City of P[illegible]and, Maine – Building or Use Permit Applicatio[illegible] 389 Congress Street, 04101, Tel: (207) 874-8703, F[illegible] 874-8716

Location of C[illegible]struction: 257 Canco Rd	Owner: Portland Retirement Residence LLC	Phone:	Permit No: 980740
Owner Address:	Lessee/Buyer's Name: Portland Retirement Residence	Phone:	BusinessName:
Contractor Name: Colson & Colson Construction Co.	Address: P.O. Box 14111 Salem, OR 97309	Phone: 503-370-7070	
Past Use: Vacant Land	Proposed Use: Retirement Complex	COST OF WORK: $ 4,731.00	PERMIT FEE: $ 23,675.67
		FIRE DEPT. ☐ Approved ☐ Denied Signature:	INSPECTION: Use Group A-2 Type 5B Signature:
Proposed Project Description: 115 APTS, Construct Retirement Complex		PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.) Action: Approved ☐ Approved with Conditions: ☐ Denied ☐ Signature: Date:	
Permit Taken By: Mary Gresik	Date Applied For: 24 March 1998		

PERMIT ISSUED
Permit Issued: JUL - 9 1998
CITY OF PORTLAND

Zone: K-5A CBL: 169-B-001

Zoning Approval: N/A 7-7-98

Special Zone or Reviews:
- ☐ Shoreland
- ☐ Wetland
- ☐ Flood Zone
- ☐ Subdivision
- ☐ Site Plan maj ☐ minor ☐ mm ☐

Zoning Appeal
- ☐ Variance
- ☐ Miscellaneous
- ☐ Conditional Use
- ☐ Interpretation
- ☐ Approved
- ☐ Denied

Historic Preservation
- ☐ Not in District or Landmark
- ☑ Does Not Require Review
- ☐ Requires Review

Action:
- ☐ Appoved
- ☐ Approved with Conditions
- ☐ Denied

Date: 7/8

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal rules.
2. Building permits do not include plumbing, septic or electrical work.
3. 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..

Mail To: Curry Brandaw Architects
2260 McGilchrist St SE, Ste #100
Salem OR 97302

?'s CALL: Clifford Curry 503-399-1090
FAX: 503-399-0565

PERMIT ISSUED WITH REQUIREMENTS

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 provisions of the code(s) applicable to such permit

06 July 1998 - Permit Routed

24 March 1998

SIGNATURE OF APPLICANT Owens McCullough ADDRESS: DATE: PHONE:

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE PHONE:

CEO DISTRICT

White–Permit Desk Green–Assessor's Canary–D.P.W. Pink–Public File Ivory Card–Inspector

COMMENTS

4 Aug 98 Clearing Site - JS

28 Aug 98 Site work JS

1 & Sept 98 Inspected area - site work only JS

22 Sept 98 Inspected Footing East & North side 2 #4 re-bars - Line set by Sobayo Teck -

30 Sept 98 On site - Site work - Footing on south side - JS

6 OCT 98 - Site work - Footing as per plans - JS

15 OCT. 98 - Plumbing Insp - OK Underground - NE Wing -

23 OCT. 98 Started Framing - underground heating ducts, Footings for Cottage

9 Nov. 98 - Framing 3rd Floor - Plumbing underground inspection all work going well JS

16 Nov. 98 - Framing - PLBG. Cottage - JS

20 Nov. 98 On site - walk site with Jerry Johnson Supt. - Framing, PLBG and Foundation work - Placing roof on main bldg - SE section. Foundations for cottages about completed -

Dec. 1 98 walk site with LT. McDougall -

Dec. 8 98 General Insp. - Talked with Supt. Johnson, and Mr Blake PLBG. contractor work going well - JS

Inspection Record

Type	Date
Foundation: _____	_____
Framing: _____	_____
Plumbing: _____	_____
Final: _____	_____
Other: _____	_____

City of Pc and, Maine – Building or Use Permit Applicatic 389 Congress Street, 04101, Tel: (207) 874-8703, F : 874-8716

Location of Construction: Canco Rd	Owner: Portland Retirement Residence LLC	Phone:	Permit No:
Owner Address:	Lessee/Buyer's Name: Portland Retirement Residence	Phone:	BusinessName:
Contractor Name: Colson & Colson Construction Co.	Address: P.O. Box 14111 Salem, OR 97309	Phone: 503-370-7070	Permit Issued:
Past Use: Vacant Land	Proposed Use: Retirement Complex	COST OF WORK: $ 4,731.00 FIRE DEPT. ☐ Approved ☐ Denied Signature:	PERMIT FEE: $ 23,675.87 INSPECTION: Use Group: Type: Signature:
Proposed Project Description: Construct Retirement Complex		PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.) Action: Approved ☐ Approved with Conditions: ☐ Denied ☐ Signature: Date:	Zone: CBL: 149-B-001 Zoning Approval: Special Zone or Reviews: ☐ Shoreland ☐ Wetland ☐ Flood Zone ☐ Subdivision ☐ Site Plan maj ☐minor ☐mm ☐
Permit Taken By: Mary Gresik	Date Applied For: 24 March 1998		Zoning Appeal ☐ Variance ☐ Miscellaneous ☐ Conditional Use ☐ Interpretation ☐ Approved ☐ Denied

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3. 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..

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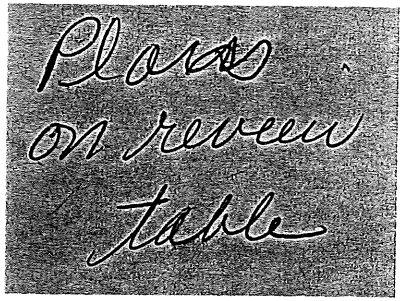

CERTIFICATION

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SIGNATURE OF APPLICANT Owens McCullough ADDRESS: DATE: 24 March XXXX 1998 PHONE:

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE PHONE:

Action:
☐ Appoved
☐ Approved with Conditions
☐ Denied

Date: _____

CEO DISTRICT

White–Permit Desk Green–Assessor's Canary–D.P.W. Pink–Public File Ivory Card–Inspector

CITY OF PORTLAND, MAINE

Department of Building Inspection

Certificate of Occupancy

LOCATION 257 Canco Road (CBL: 149-B-001)

Issued to Portland Retirement Partnership LLC Date of Issue July 27, 1999

This is to certify that the building, premises, or part thereof, at the above location, built — altered — changed as to use under Building Permit No. 980740 , has had final inspection, has been found to conform substantially to requirements of Zoning Ordinance and Building Code of the City, and is hereby approved for occupancy or use, limited or otherwise, as indicated below.

PORTION OF BUILDING OR PREMISES	APPROVED OCCUPANCY
115 Dwelling Units 1 Main Building	Use Group R-2
13 Dwelling Units 6 Cottages	Type of Construction 5A

Limiting Conditions:

This certificate supersedes certificate issued

Approved:

2 Sept 99 P. Samuel Hoffses
(Date) *Inspector*

P. Samuel Hoffses
Inspector of Buildings

9/22/99

Notice: This certificate identifies lawful use of building or premises, and ought to be transferred from owner to owner when property changes hands. Copy will be furnished to owner or lessee for one dollar.

Applicant: Owens McCullough Date: 7/7/98

Address: Camco Road C-B-L: 149-B-001

CHECK-LIST AGAINST ZONING ORDINANCE

Date - New

Also The project will maintain undisturbed Natural Buffers in The ROS zone except for 5' stone dust walking PATH.

Zone Location - R-5A Conditional Rezoned from O R-5A

Interior or corner lot -

Proposed Use/Work - Construct Retirement complex - (211 unit Complex) total

114 apts - 12 Cottage Suites - 5 Garden Suites And 80 Assisted Living suites.

Sewage Disposal - City

Lot Street Frontage - 50' req 100'+ shown

PHASE I: 114 Retirement suites 8 Cottage Suites 5 Garden Suites

PHASE II: (complete in 2000) 80 Assist. Living 4 Add. Cottage suites

Front Yard - 25' req - 25'+ shown

Rear Yard - 25' req - 25'+ shown

Side Yard - 16' req - 16'+ shown

211 - 80 = 131

Projections -

Width of Lot -

Height - height o.k. per conditional rezoning

Lot Area - 421,257 sf
493,148
914,405 sf

Lot Coverage/ Impervious Surface -

Area per Family -

Off-street Parking - shows 155 pkg spaces - (set by Planning Bd)

Loading Bays -

Site Plan - MAjor 1997-0097 N/A

Shoreland Zoning/ Stream Protection -

Flood Plains - ~~N/A~~ Zone C

Inspection Services
P. Samuel Hoffses
Chief

Planning and Urban Development
Joseph E. Gray Jr.
Director

CITY OF PORTLAND

June 1998

Curry Brandaw Architects
2260 McGilchrist St. SE,Ste # 100
Salem,OR 97302

Re: Portland Retirement Residence

Dear Sir:

Your building application to construct a Retirement Complex, has been reviewed and a building permit is herewith issued subject to the following requirements. This permit does not excuse the applicant from meeting applicable State and Federal rules and regulations.

1. All site plan requirements must be completed before a Certificate of Occupancy can or will be issued.
2. This permit does not preclude the applicant (s) from obtaining plumbing and electrical permits.
3. A list of all sub-contractors with their address and telephone numbers shall be supplied to this office as soon as possible.
4. Special Inspection shall be done in accordance with section 1705.0 of the city'sbuilding. (The BOCA National Building Code /1996).
5. The proposed Atrium shall be constructed in accordance with section 404.0 of the building code.
6. Class C roof covering is the minimum allowed.
7. Structural loads must designed to the BOCA National Building Code/1996.
8. All wood construction shall be done in accordance with Chapter 23 of the building code.
9. All wood fastening shall be done in accordance with Table 2305.2.
10. Glass and glazing shall be installed and done in accordance with chapter 24 of the building code.

If you should have any questions on these requirements please call me at 207-874-8704.

Sincerely

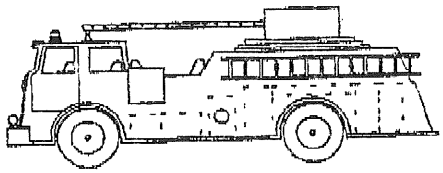
P.Samuel Hoffses
Inspector of Buildings

CC: Lt. McDougall PFD
M Schmuckal Zoning Adm.
J. Wendell Dev. Rev. Cor.

City of Portland, Maine

FIRE DEPARTMENT
380 Congress Street
Portland, Maine 04101

FACSIMILE MESSAGE COVER SHEET
RETURN FAX NUMBER
(207) 874-8410



DATE: 5/19/99

TIME: 1405

MESSAGE to the attention of: Terry / Sam

Company/Entity:

Message From: Lt. McDougall

Department: Fire Prevention

Phone # 874-8405

Receiving FAX number: 773-7225

Total # of Pages including cover sheet: 1

MESSAGE: The City of Portland will require remote shutoffs and firestats for the furnaces. The remote shutoffs can be located inside of the furnace room near the doors

Lt. McDougall

From: Gaylen McDougall
To: Sam Hoffses
Date: Tue, May 11, 1999 3:00 pm
Subject: canco woods project

I received a call from David Burnell. He said that firematics are not required and the remote switches are not required. From a safety factor I believe the remote switches and the firematics should be installed. I faxed Terry the information with my recommendations.

Mac

Fire Department

Joseph E. Thomas, Jr.
Chief of Department

CITY OF PORTLAND

March 11, 1999

Portland Residence
Terry
219 Canco Road
Portland, Maine
04103

Ref: fire alarm system

Dear Sir,

The review process for your fire alarm system is with the local authority having jurisdiction. In this case this is the Portland Fire Department. If you want the fire alarm system reviewed by the State Fire Marshall that is your choice. Please allow aleast 3 weeks for a review by the fire marshalls' office.

If you have any further questions please call me at 874-8405.

Sincerely,

H. Gaylen McDougall

Lt. Gaylen Mc Dougall
Portland Fire Prevention Bureau

E. R. FIELD, INC. - EST 1931
Fire Safety Systems & Supplies Sales - Service
TAYLOR HILL RD. LEWISTON, MAINE 04240 (207) 782-8243

Corey Electric, Inc.
184 Read Street
Portland, Maine 04103

7/26/99

SUBJECT: Woods At Canco Road Project

Dear Steve,

This letter will serve as confirmation that we have tested the Cerberus Pyrotronics Fire Alarm System and to confirm that the system is fully functional and was left in Normal Operating Condition.

Inspection and test reports are being entered into the computer and copies will be sent to you as soon as completed. The report is approximately thirty pages and we will send three copies unless you notify us that you need a different quantity.

Respectfully yours,

Gene Field Jr.

Eugene R. Field, Jr.

Grinnell®
Fire Protection System
78 Pleasant Avenue
South Portland, Me 04106

Eastern Fire Equipment, Inc
4 Washington Ave.
Scarborough, ME 04074

207-767-2166
Fax: 207-767-6326
207-885-1400
Fax: 207-885-1530

Name: Work at Casco Date: 7-6-99

Address: 257 Casco Road Portland Me

CUSTOMER ORDER NO.	PHONE	SOLD BY	C.O.D.	CHARGE
	773-7203	T.F.		

CODE	DESCRIPTION	CODE	DESCRIPTION
__ 1.1-5	ANNUAL EXTINGUISHER INSPECTION, 1-5	__ 3.ABC20	20LB.ABC REFILL
__ 1.6-25	EXTINGUISHERS INSPECTED, 6-25	__ 3.ABC/LB	ABC AGENT PER LB.
__ 1.26-75	EXTINGUISHERS INSPECTED, 26-75	__ 3.BC2.5	2.5LB. BC REFILL
__ 76+	EXTINGUISHERS INSPECTED, 76+	__ 3.BC5	5LB. BC REFILL
__ 1.SHOP	EXTINGUISHERS INSPECTED, SHOP	__ 3.BC10	10LB. BC REFILL
__ 1. WH.UNIT	WHEELED UNIT INSPECTION	__ 3.BC20	20LC. BC REFILL
__ 2A	SYSTEM INSPECTION, AREA A	__ 3.BC/LC	BC AGENT PER LB.
__ 2B	SYSTEM INSPECTION, AREA B	__ 3.C025	5LB. CO2 REFILL
__ 2C	SYSTEM INSPECTION, AREA C	__ 3.C0210	10LB. CO2 REFILL
__ 2CUSTOM	SYSTEM INSPECTION, CUSTOM	__ 3.C0215	15LB. CO2 REFILL
__ BROG360ML	360 DEG. GLOBE ML LINK	__ 3.C0220	20LB. CO2 REFILL
__ BROG500ML	500 DEG. GLOBE ML LINK	__ 3.C02/LB	CO2 AGENT PER LB.
__ BROG360A	RANGE GUARD LINK	__ 3.PW	PRESSURED WATER REFILL
__ 3.EXT.REPAIR	EXTINGUISHER REPAIR	__ 4.SHOP	HYDROTEST, SHOP
__ 3.CARTR.	CARTRIDGE REFILL	__ 4.ROAD	HYDROTEST, ROAD
__ 3.ABC2.5	2.5LB. ABC REFILL	__ 4.SYST.CYL.	HYDROTEST, SYSTEM CYLINDER
__ 3.ABC5	5LB. ABC REFILL	__ 5.REG.	LABOR, HOURLY RATE
__ 3.ABC10	10 LB. ABC REFILL	__ 6.SITESVC.	SITE SERVICE CALL
		__ 6.EXTMNT	EXTINGUISH MOUNTING

Other: Complete puff test with nitrogen cylinder
Blow off.

Customer's Signature

Print Name

Range Hood Systems Report

SERVICE COMPANY

DATE OF SERVICE	TIME	A.M.	P.M.
1-6-99	9:00	✓	

ANNUAL	SEMI-ANNUAL	RECHARGE	INSTALLATION	RENOVATION
	✓		✓	

LOCATION OF SYSTEM CYLINDERS: Kitchen on wall

MANUFACTURER	MODEL NUMBER	WET	DRY CHEMICAL
Ansul	64a	✓	

CYLINDER SIZE MASTER	CYLINDER SIZE SLAVE	CYLINDER SIZE SLAVE
3gal	3gal	—

FUSE LINKS 360° F.	FUSE LINKS 450° F	FUSE LINKS 500° F	OTHER
3		✓	

FUEL SHUT-OFF	ELECTRIC	GAS	SIZE
YES		✓	1-1

SERIAL NUMBER	LAST HYDRO TEST DATE	LAST RECHARGE DATE
	1999	

MANUFACTURER'S MANUAL REFERENCE

PAGE NUMBER: DRAWING NUMBER:

CUSTOMER

Name: Woods at Cana.

Address: Cany Road

City: Portland ME.

Telephone: 773-7203 Store No.

Owner or Manager

COOKING APPLIANCE LOCATIONS: LEFT TO RIGHT

Fryers	Griddle	Griddle	Range.

1. All appliances properly covered w/correct nozzles	✓	20. Replaced fuse links	NRW
2. Duct and plenum covered w/correct nozzles	✓	21. Check travel of cable nuts/S-hooks	✓
3. Check positioning of all nozzles.	✓	22. Piping & conduit securely bracketed	✓
System installed in accordance w/MFG UL listing	✓	23. Proper separation between fryers & flame	✓
5. Hood/duct penetrations sealed w/weld or UL device	✓	24. Proper clearance-flame to filters	✓
6. Check if seals intact, evidence of tampering	NA	25. Exhaust fan in operating order	✓
7. If system has been discharged, report same	NA	26. All filters replaced	✓
8. Pressure gauge in proper range (If gauged)	✓	27. Fuel shut-off in on position	✓
9. Check cartridge weight (If applicable)	1999	28. Manual & remote set/seals in place	✓
10. Hydrostatic test date	NA	29. Replace systems covers	✓
11. 6 year maintenance date	✓	30. System operational & seals in place	✓
12. Inspect cylinder and mount	✓	31. Slave system operational	✓
13. Operate system from terminal link	✓	32. Clean cylinder & mount	✓
14. Test for proper operation from remote	✓	33. Fan warning sign on hood	✓
15. Check operation of micro switch	✓	34. Personnel instructed in manual operation of system	✓
16. Check operation of gas valve	✓	35. Proper hand portable extinguishers	See Below
17. Clean nozzles	✓	36. Portable extinguishers properly serviced	NO
18. Proper nozzle covers in place	✓	37. Service & Certification tag on system	✓
19. Check fuse links and clean	✓	NOTE DISCREPANICES OR DEFICIENCIES BELOW	

COMMENTS: Must provide class K fire extgs to meet Bldg and NFPA Codes.

On this date, the above system was tested and inspected in accordance with procedures of the presently adopted editions of NFPA 17, 17A, 96 and the manufacturer's manual and was operated according to these procedures with results indicated above.

SERVICE TECHNICIAN	PERMIT NO.	DATE:	TIME:	AM	PM	CUSTOMERS AUTHORIZED AGENT
[signature]		1-6-99	9:00	✓		[signature]

The above service technician certifies that the system was personally inspected and found conditions to be as indicated on this report.

AUTHORITY HAVING JURISDICTION

Curry Brandaw Architects
PARTNERSHIP

Daniel Roach

Curry Brandaw Architects
PARTNERSHIP

2260 McGilchrist Street SE, Suite 100 ▪▪ Salem, Oregon 97302
503. 399-1090 ▪▪ Direct 503. 399-1944 ▪▪ Fax 503. 399-0565

Date: 6/12/98

To: Portland, City of
Samuel Hoffses
Phone: 207-874-8704
Fax: 207-874-8716

From: Curry Brandaw Architects
Dan Roach
Phone: 503-399-1944xt 218
Fax: 503-399-0565

Pages: 1

Subject: Portland Retirement Residence
Canco Rd.

Sam,

- In response to the snow-loading question: the calculations have been reviewed and it seems the wrong loading was used. I will send revised structural drawings on 6-17-98. The changes will be minor; approximately 4 sheets are affected.
- Also I will be sending revised plumbing, mechanical and electrical sheet with the proper engineering stamp. We are using a temporary stamp while we apply for reciprocity.
- Finally, the revised bond will be sent to planning next week.

Please give me a call if you have any questions.

Project: Retirement residence
Date: 6/16/98

Live Loads

Roof Live Loads

Typical	varies	psf	*based on tributary area*

Floor Live Loads

Common	100	psf
Corridor	100	psf
Light Storage	125	psf
Reading Rooms	60	psf
Office Spaces	50	psf
Suites	40	psf
Suite Decks	60	psf

Snow Load

Design Snow Load		Pg =	60	psf
Snow load reducible			1	(0-no/1-yes)
Importance Factor		I =	1.0	
Snow Exposure Factor	(0.6/0.7/0.9)	Ce =	0.7	
Roof Snow Load		Pf =	42.0	psf

Open Roof Areas

Roof Pitch	Front	5 :12	22.62	deg
	Rear	5 :12	22.62	deg
Reduction for Sloped Roof				
	Front	Cs =	1.00	
	Rear	Cs =	1.00	
Adjusted Roof Snow Load				
	Front	Ps =	42.00	psf
	Rear	Ps =	42.00	psf

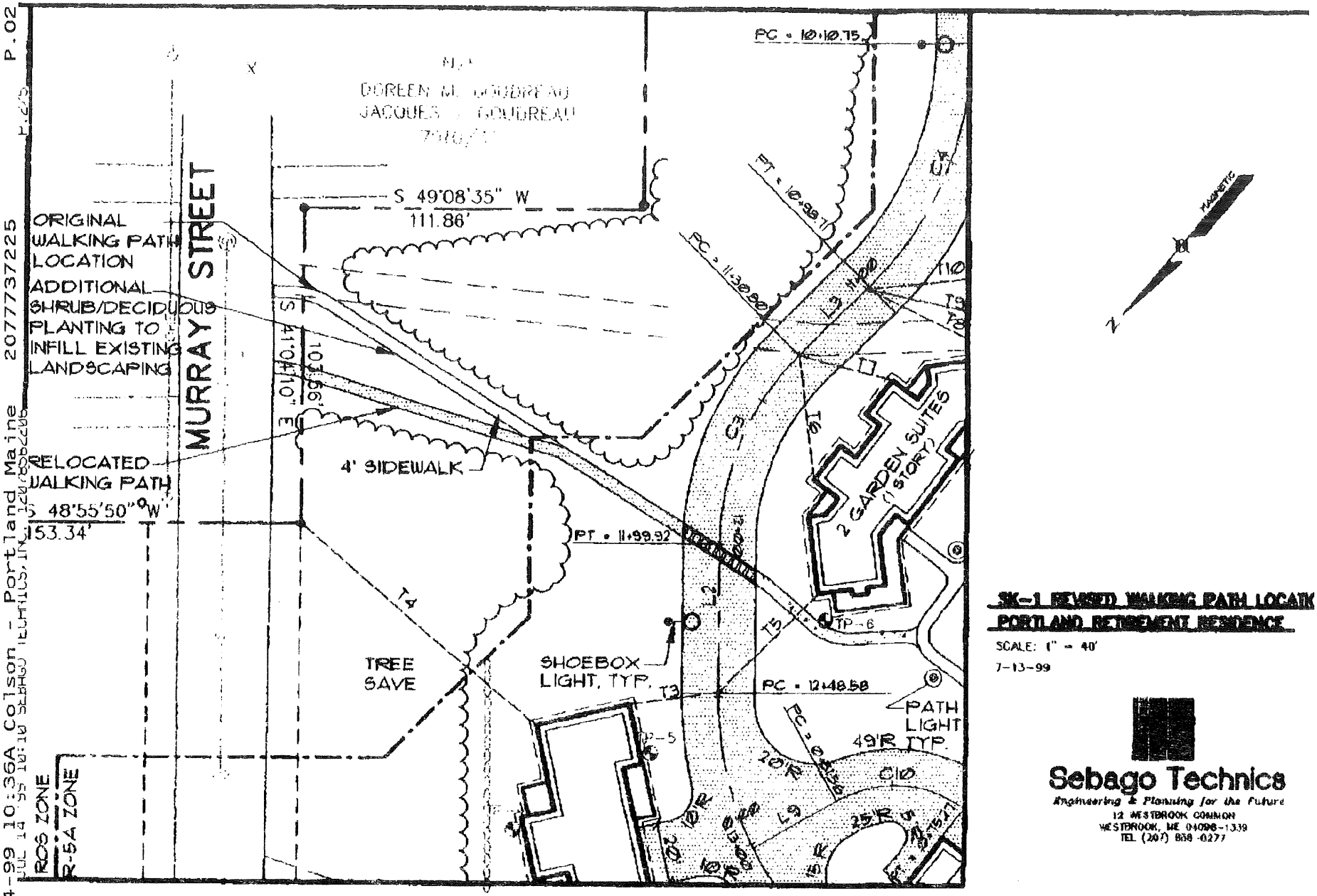
Valley Dormer Drifting

	ridge	eave
Valley Design Coefficient Cv =	0.50	3.00
Pf' =	21.00	126.00

Lower Roof Drifting

Building width	Wb =	58.00 ft
Maximum Height of drift surcharge	hd =	3.31 ft
Density of Snow	D =	21.80 pcf
Height of Balanced Snow Load on lower roof	Hb =	1.93 ft

		Case 1	Case 2	Case 3
Elev difference between roofs (feet)	Hr =	9.00	6.00	3.00
Drifting Ratio	(Hr-Hb)/Hb =	3.67	2.11	0.56
	check drifting	*yes*	*yes*	*yes*
Maximum Snow Intensity (psf)	Pt =	114	114	65
	1.4 Hd =	4.64	4.64	4.64
Sliding Snow (psf)	Pt' =	160	160	65



SK-1 REVISED WALKING PATH LOCATION
PORTLAND RETIREMENT RESIDENCE

SCALE: 1" = 40'

7-13-99

Sebago Technics
Engineering & Planning for the Future
12 WESTBROOK COMMON
WESTBROOK, ME 04098-1339
TEL (207) 856-0277

Inspection Services
Michael J. Nugent
Manager

Department of Urban Development
Joseph E. Gray, Jr.
Director

CITY OF PORTLAND

July 12, 1999

Terry Johnson
Colson & Colson
257 Canco Rd.
Portland, ME 04104

Re: 149 E001

Dear Mr. Johnson,

Please be advised that further development of the "paths" at the above location must cease immediately until such time as the paths are adequately protected to insure that they function as intended. All work on said paths must stop and plans must be submitted for review. Work cannot resume until the means of protection is approved . If there are questions, please feel free to contact me at 874-8700.

Sincerely,

Mike Nugent
Manager of Inspection Services

Inspection Services
Michael J. Nugent
Manager

Department of Urban Development
Joseph E. Gray, Jr.
Director

CITY OF PORTLAND

July 13, 1999

To: Terry Johnson
From: Mike Nugent

Re 257 Canco Rd. Walkway

Pursuant to our conversation, you are released from the stop order issues on 7/12/99 and can commence development of the walkway as shown on the plan. Owen McCullough must submit the bollard plans and the plan for sidewalk relocation prior to the commencement of the construction/installation of those features. To be clear; this authorizes you to begin the previously approved work in strict compliance with those plans ONLY. The Bollard & Sidewalk relocation cannot commence until plans have been submitted and approved.

Inspection Services
Michael J. Nugent
Manager

Department of Urban Development
Joseph E. Gray, Jr.
Director

CITY OF PORTLAND

July 15, 1999

Terry Johnson
Colson & Colson
257 Canco Rd.
Portland, ME 04104

Re: 149 E001

Dear Mr. Johnson,

Please be advised that Joseph Gray, Director of Planning & Urban Development has reviewed and approved the plan submitted for the path relocation as shown on the attached plan. You are authorized to commence this activity as shown on the plan submitted by Sebago Technics dated 7/14/99. If there are questions, please feel free to contact me at 874-8700.

Sincerely,

Mike Nugent
Manager of Inspection Services

149-B-001

Planning & Urban Development

Joseph E. Gray Jr.
Director

CITY OF PORTLAND

November 13, 2000

Stan Poplaski
The Woods at Canco
257 Canco Road
Portland, ME 04103

RE: The Woods at Canco

Dear Mr. Poplaski:

This letter is to confirm the revision to the approved plan of the Woods at Canco project located at 257 Canco Road. The approved revision includes the addition of four (4) parking spaces. The revised plan has been reviewed and approved by the project review staff including representatives of the Planning, Public Works, Building Inspections, Fire and Parks Departments.

If you have any questions regarding the revision please contact the planning staff at 874-8901.

Sincerely,

Joseph E. Gray, Jr.
Director of Planning and Urban Development

cc: Alexander Jaegerman, Chief Planner
Kandice Talbot, Planner
P. Samuel Hoffses, Building Inspector
Jeff Tarling, City Arborist
William Bray, Director of Public Works
Tony Lombardo, Project Engineer
Lt. Gaylen McDougall, Fire Prevention
Penny Littell, Associate Corporation Counsel
Inspection Department
Development Review Coordinator
Lee Urban, Director of Economic Development
Susan Doughty, Assessor's Office
Approval Letter File

O:\PLAN\CORRESP\SECRETAR\FORMS\SPREVIS.WPD

N/F
ROBERT M. NELSON
PEGGY D. NELSON
10482/314

N/F
JAMES A. TROTT
JAN E. TROTT
5090/87

N/F
SUSAN C. ABBOTT
CYNTHIA M. KUNKEL
11429/207

N/F
JEFFREY M.
DEXTER
9969/24

N/F
DOREEN M. GOUDREAU
JACQUES J. GOUDREAU
7910/32

N/F
VICTOR O. STACEY
3191/537

N/F
EAST DEERING
HOUSING ASSOCIATION
6948/101

N/F
CENTRAL MAINE
POWER COMPANY
3595/312

MAGNETIC

N 40°51'38" W

S 49°08'35" W
111.86'

S 41°04'10" E
103.56'

S 48°55'50" W
153.34'

S 40°51'10" E
154.05'

218.05'
N 49°28'50" E

S 49°23'20" E
115.59'

N 40°43'25" E
173.25'

N 41°43'45" E
672.58'

N 41°44'00" W
N 39°49'20" W
225.17'

N 41°45'35" W
110.38'

R2B ZONE
R-5A ZONE

PHASE II
PHASE I

END PHASE I
STONE DUST
WALK

24' PAVED DRIVE TO BE
INSTALLED IN PHASE II

END PHASE I
BIT. PAVEMENT

4' CONCRETE
SIDEWALK, TYP.

TREE
SAVE

6' CONC.
SIDEWALK

END BIT. WALK
BEGIN STONE
DUST WALK

3 GARDEN SUITES
(1 STORY)

2 GARDEN SUITES
(1 STORY)

PROPOSED 14 SUITE
RETIREMENT RESIDENCE
(3 STORY BUILDING)

FLOOD
LIGHT,
TYP.

DUPLEX COTTAGE SUITES
(1 STORY)

SEE ARCHITECTURAL
PLANS FOR ENTRYWAY
DETAILS & CONSTRUCTION
REQUIREMENTS, TYP.

SHOEBOX
LIGHT, TYP.

REINFORCED
CONCRETE FLUSH
WITH SIDEWALK

SOLID WASTE
ENCLOSURE

PATH
LIGHT, TYP.

HANDICAP
RAMP

CROSSWALK

SEE ARCHITECTS PLAN FOR
ENTRY WAY DETAILS AND
CONSTRUCTION REQUIREMENTS
TYP.

END BIT.
CURB WITH
TIPDOWN &
SIDEWALK

6' CONCRETE
SIDEWALK

6" BITUMINOUS
CURB

CAR PORT
CEILING MOUNT
LIGHT, TYP.

HEAVY-DUTY
BITUMINOUS PVMT.

PARKING LOT
PAVEMENT, TYP.

PRESSURE TREATED
FOOT BRIDGE

4' BIT. SIDEWALK

ENTRANCE
SIGN

HID SIGN LIGHT,
TYP.

5' BIT. SIDEWALK

VERT. GRANITE
CURB

4' BIT. SIDEWALK

6' GRANITE
TIPDOWN, TYP.

4' ESPLANADE

INSTALL VERTICAL GRANITE
CURB & ENTRANCE RADII
WITH 6' TIPDOWNS, TYP.

CANCO ROAD

STOP SIGN
COMPLY W/ M.U.T.C.D.

HANDICAP
RAMP, TYP.

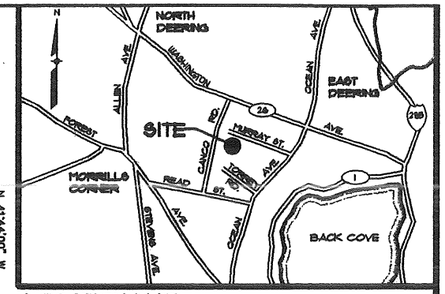
CROSSWALK

CUT PAVEMENT AND
REBUILD SIDEWALK
AS NEEDED TO
INSTALL H.C. RAMP

PAVEMENT JOINT

ONE
WAY

GRAPHIC SCALE
40 0 20 40 60 100
(IN FEET)
1 inch = 40 ft.



LOCATION MAP N.T.S.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY/ROW	
	MONUMENT	
	IRON PIPE/ROD	
	BUILDING	
	WETLANDS	
	EDGE WETLAND	
	SIGN	
	ROCK OUTCROP	
	EDGE PAVEMENT	
	GRAVEL ROAD	
	CURBLINE	
TP-7	TEST PIT	TP-1
124	CONTOURS	
8"W	WATER	8"W
8"S	SEWER	8"S
12"SD	STORM DRAIN	
OHE	OVERHEAD ELEC. & TEL.	OHE
UGE	UNDERGROUND ELEC. & TEL.	UGE
	GATE VALVE	
	LIGHT POLE	
	UTILITY POLE	
	HYDRANT	
	CATCH BASIN	
S D	MANHOLE	
30.20	SPOT GRADE	
	STONE WALL	
	DECIDUOUS TREE	
	CONIFEROUS TREE	
	SILT FENCE	SF

LIGHTING LEGEND

SYMBOL	LIGHTING DESCRIPTION
	METAL HALIDE SHOEBOX WITH 12' POLE
	LOW VOLTAGE PATH LIGHT BLACK
	HID SIGN LIGHT
	NARROW PARABOLIC FLOODLIGHT
	CARPORT CEILING MOUNT HID WIDE ANGLE

NOTE: PROVIDE 208 VOLT, 10A AMP SERVICE TO THE TRASH ENCLOSURE AREA

REV:	BY:	DATE:	STATUS:
A	OAM	11-6-97	ISSUED FOR PRELIMINARY PLAN REVIEW

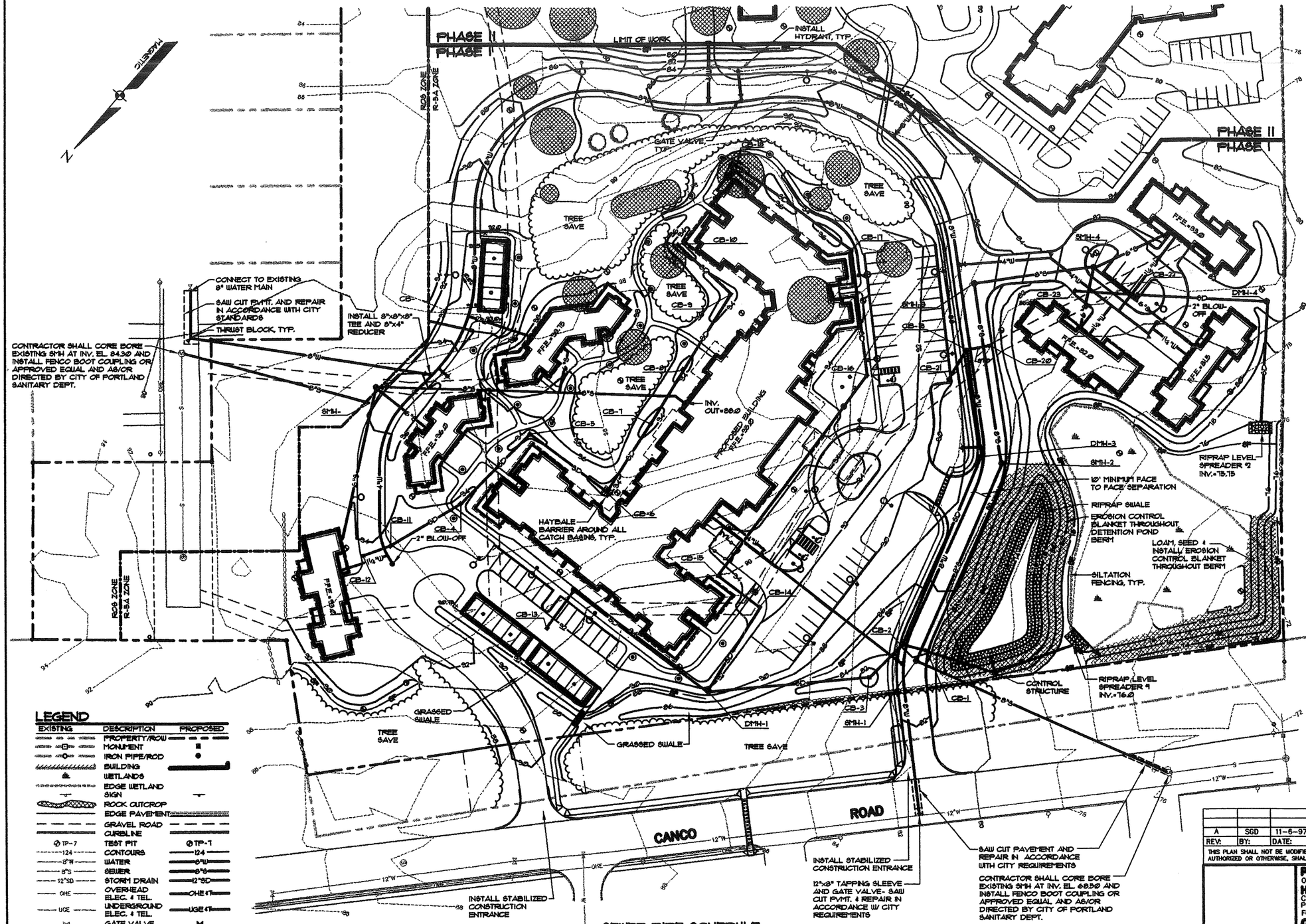
PRELIMINARY SITE PLAN – PHASE 1
OF:
HOLIDAY RETIREMENT CORP.
CANCO ROAD
PORTLAND, MAINE
FOR:

CURRY BRANDAW ARCHITECTS AND **COLSON AND COLSON GENERAL CONTRACTOR, INC.**
2260 McGILCHRIST STREET SE, SUITE 100, SALEM, OREGON 97302
2250 McGILCHRIST STREET SE, SUITE 200, SALEM, OREGON 97302

Sebago Technics
Engineering & Planning for the Future
12 WESTBROOK COMMON
WESTBROOK, ME 04092-1339
TEL (207) 856-0277

DESIGN BY:	SAG/OAM
DRAWN BY:	JLB
CHECKED BY:	OAM
DATE:	10-23-97
SCALE:	1"=40'
FIELD BK:	565
PROJ. NO:	96592
DRAWING:	96592S1

SHEET 3 OF 12



CATCH BASIN SCHEDULE

STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	83.80	77.22	77.12
CB-2	83.20	77.68	77.58
DMH-1	81.0	78.50	78.40
DMH-2	84.0	84.2	84.2
CB-4	91.0	81.40	81.30
CB-4	93.5	86.70	86.60
CB-5	93.5	87.20	87.10
CB-6	93.5	87.70	87.60
CB-7	93.5	88.12	88.02
CB-8	93.5	88.47	88.37
CB-9	93.5	88.52	88.52
CB-10	93.5	———	88.19
CB-11	92.5	87.32	87.82
CB-12	92.5	———	88.32
CB-13	91.5	———	87.24
CB-14	92.5	85.03	84.93
CB-15	93.5	86.98	86.88
CB-16	92.5	88.12	88.02
CB-17	93.5	88.75	88.65
CB-18	93.5	———	88.35
DMH-3	87.60	82.17	82.07
CB-19	86.60	82.70	82.60
CB-20	86.60	———	82.88
CB-21	91.0	———	86.00
DMH-4	81.0	76.38	76.28
CB-22	81.0	77.03	76.33
CB-23	80.75	———	77.28

STORMDRAIN SCHEDULE

FROM STRUCTURE	TO STRUCTURE	SIZE	LENGTH	SLOPE
LEVEL SP. #1	CONTROL ST.	18"	75'	0.00
CONTROL ST.	DET. POND	18"	15'	0.00
CONTROL ST.	CB-1	18"	56'	0.010
CB-1	CB-2	18"	18'	0.010
CB-2	CB-3	18"	36'	0.010
CB-3	DMH-1	18"	140'	0.010
DMH-1	DMH-2	12"	140'	0.010
DMH-2	CB-4	12"	120'	0.010
CB-4	CB-5	12"	80'	0.005
CB-5	CB-6	12"	79'	0.005
CB-6	CB-7	12"	65'	0.005
CB-7	CB-8	12"	50'	0.005
CB-8	CB-9	12"	70'	0.005
CB-9	CB-10	12"	54'	0.005
CB-4	CB-11	12"	56'	0.010
CB-11	CB-12	12"	40'	0.010
DMH-2	CB-13	12"	38'	0.030
DMH-1	CB-14	12"	84'	0.042
CB-14	CB-15	12"	44'	0.042
CB-15	CB-16	12"	208'	0.005
CB-16	CB-17	12"	106'	0.005
CB-17	CB-18	12"	120'	0.005
CB-2	DMH-3	12"	172'	0.0235
DMH-3	CB-19	12"	86'	0.005
CB-19	CB-20	12"	18'	0.010
CB-19	CB-21	12"	24'	0.137
LEV. SP. #2	DMH-4	12"	105'	0.005
DMH-4	CB-22	12"	110'	0.009
CB-22	CB-23	12"	50'	0.005

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY/ROW	
	MONUMENT	
	IRON PIPE/ROD	
	BUILDING	
	WETLANDS	
	EDGE WETLAND	
	SIGN	
	ROCK OUTCROP	
	EDGE PAVEMENT	
	GRAVEL ROAD	
	CURBLINE	
TP-7	TEST PIT	TP-1
124	CONTOURS	124
8"W	WATER	8"W
8"S	SEWER	8"S
12"SD	STORM DRAIN	12"SD
OHE	OVERHEAD ELEC. & TEL.	OHE
UGE	UNDERGROUND ELEC. & TEL.	UGE
	GATE VALVE	
	LIGHT POLE	
	UTILITY POLE	
	HYDRANT	
	CATCH BASIN	
SMH	MANHOLE	
30.20	SPOT GRADE	30.20
	STONE WALL	
	DECIDUOUS TREE	
	CONIFEROUS TREE	

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

SEWER PIPE SCHEDULE

FROM STRUCTURE	TO STRUCTURE	SIZE	LENGTH	SLOPE
EXIST. SMH CANCO RD.	SMH-1	8"	236'	0.0185
SMH-1	SMH-2	8"	178'	0.005
SMH-2	SMH-3	8"	181'	0.005
SMH-3	SMH-4	8"	100'	0.005
MAIN BLDG.	SMH-5	8"	268'	0.008

SEWER MANHOLE SCHEDULE

STRUCTURE	RIM	INV. IN	INV. OUT
SMH-1	83.86	79.34	79.24
SMH-2	87.62	76.33	76.23
SMH-3	81.31	77.19	77.09
SMH-4	82.50	77.79	77.69
SMH-5	86.0	82.82	82.72

REV:	BY:	DATE:	STATUS:
A	SGD	11-6-97	ISSUED FOR PRELIMINARY PLAN REVIEW

PRELIMINARY GRADING, DRAINAGE AND UTILITY PLAN

OF:

HOLIDAY RETIREMENT CORP.

CANCO ROAD
PORTLAND, MAINE

FOR:

CLARK BRANDAW ARCHITECTS AND
2260 McGILCHRIST STREET SE, SUITE 100
SALEM, OREGON 97302

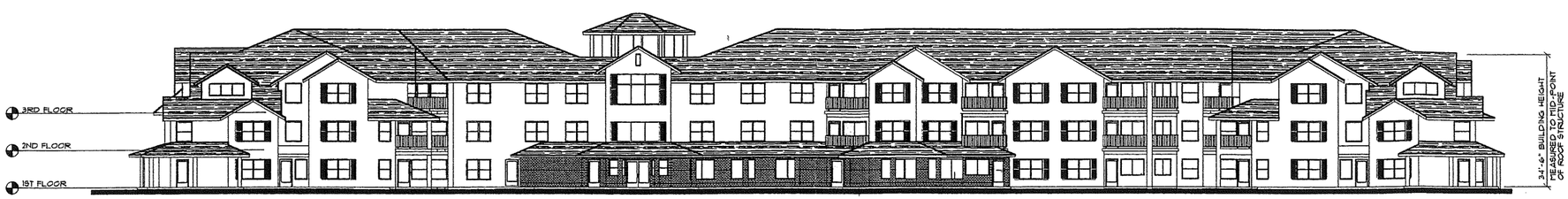
COLSON AND COLSON GENERAL CONTRACTOR, INC.
2250 McGILCHRIST STREET SE, SUITE 200
SALEM, OREGON 97302

Sebago Technics

DESIGN BY:	
DRAWN BY:	JLB
CHECKED BY:	OAM
DATE:	10-23-97
SCALE:	1"=40'
FIELD BK:	565
PROJ. NO.	98592

A FRONT ELEVATION

SCALE : 1/16"=1'-0" (TYP. ALL DRWG'S THIS SHEET U. O. N.)



B REAR ELEVATION

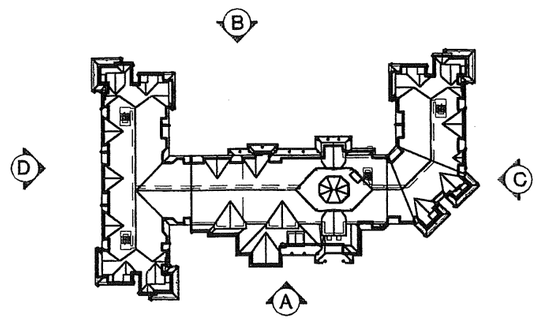
SCALE : 1/16"=1'-0" (TYP. ALL DRWG'S THIS SHEET U. O. N.)

C LEFT ELEVATION

SCALE : 1/16"=1'-0" (TYP. ALL DRWG'S THIS SHEET U. O. N.)

D RIGHT ELEVATION

SCALE : 1/16"=1'-0" (TYP. ALL DRWG'S THIS SHEET U. O. N.)

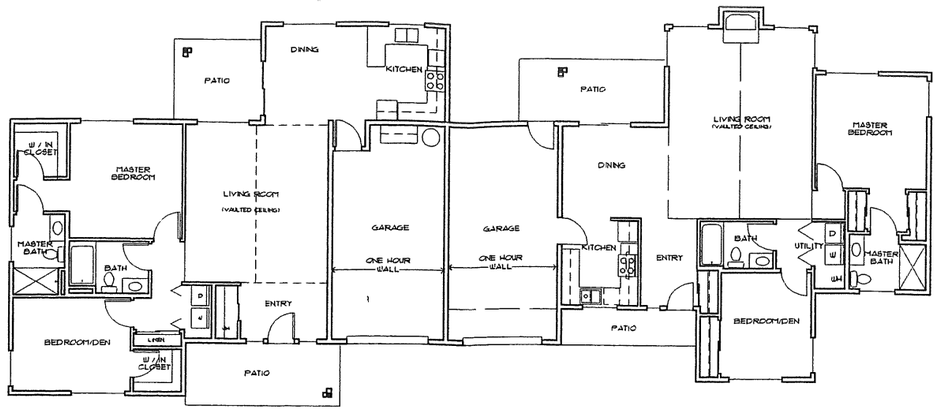


Curry Brandaw Architects
AND
PARTNERSHIP
2250 McGilchrist Street SE, Suite 100 • Salem, Oregon, 97302
503. 399-1090 • Direct 503. 399-1944 • Fax 399-0563

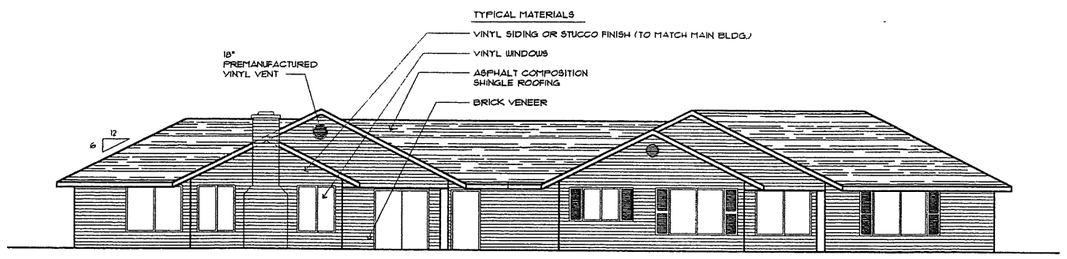
Portland Retirement Community

PORTLAND, MAINE

Holiday
RETIREMENT CORP.
2250 McGilchrist St. SE, Suite 200 Salem,OR 97302
P.O. Box 14111 Salem, OR 97309-5022
(503)370-7070 Fax(503)364-5716

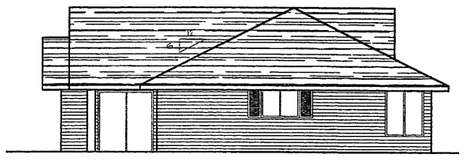


COTTAGE FLOOR PLAN



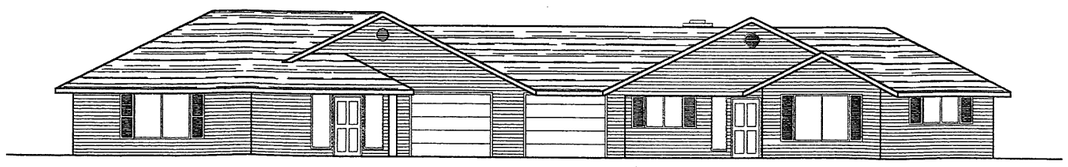
COTTAGE REAR ELEVATION

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



COTTAGE SIDE ELEVATION

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



COTTAGE FRONT ELEVATION

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

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Portland Retirement Community

PORTLAND, MAINE

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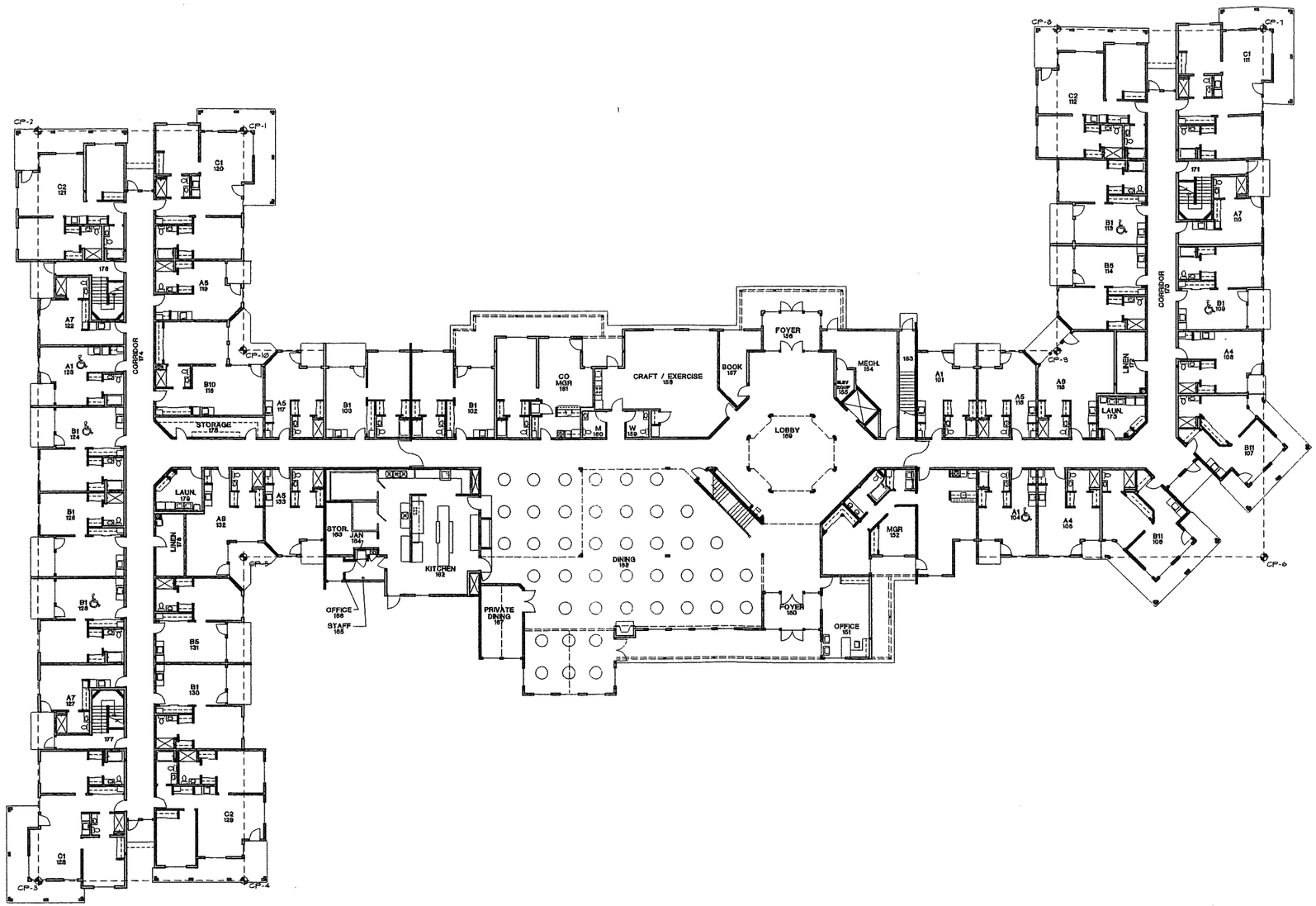

Curry Brandaw Architects
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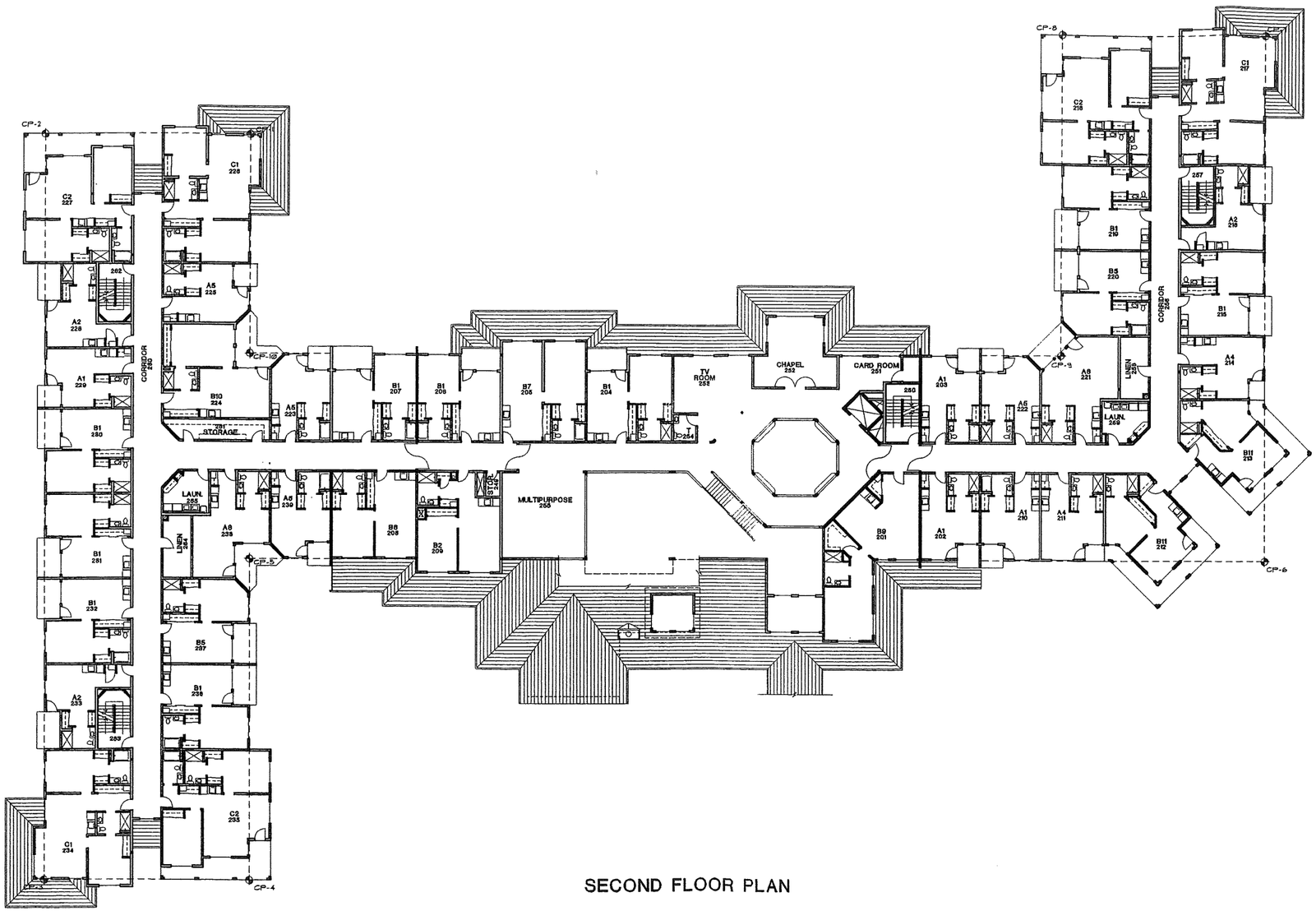
503. 399-1090 •• Direct 503. 399-1944 •• Fax 399-0666

Portland Retirement Community

PORTLAND, MAINE

Holiday
RETIREMENT CORP.
2260 McGilchrist St. S.E., Suite 200 Salem,OR 97302
P.O. Box 14111 Salem, OR 97309-5028
(503)370-7070 Fax(503)364-8716



SECOND FLOOR PLAN

Curry Brandaw Architects
PARTNERSHIP
2280 McGilchrist Street SE, Suite 100 • Salem, Oregon 97302
503. 399-1090 •• Direct 503. 399-1944 •• Fax 399-0565

Portland Retirement Community

PORTLAND, MAINE

Holiday
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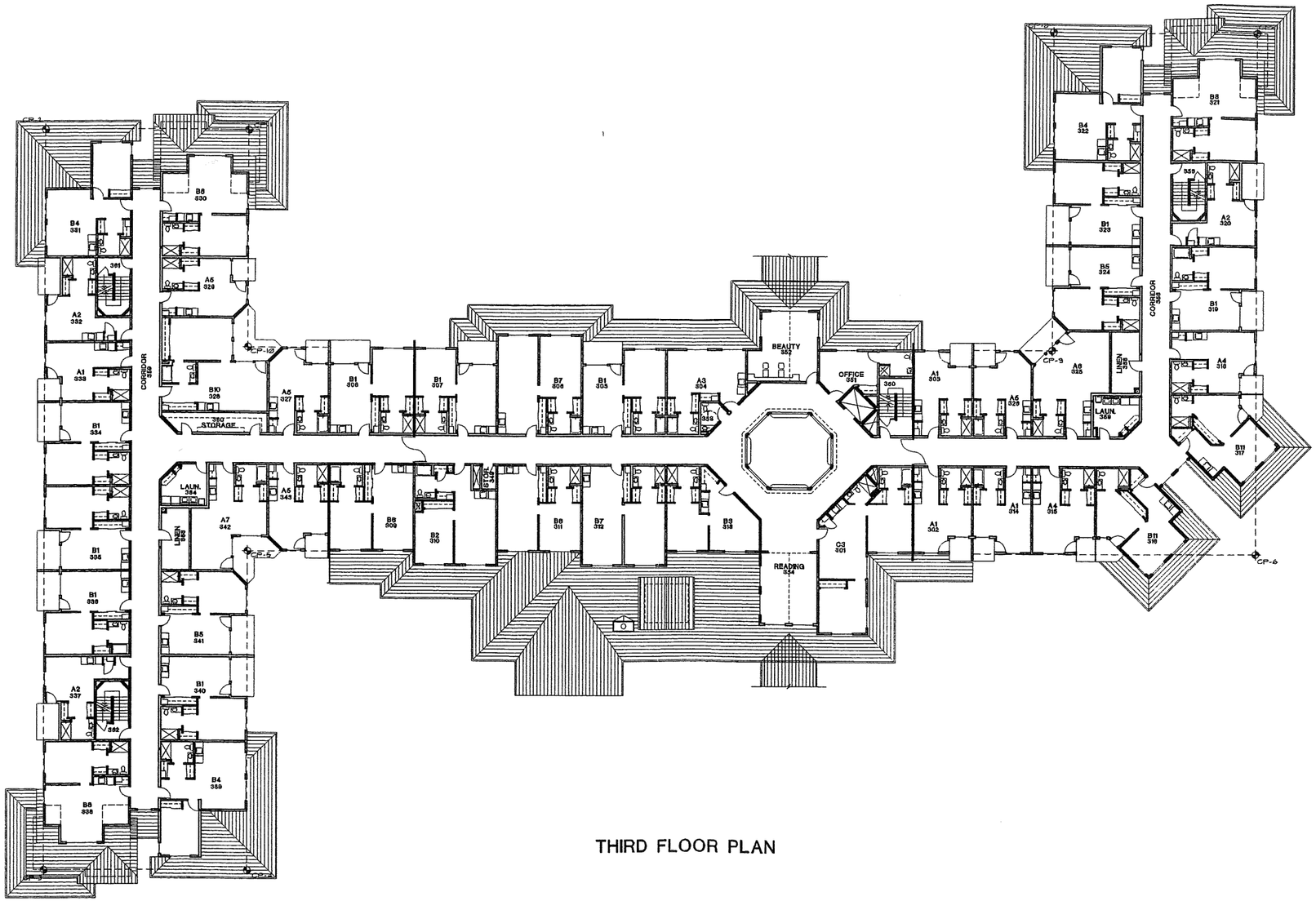
2250 McGilchrist St. S.E., Suite 200 Salem,OR 97302
P.O. Box 14111 Salem, OR 97309-5026
(503)378-7073 Fax(503)364-8715



THIRD FLOOR PLAN

Curry Brandaw Architects
PARTNERSHIP
2250 McGilchrist Street SE, Suite 100 ** Salem, Oregon 97302
503. 399-1090 ** Direct 503. 399-1944 ** Fax 399-0565

Portland Retirement Community

PORTLAND, MAINE

Holiday
RETIREMENT CORP.
2250 McGilchrist St. S.E. Suite 200 Salem,OR 97302
P.O. Box 14111 Salem, OR 97309-5020
(503)375-7070 Fax(503)364-5716

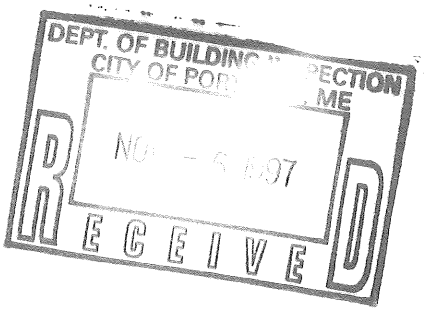
SebagoTechnics

Engineering & Planning for the Future

149-B-001
98-0340

November 5, 1997
96592

Alexander Jaegerman, City Planner
Planning & Urban Development
City of Portland
389 Congress Street
Portland, ME 04101



Preliminary Site Plan Submittal
Portland Retirement Residence and Assisted Living Facility

Dear Alex:

On behalf of Curry Brandaw Architects and Colson & Colson General Contractor, Inc., Sebago Technics, Inc. has assembled the following preliminary site plan submittal for planning staff and Planning Board consideration. The enclosed submittal presents a proposed retirement residence and assisted care living facility to be located on a 19.97 acre parcel of land on Canco Road.

This project was previously presented to the Planning Board and City Council at a conceptual plan level to acquire a conditional rezoning of the parcel (from OP - Office Park to R5A and ROS Conditional Use). As presented at the previous meetings and as shown on the plans enclosed with this submittal, the project will entail a 211 unit retirement residence and assisted living facility. The project will be constructed in two phases, with this submittal requesting review of Phase I only. Phase I construction will entail 114 retirement suites, 8 cottage units, and 5 garden suites, for a total of 127 initial units. Phase I construction will also include construction of two entrances onto Canco Road, installation of granite curbing and sidewalk between the two entrances as requested by Public Works, along with interior roadways, parking and circulation areas. The second phase of the project will include 80 assisted living suites and 4 cottage suites for a total of 84 additional units. At project completion, there will be a total of 211 suites.

As required by the conditional rezoning, the project will maintain undisturbed natural buffers in the ROS Zone (see enclosed site plan), with the exception of clearing and disturbance necessary for utility construction and construction of a 5' stone dust walking path. An aggressive landscape plan is also proposed as part of the facility construction which is in the process of being completed by Curry Brandaw Architects. This plan will be forwarded to the City upon completion and will be presented at the workshop meeting. In regard to facility construction, it is anticipated that, upon site plan approval by the City of Portland, Phase I construction would begin with an expected completion in the Fall of 1998. Depending on occupancy of Phase I, Phase II is anticipated to be permitted and constructed in 1999, or early 2000.

Canco Rd
Holiday Retirement

At this time, the applicant would like to proceed with the Phase I permitting and design, with the Phase II design and permitting occurring at a later date. The Phase I design has been coordinated with Phase II to allow future extension of utilities and access roadways to the Phase II area. A separate stormwater infrastructure will be utilized for each of the phases which generally corresponds to the topographical conditions in the project vicinity. During our initial planning and design, a coordination meeting was held with the planning and Public Works staffs to review the intended project design. As part of that discussion, Tony Lombardo of the Public Works staff requested that the stormwater design for Phase I be constructed to retain the 2-year storm event in its entirety, releasing it slowly over a 24-hour period. This is intended to lower the peak rates of runoff below pre-development conditions and provide water quality treatment to address concerns over downstream stormwater receiving channels. A detailed stormwater management evaluation will be completed as part of the site plan review process. The enclosed plans include a site specific grading and drainage plan depicting the intent of the stormwater management system which includes detention ponds and erosion and sedimentation control measures.

Utility service to this project will include public water, sewer and underground electric and telephone. We have already met with the Portland Water District to review servicing this project and will be forwarding the final design plans for their review and approval. In addition, we have contacted the Department of Public Works and have obtained a letter indicating that the City of Portland has adequate capacity to transport and treat the anticipated wastewater flows from the development. Underground electric and telephone services will also be coordinated with the respective utility agencies as the design and permitting process progresses.

At this time, we would like to reintroduce the project to the Planning Board at a workshop level to review the design in more detail and discuss the project's aspects. In this regard, we have included the following information for the planning staff and Planning Board's consideration:

1. Preliminary Site Lighting, Grading, Drainage and Utility Plans
2. Landscape Plan
3. 11" x 17" copies of the building elevations and floor plan
4. 11" x 17" reductions of the proposed Site Lighting, Grading and Utility Plans
5. Sewer capacity letter from the City of Portland Public Works Department
6. A copy of the purchase/sale agreement indicating right, title and interest to the property.
7. A traffic study of the project and general vicinity prepared by Eaton Traffic Engineering.

On behalf of the applicant, we look forward to meeting with the Planning Board at the upcoming workshop meeting to present and discuss the proposed retirement residence and assisted care living facility.

Thank you for your consideration.

Sincerely,

SEBAGO TECHNICS, INC.

Owens A. McCullough, P.E.
Project Manager

OAM:jc
Enc.

cc: Cliff Curry, Curry Brandaw Architects

PURCHASE AND SALE AGREEMENT

THIS AGREEMENT made this 20th day of ~~May~~ June UEC T.P.O. 1997, by and between **Black Bear Development, Inc.**, a Maine corporation having a principal place of business at 30 Ledgewood Drive in the Town of Falmouth, County of Cumberland, State of Maine (hereinafter referred to as "Seller") and **Colson & Colson Construction Co.**, a partnership having a principal place of business at 2250 McGilchrist Street, Salem, Oregon 97302 (hereinafter referred to as "Buyer")

WITNESSETH

Whereas, the Seller desires to sell to Buyer and Buyer desires to purchase from Seller, Seller's land (hereinafter referred to as the "Property") situated at Canco Road in the City of Portland, County of Cumberland and State of Maine consisting of approximately 20 acres of land situated on the easterly side of Canco Road in said Portland and being shown on the City of Portland tax records Map 149 Block B Lot No. 1. The real estate is more particularly described on the plan attached hereto as Schedule A and incorporated by reference herein.

NOW THEREFORE; in consideration of Buyer's earnest money deposit and other valuable considerations paid, the receipt and sufficiency whereof are hereby acknowledged, and the mutual covenants, terms and conditions herein contained, the parties hereto agree as follows:

1. **Purchase and Sale of Real Estate:**

Buyer agrees to purchase from Seller and Seller agrees to sell to Buyer, on the terms and conditions hereinafter set forth, the real estate situated on the easterly side of Canco Road, Portland, Maine consisting of 20.99 acres more or less, as more particularly described in **Schedule A,** ("the Property").

2. **Purchase Price:**

The purchase price shall be Five Hundred Thousand Dollars ($500,000.00), and shall be payable as follows:

a. Upon the execution of this Agreement, Buyer shall pay as an earnest money deposit the sum of Twenty-Five Thousand Dollars ($25,000.00) to be applied to the Purchase Price at closing and placed in an interest-bearing escrow account at the First American Title Insurance Company, ("the Title Company"), South Portland, Maine, office until closing. In the event that First American Title Insurance Company is unable or unwilling to accept the aforesaid earnest money deposit said funds shall be deposited with the Broker until closing. All interest upon such escrow shall be disbursed with the principal to the party receiving the escrow disbursement.

(l) Unless the closing of this transaction has taken place sooner, Buyer shall pay to the Title Company or Broker as the case may be an additional earnest money deposit of Two Thousand Five Hundred Dollars ($2,500.00) on the sixtieth day (60th) and a like sum on the ninetieth (90th) following the execution of this Agreement.

b. The balance of the purchase price, shall be paid at closing as follows:

(l) One Hundred Seventy-Five Thousand Dollars ($175,000.00) in cash or with certified bank or cashier's check. Buyer and Seller agree that Seller shall apply so much of said sum as is necessary to satisfy the first mortgage on the Property held by Peoples Heritage Bank.

(2) Two Hundred Ninety-Five Thousand Dollars ($295,000.00) in the form of a promissory note secured by a first purchase money mortgage, on the Property described on **Schedule A**. Interest on said note shall be at the rate of eight percent (8%) per annum and shall be for a term of the sooner of, the issuance of a building permit by the City of Portland, or twenty-four (24) months from the date of closing. Upon the occurrence of the earlier event the entire principal balance with all accrued but unpaid interest shall be then immediately due and payable. Payments of interest only shall commence thirty (30) days from the date of closing and continue until the principal balance has been paid in full.

3. **Conveyance of Title:**

Seller shall execute and deliver to Buyer a Quitclaim Deed with Covenant for the Real Estate described in **Schedule A**, conveying to Buyer the Property in fee simple, with good and marketable and insurable title thereto, free and clear of all liens and encumbrances, except utility easements and easements serving the premises, zoning and land use laws, and current real estate taxes not yet due and payable to the City of Portland, Maine.

By his letter of March 4, 1997, counsel for the Buyer notified Seller, that according to Buyer's counsel and State Counsel for Buyer's Title Insurer ("State Counsel"), a quitclaim deed from the City of Portland, Maine, releasing any interest it may have in the "paper streets" within the Property would be required and Seller must furnish affidavits, satisfactory to Buyer's Counsel and State Counsel regarding the use and duration of pathways observed on the Property. Buyer's Counsel, and Seller's Counsel agree that those issues would be resolved to the satisfaction of all parties upon receipt of a quit claim deed from the City of Portland, Maine releasing any interest it may have to the "paper streets", and by furnishing an affidavit or affidavits to State Counsel in such form as he shall require.

Except as noted above in the event that Seller cannot, on the closing date, deliver title in such condition, Buyer shall notify Seller of such fact and Seller shall have a reasonable time, but in no event longer than sixty (60) days to remove any objectionable title defect. If such defect cannot be removed by Seller, Buyer may accept such title as Seller can deliver without reduction in the purchase price, or at the Buyer's option terminate this Agreement, in which case both parties shall be released from their obligations hereunder and all funds not otherwise made nonrefundable,

theretofore deposited by Buyer, together with accrued interest thereon, shall be immediately returned to Buyer.

4. **Closing:**

The closing shall take place at the offices of the Seller's attorney, Joseph R. Mazziotti, 470 Forest Avenue Suite 300, Portland, Maine 04101 one hundred twenty (120) days from the execution of this Agreement, unless Seller and Buyer mutually agree to another time or location. Time is of the essence of this Agreement.

Buyer, at its option, may extend the time for closing for periods of thirty (30) days each upon written notice of its intention to do so given to the Seller not later than fifteen (15) days prior to the time set for closing. Buyer shall pay to Seller the sum of Five Thousand Dollars ($5,000.00) for each thirty (30) day extension, paid at the time of its notice to extend the closing. The aforesaid payments shall be non-refundable and shall not be credited toward the purchase price.

5. **Prorations:**

Real estate taxes for the current tax year shall be prorated between Buyer and Seller as of the date of closing. Seller and Buyer shall share equally in the real estate transfer tax and Buyer shall pay recording fees for the deed and mortgage.

6. **Buyer's Contingencies:** Buyer's obligation to close hereunder is subject to the following conditions, which conditions may at any time be waived by Buyer:

(1) Buyer shall have thirty (30) days from the date of this Agreement to notify Seller or any additional title objections or title defects not otherwise identified in this Agreement. Failure of Buyer to so notify Seller within the time aforesaid shall be deemed a waiver of this contingency.

(2) Buyer's satisfactory inspection of current surveys, legal descriptions, availability and engineering of all utilities (including public water and sewer), and including soils analyses, wetlands studies, conservation conditions, survey work and Phase 1 Site Assessment. All such inspections shall be conducted by Buyer within thirty (30) days of the execution of this Agreement. Buyer shall be solely responsible for all costs and expenses of whatever nature incurred thereby and shall indemnify and hold Seller harmless from any claims or causes of action arising from buyer's exercise of its rights to conduct such inspections. Buyer agrees to restore the real estate to substantially the condition existing prior to any such tests, surveys or inspections, etc. and to the reasonable satisfaction of the Seller. Buyer agrees that it shall provide Seller with a copy of all reports, summaries, conclusions and materials prepared as result of the above described site review as completed. The failure of Buyer to notify Seller of any objectionable report and finding within the aforesaid thirty (30) days shall be deemed a waiver of this contingency. Seller agrees to cooperate with Buyer during its site review and agrees to furnish copies of plans and inspection reports in its possession.

(3) Buyer shall have 120 days from the execution of this agreement to obtain, to Buyer's satisfaction, the following: City of Portland approval or a contract zone, or such permits and/or variances, (including parking variance) or conditional use permits for development of Buyer's senior congregate residential living facility for not fewer than a combined total of not fewer than one hundred ten (110) suites and cottages. Buyer agrees, that as a part of its application for a contract zone it will include the condition that the City of Portland release by quit claim deed its interest in any of the "Paper Streets" located within the Property.

7. **Assignment:** Buyer shall have the unrestricted right to assign its rights and obligations hereunder to any entity controlled by or affiliated with Buyer. Seller reserves the right to reject any such assignment to any individual or entity which lacks sufficient credit worthiness to satisfy Seller which determination shall be in the sole discretion of Seller. Notwithstanding the foregoing, any assignment of the obligations hereunder shall not relieve the Buyer from its primary liability for the repayment of the note and mortgage to the Seller.

8. **Earnest Money Deposit, Liquidated Damages:**

Should the Buyer fail to make any payment required under the terms of this Agreement, or to perform any of the covenants on its part made, this Agreement shall, at the option of the Seller, be terminated and Buyer shall unconditionally release the earnest money deposit or deposits as the case may be, to the Seller as liquidated damages.

9. **Seller's Default:**

If Seller is unwilling or unable to close pursuant to this contract, Buyer shall be entitled to the immediate return of its earnest money deposit held by the Seller and Seller shall be relieved from any further responsibilities and obligations under this Agreement.

10. **Notice:**

All notices required under the terms of this Agreement, shall be given in writing to the party designated, by certified mail postage prepaid return receipt requested and addressed as follows:

Seller: Timothy P. O'Donovan, President
Black Bear Development Inc.
30 Ledgewood Drive
Falmouth, Maine 04105

With copy to: Joseph R. Mazziotti, Esq.
470 Forest Ave., Suite 300
P. O. Box 3589
Portland, ME 04104

Buyer: Colson & Colson Construction Co.
Attn: Robin Boyd
2250 McGilchrist Street Southeast
Suite 200
Salem, Oregon 97302

With a copy to: James A. Hopkinson, Esq.
Hopkinson & Abbondanza, P. A.
511 Congress Street, Suite 801
P. O. Box 15236
Portland, ME 04101

11. **Broker:**

Seller represents to Buyer that the only real estate commission due or which may be claimed to be due in respect hereof is a commission to Malone Commercial Brokers, which shall be paid by the Seller.

12: **Residency:**

Seller does hereby represent that it is a Maine Corporation, in good standing and authorized to do business in the State of Maine.

13. **Miscellaneous:**

a. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, personal representatives, successors and assigns.

b. This Agreement constitutes the entire Agreement between the parties hereto and supersedes all prior negotiations and understandings between and among them, and shall not be amended except in writing signed by all parties.

c. This Agreement may be simultaneously executed in any number of counterparts, each of which when so executed and delivered, shall be deemed an original, but all of which together shall constitute one and the same instrument.

d. This Agreement shall be governed by and be construed in accordance with the laws of the State of Maine. If any provision of this Agreement is determined to be invalid or unenforceable, it shall not affect the validity or enforceability of the remaining provisions hereof.

e. The provisions of paragraphs 2 and 7 shall survive the closing of this transaction and the conveyance of title.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals on the day,

month and year first above written.

Witness

Black Bear Development, Inc.

By: _____
Timothy P. O'Donovan, President

Witness

Colson & Colson Construction Co.

By: _____
Its General Partner

colson.psa

Department of Public Works

Nadeen M. Daniels
Assistant City Manager
Director

William J. Bray
Deputy Director

CITY OF PORTLAND

August 5, 1997

Mr. Owens A. McCullough, P.E.
Project Manager
Sebago Technics
P.O. Box 1339
Westbrook ME 04098-1339

Received
8/8/97
SEBAGO TECHNICS

RE: Sanitary Sewer Capacity to Handle Anticipated Wastewater Flows from the Proposed Holiday Retirement Corporation Development

Dear Owens:

The existing twelve inch diameter vitrified clay sanitary sewer pipe "stub" located in Lee Street, at Murray Street, and the sewage treatment facilities, in the City of Portland, have adequate capacity to transport and treat the anticipated wastewater flows of 25,320 GPD, from your proposed retirement housing complex to be located at 185 Canco Road, City of Portland.

Proposed Wastewater Flows from the Proposed Retirement Residence Complex	
Proposed 211 units @ 120 GPD/unit	= 25,320 GPD
Total Proposed Increase in Wastewater Flows for this Project	= 25,320 GPD

The City is requesting that you remove storm water at a five to one level of your anticipated increase in wastewater flow (i.e. 5 X 25,320 GPD = 126,600 GPD) or obtain removal credits from the City. Stormwater inflow should be calculated on the basis of a three month recurrence interval storm.

If I can be of further assistance, please call me at 874-8832.

Sincerely,
CITY OF PORTLAND

Frank Brancely

Frank J. Brancely, B.A., M.A.
Senior Engineering Technician

FJB:jw
pc: Joseph E. Gray, Director, Department of Planning & Urban Development, City of Portland
Katherine A. Staples, P.E., City Engineer, City of Portland
William B. Goodwin, P.E., Environmental Projects Engineer, City of Portland
Anthony W. Lombardo, P.E., Project Engineer, City of Portland
desk file

McCull.doc

Traffic Impact Study

HOLIDAY RETIREMENT VILLAGE
Canco Road - Portland, Maine

Prepared for:

Sebago Technics
Westbrook, Maine

ete EATON TRAFFIC ENGINEERING

Brunswick, Maine

November 1997

HOLIDAY RETIREMENT VILLAGE
Canco Road - Portland, Maine
Traffic Impact Study

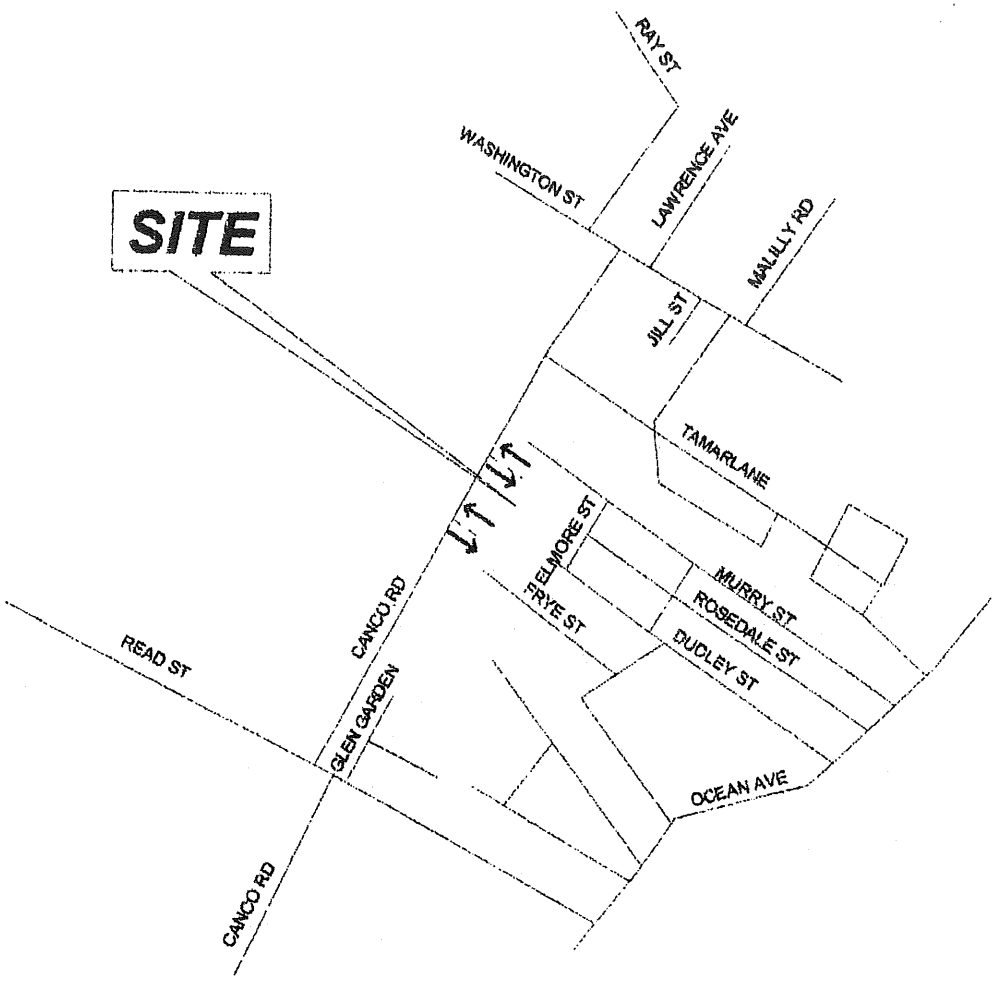
Introduction

Holiday Retirement Corp. of Salem, Oregon proposes to construct a 211 unit retirement complex consisting of 114 Retirement Suites (Apartments), 12 Cottage Suites, 5 Garden Suites, and 80 Assisted Living Suites on the easterly side of Canco Road in Portland, Maine. Proposed access to the site will be via two two-way driveways on Canco Road, one being located at the crest of a vertical curve opposite the Granite Heights office facility, and one opposite the Seltzer & Rydholm exit driveway. Figure 1 on the following page presents the site location and proposed access points. The development is proposed to occur in two phases. Phase 1, to be completed in 1998, will consist of the 114 Retirement Suites, 8 Cottage Suites, and 5 Garden Suites. Phase 2, to be completed in 2000, will consist of the 80 Assisted Living Suites and 4 additional Cottage Suites.

The purpose of this traffic impact study is to evaluate the impact of new traffic generated by the proposed facility on roadway in the vicinity of the site.

Area Characteristics

Canco Road is a 2 lane roadway with a paved travelway 44 feet in width. In the vicinity of the proposed north access driveway, there is a 5 foot sidewalk on the westerly side of Canco Road, with a 4 foot grass strip separating the sidewalk from Canco Road. The shoulder on the easterly side of the street is gravel and 6 - 8 feet in width. There are no recent MDOT traffic counts on Canco Road. Based upon PM peak hour traffic counts conducted for this study, daily traffic volume is estimated at 6,500 - 7,000 vehicles. Land use on Canco Road is primarily commercial in nature, with the exception of a Church located near the Washington Avenue/Canco Road intersection. The intersection of Washington Avenue with Canco Road is controlled by a fully actuated traffic signal, which also controls traffic on nearby Ray and Lawrence Streets. Washington Avenue is basically a two lane roadway, however auxillary turn lanes are provided at the signal controlled intersection. The posted speed limit on Canco Road is 40 MPH.



NOT TO SCALE

ete EATON TRAFFIC ENGINEERING
2 Miranda St. - Brunswick, Maine
(207) 725-9985 Fax (207) 725-9973

Figure 1
Site Location and Access

HOLIDAY RETIREMENT VILLAGE - CANCO ROAD - PORTLAND, MAINE

Estimated 1998 and 2000 PM Peak Hour Traffic - Pre-Development

Traffic impact analysis is typically conducted for a peak one hour period of time when traffic flow on streets adjacent to a proposed development are at their highest level. Normally this peak one hour will occur in the late afternoon within the period 4:00 - 6:00 PM. Accordingly, a manual count was conducted at the Washington/Canco/Ray/Lawrence intersection from 4:00 - 6:00 PM on Wednesday, October 29, 1997. Turning movement count data is normally adjusted to reflect a seasonal peak traffic condition using MDOT adjustment factors derived from their statewide continuous traffic counting program. In this particular case, an increase in the October count of 10 percent was necessary to reflect peak seasonal traffic flow. In past studies in Portland, use of seasonal factors has resulted in traffic volume estimates that are higher than actually occur. This is particularly true in areas where seasonal variation is minimal, which would be expected for Washington Avenue and Canco Road, as they are not generally used by summer visitors.

Traffic counts on Washington Avenue northwest of Canco Road for the period 1992 to 1994 showed a decline in traffic volume. To provide a conservative (i.e. high) estimate of 1998 and 2000 peak hour traffic in the area, a growth rate of 1 percent per year was applied to the seasonally adjusted 1997 estimate. Figures 2A and 2B on the following pages present the estimated 1998 and 2000 PM peak hour traffic volumes for the pre-development, or base condition.

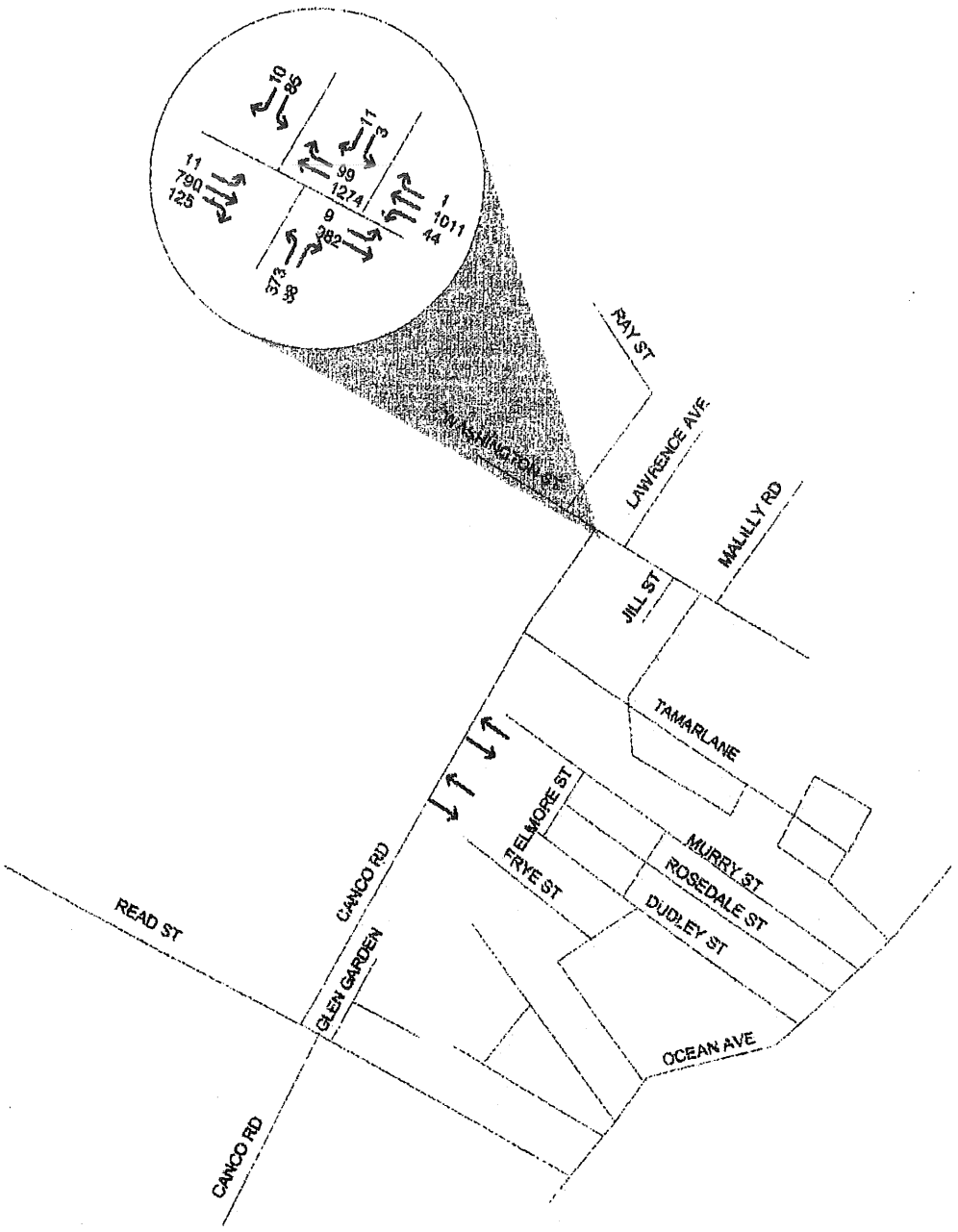
Site Generated Traffic

Site generated PM peak hour traffic for the proposed development was estimated using the statistics contained in the publication Trip Generation - Fifth Edition[1], and a report entitled Assisted Living Residences - A Study of Traffic And Parking Implications[2]. The tables on the following page summarizes the estimation of PM peak hour traffic generation for Phases 1 and 2.

---

[1] Institute of Transportation Engineers, 1991 and February 1995 Update

[2] American Seniors Housing Association, 1997



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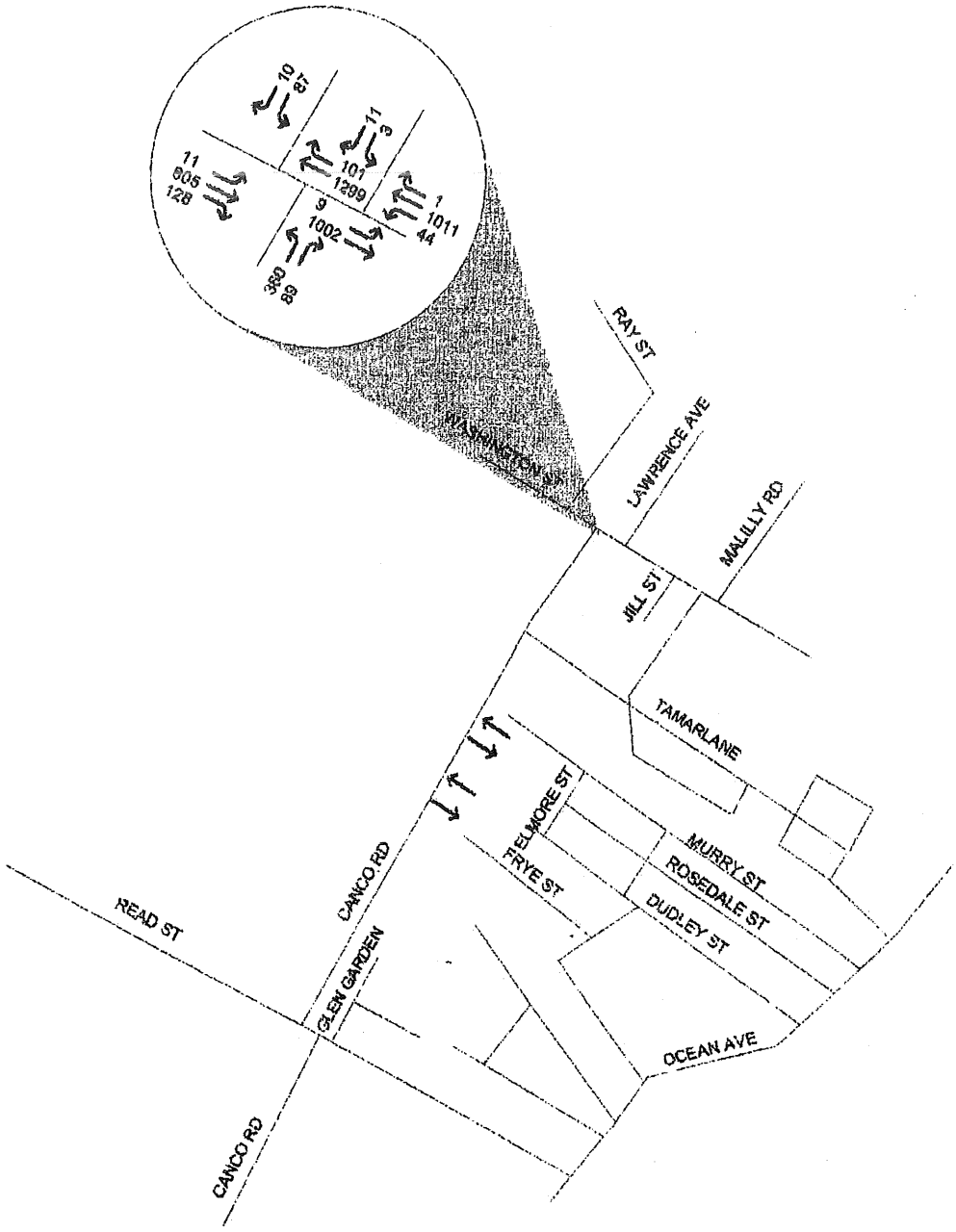
2 Alexander St. - Brunswick, Maine
(207) 725-6805 Fax (207) 725-6773

Figure 2A
Estimated 1998 PM Peak Hour Traffic - Pre-Development

HOLIDAY RETIREMENT VILLAGE - CANCO ROAD - PORTLAND, MAINE



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2 Monroe St - Brunswick, Maine
(207) 725-9805 Fax (207) 725-9773

Figure 2B
Estimated 2000 PM Peak Hour Traffic - Pre-Development

HOLIDAY RETIREMENT VILLAGE - CANCO ROAD - PORTLAND, MAINE

Holiday Retirement Village - Site Generated PM Peak Hour Traffic

Phase 1

Unit Type	Number of Units	Rate	Trips
Retirement Suite	114	0.28	32
Cottage Suite	8	0.55	4.4
Garden Suite	5	0.28	1.4
Total	127	na	37.8 ~ 38

Holiday Retirement Village - Site Generated PM Peak Hour Traffic

Phase 2

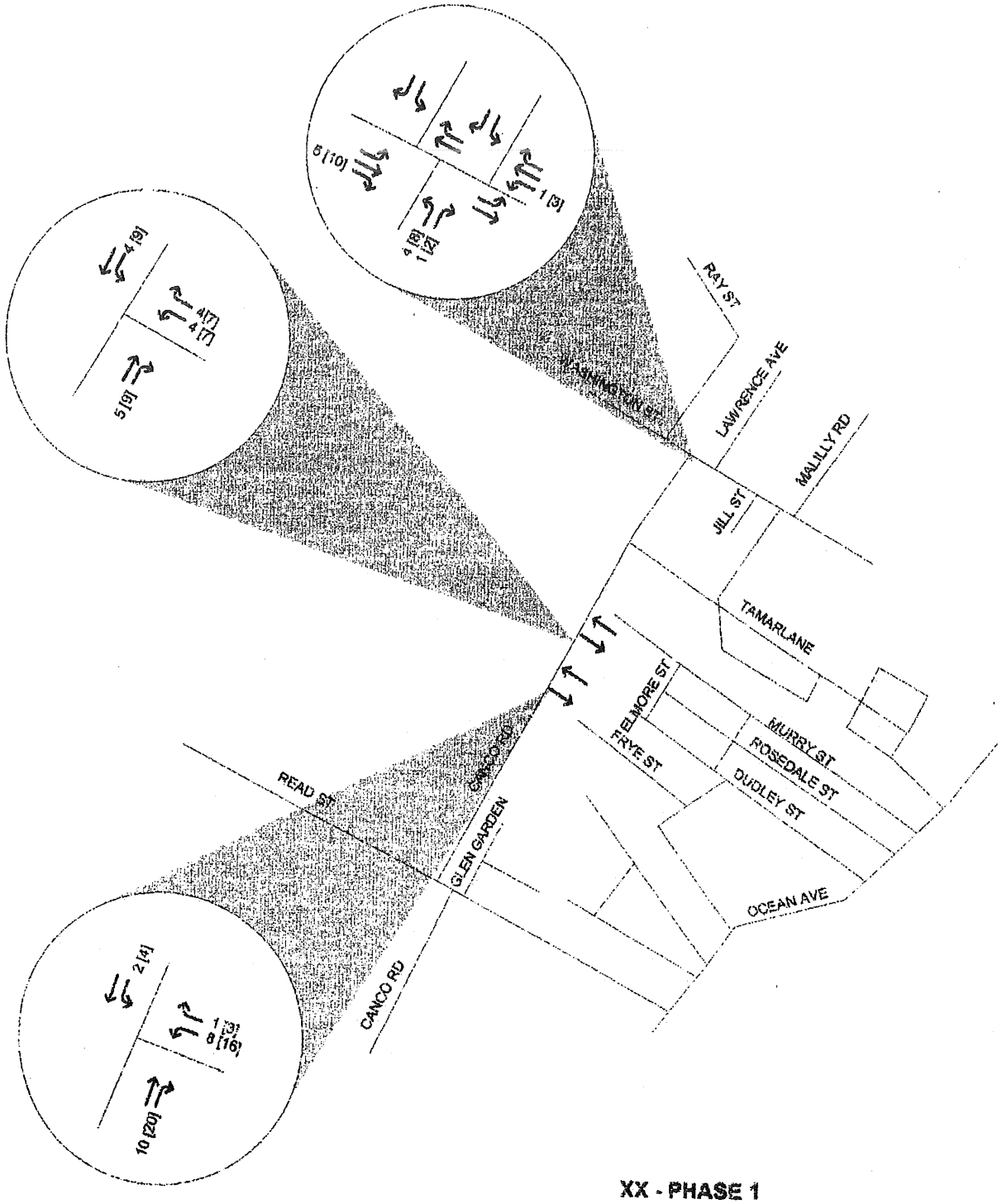
Unit Type	Number of Units	Rate	Trips
Assisted Living Suites	80	0.43	34.4
Cottage Suites	4	0.55	2.2
Total	84	na	36.6 ~ 37

Holiday Retirement Village - Site Generated PM Peak Hour Traffic

Phases 1 & 2

Phase	Number of Units	Trips
1	127	38
2	84	37
Total	211	75

Directional distribution of the PM peak hour traffic, according to ITE data for facilities for retired people, is approximately 55 percent entering and 45 exiting. Traffic for Phase 1 and Phase 2 was assigned to Canco Road and the Washington/Canco intersection based upon existing directional patterns on Canco Street, which indicate that 70 percent of the traffic will be oriented to the south, and 30 percent to the north. This is generally consistent with traffic patterns observed in a previous traffic study at the Department of Motor Vehicles/DEP Regional Office located on the west side of Canco Road north of the proposed Holiday site (the directional split was 75 percent south 25 percent north in that study). Figure 3 on the following page presents the assignment of 1998 (Phase 1) and 2000 (Phase 2) site generated PM peak hour traffic.



XX - PHASE 1
[XX] - PHASES 1 & 2

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ete EATON TRAFFIC ENGINEERING
2 Miranda St. • Brunswick, Maine
(207) 725-9866 Fax (207) 725-4773

Figure 3
Estimated Site Generated PM Peak Hour Traffic for Phases 1 and 2

HOLIDAY RETIREMENT VILLAGE - CANCO ROAD - PORTLAND, MAINE

Projected 1998 and 2000 Post-Development PM Peak Hour Traffic

Projected 1998 and 2000 post-development PM peak hour traffic is the arithmetic combination of the estimated 1998 and 2000 pre-development volumes shown in Figures 2A and 2B and the estimated PM peak hour site generated traffic shown in Figure 3. Figures 4A and 4B present projected 1998 and 2000 post-development PM peak hour traffic volumes in the study area.

Operational Assessment of Pre- and Post-Development Traffic Volumes

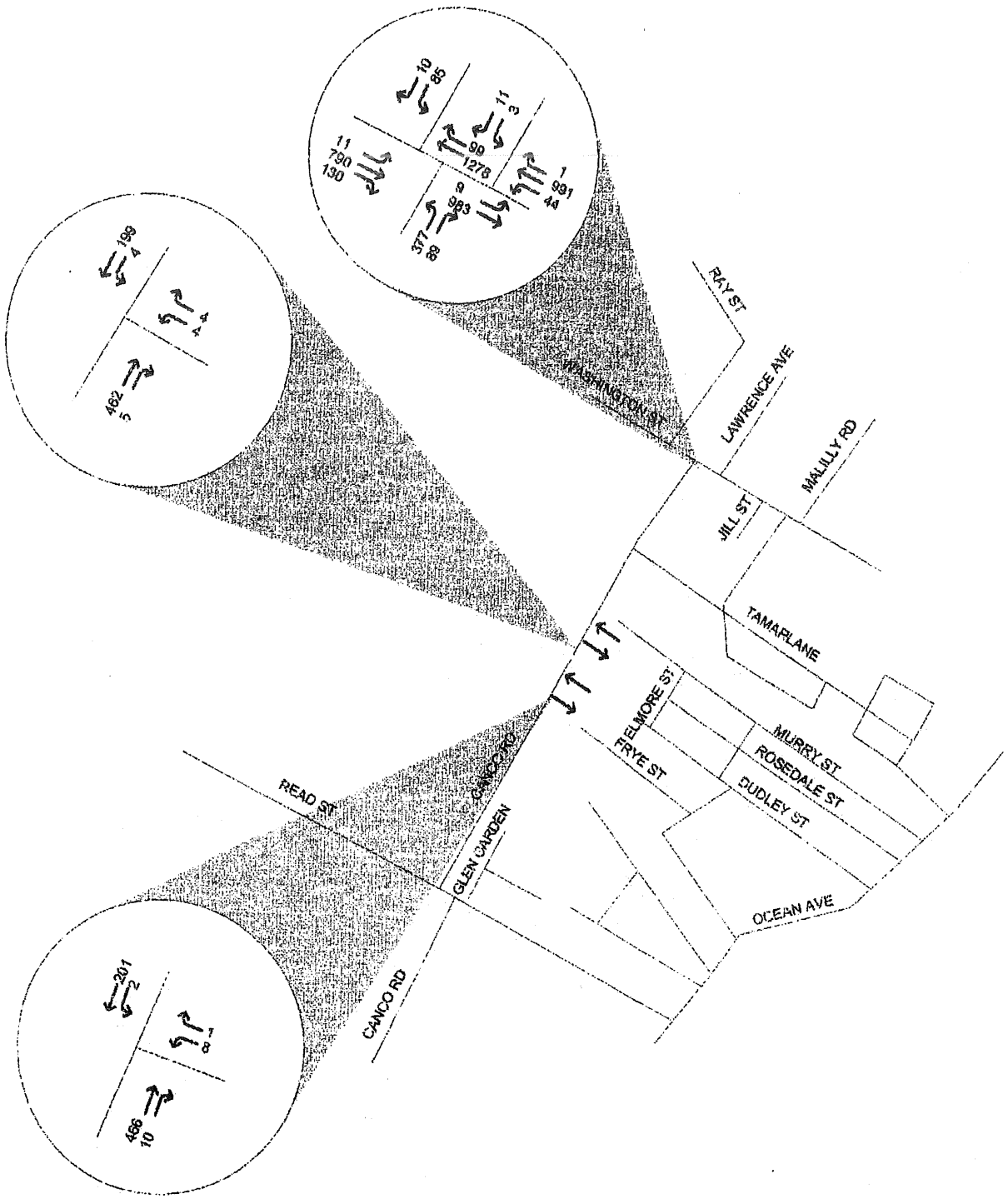
Capacity analysis for pre- and post-development 1998 and 2000 PM peak hour traffic estimates/projections for the Washington Avenue @ Canco/Ray/Lawrence intersection was conducted per the procedures contained in the Highway Capacity Manual[3]. Capacity analysis provides a quantitative assessment of the quality of traffic flow at an intersection, and "rates" this quality in terms of its Level of Service (LOS). LOS ratings range from A to F, and much like a school rank card, A indicates very good conditions, and F indicates extremely congested conditions. For signalized intersections, LOS is related to average stopped delay incurred by vehicles using the intersection. The table below presents the relationship between delay and LOS.

Signalized Intersection Level of Service Measures

Level of Service	Average Stopped Delay Per Vehicle
A	≤ 5.0 Seconds
B	5.1 - 15.0 Seconds
C	15.1 - 25.0 Seconds
D	25.1 - 40.0 Seconds
E	40.1 - 60.0 Seconds
F	> 60.0 Seconds

The results of analysis for the signalized intersection are summarized below:

[3] Special Report 209, Highway Capacity Manual, Transportation Research Board, 1994



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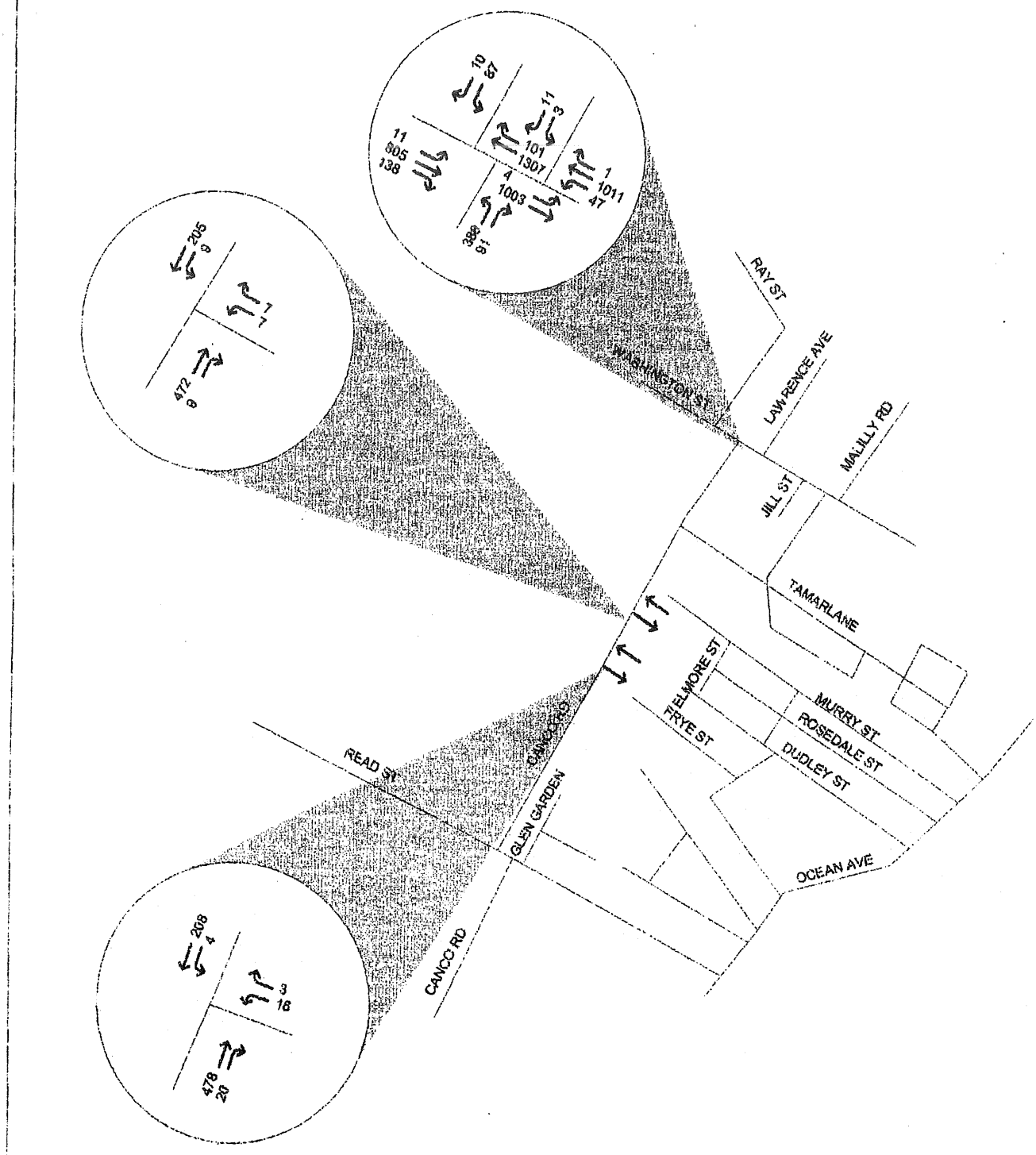
EATON TRAFFIC ENGINEERING
2 Miranda St. - Brunswick, Maine
(207) 725-0805 Fax (207) 725-0774

Figure 4A
Projected Post-Development PM Peak Hour Traffic - 1998/Phase 1

HOLIDAY RETIREMENT VILLAGE - CANCO ROAD - PORTLAND, MAINE



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(207) 725-9865 Fax (207) 725-9773

Figure 4B
Projected Post-Development PM Peak Hour Traffic - 2000/Phase 1 & 2

HOLIDAY RETIREMENT VILLAGE - CANCO ROAD - PORTLAND, MAINE

Signalized Intersection Analysis

1998

Location	Pre-Development		Post-Development	
	LOS	Stopped Delay (sec)	LOS	Stopped Delay (sec)
Washington/Canco/Ray/Lawrence	D	31.4	D	32.3

Signalized Intersection Analysis

2000

Location	Pre-Development		Post-Development	
	LOS	Stopped Delay (sec)	LOS	Stopped Delay (sec)
Washington/Canco/Ray/Lawrence	D	35.6	D	37.7

The intersection is heavily travelled and has some inherent inefficiencies due to the size of the control area, which requires lengthy vehicle clearance intervals. In order to get the analysis to work properly, some relatively liberal assumptions regarding lost time on the Washington Avenue were made (normal lost time is assumed to be 3 seconds - in this case it was reduced to 1 second for the through movements). While the LOS overall is considered to be acceptable, it should be noted that some of the movements at the intersection operate at LOS E or F. As can also be seen, the impact of the new traffic generated by the proposed facility is relatively minimal.

Analysis of the unsignalized intersections of the proposed access driveways on Canco Road uses a different procedure and has different standards for determining LOS. LOS for unsignalized intersections is based upon average total delay for vehicles using an intersection, which takes into account the delay involved in waiting in a vehicle queue. The relationship between LOS and average total delay is shown below:

Level of Service Measurement for Unsignalized Intersections

Level of Service	Average Total Delay Per Vehicle
A	≤ 5.0 Seconds
B	5.1 - 10.0 Seconds
C	10.1 - 20.0 Seconds
D	20.1 - 30.0 Seconds
E	30.1 - 45.0 Seconds
F	≥ 45.0 Seconds

The results of analysis for the unsignalized intersections of are summarized below:

Unsignalized Intersection Analysis

Location	1998 Post-Development		2000 Post-Development	
	LOS	Average Total Delay (sec)	LOS	Average Total Delay (sec)
Canco Road @ North Drive				
SB Left from Canco	A	3.7	A	3.8
All moves from Driveway	B	7.1	B	7.4
Total Intersection		0.1		0.2
Canco Road @ South Drive				
SB Left from Canco	A	3.8	A	3.9
All Moves from Driveway	B	9.0	B	9.4
Total Intersection		0.3		0.3

As can be seen, both driveways are projected to operate satisfactorily.

Safety

Safety data for the most recent available 3 year period (1994-96) was obtained from the Accident Records Section of the MDOT Bureau of Planning for roadways in the vicinity of the site. A summary of the accident history in the area is presented in the table below.

1994-96 Accident History in Site Vicinity*

LOCATION	1994-96 ACCIDENTS	ANNUAL AVERAGE	CRITICAL RATE FACTOR[4]
Canco Road @ Read	13	4.33	2.23
Canco Road/ Read to Washington	5	1.67	0.26
Canco Road @ Washington	24	8.00	0.64
Washington Ave/ Canco to Ray	5	1.67	1.07
Washington Ave @ Ray	13	4.33	0.38
Washington Ave/ Canco to Lawrence	5	1.67	1.41
Washington Ave @ Lawrence	3	1.00	0.23

MDOT guidelines for identification of a High Accident Location (HAL - indicating a potential safety deficiency) is that a location must experience 8 or more accidents in a 3 year period and have a Critical Rate Factor of 1.00 or greater. One of the locations above - Canco Road @ Read Street satisfies these criteria. Accordingly a detailed collision diagram of this location was prepared from accident reports on file at MDOT, and analyzed. A summary of the findings is as follows:

Canco Road @ Read Street: One accident occurred in 1994, two in 1995 and ten in 1996. The accidents in 1994 and 1995 all occurred in snow or ice conditions where vehicles could not stop. The jump from 1 to 2 accidents a year to 10 is rather significant and may simply be an anomaly. Five of the 10 accidents in 1996 did occur when pavement conditions were poor - snow, ice, et cetera. Of the remaining five accidents, one occurred on Read Street north of the Canco/Read intersection and should not have been included with accidents at the intersection. One collision involved a vehicle backing on Canco Road to enter a driveway that the driver had driven by. Two accidents involved vehicles turning left from Read Street eastbound and hitting vehicles stopped at the stop sign on Canco Road (one of these a hit-and-run), and the final non-climatic accident was an angle collision where a driver on Canco Road entered the intersection and was struck by a vehicle westbound on Read. Overall it appears that pavement condition has a major

[4] The Critical Rate Factor is a statistical measure which compares the accident frequency at a location to similar locations throughout the State. A Critical Rate Factor of 1.00 or greater indicates that the location has a higher frequency of accidents than would be expected due to random occurrence, with a 99 percent level of confidence.

impact on safety at this location, with 8 of 12 accidents occurring on slippery pavement. Of the 4 accidents not involving poor pavement conditions, there simply is no pattern that would indicate a physical or operational deficiency. It is recommended that this location be monitored to determine whether the significant increase in accidents in 1996 represents a new trend or simply a fluke occurrence.

An additional safety consideration is the amount of sight distance available for vehicles exiting the proposed site driveways. Field measurements indicate available sight distance along Canco Road in excess of 750 feet both north and south of the north driveway (near Granite Heights). At the south driveway distance to the south exceeds 750 feet, and to the north is limited to 525 feet by the crest vertical curve near Granite Heights. These sight distances are adequate for speeds in excess of 50 MPH for low and medium volume driveway sight distance guidelines. The posted speed limit on Canco Road is 40 MPH.

Summary of Findings

The proposed Holiday Retirement Village is projected to generate 38 PM peak hour vehicle trips in Phase 1 of the development (1998) and an additional 37 vehicle trips in Phase 2 (2000) for a total PM peak hour traffic generation of 75 vehicle trips. Analysis of the operation of the intersection of Washington Avenue @ Canco/Ray/Lawrence indicates that the additional PM peak hour traffic generated by both phases of the proposed development will have a minimal impact on the Level of Service at the intersection during peak seasonal traffic flow periods. It should be noted that the intersection is currently handling a very large volume of traffic, and significant delays are incurred on several of the approaches to the intersection. The intersections of the proposed site driveways and Canco Road are projected to operate at a satisfactory level of service for both Phases 1 and 2. An investigation of the accident history in the vicinity of the site indicates that there is one High Accident Location in the area - the intersection of Canco Road @ Read Street. Of the 12 accidents occurring at this location, 9 occurred in 1996, representing a major increase in frequency. Detailed analysis of the accidents indicated that the majority (8) occur when pavement conditions are poor. Those not related to pavement condition do not evidence any pattern that would identify any inherent deficiency. Monitoring of the intersection is recommended. Sight distance for vehicles exiting the access driveways on Canco Road is more than adequate for the posted speed limit of 40 MPH.

CITY OF PORTLAND, MAINE
DEVELOPMENT REVIEW APPLICATION
PLANNING DEPARTMENT PROCESSING FORM

19970097
I. D. Number

tland Retirement Residence
Applicant

11/6/97
Application Date

, Portland, ME
Applicant's Mailing Address

Holiday Retirement Village
Project Name/Description

Owens/Sebago Tech
Consultant/Agent

217- 283 Canco Rd
Address of Proposed Site

856-0277 856-2206
Applicant or Agent Daytime Telephone, Fax

149-B-001
Assessor's Reference: Chart-Block-Lot

Proposed Development (check all that apply): ☒ New Building ☐ Building Addition ☐ Change Of Use ☒ Residential
☐ Office ☐ Retail ☐ Manufacturing ☐ Warehouse/Distribution ☐ Parking Lot ☐ Other (specify)

Proposed Building square Feet or # of Units

Approx 20 Acres
Acreage of Site

R-5A Conditional
Zoning

Check Review Required:

☒ Site Plan (major/minor)
☐ Subdivision # of lots
☐ PAD Review
☐ 14-403 Streets Review
☐ Flood Hazard
☐ Shoreland
☐ HistoricPreservation
☐ DEP Local Certification
☐ Zoning Conditional Use (ZBA/PB)
☐ Zoning Variance
☐ Other

Fees Paid: Site Plan $300.00 Subdivision Engineer Revie $1,152.00 Date: 11/6/97

DRC Approval Status:

Reviewer Jim Wendel

☐ Approved
☒ Approved w/Conditions see attache
☐ Denied

Approval Date 3/10/98 Approval Expiration 3/10/99 Extension to ☒ Additional Sheets Attached

☒ Condition Compliance Jim Wendel (signature) 7/1/98 (date)

Performance Guarantee ☒ Required* ☐ Not Required

* No building permit may be issued until a performance guarantee has been submitted as indicated below

☒ Performance Guarantee Accepted	7/1/98 (date)	$705,343.00 (amount)	6/25/99 (expiration date)
☒ Inspection Fee Paid	(date)	$5,750.00 (amount)	
☐ Building Permit	(date)		
☐ Performance Guarantee Reduced	(date)	(remaining balance)	(signature)
☐ Temporary Certificate Of Occupancy	(date)	☐ Conditions (See Attached)	
☐ Final Inspection	(date)	(signature)	
☐ Certificate Of Occupancy	(date)		
☐ Performance Guarantee Released	(date)	(signature)	
☐ Defect Guarantee Submitted	(submitted date)	(amount)	(expiration date)
☐ Defect Guarantee Released	(date)	(signature)	

CITY OF PORTLAND, MAINE
DEVELOPMENT REVIEW APPLICATION
PLANNING DEPARTMENT PROCESSING FORM

19970097
I. D. Number

rtland Retirement Residence
Applicant

11/6/97
Application Date

, Portland, ME
Applicant's Mailing Address

Holiday Retirement Village
Project Name/Description

Owens/Sebago Tech
Consultant/Agent

217- 283 Canco Rd
Address of Proposed Site

856-0277 **856-2206**
Applicant or Agent Daytime Telephone, Fax

149-B-001
Assessor's Reference: Chart-Block-Lot

Proposed Development (check all that apply): ☒ New Building ☐ Building Addition ☐ Change Of Use ☒ Residential
☐ Office ☐ Retail ☐ Manufacturing ☐ Warehouse/Distribution ☐ Parking Lot ☐ Other (specify)

	Approx 20 Acres	**R-5A Conditional/ROS**
Proposed Building square Feet or # of Units	Acreage of Site	Zoning

Check Review Required:

☒ Site Plan (major/minor)
☐ Subdivision # of lots ____
☐ PAD Review
☐ 14-403 Streets Review
☐ Flood Hazard
☐ Shoreland
☐ HistoricPreservation
☐ DEP Local Certification
☐ Zoning Conditional Use (ZBA/PB)
☐ Zoning Variance
☐ Other ____

Fees Paid: Site Plan **$300.00** Subdivision ____ Engineer Review **$1,152.00** Date: **11/6/97**

Inspections Approval Status:

Reviewer **Marge Schmuckal**

☐ **Approved**
☒ **Approved w/Conditions** see attached
☐ **Denied**

Approval Date **7/7/98** Approval Expiration ____ Extension to ____ ☒ Additional Sheets Attached

☒ Condition Compliance ____ (signature) ____ (date) ____

Performance Guarantee ☒ **Required*** ☐ **Not Required**

* No building permit may be issued until a performance guarantee has been submitted as indicated below

☒ Performance Guarantee Accepted	**7/1/98** (date)	**$705,343.00** (amount)	**6/25/99** (expiration date)
☒ Inspection Fee Paid	____ (date)	**$5,750.00** (amount)	
☐ Building Permit Issued	____ (date)		
☐ Performance Guarantee Reduced	____ (date)	____ (remaining balance)	____ (signature)
☐ Temporary Certificate of Occupancy	____ (date)	☐ Conditions (See Attached)	
☐ Final Inspection	____ (date)	____ (signature)	
☐ Certificate Of Occupancy	____ (date)		
☐ Performance Guarantee Released	____ (date)	____ (signature)	
☐ Defect Guarantee Submitted	____ (submitted date)	____ (amount)	____ (expiration date)
☐ Defect Guarantee Released			

CITY OF PORTLAND, MAINE
DEVELOPMENT REVIEW APPLICATION
PLANNING DEPARTMENT PROCESSING FORM

19970097
I. D. Number

tland Retirement Residence
Applicant

11/6/97
Application Date

, Portland, ME
Applicant's Mailing Address

Holiday Retirement Village
Project Name/Description

Owens/Sebago Tech
Consultant/Agent

217- 283 Canco Rd
Address of Proposed Site

856-0277 856-2206
Applicant or Agent Daytime Telephone, Fax

149-B-001
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Proposed Development (check all that apply): ☒ New Building ☐ Building Addition ☐ Change Of Use ☒ Residential
☐ Office ☐ Retail ☐ Manufacturing ☐ Warehouse/Distribution ☐ Parking Lot ☐ Other (specify)

Proposed Building square Feet or # of Units

Approx 20 Acres
Acreage of Site

R-5A Conditional
Zoning

Check Review Required:

☒ Site Plan (major/minor)
☐ Subdivision # of lots
☐ PAD Review
☐ 14-403 Streets Review
☐ Flood Hazard
☐ Shoreland
☐ HistoricPreservation
☐ DEP Local Certification
☐ Zoning Conditional Use (ZBA/PB)
☐ Zoning Variance
☐ Other

Fees Paid: Site Plan $300.00 Subdivisio Engineer Review $1,152.00 Date 11/6/97

Planning Approval Status:

Reviewer Kandice Talbot

☐ **Approved**
☒ **Approved w/Conditions** See Attached
☐ **Denied**

Approval Date 3/10/98 Approval Expiration 3/10/99 Extension to ☒ Additional Sheets Attached

☒ OK to Issue Building Permi Kandice Talbot (signature) 7/1/98 (date)

Performance Guarantee ☒ **Required*** ☐ **Not Required**

* No building permit may be issued until a performance guarantee has been submitted as indicated below

☒ Performance Guarantee Accepted	7/1/98 (date)	$705,343.00 (amount)	6/25/99 (expiration date)
☒ Inspection Fee Paid	(date)	$5,750.00 (amount)	
☐ Building Permit Issue	(date)		
☐ Performance Guarantee Reduced	(date)	(remaining balance)	(signature)
☐ Temporary Certificate of Occupancy	(date)	☐ Conditions (See Attached)	
☐ Final Inspection	(date)	(signature)	
☐ Certificate Of Occupancy	(date)		
☐ Performance Guarantee Released	(date)	(signature)	
☐ Defect Guarantee Submitted	(submitted date)	(amount)	(expiration date)
☐ Defect Guarantee Released	(date)	(signature)	

CITY OF PORTLAND, MAINE
DEVELOPMENT REVIEW APPLICATION
PLANNING DEPARTMENT PROCESSING FORM

I. D. Number

Portland Retirement Residence
Applicant

, . .rtland, ME
Applicant's Mailing Address

Owens/Sebago Tech
Consultant/Agent

856-0277 **856-2206**
Applicant or Agent Daytime Telephone, Fax

11/6/97
Application Date

Holiday Retirement Village
Project Name/Description

217- 283 Canco Rd
Address of Proposed Site

149-B-001
Assessor's Reference: Chart-Block-Lot

Proposed Development (check all that apply): ☐ New Building ☐ Building Addition ☐ Change Of Use ☐ Residential
☐ Office ☐ Retail ☐ Manufacturing ☐ Warehouse/Distribution ☐ Parking Lot ☐ Other (specify)

Proposed Building square Feet or # of Units | **Approx 20 Acres** Acreage of Site | Zoning

Check Review Required:

☒ Site Plan (major/minor) ☐ Subdivision # of lots ☐ PAD Review ☐ 14-403 Streets Review
☐ Flood Hazard ☐ Shoreland ☐ HistoricPreservation ☐ DEP Local Certification
☐ Zoning Conditional Use (ZBA/PB) ☐ Zoning Variance ☐ Other

Fees Paid: Site Plan **$300.00** Subdivision Engineer Review Date: **11/6/97**

Fire Approval Status: Reviewer **Lt. Mc Dougall**

☐ **Approved** ☒ **Approved w/Conditions** see attached ☐ **Denied**

,pproval Date **11/5/97** Approval Expiration Extension to ☒ Additional Sheets Attached

☒ Condition Compliance **lt. Mc Dougall** signature **11/5/97** date

Performance Guarantee ☐ **Required*** ☐ **Not Required**

* No building permit may be issued until a performance guarantee has been submitted as indicated below

☐ Performance Guarantee Accepted	date	amount	expiration date
☐ Inspection Fee Paid	date	amount	
☐ Building Permit Issued	date		
☐ Performance Guarantee Reduced	date	remaining balance	signature
☐ Temporary Certificate of Occupancy	date	☐ Conditions (See Attached)	
☐ Final Inspection	date	signature	
☐ Certificate of Occupancy	date		
☐ Performance Guarantee Released	date	signature	
☐ Defect Guarantee Submitted	submitted date	amount	expiration date
☐ Defect Guarantee Released	date	signature	

CITY OF PORTLAND, MAINE
DEVELOPMENT REVIEW APPLICATION
PLANNING DEPARTMENT PROCESSING FORM
ADDENDUM

19970097
I. D. Number

Portland Retirement Residence
Applicant

11/6/97
Application Date

, Portland, ME
Applicant's Mailing Address

Holiday Retirement Village
Project Name/Description

Owens/Sebago Tech
Consultant/Agent

217- 283 Canco Rd
Address of Proposed Site

856-0277 856-2206
Applicant or Agent Daytime Telephone, Fax

149-B-001
Assessor's Reference: Chart-Block-Lot

DRC Conditions of Approval

- that the Development Review Coordinator's comments be addressed relating to book and page for easements, access door, emergency wier, and length of level lip spreaders, the confirmation of state permits not required and documentation of treatment pond calculations and maintenance

Planning Conditions of Approval

- that the applicant provide a revised deed for public access, in a form acceptable to the City's Corporation Counsel recognizing the existence of the Portland Trails trail.
- that the remaining sidewalk and granite curb be installed at such time that the abutting property be developed or at the time that Phase II is developed or within five (5) years, whichever is first.
- replacement of two (2) catch basins in Canco Road, located across from the south-westerly site boundary, and replacement of the existing cross culvert connecting these basins with a pipe of appropriate size and avoiding conflict with the existing sanitary sewer manhole.
- replacement of the outfall pipe which drains these two catch basins and directs runoff towards the existing swale located on the southwesterly abutting property.

Inspections Conditions of Approval

1. Any revisions to layout, shall require an amendment.
2, Exterior Signage requires a separate permit.

Fire Conditions of Approval

Applicant must have state fire marshall approval
hydt shall comply with the portland water district and city of portland standards

Inspection Services
P. Samuel Hoffses

Planning and Urban Development
Joseph E. Gray Jr.
Director

CITY OF PORTLAND

JuLy 8, 1998

Curry Brandaw Architects
2260 McGilchrist St. SE,Ste # 100
Salem,OR 97302

Re: Portland Retirement Residence

Dear Sir:

Your building application to construct a Retirement Complex, has been reviewed and a building permit is herewith issued subject to the following requirements. This permit does not excuse the applicant from meeting applicable State and Federal rules and regulations.

1. All site plan requirements must be completed before a Certificate of Occupancy can or will be issued.
2. This permit does not preclude the applicant (s) from obtaining plumbing and electrical permits.
3. A list of all sub-contractors with their address and telephone numbers shall be supplied to this office as soon as possible.
4. Special Inspection shall be done in accordance with section 1705.0 of the city's building code. (The BOCA National Building Code /1996).
5. The proposed Atrium shall be constructed in accordance with section 404.0 of the building code.
6. Class C roof covering is the minimum allowed.
7. Structural loads must designed to the BOCA National Building Code/1996.
8. All wood construction shall be done in accordance with Chapter 23 of the building code.
9. All wood fastening shall be done in accordance with Table 2305.2.
10. Glass and glazing shall be installed and done in accordance with chapter 24 of the building code.

If you should have any questions on these requirements please call me at 207-874-8704.

Sincerely,

P.Samuel Hoffses
Inspector of Buildings

CC: Lt. McDougall PFD
M Schmuckal Zoning Adm.
J. Wendell Dev. Rev. Cor.

CITY OF PORTLAND, MAINE
PLANNING BOARD

April 10, 1998

Owens A. McCullough, P.E.
Project Manager
Sebago Technics
12 Westbrook Common
P.O. Box 1339
Westbrook, ME 04098

RE: Portland Retirement Residence

Dear Owens:

On March 10, 1998 the Portland Planning Board voted unanimously to approve the site plan and site location of development for Portland Retirement Residence at 219 Canco Road. The approval was granted for the project with the following conditions:

i. that the applicant provide a revised deed for public access, in a form acceptable to the City's Corporation Counsel recognizing the existence of the Portland Trails trail.

ii. that the remaining sidewalk and granite curb be installed at such time that the abutting property be developed or at the time that Phase II is developed or within five (5) years, whichever is first.

iii. replacement of two (2) catch basins in Canco road, located across from the southwesterly site boundary, and replacement of the existing cross culvert connecting these basins with a pipe of appropriate size and avoiding conflict with the existing sanitary sewer manhole.

iv. replacement of the outfall pipe which drains these two catch basins and directs runoff towards the existing swale located on the southwesterly abutting property.

v. that the Development Review Coordinator's comments be addressed relating to book and page for easements, access door, emergency wier, and length of level lip spreaders, the confirmation of state permits not required and documentation of treatment pond calculations and maintenance plan.

The approval is based on the submitted site plan and the findings related to site plan review standards as contained in Planning Report #3-98, which is attached.

1-19-8-98

Please note the following provisions and requirements for all site plan approvals:

1. A performance guarantee covering the site improvements as well as an inspection fee payment of 1.7% of the guarantee amount and 7 final sets of plans must be submitted to and approved by the Planning Division and Public Works prior to the release of the building permit. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.

2. The site plan approval will be deemed to have expired unless work in the development has commenced within one (1) year of the approval or within a time period agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the expiration date.

3. A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

4. Prior to construction, a preconstruction meeting shall be held at the project site with the contractor, development review coordinator, Public Work's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the preconstruction meeting.

5. If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

The Development Review Coordinator (874-8300 ext. 8722) must be notified five (5) working days prior to date required for final site inspection. Please make allowances for completion of site plan requirements determined to be incomplete or defective during the inspection. This is essential as all site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact the Planning Staff.

Sincerely,

John Carroll, Chair
Portland Planning Board

cc: Joseph E. Gray, Jr., Director of Planning and Urban Development
Alexander Jaegerman, Chief Planner
Kandice Talbot, Planner
P. Samuel Hoffses, Building Inspector
Marge Schmuckal, Zoning Administrator
Tony Lombardo, Project Engineer
Development Review Coordinator
William Bray, Deputy Director of Public Works

DELUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207 775 1121
FAX 207 879 0896

- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- TRAFFIC STUDIES AND MANAGEMENT
- PERMITTING
- AIRPORT ENGINEERING
- SITE PLANNING
- CONSTRUCTION ADMINISTRATION

MEMORANDUM

TO: Code Enforcement
Kandi Talbot, Planner

FROM: Eric Barnes, DeLuca-Hoffman Associates, Inc.
Jim Wendel, PE, Development Review Coordinator

DATE: July 29, 1999

RE: Certificate of Occupancy
Portland Retirement (219 Canco Road)

On July 29, 1999 the site was reviewed for compliance with the conditions of approval dated March 10, 1998. Terry Johnson of Colson & Colson and several members of Public Works were met on site. My comments are:

1. No comments. The private portion of the work done has been satisfactorily completed in accordance with the approved site plan.

2. Public Works has some outstanding issues. They will be issuing a memo outlining these various issues.

It is my opinion that **a temporary certificate of occupancy could be issued** assuming Code Enforcement has no outstanding issues. The performance guarantee is still in effect to assure the completion of this work.

JN 1354.08 / Disk 13 / Portland Retirement

#98-0240
149-B-001

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NRTL

(NATIONALLY RECOGNIZED TESTING LABORATORY)

ETL GUARANTEES LOCAL ACCEPTANCE OF ANY PRODUCT CARRYING THE ETL LABEL THROUGHOUT THE UNITED STATES

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ETL Testing Laboratories

R. Scott Wilson
Sales Manager - Southeast

ETL Testing Laboratories, Inc.
4317-A Park Drive, N.W.
Norcross, GA 30093-2968
Telephone (404) 925-2444
Fax (404) 925-7294

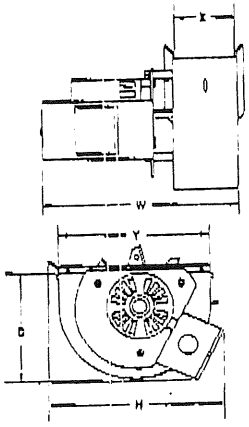
Received
22 APR 99

FIELDCONTROLS
THE VENTING SOLUTIONS COMPANY

Draft Inducers

SPECIFICATIONS

GAS FIRING WITH DRAFT HOOD					GAS FIRING WITH BAROMETRIC DRAFT CONTROL					OIL OR COAL FIRING WITH BAROMETRIC DRAFT CONTROL				
INPUT (BTU/HR)	PIPE DIA. (IN)	DRAFT INDUCER (MODEL)	STATIC PRESSURE (IN W.C.)	FLOW (CFM)	INPUT (BTU/HR)	PIPE DIA. (IN)	DRAFT INDUCER (MODEL)	STATIC PRESSURE (IN W.C.)	FLOW (CFM)	INPUT (BTU/HR)	PIPE DIA. (IN)	DRAFT INDUCER (MODEL)	STATIC PRESSURE (IN W.C.)	FLOW (CFM)
69,000	3	DI-1	.04	47	69,000	3	DI-1	.05	66	72,000	3	DI-1	.05	66
105,000	4		.04	72	105,000	4		.05	55	96,000	4		.05	48
111,000	5		.06	75	118,000	6		.06	65	97,000	5		.05	57
120,000	6		.05	82	128,000	6		.05	72	135,000	6		.05	66
279,000	5	DI-2	.06	190	300,000	5	DI-2	.07	155	270,000	5	DI-2	.06	155
308,000	6		.07	210	340,000	6		.08	176	360,000	6		.07	175
330,000	7		.11	225	364,000	7		.09	189	400,000	7		.08	200
355,000	8		.07	240	390,000	8		.08	200	430,000	8		.05	215
522,000	8	DI-3	.18	355	585,000	8	DI-3	.15	355	710,000	8	DI-3	.18	355
574,000	9		.15	458	660,000	9		.13	458	916,000	9		.11	458
694,000	10		.12	472	906,000	10		.10	472	944,000	10		.09	472
835,000	12		.08	568	1,092,000	12		.06	568	1,136,000	12		.06	568
900,000	10	DI-4	.18	612	1,177,000	10	DI-4	.15	612	1,224,000	10	DI-4	.13	612
1,250,000	12		.20	850	1,635,000	12		.17	850	1,700,000	12		.14	850
1,400,000	14		.19	952	1,831,000	14		.16	952	1,900,000	14		.13	952
1,800,000	16		.15	1,224	2,300,000	16		.13	1,224	2,448,000	16		.10	1,224
1,800,000	14	DI-5	.14	1,224	2,350,000	14	DI-5	.12	1,224	2,450,000	14	DI-5	.10	1,224
2,200,000	16		.18	1,500	2,885,000	16		.15	1,500	3,000,000	16		.13	1,500
2,400,000	18		.10	1,632	3,140,000	18		.09	1,632	3,260,000	18		.07	1,632
2,800,000	20		.09	1,900	3,654,000	20		.08	1,900	3,800,000	20		.06	1,900



UNIT DIMENSIONS (INCHES)						ELECTRICAL DATA					
MODELS	(L) LENGTH	(W) WIDTH	(D) DEPTH	X	Y	VOLTS	Hz	RPM	WATTS	AMPS	THERM. PROT.
DI-1	8 3/32	8 13/16	5 17/32	2 5/8	7	115	60	1550	93	.43	YES
DI-2	9 7/16	9 3/16	6 7/16	3	8 3/8	115	60	1550	78	1.1	YES
DI-3	12 9/16	10 1/8	9	3 3/4	11 3/4	115	60	1750	186	3.9	YES
DI-4	12 9/16	14 3/16	9	7	11 3/4	115	60	1750	440	5.0	YES
DI-5	12 9/16	16 3/16	9	9	11 3/4	115	60	1725	560	5.7	YES

The Field Controls Company...Your Number One Draft Choice

Draft Controls • Draft Inducers • Power Venters • Air Boosters

The Field Controls Company
2308 Airport Road Kinston, NC 28501
(919) 522-3031 FAX (919) 522-0214

Printed in U.S.A. (1996)
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The Proven Performers from Field

A Field Draft Inducer is a problem solver and a proven performer. It solves the drafting problems caused by short chimneys, undersized flue pipes and negative building pressures, to name just a few. And it does it economically and reliably.

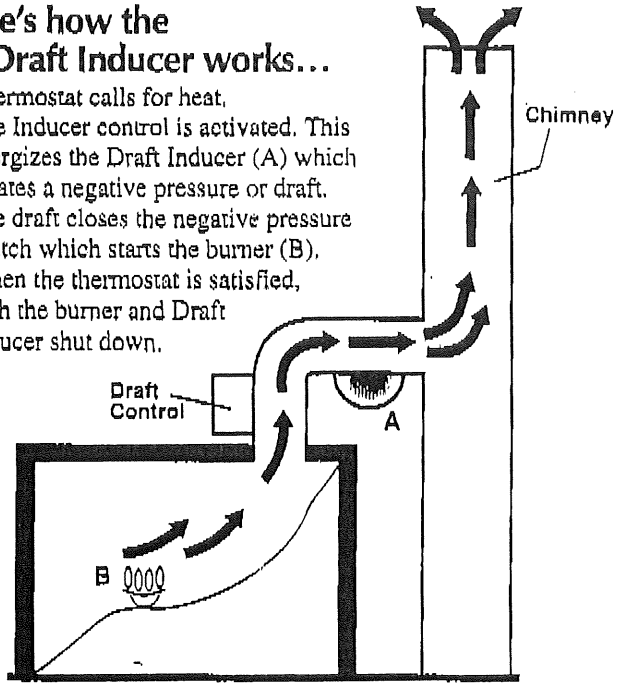
Field Draft Inducers are designed for easy installation in a wide variety of applications, including oil or gas fired furnaces, water heaters and boilers.

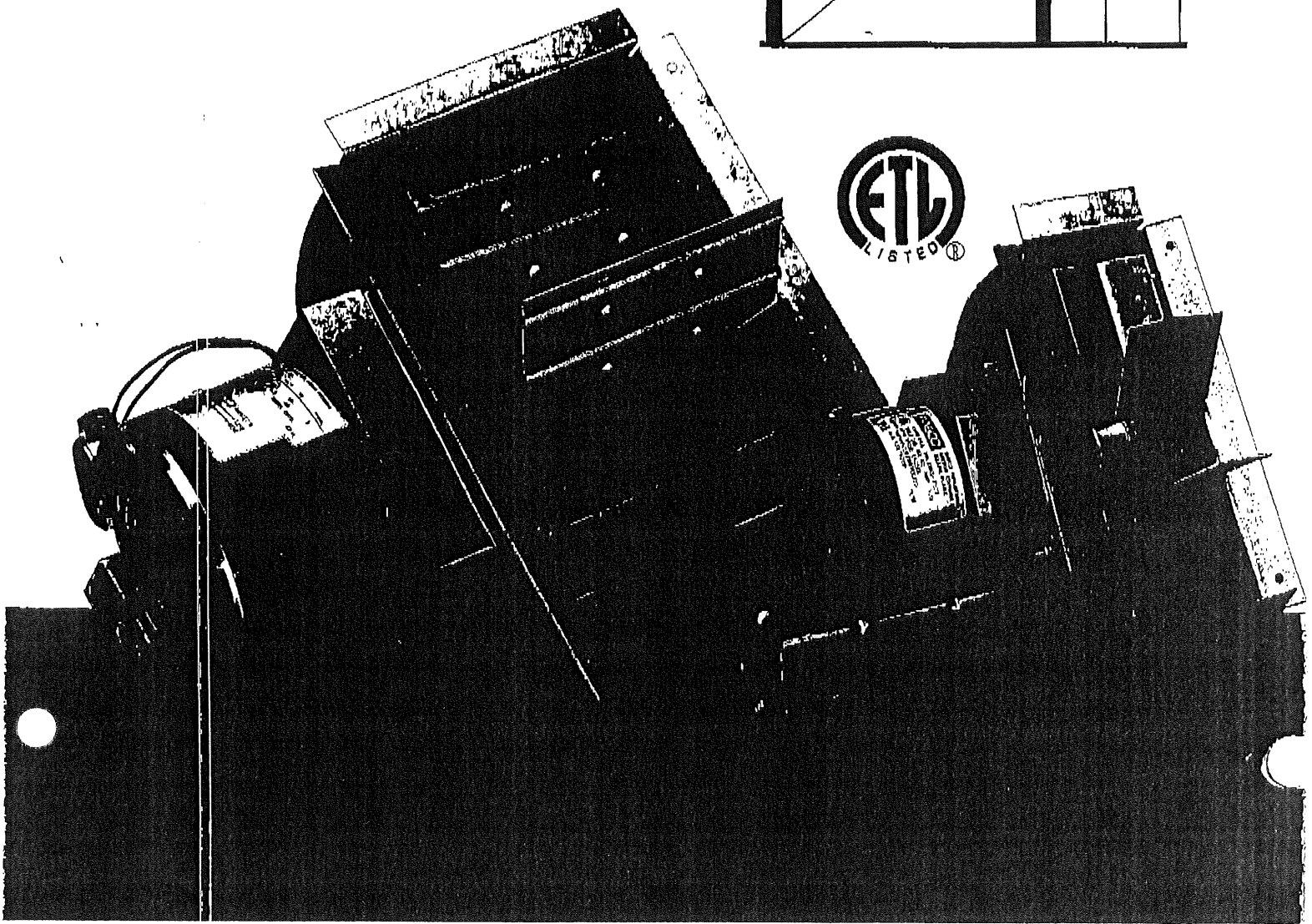
Heavy-duty construction assures you of years of trouble-free operation and satisfied customers. So when you need to solve a draft problem and you want to do it right the first time, specify a Field Draft Inducer.

Field... your venting solutions company.

Here's how the DI Draft Inducer works...

1. Thermostat calls for heat.
2. The Inducer control is activated. This energizes the Draft Inducer (A) which creates a negative pressure or draft.
3. The draft closes the negative pressure switch which starts the burner (B).
4. When the thermostat is satisfied, both the burner and Draft Inducer shut down.



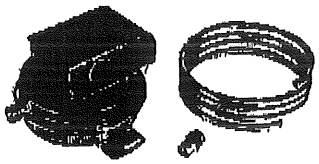


Draft Inducer Operating Controls

All accessories are ETL approved.

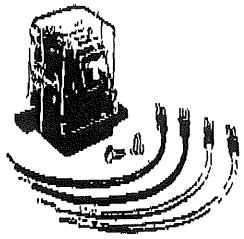
DIP-1 Fan Control

The DIP-1 Fan Control prevents burner operation in the absence of adequate draft by sensing negative pressure in the fan housing.



Relay Kits

RJR-5. This kit is for 24 volt systems and comes complete with relay base and see-through enclosure. RJR-6. For 120 volt control systems. Relay base and see-through enclosure included.



Water Heater Kit

HWK. This kit is for millivolt operated gas valves. It has a pressure switch to operate the draft inducer when the burner fires. Includes two GSK-3 spillage switches and a fixed post purge control.

CK Series Control Kit Options.

Gas Fired Systems

CK-20F	Millivolt, Gas Fired Water Heater Control Kit, Fixed Post Purge Timer.
CK-21	Millivolt, Gas Fired Wall Mounted Instantaneous Water Heater Control Kit.
CK-41	24 VAC, Gas Fired Control Kit.
CK-43	24 VAC, Gas Draft Induced Control Kit with Adjustable Post Purge Control.
CK-43F	24 VAC, Gas Draft Induced Control Kit with Fixed Post Purge Control.
CK-44F	24 VAC, Gas Fired Control Kit with Fixed Post Purge Control.
CK-81	750 Millivolt, Gas Fired Appliances operating with a 24 AC Voltage Thermostat or ON/OFF Switch.
CK-91	24 VAC, Gas Draft Induced Furnace and Millivolt Water Heater Control Kit with Adjustable Post Purge Control.
CK-91F	24 VAC, Gas Draft Induced Furnace and Millivolt Water Heater Control Kit with Fixed Post Purge Control.
CK-92F	24 VAC Gas Fired and Millivolt Water Heater Control Kit with Fixed Post Purge Control.

Typical System Components

Gas Fired 24 VAC Systems

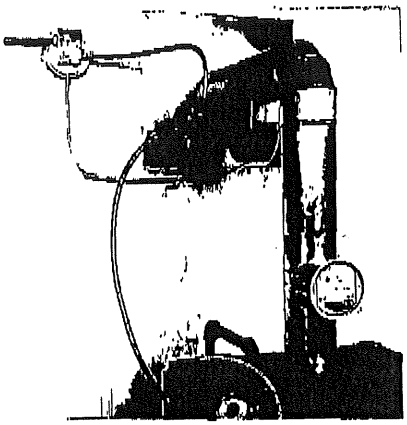
1 DI Draft Inducer
1 DIP-1 Fan Control
1 RJR-5 Relay Kit
1 GSK-3 Spill Switch (optional)
OR
1 DI Draft Inducer
1 CK-41 24 VAC Gas Fired Control Kit

Oil Fired Systems

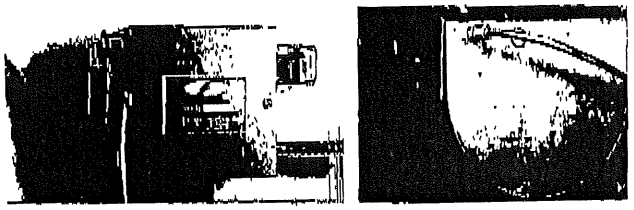
1 DI Draft Inducer
1 DIP-1 Fan Control
1 RJR-6 Relay Kit
1 WMO Secondary Safety Switch (optional)
OR
1 DI Draft Inducer
1 CK-61 120 VAC, Oil Fired Control Kit /with Electronic Post Purge

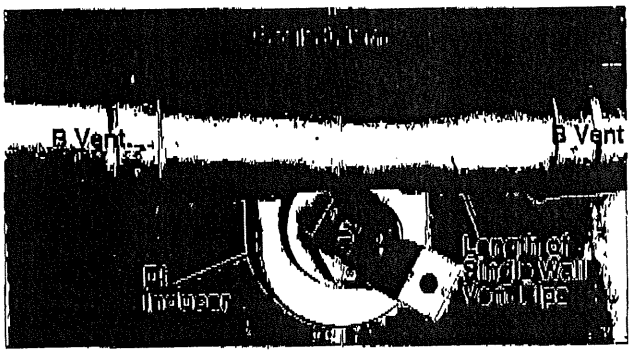
Applications

(At Right)
Draft Inducers installed with DIP-1 switch or standard controls.



(Below)
CK kit installation. Allows more flexibility in choice of location and simplifies installation.





ETL approved method for mounting with B-vent systems.

ETL IS A VIABLE ALTERNATIVE TO UL

ETL Testing Laboratories, Inc. is recognized throughout the United States as a viable alternative to Underwriters Laboratories. The ETL safety label is accepted as being equal to that of Underwriters Laboratories when denoting compliance with nationally recognized Underwriters Laboratories (UL), American National Standards Institute (ANSI) or International Electrotechnical Commission (IEC) standards in a labeling, listing and follow-up program.

ETL, originally organized by the Edison Illuminating Companies, has been conducting performance and reliability tests since 1896. In 1977, we initiated our product safety testing program upon the request of various HVAC manufacturers. Today, after an intensive campaign requiring negotations with more than 1500 civic entities ranging from small cities to entire states, the ETL safety label is a nationally recognized alternative to that offered by Underwriters Laboratories for electrical products, building materials and systems, and gas and oil-fired products. ETL is also an alternative to American Gas Association (AGA) for gas-fired products.

At the present time, ETL is not aware of any jurisdiction in the United States which does not recognize and accept our safety label. Many individual states and municipalities have sent us written confirmation of their acceptance. We have also been evaluated and listed as a nationally recognized laboratory by the major regional building code agencies: Building Officials and Code Administrators International (BOCA) (Northeast U.S.), International Conference of Building Officials (ICBO) (Western U.S.) and Southern Building Code Congress International, Inc. (SBCCI) (Southeast U.S.).

These agencies establish building codes and standards which many municipalities and states adopt as their own code. For example, ICBO is responsible for the Uniform Building Code which is widely used west of the Mississippi River. Since we are recognized by the building code agencies, the civic entities which adopt their codes, accept our testing results.

The Federal Government's Occupational Safety and Health Administration (OSHA) has also designated ETL Testing Laboratories, Inc. as a Nationally Recognized Testing Laboratory under its NRTL Program. ETL received NRTL status to test to over 160 safety and performance standards applicable to workplace related products. This designation re-enforces ETL's acceptance nationwide as an alternative to UL and AGA laboratories.

In addition, mass merchandising and retail establishments such as Sears, J.C. Penney and K-Mart recognize our safety label as equivalent to UL. Sears has sent a newsletter to all their vendors and suppliers notifying them of the acceptance of our safety label. Major corporations such as IBM, Pepsi Cola, McDonalds, and Wang have amended their corporate policies to include ETL.

The efforts required to achieve national parity with UL were long and tedious. In a few cases, ETL had to utilize legal procedures to become accredited. In New York State, our district congressman and assemblyman initiated an amendment to the state law which had previously stipulated UL only. In the state of Oregon, our legal department successfully approached the State Attorney General to qualify the ETL listed equipment of one of our clients who would have lost an order due to the "UL" requirement in the request for quotation of a state procurement division. Civic entities are required to recognize ETL due to the "Restraint of Trade" conditions of the Federal Clayton "Anti-Trust" Act.

ETL has a Technical Advisory Council which consists of chief electrical inspectors and electrical experts from jurisdictions and organizations throughout the country. For example, the chief electrical inspectors of Chicago, City of Los Angeles, County of Los Angeles; the Vice President of the New York Board of Fire Underwriters, and a representative from National Electrical Manufacturers Association and the Consumer Product Safety Commission as well as others participate in our annual meetings and provide policy guidance. In addition to their input, ETL is very active in the International Association of Electrical Inspectors. We regularly participate in local and sectional meetings in order to remain in close contact with them.

Reprinted with permission from Compliance Engineering magazine, March/April 1994

Nationally Recognized Testing Laboratories

by Hank Woodcock, Occupational Safety and Health Administration

On April 12, 1988, OSHA established a program to accredit "nationally recognized testing laboratories." This program is an early prototype that could serve as a model for "reinventing government," one of the new goals of the Clinton Administration. In *Reinventing Government*,[1] authors Osborne and Gaebler prescribe catalyzing non-government efforts as one of the innovative approaches for delivering services. Nationally recognized testing laboratories, or NRTLs, use just such an approach to help protect the safety of workers.

NRTLs determine that specific products meet required standards of safety for use in the workplace. These laboratories provide a vital service in OSHA's continuing effort to protect the safety of workers by performing two functions:

- testing products using nationally recognized test standards, and
- assuring that manufacturers can make products meeting specified safety requirements.

To better understand how NRTLs assist OSHA in protecting the safety of workers, it is helpful to look at how the program began and what it takes to be accredited as an NRTL.

The Beginning

Before the NRTL program, OSHA standards designated only two laboratories for certifying product safety: Underwriters Laboratories, Inc. (UL) and Factory Mutual Research Corporation (FMRC). More than 40 references to OSHA standards listed in *Title 29 of the Code of Federal Regulations (CFR), Part 1910* (General Industry), named these two organizations as the sole sources for listing, approving, accepting, labeling, and certifying products. As a result, other testing organizations complained this was preferential treatment that caused them economic hardship.

One of these laboratories filed suit. As a part of a settlement agreement with that organization (*MET Electrical Testing v. Secretary of Labor, No. Y-82-1133, D. Md.*), and after a second suit (*MET Electrical Testing v. Secretary of Labor, No. Y-87-1480, D. Md.*), OSHA developed a regulation for testing labs which established the NRTL program.[2] This regulation substituted "NRTL" for "UL" and "FMRC" in 29 CFR 1910, defined NRTL requirements, and described how a laboratory can be accredited as an NRTL.

Accreditation

To become accredited as an NRTL, a laboratory must be independent and capable of determining conformance with the appropriate test standards for safety.

Only certain test standards apply to the NRTL program. Generally, the NRTL certification program covers electrical conductors and equipment (Subpart S), liquefied petroleum gas appliances, fire detection and extinguishing systems, and acetylene apparatus[3].

Each applicant for status as an NRTL must list the test standards that it intends to use, and then OSHA evaluates the laboratory's capabilities based on this list and by an on-site visit by an assessment team. OSHA is very fortunate to have the support of the Mine Safety and Health Administration (MSHA) to help conduct these detailed assessment. This cooperative effort is another example of reinventing government because it uses existing government talent and resources for new endeavors and solutions.

As a part of the accreditation process, the assessment team visits the applicant laboratory to verify its capabilities, including facilities, test equipment, calibration program, product handling procedures, product evaluation procedures, test procedures, technical reports, technical records, test standards, quality assurance program, internal audits, follow-up program for manufacturers, personnel programs, and other procedures for producing credible findings and objective, unbiased reports.

To qualify as an NRTL, an organization must be independent of manufacturers, suppliers, and vendors of the products it seeks to certify. It also must be independent of employers. If complaints are brought concerning a product or if a dispute arises concerning the findings of such a complaint, an NRTL has to have procedures for resolving them. Additional procedures are required for the NRTL to identify its certified products and to ensure the proper use of its identifying mark or label on products.

An NRTL does more than just test products. One key feature distinguishes an NRTL from a "test house." An NRTL has to evaluate products during production so that they conform with test standards. In other words, an NRTL must be qualified both to test products and to certify products. An NRTL also performs initial and recurring visits to each manufacturer who uses its certification service to provide some assurance to the employer and employee that the manufacturing processes will continue to produce safe products.

After reviewing a laboratory's application and capabilities, OSHA makes a preliminary decision to grant or deny the application. This decision is published in the *Federal Register* for comment. After the comment period, the validity of any comments received is evaluated. These evaluations are used to help determine whether the applicant has met the criteria for accreditation. Upon approval, a final announcement is published in the *Federal Register* outlining the scope of the accreditation and any conditions that apply to the newly recognized NRTL.

Each accreditation is for 5 years. During that time, OSHA continually watches over the NRTL to assess its conformance with the terms of recognition. OSHA and the NRTL work together to resolve any discrepancies or problems that may occur. Unresolved issues could result in the withdrawal of NRTL status.

Currently, there are nine recognized NRTLs:

- MET Laboratories, Inc.
- Dash, Straus and Goodhue, Inc.
- ETL Testing Laboratories, Inc.
- American Gas Association Labs, Inc.
- Communication Certification Labs
- Canadian Standards Association
- United States Testing Company Inc., California Division

OSHA recognized both UL and FMRC in 1988 for 5 years ending in 1993 and is currently assessing them for continued accreditation.

Note that one of the laboratories listed, the Canadian Standards Association, is outside the United States. The NRTL program takes into account the global nature of manufacturing and certification. Foreign laboratories may apply for NRTL status, and as a prerequisite to OSHA review for accreditation, the foreign country must be open to business from U.S. laboratories.

Because product certification seems to be a growth industry throughout the world, the list of NRTLs most likely will continue to grow over time. To date, 15 additional laboratories have applied for NRTL accreditation for one or more of the appropriate test standards.

NRTL status is becoming a benchmark of excellence for U.S. testing laboratories and appears to have helped some organizations achieve international recognition, although NRTL accreditation is limited to certain test standards.

Accrediting NRTLs to perform safety testing and certification allows OSHA to govern an effort that extends far beyond its potential to provide these services singlehandedly. That is the essence of reinvention. In this instance, empowering the private sector provides an outcome in total harmony with OSHA's mission to protect workers.

For more information about the NRTL program, or if you are aware of an unsafe product within the scope of the NRTL, contact the NRTL Recognition Program, U.S. Department of Labor, Occupational Safety and Health Administration, 200 Constitution Avenue, N.W., Room N-3653, Washington, DC 20210; phone (202) 219-7193 and fax (202) 219-9068.

Reprinted from Job Safety and Health Quarterly, the magazine of the Occupational Safety and Health Administration.

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[1] David Osborne and Ted Gaebler, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector* (New York: Penguin Books USA, Inc. (1993), 405 pp.

[2] See 29 CFR 1910.7(b)(4)(ii) for the OSHA regulation in its entirety.

[3] For a complete list of items requiring NRTL certification, see OSHA Instruction PUB 8-1.9, *Nationally Recognized Testing Laboratories (NRTL) Accreditation Program (29 CFR 1910.87), September 10, 1991*. This document may be obtained from the OSHA Publications Office, 200 Constitution Avenue, N.W., Room N-3101, Washington, DC 20210 (telephone (202) 219-4667; fax (202) 219-9266).

ATTN: Scott

Same. Difference.

When your future is riding on the timely release of a new or improved product, it's good to know you can obtain widely accepted safety listings from two independent sources.

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You'll find us refreshingly responsive, accessible, and sensitive to your needs. If your product falls short of meeting a standard, ETL will notify you quickly to avoid unnecessary delays. Once you make the necessary product changes, ETL resumes the process right where it stopped. As a world leader in performance testing, ETL can also handle your QC, R&D, and Vendor Qualification testing — a single-source capability that saves you time and money.

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FAX COVER SHEET

TO: Ralph Blake P&H

ATTENTION: Freddy

FROM: Scott

DATE: 4/14/99

NUMBER OF PAGES INCLUDING COVER: 8

REGARDING: Hope this is enough info. The draft inducers are ETL listed which is the same as UL listed. Following is a sheet stating they are the same. Any questions please give me a call.

BOCA®
NATIONAL BUILDING CODE/1996
PLAN REVIEW RECORD

Valuation: $4,731,000.00 Plan Review # _____

Fee: $23,680.00 Date: 6 June 98

JURISDICTION Portland Cumberland Me.
(City, County, Township, etc.)

BUILDING LOCATION Canco RD. PTLD. Me.
(Street address)

BUILDING DESCRIPTION Retirement Residence Use Group R-2 Type 5A Entire building Fully Fire Sprinklered (NFPA13)

REVIEWED BY S. Hoffses

Numerals indicated in parenthesis are applicable code sections of the 1996 *BOCA National Building Code*. The organization of this Plan Review Record follows the common Building Code format first implemented in the 1993 *BOCA National Building Code*. The plan review accomplished as indicated in this record is limited to those code sections specifically identified herein. This record references commonly applicable code sections. It does not reference all code provisions which may be applicable to specific buildings. This record is designed to be used only by those who are knowledgeable and capable of exercising competent judgement in evaluating construction documents for code compliance.

CORRECTION LIST

No.	DESCRIPTION	Code Section
1.	All Site Plan requirements must be met (completed) before a Certificate of occupancy can or will be issued –	111.0
2.	A list of Sub-contractor with address/and Telephone numbers must be submitted To me as soon as possible MR. Sam Hoffses Chief Building Inspector RM 315 @ 389 Congress ST. PTLD. Me. 04101.	
3.	Special Inspection shall be done in accordance with Chapter 17 section 1705.0 of The bldg Code	1705.
4.	ATRIUMS - In accordance with 404.0.	404.0
5.	Roof Covering - Class C roof Covering minimum - NO wood Shingles allowed.	1507 Table
6.	Structural loads as per Table 1606 (design)	1606
7.	Snow Loads - design Section 1608.0.	1608.0
8.	Wood Construction shall meet The requirements of Chapter 23.	23
9.	Wood fastening Table 2305.2	Table 2305.2

CORRECTION LIST (cont'd.)		
No.	DESCRIPTION	Code Section
10	Glass & Glazing shall be done in accordance with Chapter 24.	2404 2405 2406 2407

NOTES: N.R. — Not required
N.A. — Not applicable

ADMINISTRATION (Chapter 1)

yes — Complete construction documents *(107.5, 107.6, 107.7)*

yes — Signed/sealed construction documents *(107.7, 114.1)*

BUILDING PLANNING (Chapters 3, 4, 5, 6)

USE OR OCCUPANCY CLASSIFICATION (302.0-313.0)

✓ — Single Use Group

N/A — Specific occupancy areas *(302.1.1)*

N/A — Mixed Use Groups

N/A — Accessory areas *(302.1.2)*
Less Than 10%

GENERAL BUILDING LIMITATIONS (Chapters 5 & 6)

Apply Case 1 to determine the allowable height and area and permitted types of construction for a building containing a single use group or nonseparated mixed use groups. Apply Case 2 to determine the allowable height and area and permitted types of construction for a building containing separated mixed use groups.

AREA MODIFICATIONS TO TABLE 503

% of Allowable tabular area *(Table 503)* — 100%

% Reduction for height *(Table 506.4)* — − 20%

% Increase for open perimeter *(506.2)* — + 150 %

% Increase for automatic sprinklers *(506.3)* — + 100 %

Total percentage factor — = 330 %

Conversion factor — (330/100%) = 3.30
(Total percentage factor/100%)

Open perimeter *(506.2)*: 345' North; ~~287~~ East; 209 East; 345 South; ~~229~~ South; 147 West

Open perim. 1046 ft. Perimeter 1046 ft.

% Open perimeter = (1046/1046 = 1) x 100 = 100%
(Open perim./perim.) × 100%

% Tab. area increase = 2x(100% − 25% = 75%) = 150%
(506.2) *2×(% Open perim. -25%)*

OK ✓ CASE 1 — SINGLE USE OR NONSEPARATED MIXED USE GROUPS (313.1.1, 503.0)

Using Table 503, identify the allowable height and area of the single use group or the most restrictive of the nonseparated mixed use groups. Construction types that provide an allowable tabular area equal to or greater than the adjusted floor area and allowable heights (as modified by Section 504.0) equal to or greater than the actual building height are permitted.

Actual floor area 13,715 ft.²

Adjusted floor area* 4,156 ft.²

Actual building height 35' feet 3 stories

Allowable building height 40' feet 4 stories

*Adjusted floor area = actual floor area/conversion factor

Permitted types of construction 5B — Type of construction assumed for review (602.3) 5A
504.2

Auto. Sprinkler system increase.

N/A CASE 2 — MIXED USE SEPARATED USE GROUPS

Using Table 503, identify the allowable height and area of each of the separated use groups within the building. Construction types that provide, for each story of the building, tabular areas which result in a sum of the ratios of 1.00 or less and allowable heights (as modified by Section 504.0) equal to or greater than the actual height of the use group are permitted.

Story	Use Group	Actual floor area	Adjusted floor area*	Actual height	Allowable height (Table 503)
______	N/A	______ ft²	______ ft²	______ ft ______ stories	______ ft ______ stories
______	______	______ ft²	______ ft²	______ ft ______ stories	______ ft ______ stories
______	______	______ ft²	______ ft²	______ ft ______ stories	______ ft ______ stories
______	______	______ ft²	______ ft²	______ ft ______ stories	______ ft ______ stories
______	______	______ ft²	______ ft²	______ ft ______ stories	______ ft ______ stories
______	______	______ ft²	______ ft²	______ ft ______ stories	______ ft ______ stories
______	______	______ ft²	______ ft²	______ ft ______ stories	______ ft ______ stories

*Adjusted floor area = actual floor area/conversion factor

$$\sum \frac{\text{Adjusted floor area*}}{\text{Allowable area (Table 503)}} = \_\_\_\_ + \_\_\_\_ + \_\_\_\_ + \_\_\_\_ = \_\_\_\_ <= 1.00$$

Permitted types of construction ______________ Type of construction assumed for review (602.3) ______________

UNLIMITED AREA ONE-STORY BUILDINGS

N/A Use group classification *(507.1)*

______ Building height (story, feet) *(507.1)*

______ Type of construction *(507.1)*

______ Automatic sprinkler system *(507.1, 904.11)*

______ School buildings *(507.1.1)*

______ High-hazard use groups *(507.1.2)*

______ Exterior walls *(507.2)*

N/A MEZZANINES

______ Area limitation *(505.2)*

______ Egress *(505.3)*

______ Openness *(505.4)*

SPECIAL USE AND OCCUPANCY (Chapter 4)

COVERED MALL BUILDINGS

N/A Tenant separations *(402.4)*

______ Egress *(402.5)*

______ Mall width *(402.6)*

______ Structural elements *(402.7)*

______ Roof coverings *(402.8)*

______ A-1, A-2 occupancy *(402.9)*

______ Automatic sprinkler system *(402.10)*

______ Standpipes *(402.11)*

______ Fire department access *(402.12)*

______ Kiosk requirements *(402.14)*

______ Parking structures *(402.15)*

HIGH-RISE BUILDINGS

N/A Automatic sprinkler system *(403.2)*

______ Alternative sprinkler modifications *(403.3)*

______ Automatic fire detection *(403.4)*

______ Voice/alarm signaling systems *(403.5)*

______ Fire department communication *(403.6)*

______ Fire command station *(403.7)*

______ Elevators *(403.8)*

______ Standby systems *(403.9)*

______ Stairway doors *(403.10)*

ATRIUMS

✓ Automatic sprinkler system *(404.2)*

____ Occupancy *(404.3)*

____ Smoke control *(404.4)*

____ Enclosure *(404.5)*

____ Fire alarm system *(404.6)*

____ Travel distance *(404.7)*

OTHER SPECIAL USE AND OCCUPANCY

N/A Underground structures *(405.0)*

____ Open parking structures *(406.0)*

____ Private garages *(407.0)*

____ Public garages *(408.0)*

____ Use Group I-2 *(409.0)*

____ Use Group I-3 *(410.0)*

____ Stages and platforms *(412.0)*

____ Special amusement buildings *(413.0)*

____ HPM facilities *(416.0)*

____ Hazardous materials *(307.8, 417.0)*

____ Use Groups H-1, H-2, H-3 and H-4 *(418.0)*

____ Swimming pools *(421.0)*

FIRE PROTECTION (Chapters 6, 7, 8, 9)

FIRERESISTANT MATERIALS AND CONSTRUCTION (Chapter 7 and Table 602)

Note: Entry in ☐ indicates required rating in hours. NC indicates noncombustible construction required.

COMBUSTIBILITY *(603.0, 604.0, 605.0, 606.0)*

1 NC Exterior walls

NC Interior elements

1 Hr. Roof

CONSTRUCTION DOCUMENTS *(703.0)*

____ Fire tests *(704.0)*

EXTERIOR WALLS *(507.2, 705.0, 716.5)*

	North	East	South	West
Fire separation distance				
Loadbearing	X 1	X 1	X 1	X 1
Nonloadbearing	☐	☐	☐	☐

☐ N/A Exterior opening protectives *(705.3, 706.0)*

☐ N/A Parapet walls *(705.6)*

FIRE SEPARATION ASSEMBLIES

☐ 1 Exit enclosures *(709.0, 710.0, 1014.11)*

☐ 1 Other shafts *(709.0, 710.0)*

☐ N/A Mixed use and fire area separations *(313.1.2)*

☐ N/A Other separation assemblies *(302.1.1, Table 602)*

FIRE PARTITIONS

☑ Table 1011.4 min 1/2 Hr. Exit access corridors *(711.0, 1011.4)*

☑ 711.2 Tenant separations *(711.0)*

☑ 1 Hr Dwelling unit separations *(711.0)*

☐ N/A Guestroom separations *(711.0)*

OTHER FIRERESISTANT CONSTRUCTION

☐ N/A Fire and party walls *(707.0 and Table 707.1)*

☐ N/A Smoke barriers *(712.0)*

☐ ____ Nonloadbearing partitions *(Table 602)*

☐ 1 Interior loadbearing walls, columns, girders, trusses *(716.0)*

☐ (Supporting construction *(716.0)*

☐ 1 Floor construction *(713.0, 1006.3.1)*

☐ 1 Roof construction *(713.0, 715.0)*

✓ Penetrations *(714.0)*

____ Opening protectives *(717.0, 719.0, 720.0)*

✓ Fire dampers *(718.0)*

✓ Fireblocking/draftstopping *(721.0)*

____ Thermal and sound-insulating materials *(723.0)*

INTERIOR FINISHES (Chapter 8)

✓ Smoke development *(803.3.2)*

✓ Flame spread *(803.4)*

✓ Floor finish *(805.0, 806.0)*

FIRE PROTECTION SYSTEMS (Chapter 9)

FIRE SUPPRESSION SYSTEMS (Where required)

N/A Assembly (A-1, A-3, A-4) *(904.2)*

Assembly (A-2) *(904.3)*

Educational (E) *(904.4)*

High-hazard (H) *(904.5)*

Institutional (I) *(904.6)*

Mercantile (M), Moderate-hazard storage (S-1), Factory and Industrial (F-1) *(904.7)*

Residential (R-1) *(904.8)*

Fire Dept Residential (R-2) *(904.9)*

Windowless story *(904.10)*

Specific occupancy areas *(302.1.1, 904.11)*

Covered mall buildings *(402.10)*

High-rise buildings *(403.2)*

— Atriums *(404.2)*

N/A Underground structures *(405.3)*

Public garages *(408.3.1)*

Sound stages *(411.7)*

Stages and enclosed platforms *(412.6)*

Special amusement buildings *(413.4)*

HPM facilities *(416.4)*

Paint spray booths and storage rooms *(419.3)*

Unlimited area buildings *(507.1)*

Exit lobbies *(1020.3)*

Drying rooms *(2806.4)*

Waste- and linen-chutes/termination rooms *(2807.6)*

Refuse vaults *(2808.4)*

FIRE SPRINKLER SYSTEMS

✓ NFPA 13 system *(906.2.1)*

N/A NFPA 13R system *(906.2.2)*

NFPA 13D system *(906.2.3)*

Design *(906.3)*

Actuation *(906.4)*

Sprinkler alarms *(906.5)*

Sprinkler riser *(906.7)*

LIMITED AREA SPRINKLER SYSTEMS

N/A Where permitted *(907.2)*

Design *(907.3)*

Actuation *(907.4)*

Standpipe connection *(907.6)*

Domestic supply *(907.6.1)*

Cross connection *(907.6.2)*

Shutoff valve *(907.6.3)*

OTHER SUPPRESSION SYSTEMS

N/A Water-spray fixed systems *(908.0)*

Carbon dioxide extinguishing systems *(909.0)*

Dry-chemical extinguishing systems *(910.0)*

Foam-extinguishing systems *(911.0)*

Halogenated extinguishing systems *(912.0)*

Clean agent fire extinguishing systems *(913.0)*

Wet-chemical range hood extinguishing systems *(914.0)*

STANDPIPE SYSTEMS

N/A — Building height *(915.2.1)*

____ Building area *(915.2.2)*

____ Malls *(915.2.3)*

____ Stages *(915.2.4)*

____ Approved system *(915.3, 915.3.1)*

____ Piping design *(915.4)*

____ Water supply *(915.5)*

____ Control valves *(915.6)*

____ Hose connection *(915.7)*

FIRE DEPARTMENT CONNECTIONS

Fire Dept — Required *(916.1)*

____ Connections *(916.2)*

YARD HYDRANTS

____ Fire hydrants *(917.1)*

FIRE ALARM SYSTEMS

N/A — Approval *(918.3)*

____ Assembly (A-4), Educational (E) *(918.4.1)*

____ Business (B)*(918.4.2)*

____ High-hazard (H) *(918.4.3)*

____ Institutional (I) *(918.4.4)*

____ Residential ~~(R-1) *(918.4.5)*~~

Fire Dept — Residential (R-2) *(918.4.6)*

____ Location/details *(918.5)*

____ Power supply/wiring *(918.6, 918.7)*

____ Alarm-notification appliances *(918.8)*

____ Voice/alarm signaling system *(918.9)*

AUTOMATIC FIRE DETECTION SYSTEMS

____ Approval *(919.3)*

____ Institutional (I) *(919.4.1, 919.4.2, 919.4.3)*

____ Residential (R-1) *(919.4.4)*

____ Sprinklered buildings exception *(919.5)*

____ Zones *(919.6)*

SINGLE- AND MULTIPLE-STATION SMOKE DETECTORS

N/A — Residential (R-1) *(920.3.1)*

Fire Dept — Residential (R-2, R-3) *(920.3.2)*

N/A — Institutional (I-1) *(920.3.3)*

____ Interconnection *(920.4)*

____ Battery backup *(920.5)*

FIRE EXTINGUISHERS

N/A — Approval *(921.1)*

____ Required *(921.2)*

SMOKE CONTROL SYSTEMS

Atriums — Passive system *(922.2.1)*

____ Mechanical system *(922.2.2)*

____ Smoke removal *(922.3)*

____ Activation *(922.4)*

____ Standby power *(922.5)*

SMOKE AND HEAT VENTS

N/A — Size and spacing *(923.2)*

SUPERVISION

Fire Dept — Fire suppression systems *(924.1)*

____ Fire alarm systems *(924.2)*

OCCUPANT NEEDS (Chapters 10, 11, 12)

Fire Dept

MEANS OF EGRESS (Chapter 10)

OCCUPANT LOAD *(1008.0 and Table 1008.1.2)*

Location	Floor Area ÷	Sq. ft./ person =	Occt. load	Other occt. loads	Total
	Fire Dept.				

CAPACITY OF EGRESS COMPONENTS *(1009.0 and Table 1009.2)*

Egress width (inch/occupant)

Stairways _____

Doors/ramps/corridors _____

CAPACITY

Location	Stairways	Doors/ramps corridors

NUMBER OF EXITS *(1010.0)*

Location	Required	Shown

MEANS OF EGRESS (continued)

Fire Dept.

	General limitations *(1005.0)*		Ramps *(1016.0)*
	Air movement in egress elements *(1005.7)*		Means of egress doorways *(1017.0)*
	Types and location of egress *(1006.0)*		Number of doorways *(1017.2)*
	Exit access travel distance *(1006.5 and Table 1006.5)*		Size of doors *(1017.3)*
			Door hardware *(1017.4)*
	Accessible means of egress *(1007.0)*		Revolving doors *(1018.0)*
	Emergency escape *(1010.4)*	see plan OK. 2 Hr	Horizontal exits *(1019.0)*
	Exit access passageways and corridors *(1011.0)*		Level of exit discharge passageway *(1020.0)*
	Aisles and accessways *(1012.0)*	L	Guards *(1021.0)*
NA	Grandstands *(1013.0)*	✓	Handrails *(1022.0)*
	Interior stairways *(1014.1 - 1014.11)*		Exit signs and lights *(1023.0)*
N/A	Exterior stairways *(1014.1 - 1014.10, 1014.12)*		Means of egress lighting *(1024.0)*
N/A	Smokeproof enclosures *(1015.0)*		Access to roof *(1027.0)*

STATE's Approval

ACCESSIBILITY (Chapter 11)

STATE Fire Marshall's

	Required *(1103.0)*		Accessible entrances *(1106.0)*
	Accessible route *(1104.0)*		Special use groups *(1107.0)*
	Parking facilities *(1105.0)*		Features and facilities *(1108.0)*

INTERIOR ENVIRONMENT (Chapter 12)

OK	Room dimensions *(1204.0)*		Air-borne noise (STC) *(1214.2)*
X 1210.1	Roof spaces *(1210.1, 1211.2)*		Structure-borne sound (IIC) *(1214.3)*
	Crawl spaces *(1210.2, 1211.1)*		Ratproofing *(1215.0)*

BUILDING ENVELOPE (Chapters 14, 15)

EXTERIOR WALL COVERINGS (Chapter 14)

	Performance requirements *(1403.0)*	OK	Combustible material restrictions *(1406.0)*
	Wall sidings and veneers *(1404.0, 1405.0)*		

Brick & Vinyl siding

ROOFS AND ROOF STRUCTURES (Chapter 15)

* Roof Shingle Composition?

	Performance requirements *(1505.0)*		Low-slope roof coverings *(1507.5)*
✓	Fire classification *(1506.0)*		Flashing *(1508.0)*
✓	Steep-slope roof coverings *(1507.4)*		Roof structures *(1510.0)*

Clifford B. Curry
No. 1397
reg. architect

STRUCTURAL SYSTEMS (Chapters 16, 17, 18)

STRUCTURAL LOADS (Chapter 16)

DESIGN LOADS ON CONSTRUCTION DOCUMENTS *(1603.1)*

Uniformly distributed floor live loads (1603.2, 1606.0)

Floor Area Use	Loads Shown

	Live load reduction *(1603.2, 1606.7)*
	Roof live loads *(1603.3, 1607.0)*

Roof snow loads *(1603.4, 1608.0)* ?

? *

	Ground snow load, P_g *(1608.3)*
	If P_g > 10 psf, flat-roof snow load, P_f *(1608.4)*
	If P_g > 10 psf, snow exposure factor, C_e *(Table 1608.4)*
	Sloped roof snowload, P_s *(1608.5)*
	If P_g > 10 psf, snow load importance factor, *I (Table 1609.5)*

Wind loads *(1603.5, 1609.0)*

95	Basic wind speed *(1609.3)*
B	Wind exposure category *(1609.4)*
	Wind importance factor, *I (Table 1609.5)*
	Wind design pressure, *P (1609.7)*

Earthquake loads *(1603.6, 1610.0)*

Ø.1Ø	Peak velocity-related acceleration, A_v *(1610.1.3)*
Ø.1Ø	Peak acceleration, A_a *(1610.1.3)*
1	Seismic hazard exposure group *(1610.1.5)*
C	Seismic performance category *(1610.1.7)*
S=1.Ø	Soil-profile type *(Table 1610.3.1)*
Bearing Wall Sys,	Basic structural system and seismic-resisting system *(Table 1610.3.3)*
R=6.5 Cd=4	Response modification factor, *R*, and deflection amplification factor, C_d *(Table 1610.3.3)*
	Analysis procedure *(1610.4, 1610.5)*

Other loads

✓	Attic load *(1606.2.2, 1606.2.3)*
	Partition loads *(1606.2.4)*
	Concentrated loads *(1606.3)*
	Impact loads *(1606.6)*
	Misc. loads (*1606.4, 1606.8, 1606.9, 1607.5, 1612.0)*

STRUCTURAL DESIGN CALCULATIONS

	Submitted for all structural members *(107.7)*
✓	Signed/sealed *(107.7, 114.1)*
	Deflection limits considered *(1604.5)*

Clifford B. Curry
No. 1397

Seal report question of this?

STRUCTURAL DESIGN CALCULATIONS (continued)

See Letter

Unbalanced snow loads considered *(1608.6)*

Drift snow loads considered *(1608.7)*

Sliding snow loads considered *(1608.8)*

Internal pressure effects considered *(1609.7, 1609.8)*

Components and cladding effects considered *(1609.8)*

Load combinations considered *(1613.1)*

MATERIAL PERFORMANCE (Chapter 17)

Material performance technical data or BOCA Evaluation Services or National Evaluation Services report supplied (1703.0) Report No._____

Owner's special inspection program specified *(1705.0)*

Prefabricated items *(1705.2)*

Steel construction *(1705.3)*

Concrete construction *(1705.4)*

Masonry construction *(1705.5)*

Wood construction (1705.6)

Prepared fill and foundations *(1705.7, 1705.8, 1705.9)*

Fireresistive materials *(1705.12)*

EIFS, wall panels and veneers *(1705.10, 1705.13)*

Hurley Aldrich So. Pt. D. me.

FOUNDATIONS AND RETAINING WALLS (Chapter 18)

Soil type *(1611.0, 1802.1, 1804.1)*

Bearing value *(1611.0, 1802.1, 1804.1)*

Soil report *(1802.1, 1804.1)*

Prepared fill *(1804.1.1)*

2250 Footings *(1806.0 - 1811.0)*

Foundations *(1814.0 - 1824.0)*

Foundation walls *(1611.0, 1812.0)*

Waterproofing/dampproofing *(1813.0)*

Retaining walls *(1611.0, 1825.0)*

STRUCTURAL MATERIALS (Chapters 19, 21, 22, 23)

CONCRETE (Chapter 19)

N/A Plain, reinforced and prestressed concrete design/construction standard specified *(1901.1, 1903.1.1)*

OK Minimum slab requirements *(1905.1)*

Minimum concrete strength *(Table 1907.1.2[1])*

Cold-weather and hot-weather curing specified *(1908.9, 1908.10)*

MASONRY (Chapter 21)

Engineered masonry design/construction standard specified *(2101.1.1)*

Empirical masonry design *(2101.1.2)*

Construction materials *(2104.0)*

Mortar type *(2104.7)*

N/A Cold-weather and hot-weather construction specified *(2111.3, 2111.4)*

N/A Fireplaces and chimneys *(2103.2, 2113.0 - 2117.0)*

N/A Glass block *(2118.0)*

STEEL (Chapter 22)

_____ Structural steel design/construction standard specified *(2203.1, 2203.2)*

_____ Shop drawing preparation specified *(2203.4)*

_____ Open-web steel joist design/construction standard specified *(2205.1)*

_____ Formed steel design/construction standard specified *(2206.1)*

_____ Formed steel member identification *(2206.6)*

WOOD (Chapter 23)

See report

_____ Installation inspections *(2301.2)*

_____ Design/construction standard specified *(2303.1)*

_____ Grade mark specified *(2303.1.1)*

HEAVY TIMBER CONSTRUCTION

N/A Minimum dimensions *(605.1, 2304.0)*

_____ Design/construction standard specified *(2304.1)*

WOOD FRAME CONSTRUCTION

✓ Fastening and construction details *(2305.0, Table 2305.2)*

_____ Wind bracing design required *(2305.7)*

_____ Seismic bracing *(2305.8)*

_____ Foundation anchorage *(2305.17)*

_____ Wood structural panels *(2307.0)*

_____ Particleboard *(2308.0)*

_____ Fiberboard *(2309.0)*

_____ Fireretardant-treated wood *(2310.0)*

_____ Decay and termite protection *(2311.0)*

_____ Joist hangers *(2312.0)*

_____ Prefabricated components *(2313.1, 2313.2)*

_____ Metal-plate-connected trusses *(2313.3.1, 2313.3.2)*

NONSTRUCTURAL MATERIALS (Chapters 24, 25, 26)

GLASS AND GLAZING (Chapter 24)

✓ _____ Skylights *(2404.0)*

✓ _____ Safety glazing *(2405.0, 2406.0, 2407.0)*

GYPSUM BOARD AND PLASTER (Chapter 25)

_____ Gypsum board materials *(2503.0, Table 2503.2, Table 2503.3)*

_____ Plaster *(2504.0, 2505.0, 2506.0)*

PLASTIC (Chapter 26)

N/A Approved materials *(2601.2)*

_____ Identification *(2601.4)*

_____ Interior trim *(2603.7)*

_____ Alternative approval *(2603.8)*

FOAM PLASTIC *(2603.0)*

N/A Labeling *(2603.2)*

_____ Surface-burning characteristics *(2603.3)*

_____ Thermal barrier *(2603.4)*

_____ Exterior walls *(2603.5, 2603.6)*

LIGHT-TRANSMITTING PLASTIC *(2603.5, 2604.0)*

N/A Diffusing systems *(2604.5)*

Wall panels *(2605.0)*

Unprotected openings *(2606.0)*

Roof panels *(2607.0)*

Skylight glazing *(2608.0)*

BUILDING SERVICES (Chapters 28, 30)

BOCA Mechanical 1993

MECHANICAL SYSTEMS (Chapter 28)

N/A Waste- and linen-handling systems *(2807.0)*

N/A Refuse vaults *(2808.0)*

ELEVATORS AND CONVEYING SYSTEMS (Chapter 30)

STATE

Construction standard specified *(3001.2)*

Elevator emergency operation *(3006.2)*

Hoistway enclosure *(3007.1)*

Venting *(3007.3 - 3007.6)*

Opening protectives *(3008.2)*

Conveyors and escalators *(3010.0, 3011.0)*

SPECIAL DEVICES AND CONDITIONS (Chapters 31, 34)

SPECIAL CONSTRUCTION (Chapter 31)

N/A Membrane structures *(3103.0)*

Flood-resistant construction *(3107.0)*

Towers *(3108.0)*

PEDESTRIAN WALKWAYS *(3106.0)*

N/A Construction and use *(3106.1 - 3106.3)*

Separation *(3106.4)*

Local approval *(3106.5)*

Egress and size *(3106.6 - 3106.8)*

N/A

EXISTING STRUCTURES (Chapter 34)

N/A

ADDITIONS, ALTERATIONS OR CHANGE OF OCCUPANCY

General requirements *(3402.0)*

Structural loads *(1614.0, 3402.5)*

Accessibility *(1110.0, 3402.7)*

Additions/alterations *(3403.0, 3404.0)*

Change of occupancy *(1110.3, 3405.0)*

Compliance alternative evaluation *(3408.0)*

BUILDING EVALUATION SUMMARY *(Table 3408.7)*

Existing use group _____ Proposed use group _____

Year building was constructed _____ Number of stories _____ Height in feet _____

Type of construction _____ Area per floor _____

Percentage of open perimeter _____ % Percentage of height reduction _____ %

Completely suppressed: Yes _____ No _____ Corridor wall rating _____

Compartmentation: Yes _____ No _____ Required door closers: Yes _____ No _____

Fireresistance rating of vertical opening enclosures _____

Type of HVAC system _____, serving number of floors _____

BUILDING EVALUATION SUMMARY (continued)

Automatic fire detection: Yes _____ No _____, type and location _____
Fire alarm system: Yes _____ No _____, type _____
Smoke control: Yes _____ No _____, type _____
Adequate exit routes: Yes _____ No _____ Dead ends: Yes _____ No _____
Maximum exit access travel distance _____ Elevator controls: Yes _____ No _____
Means of egress emergency lighting: Yes _____ No _____ Mixed use groups: Yes _____ No _____

Safety parameters	Fire safety (FS)	Means of egress (ME)	General safety (GS)
3408.6.1 Building height			
3408.6.2 Building area			
3408.6.3 Compartmentation			
3408.6.4 Tenant and dwelling unit separations			
3408.6.5 Corridor walls			
3408.6.6 Vertical openings			
3408.6.7 HVAC systems			
3408.6.8 Automatic fire detection			
3408.6.9 Fire alarm system			
3408.6.10 Smoke control	* * * *		
3408.6.11 Means of egress	* * * *		
3408.6.12 Dead ends	* * * *		
3408.6.13 Max. exit access travel distance	* * * *		
3408.6.14 Elevator control			
3408.6.15 Means of egress emergency lighting	* * * *		
3408.6.16 Mixed use groups		* * * *	
3408.6.17 Sprinklers		÷ 2 =	
3408.6.18 Specific occupancy area protection			
Building score — total value			

* * * * No applicable value to be inserted.

BUILDING SAFETY EVALUATION SCORE *(Table 3408.9)*

Formula	Table 3408.7		Table 3408.8		Score	Pass	Fail
FS-MFS ≥ 0	_____	(FS) -	_____	(MFS) =	_____	_____	_____
ME-MME ≥ 0	_____	(ME) -	_____	(MME) =	_____	_____	_____
GS-MGS ≥ 0	_____	(GS) -	_____	(MGS) =	_____	_____	_____

FS = Fire Safety
ME = Means of Egress
GS = General Safety

MFS = Mandatory Fire Safety
MME = Mandatory Means of Egress
MGS = Mandatory General Safety

Project Name: Portland Pet. Rest.
Project Address: 257 Canco.

Page 1A
Supplemental Sheet

Inspection Date	Type of Inspection	Remarks – prints – page#
16 Dec. 98	On site walk project with Lt. McDougall and Supt. Terry Johnson. Questions on sprinkler system - and Fire rating wall section - Issues resolved. State Fire Marshall's office will be reviewing Sprinkler system - & Talk with PLBG. Contractor - Temp heating be started -	OK
4 Jan. 99	Walk site with Lt. McDougall & Terry Johnson (Job supt.). Talked about Fire blocking, Sprinkler, and Venting	
11 Jan. 99	Met on site with M. Colling, Lt. McDougall, Terry Johnson supt. We discussed the elec. Panel in exitway and fire-rating for the panel - Talked with BOCA, Mike Colling with State Elec. Inspector and we agreed that to build a box around the service panel (As the lights and the exit would meet the Intent of the code -	
20 Jan 99	Closing-in inspection #ms 111-171-113-110-114-109-108-172-107-106-123-115-105, 104-116 -	
21 Jan 99	Inspected Fire rated shaft.	
27 Jan 99	Closing-in Inspections #ms - 218, 217, 257, 219, 216, 220, 217, 214, 255, 213, 212, 259, 221, 211, 222, 210, 326, 314, 315, 325, 358, 316, 317, 357, 318, 319, 324, 319, 320, 323, 356, 321 - Lt. McDougall present	
2 Feb. - 99	General Inspection - Work going well - Closing well -	
9 Feb. - 99	General Inspection - Talked with Supt. Johnson -	
17 Feb. 99	General Inspection - Talked with Plbg. Supt. Peter and Supt. of Project Johnson work going well -	
23 Feb - 99	On site Supt. Johnson not there did not insp. bldgs.	
2 Mar - 99	work going well	
9 March 99	On site all Trades working -	
17 March 99	Walk site with Lt. McDougall and Supt. Johnson,	
23 March 99	Walked site with Lt. / work going well	
31 March 99	walked area with Lt. McDougall wing B about completed - gypsum walls wing C - work going as per plan	
6 April 99	Walk site with Lt. McDougall work going well	
13 April 99	Walk site with Lt. McDougall and Terry Johnson - Questions on Chimneys. draft.	
22 April 99	Received details on chimney draft. - Brick work started wing B 95% Completed - Wing C - Closing in - Cottages all Framed - Work going well parking started.	

Project Name: Portland Bldg. Home
Project Address: 257 Canco Rd.

Page 1A
Supplemental Sheet

Inspection Date	Type of Inspection	Remarks – prints – page#
27 APR 99	walk project with Lt. McDougall 90% completed.	work going well about
4 May 99	walk project with Lt. McDougall questions on auto. Fire shut down switch in boiler room —	
7 May 99	on site with State Plbg. Inspector Dave Tuttle —	
11 May 99	walk site with Wm. & Terry Johnson project supt. work going well & village about completed.	
25 May 99	walk site Finish work – HVAC work	
7 June 99	work nearing completion	
22 June 99	walked site work about completed	
2 July 99	site work being done —	
6 July 99	on site check ceiling first floor to close-in – OK site work ele and finish work exterior —	
26 July 99	walk Through For pre-C of O. Inspection —	
27 July 99	C of O - 11 Dwelling units main bldg. 6 Cottages 13 units → Lt. McDougall was present – All fire alarms tested OK.	
	Waiting For Deve. Review Cord. Sign-off.	
29 July 99	Call From Jeff Tarling stating	excellent job on landscaping

PLUMBING APPLICATION

149-13-001

Department of Human Services
Division of Health Engineering
(207) 289-3826

PROPERTY ADDRESS

Town Or Plantation	Portland
Street Subdivision Lot #	257 Anne Road

PROPERTY OWNERS NAME

Nelson and Nelson

Last: First:

Applicant Name:	Ralph E. Blake
Mailing Address of Owner/Applicant (If Different)	150 Auburn St Portland

PORTLAND Date Permit Issued: 10 5 98 PERMIT # 4031 $ 2,574.00 FEE ☐ If Double Fee Charged

L.P.I. # 01274

Local Plumbing Inspector Signature

Owner/Applicant Statement

I certify that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Local Plumbing Inspector to deny a Permit.

Signature of Owner/Applicant Date

Caution: Inspection Required

I have inspected the installation authorized above and found it to be in compliance with the Maine Plumbing Rules.

Local Plumbing Inspector Signature Date Approved

PERMIT INFORMATION

This Application is for

1. ☒ NEW PLUMBING
2. ☐ RELOCATED PLUMBING

Type Of Structure To Be Served:

1. ☐ SINGLE FAMILY DWELLING
2. ☐ MODULAR OR MOBILE HOME
3. ☒ MULTIPLE FAMILY DWELLING
4. ☐ OTHER - SPECIFY _____

Plumbing To Be Installed By:

1. ☒ MASTER PLUMBER
2. ☐ OIL BURNERMAN
3. ☐ MFG'D. HOUSING DEALER/MECHANIC
4. ☐ PUBLIC UTILITY EMPLOYEE
5. ☐ PROPERTY OWNER

LICENSE # 6136

Hook-Up & Piping Relocation Maximum of 1 Hook-Up	Column 2 Number	Column 2 Type of Fixture	Column 1 Number	Column 1 Type of Fixture
HOOK-UP: to public sewer in those cases where the connection is not regulated and inspected by the local Sanitary District. **OR** HOOK-UP: to an existing subsurface wastewater disposal system.		Hosebibb / Sillcock	36	Bathtub (and Shower) 1 1/2"
	8	Floor Drain 2"	18	Shower (Separate) 2"
		Urinal	36	Sink 1 1/2"
	1	Drinking Fountain	44	Wash Basin 1 1/2
		Indirect Waste	55	Water Closet (Toilet) 3"
		Water Treatment Softener, Filter, etc.	24	Clothes Washer 2"
PIPING RELOCATION: of sanitary lines, drains, and piping without new fixtures.	1	Grease/Oil Separator 2"	1	Dish Washer 2"
		Dental Cuspidor	1	Garbage Disposal
		Bidet	6	Laundry Tub 1 1/2
Number of Hook-Ups & Relocations		Other: _____	16	Water Heater
$. Hook-Up & Relocation Fee	10	Fixtures (Subtotal) Column 2	634	Fixtures (Subtotal) Column 1
			10	Fixtures (Subtotal) Column 2
			644	Total Fixtures
			$.	Fixture Fee
			$.	Hook-Up & Relocation Fee
			2,574.00 $.	Permit Fee (Total)

SEE PERMIT FEE SCHEDULE FOR CALCULATING FEE

STATE COPY

Electrical Contractor
Corey Electric
184 Read St.
Portland ME.
207-7751380

Framing Contractor
Hunt Builders
249 River Ave
Cochane Alberta
Canada tol owo
403-932-8784

HVAC Contractor
Jet Heating
1935 Silverton Rd.
Salem OR. 97303
800-659-0620

Excavating Contractor
Grondin & Sons
11 Bartlett Rd.
Gorham ME. 04038
207-854-1147

Concrete Contractor
H.E. Callahan
Turner Rd.
Auburn ME. 04212
207-784-6927

Drywall Contractor
Northeast Drywall
P.O. Box 6298
Manchester N.H.
603-668-3088

Plumbing & Heating
Ralph F. Blake Plumbing & Heating
577 Auburn St.
Portland ME. 04103
207-797 -0508

Roofing Contractor
Grid Iron Const.
2200 S.C.R. 1130
Midland TX. 79706
915-570-1458

Fire Sprinkler
Aqua Fire Protection Ltd.
Bay 16 5550- 36 th St.
Calgary Alberta
Canada T2C 1P1
888-982-9002

Received
15 Oct 08

Colson & Colson
GENERAL CONTRACTOR, INC.

October 14,1998

P. Samuel Hoffses
Inspector of Buildings
City of Portland
389 Congress St..
Portland ME.04101

Mr. Hoffses,
As requested by your department the attached information is the names of all contracts awarded for the Portland Retirement project located at 257 Canco road in Portland. As further contracts are awarded I will update your Office.

Thank you for your patience with my late response.

Terry Johnson
Construction Manager
Portland Retirement Project

257 Canco Road • Portland, Maine 01104 • (207) 773-7203 • (207) 773-7225 FAX

Colson & Colson

GENERAL CONTRACTOR, INC.

October 14,1998

P. Samuel Hoffses
Inspector of Buildings
City of Portland
389 Congress St..
Portland ME.04101

Mr. Hoffses,

With the Ice Storm still in the memory of the people in the State of Maine. Colson & Colson feels that in the interest of the health and safety for our residences that a change in our heating system is needed.

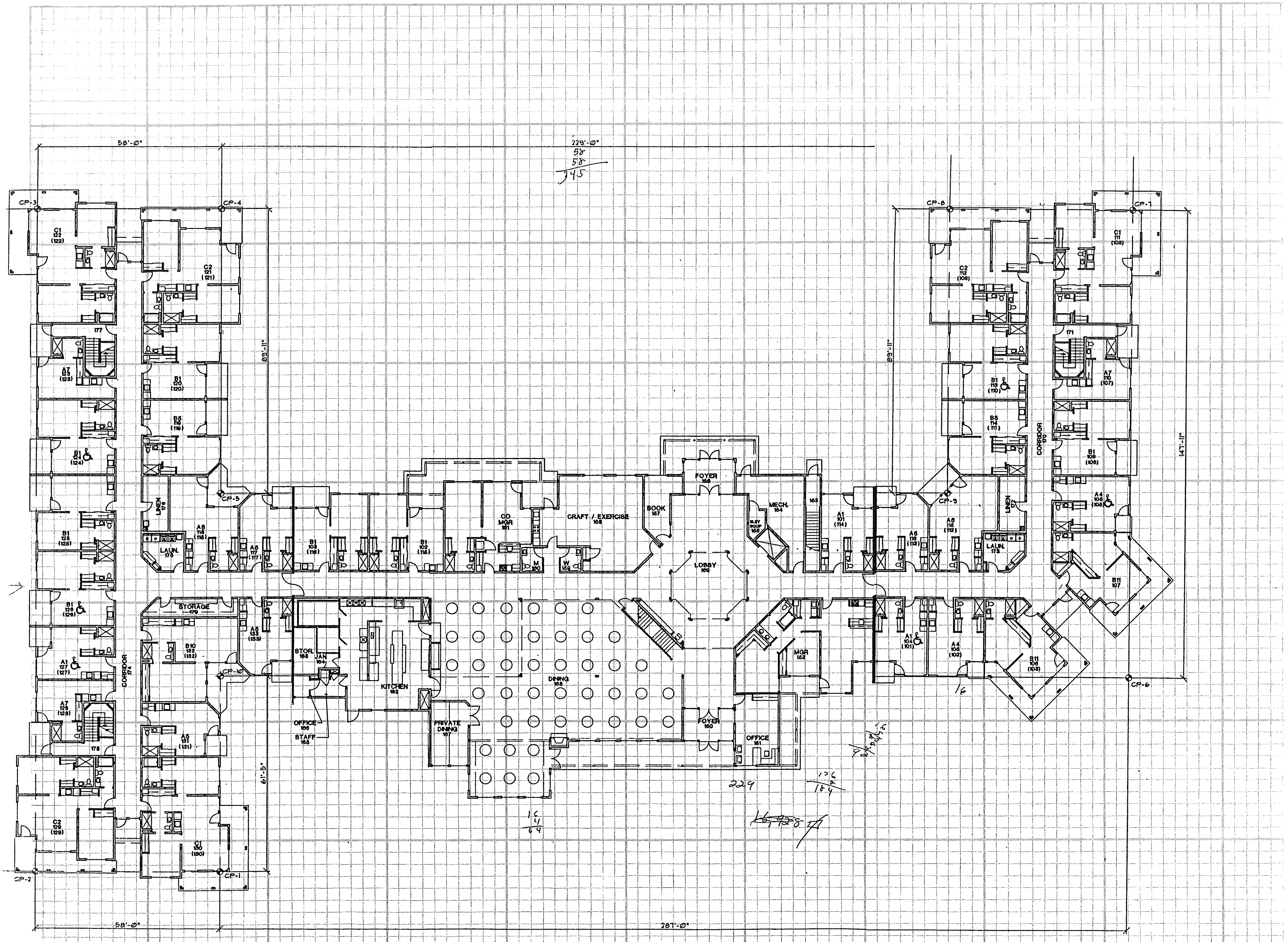
We are looking to make the change from all electric heating in the typical units to a gas fired hydronic system with the pumps connected to our emergency generator.

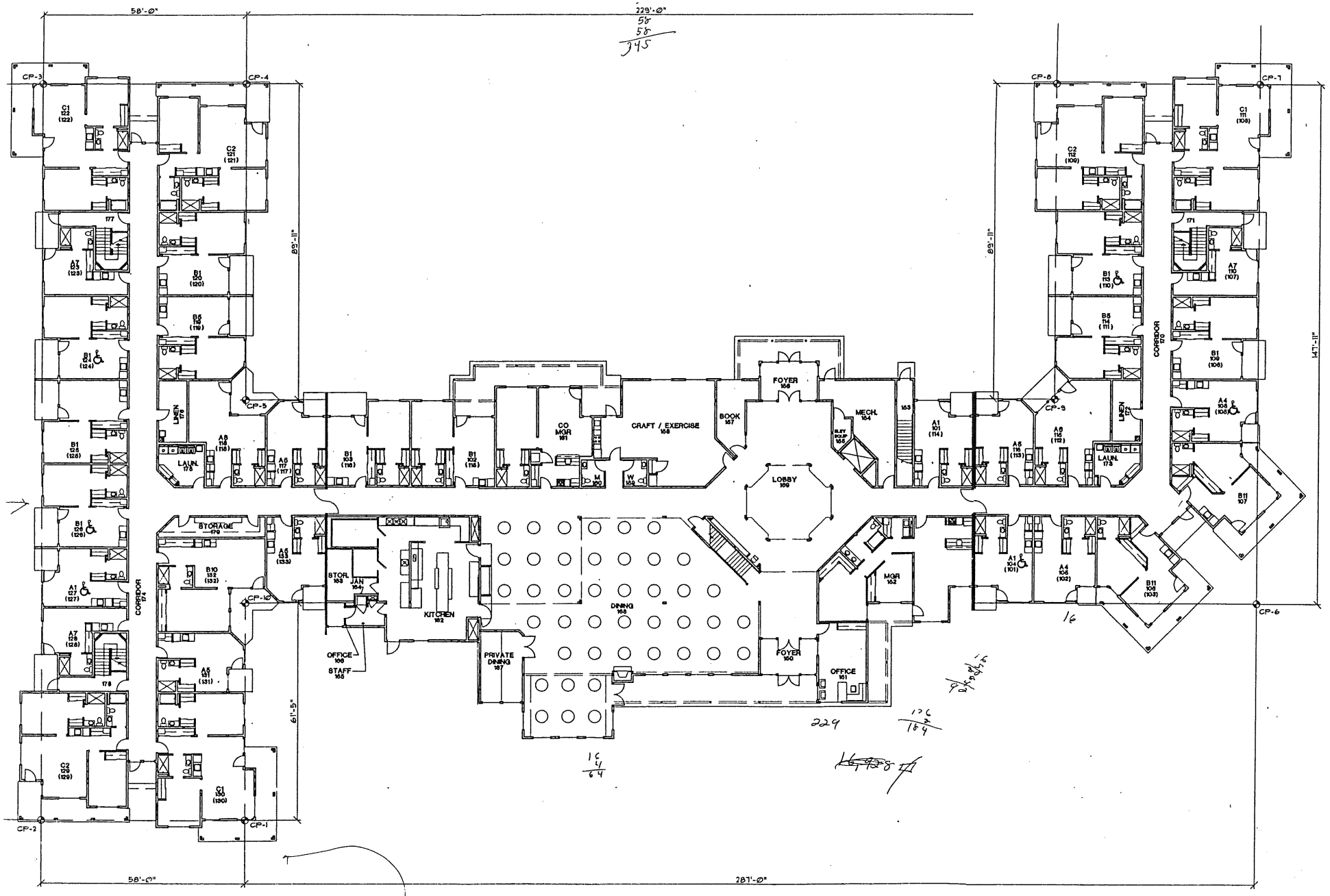
Upon the completion of the design built system a set a engineered prints will be made available to the City of Portland Building Department for your review.

Thankyou

Terry Johnson
Construction Manager
Portland Retirement Project

257 Canco Road • Portland, Maine 01104 • (207) 773-7203 • (207) 773-7225 FAX


58'-0"
229'-0"
58
58
345
CP-3
CP-4
CP-8
CP-7
89'-11"
147'-11"
CP-5
CP-9
CP-10
CP-6
CP-1
CP-2
61'-5"
58'-0"
287'-0"
FOYER
BOOK
CRAFT / EXERCISE
CO MGR
MECH.
LOBBY
LINEN
LAUN.
STORAGE
STOR
JAN
KITCHEN
DINING
PRIVATE DINING
OFFICE
STAFF
MGR
CORRIDOR
224
176
164
16
4
64


58'-0"
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145
CP-3
CP-4
CP-5
CP-8
CP-7
CP-9
CP-6
CP-10
CP-2
CP-1
89'-11"
147'-11"
61'-5"
58'-0"
287'-0"
C1 122
C2 121
177
A7 123
B1 120
B5 119
B1 124
B1 125
B1 126
A1 127
A7 128
178
C2 129
C1 130
LINEN 176
LAUN. 175
A6 118
A6 117
B1 116
B1 115
B1 114
CO MGR 161
CRAFT / EXERCISE 158
M 160
W 159
FOYER 156
BOOK 157
MECH. 154
153
A1 101 114
A5 113
A6 112
LINEN 172
LAUN. 173
C1 108
C2 109
171
B1 110
B5 111
A7 107
B1 106
A4 105
B11 104
CORRIDOR 174
LOBBY 155
STORAGE 170
A6 133
B10 132
STOR. 163
JAN. 164
KITCHEN 162
DINING 165
MGR 102
A1 101
A4 102
B11 103
OFFICE 166
STAFF 165
PRIVATE DINING 167
FOYER 150
OFFICE 151
229
176
184
16
64
16

CONTRACTOR'S MATERIAL & TEST CERTIFICATE FOR ABOVEGROUND PIPING

PROCEDURE

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.

PROPERTY NAME: PORTLAND RESTAURANT ASSOCIATES — DATE: 7-27-99

PROPERTY ADDRESS: CANCO ROAD, PORTLAND, MAINE

PLANS

ACCEPTED BY APPROVING AUTHORITY(S) NAMES: OFFICE OF THE STATE FIRE MARSHAL

ADDRESS: BOX 488 GARDINER, MAINE

INSTALLATION CONFORMS TO ACCEPTED PLANS — ☑ YES ☐ NO

EQUIPMENT USED IS APPROVED — ☑ YES ☐ NO

IF NO, EXPLAIN DEVIATIONS

INSTRUCTIONS

HAS PERSON IN CHARGE OF FIRE EQUIPMENT BEEN INSTRUCTED AS TO LOCATION OF CONTROL VALVES AND CARE AND MAINTENANCE OF THIS NEW EQUIPMENT — ☑ YES ☐ NO

IF NO, EXPLAIN

HAVE COPIES OF APPROPRIATE INSTRUCTIONS AND CARE AND MAINTENANCE CHARTS AND NFPA 13A BEEN LEFT ON PREMISES — ☑ YES ☐ NO

IF NO, EXPLAIN

LOCATION OF SYSTEM

SUPPLIES BLDGS. ANEX AND DINING ROOM. (DRY SYSTEM #2)

SPRINKLERS

MAKE	MODEL	YEAR OF MANUFACTURE	ORIFICE SIZE	QUANTITY	TEMPERATURE RATING
CENTRAL	GB-QR. DRY PEND	1998	1/2	113	155
CENTRAL	GB-QR. UP.	1998	1/2	117	200

PIPE AND FITTINGS

PIPE CONFORMS TO NFPA #13 STANDARD — ☑ YES ☐ NO

FITTINGS CONFORM TO NFPA 13 STANDARD — ☑ YES ☐ NO

IF NO, EXPLAIN

ALARM VALVE OR FLOW INDICATOR

ALARM DEVICE			MAXIMUM TIME TO OPERATE THROUGH TEST PIPE	
TYPE	MAKE	MODEL	MIN.	SEC.

DRY PIPE OPERATING TEST

DRY VALVE			Q.O.D.		
MAKE	MODEL	SERIAL NO.	MAKE	MODEL	SERIAL NO.
CENTRAL	AG		CENTRAL	A	

	TIME TO TRIP THRU TEST PIPE		WATER PRESSURE	AIR PRESSURE	TRIP POINT AIR PRESSURE	TIME WATER REACHED TEST OUTLET		ALARM OPERATED PROPERLY	
	MIN.	SEC.	PSI	PSI	PSI	MIN.	SEC.	YES	NO
Without Q.O.D.		30	90	41	18		42	✓	
With Q.O.D.									

IF NO, EXPLAIN

LUGE & EACTION VALVES

OPERATION ☐ PNEUMATIC ☐ ELECTRIC ☐ HYDRAULIC | DETECTING MEDIA SUPERVISED ☐ YES ☐ NO

PIPING SUPERVISED ☐ YES ☐ NO | DETECTING MEDIA SUPERVISED ☐ YES ☐ NO

DOES VALVE OPERATE FROM THE MANUAL TRIP AND/OR REMOTE CONTROL STATIONS ☐ YES ☐ NO | IF NO, EXPLAIN

IS THERE AN ACCESSIBLE FACILITY IN EACH CIRCUIT FOR TESTING ☐ YES ☐ NO

MAKE	MODEL	DOES EACH CIRCUIT OPERATE SUPERVISION LOSS ALARM YES	NO	DOES EACH CIRCUIT OPERATE VALVE RELEASE YES	NO	MAXIMUM TIME TO OPERATE RELEASE MIN.	SEC.

TEST DESCRIPTION

HYDROSTATIC: Hydrostatic tests shall be made at not less than 200 psi (13.6 bars) for two hours or 50 psi (3.4 bars) above static pressure in excess of 150 psi (10.2 bars) for two hours. Differential dry-pipe valve clappers shall be left open during test to prevent damage. All aboveground piping leakage shall be stopped,

FLUSHING: Flow the required rate until water is clear as indicated by no collection of foreign material in burlap bags at outlets such as hydrants and blow-offs. Flush at flows not less than 400 GPM (1514 L/min) for 4-inch pipe, 600 GPM (2271 L/min) for 5-inch pipe, 750 GPM (2839 L/min) for 6-inch pipe, 1000 GPM (3785 L/min) for 8-inch pipe, 1500 GPM (5678 L/min) for 10-inch pipe and 2000 GPM (7570 L/min) for 12-inch pipe. When supply cannot produce stipulated flow rates, obtain maximum available.

PNEUMATIC: Establish 40 psi (2.7 bars) air pressure and measure drop which shall not exceed 1-½ psi (0.1 bars) in 24 hours. Test pressure tanks at normal water level and air pressure and measure air pressure drop which shall not exceed 1-½ psi (0.1 bars) in 24 hours.

TESTS

ALL PIPING HYDROSTATICALLY TESTED AT 200 PSI FOR 2 HRS. ☐ YES ☐ NO | IF NO, STATE REASON

DRY PIPING PNEUMATICALLY TESTED ☑ YES ☐ NO

EQUIPMENT OPERATES PROPERLY ☐ YES ☐ NO

DRAIN TEST | READING OF GAGE LOCATED NEAR WATER SUPPLY TEST PIPE: STATIC PRESSURE: 70 PSI | RESIDUAL PRESSURE WITH VALVE IN TEST PIPE OPEN WIDE 60 PSI 2"

Underground mains and lead in connections to system risers flushed before connection made to sprinkler piping.

VERIFIED BY COPY OF THE U FORM NO. 85B ☐ YES ☐ NO | OTHER | EXPLAIN

FLUSHED BY INSTALLER OF UNDERGROUND SPRINKLER PIPING ☐ YES ☐ NO | NUMBER REMOVED

BLANK TESTING GASKETS

NUMBER USED	LOCATIONS
0	

WELDING

WELDED PIPING ☑ YES ☐ NO

IF YES . . .

DO YOU CERTIFY AS THE SPRINKLER CONTRACTOR THAT WELDING PROCEDURES COMPLY WITH THE REQUIREMENTS OF AT LEAST AWS D10.9, LEVEL AR-3 ☑ YES ☐ NO

DO YOU CERTIFY THAT THE WELDING WAS PERFORMED BY WELDERS QUALIFIED IN COMPLIANCE WITH THE REQUIREMENTS OF AT LEAST AWS D10.9, LEVEL AR-3 ☑ YES ☐ NO

DO YOU CERTIFY THAT WELDING WAS CARRIED OUT IN COMPLIANCE WITH A DOCUMENTED QUALITY CONTROL PROCEDURE TO INSURE THAT ALL DISCS ARE RETRIEVED, THAT OPENINGS IN PIPING ARE SMOOTH, THAT SLAG AND OTHER WELDING RESIDUE ARE REMOVED, AND THAT THE INTERNAL DIAMETERS OF PIPING ARE NOT PENETRATED ☑ YES ☐ NO

HYDRAULIC DATA NAMEPLATE

NAMEPLATE PROVIDED ☑ YES ☐ NO | IF NO, EXPLAIN

REMARKS

DATE LEFT IN SERVICE WITH ALL CONTROL VALVES OPEN: 2-27-99

SIGNATURES

NAME OF SPRINKLER CONTRACTOR EASTERN FIRE PROTECTION

TESTS WITNESSED BY

FOR PROPERTY OWNER (SIGNED) | TITLE Const. Manager | DATE 7/27/99

FOR SPRINKLER CONTRACTOR (SIGNED) | TITLE FS | DATE 7/27/99

ADDITIONAL EXPLANATION AND NOTES

SPRINKLERS

MAKE	MODEL	YEAR OF MANUFACTURE	ORIFICE SIZE	QUANTITY	TEMPERATURE RATING

CONTRACTOR'S MATERIAL & TEST CERTIFICATE FOR ABOVEGROUND PIPING

PROCEDURE

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.

PROPERTY NAME: PORTLAND REGIONAL RESIDENCE — DATE: 7-27-98

PROPERTY ADDRESS: CANCO ROAD, PORTLAND, MAINE

PLANS

ACCEPTED BY APPROVING AUTHORITY('S) NAMES: OFFICE OF THE STATE FIRE MARSHAL

ADDRESS: BOX 488 GARDINER, MAINE

INSTALLATION CONFORMS TO ACCEPTED PLANS — ☑ YES ☐ NO

EQUIPMENT USED IS APPROVED — ☑ YES ☐ NO

IF NO, EXPLAIN DEVIATIONS

INSTRUCTIONS

HAS PERSON IN CHARGE OF FIRE EQUIPMENT BEEN INSTRUCTED AS TO LOCATION OF CONTROL VALVES AND CARE AND MAINTENANCE OF THIS NEW EQUIPMENT — ☑ YES ☐ NO

IF NO, EXPLAIN

HAVE COPIES OF APPROPRIATE INSTRUCTIONS AND CARE AND MAINTENANCE CHARTS AND NFPA 13A BEEN LEFT ON PREMISES — ☑ YES ☐ NO

IF NO, EXPLAIN

LOCATION OF SYSTEM

SUPPLIES BLDGS. ATTIC (DRY SYSTEM #1)

SPRINKLERS

MAKE	MODEL	YEAR OF MANUFACTURE	ORIFICE SIZE	QUANTITY	TEMPERATURE RATING
CENTRAL	GB-QR	1998	½	200	200

PIPE AND FITTINGS

PIPE CONFORMS TO NFPA #13 STANDARD — ☑ YES ☐ NO

FITTINGS CONFORM TO NFPA 13 STANDARD — ☑ YES ☐ NO

IF NO, EXPLAIN

ALARM VALVE OR FLOW INDICATOR

ALARM DEVICE			MAXIMUM TIME TO OPERATE THROUGH TEST PIPE	
TYPE	MAKE	MODEL	MIN.	SEC.

DRY PIPE OPERATING TEST

DRY VALVE			Q.O.D.		
MAKE	MODEL	SERIAL NO.	MAKE	MODEL	SERIAL NO.
CENTRAL	AG		CENTRAL	A	

	TIME TO TRIP THRU TEST PIPE		WATER PRESSURE	AIR PRESSURE	TRIP POINT AIR PRESSURE	TIME WATER REACHED TEST OUTLET		ALARM OPERATED PROPERLY	
	MIN.	SEC.	PSI	PSI	PSI	MIN.	SEC.	YES	NO
Without Q.O.D.		30	70	41	15		42	✓	
With Q.O.D.									

IF NO, EXPLAIN

DELUGE & PREACTION VALVES

OPERATION ☐ PNEUMATIC ☐ ELECTRIC ☐ HYDRAULIC

PIPING SUPERVISED ☐ YES ☐ NO | DETECTING MEDIA SUPERVISED ☐ YES ☐ NO

DOES VALVE OPERATE FROM THE MANUAL TRIP AND/OR REMOTE CONTROL STATIONS ☐ YES ☐ NO

IS THERE AN ACCESSIBLE FACILITY IN EACH CIRCUIT FOR TESTING ☐ YES ☐ NO | IF NO, EXPLAIN

MAKE	MODEL	DOES EACH CIRCUIT OPERATE SUPERVISION LOSS ALARM		DOES EACH CIRCUIT OPERATE VALVE RELEASE		MAXIMUM TIME TO OPERATE RELEASE	
		YES	NO	YES	NO	MIN.	SEC.

TEST DESCRIPTION

HYDROSTATIC: Hydrostatic tests shall be made at not less than 200 psi (13.6 bars) for two hours or 50 psi (3.4 bars) above static pressure in excess of 150 psi (10.2 bars) for two hours. Differential dry-pipe valve clappers shall be left open during test to prevent damage. All aboveground piping leakage shall be stopped.
FLUSHING: Flow the required rate until water is clear as indicated by no collection of foreign material in burlap bags at outlets such as hydrants and blow-offs. Flush at flows not less than 400 GPM (1514 L/min) for 4-inch pipe, 600 GPM (2271 L/min) for 5-inch pipe, 750 GPM (2839 L/min) for 6-inch pipe, 1000 GPM (3785 L/min) for 8-inch pipe, 1500 GPM (5678 L/min) for 10-inch pipe and 2000 GPM (7570 L/min) for 12-inch pipe. When supply cannot produce stipulated flow rates, obtain maximum available.
PNEUMATIC: Establish 40 psi (2.7 bars) air pressure and measure drop which shall not exceed 1-½ psi (0.1 bars) in 24 hours. Test pressure tanks at normal water level and air pressure and measure air pressure drop which shall not exceed 1-½ psi (0.1 bars) in 24 hours.

TESTS

ALL PIPING HYDROSTATICALLY TESTED AT 200 PSI FOR 2 HRS. | IF NO, STATE REASON

DRY PIPING PNEUMATICALLY TESTED ☐ YES ☐ NO

EQUIPMENT OPERATES PROPERLY ☑ YES ☐ NO

DRAIN TEST: READING OF GAGE LOCATED NEAR WATER SUPPLY TEST PIPE: STATIC PRESSURE: 70 PSI | RESIDUAL PRESSURE WITH VALVE IN TEST PIPE OPEN WIDE: 60 PSI 2"

Underground mains and lead in connections to system risers flushed before connection made to sprinkler piping.

VERIFIED BY COPY OF THE U FORM NO. 858 ☐ YES ☐ NO | OTHER | EXPLAIN

FLUSHED BY INSTALLER OF UNDERGROUND SPRINKLER PIPING ☐ YES ☐ NO

BLANK TESTING GASKETS

NUMBER USED	LOCATIONS	NUMBER REMOVED
0		

WELDING

WELDED PIPING ☑ YES ☐ NO

IF YES . . .

DO YOU CERTIFY AS THE SPRINKLER CONTRACTOR THAT WELDING PROCEDURES COMPLY WITH THE REQUIREMENTS OF AT LEAST AWS D10.9, LEVEL AR-3 ☑ YES ☐ NO

DO YOU CERTIFY THAT THE WELDING WAS PERFORMED BY WELDERS QUALIFIED IN COMPLIANCE WITH THE REQUIREMENTS OF AT LEAST AWS D10.9, LEVEL AR-3 ☑ YES ☐ NO

DO YOU CERTIFY THAT WELDING WAS CARRIED OUT IN COMPLIANCE WITH A DOCUMENTED QUALITY CONTROL PROCEDURE TO INSURE THAT ALL DISCS ARE RETRIEVED, THAT OPENINGS IN PIPING ARE SMOOTH, THAT SLAG AND OTHER WELDING RESIDUE ARE REMOVED, AND THAT THE INTERNAL DIAMETERS OF PIPING ARE NOT PENETRATED ☑ YES ☐ NO

HYDRAULIC DATA NAMEPLATE

NAMEPLATE PROVIDED ☑ YES ☐ NO | IF NO, EXPLAIN

REMARKS

DATE LEFT IN SERVICE WITH ALL CONTROL VALVES OPEN: 7-27-99

SIGNATURES

NAME OF SPRINKLER CONTRACTOR: CASTOWN FIRE PROTECTION

TESTS WITNESSED BY

	TITLE	DATE
FOR PROPERTY OWNER (SIGNED)	Const. Manager	7/27/99
FOR SPRINKLER CONTRACTOR (SIGNED)	FS	7/27/99

ADDITIONAL EXPLANATION AND NOTES

SPRINKLERS

MAKE	MODEL	YEAR OF MANUFACTURE	ORIFICE SIZE	QUANTITY	TEMPERATURE RATING

CONTRACTOR'S MATERIAL & TEST CERTIFICATE FOR ABOVEGROUND PIPING

PROCEDURE

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.

PROPERTY NAME: PORTLAND RETIREMENT RESIDENCE — DATE: 7-22-99

PROPERTY ADDRESS: CANCO ROAD, PORTLAND, MAINE

PLANS

ACCEPTED BY APPROVING AUTHORITY('S) NAMES: OFFICE OF THE STATE FIRE MARSHAL

ADDRESS: BOX 488 GARDNER, MAINE

INSTALLATION CONFORMS TO ACCEPTED PLANS — ☑ YES ☐ NO

EQUIPMENT USED IS APPROVED — ☑ YES ☐ NO

IF NO, EXPLAIN DEVIATIONS

INSTRUCTIONS

HAS PERSON IN CHARGE OF FIRE EQUIPMENT BEEN INSTRUCTED AS TO LOCATION OF CONTROL VALVES AND CARE AND MAINTENANCE OF THIS NEW EQUIPMENT — ☑ YES ☐ NO

IF NO, EXPLAIN

HAVE COPIES OF APPROPRIATE INSTRUCTIONS AND CARE AND MAINTENANCE CHARTS AND NFPA 13A BEEN LEFT ON PREMISES — ☑ YES ☐ NO

IF NO, EXPLAIN

LOCATION OF SYSTEM

SUPPLIES BLDGS. WET SYSTEM (SUPPLIES ENTIRE BLDG. EXCEPT ATTIC)

SPRINKLERS

MAKE	MODEL	YEAR OF MANUFACTURE	ORIFICE SIZE	QUANTITY	TEMPERATURE RATING
CENTRAL	GB-QR DRY PEND	1999	1/2	19	155
CENTRAL	LF PEND	1999	1/2	523	155
CENTRAL	GB-QR PEND	1999	1/2	109	155
CENTRAL	GB-QR DRY HOR.	1999	1/2	68	155
CENTRAL	GBR HOR.	1999	1/2	30	155

PIPE AND FITTINGS

PIPE CONFORMS TO NFPA #13 STANDARD — ☑ YES ☐ NO

FITTINGS CONFORM TO NFPA 13 STANDARD — ☑ YES ☐ NO

IF NO, EXPLAIN

ALARM VALVE OR FLOW INDICATOR

ALARM DEVICE			MAXIMUM TIME TO OPERATE THROUGH TEST PIPE	
TYPE	MAKE	MODEL	MIN.	SEC.
ALARM VALVE	CENTRAL	MODEL G		

DRY PIPE OPERATING TEST

DRY VALVE			Q.O.D.		
MAKE	MODEL	SERIAL NO.	MAKE	MODEL	SERIAL NO.

	TIME TO TRIP THRU TEST PIPE		WATER PRESSURE	AIR PRESSURE	TRIP POINT AIR PRESSURE	TIME WATER REACHED TEST OUTLET		ALARM OPERATED PROPERLY	
	MIN.	SEC.	PSI	PSI	PSI	MIN.	SEC.	YES	NO
Without Q.O.D.									
With Q.O.D.									

IF NO, EXPLAIN

DELUGE & PREACTION VALVES

OPERATION ☐ PNEUMATIC ☐ ELECTRIC ☐ HYDRAULIC

PIPING SUPERVISED ☐ YES ☐ NO | DETECTING MEDIA SUPERVISED ☐ YES ☐ NO

DOES VALVE OPERATE FROM THE MANUAL TRIP AND/OR REMOTE CONTROL STATIONS ☐ YES ☐ NO

IS THERE AN ACCESSIBLE FACILITY IN EACH CIRCUIT FOR TESTING ☐ YES ☐ NO | IF NO, EXPLAIN

MAKE	MODEL	DOES EACH CIRCUIT OPERATE SUPERVISION LOSS ALARM YES	NO	DOES EACH CIRCUIT OPERATE VALVE RELEASE YES	NO	MAXIMUM TIME TO OPERATE RELEASE MIN.	SEC.

TEST DESCRIPTION

HYDROSTATIC: Hydrostatic tests shall be made at not less than 200 psi (13.6 bars) for two hours or 50 psi (3.4 bars) above static pressure in excess of 150 psi (10.2 bars) for two hours. Differential dry-pipe valve clappers shall be left open during test to prevent damage. All aboveground piping leakage shall be stopped.
FLUSHING: Flow the required rate until water is clear as indicated by no collection of foreign material in burlap bags at outlets such as hydrants and blow-offs. Flush at flows not less than 400 GPM (1514 L/min) for 4-inch pipe, 600 GPM (2271 L/min) for 5-inch pipe, 750 GPM (2839 L/min) for 6-inch pipe, 1000 GPM (3785 L/min) for 8-inch pipe, 1500 GPM (5678 L/min) for 10-inch pipe and 2000 GPM (7570 L/min) for 12-inch pipe. When supply cannot produce stipulated flow rates, obtain maximum available.
PNEUMATIC: Establish 40 psi (2.7 bars) air pressure and measure drop which shall not exceed 1-½ psi (0.1 bars) in 24 hours. Test pressure tanks at normal water level and air pressure and measure air pressure drop which shall not exceed 1-½ psi (0.1 bars) in 24 hours.

TESTS

ALL PIPING HYDROSTATICALLY TESTED AT 200 PSI FOR 2 HRS. | IF NO, STATE REASON

DRY PIPING PNEUMATICALLY TESTED ☐ YES ☐ NO

EQUIPMENT OPERATES PROPERLY ☑ YES ☐ NO

DRAIN TEST: READING OF GAGE LOCATED NEAR WATER SUPPLY TEST PIPE: STATIC PRESSURE: 70 PSI | RESIDUAL PRESSURE WITH VALVE IN TEST PIPE OPEN WIDE: 65 PSI 16

Underground mains and lead in connections to system risers flushed before connection made to sprinkler piping.

VERIFIED BY COPY OF THE U FORM NO. 858 ☐ YES ☐ NO | OTHER EXPLAIN: Installed by other Flushed by FSB

FLUSHED BY INSTALLER OF UNDERGROUND SPRINKLER PIPING ☐ YES ☐ NO

BLANK TESTING GASKETS

NUMBER USED	LOCATIONS	NUMBER REMOVED
0		

WELDING

WELDED PIPING ☑ YES ☐ NO

IF YES . . .

DO YOU CERTIFY AS THE SPRINKLER CONTRACTOR THAT WELDING PROCEDURES COMPLY WITH THE REQUIREMENTS OF AT LEAST AWS D10.9, LEVEL AR-3 ☑ YES ☐ NO

DO YOU CERTIFY THAT THE WELDING WAS PERFORMED BY WELDERS QUALIFIED IN COMPLIANCE WITH THE REQUIREMENTS OF AT LEAST AWS D10.9, LEVEL AR-3 ☑ YES ☐ NO

DO YOU CERTIFY THAT WELDING WAS CARRIED OUT IN COMPLIANCE WITH A DOCUMENTED QUALITY CONTROL PROCEDURE TO INSURE THAT ALL DISCS ARE RETRIEVED, THAT OPENINGS IN PIPING ARE SMOOTH, THAT SLAG AND OTHER WELDING RESIDUE ARE REMOVED, AND THAT THE INTERNAL DIAMETERS OF PIPING ARE NOT PENETRATED ☑ YES ☐ NO

HYDRAULIC DATA NAMEPLATE

NAMEPLATE PROVIDED ☑ YES ☐ NO | IF NO, EXPLAIN

REMARKS

DATE LEFT IN SERVICE WITH ALL CONTROL VALVES OPEN: 7-27-99

SIGNATURES

NAME OF SPRINKLER CONTRACTOR: EASTERN FIRE PROTECTION

TESTS WITNESSED BY

	TITLE	DATE
FOR PROPERTY OWNER (SIGNED)	Const Manager	7/27/99
FOR SPRINKLER CONTRACTOR (SIGNED)	FS	7/27/99

ADDITIONAL EXPLANATION AND NOTES

SPRINKLERS

MAKE	MODEL	YEAR OF MANUFACTURE	ORIFICE SIZE	QUANTITY	TEMPERATURE RATING
CENTRAL	GB-QR UP.	1999	1/2	7	155
CENTRAL	LF NOR.	1999	1/2	236	155
CENTRAL	GB-LO NOR.	1999	3/4	4	155
CENTRAL	GB-QR NOR.	1999	1/2	15	155

GREAT AMERICAN INSURANCE COMPANY

580 WALNUT STREET • CINCINNATI, OHIO 45202 • 513-369-5000 • FAX 513-723-2740

The number of persons authorized by this power of attorney is not more than EIGHT

No. 013678

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the GREAT AMERICAN INSURANCE COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Ohio, does hereby nominate, constitute and appoint the person or persons named below its true and lawful attorney-in-fact, for it and in its name, place and stead to execute in behalf of the said Company, as surety, any and all bonds, undertakings and contracts of suretyship or other written obligations in the nature thereof, provided that the liability of the said Company on any such bond, undertaking or contract of suretyship executed under this authority shall not exceed the limit stated below.

Name		Address	Limit of Power
ROBERT A. BALLIN	MARGARET HUFFMAN	ALL OF	ALL
RAY PAIEMENT	LARRY C. BUCK	EUGENE,	UNLIMITED
FRED E. CREATWOOD	STEVEN J. HANSON	OREGON	
PAT CELLERS	BEVERLEY VERBANIC		

This Power of Attorney revokes all previous powers issued in behalf of the attorney(s)-in-fact named above.

IN WITNESS WHEREOF the GREAT AMERICAN INSURANCE COMPANY has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 3rd day of April, 19 96

Attest GREAT AMERICAN INSURANCE COMPANY

STATE OF OHIO, COUNTY OF HAMILTON — ss.

On this 3rd day of April, 1996, before me personally appeared GARY T. DUNBAR, to me known, being duly sworn, deposes and says that he resided in Cincinnati, Ohio, that he is the President of the Bond Division of Great American Insurance Company, the Company described in and which executed the above instrument; that he knows the seal, that it was so affixed by authority of his office under the By-Laws of said Company, and that he signed his name thereto by like authority.

This Power of Attorney is granted by authority of the following resolutions adopted by the Board of Directors of Great American Insurance Company by unanimous written consent dated March 1, 1993.

RESOLVED: That the Division President, the several Division Vice Presidents and Assistant Vice Presidents, or any one of them, be and hereby is authorized, from time to time, to appoint one or more Attorneys-In-Fact to execute on behalf of the Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; to prescribe their respective duties and the respective limits of their authority; and to revoke any such appointment at any time.

RESOLVED FURTHER: That the Company seal and the signature of any of the aforesaid officers and any Secretary or Assistant Secretary of the Company may be affixed by facsimile to any power of attorney or certificate of either given for the execution of any bond, undertaking, contract or suretyship, or other written obligation in the nature thereof, such signature and seal when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

CERTIFICATION

I, RONALD C. HAYES, Assistant Secretary of Great American Insurance Company, do hereby certify that the foregoing Power of Attorney and the Resolutions of the Board of Directors of March 1, 1993 have not been revoked and are now in full force and effect.

Signed and sealed this 14TH day of MAY, 19 98

GREAT AMERICAN INSURANCE COMPANY

CINCINNATI, OHIO

SUBDIVISION BOND

FILE

Bond No. FS2906534

KNOW ALL MEN BY THESE PRESENTS, that we COLSON & COLSON CONSTRUCTION CO.

as Principal, and the GREAT AMERICAN INSURANCE COMPANY, a corporation organized under the laws of the State of Ohio and duly authorized to transact business in the State of MAINE as Surety, are held and firmly bound unto CITY OF PORTLAND, 389 CONGRESS STREET, PORTLAND MAINE 04101 as Obligee

in the penal sum of SEVEN HUNDRED ~~FIVE THOUSAND, THREE~~ HUNDRED FORTY THREE AND NO/100 ($ 705,343.00)

DOLLARS, lawful money of the United States of America, for the payment of which well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, COLSON & COLSON CONSTRUCTION CO.

has agreed to construct in PORTLAND RETIREMENT RESIDENCE

Subdivision, in PORTLAND, MAINE

the following improvements STREET SIDEWALK, SANITARY SEWER, STORM DRAINAGE, SITE LIGHTING, EROSION CONTROL, RECREATION AND OPEN SPACE AMENITIES, AND LANDSCAPING

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall construct, or have constructed, the improvements herein described and shall save the Obligee harmless from any loss, cost or damage by reason of its failure to complete said work, then this obligation shall be null and void; otherwise to remain in full force and effect.

Signed, sealed and dated this 14TH day of MAY 19 98

COLSON & COLSON CONSTRUCTION CO.
Principal

By: Will — E Col

GREAT AMERICAN INSURANCE COMPANY

By: Beverley Verbanic
Attorney-in-fact

BEVERLEY VERBANIC, ATTORNEY-IN-FACT

COLSON & COLSON

FACSIMILE TRANSMITTAL SHEET

TO: Sam H.
FROM: Terry
COMPANY:
DATE:
FAX NUMBER:
TOTAL NO. OF PAGES INCLUDING COVER: 3
PHONE NUMBER:
SENDER'S REFERENCE NUMBER:
RE:
YOUR REFERENCE NUMBER

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

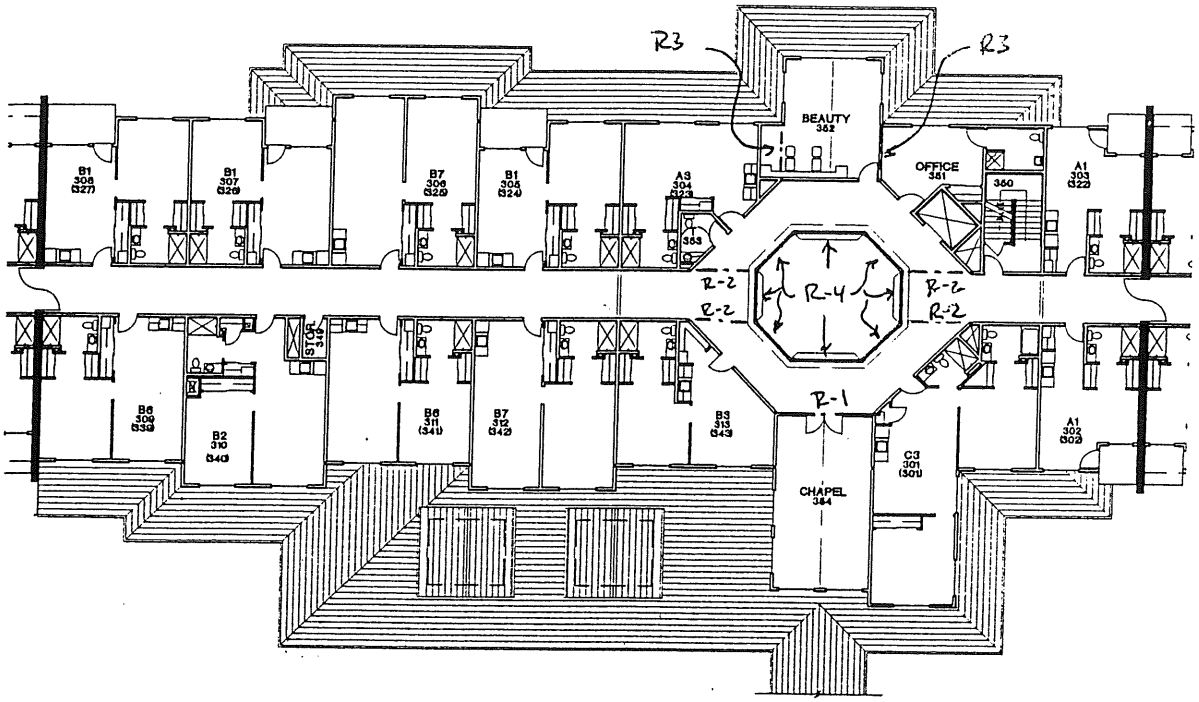
PORTLAND PROJECT 257 CANCO ROAD PORTLAND, MAINE 04103 207.773.7203
FAX 207 773.7225

CORE FRAMING

Roof

DEAD LOAD = 17 psf SNOW LOAD = 48 psf MECH LOAD = 80 psf

BACK



FRONT

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

FILE NO. 980302 SHEET NO. 1.1
DESIGNER DSG DATE 4/19/98
CLIENT CIB
PROJECT Retirement Residence

BM R-1

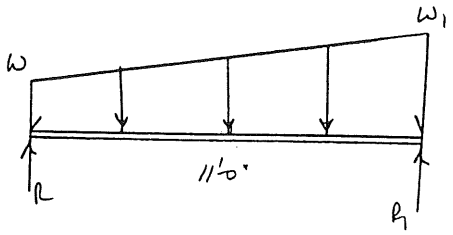
Span = 16'-0" Uniform Load = 17(9/2+1) + 80(9/2) + 48(1) = 501 plf

V_M = 4006 # M_M = 16000 ft-# DEI = 7.37×10^8 #-in²

5 1/8 x 12 GLB V_a = 6765 # M_a = 24600 ft-# I_{no} = 738 in⁴ Δ = .156" = 9/346 ok

∴ 5 1/8 x 12 (24F-V4) GLB

BM R-2



$w = (17(4) + 80(4)) = 388$ plf — Δ = 534 plf

$w_1 = (17+80)(19/2) = 922$ plf

$V_M = R_1 = 2134 + 1958 = 4092$ #

$R_2 = 2134 + 979 = 3113$ #

$M_M = 5869 + 4145 = 10014$ ft-#

DEI = $1.28 \times 10^8 + 8.8 \times 10^7 = 2.16 \times 10^8$ #-in²

5 1/2 x 9 ISC → V_a = 6970 # M_a = 17930 ft-# EI = 747×10^6 Δ = .285" = 9/457

∴ 5 1/2 x 9 1/2 ISC

BM R-3

Span = 9'-0" Uniform Load = (17+48)(16.5/2+4) = 796 plf

V_M = 3582 # M_M = 8059 ft-# DEI = 1.18×10^6 #-in²

∴ 5 1/2 x 9 1/2 ISC

BM R-4

Span = 17'-6" Uniform Load = (17+80)(4) + 18(12) + 15 = 620 plf

V_M = 3525 # M_M = 10249 ft-# DEI = 2.44×10^8 #-in² F_b = .66(36000) = 23760 ksi

$S_{req'd} = \frac{10249 \times 12}{23760} = 5.18$ in³ $\Delta = 9/240 = .375$ $I_{req'd} = \frac{2.44 \times 10^8}{29 \times 10^6 (.375)} = 14.6$ in⁴

W8 x 13 S_{no} = 9.91 in³ I_{no} = 39.6 in⁴ ∴ W8 x 13 STD OK

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

FILE NO. 980302 SHEET NO. 1.2
DESIGNER DSG DATE 4/19/98
CLIENT C/B
PROJECT Retirement Residence

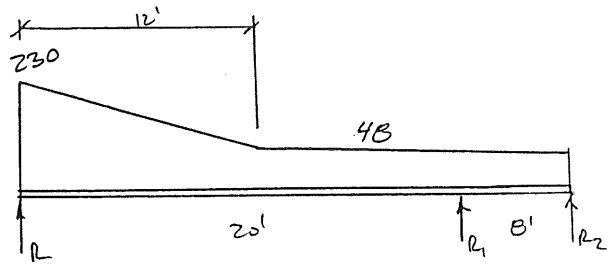
EXTERIOR HDRS

SPAN = 6'-0" UNIFORM LOAD = (17 + 48)(24/2 + 2) = 910 pf

DL = 238 pf LL = 672 pf

↓ ALT CASE ↓

WORST CASE. AT LOWER ROOF AT DINING ROOM



SPAN = 6'-0"

DL = 17(28/2) = 238 pf

LL = 48(28/2) + 1092(4/20) = 890 pf

CONTROLS

— See SHT 1.3.1 —

Dan Green Engineering, Inc.
2928 19th Street SE
Salem, OR. 97302

Title : ^
Dsgnr: DSG
Description :

Job # 980302
Date: 12:00PM, 19 APR 98

Scope :

Rev: 504001

Timber Beam & Joist

Description Exterior header

Timber Member Information

		Ext. hdr lower
Timber Section		**3-2x12**
Beam Width	in	4.500
Beam Depth	in	11.250
Le: Unbraced Length	ft	0.00
Timber Grade		Spruce - Pine - Fir,
Fb - Basic Allow	psi	875.0
Fv - Basic Allow	psi	70.0
Elastic Modulus	ksi	1,400.0
Load Duration Factor		1.150
Member Type		Sawn
Repetitive Status		Repetitive

Center Span Data

Span	ft	6.00
Dead Load	#/ft	238.00
Live Load	#/ft	890.00

Results

Ratio = 0.8569

Mmax @ Center	in-k	60.91
@ X =	ft	3.00
fb : Actual	psi	641.7
Fb : Allowable	psi	1,272.9
		Bending OK
fv : Actual	psi	69.0
Fv : Allowable	psi	80.5
		Shear OK

Reactions

@ Left End	DL	lbs	714.00
	LL	lbs	2,670.00
	Max. DL+LL	lbs	3,384.00
@ Right End	DL	lbs	714.00
	LL	lbs	2,670.00
	Max. DL+LL	lbs	3,384.00

Deflections

Center DL Defl	in	-0.009
L/Defl Ratio		7,755.3
Center LL Defl	in	-0.035
L/Defl Ratio		2,073.9
Center Total Defl	in	-0.044
Location	ft	3.000
L/Defl Ratio		1,636.3

SHT 1.3.1

Roof Rafters

Design section - SPF, No.1/No.2 2x12 @ 24"o/c

$F_b' = 875 \times 1.15^{CO} \times 1.15^{Cr} = 1157$ psi

$F_v' = 70 \times 1.15^{CO} = 80$ psi $E = 1.4 \times 10^6$ psi

$A = 16.88$ in^2 $S_x = 31.64$ in^3 $I_x = 177.98$ in^4

RAFTER R-1, (AT CORE AREA)

SPAN = 8'-6" DL = 20 psf SNOW = 48 psf MECHANICAL = 80 psf

$W_{TOTAL} = (20+80+48)2 = 296$ plf

$V_M = 1258$ # $M_M = 2673$ '-# OEI = 3.48×10^7 #-in^2

$f_v = \frac{3(1258 \times (3.31/4.25))}{2(16.88)} = 87.0$ psi $\frac{f_v}{F_v'} = 1.09$ NG, over 5%

@ 16"o/c $f_v = 87(4/3.5) = 58$ psi $< F_v'$ $f_b = \frac{1782 \times 12}{31.64} = 676$ psi $< F_b' = 1157$ psi

$\Delta_{TOTAL} = \frac{3.48 \times 10^7 (1.33/2)}{1.4 \times 10^6 (170)} = .093'' < .095$

[Use 2x12 SPF No.1/No.2 @ 16"o/c]

RAFTER R-2 (AT CORE AREA)

SPAN = 11'-6" SAME LOADS AS R-1 ABOVE, SPACING = 16"o/c

$W_{TOTAL} = 296(1.33/2) = 197$ plf

$V_M = 1133$ # $M_M = 3257$ '-# OEI = 7.75×10^7 #-in^2

$f_v = \frac{3(1133 \times (4.81/5.25))}{2(16.88)} = 84.2$ psi $\frac{f_v}{F_v'} = 1.05$ 5% OK,

$f_b = \frac{3257 \times 12}{31.64} = 1235$ psi $\frac{f_b}{F_b'} = 1.07 > 5\%$ REDUCE TO 12"o/c

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

FILE NO. 980302 SHEET NO. 1.4
DESIGNER DJG DATE 4/19/98
CLIENT C/B
PROJECT Retirement Residence

Willamette Industries, Inc.

Engineered Wood Products

Dan Green Engineering, Inc.

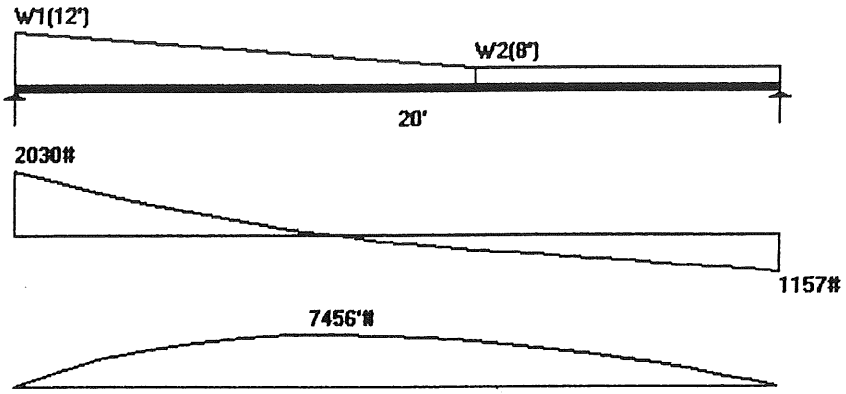
E-Z Calc (v3.06)

PROJECT: I
LOCATION:
JOB NO.: 980302 DESIGNER: DSG

04/19/98
SHEET: 1, 6

MARK R3 Roof Joist Roof joist at lower roof with snow drift
TRIB.: 16 in. MEMBER SLOPE: .42/12 Input reflects horizontal center to center spans.
W1= 329 to 87 plf LL = 48 psf DL = 17 psf Duration= 115%
LL=182 to 0 psf DL=0 to 0 psf Duration= 115%
W2= 87 plf LL = 48 psf DL = 17 psf Duration= 115%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



	% Allow.	Maximum	Allow.	DOL - Control
End Reaction: (lbs)	100%	2032	2032	115% - Total Load
Shear: (lbs)	89%	2030	2275	115% - Total Load
Positive Moment: (ft-lbs)	61%	7457	12254	115% - Total Load

(7% REPETITIVE INCREASE USED FOR ALLOWABLE MOMENT)

Deflection	LL	Ratio	TL	Ratio		
Span:	0.44	*l* / 546	0.52	*l* / 461	EI = 1209 x 10^6	K = 8.32 x 10^6

***** USE 16 INCH WSI-424(2100F) @ 16 in. O/C *****

Min end bearing = 1.96 inches - web stiffeners required. Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge.

RAFTER R-2 CONT.

$$\Delta_{TOTAL} = \frac{7.6 \times 10^7 (1/1.33)}{1.4 \times 10^6 (178)} = .23 = \ell/600$$

[∴ 2x12 SPF NO.1/NO.2 @ 12"o/c]

RAFTER R-5 (AT END OF WWGS)

Design Section ⇒ 2x6 SPF NO.1/NO.2 @ 24"o/c

$F_b' = 1157 \times 1.3^{C_F} = 1504$ psi $\quad F_v' = 80$ psi $\quad E = 1.4 \times 10^6$ psi

Area = 8.25 in^2 $\quad S_x = 7.56$ in^3 $\quad I_x = 20.8$ in^4

SPAN = 7'6" $\quad$ DL = 20 psf, SNOW = 109 psf $\quad \therefore W_{TOTAL} = 129$ psf (2') = 258 plf

$V_m = 968$ # $\quad M_m = 1814$'-# $\quad \Delta EI = 1.84 \times 10^7$ #-in^2

$$f_v = \frac{3(968 \times (3.5/4))}{2(8.25)} = 155 \text{ psi} \qquad \frac{f_v}{F_v'} = 1.94 \quad N.G.$$

@ 12"o/c

$f_v = 78$ psi $\quad \frac{f_v}{F_v'} = .97$ OK.

$$f_b = \frac{1814 \times 12 \times 1/2}{7.56} = 1439 \text{ psi} \qquad \frac{f_b}{F_b'} = .96 \quad \text{OK.}$$

$$\Delta = \frac{1.84 \times 10^7 (1/2)}{1.4 \times 10^6 (20.8)} = .32 = \ell/285 \quad \text{OK.}$$

[∴ 2x6 SPF NO.1/NO.2 @ 12"o/c]

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

FILE NO. 980302 SHEET NO. 1.5
DESIGNER DJG DATE 4/19/98
CLIENT C/B
PROJECT _ Retirement Residence

Willamette Industries, Inc.

Engineered Wood Products

Dan Green Engineering, Inc.

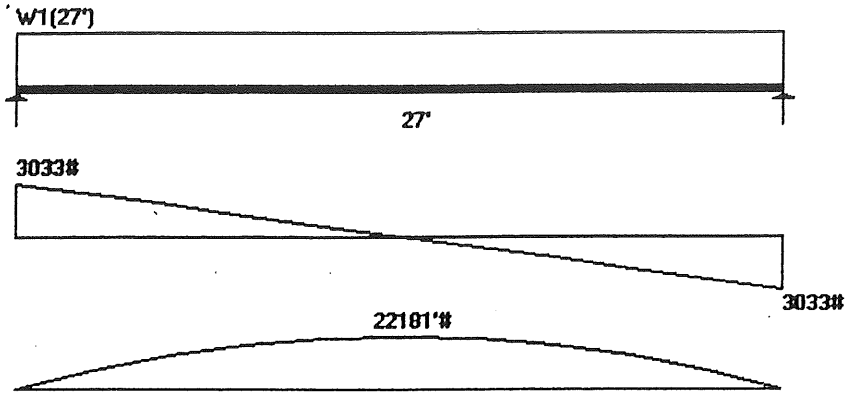
E-Z Calc (v3.06)

PROJECT:
LOCATION:
JOB NO.: 980302 DESIGNER: DSG

04/19/98
SHEET: 1.7

MARK R4 Roof Beam Roof joist at lower roof with snow drift
TRIB.: 1 ft. MEMBER SLOPE: 5/12 Input reflects horizontal center to center spans.
W1= 242 plf LL = 225 psf DL = 17 psf Duration= 115%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



	% Allow.	Maximum	Allow.	DOL - Control
Shear: (lbs)	32%	2757	8587	115% - Total Load
Positive Moment: (ft-lbs)	60%	22181	36769	115% - Total Load

Deflection	LL	Ratio	TL	Ratio	
Span:	1.4	l / 251	1.51	l / 232	EI = 2270 x 10^6

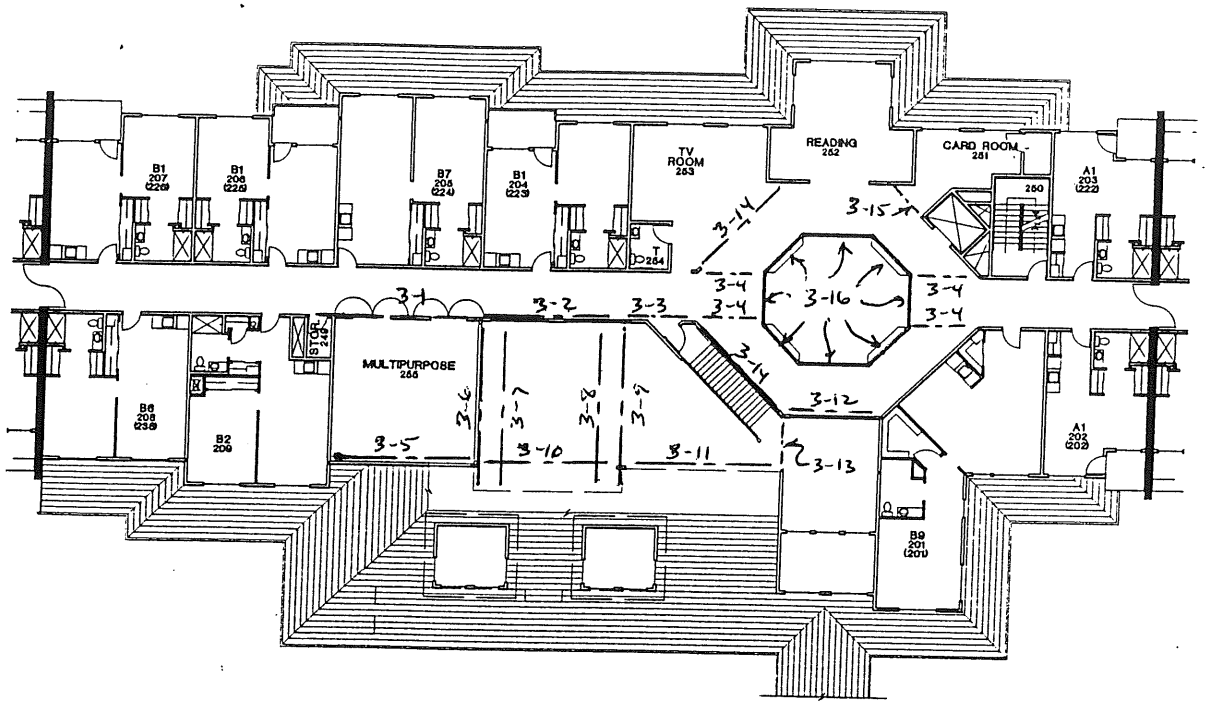
***** USE 3.5 x 16 INCH Willamette IJC(26F-V4 SP/SP) *****

Min end bearing length = 1.5 in. Support bearing length requirements must be checked separately. Sloped connections require additional consideration. Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge.

3rd Floor Framing @ Core

Floor DL ⇒ Units = 20 psf Common = 23 psf Deck = 10 psf

" LL ⇒ " = 40 psf " = 100 psf " = 60 psf



BM 3-1

Span = 28'-6" Uniform Load ⇒ Roof = (48+17)(16) = 1040 plf

Wall = 7(9) = 63 plf

Floor = 60(12.3) + 123(4) = 1230 plf

Σ 2333 plf

V_M = 33245 # M_M = 236872 ft-# OEI = 3.46×10^{10} #-in²

Str. BM – F_b = .36(36000) = 23760 psi E = 29×10^6 psi

$S_{Mod} = \frac{236872 \times 12}{23760} = 119$ in³ $I_{Mod} = \frac{3.46 \times 10^{10}}{29 \times 10^6 (342/240)} = 838$ in⁴

W16x67 S_{BM} = 117 in³ I_{BM} = 954 in⁴ OK" [∴ W16x67 Str. BM]

290 OK"

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

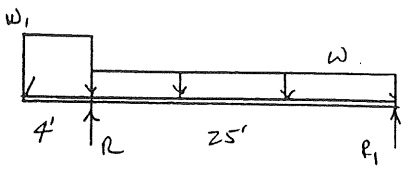
FILE NO. 980302 SHEET NO. 1.8
DESIGNER DSG DATE 4/19/98
CLIENT C/B
PROJECT Res. Residence

BM'S 3-6 AND 3-9

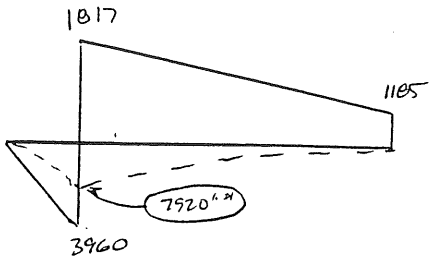
$w_{LL} = 40(2) = 80$ plf $w_{DL} = 20(2) = 40$ plf $\Sigma w = 120$ plf

$w_{1_{LL}} = 80 + 48(12) = 656$ plf

$w_{1_{DL}} = 40 + 90 + 17(12) = 334$ plf $\Big\}\ \Sigma w_1 = 990$ plf



$R = \frac{3000(12.5) + 3960(27)}{25} = 5777^{\#}$ $R_1 = -1183^{\#}$



$R_{1\,max} = \frac{3000(12.5) - 1336(2)}{25} = 1393^{\#}$ (only 25'-0" span w/LL)

$V_m = 3960^{\#}$ $M_m = 7920^{'\#}$

$\Delta EI_{cant} = \frac{10(300)^2}{384}\left(5(300)^2 - (12)(48)^2\right) - \frac{82.5(48)^2}{24}\left(4(300) + 3(48)\right)$

$= -9.9 \times 10^8 + 1.06 \times 10^7 = -9.79 \times 10^8$ #·in²

$\Delta EI_{span} = \frac{10(300)^2}{384}\left(5(300)^2 - 12(48)^2\right) - \frac{82.5(48)^2(150)}{12(300)}\left((300)^2 - (150)^2\right)$

$= 9.9 \times 10^8 - 5.34 \times 10^8 = 4.56 \times 10^8$ #·in²

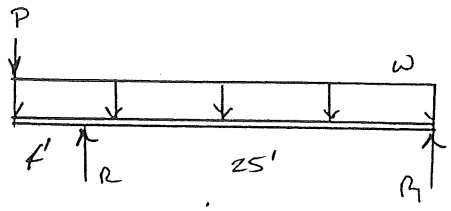
3½ x 18 Parallam → @ 100%

$V_{Allow} = 6090^{\#}$ $M_{Allow} = 21830^{'\#}$ $I_{pw} = 850$ in⁴ $E = 2.0 \times 10^6$ psi

$\Delta = .27'' = 9/1118$

[∴ 3½ x 18 Parallam]

BM'S 3-7 AND 3-8

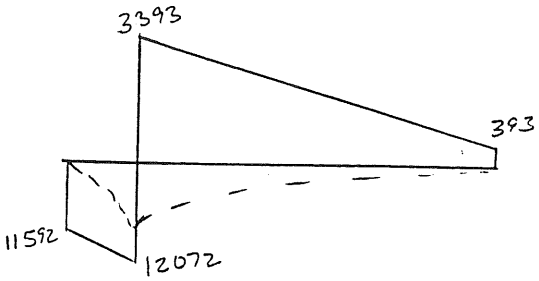


$W = 120$ pcf $P = (190+17)(7)(8) = 11592$ #

$R = \frac{3480(14.5) + 11592(29)}{25} = 15465$ # $R_1 = -393$ #

If simple span $R_1 \approx 1500$ #

$V_M = 12072$ # $M_M = 4(11592 + \frac{1}{2}(480)) = 47328$ ft-#



$\Delta EI_{SPAN} = \frac{10(300)^2}{384}(5(300)^2 - 12(48)^2) - \frac{11592(48)(200)^2}{10}$

$= 9.9\times10^8 - 1.39\times10^9 = -4.02\times10^8$ # in^3

$\Delta EI_{CANT} = -4.78\times10^8 + \frac{11592(48)^2}{3}(348) = 2.62\times10^9$ # in^3

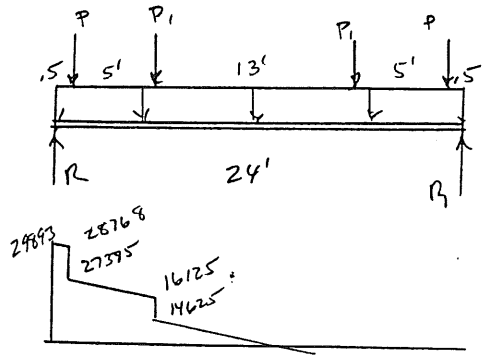
$3\frac{1}{2}\times18$ parallam @ 115 #/ft

$V_{ALLOW} = 14007$ # $M_{ALLOW} = 50215$ ft-# $I_{PRL} = 1700$ in^4 $\Delta = .118 = 9/2537$ ok

[$3\frac{1}{8}\times18$ parallam]

BM 3-2

$W = 2285$ pcf (SHT 1.8) $P = 1393$ # $P_1 = 1500$ #



$R = \frac{2250(24)}{2} + 1393 + 1500 = 29893$ # $= V_M$

$M_M = 14625(6.5\times\frac{1}{2}) + 5(16125 + \frac{1}{2}(11250)) + .5(28768 + \frac{1}{2}(1125))$

$M_M = 47531 + 108750 + 14065 = 170946$ ft-#

$\Delta EI = 1.68\times10^{10} + 2(3.73\times10^8) = 1.75\times10^{10}$ # in^3

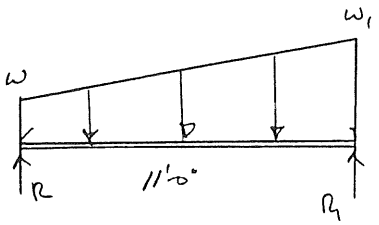
[Use W16x67, see BM 3-1]

BM 3-3

use [W16x67] for ease of connection

BM 3-4

$W = 123(4) = 492$ plf $W_1 = 123(4+5.5) = 1169$ plf



$V_M = R_1 = 2706 + 2482 = 5188$ #

$R = 2706 + 1242 = 3948$ #

$M_M = 7442 + 5255 = 12697$ ft-#

$DEI = 1.62 \times 10^8 + 1.12 \times 10^8 = 2.74 \times 10^8$ #-in²

(3) - 13/4 x 9 1/2 LVL ⇒ $V_{ALLOW} = 3160 \times 3 = 9480$ # $M_{ALLOW} = 5885 \times 3 = 17655$ ft-#

$I_{MO} = 125 \times 3 = 375$ in⁴ $\Delta = .411 = \ell/325$ ok [(3) - 13/4 x 9 1/2 LVL]

BM 3-5

Simple span = 24'-0" Uniform Load ⇒ upper roof = (17+48)(14.5) = 943 plf

wall = 12(9) = 108 plf

floor = (40+20)(12.5) = 750 plf

lower roof = (17+230)(1) = 247 plf

Σ 2048 plf

$V_M = 24576$ # $M_M = 147456$ ft-# $DEI = 1.53 \times 10^{10}$ #-in²

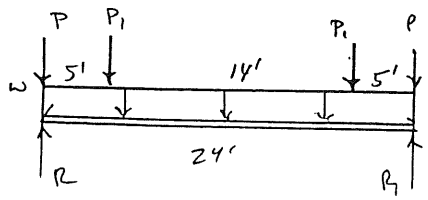
5 1/8 x 30 GLB ⇒ $V_a = 19456$ # = $V_{ADJ} = 24576(9.5/12) = 19456$ # ok

$M_{ALLOW} = 159137$ ft-# $I_{MO} = 11537$ in⁴ $\Delta = .274 = \ell/391$ ok

[5 1/8 x 30 (24F-V4) GLB] ALT SCL - $S_{REQ'D} = 74.5$, $I_{REQ'D} = 440$

W14x61 $S_x = 92$ $I_x = 640$

BM 3-10



$P = 5.777$ k (SHT 1.9) $P_1 = 15.465$ k (SHT 1.10)

$w = \frac{3480(14.5)}{25(2)} = 1009$ #

$V_M = 1009(12) + 15465 = 27573$ # $R_{MAX} = 27573 + 5777 = 33350$ #

$M_M = 72648 + 2(61216) = 195080$ ft-#

$DEI = 7.53 \times 10^9 + 2(3.35 \times 10^9) = 1.42 \times 10^{10}$ #-in²

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

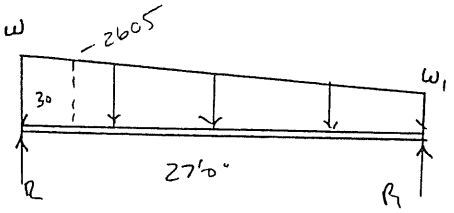
FILE NO. 980302 SHEET NO. 1.11
DESIGNER DSG DATE 4/20/98
CLIENT CIB
PROJECT Rel. Residence

Bm 3-10 CONT.

$S_{reqd} = \frac{195080 \times 12}{23760} = 98.6\ IN^3$ $\quad I_{reqd} = \frac{1.42 \times 10^{10}}{29 \times 10^6 (288/240)} = 408\ IN^4$

W14×61 ⇒ $S_{PROV} = 92.2\ IN^3$ $\quad I_{PROV} = 640\ IN^4$ $\quad$ ∴ W14×61 SATISFACTORY

Bm 3-11 ×68 ⇒ $S_{PROV} = 103\ IN^3$



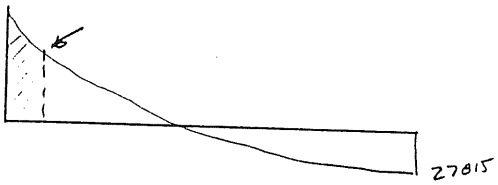
W ⇒ UPPER ROOF = (48+17)(14.5) = 943 PLF

WALL = 12(9) = 108 PLF

FLOOR = (40+20)(12.5) = 750 PLF

LOWER ROOF = 2030/1.33 = 1523 PLF

↑ SHT 1.6 ≤ 3324 PLF



W_1 ⇒ UPPER ROOF = (48-17)(4.5+2) = 423 PLF

WALL = = 108 PLF

FLOOR = (40+20)(4.5) = 270 PLF

LOWER ROOF = = 1523 PLF

≤ 2324 PLF

$R = V_M = 31374 + 9000 = 40374^{\#}$ $\quad R_1 = 31374 + 4500 = 35874^{\#}$

$M_M = 211775 + 46765 = 258540^{1.\#}$

$OEI = 2.78 \times 10^{10} + 5.99 \times 10^9 = 3.38 \times 10^{10}\ \#\cdot IN^2$

$S_{reqd} = \frac{258540 \times 12}{23760} = 130\ IN^3$ $\quad I_{Reqd} = \frac{3.38 \times 10^{10}}{29 \times 10^6 (324/240)} = 863\ IN^4$

∴ W14×90 $\quad S_{PROV} = 143$ $\quad I_{PROV} = 999$ $\quad$ [∴ W14×90]

Bm 3-12

SIMPLE SPAN = 12'-0" $\quad$ UNIFORM LOAD = 123 (5.5) = 676 PLF ⇒ 700 PLF

$V_M = 5600^{\#}$ $\quad M_M = 22400^{1.\#}$ $\quad OEI = 1.03 \times 10^9\ \#\cdot IN^2$

5⅛×18 $\quad V_R = 10153^{\#}$ $\quad M_R = 53140^{1.\#}$ $\quad I_{PROV} = 2491\ IN^4$ $\quad \Delta = .23 \cdot {}^{\#}/_{EM}$

[∴ 5⅛×18 (24F-V4) GLB]

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

FILE NO. 980302 SHEET NO. 1.12
DESIGNER DSG DATE 4/20/98
CLIENT CIB
PROJECT Ref. Residence

BM 3-13

Simple span = 9'-0" Uniform load on upper floor = (48+17)(17/2+2) = 683 plf

Wall = 12(9) = 108 plf

Floor = 123(6) = 984 plf

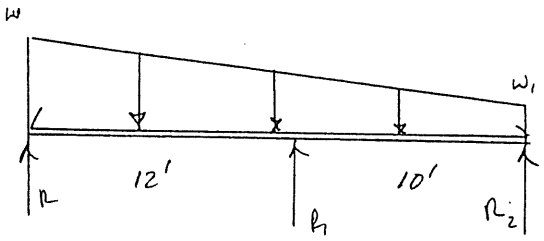
Σ 1775 plf

V_M = 7988# M_M = 17972 ft-# DEF = 2.162 x 10^8 #-in^3

5 1/8 x 15 V_{ALLOW} = 9728# M_{ALLOW} = 43332 ft-# I_{NO} = 1441 in^4 Δ = .101"

(∴ 5 1/8 x 18 (24F-V4) GLB)

BM 3-14



w ⇒ Roof DL = 17(16.5) = 281 plf

" LL = 48(12.5) + 80(4) = 920 plf

Floor DL = 20(12.5) = 250 plf

" LL = 40(12.5) = 500 plf

Wall = 7(9) = 63 plf

ΣLL = 1420 plf ΣDL = 594 plf

w_1 ⇒ Roof DL = 17(6) = 102 plf

" LL = 80(6) = 480 plf

Floor DL = 23(6) = 138 plf

" LL = 100(6) = 600 plf

Wall = = 63 plf

ΣLL = 1080 plf ΣDL = 303 plf

50 psf self wt

- See next page -

Willamette Industries, Inc.

Engineered Wood Products

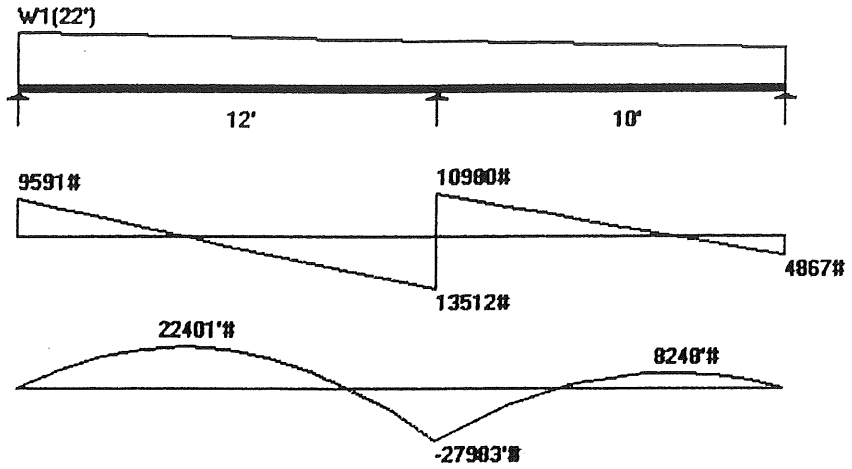
Dan Green Engineering, Inc.

E-Z Calc (v3.06)

PROJECT:
LOCATION:
JOB NO.: 980302 DESIGNER: DSG 04/20/98 SHEET: 1.14

MARK BM 3-14 Floor Beam 5 1/8" x 18" IJC
Input reflects horizontal center to center spans.
W1= 2111 to 1430 plf LL = 1080 plf DL = 350 plf Duration= 115%
LL=340 to 0 plf DL=341 to 0 plf Duration= 115%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



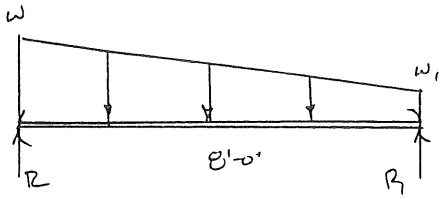
	% Allow.	Maximum	Allow.	DOL - Control
Shear: (lbs)	72%	10868	15180	115% - Total Load
Positive Moment: (ft-lbs)	34%	25165	73990	115% - Alternate Span Loading
Negative Moment: (ft-lbs)	38%	-27982	73503	115% - Total Load

Deflection	LL	Ratio	TL	Ratio	
Span:	0.08	// 1745	0.11	// 1283	EI = 5079 x 10^6

***** USE 5.5 x 18 INCH Willamette IJC(26F-V4 SP/SP) *****

Min end bearing length = 2.83 in., min. continuous bearing length = 6.85 in. Support bearing length requirements must be checked separately. Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge.

BM 3-15



$W = 1433 + 26.4(8) = 1644$ pf $W_1 = 1433$ pf

$V_M = R = 5732 + 563 = 6295$ #

$R = 5732 + 281 = 6013$ #

$M_M = 11464 + 866 = 12330$ ft-#

$DEI = 1.32 \times 10^8 + 9.74 \times 10^6 = 1.42 \times 10^8$ #-in²

(2) - 1¾ x 18 LVL ⇒ $V_{allow} = 5985 \times 2 = 11970$ # $M_{allow} = 19365 \times 2 = 38730$ ft-#

$I_{req'd} = 850 \times 2 = 1700$ in⁴ $\Delta 2.046$"

(∴ (2) - 1¾ x 18 LVL)

BM 3-16

Simple span = 11½' uniform load = 123 (9/2) = 554 pf

$V_M = 3186$ # $M_M = 9158$ ft-# $\Delta EI = 2.18 \times 10^8$ #-in²

$S_{req'd} = \frac{9158 \times 12}{23760} = 4.63$ in³ $I_{req'd} = \frac{2.18 \times 10^8}{29 \times 10^6 (13\frac{1}{2}/360)} = 13$ in⁴

W8 x 13 $S_{prov} = 9.91$ in³ $I_{prov} = 39.6$ in⁴ (∴ W8x13 sat. ΔM)

Willamette Industries, Inc.

Engineered Wood Products

EWP Technical Support

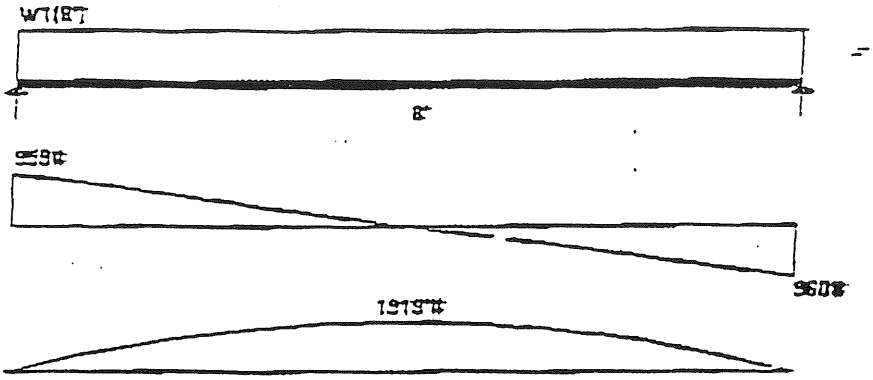
E-Z Calc (v3.05.BT-Q)

PROJECT: Colson & Colson Retirement Ctr
LOCATION:
JOB NO.: DESIGNER: SDS

03/25
SHEET: 1

MARK Floor Joist J-1
TRIB: 24 in. Input reflects horizontal center to center spans.
W1= 240 plf LL = 100 psf DL = 20 psf Duration= 100%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



	% Allow.	Maximum	Allow.	DOL - Control
End Reaction: (lbs)	88%	960	1090	100% - Total Load
Shear: (lbs)	85%	960	1129	100% - Total Load
Positive Moment: (ft-lbs)	67%	1920	2869	100% - Total Load

Deflection	LL	Ratio	TL	Ratio	
Span:	0.13	//743	0.16	//619	EI = 201 x 10^6 K = 4.16 x 10^3

*** USE 8 INCH WSI-423(2100F) @ 24 in. O/C WITH GLUED SHEATHING ***

Min end bearing = 1.75 inches - web stiffeners not required. Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge.

Willamette Industries, Inc.

Engineered Wood Products

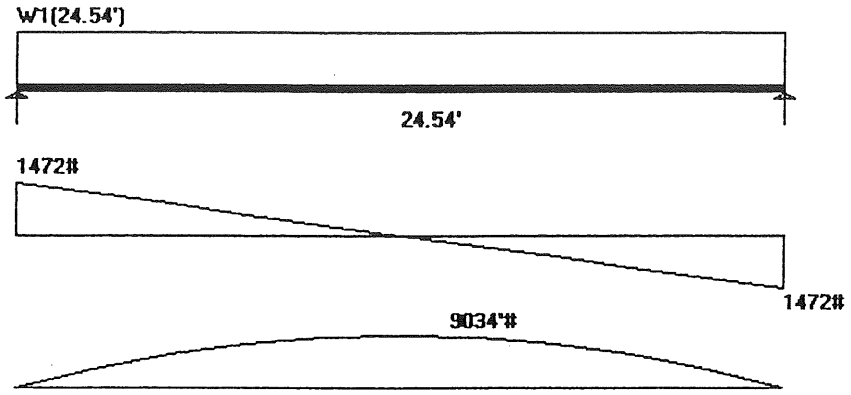
Dan Green Engineering, Inc.

E-Z Calc (v3.06)

PROJECT
LOCATION
JOB NO.: 980302 DESIGNER: DSG 03/11/98
SHEET: 1 of 7

MARK J-2 Floor Joist
TRIB.: 24 in. Input reflects horizontal center to center spans.
W1= 120 plf LL = 40 psf DL = 20 psf Duration= 100%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



	% Allow.	Maximum	Allow.	DOL - Control
End Reaction: (lbs)	100%	1473	1473	100% - Total Load
Shear: (lbs)	67%	1473	2190	100% - Total Load
Positive Moment: (ft-lbs)	74%	9034	12255	100% - Total Load

(7% REPETITIVE INCREASE USED FOR ALLOWABLE MOMENT)

Deflection	**LL**	**Ratio**	**TL**	**Ratio**		
Span:	0.48	*l* / 619	0.71	*l* / 413	EI = 1583 x 10^6	K = 9.36 x 10^6

***** USE 18 INCH WSI-424(2100F) @ 24 in. O/C *****

Min end bearing = 2.25 inches - web stiffeners not required (Option - 1.75 inches bearing with web stiffeners). Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge.

Willamette Industries, Inc.

Engineered Wood Products

Dan Green Engineering, Inc.

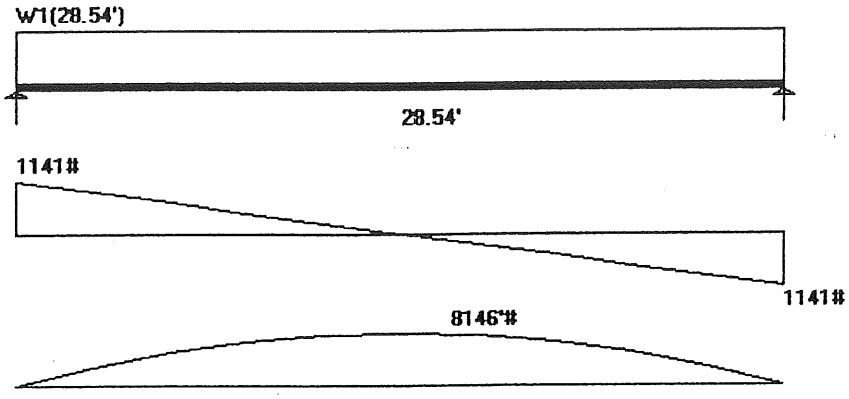
E-Z Calc (v3.06)

PROJECT
LOCATION:
JOB NO.: 980302 DESIGNER: DSG

03/11/98
SHEET: 1.18

MARK J-3 Floor Joist
TRIB.: 16 in. Input reflects horizontal center to center spans.
W1= 80 plf LL = 40 psf DL = 20 psf Duration= 100%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



	% Allow.	Maximum	Allow.	DOL - Control
End Reaction: (lbs)	87%	1142	1318	100% - Total Load
Shear: (lbs)	52%	1142	2190	100% - Total Load
Positive Moment: (ft-lbs)	71%	8146	11453	100% - Total Load

	LL	Ratio	TL	Ratio	
Deflection					
Span:	0.56	l / 611	0.84	l / 407	EI = 1583 x 10^6 K = 9.36 x 10^6

***** USE 18 INCH WSI-424(2100F) @ 16 in. O/C *****

Min end bearing = 1.75 inches - web stiffeners not required. Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge.

Willamette Industries, Inc.

Engineered Wood Products

Dan Green Engineering, Inc.

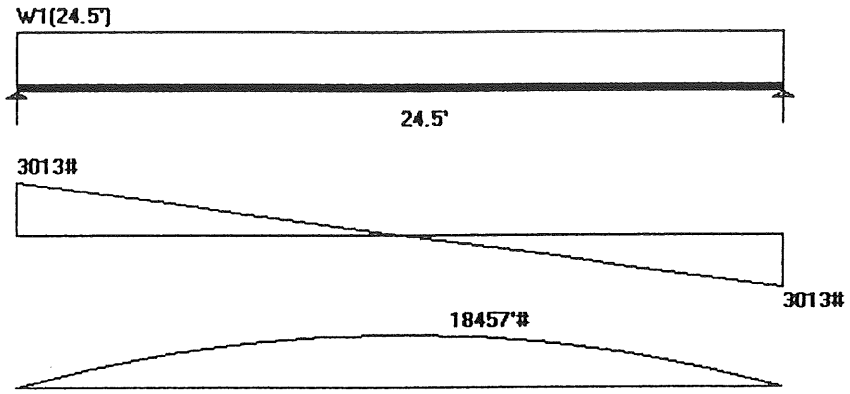
E-Z Calc (v3.06)

PROJECT
LOCATION:
JOB NO.: 980302 DESIGNER: DSG

03/11/98
SHEET: 1/19

MARK J-4 Floor Joist
TRIB.: 24 in. Input reflects horizontal center to center spans.
W1= 246 plf LL = 100 psf DL = 23 psf Duration= 100%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



	% Allow.	Maximum	Allow.	DOL - Control
End Reaction: (lbs)	100%	3014	3014	100% - Total Load
Shear: (lbs)	69%	3014	4380	100% - Total Load
Positive Moment: (ft-lbs)	81%	18458	22906	100% - Total Load

Deflection	**LL**	**Ratio**	**TL**	**Ratio**	
Span:	0.59	l / 497	0.73	l / 404	EI = 3167 x 10^6 K = 18.72 x 10^6

***** USE DOUBLE 18 INCH WSI-424(2100F) *****

Min end bearing = 2.36 inches - web stiffeners not required (Option - 1.75 inches bearing with web stiffeners). Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge. Live load deflection meets Code but may exceed Willamette's recommendations.

Willamette Industries, Inc.

Engineered Wood Products

Dan Green Engineering, Inc.

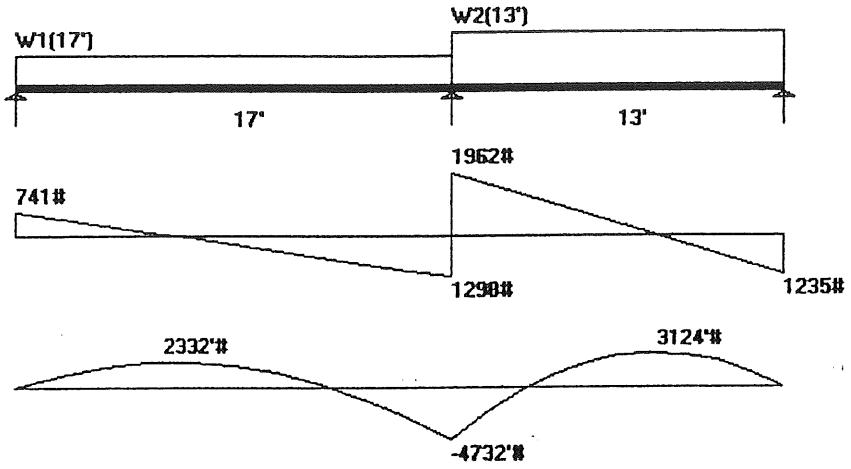
E-Z Calc (v3.06)

PROJECT: 1
LOCATION: 1
JOB NO.: 980302 DESIGNER: DSG

03/11/98
SHEET: 1.20

MARK J-5 Floor Joist
TRIB.: 24 in. Input reflects horizontal center to center spans.
W1= 120 plf LL = 40 psf DL = 20 psf Duration= 100%
W2= 246 plf LL = 100 psf DL = 23 psf Duration= 100%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



	% Allow.	Maximum	Allow.	DOL - Control
End Reaction: (lbs)	100%	1362	1362	100% - Alternate Span Loading
Internal Reaction: (lbs)	100%	3261	3261	100% - Total Load
Shear: (lbs)	73%	1599	2190	100% - Total Load
Positive Moment: (ft-lbs)	33%	3808	11453	100% - Alternate Span Loading
Negative Moment: (ft-lbs)	45%	-4732	10540	100% - Total Load

	LL	Ratio	TL	Ratio	
Deflection					
Span:	0.1	l / 1505	0.12	l / 1322	EI = 1583 x 10^6 K = 9.36 x 10^6

***** USE 18 INCH WSI-424(2100F) @ 24 in. O/C *****

Min end bearing = 1.89 inches - web stiffeners not required (Option - 1.75 inches bearing with web stiffeners). Min continuous bearing = 4.61 inches - w/o web stiffeners (Option - 3.5 inches bearing with web stiffeners). Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge.

Willamette Industries, Inc.

Engineered Wood Products

Dan Green Engineering, Inc.

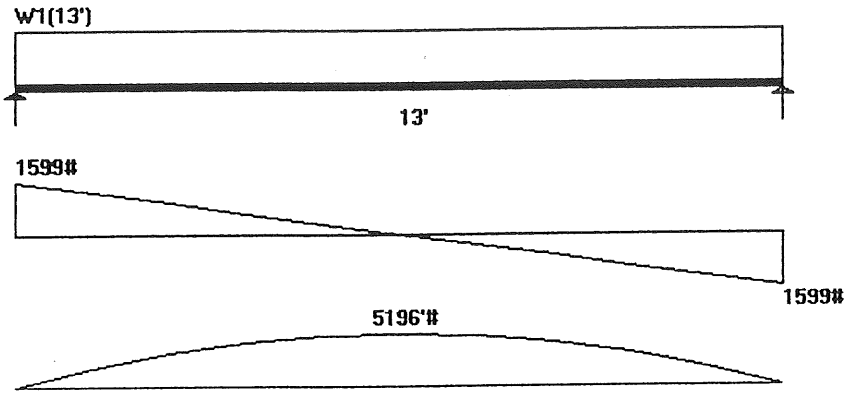
E-Z Calc (v3.06)

PROJECT:
LOCATION
JOB NO.: 980302 DESIGNER: DSG

03/11/98
SHEET: 7,21

MARK J-6 Floor Beam
TRIB.: 2 ft. Input reflects horizontal center to center spans.
W1= 246 plf LL = 100 psf DL = 23 psf Duration= 100%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



	% Allow.	Maximum	Allow.	DOL - Control
Shear: (lbs)	23%	1409	6151	100% - Total Load
Positive Moment: (ft-lbs)	41%	5197	12701	100% - Total Load

Deflection	LL	Ratio	TL	Ratio	
Span:	0.28	l / 558	0.34	l / 454	EI = 462 x 10^6

***** USE DOUBLE 1.75 x 9.25 INCH StrucLam(2.0E) *****

Min end bearing length = 1.5 in. Support bearing length requirements must be checked separately. Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge.

Willamette Industries, Inc.

Engineered Wood Products

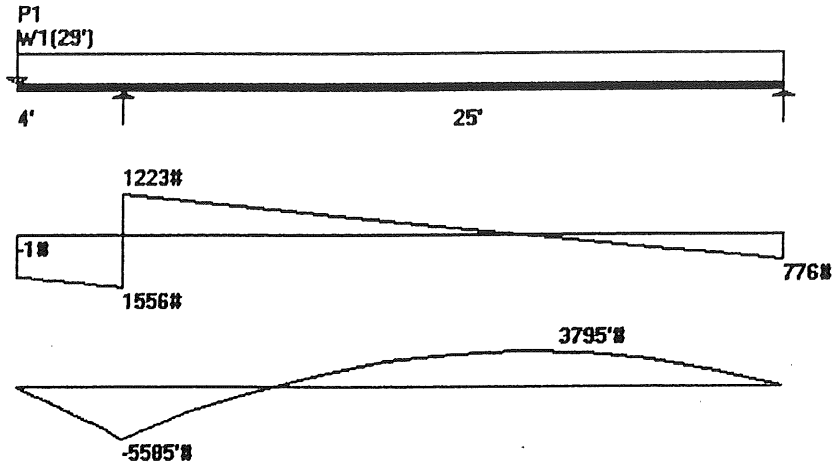
Dan Green Engineering, Inc.

E-Z Calc (v3.06)

PROJECT: [illegible]
LOCATION: [illegible]
JOB NO.: 980302 DESIGNER: DSG 04/20/98
SHEET: 1,22

MARK J-7 Floor Joist
TRIB.: 16 in. Input reflects horizontal center to center spans.
W1= 80 plf LL = 40 psf DL = 20 psf Duration= 100%
P1= 1236 lbs @ 0 ft. LL= 649 plf DL= 278 plf Duration= 115%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



	% Allow.	Maximum	Allow.	DOL - Control
End Reaction: (lbs)	71%	932	1318	100% - Alternate Span Loading
Internal Reaction: (lbs)	80%	2779	3473	115% - Total Load
Shear: (lbs)	57%	1436	2519	115% - Total Load
Positive Moment: (ft-lbs)	45%	5487	12255	100% - Alternate Span Loading
Negative Moment: (ft-lbs)	72%	-5584	7809	115% - Total Load

(7% REPETITIVE INCREASE USED FOR ALLOWABLE MOMENT)

Deflection	LL	Ratio	TL	Ratio
Overhang (up):	-0.15	*l* / 630	-0.14	*l* / 686
Overhang (down):	0.2	*l* / 472	0.22	*l* / 445
Span:	0.34	*l* / 882	0.44	*l* / 685

EI = 1583 x 10^6 K = 9.36 x 10^6

***** USE 18 INCH WSI-424(2100F) @ 16 in. O/C *****

Min end bearing = 1.75 inches - web stiffeners not required. Min continuous bearing = 3.5 inches - web stiffeners not required. Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge. Live load deflection meets Code but may exceed Willamette's recommendations.

EXTERIOR HDRS

(3)-2x12's AT Deck

SPAN = 11'-6" UNIFORM LOAD = (60+10)(4/2+2) = 280 plf

V_M = 1610 # M_M = 46291.# δEI = 1.10x10^8 #.in^2

(3)-2x12's V_a = 2138(3/2) x 1.15 (Cr) = 3688 # M_a = 6592(.875/12.75) x 1.15 (Cr) = 5307 1.#

I_{PNO} = 356(3/2) = 534 in^4 Δ = .129 = 9/1092 ok

ALT - WESTLAM HDR

F_b = 2000 psi F_v = 110 psi E = 1.5x10^6 psi

$A_{Reqd} = \frac{3(1610(5/5.75))}{2(110)}$ = 19 in^2 $S_{Reqd} = \frac{5307 \times 12}{2000}$ = 31.8 in^3

$I_{Reqd} = \frac{1.10 \times 10^8}{1.5 \times 10^6 (138/240)}$ = 127 in^4 3 1/8 x 9 A_{PNO} = 28.1 in^2 S_{PNO} = 42 in^3 I_{PNO} = 190 in^4

[∴ (3)-2x12's OR 3 1/8 x 9 WESTLAM GLB]

(3)-2x10's

SPAN = 6'-0" UNIFORM LOAD = (40+20)(25/2) + 9(12) = 858 plf (Floor)

V_M = 2574 # M_M = 3861 1.# δEI = 2.5 x10^7 #.in^2

(3)-2x10's V_a = 1758(3/2) x 1.15 (Cr) = 3033 # M_{ALLOW} = 4456(.625/12.50)(1.15 Cr)(1.1 CF)(3/2) = 5919 1.#

I_{PNO} = 198(3/2) = 297 in^4 Δ = .053"

ALT - $A_{Reqd} = \frac{3(2574(2.27/3))}{2(110 \times 1.15)}$ = 22.9 in^2 3 1/8 x 9 A_{PNO} = 28.1 ok

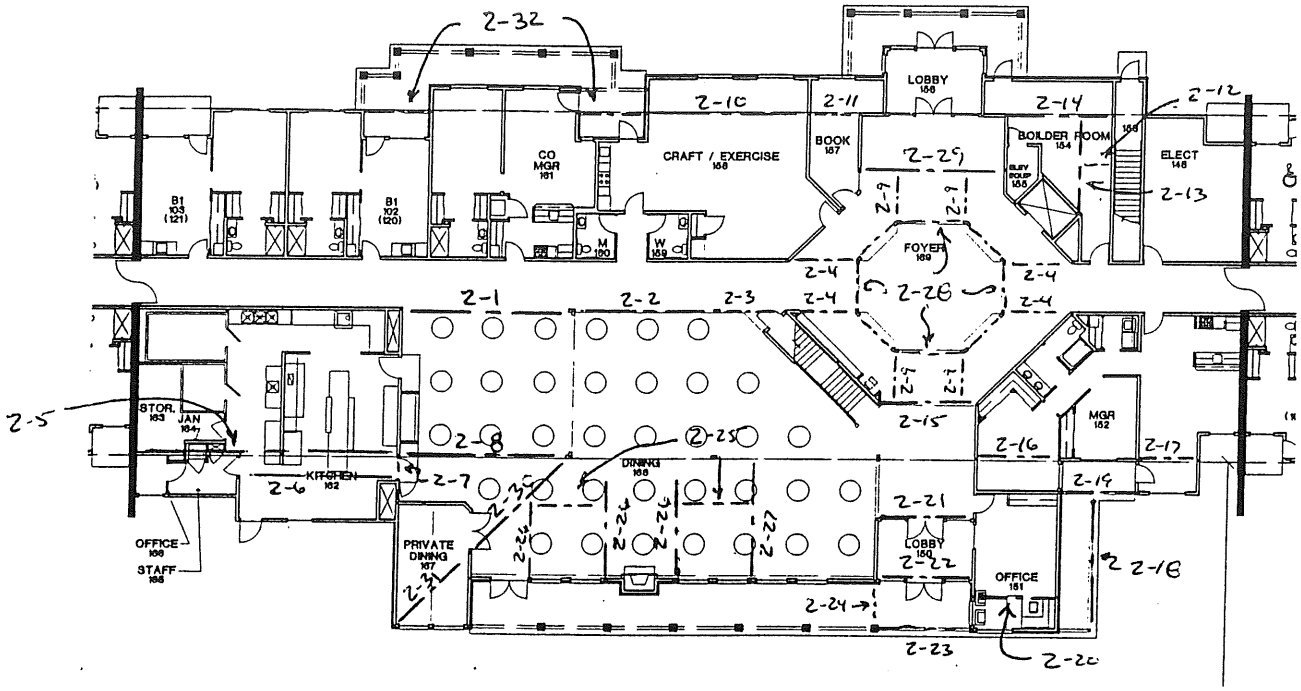
[∴ (3)-2x10's ON 3 1/8 x 9 WESTLAM GLB]

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

FILE NO. 980302 SHEET NO. 1.23
DESIGNER JSG DATE 4/20/99
CLIENT CIB
PROJECT Reh Residence

2nd FLOOR FRAMING AT CORE

SAME LOADS AS ROOF AND 3rd FLOOR



BM 2-1

SPAN = 28'-6" UNIFORM LOAD = 123 (33/2) = 2030 plf → 2100 plf

V_M = 29925 # M_M = 213216 ft-# OEI = 3112 x 10^{10} # in²

STL BM → $S_{PM} = \frac{213216 \times 12}{23760} = 108$ in³ $I_{PM} = \frac{3112 \times 10^{10}}{29 \times 10^6 (342/240)} = 755$ in⁴

W16 x 77 S_{PM} = 134 in³ I_{PM} = 1110 in⁴

(∴ W16 x 67 STL. BM)

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

FILE NO. 980302 SHEET NO. 1.24
DESIGNER DSG DATE 4/20/98
CLIENT C/B
PROJECT Neh Residence

BM 2-2

SPAN = 24'-0" UNIFORM LOAD = 123 (4) = 492 pf ⇒ 500 pf

V_M = 6600 # M_M = 39600 ft-# DEI = 4.11×10^9 # in²

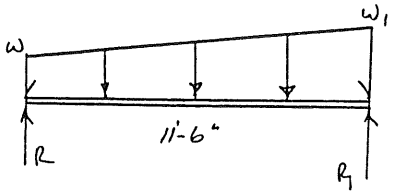
5 1/8 x 18 GLB V_{ALLOW} = 10153 # M_{ALLOW} = 53140 ft-# I_{NO} = 2491 in⁴ Δ = 0.92 = 9/315

(5 1/8 x 18 (24F-V4) GLB)

BM 2-3

SAME AS BM 2-2, SPAN = 11'-6"

BM 2-4



w = 123 (4) = 492 pf w_1 = 123 (8) = 984 pf

$V_M = R_1$ = 2829 + 1886 = 4715 #

R = 2829 + 943 = 3772 #

M_M = 8133 + 4174 = 12307 ft-#

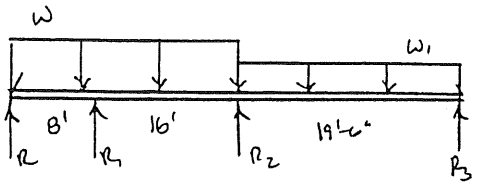
DEI = $1.94 \times 10^8 + 9.7 \times 10^7 = 2.91 \times 10^8$ # in²

(3) - 1 3/4 x 9 1/2 LOL V_{ALLOW} = 3160 (3) = 9480 # M_{ALLOW} = 5885 x 3 = 17655 ft-#

I_{NO} = 125 x 3 = 375 in⁴ Δ = 0.42 = 9/320 deπ

(÷ (3) - 1 3/4 x 9 1/2 LOL)

BM 2-5



		TL	LL	DL
W ⇒ Upper roof	= (48 + 17)(14.5) =	943 pf	696	247
3rd flr	= (40 + 20)(12.5) =	750 pf	500	250
2nd flr	= (40 + 20)(12.5) =	750 pf	500	250
Lower roof	= (108 + 17)(7/12) =	441 pf	381	60
Wall	= (12)(18) =	216 pf	—	216
	≤	3100	≤ 2077	≤ 1023

W_1 ⇒ LL = 40 (16.5) = 660 pf DL = 20 (16.5) = 330 pf

Self WT = 50 pf

— See next page —

Willamette Industries, Inc.

Engineered Wood Products

Dan Green Engineering, Inc.

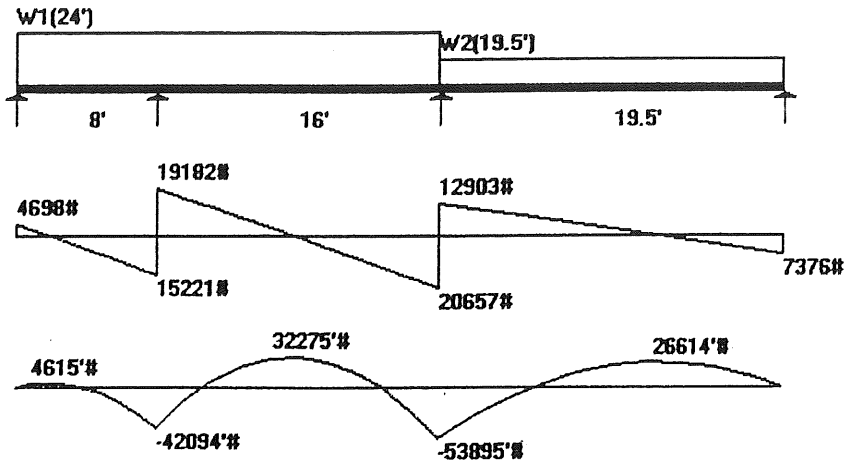
E-Z Calc (v3.06)

PROJECT:
LOCATION:
JOB NO.: 980302 DESIGNER: DSG

04/20/98
SHEET: 1.26

MARK BM 2-5 Floor Beam
Input reflects horizontal center to center spans.
W1= 2490 plf LL = 1417 plf DL = 1073 plf Duration= 115%
W2= 1040 plf LL = 660 plf DL = 380 plf Duration= 100%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



	% Allow.	Maximum	Allow.	DOL - Control
Shear: (lbs)	75%	17237	22943	115% - Adjacent Span Loading
Positive Moment: (ft-lbs)	40%	39924	99657	115% - Alternate Span Loading
Negative Moment: (ft-lbs)	55%	-54820	99657	115% - Adjacent Span Loading

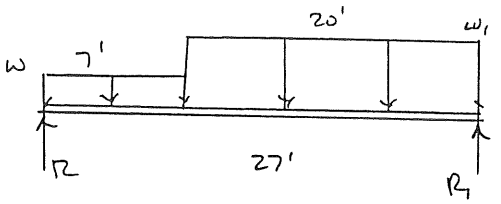
Deflection	**LL**	**Ratio**	**TL**	**Ratio**	
Span:	0.19	*l* / 1257	0.23	*l* / 1000	EI = 7655 x 10^6

***** USE 8.75 x 18 INCH Willamette GLB(24F-V8 DF/DF) *****

Min end bearing length = 1.5 in., min. continuous bearing length = 6.46 in. Support bearing length requirements must be checked separately. Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge.

1 2-6

$w = 70$ psf (DL)



$w_1 \rightarrow$ roof $= (17+48)(4) = 260$ plf

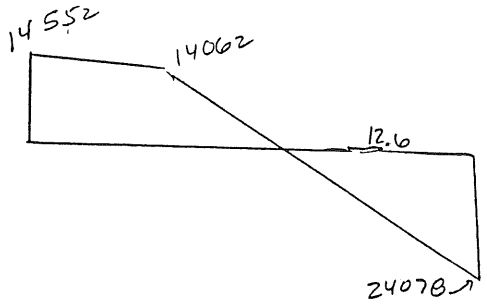
3rd $= (40+20)(29/2) = 870$ plf

2nd $= (40+20)(4/2) = 120$ plf

wall $= 12(18) = 216$ plf

Lower roof $= (109+17)(7/2) = 441$ plf

Σ 1907 plf



$R = \dfrac{490(23.5) + 38140(10)}{27} = 14552^{\#}$ $\quad R_1 = 24078^{\#}$

$V_M = 24078^{\#}$ $\quad M_M = 1/2(24078)(12.6) = 152000^{\prime\prime\#}$

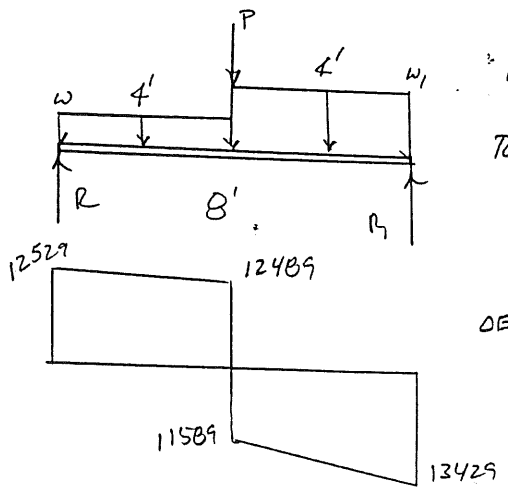
$OEI = 8.37\times10^{8} + \dfrac{153\,(240)^2}{48}\left[(1.5(324)^2 - (240)^2\right]$

$OEI = 8.37\times10^{8} + 1.85\times10^{10} = 1.93\times10^{10}\ \#\cdot in^3$

for STR. BM $\rightarrow$ $S_{req'd} = \dfrac{152000\times12}{.66(36000)} = 77.\ in^3$ $\quad I_{req'd} = \dfrac{1.93\times10^{10}}{29\times10^{6}(1.35)} = 493\ in^4$

W16x67 $\quad S_{MO} = 117\ in^3$ $\quad I_{MO} = 954\ in^4$ $\quad$ (∴ W16x67)

Bm 2-7



$P = 24078^{\#}$ ← Bm 2-6 $\quad w = 10$ plf

$w_1 = 60(1)(2) + 12(18) + 62(2) = 460$ plf

$R = \dfrac{24078(4) + 40(6) + 1840(2)}{8} = 12529^{\#}$ $\quad R_1 = 13429^{\#}$

$V_M = 13429^{\#}$ $\quad M_M = 4(11589 + 1/2(1840)) = 50036^{\prime\prime\#}$

$OEI = 9.22\times10^{5} + 4.44\times10^{8} + \dfrac{38(48)^2}{48}\left[1.5(96)^2 - (48)^2\right] = 4.66\times10^{8}\ \#\cdot in^3$

$S_{req'd} = \dfrac{50036\times12}{23760} = 25.3\ in^3$ $\quad I_{req'd} = \dfrac{4.66\times10^{8}}{29\times10^{6}(96/240)} = 40.1\ in^4$

W16x26 $\quad S_{MO} = 38.4\ in^3$ $\quad I_{MO} = 301\ in^4$ $\quad$ (∴ W16x26)

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

FILE NO. 980203 SHEET NO. 1.27
DESIGNER DSG DATE 4/20/98
CLIENT C/B
PROJECT Nob Meadows

BM 2-8

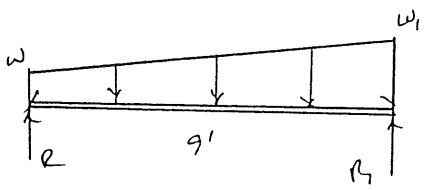
Simple span = 28'-6" Uniform load = 123 (24.5/2) + 230(.5) + 12(9) = 1730 pf

V_M = 24653 # M_M = 175649 '# DEF = 2.57×10^{10} #/in²

$S_{Req'd} = \frac{175649 \times 12}{23760} = 88.7$ in³ $I_{Req'd} = \frac{2.57 \times 10^{10}}{29 \times 10^6 (34.2/240)} = 622$ in⁴

W16x77 S_{PROP} = 134 in³ I_{PROP} = 1110 in⁴ (∴ W16 x 77 STL BM)

BM 2-9



w = 123 (1.33) = 164 pf w_1 = 123 (5) = 615 pf

$V_M = R_1$ = 738 + 1353 = 2091 #

M_M = 1661 + 2343 = 4004 '#

DEF = $2.42 \times 10^7 + 3.33 \times 10^7 = 5.75 \times 10^7$ #/in²

(2)-13/4 x 9 1/2 LVL V_{ALLOW} = 3160 x 2 = 6320 # M_{ALLOW} = 5885 x 2 = 11770 '#

I_{PROP} = 125 x 2 = 250 in⁴ dec.

(∴ (2) - 13/4 x 9 1/2 LVL)

BM 2-10

Simple span = 27'0" Uniform load ⇒ Roof = (48+17)(25/2 + 2) = 943 pf

3rd = (40+20)(12.5) = 750 pf

2nd = (40+20)(12.5) = 750 pf

Wall = 12(18) = 216 pf

Lower roof = (109 + 17)(3) = 378 pf

Σ 3037 pf

V_M = 41000 # M_M = 276747 '# DEF = 3.63×10^{10} #/in²

STL BM → $S_{Req'd} = \frac{276747 \times 12}{23760} = 140$ in³ $I_{Req'd} = \frac{3.63 \times 10^{10}}{29 \times 10^6 (340/240)} = 884$ in⁴

W16 x 77 S_{PROP} = 134 in³ I_{PROP} = 1110 in⁴

4% Ok!! (∴ W16 x 77 STL BM)

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

FILE NO. 980302 SHEET NO. 1.28
DESIGNER DSG DATE 4/20/98
CLIENT C/B
PROJECT Meh. Residence

BM 2-11

SPAN = 8'-6" UNIFORM LOAD = 3037 plf (see BM 2-10)

$V_m = 12907^{\#}$ $M_m = 27428^{'\#}$ OEI = 3.57×10^8 #·in²

$S_{Mgd} = \frac{27428 \times 12}{23760} = 13.9\ in^3$ $I_{Mgd} = \frac{3.57 \times 10^8}{29 \times 10^6 (10^3/240)} = 28.9\ in^4$

W16 x 26 $S_{PM} = 38.4\ in^3$ $I_{PM} = 301\ in^4$ (∴ W16 x 26)

BM 2-12

SPAN = 10'-6" STAN LL = 100 (1) = 100 psf

" DL = 15 (1) = 15 psf

1st + 2nd FLR LL = 100 (7.5/2) x 2 = 750 psf

" " DL = 23 (7.5/2) x 2 = 173 psf

WALL = 7 (9) (2.5) = 158 psf

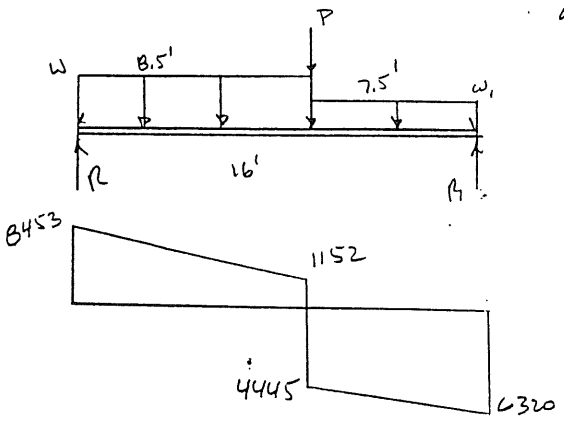
≤ 1066 psf

ΣLL = 850 psf

ΣDL = 216 psf

— see sht 1.30 —

BM 2-13



P = 5596 # w_1 = 250 psf

w ⇒ roof = (48 + 17) (10/2) = 310 psf

2nd = (100 + 15) (1.5) = 173 psf

1st = (100 + 23) (2) = 250 psf

WALL = 7 (18) = 126 psf

≤ 859 psf

$R = \frac{7302(11.8) + 5596(7.5) + 1875(3.8)}{16} = 8453^{\#}$

$R_1 = 14773 - 8453 = 6320^{\#}$

$V_m = 8453^{\#}$ $M_m = 8.5\left(1152 + \frac{1}{2}(7301)\right) = 40821^{'\#}$

$OEI = 3.69 \times 10^8 + 8.19 \times 10^8 + \frac{50.8(102)^2}{48}\left[1.5(192)^2 - (102)^2\right] = 1.68 \times 10^9\ \#\cdot in^2$

(2) - 1¾ x 18 (LVL) $V_a = 11970^{\#}$ $M_a = 38730^{'\#} < 40821^{'\#}$ NG

5 1/8 x 15 GLB $V_a = 9728^{\#}$ $M_a = 43382^{'\#}$ $I_{PM} = 1441\ in^4$ $D = .165" = 3/296$ OK

[∴ 5 1/8 x 15 (24F-V4) GLB]

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

FILE NO. 980302 SHEET NO. 1.29

DESIGNER DJG DATE 4/25/98

CLIENT C/B

PROJECT Ref. Residence

Willamette Industries, Inc.

Engineered Wood Products

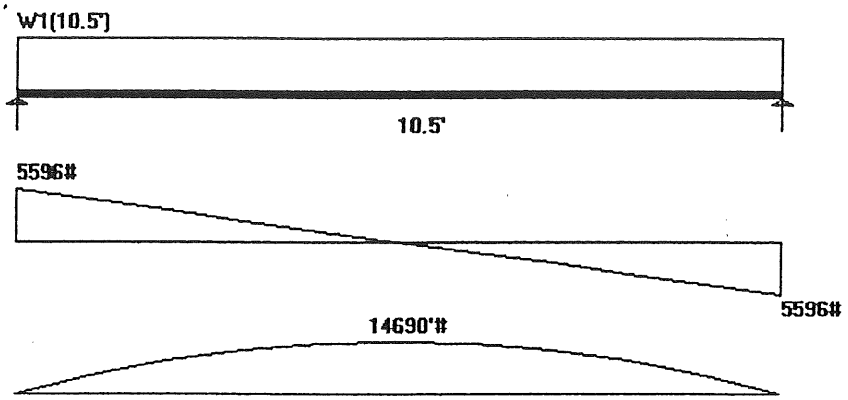
Dan Green Engineering, Inc.

E-Z Calc (v3.06)

PROJECT: I
LOCATION
JOB NO.: 980302 DESIGNER: DSG 03/11/98
SHEET: 1.30

MARK BM 2-12 Floor Beam
Input reflects horizontal center to center spans.
W1= 1066 plf LL = 850 plf DL = 216 plf Duration= 100%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



	% Allow.	Maximum	Allow.	DOL - Control
Shear: (lbs)	68%	4753	6967	100% - Total Load
Positive Moment: (ft-lbs)	82%	14691	17923	100% - Total Load

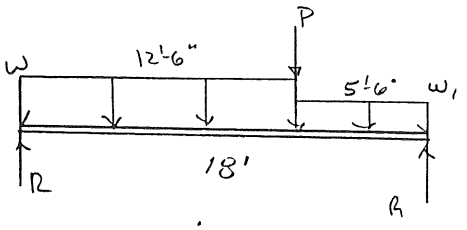
Deflection	**LL**	**Ratio**	**TL**	**Ratio**	
Span:	0.31	*l* / 403	0.39	*l* / 321	EI = 747 x 10^6

***** USE 5.5 x 9.5 INCH Willamette IJC(26F-V4 SP/SP) *****

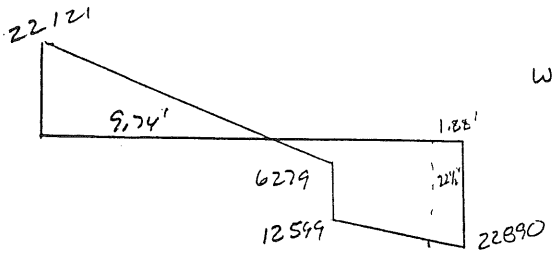
Min end bearing length = 1.56 in. Support bearing length requirements must be checked separately. Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge.

BM 2-14

$P_2 = 6320$ # (SHT 1.29)



$W \Rightarrow$ Roof = (48+17)(11/2) = 358 pf
3rd = (100+23)(10/2) = 615 pf
2nd = (100+23)(10/2) = 615 pf
Wall = 17(18) = 306 pf
Lower roof = (109+17)(3) = 378 pf
$\Sigma = 2272$ pf



$W_1 \Rightarrow$ Roof = (48+17)(5) = 325 pf
3rd + 2nd = 123(7/2)(2) = 862 pf
Wall = 17(18) = 306 pf
Lower roof = 126(3) = 378 pf
$\Sigma = 1871$ pf

$$R = \frac{28400(11.8) + 10291(2.75) + 6320(5.5)}{18} = 22121\ \#$$

$R_1 = 22890$ #

$V_M = 22890$ # $M_M = 1/2(9.74)(22121) = 107689$ ft-#

$$OEI = 4.42\times10^9 + 9.56\times10^8 + \frac{33(150)^2}{48}\left[1.5(216)^2 - (150)^2\right] = 6.11\times10^9\ \#\text{-in}^2$$

$$S_{req'd} = \frac{107689\times12}{23760} = 54.4\ \text{in}^3 \qquad I_{req'd} = \frac{6.11\times10^9}{29\times10^6(214/240)} = 234$$

W16x36 $S_{W16} = 56.5\ \text{in}^3$ $I_{W16} = 448\ \text{in}^4$ [∴ W16x36]

BM 2-15

Simple span = 16'-6" Uniform load = 123(9/2) = 554 pf

$V_M = 4571$ # $M_M = 18853$ ft-# $OEI = 9.24\times10^8$ #-in²

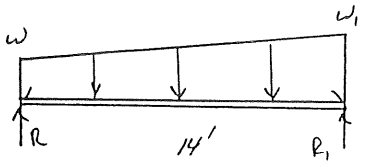
5 1/8 x 15 $V_a = 8459$ # $M_a = 37680$ ft-# $I_{xx} = 1441\ \text{in}^4$ $\Delta = .36" = \ell/556$

[∴ 5 1/8 x 15 (24F-V4) GLB]

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

FILE NO. 980302 SHEET NO. 1.31
DESIGNER DSG DATE 4/20/98
CLIENT C/B
PROJECT Not Residence

BM 2-16



$W_{LL} = 40(9/2+1) = 220$ plf $W_{1LL} = 40(23/2+1) = 500$ plf

$W_{DL} = 20(9/2+1) = 110$ plf $W_{1DL} = 20(23/2+1) = 250$ plf

– See SHT 1.33 –

BM 2-17

Simple Span = 10'-0" UNIFORM LOAD ⇒ Roof = (48+17)(14) = 910 plf

Floor = (40+20)(12)(2) = 1440 plf

Wall = 17(18) = 306 plf

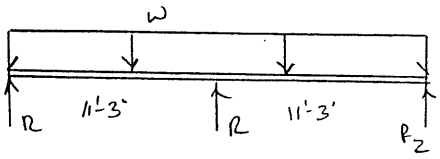
Lower roof = (109+17)(2.5) = 315 plf

Σ 2971 plf LL = 1896 DL = 1075

– See SHT 1.34 –

BM 2-18

UNIFORM LOAD = (60+17)(7/2+2) = 423 ⇒ 425 plf



$V_m = \frac{5(425)(11.25)}{8} = 2989$ # $M_m = \frac{9(425)(11.25)^2}{128} = 3782$ ft-#

$DEI = \frac{35.4(135)^4}{185} = 6.36 \times 10^7$ #-in²

WESTLAM HDR –

$A_{Nsd} = \frac{2989(3)}{2(110 \times 1.15)} = 35.4$ in²

$S_{Nsd} = \frac{3782 \times 12}{2000 \times 1.15} = 19.7$ in³

$I_{Nsd} = \frac{6.36 \times 10^7}{1.6 \times 10^6 (135/240)} = 70.7$ in⁴

3½ x 12 $A_{NO} = 37.5$ in²

$S_x = 75$ in³

$I_x = 450$ in⁴

(3)-2x12's

$V_a = 2459 \times 1.5 \times 1.15^{CR} = 4242$ #

$M_a = 7580 (875/12,500)(1.15)^{CR} = 6102$ ft-#

$I_{NO} = 352 \times 1.5 = 534$ $\Delta = .074$"

∴ (3) - 2x12's #2 DFL

OR

3½ x 12 WESTLAM GLB

5½ x 9 GLB

$V_a = 5832$

$M_a = 15910$

$I_{NO} = 311$ in⁴

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

FILE NO. 980302 SHEET NO. 1.32
DESIGNER DSG DATE 4/20/98
CLIENT C/B
PROJECT _ Mel. Residence

Willamette Industries, Inc.

Engineered Wood Products

Dan Green Engineering, Inc.

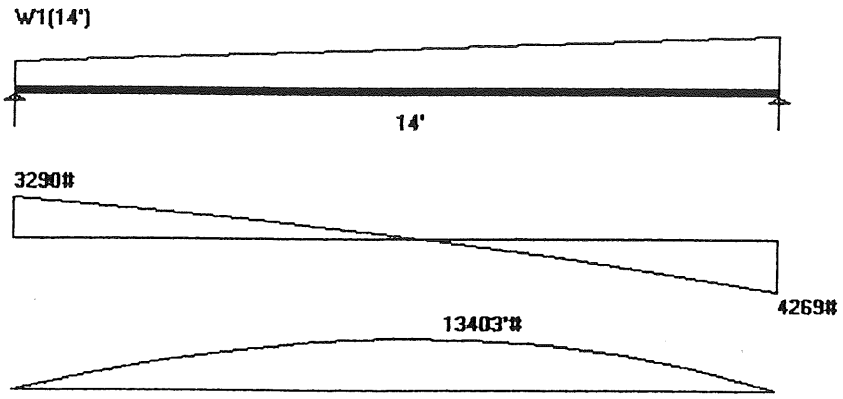
-Z Calc (v3.06)

PROJECT: I
LOCATION:
JOB NO.: 980302 DESIGNER: DSG

03/12/
SHEET: 1, 23

MARK BM 2-16 Floor Beam Proposed 5 1/8" x 18" IJC
TRIB.: 1 ft. Input reflects horizontal center to center spans.
W1= 330 to 750 plf LL = 220 plf DL = 110 plf Duration= 100%
LL=0 to 280 psf DL=0 to 140 psf Duration= 100%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



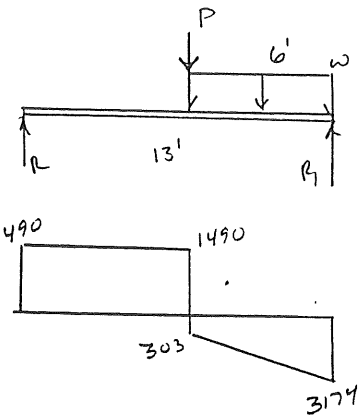
	% Allow.	Maximum	Allow.	DOL - Control
Shear: (lbs)	24%	3179	13200	100% - Total Load
Positive Moment: (ft-lbs)	21%	13404	64123	100% - Total Load

	LL	Ratio	TL	Ratio	
Deflection					
Span:	0.06	l / 2731	0.09	l / 1821	EI = 5079 x 10^6

***** USE 5.5 x 18 INCH Willamette IJC(26F-V4 SP/SP) *****

Min end bearing length = 1.5 in. Support bearing length requirements must be checked separately. Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge.

BM 2-19



$P = \frac{3(425)(11.25)}{8} = 1793^{\#}$ $\quad w = 87(7\frac{1}{2}+2) = 479\ plf$

$R = \frac{1793(6)+2871(3)}{13} = 1490^{\#}$ $\quad R_2 = 3174^{\#}$

$V_m = 3174^{\#}$ $\quad M_M = 1490(7) = 10430^{1.\#}$

$OEI = 1.41\times10^{8} + \frac{40(72)^2}{48}\left[1.5(152)^2-(72)^2\right] = 2.76\times10^{8}\ \#\cdot in^2$

(3) - 13/4 x 117/8 LVL

$V_{ALLOW} = 3950\times3\times1.15\times1.15 = 15272^{\#}$

$M_{ALLOW} = 8940\times3\times1.15 = 30843^{1.\#}$ $\quad I_{REQ} = 245\times3 = 735\ in^4$ $\quad \Delta = .188" = \ell/930$

[(3) - 13/4 x 117/8 LVL]

BM 2-20

Simple span = 14'-0"

Upper roof	(48+17)(2)	= 130 plf
3rd	(100+23)(1)	= 123 plf
2nd	(40+20)(1)	= 60 plf
wall	17(18)	= 306 plf
Lower roof	(109+17)(9 1/2)	= 567 plf
		≈ 1186 plf

$V_M = 8302^{\#}$ $\quad M_M = 29057^{1.\#}$ $\quad OEI = 1.03\times10^{9}\ \#\cdot in^2$

5 1/8 x 13 1/2 $\quad V_a = 8754^{\#}$ $\quad M_a = 35443^{1.\#}$ $\quad I_{REQ} = 1057\ in^4$ $\quad \Delta = .54" = \ell/309$ ok.

[5 1/8 x 13 1/2 (24F-V4) GLB]

BM 2-21

5 1/8 x 18, ok by inspection only to frame in Lower area

BM 2-22

Use only as DRAG STRUT for LATERAL LOADS, ok.

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

FILE NO. 980302 SHEET NO. 1.35
DESIGNER DSG DATE 4/20/98
CLIENT C/B
PROJECT Net Residence

Willamette Industries, Inc.

Engineered Wood Products

Dan Green Engineering, Inc.

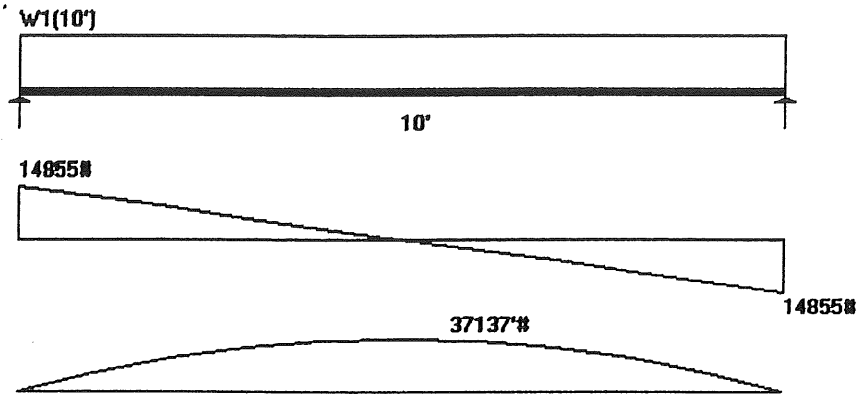
-Z Calc (v3.06)

PROJECT
LOCATION: N
JOB NO.: 980302 DESIGNER: DSG

04/20/98
SHEET: /.

MARK BM 2-17 Floor Beam
Input reflects horizontal center to center spans.
W1= 2971 plf LL = 1896 plf DL = 1075 plf Duration= 115%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



	% Allow.	Maximum	Allow.	DOL - Control
Shear: (lbs)	69%	10399	15180	115% - Total Load
Positive Moment: (ft-lbs)	50%	37138	73990	115% - Total Load

Deflection	**LL**	**Ratio**	**TL**	**Ratio**	
Span:	0.08	l / 1423	0.13	l / 908	EI = 5079 x 10^6

***** USE 5.5 x 18 INCH Willamette IJC(26F-V4 SP/SP) *****

Min end bearing length = 4.15 in. Support bearing length requirements must be checked separately. Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge.

BM 2-23

Simple SpN = 16'-6"

Roof Load = (48+17)(2) = 130 plf
3rd Floor = 123(1) = 123 plf
2nd Floor = 123(1) = 123 plf
Wall = 17(10) = 306 plf
Σ 682 ⇒ 700 plf

V_M = 5775 # M_M = 23822 ft-# DEF = 1.17×10^9 #/in³

5 1/8 x 18 V_a = 11676 # M_a = 61111 ft-# I_{MO} = 2491 in⁴ Δ = .26" = ℓ/760

(∴ 5 1/8 x 18 GLB)

BM 2-24

SpN = 8'-0"

Roof = (48+17)(17/2+2) = 683 plf
3rd = 123 (16/2) = 984 plf
2nd = 123 (16/2) = 984 plf
Wall = 17(10) = 306 plf
Σ 2957 plf

V_M = 11828 # M_M = 23652 ft-# DEF = 2.73×10^8 #/in³

5 1/8 x 18 V_a = 11676 # M_a = 61111 ft-# I_{MO} = 2491 in⁴ Δ = .061"

(∴ 5 1/8 x 18 (24F-V4) GLB)

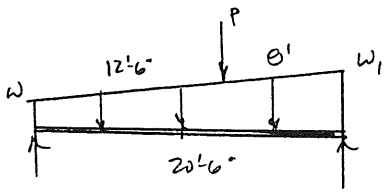
BM 2-25

SpN = 12'-0"

Uniform Load = R_{LL} = (190(2) + 48(2)) = 524 plf
R_{DL} = (17(5) + 10(4)) = 157 plf

– See SHT 1.37 –

BM 2-26 and 2-27



P ⇒ LL = 3143 # DL = 942 #

W_{LL} = 48(4) = 192 plf W_{DL} = 17(2) = 34 plf

W_{LL} = 190(2) = 380 plf

– See SHT 1.38 –

Willamette Industries, Inc.

Engineered Wood Products

Dan Green Engineering, Inc.

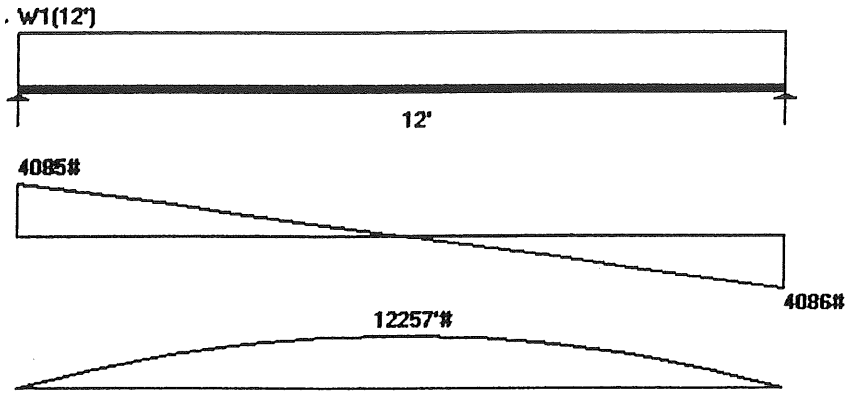
F-Z Calc (v3.06)

PROJECT
LOCATION:
JOB NO.: 980302 DESIGNER: DSG

04/20/98
SHEET: 1 of 7

MARK BM 2-25 Roof Beam
MEMBER SLOPE: 0/12 Input reflects horizontal center to center spans.
W1= 681 plf LL = 524 plf DL = 157 plf Duration= 115%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



	% Allow.	Maximum	Allow.	DOL - Control
Shear: (lbs)	44%	3547	8012	115% - Total Load
Positive Moment: (ft-lbs)	59%	12258	20612	115% - Total Load

Deflection	**LL**	**Ratio**	**TL**	**Ratio**	
Span:	0.33	l / 438	0.43	l / 337	EI = 747 x 10^6

***** USE 5.5 x 9.5 INCH Willamette IJC(26F-V4 SP/SP) *****

Min end bearing length = 1.5 in. Support bearing length requirements must be checked separately. Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge.

Willamette Industries, Inc.

Engineered Wood Products

Dan Green Engineering, Inc.

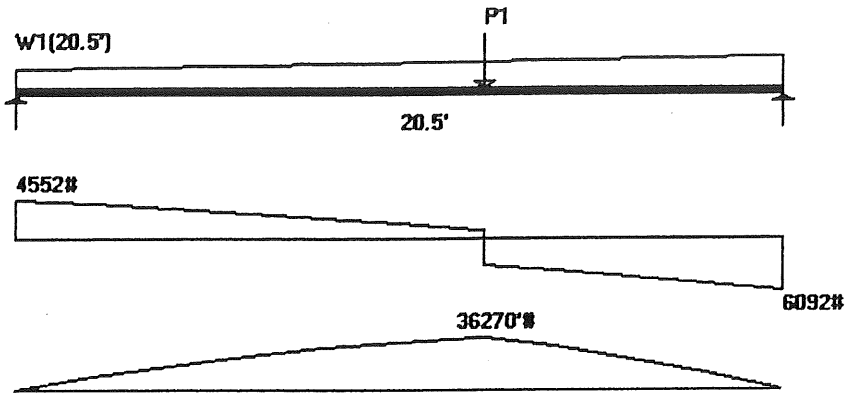
E-Z Calc (v3.06)

PROJECT:
LOCATION:
JOB NO.: 980302 DESIGNER: DSG

04/20/98
SHEET: 1,38

MARK BM 2-26 & 2-27 Roof Beam
TRIB.: 1 ft. MEMBER SLOPE: 0/12 Input reflects horizontal center to center spans.
W1= 226 to 414 plf LL = 192 psf DL = 34 psf Duration= 115%
LL=0 to 188 psf DL=0 to 0 psf Duration= 115%
P1= 4085 lbs @ 12.5 ft. LL= 3143 plf DL= 942 plf Duration= 115%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



	% Allow.	Maximum	Allow.	DOL - Control
Shear: (lbs)	41%	5548	13493	115% - Total Load
Positive Moment: (ft-lbs)	63%	36271	57502	115% - Total Load

Deflection	**LL**	**Ratio**	**TL**	**Ratio**	
Span:	0.57	*l* / 428	0.69	*l* / 357	EI = 3567 x 10^6

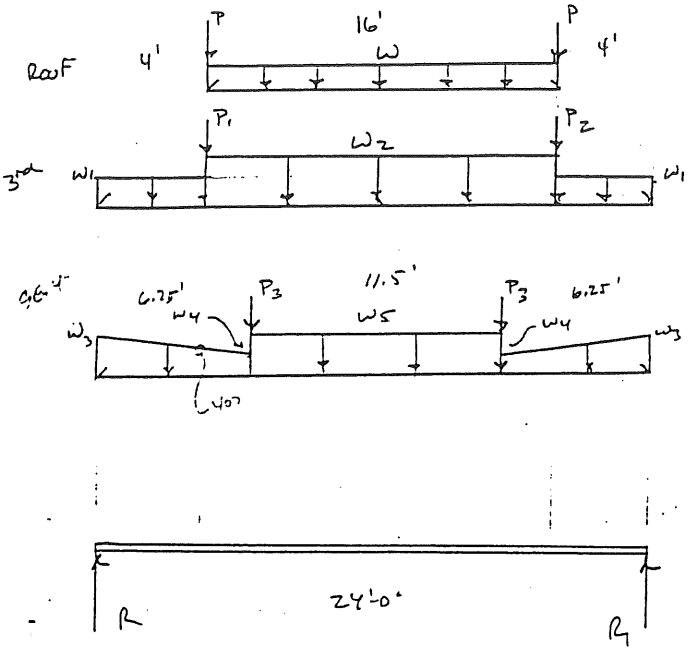
***** USE 5.5 x 16 INCH Willamette IJC(26F-V4 SP/SP) *****

Min end bearing length = 1.7 in. Support bearing length requirements must be checked separately. Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge.

Bm 2-28

[W8x13] ok see SHT 1.15

Bm 2-29



Roof $w = 97(9/2) + 65(1) = 500$ plf LL = 405 DL = 94

$P = 3420^{\#}$ (SHT 1.2)

3rd $w_2 = 123(9/2+1) + 7(9) = 740$ plf LL = 550 DL = 190

$w_1 = 123(2) + 7(9) = 309$ plf LL = 200 DL = 109

$P_1 = 4870^{\#}$ (SHT 1.13) $P_2 = 6013^{\#}$ (SHT 1.15)

2nd $w_3 = 123(6) + 9(7) = 801$ plf LL = 600 DL = 201

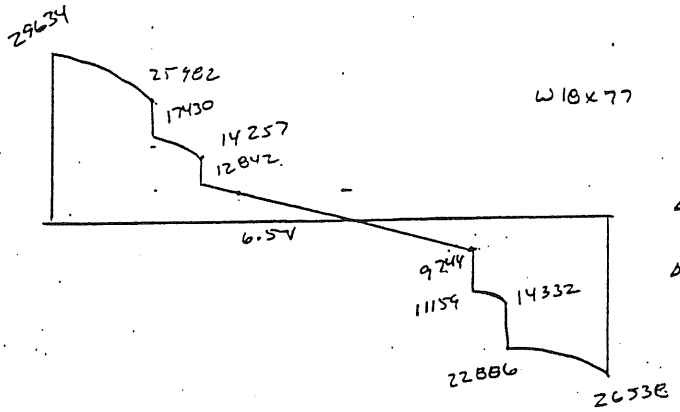
$w_4 = 123(1) + 9(7) = 186$ plf LL = 100 DL = 86

$w_5 = 123(9/2+1) + 9(7) = 740$ plf LL = 550 DL = 190

$P_3 = 1415^{\#}$ (SHT 1.26)

$R = [2592(20+16) + 7744(12) + 5960(20) + 5962(4) + 7416(12) + 6896(12) + 1415(17.8+6.25) + 8570(12) + 1163(22+$
$+ 1922(22.67+1.33)]/24 = 29634^{\#}$ $R_1 = 56672 - 29634 = 27038^{\#}$

$\therefore V_m = 29634^{\#}$



$M_m = 1/2(6.54)(12842) + 15044(2.25) + 27808(4) = 188874^{\#"}$

W18x77

$S_{req} = \frac{188874 \times 12}{23760} = 95.4\ in^3 < S_{pw} = 146\ in^3$

$I_{pw} = 1330\ in^4$

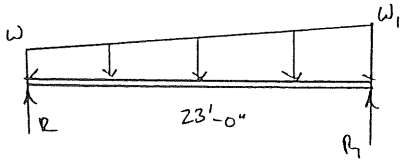
$\Delta EI = 3.7\times10^9 + 2(1.31\times10^9) + 2(4.18\times10^8) + 8.27\times10^9$

$\Delta EI = 1.54\times10^{10}\ \#\ in^3$

$\Delta = 1.40 = 4/720$

[$\therefore$ W18x76 STL. BM]

BM 2-30



$W = (48+17)\left(\frac{12+4}{2}\right) = 520$ plf

5030

$W_1 = 4350(48/41) + 457 = 5550$ plf

$V_m = R_1 = 5980 + 30563 = 44543$ #

$R = 5980 + 19282 = 25262$ #

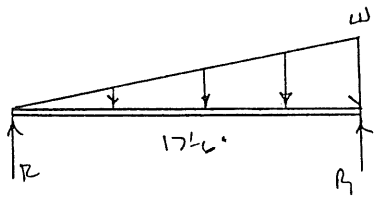
$M_m = 34385 + 170695 = 205080$ ' #

$DEI = 3.27 \times 10^9 + 1.59 \times 10^{10} = 1.912 \times 10^{10}$ # in^3

8¾ x 27 $V_a = 29892$ # $M_a = 222502$ ' # $I_{no} = 14352$ in^4 $\Delta = .74 = \ell/373$

∴ 8¾ x 27 (24F-V4) GLB

BM 2-31



$W = 520$ plf

$V_m = R_1 = 3033$ # $R = 1517$ #

$M_m = 10216$ ' # $DEI = 5.49 \times 10^8$ # in^3

5½ x 11⅞ $V_a = 10015$ # $M_a = 3215$ ' #

$EI = 1458 \times 10^6$ $\Delta = .38" = \ell/558$

∴ 5½ x 11⅞ FSC (24F-V4) SP/SP

BM 2-32

SPAN = 12'-0" Uniform Load = (100+10)(4) = 440 plf

$V_m = 2640$ # $M_m = 7920$ ' # $DEI = 2.05 \times 10^8$ # in^3

(3) - 1¾ x 11¼ LVL @ 100%

$V_a = 3950 \times 3 = 11850$ #

$M_a = 8940 \times 3 = 26820$ # '

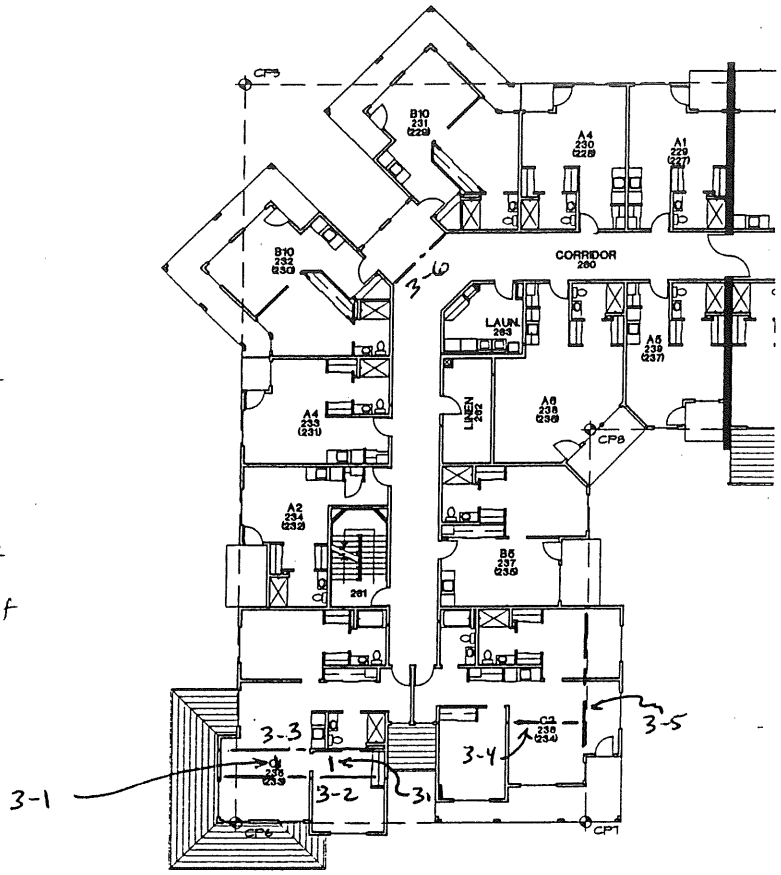
$I_{no} = 245 \times 3 = 735$ in^4 $\Delta = .155" = \ell/928$

∴ (3) - 1¾ x 11¼ LVL

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

FILE NO. 980302 SHEET NO. 1.40
DESIGNER DSG DATE 4/20/98
CLIENT C/B
PROJECT _ 1 Net Residence

3rd Floor



UNIT LL = 40 psf

DL = 20 psf

CORRIDOR -

LL = 100 psf

DL = 23 psf

BM 3-1

SPAN = 5'-0"

Roof = 65 (12/2 + 1.5) = 488 plf

Wall = 17 (9) = 153 plf

Floor = 60 (12/2) = 360 plf

Lower roof = (109 + 17)(1.0) = 126 plf

Σ 1127 plf

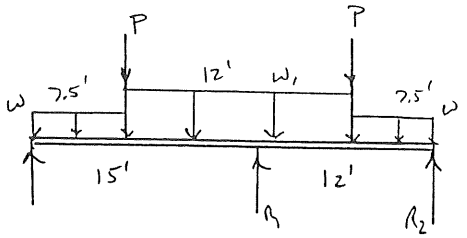
V_m = 2818 # M_m = 3522 # DEF = 1.58×10^7 # in^2

(2) - 1 3/4 x 11 7/8 LVL BY INTERCONTINENTAL

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

FILE NO. 980302 SHEET NO. 1.45
DESIGNER DSG DATE 4/20/98
CLIENT C/B
PROJECT Apt. Residence

BM 3-2



$P_{LL} = 1775^{\#}$ $P_{DL} = 1043^{\#}$ (BM 3-1)

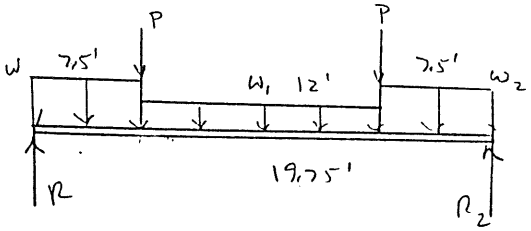
$w_{DL} = 10$ plf

$w_{1DL} = 17(7/2) + 9(12) + 20(1) = 188$ plf

$w_{1LL} = 48(7/2) + 40(1) = 208$ plf

- See SHT 1.47 -

BM 3-3



$P_{DL} = 1043^{\#}$ (BM 3-1) $+$ 864 (BM R-1) $= 1907^{\#}$

$P_{LL} = 1775^{\#} + 2433 = 4208^{\#}$

$w_{LL} = 48(19/2) + 40(1) = 496$ plf

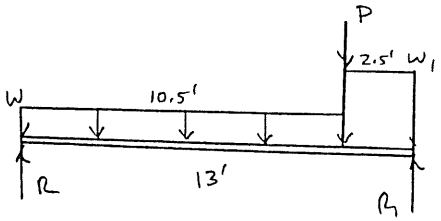
$w_{DL} = 17(19/2) + 12(9) + 20(1) = 290$ plf

$w_{1LL} = 40(2) = 80$ plf $w_{1DL} = 20(2) = 40$ plf

$w_{2LL} = 48(12) + 40(1) = 616$ plf $w_{2DL} = 17(12) + 12(9) + 20(1) = 332$ plf

- See sheet 1.48 -

BM 3-4

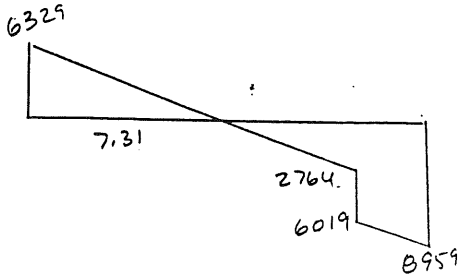


$w = 65(19.5/2 + 1.5) + 9(12) + 60(1) = 866$ #/ft

$w_1 = 65(19.5/2 + 1.5) + 62(5) + 9(12) + 60(1) = 1176$ plf

$P = 65(10.5)(15/3) = 3255^{\#}$

$R = \dfrac{2940(1.25) + 9093(7.75) + 3255(2.5)}{13} = 6329^{\#}$ $R_1 = 8959^{\#}$



$V_m = 8959^{\#}$ $M_m = 1/2(6329)(7.3) = 23127^{\#}$

$\Delta EI = 5.6 \times 10^8 + 9.9 \times 10^7 + \dfrac{25.8(30)^2}{48}\left[1.5(156)^2 - (30)^2\right]$

$\Delta EI = 5.6 \times 10^8 + 9.9 \times 10^7 + 1.72 \times 10^7 = 6.76 \times 10^8$ #-in^2

5 1/8 x 18 $V_a = 11676^{\#}$ $M_a = 61111^{\#}$ $\Delta EI = 2491$ $\Delta = .15 = 9/1034$

[5 1/8 x 18 (24F-V4) GLB

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

FILE NO. 980302 SHEET NO. 1.46
DESIGNER DSG DATE 4/20/98
CLIENT C/B
PROJECT Net Residence

Willamette Industries, Inc.

Engineered Wood Products

Dan Green Engineering, Inc.

F 7 Calc (v3.06)

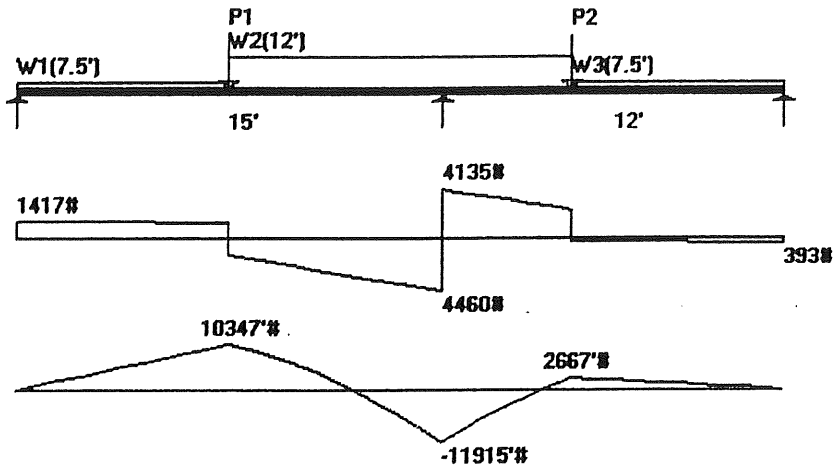
PROJECT:
LOCATION
JOB NO.: 980302 DESIGNER: DSG

04/20/98
SHEET: 1.47

MARK BM 3-2 Floor Beam
Input reflects horizontal center to center spans.

W1= 10 plf	LL = 0 plf DL = 10 plf Duration= 100%
W2= 398 plf	LL = 208 plf DL = 180 plf Duration= 115%
	LL = 0 plf DL = 10 plf Duration= 100%
W3= 10 plf	LL = 0 plf DL = 10 plf Duration= 100%
P1= 2818 lbs @ 7.5 ft.	LL= 1775 lbs DL= 1043 lbs Duration= 115%
P2= 2663 lbs @ 19.5 ft.	LL= 1620 lbs DL= 1043 lbs Duration= 115%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



	% Allow.	Maximum	Allow.	DOL - Control
Shear: (lbs)	29%	3864	13438	115% - Total Load
Positive Moment: (ft-lbs)	18%	11480	63215	115% - Alternate Span Loading
Negative Moment: (ft-lbs)	19%	-11914	62971	115% - Total Load

Deflection	LL	Ratio	TL	Ratio	
Span:	0.05	l / 3629	0.08	l / 2370	EI = 4483 x 10^6

***** USE 5.125 x 18 INCH Willamette GLB(24F-V8 DF/DF) *****

Min end bearing length = 1.5 in., min. continuous bearing length = 3 in. Support bearing length requirements must be checked separately. Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge.

Willamette Industries, Inc.

Engineered Wood Products

Dan Green Engineering, Inc.

Γ Z Calc (v3.06)

PROJECT: I
LOCATION:
JOB NO.: 980302 DESIGNER: DSG

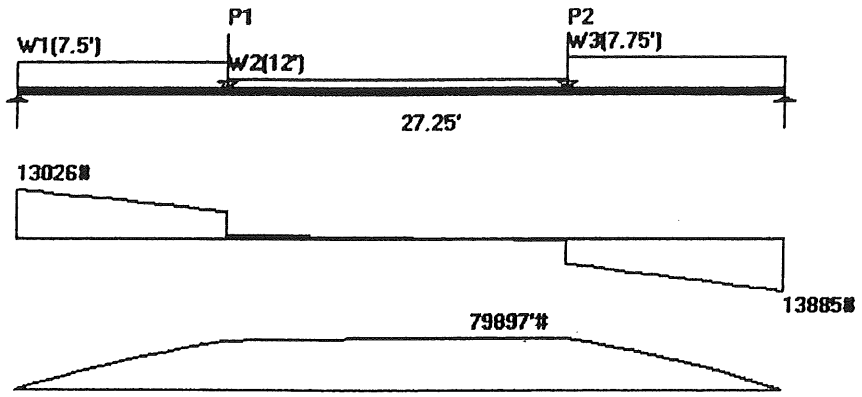
04/20/98
SHEET: 1 of 8

MARK BM 3-3 Floor Beam

Input reflects horizontal center to center spans.

W1= 786 plf	LL = 496 plf	DL = 290 plf	Duration= 115%
W2= 120 plf	LL = 80 plf	DL = 40 plf	Duration= 100%
W3= 948 plf	LL = 616 plf	DL = 332 plf	Duration= 115%
P1= 6115 lbs @ 7.5 ft.	LL= 4208 lbs	DL= 1907 lbs	Duration= 115%
P2= 6115 lbs @ 19.5 ft.	LL= 4208 lbs	DL= 1907 lbs	Duration= 115%

TOTAL LOAD, SHEAR AND MOMENT DIAGRAMS



	% Allow.	Maximum	Allow.	DOL - Control
Shear: (lbs)	72%	12108	16797	115% - Total Load
Positive Moment: (ft-lbs)	88%	79898	90996	115% - Total Load

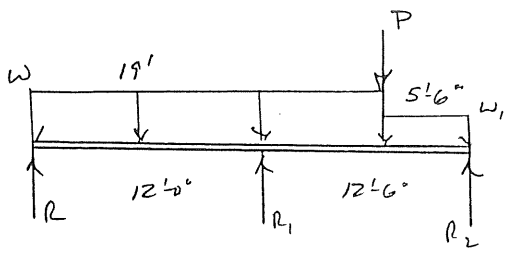
Deflection	**LL**	**Ratio**	**TL**	**Ratio**	
Span:	0.88	*l* / 371	1.31	*l* / 249	EI = 8757 x 10^6

***** USE 5.125 x 22.5 INCH Willamette GLB(24F-V4 DF/DF) *****

Min end bearing length = 4.16 in. Support bearing length requirements must be checked separately. Continuous lateral support required at top edge. Lateral support required at bearings for bottom edge.

BM 3-5

$P = 6329^{\#}$ (SHT 1.46)



W ⇒ Roof LL = 48(24/2 + 1.5) = 648 plf

" DL = 17(24/2 + 1.5) = 230 plf

3rd Flr LL = 40(24/2) = 480 plf

" " DL = 17(24/2) = 204 plf

Lower Roof LL = 109(6/2) = 327 plf

" " DL = 17(6/2) = 51 plf

WALL = 12(9) = 108 plf

$\Sigma LL = 1455$ plf

$\Sigma DL = 593$ plf

W_1 ⇒ WALL = (9)(12) = 108 plf

Lower Roof LL = 327 plf

" " DL = 51 plf

$\Sigma LL = 327$ plf

$\Sigma DL = 159$ plf

∴ ADD 15 psf self WT

— See SHT 1.50 —

BM 3-6

Span: 12'-6" Uniform Load = 123(11/2) = 677 plf ⇒ 700 plf

$V_M = 4375^{\#}$ $M_M = 13672'^{\#}$ $DEF = 3.85 \times 10^{8}$ #in²

(2) - 1¾ x 18 LVL $V_a = 11970^{\#}$ $M_a = 38730'^{\#}$ $I_{gross} = 1700$ in⁴ $\Delta = 1.126"$

(∴ (2) - 1¾ x 18 LVL)

Curry Brandaw Architects
PARTNERSHIP

#98-0740
149-B-001

Portland Assisted Living Facility
Portland, Maine

XL
Management Company L.L.C.

Holiday SM

HOLIDAY RETIREMENT CORP.
2250 McGilchrist St. SE, Suite 200 • Salem, Oregon 97302
P.O. Box 14111 • Salem, Oregon 97309-5026 • (503) 370-7070

2601 – 25th St. SE, Suite 300 ▪▪ Salem, Oregon 97302 ▪▪ Phone 503.399-1090 ▪▪ Fax 503.399-0565

Curry Brandaw Architects
PARTNERSHIP

Portland Assisted Living Facility
Portland, Maine
Site Plan Approval Application

I. PROPOSAL

XL Management Company, L.L.C./Holiday Retirement Corp. proposes to develop an 80-suite assisted living facility with four cottage suites on the Phase II portion of the Woods at Canco Retirement Residence site along Canco Road.

II. REQUEST

The request is to obtain a Site Plan approval to allow the assisted living project to be developed on the site, which is zoned R-5A Residential.

III. OVERVIEW

Existing Zoning:	R-5A
Land Area:	5.0 acres
Existing Use:	Undeveloped Land
Proposed Use:	80-suite Assisted Living Facility
Proposed Parking:	48 total spaces consisting of 46 open, 2 handicap accessible

IV. CONCEPT

The Assisted Living Facility is an 80-suite facility for seniors who do not require the specialized services of a nursing home, yet are in need of some assistance with their daily routine. Services and activities at the facility are provided to maintain or improve the capabilities of each resident, with an emphasis on abilities rather than disabilities.

Services include three prepared meals daily, housekeeping, laundering, and private bus transportation. The monthly rent payment covers the private room, the afore-mentioned services and utilities. In addition to these services, a Service Plan detailing the services a resident requests or requires is determined. These services include assistance with medications, bathing, grooming, dressing and other areas of need. These services are offered 24 hours a day.

Private rooms afford the advantages of independent living while the services included provide support, security and friendship. The private suites include

2601 – 25th St. SE, Suite 300 ▪▪ Salem, Oregon 97302 ▪▪ Phone 503.399-1090 ▪▪ Fax 503.399-0565

studio, one and two bedroom versions. Each is similar to a dwelling unit except a kitchen is not included.

Typically our resident will be a single person in their late 70's or 80's. Approximately 10% of the rooms will be rented by couples making a total building population of 95. Fewer than 5% of the residents will be driving their own cars.

The site is ideally suited for our senior housing use. The site is in close proximity to services such as shopping, recreation and medical needs while still being part of an established residential area.

This proposal would offer several benefits to the area, which include:

- Large open spaces and generous setbacks. Over 60% of the site will be landscaped open space providing large open spaces and ample setbacks to create a park-like setting, and help buffer neighboring properties.

- Quiet Senior Residential Use – The proposed assisted living facility has 80 suites and four cottage units, which include studios, one bedroom, and two bedroom types. The suites do not have kitchens and are not considered full dwelling units. They are different from conventional senior apartment units with full kitchens, in that the density effect would be negligible. In addition, only about 10 percent of the suites will be occupied by couples, keeping the overall building population low. This project will not create the problems typically associated with higher density developments, such as traffic, noise or increased demand on public services.

- Low Traffic Generation – Residents, since they are in need of assistance, will seldom drive. We expect less than two trips per day per suite for visitor and staff purposes, but without the peak hour trip generation. This is based on the Institute of Transportation Engineers report and is far below equivalent trips per unit for a multi-family project.

- Increases Local Tax Base – This project is privately funded with no publicly funded assistance.

- Low Impact on Public Services - Including parks, schools, libraries, and transportation system.

- Fulfills Need for Assisted Living Housing - Our research has found that there is a strong need for the XL/Holiday program in this area.

V. STAFFING PLAN

The facility will employ approximately 32 full-time equivalent positions, which include administrative, food services, housekeeping and maintenance, and health care staff. The facility will maintain a health services staff on duty 24-hours a day.

VI. TRAFFIC/PARKING

Residents, since they are in need of assistance, typically do not drive. One parking space per two suites is sufficient for visitor and staff parking. Since residents do not drive, we expect less than two trips per day per suite for visitor and staff purposes. This is based on the Institute of Transportation Engineers informational report and is far below equivalent trips per unit for a multifamily project. Enclosed is a study of traffic and parking implications for Assisted Living Residences conducted by the American Seniors Housing Association. This study explains in detail the traffic and parking generation a project like ours will produce.

CONCLUSION

In conclusion, we feel that this site is ideally suited for our use and would be a nice addition to the Canco Road area and the existing Retirement Residence development

2000 American Seniors Housing Association 25 OWNERS

(25 LARGEST U.S. SENIORS HOUSING OWNERS AS OF JUNE 1, 2000)

2000 RANK	1999 RANK	COMPANY	HEADQUARTERS	CEO	1999 UNITS OWNED	1999 PROPERTIES OWNED	2000 UNITS OWNED	2000 PROPERTIES OWNED
1	1	Colson & Colson/Holiday Retirement Corp.	Salem, OR	William E. Colson	25,975	216	27,427	229
2	2	Alterra Healthcare Corp.	Brookfield, WI	William F. Lasky	16,435	274	21,119	453
3	4	Nationwide Health Properties, Inc.	Newport Beach, CA	R. Bruce Andrews	9,500	124	11,529	125
4	3	Atria, Inc.	New York, NY	Mark Ticotin	11,010	114	9,704	100
5	5	Senior Lifestyle Corp.	Chicago, IL	William B. Kaplan	9,424	60	9,646	62
6	6	Health Care REIT, Inc.	Toledo, OH	George L. Chapman	8,345	132	8,066	128
7	11	Sunrise Assisted Living, Inc.	Fairfax, VA	Paul J. Klaassen	6,776	111	7,966	120
8	8	Crestline Capital Corp.	Bethesda, MD	Bruce D. Wardinski	7,468	31	7,497	31
9	9	Health Care Property Investors, Inc.	Newport Beach, CA	Kenneth B. Roath	7,021	85	7,297	92
10	21	American Retirement Corporation	Brentwood, TN	William E. Sheriff	4,457	19	7,217	41
11	10	Assisted Living Concepts, Inc.	Portland, OR	Keren Brown Wilson	6,942	178	7,148	185
12	7	Grand Court Lifestyles, Inc.	Boca Raton, FL	John W. Luciani, III	7,640	56	6,942	52
13	18	Classic Residence by Hyatt/ Encore Senior Living	Chicago, IL	Penny S. Pritzker	4,938	45	6,354	53
14	14	ACTS Retirement-Life Communities, Inc.	West Point, PA	George R. Gunn, Jr.	5,654	15	6,095	16
15	12	Meditrust Corp.	Needham Heights, MA	Michael F. Bushee	6,160	126	5,868	105
16	17	Marriott Senior Living Services	Washington, DC	Jeff Ferguson	5,214	43	5,400	43
17	—	Merrill Gardens LLC	Seattle, WA	Charles B. Wright III	—	—	5,195	52
18	16	First Centrum, LLC	Sterling, VA	Mark L. Weshinskey	5,268	85	5,079	84
19	23	Leisure Care, Inc.	Bellevue, WA	Dan B. Madsen	3,995	27	4,807	33
20	19	The Fountains	Tucson, AZ	David J. Freshwater	4,719	17	4,719	17
21	22	Covenant Retirement Communities	Chicago, IL	David A. Dwight	4,075	14	4,137	14
22	15	Senior Housing Properties Trust (formerly known as HRPT Properties Trust)	Newton, MA	David J. Hegarty	5,416	27	4,040	15
23	24	National Benevolent Association	St. Louis, MO	Cynthia R. Dougherty	3,880	14	3,955	14
24	—	Simpson Housing Solutions, LLC	Long Beach, CA	Michael A. Costa	—	—	3,761	40
25	25	Retirement Housing Foundation	Long Beach, CA	Laverne R. Joseph	3,510	19	3,510	19

2000 American Seniors Housing Association 25 MANAGERS

(25 LARGEST U.S. SENIORS HOUSING MANAGERS AS OF JUNE 1, 2000)

2000 RANK	1999 RANK	COMPANY	HEADQUARTERS	CEO	1999 UNITS MANAGED	1999 PROPERTIES MANAGED	2000 UNITS MANAGED	2000 PROPERTIES MANAGED
1	1	Colson & Colson/Holiday Retirement Corp.	Salem, OR	William E. Colson	26,400	220	27,852	233
2	2	Marriott Senior Living Services	Washington, DC	Jeff Ferguson	22,683	128	25,100	149
3	3	Professional Community Management	Lake Forest, CA	Jeffrey B. Olsen	22,680	9	22,864	9
4	5	Alterra Healthcare Corp.	Brookfield, WI	William F. Lasky	16,951	389	21,719	470
5	4	Life Care Services Corp.	Des Moines, IA	Stan Thurston	17,572	64	20,513	87
6	7	American Retirement Corp.	Brentwood, TN	William E. Sheriff	11,328	30	12,163	57
7	8	Emeritus Corp.	Seattle, WA	Daniel R. Baty	10,919	123	11,800	128
8	9	Senior Lifestyle Corp.	Chicago, IL	William B. Kaplan	10,103	64	10,762	69
9	10	Sunrise Assisted Living Inc.	Fairfax, VA	Paul J. Klaassen	8,229	130	9,989	152
10	6	Atria, Inc.	New York, NY	Mark Ticotin	12,114	126	9,794	101
11	13	Assisted Living Concepts, Inc.	Portland, OR	Keren Brown Wilson	6,942	178	7,148	185
12	19	Classic Residence by Hyatt/ Encore Senior Living	Chicago, IL	Penny S. Pritzker	5,414	48	6,960	58
13	11	Grand Court Lifestyles, Inc.	Boca Raton, FL	John W. Luciani, III	7,640	127	6,924	52
14	16	Erickson Retirement Communities, LLC (formerly known as Senior Campus Living, LLC)	Baltimore, MD	John C. Erickson	5,873	5	6,120	7
15	17	ACTS Retirement-Life Communities, Inc.	West Point, PA	George R. Gunn, Jr.	5,654	15	6,095	16
16	14	Greystone Communities, Inc.	Irving, TX	Michael Lanahan	5,981	29	5,683	20
17	—	Merrill Gardens LLC	Seattle, WA	Charles B. Wright III	NA	NA	5,657	58
18	18	Co-operative Retirement Services of America, Inc. (CRSA)	Memphis, TN	Earl Wade	5,500	25	5,612	19
19	15	CareMatrix Corp.	Needham, MA	Abraham Gosman	5,891	47	5,569	47
20	21	Brookdale Living Communities, Inc.	Chicago, IL	Mark J. Schulte	4,600	21	5,314	24
21	25	Leisure Care, Inc.	Bellevue, WA	Dan B. Madsen	4,172	28	4,977	34
22	23	Capital Senior Living, Inc.	Dallas, TX	Lawrence A. Cohen	4,545	31	4,808	34
23	20	The Fountains	Tucson, AZ	David J. Freshwater	4,719	17	4,719	17
24	24	Balanced Care Corp.	Mechanicsburg, PA	Brad E. Hollinger	4,411	63	4,677	69
25	—	American Lifestyles, Inc.	Cleveland, TN	Barry Ray	3,394	30	4,343	36

Holiday Retirement Corp.

Facility Name	Units		Phone Number	Street	City, State
UNITED STATES					
ALABAMA (4)					
EASTDALE ESTATES	107		(334) 260-8911	5801 EASTDALE DRIVE	MONTGOMERY, AL 36117
MONARCH ESTATES	114	~	(334) 502-0977	1550 E. UNIVERSITY DRIVE	AUBURN, AL 36830
ROCKY RIDGE	115	^ ~	(205) 989-6500	3517 LORNA ROAD	HOOVER, AL 35216
UNIVERSITY OAKS	110		(251) 661-7733	650 UNIVERSITY BOULEVARD SOUTH	MOBILE, AL 36609
ARIZONA (5)					
DESERT ROSE	113	~	(928) 343-0807	1545 S. 14TH AVENUE	YUMA, AZ 85364
MADISON, The	193	~	(623) 584-1999	18626 SPANISH GARDEN DRIVE	SUN CITY WEST, AZ 85375
MANOR at MIDVALE, The	112	~	(520) 294-3200	6250 S. COMMERCE COURT	TUCSON, AZ 85746
VISTA de la MONTANA	113	+ ~	(623) 975-4250	18510 N. PARKVIEW PLACE	SURPRISE, AZ 85374
VISTA del RIO	118	+ ~	(623) 977-7007	13619 N. 94TH DRIVE	PEORIA, AZ 85381
ARKANSAS (6)					
ANDOVER PLACE	111	~	(501) 224-0441	2601 ANDOVER COURT	LITTLE ROCK, AR 72227
APPLE BLOSSOM	117	~	(479) 636-7739	2501 N. 22ND STREET	ROGERS, AR 72756
BUTTERFIELD PLACE	115	~	(479) 484-5200	8420 PHOENIX AVENUE	FORT SMITH, AR 72903
COUNTRY CLUB VILLAGE	165	+ ~	(501) 624-6435	1925 MALVERN AVENUE	HOT SPRINGS, AR 71901
GARDENS at ARKANSHIRE, The	130	+ ~	(501) 750-1131	5000 ARKANSHIRE CIRCLE	SPRINGDALE, AR 72764
SOUTH WIND HEIGHTS	114	~	(870) 932-9288	2305 BERNARD STREET	JONESBORO, AR 72401
CALIFORNIA (37)					
ARCADIA PLACE	114		(760) 945-5555	1080 ARCADIA AVENUE	VISTA, CA 92084
BAY PARK	96		(510) 223-7977	2621 APPIAN WAY	PINOLE, CA 94564
BRIDGECREEK	108		(626) 332-1135	3601 HOLT AVENUE	WEST COVINA, CA 91791
CAMELOT, The	134	~	(909) 929-0145	800 WEST OAKLAND	HEMET, CA 92543
CANTERBURY COURT	205		(619) 585-8585	336 C STREET	CHULA VISTA, CA 91910
CARRIAGE HOUSE ESTATES	124	+ ~	(661) 663-8393	8200 WESTWOLD DRIVE	BAKERSFIELD, CA 93311
COLUMBUS ESTATES	124	+ ~	(661) 872-5855	3201 COLUMBUS	BAKERSFIELD, CA 93306
CREEKSIDE OAKS	109	~	(916) 983-3397	1715 CREEKSIDE DRIVE	FOLSOM, CA 95630
DEER PARK	84		(415) 897-0054	646 CANYON ROAD	NOVATO, CA 94947
FEATHER CANYON	126	+ ~	(530) 877-2207	5900 CANYON VIEW DRIVE	PARADISE, CA 95969
FIG GARDEN	101	~	(559) 432-6213	6035 N. MARKS AVENUE	FRESNO, CA 93711
HAMPSHIRE, THE	113	+ ~	(209) 383-3500	3460 R STREET	MERCED, CA 95348
HILLTOP ESTATES	95	+	(530) 241-4444	451 HILLTOP DRIVE	REDDING, CA 96003
LAS BRISAS	100	~	(805) 543-0144	1299 BRIARWOOD DRIVE	SAN LUIS OBISPO, CA 93401
LEISURE POINTE	131		(909) 888-9991	1371 PARKSIDE DRIVE	SAN BERNARDINO, CA 92404
MAGNOLIA	96		(909) 354-0230	8537 MAGNOLIA AVENUE	RIVERSIDE, CA 92504
MISSION COMMONS	141	*	(909) 793-8691	10 TERRACINA BLVD	REDLANDS, CA 92373
MISTYWOOD	115	^ ~	(916) 771-8606	1275 PLEASANT GROVE BOULEVARD	ROSEVILLE, CA 95747
OAKMONT, The	91		(530) 895-0123	2801 COHASSET	CHICO, CA 95973
OAKS of AUBURN, The	107		(530) 888-1144	3250 BLUE OAKS DRIVE	AUBURN, CA 95602
PALMS, The	162	~	(562) 944-1800	13001 LA MIRADA BLVD	LA MIRADA, CA 90638
QUAIL LODGE	123	~	(925) 778-7453	4850 DEER VALLEY ROAD	ANTIOCH, CA 94509
REDWOOD	97		(707) 257-0333	2350 REDWOOD ROAD	NAPA, CA 94558
REMINGTON, The	116	+ ~	(559) 587-9999	2727 NORTH 11th AVENUE	HANFORD, CA 93230
SIERRA HILLS	110	+ ~	(559) 788-0311	2500 W. HENDERSON AVENUE	PORTERVILLE, CA 93257
SPRINGS of EL CAJON	100	~	(619) 444-9470	444 PRESCOTT AVENUE	El CAJON, CA 92020
SPRINGS of ESCONDIDO	103		(760) 743-4200	1261 E. WASHINGTON AVENUE	ESCONDIDO, CA 92027
SPRINGS of NAPA, The	100		(707) 224-7855	3460 VILLA LANE	NAPA, CA 94558
STANDIFORD PLACE	118	~ +	(209) 521-7000	3420 SHAWNEE DRIVE	MODESTO, CA 95350
VALENCIA COMMONS	113		(909) 481-5440	6729 HERMOSA AVENUE	RANCHO CUCAMONGA, CA 91701
VILLA SERENA	108		(408) 261-8350	1340 POMEROY AVENUE	SANTA CLARA, CA 95051
VINEYARD COMMONS	114	~	(707) 578-8400	3585 ROUND BARN BLVD	SANTA ROSA, CA 95403
VINTAGE, The	117	~	(209) 339-1500	2145 WEST KETTLEMAN LANE	LODI, CA 95242
WALNUT PARK	101		(559) 739-1339	4119 W. WALNUT	VISALIA, CA 93277
WATERFORD TERRACE	90		(619) 463-2111	5580 AZTEC DRIVE	LA MESA, CA 91942
WESTMONT, The	136		(408) 984-0605	1675 SCOTT BOULEVARD	SANTA CLARA, CA 95050
name pending	115	^ ~	(800) 322-0999		VENTURA, CA
COLORADO (10)					
ATRIUM of GRAND VALLEY, The	142	~	(970) 256-0006	3260 N. 12th STREET	GRAND JUNCTION, CO 81506
COURTYARD at LAKEWOOD	121	~	(303) 239-0740	7100 W. 13th AVENUE	LAKEWOOD, CO 80215
GREELEY PLACE	102	~	(970) 351-0683	1051 6th STREET	GREELEY, CO 80631
LAKEWOOD ESTATES	90		(303) 987-3888	8585 W. DAKOTA AVENUE	LAKEWOOD, CO 80226
LONGMONT REGENT	96		(303) 651-7022	2210 MAIN STREET	LONGMONT, CO 80501
MESA VIEW	102		(970) 241-0772	601 HORIZON PLACE	GRAND JUNCTION, CO 81506

Holiday Retirement Corp.

Facility Name	Units		Phone Number	Street	City, State
PARKWOOD ESTATES	110		(970) 482-3924	2201 S. LEMAY	FT. COLLINS, CO 80525
PUEBLO REGENT	97		(719) 566-0111	100 SAN CARLOS ROAD	PUEBLO, CO 81005
QUINCY PLACE	117	+ ~	(303) 770-7775	7200 EAST QUINCY AVENUE	DENVER, CO 80237
SUNRIDGE	90	~	(719) 590-1247	5820 FLINTRIDGE DRIVE	COLORADO SPRINGS, CO 80
CONNECTICUT (4)					
CEDAR WOODS\CREST	111		(203) 481-6028	80 CEDAR STREET	BRANFORD, CT 06405
GABLES AT GUILFORD, The	128	* ~	(203) 458-3337	201 GRANITE ROAD	GUILFORD, CT 06437
VILLAGE GATE OF FARMINGTON	162	* ~	(860) 676-8626	88 SCOTT SWAMP ROAD	FARMINGTON, CT 06032
WINDHAM FALLS ESTATES	160		(860) 446-2889	425 DROZDYK DRIVE	GROTON, CT 06340
FLORIDA (15)					
ATRIUM at GAINESVILLE, The	241	~	(352) 378-0773	2431 NW 41st STREET	GAINESVILLE, FL 32606
AUGUSTINE LANDING	109	~	(904) 880-1116	10141 OLD ST. AUGUSTINE ROAD	JACKSONVILLE, FL 32257
AZALEA PARK	115	~	(863) 413-0908	1325 GRASSLANDS BLVD	LAKELAND, FL 33803
BELLEAIR TOWERS	56		(727) 581-6540	1100 PONCE de LEON BLVD	CLEARWATER, FL 33756
BUENA VIDA	153	* ~	(239) 775-2233	8901 TAMIAMI TRAIL EAST	NAPLES, FL 34113
CHERRY LAUREL	115	~	(850) 656-8758	1009 CONCORD ROAD	TALLAHASSEE, FL 32308
COURT at PALM-AIRE, The	235	* ~	(954) 975-8900	2701 N. COURSE DRIVE	POMPANO BEACH, FL 33069
ISLES of VERO BEACH	210	* ~	(561) 778-7888	1700 WATERFORD DRIVE	VERO BEACH, FL 32966
LAKE RIDGE VILLAGE	108	~	(352) 589-2353	353 ARDICE AVENUE	EUSTIS, FL 32726
MARION WOODS	115	^ ~	(352) 671-1700	1661 SE 31ST STREET	OCALA, FL 34471
ORMOND in the PINES	214	* ~	(386) 676-7463	101 CLYDE MORRIS BLVD	ORMOND BEACH, FL 32174
REGENCY RESIDENCE	133	~	(727) 849-9335	6711 EMBASSY BLVD	PORT RICHEY, FL 34668
TREMONT, The	118	~	(407) 359-5787	7015 RED BUG LAKE ROAD	OVIEDO, FL 32765
UNIVERSITY PINES	110	~	(850) 476-6333	8991 UNIVERSITY PARKWAY	PENSACOLA, FL 32514
WOODLANDS VILLAGE	169	* ~	(941) 758-9590	1055 301 BOULEVARD EAST	BRADENTON, FL 34203
GEORGIA (9)					
ATRIUM at GEORGETOWN PARK, T	197	~	(770) 986-1100	4355 GEORGETOWN SQUARE RD	ATLANTA, GA 30338
IRIS PLACE	140	~ +	(706) 425-0301	755 EPPS BRIDGE PARKWAY	ATHENS, GA 30606
PINEGATE	115	~	(478) 757-0610	300 CHARTER BLVD	MACON, GA 31210
REGENCY HOUSE, The	102		(404) 296-1152	341 WINN WAY	DECATUR, GA 30030
RIVER'S EDGE	119	+ ~	(912) 354-6146	6206 WATERS AVENUE	SAVANNAH, GA 31406
RIVERPLACE	112	~	(706) 324-0100	6850 RIVER ROAD	COLUMBUS, GA 31904
SMOKY SPRINGS	115	~	(770) 535-8349	940 SOUTH ENOTA DRIVE	GAINESVILLE, GA 30501
WASHINGTON COMMONS	115	+ ~	(706) 860-0402	100 WASHINGTON COMMONS DRIVE	EVANS, GA 30809
name pending		^ ~	(800) 322-0999		ALPHARETTA, GA
HAWAII (3)					
HAWAII KAI	193	* + ~	(808) 395-9599	428 KAWAIHAE DRIVE	HONOLULU, HI 96825
HAWAII KAI II	177	* + ~	(808) 396-0720	446 KAWAIHAE DRIVE	HONOLULU, HI 96825
KALAMA HEIGHTS	110	~	(808) 879-1500	101 KANANI RD	KIHEI MAUI, HI 96753
IDAHO (1)					
CHATEAU de BOISE	96	+ ~	(208) 322-7277	7250 POPLAR STREET	BOISE, ID 83704
ILLINOIS (6)					
BLAIR HOUSE	109		(309) 454-8900	1200 EAST COLLEGE	NORMAL, IL 61761
BRENDEN GARDENS	110		(217) 529-4586	900 SOUTHWIND ROAD	SPRINGFIELD, IL 62703
ESSINGTON PLACE	112		(815) 744-4488	901 ESSINGTON ROAD	JOLIET, IL 60435
MONTVALE ESTATES	119	+	(217) 546-5577	2601 MONTVALE DRIVE	SPRINGFIELD, IL 62704
TAMARACK	133	~	(847) 991-4700	55 S. GREELEY	PALATINE, IL 60067
name pending		^ ~	(800) 322-0999		QUINCY, IL
INDIANA (4)					
ARBOR GLEN	118	+ ~	(260) 492-2202	5202 SAINT JOE ROAD	FORT WAYNE, IN 46835
PARKSIDE COURT	118	~ *	(812) 378-9795	3660 CENTRAL AVENUE	COLUMBUS, IN 47203
REDBUD HILLS	112	~	(812) 335-0089	3211 EAST MOORES PIKE ROAD	BLOOMINGTON, IN 47401
WILLOW PARK	109	~	(812) 473-5828	5050 LINCOLN AVENUE	EVANSVILLE, IN 47715
IOWA (5)					
BEAVERDALE ESTATES	102	~	(515) 278-1715	4610 DOUGLAS AVENUE	DES MOINES, IA 50310
ILLAHEE HILLS	107	+	(515) 251-4604	8308 COLBY PARKWAY	URBANDALE, IA 50322
MALLARD POINT	122	+ ~	(319) 277-6111	2603 ORCHARD DRIVE	CEDAR FALLS, IA 50613
PALMER HILLS	104	~	(563) 332-5955	2617 MAPLECREST ROAD	BETTENDORF, IA 52722
WALDEN PLACE	102		(319) 337-7277	2423 WALDEN ROAD	IOWA CITY, IA 52246

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Facility Name	Units		Phone Number	Street	City, State
KANSAS (3)					
GREENWOOD TERRACE	115	^ ~	(913) 345-9969	11150 S. GREENWOOD STREET	LENEXA, KS 66215
GRASSLANDS ESTATES	115	~	(316) 722-4817	10665 W. 13TH STREET N.	WICHITA, KS 67212
THORNTON PLACE	119	+ ~	(785) 228-0555	2901 SW ARMSTRONG	TOPEKA, KS 66614
KENTUCKY (5)					
ASHWOOD PLACE	103	+	(502) 223-5551	102 LEONARDWOOD	FRANKFORT, KY 40601
HARTLAND HILLS	117	~	(859) 273-1212	1005 TANBARK ROAD	LEXINGTON, KY 40515
JACKSON OAKS	115	^ ~	(270) 554-8122	2500 MARSHALL AVENUE	PADUCAH, KY 42003
OXMOOR LODGE	118	+ ~	(502) 425-2402	8021 CHRISTIAN COURT	LOUISVILLE, KY 40222
PONDER CREEK ESTATES	118	~	(502) 995-4010	620 VALLEY COLLEGE DRIVE	LOUISVILLE, KY 40272
LOUISIANA (4)					
LANDING at BEHRMAN PLACE	106		(504) 361-1088	3601 BEHRMAN PLACE	NEW ORLEANS, LA 70114
NOUVEAU MARC	111	~	(504) 469-7988	1101 SUNSET BLVD	KENNER, LA 70065
SUMMERFIELD ESTATES	101	~	(318) 688-9525	9133 BAIRD ROAD	SHREVEPORT, LA 71118
WHEALDON ESTATES	98		(225) 927-7557	8680 JEFFERSON HWY	BATON ROUGE, LA 70809
MAINE (2)					
SUNBURY VILLAGE	115	~	(207) 262-9600	922 OHIO STREET	BANGOR, ME 04401
WOODS AT CANCO, THE	115	+ ~	(207) 772-4777	257 CANCO ROAD	PORTLAND, ME 04103
MASSACHUSETTS (3)					
DEVONSHIRE ESTATES	128	+ ~	(413) 637-1700	329 PITTSFIELD ROAD	LENOX, MA 01240
QUAIL RUN ESTATES	121	+ ~	(413) 786-9688	50 CARDINAL DRIVE	AGAWAM, MA 01001
SUMMER PLACE	110	~	(978) 256-9977	20 SUMMER STREET	CHELMSFORD, MA 01824
MICHIGAN (8)					
AURORA POND	132	+ ~	(616) 530-2511	2380 AURORA POND DRIVE	WYOMING, MI 49509
BLUE WATER LODGE	119	+ ~	(810) 385-4131	2840 KEEWAHDIN ROAD	FORT GRATIOT, MI 48059
GENESEE GARDENS	117	~	(810) 720-4159	4495 CALKINS ROAD	FLINT TOWNSHIP, MI 48532
GLEN EAGLE	119	+ ~	(231) 935-4553	3950 SUMAC DRIVE	TRAVERSE CITY, MI 49684
INN AT CASS LAKE	110	~	(248) 681-8229	900 N. CASS LAKE ROAD	WATERFORD, MI 48328
LINCOLN SQUARE	115	^ ~	(616) 791-7460	3121 LAKE MICHIGAN DRIVE NW	GRAND RAPIDS, MI 49504
MARQUETTE, THE	115		(517) 339-1532	5968 PARK LAKE ROAD	EAST LANSING, MI 48823
WESCOURT	118	+ ~	(989) 797-3600	4141 McCARTY ROAD	SAGINAW, MI 48603
MINNESOTA (1)					
LODGE AT WHITE BEAR, THE	115	~	(651) 779-9255	3666 E. COUNTY LINE N.	WHITE BEAR LAKE, MN 55110
MISSISSIPPI (1)					
CHATEAU RIDGELAND	105	* ~	(601) 956-1331	745 S. PEAR ORCHARD ROAD	RIDGELAND, MS 39157
MISSOURI (7)					
BRIARCREST ESTATES	90		(636) 391-5300	14525 CLAYTON ROAD	BALLWIN, MO 63011
CAMBRIDGE, The	113	~	(417) 882-2223	2900 S. JEFFERSON	SPRINGFIELD, MO 65807
CARLYLE, The		^ ~	(800) 322-0999	1098 NE INDEPENDENCE AVENUE	LEE'S SUMMIT, MO 64086
COUNTRY SQUIRE	109		(816) 233-4200	1602 BUCKINGHAM STREET	ST. JOSEPH, MO 64506
GARDEN VILLAGE	182	+ ~	(816) 436-5555	8550 N. GRANBY AVENUE	KANSAS CITY, MO 64154
LAKEVIEW PARK	112	~	(636) 326-9606	1393 BOWLES AVE	FENTON, MO 63026
name pending		^ ~	(800) 322-0999		COLUMBIA, MO
MONTANA (3)					
ASPEN VIEW	125	+ ~	(406) 652-7788	3075 AVENUE C	BILLINGS, MT 59102
GRIZZLY PEAK	113	~	(406) 721-2292	3600 AMERICAN WAY	MISSOULA, MT 59802
HUNTERS POINTE	115	+ ~	(406) 443-4222	2801 COLONIAL DRIVE	HELENA, MT 59601
NEBRASKA (1)					
BRENTWOOD ESTATES	103		(402) 489-1112	1111 SOUTH 70th	LINCOLN, NE 68510
NEVADA (3)					
CARSON PLAZA	96		(775) 883-1221	2120 EAST LONG	CARSON CITY, NV 89706
MONTARA MEADOWS	172	~	(702) 435-3150	3150 EAST TROPICANA AVENUE	LAS VEGAS, NV 89121
SKY PEAKS	119	~	(775) 747-9555	1520 SKY VALLEY DRIVE	RENO, NV 89503
NEW MEXICO (2)					
BEAR CANYON ESTATES	124	+ ~	(505) 292-9191	4440 MORRIS STREET NE	ALBUQUERQUE, NM 87111
GOLDEN MESA	129	+ ~	(505) 522-4219	151 N. ROADRUNNER PKWY	LAS CRUCES, NM 88011

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NEW YORK (4)					
MAPLE DOWNS	115	^ ~	(315) 637-0297	7220 GENESEE STREET EAST	FAYETTEVILLE, NY 13066
MAPLEWOOD ESTATES	119	+ ~	(716) 218-9570	55 AYRAULT ROAD	FAIRPORT, NY 14450
MONTGOMERY PARK	115	^ ~	(716) 688-7880	6363 TRANSIT ROAD	EAST AMHERST, NY 14051
name pending		^ ~	(800) 322-0999		GREECE, NY
NORTH CAROLINA (9)					
CARMEL PLACE	93		(704) 541-8012	5512 CARMEL ROAD	CHARLOTTE, NC 28226
CREEKSIDE TERRACE	115	~	(336) 768-5350	3895 OLD VINEYARD ROAD	WINSTON-SALEM, NC 27104
DURHAM REGENT	122	+	(919) 490-6224	3007 PICKETT ROAD	DURHAM, NC 27705
EMERALD POND	119	~	(919) 493-4713	205 EMERALD POND LANE	DURHAM, NC 27705
JORDAN OAKS	115	^ ~	(919) 387-8250	10820 PENNY ROAD	RALEIGH, NC 27606
LAKE SHORE COMMONS	120	~ +	(910) 251-0067	1402 HOSPITAL PLAZA DRIVE	WILMINGTON, NC 28401
STRATFORD, THE	115	~	(336) 841-1746	1573 SKEET CLUB ROAD	HIGH POINT, NC 27265
PINECREST	118	~	(828) 325-4795	915 29TH AVENUE NE	HICKORY, NC 28601
WOODS AT HOLLY TREE, The	115	~	(910) 793-1300	4610 HOLLY TREE ROAD	WILMINGTON, NC 28409
OHIO (4)					
ALEXIS GARDENS	115	~	(419) 472-7115	4560 W. ALEXIS ROAD	TOLEDO, OH 43623
NEW ENGLAND CLUB	249	* ~	(513) 474-2582	8135 BEECHMONT AVENUE	CINCINNATI, OH 45255
PEARL CROSSING	115	~	(440) 268-9555	19201 PEARL ROAD	STRONGSVILLE, OH 44136
OKLAHOMA (3)					
SILVER ARROW ESTATES	125	+ ~	(918) 451-0383	2601 S. ELM PLACE	BROKEN ARROW, OK 74012
TALLGRASS ESTATES	113	~	(918) 331-5251	2633 MISSION ROAD SE	BARTLESVILLE, OK 74006
name pending			(800) 322-0999		TULSA, OK
OREGON (19)					
ASTOR HOUSE at Springbook Oaks	119	+ ~	(503) 537-2658	3801 HAYES STREET	NEWBERG, OR 97132
EDGEWOOD DOWNS	124	~	(503) 643-5418	7799 SW SCHOLLS FERRY ROAD	BEAVERTON, OR 97008
GARDEN VALLEY	91		(541) 673-1774	1800 HUGHWOOD	ROSEBURG, OR 97470
GRESHAM MANOR	102	~	(503) 667-9330	2895 E. POWELL BLVD	GRESHAM, OR 97080
HIDDEN LAKES	134	+ ~	(503) 588-2922	400 MADRONA AVENUE SE	SALEM, OR 97302
MADRONA HILLS	103	+	(503) 362-9141	707 MADRONA AVENUE SE	SALEM, OR 97302
PARKROSE CHATEAU	107	+	(503) 257-6777	3141 NE 148th AVENUE	PORTLAND, OR 97230
REGENT, The	82	~	(541) 752-2222	440 ELKS DRIVE	CORVALLIS, OR 97330
ROCK CREEK	108	~	(503) 617-1900	19295 NW CORNELL ROAD	HILLSBORO, OR 97124
ROGUE VALLEY	90	~	(541) 479-6400	1001 NE A STREET	GRANTS PASS, OR 97526
ROYAL MARC	77		(503) 653-1854	5555 SE KING ROAD	MILWAUKIE, OR 97222
ROYAL OAK	88	~	(541) 779-0790	2180 POPLAR DRIVE	MEDFORD, OR 97504
SHELDON OAKS	110	~	(541) 341-3700	2525 CAL YOUNG ROAD	EUGENE, OR 97401
SOLVANG	99		(541) 461-0490	1202 JACOBS DRIVE	EUGENE, OR 97402
SOMERSET LODGE	122	+ ~	(503) 657-5659	8330 CASON ROAD	GLADSTONE, OR 97027
STONE LODGE	112	~	(541) 318-0450	1460 NE 27TH	BEND, OR 97701
STONEYBROOK LODGE	120	+ ~	(541) 754-1961	4700 SW HOLLYHOCK CIRCLE	CORVALLIS, OR 97333
SUMMERFIELD CLUBHOUSE EST	154	~	(503) 620-8160	11205 SW SUMMERFIELD DRIVE	TIGARD, OR 97224
VINEYARD PLACE	130	~	(503) 659-0552	4017 SE VINEYARD ROAD	MILWAUKIE, OR 97267
PENNSYLVANIA (6)					
BETHEL PARK	116	~	(412) 833-3220	2960 BETHEL CHURCH ROAD	BETHEL PARK, PA 15102
ESSEX HOUSE	115		(717) 730-7302	20 N 12TH STREET	LEMOYNE, PA 17043
MANOR AT OAKRIDGE, The	113	~	(717) 540-1895	4500 OAKHURST BOULEVARD	HARRISBURG, PA 17110
NIAGARA VILLAGE	112	~	(814) 838-1699	2380 VILLAGE COMMON DRIVE	ERIE, PA 16506
WALNUT WOODS OF BOYERTOWI	112	~	(610) 367-6616	35 NORTH WALNUT	BOYERTOWN, PA 19512
WHISPERING OAKS	120	~	(724) 347-3050	260 SOUTH BUHL FARM DRIVE	HERMITAGE, PA 16148
RHODE ISLAND (1)					
POCASSET LODGE	172	* ~	(401) 421-6610	12 OLD POCASSET LANE	JOHNSTON, RI 02919
SOUTH CAROLINA (5)					
DEEPWOOD ESTATES	120	~	(803) 996-3301	203 OLD CHAPIN ROAD	LEXINGTON, SC 29072
FOREST PINES	115	~	(803) 252-3444	1720 DEVONSHIRE DRIVE	COLUMBIA, SC 29204
HAYWOOD ESTATES	112		(864) 288-8093	1180 HAYWOOD ROAD	GREENVILLE, SC 29615
INDIGO PINES	118	~ +	(843) 342-3228	110 GARDNER DRIVE	HILTON HEAD ISLAND, SC 29926
WESTMINSTER	115	~	(864) 370-9030	11 EAST AUGUSTA PLACE	GREENVILLE, SC 29605

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^ under construction ~ guestroom

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SOUTH DAKOTA (1)					
HOLIDAY HILLS ESTATES	113	~	(605) 348-4999	2620 HOLIDAY LANE	RAPID CITY, SD 57702
TENNESSEE (10)					
CREEKSIDE @ SHALLOWFORD	118	+ ~	(423) 485-9933	7511 SHALLOWFORD ROAD	CHATTANOOGA, TN 37421
ECHO RIDGE	109	~	(865) 769-0111	8458 GLEASON DRIVE	KNOXVILLE, TN 37919
FRANKLIN PARK	128	~	(901) 366-6665	3393 KIRBY ROAD	MEMPHIS, TN 38115
HERITAGE PLACE	157	~	(901) 794-8857	2990 HICKORY HILL ROAD	MEMPHIS, TN 38115
JACKSON MEADOW	113	~	(901) 661-0095	25 MAX LANE DRIVE	JACKSON, TN 38305
KENNINGTON POINTE	153	~ *	(901) 366-6200	6301 VILLAGE GROVE DRIVE	MEMPHIS, TN 38115
MANOR AT STEEPLECHASE, The	118	~	(615) 778-9011	314 COOL SPRINGS BLVD.	FRANKLIN, TN 37067
UFFELMAN ESTATES	108	+	(931) 645/7850	215 UFFELMAN DRIVE	CLARKSVILLE, TN 37043
WINDLANDS EAST	179	* ~	(615) 860-2189	200 EAST WEBSTER	MADISON, TN 37115
WINDLANDS SOUTH	180	* ~	(615) 834-1951	3800 SAM BONEY DRIVE	NASHVILLE, TN 37211
TEXAS (24)					
ARLINGTON PLAZA	96	~	(817) 478-7591	6801 W. POLY WEBB ROAD	ARLINGTON, TX 76016
BENTLEY, The	117	+ ~	(972) 481-1484	3362 FOREST LANE	DALLAS, TX 75234
BROOK RIDGE	106	~	(956) 787-3933	1001 W. RIDGE ROAD	PHARR, TX 78577
CLAIRMONT, The	96		(806) 353-0052	4707 BELL STREET	AMARILLO, TX 79109
CLAIRMONT, The	148	~	(512) 331-7195	12463 LOS INDIOS DRIVE	AUSTIN, TX 78729
CONTINENTAL, The	128	~	(512) 892-5995	4604 S. LAMAR	AUSTIN, TX 78745
COTTONWOOD ESTATES	113		(972) 517-1977	1940 W. SPRINGCREEK PKWY	PLANO, TX 75023
COWHORN CREEK ESTATES	112	~	(903) 223-6666	5415 COWHORN CREEK ROAD	TEXARKANA, TX 75503
EL DORADO	102	~	(972)783-8600	714 W. ARAPAHO ROAD	RICHARDSON, TX 75080
ENGLEWOOD ESTATES	128	+	(512) 892-7226	2603 JONES ROAD	AUSTIN, TX 78745
FOX RUN ESTATES	102	~	(817) 492-8600	2315 LITTLE ROAD	ARLINGTON, TX 76016
HERITAGE PLAZA	89	+	(512) 836-7213	9121 NORTH PLAZA	AUSTIN, TX 78753
LAKESHORE ESTATES	115	+ ~	(254) 399-0109	3209 VILLAGE GREEN DRIVE	WACO, TX 76710
LINCOLN TOWER	110		(915) 333-1106	311 WEST 4th STREET	ODESSA, TX 79761
MADISON ESTATES	157	~	(210) 694-7000	8645 FREDERICKSBURG ROAD	SAN ANTONIO, TX 78240
POLO PARK ESTATES	116	+	(432) 682-5772	2100 CASTLEFORD ROAD	MIDLAND, TX 79705
RENAISSANCE - AUSTIN	157	* ~	(512) 338-0995	11279 TAYLOR DRAPER LANE	AUSTIN, TX 78759
RENAISSANCE - SHERMAN	167	* ~	(903) 868-2200	3701 LOY LAKE ROAD	SHERMAN, TX 75090
RIO NORTE	119	+ ~	(915) 856-6655	1941 SAUL KLEINFELD DRIVE	EL PASO, TX 79936
ROSEWOOD ESTATES	110	~	(903) 509-9010	506 RICE ROAD	TYLER, TX 75703
TARRYTOWNE ESTATES	183	* ~	(281) 531-1905	1815 ENCLAVE PARKWAY	HOUSTON, TX 77077
VENTURA PLACE	136	+ ~	(806) 785-5565	3026 54TH STREET	LUBBOCK, TX 79413
WESTBRAE COURT	178	* ~	(713) 541-9991	10680 WESTBRAE PKWY	HOUSTON, TX 77031
WHITEROCK COURT	115	~	(214) 503-7223	9215 WHITEROCK TRAIL	DALLAS, TX 75238
UTAH (4)					
HARRISON REGENT	90		(801) 479-1653	4481 HARRISON BLVD	OGDEN, UT 84403
PIONEER VALLEY LODGE	115	~	(435) 792-0353	2351 N 400 E	NORTH LOGAN, UT 84341
SEVILLE, The	97		(801) 224-8044	325 WEST CENTER	OREM, UT 84057
SOUTH TOWNE RANCH	115	~	(801) 944-0082	310 E 10600 S	SANDY, UT 84070
VIRGINIA (4)					
ELM PARK ESTATES	110		(540) 989-2010	4230 ELM VIEW ROAD	ROANOKE, VA 24014
FAIRMONT, The	99	~	(703) 257-7111	9852 FAIRMONT AVENUE	MANASSAS, VA 20109
VIRGINIAN, The	117	+ ~	(804) 330-4252	300 TWINRIDGE LANE	RICHMOND, VA 23235
name pending			(800) 322-0999		CHESAPEAKE, VA
WASHINGTON (14)					
BEDFORD, The		~	(360) 891-6898	13303 SE McGILLIVRAY	VANCOUVER, WA 98683
CAPITAL PLACE	111	~ +	(360) 357-9922	700 BLACK LAKE BOULEVARD	OLYMPIA, WA 98502
CASCADIAN PLACE	102		(425) 339-2225	3915 COLBY AVENUE N	EVERETT, WA 98201
CHARBONNEAU	118	^ ~	(509) 734-4331	8264 W GRANDRIDGE BOULEVARD	KENNEWICK, WA 99336
EVERGREEN PLACE	110	+	(425) 226-3312	1414 MONROE AVENUE NE	RENTON, WA 98056
FERNWOOD at the PARK	107		(206) 242-1455	17623 FIRST AVENUE SOUTH	NORMANDY PARK, WA 98148
GARDEN CLUB, The	103	~	(425) 643-7111	13350 SE 26th STREET	BELLEVUE, WA 98005
HARVARD PARK	105		(509) 747-2703	1616 E. 30th AVENUE	SPOKANE, WA 99203
KAMLU-VANCOUVER	84		(360) 695-9281	1000 NE 82nd AVENUE	VANCOUVER, WA 98664
ORCHARD PARK	99	~	(509) 575-0095	620 N. 34th AVENUE	YAKIMA, WA 98902
PARK PLAZA	98	+ ~	(509) 525-6513	1400 DALLES MILITARY ROAD	WALLA WALLA, WA 99362
PARKWAY CHATEAU	109		(360) 671-6060	2818 OLD FAIRHAVEN PARKWAY	BELLINGHAM, WA 98225
POINT DEFIANCE VILLAGE	165	+ ~	(253) 759-8908	6414 N. PARK WAY	TACOMA, WA 98407
WILLOW GARDENS	144	+	(253) 848-4430	4502 6TH STREET SE	PUYALLUP, WA 98374

rev. 6/10/2003 + garden cottages or suites * assisted living apartments available ^ under construction ~ guestroom

Holiday Retirement Corp.

Facility Name	Units		Phone Number	Street	City, State
WISCONSIN (1)					
OAKWOOD HILLS	114	^ ~	(715) 552-1500	4316 OAKWOOD HILLS PARKWAY	EAU CLAIRE, WI 54701
XL MANAGEMENT (10)					
BENTLEY MANOR	88	*	(972) 247-2266	3344 FOREST LANE	DALLAS, TX 75234
EDGEWOOD POINT	68	*	(503) 671-9474	7733 SW SCHOLLS FERRY ROAD	BEAVERTON, OR 97008
HUNTER'S GLEN	101	*	(406) 542-7009	3620 AMERICAN WAY	MISSOULA, MT 59808
KAMLU-HAZEL DELL	71	*	(360) 693-2402	7514 NE 13th AVENUE	VANCOUVER, WA 98665
MADISON MEADOWS	122	~	(602) 944-4222	7211 N. 7th STREET	PHOENIX, AZ 85020
MANOR @ ESSINGTON	101	*	(815) 729-4773	3320 EXECUTIVE DRIVE	JOLIET, IL 60431
MOUNTAIN VIEW	111	+ *	(541) 482-3292	548 NORTH MAIN	ASHLAND, OR 97520
PEPPERTREE SQUARE	115	*	(623) 878-5115	10420 N 89TH AVENUE	PEORIA, AZ 85345
SOMERSET		*	(503) 723-7868	8360 CASON ROAD	GLADSTONE, OR 97027
STONEYBROOK		*	(541) 758-2026	4650 SW HOLLYHOCK CIRCLE	CORVALLIS, OR 97333

CANADA

ALBERTA (5)					
ARBOUR LAKE	113	~	(403) 374-0955	900 ARBOUR LAKE ROAD NW	CALGARY, AB T3G 5J1
CANYON MEADOWS	110	~	(403) 278-4004	12 DEERVIEW TERRACE SE	CALGARY, AB T2J 7E6
CHURCHILL MANOR	111	~	(780) 466-2961	5815 34TH AVENUE	EDMONTON, AB T6L 7B8
IRONWOOD ESTATES	109	~	(780) 459-0770	40 IRONWOOD POINT	ST. ALBERT, AB T8N 6R1
VICTORIA PARK	112	~	(403) 309-1957	9 AVERY STREET	RED DEER, AB T4R 2S8
BRITISH COLUMBIA (6)					
IMPERIAL PLACE	102	~	(604) 581-1555	13853 102nd AVENUE	SURREY, BC V3T 5P6
LONGLAKE CHATEAU	110	~	(250) 756-1411	3035 ROSS ROAD	NANAIMO, BC V9T 5S8
OKANAGAN CHATEAU	106	~	(250) 862-9088	2100 BENVOULIN	KELOWNA, BC V1W 3A4
VICTORIAN, The	91	~	(250) 477-1912	1773 FELTHAM ROAD	VICTORIA, BC V8N 6E8
VICTORIAN AT McKENZIE, The	114	~	(250) 381-9496	4000 DOUGLAS STREET	VICTORIA, BC V8X 5K5
name pending			(800) 322-0999		PRINCE GEORGE, BC
MANITOBA (3)					
AMBER MEADOW	114	~	(204) 633-5467	320 PIPELINE ROAD	WINNIPEG, MB R2P 2X5
RIVERHEIGHTS TERRACE	117	~	(204) 725-2225	4525 VICTORIA AVE	BRANDON, MB R7B 4A6
WESTHAVEN	113	~	(204) 831-6742	3033 PORTAGE AVENUE	WINNIPEG, MB R3K 2E3
NEW BRUNSWICK (2)					
CHATEAU DE CHAMPLAIN	114	~	(506) 633-1195	300 BOARS HEAD ROAD	SAINT JOHN, NB E2K 5C2
STE. ANNE'S COURT	114	~	(506) 450-9433	81 DUNCAN LANE	FREDERICTON, NB E3B 9T1
ONTARIO (12)					
ANCHOR POINTE	125	+ ~	(905) 938-7070	540 ONTARIO STREET	ST. CATHARINES, ON L2N 7S2
COURT AT BARRHAVEN, The	114	^ ~	(613) 823-2763	1111 LONGFIELDS DRIVE	NEPEAN, ON K2J 5A9
COURT AT BROOKLIN, The	115	^ ~	(905) 655-7718	5909 ANDERSON STREET	BROOKLIN, ON L1M 2H1
COURT AT PRINGLE CREEK, The	119	+ ~	(905) 665-4837	3975 ANDERSON STREET	WHITBY, ON L1N 5R5
COURT AT RUSHDALE, The	115	^ ~	(905) 575-6832	1360 UPPER SHERMAN AVENUE	HAMILTON, ON L8W 3Z6
CRYSTAL VIEW LODGE	119	+ ~	(613) 225-4560	6 MERIDIAN PLACE	NEPEAN, ON K2G 6L9
FAIRWINDS LODGE	111	~	(519) 542-8814	1218 MICHIGAN AVENUE	SARNIA, ONT N7S 6L1
KENSINGTON COURT	114	~	(519) 966-8558	1953 CABANA ROAD W.	WINDSOR, ON N9G 2X6
KINGSDALE CHATEAU	114	~	(613) 547-4884	520 KINGSDALE AVENUE	KINGSTON, ON K7M 9B6
MASONVILLE MANOR	112	~	(519) 663-0220	350 NORTH CENTRE ROAD	LONDON, ON N6G 5G3
SHERBROOKE HEIGHTS	114	~	(705) 750-1020	1434 SHERBROOKE STREET	PETERBOROUGH, ON K9K 2L7
name pending		^ ~	(800) 322-0999		NIAGARA FALLS, ON
QUEBEC (2)					
SAINT PATRICK, Residence le	354	~ *	(418) 522-6444	130 GRANDE - ALLEE EST	QUEBEC CITY, QC G1R 5N2
STEGER, Residence la	103	*	(514) 337-0000	2450 THIMENS BLVD	SAINT-LAURENT, QC H4R 2M2
SASKATCHEWAN (3)					
MULBERRY ESTATES	114	~	(306) 694-5020	220 MULBERRY LANE	MOOSE JAW, SK S6H 1N1
PRIMROSE CHATEAU	114	~	(306) 975-0663	310 CREE CRESCENT	SASKATOON, SK S7K 8C7
QUEEN VICTORIA ESTATES	114	~	(306) 790-1900	2025 HESELTINE ROAD	REGINA, SK S4V 2Z4

Holiday Retirement Corp.

EUROPE

Facility Name	Units		Phone Number	Street	City, State
ENGLAND (2)					
HAWTHORNS, The	109	~	127/579-0060 (011) (44)	18-19 ELTON ROAD	CLEVEDON,N.SOMERSET BS21 7EH
HAWTHORNS-EASTBOURNE, The	102	~	132/364-4111 (011) (44)	4 CAREW ROAD	EASTBOURNE, E. SUSSEX BN21 2BF
FRANCE (34)					
GROUPE SERIENCE					
HOTELIA (21 TOTAL)					
HOTELIA BORDEAUX			05 56 99 43 43	1, RUE J.R. DANDICOLLE	33000 BORDEAUX
HOTELIA CANNES MOUGINS			04 92 92 29 28	886, AV. DE TOURNAMY	06250 MOUGINS
HOTELIA EAUBONNE			01 34 06 13 13	2, RUE HENRI BARBUSSE	95600 EAUBONNE
HOTELIA FREJUS ST RAPHAEL			04 94 51 72 20	301, AVENUE ANDREI SAKHAROV	83600 FREJUS
HOTELIA HYERES			04 94 38 49 49	AVENUE JEAN MOULIN	83400 HYERES LAS PALMIERS
HOTELIA LYON			04 78 60 23 23	PARC GAMBETTA RUE DU DIAPASON	69003 LYON
HOTELIA MARCQ EN BAROEUL			03 20 74 12 13	68, RUE NATIONALE	59700 MARCQ EN BAROEUL
HOTELIA MARSEILLE VITROLLES			04 42 89 93 79	"LES ALPILLES" CENTRE URBAIN	13127 VITROLLES
HOTELIA MEUDON			01 46 23 27 00	"RESIDENCE LES TYBILLES" 1, RUE DES TYBILLES	92190 MEUDON BELLEVUE
HOTELIA MONTPELLIER			04 67 65 50 24	"LA POMPIGNANE" 662, AVENUE DE LA POMPIGNANE	34000 MONTPELLIER
HOTELIA NANCY			03 83 96 46 02	"LA SAONE" 8, RUE DE LA SAONE	54520 LAXOU
HOTELIA NOISY LE GRAND			01 48 15 54 00	LE CLOS SAINT VINCENT RUE DU DOCTEUR JEAN VAQUIER	93160 NOISY LE GRAND
HOTELIA PARIS MAINE ALESIA			01 53 90 28 28	187 BIS, AVENUE DU MAINE	75014 PARIS
HOTELIA PARIS CHAMP DE MARS			01 56 58 33 33	64, RUE DE LA FEDERATION	75015 PARIS
HOTELIA PARIS PARC MONCEAU			01 42 12 95 95	26, RUE MEDERIC	75017 PARIS
HOTELIA PAU			05 59 30 66 55	45, AVENUE FEDERICO GARCIA LORCA	64000 PAU
HOTELIA PERPIGNAN			04 68 35 15 00	18, COURS LAZARE ESCARGUEL	66000 PERPIGNAN
HOTELIA REIMS			03 26 88 79 79	10-12, RUE CERES	51100 REIMS
HOTELIA ROUBAIX			03 20 45 06 06	7, GRAND RUE	59100 ROUBAIX
HOTELIA ROUEN			02 35 03 20 02	21, PLACE DE L'EGLISE SAINT SEVER	76100 ROUEN
HOTELIA SURESNES			01 41 38 15 00	36, RUE CARNOT	92150 SURESNES
HOTELIA VERSAILLES LE CHESNAY			01 39 23 34 34	14-16, BD SAINT ANTOINE	78150 LE CHESNAY
LES VILLANDIERES (11 TOTAL)					
LES VILLANDIERES AMIENS			03 22 22 26 00	30, RUE SAINT GERMAIN	80000 AMIENS
LES VILLANDIERES BREST			02 98 03 96 00	12, RUE JEAN BON SAINT ANDRE	29200 BREST
LES VILLANDIERES BRETEUIL SUR ITON			02 32 24 83 00	175, RUE NEUVE DE BEMECOURT	27160 BRETEUIL SUR ITON
LES VILLANDIERES CHALON			03 85 41 77 00	12, IMPASSE DU CARLOUP	71331 CHALON SUR SAONE CEDEX
LES VILLANDIERES GRENOBLE			04 76 63 63 00	50, RUE DE MORTILLET	38000 GRENOBLE
LES VILLANDIERES MAISONS-LAFFITTE			01 34 93 50 00	5, AVENUE FAVART	78600 MAISONS LAFFITTE
LES VILLANDIERES OUISTREHAM			02 31 36 42 00	40, BOULEVARD BOIVIN CHAMPEAUX	14150 OUISTREHAM
LES VILLANDIERES VALENCE			04 75 82 38 00	9, RUE JULES MASSENET	26000 VALENCE
CENTRES DE SOINS DE SUITE ET DE READAPTATION					
LA BOISSIERE			02 37 33 49 00	22, RUE DE LA BOISSIERE	28630 NOGENT LE PHAYE
CHATEAU DE SAINT PIERE OURSIN			02 31 20 19 00		14370 VIMONT
RESIDENCES AVEC SERVICES					
LES FLORIALES NARBONNE	*		04 68 90 35 35	10-11, QUAI D'ALSACE	11100 NARBONNE
LES FLORIALES SETE	*		04 67 46 22 22	16, RUE VOLTAIRE	34200 SETE

Devonshire Estates Retirement Residence
Lenox, Massachusetts

Devonshire Estates Retirement Residence
Lenox, Massachusetts

Maplewood Estates Retirement Residence
Fairport, New York

Dining Room
Westminster Retirement Residence
Greenville, South Carolina

Atrium
Westminster Retirement Residence
Greenville, South Carolina

Private Suite
Westminster Retirement Residence
Greenville, South Carolina

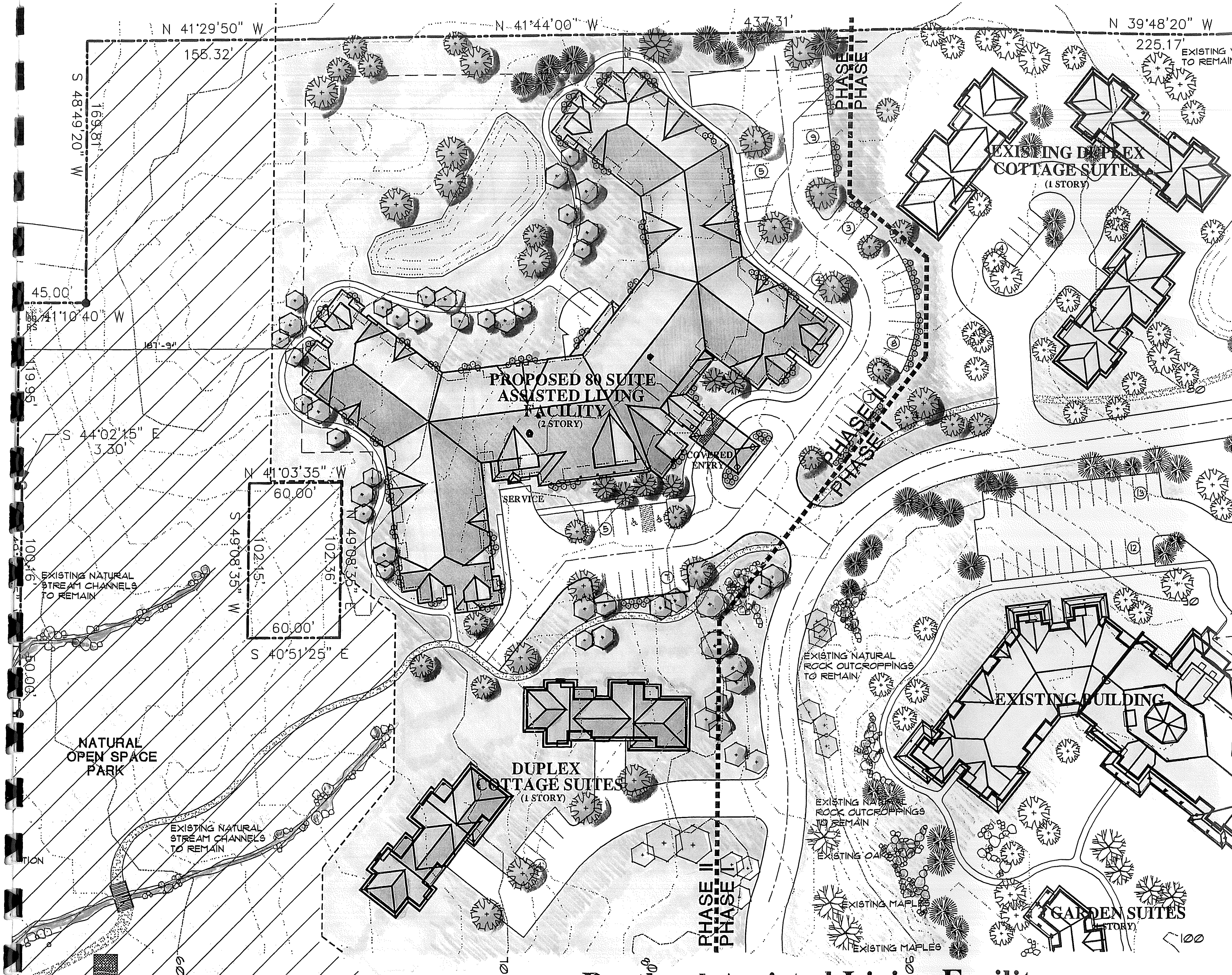
View of Dining Room

Curry Brandaw Architects
PARTNERSHIP

Portland Assisted Living Facility

Portland, Maine

XL
Management Company L.L.C.
Holiday
HOLIDAY RETIREMENT CORP.



LANDSCAPE LEGEND

LARGE DECIDUOUS TREE
(TYPICAL BUT NOT LIMITED TO)
RED MAPLE, TULIP POPLAR, OAK---LIVE, RED, SCARLET, OR SHUMARD
SOUTHERN MAGNOLIA 2.5" CALIPER

MEDIUM / SMALL DECIDUOUS TREE
(TYPICAL BUT NOT LIMITED TO)
FLOWERING CHERRY, FLOWERING PEAR, CRAPE MYRTLE 2" CALIPER

CONIFER TREE
(TYPICAL BUT NOT LIMITED TO)
DEODAR CEDAR, VIRGINIA PINE
BALD CYPRESS 6'-7' HEIGHT

SHRUBS
(TYPICAL BUT NOT LIMITED TO)
JAPANESE & CHINESE HOLLY, BARBERRY VARIETIES, AZALEA, CRAPE MYRTLE, GARDINIA, HYDRANGEA
1 GAL, 3 GAL, 24"-30"

GROUND COVER
(TYPICAL BUT NOT LIMITED TO)
ANNUAL FLOWERS, ASIATIC JASMINE, DAYLILY, JUNIPER, LIRIOPE
4" POT, 1 GAL.

LAWN

LANDSCAPE NOTE:

1. THIS LANDSCAPE PLAN IS SCHEMATIC AND IS MEANT TO DESCRIBE THE CHARACTER OF THE PROJECT. A DETAILED PLANTING PLAN WILL BE SUBMITTED UPON APPROVAL OF SITE AND SCHEMATIC LANDSCAPE PLANS.
2. IRRIGATION WILL BE PROVIDED BY A FULLY AUTOMATIC UNDERGROUND SYSTEM.

SITE PLAN

SCALE 1"=30'-0"
DATE 08/26/2003

0 15 30 60 90 150

PROJECT STATISTICS:

PROJECT AREA:

Total Area: 5.0 ACRES	218,312 SQ. FT.	

AREA CALCULATIONS:

MAIN BUILDING:	36,213 SQ. FT.	
PATIOS:	5,300 SQ. FT.	
COTTAGES:	6,302 SQ. FT.	
TOTAL COVERAGE:	47,815 SQ. FT.	21.9%
DRIVES / PARKING:	32,912 SQ. FT.	15.1%
WALKS:	5,480 SQ. FT.	2.5%
OPEN SPACE:	132,105 SQ. FT.	60.5%

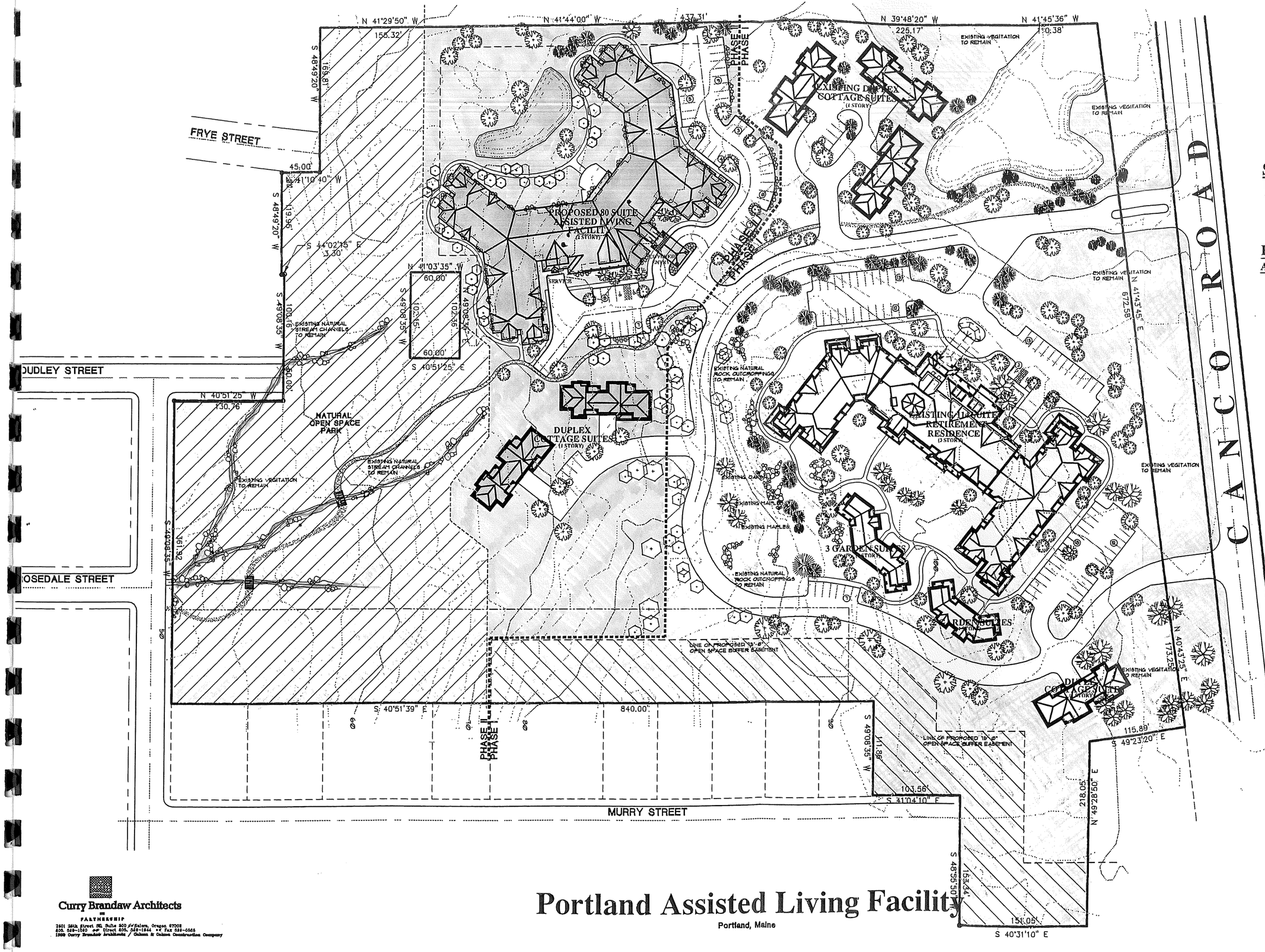
PARKING:
2 ACCESSIBLE SPACES
46 OPEN SPACES
48 SPACES PROVIDED

Holiday RETIREMENT CORP.

Curry Brandaw Architects

Portland Assisted Living Facility

Portland, Maine



SITE PLAN

1"=50'-0"
08/20/03 MCF

PROJECT STATISTICS:

AREA CALCULATIONS:

20.97 ACRES GROSS
913,394 SQ FT GROSS

20% REDUCTION	172,401 SQ FT
SETBACKS	88,120 SQ FT
WETLANDS/STREAMS	34,613 SQ FT
	295,134 SQ FT

566,873 SQ FT NET AREA
1,600 SQ FT PER DWELLING UNIT
354 DWELLING UNITS ALLOWED

EASEMENT	71,145.7 SQ FT 1.63 ACRES
OPEN SPACE PARK	209,759.6 SQ FT 4.81 ACRES

PHASE I (Completed)
114 RETIREMENT SUITES
8 COTTAGE SUITES
5 GARDEN SUITES
127 TOTAL SUITES

PARKING:
90 PARKING SPACES

PHASE II
80 ASSISTED LIVING SUITES
4 COTTAGE SUITES
84 TOTAL SUITES

PARKING:
65 PARKING SPACES

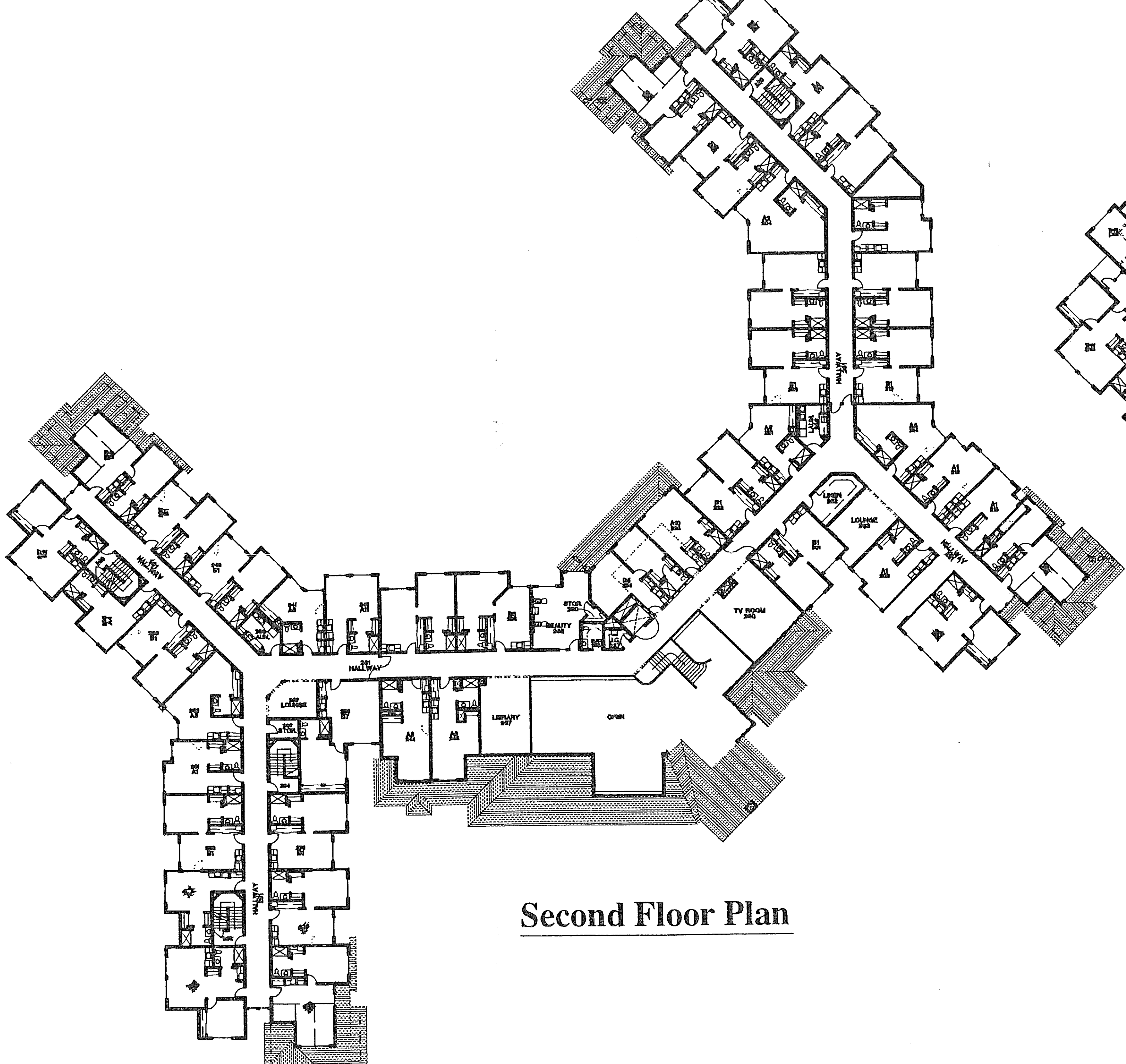
TOTAL ALL PHASES
211 RETIREMENT SUITES
155 PARKING SPACES

Portland Assisted Living Facility

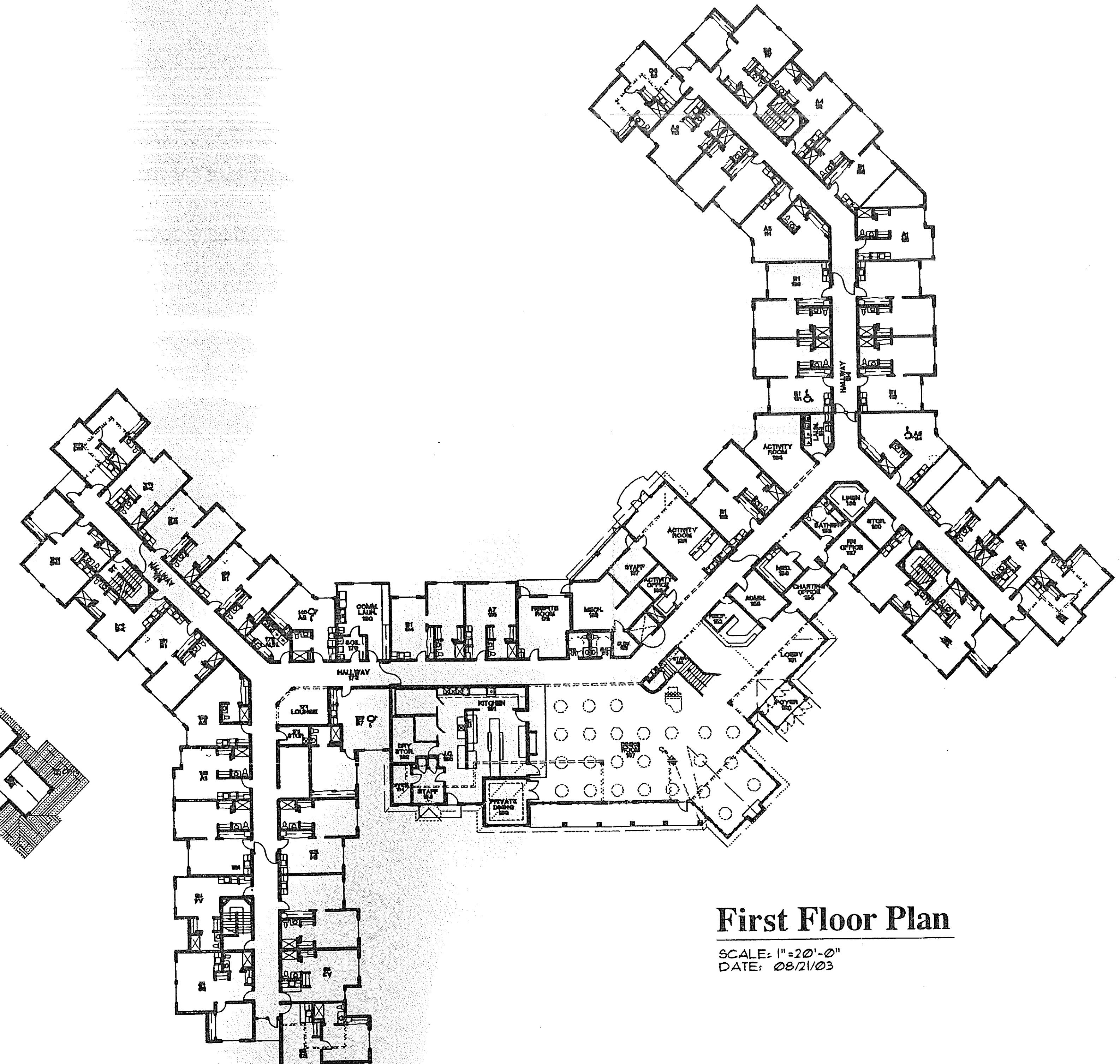
Portland, Maine

Curry Brandaw Architects
PARTNERSHIP
2601 26th Street SE, Suite 200 Salem, Oregon 97302
503. 588-1560 or Direct 503. 588-1844 ++ Fax 588-0565
1999 Curry Brandaw Architects / Coleman & Coleman Construction Company

Holiday RETIREMENT CORP.
1000 Brookside Dr. I.E., Suite 1000 Salem,OR 97302
P.O. Box 14111 Salem, OR 97309-5036
(503)370-7070 Fax(503)364-8716



Second Floor Plan



First Floor Plan

SCALE: 1"=20'-0"
DATE: 08/21/03

Front Elevation

Curry Brandaw Architects
PARTNERSHIP
2001 34th Street SE, Suite 300 Salem, Oregon 97302
503, 399-1090 Direct 503, 596-1944 Fax 399-0686

Portland Assisted Living Facility

Portland, Maine

Holiday
RETIREMENT CORP.
2250 McGilchrist St. S.E. Suite 200 Salem, OR 97302
P.O. Box 14111 Salem, OR 97309-5083
(503)370-7070 Fax(503)364-6716

FACILITY NAME	ADDRESS	SUITES	GARDEN SUITES	COTTAGES	ALZ UNITS	TOTAL SUITES	PARKING SPACES	PER SUITE
Canyon Meadows	12 Deerview Terrace SE, Calgary, Alberta T2J 7E6	100	0	0	0	100	60	0.6
Churchill Manor	5815 - 34th Avenue Edmonton, Alberta T6L 7B8							
Victoria Park	#9 Avery Street Red Deer, Alberta T4R 2S6	112	0	0	0	112	70	0.625
Ironwood Estates	40 Ironwood Point, St. Albert, Alberta T8N 6C7	109	0	0	0	109	67	0.6229
Okanagan Chateau	2100 Benvoulin, Kelowna, BC V1W3A4	106	0	0	0	106	63	0.59
Longlake Chateau	3033 Ross Rd., Nanaimo, BC V9T 5S8	111	0	0	0	111	60	0.54
Imperial Place	13853 102nd Ave., Surrey, BC V3T 1P2	102	0	0	0	102	73	0.72
Victorian, The	1773 Feltham Rd., Victoria, BC V8N 2A4	91	0	0	0	91	43	0.47
Riverheights Terrace	4525 Victoria Ave., Brandon, Manitoba R7B 4A6	117	0	0	0	117	70	0.60
Amber Meadow	320 Pipeline Rd., Winnipeg, Manitoba R2P 2X5	114	0	0	0	114	72	0.63
Saint Anne's Court	81 Duncan Lane, Fredericton, NB E3B 4S2	114	0	0	0	114	72	0.63
Chatau de Champlain	300 Boars Head Rd., St. John, New Brunswick E2L3W2	114	0	0	0	114	70	0.61
Kingsdale Chateau	520 Kingsdale Ave., Kingston, ONT K7M 9B6	114	0	0	0	114	72	0.50
Masonville Manor	350 North Centre Rd., London, ONT N5X 3N1	112	0	0	0	112	66	0.5893
Crystal View Lodge	#6 Meridian Place, Nepean, ONT K2G 6L9	114	2	3	0	119	70	0.6195
Sherbrooke Heights	1434 Sherbrooke St. West, Peterborough, ONT	114	0	0	0	114	70	0.614
Fairwinds Lodge	1218 Michigan Ave., Sarnia, ONT N7S 6J4	111	0	0	0	111	61	0.5495
Anchor Pointe	540 Ontario St., St. Catharines, ONT L2N 6J7	123	2	0	0	125	109	0.872
The Crt. @ Pringle Creek	3975 Anderson St., Whitby, ONT LIN 5R5	114	5	0	0	119	70	0.5882
Kensington Court	1953 Cabana Rd. West Windsor, Ontario	114	0	0	0	114	67	0.5877
Queen Victoria Estates	2025 Heseltine Road, Regina Sask SK S4N 7L2	114	0	0	0	114	67	0.5877
Primrose Chateau	310 Cree Crescent, Saskatoon, Sask S7K 8C	114	0	0	0	114	72	0.63
Hawthorns, The	18-21 Elton Road, Clevedon, N. Somerset BS21	109	0	0	0	109		
The Hawthornes - Eastbou	Carew Road , Eastbourne, BN21 2AX	102	0	0	0	102	46	0.45
Monarch Estates	E. University Drive Auburn, AL	114	0	0	0	114	87	0.76
University Oaks	650 University Blvd S., Mobile, AL 36609	110	0	0	0	110	54	0.49
Eastdale Estates	5801 Eastdale Dr., Montgomery, AL 36117	107	0	0	0	107	52	0.49
Andover Place	2601 Andover Ct., Little Rock, AR 72207	111	0	0	0	111	56	0.50
Gardens at Arkanshire	5000 Arkanshire Circle, Springdale, AR 72674	111	20	0	0	131	98	0.75
Vista Del Rio	13619 - N. 94th Dr., Peoria, AZ 85381	112	6	0	0	118	66	0.55
Vista de la Montana	18510 N. Parkview Place, Surprise, AZ 85374	110	3	0	0	113	72	0.64
Desert Rose	1545 S. 14th Ave., Yuma, AZ 85364	113	0	0	0	113	56	0.50
Quail Lodge	4840 Deer Valley Road, Antioch, CA 94509	121	2	0	0	123	76	0.62
Oaks of Auburn, The	3250 Blue Oaks Dr., Auburn, CA 95602	110	0	0	0	110	63	0.67
Carriage House Estates	8200 Westwold Dr. Bakersfield, CA 93311	112	6	6	0	124	88	0.79

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FACILITY NAME	ADDRESS	SUITES	GARDEN SUITES	COTTAGES	ALZ UNITS	TOTAL SUITES	PARKING SPACES	PER SUITE
Columbus Estates	3201 Columbus, Bakersfield, CA 93306	126	0	0	0	126	75	0.60
Oakmont	2801 Cohasset, Chico, CA 95926	91	0	0	0	91	51	0.56
Creekside Oaks	1716 Creekside Rd., Folsom, CA 95630	109	0	0	0	109	72	0.66
Fig Garden	6035 N. Marks Ave., Fresno, CA 93711	101	0	0	0	101	46	0.46
Wilshire, The	2727 N. 11th Ave., Hanford, CA 93230	112	0	4	0	116	67	0.62
Waterford Terrace	5580 Aztec Dr., La Mesa, CA 91942	90	0	0	0	90	42	0.47
Palms, The	13001 La Mirada Blvd., La Mirada, CA 90638	162	0	0	0	162	80	0.49
Vintage, The	2145 W. Kettleman Dr., Lodi, CA 95240	108	9	0	0	117	62	0.53
Hampshire, The	3460 R St., Merced, CA 95348	109	4	0	0	113	67	0.59
Standiford Place	3420 Shawnee Dr., Modesto, CA 95350	102	0	0	0	102	65	0.64
Redwood	2350 Redwood Rd., Napa, CA 94558	97	0	0	0	97	52	0.54
Deer Park	646 Canyon Rd., Novato, CA 94947	85	0	0	0	85	43	0.51
Feather Canyon	5900 Canyon View Drive, Paradise, CA 95969	115	5	6	0	126	84	0.74
Bay Park	2621 Appian Wy., Pinole, CA 94564	96	0	0	0	96	51	0.53
Sierra Hills	2500 W. Henderson Ave., Porterville, CA 93257	112	7	0	0	119	76	0.64
Valencia Commons	6729 Hermosa, Rancho Cucamonga, CA	114	0	0	0	114	72	0.63
Hilltop	451 Hilltop Dr., Redding, CA 96003	96	0	0	0	96	41	0.43
Mission Commons	10 Terracina Blvd., Redlands, CA 92373	139	0	0	0	139	104	0.75
Magnolia	8537 Magnolia, Riverside, CA 92373	96	0	0	0	96	35	0.36
Las Brisas	1299 Briarwood Dr., San Luis Obispo, CA 93401	100	0	0	0	100	45	0.45
Westmont	1675 Scott Blvd., Santa Clara, CA 95050	136	0	0	0	136	90	0.66
Walnut Park	4119 W. Walnut, Visalia, CA 93277	101	0	0	0	101	53	0.52
Arcadia Place	1080 Arcadia Ave., Vista, CA 92084	114	0	0	0	114	58	0.51
Bridgecreek	3601 Holt Ave., West Covina CA 91791	108	0	0	0	108	54	0.50
Sunridge	5820 Flintridge Dr., Colorado Springs, CO 80918	90	0	0	0	90	45	0.50
Quincy Place	7200 Quincy Ave. East, Denver, CO 80202	113	4	0	0	117	74	0.63
Parkwoods Estates	2201 S. Lemay, Ft. Collins, CO 80525	110	0	0	0	110	168	1.53
Atrium of Grand Valley, Th	3260 N. 12th, Grand Junction, CO 81506	126	0	0	0	126	79	0.63
Mesa View	601 Horizon Place, Grand Junction, CO 81506	101	0	0	0	101	39	0.39
Greeley Place	1051 6th St., Greeley, CO 80631	102	0	0	0	102	46	0.45
Courtyard at Lakewood	7400 West 13th Ave., Lakewood, CO 80215	121	0	0	0	121	41	0.34
Lakewood Estates	8585 W. Dakota Ave., Lakewood, CO 80226	90	0	0	0	90	52	0.58
Longmont Regent	2210 Main St., Longmont, CO 80501	96	0	0	0	96	67	0.70
Pueblo Regent	100 San Carlos, Pueblo, CO 81005	97	0	0	0	97	41	0.42
Augustine Landing	10141 Old St. Augustine Rd. Jacksonville, FL 32257	109	0	0	0	109	65	0.60

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Azalea Park	1325 Grasslands Blvd. Lakeland , FL 33813	115	0	0	0	115	79	0.69
University Pines	8991 University Parkway, Pensacola, FL 32514	110	3	0	0	113	54	0.48
Cherry Laurel	1009 Concord Dr., Tallahassee, FL	115	0	0	0	115	67	5.60
Iris Place	755 Epps Bridge Rd., Athens, GA	118	6	16	0	140	138	1.28
Washington Commons	4100 Washington Road, Augusta, GA 30909	115	0	10	0	125	74	0.70
Riverplace	6850 River Rd., Columbus, GA 31904	112	0	0	0	112	63	0.56
The Regency House	341 Winn Wy., Decatur, GA 30030	102	0	0	0	102	60	0.59
Smoky Springs	940 South Enota Drive, Gainesville, GA 30501	115	0	0	0	115	70	0.61
Pinegate	4207 Forsythe Rd., Macon, GA	115	0	0	0	115	82	0.71
River's Edge	5206 Waters Ave. Savannah, GA 31406	115	0	4	0	119	74	0.67
Hawaii Kai - Phase I	428 Kawaihae Dr., Honolulu, HI 96825	139	0	13	43	195	173	1.02
Hawaii Kai - Phase II	428 Kawaihae St. Honolulu, HI 96825	135	0	2 DPLX	38	175	145	0.87
Palmer Hills	2617 Maplecrest Rd., Bettendorf, IA 52722	104	0	0	0	104	63	0.61
Beaverdale Estates	4610 Douglas Ave., Des Moines, IA 50310	102	0	0	0	102	58	0.57
Walden Place	2423 Walden Rd., Iowa City, IA 52246	102	0	0	0	102	60	0.59
Illahee Hills	8305 Colby Parkway, Urbandale, IA 50322	104	3	0	0	107	76	0.71
Chateau de' Boise	7250 Poplar St., Boise, ID 83704	98	0	0	0	98	42	0.43
Essington Estates	901 Essington Rd., Joliet, IL 60435	110	0	0	0	110	56	0.51
Blair House	1200 East College, Normal, IL 61761	109	0	0	0	109	66	0.61
Montvale Estates	2601 Montvale Dr., Springfield, IL 62704	109	10	0	0	119	64	0.54
Redbud Hills	333 E. Moores Pike, Bloomington, IN 47401	112	0	0	0	112	64	0.57
Parkside Court	3660 Central Ave., Columbus, IN 47203	38/80	0	0	0	118	75	0.64
Willow Park	5050 Lincoln Ave., Evansville, IN 47715	98	0	0	0	98	49	0.50
Arbor Glen	5202 St. Joe Rd., Ft. Wayne, IN 46835	110	8	0	0	118	59	0.50
Thornton Place	2901 SW Armstrong, Topeka, KS 66614-5632	112	7	0	0	119	70	0.59
Grasslands Estates	W of SWC OF 13th St. W. & Maize	115	0	0	0	115	72	0.63
Ashwood Place	102 Leonardwood, Frankfort, KY 40601	99	0	0	0	99	71	0.72
Hartland Hills	4470 Tates Creek Rd., Lexington, KY 40515	117	0	0	0	117	69	0.59
Oxmoor Lodge	8021 Christian Way, Louisville, KY 40222	112	4	2	0	118	80	0.70
Ponder Creek Estates	620 Valley College Drive Louisville, KY 40272	118	0	0	0	118	84	0.71
Whealdon Estates	8680 Jefferson Hwy., Baton Rouge, LA 70809	98	0	0	0	98	48	0.49
Nouveau Marc	1101 Sunset Blvd., Kenner, LA 70065	108	0	0	0	108	33	0.31
Landing at Behrman Place	3601 Behrman Place, New Orleans, LA 70114	107	0	0	0	107	38	0.36
Summerfield Estates	9133 Baird Rd., Shreveport, LA 71118	101	0	0	0	101	52	0.51
Quail Run Estates	50 Cardinal Drive Agawam, MA 01001	107	5	9	0	121	75	0.73

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Summer Place	20 Summer St., Chelmsford, MA 01824	110	0	0	0	110	62	0.56
Devonshire Estates	329 Pittsfield Rd., Lenox, MA 01240	108	10	10	0	128	110	0.70
Sunbury Village	922 Ohio St. Bangor, ME 04401	115	0	0	0	115	78	0.68
The Woods at Canco	219 Canco Rd. Portland, ME 04103	115	5	8	0	128	91	0.81
Genesee Gardens	4505 of Calkins Rd. Flint, MI	117	0	0	0	117	78	0.67
The Marquette	5968 Park Lake Rd, Meridian, MI 48823	115	0	0	0	115	69	0.60
Blue Water Lodge	2840 Keewahdin Road, Port Huron, MI 48059	115	0	4	0	119	78	0.70
Wescourt	4141 McCarty Rd., Saginaw, MI 48603	109	5	4	0	118	73	0.66
Glen Eagle	Silver Lake @ South Airport Rd., Traverse City, MI	115	0	4	0	119	78	0.70
The Inn at Cass Lake	900 N. Cass Lake Rd., Waterford, MI 48328	110	0	0	0	110	64	0.58
Aurora Pond	5516 Byron Center Ave. S.W., Wyoming, MI 49509	115	7	10	0	132	120	1.07
Lodge at White Bear	3666 East County Line Rd. White Bear Lake, MN 55110	115	0	0	0	115	69	0.60
Briarcrest Estates	14525 Clayton Rd., Ballwin, MO 63011	90	0	0	0	90	53	0.59
Cambridge, The	2900 S. Jefferson, Springfield, MO 65807	113	0	0	0	113		0.00
Country Squire	1602 Buckingham St., St. Joseph, MO 64506	110	0	0	0	110	64	0.58
Lakeview Park	1391 Bowles Ave., St. Louis, MO	112	0	0	0	112	72	0.64
Aspen View	3075 Avenue C, Billings, MT 59102	109	12	4	0	125	97	0.83
Hunter's Pointe	2801 Colonial Dr., Helena, MT 59601	109	0	6	0	115	90	0.87
Durham Regent	3007 Pickett Rd., Durham NC 27705	122	0	0	0	122	39	0.32
Emerald Pond	205 Emerald Pond Lane, Durham NC 27705	112	0	6	0	118	74	0.70
Lakeshore Commons	1402 Hospital Plaza Dr., Wilmington, NC 28401	118	0	0	0	118	67	0.57
The Woods at Holly Tree	4610 Holly Tree Rd., Wilmington, NC 28403	115	0	0	0	115	59	0.51
Creekside Terrace	N. side of Old Vineyard Rd. Winston-Salem, NC	115	0	0	0	115	87	0.76
Brentwood Estates	1111 So. 70th, Lincoln, NE 68510	103	0	0	0	103	62	0.60
Bear Canyon Estates	4440 Morris St. NE, Albuquerque, NM 87111	110	14	0	0	124	77	0.62
Golden Mesa	150 N. Roadrunner Parkway Las Cruces, NM 88001	110	10	9	0	129	104	0.94
Carson Plaza	2120 E. Long, Carson City, NV 89706	96	0	0	0	96	58	0.60
Maplewood Estates	55 Ayrault Rd., Fairport, NY 14450	111	0	8	0	119	91	0.88
Tallgrass Estates	Camelot Dr., Bartlesville, OK 74005	113	0	0	0	113	65	0.58
Silver Arrow Estates	S. Elm Place, Broken Arrow, OK 74012	115	0	5	0	120	81	0.74
Mountain View	548 North Main, Ashland, OR 97520	110	0	0	0	110	58	0.53
Edgewoods Downs	7799 SW Scholls Ferry Rd., Beaverton, OR 97005	124	0	0	0	124	46	0.37
Edgewood Down ALF	7733 S.W. Scholls Ferry Rd. Beaverton, OR 97008	46 ALF	0	4	16	66	49	0.84
Stone Lodge	1460 N.E. 27th St. Bend, OR 97701	112	0	0	0	112	66	0.59
The Regent	440 Elks Dr., Corvallis OR 97330	82	0	0	0	82	63	0.77

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Stoneybrook Lodge	49th St. & S.W. Country Club Dr., Corvallis, OR 97333	115	0	5	0	120	80	0.73
Sheldon Oaks	2525 Cal Young Rd., Eugene, OR 97402	110	0	0	0	110	71	0.65
Somerset Lodge	8330 Cason Rd, Gladstone, OR 97027	115	7	0	0	122	80	0.66
Rougue Valley	1001 A St. NE, Grants Pass, OR 97526	90	0	0	0	90	40	0.44
Gresham Manor	2895 E. Powell Blvd., Gresham, OR 97080	102	0	0	0	102	46	0.45
Rock Creek	19295 NW Cornell Rd., Hillsboro, OR 97124	108	0	0	0	108	56	0.52
Royal Oak	2180 Poplar Dr., Medford, OR 97501	90	0	0	0	90	45	0.50
Parkrose Chateau	3141 NE 148th Ave., Portland, OR 97230	107	0	0	0	107	76	0.71
Garden Valley	1800 Hughwood, Roseburg, OR 97470	92	0	0	0	92	45	0.49
Hidden Lakes	400 Madrona Ave. SE, Salem, OR 97302	123	0	0	0	123	80	0.65
Bethel Park	2999 Bethel Church Rd., Bethel Park, PA 15102	116	0	0	0	116	70	0.60
The Manor @ Oakridge	4500 Oakhurst Blvd., Susquehanna Township, PA 1711(	113	0	0	0	113	74	0.65
Pocasset Lodge	12 Old Pocasset Lane, Johnston, RI 02919	172	0	0	0	172	102	0.59
Forest Pines	1720 Devonshire Dr., Columbia, SC 29204	115	0	0	0	115	69	0.60
Haywood Estates	1180 Haywood Rd., Greenville, SC 29615	110	0	0	0	110	53	0.48
Westminster	11 E Augusta Pl., Greenville, SC 29605	115	0	0	0	115	70	0.61
Indigo Pines	110 Gardner Drive, Hilton Head Is., SC 29926	113	5	0	0	118	68	0.58
Deepwood Estates	203 Old Chapin Rd. Lexington, SC 29072	115	0	0	0	115	72	0.63
Holiday Hills Estates	2620 Holiday Lane, Rapid City, SD 57702	113	0	0	0	113	69	0.61
Rosewood Estates	505 Rice Rd., Tyler, TX 75703	110	0	0	0	110	54	0.49
Creekside @ Shallowford	7511 Shallowford Rd., Chattanooga, TN 37421	114	0	4	0	118	65	0.59
Uffelman Estates	125 Uffelman Dr., Clarksville, TN 37043	104	3	0	0	107	61	0.57
Manor at Steeplechase	314 Cool Springs Blvd., Franklin, TN 37067	118	0	0	0	118	71	0.60
Jackson Meadow	25 Max Lane Dr., Jackson, TN 38305	113	0	0	0	113	78	0.69
Echo Ridge	8458 Gleason Dr., Knoxville, TN 37919	109	0	0	0	109	63	0.58
Franklin Park	3393 Kirby Rd., Memphis, TN 38115	129	0	0	0	129	67	0.52
Clairmont	4707 Bell St., Amarillo, TX 79109	96	0	0	0	96	47	0.49
Arlington Plaza	6801 W. Poly Webb Rd., Arlington, TX 76016	96	0	0	0	96	68	0.71
Fox Run	2315 Little Rd., Arlington, TX 76016	102	0	0	0	102	54	0.53
Englewood Estates	2603 Jones Rd., Austin, TX 78745	110	0	0	0	110	64	0.58
Bentley, The	3362 Forest Lane, Dallas, TX 75234	109	8	0	0	117	81	0.69
Whiterock Court	8900 Block of Whiterock Trail Dallas, TX 75204	115	0	0	0	115	78	0.68
Rio Norte	1941 Saul Kleinfeld Dr., El Paso TX 79936	110	5	4	0	119	63	0.57
Ventura Place	3026 54th St., Lubbock, TX 79413	112	18	6	0	136	96	0.71
Polo Park	2100 Castleford Rd., Midland, TX 79706	107	0	0	0	107	65	0.61

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Brook Ridge	1001 W. Ridge Rd., Pharr, TX 78577	107	0	0	0	107	67	0.63
Cottonwood Estates	1940 West Spring Creek Parkway, Plano, TX 75086	113	0	0	0	113	68	0.60
El Dorado	714 W. Arapaho Rd., Richardson, TX 75080	102	0	0	0	102	53	0.52
Cowhorn Creek Estates	5353 Cowhorn Creek Rd., Texarkanna, TX 75503	112	0	0	0	112	67	0.60
Rosewood Estates	505 Rice Rd., Tyler, TX 75703	110	0	0	0	110	54	0.49
Lakeshore Estates	3209 Village Green Dr., Waco, TX 76710	110	5	0	0	115	70	0.61
Pioneer Valley Lodge	400 East St. & 2350 North St.	115	0	0	0	115	72	0.63
Harrison Regent	481 Harrison Blvd., Ogden, UT 84403	90	0	0	0	90	39	0.43
Seville, The	325 W. Center, Orem, UT 84058	97	0	0	0	97	54	0.56
Fairmont, The	9852 Fairmont Ave., Manassas, VA 22110	100	0	0	0	100	32	0.32
Virginian, The	300 Twinridge Lane, Richmond, VA 23235	117	0	0	0	117	72	0.62
Elm Park	4230 Elm View Rd., Roanoke, VA 24014	110	0	0	0	110	63	0.57
Garden Club, Bellevue	13350 SE 26th, Bellevue, WA 98005	103	0	0	0	103	43	0.42
Parkway Chateau	2818 Old Fairhaven Pwy., Bellingham, WA 98225	109	0	0	0	109	60	0.55
Cascadian	3915 Colby Ave., Everett, WA 98201	102	0	0	0	102	52	0.51
Capitol Place	700 Black Lake Blvd., Olympia, WA 98502	104	0	0	0	104	56	0.54
Evergreen Place	1416 Monroe Ave. NE, Renton, WA 98056	110	0	0	0	110	65	0.59
Harvard Park	1616 E. 30th Ave., Spokane, WA 99203	105	0	0	0	105	39	0.37
Pt. Defiance	6414 N. Park Way, Tacoma, WA 98407	136	0	0	0	136	71	0.52
Park Plaza	1400 Dalles Military Rd., Walla Walla, WA 99362	99	0	0	0	99	55	0.56
The Inn at Cass Lake	900 N. Cass Lake Rd., Waterford, MI 48328	110	0	0	0	110	64	0.58