RS. 01.176348



MAR 1 3 2002 MICROFILMED





### CITY OF PORTLAND, OREGON



OFFICE OF PLANNING AND DEVELOPMENT REVIEW 1900 SW 4<sup>th</sup> Ave, Suite 5000

		12		OR 97201	00		10MAH JULA JULA JULA JULA JULA JULA JULA JULA	
STATUS CHECK	Residential	al 1 & 2 Family Permit Ap			Applica	oplication # 01-176348-000-00-RS		
Status Date: January 10	), 2002					IVR Numbe	er: 2140344	
APPLICANT GROV	E DEVELOPMENT	IN	C			Phone: (503) 977	-2166	
OWNER VIRGI	NIA H ROBINSON					Phone:		
CONTRACTOR GROV		IN	IC			Phone:		
PROJECT INFORM Street 4709 SW FL Address			Descrip	tion of Work	: NSFR-PAR	TITION PLAT2001-12	9 PARCEL 3	
Occupancy Group	Construction Type	e		Sub Typ	be	Work Propo	osed	
B3 U1	V-N		Single Fa	amily Dwellir	ng	New Construction		
This report shows thos may trigger additional r	e reviews which ha eview assignment	av s.	e been ass	igned as of .	_		ical reviews	
Review Type/Process	Mandato			Action Date	R	leviewer	Phone	
Completeness Check - RS		X	Closed	1/10/02	Hettman, Nancy		503-823-7360	
Process Manager		_	Open	i	Hansen,Keith		503-823-0655	
Assign plan and file location		_	Closed		Hansen,Keith		503-823-0655	
Assign Reviews - RS		_	Closed	12/19/01	Hansen,Keith		503-823-0655	
Corrections Received - RS			Open		LOCUMENT SERVICES		503-823-7357	
Assign address			Checksheet		McBee,Carol		503-823-5115	
Plauning and Zoning Review			Approved	1/10/02	Wood, Sandra		503-823-7827	
Erosion Control Plan Review			Approved	1/10/02	Wood,Sandra		503-823-7827	
Life Safety Review			Open	<u> </u>	Hettman, Nancy	GKH	503-823-7360 503-823-7301	
Structural Review			Open	-1-17-1	STRUCTURAL			
Residential Plumbing Review	N .	÷	Opdified All	1 1 1 2	Ebeling,Mike		503 823-7247	
Residential Subsurface Site	Evaluation	÷	Open 4 #	17. 1910 17. 1910	BES	RESIDENTIAL PLUMB	503-823-7761	
BES Sanitary Review		÷	Open AN	<u>14 1941</u>	BES		503-823-7761	
BES Stormwater Review				DODT ANI	BES		503-823-7761	
BES - SDC Review		싃	OPEN OF	POBTLAN	PDOT		503-823-7002	
Transportation SDC - review		÷	Open Open		Raschke,Glenn		503-823-1697	
Parks SDC Review Trans - Street Systems Revi			Open Open	· ·	PDOT		503-823-7002	
Street Systems - Assign Rev			Open		PUOT		503-823-7002	
Water Available			Open Open		WATER		503-823-7479	
Urban Forestry Review			Open		Black.Myles		503-823-4018	
Send Letter of intent to expi		^	Open	·	DOCUMENT S	BVICES	503-823-7357	
Plans checked out to Applic		•••••	Open	· · · · · · · · · · · · · · · · · · ·	Decoment of		500-020 /001	
Plans checked but to Applic Pre-Issuance check		x	Open	+	PRE-ISSUANC	E BS MI MP	503-823-7357	
Payment Received			Open	· · · · · · · · · · · · · · · · · · ·	TIL-1000ANO	- · · · · · · · · · · · · · · · · · · ·		
a ayment neceived	i		ionon,		1	1		

## Mechanical Permit Application

Date received:	Permit no.:
OFFICE	USE ONLY

By:

City of Portland 1900 SW 4th, Ste 5000, PO Box 8120, Portland, OR 97201 Phone: (503) 823-7363, Fax: (503) 823-3018

TDD: (503) 823-6868, Website: www.opdr.ci.portland.or.us

□ 1 & 2 family dwelling or accessory □ Commercial/ Addition/alte	industrial		nt imp	provement	
		COMMERCIAL VALUATION	- ch	uboru e	
JOB SHE INFORMATION	12	Indicate equipment quantities in boxes bel			
Job address: Lumpt 01. 00 410 MP Par Bldg. no.: Suite no.:	reel 3	value of all mechanical materials, equipme			
		profit. Value \$			
Tax map/tax lot/account no.:		*See checklist for important application in		ation and	
Lot: Block: Subdivision:		jurisdiction's fee schedule for residential p			
Project name:		I & 2 FAMILY DWELLING PERMIT	IT INF	ir soudi	MILE.
City/county: ZIP:		AND COMMERICAL/INDUSTRIAL / EQ	TIPE	INT SCI	
Description and location of work on premises:		AND COMMERICALINDUSTRIAL/EQ			
	<u> </u>			Fee (ca.)	Total
Building Permit #, if applicable		Description	Qty.	Res. only	Res. only
Est. date of completion/inspection:		Air handling unit CFM		\$19	
Will you call for inspection within 24 hours?  Yes No		Air conditioning (site plan required)		\$19	
Tenant improvement or change of use:		Alteration of existing HVAC system		\$24	
Is existing space heated or conditioned?  Yes	l No	Boiler/compressors			
Is existing space insulated? C Yes O No		State boiler permit no.:		\$24	
MECHANICAL CONTRACTOR		Fire/smoke dampers/duct smoke detectors			
		Heat pump (site plan required)		\$38	· · · · ·
Business name:	··· ··· ··· ··· ··· ··· ··· ··· ··· ··	Install/replace furnace/burned 00,028TU/H	,		
Address:		Including ductwork/vent/liner @KYes [] No		\$40	
City: State: ZIP:		Install/replace/relocate heaters - suspended, wall, or floor mounted		\$19	
Phone: Fax: E-mail:		Vent for appliance other than furnace		\$19	
CCB no.:		Refrigeration:			
City/metro lic. no.:		Absorption unitsBTU/H			
Name (please print):		Chillers HP			
CONTACT PERSON		Compressors HP Environmental exhaust and ventilation:			
Name:		Appliance vent		\$16	
Address:		Dryer exhaust	1	\$10	
		Hoods, Type I/ Il/res. kitchen/hazmat	1		
		hood fire suppression system	4	\$10-	
Phone: Fax: E-mail:		Exhaust fan with single duct (bath fans) Exhaust system apart from heating or AC	┝⊐╴	\$10 \$16	
OWNER		Fuel piping and distribution (up to 4 outlets)		510	
Name: Groce Aturt		Type:LPGNGOil	1	\$11	
Mailing address:		Fuel piping each additional over 4 outlets		\$2	
City: State: ZIP:		Process piping (schematic required)			
Phone: 503/9772166Fax: E-mail:		Number of outlets     Other listed appliance or equipment:			
ENGINEER		Decorative fireplace 3	11	\$19	
Name:		Insert type		\$42	
Address:		Woodstove/pellet stove		\$42	
		<ul> <li>Other: (including oil tanks, gas and diesel generators, gas and electric ceramic kilns, gas</li> </ul>	1	\$24	
Interim a second se		fuel cells, jewelry torches, crucibles and other		l	
		appliance/equipment not included above)			1
Applicant's signature: Date:	<u></u>			L	l
Name (print):					
		permit application Permit fee			
	expires if a p	ermit is not obtained Minimum fee (\$5			
		ays after it has been Commercial Plan review (at			
	accepted as a				
	1	TOTAL			·
				440-461	7 (6/00/COM)

100 mg	Office of Planning and Development Review, City of Portla	nd		
	New One and Two Family Dwelling Submittal Checklist			
Folde	er Number: 1/ 1/450/ Stock Plan Number: Review	Date	: ifi	62
in a altr	information listed below is the minimum information required for a "complete" submittal age. Failure to provide any of the following material that is deemed to be applicable to your ct will be cause to reject your submittal. Incomplete plans will not be taken in for review.	Provided	Not Applicabl	Accepted [Staff use]
1	Four (4) Complete sets of legible plans drawn to scale, showing conformance to the applicable local and state building codes. Lateral design details and connectors must be incorporated into the plans or on a separate <u>full size sheet</u> <u>altached to the plans with cross-references between plan location and details</u> . Plan review cannot be completed if copyright violations exist.	Ś		net
2	Site/Piot plan drawn to scale. The plan must show tot and building setback dimensions; property comier levaluois qui there is more than 44.t elevation differenta. the site plan must show contour lines at 2-ft. infervials; location and dimensions of easements and driveway, foctor-nt of structure (including decks), location of wells/septic systems, utility locations, north arrow, lot area, building coverage area, percentage of coverage, impervious area (structures, paving, atc.), existing structures on site, location of utitizes (storm and sanitary sewers, water, electric, etc.), surface drahage, width of adrigenet double dwa and curb helpht.	/		. レ
3	Geotechnical/soils report: provide geotect-mcal or soils report as applicable for sites within soils hazard areas or with slopes in excess of 20% or where a special toundation system relying on lateral soil bearing is employed (e.g. pole buildings, etc.).		/	
4	Foundation plan. Show dimensions, anchor boits, any hold-downs and reinforcing pads, connection details, vent size and location, location and size of crawl space access.	_		~
5	Floor plans. Show all dimensions, room ide-tification, window size ocation of smoke detectors, water heater, furnace, you tilation fans, plumbing fixtures, balconles and decks, location and construction details for stairs and handrails, elc.	1		$\checkmark$
6	Cross section(s) and detrils. Show sizes and spacing for all framing members, such as floor beams, headers, joists, sub-floor, wall construction, roof constructor. More than one cross section may be required to clearly portray construction. Show details of all wall and roof shealhing, roofing, roof slope, celling height, siding material, foolings and foundation, starts, fireplace construction, therma insulation, etc.	5		~
7	Elevation views. Provide elevations for at sides for new construction; minimum of three elevations for additions and remodels. Exterior elevations must reflect the actual grade. Full size sheet addendums showing foundation elevation drawings with cross-reflerances are accessed.	~		~
8	Wall bracing (proscriptive path) and/or lateral analysis plans. Details and locations (or lateral force resisting elements must be shown on plans; for non-prescriptive path analysis, specifications and calculations to engineering standards must be provided as well.	~		~
	Floor/roof framing plans are required for a "oor and roof assemblies. Plans shall indicate member sizing, spacing and bearing locations. Show location of attic ve that on and size and location of attic access.	V		4
ч O	Basement and retaining wall cross sectors and details showing placement of rebar, footing sizes, etc. shall be provided. For engineered systems, see item *4, for "Engineer's calculations."		/	
11	Beam calculations. Provide two sets of the contract stations using current code design values for all beams and multiple joists over ten feel in length and/or any beam/joist contract an on-uniform load or for cantilever conditions.	/		~
12	Manufactured floor/ roof truss design deta:s Note: roof truss design details and calculations may be submitted as a "deferred submittal" item with approval of the suiding plans examiner doing this completeness check. Truss layout plan, however, must be provided at time of sub-mitta and any details pertaining to lateral force resisting requirements of the trusses must be included. Manufactured floor system designs and calculations must be provided at time of submittal.		1	
13	Energy Code Compliance. Identify the prescriptive path or provide calculations.	1		
14	Engineer's calculations when required or provided and prepared by an architect or engineer shall be stamped by an engineer or architect licensed in Oregon and shall be shown to be applicable to the project under review.	1	/	
und	ligant name (print): Catter Atrice Signature: Mathematical and the plan review process licant name (print): Catter Atrice Signature: Mathematical Signature: Sig	will n	ot sta	irt.
Rev	iewed By: Accepted as complete: 1/2007 Rejected as inc			
Not	es:icon drag isfall to increase with the	<u>'</u>		
	a field from the second contract of fit a second for the second			and the second designed and the second designed as the second design

HINLAN REVIEWINSFR submittal review form 5 - 9/28/00

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ortland Development Services Cer 1900 SW 4<sup>th</sup> Avenue, First Floor Portland, OR 97201 (503) 823-7310 Request for Application Intake Appointment (page 1) NSFR NSFR w/ADU Duplex 2-unit rowhouse 2-unit rowhouse w/ 1 ADU 2-unit rowhouse w/2 ADU's Mfd home on lot PLEASE NOTE-The City of Portland NEEDS A MINIMUM OF 5 WORKING DAYS from the time we receive your request to the day of your appointment. Staff will set up your computer file, perform the necessary zoning research, and assign a site address prior to your appointment. Appointments are available Monday through Friday mornings (circle your preference) 8:15/ 9:00. 10:00 & 10:45 a.m. (Mo) Tu We Th Thursday Evenings at 5:30 & 6:30 p.m. First Available Time Applicant Fill Out Completely Below (Please Print Clearly) INCOMPLETE APPLICATIONS WILL BE RETURNED Applicant (Company): Grove Development, Inc Contact Person: Hunt Grove Applicant Mailing Address: 8627 Sw Rus Iling Leaves Fortland 972)3 012 Office Phone (50?) 977- 2 (66 Cell Phone Sco? 793.3299 Fax Number (503) 246 - 1981 Email: Contractor Grove Der. + MC. CCB Number: 129694 Tax Account Number: RS05380 22/C / If you do not know your Tax Account Number, please call Multinomah County at (503) 988-3326 to get this information Cross Streets: (ameron & Shattuch Tax Lot Number: Plat Name/Number: 2001-129 Block/Lot: 1973/ Qtr Sec # Sq. Ft: Living area: JLCC sf Basement: \_\_\_\_\_sf Garage/Carport 6. sf Garage/Carport attached? Ň (circle one) Number of Stories: Number of Units: 3 In Dividual Single Formely How many exterior feet of pipe to connect your: Electrical: Limited Energy? (Y) N Sewer? 40 Water? 40 Raindrains? 40 (circle one) How many Bathrooms? 2 X2 Kitchens? Electric Temporary?  $(\mathbf{Y})$ N Land Use Review Case Numbers: fartitur Plat to Jacob 129 Is this a Master House Plan? Y (N) Plan # : 76160



City of Portland Development Services Center 1900 SW 4th Avenue, First Floor Portland, OR 97201 (503) 523-7310

## Request for Application Intake Appointment (page 2)

### - Addressing / Lot Verification

Prior to your appointment, the location of your lot must be verified. If your lot does not yet have a street address, one will be assigned. In the box below, <u>draw a diagram of your lot and all structures</u> (including detached garages). Indicate the following:

G dimensions of the lot

streets, and street names for all streets adjoining your lot

If more than one street adjoins your lot, indicate the front door entrance to the structure

if multiple units, show all front door entrances

place a North arrow in the box



#### Full Legal Description: (Required)

(If lot division is in progress, please provide the LUR or Partition Plat Number AND the Parcel Number)

Partition Plat # 2001. 129 Parcel # 3

To request an appointment, fax <u>both</u> completed pages of this form to (503) 823-4224. You will receive a fax confirmation of your appointment date and time.

t,

1900 SW 4 <sup>th</sup> Avenue, First Floor Portland, OR 97201 (503) 823-7310
Intake Appointment Confirmation
Regarding your Application for: <u> <u> </u> </u>
Your appointment is scheduled for: Date: Juni 3rd 1 02 Day: Thursday Time: from 9.00 to 9.45 am pm
Day: <u>////////////////////////////////////</u>
You have been given the next available appointment. Let us know if you are unavailable at this time by
calling us at (503) 823-0672 to reschedule your appointment *48 hours in advance
* Appointments appointed with loss than 48 hour onlice, or "no shows" are subject to a \$75 rescheduling fee (applied to application)

## What to bring to your appointment:

The information listed below is the minimum required for acceptance of a Building Permit application. No incomplete information will be accepted. Incomplete submittal materials will be returned to applicants. Applications will not be processed or routed for any reviews until the required plan check fees have been paid in full.

The intake appointment program is designed to have submittal accomplished in one visit. Applicants are expected to arrive with complete submittal materials. There will be a \$75 charge for each additional intake appointment required due to incomplete or insufficient application materials, missed appointments, or cancellation without proper notice.

CONSTRUCTION DRAWINGS (4 sets of all plans)

□ SITE PLANS (see handout)

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□ FOUNDATION PLAN – label hold-downs for lateral design

G FLOOR PLANS - to include all floors and lateral shear wall requirements

CROSS SECTION(S) and DETAILS - engineered details must be on plans

ELEVATION VIEWS - for all faces; must reflect slope of lot

UWALL BRACING/LATERAL ANALYSIS - indicate method of providing lateral bracing

## The following information/forms are also required -

\_\_\_\_NSFR submittal checklist (includes sample site plan diagram) Combination SDC form, and MIT or SIM form Erosion Control plan (on sile plan) Mechanical Permit application form

## \* ADDITIONAL REQUIREMENTS – PROVIDE IF APPLICABLE TO YOUR PROJECT

BASEMENT AND RETAINING WALLS provide details/engineering when necessary

BEAM CALCULATION for beams over 10' in length or with point loads

LI MANUFACTURED ROOF/FLOOR TRUSS LAYOUT if using engineered wood systems SOILS REPORT if site is over 20% slope

Lity of Portland Development Services Center 1900 SW 4 <sup>m</sup> Avenue, First Floor Portland, OR 97201 (503) 623-7310
Request for Application Intake Appointment (page 1)
NSFR      NSFR w/ADU      Duplex      2-unit rowthouse         2-unit rowthouse w/1 ADU      2-unit rowthouse w/2 ADU's      Mid home on lot
PLEASE NOTE-The City of Portland NEEDS A MINIMUM OF 5 WORKING DAYS from the time we receive your request to the day of your appointment. Staff will set up your computer file, perform the necessary zoning research, and assign a site address prior to your appointment. Appointments are available Monday through Friday mornings (circle your preference) 8:15/ 9:00, 10:00 & 10:45 a.m. (Mo) Tu We Th Fr <i>i</i>
Tlhursday Evenings at 5:30 & 6:30 p.m. First Available Time
Applicant Fill Out Completely Below ( <i>Please Print Clearly</i> ) INCOMPLETE APPLICATIONS WILL BE RETURNED
Applicant (Company): Grove Development, Inc. Contact Person: Grove Hewt. Applicant Mailing Address: 8627 Sw Russ Hing Leaves
Forfland OR 97223
Office Phone: $(503)$ 977- $J(66$ Ceil Phone: $(503)$ 743- $3J$ 44
Fax Number $(503) \ge (6 - 198)$ Email:
Contractor (71000 per + hc. CCB Number: 109694) Tax Account Number: RS08380 15/03, Il you do not know your Tax Account Number, please call Multinomah County at (503) 988-3326 to get this information
Cross Streets: Comeron & Shattuch Tax Lot Number:
Plat Name/Number: 2001-124 Block/Lot: +*(P) Qtr Sec #
Sq. Ft: Living area: <u>JCCC</u> sf Basement: <u>sf</u> Garage/Carport <u>CCC</u> sf Garage/Carport attached? (Y) N (circle one)
Number of Stories: > Number of Units: 3 InDividual Single pointy
How many exterior feet of pipe to connect your: Sewer? <u>4/2</u> Water? <u>4/2</u> Raindrains? <u>4/2</u> How many Bathrooms? <u>3/3</u> Kitchens? <u>1</u> Electric Temporary? (Y) N
Land Use Review Gase Numbers: Partilian Plate it Deal 12:0
Is this a Master House Plan? TO Plant + R - R 5
01-176160-IQ

. . . . .



#### CITY OF PORTLAND, OREGON BUREAU OF ENVIRONMENTAL SERVICES 1900 SW 4TH AVE, SUITE 2100 Portland, OR 97201



BES	PLAN EXA	MINATION CHECK SHEET	Applicat	ion #	01-176348-000-00-RS 01-176344-000-00-RS
Review	Review Date: February 12, 2002		IVR#		2140344
· To:	CONTRACTO	GROVE DEVELOPMENT INC	Work	503	977-2166
CONTRACTO R/BUILDER		8627 SW RUSTLING LEAVES PORTLAND OR 97223	Fax	Fax 503 246-1981	
From:	[		Phone	503-	823-7116
BES	BES	IGNATIUS DECHABERT	Fax		823-4591
			E-Mail		ATIUSD@BES.CI.PORTLAND.OR.
cc:	OWNER	VIRGINIA H ROBINSON 10506 SW CAPITOL HWY #206 PORTLAND, OR 97219-6870			
PROJ	ECT INFORMA	TION			
Street /	Address:	4709 SW FLOWER CT			
Descrip	ation of Work	NSFR- PARTITION PLAT2001-129 PA	RCEL 3		
L					

The following are items that will need to be addressed prior to plan approval by the Bureau of Environmental Services. Approval of your plan for sanitary and storm management facilities by BES does not mean your building permit can be immediately issued; BES is only one of many bureaus that review your building plan.

Item #	Location on plans	Clarifications / Corrections Required				
1.	Site Plan - 01-176348- RS	Your submitted SIM Form does not indicate the amount of Non-Mitigated Impervious area to be treated by your stormwater facility (sand filter). Please properly complete the SIM Form and return to Document Services as prescribed below.				
2.	01-176344- RS	Per your conversation with Judy Russell, please also properly complete the SIM Form for 4710 SW Cameron Rd. and submit as prescribed below				
		NOTE: You may submit these forms concurrently with the O&M Forms you will be submitting for all four lots in the development, as per our prior conversation.				

To respond to this checksheet, come to Document Services (the second floor of 1900 SW Fourth Ave., between 7:30 a.m. and 3:00 p.m.) and update all four sets of the originally submitted drawings. To update the drawings, you may either replace the original sheets with new sheets, or edit the originally submitted sheets. (Specific instructions for updating plans are posted in Document Services.)

Please complete the attached Checksheet Response Form and include it with your re-submittal.

If you nave specific questions concerning this Checksheet, please call me at 503-823-7116. To check the status of your project please call (503) 823-7000 and select option 4. Your Plan Review Status will be faxed to you, so please be ready to provide a fax number. If you don't have a fax number you may dial 503 823-7357 to request a Plan Review Status or visit Document Services.

City of Portland Development Services Center 1900 SW 4 Avenue First Floor Portland, OR 97201 (503) 823-7310

Intake Appointment Confirmation

Regarding your Application for: 110102 Your appointment is scheduled for: Date: Day: Thursday Time: from 8:5 to 9:00 am om at the Development Services Center / 1st floor / 1900 SW 4th Avenue You have been given the next available appointment. Let us know if you are unavailable at this time by calling us at (503) 823-0672 to reschedule your appointment -- \*48 hours in advance \*Appointments cancelled with less than 48 hour notice, or "no shows" are subject to a \$75 rescheduling fee (applied to application)

## What to bring to your appointment:

The information listed below is the minimum required for acceptance of a Building Permit application. No incomplete information will be accepted. Incomplete submittal materials will be returned to applicants. Applications will not be processed or routed for any reviews until the required plan check fees have been paid in full.

The intake appointment program is designed to have submittal accomplished in one visit. Applicants are expected to arrive with complete submittal materials. There will be a \$75 charge for each additional intake appointment required due to incomplete or insufficient application materiels, missed appointments, or cancellation without proper notice. lifed en person

CONSTRUCTION DRAWINGS (4 sets of all plans)

SITE PLANS (see handout)

GENERATION PLAN - label hold-downs for lateral design

□ FLOOR PLANS – to include all floors and lateral shear wall requirements

CROSS SECTION(S) and DETAILS - engineered details must be on plans

ELEVATION VIEWS - for all faces; must reflect slope of lot

WALL BRACING/LATERAL ANALYSIS - indicate method of providing lateral bracing

## The following information/forms are also required -

NSFR submittal checklist (includes sample site plan diagram) Combination SDC form, and MIT or SIM form

Erosion Control plan (on site plan) Mechanical Permit application form

1-3-02

8:08

## ADDITIONAL REQUIREMENTS - PROVIDE IF APPLICABLE TO YOUR PROJECT

UBASEMENT AND RETAINING WALLS provide details/engineering when necessary . UBEAM CALCULATION for beams over 10' in length or with point loads LIMANUFACTURED ROOF/FLOOR TRUSS LAYOUT if using engineered wood systems LI SOILS REPORT if site is over 20% slope

#### Permit #: 01-176348-000-00-RS

Date: 02/27/02

# Customer name and phone number: GROVE HWT503193-3299

Note: In the spaces below, please provide specific information concerning the changes that you have made in response to the checksheet. Note the checksheet item number, your response or a description of the revision, and the location of the change on the plans (i.e. page number and/or detail number). Use as many lines as needed. If the item is not in response to a checksheet, write "Applicant" in the column labeled "Checksheet item number."

Checksheet item number	Description of changes, corrections, additions, etc.	Location on plans
1	CORNER ELEVATIONS ON SITTS PLAN	SITE PLAN
2	DONK.	P6-4-6
3	RONAR	PG- 5
ef	Play Room	P6 6
5	Page # 10 NEW PAC-R	PG #10
60	Pone.	
7	None	
Ŕ	Done	
<u> </u>	Rea CK Per OUR DISCUSSION	
	C. Changed to	
	d OK PE. OUR DISCUSSION	
	e Change to ABP	
L	f Pone	
	g fine	
	J	
		<u> </u>
	·	
	4	

Plan Bin Location: 48



CITY OF PORTLAND, OREGON OFFICE OF PLANNING AND DEVELOPMENT REVIEW PO Box 8120 Portland, OR 97207-8120



	LIFE SAFETY CHECKSHEET Review Date: February 14, 2002		Application #: IVR #:	01-176348-000-00-RS 2140344
To:		GROVE DEVELOPMENT INC	Work:	503 977-2166
	CONTRACT OR/BUILDER	8627 SW RUSTLING LEAVES PORTLAND OR 97223	Fax:	503 246-1981 ext.
From:	PLANS		Phone:	503-823-7360
	EXAMINER	NANCY HETTMAN	Fax: e-mail:	hettmann@ci.portland.or.us

			the second se
cc:		VIRGINIA H ROBINSON	
	OWNER	10606 SW CAPITOL HWY #206	
		PORTLAND, OR 97219-6870	

#### PROJECT INFORMATION

Street Address:	4709 SW FLOW	4709 SW FLOWER CT								
Description of Work	NSFR- PARTIT	ION PLAT2001-129	PARCEL 3							
The following assur	mptions were made wt	nen reviewing your p	project:							
Occupancy group	Construction Type	Square Footage	Stories	Sprinklers	Alarms	Detection				
R3	V-N	3041	2	N/A	N/A	Y				

#### PLAN REVIEW

Based of Special	on the plans ty Code OR	submitted, the fol	lowing items appear to be missing or not in conformance with:  Oregon Structural amily Dwelling Specialty Code, and/or other city, state, or federal requirements:
Item #	Location on plans	Code Section	Clarification / Correction Required
1	Pg. 1	112.1 IOTFDC	Show and correspond finished grade elevations at the corners of the house on the site plan and the façade drawings. Make sure that the cross sections then agree with the slopes shown.
2	Pg. 4-6	112.1 IOTFDC	At the Wall Key on the referenced pages, clarify what the page number of the Bracing Page is. Do not leave "X/X".
3	Pg. 5	112.1 IOTFDC	Why are you not referencing the details, but showing open circle designations?
4	Pg. 6	112.1 IOTFDC	Show the use of the "Atlic Room".
5	Pg. 7	314 IOTFDC	Show the minimum clear headroom at the stair detail or provide a cross- section that shows the clear headroom requirement will be met.
6	Pg. 6	OR Energy	Show the required insulation at the roof and attic area on cross-sections.

•	7			
7			Beams	Cross-reference the beams by ID #, page # of calculation packet, etc. to where the beam is used on the construction plans. Clearly show spans of members (rafters, joists, etc.) that bear on the beam.
8		Pg. 6	Structure	Indicate the rafter, joist, beam and post sizes, etc. on the cross-sections.
9		- <u>-</u>	Prescriptive Bracing IR01-03	<ul> <li>The following issues need to be resolved for the lateral bracing of this residence: <ul> <li>a. The upper floor has exterior braced walls that do not align vertically with the "nor below and they do not meet the requirements of unusually shaped buildings. They must be redesigned to meet prescriptive or be engineered. Note:</li> <li>b. The right, exterior wall of Bedroom-2 and the rear, braced walls near the upper floor baths do not align vertically to the exterior walls below, nor do they meet the 4x the joist depth.</li> <li>c. Bedroom-2 has a BP shown at the rear, corner. This is actually only wide enough for an ABP. Show it as an ABP. It falls over the 5-1/8<sup>th</sup> x 10-1/2 GLB below. Provide calculations that show that all loads are being considered for this beam – inclusive of tension/compression uplift of ABP. Be sure that the hip reaction is included.</li> <li>d. The Brace Panel at the right, exterior wall of Bedroom-2's bath falls over beams that are offset too far from exterior walls to meet prescriptive code.</li> <li>e. Bedroom-3's front, right Brace Panel at corner, is too narrow to be a brace Panel. Show it as an Alternate Brace Panel and provide a Two-Story Brace Panel detail. Make sure all hardware is for the correct loads,</li> <li>f. Mark all brace panels that fall inside of the exterior walls as IBP (Interior Brace Panels). Include "IBP" on the Wall Bracing Schedule and clarify the construction of these panels. Be aware of the wall bracing percentages.</li> <li>g. Add details for connection of trusses, Detail Pages 12 &amp; 13 of the Interpretive Ruling 01-03.</li> </ul> </li> </ul>
			1	

To respond to this checksheet, come to Document Services (the second floor of 1900 SW Fourth Ave., between 7:30 a.m. and 3:00 p.m.) and update all four sets of the originally submitted drawings. To update the drawings, you may either replace the original sheets with new sheets, or edit the originally submitted sheets. (Specific instructions for updating plans are posted in Document Services.)

Please complete the attached Checksheet Response Form and include it with your re-submittal.

If you have specific questions concerning this Checksheet, please call me at 503-823-7360. To check the status of your project, please call 503 823-7000 and select option 4. Your Plan Review Status will be faxed to you, so please be ready to provide a fax number. If you don't have a fax number you may dial 503 823-7357 to request a Plan Review Status or visit Document Services.

You may receive separate Checksheets from other City agencies that will require separate responses.

Approval criteria for Zoning must be attached to plans on construction site.

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1 copy to each set of plans 1 copy to DSC file	Plancheck #1-176348_RS
SANORA Planner: WOOD	
	IDENTIAL PLAN REVIEW SHEET
Date: 1/10/02 Zone: <u>R-7</u>	Addition and Lot: Plich han Plat 2001-124
LUR History: LUK: 01-410MP	Parcel #3
Substandard Lot Y N PUD/Cluster Y N	ADU Y N Detached Access. Structure Y N
Lot size: 8.104 p	Plan District:
Minimum	Required Proposed
Front Setback	15' 15'
Side Setback	<u>5'</u> <u>L= 10'</u> <u>E</u> = 10'
Rear Setback	5'
Parking Selback	18' 25'
Outdoor Area	NONE <u>n/a</u>
Trees (preservation, planting, or fund)	18" 24" presavenen
Maximum	
Vehicle Paving 40 %	<u>540</u> + <u>345 + 26</u> %
Building Coverage 35 %	<u>2836</u> , <u>2714</u> <u>34</u> %
Height	<u></u> <u></u> <u></u> <u></u>
Impervious Surface%	N/A TOMA %
Base Zone Design Standards	
Main Entrance on Known St for	where will a found streat in
Street Facing Façade 197	The surface of 15% proces
Length of Garage Wall	1 1 - Franking 394/0 minut
Street Lot Line Setbacks belind	to the second
Other Reg./Notes	C is a distanting P of density of distanting Constant of Maning
	SR Jal r in OI/10/02
	/ Trilding http://www.



CITY OF PORTLAND, OREGON

4TH Avenue, Suite 5000 1900 S.W. Portland, Oregon 97201 (503) 823-7000 FAX: (503) 823-7692 TDD: (503) 823-6868 www.ci.portland.or.us/buildings

#### GENERAL NOTES AND SUPPLEMENTAL INFORMATION 2000 OREGON ONE AND TWO FAMILY DWELLING CODE

Date :	March 7, 2002	Folder number:	02-176348 RS
Project Address:	4709 SW Flower Ct.		
1 & 2 Code prescrip	otive wall bracing 🛛 Eng	ineered lateral desigr	total # pages eng'r'g;
Energy Conservatio	on: Path 1 🛛 Path 8 🗌	Retaining walls >4	or surcharged
The following "Gene	ral Notes and Supplemental I	"nformation" are now p	art of your approved plans.

upp

- It is the responsibility of the contractor to comply with these requirements during construction.
- Where there is a conflict between a general note and the plans, the more restrictive shall apply. If you have any questions regarding any of these items, please contact

Plans Exam E-mail addr		TTMAN .portland.ox.us	Phone # Fax #	(503) (503)	823-7360 823-7692	Jrmation are	ans without	chect to the
Foundation/ Under-floor						sheets	rdval. Pl and void	sec to t
322.1 & 502.4	<ul> <li>Protection against dee</li> <li>Maintain 18" clea</li> <li>Provide 3" of bea</li> </ul>	rance under flo	or joists, 12"	under gird	ers.	R ×	dide Unite	don le la de Sur en 15
322.1.1	All wood in direct co and decks, to be press	sure treated or	of natural res	sistance to c	lecay.	83 6	8 9	
403.1.1	Foundation and anch the approved plans.				ctive of the fo			
	Foundation footing s Number of floors	Wall Thick		oting Width		Thideness		18. <sup>1</sup> 899 8 899 8
	1	6"		12"		6"		
	2	8" 10"		15"		7" 8"		
403.1.5	Foundation anchor b 7" into concrete, or n per plate and within	olts shall be no asonry, spaced	d 6'-0" on cer	2" diamete	r bolts embed	ded at lea	ist – olts 3	
404.1.0	Foundation wall shall foundation at all poin		6" above th	e finfished g	rade adjacent i	to the		
405.1	Foundation drainage usable space below g		ed around fo	oundations	enclosing habit	able or	1	
406.2	Foundation wall encl surface.	osing habitable	space requir	es waterpro	ofing on the c	outside		

408.3	Columns and posts shall be adequately anchored to prevent lateral displacement. Columns less than 4' in length, bearing on a pier or footing within a crawl space are not required to be restrained at the bottom end.
409-1	Ventilation openings at the crawl space are required within 3' of each corner. The minimum net area of ventilation openings shall not be less than one (1) square foot vent area per 150 square feet of under-floor area.
409.2	An 18" x 24" access is required to the under-floor space.
Garages	
309.1	Provide a 1-3/8" minimum solid core door, a 20-minute rated fire door or a metal insulated exterior door between garage and residence.
309,1.1	Ducts penetrating the wall or ceiling separating the dwelling from the garage shall be of not less than 26 gauge steel, with no duct openings in the garage.
309.2	Separation required between dwelling unit and garage by means of minimum ¼" gyp board applied to garage side. Where separation is a floor-ceiling assembly, structure supporting the separation shall be protected by ½" gyp board, including wrapping of all beams and supporting posts.
1307.2	Seismic anchorage of water heaters is required.
1307.3	<ul> <li>Appliances installed in the garage generating a glow, spark or flame are to be located 18" above the floor.</li> </ul>
	<ul> <li>Furnaces or water heaters located in a garage shall be protected from vehicle impact by 2"dia. steel post embedded 18" deep in 6" diameter hole, concrete filled, extending 36" above garage floor.</li> </ul>
Dwelling Unit	
303.3	Bath and laundry rooms require windows with a min. of 3 sq. ft. with 1.5 sq. ft. openable area or mechanical ventilation system capable of producing a change of air every 12 minutes (5 air changes per hour) or 20 cfm of continuous ventilation.
308.4	Safety glazing shall be provided at hazardous locations such as:
	<ul> <li>Tub or shower enclosures where the glazing is less than 60" above the drain.</li> <li>Within 24" of a door and less than 60" above the floor.</li> <li>Panes greater than 9 sq. ft. and less than 18" above the floor.</li> </ul>
340.1	Every sleeping room shall have at least one openable window or door for emergency egress with a net clear opening of 5.7 square feet (5 for grade floor windows).
	<ul> <li>Minimum clear opening height 22"; width 20".</li> <li>Sill height above tinished floor is 44' max.</li> </ul>
311.1 & 312.1.1	A minimum of one egress door is required. Such door shall be provided a minimum 36° handing on both sides of the door. The landing shall not be more than 8° below the top of the threshold.
346.4	Provide 112V interconnected smoke alarms with battery backup, 'n each sleeping room, outside of each oparate sleeping area in the immediate vicinity of the bedrooms, and on each additional story, including basement. Certain required locations may disallow the use of ionization-type alarms. Photoelectric-type alarms are simable for all code-required locations,

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revised 6/00 page 2 of 3

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<u>Stairs</u> & Guardrails	
314	Stairs must comply with the following dimensions:
	<ul> <li>36" minimum width. 6'-8" headroom height measured vertically from the plane of the nosings of the treads.</li> <li>8" maximum rise and 9" minimum run.</li> </ul>
315	Stairs with more than 3 risers must comply with the following:
	<ul> <li>Provide a 1-1/2" minimum to 2-5/8" maximum diameter rail with 1-1/2" minimum between handrail and wall and mounted at +30" -38" above the tread nosing.</li> </ul>
	<ul> <li>Handrails which also function as guardrails shall be 34" - 38" above the tread</li> </ul>
	nosing. Gua:Jrail(s) require a minimum height of 36" with intermediate rails spaced such that a sphere 5" in diameter cannot pass through.
	NOTE: Guardrails on decks, platforms and balconies require max. 4" openings.
314.8	Walls and soffits of enclosed accessible space under stairs shall be protected with ½ gypsum board.
4403.2	All exterior and interior stairways are to be provided illumination. Such lighting sha be located in the immediate vicinity of exterior landings and controlled from inside. For interior stairs, such lighting shall be in the vicinity of top and bottom landings a controlled from top and bottom.
Attics	
806.1	Provide cross-ventilation at each enclosed rafter space.
806.2	Attic ventilation shall be not less than 1 square foot per each 150 square foot of atti- area. The total area may be reduced to 1 to 300 with ½ venting at ridge and ½ at eaves.
807.1	Provide a 22" x 30" minimum attic access to all attic areas with 30" or more headroom.
C401.2.1	Provide a rigid baffle, extending above the insulation at eave or soffit vents.
Energy Code	
<u>C401.1(1)</u>	PA TH 1: Wall: R-21; Under-floor: R-25; Flat Ceilings: R-38; Vaulted Ceilings: R-30 Main Entry Door (max. 24 sf.) U=0.54; other exterior doors U=0.20
	PA TH 8: 12% maximum glazing, and 1,500 square feed or less Wall: R-15; Under- floor: R-21; Flat Ceilings: R-49; Vaulted Ceilings: R-38; Main Entry Door (max. 24 s U=0.20
	All: Windows U=0.40; Other exterior doors U-0.20; Skylights (max. 2% of floor are U-0.50; Basement Walls: R-15; Slab Floor Edges: R-15; Forced Air Ducts: R-8

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2- STORY ABP TO ABP



MITCHELL IMLAY Designer (503)309-9026

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Re: Permit application No. 01-176348-000-00-rs NOTE: LIVE LOADS PER 2000 OTFDC, TABLE 301.4 Loading used: ROOFS DEAD LOADS EXT. WALLS DEAD LOADS 2x6 studs @ 16" o/c 1.6# psf 2x8 Rafters @ 24" o/c 1.5# psf 1.5# psf comp. shingles sheathing 3.0# psf sheathing 1.5# psf 2.5# psf gypsum bd. 0.5# psf batt insulation 1.9# psf felt 0.5# psf 6.5# psf feit total 8.3# psf siding 2.0# psf increase for 9:12 roof (125%) TOTAL DEAD LOAD 10.0#psf USED FOR CALCS. 10# psf 25# psf LIVE LOAD 35# psf INT. WALLS TOTAL LOADING USED (INSULATED) 2x6 studs @ 16" o/c 1.6# psf VAULT DEAD LOAD 1.5# psf gypsum board 2.5# psf sheathing gypsum bd. 2.5# psf 2.5# psf batt insulation batt insulation 1.9# psf additional rafters or furring .7#psf TOTAL DEAD LOAD 7.5# psf total from roof structure above 6,5# psf total 12.2#psf 15.25#psfINT. WALLS increase for 9:12 roof (125%) 25# psf (NO PLYWOOD)2x6 studs @ 16" o/c 1.6# psf LIVE LOAD TOTAL LOADING USED gypsum bd. batt insulation 2.5# psf 40.25# psf 1.9# psf 6.0# psf TOTAL DEAD LOAD CEIL'G DEAD LOAD 2x8 jsts @ 24" o/c 1.5# psf gypsum board batt or loose insulation 2.5# psf 3.0# psf 6.0# psf total LIVE LOAD : AREAS REASONABLY ASSUMED 10# psf TO HAVE NO ATTIC STORAGE TOTAL LOADING USED 16.0 #psf LIVE LOAD : 20# psf AREAS W/ LIMITED STOR. DEAD LOAD 16# psf 26#psf LOADING USED USED AREAS W/ PLYWOOD 15.2# psf DEAD LOAD (NO INSULATION & 2x12s) 25.2# AREAS W/ PLYWOOD 8.2# psf DEAD LOAD (INCLUDING CEILING INSUL) 28,2#psf



Parcel 3

i			MITCHELL IMLAY			
<u> </u>			* Designer *			
	DPMENT, CONWAY	RESIDENCE	ATTIC	Detai	: 11/18/01	BeamChek 2.2
NOGE BOARD	-			Date		
Chaica	1-3/4× 9-1/2 1.9E	1 J Microlian				<u></u>
Canditians	Min: Bearing Area	01-22	ln* R2= 2.3 ln²			
Date	Beam Span	13.8 tt	Reaction 1	1718 #		
	Beam Wt per ft	4.27 #	Reaction 2	1716#		
	Beem Weight	55 #	Maximum V	1718#		
	Max Moment	5583 '#	Max V [Reduced]	1509 #		
	TL Max Defi	L/180	TL Actual Defi	L/219		
		04 - C - P	71 0-11 (1-2)			
<u>Anthuics</u>	Section (In")	Sheer (is*)	TL Defi (in) 0.71			
Actuel Criticel	26.32 21.70	16.63 6.90	0.77			
Status	OK	OK	OK			
Ratio	82%	42%	82%			
	L	Fb [psi]	Fy (psi)	E (psi x mll)	Fc.L (psi)	
Velucs	Base Values	2688	285	1.5	750	•
	Bese Adjusted	3087	328	1.9	760	
Adjustments	CF Size Factor	1.032				
	Cd Duration	1.15	1.15			
	Cr Repelitive Ch Shear Stress					
	Cm Wat Use					
	Ream Chak han av	tomatically r	idded the beam sel	l-weight into the	calculations.	
	Destinence des de	tomateny c		-		
Londs	Uniform TL:	260 = A				
		Malla	rm Load A		1	
		Unit			Ĩ	
				/	ž,	
	= 1718			R2 -	= 1718	
н	= 1/10	SP	AN = 13 FT			
	tinifere	and nartial (	uniform loads are It	os per linesi fi.		
	<b>O</b> MARK					
				/	6. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	a an
				/		
						1
				1	Mining	1 1
		-	a. All	D. Al		1 2002
			Licare V	ref Cl-	2.5 Law 314 1	
		-		ulure they	5 A.	·
		Ŀ	$s_{\rm eff}$ and $s_{\rm eff}$ is the	1000 C	·	Sector Sector
			see m	R. REPART		
			· .			

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		N	ITCHELL IMLAY * Designer *			
2	MENT, CONWAY RE	SIDENCE	ATTIC	Date: 11/	8/01	BeamChek 2.2
	FRONT 1-3/4× 9-1/2 1.9E T.		9 LVL			
Conditions	Min Bearing Area	R1= 1.7 i	n <sup>2</sup> R2= 1.7 in <sup>2</sup> Reaction 1	1262 #		
<u>Data</u>	Beam Span Beam Wilger It Beam Weight Max Moment TL Max Defi	13.0 ft 4.27 # 56 # 4167 '# 1,180	Reaction 2 Maximum V Max V (Reduced) TL Actual Defi	1282 # 1282 # 1126 # L / 293		
<u>Attributes</u> Actual Critical Status	Section (in") 26.32 16.20 OK	<u>Shear (in*)</u> 16.63 5.15 OK	TL Defi (in) 0,53 0,87 0K 51 <b>%</b>			
Ratio	62%	31% Fb (psl) 2600		E (psl × mil) 1.9	Fc.1 (p 750	si)
<u>Velucs</u>	Base Values Base Adjusted	3087	328	1.9	750	
<u>Adjusiments</u>	Cd Duration Cr Repetitive Ch Shear Stress	1.15	1.15 V added the beam a			

Loads

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Uniform TL: 193 = A



Uniform and partial uniform loads are los per lineal ft.



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3			* Designer *		·	
	PMENT, CONWAY	RESIDENCE	ATTIC			
	DER RIDGES				11/18/01	BeamChek 2.
Chalce	3-1/8×9 GLB 24F	-V4 DF/DF		BASE Fb =	2480	ADJ Fb = 2760
Candillans	Min Bearing Area	R1= 2.5 i	in* F12= 2.5 in*			
Dete	Boam Span	11.5 ft	Reaction 1	1854#		
	Beam Wt per ft	6.83 #	Reaction 2	1554#		
	Beam Weight	75 #	Maximum V	1654 #		
	Max Mamont	9069 '#	Max V (Reduced)	1634 #		
	TL Max Defi	L/100	TL Actual Defi	L/219		
industes.	Section (in")	Sheer (In")	Ti. Defi (in)			
Actual	42.19	28.13	0.63			
Critical	35.43	11.22	8.77			
Status	OK	OK	OK			
Asto	83%	40%	82%			
FUELD	L	Fb (psi)	Fv (p=l)	E (gal x mH)	Fel. (pt	1)
Values	Base Values	2409	190	1.8	660	
	Base Adjusted	2760	219	1,8	656	
Advetecate	Cy Volume	1.000				
	Cd Buration	1.15	1.15			
	Cr Repetitive					
	Ch Shear Stress					
	Cm Wet Use					
	BeamChek has au Uniform TL:	20 = A	dded the beam sel	eweigni into ine c	elearsache.	
Leads	Point TL	Distanc				
	B = 3000	5.75				
		Ûnifa	rm Load A			
Pa kina dar		Unifo	rm Load A			
Pt loads		Unifo	A DESCRIPTION OF THE OWNER OWNER OF THE OWNER OWNER OF THE OWNER		2	
	$\bigtriangleup$		8	 R2 =	<b>\</b> 1654	
	= 1854				1654	
	= 1854		8		1654	

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GROVE DEVEL FLOOR JOIST: <i>Chalca Canditions</i> <b>Dela</b>	LOPMENT, CONWAY S ABOVE 2x 12 DF-L #2 Repetitive Use, '9 Min Bearing Area	@ 12 In. oc	MASTER SU	Date	: 11/19/01		smChek 2.
Cheice Cenditions	2x 12 DF-L #2 Repetitive Use, '9						smChek 2.:
Canditions	Repetitive Use, '9			DAPE FL			
		INDS		BASE Fb	= 875	ADJ Fb	= 1006
Data	Min Bearing Area		······				
Date		R1= 0.5	in² R2= 8,9 in²				
	Beam Span	15.0 ft	Reaction 1	337 #			
	Beam Wt per ft	0 #	Reaction 2	548 #			
	Beam Weight	Q #	Maximum V	548 #			
	Max Mement	2114 🕷		501 #			
	TL Max Defi	L/240	TL Actual Defi	L / 585			
Attributes	Section (in <sup>s</sup> )	Shear (in')	TL Defl (in)			<u> </u>	
Actual	31,64	16.88	0.31				
Critical	25.22	7.92	0.75				
Status	OK	OK	OK				
Ratio	80%	47%	41%				
		Fb (psi)	Fv (psi)	E (pei x mii)	Fc.L (p	si)	
Values	Base Values	875	95	1.6	625		
Adjustments	Base Adjusted	1006	95	1.6	625		
angu a une un s	CF Size Factor Cd Duration	1.080	1.00				
	Cr Repetitive	1.00	1.00				
	Ch Shear Streag						
	Cm Wet Uss						
	The beam self-wei	ght was not a	utomatically added	to the loads by	BeamChek.		<u> </u>
Logde	Unitorm TL:	25 = A					
	Point TL	Distance	· · · · · · · · · · · · · · · · · · ·	Par Unit TL		Start	End
	B = 385	10.0		H = 25		10.0	15.0
	Ĺ <u></u>	Uniform	n Load A	H			
		·····	8				
Pt Inade:			141				
Pt loads:	Ļ			<u>/</u>	2		
2	= 337				548		
2	= 337	SPAN	l = 15 FT	F12 =	548		

Chry G. Mcrele nd Mar 1 1 2002 na in fan an de fan Gelek en gelek en de fan de ----.1

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LOPMENT, CONWAY S ABOVE 2x 12 DF-L #2 Repetitive Use, 191		* Designer * MASTER SI				
2x 12 DF-L #2		- magterigi				
2x12 DF-L#2	A 10 h					
Depetitik: 11				11/19/01		amChek 2.2
DEDETIOVE USE. '9'	NINS		BASE Fb	875	ADJ FI	= 1006
Min Bearing Area	R1= 0.6	in² A2= 1.2 in²				
Beam Spen	15.0 ft	Reaction 1	267 #		. <u> </u>	
Beam Wt per A	Ű #	Reaction 2				
	0.8	Maximum V	767 #			
			704 #			
TC Max Defi	L/240	TL Actual Defi	L/547			
Section (In')	Shear (in?)	TL Defi fini				
31,64	16.89	0.33				
		0.75				
75%	66%	44%				
<b>B</b>	Fb (psl)	Fv (psi)	E (psl x mil)	Fc_L (p	s1)	••••••••••••••••••••••••••••••••••••••
			1.6	625		·
		95	1.6	625	_	
		1 00				
Cr Repetitive		1.00				
Ch Sheer Stress						
Cm Wet Use						
Point TL B = 533	Distance 12.0		Per Unif TL H = 33			End ] 15.0
367 Uniferm an	SPAN :	= 15 FT	R2 = 7f	1. a.a.	2002	a Maa 2
	Beam Wit per ft Beam Weight Max Moment TL Max Deff 31.64 24.05 0K 785% Base Adjusted CF Size Factor Cd Duration Cr Repetitive Ch Sheer Stress Cm Wet Uae The beam self-weig Uniform TL: Point TL B = 633	Beam Wt per R         0 #           Beam Weight         6 #           Max Moment         2017 /#           TL Max Defi         L / 240           Section (in?)         Shear (in?)           31.64         16.88           24.05         11.12           OK         OK           78%         66%           Fb (poil)         Base Adjuated           Dase Valuee         475           Base Adjuated         1006           CF Size Factor         7.060           Cd Duration         1.00           Cr Repetitive         1.15           Ch Sheer Stress         Cm Wet Uae           The beam self-weight was not at         Uniform TL           Distance         H = 633         12.0	Beam Wriper R         0 #         Reaction 2           Beam Weight         0 #         MaxAinum V           Max Moment         2017 #         Max V (Reduced)           TL Max Deif         L / 240         TL Actual Defi           Section [in?]         Shear [in?]         TL Defi (in]           31.64         16.88         0.33           24.05         11.12         0.75           OK         OK         OK           785%         66%         44%           Fb (pei)         Fv (psi)           Base Adjusted         1006         95           CF Size Factor         7.000           Cd Duration         1.00         1.00           Cr Repetitive         1.15         Ch Shees Stress           Cm Wet Uae         The beam self-weight was not automatically added           Uniform TL:         33 = A           Point TL         Distance           B = 633         12.0	Beam Wriper A       0 #       Reaction 2       767 #         Beam Weight       6 #       MaxAmm V       767 #         Max Moment       2017 #       Max V (Reduced)       704 #         TL Max Deif       L/240       TL Actual Defi       L/547         Section [in?]       Shear (in?]       TL Defi (in)       31.64       16.88         31.64       16.88       0.33       24.05       11.12       0.75         OK       OK       OK       785 #       66%       44%         Fb (pei)       Fv (pei)       E (pei x mi)       Base Adjusted       1006       95       1.6         OF Size Factor       7.000       Cd       Duration       1.00       1.00       Cr Repetitive       1.15         Ch Shees Threas       Cm Wet Uae       The beam self-weight was not automatically added to the loads by B       Uniform TL:       33 = A         Point TL       Distance       Per Unif TL       H = 33         367       SPAN = 15 FT       Uniform and partial uniform toads are the per tineal fitment	Beam Wit per ft       0 # Reaction 2       767 #         Beam Weight       0 # Maximum V       767 #         Max Moment       2017 # Max V [Reduced]       704 #         TL Max Defi       L / 240       TL Actual Defi       L / 547         Section [In?]       Sheer [In?]       TL Defi [In]       31.64       16.88       0.33         24.05       11.12       0.75       0K       0K       767 #         ØK       0K       0K       0K       767 #         ØK       0K       0.33       24.05       1.12       0.75         OK       0K       0K       787 #       665%       44%         Base Adjuated       1005       95       1.6       625         Cr Repetitive       1.15       0K       625       1.6       625         Ch Sheer Stress       Cm Wet Uae       1.00       1.0	Beam Wright       0 # Reaction 2       767 #         Beam Weight       0 # Maximum V       767 #         Max Moment       2017 # Max V [Reduced]       704 #         TL Max Deff       L/240       TL Actual Deff       L/547         Section [In*]       Shear [In*]       TL Defi [(n]       31.64       16.88       0.33         24.05       11.12       0.75       0K       0K       755         OK       0K       0K       755       66%       44%         Fb (psi)       Fv (psi)       E (psi x mil)       Fc L (psi)         Base Adjusted       1006       95       1.6       625         Cd Duration       1.00       1.00       1.00       0K       625         Ch Shees Stread       1.15       Ch Shees Stread       Ch Shees Stread       767 #         Ch Shees Stread       1.10       1.00       1.00       1.00       1.00         Cr Repetitive       1.15       Ch Shees Stread       1.15       Ch Shees Stread         Cm Wet Use       1.15       Distance       Per Unit TL       Start         H = 633       12.0       H = 33       12.0         367       SPAN = 15 FT       Uniform Loads are the per lineal fit

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Ġ			MITCHELL IMLAY * Designer *	•		
SROVE DEVEL	OPMENT, CONWAY	RESIDENCE	UPPER HAL	1		
MULTH JST ON				-	ato: 11/19/01	BeamChek 2.2
<u>Chaice</u>	[2] 2x 12 DF-L #2	2			Fb = 875	ADJ Fb = 875
Cenditions	'91 NDS			UAGE	FB = 0/5	ADJ -0 = 8/5
	Min Bearing Area	R1= 1.2	ln³ R2= 1.7 in³			
Data	Beam Span	8.5 ft	Reaction 1	763 #		
	Beam Wt per ft	8.2 #	Reaction 2	1056 #		
	Beam Weight	70 #	Maximum V	1056 #		
	Max Moment	2784 '#		1016 #		
	TL Mex Defi	L/240	TL Actual Defi	L/>1090		
Attributes	Section (in"	Shear [in]	TL Deti (in)			······································
Actual	63.28	33.75	8.07			·····
Critical	38.18	16.05	0.43			
Status	OK	OK	OK			
Ratio	60%	48%	17%			
		Fb (psi)	Fv (psi)	E (psi x mii)	Fc_L (p	sil
Velues	Base Values	875	95	1.6	625	
	Base Adjusted	875	95	1.6	625	
Adlustments	CF Size Factor	1.000				
	Cd Duration	1.00	1.00			
	Cr Repetitive					
	Ch Sheer Stress Cm Wet Use					
	BeemChek hes aut	omatically ad	ded the beam self-	weight into the	calculations.	
Loads	Uniform TL:	34 = A				
	Point TL	Distance				
	B # 350	4,0		······		
	C = 550	4.5				
	D = 550	6.5				
ſ		Uniform	Lord A		Г	

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SPAN = 8.5 FT

R1 = 753

Uniform and partial uniform loads are the per finest the

R2 = 1056

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MAR 1-1 2002

	OPMENT, CONWAY	CONCACE	* Designor *			
RIDGE BOARD	UPMENT, CONVAT	128IDENCE	GARMOL	Date:	11/1 <b>9/01</b>	BesmChek 2.
Chalca	1-3/4x 11-7/8 1.9E	TJ Microlla	m40 LVL	BASE Fb =	2600	ADJ Fb = 2994
Conditions	Min Bearing Area	H1= 3.9	in" A2= 3.9 in²			
Dete	Beam Span	13.6 ft	Reaction 1	2947 #		
	Beam Wt per ft	5.34 #	Reaction 2	2947 #		
	Beam Weight	73 #	Maximum V	2847 #		
	Mex Moment	10019 %	Max V [Reduced]	2518 #		
	TL Max Daff	L/180	TL Actual Defi	L/227		
Auribuica	Section (in')	Shear [in"]	TL Defi (in)	·····		
Actual	41.13	20.78	0,72			
Critical	40.15	11.62	0.91			
Status	OK	OK	OK			
Ratio	96%	55%	79%			
	Lan,	Fis (psi)	Fy (pel)	E (psi x mli)	FcLI	ps!}
Values	Base Values	2600	285	1.9	750	
	Base Adjusted	2954	328	1,9	750	ور المحافظة المحافظ ال
Advetoriante	CF Size Factor	1.081				
	Cd Duration	1,15	1,15			
	Cr Ropetitive					
	Ch Shear Stress					
	Cm Wet Use					

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Uniterm TL: 428 = A



8			MITCHELL IMLAY * Designer *			
	OPMENT, CONWAY	RESIDENCE	GARAGE			
CEILING JSTS	of MERT, CONTRA		0.110102	Date: 11/1	9/01	SeamChek 2.2
<u>Chaice</u>	2×8 DF-L #2 @	24 in. oc	· · · · · · · · · · · · · · · · · · ·	BASE Fb = 879	5 AE	JJ Fb = 1389
Conditions	Repetitive Use, '91	NDS				
	Min Bearing Area	A1= 9.6 i	rª     R2= 0,5 in²			
Data	Beam Span	12.5 ft	Reaction 1	360 #		
	Beam Wt per fi	G #	Reaction 2	285 🕷		
	Beam Weight	8 <b>#</b>	Maximum V	360 #		
	Max Memont	1082 🐨	Max V [Reduced]	324 #		
	TL Max Defi	L/180	TL Actual Deli	L/385		
Attributes	Section (in)	Shear (In*)	TL Defi (in)		· · · · · · · · · · · · · · · · · · ·	
Actual	13.14	10.89	0.39			
Critical	9.36	4.45	0.83			
Status	OK	OK	OK			
Ratio	71%	4196	47%			
		Fb (psi)	Fv (psi)		Fc_L (p=1)	
Values	Base Values	875	95	1.6	625	
	Base Adjusted	1389	109	1.6	625	
<u>Adjustments</u>	CF Size Factor	1.200				
	Cd Duration	1.15	1.15			•
	Cr Repetitive	1.15				
	Ch Shear Stress Cm Wet Use					
	The beam self-wel	aht was not a	utometically added	to the loads by Bea	nChek.	

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#### Uniform TL: 30 = A

Par Unif TL	Start	End
H = 30	Q	9.0



	OPMENT, CONWAY	RESIDENCE	* Designer * GARAGE			
AAIN BEAM					11/19/01	BeamChek 2.
Chelce	5-1/8× 22-1/2 GL	B 24F-V4 DF/	DF	BASE Fb	= 2400	ADJ Fb = 2194
Conditions	Min Beating Area	01-197	In* R2= 12.7 In*			
Data	Beam Span	27.5 ft	Reaction 1	8285 #		
	Beam Wt per ft	26.02 #	Reaction 2	8285 #		
	Beam Weight	771 #	Maximum V	8285 #		
	Max Moment	77243 '8	Max V (Reduced)	7558 #		
	TL Max Defi	L/240	TL Actual Defi	L/275		
			<b>T D</b> (11)	·		
Attributes	Section (in7) 432.42	Shear (ia') 115.31	TL Deil [in] 1,20		~ <b></b>	
Actual Critical	422.51	59.67	1.38			
Status	422.51 OK	0K	OK			
Ratio	98%	52%	87%			
irrann		Fb (psi)	Fv (pal)	E (psi x mli)	Fc_L (	ns))
Values	Base Values	2400	190	1.8	650	
THE REAL	Bess Adjusted	2194	190	1.8	650	
Adjustments	Cv Volume	0.914				
	Cd Duration	1.00	1.00			
	Cr Repetitive					
	Ch Shear Stress					
	Cm Wet Use					·····
	BeamChek has au	tomatically a	dded the beam self	weight into the c	alculation	6.
Lands	Uniform TL:	360 = A				
	Point TL	Distanc	¢			
	B = 5900	13,75				
	1	Unifor	m Lond A			
Pt inade:			B			
Pt ioads:			8	Z	2	
	= 8285	SPAN	0 = 27.5 FT	R2 =	8285	
	= 8285		l = 27.5 FT			
	= 8285				City	GY 2 1 1 2002

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GROVE DEVELOPMENT, CONVAY RESIDENCE       MASTER DECK         DOF BEAM       Date: 11/15/01       BeamChek:         Chalce       3-1/8x 12 GLB 24F-V4 DF/DF       DASE Fb = 2400       ADJ Fb = 2768         Cataliticae       Min Bearing Area       R1= 2.3 in*       R2= 2.3 in*         Cata       Beam Span       20.0 K       Resction 1       1.471 #         Deam Wiper ft       5.11 #       Resction 2       1.471 #         Beam Wiper ft       10216 *F       Max V (Reduced)       1.392 #         TL. Max Deft       L / 240       TL Actual Deft       L / 257         Attributes       Section [in*]       Shear (in*)       TL Deft [in]         Citical       35.00       3.50       0.50         Citical       650       3.50       0.50         Citical       650       3.50       0.50         Citical       650       1.00       1.0       550         Statuse       0.K       0.K       0.K       0.K         CV Volume       1.000       1.05       CV Volume       1.000         CV Volume       1.000       1.15       1.15       CV Volume         C diversition       1.15       1.15       1.15       Start				* Designer *			
Choice       3-1/8x 12 GLB 24F-/4 DF/DF       BASE Fb = 2400       ADJ Fb = 2760         Cataditions       Min Bearing Arcs       R1 = 2.3 in <sup>2</sup> 2.0 K       Resction 1       1471 #         Cata       Bearn Wiper ft       9.11 #       Resction 2       1471 #       1471 #         Bearn Wiper ft       9.11 #       Resction 2       1471 #       1471 #         Bearn Wiper ft       9.11 #       Resction 2       1471 #         Bearn Wiper ft       9.11 #       Resction 2       1471 #         Bearn Wiper ft       9.11 #       Resction 2       1471 #         Bearn Wiper ft       9.15 #       Max WiReduct)       1392 #         TL Max Deft       L/240       TL Actual Deft       L/257         dtiluitizer       Section finf       Shear (Inf)       TL Octi (Inf)       1392 #         Childs       Status       F5 (50 10 37.50 0.30       0.50       1.00         Status       Co K OK       OK       OK       0.55         Base Values       2400       190 1.8       650         Base Values       2400       130 1.8       650         dtilustazatis       Co Valume       1.000       1.15       Co Valume         Co Valume       1.000		OPMENT, CONWAY	RESIDENCE	MASTER DE		11/10/01 6	anonChak 2
Conditions       Min Bearing Area       R1= 2.3 in <sup>1</sup> R2= 2.3 in <sup>4</sup> Zela       Beam Span       20.0 k       Resction 2       1471 #         Beam Weight       182 #       Maximum V       1471 #         Mex Moment       102 is Maxe       Reduced       332 #         TL Max Deft       L/240       TL Actual Deft       L/267         Attributes       Section (inf)       Shear (inf)       TL Deft (in)         Critical       37.50       0.30       0.40         Status       555       1.00       1.00         Cox Cox K       OK       OK       OK         CV Solume       1.000       1.3       650         Adjustmedis       CV Volume       1.000       Cd Duretion       1.15         Cr Repetitive       1.15       1.15       Cr Repetitive       Edual         Ch Sizer Streag       Ch Wet Use       Beam Chek has automsücaliy added the beam self-weight into the calculations.         Loads       Uniform Load A       R2 = 1471		3-1/8-12 010 2/					
Min Bearing Area       R1= 2.3 in <sup>1</sup> R2= 2.3 in <sup>1</sup> Deam Weight       Bear Weight       182 #       Maximum V       1471 #         Deam Weight       182 #       Maximum V       1471 #         Max Moment       10216 '#       Max V(Reduced)       1332 #         Th Mex Deff       L/260       TL Deti [in]       Actual         Actual       75.00       37.56       0.50         Citical       Start       F5 (pei]       E (paix mil)       Fc.L (psi)         Yalues       Base Values       2400       190       1.8       850         Base Values       2400       1.00       1.8       850         ddlusingats       Co Volume       1.15       1.15       Critical         C Repetitive       Distance       Par Unit TL       R		3-110X 12 0LD 24			0A3C T0 -	C100 1001	0-2700
Date       Beam Span       20.0 K       Reaction 1       1471 #         Beam Weight       18.2 # Maximum V       1471 #         Beam Weight       10216 #       Max V (Reduced)       1332.#         TL Mex Dert       L/240       TL Actual Deft       L/257         dt//dutter       Section (in*)       Shear (in*)       TL Deft (in)         Actual       75.00       37.59       0.30         Critical       44.42       9.55       1.00         Status       OK       OK       OK         Distance       585       255       505         Base Values       2400       130       1.8       550         Base Values       2400       130       1.8       650         ddustoneds       Cv Volume       1.000       1.8       650         Cd Duration       1.15       1.15       Cr Repetitive       650         Ch Uses       BeamChek has sutomatically added the beam self-weight into the calculations.       2000       10.0       H = 30       4.0       16.0         Point TL       Distance       Par Unit TL       Start       End       8 = 1000       10.0       H = 30       4.0       16.0         R1 = 1471       S	<u>sonunona</u>	Min Bearing Area	R1= 2.3	in³ R2= 2.3 in³			
Beem Witperfi 9.11 # Reaction 2 1471 # Beem Weight 182 # Maximum V 1471 # Maximum V 1471 # Adjust 200 Adjust 200 Base Values 2400 130 1.0 Base Values 2400 130 1.0 Base Adjusted 2760 219 1.0 Base Adjusted 2760 219 1.0 Go Unition 1.15 1.15 Cr Repetitive Cr Volume 1.000 Cd Duration 1.15 1.15 Cr Repetitive Ch Sizes Breas Cm Wet Use BasenChek has sutomatically added the beam self-weight into the celoidations. Lazds Uniform TL: 70 = A Point TL Distance Par Unif TL Start End B = 1000 10.0 H = 30 4.0 16.0 Pt loads: R1 = 1471 SPAN = 20 FT Uniform and partial uniform loads are the per lines if. Ming 1 1 2002	Data		20.0 K	Acaction 1	1471 #		
Max Moment         10216 '#         Max V (Reduced)         1332 #           IT. Max Deft         L/246         TLActual Deft         L/257           Attual         75.00         37.56         0.50           Critical         44.42         9.56         1.00           Status         0K         0K         0X         0X           Ratic         559         25%         80%         550           Jatusz         Base Values         2400         130         1.8         550           Jatusz         Cv Volume         1.000         Cv Volume         1.000         1.8         550           Cd Duration         1.15         1.15         1.15         Critical         1.5         1.6           Base Chek has automatically added the beam self-weight into the calculations.         Jatusz         1.0         16			9.11 #	Reaction 2	1471 #		
TL Max Defi       L / 240       TL Actual Defi       L / 267         Actual       Section (in*)       Shear (in*)       TL Defi (in)         Actual       75.00       37.50       0.50         Critical       44.42       9.56       1.00         Status       OK       OK       OK       OK         Status       OK       OK       OK       OK         Base Values       25%       90%       E (pai)       Fv (pai)       E (pai)       Fc_L (pai)         Values       Base Values       24000       180       1.8       550         Base Values       24001       1.0       1.8       550         Adjustments       Cv Volume       1.000       Cd Duration       1.15       1.15         Cr Repetitive       Ch Siser Stress       Cm       Par Unil TL       Start       End         BeamChek has automatically added the beam self-weight into the celocitetions.       Land       End       BeamChek has automatically added the beam self-weight into the celocitetions.         Lands       Uniform TL:       70 = A       Par Unil TL       Start       End         Point TL       Distance       Par Unil TL       Start       End       Ba       100       10.0		Beam Weight	182 #	Maximum V	1471 #		
Attuintss       Section (in <sup>7</sup> )       Shear (in <sup>7</sup> )       TL Defi (in)         Critical       75.00       37.50       0.30         Critical       44.42       9.56       1.00         Status       0X       0X       0X       0X         Fatte       595       25%       90%         Fatte       595       25%       90%         Base Values       2400       130       1.0       550         Base Adjusted       2760       219       1.6       650         Adlustatests       Cv Volume       1.008       Cd Duration       1.15       1.15         Cr Repetitive       1.008       Cd Duration       1.15       1.15       1.15         Cr Repetitive       Ch Sizes       BeamChek has automatically added the beam selfweight into the celculations.       200         Lazds       Uniferm TL:       70 = A       Point TL       Distance       Par Unif TL       Start       End         Point TL       Distance       Par Unif TL       Start       End       8 = 1000       10.0       H = 30       4.0       16.0         R1 = 1471       SPAN = 20 FT       Uniform and partial uniform loads are ibs per Uncel ft.       City of MAR 1 1 200R <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>							
Actual Critical       75.00       37.50       0.50         Status       OK       OK       OK       OK         Status       55%       25%       80%         Fo (pel)       Fv (pel)       E (pel x mil)       Fc.L (psl)         Base Values       24002       1.00       1.8       650         Adjustances       Base Values       2400       1.90       1.8       650         Adjustances       Base Adjusted       2760       21.9       1.8       650         Adjustances       Cv Volume       1.000       Column       1.15       1.15         Cr Repetitive Ch Shear Stress       Cm Wet Use       BeamChek has eutomatically added the beam self-weight into the celoutations.         Lazds       Uniform TL:       70 = A       Par Unif TL       Start       End B = 1000       10.0       H = 30       4.0       16.0         H       Uniform Load A       Pi loade:       B       Pi loade:       B       R2 = 1471       SPAN = 20 FT         Uniform and partial uniform loads are libs per linesi ft.       City of MAR 1 2 2002		TL Max Defi	L/240	TL Actual Defi	L/267		
Actual Critical       75.00       37.50       0.50         Status       OK       OK       OK       OK         Status       58%       25%       80%         Fo (pel)       Fv (pel)       E (pel x mil)       Fc.L (psl)         Base Values       24002       130       1.8       650         Base Values       2400       130       1.8       650         Adjustments       Cv Volume       1.000       Col       Currention       1.15       1.15         Adjustments       Cr Repetitive       Ch Sincer Stress       Cm Wet Use       Distance       Par Unit TL       Start       End         BeamChek has automatically added the beam self-weight into the celculations.       Laads       Unitorm Lin 70 = A       Par Unit TL       Start       End         BeamChek has automatically added the beam self-weight into the celculations.       Laads       Unitorm Lin 0       H = 30       4.0       16.0         H       Unitorm Load A       Par Unit TL       Start       End       Base 1000       10.0       H = 30       4.0       16.0         Marc       Item and partial uniform loads are ibs per linesi ft.       Circ of Marc       Marc       Marc       Marc       Marc       Marc	Attributes	Section (in*)	Shear (Inf)	TL Dett (in)		······································	
Critical Status Ratio Critical Status Ratio Critical Status Ratio Sigs: 255 2555 2556 20 Critical Sigs: 2556 20 Critical Sigs: 2556 20 Sigs:							
Status       OK       OK       OK       OK         Ratis       59%       25%       90%         Failurs       Base Values       25%       90%         Base Values       Base Values       2400       100       1.0       650         Base Values       2400       1.0       1.0       650         Base Values       2400       1.0       1.0       650         Base Values       2760       219       1.8       650         Adjustments       Over Values       2400       1.0       650         Base Values       1.15       1.15       1.15         Cr Reputitive Ch Sincer Stress       On       Net Use       Part Met Use         BeamChek has automatically added the beam self-weight into the calculations.         Loads       Uniform TL:       70 = A         Point TL       Distance       Part Unif TL       Start       End B         B = 1000       T0.0       H = 30       4.0       16.0         H       SpAn = 20 FT       R1 = 1471       SpAn = 20 FT       MiAR 1       Chirly of MiAR         MiAR       1       200R       MiAR       1       200R							
Ratio       55%       25%       90%         Values       Fb (pai)       Fv (pai)       E (poi x mil)       Fc L (pai)         Base Values       2400       130       1.8       650         Base Adjusted       2760       219       1.9       650         Adjustments       Cv Volume       1.000       Column       1.15       1.15         Adjustments       Cv Volume       1.000       Column       1.15       1.15         Cr Repetitive       Ch Sincer Stress       Cm Wet Use       BeamChek has automatically added the beam self-weight into the celculations.         Lazds       Uniform TL:       70 = A       Par Unil TL       Start       End         BeamChek has automatically added the beam self-weight into the celculations.       End       BeamChek has automatically added the beam self-weight into the celculations.         Lazds       Uniform TL:       70 = A       Par Unil TL       Start       End         B = 1000       10.0       H = 30       4.0       16.0         Pi loads:       E       Par Unif TL       Start       End         R1 = 1471       SPAN = 20 FT       R1 = 1 2002       MMR I 1 2002							
Values       Base Values       2400       190       1.6       550         Base Adjusted       2760       219       1.8       650         Adjustance       CV Volume       1.000       Cd Duration       1.15       1.15         CAUSE       CV Volume       1.000       Cd Duration       1.15       1.15         CAUSE       DesmChek has automsücally added the beam self-weight into the celouiations.       East       East         Lazds       Uniform TL:       70 = A       Par Unif TL       Start       End         Point TL       Distance       Par Unif TL       Start       End         B = 1000       10.0       H = 30       4.0       16.0         H = 1471       SPAN = 20 FT       Uniform loads are ibs per lineal ft.       City of Non-Marce         MAR 1       1       ZMP							
Values       Base Values       2400       190       1.6       650         Adjustments       Generative 2760       219       1.6       650         Adjustments       Covolume       1.000       Covolume       1.000         Covolume       1.000       Covolume       1.000       Govolume       650         Covolume       1.000       Covolume       1.000       Govolume       650         Covolume       1.000       Covolume       1.15       1.15       Covolume       650         Covolume       1.000       Covolume       1.15       1.15       Covolume       650         Covolume       1.000       Covolume       1.000       Covolume       1.000       Covolume       1.000         Covolume       Covolume </td <td></td> <td>L</td> <td>Fb (psl)</td> <td>Fy (ps))</td> <td>E (usi x mil)</td> <td>Fc.L (osi)</td> <td></td>		L	Fb (psl)	Fy (ps))	E (usi x mil)	Fc.L (osi)	
Base Adjusted       2750       219       1.8       650         Adjustments       Ge Duration       1.000       Ge Duration       1.15       1.15         Cr Repetitive       Ch Sincer Stress       Cm Wet Use       BeamChek has automatically added the beam self-weight into the celculations.         Loads       Uniform TL:       70 = A       Point TL       Distance       Par Unif TL       Start       End         B = 1000       10.0       H = 30       4.0       16.0         Pt loads:         R1 = 1471       SPAN = 20 FT         Uniform loads are his per lineal ft.         Middle 1 2002	Values	Base Values					
Addustionation       Cv Volume       1.000         Cd Duration       1.15       1.15         Cr Repetitive       Ch Shear Stress       Cm Wet Use         BeamChek has automatically added the beam self-weight into the calculations.       Lozds         Lozds       Uniform TL:       70 = A         Point TL       Distance       Par Unit TL       Start         End       BeamChek has automatically added the beam self-weight into the calculations.         Lozds       Uniform TL:       70 = A         Point TL       Distance       Par Unit TL       Start         B = 1000       10.0       H = 30       4.0       16.0         Pt loads:       [B]       [B]       R2 = 1471       SPAN = 20 FT         Uniform and partial uniform loads are the per linesi ft.       City 31       MMR 1 1 2002							
Cd Durstion     1.15     1.15       Cr. Repetitive     Ch. Sincer Stress       Cm Wet Use       BeamChek has automatically added the beam self-weight into the calculations.       Loads       Uniform TL:       70 = A       Point TL:       Doint TL:       10.0       H = 30       A.0       16.0   Pt loads:       H = 1   Pt loads:       H = 1         MAR 1	Adjustments						
Ch Siver Stress Cm Wet Use BeamChek has automatically added the beam self-weight into the celculations. Lazds Uniform TL: 70 = A Point TL Distance Par Unif TL Start End B = 1000 10.0 H = 30 4.0 16.0 H = 30 4.0 16.0 Pt loads: R1 = 1471 R2 = 1471 SPAN = 20 FT Uniform and partial uniform loads are the per lineal ft. MAR 1 1 2002		Cd Duration	1.15	1.15			
Cm Wet Use         BeamChek has automsücelly added the beam self-weight into the celculations.         Lazds       Uniform TL: 70 = A         Point TL       Distance         Par Unif TL       Start         End       B = 1000         T0.0       H = 30         H       Uniform Load A         Pt loade:       E         R1 = 1471       SPAN = 20 FT         Uniform and partial uniform loads are its per lineal ft.       City of North Addressing Addresing Addresing Add		Cr Repetitive					
BeamChek has sutomstically added the beam self-weight into the calculations.         Lazds       Uniform TL: 70 = A         Point TL       Distance         Par Unif TL       Start         End       B = 1000         10.0       H = 30         4.0       16.0         H       Uniform Load A         Pt loads:       B         R1 = 1471       SPAN = 20 FT         Uniform and partial uniform loads are its per lineal ft.       CTary of Non-         MAR 1 1 2002       MAR 1 2002							
Lazds       Uniform TL:       70 = A         Point TL       Distance       Par Unif TL       Start       End         B = 1000       10.0       H = 30       4.0       16.0         H         Uniform Load A         Pt loads:       B         R1 = 1471       SPAN = 20 FT         Uniform loads are lbs per linesi ft.         MAR 1 1 2002		Cm Wet Use					
Uniform Load A Pt loads: R1 = 1471 SPAN = 20 FT Uniform and partial uniform loads are its per linesi ft. MAR 1 1 2002				<u> </u>			End 16.0
Uniform Load A Pi loads: R1 = 1471 SPAN = 20 FT Uniform and partial uniform loads are its per linesi ft. MAR 1 1 2002							
R1 = 1471 SPAN = 20 FT Uniform and partial uniform loads are its per lineal ft. MAR 1 1 2002			Unifor	and the second s			
R1 = 1471 SPAN = 20 FT Uniform and partial uniform loads are its per lineal it. MAR 1 1 2002	Di Ionda'			1.1.1. · · · ·			
SPAN = 20 FT Uniform and partial uniform loads are the per lines it.		Ļ					
Uniform and partial uniform loads are its per lineal ft.		1471			R2 = 1	471	
MAR 1 1 2002	R1 =						
MAR 1 1 2002	R1 =		SPAN	N = 20 FT			
	RI -					*******	
	RI =					Car and the second	
	RI =					City of D	1 Marcon La
	R1 =					City of P	i Theory Lington and Albana
	ے Ri ت					City of p	t, <sup>1</sup> tar. t, type, g A.P.G., g
	∠ Ři •					City of p	i <sup>ta</sup> na sa
A monomial of the second se	ے R1 :					City of p	2002
and the second	R1 =				per lineal ft.	City of F	2002
	R1 =				per lineal ft.	City of F	2002
	R1 =				per lineal ft.	City of F	5002

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U			MITCHELL IMLAY * Designer *			
GROVE DEVEL	OPMENT, CONWAY	RESIDENCE	ENTRY POR	CH	· · · ·	
DECK BEAM				Date	: 11/19/01	BeamChek 2.2
Chaice	4x 12 DF-L #2	,		BASE Fb	= 875	ADJ Fb = 1107
<u>Canditiana</u>	Wet Use, '91 NDS Min Bearing Area	R1= 3.2	in* R2= 3.2 in*			
Data	Beam Span	20.0 ft	Reaction 1	1346 #		
	Beam Wt per 8	9.57 #	Reaction 2	1346 #		
	Beam Weight	191 #	Maximum V	1346 #		
	Max Moment	6728 '#	Max V (Reduced)	1220 #		
	TL Max Dell	L/240	TL Actual Defi	L/297		
Attributes	Section (in")	Shear [in]	TL Oefi (in)			
Actual	73.83	39.30	0.81			
Critical	72.94	17.26	1.00			
Status	OK	OK	OK			
Ratio	99%	44%	81%			
		Fb (psl)	Fv (psi)	E (psi x mil)	Fc.L (	18ij
Velues	Bese Values	875	95	1.6	625	
	Base Adjusted	1107	106	1.4	419	
Adjustmenta	CF Size Factor	1.100				
	Cd Duration	1.15	1,15			
	Cr Reputitive					
	Ch Shear Stress					
	Cm WetUse	1.80	0.97	0.90	0.67	

BeamClick has automatically added the beam self-weight into the calculations.

Loads

Uniform TL: 125 = A



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#### MITCHELL IMLAY \* Designer \*

FLUSH CL'G	BM			Date:	1/03/02	BeamChek 2,2
Choice	4x 8 DF-L #2			BASE Fb	- 375	ADJ Fb = 1138
<u>Conditions</u>	'91 NDS					
	Min Bearing Area	R1= 1.2	n² R2= 1.2 in²			
Deta	Beam Span	7.17 ft	Reaction 1	739 #		
	Beam Wt per ft	6,17 #	Reaction 2	739 #		
	Beam Weight	44 #	Maximum V	739 #		
	Max Moment	1323 🗑	Max V (Reduced)	614 #		•
	TL Max Defi	L/180	TL Actual Defi	L/>1000		
<u>Attributes</u>	Section (in <sup>2</sup> )	Shear (in²)	T'L Defl (in)	·····		
Actual	30.66	25.38	0.07	, <u> </u>		
Critical	13.96	9,70	0.48			
Status	) OK	0K	OK			
Ratio	46%	38%	14%			
		Fb (psi)	Fy (psi)	E (psi x mil)	Fc1 (p	si)
Values	Base Values	875	95	1.6	625	
	Base Adjusted	1138	95	1.6	625	
Adjustments	CF Size Factor	1.300				
	Cd Duration	1.00	1.00			
	Cr Repetitive					
	Ch Shear Stress Cm Wet Use					

BeamChek has automatically added the beam self-weight into the calculations.

Loads

Uniform TL: 200 = A



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MITCHELL IMLAY

- 17			* Designer *			
	LOPMENT, CONV	VAY RESIDE	NCE MASTER SU			
FLUSH CL'G I	BM			Da	te: 1/03/02	BeamChek 2.2
<u>Choice</u>	(3) 2x 12 DF-L #	‡2		BASE	b = 875	ADJ Fb = 875
<b>Conditions</b>	'91 NDS					
	Min Bearing Area	R1= 1.5 i	n² R2= 3.1 in²			
Data	Beam Span	15.0 ft	Reaction 1	926 #		
	Beam Wt per ft	12.3 #	Reaction 2	1918#		
	Beam Weight	185 #	Maximum V	1918 #		
	Max Moment	5522 '#	Max V (Reduced)			
	TL Max Defi	L/240	TL Actual Defl	L/613		
Attributes	Section (in*)	Shear (in <sup>2</sup> )	TL Defl (in)			
Actual	94.92	50.63	0.29			
Criticai	75.72	29.11	0.75			
Status	OK	OK	OK			
Ratic	80%	58%	39%			
		Fb (psi)	Fv (psi)	E (psi x mil)	Fc_L (	psi)
Values	Base Values	875	95	1.6	625	
	Base Adjusted	875	95	1.6	825	
Adiustments	CF Size Factor	1.000				
	Cd Duration	1.00	1.00			
	Cr Repetitive					
	Ch Shear Stress Cm Wet Use					
	beamonex has at	nomatically a	dded the beam se	it-weight into t	ne calculatio	ons.
Loads	Uniform TL:	67 ≈ A				
	Point TL	Distance				
	B ≈ 1654	12.0				
		Uniform	Load A		]	
Pt loads				в		
4	7			2	2	
R1 =	926			R2 =	1918	
			= 15 FT			
	Uniform ar	nd partial unif	orm loads are lbs p	per lineal ft. 🌈	1	
					Salig 1	And
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14		I	MITCHELL IMLAY * Designer *	r		
GROVE DEVE	LOPMENT, CONV	AY RESIDE	NCE NOOK		•	
FL. BM UNDE	R BATH-2 TUB			Date	: 1/03/02	BeamChek 2.2
Choice	2x 12 DF-L #2			BASE FI	= 875	ADJ Fb = 875
Conditions	'91 NDS					
	Min Bearing Area	R1= 2.3 i	n² R2= 2.3 in²			
Data	Beam Span	3.0 ft	Reaction 1	1431 #		
	Beam Wt per ft	4.1 #	Reaction 2	1431#		
	Beam Weight	12 #	Maximum V	1431#		
	Max Moment	1073 '#	Max V (Reduced)	537 #		
	TL Max Defi	L/240	TL Actual Defi	L/>1000		
Attributes	Section (in <sup>a</sup> )	Shear (in²)	TL Defl (in)			
Actual	31.64	16.88	0,01			
Critical	14.72	8.47	0,15			
Status	OK	OK	OK			
Ratio	47%	50%	4%			
		Fb (psi)	Fv (psi)	E (psi x mil)	Fc_L (	osi)
Values	Base Values	875	95	1,6	625	
	Base Adjusted	875	95	1.6	825	
Adjustments	CF Size Factor	1,000				
	Cd Duration	1.00	1.00			
	Cr Repetitive					
	Ch Shear Stress					
	Cm Wet Use					

BeamChek has automatically added the beam self-weight into the calculations.

Loads

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Uniform TL: 950 = A



Uniform and partial uniform loads are lbs per lineal it. Chy of Derth and MAR 1 1 2002

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## MITCHELL IMLAY

			Constitution			
GROVE DEVE	LOPMENT, CONW	AY RESIDE	NCE KITCHEN			
FLOOR JSTS	UNDER BATH-2			Date:	1/03/02	BeamChek 2.2
Choice	2x 12 DF-L #2	🚳 16 in. oo		BASE Fb	= 875	ADJ Fb = 1006
Conditions	Repetitive Use, '91	NDS				
	Min Bearing Area	R1= 1.2	in² R2= 0.9 in²	·		
Date	Beam Span	15.0 ft	Reaction 1	767 #		
	Beam Wit per ft	0#	Reaction 2	567 #		
	Beam Weight	0#	Maximum V	767 #		
	Max Moment	2403 '#	Max V (Reduced)			
	TL Max Defi	L/240	TL Actual Defi	L/474		
Attributes	Section (in*)	Shear (in²)	TL Defi (in)			
Actual	31.64	16,88	0.38			
Critical	28.72	11,12	0.75			
Status	OK	OK	OK			
Ratio	91%	66%	51%			
		Fb (psi)	Fv (psi)	E (psi x mil)	Fc(	psi)
Values	Base Values	875	95	1.6	625	
	Base Adjusted	1006	95	1.6	62(3	
Adjustments	CF Size Factor	1.000				
	Cd Duration	1.00	1,00			
	Cr Repetitive	1.15				
	Ch Shear Stress	ь.				
	Cm Wet Use					
	The hearn self-we	inht was not	automatically adde	d to the loads b	v BeamC	hak.

The beam self-weight was not automatically added to the loads by BeamChek.

Loads Uniform TL: 67 = A Point TL Distance B = 933 3.0



FLUSH BM			NCE NOCK / FAN		1/03/02	BeamChek 2.2	
Choice	3-1/8x 10-1/2 GL	GLB 24F-V4 DF/DF		BASE Fb = 2400		ADJ Fb = 2400	
Conditions	Min Bearing Area		n² R2= 2.2 in²				
Data	Beam Span	14.0 ft	Reaction 1	1970 #			
	Beam Wt per ft	7.97 #	Reaction 2	1460 #			
	Beam Weight	112 #	Maximum V	1970 #			
	Max Moment	9687 '#	Max V (Reduced)	1905 #			
	TL Max Defi	L/240	TL Actual Defl	L/264			
Attributes	Section (in <sup>a</sup> )	Shear (in²)	TL Defi (in)				
Actual	57.42	32.81	0.64				
Critical	48.44	15.04	0.70				
Status	OK	OK	OK				
Ratio	84%	46%	<del>0</del> 1%				
		Fb (psi)	Fv (psi)	E (psi x mil)	Fc⊥(	psl)	
Valuas	Base Values	2400	190	1.8	650		
	Base Adjusted	2400	190	1.8	650		
Adjustments	Cv Volume	1,000					
	Cd Duration	1.00	1.00				
	Cr Repetitive						
	Ch Shear Stress						
	Cm Wet Use	<i>9</i>					

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Loads	Uniform TL:	67 = A	
	Point TL	Distance	
	B = 2381	5.5	



17			MITCHELL IMLA	Y			
	ELOPMENT, CONV	VAY RESIDE	NCE NOOK / FA	MILY			
FLUSH BM				Date	: 1/03/02	BeamChek 2.2	
Choice	5-1/8x 15 GLB 24F-V4 DF/DF			BASE Fb # 2400		ADJ Fb = 2321	
Conditions	Min Bearing Area	B1-60	-2 00 4 5 4 5				
Data			in <sup>2</sup> R2= 4.5 in <sup>2</sup>				
<u>Data</u>	Beam Span	23.5 ft	Reaction 1	4482 #			
	Beam Wt per ft	18.68 #	Reaction 2	2897 #			
	Beam Weight	439 #	Maximum V	4482 #			
	Max Moment	23733 '#	Max V (Reduced)	4284 #			
	TL Max Dafi	L/240	TL Actual Defi	L/258			
Attriputes	Section (in*)	Shear (in*)	TL Defi (in)				
Actual	192.19	76.88	1.09				
Critical	122.72	33.82	1.17				
Status	OK	OK	OK				
Ratio	64%	44%	93%				
	······	Fb (psi)	Fv (pai)	E (psi x mil)	Fc_L (p	<b>5</b> i)	
Values	Base Values	2400	190	1.8	650		
	Base Adjusted	2321	190	1.8	650		
Adjustments	Cv Volume	0.967					
	Cd Duration	1.00	1.00				
	Cr Repetitive						
	Ch Shear Stress						
	Cm Wet Use						
	BeamChek has au	tomatically a	dded the beam sel	f-weight into the	calculation	ns.	

Londs

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#### Uniform TL: 20 = A

Point TL	Distance	Per Unif TL	Start	End
B = 1200	2.0	H = 120	0	15.0
C = 150	3.0		•	
D = 1000	7.0			
E = 150	10.0			
F = 2170	15.0			



Uniform and partial uniform loads are lbs per lineal ft.

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MAR 1 1 2002

 $\mathcal{L}_{A}^{T}$  .
18		4	MITCHELL IMLAY * Designer *	,		
	ELOPMENT, CONV	AY RESIDE		BACK HALL / P	ANTRY	
HEADER				Date	: 1/03/02	BeamChek
Choice	4x 10 DF-L #2			BASE FL	= 875	ADJ Fb = 1050
Conditions	'91 NDS					
	Min Bearing Area	R1= 4.0 l	n² R2= 9.5 in²			
Data	Beam Span	5.0 ft	Reaction 1	2512 #		
	Beam Wt per ft	7.87 #	Reaction 2	5952 #		
	Beam Weight	39 #	Maximum V	5952 #		
	Max Moment TL Max Defl	3790 '# L / 240	Max V (Reduced) TL Actual Defi	1870 # L / >1000		
	IL WAX Dell	L/240	TE Actual Dell	L/ >1000		
Attributes	Section (in <sup>a</sup> )	Shear (in²)	TL Defl (in)			
Actual	49.91	32.38	0,06		·····	
Critical	43.31	29.53	0.25			
Status	OK	OK	OK			
Ratio	87%	91%	22%			
	L	Fb (psi)	Fv (psi)	E (psi x mil)	Fc_ (I	osi)
Values	Base Values	875	95	1.6	625	<u></u>
<u></u>	Base Adjusted	1050	95	1.6	625	
<b>Adjustments</b>	CF Size Factor	1.200				
	Cd Duration	1.00	1.00			
	Cr Repetitive					
	Ch Shear Stress Cm Wet Use					
	BeamChek has at	itomatically a	dded the beam se	lf-weight into th	e calculatio	ons.
Loads	Uniform TL:	825 = A				
	Point TL	Distance	)			
	B = 4300	4,5				
		I talform	Load A	······································		
			100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100	6		
Pt loads:				B		
	- 2512				5952	
	2512			B R2 =	5952	New -
		SPAI	N = 5 FT	R2 =		many constant to the second
		SPAI		R2 =	5952 Ciry	ortem
		SPAI	N = 5 FT	R2 =	Cin	Server and the server of the s
		SPAI	N = 5 FT	R2 =	Cin	Server Server
		SPAI	N = 5 FT	R2 =	Cin	
		SPAI	N = 5 FT	R2 =	Cin	OF POPT
		SPAI	N = 5 FT	R2 =	Cin	Server Server

Choice	R BR-2, BATH-2			Cate;	1/03/02	Dods	mChek 2.2
	5-1/8x 10-1/2 GI	8 24F-V4 D	F/DF	BASE Fb	= 2400	ADJ Fb	= 2400
Conditions	L						
	Min Bearing Area	R1= 4.9 i	n² R2≕ 3.9 in²				
Data	Beam Span	16.0 ft	Reaction 1	3190 #			
	Beam Wt per ft	13.08 #	Reaction 2	2514 #			
	Beam Weight	209 #	Maximum V	3190#			
	Max Moment	13359 *	Max V (Reduced)	3047 #			
	TL Max Defi	L/240	TL Actual Defi	L/246			
Attributes	Section (in²)	Shear (in²)	TL Defi (in)				
Actual	94.17	53.81	0,78				
Critical	66,80	24.00	0.80				
Status	OK	OK	OK				
Ratio	71%	45%	97%				
	L	Fb (psi)	Fv (psi)	E (psi x mil)	Fc1 (	psi)	
Values	Base Values	2400	190	1.8	650		
	Base Adjusted	2400	190	1.8	650		
Adjustments	Cv Volume	1.000					
	Cd Duration	1.00	1.00				
	Cr Repetitive						
	Ch Shear Stress						
	Cm Wet Use						
	BeamChek has at	utomatically a	added the beam se	If-weight into the	calculati	ons.	
l.oads		150 = A					
	Point TL	Distance	B	Par Unif TL		Start	End
	8 = 1200	4.0		H = 50		10.0	14.0
	C = 500	7,0					
	D = 245	14.0					
	E = 950	5,5					

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Pt loads:  $\begin{array}{c|c} \hline B & E & \hline C & \hline D \\ \hline R1 = 3190 \\ \hline SPAN = 16 FT \\ \hline Uniform and partial uniform loads are lbs per lineal fit \\ \hline MAR 1 & 1 2002 \\ \hline \end{array}$ 

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20			MITCHELL IMLAY			
		u oralbr	* Designer *			
FL BM UNDER	LOPMENT, CONW	AY RESIDE	NGE PAMILY	Data	: 1/03/02	BeamChek 2.2
Choice	3-1/8x 10-1/2 GI	B 24F-V4 D	F/DF	BASE Fb	= 2400	ADJ Fb = 2400
<u>Conditions</u>	Min Bearing Area	R1= 3,3)	n² R2= 1.8 in²			
Date	Beam Span	16.0 ft	Reaction 1	2325 #		
	Beam Wt per ft	7.97 #	Reaction 2	1175 #		
	Beam Weight	128 #	Maximum V	2325 #		
	Max Moment	8763 '#	Max V (Reduced)	2259 #		
	TL Max Defi	L/240	TL Actual Defi	L/244		1
Attributes	Section (in*)	Shear (in²)	TL Defl (in)			
Actual	57.42	32.81	0.79			
Critical	43.82	17.84	0.80			
Status	ÖK	OK	OK			
Ratio	78%	54%	89%			
		Fb (psi)	Fv (psi)	E (psi x mil)	Fc⊥(	psi)
Velues	Base Values	2400	190	1.8	850	
	Base Adjusted	2400	190	1.8	850	
Adjustments	Cv Volume	1.000				
	Cd Duration	1.00	1.00			
	Cr Repetitive					
	Ch Shear Stress					
	Cm Wet Use					
	BeamChek has a	utomatically	added the beam sel	f-weight into th	e celculati	ons.
Loads	Uniform TL:	67 = A				
	Point TL	Distance	•			
	B = 2300	4.0				

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Pt loads. R1 = 2325 SPAN = 16 FT Uniform and partial uniform loads at a lbs per lineal ft. MilR 1 1 2002

FLUSH BM AB	LOPMENT, CONV	VAY RESIDE	NCE FAMILY	Date	1/03/02	Bea	mChel
Choice	5-1/8x 15 GLB		F	BASE Fb	<u> </u>	ADJ Fb	
Conditions							
ARGEORIA	Min Bearing Area	R1= 10.4 i	n² R2= 12.8 in²				
Data	Beam Span	15.5 ft	Reaction 1	6784 #			
	Beam Wt per ft	18.68 #	Reaction 2	8339 #			
	Beam Weight	290 #	Maximum V	8339#			
	Max Moment	31442 '#	Max V (Reduced)				
	TL Max Defi	L/240	TL Actual Defi	L/329			
<u>Attributes</u>	Section (in <sup>3</sup> )	Shear (in*)	TL Defl (in)				
Actual	192.19	76.88	0.57				
Critical	157.21	64.47	0.77				
Status	OK	OK	OK				
Ratio	82%	84%	73%				
	L	Fb (psi)	Fv (psi)	E (psi x mil)	Fc_(	(psi)	
Values	Base Values	2400	190	1.8	650		
	Base Adjusted	2400	190	1.8	650		
Adjustments	Cv Volume	1.000					
	Cd Dunation	1.00	1.00				
	Cr Repetitive						
	Ch Shear Stress						
	Cm Wet Use		added the beam se	If-weight into the	e calculati	ions.	
4 - 1 2 -	Cm Wet Use BeamChek has a	utomatically	added the beam se	lf-weight into the	e calculati	ions.	
Loads	Cm Wet Use BeamChek has a Uniform TL:	utomatically ( 120 = A			e calculati	ions. Start	 E
Londs	Cm Wet Use BeamChek has a	utomatically		elf-weight into the Par Unif TL H = 570	e calculati		
<u>Londs</u>	Cm Wet Use BeamChek has a Uniform TL: Point TL	utomatically ( 120 = A. Distanc		Per Unif TL H = 570 I = 670	e calculati	Start 0 8.5	1;
<u>Londs</u>	Cm Wet Use BeamChek has a Uniform TL: Point TL B = 1175	utomatically ( <u>120 = A</u> Distanc 10.5		Par Unif TL H = 570		Start 0	1
<u>Londs</u>	Cm Wet Use BeamChek has a Uniform TL: Point TL B = 1175 C = 2514	utomatically ( 120 = A. Distanc 10.5 13.5		Per Unif TL H = 570 I = 670	e calculati	Start 0 8.5	1:
<u>Losds</u>	Cm Wet Use BeamChek has a Uniform TL: Point TL B = 1175 C = 2514	utomatically ( 120 = A. Distanc 10.5 13.5		Per Unif TL H = 570 I = 670	e calculati	Start 0 8.5	1:
Londs	Cm Wet Use BeamChek has a Uniform TL: Point TL B = 1175 C = 2514 D = 640	utomatically ( 120 = A Distanc 10.5 13.5 7.75		Per Unif TL H = 570 I = 670	9 ceilculati	Start 0 8.5	1:
<u>Losds</u>	Cm Wet Use BeamChek has a Uniform TL: Point TL B = 1175 C = 2514	utomaticatiy a 120 = A Distanc 10.5 13.5 7.75	e	Per Unif TL H = 570 I = 670	9 călculat	Start 0 8.5	1:
	Cm Wet Use BeamChek has a Uniform TL: Point TL B = 1175 C = 2514 D = 640	utomaticatiy a 120 = A Distanc 10.5 13.5 7.75	e J I J m Load A	Per Unif TL H = 570 I ≈ 670 J = 125	9 călculat	Start 0 8.5	1:
<u>Londs</u> Pi londs:	Cm Wet Use BeamChek has a Uniform TL: Point TL B = 1175 C = 2514 D = 640	utomaticatiy a 120 = A Distanc 10.5 13.5 7.75	e	Per Unif TL H = 570 I = 670	e celculati	Start 0 8.5	1:
PI loads:	Cm Wet Use BeamChek has a Uniform TL: Point TL B = 1175 C = 2514 D = 640	utomaticatiy a 120 = A Distanc 10.5 13.5 7.75	e J I J m Load A	Per Unif TL H = 570 I ≈ 670 J = 125	8339	Start 0 8.5 8.5	E 13 10
PI loads:	Cm Wet Use BeamChek has a Uniform TL: Point TL B = 1175 C = 2514 D = 640	utomaticatiy a <u>120 = A</u> <u>Distanc</u> 10.5 13.5 7.75 <u>4</u> <u>Unifor</u>	e  m Load A [D] [B]	Per Unif TL H = 570 I ≈ 670 J = 125	8339	Start 0 8.5 8.5	E 13 10
PI loads:	Cm Wet Use BeamChek has a Uniform TL: Point TL B = 1175 C = 2514 D = 640	utomaticatiy a <u>120 = A</u> <u>Distanc</u> 10.5 13.5 7.75 <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u>	e 	Par Unif TL H = 570 J = 125	8339	Start 0 8.5 8.5	10
PI loads:	Cm Wet Use BeamChek has a Uniform TL: Point TL B = 1175 C = 2514 D = 640	utomaticatiy a <u>120 = A</u> <u>Distanc</u> 10.5 13.5 7.75 <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u>	e  m Load A [D] [B]	Par Unif TL H = 570 J = 125	8339	Start 0 8.5 8.5	10
PI loads:	Cm Wet Use BeamChek has a Uniform TL: Point TL B = 1175 C = 2514 D = 640	utomaticatiy a <u>120 = A</u> <u>Distanc</u> 10.5 13.5 7.75 <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u>	e 	Par Unif TL H = 570 J = 125	ease City	Start 0 8.5 8.5	11 11 10
PI loads:	Cm Wet Use BeamChek has a Uniform TL: Point TL B = 1175 C = 2514 D = 640	utomaticatiy a <u>120 = A</u> <u>Distanc</u> 10.5 13.5 7.75 <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u>	e 	Par Unif TL H = 570 J = 125	ease City	Start 0 8.5 8.5	11 11 10
PI loads:	Cm Wet Use BeamChek has a Uniform TL: Point TL B = 1175 C = 2514 D = 640	utomaticatiy a <u>120 = A</u> <u>Distanc</u> 10.5 13.5 7.75 <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u>	e 	Par Unif TL H = 570 J = 125	ease City	Start 0 8.5 8.5	11 11 10
PI loads:	Cm Wet Use BeamChek has a Uniform TL: Point TL B = 1175 C = 2514 D = 640	utomaticatiy a <u>120 = A</u> <u>Distanc</u> 10.5 13.5 7.75 <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u>	e 	Par Unif TL H = 570 J = 670 J = 125 [C] R2 = per lineel ft.	ease City	Start 0 8.5 8.5	2002

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Choice       3-1/8x 15 GLB 24F-V4 DF/DF CX 5/67×13/7c       BASE Fb = 2400       ADJ Fb = 24         Canditions       Min Bearing Area       R1 = 9.1 In* R2=11.2 in*       BASE Fb = 2400       ADJ Fb = 24         Canditions       Min Bearing Area       R1 = 9.1 In* R2=11.2 in*       BASE Fb = 2400       ADJ Fb = 24         Canditions       Beam Ways       R1 = 9.1 In* R2=11.2 in*       Base Values       Reaction 1       See8 #         Deam Wiper ft       11.39 #       Reaction 2       7289 #       Max Value       Max	
Canditions         Min Boaring Area         R1 = 9.1 in* R2 = 11.2 in*           22/2         Bram Span         12.0 ft         Reaction 1         5898 #           Beam Wiper ft         11.39 #         Reaction 2         7288 #           Beam Wiper ft         137 #         Maximum V         7289 #           Beam Weight         137 #         Maximum V         7289 #           Min X Moment         20108 #         Max V (Reduced)         5262 #           TL. Max Deft         L / 240         TL Actual Deft         L / 424           Actual           Actual         117.19         46.08         0.34           Critical         100.54         41.54         0.60           Status         OX         OX         OX         0K           6654         89%         57%         -           Fb (pai)         Fv (pai)         E (psi x mil)         Fc_L (psi)           Values         2400         190         1.8         650           Base Values         2400         190         1.8         650           Base Adjusted         2400         190         1.8         650           Base Adjusted         2400         1.00         1.00	480
Canditions         Min Boaring Area         R1 = 9.1 in* R2 = 11.2 in*           Cata         Bream Span         12.0 ft         Reaction 1         5898 #           Cata         Bream Wiper ft         11.39 #         Reaction 1         5898 #           Bream Wiper ft         137 #         Maximum V         7289 #           Bream Weight         137 #         Maximum V         7289 #           Max Moment         20108 #         Max V (Reduced)         5262 #           TL. Max Deft         L / 240         TL Actual Deft         L / 424           Actual         117.19         46.88         0.34           Critical         100.54         41.54         0.60           Status         OX         OK         OK           Retio         65%         89%         57%           Fb (pai)         Fv (pai)         E (psi x mil)         Fc.1 (psi)           Values         2400         190         1.6         650           Base Values         2400         190         1.8         650           Base Values         2400         190         1.8         650           Base Values         2400         190         1.8         650           Bas	
Beam Wip er ft         11.39 #         Reaction 2         7288 #           Beam Weight         137 #         Maximum V         7289 #           Max Moment         20108 #         Max V (Reduced)         5262 #           TL. Max Defi         L / 240         TL Actual Defi         L / 424           Actual         117.19         46.88         0.34           Critical         100.54         41.54         0.50           Status         OX         OX         OK           Base Values         2400         190         1.6         650           Base Values         2400         190         1.8         650           Cd Duretion         1.00         1.00         Critical         650           Cd Duretion         1.00         1.00         Critical         650 </td <td></td>	
Beam Wit per ft         11.39 #         Reaction 2         7289 #           Beam Weight         137 #         Maximum V         7249 #           Max Moment         20108 *#         Max V (Reduced)         5252 #           TL Max Defi         L / 240         TL Actual Defi         L / 424           Actual         Section [in*]         Shear [in*]         TL Defi [in]           Actual         117.19         46.88         0.34           Critical         100.54         41.54         0.60           Status         0X         0X         0K         0K           Ratio         6654         89%         57%           Fb (psi)         Fv (psi)         E (psi x mi!)         Fc_L (psi)           Values         2400         190         1.8         650           Base Adjusted         2400         190         1.8         650           Base Adjusted         2400         190         1.8         650           Cd Duration         1.000         1.00         CV Valume         650           Cd Duration         1.000         1.00         Critical         650           Base Mean Stress         Gm Wei Use         EmeanChek has automatically added the beam self-weigh	
Beam Weight         137 #         Maximum V         7289 #           Max Moment         20108 #         Max V (Reduced)         5262 #           TL Max Defi         L / 249         TL Actual Defi         L / 424           Attributes         Section (im]         Shear (im]         TL Defi (in)           Actual         117.19         46.08         0.34           Critical         100.54         41.54         0.60           Status         OX         OK         OK           Ratio         65%         83%         57%           Base Values         2400         190         1.6         650           Base Adjusted         2400         190         1.8         650           Base Adjusted         2400         190         1.8         650           Gd/ustonede         CV Valume         1.000         1.00         Cr Repolitive           Ch Sheer Stress         Cm Wei Uae         EmemChek has automatically added the beam self-weight into the csiculations.           Lands         Uniform TL:         490 = A	
Max Moment TL Max Defi         20108 's         Max V (Reduced) L / 240         5252 s           Attributes         Section [in]         L / 240         TL Actual Defi         L / 424           Attributes         Section [in]         Shear [in]         TL Defi [in]         L / 424           Attributes         Section [in]         Shear [in]         TL Defi [in]	
Adiustance         Section (in*)         Shear (in*)         TL Defi (in)           Actual         117.19         46.08         0.34           Critical         100.54         41.54         0.60           Status         OX         OK         OK           Ratio         65%         83%         57%           For (pail)         Fv (pail)         Fc (pail)         Fc.1. (pail)           Matuss         Base Values         2400         190         1.6         650           Base Adjusted         2400         190         1.8         650           Base Adjusted         2400         190         1.8         650           Base Adjusted         2400         190         1.8         650           Cd Duration         1.00         1.00         Cr Repolitive         Ch Sheer Stress           Cm Wet Use         Ch Sheer Stress         Cm Wet Use         EsamChek has automatically added the beam self-weight into the csiculations.           Loads         Uniform TL:         490 = A	
Actual         117.19         46.88         0.34           Critical         100.54         41.54         0.60           Status         0X         0K         0K           Ratio         68%         89%         57%           Fb (psi)         Fc (psi)           Values         2400         190         1.8         650           Base Adjusted         2400         190         1.8         650           Adjusted         2400         100         1.0         650           CV Valume         1.00         1.00         Cr (appetive         Ch Sheer Stress         Cm Wet Use         EmmChek has automatically added the beam self-weight into the csinulations.           Lands         Uniform TL:         490 = Å <t< td=""><td></td></t<>	
Actual         117.19         46.88         0.34           Critical         100.54         41.54         0.60           Status         OX         OK         OK           Ratio         65%         89%         57%           Fb (psi)         Fc (psi)           Values         Base Values         2400         190         1.8         650           Base Adjusted         2400         190         1.8         650           Adjustmente         CV Valume         1.00         1.00         550           Cd Duration         1.00         1.00         1.00         1.00         1.00           Cr Repotitive         Ch Sheer Stress         Cm Wet Use         BesmChek has automatically added the beam self-weight into the csinulations.           Londe         Uniform TL:         490 = Å         Point TL         Distance         Par Unif TL         Start           B = 1000         2.5         H = 600         3.0 <t< td=""><td></td></t<>	
Critical         100,54         41.54         0.60           Status         OK         OK         OK           Ratio         66%         89%         57%           Fb (psi)         Fv (psi)         E (psi x mil)         Fc.L (psi)           Values         Base Adjusted         2400         190         1.8         550           Base Adjusted         2400         190         1.8         550           Adjustanzatz         Cv Valume         1.000         650         650           Cd Duration         1.00         1.00         650         650           Gd Duration         1.00         1.00         650         650           Gd Duration         1.00         1.00         650         650           Gr Republive         Ch Shear Stress         6m Wet Use         6m Wet Use         6m Wet Use           BeamChek has automatically added the beam self-weight into the csiculations.         2.0         2.5         H = 600         3.0	
Batto     B5X     B3%     57%       Ratio     Fb (psi)     Fv (psi)     E (psi x mil)     Fc.L (psi)       Values     Base Values     2400     190     1.8     650       Base Adjusted     2400     190     1.8     650       Adjustmants     Cv Valume     1.000     1.00     1.00       Cd Duration     1.00     1.00     1.00       Cf Repolitive     Ch Shear Stress     Cm Wet Use       BesmChek has automatically added the beam self-weight into the calculations.       Lands     Unitorn TL:     490 = A       Paint TL     Distance     Par Unif TL     Start       B = 1000     2.5     H = 600     3.0	
Fb (psi)         Fv (psi)         E (psi x mil)         Fc (psi)           Values         Base Values         2400         190         1.8         650           Base Adjusted         2400         190         1.8         650           CV Valume         1.000         CV Valume         1.000         CV Valume         1.000           Cd Duration         1.00         1.00         1.00         Cr Reputilive         Ch Sheer Stress           Cm Wet Use         BesmChek has sutomatically added the beam self-weight into the celouistions.         Loads         Uniform TL: 490 = A           Point TL         Distance         Par Unif TL         Start           B = 1000         2.5         H = 600         3.0	
Values         Base Values         2400         190         1.8         650           Base Adjusted         2400         190         1.8         650           Base Adjusted         2400         190         1.8         650           Cv Valume         1.000         1.00         1.8         650           Cd Duration         1.00         1.00         1.00         1.00           Cr Reputitive         Ch Sheer Stress         Cm Wet Use         6eamChek has automatically added the beam self-weight into the calculations.           BeamChek has automatically added the Deam self-weight into the calculations.         1.00         1.00           Loads         Uniform TL:         490 = A         1.00         1.00           B = 1000         2.5         H = 600         3.0	
Lands     Base Adjusted     2400     190     1.8     650       Adjustanada     CV Valume     1.000     1.00     1.00     1.00       Cd     Duration     1.00     1.00     1.00     1.00       Cf     Repetitive     Ch Sheer Stress     Cm Wet Use       BeamChek has automatically added the beam self-weight into the calculations.       Lands     Uniform TL:     490 = A       Point TL     Distance     Par Unif TL     Start       B = 1000     2.5     H = 600     3.0	
Adjustments     Cv Volume     1.000       Cv Volume     1.000       Cd Duration     1.00       Cf Repetitive     1.06       Cr Repetitive     1.06       Ch Wet Use     1.06       BesmChek has automatically added the beam self-weight into the calculations.       Linads     Uniform TL:     490 = A       Point TL     Distance     Par Unif TL     Start       B = 1000     2.5     H = 600     3.0	
Cd Duration     1.00     1.00       Cr Reputitive     Cr Reputitive       Ch Shear Stress     Cm Wet Use       BesmChek has automatically added the beam self-weight into the calculations.       Loads     Uniform TL: 490 = A       Point TL     Dictance       B = 1000     2.5       H = 600     3.0	
Cr Repetitive Ch Sheer Stress Cm Wet Use BeamChek has automatically added the beam self-weight into the estouiations. Loads Uniform TL: 490 = A Point TL Distance Par Unif TL Start B = 1000 2.5 H = 600 3.0	
Ch Sheer Stress Cm Wet Use BeamChek has automatically added the beam solf-weight into the calculations. Loads Unitorm TL: 490 = A Point TL Distance Par Unif TL Start B = 1000 2.5 H = 600 3.0	
Cm Wet Use         BeamChek has automatically added the beam solf-weight into the calculations.         Loads       Uniform TL: 490 = A         Point TL       Distance       Par Unif TL       Start         B = 1000       2.5       H = 600       3.0	
Loads Uniform TL: 490 = A Point TL Distance Par Unif TL Start B = 1000 2.5 H = 600 3.0	
Paint TL         Distance         Par Unif TL         Start           B = 1000         2.5         H = 600         3.0	
B = 1000 2.5 H = 600 3.0	
0 - 1000 LID - 1000	End
	12.0
C = 760 11.0	

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## MITCHELL IMLAY

-			" Designer "			
GROVE DEVE 9' DOOR HEA	LOPMENT, CONV	VAY RESIDE	NCE GARAGE	Date	: 1/03/02	BeamChek 2.2
Choice	4x 12 DF-L #2		/	BASE FI		ADJ Fb = 963
Conditions	'91 NDS Min Bearing Area	R1= 3.0	in² R2= 3,0 in²			
<u>Date</u>	Beam Span Beam Wt per ft Beam Weight Max Moment TL Max Defl	9.25 ft 9.57 # 89 # 4380 '# L / 240	Reaction 1 Reaction 2 Maximum V Max V (Reduced) TL Actural Defi	1894 # 1894 # 1894 # 1510 # L / >1000	<b>t</b> ed know <u>e</u>	
<u>Attributes</u> Actuel Critical Status Ratio	Section (in*) 73.83 54.61 OK 74%	Shear (In <sup>3</sup> ) 39.38 23.85 OK 61%	TL Defl (in) 0.10 0.46 OK 22%			
	L	Fb (psi)	Fv (psi)	E (psi x mll)	Fc_(	psi)
Values	Base Values Base Adjusted	875 963	95 95	1.6 1.6	625 625	
<u>Adiustments</u>	CF Size Factor Cd Duration Cr Repetitive Ch Shear Stress Cm Wet Use	1.10D 1.00	1.00			

BeamChek has automatically added the beam self-weight into the calculations.

Loads

Uniform TL: 400 = A



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### MITCHELL IMLAY \* Designer \*

GROVE DEVE OPENING HE	LOPMENT, CONV	AY RESIDE	* Designer * NCE LIVING / FO		a: 1/03/02	BeamChek 2.
Choice	5-1/8x 13-1/2 GI	B 24F-V4 D	F/DF		b = :2400	ADJ Fb = 2400
Conditions	·					
	Min Bearing Area	R1= 13.4 1	n² R2= 15.4 in²			
Data	Beam Span	14.0 ft	Reaction 1	8700 #		
	Beam Wt per ft	16.81 #	Reaction 2	10036 #		
	Beam Weight	235 #	Maximum V	10036 #		
	Max Moment	31101 🕊	Max V (Reduced)	8867 #		
	TL Max Defl	L/240	TL Actual Defi	L/281		
Attributes	Section (in*)	Shear (in²)	TL Defl (in)			
Actual	155.67	69.19	0.60			
Critical	155.50	68.42	0.70			
Status	OK	OK	ok			
Ratio	100%	99%	85%			
		Fb (psi)	Fv (psi)	E (psi x mil)	Fc ()	osi)
Values	Base Values	2400	190	1.8	650	
	Base Adjusted	2400	190	1.8	650	
Adjustments	Cy Volume	1.000				
	Cd Duration	1.00	1.00			
	Cr Repetitive					
	Ch Shear Stress					
	Cm Wet Use					
	BeamChek has at	itomatically a	idded the beam sel	f-weight into th	e calculatio	ons.
Loads	Uniform TL: 1					
	Point TL	Distance				
	B = 1700	12.5				
	·····					
		Uniform	Load A			
Pi loads:	L			B		
	8700					
R1 =	8700	SDAN	= 14 FT	R2 = 1	10036	
	i hiforn		orm loads are lbs p	Tinal A.	**************************************	
	othoriti a		orm loads are los f	C.1109.101	1 4 1 A 10 -	na j

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# Simplified Approach Design Criteria Sand Filter



Stormwater Management Manual Revised September 1, 2000

# Operations and Maintenance Agreement For the Stormwater Treatment/CD Sand Filter

\$<sup>3</sup>

1.	Grove Development Inc.(Contractor) S.W. Cameron St.S Jose Francisco March LUR - 01-00 410 MP Parcel Portland, Multnomah County, Oregon
2.	The stormwater (I.E.) Raindrains will be piped directly to a Sand Filter (type CD, with impervious bottom), and treated water wi <sup>10</sup> then be piped to the storm drain system in the street. General specifications for the Sand Filter: The walls of the Sand Filter reservoir will consist of a minimum 6" concrete x 42" high. The walls will sit upon a 4" concrete slab, and the entire Sand Filter will be set into the existing grade with the upper side approx. 1" above finish grade and the downhill side to be approx. 1" above finish grade. The sand used shall have a minimum infiltration rate of 5" per Hr. An overflow device shall be incorporated into the outflow pipe so any overflow is directed onto the overflow pipe distribution area.
3.	Maintenance of Sand Filter and Rain Drain lines       Once per Year         a)       Remove any vegitation from top surface of sand       Once per Year         b)       Clean out any trash (i.e. Leaves etc.)       Twice per Year         c)       Test overflow pipe for proper drainage       Once per Year         d)       Remove any sedimentation @ inflow pipe       Once per Year         e)       Check after storm event       As needed
4.	The property owner will be liable to maintain or replace Stormwater Qualify or icrod
	MAR 1 1 2002 IN WITNESS WHEREOF, the party hereto executed this Ageement on 14/2-9/01 BY BY
	SUBSCRIBED AND SWORN TO before me this day of,2001
	NOTARY PUBLIC OF OREGON My commision expires:

The city has produced this form to assist with a quick and simple approach to manage stormwater quality and flow control on projects. Application of these facilities using the specified sizing factor is required for use of this form. These facilities, when designed according to the required criteria, are considered to cover both quality and flow. Alternative design and sizing will not be considered under this simple approach.

B.S .....

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	Column 1		Column 2	20.00	Column 3	
	1997 - 1997 -	•			and the second	
Eres.	in the second	aune.	1000	Andread	्रिंग राज्य किंग्स् 🖓	វីវិបាល ្ល
Landscape Swale		sf	x 0.05	Ē		sf
1						
Vegetative Filter		ef	v 0.065			sf
				-		-51
Stormwater Planter		-f		ł.	·	
		51	X 0.045	=	L	sf
Landscape Infiltration						
		SI	X 0.04	=		sf
Sand Filton	2725	2				
Salid Filler	<u>secs</u>	st	x 0.045	=	146 = 10	sí
*East Side Soakage Trench		sf	x 0.05	=		sf
					••••••••••••••••••••••••••••••••••••••	
*West Side Soakage Trench	· <u></u>	sf	x 0.075	. =		sf
			<u> </u>	-	·	
Total Areas		Box 2				
Total non-mitigated impervious area		Box 1	City	of	Farmend	
Total impervious area on the site, or the amount of	·					
						-
posal and water quality, and therefore cannot be reduce	d in size with mitigation	• . 1		MAR	1 1 2002	ł
					1	1
	- 11 - 11 - 11 - 11 - 11 - 11 - 11 - 1			Permi	t Number	
	Landscape Swale Vegetative Filter Stormwater Planter Landscape Infiltration Sand Filter *East Side Soakage Trench *West Side Soakage Trench Total Areas Total non-mitigated impervious area Total non-mitigated impervious area non-mitigated impervious area	Landscape Swale         Vegetative Filter         Stormwater Planter         Landscape Infiltration         Sand Filter         *East Side Soakage Trench         *West Side Soakage Trench         *West Side Soakage Trench         Total Areas         Total Inon-mitigated impervious area         Total inpervious area on the site, or the amount of non-mitigated impervious area on the site, or MIT	Enclass       sf         Landscape Swale       sf         Vegetative Filter       sf         Stormwater Planter       sf         Landscape Infiltration       sf         Sand Filter       \$225\$ sf         *East Side Soakage Trench       sf         West Side Soakage Trench       sf         Total Areas       Box 2         Total non-mitigated impervious area       Box 1	Excite       sf       x       0.05         Landscape Swale       sf       x       0.065         Vegetative Filter       sf       x       0.065         Stormwater Planter       sf       x       0.045         Landscape Infiltration       sf       x       0.045         Sand Filter       \$\$22.5\$       sf       x       0.045         'East Side Soakage Trench       \$\$f       x       0.045         'West Side Soakage Trench       \$\$f       x       0.075         'West Side Soakage Trench       \$\$f       x       0.075         Total Areas       Box 2       Box 1       City         Total inpervious area on the site, or the amount of non-mitigated impervious area in Box C, Form MIT       Box 1       City	Landscape Swale       sf x 0.05 =         Vegetative Filter       sf x 0.065 =         Stormwater Planter       sf x 0.045 =         Landscape Infiltration       sf x 0.045 =         Sand Filter       32.25 sf x 0.045 =         'East Side Soakage Trench       sf x 0.05 =         'West Side Soakage Trench       sf x 0.075 =         Total Areas       Box 1         Total Areas       Box 1         Total Inpervious area in the site, or the amount of non-mitigated impervious area in the site, or the amount of non-mitigated impervious area in the site, or the amount of mortiligat	Landscape Swale       sf       x       0.05       =

Form MIT Revised September 1,	Impervious Surface Mitigation Measures					
Instruction 3		gaven medsures				
Enter square footage of all impervious site elements in Box A.     Enter square footage of each proposed mitigation measure in the appropriate box under Column 1.	Enter site impervious area (sf) into Box A	Column 1				
	Proposed Mitigation Measure	Surface Area Unit				
3. Add the surface areas (square footage) of all the mitigation measures in Column 1. Enter the total in Box B.	Eco-roof Roof Garden	sf				
<ol> <li>Subtract the amount in Box B from amount in Box A and enter in Box C.</li> </ol>	Landscape Planter Stormwater Planter	sf				
5. If the Amount in Box C is under 500 square-feet, there are no further requirements for water quality or flow management. Submit this filled-out form with the permit polycome are specified.	[planter sf x 20 = surface area sf <sup>2</sup> ] Porous Pavement	st				
application, and show all mitigation measures used on he building plan. Stop Here.	New Evergreen Trees (200 sf per tree)	sf				
5. If the Amount in Box C is over 500 square-feet, Form	New Deciduous Trees (100 sf per tree)	sf				
SIM can be used to manage stormwater from the emaining impervious surfaces, or Chapters 5.0 and 6.0 of the Stormwater Manual can be used to engineer a	Existing Evergreen Trees* (One-half area of total tree canopy left in place)	sf				
tormwater management facility.	Existing Deciduous Trees <sup>4</sup> (One-half area of total tree canopy left in place)	sf				
	Mitigated Im. ervious Area Box	B sf				
	Unmitigated Impervious Area Box	C sf				
nese planters manage runoff from an Impervious area 20 tim alf credit is given unless tree will cover impervious surfaces.	es the size of the surface area of the planter. To get full credit, tree must be outside of environn	nental zones.				

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