (e)		Guardrail Punch Oiler		
Gunite Nozzelman	Tugger Operator				
High Scalars,	Tunnel-Chuck Tenders,		a) Under 4 inches		
Strippers, Drillers(b)	Nippers, Timberman		b) Including Plant, Crane, Crusher, Guardrail		
Laser Beam (c)	Vibrator (4" and larger)		Equipment, and Trenching Machine		
Manhole Builder	Water Blaster		c) Self-propelled		
Powdermen	Welder				
a) Air Tracks, Cat Drills, Wagon Drills,			<u>Group 2</u>		
Rubber-mounted drills, and other similar			A-Frame Truck	Helicopter Radioman	
types			Operator (a)	(Ground)	
b) Covers work in Swinging Stages, chairs			Auger	Oiler (f)	
or belts, under extreme conditions unusual			Blade Operator (b)	Roller Operator (g)	
to normal drilling, blasting, barring-down,			Boatman	Tar Pot Fireman (h)	
or sloping and stripping			Crane Fireman (c)	Temporary Heating Plant	
c) Pipe laying, applicable when employee			Driller Tender	Operator	
assigned to move, set up, align Laser Beam.			Fork Lift or Lumber	Truck Crane Oiler/	
d) Bucking and falling			Stacker (d)	Driver (i)	
e) Anchor Machines, Ballast Regulators,			Grade Checker	Tugger or Coffin type	
Multiple Tampers, Power Jacks			Grade Oiler (e)	Hoist Operator	
			Heavy Duty Repairman	Welder's Tender	
			Tender		
<u>Group 4</u>			a) Single drum		
Laser Beam (Tunnel), applicable when employee			b) Pulled type		
assigned to move, set-up, align laser beam			c) All equipment except floating		
Tunnel Miners			d) On job site		
Tunnel Powderman			e) Required to check grade		
			f) Including combination guardrail machines		
<u>Group 5</u>			g) Grading of base rock (not asphalt)		
Fence Builder			h) Including power agitated type		
Flagger			i) 25 ton capacity and over		
Landscaping or planting laborer					
<u>POWER EQUIPMENT OPERATORS¹</u>			<u>Group 3</u>		
	LESS THAN	100%	Air Filtration	Hydrographic Seeder	
	100%	100%	Equipment	Machine (e)	
Zone 1 (Base Rate): ²			Asphalt Plant Fireman	Hydrostatic Pump	
o Group 1	12.79	15.99	Ballast Jack Tamper	Mixer Box Operator (f)	
o Group 2	12.94	16.17	Bell Boy, Phones, etc	Motorman	
o Group 3	13.06	16.33	Broom Operator (a)	Pugmill Operator	
o Group 4	13.22	16.53	Bucket Elevator	(any type)	
o Group 5	13.26	16.57	Loader (b)	Pump Operator (g)	
o Group 6	13.34	16.68	Cement Hog	Ross Carrier Operator (h)	
o Group 7	13.40	16.75	Compressor Operator (c)	Tamping Machine (i)	
o Group 8	13.51	16.89	Concrete Saw and	Truck-mounted Asphalt	
o Group 9	13.58	16.98	Concrete Curing	Spreader (with screed)	
o Group 10	13.65	17.06	Machine (d)	Welding Machine Operator	
o Group 11	13.66	17.08	Conveyor Operator	Wire Mat or Brooming	
o Group 12	13.74	17.18	Hydraulic Pipe Press	Machine Operator	
o Group 13	13.82	17.28			
o Group 14	14.02	17.52	a) Self-propelled on job site		
o Group 15	14.17	17.71	b) Barber Greene and similar type		
o Group 16	14.37	17.96	c) Any power, under 1250 cubic feet total		
o Group 17	14.53	18.16	capacity		
o Group 18	14.73	18.41	d) Riding type		
o Group 19	14.87	18.59	e) Straw, pulp or seed		
			f) C.T.B. Drybatch, etc.		
			g) Any power, 4 inches and over		
			h) On job site		
			i) Mechanical self-propelled		

¹ See page 11 for description of when rates less than 100% may be used

² See page 11 for zone rates and descriptions

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
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POWER EQUIPMENT OPERATORS (continued)

Group 4

Combination Mixer & Compressor (a)	Helicopter Hoist Operator
Compactor, including Vibratory	Hydra Hammer or similar types
Compressor (Any Power (b))	Locomotive, under 40 tons
Concrete Mixer Operator (c)	Lull Hi-Lift Operator (d)
Floating Equipment	Pavement Breaker
Fireman	Pump Operator (e)
Fork Lift, over 5 ton	Roller Operator, Oiling C.T.B.
	Screed Operator
	Service Oiler (Greaser)

- a) Gunnite work
- b) Over 1,250 cu. ft. total capacity
- c) Single drum, under five bag capacity
- d) Or similar type
- e) More than 5 (any size)

Group 5

Chip Spreading Machine Operator	Pulva Mixer or similar types
Concrete Batch Plant Quality Control Operator	Slip Form Pumps, power driven hydraulic lifting device for concrete forms
Elevator Operator	Sweeper, Wayne type (b)
Extrusion Machine	Tractor (c)
Hoist, single drum	Trenching Machine (d)
Lime Spreading (a)	Wagner Pactor (e)
Power Jumbo, setting slip forms, etc. in tunnels.	

- a) On job site
- b) Self-propelled on job site
- c) Rubber-tired 50 H.P. flywheel and under
- d) Maximum digging capacity 3 ft. depth
- e) Or similar type without blade

Group 6

Asphalt Burner and Reconditioner	Concrete Spreader
Cast-In Place Pipe Laying Machine	Curb Machine (b)
Concrete Finishing Machine (A)	Loaders (c)
Concrete Joint Machine	Maginnis Internal Full Slab Vibrator
Concrete Paving Machine	Pavement Grinder and/or Grooving Machine (d)
Concrete Planer	Rock Spreaders (e)

- a) Clary, Johnson, Bidwell, Burgess, Bridges Deck or similar type
- b) Mechanical Berm, Curb and/or Gutter
- c) Rubber-tired type, 2 1/2 cu. yds. and under
- d) Riding type
- e) Self-propelled

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
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POWER EQUIPMENT OPERATORS (continued)

Group 7

A-Frame Truck (a)	Grouting Machine
Ballast Regulator	Hydraulic Backhoe (e)
Ballast Tamper (b)	Locomotive, 40 tons & over
Beltcrete	Pot Rammer
Boom Truck	Pumpcrete Operator (any type)
Churn Drill/ Earth Boring Machine	Roller (any asphalt mix)
Concrete Mixer (c)	Shuttle Car
Concrete Pump	Tie Spacer
Elevating Grader (d)	Tower Mobile Operator
Fuller-Kenyon and similar	Track Liner

- a) Double drum
- b) Multiple purpose
- c) Single drum, five bag capacity and over
- d) Tractor towed requiring operator or grader
- e) Wheel type 3/8 cu. yds. and under with or without front end attachment 2 1/2 cu. yds. and under (Ford, John Deere, Case type)

Group 8

Asphalt Paver Operator	Diesel-Electric Engineer (c)
Batch Plant and/or wet-mix (a)	Generator Operator
Belt Loader (b)	

- a) One and two drum
- b) Kolman and Ko Cal types
- c) Plant, Crusher, Generator, Floating

Group 9

Asphalt Plant Operator	Guardrail Punch and Auger (d)
Bolt-Threading Machine	H.D. Mechanic and Welder
Boom-Type Lifting Device (a)	Hammer Operator
Boring Machine	Hydraulic Backhoe (e)
Bulldozer	Lift Slab Machine
Cherry Picker (a)(b)	Loader (f)
Chicago Boom (c)	Machine Tool Operator
Compactor with Blade	Pipe Cleaning, Doping, Bending and wrapping Machines
Concrete Cooling Machine	Side-boom Cat
Crusher Plant Operator	Stationary Drag Scraper
Drill Cat Operator	Surface Heater and Planer
Drill Doctor	Tractor (g)
Drill Doctor (Bit Grinder)	Tractor (h)
Grizzly Crusher	Trench Machine (i)

- a) 5 ton capacity or less
- b) Or similar type crane-hoist
- c) And similar types
- d) All types
- e) Track type 3/8 cu. yds.
- f) Front end and overhead, 2 1/2 cu. yds. and under 4 cu. yds.
- g) With boom attachments
- h) Rubber-tired over 50 H.P. flywheel
- i) Maximum digging capacity over 3 ft. depth

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<u>POWER EQUIPMENT OPERATORS (continued)</u>			<u>POWER EQUIPMENT OPERATORS (continued)</u>		
<u>Group 10</u>			<u>Group 14</u>		
Barge Operator, self-loading Bulldozer (a) Cable Plow (any type) Combination H.D. Mechanic-Welder (b)		Compactor, multi-engine Dozers and Pushers (c) Driller (d) Jack Operator/Elevating Barges	Rubber-tired Scraper (a) Tower Crane Operator		
a) Twin engine (TC 12 and similar) b) With dispatcher and/or required to do both c) Rubber-tired (Michigan, Cat, Hough type) d) Percussion, Diamond, Core, Cable, Rotary and similar type			a) With Tandem Scrapers, self-loading, Paddle Wheel, Auger type, finish and/or 2 or more units		
<u>Group 11</u>			<u>Group 15</u>		
Clamshell, Hoe, etc. (a) Combination Guardrail Machines (b) Concrete Breaker Crane Operator (c)	Dragline Grade-Alls (a) Mixer Mobile Mucking Machine (tunnel) Shovel		Loader, 4 cu. yds., but less than 6 cu. yds. Rock Hound Operator		
a) Under 1 cu. yd. b) i.e., Punch, Auger, etc. c) 25 tons and under			<u>Group 16</u>		
<u>Group 12</u>			Autograder or "Trimmer" Automatic Concrete Slip Form Paver Cableway (a) Concrete Canal Line Crane (b) Floating Clamshell, etc., 3 cu. yds. and over	Floating Crane (Derrick Barge) (c) Loader (d) Rubber-tired Scraper (e) Shovel (f) Tandem Bulldozer (g) Wheel Excavator (h) Whirley, 80 ton and under	
Batch Plant and/or Wet Mix (a) Blade Mounted Spreaders (b) Blade Operator Elevating Loader (c) Hoist, two or more drums	Paddle Wheel, Auger Type Piledriver (not crane type) Reinforced Tank Banding Machine (K-17 or similar) Rubber-tired Scraper (d) Shield Operator Single Scraper (e)		a) 25 tons and over b) Over 40 ton and including 100 ton c) 30 ton but less than 80 ton d) 6 cu. yds., but less than 12 cu. yds. e) With Tandem Scrapers, multi-engine f) 3 cu. yds., but less than 5 cu. yds. g) Quad-nine and similar h) Under 750 cu. yds. per hour		
a) 3 units or more b) Ulrich and similar types c) Athey and similar d) Single and twin engine e) With Push-pull attachments, self loader			<u>Group 17</u>		
<u>Group 13</u>			Canal Trimmer Crane (a) Floating Crane (b)	Loader (c) Shovel, etc. (d) Whirley (e)	
Back Filling Machine Blade (a) Blade, multi-engine Blade Operator, finish Bridge Crane Operator (b) Cableway Operator (c) Concrete Paving Road Mixer Crane (d)	Derrick, under 100 tons Elevating Grader (e) Floating Clamshell, etc. (f) Floating Crane (g) Grade-all, 1 cu. yd. and over Hoist (h) Piledriver Operator Shovel, etc (i)		a) Over 100 ton and including 200 ton b) Derrick Barge, 80 ton, but less than 150 ton c) 12 cu. yds. and over d) 5 cu. yds. and over e) Over 80 ton and including 150 ton		
a) Externally controlled by electronic, mechanical hydraulic means b) Locomotive Crane, Gantry and Overhead c) 25 ton and over d) Over 25 ton and including 40 tons e) Operated by Tractor Operator, Sierra, Eculid, or similar f) Under 3 cu. yds. g) Derrick Barge, less than 30 ton h) Stiff Leg, Guy Derrick, or similar, 50 tons and over i) 1 cu. yd. and less than 3 cu. yds.			<u>Group 18</u>		
			Band Wagons (a) Crane (b) Floating Crane (c)	Wheel Excavator (d) Whirley (e)	
			a) In conjunction with Wheel Excavator b) Over 200 ton c) 150 ton but less than 250 ton d) Over 200 ton e) 150 ton and over		
			<u>Group 19</u>		
			Floating Crane (a) Helicopter (b)	Remote Controlled Earth Moving Equipment Under Water Equipment (c)	
			a) 250 ton and over b) When used in erecting work c) Remote or otherwise		

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<u>TRUCK DRIVERS¹</u>			<u>TRUCK DRIVERS (Continued)</u>		
	LESS THAN 100%	100%	Lumber Carrier, Driver-Straddle Carrier—used in loading, unloading and transportation of material on job site.		4
Zone 1 (Base Rate): ²			Oil Distributor Driver or Leverman.		4
o Group 1	12.59	15.23	4.70	Pilot Car	1
o Group 2	12.63	15.28	4.70	Slurry Truck Driver or Leverman	3
o Group 3	12.67	15.33	4.70	Solo Flat Bed and Misc. Body Trucks— 0-10 tons	1
o Group 4	12.71	15.38	4.70	Transit Mix and Wet or Dry Mix Trucks:	
o Group 5	12.75	15.43	4.70	5 cu. yds. and under	1
o Group 6	12.83	15.53	4.70	Over 5 cu. yds. and inc. 7 cu. yds.	5
o Group 7	12.91	15.63	4.70	Over 7 cu. yds. and inc. 9 cu. yds.	6
o Group 8	12.99	15.73	4.70	Over 9 cu. yds. and inc. 11 cu. yds.	7
o Group 9	13.07	15.83	4.70	Over 11 cu. yds. and inc. 13 cu. yds.	8
o Group 10	13.21	16.00	4.70	Over 13 cu. yds. and inc. 15 cu. yds.	9
o Group 11	13.29	16.10	4.70	Team Drivers.	2
o Group 12	13.37	16.20	4.70	Tireman, full-time basis.	3
o Group 13	13.45	16.30	4.70	Truck Helper.	1
o Group 14	13.53	16.40	4.70	Truck Mechanic—Welder—Body Repairman.	6
<u>Work</u>		<u>Group</u>	Truck Mechanic Helper		1
A-Frame or Hydra-lift Truck w/load bearing surface.		2	Water Wagons (Rated Capacity) up to:		
Battery Rebuilder		1	1600 gallons		1
Bus or Man-Haul Driver.		1	1600 to 3000 gallons		3
Concrete Buggies (Power operated)		1	3000 to 5000 gallons		4
Drivers and Helpers handling Sacked Cement—add 15¢ per hour			5000 to 7000 gallons		6
Dump Trucks, Side, End and Bottom Dumps, including Semi-Trucks and trains or combinations thereof:			7000 to 10,000 gallons		7
6 cu. yds. and under		1	10,000 to 15,000 gallons		8
Over 6 cu. yds. and inc. 10 cu. yds.		3	Winch Truck—takes classification of truck on which winch is mounted		
Over 10 cu. yds. and inc. 20 cu. yds.		6			
Over 20 cu. yds. and inc. 30 cu. yds.		7			
Over 30 cu. yds. and inc. 40 cu. yds.		8			
Over 40 cu. yds. and inc. 50 cu. yds.		9			
Over 50 cu. yds. and inc. 60 cu. yds.		10			
Over 60 cu. yds. and inc. 70 cu. yds.		11			
Over 70 cu. yds. and inc. 80 cu. yds.		12			
Over 80 cu. yds. and inc. 90 cu. yds.		13			
Over 90 cu. yds. and inc. 100 cu. yds.		14			
Dumpsters or Similar Equipment—all sizes		5			
Flaherty Spreader Driver or Leverman.		4			
Lift Jitneys, Fork Lifts—all sizes—used in loading, unloading & transporting material on job site.		1			
Loader and/or Leverman on Concrete Dry Batch Plant, manually operated.		1			
Low Bed Equipment, Flat Bed Semi- Truck and Trailer or Doubles trans- porting equipment or wet or dry materials		4			
Lubrication Man, Fuel Truck Driver, Driver, Tireman, Wash Rack, Steam Cleaner or combination.		2			

¹ See page 11 for description of when rates less than 100% may be used.

² See page 11 for zone rates and descriptions.

Payroll and Certified Statement
Form - For Use in Complying
with ORS 279.354

NAME OF CONTRACTOR		OR SUBCONTRACTOR		ADDRESS								
				Phone: () - -								
OR WEEK ENDING		CONTRACTING AGENCY			PROJECT AND LOCATION			PROJECT OR CONTRACT NO.		DATE CONTRACT SPECIFICATIONS FIRST ADVERTISED FOR BID		
(1) NAME, ADDRESS, AND SOCIAL SECURITY NUMBER OF EMPLOYEE		(2) # of W/H EXEMPTIONS	(3) WORK CLASSIFICATION (include group number if applicable)	(4) DAY AND DATE	(5) TOTAL HOURS	(6) RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS				(9) NET WAGE PAID FOR WEEK
				HOURS WORKED EACH DAY				FICA	FEDERAL WITH-HOLDING TAX	STATE WITH-HOLDING TAX	OTHER	TOTAL DEDUC-TIONS
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CERTIFIED STATEMENT

1. (Name of signatory party), (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

(Contractor, subcontractor or surety) on the (Building or work)

_____; that during the payroll commencing on the _____ day of _____, 19____, and ending the _____ day of _____

_____, 19____, all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said _____.

(Contractor, subcontractor or surety)

from the full weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as specified in ORS 652.610, and described below:

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for workers contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each worker conform with work performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

FORM WH-39 (3/84)

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS OR PROGRAMS
In addition to the basic hourly wage rates paid to each worker listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in Section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

Each worker listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXEMPTIONS

EXCEPTION (CRAFT)	EXPLANATION
REMARKS	

I have read this certified statement, know the contents thereof and it is true to my knowledge.

[illegible]

SIGNATURE

☐ Contractor

Subcontractor

Surety

File this form with the contracting agency and send a true copy to the Bureau of Labor and Industries, 1400 SW Fifth Ave., Portland, OR 97201

BUREAU OF LABOR AND INDUSTRIES - WAGE AND HOUR DIVISION

INSTRUCTIONS FOR COMPLETING PAYROLL AND CERTIFIED STATEMENT FORM, WH-38 (Rev 3/84)

General: This form meets needs resulting from the 1983 amendments to the Prevailing Wage Rate Law. Under this amended law, the contractor is required to pay not less than fringe benefits as predetermined by the Bureau of Labor and Industries, in addition to payment of not less than the predetermined rates. The contractor's obligation to pay fringe benefits may be met either by payment of the fringes to the various plans, funds, or programs or by making these payments to the employees as cash in lieu of fringes.

This form provides for the contractor's showing of the payroll and all monies paid to the employees, whether as basic rates or as cash in lieu of fringes and provides for the contractor's representation in the certified statement that he/she is paying to others fringes required by the contract and not paid as cash in lieu of fringes. Detailed instructions concerning the preparation of the form follow:

Fill in all boxes at top of form. Be sure to enter the date the contract was first advertised for bid by the contracting agency. This date should appear on the bid documents.

Column 1 - Name, Address, and Social Security number of Employee: The employee's full name must be shown on each payroll submitted. The employee's address must also be shown on the first payroll submitted. The address need not be shown on subsequent payrolls unless the address changes. Although not required, space is available in the name and address section so that Social Security numbers may be listed.

Column 2 - Withholding Exemptions: This column is merely inserted for the employer's convenience and is not a requirement.

Column 3 - Work Classifications: List classification descriptive of work actually performed by employees. Include group number when appropriate. Consult classifications and minimum wage schedule set forth in contract specifications. If additional classifications are deemed necessary, see Contracting Officer or Agency representative. Employee may be shown as having worked in more than one classification provided accurate breakdown of hours so worked is maintained and shown on submitted payroll by use of separate line entries.

Column 4 - Hours Worked: Enter as overtime hours all hours worked in excess of 8 hours per day, all hours worked on Saturday and Sunday and hours worked on legal holidays as defined in ORS 279.334.

Column 5 - Total: Self-explanatory.

Column 6 - Rate of Pay, including Fringe Benefits: In straight time box, list actual hourly rate paid the employee for straight time worked plus any cash in lieu of fringes paid the employee. When recording the straight time hourly rate, any cash paid in lieu of fringes may be shown separately from the basic rate, thus \$12.50/2.35. This is of assistance in correctly computing overtime. See "Fringe Benefits" below. Payment of not less than time and one half the basic or regular rate paid is required for overtime under ORS 279.334. In addition to paying not less than the predetermined rate for the classification in which the employee works, the contractor shall pay to approved plans, funds, or programs or shall pay as cash in lieu of fringes amounts predetermined as fringe benefits in the wage decision made part of the contract. See "FRINGE BENEFITS" below.

FRINGE BENEFITS -- Contractors who pay all required fringe benefits: A contractor who pays fringe benefits to approved plans, funds, or programs in amounts not less than were determined in the applicable wage decision of the Commissioner of the Bureau of Labor and Industries shall continue to show on the payroll the basic cash hourly rate and overtime rate paid to employees. Such a contractor shall check paragraph 4(a) of the Certified Statement to indicate that he/she is also paying to approved plans, funds, or programs not less than the amount predetermined as fringe benefits for each craft. Any exceptions shall be noted in Section 4(c).

Contractors who pay no fringe benefits: A contractor who pays no fringe benefits shall pay to the employee, and insert in the straight time hourly rate column of the payroll, an amount not less than the predetermined rate for each classification plus the amount of fringe benefits determined for each classification in the applicable wage decision. Inasmuch as it is not necessary to pay time and a half on cash paid in lieu of fringes, the overtime rate shall be not less than the sum of the basic predetermined rate, plus the half time premium on basic or regular rate, plus the required cash in lieu of fringes at the straight time rate. In addition, the contractor shall check paragraph 4(b) of the Certified Statement to indicate that he/she is paying fringe benefits in cash directly to employees. Any exceptions shall be noted in Section 4(c).

Use of Section 4(c), Exceptions

Any contractor who is making payment to approved plans, funds, or programs in amounts less than the wage determination required is obliged to pay the deficiency directly to the employees as cash in lieu of fringes. Any exceptions to Section 4(a) or 4(b), whichever the contractor may check, shall be entered in Section 4(c). Enter in the Exception column the craft, and enter in the Explanation column the hourly amount paid the employee as cash in lieu of fringes and the hourly amount paid to plans, funds, or programs as fringes. The contractor shall pay, and shall show that he/she is paying to each such employee for all hours (unless otherwise provided by applicable determination) worked on the project an amount not less than the predetermined rate plus cash in lieu of fringes as shown in Section 4(c). The rate paid and amount of cash paid in lieu of fringe benefits per hour should be entered in column 6 on the payroll. See paragraph on "Contractors who pay no fringe benefits" for computation of overtime rate.

Column 7 - Gross Amount Earned: Enter gross amount earned on this project. If part of the employees' wage was earned on projects other than the project described on this payroll, enter in column 7 first the amount earned on the project and then the gross amount earned on all projects, thus \$63.00/120.00.

Column 8 - Deductions: Four columns are provided for showing deductions made. If more than four deductions should be involved, use first 3 columns; show the balance of deductions under "Other" column; show actual total under "Total Deductions" column; and in the attachment to the payroll describe the deductions contained in the "Other" column. All deductions must be in accordance with the provisions of ORS 652.610. If the employee worked on other jobs in addition to this project, show actual deductions from gross wage, but indicate that deductions are based on gross wages.

Column 9 - Net Wages Paid for Week: Self-explanatory.

Certified Statement Required by ORS 279.354: While this form need not be notarized, the Certified Statement is subject to the penalties provided by ORS 279.990. Accordingly, the party signing this required statement should have knowledge of the facts represented as true.

Space has been provided between items (1) and (2) of the Statement for describing any deductions made. If all deductions made are adequately described in the "Deductions" column above, state "See Deductions column in this payroll." See paragraph entitled "FRINGE BENEFITS" above for instructions concerning filling out paragraph 4 of the Statement.

(Name of State or Local Government Agency)

PAGE 1 OF 1

ORS 279.023 generally states that not less than 30 days prior to adoption of its budget for the subsequent budget period, each public agency shall prepare and file with the Commissioner of the Bureau of Labor and Industries a list of every public improvement known to that agency that the agency plans to fund in the budget period... If the agency decides to use its own equipment and personnel for constructing projects estimated to cost more than \$50,000, the agency shall show that the decision conforms to the policy of the State of Oregon that public agencies shall make every effort to construct public improvements at the least cost to the public agency, and the public agency shall cause to be kept and preserved a full, true and accurate account of the costs of performing the work including all engineering and administrative expenses and a reasonable estimate of the cost, including investment cost, of the equipment used. NOTE: This Improvement Summary together with the project estimate and least cost determination constitutes a public record available in the usual manner for public review or copying. Mail a copy of this public improvement summary to: Wage and Hour Division, 306 State Office Building; Portland, Oregon 97201

CAPITAL IMPROVEMENT PROJECT COST COMPARISON ESTIMATE

(Name of State or Local Government Agency)

DEPARTMENT: _____
PROPOSED YEAR: _____
PROJECT DESCRIPTION: _____

PROJECT NAME: _____

FUND: _____
PROJECT NUMBER: _____

Rough Quantity Estimate	Units	Work Class Description	Agency Force Estimate		Agency Contract Estimate	
			Unit Cost	Total Cost	Unit Cost	Total Cost

NOTICE OF AWARD OF PUBLIC WORKS CONTRACT
(For Use by Public Agency in Complying with ORS 279.363)

1. PRIME CONTRACTOR

Name _____

Address _____

City, State, Zip _____

Phone Number () _____

2. CONTRACTING AGENCY

Name _____

Address _____

City, State, Zip _____

Phone Number () _____

Submit this completed notice to:
Wage and Hour Division,
Prevailing Wage Section,
1400 S.W. 5th Avenue - Room 306
Portland, Oregon 97201

FORM WH-81 (Rev. 6/88)

3. CONTRACT INFORMATION

A. Contract Name and Number: _____

B. Location of work: _____

C. County: _____

D. Amount of the Award: \$ _____

E. Source of Funds: (i.e. 100%
Federal Funds; 50/50,
Federal, State; 100% local) _____

F. Date Contract Awarded: _____

G. Date Contract Specifications
Advertised for Bid: _____

NOTICE OF AWARD OF PUBLIC WORKS CONTRACT
(For Use by Public Agency in Complying with ORS 279.363)

1. PRIME CONTRACTOR

Name ZAK CONSTRUCTION COMPANY

Address 1234 N.W. Camille Street

City, State, Zip Alexandra, OR 97201

Phone Number (503) 12-4567

2. CONTRACTING AGENCY

Name LOPEZ IRRIGATION DISTRICT

Address 1234 N.W. Shannon Court

City, State, Zip Jamestown, OR 97201

Phone Number (503) 987-6543

Submit this completed notice to:
Wage and Hour Division,
Prevailing Wage Section,
1400 S.W. 5th Avenue - Room 306
Portland, Oregon 97201

FORM WH-81 (Rev. 6/88)

3. CONTRACT INFORMATION

A. Contract Name and Number:

Dam Repair 100-H

B. Location of work: Becca, Oregon

C. County: Malheur

D. Amount of the Award: \$ 25,000

E. Source of Funds: (i.e. 100%
Federal Funds; 50/50,
Federal, State; 100% local)

100% State

F. Date Contract Awarded: July 16, 1985

G. Date Contract Specifications
Advertised for Bid:

July 10, 1985

SECTION 00900 - GENERAL CONDITIONS

ARTICLE 1 DEFINITIONS

Whenever used in these General Conditions or in the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

Addenda - Written or graphic instruments issued prior to the opening of Bids which clarify, correct or change the bidding documents or Contract Documents.

Agreement - The written agreement between Owner and Contractor covering the Work to be performed; other contract Documents are attached to the Agreement and made a part thereof as provided therein.

Application for Payment - The form accepted by Project Manager which is to be used by Contractor in requesting progress or final payment and which is to include such supporting documentation as is required by the Contract Documents.

Bid - The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

Bonds - Bid, performance and payment bonds and other instruments of security.

Change Order - A written order to Contractor signed by Owner authorizing an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the contract Time issued after the effective date of the Agreement.

Contract Documents - The Agreement, Addenda (which pertain to the Contract Documents), Contractor's Bid (including documentation accompanying the Bid and any post-Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications, the Drawings as the same are more specifically identified in the Agreement, together with all Modifications issued after the execution of the Agreement.

Contract Price - The moneys payable by Owner to Contractor under the Contract Documents as stated in the Agreement.

Contract Time - The number of days (computed as provided in paragraph 17.2) or the date stated in the Agreement for the completion of the Work.

Contractor - The person, firm or corporation with whom Owner has entered into the Agreement.

day - A calendar day of twenty-four hours measured from midnight to the next midnight.

defective - An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents or does not meet the requirements of any inspection, test or approval referred to in the Contract Documents, or has been damaged prior to Project Manager's recommendation of final payment.

Drawings - The drawings which show the character and scope of the Work to be performed and which have been approved by Project Manager and are referred to in the Contract Documents.

effective date of the Agreement - The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

Field Order - A written order issued by Project Manager which orders minor changes in the Work in accordance with paragraph 10.2 but which does not involve a change in the Contract Price or the Contract Time.

General Requirements - Sections of Division 1 of the Specifications.

Modification - (a) A written amendment of the Contract Documents signed by both parties, (b) A Change Order, or (c) A Field Order. A modification may only be issued after the effective date of the Agreement.

Notice of Award - The written notice of Owner to the apparent successful Bidder stating that upon compliance by the apparent successful Bidder with the conditions precedent enumerated therein, within the time specified, Owner will sign and deliver the Agreement.

Notice to Proceed - A written notice given by Owner to Contractor fixing the date on which the Contract Time will commence to run and on which Contractor shall start to perform his obligation under the Contract Documents.

Owner - The public body or authority, corporation, association, partnership, or individual with whom Contractor has entered into the Agreement and for whom the Work is to be provided.

Project - The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

Project Manager - The person, firm, or corporation supervising the Work on behalf of the Owner.

Resident Project Representative - The authorized representative of Owner who is assigned to the site or any part thereof.

Shop Drawings - All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by Contractor, a Subcontractor, manufac-

turer, fabricator, supplier or distributor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a manufacturer, fabricator, supplier or distributor and submitted by Contractor to illustrate material or equipment for some portion of the Work.

Specifications - Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and Workmanship as applied to the Work and certain administrative details applicable thereto.

Subcontractor - An individual, firm or corporation having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the site.

Substantial Completion - The Work (or a specified part thereof) has progressed to the point where, in the opinion of Project Manager as evidenced by his definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it was intended; or if there be no such certificate issued, when final payment is due in accordance with paragraph 14.15. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof.

Work - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

ARTICLE 2 PRELIMINARY MATTERS

Copies of Documents:

2.1 Owner shall furnish to Contractor up to ten copies (unless otherwise specified in the General Requirements) of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

Commencement of Contract Time; Notice to Proceed:

2.2 The Contract Time will commence to run on the day indicated in the Notice to Proceed.

Starting the Project:

2.3 Contractor shall start to perform the Work on the date when the Contract Time commences to run, but no Work shall be done at the site prior to the date on which the Contract Time commences to run.

Before Starting Construction:

- 2.4 Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. Contractor shall promptly report in writing to Project Manager any conflict, error or discrepancy which Contractor may discover; however, Contractor shall not be liable to Owner or Project Manager for failure to report any conflict, error or discrepancy in the Drawings or Specifications, unless Contractor had actual knowledge thereof or should reasonably have known thereof.
- 2.5 Before the Notice to Proceed can be given Contractor must submit to Project Manager for review and acceptance an estimated progress schedule indicating the starting and completion dates of the various stages of the Work, a preliminary schedule of Shop Drawings submissions, and a preliminary schedule of values of the Work.
- 2.6 Before any Work at the site is started, Contractor shall deliver to Owner, with a copy to Project Manager, certificates (and other evidence of insurance requested by Owner) which Contractor is required to purchase and maintain in accordance with paragraphs 5.3 and 5.4, and Owner shall deliver to Contractor certificates (and other evidence of insurance requested by Contractor) which Owner is required to purchase and maintain in accordance with paragraphs 5.6 and 5.7.

Preconstruction Conference:

- 2.7 Before Contractor starts the Work at the site, a conference will be held for review and acceptance of the schedules referred to in paragraph 2.4, to establish procedures for handling Shop Drawings and other submittals and for processing Applications for Payment, and to establish a Working understanding among the parties as to the Work.

ARTICLE 3 CONTRACT DOCUMENTS: INTENT AND REUSE

Intent:

- 3.1 The Contract Documents comprise the entire Agreement between Owner and Contractor concerning the Work. They may be altered only by a Modification.
- 3.2 The Contract Documents are complementary; what is called for by one is as binding as if called for by all. If, during the performance of the Work, Contractor finds a conflict, error or discrepancy in the Contract Documents, he shall report it to Project Manager in writing at once and before proceeding with the Work affected thereby; however, Contractor shall not be liable to Owner or Project Manager for failure to report any conflict, error or discrepancy in the Specifications or Drawings unless Contractor had actual knowledge thereof or should reasonably have known thereof.

3.3 It is the intent of the Specifications and Drawings to describe a complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work that may reasonably be inferred from the Specifications or Drawings as being required to produce the intended result shall be supplied whether or not it is specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials or equipment such words shall be interpreted in accordance with such meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the code of any governmental authority, whether such reference be specific or by implications, shall mean the latest standard specification, manual or code in effect at the time of opening of Bids (or, on the effective date of the Agreement if there were no Bids), except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall change the duties and responsibilities of Owner, Contractor or Project Manager, or any of their agents or employees from those set forth in the Contract Documents. Clarifications and interpretations of the Contract Documents shall be issued by Project Manager as provided for in paragraph 9.3.

3.4 The Contract Documents will be governed by the law of the place of the Project.

Reuse of Documents:

3.5 Neither Contractor nor any Subcontractor, manufacturer, fabricator, supplier or distributor shall have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of Architect/Engineer; and they shall not reuse any of them on extensions of the Project or any other project without written consent of Owner and Architect/Engineer and specific written verification or adaptation by Architect/Engineer.

ARTICLE 4 AVAILABILITY OF LANDS; PHYSICAL CONDITIONS; REFERENCE POINTS

Availability of Lands:

4.1 Owner shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way for access thereto, and such other lands which are designated for the use of Contractor. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by Owner, unless otherwise provided in the Contract Documents. If Contractor believes that any delay in Owner's furnishing these lands or easements entitles him to an extension of the Contract Time, Contractor may make a claim therefor as provided in Article 12. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

Physical Conditions - Investigations and Reports:

- 4.2 Reference is made to the Supplementary Conditions for identification of those reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which have been relied upon by the Engineer in preparation of the Drawings and Specifications. Such reports are not guaranteed as to accuracy or completeness and are not part of the Contract Documents.

Unforeseen Physical Conditions:

- 4.3 Contractor shall promptly notify Owner and Project Manager in writing of any subsurface or latent physical conditions at the site or in an existing structure differing materially from those indicated or referred to in the Contract Documents. Project Manager will promptly review those conditions and advise Owner in writing if further investigation or tests are necessary. Promptly thereafter, Owner shall obtain the necessary additional investigations and tests and furnish copies to Project Manager and Contractor. If Project Manager finds that the results of such investigations or tests indicate that there are subsurface or latent physical conditions which differ materially from those intended in the Contract Documents, and which could not reasonably have been anticipated by Contractor, a Change Order shall be issued incorporating the necessary revisions.

Reference Points:

- 4.4 Owner shall provide engineering surveys for construction to establish reference points which in his judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work (unless otherwise specified in the General Requirements), shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Project Manager whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for replacement or relocation of such reference points by professionally qualified personnel.

ARTICLE 5 BONDS AND INSURANCE

Performance and Other Bonds:

- 5.1 Contractor shall furnish performance and payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all Contractor's obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date of final payment, except as otherwise provided by law. Contractor shall also furnish such other Bonds as are required by the

Supplementary Conditions. All Bonds shall be in the forms prescribed by the bidding documents or Supplementary Conditions and be executed by such Sureties as (i) are licensed to conduct business in the state where the Project is located, and (ii) are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of the authority to act.

- 5.2 If the Surety on any Bond furnished by Contractor is declared a bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of clauses (i) and (ii) of paragraph 5.1, Contractor shall within five days thereafter substitute another Bond and Surety, both of which shall be acceptable to Owner.

Contractor's Liability Insurance:

- 5.3 Contractor shall purchase and maintain such comprehensive general liability and other insurance as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether such performance is by Contractor, by any Subcontractor, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- 5.3.1 Claims under workers' or workmen's compensations, disability benefits and other similar employee benefits acts;
- 5.3.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
- 5.3.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
- 5.3.4 Claims for damages insured by personal injury liability coverage which are sustained (i) by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or (ii) by any other person for any other reason;
- 5.3.5 Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom; and
- 5.3.6. Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

The insurance required by this paragraph 5.3 shall include the specific coverages and be written for not less than the limits of liability and

coverages provided in the Supplementary Conditions, or required by law, whichever is greater. The comprehensive general liability insurance shall include completed operations insurance. All such insurance shall contain a provision that the coverage afforded will not be cancelled, materially changed or renewal refused until at least thirty days prior written notice has been given to Owner and Project Manager. All such insurance shall remain in effect until final payment and at all times thereafter when Contractor may be correcting, removing or replacing defective Work in accordance with paragraph 13.12. In addition, Contractor shall maintain such completed operations insurance for at least two years after final payment.

Contractual Liability Insurance:

- 5.4 The comprehensive general liability insurance required by paragraph 5.3 will include contractual liability insurance applicable to Contractor's obligations under paragraphs 6.28 and 6.29.

Owner's Liability Insurance:

- 5.5 Owner shall be responsible for purchasing and maintaining his own liability insurance and, at his option, may purchase and maintain such insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

Property Insurance:

- 5.6 Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the work at the site to the full insurable value thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by law). This insurance shall include the interests of Owner, Contractor and Subcontractors in the Work, shall insure against the perils of fire and extended coverage and shall include "all risk" insurance for physical loss and damage including theft, vandalism and malicious mischief, collapse and water damage, and such other perils as may be provided in the Supplementary Conditions, and shall include damages, losses and expenses arising out of or resulting from any losses and expenses arising out of or resulting from any insured loss or incurred in the repair or replacement of any insured property (including fees and charges of engineers, architects, attorneys and other professionals.) If not covered under the "all risk" insurance or otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain similar property insurance on portions of the Work stored on and off the site or in transit when such portions of the Work are to be included in an Application for Payment. The policies of insurance required to be purchased and maintained by Owner in accordance with paragraphs 5.6 and 5.7 shall contain a provision that the coverage afforded will not be cancelled or materially changed until at least thirty days prior written notice has been given to Contractor.

The insurance purchased upon the Work shall cover only the Work as defined in the definition section of Article 1 of this section and therefore specifically excludes coverage for the loss, theft or damage to Contractor or Subcontractor's personal property.

- 5.7 Owner shall purchase and maintain such boiler and machinery insurance as may be required by the Supplementary Conditions or by law. This insurance shall include the interests of Owner, Contractor and Subcontractors in the Work.
- 5.8 Owner shall not be responsible for purchasing and maintaining any property insurance to protect the interests of Contractor or Subcontractors in the Work to the extent of any deductible amounts that are provided in the Supplementary Conditions. If Contractor wishes property insurance coverage within the limits of such amounts, Contractor may purchase and maintain it at his own expense.
- 5.9 If Contractor requests in writing that other special insurance be included in the property insurance policy, Owner shall, if possible, include such insurance, and the cost thereof shall be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the site, Owner will in writing advise Contractor whether or not such other insurance has been procured by Owner.

Waiver of Rights:

- 5.10 Owner and Contractor waive all rights against each other and the Subcontractors and their agents and employees and against Engineer and separate contractors (if any) and their subcontractors' agents and employees, for damages caused by fire or other perils to the extent covered by insurance provided under paragraphs 5.6 and 5.7, inclusive, or any other property insurance applicable to the Work, except such rights as they may have to the proceeds of such insurance held by Owner as trustee. Owner shall require similar written waivers by Engineer and from each Subcontractor (in accordance with paragraph 6.10 as applicable); each such waiver will be in favor of all other parties enumerated in this paragraph 5.10.

Receipt and Application of Proceeds:

- 5.11 Any insured loss under the policies of insurance required by paragraphs 5.6 and 5.7 shall be adjusted with Owner and made payable to Owner as trustee for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.12. Owner shall deposit in a separate account any money so received, and he shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof and the Work and the cost thereof covered by an appropriate Change Order.

- 5.12 Owner as trustee shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within fifteen days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as trustee shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If required in writing by any party in interest, Owner as trustee shall upon the occurrence of an insured loss, give bond for the proper performance of his duties.

Acceptance of Insurance:

- 5.13 If Owner has any objection to the coverage afforded by or other provisions of the insurance required to be purchased and maintained by Contractor in accordance with paragraphs 5.3 and 5.4 on the basis of its not complying with the Contract Documents, Owner will notify Contractor in writing thereof within ten days of the date of delivery of such certificates to Owner in accordance with paragraph 2.6. If Contractor has any objection to the coverage afforded by or other provisions of the policies of insurance required to be purchased and maintained by Owner in accordance with paragraphs 5.6 and 5.7 on the basis of their not complying with the Contract Documents, Contractor will notify Owner in writing thereof within ten days of the date of delivery of such certificates to Contractor in accordance with paragraph 2.6. Owner and Contractor will each provide to the other such additional information in respect of insurance provided by him as the other may reasonably request. Failure by Owner or Contractor to give any such notice of objection within the time provided shall constitute acceptance of such insurance purchased by the other as complying with the Contract Documents.

Partial Utilization - Property Insurance:

- 5.14 If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, such use or occupancy may be accomplished in accordance with paragraph 14.12; provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected the changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be cancelled or lapse on account of any such partial use or occupancy.

ARTICLE 6 CONTRACTOR'S RESPONSIBILITIES

Supervision and Superintendence:

- 6.1 Contractor shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means,

methods, techniques, sequences and procedures of construction, but Contractor shall not be solely responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence or procedure of construction which is indicated in and required by the Contract Documents. Contractor shall be responsible to see that the finished Work complies accurately with the Contract Documents.

- 6.2 Contractor shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to Owner and Project Manager except under extraordinary circumstances. The superintendent will be Contractor's representative at the site and shall have authority to act on behalf of Contractor. All communications given to the superintendent shall be binding as if given to Contractor.

Labor, Materials and Equipment:

- 6.3 Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the site.
- 6.4 Contractor shall furnish all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water and sanitary facilities and all other facilities and incidentals necessary for the execution, testing, initial operation and completion of the Work.
- 6.5 All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by Project Manager, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment.
- 6.6 All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, supplier or distributor, except as otherwise provided in the Contract Documents.

Equivalent Materials and Equipment:

- 6.7 Whenever materials or equipment are specified or described in the Drawings or Specifications by using the name of a proprietary item or the name of a particular manufacturer, fabricator, supplier or distributor, the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other manufacturers, fabricators, suppliers or distributors may be accepted by Project Manager if sufficient information is submitted by Contractor to allow Project Manager to determine that the material or equipment proposed is equivalent to that named. The procedure for review by Project Manager will be as set forth in Section 01600 Material and Equipment.

Concerning Subcontractors:

- 6.8 Contractor shall be fully responsible for all acts and omissions of his Subcontractors and of persons and organizations directly or indirectly employed by them and of persons and organizations for whose acts any of them may be liable to the same extent that Contractor is responsible for the acts and omissions of persons directly employed by Contractor. Nothing in the Contract Documents shall create any contractual relationship between Owner or Project Manager and any Subcontractor or other person or organization having a direct contract with Contractor, nor shall it create any obligation on the part of Owner or Project Manager to pay or to see to the payment of any moneys due any Subcontractor or other person or organization, except as may otherwise be required by law. Owner or Project Manager may furnish to any Subcontractor or other person or organization, to the extent practicable, evidence of amounts paid to Contractor on account of specific Work done.
- 6.9 The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or delineating the work to be performed by any specific trade.
- 6.10 All Work performed for Contractor by a Subcontractor will be pursuant to an appropriate agreement between Contractor and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Project Manager and contains waiver provisions as required by paragraph 5.10. Contractor shall pay each Subcontractor a just share of any insurance moneys received by Contractor on account of losses under policies issued pursuant to paragraphs 5.6 through 5.8.

Patent Fees and Royalties:

- 6.11 Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of Owner or Project Manager its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents. Contractor shall indemnify and hold harmless Owner and Project Manager and anyone directly or indirectly employed by either of them from and against all claims, damages, losses and expenses (including attorneys' fees) arising out of any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device not specified in the Contract Documents, and shall defend all such claims in connection with any alleged infringement of such rights.

Permits:

- 6.12 Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. However, Owner shall apply, pay for and receive the Plan Check for the Building Permit and shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids. Contractor shall pay all charges of utility service companies for connections to the Work, and the Owner shall pay all charges of such companies for capital costs related thereto.

Laws and Regulations:

- 6.13 Contractor shall give all notices and comply with all laws, ordinances, rules and regulations applicable to the Work. If Contractor observes that the Specifications or Drawings are at variance therewith, Contractor shall give Project Manager prompt written notice thereof, and any necessary changes shall be adjusted by an appropriate Modification. If Contractor performs any Work knowing or having reason to know that it is contrary to such laws, ordinances, rules and regulations, and without such notice to Project Manager, Contractor shall bear all cost arising therefrom; however, it shall not be Contractor's primary responsibility to make certain that the Specifications and Drawings are in accordance with such laws, ordinances, rules and regulations.

Taxes:

- 6.14 Contractor shall pay all sales, consumer, use and other similar taxes required to be paid by him in accordance with the law of the place of the Project.

Use of Premises:

- 6.15 Contractor shall confine construction equipment, the storage of materials and equipment and the operations of workmen to areas permitted by law, ordinances, permits or the requirements of the Contract Documents, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment.
- 6.16 During the progress of the work, Contractor shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work Contractor shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean and ready for occupancy by Owner. Contractor shall restore to their original condition those portions of the site not designated for alteration by the Contract Documents.

- 6.17 Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

Safety and Protection:

- 6.18 Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

- 6.18.1 all employees on the Work and other persons who may be affected thereby,
- 6.18.2 all the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and
- 6.18.3 other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

Contractor shall comply with all applicable laws, ordinances, rules, regulations and orders of and public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and utilities when prosecution of the Work may affect them. All damage, injury or loss to any property referred to in paragraph 6.18.1 or 6.18.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Project Manager or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor). Contractor's duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and Project Manager has issued a notice to Owner and Contractor in accordance with paragraph 14.15 that the Work is acceptable.

- 6.19 Contractor shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be Contractor's superintendent unless otherwise designated in writing by Contractor to Owner.

Emergencies:

- 6.20 In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, Contractor, without special instruction or authorization from Project Manager or Owner, is obligated to act to prevent threatened damage, injury or loss. Contractor shall give Project Manager prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused thereby.

Shop Drawings and Samples:

- 6.21 After checking and verifying all field measurements, Contractor shall submit to Project Manager for review and approval, in accordance with the accepted schedule of Shop Drawings submissions (see paragraph 2.7), five copies (unless otherwise specified in the General Requirements) of all Shop Drawings, which shall have been checked by and stamped with the approval of Contractor and identified as Project Manager may require. The data shown on the Shop Drawings will be complete with respect to dimensions, design criteria, materials of construction and like information to enable Project Manager to review the information as required.
- 6.22 Contractor shall also submit to Project Manager for review and approval with such promptness as to cause no delay in Work, all samples required by the Contract Documents. All samples will have been checked by and stamped with the approval of Contractor, identified clearly as to material, manufacturer, any pertinent catalog numbers and the use for which intended.
- 6.23 At the time of each submission, Contractor shall in writing call Project Manager's attention to any deviations that the Shop Drawings or samples may have from the requirements of the Contract Documents.
- 6.24 Project Manager or Architect/Engineer will review and approve with reasonable promptness Shop Drawings and samples, but that review and approval shall be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, sequences, techniques or procedures or construction or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. Contractor shall make any corrections required by Project Manager and shall return the required number of corrected copies of Shop Drawings and resubmit new samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Project Manager on previous submittals. Contractor's stamp of approval on any Shop Drawing or sample shall constitute a representation to Owner and Project Manager that Contractor has either determined and verified all quantities, dimensions, field construction criteria, materials, catalog numbers, and similar data or assumes full responsibility for doing so, and that Contractor has reviewed or coordinated each Shop Drawing or sample with the requirements of the Work and the Contract Documents.

- 6.25 Where a Shop Drawing or sample is required by the Specifications, no related Work shall be commenced until the submittal has been reviewed and approved by Project Manager or Architect/Engineer.
- 6.26 Project Manager or Architect/Engineer's review and approval of Shop Drawings or samples shall not relieve Contractor from responsibility for any deviations from the Contract Documents unless Contractor has in writing called Project Manager's attention to such deviation at the time of submission and Project Manager or Architect/Engineer has given written concurrence and approval to the specific deviation, nor shall any concurrence or approval by Project Manager or Architect/Engineer relieve Contractor from responsibility for errors or omissions in the Shop Drawings.

Continuing the Work:

- 6.27 Contractor shall carry on the Work and maintain the progress schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as Contractor and Owner may otherwise agree in writing.

Indemnification:

- 6.28 To the fullest extent permitted by law, Contractor shall indemnify and hold harmless Owner and Project Manager and their agents and employees from and against all claims, damages, losses and expenses including but not limited to attorneys' fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense (a) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom and (b) is caused in whole or in part by any negligent act or omission of Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.
- 6.29 In any and all claims against Owner or Project Manager or any of their agents or employees by any employee of Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.28 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or Subcontractor under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.
- 6.30 The obligations of Contractor under paragraph 6.28 shall not extend to the liability of the Project Manager or Architect/Engineer, his agents or employees arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications.

ARTICLE 7 WORK BY OTHERS

- 7.1 Owner may perform additional work related to the Project by himself, or have additional work performed by utility service companies, or let other direct contracts therefor which shall contain General Conditions similar to these. Contractor shall afford the utility service companies and the other contractors who are parties to such direct contracts (or Owner, if Owner is performing the additional work with Owner's employees) reasonable opportunity for the introduction and storage of materials and equipment and the execution of work, and shall properly connect and coordinate his Work with theirs.
- 7.2 If any part of Contractor's Work depends for proper execution or results upon the work of any such other contractor or utility service company (or Owner), Contractor shall inspect and promptly report to Project Manager in writing any patent or apparent defects or deficiencies in such work that render it unsuitable for such proper execution and results. Contractor's failure so to report shall constitute an acceptance of the other work as fit and proper for integration with Contractor's Work except for latent or nonapparent defects and deficiencies in the other work.
- 7.3 Contractor shall do all cutting, fitting and patching of his Work that may be required to make its several parts come together properly and integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of Project Manager and the others whose work will be affected.
- 7.4 If the performance of additional work by other contractors or utility service companies or Owner was not noted in the Contract Documents, written notice thereof shall be given to Contractor prior to starting any such additional work. If Contractor believes that the performance of such additional work by Owner or others involves additional expense to Contractor or requires an extension of the Contract Time, Contractor may make a claim therefor as provided in Articles 11 and 12.

ARTICLE 8 OWNER'S RESPONSIBILITIES

- 8.1 Owner shall issue all communications to Contractor through Project Manager.
- 8.2 In case of termination of the employment of Project Manager, Owner shall appoint a Project Manager against whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Project Manager. Any dispute in connection with such appointment shall be subject to arbitration.
- 8.3 Owner shall furnish the data required of Owner under the Contract Documents promptly and shall make payments to Contractor promptly after they are due as provided in paragraphs 14.4 and 14.15.

- 8.4 Owner's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.1 and 4.4. Paragraph 4.2 refers to Owner's identifying and making available to Contractor copies of reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting performance of the Work which have been relied upon by Project Manager in preparing the Drawings and Specifications.
- 8.5 Owner's responsibilities in respect of purchasing and maintaining liability and property insurance are set forth in paragraphs 5.5 through 5.7.
- 8.6 In connection with Owner's rights to request changes in the Work in accordance with Article 10, Owner (especially in certain instances as provided in paragraph 10.4) is obligated to execute Change Orders.
- 8.7 Owner's responsibility in respect of certain inspections, tests and approvals is set forth in paragraph 13.4.
- 8.8 In connection with Owner's right to stop Work or suspend Work, see paragraphs 13.10 and 15.1. Paragraph 15.2 deals with Owner's right to terminate services of Contractor under certain circumstances.

ARTICLE 9 PROJECT MANAGER'S STATUS DURING CONSTRUCTION

Owner's Representative:

- 9.1 Project Manager will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Project Manager as Owner's representative during construction are set forth in the Contract Documents and shall not be extended without written consent of Owner and Project Manager.

Visits to Site:

- 9.2 Project Manager will make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed Work and to determine, in general, if the Work is proceeding in accordance with the Contract Documents. Project Manager will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. Project Manager's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform to the Contract Documents. On the basis of such visits and on-site observations as an experienced and qualified design professional, Project Manager will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defects and deficiencies in the Work.

Clarifications and Interpretations:

- 9.3 Project Manager will issue with reasonable promptness such written clarifications or interpretations of the Contract Documents (in the form of Drawings or otherwise) as Project Manager may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents. If Contractor believes that a written clarification or interpretation justifies an increase in the Contract Price or Contract Time, Contractor may make a claim therefor as provided in Article 11 or Article 12.

Rejecting Defective Work:

- 9.4 Project Manager will have authority to disapprove or reject Work which is defective, and will also have authority to require special inspection or testing of the Work as provided in paragraph 13.9, whether or not the Work is fabricated, installed or completed.

Shop Drawings, Change Orders and Payments:

- 9.5 In connection with Project Manager's responsibility for Shop Drawings and samples, see paragraphs 6.21 through 6.26 inclusive.
- 9.6 In connection with Project Manager's responsibilities as to Change Orders, see Articles 10, 11 and 12.
- 9.7 In connection with Project Manager's responsibilities in respect of Applications for Payment, etc., see Article 14.

Decisions on Disagreements:

- 9.8 Project Manager will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the Work shall be referred initially to Project Manager in writing with a request for a formal decision in accordance with this paragraph, which Project Manager will render in writing within a reasonable time. Written notice of each such claim, dispute and other matter shall be delivered by the claimant to Project Manager and the other party to the Agreement within fifteen days of the occurrence of the event giving rise thereto, and written supporting data will be submitted to Project Manager and the other party within forty-five days of such occurrence unless Project Manager allows an additional period of time to ascertain more accurate data. In his capacity as interpreter and judge Project Manager will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.
- 9.9 The rendering of a decision by Project Manager pursuant to paragraph 9.8 with respect to any such claim, dispute or other matter (except any which

have been waived by the making or acceptance of final payment as provided in paragraph 14.18) will be a condition precedent to any exercise by Owner or Contractor of such rights or remedies as either may otherwise have under the Contract Documents or at law in respect of any such claim, dispute or other matter.

Limitations on Project Manager's Responsibilities:

- 9.10 Neither Project Manager's authority to act under this Article 9 or elsewhere in the Contract Documents nor any decision made by Project Manager in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of Project Manager to Contractor, and Subcontractor, any manufacturer, fabricator, supplier or distributor, or any of their agents or employees or any other person performing any of the Work.
- 9.11 Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed" or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper" or "satisfactory" or adjectives of like effect or import are used, to describe requirement, direction, review or judgment of Project Manager as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective never indicates that Project Manager shall have authority to undertake responsibility contrary to the provisions of paragraphs 9.12 or 9.13.
- 9.12 Project Manager will not be responsible for Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and Project Manager will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- 9.13 Project Manager will not be responsible for the acts or omissions of Contractor or of any Subcontractors, or of the agents or employees of any Contractor or Subcontractor, or of any other persons at the site or otherwise performing any of the Work.

ARTICLE 10 CHANGES IN THE WORK

- 10.1 Without invalidating the Agreement, Owner may, at any time or from time-to-time, order additions, deletions or revisions in the Work; these will be authorized by Change Orders. Upon receipt of a Change Order, Contractor shall proceed with the Work involved. All such Work shall be executed under the applicable conditions of the Contract Documents. If any Change Order causes an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, an equitable adjustment will be made as provided in Article 11 or Article 12 on the basis of a claim made by either party.

- 10.2 Project Manager may authorize minor changes in the Work not involving an adjustment in the Contract Price or the Contract Time, which are consistent with the overall intent of the Contract Documents. This may be accomplished by a Field Order and shall be binding on Owner, and also on Contractor who shall perform the change promptly. If Contractor believes that a Field Order justifies an increase in the Contract Price or Contract Time, Contractor may make a claim therefor as provided in Article 11 or Article 12.
- 10.3 Additional Work performed without authorization of a Change Order will not entitle Contractor to an increase in the Contract Price or an extension of the Contract Time, except in the case of an emergency as provided in paragraph 6.20 and except as provided in paragraphs 10.2 and 13.9.
- 10.4 Owner shall execute appropriate Change Orders prepared by Project Manager covering changes in the Work which are required by Owner, or required because of unforeseen physical conditions or emergencies, or because of uncovering Work found not to be defective, or as provided in paragraphs 11.9 or 11.10, or because of any other claim of Contractor for a change in the Contract Time or the Contract Price which is recommended by Project Manager.
- 10.5 If notice of any change affecting the general scope of the Work or change in the Contract Price is required by the provisions of any Bond to be given to the Surety, it will be Contractor's responsibility to so notify the Surety, and the amount of each applicable Bond shall be adjusted accordingly. Contractor shall furnish proof of such adjustment to Owner.

ARTICLE 11 CHANGE OF CONTRACT PRICE

- 11.1 The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to Contractor for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at his expense without change in the Contract Price.
- 11.2 The Contract Price may only be changed by a Change Order. Any claim for an increase in the Contract Price shall be based on written notice delivered to Owner and Project Manager within fifteen days of the occurrence of the event giving rise to the claim. Notice of the amount of the claim with supporting data shall be delivered within forty-five days of such occurrence unless Project Manager allows an additional period of time to ascertain accurate cost data. All claims for adjustment in the Contract Price shall be determined by Project Manager if Owner and Contractor cannot otherwise agree on the amount involved. Any change in the Contract Price resulting from any such claim shall be incorporated in a Change Order.
- 11.3 The value of any Work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:

11.3.1 Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved (subject to the provision of paragraph 11.9).

11.3.2 By mutual acceptance of a lump sum.

Cost of the Work:

11.4 The term Cost of the Work means the sum of all costs necessarily incurred and paid by Contractor in the proper performance of the Work. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in paragraph 11.5.

11.4.1 Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' or workmen's compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing Work after regular working hours, on Sunday or legal holidays, shall be included in the above to the extent authorized by Owner.

11.4.2 Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and manufacturers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds, and all returns from sale of surplus materials and equipment shall accrue to Owner and Contractor shall make provisions so that they may be obtained.

11.4.3 Payments made by Contractor to the Subcontractors for Work performed by Subcontractors.

11.4.4 Costs of special consultant (including, but not limited to, engineers, architects, testing laboratories, surveyors, lawyers and accountants) employed for services specifically related to the Work.

11.4.5 Supplemental costs including the following:

- 11.4.5.1 The proportion of necessary transportation, travel and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
- 11.4.5.2 Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workmen, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of Contractor.
- 11.4.5.3 Rentals of all construction equipment and machinery and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Project Manager, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof - all in accordance with terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.
- 11.4.5.4 Sales, use or similar taxes related to the Work, and for which Contractor is liable, imposed by any governmental authority.
- 11.4.5.5. Deposits lost for causes other than Contractor's negligence, royalty payments and fees for permits and licenses.
- 11.4.5.6 Losses and damages (and related expenses), not compensated by insurance or otherwise, to the Work or otherwise sustained by Contractor in connection with the execution of the Work, provided they have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages and expenses shall be included in the cost of the Work for the purpose of determining Contractor's Fee. If, however, any such loss or damage requires reconstruction and Contractor is placed in charge thereof, Contractor shall be paid for services a fee proportionate to that stated in paragraph 11.6.2.
- 11.4.5.7 The cost of utilities, fuel and sanitary facilities at the site.
- 11.4.5.8 Minor expenses such as telegrams, long distance telephone calls, telephone service at the site,

expressage and similar petty cash items in connection with the Work.

11.4.5.9 Cost of premiums for additional Bonds and insurance required because of changes in the Work.

11.5 The term Cost of the Work shall not include any of the following:

11.5.1 Payroll costs and other compensation of Contractor's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, lawyers, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by Contractor whether at the site or in his principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in subparagraph 11.4.1 - all of which are to be considered administrative costs covered by the Contractor's Fee.

11.5.2 Expenses of Contractor's principal and branch offices other than Contractor's office at the site.

11.5.3 Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

11.5.4 Cost of premiums for all Bonds and for all insurance whether or not Contractor is required by the Contract Documents to purchase and maintain the same (except for additional Bonds and insurance required because of changes in the Work).

11.5.5 Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective work, disposal of materials or equipment wrongly supplied and making good any damage to property.

11.5.6 Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 11.4.

Contractor's Fee:

11.6 The Contractor's Fee allowed to Contractor for overhead and profit shall be determined as follows:

11.6.1 a mutually acceptable fixed fee; or if none can be agreed upon,

11.6.2 a fee based on the following percentages of the various portions of the Cost of Work:

11.6.2.1 for costs incurred under paragraphs 11.4.1 and 11.4.2, the Contractor's Fee shall be ten percent,

11.6.2.2 for costs incurred under paragraph 11.4.3, the Contractor's Fee shall be five percent; and if a sub-contract is on the basis of Cost of the Work plus a Fee, the maximum allowable to the Subcontractor as a fee for overhead and profit shall be ten percent, and

11.6.2.3 no fee shall be payable on the basis of costs itemized under paragraphs 11.4.4, 11.4.5 and 11.5.

11.7 The amount of credit to be allowed by Contractor to Owner for any such change which results in a net decrease in cost, will be the amount of the actual net decrease. When both additions and credits are involved in any one change, the combined overhead and profit shall be figured on the basis of the net increase, if any.

Adjustment of Unit Prices:

11.8 Whenever the cost of any Work is to be determined pursuant to paragraphs 11.4 and 11.5, Contractor will submit in form acceptable to Project Manager an itemized cost breakdown together with supporting data.

11.9 Where the quantity of Work with respect to any item that is covered by a unit price differs materially and significantly from the quantity of such Work indicated in the Contract Documents, an appropriate Change Order shall be issued on recommendation of Project Manager to adjust the unit price.

Cash Allowances:

11.10 It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be done by such Subcontractors, manufacturers, fabricators, suppliers or distributors and for such sums within the limit of the allowances as may be acceptable to Project Manager. Upon final payment, the Contract Price includes such sums as Contractor deems proper for costs and profit on account of cash allowances. No demand for additional cost or profit in connection therewith will be valid.

ARTICLE 12 CHANGE OF CONTRACT TIME

12.1 The Contract Time may only be changed by a Change Order. Any claim for an extension in the Contract Time shall be based on written notice delivered to Owner and Project Manager within fifteen days of the occurrence of the event giving rise to the claim. Notice of the extent of the claim with supporting data shall be delivered within forty-five days of such occurrence unless Project Manager allows an additional period of time to

ascertain more accurate data. All claims for adjustment in the Contract Time shall be determined by Project Manager if Owner and Contractor cannot otherwise agree. Any change in the Contract Time resulting from any such claim shall be incorporated in a Change Order.

- 12.2 The Contract Time will be extended in an amount equal to time lost due to delays beyond the control Contractor if a claim is made therefor as provided in paragraph 12.1. Such delays shall include, but not be limited to, acts or neglect by Owner or others performing additional work as contemplated by Article 7, or to fires, floods, labor disputes, epidemics, abnormal weather conditions, or acts of God.

- 12.3 All time limits stated in the Contract Documents are of the essence of the Agreement. The provisions of this Article 12 shall not exclude recovery for damages (including compensation for additional professional services) for delay by either party.

Liquidated Damages:

- 12.4 Since it is not practical to ascertain the actual monetary value of damage sustained by the Owner, due to noncompletion of the Work within the stipulated calendar days it is hereby stipulated and agreed to by the Owner and the Contractor, that the Contractor shall pay to Owner, as liquidated damages, or as the Owner may elect, deduct from the Contract Sum, such amounts for each calendar day as here below shown.

Schedule of Liquidated Damages:

<u>Contract - Sum Bid</u>	<u>Per-Diem Damage</u>
a. Less than \$25,000	\$ 100.00
b. \$25,000 to \$70,000	150.00
c. \$70,000 to \$130,000	200.00
d. \$130,000 to \$250,000	300.00
e. \$250,000 to \$500,000	500.00
f. \$500,000 to \$900,000	750.00
g. \$900,000 and Up	1,000.00

- 12.5 Permission granted the Contractor to continue completing the Work, in the event he exceeds the stipulated calendar days allowed for completion will not constitute a waiver on the rights of Owner for applicable liquidated damages thereof.
- 12.6 Payment of liquidated damages by the Contractor to Owner shall not release him from the obligations of the Contract Documents, nor shall such payments waive the Owner's right to collect any other damages which it sustains by action or inaction of the Contractor. It is to be understood that "liquidated damages" applies only to considerations where the Work is not completed in the stipulated time for construction and/or authorized extensions thereof.

- 12.7 Ordered suspension of Work or delays caused by errors, omissions or changes in scope of Work or in detail of Work, initiated by the Owner or Project Manager or the actions, inaction or neglect of each, shall constitute cause for extension of allowable construction time to the Contractor.
- 12.8 Shortage or inadequacy of labor or equipment will not be authorized as conditions beyond control of the Contractor and will not be allowable cause for extension of construction time.

ARTICLE 13 WARRANTY AND GUARANTEE: TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

Warranty and Guarantee:

- 13.1 Contractor warrants and guarantees to Owner and Project Manager that all Work will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects shall be given to Contractor. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided in this Article 13.

Access to Work:

- 13.2 Project Manager and Project Manager's representatives, other representatives of Owner, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspection and testing. Contractor shall provide proper and safe conditions for such access.

Tests and Inspections:

- 13.3 Contractor shall give Project Manager timely notice of readiness of the Work for all required inspections, tests or approvals.
- 13.4 If any law, ordinance, rule, regulation, code, or order of any public body having jurisdiction requires any Work (or part thereof) to specifically be inspected, tested or approved, Contractor shall assume full responsibility therefor, pay all costs in connection therewith and furnish Project Manager the required certificates of inspection, testing or approval. Contractor shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with Owner's or Project Manager's acceptance of a manufacturer, fabricator, supplier or distributor of materials or equipment proposed to be incorporated in the work, or of materials or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. The cost of all other inspections, tests and approvals required by the Contract Documents shall be paid by Owner (unless otherwise specified).
- 13.5 All inspections, tests or approvals other than those required by law, ordinance, rule, regulation, code or order of any public body having

jurisdiction shall be performed by organizations acceptable to Owner and Contractor (or by Project Manager if so specified).

- 13.6 If any Work that is to be inspected, tested or approved is covered without written concurrence of Project Manager, it must, if requested by Project Manager, be uncovered for observation. Such uncovering shall be at Contractor's expense unless Contractor has given Project Manager timely notice of Contractor's intention to cover such Work and Project Manager has not acted with reasonable promptness in response to such notice.
- 13.7 Neither observations by Project Manager nor inspections, tests or approvals by others shall relieve Contractor from his obligations to perform the work in accordance with the Contract Documents.

Uncovering Work:

- 13.8 If any Work is covered contrary to the written request of Project Manager, it must, if requested by Project Manager, be uncovered for Project Manager's observation and replaced at Contractor's expense.
- 13.9 If Project Manager considers it necessary or advisable that covered Work be observed by Project Manager or inspected or tested by others, Contractor, at Project Manager's request, shall uncover, expose or otherwise make available for observation, inspection or testing as Project Manager may require that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is not defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction if he makes a claim therefor as provided in Articles 11 and 12.

Owner May Stop the Work:

- 13.10 If the Work is defective, or Contractor fails to supply sufficient skilled workmen or suitable materials or equipment, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor or any other party.

Correction or Removal of Defective Work:

- 13.11 If required by Project Manager, Contractor shall promptly, without cost to Owner and as specified by Project Manager, either correct any defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by Project Manager, remove it from the site and replace it with nondefective Work.

One Year Correction Period:

- 13.12 If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions, either correct such defective Work, or, if it has been rejected by Owner, remove it from the site and replace it with nondefective Work. If Contractor does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or the rejected Work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, shall be paid by Contractor.

Acceptance of Defective Work:

- 13.13 If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Project Manager's recommendation of final payment, also Project Manager) prefers to accept it, Owner may do so. In such case, if acceptance occurs prior to Project Manager's recommendation of final payment, a Change Order shall be issued incorporating the necessary revisions in the Contract Documents, including appropriate reduction in the Contract Price; or, if the acceptance occurs after such recommendation, an appropriate amount shall be paid by Contractor to Owner.

Owner May Correct Defective Work:

- 13.14 If Contractor fails within a reasonable time after written notice of Project Manager to proceed to correct and to correct defective Work or to remove and replace rejected Work as required by Project Manager in accordance with paragraph 13.11, or if Contractor fails to perform the Work in accordance with the Contract Documents (including any requirements of the progress schedule), Owner may, after seven days written notice to Contractor, correct and remedy any such deficiency. In exercising his rights under this paragraph Owner shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, Owner may exclude Contractor from all or part of the site, take possession of all or part of the Work, and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the site and incorporate in the work all materials and equipment stored at the site and incorporate in the Work all materials and equipment stored at the site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees such access to the site as may be necessary to enable Owner to exercise his rights under this paragraph. All direct and indirect costs of Owner in exercising such rights shall be charged against Contractor in an amount verified by Project Manager, and a

Change Order shall be issued incorporating the necessary revisions in the Contract Documents and a reduction in the Contract Price. Such direct and indirect costs shall include, in particular but without limitation, compensation for additional professional services required and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of Contractor's defective work. Contractor shall not be allowed an extension of the Contract Time because of any delay in performance of the work attributable to the exercise by Owner of Owner's rights hereunder.

ARTICLE 14 PAYMENTS TO CONTRACTOR AND SUBCONTRACTOR AND COMPLETION

Schedules:

- 14.1 At least ten days prior to submitting the first Application for a progress payment, Contractor shall (except as otherwise specified in the General Requirements) submit to Project Manager a construction schedule, a final schedule of Shop Drawing submission and where applicable a schedule of values of the Work. These schedules shall be satisfactory in form and substance to Project Manager. The schedule of values shall include quantities and unit prices aggregating the Contract Price, and shall subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Upon acceptance of the schedule of values by Project Manager, it shall be incorporated into the American Institute of Architects standard forms AIA Document G702 and G703, "Application and Certificate for Payment."

Application for Progress Payment:

- 14.2 At least ten days before each progress payment falls due (but not more often than once a month), Contractor shall submit to Project Manager for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents and also as Project Manager may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by such data, satisfactory to Owner, as will establish Owner's title to the material and equipment and protect Owner's interest therein, including applicable insurance. The amount of retainage with respect to progress payments will be five (5) percent.

Contractor's Warranty of Title:

- 14.3 Contractor warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner at the time of payment free and clear of all liens, claims, security interests and encumbrances (hereafter in these General Conditions referred to as "Liens").

Review of Applications for Progress Payment:

- 14.4 Project Manager will, within ten days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Project Manager's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

Payment to Subcontractors:

- 14.5 The Contractor shall pay each Subcontractor, following receipt of payment from Owner, an amount equal to the percentage of completion of the Work allowed to the Contractor, on account of such Subcontractor's Work, less the standard retainage percentage and any legitimate deduction for faulty or unacceptable Work of that Subcontractor or any of his affiliates or subcontractors.

If the Project Manager fails to issue a Certificate for Payment for any cause, which is attributable to deficiency of the Contractor, and is not the fault of a particular Subcontractor, the Contractor shall pay that Subcontractor on demand, made at any time after a Certificate of Payment should otherwise have been issued, for his Work, to the extent completed, less appropriate retainages.

- 14.6 The Project Manager and the Owner may, upon request and at their discretion, furnish to any Subcontractor, supplier or subsubcontractor, if practical, information regarding percentages of completion certified and approved to the Contractor on account of work done by that Subcontractor.
- 14.7 Neither the Owner nor the Project Manager shall have any obligation to directly pay or see to the payments of, any money to the Subcontractors.
- 14.8 Project Manager's recommendation of final payment will constitute an additional representation by Project Manager to Owner that the conditions precedent to Contractor's being entitled to final payment as set forth in paragraph 14.15 have been fulfilled.
- 14.9 Project Manager may refuse to recommend the whole or any part of any payment if, in his opinion, it would be incorrect to make such representations to Owner. He may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended to such extent as may be necessary in Project Manager's opinion to protect Owner from loss because:
- 14.9.1 the Work is defective, or completed Work has been damaged requiring correction or replacement,
- 14.9.2 written claims have been made against Owner or Liens have been filed in connection with the Work,

- 14.9.3 the Contract Price has been reduced because of Modifications,
- 14.9.4 Owner has been required to correct defective Work or complete the work in accordance with paragraph 13.14,
- 14.9.5 of Contractor's unsatisfactory prosecution of the Work in accordance with the Contract Documents, or
- 14.9.6 Contractor's failure to make payment to Subcontractors, or for labor, materials or equipment.

Substantial Completion:

- 14.10 When Contractor considers the entire Work ready for its intended use Contractor shall, in writing to Owner and Project Manager, certify that the entire Work is substantially complete and request that Project Manager issue a certificate of Substantial Completion. Within a reasonable time thereafter, Owner, Contractor and Project Manager shall make an inspection of the Work to determine the status of completion. If Project Manager does not consider the Work substantially complete, Project Manager will notify Contractor in writing giving his reasons therefor. If Project Manager considers the Work substantially complete, Project Manager will prepare and deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which he may make written objection to Project Manager as to any provisions of the certificate or attached list. If, after considering such objections, Project Manager concludes that the Work is not substantially complete, Project Manager will within fourteen days after submission of the tentative certificate to Owner notify Contractor in writing, stating his reasons therefor. If, after consideration of Owner's objections, Project Manager considers the work substantially complete, Project Manager will within said fourteen days execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as he believes justified after consideration of any objections from Owner.
- 14.11 Owner shall have the right to exclude Contractor from the Work after the date of Substantial Completion, but Owner shall allow Contractor reasonable access to complete or correct items on the tentative list.

Partial Utilization:

- 14.12 Use by Owner of completed portions of the Work may be accomplished prior to Substantial Completion of all the Work subject to the following:
 - 14.12.1 Owner at any time may request Contractor in writing to permit Owner to use any part of the Work which Owner believes to be

substantially complete and which may be so used without significant interference with construction of the other parts of the Work. If Contractor agrees, Contractor will certify to Owner and Project Manager that said part of the Work is substantially complete and request Project Manager to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time thereafter Owner, Contractor and Project Manager shall make an inspection of that part of the Work to determine its status of completion. If Project Manager does not consider that part of the Work to be substantially complete, Project Manager will notify Owner and Contractor in writing giving his reasons therefor. If Project Manager considers that part of the Work to be substantially complete, Project Manager will execute and deliver to Owner and Contractor a certificate to that effect, fixing the date of Substantial Completion as to that part of the Work, attaching thereto a tentative list of items to be completed or corrected before final payment. Owner shall have the right to exclude Contractor from any part of the Work which Project Manager has so certified to be substantially complete, but Owner shall allow Contractor reasonable access to complete or correct items on the tentative list.

14.12.2 In lieu of the issuance of a certificate of Substantial Completion as to part of the Work, Owner may take over operation of a facility constituting part of the Work whether or not it is substantially complete if such facility is functionally and separately useable; provided that prior to any such takeover, Owner and Contractor have agreed as to the division of responsibilities between Owner and Contractor for security, operation, safety, maintenance, correction period, heat, utilities and insurance with respect to such facility.

14.12.3 No occupancy of part of the Work or taking over of operations of a facility will be accomplished prior to compliance with the requirements of paragraph 5.14 in respect of property insurance.

Final Inspection:

14.13 Upon written notice from Contractor that the Work is complete, Project Manager will make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to remedy such deficiencies.

Final Application for Payment:

14.14 After Contractor has completed all such corrections to the satisfaction of Project Manager and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents and other documents - all as required by the Contract Documents

- and after Project Manager has indicated that the Work is acceptable (subject to the provisions of paragraph 14.18), Contractor may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents and such other data and schedules as Project Manager may reasonably require, together with complete and legally effective releases or waivers (satisfactory to Owner) of all Liens arising out of or filed in connection with the Work. In lieu thereof and as approved by Owner, Contractor may furnish receipts or releases in full; an affidavit of Contractor that the releases and receipts include all labor, services, material and equipment for which a Lien could have been filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner or his property might in any way be responsible, have been paid or otherwise satisfied; and consent of the Surety, if any, to final payment. If any Subcontractor, manufacturer, fabricator, supplier or distributor fails to furnish a release or receipt in full, Contractor may furnish a Bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

Final Payment and Acceptance:

- 14.15 If Project Manager is satisfied that the Work has been completed and Contractor has fulfilled all of his obligations under the Contract Documents, Project Manager will, within ten days after the receipt of the final Application for Payment, indicate in writing his recommendation of payment and present the Application to Owner for payment. Thereupon, Project Manager will give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of paragraph 14.18. Otherwise, Project Manager will return the Application to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application. If the Application and accompanying documentation are appropriate as to form and substance, Owner shall pay Contractor the amount recommended by Project Manager.
- 14.16 If, through no fault of Contractor, final completion of the Work is significantly delayed thereof and if Project Manager so confirms, Owner shall, upon receipt of Contractor's final Application for Payment and recommendation of Project Manager, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or Corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.1, the written consent of the Surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Project Manager with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

Contractor's Continuing Obligation:

14.17 Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by Project Manager, nor the issuance of a certificate of Substantial Completion, nor any payment by Owner to Contractor under the Contract Documents, nor any use or occupancy of the Work or any part thereof by Owner, nor any act of acceptance by Owner nor any failure to do so, nor the issuance of a notice of acceptability by Project Manager pursuant to paragraph 14.15, nor any correction of defective Work by Owner shall constitute an acceptance of Work not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents.

Waiver of Claims:

14.18 The making and acceptance of final payment shall constitute:

14.18.1 a waiver of all claims by Owner against Contractor, except claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.13 or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it shall not constitute a waiver by Owner of any rights in respect of Contractor's continuing obligations under the Contract Documents; and

14.18.2 a waiver of all claims by Contractor against Owner other than those previously made in writing and still unsettled.

ARTICLE 15 SUSPENSION OF WORK AND TERMINATION

Owner May Suspend Work:

15.1 Owner may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than ninety days by notice in writing to Contractor and Project Manager which shall fix the date on which the Work shall be resumed. Contractor shall resume the Work on the date so fixed. Contractor will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if he makes a claim therefor as provided in Articles 11 and 12.

Owner May Terminate:

15.2 Upon the occurrence of any one or more of the following events:

15.2.1 if Contractor is adjudged a bankrupt or insolvent,

15.2.2 if Contractor makes a general assignment for the benefit of creditors,

- 15.2.3 if a trustee or receiver is appointed for Contractor or for any of Contractor's property,
- 15.2.4 if Contractor files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or similar laws,
- 15.2.5 if Contractor repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment,
- 15.2.6 if Contractor repeatedly fails to make prompt payments to Subcontractors or for labor, materials or equipment,
- 15.2.7 if Contractor disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction,
- 15.2.8 if Contractor otherwise violates in any substantial way any provisions of the Contract Documents,

Owner may after giving Contractor and his Surety seven days written notice, terminate the services of Contractor, exclude Contractor from the site and take possession of the Work and of all Contractor's tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which Owner has paid Contractor but which are stored elsewhere, and finish the Work as Owner may deem expedient. In such case Contractor shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct and indirect costs of completing the work, including compensation for additional professional services, such excess shall be paid to Contractor. If such costs exceed such unpaid balance, Contractor shall pay the difference to Owner. Such costs incurred by Owner shall be verified by Project Manager and incorporated in a Change Order, but in finishing the Work Owner shall not be required to obtain the lowest figure for the Work performed.

- 15.3 Where Contractor's services have been so terminated by Owner, the termination shall not affect any rights of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- 15.4 Upon seven days written notice to Contractor and Project Manager, Owner may, without cause and without prejudice to any other right or remedy, elect to abandon the Work and terminate the Agreement. In such case, Contractor shall be paid for all Work executed and any expense sustained plus reasonable termination expenses.

Contractor May Stop Work or Terminate:

- 15.5 If, through no act or fault of Contractor, the Work is suspended for a period of more than ninety days by Owner or under an order of court or

other public authority, or Project Manager fails to act on any Application for Payment within thirty days after it is submitted, then Contractor may, upon seven days written notice to Owner and Project Manager, terminate the Agreement and recover from Owner payment for all Work executed and any expense sustained plus reasonable termination expenses. In addition and in lieu of terminating the Agreement, if Project Manager has failed to act on an Application for Payment as aforesaid, Contractor may upon seven days notice to Owner and Project Manager stop the Work until payment of all amounts then due. The provisions of this paragraph shall not relieve Contractor of his obligations under paragraph 6.27 to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with Owner.

ARTICLE 16 ARBITRATION

- 16.1 All claims, disputes and other matters in question arising out of this Contract Work, or breach thereof, except claims which have been waived by the making of or acceptance of Final Payment, under paragraphs 14.15, 14.16, and 14.18, shall be decided by arbitration in accordance with the Construction Arbitration Rules stipulated by the most current statutes of the State of Oregon unless the parties mutually agree otherwise. This agreement to arbitrate shall be specifically enforceable under the prevailing arbitration statutes applicable to the circumstance. The award rendered by the arbitrations shall be final, and judgment may be entered upon it in accordance with the law in any court having jurisdiction in the State of Oregon.
- 16.2 Notice of the demand for arbitration shall be filed in writing with the other party to the Contract and with the Arbitration Board authority of the State of Oregon, prevailing, and a copy shall be filed with the Project Manager of the Work. The demand shall not be executed until:
 - 16.2.1 the date of receipt of the Project Manager's written decision or
 - 16.2.2 the tenth (10) day after the parties have presented evidence to the Project Manager, if the Project Manager provides no decision, unless other specific stipulations occur in the Contract Documents. In no case will a claim be filed or initiated, as above, after the date when initiation of legal or equitable proceedings, based on such a claim, dispute or other matter pertinent, would be barred by applicable Oregon State Statute.
- 16.3 The existence of a claim for arbitration will not be cause for cessation of the Work by the Contractor. The Contractor shall continue to execute the Work and maintain progress schedules during any arbitration proceedings, unless otherwise directed, or agreed by himself and the Owner in writing.

ARTICLE 17 MISCELLANEOUS

Giving Notice:

- 17.1 Whenever any provision of the Contract Documents requires the giving of written notice it shall be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

Computation of Time:

- 17.2 When any period of time is referred to in the Contract Documents by days, it shall be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day shall be omitted from the computation.

General:

- 17.3 Should Owner or Contractor suffer injury or damage to his person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim shall be made in writing to the other party within a reasonable time of the first observance of such injury or damage.

Air, Water and Noise Pollution:

- 17.4 The Contractor is instructed that he and all subordinates and Subcontractors will be required to comply with all applicable Oregon Statutes and regulations relating to air, water, and noise pollution.

PJ/bb
7-16-84

SECTION 01010

SUMMARY OF WORK

PART 1 - GENERAL

1.1 WORK COVERED BY CONTRACT DOCUMENTS:

- A. The Work of the Contract consists of remodeling of lighting, HVAC, walls, carpeting, and finishes for new Jury Room. To include demolition of existing walls, HVAC, and lighting, as indicated on Drawings and specified herein.
- B. Additional requirements of all parties to the Contract: NONE

1.2 CONTRACTS:

- A. Construct the Work under a Single, Fixed-price Contract, furnished by Owner.

1.3 WORK SEQUENCE:

- A. Construct Work in stages to accommodate Owner and public use to the premises during the construction period. Coordinate the construction schedule and operations with Project Manager.
- B. All Work shall be completed within 45 calendar days from the date that Notice to Proceed is given by the Owner.

1.4 CONTRACTOR USE OF PREMISES:

- A. Contract shall limit his use of the premises for Work and for storage, to allow for:
 - 1. Work by other Contractors.
 - 2. Multnomah County occupancy.
 - 3. Public use.
- B. Coordinate use of premises under direction of Project Manager.
- C. Assume full responsibility for the protection and safekeeping of Products under this Contract, stored on the Site.
- D. Move any stored Products, under Contractor's control, which interfere with operations of Owner or separate contractor.
- E. Obtain and pay for the use of additional storage or Work areas needed for operations.
- F. Building occupants can only tolerate a low level of noise. Any Work that will be excessively noisy must take place during other than normal business hours. Coordinate after-hour Work with Project Manager.

1.5 CONTINUED OCCUPANCY:

- A. Owner and public will occupy the premises during the entire period of construction for the Owner's normal operations. Cooperate with Project Manager in all construction operations to minimize conflict, and to facilitate Owner and public usage.
- B. Contractor shall at all times conduct his operations as to insure the least inconvenience to the general public.

1.6 PARTIAL OCCUPANCY:

- A. The Contractor shall schedule his operations for completion of portions of the Work, as designated, for Owner occupancy prior to Substantial Completion of the entire Work.
- B. Designated areas and mandatory dates:
- C. Execute Certificate of Substantial Completion for each specific Portion of the Work prior to Owner occupancy.
- D. After Owner occupancy, Contractor shall provide:
 - 1. Access for Owner personnel and public.
 - 2. Operation of permanent HVAC, electrical systems, water supply systems, waste water systems and required exits.
 - 3. Provide protection from service interruption and excessive noise or air pollution.
- E. Upon occupancy, Owner will provide custodial services, security, maintenance, and insurance on property.

1.7 OWNER-FURNISHED PRODUCTS:

- A. Products furnished and paid for by Owner, described in Specification Sections: None
- B. Owner Responsibilities:
 - 1. Arrange for and deliver necessary shop drawings, product data and samples to the Contractor.
 - 2. Arrange and pay for Product delivery to the site.
 - 3. Deliver supplier's bill of materials to Contractor.
 - 4. Inspect deliveries jointly with Contractor.
 - 5. Submit claims for transportation damage.
 - 6. Arrange for replacement of damaged, defective or missing items.
 - 7. Arrange for manufacturer's warranties, bonds, service, inspections, as required.

C. Contractor's Responsibilities:

1. Designate delivery date for each Product in the Construction Schedule.
2. Review shop drawings, product data and samples. Submit to Project Manager with notification of any discrepancies or problems anticipated in the use of the Product.
3. Receive and unload Products at the site.
4. Promptly inspect Products jointly with Project Manager, record shortages, damaged or defective items.
5. Handle Products at the site, including uncrating and storage.
6. Protect Products from exposure to elements and from damage.
7. Assemble, install, connect, adjust and finish Products, as stipulated in the respective Section of Specifications.
8. Repair or replace items damaged by Contractor.

1.8 SAFETY AND HEALTH STANDARDS:

These construction documents and the Work contemplated are to be governed at all times by applicable provisions of the Federal Law(s), including but not limited to, the latest amendments of the following:

- A. Williams-Steiger Occupational Safety & Health Act of 1970, Public Law 91-596.
- B. Part 1910 - Occupational Safety and Health Standards, Chapter XVII of Title 29, Code of Federal Regulations.
- C. Part 1518 - Safety and Health Regulations for Construction, Chapter XIII of Title 29, Code of Federal Regulations.

PART 1 - GENERAL**1.1 MECHANICAL AND ELECTRICAL DRAWINGS:**

- A. Mechanical and electrical contract drawings are diagrammatic. Additional offsets and bends may be required.
- B. Install additional offsets and bends in the systems where required by field conditions.
- C. The Project Manager or Architect/Engineer may make minor adjustments in fixture outlet, grille, louver or ventilator locations prior to rough-in Work.

1.2 MECHANICAL AND ELECTRICAL COORDINATION:

- A. Coordinate rough-in, plumbing and wiring requirements for equipment with equipment supplier.
- B. Install rough-in, plumbing and wiring in accordance with equipment manufacturer's printed instructions.

1.3 CLEARANCES:

- A. Provide adequate clearance between Architectural, Structural, Mechanical, and Electrical Systems. Verify physical dimensions of equipment with its available space. Check access routes through concealed spaces.
- B. Review Design Drawings for possible conflicts prior to rough-in. Contractor is responsible for verification that equipment will fit in the space provided. Resolve conflicts with Architect/Engineer prior to rough-in Work.

1.4 CUTTING AND PATCHING FOR MODIFICATION OF EXISTING AND NEW WORK:

- A. Execute cutting, fitting or patching of Work required to remove and replace defective Work and Work not conforming to Contract Documents.
- B. Inspect existing conditions of Work, including elements subject to movement or damage during cutting and patching.
- C. Provide shoring, bracing and support as required to maintain structural integrity of the Project.
- D. Execute cutting, product removal and patching by methods which will prevent damage to other Work, will provide proper surfaces to receive installation of repairs and will comply with specified tolerances and finishes.
- E. Fill openings cut oversized to install equipment systems or sleeves until finished surface is tight against the equipment, system or sleeve installed in the opening.
- F. Repair surfaces adjacent to cut areas to match the adjacent finish.

1.5 CUTTING OF WOOD FRAMING MEMBERS FOR PIPE, WIRES AND CONDUIT:

- A. Do not cut or notch joists except 1-inch diameter holes drilled in the center 1/3 of the member depth.
- B. Do not drill or notch studs except:
 - 1. Notches in lower 1/5 of stud height and not more than 1/4 of the stud width.
 - 2. Holes not in center 1/3 of stud height and not more than 1/3 of stud width.

SECTION 01080

IDENTIFICATION SYSTEMS

PART 1 - GENERAL

1.1 DESCRIPTION:

- A. **Work Included:** Provide identification systems as indicated on Drawings and specified herein.
- B. **Work Specified Elsewhere:**
Equipment and Systems Manual: Section 01700 CONTRACT CLOSEOUT.

1.2 SUBMITTALS

- A. **Office Samples:** Submit sample of equipment nameplate, piping identification, valve tags, circuit labels and switch labels for Project Manager's review prior to starting identification Work.
- B. **Directories for Equipment and Systems Manual:**
 - 1. Provide one copy of a nameplate directory, switch directory and valve tag directory in each set of equipment and systems manuals delivered to the Project Manager for review.
 - 2. Provide one copy of a list of piping, circuit and switch markers in each set of preliminary equipment and systems manuals delivered to the Project Manager for review prior to starting identification Work.

PART 2 - PRODUCTS

2.1 IDENTIFICATION SYSTEMS:

- A. **Design Criteria:** Comply with OSHA and ANSI Standards for equipment and system identification.
- B. **Equipment Identification:**
 - 1. Indicate manufacturer's name, equipment capacity, size and characteristics.
 - 2. Indicate unit designation and indicate system served by each piece of equipment.
- C. **Piping Identification:** Indicate line designation, pipe size and function of pipe system.
- D. **Circuit Identification:** Indicate circuit designation, conductor capacity and function of circuit.

- E. Switch and Control Identification:
 - 1. Label disconnect switches, motor starters, relay switches, contactors, time switches and clocks and control panels.
 - 2. Indicate voltage, amperage, circuit number and equipment or system served.
- F. Panelboard Schedules: Identify circuit number, load served and breaker number with transparent covered, typewritten schedule.
- G. Sign Systems: Select one of the following:
 - 1. Adhesive backed vinyl, pre-cut letters.
 - 2. Adhesive backed, tool-printed plastic tape.
 - 3. Machine engraved, 3-ply plastic laminate.
 - 4. Brady Markers by W.H. Brady Co.
 - 5. Other system as approved.
- H. Banding Tape: Setmark by Seton, Tape by W.H. Brady Co. or approved.
- I. Valve Tags: 3/4 inch minimum diameter, numbered brass or aluminum.
- J. Copy Requirements:
 - 1. Use color combinations for complex systems.
 - 2. Use numbers and letters used on Drawings, shop drawings or equipment and systems manual.
 - 3. Provide room designations assigned by name or number near completion of Work and not the space designation on the Contract Documents.
 - 4. Minimum Letter Size: 5/32 inch.
 - 5. Minimum Arrow Size: Same as adjacent identification letter.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Equipment Identification: Supplement manufacturer's information where required or not visible in the final position of equipment. Secure nameplate to equipment housing or on adjacent surface.
- B. Label Application:
 - 1. Apply labels as follows:

- a. Every 20 to 50 feet along continuous lines.
 - b. Adjacent to each valve, switch or control; on each riser and at each "T."
 - c. Where a line passes through a wall, into and out of concealed spaces.
2. Apply labels to lower quarters of pipe in horizontal runs where view is not obstructed.
 3. Apply arrow labels indicating direction of flow.
 4. Apply labels above accessible ceilings in addition to exposed areas.
- C. Valve Tags:
1. Attach to each valve including automatic valves with a brass chain.
 2. Label each tag starting at S-1 for irrigation, H-1 for heating, V-1 for ventilating, C-1 for cooling, P-1 for plumbing, and F-1 for fire protection system.
- D. Panel Schedules: Place on inside face of panel door or on face of panel.

SECTION 01100 ALTERNATES

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. Description: Alternates indicated in Section 00100 BID FORM, include changes in Work as described by the Alternates listed in this Section.
- B. Referenced Sections: Specification Sections referenced in each Alternate contain pertinent requirements for materials and installation to achieve the Work described by each Alternate.
- C. Coordination: Coordinate related Work and modify surrounding Work as required to complete the Project under each alternate designated in the Owner-Contractor Agreement.

1.2 ALTERNATE NO. 1:

NONE

1.3 ALTERNATE NO. 2:

NONE

SECTION 01150

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 UNIT PRICES:

- A. Where unit prices are included in Section 00300 BID FORM, these prices will be used to determine price in change orders.
- B. Comply with Section 00900 GENERAL CONDITIONS for overhead and profit calculations on the Change Order Form.

1.2 APPLICATION FOR PAYMENT:

- A. Execute a copy of AIA Document G702, Application and Certificate for Payment, and AIA Document G703, Continuation Sheet.
- B. Include itemized statements of original sum, additions and deductions from Change Orders and Construction Change Authorizations, deductions for previous payments and sum remaining due.
- C. Obtain original sums from Schedule of Values, see Section 01300 SUBMITTALS.
- D. Submit three signed copies on a monthly basis to Project Manager who will review for approval and forward to the Facilities and Property Management Division Director of Multnomah County, 2505 S.E. 11th Avenue, Portland, Oregon 97202.

1.3 CHANGE ORDER PROCEDURES:

- A. Execute on a copy of AIA Document G701 Change Order.
- B. Complete accounting to obtain new Contract Sum and new Date of Completion.
- C. Submit five signed copies to Project Manager who will review and forward to the Facilities and Property Management Division Director of Multnomah County, 2505 S.E. 11th Avenue, Portland, Oregon 97202.
- D. Submit an itemized breakdown of labor and materials including overhead and profit with each Change Order. Submit copies of estimating sheets to the Project Manager upon request.

SECTION 01200

PROJECT MEETINGS

PART 3 - EXECUTION

3.1 ADMINISTRATION OF PROJECT MEETINGS:

- A. Project Manager will schedule meeting and confirm dates with parties involved.
- B. Project Manager will make physical arrangements for meetings and preside at meetings.

3.2 PRE-CONSTRUCTION MEETINGS:

- A. Schedule before Notice to Proceed.
- B. Attendance: Project Manager, Architect/Engineer, Architect/Engineer's consultants, Contractor, and major subcontractors.
- C. Minimum Agenda:
 - 1. Distribute and discuss list of subcontractors and tentative construction schedule.
 - 2. Discuss processing of field decisions, construction change authorizations and change orders.
 - 3. Discuss procedures for maintaining Project Record Documents.
 - 4. Discuss use of premises, including site, existing building, storage areas and security.
 - 5. Discuss deliveries, safety, parking, housekeeping and noise limitations.

3.3 PROGRESS MEETINGS:

- A. Frequency: Regular meetings every 30 days. Additional meetings as required.
- B. Attendance: Project Manager and/or Architect/Engineer, Architect/Engineer's consultants, Contractor, subcontractors affected by agenda.
- C. Minimum Agenda:
 - 1. Review progress since previous meeting.
 - 2. Discuss field observations, problems construction change authorizations and change orders.
 - 3. Review delivery schedules, construction schedule, and identify problems which impede scheduled progress.
 - 4. Review proposed changes.

SECTION 01300 SUBMITTALS

PART 1 - GENERAL

1.1 DESCRIPTION:

- A. Submit construction progress schedule, shop drawings, product data, samples, schedule of values, subcontractor list, and Performance and Payment Bonds as specified in this and other Sections.
- B. Related Documents:
 - 1. Construction Schedule Requirements: Paragraph 14.1 in Section 00900 GENERAL CONDITIONS.
 - 2. Shop Drawings, Product Data and Samples Requirements: Paragraphs 6.21 to 6.26 in Section 00900 GENERAL CONDITIONS.
 - 3. Schedule of Values Requirements: Paragraph 14.1 in Section 00900 GENERAL CONDITIONS.
 - 4. Subcontractor List Requirements: Section 00430 SUBCONTRACTOR LIST.

1.2 CONSTRUCTION SCHEDULE:

- A. Content: Show product and installation dates for major products. Show dates for enclosing interior space, mechanical system completion, substantial completion, final completion and Owner occupancy.
- B. Updating: Indicate progress of each activity, show revised completion dates. Provide listing of current and anticipated accelerations and delays. Describe proposed corrective action when required.

1.3 SHOP DRAWINGS:

- A. Submit shop drawings showing connections, details, dimensions, finishes and fasteners.
- B. Identify related shop drawings which will be submitted at a later date.

1.4 PRODUCT DATA:

- A. Submit manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other descriptive data on manufactured products and systems.

- B. Where the specific catalog number and manufacturer specified will be furnished, the Contractor may submit a statement of conformance with the Contract Documents in place of the product data.
- C. Submit the amount of product data for each product or system to obtain acceptable review.
- D. Identify data sheets with the section and paragraph numbers where the product or system is specified.
- E. Equipment and systems must meet performance data even when specified by manufacturer's name and catalog number.

1.5 OFFICE SAMPLES:

- A. Submit office samples of size and quantity specified or of sufficient size and quantity to clearly illustrate functional characteristics of product, material, or system with integrally related parts and attachment devices.
- B. Identify samples and show range of finishes where appropriate.

1.6 FIELD SAMPLES:

- A. Construct each sample complete, including work of all trades required in finished Work.
- B. After approval, where appropriate, field samples may be incorporated into the Project. When directed, remove field samples not incorporated into the Project.

1.7 SCHEDULE OF VALUES:

- A. Submit a Schedule of Values covering various parts of Work, including quantities aggregating the total sum of the Contract. This schedule will be the basis for the Contractor's Application for Payment.
- B. Upon request by Project Manager, support values given with data that will substantiate their correctness.

1.8 SUBCONTRACTOR LIST:

- A. Submit a complete list of subcontractors proposed to be used, with the name of the major product manufacturers indicated.
- B. Submit on form provided in Section 00430 SUBCONTRACTOR LIST.

1.9 CONTRACT SUBMITTALS:

- A. Performance Bond and Labor and Materials Payment Bond: Submit as provided in Subparagraph 5.1 in Section 00900 GENERAL CONDITIONS in the form provided in Section 00620 LABOR AND MATERIAL PAYMENT BOND.
- B. Bid Bond: Submit Bid Bond on form provided, see Section 00410 BID BOND.

PART 3 - EXECUTION

3.1 CONTRACTOR'S SUBMITTAL:

- A. Review submittals prior to submission and provide stamp of approval signed or initialed by Contractor, indicating the Contractor has inspected the submittals and certifying that they are complete, correct, in compliance with the Contract Documents and suitable for the Project.
- B. Submit to Project Manager when required by each Specification Section. Notify Project Manager in writing at time of submission of deviation in submittals from requirements of Contract Documents.

3.2 PROJECT MANAGER'S REVIEW:

- A. Project Manager will review submittals for design concept and conformance with the contract documents and return submittals requiring correcting with corrections noted thereon.
- B. Contractor's responsibility for deviations in submittals from requirements of Contract Documents is not relieved by Project Manager's review of submittals unless Project Manager gives written acceptance of specific deviations.

3.3 SUBMITTAL PROCESS:

- A. Corrections: Immediately incorporate all required corrections in the submittals and resubmit for further review, if required.
- B. Quantity of Required Submittals to Project Manager:
 - 1. Construction Progress Schedule, Shop Drawings, Product Data and Schedule of Values: Submit four opaque prints.
 - 2. Subcontractor List, Certificate of Insurance and Performance and Payment Bonds: Submit one copy with Bid or Contract as required.
 - 3. Office and Field Samples: See Section covering specific product, material or system for size and quantity required.

3.4 TIME SCHEDULE FOR SUBMITTALS: (quantities in days)

		<u>First Submittal</u>	<u>Owner and Project Manager Review In</u>	<u>Contractor Update and Resubmit In</u>
A.	Construction Schedule:	Prior to Notice to Proceed	10	10 prior to first payment application and update in 30.
B.	Shop Drawings:	Prior to Notice to Proceed	10	--

		<u>First Submittal</u>	<u>Owner and Project Manager Review In</u>	<u>Contractor Update and Resubmit In</u>
C.	Product Data:	15 prior to ordering	10	--
D.	Office Samples:	15 prior to ordering	5	--
E.	Field Samples:	Prior to in- stallation	5	--
F.	Schedule of Values:	Prior to first payment application	5	30
G.	Subcontractor List:	Submit with bid	--	--
H.	Performance Bond and Labor and Material Payment Bond:	5 after contract award	10	--
I.	Bid Bond	Submit with bid	--	--

PART 1 - GENERAL**1.1 REQUIREMENTS OF REGULATORY AGENCIES**

Temporary facilities shall comply with building codes, ordinances and regulations of public authorities.

1.2 TEMPORARY UTILITIES:**A. Temporary Power:**

1. Provide power to all areas of the Site or supplement the existing power for temporary lighting, temporary heating and ventilating, temporary communications systems, construction equipment and testing equipment.
2. Contractor may use permanent power system after obtaining written approval from the Owner.
3. Owner will pay for power used.

B. Temporary Lighting:

1. Provide temporary lighting or supplement the existing lighting throughout the construction period as required.
2. Provide additional lighting for finish Work when required.
3. Contractor may use the existing lighting system. Owner will pay for power used.

C. Minimum Interior Temperatures: After temporary enclosures are installed, provide 40 degrees F in construction areas and 60 degrees F in finish Work areas for 24 hours per day until Substantial Completion.**D. Minimum Ventilation:** Provide local exhaust ventilation to prevent harmful dispersal of hazardous substances into atmosphere at all times. Provide ventilation for materials being cured.**E. Temporary Water:** The Contractor may use existing water supply systems. Owner will pay for water used. Supplement the existing system as required for construction activities.**F. Sanitary Facilities:**

1. Contractor may use existing toilet and washing facilities unless otherwise specified by the Owner.
2. Maintain, repair (if damaged by Contractor) and clean the existing facilities as required until Substantial Completion.

1.3 TEMPORARY CONTROLS:

- A. Security: Provide temporary locks and doors at all new openings after building is enclosed.
- B. First Aid: Provide required first aid facilities for construction personnel.
- C. Fire Protection:
 - 1. Fire Safety: Take all precautions to prevent the possibility of fire resulting from construction operations. Particularly avoid hazardous accumulations of rubbish and unsecured flammable materials.
 - 2. Fire Fighting Equipment: If required, provide emergency fire extinguishers of adequate type and quantity, properly maintained. Obtain local Fire Department approval of emergency fire extinguishers.
- D. CONSTRUCTION AIDS AND BARRIERS:
 - 1. Provide ramps, ladders, stairs, guardrails, chutes and material hoists. Construct and maintain to requirements of governing agencies. Furnish for safety of public and construction personnel.
 - 2. Provide barriers to protect materials, equipment, new Work, construction personnel and public.
- E. Access, Parking and Traffic Regulation:
 - 1. Keep access roads and loading areas clear.
 - 2. Provide barricades, warning signs, or other traffic regulators which may become necessary for protection of public, construction personnel or property.
- F. Disposal Control: Comply with local ordinances. Do not dispose of volatile wastes in storm or sanitary drains.
- G. Interior Dust Control: Vacuum clean interior spaces prior to and during painting. Provide barriers to prevent dust from entering the existing building during demolition and new construction. Contractor is responsible for cleaning of area and cleaning/repair of Owner equipment if adequate barriers not provided.
- H. Exterior Dust Control: Wet down exposed earth materials to prevent blowing dust as required.

PART 2 - EXECUTION

3.1 FACILITY REMOVAL:

- A. Completely remove temporary materials and equipment upon completion of construction.
- B. Repair damage caused by installation of temporary items and restore finishes to specified condition.

SECTION 01600

MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.1 WORK SPECIFIED ELSEWHERE:

- A. Standard Warranty: Paragraph 13.12 in Section 00900 GENERAL CONDITIONS.
- B. Substitutions After Contract Award: Paragraph 6.7 in Section 00900 GENERAL CONDITIONS.
- C. Shop Drawings, Product Data, Samples and Schedules: Section 01300 SUBMITTALS.

1.2 MATERIAL AND EQUIPMENT SELECTION:

- A. Comply with Standards and Specifications including: Size, make, type and quality specified, or as approved in writing by the Project Manager.
- B. Manufactured and Fabricated Products:
 - 1. Design, fabricate and assemble in accordance with the best engineering and shop practices.
 - 2. Manufacture like parts of duplicate units to standard sizes and gauges, to be interchangeable.
 - 3. Two or more items of the same kind shall be identical and by the same manufacturer.
 - 4. Provide products suitable for service conditions.
 - 5. Adhere to equipment capacities, sizes and dimensions shown or specified unless variations are specifically approved in writing.
- C. Do not use material or equipment for any purpose other than that for which it is designed or is specified.
- D. Fabricate and install equipment to deliver its full rated capacity at the efficiency for which it was designed.
- E. Select and install equipment to operate at full capacity without excessive noise or vibration.
- F. Provide electrical products with Underwriter's Laboratories Label or as approved by the local inspection authority.

1.3 REUSE OF EXISTING MATERIAL:

- A. Except as specifically indicated or specified, do not use materials and equipment removed from the existing structure in the completed Work.
- B. For material and equipment specifically indicated or specified to be reused in the Work:
 - 1. Use special care in removal, handling, storage, and reinstallation to assure proper function in the completed Work.
 - 2. Arrange and pay for transportation, storage and handling of products which require off-site storage, restoration or renovation.

1.4 MANUFACTURER'S INSTRUCTIONS:

- A. Perform Work in accord with manufacturer's printed installation instructions, obtain and distribute copies of such instructions to parties involved in the installation, including two copies to Project Manager, if requested.
- B. Maintain one set of complete installation instructions at the Site until completion.
- C. Handle, install, connect, clean, condition and adjust products in strict accordance with manufacturer's printed instructions and in conformity with specified requirements.
 - 1. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with Project Manager for further instructions.
 - 2. Do not proceed with Work without clear instructions.
- D. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by Contract Documents.

1.5 TRANSPORTATION AND HANDLING:

- A. Arrange deliveries of products in accordance with construction progress schedules, coordinate to avoid conflict with Work and conditions at the Site.
 - 1. Deliver products in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.
 - 2. Immediately on delivery, inspect shipments to assure compliance with requirements of Contract Documents and assure products are properly protected and undamaged.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.

1.6 STORAGE AND PROTECTION:

- A. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible.
 - 1. Store products subject to damage by the elements in weather-tight enclosures.
 - 2. Maintain temperature and humidity within the ranges required by manufacturer's instructions.
 - 3. Protect equipment and systems from moisture, chemical or mechanical damage before and after installation.
- B. Exterior Storage:
 - 1. Store fabricated products above the ground, on blocking or skids, to prevent soiling or staining. Cover products which are subject to deterioration with impervious sheet coverings. Provide adequate ventilation to avoid condensation.
 - 2. Store loose granular materials in a well-drained area on solid surfaces to prevent mixing with foreign matter.
- C. Inspection: Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored products to assure that products are maintained under specified conditions, and free from damage or deterioration.
- D. Protection After Installation:
 - 1. Provide substantial coverings as necessary to protect installed products from damage from traffic and subsequent construction operations.
 - 2. Plug or cap pipe and conduit openings to prevent the entrance of foreign matter.
 - 3. Remove protection materials when no longer needed.

1.7 PRODUCT OPTIONS:

- A. For products specified only by reference standard, select any products meeting that standard.
- B. For products specified by naming one or more products or manufacturers, followed by the phrase "or approved equal," Contractor must submit a substitution request for any product or manufacturer not specifically named.
- C. For products specified by naming only one product and manufacturer, followed by the words "no substitutions," there is no option.

1.8 SUBSTITUTION PROCEDURES:

- A. **Format:** Substitution requests will be considered only if they are prepared on a copy of the Portland Chapter Construction Specifications Institute "Substitution Request Form." A copy is included at the end of this Section.
- B. **Supporting Data:** Submit a separate request for each product, supported with complete data, drawings and samples as appropriate.

1.9 PRE-BID REQUESTS:

- A. **Consideration:** Substitutions will only be considered if submitted no less than seven (7) days before Bid opening.
- B. **Acceptance:** If the bidder complies with the requirements of this Section and in Owner's and Project Manager's opinion the proposed product is acceptable in lieu of the one or more specified, the Owner's Purchasing Division will include it in an addendum which will be issued to all bidders.

1.10 AFTER AWARD OF CONTRACT REQUESTS:

- A. **Consideration:** Requests for substitution of specified products after the construction contract is signed will be considered only for the following reasons.
 - 1. Owner's or Project Manager's request.
 - 2. Reduction in contract time or contract sum.
 - 3. Specified product is not available from any source.
 - 4. Specified product would cause significant delay in contract time.
- B. **Submittal:** Submit requests on a copy of the "Substitution Request Form."
- C. **Acceptance:** If the Contractor complies with the requirements of this Section and in Owner's and the Project Manager's opinion the proposed product is acceptable in lieu of the one or more specified, the Project Manager will issue a Change Order where contract sum or time is affected or give written authorization where contract sum or time is not affected.

1.11 SALVAGE:

Salvageable items, which are identified on the job site are to remain the property of the Owner, shall be removed in a manner to minimize damage thereto and delivered to the Owner at a place as designated by the Project Manager.

SUBSTITUTION REQUEST FORM



SPECIFICATIONS INSTITUTE
Portland Chapter

TO: _____

PROJECT: _____

We hereby submit for your consideration the following product instead of the specified item for the above project:

<u>Section</u>	<u>Paragraph</u>	<u>Specified Item</u>
_____	_____	_____

Proposed Substitution: _____

Attach complete technical data, including laboratory tests, if applicable.

Include complete information on changes to Drawings and/or Specifications which proposed substitution will require for its proper installation.

Fill In Blanks Below:

A. Does the substitution affect dimensions shown on Drawings?

B. Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitution?

C. What affect does substitution have on other trades? _____

D. Differences between proposed substitution and specified item? _____

E. Manufacturer's guarantees of the proposed and specified items are:

☐ Same

☐ Different (explain on attachment)

The undersigned states that the function, appearance and quality are equivalent or superior to the specified item.

Submitted By:

Signature _____

Firm _____

Address _____

Date _____

Telephone _____

For Use By Design Consultant:

☐ Accepted ☐ Accepted As Noted

☐ Not Accepted ☐ Received Too Late

By _____

Date _____

Remarks _____

SECTION 01700

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 SUBSTANTIAL COMPLETION:

- A. Submit written notice to Project Manager that Work, or designated portion thereof, is substantially complete. Project Manager and his consultants will inspect Work within 14 days.
- B. If Project Manager determines that Work is not substantially complete, he will immediately notify Contractor in writing. Contractor shall complete Work and submit a second written notice of substantial completion to the Project Manager, who will reinspect the Work.
- C. When Project Manager concurs that Work is substantially complete, he will prepare a Certificate of Substantial Completion with a tentative list of items to be completed or corrected. Project Manager will submit Certificate and tentative list to Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate.

1.2 CLEANING PRIOR TO FINAL INSPECTION:

- A. Remove grease, dust, dirt, stains, manufacturer's labels, fingerprints, etc. from sight exposed surfaces. Repair, patch and touch up marred surfaces.
- B. Clean heating and cooling ducts, blowers, coils, fixtures, equipment, piping and grilles. Replace disposable air filters and clean permanent filters. Flush water systems and disinfect domestic water lines.
- C. Broom clean exterior paved surfaces and walks. Rake clean landscaped areas. Vacuum clean interior spaces. Wash interior and exterior glazing and mirrors. Clean and mop floors.
- D. Maintain in cleaned condition until final completion or Owner occupancy.

1.3 FINAL INSPECTION:

- A. Submit written certificate that Contract Documents have been reviewed, Project has been inspected by appropriate officials, Work is completed in accordance with Contract Documents, equipment and systems have been tested in the presence of Project Manager and are operational, and Work is ready for final inspection. Project Manager and his consultants will inspect Work within 7 days.
- B. Should Project Manager consider that the Work is incomplete or defective, he will notify Contractor in writing, listing the incomplete or defective work. Contractor shall remedy the deficiencies and send a second written certification to Project Manager that the Work is complete. Project Manager will reinspect the Work.

- C. When the Project Manager finds that Work is acceptable under the Contract Documents, he shall request the Contractor to make closeout submittals.

1.4 REINSPECTION FEES:

Should Project Manager perform more than one reinspection due to failure of the Work to comply with the claims of status of completion made by the Contractor:

- 1. Owner may compensate Project Manager for such additional services.
- 2. Owner may deduct the amount of such compensation from the final payment to the Contractor.

1.5 PROJECT RECORD DOCUMENTS:

- A. Maintain at the site one copy of: Project Manual, Contract Drawings, Construction Change Authorizations, Reviewed Shop Drawings, Field Test Records and Supplemental Instructions.
- B. Keep current record of documents and label "Project Record." Record location of concealed items and utility lines, field changes in dimension or detail and changes in materials furnished on Project Record Documents. Record changes from Supplemental Instructions, Change Orders, Construction Change Authorizations and Details not on Contract Drawings.
- C. Maintain during the course of construction one set of drawings that record any changes in the Work or deviations from the Drawings. Deliver these as-built drawings to the Project Manager with the Closeout Manuals.

1.6 CLOSEOUT MANUALS:

A. Form of Manuals:

- 1. Prepare data in the form of instructional manuals for use by Owner's personnel. Use 8½" X 11" manual format in 3-ring binder.
- 2. Include drawings, indexed tabs and title for each manual.

B. Content of Manuals:

- 1. List mechanical equipment and systems used in the Project. List installers, maintenance program and local source of supply for replacement parts.
- 2. Include product data with specific equipment clearly identified.
- 3. Include drawings of control diagrams, flow diagrams and system relationships.

C. Materials and Finishes Manual:

- 1. When requested, include manufacturer's data, catalog number, color and texture of finishes used.
- 2. When requested, include instructions for care and maintenance on finishes including cleaning agents, methods and cleaning and maintenance schedule.

D. Equipment and Systems Manual:

1. Include manufacturer's description, operating characteristics, performance data, testing and balancing data and printed operating and maintenance instructions.
2. Include manufacturer's catalog number and replaceable parts list.
3. Include start-up, break-in, operating instructions, control, stopping, shut-down, emergency instructions and operating sequence.
4. Include summer and winter operating instructions, maintenance procedures, servicing and lubrication schedule, sequence of operation and control diagrams.
5. Include as-installed color coded piping diagrams and list of piping identification markers.
6. Include circuit directories of panel boards and as-installed color coded wiring diagrams.
7. Include as-installed color coded duct and damper layouts with design air volumes air flow ratings and fan sizes.
8. Include valve tag directory listing tag number, location, service, size, manufacture, model number and normal position.
9. Include name plate directory listing equipment designation, name plate data, location of equipment, location of switch and normal position of switch.

E. Warranties and Bonds Manual:

1. Assemble warranties, bonds and service and maintenance contracts executed by each manufacturer, supplier and subcontractor.
2. Include table of contents, beginning date and duration of warranty, bond or service contract, and party to contact in case of claim against warranty.

F. Spare Parts and Maintenance Materials Manual: Tabulate list of spare parts and maintenance materials showing product description, paragraph in Project Manual listing product and quantity delivered to Owner.

PART 3 - EXECUTION

3.1 INSTRUCTION OF OWNER'S PERSONNEL:

- A. Prior to final inspection or acceptance, fully instruct Owner designated operating and maintenance personnel in the operation, adjustment and maintenance of all products, equipment and systems.

- B. Operating and maintenance manual shall constitute the basis of instruction.
 - 1. Review contents of manual with Owner's personnel in full detail to explain all aspects of operations and maintenance.
 - 2. Review complete heating and cooling cycles with Owner's personnel. Review location of dampers, valves and control equipment.

3.2 MAINTENANCE MATERIAL HANDLING:

- A. Label packages and deliver spare parts and maintenance materials to Owner's storage area.
- B. Submit quantity specified in each product section.

3.3 PAYMENTS AND RELEASE OF LIENS:

- A. Submit 2 executed copies of Contractor's Affidavit of Payment of Debts and Claims, AIA G706.
- B. Submit 2 executed copies of Contractor's Affidavit of Release of Liens, AIA G706A including:
 - 1. Consent of Surety to Final Payment, AIA G707.
 - 2. Contractor's release or waiver of liens.

3.4 SCHEDULE OF CLOSEOUT SUBMITTALS

- A. Preliminary Equipment and Systems Manual:
 - 1. Submit two copies of preliminary draft of proposed formats and outlines of contents prior to start of Work.
 - 2. Project Manager will review draft and return one copy with comments.
- B. Final Inspection Manuals:
 - 1. Submit one copy of materials and finishes manual, equipment and systems manual, warranties and bonds manual and spare parts and maintenance materials list in final form fifteen days prior to final inspection or acceptance.
 - 2. Copy will be returned after final inspection or acceptance with comments.
- C. Closeout Manuals: Submit two corrected copies of approved manuals in final form within 10 days after final inspection or acceptance.
- D. Keys and Certificate of Occupancy: Submit two copies of keying schedule. Submit keys and key blanks in quantities specified. Obtain and submit Certificate of Occupancy.

SECTION 06200
FINISH CARPENTRY

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract, including General and other Conditions and Division-General Requirements sections, apply to the work specified in this Section.

1.02 SECTION INCLUDES

- A. Finish carpentry items, other than shop prefabricated casework.
- B. Standing and running trim.
- C. Installation of hardware and attachment accessories.

1.03 PRODUCTS INSTALLED BUT NOT FURNISHED UNDER THIS SECTION

- A. Section 08712 - Door Hardware: Supply of hardware and attachment accessories to this Section.

1.04 RELATED SECTIONS

- A. Section 06410 - Custom Casework: Shop fabricated custom cabinetwork.
- B. Section 09900 - Painting: Painting and finishing of finish carpentry items.

1.05 REFERENCES

- A. AWI - Quality Standards.
- B. FS MMM-A-130 - Adhesive, Contact.
- C. PS 20 - American Softwood Lumber Standard.
- D. UL - Underwriters Laboratories.

1.06 REGULATORY REQUIREMENTS

- A. Conform to applicable code for flame/fuel/smoke requirements.
- B. Conform to UL requirements to achieve fire resistance assembly rating indicated.

1.07 SUBMITTALS

- A. Submit samples under provisions of Section 01300.
- B. Submit 1 sample 12 inches long of wood trim, each species required.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Store materials in ventilated, interior locations under constant minimum temperatures of 60 degrees F and maximum relative humidity of 55 percent.

SECTION 06200
FINISH CARPENTRY

PART 2 PRODUCTS

2.01 LUMBER MATERIALS

- A. Softwood Lumber: PS 20; Custom grade in accordance with AWI; maximum moisture content of 6 percent; Douglas Fir species, with mixed grain, of quality capable of transparent finish.
- B. Hardwood Lumber: FS MM-L-736; custom grade in accordance with AWI; maximum moisture content of 6%; oak, ash or birch species; mixed grain.

2.02 SHEET MATERIALS

- A. Softwood Plywood: PS-1, APA, Veneer A-C, exterior, with plastic laminate backing sheet applied, 3/4 inch thickness.

2.03 ACCESSORIES

- A. Nails: Size and type to suit application, plain finish.
- B. Bolts, Nuts, Washers, Blind Fasteners, Lags, and Screws: Size and type to suit application; plain finish.
- C. Lumber for Shimming and Blocking, Softwood lumber of Douglas fir species.
- D. Primer: Alkyd primer sealer type.
- E. Wood Filler: Solvent Oil base, tinted to match surface finish color.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Beginning of installation means acceptance of existing conditions.

3.02 PREPARATION

- A. Before installation, prime paint surfaces with paint on items or assemblies to be in contact with cementitious materials.

3.03 INSTALLATION

- A. Install work in accordance with AWI Custom quality standard.
- B. Set and secure materials and components in place, plumb and level.
- C. Install trim with nails
- D. Install hardware supplied by Section 08712 in accordance with manufacturer's instructions.

3.04 TOLERANCES

- A. Maximum Variation from True Position: 1/16 inch.

SECTION 06200
FINISH CARPENTRY

- B. Maximum Offset from True Alignment with Abutting Materials: 1/32 inch.

3.05 **PREPARATION FOR SITE FINISHING**

- A. Set exposed fasteners. Apply wood filler in exposed fastener indentations. Sand work smooth.
- B. Site Finishing: Refer to Section 09900.

END OF SECTION

SECTION 06410
CUSTOM CASEWORK

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract, including General and other Conditions and Division 1 - General Requirements sections, apply to the work specified in this Section.

1.02 WORK INLCUDED

- A. Special fabricated plastic laminate finished cabinet units.
- B. Countertops.
- C. Prepared for utilities.

1.03 RELATED WORK

- A. Section 06200 - Finish Carpentry.
- B. Section 15400 - Plumbing Fixtures and Trim.

1.04 REFERENCES

- A. FS MMM-A-130 - Adhesive, Contact.
- B. NEMA LD3 - High Pressure Decorative Laminates.
- C. PS 20 - American Softwood Lumber Standard.
- D. PS 58 - Basic Hardboard.
- E. AWI - Section 400 Custom Grade.

1.05 QUALITY ASSURANCE

- A. Conform to AWI "Custom" grade for all work.
- B. Subcontractor qualification: Subcontractor shall have been producing work, to quality specified herein, for 3 years minimum amd have proper equipment to produce work in accordance with AWI standards.

1.06 SUBMITTALS

- A. Submit materials, component profiles, fastening methods, assembly methods, joint details and accessory listings.
- B. Exposed hardware: Submit one sample of each type and finish.

SECTION 06410
CUSTOM CASEWORK

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Burgener's Woodworking, Inc.
- B. Faustrollean Fixture Co.
- C. Kriegsko Manufacturing.
- D. Lemons Millwork, Inc.
- E. Ly-Line Products, Inc.
- F. R & B Innovations in Wood, Inc.
- G. TRI Interior Design
- H. Westmark Products.
- I. Substitutions: Under provisions of Section 01600.

2.02 MANUFACTURED UNITS

- A. Design: Flush overlay.

2.03 SHEET MATERIALS

- A. Wood Particleboard: Per AWI standard, premium grade board of balanced construction as manufactured by Duraflake Co., Albany, Oregon or approved; sanded faces, 45 lb. density per cubic foot with moisture content of 8% or less, 3/4 inch thickness unless noted otherwise, located as follows:

ITEM

Drawer Front, Sub-front, Back.
Drawer Bottoms, 1/4"
Shelving, 3/4" thick to 36", 1" thick over 36"
Cabinet Tops, Bottoms, Ends and Backs
Cabinet Doors
Cabinet Tops

- B. Hardboard: PS 58; premium grade, champagne color, factory finished pressed wood fiber with resin binder, tempered grade, 1/4" thick located as follows:

ITEM

Dividers

- C. Laminated Plywood: 7 layer plywood, 1/2" thickness unless noted otherwise.

ITEM

Drawer Sides

SECTION 06410
CUSTOM CASEWORK

- D. Softwood Plywood: PS 1; APA Veneer grade A-D; exterior, 3/4 inch thickness.

ITEM

Bases

2.04 ACCEPTABLE LAMINATE MANUFACTURERS

- A. Formica
- B. Wilsonart
- C. Nevamar
- D. Substitutions: Under provisions of Section 01600.

2.05 LAMINATE MATERIALS

- A. Exposed Plastic Laminate: NEMA Standard No. LD 1-64 Type 1 General Purpose Grade, thickness .050 inch for countertops, back and side splashes: furnish Type 2 Vertical Grade .030 inch thickness, for exposed face frames and ends and exposed faces of hinged doors and drawers for all casework; solid color and pattern as selected by Architect.
- B. Interior Exposed & Semi-Exposed Surfaces: Plastic laminate melamine .030 inch thickness. Champagne color with matte finish.
- C. Unexposed Surfaces: Laminate backing sheet, LD-3 BK20 Backing grade, undecorated plastic laminate.

2.06 ACCESSORIES

- A. Adhesive: FS MMM-A-130. Type recommended by laminate manufacturer to suit application.
- B. PVC Edge Trim: Solid band, .020 thickness, smooth finish, of width to match sheet thickness, pressure and heat melt adhesive applied, color to match Plastic Laminate.
- C. Fasteners: Size and type to suit application.
- D. Bolts, Nuts, Washers, Lags, Pins, and Screws: Of size and type to suit application; black finish in exposed locations.

2.07 HARDWARE

- A. Adjustable Shelf Supports: Blum #34.0040 nylon adjustable steel pin shelf clips.
- B. Drawer and Door Pulls: 3/8" diameter 3 1/2" wire pulls, brushed stainless steel.
- C. Cabinet Locks: National Lock #C-8102 pin tumbler.
- D. Catches: National Lock #61-530.
- E. Clothes Rod: 1 1/16 inch diameter chrome plated steel rod. Knape & vogt #770-1, with end flanges #734 and 735.

SECTION 06410
CUSTOM CASEWORK

- F. Hinges: Full concealed, Blum #90A6530 (170 degree). Attach to casework using euro-screws.
- G. Drawer Front Adjusters: Blum #295.100.
- H. Substitutions: Under provisions of Section 01600.

2.08 **FABRICATION**

- A. Conform to AWI Section 400, custom grade with plastic laminate faces.
- B. Shop assemble casework for delivery to site in units easily handled and to permit passage through building openings.
- C. Fit shelves, doors, drawers, and exposed edges with PVC edging. Use full length pieces only.
- D. Door and Drawer Fronts: 3/4 inch thick, "flush overlay" type construction.
- E. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.
- F. Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Make corners and joints hairline. Locate counter butt joints minimum 2 feet from sink cut-outs.
- G. Cap exposed plastic laminate counter edges with material of same finish and pattern.
- H. Mechanically fasten splashbacks to countertops.
- I. Apply laminate backing sheet to reverse side of plastic laminate finished surfaces.
- J. Provide cutouts for plumbing fixtures, inserts, appliances, outlet boxes, and other fixtures and fittings. Verify locations of cutouts from on-site dimensions. Seal contact surfaces of cut edges.
- K. Provide 2 vertical rows of holes in cabinet sides, spaced 1 1/2" maximum from front and back of cabinet units to receive adjustable shelving. Size holes for adjustable shelf clips, space 1 1/4" o.c. vertically.

PART 3 EXECUTION

3.01 **INSPECTION**

- A. Verify adequacy of backing and support framing.

3.02 **INSTALLATION**

- A. Set and secure casework in place rigid, plumb, and level.
- B. Use purpose designed fixture attachments at concealed locations for wall mounted components.
- C. Use threaded steel concealed joint fasteners to align and secure adjoining cabinet units and counter tops. Counter tops shall be continuous over units below.

SECTION 06410
CUSTOM CASEWORK

- D. Carefully scribe casework which is against other building materials, leaving gaps of 1/32 inch maximum. Do not use additional overlay trim for this purpose.
- E. Secure cabinet and counter bases to floor using appropriate angles and anchorages.

3.03 ADJUSTING AND CLEANING

- A. Adjust doors, drawers, hardware, fixtures and other moving or operating parts to function smoothly and correctly.
- B. Clean casework, counters, shelves, hardware, fittings and fixtures.

END OF SECTION

SECTION 07213
BATT AND BLANKET INSULATION

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract, including General and other Conditions and Division 1-General Requirements sections, apply to the work specified in this Section.

1.02 WORK INCLUDED

- A. Sound Batt insulation.

1.03 REFERENCES

- A. FS HH-I-521 - Insulation Blankets, Thermal (Mineral Fiber, for Ambient Temperatures).

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Owens-Corning Fiberglass.
- B. Manville.
- C. Substitutions: Under provisions of Section 01600.

2.02 MATERIALS

- A. Glass or Mineral Fiber Thermal Batt Insulation:
 - 1. Concealed Applications: FS HH-I-521; preformed glass or mineral fiber batt; Type I - without membranes for sound insulation, 3 1/2" thickness.

PART 3 EXECUTION

3.01 PREPARATION

- A. Verify adjacent materials are dry and ready to receive installation.
- B. Verify mechanical and electrical services within walls have been installed and tested.

3.02 INSTALLATION

- A. Trim insulation neatly to fit spaces. Use batts free of damage.
- B. Fit insulation tight in spaces. Leave no gaps or voids.

END OF SECTION

SECTION 07900
JOINT SEALERS

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract including General and other Conditions and Division 1 - General Requirements sections, apply to the work specified in this section.

1.02 SECTION INCLUDES

- A. Preparing sealant substrate surfaces.
- B. Sealant and backing.

1.03 RELATED SECTIONS

- A. Section 06200 - Finish Carpentry: Sealants used in conjunction with siding.
- B. Section 06410 - Custom Casework: Sealants used in conjunction with countertops.
- C. Section 08111 - Standard Steel Doors & Frames: Sealants used in conjunction with door frames.
- D. Section 09220 - Portland Cement Plaster: Sealants used in conjunction with Portland Cement Plaster work
- E. Section 09650 - Resilient Flooring: Sealants used in conjunction with resilient floor finish.

1.04 REFERENCES

- A. ANSI/ASTM D1056 - Flexible Cellular Materials - Sponge or Expanded Rubber.
- B. ASTM C804 - Use of Solvent-Release Type Sealants.
- C. FS TT-S-00230 - Sealing Compound: Elastomeric Type, Single Component.
- D. FS TT-S-001543 - Sealing Compound, Silicone Rubber Base.

1.05 SUBMITTALS

- A. Submit product data under provisions of Section 01300.
- B. Submit product data indicating sealant chemical characteristics, performance criteria, limitations, color availability
- C. Submit samples under provisions of Section 01300.
- D. Submit two samples 2 x 2 inches in size illustrating colors selected.
- E. Submit manufacturer's installation instructions under provisions of Section 01300.
- F. Submit manufacturer's certificate under provisions of Section 01400 that products meet or exceed specified requirements.

SECTION 07900
JOINT SEALERS

1.06 **QUALITY ASSURANCE**

- A. Manufacturer: Company specializing in manufacturing the products specified in this Section with minimum three years experience.
- B. Applicator: Company specializing in applying the work of this Section with minimum three years experience, approved by sealant manufacturer.
- C. Conform to Sealant and Waterproofers Institute requirements for materials & installation.

1.07 **ENVIRONMENTAL REQUIREMENTS**

- A. Do not install solvent curing sealants in enclosed building spaces.
- B. Maintain temperature and humidity recommended by the sealant manufacturer during and after installation.

1.08 **SEQUENCING AND SCHEDULING**

- A. Coordinate the work of this Section with all Sections referencing this Section.

PART 2 PRODUCTS

2.01 **SEALANTS**

- A. Polyurethane Sealant: FS TT-S-00230 ,Type II - non-sag, Class A; color as selected; non-staining type manufactured by Sika Chemical Corporation or approved. For application at normal movement dynamic surface joints and expansion-control joints.

2.02 **ACCESSORIES**

- A. Primer: Non-staining type, recommended by sealant manufacturer to suit application.
- B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- C. Joint Backing: ANSI/ASTM D1056; round, closed cell polyethylene foam rod; oversized 30 to 50 percent larger than joint width; approved by sealant manufacturer.
- D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

PART 3 EXECUTION

3.01 **EXAMINATION**

- A. Verify that surfaces & joint openings are ready to receive work and field measurements are as shown on Drawings and recommended by the manufacturer.
- B. Beginning of installation means installer accepts existing surfaces.

SECTION 07900
JOINT SEALERS

3.02 **PREPARATION**

- A. Clean and prime joints in accordance with manufacturer's instructions.
- B. Remove loose materials and foreign matter which might impair adhesion of sealant.
- C. Verify that joint backing and release tapes are compatible with sealant.
- D. Perform preparation in accordance with ASTM C804 for solvent release sealants.
- E. Protect elements surrounding the work of this Section from damage or disfiguration.

3.03 **INSTALLATION**

- A. Install sealant in accordance with manufacturer's instructions.
- B. Measure joint dimensions and size materials to achieve required width/depth ratios.
- C. Install joint backing to achieve a neck dimension no greater than 1/3 the joint width.
- D. Install bond breaker where joint backing is not used.
- E. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- G. Tool joints concave.

3.04 **CLEANING AND REPAIRING**

- A. Clean work under provisions of Section 01700.
- B. Clean adjacent soiled surfaces.
- C. Repair or replace defaced or disfigured finishes caused by work of this Section.

3.05 **PROTECTION OF FINISHED WORK**

- A. Protect sealants until cured.

END OF SECTION

SECTION 08111
STEEL DOORS AND FRAMES

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract, including General and other Conditions and Division 1 - General Requirements sections, apply to the work specified in this Section.

1.02 WORK INCLUDED

A. Rolled steel doors and frames.

1.03 RELATED WORK

A. Door schedule at beginning of Division 8.

B. Section 08712 - Hardware.

C. Section 09900 - Painting: Field painting of doors and frames.

1.04 REFERENCES

A. DHI - Door Hardware Institute: The Installation of Commercial Steel Doors and Steel Frames, Insulated Steel Doors in Wood Frames and Builder's Hardware.

B. SDI-100 - Standard Steel Doors and Frames.

C. SDI-105 - Recommended Erection Instructions for Steel Frames.

1.05 QUALITY ASSURANCE

A. Conform to requirements of SDI-100

1.06 SUBMITTALS

A. Submit shop drawings and product data under provisions of Section 01300.

B. Indicate frame configuration, frame width (coordinate with wall thickness), anchor types and spacings, location of cutouts for hardware, reinforcement, welding and finish.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. Ceco

B. Curries Manufacturing

C. Fenestra

D. Steelcraft

E. Grand Metals Products Corp.

SECTION 08111
STEEL DOORS AND FRAMES

- F. Republic
- G. Pioneer
- H. Substitutions: Under provisions of Section 01600.

2.02 DOORS AND FRAMES

- A. Interior Doors : Sound insulation core for STC 42 rated door and frame assembly Series SR Vall-U-Sonic Model F-42 by Pioneer or approved..
- B. Standard Interior Frames: 16 gage material, core thickness.
- C. Sound rated Frames: 2 inch face 7/8 inch high applied stop with closed cell neoprene gasket, 14 gage steel; rated for STC 42 door and frame assemblies; Series SR, Pio-seal frame by Pioneer or approved.

2.03 PROTECTIVE COATINGS

- B. Primer: Zinc chromate type.

2.04 FABRICATION

- A. Fabricate frames as welded unit type.
- B. Fabricate frames and doors with hardware reinforcement plates welded in place.

2.06 FINISH

- A. Primer: Air dried.
- B. Finish: As per Section 09900.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install frames in accordance with SDI-105.
- B. Coordinate with steel framing and wallboard wall construction for anchor placement.

3.02 TOLERANCES

- A. Maximum Diagonal Distortion: 1/16 inch measured with straight edge, corner to corner.

3.03 ADJUSTING AND CLEANING

- A. Adjust hardware for smooth and balanced door movement.

END OF SECTION

DOOR[®]REMARKS

SECTION 08210
WOOD DOORS

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract, including General and other Conditions and Division 1 - General Requirements sections, apply to the work specified in this Section.

1.02 WORK INCLUDED

- A. Wood doors non-rated.
- B. Schedule at the beginning of Division 8.

1.03 RELATED WORK

- A. Section 08111 - Standard Steel Doors and Frames: Steel frames.
- B. Section 08712 - Hardware.
- C. Section 09900 - Painting: Site finishing doors.

1.04 REFERENCES

- A. ANSI/NWMA I.S.1 - Industry Standard For Wood Flush Doors (Includes Standards I.S.1.1 through I.S.1.7).
- B. AWI - Quality Standards of Architectural Woodwork Institute.

1.05 QUALITY ASSURANCE

- A. Conform to requirements of ANSI/NWMA I.S.1.

1.06 SUBMITTALS

- A. Submit shop drawings and product data under provisions of Section 01300.
- B. Indicate door elevations, stile and rail reinforcement, and internal blocking for hardware attachment.

1.07 DELIVERY, STORAGE, AND PROTECTION

- A. Protect products under provisions of Section 01600.
- B. Package, deliver, and store doors in accordance with AWI requirements.

1.08 WARRANTY

- A. Warranty: Door manufacturer's standard warranty.

SECTION 08210
WOOD DOORS

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Weyerhaeuser.
- B. Cal-Wood Door.
- C. Nu-Door.
- D. Vancouver Door Co.
- E. Substitutions: Under provisions of Section 01600.

2.02 DOOR TYPES

- A. Flush Interior Doors: 1-3/4 inches thick; solid core construction; wood veneer faces.

2.03 DOOR CONSTRUCTION (AWI QUALITY STANDARD)

- A. Solid, Non-Rated Core: AWI Section 1300, PC-Particleboard.

2.04 FLUSH DOOR FACING

- A. Facing Quality: AWI paint grade.
- B. Flush Interior Door Veneer: Natural birch.

2.05 ADHESIVES

- A. Interior Doors: AWI, Type II.

2.06 FABRICATION

- A. Fabricate non-rated doors in accordance with AWI Quality Standards requirements.
- B. Provide flush doors with 3/4 inch thick edge strips of wood species to match veneer.
- C. Premachine doors for finish hardware.
- D. Provide 5 inch wide top and bottom rails and 5 inch wide lock blocks as required for installation of Door Hardware.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install doors in accordance with manufacturer's instructions.
- B. Machine cut relief for hinges and closers and coring for handsets and cylinders.
- C. Trim door width by cutting equally on both jamb edges to a maximum of 3/16 inch.

SECTION 08210
WOOD DOORS

- D. Trim door height by cutting at bottom edge only, to a maximum of one inch.
- E. Pilot drill screw and bolt holes.
- F. Prepare doors to receive finish hardware in accordance with AWI requirements.
- G. Conform to AWI requirements for fit tolerances.
- H. Coordinate installation of glass and glazing.

3.02 **INSTALLATION TOLERANCES**

- A. Maximum Diagonal Distortion: 1/4 inch measured with straight edge, corner to corner.

3.03 **ADJUSTING AND CLEANING**

- A. Adjust for smooth and balanced door movement.

END OF SECTION

SECTION 08712
DOOR HARDWARE

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract, including General and other Conditions and Division 1 - General Requirements sections, apply to the work specified in this Section.

1.02 WORK INCLUDED

- A. Hardware for wood and hollow steel doors.
- B. Gasketting.
- C. Furnish templates to Section 08111 for door and frame preparation.

1.03 RELATED WORK

- A. Section 08111 - Steel Doors and Frames.
- B. Section 08210 - Wood Doors

1.04 REFERENCES

- A. ANSI A117.1 - Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People.
- B. DHI - Door and Hardware Institute.

1.05 COORDINATION

- A. Coordinate work of this Section with other directly affected Sections involving manufacturer of any internal reinforcement for door hardware.

1.06 QUALITY ASSURANCE

- A. Manufacturers: Companies specializing in manufacturing door hardware with minimum three years experience.
- B. Hardware Supplier: Company specializing in supplying commercial door hardware with 5 years experience and approved by manufacturer.
- C. Hardware Supplier Personnel: Employ an Architectural Hardware Consultant (AHC) to assist in the work of this Section.

1.07 SUBMITTALS

- A. Submit schedule, shop drawings, and product data under provisions of Section 01300.
- B. Indicate locations and mounting heights of each type of hardware.
- C. Provide product data on specified hardware.

SECTION 08712
DOOR HARDWARE

1.08 OPERATION AND MAINTENANCE DATA

- A. Submit operation and maintenance data under provisions of Section 01700.
- B. Include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.

1.09 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site under provisions of Section 01600.
- B. Store and protect products under provisions of Section 01600.
- C. Package hardware items individually; label and identify package with door opening code to match hardware schedule.
- E. Protect hardware by storing in secure area.

1.10 WARRANTY

- A. Provide one year warranty under provisions of Section 01700.

1.11 MAINTENANCE MATERIALS

- A. Provide special wrenches and tools applicable to each different or special hardware component.
- B. Provide maintenance tools and accessories supplied by hardware component manufacturer.

PART 2 EXECUTION

2.01 ACCEPTABLE MANUFACTURERS

- A. The numbers shown in the Hardware Groups are taken from the catalogs of the following manufacturers and are for the purpose of establishing quality, design, function, and finish.
 - 1. Butts: Lawrence, Hager, Stanley, McKinney.
 - 2. Lock and Latch Sets: Schlage, Corbin, Sargent, Russwin.
 - 3. Cylinder Locks: Schlage.
 - 4. Closers: LCN.
 - 5. Gasketing: Pemko
 - 6. Stops: H. B. Ives; Rixson
 - 7. Door Bottoms: Pemko
 - 8. Protection Plates: Cipco.
- B. Substitutions: Under provisions of Section 01600.

2.02 KEYING

- A. Door Locks: Designed to allow keying to Owner's master key system.
- B. Supply nickel silver keys in the following quantities:
 - 1. 6 master keys.
 - 2. 3 each cylinder keyway.

SECTION 08712
DOOR HARDWARE

2.03 **FINISHES**

- A. Finishes are identified in Schedule at end of this Section.

PART 3 EXECUTION

3.01 **INSPECTION**

- A. Verify that doors and frames are ready to receive work and dimensions are as indicated on shop drawings.
- B. Beginning of installation means acceptance of existing conditions.

3.02 **INSTALLATION**

- A. Install hardware in accordance with manufacturer's instructions and requirements of ANSI/NFPA 80, and DHI.
- B. Use the templates provided by hardware item manufacturer.

3.03 **SCHEDULE**

HW-1			
Door#302A			
1 1/2 pr. Butts	BB4101	4 1/2 x 4 1/2	639
1 lock	D53PD	Olympiad	612
1 Stop	403 1/2		612
1 kickplate	18 x 2LDW		612

HW-2			
Door #302B			
1 1/2 Pr. Butts	BB4101	4 1/2 x 4 1/2	639
1 Lock	D53PD	Olympiad	612
1 Stop	403 1/2		612
1 Closer	404 1		
1 Door Bottom	412 DN		
1 Set Gasket	319DN		
1 Kickplate	18 x 2LDW		612

HW-3			
Door #302C, 412B, 412E			
1 1/2 Pr. Butts	BB4101	4 1/2 x 4 1/2	639
1 Lock	D405	Olympiad	612
1 Stop	403 1/2		612
1 Kick Plate	18 x 2LDW		612
1 Door Bottom	412 DN		
1 Set Gasket	319 DN		

SECTION 08712
DOOR HARDWARE

HW-4

Replace missing knob with knob from door removed at same opening.

Door #412A

1 Door Bottom

1 Set Gasket

412DN

319DN

HW-5

Door #412F

1 Door Bottom

1 Set Gasket

412DN

319DN

END OF SECTION

ROOM FINISH SCHEDULE

[illegible]

SECTION 09120
CEILING SUSPENSION SYSTEMS

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract, including General and other Conditions and Division 1 - General Requirements sections apply to the work specified in this Section.

1.02 WORK INCLUDED

- A. Suspended gypsum board ceiling framing.

1.03 RELATED WORK

- A. Section 09260 - Gypsum Board Systems.

1.04 REFERENCES

- A. ASTM C635 - Metal Suspensions Systems for Acoustical Tile and Lay-in Panel Ceilings.
- B. ASTM C636 - Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels.

1.05 SYSTEM DESCRIPTION

- A. Fabricate horizontal ceiling framing to limit finish surface to 1/360 deflection under superimposed dead loads.

1.06 QUALITY ASSURANCE

- A. Perform work in accordance with ASTM C636 - Metal Suspension Systems.
- B. System and installation shall meet codes and regulations of authorities having jurisdiction.

1.07 REGULATORY REQUIREMENTS

- A. Conform to Uniform Building Code for later bracing.

1.08 SUBMITTALS

- A. Submit product data under provisions of Section 01300.
- B. Provide product data on framing components.
- C. Submit manufacturer's installation instructions under provisions of Section 01300.

1.09 ENVIRONMENTAL REQUIREMENTS

- A. Maintain uniform temperature of minimum 60 degrees F and humidity of 20 to 40 percent prior to, during, and after installation.

SECTION 09120
CEILING SUSPENSION SYSTEMS

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Chicago Metallic Corporation.
- B. Donn Corporation.
- C. Substitutions: Under provisions of Section 00100.

2.02 SUSPENSION SYSTEM MATERIALS

- A. Grid: ASTM C635, heavy duty single-web steel main tees; components die cut and interlocking, with furring channels and cross tees at light fixtures.
- B. Accessories: Stabilizer bars, clips, splices edge moldings required for suspended grid system.
- C. Grid Materials: Commercial quality cold rolled steel with galvanized coating.

PART 3 EXECUTION

3.01 INSPECTION

- A. Verify that surfaces conditions are ready to receive work.
- B. Beginning of installation means acceptance of existing surfaces, substrate and conditions.

3.02 CEILING SUSPENSION FRAMING

- A. Install at heights indicated on drawings, level, square and true in accordance with ASTM C636 & CISGA Standards.
- B. Hanger wires shall be installed at the corners of light fixtures and air boots as required by their size and weight.
- C. Laterally brace entire suspension system.

END OF SECTION

SECTION 09215
VENEER PLASTER

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract, including General and other conditions and Division 1- General Requirements sections, apply to the work specified in this Section.

1.02 WORK INCLUDED

- A. Metal Stud Wall Framing.
- B. Substrate surface of gypsum backing board, single layer.
- C. Veneer plaster, two coat application over sheet gypsum surface.
- D. 'Skim coat' application of veneer plaster at areas scheduled for patching.

1.03 RELATED WORK

- A. Section 07213 - Batt & Blanket Insulation: Sound Insulation
- B. Section 08111 - Steel Doors & Frames: Steel Frames
- C. Section 09900 - Painting: Surface finish.

1.04 REFERENCES

- A. ANSI/ASTM C587 - Gypsum Veneer Plaster.
- B. ANSI/ASTM C588 - Gypsum Base for Veneer Plasters.
- C. ANSI/ASTM C631 - Bonding Compounds for Interior Plastering.
- D. ANSI/ASTM C843 - Application of Gypsum Veneer Plaster.
- E. ANSI/ASTM C844 - Application of Gypsum Base to Receive Gypsum Veneer Plaster.
- F. GA 216 - Recommended Specifications for the Application and Finishing of Gypsum Board.

1.05 QUALITY ASSURANCE

- A. Apply gypsum backing board in accordance with ANSI/ASTM C844 and GA 216.
- B. Apply gypsum veneer plaster in accordance with ANSI/ASTM C843.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. United States Gypsum.
- B. Georgia Pacific Corp.
- C. Gold Bond Building Products.

SECTION 09215
VENEER PLASTER

- D. Domtar Gypsum America, Inc.
- E. Substitutions: Under provisions of Section 01600.

2.02 **MATERIALS**

- A. Gypsum Backing Board: ANSI/ASTM C588, UL Rated, fire rated Type X; 5/8 inch thick, 48 inch by maximum permissible length sheet size; length to match partition height; tapered edges, ends square.
- B. Gypsum Board Metal Accessories: GA 216.
- C. Control Joint: USG #093.
- D. Joint Compound, Adhesive, Water, Fasteners: GA 216.
- E. Reinforcing Tape: GA 216; 2 1/2" Fiber mesh.
- G. Bond Coat: ANSI/ASTM C631.

2.03 **FRAMING MATERIALS**

- A. Furring, Framing and Accessories: ANSI/ASTM C645. GA 201 and GA216. 25 Gage, zinc coated steel with knurled flanges and extended leg top to prevent structural loading of studs.
- B. Fasteners: ANSI/ASTM C646. GA 201 and GA 216; self drilling, self tapping screws.

2.04 **MIX DESIGN**

- A. Develop plaster mix in accordance with manufacturer's instructions.

PART 3 EXECUTION

301 **INSPECTION**

- A. Verify that surfaces and site conditions are ready to receive work.
- B. Verify items in soffits for other Sections of work have been installed.
- C. Beginning of installation means acceptance of substrate.

3.02 **PREPARATION**

- A. Protect surfaces near the work of this Section from damage or disfiguration.
- B. Remove projections greater than 1/8 inch and fill depressions greater than 1/4 inch with latex filler.

3.03 **METAL STUD INSTALLATION**

- A. Install studding in accordance with GA 201 and GA 216.
- B. Metal Stud Spacing: 16 inches maximum on center.

SECTION 09215
VENEER PLASTER

- C. Partition Heights: Full height to floor construction above. Install additional bracing for partitions extending above ceiling.
- D. Door Opening Framing: Install double studs at door frame jambs.
- E. Blocking: Nail wood blocking to studs. Bolt or screw steel channels to studs. Install blocking for support of plumbing fixtures, toilet partitions, wall cabinets, toilet accessories and hardware.
- F. Coordinate installation of bucks, anchors, blocking, electrical and mechanical work placed in or behind partition framing.

3.04 **INSTALLATION - GYPSUM BASE**

- A. Install gypsum base in accordance with GA 216 and U.L. requirements.
- B. Use nails to fasten gypsum board to wood framing.
- C. Erect single layer gypsum board horizontal, with ends and edges occurring over firm bearing.
- D. Tape, fill, and sand filled joints, edges, corners, openings, and fixings to produce surface ready to receive veneer finish. Feather coats onto adjoining surfaces so that camber is maximum 1/32 inch.
- E. Use fiber mesh tape at joints between existing and new work.

3.05 **APPLICATION - VENEER PLASTER**

- A. Apply gypsum veneer plaster in accordance with ANSI/ASTM C843.
- B. Install angle, corner, and joint reinforcement.
- C. Apply base coat to a thickness of 1/16 inches plus or minus 1/64 inch.
- D. Apply final coat over slightly green, almost dry base coat, to a thickness of 1/32 inch to 1/8 inch.
- E. Total Thickness: 3/32 inch to 1/8 inch.
- F. At areas scheduled for skim coat veneer plaster patching, clean and remove all foreign materials including loose and disintegrating plaster and paint. Apply bonding agent prior to plaster application.
- G. Gypsum plaster finish: Trowel or float to smooth finish.

END OF SECTION

SECTION 09511
SUSPENDED ACOUSTICAL CEILINGS

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract, including General and other Conditions and Division 1 - General Requirements sections, apply to the work specified in this Section.

1.02 WORK INCLUDED

- A. Suspended metal grid ceiling system.
- B. Acoustical tile.
- C. Non-fire rated assembly.

1.03 RELATED WORK

- A. Section 09120 - Ceiling Suspension Systems: Gypsum board suspension system.
- B. Section 09260 - Gypsum Board Systems: Suspended gypsum board ceiling.
- C. Section 15800 - Grilles, Registers & Diffusers: Air diffusion devices in ceiling system.
- D. Section 16510: Interior Lighting Fixtures: Light fixtures in ceiling system.

1.04 REFERENCES

- A. ASTM C635 - Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings
- B. ASTM C636 - Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels.

1.05 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in manufacture of ceiling suspension system and ceiling tile with three years minimum experience.
- B. Installer: Company with three years minimum experience and approved by manufacturer.
- C. Cisca - Ceiling Systems Handbook.
- D. UBC - Uniform Building Code (latest addition).

1.06 SEQUENCING/SCHEDULING

- A. Do not install acoustical ceilings until building is enclosed, sufficient heat is provided, dust generating activities have terminated, and overhead work is completed, tested, and approved.
- B. Schedule installation of acoustic units after interior wet work is dry.

SECTION 09511
SUSPENDED ACOUSTICAL CEILINGS

1.07 **EXTRA STOCK**

- A. Provide extra quantity of acoustic units equal to 5% of total installed for each type of job.

PART 2 PRODUCTS

2.01 **ACCEPTABLE MANUFACTURERS - SUSPENSION SYSTEM**

- A. Donn Products Inc.
- B. Chicago Metallic Corp.
- C. Substitutions: Under provisions of Section 00100.

2.02 **SUSPENSION SYSTEM MATERIALS**

- A. Grid: ASTM C635, intermediate non-fire rated exposed T; components die cut and interlocking.
- B. Accessories: Stabilizer bars, clips, splices, edge moldings required for suspended grid system.
- C. Grid Materials: Commercial quality cold rolled steel with galvanized coating.
- D. Grid Finish: White color.
- E. Support Channels and Hangers: Galvanized steel; size and type to suit application, to rigidly secure acoustic ceiling system including integral mechanical and electrical components with maximum deflection of 1/360.

2.03 **ACCEPTABLE MANUFACTURERS - ACOUSTIC UNITS**

- A. Armstrong: Shasta.
- B. Substitutions: Under provisions of Section 01600.

2.04 **ACOUSTIC UNIT MATERIALS**

- A. Acoustic Panels Non-rated: Conforming to the following:
 - 1. Size: 24 x 48 inches.
 - 2. Thickness: 5/8 inch.
 - 3. Composition: Fiberglass.
 - 4. Density: .62 lb/sq ft.
 - 5. Light Reflectance: Over 75 percent.
 - 6. NRC Range: .70 to .80.
 - 7. STC Range: 35 to 39.
 - 8. Fire Hazard Classification: 0-25 (ASTM E84)
 - 9. Edge: Square.
 - 10. Surface Color: White.
 - 11. Surface Finish: Film faced

SECTION 09511
SUSPENDED ACOUSTICAL CEILINGS

PART 3 EXECUTION

3.01 INSPECTION

- A. Verify that existing conditions are ready to receive work.
- B. Verify that layout of hangers will not interfere with other work.
- C. Beginning of installation means acceptance of existing conditions.

3.02 INSTALLATION

- A. Install system in accordance with ASTM C636 and as supplemented in this Section.
- B. Install system capable of supporting imposed loads to a deflection of 1/360 maximum.
- D. Install after major above ceiling work is complete. Coordinate the location of hangers with other work.
- D. Hang system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.
- E. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.
- F. Locate system on room axis according to reflected plan.
- G. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability. Support fixture loads by supplementary hangers located where required.
- H. Do not eccentrically load system, or produce rotation of runners.
- I. Install edge molding at intersection of ceiling and vertical surfaces, using longest practical lengths. Miter corners. Provide edge moldings at junctions with other interruptions.
- J. Laterally brace entire suspension system per seismic requirements of the UBC.
- K. Fit acoustic units in place, free from damaged edges or other defects detrimental to appearance and function.
- L. Install acoustic units level, in uniform plane, and free from twist, warp and dents.

3.03 TOLERANCES

- A. Variation from Flat and Level Surface: 1/8 inch in 10 ft.
- B. Variation from Plumb of Grid Members Caused by Eccentric Loads: Two degrees maximum.

**SECTION 09511
SUSPENDED ACOUSTICAL CEILINGS**

3.04 SCHEDULE

- A. Refer to Room Finish Schedule at beginning of this Division.

END OF SECTION

SECTION 09650
RESILIENT FLOORING

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract, including General and other Conditions and Division 1 - General Requirements sections, apply to the work specified in this Section.

1.02 SECTION INCLUDES

- A. Resilient sheet and tile flooring.
- B. Resilient base.

1.03 REFERENCES

- A. ASTM E84 - Surface Burning Characteristics of Building Materials.
- B. FS L-F-475 - Floor Covering, Vinyl Surface (Tile and Roll), with Backing.
- C. FS SS-W-40 - Wall Base: Rubber.

1.04 QUALITY ASSURANCE

- A. Manufacturer: Provide each type of resilient flooring product as produced by a single manufacturer, including recommended primers, adhesives, sealants, edge strips and other accessories as required.
- B. Subcontractor: Subcontract the Work of this Section to a firm specializing in resilient flooring Work, which is acceptable to the manufacturers of the products involved, and which can demonstrate at least 5 years prior experience in successful installations similar to the Work required herein.

1.05 REGULATORY REQUIREMENTS

- A. Conform to applicable code for flame/fuel/smoke rating requirements in accordance with ASTM E84.

1.06 SUBMITTALS

- A. Submit product data under provisions of Section 01300.
- B. Submit samples under provisions of Section 01300.
- C. Submit one set of samples 3x3 inches in size, illustrating colors and pattern for each floor material specified for selection by Architect.
- D. Submit two inch long samples of base material for color selection specified by Architect.
- E. Submit manufacturer's installation instructions under provisions of Section 01300.

SECTION 09650
RESILIENT FLOORING

1.07 OPERATION AND MAINTENANCE DATA

- A. Submit cleaning and maintenance data under provisions of Section 01700.
- B. Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning, stripping, and re-waxing.

1.08 ENVIRONMENTAL REQUIREMENTS

- A. Store materials for three days prior to installation in area of installation to achieve temperature stability.
- B. Maintain ambient temperature required by adhesive manufacturer three days prior to, during, and 24 hours after installation of materials.

1.09 EXTRA MATERIALS

- A. Provide extra stock of flooring and base equal to 5% of total installed for each type on job.

PART 2 PRODUCTS

2.01 MANUFACTURERS - SHEET FLOORING (SV)

- A. Armstrong. Product: Classic Corlon Series.
- B. Substitutions: Under provisions of Section 01600.

2.02 SHEET FLOORING MATERIALS

- A. Vinyl Sheet With Backing: FS L-F-475, Type II; vinyl "Seagate", "Sandoval", "Montina", "Bigantine" or "Suffield" of Classic Corlon series; wear surface thickness of .050 inch, total thickness of .085 inch; patterns and colors as selected from manufacturer's full line.

2.03 ACCEPTABLE MANUFACTURERS - BASE MATERIALS

- A. Flexco Co.
- B. Substitutions: Under provisions of Section 01600.

2.04 BASE MATERIALS (RUBBER)

- A. Base: FS SS-W-40, Type I rubber; 4 inch high; 1/8 inch thick; top set coved or toeless as scheduled. Color as selected by Architect from manufacturer's full color line.

2.05 BASE MATERIALS (VINYL COVE)

- A. Base: Integral with sheet vinyl floors, coved with cove backer and top metal trim, six inch height unless otherwise indicated.

SECTION 09650
RESILIENT FLOORING

2.06 ACCESSORIES

- A. Subfloor Filler: White premix latex; type recommended by flooring material manufacturer.
- B. Primers and Adhesives: Waterproof; types recommended by flooring manufacturer to suit material and substrate conditions.
- C. Reducer and Edge Strips: Sheet vinyl to carpet, Flexco #81 edge guard or approved color as selected by Architect from manufacturer's standard color line. Anodized extruded aluminum edge strips at top of integral base on sheet vinyl work of type and color standard with manufacturer, as approved by Architect.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces are smooth and flat with maximum variation of 1/8 inch in 10 ft, and are ready to receive Work.
- B. Verify concrete floors are dry to a maximum moisture content of 7 percent, and exhibit negative alkalinity, carbonization, or dusting.
- C. Beginning of installation means acceptance of existing substrate and site conditions.

3.02 PREPARATION

- A. Prepare the substrate according to the material manufacturer's installation instructions.
- B. Remove subfloor ridges and bumps. Fill low spots, cracks, joints, holes, and other defects with subfloor filler.
- C. Apply, trowel, and float filler to leave a smooth, flat, hard surface.
- D. Prohibit traffic from area until filler is cured.
- E. Vacuum clean substrate.
- F. Apply primer to substrate surfaces in accordance with manufacturer's recommendations.

3.03 INSTALLATION - SHEET VINYL

- A. Install over underlayment as recommended by floor covering manufacturer.
- B. Install with minimum of seams, by the "Armstrong Securabond Installation System". Apply Armstrong S-200 adhesive at seam lines, projections and wall lines and with all seams cut mechanically with a special electric machine provided for that purpose. Use Armstrong S-235 multipurpose adhesive in the field.
- C. Seal all seams as per manufacturer's recommendations.

SECTION 09650
RESILIENT FLOORING

- D. Place sheets abutted tightly to vertical surfaces, thresholds, nosings and edgings. Scribe as necessary around obstructions and to produce neat joints, laid tight, even and in straight, parallel lines. Extend flooring into toe spaces, door reveals, and into closet and similar openings.
- E. Install edge strips at unprotected or exposed edges and where flooring terminates.

3.04 **INSTALLATION - BASE MATERIAL (RUBBER)**

- A. Fit joints tight and vertical. Maintain minimum measurement of 18 inches between joints. Install as long lengths as practicable.
- B. Miter internal corners. At external corners, 'V' cut back of base strip to 2/3 of its thickness and fold. At exposed ends use premolded units.
- C. Install base on solid backing. Bond tight to wall and floor surfaces. Apply to all permanent fixtures in room on areas where base is schedule.
- D. Scribe and fit to door frames and other interruptions.

3.05 **INSTALLATION - BASE MATERIAL (SHEET VINYL)**

- A. Cove up to form 6" high base where scheduled. Form base integrally with floor over cove backing strip, and with metal trim at top. Cement base to cove strip and wall.

3.06 **PROTECTION**

- A. Prohibit traffic on floor finish for 48 hours after installation.

3.07 **CLEANING**

- A. Remove excess adhesive from floor, base, and wall surfaces without damage.
- B. Clean, seal, and wax floor and base surfaces in accordance with manufacturer's instructions.

END OF SECTION

SECTION 09680
CARPETING

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract, including General and other Conditions and Division 1 - General Requirements sections, apply to the work specified in this Section.

1.02 SECTION INCLUDES

- A. Carpet, glue-down method.
- B. Accessories.

1.03 RELATED SECTIONS

- A. Section 06112 - Framing and Sheathing: Floor substrate.
- B. Section 09650 - Resilient Flooring: Terminate edging of adjacent floor finish.

1.04 REFERENCES

- A. ANSI/ASTM E648 - Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source.
- B. ASTM E84 - Surface Burning Characteristics of Building Materials.
- C. FS DDD-C-95 - Carpets and Rugs, Wool, Nylon, Acrylic, Modacrylic.
- D. FS DDD-C-0095 - Carpet and Rugs, Wool, Nylon, Acrylic, Modacrylic, Polyester, Polypropylene.

1.05 SUBMITTALS

- A. Submit samples under provisions of Section 01300.
- B. Submit two samples 2x2 inch in size illustrating full range of colors and patterns for each carpet and cushion material specified.
- C. Submit two 6 inch long samples of edge strip and base gripper material for each color specified.
- D. Submit manufacturer's installation instructions under provisions of Section 01300.

1.06 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in carpet with three years minimum experience.
- B. Installer: Company with 3 years minimum experience and approved by manufacturer.

1.07 EXTRA MATERIALS

- A. Provide 5% of total installation of carpeting of each color specified, under provisions of Section 01700.

SECTION 09680
CARPETING

1.08 **REGULATORY REQUIREMENTS**

- A. Conform to applicable code for carpet flammability requirements of Class A, 25 or less in accordance with ASTM E84.

1.09 **ENVIRONMENTAL REQUIREMENTS**

- A. Store materials for three days prior to installation in area of installation to achieve temperature stability.
- B. Maintain minimum 70 degrees F ambient temperature three days prior to, during, and 24 hours after installation of materials.

PART 2 PRODUCTS

2.01 **MANUFACTURERS - CARPETING**

- A. The following manufacturers are approved subject to conformance with specifications:
1. Bigelow-Sanford, Inc.
 2. Lee Carpet Mills.
 3. Mohawk Carpet Mills.
 4. Wellco Business Carpet.
- B. Substitutions: Under provisions of Section 01600.

2.02 **MATERIALS - CARPETING**

Type:	Tufted Level Loop Tweed
Machine Gauge:	1/8" (270 pitch)
Stitches per inch:	8 min.
Pile Height:	.228 x .1875
Face Yarn Content:	Dupont "ANTRON III", Allied Chemical "ANSO-X, Camac Corp. "CAMALON" or Monsanto "ULTRON", bulked continuous filament delustered nylon.
Yarn Ply:	3 or 4 ply
Static Protection:	Less than 3.5 kilovolts at 70 deg. F in 20% RH
Yarn Weight per sq. yd.:	26.0 oz. minimum
Backing:	Primary backing: non-woven polypropylene
Total Weight per sq. yd.:	60.0 oz. minimum
Tuft Bind:	20 lbs. minimum (ASTM D1335)
Width:	12 feet
Carpet Yarn:	Yarn or solution dyed, all from same dye lot.
Colors:	Selected by Architect from manufacturer's standard colors. Not less than 12 carpet colors each composed of three colors per tuft shall be offered. Two carpet colors may be selected for specified carpet.

SECTION 09680
CARPETING

2.03 ACCESSORIES

- A. Sub-Floor Filler: White premix latex type recommended by carpet manufacturer.
- B. Primers and Adhesives: Waterproof; of types recommended by carpet manufacturer.
- C. Furnish all other accessories required for a complete installation, including tack strips (for use only at areas scheduled to receive cushion) seaming and binding tape.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrate surfaces are smooth and flat with maximum variation of 1/8 inch in 10 ft and are ready to receive work.
- B. Verify concrete floors are dry percent; and exhibit negative alkalinity, carbonization, or dusting.
- C. Beginning of installation means acceptance of existing substrate and site conditions.

3.02 PREPARATION

- A. Remove subfloor ridges and bumps. Fill low spots, cracks, joints, holes, and other defects with subfloor filler.
- B. Apply, trowel, and float filler to leave smooth, flat, hard surface.
- C. Prohibit traffic until filler is cured.
- D. Vacuum floor surface.

3.03 INSTALLATION - GLUE DOWN METHOD

- A. Apply carpet and adhesive in accordance with manufacturers' instructions.
- B. Verify carpet match before cutting to ensure minimal variation between dye lots.
- C. Double cut carpet, to allow intended seam and pattern match. Make cuts straight, true, and unfrayed.
- D. Locate seams in area of least traffic.
- E. Fit seams straight, not crowded or peaked, free of gaps.
- F. Lay carpet on floors with run of pile in same direction as anticipated traffic.
- G. Do not change run of pile in any room where carpet is continuous through a wall opening into another room. Locate change of color or pattern between rooms under door centerline.
- H. Cut and fit carpet around interruptions.
- I. Fit carpet tight to intersection with vertical surfaces without gaps.

SECTION 09680
CARPETING

3.04 CLEANING

- A. Remove excess adhesive from floor, base, and wall surfaces without damage.
- B. Clean and vacuum carpet surfaces.

3.05 PROTECTION

- A. Prohibit traffic from carpet areas for 24 hours after installation.

END OF SECTION

SECTION 09900
PAINTING

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract, including General and other Conditions and Division 1 - General Requirements sections, apply to the work specified in this Section.

1.02 WORK INCLUDED

- A. Surface preparation.
- B. Surface finish schedule.

1.03 RELATED WORK

- A. Section 06200 - Finish Carpentry: Trim.
- B. Section 08111 - Standard Steel Doors and Frames: Shop primed items.
- C. Section 08210 - Wood Doors: Doors.
- D. Section 09215 - Veneer Plaster: Wall surfaces
- E. Section 09260 - Gypsum Board Systems: Wall and ceiling surfaces.

1.04 REFERENCES

- A. ASTM D2016 - Test Method for Moisture Content of Wood.

1.05 DEFINITIONS

- A. Conform to ANSI/ASTM D16 for interpretation of terms used in this Section.

1.06 QUALITY ASSURANCE

- A. Applicator: Company specializing in commercial painting and finishing with five years experience.

1.07 REGULATORY REQUIREMENTS

- A. Conform to applicable code for flame/fuel/smoke rating requirements for finishes.

1.08 SUBMITTALS

- A. Submit product data under provisions of Section 01300.
- B. Provide product data on all finishing products.
- C. Submit samples under provisions of Section 01300.
- D. Submit two "draw downs" 8x8 inch in size for each color and finishing product scheduled for Architects approval. Do no work until submittals have been reviewed and approved.
- E. Submit manufacturer's application instructions under provisions of Section 01300.

SECTION 09900
PAINTING

1.09 **FIELD SAMPLES**

- A. Locate where directed by Architect.
- B. Accepted sample may remain as part of the Work.

1.10 **DELIVERY, STORAGE, AND HANDLING**

- A. Deliver products to site under provisions of Section 01600.
- B. Store and protect products under provisions of Section 01600.
- C. Deliver products to site in sealed and labelled containers; inspect to verify acceptance.
- D. Container labelling to include manufacturer's name, type of paint, brand name, manufacturer's batch number, brand code, coverage, surface preparation, drying time, cleanup, color designation, and instructions for mixing and reducing.
- E. Store paint materials at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in well ventilated area, unless required otherwise by manufacturer's instructions.
- F. Take precautionary measures to prevent fire hazards and spontaneous combustion.
- G. Confine the storage of paints and allied materials to a space particularly assigned, and keep such space neat and clean at all times.
- H. Open containers only as needed, and keep partially filled containers tightly closed when not in use.

1.11 **ENVIRONMENTAL REQUIREMENTS**

- A. Provide continuous ventilation and heating facilities to maintain surface and ambient temperatures above 45 degrees F for 24 hours before, during, and 48 hours after application of finishes, unless required otherwise by manufacturer's instructions.
- B. Do not apply exterior coatings during rain or snow, or when relative humidity is above 85 percent, or to damaged or wet surfaces unless required otherwise by manufacturer's instructions.
- C. Minimum Application Temperatures for Latex Paints: 45 degrees F for interiors; 50 degrees F for exterior; unless required otherwise by manufacturer's instructions.
- D. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

1.12 **COLORS**

- A. Colors of paints and shades of stain shall match approved control samples.
- B. Deep tone colors will be limited to approximately 10% of total interior paint surface.
- C. Colors within any room or space will not exceed 3 different colors, unless otherwise shown on Drawings.

SECTION 09900
PAINTING

1.13 EXTRA STOCK

- A. Provide one gallon in unopened, original container of each color and surface texture to Owner.
- B. Label each container with color, color mix formula, texture and room locations, in addition to the manufacturer's label.

PART 2 PRODUCTS

2.01 GENERAL

- A. Products for each general purpose must be of same manufacturer.
- B. Do not use products of different manufacturers over one another, except for shop prime coats specified in other Sections.

2.02 ACCEPTABLE MANUFACTURERS - PAINT

- A. Fuller O'Brien
- B. Benjamin Moore
- C. Kelly Moore
- D. Sherwin Williams
- E. Miller Paint
- F. Tnemec Company, Inc.
- G. Ameritone Paint Co.
- H. Rodda Paint. Co.
- I. Substitutions: Under provisions of Section 01600.

2.03 MATERIALS

- A. Provide the best quality grade of the various types of coatings as regularly manufactured by approved paint materials manufacturers.
- B. Coatings: Ready mixed, except field catalyzed coatings. Process pigments to a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating.
- C. Coatings: Good flow and brushing properties; capable of drying or curing free of streaks or sags.
- D. Stains: Containing wood preservative and mildewcide and meeting water repellency requirements of FS TT-W-572 B.
- E. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners and other materials not specifically indicated but required to achieve the finishes specified, of commercial quality.

SECTION 09900
PAINTING

PART 3 EXECUTION

3.01 INSPECTION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- C. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
 - 1. Gypsum Wallboard: 12 percent.
 - 2. Veneer Plaster: 12 percent.
 - 3. Interior Located Wood: 15 percent, measure in accordance with ASTM D2016.
- D. Beginning of installation means acceptance of existing surfaces.

3.02 PREPARATION

- A. Remove electrical plates, hardware, light fixture trim, and fittings prior to preparing surfaces or finishing.
- B. Correct minor defects and clean surfaces which affect work of this Section.
- C. Shellac and seal marks which may bleed through surface finishes.
- D. Gypsum Board Surfaces: Latex fill minor defects. Spot prime defects after repair.
- E. Galvanized Surfaces: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.
- F. Impervious Surfaces: Remove mildew by scrubbing with solution of tri-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- G. Uncoated Steel and Iron Surfaces: Remove grease, scale, dirt, and rust. Where heavy coatings of scale are evident, remove by wire brushing or sandblasting; clean by washing with solvent. Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Spot prime paint after repairs.
- H. Existing Surfaces Scheduled or Required to Receive Finish (General): Remove all loose and scaled paint areas; sand smooth rough edges and feather edge adjacent sound paint. Use primer or undercoater if required in addition to those specified hereinafter to assure proper bond of new finish to existing.
- I. Shop Primed Steel Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces.
- J. Interior Wood Items Scheduled to Receive Finish: Wipe off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats.

SECTION 09900
PAINTING

- K. Wood and Metal Doors Scheduled for Painting: Seal top and bottom edges with primer.
- L. Plaster Surfaces: Fill hairline cracks, small holes and imperfections with latex patching plaster. Make smooth and flush with adjacent surfaces. Wash and neutralize high alkali surfaces.

3.03 **PROTECTION**

- A. Protect elements surrounding the work of this Section from damage or disfiguration.
- B. Repair damage to other surfaces caused by work of this Section.
- C. Furnish drop cloths, shields, and protective methods to prevent spray or droppings from disfiguring other surfaces.
- D. Remove empty paint containers from site.

3.04 **MIXING AND TINTING**

- A. Deliver paints and enamels ready-mixed to jobsite.
- B. Job-mix and job-tint only when acceptable to Architect.
- C. Mix only in clean, rust resistant containers.
- D. Use tinting colors recommended by manufacturer for specific type of finish.

3.05 **APPLICATION**

- A. Apply products in accordance with manufacturer's instructions.
- B. Do not apply finishes to surfaces that are not dry.
- C. Apply each coat to uniform finish.
- D. Apply each coat of paint slightly darker than preceding coat unless otherwise approved.
- E. Sand lightly between coats to achieve required finish.
- F. Allow applied coat to dry before next coat is applied.
- G. Prime back surfaces and edges of interior and exterior woodwork with primer paint or stain according to type of scheduled finish.

3.06 **FINISHING MECHANICAL AND ELECTRICAL EQUIPMENT**

- A. Refer to appropriate Sections in Division 15 and 16 for schedule of color coding and identification banding of equipment, ductwork, piping, and conduit.
- B. Paint shop primed equipment.

SECTION 09900
PAINTING

- C. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
- D. Prime and paint insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, and except where items are prefinished.
- E. Replace identification markings on mechanical or electrical equipment when painted accidentally.
- F. Paint interior surfaces of air ducts, and convector and baseboard heating cabinets that are visible through grilles and louvers with one coat of flat black paint, to limit of sight line. Paint dampers exposed behind louvers, grilles, and convector and baseboard cabinets to match face panels.
- G. Paint exposed conduit and electrical equipment occurring in finished areas.
- H. Paint both sides and edges of plywood backboards for electrical and telephone equipment before installing equipment.
- I. Replace electrical plates, hardware, light fixture trim, and fittings removed prior to finishing.

3.07 **CLEANING**

- A. As Work proceeds, promptly remove paint where spilled, splashed, or spattered.
- B. During progress of Work maintain premises free of unnecessary accumulation of tools, equipment, surplus materials, and debris.
- C. Collect waste, cloths, and material which may constitute a fire hazard, place in closed metal containers and remove daily from site.

3.08 **SCHEDULE - INTERIOR SURFACES**

- A. Steel - Unprimed
 - 1. One coat zinc chromate primer.
 - 2. Two coats alkyd enamel, semi-gloss.
 - 3. Minimum dry thickness: 4.1 mils.
- B. Steel - Primed
 - 1. Touch-up with original primer.
 - 2. Two coats alkyd enamel, semi-gloss.
 - 3. Minimum dry thickness: 4.1 mils.
- C. Steel - Galvanized
 - 1. One coat galvanized iron primer.
 - 2. Two coats alkyd enamel semi-gloss.
 - 3. Minimum dry thickness: 4.1 mils.
- D. Gypsum Board & Plaster - New Surfaces (at all areas except toilet rooms)
 - 1. One coat polyvinyl-acetate primer sealer.
 - 2. Two coats interior latex enamel, satin, apply final coat with roller.
 - 3. Minimum dry thickness: 3.3 mils.

**SECTION 09900
PAINTING**

E. Gypsum Board & Plaster - Existing Surfaces (at all areas except

toilet rooms)

1. One coat interior latex undercoat.
2. One coat interior latex, satin, apply with roller.

F. Gypsum Board and Plaster (at toilet rooms)

1. One coat interior alkyd resin oil - modified undercoater.
2. One coat straight alkyd resin oil - modified semi-gloss enamel.

G. Wood-Painted Existing Surfaces (Includes doors, frames and trim)

1. One coat sanding sealer.
2. One coat alkyd enamel undercoat.
3. Filler compound as needed.
4. One coat alkyd enamel, semi-gloss.

H. Wood-Painted, New Surfaces

1. One coat alkyd primer sealer.
2. Filler compound as needed.
3. Two coats alkyd enamel, semi-gloss.

END OF SECTION

SECTION 09955
VINYL COATED FABRIC WALL COVERINGS

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract, including General and other Conditions and Division 1 - General Requirement sections, apply to the work specified in this Section.

1.02 WORK INCLUDED

- A. Surface preparation.
- B. Wall covering.

1.03 RELATED WORK

- A. Section 09260 - Gypsum Board Systems: Wall substrate.
- B. Section 09900 - Painting: Priming of substrate surfaces.

1.04 REFERENCES

- A. ANSI/ASTM E84 - Test Method for Surface Burning Characteristics of Building Materials.
- B. FS CCC-W-408 - Wall Covering, Vinyl Coated.
- C. FS L-P-1040 - Plastic Sheets and Strips, Polyvinylfluoride.
- D. NFPA 255 - Test of Surface Burning Characteristics of Building Materials.
- E. UL 723 - Tests for Surface Burning Characteristics of Building Materials.

1.05 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in manufacturing commercial wall fabrics with five years documented experience.
- B. Applicator: Company specializing in installing wall fabrics with three years experience.

1.06 REGULATORY REQUIREMENTS

- A. Conform to applicable code for flame/fuel/smoke ratings of 25/35/50 when tested to ANSI/ASTM E84.

1.07 SUBMITTALS

- A. Submit product data and samples under provisions of Section 01300.
- B. Provide product data on wallcovering and adhesive.
- C. Submit two samples of wall covering 12x12 inch in size illustrating color, finish, and texture.
- D. Submit manufacturer's installation instructions under provisions of Section 01300.

SECTION 09955
VINYL COATED FABRIC WALL COVERINGS

- E. Submit test reports verifying flame/fuel/smoke ratings, when tested by an agency approved by authority having jurisdiction.

1.08 FIELD SAMPLES

- A. Provide a three panel field sample panel, full height, illustrating installed wall covering, joint seaming technique.
- B. Locate where directed by Architect.
- C. Accepted sample may remain as part of the Work.

1.09 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site under provisions of Section 01600.
- B. Store and protect products under provisions of Section 01600.
- C. Inspect roll materials on site to verify acceptance.
- D. Protect packaged adhesive from temperature cycling and cold temperatures.
- E. Do not store roll goods on end.

1.10 ENVIRONMENTAL REQUIREMENTS

- A. Provide continuous ventilation and heating facilities to maintain substrate surface and ambient temperatures above 60 degrees F, unless required otherwise by manufacturer's instructions.
- B. Do not apply adhesive when substrate surface temperature or ambient temperature is below 60 degrees F or relative humidity is above 40 percent.
- C. Maintain these conditions 24 hours before, during, and after installation of adhesive wall covering.
- D. Provide lighting level of 80 measured mid-height at substrate surfaces.

1.11 EXTRA STOCK

- A. Provide 10 lineal feet of each color of wall covering.
- B. Package and label each roll by destination room number; store where directed.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. B. F. Goodrich - "Koroseal".
- B. Bolta Wallcoverings - "Bolta Wall"
- C. General Tire - "Genon".

SECTION 09955
VINYL COATED FABRIC WALL COVERINGS

- D. L.E. Carpenter - "Victrex"
- E. Substitutions: Under provisions of Section 00100.

2.02 MATERIALS

- A. Wall Covering: Vinyl roll stock, conforming to the following:
 - 1. Total Thickness .016 mil
 - 2. Total Weight 10 oz/sq yd
 - 3. Vinyl Finish Weight 8.7 oz/sq yd
 - 4. Roll Width 54 inches
 - 5. Color As selected from full line
 - 6. Pattern Gemon "Mandarin Silk" or approved
 - 7. Federal Specification CCC-W-408A TYPE I
- B. Adhesive: Type recommended by wall covering manufacturer to suit application to substrate, type.
- C. Substrate Filler: As recommended by adhesive and wall covering manufacturers; compatible with substrate.

PART 3 EXECUTION

3.01 INSPECTION

- A. Verify that substrate surfaces are ready to receive work, and conform to requirements of the wall covering manufacturer.
- B. Beginning of installation means acceptance of existing surfaces.

3.02 PREPARATION

- A. Fill cracks and smooth irregularities with filler; sand smooth.
- B. Wash surfaces with trisodium phosphate, rinse and neutralize; wipe dry.
- C. Sand glossy surfaces. Shellac marks which may bleed.
- D. Remove electrical, telephone, and wall plates and covers.
- E. Vacuum clean surfaces free of loose particles.

3.03 INSTALLATION

- A. Apply adhesive and wall covering in accordance with manufacturer's instructions.
- B. Use wall covering in roll number sequence.
- C. Razor trim edges on flat work table. Do not razor cut on gypsum board surfaces.

SECTION 09955
VINYL COATED FABRIC WALL COVERINGS

- D. Apply wall covering smooth, without wrinkles, gaps or overlaps. Eliminate air pockets and ensure full bond to substrate surface. Butt edges tight.
- E. Horizontal seams are not acceptable.
- F. Do not seam within 2 inches of internal corners or within inches of external corners.
- G. Install wall covering before installation of bases, cabinets, hardware, or items attached to or spaced slightly from wall surface. Do not install wall covering more than 1/4 inch below top of resilient base.
- H. Cover spaces below windows, above doors, in number sequence from roll.
- I. Apply fabric covering to electrical and telephone wall plates prior to replacing.
- J. Where wall covering tucks into door frame reveals, or metal wallboard or plaster stops, apply covering with contact adhesive within 6 inches of wall covering termination. Ensure full contact bond.
- K. Remove excess wet adhesive from seam before proceeding to next wall covering sheet. Wipe clean with dry cloth.

3.04 CLEANING

- A. Clean wall coverings of excess adhesive, dust, dirt, and other contaminants.
- B. Replace wall plates and accessories removed prior to work of this Section.

END OF SECTION

SECTION 10800
TOILET AND BATH ACCESSORIES

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract, including General and other Conditions and Division 1 - General Requirements sections, apply to the work specified in this Section.

1.02 SECTION INCLUDES

- A. Toilet and washroom accessories.
- B. Attachment hardware.

1.03 REFERENCES

- A. ANSI A117.1 - Specifications for Making Buildings and Facilities Accessible To and Usable by Physically Handicapped People.
- B. ANSI/ASTM A366 - Steel, Carbon, Cold-Rolled Sheet, Commercial Quality.
- C. ANSI/ASTM A386 - Zinc Coating (Hot-Dip) on Assembled Steel Products.
- D. ANSI/ASTM B456 - Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium.
- E. ASTM A167 - Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet and Strip.
- F. ASTM A269 - Seamless and Welded Austenitic Stainless Steel Tubing for General Service.

1.05 SUBMITTALS

- A. Submit product data under provisions of Section 01300.
- B. Provide product data on accessories describing size, finish, details of function, attachment methods.
- C. Submit manufacturer's installation instructions under provisions of Section 01300.

1.06 REGULATORY REQUIREMENTS

- A. Install work in conformance with ANSI A117.1.

1.07 SEQUENCING AND SCHEDULING

- A. Coordinate the work of this Section with the placement of internal wall reinforcement and reinforcement of toilet partitions to receive anchor attachments.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Bobrick.

SECTION 10800
TOILET AND BATH ACCESSORIES

- B. Bradley Corp.
- C. Parker
- D. Substitutions: Under provisions of Section 01600.

2.02 **MATERIALS**

- A. Sheet Steel: ANSI/ASTM A366.
- B. Stainless Steel Sheet: ASTM A167, Type 304.
- C. Tubing: ASTM A269, stainless steel.
- D. Adhesive: Contact type, waterproof.
- E. Fasteners, Screws, and Bolts: Hot dip galvanized, tamperproof.
- F. Expansion Shields: Fiber, lead, or rubber as recommended by accessory manufacturer for component and substrate.

2.03 **FABRICATION**

- A. Weld and grind smooth joints of fabricated components.
- B. Form exposed surfaces from single sheet of stock, free of joints.
- C. Form surfaces flat without distortion. Maintain flat surfaces without scratches or dents.
- D. Back paint components where contact is made with building finishes to prevent electrolysis.
- E. Shop assemble components and package complete with anchors and fittings.
- F. Provide steel anchor plates, adapters, and anchor components for installation.
- G. Hot dip galvanize exposed and painted ferrous metal and fastening devices.

2.04 **FACTORY FINISHING**

- A. Galvanizing: ANSI/ASTM A386 to 1.25 oz/sq yd
- B. Shop Primed Ferrous Metals: Pretreat and clean, spray apply one coat primer and bake.
- C. Chrome/Nickel Plating: ANSI/ASTM B456, Type SC 2 satin finish.
- D. Stainless Steel: No. 4 satin luster finish.

SECTION 10800
TOILET AND BATH ACCESSORIES

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that site conditions are ready to receive work and dimensions are as indicated on shop drawings.
- B. Beginning of installation means acceptance of existing conditions.

3.02 PREPARATION

- A. Deliver inserts and rough-in frames to site at appropriate time for building-in.
- B. Provide templates and rough-in measurements as required.
- C. Verify exact location of accessories for installation.

3.03 INSTALLATION

- A. Install fixtures, accessories and items in accordance with manufacturers' instructions.
- B. Install plumb and level, securely and rigidly anchored to substrate.

3.04 SCHEDULE

A. TOILET ROOM GRAB BARS

Furnish Bobrick No. B-6206 Series, or approved equivalent, Type 304 stainless steel 1 1/2 inch o.d. satin finish grab bars in toilet rooms, of lengths and shapes shown, and mounting conditions as required for wall construction on which they are mounted.

B. FRAMED MIRRORS

Furnish framed mirrors conforming to material and construction provisions of Fed. Spec. DD-M-0411(1), Class 2, Style E, of sizes shown; Bobrick Model B-290 Series or approved equivalent, with bright polished finish, stainless steel frames and theft resistant concealed hanger.

C. SANITARY NAPKIN DISPENSER

Furnish Bobrick Model B-35034 or approved.

D. SOAP DISPENSER

Furnished and installed by Owner.

E. PAPER TOWEL DISPENSER/WASTE RECEPTICLE

Furnish Bobrick Model B-369 or approved.

F. TOILET PAPER DISPENSER/NAPKIN DISPOSAL

Furnish Bobrick Model B-3094 or approved.

G. TOILET SEAT COVER DISPENSER

Furnish Bradley Model 5831 or approved.

H. PAPER TOWEL DISPENSER

Furnish Bobrick Model B-262 or approved.

SECTION 10800
TOILET AND BATH ACCESSORIES

END OF SECTION

SECTION 10990
MISCELLANEOUS SPECIALTIES & EQUIPMENT

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract, including General and other Conditions and Division 1-General Requirements sections, apply to the work specified in this Section.

1.02 WORK INCLUDED

- A. Coat Hooks

1.03 RELATED WORK

- A. Section 09215 - Veneer Plaster: Blocking.

1.04 SUBMITTALS

- A. Submit product data under provisions of Section 01300.
- B. Submit manufacturer's specifications for each type of equipment and items. Include catalog cuts of hardware, anchors, fastenings and other data as required.

1.05 OPERATION AND MAINTENANCE DATA

- A. Submit manufacturer's operation and maintenance data for each type of equipment and items under provisions of Section 01700.

PART 2 PRODUCTS

2.01 GENERAL

- A. Supplier shall be responsible for furnishing all components required for complete installation of products including anchors, other necessary accessories/fasteners for anchorage as required for particular conditions of installation in each case.

2.02 COAT HOOKS

- A. Furnish Hewi, Inc. wall mounter hooks; item number: 520.70.1 Color as selected by Architect. Hewi, Inc. 6 Pearl Court, Allendale N.J. 07401 (201) 327-7202.

PART 3 EXECUTION

3.01 INSPECTION

- A. Verify that surfaces and internal wall blocking are ready to receive work.

3.02 INSTALLATION

- A. Do not install products which are observed to be defective in any way.

SECTION 10990
MISCELLANEOUS SPECIALTIES & EQUIPMENT

- B. Install 5'-2" above finish floor to center of rose and space equally horizontally.
- C. Securely anchor products/accessories in accurate locations; install in perfect alignment, free from warp, twist or distortion, plumb, level and true, in accord with final shop drawings manufacturer's instructions and recommendations for particular conditions of installation in each case, except where project conditions require extra precautions or provisions to ensure satisfactory performance of work.
- D. If printed instructions are not available or do not apply to project conditions, consult manufacturer's technical representative for specific recommendations before proceeding with work.

3.03 CLEANING/REPAIRING

- A. Remove manufacturer's temporary labels, protective coatings, marks of identifications if provided; thoroughly wash surfaces, remove foreign material, polish metal surfaces.
- B. Exposed finishes shall be free from scratches, dents, permanent discolorations and other defects in workmanship, material.
- C. Except where use of field applied touch-up paint is allowed, remove and replace damaged parts, surfaces which are not free from imperfections, or which have been damaged during installation or thereafter before time of final project acceptance. Where approved touch up damaged areas in shop applied finish with field applied touch-up paint.
- D. Leave entire work in neat, orderly, clean condition.

END OF SECTION

SECTION 10100
CHALKBOARDS AND TACKBOARDS

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract, including General and other Conditions and Division 1-General Requirements sections, apply to the work specified in this Section.

1.02 WORK INCLUDED

- A. Metal surfaced dry marker and chalkboards.
- B. Tackboards.
- C. Trim and accessories.

1.03 RELATED WORK

- A. Section 09215 - Veneer Plaster Systems: Substrate construction behind dry marker and chalkboards and tackboards.

1.04 REFERENCES

- A. ANSI A208.1 - Mat Formed Wood Particleboard.
- B. ANSI/ASTM B221 - Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes.
- C. APA - American Plywood Association.
- D. ASTM A424 - Steel Sheets for Porcelain Enameling.
- E. ASTM A526 - Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Commercial Quality.
- F. ASTM E84 - Test Method for Surface Burning Characteristics of Building Materials.
- G. Porcelain Enamel Institute - Performance Specifications for Porcelain Enamel Chalkboards.

1.05 REGULATORY REQUIREMENTS

- A. Conform to applicable code for flame/fuel/smoke rating of 25/35/50 for vinyl fabric covered tackboards in accordance with ASTM E84.

1.06 SUBMITTALS

- A. Submit shop drawings product data under provisions of Section 01300.
- B. Indicate on shop drawings, wall elevations, dimensions, joint locations, special anchor details.
- C. Provide product data on dry marker and chalkboards, tackboards, tackboard surface covering, trim and accessories.
- D. Submit samples under provisions of Section 01300.

SECTION 10100
CHALKBOARDS AND TACKBOARDS

- E. Submit two samples two x two inches in size illustrating materials and finish, color, and texture of dry marker and chalkboard, tackboard and trim.
- F. Submit manufacturer's installation instructions under provisions of Section 01300.

1.07 **MAINTENANCE DATA**

- A. Submit maintenance data under provisions of Section 01700.
- B. Include maintenance information on regular cleaning and stain removal.

1.08 **WARRANTY**

- A. Provide 50 year warranty under provisions of Section 01700.
- B. Warranty: Include coverage of dry marker and chalkboard surfaces from discoloration due to cleaning, crazing cracking or staining.

PART 2 PRODUCTS

2.01 **ACCEPTABLE MANUFACTURERS**

- A. Claridge Products and Equipment, Inc.
- B. Greensteel, Inc.
- C. Lemco Corp.
- D. PBS
- E. Substitutions: Under provisions of Section 01600.

2.02 **MATERIALS**

- A. Steel Sheet: ASTM A424, Type I, commercial quality.
- B. Aluminum Extrusions: ANSI/ASTM B221, 6061 alloy.
- C. Cork: Fine gram natural cork, homogeneous composition.
- D. Particle Board: ANSI A208.1; wood chips set with waterproof resin binder, sanded faces.
- E. Vinyl Covering: Vinyl roll stock, "Vicktex" as manufactured by L.E. Carpenter or approved conforming to the following:
 - 1. Total Weight 20.3 oz/lin.yd.
 - 2. Fabric Weight 13.5 oz/sq.yd.
 - 3. Vinyl Weight 2.4 oz/sq.yd.
 - 4. Roll Width 54 inches
 - 5. Color As selected by Architect from full line. Three colors may be selected.

SECTION 10100
CHALKBOARDS AND TACKBOARDS

- | | |
|--------------------------|---------------------|
| 6. Pattern | "Lino" or approved. |
| 7. Federal Specification | CCC-W-408 Type II |

- F. Backing Sheet: Aluminum sheet, .015 mil thick.
- G. Adhesives: Type recommended by manufacturer. Waterproof type.

2.03 FABRICATION - DRY MARKER BOARDS

- A. Finish: three ply porcelain enamel.
- B. Outer Face Sheet: Steel, 24 gage
- C. Core: Particle board; 1/2 inch thick.
- D. Backing Surface: Aluminum sheet.
- E. Laminating Adhesive: Moisture resistant thermoplastic type.

2.04 FABRICATION - TACKBOARDS

- A. Outer Facing: Cork, 1/4 inch.
- B. Core: Particle board, 1/4 inch thick.
- C. Laminating Adhesive: Water resistant type.

2.06 FRAME AND TRIM

- A. Frame, Chalk Tray and Trim: Oak

2.07 FINISHES

- A. Porcelain Enamel: Glass fibered enamel, baked to vitreous surfaces; Porcelain Enamel Institute Type A. Color as selected by Architect from manufacturer's standard range.
- B. Oak Frame and Trim: Natural.
- C. Aluminum Trim: Anodized to satin AA AA-M31A31 finish.
- D. Tackboard Surface: Vinyl covering.

SECTION 10100
CHALKBOARDS AND TACKBOARDS

PART 3 EXECUTION

3.01 INSPECTION

- A. Verify that surfaces and internal wall blocking are ready to receive work, and opening dimensions are as instructed by the manufacturer.
- B. Beginning of installation means acceptance of existing surfaces.

3.02 INSTALLATION

- A. Install marker boards and tackboards in accordance with manufacturer's instructions.
- B. Secure units level and plumb.

3.03 CLEANING

- A. Clean chalkboard surfaces in accordance with manufacturer's instructions.

END OF SECTION

ELECTRICAL SPECIFICATIONS

- | | |
|-------|--------------------------------|
| 16010 | Basic Electrical Requirements |
| 16110 | Raceways |
| 16120 | Wires and Cables |
| 16130 | Boxes |
| 16141 | Wiring Devices |
| 16190 | Supports |
| 16475 | Overcurrent Protective Devices |
| 16500 | Lighting |
| 16740 | Telephone System |

SECTION 16010
BASIC ELECTRICAL REQUIREMENTS

PART 1 GENERAL

1.01 DEFINITIONS

- A. In modification of Division 01 definitions, where the words "furnish", "provide", "install" appear in this Division, or a manufacturer is indicated with item or product catalog number listed, install and furnish the item complete and operating for the purpose or function intended, unless noted otherwise.

1.02 SYSTEM DESCRIPTION

- A. Design Requirements: Electrical systems required for this work includes all labor, materials, equipment, and services necessary to complete installation of electrical work shown on Drawings, specified herein or required for a complete operable facility and not specifically described in other Sections of these Specifications. Among the items required are:
1. Extension of new work to existing service and distribution equipment shown on Drawings.
 2. Feeders to branch circuit panels, HVAC equipment and specific equipment as indicated on Drawings.
 3. Branch circuit wiring from the branch circuit panels for lighting, receptacles, junction boxes, motors, signal systems and other indicated circuits wiring.
 4. Lighting fixtures, control switches, receptacles, relays, supports and other accessory items.
 5. Wiring and final power connections for motors installed for heating, cooling and ventilation.
 6. Special systems and communications systems.
 7. Wiring and final power connections for Owner furnished and installed equipment.

1.03 SUBMITTALS

- A. Materials Substitutions:
1. Submit requests for substitutes to the Architect in compliance with Contract Document requirements. Concurrently, submit two (2) additional copies directly to the Architect's Consulting Electrical Engineer.
 2. Contract Document requirements apply to all equipment submitted for substitution approval. Indicate any deviation or non-compliance shall be indicated by an attached letter explaining a proposed change. Approval of submitted material does not grant deviation from the Contract requirements. Include in Bid Sum additional expense resulting from the Contractor's decision to use substitute materials including all costs by other affected crafts.
- B. Product Data: Submit in accordance with Instructions to Bidders. Attach items of like nature to one substitution form.

SECTION 16010
BASIC ELECTRICAL REQUIREMENTS

C. Shop Drawings:

1. Submit in accordance with Division 1. Include physical and electrical characteristics; i.e. dimensions, materials, voltage, phase, etc., of all new equipment except basic wiring materials.
2. If deviations, discrepancies or conflicts between Shop Drawings and the Drawings and Specifications are discovered either prior to or after Shop Drawing Submittals are processed by Architect, Design Drawings and Specifications take precedence.
3. Contractor agrees that Shop Drawing Submittals processed by Architect are not Change Orders. The purpose of Shop Drawings is to demonstrate to the Architect that the Contractor understands the design concept.
4. Contractor demonstrates understanding of design concept by indicating material he intends to furnish and install, and by detailing fabrication and installation methods.

D. Office Samples: Submit samples as requested by Architect.

E. Project Record Documents:

1. On completion of work, deliver to Architect one set of accurately marked Sepia Drawings. Show all change and variations from Design Drawings and exact routes of all feeders, service conduits and location of all conduits stubbed out for future continuation with definite dimensions and burial depths.
2. Drawings and lettering, neat, clean and legible.
3. Order and pay for required sepias from original tracings provided by Architect at start of project.
4. Maintain one "work" set on project site at all times. Work set subject to inspection by Architect.

F. Operation and Maintenance Data:

1. Submit the following prior to final acceptance and Contractor's request for final payment for Division 16 work, in conformance with the Project Closeout requirements of the General Provisions:
 - a. Record Drawings.
 - b. Maintenance and Operation Manuals.
2. Provide four complete sets of Maintenance and Operation Manuals including, but not limited to, the following:
 - a. Schematic diagrams, installation wiring diagrams and instructions and Maintenance/Operation Manuals for any special systems and equipment.
 - b. Complete fixture cuts including lamps furnished for all lighting fixtures.
 - c. Shop Drawings and installation/maintenance/operation manuals for all power distribution and control equipment including service and distribution equipment, branch panels, etc.
 - d. Copies of certificates of Code Authority acceptance, and test data and other special guarantees, warranties, etc. specified elsewhere herein and/or indicated on the Drawings.

SECTION 16010
BASIC ELECTRICAL REQUIREMENTS

3. Assemble each set in standard hardback, 3-ring binder(s). Binder fill shall not exceed 50%; i.e., 1" thickness of paper in 2" binder. Use tabular dividers to organize the materials in the same order as this Specification. Mark each divider according to (sub)section number and name.

1.04 DELIVERY, STORAGE AND HANDLING

A. Acceptance at site:

1. Do not use scratched, marred or deformed materials.
2. Do not use fixtures, material or equipment in wet cartons or boxes, stored in or exposed to rain, water, dust, dirt or snow.

1.05 SEQUENCING AND SCHEDULING

A. Cooperation with Other Crafts:

1. Cooperate with other crafts and/or contracts as may be necessary for the proper execution of the work in the construction of the building.
2. Prior to the installation and connection of the Division 16 work for equipment by other Divisions, the Owner, or by other contracts, verify the requirements indicated in Division 16 with the requirements and characteristics of the other Divisions, the Owner, and/or other contractors equipment. Read and understand the requirements of Divisions which affect the installation of work in this Division.
3. Obtain wiring or schematic diagrams for confirmation and connections. Deviations to be brought to the attention of the Architect.
4. Consult the Drawings of all other trades or crafts to avoid conflicts with cabinets, counters, equipment, structural members, etc. In general, the Architectural Drawings govern, but conflicts shall be resolved with the Architect prior to rough-in.

- B. Safety:** In accordance with generally accepted construction practices, the Contractor is solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement applies continuously and is not limited to normal working hours.

1.06 WARRANTY

- A. General Warranty:** Without additional charge, replace any work or material which develops defects, except from abuse, within one (1) year from acceptance unless otherwise noted.

B. Lamps:

1. Lamp warranty is from date of Owner occupancy or acceptance: Thirty (30) days for incandescent, six (6) months for fluorescent and HID lamps.
2. Provide labor for lamp installation for thirty (30) days after final acceptance.

SECTION 16010
BASIC ELECTRICAL REQUIREMENTS

C. Ballasts:

1. Ballasts covered by a two year warranty, based upon manufacturer's Code dates embossed on ballast cover with installation date.
2. Warranty includes nominal payment toward normal cost of labor for replacement of ballast.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. General: Like items from one manufacturer; i.e., fixture types, switches, receptacles, breakers, panels, etc.

2.02 MATERIALS

- A. Provide electrical materials of the type and quality indicated, or prior approved substitute, new, listed by the Underwriters' Laboratories, bearing their label wherever standards have been established and label service is regularly furnished by them. Indicated brand names and catalog numbers are used to establish standards of performance and quality. The description of materials listed herein governs in the event that catalog numbers do not correspond to the materials described herein.

2.03 ACCESSORIES

- A. Special Features and Incidentals:
1. Include special features, finishes, description or requirements indicated in the Contract Documents for particular items or equipment, but not included by or in the item's listed catalog number.
 2. Provide and install as part of the Contract work all incidentals, hangers, brackets, supports, framing, backing, signal transformers, relays, etc., not specifically mentioned herein or noted on the Drawings, but required to complete the system or systems, in a safe and satisfactory working condition, shall be provided and installed as part of the Contract Work.

2.04 FABRICATION

- A. Shop/Factory Finishing: Modify manufacturer's products at the factory to comply with the special requirements noted. Contractor's responsibility to verify compliance.

SECTION 16010
BASIC ELECTRICAL REQUIREMENTS

PART 3 EXECUTION

3.01 VERIFICATION

- A. Verification of Conditions:
1. Bidder is expected to visit site of proposed construction. Verify and inspect the existing site to determine the conditions that affect this work.
 2. Include all costs in the bid price for the work and/or material required to comply with the Contract Documents, based on the actual existing conditions and the information indicated on the Contract Documents.
 3. Failure to visit site and verify conditions affecting work of this Division does not relieve Contractor from the necessity of doing any and all work which is necessary to make all electrical installations and systems complete.
- B. Construction Documents:
1. Electrical Drawings are diagrammatic with symbols representing electrical equipment, outlets and wiring.
 2. Electrical symbols indicating wiring and equipment, shown on the Drawings or specified in Division 16, are included in Division 16 work unless specifically noted otherwise.
 3. Drawings indicate general directions and routes of feeders and conductor systems. Determine exact route and installation of electrical wiring and equipment with conditions of construction and acceptance of Architect.
 4. Deviations from Drawings required to make the electrical installation conform to the building's construction design and the work of other crafts are part of the Contract work. Obtain Architect approval prior to executing any deviations from Drawings.
 5. Examine the Mechanical and Structural Drawings to avoid systems conflicts.
 6. Data given herein and shown on Electrical Drawings is as exact as could be secured but its absolute accuracy is not guaranteed.
- C. Clarification:
1. Prior to submitting a bid, bring to the attention of the Architect any ambiguous, conflicting or unclear instructions. Such items will be clarified by the Architect in Addendum form.
 2. In the event that time does not permit clarification prior to bid opening, the Drawings govern in matters of quantity, the Specification in matters of quality. In event of conflict on the Drawings or in the Specifications, the greater quantity and the higher quality apply.
 3. Should the Electrical Documents indicate a condition conflicting with the Governing Codes and Regulations, refrain from installing that portion of the work until clarified by the Architect. Remove and correctly install, as part of the Contract work, any work installed in violation of the Governing Codes.

SECTION 16010
BASIC ELECTRICAL REQUIREMENTS

3.02 INSTALLATION

- A. Codes and Permits:
1. Comply with the latest Rules and Regulations of the Codes of the State and local authorities having jurisdiction. Contractor responsible for appraising himself of the pertinent Codes prior to commencing work.
 2. Furnish all materials and labor required for compliance with these Rules and Regulations. Items in excess of Code requirements take precedence.
 3. Obtain and pay for all required permits, plan check charges and certificates. Deliver Certificates of Acceptance from the Code-Enforcing Authorities to Architect.

3.03 FIELD QUALITY CONTROL

- A. Tests:
1. Conduct tests of equipment and systems to demonstrate compliance with requirements specified in Division 16.
 2. Provide journeyman electrician with tools, meters, instruments and other test equipment required. Remove and replace trims, covers, fixtures, etc., and test materials, systems, methods and workmanship in the presence of the Architect for final review at completion of the work.
- B. Inspection:
1. Do not close in or cover work prior to review by the Architect.
 2. Contractor responsible for cost of uncovering and making repairs where work has been closed in or covered prior to review by Architect.

3.04 CLEANING

- A. Tools and Materials:
1. Keep tools and materials in an orderly manner throughout the construction period.
 2. Upon completion of the work, remove all supplies, materials, tools, etc., furnished by the Electrical Division.
- B. Dirt, Debris and Dust:
1. Remove dirt and debris of whatever nature caused by the execution of the electrical work from job site at frequent periods appropriate to the progress of the work, or as directed by the Architect.
 2. Leave the entire electrical system installed under this Contract in clean, dust-free and proper working order.

END OF SECTION

SECTION 16109
EQUIPMENT CONNECTIONS

PART 1 GENERAL

1.01 ELECTRICAL CONNECTIONS

- A. Connect equipment, whether furnished by Owner or other Divisions of the Contract, electrically complete where indicated.
- B. Power connections only in Division 16. Equipment not set in place by Division 16.
- C. Ground all equipment with equipment grounding conductor.

PART 2 PRODUCTS

(Not Used)

PART 3 EXECUTION

3.01 ELECTRICAL CHARACTERISTICS

- A. Verify electrical characteristics of equipment prior to installation of conduits and wiring for equipment.
- B. Unless otherwise noted in Contract Documents, the following voltage and phase characteristics apply to motors furnished by others:
1/3 HP and under: 120 volts, single (1) phase
Over 1/2 HP: 208 volts, three (3) phase

3.02 MOTOR BRANCH CIRCUIT WIRING

- A. Do not install electrical equipment or wiring on mechanical equipment without approval of Architect.
- B. Provide moisture tight equipment wiring and switches in ducts or plenums used for environmental air.
- C. Connect motor starter branch circuits complete from panel to motor as required by Code and manner herein described.
- D. Motor starters for equipment supplied by Division 15, provided by equipment installer for installation by Division 16.
- E. Motor starter control devices and wiring provided by Division 15.
- F. Install feeder circuit to packaged HVAC equipment. Terminate feeder conductors on line terminals as directed by equipment manufacturer.

SECTION 16109
EQUIPMENT CONNECTIONS

3.03 APPLIANCE/UTILIZATION EQUIPMENT

- A. Provide appropriate cable and cord cap for final connection unless equipment is provided with same. Install receptacle to receive cord cap.
- B. Verify special purpose outlet NEMA configuration and ampere rating with equipment supplier prior to ordering devices and coverplates.

END OF SECTION

SECTION 16110
RACEWAYS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
1. Raceways.
 2. Conduit Fittings.
 3. Foam Sealant
 4. Sleeves and Chases.

1.02 SYSTEM DESCRIPTION

- A. Design Requirements:
1. Concealed Raceway System: Conceal raceway systems throughout.
 2. Branch Circuits: Do not change the intent of the branch circuits or controls or combine home runs without Architect's approval.
 3. Feeders: Do not combine or change feeder runs.
 4. Thermal Isolation: Special procedures required to prevent frost accumulation on or in raceways installed through boundary between heated and unheated spaces.
 5. Unless otherwise indicated, provide raceway systems for lighting, power and Class 1 remote-control and signaling circuits and Class 2 and 3 remote-control signaling and communication circuits.

1.03 SEQUENCING AND SCHEDULING

- A. Raceway System: Complete electrical raceway installation before starting the installation of conductors and cables. Raceway system of conduit, tubing or duct and fittings including but not limited to connectors, couplings, offsets, elbows, bushings, expansion and deflection fittings and other components and accessories.
- B. Finished Surfaces: Prevent cutting in connection with finished work. Make repairs in a manner approved by Architect.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Raceways: Allied Steel, Certainteed, Jones and Laughlin, Carlon, Kraloy.
- B. Conduit Fittings: O-Z Gedney, Thomas-Betts, Crouse-Hinds.
- C. Foam Sealant: Chase Technologies.

2.02 CONDUITS

- A. Galvanized Rigid Steel Conduit (GRC):
1. Hot dip galvanized after thread cutting.

SECTION 16110
RACEWAYS

2. Manufacture in conformance with Federal Specification WWC-581 (latest revision) and ANSI Specification C80.1.
 3. Uniform finish coat with chromate for added protection.
- B. Rigid Aluminum Conduit: Alloy #6063, threaded at each connection.
- C. Intermediate Metal Conduit (IMC):
1. Hot dip galvanized after thread cutting.
 2. Manufacture in conformance with Federal Specification WWC-581 (latest revision).
 3. Uniform finish coat with chromate for added protection.
- D. Electrical Metallic Tubing (E.M.T.):
1. Hot dip galvanized and chromate coated.
 2. Manufacture in conformance with Federal Specification WWC-563 (latest revision) and ANSI Specification C80.3.
- E. Flexible Conduit:
1. Reduced wall flexible steel conduit.
 2. Hot dip galvanize steel strip prior to forming and joining.
 3. Manufacture in conformance with Federal Specification WWC-566.
- F. Flexible Conduit, PVC Coated:
1. Hot dip galvanize steel strip prior to forming and joining.
 2. PVC chemical resistant jacket extruded to core, up to 1" trade size.
 3. PVC chemical resistant jacket, tubed over core, up to 4" trade size.
- G. PVC:
1. Class 40 heavy wall rigid PVC.
 2. Rated for use with 90°C conductors.
 3. Manufacture in conformance with Federal Specification WC1094A and NEMA TC-2.

2.02 CONDUIT FITTINGS

- A. Bushings:
1. Insulated type for threaded Rigid and IMC conduit. T&B #1222 Series or O-Z Gedney "B Series".
 2. Insulated grounding type for threaded Rigid and IMC conduit: O-Z Gedney "BLG Series".
- B. E.M.T. Connectors and Couplings:
1. Steel gland, Tomic, Breagle or O-Z Gedney 7000 ST Series, pre-insulated type connectors.
 2. Set screw type, zinc plated, steel.
- C. Expansion/Deflection Fittings:
1. EMT, O-Z Gedney Type "TX".
 2. RMC, O-Z Gedney Type "AX", "DX" and "DXX" and Crouse-Hinds "XD".

SECTION 16110
RACEWAYS

2.03 FOAM SEALANT

- A. Foam sealant for use around conduit penetrations to prevent passage of smoke, fire, toxic gas or water. Maintain seal before, during and after fire. In and around conduit for thermal break at penetration of barrier between heated and unheated spaces. Chase Technology Corp. No. CTC PR-855.

PART 3 EXECUTION

3.01 PREPARATION

- A. Inserts, Anchors and Sleeves:
1. Coordinate location of inserts and anchor bolt for electrical systems prior to pouring concrete.
 2. Coordinate location of sleeves for electrical systems prior to pouring concrete, with consideration for all other building systems.

3.02 INSTALLATION

- A. Conduit:
1. Conduit Joints: Assemble conduits continuous and secure to boxes, panels, fixtures and equipment with fittings to maintain continuity. Provide watertight joints where embedded below grade or in damp locations. Seal PVC conduit joints with solvent cement and metal conduit with metal thread primer. All rigid conduit connections to be threaded, clean and tight (metal to metal). Threadless connections are not permitted for GRC and IMC.
 2. Conduit Placement: Install continuous conduit and raceways for electrical power and signal systems wiring where indicated. Exposed conduits are permitted in Mechanical Rooms or spaces where walls, ceilings and floors will not be covered with finished materials. Where Documents permit exposed conduit install parallel or at right angles to building lines, tight to finished surfaces and neatly offset into boxes. Do not install conduits or other electrical equipment in obvious passages, doorways, scuttles or crawl spaces which would impede or block the area passage's intended usage. Do not install conduits on surface of building exterior or on top of parapet walls.
 3. Maximum Bends: Install Code sized pull boxes to restrict maximum bends in a run of conduit to 270°. Conduit bodies, condulets, not permitted in feeders.
 4. Conduit Terminations: Provide conduits shown on Drawings which terminate without box, panel, cabinet or conduit fitting with not less than five (5) full threads. Bushings and metal washer type sealer between bushing and conduit end.
 5. Flexible Conduit: Install 12" minimum slack loop on flexible metallic conduit and PVC coated flexible metallic conduit.

SECTION 16110
RACEWAYS

6. Conduit Size: Size as indicated on Drawings. Where size is not indicated, provide conduit in minimum Code permitted size for THW conductors of quantity shown. Minimum trade size 1/2".
 7. Conduit Location:
 - a. Underground: GRC, IMC or PVC.
 - b. Cast-in-place concrete, masonry, damp locations and subject to mechanical damage: GRC or IMC.
 - c. Dry, protected and 2" maximum nominal size: GRC, IMC, EMT.
 - d. Dry, protected and above 2" nominal size: GRC, IMC.
 - e. Sharp Bends and Elbows: GRC, EMT use factory elbows.
 - f. Install pull wire or nylon cord in empty raceways provided for other systems. Secure wire or cord at each end.
 - g. Motors, recessed luminaires and equipment connections subject to movement or vibration, use flexible metallic conduit.
 - h. Motors and equipment connections subject to movement or vibration and subjected to any of the following conditions; exterior location, moist or humid atmosphere, water spray, oil or grease use PVC coated flexible metallic conduit.
- B. Thermal Insulation:
1. Raceways concealed in exterior walls or floor and ceiling spaces exposed to exterior temperatures on one side and normal room temperatures on the inside; exercise special care to prevent frost accumulation resulting from condensation of air on heated side.
 2. Secure raceways to structure such that screws, nails and fastening devices do not extend from the warm side to the cold side or penetrate the vapor barrier or insulation.
 3. Where conduits penetrate the vapor barrier or insulation, provide interior conduit seal. Seal void between conductors and interior wall of conduit.
 4. Seal exterior voids between components or the structure and raceways. Fill void with sealant to minimize conduction along raceway from cold to warm side.
- C. Sleeves and Chases:
1. Floor, Ceiling and Wall Penetrations: Provide necessary rigid conduit sleeves, openings and chases where conduits or cables are required to pass through floors, ceiling or walls.
 2. Fire Seals: Maintain integrity of fire rating at penetrations of walls, ceilings or floors.

END OF SECTION

SECTION 16120
WIRES AND CABLES

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
1. Wires and Cables.
 2. Connectors.
 3. Lugs and Pads.

1.02 SUBMITTALS

- A. Test Reports: Test conductor insulation for conformity with 1000V megger. Minimum insulation resistance acceptable is 1000 ohms per applicable system volt.
- B. Manufacturer's Instructions: Comply with manufacturer's recommendations for installation procedures.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Wires and Cables: Anaconda, General Electric, Hatfield, Okonite.
- B. Connectors:
1. Stranded Conductors: Anderson, Burndy, Ilsco, Thomas and Betts.
 2. Branch Circuit Splices: Ideal, Scotch-Lock, 3M.

2.02 WIRES AND CABLES

- A. Copper, 600 volt rated throughout.
- B. Conductors No. 14 AWG to No. 10 AWG, solid or stranded.
- C. Conductors No. 8 AWG and larger, stranded.
- D. Color code conductors as follows:
- | | |
|---------|---------|
| PHASE | |
| A | - Black |
| B | - Red |
| C | - Blue |
| Neutral | - White |
| Ground | - Green |
- E. Conductors No. 3 AWG and larger, minimum insulation rating of 75°C.
- F. Insulation types THWN, THW or XHHW. THHN may be used in dry locations only.
- G. Refer to Special Systems Specification Sections for cable requirements.

SECTION 16120
WIRES AND CABLES

2.03 CONNECTORS

- A. Lugs: Indent/compression type for use with stranded branch circuit or control conductors.
- B. Solid Conductor Branch Circuits: Spring connectors, wire nuts, for conductors #18 through #8 AWG.

PART 3 EXECUTION

3.01 INSTALLATION

A. Wires and Cables:

1. Conductor Installation:

- a. Install conductors in raceways having adequate, Code size cross-sectional area for wires indicated.
- b. Install conductors with care to avoid damage to insulation.
- c. Do not apply greater tension on conductors than recommended by manufacturer during installation.
- d. Use of pulling compounds is permitted. Clean residue from exposed conductors and raceway entrances after conductor installation. Do not use pulling compounds for installation of conductors connected to GFI circuit breakers or GFI receptacles.

2. Conductor Size and Quantity:

- a. Install no conductors smaller than No. 12 AWG unless otherwise shown.
- b. Number of conductors in a conduit run indicated on Drawings with diagonal hash marks on conduit run.

3. Conductors in Cabinets:

- a. Cable and tree all wires in panels and cabinets for power and control. Use plastic ties in panels and cabinets.
- b. Tie and bundle feeder conductors in wireways of panelboards.
- c. Hold conductors away from sharp metal edges.
- d. Install fish paper insulation between conductors and metal enclosures except in conduit.

- B. Connectors: Re-tighten lugs and connectors for conductors to equipment prior to final acceptance of work.

END OF SECTION

SECTION 16130
BOXES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Outlet Boxes.
2. Junction and Pull Boxes.
3. Conduit Fittings.

1.02 SYSTEM DESCRIPTION

A. Design Requirements:

1. Outlet System: Provide electrical boxes and fittings as required for a complete installation. Items shall include but not be limited to outlet boxes, junction boxes, pull boxes, bushings and locknuts.
2. Code Compliance: Comply with NEC as applicable to construction and installation of electrical boxes and fittings and size boxes according to N.E.C. Art 370, except as noted otherwise.
3. Flush Outlets in Insulated Spaces: Maintain integrity of insulation and vapor barrier.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Outlet Boxes: Bowers, Raco.
- B. Junction and Pull Boxes: Circle AW, Hoffman.
- C. Box Extension Adapter: Bell.
- D. Conduit Fittings: O-Z Gedney, Thomas and Betts.

2.02 OUTLET BOXES

- A. Luminaire Outlet: 4" octagonal box, 1-1/2" deep with 3/8" fixture stud if required. Provide raised covers on bracket outlets and on ceiling outlets.
- B. Device Outlet: Installation of one or two devices at common location, minimum 4" square, minimum 1-1/2" deep. Single or two gang flush device raised covers. Raco Series 681 and 686.
- C. Multiple Devices: Three or more devices at common location. Install one piece gang boxes with one piece device cover. Install one device per gang.
- D. Construction: Provide galvanized steel interior outlet wiring boxes, of the type, shape and size, including depth of box, to suit each respective location and installation; constructed with stamped knockouts in back and sides, and with threaded holes with screws for securing box covers or wiring devices.

SECTION 16130
BOXES

- E. Accessories: Provide outlet box accessories as required for each installation, including mounting brackets, wallboard hangers, extension rings, fixture studs, cable clamps and metal straps for supporting outlet boxes, compatible with outlet boxes being used and meeting requirements of individual wiring situations.

2.03 JUNCTION AND PULL BOXES

- A. Construction: Provide galvanized sheet steel junction and pull boxes, with screw-on covers; of the type shape and size, to suit each respective location and installation; with welded seams and equipped with steel nuts, bolts, screws and washers.
- B. Location:
 - 1. Install junction boxes above accessible ceilings for drops into walls for receptacle outlets from overhead.
 - 2. Install junction boxes and pull boxes as required to facilitate the installation of conductors and limiting the accumulated angular sum of bends between boxes, cabinets and appliances to 270°.

2.04 BOX EXTENSION ADAPTER

- A. Construction: Die cast aluminum.

2.05 CONDUIT FITTINGS

- A. Requirements: Provide corrosion-resistant punched-steel box knockout closures, conduit locknuts and malleable iron conduit bushings of the type and size to suit each respective use and installation.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Location: Locate boxes and conduit bodies so as to insure accessibility of electrical wiring.
- B. Round Boxes: Avoid using round boxes where conduit must enter through side of box, which would result in a difficult and insecure connection with a locknut or bushing on the rounded surface.
- C. Anchoring: Secure boxes rigidly to the substrate upon which they are being mounted.
- D. Knockout Closures: Provide knockout closures to cap unused knockout holes where blanks have been removed.
- E. Thermal Barrier: Insulate or maintain integrity of vapor barrier in void space between outlet box and building structure where outlet boxes are mounted flush in wall.

END OF SECTION

SECTION 16141
WIRING DEVICES

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
1. Wall Switches.
 2. Receptacles.
 3. Device Plates.
 4. Surface Covers.
 5. Surface Metal Raceways.

1.02 SYSTEM DESCRIPTION

- A. Design Requirements:
1. Federal Specification Compliance: Comply with Federal Specification WS896 and WC596 for switches and receptacles respectively.
 2. NEMA Configuration: Comply with NEMA configurations and standards for general and special purpose wiring devices.
 3. Appearance: Provide line voltage lighting switches and receptacles of common manufacturer and identical appearance.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Wall Switches: Arrow-Hart, Bryant, General Electric, Hubbell, Leviton, Pass and Seymour, Slater.
- B. Receptacles: Same manufacturers as listed for wall switches.
- C. Finish Plates: Hubbell, Leviton, Pass & Seymour, Slater.

2.02 WALL SWITCHES

- A. Characteristics: Toggle type, quiet acting, 20A, 120/277V, UL listed for motor loads up to 80% of rated amperage, grey finish. Hubbell Series 1221-GRY.

2.03 RECEPTACLES

- A. Finish: Same exposed finish as switches.
- B. Characteristics: Straight parallel blade 20A, 125V, 2 pole - 3 wire grounding. Hubbell 5362-GRY.
- C. Ground Fault Interrupter: Feed through type, 20A, 125VAC, specification grade. Hubbell GF-5362GY.
- D. Special Purpose Receptacles: Refer to Drawings for NEMA Standard Specification.

SECTION 16141
WIRING DEVICES

2.04 FINISH PLATES

- A. Material: 18% chrome, 80% nickel, Type 302 stainless steel, satin finish, beveled metal. Hubbell BPHDSSDNI.
- B. Telephone/Signal System Device Plates: 3/4" diameter hole with grommet. Hubbell BM3SSDNI.

2.05 SURFACE COVERS

- A. Material: Galvanized or cadmium plated steel, 1/2" raised industrial type with openings appropriate for device(s) installed on surface outlets.
- B. Cast Box and Extension Adaptors: Aluminum, with gasket, blank. Single gang, Bell 240-ALF. Two gang, Bell 236-ALF.

2.06 SURFACE METAL RACEWAY

- A. Finish: Same as wall or as directed by Architect.
- B. Characteristics: Two piece surface metal raceway shall consist of a base section and a cover section which shall be scored every 3" along its length. Wiremold 2100 Series. Receptacles to be NEMA 5-20R, Wiremold 2127GT. Provide all fittings for a complete installation.

PART 3 EXECUTION

3.01 PREPARATION

- A. Protection:
 - 1. Devices: Upon installation of wall plates and receptacles, advise Contractor regarding proper and cautious use of convenience outlets. At time of Substantial Completion, replace those items which have been damaged, including those burned and scored by faulty receptacles or cord caps.
 - 2. Finish Plates and Devices: Do not install items until finish painting is complete. Scratched or splattered finish plates and devices will not be acceptable.

3.02 INSTALLATION

- A. Plumb: Install devices and finish plates plumb with building lines.
- B. Orientation:
 - 1. Wall Mounted Receptacles: Install with long dimensions oriented vertically at centerline height shown on Drawings or specified herein.

SECTION 16141
WIRING DEVICES

2. Vertical Alignment: When more than one outlet is shown on the Drawings in close proximity to each other, but at different elevations, align the outlets on a common vertical center line for best appearance. Verify with the Architect.

3.03 FIELD QUALITY CONTROL

A. Tests:

1. Wiring Devices: Test wiring devices to insure electrical continuity of grounding connections, and after energizing circuitry, to demonstrate compliance with requirements. Receptacles shall be tested for line to neutral, line to ground and neutral to ground faults. Correct any defective wiring.

END OF SECTION

SECTION 16190
SUPPORTING DEVICES

PART 1 GENERAL

1.01 DESCRIPTION

- A. Safety factor of 4 required for every fastening device or support for electrical equipment installed. (Support to withstand four times weight of equipment it supports).

PART 2 PRODUCTS

2.01 PRODUCTS

- A. Hangers: Kindorf B-905-2A channel, H-119-D washer, C105 strap, 3/8" rod with ceiling flange.
- B. Concrete Inserts: Kindorf D-255, cast in concrete for support fasteners for loads up to 800 lbs.
- C. Pipe Straps: Two-hole galvanized or malleable iron.
- D. Fixture Chain: Campbell Chain Company #75031, 90-pound test with steel hooks.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Provide all electrical equipment supports.
- B. Verify mounting height of all fixtures or items prior to installation when heights are not indicated.
- C. Install vertical support members for equipment and fixtures, straight and parallel to building walls.
- D. Provide independent supports to structural member for electrical fixtures, materials, or equipment installed in or on ceiling, walls or in void spaces and/or over furred or suspended ceilings.
- E. Do not use other crafts' fastening devices for supporting means of electrical equipment materials or fixtures.
- F. Do not use supports and/or fastening devices to support other than one particular item.
- G. Support conduits within 18" of outlets, boxes, panels, cabinets and deflections.
- H. Maximum distance between supports not to exceed eight (8) foot spacing.

SECTION 16190
SUPPORTING DEVICES

- I. All junction boxes, pull boxes or other conduit terminating housings located above suspended ceiling shall be securely suspended from the floor above or roof structure to prevent sagging and swaying.

END OF SECTION

SECTION 16475
OVERCURRENT PROTECTIVE DEVICES

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Fuses.
 - 2. Circuit Breakers.
- B. Related Sections:
 - 1. Section 16170, Circuit and Motor Disconnects.
 - 2. Section 16470, Panelboards.

1.02 SUBMITTALS

- A. Product Data:
 - 1. Provide instantaneous let-through current curves and average melting time current curves for fuses supplied to project.
 - 2. Provide product data and time/current trip curves for circuit breakers supplied to project.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Fuses: Bussmann Division, McGraw-Edison Co.; Shawmut Division, Gould Electronic.
- B. Circuit Breakers: General Electric, Siemens-Allis (ITE Electrical Products), Square-D and Westinghouse.

2.02 FUSES

- A. Characteristics: Dual element, time delay, current limiting, non-renewable type, rejection feature.
- B. Combination Loads: UL Class RK5, 1/10-600A.
- C. Motor Loads: UL Class RK5, 1/10-600A.
- D. Fuse Puller(s) for complete range of fuses.

2.03 CIRCUIT BREAKERS

- A. Molded Case Circuit Breakers:
 - 1. One, two or three pole, single handle common trip, rated 250VAC as specified on Drawings.
 - 2. Overcenter toggle-type mechanism, quick-make, quick-break action. Trip indication is by handle position.
 - 3. Calibrate for operation in 40°C ambient temperature.
 - 4. 15A-200A Breakers: Permanent trip unit containing individual thermal and magnetic trip elements in each pole.

SECTION 16475
OVERCURRENT PROTECTIVE DEVICES

5. Greater than 100A Breakers: Variable magnetic trip elements set by a single adjustment. Provide push-to-trip button on cover on breaker for mechanical tripping.
6. Provide removable load lugs, UL listed for compression type lugs, copper conductors only.

PART 3 EXECUTION

3.01 INSTALLATION

A. Circuit Breakers:

1. Provide circuit breakers, specified herein and on Drawings, for installation in panelboards, individual enclosures or combination motor starters.
2. Provide ground fault interrupter circuit breakers for equipment in damp or wet locations.
3. Provide device on handle to lock breaker in "ON" position for breakers feeding time switches, night lights and similar circuits required to be continuously energized.

END OF SECTION

SECTION 16500
LIGHTING

PART 1 GENERAL

1.01 SCOPE

- A. This Section includes indoor lighting fixtures and associated supports and lenses.

1.02 RELATED WORK

- A. Section 16110, Raceways and Fittings.
- B. Section 16120, Wires and Cables.
- C. Section 16130, Boxes.

PART 2 PRODUCTS

2.1 GENERAL

- A. The fixtures listed on the Drawings indicate manufacturer, fixture design, appearance and performance desired. Listed catalog numbers shall not be considered to specify all requirements. These fixtures shall be modified, if necessary to comply with the subsequent specification.
- B. All lighting fixtures must bear UL labels.
- C. Fixture component parts shall be manufactured and/or assembled at the manufacturing plant for shipment in one or more packages. The shipment from the fixture manufacturer shall include integrally mounted and/or remote mounted ballasts where ballasts are required.

2.02 FLUORESCENT FIXTURES

- A. Fixture Construction: Fixtures shall be constructed of rust protected steel or aluminum, finished with baked white enamel of the non-modified acrylic or alkyd base type. The entire fixture shall be finished in this manner except where other rim, finishes, louvers or nonferrous reflecting surfaces are specified. Reflectance of all light reflecting surfaces shall be 85% minimum. Modify fixtures as indicated.
- B. Ballasts Design: Two lamp ballasts shall be energy-saving type equal to Advance Mark III, UL listed to operate F40T12 rapid start lamps for both the standard 40 watt lamps and the reduced wattage (approximately 35 watts) energy-saving lamps. Lamp output shall be within 5% of nominal rating. Energy-saving type ballasts shall not be used in ambient temperatures below manufacturer's recommendations.
- C. Lenses: Provide lenses and diffusers as scheduled. Plastic lenses shall be virgin acrylic type, pattern and thickness as scheduled. Minimum thickness of .125-inch or thicker if specified.

SECTION 16500
LIGHTING

2.03 INCANDESCENT FIXTURES

- A. Provide fixtures of shape, size and finished scheduled.

2.04 LAMPS

- A. Provide lamps manufactured by General Electric, Philips or Sylvania.
1. Fluorescent: Provide G.E., Philips or Sylvania lamps of the size and color scheduled.
 2. Incandescent: Provide 120 volt lamps of the wattage and type scheduled or as recommended by the fixture manufacturer where not otherwise indicated.

2.05 SPECIAL ACCESSORIES

- A. Provide all accessories, such as plaster frames, T-bar hangers, swivels, stems, canopies, brackets, adapters and cords necessary to mount all fixtures in a proper and approved method, both structurally and for appearance.

PART 3 EXECUTION

3.01 STANDARD PLASTER FRAMES

- A. Provide plaster frames if required for all recessed lighting fixtures installed in plaster or drywall ceilings.

3.02 SUPPORTS

- A. Properly support and align fixtures and provide all necessary steel shapes for support. Coordinate complete fixture installation with the building construction. Verify ceiling types in all areas prior to ordering fixtures. No fixture shall be supported by ceiling tile. Secure fixtures to ceiling members with approved clips.

3.03 COMMON DETAILS

- A. Adjust all incandescent fixture sockets to match the lamp specified and aim all adjustable fixtures as directed.
- B. Square and rectangular fixtures shall be mounted with sides parallel to building lines and parallel with ceiling lines.
- C. Verify all ceiling systems and coordinate fixture type and accessories prior to ordering fixtures.

END OF SECTION

SECTION 16740
TELEPHONE SYSTEM

PART 1 GENERAL

1.01 SCOPE

- A. This Section includes installation of telephone outlets and raceways.

1.02 RELATED WORK

- A. Section 16110, Raceways.
Section 16141, Wiring Devices

PART 2 PRODUCTS

2.01 TELEPHONE SYSTEM

- A. Raceways: Provide conduits as indicated. Unless noted otherwise, conduit sizes for telephone raceways shall be 3/4 inch conduit per one telephone outlet except as noted otherwise.
- B. Outlet Boxes and Plates: Provide outlet boxes of the same type as provided for duplex outlets. Provide single device covers and blank plates with bushed opening.

PART 3 EXECUTION

3.01 INSTALLATION OF CONDUIT

- A. Install telephone conduit from each outlet to accessible ceiling space. Anchor and bush all conduit ends.
- B. Provide a pull wire in each empty conduit exceeding 8 feet in length or 90 degrees in bends.

3.02 INSTALLATION OF BOXES AND PLATES

- A. Install boxes, plates and outlets where shown. Mount flush in the wall.

3.03 COORDINATION

- A. Coordinate all work with the company involved in installing telephone cables.

END OF SECTION

15010 GENERAL PROVISIONS

PART 1 - GENERAL

1.1 CONTRACT CONDITIONS:

- A. Work of this Section is bound by the General Conditions, Supplementary Conditions, and Division 1, bound herewith, in addition to Division 15 and accompanying Architectural, Mechanical and Electrical Drawings. It is the intent of these specifications and the drawings to modify existing and to provide complete and workable mechanical systems.
- B. Reference to "The Contractor" in these Specifications refers to the Subcontractor performing the work under his respective sections.

1.2 SCOPE OF WORK

- A. It is the intent of these specifications to modify existing and to provide complete and workable plumbing and heating, air-conditioning, ventilation and exhaust systems.
- B. The Architectural Drawings show exact locations of plumbing fixtures.

1.3 CODES, RULES, AND REGULATIONS:

- A. All work and materials shall conform to latest revisions of local and state codes and utility company requirements, and all federal and other applicable laws and regulations. Whenever indicated material, workmanship, arrangement or construction is of higher quality or capacity than that required by the above codes, the drawings and/or specifications shall govern. Should there be any direct conflict between codes and the drawings and/or specifications, the codes, rules and regulations shall govern. All machinery and equipment shall comply with the Occupational Safety and Health Act of 1970, as currently revised, as interpreted for equipment manufacturer requirements. All equipment provided shall be installed per manufacturer recommendations, see "Letter of Conformance" this section.

1.4 SAFETY:

- A. In accordance with the contract documents, the Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work.
- B. This requirement will apply continuously and not be limited to normal

working hours.

- C. The duty of the Architect or Engineer to conduct construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures, in, on or near the construction site.

1.5 WORKING DRAWINGS:

- A. The working drawings are generally diagrammatic. They do not show every offset, bend, or elbow required for installation in the space provided. All locations for mechanical work shall be checked and coordinated with the architectural, electrical drawings and existing conditions such as conduits, devices, etc.
- B. Contractors shall visit the site prior to bidding and make all necessary investigation to inform and familiarize themselves thoroughly with all site conditions and review architectural, electrical and mechanical Drawings which may affect completion of his work. During bidding and construction, call to the attention of the architect or engineer any error, conflict or discrepancy in the plans, specifications or existing conditions. During construction, do not proceed with any questionable items of work until clarification of same has been made. Supplemental details and plans may be supplied by the Architect as required and they will become part of the contract documents.
- C. Where equipment is shown, dimensions have been taken from typical equipment of the class indicated. Carefully check the drawings to see that the equipment under consideration for installation will fit the space provided and that all connections may be made thereto without impairment of area and height requirements and of code required clearances.
- D. Follow routings of pipes and ducts as closely as practicable. Provide clearance and headroom. Utilize spaces efficiently so that adequate accessibility is maintained for future maintenance and repair.
- E. Work installed without adequate access shall be redone to the satisfaction of the Architect.
- F. The locations of existing mains, valves, ducts, etc., are shown as close as can be determined from existing drawings and on the site inspections, but must be verified by the contractor at the building prior to bidding.
- G. The Contractor shall do all necessary work to receive or join with the work of other trades, cut new services into existing mains, extend piping and make all necessary connections as required to prevent interruption of service in any area. The work hereunder shall be coordinated with the work of all other trades to provide adequate clearances for installation and maintenance of all

mechanical equipment. The mechanical drawings and specifications are arranged for convenience only and do not necessarily determine which trades perform the various portions of the work.

1.6 SUBSTITUTION OF MATERIAL:

- A. Prior acceptance (acceptance meaning "by Architect") for product substitution is required on equipment not listed by name before bid date. Data submitted to contain specifications, performance data and dimensions. All equipment manufacturers must be listed in specification by name. However, all manufacturers listed by name and found acceptable shall meet requirements of the specifications and equipment schedule. Requests for prior acceptance will be considered only if they are prepared on the CSI "Substitution Request Form" format or copy of same.

1.7 SHOP DRAWINGS:

- A. Submit shop drawings and equipment data for HVAC, plumbing equipment, etc., for acceptance prior to fabrication and/or construction. Provide to the Architect for review on all equipment furnished 6 sets shop drawings and product data before equipment is ordered and before commencing work and within 15 days after award of contract. Where equipment is designated by number or symbol on the drawings, the submittal shall also show this number or symbol.
- B. All specified features and performance data must be specifically noted on the submittal.
- C. Contractor agrees that Shop Drawing submittals processed by the Engineer are not change orders; that the purpose of Shop Drawing submittals by the contractor is to demonstrate to the Engineer that the Contractor understands the design concept, that he demonstrates his understanding by indicating which equipment and material he intends to furnish and install and by detailing the fabrication and installation methods he intends to use.
- D. Contractor further agrees that if deviations, discrepancies or conflicts between Shop Drawings and Specifications are discovered either prior to or after Shop Drawing submittals are processed by the Engineer, the Design Drawings, specifications and manufacturer's installation instructions shall control and shall be followed.

1.8 RECORD DRAWINGS:

- A. Provide two copies of record drawings showing all deviations from contract drawings.
- B. Keep a clean set of mechanical prints on job at all times for recording (with indelible ink) as-built conditions. Transfer this information to new clean prints at completion of job. Drawings shall be accurate, neat and finished in appearance when delivered to the

Architect.

- C. Record invert elevations and locate underground piping, etc., both inside and outside of the building by dimensions to foundation walls and/or building column center lines, and finished floor elevations.
- D. Drawings shall be accurate, neat and finished in appearance when delivered to the Architect and shall show accurate dimensions from building lines.

1.9 WARRANTY:

- A. Upon notice from either the Owner or Architect, the Contractor whose work is in default will promptly make good any defects that may arise within the time dated guarantee period at no extra expense to the Owner or Architect, and he shall make good any resultant damage done to any part of the building or to any property of the Owner at no additional expense to either the Owner or Architect.
- B. The Contractor is responsible for all work installed by him and shall protect it from all damage until contract is completed and materials and apparatus he furnished have been tested and accepted.
- C. The Owner reserves the right to make temporary or emergency repairs as necessary to keep the equipment in operating condition without voiding the warranty contained herein nor relieving the Contractor of his responsibilities during the warranty period.

1.10 PERMITS AND FEES:

- A. Mechanical subcontractor shall arrange and pay for plumbing and heating and fire protection permits and inspections required by Governing Authorities.
- B. Certificates of inspection shall be obtained by the Contractor from public authorities having jurisdiction and delivered to the Owner before final acceptance.

1.11 CHANGE ORDERS:

- A. All supplement cost proposals by the Contractor shall be accompanied by a complete itemized breakdown of labor and materials. No exceptions will be made. At the Architect's request, the Contractor's estimating sheets for supplemental cost proposals shall be made available to the Architect. Labor must be broken out and allocated to each item of work as requested. All Change Orders must be approved by the Architect.

1.12 DEFINITIONS:

A. Following is a list of abbreviations generally used in this Division:

AASH	American Association of State Highway Officials
AGA	American Gas Association
ASHRAE	American Society of Heating, Refrigeration and Air-Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWWA	American Water Works Associations
CSI	Construction Specification Institute
HVAC	Heating-Ventilating and Air Conditioning
NFPA	National Fire Protection Association
NEMA	National Electrical Manufacturers Association
NEC	National Electric Code
PHS	Public Health Service
SMACNA	Sheet Metal and Air Conditioning Contractors National Association, Inc.
UBC	Uniform Building Code
UL	Underwriter's Laboratories, Inc.

PART 2 - PRODUCTS

.1 SUPPLEMENTARY CONDITIONS:

- A. Anything mentioned in the specifications and not shown on the drawings or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both.

2.2 MATERIAL:

- A. The contract shall be based upon furnishing all materials and equipment as specified. All materials and products used for construction shall be new, American made, unless accepted by the Architect otherwise and the latest products as listed in printed catalog data and shall be U.L. or AGA approved or acceptable by state, county and city authorities. Equipment supplier is responsible for obtaining state, county and city acceptance on equipment not U.L. approved.
- B. All articles fixtures and equipment of a kind shall be the standard product of one manufacturer.
- C. Trade names and manufacturer's names denote the character and quality of equipment desired and shall not be construed as limiting competition.

PART 3 - EXECUTION

3.1 OBSERVATION:

- A. All work and materials subject to review at any and all times by Architect and/or authorized representative. Contractor shall notify the Architect a minimum of two days prior to testing any piping system which must be witnessed and accepted before it is covered up, enclosed or insulated. If an authorized observer finds any material or work not conforming to these specifications, within three days after being notified, remove materials from premises. If material has been installed, entire expense of removing and replacing shall be borne by Contractor.

3.2 SUPERVISION AND WORKMANSHIP:

- A. Constantly supervise work covered by these specifications. Verify all conditions on job site and lay out work accordingly.
- B. The Contractor shall furnish and install any and all additional supports, piping, wiring, ducts and accessories as may be required for the proper installation and operation of the manufacturer's equipment submitted for approval.

3.3 CODES AND PERMITS:

- A. Should the documents indicate a condition which will conflict with the rules and regulations, the Contractor shall refrain from installing that portion of the work until he receives direction from the Architect.
- B. Any work installed in violation of the governing codes will be removed and correctly installed by the Contractor at no additional cost to the owner.

3.4 EXISTING EQUIPMENT AND WORK:

- A. General: Existing piping, fixtures, ductwork, radiation, and appurtenances removed during construction and identified by the Owner for salvage shall remain the property of the Owner and shall be stored on site as directed by the Owner. All materials removed and not identified by the Owner shall be removed from the site and disposed of by the mechanical subcontractor. Piping which requires re-routing shall be replaced by new materials of same quality as specified for new work herein.
- B. Interruptions: Where this work makes temporary shutdown of existing services unavoidable, such interruption of service shall be done at times determined by the Engineer and Owner. Overtime work shall be performed as required to minimize interruption of service.

C. Demolition: Per Section 02110.

3.5 COMPLETION REQUIREMENTS:

- A. Upon completion of the work and adjustment of all equipment, all modified systems shall be tested by the Contractor for proper operation to demonstrate to the Owner's Representative that existing and new equipment furnished, installed, or connected in the remodeled space under the provision of these specifications functions mechanically in the manner specified and required by the equipment manufacturer.
- B. Adjustment, operation, etc. Adjust all controls under Section 15900 and equipment for proper operation. Adjust all faucets, etc. Open and close all shutoff and control valves several times to insure tight glands. Furnish the services of a qualified man for a period of not less than 2 hours at the job site to instruct the maintenance personnel, correct any defects or deficiencies, and demonstrate to the satisfaction of the Architect that the modified system is operating in a satisfactory manner and complies with all requirements of any other trades or subcontractors that may be required to complete the work.
- C. Thirty days prior to this demonstration, the Contractor shall deliver to the Architect three copies of Operating and Maintenance Manuals, including the following operating and maintenance material. Reviewed copy will be returned to the mechanical subcontractor for corrections as noted. All three copies to be corrected. Submit corrected copies to General Contractor for inclusion in Owner's maintenance manual per Section 01700 and include the following:
 - 1. Format: Looseleaf, 3-ring binder with index tabs for identifying system components, enclosure material size 8-1/2 x 11.
 - 2. Copy of one-year warranty issued on equipment installed.
 - 3. Manufacturer's description of each fixture and item of equipment actually installed on the job.
 - 4. Provide list for each type of equipment and fixture, name and address of the nearest vendor with replacement parts.
 - 5. Written equipment operating sequence and maintenance instructions for each item of equipment requiring inspection, lubrication or service, describing and scheduling the performance of such maintenance.
 - 6. Valve list with valve size, location, normal position and function.
 - 7. Copy of record drawings for plumbing, fire protection and HVAC systems.

8. Record wiring and pneumatic diagram for equipment and control system show as-built conditions.
9. Neatly typed index at the front clearly identifying information in the binder.
10. Tag all valves with brass disc and chain. Use no duplicate numbers. Submit list for review by the Architect of valve numbers to be used prior to fabrication of discs.

3.7 ACCEPTANCE:

- A. The system shall not be considered for acceptance until the mechanical subcontractor has completed his work and demonstrated to the representative of the Owner, proper operation of the system and strict compliance with specifications, drawings and manufacturer's installation instructions, particularly in reference to the following:

1. Cleaning.
2. System balancing and balancing logs.
3. Instruction and operating manuals.
4. Instructions to operating personnel.
5. As-built drawings.
6. Guarantee certificates.
7. Letter of Conformance.

3.8 LETTER OF CONFORMANCE:

- A. Mechanical subcontractor to forward letter with a statement in the letter that all mechanical items were installed in accordance with the manufacturer's recommendations. If the manufacturer's recommendations for installation have not been followed, the Contractor shall so state, give the reasons why, and he shall warn the Architect of any condition which may impair the functioning of the apparatus or void the manufacturer's warranty. Include letter of conformance and warranties in operating and maintenance manuals.

END OF SECTION

15020 MECHANICAL DESIGN

PART 1 - GENERAL

1.0 GENERAL:

- A. The following mechanical design conditions and criteria is used on this project.

1.1 PLUMBING SIZING CRITERIA:

- A. Domestic water: Sized per 1985 Uniform Plumbing Code, Appendix "A", using 5 psi per 100' drop and 6 F.P.S. max. velocity as limiting criteria. Install pressure reducing valves where pressure exceeds 50 psi.
- B. Waste and vent: Sized per 1985 Uniform Plumbing Code.
- C. Hot water heaters: Existing.

1.2 AUTOMATIC FIRE SPRINKLER SYSTEM:

- A. Modify wet automatic sprinkler system sized according to NFPA #13. Light hazard occupancy.

1.3 HEATING, VENTILATING AND AIR CONDITIONING (HVAC):

- A. Calculation: Heat gain and heat loss (cooling and heating loads) calculations using Trace Load Design Program, Ultra Edition, based on 1985 ASHRAE Guide.
- B. Outside design conditions: Summer design temperatures 95F dry bulb, 68F wet bulb. Winter design temperatures 10F.
- C. Inside design conditions: Summer design temperatures 75F in air conditioned areas. Winter design temperatures 72F.
- D. Construction:
 - 1. Typical glazing in exterior walls will be double glass, clear inside, clear outside, $U = 0.62$.
 - 2. Shading is considered to be installed on windows with exposure to the sun. Drapes: light color, closed-weave fabric, 0-7 percent openness factor or optional light venetian blinds, vertical blinds or roller shades, overall shade co-efficient 0.55.
 - 3. Wall: Concrete and stone. No Insulation.

E. Internal Loads:

	Lights Sen. Watts/ SqFt	Misc.		People SqFt/ Person	People		Vent Rate CFM/ Person
		Lat. Btu/ SqFt	Sen. Btu/ SqFt		Latent Btu/ Person	Sensible Btu/ Person	
a. Jury Rooms	3	-	-	25	200	250	10

F. Noise Criteria: The mechanical system shall be designed such that the system will not produce noise levels in the space higher than indicated:

Jury Rooms	45 dbA or NC 40
Toilet Rooms	55 dbA or NC 50

G. Ventilation:

Toilet room: UBC require 6 air changes per hour. Design will be 10 air changes per hour.

H. Air Distribution:

1. Supply ducts:

- Medium pressure sized using maximum 1500 FPM air velocity in duct.
- Low pressure sized using maximum 0.1 inches water/100 foot of duct or maximum 900 FPM air velocity in duct.

2. Low pressure return and exhaust same as supply ducts.

END OF SECTION

15050 BASIC MATERIALS AND METHODS

PART 1 - GENERAL

1.1 DESCRIPTION:

- A. Basic materials and methods outlines products and methods used for other sections of this the Division.

1.2 SUBMITTALS:

- A. Provide letter listing manufacturers and model numbers for the following equipment and materials:
 - 1. Piping materials, valves, air vents, strainers, pipe hangers.

PART 2 - PRODUCTS

2.1 PIPING MATERIALS:

- A. Cast iron soil pipe: No-hub cast iron pipe conforming to ANSI Standard A-112.5.2 or cast iron pipe with compression-type gasket fittings. Fittings shall conform to Commercial Standard CS-188. Clamp-all, MG or Anaco Husky SD-4000.
- B. Steel pipe: Schedule 40 pipe, black or domestic galvanized. Size 4" and smaller conform to ASTM A120 and UMC 15-2. Size larger than 4" conform to ASTM A53. Fittings size 2" and smaller shall be screwed fittings. Welded fittings "black only" (larger than size 2") shall conform to ANSI B16.9.
- C. Rubber ring mechanical joint: (Gustin Bacon type 100 or Victualic type 77) conforming to ASTM, acceptable for above grade on fire sprinkler water piping only.
- D. Copper tube: Hard-drawn copper, Types K, L and M conforming to ANSI H23.1, "Mueller", "Reynolds", or "Anaconda". Fittings shall be wrought or forged copper solder joint fittings conforming to ANSI B16. Use Allstate 430 with Duzall flux.

2.2 VALVES:

- A. General: Manufacturer not listed by name and model number requires prior acceptance before installation. Unless otherwise accepted, all like valve models shall be of the same manufacturer, such as all Gates and Globe (Nibco) and etc. See valve schedule on drawings.

B. Gate valves:

1. Screwed bronze body; Jenkins #370, Nibco #124, Grinnell #3030.

C. Ball valves: Bronze body, Grinnell 3000, Hale H700-SB.

D. Globe valves:

1. Bronze body. Nibco Model T-235, Grinnell 3240.
2. Iron body. Grinnell 6200, Jenkins #613.

E. Radiator valves:

1. Steam: Hoffman 187, Illinois #65, Sarco, Dunham Bush, Ihio Brass, or equal.

2.3 STRAINERS:

- A. Steam system: Y-pattern, minimum 140 psi steam working pressure. Bronze or iron body. Monel or stainless steel strainer. Provide each strainer with cock for blow down. Crane, Sarco, Dunham-Bush, McAlear, Armstrong, Strong, Stockham, Hoffman, Mueller, Metraflex, Illinois Style B.

2.4 UNIONS:

- A. Steel pipe union: 150 lbs. malleable iron, brass to iron seat, ground joint, black or galvanized to match pipe as manufactured by Walworth 7685, Crane, Grinnell, or acceptable equal.
- B. Copper pipe union: 200 psi working pressure. Bronze body. Solder ends.
- C. Insulating unions: 250 psi working pressure. Pipe ends and material to match piping. Electric current below 1% of galvanic current. Gasket material as recommended by manufacturer. EPCO, clear flow or acceptable substitution.

2.5 ESCUTCHEONS:

- A. Brass material, chrome plated finish. Size sufficient to cover all pipe openings thru wall, floor or ceiling. Set screw or spring to secure to pipe. B & C, Grinnell Fig. 13, Elcen, Crane, or equal.

PART 3 - EXECUTION

3.1 PIPE AND PIPE FITTINGS:

- A. General: Run all piping parallel to the building structure and

support it sufficiently to prevent sagging. Install all piping where possible so as to vent and drain. Support all piping independently so that its weight is not carried by the equipment.

- B. Unions: Install unions in all non-flanged pipe connections to apparatus and adjacent to all screwed control valves, traps and appurtenances requiring removal for servicing, so located that piping may be disconnected without disturbing the general system. Provide dielectric couplings unions between galvanized steel and copper pipe or tubing.
- C. Screwed joints: Shall have the pipe ends reamed, dope or tape applied to male threads only, with the exception of brass to brass joints which shall be made with teflon tape only. After jointing, no more than 2 threads shall remain exposed.
- D. Braze solder type joints: Allstate with Duzall flux solder (no-lead) for domestic water and drains or on wrought copper fittings, applied in strict accordance with the manufacturers recommendations. Clean copper tubing and fittings thoroughly with steel wool before applying the flux. Remove all copper tubing burrs, ream to full bore and true and round all joints. Apply heating uniformly to secure penetration of the rod, and leave a full bead around the entire circumference of the joint to show proper penetration and sealing. Under no circumstances will the softer solders be allowed.
- E. No-hub cast iron pipe: Conform with Oregon State Plumbing Laws or Cast Iron Soil Pipe Institute recommendations.
- F. Pipe couplings: On galvanized pipe and fittings, provide galvanized couplings. Before assembly of couplings, lightly coat pipe ends and outside of gaskets with cup grease. Pipe grooving shall be in accordance with the manufacturer's specifications contained in latest published literature. Pipe couplings acceptable on fire sprinkler systems only.

3.2 VALVES:

- A. Install valves on each side of all equipment and where shown on drawings. Full size of pipe unless otherwise indicated. Provide neat appearance and easy grouping with all parts easily accessible. Valve stems shall be installed in horizontal or upright position.
- B. Valve Application:

<u>Service</u>	<u>Valve Type</u>	<u>Pressure Rating</u>
Domestic Service	Gate*	125 psi
Steam/Steam Condensate	Gate	125 psi

* on valves 1-1/4 inch and smaller, ball valves may be used

3.3 STRAINERS:

A. Install where indicated on drawings.

3.4 ESCUTCHEONS:

A. Install on all exposed pipes passing through walls or floors.

3.5 UNIONS:

- A. Pipe unions: Install where indicated on drawings on each side of all pieces of equipment to permit easy removal of the equipment.
- B. Insulating union: Place in piping systems where two dissimilar metals come in contact.

3.6 PIPE, EQUIPMENT AND VALVE IDENTIFICATION:

- A. Equipment: Each new piece of equipment shall bear a permanently-attached, plastic-engraved identification plate listing the name and equipment number, such as "Terminal Unit TU-1"; submit listing for acceptance before plates are made.
- B. Pipe markers: Each piping system shall be provided with color coded pipe markers in plain block letters. Letters 1" high for pipe size through 4 inches and 1-1/2" high for pipe sizes over 4 inches. Lettering shall be positioned so that it can be easily read from the floor, with a minimum of one per room, at each shut off valve, and at 25 ft on center. Lettering on paralleled groups of pipes, etc., shall be neatly lined up. Wording of markers shall show direction of flow and correspond to the equipment designations used in piping legend and reviewed by the Architect. Pipe markers are required in mechanical spaces and above accessible ceilings. No lettering required above inaccessible ceilings and in walls. Label all new and existing piping in remodeled areas.

<u>System and Legend</u>	<u>Legend Color</u>	
	<u>Background</u>	<u>Letter</u>
Domestic Cold Water (CW)	blue	black
Domestic Hot Water (HW)	green	black
Fire Sprinkler (FS)*	red	white
Sanitary Sewer (SS)	green	black
Vent	green	white
Low Pressure Steam (15psi)	yellow	black
Low Pressure Steam Condensate	yellow	white

* above accessible ceilings, mark main every 40 feet.

- C. Valve tag: Tag all valves with 3/4-inch brass disc and chain. Start with next successive number from existing valve charts. Use no duplicate numbers in mechanical systems. Tags manufactured by F.R.

Inskipt Company. Mechanical tag system by C.H. Hanson or acceptable equal.

- D. Valve directory: Submit in duplicate for review, listing all numbered valves, size, location, normal position and function. After acceptance, put one copy in each maintenance manual.

3.7 CUTTING AND PATCHING:

- A. Before doing any cutting or fitting on completed structure, the Contractor shall obtain permission from the Architect and follow his instructions as to how the proposed cutting and fitting shall be done. Locate all concealed utilities to eliminate any possible service interruption or damage.
- B. Cutting, patching and repairing and refinishing per Division 1 required for the proper installation and completion of the work specified in this section including plastering, masonry work, concrete work, carpentry work, and painting shall be performed by skilled craftsmen in these respective trades, all at the expense of such subcontractor. Holes which are cut oversize in completed work shall be filled back in so that a tight fit is obtained around the pipe duct or object passing through. Refinishing shall match existing adjacent finish and shall be acceptable to the Architect.
- C. Coordinate with general contractor for cutting, repair work and patching required in existing construction caused by new work. Cost shall be included in either the mechanical subcontractor or general contractor's bid. No extra will be allowed for lack of proper coordination.
- D. When masonry construction must be penetrated, furnish and install a steel pipe sleeve in opening and grout in place in a neat manner. Leave grout surface to match existing finish. Provide escutcheons, if sleeves are not provided core drill all penetrations.

3.8 PAINTING:

- A. Ferrous metal: After completion of mechanical work, all exposed ferrous metal surfaces outside, in mechanical rooms, such as hangers, hanger rods, equipment stands, traps, pipes, valves, unions, flanges, etc., shall be thoroughly cleaned and painted with one coat primer and one coat of black asphalt varnish or black enamel suitable for hot surfaces.
- B. Fabricated steel: All damage to structural steel finishes or the finishes of any other trades damaged by cutting, welding or patching shall be repaired to match original. Work shall be in accordance with Section 09900.
- C. Exposed piping: Exposed piping in finished spaces (other than mechanical room) to be painted under Painting Work, Division 09900.

Exposed piping in mechanical rooms to be painted by mechanical contractor per Item A above. Insulated pipe not painted.

- D. Paint inside of all ducts visible through grilles and registers with a flat black enamel; see Section 15800.

3.9 CUTTING STRUCTURAL MEMBERS AND FRAMING:

- A. Not permitted unless shown on drawings or acceptable in writing by the Architect. Where cutting or core drilling is permitted, reasonable care is to be taken to verify and avoid conduit and piping locations within the cutting area.

3.10 ACCESSIBILITY:

- A. General: The installation of valves, shock absorbers, thermometers, cleanout fittings, dampers, damper motors, and other specialties requiring frequent reading, adjusting, inspection, repairing removal or replacement shall be conveniently and accessibly located with reference to the finished building. Thermometers and gauges shall be installed so as to be easily read.
- B. Furnish twenty access panels for location where indicated and where required to provide access to valves and other appurtenances. Doors shall be 22" x 22" non-rated and 24" x 24" rated walls and ceilings sizes unless indicated or accepted otherwise. Installation shall be made by trades installing the wall or ceiling as specified in 08300-1. Inland Steel Products, Milcor Model DW or fire-rated type for installation in fire-rated walls and ceilings.
 - 1. For use with plastered or drywall ceilings - Style "B".
 - 2. For use with plastered, drywall or tiled walls - Style "K".
 - 3. Where access panels are to be used in conjunction with acoustical tile ceilings or plastered, drywall and/or tiled walls, panels are to be designed for the thickness of the adjacent material used as well as its fire rating.
 - 4. Access panels are to be furnished with continuous hinges, flush tamperproof metal cam locks and painted with factory-primed coat of white, rust-inhibitive paint.

3.11 CLEANING:

- A. Cleaning per Sections 15450 and 15800.

3.12 PIPING AND EQUIPMENT REMOVAL:

- A. Piping and equipment removed and as identified as salvage by the Owner to remain property of the Owner. See Section 15010, General

Provisions.

- B. Comply with Division 2, Section 02110, Demolition.
- C. Remove as shown on the drawings, piping and ductwork to be reused where shown. Excess piping, ductwork and equipment removed (and not identified by the Owner as salvage) shall be disposed of by the mechanical contractor and removed from the premises.

3.13 LOCATION AND POSITIONING EQUIPMENT:

- A. Observe all safety codes and regulations and good common practice in locating and installing mechanical equipment and material so that complete installation presents the least possible hazard. Maintain adequate clearances for repair and service to all equipment. Installation of any equipment with less than minimum clearances will not be accepted.

3.14 CONNECTION TO EXISTING SERVICES:

- A. Arrange time of connection with Architect. Hold duration of service outage as short as possible.

END OF SECTION

SECTION 15200 NOISE AND VIBRATION CONTROL

PART 1 - GENERAL

1.1 CERTIFICATION DATA:

- A. All bidders on the air handling devices and terminal units must supply the appropriate inlet, outlet, radiated and discharge sound power level data, measured in accordance with the applicable ASHRAE or ANSI specifications at a certified laboratory. The units selected should meet the specification criteria of the tables in this section and drawing equipment schedules. Units in excess of the listed values shall not be considered as appropriate for use on this project.

1.2 DIFFUSERS AND GRILLES:

- A. All supply diffusers and return air grilles are to be selected for an NC value 10 points below the area design dbA level for each area. Manufacturers listed NC value to be used for comparison to the criteria value must contain all appropriate face velocity, length, area, and room adjustments. The manufacturer's NC value must not contain more than an 8 db room adjustment correction.

Jury Rooms	45 dbA or NC 40
Toilet Rooms	55 dbA or NC 50

PART 2 - PRODUCTS

2.1 DUCT LINING:

- A. See Section 15250 Insulation. All shaded ducts to be lined sheetmetal.

PART 3 - EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 15250 INSULATION

PART 1 - GENERAL

1.1 WORK INCLUDED:

- A. Provide all labor, material, equipment and services necessary for the installation of thermal and acoustical insulation for piping and ductwork, as shown on the drawings or specified herein.
- B. Do not damage or attempt to remove any material suspected of containing asbestos. In the event insulated piping and/or sprayed or troweled-on fireproofing, sprayed acoustical material and similar materials are uncovered during cutting and patching operation, notify the Architect immediately. Do not proceed with the work in such areas until so instructed by the Architect. See Paragraph 1.02, Precautions Concerning Asbestos, in Section 01010.

1.2 RELATED WORK SPECIFIED ELSEWHERE:

- A. Mechanical General Provisions, Section 15010
- B. Pipe Supports, Basic Materials and Methods, Section 15050
- C. Removal of Asbestos-Containing Materials, Summary of Work, Section 01010.

1.3 DESCRIPTION:

- A. Description of system: Insulation required for this work includes, but is not necessarily limited to:
 - 1. Domestic cold and hot water piping.
 - 2. Domestic hot water piping.
 - 3. Steam and condensate piping.
 - 4. Supply ductwork.

1.4 QUALITY ASSURANCE:

- A. Quality of workmen: Use sufficient journeyman insulators and supervisors in the execution of this portion of the work to insure proper and adequate installation of insulation throughout.

1.5 SUBMITTALS:

- A. Submittals shall include, but not be limited to:
 - 1. Data to show compliance with flame and smoke rating.
 - 2. Product data.
 - 3. Manufacturers' recommended installation data.

1.6 PRODUCT HANDLING:

- A. Protection: Use all means necessary to protect insulation materials before, during, and after installation.
- B. Replacement: In the event of damage, immediately make all repairs and replacements necessary.

1.7 FIRE HAZARD CLASSIFICATIONS:

- A. Insulation materials shall have composite fire and smoke hazard ratings, as tested by procedures indicated in NFPA 255 and U.L. 723, not to exceed a flame spread index of 25 and a smoke developed index of 50.
- B. Accessories such as adhesives, cement, etc., shall be provided with a component rating as listed above.
- C. Products or their shipping cartons shall have identification of the flame spread and smoke developed index.

1.8 CODE COMPLIANCE:

- A. Insulation materials and insulation thickness specified does not relieve contractor from compliance with Oregon State Energy Code.

PART 2 - PRODUCTS

2.1 MANUFACTURERS:

- A. Armstrong, Johns-Manville, Owens Corning, Certain-Teed Saint Gobain, Pittsburgh Corning, Knauf, or acceptable equal.

2.2 PIPING INSULATION - ABOVE GRADE:

- A. Fiberglass sectional pipe insulation: Thermal conductivity of 0.24 BTU-in per sq ft per hour at 75 F mean temperature. Minimum density of 3.5 lbs. per cubic foot. Jacketed with white barrier laminated of aluminum foil and white Kraft-reinforced with glass fiber strands. Jacket shall have factory-supplied, self-sealing lap.

- B. Insulation covers for pipe fittings and pipe: PVC-preformed, molded insulation covers. Zeston Ceel-Co "Ceel-Tite 1000 Series" or acceptable equal.

2.3 DUCT INSULATION:

- A. General: All duct insulation to be U.L. labeled for use intended. U.L. Class 1 with fire hazard classifications per 1.5.
- B. Fiberglass duct wrap: Thermal conductivity of 0.32 BTU-in per sq ft per hour at 75 F mean temperature. Minimum density of 0.6 lb per cu ft. Factory-applied, flame-retardant, foil-reinforced Kraft vapor barrier.
- C. Acoustical duct liner: Thermal conductivity for 1" liner of 0.26 BTU-in per sq ft per hour at 75 F mean temperature. Minimum density of 1.5 lbs cubic foot shown shaded on drawings. Based on a No. 6 mounting in accordance with test method. ASTM-C-423 liner shall have sound absorption coefficients as follows:

Thickness	Sound Absorption Coefficients at frequencies of:					
Frequencies	125	250	500	1000	2000	4000
1-inch	.23	.54	.65	.83	.70	.86

PART 3 - EXECUTION

3.1 INSULATION THICKNESS:

- A. General: Insulation shall be applied in strict accordance with the manufacturer's recommendations.
- B. Above Grade:
- Domestic cold water pipe (above grade and inside building; Cover with 1" fiberglass sectional pipe cover.
 - Domestic hot water pipe: Cover with 1" fiberglass sectional pipe.
 - Supply ducts: Cover with 1-1/2" duct wrap or 1" fiberglass duct except where noted on the drawing for duct to be lined.
 - Lined ducts: Line with 1" acoustical duct liner as noted or shaded on the drawings and per Section 15200. Lined duct and plenums to be sheetmetal; fiberglass duct not acceptable.
 - Return and exhaust ducts: Not insulated except return and exhaust ducts shaded to be lined.
 - Steam piping: 1" thick insulation through 1" pipe size, 1-1/2" thick through 4" pipe, and 2" thick on 5" pipe and over. Cover

new (and existing, where insulation is removed for new connections) pipes in remodeled area with fiberglass sectional pipe. Exception: no insulation required within finned pipe cover.

7. Steam condensate piping: Cover with 1" fiberglass sectional pipe or rigid phenolic foam through 2" pipe size. Cover new (and existing, where insulation is removed for new connections) pipes.

C. Handicap lavatories: Cover P-trap and hot water supply with 3/8" minimum foam rubber insulation.

D. Exposed piping in occupied space: Cover with aluminum pipe cover and Gasco "Humped aluminum elbow covers".

3.2 INSTALLATION:

A. Insulation shall be continuous through walls, floors, partitions, except where noted otherwise.

B. Fiberglass sectional pipe insulation: Apply insulation to pipe and seal with self-sealing lap. Use self butt strips to seal butt joints. Insulate all fittings, valves, and unions with single or multiple layers of insulation and cover to match pipe or use preformed, PVC-molded insulation covers or Gasco "humped aluminum elbow covers". Domestic hot water and heating hot water only; valve bodies and unions not insulated.

C. Duct wrap: Cover supply and outside air ducts except ducts internally lined or fiberglass duct (see thickness above) and where noted on the drawings not to insulate. Wrap tightly with all circumferential joints butted and longitudinal joints overlapped minimum of two inches. Adhere insulation with self sealing laps on longitudinal and circumferential laps. On ducts over 24 inches wide, additionally secure insulation with suitable mechanical fasteners at 18 inches on center. Circumferential and longitudinal joints.

END OF SECTION

SECTION 15400 PLUMBING SYSTEMS

PART 1 - GENERAL

1.1 WORK INCLUDED:

A. Provide all labor, materials, equipment and services necessary to furnish and install a complete plumbing system as shown on the drawings and specified herein. The work includes, but is not necessarily limited to:

1. Soil, waste and vent piping, including cleanouts and drains.
2. Domestic cold water piping, including rough-in and connection to existing service and thermal insulation for piping.
3. Domestic hot water piping, including rough-in connection to existing service and thermal insulation for piping.
4. Plumbing fixtures and trim, including all rims (Hudee type) for sinks and lavatories in casework or counters, chair carriers (as required), drains, cleanouts, floor sinks, and related fixtures shown on the drawings.
5. Identification of piping and equipment.
6. Furnishing and installation of access doors required for work furnished by this section.
7. Instructions and maintenance manuals for equipment furnished by this section.
8. Reroute, install new, remove existing, reconnect existing services to be affected by new construction.
9. Project record documents.

1.2 WORK INCLUDED BUT SPECIFIED ELSEWHERE:

- A. Mechanical General Provisions, Section 15010.
- B. Basic Materials and Methods, Pipe Supports, Section 15050.
- C. Mechanical Insulation, Section 15250.
- D. Rough-in and final connection to fixtures, drains and cleanouts, Section 15450.
- E. Removal of Asbestos-Containing Materials, Summary of Work, Section 01010 and Section 15250, Section 1.1, Work Included.

1.3 SUBMITTALS:

A. Provide shop drawings or product data for:

1. Piping material; forward a letter listing material to be used.
2. Shock absorbers.

B. Record drawings: Prepare and submit record drawings per Section 15010 with special attention to locating each pipe, valve, fixtures, and other plumbing items precisely to scale, rate of fall, and other pertinent data.

1.4 PRODUCT HANDLING:

A. Protection: Use all means necessary to protect plumbing materials before, during, and after installation.

B. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the acceptance of the Architect and at no additional cost to the Owner.

1.5 JOB CONDITIONS:

A. Review Architectural and Plumbing Drawings and comply with fixture locations and details affecting plumbing work.

B. Coordinate work with work of other trades to avoid conflict.

C. Protection: Keep pipe openings closed by means of plugs or caps to prevent the entrance of foreign matter. Protect piping and fixtures, against dirty water, chemical or mechanical damage both before and after installation.

1.6 WARRANTIES:

A. One-year warranty per Section 15010.

PART 2 - PRODUCTS

2.1 MATERIALS:

A. Piping:

1. Piping quality per Section 15050, Basic Materials and Methods.

2. Galvanized steel pipe: Schedule 40, waste, and vent above grade, or DWV copper, where accepted by Governing Authority.

3. Cast iron soil pipe: No-hub waste and vent piping.
 4. Copper pipe: Domestic hot and cold water Type L with Allstate 430 with Duzall flux solder.
- B. Piping insulation: See Section 15250.
 - C. Air chamber: Not acceptable on this project. See shock absorbers.
 - D. Shock absorbers: Acceptable manufacturers are Zurn, Wade, Smith, Josam or Precision Plumbing Products, Inc. Provide 1/2" or as recommended by Plumbing and Drainage Institute Standard WH201.
 - E. Traps: Provide traps on fixtures connected to the sanitary system except for fixtures having integral traps, seal at least 2" but not more than 4".
 - F. Valves: See Section 15050, Basic Materials and Methods, for valves inside building.
 - G. Escutcheons: Brass, chrome plated.
 - H. Exposed piping and tubing: Red brass, chrome plated.
 - I. Unions: See Section 15050.
 - J. All other materials: Not specifically described but required for a complete and operating facility, shall be new, first quality of their respective kinds and subject to the acceptance by the Architect.

PART 3 - EXECUTION

3.1 INSTALLATION:

- A. General: Do not cover up or enclose work until it has been properly and completely inspected and accepted by the Governing Authority. Should any of the work be covered up or enclosed prior to all required inspections and acceptances, uncover the work as required and, after it has been completely inspected and accepted, make all repairs and replacements with such materials as are necessary to the acceptance of the Governing Authority and acceptance by the Architect and at no additional cost to the owner. Provide hangers per Section 15050 and support piping per Uniform Mechanical Code.
- B. Waste: Connect to existing as shown on the drawings.
- C. Water: Connect to existing as shown on the drawings.
- D. Structural members: Cut center of steel studs as required for mechanical installation, being careful not to cut edges. Do not cut or drill beams, girders, joists, or similar structural members except as accepted in writing by the manufacturer or Architect.

E. Layout: Layout the piping systems in careful coordination with the drawings, determining proper elevations for all components of the system and using only the minimum number of bends to produce a satisfactorily functioning system. Follow the general layout shown on the Drawings in all cases except where other work may interfere. Layout all pipes to fall within partition, ceiling cavities and to not require furring other than that shown on the drawings. Complete installation to present a neat orderly appearance. Do not block opening or passageways with piping. Run piping parallel to wall of building unless otherwise indicated. Keep piping free from contact with structure or installed equipment. Provide hangers to support weight of pipe and contents. Grade drain piping 1/4" per foot where possible, 1/8" per foot minimum if required and as accepted by the Governing Authority.

F. Valves:

1. Provide valves per Section 15050 at equipment and on branch pipe connections to mains. Install valves in accessible locations.
2. Provide valve at hot and cold water connection to existing piping.

G. Vents: Install vents in sanitary drainage system and connect to existing vent piping system.

H. Waste system drainage: Install new waste piping and connect to existing piping. New piping shall be installed to drain with existing waste piping system.

3.2 TESTS:

A. Testing:

1. Test piping systems before concealing, or insulating over any piping. Provide 48 hours advance notice of test to Architect. Disconnect equipment and devices which may be damaged by test pressure. Plug or cap lines for testing. Test entire systems to the satisfaction of the Governing Authority.
2. Test equipment: Furnish all test pumps, gauges, equipment and personnel required and test as necessary to demonstrate the integrity of the finished plumbing installation to the acceptance of Governing Authorities.
3. Test system for leaks:

Domestic system:	150 psi water for 6 hours.
Drainage system:	10 foot static pressure of water on highest joint for 2 hours, or 5 psi for 24 hours.

B. Valves: Test all valve bonnets for tightness. Test operate all

valves at least once from closed-to-open-to-closed position while valve is under test pressure.

3.3 CLEANING UP:

- A. Prior to acceptance, thoroughly clean exposed portions of the plumbing installation including work of Section 15450, removing labels and traces of foreign substances and using only a cleaning solution acceptable to the manufacturer of the plumbing item and being careful to avoid damage to finished surfaces.

END OF SECTION

SECTION 15450 PLUMBING FIXTURES AND TRIM

PART 1 - GENERAL

1.1 SUBMITTALS:

- A. Provide shop drawings or product data for:

1. Cleanouts.
2. All items on drawings under Plumbing Fixture Schedule.

1.2 WARRANTIES:

- A. In addition to one-year warranty specified in General Conditions, warranty the following:

1. All vitreous china and enameled iron fixtures: Warranted not to craze, color or scale.

1.3 SPECIAL PROVISIONS:

- A. All fixtures and accessories are to be of the water-saver types, if available. Install flow controller discs in supplies or aerators where applicable.
- B. All fixtures and accessories are to be vandalproof. Replace supplied screws with vandalproof screws of the same material and finish. Provide Owner with 3 vandalproof screwdrivers for each different sized head.
- C. Fixtures and accessories supported through walls shall be provided with toggle-type screws or inserts, similar to Hilti Toggler.
- D. Single source: For ease of maintenance and parts replacement, use equipment of a single manufacturer. For ease of maintenance and parts replacement, use fixture trim of single manufacturer for like trim.

PART 2 - PRODUCTS

2.1 PLUMBING FIXTURES:

- A. Acceptable manufacturers follow; if manufacturer is not listed by name, prior acceptance is required.
- B. Vitreous china and enameled iron: American Standard, Kohler, or Eljer, provided fixtures can be furnished in the specified style. See schedule on drawings.

- C. Stainless steel: American Standard, Elkay, Just, Zeigler-Harris.
- D. Cleanouts: J. R. Smith, Josam, Wade, Zurn.

2.2 FIXTURE TRIM AND SUPPORTS:

- A. Supply and stops: Speedway, BrassCraft or fixture manufacturer or equal. Flexible supplies with angle stops to wall with canopy flanges, polished chrome plated, by BrassCraft or equal.
- B. Traps: 17 gauge chrome plated brass tubing P-traps with solder bushings, 1-1/4" for lavatories, 1-1/2" for sinks.
- C. Fittings and faucets: As standard with the plumbing fixture manufacturer. T/S, Chicago Faucet, Symmons, or acceptable equal.
- D. Flush valves: Polished chrome finish, Sloan Royal, Delaney, or acceptable equal.
- E. Carriers: J. R. Smith, Josam, Zurn or Wade.
- F. Toilet seats: Olsonite, Church, Beneke, or Bemis.
- G. Escutcheons: Chrome-plated brass.
- H. Soap dispenser: Furnished by others.

2.3 CLEANOUTS:

- A. General: Cleanouts shall be as shown on drawings and as required by the administrative authority. Cleanouts shall be the same size as the pipe except that greater than 4" will not be required. Inside-floor type shall have round nickel bronze tops, and wall type shall have stainless steel covers. Ceramic tiled floors shall have square frames; all others shall be round. All cleanouts shall be Josam, Wade, Zurn, Smith. Smith numbers used as a basis of selection. Outside cleanouts to grade shall be adjustable, vandalproof and galvanized.
- B. Tile floor cleanouts: Smith 4043-U with vandalproof screws.
- C. Wall cleanout: Smith 4422 C.I. ferrule bronze plug and stainless steel shallow cover.
- D. Carpeted floor cleanout: Smith 4023xC.I. ferrule with round nickel bronze top with carpet clamping device. Vandalproof screws.

PART 3 - EXECUTION

3.1 INSTALLATION:

- A. General: Install fixtures complete with fittings, supports, fastening devices, faucets, valves, traps, stops and appurtenances required. Connect fixtures to soil, waste, vent and water supplies in neat, finished and uniform manner.
- B. Connections: Equal height, plumb and set at right angles to floor, wall or both, unless required or specified.
- C. Stops: Stops installed in each supply pipe at each fixture accessible located with concealed stops of screwdriver type with wall escutcheons. Mount lavatory stops high as possible to allow clearance for handicap (see Section 15250 for insulation of trap and hot water valve).
- D. Fixture locations: As shown on Architectural Drawings.
- E. Fixture installation: Fixtures supported on floor or carriers as required.
- F. Shock absorbers: Locate shock absorbers in supply pipe in accordance with these specifications and recommendations of the Plumbing and Drainage Institute Standard PDI-WH201. One shock absorber may be used for a battery of three or more fixtures. Size shock absorber per P.D.I.

2.2 FIXTURE SCHEDULE:

- A. Provide fixtures per Plumbing Equipment Schedule on the drawings.

END OF SECTION

SECTION 15500 AUTOMATIC FIRE SPRINKLER SYSTEM

PART 1 - GENERAL

1.1 DESCRIPTION:

- A. Description automatic fire sprinkler system: Modify existing system and secure all necessary acceptances of a complete fire protection automatic sprinkler system in the remodeled area acceptable to the local and state fire marshal and in accordance with the standards set forth in this Section and NFPA 13 1-9.2.

1.2 CLASSIFICATION OF OCCUPANCY:

- A. Building classification: Group A - Assembly Building, Type 1 fire rated.
- B. Occupancies:
 - 1. 3rd and 4th floors: Light hazard.

1.3 QUALITY ASSURANCE:

- A. Codes and standards: In addition to conforming with Uniform Building Code, Life Safety Code, NFPA and all pertinent codes and regulations, conform with the requirements of the local and state fire marshal.
- B. Layout drawings: Sprinkler head locations and piping layout drawings shall be new drawings prepared by the sprinkler subcontractor and not reproductions of tracings of the Contract Drawings and shall include layouts of all equipment, piping and heads, valves, flow switches and devices used for control of flow. Drawings shall indicate relationship of all other overhead items including ductwork, ceiling air diffusers, lighting fixtures, beams and all other items. Complete details and sections as required to clearly define and clarify the design, indicating location of control valve, piping, and related items, and provide all other items and data requested by the local and state fire marshal.
- C. Submittals:
 - 1. Product data: Detailed shop drawings, specifications and data sheets for all equipment to be furnished for:
 - a. Sample of each type of sprinkler head.
 - 2. Layout drawings:
 - a. Forward fire protection system layout drawings showing locations and types of sprinklers or outlets, alarm valves

and devices, pipe sizes and cutting lengths, test tees and valves, drain valve, and other related items.

PART 2 - PRODUCTS

2.1 GENERAL:

- A. The equipment to be furnished under these Specifications shall be new and essentially the standard product of one manufacturer, accepted by Underwriters Laboratories, and installed by an acceptable subcontractor.

2.2 PIPING:

- A. Fire sprinkler system: Schedule 40, 20 or as required per NFPA #13 black steel pipe to withstand a working pressure of 200 psi and shall be seamless or welded as specified in NFPA-13. All piping shall be free from rust. All fabrication shall be in strict accordance with the acceptable shop drawings.
- B. All fittings used on piping shall have data submitted that shows it is in accordance with UL and FM before installing. "Hooker" and "Mechanical T" fittings as made by Victaulic will only be allowed on Schedule 30 and 40 pipe, for sprinkler drop arms or where run is 2 sizes larger than branch or drop arm. Victaulic Hooker Style 922 only permitted on Schedule 40 pipe.
- C. Sprinkler risers shall be Victaulic Style 77 with fittings to match. Beyond sprinkler control valve Style 75 may be used where pressure is 125 psig or less. No exceptions.

2.3 SPRINKLER HEADS:

- A. General: All heads shall be rated per local and state fire marshals' requirements.
- B. All areas: Heads shall be quick response, semi-recessed chrome finish with white escutcheon Omega Model EC-20, 1/2" size fused at 145 degrees.

2.4 VALVES: (existing)

2.5 FIRE DEPARTMENT CONNECTIONS: (existing)

PART 3 - EXECUTION

3.1 PREPARATION AND COORDINATION:

- A. Prior to the commencement of the fire sprinkler system installation, carefully inspect existing conditions and the installed work of other trades and determine that all such work is sufficiently complete to allow this installation to begin and that the work of the other trades has been installed in such a manner as to permit this installation to be made in complete accordance with the acceptable design and applicable codes.
- B. Coordinate the installation schedule for the work with the overall construction schedule to ensure orderly progress of the work with an absolute minimum of delay. Coordinate interface of fire sprinkler system with the work of all other trades to ensure proper and adequate provision for the installation and connection of this system.

3.2 INSTALLATION:

A. General:

1. Install fire protection system to serve the entire remodeled areas.

END OF SECTION

SECTION 15750 STEAM HEATING SYSTEM

PART 1 - GENERAL

1.1 WARRANTY:

- A. See Section 15010.

PART 2 - PRODUCTS

2.1 PIPING:

- A. Steam Piping: Schedule 40 black steel pipe. Size 2" and smaller threaded ends and 250 pound cast iron screwed fittings. Size 2-1/2" and larger pipe shall have beveled ends and steel standard weight welding fittings and backing rings; below grade Schedule 80.
- B. Condensate return pipe: Schedule 80 black steel pipe. Size 2" and smaller threaded ends and 250 pound cast iron screwed fittings. Size 2-1/2" and larger shall have beveled ends and steel standard weight welding fitting and backing rings. At contractor's option, condensate return piping may be type K hard drawn copper with cast brass fittings; joints made by silver (1500F melting point) brazing.

2.2 VALVES:

- A. Install new automatic valves as noted on the drawings.

PART 3 - EXECUTION

3.1 INSTALLATION OF EQUIPMENT:

- A. Install control valves and devices in piping system as required per Section 15900. Provide unions at both ends of finned tube radiation.

3.2 STEAM AND CONDENSATE PIPING:

- A. Steam and condensate lines shall pitch in the direction of flow not less than 1/4" per 10 feet, unless otherwise indicated. Provide a pipe scale pocket on the inlet side of the screen strainer for each steam trap. The diameter shall be the same as the pipe it drips and not less than 8 inches in length.

3.3 CLEAN UP:

- A. Prior to acceptance, thoroughly clean exposed portions of the heating and cooling equipment, removing all shipping labels and traces of foreign substance.

END OF SECTION

SECTION 15800 AIR DISTRIBUTION

PART 1 - GENERAL

1.1 DESCRIPTION:

A. Description of the system:

1. Variable volume system. Heating, ventilating, and air conditioning required for this work is indicated on the drawings and includes, but is not necessarily limited to the following.
2. Duct, dampers, grilles, registers and diffusers.
3. Terminal units.
4. All other items required for a complete, ready-for-service, heating, ventilating and air-conditioning system as shown and specified and meeting equipment manufacturer's installation requirements.

B. Description of work: The work covered by this section consists of furnishing all labor, materials and equipment necessary in connection with ventilating and air-moving devices, complete and ready for service, as shown and specified and meeting equipment manufacturer's installation requirements for a complete and operational system.

1.2 QUALITY ASSURANCE:

A. Codes and standards: In addition to complying with all pertinent codes and regulations, comply with all pertinent recommendations contained in "Duct Manual and Sheet Metal Construction for Ventilating and Air-Conditioning Systems", as published by the Sheet Metal and Air-Conditioning Contractors National Association.

B. Submittals:

1. Provide shop drawings or product data:

- a. Duct specialties.
- b. Flexible duct.
- c. Registers, grilles and diffusers.
- d. Terminal units.

C. During progress of the work, maintain an accurate record of all changes made in the heating, ventilating and air-conditioning system, locating each item of ductwork and equipment precisely. Upon

completion of the installation, transfer all record data to three blue-line prints of the original design drawings. Submit at completion of project per Section 01720.

1.3 PRODUCT HANDLING:

- A. Protection: Use necessary means to protect the materials of this section before, during, and after installation and to protect the installed work and materials of other trades.
- B. Replacements: In the event of damage, immediately make all necessary repairs and replacements.

1.4 WARRANTY:

- A. Reference Section 15010.

1.5 SINGLE SOURCE:

- A. For ease of maintenance and parts replacement, use equipment of a single manufacturer.

PART 2 - PRODUCTS

2.1 MATERIALS AND FABRICATION:

- A. Single source: For ease of maintenance and parts replacement, equipment of a kind shall be the standard product of one manufacturer.
- B. The Architect reserves the right to reject any submittals which contain equipment from various manufacturers and to require that source of materials be unified to the maximum extent possible.

2.2 DUCTWORK:

- A. General: Provide metal ductwork per 1985 Mechanical Code and SMACNA.
- B. Low pressure sheet metal ducts:
 - 1. Supply, exhaust and return air ducts: Construct from galvanized sheet metal to conform to Chapter 10, 1985 Uniform Mechanical Code, Volume II, 1976 Edition or later, ASHRAE Guide or SMACNA. Install per SMACNA. Seal joints above roof with Hardcast. Contractor's option: Joints Ductmate or Lockformer.
 - 2. Spin-in fitting with damper by Gen Flex SM-1DEL or SM-2D Bellmouth.

C. Ductwork between supply fans and terminal units as follows.

1. All ducts shall be manufactured of galvanized steel meeting ASTM A-527. Minimum gauge as shown on the drawings and shall comply to Chapter 10, Uniform Mechanical Code, Volume II, 1982 Edition. Round ducts shall be constructed by a spiral lockseam manufactured by Sheetmetal Products, Metco Inc., Semco, Streimer, Temp Control, Arrow Spiral, or acceptable equal, non-spiral rectangular ducts shall be one gauge less (thicker) than for low pressure ducts and reinforced same as SMACNA instructions for medium pressure ducts.
2. Seal all joints with United Duct Sealer duct tape, Hard Cast duct sealant, Precision Adhesives PA-2084 and Mon-Eco Industries 44-50, or acceptable equal. Sealer used must be suitable for painting with enamel paints.
3. Fittings: All fittings shall be purchased as a manufactured item by the contractor from a company specializing in the manufacture of fittings. Sheetmetal Products, Metco, Inc., Semco, Streimer, Arrow, Temp. Control, or acceptable equal. Minimum gauge for fittings shall be 20 gauge up through size 36", 18 gauge size 38" and larger. Fittings shall have continuous welds along seams. All fittings shall be machine formed, utilizing conical connections on crosses, tees, and laterals. Samples of fittings requested must be submitted to engineer for review prior to installation.

D. Low pressure flexible duct:

1. Air duct material per UL-181, Class 1 with spring steel spiral-bonded to integral seamless air seal, wrapped with 1-1/2" fiberglass insulation (K2.25 @ 75F) with vapor barrier outer jacket. Provide impervious, smooth, non-perforated interior vinyl liner. Individual lengths of flexible duct shall contain factory-fabricated steel connection collars. Maximum working pressure of 6" w.g. Maximum length 5 ft. Installation according to manufacturers recommendations (use of flexible duct is contractor's option). Genflex CPC-25, PPG Industries, Thermaflex, Clevaform or acceptable equal.

2.3 DUCT SPECIALTIES:

- A. Turn vanes: Non-adjustable 90 degree air turn, 26 gauge galvanized double wall steel blade, 24 gauge galvanized steel side rail. Vanes 2-1/2" on center. H-E-P High Efficiency Profile as manufactured by Aero-Dyne Co.
- B. Access doors in metal work: Provide hinged minimum 12 x 12" access doors for access to every part of automatic damper, fire damper, coils, gas duct furnace, and other items requiring maintenance or inspection and where shown on the drawings. M & T Ventfab, Ruskin, or acceptable equal. Flex duct may be used for fire damper access on

round ducts 14" diameter and smaller.

2.4 FIRE DAMPERS:

- A. Provide with sleeves as required in accordance with NFPA Pamphlet No. 90 and local code and as detailed on the drawings, complete with damper blades, fusible links, linkage and stops. U.L. labeled or ICBO accepted dampers with 100% free area for spiral and rectangular ductwork (between supply fan and terminal units) and 95% free area for low pressure duct. Pressure drop shall not exceed 0.05 inch water. Advanced Air, Ruskin, Action Air, Prefco, Phillips, Air Balance, or acceptable equal. Provide high velocity damper in medium velocity spiral ducts.

2.5 REGISTERS, GRILLES AND DIFFUSERS:

- A. Manufacturers: Agitair, Titus, Carnes, Krueger, or acceptable equal.
- B. Performance: Unit sizing is based on air being introduced at 25 F temperature differential and being diffused at the 5-foot level to not greater than 1.5 F. Units are also selected so as not to exceed the NC-curves as outlined in Section 15200. Guarantee the above performance factors, replacing all diffusers as required.
- C. Plaster frames: Provide plaster frames for all grilles and registers installed in plaster walls or ceilings. Provide aluminum frame if outlet is aluminum.
- D. Types: As scheduled on the drawings.

2.6 TERMINAL UNITS:

- A. Variable Volume Terminal Units (TU): ° Units shall be Titus, Carnes, Environmental Technologies, Krueger, or acceptable equal single duct, pressure independent, variable air terminal units. Units shall have galvanized steel casing internally-lined with 3/4" thick, 1-1/2 lb. density insulation coated to resist air erosion. Insulation shall meet requirements of NFPA 90A, 90B, and UL 181. Casing leakage shall not exceed 11 CFM at 3" s.p. Damper leakage shall not exceed 7 CFM at 3" s.p. The minimum inlet static pressure for the unit shall be 0.09" at maximum rated CFM. Provide and install a pneumatic operator at the factory. Damper shaft shall have a external indicating arrow to show the damper position. The unit flow sensor shall be cross-shaped with amplifying pressure pickup points connected to central averaging chambers. Sensor shall amplify the duct velocity pressure by a factor of 1.75 and maintain control accuracy regardless of inlet duct configuration. Furnish a flow logic analyzer which shall accurately control the air quantity regardless of inlet pressure variations. The reset span (throttling range) shall be field adjustable from 5 to 8 psi. The reset start point and maximum and minimum air flows shall be field adjustable. Terminals shall be direct acting and from normally closed to normally closed. All

settings shall be preset at the factory as scheduled. See drawings for capacities and ranges. Modulate VAV damper open 9-13 psi.

2.7 ACCESS PANELS IN WALLS AND CEILINGS:

- A. See Section 15050, Basic Materials and Methods.

2.8 OTHER MATERIALS:

- A. All other materials not specifically described or listed but required for a complete and proper installation of the work of this section shall be as selected by the Contractor and subject to the review of the Architect.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS:

- A. Inspection: Prior to work of this section, carefully inspect the installed work of other trades and verify that such work is complete to the point where this installation may properly commence.
- B. Verify that the work of this section may be installed in accordance with pertinent codes and regulations and the reviewed shop drawings.
- C. Discrepancies: Do not proceed with installation in areas of discrepancy until such discrepancies have been fully resolved. Contractor authorizing to proceed prior to resolving discrepancies will correct the discrepancy at no cost to the Owner, Architect and Engineer.

3.2 INSTALLATION OF DUCTS:

- A. Fabrication: Fabricate and install ducts in accord with the drawings and the referenced standards. On sheet metal ducts, cross-break or kink flat surfaces to prevent vibration and pulsation.
- B. Duct layout:
 - 1. Duct sizes shown on the drawings are net dimensions inside the insulation; wherever obstructions require a change in duct shape, maintain equivalent areas.
 - 2. Make duct elbows right angle type with air foil elbow turns or make elbows with a radius of 1-1/2 times the duct width. Furnish and install sheet metal doors in ducts where shown on the drawings and at each other point where required for access such as at fire dampers.
- C. Taping: Tape all low pressure duct joints with duct tape in

concealed spaces. Sheetmetal ducts between fan and terminal units joints to be sealed with Hard Cast or acceptable equal per this Section, Part 2 - Products.

- D. Duct hangers and supports: Hang ducts with strips of 18 gauge galvanized steel 1 inch wide. Anchor ducts securely to structure in such a manner as to prevent transmission of vibration per SMACNA and per 1985 Uniform Mechanical Code Section 1004. See Section 15200 for spiral ductwork and terminal units. See drawings for additional details. Flexible ducts shall be supported at or near mid-length with 2" wide 28 GA. steel hanger collar attached to the structure with an approved duct hanger. Installation shall minimize sharp radius turns or offsets. The maximum length connecting to terminal outlets shall be five feet to seven feet. Flexible ducts may be used to cross seismic joints without offsets.

3.4 INSTALLATION OF GRILLES, REGISTERS AND DIFFUSERS:

- A. Install and connect all grilles, registers and diffusers in the locations indicated on the drawings, securely anchoring each item in place and sealing with rubber gaskets to prevent leakage.
- B. Paint inside of all ducts visible through grilles and registers with flat black enamel.

3.5 DAMPERS:

- A. General: Provide volume or splitter dampers as shown on Drawings. Provide each damper with an adjustment and locking quadrant device as manufactured by Durodyne, Young Regulator Co., Ventlock, and as outlined under volume dampers.
- B. Integral Volume Dampers: Provide as specified in this Section Part 2, and to be the standard product of the grille manufacturer.
- C. Splitter Dampers (SD): Not used on this project.
- D. Volume Dampers (VD): Construct of material two gauges heavier than duct in which installed. Single plate up to 12 inches wide; multiple over 12 inches wide. Hem both edges 1/2 inch and flange sides 1/2 inch. Use Young or acceptable equal damper accessories. #605 bearing set with #403 regulator for dampers up to 24 inches long; for dampers over 24 inches long, use #660 3/8 inch rod, #656 end bearing and #403 regulator. Above solid ceilings, provide #660 or #661 rod extensions and #301 or #315 concealed damper regulators as required. Manufacturers: Duro-Dyne, Ventlock, and Young Regulator Company, or acceptable equal.
- E. Fire Damper (FD): See Part 2 - Products of this Section. Install per NFPA-90A.

3.6 TESTING AND BALANCING OF AIR SYSTEM:

- A. Balancing subcontractor to bid direct to general contractor; see

Section 15950.

END OF SECTION

SECTION 15900 - CONTROLS AND INSTRUMENTATION

PART 1 - GENERAL

1.1 DESCRIPTION:

A. Description of system:

1. Modify existing pneumatic control system to function as herein described.
2. System shall be Johnson Control Co., or Robertshaw; no exceptions to match existing.
3. System shall be complete including all devices, wiring pneumatic tubing, valves, dampers, relays, protective devices, transformers, mounting boards, and etc., as well as installation and Owner instructions to provide an operable system.
4. System shall utilize existing tank-type belt drive air compressor, connect to existing tubing.
5. Control valves shall be provided hereunder but installed in piping and steam fitter.

1.2 SYSTEM REQUIREMENTS

- A. Provide control systems consisting of thermostats, control valves, operators, indicating devices, interface equipment, and other apparatus required to operate mechanical system and to perform functions specified.

1.3 SUBMITTALS:

A. Provide shop drawings and product data for the following:

1. Drawings: Provide six copies of detailed pneumatic/electric diagrams showing connections to equipment furnished by others, nameplate schedule, panel diagram, with written sequence of equipment operation. One-line diagrams from sensor and control points, including all components, signal values, cables, and terminal markings.
2. Devices and equipment:
 - a. Room thermostats:
 - b. Valves.
3. Record drawings: Include record wiring drawings showing installed condition and operating changes made during start-up in each Operating and Maintenance Manual.

4. Service Guarantee: The control system herein specified shall be free from defects in workmanship and material under normal use and service. After completion of the installation, the controls contractor shall regulate and adjust all thermostats, control valves, motors and other equipment provided under his contract. If within twelve (12) months from the date of completion any of the equipment herein is proved to be defective in workmanship or materials, it will be replaced or repaired free of charge.

1.4 SPECIALTIES:

- A. Provide all necessary valves, relays, protective devices, transformers, mounting boards, etc., as required to accomplish control as outlined including smoke detector and dampers.

1.5 JOB CONDITIONS:

- A. All settings listed are approximate and job operating changes are the responsibility of the control subcontractor. Where additional control wiring, relays, or other instruments are required to perform functions described, they shall be furnished and installed. Minimum instrumentation standards specified apply to all cases.

1.6 OPERATION AND MAINTENANCE MANUALS

- A. Furnish four (4) operations and maintenance manuals. The manuals shall contain full hardware support documentation, which shall include, without being limited to, the following:
1. General description and specifications.
 2. Installation and initial checkout procedures.
 3. Principles and theory of operation.
 4. Complete alignment and calibration procedures for all components.
 5. Preventative maintenance requirements.
 6. Detailed schematics and assembly drawings.
 7. Complete spare parts lists.

1.7 INSTRUCTION AND ADJUSTMENT

- A. On completion of the job, the controls contractor in conjunction with the variable air volume unit representation shall have completely adjusted the control system in the remodeled areas. He shall arrange to instruct the Owner's representative on operation of the control system.
- B. Contractor Adjustment: At the completion of the job, the controls contractor must submit to the Engineer a letter stating that he has made final calibrations and adjustments to the system and that the owner's operating personnel have been instructed in its use.

2.1 ROOM THERMOSTATS:

- A. Double pipe high capacity single setpoint with concealed adjustment, thermometer, and blank cover, and tap for measuring branch line pressure.

2.2 VALVES:

- A. Valve operators shall be pneumatic, modulating two-way pattern. Renewable composition, single, flat disc for positive acting and single parabolic or v-notched plug and single seat for modulating. All valves shall be normally open. Operators shall be sized to operate against system pressures, pressure differentials or velocities. Valve shall be normally closed and modulate open 0-9 psi.

- 1. Close heat valves on air failure.

2.3 CONTROL TUBING:

- A. Provide all tubing required.

- 1. Copper tubing with sweat fittings or flame-retardant plastic tubing with brass fittings.
- 2. Plastic barbed fittings are not permitted.
- 3. Obtain fire marshal's acceptance for use above ceilings or in shafts used as return air plenums or airways.

PART 3 - EXECUTION

3.1 SYSTEM INTERFACE:

- A. Provide complete interface with systems and equipment provided by others such as terminal units that are to be controlled. Interface to consist of necessary equipment and detailed drawings showing connections and adjustments where shown on plans.
- B. Provide complete interface with other systems provided as a portion of the contract. This shall include stopping of supply fans from time clock and all other functions requiring interface.
- C. Instruct Owner for not less than two hours at Owner's convenience in system operation and 2 hours at time system is turned over to Owner.

3.2 SEQUENCE OF OPERATION:

- A. See notes on drawing.

END OF SECTION

SECTION 15950 TESTING AND BALANCING OF HVAC SYSTEMS

PART 1 - GENERAL

1.1 TESTING AGENCY:

- A. At the completion of the job and before occupancy, perform the testing and balancing of the air distribution and heating by an independent test and balance agency who specializes in this work.

1.2 TOOLS, EQUIPMENT, AND INSTRUMENTS:

- A. All instruments used by the balancing agency shall have been calibrated within a period of six months and proof of such calibration shall be submitted to Architect upon request.

1.3 SUBMITTALS:

A. Submit:

1. Submit three copies of complete balancing report on forms which have been reviewed by the Architect. Include copies with Completion Requirements per Section 15010. Forward one copy of the balancing report directly to the mechanical engineer for review prior to demonstration of mechanical systems to owner; see Section 15010, Completion Requirements.
2. Provide with the report two complete sets of marked balancing drawings showing air opening numbers and flow station numbers that correspond to the numbering system in the balancing logs. Include drawings and logs with completion requirements per Section 15010.

PART 2 - PRODUCTS

2.1 BALANCING FIRMS:

A. Firms approved:

1. Northwest Engineering Service, Portland, Oregon.
2. Air Master Systems Balancing, Portland, Oregon.
3. Air Balancing Specialties, Inc., Portland, Oregon.
4. Air Test & Balance, Inc., Portland, Oregon.

5. Air Introduction & Regulation of Eugene, Inc., Eugene, Oregon.

- B. Subcontractor or other balancing agencies desiring approval shall make request in accordance with Instructions to Bidders. Requests shall include list of completed projects and samples of balancing forms to be used on the project.

PART 3 - EXECUTION

3.1 TESTING PROCEDURES:

A. Air system:

1. Identify and list: Size, type and manufacturer of all air handling equipment and air distribution devices. Use manufacturer's published ratings on all equipment to make required calculations.
2. Record: Nameplate data and actual running amperes for each fan motor.
3. Test, adjust, and record:
 - a. Each diffuser, grille, slot, and register to within minus ten or plus ten percent of design requirements and make all changes in dampers as required to obtain the design air quantities.
 - b. Identify each grille, diffuser, register, and slot, as located on the as-built drawings and marked on the balancing drawings.
 - c. System for design return air.
4. Call backs: Allow in sub-bid 4 hours of on-the-job adjustments for human comfort after all systems have been balanced. Call backs are to be requested by the Architect. Note: This is not the same hours required in Section 15010 under training and instruction.
5. Verification of controls operation per 15900 Sequence of Equipment Operation:
 - a. Room stats.
 - b. Two-way valves.

END OF SECTION

SECTION 16010
BASIC ELECTRICAL REQUIREMENTS

PART 1 GENERAL

1.01 DEFINITIONS

- A. In modification of Division 01 definitions, where the words "furnish", "provide", "install" appear in this Division, or a manufacturer is indicated with item or product catalog number listed, install and furnish the item complete and operating for the purpose or function intended, unless noted otherwise.

1.02 SYSTEM DESCRIPTION

- A. Design Requirements: Electrical systems required for this work includes all labor, materials, equipment, and services necessary to complete installation of electrical work shown on Drawings, specified herein or required for a complete operable facility and not specifically described in other Sections of these Specifications. Among the items required are:
1. Extension of new work to existing service and distribution equipment shown on Drawings.
 2. Feeders to branch circuit panels, HVAC equipment and specific equipment as indicated on Drawings.
 3. Branch circuit wiring from the branch circuit panels for lighting, receptacles, junction boxes, motors, signal systems and other indicated circuits wiring.
 4. Lighting fixtures, control switches, receptacles, relays, supports and other accessory items.
 5. Wiring and final power connections for motors installed for heating, cooling and ventilation.
 6. Special systems and communications systems.
 7. Wiring and final power connections for Owner furnished and installed equipment.

1.03 SUBMITTALS

- A. Materials Substitutions:
1. Submit requests for substitutes to the Architect in compliance with Contract Document requirements. Concurrently, submit two (2) additional copies directly to the Architect's Consulting Electrical Engineer.
 2. Contract Document requirements apply to all equipment submitted for substitution approval. Indicate any deviation or non-compliance shall be indicated by an attached letter explaining a proposed change. Approval of submitted material does not grant deviation from the Contract requirements. Include in Bid Sum additional expense resulting from the Contractor's decision to use substitute materials including all costs by other affected crafts.
- B. Product Data: Submit in accordance with Instructions to Bidders. Attach items of like nature to one substitution form.

SECTION 16010
BASIC ELECTRICAL REQUIREMENTS

C. Shop Drawings:

1. Submit in accordance with Division 1. Include physical and electrical characteristics; i.e. dimensions, materials, voltage, phase, etc., of all new equipment except basic wiring materials.
2. If deviations, discrepancies or conflicts between Shop Drawings and the Drawings and Specifications are discovered either prior to or after Shop Drawing Submittals are processed by Architect, Design Drawings and Specifications take precedence.
3. Contractor agrees that Shop Drawing Submittals processed by Architect are not Change Orders. The purpose of Shop Drawings is to demonstrate to the Architect that the Contractor understands the design concept.
4. Contractor demonstrates understanding of design concept by indicating material he intends to furnish and install, and by detailing fabrication and installation methods.

D. Office Samples: Submit samples as requested by Architect.

E. Project Record Documents:

1. On completion of work, deliver to Architect one set of accurately marked Sepia Drawings. Show all change and variations from Design Drawings and exact routes of all feeders, service conduits and location of all conduits stubbed out for future continuation with definite dimensions and burial depths.
2. Drawings and lettering, neat, clean and legible.
3. Order and pay for required sepias from original tracings provided by Architect at start of project.
4. Maintain one "work" set on project site at all times. Work set subject to inspection by Architect.

F. Operation and Maintenance Data:

1. Submit the following prior to final acceptance and Contractor's request for final payment for Division 16 work, in conformance with the Project Closeout requirements of the General Provisions:
 - a. Record Drawings.
 - b. Maintenance and Operation Manuals.
2. Provide four complete sets of Maintenance and Operation Manuals including, but not limited to, the following:
 - a. Schematic diagrams, installation wiring diagrams and instructions and Maintenance/Operation Manuals for any special systems and equipment.
 - b. Complete fixture cuts including lamps furnished for all lighting fixtures.
 - c. Shop Drawings and installation/maintenance/operation manuals for all power distribution and control equipment including service and distribution equipment, branch panels, etc.
 - d. Copies of certificates of Code Authority acceptance, and test data and other special guarantees, warranties, etc. specified elsewhere herein and/or indicated on the Drawings.

SECTION 16010
BASIC ELECTRICAL REQUIREMENTS

3. Assemble each set in standard hardback, 3-ring binder(s). Binder fill shall not exceed 50%; i.e., 1" thickness of paper in 2" binder. Use tabular dividers to organize the materials in the same order as this Specification. Mark each divider according to (sub)section number and name.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Acceptance at site:
1. Do not use scratched, marred or deformed materials.
 2. Do not use fixtures, material or equipment in wet cartons or boxes, stored in or exposed to rain, water, dust, dirt or snow.

1.05 SEQUENCING AND SCHEDULING

- A. Cooperation with Other Crafts:
1. Cooperate with other crafts and/or contracts as may be necessary for the proper execution of the work in the construction of the building.
 2. Prior to the installation and connection of the Division 16 work for equipment by other Divisions, the Owner, or by other contracts, verify the requirements indicated in Division 16 with the requirements and characteristics of the other Divisions, the Owner, and/or other contractors equipment. Read and understand the requirements of Divisions which affect the installation of work in this Division.
 3. Obtain wiring or schematic diagrams for confirmation and connections. Deviations to be brought to the attention of the Architect.
 4. Consult the Drawings of all other trades or crafts to avoid conflicts with cabinets, counters, equipment, structural members, etc. In general, the Architectural Drawings govern, but conflicts shall be resolved with the Architect prior to rough-in.
- B. Safety: In accordance with generally accepted construction practices, the Contractor is solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement applies continuously and is not limited to normal working hours.

1.06 WARRANTY

- A. General Warranty: Without additional charge, replace any work or material which develops defects, except from abuse, within one (1) year from acceptance unless otherwise noted.
- B. Lamps:
1. Lamp warranty is from date of Owner occupancy or acceptance: Thirty (30) days for incandescent, six (6) months for fluorescent and HID lamps.
 2. Provide labor for lamp installation for thirty (30) days after final acceptance.

SECTION 16010
BASIC ELECTRICAL REQUIREMENTS

- C. Ballasts:
1. Ballasts covered by a two year warranty, based upon manufacturer's Code dates embossed on ballast cover with installation date.
 2. Warranty includes nominal payment toward normal cost of labor for replacement of ballast.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. General: Like items from one manufacturer; i.e., fixture types, switches, receptacles, breakers, panels, etc.

2.02 MATERIALS

- A. Provide electrical materials of the type and quality indicated, or prior approved substitute, new, listed by the Underwriters' Laboratories, bearing their label wherever standards have been established and label service is regularly furnished by them. Indicated brand names and catalog numbers are used to establish standards of performance and quality. The description of materials listed herein governs in the event that catalog numbers do not correspond to the materials described herein.

2.03 ACCESSORIES

- A. Special Features and Incidentals:
1. Include special features, finishes, description or requirements indicated in the Contract Documents for particular items or equipment, but not included by or in the item's listed catalog number.
 2. Provide and install as part of the Contract work all incidentals, hangers, brackets, supports, framing, backing, signal transformers, relays, etc., not specifically mentioned herein or noted on the Drawings, but required to complete the system or systems, in a safe and satisfactory working condition, shall be provided and installed as part of the Contract Work.

2.04 FABRICATION

- A. Shop/Factory Finishing: Modify manufacturer's products at the factory to comply with the special requirements noted. Contractor's responsibility to verify compliance.

SECTION 16010
BASIC ELECTRICAL REQUIREMENTS

PART 3 EXECUTION

3.01 VERIFICATION

A. Verification of Conditions:

1. Bidder is expected to visit site of proposed construction. Verify and inspect the existing site to determine the conditions that affect this work.
2. Include all costs in the bid price for the work and/or material required to comply with the Contract Documents, based on the actual existing conditions and the information indicated on the Contract Documents.
3. Failure to visit site and verify conditions affecting work of this Division does not relieve Contractor from the necessity of doing any and all work which is necessary to make all electrical installations and systems complete.

B. Construction Documents:

1. Electrical Drawings are diagrammatic with symbols representing electrical equipment, outlets and wiring.
2. Electrical symbols indicating wiring and equipment, shown on the Drawings or specified in Division 16, are included in Division 16 work unless specifically noted otherwise.
3. Drawings indicate general directions and routes of feeders and conductor systems. Determine exact route and installation of electrical wiring and equipment with conditions of construction and acceptance of Architect.
4. Deviations from Drawings required to make the electrical installation conform to the building's construction design and the work of other crafts are part of the Contract work. Obtain Architect approval prior to executing any deviations from Drawings.
5. Examine the Mechanical and Structural Drawings to avoid systems conflicts.
6. Data given herein and shown on Electrical Drawings is as exact as could be secured but its absolute accuracy is not guaranteed.

C. Clarification:

1. Prior to submitting a bid, bring to the attention of the Architect any ambiguous, conflicting or unclear instructions. Such items will be clarified by the Architect in Addendum form.
2. In the event that time does not permit clarification prior to bid opening, the Drawings govern in matters of quantity, the Specification in matters of quality. In event of conflict on the Drawings or in the Specifications, the greater quantity and the higher quality apply.
3. Should the Electrical Documents indicate a condition conflicting with the Governing Codes and Regulations, refrain from installing that portion of the work until clarified by the Architect. Remove and correctly install, as part of the Contract work, any work installed in violation of the Governing Codes.

SECTION 16010
BASIC ELECTRICAL REQUIREMENTS

3.02 INSTALLATION

A. Codes and Permits:

1. Comply with the latest Rules and Regulations of the Codes of the State and local authorities having jurisdiction. Contractor responsible for appraising himself of the pertinent Codes prior to commencing work.
2. Furnish all materials and labor required for compliance with these Rules and Regulations. Items in excess of Code requirements take precedence.
3. Obtain and pay for all required permits, plan check charges and certificates. Deliver Certificates of Acceptance from the Code-Enforcing Authorities to Architect.

3.03 FIELD QUALITY CONTROL

A. Tests:

1. Conduct tests of equipment and systems to demonstrate compliance with requirements specified in Division 16.
2. Provide journeyman electrician with tools, meters, instruments and other test equipment required. Remove and replace trims, covers, fixtures, etc., and test materials, systems, methods and workmanship in the presence of the Architect for final review at completion of the work.

B. Inspection:

1. Do not close in or cover work prior to review by the Architect.
2. Contractor responsible for cost of uncovering and making repairs where work has been closed in or covered prior to review by Architect.

3.04 CLEANING

A. Tools and Materials:

1. Keep tools and materials in an orderly manner throughout the construction period.
2. Upon completion of the work, remove all supplies, materials, tools, etc., furnished by the Electrical Division.

B. Dirt, Debris and Dust:

1. Remove dirt and debris of whatever nature caused by the execution of the electrical work from job site at frequent periods appropriate to the progress of the work, or as directed by the Architect.
2. Leave the entire electrical system installed under this Contract in clean, dust-free and proper working order.

END OF SECTION

SECTION 16109
EQUIPMENT CONNECTIONS

PART 1 GENERAL

1.01 ELECTRICAL CONNECTIONS

- A. Connect equipment, whether furnished by Owner or other Divisions of the Contract, electrically complete where indicated.
- B. Power connections only in Division 16. Equipment not set in place by Division 16.
- C. Ground all equipment with equipment grounding conductor.

PART 2 PRODUCTS

(Not Used)

PART 3 EXECUTION

3.01 ELECTRICAL CHARACTERISTICS

- A. Verify electrical characteristics of equipment prior to installation of conduits and wiring for equipment.
- B. Unless otherwise noted in Contract Documents, the following voltage and phase characteristics apply to motors furnished by others:
1/3 HP and under: 120 volts, single (1) phase
Over 1/2 HP: 208 volts, three (3) phase

3.02 MOTOR BRANCH CIRCUIT WIRING

- A. Do not install electrical equipment or wiring on mechanical equipment without approval of Architect.
- B. Provide moisture tight equipment wiring and switches in ducts or plenums used for environmental air.
- C. Connect motor starter branch circuits complete from panel to motor as required by Code and manner herein described.
- D. Motor starters for equipment supplied by Division 15, provided by equipment installer for installation by Division 16.
- E. Motor starter control devices and wiring provided by Division 15.
- F. Install feeder circuit to packaged HVAC equipment. Terminate feeder conductors on line terminals as directed by equipment manufacturer.

SECTION 16109
EQUIPMENT CONNECTIONS

3.03 APPLIANCE/UTILIZATION EQUIPMENT

- A. Provide appropriate cable and cord cap for final connection unless equipment is provided with same. Install receptacle to receive cord cap.
- B. Verify special purpose outlet NEMA configuration and ampere rating with equipment supplier prior to ordering devices and coverplates.

END OF SECTION

SECTION 16110
RACEWAYS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
1. Raceways.
 2. Conduit Fittings.
 3. Foam Sealant
 4. Sleeves and Chases.

1.02 SYSTEM DESCRIPTION

- A. Design Requirements:
1. Concealed Raceway System: Conceal raceway systems throughout.
 2. Branch Circuits: Do not change the intent of the branch circuits or controls or combine home runs without Architect's approval.
 3. Feeders: Do not combine or change feeder runs.
 4. Thermal Isolation: Special procedures required to prevent frost accumulation on or in raceways installed through boundary between heated and unheated spaces.
 5. Unless otherwise indicated, provide raceway systems for lighting, power and Class 1 remote-control and signaling circuits and Class 2 and 3 remote-control signaling and communication circuits.

1.03 SEQUENCING AND SCHEDULING

- A. Raceway System: Complete electrical raceway installation before starting the installation of conductors and cables. Raceway system of conduit, tubing or duct and fittings including but not limited to connectors, couplings, offsets, elbows, bushings, expansion and deflection fittings and other components and accessories.
- B. Finished Surfaces: Prevent cutting in connection with finished work. Make repairs in a manner approved by Architect.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Raceways: Allied Steel, Certainteed, Jones and Laughlin, Carlon, Kraloy.
- B. Conduit Fittings: O-Z Gedney, Thomas-Betts, Crouse-Hinds.
- C. Foam Sealant: Chase Technologies.

2.02 CONDUITS

- A. Galvanized Rigid Steel Conduit (GRC):
1. Hot dip galvanized after thread cutting.

SECTION 16110
RACEWAYS

2. Manufacture in conformance with Federal Specification WWC-581 (latest revision) and ANSI Specification C80.1.
 3. Uniform finish coat with chromate for added protection.
- B. Rigid Aluminum Conduit: Alloy #6063, threaded at each connection.
- C. Intermediate Metal Conduit (IMC):
1. Hot dip galvanized after thread cutting.
 2. Manufacture in conformance with Federal Specification WWC-581 (latest revision).
 3. Uniform finish coat with chromate for added protection.
- D. Electrical Metallic Tubing (E.M.T.):
1. Hot dip galvanized and chromate coated.
 2. Manufacture in conformance with Federal Specification WWC-563 (latest revision) and ANSI Specification C80.3.
- E. Flexible Conduit:
1. Reduced wall flexible steel conduit.
 2. Hot dip galvanize steel strip prior to forming and joining.
 3. Manufacture in conformance with Federal Specification WWC-566.
- F. Flexible Conduit, PVC Coated:
1. Hot dip galvanize steel strip prior to forming and joining.
 2. PVC chemical resistant jacket extruded to core, up to 1" trade size.
 3. PVC chemical resistant jacket, tubed over core, up to 4" trade size.
- G. PVC:
1. Class 40 heavy wall rigid PVC.
 2. Rated for use with 90°C conductors.
 3. Manufacture in conformance with Federal Specification WC1094A and NEMA TC-2.

2.02 CONDUIT FITTINGS

- A. Bushings:
1. Insulated type for threaded Rigid and IMC conduit. T&B #1222 Series or O-Z Gedney "B Series".
 2. Insulated grounding type for threaded Rigid and IMC conduit: O-Z Gedney "BLG Series".
- B. E.M.T. Connectors and Couplings:
1. Steel gland, Tomic, Breagle or O-Z Gedney 7000 ST Series, pre-insulated type connectors.
 2. Set screw type, zinc plated, steel.
- C. Expansion/Deflection Fittings:
1. EMT, O-Z Gedney Type "TX".
 2. RMC, O-Z Gedney Type "AX", "DX" and "DXX" and Crouse-Hinds "XD".

SECTION 16110
RACEWAYS

2.03 FOAM SEALANT

- A. Foam sealant for use around conduit penetrations to prevent passage of smoke, fire, toxic gas or water. Maintain seal before, during and after fire. In and around conduit for thermal break at penetration of barrier between heated and unheated spaces. Chase Technology Corp. No. CTC PR-855.

PART 3 EXECUTION

3.01 PREPARATION

- A. Inserts, Anchors and Sleeves:
1. Coordinate location of inserts and anchor bolt for electrical systems prior to pouring concrete.
 2. Coordinate location of sleeves for electrical systems prior to pouring concrete, with consideration for all other building systems.

3.02 INSTALLATION

- A. Conduit:
1. Conduit Joints: Assemble conduits continuous and secure to boxes, panels, fixtures and equipment with fittings to maintain continuity. Provide watertight joints where embedded below grade or in damp locations. Seal PVC conduit joints with solvent cement and metal conduit with metal thread primer. All rigid conduit connections to be threaded, clean and tight (metal to metal). Threadless connections are not permitted for GRC and IMC.
 2. Conduit Placement: Install continuous conduit and raceways for electrical power and signal systems wiring where indicated. Exposed conduits are permitted in Mechanical Rooms or spaces where walls, ceilings and floors will not be covered with finished materials. Where Documents permit exposed conduit install parallel or at right angles to building lines, tight to finished surfaces and neatly offset into boxes. Do not install conduits or other electrical equipment in obvious passages, doorways, scuttles or crawl spaces which would impede or block the area passage's intended usage. Do not install conduits on surface of building exterior or on top of parapet walls.
 3. Maximum Bends: Install Code sized pull boxes to restrict maximum bends in a run of conduit to 270°. Conduit bodies, condulets, not permitted in feeders.
 4. Conduit Terminations: Provide conduits shown on Drawings which terminate without box, panel, cabinet or conduit fitting with not less than five (5) full threads. Bushings and metal washer type sealer between bushing and conduit end.
 5. Flexible Conduit: Install 12" minimum slack loop on flexible metallic conduit and PVC coated flexible metallic conduit.

SECTION 16110
RACEWAYS

6. Conduit Size: Size as indicated on Drawings. Where size is not indicated, provide conduit in minimum Code permitted size for THW conductors of quantity shown. Minimum trade size 1/2".
 7. Conduit Location:
 - a. Underground: GRC, IMC or PVC.
 - b. Cast-in-place concrete, masonry, damp locations and subject to mechanical damage: GRC or IMC.
 - c. Dry, protected and 2" maximum nominal size: GRC, IMC, EMT.
 - d. Dry, protected and above 2" nominal size: GRC, IMC.
 - e. Sharp Bends and Elbows: GRC, EMT use factory elbows.
 - f. Install pull wire or nylon cord in empty raceways provided for other systems. Secure wire or cord at each end.
 - g. Motors, recessed luminaires and equipment connections subject to movement or vibration, use flexible metallic conduit.
 - h. Motors and equipment connections subject to movement or vibration and subjected to any of the following conditions; exterior location, moist or humid atmosphere, water spray, oil or grease use PVC coated flexible metallic conduit.
- B. Thermal Insulation:
1. Raceways concealed in exterior walls or floor and ceiling spaces exposed to exterior temperatures on one side and normal room temperatures on the inside; exercise special care to prevent frost accumulation resulting from condensation of air on heated side.
 2. Secure raceways to structure such that screws, nails and fastening devices do not extend from the warm side to the cold side or penetrate the vapor barrier or insulation.
 3. Where conduits penetrate the vapor barrier or insulation, provide interior conduit seal. Seal void between conductors and interior wall of conduit.
 4. Seal exterior voids between components or the structure and raceways. Fill void with sealant to minimize conduction along raceway from cold to warm side.
- C. Sleeves and Chases:
1. Floor, Ceiling and Wall Penetrations: Provide necessary rigid conduit sleeves, openings and chases where conduits or cables are required to pass through floors, ceiling or walls.
 2. Fire Seals: Maintain integrity of fire rating at penetrations of walls, ceilings or floors.

END OF SECTION

SECTION 16120
WIRES AND CABLES

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Wires and Cables.
 - 2. Connectors.
 - 3. Lugs and Pads.

1.02 SUBMITTALS

- A. Test Reports: Test conductor insulation for conformity with 1000V megger. Minimum insulation resistance acceptable is 1000 ohms per applicable system volt.
- B. Manufacturer's Instructions: Comply with manufacturer's recommendations for installation procedures.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Wires and Cables: Anaconda, General Electric, Hatfield, Okonite.
- B. Connectors:
 - 1. Stranded Conductors: Anderson, Burndy, IIsco, Thomas and Betts.
 - 2. Branch Circuit Splices: Ideal, Scotch-Lock, 3M.

2.02 WIRES AND CABLES

- A. Copper, 600 volt rated throughout.
- B. Conductors No. 14 AWG to No. 10 AWG, solid or stranded.
- C. Conductors No. 8 AWG and larger, stranded.
- D. Color code conductors as follows:
 - PHASE
 - A - Black
 - B - Red
 - C - Blue
 - Neutral - White
 - Ground - Green
- E. Conductors No. 3 AWG and larger, minimum insulation rating of 75°C.
- F. Insulation types THWN, THW or XHHW. THHN may be used in dry locations only.
- G. Refer to Special Systems Specification Sections for cable requirements.

SECTION 16120
WIRES AND CABLES

2.03 CONNECTORS

- A. Lugs: Indent/compression type for use with stranded branch circuit or control conductors.
- B. Solid Conductor Branch Circuits: Spring connectors, wire nuts, for conductors #18 through #8 AWG.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Wires and Cables:
 - 1. Conductor Installation:
 - a. Install conductors in raceways having adequate, Code size cross-sectional area for wires indicated.
 - b. Install conductors with care to avoid damage to insulation.
 - c. Do not apply greater tension on conductors than recommended by manufacturer during installation.
 - d. Use of pulling compounds is permitted. Clean residue from exposed conductors and raceway entrances after conductor installation. Do not use pulling compounds for installation of conductors connected to GFI circuit breakers or GFI receptacles.
 - 2. Conductor Size and Quantity:
 - a. Install no conductors smaller than No. 12 AWG unless otherwise shown.
 - b. Number of conductors in a conduit run indicated on Drawings with diagonal hash marks on conduit run.
 - 3. Conductors in Cabinets:
 - a. Cable and tree all wires in panels and cabinets for power and control. Use plastic ties in panels and cabinets.
 - b. Tie and bundle feeder conductors in wireways of panelboards.
 - c. Hold conductors away from sharp metal edges.
 - d. Install fish paper insulation between conductors and metal enclosures except in conduit.
- B. Connectors: Re-tighten lugs and connectors for conductors to equipment prior to final acceptance of work.

END OF SECTION

SECTION 16130
BOXES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Outlet Boxes.
 2. Junction and Pull Boxes.
 3. Conduit Fittings.

1.02 SYSTEM DESCRIPTION

- A. Design Requirements:
1. Outlet System: Provide electrical boxes and fittings as required for a complete installation. Items shall include but not be limited to outlet boxes, junction boxes, pull boxes, bushings and locknuts.
 2. Code Compliance: Comply with NEC as applicable to construction and installation of electrical boxes and fittings and size boxes according to N.E.C. Art 370, except as noted otherwise.
 3. Flush Outlets in Insulated Spaces: Maintain integrity of insulation and vapor barrier.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Outlet Boxes: Bowers, Raco.
- B. Junction and Pull Boxes: Circle AW, Hoffman.
- C. Box Extension Adapter: Bell.
- D. Conduit Fittings: O-Z Gedney, Thomas and Betts.

2.02 OUTLET BOXES

- A. Luminaire Outlet: 4" octagonal box, 1-1/2" deep with 3/8" fixture stud if required. Provide raised covers on bracket outlets and on ceiling outlets.
- B. Device Outlet: Installation of one or two devices at common location, minimum 4" square, minimum 1-1/2" deep. Single or two gang flush device raised covers. Raco Series 681 and 686.
- C. Multiple Devices: Three or more devices at common location. Install one piece gang boxes with one piece device cover. Install one device per gang.
- D. Construction: Provide galvanized steel interior outlet wiring boxes, of the type, shape and size, including depth of box, to suit each respective location and installation; constructed with stamped knockouts in back and sides, and with threaded holes with screws for securing box covers or wiring devices.

SECTION 16130
BOXES

- E. Accessories: Provide outlet box accessories as required for each installation, including mounting brackets, wallboard hangers, extension rings, fixture studs, cable clamps and metal straps for supporting outlet boxes, compatible with outlet boxes being used and meeting requirements of individual wiring situations.

2.03 JUNCTION AND PULL BOXES

- A. Construction: Provide galvanized sheet steel junction and pull boxes, with screw-on covers; of the type shape and size, to suit each respective location and installation; with welded seams and equipped with steel nuts, bolts, screws and washers.
- B. Location:
 - 1. Install junction boxes above accessible ceilings for drops into walls for receptacle outlets from overhead.
 - 2. Install junction boxes and pull boxes as required to facilitate the installation of conductors and limiting the accumulated angular sum of bends between boxes, cabinets and appliances to 270°.

2.04 BOX EXTENSION ADAPTER

- A. Construction: Die cast aluminum.

2.05 CONDUIT FITTINGS

- A. Requirements: Provide corrosion-resistant punched-steel box knockout closures, conduit locknuts and malleable iron conduit bushings of the type and size to suit each respective use and installation.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Location: Locate boxes and conduit bodies so as to insure accessibility of electrical wiring.
- B. Round Boxes: Avoid using round boxes where conduit must enter through side of box, which would result in a difficult and insecure connection with a locknut or bushing on the rounded surface.
- C. Anchoring: Secure boxes rigidly to the substrate upon which they are being mounted.
- D. Knockout Closures: Provide knockout closures to cap unused knockout holes where blanks have been removed.
- E. Thermal Barrier: Insulate or maintain integrity of vapor barrier in void space between outlet box and building structure where outlet boxes are mounted flush in wall.

END OF SECTION

SECTION 16141
WIRING DEVICES

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Wall Switches.
 - 2. Receptacles.
 - 3. Device Plates.
 - 4. Surface Covers.
 - 5. Surface Metal Raceways.

1.02 SYSTEM DESCRIPTION

- A. Design Requirements:
 - 1. Federal Specification Compliance: Comply with Federal Specification WS896 and WC596 for switches and receptacles respectively.
 - 2. NEMA Configuration: Comply with NEMA configurations and standards for general and special purpose wiring devices.
 - 3. Appearance: Provide line voltage lighting switches and receptacles of common manufacturer and identical appearance.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Wall Switches: Arrow-Hart, Bryant, General Electric, Hubbell, Leviton, Pass and Seymour, Slater.
- B. Receptacles: Same manufacturers as listed for wall switches.
- C. Finish Plates: Hubbell, Leviton, Pass & Seymour, Slater.

2.02 WALL SWITCHES

- A. Characteristics: Toggle type, quiet acting, 20A, 120/277V, UL listed for motor loads up to 80% of rated amperage, grey finish. Hubbell Series 1221-GRY.

2.03 RECEPTACLES

- A. Finish: Same exposed finish as switches.
- B. Characteristics: Straight parallel blade 20A, 125V, 2 pole - 3 wire grounding. Hubbell 5362-GRY.
- C. Ground Fault Interrupter: Feed through type, 20A, 125VAC, specification grade. Hubbell GF-5362GY.
- D. Special Purpose Receptacles: Refer to Drawings for NEMA Standard Specification.

SECTION 16141
WIRING DEVICES

2.04 FINISH PLATES

- A. Material: 18% chrome, 80% nickel, Type 302 stainless steel, satin finish, beveled metal. Hubbell BPHDSSDNI.
- B. Telephone/Signal System Device Plates: 3/4" diameter hole with grommet. Hubbell BM3SSDNI.

2.05 SURFACE COVERS

- A. Material: Galvanized or cadmium plated steel, 1/2" raised industrial type with openings appropriate for device(s) installed on surface outlets.
- B. Cast Box and Extension Adaptors: Aluminum, with gasket, blank. Single gang, Bell 240-ALF. Two gang, Bell 236-ALF.

2.06 SURFACE METAL RACEWAY

- A. Finish: Same as wall or as directed by Architect.
- B. Characteristics: Two piece surface metal raceway shall consist of a base section and a cover section which shall be scored every 3" along its length. Wiremold 2100 Series. Receptacles to be NEMA 5-20R, Wiremold 2127GT. Provide all fittings for a complete installation.

PART 3 EXECUTION

3.01 PREPARATION

- A. Protection:
 - 1. Devices: Upon installation of wall plates and receptacles, advise Contractor regarding proper and cautious use of convenience outlets. At time of Substantial Completion, replace those items which have been damaged, including those burned and scored by faulty receptacles or cord caps.
 - 2. Finish Plates and Devices: Do not install items until finish painting is complete. Scratched or splattered finish plates and devices will not be acceptable.

3.02 INSTALLATION

- A. Plumb: Install devices and finish plates plumb with building lines.
- B. Orientation:
 - 1. Wall Mounted Receptacles: Install with long dimensions oriented vertically at centerline height shown on Drawings or specified herein.

SECTION 16.41
WIRING DEVICES

2. Vertical Alignment: When more than one outlet is shown on the Drawings in close proximity to each other, but at different elevations, align the outlets on a common vertical center line for best appearance. Verify with the Architect.

3.03 FIELD QUALITY CONTROL

A. Tests:

1. Wiring Devices: Test wiring devices to insure electrical continuity of grounding connections, and after energizing circuitry, to demonstrate compliance with requirements. Receptacles shall be tested for line to neutral, line to ground and neutral to ground faults. Correct any defective wiring.

END OF SECTION

SECTION 16190
SUPPORTING DEVICES

PART 1 GENERAL

1.01 DESCRIPTION

- A. Safety factor of 4 required for every fastening device or support for electrical equipment installed. (Support to withstand four times weight of equipment it supports).

PART 2 PRODUCTS

2.01 PRODUCTS

- A. Hangers: Kindorf B-905-2A channel, H-119-D washer, C105 strap, 3/8" rod with ceiling flange.
- B. Concrete Inserts: Kindorf D-255, cast in concrete for support fasteners for loads up to 800 lbs.
- C. Pipe Straps: Two-hole galvanized or malleable iron.
- D. Fixture Chain: Campbell Chain Company #75031, 90-pound test with steel hooks.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Provide all electrical equipment supports.
- B. Verify mounting height of all fixtures or items prior to installation when heights are not indicated.
- C. Install vertical support members for equipment and fixtures, straight and parallel to building walls.
- D. Provide independent supports to structural member for electrical fixtures, materials, or equipment installed in or on ceiling, walls or in void spaces and/or over furred or suspended ceilings.
- E. Do not use other crafts' fastening devices for supporting means of electrical equipment materials or fixtures.
- F. Do not use supports and/or fastening devices to support other than one particular item.
- G. Support conduits within 18" of outlets, boxes, panels, cabinets and deflections.
- H. Maximum distance between supports not to exceed eight (8) foot spacing.

SECTION 16190
SUPPORTING DEVICES

- I. All junction boxes, pull boxes or other conduit terminating housings located above suspended ceiling shall be securely suspended from the floor above or roof structure to prevent sagging and swaying.

END OF SECTION

SECTION 16475
OVERCURRENT PROTECTIVE DEVICES

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Fuses.
 - 2. Circuit Breakers.
- B. Related Sections:
 - 1. Section 16170, Circuit and Motor Disconnects.
 - 2. Section 16470, Panelboards.

1.02 SUBMITTALS

- A. Product Data:
 - 1. Provide instantaneous let-through current curves and average melting time current curves for fuses supplied to project.
 - 2. Provide product data and time/current trip curves for circuit breakers supplied to project.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Fuses: Bussmann Division, McGraw-Edison Co.; Shawmut Division, Gould Electronic.
- B. Circuit Breakers: General Electric, Siemens-Allis (ITE Electrical Products), Square-D and Westinghouse.

2.02 FUSES

- A. Characteristics: Dual element, time delay, current limiting, non-renewable type, rejection feature.
- B. Combination Loads: UL Class RK5, 1/10-600A.
- C. Motor Loads: UL Class RK5, 1/10-600A.
- D. Fuse Puller(s) for complete range of fuses.

2.03 CIRCUIT BREAKERS

- A. Molded Case Circuit Breakers:
 - 1. One, two or three pole, single handle common trip, rated 250VAC as specified on Drawings.
 - 2. Overcenter toggle-type mechanism, quick-make, quick-break action. Trip indication is by handle position.
 - 3. Calibrate for operation in 40°C ambient temperature.
 - 4. 15A-200A Breakers: Permanent trip unit containing individual thermal and magnetic trip elements in each pole.

SECTION 16475
OVERCURRENT PROTECTIVE DEVICES

5. Greater than 100A Breakers: Variable magnetic trip elements set by a single adjustment. Provide push-to-trip button on cover on breaker for mechanical tripping.
6. Provide removable load lugs, UL listed for compression type lugs, copper conductors only.

PART 3 EXECUTION

3.01 INSTALLATION

A. Circuit Breakers:

1. Provide circuit breakers, specified herein and on Drawings, for installation in panelboards, individual enclosures or combination motor starters.
2. Provide ground fault interrupter circuit breakers for equipment in damp or wet locations.
3. Provide device on handle to lock breaker in "ON" position for breakers feeding time switches, night lights and similar circuits required to be continuously energized.

END OF SECTION

SECTION 16500
LIGHTING

PART 1 GENERAL

1.01 SCOPE

- A. This Section includes indoor lighting fixtures and associated supports and lenses.

1.02 RELATED WORK

- A. Section 16110, Raceways and Fittings.
- B. Section 16120, Wires and Cables.
- C. Section 16130, Boxes.

PART 2 PRODUCTS

2.1 GENERAL

- A. The fixtures listed on the Drawings indicate manufacturer, fixture design, appearance and performance desired. Listed catalog numbers shall not be considered to specify all requirements. These fixtures shall be modified, if necessary to comply with the subsequent specification.
- B. All lighting fixtures must bear UL labels.
- C. Fixture component parts shall be manufactured and/or assembled at the manufacturing plant for shipment in one or more packages. The shipment from the fixture manufacturer shall include integrally mounted and/or remote mounted ballasts where ballasts are required.

2.02 FLUORESCENT FIXTURES

- A. Fixture Construction: Fixtures shall be constructed of rust protected steel or aluminum, finished with baked white enamel of the non-modified acrylic or alkyd base type. The entire fixture shall be finished in this manner except where other rim, finishes, louvers or nonferrous reflecting surfaces are specified. Reflectance of all light reflecting surfaces shall be 85% minimum. Modify fixtures as indicated.
- B. Ballasts Design: Two lamp ballasts shall be energy-saving type equal to Advance Mark III, UL listed to operate F40T12 rapid start lamps for both the standard 40 watt lamps and the reduced wattage (approximately 35 watts) energy-saving lamps. Lamp output shall be within 5% of nominal rating. Energy-saving type ballasts shall not be used in ambient temperatures below manufacturer's recommendations.
- C. Lenses: Provide lenses and diffusers as scheduled. Plastic lenses shall be virgin acrylic type, pattern and thickness as scheduled. Minimum thickness of .125-inch or thicker if specified.

DATE SUBMITTED _____

(For Clerk's Use)

Meeting Date 12-13-88
Agenda No. Int PM #2

REQUEST FOR PLACEMENT ON THE AGENDA

Subject: C.I.P. Transfer

Informal Only* 12/13/88
(Date)

Formal Only _____
(Date)

DEPARTMENT Environmental Services

DIVISION Facilities & Property Management

CONTACT F. Wayne George/Jim Emerson

TELEPHONE 248-3322

*NAME(s) OF PERSON MAKING PRESENTATION TO BOARD

F. Wayne George, Jim Emerson, Paul Yarborough
Bob Skipper

BRIEF SUMMARY Should include other alternatives explored, if applicable, and clear statement of rationale for the action requested.

Funding of emergency MCCF security job at MCCF through Capital Improvement Budget transfer.

(IF ADDITIONAL SPACE IS NEEDED, PLEASE USE REVERSE SIDE)

ACTION REQUESTED:

☒ INFORMATION ONLY ☐ PRELIMINARY APPROVAL ☐ POLICY DIRECTION ☐ APPROVAL

INDICATE THE ESTIMATED TIME NEEDED ON AGENDA _____

IMPACT:

PERSONNEL

☐ FISCAL/BUDGETARY

☐ General Fund

Other _____

SIGNATURES:

DEPARTMENT HEAD, ELECTED OFFICIAL, or COUNTY COMMISSIONER: _____

BUDGET / PERSONNEL _____

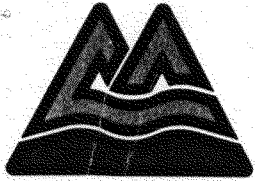
COUNTY COUNSEL (Ordinances, Resolutions, Agreements, Contracts) _____

OTHER _____

(Purchasing, Facilities Management, etc.)

NOTE: If requesting unanimous consent, state situation requiring emergency action on back.

BOARD OF
COUNTY COMMISSIONERS
1988 DEC - 8 AM 11:23
MULTNOMAH COUNTY
OREGON



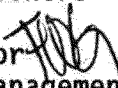
MULTNOMAH COUNTY OREGON

DEPARTMENT OF ENVIRONMENTAL SERVICES
DIVISION OF FACILITIES AND
PROPERTY MANAGEMENT
2505 S.E. 11TH AVENUE
PORTLAND, OREGON 97202
(503) 248-3322

GLADYS McCOY
MULTNOMAH COUNTY CHAIR

MEMORANDUM

TO: Board of County Commissioners

FROM: F. Wayne George, Director 
Facilities & Property Management

DATE: December 12, 1988

RE: CIP TRANSFER

This memo is to inform you that the Capital Improvements Project Committee has met and agreed to defer a Capital Improvement Project scheduled for this year and transfer part of that funding to an emergency need in the Sheriff's Office.

The items approved by the CIP Committee were:

1. Transfer \$80,000 from JDH to MCCF for screening dorn ends and for administration wing project.
2. Take \$15,000 left over from EXPO Roof and transfer to Portland Building Remodel.
3. Put the major JDH projects on hold pending design study results.

Sheriff Fred Pearce addressed the CIP Committee on December 1, 1988, and explained an emergency situation at the Multnomah County Correctional Facility (MCCF). Facilities & Property Management had bid out the restructuring of the Administration Wing, and found that that bid had come in \$40,000 over budget. Also, the Sheriff has expressed concerned that there is no way to control the 186 inmates of MCCF because it was impossible to "lock down" any of the individual dorms. He asked the Committee to fund the installation of dorm-end enclosures for each living dormitory so they could be locked down electrically to insure segregation of inmates in case of trouble in the facility.

In trying to plan for tighter security at MCCF and plan for appropriate and timely renovation in lieu of piecemeal bandaid repairs, it was suggested and recommended that \$7,400 be also used to hire the architectural firm of Kaplan McLaughlin Diaz, who just finished the Inverness Jail, to look at MCCF and determine the most appropriate way to increase security, comfort and flexibility at MCCF with the least possible cost.

The total needed for these MCCF renovations is \$80,000 over and above what is budgeted in this year's Capital Improvements budget. The Committee has recommended that that be transferred out of the Juvenile Detention Home Heating Ventilation, Air Conditioning project budget.

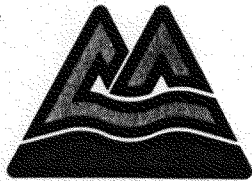
The second piece of action that the Committee responded to was a shortfall of \$15,000 in the Portland Building 14th and 15th Floor Remodel project. Even though the construction project itself came in under bid, phone costs and moving costs have increased the cost of the project by \$15,000. A roof repair bid at Expo ran \$15,000 under bid, and the CIP is recommended that this \$15,000 be used to offset the Portland Building project.

The Donald E. Long HVAC project is being delayed due to a pending schematic phase study to look at the possibilities of the need to remodel the Juvenile facilities.

If you have any questions, please call my office.

cc: Paul Yarborough
Hank Miggins
Jim Emerson
Sheriff Fred Pearce
Linda Alexander
Duane Zussy

FWG:CLS




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Hank Miggins
Jim Emerson
Sheriff Fred Pearce
Linda Alexander
Duane Zussy

FWG:CLS

DATE SUBMITTED

(For Clerk's Use)

Meeting Date 12-13-88
Agenda No. Inc PM #3

REQUEST FOR PLACEMENT ON THE AGENDA

Subject: Annual Report for the BCC

Bod
NOV 21 1988

Informal Only* 13 December 1988
(Date)

Formal Only _____
(Date)

DEPARTMENT Citizen Involvement Committee DIVISION _____

CONTACT Merlin Reynolds TELEPHONE 248-3450

*NAME(s) OF PERSON MAKING PRESENTATION TO BOARD John Miller, CIC Chair, Merlin Reynolds

BRIEF SUMMARY Should include other alternatives explored, if applicable, and clear statement of rationale for the action requested.

Annual Report to the Board of County Commissioners concerning activities of the Citizen Involvement Committee in 1987-88 and future activities in 1988-89.

(IF ADDITIONAL SPACE IS NEEDED, PLEASE USE REVERSE SIDE)

ACTION REQUESTED:

☒ INFORMATION ONLY ☐ PRELIMINARY APPROVAL ☐ POLICY DIRECTION ☐ APPROVAL

INDICATE THE ESTIMATED TIME NEEDED ON AGENDA 20 minutes

IMPACT:

☐ PERSONNEL
☐ FISCAL/BUDGETARY
☐ General Fund
☐ Other _____

BOARD OF
COUNTY COMMISSIONERS
MULTNOMAH COUNTY
OREGON
1988 NOV 21 PM 2:32

SIGNATURES:

DEPARTMENT HEAD, ELECTED OFFICIAL, or COUNTY COMMISSIONER: *Merlin Reynolds*

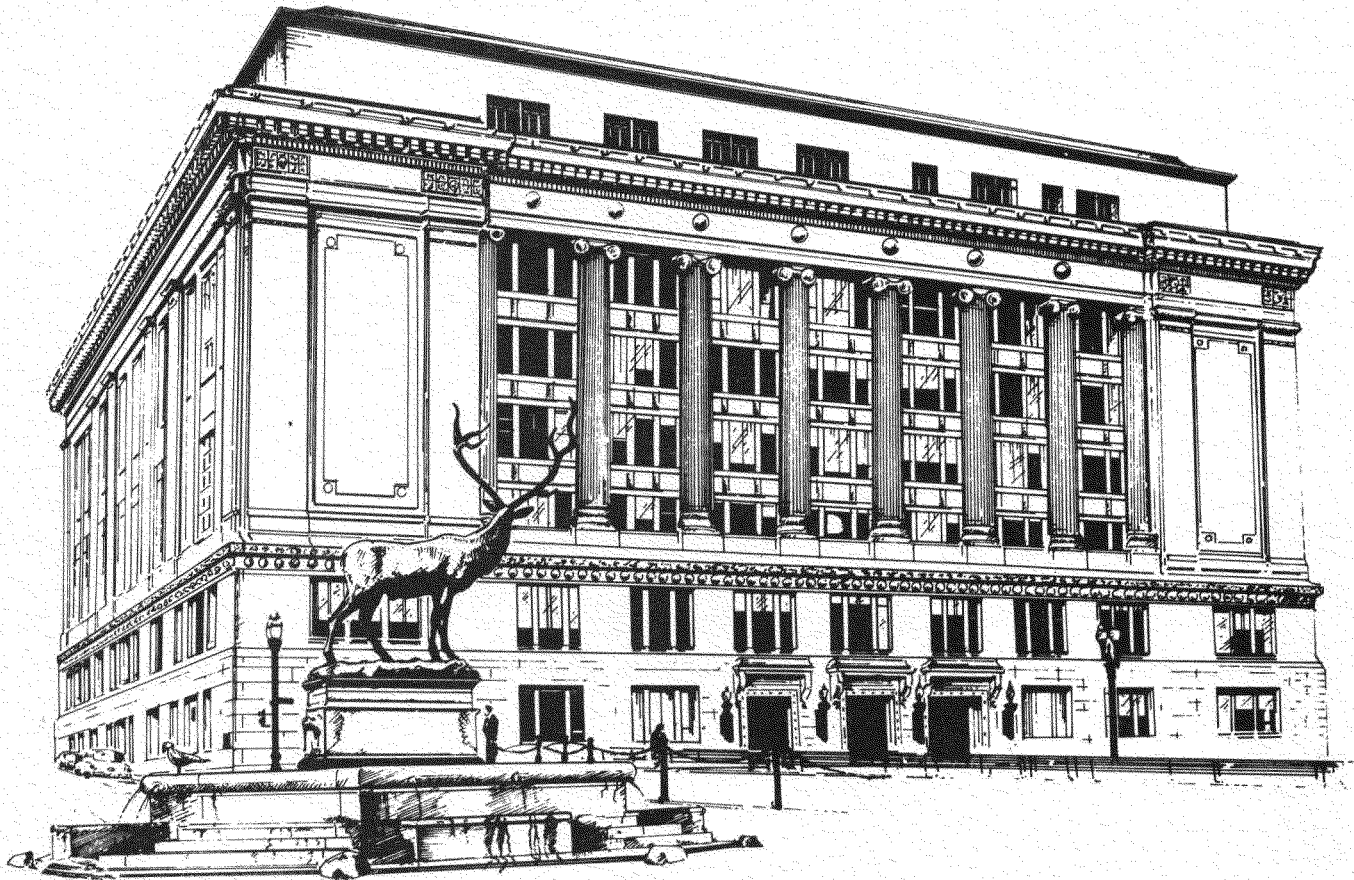
BUDGET / PERSONNEL _____ /

COUNTY COUNSEL (Ordinances, Resolutions, Agreements, Contracts) _____

OTHER _____
(Purchasing, Facilities Management, etc.)

NOTE: If requesting unanimous consent, state situation requiring emergency action on back.

Multnomah County Citizen Involvement Committee



Annual Report
December 1988



OVERVIEW
John Miller, Chair
Citizen Involvement Committee

After chairs changed at our annual meeting in May, the committees continued on to finish their work while the new chair and staff focused on the annual workshop in September. The final reports from those committees follow in this report.

At the workshop the CIC reviewed and revised our goals:

1. Inform citizens concerning citizen involvement in Multnomah County.
2. Advocate for meaningful and timely involvement opportunities for citizens in Multnomah County government.
3. Integrate citizens into decision making processes of Multnomah County government.

Before the workshop, members were encouraged to submit proposals for projects. The workshop was used to select projects on the merit of meeting our goals. The following projects were selected and populated at the workshop:

County Conduit & Issues Roundtable: "To provide information and opinion that will help citizens be involved in decision making."

CCBAC Central CBAC and CBACs: "To involve citizens early in the county budget process when they will have an opportunity for significant input in how the county spends the public's money."

Strategic Planning: "To involve citizens in the development of a vision for the future of Multnomah County and the development of a county strategic plan".

Inter-County Citizen Involvement Conference: "To share information among neighboring county citizen involvement groups."

Computer Bulletin Board: "To explore an application of new technology to the citizen involvement process. To increase communication between CIC members, area boards, CIC office staff, and the public."

Executive Committee members during 87-88...

Members during 1987-88 were: Mark Williams, Chair; Laverne Moore, Vice-Chair; Keith Loeffler, Treasurer and John Miller, Secretary.

Current members are: John Miller, Chair; Dennis Payne, Vice-Chair; Sara Lamb, Treasurer; and Robert Luce, Secretary; with Merlin Reynolds, staffing.

The Executive Committee continues to work to fill CIC vacancies, review progress on all CIC projects, and set the CIC agenda.

The Executive Committee is currently discussing amending the CIC ordinance to include citizen involvement in Land use by incorporating it into the CIC ordinance.

PARTICIPATION COMMITTEE

Dick Levy, Chair

The Participation Committee members were Marlene Byrne, Bob Luce, Richard Levy, Christine Hill, and was staffed by Gloria Fisher.

The committee provided leadership in four major areas:

1. September 1987, "Know Your County Month."

The Committee worked closely with staff from various parts of the County as well as with all of our CIC members to provide volunteers and printed materials for the week-long experimental program designed to celebrate the County and the significant role which it plays for many of us.

An outgrowth of this activity was the Committee sponsorship in providing a one sheet summary available for everyone who testifies before the Board of County Commissioners and the Planning Commission. We felt that this would be of assistance to county residents in better understanding the process and in making them feel more comfortable in appearing before governmental bodies.

2. January through March 1988, "Budget Forums."

The series of Budget Forums which the Committee sponsored, planned, and coordinated was perhaps the biggest disappointment for all of us. However, about 80 county residents did show up at the series of four Forums. This series has been recommended for dissolution as a result of the lack of citizen enthusiasm and the lack of time/cost effectiveness for the CIC.

3. January through April 1988, "Information Sharing Project."

This project owes much of its success to good coordination by the staff and the general supportiveness of all CIC members in inviting Presidents from District Coalitions and some specific community groups to attend and share with us their concerns about community and county-related issues. All involved recommended that this activity be continued and expanded to include citizen participation activities in other parts of the County.

4. May 1988, "Volunteer Appreciation Day."

Committee members invited all County departments to submit the names of volunteers whom they felt needed to receive special recognition for their community service during the past year. This Committee then assisted the Board of County Commissioners in completing plans for recognizing those whose service was felt to be most worthy for "special recognition." We aided in coordinating invitations, doing the evaluations and hosting the awards reception in their honor. We believe that this needs to be an annual - event and the CIC will be glad to continue sponsoring this important event.

PROTOCOL COMMITTEE
Ben Butzien, Chair

The Protocol Committee for 1987-1988 was comprised of Ben Butzien, Sara Lamb, Martha White and Chuck Herndon. We met monthly with additional sub-committee meetings involving same members.

This committee served the CIC by developing and promoting the following objectives:

- Designate liaisons with county departments.
- Develop and conduct a plenary session with County Commissioners.
- Request early notification of citizen groups in policy processes.
- Identify County staff resources.
- Promote expanded role for CBACs.
- Develop protocol for CIC processing of citizen requests
- Establish quarterly meetings with BCC and department.

Our accomplishments were:

- Reviewed and updated CIC Policies and Procedures
- Developed policy for handling citizen requests to CIC.
- Began discussion of CBAC involvement in department planning processes with CIC members acting as liaisons.
- Introduced discussion of citizen involvement in the Strategic Planning process.

The CIC assigned the Protocol Committee the task of investigating the process resulting in the jail levy and site selection as requested by a Community Group. A report was prepared and circulated to the Board of County Commissioners.

INFORMATION COMMITTEE
Frank Jenkins, Chair

Members of the Information Committee were: Scott Holzem, Larry Foltz, and Jean Ridings. A goal of the Citizen Involvement Committee for this year was to develop an innovative public relations program.

The objectives were as follows:

- A. Produce Citizen Involvement Handbook and County Service Directory, with expanded distribution
- B. Produce and circulate County Conduit in December, March, June and September
- C. Develop media plan - general discussion
- D. Develop CIC display - research development
- E. County Fair booth and public transportation - consult with Fair Advisory Board about public transportation

The County Conduit, Service Directory and Citizen Involvement Handbook have been the first priority. Objectives C, D, and E have been addressed somewhat but to no resolution.

The most impressive accomplishment was the new approach to the County Conduit. Credit for the idea and the staff assistance goes to Gloria Fisher. The first issue of 10,000 copy distribution came in July and the Conduit will appear every other month (6 times per year rather than four times per year.)

On August 28th, a cable version of the Conduit was cablecast and the cable version will continue every other month, the month after each Conduit publication. The Information Committee and other volunteers will host and staff the program.

The Citizen Involvement Handbook revisions for the '88 edition are underway and the County Service Directory was completed earlier.

As Chair of this committee, I was extremely pleased with the role the CIC played in Multnomah County and the way the Information Committee helped expand the opportunities for citizens to be involved and participate in County government.

CENTRAL CITIZEN BUDGET ADVISORY COMMITTEE (C-CBAC)

Dennis Payne, Chair

The Central-CBAC is made up of Citizen Involvement Committee (CIC) members from each of the eight existing CBACs plus a representative from the City of Portland Budget Advisory Committee program. For last year's budget our members were: Dennis Payne, Chair; Lianne Thompson, at-large; Ann Porter, DHS; George Muir, DJS; Ben Butzien, DES; Marlene Byrne, DGS; John Miller, Sheriff; LaVerne Moore, Auditor; Mike Sullivan, District Attorney; Jim Worthington, Non-Departmental. The committee was staffed by Merlin Reynolds.

The major activities of the Central-CBAC were: recruiting and placing CBAC members; developing and holding an orientation session; improving CBAC coordination; making CBAC reports to the County Chair and Board of County Commissioners; monitoring the County Finance Committee; amending the CBAC ordinance; assisting with the development of the dedicated fund review resolution.

The Central-CBAC had some major accomplishments in its first year of existence: successfully worked with most departments and CBACs to complete budget reviews; established a working relationship with the Board of County Commissioners and the Chair concerning the budget review process; obtained Board of County Commissioners (BCC) approval of amendments to the CBAC ordinance; achieved BCC support and passage of the Dedicated Fund Review Resolution that allows for C-CBAC review.

The Central-CBAC made nine recommendations to the BCC as part of the 1988-89 budget process. The following is an update on those recommendations and what action has been taken.

Recommendation

1. The CBAC process be included in next year's general description of the County Budget Process.
2. The budget time-line be changed to allow for a month review period after the County Chair presents her budget.
3. More intensive training be provided CBAC members concerning program budgeting.
4. CBAC members be carefully selected to insure they will have time and motivation to actively participate.

Action

1. The CIC is working with the Budget Office; it will come out in mid-October.
2. Will not be done because revenue cost projections and because it would have to be moved to November because of holidays.
3. CIC staff Merlin Reynolds is currently working with the Budget Office staff to prepare a training package for the CBACs.
4. CIC staff are currently recruiting new members to make appointments in April.

5. The Non-Departmental CBACs be staffed by either the Office of Citizen Involvement or the County Chair's Office.

6. Non-Departmental programs provide copies of their budgets to the Non-Departmental CBAC when they submit their budgets to the Budget Office.

7. The County, during the 1988-89 fiscal year, implement a process to dispose of foreclosure property.

8. A review of the hiring and promotion of minority and women employees be conducted and a clear statement of planned improvements be included in the Affirmative Action Plan.

9. A comprehensive assessment of all intergovernmental agreements be conducted to determine if they are still applicable and if they meet the future needs of the County.

5. Office of Citizen Involvement and the Chair have agreed that the Office of Citizen Involvement will provide staff to this CBAC this year on a trial basis.

6. Budget Office will send copies to Non-Departmental CBAC as soon as they receive them and will notify when they will be turned in late.

7. The County hasn't been complying with the legal requirement. It has been placed in Facilities Management in hopes of administering the program more effectively.

8. Unknown

9. Unknown

NEEDS REPORT PROCESS

Nadine Johnston, Administrative Assistant
June - September, 1988

The Needs Report Process expanded this year and we expect further expansion in the near future.

We received seventeen Needs Report Forms between June, 1988, and September 30, 1988, with fourteen departmental responses and only three no-responses. These forms came to us from neighborhood associations, coalitions, telephone calls and individuals who did not proceed through an existing citizen organization or group.

Problem areas ran the spectrum from youth programs to senior centers but also included animal control, Multnomah County Library, care facilities, mental health, drug dealer/house, homeless, emergency funds for moving and garbage.

We established a contact person from each department so that we could better track the needs reports and provide less likelihood of lost responses. We are also using a follow-up letter when we haven't received a response within a three week period.

Public Service Announcements were sent out to the media informing them of this process. We received responses from this effort and expect future responses to be even greater.

The CIC is scheduled to appear on Town Hall sometime in January, 1989, speaking to the subject of "CITIZEN APATHY".

New Names and organizations have been added to our need report contact list for this new year and we are open to any new and helpful suggestions from interested and concerned people.

We have a list of future projections we would like to fulfill this year. These are contained in our year-end report available from the CIC Office.

OTHER PROJECTS

Office of Citizen Involvement
Merlin Reynolds, Executive Director

Last year saw the Multnomah County Citizen Involvement Committee becoming more active in seeking to attain its mission: To advocate for timely citizen involvement in Multnomah County government and facilitate communication between citizens and County government. There were a number of projects that the Citizen Involvement Committee (CIC) took on in 1987-88 that were not assigned to a CIC Committee but were acted upon by the CIC and staff. The review and recommendations of the Committee concerning the siting process of the new County jail facility at the Inverness site led to meetings between the County Chair and the Citizen Involvement Committee (CIC) concerning future citizen participation in County policy development.

The committee's commitment of providing useful information about County government for citizens has led to the continued publication of the County Service Directory and the update that will be available in late December. The Citizen Involvement Handbook is also in the process of being updated and will be available in January. Beverly Duckett, a volunteer, has been working with County department personnel and CIC members to update both of these important publications. We are considering combining the Citizen Involvement Handbook and the County Service Directory for publication in late 1989.

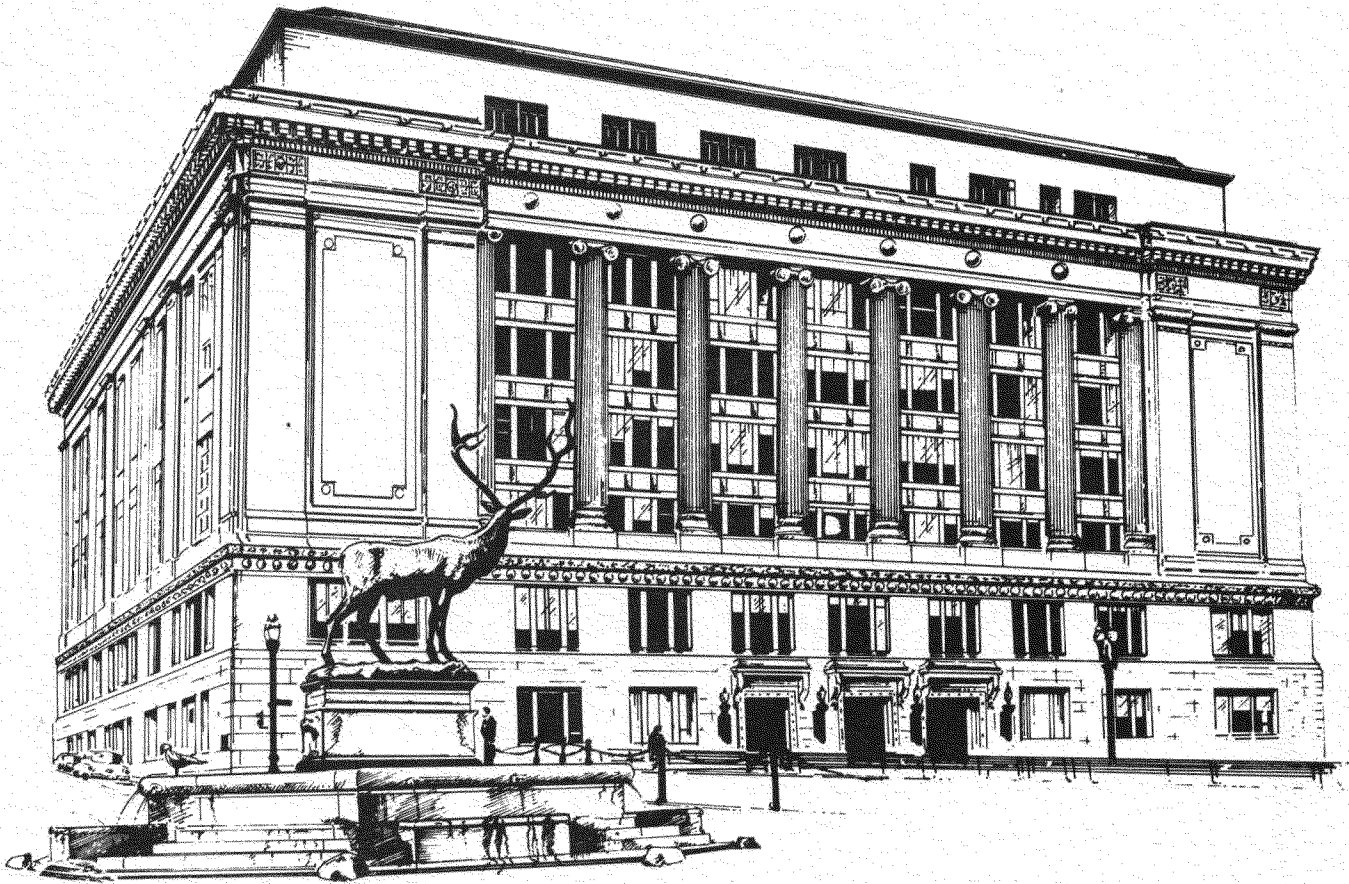
The CIC and staff were involved in discussions with mid-county activists, both for and against annexation, and City of Portland and County officials concerning a consensus seeking meeting on the future of mid-county community groups. A great deal of energy was expended on this effort and, in the end, a meeting was not held. Informal meetings with activists and officials were arranged and facilitated. Our efforts and the informal meetings helped to bring about a much different environment for the mid-county community groups than existed when we started this project.

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The Committee has also been working with newly forming Neighborhood Associations in the Skyline and Pleasant Home unincorporated areas of the County, and with city staff and citizens in the City of Gresham who are forming Neighborhood Associations. All this organizing has prompted the CIC to begin to develop a recognition policy for newly formed neighborhood associations. The CIC will review a draft policy at the first meeting of the new year.

Multnomah County Citizen Involvement Committee



Annual Report
December 1988



OVERVIEW

John Miller, Chair
Citizen Involvement Committee

After chairs changed at our annual meeting in May, the committees continued on to finish their work while the new chair and staff focused on the annual workshop in September. The final reports from those committees follow in this report.

At the workshop the CIC reviewed and revised our goals:

1. Inform citizens concerning citizen involvement in Multnomah County.
2. Advocate for meaningful and timely involvement opportunities for citizens in Multnomah County government.
3. Integrate citizens into decision making processes of Multnomah County government.

Before the workshop, members were encouraged to submit proposals for projects. The workshop was used to select projects on the merit of meeting our goals. The following projects were selected and populated at the workshop:

County Conduit & Issues Roundtable: "To provide information and opinion that will help citizens be involved in decision making."

CCBAC Central CBAC and CBACs: "To involve citizens early in the county budget process when they will have an opportunity for significant input in how the county spends the public's money."

Strategic Planning: "To involve citizens in the development of a vision for the future of Multnomah County and the development of a county strategic plan".

Inter-County Citizen Involvement Conference: "To share information among neighboring county citizen involvement groups."

Computer Bulletin Board: "To explore an application of new technology to the citizen involvement process. To increase communication between CIC members, area boards, CIC office staff, and the public."

Executive Committee members during 87-88...

Members during 1987-88 were: Mark Williams, Chair; Laverne Moore, Vice-Chair; Keith Loeffler, Treasurer and John Miller, Secretary.

Current members are: John Miller, Chair; Dennis Payne, Vice-Chair; Sara Lamb, Treasurer; and Robert Luce, Secretary; with Merlin Reynolds, staffing.

The Executive Committee continues to work to fill CIC vacancies, review progress on all CIC projects, and set the CIC agenda.

The Executive Committee is currently discussing amending the CIC ordinance to include citizen involvement in Land use by incorporating it into the CIC ordinance.

PARTICIPATION COMMITTEE

Dick Levy, Chair

The Participation Committee members were Marlene Byrne, Bob Luce, Richard Levy, Christine Hill, and was staffed by Gloria Fisher.

The committee provided leadership in four major areas:

1. September 1987, "Know Your County Month."

The Committee worked closely with staff from various parts of the County as well as with all of our CIC members to provide volunteers and printed materials for the week-long experimental program designed to celebrate the County and the significant role which it plays for many of us.

An outgrowth of this activity was the Committee sponsorship in providing a one sheet summary available for everyone who testifies before the Board of County Commissioners and the Planning Commission. We felt that this would be of assistance to county residents in better understanding the process and in making them feel more comfortable in appearing before governmental bodies.

2. January through March 1988, "Budget Forums."

The series of Budget Forums which the Committee sponsored, planned, and coordinated was perhaps the biggest disappointment for all of us. However, about 80 county residents did show up at the series of four Forums. This series has been recommended for dissolution as a result of the lack of citizen enthusiasm and the lack of time/cost effectiveness for the CIC.

3. January through April 1988, "Information Sharing Project."

This project owes much of its success to good coordination by the staff and the general supportiveness of all CIC members in inviting Presidents from District Coalitions and some specific community groups to attend and share with us their concerns about community and county-related issues. All involved recommended that this activity be continued and expanded to include citizen participation activities in other parts of the County.

4. May 1988, "Volunteer Appreciation Day."

Committee members invited all County departments to submit the names of volunteers whom they felt needed to receive special recognition for their community service during the past year. This Committee then assisted the Board of County Commissioners in completing plans for recognizing those whose service was felt to be most worthy for "special recognition." We aided in coordinating invitations, doing the evaluations and hosting the awards reception in their honor. We believe that this needs to be an annual - event and the CIC will be glad to continue sponsoring this important event.

PROTOCOL COMMITTEE
Ben Butzien, Chair

The Protocol Committee for 1987-1988 was comprised of Ben Butzien, Sara Lamb, Martha White and Chuck Herndon. We met monthly with additional sub-committee meetings involving same members.

This committee served the CIC by developing and promoting the following objectives:

- Designate liaisons with county departments.
- Develop and conduct a plenary session with County Commissioners.
- Request early notification of citizen groups in policy processes.
- Identify County staff resources.
- Promote expanded role for CBACs.
- Develop protocol for CIC processing of citizen requests
- Establish quarterly meetings with BCC and department.

Our accomplishments were:

- Reviewed and updated CIC Policies and Procedures
- Developed policy for handling citizen requests to CIC.
- Began discussion of CBAC involvement in department planning processes with CIC members acting as liaisons.
- Introduced discussion of citizen involvement in the Strategic Planning process.

The CIC assigned the Protocol Committee the task of investigating the process resulting in the jail levy and site selection as requested by a Community Group. A report was prepared and circulated to the Board of County Commissioners.

INFORMATION COMMITTEE
Frank Jenkins, Chair

Members of the Information Committee were: Scott Holzem, Larry Foltz, and Jean Ridings. A goal of the Citizen Involvement Committee for this year was to develop an innovative public relations program.

The objectives were as follows:

- A. Produce Citizen Involvement Handbook and County Service Directory, with expanded distribution
- B. Produce and circulate County Conduit in December, March, June and September
- C. Develop media plan - general discussion
- D. Develop CIC display - research development
- E. County Fair booth and public transportation - consult with Fair Advisory Board about public transportation

The County Conduit, Service Directory and Citizen Involvement Handbook have been the first priority. Objectives C, D, and E have been addressed somewhat but to no resolution.

The most impressive accomplishment was the new approach to the County Conduit. Credit for the idea and the staff assistance goes to Gloria Fisher. The first issue of 10,000 copy distribution came in July and the Conduit will appear every other month (6 times per year rather than four times per year.)

On August 28th, a cable version of the Conduit was cablecast and the cable version will continue every other month, the month after each Conduit publication. The Information Committee and other volunteers will host and staff the program.

The Citizen Involvement Handbook revisions for the '88 edition are underway and the County Service Directory was completed earlier.

As Chair of this committee, I was extremely pleased with the role the CIC played in Multnomah County and the way the Information Committee helped expand the opportunities for citizens to be involved and participate in County government.

CENTRAL CITIZEN BUDGET ADVISORY COMMITTEE (C-CBAC)

Dennis Payne, Chair

The Central-CBAC is made up of Citizen Involvement Committee (CIC) members from each of the eight existing CBACs plus a representative from the City of Portland Budget Advisory Committee program. For last year's budget our members were: Dennis Payne, Chair; Lianne Thompson, at-large; Ann Porter, DHS; George Muir, DJS; Ben Butzien, DES; Marlene Byrne, DGS; John Miller, Sheriff; LaVerne Moore, Auditor; Mike Sullivan, District Attorney; Jim Worthington, Non-Departmental. The committee was staffed by Merlin Reynolds.

The major activities of the Central-CBAC were: recruiting and placing CBAC members; developing and holding an orientation session; improving CBAC coordination; making CBAC reports to the County Chair and Board of County Commissioners; monitoring the County Finance Committee; amending the CBAC ordinance; assisting with the development of the dedicated fund review resolution.

The Central-CBAC had some major accomplishments in its first year of existence: successfully worked with most departments and CBACs to complete budget reviews; established a working relationship with the Board of County Commissioners and the Chair concerning the budget review process; obtained Board of County Commissioners (BCC) approval of amendments to the CBAC ordinance; achieved BCC support and passage of the Dedicated Fund Review Resolution that allows for C-CBAC review.

The Central-CBAC made nine recommendations to the BCC as part of the 1988-89 budget process. The following is an update on those recommendations and what action has been taken.

Recommendation

1. The CBAC process be included in next year's general description of the County Budget Process.
2. The budget time-line be changed to allow for a month review period after the County Chair presents her budget.
3. More intensive training be provided CBAC members concerning program budgeting.
4. CBAC members be carefully selected to insure they will have time and motivation to actively participate.

Action

1. The CIC is working with the Budget Office; it will come out in mid-October.
2. Will not be done because revenue cost projections and because it would have to be moved to November because of holidays.
3. CIC staff Merlin Reynolds is currently working with the Budget Office staff to prepare a training package for the CBACs.
4. CIC staff are currently recruiting new members to make appointments in April.

Aug.

5. The Non-Departmental CBACs be staffed by either the Office of Citizen Involvement or the County Chair's Office.

6. Non-Departmental programs provide copies of their budgets to the Non-Departmental CBAC when they submit their budgets to the Budget Office.

7. The County, during the 1988-89 fiscal year, implement a process to dispose of foreclosure property.

8. A review of the hiring and promotion of minority and women employees be conducted and a clear statement of planned improvements be included in the Affirmative Action Plan.

9. A comprehensive assessment of all intergovernmental agreements be conducted to determine if they are still applicable and if they meet the future needs of the County.

5. Office of Citizen Involvement and the Chair have agreed that the Office of Citizen Involvement will provide staff to this CBAC this year on a trial basis.

6. Budget Office will send copies to Non-Departmental CBAC as soon as they receive them and will notify when they will be turned in late.

7. The County hasn't been complying with the legal requirement. It has been placed in Facilities Management in hopes of administering the program more effectively.

8. Unknown

9. Unknown

NEEDS REPORT PROCESS

Nadine Johnston, Administrative Assistant

June - September, 1988

The Needs Report Process expanded this year and we expect further expansion in the near future.

We received seventeen Needs Report Forms between June, 1988, and September 30, 1988, with fourteen departmental responses and only three no-responses. These forms came to us from neighborhood associations, coalitions, telephone calls and individuals who did not proceed through an existing citizen organization or group.

Problem areas ran the spectrum from youth programs to senior centers but also included animal control, Multnomah County Library, care facilities, mental health, drug dealer/house, homeless, emergency funds for moving and garbage.

We established a contact person from each department so that we could better track the needs reports and provide less likelihood of lost responses. We are also using a follow-up letter when we haven't received a response within a three week period.

Public Service Announcements were sent out to the media informing them of this process. We received responses from this effort and expect future responses to be even greater.

The CIC is scheduled to appear on Town Hall sometime in January, 1989, speaking to the subject of "CITIZEN APATHY".

New Names and organizations have been added to our need report contact list for this new year and we are open to any new and helpful suggestions from interested and concerned people.

We have a list of future projections we would like to fulfill this year. These are contained in our year-end report available from the CIC Office.

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