

**City of Portland, Maine - Building or Use Permit Application**

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

<b>PERMIT ISSUED</b>		Permit No: 02-0716	Issue Date: MAY 22 2002	CBL: 066 A010001
----------------------	--	-----------------------	----------------------------	---------------------

<b>Location of Construction:</b> 365 Park Ave	<b>Owner Name:</b> Carvel J Steven &	<b>Owner Address:</b> 72 Stroudwater Rd	<b>Phone:</b> 207-774-3172
<b>Business Name:</b>	<b>Contractor Name:</b> Center Line Construction, Inc.	<b>Contractor Address:</b> P.O. Box 1264 Portland	<b>Phone:</b> 2078653300
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> Additions - Commercial	<b>Zone:</b> IM

<b>Past Use:</b> Office/Warehouse	<b>Proposed Use:</b> Office/Plastic Bottle Production	<b>Permit Fee:</b> \$5,833.00	<b>Cost of Work:</b> \$830,000.00	<b>CEO District:</b> 3
		<b>FIRE DEPT:</b> <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	<b>INSPECTION:</b> Use Group: <i>2012</i> Type: <i>20</i> <i>5/2/02</i>	

**Proposed Project Description:**  
Removal/replacement of metal warehouse.

*demo permit 02-0857*

Signature: *[Signature]*

**PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)**

Action:  Approved  Approved w/Conditions  Denied

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

<b>Permit Taken By:</b> jmy	<b>Date Applied For:</b> 06/26/2002	<b>Zoning Approval</b>	
--------------------------------	--	------------------------	--

<ol style="list-style-type: none"> <li>This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</li> <li>Building permits do not include plumbing, septic or electrical work.</li> <li>Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..</li> </ol>	<b>Special Zone or Reviews</b> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM Date: <i>7/15/02</i>	<b>Zoning Appeal</b> <input checked="" type="checkbox"/> Variance <i>Practical Difficulty</i> <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input checked="" type="checkbox"/> Approved <i>5/2/02</i> <input type="checkbox"/> Denied Date: <i>see attached</i>	<b>Historic Preservation</b> <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: <i>[Signature]</i>
---	---	---	---

**CERTIFICATION**

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT \_\_\_\_\_ ADDRESS \_\_\_\_\_ DATE \_\_\_\_\_ PHONE \_\_\_\_\_

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE \_\_\_\_\_ DATE \_\_\_\_\_ PHONE \_\_\_\_\_

02-0716

# All Purpose Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

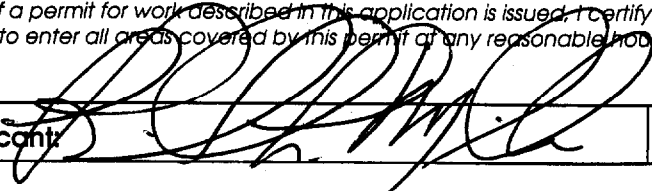
Location/Address of Construction: <u>365 PARK AVENUE, PORTLAND, ME</u>		
Total Square Footage of Proposed Structure <u>NEW ADD. 7,045 SQ FT.</u>	Square Footage of Lot <u>15,846 SQ FT</u>	
Tax Assessor's Chart, Block & Lot Chart# <u>66</u> Block# <u>A</u> Lot# <u>10</u>	Owner: <u>H. STEVEN CARVEL</u> <u>SARLEY STUART CARVEL</u> <u>P.O. BOX 1377</u> <u>PORTLAND, ME. 04104</u>	Telephone: <u>774-3172</u>
Lessee/Buyer's Name (If Applicable) <u>H.P. HOSDORF, INC.</u> <u>319 PARK AVE</u> <u>PORTLAND, ME. 04102</u>	Applicant name, address & telephone: <u>CENTER LINE CONST. INC.</u> <u>70 BOX 1264</u> <u>PORTLAND, ME. 04104</u>	Cost Of Work: \$ <u>830,000.</u> Fee: \$ <u>5,833.00</u>
Current use: <u>OFFICE/WAREHOUSE</u>		
If the location is currently vacant, what was prior use: <u>N/A</u>		
Approximately how long has it been vacant: <u>N/A</u>		
Proposed use: <u>OFFICE PLASTIC BOTTLE PRODUCTION</u>		
Project description: <u>Metal Building</u> <u>intend for use</u> <u>500 SF 10' x 30' 10' x 30' + Silo</u>		
Contractor's name, address & telephone: <u>CENTER LINE CONST. INC.</u> <u>865-3300</u> <u>P.O. BOX 1264, PORTLAND, ME. 04104</u>		
Who should we contact when the permit is ready: <u>DICK MILLER</u>		
Mailing address: <u>CENTER LINE CONST. INC.</u> <u>P.O. BOX 1264 PORTLAND, ME. 04104</u>		
We will contact you by phone when the permit is ready. You must come in and pick up the permit and review the requirements before starting any work. with a Plan Reviewer. A stop work order will be issued and a \$100.00 fee if any work starts before the permit is picked up. PHONE: <u>865-3300</u>		

Pd. Check 4,951.00  
 Check 889.00  
 TOTAL 5,833.00

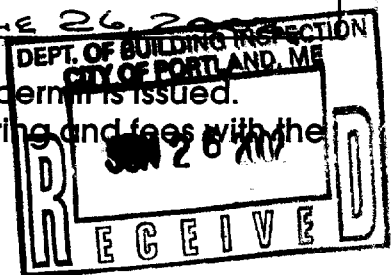
19' x 40'

**IF THE REQUIRED INFORMATION IS NOT INCLUDED IN THE SUBMISSIONS THE PERMIT WILL BE AUTOMATICALLY DENIED AT THE DISCRETION OF THE BUILDING/PLANNING DEPARTMENT, WE MAY REQUIRE ADDITIONAL INFORMATION IN ORDER TO APPROVE THIS PERMIT.**

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature of applicant:  Date: JUNE 26, 2000

This is NOT a permit, you may not commence ANY work until the permit is issued. If you are in a Historic District you may be subject to additional permitting and fees with the Planning Department on the 4th floor of City Hall



# DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND

Please Read  
Application And  
Notes, If Any,  
Attached

BUILDING DEPARTMENT

Permit Number: 020716

# PERMIT

This is to certify that Carvel J Steven &/Center Line Construction  
has permission to Removal/replacement of metal warehouse  
AT 365 Park Ave 066 A010001

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and written permission procured before this building or part thereof is laid or occupied. CLOSED-IN. HOURS NOTICE IS REQUIRED.

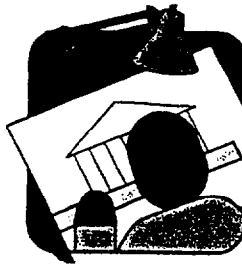
A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

### OTHER REQUIRED APPROVALS

Fire Dept. [Signature]  
Health Dept. \_\_\_\_\_  
Appeal Board \_\_\_\_\_  
Other \_\_\_\_\_  
Department Name

[Signature]  
Director - Building & Inspection Services

**PENALTY FOR REMOVING THIS CARD**



COPY

**CITY OF PORTLAND MAINE**

389 Congress St., Rm 315

Portland, ME 04101

Tel. - 207-874-8704

Fax - 207-874-8716

**TO:** Inspector of Buildings City of Portland, Maine  
Planning & Urban Development  
Division of Housing & Community Services

**FROM DESIGNER:** Becker Structural Engineers / CWS Architects

19 Commercial St., Portland ME / 434 Cumberland Ave. Portland ME

**DATE:** June 3, 2002

Job Name: HP Hood Inc.: Bottle Conveyor + Facility

Address of Construction: 349 Park Ave., Portland, ME

**THE BOCA NATIONAL BUILDING CODE/1999 Fourteenth EDITION**

Construction project was designed according to the building code criteria listed below:

Building Code and Year BOCA 1999 Use Group Classification(s) F-2

Type of Construction 2C Bldg. Height 20'-0" +/- Bldg. Sq. Footage +/- 3,500 SF

Seismic Zone peak accel. Av=.12 Group Class Siesmic Hazard Exposure Group I/C

Roof Snow Load Per Sq. Ft. 46# Dead Load Per Sq. Ft. 20#

Basic Wind Speed (mph) 85 Effective Velocity Pressure Per Sq. Ft. 23#

Floor Live Load Per Sq. Ft. 125# Light Manufacturing

Structure has full sprinkler system? Yes      No X Alarm System? Yes X No       
Sprinkler & Alarm systems must be installed according to BOCA and NFPA Standards with approval from the Portland Fire Department.

Is structure being considered unlimited area building: Yes      No X

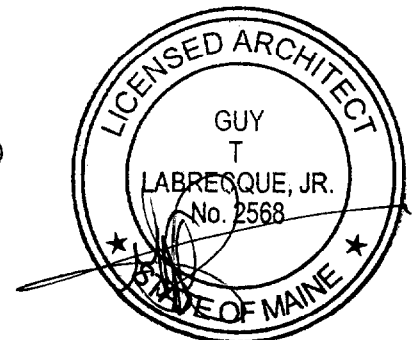
If mixed use, what subsection of 313 is being considered N/A

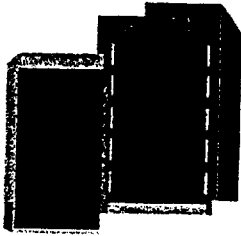
List Occupant loading for each room or space, designed into this Project.

Ref. Opposite side of sheet.

PSH 6/07/2K

(Designers Stamp & Signature)





COPY



CITY OF PORTLAND  
BUILDING CODE CERTIFICATE  
389 Congress St., Rm 315  
Portland, ME 04101

TO: Inspector of Buildings City of Portland, Maine  
Department of Planning & Urban Development  
Division of Housing & Community Service

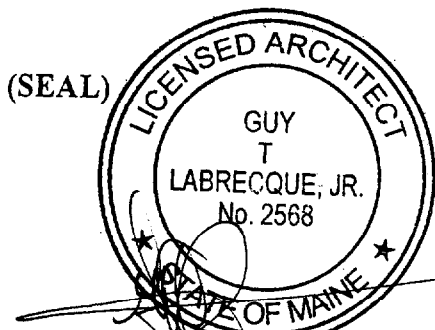
FROM: Becker Structural Engineers / CWS Architects

RE: Certificate of Design

DATE: June 3, 2002

These plans and/or specifications covering construction work on:  
The renovations to the Carvel Building at HP Hood.

Have been designed and drawn up by the undersigned, a Maine registered architect/engineer according to the **BOCA National Building Code/1999 Fourteenth Edition**, and local amendments.



Signature [Handwritten Signature]

Title Vice President

Firm CWS Architects

Address 434 Cumberland Avenue, Portland, ME 04101

As per Maine State Law:

\$50,000.00 or more in new construction, repair, expansion, addition, or modification for Building or Structures, shall be prepared by a registered design Professional.



COPY

# City of Portland, Maine

389 Congress St., Rm 315  
Portland, ME 04101

## ACCESSIBILITY CERTIFICATE

**TO:** Inspector of Buildings City of Portland, Maine  
Department of Planning & Urban Development  
Division of Housing & Community Services

**FROM:** Becker Structural Engineers / CWS Architects

**RE:** Certificate of Design, HANDICAP ACCESSIBILITY

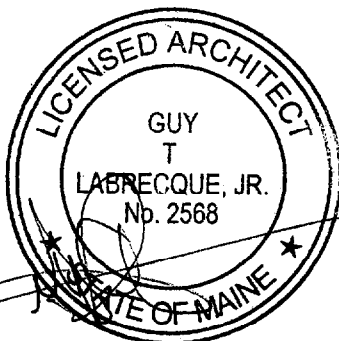
**DATE:** June 3, 2002


These plans and/or specifications covering construction work on:

The renovations to the Carvel Building at HP Hood.

Have been designed and drawn up by the undersigned, a Maine registered engineer/architect according to State Regulations as adopted by the State of Maine on Handicapped Accessibility.

(SEAL)



Signature 

Title Vice President

Firm CWS Architects

Address 434 Cumberland Avenue, Portland, ME 04101



CWS  
A r c h i t e c t s

434 Cumberland Avenue  
Portland ME 04101-2325

Guy T. Labrecque - Architect

Phone: 207.774.4441  
Fax: 207.774.4016  
E-mail: GLabrecque@CWSarch.com

June 12, 2002

Paul Becker  
Becker Structural Engineers, Inc.  
19 Commercial Street  
Portland, Maine 04101-4701

COPY

Dear Paul,

The attached documentation is the culmination of a wide variety of codes reviews and interpretation. Dan Burne and Dick Miller have been very helpful in providing the support information I've needed to pull this package together. I have also been in touch with Mike Nugent, Code enforcement officer for the City of Portland, in an effort to obtain interpretations on several of the gray areas that presented themselves.

It is the intent of the attached sketches to clarify and provide code conforming solutions to many of the Owner and Builders desires and concerns. That is not to say that other solutions would or will not present themselves as other ideas arise during the construction process. We would be happy to review other opportunities as required.

Along with the sketches addressing specific code criteria I have attached a the Code Compliance Report which serves as the basis for which our interpretations have been based upon. It contains information that may prove helpful during the construction process as well.

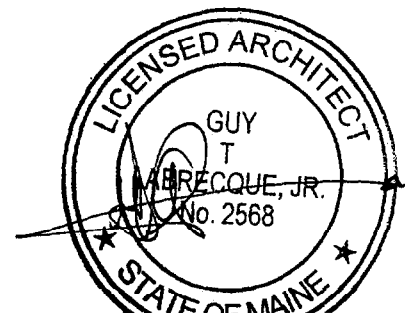
As requested I have included completed and stamped City of Portland Applications. I would suggest submitting the Code Compliance Report with the cities documents as well. It should be noted that the information provided within the sketches will need to be addressed or conflicts between the Contractor and the city inspections office may arise during their periodic construction reviews.

In a separate item and in response to the Owner's interest in the incorporation of a stairway chair lift, we have reviewed ADA, spoken with Dennis Pratt at Alpha One and spoken to Mike Nugent for further clarification. It is our determined that despite the fact that ADA will recognize a chair lift as an accessible "Means of Access", BOCA and Life Safety Codes does not allow a lift (or an elevator for that matter) to serve as an accessible "Means of Egress". Nor will BOCA of Life Safety allow any encroachment into the minimum clear egress width of an egress stair. The required width in the case of this egress stair is 44 inches. The smallest dimension of the stair is only 43 inches. The stair in it's existing configuration is non-conforming. It should be noted that in a two story building, ADA does not require an accessible path to the second floor. If the employer hires a disabled individual, the employer is required to either provide an acceptable path to the second floor (elevator, L.U.L.A. elevator, Lift, ramp, etc.) or provide equal first floor accommodations for this person. I would be happy to discuss this further at any time.

Feel free to give me call with any further questions or concerns as the project moves forward.

Sincerely Yours,

CWS ARCHITECTS  
Guy T. Labrecque, Jr.





A r c h i t e c t s

434 Cumberland Avenue  
Portland ME 04101-2325

Guy T. Labrecque - Architect

Phone: 207.774.4441

Fax: 207.774.4016

E-mail: GLabrecque@CWSArch.com

May 30, 2002

---

## CODE COMPLIANCE REPORT

---

### Renovations to the Carvel Building at HP Hood for a Bottle Manufacturing Facility and Bottle Conveyor

---

#### BOCA AND LIFE SAFETY CODES REVIEW

##### 1.0 Codes Review

###### **Description of Building's Function and Program:**

The project consists of renovations and removals to the existing Carvel office and warehouse building at Park Avenue and St. John Street in Portland. The office building portion is a two-story wood framed masonry structure. Fastened to the back of this portion is an existing one-story metal clad, steel framed warehouse building raised upon concrete beams and piers. The scope of work includes the removal and replacement of the one-story metal clad warehouse portion of the complex with only minor circulation modifications to the office structure as require by code. The existing concrete foundation system shall remain and or be reinforced as required for new bottle manufacturing equipment.

###### **1.0.A Occupant Classification(s):**

###### **BOCA 1999:**

The facility will be manufacturing Plastic Milk Bottles.  
Use Group F-1 Moderate Hazard

###### **IBC 2000:**

Factory Group F-1 Moderate Hazard

###### **NFPA 101:**

Chapter 40: "Industrial Occupancies – Special Purpose – Ordinary Hazard"

###### **1.0.B Boca Specific Occupancy Areas relative to the Scope of this Project:**

Not Applicable to the spaces within the scope of this project.



**1.0.C Building Height and Area Limitations:**

**Building Height:**

**BOCA 1999 – Chapter 5, Table 503**

Type 2C Construction

Allowable: w/o sprinkler

2 Stories: 30'-0"

**IBC 2000 – Chapter 5, table 503**

Type 2B Construction

Allowable: w/o sprinkler

3 Stories – 55'-0"

**Proposed:** The replacement building will be (1) story with a maximum building height of 20'-0".

**Building Area:**

**BOCA – Chapter 5, Table 503**

Type 2C Construction

Allowable: w.o. sprinkler & access adjustments:

9,600 s.f. per floor

Allowable: w/ access adjustments:

9,600 s.f. per floor

+14,400 s.f. (adjustment due to 75% of the building providing fire vehicle access.)

24,000 total s.f. allowable per floor level

**IBC – Chapter 5, Table 503**

Type 2B Construction

Allowable: w.o. sprinkler & access adjustments:

23,000 s.f. per floor

Allowable: w/ access adjustments:

23,000 s.f. per floor

+34,500 s.f. (adjustment due to 75% of the building providing fire vehicle access.)

57,500 total s.f. allowable per floor level

**Proposed:** The proposed building area will be approximately 3,500 s.f.

**1.0.D Type of Construction:**

**NFPA 220: Type II, 111**

**BOCA 1999: Type 2C**

The building will consist of the following assemblies;

Structural System:

Steel W-section columns and beams  
Steel bar joists w/ metal decking and concrete slab floor systems

Exterior Walls:

Insulated Metal Panel Wall Assemblies

Interior Walls:

Cold Formed Metal studs  
5/8" Type "X" gypsum wall board through out.

Roof Framing:

Steel beams and bar joists  
EPDM Roofing system

**1.0.E Required Fire Resistance Ratings of applicable Structure Elements:**

**BOCA 1999 - Table 602**

<b><u>Element</u></b>	<b><u>2C</u></b>
Exterior Load Bearing Walls (Fire Separation Distance is to remain unchanged)	n/a
Fire walls and party walls	2 hrs
Fire Separation Assemblies	
Fire Enclosure of exits	2 hrs
Shafts and Elevator Hoistways	2 hrs
Mixed use and Fire area separations(Section 313.0) F-2 from B	Table 313.1.2 2 hrs

Fire Partitions:

Exit Access Corridors (Table 1011.4) – with an Automatic Sprinkler System

Use Group F-2

Corridor capacity > 30 1 hr

Smoke Barriers 1 hr

Other Non-load Bearing Partitions 0 hrs

Interior load bearing Partitions, Columns, etc. 0 hrs

    Supporting more than (1) floor 0 hr

    Supporting (1) floor only or a roof only 0 hr

Floor Construction including Beams 0 hr

Roof Construction

20' or more to lowest member 0 hrs

**NFPA 101**

Exit Access Corridors: 7.1.3.1 (Occupant load >30) 1 hr  
Fire Enclosure of Exits: 7.1.3.2(a) Serving 3-stories or less 1 hr

Vertical Openings shall be fully enclosed floor to floor or floor to roof: 8.2.5.4 1 hr

**1.0.F Means of Egress:**

**BOCA 1999 – Chapter 10: Table 1008.1.2**  
**IBC 2000 – Chapter 10: Table 1003.2.2.2**  
**NFPA 101 – Chapter 7: Table 7.3.1.2**

Occupant Load BOCA: Industrial Use: 100 gross s.f. / per occupant  
Occupant Load IBC: Industrial Use: 100 gross s.f. / per occupant  
Occupant Load NFPA: Special Industrial Use: Max. Probable occupants at any time

Building Occupant Load @ 3,500 s.f. = 35 people

Actual count will be 5-10 people in the worse case.

**Minimum Number of Exits:**

**BOCA 1999 – Chapter 1010.2 & 1010.3**

Due to the travel distance being greater than 75 feet, two means of egress will be required. 50% (1) Means of Egress shall be “Accessible”.

**IBC 2000 – Chapter 1005**

Due to the travel distance being greater than 75 feet, a second means of egress will be required.

**NFPA 101 – Chapter 40**

Not less than two means of Egress shall be provided.

**Capacity of Egress Components:**

<b>Element</b>	<b>Minimum Allowable</b>
<b><u>Exit Access Corridors:</u></b>	
Width	44 inches clear
<b><u>Doors:</u></b>	
Width	32 inches clear

The existing corridors and proposed corridors conform.  
The existing and proposed doors conform.

**Egress Arrangement:**

**Factory F-2 Use: BOCA 1999**

Dead-end corridor (1011.2)	20 ft
Exit Access Travel Distance (1006.5)	300 ft
Common Path of Travel (1011.2.1)	75 ft

**Factory F-2 Use: IBC 2002**

Dead-end corridor (1011.2)	20 ft
Exit Access Travel Distance (1004.2.4)	300 ft
Common Path of Travel (1004.2.5)	75 ft

**Industrial Use: NFPA 101**

Dead-end corridor	50 ft
Common Path of Travel	100 ft
Travel Distance to an Exit	200 ft

**1.0.G Emergency Lighting: NFPA 20.2.9**

Emergency Lighting is required.

**1.0.H Interior Finish System:**

**BOCA 1999 - Chapter 8**  
**IBC 2000 - Chapter 8**  
**NFPA 101 - Shall be per Chapter 10**

<b>Wall and Ceiling Finishes:</b>	<b>NFPA</b>	<b>BOCA</b>
Vertical Exits	Class A, B or C	Class I
Exit Access Corridors	Class A, B or C	Class II
All other spaces	Class A, B or C	Class III
<b>Floor Finishes:</b>		
Vertical Exits / Exit Corridors	No Requirements	Class II

**1.0.I Detection, Alarm, and Communications:**

**BOCA 1999 - Chapter 9**  
**IBC 2000 - Chapter 9**  
**NFPA 101 - Chapters 40 and 9**

A manual fire alarm system is required by NFPA 40.3.4.2 but not by either BOCA or IBC.

**1.0.J Extinguishing Requirements:**

**BOCA - Chapter 9  
IBC 2000 – Chapter 9  
NFPA 101 – Chapter 40**

- \* An Automatic Fire Suppression System is not required by the above codes.
- \* Portable fire extinguishers are not required by the above codes.

**2.0 GENERAL BUILDING COMPONENTS**

**2.0.A Stair Assemblies**

**BOCA 1999 – Chapter 10**

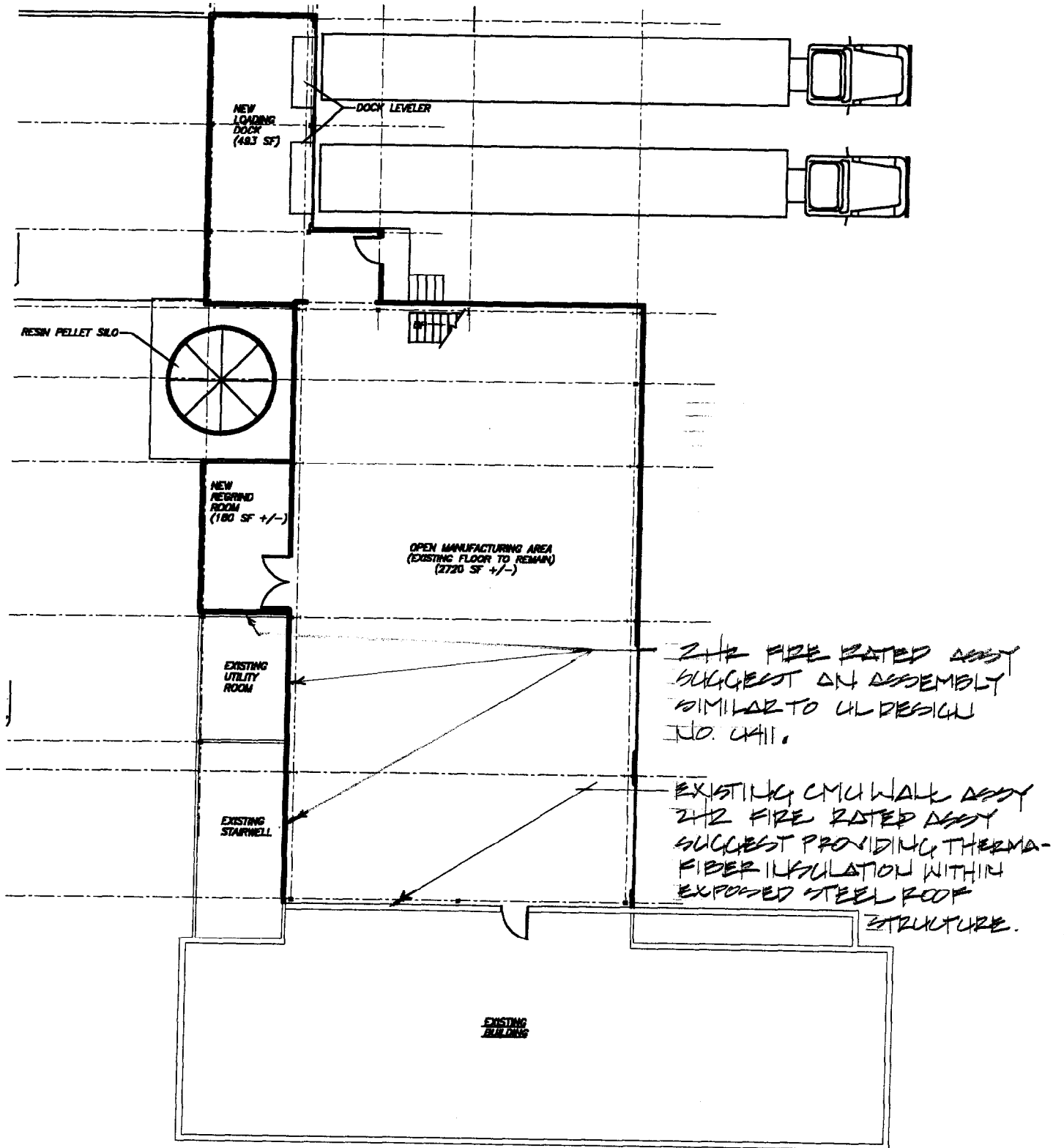
Maximum Riser Height	7"
Minimum Rise Height	4"
Minimum Tread Depth	11"
Minimum Head Room	80" (6'-8")
Maximum Vertical Rise to Landing	12'-0"
Hand Rail Height	34" – 38"
Guardrail Height	42"
Baluster Spacing shall resist the passage of a 21" sphere in an F-2 Use Group	

**IBC 2000 – Chapter 10**

Maximum Riser Height	7"
Minimum Rise Height	4"
Minimum Tread Depth	11"
Minimum Head Room	80" (6'-8")
Maximum Vertical Rise to Landing	12'-0"
Hand Rail Height	34" – 38"
Guardrail Height	42"
Baluster Spacing shall resist the passage of a 21" sphere in an F-2 Use Group	

**NFPA 101 – Chapter 10**

Maximum Riser Height	7"
Minimum Rise Height	4"
Minimum Tread Depth	11"
Minimum Head Room	80" (6'-8")
Maximum Vertical Rise to Landing	12'-0"
Hand Rail Height	34" – 38"
Guardrail Height	42"
Baluster Spacing shall resist the passage of a 4" sphere	



FLOOR PLAN  
1/8"=1'-0"

CNS ARCHITECTS  
6/19/02

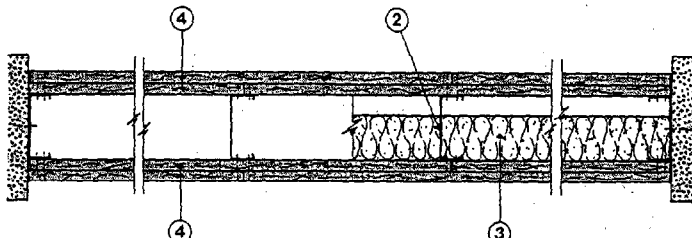
## FIRE RESISTANCE DIRECTORY (BXRH)

Fire Resistance Ratings - ANSI/UL 263 (BXUV)—Continued

STANDARD GYPSUM L L C—Type SG-C, SGC-1 or SGC-G.  
 TEMPLE-INLAND FOREST PRODUCTS CORP—Type T, VPB-  
 Type T or TG-C.

\*Bearing the UL Classification Mark

Design No. U411  
 Nonbearing Wall Rating — 2 HR.



1. Floor and Ceiling Runner — (Not Shown) — Min. 25 MSG (min 20 MSG when Item 4B is used) galv steel 1 in. high, return legs 2-1/2 in. wide (min), attached to floor and ceiling with fasteners 24 in. OC.
2. Steel Studs — Min 2-1/2 in. wide, 1-1/4 in. legs, 3/8 in. return, formed of min 25 MSG (min 20 MSG when Item 4B is used) galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
3. Batts and Blankets\* — (Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity. Fasten each batt to wallboard base layer with a min 9/16 in. long staple. Use five staples for each 4 ft piece. Drive one staple in the center of each piece and a staple at each corner, approx 3 in. from edges.  
See Batts and Blankets (BZJZ) category for names of manufacturers.
4. Gypsum Board\* — 5/8 in. thick, outer layer paper or vinyl surfaced. (Laminated System) Wallboard applied vertically in two layers. Inner layer attached to studs with 1 in. long Type S steel screws spaced 8 in. OC along vertical edges, and 12 in. OC in the field and outer layer laminated to inner layer with joint compound, applied with a notched spreader producing continuous beads of compound about 3/8 in. in diameter, spaced not greater than 2 in. OC. Joints of laminated outer layer offset 12 in. from inner layer joints. Outer layer wallboard attached to floor and ceiling runner track with 1-5/8 in. long Type S steel screws spaced 12 in. OC.  
Optional, (Direct Attached System), Inner layer attached to studs with 1 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges. Outer layer attached to the studs over the inner layer with 1-5/8 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges and 12 in. OC to the floor and ceiling runners. Joints of screw-attached outer layer offset from inner layer joints. Joints of outer layer may be taped or untaped.  
Nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.

AMERICAN GYPSUM CO—Type AG-C or AGX-11.

BEIJING NEW BUILDING MATERIALS CO LTD—Type DBX-1.

BORAL GYPSUM INC—Type BG-C, DDDG3, DDG2 or DDN1.

BPB AMERICA INC

BPB CELOTEX—Type 1 or FRP.

CANADIAN GYPSUM COMPANY—Type AR, C, FCV, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC or WRX.

CONTINENTAL GYPSUM COMPANY—Types CG-3, CG-C, CG3-3, CG5-5, CG6-6, CG9-9, CGTC-C.

G-P GYPSUM CORP, SUB OF

GEORGIA-PACIFIC CORP—Types 5, 9, C, DGG, DS, GPFS6.

JAMES HARDIE GYPSUM INC—Types Fire X, Max“C”.

LAFARGE GYPSUM, DIV OF

LAFARGE CORP—Types LGFC2, LGFC2A, LGFC3, LGFC6, LGFC6A, LGFC-C, LGFC-C/A.

NATIONAL GYPSUM CO—Types FSW, FSW-3, FSW-C, FSW-G.

NORGIPS A/S—NORFIRE X.

PABCO GYPSUM, DIV OF

PACIFIC COAST BUILDING PRODUCTS INC—Type C, PG-3, PG-5, PG-9 or PG-C.

REPUBLIC GYPSUM CO—Type RG-C.

SIAM GYPSUM INDUSTRY CO LTD—Type EX-1.

STANDARD GYPSUM L L C—Type SGC, SG-C or SGC-G.

TEMPLE-INLAND FOREST PRODUCTS CORP—Types T, TG-C, VPB-Type T.

UNITED STATES GYPSUM CO—Type AR, C, FCV, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC or WRX.

WESTROC INC—Type Westroc Fireboard.

## FIRE RESISTANCE DIRECTORY (BXRH)

739

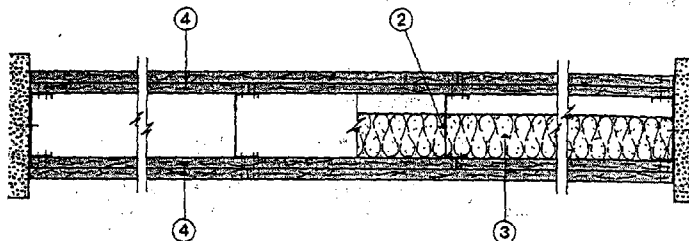
Fire Resistance Ratings - ANSI/UL 263 (BXUV)—Continued

YESO PANAMERICANO S A DE C V—Type AR, C, FCV,  
 IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC or WRX.

- 4A. Gypsum Board\* — (As an alternate to Item 4) — Nom 3/4 in. thick, installed as described in Item 4 with 1-1/4 in. long Type S screws for inner layer and 2-1/4 in. long Type S screws for outer layer.  
CANADIAN GYPSUM COMPANY—Types AR, IP-AR.  
UNITED STATES GYPSUM CO—Types AR, IP-AR.  
YESO PANAMERICANO S A DE C V—Types AR, IP-AR.
- 4B. Gypsum Board\* — (As an alternate to Item 4 and 4A) — Nom 5/8 in. thick gypsum panels, installed as described in Item 4 with Type S-12 steel screws. The length and spacing of the screws as specified under Item 4.  
CANADIAN GYPSUM COMPANY—Type FRX.  
UNITED STATES GYPSUM CO—Type FRX.
- 4C. Gypsum Board\* — (As an alternate to Item 4, 4A and 4B)—5/8 in. thick, 2 ft wide, tongue and groove edge, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 4 for the direct attached system.  
CANADIAN GYPSUM COMPANY—Type SHX.  
UNITED STATES GYPSUM CO—Type SHX.  
YESO PANAMERICANO S A DE C V—Type SHX.

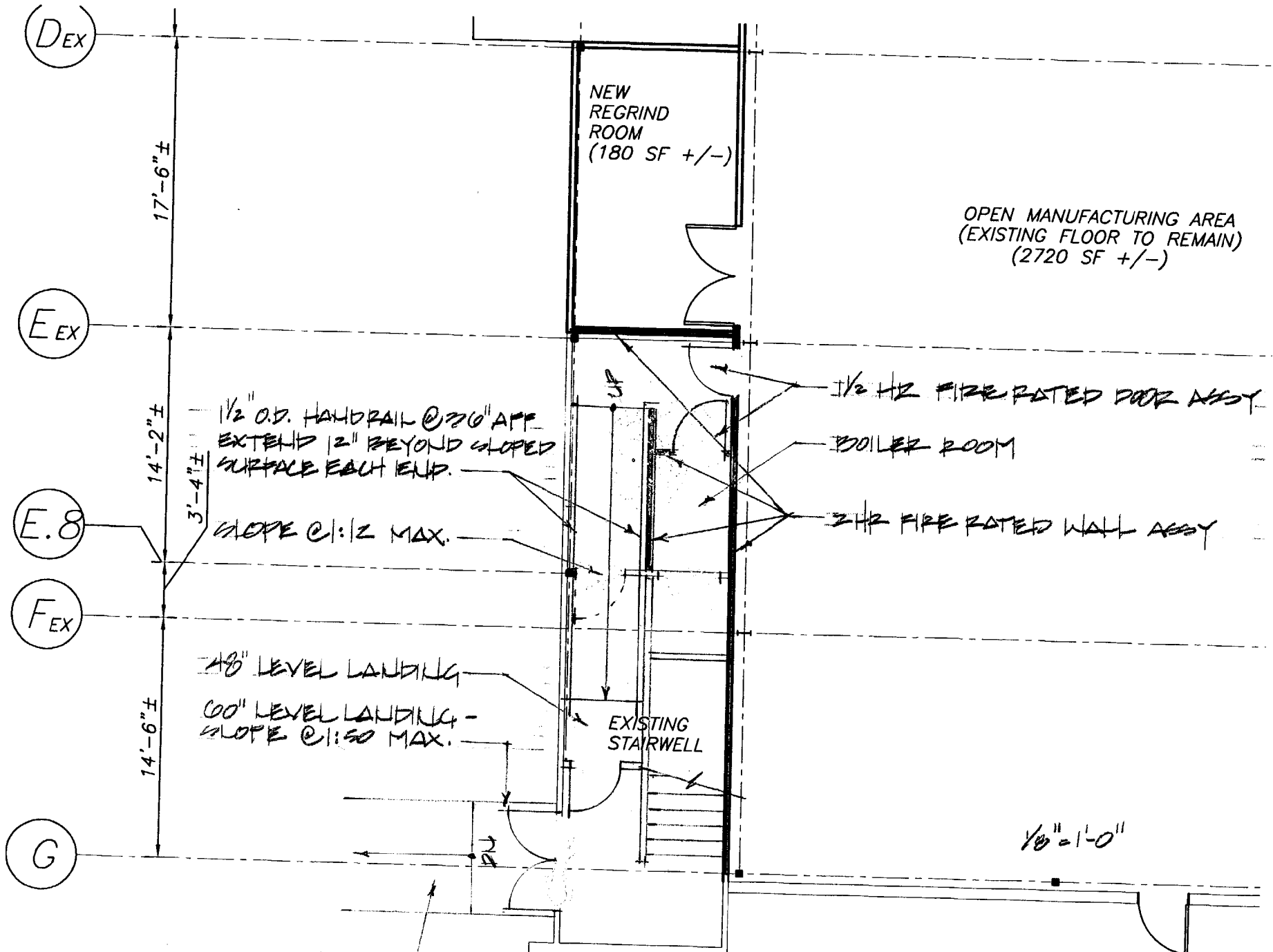
\*Bearing the UL Classification Mark

Design No. U412  
 Nonbearing Wall Rating — 2 HR.



1. Floor and Ceiling Runner — (Not Shown) — 25 MSG (min) galv steel 1 in. high, return legs 1-5/8 in. wide (min), attached to floor and ceiling with fasteners 24 in. OC.
2. Steel Studs — 1-5/8 in. wide (min), 1-1/4 in. legs, 1/4 in. return, formed of 25 MSG (min) galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
3. Batts and Blankets\* — (Optional) — Mineral wool or glass fiber batts, partially or completely filling stud cavity. Fasten each batt to wallboard base layer with a min 9/16 in. long staple. Use five staples for each 4 ft long piece. Drive one staple in the center of each piece and a staple at each corner, approx 3 in. from edges.  
See Batts and Blankets (BZJZ) category for names of manufacturers.
4. Gypsum Board\* — 1/2 in. thick. Wallboard applied vertically in two layers. (Laminated System) Inner layer attached to studs with 1 in. long Type S steel screws spaced 24 in. O.C. along vertical edges and 24 in. O.C. in the field. Outer layer laminated to inner layer with joint compound, applied with a notched spreader producing continuous beads of compound about 3/8 in. in diameter, spaced not greater than 2 in. O.C. Joints of laminated outer layer offset 12 in. from inner layer joints. Outer layer wallboard attached to inner layer with 1-1/2 in. long Type G steel screws spaced 24 in. O.C. along edges and center line of each sheet.  
Optional, (Direct Attached System) Wallboard applied vertically in two layers. Inner layer attached to studs with 1 in. long Type S steel screws spaced 24 in. O.C. in the field and along the vertical edges. Outer layer attached to the studs over the inner layer with 1-5/8 in. long Type S steel screws spaced 12 in. O.C. in the field, along the vertical edges, and to the floor and ceiling runners. Joints of screw-attached outer layer offset from inner layer joints.  
Optional, (Direct Attached System) Inner layer wallboard applied vertically, outer layer wallboard applied horizontally. Inner layer attached to studs with 1 in. Type S steel screws spaced 24 in. O.C. along vertical edges and in the field. Outer layer attached to the studs over the inner layer with 1-5/8 in. long Type S steel screws spaced 12 in. OC in the field, along the vertical edges, and to the floor and ceiling runners. Outer layer secured to inner layer wallboard with 1-1/2 in. long Type G steel screws located midway between studs and 1 in. from the horizontal joint. Outer layer wallboard joints covered with joint tape and min two coats of joint compound, and screw heads covered with min two coats of joint compound. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.

AMERICAN GYPSUM CO—Type AG-C.

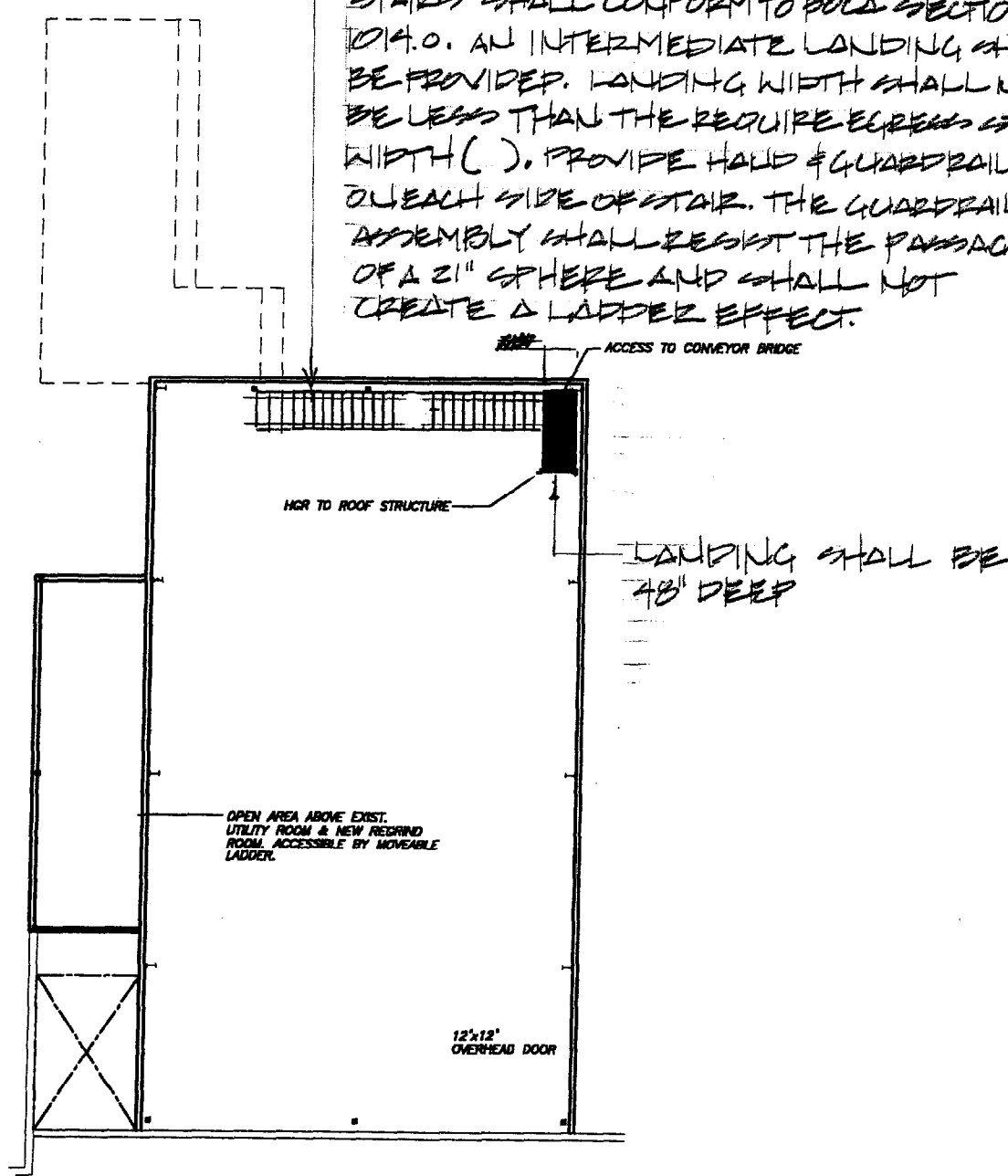


IF SLOPE IS LESS THAN 1:20  
HANDRAILS ARE NOT REQUIRED

CHS ARCHITECTS  
6/13/02



ACCESS TO EGRESS FROM LANDING AND BRIDGE SHALL BE VIA A STAIRWAY. ALL STAIRS SHALL CONFORM TO BOLD SECTION 104.0. AN INTERMEDIATE LANDING SHALL BE PROVIDED. LANDING WIDTH SHALL NOT BE LESS THAN THE REQUIRE EGRESS STAR WIDTH ( ). PROVIDE HAND & GUARDRAILS ON EACH SIDE OF STAIR. THE GUARDRAIL ASSEMBLY SHALL RESIST THE PASSAGE OF A 21" SPHERE AND SHALL NOT CREATE A LADDER EFFECT.



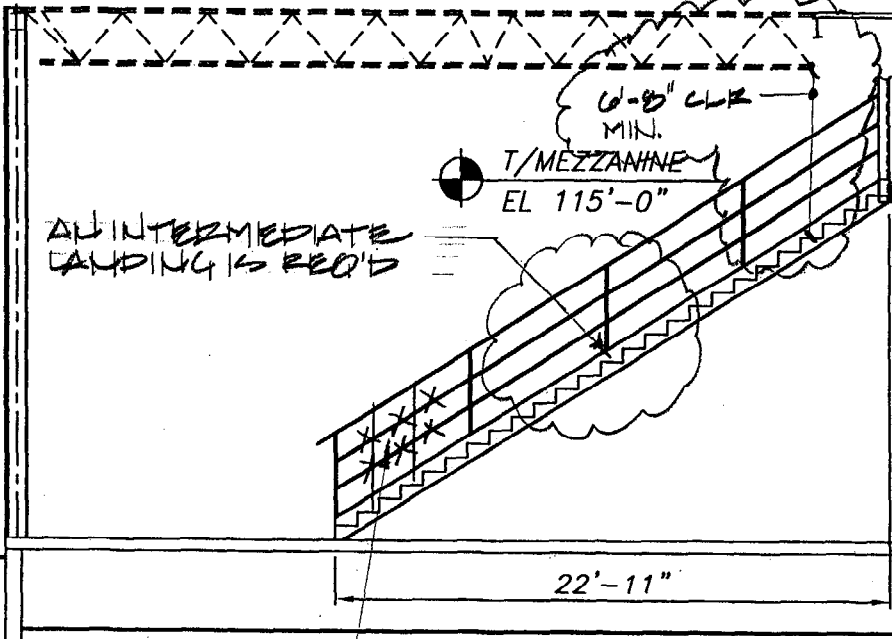
UPPER LEVEL PLAN  
1/8"=1'-0"

CNS ARCHITECTS  
6/15/02

2

4

T/STEEL  
EL 122'-0"



T/MEZZANINE  
EL 115'-0"

AN INTERMEDIATE  
LANDING IS REQUIRED

6'-0" CLR  
MIN.

7'-0"

4'-0"

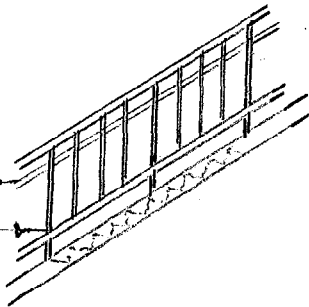
1  
45

22'-11"

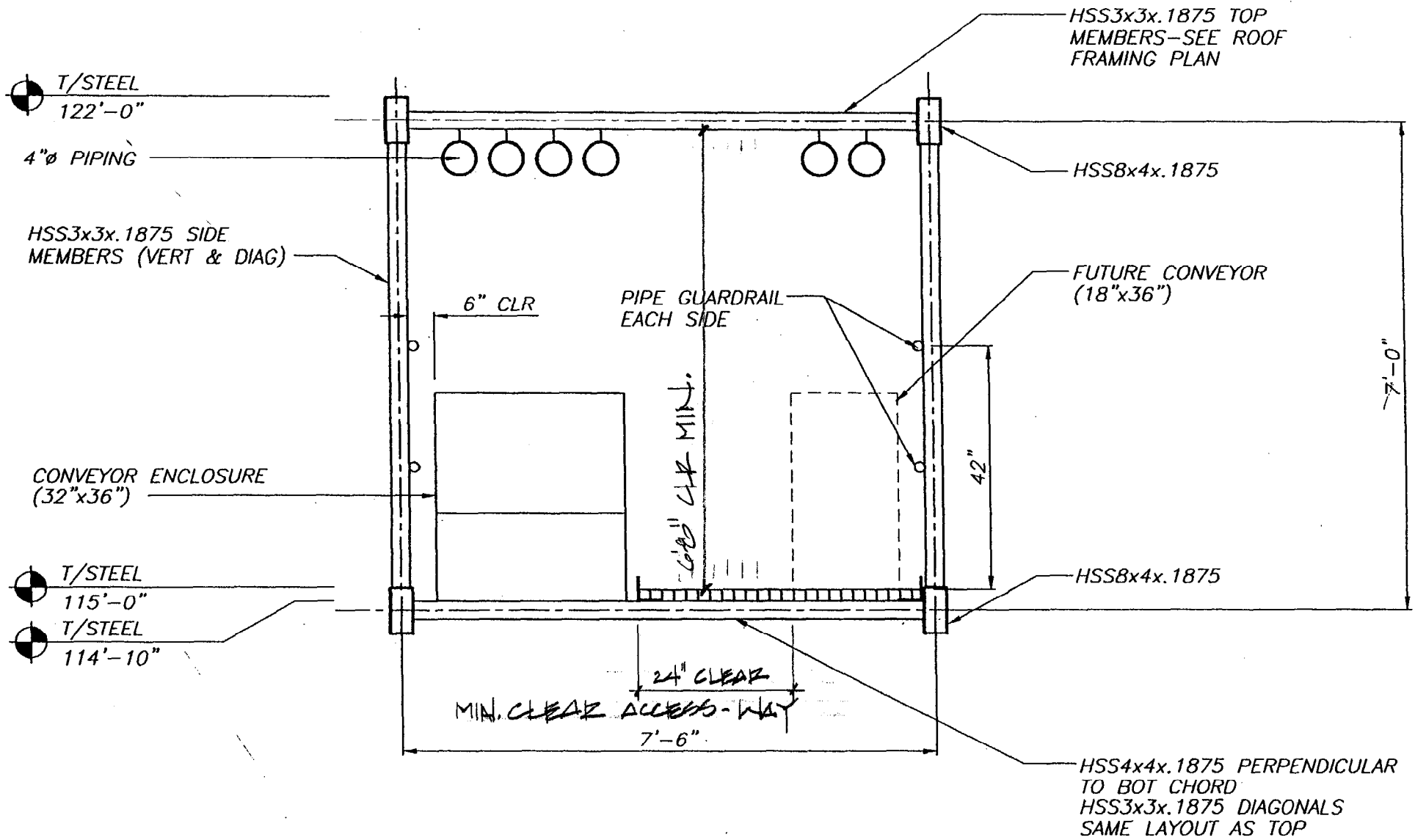
T/SLAB  
EL 100'-0"

QUARTRAIL BALUSTERS  
SHALL BE VERTICAL AND  
SHALL BE SPACED TO RESIST  
THE PASSAGE OF A 21" SPHERE.

HANDRAIL @ 30" AFF  
QUARTRAIL @ 42" AFF

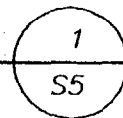


CWS ARCHITECTS  
6/13/02



SECTION

1/2"=1'-0"



ZWS ARCHITECTS  
6/15/02

other furnishings or fixtures, a path of travel that connects with each of the *means of egress* doorways serving the area and which complies with the minimum width requirements of aisles, shall be provided.

**1011.1.1 Use Group I-2:** In occupancies in Use Group I-2, suites of rooms, other than patient sleeping rooms, shall have no more than one intervening room where the travel distance within the suite to the *exit* access door is not greater than 100 feet (30480 mm) and shall have no more than two intervening rooms where the travel distance within the suite to the *exit* access door is not greater than 50 feet (15240 mm).

**1011.1.2 Use Groups I-2 and I-3:** Every sleeping room in occupancies in Use Group I-2 or I-3 shall have an *exit access* door leading directly to an *exit access corridor*.

**Exception:** Direct *corridor* access is not required:

1. Where there is an *exit* door opening directly to the outside from the room at ground level.
2. In occupancies in Use Group I-2, where one adjacent room, such as a sitting room or anteroom, intervenes and the intervening room is not used as an *exit access* for more than eight patients.
3. In occupancies in Use Group I-2, where a patient sleeping room is subdivided with nonfire-resistance rated, noncombustible partitions, provided that the arrangement allows for direct and constant visual supervision by nursing personnel and the suite complies with this section and Section 1017.0. Such rooms which are so subdivided shall not exceed 5,000 square feet (465 m<sup>2</sup>).
4. In occupancies in Use Group I-3, where a dayroom or group activity space intervenes between an individual occupant sleeping room and the access to an *exit*, provided that the sleeping room opens directly to the day space and is not separated in elevation by more than one story.

**1011.1.3 Turnstiles and gates:** Access through turnstiles, gates, rails or similar devices shall not be permitted unless such a device is equipped to swing readily in the direction of *exit* travel under a total force of not more than 15 pounds (73.23 N).

**1011.1.4 Restrictions:** The required width of passageways, *aisle accessways*, aisles and *corridors* shall be maintained free of projections and restrictions; except that the minimum clear width resulting from doors opening into such spaces shall be one-half of the required width. When fully open, the door shall not project more than 7 inches (178 mm) into the required width. Handrail projections are permitted in accordance with Section 1022.2.1.

**1011.2 Dead ends:** *Exit access* passageways and *corridors* in all stories which serve more than one *exit* shall provide direct connection to such *exits* in opposite directions from any point in the passageway or *corridor*, insofar as practicable. The length of a dead-end passageway or *corridor* shall not be more than 20 feet (6096 mm).

**Exceptions**

1. In occupancies in Use Group I-3 of Occupancy Condition II, III or IV (see Section 308.4), the dead end in a

*corridor*, hallway or aisle shall not exceed 50 feet (15240 mm).

2. In occupancies in Use Group B where passageways are bounded by furniture, counters, partitions or similar dividers not more than 6 feet (1829 mm) in height, the length of a dead-end passageway shall not be more than 50 feet (15240 mm).
3. In occupancies in Use Group B where the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 906.2.1, the length of dead-end *corridors* or passageways shall not exceed 50 feet (15240 mm).
4. Passageways or *corridors* within spaces with one *means of egress*.
5. A dead-end passageway or *corridor* shall not be limited in length where the length of the dead-end passageway or *corridor* is less than 2.5 times the least width of the dead-end passageway or *corridor*.

**1011.2.1 Common path of travel:** In occupancies in Use Group B, the length of a *common path of travel* shall not exceed 75 feet (22860 mm).

**Exceptions**

1. The length of a *common path of travel* in an occupancy in Use Group B shall not be more than 100 feet (30480 mm), provided that the building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 906.2.1.
2. Where a tenant space in an occupancy in Use Group B has an occupant load of not more than 30, the length of a *common path of travel* shall not be more than 100 feet (30480 mm).

**1011.3 Width:** The minimum required width of passageways, *aisle accessways*, aisles and *corridors* shall be determined by the most restrictive of the following criteria:

1. 44 inches (1118 mm) where serving an occupant load of greater than 50.
2. 36 inches (914 mm) where serving an occupant load of 50 or less.
3. 96 inches (2438 mm) in an occupancy in Use Group I-2 utilized for the movement of beds.
4. 72 inches (1829 mm) in an occupancy in Use Group E with more than 100 occupants.
5. The width required for capacity as determined by Section 1009.0.
6. 24 inches (610 mm) for access to and utilization of electrical, mechanical, or plumbing systems or equipment.

Aisles and *aisle accessways* shall conform to the requirements of this section or Section 1012.0.

**1011.3.1 Capacity:** The required capacity of a *corridor* shall be determined by dividing the occupant load that utilizes the *corridor* for *exit access* by the number of *exits* to which the *corridor* connects, and shall be not less than the required capacity of the *exit* element to which the *corridor* leads.

**1011.4 Enclosure:** All *corridors* shall be fire-resistance rated in accordance with Table 1011.4 based on the use group of the space and the total required capacity of all of the *exits* from the *corridor*. The *corridor* walls shall comply with Section 711.0.

**1013.6.1 Aisle termination:** Each end of an aisle shall terminate at a cross aisle, foyer, doorway, or vomitory having access to an exit.

**Exceptions**

1. Where seats are without backrests, dead-ends in vertical aisles shall not exceed 16 rows.
2. For smoke-protected assembly seating, with or without backrests, dead-end aisles shall not exceed 21 rows.
3. For smoke-protected assembly seating, with or without backrests, dead-end aisles longer than 21 rows are permitted where the seats beyond 21 rows are not more than 40 seats from another aisle, measured along a row of seats having an aisle accessway with a minimum clear width of 12 inches (305 mm) plus 0.3 inches (8 mm) for each additional seat above seven in a row.

**1013.6.2 Row width:** For smoke-protected assembly seating, the maximum number of seats in a row that has a minimum clear aisle accessway width of 12 inches (305 mm) shall be as specified in Table 1013.6.2.

Where the number of seats per row exceeds that specified in Table 1013.6.2, the minimum clear aisle accessway width for rows served by aisles or doorways at both ends shall be 12 inches (305 mm) plus 0.3 inch (7.5 mm) for every additional seat beyond that specified in Table 1013.6.2 and there shall be not more than 100 seats per row; and for rows served by an aisle or doorway at only one end of the row, the minimum clear aisle accessway width shall be 12 inches (305 mm) plus 0.6 inch (15 mm) for every additional seat beyond that specified in Table 1013.6.2.

**Table 1013.6.2  
ROW LENGTH WITH 12-INCH AISLE ACCESSWAY  
SMOKE-PROTECTED ASSEMBLY SEATING**

Total number of seats in the space	No. of seats per row permitted to have a minimum 12-inch <sup>a</sup> clear width aisle accessway	
	Aisle or doorway at both ends of row	Aisle or doorway at one end of row
Less than 4,000	14	7
4,000	15	7
7,000	16	8
10,000	17	8
13,000	18	9
16,000	19	9
19,000	20	10
22,000 or more	21	11

Note a. 1 inch = 25.4 mm.

**1013.6.3 Single access row:** For rows of seating served by an aisle or doorway at only one end of the row in smoke-protected assembly seating, the common path of travel from any seat to a point where a person has a choice of two directions of egress travel shall not exceed 50 feet (15240 mm).

**1013.7 Bleacher footboards:** Bleacher footboards shall be provided for all rows of seats above the third row or beginning at such a point where the seatboard is more than 2 feet (610 mm) above the ground or floor surface below. A separate footboard is

not required where the seatboard is used for both seating and the footboard, provided that each level or platform is not less than 24 inches (610 mm) wide. On a horizontally projected plane, horizontal gaps between footboards and seatboards shall not exceed 1/4 inch (6 mm). Openings between footboards and seatboards which are located more than 30 inches (762 mm) above the floor or grade below shall be provided with intermediate construction such that a sphere with a diameter of 4 inches (102 mm) cannot pass through the opening.

**1013.8 Spaces underneath seats:** Spaces underneath grandstand seats shall be kept free of all combustible and flammable materials and shall not be occupied or used for other than exits; except that where enclosed in not less than 1-hour fire-resistance rated construction, the code official shall approve the use of such spaces for other purposes, provided that the safety of the public is not endangered.

**SECTION 1014.0 STAIRWAYS**

**1014.1 General:** All stairways shall comply with the provisions of this section. Section 1014.11 shall be applicable only to interior stairways. Section 1014.12 shall be applicable only to exterior stairways.

**1014.1.1 Walking surface slope:** The maximum slope of the walking surface of treads and landings shall be one unit vertical in 48 units horizontal (1:48).

**Exception:** The maximum slope shall not apply to portions of treads that are rounded or beveled in accordance with Section 1014.6.1.

**1014.2 Egress capacity:** The egress capacity of stairways and doors shall be computed in accordance with Section 1009.0.

**1014.3 Width:** All means of egress stairways shall not be less than 44 inches (1118 mm) in width.

**Exceptions**

1. Stairways serving buildings of single-exit construction where permitted by Section 1010.3 shall not be less than 36 inches (914 mm) in width.
2. Spiral stairways as provided for in Section 1014.6.4.
3. Stairways serving a single residential dwelling unit shall not be less than 36 inches (914 mm) in width.
4. Stairways serving buildings having a total occupant load of 50 or less shall not be less than 36 inches (914 mm) in width.
5. Where a stairway lift is installed on stairways serving occupancies in Use Group R-3 or within dwelling units in occupancies in Use Group R-2, a clear passage width not less than 20 inches (508 mm) shall be provided.

**1014.3.1 Restrictions:** Means of egress stairways shall not reduce in width in the direction of egress travel. Projections into a required stairway width are prohibited.

**Exceptions**

1. At and below handrail height where, at each handrail, projections into the required width of a stairway shall not exceed 4 1/2 inches (114 mm).
2. Above the minimum headroom height required in Section 1014.4, projections into the required width shall not be limited.

**1014.3.2 Landing width:** The least dimension of landings and platforms in means of egress stairways shall not be less than the required width of the stairway, except that the landing dimension in the direction of egress travel is not required to exceed 4 feet (1219 mm) where the travel from one stair flight to the next stair flight is a straight run.

**1014.4 Headroom:** The minimum headroom in all parts of a stairway shall not be less than 80 inches (2032 mm), or 78 inches (1981 mm) for a spiral stairway, measured vertically from the tread nosing or from the floor surface of the landing or platform.

**1014.5 Vertical rise:** A means of egress stairway shall not have a height of vertical rise of more than 12 feet (3658 mm) between landings and intermediate platforms.

**1014.6 Treads and risers:** Maximum riser height shall be 7 inches (178 mm) and minimum riser height shall be 4 inches (102 mm). The riser height shall be measured vertically between the leading edges of the adjacent treads. Minimum tread depth shall be 11 inches (279 mm), measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge.

#### Exceptions

1. Winders in accordance with Section 1014.6.3.
2. Spiral stairways in accordance with Section 1014.6.4.
3. Circular stairways in accordance with Section 1014.6.5.
4. Alternating tread stairways in accordance with Section 1014.6.6.
5. Stairways serving as aisles in assembly seating areas where the stairway pitch or slope is set, for sightline reasons, by the slope of the adjacent seating area.
6. Any stairway replacing an existing stairway within a space where, because of existing construction, the pitch or slope cannot be reduced.
7. Existing stairways.
8. In occupancies in Use Group R-3, within dwelling units in occupancies in Use Group R-2 and in occupancies in Use Group U which are accessory to an occupancy in Use Group R-3, the maximum riser height shall be  $7\frac{3}{4}$  inches (197 mm) and the minimum tread depth shall be 10 inches (254 mm). A nosing not less than  $\frac{3}{4}$  inches (19 mm) but not more than  $1\frac{1}{4}$  inches (32 mm) shall be provided on stairways with solid risers where the tread depth is less than 11 inches (279 mm).
9. Stairways in penal facilities serving guard towers, observation stations and control rooms not more than 250 square feet (23 m<sup>2</sup>) in area shall be permitted to have risers not exceeding 8 inches (203 mm) in height and treads not less than 9 inches (229 mm) in depth.

**1014.6.1 Profile:** The radius of curvature at the leading edge of the tread shall not be greater than  $\frac{1}{2}$  inch (13 mm). Bevelling of nosings shall not exceed  $\frac{1}{2}$  inch (13 mm). Risers shall be solid and vertical or sloped from the underside of the leading edge of the tread above at an angle not more than 30 degrees (0.52 rad) from the vertical. The leading edge of

treads shall project not more than  $1\frac{1}{4}$  inches (32 mm) beyond the tread below.

#### Exceptions

1. Solid risers are not required for stairways serving dwelling units which are not required to be accessible in accordance with Section 1107.4.2, provided that the opening between treads does not permit the passage of a sphere with a diameter of 4 inches (102 mm).
2. Solid risers are not required for occupancies in Use Group I-3.
3. Solid risers are not required for stairways serving factory or storage occupancies which are not required to be accessible.

**1014.6.2 Dimensional uniformity:** There shall not be variation exceeding  $\frac{3}{16}$  inch (5 mm) in the depth of adjacent treads or in the height of adjacent risers. The tolerance between the largest and smallest riser or between the largest and smallest tread shall not exceed  $\frac{3}{8}$  inch (10 mm) in any flight of stairs.

#### Exceptions

1. Where the bottom riser adjoins a sloping public way, walk or driveway which has an established grade and serves as a landing, a variation in the height of the bottom riser shall not exceed 3 inches (76 mm) in every 3 feet (914 mm) of stairway width.
2. On stairways serving as aisles in assembly seating, where necessitated by changes in the gradient of adjoining seating areas to maintain adequate sightlines, the maximum nonuniformity of riser heights within a flight and the nonuniformity between adjacent risers shall not apply. Where a nonuniformity exceeds  $\frac{3}{16}$  inch (5 mm) between adjacent risers, the exact location of the nonuniformity shall be indicated with a distinctive marking stripe on each tread at the nosing or leading edge adjacent to the nonuniform risers.

**1014.6.3 Winders:** Winders shall not be permitted in required means of egress stairways except stairways serving a single dwelling unit. Such winders shall have a tread depth of not less than 10 inches (254 mm) at a point not more than 12 inches (305 mm) from the side where the tread is narrower and the minimum tread depth shall not be less than 6 inches (152 mm). The continuous handrail required by Section 1014.7 shall be located on the side where the tread is narrower.

**1014.6.4 Spiral stairways:** Spiral stairways shall not be used as an element of a means of egress except: within a single dwelling unit; from a mezzanine area not more than 250 square feet (23 m<sup>2</sup>) in area which serves not more than five occupants; and in penal facilities from a guard tower, observation station or control room not more than 250 square feet (23 m<sup>2</sup>) in area. The minimum width of all spiral stairways shall be 26 inches (660 mm) with each tread having a  $7\frac{1}{2}$ -inch (191 mm) minimum tread depth at 12 inches (305 mm) from the narrow edge. All treads shall be identical and the rise shall

not be more than 9½ inches (241 mm). A minimum headroom of 6 feet 6 inches (1981 mm) shall be provided.

**1014.6.5 Circular stairways:** Circular *stairways* shall have a minimum tread depth and a maximum riser height in accordance with Section 1014.6 and the smaller radius shall not be less than twice the width of the *stairway*. The minimum tread depth measured 12 inches (305 mm) from the narrower end of the tread shall not be less than 11 inches (279 mm).

**1014.6.6 Alternating tread stairways:** Alternating tread stairways are permitted as an element of a means of egress in buildings from a mezzanine area not more than 250 square feet (23 m<sup>2</sup>) in area and which serves not more than five occupants; and in penal facilities, from a guard tower, observation station or control room not more than 250 square feet (23 m<sup>2</sup>) in area. Alternating tread stairways are also permitted for access to roofs as provided for in Section 1027.0.

**1014.6.6.1 Handrails of alternating tread stairways:** Handrails shall be provided on both sides of *alternating tread stairways* and shall conform to Section 1022.0.

**1014.6.6.2 Treads of alternating tread stairways:** *Alternating tread stairways* shall have a minimum projected tread of 5 inches (127 mm), a minimum tread depth of 8½ inches (216 mm), a minimum tread width of 7 inches (178 mm) and a maximum riser to the next surface of the alternating tread of 9½ inches (241 mm). The initial tread of the *stairway* shall begin at the same elevation as the *platform*, landing or floor surface.

**Exception:** *Alternating tread stairways* used as an element of a *means of egress* in buildings from a *mezzanine* area not more than 250 square feet (23 m<sup>2</sup>) in area which serves not more than five occupants shall have a minimum projected tread of 8½ inches (216 mm) with a minimum tread depth of 10½ inches (267 mm). The rise to the next alternating tread surface shall not be more than 8 inches (203 mm).

**1014.7 Stairway guards and handrails:** *Stairways* shall have continuous handrails on both sides. Guards shall be provided where required by Section 1005.5. Intermediate handrails are required so that all portions of the required width of stairs are within 30 inches (762 mm) of a handrail. On monumental stairs, handrails shall be located along the most direct path of egress travel. Handrails shall be provided for *alternating tread stairways* in accordance with Section 1014.6.6.1. Guards shall be constructed in accordance with Section 1021.0. Handrails shall be constructed in accordance with Section 1022.0.

#### Exceptions

1. *Stairways* with fewer than three risers are not required to have handrails where serving a single *dwelling unit* or where such *stairways* are not in an *exit access corridor* or aisle, *exit* or *exit discharge*.
2. Aisle stairs provided with a center handrail or serving seating on one side shall be equipped with a minimum of one handrail.
3. *Stairways* within a *dwelling unit* shall be equipped with a minimum of one handrail.

4. *Spiral stairways* shall be equipped with a minimum of one handrail.

**1014.8 Egress doors:** *Means of egress stairway* doors shall provide an egress capacity of not less than the required capacity of the *stairway* which serves the floor or area from which the egress door leads.

**1014.8.1 Width:** The minimum required width of every door to or from a *means of egress stairway* shall be determined by the most restrictive of the following criteria:

1. 29¾-inch (756 mm) clear width within a *dwelling unit* that is not required to be accessible.
2. 32-inch (813 mm) clear width in all other cases.

**1014.8.2 Direction of swing:** All *means of egress* doors shall swing on a landing in the direction of egress travel. When opening, egress doors shall not reduce the width of landings to less than one-half of the required width. When fully open, *means of egress* doors shall not project more than 7 inches (178 mm) into the required width.

**Exception:** Doors leading from a room or tenant space to a *stairway* in buildings in which only one *exit* is required are not required to swing in the direction of egress travel.

**1014.8.3 Door construction:** All doorway opening protectives shall be *fire doors* complying with Section 717.0.

**1014.8.4 Maximum transmitted temperature:** *Labeled means of egress fire doors* shall have a maximum transmitted temperature end point of not more than 450 degrees F. (232 degrees C.) above ambient at the end of 30 minutes of standard fire test exposure.

**Exception:** The maximum transmitted temperature end point is not required in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 906.2.1 or 906.2.2.

**1014.9 Stairway construction:** All *stairways* shall be built of materials consistent with the types of materials permitted for the type of construction of the building; except that wood handrails shall be permitted for all types of construction. Such *stairways* shall have solid treads and landing *platforms*, and all finish floor surfaces shall be of securely attached, slip-resistant materials.

**Exception:** In Use Group F, H and S occupancies, other than areas of parking structures accessible to the public, openings in treads and landing *platforms* shall not be prohibited provided a sphere with a diameter of 1.125 inches (28 mm) cannot pass through any opening.

**1014.9.1 Strength:** All *stairways*, *platforms* and landings shall be adequate to support a *live load* of 100 pounds per square foot (4788 Pa) and a concentrated *load* of 300 pounds (1334 N).

**1014.10 Discharge identification:** *Exit stairways* which continue beyond the *level of exit discharge* shall be interrupted at the *level of exit discharge* by partitions, doors or other effective means of preventing persons from continuing past the floor of discharge while egressing.

**1014.11 Interior stairway enclosures:** Interior *exit stairways* shall be enclosed with *fire separation assemblies* having a

firerestance rating of not less than 2 hours except that such *stairways* in occupancies in Use Group A, B, E, F, H-4, I, M, R or S which connect less than four stories shall be enclosed with *fire separation assemblies* having a firerestance rating of not less than 1 hour. An *exit stairway* enclosure shall not be used for any purpose other than *means of egress*. Openings in *exit* enclosures, other than unexposed exterior openings, shall be limited to those necessary for *exit access* to the enclosure from normally occupied spaces and for egress from the enclosure.

#### Exceptions

1. *Stairways* are not required to be enclosed in occupancies in Use Group A-5 in which all portions of the *means of egress* are essentially open to the outside.
2. *Stairways* serving and contained within a single residential *dwelling unit* in occupancies in Use Group R-2 or R-3 are not required to be enclosed.
3. *Stairways* that are not a required *means of egress* element are not required to be enclosed where such *stairways* comply with Section 713.3.
4. *Stairways* in open parking structures which serve only the parking structure are not required to be enclosed.
5. *Stairways* in occupancies in Use Group I-3 as provided for in Section 410.3.7.
6. *Means of egress stairways* as required by Section 412.5.4 are not required to be enclosed.
7. *Stairways* as required by Section 422.3(5) are not required to be enclosed.

**1014.11.1 Exterior walls:** Exterior walls of an enclosed *exit stairway* shall comply with the requirements of Section 705.0 for exterior walls. Where nonrated walls or unprotected openings enclose the exterior of the *stairway* and the walls or openings are exposed by other parts of the building at an angle of less than 180 degrees (3.14 rad), the building exterior walls within 10 feet (3048 mm) horizontally of a nonrated wall or unprotected opening shall be constructed as required for *stairway* enclosures, including opening protectives, but are not required to exceed a 1-hour firerestance rating with  $\frac{3}{4}$ -hour opening protectives. This construction shall extend vertically from a point 10 feet (3048 mm) above the topmost landing of the *stairway* or to the roof line, whichever is lower, and down to the ground.

**1014.11.2 Penetrations:** Penetrations into and openings through an *exit* enclosure assembly are prohibited except for required *exit* doors, ductwork and equipment necessary for independent stair pressurization, required *ventilation*, *sprinkler* piping, *standpipes* and electrical conduit serving the *stairway* and terminating at a steel box that does not exceed 16 square inches (10323 mm<sup>2</sup>) in area. There shall not be any penetrations or communicating openings, whether protected or not, between adjacent *stairway* enclosures.

**1014.11.3 Door locks:** All interior *stairway means of egress* doors shall be openable from both sides without the use of a key or special knowledge or effort.

#### Exceptions

1. *Stairway* discharge doors shall be openable from the egress side and shall only be locked from the opposite side.

2. This section shall not apply to doors arranged in accordance with Section 403.10 or 1017.4.

**1014.11.4 Exit signs:** Each door to an enclosed *exit stairway* shall be equipped with tactile signage reading "Exit" complying with ICC A117.1 listed in Chapter 35 and installed on the side of the door from which *egress* is to be made.

**1014.11.5 Stairway floor number signs:** A sign shall be provided at each floor landing in all interior *exit stairways* connecting more than three stories designating the floor level above and below the *level of exit discharge*, the identification of the *stairway* and the availability of roof access from that *stairway*. The sign shall be located approximately 5 feet (1524 mm) above the floor landing in a position which is readily visible when the doors are in the open and closed positions.

**1014.12 Exterior stairways:** Exterior *stairways* shall be open on at least one side facing an *outer court*, yard or *public way*. The exterior wall openings shall be permitted to be reduced by 6 inches (153 mm) at each side, by 42 inches (1067 mm) above adjacent floors or landings, and by 12 inches (305 mm) below adjacent ceilings or landings such that no less than 35 square feet (3.25 m<sup>2</sup>) of opening is provided at any adjacent floor level or landing. In other than occupancies in Use Group R-3, and occupancies in Use Group U that are accessory to an occupancy in Use Group R-3, treads, *platforms* and landings which are part of exterior *stairways* in climates subject to snow or ice shall be protected to prevent accumulation of same. Exterior *stairways* shall not be accepted as an *exit* in the following cases:

1. Occupancies in Use Groups I-2 and I-3 in buildings that exceed four stories or 50 feet (15240 mm) in *height*.
2. Floors that exceed five stories or 65 feet (19812 mm) in *height* above the *level of exit discharge*.

**1014.12.1 Location:** Exterior *exit stairways* shall not project beyond the *street lot line*. Exterior *exit stairways* shall be located at least 10 feet (3048 mm) from adjacent *lot lines* and from other buildings on the same *lot* unless openings in such buildings are protected by  $\frac{3}{4}$ -hour opening protectives.

**Exception:** Noncombustible exterior *stairways* constituting not more than 50 percent of the required *means of egress* shall be exempt from the 10-foot (3048 mm) *fire separation distance* requirement.

**1014.12.2 Protection:** Exterior *exit* stairs shall be separated from the interior of the building by walls with a firerestance rating of not less than 1 hour, with fixed or self-closing opening protectives as required in Section 1014.11. This protection shall extend vertically from a point 10 feet (3048 mm) above the topmost landing or the roof line, whichever is lower, down to the ground, and shall extend horizontally 10 feet (3048 mm) from each side of the *stairway*. Openings within the horizontal 10-foot (3048 mm) extension of the protected walls beyond the *stairway* shall be equipped with fixed  $\frac{3}{4}$ -hour opening protective assemblies.

#### Exceptions

1. Occupancies, other than those in Use Group R-1 or R-2, in buildings that are two *stories* or less *above grade* where the *level of exit discharge* is the first *story above grade*.



2. Separation from the interior of the building is not required where the exterior *stairway* is served by an exterior *exit access* balcony that connects two remote exterior *stairways* or other approved *exits*, with a perimeter which is not less than 50 percent open. To be considered open, the opening shall be a minimum of 50 percent of the height of the enclosing wall, with the top of the openings not less than 7 feet (2134 mm) above the top of the balcony.
3. Separation from the interior of the building is not required for an exterior *stairway* located in a building or structure that is permitted to have unenclosed interior *exit stairways* in accordance with Section 1014.11.

### SECTION 1015.0 SMOKEPROOF ENCLOSURES

**1015.1 General:** A *smokeproof enclosure* shall consist of an enclosed interior *exit stairway* that conforms to Section 1014.0 and an outside balcony or a *ventilated* vestibule meeting the requirements of this section. Where access to the roof is required by Section 1027.0, such access shall be from the *smokeproof enclosure* where a *smokeproof enclosure* is required.

**1015.2 Where required:** All *exit stairways* serving occupants of a floor level located more than 75 feet (22860 mm) above the *level of exit discharge*, or located more than 30 feet (9144 mm) below the *level of exit discharge* serving such floor levels, shall be protected by a *smokeproof enclosure*.

**Exception:** Occupancies in Use Group I-2.

**1015.3 Access:** Access to the stair shall be from every story and shall be by way of a vestibule or by way of an open exterior balcony, except that a vestibule or balcony is not required for a *smokeproof enclosure* that consists of a pressurized *stairway* complying with Section 1015.7. The minimum dimension of the vestibule shall not be less than the required width of the *corridor* leading to the vestibule but shall not have a width of less than 44 inches (1118 mm) and shall not have a length of less than 72 inches (1829 mm) in the direction of egress travel.

**1015.4 Construction:** The *smokeproof enclosure* shall be separated from the remainder of the building by not less than a 2-hour fire-resistance rated *fire separation assembly* without openings other than the required *means of egress* doors. The vestibule shall be separated from the *stairway* by not less than a 2-hour fire-resistance rated *fire separation assembly*. The open exterior balcony shall be constructed in accordance with the fire-resistance rating requirements for floor construction.

**1015.4.1 Door closers:** All doors in a *smokeproof enclosure* shall be self-closing or shall be automatic-closing by actuation of a smoke detector installed at the floor side entrance to the *smokeproof enclosure* in accordance with Section 717.5. The actuation of the smoke detector on any door shall activate the closing devices on all doors in the *smokeproof enclosure* at all levels. Smoke detectors shall be installed in accordance with Section 919.8.

**1015.5 Natural ventilation alternative:** The provisions of Sections 1015.5.1 through 1015.5.3 shall apply to *ventilation of smokeproof enclosures* by natural means.

**1015.5.1 Balcony doors:** Where access to the *stairway* is by way of an open exterior balcony, the door assembly into the enclosure shall be a *fire door* in accordance with Section 717.0.

**1015.5.2 Vestibule doors:** Where access to the *stairway* is by way of a vestibule, the door assembly into the vestibule shall be a *fire door* complying with Section 717.0. The door assembly from the vestibule to the *stairway* shall have not less than a 20-minute *fire protection rating* complying with Section 717.0.

**1015.5.3 Vestibule ventilation:** Each vestibule shall have a minimum net area of 16 square feet (1.5 m<sup>2</sup>) of opening in a wall facing an *outer court*, yard or *public way* which is at least 20 feet (6096 mm) in width.

**1015.6 Mechanical ventilation alternative:** The provisions of Sections 1015.6.1 through 1015.6.4 shall apply to *ventilation of smokeproof enclosures* by mechanical means.

**1015.6.1 Vestibule doors:** The door assembly from the building into the vestibule shall be a *fire door* complying with Section 717.0. The door assembly from the vestibule to the *stairway* shall have not less than a 20-minute *fire protection rating* in accordance with Section 717.0. The door from the building into the vestibule shall be provided with gaskets or other provisions to minimize air leakage.

**1015.6.2 Vestibule ventilation:** The vestibule shall be supplied with not less than one air change per minute, and the exhaust shall not be less than 150 percent of supply. Supply air shall enter and exhaust air shall discharge from the vestibule through separate, tightly constructed ducts used only for that purpose. Supply air shall enter the vestibule within 6 inches (152 mm) of the floor level. The top of the exhaust register shall be located at the top of the smoke trap but not more than 6 inches (152 mm) down from the top of the trap, and shall be entirely within the smoke trap area. Doors in the open position shall not obstruct duct openings. Duct openings with controlling dampers are permitted where necessary to meet the design requirements, but dampers are not otherwise required.

**1015.6.2.1 Engineered ventilation system:** Where a specially engineered system is used, the system shall exhaust a quantity of air equal to not less than 90 air changes per hour from any vestibule in the emergency operation mode and shall be sized to handle three vestibules simultaneously. Smoke detectors shall be located at the floor side entrance to each vestibule and shall activate the system for the affected vestibule. Smoke detectors shall be installed in accordance with Section 919.8.

**1015.6.3 Smoke trap:** The vestibule ceiling shall be at least 20 inches (508 mm) higher than the door opening into the vestibule to serve as a smoke and heat trap and to provide an upward moving air column. The height shall not be decreased unless approved and justified by design and test.

**1015.6.4 Stair shaft air movement system:** The stair *shaft* shall be provided with a dampered relief opening and supplied with sufficient air to maintain a minimum positive pressure of

# CHAPTER 28

## MECHANICAL SYSTEMS

### SECTION 2801.0 GENERAL

**2801.1 Scope:** The provisions of this chapter shall control the construction, inspection and maintenance of all mechanical equipment and systems in respect to structural strength, fire safety and operation.

**2801.2 Mechanical code:** All mechanical equipment and systems shall be constructed, installed and maintained in accordance with the mechanical code listed in Chapter 35.

### SECTION 2802.0 DEFINITIONS

**Equipment platform:** An unoccupied elevated platform used exclusively for building mechanical systems or industrial process equipment. An equipment platform shall include the associated elevated walkways, stairs, and ladders accessing the platform.

### SECTION 2803.0 CONSTRUCTION DOCUMENTS

**2803.1 General:** The *construction documents* for the installation, repair, extension or removal of any mechanical equipment or system shall be submitted in accordance with the mechanical code listed in Chapter 35, and a permit shall be secured prior to the commencement of any work.

**2803.2 Matter covered:** The *construction documents* shall show in sufficient detail all applicable features and clearances of the appliances and systems, including: size and type of apparatus; construction of flue, stack or chimney; stack connections; type of fuel; method of operation; and the method of compliance with all regulations for the class and type of equipment installed.

**2803.3 Details:** An application for permit shall be accompanied by *construction documents* complying with the provisions of the mechanical code listed in Chapter 35 before a permit shall be issued for the mechanical equipment or system. The *construction documents* shall be drawn to a scale of not less than  $\frac{1}{8}$  inch to the foot (1:100), and shall show the location and arrangement of all equipment and distribution elements including safeties and pressure-controlling devices.

### SECTION 2804.0 FEES

**2804.1 General:** A permit to begin work for new construction or *alteration* shall not be issued until the prescribed application and permit fees have been paid, nor shall an amendment to a permit necessitating an additional fee because of the additional work involved be issued until the additional fee has been paid.

### SECTION 2805.0 EQUIPMENT PLATFORMS

**2805.1 General:** Equipment platforms in compliance with this section shall not be considered as a portion of the floor below. Such platforms shall not contribute to the building area as regulated by Section 503.0. Such platforms shall not contribute to the number of stories as regulated by Section 503.3. The area of such platforms shall not be included in determining the fire area. Such platforms shall not be a part of any mezzanine. Such platforms shall not serve as a means of egress for any mezzanine.

**2805.2 Equipment platforms:** In buildings of Use Group F, meeting the requirements of Section 507.0 for unlimited area, and special industrial occupancies as defined in Section 202.0, equipment platforms shall be permitted in accordance with Section 2805.2.1 through 2805.2.5.

**2805.2.1 Construction:** Equipment platforms shall be constructed of noncombustible construction.

**2805.2.2 Area limitation:** The aggregate area of such platform or platforms within a room shall not exceed two-thirds of the area of the room in which they are located. Where an equipment platform is located in the same room as a mezzanine, the combined aggregate area of the equipment platforms and mezzanines shall not exceed two-thirds of the room in which they occur.

**2805.2.3 Fire suppression:** Each equipment platform shall be fully protected by an automatic fire suppression system, installed in accordance with Sections 906.0 and 906.2.1. The area immediately beneath each such equipment platform shall also be fully protected by additional heads installed under the platform.

**2805.2.4 Access:** Walkways, stairs, and ladders providing access to equipment platforms shall not serve as a means of egress from any occupied space. Walkways, stairs, alternating tread stairs, ladders with cages and ship ladders providing access to an equipment platform shall be provided in accordance with Section 1027.1.1.

**2805.2.5 Guards:** Equipment platforms open to the room in which they occur shall have guards along the open sides of the platform in accordance with Section 1021.0.

### SECTION 2806.0 INSPECTIONS AND TESTS

**2806.1 Inspection:** All mechanical equipment and systems requiring a permit shall be inspected in accordance with the me-



CWS  
A r c h i t e c t s

434 Cumberland Avenue  
Portland ME 04101-2325

Guy T. Labrecque - Architect

Phone: 207.774.4441  
Fax: 207.774.4016  
E-mail: GLabrecque@CWSarch.com

August 20, 2002

Mike Nugent  
City of Portland Building Inspections  
389 Congress Street  
Portland, Maine 04101

RE: Bottle Conveyor Bridge & Facility – H.P. Hood Inc.

Dear Mr. Nugent,

The following letter is in response to several questions you've raised regarding the above referenced project. Please incorporate this letter into the current documentation.

**Item No. 1:** At your suggestion, I have further reviewed the need for two separate exits from the main Bottle Room. I have reviewed BOCA Section 1006, and have concluded that the single accessible exit currently described within the documentation, should satisfy the needs of this space. Being an F-1 space without a sprinkler system, the Length of Travel shall be less than 200 feet. By actually measuring the path an individual must traverse within the space at the worse case, we are slightly less than 60 feet. After evaluating BOCA Section 1008-1010, I have also concluded that we meet the requirements of a Building with one exit. The computed occupant load based upon floor area is 28 (actual will be between 4-8). Per table 1010.3 for F use, we find ourselves below the 30 occupants and 75' travel distance threshold.

As also mentioned, we intend to tie the rapid roll-up door to the fire alarm system as an additional precaution. Once this door is open, occupants would have access to a second exit just beyond this door.

**Item No. 2:** As discussed on the phone the actual clear head room heights are 7'-1 1/2" at the catwalk within the Bottle Room and out to the new stair in the back of the building, and 6'-8" within the bridge structure itself.

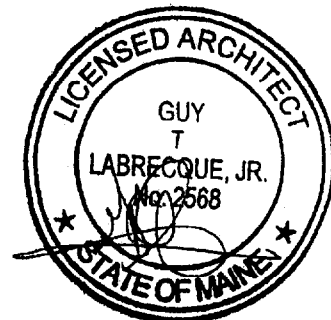
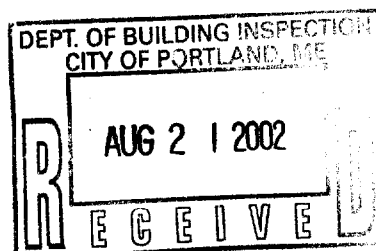
**Item No. 3:** The Statement of Special Inspections will be forwarded to your office under a separate correspondence directly from Becker Structural Engineers.

Feel free to give me a call with any further questions or concerns. Thank you very much for your input and suggestion throughout this process. This project is a little out of the ordinary and I certainly appreciated you help and efforts.

Sincerely yours,

Guy P. Labrecque, Jr.  
Architect

365 Park Ave



CB: 066 A010  
Dumet # 020716

**Becker Structural Engineers, Inc.**

**STATEMENT OF SPECIAL INSPECTIONS**

PROJECT: HP Hood Bottle Conveyor Bridge & Facility

LOCATION: 349 Park Ave, Portland, Maine 04102

PERMIT APPLICANT: Centerline Construction

APPLICANT'S ADDRESS: P O BOX 1264, Portland, ME 04104

STRUCTURAL ENGINEER OF RECORD: Becker Structural Engineers, Inc.

ARCHITECT OF RECORD: CWS Architects

This Statement of Special Inspections is submitted in accordance with Section 1705.0 of the 1999 BOCA National Building Code. It includes a listing of special inspections applicable to this project as well as the name of the Special Inspector, and the names of other agencies intended to be retained for conducting these inspections.

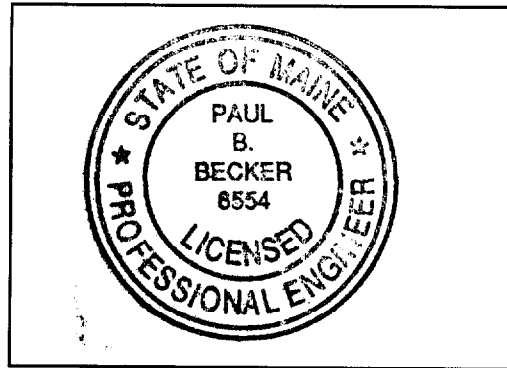
The Special Inspector shall keep records of all inspections listed herein, and shall furnish inspection reports to the Code Official and to the Registered Design Professional of Record. All discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected the discrepancies shall be brought to the attention of the Code Official and the Registered Design Professional of Record. Interim reports shall be submitted to the Code Official and to the Registered Design Professional of Record monthly, unless more frequent submissions are requested by the Code Official.

Job site safety is solely the responsibility of the Contractor. Materials and activities to be inspected are not to include the Contractor's equipment and methods used to erect or install the materials listed.

Prepared By:

Paul B. Becker, P.E.

*Paul B. Becker* 8/2/02  
SIGNATURE DATE



Applicant's Authorization:

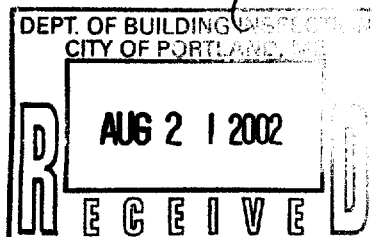
*[Signature]* 8/2/02  
SIGNATURE DATE

Preparer's P.E. Seal

Building Code Official:  
*[Signature]* 8/2/02  
SIGNATURE DATE

365 Park Ave  
066 A 010

Permit # 020716



---

**Becker Structural Engineers, Inc.**

---

**LIST OF AGENTS**

PROJECT: HP Hood Bottle Conveyor Bridge & Facility

STRUCTURAL ENGINEER OF RECORD: Becker Structural Engineers, Inc.  
Firm  
19 Commercial Street, Portland, ME 04101  
Address

ARCHITECT OF RECORD: CWS Architects  
Firm  
434 Cumberland Ave, Portland, ME 04102  
Address

Following is the List of Agents selected for performance of Special Inspections for this project:

	Name	Firm	Abbreviation
1. Special Inspector	<u>Paul B. Becker, P.E.</u>	<u>Becker Structural Engineers, Inc.</u>	<u>BSE</u>
2. Special Inspector	<u>Dan S. Burne, E.I.</u>	<u>Becker Structural Engineers, Inc.</u>	<u>BSE</u>
3. Testing Laboratory	<u>Roger Domingo</u>	<u>S.W. Cole, Inc.</u>	<u>SWC</u>
4. Geotechnical Engineer	<u>Paul F. Kohler, P.E.</u>	<u>S.W. Cole, Inc.</u>	<u>SWC</u>

---

**Becker Structural Engineers, Inc.**

---

FINAL REPORT OF SPECIAL INSPECTIONS

PROJECT: HP Hood Bottle Conveyor Bridge & Facility

LOCATION: 349 Park Ave., Portland, ME 04104

PERMIT APPLICANT: Centerline Construction

APPLICANT'S ADDRESS: PO Box 1264, Portland, ME 04104

STRUCTURAL ENGINEER OF RECORD: Paul B. Becker, P.E. Becker Structural Engineers, Inc.

	Name	Firm
ARCHITECT OF RECORD:	<u>Guy Labrecque, A.I.A.</u>	<u>CWS Architects</u>

	Name	Firm
GENERAL CONTRACTOR:	<u>Richard Miller</u>	<u>Centerline Construction</u>

To the best of my information, knowledge, and belief, the Special Inspections required for this project, and described in the Statement of Special Inspections submitted for the project, have been completed.

The following discrepancies that were outstanding since the last interim report, No.      dated     , have been corrected:

---

---

---

---

---

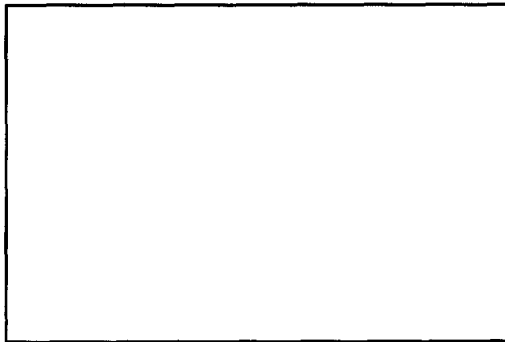
(Use additional sheets, if necessary)

Interim reports submitted to this final report and numbered      to     , form a basis for, and are to be considered an integral part of this final report.

Submitted By:  
SPECIAL INSPECTOR  
Paul B. Becker, P.E.  
NAME  

---

  
SIGNATURE                      DATE



Special Inspector's P.E. Seal

# Summary of Services (Exhibit A)

SCHEDULE OF SPECIAL INSPECTION SERVICES								
PROJECT: Bottle Conveyor Bridge & Facility, HP Hood Inc., Portland, ME.						Page 1 of 7		
MATERIAL/ACTIVITY	ITEM	SERVICE	APPLICABLE TO THIS PROJECT					
			Y/N	EXTENT (All, Sample, Other, None)	COMMENTS	AGENT	DATE	REV.
1705.2 Inspection of Fabricators	1.00							
		Fabrication Procedures	Y	As Required by following sections	See Wood, Steel	BSE		
		Procedure Implementation	Y	As Required by following sections	& concrete Sections	BSE		

All Steel Construction Special Inspections have been completed in accordance with BOCA Section 1705.12 Special Inspector \_\_\_\_\_ Date \_\_\_\_\_

**SCHEDULE OF SPECIAL INSPECTION SERVICES**

**PROJECT: Bottle Conveyor Bridge & Facility, HP Hood Inc., Portland, ME**

MATERIAL/ACTIVITY	ITEM	SERVICE	APPLICABLE TO THIS PROJECT						
			Y/N	EXTENT (All, Sample, Other, None)	COMMENTS	AGENT	DATE	REV.	
<b>1705.3 STEEL CONSTRUCTION</b>	2.00								
Steel Fabrication		In-plant review							
		Part A - Fabrication procedures/QA							
		1. AISC Category 1	Y	Provide AISC Certification		BSE			
		2. AWS Quality Assurance	Y	Provide Welder Certification		BSE			
		Part B - Procedures implementation							
		Review conformance to Part A							
		Review material certificates							
		1. Bolts, Nuts, Washers	Y	Sample	AISC ASD A3.4	BSE			
		2. Structural Steel	Y	Sample	AISC A6 or A568	BSE			
		3. Weld Filler Material	Y	Sample	AISC ASD A3.6	BSE			
		Review connections							
		1. Shop Bolted	N						
		2. Shop Welded	Y	ALL @ CONVEYOR BRIDGE	IN SHOP (VISUAL)	SWC			
		3. Connection Design Calcs	N		Design By BSE				
		4. Shop Welder Certs	Y	ALL		BSE			
		Review welding of seismic-resisting system in Cat. "C" buildings	Y	ALL @ CONVEYOR BRIDGE FRAME	AWS D1.1 SECTION 6	SWC			
	Steel Erection		Review materials certs of compliance						
			1. Bolts, Nuts, Washers	Y	ALL		BSE		
		2. Structural Steel	Y	ALL		BSE			
		3. Weld Filler Material	Y	ALL		BSE			
		Review primary steel connections							
		Moment connections	Y	ALL	ULTRASONIC	SWC			
		Shear connections							
		1. Field Bolted	Y	ALL		SWC			
		2. Field Welded	Y	ALL		SWC			
		Bracing connections							
		Review welded Cat. "C" seismic connections	Y	ALL		SWC			
		Review welded column splices	Y	ALL		SWC			
		Review base metal testing for "t" > 1 1/2"	Y	ALL		SWC			
		Review secondary steel connections	N						
		1. Girts	Y	ALL		BSE			
		2. Lintels	N						
		3. Steel Deck	Y	ALL		BSE			
		Lintels/Relieving Angles	N						
	Review installation of shear studs	N							
	Review Details/Steel Frame	Y	Sample		BSE				

All Steel Construction Special Inspections have been completed in accordance with BOCA Section 1705.3

Special Inspector \_\_\_\_\_

Date \_\_\_\_\_



**SCHEDULE OF SPECIAL INSPECTION SERVICES**

**PROJECT: Bottle Conveyor Bridge & Facility, HP Hood Inc., Portland, ME.**

MATERIAL/ACTIVITY	ITEM	SERVICE	APPLICABLE TO THIS PROJECT					
			Y/N	EXTENT (All, Sample, Other, None)	COMMENTS	AGENT	DATE	REV.
1705.3 STEEL CONSTRUCTION (Continued)	2.00							
Steel Joist & Joist Girder		In-plant review						
		Part A - Fabrication procedures	Y	SUBMIT SJI CERTIFICATION OF PLANT		BSE		
		Part B - Procedures implementation						
		Review conformance to Part A	N					
		Review material certificates of compliance						
		1. Structural Steel	N					
		2. Weld Material	N					
		Review connections	N					
	Review welder certification	N						
Steel Joist/Joist Girder Erection		Review joist bearing connections	Y	ALL		BSE		
		Review joist bearing length	Y	ALL		BSE		
		Review joist bridging	Y	ALL		BSE		
Steel Roof Deck		Review Gage Thicknesses	Y	ALL		BSE		
		Review Welding	Y	ALL		SWC		

All Steel Construction Special Inspections have been completed in accordance with BOCA Section 1705.3

Special Inspector \_\_\_\_\_

Date \_\_\_\_\_

**SCHEDULE OF SPECIAL INSPECTION SERVICES**

**PROJECT: Bottle Conveyor & Facility, HP Hood Inc., Portland, ME.**

MATERIAL/ACTIVITY	ITEM	SERVICE	APPLICABLE TO THIS PROJECT						
			Y/N	EXTENT (All, Sample, Other, None)	COMMENTS	AGENT	DATE	REV.	
1705.4 CONCRETE CONSTR.	3.00								
Concrete Materials		Review materials (ACI Chapter 3)							
		1. Cement	Y	ALL	ASTM C150	BSE			
		2. Normal WT aggregates	Y	ALL	ASTM C33	BSE			
		3. Air Entraining admix	Y	ALL	ASTM C260	BSE			
		4. Normal range water reducing admix	Y	ALL	ASTM C494	BSE			
		5. Hi-Range water reducing admix	Y	ALL	ASTM C494	BSE			
		6. Accel Admix	Y	ALL	ASTM C494 Type A	BSE			
		7. Moisture Barrier	Y	ALL	8 mil	BSE			
		8. Curing Products	Y	ALL		BSE			
		9. Preformed expansion Joint	Y	ALL		BSE			
		Review mix design	Y	ALL	ACI Chapter 4	BSE			
		Review reinforcing certification & weldability if required	Y	ALL	Certificate Only	BSE			
Placing Reinforcement		Review condition & placement of reinforcing and prestressing steel	Y	Sample	ACI 318 7.4-7.7	BSE			
		Review welding of reinforcing in Cat "C" seismic-resisting systems	N	Not Applicable					
Formwork		Review Embedded items, bolts, plates, etc.	Y	Sample		BSE			
		Review form removal & reshoring	N	Contractor Means & Methods	ACI 318.6.2				
Concrete Operations		Field Sampling & Testing of Concrete	Y	Every 50 yards or each separate placement	Sample Air, Temp, Slump ASTM C172, C231				
		Review concrete strength tests	Y		ACI 318 5.6	BSE			
		Review mix proportions and technique	Y		ACI 318 5.2, 5.3, 5.4, & 5.8	SWC			
		Review concrete placement	Y		ACI 318 5.9 & 5.10	SWC			
		Review curing technique & temperature	Y		ACI 318 5.11, 5.12, & 5.13	SWC			
Prestressing Operations		Review application of prestressing force	N	Not applicable					
		Review grouting of bonded prestressing tendons in Cat.C seismic-resisting systems	N	Not applicable					
Precast Manufacturing		In-plant review							
		Part A - Fabrication procedures	N						
		Part B - Procedures implementation	N						
Erection of Precast Concrete		Review conformance to Part A	N						
		Review erection of precast units	N						
		Review key reinforcement	N						
		Review key grouting	N						
	Review concrete topping	N							
	Review connections	N							

All Concrete Construction Special Inspections have been completed in accordance with BOCA Section 1705.4

Special Inspector \_\_\_\_\_

Date \_\_\_\_\_

**SCHEDULE OF SPECIAL INSPECTION SERVICES**

**PROJECT: Bottle Conveyor Bridge & Facility, HP Hood Inc., Portland, ME.**

MATERIAL/ACTIVITY	ITEM	SERVICE	APPLICABLE TO THIS PROJECT						
			Y/N	EXTENT (All, Sample, Other, None)	COMMENTS	AGENT	DATE	REV.	
1705.5 MASONRY CONSTR	4.00								
Materials		Review materials certification							
		Masonry units	N						
		Reinforcing steel	N						
		Review grout materials & mix design	N						
		Review mortar materials & mix design	N						
		Review strength determination							
		Unit strength method	N						
		Review unit strengths & grout, mortar mixes	N						
		Prism strength method							
		Review pre-construction test results	N						
		Field tests during construction	N						
		Grout testing							
		Determine compressive strength	N						
		Mortar testing							
		Field test compressive strength ASTM C780 (Req'd only if property reqs of ASTM C270 are used)	N						
		Review mortar mix proportions & mixing	N			ACI 530.1;2.3.2.5			
General Masonry Work		Review general installation of mortar	Y	Sample	ACI 530.1;4.2.2	BSE			
		Review general installation of mortar grout, masonry units.	Y	Sample	ACI 530.1;2.3.3.3,4.3.3	BSE			
		Review installation of horiz., vert., & joint reinforcing (incl. Location, sizes, splices, & positioning devices)	Y	Sample	ACI 530, CH. 8	BSE			
		Review hot/cold weather procedures	Y	Sample	ACI 530; 1;2.3.2.2,2.3.2.3	BSE			
		Review installation of anchorage devices	Y	Sample	ACI 530; 4.2, 5.14	BSE			
		Review installation of lintels	Y	Sample		BSE			
		Review welding of reinf., grouting, consolidation and reconsolidation for seismic Cat. "C" buildings	N						
All Masonry Construction Special Inspections have been completed in accordance with BOCA Section 1705.5 Special Inspector _____ Date _____									

**SCHEDULE OF SPECIAL INSPECTION SERVICES**

**PROJECT: Bottle Conveyor Bridge & Facility, HP Hood Inc., Portland, ME.**

MATERIAL/ACTIVITY	ITEM	SERVICE	APPLICABLE TO THIS PROJECT						
			Y/N	EXTENT (All, Sample, Other, None)	COMMENTS	AGENT	DATE	REV.	
1705.7 PREPARED FILL	6.00								
Site Preparation		Review site preparation prior to prepared fill placement.	Y		Building only	SWC			
During Fill Placement		Review compliance to soils report				SWC			
		Material	Y	Sample	Building only	SWC			
		Lift thickness	Y	Sample	Building only	SWC			
Evaluation of in-Place Density		Review in-place dry density for compliance with soils report	Y	Sample	Building only	SWC			

All Prepared Fill Special Inspections have been completed in accordance with BOCA Section 1705.7 Special Inspector \_\_\_\_\_ Date \_\_\_\_\_

**SCHEDULE OF SPECIAL INSPECTION SERVICES**

**PROJECT: Bottle Conveyor Bridge & Facility, HP Hood Inc., Portland ME.**

MATERIAL/ACTIVITY	ITEM	SERVICE	APPLICABLE TO THIS PROJECT					
			Y/N	EXTENT (All, Sample, Other, None)	COMMENTS	AGENT	DATE	REV.
1705.12 SPECIAL CASES	8.00							
Fireproofing		Fireproofing	N					
		Review Product Data Sheets	N					
		Review In-Place Density	N					
		Review In-Place Thickness	N					
		Review In-Place Bond	N					
		Review scope of installation for	N					
		conformance with design documents	N					

All Steel Construction Special Inspections have been completed in accordance with BOCA Section 1705.12 Special Inspector \_\_\_\_\_ Date 20-Aug-02

# CITY OF PORTLAND, MAINE ZONING BOARD OF APPEALS

City Clerk

From: Marge Schmuckal, Zoning Administrator

Date: June 5, 2002

RE: Action taken by the Zoning Board of Appeals on May 2, 2002.

The meeting came to order at 7:05

Roll Call as follows:

Members Present: Elizabeth Bordowitz, Julie Brady, Joseph Lewis and Catherine Decker

Members Absent: Nan Sawyer

## APPEAL AGENDA

The Board of Appeals will hold a public hearing on Thursday, May 2, 2002 at 7:00 p.m. on the second floor in Room 209 at the Portland City Hall 389 Congress Street, Portland, Maine to hear the following appeals:

1. **Unfinished Business:** There was no unfinished business
2. **Other Business:** Election of Secretary, Catherine Decker was nominated and elected 4-0 as Secretary.

### 3. New Business:

#### A. Practical Difficulty Variance Appeal

PROP, purchaser of 56 Wilson Street (formerly know as O'Brion Street), Tax Map #003, Block #N Lot #009 in the R-6 Zone is requesting a Practical Difficulty Variance Appeal from section 14-139(a)1 (dimensional requirements) of the Portland Zoning Ordinance. The minimum lot size in the R-6 Zone is 4,500 s.f. This lot (which has been found not to be a lot of record ) is 4,415 s.f. This would be for the purpose of building a duplex. John Geary, Esq. will be representing the applicant. Due to a mailing error it will be held over until the meeting of May 16, 2002.

#### B. Practical Difficulty Variance Appeal

H.P. Hood, Inc. lessee of 365 Park Avenue, Tax Map #066, Block A, Lot #010 in the I-M Zone is requesting a Practical Difficulty Variance Appeal from section 14-250 (d) (dimensional requirements, side yards) and 14-439 (setback reductions in the industrial zones) of the Portland Zoning Ordinance. This would be for the purpose of erecting a 12-foot diameter tank, a new loading dock and a 200 s.f. addition. Chris Vaniotis, Esq. will be representing the applicant. The Board voted 4-0 to grant the Practical Difficulty Appeal with the reduction of the side setback from the required 25' to 18' in accordance with plans submitted with the application.

4. **Adjournment:** The meeting adjourned at 8:00 p.m.

Enclosure: Agenda of May 2, 2002  
Copy of Board's Decisions  
1 standard size tapes

CC: Joseph Gray, City Manager  
Mark Adelson, Housing & Community Services  
Alex Jaegerman, Planning Department  
Lee Urban, Planning & Development Director

# CITY OF PORTLAND, MAINE

---

## ZONING BOARD OF APPEALS

Elizabeth Bordowitz, Chair  
Julie Brady, Secretary  
Nan Sawyer  
Joe Lewis  
Catherine Decker

June 5, 2002

Bernstein, Shur, Sawyer & Nelson  
100 Middle Street  
Portland, Maine 04104

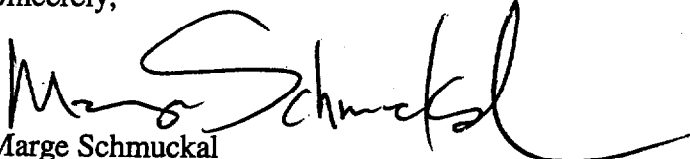
RE: 365 Park Avenue  
CBL: 066-A-010  
ZONE: I-M Zone

Dear Mr. Vaniotis;

As you know, at its May 2, 2002 meeting, the Board of Appeals voted 4-0 to grant your Practical Difficulty Appeal.

Enclosed you will find a copy of the Boards decision.

Sincerely,

  
Marge Schmuckal  
Zoning Administrator

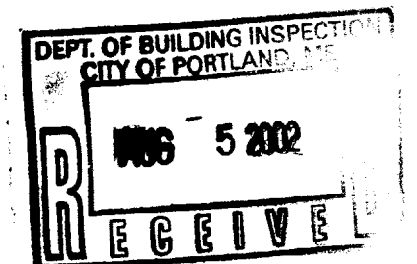
H.P. HOOD Inc.

BOTTLE CONVEYOR BRIDGE & FACILITY

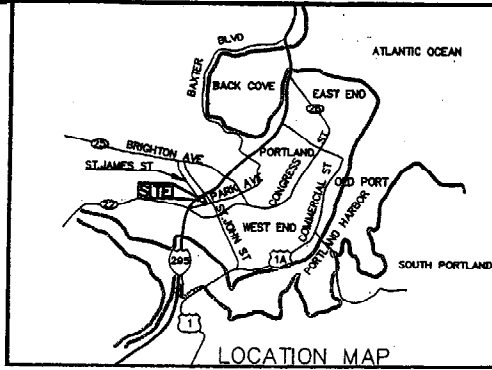
349 PARK AVENUE • PORTLAND, MAINE

**CENTER  
LINE**  
CONSTRUCTION, INC.  
P.O. Box 1264 • Portland, ME 04104  
(207) 865-3300 • Fax (207) 865-5930

**BECKER**  
structural engineers, inc  
19 Commercial Street Portland, ME 04101  
Ph: 207.879.1836 Fax: 207.879.1822







**EXISTING STREET TREES TO REMAIN**

30' WIDE EASEMENT RESERVED FOR THE EDWARDS STREET INTERCEPTOR SEWER AS DESCRIBED IN BOOK 9077, PAGE 210. THE ACTUAL LOCATION IS DETERMINED BY THE CENTERLINE OF THE EXISTING 54" RCP PIPE WHICH WAS NOT FIELD LOCATED.

**LOAM AND SEED ALL DISTURBED AREAS**

APPROXIMATE LOCATION OF 54" RCP COMBINED SEWER LINE TAKEN FROM THE PLAN REFERENCED IN NOTE 4B.

MSHC PT. STA. 112+52.33  
CITY OF PORTLAND STA. PC 1+60.99

PROPERTY LINE PER GOVERNOR'S DEED 9077A, 209 (SEE NOTE 7)

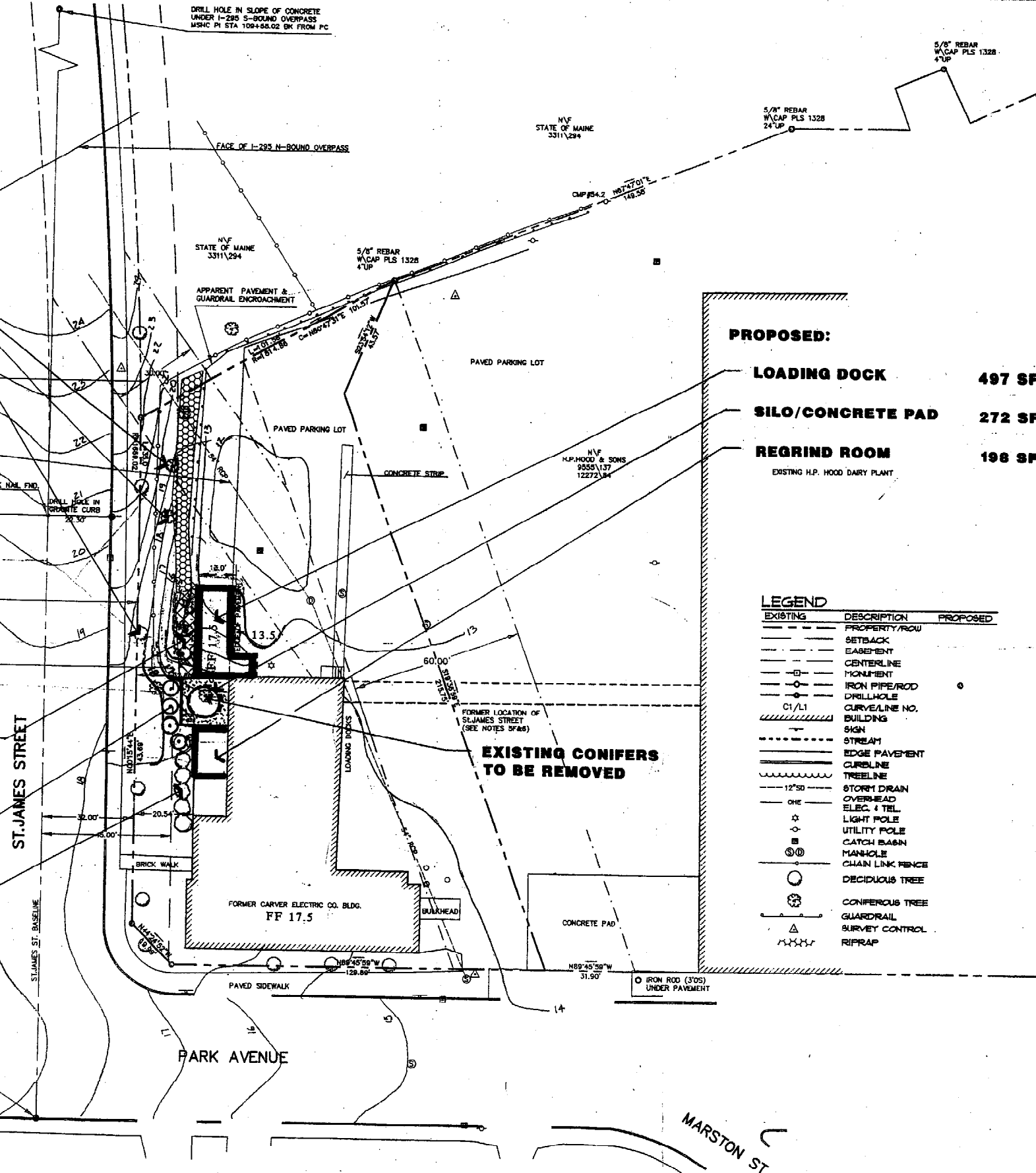
STREET LINE PER PLAN REF. 4C (SEE NOTE 7)

**EXTEND RIP RAP ALONG FACE OF PROPOSED LOADING DOCK**

**PROPOSED ARBORVITAE TO REMAIN**

**EXISTING ARBORVITAE TO REMAIN**

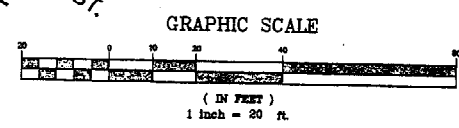
DRILL HOLE IN GRANITE CURB  
MSHC STA. 114+05.31



**PROPOSED:**  
**LOADING DOCK** 497 SF  
**SILO/CONCRETE PAD** 272 SF  
**REGRIND ROOM** 198 SF +/-  
EXISTING H.P. HOOD DARY PLANT

**LEGEND**

EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY ROW	---
---	SETBACK	---
---	EASEMENT	---
---	CENTERLINE	---
---	MONUMENT	---
---	IRON PIPE/ROD	---
---	DRILLHOLE	---
---	CURVE/LINE NO.	---
---	BUILDING	---
---	SIGN	---
---	STREAM	---
---	EDGE PAVEMENT	---
---	CURBLINE	---
---	TREELINE	---
---	STORM DRAIN	---
---	OVERHEAD	---
---	ELEC. / TEL.	---
---	LIGHT POLE	---
---	CATCH BASIN	---
---	MANHOLE	---
---	CHAIN LINK FENCE	---
---	DECIDUOUS TREE	---
---	CONIFEROUS TREE	---
---	GUARDRAIL	---
---	SURVEY CONTROL	---
---	RIFRAP	---



**GENERAL NOTES**

- RECORD OWNERS OF THE PARCEL: H. STEPHEN CARVEL AND SHELLY STUART CARVEL AS DESCRIBED IN A DEED DATED JANUARY 1, 1992, RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS, PORTLAND, MAINE IN BOOK 11344, PAGE 228.
- THE PROPERTY IS LOCATED ON THE CITY OF PORTLAND ASSESSOR'S PLAN NO. 68 SHOWN AS LOT A-10 IN BLOCK D.
- TOTAL AREA OF THE PARCEL IS 22,696 SQ. FT. OR 0.52 ACRES, MORE OR LESS.
- PLAN REFERENCES:  
A/ LAND TITLE SURVEYANCE ON PARK AVENUE, PORTLAND, MAINE, MADE FOR H. P. HOOD & SONS, INCORPORATED, PORTLAND, MAINE DATED JANUARY 26, 1996, REVISED THROUGH 12/02/99 A NON-RECORDED PLAN OH, JOB NO. 96002P.  
B/ PROPOSED SITE PLAN OF H. P. HOOD BUILDING EXPANSION BY SUPRESNE-HENRIAN, PORTLAND, MAINE DATED FEBRUARY 14, 2000 A NON-RECORDED PLAN DH JOB NO. 8102.01.  
C/ CITY OF PORTLAND MAINE, DEPARTMENT OF PUBLIC WORKS, ST. JAMES STREET RELOCATION ON FILE AT THE CITY OF PORTLAND PUBLIC WORKS ENGINEERING DEPARTMENT IN FILE NO. 637-16 & 17.  
D/ MAINE STATE HIGHWAY COMMISSION RIGHT-OF-WAY MAP, STATE HIGHWAY 295, PORTLAND, MAINE DATED MAY 1987, SHC FILE NO. 3-185 RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 112, PAGE 51.  
E/ PLAN OF EDWARDS STREET INTERCEPTOR SEWER ON FILE AT THE CITY OF PORTLAND PUBLIC WORKS ENGINEERING DEPARTMENT IN FILE NO. 491-8.
- SUBJECT TO:  
A/ RIGHTS OF ACCESS TO ST. JAMES STREET ACROSS THE WESTERLY LINE OF THE PARCEL RESERVED TO THE STATE OF MAINE AND THE CITY OF PORTLAND AS DESCRIBED IN A DEED RECORDED IN BOOK 11344, PAGE 228.  
B/ RIGHTS RESERVED TO THE STATE OF MAINE AND THE CITY OF PORTLAND TO MAINTAIN TO SLOPES OF THE HIGHWAY AND TO FLOW WATER OVER AND ACROSS THE PARCEL THROUGH DRAINAGE OUTLET PIPES AND TO MAINTAIN THE SAME AT ITS PRESENT LOCATION AS DESCRIBED IN BOOK 11344, PAGE 230.  
C/ A 30 FOOT WIDE EASEMENT RESERVED TO THE CITY OF PORTLAND TO MAINTAIN TO SLOPES OF THE EDWARDS STREET INTERCEPTOR SEWER AS SHOWN ON THE PLAN REFERENCED IN NOTE 4E, HEREON, AND ALSO DESCRIBED IN BOOK 11344, PAGE 230.  
D/ ALL ABOVEGROUND AND UNDERGROUND UTILITY EASEMENTS AND INSTALLATIONS, UNLESS SPECIFICALLY ABANDONED IN WRITING BY THE RESPECTIVE UTILITY AS REFERENCED IN A DEED RECORDED IN BOOK 11344, PAGE 230.  
E/ EASEMENT DEEDS GRANTED BY RICHARD AND FRANCIS CARVEL TO CENTRAL MAINE POWER COMPANY AS DESCRIBED IN DEEDS DATED JUNE 2, 1970 RECORDED IN BOOK 3139, PAGE 872 AND BY DEED DATED MAY 2, 1990 RECORDED IN BOOK 9191, PAGE 90.  
F/ SUBJECT TO RIGHTS OF THE PUBLIC AND PUBLIC UTILITY FACILITIES IN AND OVER THE DISCONTINUED PORTION OF ST. JAMES STREET, AS SHOWN HEREON.  
6. ST. JAMES STREET WAS FORMERLY DISCONTINUED BY THE PORTLAND CITY COUNCIL AS DESCRIBED IN AN ORDER DATED JULY 3, 1989 RECORDED IN BOOK 8882, PAGE 11. PURSUANT TO MRSA TITLE 23, SECTION 3026; UPON APPROVAL OF A DISCONTINUANCE ORDER BY THE LEGISLATIVE BODY, AND UNLESS OTHERWISE STATED IN THE ORDER, A PUBLIC EASEMENT AND EASEMENT FOR PUBLIC UTILITY FACILITIES SHALL BE RETAINED AND THE REMAINING INTEREST OF THE MUNICIPALITY SHALL PASS TO THE ADJOINING PROPERTY OWNERS TO THE CENTER OF THE WAY. (SEE ALSO MRSA, TITLE 35A, SECTION 2308.)  
7. THE WESTERLY PROPERTY LINE (BEING 32' EASTERLY OF THE BASELINE) ALONG THE NEW LOCATION OF ST. JAMES STREET WAS ESTABLISHED BY THE METES AND BOUNDS DESCRIPTION IN A GOVERNOR'S DEED FROM THE STATE OF MAINE TO R. J. CARVEL AND FRANCIS CARVEL DATED DECEMBER 15, 1989 AND RECORDED IN BOOK 9077, PAGE 209, IN CONJUNCTION WITH THE ST. JAMES ST. BASELINE AS RE-ESTABLISHED AS PART OF THIS SURVEY. THE RIGHT OF WAY LINE LOCATED 45 FEET EASTERLY OF THE BASELINE IS BASED ON THE PLAN REFERENCED IN NOTE 4C. PER THE CITY OF PORTLAND ENGINEERING DEPARTMENT, THERE IS NO AVAILABLE DOCUMENTATION TO SUBSTANTIATE THE 78 FOOT WIDE RIGHT-OF-WAY AS SHOWN ON SAID PLAN REFERENCED IN NOTE 4C AND THAT THE NEW LOCATION OF ST. JAMES STREET HAS NOT BEEN FORMERLY ACCEPTED AS A PUBLIC STREET.  
8. BEARINGS SHOWN HEREON ARE BASED ON THE PLAN REFERENCED IN NOTE 4A AND ARE ASSUMED TO BE GRID NORTH.

NO.	DATE	BY	STATUS

**Sebago Technics**  
Engineering Experts You Can Build On  
One Osborn Street  
Westbrook, ME 04098-1339  
Tel (207) 888-0277

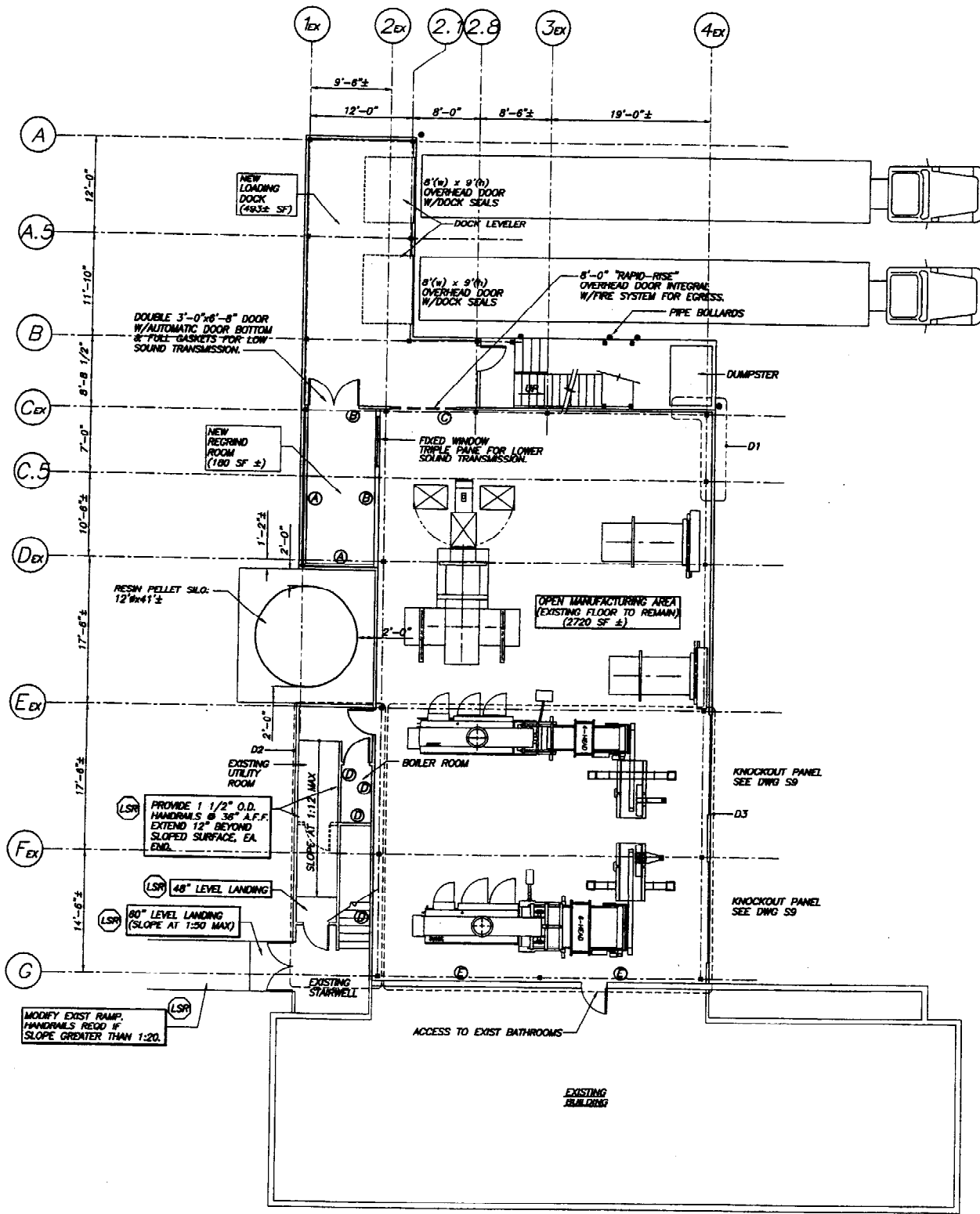
PROJECT NO. DWG NAME FLD. BK. DESIGN DRAWN DRL  
021222C 703

**BECKER structural engineers, inc.**  
19 Commercial Street, Portland, ME 04101  
Ph: 207.879.1838 Fax: 207.879.1422

**BECKER STRUCTURAL ENGINEERS, INC.**  
19 COMMERCIAL ST. PORTLAND, MAINE

DATE SCALE  
4-2-02 1"=20'

SHEET 11



**FLOOR PLAN**  
1/8"=1'-0"

1. D1, D2, ETC. INDICATES DEMO WORK REQUIRED. SEE NOTES THIS DWG.
2. (A) (B) ETC. INDICATES WALL ASSEMBLIES. SEE LIST THIS DWG.
3. (R1) (R2) (R3) INDICATES ROOF ASSEMBLIES. SEE LIST THIS DWG.

(LSR) = LIFE-SAFETY REQUIREMENTS. THIS INFORMATION IS BASED ON A REVIEW CONDUCTED BY CWS ARCHITECTS. REFER TO LETTER PREPARED BY CWS ARCHITECTS DATED JUNE 12, 2002, WHICH ADDRESSES LIFE-SAFETY AND ADA REQUIREMENTS. G.C. SHALL INCORPORATE ALL FINDINGS AND REQUIREMENTS OF THIS REPORT.

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER STRUCTURAL ENGINEERS INC. IT SHALL NOT BE REPRODUCED, COPIED, LOANED, RENTED, REPRODUCED, OR OTHERWISE USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SPECIFICALLY PREPARED AND MUST BE RETURNED TO BECKER STRUCTURAL ENGINEERS INC. ON COMPLETION OF WORK, IF REQUESTED.

**ROOF ASSEMBLIES**

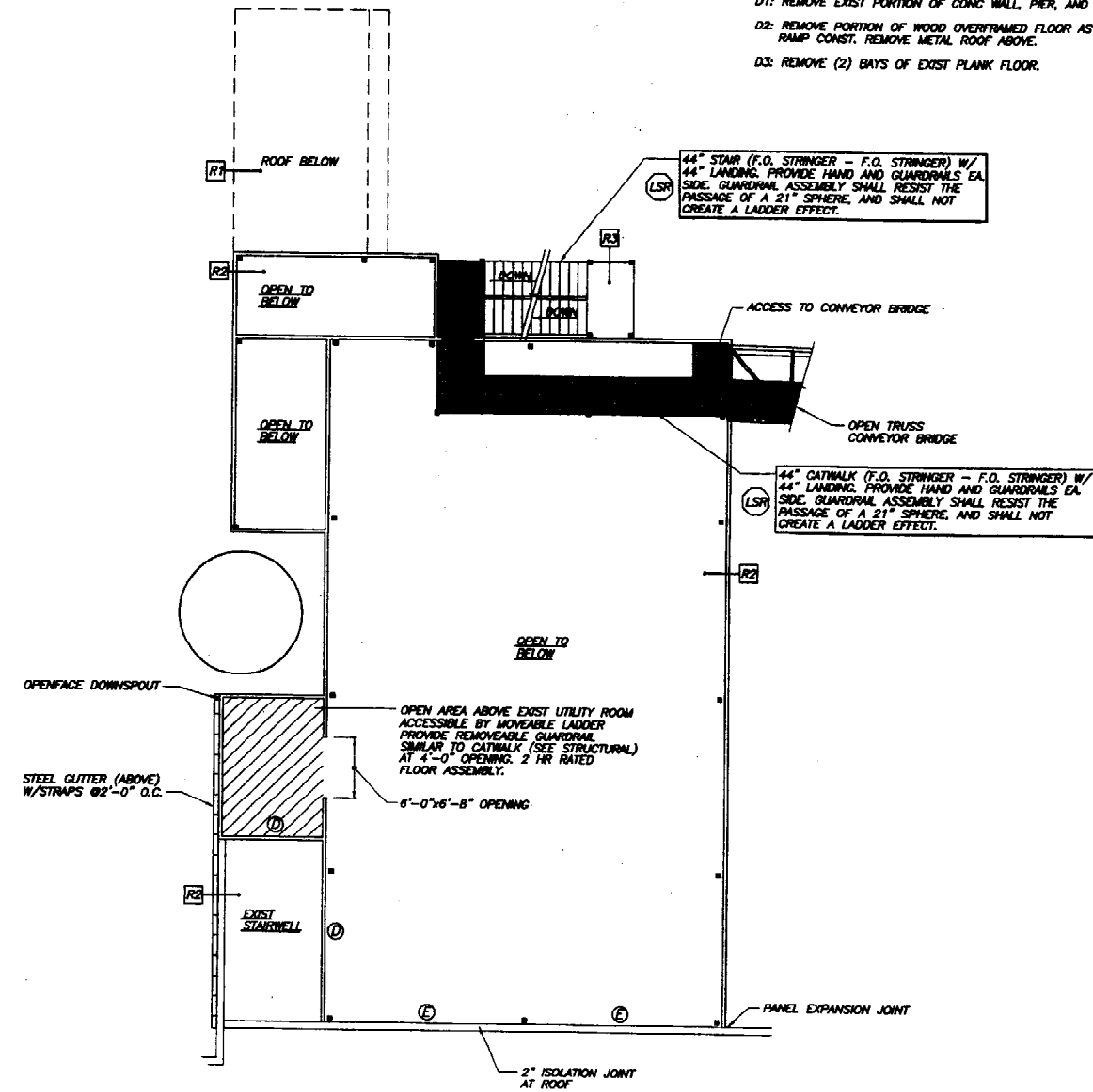
- (R1) FULLY-ADHERED .080 EPDM W/ 1 1/2" POLYSOCYANURATE ROOF INSULATION
  - (R2) FULLY-ADHERED .080 EPDM TAPERED (1/4" PER 1'-0") POLYSOCYANURATE ROOF INSULATION
  - (R3) SDP 250 16"x22GA ROOF PANELS BY ROLLOON
- PROVIDE PRESSURE TREATED NAILERS, GRAVELSTOPS, FLASHINGS, EXPANSION JOINTS AND OTHER ACCESSORIES REQUIRED FOR A COMPLETE WATERTIGHT SYSTEM. PROVIDE MANUFACTURER'S 10 YEAR WARRANTY.

**WALL ASSEMBLIES**

- (A) MARRINO 3560W18 (OR EQUAL) STUDS @ 12" O.C. W/ R19 BATT INSUL. (1) LAYER OF 5/8" TYPE "X" GWB.
- (B) MARRINO 652W20 (OR EQUAL) @ 16" O.C. W/ CONT. ACCOUSTICAL BATT INSUL. RESILIENT CHANNELS @ 18" O.C. (HORIZ.), (1) LAYER OF 5/8" TYPE "X" GWB E.S.
- (C) MARRINO 652W20 (OR EQUAL) @ 16" O.C. W/ (1) LAYER 5/8" TYPE "X" GWB E.S.
- (LSR) (D) 2 HR FIRE RATED WALL ASSEMBLY TO COMPLY WITH UL TYPE US01. PROVIDE (2) LAYERS 5/8" TYPE "X" GWB OVER WOOD STUDS TO MATCH EXIST WOOD STUDS. ENSURE (2) LAYERS 5/8" GWB @ EXISTING FACE.
- (LSR) (E) 2 HR FIRE RATED ASSEMBLY. IN-CELL STEEL BEAM ABOVE CMU W/ THERMA FIBER INSULATION. PROVIDE (2) LAYERS OF 5/8" TYPE "X" GWB AT WOOD STUDS. ENSURE (2) LAYERS OF 5/8" GWB @ EXISTING FACE.

**DEMO NOTES**

- EXISTING METAL BUILDING TO BE REMOVED TO FOUNDATION.
- D1: REMOVE EXIST PORTION OF CONG WALL, PIER, AND FOOTING.
  - D2: REMOVE PORTION OF WOOD OVERFRAMED FLOOR AS REQ'D FOR RAMP CONST. REMOVE METAL ROOF ABOVE.
  - D3: REMOVE (2) BAYS OF EXIST PLANK FLOOR.



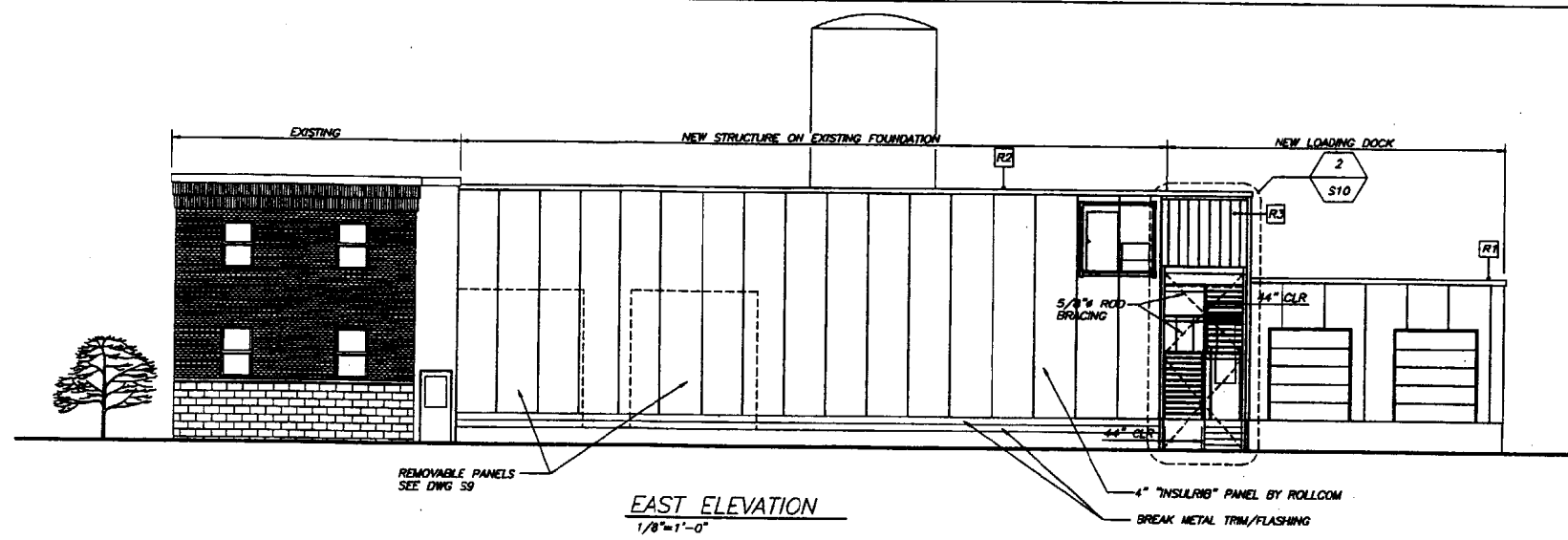
**UPPER LEVEL PLAN**  
1/8"=1'-0"

**BECKER**  
Structural Engineers, Inc.  
19 Commercial Street Portland, ME 04101  
Ph: 207.871.1838 Fax: 207.871.1822

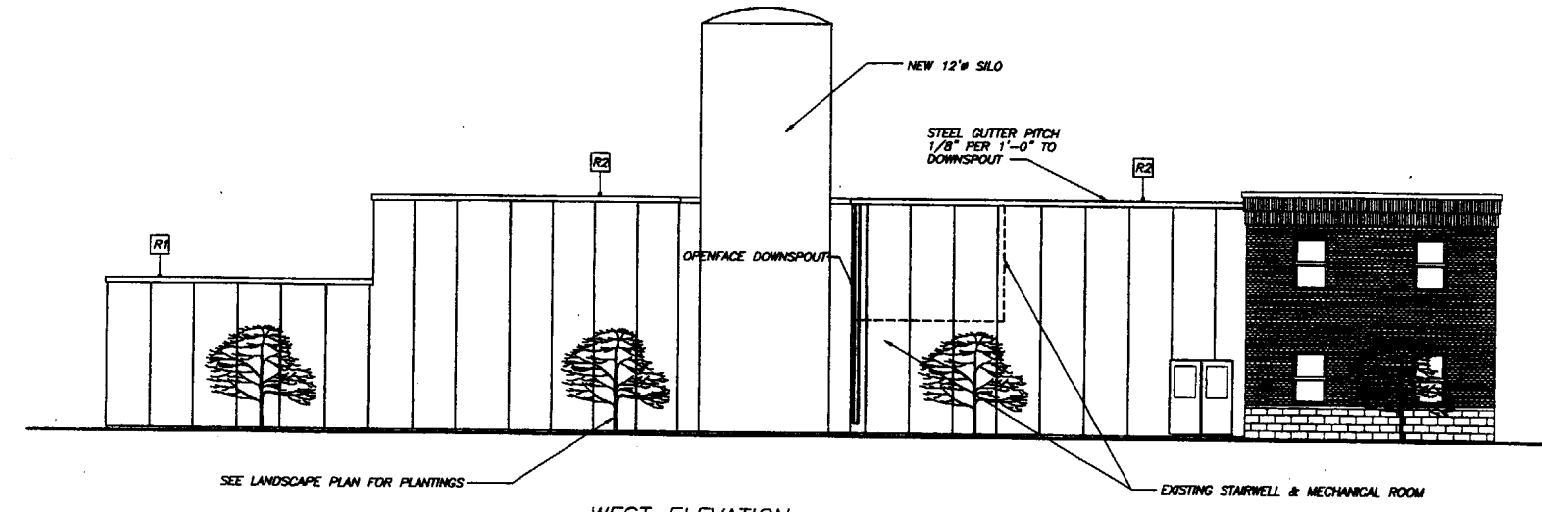
APP'D	DESCRIPTION	DATE

PROJECT: BOTTLE CONVEYOR & FACILITY  
HP HOOD INC., PORTLAND, ME  
DRAWN BY: TRM  
CHECKED BY: PGB  
SCALE: NOTED  
DATE: 08/01/02

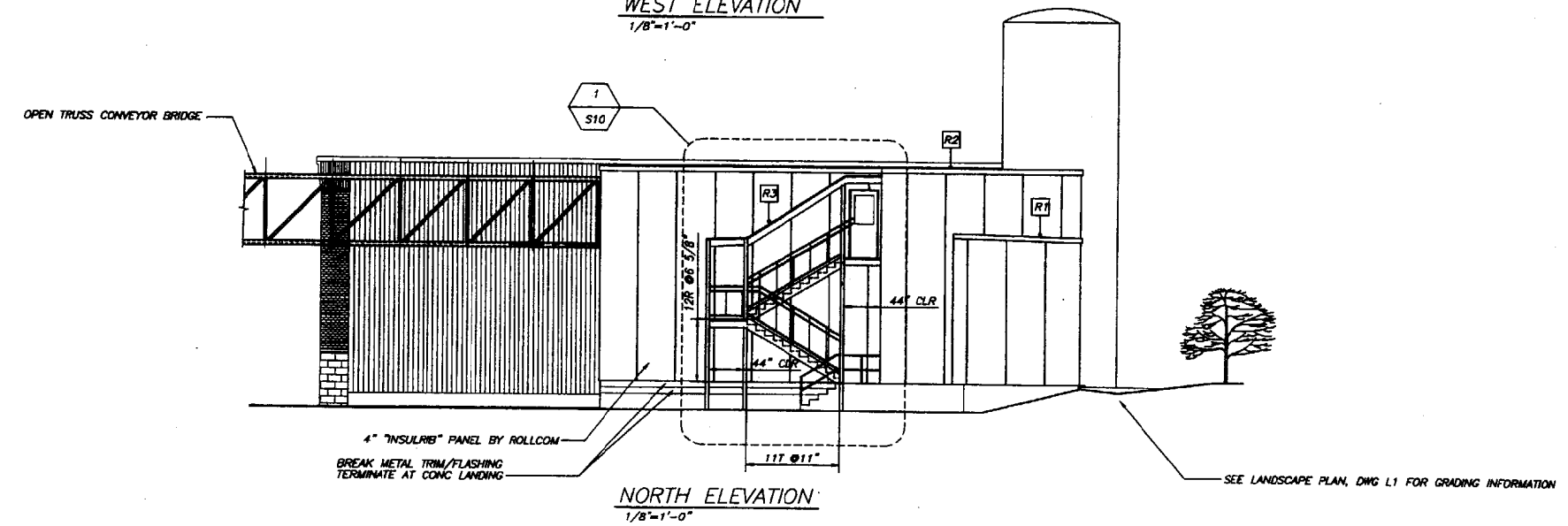
ISSUED FOR CONSTRUCTION  
08/01/02  
A1



**EAST ELEVATION**  
1/8"=1'-0"



**WEST ELEVATION**  
1/8"=1'-0"



**NORTH ELEVATION**  
1/8"=1'-0"

NOTES:  
 [R2] INDICATES ROOF ASSEMBLIES, SEE LIST DWG A1.

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER STRUCTURAL ENGINEERS, INC. IT SHALL NOT BE REPRODUCED, COPIED, LOAN OR OTHERWISE OF DIRECTLY OR INDIRECTLY FOR ANY PURPOSE OTHER THAN FOR WHICH IT IS SPECIFICALLY FORWARDED AND MUST BE RETURNED TO BECKER STRUCTURAL ENGINEERS, INC. ON COMPLETION OF WORK, IF REQUESTED.

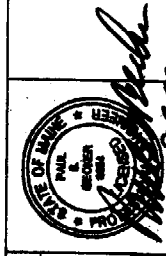
**ISSUED FOR CONSTRUCTION**  
08/01/02

**BECKER**  
STRUCTURAL ENGINEERS, Inc.  
19 Commercial Street Portland, ME 04101  
Ph: 207.878.1681 Fax: 207.878.1622

PROJECT:	BOTTLE CONVEYOR & FACILITY
CLIENT:	HP HOOD INC., PORTLAND, ME
DATE:	08/01/02
SCALE:	NOTED
DESIGNED BY:	DSB
DRAWN BY:	DSB
CHECKED BY:	
DATE:	08/01/02
NO. INC.	
DATE	
DESCRIPTION	
APPRO	

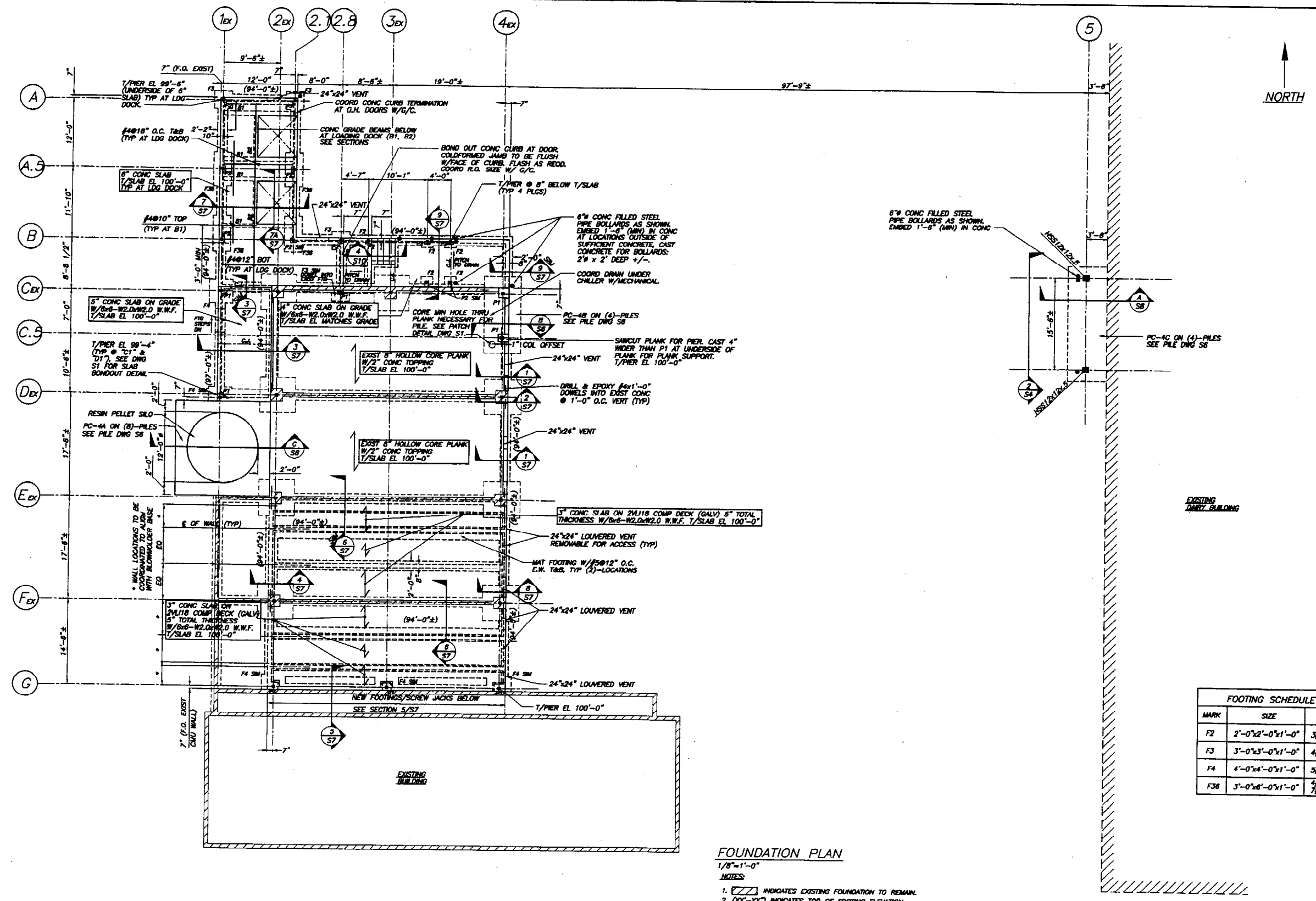
**A2**





DESIGNED BY: DSB	TRM	DATE: 08/01/02
DRAWN BY: TRM	PBB	
CHECKED BY: PBB	NOTED	
SCALE:		
DATE: 08/01/02		

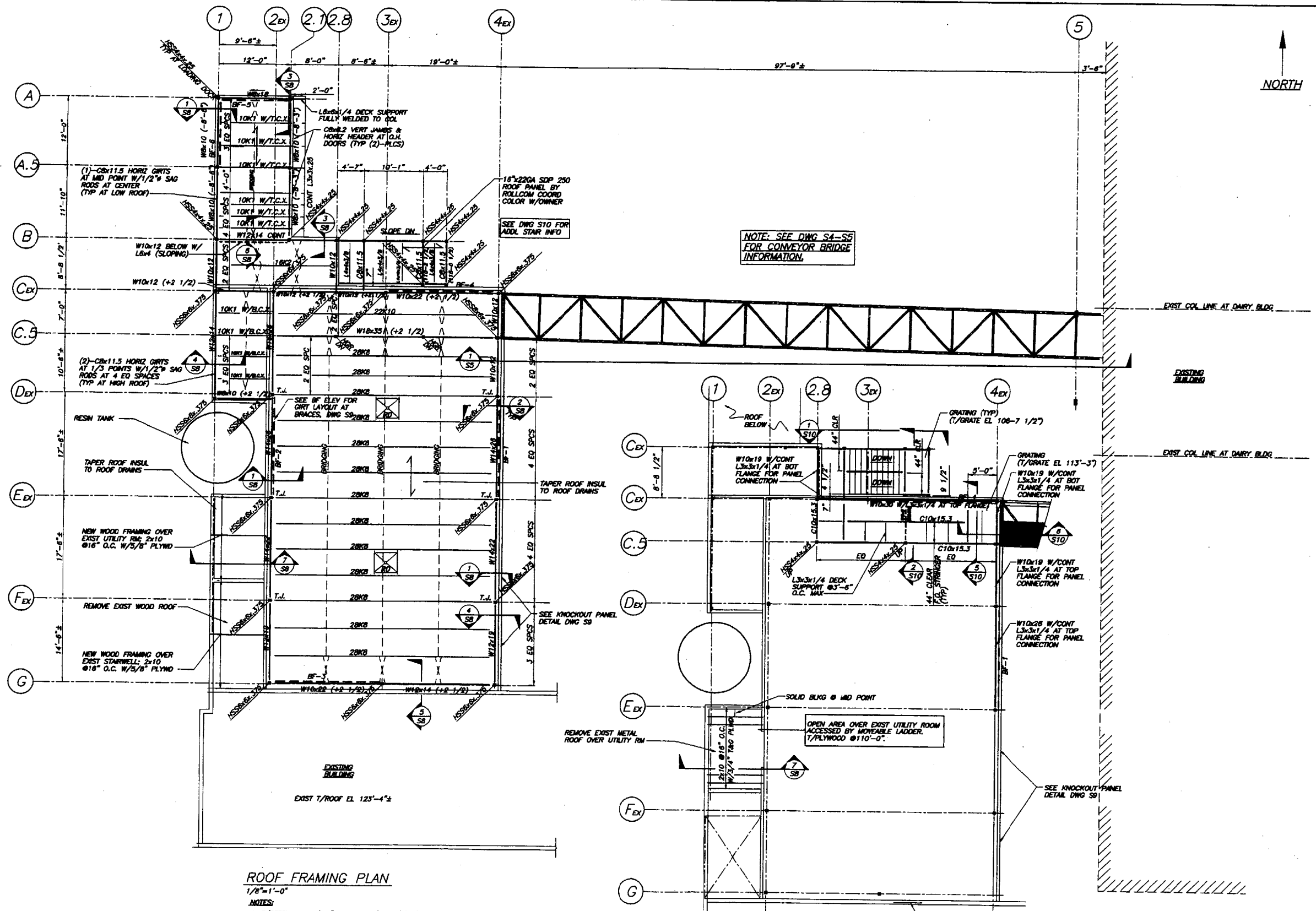
PROJECT: BOTTLE CONVEYOR & FACILITY  
HP HOOD INC., PORTLAND, ME  
FOUNDATION PLAN



MARK	SIZE	REINF.
F2	2'-0" x 2'-0" x 1'-0"	3#5 E.W.B.
F3	3'-0" x 3'-0" x 1'-0"	4#5 E.W.B.
F4	4'-0" x 4'-0" x 1'-0"	5#5 E.W.B.
F38	3'-0" x 6'-0" x 1'-0"	4#5 L.W.B. 7#5 S.W.B.

**FOUNDATION PLAN**  
1/8"=1'-0"  
NOTES:  
1. [Hatched Area] INDICATES EXISTING FOUNDATION TO REMAIN.  
2. (XX'-XX") INDICATES TOP OF FOOTING ELEVATION.  
3. ALL SLABS TO BE TOPPED W/HARDEX EPOXY COATING COORDINATE WITH OWNER.  
4. P1, P2 INDICATES CONCRETE PIER, SEE DETAILS DWG S9.  
5. F2, F3, ETC. INDICATES FOOTING SIZE, SEE SCHEDULE THIS DWG.  
6. PC-4A, PC-4B, ETC. INDICATES PILE CAP, SEE DWG S8.  
7. C.J. INDICATES CONTROL JT, SEE DETAIL DWG S1.

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER STRUCTURAL ENGINEERS INC. IT SHALL NOT BE REPRODUCED, COPIED, LENT OR BORROWED OF DIRECTLY OR INDIRECTLY FOR ANY PURPOSE OTHER THAN THAT WHICH IT IS SPECIFICALLY DEDICATED AND MUST BE RETURNED TO BECKER STRUCTURAL ENGINEERS INC. ON COMPLETION OF WORK, IF REQUESTED.




**ROOF FRAMING PLAN**  
 1/8"=1'-0"  
 NOTES:  
 1. T/STEEL EL 122'-0" U.N.O. BY (+2 1/2), (-8'-8) ETC.  
 2. --- INDICATES 1.5B22 PAINTED STEEL ROOF DECK, U.N.O. (3 SPAN).  
 3. RD INDICATES ROOF DRAIN, SEE DWG SB FOR TYP FRAME DETAIL.

**LOWER LEVEL FRAMING PLAN**  
 1/8"=1'-0"  
 NOTES:  
 1. T/STEEL EL 113'-1" U.N.O. BY (+2 1/2), (-8'-8) ETC.

NOTE: SEE DWG S4-S5 FOR CONVEYOR BRIDGE INFORMATION.

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER STRUCTURAL ENGINEERS INC. IT SHALL NOT BE REPRODUCED, COPIED, LOANED OR DISPOSED OF DIRECTLY OR INDIRECTLY WITHOUT THE WRITTEN CONSENT OF BECKER STRUCTURAL ENGINEERS INC. ON COMPLETION OF WORK, IF REQUESTED.

**BECKER**  
 structural engineers, Inc.  
 19 Commercial Street Portland, ME 04101  
 Ph: 207.875.1638 Fax: 207.875.1822



DAVID A. BECKER  
 LICENSE NO. 11165  
 STATE OF MAINE  
 8-2-02

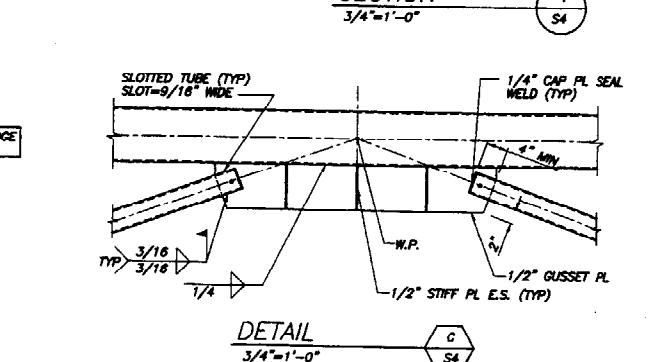
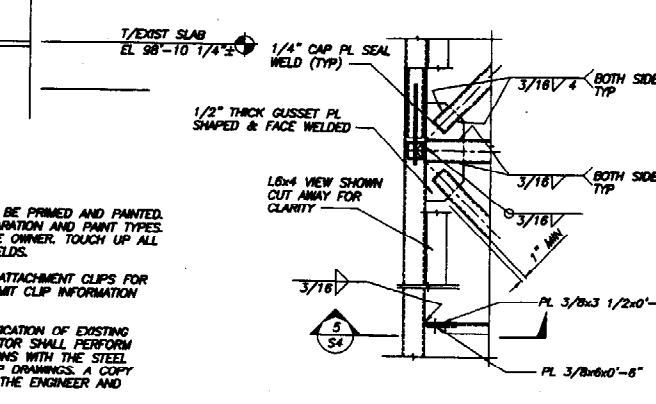
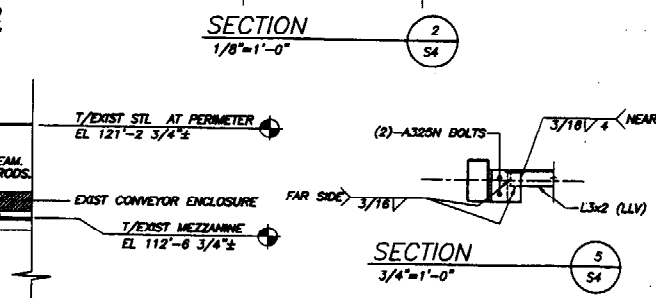
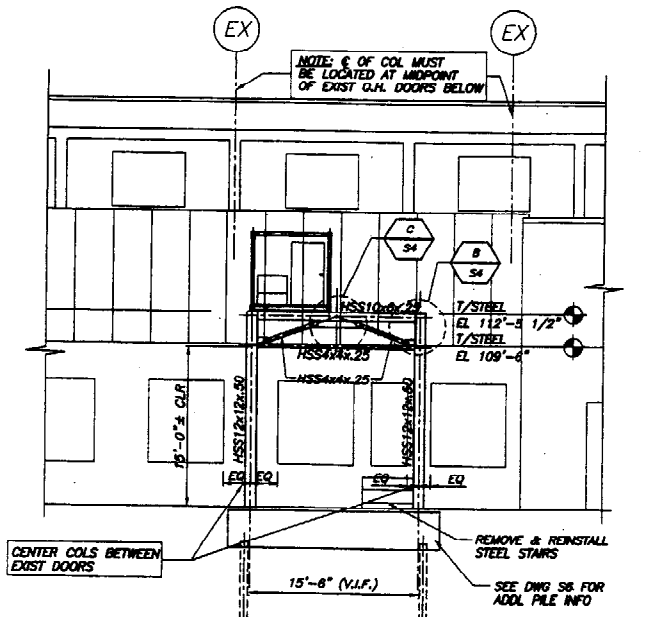
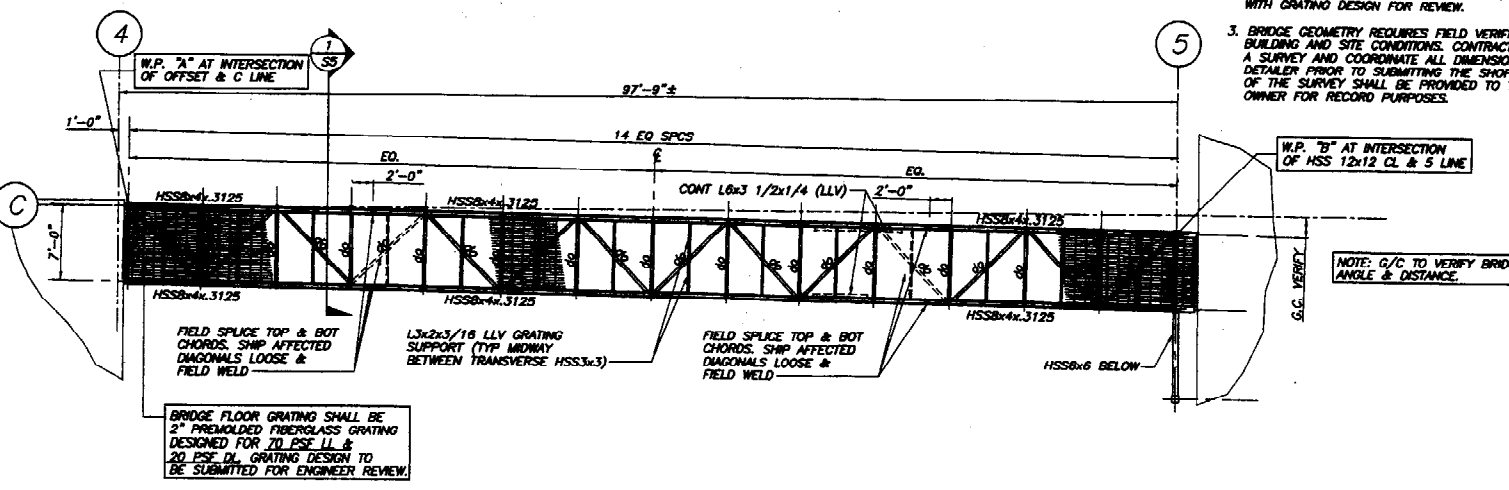
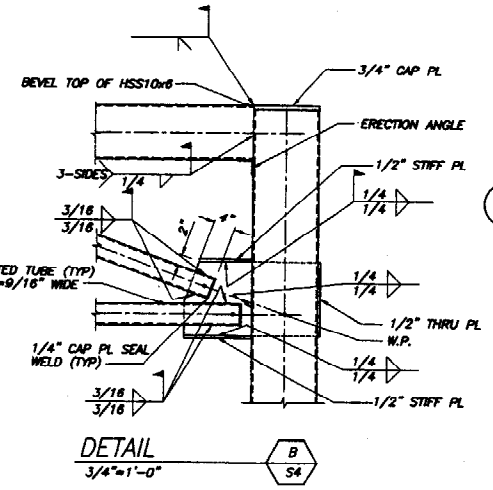
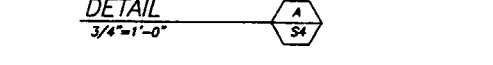
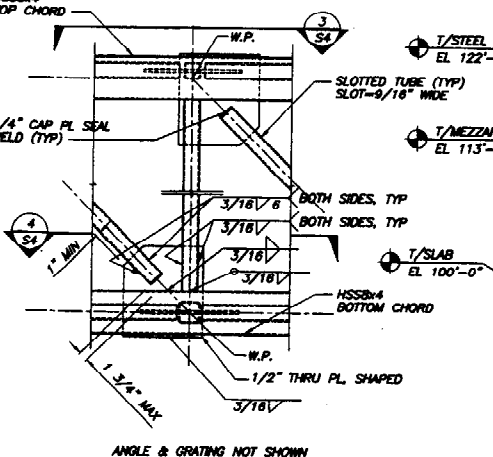
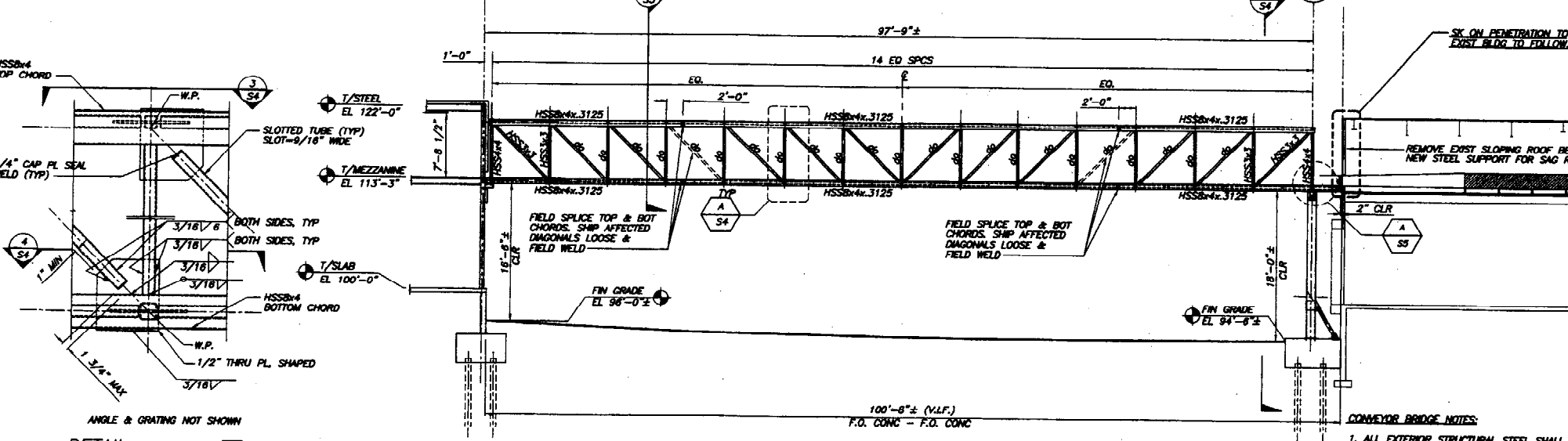
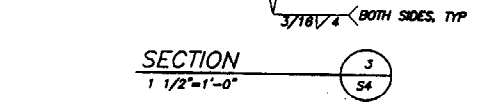
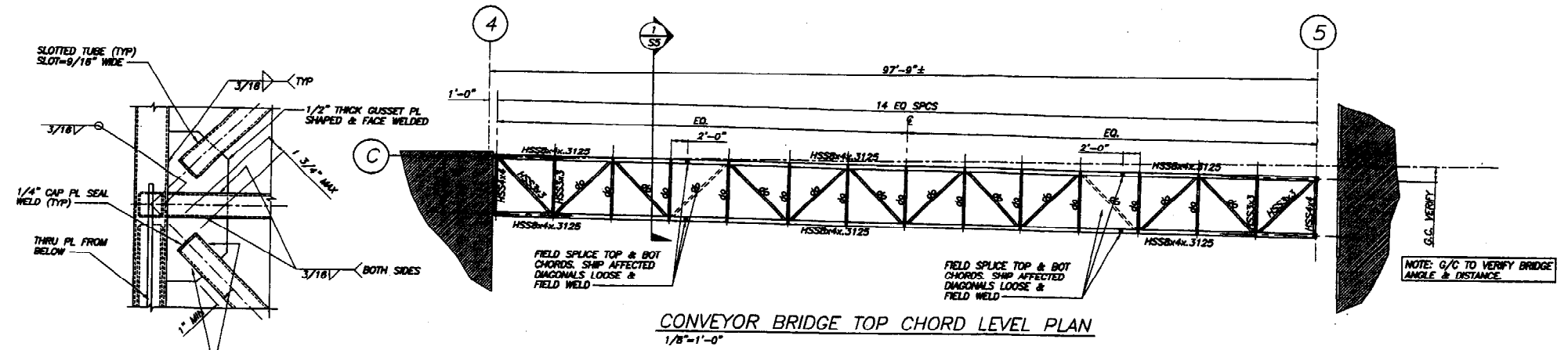
DATE	DESCRIPTION

DESIGNED BY: DSB  
 CHECKED BY: TRM  
 DRAWN BY: TRM  
 CHECKED BY: PBB  
 SCALE: NOTED  
 DATE: 08/01/02

PROJECT: BOTTLE CONVEYOR & FACILITY  
 HP HOOD INC., PORTLAND, ME  
 FRAMING PLAN

ISSUED FOR CONSTRUCTION  
 08/01/02

S3



- CONVEYOR BRIDGE NOTES:**
1. ALL EXTERIOR STRUCTURAL STEEL SHALL BE PRIMED AND PAINTED. SEE SPECIFICATIONS FOR SURFACE PREPARATION AND PAINT TYPES. PAINT COLOR IS TO BE SELECTED BY THE OWNER. TOUCH UP ALL DAMAGED PAINT AREAS AND ALL FIELD WELDS.
  2. GRATING MANUFACTURER IS TO PROVIDE ATTACHMENT CLIPS FOR GRATING. MAX CLIP SPACING = 18". SUBMIT CLIP INFORMATION WITH GRATING DESIGN FOR REVIEW.
  3. BRIDGE GEOMETRY REQUIRES FIELD VERIFICATION OF EXISTING BUILDING AND SITE CONDITIONS. CONTRACTOR SHALL PERFORM A SURVEY AND COORDINATE ALL DIMENSIONS WITH THE STEEL DETAILER PRIOR TO SUBMITTING THE SHOP DRAWINGS. A COPY OF THE SURVEY SHALL BE PROVIDED TO THE ENGINEER AND OWNER FOR RECORD PURPOSES.

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER STRUCTURAL ENGINEERS, INC. IT SHALL NOT BE REPRODUCED, COPIED, LOANED OR DISPOSED OF DIRECTLY OR INDIRECTLY FOR ANY PURPOSE OTHER THAN FOR WHICH IT IS SPECIFICALLY FURNISHED AND MUST BE RETURNED TO BECKER STRUCTURAL ENGINEERS, INC. ON COMPLETION OF WORK, IF REQUESTED.

**ISSUED FOR CONSTRUCTION**  
08/01/02

**BECKER**  
Structural Engineers, Inc.  
19 Commercial Street Portland, ME 04101  
Ph: 207.878.1838 Fax: 207.878.1822

**BOTTLE CONVEYOR & FACILITY**  
**HP HOOD INC., PORTLAND, ME**  
**BUILDING SECTIONS**

PROJECT: S4

DATE: 08/01/02

SCALE: NOTED

DESIGNED BY: DSB

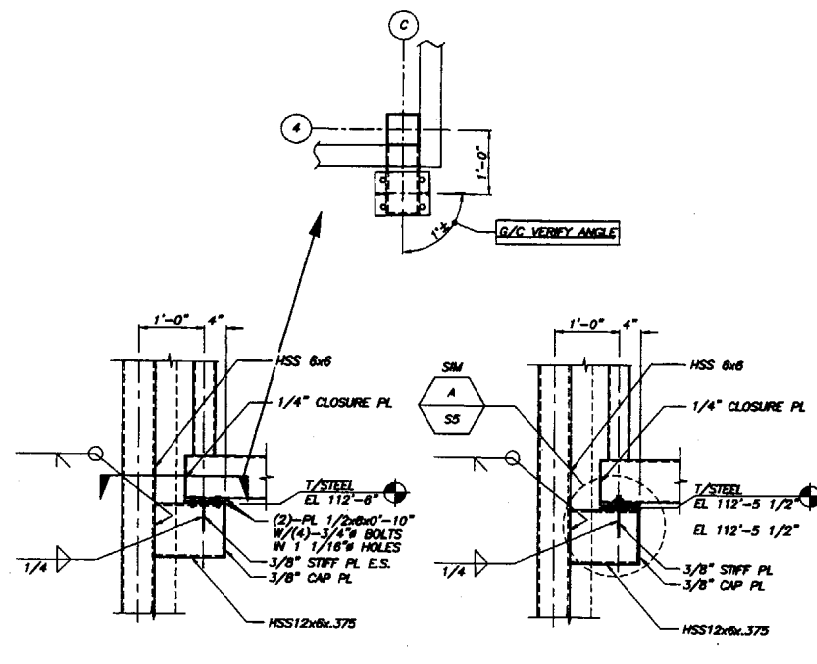
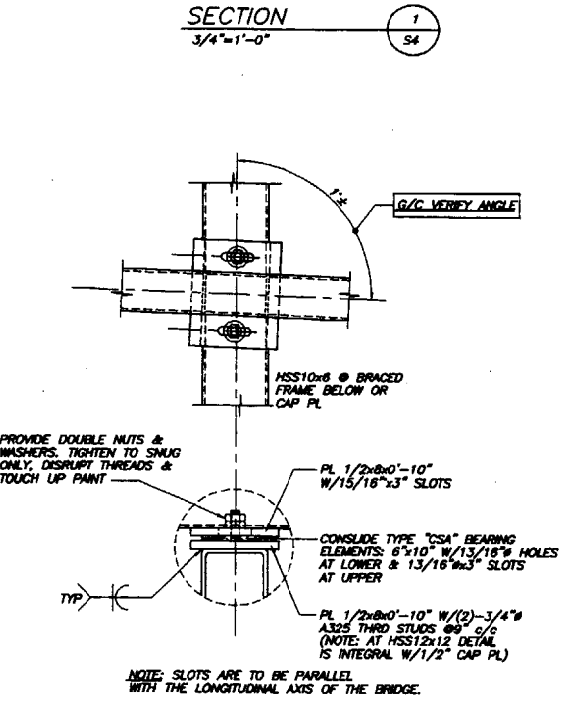
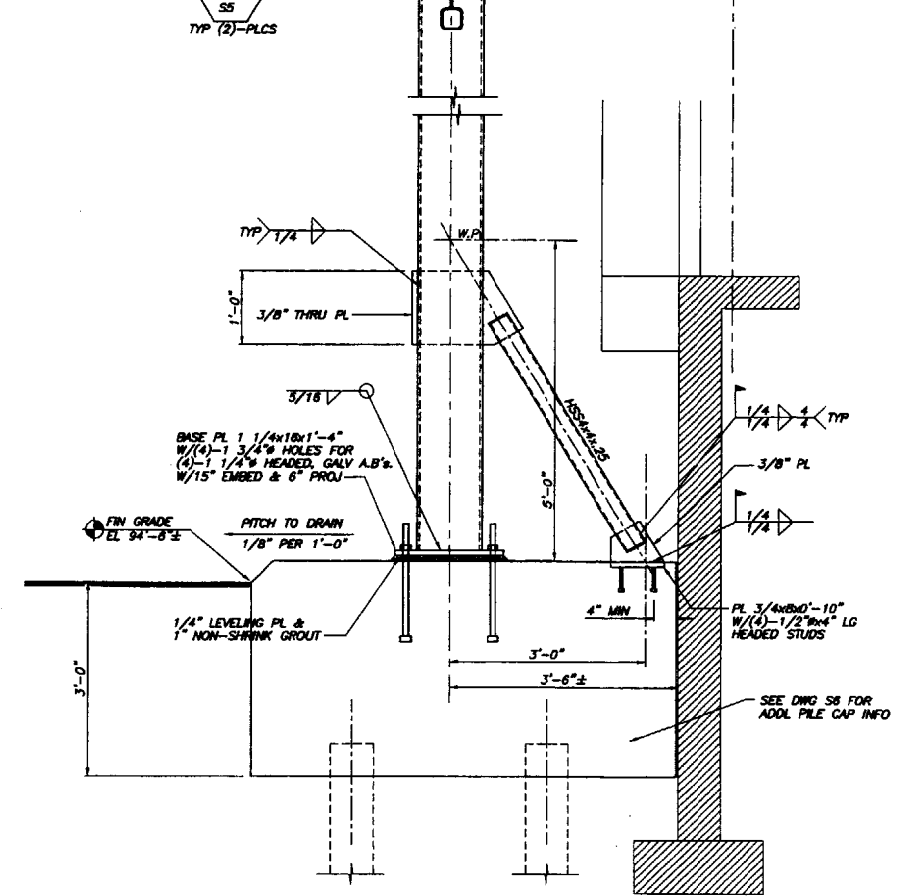
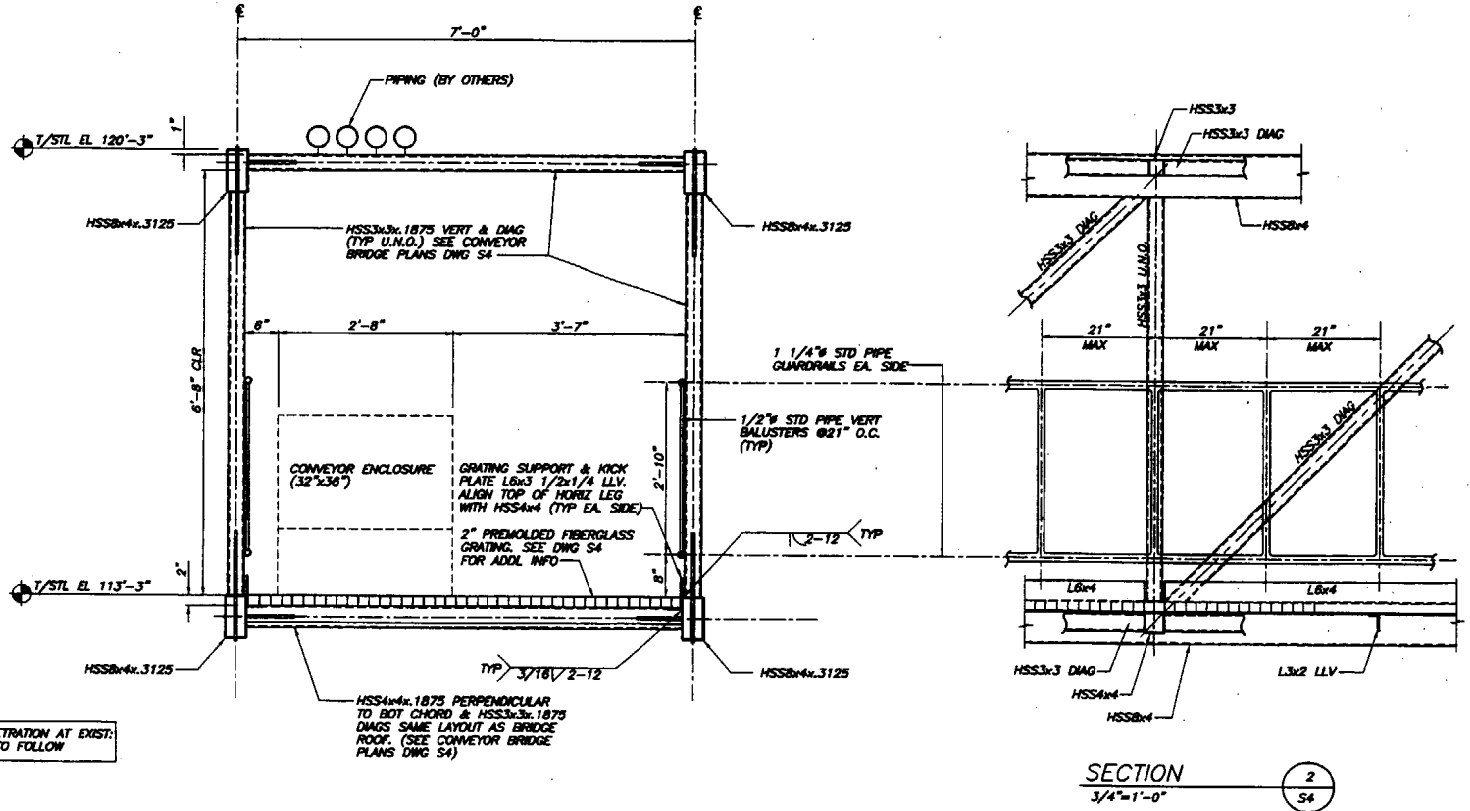
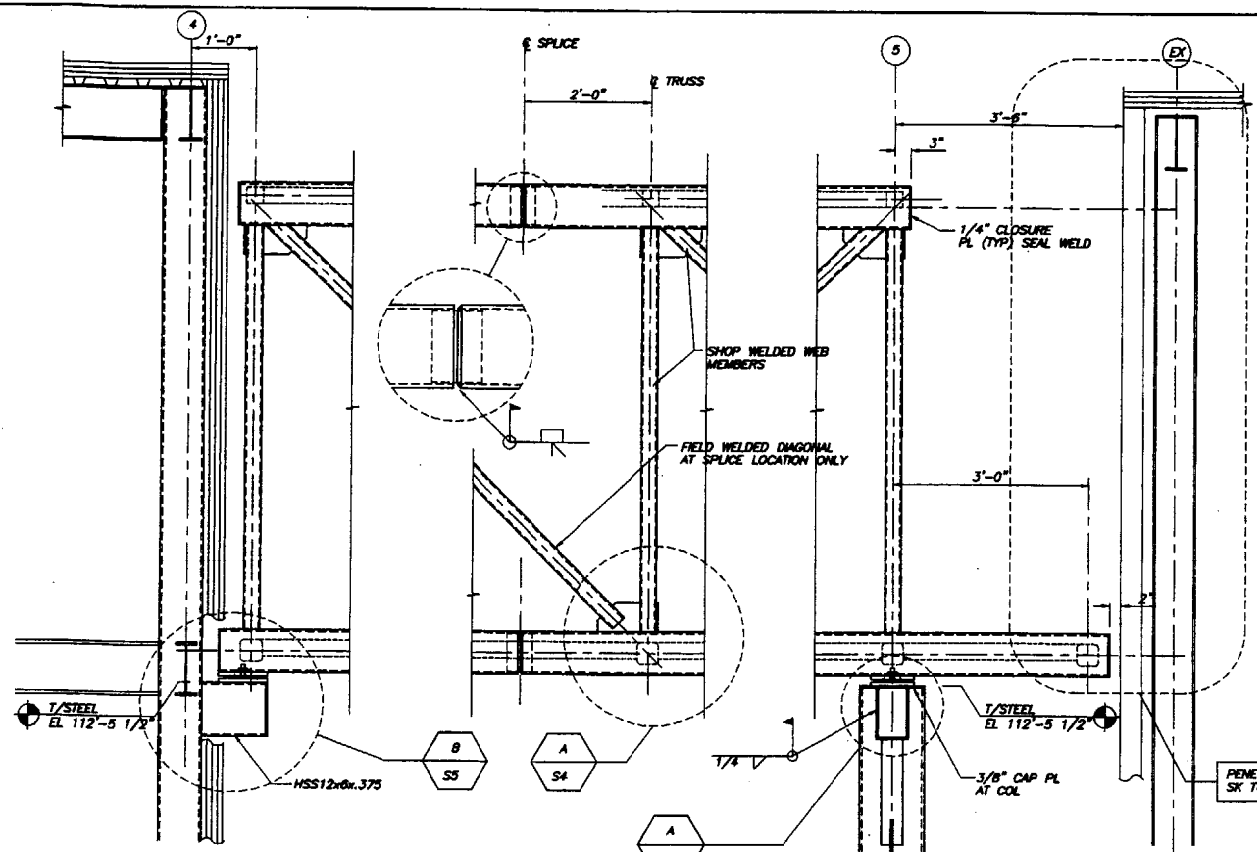
DRAWN BY: TRM

CHECKED BY: PJB

DATE: 08/01/02

NO. 893.00

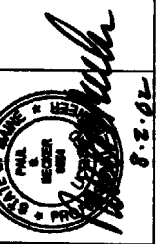




THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER STRUCTURAL ENGINEERS, INC. IT SHALL NOT BE REPRODUCED, COPIED, LOANED OR OTHERWISE USED IN WHOLE OR IN PART FOR ANY PURPOSES OTHER THAN FOR WHICH IT IS SPECIFICALLY PREPARED AND MUST BE RETURNED TO BECKER STRUCTURAL ENGINEERS, INC. ON COMPLETION OF WORK, IF REQUESTED.

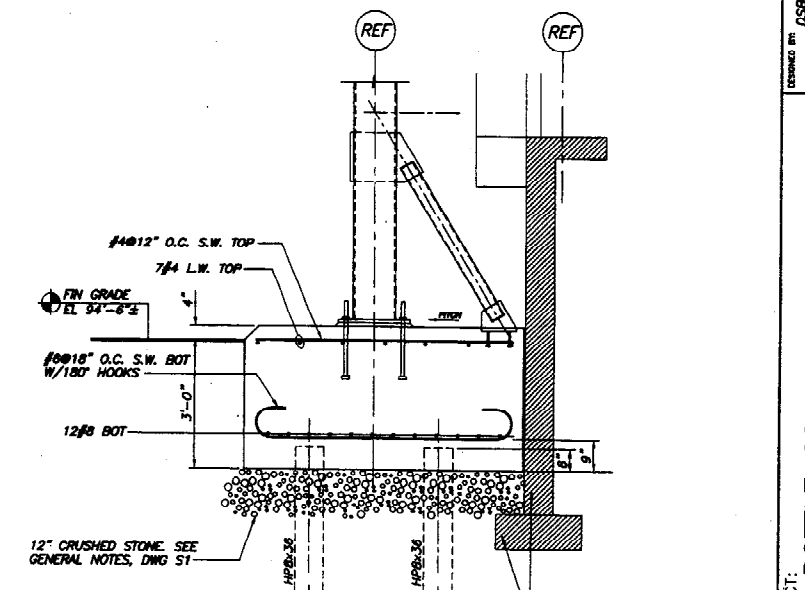
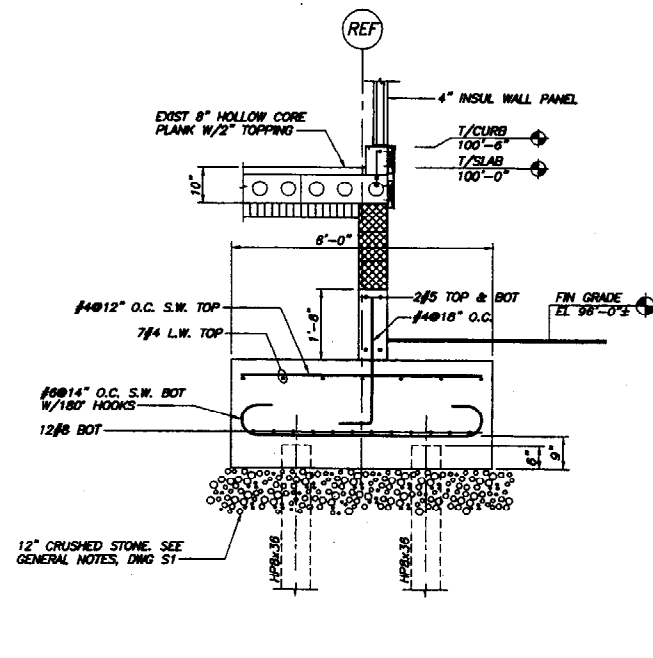
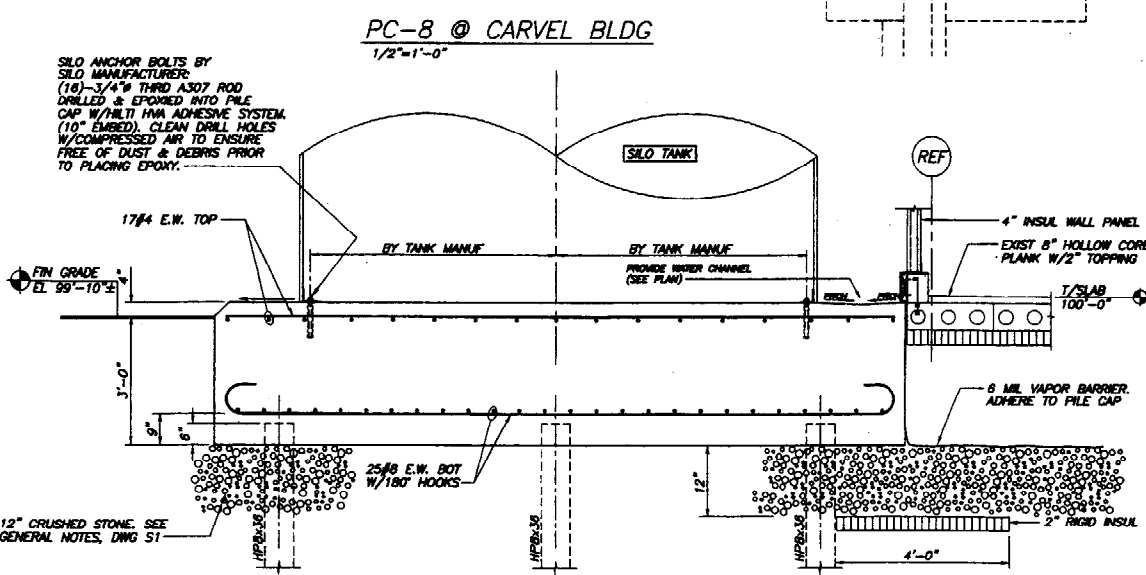
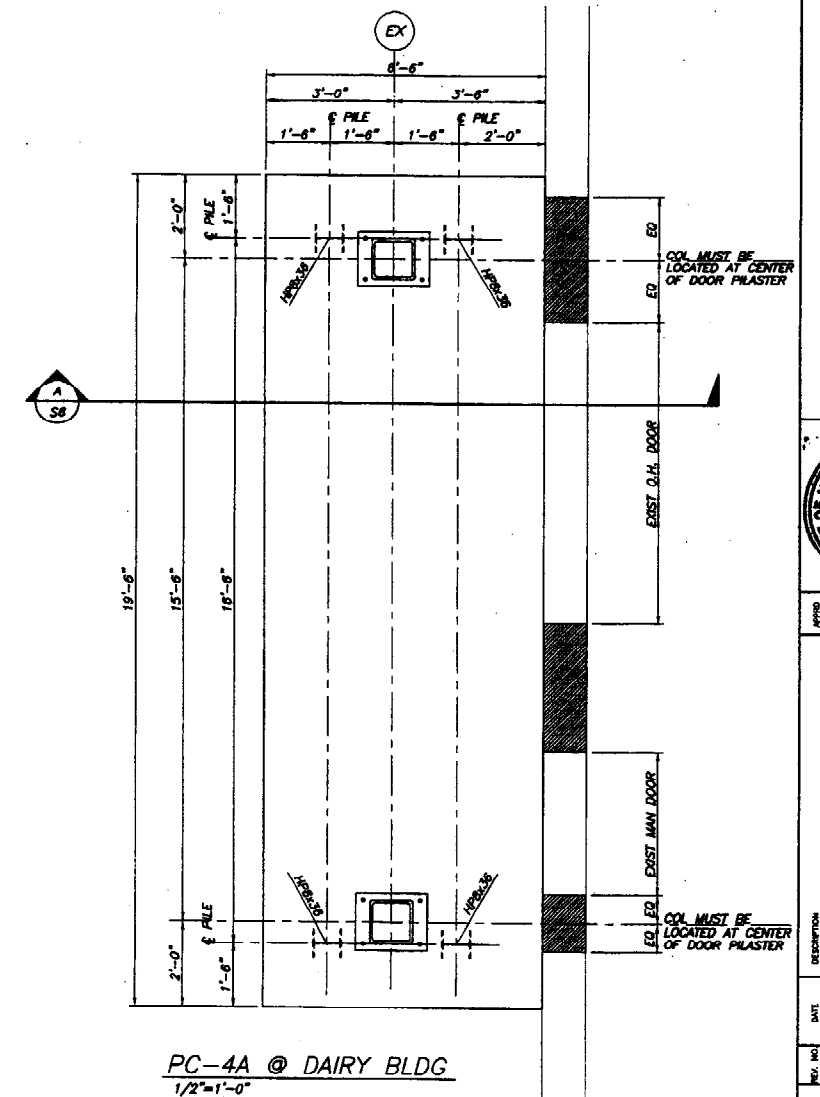
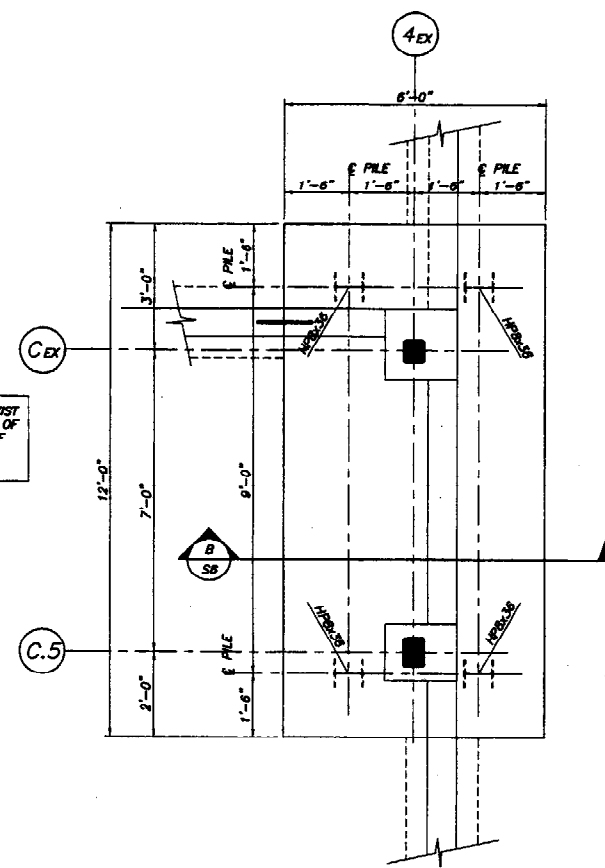
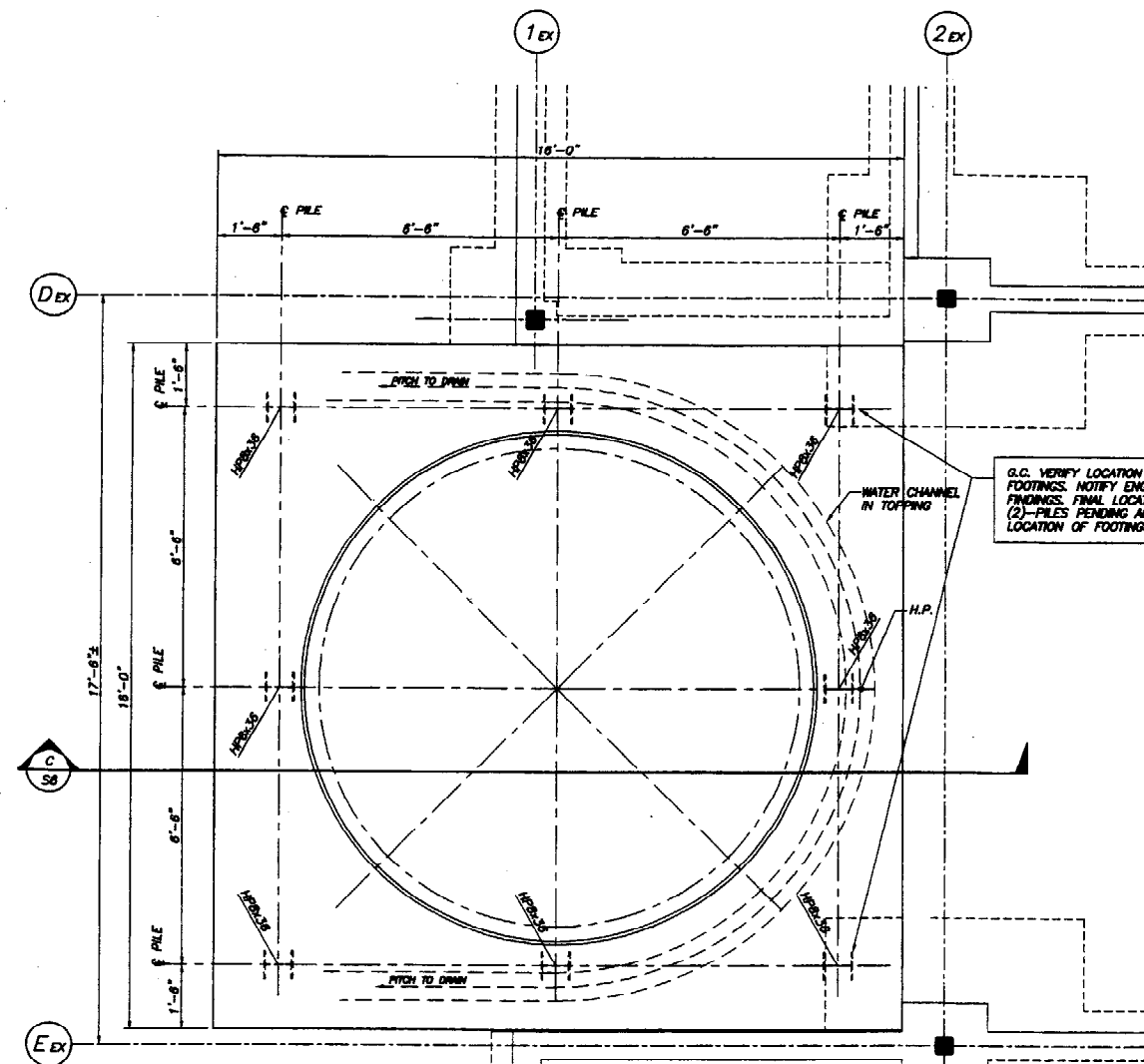
ISSUED FOR CONSTRUCTION  
08/01/02

**BECKER**  
Structural Engineers, Inc.  
19 Commercial Street  
Portland, ME 04101  
Ph: 207.879.1838  
F: 207.879.1822



PROJECT:	BOTTLE CONVEYOR & FACILITY HP HOOD, INC., PORTLAND, ME				
STEEL SECTIONS & DETAILS					
DESIGNED BY:	DSB	DRAWN BY:	TRM	CHECKED BY:	PBB
SCALE:	NOTED	DATE:	08/01/02		
NO.	S5				





G.C. VERIFY LOCATION OF EXIST FOOTINGS. NOTIFY ENGINEER OF FINDINGS. FINAL LOCATION OF (2) PILES PENDING ACTUAL LOCATION OF FOOTINGS.

G.C. VERIFY LOCATION OF EXIST FDN WALL, PIERS & FOOTINGS & NOTIFY ENGINEER OF FINDINGS PRIOR TO PILE INSTALLATION. TYP. (2) SIDES

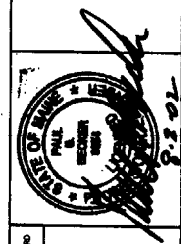
THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER STRUCTURAL ENGINEERS, INC. IT SHALL NOT BE REPRODUCED, COPIED, LENT OR DISPOSED OF DIRECTLY OR INDIRECTLY FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SPECIFICALLY PREPARED AND MUST BE RETURNED TO BECKER STRUCTURAL ENGINEERS, INC. ON COMPLETION OF WORK, IF REQUESTED.

BECKER  
STRUCTURAL ENGINEERS, INC.  
19 Commercial Street, Portland, ME 04101  
Ph: 207.875.1138 Fax: 207.875.1822

PROJECT: BOTTLE CONVEYOR & FACILITY HP HOOD INC., PORTLAND, ME CONCRETE SECTIONS & DETAILS

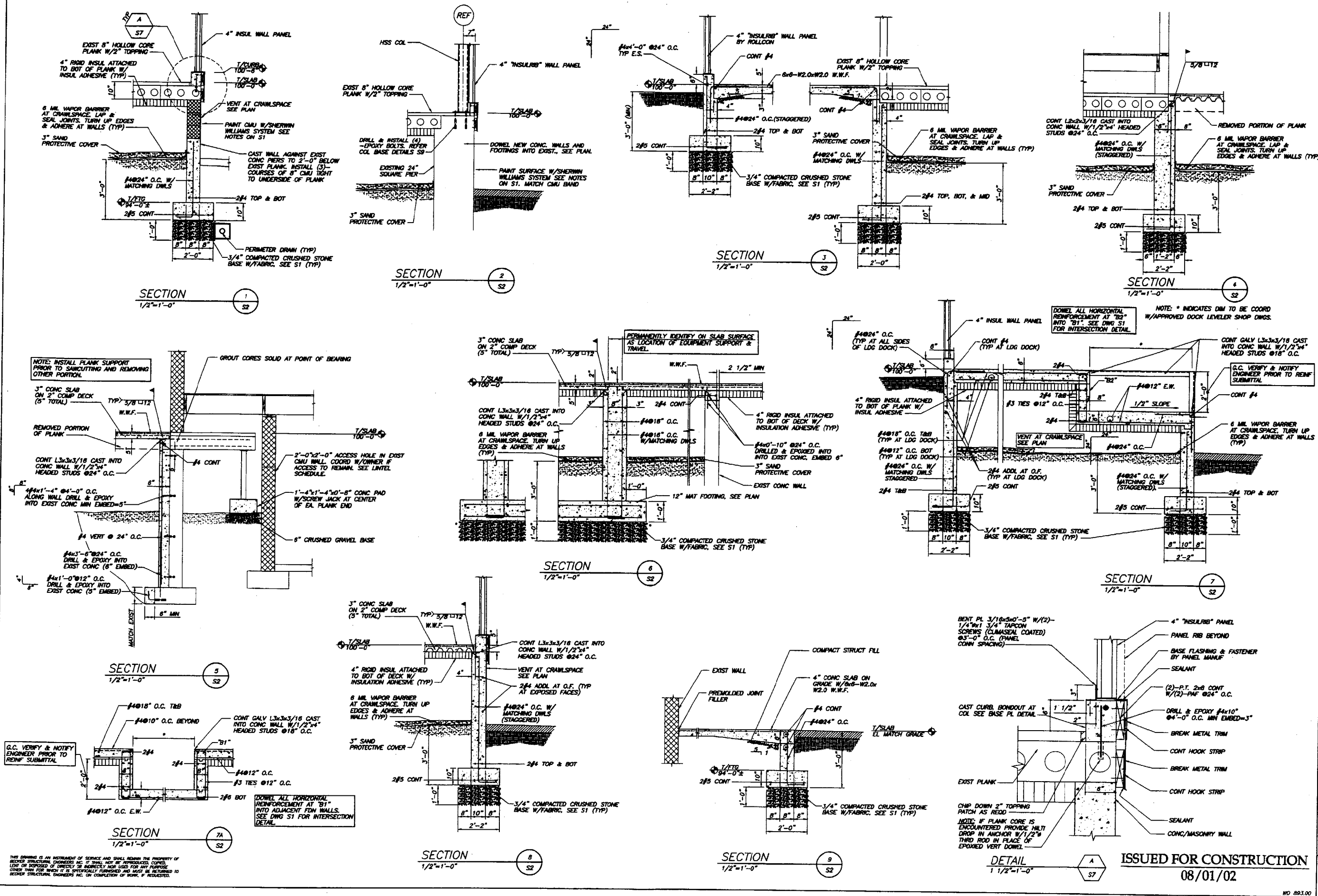
ISSUED FOR CONSTRUCTION  
08/01/02  
NO. 893.00

DESIGNED BY: DSB	CHECKED BY: FBB	DATE: 08/01/02
DRAWN BY: APP	NOTED	

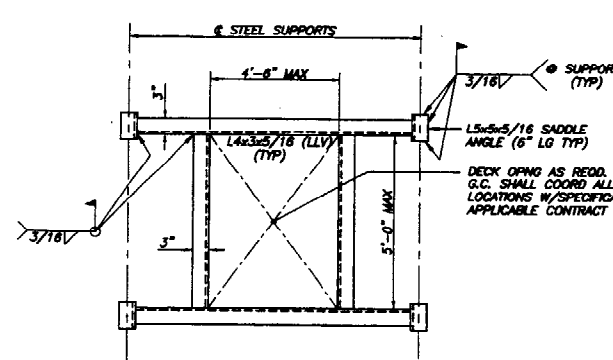


DESIGNED BY	TRM
CHECKED BY	PBB
SCALE	NOTED
DATE	08/01/02

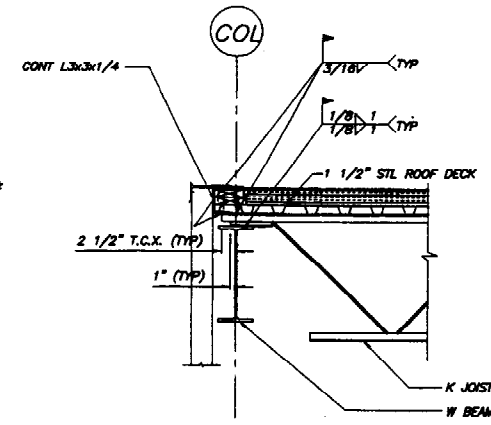
PROJECT: **BOTTLE CONVEYOR & FACILITY**  
**HP HOOD INC., PORTLAND, ME**  
CONCRETE SECTIONS & DETAILS



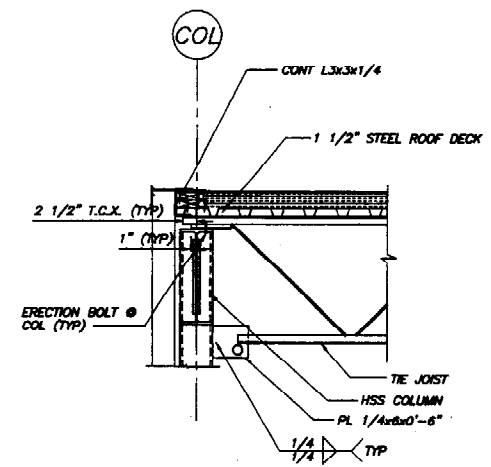
THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER STRUCTURAL ENGINEERS INC. IT SHALL NOT BE REPRODUCED, COPIED, LOANED OR EXPOSED TO DIRECTLY OR INDIRECTLY BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT IS SPECIFICALLY FURNISHED AND MUST BE RETURNED TO BECKER STRUCTURAL ENGINEERS INC. ON COMPLETION OF WORK, IF REQUESTED.



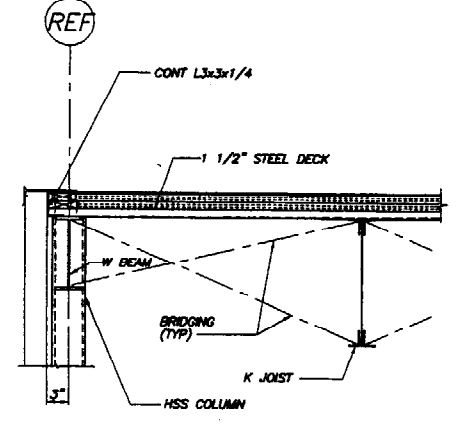
**PLAN OF TYP OPENING IN ROOF DECK**  
N.T.S. TYPICAL AT ROOF DRAINS, FANS & OTHER LIGHT MECH & HVAC EQUIP.



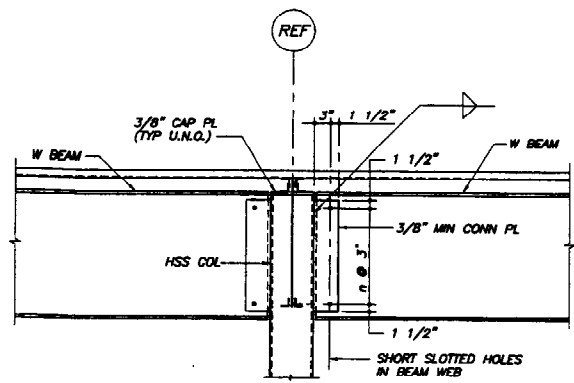
**SECTION 1**  
3/4"=1'-0"



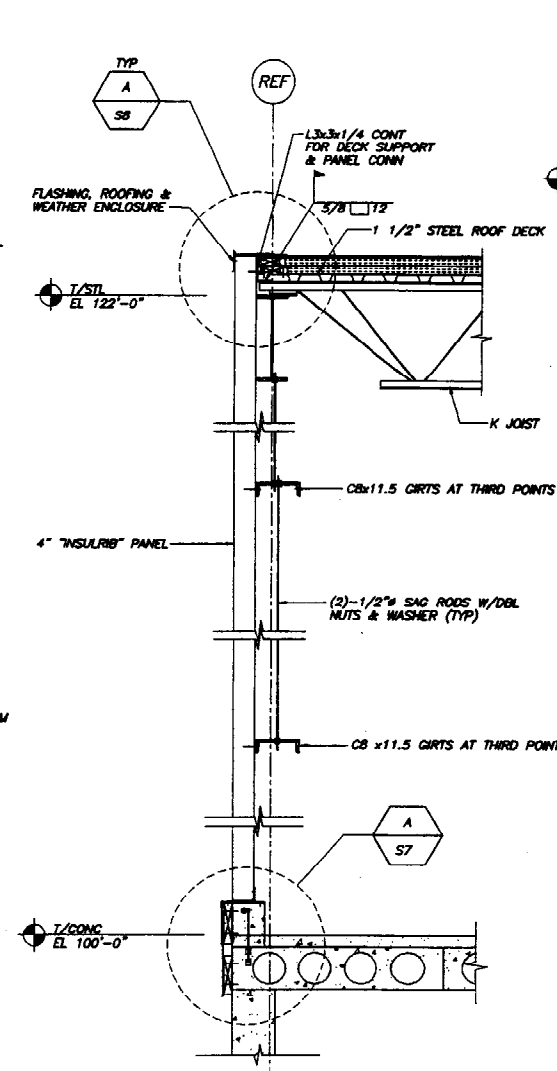
**SECTION 2**  
3/4"=1'-0"



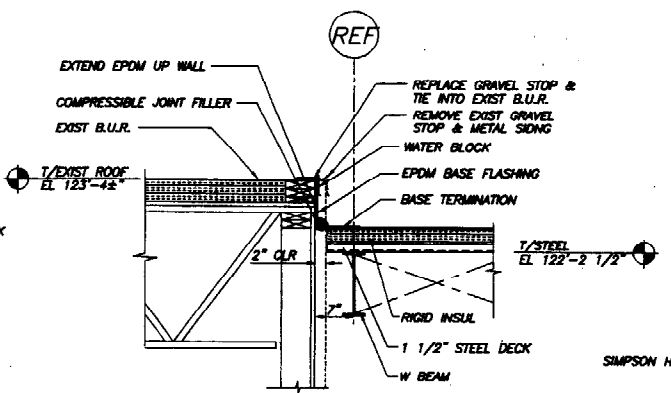
**SECTION 3**  
3/4"=1'-0"



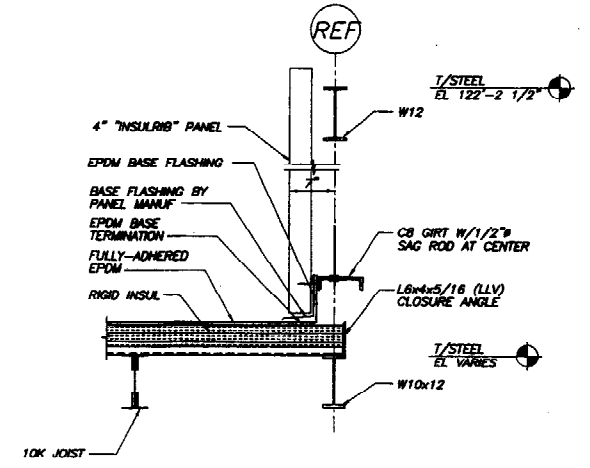
**TYP HSS COL TO W BEAM CONN**  
N.T.S.



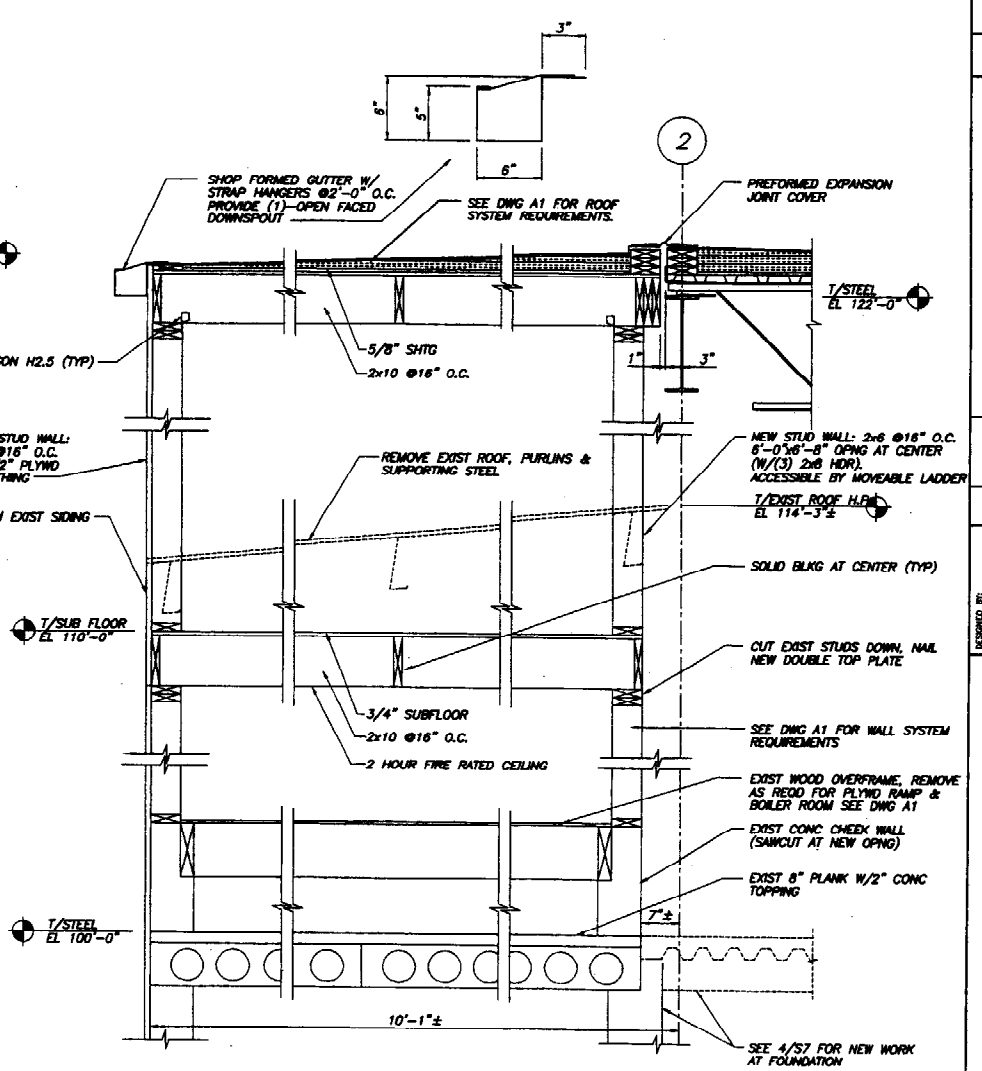
**SECTION 4**  
3/4"=1'-0"



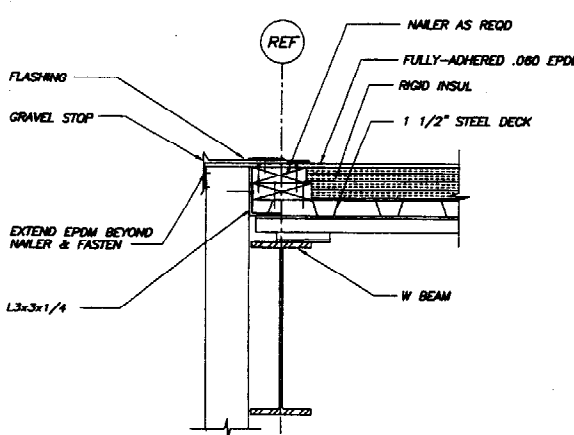
**SECTION 5**  
3/4"=1'-0"



**SECTION 6**  
3/4"=1'-0"



**SECTION 7**  
3/4"=1'-0"



**DETAIL A**  
1 1/2"=1'-0"

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER STRUCTURAL ENGINEERS INC. IT SHALL NOT BE REPRODUCED, COPIED, LOANED OR DISPOSED OF DIRECTLY OR INDIRECTLY IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF BECKER STRUCTURAL ENGINEERS INC. ON COMPLETION OF WORK, IF REQUESTED.

ISSUED FOR CONSTRUCTION  
08/01/02

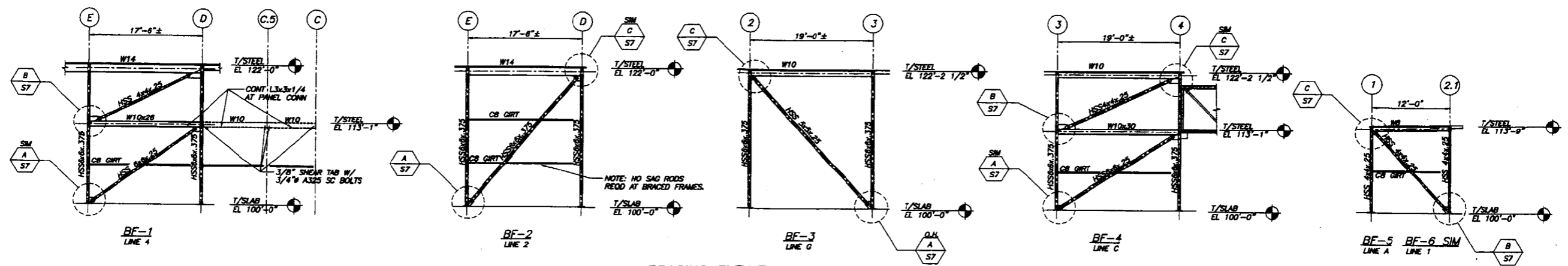
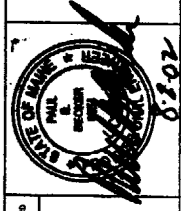
**BECKER**  
Structural Engineers, Inc.  
19 Commercial Street Portland, ME 04101  
PL 207.875.1888 Fax 207.875.1822



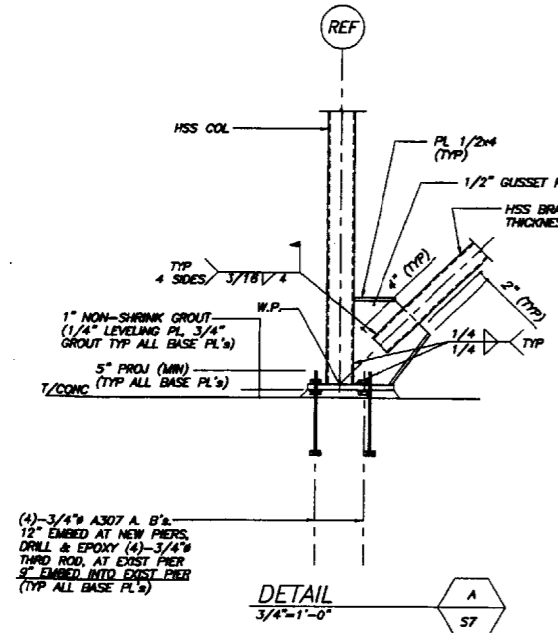
NO.	DATE	DESCRIPTION

PROJECT: BOTTLE CONVEYOR & FACILITY  
HP HOOD, INC., PORTLAND, ME  
STEEL SECTIONS & DETAILS

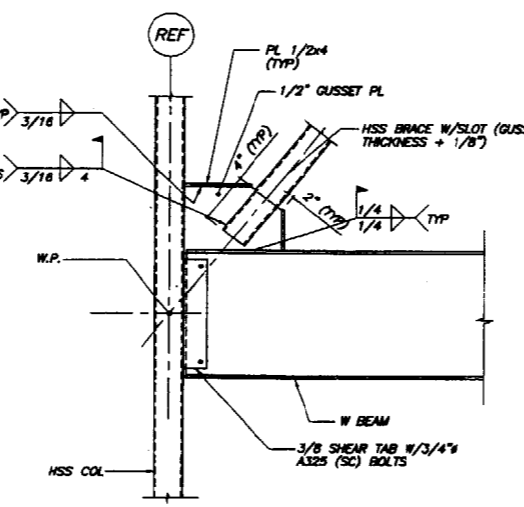
SCALE: NOTED  
DATE: 08/01/02  
S8



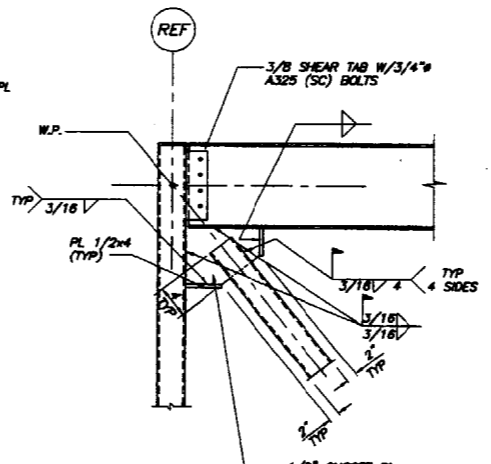
**BRACING ELEVATIONS**  
1/8"=1'-0"



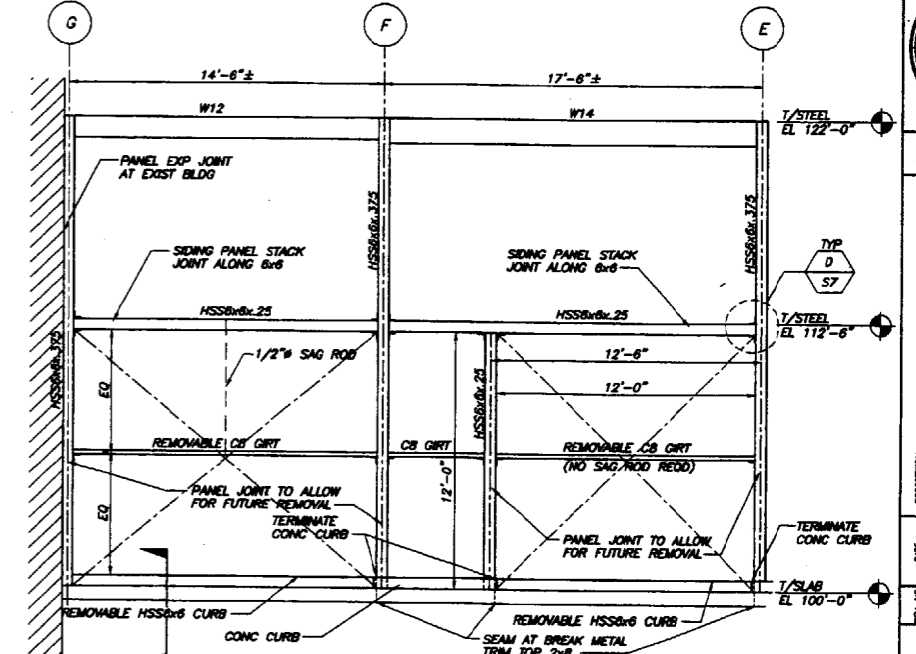
**DETAIL A**  
3/4"=1'-0"



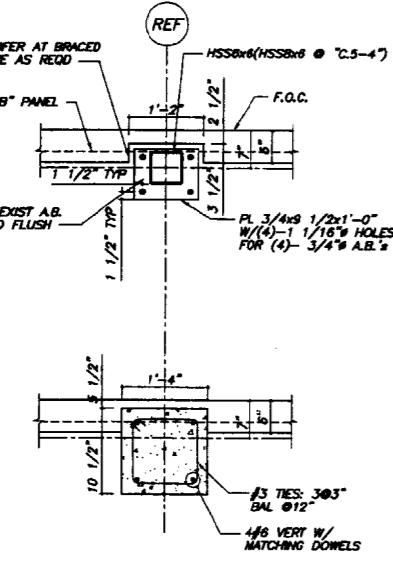
**DETAIL B**  
3/4"=1'-0"



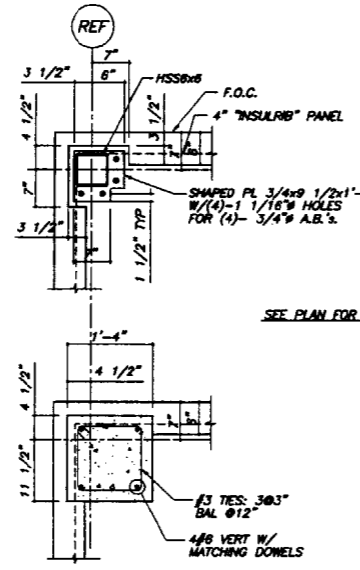
**DETAIL C**  
3/4"=1'-0"



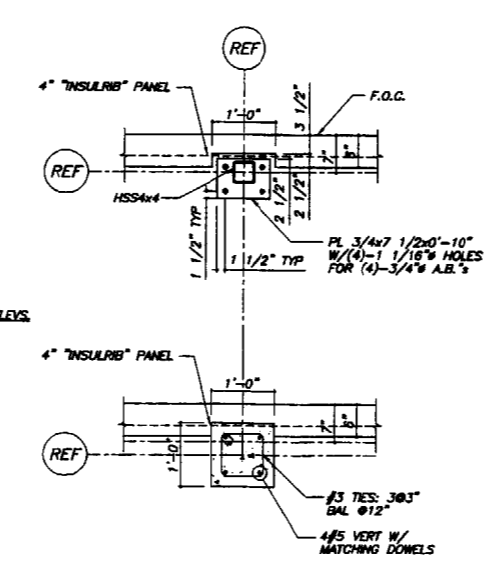
**KNOCKOUT PANEL ELEVATION**  
1/4"=1'-0"



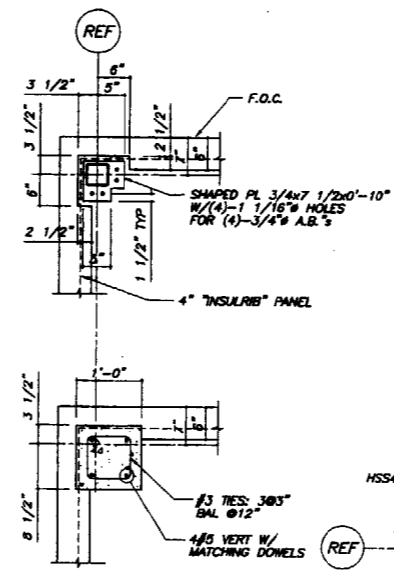
**P1 (STRAIGHT WALL)**



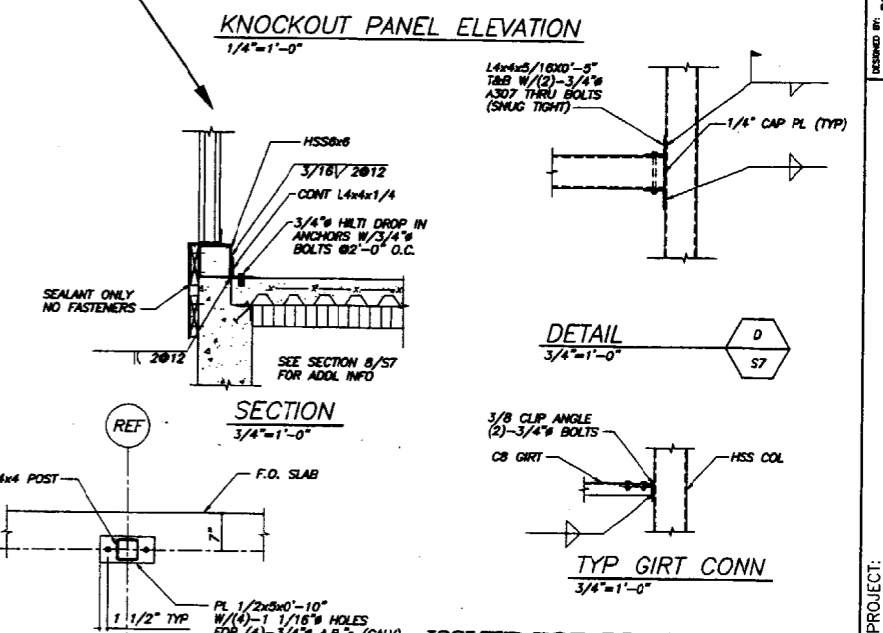
**P1 (CORNER)**



**P2 (STRAIGHT WALL)**



**P2 (CORNER)**



**SECTION**  
3/4"=1'-0"

**DETAIL D**  
3/4"=1'-0"

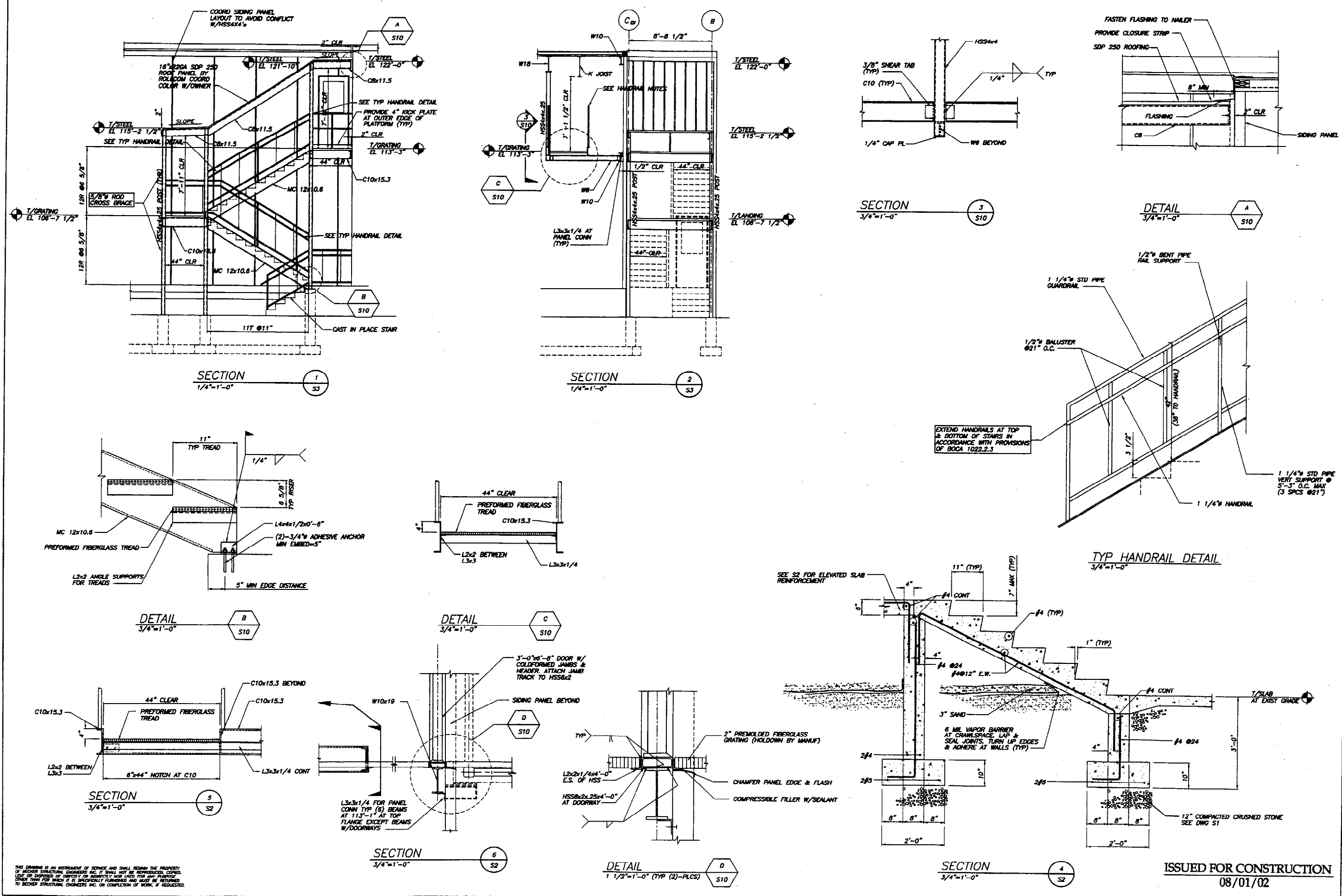
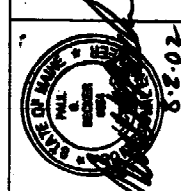
**TYP GIRT CONN**  
3/4"=1'-0"

**STAIR POST AT P2**

**ISSUED FOR CONSTRUCTION**  
08/01/02

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER STRUCTURAL ENGINEERS, INC. IT SHALL NOT BE REPRODUCED, COPIED, LENT OR DISPOSED OF IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SPECIFICALLY PREPARED AND MUST BE RETURNED TO BECKER STRUCTURAL ENGINEERS, INC. ON COMPLETION OF WORK, IF REQUESTED.

DESIGNED BY: DSB	TRM	DATE: 08/01/02
DRAWN BY: TRM	PBB	
CHECKED BY: PBB	NOTED	
SCALE:		
PROJECT: BOTTLE CONVEYOR & FACILITY	HP HOOD, INC., PORTLAND, ME	
	BRACING DETAILS	
Drawings No.:	S9	



THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER STRUCTURAL ENGINEERS INC. IT SHALL NOT BE REPRODUCED, COPIED, LENT OR DISPOSED OF IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF BECKER STRUCTURAL ENGINEERS INC. ANY REVISIONS SHALL BE INDICATED BY CIRCLED NUMBERS AND MUST BE RETURNED TO BECKER STRUCTURAL ENGINEERS INC. ON COMPLETION OF WORK. IF REQUESTED.

REV. NO.	DATE	DESCRIPTION

DESIGNED BY: DSB	TRM	PBB	NOTED	DATE: 08/01/02
CHECKED BY:				
DRAWN BY:				
SCALE:				

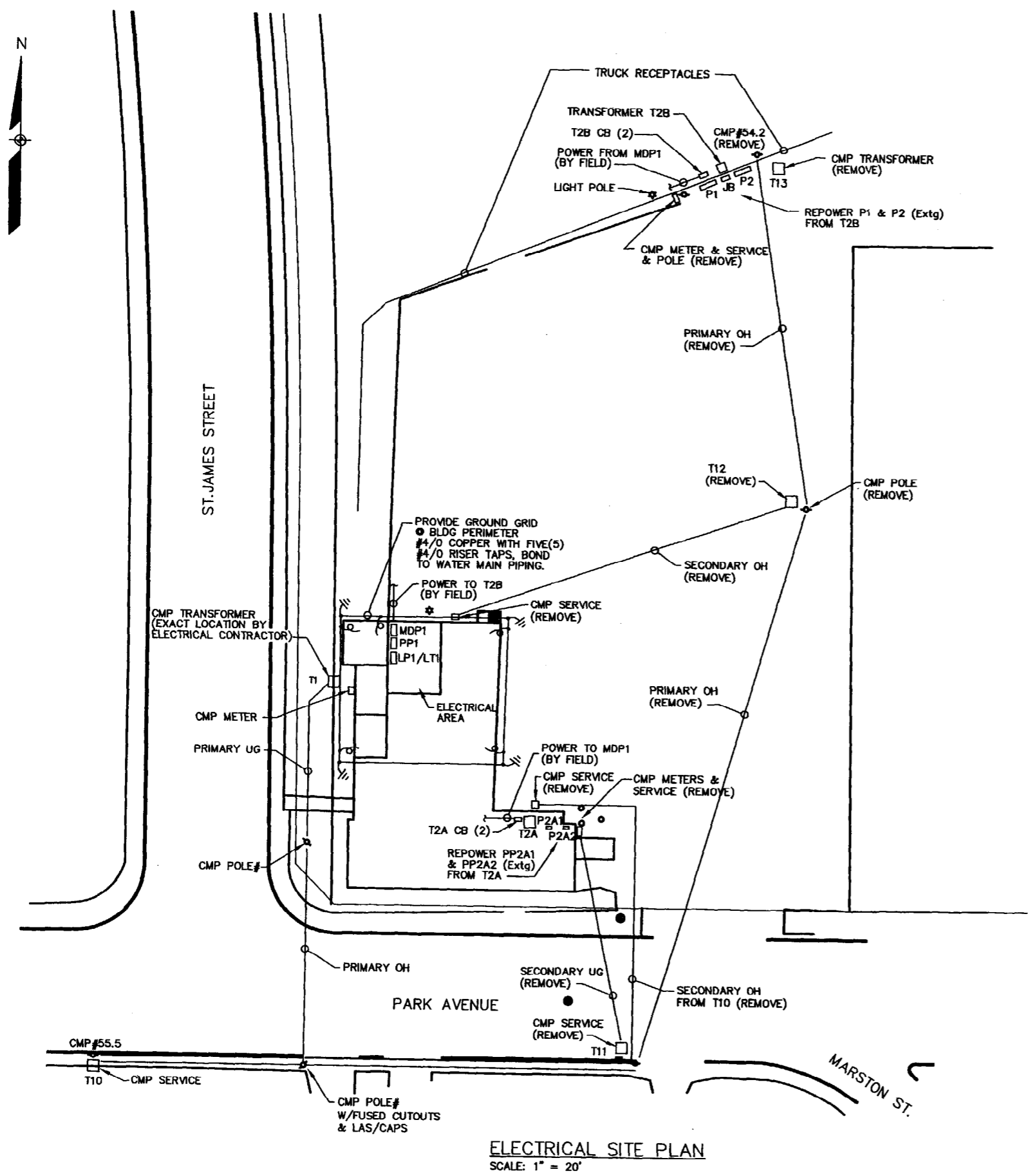
  

PROJECT: BOTTLE CONVEYOR & FACILITY HP HOOD INC., PORTLAND, ME	STAIR SECTIONS & DETAILS
---	--------------------------

ISSUED FOR CONSTRUCTION  
08/01/02

**S10**

J:\Users\1072\consult\10-24-02\C-2.electrical.dwg Mon Jan 24 11:54:26 2005 mcright-pj@mc.com www.mcright-pj.com



ELECTRICAL SITE PLAN  
SCALE: 1" = 20'

**GENERAL NOTES**

- ALL CONDUIT & EQUIPMENT SHALL BE INSTALLED & GROUNDED IN ACCORDANCE WITH THE RULES & REGULATIONS OF THE CURRENT NATIONAL ELECTRICAL CODE.
- CONDUIT RUNS ARE SHOWN DIAGRAMMATICALLY AND SHALL BE INSTALLED IN A MANNER TO PREVENT CONFLICTS WITH EQUIPMENT & STRUCTURES. ALL CONDUITS SHALL BE CONCEALED IN WALLS, BELOW FLOOR SLAB, OR ABOVE ANY SUSPENDED CEILINGS. EXPOSED CEILING CONDUITS SHALL BE PERMITTED WHERE SUSPENDED CEILINGS ARE NOT USED. EXPOSED CONDUITS SHALL BE INSTALLED PARALLEL TO BEAMS AND WALLS.
- CONDUITS SHALL BE PROPERLY TERMINATED WITH SQUARE CONNECTIONS TO ALL ASSOCIATED EQUIPMENT.
- CONTROL AND INSTRUMENTATION CONDUIT SIZES AND NUMBER OF CONDUCTORS SHALL BE DETERMINED FROM SCHEMATIC DIAGRAMS, INSTRUMENTATION DIAGRAMS, VENDOR DOCUMENTATION, AND/OR SPECIFICATIONS, AND AS SHOWN ON PLANS. THE WIRING DIAGRAMS, QUANTITY AND SIZE OF WIRES AND CONDUIT REPRESENT A SUGGESTED ARRANGEMENT BASED UPON SELECTED STANDARD COMPONENTS FOR ELECTRICAL AND INSTRUMENTATION EQUIPMENT. MODIFICATIONS APPROVED BY THE ENGINEER MAY BE MADE BY THE CONTRACTOR TO ACCOMMODATE EQUIPMENT ACTUALLY PURCHASED. THE BASIC SEQUENCE AND METHOD OF CONTROL MUST BE MAINTAINED AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS. EACH CONTROL AND INSTRUMENTATION CONDUIT SHALL ALSO CONTAIN 10 PER CENT SPARE CONDUCTORS, WITH A MINIMUM OF TWO SPARES, UP TO THE LIMIT OF CONDUIT FILL AS SPECIFIED BY THE NATIONAL ELECTRICAL CODE. INSTRUMENTATION SHALL BE INSTALLED IN RGS/C CONDUITS. FINAL CONTROL AND INSTRUMENTATION WIRING SHALL BE REVIEWED WHEN VENDOR EQUIPMENT SUBMITTALS ARE APPROVED.
- EACH CONDUIT SHALL CARRY GROUND WIRE(S) ACCORDING TO SPECIFICATION SECTION 16450, IN ADDITION TO NUMBER OF CONDUCTORS SHOWN ON DRAWINGS OR PER NOTE 4 ABOVE. ALL GROUNDING MUST CONFORM TO ARTICLE 250 OF CURRENT NATIONAL ELECTRICAL CODE.
- MINIMUM CONDUIT SIZE SHALL BE .75" C. MINIMUM POWER WIRING SHALL BE 2C#12 AWG WITH GROUND, AND 2C#14 FOR CONTROL INSTRUMENTATION CABLE SHALL BE 2C#16 TWS AND 3C#16 TWS FOR SPEED POTENTIOMETER. LIGHTING, RECEPTACLE, AND HVAC MAY BE .5" CONDUIT INSTALLED PER NEC. PROVIDE CONDUIT AND WIRING AS INDICATED.
- ALL PANEL BOARDS SHALL BE MOUNTED SO THAT THE DISTANCE FROM THE TOP CIRCUIT BREAKER OPERATING HANDLE TO THE FINISHED FLOOR SHALL NOT EXCEED 6"-6".
- ALL SURFACE MOUNTED PANELS AND PANEL BOARDS ON THE INSIDE OF EXTERIOR WALLS ABOVE GRADE, OR IN OTHER LOCATIONS CONSIDERED AS DAMP, SHALL BE MOUNTED TO MAINTAIN A 1/4" AIR SPACE BETWEEN THE ENCLOSURE AND THE WALL.
- ELECTRICAL EQUIPMENT LOCATIONS ARE APPROXIMATE. COORDINATE LOCATIONS WITH PROCESS PIPING, ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DRAWINGS.
- ALL FIELD CONTROL CONDUCTORS SHALL TERMINATE AT INDIVIDUAL TERMINAL BLOCKS WITHIN THE CONTROL ENCLOSURE. SERIES AND PARALLEL CONNECTION OF FIELD CONTROL CONDUCTORS SHALL BE MADE ONLY AT CONTROL PANEL OR MOTOR CONTROL CENTER TERMINAL BLOCKS.
- GROUND ALL CONDUCTOR SHIELDS AT PANEL ONLY - DO NOT GROUND SHIELDS AT BOTH ENDS.
- AT THE FOLLOWING LOCATIONS, UNLESS OTHERWISE NOTED, PULL, JUNCTION, TERMINAL, SWITCH, AND OUTLET BOXES SHALL BE CAST IRON WHERE STEEL CONDUIT IS TERMINATED; OR CAST ALUMINUM WHERE ALUMINUM CONDUIT IS TERMINATED:
  - A - AT LOCATIONS WHERE VAPOR TIGHT LIGHTING FIXTURES AND/OR WATERTIGHT RECEPTACLES ARE INDICATED.
  - B - AT LOCATIONS ON OR IN ALL OUTSIDE WALLS.
  - C - OUTDOORS
- NAMEPLATES SHALL CONFORM STRICTLY TO INSTRUCTIONS IN THE ELECTRICAL SPECIFICATIONS AND ON THE DRAWINGS. THE FOLLOWING SHALL HAVE NAMEPLATES:
  - A - ALL MAIN BREAKERS AND TIE BREAKERS.
  - B - ALL COMPARTMENTS OF MOTOR CONTROL CENTERS EXCLUDING UNUSED COMPARTMENTS.
  - C - ALL LOCAL CONTROL STATIONS AT OR NEAR EQUIPMENT.
  - D - ALL PANELBOARDS.
  - E - ALL INSTRUMENTATION.
- PROVIDE HANDHOLES AS REQUIRED FOR U/G FEEDERS AND CONTROL.
- PROVIDE EXPANSION FREEZE FITTINGS AS REQUIRED.
- CONTRACTOR SHALL PROVIDE ALL LOCAL DISCONNECTS AND RECEPTACLES FOR HVAC AS REQUIRED BY THE NEC, AND AS SHOWN.
- THE ELECTRIC UTILITY SHALL PROVIDE THE PRIMARY OVERHEAD LINE EXTENSIONS, DISCONNECTS AND LIGHTING ARRESTORS/CAPACITOR MOUNTED ON POLE, PAD MOUNTED TRANSFORMER & METER MOUNTED AT BUILDING. CONTRACTOR SHALL PROVIDE CONDUIT, WIRING, TRANSFORMER PAD, CT ENCLOSURE AND METER ENCLOSURE AS REQUIRED IN ACCORDANCE WITH THE ELECTRIC UTILITY STANDARDS. WHEN THE UTILITY WORK IS COMPLETED, THE FACILITY WILL HAVE ONLY ONE UTILITY SERVICE LOCATED AT T1 ST. JAMES STREET.
- OWNER AND ENGINEER SHALL REVIEW THE VENDOR EQUIPMENT SUBMITTALS.
- CONTRACTOR SHALL REVIEW SITE PRIOR TO BIDDING AND CLARIFY ANY UNCERTAINTIES CONCERNING REMOVALS. ANY ADDITIONAL WORK NOT COVERED BY THE CONTRACTORS BID AND/OR OVER REMOVALS REQUIRING ADDITIONAL REWORK SHALL BE AT CONTRACTORS EXPENSE.
- PATCH AND SEAL ALL PENETRATIONS AT EXTERIOR WALL TO PREVENT WATER LEAKAGE INTO BUILDING. PLUG AND SEAL MAIN THROUGH BUILDING CROSS TIE CONDUIT.
- PROVIDE ALL CONDUIT, WIRING AND MISCELLANEOUS CONTROL DEVICES AS INDICATED BY THE SCHEMATICS, SINGLE LINE DIAGRAMS, SCHEDULES, PLANS, SPECIFICATIONS AND VENDOR DOCUMENTATION TO PROVIDE A COMPLETE WORKING SYSTEM.
- PRIOR TO PURCHASING MDP AND PPI OWNER AND ENGINEER SHALL VERIFY SPECIFIC EQUIPMENT SIZING.
- REFERENCE SEBAGO TECHNICS DWG #02122EC AS BASE PLAN DATA.
- INSTRUMENTATION SHALL BE RUN IN METAL CONDUIT. VFD POWER FROM VFD TO MOTOR SHALL BE RUN IN METAL CONDUIT. SERIAL COMMUNICATIONS SIGNALS SHALL BE RUN IN METAL CONDUIT. TELEPHONE, FIRE ALARM AND SECURITY SHALL BE RUN IN METAL CONDUIT. POWER AND CONTROL UNDER SLAB MAY BE RUN IN PVC CONDUIT.

**OAK RIDGE ASSOCIATES**  
 100 Main Street, Brunswick Maine 04011  
 Tel. 207-728-9614 Fax. 207-728-9664  
 Arnold F. P. Standish P.E.  
 100 Main Street, Brunswick Maine 04011

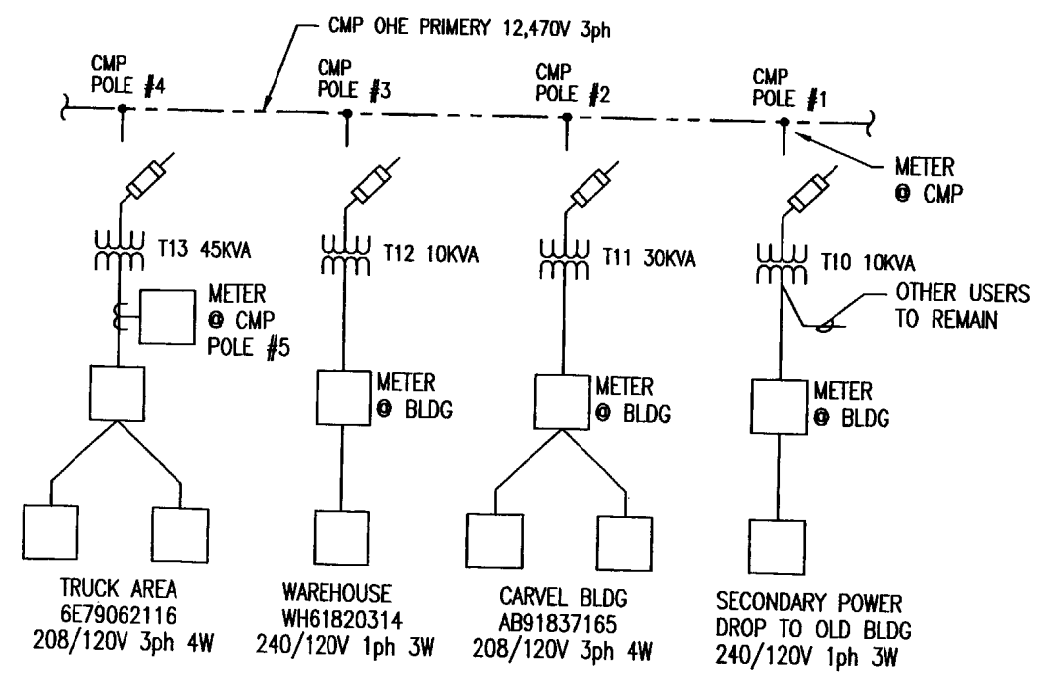
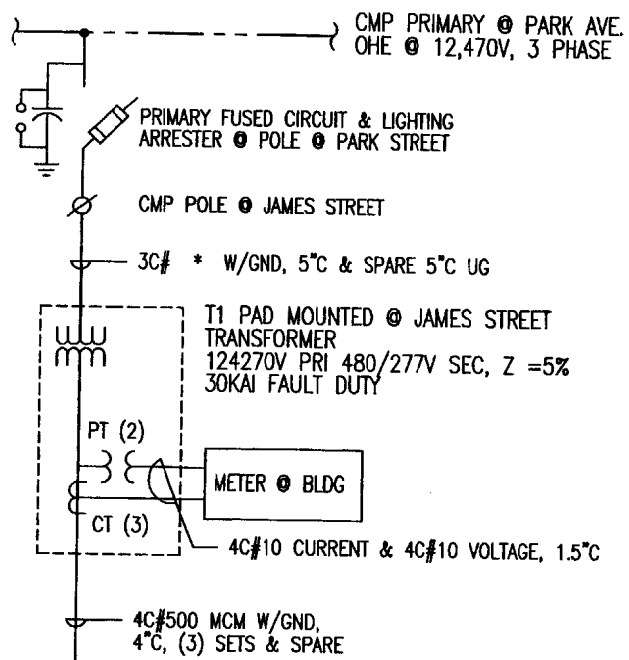
DATE	ISSUED FOR PERMIT	DESCRIPTION	A	P	P	R	O	V	E	D
01/22/02	MD	Dr. By								
01/22/02	MD	Dr. By								



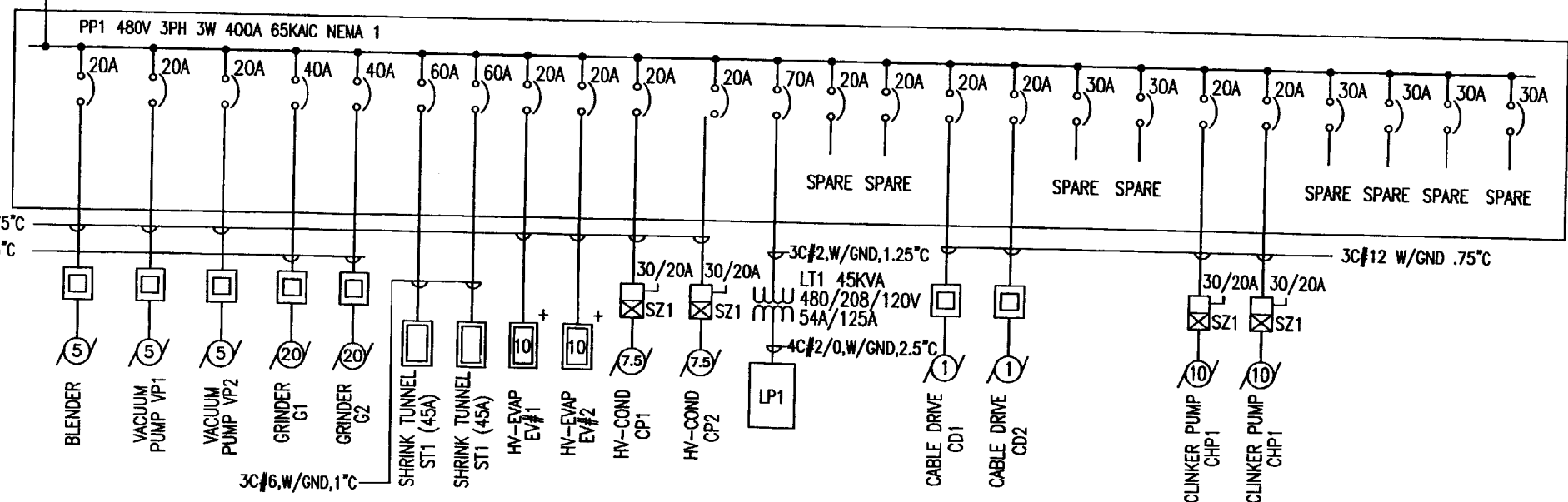
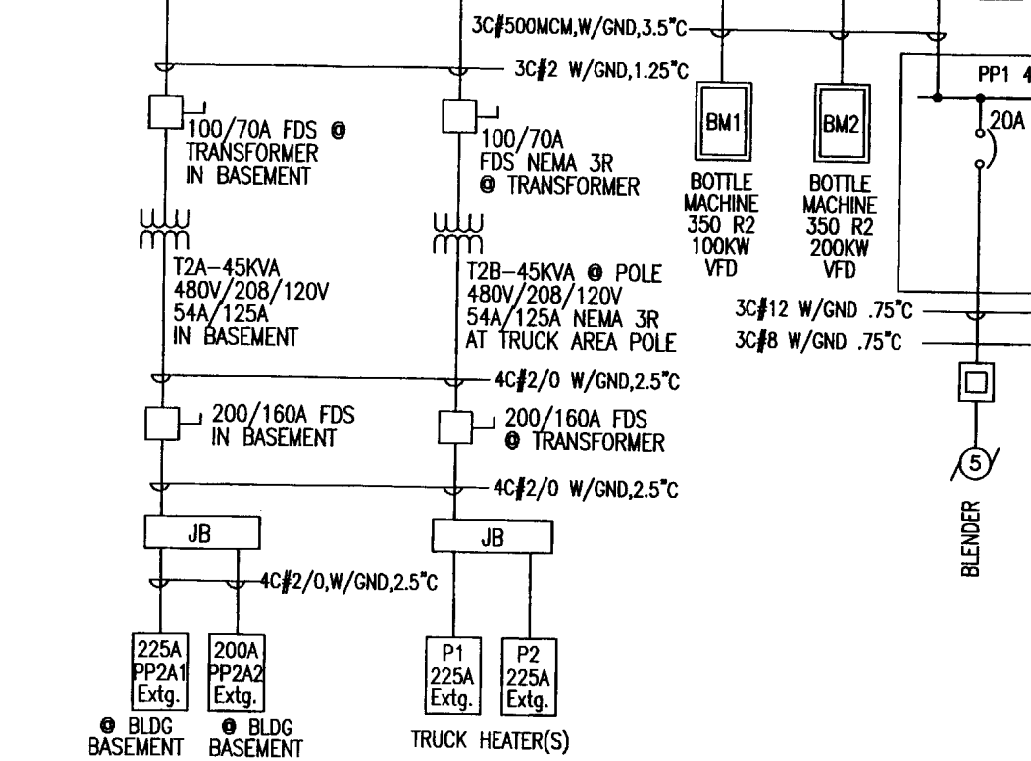
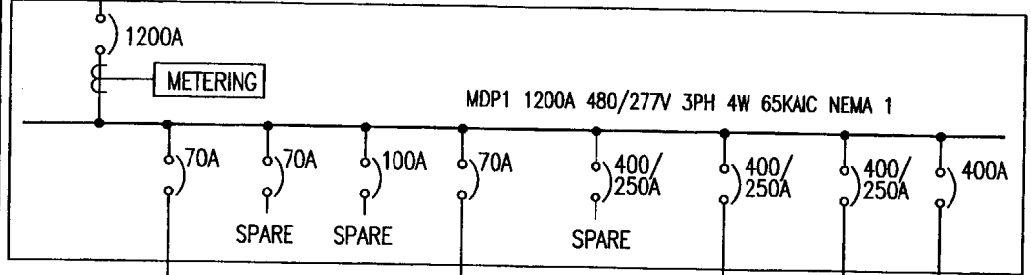
H.P. HOOD EXPANSION

ELECTRICAL SITE PLAN

FILE NO. HOOD 201	SCALE: 1" = 20'	CONTRACT:	DATE: 1/22/02
CADD NO. E-1	DESIGNED BY: MED	CHECKED BY: AFS	APP. BY: AFS
JOB NO. HOOD 201	DATE: 1/22/02	ISSUED BY: AFS	DATE:



- ### SYMBOLS & LEGEND
- TRANSFORMER
  - CURRENT TRANSFORMER
  - POTENTIAL TRANSFORMER
  - CIRCUIT BREAKER
  - SURGE CAPACITOR
  - LIGHTNING ARRESTER
  - GROUND CONNECTION
  - MOTOR CONTACTOR
  - CONTACT NORMALLY OPEN
  - CONTACT NORMALLY CLOSED
  - OVERLOAD HEATER ELEMENT
  - SINGLE POLE SINGLE THROW SWITCH
  - AMMETER
  - VOLTMETER
  - COMBINATION STARTER/MCP DISCONNECT
  - VENDOR CONTROL PANEL W/STARTER & DISCONNECTS
  - \* SIZING BY CMP
  - + EQUIPMENT BY HV VENDOR



**PANELBOARD LP-1 @ ELECTRICAL AREA**

PROJECT: HP. HOOD EXPANSION PARK AVE. PORTLAND, ME.  
 PANEL DESIGNATION: LIGHTING PANEL LP1  
 VOLTAGE: 208/120V  
 PHASE: 3  
 WIRE: 4  
 AIC: 10,000

PANEL LOCATION: ELECTRICAL AREA  
 FEEDER POINT: PP1/LT1  
 MOUNTING: SURFACE NEMA 1  
 MAIN RATING: 150A MCB/225A BUS

CKT NO.	AMPS	NO. POLES	DESCRIPTION	PHASE LOAD (VA)			DESCRIPTION	NO. POLES	AMPS	CKT. NO.
				A	B	C				
1-41	20	1		<				1	20	2-42

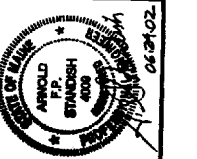
WIRING SHALL BE 2C#12 W/GND EXCEPT AS NOTED

(CONTRACTOR SHALL VERIFY SPECIFIC LOADS WITH OWNER AND MODIFY CIRCUIT BREAKER POLES AND AMP SIZE AS REQUIRED.)

G:\eng\1072\conrad\10-24-02\E-1 HOOD SINGLE LINE.dwg Mon Jun 24 11:51:57 2002 Wright-Pierce | www.wright-pierce.com

**OAK RIDGE ASSOCIATES**  
 108 Main Street, Brunswick Maine 04011  
 Tel. 207-726-8811 Fax. 207-726-8864  
 Arnold P. P. Standish P.E.  
 108 Main Street, Brunswick Maine 04011

No.	Date	Dr. By	M.D. By	App. By	Description	REV				DATE	
						A	P	P	E		
0	10/22/02				ISSUED FOR PERMIT						



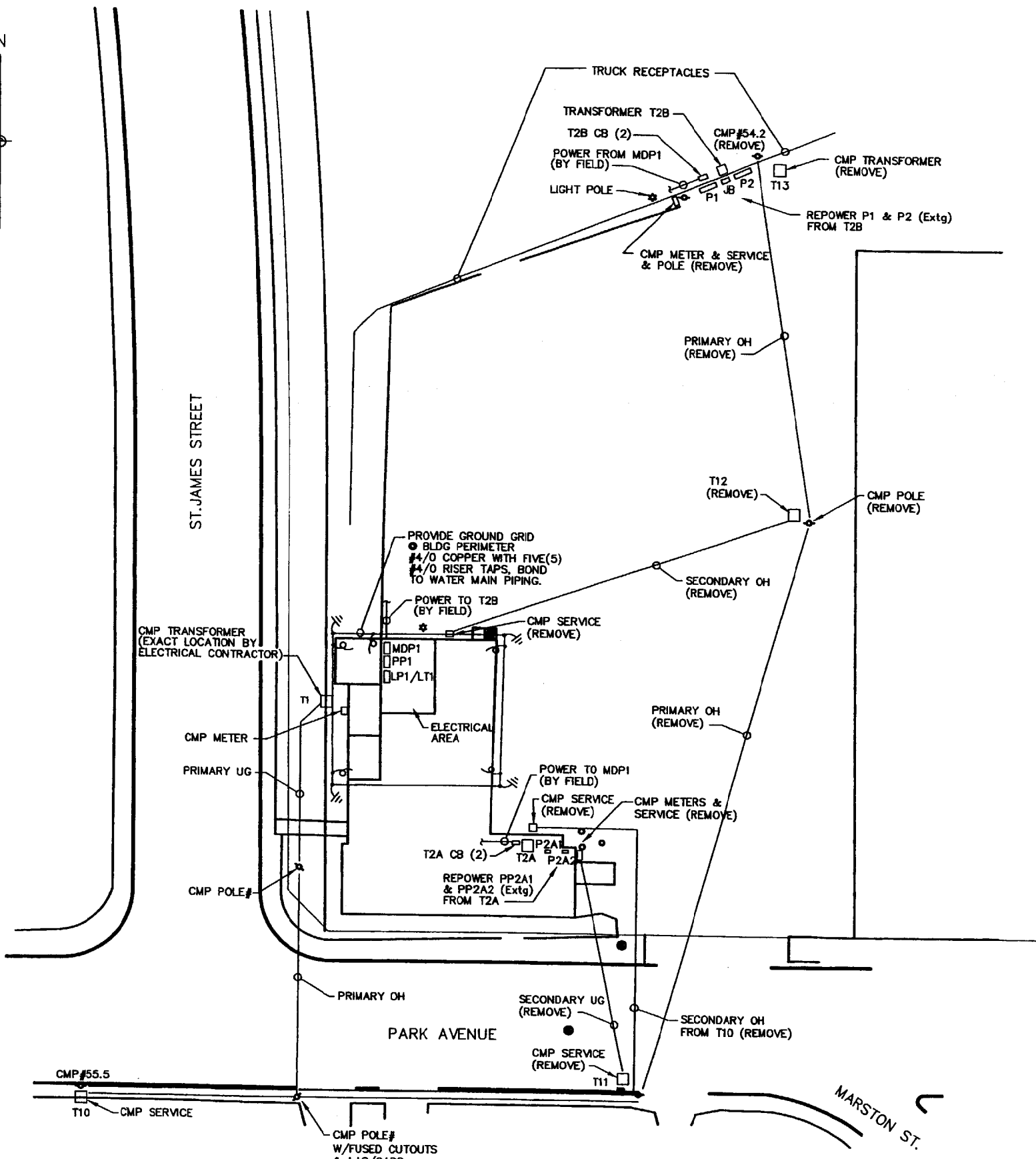
H.P. HOOD EXPANSION

ELECTRICAL SINGLE LINE

CONTRACT: NONE  
 SCALE: E-2  
 JOB NO. HOOD 201  
 CAD NO. E-2  
 FILE NO. HOOD 201

E-2





**ELECTRICAL SITE PLAN**  
SCALE: 1" = 20'

**GENERAL NOTES**

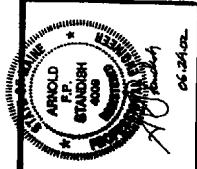
1. ALL CONDUIT & EQUIPMENT SHALL BE INSTALLED & GROUNDED IN ACCORDANCE WITH THE RULES & REGULATIONS OF THE CURRENT NATIONAL ELECTRICAL CODE.
2. CONDUIT RUNS ARE SHOWN DIAGRAMMATICALLY AND SHALL BE INSTALLED IN A MANNER TO PREVENT CONFLICTS WITH EQUIPMENT & STRUCTURES. ALL CONDUITS SHALL BE CONCEALED IN WALLS, BELOW FLOOR SLAB, OR ABOVE ANY SUSPENDED CEILINGS. EXPOSED CEILING CONDUITS SHALL BE PERMITTED WHERE SUSPENDED CEILINGS ARE NOT USED. EXPOSED CONDUITS SHALL BE INSTALLED PARALLEL TO BEAMS AND WALLS.
3. CONDUITS SHALL BE PROPERLY TERMINATED WITH SQUARE CONNECTIONS TO ALL ASSOCIATED EQUIPMENT.
4. CONTROL AND INSTRUMENTATION CONDUIT SIZES AND NUMBER OF CONDUCTORS SHALL BE DETERMINED FROM SCHEMATIC DIAGRAMS, INSTRUMENTATION DIAGRAMS, VENDOR DOCUMENTATION, AND/OR SPECIFICATIONS, AND AS SHOWN ON PLANS. THE WIRING DIAGRAMS, QUANTITY AND SIZE OF WIRES AND CONDUIT REPRESENT A SUGGESTED ARRANGEMENT BASED UPON SELECTED STANDARD COMPONENTS FOR ELECTRICAL AND INSTRUMENTATION EQUIPMENT. MODIFICATIONS APPROVED BY THE ENGINEER MAY BE MADE BY THE CONTRACTOR TO ACCOMMODATE EQUIPMENT ACTUALLY PURCHASED. THE BASIC SEQUENCE AND METHOD OF CONTROL MUST BE MAINTAINED AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS. EACH CONTROL AND INSTRUMENTATION CONDUIT SHALL ALSO CONTAIN 10 PER CENT SPARE CONDUCTORS, WITH A MINIMUM OF TWO SPARES, UP TO THE LIMIT OF CONDUIT FILL AS SPECIFIED BY THE NATIONAL ELECTRICAL CODE. INSTRUMENTATION SHALL BE INSTALLED IN RGSC CONDUITS. FINAL CONTROL AND INSTRUMENTATION WIRING SHALL BE REVIEWED WHEN VENDOR EQUIPMENT SUBMITTALS ARE APPROVED.
5. EACH CONDUIT SHALL CARRY GROUND WIRE(S) ACCORDING TO SPECIFICATION SECTION 16450, IN ADDITION TO NUMBER OF CONDUCTORS SHOWN ON DRAWINGS OR PER NOTE 4 ABOVE. ALL GROUNDING MUST CONFORM TO ARTICLE 250 OF CURRENT NATIONAL ELECTRICAL CODE.
6. MINIMUM CONDUIT SIZE SHALL BE .75". MINIMUM POWER WIRING SHALL BE 2C#12 AWG WITH GROUND, AND 2C#14 FOR CONTROL. INSTRUMENTATION CABLE SHALL BE 2C#16 TWS AND 3C#16 TWS FOR SPEED POTENTIOMETER, LIGHTING, RECEPTACLE, AND HVAC MAY BE .5" CONDUIT INSTALLED PER NEC. PROVIDE CONDUIT AND WIRING AS INDICATED.
7. ALL PANEL BOARDS SHALL BE MOUNTED SO THAT THE DISTANCE FROM THE TOP CIRCUIT BREAKER OPERATING HANDLE TO THE FINISHED FLOOR SHALL NOT EXCEED 6"-6".
8. ALL SURFACE MOUNTED PANELS AND PANEL BOARDS ON THE INSIDE OF EXTERIOR WALLS ABOVE GRADE, OR IN OTHER LOCATIONS CONSIDERED AS DAMP, SHALL BE MOUNTED TO MAINTAIN A 1/4" AIR SPACE BETWEEN THE ENCLOSURE AND THE WALL.
9. ELECTRICAL EQUIPMENT LOCATIONS ARE APPROXIMATE. COORDINATE LOCATIONS WITH PROCESS PIPING, ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DRAWINGS.
10. ALL FIELD CONTROL CONDUCTORS SHALL TERMINATE AT INDIVIDUAL TERMINAL BLOCKS WITHIN THE CONTROL ENCLOSURE. SERIES AND PARALLEL CONNECTION OF FIELD CONTROL CONDUCTORS SHALL BE MADE ONLY AT CONTROL PANEL OR MOTOR CONTROL CENTER TERMINAL BLOCKS.
11. GROUND ALL CONDUCTOR SHIELDS AT PANEL ONLY - DO NOT GROUND SHIELDS AT BOTH ENDS.
12. AT THE FOLLOWING LOCATIONS, UNLESS OTHERWISE NOTED, FULL, JUNCTION, TERMINAL, SWITCH, AND OUTLET BOXES SHALL BE CAST IRON WHERE STEEL CONDUIT IS TERMINATED; OR CAST ALUMINUM WHERE ALUMINUM CONDUIT IS TERMINATED:
  - A - AT LOCATIONS WHERE VAPOR TIGHT LIGHTING FIXTURES AND/OR WATERTIGHT RECEPTACLES ARE INDICATED.
  - B - AT LOCATIONS ON OR IN ALL OUTSIDE WALLS.
  - C - OUTDOORS
13. NAMEPLATES SHALL CONFORM STRICTLY TO INSTRUCTIONS IN THE ELECTRICAL SPECIFICATIONS AND ON THE DRAWINGS. THE FOLLOWING SHALL HAVE NAMEPLATES:
  - A - ALL MAIN BREAKERS AND TIE BREAKERS.
  - B - ALL COMPARTMENTS OF MOTOR CONTROL CENTERS EXCLUDING UNUSED COMPARTMENTS.
  - C - ALL LOCAL CONTROL STATIONS AT OR NEAR EQUIPMENT.
  - D - ALL PANELBOARDS.
  - E - ALL INSTRUMENTATION.
14. PROVIDE HANDHOLES AS REQUIRED FOR U/G FEEDERS AND CONTROL.
15. PROVIDE EXPANSION FREEZE FITTINGS AS REQUIRED.
16. CONTRACTOR SHALL PROVIDE ALL LOCAL DISCONNECTS AND RECEPTACLES FOR HVAC AS REQUIRED BY THE NEC, AND AS SHOWN.
17. THE ELECTRIC UTILITY SHALL PROVIDE THE PRIMARY OVERHEAD LINE EXTENSIONS, DISCONNECTS AND LIGHTING ARRESTORS/CAPACITOR MOUNTED ON POLE, PAD MOUNTED TRANSFORMER & METER MOUNTED AT BUILDING. CONTRACTOR SHALL PROVIDE CONDUIT, WIRING, TRANSFORMER PAD, CT ENCLOSURE AND METER ENCLOSURE AS REQUIRED IN ACCORDANCE WITH THE ELECTRIC UTILITY STANDARDS. WHEN THE UTILITY WORK IS COMPLETED, THE FACILITY WILL HAVE ONLY ONE UTILITY SERVICE LOCATED AT T1 ST. JAMES STREET.
18. OWNER AND ENGINEER SHALL REVIEW THE VENDOR EQUIPMENT SUBMITTALS.
19. CONTRACTOR SHALL REVIEW SITE PRIOR TO BIDDING AND CLARIFY ANY UNCERTAINTIES CONCERNING REMOVALS. ANY ADDITIONAL WORK NOT COVERED BY THE CONTRACTORS BID AND/OR OVER REMOVALS REQUIRING ADDITIONAL REWORK SHALL BE AT CONTRACTORS EXPENSE.
20. PATCH AND SEAL ALL PENETRATIONS AT EXTERIOR WALL TO PREVENT WATER LEAKAGE INTO BUILDING, PLUG AND SEAL MAIN THROUGH BUILDING CROSS TIE CONDUIT.
21. PROVIDE ALL CONDUIT, WIRING AND MISCELLANEOUS CONTROL DEVICES AS INDICATED BY THE SCHEMATICS, SINGLE LINE DIAGRAMS, SCHEDULES, PLANS, SPECIFICATIONS AND VENDOR DOCUMENTATION TO PROVIDE A COMPLETE WORKING SYSTEM.
22. PRIOR TO PURCHASING MDP AND PPI OWNER AND ENGINEER SHALL VERIFY SPECIFIC EQUIPMENT SIZING.
23. REFERENCE SEBAGO TECHNICS DWG #02122EC AS BASE PLAN DATA.
24. INSTRUMENTATION SHALL BE RUN IN METAL CONDUIT. VFD POWER FROM VFD TO MOTOR SHALL BE RUN IN METAL CONDUIT. SERIAL COMMUNICATIONS SIGNALS SHALL BE RUN IN METAL CONDUIT. TELEPHONE, FIRE ALARM AND SECURITY SHALL BE RUN IN METAL CONDUIT. POWER AND CONTROL UNDER SLAB MAY BE RUN IN PVC CONDUIT.

D:\Users\7072\consult\16-24-22\16-2 e1ca31a.dwg Mon Jun 24 11:54:23 2002 www.light-pliance.com

**OAK RIDGE ASSOCIATES**  
118 Main Street, Brunswick, Maine 04011  
Tel. 207-728-8914 Fax. 207-728-8904  
**Arnold F. P. Staudish, P.E.**  
118 Main Street, Brunswick, Maine 04011

No.	Date	Dr. By	Chk. By	App. By	Description
0	08/22/02	MBD	AFS	AFS	ISSUED FOR PERMIT

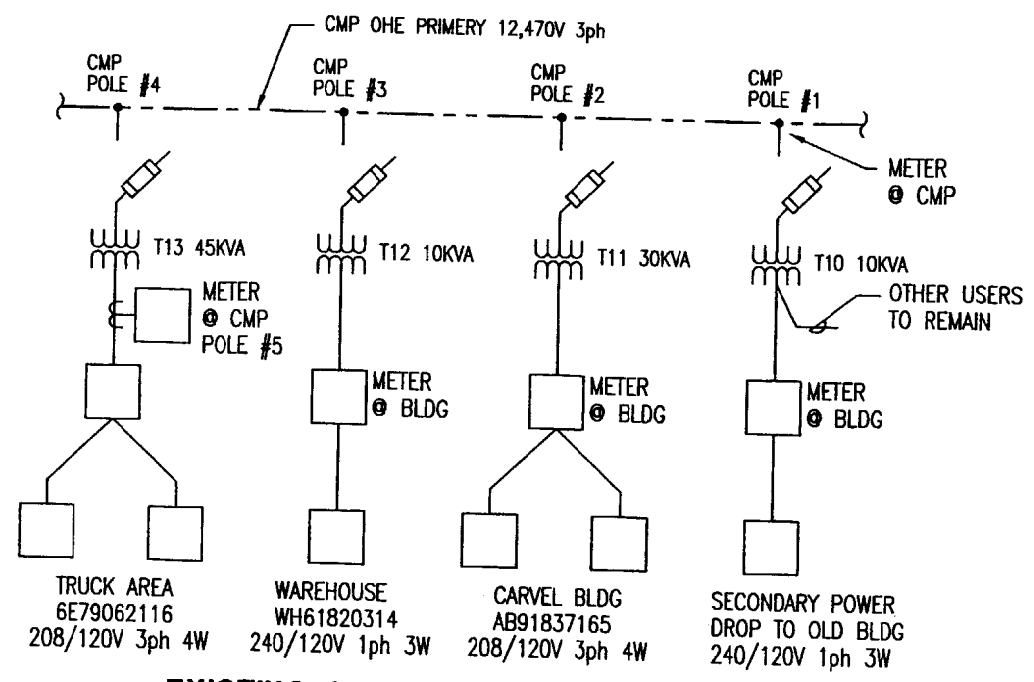
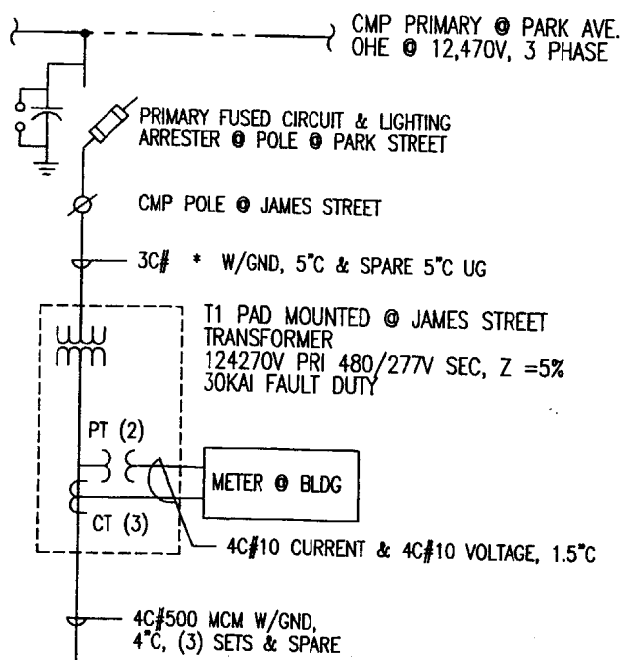
REGISTERED PROFESSIONAL ENGINEER DATE



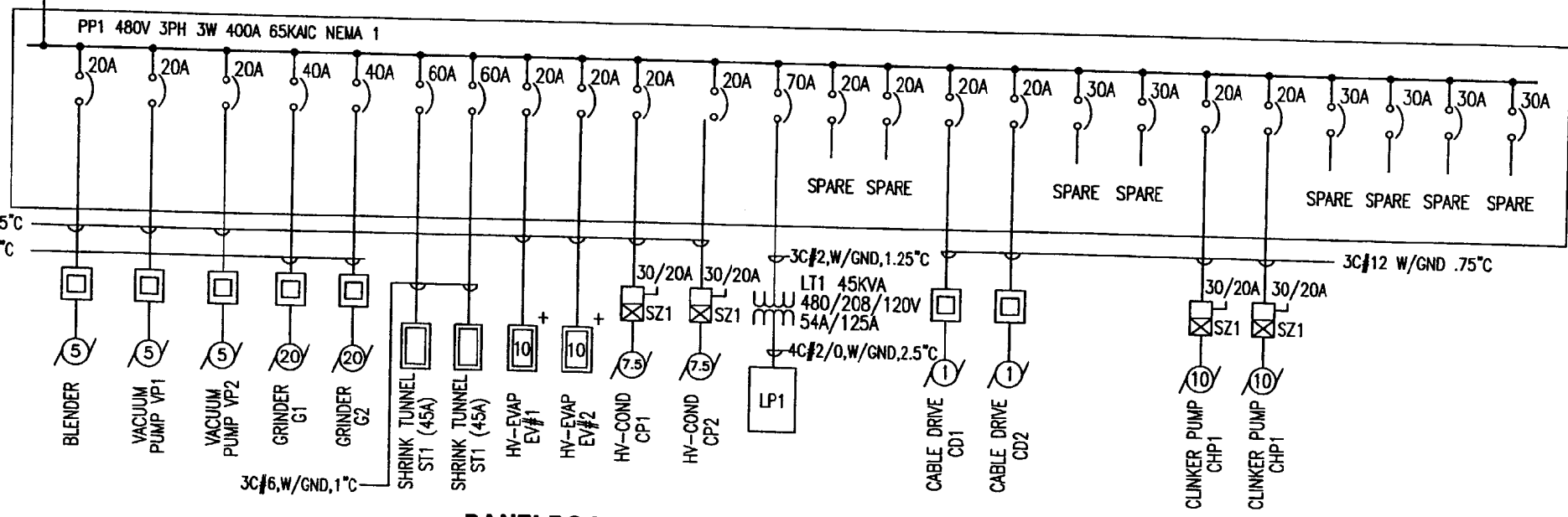
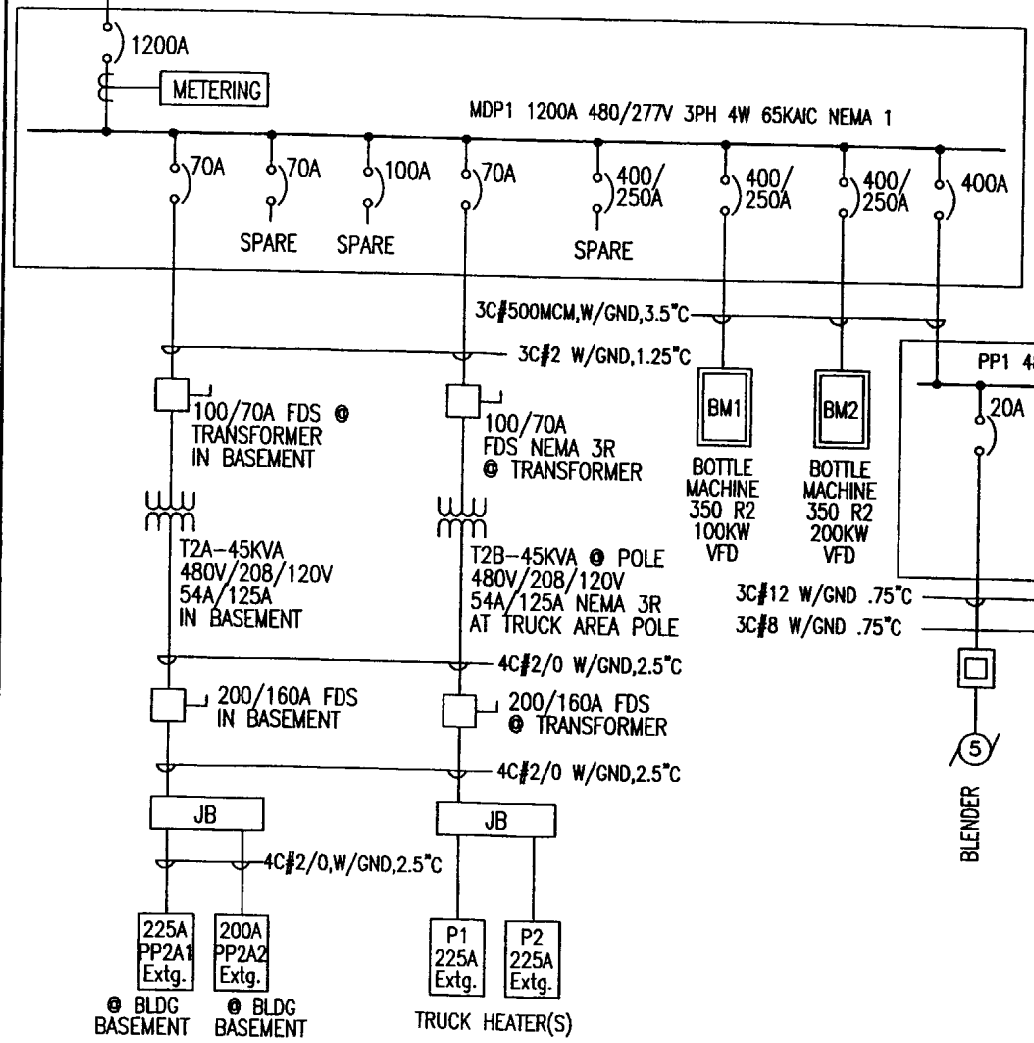
H.P. HOOD EXPANSION  
ELECTRICAL SITE PLAN  
SCALE: 1" = 20'

FILE NO. HOOD 201  
CONTRACT: 16-201  
DATE: 06/24/02





- ### SYMBOLS & LEGEND
- TRANSFORMER
  - CURRENT TRANSFORMER
  - POTENTIAL TRANSFORMER
  - CIRCUIT BREAKER
  - SURGE CAPACITOR
  - LIGHTNING ARRESTER
  - GROUND CONNECTION
  - MOTOR CONTACTOR
  - CONTACT NORMALLY OPEN
  - CONTACT NORMALLY CLOSED
  - OVERLOAD HEATER ELEMENT
  - SINGLE POLE SINGLE THROW SWITCH
  - AMMETER
  - VOLTMETER
  - COMBINATION STARTER/MCP DISCONNECT
  - VENDOR CONTROL PANEL W/STARTER & DISCONNECTS
  - \* SIZING BY CMP
  - + EQUIPMENT BY HV VENDOR



**PANELBOARD LP-1 @ ELECTRICAL AREA**

PROJECT: HP. HOOD EXPANSION PARK AVE. PORTLAND, ME.  
 PANEL DESIGNATION: LIGHTING PANEL LP1  
 VOLTAGE: 208/120V  
 PHASE: 3  
 WIRE: 4  
 AIC: 10,000

PANEL LOCATION: ELECTRICAL AREA  
 FEEDER POINT: PP1/LT1  
 MOUNTING: SURFACE NEMA 1  
 MAIN RATING: 150A MCB/225A BUS

CKT NO.	AMPS	NO. POLES	DESCRIPTION	PHASE LOAD (VA)			DESCRIPTION	NO. POLES	AMPS	CKT. NO.
				A	B	C				
1-41	20	1		<				1	20	2-42

WIRING SHALL BE 2C #12 W/GND EXCEPT AS NOTED

(CONTRACTOR SHALL VERIFY SPECIFIC LOADS WITH OWNER AND MODIFY CIRCUIT BREAKER POLES AND AMP SIZE AS REQUIRED.)

6: Unigs 1/072/consult116-24-02/E-1 HOOD SINGLE LINE.dwg Mon Jun 24 11:51:57 2002 In:light-plance | www.wright-pierce.com

**OAK RIDGE ASSOCIATES**  
 100 Main Street, Brunswick, Maine 04011  
 Tel. 207-728-0814 Fax. 207-728-0854

**Arnold P. Standish P.E.**  
 100 Main Street, Brunswick, Maine 04011

REGISTERED PROFESSIONAL ENGINEER

DATE: \_\_\_\_\_

ISSUED FOR PERMIT

No.	Date	Dr. By	Ch. By	App. By	Description
0	08/22/02	MBD	AFS	AFS	
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

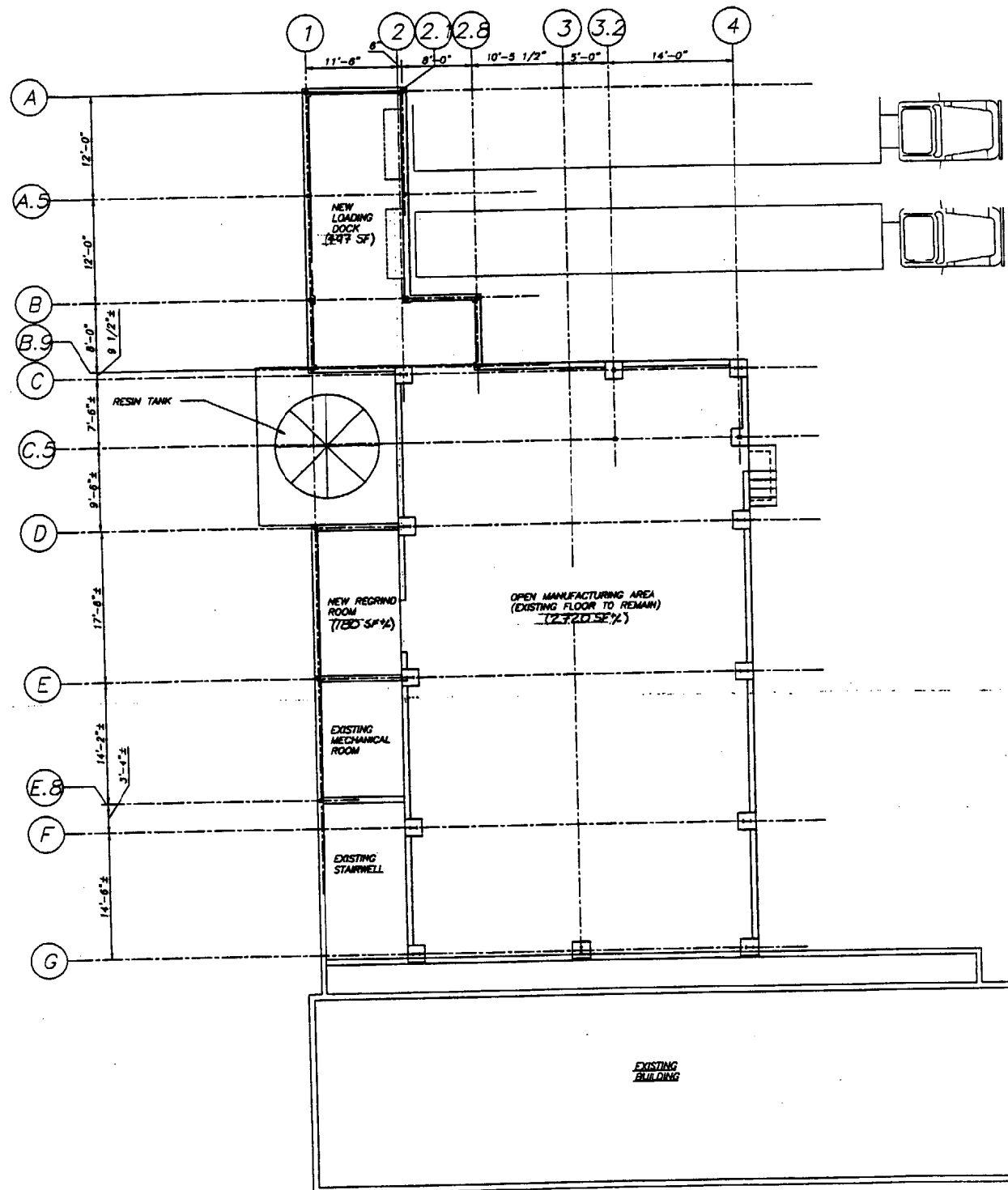
PROJECT: H.P. HOOD EXPANSION  
 ELECTRICAL SINGLE LINE

SCALE: E-2

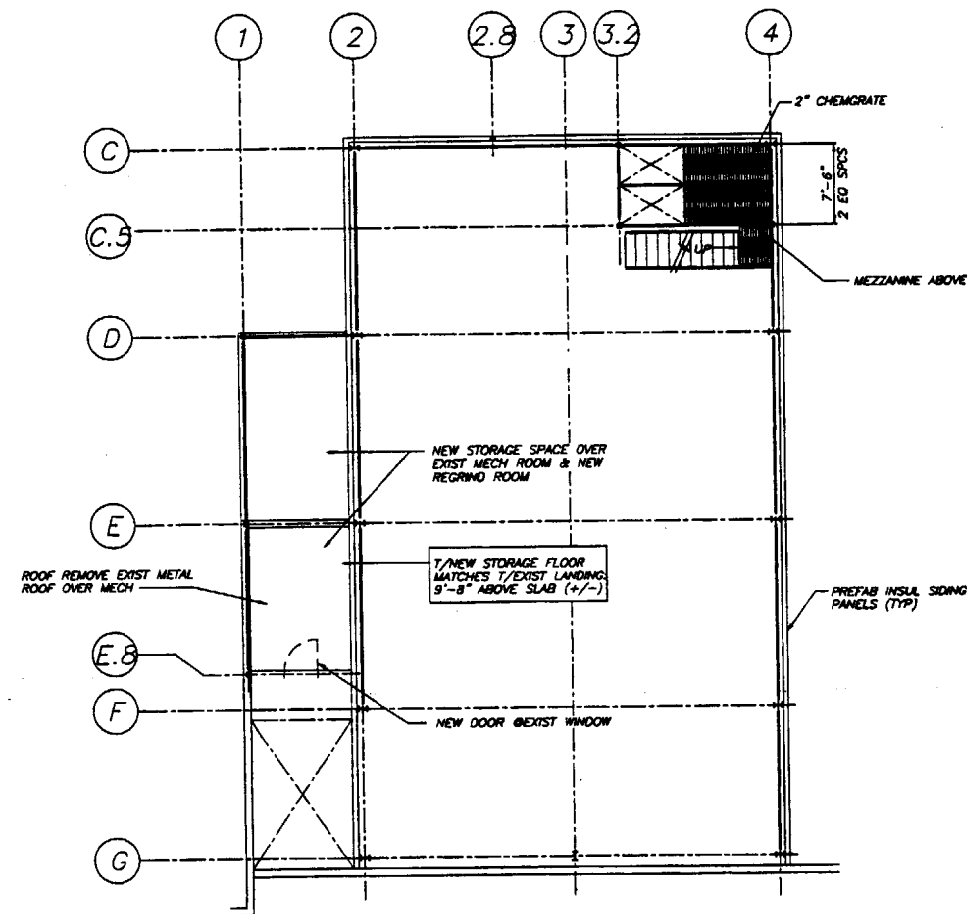
CONTRACT: NONE

FILE NO.: HOOD 201

SHEET - OF -



FLOOR PLAN  
1/8"=1'-0"



MEZZANINE LEVEL PLAN  
1/8"=1'-0"

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER STRUCTURAL ENGINEERS, INC. IT SHALL NOT BE REPRODUCED, COPIED, LOANED OR OTHERWISE USED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF BECKER STRUCTURAL ENGINEERS, INC. ANY REPRODUCTION OR USE WITHOUT SUCH CONSENT SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO BECKER STRUCTURAL ENGINEERS, INC. OR COMPLETION OF WORK, IF REQUIRED.

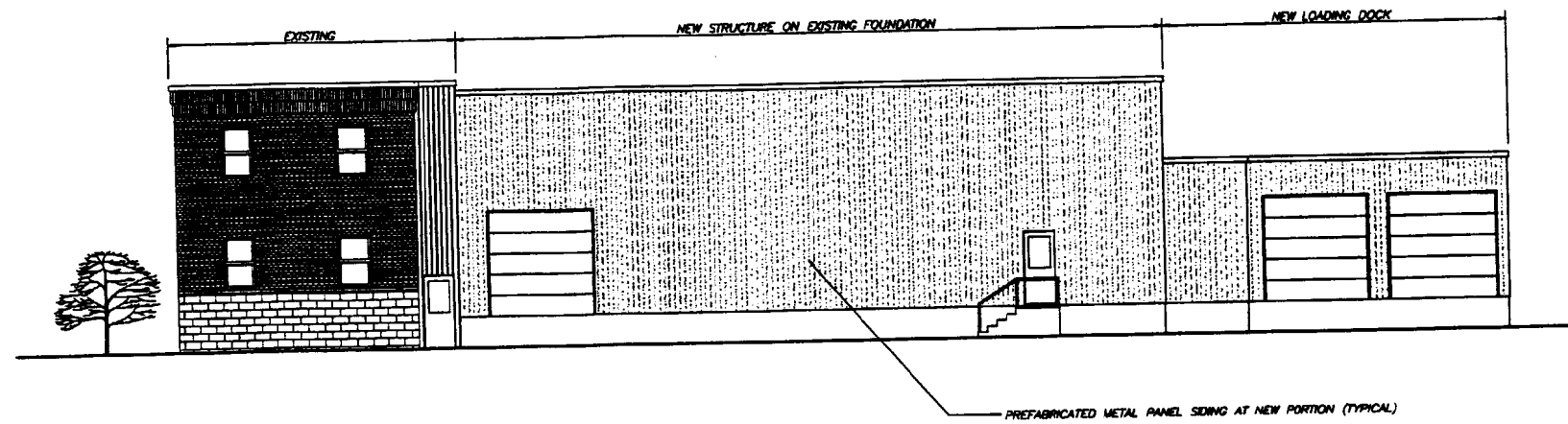
NOT FOR CONSTRUCTION  
PROGRESS PRINTS  
04/11/02

**BECKER**  
Structural Engineers, Inc.  
19 Commercial Street Portland, ME 04101  
Ph: 207.875.1838

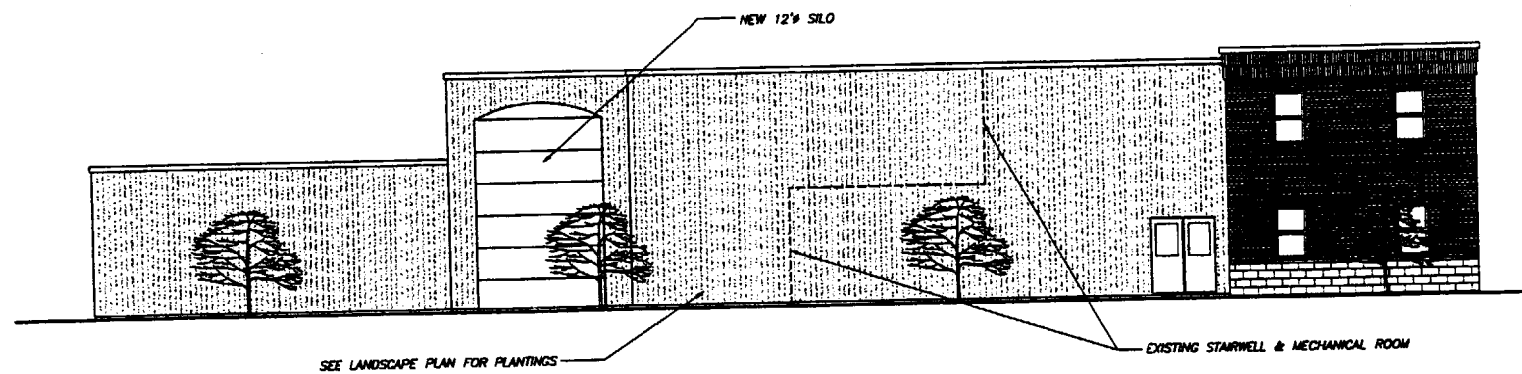
PROJECT: H.P. HOOD BOTTLE CONVEYOR  
PORTLAND, ME  
PRELIMINARY FLOOR PLAN

DESIGNED BY: DSB  
CHECKED BY: TRM  
DATE: 04/11/02

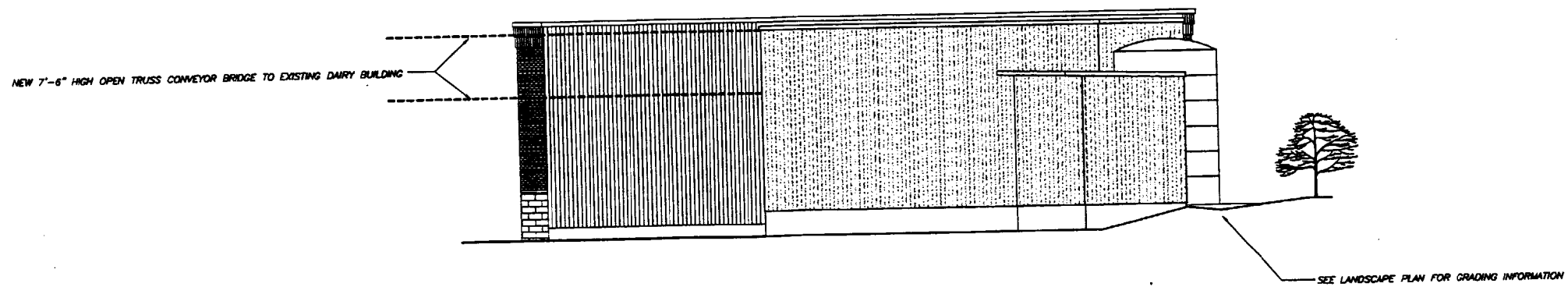
A1



EAST ELEVATION  
1/8"=1'-0"



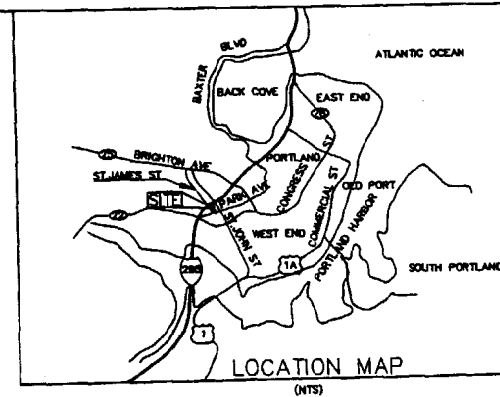
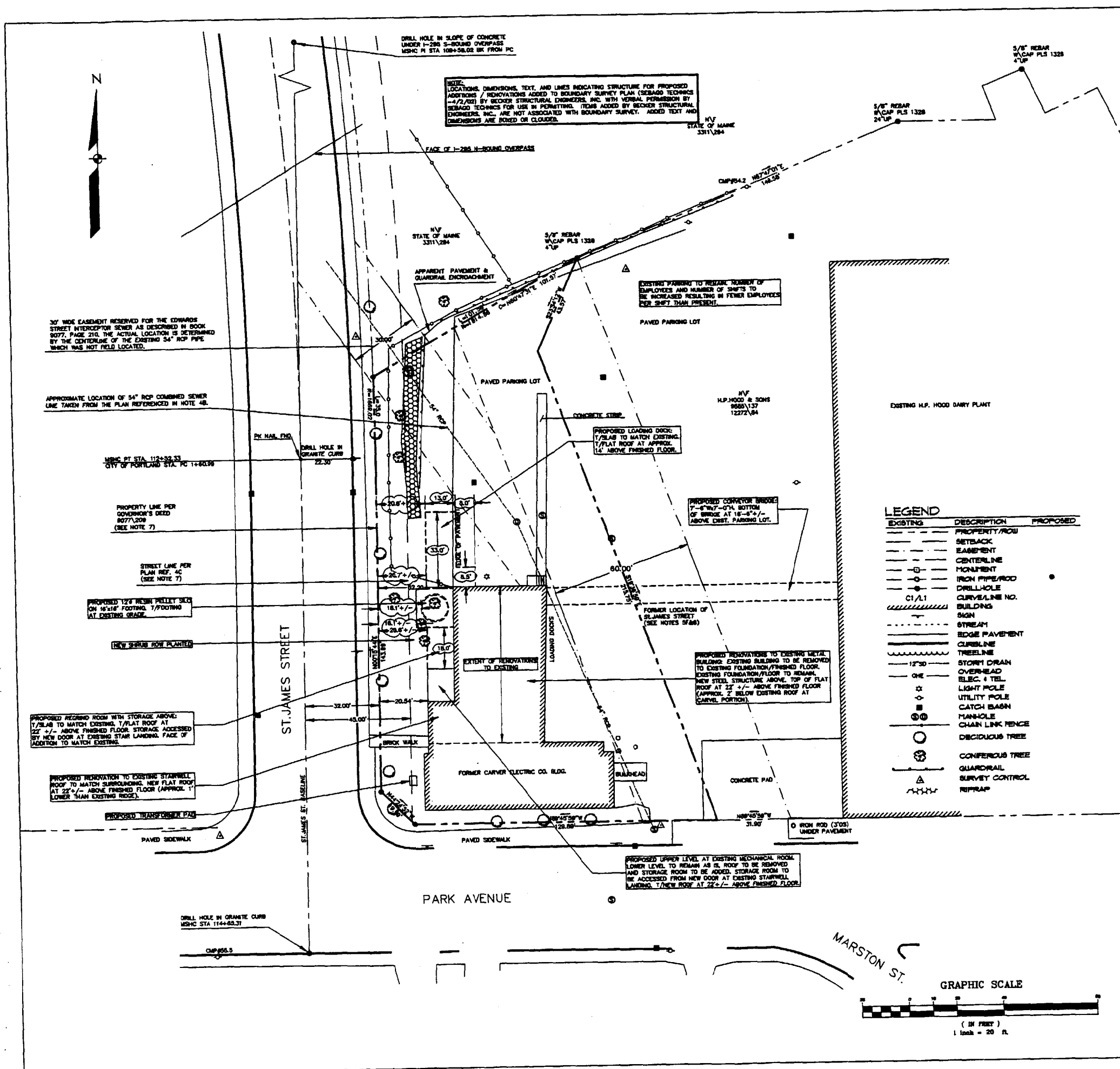
WEST ELEVATION  
1/8"=1'-0"



NORTH ELEVATION  
1/8"=1'-0"

NOT FOR CONSTRUCTION  
PROGRESS PRINTS  
05/14/02

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER STRUCTURAL ENGINEERS, INC. IT SHALL NOT BE REPRODUCED, COPIED, LOANED OR OTHERWISE USED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF BECKER STRUCTURAL ENGINEERS, INC. ANY UNAUTHORIZED USE OF THIS DRAWING IS PROHIBITED. BECKER STRUCTURAL ENGINEERS, INC. SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO PROPERTY OR PERSONS ARISING FROM THE USE OF THIS DRAWING.



**GENERAL NOTES**

- RECORD OWNERS OF THE PARCEL: H. STEPHEN CARVEL AND SHEILY STUART CARVEL AS DESCRIBED IN A DEED DATED JANUARY 1, 1992, RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS, PORTLAND, MAINE IN BOOK 11344, PAGE 228.
- THE PROPERTY IS LOCATED ON THE CITY OF PORTLAND ASSESSOR'S PLAN NO. 86 SHOWN AS LOT A-10 IN BLOCK D.
- TOTAL AREA OF THE PARCEL IS 22,896 SQ. FT. OR 0.52 ACRES, MORE OR LESS.
- PLAN REFERENCES:  
 A/LAND TITLE SURVEY ON PARK AVENUE, PORTLAND, MAINE, MADE FOR H. P. HOOD & SONS, INCORPORATED BY OWEN HASKELL, INCORPORATED, PORTLAND, MAINE DATED JANUARY 26, 1996, REVISED THROUGH 12/02/99 A NON-RECORDED PLAN OH, JOB NO. 96002P.  
 B/PROPOSED SITE PLAN OF H. P. HOOD BUILDING EXPANSION BY DUFRESNE-HENRY, PORTLAND, MAINE DATED FEBRUARY 14, 2000 A NON-RECORDED PLAN DH JOB NO. 8102.01.  
 C/CITY OF PORTLAND MAINE, DEPARTMENT OF PUBLIC WORKS, ST. JAMES STREET RELOCATION ON FILE AT THE CITY OF PORTLAND PUBLIC WORKS ENGINEERING DEPARTMENT IN FILE NO. 637-16 & 17.  
 D/MAINE STATE HIGHWAY COMMISSION RIGHT-OF-WAY MAP, STATE HIGHWAY 295, PORTLAND, MAINE DATED MAY 1987, SHC FILE NO. 3-185 RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 112, PAGE 51.  
 E/PLAN OF EDWARDS STREET INTERCEPTOR SEWER ON FILE AT THE CITY OF PORTLAND PUBLIC WORKS ENGINEERING DEPARTMENT IN FILE NO. 491-8.
- SUBJECT TO:  
 A/RIGHTS OF ACCESS TO ST. JAMES STREET ACROSS THE WESTERLY LINE OF THE PARCEL RESERVED TO THE STATE OF MAINE AND THE CITY OF PORTLAND AS DESCRIBED IN A DEED RECORDED IN BOOK 11344, PAGE 228.  
 B/RIGHTS RESERVED TO THE STATE OF MAINE AND THE CITY OF PORTLAND TO MAINTAIN THE HIGHWAY AND TO FLOW WATER OVER AND ACROSS THE PARCEL THROUGH DRAINAGE OUTLET PIPES AND TO MAINTAIN THE SAME AT ITS PRESENT LOCATION AS DESCRIBED IN BOOK 11344, PAGE 230.  
 C/A 30 FOOT WIDE EASEMENT RESERVED TO THE CITY OF PORTLAND FOR MAINTENANCE OF THE EDWARDS STREET INTERCEPTOR SEWER AS SHOWN ON THE PLAN REFERENCED IN NOTE 4E, HEREON, AND ALSO DESCRIBED IN BOOK 11344, PAGE 230.  
 D/ALL ABOVEGROUND AND UNDERGROUND UTILITY EASEMENTS AND INSTALLATIONS, UNLESS SPECIFICALLY ABANDONED IN WRITING BY THE RESPECTIVE UTILITY AS REFERENCED IN A DEED RECORDED IN BOOK 11344, PAGE 230.  
 E/EASEMENT DEEDS GRANTED BY RICHARD AND FRANCIS CARVEL TO CENTRAL MAINE POWER COMPANY AS DESCRIBED IN DEEDS DATED JUNE 2, 1970 RECORDED IN BOOK 3139, PAGE 872 AND BY DEED DATED MAY 2, 1990 RECORDED IN BOOK 9191, PAGE 90.  
 F/SUBJECT TO RIGHTS OF THE PUBLIC AND PUBLIC UTILITY FACILITIES IN AND OVER THE DISCONTINUED PORTION OF ST. JAMES STREET, AS SHOWN HEREON.
- ST. JAMES STREET WAS FORMERLY DISCONTINUED BY THE PORTLAND CITY COUNCIL AS DESCRIBED IN AN ORDER DATED JULY 3, 1989 RECORDED IN BOOK 8882, PAGE 11, PURSUANT TO M.R.S.A. TITLE 23, SECTION 3026. UPON APPROVAL OF A DISCONTINUANCE ORDER BY THE LEGISLATIVE BODY, AND UNLESS OTHERWISE STATED IN THE ORDER, A PUBLIC EASEMENT AND EASEMENT FOR PUBLIC UTILITY FACILITIES SHALL BE RETAINED AND THE REMAINING INTEREST OF THE MUNICIPALITY SHALL PASS TO THE ADJUTING PROPERTY OWNERS TO THE CENTER OF THE WAY. (SEE ALSO M.R.S.A. TITLE 35A, SECTION 2308.)
- THE WESTERLY PROPERTY LINE (BEING 32' EASTERLY OF THE BASELINE) ALONG THE NEW LOCATION OF ST. JAMES STREET WAS ESTABLISHED BY THE METES AND BOUNDS DESCRIPTION IN A GOVERNOR'S DEED FROM THE STATE OF MAINE TO R. J. CARVEL AND FRANCIS CARVEL DATED DECEMBER 15, 1989 AND RECORDED IN BOOK 9077, PAGE 209, IN CONJUNCTION WITH THE ST. JAMES ST. BASELINE AS RE-ESTABLISHED AS PART OF THIS SURVEY. THE RIGHT OF WAY LINE LOCATED 45 FEET EASTERLY OF THE BASELINE IS BASED ON THE PLAN REFERENCED IN NOTE 4C. NO AVAILABLE DOCUMENTATION TO SUBSTANTIATE THE 78 FOOT WIDE RIGHT-OF-WAY AS SHOWN ON SAID PLAN REFERENCED IN NOTE 4C AND THAT THE NEW LOCATION OF ST. JAMES STREET HAS NOT BEEN FORMERLY ACCEPTED AS A PUBLIC STREET.
- BEARINGS SHOWN HEREON ARE BASED ON THE PLAN REFERENCED IN NOTE 4A AND ARE ASSUMED TO BE GRID NORTH.

**LEGEND**

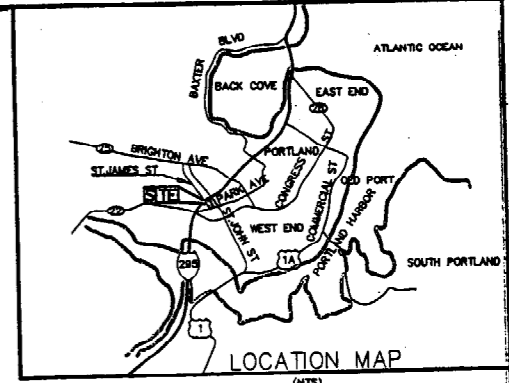
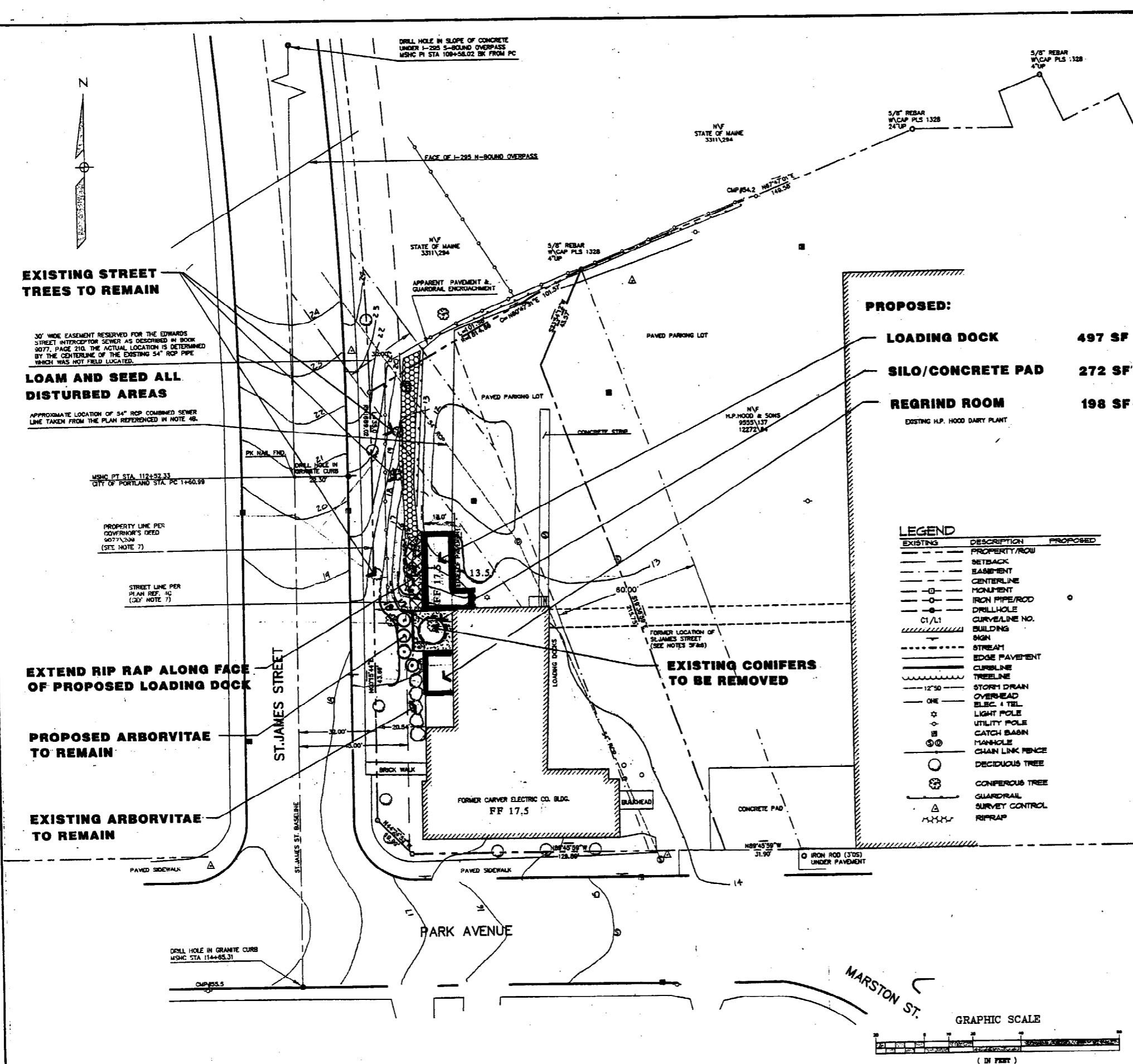
EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY/ROW	---
---	SETBACK	---
---	EASEMENT	---
---	CENTERLINE	---
---	MONUMENT	---
---	IRON PIPE/ROD	---
---	DRILLHOLE	---
---	C1/A1	---
---	CURVE/LINE NO.	---
---	BUILDING	---
---	SIGN	---
---	STREAM	---
---	EDGE PAVEMENT	---
---	CURBSIDE	---
---	TREELINE	---
---	STORM DRAIN	---
---	OVERHEAD	---
---	ELEC. & TEL.	---
---	LIGHT POLE	---
---	UTILITY POLE	---
---	CATCH BASIN	---
---	MANHOLE	---
---	CHAIN LINK FENCE	---
---	DECIDUOUS TREE	---
---	CONIFEROUS TREE	---
---	QUARDRAIL	---
---	SURVEY CONTROL	---
---	RIPPRAP	---

**Sebago Technics**  
 Engineering You Can Build On  
 One Chestnut Street  
 Westbrook, ME 04098-1339  
 Tel: (207) 686-1877

**Becker Structural Engineers, Inc.**  
 10 Commercial St. Portland, Maine

DATE: 4-2-02  
 SCALE: 1"=20'

SHEET OF



**EXISTING STREET TREES TO REMAIN**

30' WIDE EASEMENT RESERVED FOR THE EDWARDS STREET INTERCEPTOR SEWER AS DESCRIBED IN BOOK 3077, PAGE 210. THE ACTUAL LOCATION IS DETERMINED BY THE CENTERLINE OF THE EXISTING 54" RCP PIPE WHICH WAS NOT FIELD LOCATED.

**LOAM AND SEED ALL DISTURBED AREAS**

APPROXIMATE LOCATION OF 54" RCP COMBINED SEWER LINE TAKEN FROM THE PLAN REFERENCED IN NOTE 4B.

**EXTEND RIP RAP ALONG FACE OF PROPOSED LOADING DOCK**

**PROPOSED ARBORVITAE TO REMAIN**

**EXISTING ARBORVITAE TO REMAIN**

**EXISTING CONIFERS TO BE REMOVED**

**PROPOSED:**

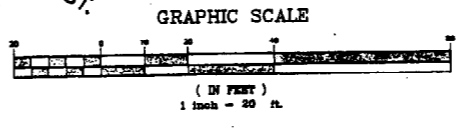
- LOADING DOCK** 497 SF
- SILO/CONCRETE PAD** 272 SF
- REGRIND ROOM** 198 SF +/

**LEGEND**

EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY/ROW	---
---	SETBACK	---
---	EASEMENT	---
---	CENTERLINE	---
---	MONUMENT	---
---	IRON PIPE/ROD	---
---	DRILLHOLE	---
---	CURVE/LINE NO.	---
---	BUILDING	---
---	SIGN	---
---	STREAM	---
---	EDGE PAVEMENT	---
---	CURBLINE	---
---	TREELINE	---
---	12" SD	---
---	STORM DRAIN	---
---	OVERHEAD ELEC. & TEL	---
---	LIGHT POLE	---
---	UTILITY POLE	---
---	CATCH BASIN	---
---	MANHOLE	---
---	CHAIN LINK FENCE	---
---	DECIDUOUS TREE	---
---	CONIFEROUS TREE	---
---	GUARDRAIL	---
---	SURVEY CONTROL	---
---	RIPRAP	---

**GENERAL NOTES**

1. RECORD OWNERS OF THE PARCEL: H. STEPHEN CARVEL AND SHELLY STUART CARVEL AS DESCRIBED IN A DEED DATED JANUARY 1, 1992, RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS, PORTLAND, MAINE IN BOOK 11344, PAGE 228.
2. THE PROPERTY IS LOCATED ON THE CITY OF PORTLAND ASSESSOR'S PLAN NO. 66 SHOWN AS LOT A-10 IN BLOCK D.
3. TOTAL AREA OF THE PARCEL IS 22,696 SQ. FT. OR 0.52 ACRES, MORE OR LESS.
4. PLAN REFERENCES:  
 A/LAND TITLE SURVEY ON PARK AVENUE, PORTLAND, MAINE, MADE FOR H. P. HOOD & SONS, INCORPORATED BY OWEN HASKELL, INCORPORATED, PORTLAND, MAINE DATED JANUARY 28, 1998, REVISED THROUGH 12/02/99 A NON-RECORDED PLAN OHI, JOB NO. 98002P.  
 B/PROPOSED SITE PLAN OF H. P. HOOD BUILDING EXPANSION BY BUREFRESNE-HENRY, PORTLAND, MAINE DATED FEBRUARY 14, 2000 A NON-RECORDED PLAN DH JOB NO. 8102.01.  
 C/CITY OF PORTLAND MAINE, DEPARTMENT OF PUBLIC WORKS, ST. JAMES STREET RELOCATION ON FILE AT THE CITY OF PORTLAND PUBLIC WORKS ENGINEERING DEPARTMENT IN FILE NO. 037-10 & 17.  
 D/MAINE STATE HIGHWAY COMMISSION RIGHT-OF-WAY MAP, STATE HIGHWAY 293, PORTLAND, MAINE DATED MAY 1987, SHC FILE NO. 3-185 RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 112, PAGE 31.  
 E/PLAN OF EDWARDS STREET INTERCEPTOR SEWER ON FILE AT THE CITY OF PORTLAND PUBLIC WORKS ENGINEERING DEPARTMENT IN FILE NO. 491-3.  
 F/SUBJECT TO:  
 A/RIGHTS OF ACCESS TO ST. JAMES STREET ACROSS THE WESTERLY LINE OF THE PARCEL RESERVED TO THE STATE OF MAINE AND THE CITY OF PORTLAND AS DESCRIBED IN A DEED RECORDED IN BOOK 11344, PAGE 228.  
 B/RIGHTS RESERVED TO THE STATE OF MAINE AND THE CITY OF PORTLAND TO MAINTAIN TO SLOPES OF THE HIGHWAY AND TO FLOW WATER OVER AND ACROSS THE PARCEL THROUGH DRAINAGE OUTLET PIPES AND TO MAINTAIN THE SAME AT ITS PRESENT LOCATION AS DESCRIBED IN BOOK 11344, PAGE 230.  
 C/A 30 FOOT WIDE EASEMENT RESERVED TO THE CITY OF PORTLAND FOR MAINTENANCE OF THE EDWARDS STREET INTERCEPTOR SEWER AS SHOWN ON THE PLAN REFERENCED IN NOTE 4E, HEREON, AND ALSO DESCRIBED IN BOOK 11344, PAGE 230.  
 D/ALL ABOVEGROUND AND UNDERGROUND UTILITY EASEMENTS AND INSTALLATIONS, UNLESS SPECIFICALLY ABANDONED IN WRITING BY THE RESPECTIVE UTILITY AS REFERENCED IN A DEED RECORDED IN BOOK 11344, PAGE 230.  
 E/EASEMENT DEEDS GRANTED BY RICHARD AND FRANCIS CARVEL TO CENTRAL MAINE POWER COMPANY AS DESCRIBED IN DEEDS DATED JUNE 2, 1970 RECORDED IN BOOK 3139, PAGE 872 AND BY DEED DATED MAY 2, 1990 RECORDED IN BOOK 9191, PAGE 90.  
 F/SUBJECT TO RIGHTS OF THE PUBLIC AND PUBLIC UTILITY FACILITIES IN AND OVER THE DISCONTINUED PORTION OF ST. JAMES STREET, AS SHOWN HEREON.  
 G. ST. JAMES STREET WAS FORMERLY DISCONTINUED BY THE PORTLAND CITY COUNCIL AS DESCRIBED IN AN ORDER DATED JULY 3, 1989 RECORDED IN BOOK 8882, PAGE 11. PURSUANT TO MRS.A TITLE 23, SECTION 3028; UPON APPROVAL OF A DISCONTINUANCE ORDER BY THE LEGISLATIVE BODY, AND UNLESS OTHERWISE STATED IN THE ORDER, A PUBLIC EASEMENT AND EASEMENT FOR PUBLIC UTILITY FACILITIES SHALL BE RETAINED AND THE REMAINING INTEREST OF THE MUNICIPALITY SHALL PASS TO THE ABUTTING PROPERTY OWNERS TO THE CENTER OF THE WAY. (SEE ALSO MRS.A, TITLE 35A, SECTION 230B.)  
 H. THE WESTERLY PROPERTY LINE (BEING 32' EASTERLY OF THE BASELINE) ALONG THE NEW LOCATION OF ST. JAMES STREET WAS ESTABLISHED BY THE METES AND BOUNDS DESCRIPTION IN A GOVERNOR'S DEED FROM THE STATE OF MAINE TO R. J. CARVEL AND FRANCIS CARVEL DATED DECEMBER 15, 1989 AND RECORDED IN BOOK 9077, PAGE 208, IN CONJUNCTION WITH THE ST. JAMES ST. BASELINE AS RE-ESTABLISHED AS PART OF THIS SURVEY. THE RIGHT OF WAY LINE LOCATED 45 FEET EASTERLY OF THE BASELINE IS BASED ON THE PLAN REFERENCED IN NOTE 4C. PER THE CITY OF PORTLAND ENGINEERING DEPARTMENT, THERE IS NO AVAILABLE DOCUMENTATION TO SUBSTANTIATE THE 78 FOOT WIDE RIGHT-OF-WAY AS SHOWN ON SAID PLAN REFERENCED IN NOTE 4C AND THAT THE NEW LOCATION OF ST. JAMES STREET HAS NOT BEEN FORMERLY ACCEPTED AS A PUBLIC STREET.  
 I. BEARINGS SHOWN HEREON ARE BASED ON THE PLAN REFERENCED IN NOTE 4A AND ARE ASSUMED TO BE GRID NORTH.



**BECKER**  
 structural engineers, inc.  
 19 Commercial Street Portland, ME 04101  
 Ph: 207.878.1828 Fax: 207.878.1822

**Sebago Technics**  
 Engineering Experts You Can Build On  
 10 Chestnut Street  
 Westbrook, ME 04090-1339  
 Tel: (207) 898-0377

**PROJECT NO:** 02122C  
**DWG NAME:** 703  
**DATE:** 02/22/02

**REVISIONS:**

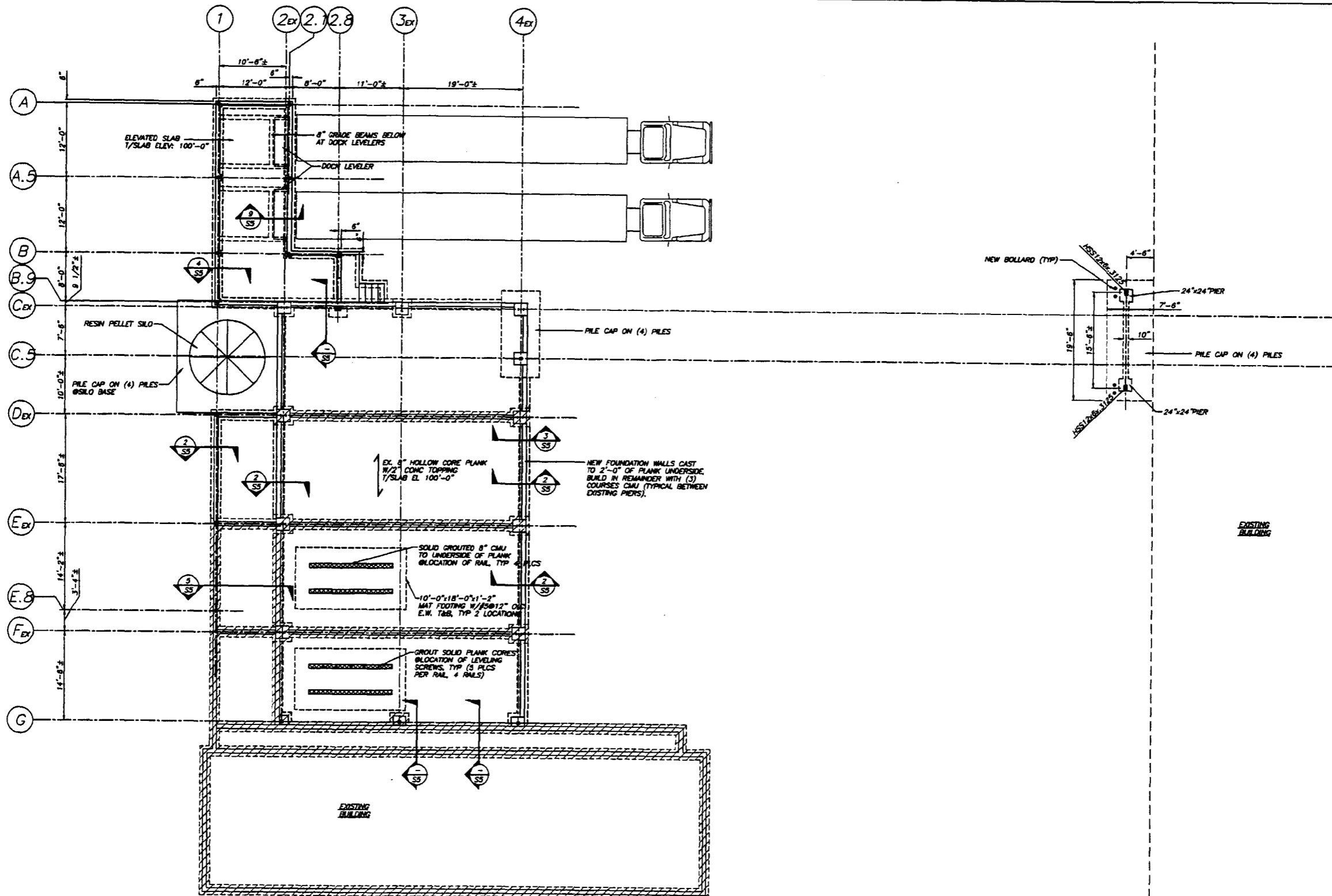
NO.	DATE	DESCRIPTION	BY	CHK

**DATE:** 4-2-02  
**SCALE:** 1" = 20'

**SHEET OF**

**Becker Structural Engineers, Inc.**  
 19 Commercial St. Portland, Maine





**FOUNDATION PLAN**

1/8"=1'-0"

NOTES:

- 1. [Symbol] INDICATES EXISTING FOUNDATION TO REMAIN.

**NOT FOR CONSTRUCTION  
PROGRESS PRINTS  
05/22/02**

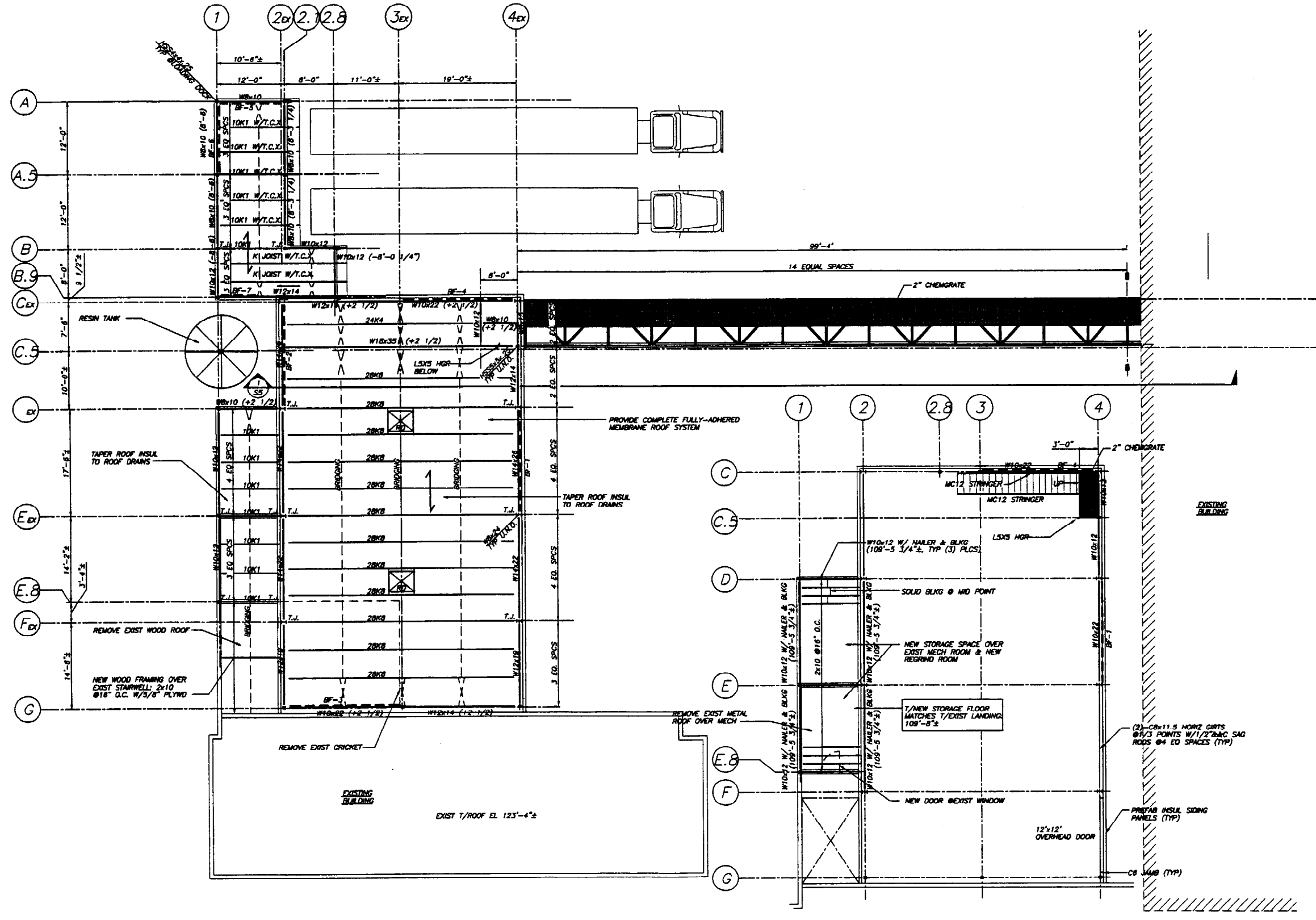
**BECKER**  
Structural Engineers, Inc.  
19 Commercial Street Portland, ME 04101  
Ph: 207.875.1838 Fax: 207.875.1822

PROJECT: BOTTLE CONVEYOR & FACILITY  
HP HOOD INC., PORTLAND, ME  
FOUNDATION PLAN

DESIGNED BY: DSB	CHECKED BY: PBB	DATE: 05/22/02
DRAWN BY: TRM	NOTED	
SCALE:		

NO.	DATE	DESCRIPTION

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER STRUCTURAL ENGINEERS, INC. IT SHALL NOT BE REPRODUCED, COPIED, LOANED OR OTHERWISE USED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF BECKER STRUCTURAL ENGINEERS, INC. ANY REPRODUCTION OF THIS DRAWING WITHOUT THE WRITTEN CONSENT OF BECKER STRUCTURAL ENGINEERS, INC. IS PROHIBITED.



**ROOF FRAMING PLAN**

1/8"=1'-0"

NOTES:  
1. T/STEEL EL 122'-0" U.N.O. BY (+2 1/2), (-8'-8) ETC.  
2. ← INDICATES 1.5B22 PAINTED STEEL ROOF DECK (3 SPAN).

**LOWER LEVEL FRAMING PLAN**

1/8"=1'-0"

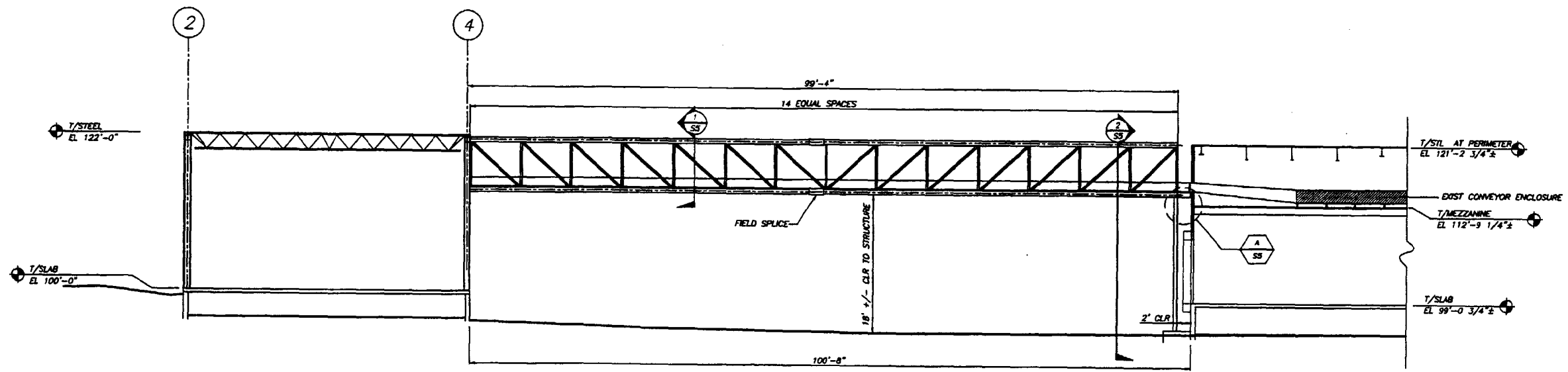
NOTES:  
1. T/STEEL EL 114'-10" U.N.O. BY (+2 1/2), (-8'-8) ETC.

**NOT FOR CONSTRUCTION**  
**PROGRESS PRINTS**  
05/22/02

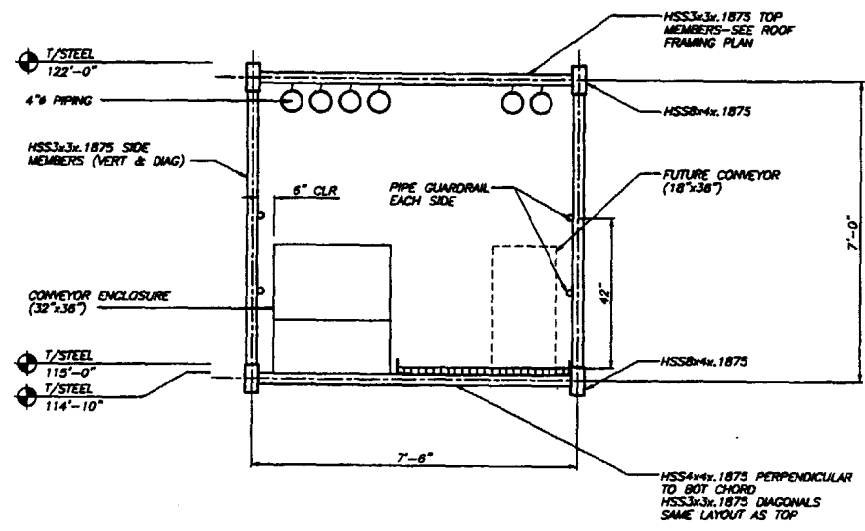
THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER ENGINEERS, ARCHITECTS & DESIGNERS, INC. IT SHALL NOT BE REPRODUCED, COPIED, OR IN ANY MANNER USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF BECKER ENGINEERS, ARCHITECTS & DESIGNERS, INC. ANY REUSE OF THIS DRAWING FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF BECKER ENGINEERS, ARCHITECTS & DESIGNERS, INC. IS EXPRESSLY PROHIBITED AND WILL BE HELD TO BE A VIOLATION OF PROFESSIONAL ETHICS AND A BREACH OF CONTRACT.

PROJECT:	BOTTLE CONVEYOR & FACILITY
CLIENT:	HP HOOD INC., PORTLAND, ME
DATE:	05/22/02
SCALE:	AS SHOWN
NOTED:	
DATE:	05/22/02
DESIGNED BY:	DSB
CHECKED BY:	TRM
DATE:	
DESCRIPTION:	
DATE:	
DATE:	

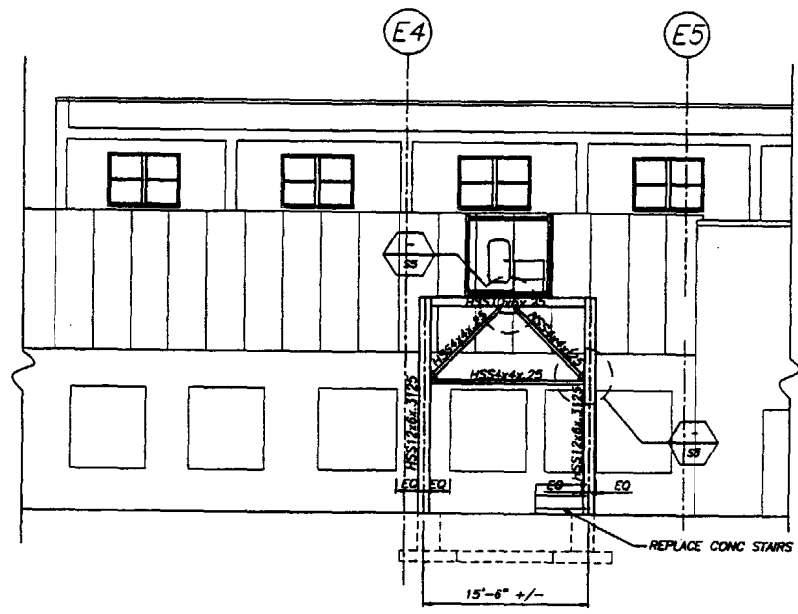




SECTION 1  
1/8"=1'-0"



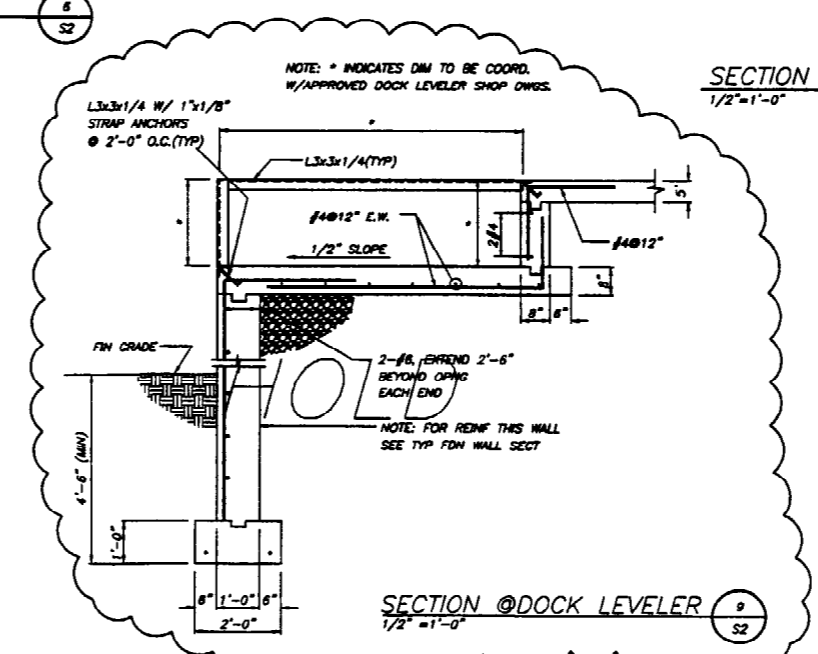
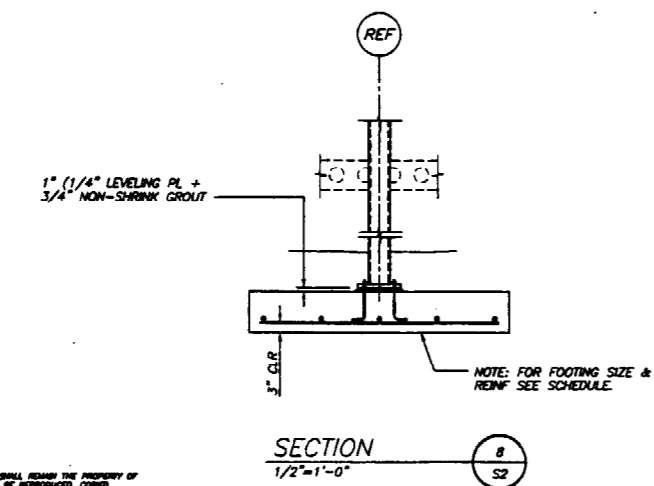
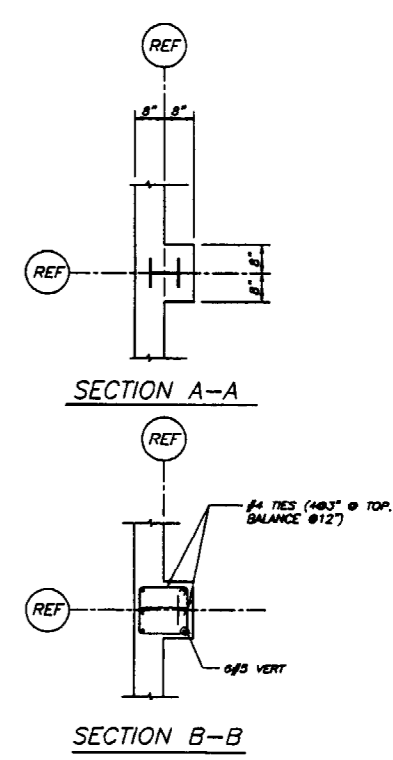
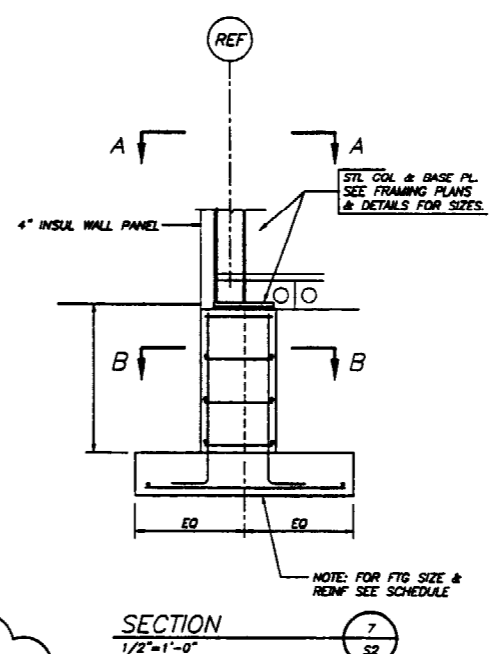
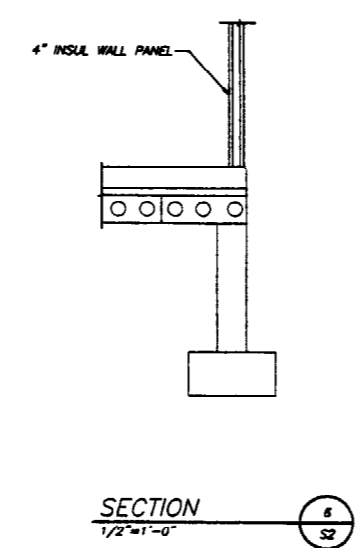
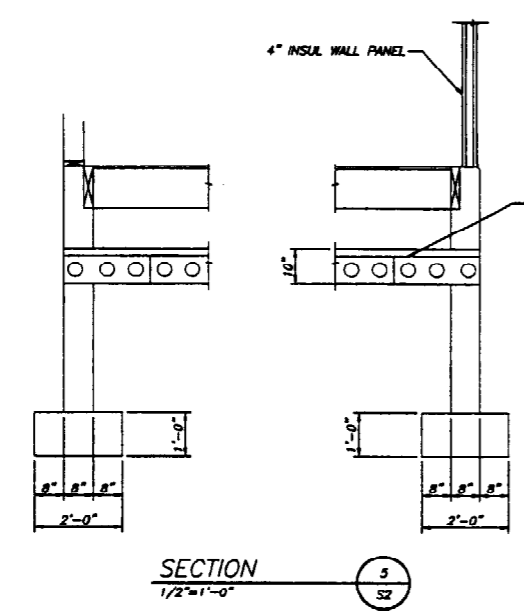
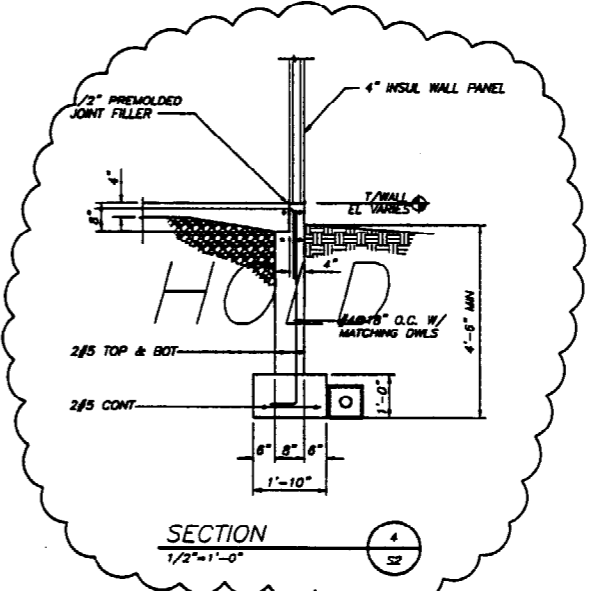
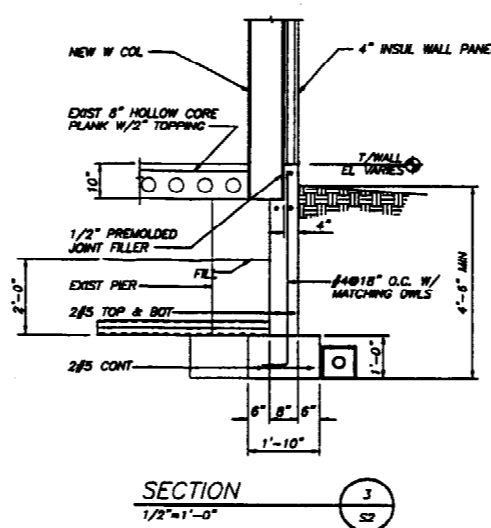
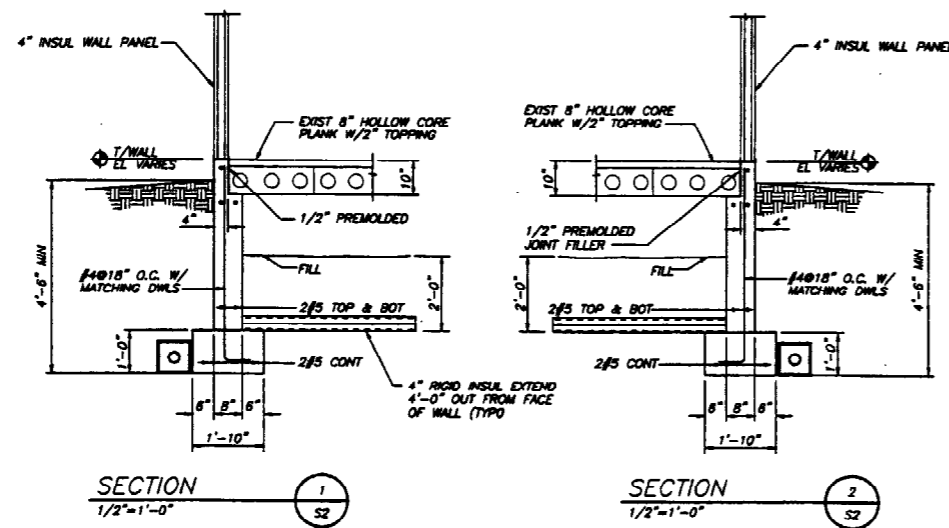
SECTION 1  
1/2"=1'-0"



SECTION 2  
1/8"=1'-0"

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER ENGINEERS, INC. IT SHALL NOT BE REPRODUCED, COPIED, LOANED, OR OTHERWISE USED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF BECKER ENGINEERS, INC. OR ITS EMPLOYEES. BECKER ENGINEERS, INC. OR ITS EMPLOYEES SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO PROPERTY OR PERSONS ARISING FROM THE USE OF THIS DRAWING.

NOT FOR CONSTRUCTION  
PROGRESS PRINTS  
05/22/02



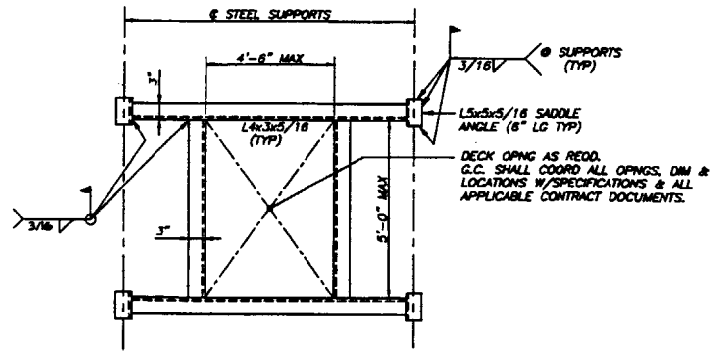
**NOT FOR CONSTRUCTION  
PROGRESS PRINTS  
05/22/02**

**BECKER**  
Structural Engineers, Inc.  
15 Commercial Street, Portland, ME 04101  
Ph: 207.879.1838 Fax: 207.879.1822

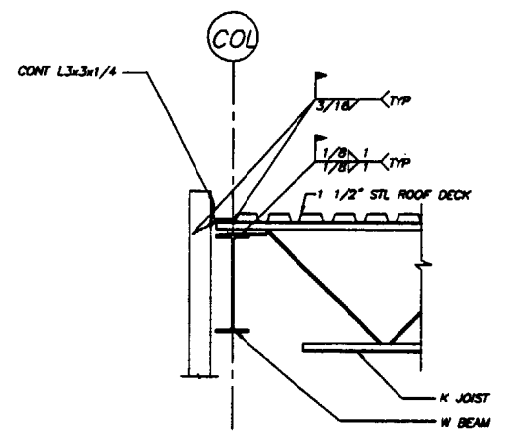
PROJECT: **BOTTLE CONVEYOR & FACILITY  
HP HOOD INC., PORTLAND, ME  
CONCRETE SECTIONS & DETAILS**

DATE: 05/22/02

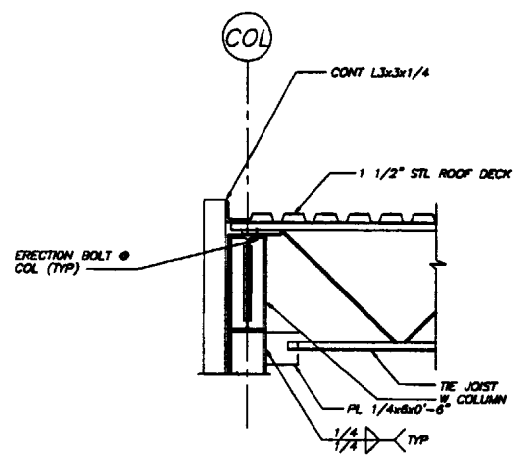
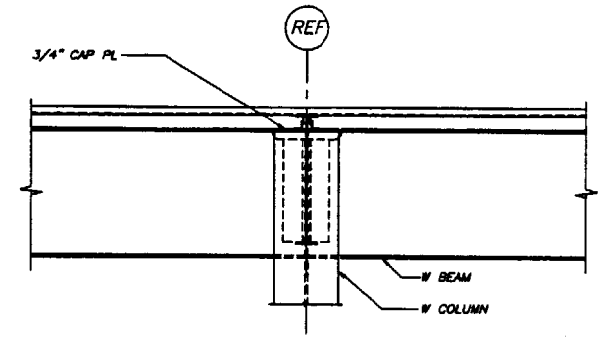
NO 593.00



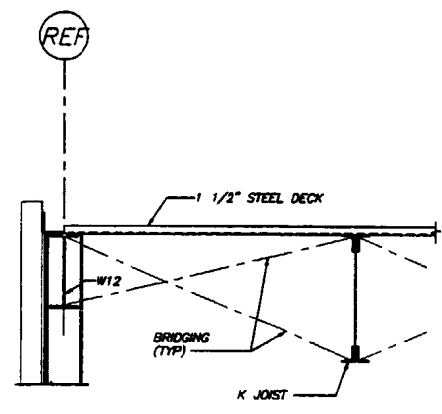
PLAN OF TYP. OPENING IN ROOF DECK  
 N.T.S. TYPICAL @ ROOF DRAINS, FANS & OTHER MECH & HVAC EQUIP.



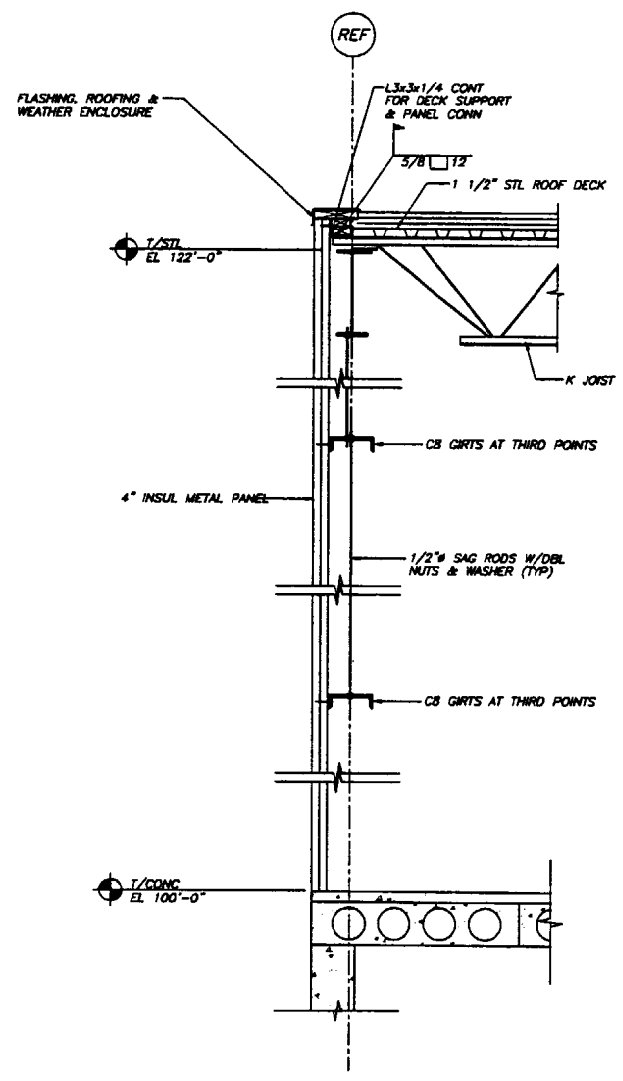
DETAIL  
 3/4\"/>



DETAIL  
 3/4\"/>



SECTION  
 3/4\"/>



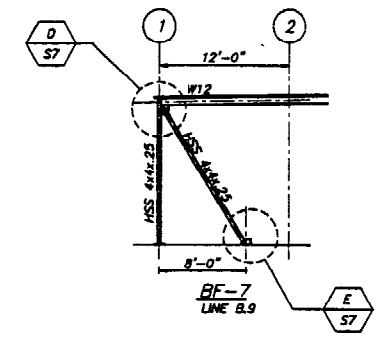
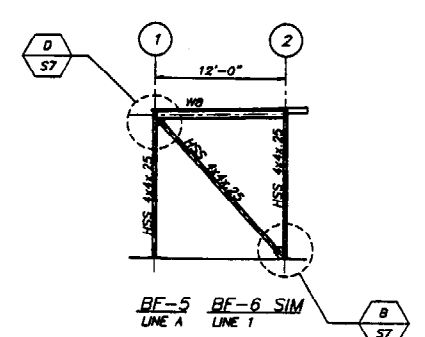
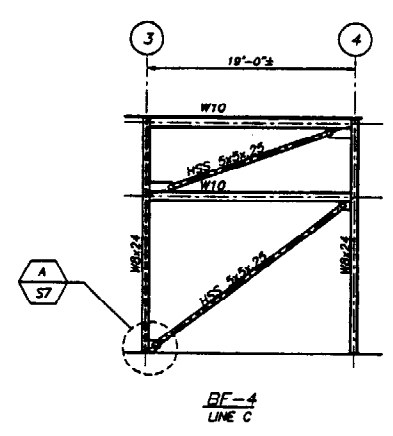
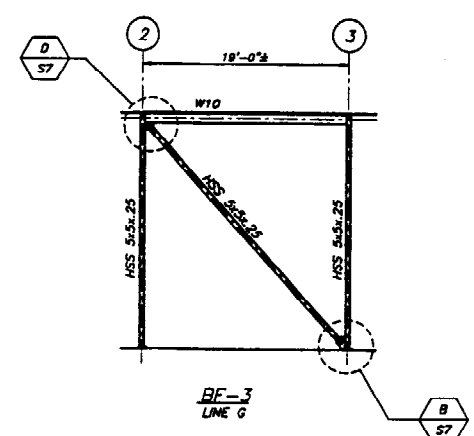
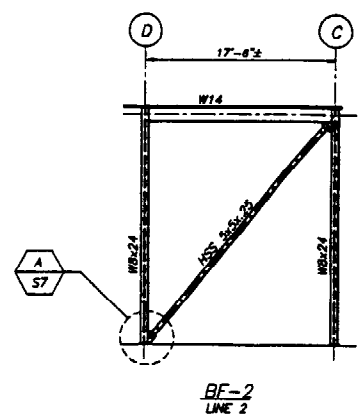
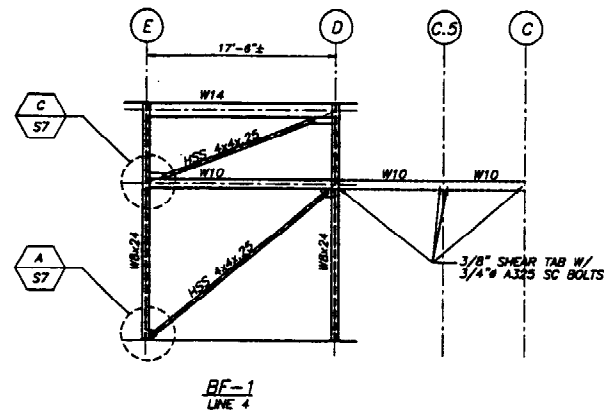
WALL SECTION  
 3/4\"/>

NOT FOR CONSTRUCTION  
 PROGRESS PRINTS  
 05/22/02

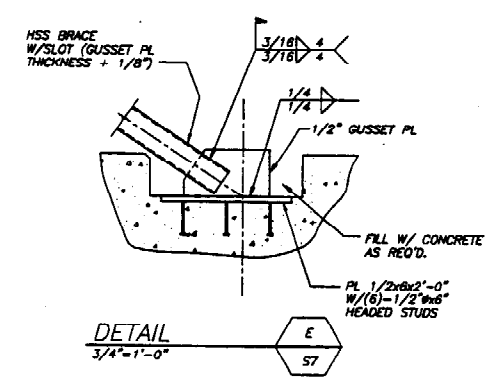
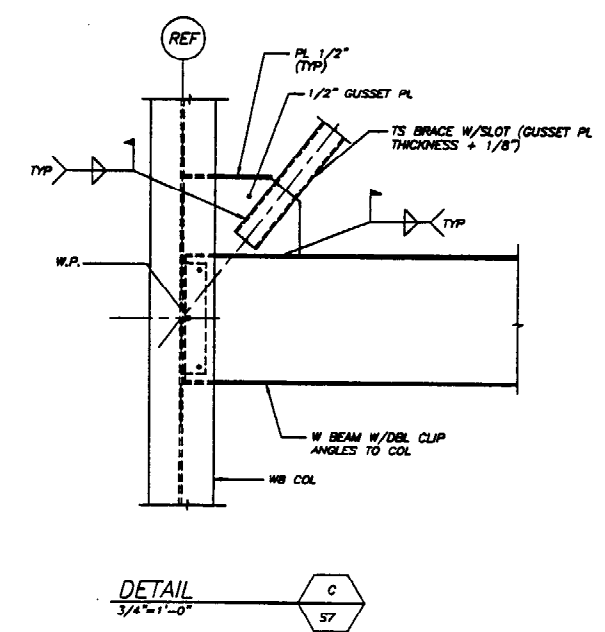
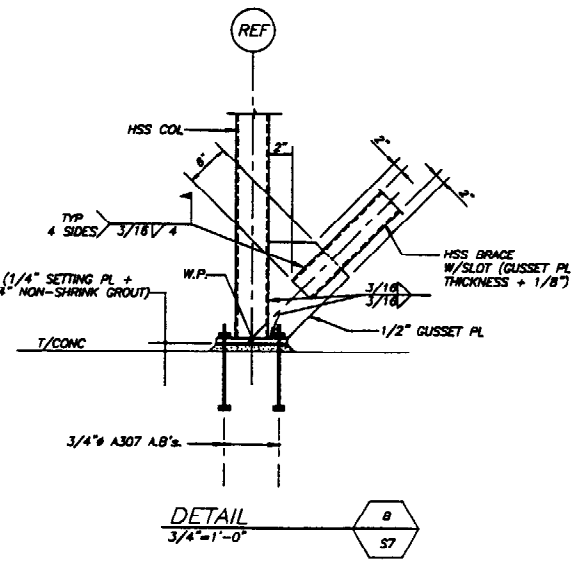
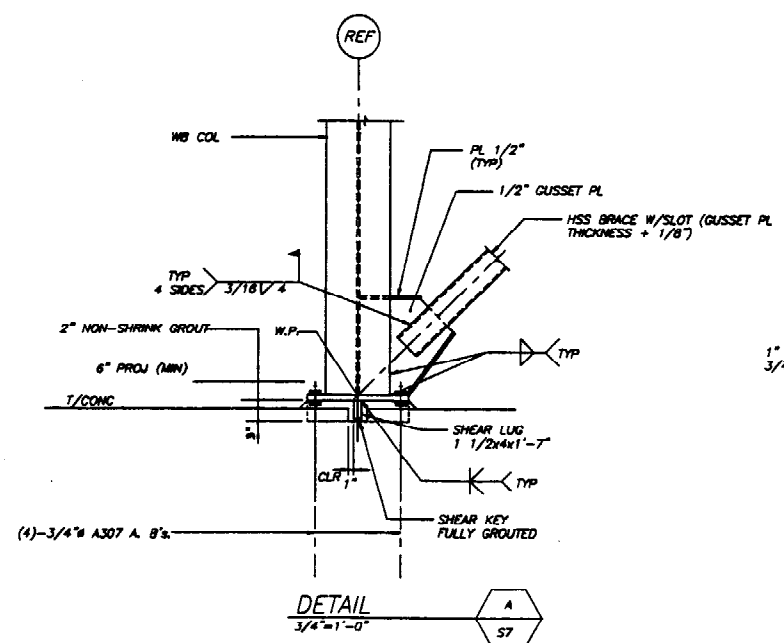
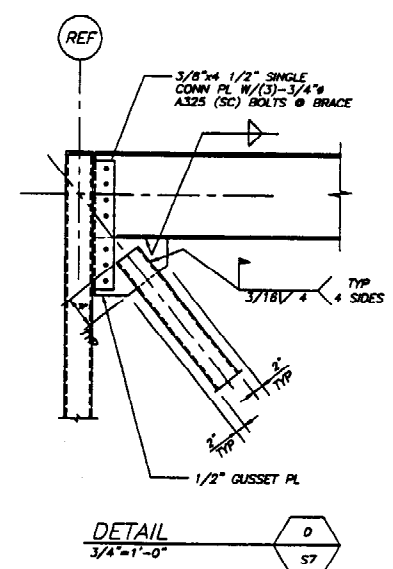
THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER ENGINEERS, ARCHITECTS, INC. IT SHALL NOT BE REPRODUCED, COPIED, EITHER IN WHOLE OR IN PART, FOR ANY PURPOSES WITHOUT THE WRITTEN CONSENT OF BECKER ENGINEERS, ARCHITECTS, INC. ANY REPRODUCTION OF THIS DRAWING WITHOUT THE WRITTEN CONSENT OF BECKER ENGINEERS, ARCHITECTS, INC. IS PROHIBITED. BECKER ENGINEERS, ARCHITECTS, INC. SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THIS DRAWING OR FOR ANY DAMAGE TO PERSONS OR PROPERTY CAUSED BY THE USE OF THIS DRAWING.

REV.	DATE	DESCRIPTION

DESIGNED BY: DSP	TRM	NOTED
CHECKED BY: TRM	PBB	DATE: 05/22/02

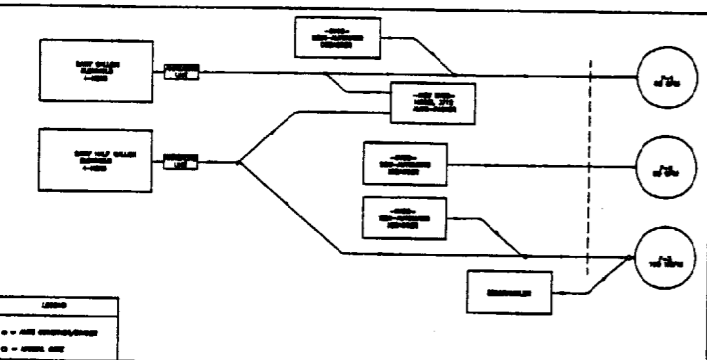
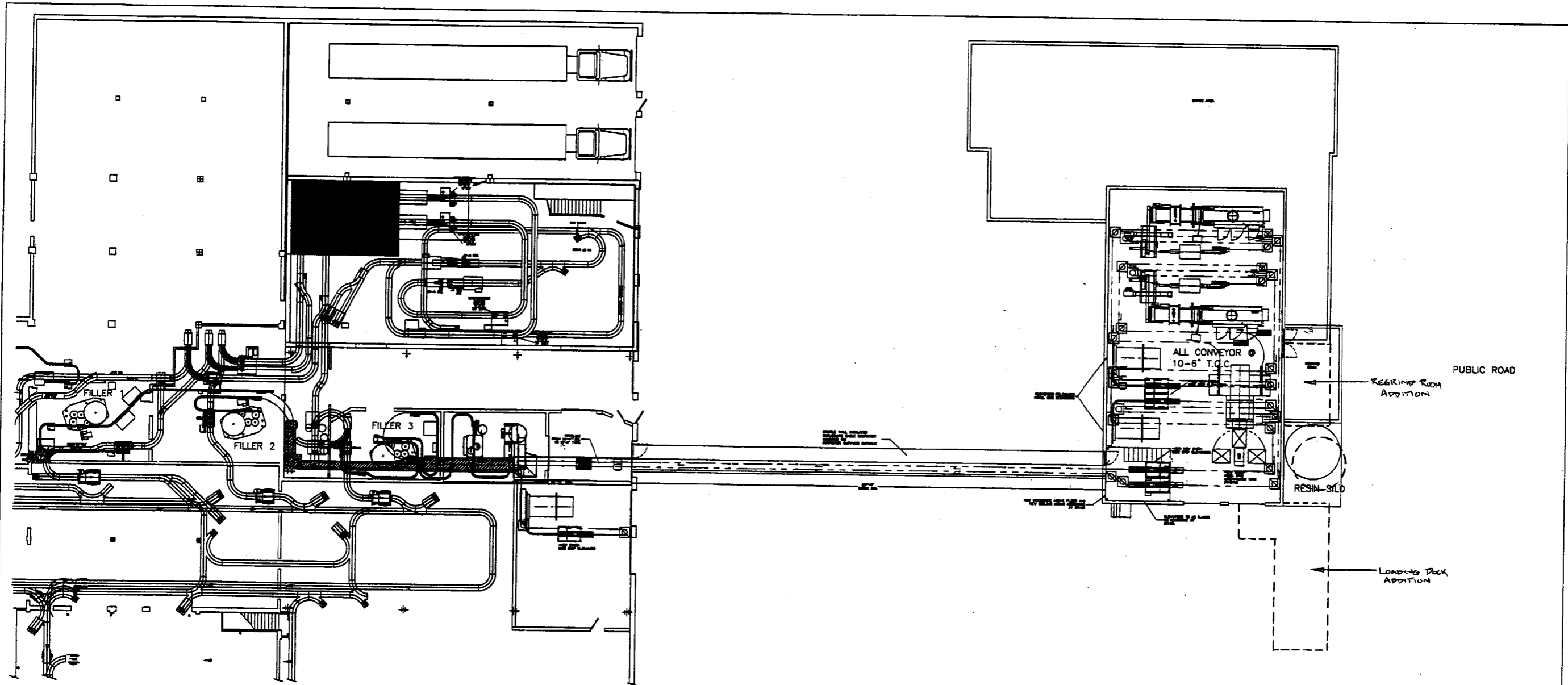


**BRACING ELEVATIONS**  
1/8"=1'-0"



**NOT FOR CONSTRUCTION**  
**PROGRESS PRINTS**  
05/22/02

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER STRUCTURAL ENGINEERS, INC. IT SHALL NOT BE REPRODUCED, COPIED, LOANED OR OTHERWISE USED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF BECKER STRUCTURAL ENGINEERS, INC. ANY REPRODUCTION OR USE WITHOUT THE WRITTEN CONSENT OF BECKER STRUCTURAL ENGINEERS, INC. IS PROHIBITED.



LAYER DESCRIPTION		
DESCRIPTION	LAYER	COLOR
EXISTING GALLON	2 & 3	RED
EXISTING HALF GALLON	4 & 5	GREEN
EXISTING 16oz.	6 & 7	ORANGE
NEW GALLON	8 & 9	MAGENTA
NEW HALF GALLON	10 & 11	BLUE
NEW 16oz.	12 & 13	CYAN
RELOCATED OR REWORKED GALLON	14 & 15	FOREST
RELOCATED OR REWORKED HALF GAL.	16 & 17	AQUA
RELOCATED OR REWORKED 16oz.	18 & 19	PURPLE
????????????	20 & 21	SKY
????????????	22 & 23	MAROON
????????????	24 & 25	GOLD

SCALE: 3/32"=1'-0" TITLE: PROPOSED LAYOUT FOR:  
 DATE: 12/25/01  
 DRAFTSMAN: STEVE H.P. HOOD  
 APPROVAL: STEVE PORTLAND, ME

**Dyco** DWG. NO.: D503647  
 P.O. BOX 68 BERWICK, PA. (717) 752-1757  
 18603

THIS DRAWING AND THE DESIGN IT CONTAINS ARE THE PROPERTY OF DYCO. THEY ARE HEREBY LOANED AND ON THE SIGNATURE OF THE DRAFTSMAN, ENGINEER, ARCHITECT OR OTHER PROFESSIONAL PERSON, IT IS UNDERSTOOD THAT THEY WILL NOT BE REPRODUCED, COPIED, LOANED, CONFERRED, FOR ANY USE EXCEPT AS THE LIMITED ONE AND PRIVATE USE PERMITTED BY ANY WRITTEN CONSENT GIVEN BY THE LENDER TO THE BORROWER.