

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
RICK BAUMAN •	District 3	• 248-5217
	District 4	• 248-5213
JANE McGARVIN •	Clerk	• 248-3277

AGENDA OF
MEETINGS OF THE MULTNOMAH COUNTY BOARD OF COMMISSIONERS
FOR THE WEEK OF
July 10 - 14, 1989

Tuesday, July 11, 1989 - 9:30 AM - Planning Items . . . Page 2

Tuesday, July 11, 1989 - 1:30 PM - Informal Meeting . . Page 3

Wednesday, July 12, 1989 - 8:00 AM - Policy Development Committee
- World Trade Center II, Riverview Room, 121 SW Salmon
Agenda: DES considerations, CIC visioning report, planning
structure for the new committee

Thursday, July 13, 1989 - 9:30 AM - Formal. Page 4

Tuesday, July 11, 1989 - 9:30 AM

Multnomah County Courthouse, Room 602

Decisions of the Planning Commission of June 12, 1989, reported to the Board for acknowledgement by the County Chair:

- CS 6-89 Deny application as presented; approve, subject to conditions, change in zone designation from SC, HR-1 and MR-3, to SC, C-S, community service, HR-1, C-S, community service and MR-3, C-S, community service, all for the northerly 585 feet of the described property to allow its development with a governmental office complex, all for property at 12710 SE Division Street
- LD 4-89 Approve, subject to conditions, requested two-lot land division, to create lots of 283,270 and 115,500 square feet in an MR-4 zoning district, for property located at 20255 NE Halsey Street
- C 2-89 Deny request to change name of street segments known as NE 215th Avenue, NE Shaver Street and NE 216th Avenue to NE Lachenvier Circle; Approve change of name to NE Lachenvier Lane for two of three street segments noted, namely NE 215th Avenue and NE Shaver Street. Retain NE 216th Avenue as shown; Decision to approve street name to NE Lachenvier Lane for NE 215th Avenue and NE Shaver Street does not preclude change to NE Lachenvier Circle in the future (including NE 216th Avenue) if conditions change which qualifies the three street segments to be called "Circle"

OTHER ITEMS FOR BOARD REVIEW

- RB 1-89 Resolution in the Matter of Issuance of an Industrial Development Revenue Bond State of Oregon to Imperial Manufacturing Company for property located at NE 194th Avenue and NE San Rafael Street
- HV 1-89 Major and Minor Variances at 13808 SE Raymond - This item was before the Board on June 6, 1989, and continued to this date at the request of the applicant.

Tuesday, July 11, 1989 - 1:30 PM

Multnomah County Courthouse, Room 602

INFORMAL

1. Informal Review of Bids and Requests for Proposals:
 - a) Broadway/Burnside Bridges Mechanical and Electrical Renovations
2. Work Session, Library - Mike Dolan
3. Informal Review of Formal Agenda of July 13

PUBLIC TESTIMONY WILL NOT BE TAKEN AT INFORMAL MEETINGS

Thursday, July 13, 1989, 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:
Package Store, Change of Ownership: Troy's Seafood Markets, 11130 SE Powell Blvd.; David's Market (Plaid Pantry #85), 12217 SE Foster

DEPARTMENT OF ENVIRONMENTAL SERVICES

- C-2 Order accepting deed for public road from Ethel A. Flahaut on Tumalt Road
- C-3 Order accepting a Grant of Easement from Gerald L. Cogan, Zadell Cogan and Eugene C. Skourtes for road purposes on SE 133rd Avenue

REGULAR AGENDA

BOARD OF COUNTY COMMISSIONERS

- R-4 In the matter of the appointment of Michael Schultz, Mary Schick and Carol Canning to the Citizen Involvement Committee, term expiring April, 1991
- R-5 In the matter of the appointment of Sally Speer and Robert J. Tepper to the Community Corrections Advisory Committee, term expiring July, 1990

DEPARTMENT OF JUSTICE SERVICES

- R-6 In the matter of ratification of an intergovernmental agreement between the City of Portland and Multnomah County Community Corrections, for the City to provide funds (not to exceed \$35,000) and transferring position of Community Project Crew Leader, for the supervision of community service work crews and projects as part of the Community Corrections Alternative Community Service Program

ORDINANCES - DEPARTMENT OF ENVIRONMENTAL SERVICES

- R-7 First Reading - An Ordinance amending Multnomah County Code Chapter 9.10 (Building Permit Fees)
- R-8 First Reading - An Ordinance amending Multnomah County Code Chapter 9.20 (Electrical Permit Fees)
- R-9 First Reading - An Ordinance amending Multnomah County Code Chapter 9.30 (Plumbing Permit Fees)

PUBLIC CONTRACT REVIEW BOARD

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

- R-10 Order in the Matter of Exempting From Public Bidding of an Accugraph Computer Aided Design and Drafting Workstation from Accugraph Corporation

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

DEPARTMENT OF HUMAN SERVICES

- R-11 In the matter of ratification of an intergovernmental agreement with State Community Services for various community/emergency services and weatherization services funds in the amount of \$1,732,492 for use during various period beginning July 1, 1989 on a countywide basis (Continued from July 6)

BOARD OF COUNTY COMMISSIONERS

- R-12 Order Upholding Decision of Merit System Civil Service Commission, in the Matter of the Appeal of Officer Thomas H. Wayne regarding promotion to Corrections Sergeant

ORDINANCES - NONDEPARTMENTAL

- R-13 Second Reading - An Ordinance amending Multnomah County Code 2.30.300, relating to the Department of Justice Services (relating to the functions of the Department of Justice Services)
- R-14 Second Reading - An Ordinance amending Multnomah County Code Chapter 2.20, relating to Justice Services (Creates Office of Justice Planning & Budget)
- R-15 Second Reading - An Ordinance amending Multnomah County Code 2.30.010, relating to definitions

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 PM, Channel 27 for Rogers Multnomah East subscribers
Saturday 12:00 PM, Channel 21 for East Portland and East County subscribers

0500C.5-10

SUPPLEMENTAL AGENDA

TUESDAY, JULY 11, 1989, 9:30 am

Request unanimous consent to consider the following matter:

- 6 Resolution in the Matter of Multnomah County's Involvement in the State's Process for Issuing Industrial Development Revenue Bonds to Finance Trucking of Garbage from Portland to Arlington

TUESDAY, JULY 11, 1989 - 1:30 PM

Request Unanimous Consent to consider the following matter:

- 7 In the matter of the appointment of Karen F. Hunt to the Planning Commission, term expiring March, 1993

500C.11

SUPPLEMENTAL AGENDA

Thursday, July 13, 1989

Request unanimous consent to consider the following matters:

- R-16 Budget Modification DES #1 to transfer \$59,000 from General Fund Contingency to Facilities Management - CIP for architectural fees and interim repairs on the Library roof
- R-17 In the matter of Notice of Intent to apply for a \$3.3 million grant from the Oregon Marine Board (State Share: \$2,970,000 - County Share: \$330,000) by Parks Service to provide for construction of a boater access facility on the Columbia River as part of the Blue Lake Master Plan.
Grant approval due by July 15, 1989

500C.12

MINUTES
MULTNOMAH COUNTY BOARD OF COMMISSIONERS
JULY 11, 1989 MEETING

Chair Gladys McCoy convened the meeting at 9:30 a.m., with Vice-Chair Pauline Anderson, Commissioners Gretchen Kafoury, Rick Bauman and Sharron Kelley present.

Chair McCoy welcomed Commissioner Kelley to the Board.

1. CS 6-89 Deny application as presented;
Approve, subject to conditions, change in zone designation from SC, HR-1 and MR3, to SC, C-S, community service, HR-1, C-S, community service and MR-3, C-S, community service, all for the northerly 585 feet of the described property to allow its development with a governmental office complex, all for property at 12710 SE Division Street

Chair McCoy acknowledged the foregoing June 12, 1989 Planning Commission Decision.

2. LD 4-89 Approve, subject to conditions, requested two-lot land division, to create lots of 283,270 and 115,500 square feet in an MR-4 zoning district, for property located at 20255 NE Halsey Street

Chair McCoy advised an appeal was filed in this matter and suggested August 8 as a possible hearing date due to lack of a quorum on August 1.

Senior Planner Bob Hall reported staff recommends the matter be heard on the record on August 8.

UPON MOTION of Commissioner Kafoury, seconded by Commissioner Anderson, it was UNANIMOUSLY ORDERED that an on the record hearing on item LD 4-89 be scheduled for 9:30 a.m., Tuesday, August 8, 1989, with testimony limited to 10 minutes per side.

3. C 2-89 Deny request to change name of street segments known as NE 215th Avenue, NE Shaver Street and NE 216th Avenue to NE Lachenvue Circle;

Approve change of name to NE Lachenvue Lane for two of the three street segments noted, namely NE 215th Avenue and NE Shaver Street. Retain NE 216th Avenue as shown;

Decision to approve street name to NE Lachenvue Lane for NE 215th Avenue and NE Shaver Street does not preclude change to NE Lachenvue Circle in the future (including NE 216th Avenue) if conditions change which qualifies the three street segments to be called "Circle"

UPON MOTION of Commissioner Kafoury, seconded by Commissioner Anderson, it was UNANIMOUSLY ORDERED that item C 2-89 be continued to August 8, 1989.

4. RB 1-89 RESOLUTION in the Matter of an Issuance of an Industrial Development Revenue Bond State of Oregon to Imperial Manufacturing Company

UPON MOTION of Commissioner Kafoury, seconded by Commissioner Anderson, it was UNANIMOUSLY ORDERED that item RB 1-89 be continued to July 20, 1989.

5. HV 1-89 Review the Decision of the Planning Commission of February 13, 1989, approving requested minor variance of front yard setback and denying requested major variance of side yard setback for property located at 13808 SE Raymond Street. (Continued from June 6, 1989)

Mr. Hall reported this matter was continued several times while the parties negotiated a settlement which has now been reached, and all documentation has been completed and staff recommends the Board affirm the Planning Commission Decision in order to close the case.

UPON MOTION of Commissioner Kafoury, seconded by Commissioner Bauman, it was UNANIMOUSLY ORDERED that the findings, conditions and conclusions of item HV 1-89 be adopted and implemented.

UPON MOTION of Commissioner Anderson, seconded by Commissioner Bauman, on a roll call vote, CONSIDERATION of the following item was UNANIMOUSLY APPROVED.

6. RESOLUTION in the Matter of Multnomah County's Involvement in the State's Process for Issuing Industrial Development Revenue Bonds to Finance Trucking of Garbage from Portland to Arlington

UPON MOTION of Commissioner Anderson, seconded by Commissioner Bauman, on a roll call vote, item 6 FAILED, with Commissioner Kelley voting no.

UPON motion of Commissioner Anderson, seconded by Commissioner Bauman, it was ORDERED that item 6 be continued.

Attorney Larry Epstein appeared and submitted a letter asking the Board to expedite appointing County Planning Commission members to assure a quorum for hearing land use issues.

The Board recessed until 1:30 p.m.

Commissioner Anderson moved and Commissioner Bauman seconded, for reconsideration of item 6.

Commissioner Kelley advised she reviewed the proposed resolution with Commissioner Anderson, County Counsel and Metro and feels the issues are too complex for Board action at this time, stating she would not support the proposed resolution and suggesting that her staff work with Commissioner Anderson's staff to send a letter to the Economic Development Department advising them of the County's criteria in an effort to assure County issues are considered in the bond application process.

In response to a question of Commissioner Anderson, County Counsel Larry Kressel advised the Board could request that the State use County criteria in addition to its criteria.

Commissioner Bauman suggested that a Board member or members go to Salem on Thursday to ask the State to grant status to the County and inform them that the resolution would be considered for formal Board action on July 20.

Commissioner Anderson advised she would place the resolution on the Board's July 20 agenda if it did not receive unanimous approval today.

On a roll call vote, item 6 FAILED with Commissioners Anderson, Kafoury, Bauman voting aye and Commissioners McCoy and Kelley voting no.

UPON MOTION of Commissioner Kafoury, seconded by Commissioner Kelley, on a roll call vote, CONSIDERATION of the following item was UNANIMOUSLY APPROVED.

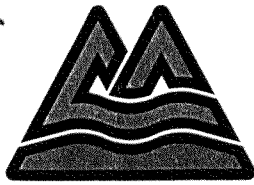
7. In the matter of the appointment of Karen F. Hunt to the Planning Commission, term expiring March, 1993.

UPON MOTION of Commissioner Anderson, seconded by Commissioner Bauman, on a roll call vote, item 7 was UNANIMOUSLY APPROVED.

There being no further business, the meeting was adjourned.

OFFICE OF THE BOARD CLERK
for MULTNOMAH COUNTY, OREGON

BY REBORAH C. ROGERS



MULTNOMAH COUNTY OREGON

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POLLY CASTERLINE •	District 4 •	248-5213
JANE McGARVIN •	Clerk •	248-3277

BOARD OF COUNTY COMMISSIONERS

Tuesday, July 11, 1989

9:30 a.m., Room 602

AGENDA

1989 JUL - 8 AM 11:14
MULTNOMAH COUNTY
OREGON
BOARD OF
COUNTY COMMISSIONERS

The following Decisions are reported to the Board for acknowledgement by the Presiding Officer:

CS 6-89 **Deny** application as presented;

Approve, subject to conditions, change in zone designation from SC, HR-1 and MR3, to SC, C-S, community service, HR-1, C-S, community service and MR-3, C-S, community service, all for the northerly 585 feet of the described property to allow its development with a governmental office complex, all for property at **12710 SE Division Street**.

LD 4-89 **Approve, subject to conditions**, requested two-lot land division; to create lots of 283,270 and 115,500 square feet in an MR-4 zoning district, for property located at **20255 NE Halsey Street**.

Continued

C 2-89 **Deny** request to change name of street segments known as NE 215th Avenue, NE Shaver Street and NE 216th Avenue to NE Lachenview Circle;

Approve change of name to NE Lachenview Lane for two of the three street segments noted, namely NE 2125th Avenue and NE Shaver Street. Retain NE 216th Avenue as shown;

Decision to approve street name change to NE Lachenview Lane for NE 215th Avenue and NE Shaver Street does not preclude change to NE Lachenview Circle in the future (including NE 216th Avenue) if conditions change which qualifies the three street segments to be called "Circle".

Other Items for Board Review

RB 1-89 **Resolution**

In the Matter of Issuance of an Industrial Development Revenue Bond State of Oregon to Imperial Manufacturing Company for property located at NE 194th Avenue and NE SanRafael Street.

HV 1-89 **13808 SE Raymond Street**

Major and Minor Variances

This item was before the Board on June 6, 1989 and continued to this date at the request of the applicant.

C 2-89 **Deny** request to change name of street segments known as NE 215th Avenue, NE Shaver Street and NE 216th Avenue to NE Lachenview Circle;

Approve change of name to NE Lachenview Lane for two of the three street segments noted, namely NE 215th Avenue and NE Shaver Street. Retain NE 216th Avenue as shown;

Decision to approve street name change to NE Lachenview Lane for NE 215th Avenue and NE Shaver Street does not preclude change to NE Lachenview Circle in the future (including NE 216th Avenue) if conditions change which qualifies the three street segments to be called "Circle".

Other Items for Board Review

RB 1-89 Resolution

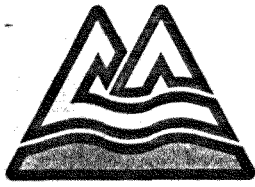
In the Matter of Issuance of an Industrial Development Revenue Bond State of Oregon to Imperial Manufacturing Company for property located at NE 194th Avenue and NE SanRafael Street.

HV 1-89 13808 SE Raymond Street

Review the Decision of the Planning Commission of February 13, 1989, approving requested minor variance of front yard setback and denying requested major variance of side yard setback for property located at **13808 SE Raymond Street**.

This item was before the Board on April 4, 1989 and June 6, 1989 and continued to this date at the request of the applicant's attorney, stating that a solution was not reached regarding the setback for the property. However, in order to protect both parties, he requested the Board continue the matter which would allow preparation and signature completion for all documents.

All documentation in this matter has been completed and now the Board should take an action to affirm the Planning Commission Decision of February 13, 1989.



MULTNOMAH COUNTY OREGON

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SHARRON KELLEY • DISTRICT 4 • 248-5213
JANE McGARVIN • Clerk • 248-3277

July 11, 1989

Ms. Lorna Stickel, Planning Director
Division of Planning & Development
2115 SE Morrison
Portland, OR

Dear Ms. Stickel:

Be it remembered, that at a meeting of the Board of County Commissioners held July 11, 1989, the following action was taken:.

In the matter of the decision of the Planning)
Commission of June 12, 1989, Case CS 6-89)

There being no Notice of Review before the Board for the above-entitled matters, and the Board not wanting to review the matters on its own motion, the Chair acknowledged receipt of the decisions.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

By Jane McGarvin
Jane McGarvin
Clerk of the Board

jm
cc: County Engineering
Assessment & Taxation -



DEPARTMENT OF ENVIRONMENTAL SERVICES
DIVISION OF PLANNING AND DEVELOPMENT
2115 SE MORRISON STREET
PORTLAND, OREGON 97214 (503) 248-3043

Decision

This Decision consists of Conditions, Findings of Fact and Conclusions.

CS 6-89

Community Service Request

Applicant requests approval of a Community Service for this property to allow its development with a governmental office complex plus attendant parking areas.

Location: 12710 SE Division Street

Legal Description: Tax Lot '141', Section 11, T1S, R2E
1988 Assessor's Map

Site Size: 3.85 acres

Size Requested: Same

Property Owner: Reuben Lenske
7315 SE 82nd Avenue, 97266

Applicant: SERA Architects, PC
123 NW Second Avenue, 97209

Comprehensive Plan: Urban Strip Conversion and High and Medium Density Residential

Present Zoning: SC, HR-1 and MR-3

Sponsor's Proposal: SC, HR-1 and MR-3, CS (Community Service for governmental office)

PLANNING COMMISSION

DECISION: DENY application as presented, but APPROVE, subject to conditions, Community Service designation of the northerly 585 feet of the property described above to allow its development with a governmental office complex, based on the following Findings and Conclusions.

June 12, 1989
CS 6-89

Shading indicates subject property

HR-2

HR-2

So

NC

SC

MR-4

HR-1

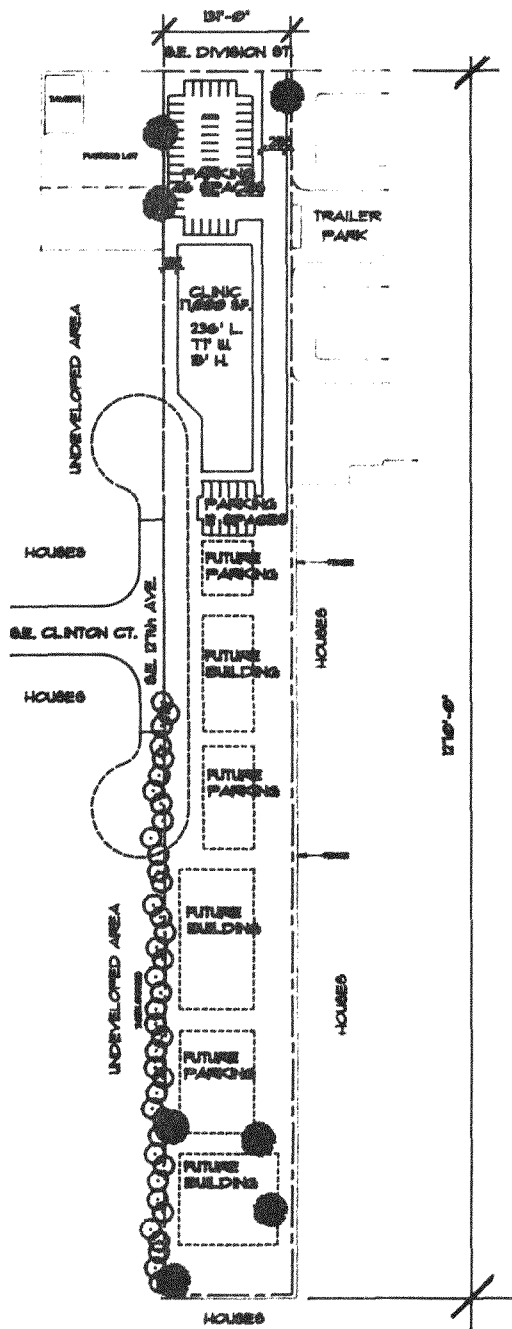
MR-3

LR-5

12-5

LR

LR-7 C8



MULTNOMAH COUNTY
HEALTH CLINIC
MID-COUNTY



SITE DIAGRAM



MULTNOMAH COUNTY
DIVISION OF LAND USE PLANNING

EXHIBIT No. 1

CASE No. 056-89

RECEIVED 5/5/89

Conditions:

1. Approval shall apply only to those portions of the property designated Strip Conversion and Urban High Density Residential (the northerly 585 feet).
2. Applicant shall satisfy all applicable requirements of Engineering Services regarding access to and improvements of SE Division Street.
3. All site access shall be limited to SE Division Street only. The western border of the property shall be fenced to insure that no public, employee or delivery vehicular access is allowed from SE Clinton Court or SE 127th Avenue. Emergency access may be allowed from those streets if required by the fire department.
4. Applicant shall dedicate and improve that portion of SE 127th Avenue from the southerly end of SE Clinton Court northerly as depicted on Future Street Plan dated May, 1989.
5. No building on this site shall exceed one story in height, respecting the developed character of the surrounding neighborhood.

Findings of Fact:

1. **Applicant's Proposal:** Applicant requests Community Service designation for approximately 3.85 acres to be utilized as a governmental office complex. The site is proposed to be developed initially with a one story, 17,000 square foot building to be located on the northern portion of the property. A parking area for 70 cars is also proposed. Future plans call for additional buildings and parking areas to be constructed on the southern portion of the site.
2. **Ordinance Considerations:** The burden is on the applicant for a Community Service designation to demonstrate that the proposal:
 - A. Is consistent with the character of the area;
 - B. Will not adversely affect natural resources;
 - C. Will not conflict with farm or forest uses in the area;
 - D. Will not require public services other than those existing or programmed for the area;
 - E. Will be located outside a big game winter habitat area as defined by the Oregon Department of Fish and Wildlife or that agency has certified that the impacts will be acceptable;
 - F. Will not create hazardous conditions; and
 - G. Will satisfy the applicable policies of the Comprehensive Plan.

Decision**June 12, 1989**

3. **Site and Vicinity Characteristics:** The subject property is located on the south side of SE Division Street between SE 125th and 129th Avenues. The property is quite narrow along the Division Street frontage (131.88') and extends southerly 1,272 feet. The northerly 285 feet is zoned Urban Strip Conversion (SC), the middle 400 feet Urban High Density Residential (HR-1), and the southerly 587 feet Urban Medium Density Residential (MR-3). The northerly approximately 200 feet of the site is used as a recycling center, while the remainder is vacant land with no improvements.

Surrounding land uses along the Division Street frontage include a tavern immediately to the west, and a credit union, shopping complex and restaurant further west; a mobile home court abuts the site to the east. To the south the property is surrounded by single family residences, all of which are one story in height. Across SE Division Street to the north are commercial and office uses.

4. **Analysis of Ordinance Criteria:** Designation of this site as a Community Service for governmental office purposes is found to satisfy the applicable ordinance criteria as follows:

- A. ***Consistency With the Character of the Area:*** The character of the surrounding area along the SE Division Street frontage is a mixture of commercial and business office uses, while that for the southerly approximately 1,000 feet is one story single family residences on lots ranging in size from 8,000 sq.ft. to 1.62 acres, with the majority being nearly 12,000 sq.ft. in area.

The applicant proposes to develop the property in phases with governmental office buildings, starting with a 17,000 sq.ft. one story building near the SE Division Street frontage with accessory parking. Future plans call for additional buildings and parking to be developed progressively to the south. Access to the entire site would be along the easterly edge of the property. A landscape buffer is proposed along those portions of the perimeter that abut single family uses.

The initial building will be used as a public health clinic with a staff of 40 persons serving approximately 30 patients at a time. Clinic hours would be from 9:00 AM to 5:00 PM. Future uses would also be for health care purposes, plus governmental administrative offices which would also operate from 9:00 AM to 5:00 PM.

A 1977 subdivision case (M 73-77) created SE Clinton Court extending easterly from SE 125th Avenue. A future street plan associated with that case showed a future 128th Avenue that extended along approximately two-thirds of this property from south to north, providing access for future development of properties to the southwest. Consequently, a partial dedication and construction of SE 128th Avenue was required as a part of the subdivision approval. This proposal honors that dedication by proposing a northerly and southerly extension to access owner-ships that are incapable of providing their own street frontage, but proposes an alternative method of accessing some of the large, southernmost adjacent owner-ships which have street frontage.

This proposal, with appropriate design considerations, should fit in with the character of the surrounding area. The proposed building is one story which is comparable to surrounding structures. All future buildings should also be limited to a one story height. The proposed driveway on the easterly side of the property will insure that traffic is not generated along SE 125th Avenue and SE Clinton Court. Operating hours of 9:00 AM to 5:00 PM should result in little, if any, conflict with surrounding residential uses. The proposed perimeter buffer will further mitigate any potential impacts. The proposed dedication and improvement of SE 128th Avenue provides the access to adjacent properties envisioned by the 1977 subdivision approval.

- B. ***Affect on Natural Resources:*** No significant natural resources have been identified to exist on this site.
- C. ***Compatibility With Farm and Forest Uses:*** No applicable farm or forest uses will be affected by this proposal since the property is with the urban area.
- D. ***Public Services:*** All public services necessary to support the proposed development are available along the SE Division Street frontage at this time.
- E. ***Big Game Winter Habitat:*** No big game winter habitat will be affected by this proposal as there are none in the surrounding area..
- F. ***Hazardous Conditions:*** No known hazardous conditions are known affect this site.
- G. ***Comprehensive Plan Policies:*** The following Comprehensive Framework Plan Policies are found to apply to this proposal:

(1) *No. 13 – Air, Water and Noise Quality*

There are no aspects of the air or water quality or noise levels that would be affected by development of this property for a governmental office complex. The proposed office use is not a dust or noise generator, and all sanitation disposal must be in accordance with DEQ standards.

(2) *No. 14 – Development Limitations*

There are no identified development limitations that have been identified that would prevent this proposed project.

(3) *No. 16 – Natural Resources*

No natural resources have been identified that would be impacted by the proposed complex.

(4) *No. 31 - Community Facilities and Uses:*

This proposal qualifies as a Major Regional Public Facility. It satisfies the locational criteria of this policy as follows:

(a). Access:

- The vehicular access standard for a Major Regional Public Facility is that the facility should have direct access to a major arterial. SE Division Street is a major arterial.
- Engineering Services indicates the existing roadway capacity of SE Division Street is adequate to handle the increased volume of traffic at this time and that no dangerous intersections or traffic congestion will result from this proposal.

(b) Impact on Adjacent Lands:

- This type of proposal, which requires access to SE Division Street only, allows development of this oddly shaped property in such a manner as to minimize the impact on adjacent properties. Circulation will be entirely on-site and not result in the routing of traffic through local neighborhoods such as along SE Clinton Court.
- Offices will be used during normal working hours (9:00 AM–5:00 PM) only; thereby, minimizing impacts on surrounding residential uses.
- Design Review will insure that the site is adequately buffered from surrounding properties.

(c) Site Characteristics: There are no unique natural features or topographic conditions that have been identified that would preclude the site from being developed as proposed.

(5) *No. 37 - Utilities:*

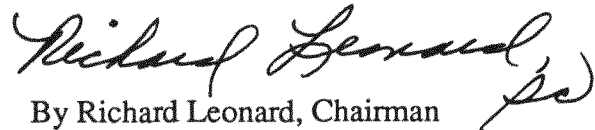
The site is adequately served by telephone, gas and electric facilities along the Division Street frontage. On-site systems for sewer and storm drainage shall be constructed to County standards.

Conclusions:

1. The applicant has demonstrated compliance with the approval criteria for Community Service designation of this 3.85 acre parcel based on Finding No. 4 above.
2. Conditions are necessary to insure compliance with all applicable ordinance provisions.

In the Matter of CS 2-89

Signed June 12, 1989


By Richard Leonard, Chairman

Filed With the Clerk of the Board on June 22, 1989

Appeal to the Board of County Commissioners

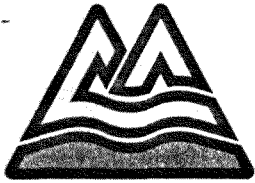
Any person who appears and testifies at the Planning Commission hearing, or who submits written testimony in accord with the requirements on the prior Notice, and objects to their recommended decision, may file a Notice of Review with the Planning Director on or before 4:30 PM. on Monday, July 3, 1989 on the required Notice of Review Form which is available at the Planning and Development Office at 2115 SE Morrison Street.

The Decision on this item will be reported to the Board of County Commissioners for review at 9:30 a.m. on Tuesday, July 11, 1989 in Room 602 of the Multnomah County Courthouse. For further information call the Multnomah County Planning and Development Division at 248-3043.

**Decision
June 12, 1989**

8 of 8

CS 6-89



MULTNOMAH COUNTY OREGON

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July 11, 1989

Ms. Lorna Stickel, Planning Director
Division of Planning & Development
2115 SE Morrison
Portland, OR

Dear Ms. Stickel:

Be it remembered, that at a meeting of the Board of County Commissioners held July 11, 1989, the following action was taken:-

In the matter of the decision of the Planning)
Commission of June 12, 1989, Case LD 4-89,)
Approving, subject to conditions, requested)
two-lot land division, to create lots of 283,270)
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trict, for property located at 20255 NE Halsey)
Street)

Commissioner McCoy indicated there had been an appeal filed in the above-entitled matter, and as there will not be a quorum present on August 1, the normal planning date, the date of August 8 has been suggested.

Bob Hall, Land Development Specialist, said that August 8 has been recommended, with the hearing being held on the record.

Upon motion of Commissioner Kafoury, duly seconded by Commissioner Anderson, it is unanimously

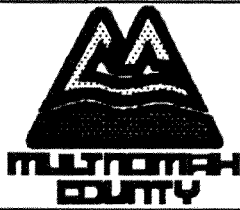
ORDERED that said hearing be held on Tuesday, August 8, 1989, at 9:30 AM in Room 602 of the Multnomah County Courthouse, with the hearing being held On the Record, with argumentation not to exceed 10 minutes per side.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

By Jane McGarvin
Jane McGarvin
Clerk of the Board

jm



**Department of Environmental Services
Division of Planning and Development
2115 S.E. Morrison Street
Portland, Oregon 97214 (503) 248-3043**

Decision

This Decision consists of Conditions of Approval, Findings of Fact and Conclusions

June 12, 1989

LD 4-89, #483 Two-Lot Land Division

Applicant has appealed a Planning Director Decision, approving a two-lot land division to create lots of 283,270 and 115,500 square feet in the MR-4, medium density residential zoning district

Location: 20255 NE Halsey Street

Legal: Tax Lot '89', Section 28, 1N-3E, 1989 Assessor's Map

Site Size: 9.15 Acres

Size Requested: Same

Property Owner: Frank Windust, Jr., Et Al
36039 East Crown Point Highway, Corbett, 97019

Applicant: Keith Eddy
20222 NE Broadway Court, Troutdale, 97060

Comprehensive Plan Medium Density Residential

Zoning: MR-4, Medium Density Residential (Parcel 2)
MR-4, Medium Density Residential,
Planned-Development (Parcel 1)

PLANNING COMMISSION

DECISION: Approve, subject to conditions, requested two-lot land division to create lots of 283,270 and 115,500 square feet in an MR-4 zoning district, based on the following Findings and Conclusions.

LD 4-89

MC 23-64

LR-10

LR-7



Case #: LD 4-89

Location: 20255 N.E. Halsey St.

Scale: 1 inch to 200 feet

Shading indicates subject property

CITY
OF
GRESHAM

LR-10

LR-10

CITY OF GRESHAM

N E 201st AVENUE

DONEGAL

N E BROADWAY

LR-10

MR-4

PD

N E HALSEY ST

N E HALSEY STREET

CITY
OF
FAIRVIEW

CITY OF FAIRVIEW

TENTATIVE MAP PLAN

REGISTERED
PROFESSIONAL
LAND SURVEYOR

Gene A. Leuthold
ORIGON
DAY & 1988
GENE A. LEUTHOLD
475

CERTIFICATE OF SURVEY

IN SECTIONS 28 & 29 T.1N., R.3E

Multnomah County, Oregon

Scale: 1" = 50' Feb. 1989

Reduced

LEGEND

- DENOTES: Set 5/8" x 30" iron rod
- DENOTES: Found iron as indicated

REFERENCE SURVEYS

10514 34730 Plat
DONGAL ESTATES
Co. Rd. No. 2343

ALLAN & LEUTHOLD, INC.
SURVEYING
4827 N. E. 100th AVENUE
PORTLAND, OREGON 97230
503 - 254-0734

NARRATIVE: Purpose of survey to divide a tract into two parcels.
Began survey along the north line of N.E. Halsey St. using found right-of-way (iron) and the fraction corner for control. Measured between iron to verify their location and ran random thru property to set corners and tie the monument at the angle in the N.E. Taylor D.L.C.
Basis of bearings found right of way iron along the north line of N.E. Halsey street.
Bearings from County Road No. 2543
Set 5/8" x 30" iron rods with plastic cap marked L.S. 475.

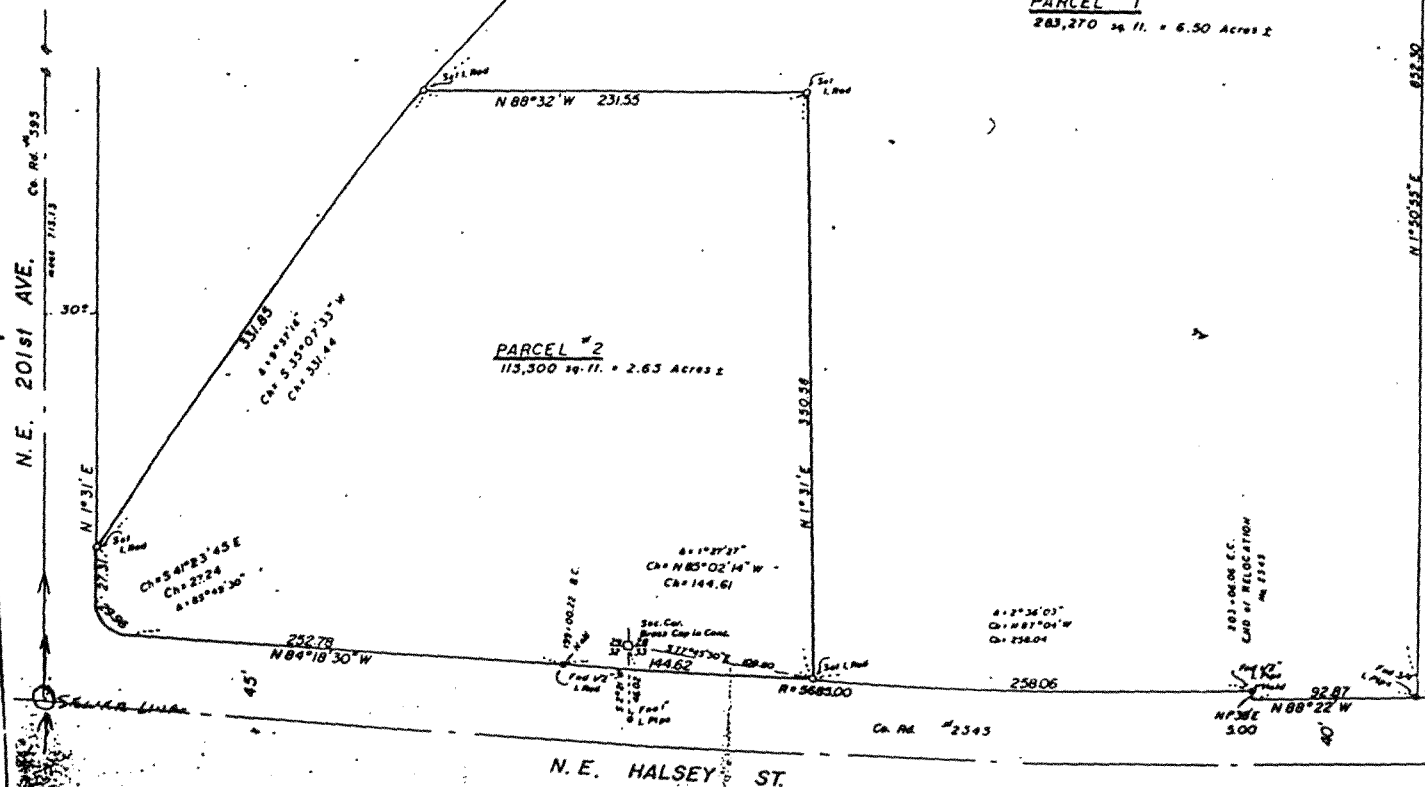
PARCEL #1

283,270 sq. ft. = 6.50 Acres ±

PARCEL #2

113,300 sq. ft. = 2.63 Acres ±

Angle in
Wm. Taylor D.L.C.
Brass Cap Mon.



Conditions of Approval:

1. Within one year of the date of this decision, deliver the final partition map and other required attachments to the Planning and Development Division of the Department of Environmental Services in accordance with MCC 11.145.710. **The enclosed Summary Instruction Sheet contains detailed information regarding the final partition map and the remaining steps for completing the land division.**
2. Prior to recording the final partition map, complete a Statement of Water Rights in accordance with the provisions of Senate Bill 142 as adopted by the 1987 Oregon Legislature (instructions enclosed). Please contact the State Water Resources Department at 378-3066 for additional information.
3. Prior to recording the final partition map, comply with the following Engineering Services Division requirements:
 - A. Dedicate 5-feet of additional right-of-way along N.E. Halsey Street to provide a total of 45 feet from centerline where the subject property abuts said N.E. Halsey Street.
 - B. Dedicate additional right-of-way for a 25-foot radius at the intersection of N.E. 201st Avenue and Halsey street abutting the site.
 - C. Make the following improvements within the public right-of-way of N.E. Halsey Street:
 - (1) Construct a concrete curb 38 feet from centerline along the entire frontage of the subject property.
 - (2) Construct a concrete sidewalk 6 feet wide between the curb and the front property line of the subject property.
 - (3) Grade, rock and pave from the new curb to match the existing paving in N.E. Halsey Street.
 - (4) Construct storm drainage facilities as required.
 - D. Make the following improvements within the public right-of-way of NE 201st Avenue:
 - (1). Construct a concrete curb 22 feet from centerline along the entire frontage of the subejct property.
 - (2). Construct a concrete sidewalk six feet wide between the curb and the front property line of the subject property.
 - (3). Grade, rock and pave ;from the new curb to match the existing pavement in NE 201st Avenue.
 - (4). Construct storm drainage facilities as required.

- E. Contact Dick Howard at 248-3599 for design specifications and information regarding the surety bond to cover the improvements.
- F. Connect each parcel to the public sewer line located at the intersection of NE 201st Avenue and NE Halsey Street adjacent to the subject property in conjunction with issuance of building permits for each parcel.

Findings of Fact:

1. **Applicant's Proposal:** The applicant proposes to divide a vacant parcel containing 398,770 square feet into two smaller parcels. Parcel I would contain 283,270 square feet. Parcel 2 would contain about 115,500 square feet. A proposed 70-unit garden apartment complex on Parcel I received Planning Commission approval on March 13, 1989 (PD 1-89). As a condition of approval for the Planned-Development, the applicant was required to obtain approval of the subject land division.
2. **Site Conditions:** Site conditions as shown on the Tentative Plan Map are as follows:
 - A. **Slope:** The site is relatively flat and contains no slopes exceeding two percent.
 - B. **Street Dedication (NE Halsey Street):** Parcel I abuts NE Halsey Street. The County Engineer has determined that in order to comply with the provisions of MCC 11.60 (the Street Standards Ordinance), it will be necessary for the owner to dedicate five feet of additional right-of-way in NE Halsey Street abutting the site pursuant to Condition 3.A.
 - C. **Street Dedication (NE 201st Avenue/Halsey Street Intersection):** Parcel 2 abuts the intersection of NE 201st Avenue and Halsey Street at its southwesterly corner. The County Engineer has determined that in order to comply with the provisions of MCC 11.60 (the Street Standards Ordinance), it will be necessary for the owner to dedicate additional right-of-way in NE 201st Avenue and Halsey Street to provide a 25-foot radius abutting Parcel 2 pursuant to Condition 3.B.
 - D. **Street Improvements (NE Halsey Street):** NE Halsey Street is not fully improved to County standards abutting Parcel 2. The County Engineer has determined that in order to comply with the provision of MCC 11.60 (the Street Standards Ordinance), it will be necessary for the owner to construct curbs and sidewalks and provide additional paving in NE Halsey Street abutting the subject property pursuant to Condition 3.B.
 - E. **Future Street Improvement (NE 201st Avenue):** NE 201st Avenue is not fully improved to County standards at this time. The County Engineer has determined in order to comply with the provisions of MCC 11.60 (the Street Standards Ordinance), it will be necessary for the owner to construct curbs and sidewalks and provide additional paving in NE 201st Avenue abutting the subject property pursuant to condition 3.D.
3. **Ordinance Considerations:** The applicable Zoning Ordinance criteria (MCC 11.15) are as follows:
 - A. The site is zoned MR-4, urban medium density residential district.

B. The following minimum area and dimensional standards apply per MCC 11.15.2753(G) and (H):

- (1) The minimum front lot line length shall be 20 feet. Both parcels exceed this requirement since Parcel 1 has a front lot line length of approximately 350 feet, and Parcel 2 has a front lot line length of over 27 feet.
 - (2) The minimum lot width at the building line shall be 45 feet for an interior lot and 50 feet for a corner lot. Parcel 1 is an interior lot and exceeds the requirement because it has a width of over 350 feet at the street. Parcel 2 exceeds the requirement for a corner lot because it has a width of approximately 90 feet when measured at a distance 20 feet from the front property line abutting NE 201st Avenue.
 - (3) The minimum yard setbacks shall be 20 feet front, five feet side and 15 feet rear. The garden apartment complex approved under PD 1-89 exceeds these requirements. Any future proposed development for Parcel 2 will be required to meet these yard setback requirements.
4. Water Supply: The Rockwood Water District has verified that public water service is available to the site from an eight-inch line in NE 201st Avenue.
 5. Sanitation: The County Sanitarian has verified that the site can be served by a sanitary sewer located in the intersection of NE 201st Avenue and Halsey Street. Condition 3.F requires both parcels to connect to the sewer at the time of building permit issuance.
 6. The proposed land division is classified as a Type III because it is a minor partition abutting a street which has a centerline to property line width less than one-half width specified for that functional street classification according to the Multnomah County Street Standards Ordinance (MC 11.60). Northeast Halsey Street is classified under the Street Standards Ordinance as an arterial with a total right-of-way of 90 feet. The existing right-of-way width for NE Halsey Street is 85 feet along the easterly 92.87 feet of the subject property

7. Land Division Ordinance Considerations (MCC 11.45):

A. The proposed land division is classified as a Type III for the reasons stated in Finding 6.

B. MCC 11.45.390 lists the approval criteria for a Type III Land Division. The approval authority must find that:

(1) *The Tentative Plan is in accordance with:*

- a) *the applicable elements of the Comprehensive Plan;*
- b) *the applicable Statewide Planning Goals adopted by the Land Conservation and Development commission, until the Comprehensive Plan is acknowledged to be in compliance with said Goals under ORS Chapter 197; and*
- c) *the applicable elements of the Regional Plan adopted under ORS Chapter 197.[MCC*

(2) *Approval will permit development of the remainder of the property under the same ownership, if any, or of adjoining land or of access thereto, in accordance with this and other applicable ordinances.* [MCC 11.45.230(B)].

(3) *The tentative plan complies with the applicable provisions, including the purposes and intent of [the Land Division] chapter.*[MCC 11.45.230(C)].

(4) *... and that the tentative plan complies with the Zoning Ordinance.* (MCC 11.45.390).

C. In response to the above approval criteria for a Type II Land Division, the following findings are given:

(1) **Comprehensive Plan:** Finding 8 indicates that the proposal is in accord with the applicable policies of the Comprehensive Plan. The Multnomah County Comprehensive Plan has been found to be in compliance with Statewide Goals and the Regional Plan by the State Land Conservation and Development Commission.

(2) **Development of Property:** Approval of the land division will create Parcel 1 to accommodate the garden apartment development project previously approved by the Planning Commission and upheld by the Board of County Commissioners on appeal. The right-of-way dedications and street improvements required under Condition 3 will increase the opportunity for Parcels 1 and 2 to be developed in accordance with the Comprehensive Plan, development ordinances, and the approval granted by the Planning Commission and upheld by the Board of County Commissioners on appeal under PD 1-89. Land to the north and east of the site is zoned LR-10, Urban Low Density Residential District. There is no information to indicate that approval of the requested land division will affect the ability to develop that land in accordance with the LR-10 zoning..

(3) **Purposes and Intent of Land Division Ordinance:** Finding 9 indicates that the land division complies with the purposes and intent of the Land Division Ordinance.

(4) **Zoning Ordinance:** Finding 3 indicates that the tentative plan complies with the Zoning Ordinance.

8. **Applicable Comprehensive Plan Policies:** The following Comprehensive Plan Policies are applicable to the proposed land division. The proposal satisfies those policies for the following reasons:

A. As found by the Planning Commission and upheld by the Board of County Commissioners on appeal in the decision approving PD 1-89, the subject property is designated Medium Density Residential by the County's Comprehensive Plan. The approval will allow development of the site with garden apartments consistent with the Medium Density Residential designation.

B. **Policy No. 13, Air, Water, and Noise Quality:** The proposed use for Parcel 1 is a 70-unit garden apartment complex. There will be no more noise generated at the site than would be generated if the apartment complex were built without dividing the property. Public water is

available to the site from the Rockwood Water District. As stated in Finding 5, public sewer is available to the site, and both parcels will be required to connect to the sewer in conjunction with building permits pursuant to Condition 3.F.

- C. **Policy No. 14, Development Limitations:** As stated in Finding 2-A, the site is relatively flat and contains no slopes exceeding 2 percent. The site is not in the 100-year flood plain. As found by the Planning Commission and upheld by the Board of County Commissioners on appeal in the decision approving PD 1-89, no hazards have been identified which would be attributed to the development of the subject property.
- D. **Policy No. 15, Significant Environmental Concerns:** The subject property is not located in the Significant Environmental Concern zone.
- E. **Policy No. 16, Natural Resources:** No significant natural resources have been identified on the subject property, except for some evergreen trees along the property line that are proposed to be saved and incorporated with the site design. .
- F. **Policy No. 19 Community Design:** As required by the Planning Commission and upheld by the Board of County Commissioners on appeal in the approval of PD 1-69, development on Parcel 1 will be subject to the County's Design Review process to assure compliance with this policy.
- G. **Policy No. 22, Energy Conservation:** The development of this property with attached housing will help reduce urban sprawl which is costly in energy use.
- H. **Policy No. 35, Public Transportation:** The nearest Tri-Met service in the area is by line No. 24, Halsey, with the nearest stop located at N.E. 201st Avenue and Halsey Street. Week-day service is at 15-minute intervals during peak hours and at 30-minute intervals during midday hours.
- I. **Policy No. 36, Transportation System Development Requirements:** As stated in Findings 2.B through 2.D, the County Engineer has determined that certain right-of-way dedications and improvements will be required in order for the proposed land division to comply with the provisions of MCC 11.60 (the Street Standards Ordinance). Those dedications and improvements are detailed in Condition 3.A through 3.D.
- J. **Policy No. 37, Utilities:** As stated in Finding 4, water service is available to the property. As stated in Finding 6, sanitary sewer is available to the property and connection to the sewer is a condition of approval.
- K. **Policy No. 38, Facilities:** The property is located in the Reynolds School District. Based on discussions with the Superintendent's office on May 25, 1989 the district anticipates that its facilities will be able to accommodate student enrollment from the proposed development. The district bases its position on the fact that the proposed units are not expected to house large number of school-age children, considering the projected rent level (\$585-600 per month) and the size and type of proposed units (1,000 square feet with 2 bedrooms). Fire protection is provided by Multnomah County Fire District No. 10, and police protection is provided by the Multnomah County Sheriff's Office.

9. Purpose and Intent of Land Division Ordinance.

- A. MCC 11.45.015 states that the Land Division Ordinance...*"is adopted for the purposes of protecting property values, furthering the health, safety and general welfare of the people of Multnomah County, implementing the Statewide Planning Goals and the Comprehensive Plan adopted under Oregon Revised Statutes, Chapters 197 and 215, and providing classifications and uniform standards for the division of land and the installation of related improvements in the unincorporated area of Multnomah County."* The proposed land division satisfies the purpose of the Land Division Ordinance for the following reasons:
- (1) The size and shape of the proposed lots accommodate proposed residential development in accordance with the present zoning and as approved by the Planning Commission and upheld by the Board of County Commissioners on appeal in the approval of PD 1-69, thereby protecting property values.
 - (2) Finding 4.J. indicates that adequate public water supply is available for the proposed land division. Finding 5 indicates that public sewer is available to the property, and connection to the sewer will be required in conjunction with development pursuant to Condition 3.F. Finding 8.K. indicates that fire and police protection are available to the subject property. For these reasons, the proposal furthers the health, safety, and general welfare of the people of Multnomah County.
 - (3) Finding 8 indicates that the proposed land division complies with the applicable elements of the Comprehensive Plan. Since the Comprehensive Plan has been found to be in compliance with Statewide Planning Goals by the State Land Conservation and Development Commission as stated in finding 7.C.(1), the proposed land division complies with the Statewide Planning Goals and the Regional Plan.
 - (4) The proposal meets the purpose of *"providing classifications and uniform standards for the division of land and the installation of related improvements"* because the proposal is classified as a Type III Land Division and meets the approval criteria for Type III Land Divisions as stated in findings 3 through 9. Condition 3 assures the installation of appropriate improvements in conjunction with the proposed land division.
- B. MCC 11.45.020 states that the intent of the Land Decision Ordinance is to...*"minimize street congestion, secure safety from fire, flood, geologic hazards, pollution and other dangers, provide for adequate light and air, prevent the overcrowding of land and facilitate adequate provisions for transportation, water supply, sewage disposal, drainage, education, recreation and other public services and facilities."* The proposal complies with the intent of the Land Division Ordinance for the following reasons:
- (1) Street congestion is minimized through dedications and improvements required by Condition 3.
 - (2) As stated in finding 8.K., public fire protection is available to the property. The property is not located within the 100 year floodplain, and there are no slopes exceeding two percent. The division of the property will not increase air pollution levels beyond what those levels would be if the apartment complex were constructed without dividing the property.. For these reasons, the proposal secures safety from fire, flood, geologic haz-

ard, and pollution.

- (3) The proposal meets or exceeds the area and dimensional standards of the MR-4 zoning district as explained in finding 3, and thereby provides for adequate light and air and prevents the overcrowding of land.
- (4) Street and public transportation are addressed in findings 2.B-E, , 8.H and 8.I. Water supply and sanitary sewer are addressed in finding 8.J. Education, fire protection and police service are addressed in 8.K. Based on the above findings, the proposed land division facilitates adequate provision for transportation, water supply, sewage disposal, drainage, education, and other public services and facilities.

Conclusions:

1. Based on finding 8, the proposed land division satisfies the applicable policies of the Comprehensive Plan.
2. Based on finding No. 3, the proposed land division complies with the zoning ordinance.
3. Based on findings 3 through 9, the proposed land division satisfies the approval criteria for Type III Land Divisions.

Signed June 12, 1989



By Richard Leonard, Chairman

Filed With the Clerk of the Board on June 22, 1989

Appeal to the Board of County Commissioners

Any person who appears and testifies at the Planning Commission hearing, or who submits written testimony in accord with the requirements on the prior Notice, and objects to their recommended decision, may file a Notice of Review with the Planning Director on or before 4:30 p.m. on Monday, July 3, 1989 on the required Notice of Review Form which is available at the Planning and Development Office at 2115 S.E. Morrison Street

The Decision on this item will be reported to the Board of County Commissioners for review at 9:30 a.m. on Tuesday, July 11, 1989 in Room 602 of the Multnomah County Courthouse. For further information call the Multnomah County Planning and Development Division at 248-3043.



DEPARTMENT OF ENVIRONMENTAL SERVICES
DIVISION OF PLANNING AND DEVELOPMENT
2115 SE MORRISON STREET
PORTLAND, OREGON 97214 (503) 248-3043

3784
3785

NOTICE OF REVIEW

1. Name: Eddy, Keith, R.

2. Address: 20222 N.E. Broadway Ct., Troutdale, OR 97060
Last Middle First
Street or Box City State and Zip Code

3. Telephone: (503) 667 - 3313

4. If serving as a representative of other persons, list their names and addresses:

5. What is the decision you wish reviewed (e.g., denial of a zone change, approval of a subdivision, etc.)?

LD -4-89 Commission approval of the Tentative Plan for the
Type III Land Division at 20255 N.E. Halsey Street, Tax Lot 89,
Section 28, T. In., R. 3E (Map #2851)

6. The decision was announced by the Planning Commission on June 12 1989

7. On what grounds do you claim status as a party pursuant to MCC 11.15.8225?

Party status is based upon MCC 11.15.8225(A)(1) because
petitioner was entitled to notice under MCC 11.15.8820(c)(2)

8. Grounds for Reversal of Decision (use additional sheets if necessary):

Please see attached listing.

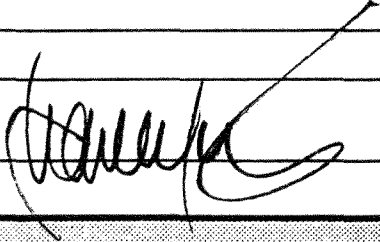
9. Scope of Review (Check One):

(a) ☐ On the Record

(b) ☐ On the Record plus Additional Testimony and Evidence

(c) ☐ De Novo (i.e., Full Rehearing)

10. If you checked 9(b) or (c), you must use this space to present the grounds on which you base your request to introduce new evidence (Use additional sheets if necessary). For further explanation, see handout entitled *Appeal Procedure*.

Signed: 

Date: July 3, 1989

For Staff Use Only

Fee:

Notice of Review = \$150.00

Transcription Fee:

Length of Hearing _____ x \$1.75/minute = \$ _____

Total Fee = \$ _____

Received by: _____ Date: _____ Case No. _____

8. Grounds for Reversal of Decision

1. The proposal violates the City of Fairview's Comprehensive Plan designation for this area of Low-density Residential.
2. A decision by the Multnomah County Planning Commission to approve the tentative plan for the Type III Land Division will violate the Urban Planning Agreement reached between the City of Fairview and Multnomah County which delegates to Fairview the lead role in the long range planning for the area.
3. The Proposal fails to comply with the Intent of the Land Division Ordinance in the following ways:

- a) Facilitate adequate provisions for water supply, sewage disposal, drainage and other public services.

The City of Fairview's long range capital planning for this area has been based on single-family residential zoning, not multi-family. This development would have a significant impact on the city's water and sewer flow projections and its need for capital financing. The findings merely note that water and sewer lines are available. No finding sets forth the adverse impacts on those systems which will result from the proposal.

- b) Minimize Street Congestion.

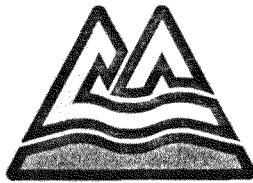
There is an estimated 158 additional vehicles that will use Halsey as a result of the first phase of the proposed development. The second phase will likely result in another 60 to 70 vehicles. Therefore, traffic generated from this proposed development will have a serious impact on both Halsey Avenue and 201st Street, both of which are two-lane thoroughfares. Multnomah County Transportation Department indicates no improvements are planned for either of these streets in the near future. The impact of some 220 vehicles onto Halsey is further complicated by the planned 207th interchange on Interstate 84 which will funnel traffic directly into this thoroughfare, within the next two years.

4. The Proposed Land Division fails to meet the following Ordinance purposes:

- a) Protecting property values. The proposed land division exploits adjacent, high-quality, single-family residential neighborhoods, thereby enabling the new development to charge higher rents. At the same time, however, property values in those neighborhoods will

suffer due to the diminishing attractiveness of the area as a single-family residential neighborhood.

- b) Furthering the General Welfare of the people of Multnomah County. There is no demonstrated need for housing of the nature intended in this proposal. In fact, the proposal ignores the wishes of nearby residents and the City of Fairview. Additionally, the proposal violates the intent and spirit of the Urban Planning Area Agreement with the City of Fairview, an agreement reached, in part, for the very purpose of increasing the General Welfare of the people.



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
RICK BAUMAN • DISTRICT 3 • 248-5217
SHARRON KELLEY • DISTRICT 4 • 248-5213
JANE McGARVIN • Clerk • 248-3277

July 11, 1989

Ms. Lorna Stickel, Planning Director
Division of Planning & Development
2115 SE Morrison
Portland, OR

Dear Ms. Stickel:

Be it remembered, that at a meeting of the Board of County Commissioners held July 11, 1989, the following action was taken:

In the matter of the decision of the Planning Commission of February 13, 1989, approving requested minor variance of front yard setback and denying requested major variance of side yard setback for property located at 13808 SE Raymond Street, Case HV 1-89)
)
)
)
)
)

Bob Hall, Land Development Specialist, stated that a revised summary of the above-entitled matter has been distributed to Board members, which he then reviewed. The case was appealed to the Board, and then the hearing postponed a number of times because the two parties were negotiating a settlement, which has now been reached. Therefore the hearing is no longer necessary, but final action on the notice of review is still required. The staff recommends that the Board affirms the Planning Commission's action, which would then close the case.

Upon motion of Commissioner Kaufoury, seconded by Commissioner Bauman, it is unanimously

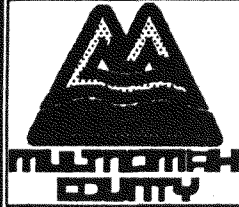
ORDERED that HV 1-89, including the findings, conditions and conclusions be adopted and implemented.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

By Jane McGarvin
Jane McGarvin
Clerk of the Board

jm
cc: County Engineer
Assessment & Taxation



Department of Environmental Services
Division of Planning and Development
2115 S.E. Morrison Street
Portland, Oregon 97214 (503) 248-3043

Decision

This Decision consists of Conditions, Findings of Fact and Conclusions
June 12, 1989

C 2-89 Proposed Street Name Change

Request to rename that continuous segment of street consisting of NE 215th Avenue, NE Shaver Street and NE 216th Avenue, which lies south of NE Interlachen Lane, as NE Lachenview Circle.

Planning Commission

Decision: Deny request to change name of street segments known as NE 215th Avenue, NE Shaver Street, and NE 216th Avenue to NE Lachenview Circle

Approve change of name to NE Lachenview Lane for two of the three street segments noted, namely NE 215th Avenue and NE Shaver Street. Retain NE 216th Avenue as shown.

Decision to approve street name change to NE Lachenview Lane for NE 215th Avenue and NE Shaver Street does not preclude change to NE Lachenview Circle in the future (including NE 216th Avenue) if conditions change which qualifies the three street segments to be called "Circle".


Conditions of Approval:

1. Coordinate with Engineering Services for the removal of existing street signs on affected streets and replacement with signs having new designation.

History of Site:

1. The subdivision known as "Lachenview" was platted 06/27/74 in accordance with subdivision regulations of Multnomah County.
2. Street names were assigned on the basis of the City of Portland and Multnomah County "grid systems".

C 2-89
Street Name Change

 Streets proposed to be changed

BLUE
LAKE



3. The names assigned at that time are in accord with the current "Street Naming and Property Numbering" Ordinance (Ord. No. 460).

Ordinance Considerations:

1. Street naming and property numbering ordinance MCC 11.05.500 through MCC 11.05.575 (applicable portions).
2. Land Division Ordinance, MCC 11.45.530, "Street Names".

Findings of Fact:

1. An application has been filed with the Director by Walt Weitzel requesting a street name change. The applicant states:

"To change the name of a street that makes a loop off N.E. Interlachen lane near Blue Lake. It is now named N.E. 215th, N.E. 216th, and N.E. Shaver, even though it is a single continuous street. (Street signs have never existed)."

2. Attached to application is a petition signed by eighteen persons in favor of the street name change. Seven names are noted as being Interlachen Board members.
3. Notification was made on Thursday, May 25, 1989 (by First Class Mail) as required under MCC 11.05.550"E", to:

- A. The owners of all property abutting the street.
- B. The Rural Fire Protection District (RFPD #10, which is now under the jurisdiction of the City of Portland Fire Bureau).
- C. The Postmaster having jurisdiction (Louis Gomez in the City of Troutdale).
- D. The Director, Department of Justice Services (John E. Angell).
- E. The Director, Department of Administrative Services.

NOTE: Since the county no longer has a Department of Administrative Services, notification was sent to Linda Alexander, Director of the Department of General Services. Also, notice was sent to the Administrative Services "Division" at 2505 S.E. 11th Avenue.

- F. The office of City-County Emergency Communication Service (Dispatch Coordinator at Emergency Communications Bureau).
4. Notification was also made to Dick Howard of Transportation Section of the Department of Environmental Services.

5. As previously noted, the streets in question meet all county requirements, both past and present, regarding naming.
6. Ordinance #460 (i.e., the Street Naming and Property Numbering Ordinance) does provide for the use of the designation of "Circle" under certain prescribed conditions (per MCC 11.05.540"B"):

"A named or numbered urban area street which forms a loop having two intersections with one other street shall be designated "Circle".

7. The streets in question **do not** meet the criteria to be designated as "Circle".
 - A. Northeast Shaver Street is expected to continue eastward in the future when the adjacent property to the east (i.e., Tax Lot '31', a 50.89 acre parcel) is subdivided.
 - B. A loop street would be expected to have lots on both sides of the street, without capability of additional street intersections (within the loop).
 - (1) Northeast 216th Avenue has lots on one side only. The additional dedication, plus lotting and other intersections will be a part of the development of adjacent unsubdivided property.
 - (2) Northeast 216th Avenue is anticipated to be a "funnel" street onto N.E. Interlachen Lane, providing access to more street (and many homes) which will eventually be developed out of Tax Lot '31'.
8. It may be appropriate to rename N.E. 215th Avenue and N.E. Shaver Streets as Lachenview Lane because:
 - A. Lachenview, as well as Interlachen, are familiar names in the immediate area.
 - B. Naming the street, rather than numbering it, is proper since the general alignment of the total street is considered to be east-west. This is in conformance to MCC 11.05.530'A".
9. Ordinance requirements regarding east-west street naming:
 - A. *"An urban area street having an alignment generally east and west shall be identified by a name according to the pattern of names established in the City of Portland and in practice in unincorporated Multnomah County on the effective date of this ordinance."* (Per MCC 11.05.530"A").
 - (1) Northeast Shaver Street was so named in accordance with the above requirement.
 - (2) Any other name would not qualify.

- B. *"A named street on or close to a line established by MCC 11.05.520 shall be designated 'Street'."*

- (1) The designation of "Street" for N.E. Shaver conforms to this requirement.
- (2) Any other designation would not qualify.

10. Ordinance requirements regarding north-south street naming.

- A. *"An urban area street having an alignment generally north and south shall be identified by a number according to the system established by the City of Portland and in practice in unincorporated Multnomah County on the effective date of this ordinance." (Per MCC 11.05.525"A").*

- (1) Northeast 215th and N.E. 216th have been so named in accordance with this requirement.
- (2) Any other name would not qualify.

- B. *"A numbered street on or close to a line established under MCC 11.05.520 shall be designated 'Avenue'."*

- (1) The designation of "Avenue" for N.E. 215th and N.E. 216th conforms to this requirement.
- (2) Any other designation would not qualify.

11. If renaming and redesignating N.E. 215th Avenue and N.E. Shaver Street as "N.E. Interlachen Lane" were to be approved, the following would have to apply:

- A. MCC 11.05.540, "Other Designations for Streets", Subsection "D", provides:

"A designation listed in Subpart 'C' of this subsection, or a similar term, may be included in the naming of a new street or the **renaming of an existing street** under MCC 11.05.350, upon a finding that another designation otherwise authorized by this ordinance is inappropriate to the circumstances or inconsistent with the policy and purpose stated in MCC 11.05.505." (Emphasis added).

- (1) Designations as referenced under Subpart "C" include "Boulevard", "Lane", "Parkway", "Terrace", "Way", etc.
- (2) Use of any one of these designations would not be appropriate for the present street names.
- (3) The term "Lane" (as a street designation) used in conjunction with the name "Lachenview" would not be out of character for the area.

- B. An exception would have to be made for the renaming of the two streets to Lachenview.

12. Ordinance No. 460 does not directly provide for the renaming of a street (or streets) to one that is not in conformance to the established "pattern" or names. However, circumstances may exist which would make it appropriate in this case to deviate from the accepted "grid".
 - A. An exception could be made for the changing of the names of N.E. 215th Avenue and N.E. Shaver Street to Lachenview because of association that could be made with "Interlachen", a familiar name locally.
 - B. Although the present names (N.E. 215th Avenue and N.E. Shaver Street) are in strictest conformance to the requirements of the Ordinance (Ord. #460), "Shaver" in particular is not an easily placeable street name in that area.
13. If the modified street naming and street designation proposal is approved (to N.E. Lachen Lane), residents addressed along N.E. 215th Avenue will have to convert to five-digit house numbers.
 - A. Lachenview (if adopted) will be considered to be an east-west street because of the overall alignment.
 - B. Property numbering would have to be changed to be in conformance with the "grid" for named streets (per MCC 11.05.520).
14. Residents on the N.E. Shaver Street portion of the new Lachenview Lane will retain their present five-digit house numbers.
 - A. Only the name portion of their mailing address will have to change (to N.E. Lachenview Lane).
 - B. The present five-digit house numbers are in conformance with the "grid" for property numbering (for an east-west street).
15. Conditions could change in the future which would allow a change in designation from "Lane" to "Circle":
 - A. This would be dependent upon closing off the possibility of any future street intersections with any of the three present street segments.
 - (1). This includes preventing the extension easterly (of the present NE Shaver Street) of NE Lachenview Lane into the adjacent undeveloped property to the east, or
 - (2). Preventing a "T" intersection of a new street with NE 216th Avenue into the adjacent undeveloped property on the east side of the street.
 - B. Future street intersections or extensions noted above can be prevented by one of the following:

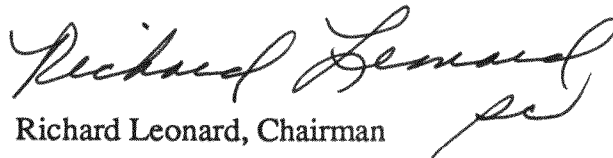
- (1). Development of a golf course on the adjacent 50-acre parcel to the east with a "non-access reservation" to NE 216th Avenue (or the temporary east end of NE Shaver Street). Dedicate sufficient right-of-way to complete NE 216th Avenue to a 50-foot street.
- (2). Development of a strip of land (from the adjacent 50-acre parcel to the east) approximately 150 feet wide which would be adjacent and parallel to the present NE 216th Avenue. After dedication for widening of NE 216th Avenue to a 50-foot right-of-way, the strip would be subdivided with a "tier" of lots backing onto the 50-acre parcel to the east.

Conclusions:

1. Applicant has met one of the requirements of the procedure for re-naming of an existing urban area street, specifically MCC 11.05.550"A", Subsection "(3)", which requires a street name change to be initiated by property owners abutting the street proposed for change.
2. The applicant's proposal fails to meet the test for the three streets to be combined and designated as "Circle".
3. "Lane" is permissible as a designation for two of the three streets (i.e., combining N.E. 215th Avenue and N.E. Shaver Street).
4. Re-naming N.E. 215th Avenue and N.E. Shaver Street to N.E. Lachenvue Lane is not in conformance with the intent of MCC 11.05.505 (to provide a uniform street naming and property numbering system). However, due to local circumstances it might be permissible under MC 11.05.540"D".
5. The three streets (N.E. 215th Avenue, N.E. Shaver, and N.E. 216th) are in precise conformance to the Street Naming and Property Numbering Ordinance (Ordinance #460), even if no change is made.
6. Property owners with addresses on N.E. 215th Avenue will be inconvenienced to a greater degree by the street name change and designation (as modified by Staff) than those owners with houses on N.E. Shaver Street.
 - A. Northeast 215th Avenue residents will have to convert to new house numbers (with five digits instead of four) as well as the street name and designation change.
 - B. Residents on N.E. Shaver Street will retain their five digit house numbers (which already conform to the County's property numbering system), and will only have to incorporate the new street name into their mailing addresses.
7. The name of the three street segments (i.e., NE 215th Avenue, NE Shaver Street and NE 216th Avenue) could be changed in the future to NE Lachenvue Circle

- A. If non-residential development (such as a golf course) took place on the adjacent undeveloped property to the east, or
- B. If a "tier" of lots (for single family development) were to be created along the east side of NE 216th Avenue, preventing any additional street intersections or extensions.

Signed June 12, 1989


Richard Leonard, Chairman

Filed With the Clerk of the Board, June 22, 1989

Appeal to the Board of County Commissioners

Any person who appears and testifies at the Planning Commission hearing, or who submits written testimony in accord with the requirements on the prior Notice and objects to their recommended Decision, may file a Notice of Review with the Planning Director on or before 4:30 p.m. on Monday, July 3, 1989 on the required Notice of Review Form which is available at the Planning and Development Office at 2115 SE Morrison Street.

The Decision on this item will be reported to the Board of County Commissioners for review at 9:30 a.m. on Tuesday, July 11, 1989 in Room, 602 of the Multnomah County Courthouse. For further information, call the Multnomah County Planning and Development Division at 248-3043.

**BEFORE THE BOARD OF COUNTY COMMISSIONERS
FOR THE COUNTY OF MULTNOMAH**

In the Matter of Issuance of)
an Industrial Development)
Revenue Bond State of Oregon)
to Imperial Manufacturing Co.) RB 1-89

RESOLUTION

WHEREAS, The Multnomah County Board of Commissioners finds that the aquisition of 5.03 acres and its development with a 37,000 square foot manufacturing facility and office by Imperial Manufacturing Co. would foster the economic growth and legislative policy as set forth in ORS 280.310; and

WHEREAS, The City of Gresham has found that the project is in compliance with the City of Gresham Comprehensive Plan acknowledged by the Land Conservation and Development Commission pursuant to ORS Chapter 197; and

WHEREAS, The Board finds that the project complies with the provisions of Chapter 11.08 of the Multnomah County Code; and

WHEREAS, ORS 280.330 requires, before the issuance of revenue bonds by the State of Oregon, that the governing body of the County endorse the project; and

WHEREAS, The Board finds that the completion of a warehouse and office facility in the East-Central area of Multnomah County would be in the best interests of the citizens of Multnomah County.

THEREFORE, IT IS HEREBY RESOLVED:

1. That Multnomah County requests the Economic Development Commission and the State of Oregon to assist in the financing of the Imperial Manufacturing Co. project within Multnomah County through the issuance of revenue bonds secured by the improvements as provided by ORS 280.310 to ORS 280.397.
2. That the Chairperson of the Multnomah County Board of Commissioners be authorized to sign and act for the Board in any future action necessary by Multnomah County to promote the project.

(SEAL)
July 11, 1989

BOARD OF COUNTY COMMISSIONERS
MULTNOMAH COUNTY, OREGON

Gladys McCoy, Chair

APPROVED AS TO FORM:
LAURENCE KRESSEL, County Counsel
for Multnomah County, Oregon

By_____

SUBJECT:

PRESS LIST

DATE: _____

THE FOLLOWING WERE CALLED THIS DATE REGARDING:

- a) Meeting: _____
- b) Executive Meeting: _____
- c) Other: _____

Signed: _____

KOIN	Channel 6	✓ 464-0797 or 464-0614 Assignment Desk
KGW	Channel 8	✓ 226-5111 Assignment Desk
KATU	Channel 2	✓ 231-4260 Assignment Desk
KPTV	Channel 12	✓ 222-9921 News Desk <i>call back.</i>
KPDX	Channel 49	✓ 239-4949 Lee Haglund
KEX	1190 AM	✓ 222-1929 Newsroom/Message
KSGO	1520 AM	✓ 223-1441 News Desk <i>after 9.</i>
KXL	750 AM	✓ 231-0750 Newsroom/Message
KGW	62 AM	✓ 226-5095 News Desk
K-103 FM		✓ 643-5103 Newsroom
KXYQ - 105 FM		✓ 226-6731 <i>NewsRoom</i>
Oregonian		✓ 221-8195 Mark Kirschmeier or Liz Moore
Gresham Outlook		✓ 665-2181 Robin Franzen
Skanner		✓ 287-3562 Patrick Mazza
Cable		667-7636 Mike Heinrick or Gary Ellis

DATE SUBMITTED July 11, 1989

(For Clerk's Use)

Meeting Date 7/11/89

Agenda No. #6

Consent

UNANIMOUS CONSENT

REQUEST FOR PLACEMENT ON THE AGENDA

Subject: County Involvement in Bonds
to Finance Trucking of
Garbage Formal Only July 12
(Date) (Date)

Informal Only* _____

(Date)

DEPARTMENT Non-Departmental

DIVISION Board of Commissioners

CONTACT Pauline Anderson

TELEPHONE 248-5220

*NAME(s) OF PERSON MAKING PRESENTATION TO BOARD Pauline Anderson

Laurence Kressel

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

By the resolution, the County would request that the State Economic Development Commission require Jack Gray Transport, Inc. obtain the consent of the County prior to state approval of Gray's application for industrial revenue bonds, in accord with ORS 280.330(1)

(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 _____

SIGNATURES:

DEPARTMENT HEAD, ELECTED OFFICIAL, or COUNTY COMMISSIONER: Pauline Anderson

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.

BEFORE THE BOARD OF COUNTY COMMISSIONERS

FOR MULTNOMAH COUNTY, OREGON

In the Matter of Multnomah County's)
Involvement in the State's Process)
for Issuing Industrial Development) RESOLUTION
Revenue Bonds to Finance Trucking)
of Garbage from Portland to)
Arlington)

WHEREAS, on March 23, 1989, Metro decided to award a 20-year contract to haul Portland area garbage in trucks along I-84 through the Columbia River Gorge National Scenic Area to a landfill in Arlington; and

WHEREAS, Jack Gray Transport, Inc., which was awarded the contract by Metro, has applied to the State Economic Development Commission for approval of \$16,600,000 in Industrial Development Revenue Bonds to finance the garbage hauling project; and

WHEREAS, state law requires that before such bonds are approved, official action of the County governing body must be taken to request the undertaking; and

WHEREAS, Jack Gray Transport, Inc. has not sought Multnomah County's approval of the application for revenue bonds despite the fact that the trucks to be financed by the bonds will be loaded in Multnomah County; and

WHEREAS, Multnomah County has a very significant interest in participating in the process for determining the appropriateness of issuing industrial revenue bonds for this project; and

WHEREAS, Multnomah County has adopted procedures and criteria for reviewing revenue bond applications for projects within this county and should be given an opportunity to apply them to the garbage hauling project;

NOW, THEREFORE, BE IT RESOLVED, that the Board of County Commissioners of Multnomah County requests that the State Economic Development Commission require Jack Gray Transport, Inc. to obtain the consent of Multnomah County prior to state approval of the industrial revenue bonds application, in accord with

ORS 280.330(1). County Counsel is authorized to present this request to the State Economic Development Commission.

ADOPTED this _____ day of _____, 1989.

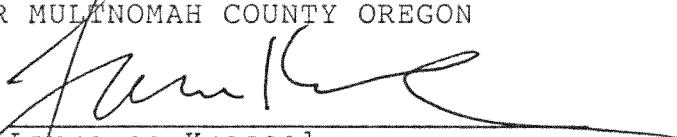
BOARD OF COUNTY COMMISSIONERS
FOR MULTNOMAH COUNTY, OREGON

By _____
Gladys McCoy
Multnomah County Chair

REVIEWED:

LAURENCE KRESSEL, COUNTY COUNSEL
FOR MULTNOMAH COUNTY OREGON

By



Laurence Kressel
County Counsel

5181R/dp
071089:1

DATE SUBMITTED 7/11/89

(For Clerk's Use)
Meeting Date 7/11/89
Agenda No. Unanimous Consent
7

UNANIMOUS CONSENT

REQUEST FOR PLACEMENT ON THE AGENDA

Subject: Planning Commission Appointment

Informal Only* _____
(Date)

Formal Only 7/13/89
(Date)

DEPARTMENT Nondepartmental DIVISION County Chair's Office

CONTACT Judy Boyer TELEPHONE 248-3308

*NAME(s) OF PERSON MAKING PRESENTATION TO BOARD _____

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

Appointment of Karen F. Hunt to the Planning Commission.

(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: Judy Boyer

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.



GLADYS McCOY, Multnomah County Chair

Room 134, County Courthouse
1021 S.W. Fourth Avenue
Portland, Oregon 97204
(503) 248-3308

PLANNING COMMISSION APPOINTMENT

UNANIMOUS CONSENT FOR 7/13/89

Karen F. Hunt

It is necessary to expedite this appointment in order for the Planning Commission to hold a hearing on Wednesday, 7/19/89. Due to vacations and a recent resignation the Commission is unable to act on that date without this appointment.

BOARDS AND COMMISSIONS



Unanimous
Consent

JB
MAY 22 1989

MULTNOMAH COUNTY OREGON

INTEREST FORM FOR BOARDS AND COMMISSIONS

In order for the County Executive to more thoroughly assess the qualifications of persons interested in serving on a Multnomah County board or commission, you are requested to fill out this interest form as completely as possible. You are encouraged to attach or enclose supplemental information or a resume which further details your involvement in volunteer activities, public affairs, civic services, published writing, affiliations, etc.

- A. Please list, in order of priority, any Multnomah County boards/commissions on which you would be interested in serving. (See attached list)

Planning Commission

- B. Name Karin F. Hunt

Address 16340 N.W. Rock Creek Rd.

City PORTLAND State Oregon Zip 97231

Do you live in XXX unincorporated Multnomah County or _____ a city within Multnomah County.

Home Phone 621-3008

- C. Current Employer self Shadysprings Farm & Restoration

Address same

City _____ State _____ Zip _____

Your Job Title owner, manager

Work Phone same (Ext) _____

Is your place of employment located in Multnomah County? Yes XXX No _____

- D. Previous Employers Nylon Wholesale Dates 1976- 1984 Job Title

sales representative

CONTACT:

Judy Bayee

GLADYS McCOY, MULTNOMAH COUNTY CHAIR

1021 SW 4TH, ROOM 134

PORTLAND, OREGON 97204

(503) 248-3308

E. Please list all current and past volunteer/civic activities.

Name of Organization	Dates	Responsibilities
SKYLINE NEIGHBORHOOD ASSOC.	1983- to present	founder, co-charimen, coordinating people & meetings, publishing newsletter.
Director of W. Mult. Soil & Water Conservation/elected last Nov./director on board		

F. Please list all post-secondary school education.

Name of School	Dates	Degree/Course of Study
Pierce College	1968-1970	Animal Lab Tech Associate
Chemekata Junior College	1981-1983	took 2 years of classes working towards vetinary acceptance. Mainly science courses 3.8 GPA

G. Please list the name, address and telephone numbers of two people who may be contacted as references who know about your interests and qualifications to serve on a Multnomah County board/commission. **

Molly O Reily 1414 N.W. 53rd Drive, Portland, Ore. 97210 292-4930
Peggy Olds/ S.C.S. 6645 N.E. Court, Building 16C, Suite C9, 97218, 255-6881

H. Please list potential conflicts of interest between private life and public service which might result from service on a board/commission.

I don't see any personel conflicts with being on the board unless somehow
I had some association with an individual applicant. I would feel that
I would have to be inactive as a member of the local neighborhood assoc.

I. Affirmative Action Information

Female white
sex / racial ethnic background

birth date: Month 3 Day 29 Year 1950

My signature affirms that all information is true to the best of my knowledge and that I understand that any misstatement of fact or misrepresentation of credentials may result in this application being disqualified from further consideration or, subsequent to my appointment to a board/commission, may result in my dismissal.

Signature Karin Hunt Date 5/9/89

lom
6/83

** Lorne Stickel has dealt with me and the neighborhood group I represented, and could possibly give you some insight into my interests and involvement in land use issues.

Larry Epstein, PC

Attorney At Law

Larry Epstein, member
Oregon State Bar and
American Institute of Certified Planners

1020 SW Taylor Street, Suite 370
Portland, Oregon 97205-2543
(503) 223-4855 • FAX (503) 222-1923

July 11, 1989

Board of County Commissioners
1021 SW Fourth Avenue
Portland, OR 97204

SUBJECT: PLANNING COMMISSION MEMBERSHIP

Dear Commissioners:

I am writing on my own behalf and on behalf of your constituents to implore you to appoint people to serve on the County Planning Commission.

The Planning Commission is supposed to have nine members. It now has six members, one of whom works at night and cannot attend meetings after 5 pm, when most Planning Commission hearings are held. As a result, only five Planning Commission members actually serve actively. Two of those five are resigning as of August 1. After that, the Planning Commission will consist effectively of 3 members. The situation is untenable.

The County Code requires that the Planning Commission act on all contested land use actions. It also requires the affirmative vote of five Planning Commission members to approve a plan amendment and requires a quorum of five even to hear a plan amendment.

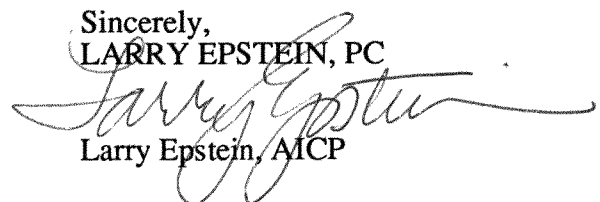
Last night, after months of preparation, I appeared on behalf of a client seeking approval of a plan amendment for a multi-million dollar development southeast of Gresham. Staff recommended approval, and there was no opposition from the public. But, only four Planning Commissioners were present and able to hear the case. Four was not enough for a quorum, so the hearing was continued to Wednesday, July 19 in the hopes that a new planning commissioner or two could be appointed by then.

If a new commissioner is not appointed by next Wednesday, the Planning Commission again is unlikely to be able to empanel a quorum. This deprives us and anyone else with a similar request of due process. It denies us a right to a hearing before the body the County has assigned to make the decision. And it frustrates the public, applicants, and the Planning Commission members themselves.

I understand from talking with Judy Boyer that one new planning commissioner is scheduled to be confirmed by the Board on Thursday, July 20. I urge you to expedite the appointment process and to consider that appointment Thursday, July 13 so, if confirmed, that commissioner can participate at the July 19 Planning Commission hearing.

I understand this may take unanimous consent, and that you prefer not use unanimous consent for appointments. But I believe the present circumstance is an emergency and warrants use of the unanimous consent approach to ensure the County protects our right to due process and a fair hearing. Thank you for your consideration.

Sincerely,
LARRY EPSTEIN, PC



Larry Epstein, AICP



MULTNOMAH COUNTY OREGON

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

GLADYS McCOY
COUNTY CHAIR

MEMORANDUM

TO: Jane McGarvin, Clerk of the Board

FROM: Lillie M. Walker, Director, Purchasing Section

DATE: July 5, 1989

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, July 11, 1989

Bid/RFP No.	Description/Buyer	Initiating Department
B61-250-4012	BROADWAY BURNSIDE BRIDGES MECHANICAL AND ELECTRICAL RENOVATIONS	DES Transportation
	Buyer: Larry Weaver Ex. 5111	Contact: Dave Johnson Phone: 6139
	Buyer: Ex. 5111	Contact: Phone:
	Buyer: Ex. 5111	Contact: Phone:

cc: Gladys McCoy, County Chair
Board of County Commissioners
Linda Alexander, Director, DGS

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

BOARD

TO: DAILY JOURNAL OF COMMERCE

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

MULTNOMAH COUNTY

Broadway|Burnside Bridges Mechanical and Electrical Renovations

Bids Due August 8, 1989 at 2:00 P.M.
Bid No. B61-250-4012

Sealed bids will be received by the Director of Purchasing, Multnomah County Purchasing Section, 2505 S.E. 11th Ave., Portland, OR 97202 for:
Mechanical and Electrical renovations on the Broadway and Burnside Bridges.

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: Mandatory Pre-bid conference will be held on August 1, 1989 at 10 a.m. Yeon Shops, 1620 S.E. 190th Avenue, Portland, Oregon.

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: Reinforced concrete and structural steel bridges and grade separation structures

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.

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 July 13, 14, 17, 1989

TO: SKANNER

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

MULTNOMAH COUNTY

Broadway|Burnside Bridges Mechanical and Electrical Renovations

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

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 Week of July 17, 1989

TO: OBSERVER

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

MULTNOMAH COUNTY

Broadway|Burnside Bridges Mechanical and Electrical Renovations

Bids Due August 8, 1989 at 2:00 P.M.
Bid No. B61-250-4012

Sealed bids will be received by the Director of Purchasing, Multnomah County Purchasing Section, 2505 S.E. 11th Ave., Portland, OR 97202 for:
Mechanical and Electrical renovations on the Broadway and Burnside Bridges.

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: Mandatory Pre-bid conference will be held on August 1, 1989 at 10 a.m. Yeon Shops, 1620 S.E. 190th Avenue, Portland, Oregon.

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: Reinforced concrete and structural steel bridges and grade separation structures

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.

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 Week of July 17, 1989

Specifications For Multnomah County Oregon Construction

PROJECT: Broadway/Burnside Bridge Mechanical and
Electrical Renovations

LOCATION: Broadway/Burnside Bridge

KIND OF WORK: Mechanical & Electrical Renovations

PROJECT NO.: 1086

SUBMITTED BY: _____
(Contractor)

BID NO.: _____



MULTNOMAH COUNTY OREGON

Department of Environmental Services
Transportation Division

1620 S.E. 190th Avenue Portland, Oregon 97233



For Bid Results
Call 248-5338
After 3:00 P.M.

ESTIMATED QUANTITIES

ITEM		QUANTITY
1.	Mobilization	All Req'd
	For	Lump Sum
2.	Temporary Protection & Direction of Traffic	All Req'd
	For	Lump Sum
3.	Temporary Signs	600 Sq. Ft.
	For	Per Sq. Ft.
4.	Type III Barricades	12 Each
	For	Per Each
5.	Anchor Strut Support Replacement (Broadway Bridge)	All Req'd
	For	Lump Sum
6.	Operating Strut Pin and Bearings Replacement (Broadway Bridge)	All Req'd
	For	Lump Sum
7.	Span Drive Bearing Rehabilitation (Broadway Bridge)	All Req'd
	For	Lump Sum

ESTIMATED QUANTITIES (con't)

ITEM	QUANTITY
8. Rack Guides and Guide Wheel Bearing Rehabilitation (Broadway Bridge)	All Req'd
For	Lump Sum
9. Main Span Drive Motor Back Gearing Shaft Bearing Replacement (Broadway Bridge)	All Req'd
For	Lump Sum
10. Hydraulic Buffer Cylinder Installation (Broadway Bridge)	All Req'd
For	Lump Sum
11. Traffic Signal and Warning Gate Installation (Broadway Bridge)	All Req'd
For	Lump Sum
12. Submarine Duct Installation (Broadway Bridge)	All Req'd
For	Lump Sum
13. Submarine Cable Terminal Cabinet and Cable Installation (Broadway Bridge)	All Req'd
For	Lump Sum

ESTIMATED QUANTITIES (con't)

ITEM	QUANTITY
14. Power Distribution System Revision (Broadway Bridge)	All Req'd
For	Lump Sum
15. Power Distribution System Revision (Burnside Bridge)	All Req'd
For	Lump Sum

INDEX

Estimated Quantities

Part 100

Special Provisions

Section 101-111	(Multnomah County Supplement to Oregon State Highway Division Standard Specifications for Highway Construction)
Section 510	Performance Testing and Post-repair Inspection (Broadway Bridge)
Section 510	Anchor Strut Support Replacement (Broadway Bridge)
Section 510	Operating Strut Pin and Bearings Replacement (Broadway Bridge)
Section 510	Span Drive Bearing Rehabilitation (Broadway Bridge)
Section 510	Rack Guide and Guide Wheel Bearing Rehabilitation (Broadway Bridge)
Section 510	Main Span Drive Motor Back Gearing Shaft Bearing Replacement (Broadway Bridge)
Section 510	Hydraulic Buffer Cylinder Installation (Broadway Bridge)
Section 514	Painting Steel Structures and Machinery Components (Broadway Bridge)
Section 661	Traffic Signal and Warning Gate Installation (Broadway Bridge)
Section 690	Submarine Duct Installation (Broadway Bridge)
Section 690	Submarine Cable Terminal Cabinet and Cable Installation (Broadway Bridge)
Section 691	Power Distribution System Revisions (Broadway Bridge)
Section 691	Power Distribution System Revisions (Burnside Bridge)

Appendices

Appendix A	Existing Traffic Control Operational Narrative
Appendix B	Modified Traffic Control Operational Narrative
Appendix C	Traffic Control Equipment Schedule

TO ALL PLANHOLDERS

THE COUNTY MAY REJECT ANY BIDS IF THE CONDITIONS ON PAGE 3
OF THIS PROPOSAL, "INSTRUCTIONS TO BIDDERS", ARE NOT
FOLLOWED.

NOTICE TO CONTRACTORS

Sealed proposals, addressed to the Purchasing Director of Multnomah County, Oregon, and endorsed "Bid Proposal for Construction, Multnomah County, Oregon," to wit:

Broadway/Burnside Bridges Mechanical and Electrical Renovations

will be received by the Purchasing Director of Multnomah County, 2505 S.E. 11th Avenue, Portland, Oregon, 97202, until 2:00 P.M., Tuesday, August 8, 1989, at which time they will be publicly opened and read.

Under no circumstances will any bid be considered that has been received after 2:00 P.M.

All proposals must be made upon blank forms to be obtained from the Office of the Purchasing Director, 2505 S.E. 11th Avenue, must give the prices proposed, both in writing and figures, and must be signed by the Purchasing Director, and may be obtained at the above address. A charge of Five Dollars (\$5.00) will be made for the Bid Proposal, Specifications, and Plans. This Five Dollars will not be returned.

Each bid is to be presented under sealed cover, endorsed, "Bid Proposal - Broadway/Burnside Bridges Mechanical and Electrical Renovations," and filed with the Purchasing Director of Multnomah County, Oregon, and shall be accompanied by a surety bond or certified check made payable to Multnomah County Oregon, for an amount equal to ten percent of the amount of each bid, and no bid shall be considered unless such bidder bond or check is enclosed therewith. Such bond or check shall be delivered upon the condition that if said bid be accepted, the party bidding will promptly and properly enter into and execute contracts and bonds in accordance with the award.

Should the successful bidder to whom the contracts are awarded fail to execute the same within five days from the date of notification of such award, such bond or check shall be forfeited to Multnomah County as liquidated damages. All other bonds or checks will be returned to the unsuccessful bidder who submitted the same.

A good and sufficient bond with a satisfactory surety will be required for the faithful performance of the construction contract in a sum equal to the contract price. Such bond shall be reviewed by the Multnomah County Counsel.

All bids are to be compared on the basis of the Engineer's estimate of the quantities of work to be done and materials to be furnished. All contracts for work to be done shall be in writing, executed by the Contractor and the County Chair of Multnomah County in quintuplicate.

NOTICE TO CONTRACTORS (Continued)

The estimated quantities of work are approximate only, being given as a basis for the comparison of bids, and the Board of County Commissioners of Multnomah County does not expressly nor by implication agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work that may be deemed necessary or expedient.

The right is reserved to reject any and all proposals or to accept the proposal deemed best for Multnomah County and to award the contract as is provided by O.R.S.

Bid No. _____

MULTNOMAH COUNTY, OREGON

Dated _____

By GLADYS McCOY
Chair of the Board

REVIEWED:

LAURENCE KRESSEL
Multnomah County Counsel

Larry F. Nicholas
LARRY F. NICHOLAS, P. E.
County Engineer

By _____
Deputy

INSTRUCTIONS TO BIDDERS

BIDDING

THE BIDDING TO BE SUBMITTED MUST BE MADE ON THE "BID SHEET". THE SIGNATURE OF BIDDER SUPPORTING THE BID MUST APPEAR IN THE SPACE PROVIDED FOR THIS PURPOSE, AND THE COMPLETE "BID PROPOSAL FOR CONSTRUCTION" PACKET MUST BE SUBMITTED IN ITS ENTIRETY.

WORK ON WHICH BIDS ARE TO BE RECEIVED

The work on which bids are to be received in as described on the sheets following Page 11.

TIME AND PLACE OF RECEIVING BIDS

The time and the place at which bids will be received are as stated upon page one hereof.

SPECIFICATIONS AND PLANS

The work covered by this Proposal shall be done in accordance with the provisions, specifications, terms and requirements set out in the "Standard Specifications for Highway Construction" of the Oregon State Highway Division, 1984 Edition, supplemented by the special provisions given on the sheets following Page 11 and supplemented by the plans, profiles and other information on file in the office of the Purchasing Director.

BIDDING REQUIREMENTS AND CONDITIONS

The bidder's attention is directed to the provisions of SECTION 102 of the above Standard Specifications supplemented hereinafter, which set forth various conditions and requirements governing the submission and acceptance of proposals.

FILING IN PROPOSAL FORMS

The bidder must submit his proposal on the Proposal form contained in the "Bid Proposal for Construction" packet. The filling in of the blank spaces in the proposal should be done in accordance with the apparent intent. Unit bid prices shall be written in ink, both in words and in numerals. Proposals which do not conform with these requirements may be rejected as informal.

INSTRUCTIONS TO BIDDERS (Cont'd)

CANCELLATION

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.

PREQUALIFICATION REQUIREMENT

Pursuant to Multnomah County Public Contract Review Board (PCRB) Administrative Rule AR 40.030, prequalification shall be required for this project in the following classes of work.

Reinforced Concrete and Structural Steel Bridges and Grade Separation Structures

AWARD AND EXECUTION OF CONTRACT

The date or dates for the completion of the work contemplated by this contract shall not be vitiated by the fact that there will, of necessity, be a certain period of elapsed time between the date of receiving bids and the signing of the written instruments by all parties thereto.

In specifying the date or dates for completion, it has been assumed that a period of not more than forty (40) days will elapse between the receiving of the bids and the delivery to the Board of County Commissioners by the Contractor of the contract and accompanying bond executed by the Contractor and his Surety. The forty (40) days are comprised of thirty-five (35) days between the receiving of bids and the submission to the Contractor of the written instruments of the contract and bond for execution; and, five (5) days in which the Contractor has to execute and deliver to the Commissioners the executed contract and accompanying bond. If the period between the receiving of bids and the submission to the Contractor of the contract for execution exceeds thirty-five (35) days, consideration will be given granting a corresponding extension of time specified for the completion of the work.

The Contractor shall within the five (5) days from the date of notification by the Board of County Commissioners of Multnomah County that the contract is ready for signature and, before commencing work thereunder, furnish to the Board of County Commissioners a fully executed contract and bond and shall maintain said bond in force during the continuation of his contract.

The bond must be satisfactory to the Board of County Commissioners 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 Board of County Commissioners 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 or further action by either party.

No work may be commenced by the Contractor until the contract and bond are submitted to the Board of County Commissioners; and, the County Engineer 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.

PERFORMANCE - PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: That we _____ a
_____ hereinafter called "Principal" and
_____ of _____, State of Oregon, 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
_____, 1989, a copy of which is hereto attached and made a part for
the construction of:

**Broadway/Burnside Bridges Mechanical and
Electrical Renovations**

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 terms 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 reasons 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
to 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 and 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 the 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 his 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 ____ day of _____, 1989.

PERFORMANCE PAYMENT BOND (page 3)

ATTEST:

Principal

By: _____(s)

(Address - Zip Code)

(SEAL)

Witness as to Principal

(Address - Zip Code)

ATTEST:

Surety

By: _____
Attorney-in-Fact

(Surety) Secretary

(SEAL)

(Address - Zip Code)

Witness to Surety

(Address - Zip Code)

APPROVED AS TO FORM:

LAURENCE KRESSEL
County Counsel

By: _____

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

DESCRIPTION OF WORK TO BE DONE
AND SPECIAL PROVISIONS

On the inserted sheets which follow is given a description of the work to be performed under this particular contract, together with special provisions and instructions supplementing and qualifying the foregoing standard specifications and general provisions making them applicable to the particular work to be done. In case of conflict between these special provisions and instructions and the standard specifications, general provisions or plans, the special provisions and instructions shall govern.

MULTNOMAH COUNTY SUPPLEMENT
TO OREGON STATE HIGHWAY DIVISION
STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION

SECTION 101 - DEFINITIONS AND TERMS

ALL REFERENCES TO THE STATE, OFFICERS, COMMISSIONS, DIVISIONS, REPRESENTATIVES AND DEPARTMENT AS THE CONTRACTING AGENCY SHALL BE UNDERSTOOD TO REFER TO MULTNOMAH COUNTY, ITS OFFICERS, COMMISSIONS, DIVISIONS, REPRESENTATIVES AND DEPARTMENTS.

Section 101.02 - Definitions

In accordance with the above, words referring to the State, its officers, divisions, etc., shall be understood to refer to Multnomah County and its equivalent officers, commissions, etc., as follows:

Commission - Transportation Commission - County equivalent is the Board of County Commissioners of Multnomah County, Oregon, Room 606, County Courthouse, 1021 S.W. 4th Avenue, Portland, Oregon 97204.

Division - Highway Division - County equivalent is the Transportation Division of the Department of Environmental Services of Multnomah County, Oregon, 1620 S.E. 190th Avenue, Portland, Oregon 97233, consisting of the Director, County Engineer, Associate Engineers, Assistant Engineers, and all their employees or assistants.

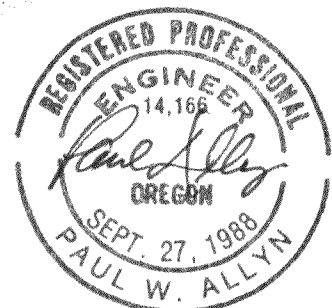
Engineer - County equivalent is the County Engineer of Multnomah County, Oregon, acting either directly or through his authorized representatives.

Project - The specific work described in the proposal and depicted on the plans, to be performed under the contract.

State Controlled Lands - County equivalent is the areas which are controlled, under jurisdiction of, or owned by Multnomah County.

Add the following definition:

Department - The Department of Environmental Services of Multnomah County Oregon.



SPECIAL PROVISIONS

WORK TO BE DONE

Mechanical and electrical renovations to the Broadway and Burnside Bridges shall be completed as indicated on the plans and as specified herein. The major features of work to be completed under this contract include but are not limited to the following:

1. Pre-repair and Post-repair Performance Testing (Broadway Bridge).
2. Anchor Strut Support Replacement (Broadway Bridge).
3. Operating Strut Pin and Bearings Replacement (Broadway Bridge).
4. Span Drive Bearing Rehabilitation (Broadway Bridge).
5. Rack Guide and Guide Wheel Bearing Rehabilitation (Broadway Bridge).
6. Main Span Drive Motor Back Gearing Shaft Bearing Replacement (Broadway Bridge).
- 7.. Hydraulic Buffer Cylinder Installation (Broadway Bridge).
8. Traffic Signal and Warning Gate Installation (Broadway Bridge).
9. Submarine Duct Installation (Broadway Bridge).
10. Submarine Cable Termination Cabinet and Cable Installation (Broadway Bridge).
11. Power Distribution System Revision (Broadway Bridge).
12. Power Distribution System Revision (Burnside Bridge).

Class of Project

This is a Multnomah County Project.

Completion Time Limit

The work to be done under the Contract shall be completed before the elapse of 220 calendar workdays.

Applicable Standard Specifications

The Standard Specifications which are applicable to the work on this project are the 1984 Edition of the "Standard Specifications for Highway Construction" of the Oregon State Highway Division, and the 1988 edition of the "Standard Specifications for Movable Highway Bridges", American Association of State Highway and Transportation Officials (AASHTO), as amended and supplemented herein.

UNLESS STATED OTHERWISE, ALL NUMBER REFERENCES IN THESE SPECIAL PROVISIONS SHALL BE UNDERSTOOD TO REFER TO THE SECTIONS OR SUBSECTIONS OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION 1984, BEARING LIKE NUMBERS.

The following are supporting standard specifications which are invoked by either the plans, these Special Provisions, or the major standard specifications. The current edition of each is to be used except where an earlier edition is specified.

- a. American Society for Testing Materials (ASTM) Annual Book of ASTM Standards (ASTM - designated metals).
- b. American National Standards Institute (ANSI)
- c. Oregon State Highway Division, "Standard Specifications for Welded Highway Bridges", (welded bridge standards).
- d. American Society of Welding Engineers (AWS) "Standard Welding Code - Steel" (1982) (welded structures).
- e. American Gear Manufacturers Association (AGMA)
- f. Steel Structures Painting Council (SSPC).
- g. National Fire Protection Association (NFPA) 70, National Electric Code (NEC).

Applicable Standard Specifications Cont'd

- h. Underwriter's Laboratories (UL).
- i. National Electrical Manufacturer's Association (NEMA).
- j. Institute of Electrical and Electronic Engineers (IEEE).
- k. Multnomah County Oregon Operation and Maintenance Manual for the
Willamette River Bridges.

SECTION 102 - BIDDING REQUIREMENTS AND CONDITIONS

102.01 Prequalification of Bidders - Delete the first and second paragraphs and substitute the following:

Pursuant to the Administrative Rules of the Multnomah County Public Contract Review Board (AR-40.030) - prequalification of Contractors shall be required for all projects estimated to cost more than \$50,000.

Prequalifications shall be made through the Department of General Services, Purchasing Division, 2505 S.E. 11th Avenue, Portland, Oregon 97202.

Those submittals which fail to address all of the above requirements shall be considered nonresponsive and may either be rejected, or returned to the Bidder for resubmittal at the County's option.

102.05 Examination of Plans, Specifications, Special Provisions and Site of Work - The County will hold a mandatory prebidding meeting for all holders of bidding documents at the Multnomah County Transportation Building, the Yeon Shop at 1620 S.E. 190th Ave, Portland, Oregon at 10:00 a.m. on Tuesday, August 1, 1989.

Bidding documents holders will be given the opportunity to ask questions relating to any details involved in the performance of the work under this contract. Following the meeting the County will conduct an "on-site" inspection of the structures.

Bidders on this contract will be required to have attended this meeting and "on-site" inspection. Bids will not be accepted from any bidder who has not attended the meeting.

Information distributed or responses to questions at the prebidding meeting will not in any way alter or affect any of the provisions contained in the project details and specifications.

SECTION 102 - BIDDING REQUIREMENTS AND CONDITIONS Cont'd

102.06 Changes in Plans, Specifications or Quantities Prior to Opening Bids - Delete this Subsection of the Standard Specifications and substitute the following:

At any time before proposals are opened, the Division reserves the right to make necessary changes or corrections to plans, specifications, provisions, and quantities. Bidders will be notified of these changes or corrections by letter, facsimile, or telegram sent to the bidders address as it appears in the files of the Division.

The Division will not be responsible for failure of bidders to receive notifications of changes or corrections sent as stated above. Proposals opened and found not to be based on the changes or corrections sent before the proposals were opened will be considered nonresponsive.

102.07 Preparation of Proposal - Add the following to the end of the third paragraph of this Subsection:

The bidder(s) shall provide Federal Tax Identified Number(s) in the appropriate space(s) on the signature page of the proposal form. An individual shall use the person's Social Security Number.

Delete the last sentence of the last paragraph of this Subsection.

102.10 Proposal Guaranty -

In the second paragraph change the reference to ten days to read five (5) days.

Delete the third paragraph and substitute the following:

If a proposal bond is given it must be executed on the approved form of Multnomah County. A copy of this form is included with this request for proposals and may be detached to facilitate execution of same.

102.12 Delivery of Proposals - Add the following:

All proposals shall be delivered in conformance with the requirements of this Subsection. The office designated for receipt of proposals and for withdrawal and revision of proposals is the Office of Purchasing Director, 2505 S.E. 11th Avenue, Portland, Oregon 97202.

SECTION 102 - BIDDING REQUIREMENTS AND CONDITIONS Cont'd

102.19 Contract Forms, Plans and Specifications -

Delete the first paragraph and substitute the following:

The Contract which the successful bidder will be required to sign shall be of the form currently in use by Multnomah County. A copy of the form may be acquired from the County Engineer.

Add to the end of the fifth paragraph of this subsection.

Drawings pertaining to and becoming part of this Contract are those of Multnomah County Department of Environmental Services entitled:

**"BROADWAY/BURNSIDE BRIDGES MECHANICAL AND
ELECTRICAL RENOVATIONS"**

Please direct any questions you may have regarding specifications or design to the Project Engineer, Chuck Henley, (503)248-3191.

102.30 Preference for Oregon Resident Bidders - This Subsection is required by ORS 279.025 and 279.029, and applies only to contracts for projects financed without federal funds.

In determining the lowest responsible bidder, the Division will, for the purposes of awarding the contract, and a percent increase on the bid of a nonresident bidder equal to the percent, if any, of the preference given to that bidder in the state in which the bidder resides.

The percentage increase applied in each state will be published on or before January 1 of each year by the Department of General Services. The Division may rely on those percentages without incurring any liability to any bidder.

It is understood that this increase will be applied to determine the lowest responsible bidder only and will not cause any increase in payment to the Contractor after award of the contract.

SECTION 102 - BIDDING REQUIREMENTS AND CONDITIONS Cont'd

As used in this Subsection:

- "Lowest responsible bidder" means the lowest bidder who substantially complied with all prescribed public bidding procedures and requirements and who has not been disqualified by the Division under ORS 279.037.
- "Resident bidder" means a bidder that has paid unemployment taxes or income taxes in this state during any of 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 qualified as a "resident bidder".
- "Nonresident bidder" means a bidder who is not a "resident bidder" as defined above.

The bidder shall complete the Bidder Residency Statement form provided by the Division in the proposal booklet. The form shall be signed by a person authorized to sign the proposal. Failure to properly complete and sign the form will be cause to reject the proposal.

SECTION 103 - AWARD AND EXECUTION OF CONTRACT

All reference to "Performance Bond" shall be understood to mean "Performance Payment Bond" as stated in the Contract agreement.

103.03 Performance Bond -

Delete the last sentence and substitute the following:

The Performance Bond shall be executed on the approved form of Multnomah County, which includes a one year maintenance agreement paragraph. A copy of this form is included with this request for proposals.

103.06 Execution of Contract and Bond -

In the first sentence of the first paragraph of this Subsection, change the reference to ten (10) days to read five (5) days.

103.10 Guaranty - Add the following:

The Contractor shall guarantee for a period of one (1) year from the date of acceptance of the work that all work under the Contract is free from all defects due to faulty materials or workmanship. The Contractor shall promptly make such corrections or repairs as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects.

If the Contractor, after notice, fails within 10 days to proceed with such repairs, or other work that may be made necessary by such defects the County may do so and charge the Contractor the cost thereby incurred. The Performance Bond shall remain in full force and effect through the guarantee period.

SECTION 104 - SCOPE OF WORK

104.02 Changes and Alteration of Plans or Character of Work - At the end of the first sentence of the second paragraph of this subsection, add the word "work".

104.05 Maintenance of Traffic Through the Work - Add the following:

The Contractor will not be permitted to interfere with the free flow of traffic on the structure, except as necessary to accomplish the work. Closure of traffic lanes will be permitted only as required for specific operations; see Section 111 and Subsection 108.04.

The Contractor shall submit to the Engineer for approval a plan and schedule for guiding and protecting traffic and for protecting workers. The Contractor shall receive approval of the plan and schedule prior to commencing any work which interferes with traffic. The plan shall incorporate temporary protection and direction of traffic requirements shown in the plans, in Section 111 of the Supplemental Standard Specifications and special provisions and in other applicable portions of the contract documents.

The provisions in this Section and Section 111 may be modified or altered if, in the opinion of the Engineer, public traffic will be better served and work expedited.

SECTION 105 - CONTROL OF WORK

105.01 Authority of the Engineer - Delete this subsection of the Standard Specifications and substitute the following:

All work on the Contract shall completely satisfy the Engineer. The contract and specifications give the Engineer authority over the work. For the purpose of the control of the work, but not for the purpose of determining the Contractor's entitlement to compensation or liability for damages, the decision of the Engineer will be final on all questions including, but not limited to, the following:

- Quality and acceptability of materials and work,
- Measurement of unit price work,
- Acceptability of rates of progress on the work,
- Interpretation of plans and specifications,
- Fulfillment of the contract by the Contractor, and
- Payments under the contract.

The authority of the Engineer is such that the Contractor shall at all times carry and fulfill the instructions and directions of the Engineer insofar as they concern the work to be done under the contract.

To determine if the Contractor is entitled to additional compensation or is liable for damages, the Engineer's decision within the technical competence of an Engineer, shall be presumed to be correct, unless it is shown to be based on a gross mistake.

For purpose of this Section, a "gross mistake" is one which results in more than a nominal difference in the amount of additional compensation or damages.

An Engineer's decision may be appealed and litigated as provided in Subsection 109.05, Claims for Extra Compensation and Notice.

The Engineer has the authority to suspend the work as set forth in Section 108, particularly Subsection 108.07.

All work to be done under the contract will not be considered completed until it has passed final inspection by the Engineer and is accepted by the Commission.

SECTION 105 - CONTROL OF WORK Cont'd

Interim approval of the work by the Engineer during progress of the work signifies favorable opinion and qualified consent; it does not carry with it certification, nor assurance of completeness, nor assurance of quality, nor assurance of accuracy concerning details, dimensions, and quantities. Such approval will not relieve the Contractor from responsibility for errors, for improper fabrication, for nonconformance to requirements, nor for deficiencies within the Contractor's control.

105.02 Plans and Drawings - Add the following:

Shop drawings shall include the following information:

- (a) Reference to standard material specifications for each item.
- (b) The surface finish of machined surfaces and tolerances for each dimension for which a specific fit is required. Proprietary parts shall be shown in outline on the drawings with sufficient dimensions and data to determine the clearances required for installation and operation. Certified dimension prints shall state pertinent ratings of the equipment, type of lubrication fittings, the location of inspection openings, and the location and type of venting devices.
- (c) Fits and finishes shall be as defined in Paragraph 2.5.17, Section 5 of the 1988 issue of the STANDARD SPECIFICATIONS FOR MOVABLE HIGHWAY BRIDGES as published by AASHTO.
- (d) The Contractor shall submit copies of supplier or manufacturer data including specifications, tests, and installing instructions, as applicable, for the following items, but not excluding other items or materials not specifically mentioned:
 - 1. Mill reports and physical tests of all metals.
 - 2. Bolts, nuts, washers, and other fasteners.
 - 3. Paint.

SECTION 105 - CONTROL OF WORK Cont'd

- (e) The Contractor shall indicate on the Shop Drawings the type of tightening, type of wrench, and the torque to be applied to all connecting bolts for all major items of machinery. The Contractor shall also submit a chart showing the torque values used to tighten each machinery mounting bolt.
- (f) Complete data on the design and construction of any unit furnished as part of the machinery under this contract, including material specification, cross-section assembly drawings, detail drawings and dimensions of principal elements.
- (g) Complete data consisting of catalog cuts and specifications as required to fully demonstrate compliance with this Contract for standard electrical items. Also manufacturer's installation and operating instructions.
- (h) Complete manufacturer's or fabricator's working drawings (physical, schematic, interconnect, etc.), installation and operating instructions, specifications and catalog cuts as required to fully demonstrate compliance with this contract for non-standard electrical items (equipment of custom design, equipment consisting of assemblies of standard components, or standard equipment with modifications or accessories). Shop drawings of related or interconnected equipment shall be submitted together.
- (i) Complete shop bills of materials shall be included for all electrical and machinery parts. If the bills are not shown on the shop drawings, prints of the bills shall be furnished for approval in the same manner as specified for drawings. The computed weight of each piece of machinery shall be stated on the shop drawings upon which it is detailed.
- (j) Complete assembly and installation drawings shall be furnished. These drawings shall be given identifying marks and essential dimensions for locating each part or assembled unit with respect to the bridge or foundation.

SECTION 105 - CONTROL OF WORK Cont'd

- (k) Reference to the welding procedure on each of the welding symbols, using the appropriate number of the submitted welding procedure.

Shop Drawings which require correction shall be resubmitted until such time as they are acceptable to the Engineer and such procedure shall not be considered a cause for delay. The Contractor shall bear all costs or damages which may result from the ordering or fabrication of any materials prior to the review of Shop Drawings. As a means of expediting delivery prior to review of Shop Drawings, the Contractor may request, in writing from the Engineer, approval to order raw materials of the correct type for later fabrication from reviewed Shop Drawings.

After review of the Shop Drawings, the Contractor shall supply the Engineer with additional copies of the reviewed Shop Drawings as may be required.

Working drawings for all scaffold and temporary support structures shall be prepared, signed and stamped with the seal of an engineer registered to practice in the State of Oregon. These working drawings along with calculations shall be submitted to the Engineer for review.

It shall be understood that the review of these working drawings and calculations shall in no way relieve the Contractor of any of his responsibility under the contract for the successful completion of the work.

105.05 Cooperation & Superintendence by Contractor - Add the following:

The Contractor shall cooperate and coordinate work efforts with County Bridge Maintenance forces as necessary and directed by the Engineer.

The Broadway and Burnside Bridges are maintained by the Multnomah County Bridge Maintenance Section. Should the need arise, the County may have to perform emergency maintenance work which will affect lane closures and which may require the Contractor to temporarily remove his men and equipment from the bridge.

If the emergency maintenance work requires a lane closure, the Contractor shall not be allowed to close another lane unless approved by the Engineer.

SECTION 105 - CONTROL OF WORK Cont'd

If completion of a critical work item is delayed by reason of emergency maintenance work performed by the County, consideration of an extension of contract time will be made by the Engineer.

The movable span section of the bridge is raised for river traffic with approximately one hours notice. The movable span must be kept clear of all materials, equipment and personnel. No stockpiled material, any equipment or personnel can "ride" the movable span on a rising, lowering cycle.

The presence of materials and equipment on the bridge deck surface including sidewalks, shall be kept to the minimum necessary to accomplish each shift of work. No stockpiling of materials or parking of equipment shall be allowed within 30 feet of the movable span deck. No stockpiling of materials or parking of equipment during non-working hours shall be allowed.

Excluding wheeled vehicles, material and equipment placed on sidewalks shall not exceed 30 pounds per square foot when applied to areas 100 square feet or more. Company vehicles and equipment but not personnel's private vehicles, will be allowed to park on the bridge during each workshift.

The work schedule may encompass the Rose Festival period. The work to be performed by this contract will be suspended during the fourteen (14) calendar day period of the Rose Festival. No temporary signing, barricades, barriers, fencing, construction material and equipment shall remain on the project site during this period. Any and all parts of the Broadway and Burnside Bridges shall be in the original or the rehabilitated condition during this period unless approved by the Engineer.

Contract time will not be charged during this suspended period. No claim for additional compensation will be justified for the delay caused by suspension.

105.06 Utilities

The following is a known list of the utilities within the immediate work area of this project:

- | | |
|------|---|
| AT&T | -Submarine Cables between Piers 5 and 6
on the Broadway Bridge |
| PGE | -Service entrances on both Broadway and
Burnside Bridges |

SECTION 105 - CONTROL OF WORK Cont'd

Any information shown as to the location of existing courses, drains, sewer lines or utility lines which cross or are adjacent to the project, has been compiled from the best available sources, but is not guaranteed to be accurate.

The Contractor shall be responsible for all costs for the repair of damage to the Contract work or to any utility, previously known or disclosed during the work, as may be caused by operations.

105.07 Cooperation between Contractors - Add the following:

The Contractor is hereby advised that the County will be letting two other separate contracts for structural and mechanical renovations to the Burnside Bridge. The Contractor for this project shall organize his work so as to cause minimal interference or hinderance to the completion of the Burnside Projects and shall also cooperate with the other contractors to avoid conflicts in vehicular lane closures and restrictions to river traffic. The Engineer will have the final decision on any conflicts which may arise.

At no time shall the Burnside Bridge and the Broadway Bridge be closed to vehicular traffic at the same time.

105.20 Broadway/Burnside Mechanical and Electrical Renovation - Add the following:

The Contractor shall submit documents in accordance with the following schedule. Before submission, the Contractor shall review and sign each submittal. The Engineer will review submittals for design concept and conformance with the contract documents and return submittals requiring correction for resubmittal. The construction submittal schedule shall include, but not necessarily be limited to, the following listed items:

CONSTRUCTION SUBMITTAL SCHEDULE

WHAT	WHEN (no later than)
1. Subcontractor Agreements	Prior to notices to proceed with specific work phases.

SECTION 105 - CONTROL OF WORK Cont'd

CONSTRUCTION SUBMITTAL SCHEDULE

WHAT	WHEN (no later than)
2. Request for Navigation Restrictions	45 Days Prior to first navigation restriction.
3. Request for Bridge Closure to Vehicular and Pedestrian Traffic	14 days prior to first weekend bridge closure period.
4. Installation Plan during Inoperable Periods	30 days prior to first weekend bridge closure period.
5. Material Documentation Outline	Prior to beginning mill-work or fabrication.
6. Tightening Torque Plan and Chart	21 days prior to installation or assembly.
7. Buffer Criteria Force vs. Stroke Curve	21 days prior to beginning fabrication.
8. Type "C" Construction Progress Schedule	At the Preconstruction Conference.
9. Two-week Look-Ahead Schedule	Every week during the contract duration.
10. Traffic Control Implementation Plan & Schedule	14 days prior to beginning work affecting traffic.
11. Means for Control of Fallout Material	14 days prior to beginning work producing fallout material.

SECTION 105 - CONTROL OF WORK Cont'd

CONSTRUCTION SUBMITTAL SCHEDULE

WHAT	WHEN (no later than)
12. Certified Welders Statements	14 days prior to commencing shop or field welding.
13. Manufacturer's Certificates of Material Compliance	14 days prior to being incorporated in the work.
14. Certified Payrolls	Every week whenever any work is being performed.
15. Shop Drawings, Details, and Bills	21 days prior to beginning fabrication.
16. Structure and Machinery Assembly and Installation Drawings	21 days prior to beginning installation or assembly.
17. Steel Erection Drawings	21 days prior to beginning erection.
18. Falsework Drawings	21 days prior to beginning setup.
19. Electrical Performance Test Results	Following each test.
20. Pre-repair and Post-repair Performance Test Plan	21 days prior to pre- repair tests.
21. Mechanical Performance and Alignment Test Results	Following each test.
22. Submarine Duct Anchorage Device Drawings	21 days prior to installation.

SECTION 105 - CONTROL OF WORK Cont'd

CONSTRUCTION SUBMITTAL SCHEDULE

WHAT	WHEN (no later than)
23. Supplier or Manufacturer's Data	Prior to being incorporated in the work.
24. Adjustment Alignment Data Sheets	After final adjustment and before final inspection.
25. Material Safety Data Sheets	Prior to incorporation of material into the work.
26. Operational Readiness Certification	Upon work acceptance by the Engineer Prior to final acceptance.
27. Advance Notice of Cleaning and Painting	7 days prior to start of cleaning and painting operations.
28. Record Shop Drawings and Details	Upon work acceptance by the Engineer prior to final acceptance.

SECTION 106 - CONTROL OF MATERIALS

106.08 Samples, Test and Cited Specifications of Materials - Add the following:

Materials requiring a manufacturer's certification from the Contractor will not be permitted to be incorporated into the project without acceptable certification, unless they are necessary for traffic or to restore traffic. If acceptable certifications are not available at time of proposed incorporation, the Contractor may make a written request of the Engineer to determine if the materials can be sampled and tested at the Contractor's expense. The Engineer will then determine if the County can arrange for the material to be sampled and tested, the estimated cost thereof and the estimated length of time to accomplish the testing. The Engineer will provide this information to the Contractor in writing.

Upon receipt of this information, the Contractor may make a written request of the Engineer to proceed with such sampling and testing at the Contractor's expense. If the materials are found acceptable by testing, they will be permitted to be incorporated into the project. If incorporation is necessary for traffic safety or to restore traffic, the above written notices will be waived and the Engineer will sample and test at the Contractor's expense.

Payment for the materials and the cost of incorporating the materials into the project will not be made until the materials are found acceptable by certification or by testing.

SECTION 107 - LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

107.02 Permits, Licensing and Taxes - Add the following:

Pursuant to Section 10 of the River and Harbor Act of March 3, 1899 (33 U.S.C. 403), the County has been authorized to install three 4-inch ducts at a minimum depth of 40 feet Columbia River Datum. The discharge of material for backfill or bedding for submarine cable ducts, has been authorized by nation wide permit number 12,33 CFR 330.5 (a) (12), provided the conditions in 33 CFR 330.5 (b) (1-14) and the Management Practices in 33 CFR 330.6 (a) (1-8) are followed. The Contractor shall comply with the aforementioned conditions as stated in the permit and the following:

1. All construction debris and fallout material shall be disposed of in such a manner that it cannot enter the waterway.
2. Care shall be taken to prevent any petroleum products, chemicals, or other deleterious materials from entering the water.
3. Work in the waterway shall be done so as to minimize turbidity increases in the water that tend to degrade water quality and damage aquatic life.
4. There is to be no change in the preconstruction bottom contour. Excess material must be removed to an upland disposal site.
5. If notified by a fishery agency that a filling activity is adversely affecting fish or wildlife resources or the harvest thereof, the Contractor shall comply with remedial measures and directions as may be received to suspend or modify the activity, to the extent required to mitigate or eliminate the adverse effect.
6. The Contractor must not interfere with the public's right to free navigation on the Willamette River.

107.06 Industrial Accident Protection - Delete the third paragraph of this subsection of the Standard Specifications.

SECTION 107 - LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC Cont'd

Add the following at the end of this subsection:

The Contractor is advised that employees working over or adjacent to navigable waters are entitles to coverage under the Longshoremans and Harbor Workers Compensation Act(LHWCA) as amended in 1972 (44 Stat. 1424, as amended, 86 Stat. 1251, 33 U.S.C. Section 901 et. seq.). The U.s. Supreme Court case that clarifies the coverage is Director, Office of Worker's Compensation Programs, United State Department of Labor v. Perini North River Association, 103 S. Ct. 634 (1983). Ordinary worker's compensation coverage would not prohibit a lawsuit under the Act and could result in directly liability to the Contractor. It is the Contractor's responsibility to determine whether or not they are covered under this Act.

107.11 Deposits in and Bridges over Navigable Waters - Add the following:

The means for control of fallout material shall be satisfactory to the Engineer and meet the requirements of the Oregon Department of Environmental Quality and other regulatory agencies.

Provisions for River Navigation

In accordance with federal law, the bridge must be opened to river traffic upon demand, except for "closed periods" for peak hour highway traffic, which are from 7:00 a.m., to 8:30 a.m., and from 4:00 p.m., to 5:30 p.m., except weekends and holidays. Vessels inbound from the ocean may demand opening at any time.

When required for renovations, the Contractor will be permitted to restrict opening of the bascule to a single leaf. A formal, written request shall be submitted to the County a minimum of 45 days prior to the desired starting date for the single leaf restriction.

Staging extending more than 5 feet below the lowest truss members shall require Coast Guard approval.

107.21 Responsibility for Damage Claims - Add the following:

In connection with the work to be performed under this Contract, it shall be understood that the "idemnification and save harmless" requirements extend to the Multnomah County Board of Commissioners and officers and employees of Multnomah County.

SECTION 107 - LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC Cont'd

Delete the last three paragraphs and substitute the following:

The Contractor shall carry as a minimum personal injury and property damage, insurance in the amounts of \$500,000 per person for personal injury, \$250,000 for property damage, and \$1,000,000 total for all claims arising out of a single accident or occurrence. The Contractor shall include the City of Portland and Multnomah County by and through its Department of Environmental Services, its officers, agents and employees, as named insureds on insurance policies issued for this project, or shall furnish an additional insured endorsement naming the same as additional insured to the Contractor's existing public liability and property damage insurance.

Before the Contract is executed, the Contractor shall furnish to the Department, a certificate of insurance for the limits set out above, which is to be in force and applicable to the project.

The insurance coverage shall not be amended, altered, modified or cancelled insofar as the coverage contemplated herein is concerned, without at least 30 days notice mailed by registered mail to the Engineer.

107.25 Contractor's Responsibility for Work - Delete the second sentence of the first paragraph of this subsection and substitute the following:

The Contractor shall rebuild, repair, restore and make good all losses, injuries and damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expense thereof; except loss, injury or damage to the work due to acts of God, acts of the public enemy or of governmental authorities.

By entering into a contract, the Contractor, for consideration paid to the Contractor under the contract, does irrevocably assign to Multnomah County any claim for relief or cause of action which the Contractor now has or which may accrue to the Contractor in the future, including, at the County's option, the right to control any such litigation on such claim for relief or cause of action, by reason of any violation of 15 USC Sections 1-15 or ORS 646.725 or ORS 646.730, in connection with any goods or services provided to the Contractor by any person, which goods or services are used, in whole or in part, for the purpose of carrying out the Contractor's obligations under this contract.

SECTION 107 - LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC Cont'd

In the event the Contractor hires subcontractors to perform any of the Contractor's duties under the contract, the Contractor shall require the subcontractor to irrevocably assign to as Multnomah County, as a third party beneficiary, any right, title or interest that has accrued or may occur to the subcontractor by reason of any violation of 15 USC Sections 1-15, ORS 646.725 or ORS 646.730, including, at the County's option, the rights to control any litigation arising thereunder, in connection with any goods or services provided to the subcontractor by any person, in whole or in part, for the purpose of carrying out the subcontractor's obligation as agreed to by the Contractor in pursuance of the completion of the contract.

In connection with this assignment, it is an express obligation of the Contractor that it will take no action which will in any way diminish the value of the rights conveyed or assigned hereunder to Multnomah County. It is an express obligation of the Contractor to advise the County Counsel of Multnomah County:

1. In advance, of its intention to commence any action on its own behalf regarding such claims for relief or causes of action;
2. Immediately, upon becoming aware of the fact that an action has been commenced on its own behalf by some other person or persons, of the pendency of such action; and
3. The date on which it notified the obligor(s) of any such claims for relief or causes of action of the fact of this assignment to Multnomah County.

Furthermore, it is understood or agreed that in the event that any payment under any such claim to the Contractor, it shall promptly pay over to Multnomah County its proportionate share thereof, if any, assigned to the County.

SECTION 108 - PROSECUTION AND PROGRESS

108.01 Assignment, Subletting, Specialty Items and Direct Performance of Contract - Insert the following two paragraphs after the second paragraph of this Subsection:

All requests for permission to sublet or subcontract any portion of the contract, or to have any of the work performed by another organization, shall be accompanied by a true copy of the subcontract until the Division has given written consent to the subcontract. Any amendments or modifications to the subcontract agreement shall be submitted in writing and receive the written consent of the Division before any additional work is done.

No assignment of any proceeds due under a contract with the Division will be made unless it is on a form prescribed by the Engineer and the Contractor secures the consent of its surety to the assignment. Copies of the prescribed form titled "Assignment of Claim", Form No. 734-1204, can be obtained from the Manager of Commission Services, Room 121, State Transportation Building, Salem, Oregon 97310, Telephone (503)378-6526.

108.03 Commencement and Performance of Work - Add the following paragraphs at the end of this Subsection:

The authorized date (s) after which work can proceed shall normally be the date the Contract Time begins to run. This date shall be stated in the Notice to Proceed and corresponds to the "First Notification".

The Contractor shall conduct the work at all times in a manner and sequence that will ensure the least interference with traffic. The Contractor shall not begin work that will interface with work already started. The Engineer may require the Contractor to finish a portion or unit of the project on which work is in progress or to finish a construction operation before work is started on an additional portion or unit of the project.

108.04 Preconstruction Conference, Schedule and Limitations of Operations - Delete this Subsection and substitute the following:

108.04 Limitation of Operations, Preconstruction Conference, and Schedule:

- (a) Limitation of Operations - Limitations of operations specified in these Special Provisions include, but are not limited to:

SECTION 108 - PROSECUTION AND PROGRESS Cont'd

<u>Limitation</u>	<u>Subsection</u>
- Work by other public and private jurisdiction	105.05
- Cooperation between Contractors	105.07
- Regulatory Agency Requirements	107.01 & 107.11
- Special events - Rose Festival	105.05
- Interim completion times(s) Notice(s) to Proceed	108.04
- Final Completion time(s)	108.08
- Traffic restrictions	104.05 & 111.64
- Performance Testing	510.76 & 691.24

The Contractor shall also be aware of and subject to schedule limitations in the Standard Specifications and Supplemental Standard Specifications which are not listed in this Subsection.

"On-Site" work shall not begin until such time as the Contractor has labor, tools, equipment, and all materials on the project or guaranteed to arrive on the project without delaying the work and until the Contractor is ready to prosecute the work to completion in a continuous and efficient manner.

For the purpose of these provisions, "on-site" work shall be understood to mean "critical on-site" work as described below, except for installation of temporary signs as required under Section 111 of the Supplemental Standard Specifications.

Temporary signs shall be covered or turned according to the requirements of 111.41(f) until "on-site" work is performed unless otherwise directed by the Engineer.

SECTION 108 - PROSECUTION AND PROGRESS Cont'd

Before any work can begin the Contractor shall be in receipt of written Notice to Proceed and the Division shall be in receipt of required work plans and schedules as follows:

1. Notice of the authority to begin traffic control measures and preparatory work will be given first. This is the date the Contract Time begins and corresponds to the "First Notification".
2. Notice of the authority to begin "critical on-site work" that results in one or more bascule leaves being inoperable will be given after the Engineer is satisfied that all work pre-requisite to an expedient installation is complete.
3. A plan for supporting the inactive leaf on the Broadway Bridge during the anchor strut rehabilitation shall be submitted at least 21 days in advance of beginning the work.
4. A plan and schedule for efficient installation of the renovation components and assemblies shall be submitted at least thirty (30) days before authority to proceed with "critical on-site work" is given by the Engineer.

The mechanical and electrical renovation components shall be prefabricated, preassembled, and pretested to the maximum practical extent prior to rendering the movable span inoperable. This will minimize the time vehicular, pedestrian and marine traffic is restricted.

The Contractor shall adhere to the following provisions and conditions. Work plans and schedules submitted in accordance with Section 105 shall clearly show the effect of these provisions on the planned duration and sequence of the work:

1. On each bridge (Broadway and Burnside), one of the two leaves shall remain operable at all times.
2. Priority shall be placed upon the Broadway Bridge Submarine cable installation and related work items.

SECTION 108 - PROSECUTION AND PROGRESS Cont'd

3. Dredging or other disturbance of the river bottom shall not be permitted between February 1 and May 15, nor between September 1 and September 30.
4. The recommended installation sequence for anchor strut rehabilitation and buffer cylinder installation on the Broadway Bridge occurs with the movable span open a few degrees. The "critical on-site" work occurs with the bridge in this position.
5. The Division will perform in-shop inspections of many fabricated components before delivery to the job-site.
6. Painting application requirements of Section 514 in these Special Provisions.

The Contractor shall have permission to close the bridge to vehicular and pedestrian traffic between 10:00 p.m. and 6:00 a.m. Monday through Thursday. At least one leaf of the bridge shall remain operable at all times, including these periods.

The Contractor shall also be permitted to close the bridge continuously to vehicular and pedestrian traffic for four (4) weekend periods from 10:00 p.m. Friday to 6:00 a.m. Monday so that anchor strut support replacement and buffer cylinder installation can take place with the drawspan slightly open. At least one leaf of the bridge shall remain operable at all times during these periods. Note the special liquidated damages for exceeding the time in any one period.

The Contractor shall notify the Engineer in writing at least fourteen (14) days prior to beginning any work that restricts vehicular or pedestrian traffic.

At no time shall the Burnside Bridge and the Broadway Bridge be closed to vehicular traffic of the same time.

The Contractor shall comply with all application requirements regarding restriction to navigation.

SECTION 108 - PROSECUTION AND PROGRESS Cont'd

- (b) Preconstruction conference - Before any work is performed under this contract, the Contractor shall meet with the Engineer for a preconstruction conference at a time mutually agreed upon.
- (c) Type "C" schedule - The Contractor shall submit project schedules as outlined below. The critical path scheduling technique shall be used to plan, coordinate, and control the progress of construction. The completing dates, work sequencing, and other aspects of the schedule shall conform to the provisions of the contract.

The project schedules shall take into account the orderly, timely and efficient prosecution of the work. The project schedules shall indicate the Contractor's plan of prosecution of the work in sufficient detail to enable both the Contractor and the Division to plan, coordinate, appraise, document, and control their respective contract responsibilities.

(c-1) Initial schedule - At least five workdays prior to the preconstruction conference, the Contractor shall submit to the Engineer four copies of a time-scaled logic diagram which shall show the following:

- The priority and interdependence of all major segments of the work.
- The expected dates for beginning each phase of each traffic stage. The schedule shall reflect the elements of the traffic control plan as required under Section 111.02 of the Supplemental Standard Specifications.
- The delivery of materials for critical work elements.

A logic diagram and a time-scaled bar chart will be acceptable in lieu of a time-scaled logic diagram.

The initial schedule shall show in detail all work intended for the first 60 days of the contract. The first 60 days of initial schedule shall be incorporated in and shall meet all requirements of the Project Schedule as listed in (c-2) below.

SECTION 108 - PROSECUTION AND PROGRESS Cont'd

(c-2) Project schedule - In addition to the above requirements, and within 30 days after the notice to proceed, the Contractor shall provide to the Engineer four copies of a detailed time-scaled critical path method (CPM) network schedule and computer analysis printout. Both shall clearly indicate the critical path. The first submitted detailed schedule shall also contain a listing of the quantity of work for each activity, where appropriate, in common units of measure.

A CPM logic diagram and a time-scaled bar chart will be accepted in lieu of a time-scaled CPM network.

Detailed work schedule activities shall include the following:

- Construction activities.
- Submittal and approval of material samples and shop drawings.
- Procurement of critical materials.
- Fabrication, installation, and testing of special material and equipment.
- Duration of work.
- Completion times of all stages and their subphases.

The activities shall be separately identifiable by coding or use of subnetworks or both. No activity shall contain more work than can be completed within 20 days. The minimum number of activities, exclusive of dummy activities required, is forty five (45). The duration of each activity shall be verifiable by manpower and equipment allocation, in common units of measure, or by delivery dates and shall be justifiable by the Contractor upon the request of the Engineer.

The time scale used on the Contractor's time-scaled CPM network schedule must be appropriate for the duration of the activities and the project duration. The time scale shall be in normal workdays defined as every day except Saturday, Sunday and legal holidays, 8 hours each day, with calendar dates identified no less than the first and midpoint of each calendar month. One day shall be the smallest unit shown.

SECTION 108 - PROSECUTION AND PROGRESS Cont'd

The length of the activity or part shall be scaled to accurately represent the number of normal workdays scheduled. If multiple shift, holiday, or weekend work is scheduled, it shall be noted in a distinctly different manner.

The schedule network drawings shall have a legend and title block and shall be a maximum of 36x36 inches in size. The legend shall contain the symbols used, their definitions, and the time scale shown graphically. The title block shall list the contract name and number, Contractor's name, date of original schedule, and all update dates.

The computer mathematical analysis of the network diagram shall include a tabulation of each activity. The following information shall be furnished as a minimum for each activity:

- Event (node) number(s) for each activity.
- Activity description.
- Original duration of activities (in normal workdays).
- Estimated remaining duration of activities (in normal workdays).
- Earliest start date or actual start date (by calendar date).
- Earliest finish date or actual finish date (by calendar date).
- Latest start date (by calendar date).
- Latest finish date (by calendar date).
- Slack or float time (in workdays).

Computer printouts shall consist of at least a node sort and an "early-start/total-float" sort. The predicted date of completion shall be within the allotted contract time.

Within 7 days after submission of the Project Schedule to the Engineer, a meeting will be held between the Engineer and the Contractor to review the Project Schedule as submitted. Any changes required to the Project Schedule shall be incorporated into the schedule by the Contractor.

SECTION 108 - PROSECUTION AND PROGRESS Cont'd

Four (4) copies of the Project Schedule in its completed form shall be signed and marked as approved by the Contractor and shall, within 10 days of the review meeting, be resubmitted to the Engineer.

When completed, the Contractor's approved Project Schedule shall represent the Contractor's own plans for the project. It shall be the Contractor's responsibility to ensure that all of the work is described in the Project Schedule and that it represents the sequence and time planned for the work. Review of this and subsequent updates by the Engineer shall not relieve the Contractor of responsibility for timely and efficient execution of the contract. Slack or float time as expressed in the Project Schedule does not exist for the exclusive use of either party to the contract and belongs to the project.

(c-3) Project reporting and control - Once a month, or more frequently if warranted, the Contractor shall review the progress of the work to that date, and a joint progress meeting shall be held between the Engineer and the Contractor. At this meeting, project events and changes will be reviewed for their effect on the Project Schedule.

After any necessary action has been agreed upon, the required changes shall be made to the Project Schedule.

The Contractor shall collect information on all activities worked on or scheduled to be worked on during the previous report period including shop drawings, material procurement, and change orders that have been issued. The information shall include commencement and completion dates on activities started or completed, or, if still in progress, the remaining time duration. Detailed subnetworks shall be developed to incorporate changes, additional work, and Extra Work into the Project Schedule.

Detailed subnetworks shall include all necessary activities and logic connectors to describe the work and all restrictions to it.

SECTION 108 - PROSECUTION AND PROGRESS Cont'd

The restraints shall include those activities from the Project Schedule which initiated the subnetwork as well as those which are restrained by it.

The Contractor shall evaluate this information and compare it with the Contractor's approved Project Schedule. A new computer run shall be made to incorporate the effect any changes may have on the project completion time(s), and the current critical path calculated. The network diagram shall show the updated information. Four copies of the updated time-scaled CPM network diagram and computer analysis print out shall be submitted to the Engineer within 7 days after the progress meeting, along with the progress report required by (c-5) below.

The predicted completion date(s) for the Project Schedule shall be within the specified contract time(s) or adjusted contract time or as shown on pending Requests for Adjustment of Contract Time.

(c-4) Two week schedule - The Contractor shall review the project schedule and progress with the Engineer periodically, and shall furnish to the Engineer on a weekly basis a project bar chart schedule showing planned activities for the following two weeks. This schedule shall be furnished on Friday of each work week.

At the discretion of the Engineer a weekly meeting shall be held between the Engineer, Contractor, and Subcontractor to discuss the schedules and construction activities. At this meeting, project events and changes will be reviewed for their effect on the Contractor's approved project schedule. After any necessary action has been agreed upon, the required changes will be made to the project schedule.

(c-5) Progress report: A progress report shall be furnished to the Engineer by the Contractor with each monthly update of the Project Schedule. Each report shall include the following:

SECTION 108 - PROSECUTION AND PROGRESS Cont'd

- Sufficient narrative to describe the past month's progress.
- Anticipated activities and stage work for the next month.
- A description of any current and expected changes or delaying factors and their effect on the Project Schedule.
- Proposed corrective actions.

Issuance of a progress report does not constitute nor replace any notice the Contractor is required to give the Division under this contract.

(c-6) Project schedule costs - There will be no separate payment for developing, furnishing, monitoring or updating the Project Schedule as payment therefor will be included in payment for one or another of the listed bid items.

The Contractor's failure to provide the schedules, schedule information, progress reports, or schedule updates at the times required herein shall cause progress payments under this contract to be suspended until the required data is provided to the Engineer unless the Engineer waives the provisions of this subsection in writing.

108.08 Contract Time for Completion of Work

All work to be done under this contract shall be completed before the elapse of 220 calendar work days. Calendar workdays shall be as set forth in section 108 of the Standard Specifications except that for this project they shall include every day of the year.

Contract time will not be charged during the fourteen (14) calendar days of the Rose Festival period.

108.08 (b) Exclusions from Elapse of Contract Time - At the end of paragraph (b-1) in this subsection add the following as a third reason for exclusion from elapse of contract time:

SECTION 108 - PROSECUTION AND PROGRESS Cont'd

(3) Acts of God

108.09 Adjustment of Contract Time - Add the following to the last sentence of the last paragraph of this Subsection:

..., except for unreasonable delays caused by acts or omissions of the County or persons acting therefor.

108.10 (a) Failure to Complete on Time and Liquidated Damages - Delete the table under the heading "Schedule of Liquidated Damages" and substitute the following:

<u>Original Amount of Contract</u>		<u>Per Diem Amount of Liquidated Damages</u>	
<u>For More Than</u>	<u>To and Including</u>	<u>Calendar Days*</u>	<u>Workday</u>
0	25,000	45	60
25,000	50,000	75	105
50,000	100,000	120	165
100,000	500,000	220	310
500,000	1,000,000	380	530
1,000,000	2,000,000	500	700
2,000,000	5,000,000	600	840
5,000,000	10,000,000	830	1,200
10,000,000	-----	1,200	1,700

*Calendar day amounts are applicable when the contract time is expressed on the calendar, calendar workday or fixed date basis.

108.10(b) Liquidated Damages for Exceeding Weekday Night and Weekend Closure Periods - Add the following:

The Contractor shall pay to Multnomah County, not as a penalty, but as liquidated damages the applicable amounts from the following table for exceeding the time allowed during closure periods.

SECTION 108 - PROSECUTION AND PROGRESS Cont'd

<u>Bridge Condition & Type of Traffic Closure</u>	<u>Applicable & Authorized Periods</u>	<u>Liquidated Damages for Exceeding the Time Allowed</u>
Case I: Operable Period - Bridge Closed to Vehicular & Ped- estrian Traffic.	Weekday Nights - 8 hrs. from 10 p.m. to 6 a.m.; Begin- ning Monday a.m. & Ending Friday p.m.	\$600.00 per Hour Exceeding the Nightly Closure Period.
Case II: Inoperable Period - Bridge Closed to Vehicular & Pedest- rian Traffic.	Weekends - 56 hrs. Continuously from 10 p.m. Friday to 6 a.m. Monday.	\$1,200.00 per hr. Exceeding the Week- end Closure Period.
Case III: Inoperable Period - River Naviga- tional Restriction.	Period of Restrict- ion to Single Leaf Opening.	Any Fines or Asses- sments as a Result of Navigational Restrictions.

For the purposes of these Specifications, "Operable" shall mean the ability to open or close the Broadway Bridge on demand in strict accordance with the procedures stated in the Multnomah County Operation and Maintenance Manual for the Willamette River Bridges.

Any liquidated damages assessed under these provisions will be in addition to those assessed under Subsection 108.10(a).

108.13 Right-of-Way and Access Delays - Add the following to the last sentence of this subsection:

..., other than as provided in subsection 108.09.

SECTION 109 - MEASUREMENT AND PAYMENT

109.01 (a) General - Add the following to the end of the second paragraph:

All computations shall be rounded off using the following method:

1. The final significant digit will not be changed when the succeeding digit is less than 5.
2. The final significant will be increased by one when the succeeding digit is 5 or greater.

109.03 Scope and Limit of Payment - Add the following sentence to the end of the second paragraph:

The costs of bonds and insurance for the project will be considered to be included in the unit price for each item of work performed.

109.07 Payment for Extra and Force Account Work - Add the following sentence after the first sentence of this Subsection:

Under no conditions will the payment for the Extra Work be more than the amount justified by the Engineer on a force account basis.

In subsection "(c) Equipment" delete the name and address of the publisher of the Blue Book from the last sentence and substitute the following:

Dataquest Inc., 1290 Ridder Park Drive, San Jose, CA 05131, Telephone No. (800)227-8444.

Delete the provisions given in subsection "(c-1) Rate determination form" of the Standard Specifications.

Delete the provisions given in subsection "(c-2) Rental rates without operator, Paragraph 3" and substitute the following:

3. The hourly rate for machine and attachment will be paid at the Blue Book monthly rate divided by 176, plus the hourly operating cost.

Add the following paragraph to subsection (c-2):

SECTION 109 - MEASUREMENT AND PAYMENT Cont'd

8. An amount equal to fifteen percent of the total rental of the equipment will be added for overhead, profit, and all other costs incidental to furnishing and operating the equipment.

Delete the provisions given in subsection "(c-4) Standby time" and substitute the following:

(c-4) Standby Time - When ordered by the Engineer standby time will be paid at 40 percent of the rental rate established above, excluding operating cost. Rates for standby time which are calculated at less than one dollar per hour will not be paid. Payment will be limited to not more than eight hours in a 24-hour period or 40 hours in a one-week period.

109.07 Payment for Extra and Force Account Work -

An amount equal to fifteen percent of the cost of standby time, as calculated herein, will be added for overhead, profit, and all other costs including incidental to furnishing and operating the equipment.

Delete the provisions given in subsection "(c-5) Blue Book omissions", paragraphs 2 and 3 and substitute the following:

2. Request Dataquest Inc. to furnish a written response for a rental on the equipment, which will be presented to the Engineer for approval.
3. Request the division to establish a rental rate.

BROADWAY/BURNSIDE BRIDGES MECHANICAL AND
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SECTION 110 - MOBILIZATION

Subsection 110.01 Scope - Delete the phrase "for premiums on bond and insurance for the project" in the sixth and seventh lines of this Subsection.

SECTION 111 - TEMPORARY PROTECTIVE AND
DIRECTIONAL MEASURES FOR TRAFFIC

Delete the Table of Contents of Section 111 and Section 111 of the 1984 Standard Specifications and substitute the following:

SECTION 111 - WORK ZONE TRAFFIC CONTROL

Work zone traffic control shall be constructed in conformance with Section 111 of the Supplemental Standard Specification bound herein dated October 1988, supplemented and/or modified as follows:

111.02 General Requirements - Add the following:

The Contractor shall protect and direct traffic using the appropriate configurations shown on the plans.

111.64 Traffic Control - Add the following:

Work shall be scheduled to minimize adverse impacts to vehicular and pedestrian traffic. The Contractor shall make a special effort to schedule and expedite so that:

1. All westbound lanes are open during peak traffic hours from 6:00 a.m. to 9:00 a.m., Monday through Friday,
2. All eastbound lanes are open during peak traffic hours from 4:00 p.m. to 7:00 p.m., Monday through Friday,
3. Bridge Closure restrictions of Section 108.04 are adhered to.

The Contractor's operations shall provide for river traffic passage at all times.

No lane closures will be permitted until the Contractor has materials and equipment on hand or guaranteed to be delivered so that the work can be prosecuted in an efficient manner with a minimum period of lane closure.

No lane closure will be permitted until the area is adequately signed in accordance with details shown on the plans and/or the requirements of Section 111.

See Section 104.05 and 108.05 (a) of these Special Provisions for additional traffic control requirements.

SECTION 111 - WORK ZONE TRAFFIC CONTROL Cont'd

111.97 Flaggers - Add the following paragraph to this Section:

Flagging is incidental to the work performed on this project. No separate or additional payment for flagging will be made. Payment will be included in the lump sum amount for the contract item "Temporary Protection and Direction of Traffic".

When the bridge is closed to vehicular and pedestrian traffic during authorized bridge closure, the Contractor shall station, at locations acceptable to the Engineer, two persons, one on each side of the drawspan, whose sole responsibilities will be to prevent errant vehicles or pedestrians from passing.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 510 - STEEL STRUCTURES AND MACHINERY

Structural steel and machinery components shall be furnished, fabricated, painted and installed in conformance with the "Standard Specifications for Movable Highway Bridges", American Association of State Highway and Transportation Officials (AASHTO) and with Section 510 of the Standard Specifications for Highway Construction supplemented and/or modified as follows:

510.01 Scope - The work shall consist of removing existing components, furnishing, fabrication, painting, installing, lubricating, and testing steel structures, machinery, and appurtenant components as required by the plans and these specifications. Painting shall be performed in accordance with Section 514 of these Specifications.

Work shall also include pre-repair and post-repair performance testing of the machinery on each leaf plus post-repair inspection of all systems, and the releveling of the roadways on each leaf through the use of the anchor strut adjusting plates behind the curved stop blocks.

(a) Work Item 5 - Broadway Bridge Anchor Strut Support Replacement

The work shall consist of removing existing strut supports, machining bores and mounting surfaces on the top chord of the approach span, and installing new anchor strut support assemblies for both movable leaves on the Broadway Bridge.

The existing strut support consisting of a non-rotating pin supporting two support wheels shall be replaced with a new rotating support pin assembly. Wear strips shall be attached to the anchor strut to provide replaceable wear surfaces. Wear strips shall be added at the top surface of the anchor strut support slot.

New items of machinery shall include, but not be limited to the following:

- 1) Eight bronze bushings
- 2) Four support pins
- 3) Four rods - threaded at both ends

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MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

- 4) Eight support sleeves
- 5) Eight end plates
- 6) Two wear strips per strut (8 total)
- 7) All shims, hardware and grease fittings for anchor strut support replacement.

(b) Work Item 6 - Broadway Bridge Operating Strut Pin and Bearings Replacement

The work shall consist of removing and replacing four operating strut connecting pin bushings, and machining bores and mounting surfaces on the Broadway Bridge. The existing operating strut connecting pin assembly consisting of bronze bushings, pin, and pin support castings shall be replaced with a new pin and sleeve, and mounted with new bearings consisting of steel housings with bronze bushings.

New items of machinery shall include, but not be limited to the following:

- 1) Four pins
- 2) Eight steel bearing housings
- 3) Eight bronze bushings for bearings
- 4) Four steel sleeves
- 5) All shims, hardware and grease fittings required for operating strut pin replacement

(c) Work Item 7 - Broadway Bridge Span Drive Bearing Rehabilitation

The work shall consist of rehabilitating the babbitt type, span drive machinery bearings on the Broadway Bridge. Bearing rehabilitation shall be accomplished by providing new bronze bushings, machining the bearing housings to accept the new bushings, and installing the new bushings. Contractor shall plug weld existing holes for bearing mounting bolts, properly align the span drive gearing when reinstalling the bearings, and drill and ream new mounting bolt holes for the bearings. New brass liners, brass shims, grease fittings, and clean up of the shaft journals shall be provided. All new and reused parts shall be painted.

BROADWAY AND BURNSIDE BRIDGES
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SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

New items of machinery shall include, but not be limited to the following:

- 1) Eight bronze bushings for the main bearings (Mark BB)
- 2) Eight bronze bushings for the first reduction shaft bearings (Mark BC)
- 3) Eight bronze bushings for the second reduction shaft bearings (Mark BE)
- 4) Twelve bronze bushings for the equalizer shaft bearings (Mark BG)
- 5) Two bronze bushings for the armature shaft extension bearings (Mark BH)
- 6) All liners, shims, grease fittings and hardware required for bearing rehabilitation.

(d) Work Item 8 - Broadway Bridge Rack Guide and Guide Wheel Bearing Rehabilitation

The work shall consist of rehabilitation of the rack guide bearings and guide wheel bearings on the Broadway Bridge, including remachining the bores in the rack guides and guide wheels.

New items of machinery shall include, but not be limited to the following:

- 1) Eight bronze bushings for rack guides
- 2) Sixteen bronze bushings for rack guide wheels
- 3) All liners, grease fittings and hardware required for rehabilitation.

(e) Work Item 9 - Broadway Bridge Main Span Drive Motor Back Gearing Shaft Bearing Replacement

The work shall consist of furnishing and replacing one back gearing shaft bearing (bronze bushing) in each of the four main span drive motors. The bushings are a standard part of the motors as manufactured and should be available from the motor manufacturer.

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SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

(f) Work Item 10 - Broadway Hydraulic Buffer Cylinder Installation

The work shall consist of fabricating and installing four new hydraulic buffer cylinders on the Broadway Bridge, one in each anchor strut. The work includes replacing rivets in existing anchor struts with mounting bolts for the buffers and painting all new and reused parts and adjacent structural steel affected.

New items of machinery shall include, but not be limited to the following:

- 1) Four hydraulic industrial shock absorbers
- 2) Four spherical bearings and bearing housings
- 3) Four mounting pins
- 4) Four bronze strike caps
- 5) Four bronze guide rods
- 6) Eight bronze guide plates
- 7) Four cylinder support plates
- 8) Four mounting brackets
- 9) All shims, grease fittings and hardware necessary to properly install the buffers.

Each shock absorber shall be an integral unit with a completely enclosed fluid chamber and shall have an internal spring return for the piston rod. The shock absorbers shall be manufactured by Enidine Inc., Orchard Park, NY; Ace Controls Inc., Farmington, MI; EGD Inc., Glenview IL or approved equal.

The shock absorbers shall have two separate functions. First, the shock absorbers shall provide protection for the movable leaves and the fixed portion of the bridge if either of the leaves approach the fully closed position at a speed higher than normal due to mechanical or electrical failure or operator error.

The second function of the shock absorber shall be to act as a seating aid for the operator during normal operation. The impact velocity at the shock absorber for normal operation will be .059 ft/sec. If the bridge were to close at a maximum speed of operation, the maximum impact velocity would be .585 ft/sec. The shock absorbers shall have a minimum energy absorbing capacity of 1,366,000 inch pounds per cycle with a stroke of 28 inches of which 27 inches shall be used. The 1 inch differential shall be to provide protection against bottoming of the piston in the shock absorber cylinder.

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SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

The Contractor shall provide a force versus stroke curve for the shock absorbers. The force that each shock absorber exerts shall not exceed 67,000 lbs. during any part of the stroke. The force versus stroke curve must be approved by the Engineer.

When a given leaf is in the closed position, the strike cap mounted on the end of the shock absorber piston rod will be in contact with the anchor strut support pin and the weight of the rod end of the cylinder assembly will be supported by the support pin. As the leaf begins to open, the shock absorber moves away from the support pin and the piston rod pushed out of the cylinder by an internal spring. When the piston rod is fully extended the strike cap retracts from the support pin. The forward end of the cylinder will then rest in a "U" shaped recess on the cylinder support plate. The "U" shaped recess in the support plate restricts transverse movement of the front end of the cylinder. The support plate shall be mounted by the Contractor so that the cylinder surfaces on the strike cap and the support pin are in full contact with one another.

Upon closing of the leaf, the shock absorber strike cap will come into contact with the anchor strut support pin when the leaves are at an angle of approximately 2 degrees and 38 minutes from their fully closed position. The hard contact between the cylindrical surfaces on the strike cap and the support pin will then raise the front end of the cylinder up from the support plate.

The Contractor shall install the support plate with shims under the front flange of the shock absorber as shown in the Plans. When the bridge is closed and hard contact exists between the strike cap and the anchor strut support pin, the shims shall be adjusted to provide a 1/8 inch gap between the support plate and the bottom edge of the front flange on the shock absorber.

The shock absorber shall have a clevis mounted at the closed end of the cylinder with a spherical bearing as shown on the Plans. The spherical bearing will permit limited rotation of the shock absorber to obtain proper alignment of the strike cap with the anchor strut support pin.

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SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

The rotation of the piston rod in the cylinder shall be limited to assure proper contact between the contact surfaces on the strike cap and the support pin upon closing. To limit rotation a piston rod support pin shall be mounted on the strike cap. When the piston rod moves in and out of the cylinder, the support pin shall move between two support plates installed as shown on the Plans.

When the shock absorbers are installed, no part of the new assembly shall extend past the end of the existing anchor strut more than 3' -6". The shock absorbers will be mounted on an open area of the bridge exposed to the elements. The shock absorber shall be capable of providing proper operation throughout a temperature range of -20⁰ to +120⁰ F. All components of the shock absorber shall be capable of operating outdoors and shall be protected against rust and corrosion by the Contractor.

510.11 Material - Add the following:

(a) Castings shall be free of defects such as sand and slag inclusions, cracks, shrink holes, blow holes, porosity, free of loose scale and sand, fins, seams, gates, risers, and irregularities. Unfinished edges shall be neatly cast with rounded corners and inside angles shall have ample fillets.

(b) Full length brass shims, drilled for all bolts that pass through, shall be provided to properly align and mount all components per AASHTO Section 4.1.2. Each stack of shims shall be equal to twice the nominal thickness. One shim shall be equal to the nominal thickness. The remaining shims must be in varying thicknesses so that machinery can be aligned within .003 inches. Shims shall be shown in detail on the shop drawings.

510.21 Quality of Workmanship - Delete this Subsection and substitute the following:

510.21 Quality of Workmanship and Quality Assurance

(a) Workmanship and finish in all fabrication processes shall be equal to the best general practices in modern welding and machinery fabrication shops and be in conformance with these specifications and plans. No item shall be fabricated or machined without sufficient advance notice to the Engineer to permit scheduling of required inspection.

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MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

- (b) Materials and manufacturing procedures are subject to inspections and tests in the mill, shop, and field. "In shop" inspection of the components will be performed. Either conducting or not conducting such inspections and tests shall not relieve the Contractor of responsibility for providing material and manufacturing procedures in compliance with the specified requirements.
- (c) The Contractor shall provide personnel and supervising engineers familiar and experienced in the design and installation of movable bridge machinery.
- (d) The Contractor shall verify all necessary dimensions in the field and any discrepancy from the drawings shall be brought to the attention of the Engineer.
- (e) The Contractor shall provide measuring, surveying, and leveling instruments, and other equipment as may be required for proper installation.
- (f) Workmanship in removing, installing, and aligning structural steel, machinery components, and appurtenant components shall be equal to the best general practice of movable machinery crews. Sufficient care shall be taken in disassembly, removal and installation to prevent damage to components that are to remain. The installation of all machinery shall be by millwrights. A qualified supervisor in this type of work shall be on-site and in direct control of all substantial work during the testing and rehabilitation.

510.22 Storage of Materials - Delete this Subsection and Substitute the following:

510.22 Transportation and Storage of Materials - All machinery, structural and appurtenant materials, and components shall be properly protected for shipment and storage in accordance with the approved schedule of work.

BROADWAY AND BURNSIDE BRIDGES
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SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

- (a) All finished metal surfaces and unpainted metal surfaces that would be damaged by corrosion shall be coated as soon as practical after finishing with No-Ox-Id, A-Special as manufactured by Sanchem Inc., 1600 South Canal Street, Chicago, IL, (312)733-6100, or equal. This coating shall be removed from all surfaces prior to lubrication for operation and from all surfaces prior to painting after erection.
- (b) All bearing journals shall have a heavy coating No-Ox-Id, A-Special or equal plus several layers of burlap. The burlap shall then be covered with wooden slats around the entire bearing journal for protection during shipping and handling.
- (c) All material shall be stored above the ground upon platforms, skids, or other supports. It shall be kept free from dirt, grease and other foreign matter, and shall be protected as far as practicable from corrosion.

510.36 Connecting Using High Strength Bolts - Add the following:

(f) Machinery Bolts, Nuts and Set Screws

Threads for bolts, nuts, and set screws shall conform to the Unified Threaded Series, coarse thread series, with a Class 2A tolerance for bolts and a Class 2B tolerance for nuts, in accordance with ANSI B1.1, unless otherwise specified. Bolt head and nut bearing surfaces must be flat and square with the axis of the bolt hole and shall be spot-faced if necessary. All nuts and bolts shall be heavy series. A second heavy series nut shall be used on all bolts as a lock nut. Unless otherwise specified, bolt holes in machinery parts required for connecting to supporting steel work shall be sub-drilled in the shop smaller than the turned bolt diameter and shall be reamed together with supporting structural steel at assembly after alignment of the machinery has been completed and inspected.

Machinery nuts and bolts shall be revised unless the Engineer determines, after removal and cleaning, that replacement is required. Removal and cleaning shall be considered incidental to the individual items.

BROADWAY AND BURNSIDE BRIDGES
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SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

510.39 Welding - Add the following:

Copies of the OSHD "Standard Specifications for Welded Highway Bridges" can be obtained from the contract plans room, Room 1, Transportation Building, Salem, Oregon 97310, phone (503)378-6293. The fabricator of structural steel components for this project is not required to have an American Institute for Steel Construction (AISC) Category III Quality Certification.

All welding shall be performed by certified welders in accordance with the OSHD "Standard Specification for Welded Highway Bridges". Electrodes shall be E-70 series.

Welding processes for all structural and machinery components shall be identified on fabrication shop drawings for approval by the Engineer.

Shop weld machinery parts shall be stress relieved by heat prior to machining. The stress relieved procedure shall be identified on fabrication shop drawings.

510.56 Documentation of Material - Add the following:

Brinell hardness tests shall be made and included on inspection reports for all materials for which hardness values are required on the plans, in the material specifications, or specified herein.

510.72 Recommended Installation and Alignment Procedure - Add the following Subsection:

The following recommended procedure is offered for the Contractor's consideration. The Contractor shall submit a detailed installation procedure 21 days prior to beginning installation or assembly.

(a) Anchor Strut Support and Buffer Cylinder Installation - The bridge must be closed to vehicular traffic while performing the majority of this work and such closures shall occur only during the weekend periods permitted in Section 108.04. The Contractor shall perform all work possible with bridge in fully closed position before closing bridge to vehicular traffic. It is recommended that the work be done prior to the rehabilitation of the span drive bearings, or after the span drive bearing rehabilitation has been completed, in order that the operable span drive machinery may be used to support the movable leaf.

BROADWAY AND BURNSIDE BRIDGES
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SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

The following work should be performed before the bridge is closed to vehicular traffic:

- 1) Drill and tap all of the mounting bolt holes possible for the new wear strips. Install all sections of wear strips possible.
- 2) Replace seven 7/8 inch rivets with temporary high strength bolts on each side of each top chord where the new bearing housings will be mounted. The temporary high strength replacement bolts shall be the same size as the rivets removed.
- 3) On each side of the end of each anchor strut, where buffers are to be installed, replace 12 rivets with temporary high strength bolts. Do not remove all rivets at a given location at one time. Remove every other rivet and install temporary bolts, then replace remainder of rivets with temporary bolts. Make a template of the position of the holes at each location to use to lay out the matching holes on the shock absorber mounting bracket for that location.
- 4) Subdrill holes in shock absorber cylinder mounting brackets for the mounting bolts.
- 5) Subdrill four new holes required in the existing angles on anchor struts for mounting bolts for the 3/4 inch bronze guide plates for the buffer.
- 6) Subdrill the four new holes required in the existing angles on the anchor struts for the mounting bolts for the buffer cylinder support plates.

The recommended position for each leaf for the following work is with the leaf open a few degrees. The Bridge must be closed to vehicular traffic ("critical on-site work"). With the leaf in this position the anchor strut will carry no load and will be most accessible.

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SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

- 1) Place sizeable wedges on both sides of both Roll wheels to immobilize the leaf. Secure wedges, in place, to be certain that they cannot back away from the wheels. As a back-up means of restraint of leaf movement, place supports between the two elements of each heel rest at the pier to prevent the leaf from lowering, and attach taut chains or cables between the leaf and the approach span (or column) in the area of the heel rests to prevent the span from opening further.
- 2) Disconnect power to the span drive motors and brakes so the motors cannot be energized and the brakes remain set under all circumstances.
- 3) Support the anchor strut. Remove the existing pin and strut support wheel assembly, including mounting flanges, centering guides, curved stop blocks and adjustment plates.
- 4) Send existing curved stop plates and adjusting blocks out for machining.
- 5) After existing anchor strut support assembly has been removed, but before the new support assembly has been installed, install bronze guide plates for the hydraulic buffer in anchor strut.
- 6) Raise the anchor strut out of the top chord. Position strut as necessary to best perform work in following steps.
- 7) Complete the installation of wear strips on the anchor strut.
- 8) Plug weld the existing rivet holes in top chord used to mount the anchor strut support. Rebore the existing strut support pin bores in the top chord steel in line with one another and perpendicular to the axis of the anchor strut. Remove existing rivets where the new bearing housing mounting bolts are to be installed and machine side surfaces of the top chord so new housings can be installed with their bores collinear and perpendicular to the axis of the anchor strut. Install bearing housings.

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SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

- 9) Reinstall curved stop blocks and a nominal thickness of adjusting plates. Thickness of adjusting plates (with new shims if necessary) must be adjusted later.
- 10) Position support sleeves within the anchor strut support and install the pin thru the bearing housings and support sleeves.
- 11) Install thrust washers and bushings in the bearing housings. Install threaded rod and end plates.
- 12) Properly position support sleeves axially on the pin and install set screws to anchor support sleeves to the pin.
- 13) Lower anchor strut onto support sleeves. Accurately measure space between support sleeves and stop blocks on each side. Vary thickness of adjusting plates (shims) as necessary to obtain same spacing at both sleeves.
- 14) Lubricate bearings and all sliding surfaces, wear strips, etc.
- 15) When the new support has been installed on both anchor struts on a given leaf, lower the leaf to the fully closed position to place the anchor struts under load.
- 16) Check position of the tip of the leaf. The tip of the leaf must be at the proper elevation. The roadways on the two leaves must be level with one another across the width of the roadway. Adjust the thicknesses of the adjusting plates in each strut individually to properly position the tip of each leaf. When adjusting the thicknesses of the adjusting plates in a given strut, be sure to add or subtract the same thickness from both stacks so as to maintain proper contact between the two curved stop blocks and the sleeve when the leaf is in the fully closed position.

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SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

- 17) Temporarily install cylinder support plate with nominal shims.
- 18) After new anchor strut support assembly has been completely installed, install shock absorber cylinder assembly. Make certain that the fluid ports are on the top side of each cylinder. Position cylinder to obtain full contact between strike cap and the pin in support assembly. Adjust shims under cylinder support plate to provide 1/8 inch clearance between support plate and cylinder flange when strike cap is in hard contact with the support pin.
- 19) With the shock absorber cylinder properly positioned so that full contact exists between strike cap and support pin, install turned mounting bolts in cylinder support bracket to maintain the cylinder in the proper transverse position.
- 20) Lubricate all required surfaces including spherical bearing, sliding surfaces on anchor strut support pin, strike cap, piston rod and rod guides and the contact surfaces on the shock absorber cylinder support plate.
- 21) The shock absorbers are shipped from the manufacturer "full of fluid". Follow manufacturers instructions to check to determine that the units are full of fluid before placing in service,.

(b) Operating Struts - This work shall be performed concurrently with the span drive bearing rehabilitation. The work being performed shall be performed on one leaf at a time. The leaf being worked on shall be immobilized in the fully closed position during this work. The bridge shall be open to vehicular traffic during the work but only single leaf openings will be available for marine traffic. The work must be expedited to keep conflicts with marine traffic to an absolute minimum.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

- 1) Support the operating strut and remove existing pin and pin support castings from the operating strut connection to the movable span. Remove rivets encircling the existing connecting pin holes through the side channels of the operating legs. Plug weld existing mounting bolt and rivet holes per the Plans.
- 2) Raise the strut clear of the movable span attachment bracket and remove the bronze bushing from the bracket.
- 3) Clean up bore I.D. in attachment bracket casting and in sideplates to provide cylindrical bore and proper finish. Finish machining O.D. of steel sleeve to provide FN2 fit with finished bore. Install new steel sleeves. Drill holes in attachment bracket for access to heads of bearing mounting bolts.
- 4) Enlarge hole through the strut side channels to required dimension. On each side of operating leg, remove one rivet at location for new mounting bolt, drill six new mounting bolt holes and install new bearing housings. Lower the strut to proper position.
- 5) Insert pin through operating strut and sleeve in attachment bracket.
- 6) Install bronze bushings in bearing housings.
- 7) Insert double set screws through casting in movable span bracket and sleeve, and into the pin (three locations each connection).

(c) Span Drive Bearings - The work shall be performed concurrently with the operating struts, rack guides and span drive motor bearings. It will be necessary to remove all of the gear shaft assemblies plus the rack guides and guide wheels in order to remove the bearings for rework.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

- 1) All existing parts that must be removed and later reinstalled shall be matchmarked with connecting parts prior to disassembly. These parts shall be reinstalled at the same location and in the same orientation. This includes shafts, bearing components, and turn bolts.
- 2) To remove rack pinion shafts it will be necessary to remove the rack guide bearing caps, the rack guides and guide wheels and raise the operating strut to obtain clearance. The operating strut shall be supported in the raised position until the gear shaft assemblies and bearings have been removed.
- 3) Remove all gear shaft assemblies supported by the span drive bearings to be reworked. Polish bearing journals as necessary to remove rust, scoring, or other degradation found before reinstalling shaft assemblies.
- 4) Remove span drive bearings, including the rack guides and guide wheels and send to shop for rework. Rework bearings and bearing journals in the sequence in which they will be reinstalled. Return each shaft assembly and its pair of bearings to the bridge to be reinstalled as soon as rework for the assembly is completed. Reinstallation of the largest shafts can be done while succeeding shaft assemblies and bearings are being reworked. The first shaft in each drive to be reinstalled will be the rack pinions shafts supported by Bearings BB.
- 5) After bearings have been removed from the span, plug weld the existing mounting bolt holes in the structural steel machinery frames and grind welds smooth with mounting surfaces.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

- 6) After bearings and bearing journals for the next shaft to be reinstalled have been reworked, temporarily position the bearings on the frame with nominal shim thickness under each bearing. Install gear shaft assembly in the bearings. Move the bearings and shaft assembly as necessary to properly align the pinion on the shaft being installed with the gear mounted on the shaft next in line that has already been installed. In the case of the first shaft to be reinstalled (the rack pinion shaft) at each corner, it will be necessary to lower the operating strut, with rack, onto the rack pinion to check alignment. Adjust shims under bearings as necessary to produce proper gear tooth alignment.
- 7) When gearing is properly aligned, clamp supporting bearings firmly to frame. Scribe location of new mounting bolt holes on mounting surface of frame. Remove shaft assembly with bearings and drill and ream new mounting bolt holes. Reamed holes shall be LC6 fit.
- 8) Reinstall shaft and supporting bearings with the same shim pack under each bearing that was used when the gears were properly aligned. Recheck gear alignment. If proper, complete reinstallation of the assembly.
- 9) All connecting bolts shall be tightened by means of an approved torque wrench or other approved means, and a record of torque values shall be furnished to the Engineer.
- 10) When gear shafts are reinstalled, the wooden slats, burlap, and No-Ox-Id A-Special must be removed from each bearing journal. Each completely clean journal shall be coated with the bearing grease to be used as it is being assembled in each bearing. Care must be taken to prevent foreign matter from entering the bearings as the shafts are reassembled.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

- 11) After installation of all machinery has been completed and before any machinery is operated, the Contractor shall completely and carefully determine that all machinery components are properly lubricated and are free of obstructions.

(d) Rack Guide and Guide Wheel Bearings - This work should be done simultaneously with the rehabilitation of the span drive bearings.

- 1) After rack guides and guide wheels have been reworked, reinstall guides on rack pinion shaft.
- 2) After rack and pinion has been properly aligned and the pinion shaft with rack guides, and shaft bearings have been reinstalled, reinstall reworked guide wheels.

(e) Span Drive Motor Back Gearing Shaft Bearing Replacement - This work should be done simultaneously with the rehabilitation of the span drive bearings.

- 1) Remove and replace the one bearing from each span drive motor frame that supports the first gear shaft.

510.73 Lubrication - Add the following Subsection:

All required lubricant will be provided by the Division.

Grease lubricating fittings shall be of the giant buttonhead type. The Contractor shall provide a lever-type gun with a three foot hose. Fittings shall be located in a protected and convenient position for use.

During installation, the Contractor shall lubricate all pin connections and all bearings.

510.76 Performance Testing and Post-repair Inspection - The Contractor shall perform pre-repair and post-repair testing of the span drives on both leaves. Contractor shall submit a detailed test plan for approval by the Engineer at least 21 days before the test is to commence. After all repair work has been completed, the Contractor shall perform a post-repair inspection of all work performed.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

- 1) Pre repair Tests - Before performing any work on the bridge, the Contractor shall perform an operational test on each movable leaf to determine the motor torque required to operate the leaf through two full cycles. A measure of the torque may be determined from the electrical power drawn by the motors. The electrical power shall be measured at the motors and recorded on a strip chart while the leaf is operated at minimum speed thru two complete opening and closing cycles. The test must be done when the wind velocity is 5 mph or less. In addition to recording electrical power consumed, the Contractor shall, as a minimum, record rotational speed of the motors, ambient temperature, time of day, general weather conditions, plus direction and velocity of wind. The accuracy of measurement shall be sufficient to enable detection of significant system performance degradation when these data are compared with those obtained from comparable tests after rehabilitation of all systems has been completed. The Engineer shall witness this test.
- 2) Post-repair Performance Testing - Upon authorization from the Engineer, the Contractor shall perform a post-repair operational test of each leaf to provide the basis for operational readiness certification. This test will be witnessed by the Engineer. The certification shall be made by the Contractor. Each leaf shall be operated through two full cycles. The parameters to be observed and recorded are as listed in paragraph 1) above. These results shall be compared with those from the pre-repair performance testing. Based upon test results and the test result comparison, the Contractor shall correct any deficiencies found, retest and certify operational readiness and the safety of the operation of the systems that have been rehabilitated. Power requirements for the post-repair performance test shall be equal to or less than the power required during the pre-repair performance test. Final acceptance shall be based upon these certifications and the Engineer's evaluation of the test results.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

- 3) Post repair Inspection - After the rehabilitation work has been completed, the Contractor shall perform a post-repair inspection. This inspection will be witnessed by the Engineer. Based on the results of this inspection, the Contractor shall correct all deficiencies found, reinspect and certify that each movable leaf is ready for operational testing.

During installation, the Contractor shall lubricate all pin connections and all bearings.

510.81 General - Delete the Subsection and substitute the following:

510.84 Measurement - Measurement of bid items for steel structures and machinery will be on a lump sum basis. No measurement of quantities will be made.

510.91 Lump Sum Basis - Delete this Subsection and substitute the following:

510.94 Payment - Payment of bid items will be paid for at contract lump sum amounts for the items as listed.

Performance Testing and Post-repair Inspection	Lump Sum
Anchor Strut Support Replacement	Lump Sum
Operating Strut Pin and Bearings Replacement	Lump Sum
Span Drive Bearing Rehabilitation	Lump Sum
Rack Guide and Guide Wheel Bearing Rehabilitation	Lump Sum
Main Span Drive Motor Back Gearing Shaft Bearing Replacement	Lump Sum
Hydraulic Buffer Cylinder Installation	Lump Sum

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 510 - STEEL STRUCTURES AND MACHINERY Cont'd

Payment for the above items at the contract lump sum amounts will be full and complete compensation for removing existing components, furnishing, fabricating and placing all materials, transportation, testing, furnishing all labor, tools and equipment, and all other items of expense incidental to the proper completion of the work as specified.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 514 - PAINTING NEW METAL STRUCTURES

Delete the Table of Contents of Section 514 and Section 514 of the 1984 Standard Specifications and substitute the following:

SECTION 514 - PAINTING STEEL STRUCTURES AND MACHINERY COMPONENTS

In this section, the word "steel" shall be defined as also including all new and reworked machinery components including machinery supporting structures.

Painting of new and existing steel specified for replacement and rehabilitation shall be cleaned and painted as follows:

514.01 Scope -

This work shall include surface preparation and painting of new, existing or reworked machinery components, machinery support structures, structural steel, and electrical cabinets and conduits.

New steel and existing steel shall be cleaned and painted with a three coat, moisture cured system.

New steel to be painted with the exception of the final coat shall be shop painted. The final coat shall not be applied until after the steel has been erected.

Machinery bearings, contact, sliding and lubricated surfaces shall be protected from paint. These surfaces shall be adequately protected from cleaning agents and paint by suitable masking.

Existing paint damaged by Contractor's operations shall be repaired by the Contractor to the satisfaction of the Engineer. The required minimum limits of steel to be blasted and painted shall be one foot outside the work limits or at break points established by the Engineer.

The existing paint system is an oil alkyd paint.

Painting new and existing steel shall include the preparation of metal surfaces, the application, protection and drying of the paint coatings, and the supplying of all tools, tackle, scaffolding, labor and materials necessary for the entire work.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 514 - PAINTING NEW METAL STRUCTURES Cont'd

514.02 New Structure Members -

After fabrication and before installation onto the structure, all surfaces of new structural steel members shall be blast cleaned to white metal and all surfaces except those that will be in metal-to-metal contact shall be painted with an organic zinc primer and intermediate coat. All cleaning and painting shall be performed within an enclosed area.

Cleaning - Steel surfaces shall be blast cleaned in conformance with Steel Structures Painting Council Specification SSPC-SP-5 "White Metal Blast Cleaning." The appearance of the finally cleaned surface shall conform to Pictorial Standard Sa3 of ASTM D 2200.

Surfaces cleaned by centrifugal wheels using metal shot as an abrasive shall be further blast cleaned using sharp abrasive to provide a sharp profile. The depth of the profile of the finally cleaned surface shall be not less than one mil nor more than 3 mils.

Primer shall be applied to the cleaned steel on the same day as cleaning is completed.

After installation, the final top coat of the new steel members shall be painted in conjunction with maintenance painting of the surrounding area of existing steel.

514.03 Existing Structure Members

Cleaning - Before starting any cleaning, the Contractor shall protect all machinery and electrical devices from contamination. It is especially important that all bearings, gears, motors, brakes, pneumatic cylinders, compressors, limit switches, electrical terminals and connectors, and other such devices be well protected. The Contractor shall submit the proposed method to protect all such components to the Engineer for approval before commencing with painting. The Engineer shall inspect and approve the equipment protection before painting begins. The surface of existing steel shall be cleaned by methods which will remove all the paint by sandblast cleaning, grinding, or similar methods as the Contractor may elect and as approved by the Engineer. The appearance of the finally cleaned surfaces shall approximate Pictorial Standard Sa2 ASTM D 2200 "Commercial Blast Cleaned Surface."

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 514 - PAINTING NEW METAL STRUCTURES Cont'd

The surfaces of existing steel which will be in metal to metal contact and under cover with new structural members shall be blast cleaned in conformance with Steel Structures Painting Council Specification SSPC-SP-10 "Near White Blast Cleaning." The appearance of the finally cleaned surfaces shall approximate Pictorial Standard Sa2-1/2 of ASTM D 2200 (SSPC - Vis 1).

The edges of existing paint remaining in place shall be feathered in cleaning and the area of overlay of new paint to old paint shall be thoroughly cleaned by solvent or other means so that a suitable bond between new paint and old occurs.

Field welds shall be blasted at least 2" - 3" each side to remove weld blue scale prior to painting.

Blast cleaning shall be performed using an abrasive of a size which will produce a minimum profile of 1 mil on the surface of the finally cleaned steel. The maximum height of the profile shall be controlled by the Contractor by his cleaning methods, so as to produce a surface profile not considered to be detrimental to the performance of the coating.

If wet sandblasting methods are employed, an effective rust inhibitor not detrimental to the coating system shall be applied to the freshly cleaned surface or contained in the water used in cleaning. At the commencement of work in the Contractor shall prepare a test panel to show that the rust inhibitor used does not cause loss of bond between the cleaned steel substrant and the primer. If such bond failure occurs, no further water blast cleaning will be allowed.

When blast cleaning machinery, all journals, bearings, motors, and moving parts shall be sealed against entry of abrasive dust before blast cleaning begins.

Surfaces cleaned by dry blast cleaning methods shall be thoroughly dry and primed on the same day as cleaned. Surfaces cleaned by wet blast cleaning methods shall be thoroughly dry before priming and shall be primed before any visible indication of rust formation.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 514 - PAINTING NEW METAL STRUCTURES Cont'd

All painting to be performed under this contract shall be performed in conformance with the best practices of the trade, in conformance with the recommendations of the coating manufacturer, and in conformance with the application portions of the Steel Structures Painting Council Specification SSPC-PA a, when those specifications are not in conflict with these Special Provisions.

(a) Number of Coats and Film Thickness - Paint shall be applied to the cleaned surfaces as follows:

<u>Coat</u>	<u>Formula</u>	<u>Minimum Dry Film Thickness</u>
Prime	Zinc filled, single component moisture-cured polyurethane.	3 mils
Intermediate	Single component, moisture-cured polyurethane.	3 mils
Top	Single component, moisture-cured polyurethane.	1.5 mils
Total		7.5 mils

(b) Paint Film Thickness The thickness of all paint coats shall conform to the following requirements:

The paint system shall be applied in not less than three coats, each coat to the minimum thickness shown. A coat shall be considered to be as many applications as necessary to achieve the desired thickness.

Paint field thickness measurements will be made after the application of the prime and top coat. A visual inspection for complete coverage will be made after the intermediate coat. One hundred percent of all thickness measurements shall be within the specified minimum dry film thickness. Where thickness measurements fall below the specified minimum, additional applications of paint shall be made as necessary to meet the thickness required.

Film thickness shall be measured above the peaks of the profile of the anchor pattern in the substrate.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 514 - PAINTING NEW METAL STRUCTURES Cont'd

Regardless of the total thickness of prime and intermediate coats, the top coat shall be applied in sufficient thickness to achieve uniform and complete coverage and appearance.

(c) Application The Contractor shall notify the Engineer, in writing, at least one week in advance of the date cleaning and painting operations are to begin.

It is the intent of these specifications that each coat of paint be applied over the preceding coat as soon as possible, allowing for drying time for the preceding coat, weather and temperature conditions, and similar factors. The Contractor shall provide sufficient skilled workers, equipment and materials and shall so schedule his work to conform with this intent.

Sufficient time shall elapse between successive coats to permit them to dry properly for recoating. Paint shall be considered dry for recoating when it feels firm, does not deform or feel sticky under moderate pressure of the finger, and the application of another coat of paint does not cause such film irregularities as lifting or loss of adhesion to the undercoat. The manufacturer's recommendations shall be followed, unless otherwise approved by Engineer.

Paint shall be applied by air or airless spray, brush, or as recommended by the paint manufacturer.

Each coat of paint shall completely cover the preceding coat and shall be tinted a sufficiently different shade so that skips and holidays can be easily detected. Runs, sags, skips, and holidays, or other deficiencies shall be corrected before application of succeeding coats. Such corrective work may require cleaning, application of additional paint, or other measures as directed by the Engineer at the Contractor's expense.

The surface of the paint being covered shall be thoroughly dry and free of moisture, dust, grease, or any other substance which would prevent the bond of succeeding applications. Blast cleaning will not be permitted adjacent to areas that are in the process of being painted. Freshly painted surfaces shall be protected by the Contractor from contamination by abrasives, dust or foreign materials from any source. Contaminated surfaces shall be cleaned to the satisfaction of the Engineer before any succeeding application of paint is made.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 514 - PAINTING NEW METAL STRUCTURES Cont'd

Mechanical mixers shall be used to mix paint. Prior to application, the paint shall be mixed a sufficient length of time to thoroughly mix the pigment and vehicle together.

(d) Sealing - Insofar as practical, all crevices between structural shapes and plates shall be filled and sealed with paint. However, all crevices between structural shapes and plates and around bolt heads or nuts, and similar areas which would retain moisture and that cannot be filled with paint shall be filled with sealer. The sealer shall be applied after the final application of the top coat of paint.

(e) Time of painting - The prime coat shall be applied on blast cleaned surfaces as previously specified under cleaning. Unless prevented by drying time or weather conditions or as otherwise allowed by the Engineer, each succeeding intermediate or top coat shall be applied within 48 hours of the preceding coat.

In the event that the above time limits are exceeded, or if the surface becomes contaminated by any material other than rust at any time, the surface shall be cleaned in a manner satisfactory to the Engineer before the succeeding application of paint is made.

If the surface becomes contaminated by rust at any time, the contaminated area shall be blast cleaned as previously specified and repainted with all previous coats. Recleaning and repainting shall be at the Contractor's expense.

(f) Weather conditions - For this project the only acceptable coating systems shall be those which incorporate a prime coat that the manufacturer certifies can be applied under the following conditions:

- relative humidities up to 98%
- ambient temperatures down to 35° F
- steel temperatures down to 35° F
- recoat times not to exceed 16 hours at these above stated conditions

The bidders on this contract are advised that, during the life of the contract, there may be considerable time when the above specified adverse weather conditions will prevail and it shall be understood that the bidder, prior to submitting his bid, has considered the weather conditions that will be encountered at the site of the work during the life of the contract.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 514 - PAINTING NEW METAL STRUCTURES Cont'd

(g) Protection against damage - Before starting any cleaning, the Contractor shall protect all machinery and electrical devices from contamination. It is especially important that all bearings, gears, motors, brakes pneumatic cylinders, compressors, limit switches be protected. The Contractor shall submit his proposed method for protection of components from contamination to the Engineer for approval prior to commencing work. When all protecting has been installed the Engineer shall be notified and final approval requested. No cleaning shall commence until the Engineer has given his approval.

Adjacent painted steel and concrete surfaces shall be masked or otherwise covered to protect these surfaces from paint overspray drippings. All paint on these surfaces which result in an unsightly appearance shall be removed or obliterated by the Contractor at his expense to the satisfaction of the Engineer. Blast cleaning of concrete surfaces adjacent to freshly painted surface will be allowed if the freshly painted surfaces are protected from the blast cleaning.

Old paint lifting after new paint is applied shall be scraped off and the exposed area repainted with all previous coats.

All painted surfaces that are marred or damaged as a result of the Contractor's operations shall be repaired by the Contractor at his expense with materials and to a condition equal to the coating specified herein. Upon completion of all painted operations and of any other work that would cause any foreign materials to be deposited upon the painted surfaces, the painting surfaces shall be cleaned if necessary. At the completion of all work, the painting shall be complete and the surfaces shall be undamaged and clean.

(h) Inspection - Each phase of cleaning and painting shall be inspected by the Engineer and approved by the Engineer before succeeding phases are commenced by the Contractor. The Contractor shall provide the inspector access to all areas where work is being performed.

The surface of cleaned steel shall be approved before the first application of a paint is made, and each coat of paint shall be inspected for conformance to specifications before succeeding coats are applied.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 514 - PAINTING NEW METAL STRUCTURES Cont'd

(i) Instruments - Surface preparation and paint film thickness instruments and equipment used for measuring and inspecting may include but are not limited to the following:

<u>Instrument</u>	<u>Manufacturer</u>
Surface Preparation:	
SSPC Vis Pictorial Standards ASTM D 2200 Pictorial Standards Surface Profile Comparator	Steel Structures Painting Council Amer. Soc. for Testing Material Kenneth Tator Associates
Magnetic Dry Film Gages: (Pull-off Type)	
Microtest 102/FIM Elcometer 211	DeFelsko, KTA Elcometer Inc.
Wet Film Gages:	
Roller (OSHD) Wet Film Gage 790/010	Oregon Dept. of Transportation Nordson
Destructive Film Thickness Gages:	
Tooke Inspector Gage	KTA

In areas where dry film thickness measurements are impractical or inappropriate, wet film thickness measurements will be determined by comparative measurements of wet to dry film thickness on similar surfaces with the same paint.

(j) Removal of Improper Paint - All surfaces not properly cleaned before painting or painted without prior inspection and approval, or surfaces coated with impure or improper paint shall be thoroughly cleaned and repainted at the Contractor's expense.

(k) Cleanup - The Contractor shall remove all paint, sand and debris resulting from cleaning or painting under this Contract, from all areas of the structure on which no cleaning and painting are to be performed.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 514 - PAINTING NEW METAL STRUCTURES Cont'd

All cleanup work shall be performed in a manner approved by the Engineer, and to a degree acceptable to him.

The Contractor shall be responsible for the disposal of empty paint containers and thinners used to cleanup tools. The disposal of these items shall conform with current Environmental Protection Agency standards.

Oil pans shall be installed under compressors or other equipment, as required.

514.81 Measurement - No separate measurement will be made for any painting or work in connection therewith as painting is part of the lump sum work included in furnishing price bids for the project.

514.91 Payment - No separate payment will be made for painting as payment for all cleaning, painting and incidental items required to perform the specified work is part of the lump sum work included in furnishing bids for the project.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 661 - TRAFFIC SIGNAL AND WARNING GATE INSTALLATION

Traffic signal and warning gate installations shall be performed in accordance with the "Standard Specifications for Movable Highway Bridges", American Association of State Highway and Transportation Officials (AASHTO) and with Section 661 of the Standard Specifications for Highway Construction, supplemented and/or modified as follows:

661.01 Scope - Add the following:

The work (Work Item 11) shall consist of furnishing and installing four new traffic warning gates with gate operators, and mounting brackets, and mounting modifications on the Broadway Bridge as shown on the plans, including modifying the existing structure for attachment of mounting brackets. The relocation of existing pedestrian walk-wait lights and loudspeakers to a new pedestrian stop line is also required. The gate installations shall be complete with control and power wiring to the point of operation in the bridge control house. Spare traffic gate arms as specified shall be supplied with the gate units.

661.11 Materials - Add the following:

(a) Gates and operators shall be VT-40 Protect-0-Arm Automatic Safety Gates by B & B Electromatic, Norwood, Louisiana, or Engineer approved equal. The gates shall be double arm traffic gates as depicted on the drawings, complete with an electric motor drive, and fiberglass gate arms attached using a break-away shear pin base. The arms shall have alternating red and white reflectorized sheeting and red flashing warning lights. The arm length and mounting height shall be as noted on the drawings. The following features shall be standard on the gates:

- 1) The gates shall be warrantied by the manufacturer for 5 years except lights and fuses.
- 2) The gates and housing shall stow in an area less than 42 inches wide and shall not encroach upon the traffic lanes in the stowed position.
- 3) The housing for the drive shall be a weatherproof enclosure, and shall be fabricated from steel, cast-iron, or fiberglass. The housing shall be anchored with minimum of four anchor bolts.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 661 - TRAFFIC SIGNAL AND WARNING GATE INSTALLATION Cont'd

- 4) Flashing lights shall be installed on the arms at not more than 49 inches on center, using a minimum of 4 lights per gate. Lights shall be furnished as 12-volt.
- 5) Arms shall fully close or open in not less than 15 seconds in a fashion that limits bounce or whip to an acceptable level.
- 6) The shear pin base that connects the arm to the gate actuator shall be of a design that prevents damage to the drive or to the arm.
- 7) Both arms shall move in unison from a single controller.
- 8) The gear box shall be a fully enclosed, all gear, direct drive unit tuning in an oil bath. The drive train shall not use belts for power transmission.
- 9) The enclosure shall be equipped with a resistive heater connected to the 120V control circuit.
- 10) Traffic gates shall be supplied with 2 spare gate arms, complete with lights, wiring and reflectorized sheeting for both arms. Replacement parts must be available within 24 hours of receipt of order. Any parts which are not available within 24 hours must be listed with current prices in the bid.
- 11) The motor circuit leads shall be equipped with a manual disconnect switch, and the control circuit shall have an automatic disconnect that activates when the units' service doors are opened.

(b) Selector switches shall be small, NEMA 13, oiltight pushbutton, round, non-illuminated, 3-position selector switch units. Switch operator shall maintain the center position, and shall spring return from both the left and right positions. Operator knob shall be black color. Normally open contacts shall be configured as indicated with ratings equal to or greater than the circuit in which they are placed. Acceptable manufacturers: Allen-Bradley, Cutler-Hammer or approved equal.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 661 - TRAFFIC SIGNAL AND WARNING GATE INSTALLATION Cont'd

(c) Pilot Lights shall be miniature, oiltight, NEMA 4, indicating lights. The units shall be completely assembled including low voltage lamp, light unit module with mounting ring and 120V transformer, and colored lens. Acceptable Manufacturers: Allen-Bradley, Cutler-Hammer or approved equal.

(d) Normally-open bypass switch shall be rectangular, alternate action, pushbutton switches with bezel for panel mounting. Switch position shall be indicated by integral, clear 120V neon lamp. Switch cups shall be yellow, engraved with the legend indicated on the Plans. Inadvertant switch operation shall be prevented using clear, polycarbonate thermoplastic, switch guard covers which slides under the bezel. Acceptable Products: Microswitch AML 32F with AML 76 cover, or approved equal.

(e) Normally-closed bypass switch shall be rectangular alternate action, pushbutton switch with bezel for panel mounting. Switch cap shall be yellow, engraved with the legend shown on the Plans. Inadvertant switch operation shall be prevented using a clear, polycarbonate thermoplastic, switch guard cover which slides under the bezel. (Note: 120V lamp options are not available for this switch). Acceptable Products: Microswitch AML 21E with AML 76 cover, or approved equal.

(f) Auxiliary control console shall be a cast aluminum enclosure with 0.188 inch, brushed aluminum, beveled edge panel. Holes for pilot lights and pushbuttons shall be punched to the switch manufacturer's tolerances. Console shall be mounted to the top edge of the existing console. The panel face of the new console and the face of the existing console shall be in the same geometric plane.

(g) Weatherproof housing for gate position indicators shall be a cast aluminum, NEMA 4 enclosure. Mounting shall be by conduit nipple to the existing switch housing as indicated on the Plans, and by additional auxiliary support brackets as necessary.

(h) Control relays shall be electrically held with sets of two, four or eight contacts as indicated. Contact types shall be normally open, normally closed or a combination as indicated. Coil ratings shall be 120 or 240 volts at 60 HZ as required. Relays shall be supplied without enclosures and with mounting strips. Solid-state timing units shall be provided where required. Acceptable Products: Allen-Bradley Type N Control Relay or approved equal.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 661 - TRAFFIC SIGNAL AND WARNING GATE INSTALLATION Cont'd

(i) Auxiliary terminal cabinet shall contain new terminals for the traffic warnings gates and other circuitry which exceeds the capacity of the existing cabinet. Auxiliary terminal cabinets shall be of the hinged door type, as indicated, furnished complete with removable back-plane panels. Cabinets shall conform to the National Electrical Manufacturer's Association (NEMA) standard for Type 1 enclosures. Enclosures and panels shall be fabricated from 12 gauge galvanized steel. Enclosures and panels shall be furnished with enamel paint, using gray color for enclosures and white color for panels.

(j) Traffic control terminal blocks for connecting 120/240 VAC traffic controls shall be an assembly of screw-screw type terminal blocks and DIN mounting rail. Terminal blocks shall consist of two screws and "tunnel" connecting bar in a molded thermosetting polymer housing. Ratings shall be 30 amperes at a minimum 240 volts. Acceptable Products: Entretec DIN rail terminal blocks, or approved equal.

661.50 Existing Sidewalk Removal - Add the following Subsection:

The portion of sidewalk to be removed, shall have vertical cuts made with a concrete saw or other approved cutting device to the lines as shown in the plans. Breakage of concrete and damage to other materials or items not intended to be removed shall be repaired promptly in a thoroughly workmanlike manner. All such repairs shall be made by the Contractor without compensation.

661.51 Gate Controls - Add the following Subsection:

Wiring at the existing west traffic control cabinet, the existing east traffic control cabinet and the existing traffic control console shall be revised to interlock warning gate operation with existing traffic signals as indicated. A new pushbutton shall be provided at the traffic control console to simultaneously close all existing traffic barriers after all warning gates have been closed. Existing pushbuttons for barrier gate operation shall be revised to individually operate the new warning gates and the action of the switches shall be revised from momentary pushbuttons to three-position, momentary selector switches. Gate position indicators and auxiliary bypass switches shall be added as indicated.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 661 - TRAFFIC SIGNAL AND WARNING GATE INSTALLATION Cont'd

Existing loudspeakers at four locations shall be relocated from their present positions near the existing barrier gates to new locations near the new traffic warning gates, as indicated on the Plans.

The Contractor shall refer to Appendix A for an operational narrative of the existing traffic control system, and to Appendix B for an operational narrative of the traffic control system after the completion of the work of this section. A schedule of traffic control system equipment, both new and existing, is included in Appendix C.

New control conductors for the east warning gates are included in the submarine cable installation (Reference Work Item 13).

661.81 Measurements - There will be no measurement for individual items of work performed under this Section.

661.91 Payment - Payment made for the individual items of work done under the Section will be made at the contract lump sum amount for the item "Traffic Signal and Warning Gate Installation, Complete".

Payment as above specified will be full and complete compensation for furnishing all labor, tools, equipment, materials and doing all work in installing or revising the traffic control signal system complete in every respect and doing all other work called for by the Plans and Specifications in connection therewith.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 690 - SUBMARINE DUCT AND CABLE INSTALLATION

Add the following Section to the Table of Contents and to the text of the 1984 Standard Specifications:

SECTION 690 - SUBMARINE DUCT AND CABLE INSTALLATION

Submarine duct, cable and terminal cabinet installation shall be performed in accordance with the "Standard Specifications for Movable Highway Bridges", American Association of State Highway and Transportation Officials (AASHTO) and as follows:

690.01 Scope - The work shall consist of installing submarine ducts, terminal cabinets, conduit and appurtenant components as required by the plans and these specifications.

(a) Work Item 12 - Broadway Bridge Submarine Duct Installation

The work shall consist of empty duct installation for submarine cable between the new cabinets to be located at Piers 5 and 6 (Reference Work Item 13) on the Broadway Bridge. Three ducts shall be installed.

The contractor shall locate any existing ducts and cables prior to installing the new ducts. He shall be responsible for all costs for the repair of damage, to any ducts or cables, caused by his operations.

To prevent disturbance by future dredging, all ducts shall be placed well below the authorized channel depth as indicated on the Plans. The work shall include all trenching and backfilling of the river bottom, all duct placement, all anchorage of the duct to the bridge piers and structure, and all pumping required to remove standing water after duct installation.

The work shall also include the repositioning of existing bridge power/control submarine cables from the pier ends to the pier sides opposite to vessel traffic. All necessary anchorage of the cable to the bridge piers and structure shall be included.

(b) Work Item 14 - Broadway Bridge Submarine Cable Terminal Cabinet and Cable Installation

The work shall consist installing terminal cabinets and submarine cables on the Broadway Bridge.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 690 - SUBMARINE DUCT AND CABLE INSTALLATION Cont'd

Cabinets shall be located such that terminations at opposite ends of the cables are accessible from sidewalk level for routine cable testing. Of the three existing submarine cables, the one cable still in use shall be rerouted from the existing pier-top junction boxes to the new terminal cabinets. The two abandoned submarine cables shall be removed to the waterline and become the property of the Contractor. Bridge structure wiring shall also be rerouted to the new terminal cabinets by the installation of conduit, wire and junction boxes, and the splicing of this new wiring to the existing wiring. The removal of the existing pier-top junction boxes and associated conduits is also included in the work.

Cabinet installation shall include the fabrication, assembly and installation of a steel support structure fastened to the existing bridge structure as indicated. As a part of this work the Contractor shall also remove two existing structural steel platforms and reinstall an existing navigation sign, both of which would interface with the new cabinet installation. The Contractor shall also coordinate with these activities with the County so that an existing sewer pipe and holding tank may be relocated prior to installation of the cabinet support structure.

Additional work shall include the termination of new submarine ducts at the terminal cabinets, and the installation of power feeders, control cables, coaxial cable (to be supplied by the Division) and intercom cable (to be supplied by the Division) into the new ducts. The installation of termination blocks, cable termination and cross connection, wire and terminal labeling, cable strain relief is included. The rerouting and modification of the existing 600VDC positive and negative feeders between the new submarine cable terminal cabinets and the existing span drive control cabinets is also included.

690.11 Materials

(a) Duct material shall be High Density Polyethylene (HDPE) pipe conforming to ASTM D-1248 Type III, Class C, Category 5, Grade P34, with a compressive strength rating of 160 p.s.i. or greater. Acceptable products include Polaris Pipe Company Model SDR-11, Hoechst Celanese Corporation Model GM 5010-T2, NIPAK Inc. Model PE 3408, or approved equal.

(b) Anchorage devices and accessories - Submarine ducts and cables shall be firmly anchored to the bridge piers using approved anchorage devices and accessories.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 690 - SUBMARINE DUCT AND CABLE INSTALLATION Cont'd

At the Contractors option, the most suitable combination of the following may be employed:

- 1) Capsule anchors
- 2) Expansion anchors
- 3) Powder actuated fasteners
- 4) Anchor bolt sleeves

Capsule anchors shall be Parabond Capsule Anchor, from Molly Fastener Group, Emhart Industries, Temple, PA 19560 or HVA Adhesive Anchor, HILTI Fastening Systems, Tulsa, OK 74174.

Expansion Anchors (Sleeve Type) shall be HSL Expansion Anchor, HILTI Fastening Systems, Tulsa, OK 74147; Red Head Sleeve Anchor, ITT Phillips Drill Division, Michigan City, IN 46360 or WEJ-IT Anchor Bolts (Non-Sleeve Type) WEJ-IT Co., Tulsa, OK 74152.

Powder Actuated Fasteners shall be HILTI Powder Actuated Fasteners. Pin or stud type anchorages as required. Material to be modified AISI 1061 steel (austempered) and plated in accordance with ASTM B633, SC.1, Type III.

Anchor Bolt Sleeves shall be high density polyethylene sleeve as manufactured by SINCO Products Inc., East Hampton, CT. 06424, or approved equal.

The Contractor shall submit plans identifying the anchorage devices to be used, the intended location of use and procedures which will be used for anchorage device installation.

(c) Submarine terminal cabinets for the Broadway Bridge shall be of the one-door and two-door type, as indicated, furnished complete with removable back-plane panels.

Cabinets shall conform to the National Electrical Manufacturer's Association (NEMA) standard for Type 3R enclosures and shall protect the terminals against rain, sleet and snow.

Enclosures and panels shall be fabricated from 12 gauge galvanized steel. Enclosures and panels shall be finished with enamel paint, using gray color for enclosures and white color for panels. The door latching mechanisms shall be the 3-point type, operated by a padlocking handle.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 690 - SUBMARINE DUCT AND CABLE INSTALLATION Cont'd

(d) Cable for Submarine Duct Installation

1) Bundles:

480Y/277V feeder with ground (4 conductors as indicated)

120/240V multi-conductor control cable (50 conductors as indicated)

2) Construction: Ethylene-propylene insulated soft copper conductors with an overall jacket of cross-linked polyolefin.

3) Wire: ANSI/ASTM B3, uncoated soft copper.

4) Stranding: ANSI/ASTM B8, Class B.

5) Maximum Normal Conductor Operating Temperature: 90 Degrees centigrade.

6) Maximum Rated Circuit Voltage: 600 volts.

7) Color-Coding: See Paragraph 691.36.

8) Acceptable Products: Continental FREP II or approved equal.

(e) Submarine Cable Strain Relief -

1) Non-Armored Cable: 3/8-inch diameter swivel hanger with integral 1/2-inch mounting bolt, Unitstrut M2350 or approved equal, mounted to rear of submarine cable terminal cabinet as indicated. Steel mesh basket grip, Kellems split-mesh universal bale or approved equal, attached to swivel hanger.

2) Armored Submarine Cable: OZ Gedney Type CRA cable terminator or approved equal, malleable iron cast body with hot-dip galvanized finish. Install complete with manufacturer's recommended filling compound.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 690 - SUBMARINE DUCT AND CABLE INSTALLATION Cont'd

(f) Terminal blocks for connecting 120/240 VAC submarine control cable shall be an assembly of screw-screw type terminal blocks and DIN mounting rail. Terminal blocks shall consist of two screws and "tunnel" connecting bar in a molded thermosetting polymer housing. Ratings shall be 30 amperes at a minimum 240 volts. Acceptable Products: Entretec DIN rail terminal blocks or approved equal.

(g) Terminal blocks for connecting 480VAC submarine feeder cable shall be an assembly of screw-screw type terminal blocks and mounting rail. Terminal blocks shall consist of two screws and tapped "tunnel" connecting bar in a molded thermosetting polymer housing. Ratings shall be 95 amperes at a minimum 500 volts. Acceptable products: Entretec Series 5000 screwed-screwed terminal or approved equal.

(h) Terminal blocks for connecting the existing 600 VDC submarine feeder cable shall be an assembly of compression type lug connectors, dual threaded post type terminal blocks, and mounting rail.

Compression type lugs shall be of bronze or copper alloy specifically designed for copper cables of the size indicated.

Terminal blocks shall consist of two threaded terminals linked by a copper bar in a molded thermosetting polymer housing. Ratings shall be 265 amperes minimum at 1000 volts. Acceptable Products: Entretec Series 5000 power terminal or approved equal.

(i) Resistive cabinet heaters for internal strip heaters in the submarine terminal cabinets and elsewhere shall be 150 watt, 120 volt units with a rated temperature of 750 degrees Fahrenheit. Acceptable Manufacturers: Bryant or equal.

(j) Coaxial cable and twisted-shielded pair cable for installation into the submarine ducts will be furnished to the Contractor by the Division.

690.31 Dredging - Dredging shall be performed by either the direct excavation or hydroinjection methods. Use of dredged material for backfill is permitted. Side casting of dredged material is permitted. Suitable methods shall be used to minimize turbidity during dredging operations.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 690 - SUBMARINE DUCT AND CABLE INSTALLATION Cont'd

690.32 Duct Preparation - After installation ducts shall be pumped and swabbed dry. 1/4-inch Nylon pull rope shall be installed in each duct. Ducts ends shall be sealed from moisture until used.

690.81 Measurement - There will be no measurement for individual items of work under this Section.

690.91 Payment - Payment made for the individual items of work done under this Section will be made at the contract lump sum amount for the item "Submarine Duct and Cable Installation, Complete".

Payment as above specified will be full and complete compensation for furnishing all labor, tools, equipment, materials and doing all work in installing or revising the submarine duct and cable system complete in every respect and doing all other work called for by the Plans and Specifications in connection therewith.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 691 - ELECTRIC POWER DISTRIBUTION

Add the following Section to the Table of Contents and text of the 1984 Standard Specifications:

SECTION 691 - ELECTRIC POWER DISTRIBUTION

Electric power distribution shall be performed in accordance with the "Standard Specifications for Movable Highway Bridges", American Association of State Highway and Transportation Officials (AASHTO), the National Electric Code (NFPA-70), and as follows:

691.01 Scope - The work shall consist of modifications to the electric power distribution system on the Broadway and Burnside Bridges, as required by the plans and these specifications.

(a) Work Item 14 - Broadway Bridge Power Distribution Revisions

The work shall include the conversion of existing multiple service entrances to a single 480V, 3-phase service from the west side with provisions for the hook-up of a portable engine-generator set.

Individual items of work include, but shall not be limited to, the following:

- 1) Abandonment of the existing 2300V primary transformer located under the east abutment, the existing switch panel at roadway level, and the existing east side 240VAC feeder.
- 2) Installation of a new 120/240V transformer with a 480Y/277V primary to be located in the Pier 6 Control House.
- 3) Installation of a new three-conductor (plus ground), 480V, 3-phase submarine cable to be fed from the west side service entrance (Reference Work Item 14). Installation of conductors and conduit to connect the submarine cable terminal cabinet with the new transformer and panelboard.
- 4) Removal of the existing centerlock circuit breaker, conduit and wiring. Installation of new conduit and wiring to the new 480V panelboard.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 691 - ELECTRIC POWER DISTRIBUTION Cont'd

- 5) Installation of a new 120/240V transformer with a 480Y/277V primary to be located under the Pier 5 Operator's House. Installation of a new 480V panelboard fed by the new transformer and located under the Pier 5 Operator's House. Replacement of the existing 120/240V panelboard with a larger panelboard and the feeding of both west side 240V panelboards from the new transformer.
- 6) Removal of the existing west side 240V service entrance, replacement and conversion of the existing 240V, 3-phase feeder to 480V, 3-phase to be fed from a manual transfer switch. The existing 240V service entrance enclosure shall be removed including the existing fused disconnect switches and meter.
- 7) Installation of a receptacle for a portable generator and the manual transfer switch. After removal of the existing service enclosure a new enclosure shall be installed in its present location for the mounting of the transfer switch, receptacle, and a new circuit breaker, as indicated.
- 8) Installation of other circuit breaker protective devices as indicated.
- 9) Installation of a service entrance safety ground as indicated.

(b) Work Item 15 - Burnside Bridge Power Distribution Revisions

The work shall include conversion of the existing multiple service entrances at the Burnside Bridge to a single 480V, 3 - phase service from the west side with provisions for the hook-up of a portable engine-generator set.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 691 - ELECTRIC POWER DISTRIBUTION Cont'd

Individual items of work shall include, but not be limited to, the following:

- 1) Removal of the two existing 2300V/240V transformers at the west transformer room and the installation of a new 120/240V single-phase transformer with a 480Y/277V primary and a new 208Y/120V 3-phase transformer with a 480Y/277V primary.
- 2) Removal of the two existing 2300V/240V transformers at the east transformer room and the installation of a new 120/240V single-phase transformer with a 480Y/277V primary and a new 208Y/120V 3-phase transformer with a 480Y/277V primary.
- 3) Installation of a new 480V, 3-phase feeder from the west transformer vault to the west transformer room, and the addition of a 400 amp receptacle to the existing manual transfer switch at the west transformer vault.
- 4) Reconnection of the existing 240V secondary tie and associated transfer switches to function as a continuous 480V, 3-phase feeder to the east side.
- 5) Relocation of the existing current transformer to the supply side of the existing 400A manual transfer switch, also the installation of a new circuit breaker and 400A 3-pole switch in order to isolate the feed to the existing DC rectifier.

691.11 Materials

(a) Manual transfer switch shall be approved for continuous duty per UL 1008, and shall be inherently double-throw. The switch shall be mechanically interlocked to ensure only one of two possible positions. The switch shall also be rated for use as service equipment and shall be able to withstand the RMS symmetrical short circuit current available at the transfer switch terminals.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 691 - ELECTRIC POWER DISTRIBUTION Cont'd

(b) Receptacle for portable generator hook-up shall be of the dead-front circuit breaking type, four-pole, rated for 400 amperes RMS continuous current. Receptacles shall be designed to contain arcing through a combination of integral arcing chamber and grounding of the receptacle housing. Receptacle shall be Crouse-Hinds AR Series or approved equal. The cover portion only of a Crouse-Hinds Model AJ back box shall be used for cabinet mounting.

(c) Service entrance enclosure shall be in accordance with Paragraph 763.04. Dimensions and mounting shall be as indicated.

(d) Conduit shall be rigid hot dipped galvanized steel (Schedule 40) conforming to Federal Specification WWC-581.

(e) Conduit fittings shall be Crouse-Hinds, Appleton, or T & B with threaded hubs and hot dipped galvanized finish over steel conforming to the specification for the conduit. Gaskets shall be neoprene. Conduit hubs which are not integral with a box shall be malleable iron or stainless steel with an O-ring or neoprene for watertight installation.

(f) Outlet boxes and covers - shall be hot dipped galvanized cast iron or malleable iron conforming to Federal Specifications WC-586 in all of the conduit system. Provide neoprene cover gaskets. All boxes shall be provided with drain holes.

(g) Electrical fasteners - All screws, bolts, and fasteners used outdoors or in structures below grade shall be 314 stainless steel or hot dipped galvanized steel.

(h) Nameplates - All manufacturer's standard items shall have a metal nameplate, permanently attached with screws, stamped with manufacturer's name and product identification with permanently legible characters. Nameplates shall be attached to the principal equipment component. Otherwise, provide black-white engraved phenolic plastic nameplates (Lamacoid) with two holes for attaching with screws. Adhesive mounting is not acceptable. Provide a nameplate for every circuit breaker, enclosure, and panel.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 691 - ELECTRIC POWER DISTRIBUTION Cont'd

(i) Wire and Cable -

- 1) The words wire, cable, and conductor are used interchangeably and shall mean insulated conductors as defined in NEC.
- 2) Provide wire in full reels, tagged and protected against injury. U.L. approved tags showing manufacturer's name, type of insulation, size and length of wire in each reel shall be attached.
- 3) Provide stranded conductors of soft drawn annealed copper with minimum 98 percent pure copper conductivity throughout the length. Provide conductors conforming to applicable standards of ASTM or IPCEA.
- 4) Minimum power or motor feeder conductor size shall be No. 12 AWG. Minimum size conductor for control or indicator wiring shall be No. 14 AWG except where noted.
- 5) Provide 600-volt insulation except as otherwise indicated. Insulation shall be heat and moisture resistant thermoplastic Type THWN.
- 6) Provide multi-conductor cables where possible.

(j) Connectors - Provide factory-fabricated, metal connectors of sizes, ratings, materials, types and classes as indicated for each service. Where not indicated, comply with installation requirements and NEC standards. Select from the following types, classes, kinks and styles:

- 1) Type: Pressure, Crimp or Threaded
- 2) Class: Noninsulated
- 3) Kink: Copper (for Cu to Cu connection)
- 4) Style: Butt Connection

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 691 - ELECTRIC POWER DISTRIBUTION Cont'd

(k) Indoor transformers shall be of the two winding, dry type in conformance with ANSI ST20. Transformers shall be air cooled with insulation class of 185 and average winding temperature rise of 80 degrees centigrade. Sound pressure level due to transformer noise shall not exceed 45 db(A). Transformers shall have ratings as indicated, and shall be wall-mounted at the indicated locations.

(l) Outdoor transformers shall have the same specifications and ratings as indoor transformers above, but shall be enclosed to NEMA 3R standards using weathershields.

(m) Indoor panelboards shall be of the circuit breaker type conforming to NEMA PB 1. Enclosures for panelboards shall be manufacturer's standard sizes for the number of circuits indicated and shall have concealed trim clamps, hinged doors, flush locks, and a finish of gray enamel. Minimum short circuit rating shall be 10,000 amperes RMS symmetrical. Panelboards shall have copper ground busses in addition to copper circuit busses of the indicated ratings.

(n) Outdoor panelboards shall have the same specifications and ratings as indoor panelboards above, but shall be enclosed in NEMA 3R weatherproof enclosures.

(o) Circuit breakers shall conform to NEMA AB 1 and shall be provided with integral thermal and instantaneous magnetic trip in each pole. Circuit breakers for panelboards shall be of the bolt-on type of the quantities and ratings as indicated. Enclosed circuit breakers shall be furnished with a NEMA AB 1, Type 1 enclosure of manufacturer's standard size for the indicated rating, with gray enamel finish. Multiple-pole enclosed circuit breakers used in the new 480V, 3-phase feeder shall have a minimum interrupting capacity of 22,000 amperes RMS symmetrical.

(p) Disconnect switch for Burnside Bridge DC rectifier shall be the non-fused, NEMA 1, single-throw, three-pole type with 400A contact ratings and 10,000 amperes RMS symmetrical interrupting capacity.

691.24 Tests and Test Records -

(a) Provide all instrumentation and labor, and conduct all tests recommended by the equipment manufacturers, all tests required by codes or laws, and all further tests required by the Engineer. Record all test data and provide copies to Engineer.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 691 - ELECTRIC POWER DISTRIBUTION Cont'd

- (b) Transformers shall be tested in accordance with ANSI ST20.
- (c) All electrical connections shall be examined for physical damage, proper alignment, anchorage, tightness, grounding and proper installation.
- (d) After power-up, steady-state load currents at each panelboard feeder shall be measured for phase balance. Should the currents differ by more than 20 percent between any two phases, the Contractor shall rearrange circuits within the panelboard in order to produce a more balanced load.
- (e) In addition to tests recommended by the equipment manufacturer, perform the following:
 - 1) After installation and before connection, measure all low-voltage power and control wiring with a 500-volt megger. Identify each circuit, record measurements, and provide record to Engineer.
 - 2) Circuits which do not meet the minimum of 50 megohms measured phase to phase and phase to ground shall be replaced at Contractor's expense.
 - 3) Test continuity of all conductors.
 - 4) Check phase sequence at each bus and confirm correct and record.
 - 5) Test each completed electrical system to confirm proper operation.
- (f) Test each electrical system in the presence of the Engineer to demonstrate the system operation.
- (g) Provide a type-written record of all test results. Deliver two copies to the Engineer.

691.31 Panelboard and Transfer Installation -

- (a) Existing panelboard on the Broadway Bridge shall be removed as indicated by transferring its branch circuit wiring to the new panelboard.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 691 - ELECTRIC POWER DISTRIBUTION Cont'd

(b) Existing main disconnect switches shall be removed and replaced with a new terminal box, as indicated. Existing lighting transfer switches shall be used as single throw fuses disconnect switches, as indicated.

(c) Panelboards, transformers and enclosed circuit breakers shall be installed plumb. Conform with the other requirements of ANSI ST20 for the installation of transformers and NEMA PB 1.1 for the installation of panelboards.

(d) Flexible conduit of 2 feet minimum length shall be used for connections to transformer cases. Connections shall be made to the side panel of the transformer enclosure.

(e) Typed circuit directories shall be provided for each branch circuit panelboard. Filler plates shall be provided for all unused circuit breaker spaces.

(f) Tighten all electrical connections to the torque specified by the manufacturer using a torque measuring tool.

(g) Anchor panelboards firmly to walls and structural surfaces, ensuring that they are permanently and mechanically secure. Provide a 1/4-inch spacer behind each surface-mounted enclosure.

(h) Provide electrical connections within panelboards.

(i) Install transformers on vibration mounts or otherwise comply with manufacturer's indicated installation method.

691.35 Raceway Installation -

(a) Where exposed raceway is indicated or approved, install in straight lines parallel to or at right angles with walls, beams, or columns and group together where possible. Use symmetrical long radius bends or condulets for changes in direction. All conduit bends shall be made using a conduit bender and shall be made without flattening or kinking conduit. No more than three 90 degree bends shall be allowed in one conduit without installing a pulling fitting or junction box. Support conduit at intervals of not more than 8 feet and not more than 6 inches from each outlet.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 691 - ELECTRIC POWER DISTRIBUTION Cont'd

(b) Conduit shall be cold cut, squared and reamed. Apply conductive type compound to male threads of threaded conduit joints to insure low resistance ground conductivity. Running threads shall not be used on conduit. All joints shall be wrench tight with a minimum of 5 threads engaged.

(c) Install insulating bushings with ground lugs on conduits terminating in switchgear, control panels, and similar equipment. Bond to the equipment and system ground. Install conduit hubs to terminate conduits at boxes.

(d) Install enclosures and pullboxes with covers as indicated and as required in accordance with NEC. Mount surface enclosures and pullboxes with minimum clearance of 1/2-inch between box and wall with galvanized steel channel.

(e) Plug ends of raceway with tapered plugs or pipe caps immediately after installation and until conductors are to be pulled. Clean raceway by pulling dry swab through before conductors are pulled in. Clogged raceway shall be freed of obstructions or replaced.

(f) Support surface mounting conduit with one-hole cadmium plated, malleable iron clamps with clamp backs to provide clearance between the conduit and the mounting surface.

(g) Use wood screws to fasten raceway supports to wood, toggle bolts in hollow masonry walls, and machine screws welded threaded studs or spring tension clamps on steel. Threaded studs driven in by a powder charge and provided with lock washers and nuts may be used in lieu of expansion bolts, machine screws or wood screws. Expansion anchors shall be steel wedge type and not less than 1/4-inch size, and shall extend not less than three inches into concrete or masonry. Expansion bolt anchors with lead shall not be installed.

Powder set fasteners shall be not less than 1/4-inch size, and shall extend not less than 1-1/4 inches into concrete.

(h) All vertical runs of conduit runs with an elevation change of greater than five feet shall have a drain delta "T" fitting with a reducer to 1/8-inch.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 691 - ELECTRIC POWER DISTRIBUTION Cont'd

(i) Empty Conduits: Provide nylon cord in empty conduits (1,000 lbs. minimum strength).

691.36 Wire and Cable Installation

(a) Install electrical cables, wire and connectors as indicated, in compliance with manufacturer's written instructions, applicable requirements and NECA's "Standard of Installation", and in accordance with recognized industry practices. Phase rotation established at service equipment shall be maintained throughout the system.

(b) Coordinate cable and wire installation work with electrical raceway and equipment installation work, as necessary to interface installation of wire/cables with other work.

(c) Install all wiring in conduit.

(d) Wire shall be pulled off reels into conduit without being dragged on ground or pavement.

(e) Install conductors after all work which may damage conductors has been completed. Thoroughly clean raceways before pulling conductors. Pull conductors through raceway in a manner that will not kink or injure insulation. Where lubricant is used to facilitate pulling, use only commercial lubrication materials manufactured for this purpose.

(f) No mechanical means shall be used for pulling No. 8 AWG and smaller conductors.

(g) All conductors of power circuits shall be continuous between points of connection without splicing, unless splicing is indicated on the Plans.

(h) Install terminal lugs on the ends of all conductors of power circuits except where lugs are provided on the device being connected, such as circuit breakers. Provide copper bolted compression type lugs sized as recommended by the manufacturer of the lugs for the size of the wire terminated.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 691 - ELECTRIC POWER DISTRIBUTION Cont'd

(i) Feeder, branch circuit, grounded and grounding conductors shall be color coded. Install permanent heat shrunk type or polymer adhesive wrap type wire markers on each 600-volt wire and each conductor in signal or communications cable. Markers shall be installed at each termination and in enclosures, such as junction, outlet and pullboxes. The identification shall be the wire numbers shown on the contract drawings, or as directed by the Engineer. Where more than one circuit is in an enclosure, the identification shall also include the circuit number. Markers shall retain their markings after cleaning and shall permanently adhere to the wires.

(j) Pull conductors together where more than one is being installed in a raceway.

(k) Use pulling means, including fish tape, cable or rope which cannot damage raceway.

(l) Keep conductor splices to minimum and splice only in junction boxes.

(m) Install splices and taps which have mechanical strength and insulation rating equivalent to, or better than, the conductor itself.

(n) Use splice and tap connectors which are compatible with conductor material.

(o) Color Code:

- 1) Conductors in sizes No. 8 AWG and larger shall be color-coded by means of color tape at each termination point and at each tap or splice.
- 2) Conductors in sizes No. 10 AWG and smaller shall have color-coded insulation throughout.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 691 - ELECTRIC POWER DISTRIBUTION Cont'd

3) Color Codes as Follows:

	<u>208/120-Volt</u>	<u>480/277-Volt</u>
Phase A	Black	Brown
Phase B	Red	Orange
Phase C	Blue	Yellow
Neutral	White	Grey
Ground	Green	Green
Switch Leg	Phase Color	Phase Color

(p) Taps, splices, and termination:

- 1) In multi-phase circuits, maintain continuity of neutral and ground conductors throughout entire circuit by the use of self-stripping insulated-type tap connectors.
- 2) Conductors No. 10 AWG and Smaller: Twist-on type connectors.
- 3) Conductors No. 8 AWG and Larger: Compression or bolt-on type, preinsulated, cast copper type with minimum of two bolts per connection.
- 4) Compression type connectors shall be installed with proper tools and dies supplied by connectors manufacturer.
- 5) Provide washers on bolt-type connectors, lock washers, and termination lugs.

691.37 Grounding and Bonding - All metallic appurtenances containing electrical conductors including cabinets, metallic conduit, and junction boxes, shall be made mechanically and electrically secure to form a continuous system which shall be effectively grounded.

Where parallel electrical circuits exist in an electrical conduit, the equipment grounding conductor shall be sized, as determined by the rating of the largest overcurrent device, serving any circuit contained in the conduit. Only one equipment grounding conductor is required in any conduit.

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MECHANICAL AND ELECTRICAL RENOVATIONS

SECTION 691 - ELECTRIC POWER DISTRIBUTION Cont'd

The equipment grounding conductor shall be sized as indicated. Minimum size shall be #8 AWG copper.

A ground wire shall interconnect all structural grounds on each side of the bridge. The Contractor shall be responsible for identifying bonding locations on the structural members and for bonding of the ground conductors in order to obtain a maximum resistance to ground of 5 ohms. Grounding of the equipment grounding conductors throughout the system shall be by approved ground clamps. Only one wire shall be installed under any ground clamp.

Metal conduit, ground wires and the service neutral shall be bonded and grounded at the service entrance point, as required under the NEC.

All metallic appurtenances shall be electrically bonded by a separate grounding conductor in all conduit systems.

691.38 Terminal Labeling - Terminal designations are indicated on the drawings based upon a preliminary review of existing conditions and the applicable as-built drawings. The Contractor shall be responsible for obtaining the necessary as-built drawings, assisting the County in identifying unknown terminals, and performing whatever investigation is necessary to properly label the remaining terminals. Those terminals labeled as "spare" shall have been determined to be presently unused, and not merely labeled "spare" for lack of a better designator.

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SECTION 708 - PAINT

Delete the Table of Contents of Section 708 and Section 708 of the 1984 Standard Specifications and substitute the following:

SECTION 708 - PAINT

All paint supplied for this project shall conform to the following requirements:

The coating system for all steel surfaces to be painted on this project will incorporate three single component moisture-cured polyurethane coats. The various coats of paint shall be applied in thickness as specified under the heading "Painting-Application."

Paints supplied for this shall conform to the following minimum requirements:

(a) Primer

Generic Type:	Zinc filled, single component, moisture-cured polyurethane.
Vehicle Type:	Moisture-cured polyurethane.
Pigment Type:	Zinc Dust.
Pigment Content:	80% minimum zinc by weight in dry film.
Volume Solids:	65% minimum.

(b) Intermediate coat

Generic Type:	Micaceous iron oxide filled*, single component, moisture-cured polyurethane.
Vehicle Type:	Moisture-cured polyurethane.
Volume Solids:	50% minimum.
Finish:	Semi-Gloss.
Color:	Tinted to distinguish from primer and top coat.

* A nonleafing aluminum pigment may be substituted for the iron oxide.

BROADWAY AND BURNSIDE BRIDGES
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SECTION 708 - PAINT (con't)

(c) Top Coat**

Generic Type: Single component, moisture-curing aliphatic polyurethane.
Vehicle Type: Moisture-cured polyurethane.
Volume Solids: 50% Minimum.
Finish: Gloss.
Color: Shall closely approximate Rodda Paint's Broadway Bridge Red. Color chips are at the Multnomah County Bridge Maintenance Office at 1403 SE Water Ave.

* A two component, aliphatic polyurethane top coat may be used.

Manufacturing - All steel coating products furnished for this project shall be furnished by the same manufacturer and shall be certified to be compatible with one another for the coating system specified. A certified letter from the manufacturer stating the coating system is compatible shall be furnished to the Engineer.

All paint shall be prepared at the factory ready for application. The addition of thinner or other material to the paint after the paint has been shipped will not be permitted, except as recommended by the manufacturer and by permission of the Engineer.

Paint shall be homogeneous, free of contamination and of a consistency suitable for use in the capacity for which it is specified. The manufacturer shall include in the paints the necessary additives for control of sagging, pigment settling, leveling, drying, solvent absorption, and skinning or other requisite qualities and satisfactory properties in all respects which affect its application and curing.

An unopened one-quart container of the finished paint, sampled at the factory at the time of paint containerizing, shall be furnished by the manufacturer to Multnomah County for testing. One sample shall be furnished for each type of paint to be used. (Check samples of finished paint as being applied will be taken at the job site as determined by the Engineer).

BROADWAY AND BURNSIDE BRIDGES
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SECTION 708 - PAINT (con't)

All tests will be conducted in accordance with the latest test methods of American Society for Testing and Materials, Federal Test Method Standard No. 141, and methods in use by the Oregon Department of Transportation Laboratory.

The Contractor shall submit material safety data sheets for each paint prior to application.

Application of paint will not be permitted until the paint has been approved by the Engineer.

Tinting - all tinting material required shall be added to the paint at the time of paint manufacture. Field tinting will not be allowed, except that near the completion of work and with the permission of the Engineer, small quantities of prime and first base coat paint may be field tinted to allow its use for succeeding coats to complete the work.

Packaging - The finished paint shall be furnished in new round steel containers of not more than 6-gallon capacity and of metal not thinner than 0.024-inch nominal thickness. The containers shall have lug type crimp lids with ring seals and shall be equipped with ears and bails. The containers shall meet U.S. Department of Transportation Hazardous Material Shipping Regulations. The containers shall be lined if necessary to prevent attack by the paint. The lining shall not come off the can as skins.

All containers shall be labeled showing the exact title of the paint, the manufacturer's name, date of manufacturer, the manufacturer's batch number, and the State specification number and lot number if appropriate.

Precautions concerning the handling and application of paint shall be shown on the label of paint and solvent containers.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

APPENDIX A

EXISTING TRAFFIC CONTROL OPERATIONAL NARRATIVE

1. Turn system power switch, S1, to the "on" position. Green "system power on" pilot light, P1, should turn on. Red "full close in line" light, P5, (located on the traffic control console) should be lit indicating that span is seated and aligned.
2. Next, turn centerlock switch, CS-1, to the left which is the "in" position (in case the opening has to be aborted and the traffic gates opened, the "all gates open" switch, PB4, will then function properly).
3. Turn the manual, five-minute timer, MT-1, to the "on" position, starting the warning buzzers at the east and west stop signs.
4. Depress the "change walk to wait" button, PB-1, and the "start signals" button, PB-2, at the same time. The red "alarm and traffic signal" light, P2, should turn on, indicating that the walk-wait lights, portal warning signs and gongs have been activated. Approximately 12 seconds after the "start signals" pushbutton is depressed (16 seconds for the east side) the stop signals at the vehicle stop lines will turn on.
5. Use the P.A. system to alert pedestrians of the bridge opening.
6. When the west traffic signals have been activated the red "west stop signal" light, P4, will light. Similarly, the "east stop signal" light, P3, will turn on confirming that the east traffic signals have been activated. Approximately 6 seconds after the stop signals have turned on (10 seconds for the east side) the traffic barriers will be enabled for operation.
7. Then go to the on-bound "close-gate" buttons, PB-6 and PB-7, located outside the Operator's House at the North Control Station, and depress both buttons closing the west and east on-bound barriers as traffic permits.

Note: The operator must hold these switches down for barrier travel to continue. When they are released the barriers stop.

8. Then go across the catwalk to the control box located at the South Control Station the south side of the bridge. The P.A. Mic and "east off-bound gate" button are located in the

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MECHANICAL AND ELECTRICAL RENOVATIONS

box. Pull out the gate button, PB-8, closing the east off-bound traffic barrier.

Not: The Barriers gate may be stopped before full travel by pushing in on the switch. When pulled out, travel will resume.

9. After coming back across the catwalk to the operator's house, and once traffic and pedestrians are clear, pull up on the "west off-bound gate" button, PB-3, located on the traffic control console, closing this barrier.

Note: The barrier gate may be stopped before full travel by pushing in on the switch. When pulled out, travel will resume.

10. At this point, all traffic is stopped and all barriers are closed. The green "all gates closed" light will then turn on. This signal also enables the centerlock controls.
11. Turn centerlock switch, CS-1, to the right to the "out" position. When the green light, P9, comes on the centerlocks are released (leave this switch in the out position). While the centerlock motor is running, the white light will be on.
12. The operator will now step on both deadman switches, and will raise and lower the bascule leaves using the drum control switches at the span control console.
13. When the leaves are seated and aligned, the amber "full close in-line light", P-5, will return to a lit condition. Turn the centerlock switch, CS-1, from the "out" position through the stop "off" position to the "in" position. When red light, P-10, comes on, the centerlocks are set. While the centerlock motor is running, the white light will be on.
14. After the center locks are set, turn the center- lock switch to the "off" position.
15. Announce over the P.A. system for the pedestrians to stand clear of the traffic gates.
16. Then depress the green "Open All Gates" pushbutton, PB-4. Go outside and visually check to make sure all gates have fully opened and latched. The "gates closed" light, P8, should turn off as well as the "west stop signal" light, P4, and the "East Stop Signal, P3.
17. Turn system power switch to the "off" position. The "system power on" light, P1, will turn off.

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Special Conditions:

1. Cancel walk-wait: After depressing the "change walk-wait" button, PB-1, but before depressing the "start signals" button, PB-2, the operator may depress the "cancel walk-wait" pushbutton, PB-5, to reset the pedestrian Signals to the "walk" condition.
2. Gate bypass: Under special circumstances, the centerlocks may be released with the traffic gates open (interlock overridden) by depressing the "gate bypass" pushbutton, PB-9, and turning the centerlock switch, CS-1, to the "out" position at the same time.
3. Off-Gate Closure: Should the operator accidentally attempt to close the offgoing traffic barriers before the oncoming barriers have been closed, the system will start both gates closing simultaneously.

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APPENDIX B

MODIFIED TRAFFIC CONTROL OPERATIONAL NARRATIVE

*Denotes Modified Sections

1. Turn system power switch, S1, to the "On" position. Green "system power on" pilot light, P1, should turn on. Red "full close in line" light, P5, (located on the traffic control console) should be lit indicating that span is seated and aligned.
- 2.* Next, turn centerlock switch, CS-1, to the left which is the "in" position (in case the opening has to be aborted and the traffic gates opened, the "Open Barriers and Off Gates" switch, PB4, will then function properly).
3. Turn the manual, five-minute timer, MT-1, to the "On" position, starting the warning buzzers at the east and west stop signs.
4. Depress the "Change Walk to Wait" button, PB-1, and the "Start Signals" button, PB-2, at the same time. The red "alarm and traffic signal" light, P2, should turn on, indicating that the walk-wait lights, portal warning signs and gongs have been activated. Approximately 12 seconds after the "start signals" are depressed (16 seconds for the east side) the stop signals at the vehicle stop lines will turn on.
5. Use the P.A. system to alert pedestrians of the bridge opening.
6. When the west traffic signals have been activated the red "West Stop Signal" light, P4, will light. Similarly, the "East Stop Signal" light, P3, will turn on confirming that the east traffic signals have been activated. Approximately 6 seconds after the stop signals have turned on (10 seconds for the east side) the traffic barriers will be enabled for operation.
- 7.* Then go to the on-bound "Close-Gate" Selector Switches SS-6 and SS-7, located outside the Operator's House at the North Control Station. The green "Opened" indicators (P13 and P15) should be lit, indicating that the gates are enabled and ready to operate. Close both the west and east onbound traffic gates as traffic permits.

Note: The operator must hold these switches in either position for gate travel to continue, when released, the gate stops.

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When the gates have reached the fully closed position, the green "Opened" indicators will turn off and the red "Closed" indicators (P14 and P16) will light.

- 8.* Then go across the catwalk to the control box located at the South Control Station on the south side of the bridge. The P.A. Mic and "East Off-Bound Gate" selector switch are located in the box. The green "Opened" indicator (P17) should be lit indicating that the gate is ready to operate. Turn the selector switch SS-8, closing the east off-bound traffic gate.

Note: The traffic gate may be stopped before full travel by releasing the switch. The travel will resume in either direction by turning the selector switch to either position.

When the gate reaches the fully closed position, the green "Opened" indicator will turn off and the red "Closed" indicator (P18) will turn on.

- 9.* After coming back across the catwalk to the operator's house, and once traffic and pedestrians are clear, turn the "west off-bound gate" selector switch, SS-3, located on the traffic control console, closing this traffic gate.

Note: The traffic gate may be stopped before full travel by releasing the switch. The travel will resume in either direction by turning the selector switch to either position.

The red/green position indicators on the auxiliary control console (P12/P11) will be used to indicate the gate's position.

- 10.* Next, depress the "close barriers" pushbutton, PB-12, to simultaneously close all traffic barrier gates.
11. At this point all traffic is stopped and all gates and barriers are closed. The green "All Gates Closed" light will then turn on. This signal also enables the centerlock controls.
12. Turn centerlock switch, CS-1, to the right to the "Out" position. When the green light, P9, comes on the centerlocks are released (leave this switch in the out position). While the centerlock motor is running, the white light will be on.
13. The operator will now step on both deadman switches, and will raise and lower the bascule leaves using the drum control switches at the span control console.

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14. When the leaves are seated and aligned, the amber "Full Close In-Line Light", P-5, will return to a lit condition. Turn the centerlock switch, CS-1, from the "out" position through the stop "off" position to the "in" position. When red light, P-10, comes on, the centerlocks are set. While the centerlock motor is running, the white light will be on.
15. After the center locks are set, turn the center- lock switch to the "Off" position.
16. Announce over the P.A. system for the pedestrians to stand clear of the traffic gates.
- 17.* Depress the green "Open Barriers and Off Gates" button, PB-4. This will cause all four barrier gates and both off-bound traffic gates to open simultaneously. When the barrier gates have reached the fully open position, the on-bound traffic gates will be enabled.
- 18.* After barriers and "Off" gates are opened, momentarily depress pushbutton PB-13 to open both "On" gates. When open, these gates will deactivate the traffic signals and reset the traffic control system. Go outside and visually check to make sure all gates have fully opened and latched. The "Gates Closed" light, P8, should turn off as well as the "West Stop Signal" light, P4, and the "East Stop Signal", P3. All gate "Opened" indicators (P11, P13, P15 and P17) should each turn on, and then turn off as the last gate is opened.
19. Turn system power switch to the "off" position. The "system power on" light, P1, will turn off.

Special Conditions:

1. Cancel walk-wait: After depressing the "change walk-wait" button, PB-1, but before depressing the "start signals" button, PB-2, the operator may depress the "cancel walk-wait" pushbutton, PB-5, to reset the pedestrian Signals to the "walk" condition.
- 2.* Barrier bypass: Under special circumstances, the centerlocks may be released with the traffic gates open (interlock overridden) by depressing the "barrier bypass" pushbutton, PB-17. The centerlock switch, CS-1, is then enabled.
3. Off-Gate Closure: Should the operator accidentally attempt to close the offgoing traffic barriers before the oncoming barriers have been closed, the system will start both gates closing simultaneously.

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- 4.* West Traffic Gate Bypass: Under special circumstances, the "Close Barriers" pushbutton, PB-10 may be operated without the west traffic warning gates reaching or indicating the fully closed position. Should a gate be inoperable or a limit switch faulty, this may be necessary.
- 5.* East Traffic Gate Bypass: Same as above for the east traffic warning gates.
- 6.* Delay Traffic Bypass: Due to a faulty limit switch, gate operator or barrier operator, should the system not deactivate after the "On" gates are opened and the traffic signals remain on, this switch may be used to reset all controls and indicators and to deactivate the traffic signals. Note that operation of this switch removes power from the gate and barrier controls, causing them to stop in mid-travel.

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

APPENDIX C
TRAFFIC CONTROL EQUIPMENT SCHEDULE

<u>Symbol</u>	<u>Exist</u>	<u>New/ Location</u>	<u>Function</u>	<u>Remarks</u>
PUSHBUTTONS				
PB-1	Exist.	Traffic Control Console	Change Walk to Wait Signals	Black
PB-2	Exist.	" "	Start Warning Signals	Black
PB-4	Modify	" "	Open Barriers & "OFF" Gates-Restore Traffic	Green
PB-5	Exist.	" "	Cancel Walk to Wait	Red
PB-9	Exist.	" "	Gate Bypass	Red
PB-10	Exist.	" "	Full Close In-Line By-pass	Red
PB-11	Exist.	" "	Release Brakes Centerlock Bypass	Blue
PB-12	New	" "	Close All Barriers Gates	Black
PB-13	New	" "	Open All "ON" Gates	Green
PB-14	New	Auxiliary Control Console	Full Close In-Line Bypass	Yellow Lighted
PB-15	New	" "	West Traffic Gate Bypass	" "
PB-16	New	" "	East Traffic Gate Bypass	" "
PB-17	New	" "	Barrier Gate Bypass	" "
PB-18	New	" "	Delay Traffic Bypass	Yellow non- lighted

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APPENDIX C
TRAFFIC CONTROL EQUIPMENT SCHEDULE

<u>Symbol</u>	<u>Exist</u>	<u>New/ Location</u>	<u>Function</u>	<u>Remarks</u>
SELECTOR SWITCHES				
SS-3*	New	Traffic Control Console	Close West "OFF" Gates	Close- Stop-Open
SS-6*	New	North Control Station	Close West "ON" Gate	Weather- tight Close- Stop- Open
SS-7*	New	" "	Close East "ON" Gate	Weather- tight Close- Stop- Open
SS-8*	New	South Control Station	Close East "OFF" Gate	Close- Stop- Open
S-1	Exist.	Traffic Control Console	System Off-On Switch	Off-On
CS-1	Exist.	Console Wireway	Centerlock Control Switch	Out-Stop- In
CS-11	Exist.	East Control Cabinet	" "	Discon- nected
CRS	Removed	Traffic Control	Operation Control Point Selector	Replaced with PB-11
GS-1	Exist.	West Control Cabinet	Test Gate Lights	Coin op.

*Spring Return From Both Selector Switch

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APPENDIX C
TRAFFIC CONTROL EQUIPMENT SCHEDULE

<u>Symbol</u>	<u>Exist</u>	<u>New/ Location</u>	<u>Function</u>	<u>Remarks</u>
GS-11	Exist.	East " Control Gate	" " "	
CS-2	Exist.	Console Wireway	Centerlock Bypass Switch	
MT-1	Exist.	Console Wireway	Warning Buzzer Timer	Manual Set to 5 Min.
PILOT LIGHTS				
P-1	Exist.	Traffic Station Console	West System Power "ON"	Green
P-2	Exist.	" "	Warning Signals "ON"	Red
P-3	Exist.	" "	East Signals to "Stop"	Red
P-4	Exist.	" "	West Signals to "Stop"	Red
P-5	Exist.	Span Drive Console	Full Close, in-line	Red
P-6	Exist.	East Control Cabinet	East System Power "On"	Green
P-7	Exist.	Console Wireway	Low Air East Side	Red
P-8	Exist.	Traffic Console	All Gates Closed	Green
P-9	Exist.	" "	Center Lockes Released	Green
P-10	Exist.	" "	Center Lockes Set	Red
P-11	New	Auxiliary Control Console	West "Off" Gate Opened	Green
P-12	New	" "	" " " Closed	Red

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TRAFFIC CONTROL EQUIPMENT SCHEDULE

<u>Symbol</u>	<u>Exist</u>	<u>New/ Location</u>	<u>Function</u>	<u>Remarks</u>
P-13	New	North Control Station	West "On" Gate Opened	Green
P-14	New	" "	" " " Closed	Red
P-15	New	" "	East "On" Gate Opened	Green
P-16	New	" "	" " " Closed	Red
P-17	New	South Control Station	East "Off" Gate Opened	Green
P-18	New	" "	" " " Closed	Red
CS-2	Exist.	Console Wireway	Centerlock Bypass Switch	
CONTROL RELAYS				
R1	Exist.	West Control Cabinet	Holding Relay - PB-1	
R2	Exist.	" "	Holding Relay - PB-2	
R3	Exist.	" "	Holding Relay - PB-3	
R3E	Exist	" "	Holding Relay - Auxiliary to R3	
R4	Exist.	" "	Holding Relay - PB-4	Opens all Gates
R4A	Exist.	" "	Holding Relay - Auxiliary to R4	
R5	Exist.	" "	Restores holding relays	
R6	Exist.	" "	Interlock-all gates closed	
R7	Deleted	" "	Resets R5 Centerlock Released	Replaced with TR-7

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<u>Symbol</u>	<u>Exist.</u>	<u>New/ Location</u>	<u>Function</u>	<u>Remarks</u>
R8	Exist.	" "	Centerlock Released	
R9	Exist.	" "	Centerlock Set	
R10	New	" "	Holding Relay PB-13	
RBC	Exist.	" "	Span Seated-Allows Centerlock Operation	
RLO	Exist.	" "	Lift Span Centerlock-Control Out	
RW	Exist.	" "	Pedestrian Walk-Wait-West	
RAW	Exist.	" "	Traffic Warning Control-West	
RWE	Exist.	East Control Cabinet	Pedestrian Walk-Wait-East	
RAE	Exist.	" "	Traffic Warning Control East	
RSW	Exist.	West Control Cabinet	Neon Warning Signs and Gongs	
RSE	Exist.	East Control Assemb.	" "	
RTR1	Exist.	West Control Cabinet	Turn on West "Stop" Lights	
RTR2	Exist.	" "	" "	
RTR11	Exist.	East Control Cabinet	Turn on East "Stop" Lights	
RTR22	Exist.	" "	" "	
MR1-S	Exist.	West Control Cabinet	Close S.W. "ON" Gate	

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<u>Symbol</u>	<u>Exist.</u>	<u>New/ Location</u>	<u>Function</u>	<u>Remarks</u>
MR2-N	Exist.	" "	Close N.W. "OFF" Gate	
MR3-N	Exist.	" "	Open N.W. "OFF" Gate	
MR4-N	Exist.	" "	Open S.W. "ON" Gate	
MR11-N	Exist.	East Control Cabinet	Close N.E. "ON" Gate	
MR22-S	Exist.	" "	Close S.E. "OFF" Gate	
MR33-S	Exist.	" "	Open S.E. "OFF" Gate	
MR44-N	Exist.	" "	Open N.E. "ON" Gate	
FLASHERS				
FT-1	Exist. Control	West Cabinet	Flashes warning lamps on gate	
FT-11	Exist.	East Control Cabinet	" "	
FT-2	Exist.	West Portal	Flashes Stop Ahead	(Furnished with neon signs)
FT-22	Exist.	East Portal	" "	" "
TIME RELAYS				
TR-1	Exist	West Control Cabinet	West "STOP" Signal On delay	On delay set at 15 sec.
TR-2	Exist.	" "	Signal amber to red 5 sec. On delay (Inactive)	Discon- nected

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<u>Symbol</u>	<u>Exist.</u>	<u>New/ Location</u>	<u>Function</u>	<u>Remarks</u>
TR-3	Exist.	" "	Gate closure- On delay	On delay set at 6 sec.
TR-4	New	" "	Gate closure S.W. & N.E. On delay	On delay * at ___ sec.
TR-7	Exist.	" "	Deactivate R5 after On delay	On delay * Set at ___ sec.
TR-11	Exist.	East Control Cabinet	East "Stop" Signal On Delay	On delay set at 16 sec.
TR-22	Exist.	" "	Signal amber to red-5 sec. On delay (Inactive)	Discon- nected
TR-33	Exist.	" "	Gate closure- On delay	On delay- set at 10 sec.

* Contractor shall field adjust

LIMIT SWITCHES

LS-1	Exist.	West Span	Enables centerlock operation thru RBC	
LS-11	Exist.	East Span	" "	
LSG-5 Span	Exist.	S.W.	Activates Gate Lamps with gate	(Furnished mechanism)
LSG-55	Exist.	N.E. Span	" "	
LSG-1S	Exist.	S.W. ON Barrier	Stops Gate Motor Gate Open	" "
LSG-2S	Exist.	" "	Restores System Gate Open- thru R5	" "

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<u>Symbol</u>	<u>Exist.</u>	<u>New/ Location</u>	<u>Function</u>	<u>Remarks</u>
LSG-3S		" "	Enables Centerlock Operation-Gate Closed - thru R6	" "
LSG-4S	Exist.	" "	Stops Gate Motor-Gate Closed	" "
LSG-1N	Exist.	N.W. OFF Barrier	Stops Gate Motor-Gate open	" "
LSG-2N	Exist.	" "	Restores System-Gate Open thru R5	" "
LSG-3N	Exist.	" "	Enables Centerlock Operation Gate Closed thru R6	" "
LSG-4N	Exist.	" "	Stops Gate Motor-Gate Open	" "
LSG-11S	Exist.	S.E. OFF Barrier	Stops Gate Motor-Gate Open	" "
LSG-22S	Exist.	" "	Restores System-Gate Open thru R5	" "
LSG-33S	Exist.	" "	Enables Centerlock Operation- Gate Closed-thru R6	" "
LSG-44S	Exist.	" "	Stops Gate Motor-Gate Closed	" "
LSG-11N	Exist.	N.E. Barrier	Stops Gate Motor-Gate Open	" "
LSG-22N	Exist.	" "	Restores system- gate open thru R5	" "
LSG-33N	Exist.	" "	Enables centerlock operation gate closed- thru R6	" "
LSG-44N	Exist.	" "	Stops gate motor- gate open	" "

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MECHANICAL AND ELECTRICAL RENOVATIONS

APPENDIX C
TRAFFIC CONTROL EQUIPMENT SCHEDULE

<u>Symbol</u>	<u>Exist.</u>	<u>New Location</u>	<u>Function</u>	<u>Remarks</u>
LSC-1	Exist. Lock	Center- Position Mech.	Stops Centerlock Drive at "IN"	
LSC-2	Exist.	" "	Stops Centerlock Drive at "OUT" position	
LSC-3	Exist.	" "	Enables Gate Open-with Centerlock "IN""IN"	
LSC-4	Exist.	" "	Enables Span Motor with Centerlock "OUT"	
NWGLS-1	New	NW OFF Gate	Stops Motor Gate Open	Furnished with gate mechanism
NWGLS-2	New	" "	Stops Motor Gate Closed	" "
NWGLS-3	New	" "	Turns on Gate Lights- Gate Closing	" "
NWGLS-4	New	" "	Enables Traffic Barriers- Gate Closed	" "
NWGLS-5	New	" "	Restores System-Gate Open thru R5	" "
SWGLS-1	New	SE ON Gate	Stops Motor-Gate Open	" "
SWGLS-2	New	" "	Stops Motor-Gate Closed	" "
SWGLS-3	New	" "	Turns On Gate Lights- Gate Closing	" "
SWGLS-5	New	" "	Restores System-Gate Open thru R5	" "
NEGLS-1	New	NE ON Gate	Stops Motor-Gate Open	Furnished with gate mechanism
NEGLS-2	New	" "	Stops Motor-Gate Closed	" "

BROADWAY AND BURNSIDE BRIDGES
MECHANICAL AND ELECTRICAL RENOVATIONS

APPENDIX C
TRAFFIC CONTROL EQUIPMENT SCHEDULE

<u>Symbol</u>	<u>Exist</u>	<u>New Location</u>	<u>Function</u>	<u>Remarks</u>	
NEGLS-3	New	" "	Turns On Gate Lights-Gate Closing	"	"
NEGLS-4	New	" "	Enables Traffic Barriers-Gate Closed	"	"
NEGLS-5	New	" "	Restores System-Gate Open thru R5	"	"
SEGLS-1	New	SE OFF Gate	Stops Motor-Gate Open	"	"
SEGLS-2	New	" "	Stops Motor-Gate Closed	"	"
SEGLS-3	New	" "	Turns on Gate Lights-Gate Closing	"	"
SEGLS-4	New	" "	Enables Traffic Barriers-Gate Closed	"	"
SEGLS-5	New	" "	Restores System-Gate Open thru R5	"	"

PREVAILING WAGE RATES
for
Public Works Contracts in Oregon



Mary Wendy Roberts
Commissioner
Bureau of Labor and Industries

Effective January 1, 1989



BUREAU OF LABOR AND INDUSTRIES


Mary Roberts, Commissioner

January 1, 1989

This booklet contains the Prevailing Wage Rates for the building and construction trades in the State of Oregon. These rates are effective January 1, 1989. 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
1250 NE 3rd, Suite B105
Bend, Oregon 97701

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

PENDLETON
700 SE Emigrant, Suite 240
Pendleton, Oregon 97801

AN EQUAL OPPORTUNITY EMPLOYER

CORRECTION
OF THE FEBRUARY 20, 1989 AMENDMENT
OF PREVAILING WAGE RATES FOR PUBLIC WORKS CONTRACTS IN OREGON

Please disregard the paragraph concerning Power Equipment Operators. There has been no change in the fringe benefits of Power Equipment Operators. The paragraph should have said,

Fringe Benefits of Truck Drivers are increased \$.25 per hour, to \$4.95.

The section of the Amendment concerning Asbestos Workers is correct.

We apologize for any confusion or inconvenience this error may have caused.

The effective date of the Amendment and the correction is February 20, 1989.

AN AMENDMENT TO THE JANUARY 1, 1989
PREVAILING WAGE RATES FOR PUBLIC WORKS CONTRACTS IN OREGON

February 20, 1989

There have been changes in the Prevailing Wage Rates of 2 different trades since the most recent PWR Booklet appeared on January 1, 1989.

1. Fringe benefits of Power Equipment Operators are increased \$.25 per hour, to \$4.95.
2. Asbestos Workers rates have been restructured to reflect the size and type of project.

Asbestos Workers	Wage Rate	Fringe Benefits
HVAC work	\$16.00	\$4.03
Non-HVAC work on contracts and subcontracts less than \$100,000 **	\$17.00	\$4.03
Non-HVAC work on contracts and subcontracts of \$100,000 or more **	\$17.49	\$4.03

JURISDICTIONAL NOTE: The removal of all insulation materials from mechanical systems(pipes, boilers, ducts, flues, breechings, etc.) is exclusively the work of Asbestos Workers, unless the mechanical systems are going to be scrapped. (It does not matter whether the insulation materials contain asbestos.) Laborers do all removal of insulation materials on mechanical systems to be scrapped and any non-mechanical insulation. They also do loading of any insulation materials that have already been removed, bagged, and tagged, as well as cleanup at the removal site and all work done at the disposal site.

Laborers trained for removal of Asbestos are considered Class 3.

** If the insulation work is done under a subcontract, the total value of the subcontract determines which rate applies. If the insulation work is done without a subcontract, the total value of the project determines which rate applies. (This method of determining the appropriate rate to be paid is different from the method used for Carpenters, Laborers, Power Equipment Operators, and Truck Drivers, which always refers to the value of the total project. This method also has no bearing on the standard for calculating whether a public works project is subject to Oregon Prevailing Wage Rates. That standard is based on the value of the total project.)

ALL RATES IN THE JANUARY 1989 BOOKLET WHICH ARE NOT AMENDED REMAIN IN FORCE!

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	776-6201
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	\$4.03		
<u>BOILERMAKERS</u>	20.58	4.80		
<u>BRICKLAYERS/Stonemasons</u>				
Area 1	18.28	3.68		
Area 2	17.65	3.82		
<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>				
Zone 1 (Base Rate):				
o Cement Masons	16.69	4.97		
o Composition Workers (includes installation of epoxy & other resinous toppings), and Power Mach. Oper.				
	17.01	4.97		
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			
<u>Zone 1:</u> Projects within 30 miles of City Hall in the cities listed below.				
<u>Zone 2:</u> More than 30 miles but less than 400 miles.				
<u>Zone 3:</u> More than 40 miles but less than 50 miles.				
<u>Zone 4:</u> More than 50 miles but less than 80 miles.				
<u>Zone 5:</u> More than 80 miles.				
<u>Cities</u>				
Bend	Corvallis	Coos Bay	Roseburg	Eugene
Pasco	The Dalles	Medford	Longview	K. Falls
Salem	Pendleton	Astoria	Portland	Newport

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<u>DIVERS & DIVERS' TENDERS</u>		
o Divers	43.62	3.67
o Divers' Tenders	19.29	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 + DEPTH RATE PAY	HOURLY + ENCLOSURE PAY	DIVERS' = TOTAL HOURLY PAY
o Divers' Depth Pay		
<u>Depth of Dive</u>		<u>Hourly Depth Pay</u>
50-100 ft	([total ft- 50] x \$1.00)/hr.	
100-150 ft	\$ 50 + ([total ft-100] x \$1.50)/hr.	
150-200 ft	\$125 + ([total ft-150] x \$2.00)/hr.	
o Divers' Enclosure Pay(working without vertical escape)		
<u>Distance Travelled In the Enclosure</u>		<u>Hourly Enclosure Pay</u>
5 - 50 ft	\$.50/hr	
50 - 100 ft	\$.63/hr	
100 - 150 ft	\$ 2.13/hr	
150 - 200 ft	\$ 4.63/hr	
200 - 300 ft	\$ 4.63 + ([total ft-200]x \$.05)/hr	
300 - 450 ft	\$ 9.63 + ([total ft-300]x \$.10)/hr	
450 - 600 ft	\$24.63 + ([total ft-450]x \$.20)/hr	
<u>DREDGING</u>		
o Leverman-Hydraulic	19.49	5.17
o Leverman-Dipper	20.27	5.17
o Asst. Engineer (including: Watch Engineer, Welder, Mechanic, Machinist)	18.88	5.17
o Tenderman (Boatman, Attending Dredge Plan); Fireman	18.43	5.17
o Assistant Mate (Deckhand); Oiler	18.04	5.17
<u>DRYWALL/WETWALL</u>		
o Drywall (Accoustical and Drywall Applicator)	15.95	4.02
o Wetwall (Lather)	14.70	5.27
<u>ELECTRICIANS</u>		
<u>Area 1:</u>		
o Electricians	16.25	3.32
o Cable Splicers	17.88	3.40
<u>Area 2:</u>		
o Electricians	20.71	5.63
o Cable Splicers	21.75	5.66
<u>Area 3:</u>		
o Electricians	16.50	4.94

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<u>ELECTRICIANS</u> (continued)			<u>ELEVATOR CONSTRUCTORS</u> (continued)		
<u>Area 4:</u>			<u>Area 1</u> <u>Area 2</u>		
Where the cost of electrical work (labor and material) is <u>less</u> than or equal to \$100,000:			Umatilla	All	
o Electricians	17.45	3.04	Wallowa	Remaining	
o Cable Splicer	19.20	3.10	Union	Counties	
Where the cost of electrical work (labor and material) is <u>more</u> than \$100,000:			Baker		
o Electricians	17.95	3.06	<u>GLAZIERS</u>		
o Cable Splicer	19.75	3.11	Area 1	17.97	3.08
<u>Area 5:</u>			Area 2	13.76	1.72
o Electricians	19.80	4.69	<u>Area 1</u> <u>Area 2</u>		
o Cable Splicers	20.55	4.72	All Counties	Malheur	
<u>Area 6:</u>			except Malheur		
o Electricians	17.20	4.12	<u>HIGHWAY AND PARKING STRIPERS</u>		
o Cable Splicers	18.92	4.17		18.14	1.05
<u>Area 1</u> <u>Area 2</u> <u>Area 2(cont)</u> <u>Area 3</u>			<u>IRONWORKERS</u>		
Malheur	Baker	Umatilla	Coos	o Structural, Reinforcing, Ornamental, Riggers, Fence Erectors, Signal Men	
	Gilliam	Union	Curry		
	Grant	Wallowa	Lincoln		
	Morrow	Wheeler	Douglas (a)	18.26	5.81
			Lane (a)		
<u>Area 4</u> <u>Area 5</u> <u>Area 6</u>			<u>LABORERS</u> (see page 11)		
Benton	Clackamas	Harney	<u>LIMITED ENERGY ELECTRICIANS</u>		
Crook	Clatsop	Jackson	May only be used for electrical work not exceeding 100 va:		
Deschutes	Columbia	Josephine	Area 1	9.50	2.28
Jefferson	Hood River	Klamath	Area 2	9.95	1.53
Lane (b)	Multnomah	Lake	Area 3	9.44	2.00
Linn	Sherman	Douglas (b)	Area 4	9.69	2.14
Marion	Tillamook		Area 5	10.57	2.17
Polk	Wasco		Area 6	9.55	2.28
Yamhill(c)	Washington		Area 7	9.88	1.77
	Yamhill (d)		Area 8	9.40	2.18
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			Area 9	9.92	1.70
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			Area 10	9.81	1.59
c) South half			Area 11	10.65	1.66
d) North half			Area 12	12.78	1.69
<u>ELEVATOR CONSTRUCTORS</u>			Area 13	10.79	2.04
<u>Area 1</u>			Area 14	10.54	1.84
o Mechanic	18.88	4.33 + a	Area 1	Clatsop, Columbia, Tillamook	
o Helper	13.22	4.33 + a	Area 2	Clackamas, Multnomah, Washington	
o Probationary Helper	9.44	-	Area 3	Marion, Polk, Yamhill	
<u>Area 2</u>			Area 4	Benton, Lincoln, Linn	
o Mechanic	19.22	4.33 + a	Area 5	Lane	
o Helper	13.45	4.33 + a	Area 6	Douglas	
o Probationary Helper	9.61	-	Area 7	Coos, Curry	
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 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	

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
LINE CONSTRUCTION		
<u>Area 1</u>		
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)

<u>Area 2:</u>		
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. Srvcmn	14.57	2.76
o Groundman	11.55	2.65

Area 1

All counties except Malheur County

<u>Zone 1:</u>	0 to 3 miles from the geographical center of Medford and Portland
<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)
<u>Zone 3:</u>	20 to 35 miles radius
<u>Zone 4:</u>	35 to 50 miles radius
<u>Zone 5:</u>	Over 50 miles radius

Group 1

Cable Splicers
Leadman Pole
Sprayer

Group 2

Certified Lineman Welder
Heavy Line Equipment Man
Lineman
Pole Sprayer

Group 3

Tree Trimmer

Group 4

Line Equipment Man

Group 5

Head Groundman
Jackhammer Man
Powderman

Group 6

Groundman

Area 2

Malheur County

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	
<u>MARBLE SETTERS</u> (Includes Granite)			
Area 1	19.28	3.68	
<u>Area 1</u>			
Baker	Hood River	Sherman	Wallowa
Clackamas	Malheur (a)	Tillamook	Wasco (b)
Clatsop	Morrow	Union	Washington
Columbia	Multnomah	Umatilla	Yamhill (a)
Gilliam			

a) North half b) North of the City of Maupin

PAINTERS & DRYWALL TAPERS

Area 1		
o Painter & Drywall Tapers	12.02	2.01
<u>Area 2</u>		
o Brush	13.21	3.26
o Spray, sandblasting, other pressure blasting over 3000 psi, and steam cleaning	13.71	3.26
o Wall covering including: paper hanging, gilding, and mural painting	13.71	3.26
o Bridges or Over 50'		
-Brush	13.96	3.26
-Spray	14.46	3.26
o Drywall Tapers	15.71	4.29

Area 1

Malheur County

Area 2

Remaining Counties

PLASTERERS

Area 1	17.35	4.02
Area 2	17.18	4.01

Area 1 Area 1(cont) Area 1(cont) Area 2

Benton	Deschutes	Lincoln (b)	All
Coos	Harney	Linn (b)	remaining
Crook	Jefferson	Wasco (b)	counties
Curry	Klamath (a)	Wheeler (b)	
Douglas	Lane		

a) Northern one-third b) South half

PLUMBERS & STEAMFITTERS/PIPEFITTERS

Area 1 (Both)	19.08	4.85
Area 2 (Both)	21.75	4.91
Area 3 (Both)		
-on projects less than 20,000 sq. ft.	13.70	3.23
-on all other projects	17.50	4.00

Area 1

Area 2

Area 3

Baker	Grant (b)	All remaining counties
Harney (a)	Morrow	
Malheur	Umatilla	
	Wallowa	
	Union	

a) Except Northwest Portion
b) Except Southwest Corner

POWER EQUIPMENT OPERATORS (see page 11)

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
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ROOFERS

Area 1:		
o Roofers	15.10	3.70
o Handling coal tar pitch	16.61	3.70
Area 2:		
o Roofers(a)	15.04	2.93
Area 3:		
o Roofers	14.15	2.70
(Add \$1.50 per hour to Fringe for work with irritable Bituminous material.)		
Area 4:		
o Roofers	14.75	3.35
(Add \$2.00 per hour to Fringe for work with irritable Bituminous materials)		
Area 5:		
o Roofers	11.55	3.55
(Add \$3.00 per hour to Fringe for work with irritable Bituminous materials)		

Area 1	Area 1(cont)	Area 2	Area 2(cont)
Baker	Multnomah	Benton	Klamath
Clackamas	Sherman	Coos	Lake
Clatsop	Tillamook	Crook	Lane
Columbia	Wasco	Curry	Lincoln
Jefferson	Washington	Deschutes	Linn
Gilliam	Wheeler	Douglas	Marion
Grant		Harney	Polk
Hood River		Jackson	Yamhill
		Josephine	

Area 3	Area 4	Area 5
Malheur	Umatilla	Morrow
	Union	
	Wallowa	

SHEETMETAL WORKERS

Area 1	Building Trades		
	Journeyman	16.80	4.85
	Architectural (a)		
	Journeyman	14.64	4.12
Area 2		16.28	3.01
Area 3		18.86	4.11
Area 4		16.34	2.99

Area 1

Benton	Gilliam	Linn	Tillamook
Clackamas	Grant	Marion	Wasco
Clatsop	Harney	Multnomah	Washington
Columbia	Hood River	Polk	Wheeler
Crook	Jefferson	Sherman	Yamhill
Deschutes	Lincoln		

Area 2	Area 3	Area 4	Area 4 (cont)
Baker	Morrow	Coos	Josephine
Malheur	Umatilla	Curry	Klamath
	Union	Douglas	Lake
	Wallowa	Jackson	Lane

a) Architectural work is job-site exterior work only on gutters, downspouts, scuppers, conductor heads, flashing, metal roofing and siding, including job-site roll formed, decking, louvers, gravity type ventilators, fascia, soffits, window wall, column covers, pre-engineered metal buildings and sandwich type wall systems such as Alucobond, Robertson, Molenco or Inryco.

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
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SOFT FLOOR LAYERS

Area 1	15.15	3.42 + b
Area 2	12.99	2.01

b) plus 4% of basic hourly rate for employees with less than one year of service, 6% for those with more than one year.

Area 1 - All counties except Malheur County
Area 2 - Malheur County

SPRINKLER FITTERS	20.30	3.90
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TENDERS TO MASON TRADES

Tenders for Bricklayers, Tile Setters, Marble Setters and Terrazzo Workers; Topping for Cement Finishers and Mortar Mixers.

	14.71	3.90
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TENDERS TO PLASTERERS

	14.22	3.90
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TILE SETTERS

Area 1	17.10	3.55
Area 2	16.05	2.65

Area 1	Area 1(cont)	Area 2	Area 2(cont)
Baker	Polk	Benton	Josephine
Clackamas	Sherman	Coos	Klamath
Clatsop	Tillamook	Crook	Lake
Columbia	Umatilla	Curry	Lane
Gilliam	Union	Deschutes	Lincoln
Hood River	Wallowa	Douglas	Linn
Malheur(a)	Wasco (b)	Grant	Malheur (c)
Marion	Washington	Harney	Wasco (d)
Morrow	Yamhill	Jackson	Wheeler
Multnomah		Jefferson	

a) North half c) South half
b) North of Maupin d) Maupin and south thereof

TILE & TERRAZZO HELPERS

Area 1	13.32	2.20
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Area 1

Baker	Hood River	Sherman	Wallowa
Clackamas	Gilliam (a)	Tillamook	Wasco (b)
Clatsop	Morrow	Umatilla	Washington
Columbia	Multnomah	Union	Yamhill (a)
Malheur (North Half)		Yamhill (North Half)	
Wasco (North of Maupin)			

TRUCK DRIVERS (see Page 11)

WELDERS; RIGGERS

Receive rate for craft performing operation to which welding and rigging are incidental.

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

Under the following circumstances a rate lower than the basic hourly rate may be used for these four 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 explanation of when the lower rates may be used)

LESS THAN
100% 100%

Zone 1 (Base Rate):*

o Group 1	14.79	17.77	3.67
o Group 2	14.91	17.92	3.67
o Group 3	14.99	18.02	3.67
o Group 4	15.11	18.17	3.67
o Group 5	14.87	17.87	3.67
o Group 6	14.95	17.97	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	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<u>LABORERS</u> ¹			<u>LABORERS</u> (continued)		
	LESS THAN 100%	100%	a) Including Pot Tender for same, applying protective material by hand or nozzle on utility lines or storage tanks on project		
Zone 1 (Base Rate): ²			b) Power saw		
o Group 1	11.17	13.34 4.90	c) And similar types		
o Group 2	11.45	13.69 4.90	d) Concrete, rock, etc.		
o Group 3	11.69	13.99 4.90	e) Charred Materials		
o Group 4	11.89	14.24 4.90	f) Of all materials of an irritating nature including cement and lime		
o Group 5	9.00	10.00 4.90	g) Includes, but not limited to: Dry Pack Machine, Jackhammer, Chipping Guns, Paving Breakers, Vibrators (less than 4" diameter)		
o Group 6	8.50	8.50 4.90			
<u>Group 1</u>			<u>Group 3</u>		
Asphalt Plant Laborers	General Laborer ***		Asbestos Removal	Power Saw Operators (d)	
Asphalt Spreaders	Guardrail, Median		Asphalt Rakers	Pumpcrete Nozzlemán	
Batch Weighman	Rail (c)		Bit Grinder	Sand Blasting (dry)	
Broomers	Leverman or Aggregate		Concrete Saw Operator	Sewer Pipe Layers	
Brush Burners/Cutters	Spreader (d)		Drill Doctor	Sewer Timberman	
Carpenter Tender	Material Yard Man (e)		Drill Operators (a)	Track Liners (e)	
Car & Truck Loaders	Powderman Tender		Gunité Nozzlemán	Tugger Operator	
Change-House Man	Railroad Track Laborers		High Scalers,	Tunnel-Chuck Tenders,	
Choke Setter	Ribbon Setters (f)		Strippers, Drillers(b)	Nippers, Timberman	
Chipper Operator (a)	Rip Rap Man (Hand		Laser Beam (c)	Vibrator (4" and larger)	
Clean-up Laborers ***	Placed)		Manhole Builder	Water Blaster	
Concrete Laborers	Road Pump Tender		Powdermen	Welder	
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.					
<u>Group 2</u>			<u>Group 4</u>		
Applicators (a)	Gunité or Pot Tender		Laser Beam (Tunnel), applicable when employee assigned to move, set-up, align laser beam		
Brush Cutters (b)	Handlers/Mixers (f)		Tunnel Miners		
Burners	Post Hole Digger, Air,		Tunnel Powderman		
Choker Splicer	gas or electric				
Clary Power Spreader(c)	Power Tool Operators (g)				
Clean-up Nozzlemán	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 Nozzlemán					
Tender					
(Group 2 continues top of next column.)			<u>Group 5**</u>		
			Flagger		
			<u>Group 6**</u>		
			Fence Builder Landscaping or planting laborer		
			**Groups 5 and 6 were formerly a single group. Note the difference in rates between the two groups now.		

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
POWER EQUIPMENT OPERATORS¹			POWER EQUIPMENT OPERATORS (continued)		
	<u>LESS THAN 100%</u>	<u>100%</u>	Group 3		
Zone 1 (Base Rate): ²			Air Filtration Equipment	Hydrographic Seeder Machine (e)	
o Group 1	13.04	16.24	Asphalt Plant Fireman	Hydrostatic Pump	
o Group 2	13.19	16.42	Ballast Jack Tamper	Mixer Box Operator (f)	
o Group 3	13.31	16.58	Bell Boy, Phones, etc	Motorman	
o Group 4	13.47	16.78	Broom Operator (a)	Pugmill Operator	
o Group 5	13.51	16.82	Bucket Elevator	(any type)	
o Group 6	13.59	16.93	Loader (b)	Pump Operator (g)	
o Group 7	13.65	17.00	Cement Hog	Ross Carrier Operator (h)	
o Group 8	13.76	17.14	Compressor Operator (c)	Tamping Machine (i)	
o Group 9	13.83	17.23	Concrete Saw and	Truck-mounted Asphalt	
o Group 10	13.90	17.31	Concrete Curing	Spreader (with screed)	
o Group 11	13.91	17.33	Machine (d)	Welding Machine Operator	
o Group 12	13.99	17.43	Conveyor Operator	Wire Mat or Brooming	
o Group 13	14.07	17.53	Hydraulic Pipe Press	Machine Operator	
o Group 14	14.27	17.77			
o Group 15	14.42	17.96			
o Group 16	14.62	18.21			
o Group 17	14.78	18.41			
o Group 18	14.98	18.66			
o Group 19	15.12	18.84			
Group 1			a) Self-propelled on job site		
Assistant Conveyor Operator	Partsman (tool room)		b) Barber Greene and similar type		
Brakeman/Switchman	Pump Operator (a)		c) Any power, under 1250 cubic feet total capacity		
Crusher Feederman	Oiler (b)		d) Riding type		
Deckhand	Scaffolding Operator (c)		e) Straw, pulp or seed		
Guardrail Punch Oiler	Switchman		f) C.T.B. Drybatch, etc.		
			g) Any power, 4 inches and over		
			h) On job site		
			i) Mechanical self-propelled		
a) Under 4 inches			Group 4		
b) Including Plant, Crane, Crusher, Guardrail Equipment, and Trenching Machine			Combination Mixer & Compressor (a)	Helicopter Hoist Operator	
c) Self-propelled			Compactor, including Vibratory	Hydra Hammer or similar types	
Group 2			Compressor (Any Power (b))	Locomotive, under 40 tons	
A-Frame Truck Operator (a)	Helicopter Radioman (Ground)		Concrete Mixer Operator (c)	Lull Hi-Lift Operator (d)	
Auger	Oiler (f)		Floating Equipment	Pavement Breaker	
Blade Operator (b)	Roller Operator (g)		Fireman	Pump Operator (e)	
Boatman	Tar Pot Fireman (h)		Fork Lift, over 5 ton	Roller Operator, Oiling C.T.B.	
Crane Fireman (c)	Temporary Heating Plant Operator			Screed Operator	
Driller Tender	Truck Crane Oiler/Driver (i)			Service Oiler (Greaser)	
Fork Lift or Lumber Stacker (d)	Tugger or Coffin type				
Grade Checker	Hoist Operator				
Grade Oiler (e)	Welder's Tender				
Heavy Duty Repairman Tender					
			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)		
a) Single drum			Group 5		
b) Pulled type			Chip Spreading Machine Operator	Pulva Mixer or similar types	
c) All equipment except floating			Concrete Batch Plant Quality Control Operator	Slip Form Pumps, power driven hydraulic lifting device for concrete forms	
d) On job site			Elevator Operator	Sweeper, Wayne type (b)	
e) Required to check grade			Extrusion Machine	Tractor (c)	
f) Including combination guardrail machines			Hoist, single drum	Trenching Machine (d)	
g) Grading of base rock (not asphalt)			Line Spreading (a)	Wagner Pactor (e)	
h) Including power agitated type			Power Jumbo, setting slip forms, etc. in tunnels.		
i) 25 ton capacity and over					
			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		

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
POWER EQUIPMENT OPERATORS (continued)			POWER EQUIPMENT OPERATORS (continued)		
<u>Group 6</u>					
Asphalt Burner and Reconditioner	Concrete Spreader		Drill Cat Operator	Stationary Drag Scraper	
Cast-In Place Pipe Laying Machine	Curb Machine (b)		Drill Doctor	Surface Heater and Planer	
Concrete Finishing Machine (A)	Loaders (c)		Drill Doctor (Bit Grinder)	Tractor (g)	
Concrete Joint Machine	Maginnis Internal Full Slab Vibrator		Grizzly Crusher	Tractor (h)	
Concrete Paving Machine	Pavement Grinder and/or Grooving Machine (d)			Trench Machine (i)	
Concrete Planer	Rock Spreaders (e)				
a) Clary, Johnson, Bidwell, Burgess, Bridges Deck or similar type			a) 5 ton capacity or less		
b) Mechanical Berm, Curb and/or Gutter			b) Or similar type crane-hoist		
c) Rubber-tired type, 2 1/2 cu. yds. and under			c) And similar types		
d) Riding type			d) All types		
e) Self-propelled			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		
<u>Group 7</u>			<u>Group 10</u>		
A-Frame Truck (a)	Grouting Machine		Barge Operator, self-loading	Compactor, multi-engine	
Ballast Regulator	Hydraulic Backhoe (e)		Bulldozer (a)	Dozers and Pushers (c)	
Ballast Tamber (b)	Locomotive, 40 tons & over		Cable Plow (any type)	Driller (d)	
Beltcrete	Pot Rammer		Combination H.D. Mechanic-Welder (b)	Jack Operator/Elevating Barges	
Boom Truck	Pumpcrete Operator (any type)				
Churn Drill/ Earth Boring Machine	Roller (any asphalt mix)		a) Twin engine (TC 12 and similar)		
Concrete Mixer (c)	Shuttle Car		b) With dispatcher and/or required to do both		
Concrete Pump	Tie Spacer		c) Rubber-tired (Michigan, Cat, Hough type)		
Elevating Grader (d)	Tower Mobile Operator		d) Percussion, Diamond, Core, Cable, Rotary and similar type		
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)					
<u>Group 8</u>			<u>Group 11</u>		
Asphalt Paver Operator	Diesel-Electric Engineer (c)		Clamshell, Hoe, etc. (a)	Dragline	
Batch Plant and/or wet-mix (a)	Generator Operator		Combination Guardrail Machines (b)	Grade-Alls (a)	
Belt Loader (b)			Concrete Breaker	Mixer Mobile	
a) One and two drum			Crane Operator (c)	Mucking Machine (tunnel)	
b) Kolman and Ko Cal types				Shovel	
c) Plant, Crusher, Generator, Floating			a) Under 1 cu. yd.		
			b) i.e., Punch, Auger, etc.		
			c) 25 tons and under		
<u>Group 9</u>			<u>Group 12</u>		
Asphalt Plant Operator	Guardrail Punch and Auger (d)		Batch Plant and/or Wet Mix (a)	Paddle Wheel, Auger Type Piledriver (not crane type)	
Bolt-Threading Machine	H.D. Mechanic and Welder		Blade Mounted Spreaders (b)	Reinforced Tank Banding Machine (K-17 or similar)	
Boom-Type Lifting Device (a)	Hammer Operator		Blade Operator	Rubber-tired Scraper (d)	
Boring Machine	Hydraulic Backhoe (e)		Elevating Loader (c)	Shield Operator	
Bulldozer	Lift Slab Machine		Hoist, two or more drums	Single Scraper (e)	
Cherry Picker (a)(b)	Loader (f)				
Chicago Boom (c)	Machine Tool Operator		a) 3 units or more		
Compactor with Blade	Pipe Cleaning, Doping, Bending and wrapping Machines		b) Ulrich and similar types		
Concrete Cooling Machine			c) Athey and similar		
Crusher Plant Operator	Side-boom Cat		d) Single and twin engine		
			e) With Push-pull attachments, self loader		
(Group 9 continues top of next column.)					

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<u>POWER EQUIPMENT OPERATORS (continued)</u>		
<u>Group 13</u>		
Back Filling Machine	Derrick, under 100 tons	
Blade (a)	Elevating Grader (e)	
Blade, multi-engine	Floating Clamshell, etc. (f)	
Blade Operator, finish	Floating Crane (g)	
Bridge Crane	Grade-all, 1 cu. yd.	
Operator (b)	and over	
Cableway Operator (c)	Hoist (h)	
Concrete Paving Road	Piledriver Operator	
Mixer	Shovel, etc (i)	
Crane (d)		
a) Externally controlled by electronic, mechanical hydraulic manes		
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 14</u>		
Rubber-tired Scraper (a)		
Tower Crane Operator		
a) With Tandem Scrapers, self-loading, Paddle Wheel, Auger type, finish and/or 2 or more units		
<u>Group 15</u>		
Loader, 4 cu. yds., but less than 6 cu. yds.		
Rock Hound Operator		
<u>Group 16</u>		
Autograder or "Trimmer"	Floating Crane (Derrick Barge) (c)	
Automatic Concrete Slip Form Paver	Loader (d)	
Cableway (a)	Rubber-tired Scraper (e)	
Concrete Canal Line	Shovel (f)	
Crane (b)	Tandem Bulldozer (g)	
Floating Clamshell, etc., 3 cu. yds. and over	Wheel Excavator (h)	
	Whirley, 80 ton and under	
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		
<u>Group 17</u>		
Canal Trimmer	Loader (c)	
Crane (a)	Shovel, etc. (d)	
Floating Crane (b)	Whirley (e)	
(Group 17 continues top of next column)		

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<u>POWER EQUIPMENT OPERATORS (continued)</u>		
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		
<u>Group 18</u>		
Band Wagons (a)	Wheel Excavator (d)	
Crane (b)	Whirley (e)	
Floating Crane (c)		
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)	Remote Controlled Earth	
Helicopter (b)	Moving Equipment	
	Under Water Equipment (c)	
a) 250 ton and over		
b) When used in erecting work		
c) Remote or otherwise		
<u>TRUCK DRIVERS¹</u>		
	<u>LESS THAN</u> <u>100%</u>	<u>100%</u>
Zone 1 (Base Rate): ²		
o Group 1	13.09	15.73
o Group 2	13.13	15.78
o Group 3	13.17	15.83
o Group 4	13.21	15.88
o Group 5	13.25	15.93
o Group 6	13.33	16.03
o Group 7	13.41	16.13
o Group 8	13.49	16.23
o Group 9	13.57	16.33
o Group 10	13.71	16.50
o Group 11	13.79	16.60
o Group 12	13.87	16.70
o Group 13	13.95	16.80
o Group 14	14.03	16.90
<u>Work</u>		<u>Group</u>
A-Frame or Hydra-lift Truck w/load bearing surface.		2
Battery Rebuilder		1
Bus or Man-Haul Driver.		1
Concrete Buggies (Power operated)		1
Drivers and Helpers handling Sacked Cement--add 15¢ per hour		
Dump Trucks, Side, End and Bottom Dumps, including Semi-Trucks and trains or combinations thereof:		
6 cu. yds. and under		1
Over 6 cu. yds. and inc. 10 cu. yds. . .		3
Over 10 cu. yds. and inc. 20 cu. yds. . .		6
Over 20 cu. yds. and inc. 30 cu. yds. . .		7

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
TRUCK DRIVERS (continued)		
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	
Lumber Carrier, Driver-Straddle Carrier--used in loading, unloading and transportation of material on job site.	4	
Oil Distributor Driver or Leverman.	4	
Pilot Car	1	
Slurry Truck Driver or Leverman	3	
Solo Flat Bed and Misc. Body Trucks-- 0-10 tons	1	
Transit Mix and Wet or Dry Mix Trucks:		
5 cu. yds. and under	1	
Over 5 cu. yds. and inc. 7 cu. yds . . .	5	
Over 7 cu. yds. and inc. 9 cu. yds . . .	6	
Over 9 cu. yds. and inc. 11 cu. yds. . .	7	
Over 11 cu. yds. and inc. 13 cu. yds . .	8	
Over 13 cu. yds. and inc. 15 cu. yds . .	9	
Team Drivers.	2	
Tireman, full-time basis.	3	
Truck Helper.	1	
Truck Mechanic--Welder--Body Repairman. . .	6	
Truck Mechanic Helper	1	
Water Wagons (Rated Capacity) up to:		
1600 gallons	1	
1600 to 3000 gallons	3	
3000 to 5000 gallons	4	
5000 to 7000 gallons	6	
7000 to 10,000 gallons	7	
10,000 to 15,000 gallons	8	
Winch Truck--takes classification of truck on which winch is mounted		

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

² See page 11 for zone rates and descriptions.

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.

PAYROLL
(For Contractor or Subcontractor's Use; See Instruction, Form WH-38A (3/84))

[illegible]

CERTIFIED STATEMENT

1. _____, _____
(Name or 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-34 (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

[illegible]

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

NAME AND TITLE	ADDRESS	TELEPHONE	DATE
Mr. J. Edgar Hoover	Washington, D. C.		
Mr. Clegg			
Mr. Glavin			
Mr. Ladd			
Mr. Nichols			
Mr. Rosen			
Mr. Tracy			
Mr. Carson			
Mr. Egan			
Mr. Gurnea			
Mr. Hendon			
Mr. Pennington			
Mr. Quinn			
Mr. Nease			
Mr. Gandy			

SIGNATURE

☐ Contractor

Subcontractor

7 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

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 Unit Cost	Estimate Total Cost	Agency Contract Unit Cost	Estimate Total Cost
Estimated Construction Period _____				\$ _____		\$ _____

_____ determines that (Agency Forces)(Contractor) can perform this work at the least cost.
(Name of Agency) (cross out one)

PLANNED PUBLIC IMPROVEMENT SUMMARY

FISCAL YEAR _____ - _____

PAGE _____ OF _____

(Name of State or Local Government Agency)

Project Number	Project Name	Project Type	Project Location	Estimated Project Cost	Agency or Contract Work

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

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

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS
(Bid Conditions)

PORTLAND AREA AFFIRMATIVE ACTION PLAN

EQUAL EMPLOYMENT OPPORTUNITY
(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 E.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.

PROJECT NAME: Broadway/Burnside Bridges Mechanical and
Electrical Renovations
LOCATION: Broadway & Burnside Bridges
KIND OF WORK: Mechanical and Electrical
PROJECT NO.: 1086
SUBMITTED BY: Dept. Environmental Svcs.-Transportation Division
BID NUMBER: _____
BID ADVERTISEMENT DATES: _____
BID OPENING DATE: August 8, 1989

BID PROPOSAL FOR CONSTRUCTION



Department of General Services
Purchasing 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.

BID PROPOSAL FOR CONSTRUCTION

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

- X Proposal
- X Bid Sheet
- X Proposal Bond
- X Bidder Residency Statement
- X Certificate of Compliance with ORS 305.380-.385
- X Return Envelope

Instruction to Bidders

- Proposal &
Bid Sheet: Complete form and sign where indicated.
- Proposal Bond: Proposal 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.
- Bidder Residency
Statement: This form must be completed to be eligible for bidding.
- Certificate of
Compliance with
ORS 305.380-.385 This form must be completed to be eligible for bidding.
- Return Envelope: Submit these Bidding Pages in the sealed envelope before the deadline given in the Construction Specifications Manual.

P R O P O S A L

To the Board of County Commissioners of Multnomah County:

The undersigned, as bidder, declares:

That the only persons or parties interested in this proposal as principals are those named herein;

That this proposal is made without collusion with any other person, firm or corporation; that he has carefully examined the plans, specifications, addenda, if any, and form of contract therefor on file in the office of the Purchasing Director.

In submitting this Bid, Bidder represents as more fully set forth in the Agreement, that:

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.

That he has personally inspected the actual location of the work and all other local conditions affecting it;

That he submits this proposal subject to the terms and conditions stated in the preceding "Instructions to Bidders;"

That if this bid is accepted, the bidder shall covenant in his contract, and it shall be a condition of his bond, as provided by O.R.S., 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 his contract; and

That he has satisfied himself as to the quantities and conditions and understands that in signing this proposal he waives all right to plead any misunderstanding regarding the same.

He also proposes and agrees:

That if this bid is accepted, he will contract with said Board of County Commissioners, in the said form of contract, to provide all necessary machinery, tools, apparatus and other means of construction, and to do all the work and furnish all the materials specified in the contract, in the manner and time therein prescribed, and according to the requirements of the County Engineer as therein set forth; and that he will complete the work within the specified number of workdays as stated in the paragraph, "COMPLETION TIME LIMIT" in the specifications; and

That he will accept as full payment therefor the amount earned under the contract as computed, in the manner described in the specifications, from the quantities of the various classes of work performed and the respective unit prices bid as set out in the following schedule:

Broadway/Burnside Bridges Mechanical and
Electrical Renovations

Project No. 1086

B I D S H E E T

ITEM	QUANTITY	UNIT PRICE	AMOUNT
1. Mobilization	All Req'd		
For	Lump Sum	\$	\$
2. Temporary Protection & Direction of Traffic	All Req'd		
For	Lump Sum	\$	\$
3. Temporary Signs	600 Sq. Ft.		
For	Per Sq. Ft.	\$	\$
4. Type III Barricades	12 Each		
For	Per Each	\$	\$
5. Anchor Strut Support Replacement (Broadway Bridge)	All Req'd		
For	Lump Sum	\$	\$
6. Operating Strut Pin and Bearings Replacement (Broadway Bridge)	All Req'd		
For	Lump Sum	\$	\$
7. Span Drive Bearing Rehabilitation (Broadway Bridge)	All Req'd		
For	Lump Sum	\$	\$
8. Rack Guides and Guide Wheel Bearing Rehabilitation (Broadway Bridge)	All Req'd		
For	Lump Sum	\$	\$

Broadway/Burnside Bridges Mechanical and
Electrical Renovations

Project No. 1086

B I D S H E E T

ITEM	UNIT QUANTITY	PRICE	AMOUNT
9. Main Span Drive Motor Back Gearing Shaft Bearing Replacement (Broadway Bridge)	All Req'd		
For	Lump Sum	\$	\$
10. Hydraulic Buffer Cylinder Installation (Broadway Bridge)	All Req'd		
For	Lump Sum	\$	\$
11. Traffic Signal and Warning Gate Installation (Broadway Bridge)	All Req'd		
For	Lump Sum	\$	\$
12. Submarine Duct Installation (Broadway Bridge)	All Req'd		
For	Lump Sum	\$	\$
13. Submarine Cable Terminal Cabinet and Cable Installation (Broadway Bridge)	All Req'd		
For	Lump Sum	\$	\$
14. Power Distribution System Revision (Broadway Bridge)	All Req'd		
For	Lump Sum	\$	\$
15. Power Distribution System Revision (Burnside Bridge)	All Req'd		
For	Lump Sum	\$	\$
		TOTAL	\$ _____

The party by whom this proposal is submitted, and by whom the contract will be entered into in case the award is made to him,

is _____, doing business
at _____ ("a corporation," "a partnership" or "an individual")
_____ Street,
_____, City and State,
which address is the address to which all communications concerned with this proposal and the contract should be sent.

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

Name	Address
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

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 _____

Accompanying this proposal is _____ in the amount of
("Bidder's bond," "cash" or "certified check")

_____ Dollars (_____)

which amount is not less than ten percent of the total amount of the bid.

If this proposal shall be accepted and the undersigned shall fail to or neglect to contract as aforesaid, and to give bond in the sum of the total amount of the bid as aforesaid, with surety satisfactory to the Board of County Commissioners within five days from the date of receiving from the Board of County Commissioners the contract prepared and ready for execution, the Board of County Commissioners may, at its option, determine that the bidder has abandoned the contract, and thereupon forfeiture of the security accompanying this proposal shall operate and the same shall be the property of Multnomah County.

Dated _____, 19 ____

(Signature of Bidder) _____
(Legal name of person, firm or corporation)

By _____ (Name)

_____ (Title)

(Name of bidder)

(Business address)

(Telephone number) (Federal ID #)

MULTNOMAH COUNTY
PROPOSAL BOND

KNOW ALL MEN BY THESE PRESENTS, That we, _____,
_____, as principal
and the _____
a 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, executors, administrators and assigns and successors and
assigns, firmly by these 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:

Broadway/Burnside Bridges Mechanical and Electrical Renovations

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

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 of Multnomah within the time fixed by
the Board of County Commissioners, 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

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 nonresident 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: _____

246U

CERTIFICATE OF COMPLIANCE WITH ORS 305.380-.385

The undersigned provider of goods, services or real estate space to Multnomah County hereby certifies under penalty of perjury that to the best of my knowledge, the undersigned is not in violation of any Oregon tax laws described in ORS 305.380(4).

Dated: _____

By _____

Please call Purchasing Division if there are any questions about methods of compliance with this statute.

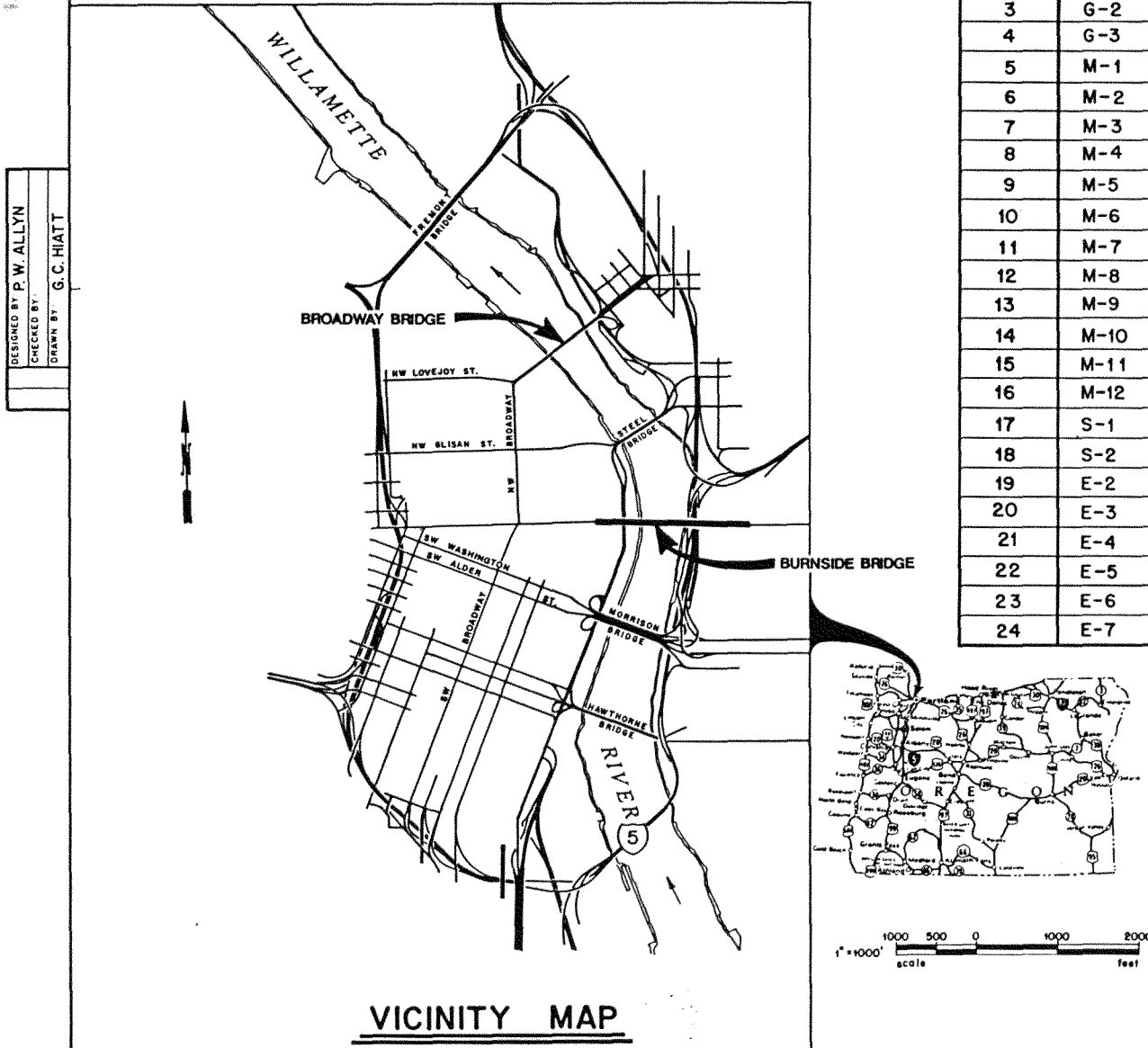
246U

BROADWAY & BURNSIDE BRIDGES

MECHANICAL & ELECTRICAL RENOVATIONS

SHEET	DRAWING NO.	DRAWING LIST
1	G-1	TITLE SHEET VICINITY MAP DRAWING LIST
2	E-1	ELECTRICAL SYMBOLS, LEGEND, GENERAL NOTES
BROADWAY BRIDGE		
3	G-2	WORK ITEM LOCATIONS
4	G-3	TRAFFIC CONTROL PLAN
5	M-1	MECHANICAL WORK ITEMS
6	M-2	SPAN DRIVE BEARING REHABILITATION - SHEET 1
7	M-3	SPAN DRIVE BEARING REHABILITATION - SHEET 2
8	M-4	SPAN DRIVE BEARING REHABILITATION - SHEET 3
9	M-5	SPAN DRIVE BEARING REHABILITATION - SHEET 4
10	M-6	ANCHOR STRUT SUPPORT REPLACEMENT - SHEET 1
11	M-7	ANCHOR STRUT SUPPORT REPLACEMENT - SHEET 2
12	M-8	ANCHOR STRUT SUPPORT REPLACEMENT - SHEET 3
13	M-9	OPERATING STRUT PIN REPLACEMENT - SHEET 1
14	M-10	OPERATING STRUT PIN REPLACEMENT - SHEET 2
15	M-11	BUFFER INSTALLATION - SHEET 1
16	M-12	BUFFER INSTALLATION - SHEET 2
17	S-1	TRAFFIC WARNING GATE INSTALLATION DETAILS
18	S-2	SUBMARINE CABLE TERMINAL CABINET MOUNTING DETAILS
19	E-2	ONE - LINE DIAGRAM / PANEL SCHEDULES
20	E-3	WEST APPROACH - PLAN AND ELEVATION
21	E-4	RIVER CROSSING - PLAN AND ELEVATION
22	E-5	EAST APPROACH - PLAN AND ELEVATION
23	E-6	ENLARGED PLANS AND INSTALLATION DETAILS
24	E-7	INSTALLATION DETAIL - SHEET 1

SHEET	DRAWING NO.	DRAWING LIST (CONTINUED)
25	E-8	INSTALLATION DETAILS - SHEET 2
26	E-9	SCHEMATIC DIAGRAM - SHEET 1
27	E-10	SCHEMATIC DIAGRAM - SHEET 2
28	E-11	INTERCONNECTION DIAGRAM - EAST TRAFFIC CONTROL
29	E-12	INTERCONNECTION DIAGRAM - WEST TRAFFIC CONTROL
30	E-13	INTERCONNECTION DIAGRAM - EAST
31	E-14	INTERCONNECTION DIAGRAM - WEST
32	E-15	CONDUIT AND CABLE SCHEDULE - SHEET 1
33	E-16	CONDUIT AND CABLE SCHEDULE - SHEET 2
BURNSIDE BRIDGE		
34	G-4	TRAFFIC CONTROL PLAN
35	E-17	ONE LINE DIAGRAM
36	E-18	PANEL SCHEDULES
37	E-19	WEST APPROACH - PLAN AND ELEVATION
38	E-20	RIVER CROSSING - PLAN AND ELEVATION
39	E-21	EAST APPROACH - PLAN AND ELEVATION
40	E-22	ENLARGED PLANS
41	E-23	INSTALLATION DETAILS
42	E-24	CONDUIT AND CABLE SCHEDULE - SHEET 1
43	E-25	CONDUIT AND CABLE SCHEDULE - SHEET 2



DESIGNED BY P.W. ALLYN
CHECKED BY G.C. HIATT
DRAWN BY

TITLE SHEET/VICINITY MAP,
DRAWING LIST

MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.
LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES
MECHANICAL & ELECTRICAL RENOVATIONS

Designed P.W.A. Drafted G.C.H. Checked DFA
Date 1-31-89 Scale NONE

Sht. 1 of 43

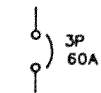


DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

ONE-LINE DIAGRAMS



TRANSFORMER



3P, 60A



PORTABLE ENGINE-GENERATOR SET



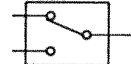
5 HORSEPOWER MOTOR



MOTOR STARTER



CURRENT TRANSFORMER AND KILOWATT HOUR METER
(BY UTILITY COMPANY)



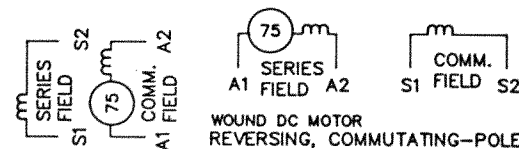
MANUAL TRANSFER SWITCH



CONTACTOR



DISCONNECT SWITCH



WOUND DC MOTOR
REVERSING, COMMUTATING-POLE TYPE
SERIES-WOUND DC MOTOR



POWER RECEPTACLE



PLUG TO PLUG JUMPER



TAP OR SPLICE IN JUNCTION BOX
OR ENCLOSURE



FUSE



RESISTOR



SOLENOID

SCHEMATIC DIAGRAMS

WIRING INTERNAL TO CONTROL CABINET

WIRING EXTERNAL TO CONTROL CABINET



TRANSFORMER



FUSE



RELAY CONTACT
CONTACT NORMALLY OPEN WHEN COIL IS DE-ENERGIZED



CONTACT NORMALLY CLOSED WHEN COIL IS DE-ENERGIZED



POSITION OF LIMIT SWITCH
NORMALLY OPEN



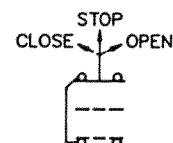
NORMALLY CLOSED



PUSH BUTTON SWITCH - PB
NORMALLY OPEN



NORMALLY CLOSED



CLOSE-STOP-OPEN SELECT. SWITCH



PILOT LIGHT(RED)



GROUND



COIL(CONTROL RELAY OR MAGNETIC CONTACTOR)



DENOTES N.O. CONTACT LOCATED AT LINE 69
DENOTES N.C. CONTACT LOCATED AT LINE 69



TIME DELAY
(CONTROL) RELAY, OFF DELAY
NORMALLY CLOSED
DELAY OPEN WHEN ENERGIZED



TIME DELAY RELAY, ON DELAY
NORMALLY OPEN

TERMINALS



NEW SPLICE



EXISTING TRAFFIC CONTROL CABINET TERMINAL



NEW TRAFFIC GATE TERMINAL



NEW TRAFFIC CONTROL CABINET TERMINAL



NEW SUBMARINE CABLE CABINET TERMINAL

POWER AND CONTROL PLANS

CONDUIT AND WIRE

- CONDUIT EXPOSED
- CONDUIT CONCEALED, EMBEDDED OR BELOW GRADE
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- JUNCTION BOX

DEVICES

- DISTRIBUTION PANELBOARD 240V
(TO SCALE ON PLANS)
SUBSCRIPTS
WCP1 - WEST CONTROL PANEL 1
ELP1 - EAST LIGHTING PANEL 1

NOTES

1. IN GENERAL DRAWINGS ARE DIAGRAMATIC, NOT ALL EQUIPMENT OR CONDUITS ARE SHOWN. REFER TO INTERCONNECTION DIAGRAMS AND CONDUIT SCHEDULES.
2. UNLESS OTHERWISE NOTED, THICKER LINE WEIGHTS DENOTE NEW CONSTRUCTION.
3. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION OF THE OREGON DEPARTMENT OF TRANSPORTATION, HIGHWAY DIVISION AND STANDARD SPECIFICATION FOR MOVABLE HIGHWAY BRIDGES, AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, UNLESS OTHERWISE NOTED ON THESE DRAWINGS OR IN THE SPECIAL PROVISIONS.
4. ALL EXPOSED STEEL SURFACES SHALL BE PAINTED IN ACCORDANCE WITH THE SPECIAL PROVISIONS. EXISTING PAINT DAMAGED BY CONTRACTOR'S OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

ABBREVIATIONS

- A AMPERES
- CRD COLUMBIA RIVER DATUM
- EXIST. EXISTING
- J.B. JUNCTION BOX
- KW KILOWATTS
- KVA KILOVOLT AMPERES
- KWH KILOWATT HOURS
- MTS MANUAL TRANSFER SWITCH
- XFMR TRANSFORMER
- V VOLTS
- PHASE
- VAC VOLTS, ALTERNATING CURRENT
- VDC VOLTS, DIRECT CURRENT

DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

Sverdrup Corporation

ELECTRICAL SYMBOLS, LEGEND, GENERAL NOTES



MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.

LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES
MECHANICAL & ELECTRICAL RENOVATIONS

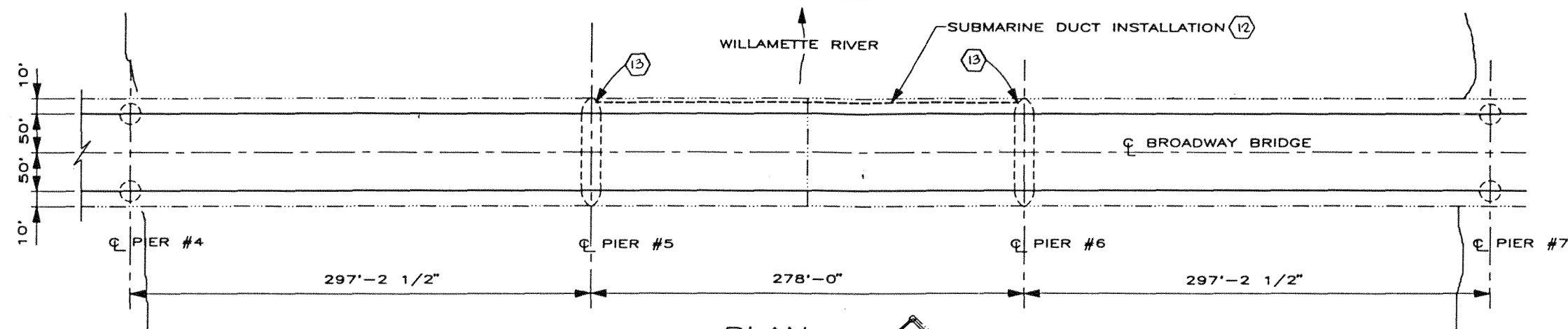
Designed P.W.A. Drafted M.A.D. Checked D.F.A.

Date 6-16-89 Scale NONE

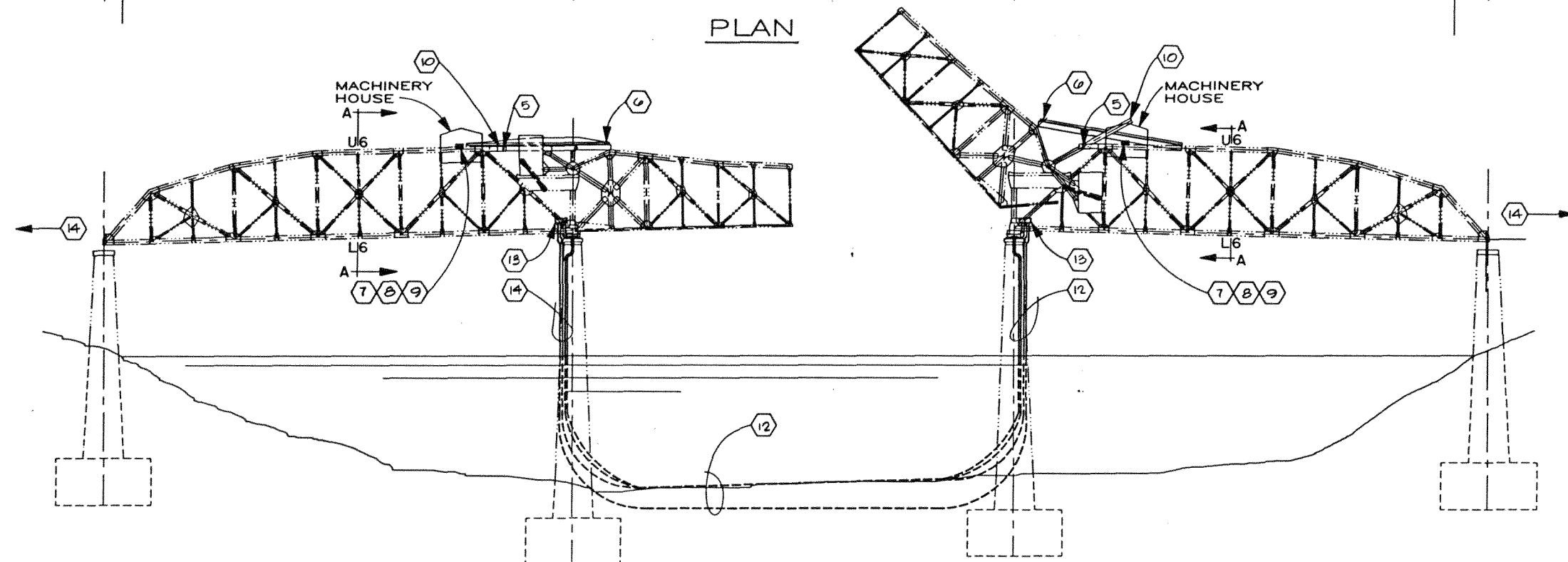
Sht.

2

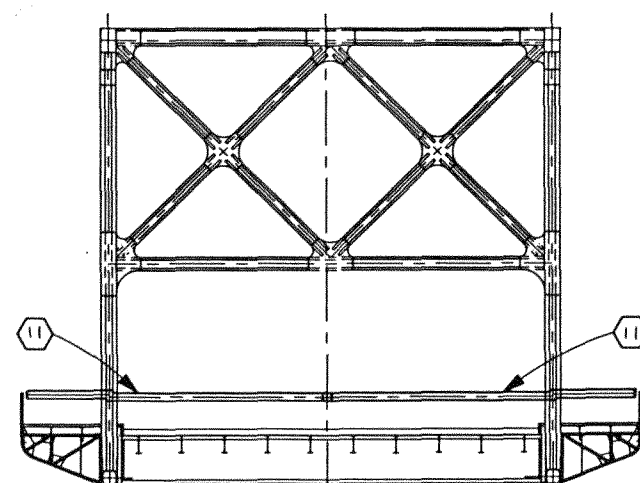
of 43



PLAN



ELEVATION



SECTION
SPANS 4 & 6

WORK
ITEM

DESCRIPTION

- 5 ANCHOR STRUT SUPPORT REPLACEMENT.
- 6 OPERATING STRUT PIN AND BEARINGS REPLACEMENT.
- 7 SPAN DRIVE BEARING REHABILITATION.
- 8 RACK GUIDE AND GUIDE WHEEL BEARING REHABILITATION.
- 9 MAIN SPAN DRIVE MOTOR BACK GEARING SHAFT BEARING REPLACEMENT.
- 10 HYDRAULIC BUFFER CYLINDER INSTALLATION.
- 11 TRAFFIC SIGNAL AND WARNING GATE INSTALLATION.
- 12 SUBMARINE DUCT INSTALLATION.
- 13 SUBMARINE CABLE TERMINAL CABINET AND CABLE INSTALLATION.
- 14 480V DISTRIBUTION SYSTEM REVISION.

DETAILS ON
DWG. NO.

- M-6 THRU M-8
- M-9 & M-10
- M-2 THRU M-5
- M-3 & M-4
- M-1
- M-11 & M-12
- S-1
- E-4 & E-7
- S-2 & E-7
- E-2 THRU E-16

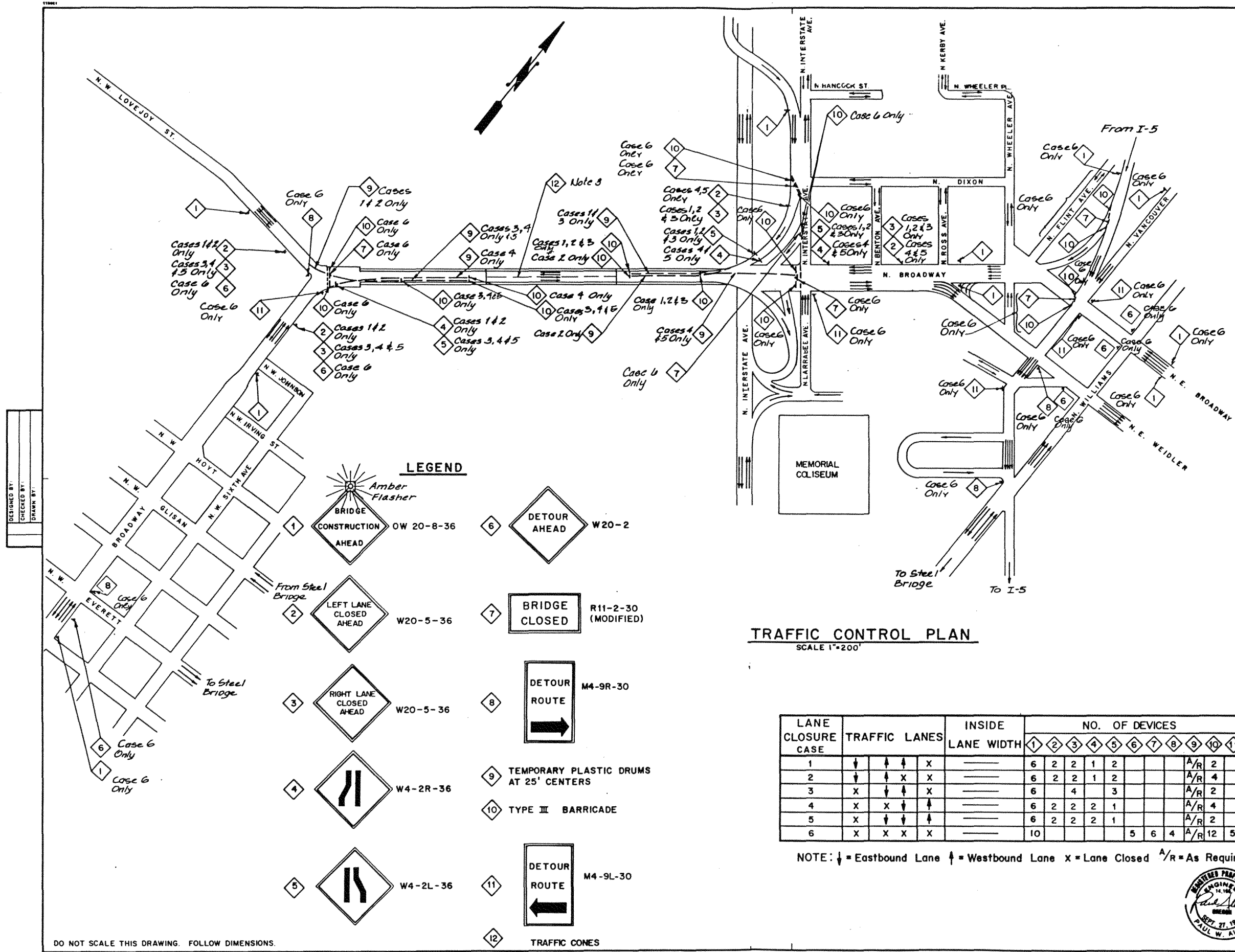


DESIGNED DRAWN CJS CHECKED REVIEWED DATE REVISION		MULTNOMAH COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES	
		BROADWAY & BURNSIDE BRIDGES MECHANICAL & ELECTRICAL RENOVATIONS	
		BROADWAY BRIDGE WORK ITEM LOCATIONS	
DATE SCALE NO SCALE		BRIDGE NO. 8757	SHEET 3 OF 43

110001

NOTES:

1. ALL SIGNS SHALL BE TYPE O.
2. MINIMUM TAPER SHALL BE 20:1 FOR PLASTIC DRUMS.
3. CHANNELIZATION: DIVIDE OPPOSING FLOWS WITH 18" TUBULAR MARKERS SPACED NO FURTHER THAN 30' APART, FOR CASES 1,2,4 & 5. DIVIDE WORK AREAS WITH 18" TRAFFIC CONES SPACED NO FURTHER THAN 30' APART, FOR ALL CASES EXCEPT CASE 6.



TRAFFIC CONTROL PLAN
SCALE 1"=200'

LANE CLOSURE CASE	TRAFFIC LANES	INSIDE LANE WIDTH	NO. OF DEVICES											
			1	2	3	4	5	6	7	8	9	10	11	12
1	↓	↑	X											
2	↓	↑	X	X										
3	X	↑	↑	X										
4	X	X	↑	↑										
5	X	↑	↑	↑										
6	X	X	X	X										

NOTE: ↓ = Eastbound Lane ↑ = Westbound Lane X = Lane Closed A/R = As Required

TRAFFIC CONTROL PLAN
BROADWAY BRIDGE

MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.
LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES.
MECHANICAL & ELECTRICAL RENOVATIONS

Designed P.W.A. Drafted G.C.H. Checked D.F.A. Sht. 4 of 43
Date 3-17-89 Scale AS NOTED



DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

NOTES:

1. SPAN DRIVE BEARINGS TO BE REHABILITATED. (SEE DRAWINGS M-2, M-3, M-4 AND M-5)

WORK ITEM NO. 7:

- (8) MAIN GUIDE BEARINGS BB. SEE DRAWING M-2.
- (8) FIRST REDUCTION SHAFT BEARINGS BC. SEE DRAWING M-3.
- (8) SECOND REDUCTION SHAFT BEARINGS BE. SEE DRAWING M-5.
- (12) EQUALIZER SHAFT BEARINGS BG. SEE DRAWING M-4.
- (2) ARMATURE SHAFT EXTENSION BEARINGS BH. SEE DRAWING M-5.

WORK ITEM NO. 8:

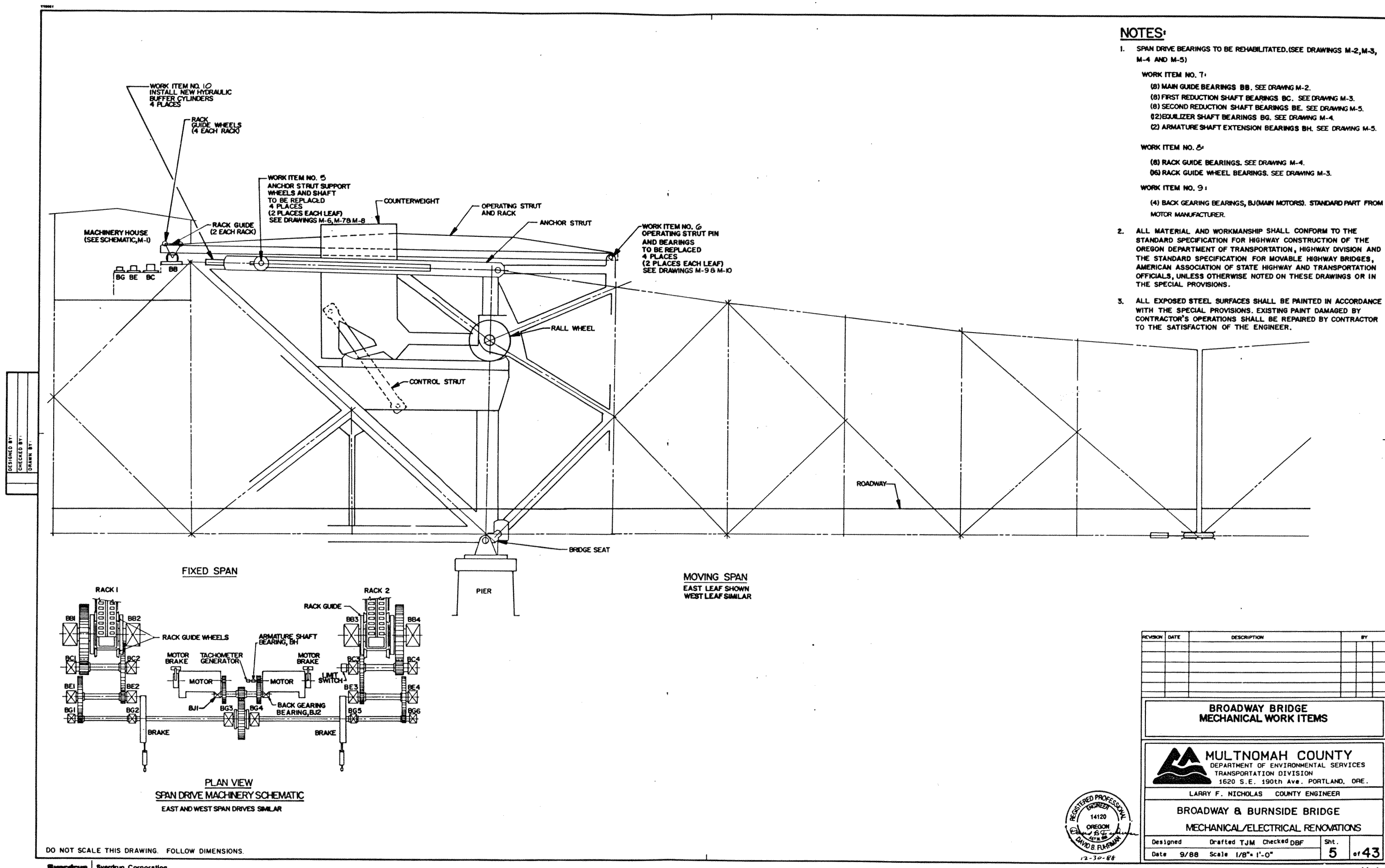
- (8) RACK GUIDE BEARINGS. SEE DRAWING M-4.
- (6) RACK GUIDE WHEEL BEARINGS. SEE DRAWING M-3.

WORK ITEM NO. 9:

- (4) BACK GEARING BEARINGS, BJ (MAIN MOTORS). STANDARD PART FROM MOTOR MANUFACTURER.

2. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION OF THE OREGON DEPARTMENT OF TRANSPORTATION, HIGHWAY DIVISION AND THE STANDARD SPECIFICATION FOR MOVABLE HIGHWAY BRIDGES, AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, UNLESS OTHERWISE NOTED ON THESE DRAWINGS OR IN THE SPECIAL PROVISIONS.

3. ALL EXPOSED STEEL SURFACES SHALL BE PAINTED IN ACCORDANCE WITH THE SPECIAL PROVISIONS. EXISTING PAINT DAMAGED BY CONTRACTOR'S OPERATIONS SHALL BE REPAIRED BY CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

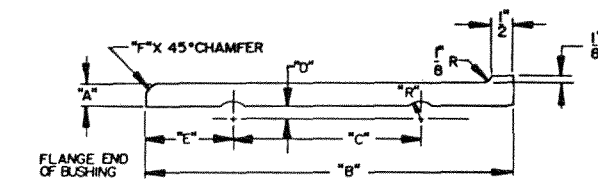


NOTES FOR DRAWINGS M-2, M-3, M-4 & M5

- ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
- ALL FITS AND FINISHES SHALL BE IN ACCORDANCE WITH AASHTO ARTICLE 2.5.17
- PROVIDE NEW BRASS SHIMS AND LINERS. EACH STACK SHALL HAVE A TOTAL OF TWICE THE NOMINAL DIMENSION. ONE SHIM SHALL BE EQUAL TO THE NOMINAL THICKNESS AND THE REMAINING IN VARYING THICKNESS SO THAT MACHINERY CAN BE ALIGNED WITHIN .003".
- REPLACE EXISTING GREASE FITTINGS AS NOTED. GREASE HOLES MUST BE CONNECTED TO GREASE GROOVES OF BUSHINGS.
- POLISH EXISTING BRG JOURNALS TO CLEAN UP. BORE BUSHINGS TO PROVIDE RGS FIT W/ SHAFT AFTER CLEANUP.
- REBORE EXISTING BEARING HOUSINGS TO CLEAN UP. TURN BUSHING O.D. TO PROVIDE LIFT FIT W/ HOUSING.
- ALL MACHINE SURFACES TO HAVE $\sqrt{25}$ FINISH UNLESS OTHERWISE SPECIFIED.
- PLUG WELD EXISTING MTG BOLT HOLES AFTER BEARINGS HAVE BEEN REMOVED FOR REWORK. NEW MTG BOLT HOLES SHALL BE DRILLED & REAMED FOR TURNED BOLTS AT ASSEMBLY, AFTER ALIGNMENT OF SHAFTS & GEARS.
- HEADS ON FLAT HEAD CAP SCREWS FOR BRG FLANGES SHALL BE RECESSED $1/32"$
- BEARING HOUSINGS MUST BE MATCH MARKED BEFORE REMOVING FOR REWORK. BRGS SHALL BE REINSTALLED IN ORIGINAL POSITION & ORIENTATION.
- FLANGES ON BRONZE BUSHINGS MUST BE INSTALLED ON "INSIDE" END OF BRG HSSES
- SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION, INCLUDING PAINTING.

BEARING	A	B	C	D	E	F	R
BB	1-3/8"	20-3/4"	11"	1"	4-7/8"	5/16"	1-1/4"
BC	1"	14-1/2"	8-1/2"	5/8"	3"	1/8"	1"
BE	3/4"	13-1/2"	7-1/2"	5/8"	3"	1/8"	3/4"
BG	5/8"	12"	-0-#	3/8"	6"	"0"	9/16"
RACK GUIDE	1-3/8"	9-5/8"	-0-#	"0"	4-13/16"	5/16"	3/4"
BH	3/8"	6"	-0-#	1/4"	3"	"0"	3/8"

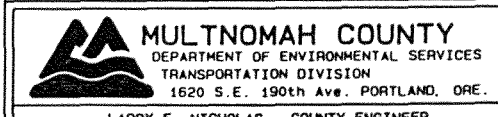
* BG & RACK GUIDE BEARINGS HAVE ONE CAP BOLT EACH SIDE



NEW LINERS (SEE NOTE 3)

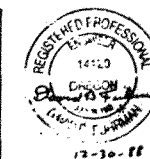
REVISION	DATE	DESCRIPTION	BY

BROADWAY BRIDGE SPAN DRIVE BEARING REHABILITATION SHEET 1 OF 4

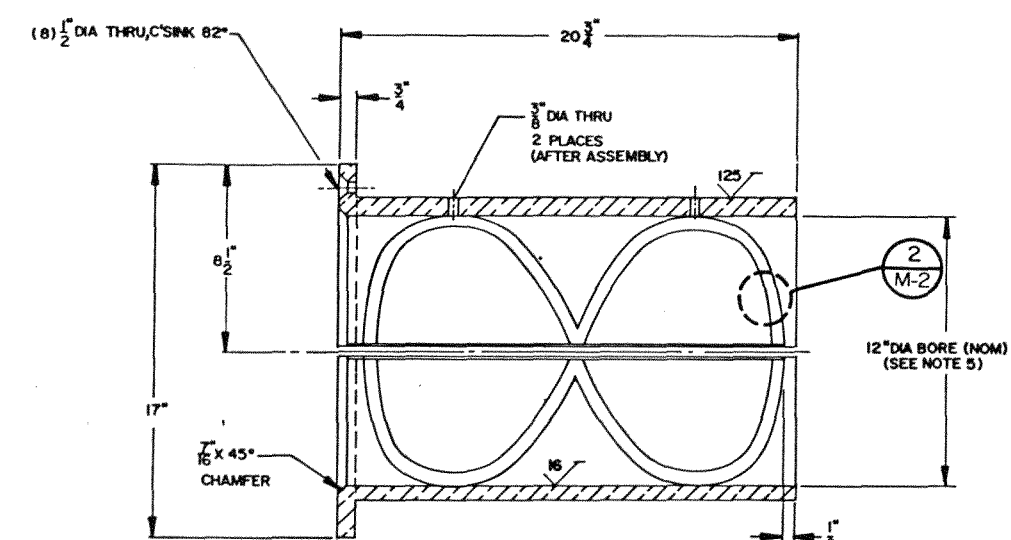


BROADWAY & BURNSIDE BRIDGES MECHANICAL/ELECTRICAL RENOVATIONS

Designed DBF	Drafted TJM	Checked DBF	Sht.
Date 8-16-88	Scale 3"=1'-0" & AS NOTED	6	of 43

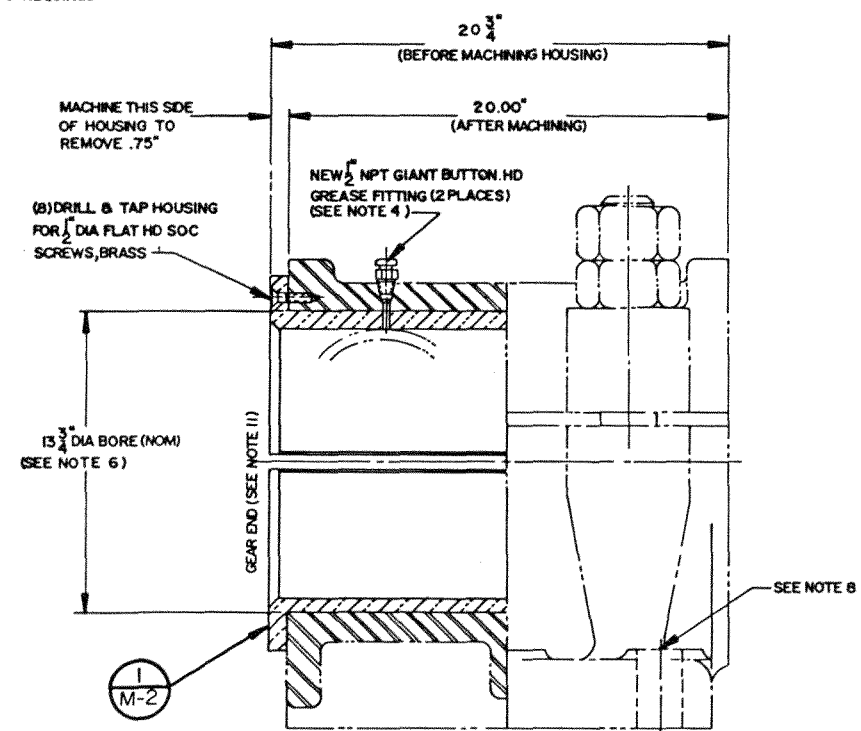


TOLERANCE, UNLESS NOTED OTHERWISE	
DIMENSION	TOLERANCE
WHOLE	$\pm 1/64$
FRACTION	$\pm 1/64$
X . X	$\pm .010$
X . XX	$\pm .005$
X . XXX	$\pm .002$

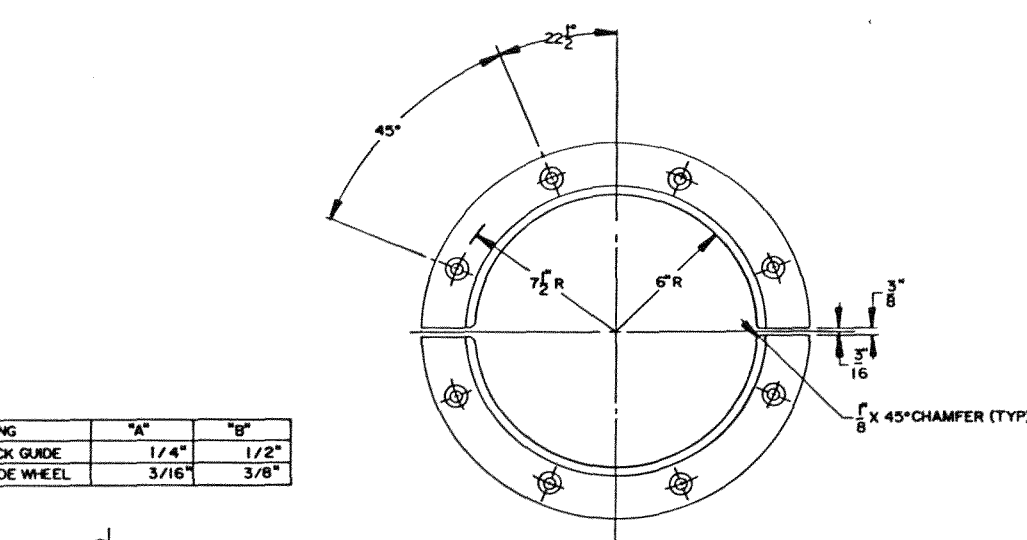


DETAIL 1 M-2

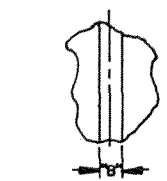
NEW BUSHING-MAT'L: ASTM B22, ALLOY 911, BRONZE
8 REQUIRED



MAIN BEARING ASSEMBLY, BB (8) EXISTING BEARINGS TO BE REWORKED

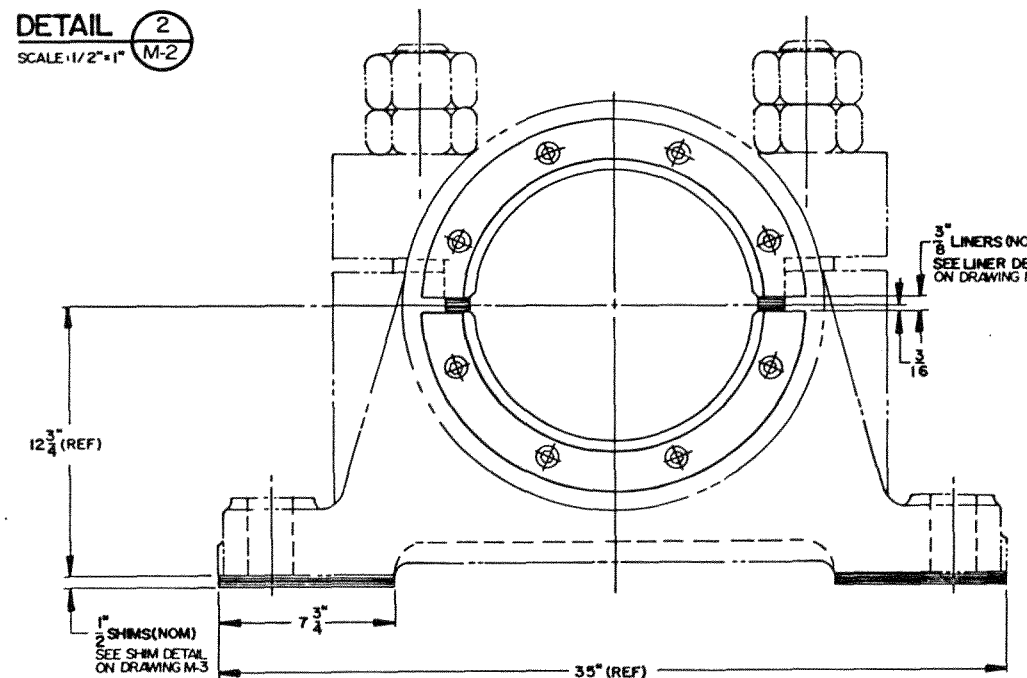


BEARING	"A"	"B"
BB, BC, RACK GUIDE	1/4"	1/2"
BE, BG, GUIDE WHEEL	3/16"	3/8"



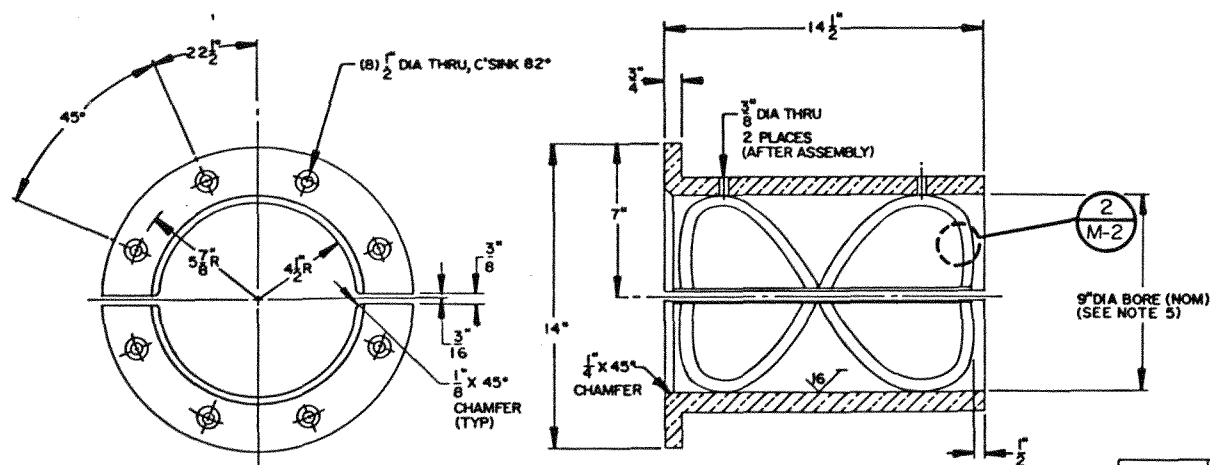
ALL EDGES TO BE ROUNDED OFF WITH GENEROUS RADI

DETAIL 2 M-2 SCALE: 1/2"=1"



DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

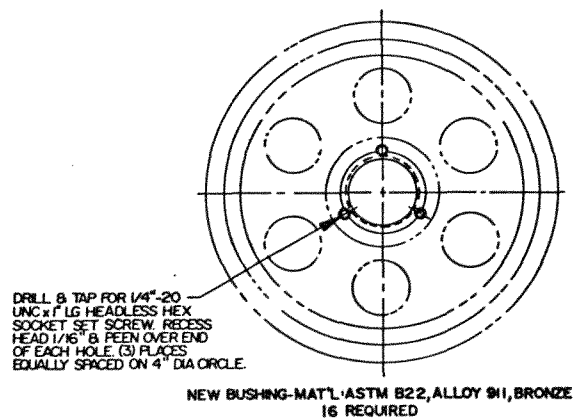
SEE NOTES ON DRAWING M-2



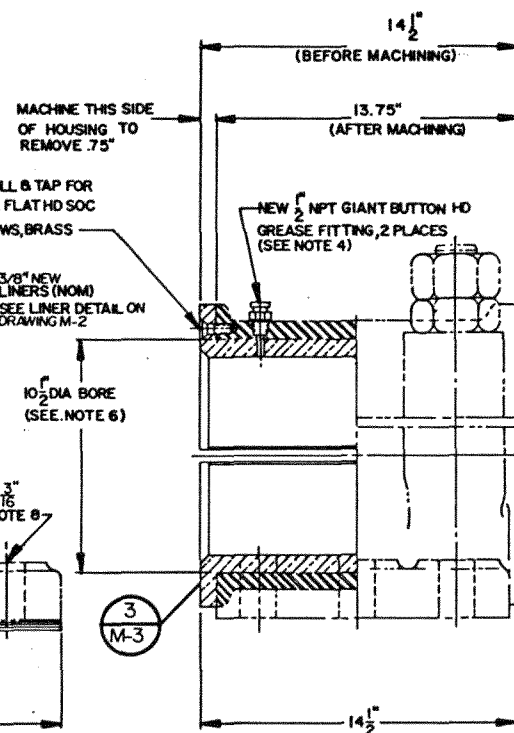
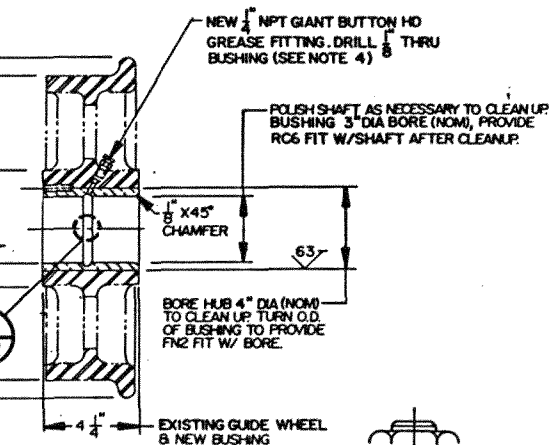
BEARING	A	B	C	D	E	F	G	R
BB	19"	7-1/2"	13-1/2"	2-1/2"	6-3/4"	2-3/4"	2-3/4"	2-3/4"
BC	13-5/8"	6-3/4"	8-5/8"	1-5/8"	4-5/16"	2-1/2"	2-1/2"	2-1/2"
BE	12-5/8"	5-3/4"	8-5/8"	1-1/4"	4-5/16"	2"	2"	2"
BG	11-5/8"	4-1/2"	8-5/8"	1"	—	1-1/2"	1-1/2"	1-1/2"
BH	5-1/2"	3"	3-1/4"	3/4"	—	1-1/8"	1-1/8"	1-1/8"

DETAIL 3
M-3

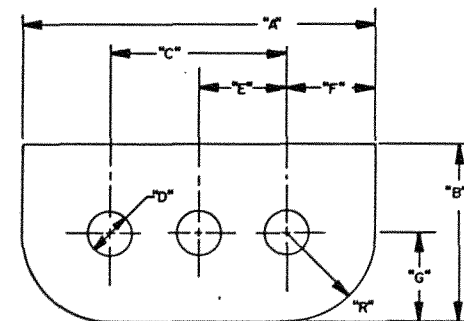
NEW BUSHING-MAT'L ASTM B22, ALLOY 911, BRONZE 8 REQUIRED



GUIDE WHEEL & BEARING ASSEMBLY
16 GUIDE WHEELS TO BE REWORKED



FIRST REDUCTION SHAFT BEARING ASSEMBLY, BC
8 BEARINGS TO BE REWORKED



NEW SHIMS
SEE NOTE 3

REVISION	DATE	DESCRIPTION	BY

BROADWAY BRIDGE
SPAN DRIVE BEARING REHABILITATION
SHEET 2 OF 4

MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.

LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES
MECHANICAL/ELECTRICAL RENOVATIONS

Designed DBF Drafted TJM Checked DBF Sht. 7 of 43
Date 8-17-88 Scale 3/8"=1'-0"

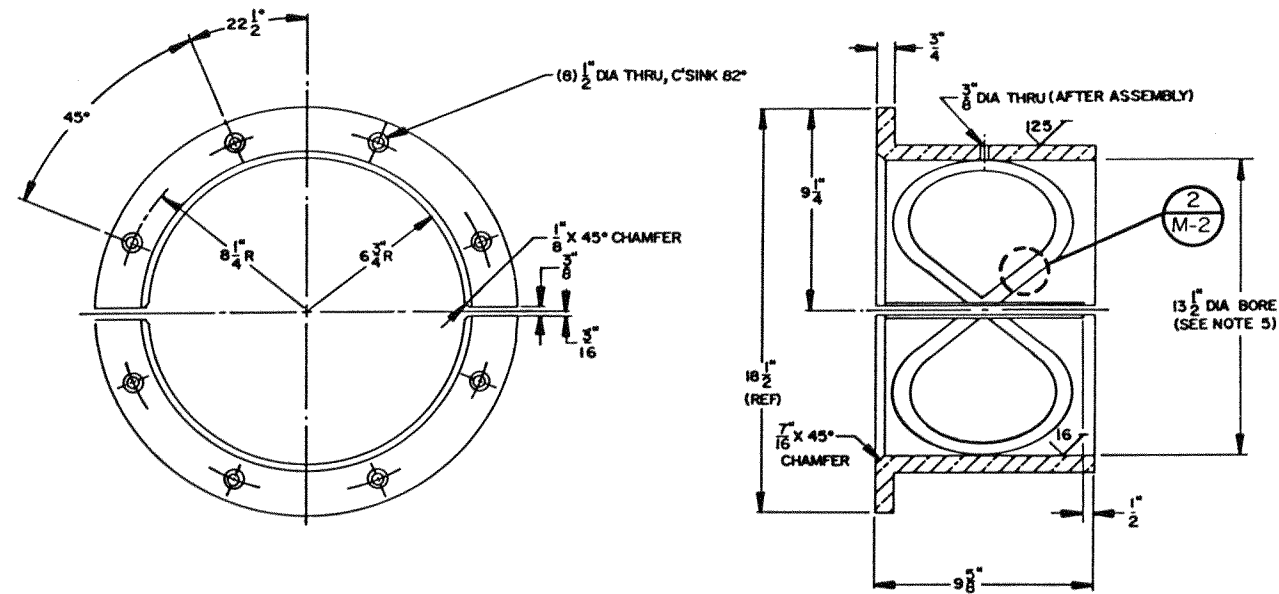
DIMENSION	TOLERANCE
WHOLE	± 1/64
FRACTION	± 1/64
X . X	± .010
X . XX	± .005
X . XXX	± .002



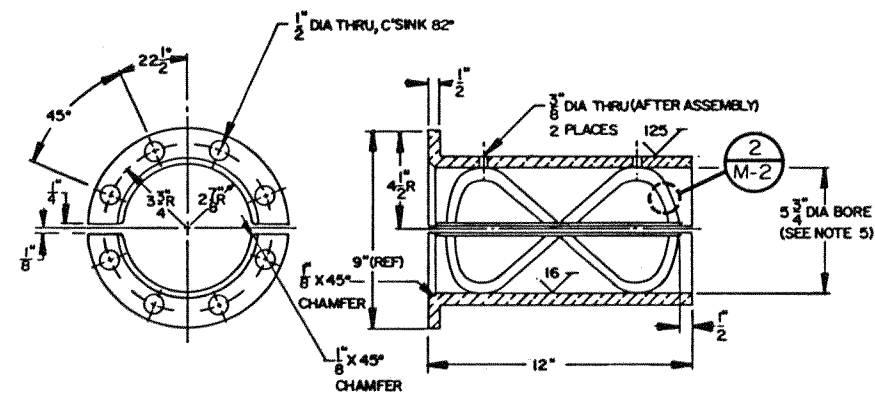
DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

Sverdrup Corporation | Stafford Engineering Inc., Mechanical Consultant

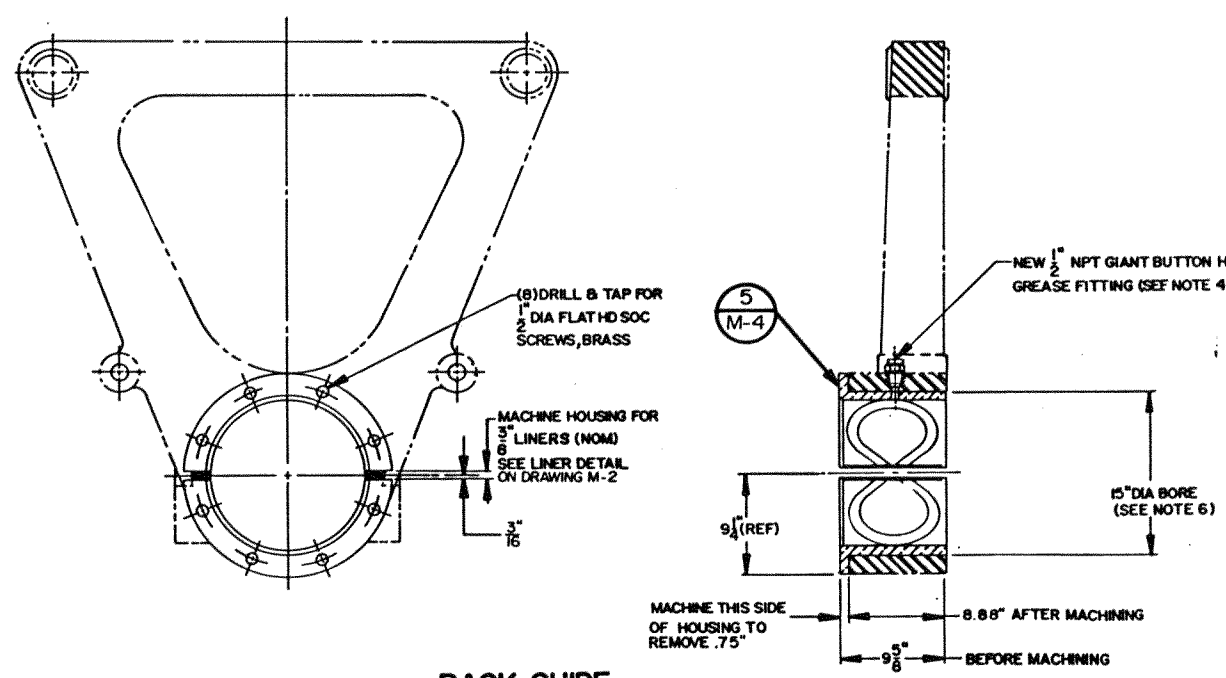
SEE NOTES ON DRAWING M-2



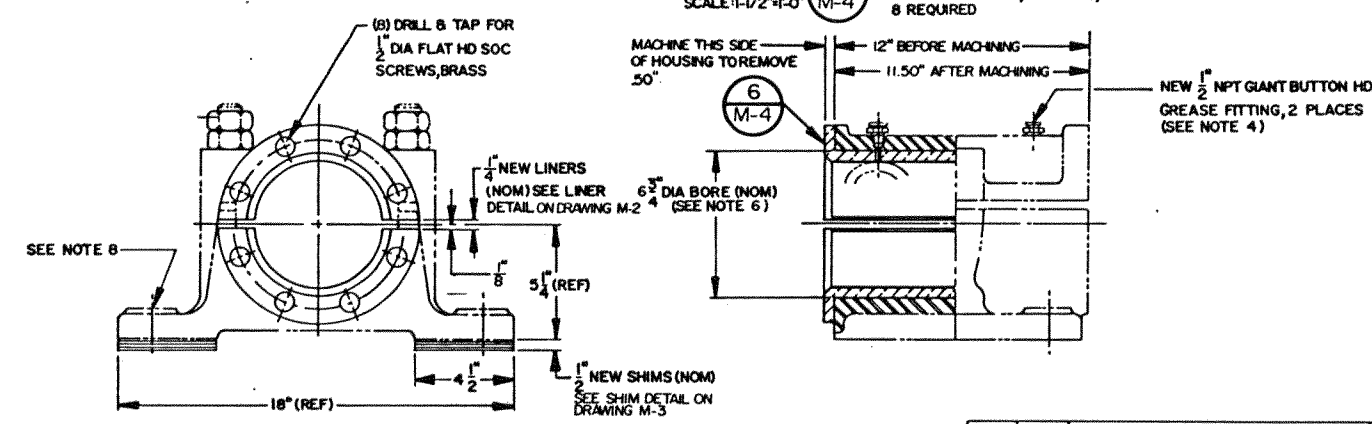
DETAIL 5
SCALE: 3/4" = 1'-0"
NEW BUSHING MAT'L: ASTM B22, ALLOY 911, BRONZE
8 REQUIRED



DETAIL 6
SCALE: 1/2" = 1'-0"
NEW BUSHING MAT'L: ASTM B22, ALLOY 911, BRONZE
8 REQUIRED



RACK GUIDE
8 TO BE REWORKED
SCALE: 1/2" = 1'-0"



EQUALIZER SHAFT BEARING ASSEMBLY, BG
12 BEARING TO BE REWORKED
SCALE: 3/4" = 1'-0"

DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

TOLERANCE, UNLESS NOTED OTHERWISE	
DIMENSION	TOLERANCE
WHOLE	± 1/64
FRACTION	± 1/64
X . X	± .010
X . XX	± .005
X . XXX	± .002



REVISION	DATE	DESCRIPTION	BY

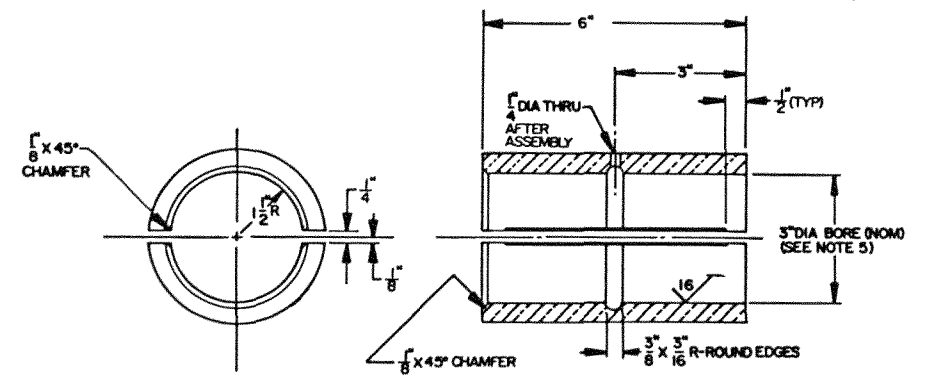
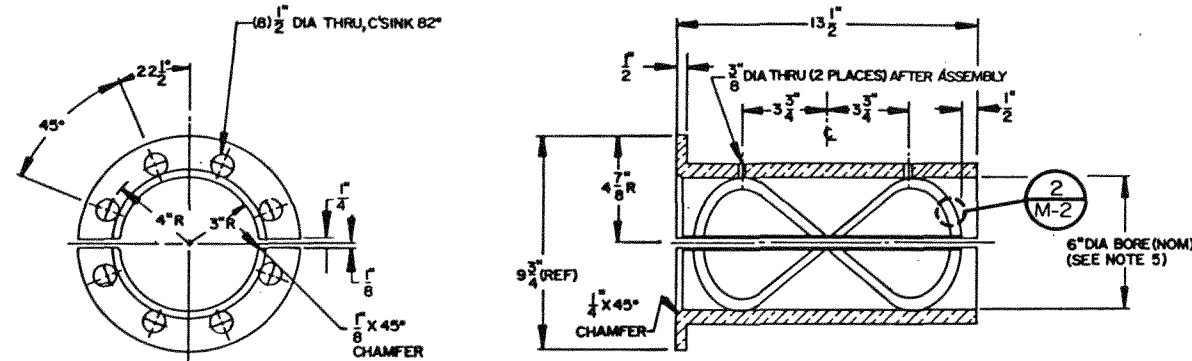
BROADWAY BRIDGE
SPAN DRIVE BEARING REHABILITATION
SHEET 3 OF 4

MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.
LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES
MECHANICAL/ELECTRICAL RENOVATIONS

Designed DBF Drafted TJM Checked DBF Sht. 8 of 43
Date 8-18-88 Scale AS NOTED

SEE NOTES ON DRAWING M-2

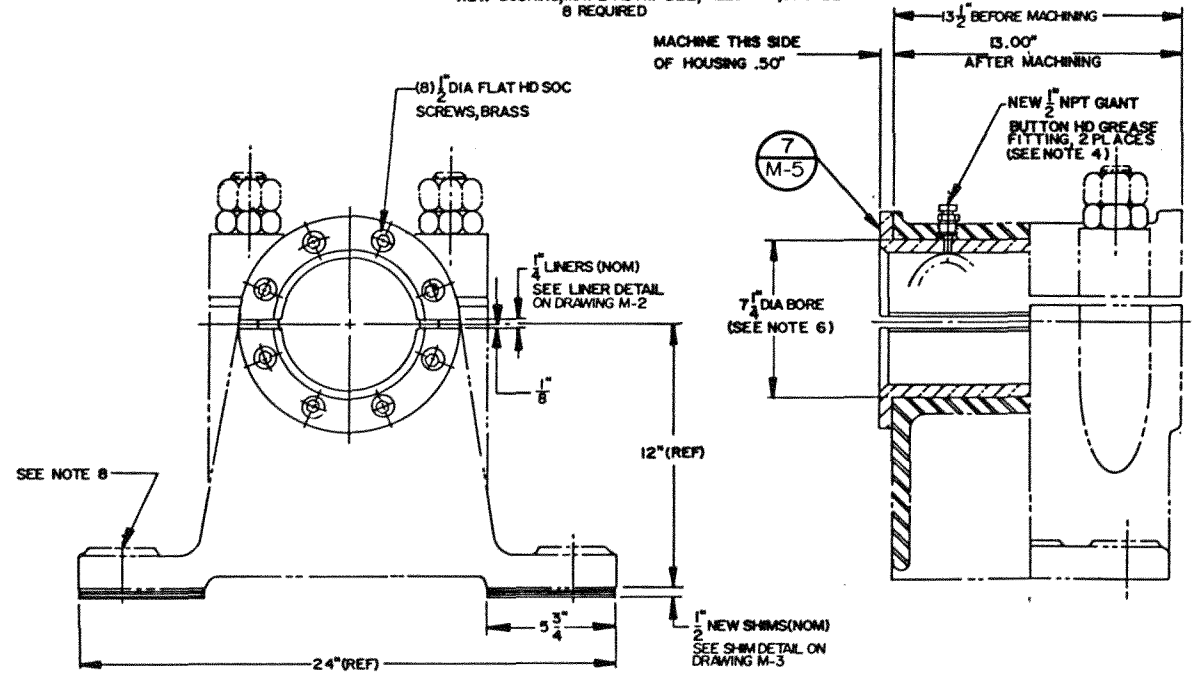


DETAIL 8
SCALE: 1/2" = 1"
M-5

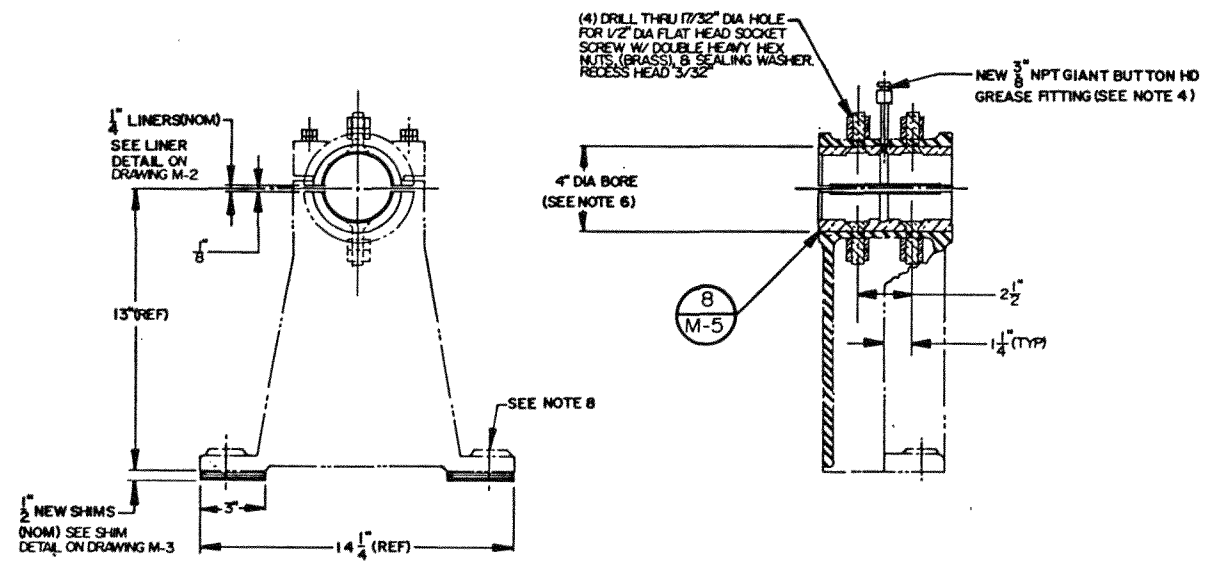
NEW BUSHING, MAT'L ASTM B22, ALLOY 911, BRONZE
2 REQUIRED

DETAIL 7
SCALE: 3" = 1' - 0"
M-5

NEW BUSHING, MAT'L ASTM B22, ALLOY 911, BRONZE
8 REQUIRED



SECOND REDUCTION SHAFT BEARING, BE
8 BEARINGS TO BE REWORKED
SCALE: 3" = 1' - 0"



(BH), ARMATURE SHAFT BEARING
2 BEARINGS TO BE REWORKED
SCALE: 3" = 1' - 0"

REVISION	DATE	DESCRIPTION	BY

BROADWAY BRIDGE
SPAN DRIVE BEARING REHABILITATION
SHEET 4 OF 4

MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.

LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES
MECHANICAL/ELECTRICAL RENOVATIONS

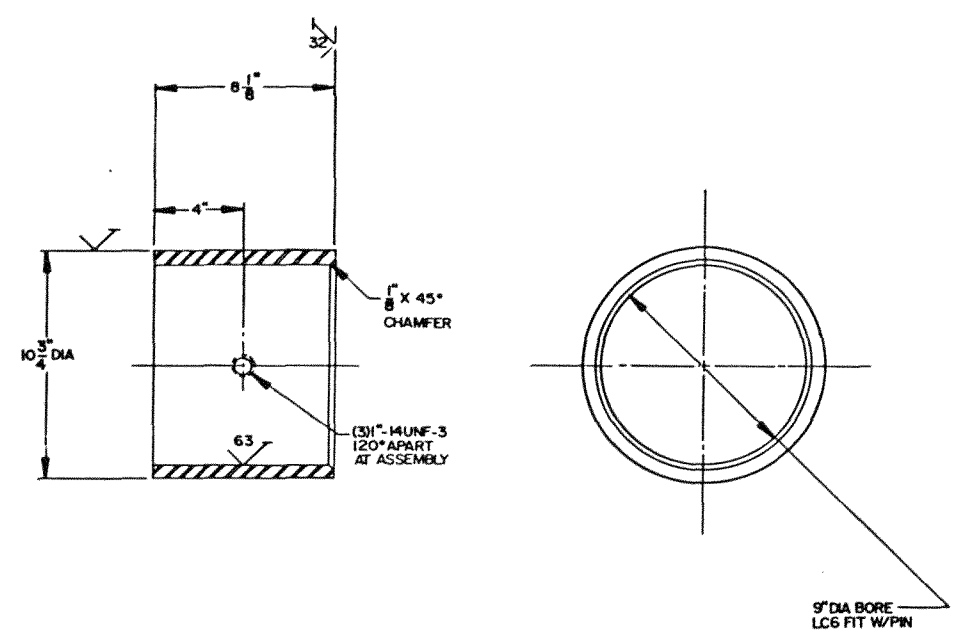
Designed DBF Drafted T.J.M. Checked DBF Sht. 9 of 43
Date 8-22-88 Scale AS NOTED

TOLERANCE, UNLESS NOTED OTHERWISE	
DIMENSION	TOLERANCE
WHOLE	± 1/64
FRACTION	± 1/64
X . X	± .010
X . XX	± .005
X . XXX	± .002

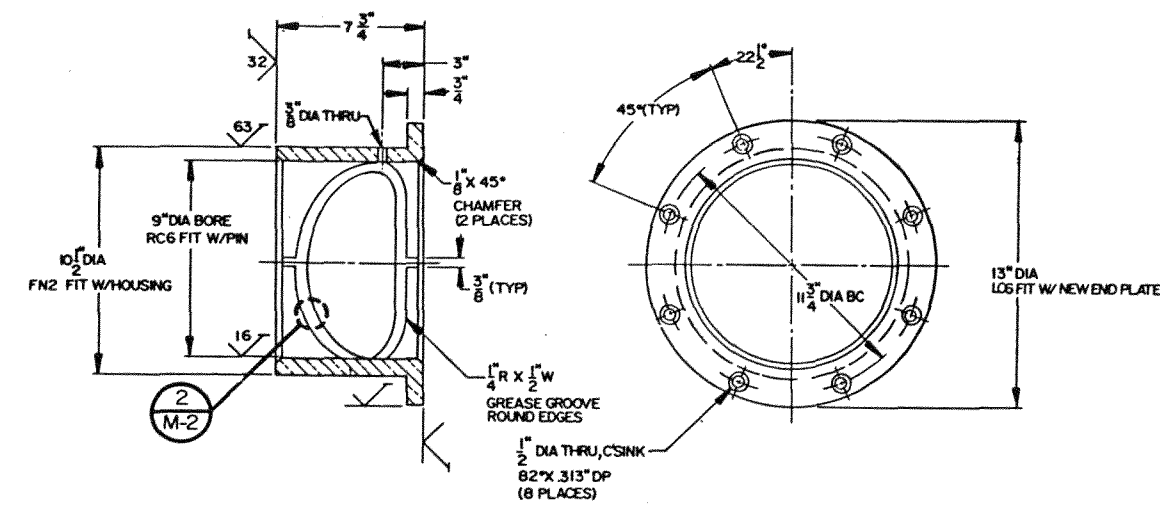


DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

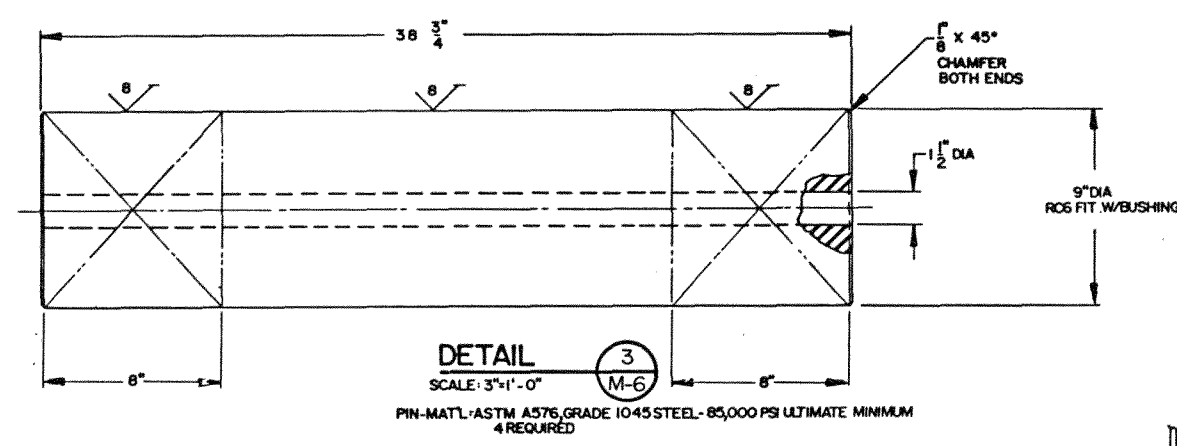
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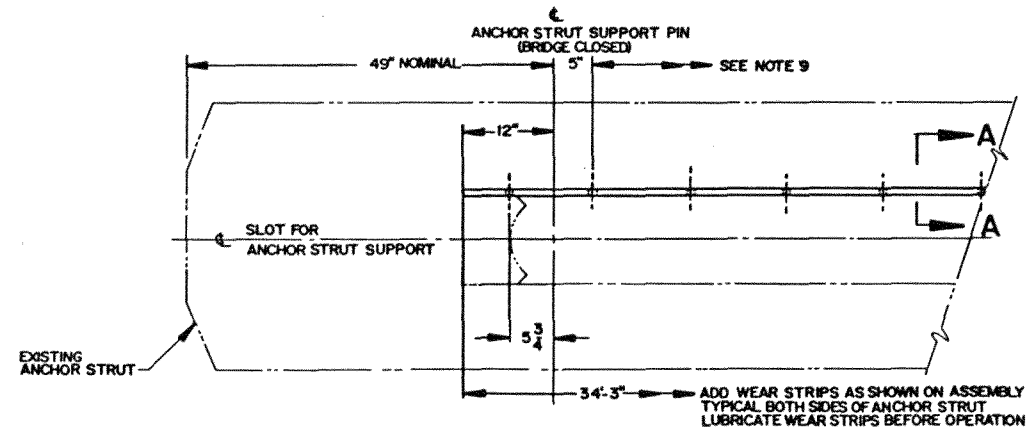
DETAIL 2
SCALE: 3/4"=1'-0"
SLEEVE-MAT'L: ASTM A322, GRADE 4140 STEEL
320-360 BHN
8 REQUIRED



DETAIL 1
SCALE: 3/4"=1'-0"
BUSHING-MAT'L: ASTM B22, ALLOY 911 BRONZE
8 REQUIRED

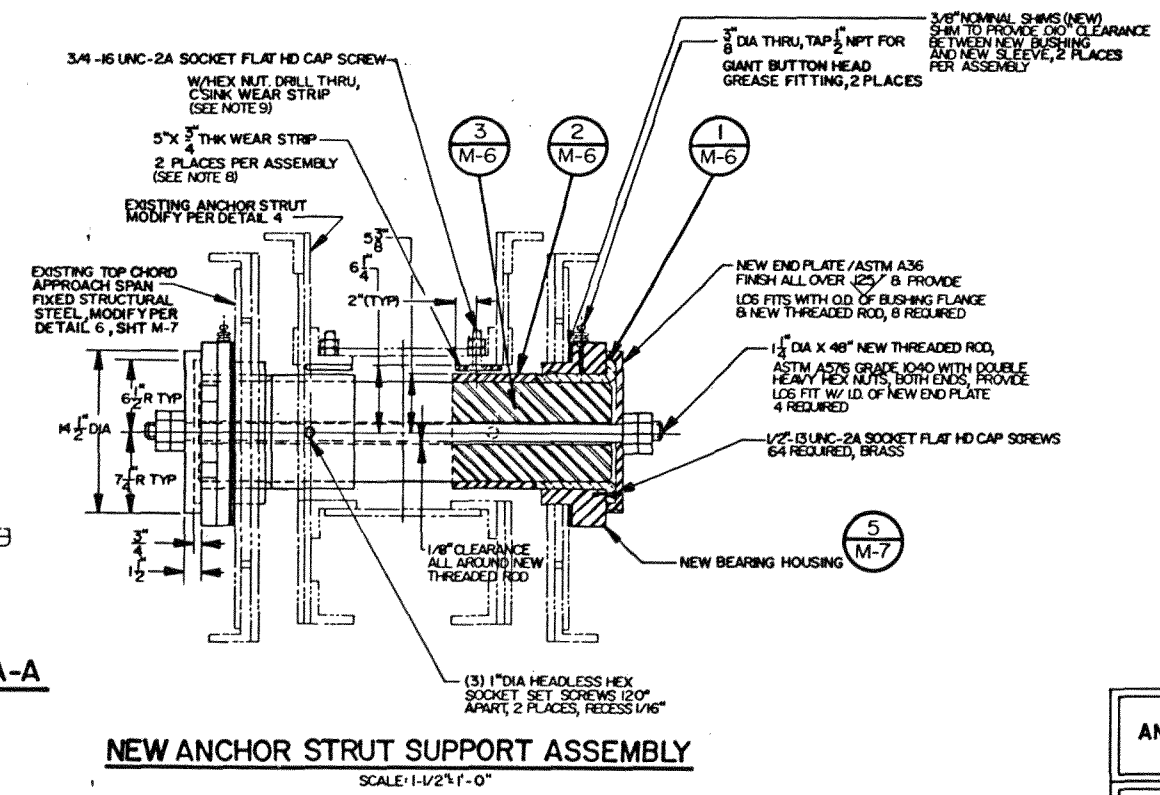


DETAIL 3
SCALE: 3/4"=1'-0"
PIN-MAT'L: ASTM A576, GRADE 1045 STEEL - 85,000 PSI ULTIMATE MINIMUM
4 REQUIRED



DETAIL 4
SCALE: 1"=1'-0"
WEAR STRIP-MAT'L: ASTM A322, GRADE 4140
280-320 BHN

SECTION A-A
SCALE: NONE



TOLERANCE, UNLESS NOTED OTHERWISE	
DIMENSION	TOLERANCE
WHOLE	± 1/64
FRACTION	± 1/64
X.X	± .010
X.XX	± .005
X.XXX	± .002

BROADWAY BRIDGE
ANCHOR STRUT SUPPORT REPLACEMENT
SHEET 1 OF 3

MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.

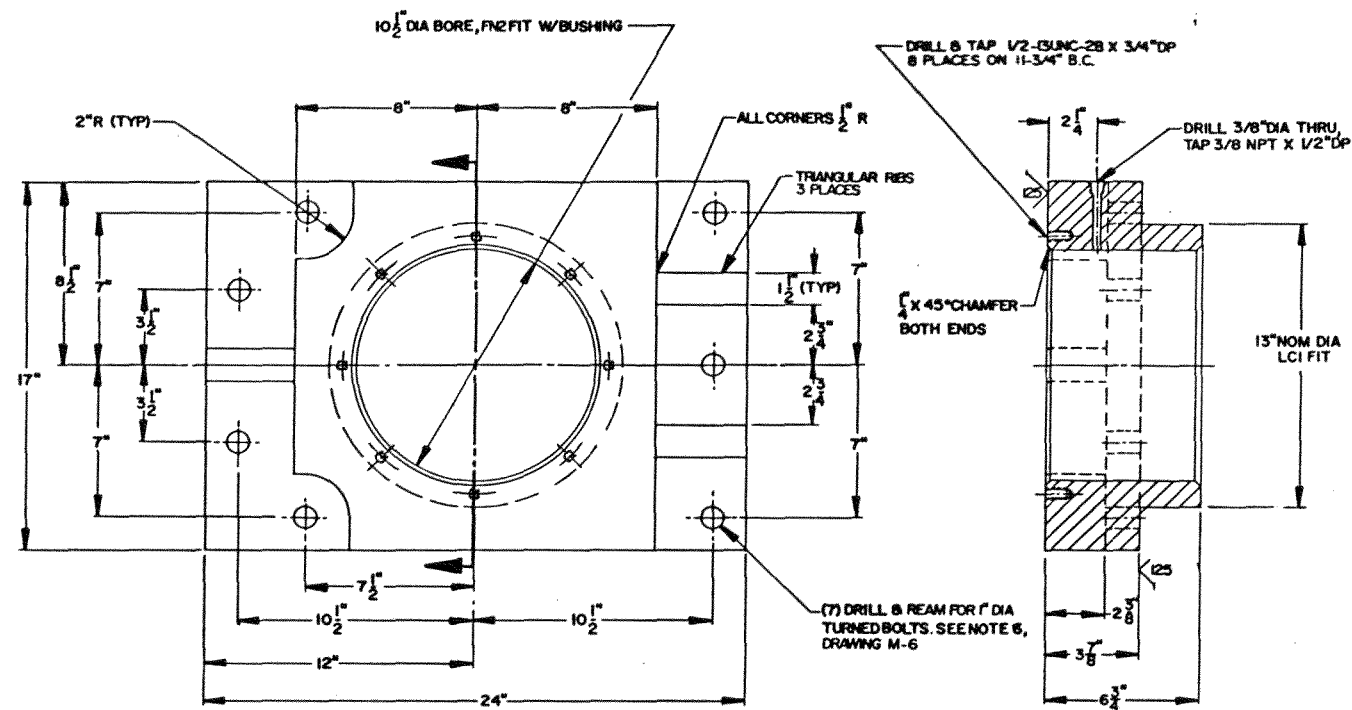
LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES
MECHANICAL/ELECTRICAL RENOVATIONS

Designed DBF	Drafted TJM	Checked DBF	Sht.
Date 9/88	Scale AS NOTED		10 of 43

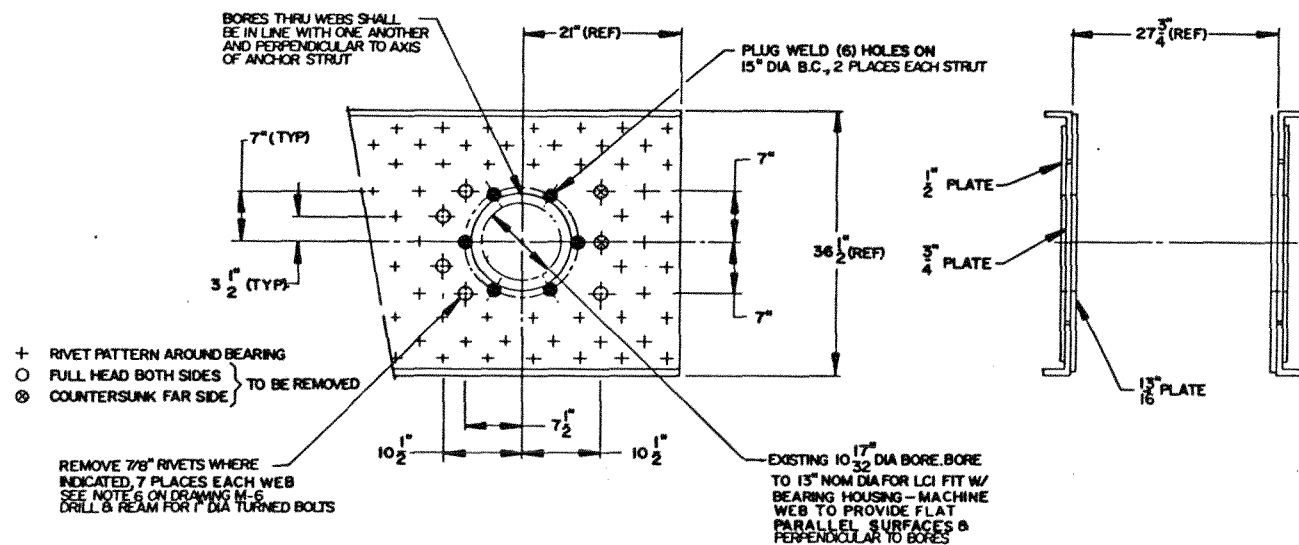


DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.



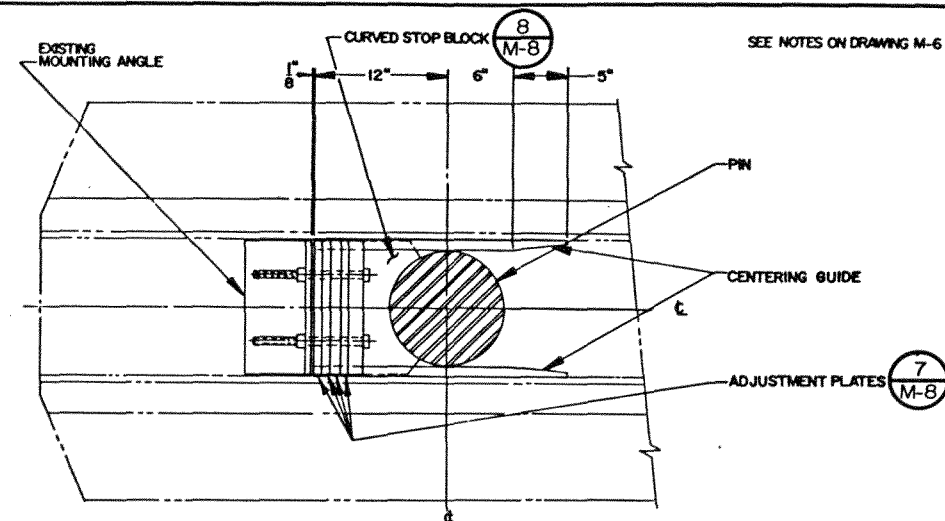
DETAIL 5
SCALE: 1/4" = 1"

NEW BEARING HOUSING-MAT'L: CAST STEEL/ASTM A27, GRADE 70-40
8 REQUIRED: 4 AS SHOWN, 4 OPPOSITE HAND



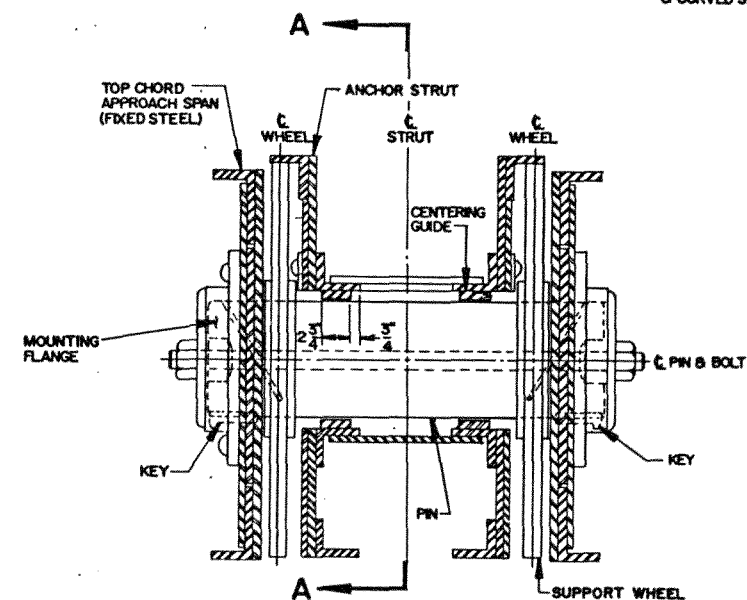
DETAIL 6
SCALE: 1" = 1'-0"

TOP CHORD-APPROACH SPAN FIXED STEEL, 8 PLACES TO BE REWORKED
4 AS SHOWN, 4 OPPOSITE HAND



NOTE: REMOVE CENTERING GUIDES, CURVED STOP BLOCK & ADJUSTMENT PLATES. REWORK ADJUSTMENT PLATES & CURVED STOP BLOCK PER DETAILS ON DRAWING M-6

SECTION A-A
SCALE: 1-1/2" = 1'-0"



NOTE: REMOVE BOLT, KEYS, PIN, SUPPORT WHEELS AND MOUNTING FLANGES
REWORK TOP CHORDS PER DETAIL 2, DWG M-7 AND REPLACE WITH NEW ANCHOR STRUT SUPPORT ASSEMBLY. ADD WEAR STRIPS TO ANCHOR STRUT PER DETAIL 4, DRAWING M-6.

EXISTING ANCHOR STRUT SUPPORT
(4 PLACES)

SCALE: 1-1/2" = 1'-0"

TOLERANCE, UNLESS NOTED OTHERWISE	
DIMENSION	TOLERANCE
WHOLE	± 1/64
FRACTION	± 1/64
X.X	± .010
X.XX	± .005
X.XXX	± .002

BROADWAY BRIDGE
ANCHOR STRUT SUPPORT REPLACEMENT
SHEET 2 OF 3

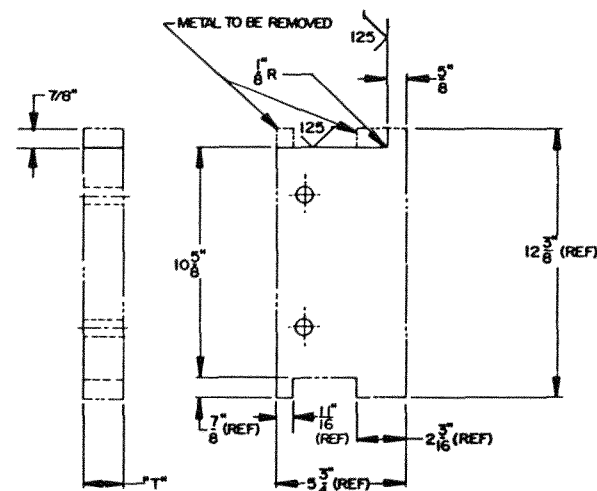
MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.
LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES
MECHANICAL/ELECTRICAL RENOVATIONS

Designed DBF Drafted TJM Checked DBF
Date 12/88 Scale AS NOTED Sht. 11 of 43



DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

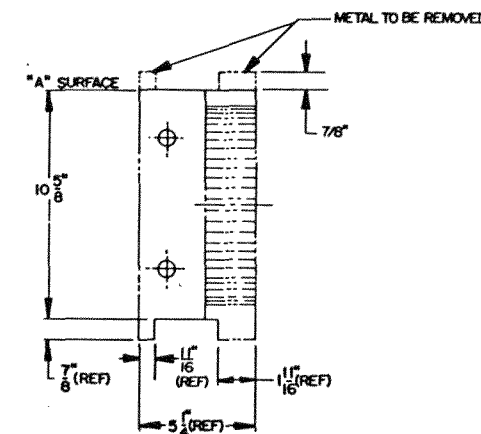
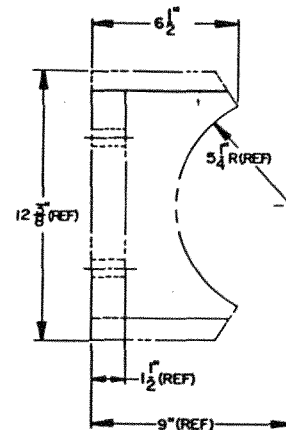


NOTE: MODIFY, AS SHOWN, EXISTING ADJUSTMENT PLATES OF VARIOUS THICKNESS "T"
APPROXIMATELY 24 PIECES - STEEL PLATES

ADJUSTMENT PLATE MODIFICATION

SCALE: 3"=1'-0"
SIX AS SHOWN
SIX OPPOSITE HAND

7
M-7



NOTE: MODIFY EXISTING CAST STEEL CURVED STOP BLOCKS - REMOVE MAT'L ABOVE SURFACE "A" AS SHOWN

CURVED STOP BLOCK MODIFICATION

SCALE: 3"=1'-0"
FOUR AS SHOWN
FOUR OPPOSITE HAND

8
M-7

DESIGNED BY:
CHECKED BY:
DRAWN BY:

DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

Sverdrup Sverdrup Corporation Stafford Engineering Inc. Mechanical Consultant

TOLERANCE, UNLESS NOTED OTHERWISE	
DIMENSION	TOLERANCE
WHOLE	± 1/64
FRACTION	± 1/64
X.X	± .010
X.XX	± .005
X.XXX	± .002

REVISION	DATE	DESCRIPTION	BY

**BROADWAY BRIDGE
ANCHOR STRUT SUPPORT REPLACEMENT
SHEET 3 OF 3**

MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.

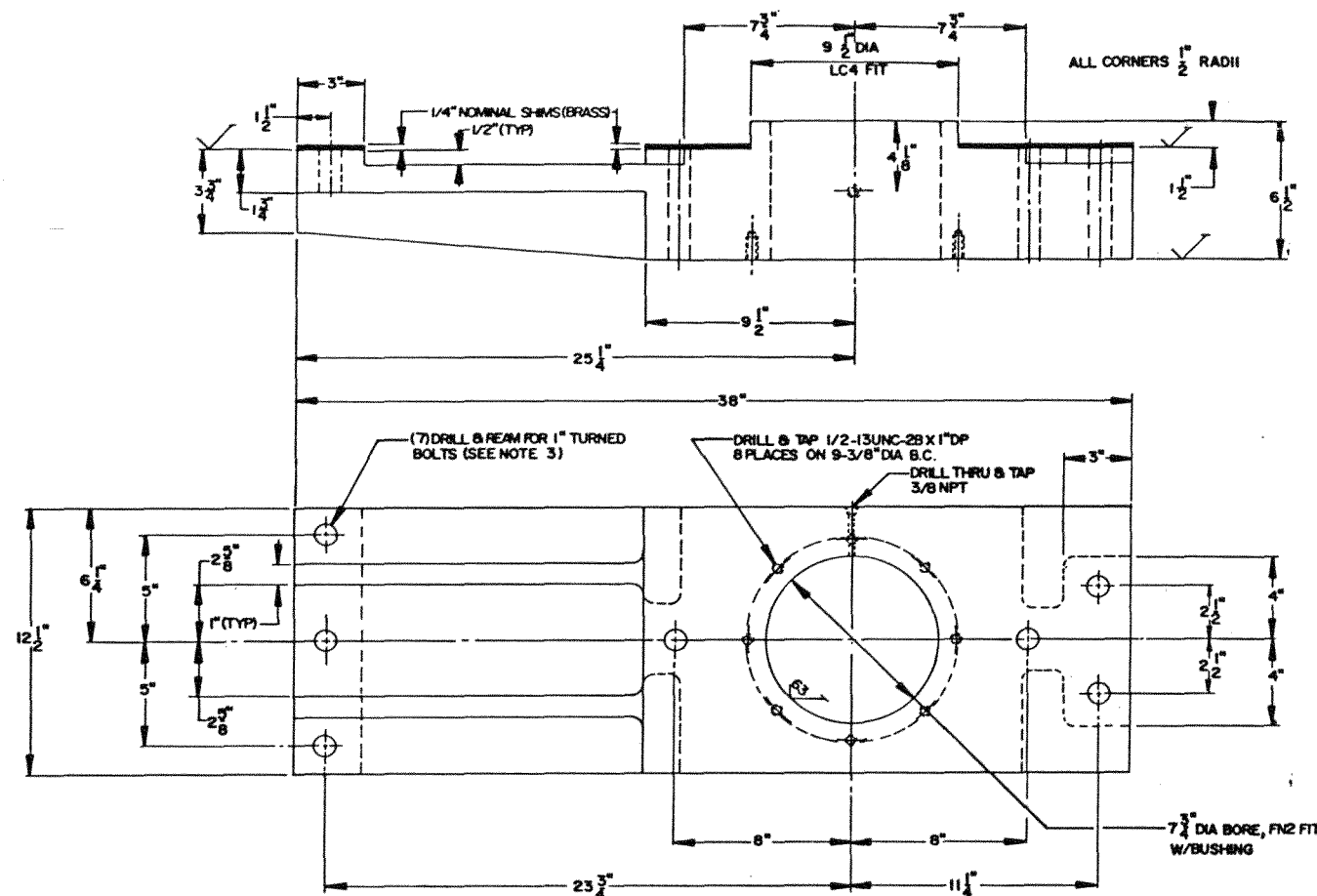
LARRY F. NICHOLAS COUNTY ENGINEER

**BROADWAY & BURNSIDE BRIDGES
MECHANICAL/ELECTRICAL RENOVATIONS**

Designed JWN Drafted TJM Checked PMB Sht. 12 of 43
Date 2/89 Scale AS NOTED

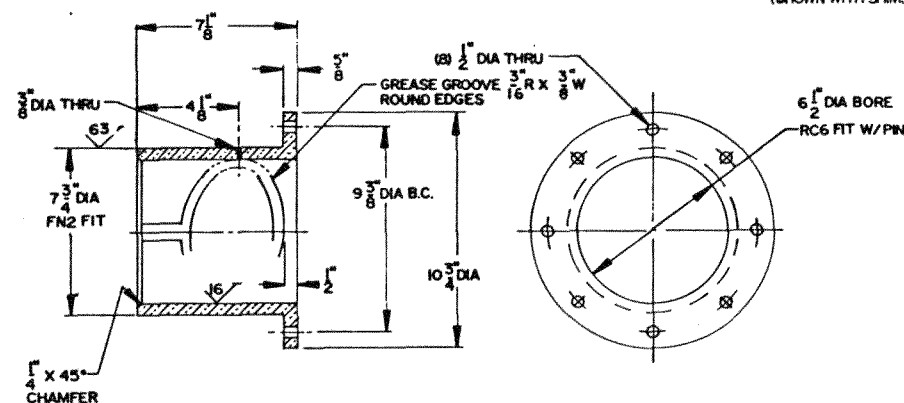
NOTES FOR DRAWINGS M-9 & M-10:

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT THE BRIDGE SITE.
2. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION, INCLUDING PAINTING.
3. TURNED BOLTS SHALL BE OF MATERIAL EQUAL TO ASTM A325, TYPE 3 HIGH STRENGTH CORROSIVE RESISTANT BOLTS. MOUNTING HOLES TO BE REAMED TO PROVIDE AN LC6 FIT WITH TURN BOLTS.
4. ALL FITS AND FINISHES FOR MACHINERY PARTS SHALL BE IN ACCORDANCE WITH AASHTO ARTICLE 2.5.17.
5. QUANTITIES SHOWN ON THE DRAWING ARE TOTAL FOR THE PROJECT.
6. ALL MACHINED SURFACES SHALL BE $\sqrt{125}$ UNLESS OTHERWISE SPECIFIED.

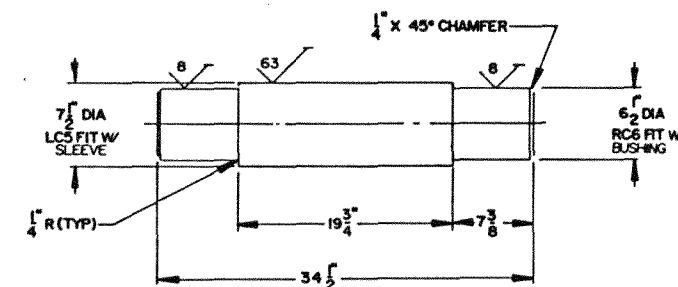


DETAIL 1
SCALE: 1/4" = 1"
M-10

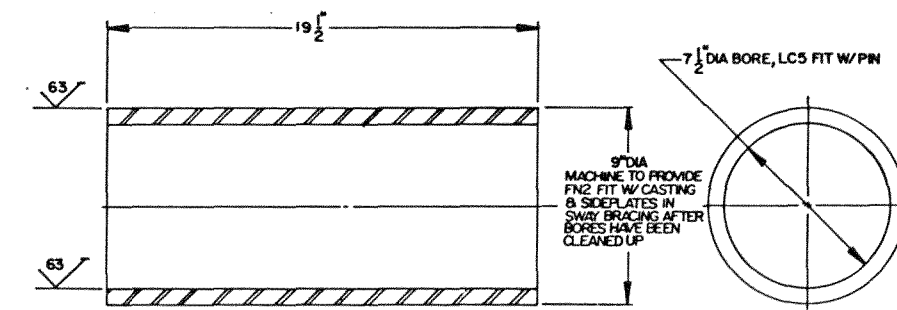
BEARING HOUSING-MAT'L: CAST STEEL, ASTM A27, GRADE 70-40
4 AS SHOWN (4 OPPOSITE HAND)
(SHOWN WITH SHIMS)



DETAIL 2
SCALE: 1/4" = 1"
M-10
BUSHING-MAT'L: ASTM B22, ALLOY 937, BRONZE
8 REQUIRED



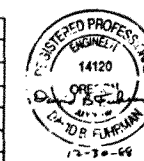
DETAIL 3
SCALE: 1/2" = 1'-0"
M-10
PIN-MAT'L: ASTM A322, GRADE 4140, 240 BHN MIN
4 REQUIRED



DETAIL 4
SCALE: 3" = 1'-0"
M-10
SLEEVE-MAT'L: ASTM A519, GRADE 4140, ALLOY MECHANICAL TUBING HT 293-333 BHN
4 REQUIRED

DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

TOLERANCE, UNLESS NOTED OTHERWISE	
DIMENSION	TOLERANCE
WHOLE	± 1/64
FRACTION	± 1/64
X.X	± .010
X.XX	± .005
X.XXX	± .002



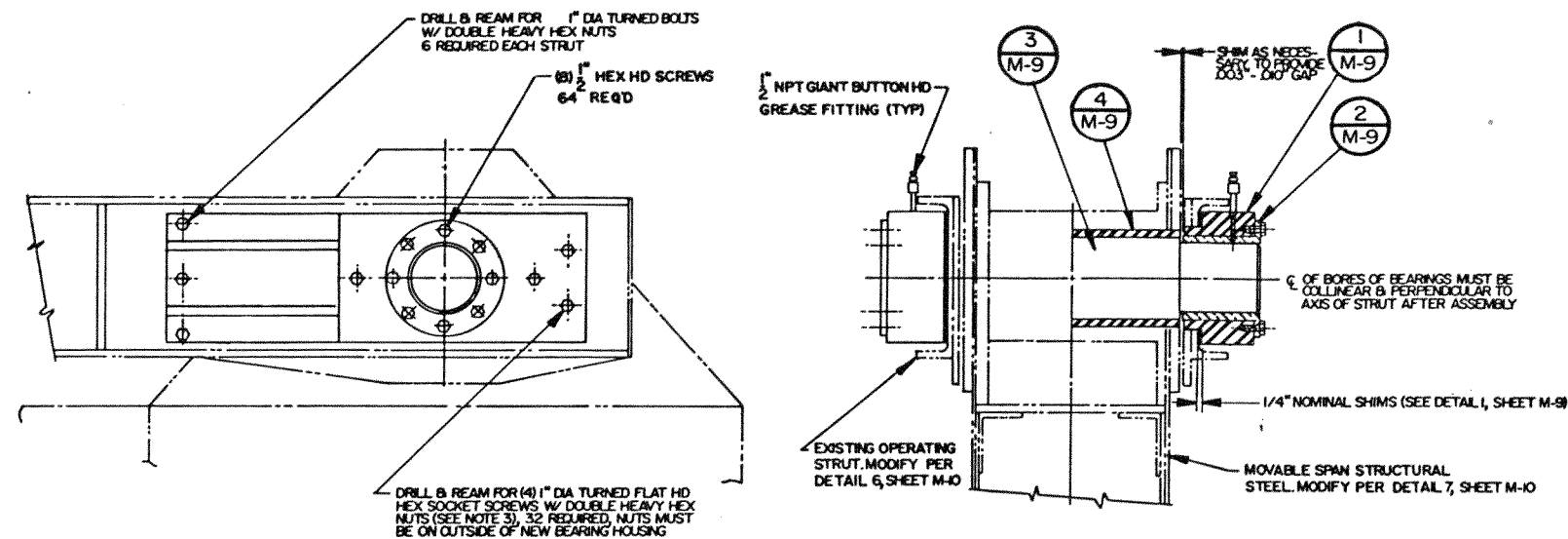
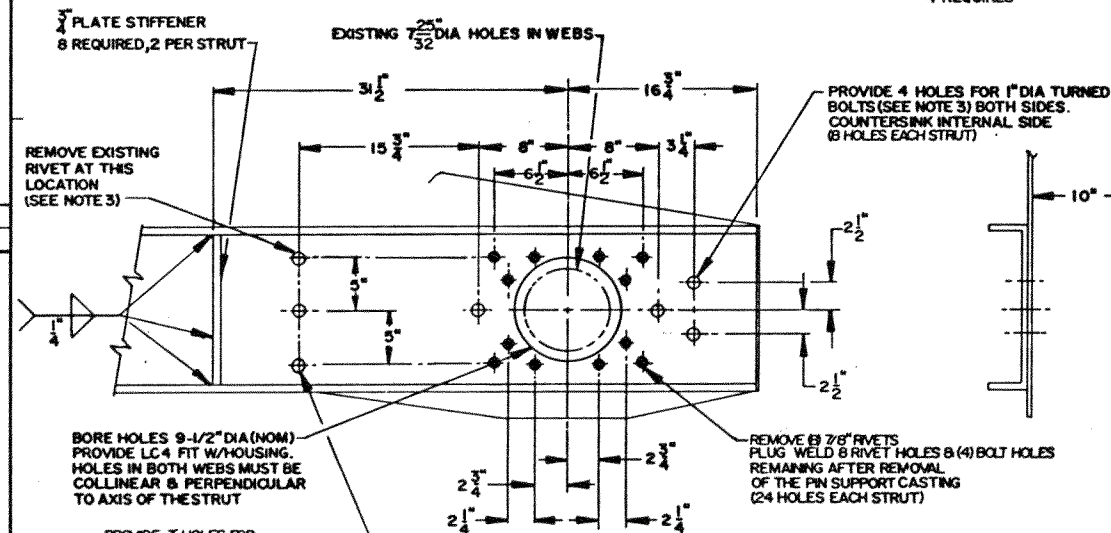
BROADWAY BRIDGE
OPERATING STRUT PIN REPLACEMENT
SHEET 1 OF 2

MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.

LARRY F. NICHOLAS COUNTY ENGINEER

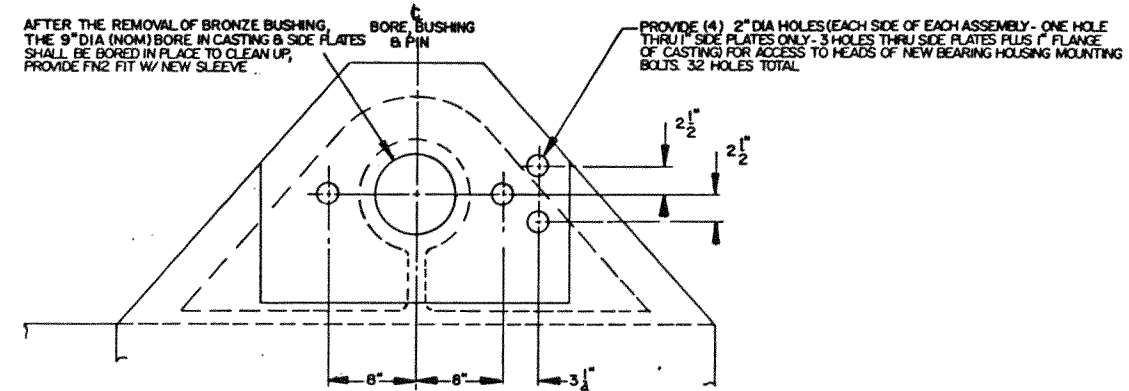
BROADWAY & BURNSIDE BRIDGES
MECHANICAL/ELECTRICAL RENOVATIONS

Designed DBF Drafted TJM Checked DBF Sht.
Date 12/88 Scale AS NOTED 13 of 43

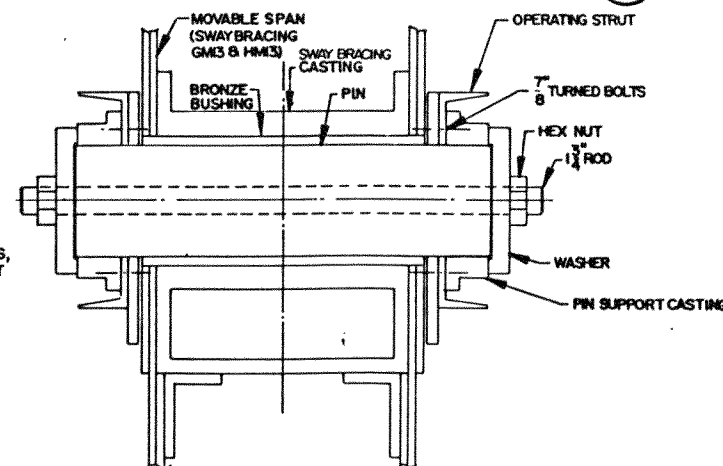
**INSTALLATION**SCALE 1-1/2" = 1'-0"
4 REQUIRED

6 MODIFICATION - TO OPERATING STRUT REQUIRED FOR NEW PIN
4 REQUIRED
SCALE: 1-1/2" = 1'-0"

AFTER THE REMOVAL OF BRONZE BUSHING, THE 9" DIA (NOM) BORE IN CASTING & SIDE PLATES SHALL BE BORED IN PLACE TO CLEAN UP, PROVIDE FN2 FIT W/ NEW SLEEVE.

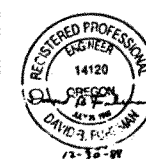


7 MODIFICATION - MOVABLE SPAN STRUCTURAL STEEL AND SWAY BRACING CASTING FOR NEW PIN CONNECTION
4 REQUIRED, 2 AS SHOWN - 2 OPPOSITE HAND

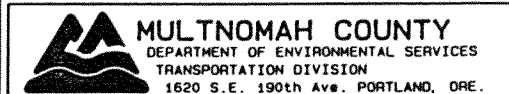
**EXISTING CONNECTION**

REMOVE HEX NUT, ROD WASHERS, PIN, TURNED BOLTS, PIN SUPPORT CASTING & BRONZE BUSHING

TOLERANCE, UNLESS NOTED OTHERWISE	
DIMENSION	TOLERANCE
WHOLE	± 1/64
FRACTION	± 1/64
X.X	± .010
X.XX	± .005
X.XXX	± .002



BROADWAY BRIDGE
OPERATING STRUT PIN REPLACEMENT
SHEET 2 OF 2



LARRY F. NICHOLAS COUNTY ENGINEER

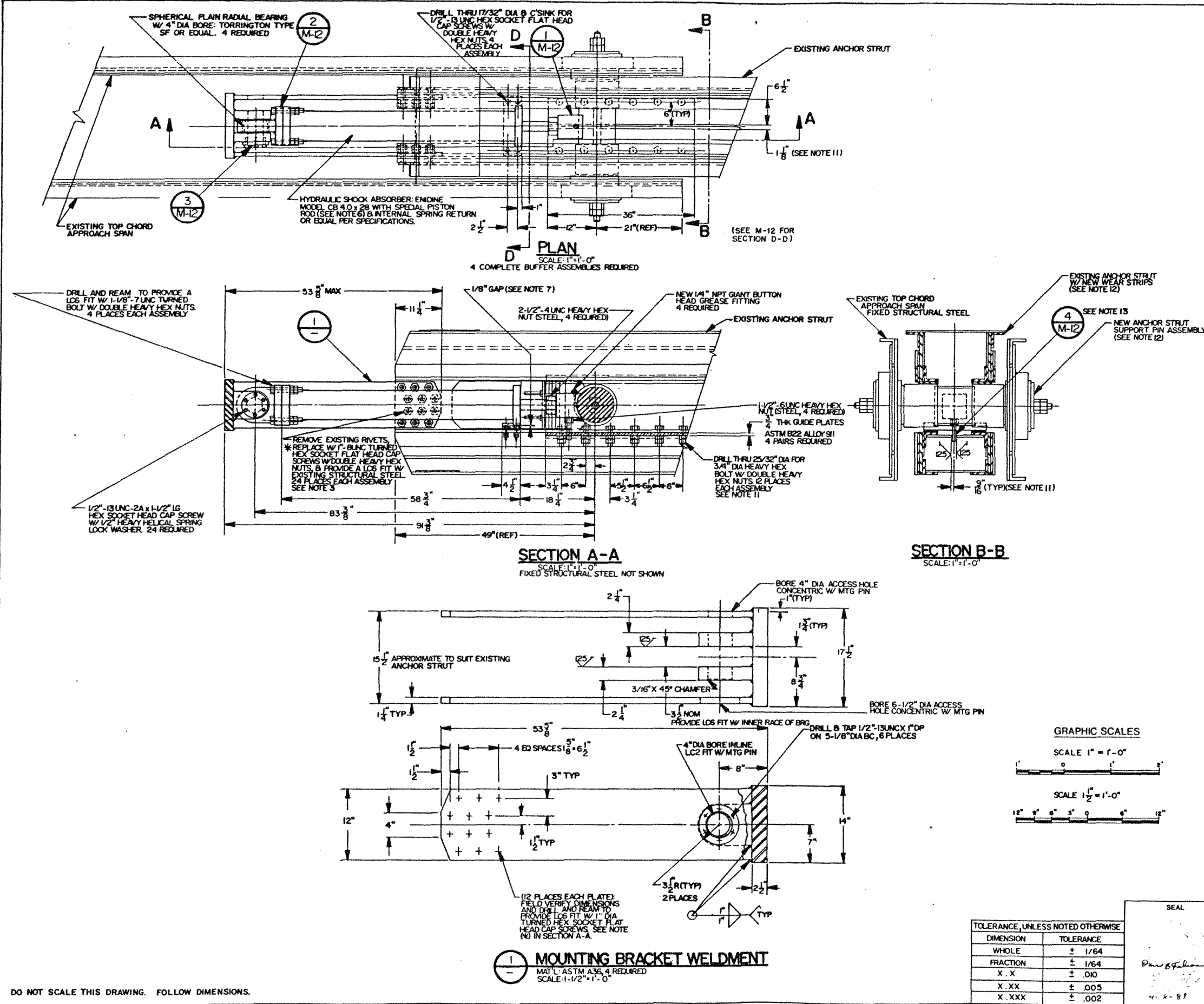
BROADWAY & BURNSIDE BRIDGES
MECHANICAL/ELECTRICAL RENOVATIONS

Designed DBF Drafted TJM Checked DBF Sht. 14 of 43
Date 12/88 Scale AS NOTED

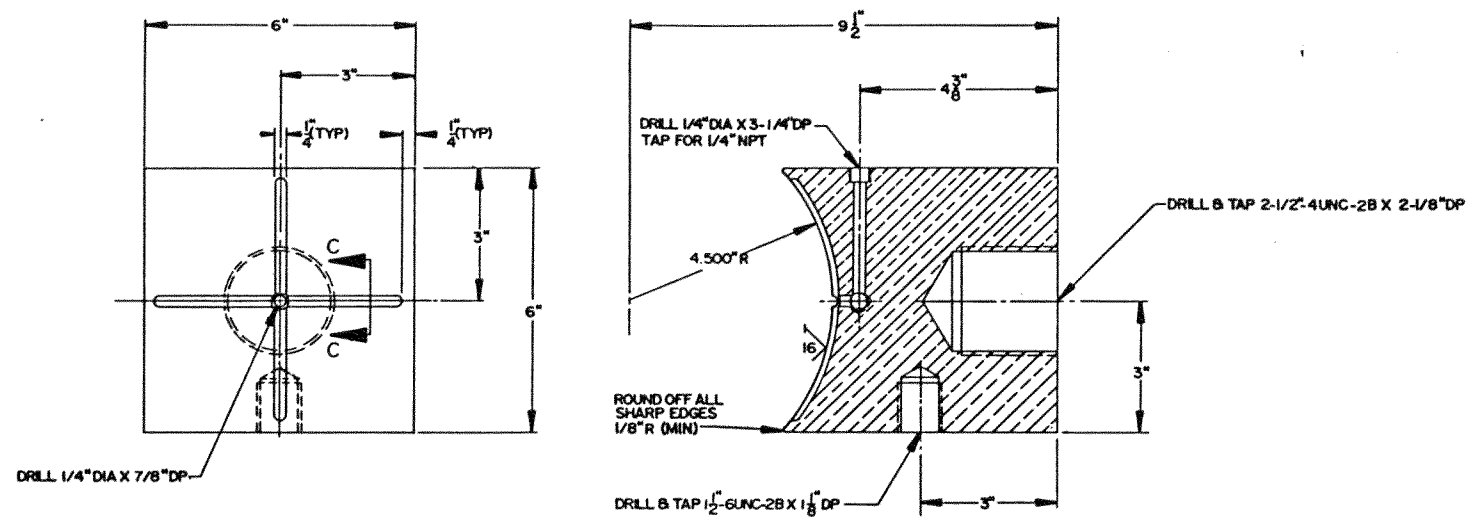
DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

NOTES FOR DRAWINGS M-11 & M-12

- ALL FITS AND FINISHES FOR MACHINERY PARTS SHALL BE IN ACCORDANCE WITH AASHTO ARTICLE 2.5.17.
- TURNED BOLTS SHALL BE OF MATERIAL EQUAL TO ASTM A325, TYPE 3 HIGH STRENGTH CORROSIVE RESISTANT STEEL, UNLESS OTHERWISE SPECIFIED.
- THE MOUNTING HOLES SHALL BE REAMED TO PROVIDE AN LOS FIT WITH TURNED BOLTS AT ASSEMBLY, AFTER ALIGNMENT.
- ALL MACHINED SURFACES TO BE $\sqrt{125}$ UNLESS OTHERWISE SPECIFIED.
- ALL WELDMENTS SHALL BE STRESS RELIEVED BY HEAT PRIOR TO MACHINING.
- SPECIAL PISTON ROD MUST BE PROVIDED BY BUFFER MANUFACTURER TO ACCOMMODATE BUFFER END PIECE PER DRAWING M-12.
- ALL DIMENSIONS ARE GIVEN WITH BRIDGE CLOSED & BUFFER STRIKE CAP CENTERED ON ANCHOR STRUT SUPPORT PIN.
- WHERE APPLICABLE: USE FITS, FINISHES, & TOLERANCES DESIGNATED BY THE SPHERICAL BEARING MANUFACTURER SELECTED.
- NO OPEN ENDED WELDS PERMITTED.
- ALL COMPONENTS NEW UNLESS NOTED OTHERWISE.
- INSTALL GUIDE PLATES FOR BUFFER GUIDE ROD SO THAT WHEN THE BUFFER STRIKE CAP INITIALLY CONTACTS THE ANCHOR STRUT SUPPORT PIN & HAS FULL FACE CONTACT, THERE IS 1/16" CLEARANCE BETWEEN THE BUFFER GUIDE ROD & GUIDE PLATES ON BOTH SIDES OF THE ROD. THIS CLEARANCE IS TO BE KEPT ALONG THE ENTIRE STROKE OF THE HYDRAULIC CYLINDER.
- SEE DRAWING M-6 FOR DETAILS OF NEW ANCHOR STRUT SUPPORT ASSEMBLY.
- BUFFER GUIDE ROD SHALL BE INSTALLED SO THE FLATS ARE PARALLEL TO THE WEAR SURFACES OF THE GUIDE PLATES.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT THE BRIDGE SITE.
- SEE SPECIFICATIONS FOR INSTALLATION SEQUENCE AND ADDITIONAL INFORMATION.
- QUANTITIES SHOWN ON THE DRAWINGS ARE TOTAL FOR PROJECT, UNLESS OTHERWISE SPECIFIED.

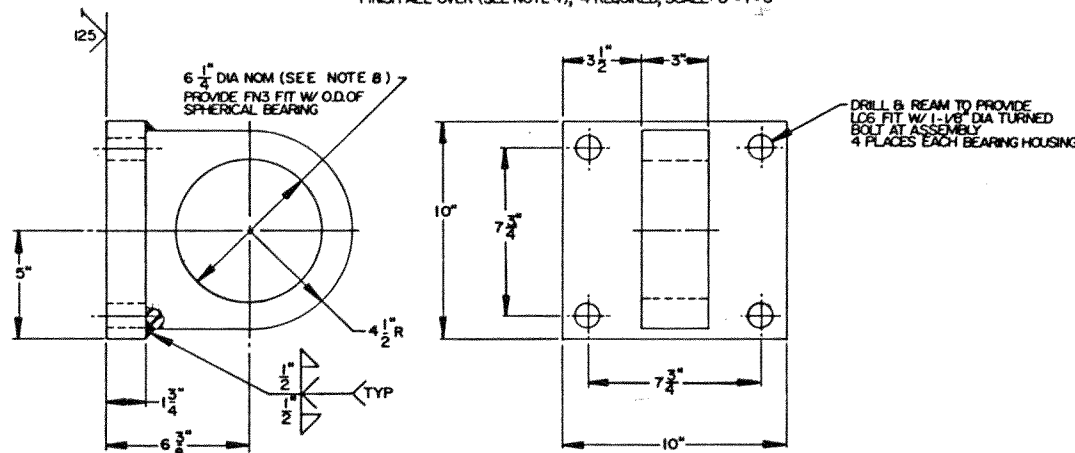


DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.



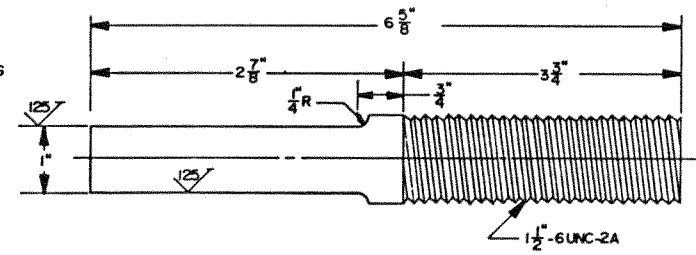
DETAIL 1
M-11

BUFFER END PIECE (STRIKE CAP)-MAT'L: BRONZE/ASTM B22, ALLOY 911
FINISH ALL OVER (SEE NOTE 4), 4 REQUIRED, SCALE: 6"=1'-0"



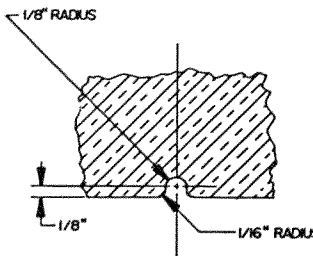
DETAIL 2
M-11

BEARING HOUSING-MAT'L: STEEL/ASTM A36
4 REQUIRED, SCALE: 3"=1'-0"

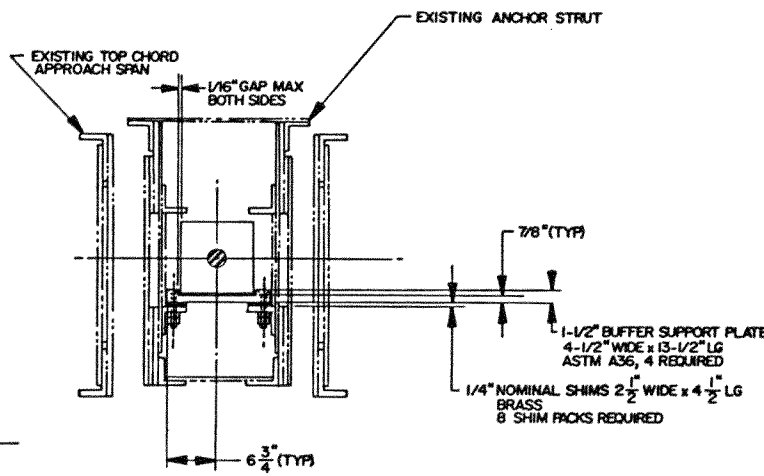


DETAIL 4
M-11

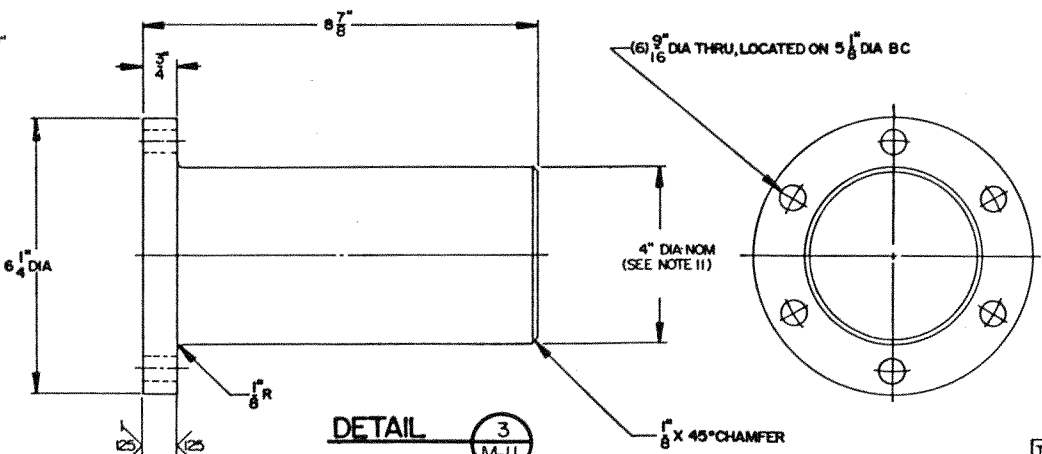
BUFFER GUIDE ROD - MAT'L: BRONZE/ASTM B22, ALLOY 911
4 REQUIRED, SCALE: FULL



SECTION C-C
GREASE GROOVE, SCALE: FULL



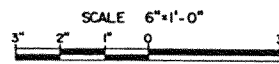
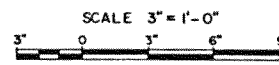
SECTION D-D (FROM M-11)
SCALE: 1"=1'-0"



DETAIL 3
M-11

MOUNTING PIN-MAT'L: STEEL/ASTM A576, GRADE 1045, 160-190 BHN
4 REQUIRED, SCALE: 6"=1'-0"

GRAPHIC SCALES



TOLERANCE, UNLESS NOTED OTHERWISE	
DIMENSION	TOLERANCE
WHOLE	± 1/64
FRACTION	± 1/64
X.X	± .010
X.XX	± .005
X.XXX	± .002

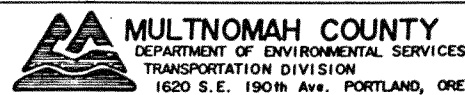
SEAL

David J. Fink

4-8-89

REVISION	DATE	DESCRIPTION	BY

BROADWAY BRIDGE
BUFFER INSTALLATION
SHEET 2 OF 2



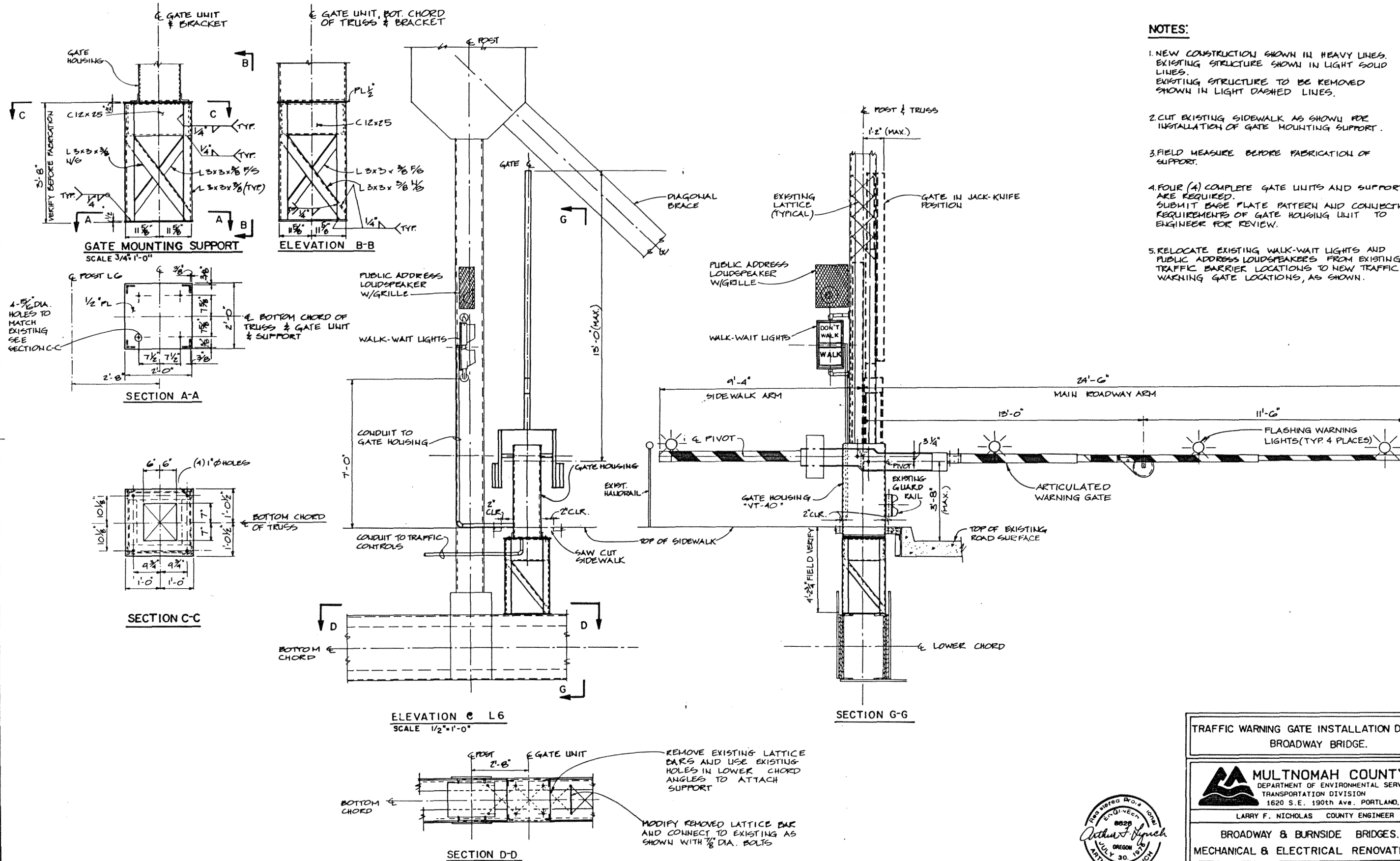
LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES
MECHANICAL/ELECTRICAL RENOVATIONS

Designed JWN	Drafted TJM	Checked PMB	Sh.
Date 4/89	Scale AS NOTED		16 of 43

DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

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DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

Sverdrup Corporation

TRAFFIC WARNING GATE INSTALLATION DETAILS
BROADWAY BRIDGE.

MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.

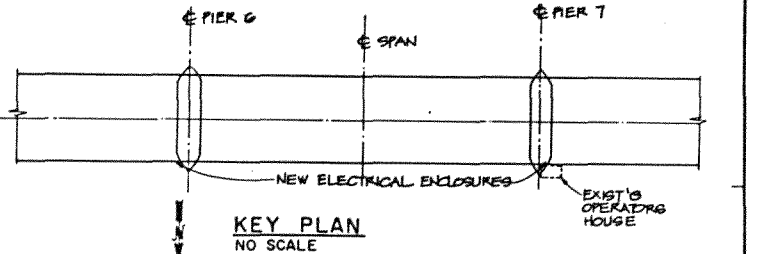
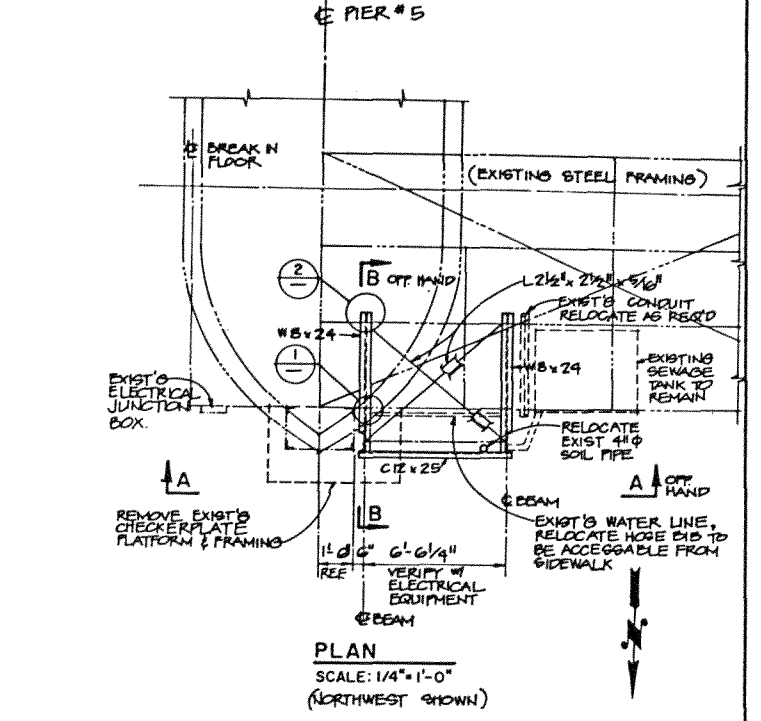
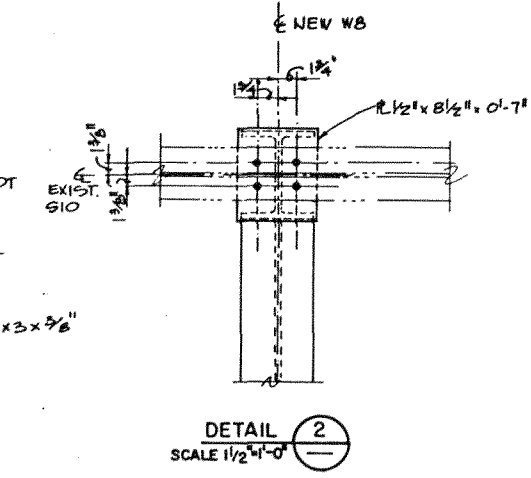
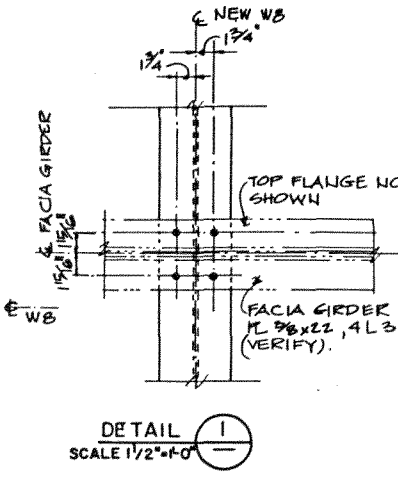
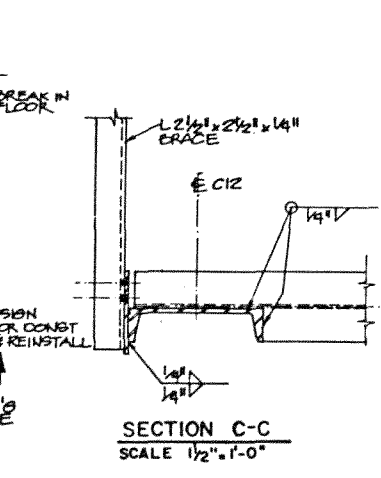
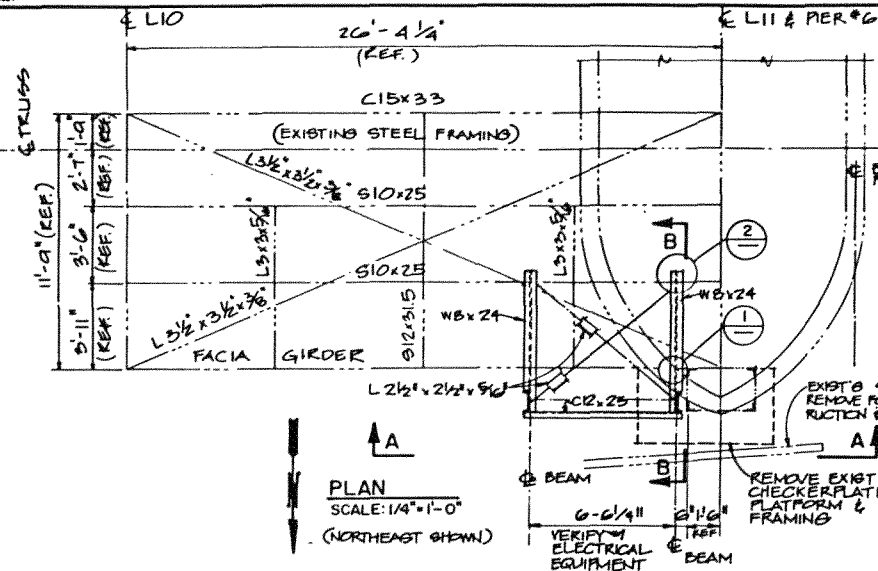
LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES.
MECHANICAL & ELECTRICAL RENOVATIONS.

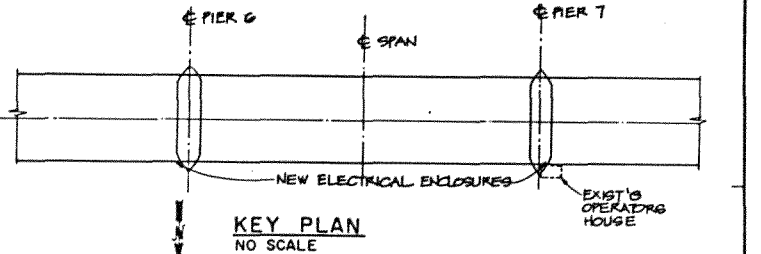
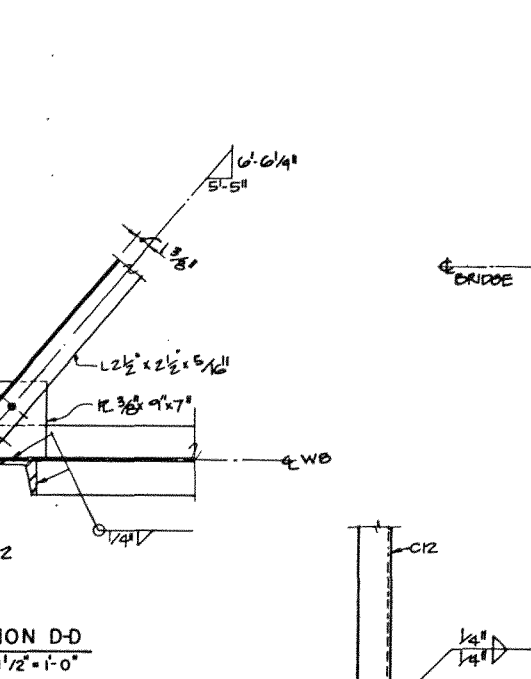
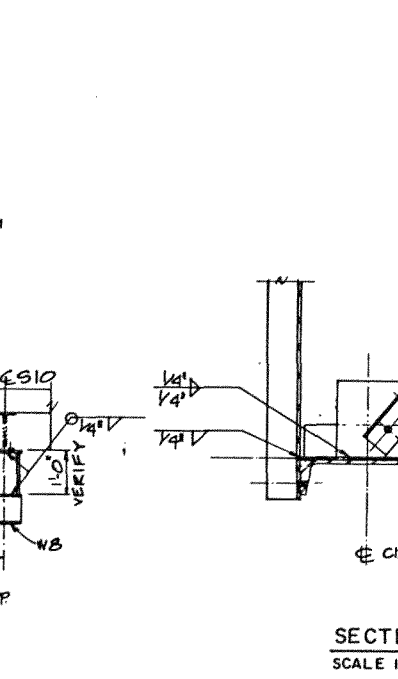
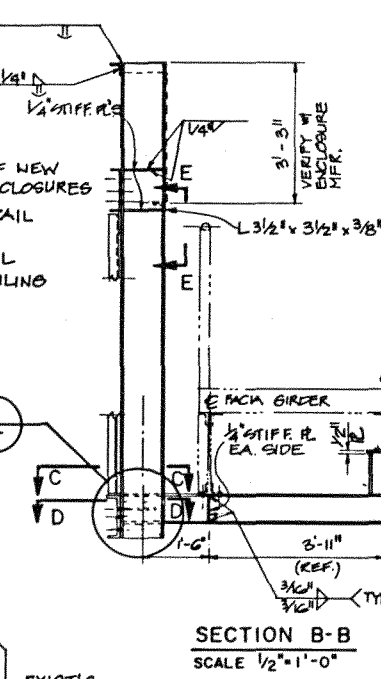
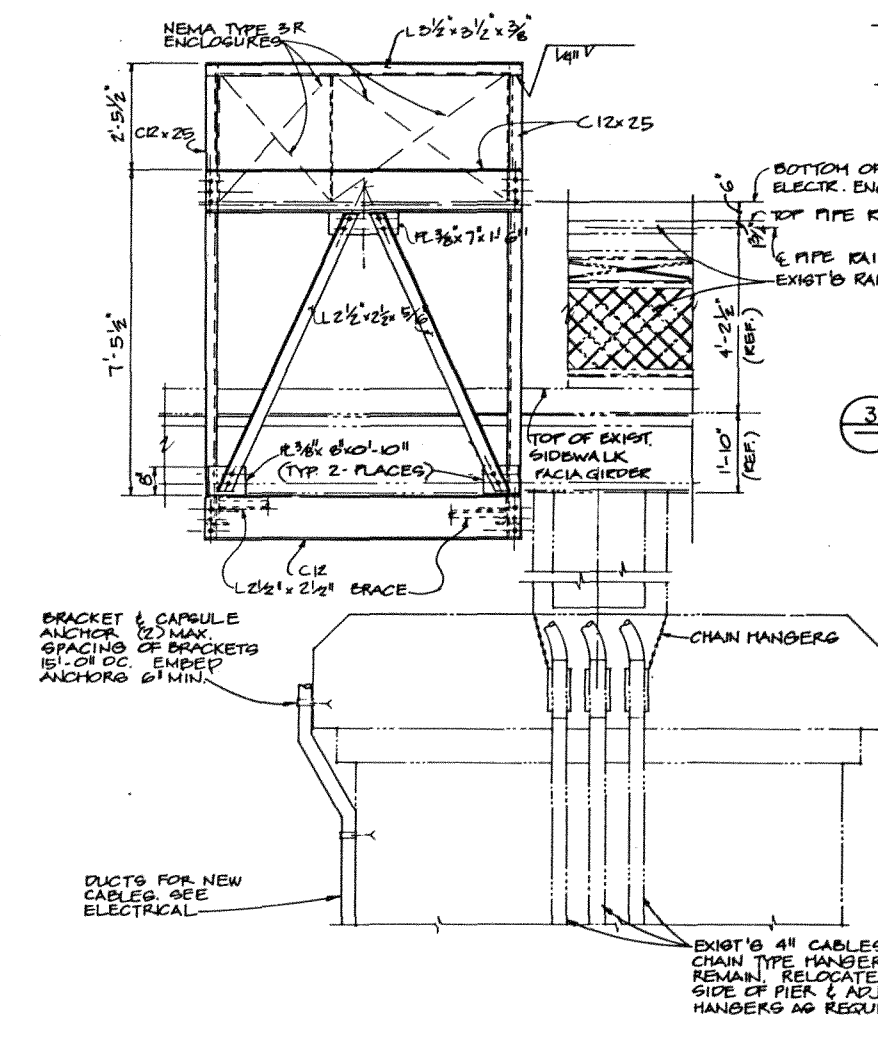
Designed ATL Drafted MG Checked MKK
Date 1-31-89 Scale AS SHOWN

Sht. 17 of 43





- STRUCTURAL NOTES**
1. ALL STEEL TO BE ASTM A36, FY = 36 KSI
 2. ALL BOLTS TO BE ASTM A325, 7/8" DIAMETER WITH MATCHING NUTS & WASHERS.
 3. ALL WELDS TO BE PERFORMED WITH E70XX ELECTRODES.
 4. ANY EXISTING CONDUITS, SOIL PIPES ETC. WHICH INTERFERE WITH NEW ELECTRICAL ENCLOSURES OR SUPPORT STRUCTURE SHALL BE RELOCATED.
 5. ALL DIMENSIONS OF EXISTING STRUCTURE SHALL BE VERIFIED PRIOR TO FABRICATION OF NEW STEEL.



SUBMARINE CABLE TERMINAL CABINET MOUNTING DETAILS BROADWAY BRIDGE

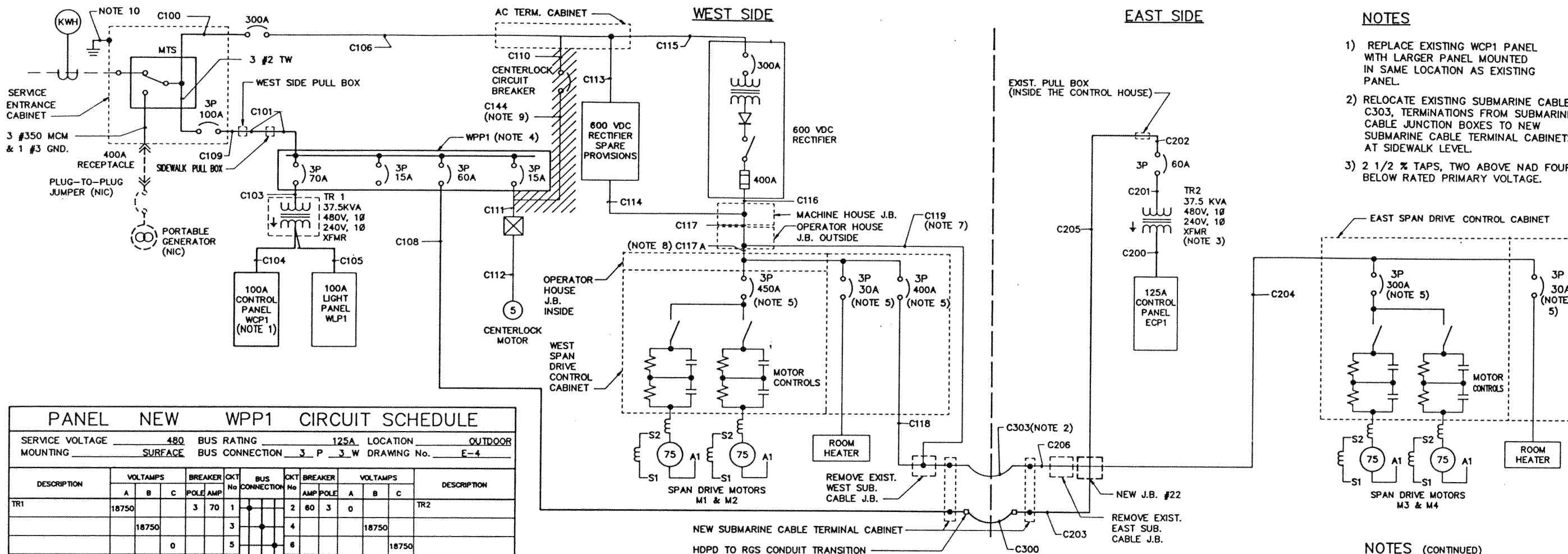
MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.
LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES.
MECHANICAL & ELECTRICAL RENOVATIONS.

Designed CDO	Drafted MB	Checked MKK	Sht.
Date 1-31-89	Scale AS SHOWN	18	of 43



DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.



- NOTES**
- 1) REPLACE EXISTING WCP1 PANEL WITH LARGER PANEL MOUNTED IN SAME LOCATION AS EXISTING PANEL.
 - 2) RELOCATE EXISTING SUBMARINE CABLE C303, TERMINATIONS FROM SUBMARINE CABLE JUNCTION BOXES TO NEW SUBMARINE CABLE TERMINAL CABINETS AT SIDEWALK LEVEL.
 - 3) 2 1/2 % TAPS, TWO ABOVE NAD FOUR BELOW RATED PRIMARY VOLTAGE.

PANEL NEW WPP1 CIRCUIT SCHEDULE											
SERVICE VOLTAGE 480			BUS RATING 125A			LOCATION OUTDOOR					
MOUNTING SURFACE			BUS CONNECTION 3 P 3 W			DRAWING No. E-4					
DESCRIPTION	VOLTAMPS			BKT No	BUS CONNECTION	BKT No	VOLTAMPS			DESCRIPTION	
	A	B	C				A	B	C		
TR1	18750			3	70	1				TR2	
	18750			3		4				18750	
			0	5		6				18750	
CENTERLOCK MOTOR	1940			3	15	7				SPARE	
	1940			9		10					
				11		12					
TOTALS	20690	20690	1940		S/N		0	18750	18750		
BUS A 20690			MAIN (BREAKER,LUGS) 125 AMPS.			LINE AMPS 97					
BUS B 39440			LOCATION (TOP,BOTTOM)			PHASING 3 @ 480 VOLTS					
BUS C 20690			FEEDER SIZE 3 #1			KVA DEMAND 80.8					
TOTAL LOAD 80820			SOURCE SERVICE ENTRANCE CAB.			DATE					

PANEL EXIST. WLP1 CIRCUIT SCHEDULE											
SERVICE VOLTAGE 120/240			BUS RATING			LOCATION OPERATORS HOUSE					
MOUNTING EXISTING			BUS CONNECTION 1 P 3 W			DRAWING No. E-6					
DESCRIPTION	VOLTAMPS			BKT No	BUS CONNECTION	BKT No	VOLTAMPS			DESCRIPTION	
	A	B	C				A	B	C		
STAIRWAY & WEST WALL PLUG	1200			1		2	20	1	1200	PLUG-RESISTOR ROOM	
PIER LTS.-NAV	1200			3		4	20	1	500	LTS. HOUSE	
PIER LTS.	1200			5		6	20	1	500	MACHINE ROOM LTS.	
HOT WATER HTR.	1200			7		8	20	1	500	LTS. EMERG. BRAKES	
WALL FUR.- MARINE	500			9		10	30	1	3000	AIR COMPRESSOR	
INTERCOM - LOUDSPEAKER	500			11		12	30	1	3000	AIR COMPRESSOR	
HEATER	1000			13		14				SPACE	
HEATER	1000			15		16				SPACE	
TOTALS	3900	3900			S/N		4700	4000			
BUS A 8600			MAIN (BREAKER,LUGS) 100 AMPS.			LINE AMPS 68.7					
BUS B 7900			LOCATION (TOP,BOTTOM)			PHASING 1 @ 240 VOLTS					
			FEEDER SIZE 3 #4			KVA DEMAND 16.5					
TOTAL LOAD 16500			SOURCE 37.5 KVA.1PH.XFMR								

PANEL NEW WCP1 CIRCUIT SCHEDULE											
SERVICE VOLTAGE 120/240			BUS RATING			LOCATION (NOTE 1)					
MOUNTING (NOTE 1)			BUS CONNECTION 1 P 3 W			DRAWING No. E-6					
DESCRIPTION	VOLTAMPS			BKT No	BUS CONNECTION	BKT No	VOLTAMPS			DESCRIPTION	
	A	B	C				A	B	C		
MACHINE RM. PLUG	1200			1		2	20	2	1200	TRAFFIC SIGNAL CONTROLS	
SPARE				3		4				1200	
S.W. ON BARRIER	1704			5		6	20	2	1200	GONG, NEON SIGN	
	1704									1200	
N.W. OFF BARRIER	1704			9		10	20	2	600	BARRIER CONTROL SYSTEM	
	1704									600	
N.W. OFF GATE	744			13		14	15	2	744	S.W. ON GATE	
	744									744	
SPARE				17		18	20	2		SPARE	
CABINET HEATERS	300			21		22	20	1		TRAFFIC GATES CONTROL	
SPARE				23		24	20	1		SPARE	
TOTALS	5352	4452			S/N		3744	3744			
BUS A 9096			MAIN (BREAKER,LUGS) 100 AMPS.			LINE AMPS 72.1					
BUS B 8196			LOCATION (TOP,BOTTOM)			PHASING 1 @ 240 VOLTS					
			FEEDER SIZE 3 #4			KVA DEMAND 17.3					
TOTAL LOAD 17292			SOURCE 37.5 KVA.1PH.XFMR								

PANEL EXIST. ECP1 CIRCUIT SCHEDULE											
SERVICE VOLTAGE 120/240			BUS RATING			LOCATION CONTROL HOUSE					
MOUNTING EXISTING			BUS CONNECTION 1 P 3 W			DRAWING No. E-6					
DESCRIPTION	VOLTAMPS			BKT No	BUS CONNECTION	BKT No	VOLTAMPS			DESCRIPTION	
	A	B	C				A	B	C		
SPARE				1		2	20	1	300	CABINET HEATERS	
PLUG (STAIRWAY)	1200			3		4	20	1	500	BRAKE LTS.	
ROOM LTS.	500			5		6	20	1	600	LANDING LT., MACHINE RM LTS., CENTER OF DRAW	
PLUGS-CONTR. ROOM	1200			7		8	20	1	600	EMERG. AIR BRAKE	
AIR PILOT LT., PHONE BUZZ POWER ON LT.	500			9		10	20	1	1200	RECPT. BELOW INST. POWER SUPPLY	
N.E. ON BARRIER	1704			11		12	20	1	1200	BARRIER CONTROL SYSTEM	
N.E. ON BARRIER	1704			13		14	20	1	1200	BARRIER CONTROL SYSTEM	
S.E. OFF BARRIER	1704			15		16	20	1	600	TRAFFIC SIGNAL CONTROL	
S.E. OFF BARRIER	1704			17		18	20	1	600	TRAFFIC SIGNAL CONTROL	
TRAFFIC GATES CONTROL				19		20	20	1	1200	GONG, NEON, SIGN, T60, T70	
SPACE				21		22	20	1	1200	GONG, NEON, SIGN, T60, T70	
SPACE				23		24	15	1	744	N.E. ON GATE	
AIR COMPRESSOR	1900			25		26	15	1	744	N.E. ON GATE	
AIR COMPRESSOR	1900			27		28	15	1	744	S.E. OFF GATE	
SPACE				29		30	15	1	744	S.E. OFF GATE	
TOTALS	6308	7708			S/N		6588	5588			
BUS A 12896			MAIN (BREAKER,LUGS) 125 AMPS.			LINE AMPS 109					
BUS B 13296			LOCATION (TOP,BOTTOM)			PHASING 1 @ 240 VOLTS					
			FEEDER SIZE 3 #1			KVA DEMAND 26.2					
TOTAL LOAD 26192			SOURCE 37.5 KVA.1PH.XFMR								

- NOTES (CONTINUED)**
- 4) INSTALL NEW WPP1 PANEL OUTSIDE UNDERNEATH THE OPERATOR'S HOUSE. MOUNT TRANSFORMER TR1 ABOVE THE PANEL.
 - 5) WIRE 3 POLE DC BREAKERS IN ACCORDANCE WITH DETAIL "B", SHEET E-8.
 - 6) TWO #4/0 AWG EACH FOR POSITIVE AND NEGATIVE EXISTING.
 - 7) EXISTING ONE #350 MCM NEGATIVE ONLY. DISCONNECT AND REMOVE.
 - 8) REMOVE EXISTING # 750 MCM NEGATIVE AND INSTALL NEW #350 MCM. EXISTING #350 MCM POSITIVE TO REMAIN.
 - 9) ABANDON IN PLACE.
 - 10) #2 GROUND CONDUCTOR. THERMAL WELD TO STRUCTURE.



ONE LINE DIAGRAM/ PANEL SCHEDULES
BROADWAY BRIDGE

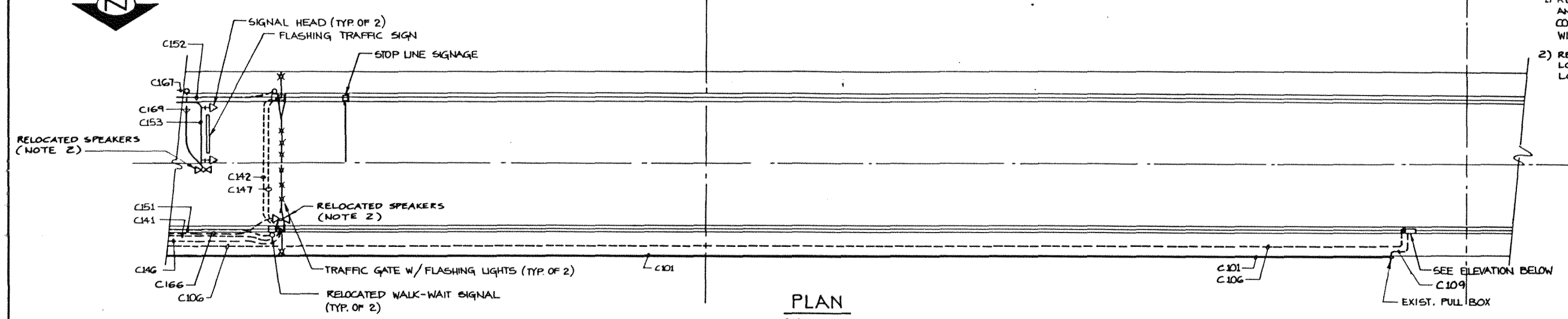
MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.
LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES
MECHANICAL & ELECTRICAL RENOVATIONS

Designed MAD Drafted EYHY Checked DFA Sht. 19 of 43
Date 1-31 Scale NONE

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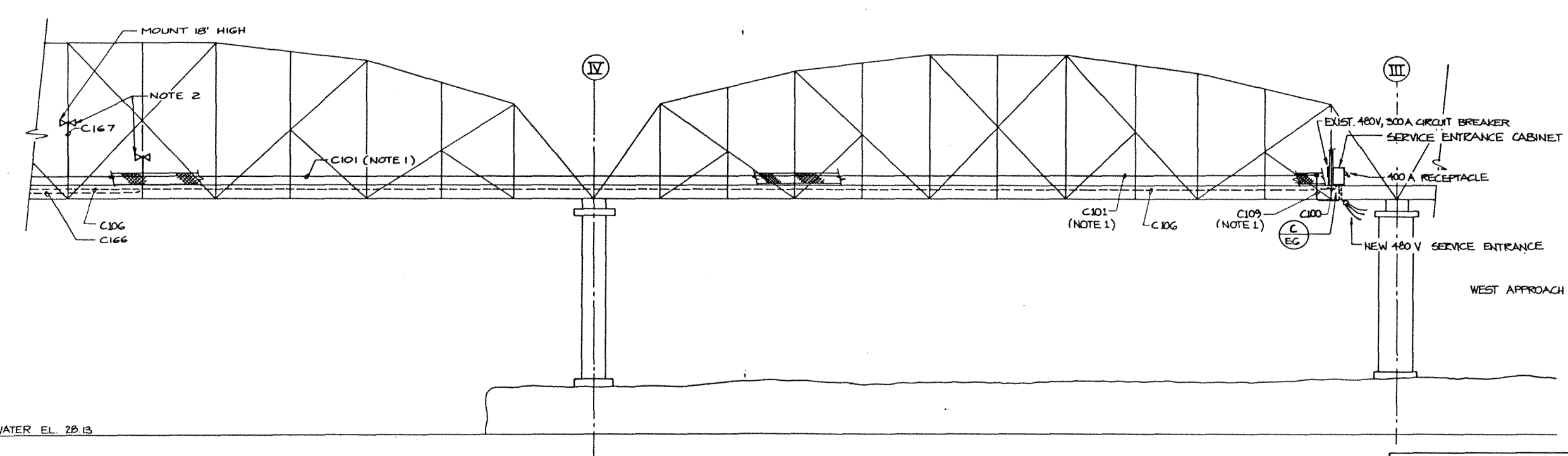
Sverdrup Corporation



PLAN
SCALE: AS NOTED


- NOTES:
- 1) REMOVE EXISTING 1" CONDUIT AND CONDUCTORS. FIELD VERIFY CONDUIT SIZE. IF CORRECT, REPLACE WITH 1 1/2" EGS CONDUIT.
 - 2) RELOCATE EXISTING WEST SIDE LOUSPEAKERS TO THESE LOCATIONS.

FOR CONTINUATION SEE DWG. NO E-4



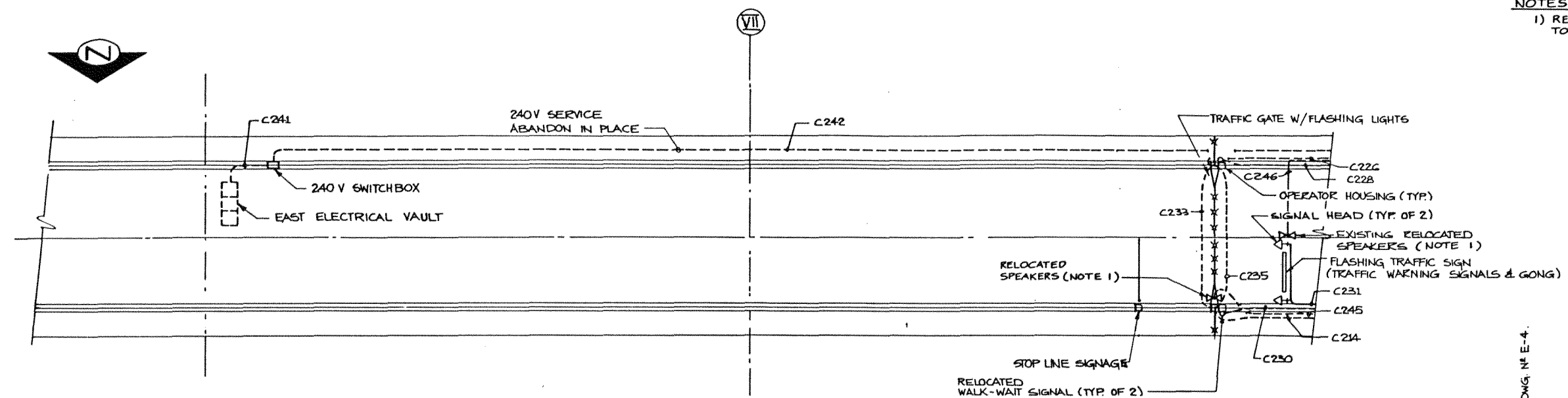
ELEVATION
SCALE: AS NOTED



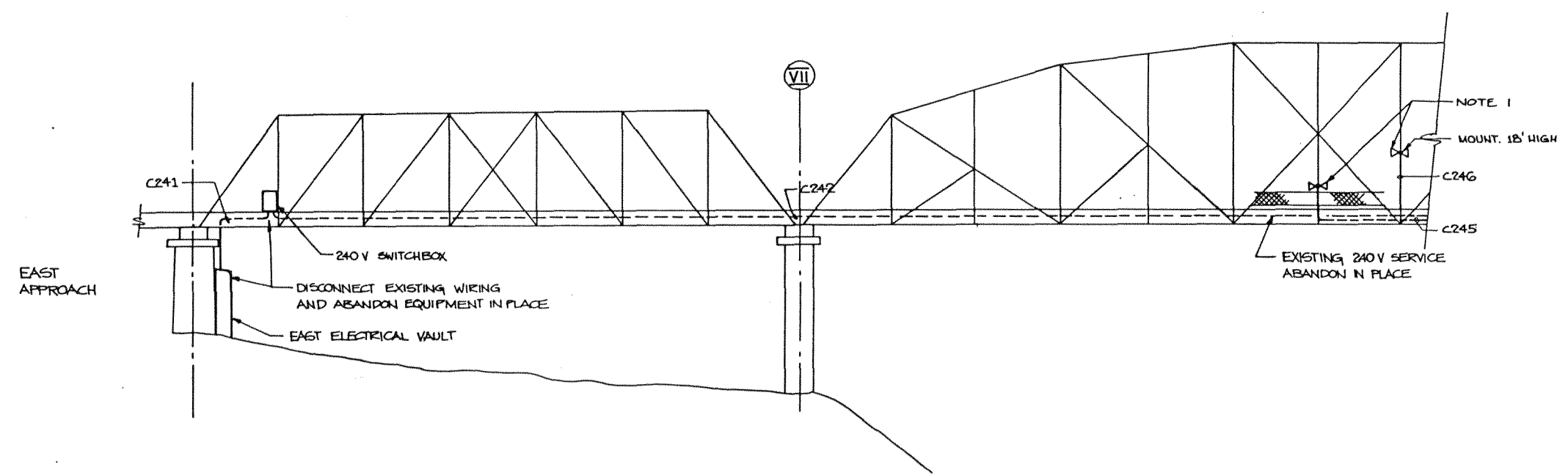
WEST APPROACH PLAN & ELEVATION BROADWAY BRIDGE	
 MULTNOMAH COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES TRANSPORTATION DIVISION 1620 S.E. 190th Ave. PORTLAND, ORE.	
LARRY F. NICHOLAS COUNTY ENGINEER	
BROADWAY & BURNSIDE BRIDGES MECHANICAL & ELECTRICAL RENOVATIONS	
Designed PWA Drafted MAD Checked DFA Sht. 20 of 43	
Date 1-31-89 Scale 1" = 20'	

DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

NOTES:
 1) RELOCATE EXISTING EAST SIDE LOUDSPEAKERS TO THESE LOCATION.



PLAN
 SCALE: AS NOTED



ELEVATION
 SCALE: AS NOTED


FOR CONTINUATION SEE DWG. N.E-4.

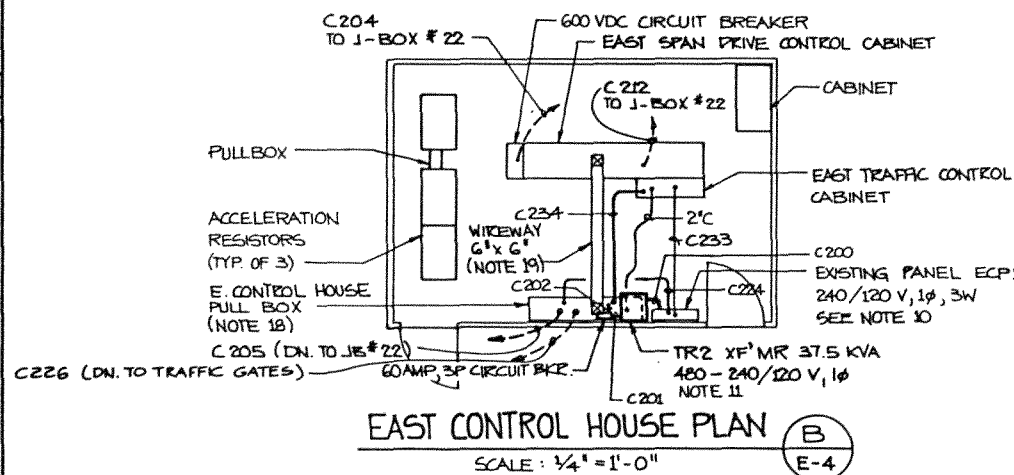
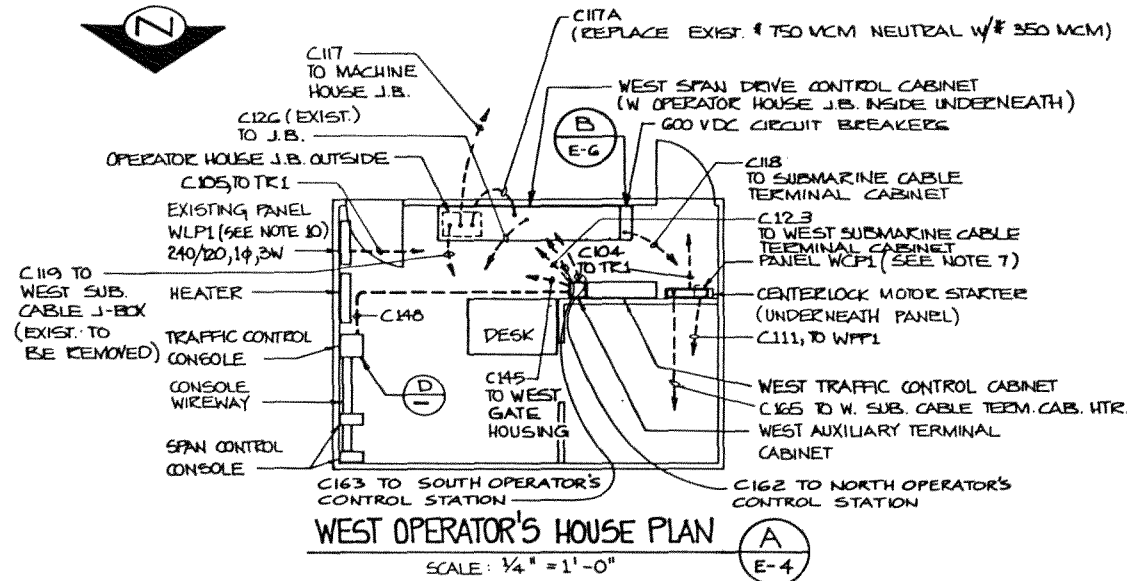
DESIGNED BY:
 CHECKED BY:
 DRAWN BY:

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Sverdrup Sverdrup Corporation



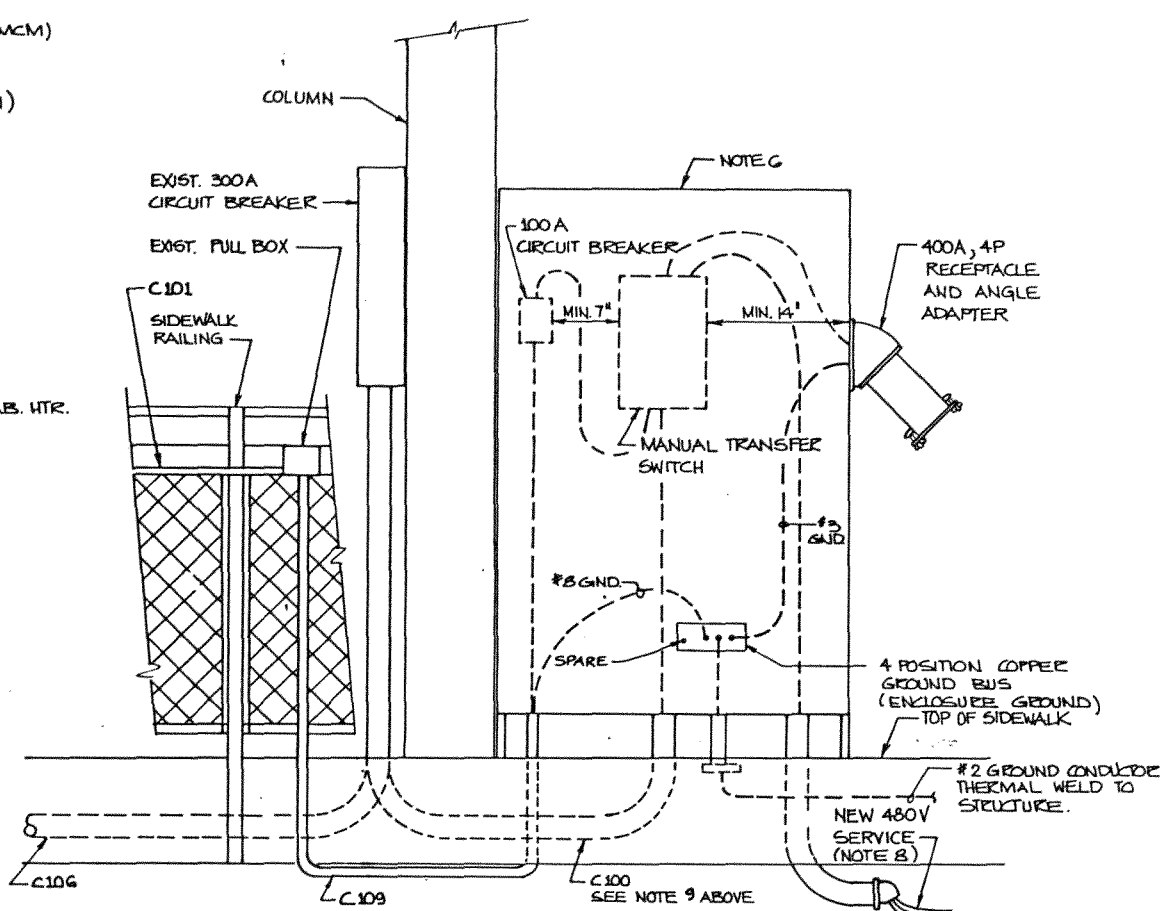
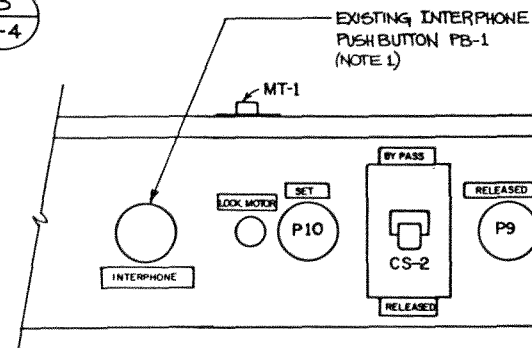
EAST APPROACH PLAN & ELEVATION BROADWAY BRIDGE	
 MULTNOMAH COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES TRANSPORTATION DIVISION 1620 S.E. 190th Ave. PORTLAND, ORE.	
LARRY F. NICHOLAS COUNTY ENGINEER	
BROADWAY & BURNSIDE BRIDGES MECHANICAL & ELECTRICAL RENOVATIONS	
Designed PWA Date 1-31-89	Drafted MAD Scale 1" = 20'
Checked DFA	Sht. 22 of 43



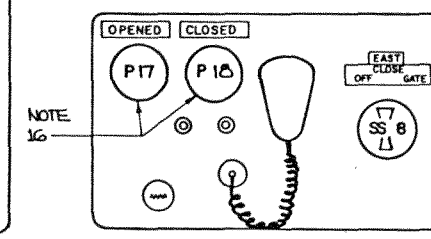
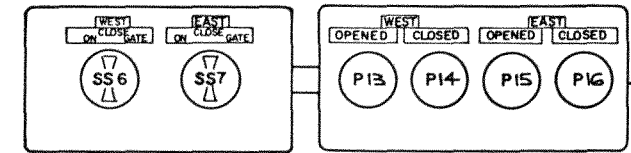
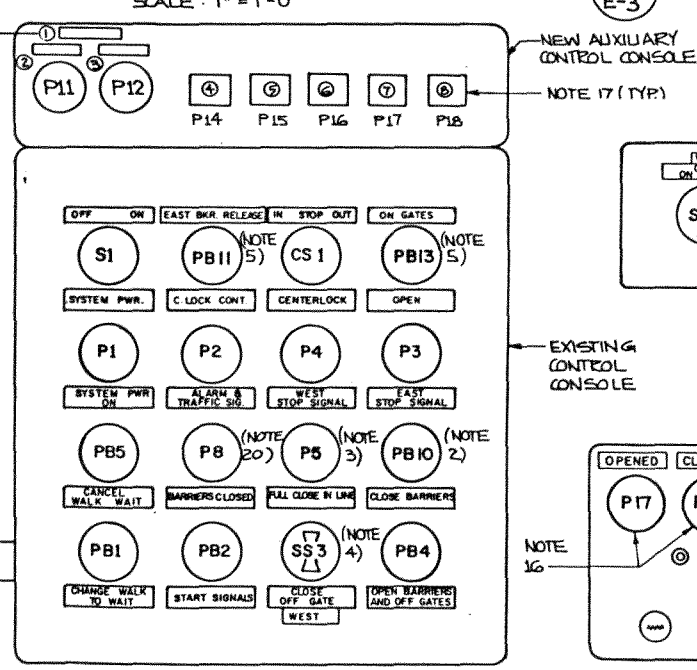
- NOTES (CONT.)**
- 18) DISCONNECT & REMOVE EXIST. # 500 MCM NEGATIVE TO EXISTING SUBMARINE CABLE J-BOX.
 - 19) DISCONNECT & REMOVE PARALLEL # 4/0 NEGATIVES IN WIREWAY ROUTING TO 600 VDC BREAKER. CONDUCTOR MAY BE USED AS JUMPER FOR DC BREAKER. (SEE DETAIL B, SHEET E8, IF DESIRED).
 - 20) CHANGE LEGEND AS INDICATED.

NAMEPLATE LEGEND :

- ① WEST
- ② OPENED
- ③ CLOSED
- ④ FULL CLOSE IN LINE
- ⑤ WEST TR. GATE
- ⑥ EAST TR. GATE
- ⑦ EAST TR. GATE BY-PASS
- ⑧ DELAY TRAFFIC BY-PASS



NEW 480V SERVICE (WEST SIDE OF BRIDGE) (C)



NOTES

- 1) RELOCATE INTERPHONE PUSHBUTTON AND LABEL TO WIREWAY FROM EXIST. LOCATION ON TRAFFIC CONTROL CONSOLE.
- 2) USE POSITION OF EXISTING INTERPHONE PUSHBUTTON FOR NEW PB-10 PUSHBUTTON.
- 3) USE THE FORMER POSITION OF THE PB-E PUSHBUTTON FOR NEW INDICATOR LIGHT P5. RELOCATE WIRING FROM EXISTING POSITION OF P5 (CURRENTLY LOCATED ON THE PB-3 PUSHBUTTON).
- 4) REPLACE LIGHTED, MAINTAINED PB3 SWITCH WITH A THREE POSITION SELECTOR SWITCH SS-3. RELOCATE INDICATOR WIRING TO NEW P5 PILOT LIGHT.
- 5) MOVE PB11 TO ROW 1, OPENING #2 POSITION. MOVE PB13 TO ROW 1 OPENING #4 POSITION.
- 6) REPLACE EXISTING CABINET WITH A NEW 48"W x 72"H x 15"D CABINET.
- 7) REPLACE EXIST. WCP1 PANEL WITH LARGER PANEL MOUNTED IN SAME LOCATION AS EXISTING PANEL.
- 8) ABANDON EXIST. 240V SERVICE.
- 9) REMOVE EXIST. WEATHERHEAD FROM EXIST. SERVICE, EXTEND THE CONDUIT & SUB-UP INTO THE NEW CABINET.
- 10) FOR PANEL SCHEDULES SEE DWG. E-2.
- 11) GROUND THE SECONDARY C.T. OF NEW TRANSFORMER TR 2.
- 12) REPLACE PUSHBUTTONS PB6 & PB7 LOCATED AT NORTH OPERATOR'S CONTROL STATION WITH SELECTOR SWITCHES SS6 & SS7.
- 13) REPLACE PUSHBUTTON PB8 LOCATED AT SOUTH OPERATOR'S CONTROL STATION WITH A SELECTOR SWITCH SS8.
- 14) CHANGE PB9 TO SINGLE POLE SWITCH. MOVE FULL CLOSED BY-PASS (PB9) TO NEW LOCATION.
- 15) ADD INDICATING LIGHTS IN WEATHERPROOF HOUSING TO NORTH OPERATOR'S CONTROL STATION.



ENLARGED PLANS AND INSTALLATION DETAILS BROADWAY BRIDGE

MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.

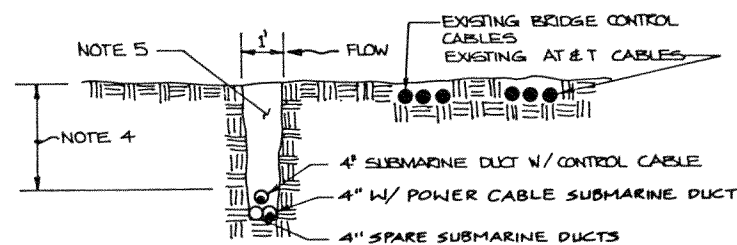
LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES MECHANICAL & ELECTRICAL RENOVATIONS

Designed MAD	Drafted MAD	Checked pwa	Sht.
Date 1-31-89	Scale AS NOTED		23 of 43

- ① 600 VDC
- ② 480 VAC 3 PHASE
- ③ DC SPAN CONTROL & INSTRUMENTATION
- ④ AC TRAFFIC & GATE CONTROL
- ⑤ AC SPARES

- Ⓐ 600 VDC, 260 A
POWER TERMINAL (2x)
- Ⓑ SUPPORT RAIL (1x)
- Ⓒ 480 V, 130 A
POWER TERMINAL (3x)
- Ⓓ 125V, 20 A
TERMINAL BLOCKS (20x)
- Ⓔ SUPPORT RAIL (3x)
- Ⓕ 500V, 30 A
TERMINAL BLOCKS (100x)
- Ⓖ 3" x 3" PLASTIC WIREWAY (6x)
- Ⓗ UNISTRUT SWIVEL HANGER (6x)



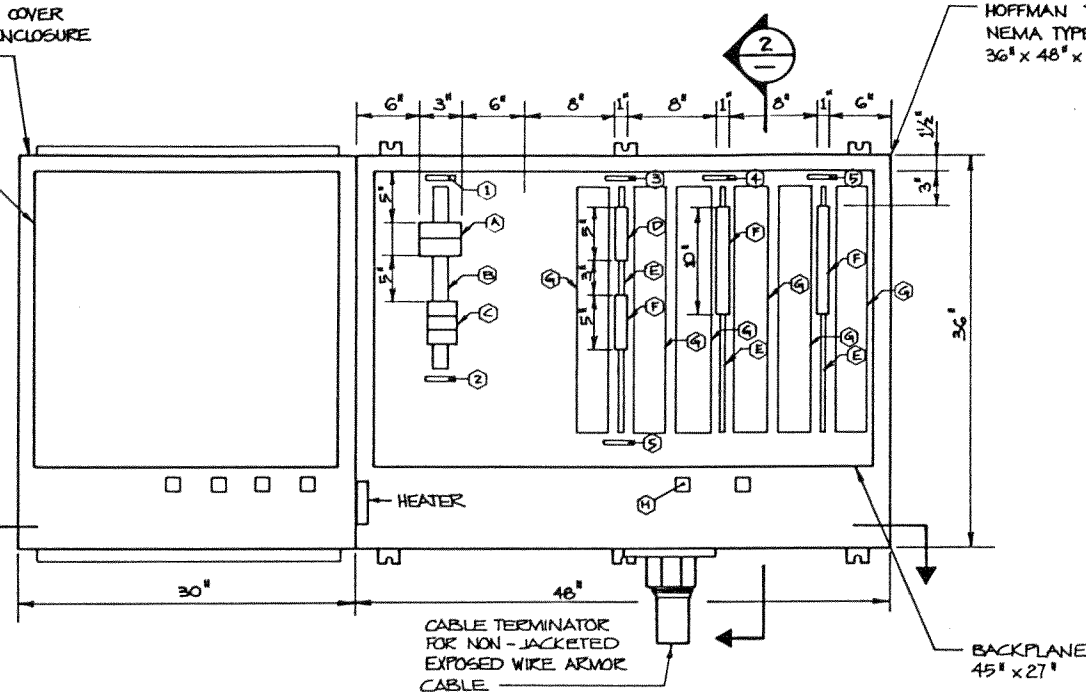
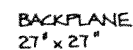
SECTION

SCALE : NONE

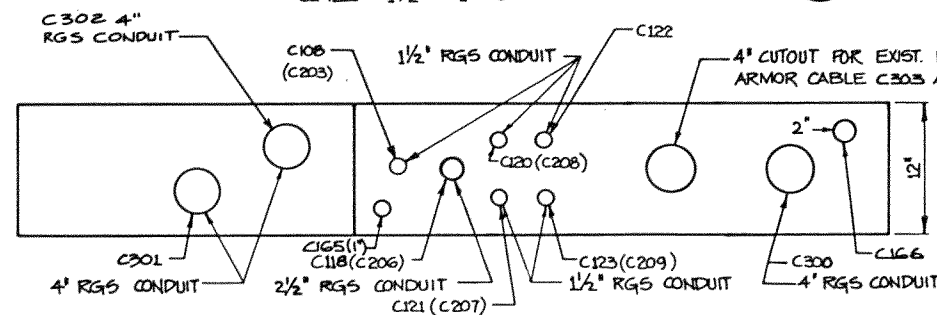
- 1) EAST SUBMARINE TERMINAL CABINET SHALL BE A MIRROR IMAGE OF WEST SUBMARINE TERMINAL CABINET. SEE DWG. NO E-13 & E-14 FOR INTERCONNECTION DIAGRAMS.
- 2) NUMBERS IN PARENTHESIS DENOTE CONDUIT NUMBERS RELATED TO EAST SUBMARINE CABLE TERMINAL CABINET.
- 3) FOR CABINET STRUCTURAL SUPPORT SEE SHT. S-2.
- 4) MAINTAIN 8 FT BELOW CONTROLLED CHANNEL DEPTH OF 40 FT.
- 5) APPROX. 100 CU YARDS OF SILT AND GRAVEL TO BE DISPLACED BY FLOW. BACKFILL WILL BE ACCOMPLISHED BY SLUFFING OF TRENCH WALLS AFTER DUCT PLACEMENT.
- 6) APPROX. 620 CU YARDS OF SILT AND GRAVEL TO BE SIDE CAST FOR BACKFILL AFTER DUCT PLACEMENT.

DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS

Sverdrup	Sverdrup Corporation
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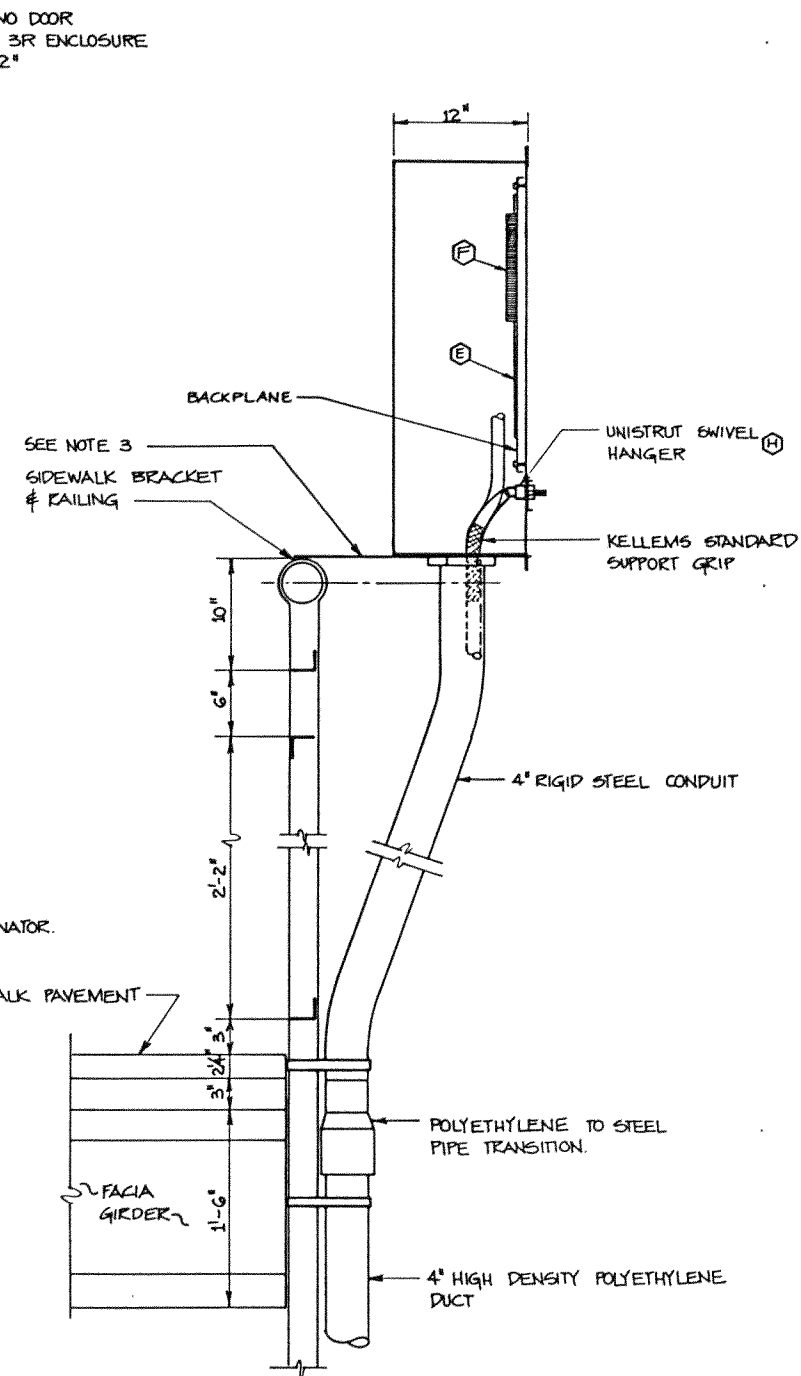


SCALE: $1\frac{1}{2}" = 1' - 0"$



NOTE : INSTALL SINGLE CONDUCTORS IN CONDUIT SIZE 2" AND SMALLER USING CABLE SUPPORTS DESIGNED TO SUPPORT CONDUCTORS IN VERTICAL WIREWAYS.

SCALE: $1\frac{1}{2}'' = 1' - 0''$



SCALE: $1\frac{1}{2}" = 1'-0"$



INSTALLATION DETAILS-SHT. 1
BROADWAY BRIDGE



MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.

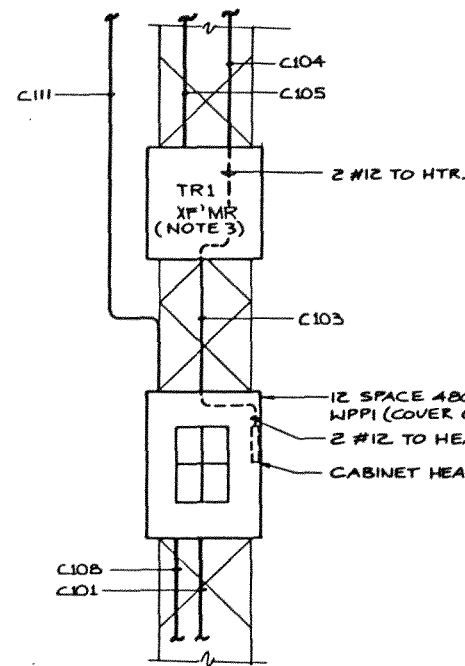
LARRY F. NICHOLAS COUNTY ENGINEER

**BROADWAY & BURNSIDE BRIDGES
MECHANICAL & ELECTRICAL RENOVATIONS**

Designed PWA	Drafted MAD	Checked DFA
Date 1-31-89	Scale AS NOTED	

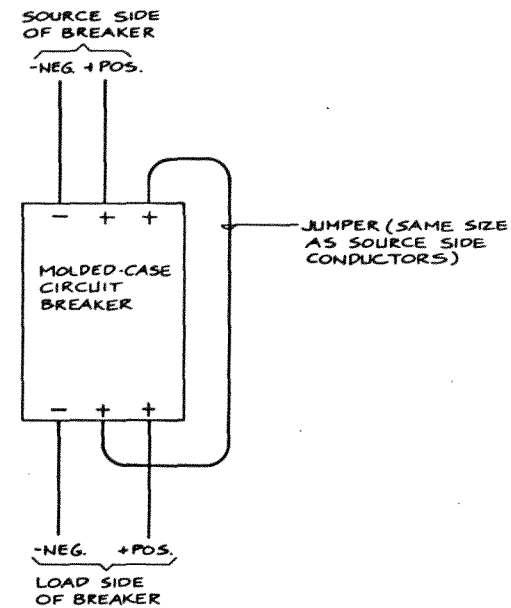
24 of 43





DETAIL A
SCALE: 1/2" = 1'-0" E-4

NOTE: MOUNT WPPI & TR1 OUTSIDE ON THE EAST SIDE OF THE COLUMN UNDER THE WEST OPERATOR'S HOUSE AT SIDEWALK LEVEL.




DETAIL-TYP. B
3-POLE DC BREAKER E-6
(N.T.S.)

NOTES:

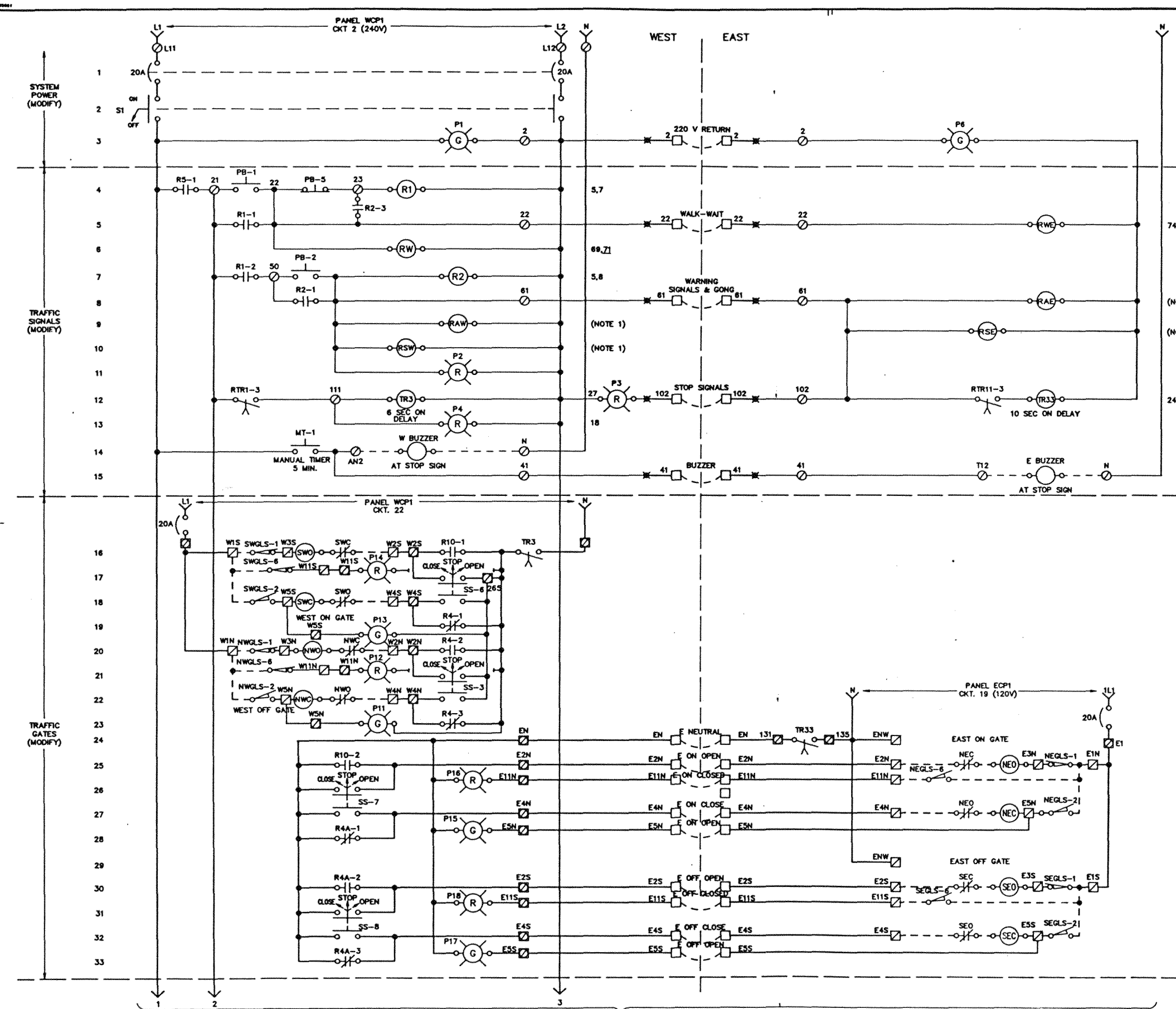
1. PROVIDE HINGED LOCKING OR PADLOCKED COVER.
2. PROVIDE OVERSIZED (35"x20"x5 1/4") NEMA 3R ENCLOSURE TO ACCOMMODATE CABINET HEATER.
3. GROUND THE SECONDARY CT. OF NEW TRANSFORMER TR1.

DESIGNED BY:
CHECKED BY:
DRAWN BY:

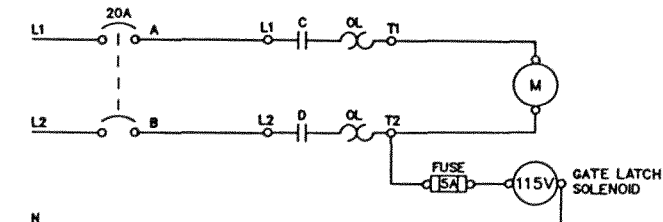


INSTALLATION DETAILS - SHT. 2 BROADWAY BRIDGE			
 MULTNOMAH COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES TRANSPORTATION DIVISION 1620 S.E. 190th Ave. PORTLAND, ORE. LARRY F. NICHOLAS COUNTY ENGINEER			
BROADWAY & BURNSIDE BRIDGES MECHANICAL & ELECTRICAL RENOVATIONS			
Designed PWA	Drafted MAD	Checked DFA	Sht. 25 of 43
Date 5/19/89	Scale AS NOTED		

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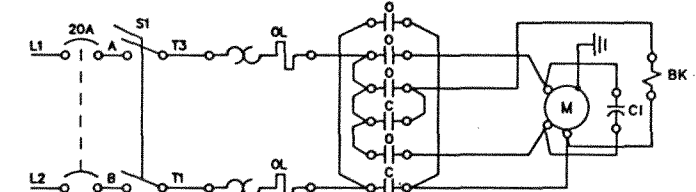
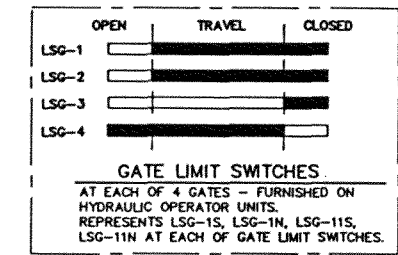


NOTES:
 1. NOT ALL EXISTING TRAFFIC CONTROL SCHEMATICS ARE SHOWN. REFERENCE MULTNOMAH COUNTY DRAWINGS (FILE #S AE20-1 & AE20-2) FOR EXISTING CONDITIONS.



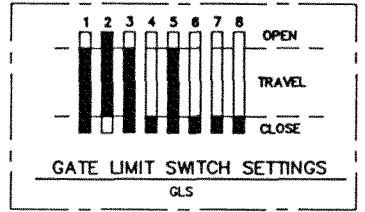
TYPICAL TRAFFIC BARRIER

BARRIER	A	B	C	D	SERVICE
NW OFF BARRIER	L41	L42	WS2H	WS2H	WCP1-9
SW ON BARRIER	L51	L52	WS1S	WS1S	WCP1-5
NE ON BARRIER	1L51	1L52	WS11N	WS11N	ECP1-11, 13
SE OFF BARRIER	1L41	1L42	WS22S	WS22S	ECP1-15, 17



TYPICAL TRAFFIC GATE

GATE	A	B	C	D	SERVICE
NW OFF GATE	L61	L62	NWO	NWC	WCP1-13
SW ON GATE	L71	L72	SWO	SWC	WCP1-14
NE ON GATE	1L61	1L62	NEO	NEC	ECP1-24, 26
SE OFF GATE	1L71	1L72	SEO	SEC	ECP1-28, 30



**SCHEMATIC DIAGRAM - SHEET 1
 BROADWAY BRIDGE**

MULTNOMAH COUNTY
 DEPARTMENT OF ENVIRONMENTAL SERVICES
 TRANSPORTATION DIVISION
 1620 S.E. 190th Ave. PORTLAND, ORE.

LARRY F. NICHOLAS COUNTY ENGINEER

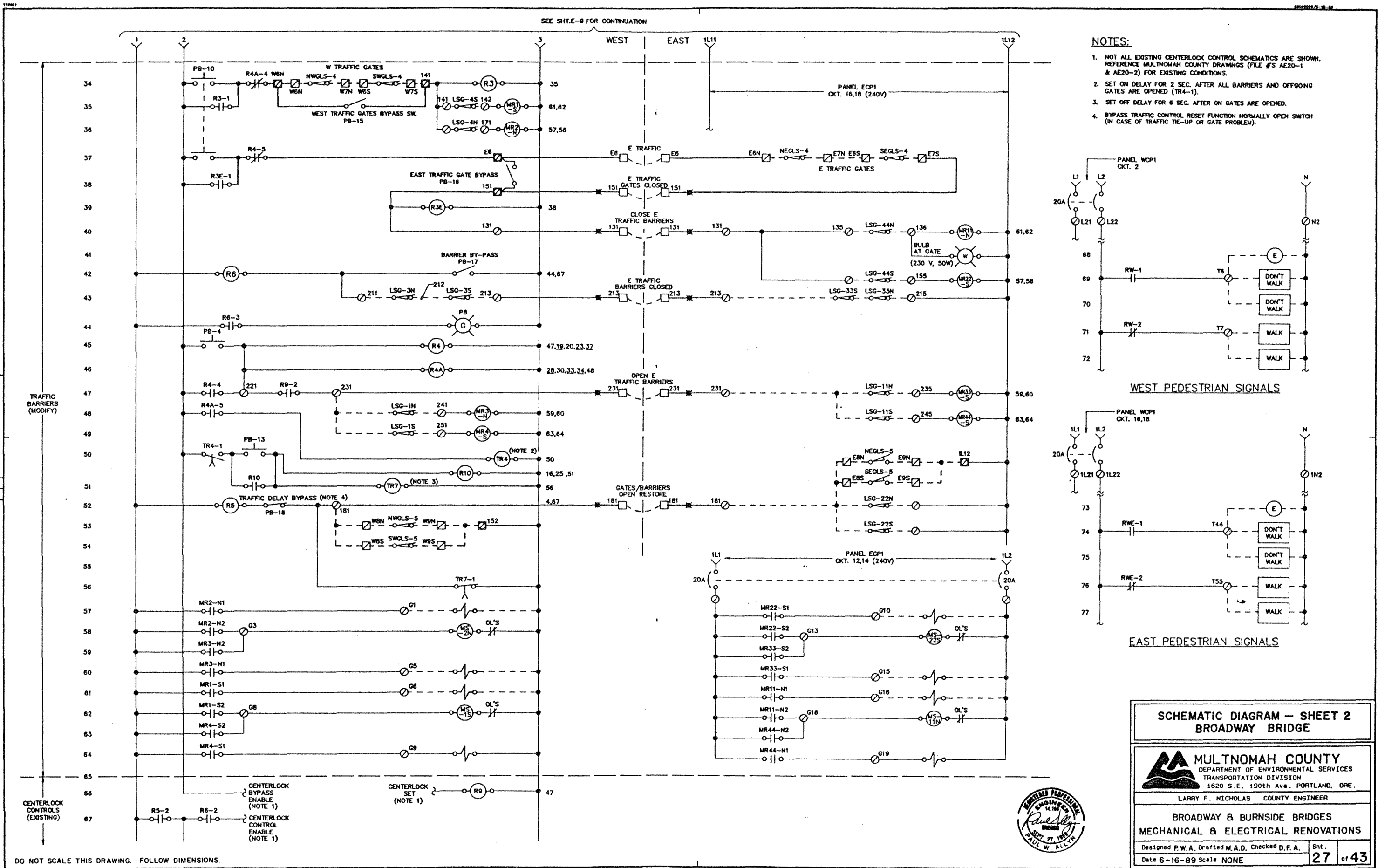
**BROADWAY & BURNSIDE BRIDGES
 MECHANICAL & ELECTRICAL RENOVATIONS**

Designed P.W.A. Drafted M.A.D. Checked D.F.A. Sht. 26 of 43
 Date 6-16-89 Scale NONE



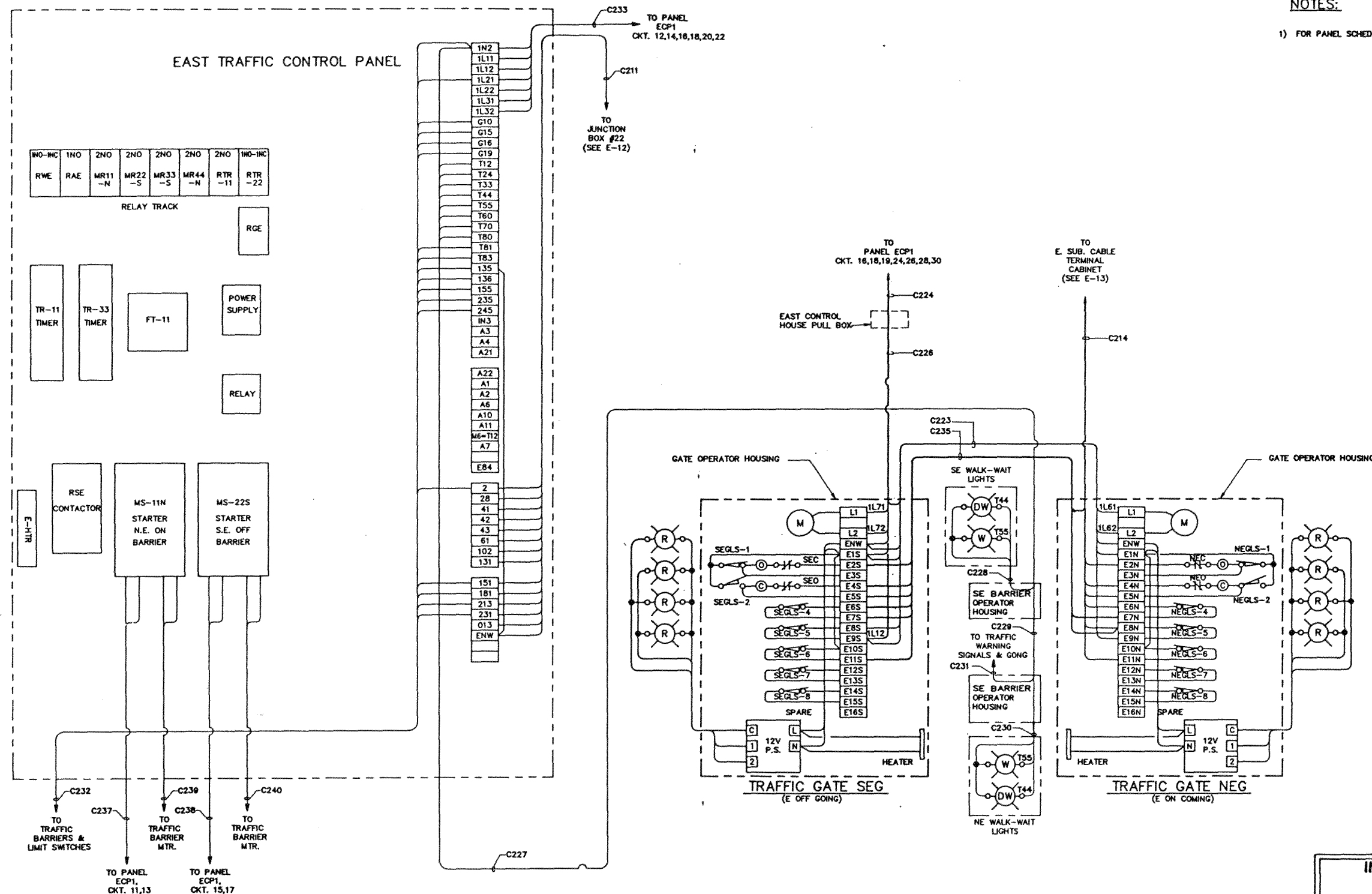
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SEE SHEET E-10 FOR CONTINUATION

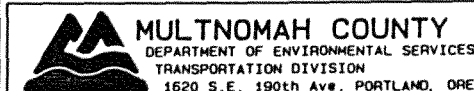


NOTES:

1) FOR PANEL SCHEDULES SEE DWG. # E-2.



INTERCONNECTION DIAGRAM
EAST TRAFFIC CONTROL
BROADWAY BRIDGE



LARRY F. NICHOLAS COUNTY ENGINEER

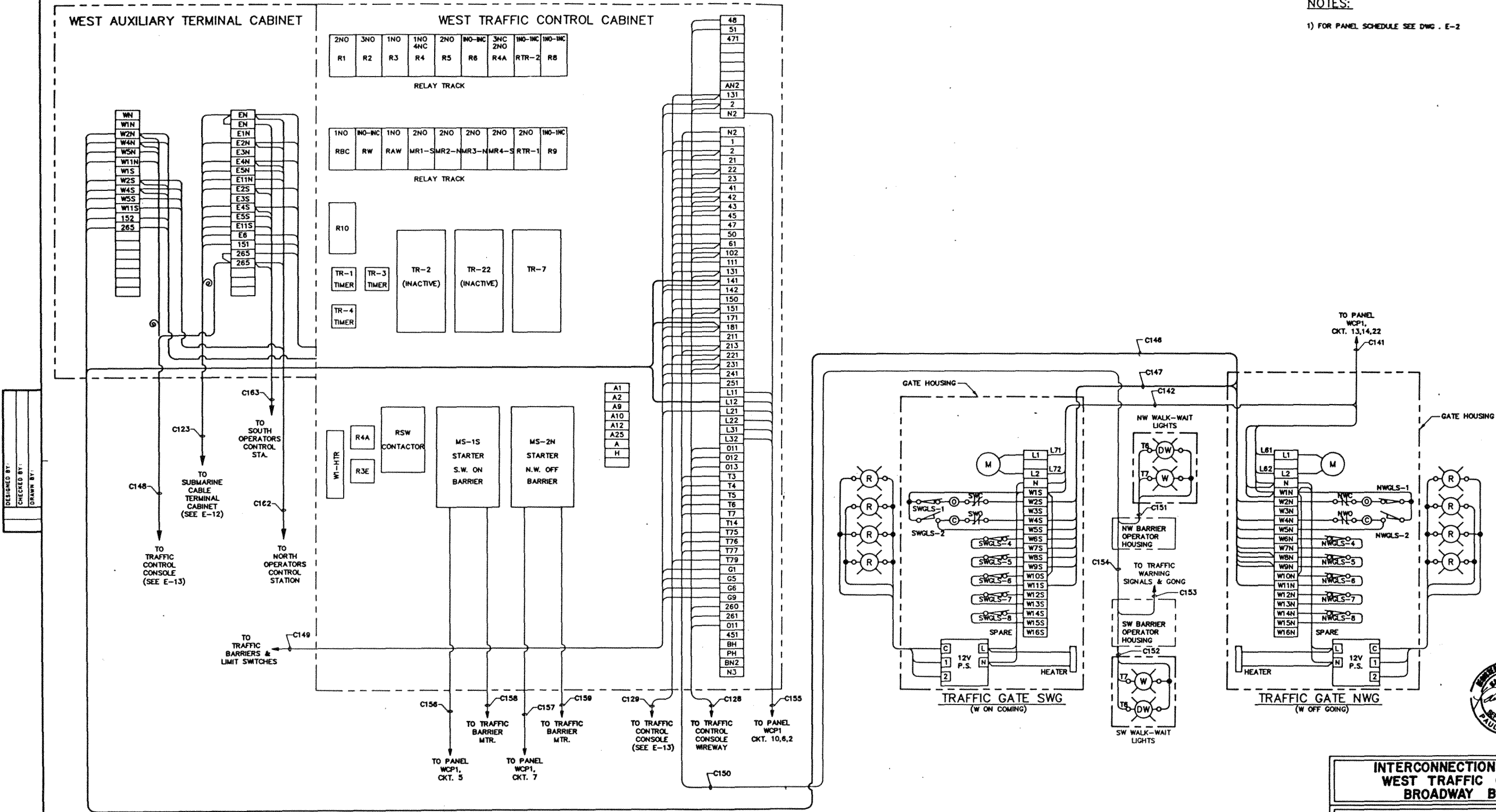
BROADWAY & BURNSIDE BRIDGES
MECHANICAL & ELECTRICAL RENOVATIONS

Designed P.W.A. Drafted M.A.D. Checked D.F.A. Sht. 28 of 43
Date 6-16-89 Scale NONE

DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

NOTES:

1) FOR PANEL SCHEDULE SEE DWG. E-2



**INTERCONNECTION DIAGRAM
WEST TRAFFIC CONTROL
BROADWAY BRIDGE**

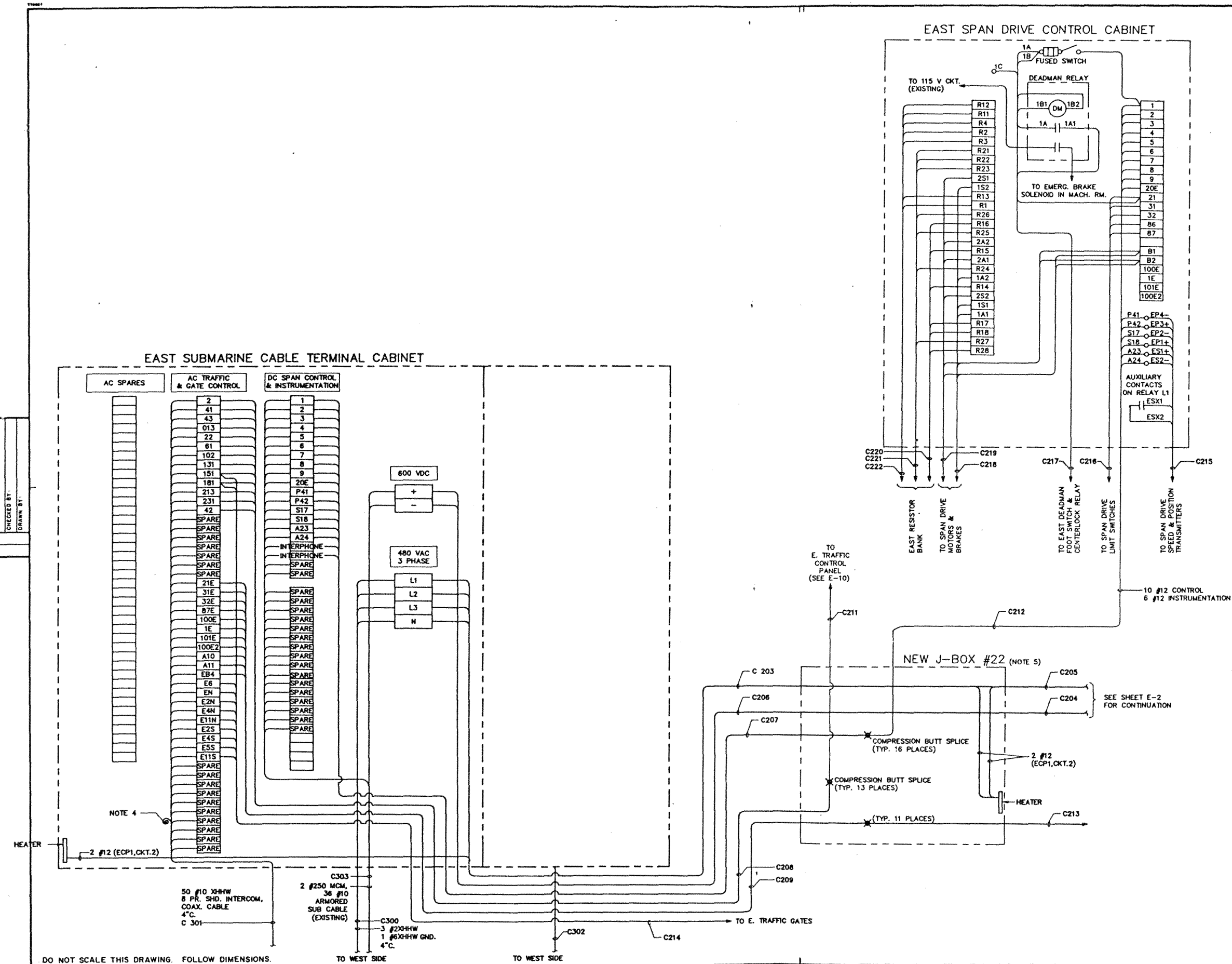
MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.

LARRY F. NICHOLAS COUNTY ENGINEER

**BROADWAY & BURNSIDE BRIDGES
MECHANICAL & ELECTRICAL RENOVATIONS**

Designed P.W.A. Drafted M.A.D. Checked D.F.A.	Sht.
Date 6-16-89 Scale NONE	29 of 43

DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.



NOTES:

- SEE DWG. E-7 FOR PHYSICAL LAYOUT AND INSTALLATION DETAILS OF SUBMARINE CABLE TERMINAL CABINET.
- SEE CONDUIT AND CABLE SCHEDULE SHEET E15,16 FOR CONDUIT SIZE & QUANTITY AND SIZE OF CONDUCTORS.
- REMOVE EXISTING CAST IRON SUBMARINE CABLE JUNCTION BOX LOCATED ON PIER 6. INSTALL NEW J-BOX #22 LOCATED AT THE SAME ELEVATION APPROX. 18' TOWARD THE CENTER OF THE PIER.
- COIL AND STOW 10 FT. EXCESS COAXIAL CABLE AND 8 PR. SHIELDED INTERCOM CABLE (TO BE FURNISHED BY COUNTY).
- CUT EXISTING CONDUITS AT J-BOX #22 LOCATION (APPROXIMATELY 18 FEET SOUTH OF EXISTING PIER TOP SUBMARINE CABLE J-BOXES), INSTALL J-BOX AND STUB EXISTING CONDUITS INTO NEW BOX.

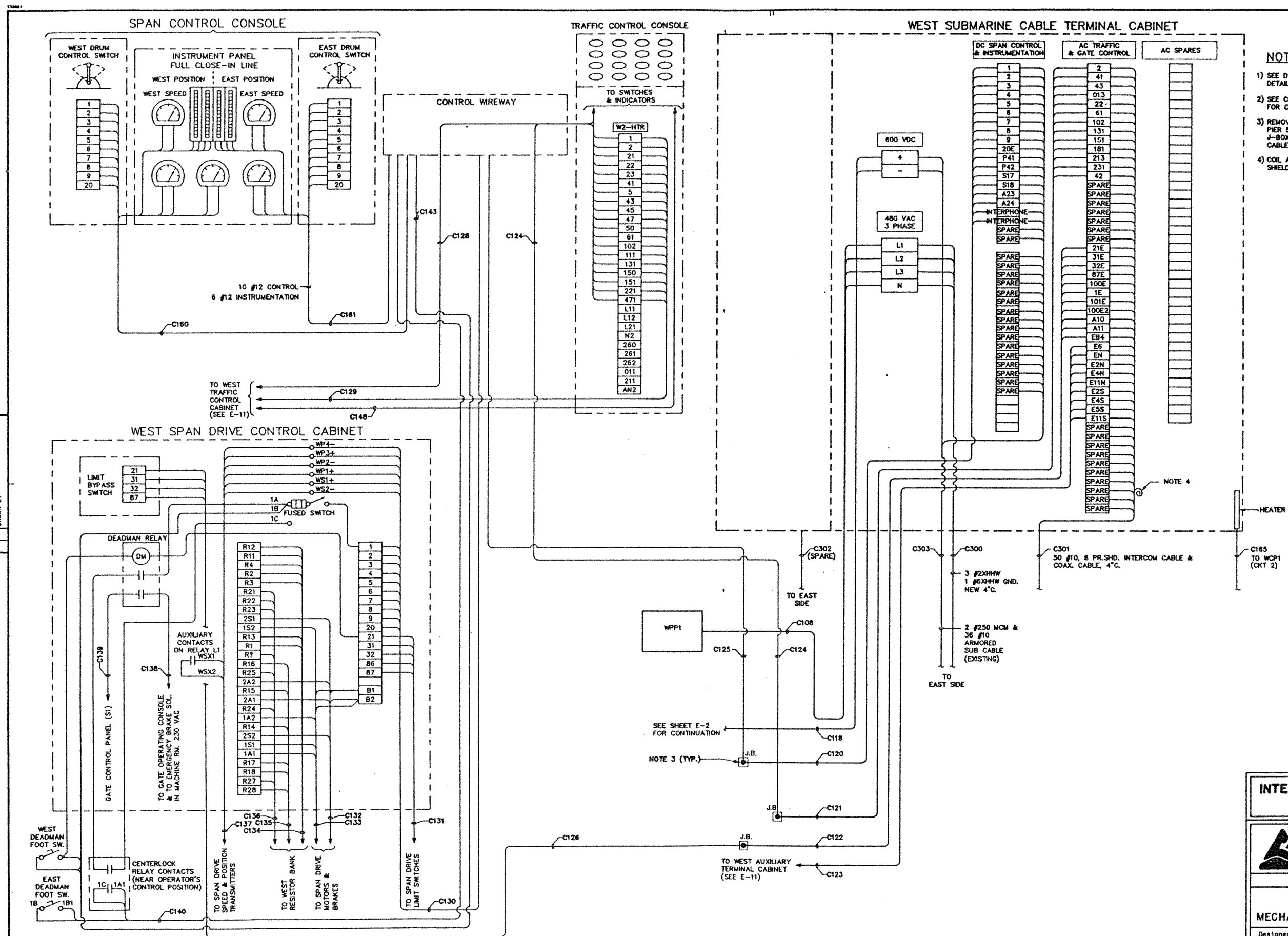


INTERCONNECTION DIAGRAM - EAST BROADWAY BRIDGE

MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.
LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES
MECHANICAL & ELECTRICAL RENOVATIONS

Designed P.W.A. Drafted M.A.D. Checked D.F.A. Sht. 30 of 43
Date 6-16-89 Scale NONE



INTERCONNECTION DIAGRAM - WEST BROADWAY BRIDGE

MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.

LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES
MECHANICAL & ELECTRICAL RENOVATIONS

Designed P.W.A. Drafted M.A.D. Checked D.F.A.
Date 6-16-89 Scale NONE

Sht. 31 of 43

DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

Sverdrup Corporation

E-14

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CONDUIT NUMBER	CONDUIT		SERVICE				FROM	TO	CONDUCTORS		PLAN DWG
	EXISTING NEW	SIZE	VOLT	PH	LOAD	OTHER			EXISTING NEW	QUANTITY & SIZE	
C100	EXISTING	3"	480V	3#			SERVICE ENTRANCE CABINET	300A CIRCUIT BREAKER	EXISTING	3 #350 MCM	E-3
C101	NEW (NOTE 4)	1 1/2"	480V	3#	2X 37.5KVA		WEST SIDE PULLBOX	WPP1	NEW	3 #1 & 1 #8 GND.	E-3, E-4
C110	NEW (NOTE 3)	1"	480V	3#			MACHINE HOUSE AC TERMINAL	CENTERLOCK CIRCUIT BREAKER	EXISTING (NOTE 3)		E-4
C103	NEW	1"	240V	1#	37.5 KVA		WPP1	TR1 TRANSFORMER	NEW	2 #1 & 1 #8 GND. & 2 #12	E-4
C104	NEW	1 1/4"	120/ 240V	1#	16 KVA		TR1 TRANSFORMER	WCP1	NEW	3 #4 & 1 #8 GND. & 2 #12 (WCP1-21)	E-4
C105	NEW	1 1/4"	120/ 240V	1#	16 KVA		TR1 TRANSFORMER	WLP1	NEW	3 #4 & 1 #8 GND.	E-4
C106	EXISTING	3"	480V	3#			300A WEST SIDE CIRCUIT BREAKER	MACHINE HOUSE AC TERMINAL CABINET	EXISTING	3 #350 MCM	E-3, E-4
C117	EXISTING	2 1/2"	600V	---		DC	MACHINE HOUSE JUNCTION BOX	OPERATOR HOUSE J.B. OUTSIDE	EXISTING	2 #350 MCM	E-4
C108	NEW	1 1/2"	480V	3#	37.5 KVA		WPP1	WEST SUBMARINE CABLE TERM. CAB.	NEW	3 #2 & 1 #8 GND.	E-4
C109	NEW (NOTE 4)	1 1/2"	480V	3#	2X 37.5KVA		SERVICE ENTRANCE	WEST SIDE PULL BOX	NEW	3 #1 & 1 #8 GND.	E-3
C111	NEW	1 1/2"	480V	3#			WPP1	CENTER LOCK MOTOR STARTER	NEW	3 #12, 1 #12 GND. & 2 #12 (NOTE 5)	
C112	EXISTING						CENTER LOCK MOTOR STARTER	CENTER LOCK MOTOR	EXISTING	EXISTING	
C113	EXISTING		480V	3#			MACHINE HOUSE AC TERMINAL CABINET	600V DC SPARE RECTIFIER	EXISTING	3 #350 MCM	E-4
C114	EXISTING	2 1/2"	600V	---		DC	SPARE RECTIFIER PLATFORM	MACHINE HOUSE JUNCTION BOX	EXISTING	2 #350 MCM	E-4
C115	EXISTING	3"	480V	3#			MACHINE HOUSE AC TERMINAL CABINET	600V DC RECTIFIER	EXISTING	3 #350 MCM	E-4
C116	EXISTING	2 1/2"	600V	---		DC	600V DC RECTIFIER	MACHINE HOUSE JUNCTION BOX	EXISTING	2 #350 MCM	E-4
C117A	EXISTING	2"	600V	---		DC	OPERATOR HOUSE J.B. OUTSIDE	OPERATOR HOUSE J.B. INSIDE	EXISTING (NOTE 2)	1 #350 MCM POS. 1 #350 MCM NEG.	E-4
C117B											
C118	NEW	2 1/2"	600V	---		DC	400A EAST SIDE CIRCUIT BREAKER	WEST SUBMARINE CABLE TERM BOX	NEW	2 #250 MCM	E-4
C119	EXISTING	1 1/2"	600V	---		DC	OPERATOR HOUSE J.B. OUTSIDE	WEST SUBMARINE CABLE J-BOX	EXISTING (NOTE 1)	1 #350 MCM NEG. ONLY-UNSWITCHED	E-4
C120	NEW	1 1/2"		---		CNTR. & INSTR.	WEST SUBMARINE CABLE TERMINAL CAB.	J-BOX	NEW	10 #12 & 6 #12 INSTRUMENT.	E-4
C121	NEW	1 1/2"		---		CNTR.	WEST SUBMARINE CABLE TERMINAL CAB.	J-BOX	NEW	13 #12	E-4
C122	NEW	1 1/2"		---		CNTR.	WEST SUBMARINE CABLE TERMINAL CAB.	J-BOX	NEW	11 #12	E-4
C123	NEW	1 1/2"		---		CNTR.	WEST SUBMARINE CABLE TERMINAL CAB.	WEST AUXILIARY TERMINAL CABINET	NEW	9 #12	E-4
C124	EXISTING	2"		---		CNTR.	J-BOX	CONTROL WIREWAY	EXISTING	13 #12	E-4
C125	EXISTING	2"				CNTR. & INSTR.	J-BOX	SPAN CONTROL CONSOLE CONTROL WIREWAY	EXISTING	10 #12 & 6 #12 INSTRUMENT.	E-4
C126	EXISTING						J-BOX	WEST SPAN DRIVE CONTROL CABINET	EXISTING	11 #12	E-4
C127											
C128	EXISTING	2"		---		CNTR.	CONTROL WIREWAY	WEST TRAFFIC CONTROL CABINET	EXISTING	26 #12	---
C129	EXISTING	2"		---		CNTR.	TRAFFIC CONTROL CONSOLE	WEST TRAFFIC CONTROL CABINET	EXISTING	26 #12	---
C130	EXISTING	2"		---			WEST SPAN DRIVE CONTROL CABINET	SPAN CONTROL CONSOLE CONTROL WIREWAY	EXISTING	10 #12 & 6 #12 INSTRUMENT.	---
C131	EXISTING						WEST SPAN DRIVE CONTROL CABINET	SPAN DRIVE LIMIT SWITCHES	EXISTING	5 #12	---
C132	EXISTING						WEST SPAN DRIVE CONTROL CABINET	SPAN DRIVE MOTORS & BRAKES	EXISTING	6 #4	---
C133	EXISTING						WEST SPAN DRIVE CONTROL CABINET	SPAN DRIVE MOTORS & BRAKES	EXISTING	6 #4	---
C134	EXISTING						WEST SPAN DRIVE CONTROL CABINET	WEST RESISTOR BANK	EXISTING	6 #4	---

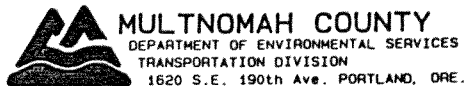
CONDUIT NUMBER	CONDUIT		SERVICE				FROM	TO	CONDUCTORS		PLAN DWG
	EXISTING NEW	SIZE	VOLT	PH	LOAD	OTHER			EXISTING NEW	QUANTITY & SIZE	
C135	EXISTING			---	---	CNTR.	WEST SPAN DRIVE CONTROL CABINET	WEST RESISTOR BANK	EXISTING	6 #4	---
C136	EXISTING					CNTR.	WEST SPAN DRIVE CONTROL CABINET	WEST RESISTOR BANK	EXISTING	7 #4	---
C137	EXISTING					INSTR.	WEST SPAN DRIVE CONTROL CABINET	SPAN DRIVE SPEED & POSITION TRANSMITTERS	EXISTING	8 #12	---
C138	EXISTING		230V			CNTR.	WEST SPAN DRIVE CONTROL CABINET	OPERATING CONSOLE & BRAKE SOLENOID IN MACHINE RM.	EXISTING		---
C139	EXISTING		230V			CNTR.	WEST SPAN DRIVE CONTROL CABINET	GATE CONTROL PANEL	EXISTING		---
C140	EXISTING		230V			CNTR.	CENTERLOCK RELAY & E. DEADMAN FOOT SW.	TRAFFIC CONTROL CONSOLE WIREWAY	EXISTING	2 #12	---
C141	NEW	1 1/2"	120/ 240V	1#	---		WCP1 PANEL CKT. 13,14,22	TRAFFIC GATE NWG OPERATOR HOUSING	NEW	6 #12 & 1 #12 GND.	E-3, E-4
C142	NEW		120/ 240V	1#	---		TRAFFIC GATE SW. JUNCTION BOX	TRAFFIC GATE SWG. OPERATOR HOUSING	NEW	4 #12 & 1 #12 GND.	E-3
C143	EXISTING		230V			CNTR.	WEST DEADMAN FOOT SWITCH	TRAFFIC CONTROL CONSOLE WIREWAY	EXISTING	2 #12	---
C144	EXISTING (NOTE 6)	1"	480	3#	---		CENTERLOCK CIRCUIT BREAKER	CENTERLOCK MOTOR STARTER	EXISTING	3 #12	E-6
C145											
C146	NEW	1"	120	1#	---	CNTR.	WEST AUXILIARY TERM. CABINET	TRAFFIC GATE NWG. OPERATOR HOUSING	NEW	11 #12	E-3 E-4
C147	NEW	3/4"	120	1#	---	CNTR.	TRAFFIC GATE NWG. OPERATOR HOUSING	TRAFFIC GATE SWG. OPERATOR HOUSING	NEW	9 #12 & 1 #12 GND.	E-3
C148	NEW	3/4"	120/ 240V	1#	---	CNTR.	WEST AUXILIARY TERMINAL CABINET	TRAFFIC CONTROL CONSOLE	NEW	4 #12 & 2 #12 SP.	E-6
C149	EXISTING	2"	240V			CNTR.	WEST TRAFFIC CONTROL CABINET	TRAFFIC BARRIERS & LIMIT SWITCHES	EXISTING	19 #12 & 2 #12 SP.	---
C150	EXISTING		120/ 240V	1#	---		WEST TRAFFIC CONTROL CABINET	TRAFFIC WARN. SIGNALS & GONG J.B.	EXISTING	9 #12 & 1 #12 GND.	E-4
C151	NEW	3/4"	120V	1#	---		SW BARRIER OPERATOR HOUSING	N.W. WALK-WAIT LIGHTS J.B.	NEW	3 #12 & 1 #12 GND.	E-3, E-4
C152	NEW	3/4"	120V	1#	---		NW BARRIER OPERATOR HOUSING	S.W. WALK-WAIT LIGHTS J.B.	NEW	3 #12 & 1 #12 GND.	E-3, E-4
C153	EXISTING		240V	1#	---		NW BARRIER OPERATOR HOUSING	TRAFFIC WARN. SIGNALS & GONG J.B.	EXISTING	7 #12 & 1 #12 GND.	E-3, E-4
C154	EXISTING		240V	1#	---		NW BARRIER OPERATOR HOUSING	SW BARRIER OPERATOR HOUSING	EXISTING	9 #12 & 1 #12 GND.	E-4
C155	EXISTING		120/ 240V	1#	---		WCP1 PANEL CKT. 2,6,10 & NEUT.	WEST TRAFFIC CONTROL CABINET	NEW	7 #12 & 1 #12 GND.	---
C156	EXISTING		240V	1#	---		WCP1 PANEL CKT. 5	W. CONTROL CABINET BARRIER STARTER	NEW	2 #10 & 1 #12 GND.	---
C157	EXISTING		240V	1#	---		WCP1 PANEL CKT.9	W. CONTROL CABINET BARRIER STARTER	NEW	2 #10 & 1 #12 GND.	---
C158	EXISTING		240V	1#	---		W. CONTROL CABINET BARRIER STARTER	S.W. ON BARRIER MOTOR	EXISTING	2 #10 & 1 #12 GND.	---
C159	EXISTING		240V	1#	---		W. CONTROL CABINET BARRIER STARTER	N.W. OFF BARRIER MOTOR	EXISTING	2 #10 & 1 #12 GND.	---
C160	EXISTING			1#	---		SPAN CONTROL CONSOLE	TRAFFIC CONTROL CONSOLE WIREWAY	EXISTING	10 #12 & 6 #12 INSTRUMENT	---
C161	EXISTING			1#	---		SPAN CONTROL CONSOLE	TRAFFIC CONTROL CONSOLE WIREWAY	EXISTING	10 #12 & 6 #12 INSTRUMENT	---
C162	EXISTING		120V	1#	---	CNTR.	TRAFFIC CONTROL CABINET	NORTH OPERATORS CONTROL STATION	NEW	12 #14	E-4
C163	EXISTING		120V	1#	---	CNTR.	TRAFFIC CONTROL CABINET	SOUTH OPERATORS CONTROL STA.	NEW	6 #14 (SS8)	E-4
C164											
C165	NEW	1"	120V	1#			WCP1, CKT. #21	WEST SUBMARINE TERM. CAB. HEATER	NEW	2 #12 & 1 #12 GND.	E-4
C166	NEW (NOTE 7)	1"				COMM	J-BOX AT EXIST. NW SPEAKER	RELOCATED SPEAKER	NEW	1 #16 SHD. PR.	E-3, E-4
C167	NEW (NOTE 7)	1"				COMM	J-BOX AT EXIST. SW SPEAKER	RELOCATED SPEAKER	NEW	1 #16 SHD. PR.	E-3, E-4
C168											
C169											

NOTES:

1. REMOVE EXIST. NAGATIVE FEED TO WEST SUB. CABLE JUNCTION BOX.
2. REMOVE EXISTING #750 MCM NEGATIVE AND INSTALL NEW #350 MCM NEGATIVE.
3. REMOVE EXISTING TAP, CONDUCTORS AND CIRCUIT BREAKER.
4. REMOVE EXISTING 3 #2 & 1 #1 GND. FIELD VERIFY SIZE OF EXISTING 1" CONDUIT. IF CORRECT, REPLACE WITH NEW 1 1/2" CONDUIT.
5. SPARE CONDUCTORS FOR CENTERLOCK HEATER.
6. ABANDON IN PLACE.
7. INSTALL NEW J-BOX AT EXISTING SPEAKER LOCATION.



CONDUIT AND CABLE SCHEDULE
SHEET 1 - BROADWAY BRIDGE



LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES
MECHANICAL & ELECTRICAL RENOVATIONS

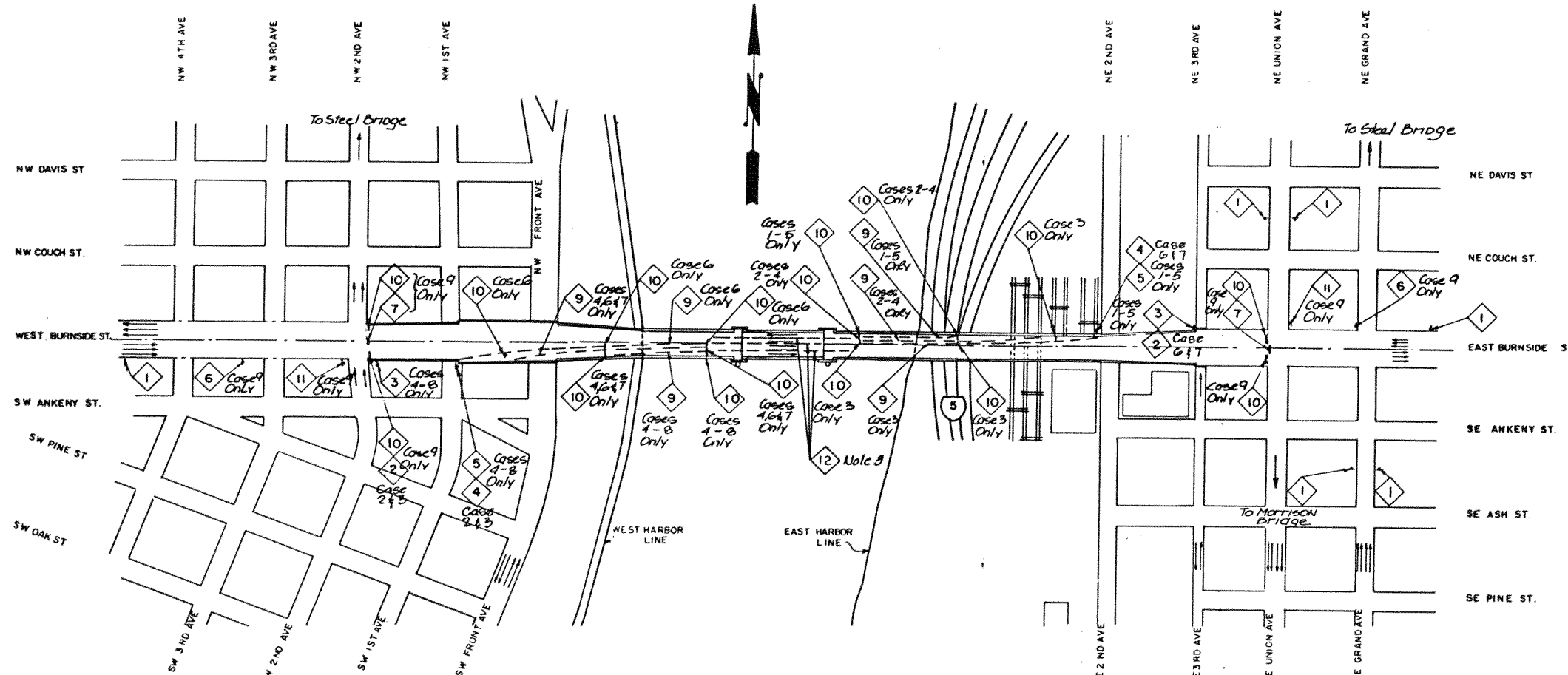
Designed P.W.A. Drafted M.A.D. Checked D.F.A.

Date 6-16-89 Scale NONE

Sht. 32 of 43

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ST0061



- NOTES:**
1. ALL SIGNS SHALL BE TYPE O.
 2. MINIMUM TAPER SHALL BE 20:1 FOR PLASTIC DRUMS.
 3. CHANNELIZATION: DIVIDE OPPOSING FLOWS WITH 18" TUBULAR MARKERS SPACED NO FURTHER THAN 30' APART, FOR CASES 1, 2, 4 & 5. DIVIDE WORK AREAS WITH 18" TRAFFIC CONES SPACED NO FURTHER THAN 30' APART, FOR ALL CASES EXCEPT CASE 6.

TRAFFIC CONTROL PLAN
SCALE 1"=200'

LEGEND

1 CONSTRUCTION AHEAD OW 20-8-36

6 DETOUR AHEAD W20-2-36

2 LEFT LANE CLOSED AHEAD W20-5-36

3 RIGHT LANE CLOSED AHEAD W20-5-36

7 BRIDGE CLOSED R11-2-30 (MODIFIED)

8 DETOUR ROUTE M4-9R-30

9 TEMPORARY PLASTIC DRUM AT 25' CENTERS

10 TYPE III R BARRICADE

11 DETOUR ROUTE M4-9L-30

12 TRAFFIC CONES

4 W4-2R-36

5 W4-2L-36

LANE CLOSURE CASE	TRAFFIC LANES	INSIDE LANE WIDTH	NO. OF DEVICES											
			1	2	3	4	5	6	7	8	9	10	11	12
1	↓ ↓ ↓ ↓ ↓ ↓	—	6		1		1				A/R	2		A/R
2	↓ ↓ ↓ ↓ ↓ ↓	—	6	1	1	1	1				A/R	3		A/R
3	↓ ↓ ↓ ↓ ↓ ↓	—	6	1	1	1	1				A/R	4		A/R
4	× × ↓ ↓ ↓ ↓	—	6		2		2				A/R	6		A/R
5	× × ↓ ↓ ↓ ↓	—	6		2		2				A/R	4		A/R
6	× × × × ↓ ↓	—	6	1	1	1	1				A/R	4		A/R
7	× × ↓ ↓ ↓ ↓	—	6	1	1	1	1				A/R	3		A/R
8	× ↓ ↓ ↓ ↓ ↓	—	6		1		1				A/R	2		A/R
9	× × × × × ×	—	6					2	2			12	2	

NOTE: ↓ = Eastbound Lane ↑ = Westbound Lane × = Lane Closed A/R = As Required

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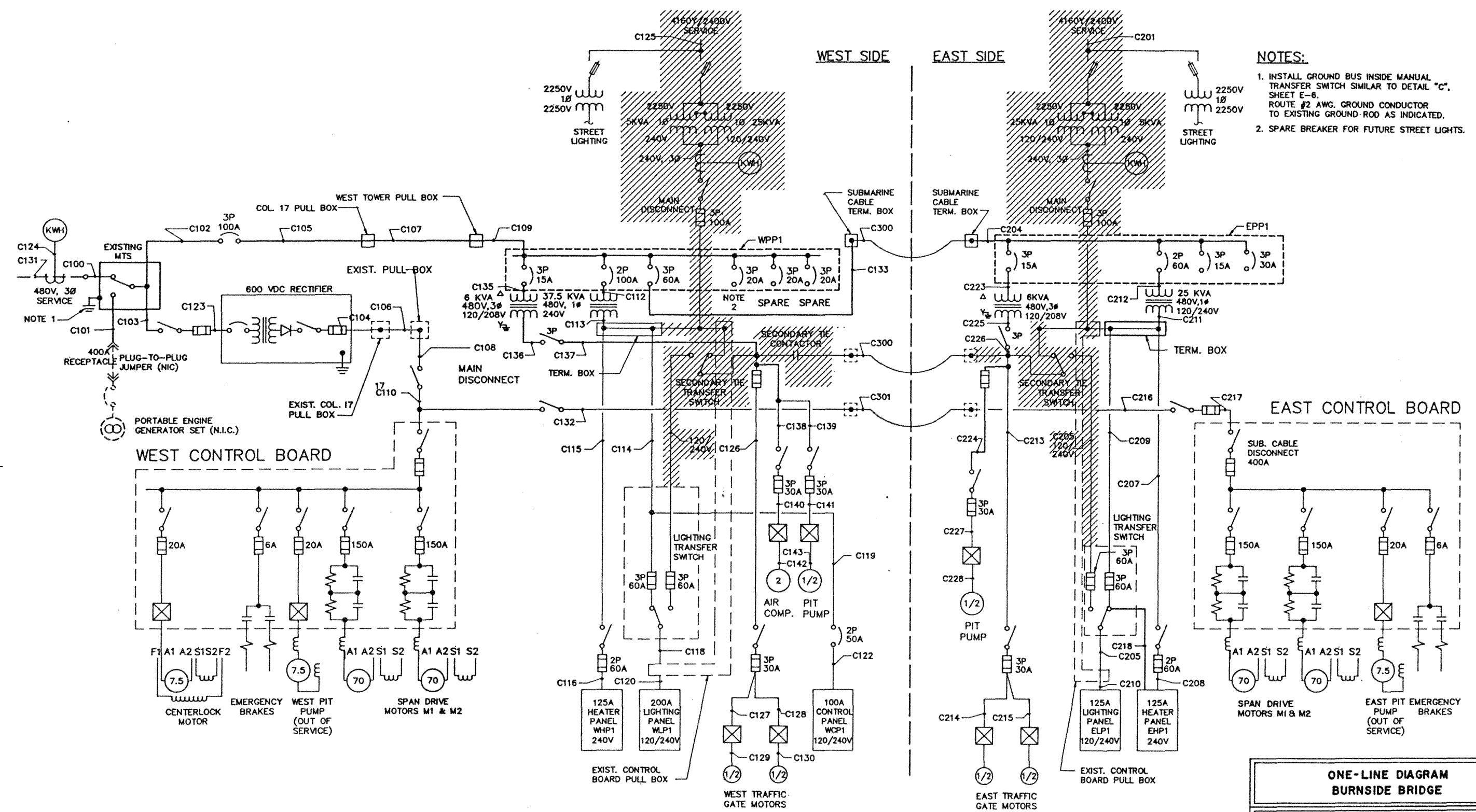


TRAFFIC CONTROL PLAN
BURNSIDE BRIDGE

MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.
LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES
MECHANICAL & ELECTRICAL RENOVATIONS

Designed P.W.A. Drafted M.G. Checked DFA Sht
Date 3-17-89 Scale NONE **34** of **43**



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- NOTES:**
1. INSTALL GROUND BUS INSIDE MANUAL TRANSFER SWITCH SIMILAR TO DETAIL "C", SHEET E-6. ROUTE #2 AWG. GROUND CONDUCTOR TO EXISTING GROUND ROD AS INDICATED.
 2. SPARE BREAKER FOR FUTURE STREET LIGHTS.

**ONE-LINE DIAGRAM
BURNSIDE BRIDGE**

MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.

LARRY F. NICHOLAS COUNTY ENGINEER

**BROADWAY & BURNSIDE BRIDGES
MECHANICAL & ELECTRICAL RENOVATIONS**

Designed PWA	Drafted EYHY	Checked DFA	Sht. 35 of 43
Date 1-31-89 Scale NONE			

PANEL WLP1 CIRCUIT SCHEDULE

SERVICE VOLTAGE 120/240 BUS RATING 200 LOCATION EAST SIDE OF BRIDGE
MOUNTING EXISTING BUS CONNECTION 1 P 3 W DRAWING No. E-22

DESCRIPTION	VOLTAGES		BREAKER		CKT No	BUS CONNECT.	CKT No	BREAKER		VOLTAGES		DESCRIPTION
	A	B	POLE	AMP				AMP	POLE	A	B	
SPARE			1	20	1		2	20	1			SPARE
HOUSE LTS. ELECT.		500	1	20	3		4	20	1		700	STAIR LTS.
MACHINE ROOM STAIRS	600		1	20	5		6	20	1	800		NAVIGATION LTS. WEST
MAIN ROOM WALK LIGHTS		700	1	20	7		8	20	1		1000	NAVIGATION LTS.
HS LIGHTS & PLUGS	800		1	20	9		10	20	1	1000		VNP LIGHT
SPARE			1	20	11		12	20	1			SPARE
PLG. MACHINE	1800		1	20	13		14	20	1	1200		PIT PUMP, SMALL 120V
WORK PIT LTS.		700	1	20	15		16	20	1		700	WORK PIT LTS.
SPACE			1	20	17		18	20	1			SPACE
TOTALS	3200	1900				S/N				3000	2400	
BUS A 6200 MAIN (BREAKER,LUGS) _____ LINE AMPS 43												
BUS B 4300 LOCATION (TOP,BOTTOM) _____ PHASING 1 @ 240 VOLTS												
FEEDER SIZE 2 #4 & 1 #6 GND. KVA DEMAND 10.5												
TOTAL LOAD 10,500 SOURCE LTS. TRANSFER SW.												

PANEL WHP1 CIRCUIT SCHEDULE

SERVICE VOLTAGE 120/240 BUS RATING 125A LOCATION WEST SIDE OF BRIDGE
MOUNTING EXISTING BUS CONNECTION 1 P 3 W DRAWING No. E-22

DESCRIPTION	VOLTAMPS		BREAKER		CKT No	BUS CONNECT.	CKT No	BREAKER		VOLTAMPS		DESCRIPTION
	A	B	POLE	AMP				AMP	POLE	A	B	
MACHINE RM. HTR.	1800		2	20	1	●		2	20	2	1800	CONTROL RM. HTR.
		1800				●					1800	
STREET LVL. HTR.	1800		2	20	3	●		4	20	2	1800	GREASE RM. HTR.
		1800				●					1800	
SPARE					5	●		6	20	2		SPARE
						●						
TOTALS	3600	3600				S/N					3600 3600	
BUS A 7200 MAIN (BREAKER, LUGS) LINE AMPS 60												
BUS B 7200 LOCATION (TOP, BOTTOM) PHASING 1 @ 240 VOLTS												
FEEDER SIZE 37.5 KVA XFMR KVA DEMAND 14.4												
TOTAL LOAD 14400 SOURCE												

PANEL WCP1 CIRCUIT SCHEDULE

SERVICE VOLTAGE 120/240 BUS RATING 100A LOCATION WEST SIDE OF BRIDGE
MOUNTING EXISTING BUS CONNECTION 1 P 3 W DRAWING No. E-22

DESCRIPTION	VOLTAGES		BREAKER		CKT No	BUS CONNECT.	CKT No	BREAKER		VOLTAGES		DESCRIPTION
	A	B	POLE	AMP				AMP	POLE	A	B	
N.W. GATE PLG.	600		1	20	1	●	5	20	1	600		372 - GONGS
373 - FLASHER		600	1	20	2	●	6	20	1		600	309 - FLASHER
330 - CONTROLS, GATES, P.Q.	600		1	20	3	●	7	20	1	600		RED TRAFFIC SIGNALS
371 - GONGS		600	1	20	4	●	8	20	1		600	301 - P.K.
TOTALS	1200	1200				S/N				1200	1200	
BUS A 2400 MAIN (BREAKER, LUGS) _____ LINE AMPS 20												
BUS B 2400 LOCATION (TOP, BOTTOM) _____ PHASING 1 @ 240 VOLTS												
FEEDER SIZE _____ KVA DEMAND 4.8												
TOTAL LOAD 4800 SOURCE 37.5 KVA XFMR												

PANEL NEW WPP1 CIRCUIT SCHEDULE

SERVICE VOLTAGE 480 BUS RATING 225A LOCATION WEST SIDE OF BRIDGE
MOUNTING SURFACE BUS CONNECTION 3 P 3 W DRAWING No. E-22

DESCRIPTION	VOLTAMPS			BREAKER		CKT No	BUS CONNECTION	CKT No	BREAKER		VOLTAMPS			DESCRIPTION
	A	B	C	POLE	AMP				AMP	POLE	A	B	C	
SPACE						1	●		2	60	3	16166		EAST SIDE EPP1
WEST SIDE 37.5 KVA, 480V, 1# XFMR		18750		2	100	3	●		4			16166		
			18750			5		●	6				3666	
WEST SIDE 8 KVA, 480V, 3# XFMR	2000			3	15	7	●		8	20	3	500		ST. LIGHTS
		2000				9	●		10			500		
			2000			11		●	12				500	
SPARE				3	20	13	●		14	20	3			SPARE
						15	●		16					
						17	●		18					
						19	●		20					SPACE
						21	●		22					
						23	●		24					
						25	●		26					
						27	●		28					
						29	●		30					
TOTALS	2000	20750	20750				S/N					16666	16666	4166
BUS A 18666 MAIN (BREAKER; LUGS) LINE AMPS 97.4														
BUS B 37416 LOCATION (TOP, BOTTOM) PHASING 3 @ 480 VOLTS														
BUS C 24916 FEEDER SIZE 3 #1 & 1 #6 GND. KVA DEMAND 81.0														
TOTAL LOAD 80998 SOURCE SERVICE ENTRANCE CAB. DATE														

PANEL NEW EPP1 CIRCUIT SCHEDULE

SERVICE VOLTAGE 480 BUS RATING 125A LOCATION WEST SIDE OF BRIDGE
MOUNTING SURFACE BUS CONNECTION 3 P 3 W DRAWING No. E-22

DESCRIPTION	VOLTAMPS			BREAKER		CKT No	BUS CONNECTION	BREAKER			VOLTAMPS			DESCRIPTION
	A	B	C	POLE	AMP			No	AMP	POLE	A	B	C	
EAST SIDE 25 KVA, 480V, 1# XFMR	12500			2	60	1	●	2	30	3	1666			FUTURE SPARE
		12500				3	●	4				1666		
SPACE						5	●	6					1666	
EAST SIDE 8 KVA, 480V, 3# XFMR	2000			3	15	7	●	8	15	3				SPARE
		2000				9	●	10						
			2000			11	●	12						
TOTALS	14500	14500	2000				S/N				1666	1666	1666	
BUS A 16166 MAIN (BREAKER, LUGS) 125A LINE AMPS 43.3														
BUS B 16166 LOCATION (TOP, BOTTOM) PHASING 3 @ 480 VOLTS														
BUS C 3666 FEEDER SIZE 3 #4 & 1 #8 GND. kVA DEMAND 36														
TOTAL LOAD 35998 SOURCE SERVICE ENTRANCE CAB. DATE														

PANEL ELP1 CIRCUIT SCHEDULE

SERVICE VOLTAGE 120/240 BUS RATING 125A LOCATION EAST SIDE OF BRIDGE
MOUNTING EXISTING BUS CONNECTION 1 P 3 W DRAWING No. E-22

DESCRIPTION	VOLTAMPS		BREAKER		CKT No	BUS CONNECT.	CKT No	BREAKER		VOLTAMPS		DESCRIPTION
	A	B	POLE	AMP				AMP	POLE	A	B	
SPACE			1	20	1		2	20	1	1200	SWBD RM. HTR., LTS. & PLUGS, GATE AREA	
GATES CONTROL		600	1	20	3		4	20	1		1500	SWBD RM. HTR.
GATEMAN LIGHTS PAINT ROOM	800		1	20	5		6	20	1	500		HOUSE LTS.
N.E. GATE PLUG MACHINE DECK LIGHTS		1000	1	20	7		8	20	1		1000	NAVIGATION LTS.
TOTALS	800	1600					S/N			1700	2500	
BUS A 2500 MAIN (BREAKER;LUGS) _____ LINE AMPS <u>27.5</u>												
BUS B 4100 LOCATION (TOP,BOTTOM) _____ PHASING <u>1 @ 240 VOLTS</u>												
FEEDER SIZE <u>2 #6 & 1 #8 GND.</u> KVA DEMAND <u>6.6</u>												
TOTAL LOAD <u>6600</u> SOURCE <u>LTS TRANSFER SWITCH</u>												

PANEL EHP1 CIRCUIT SCHEDULE

SERVICE VOLTAGE 120/240 BUS RATING 125A LOCATION EAST SIDE OF BRIDGE
MOUNTING EXISTING BUS CONNECTION 1 P 3 W DRAWING No. E-22

DESCRIPTION	VOLTAGES		BREAKER		CKT No	BUS CONNECT.	CKT No	BREAKER		VOLTAGES		DESCRIPTION
	A	B	POLE	AMP				AMP	POLE	A	B	
HEATER	2000		2	20	1	●	4	20	2	2000		HEATER
		2000				●					2000	
HEATER	2000		2	20	3	●	6	20	2	2000		HEATER
		2000				●					2000	
TOTALS	4000	4000				S/N				4000	4000	
BUS A 8000 MAIN (BREAKER, LUGS) LINE AMPS 66.6												
BUS B 8000 LOCATION (TOP, BOTTOM) PHASING 1 @ 240 VOLTS												
FEEDER SIZE KVA DEMAND 16												
TOTAL LOAD 16000 SOURCE 25 KVA XFMR												

PANEL SCHEDULE
BURNSIDE BRIDGE

MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.

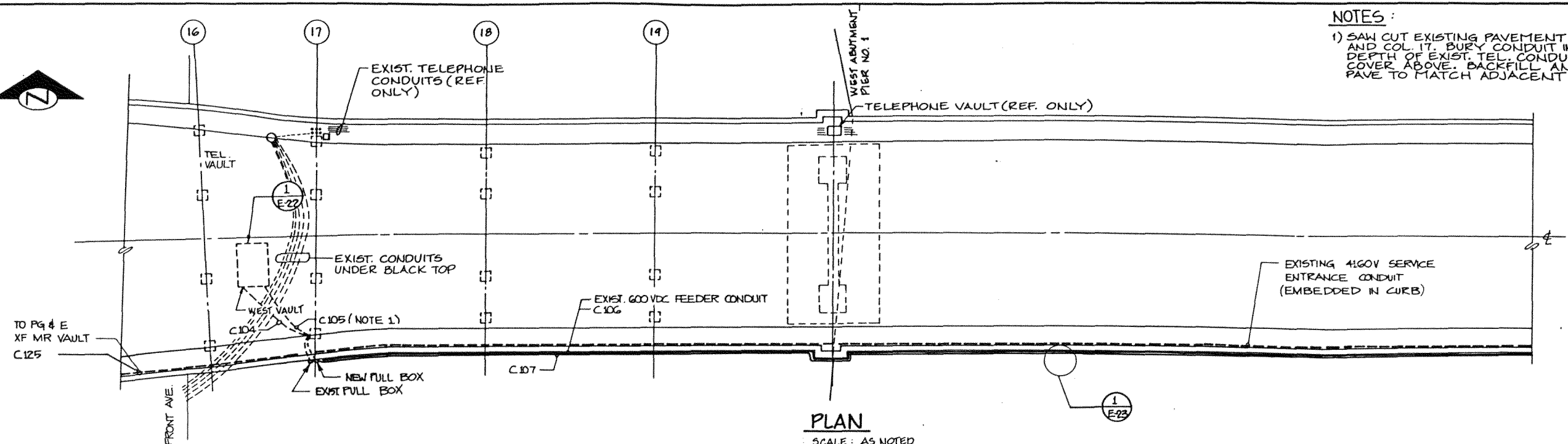
LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES
MECHANICAL & ELECTRICAL RENOVATIONS

Designed P. W. A. Drafted M. A. D. Checked D. F. A.
Date 6-16-89 Scale NONE

Sht. 36 of 43

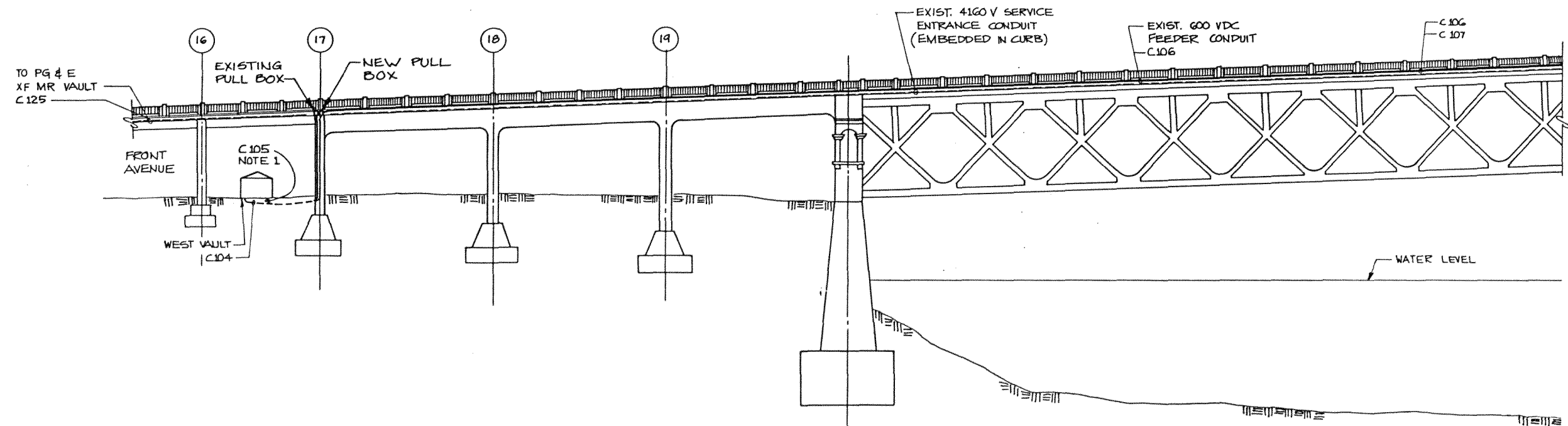
11/20/89



NOTES:
1) SAW CUT EXISTING PAVEMENT BETWEEN WEST VAULT AND COL. 17. BURY CONDUIT IN 12" MIN. TRENCH. VERIFY DEPTH OF EXIST. TEL. CONDUITS AND MAINTAIN 12" COVER ABOVE. BACKFILL AND COMPACT TO 90%. PAVE TO MATCH ADJACENT MATERIAL.


FOR CONTINUATION SEE DWG. NO. E-20

PLAN
SCALE: AS NOTED

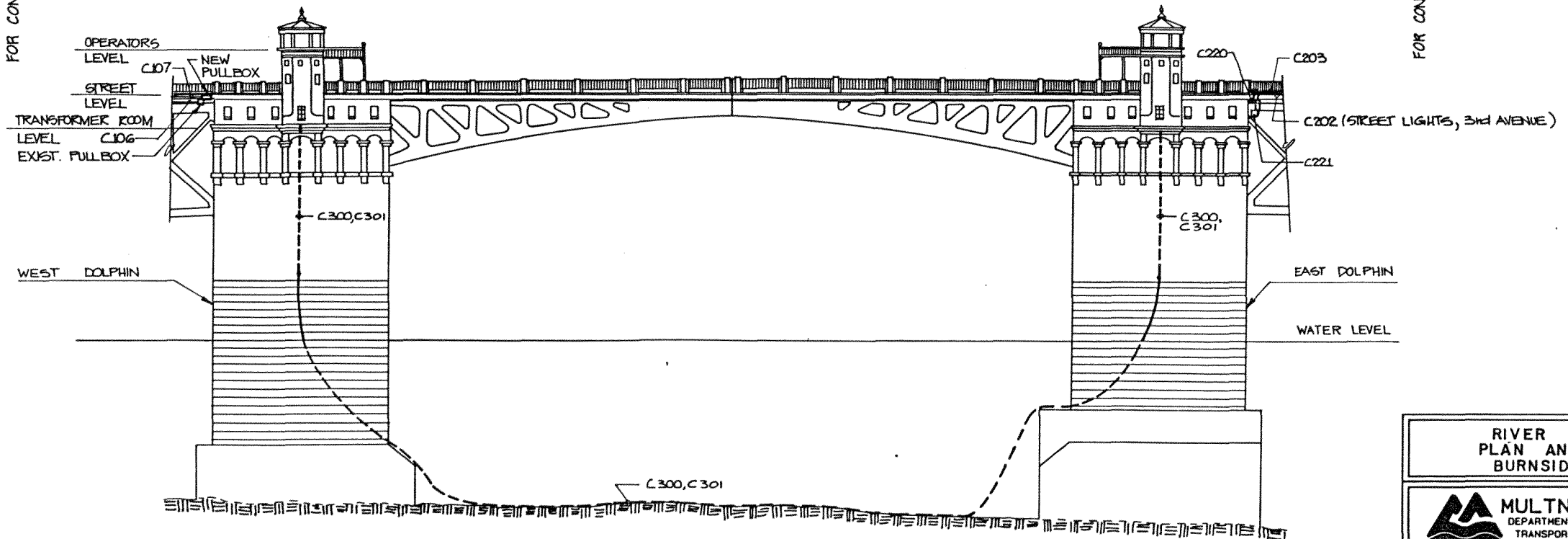
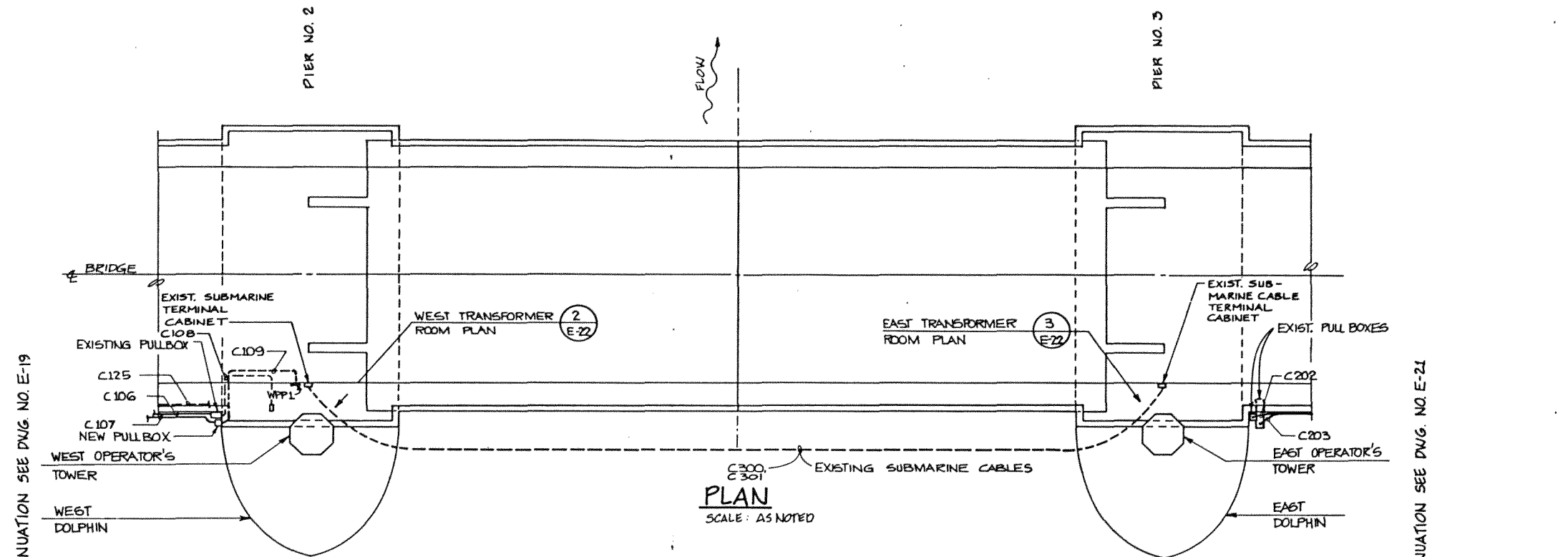


ELEVATION
SCALE: AS NOTED



WEST APPROACH PLAN AND ELEVATION BURNSIDE BRIDGE			
 MULTNOMAH COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES TRANSPORTATION DIVISION 1620 S.E. 190th Ave. PORTLAND, ORE.			
LARRY F. NICHOLAS COUNTY ENGINEER			
BROADWAY & BURNSIDE BRIDGES MECHANICAL & ELECTRICAL RENOVATIONS			
Designed MAD	Drafted KT	Checked DFA	Sht.
Date 1-31-89	Scale 1" = 20'		37 of 43


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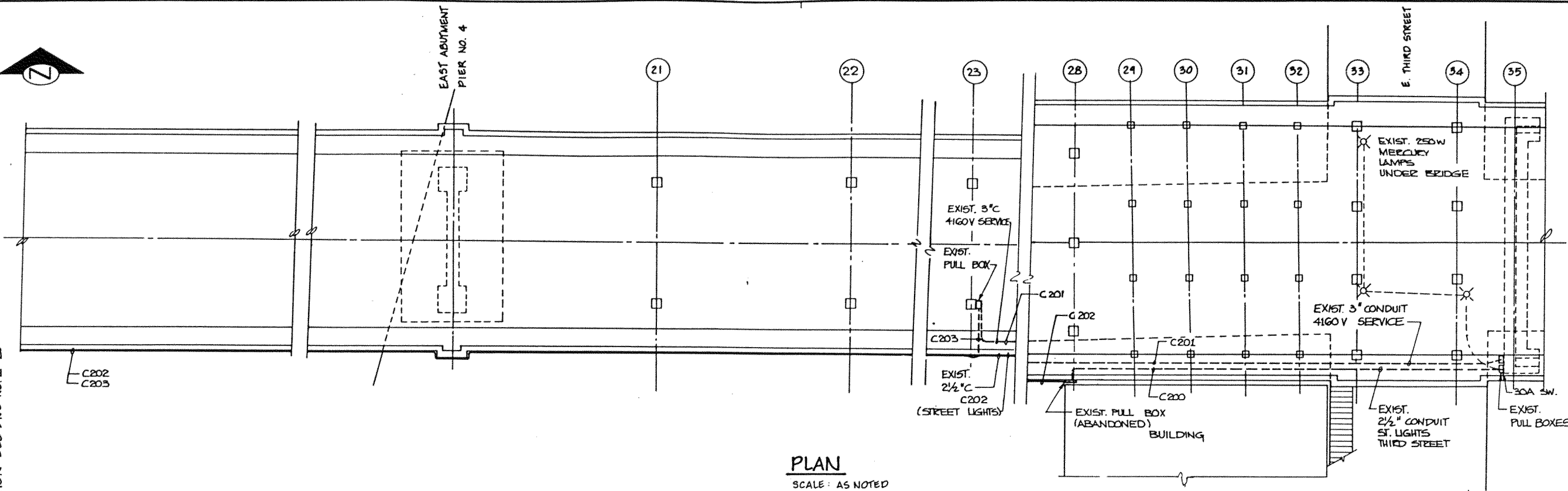
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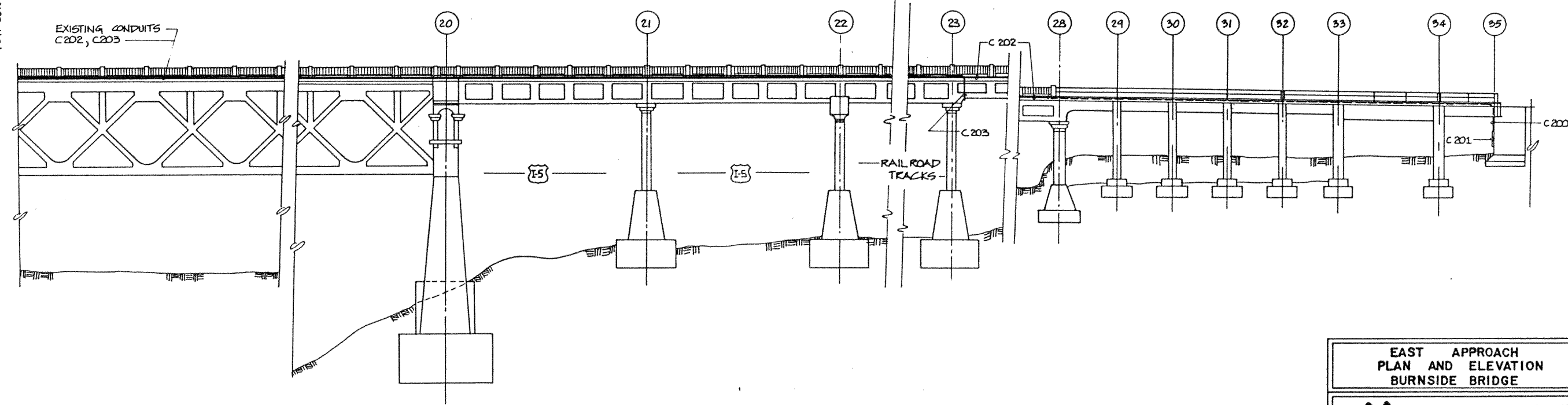
RIVER CROSSING PLAN AND ELEVATION BURNSIDE BRIDGE			
 MULTNOMAH COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES TRANSPORTATION DIVISION 1620 S.E. 190th Ave. PORTLAND, ORE.			
LARRY F. NICHOLAS COUNTY ENGINEER			
BROADWAY & BURNSIDE BRIDGES MECHANICAL & ELECTRICAL RENOVATIONS			
Designed PWA	Drafted KT	Checked DFA	Sht.
Date 1-31-89	Scale 1" = 20'		38 of 43




FOR CONTINUATION SEE DWG NO. E-20



PLAN
SCALE: AS NOTED

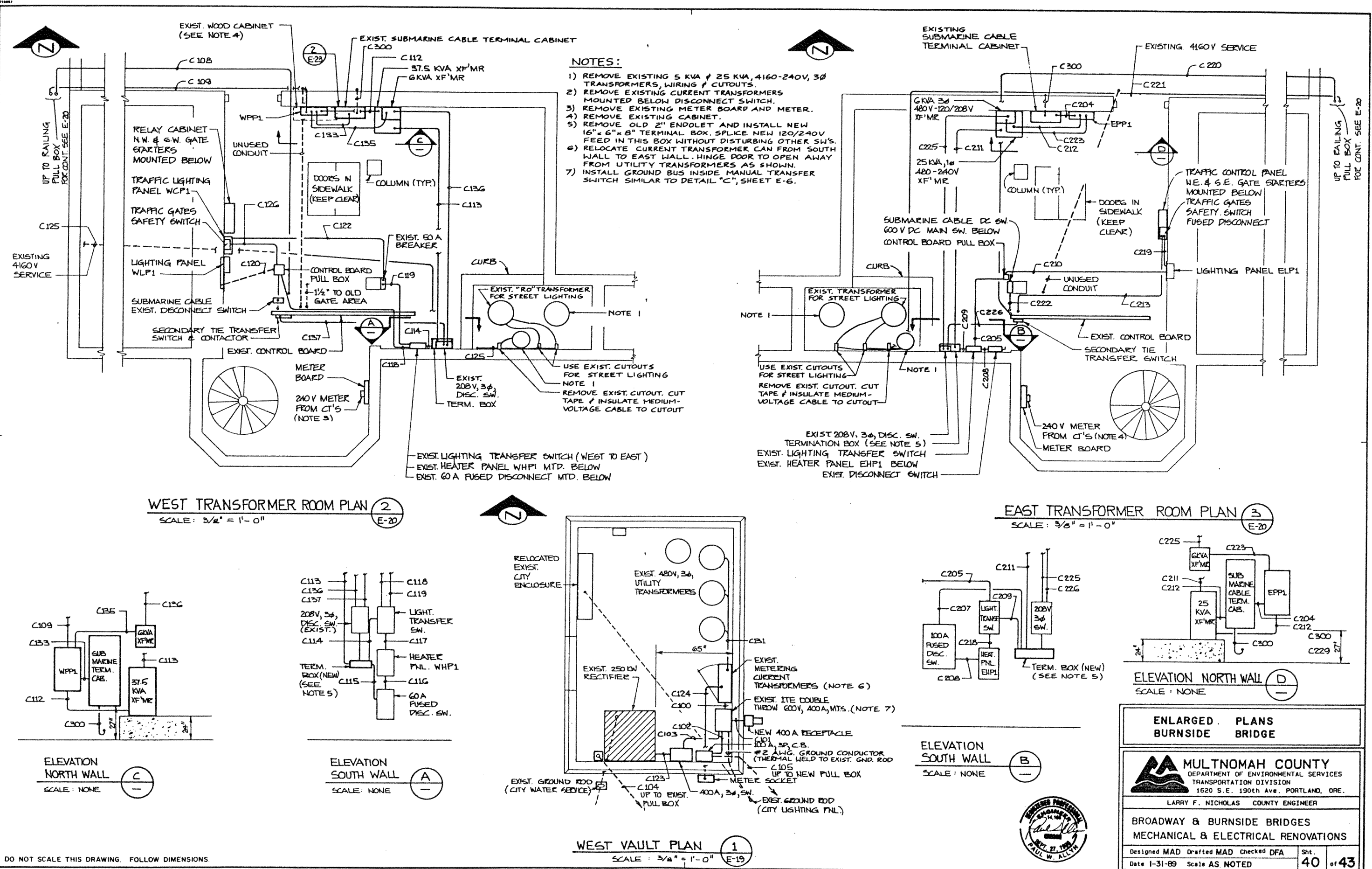


ELEVATION
SCALE: AS NOTED

EAST APPROACH PLAN AND ELEVATION BURNSIDE BRIDGE			
 MULTNOMAH COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES TRANSPORTATION DIVISION 1620 S.E. 190th Ave. PORTLAND, ORE.			
LARRY F. NICHOLAS COUNTY ENGINEER			
BROADWAY & BURNSIDE BRIDGES MECHANICAL & ELECTRICAL RENOVATIONS			
Designed MAD	Drafted KT	Checked DFA	Sht. 39 of 43
Date 1-31-89	Scale 1" = 20'		



DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.



NOTES:

- 1) REMOVE EXISTING 5 KVA & 25 KVA, 4160-240V, 3Ø TRANSFORMERS, WIRING & CUTOUPS.
- 2) REMOVE EXISTING CURRENT TRANSFORMERS MOUNTED BELOW DISCONNECT SWITCH.
- 3) REMOVE EXISTING METER BOARD AND METER.
- 4) REMOVE EXISTING CABINET.
- 5) REMOVE OLD 2" ENDOLET AND INSTALL NEW 16" x 6" x 8" TERMINAL BOX. SPLICE NEW 120/240V FEED IN THIS BOX WITHOUT DISTURBING OTHER SW'S.
- 6) RELOCATE CURRENT TRANSFORMER CAN FROM SOUTH WALL TO EAST WALL. HINGE DOOR TO OPEN AWAY FROM UTILITY TRANSFORMERS AS SHOWN.
- 7) INSTALL GROUND BUS INSIDE MANUAL TRANSFER SWITCH SIMILAR TO DETAIL "C", SHEET E-6.

WEST TRANSFORMER ROOM PLAN (2) E-20
SCALE: 3/8" = 1'-0"

EAST TRANSFORMER ROOM PLAN (3) E-21
SCALE: 3/8" = 1'-0"

WEST VAULT PLAN (1) E-19
SCALE: 3/8" = 1'-0"

ELEVATION NORTH WALL (D) E-20
SCALE: NONE

ELEVATION SOUTH WALL (B) E-20
SCALE: NONE

ELEVATION NORTH WALL (C) E-20
SCALE: NONE

ELEVATION SOUTH WALL (A) E-20
SCALE: NONE

ENLARGED PLANS
BURNSIDE BRIDGE

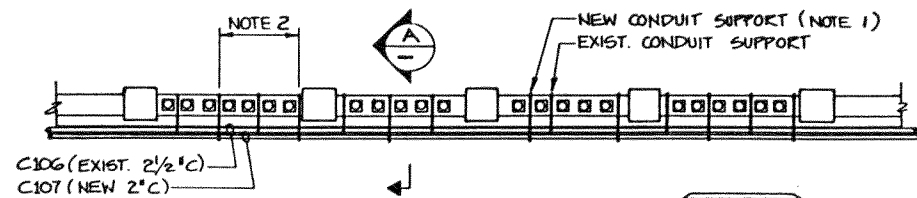
MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.
LARRY F. NICHOLAS COUNTY ENGINEER

**BROADWAY & BURNSIDE BRIDGES
MECHANICAL & ELECTRICAL RENOVATIONS**

Designed MAD	Drafted MAD	Checked DFA	Sht.
Date 1-31-89	Scale AS NOTED		40 of 43



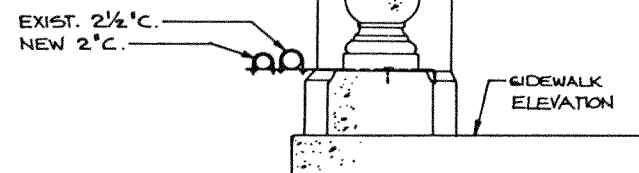
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CONDUIT SUPPORT PLAN

SCALE: 1/4" = 1'-0"

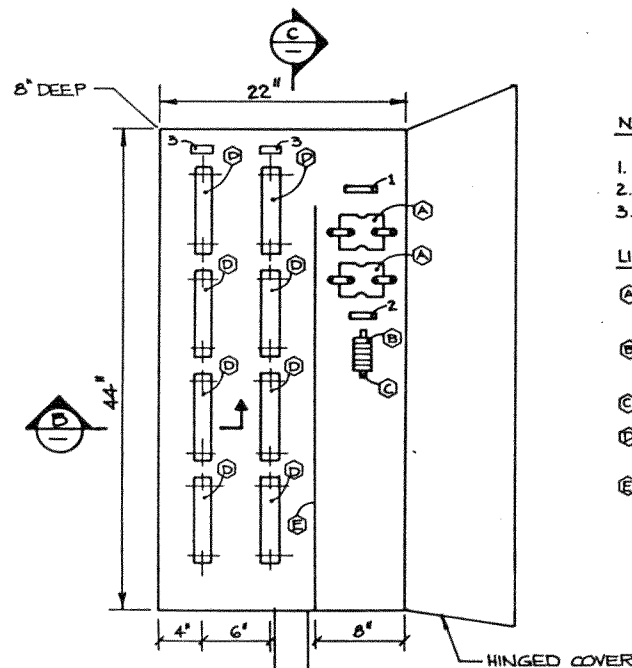
1
E-19



SECTION A

SCALE: 1" = 1'-0"

A
—



NAMEPLATE TAGS:

1. 600 VDC
2. 480 VAC
3. CONTROL CABLE

LIST OF MATERIAL:

- Ⓐ TERM. BLOCK, 600 VDC (250 MCM), SURFACE MOUNT.
- Ⓑ TERM. BLOCK, 480 VAC (#4 & #6 AWG) CHANNEL MOUNT.
- Ⓒ MOUNTING CHANNEL
- Ⓓ TERM. BLOCK, 300 VAC (#12 AWG) CHANNEL MOUNT
- Ⓔ PARTITION

REFERENCE ONLY
WORK TO BE PERFORMED BY
COUNTY

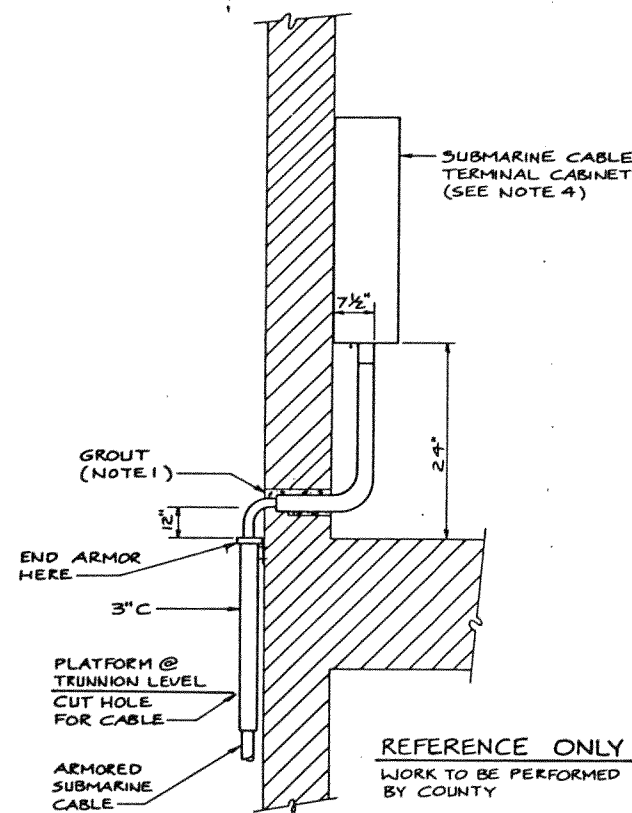
SECTION B

B
—

SUBMARINE CABLE TERMINAL BOX

SCALE: NONE

2
E-22



SECTION C

C
—

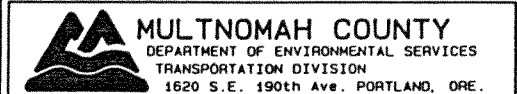
NOTES:

- 1) MATCH EXISTING CONDUIT SUPPORTS TO SUPPORT NEW CONDUIT.
- 2) MAXIMUM DISTANCE BETWEEN RIGID METAL CONDUIT SUPPORTS SHALL BE 16 FEET.

DESIGNED BY:
CHECKED BY:
DRAWN BY:



INSTALLATION DETAILS BURNSIDE BRIDGE



LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES MECHANICAL AND ELECTRICAL RENOVATIONS

Designed MAD	Drafted MAD	Checked DFA	Sht.
Date 1-31-89	Scale AS NOTED	41	of 43

DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

Sverdrup Corporation

CONDUIT NUMBER	CONDUIT		SERVICE				FROM	TO	CONDUCTORS		PLAN DWG
	EXISTING NEW	SIZE	VOLT	PH	LOAD	OTHER			EXISTING NEW	QUANTITY & SIZE	
C100	MODIFIED	3"	480V	3ø			METERING CURRENT TRANSFORMERS	MANUAL TRANSFER SWITCH	NEW	3 #350 MCM	E-22
C101	NEW	3"	480V	3ø			MANUAL TRANSFER SWITCH	RECEPTACLE	NEW	3 #350 MCM & 1 #2 GND.(NOTE 5)	E-22
C102	NEW	1 1/2"	480V	3ø			MANUAL TRANSFER SWITCH	100A C.B.	NEW	3 #1 & 1 #6 GND.(NOTE 5)	E-22
C103	MODIFIED	3"	480V	3ø			MANUAL TRANSFER SWITCH	400A FUSED DISCONNECT SW.	NEW	3 #350 MCM 1#2 GND.(NOTE 5)	E-22
C104	EXISTING	2 1/2"	600V	----		DC	600V DC RECTIFIER	EXISTING (COL 17) PULL BOX	EXISTING	2 #350 MCM	E-19 E-22
C105	NEW	2"	480V	3ø			100A C.B.	NEW (COL 17) PULL BOX	NEW	3 #1 & 1 #6 GND.	E-19 E-22
C106	EXISTING	2 1/2"	600V	----		DC	(COL 17) PULL BOX	WEST TOWER PULL BOX	EXISTING	2 #350 MCM	E-19 E-20
C107	NEW	2"	480V	3ø			(COL 17) PULL BOX	WEST TOWER PULL BOX	NEW	3 #1 & 1 #6 GND.	E-19 E-20
C108	EXISTING	2 1/2"	600V	----		DC	EXIST. PULL BOX	MAIN DISC. SWITCH	EXISTING	2 #350 MCM	E-20 E-22
C109	NEW	2"	480V	3ø			WEST TOWER PULL BOX	WPP1	NEW	3 #1 & 1 #6 GND.	E-20 E-22
C110	EXISTING	2 1/2"	600V	----		DC	MAIN DISC. SW.	WEST CONTR. BOARD	EXISTING	2 #350 MCM	
C111											
C112	NEW	2"	480V	1ø	37.5		WPP1	37.5 KVA TRANSFORMER	NEW	2 #2 & 1 #6 GND.	E-22
C113	NEW	2"	120/240V	1ø	37.5		37.5 KVA TRANSFORMER	NEW TERMINATION BOX	NEW	3 #4/0 & 1 #6 GND.	E-22
C114	NEW	1 1/2"	120/240V	1ø			NEW TERMINATION BOX	LIGHTING TRANSFER SWITCH	EXISTING	2 #4 & 1 #6 GND.	E-22
C115	NEW	1 1/2"	240V	1ø			NEW TERMINAL BOX	60A FUSED DISCONNECT SWITCH	EXISTING		E-20 E-22
C116	EXISTING		240V	1ø			60A FUSED DISCONNECT SWITCH	CONTROL BOARD WHP1	EXISTING		E-20 E-22
C117											
C118	EXISTING	2"	120/240V	1ø			LIGHTING TRANSFER SWITCH	EXISTING CONTROL BOARD PULL BOX	EXISTING	6 #4THW & 3 #6TW	E-22
C119											
C120	EXISTING		120/240V	1ø			CONTROL BOARD PULL BOX	PANEL WLP1	EXISTING	2 #4 & 1 #6 GND.	E-22
C121											
C122	EXISTING		120/240V	1ø			50A C.B.	PANEL WCP1	EXISTING		E-20
C123	MODIFIED	2 1/2"	480V	3ø			400A FUSED DISCONNECT SW.	250 KW RECTIFIER	EXISTING	3 #350 MCM & 1 #2GND.	E-22
C124	MODIFIED						METERING CURRENT TRANSFORMERS CAB.	METER SOCKET	EXISTING		E-22
C125	EXISTING		4160V	3ø			PG. & E TRANSFORMER VAULT	STREET LIGHTING CUTOUT	EXISTING		E-19 E-20
C126	EXISTING		208V	3ø			SECONDARY TIE TRANSFER SW.	TRAFFIC GATES SAFETY SWITCH	EXISTING	(NOTE1)	E-22
C127	EXISTING		208V	3ø			TRAFFIC GATES SAFETY SWITCH	TRAFFIC GATES STARTER	EXISTING		----
C128	EXISTING		208V	3ø			TRAFFIC GATES SAFETY SWITCH	TRAFFIC GATES STARTER	EXISTING		----
C129											
C130											
C131	MODIFIED		480V	3ø			UTILITY TRANSFORMERS	METERING CURRENT TRANSFORMERS	NEW	4 #250 MCM	E-22
C132	EXISTING		600V	----		DC	EXISTING DC BREAKER	SUBMARINE CABLE TERM. BOX	EXISTING	3 #350 MCM	E-22
C133	NEW	1"	480V AC	3ø			WPP1	SUBMARINE CABLE TERMINAL BOX	NEW	3 #4NW1 #8 GND.	E-20 E-22
C134											

CONDUIT NUMBER	CONDUIT		SERVICE				FROM	TO	CONDUCTORS		PLAN DWG
	EXISTING NEW	SIZE	VOLT	PH	LOAD	OTHER			EXISTING NEW	QUANTITY & SIZE	
C135	NEW	3/4"	480	3ø	6 KVA		WPP1	6 KVA XFMR	NEW	3 #12 & 1 #12GND.	E-22
C136	NEW	3/4"	120/208V	3ø	6 KVA		6 KVA XFMR	208 V, 3ø DISC. SW.	NEW	3 #10 & 1 #12 GND	E-22
C137	NEW	3/4"	208	3ø			208 V, 3ø DISC. SW.	EXIST. MOTOR LOADS J.B.	NEW	3 #10 & 1 #12 GND	
C138	EXIST.		208	3ø			EXIST. MOTOR LOADS J.B.	FUSED DISC. SW.	EXIST.		----
C139	EXIST.		208	3ø			EXIST. MOTOR LOADS J.B.	FUSED DISC. SW.	EXIST.		----
C140	EXIST.		208	3ø			FUSED DISC. SW.	AIR COMP. STARTER	EXIST.		----
C141	EXIST.		208	3ø			FUSED DISC. SW.	PIT PUMP STARTER	EXIST.		----
C142	EXIST.		208	3ø			AIR COMP. STARTER	AIR COMP.	EXIST.		----
C143	EXIST.		208	3ø			PIT PUMP STARTER	PIT PUMP	EXIST.		----
C144											
C145											
C146											
C147											
C148											
C149											
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C165											
C166											
C167											
C168											
C169											

NOTES :

1. BY PASS EXISTING MANUAL TRANSFER SWITCH MOUNTED ON CONTROL BOARD AS INDICATED ON SHEET E-17.
2. ABANDON THIS CONDUIT.
3. UTILIZE EXISTING 3 #2 TW CONDUCTORS.
4. INSTALL GROUND BUS INSIDE MANUAL TRANSFER SWITCH SIMILAR TO DETAIL "C", SHEET E-6.
ROUTE #2 AWG GROUND CONDUCTOR TO EXISTING GROUND ROD AS INDICATED.

DESIGNED BY:
CHECKED BY:
DRAWN BY:

DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

Sverdrup Sverdrup Corporation



CONDUIT AND CABLE SCHEDULE
SHEET 1 - BURNSIDE BRIDGE

MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
1620 S.E. 190th Ave. PORTLAND, ORE.

LARRY F. NICHOLAS COUNTY ENGINEER

BROADWAY & BURNSIDE BRIDGES
MECHANICAL & ELECTRICAL RENOVATIONS

Designed P.W.A. Drafted M.A.D. Checked D.F.A.
Date 6-16-89 Scale NONE

Sht. 42 of 43

DATE SUBMITTED _____

(For Clerk's Use)
Meeting Date 7-11-89 pm
Agenda No. #2

REQUEST FOR PLACEMENT ON THE AGENDA

Subject: Work Session - Library

Informal Only* 7/11/89
(Date)

Formal Only _____
(Date)

DEPARTMENT Nondepartmental DIVISION Chair's Office

CONTACT Mike Dolan TELEPHONE X-3308

*NAME(s) OF PERSON MAKING PRESENTATION TO BOARD Mike Dolan

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

Work Session - Library

(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: Gladys 7/11/89

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
1989 JUL -3 PM 4:30
MULTIOMAH COUNTY
OREGON