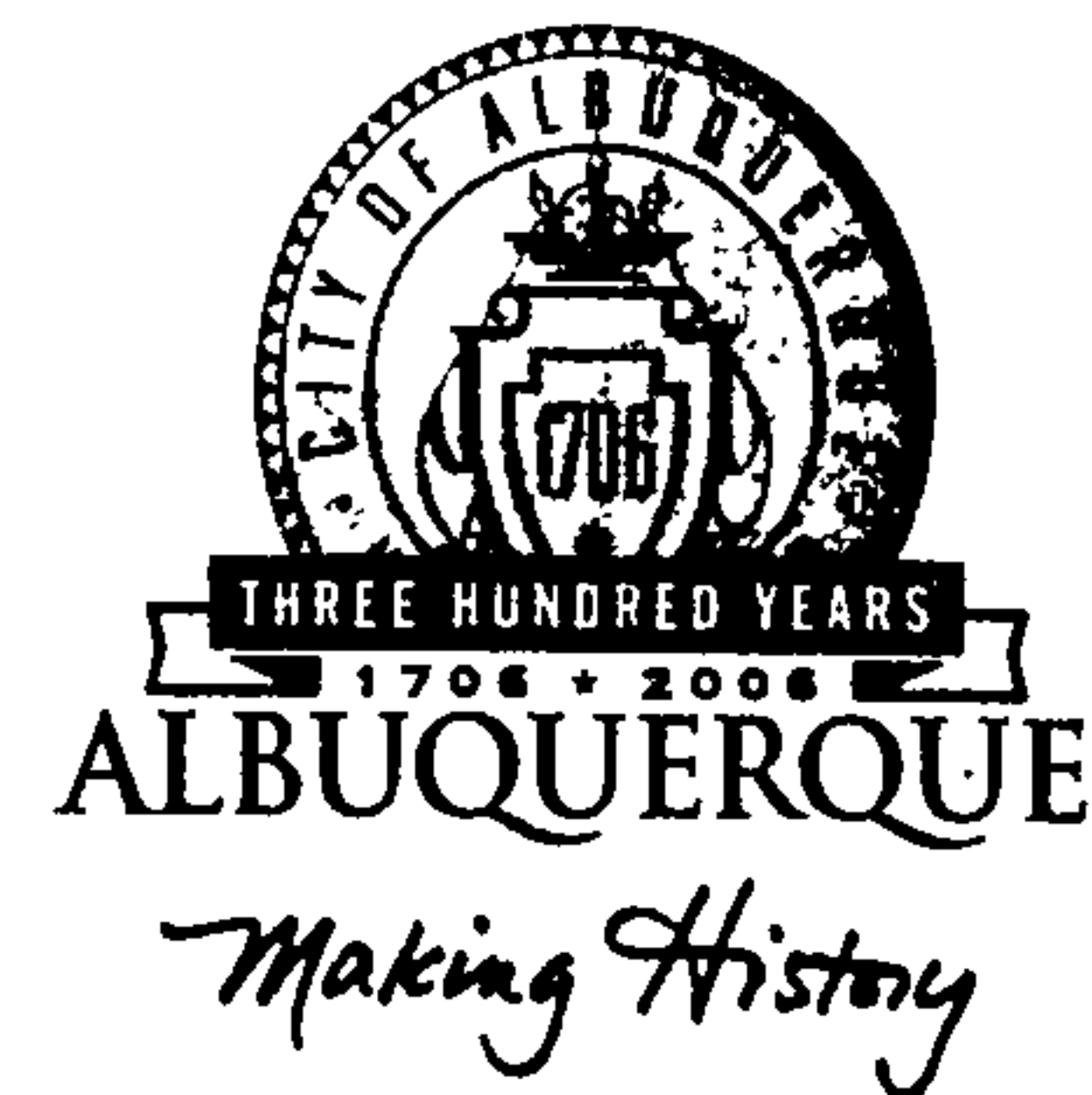


CITY OF ALBUQUERQUE



March 31, 2005

Mr. John MacKenzie, PE
MARK GOODWIN & ASSOCIATES
P.O. Box 90606
Albuquerque, NM 87119

RE: ST. JOSEPH'S PLACE SUBDIVISION (K-11/D63)
Engineers Certification for Release of Financial Guaranty
Engineers Stamp dated 12/03/2001
Engineers Certification dated 03/28/2004

Dear John:

P.O. Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

Based upon the information provided in your Engineer's Certification Submittal dated 03/29/2005, the above referenced plan is adequate to satisfy the Grading and Drainage Certification for Release of Financial Guaranty.

If you have any questions, you can contact me at 924-3982.

Sincerely,

Arlene V. Portillo
Plan Checker, Planning Dept.- Hydrology
Development and Building Services

C: Marilyn Maldonado, COA# 676081
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: St. Joseph's Place Subdivision
DRB #: 1001106 EPC#: _____

ZONE MAP/DRG. FILE #: K-11/D63
WORK ORDER#: _____

LEGAL DESCRIPTION: Tract C-15-A, Airport Unit
CITY ADDRESS: Between Avalon and Central near 63rd Street

ENGINEERING FIRM: Mark Goodwin & Associates, PA
ADDRESS: PO Box 90606
CITY, STATE: Albuquerque, NM

CONTACT: John M. MacKenzie, PE
PHONE: 828-2200
ZIP CODE: 87199

OWNER: Westcor, LLC
ADDRESS: 11600 Academy NE, Suite 4411
CITY, STATE: Albuquerque, NM

CONTACT: Charles Bachellor
PHONE: 237-9311
ZIP CODE: 87111

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: ALS, Inc.
ADDRESS: PO Box 30701
CITY, STATE: Albuquerque, NM

CONTACT: Tim Aldrich
PHONE: 884-1990
ZIP CODE: 87107

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL, *REQUIRES TCL or equal*
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☒ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER

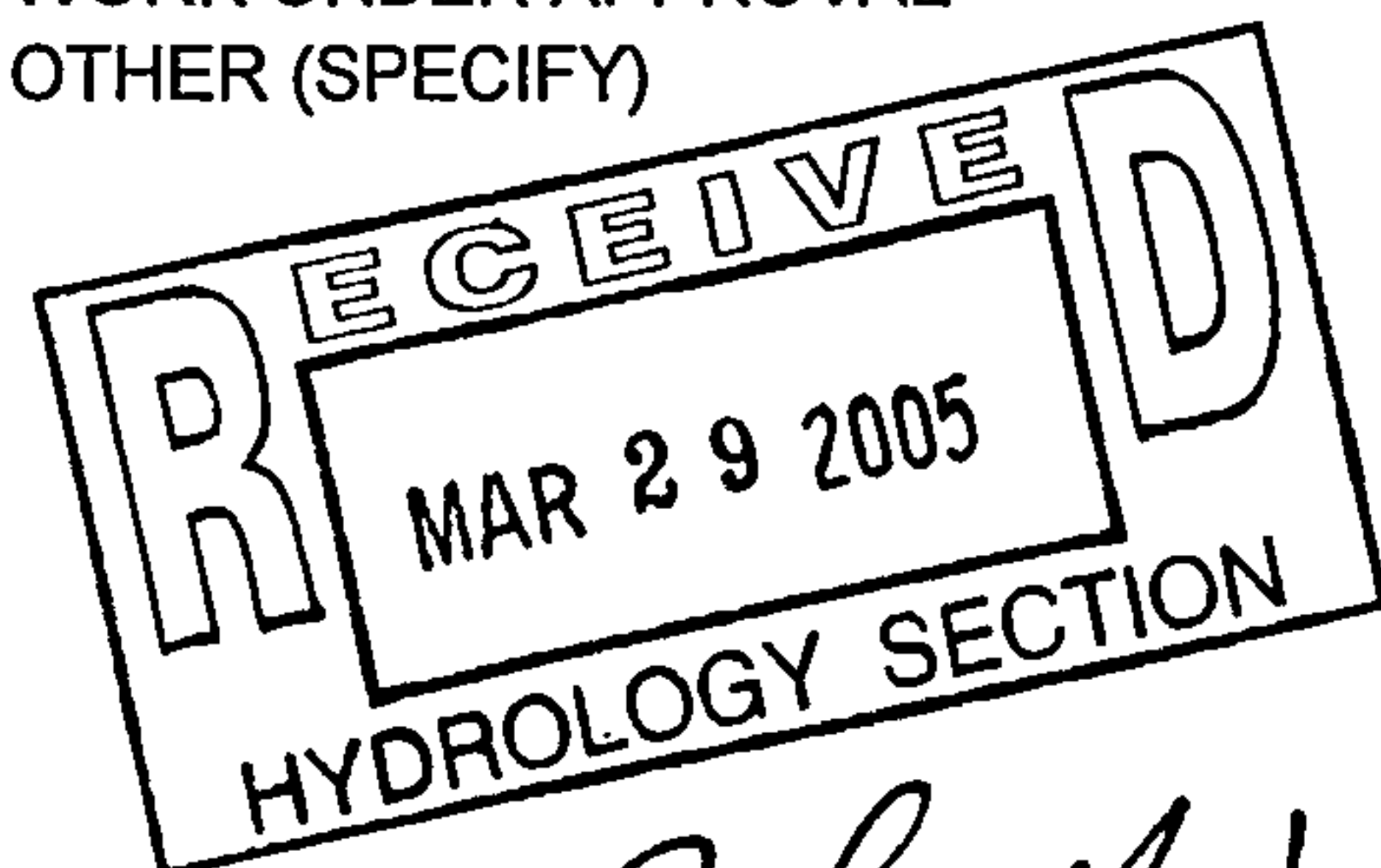
Is wall certified?

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☒ YES
- ☐ NO
- ☐ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ☒ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☐ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY (PERM.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)



DATE SUBMITTED: *March 28, 2005*

BY: John M. MacKenzie, PE

John MacKenzie

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

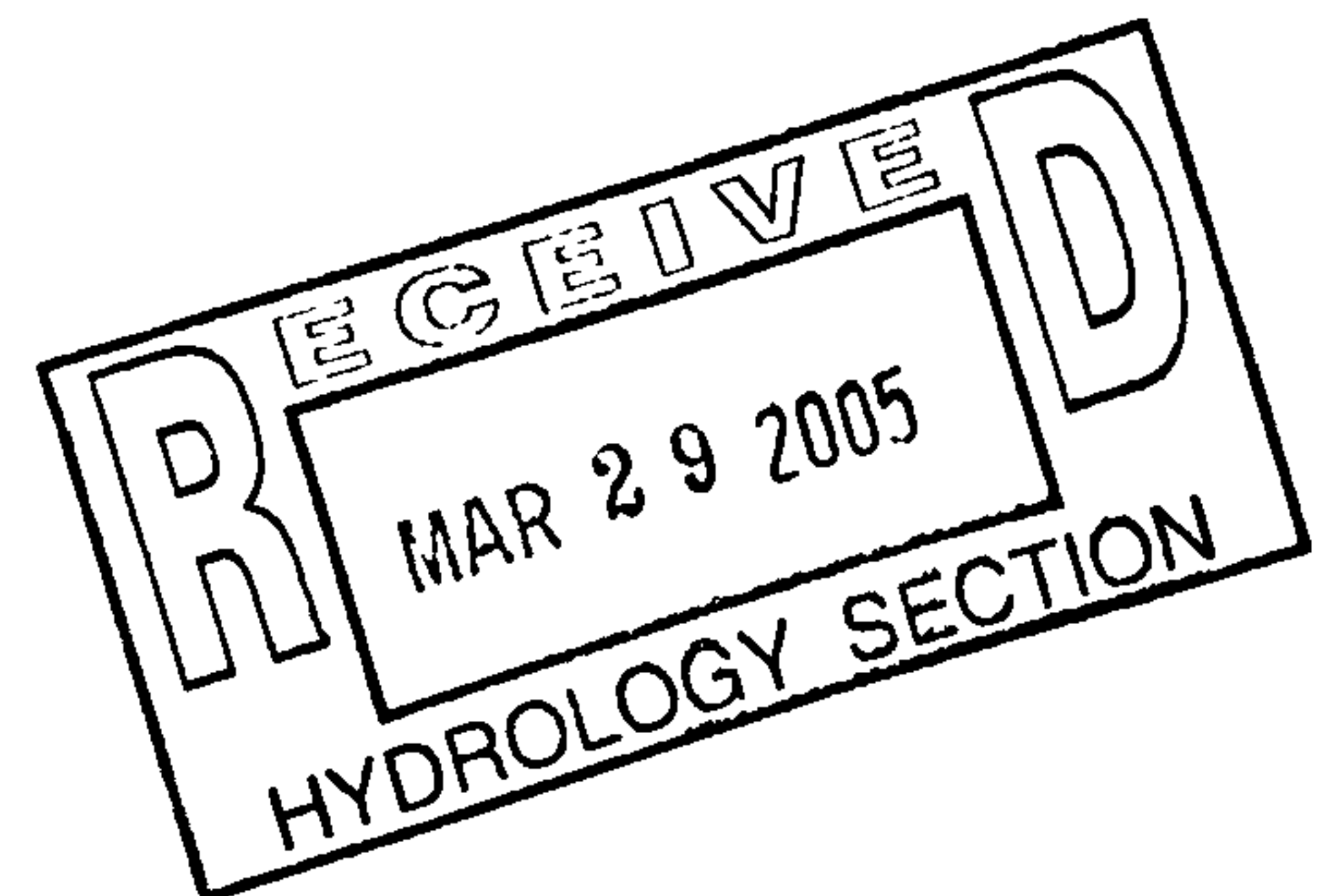
1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

MARK GOODWIN & ASSOCIATES, PA

MEMORANDUM

TO: City of Albuquerque Hydrology Division Drainage Reports File
FROM: John MacKenzie, PE *QMM*
SUBJECT: ST. JOSEPH'S PLACE SUBDIVISION (K-11/D63)
DATE: 3/29/2005

SUPPLEMENTAL AFFIDAVITS AND SITE ILLUSTRATIONS ARE PROVIDED FOR EACH LOT WITHIN THIS SUBDIVISION. IN AN EFFORT TO REDUCE THE SIZE OF THIS SUPPLEMENTAL MATERIALS PACKAGE ADDITIONAL PHOTOGRAPHS FOR EACH LOT ARE NOT PROVIDED, HOWEVER, THEY ARE AVAILABLE FROM THE OFFICE OF MARK GOODWIN & ASSOCIATES, PA, UPON REQUEST.





"John MacKenzie"
<John@goodwinengineers.com>

03/30/2005 09:14 AM

To: <BBingham@cabq.gov>
cc: "Arlene Portillo \Arlene Portillo\" <aportillo@cabq.gov>
Subject: RE: St. Joseph's Place Subdivision Grading Cert.

This should be OK

Brad,

I just resubmitted this package yesterday. In hindsight, I should have bound all the supplemental material in a report-like binder to make it easier to handle. If, after it's looked at, that is needed let me know.

John M. MacKenzie
Mark Goodwin & Associates, PA
505-828-2200
505-797-9539 fax

From: BBingham@cabq.gov [mailto:BBingham@cabq.gov]

Sent: Wednesday, March 02, 2005 4:57 PM

To: John MacKenzie

Subject: Re: St. Joseph's Place Subdivision

A resubmittal of the grading plan, pictures, and affidavits will work. The certification statement on the grading plan should reference the pictures, affidavits and your site visit as your belief the the project is "in substantial compliance" with the approved plan. I do not need surveyor shots if you tell me in your statement that it works.

"John MacKenzie" <John@goodwinengineers.com>

03/02/2005 04:30 PM

To: "Brad Bingham \Brad Bingham\"
<bbringham@cabq.gov>

cc:

Subject: St. Joseph's Place Subdivision

Brad,

A grading certification for the site identified on the attached was submitted last month, but rejected by your office due to the lack of retaining wall shots, which I understand why.

The retaining walls were built with the houses after the original as-built was completed by Amy and sent in in 2002.

Since that time the developed/builder has built all the houses and associated retaining walls. He and I met on the site last year and I directed him to insure all rear and side yards drain as identified on the plans. He has performed all the required work and taken photographs showing how it all works. He has also obtained signed affidavit from all the homeowners indicating that they understand their individual on-lot

drainage schemes, that they are responsible for maintaining their on-lot drainage paths, and that they cannot fill their yards in any way that would impact this drainage scheme.

Would submittal of a copy of these photos and the affidavits suffice for ensuring the that plan is built in substantial compliance with the approved plan, in lieu of having a surveyor go back out there and shoot more shots?

John M. MacKenzie

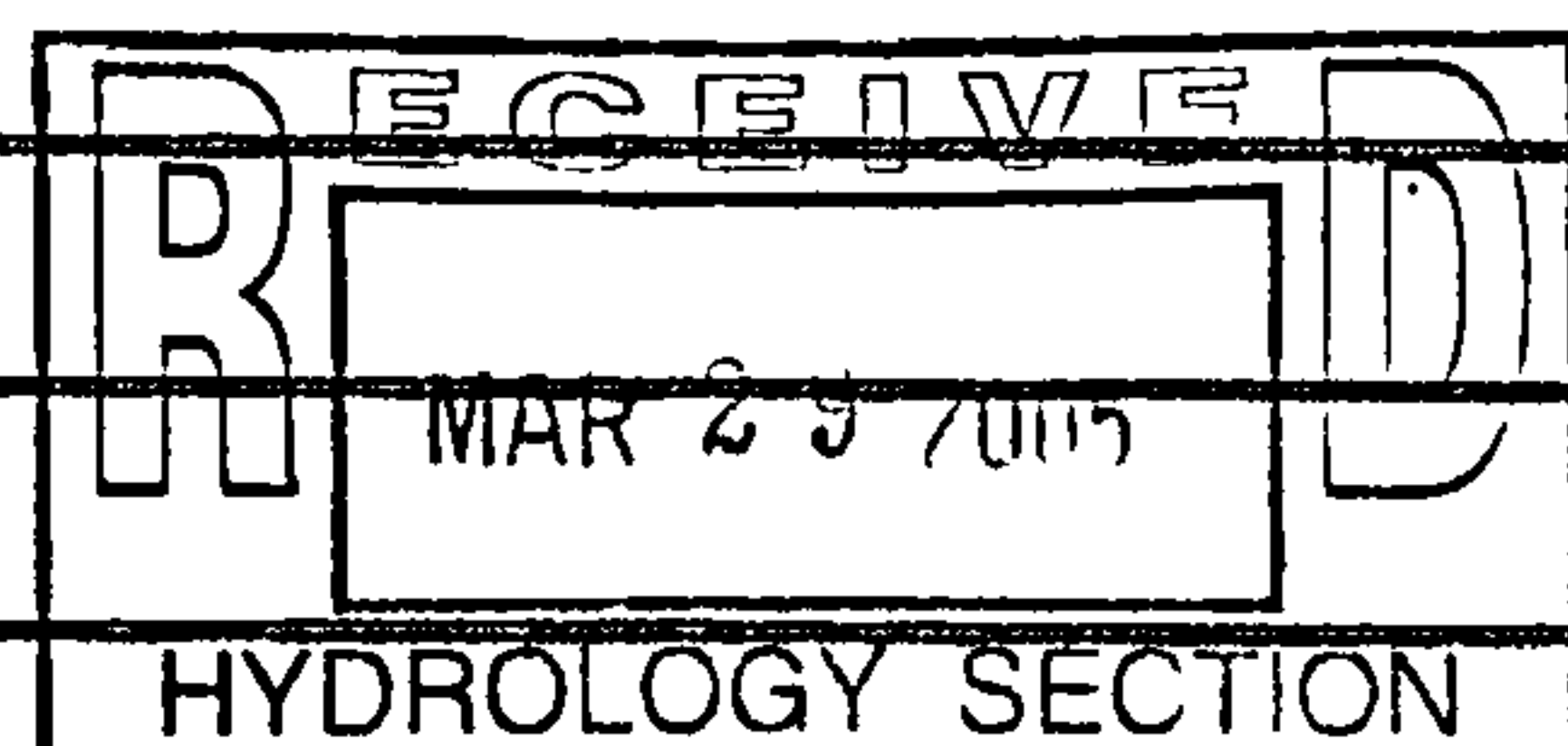
Mark Goodwin & Associates, PA

505-828-2200

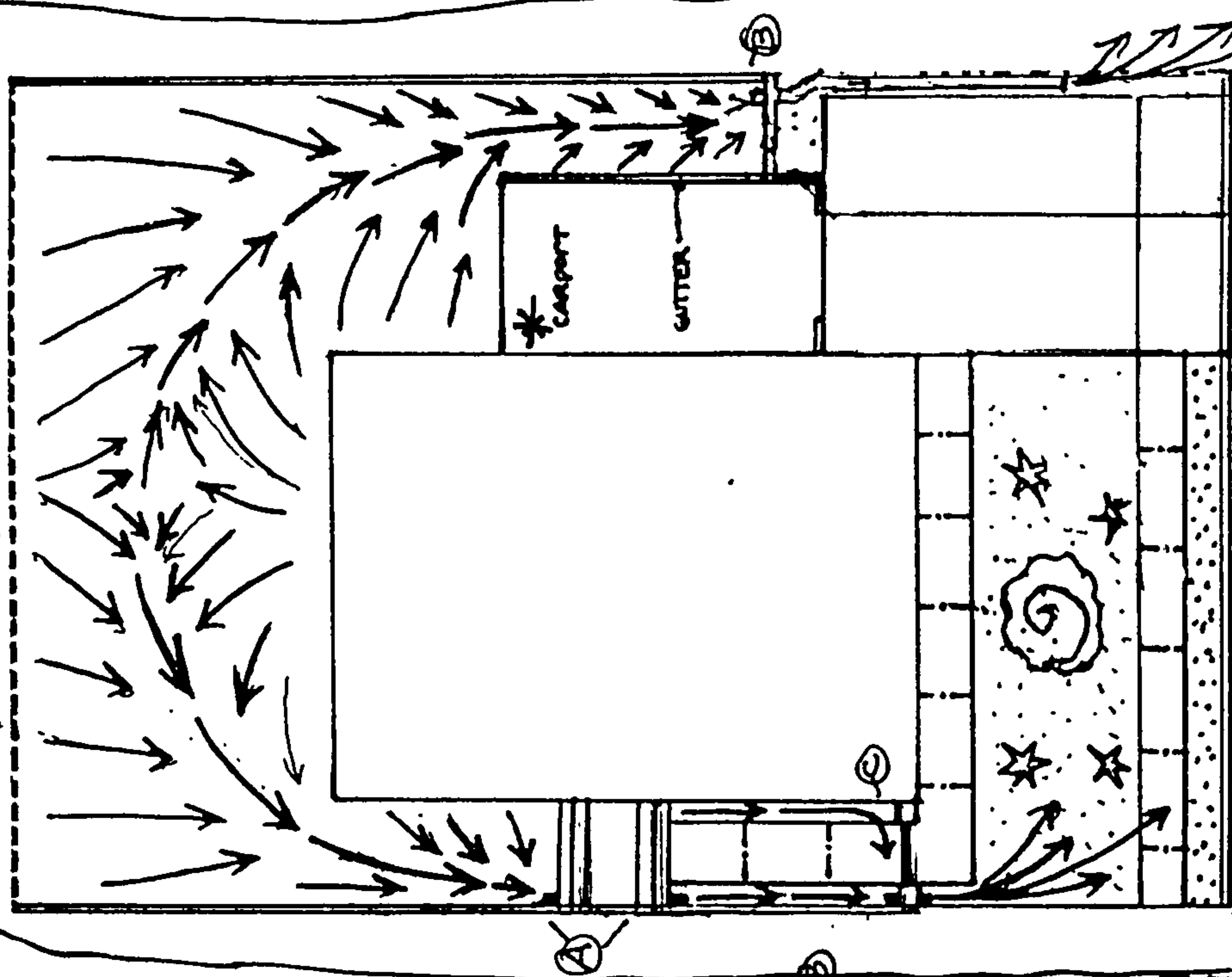
505-797-9539 fax

Notes 244 WCP. LOT #01, L. SUCHO// Home

Drains from Rear to front of lot in
horseshoe configuration.



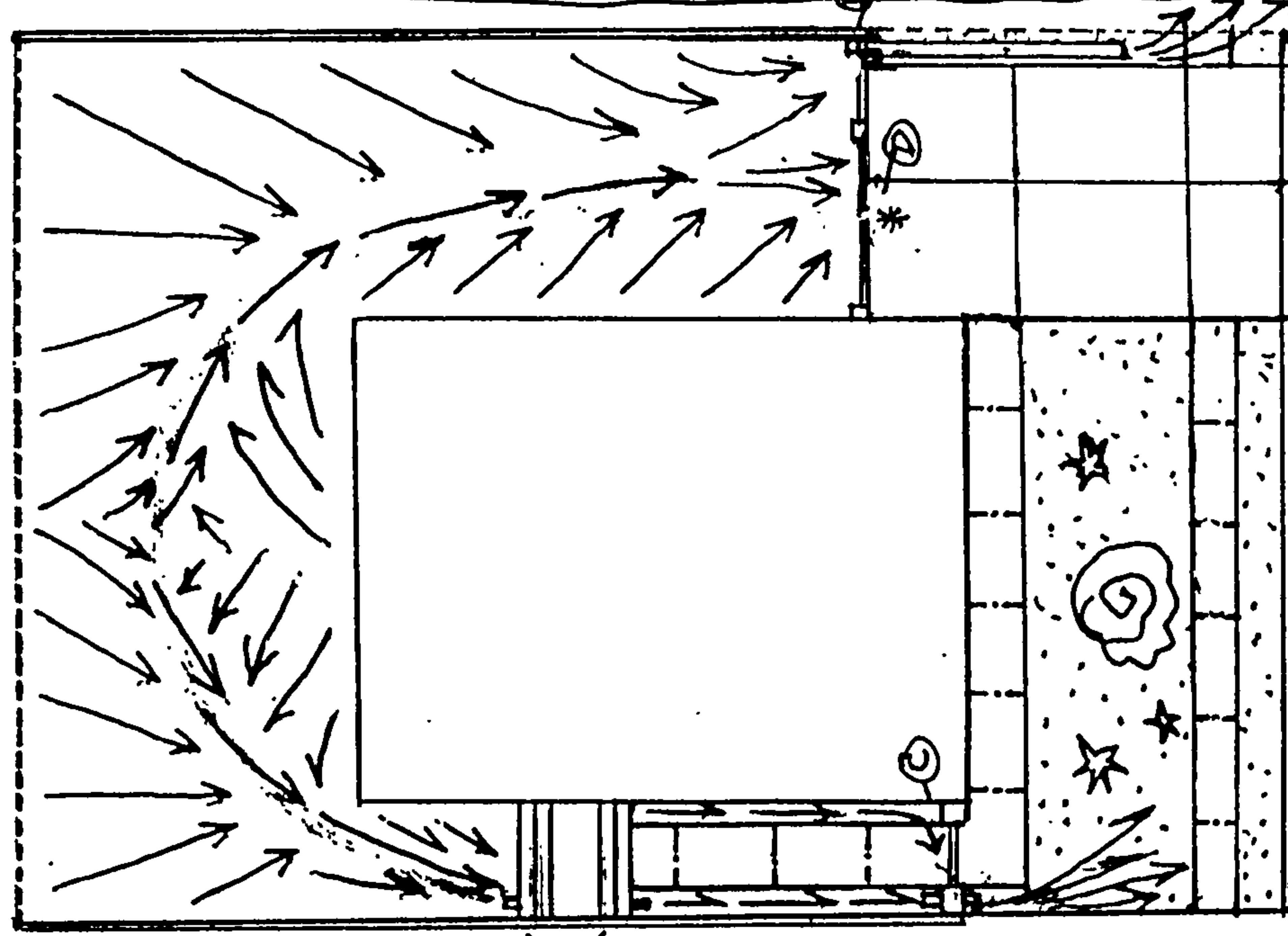
244 WCP, LOT 01



48'-8" PREMIUM LOT W/ CARPORT AND GUTTER/POUNCEBOW.

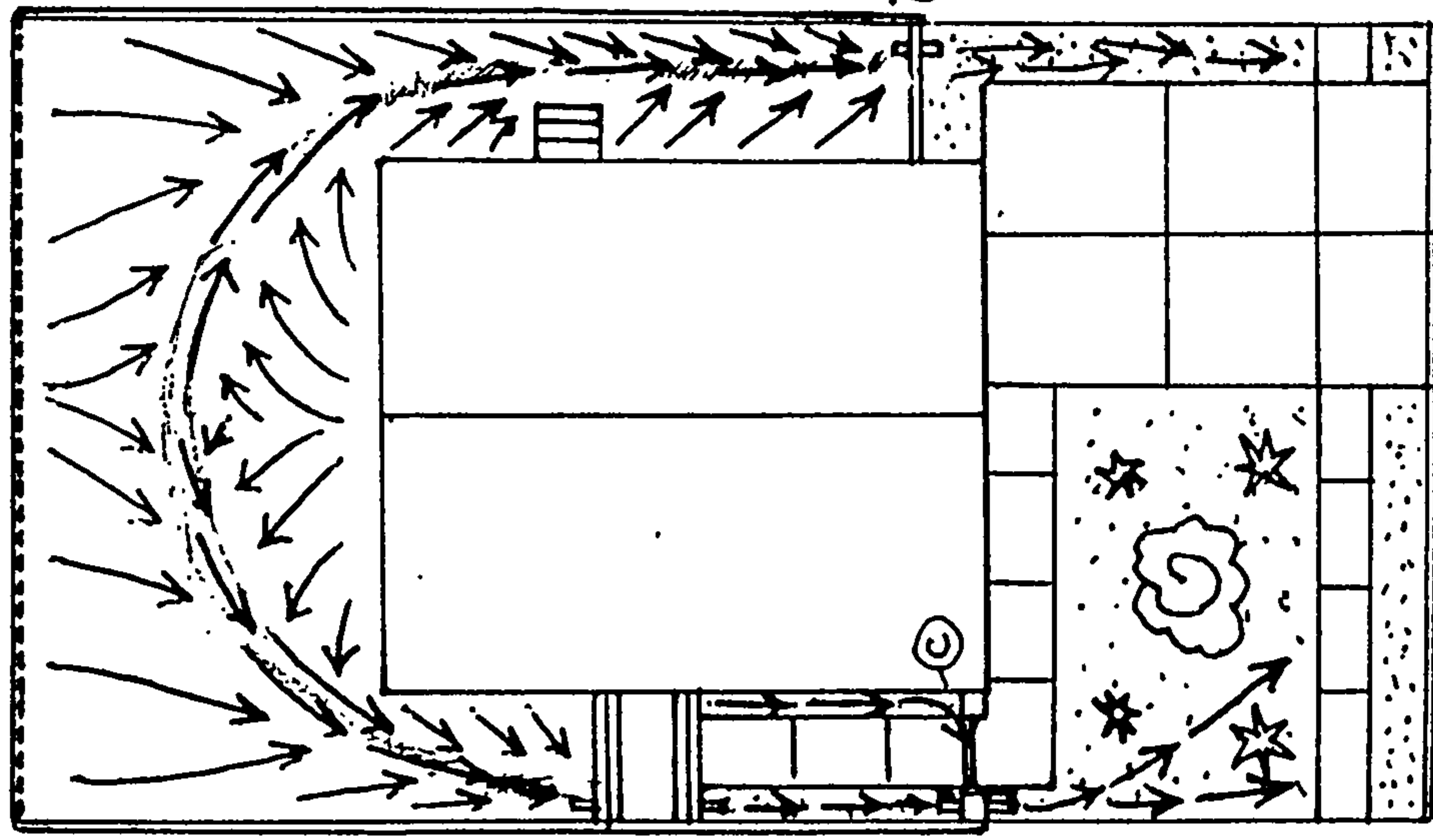
All lots were finish graded to distribute rain water away from the house into a horseshoe shaped flow around the house to outlets that allow flow to the front yards and street.

* Carport on left side (N)



48'-8" PREMIUM LOT DRAINAGE

* Lots with double gates on parking side, part of drainage is allowed to flow under gates, over drive to street. Additional drainage in corner to maintain maximum flow opportunity to eliminate any ponding.



37' STANDARD LOT DRAINAGE

FINISH GRADE
WATER FLOW

(A) = THRU STEPS

(B) = THRU WALL/FENCE

(C) = SIDE WALK CROSSOVER DRAIN TO WALL/OUTLET DRAIN

(D) = GRAVITY FLOW UNDER GATES/OVER DRIVE/TO STREET

**Lot/Homesite Drainage Requirements
Notice and Agreement**

Each home has been constructed to provide drainage of rain water away from all home sites to comply with approved engineering. The drainage engineering is designed to flow rain water away from the houses and to the street. Under normal circumstances, rain water is absorbed into the landscaping and surrounding soil. During extreme rains, the ground soil can become saturated, and excess water then flows to the street and to the storm drains. The home sites in St. Joseph's Place subdivision have been graded and finished to allow for and assist the proper drainage of rainwater to the street. The objective is to prevent onsite ponding (standing water) or flooding. We have added drain pipes and channels in specific areas to assist with this drainage. We have attached an illustration to identify the areas where these can be found on your homesite. The pipes are 3" to 4" openings that cross under, beside, or through steps, sidewalks, footings and fence walls. Some are partially exposed and others are under the gravel. The buried openings are covered with a screening material to help prevent clogging from dirt and debris.

If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 01 Address 244 Westcourt Place NW

Printed Name Lucille Sucholl

Printed Name _____

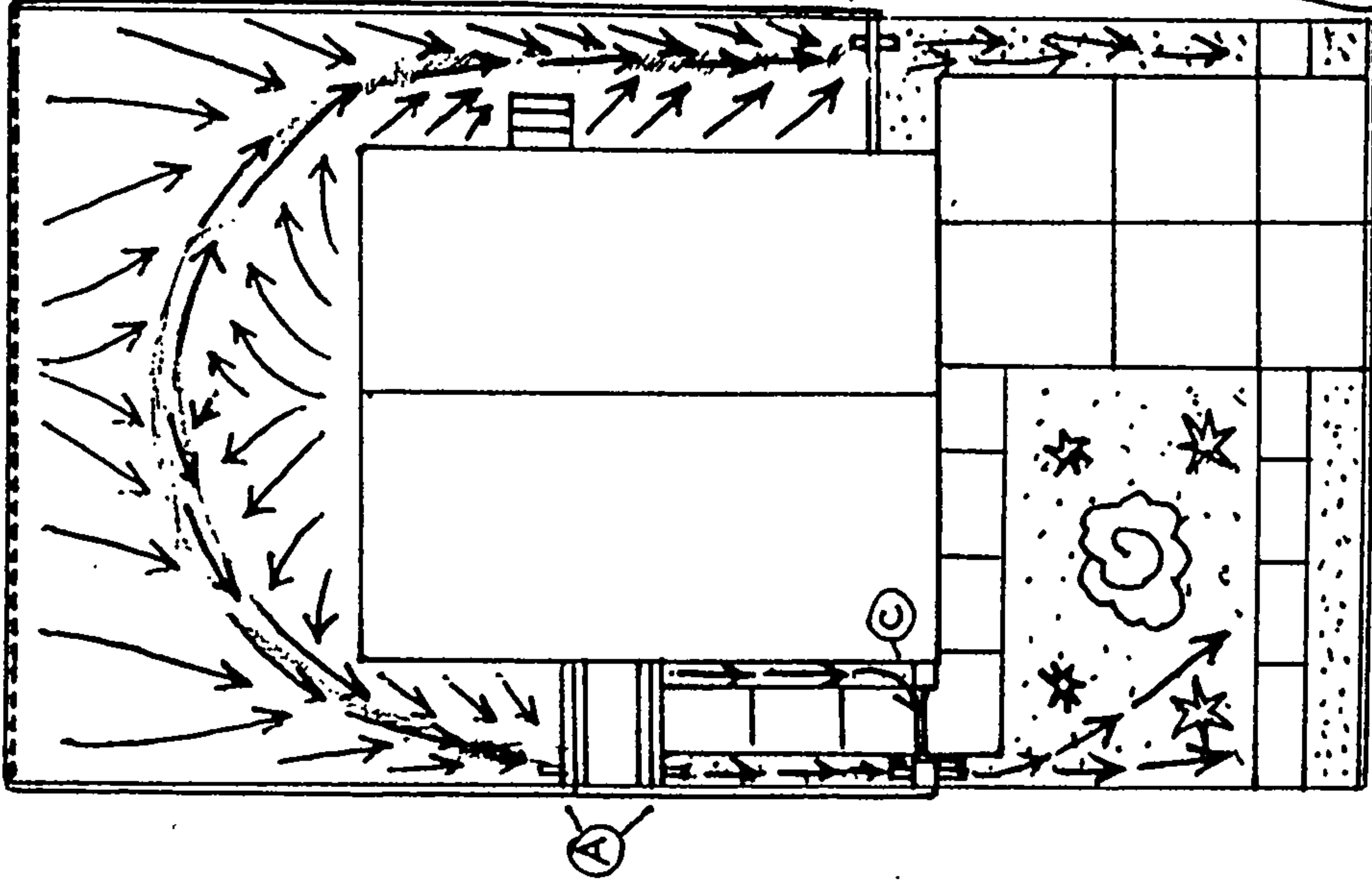
Signature Lucille Sucholl

Signature _____

Date 11-11-03

Date _____

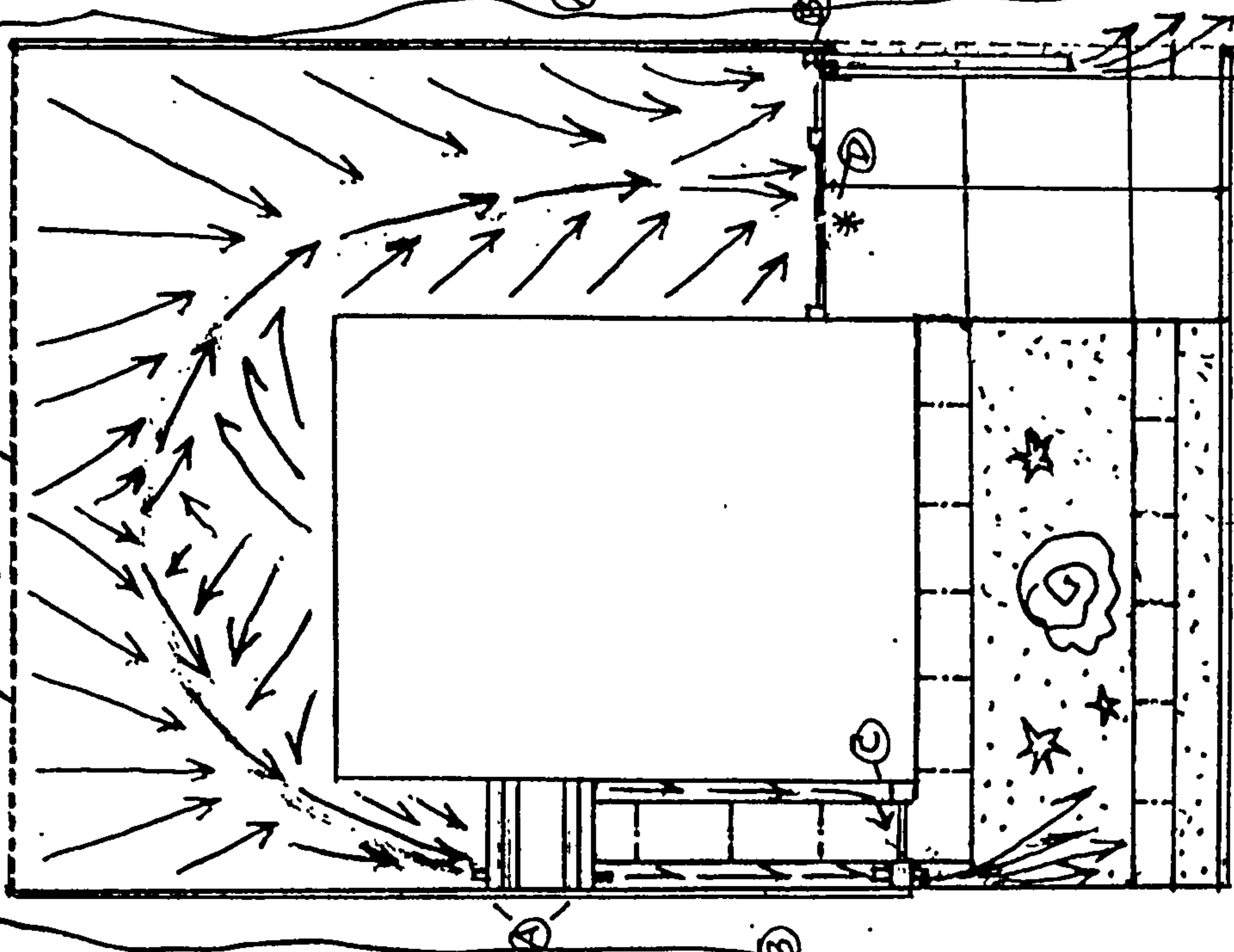
Notes ^{*} Lot 02, 240 wcp. Jaramillo Home
Drains from ~~REAR~~ to Front of Lot in Horseshoe
configuration around Lot.



37' STANDARD LOT DRAINAGE.

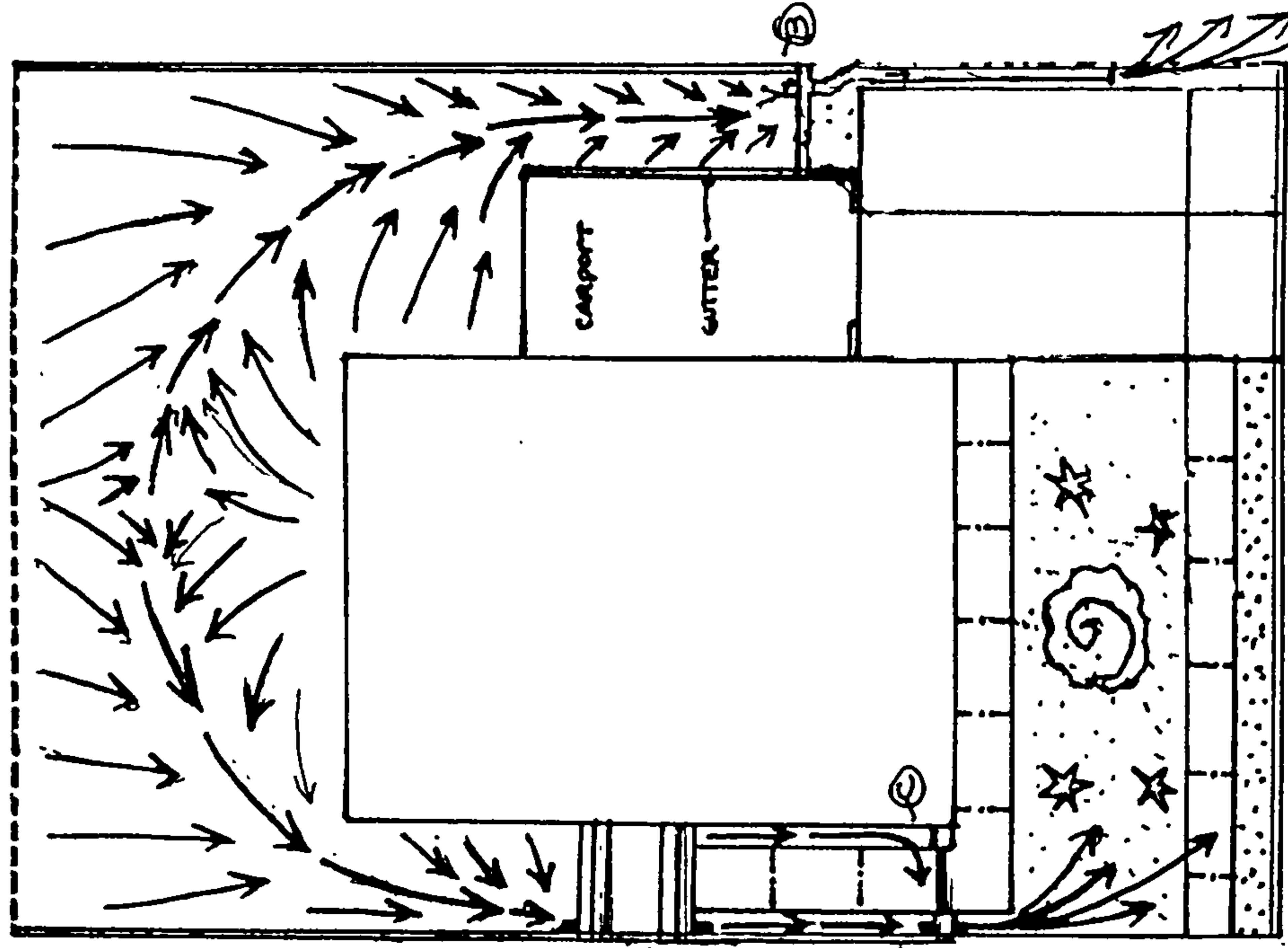
FINISH GRADE
WATER FLOW

- Ⓐ = THRU STEPS
- Ⓑ = THRU WALL/FENCE
- Ⓒ = SIDE WALK CROSSOVER DRAIN TO WALL/OUTLET DRAIN



48'-8" PREMIUM LOT DRAINAGE

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.



48'-8" PREMIUM LOT W/ CARPORT AND GUTTER/DOWNSPOUT

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 02 Address 240 Westcourt Place NW

Printed Name EVELYN VARGAS Printed Name

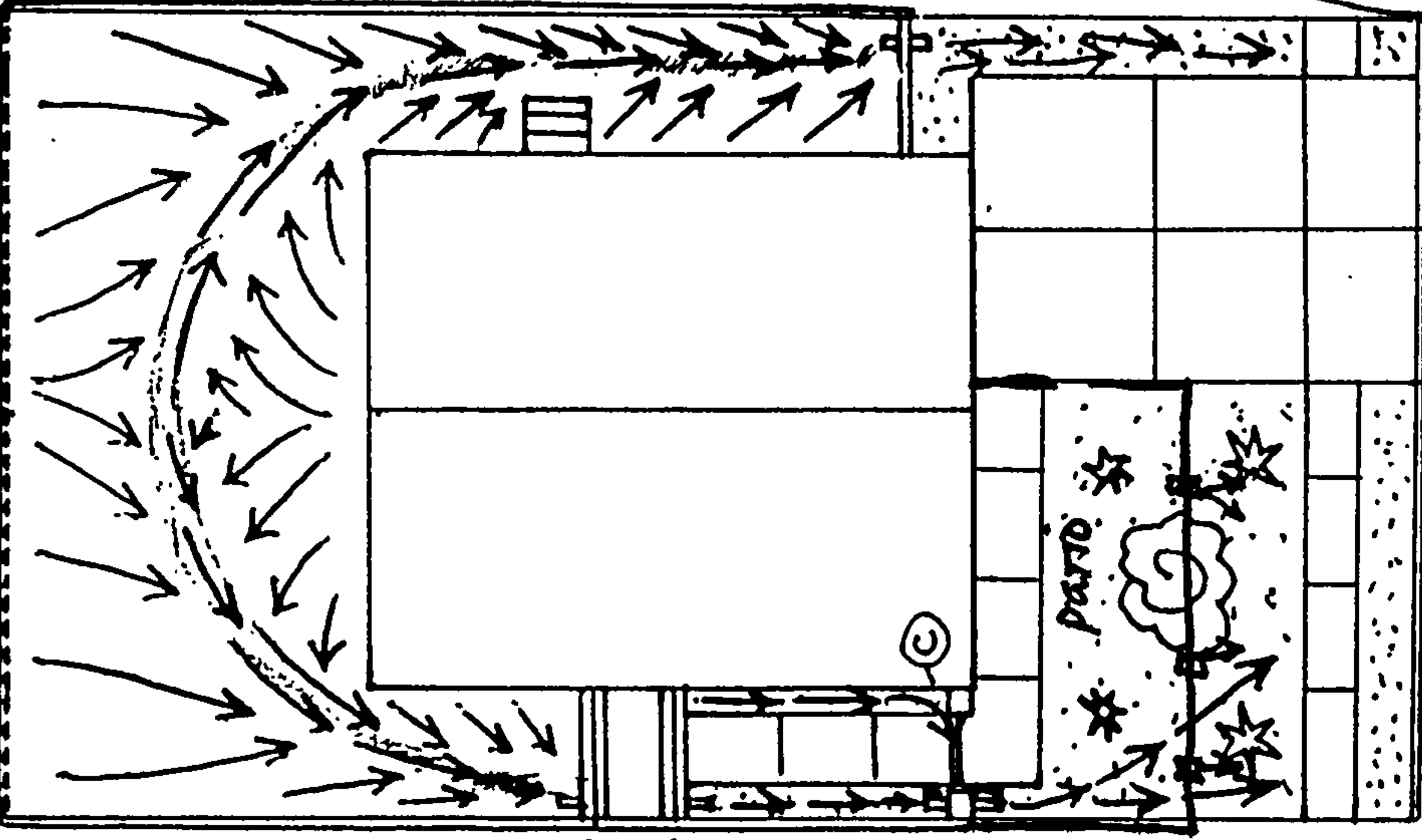
Signature Evelyn A. Vargas Signature

Date 02/07/04 Date

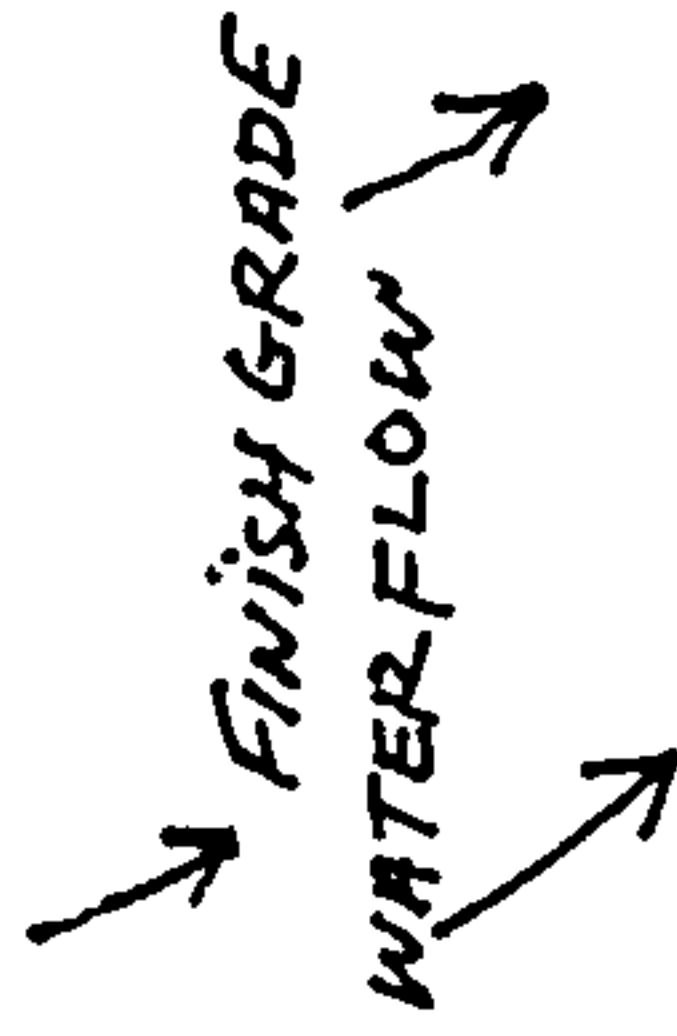
Notes Lot #03, 236 Westcott Pl., Mitchell house

Small lot. Drains from rear to front yard in
horseshoe configuration.

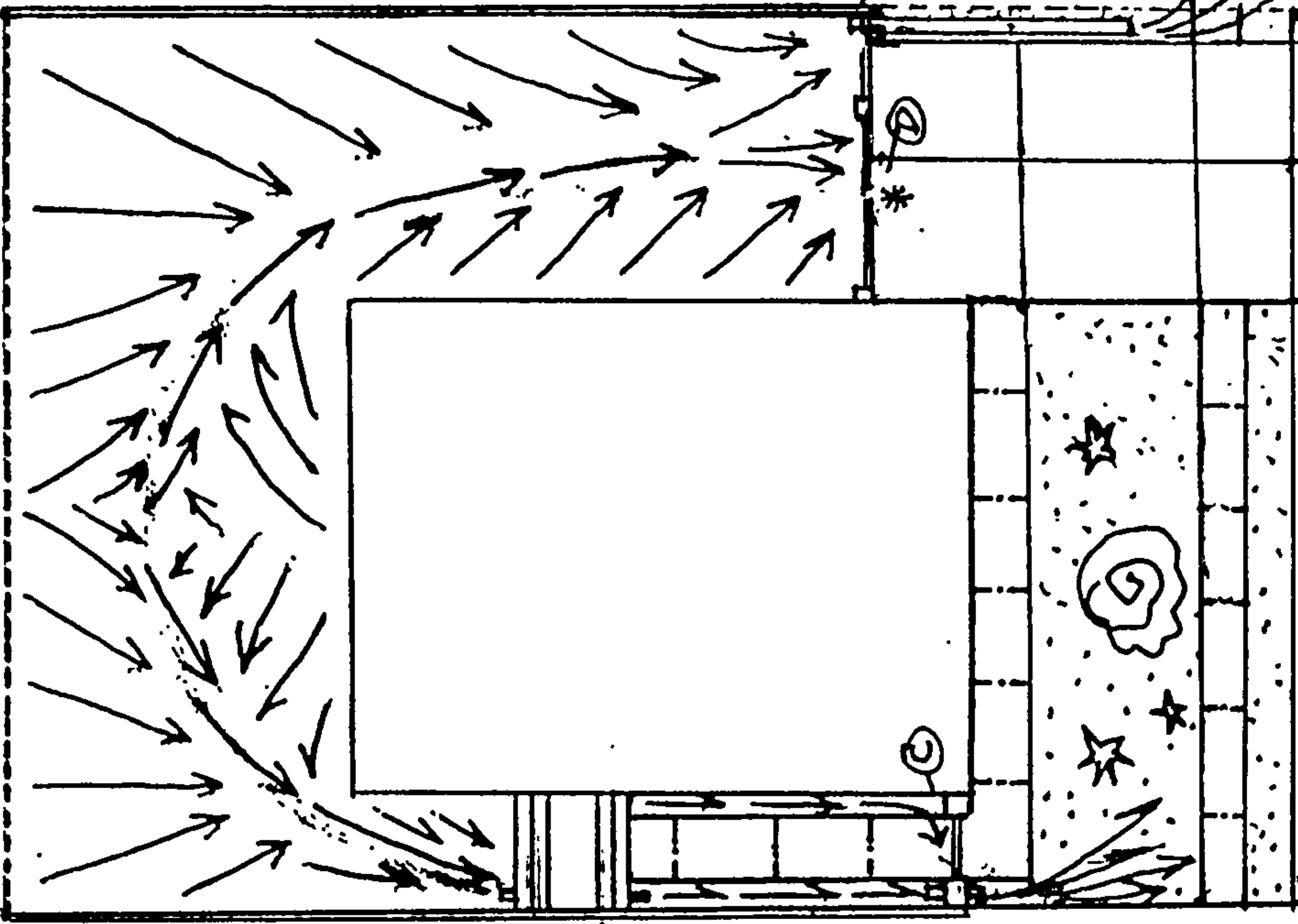
LOT 03, 236 WEP.



37' STANDARD LOT DRAINAGE.

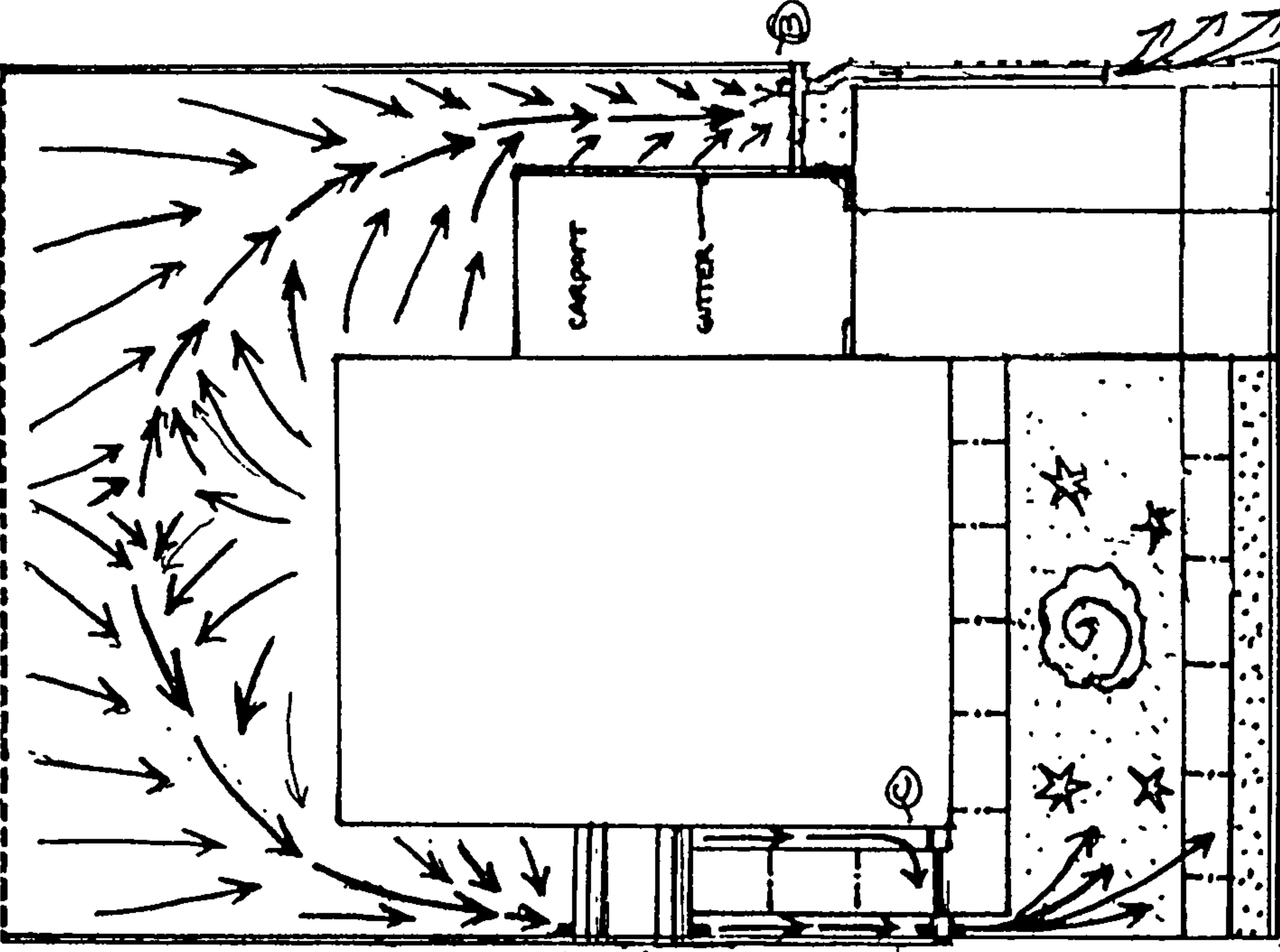


- Ⓐ = THRU STEPS
- Ⓑ = THRU WALL/FENCE
- Ⓒ = SIDE WALK CROSSOVER DRAIN TO WALL/OUTLET DRAIN



48'-8" PREMIUM LOT DRAINAGE

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.



48'-8" PREMIUM LOT W/ CARPORT AND GUTTER/DOWNPOUL

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

**Lot/Homesite Drainage Requirements
Notice and Agreement**

Each home has been constructed to provide drainage of rain water away from all home sites to comply with approved engineering. The drainage engineering is designed to flow rain water away from the houses and to the street. Under normal circumstances, rain water is absorbed into the landscaping and surrounding soil. During extreme rains, the ground soil can become saturated, and excess water then flows to the street and to the storm drains. The home sites in St. Joseph's Place subdivision have been graded and finished to allow for and assist the proper drainage of rainwater to the street. The objective is to prevent onsite ponding (standing water) or flooding. We have added drain pipes and channels in specific areas to assist with this drainage. We have attached an illustration to identify the areas where these can be found on your homesite. The pipes are 3" to 4" openings that cross under, beside, or through steps, sidewalks, footings and fence walls. Some are partially exposed and others are under the gravel. The buried openings are covered with a screening material to help prevent clogging from dirt and debris.

If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 03 Address 236 Westcourt Place NW

Printed Name JAMES MITCHELL

Printed Name _____

Signature James R. Mitchell

Signature _____

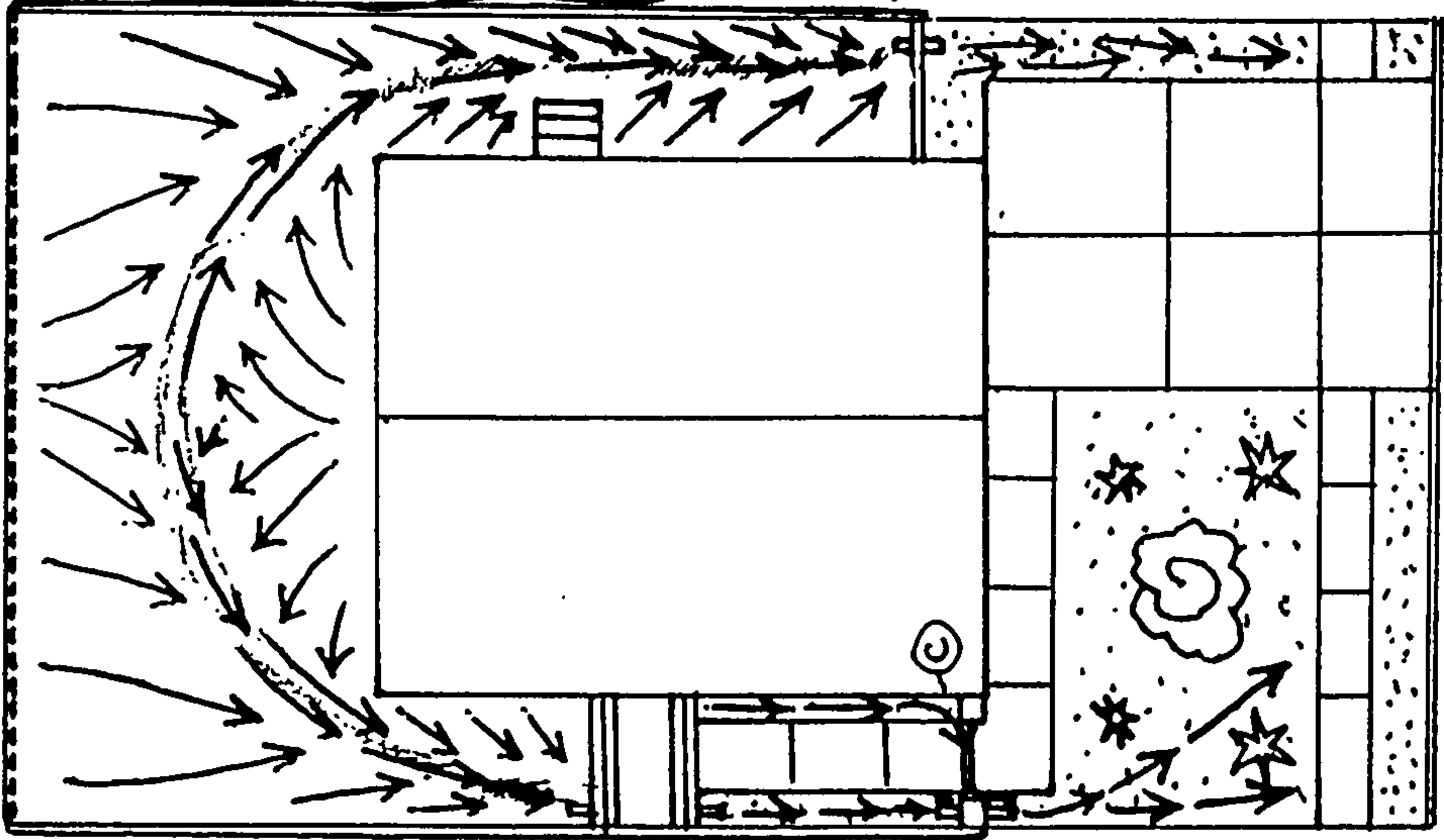
Date 3-15-04

Date _____

Notes Lot 04, 232 WLP., Estrada House.

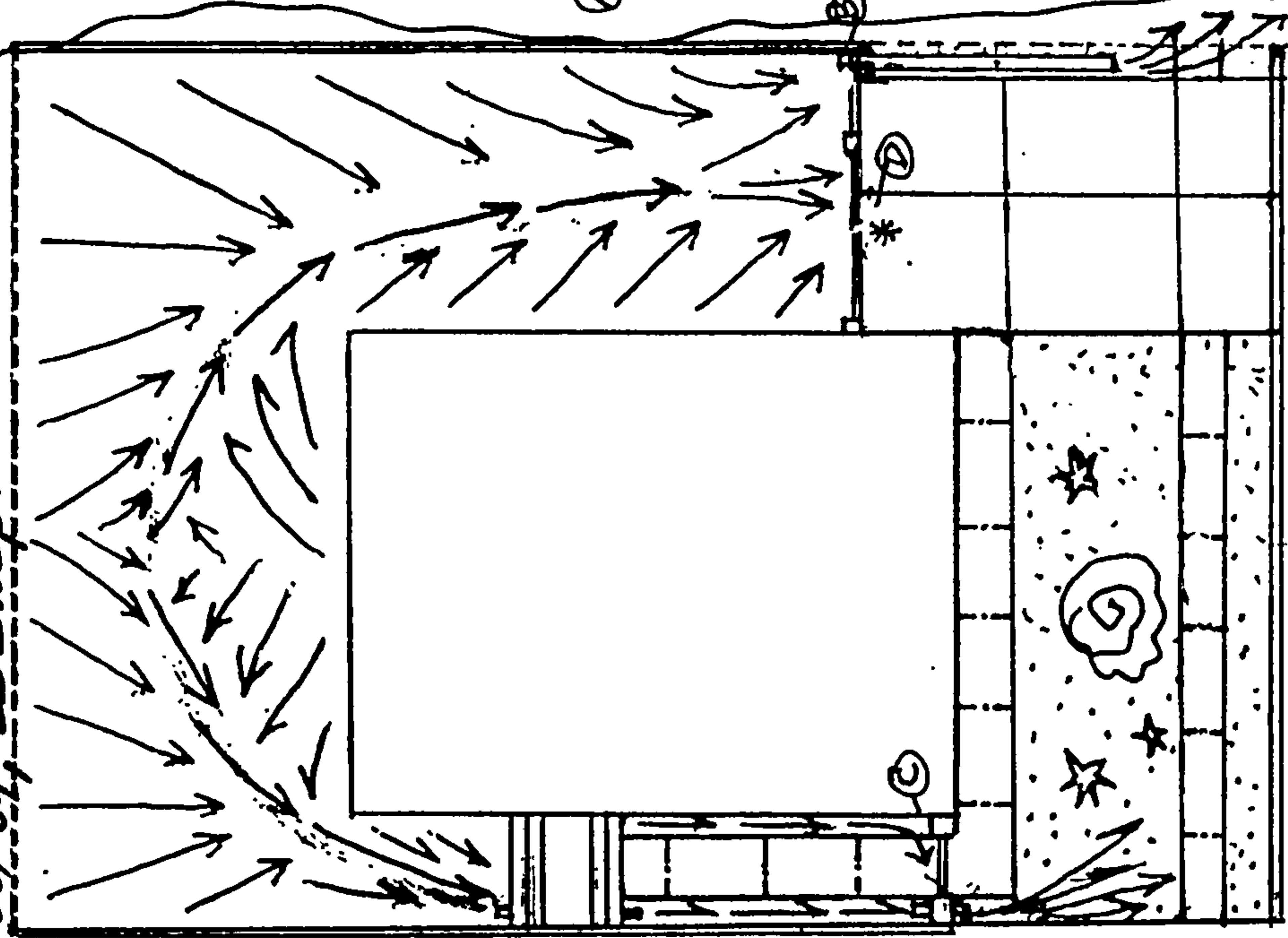
Large lot, no carport. Drains in horseshoe config. from
Rear to front yard. Part of Drainage under double gates
on S. side.

LOT 232 W.P.



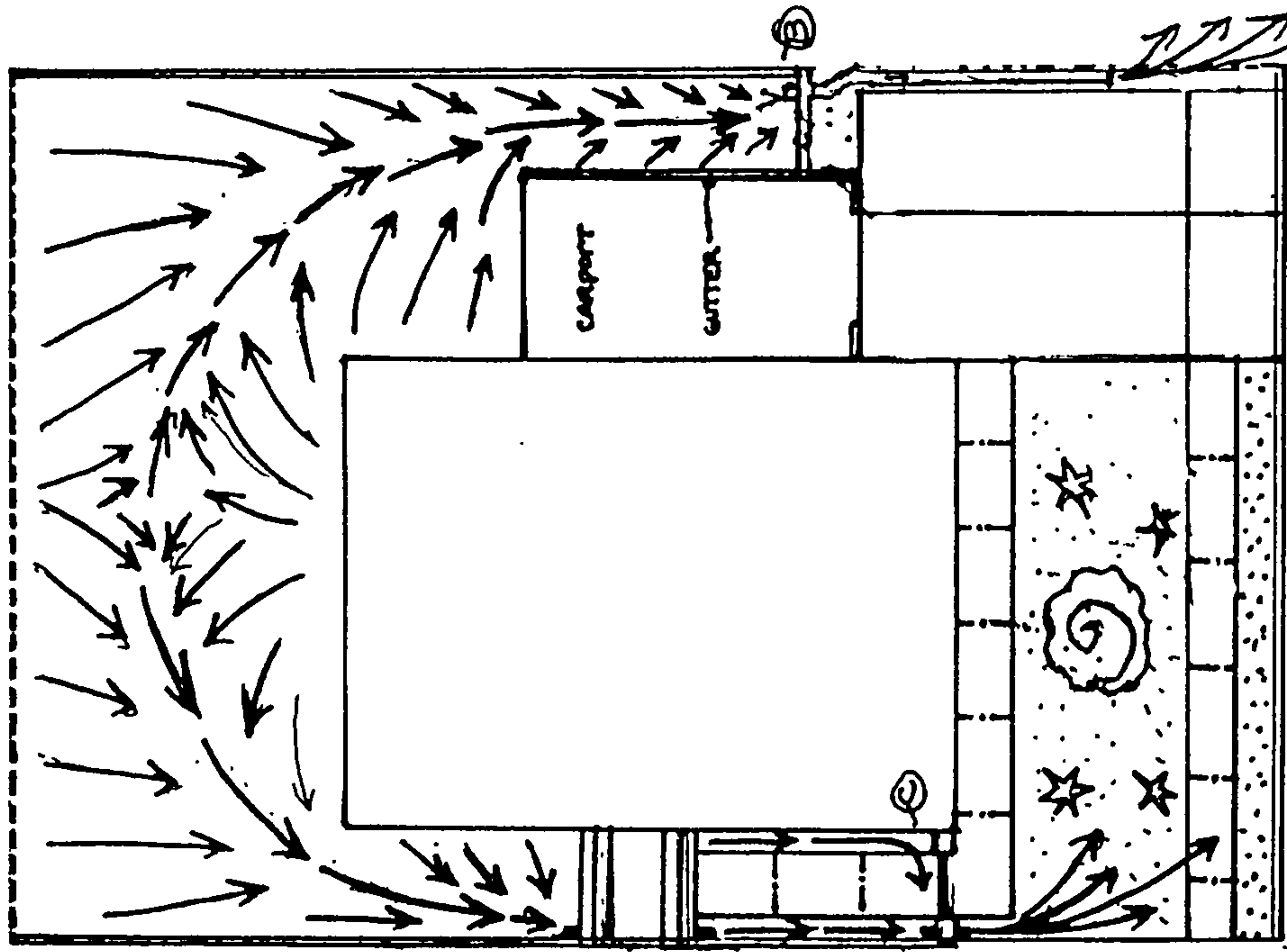
37' STANDARD LOT DRAINAGE.

FINISH GRADE
WATER FLOW



48'-8" PREMIUM LOT DRAINAGE

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MINIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.



48'-8" PREMIUM LOT W/ CARPORT AND GUTTER / DOWNSEAL.

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

(A) = THRU STEPS

(B) = THRU WALL / FENCE

(C) = SIDE WALK CROSSEVER DRAIN TO WALL / OUTLET DRAIN (D) = GRAVITY FLOW UNDER GATES / OVER DRIVE / TO STREET

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 04 Address 232 Westcourt Place NW

Printed Name GABRIEL Estrada

Printed Name _____

Signature Gabriel Estrada

Signature _____

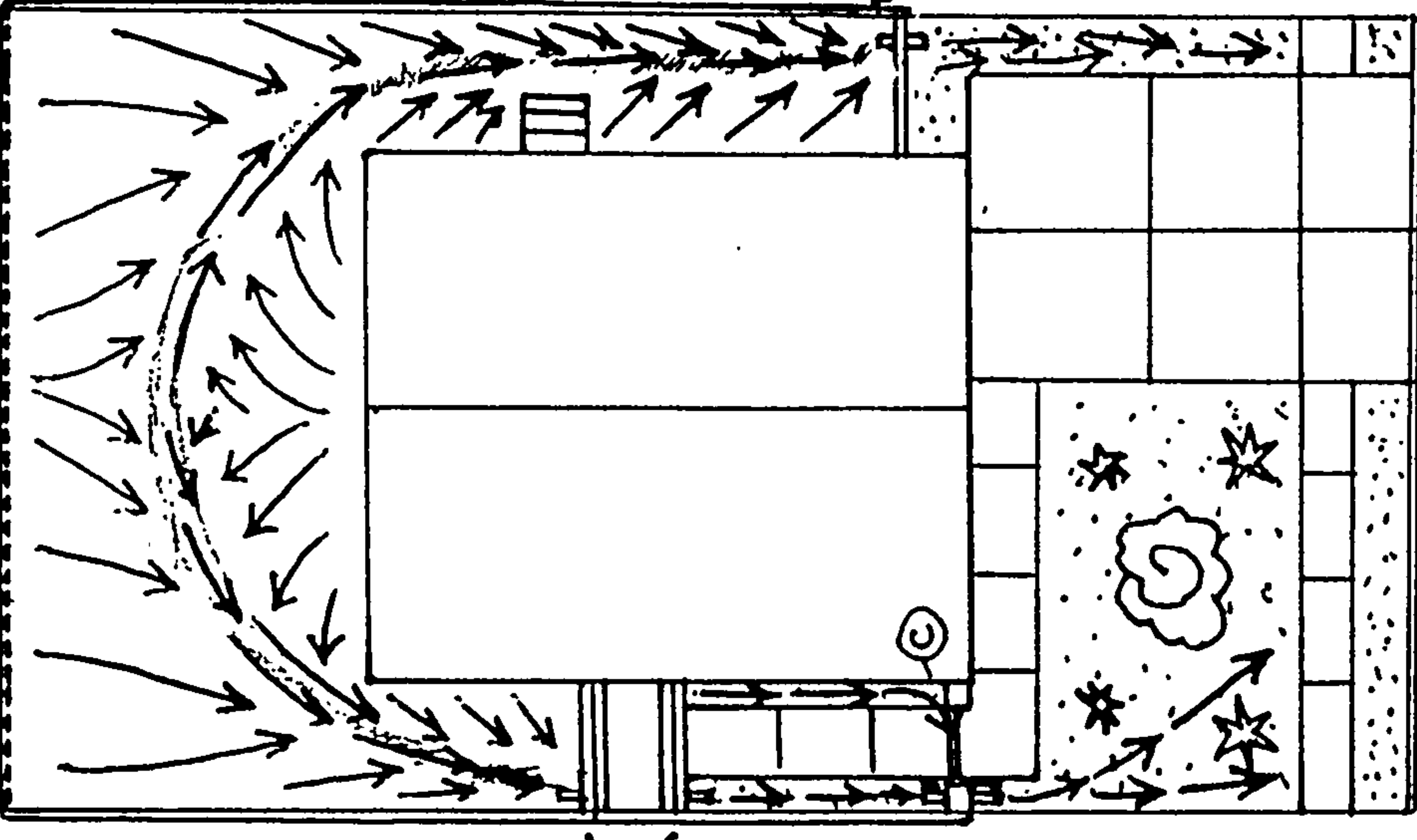
Date 09-11-03

Date _____

Notes Lot ⁰⁵, 228, WCP. Lieby house,

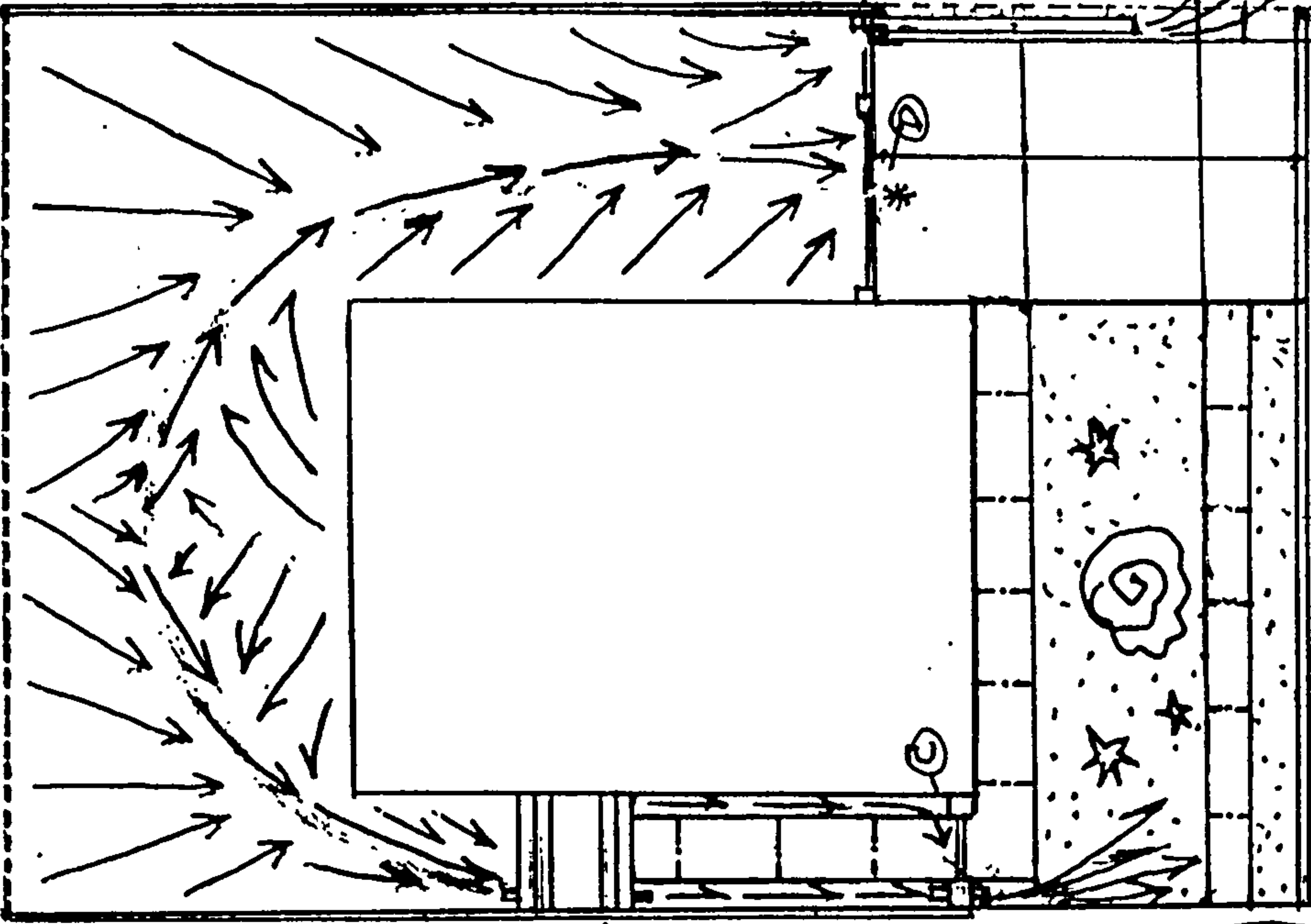
Small lot, Drains from rear to front yard in three-hoe-configuration.

LOT #05, 228 WCP.



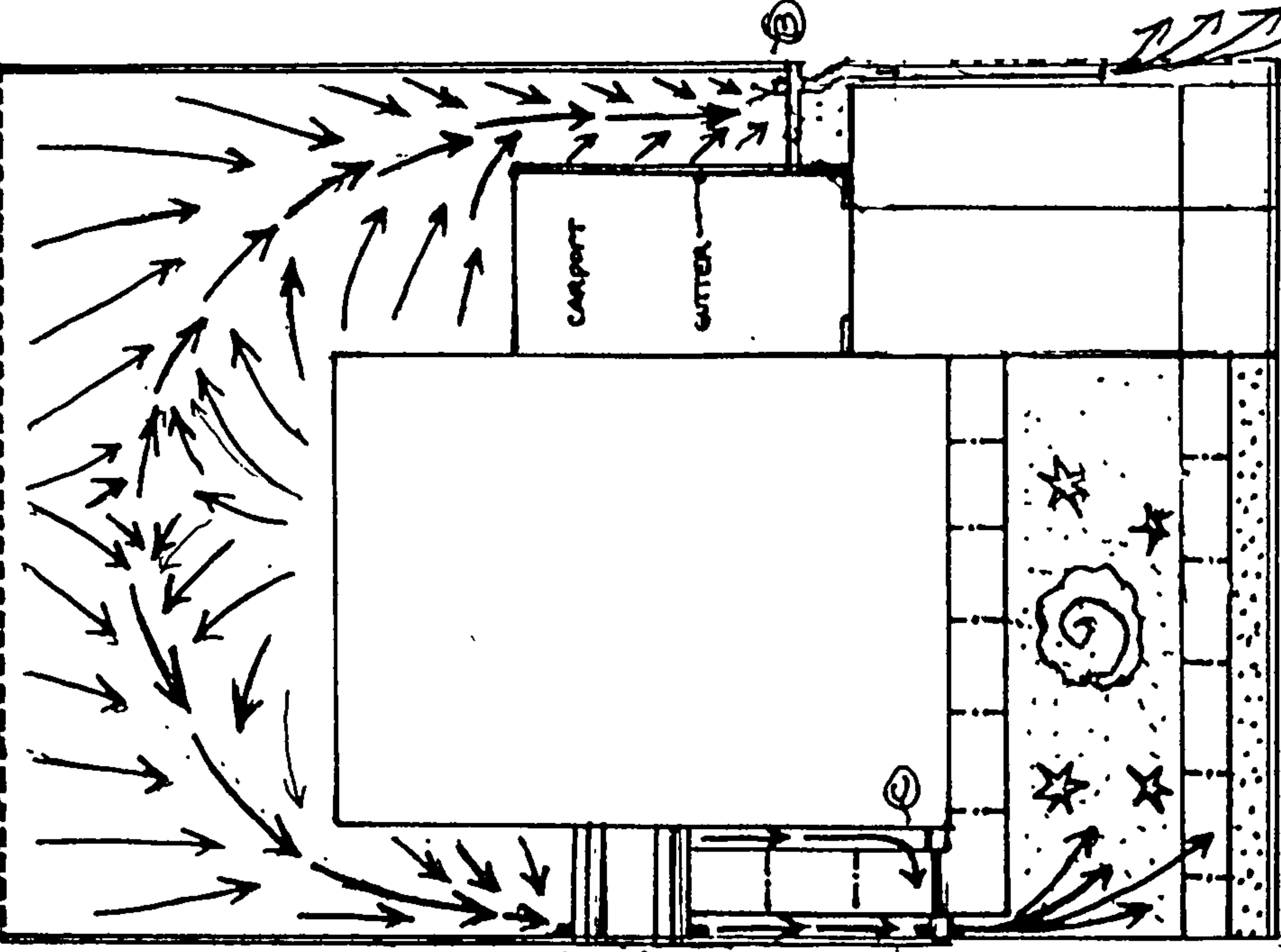
34' STANDARD LOT DRAINAGE.

FINISH GRADE
WATER FLOW



48'-8" PREMIUM LOT DRAINAGE

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.



48'-8" PREMIUM LOT W/ CARPORT AND GUTTER / POUNDSPILL.

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

(A) = THRU STEPS

(B) = THRU WALL / FENCE

(C) = SIDE WALK CROSSOVER DRAIN TO WALL / OUTLET DRAIN

(D) = GRAVITY FLOW UNDER GATES / OVER DRIVE / TO STREET

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 05 Address 228 Westcourt Place NW

Printed Name Joyce Leiby

Printed Name X

Signature Joyce A Leiby

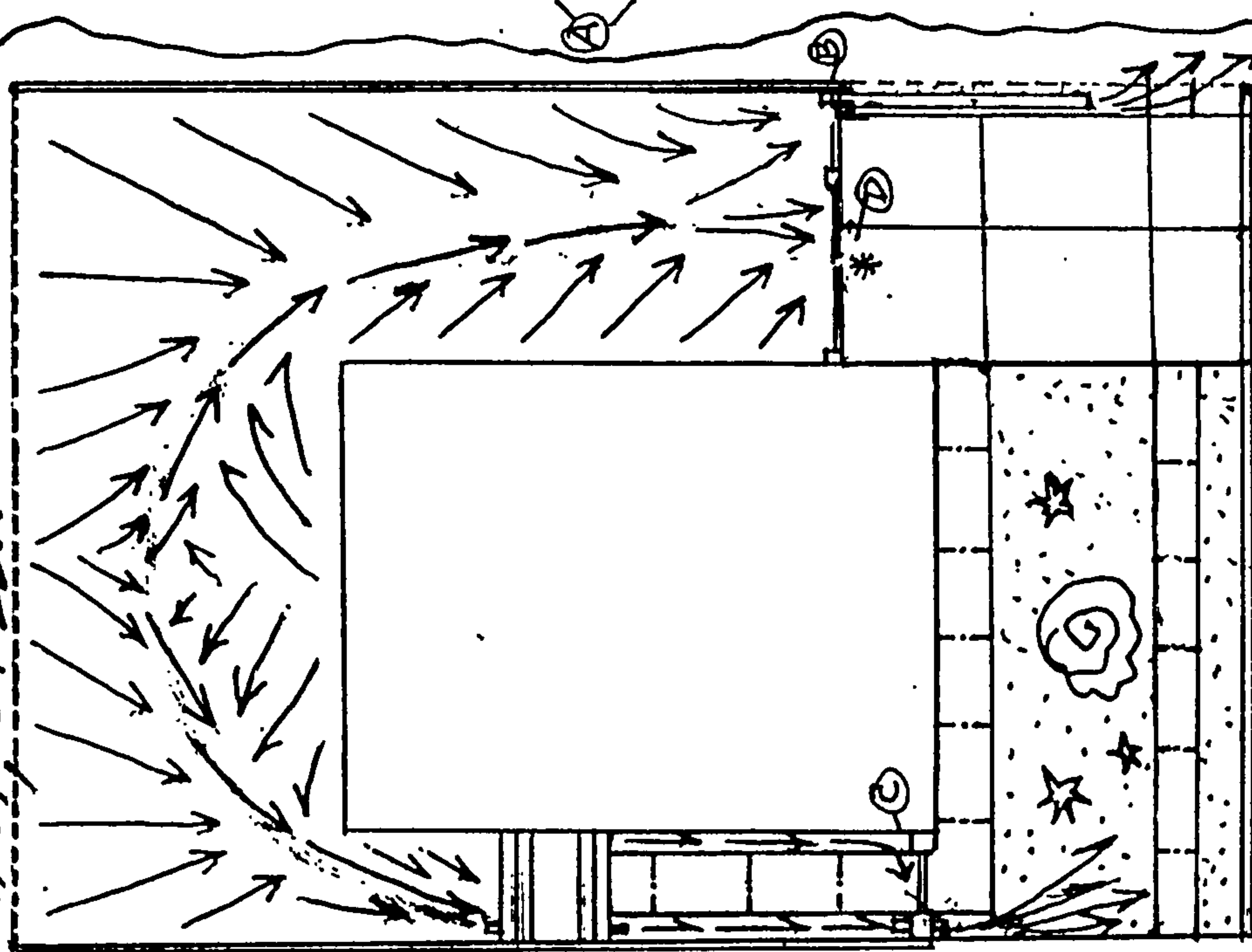
Signature X

Date 12/5/02

Date X

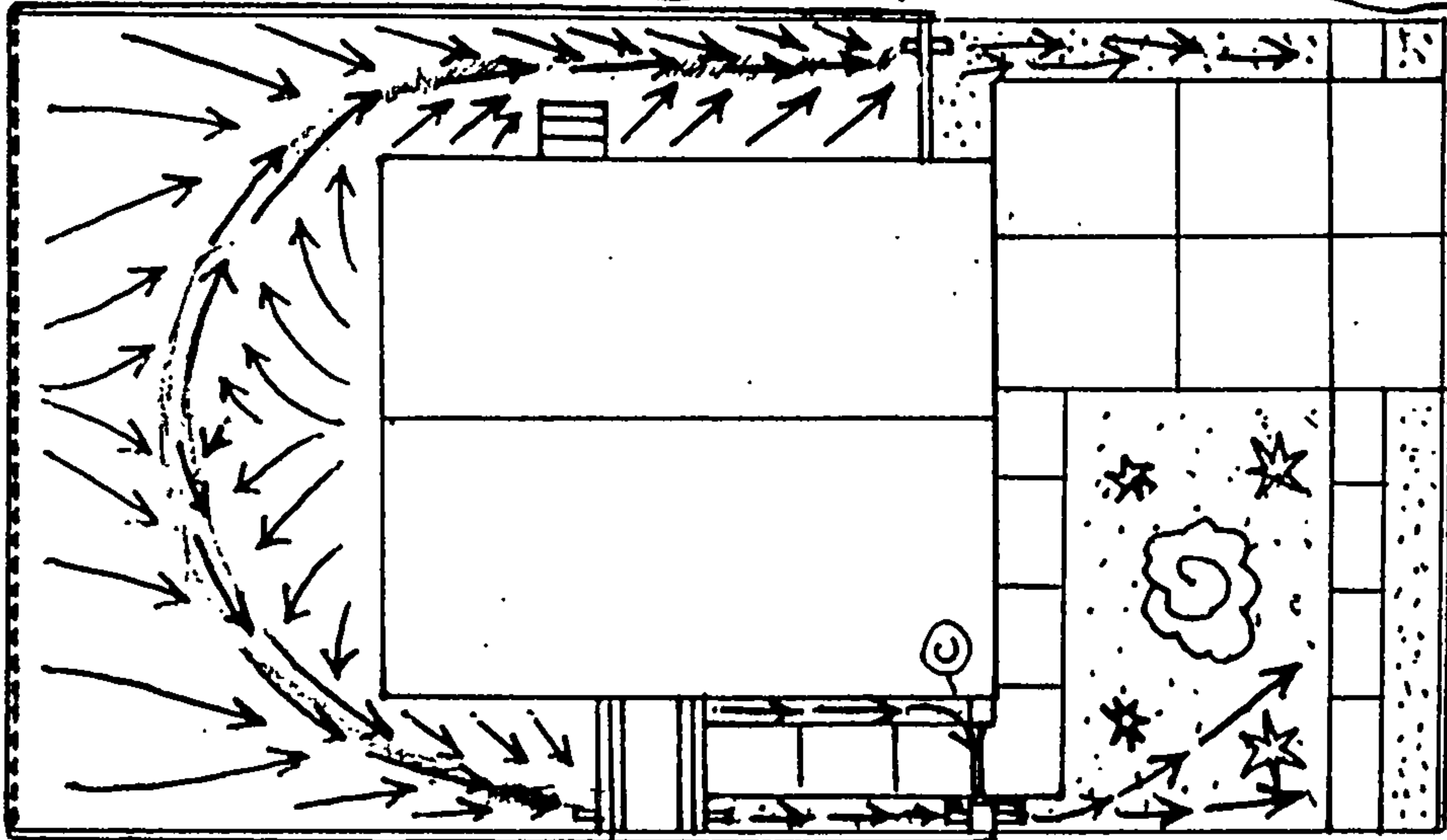
Notes Lot #7, 222 wcp. —————, Leuvano house
Large lot, , drains in horseshoe configuration from
rear to front yard. Note: Consumer has added concrete
and carport to S. side since our finished construction.

LOT 07, LOT 220.



48'-8" PREMIUM LOT DRAINAGE

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.



37' STANDARD LOT DRAINAGE.

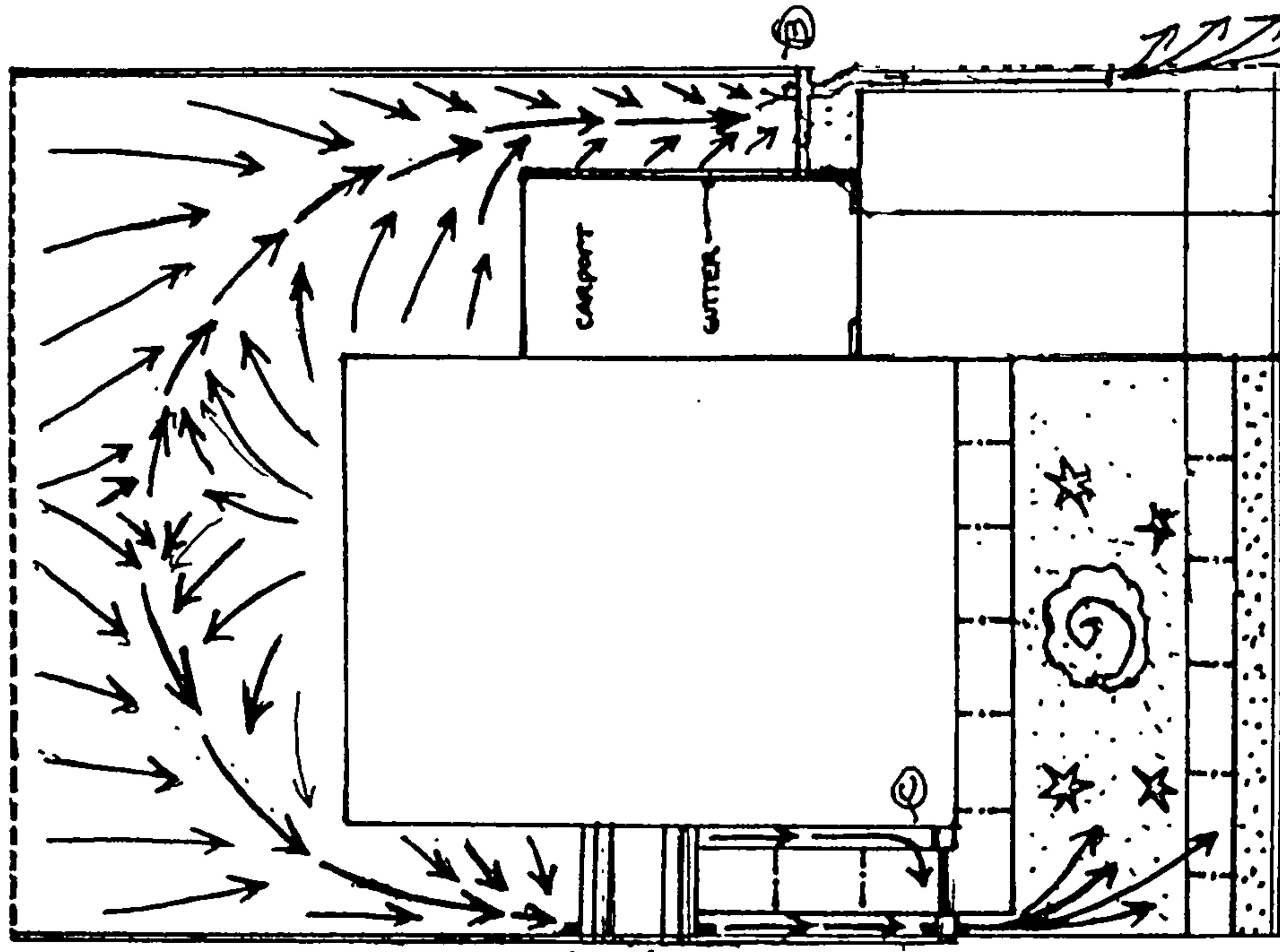
FINISH GRADE
WATER FLOW

A = THRU STEPS

B = THRU WALL/FENCE

C = SIDE WALK CROSSOVER DRAIN TO WALL/OUTLET DRAIN

D = GRAVITY FLOW UNDER GATES/OVER DRIVE/TO STREET



48'-8" PREMIUM LOT W/ CARPORT AND GUTTER/DOWNSPOUT

ALL LOTS WERE FINISH GRADED TO DISPERSE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

**Lot/Homesite Drainage Requirements
Notice and Agreement**

Each home has been constructed to provide drainage of rain water away from all home sites to comply with approved engineering. The drainage engineering is designed to flow rain water away from the houses and to the street. Under normal circumstances, rain water is absorbed into the landscaping and surrounding soil. During extreme rains, the ground soil can become saturated, and excess water then flows to the street and to the storm drains. The home sites in St. Joseph's Place subdivision have been graded and finished to allow for and assist the proper drainage of rainwater to the street. The objective is to prevent onsite ponding (standing water) or flooding. We have added drain pipes and channels in specific areas to assist with this drainage. We have attached an illustration to identify the areas where these can be found on your homesite. The pipes are 3" to 4" openings that cross under, beside, or through steps, sidewalks, footings and fence walls. Some are partially exposed and others are under the gravel. The buried openings are covered with a screening material to help prevent clogging from dirt and debris.

If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 07 Address 220 _____ Westcourt Place NW

Printed Name Arcadio Luevano Printed Name Alma Garcia

Signature Arcadio Luevano Signature Alma R. Garcia

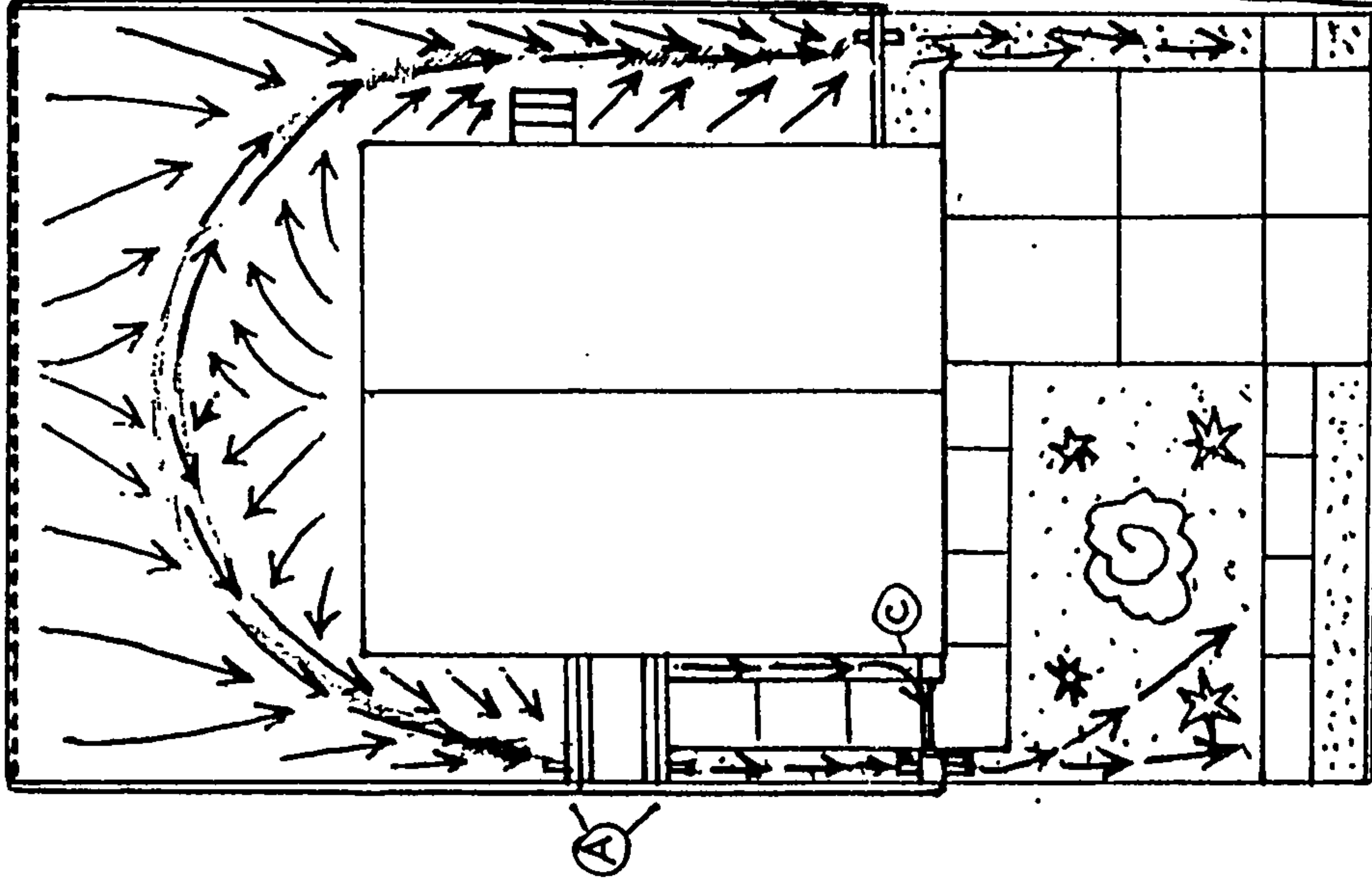
Date 03/12/03

Date 03-12-03

Notes Lot #08, 216 WCP. ————— Ramours House

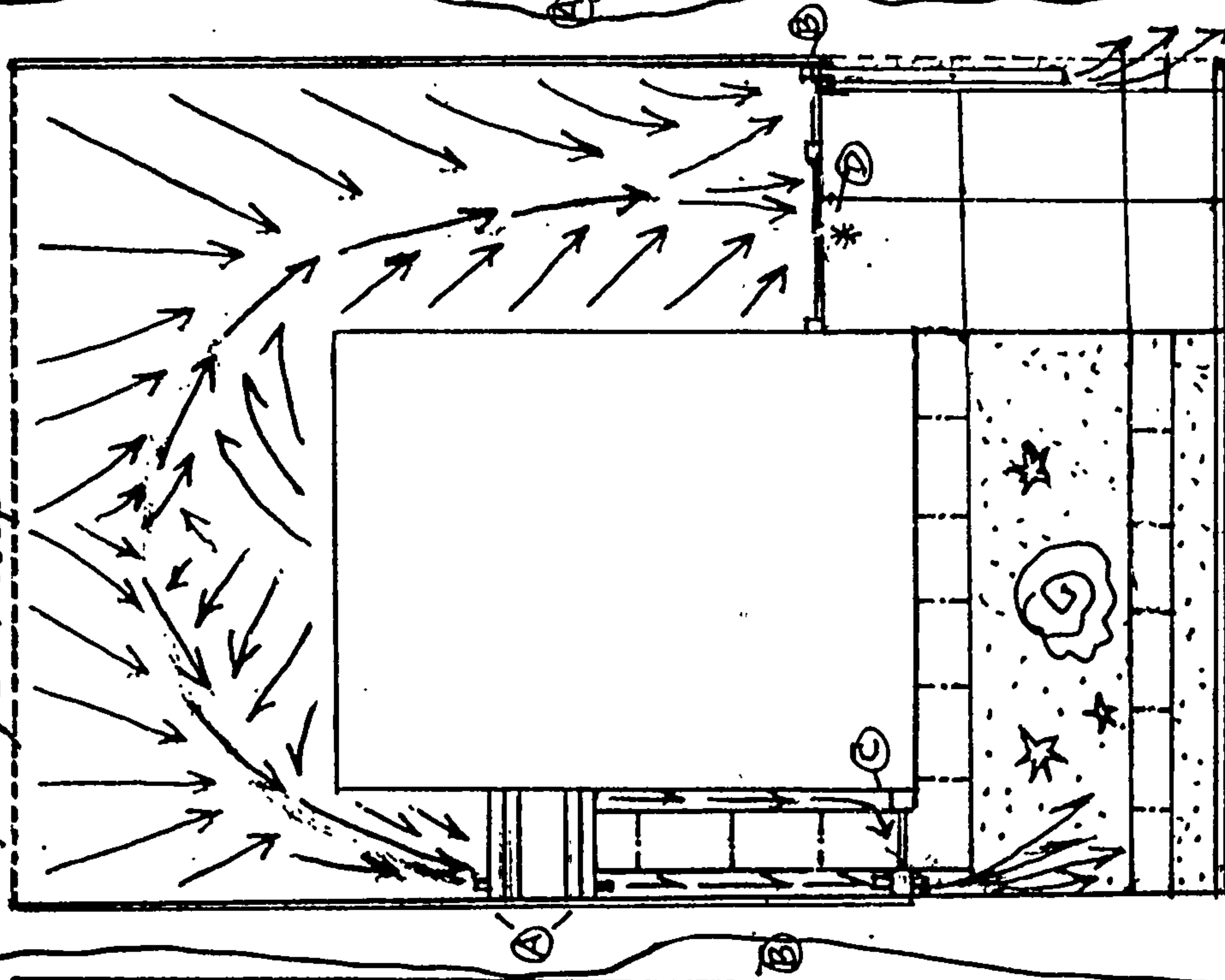
Large lot, Drains from rear to front in Horseshoe configuration. Consumer added concrete & carpet since our construction was finished.

LOT 08, 2/16 WCP



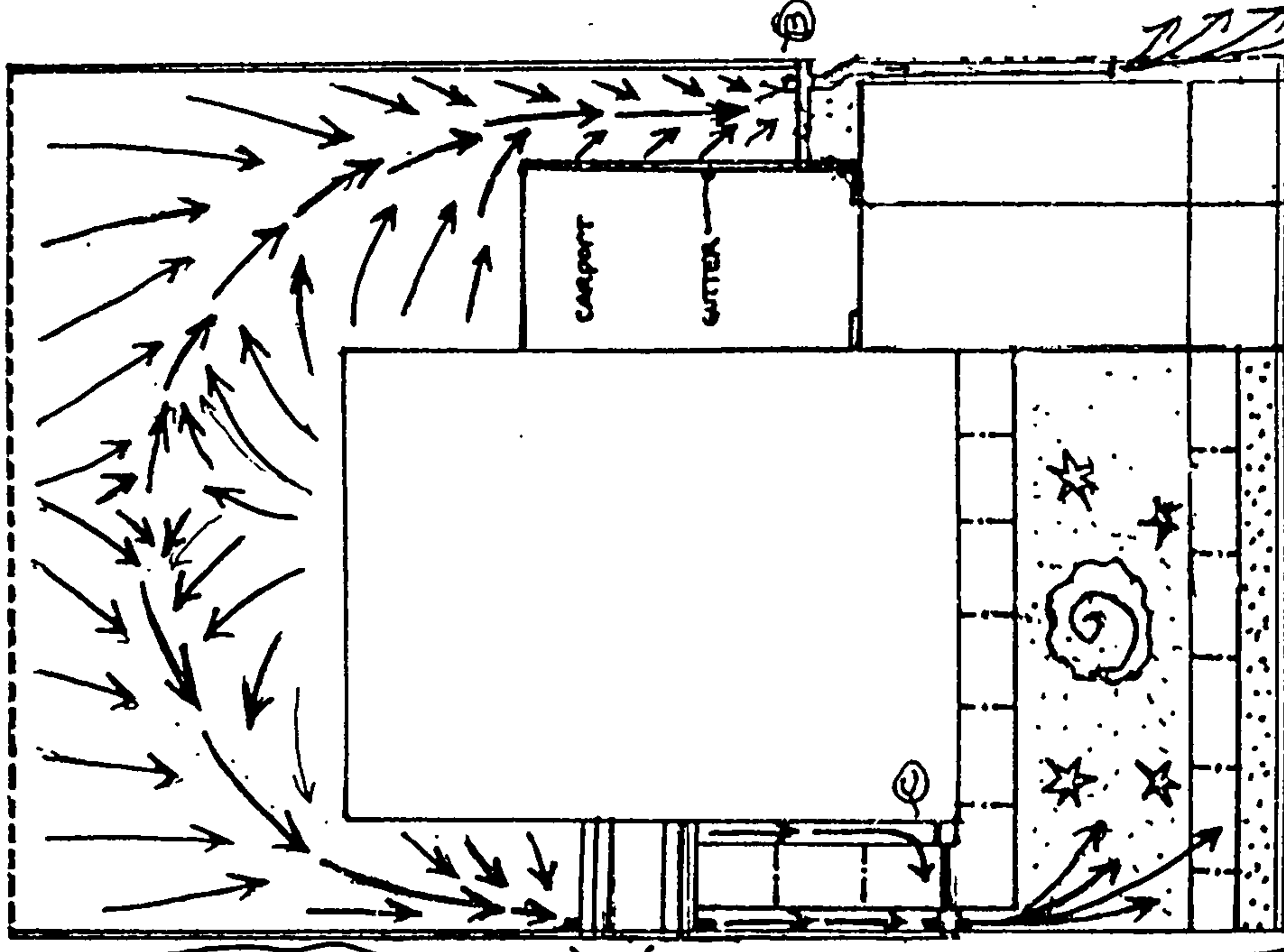
37' STANDARD LOT DRAINAGE.

FINISH GRADE
WATER FLOW



48'-8" PREMIUM LOT DRAINAGE

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.



48'-8" PREMIUM LOT W/ CARPORT AND GUTTER/ DOWNSPOUT.

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

A = THREE STEPS

B = THRU WALL / FENCE

C = SIDE WALK CROSSOVER DRAIN TO WALL OUTLET DRAIN D = GRAVITY FLOW UNDER GATES / OVER DRIVE / TO STREET

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 08 Address 216 Westcourt Place NW

Printed Name Ramon Mousset Ramos Printed Name Hortencia Rodriguez-machin

Signature  Signature 

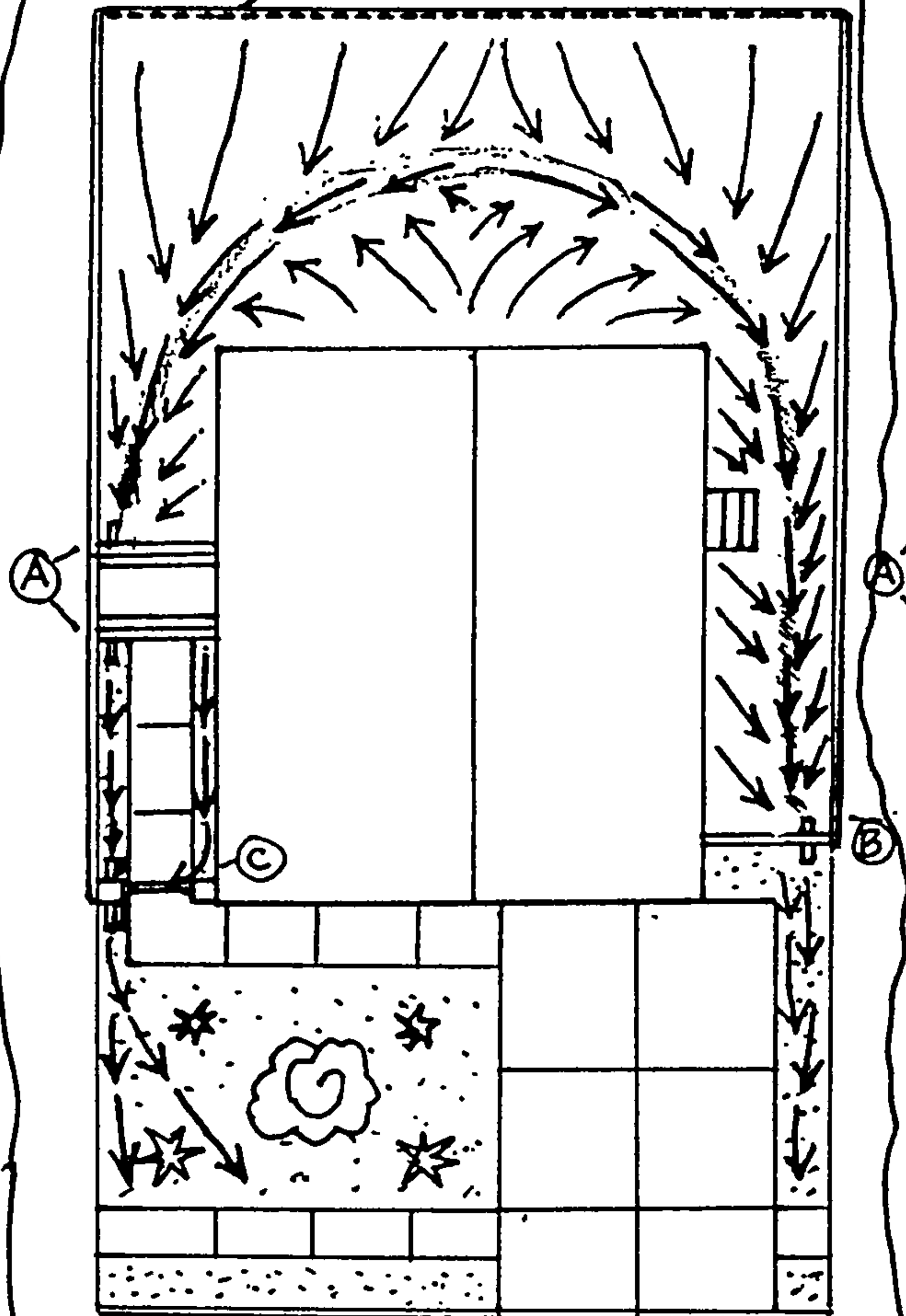
Date 3/4/04

Date 3/4/04

Notes Lot #09, 208 wcp.

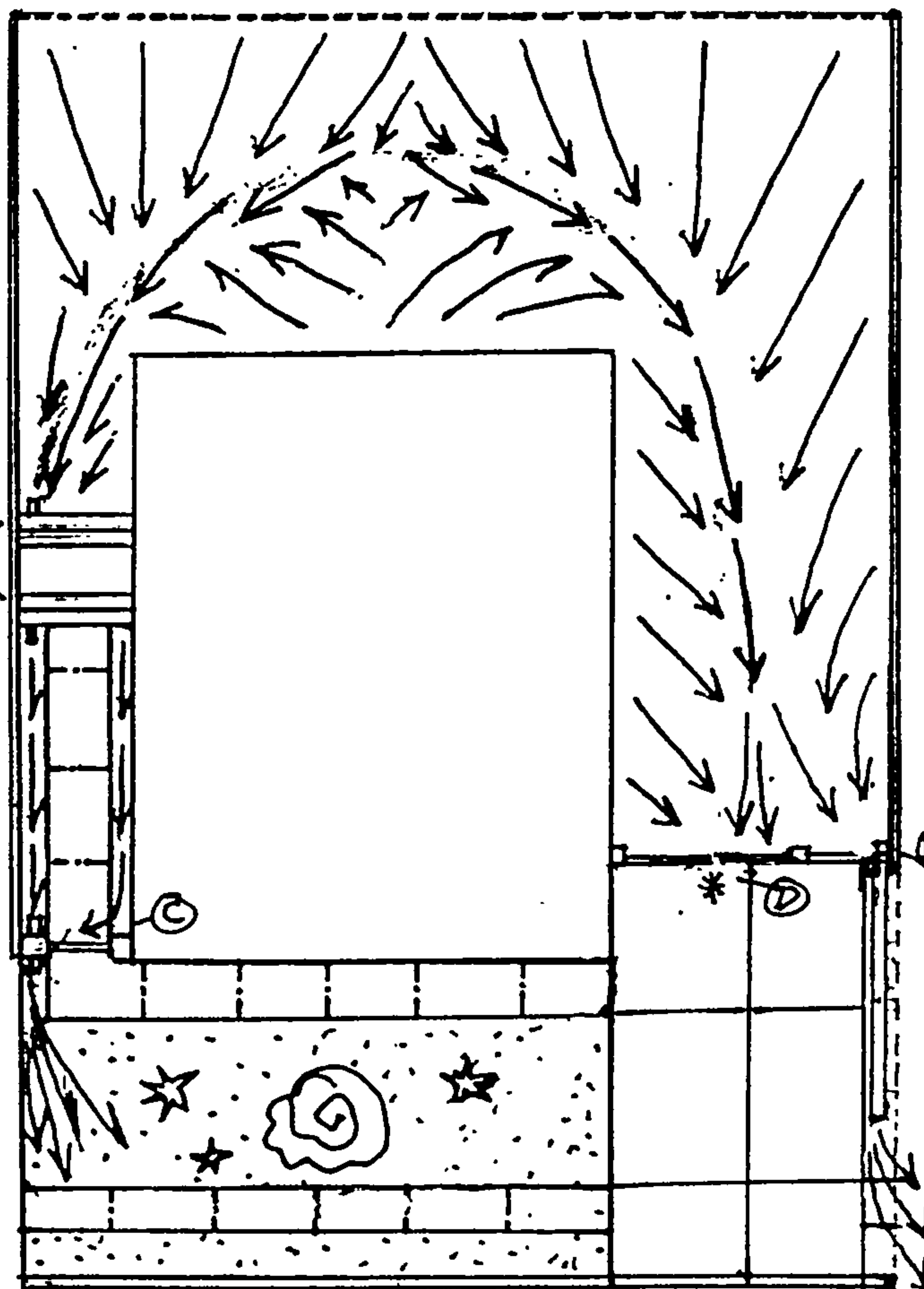
Small lot. Drains from Rear to front yard in
horseshoe configuration.

LOT 9, 208 WCP



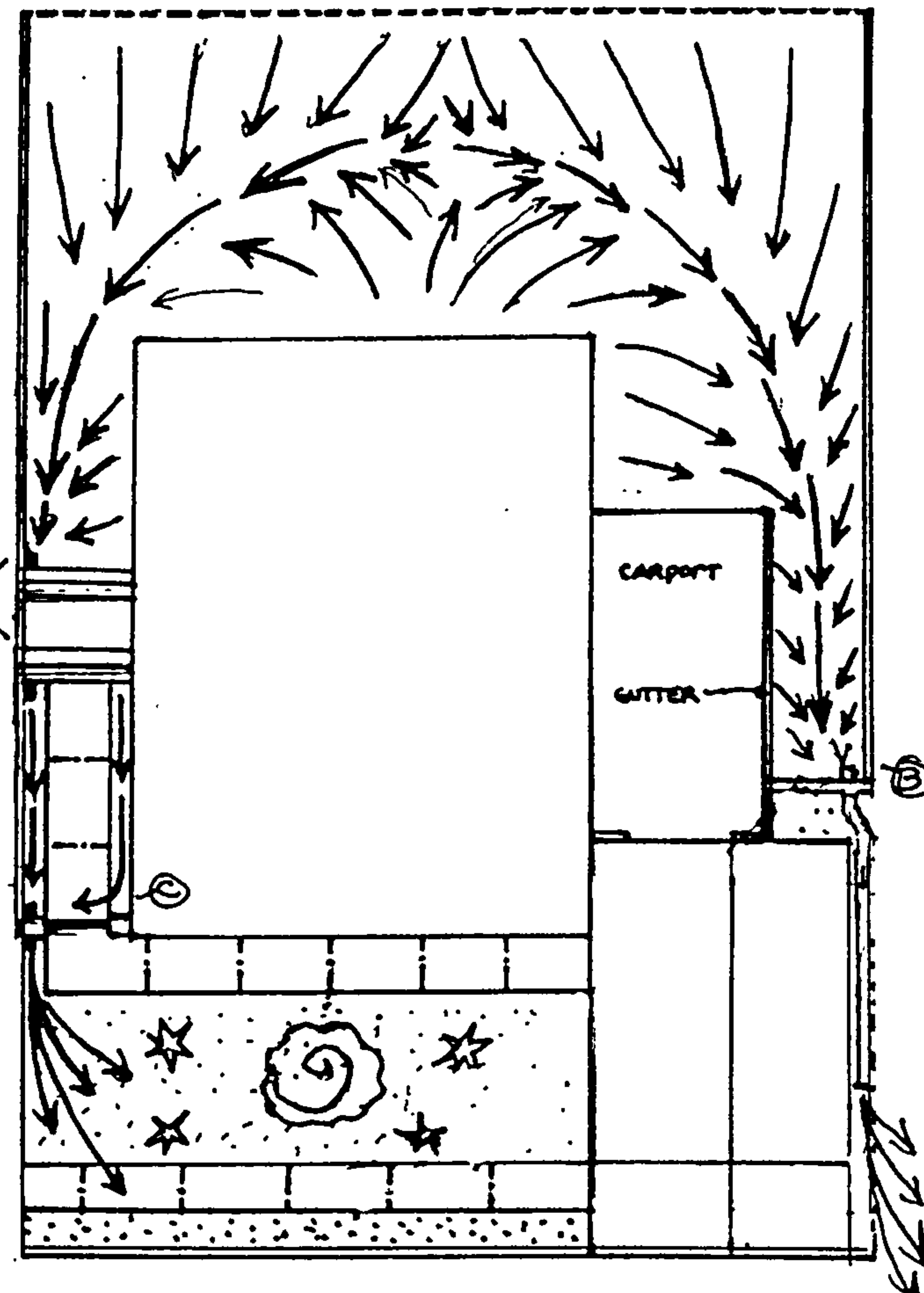
37' STANDARD LOT DRAINAGE.

FINISH GRADE
WATERFLOW



48'-8" PREMIUM LOT DRAINAGE

* LOTS WITH DOUBLE GATES ON PARKING SIDE,
PART OF DRAINAGE IS ALLOWED TO FLOW
UNDER GATES, OVER DRIVE TO STREET.
ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN
MAXIMUM FLOW OPPORTUNITY TO ELIMINATE
ANY PONDING.



48'-8" PREMIUM LOT W/CARPORT AND GUTTER/DOWNSPOUT

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE
RAIN WATER AWAY FROM THE HOUSE INTO
A HORSESHOE SHAPED FLOW AROUND
THE HOUSE TO OUTLETS THAT ALLOW FLOW
TO THE FRONT YARDS AND STREET.

Ⓐ = THRU STEPS

Ⓑ = THRU WALL/FENCE

Ⓒ = SIDE WALK CROSSOVER DRAIN TO WALL OUTLET DRAIN

Ⓓ = GRAVITY FLOW UNDER GATES/OVER DRIVE/TO STREET

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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Lot # 09 Address 208 Westcourt Place NW

Printed Name Erinda Sedillo

Printed Name

Signature Erinda Sedillo

Signature

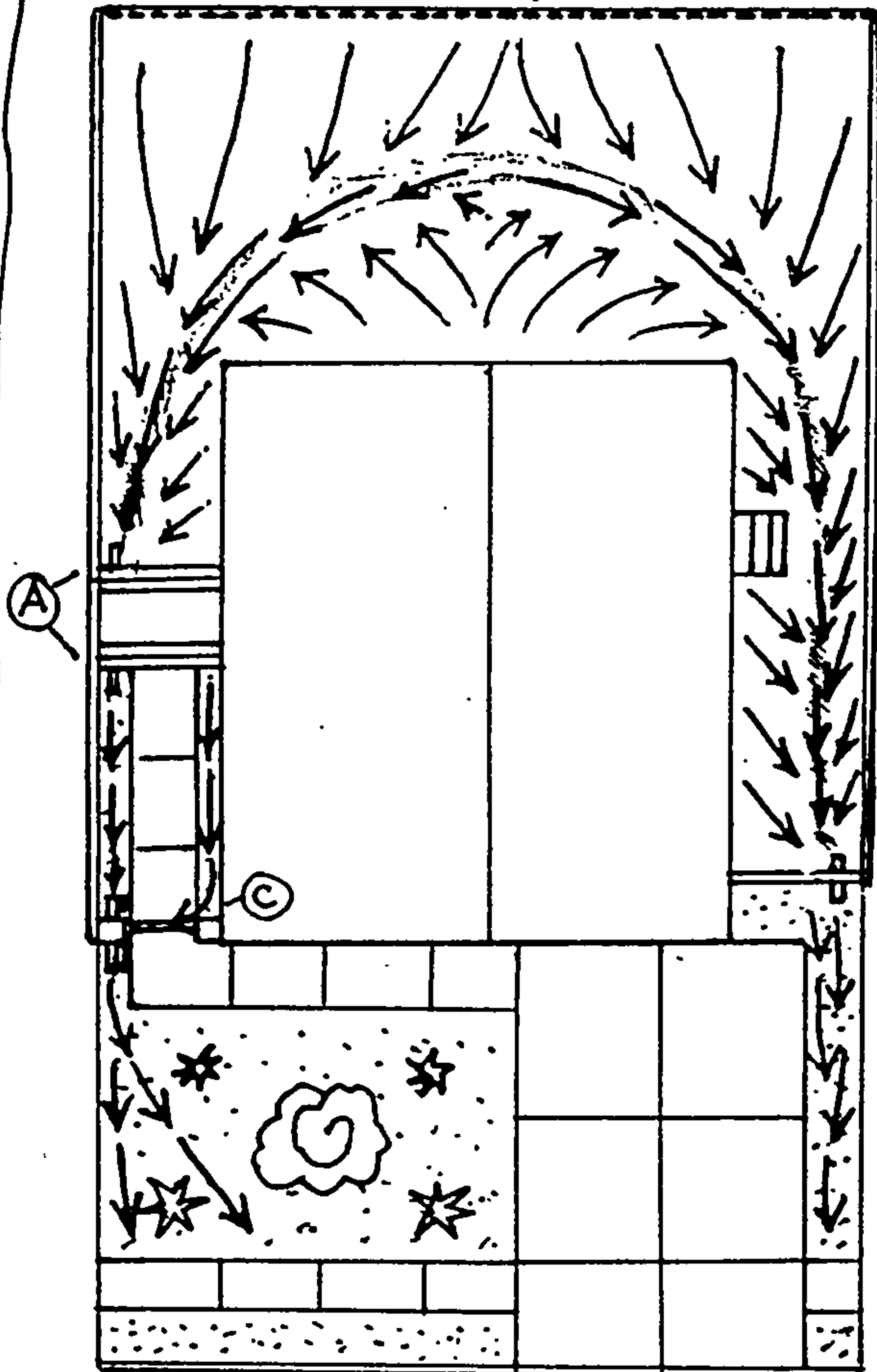
Date 06-10-03

Date

Notes Lot 10, 204 wcp., Catalina Martinez House.

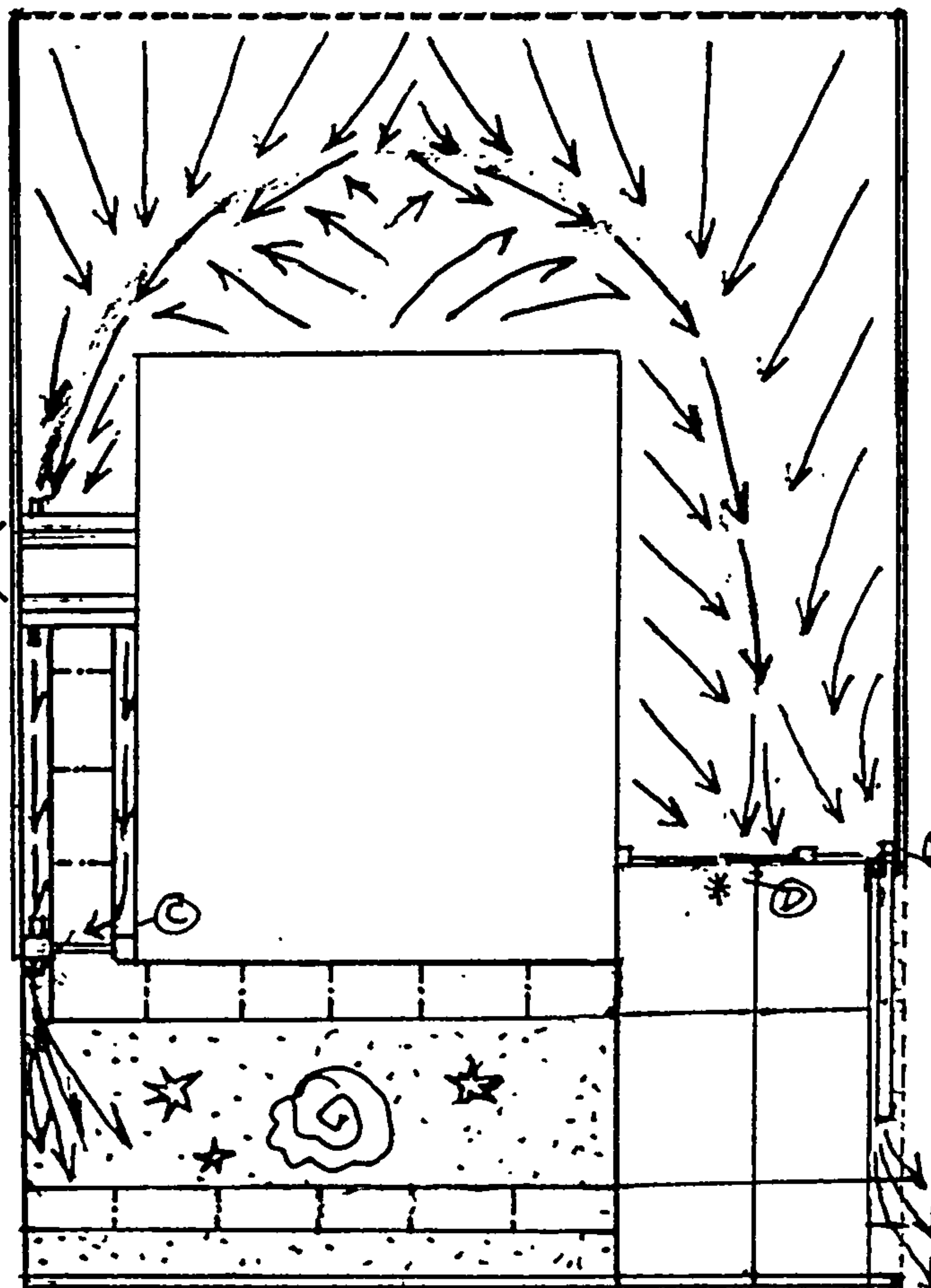
Small lot, Drains from Rear to front lot in
Horseshoe configuration.

LOT 10, 204 WCP



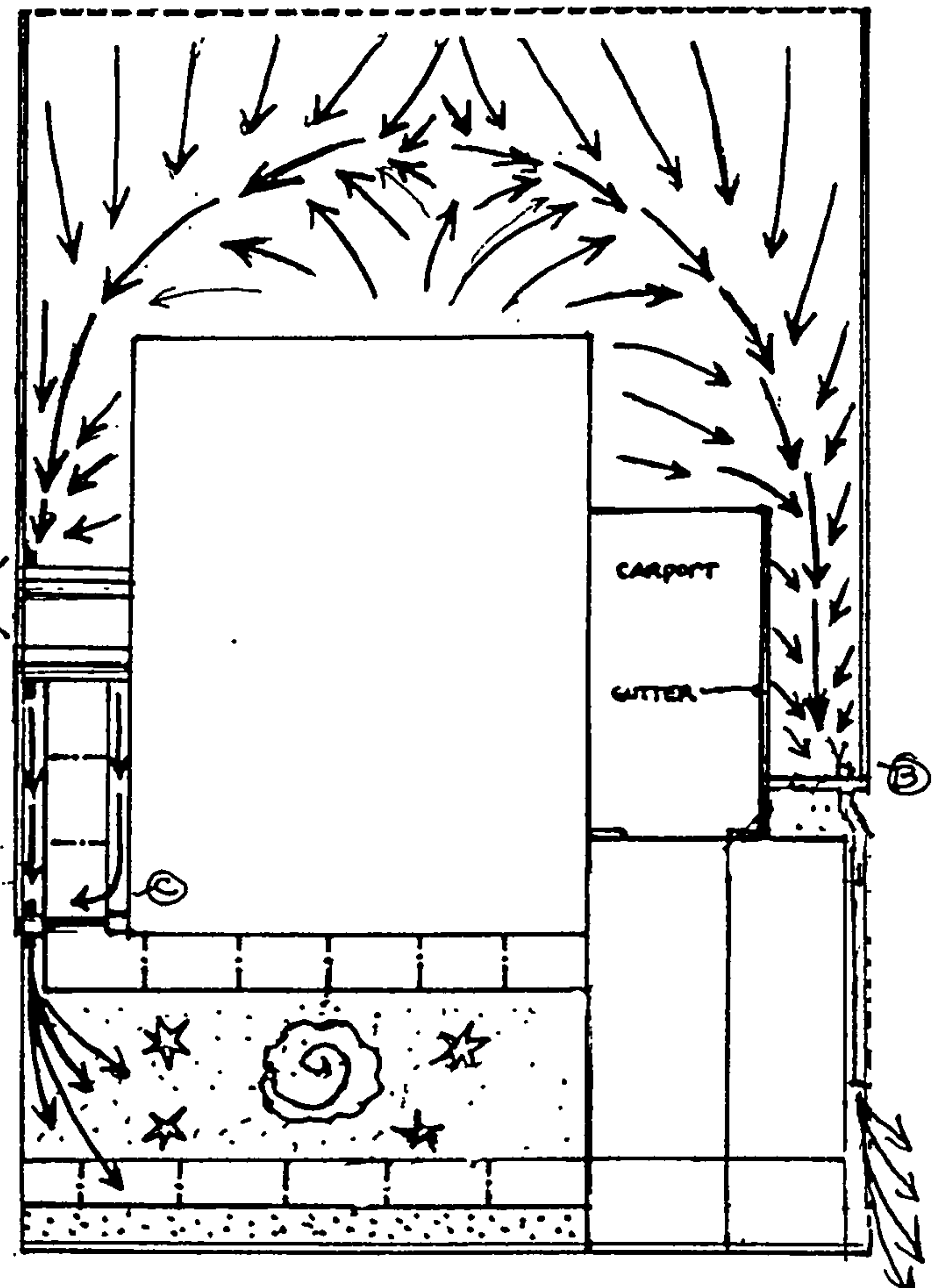
37' STANDARD LOT DRAINAGE.

FINISH GRADE
WATER FLOW



48'-8" PREMIUM LOT DRAINAGE

* LOTS WITH DOUBLE GATES ON PARKING SIDE,
PART OF DRAINAGE IS ALLOWED TO FLOW
UNDER GATES, OVER DRIVE TO STREET.
ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN
MAXIMUM FLOW OPPORTUNITY TO ELIMINATE
ANY PONDING.



48'-8" PREMIUM LOT W/CARPORT AND GUTTER/DOWNSPOUT

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE
RAIN WATER AWAY FROM THE HOUSE INTO
A HORSESHOE SHAPED FLOW AROUND
THE HOUSE TO OUTLETS THAT ALLOW FLOW
TO THE FRONT YARDS AND STREET.

Ⓐ = THRU STEPS

Ⓑ = THRU WALL/FENCE

Ⓒ = SIDE WALK CROSSOVER DRAIN TO WALL OUTLET DRAIN

Ⓓ = GRAVITY FLOW UNDER GATES/OVER DRIVE/TO STREET

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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Lot # 10 Address 204 Westcourt Place NW

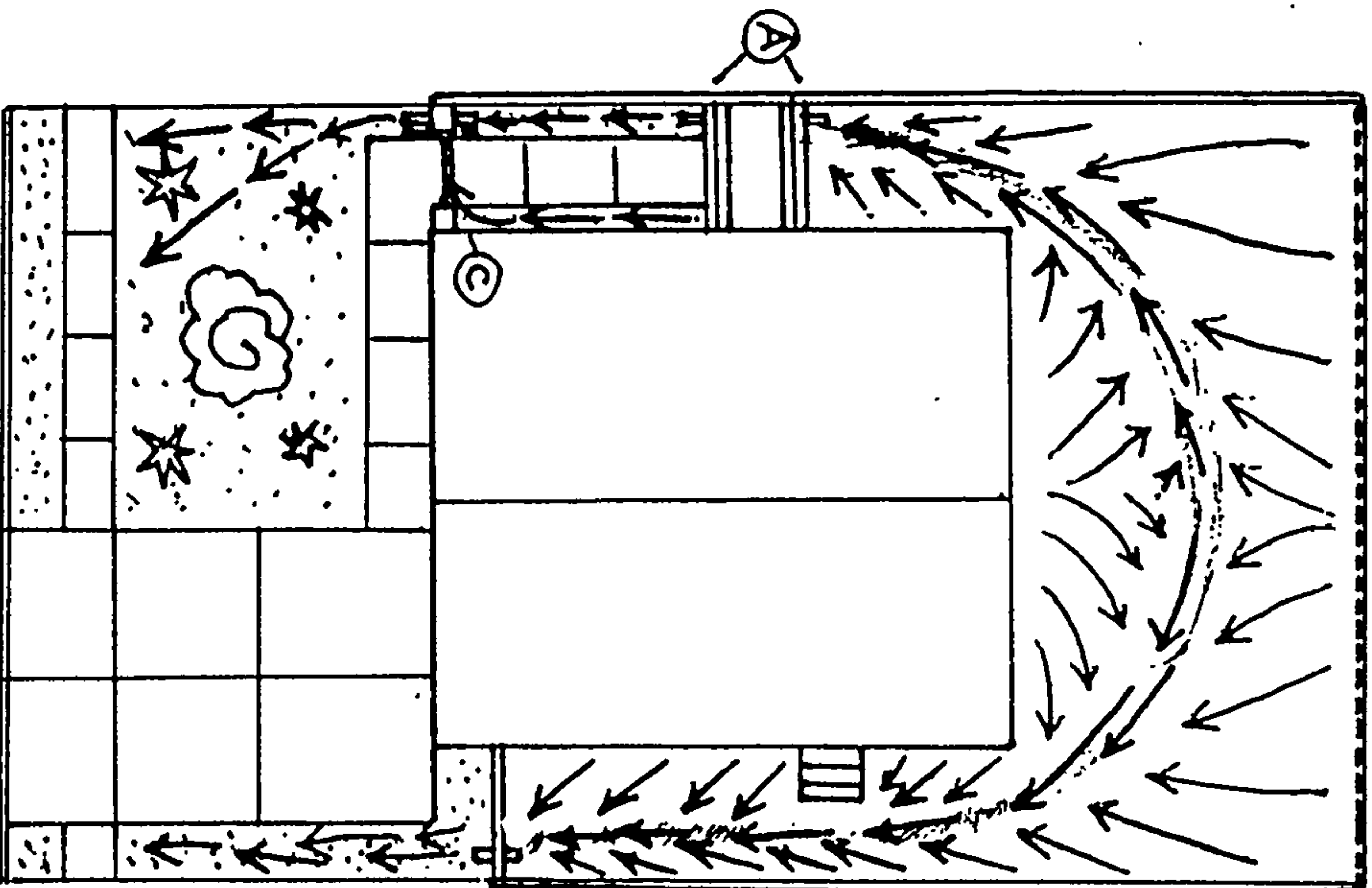
Printed Name Catalina Martinez Printed Name Victoria Arias

Signature Catalina Martinez Signature Victoria Arias

Date 12-21-02 Date 12-21-02

Notes Lot 11, 200 wcp, ——— Felix House.

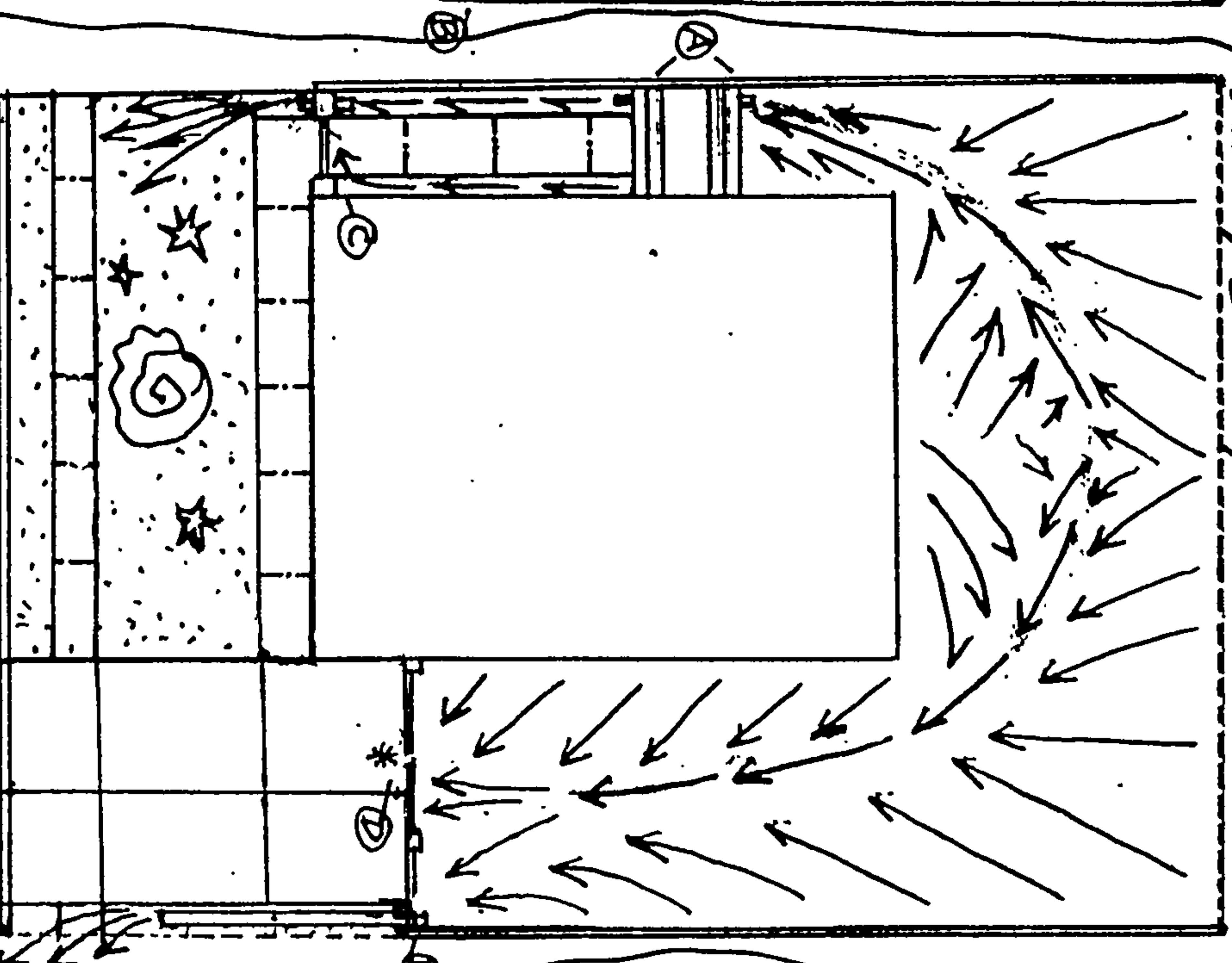
Larger lot, Drain from rear to front in Horseshoe-configuration. Double gates on S. side of house.



37' STANDARD LOT DRAINAGE.

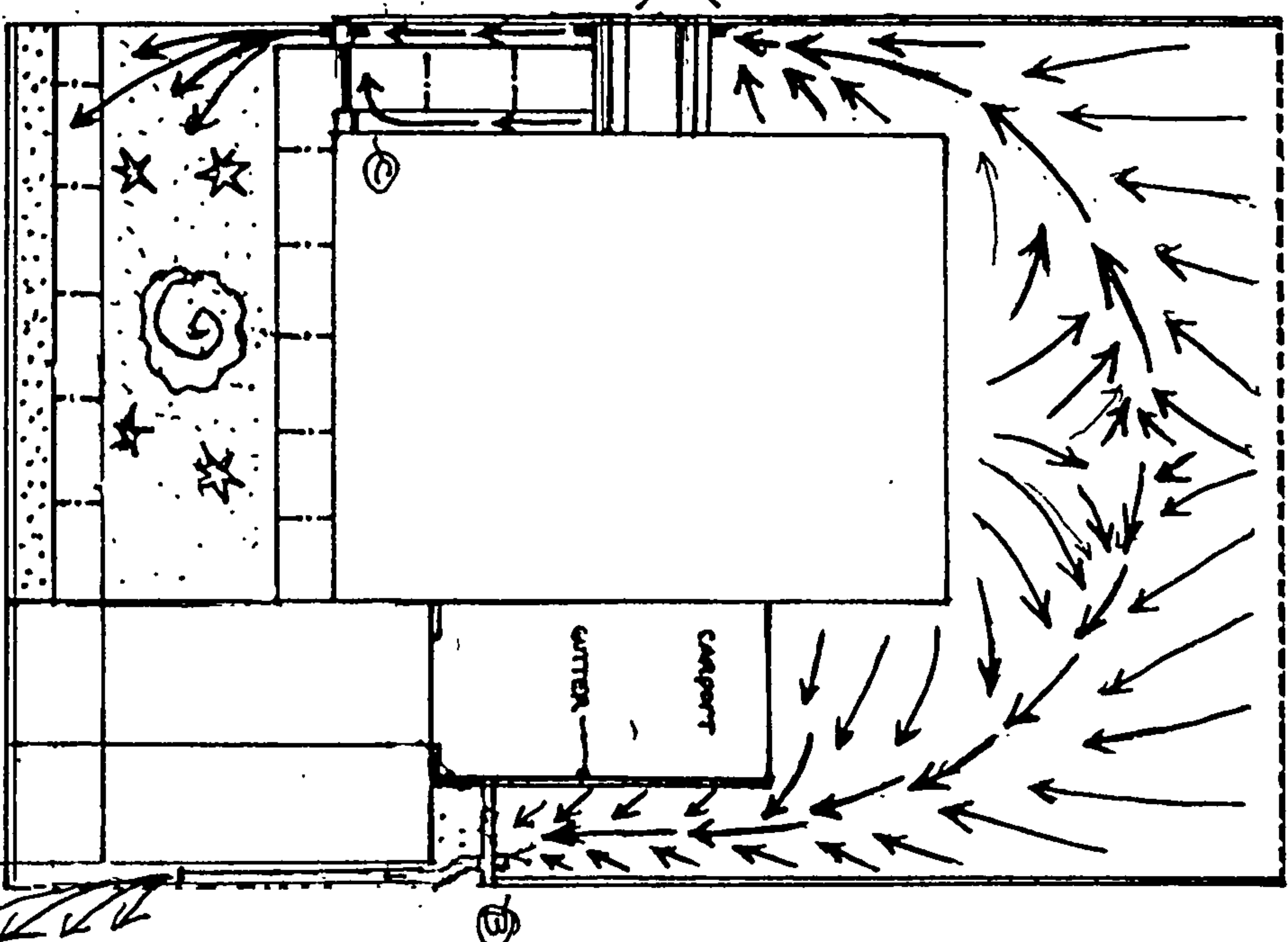
FINISH GRADE
WATERFLOW

- Ⓐ = THREE STEPS
Ⓑ = THRU 1/1 FENCE
Ⓒ = SIDE



48'-8" PREMIUM LOT DRAINAGE

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MINIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.



48'-8" PREMIUM LOT DRIVEWAY AND GUTTER/DOWNSPOUT

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

- Ⓓ = CITY FLOW UNDER GATES/OVER DRIVE/TO STREET

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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Lot # 11 Address 200 Westcourt Place NW

Printed Name ERIC FELIX

Printed Name DENISE TAFOYA

Signature Eric Felix

Signature Denise Tafoya

Date 10/23/03

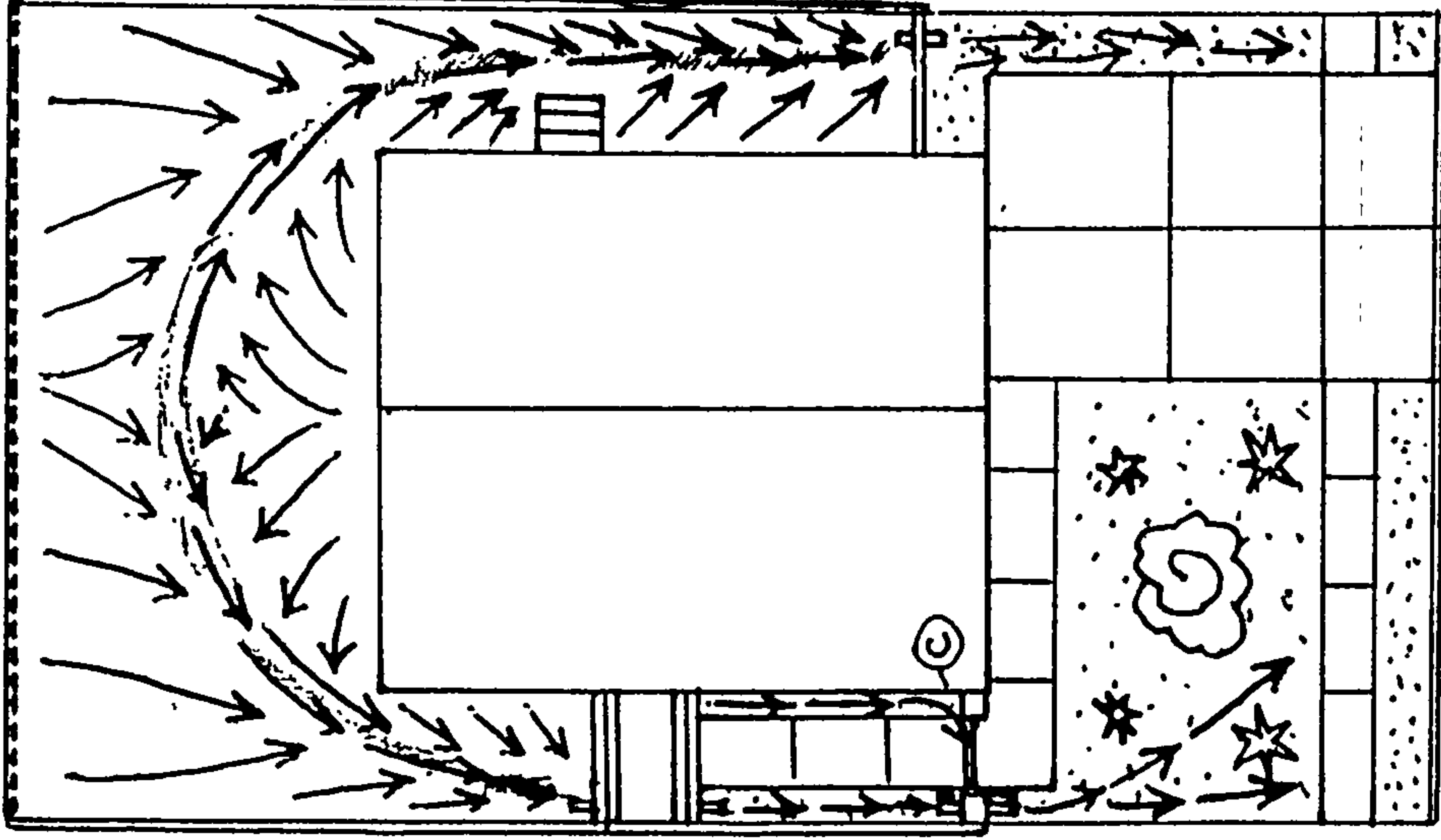
Date 10/23/03

Notes

Lot 12, 124 WCP.

Ryan House.

Large lot drains in horseshoe configuration
around house. From Rear to front yard.

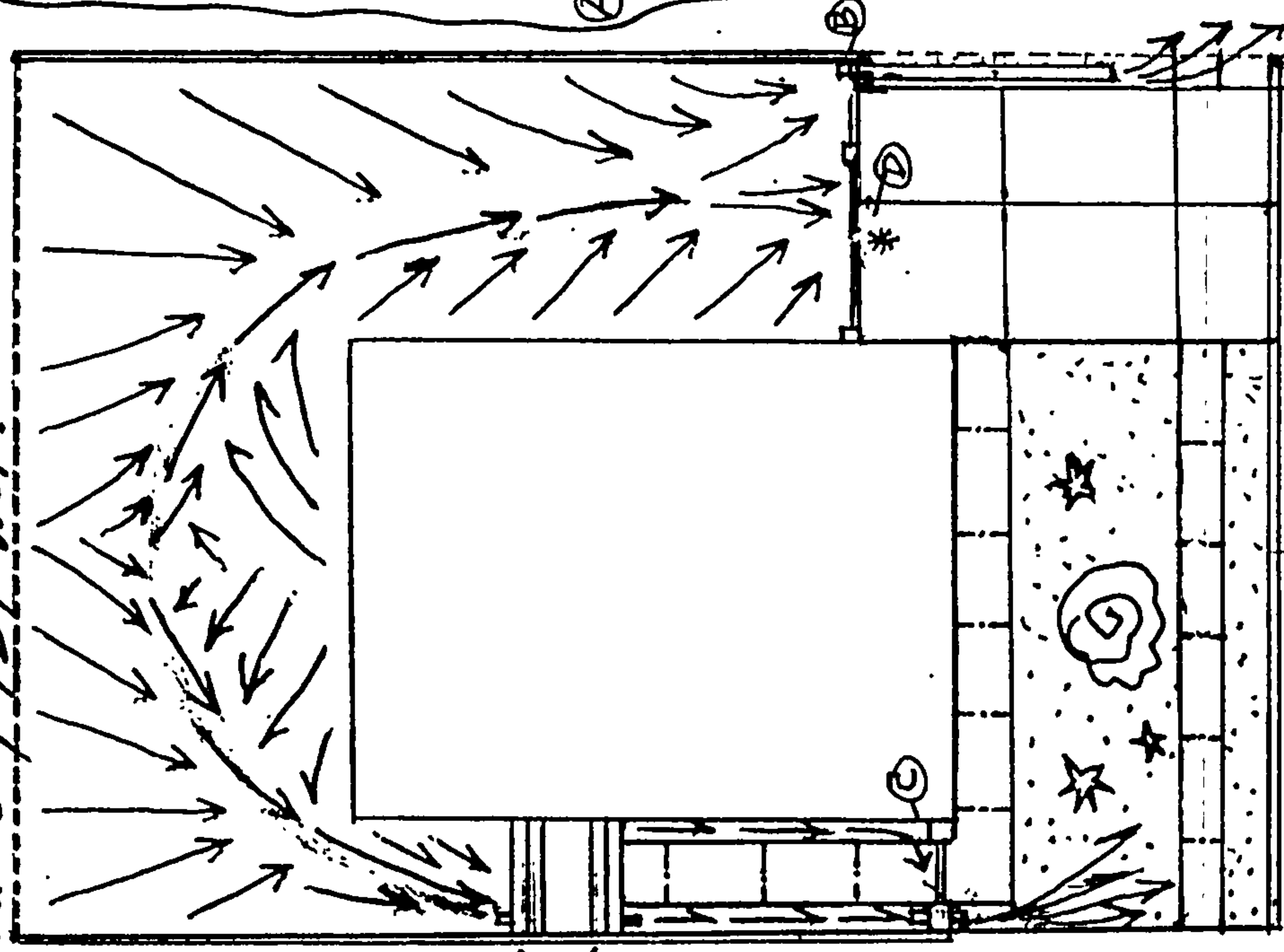


37' STANDARD LOT DRAINAGE.

FINISH GRADE
WATER FLOW

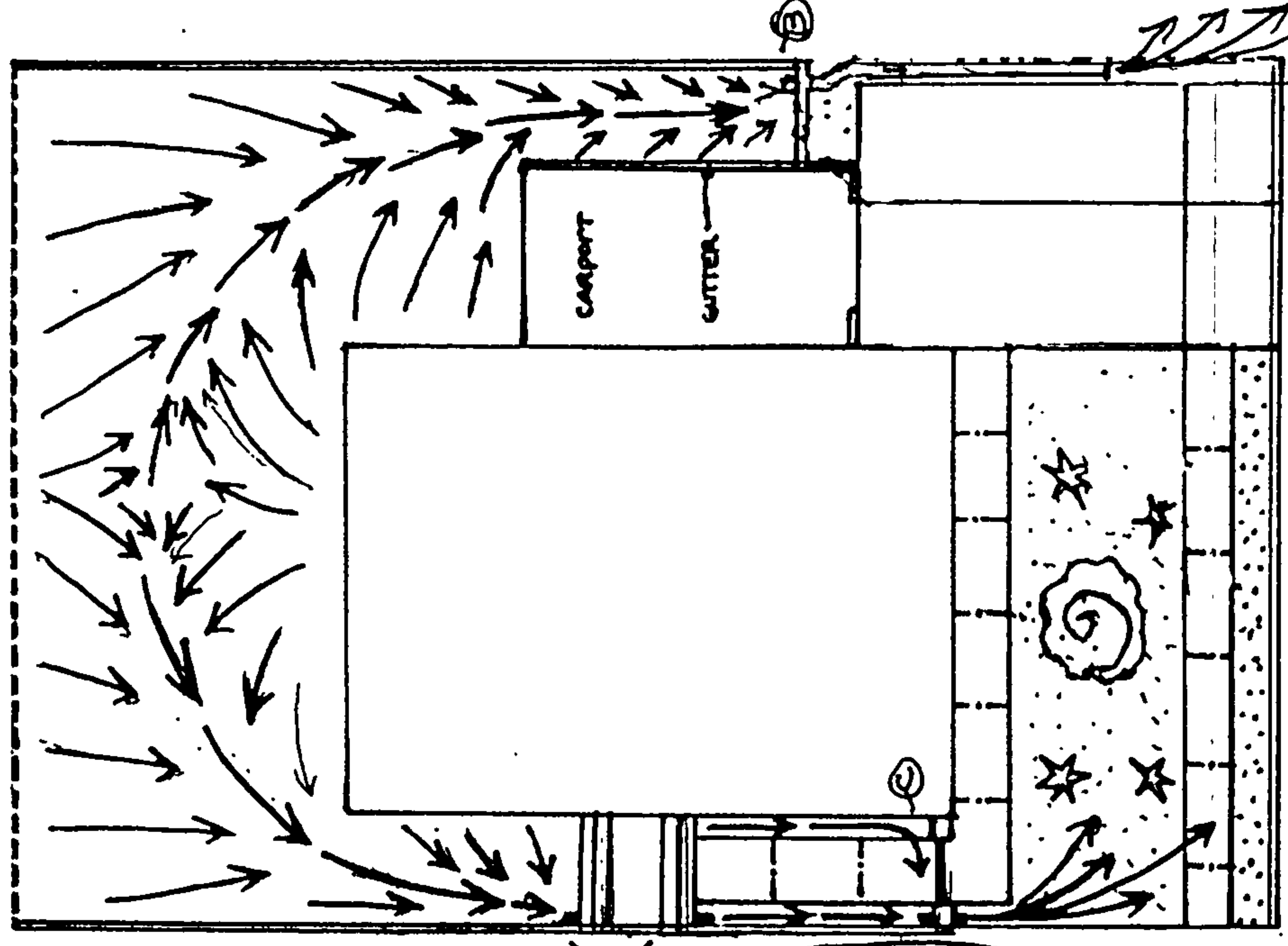
- Ⓐ = THREE STEPS
- Ⓑ = THRU WALL / FENCE
- Ⓒ = SIDE WALK CROSSOVER DRAIN TO WALK OUTLET DRAIN

LOT 12, 124 WCP.



48'-8" PREMIUM LOT DRAINAGE

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48'-8" PREMIUM LOT W/ CARPORT AND GUTTER/DOWNSPOUT

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**Lot/Homesite Drainage Requirements
Notice and Agreement**

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Lot # 12 Address 124 Westcourt Place NW

Printed Name Robert B. AND ROSE M
RYAN

Printed Name ANGELA C. RYAN

Signature Robert B. Ryan Rose M. Ryan

Signature Angela C. Ryan

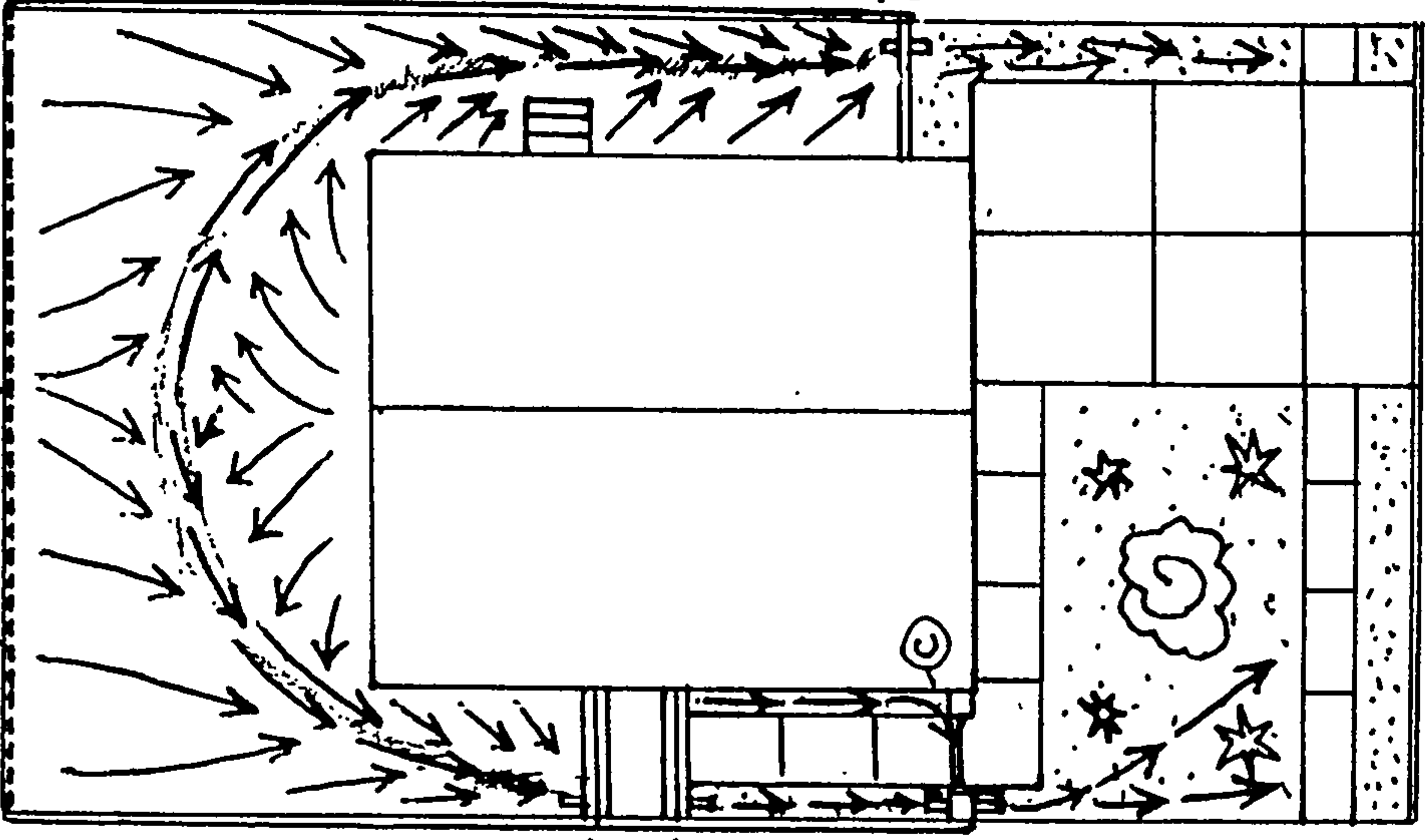
Date 6-23-04

Date 6/23/04

Notes

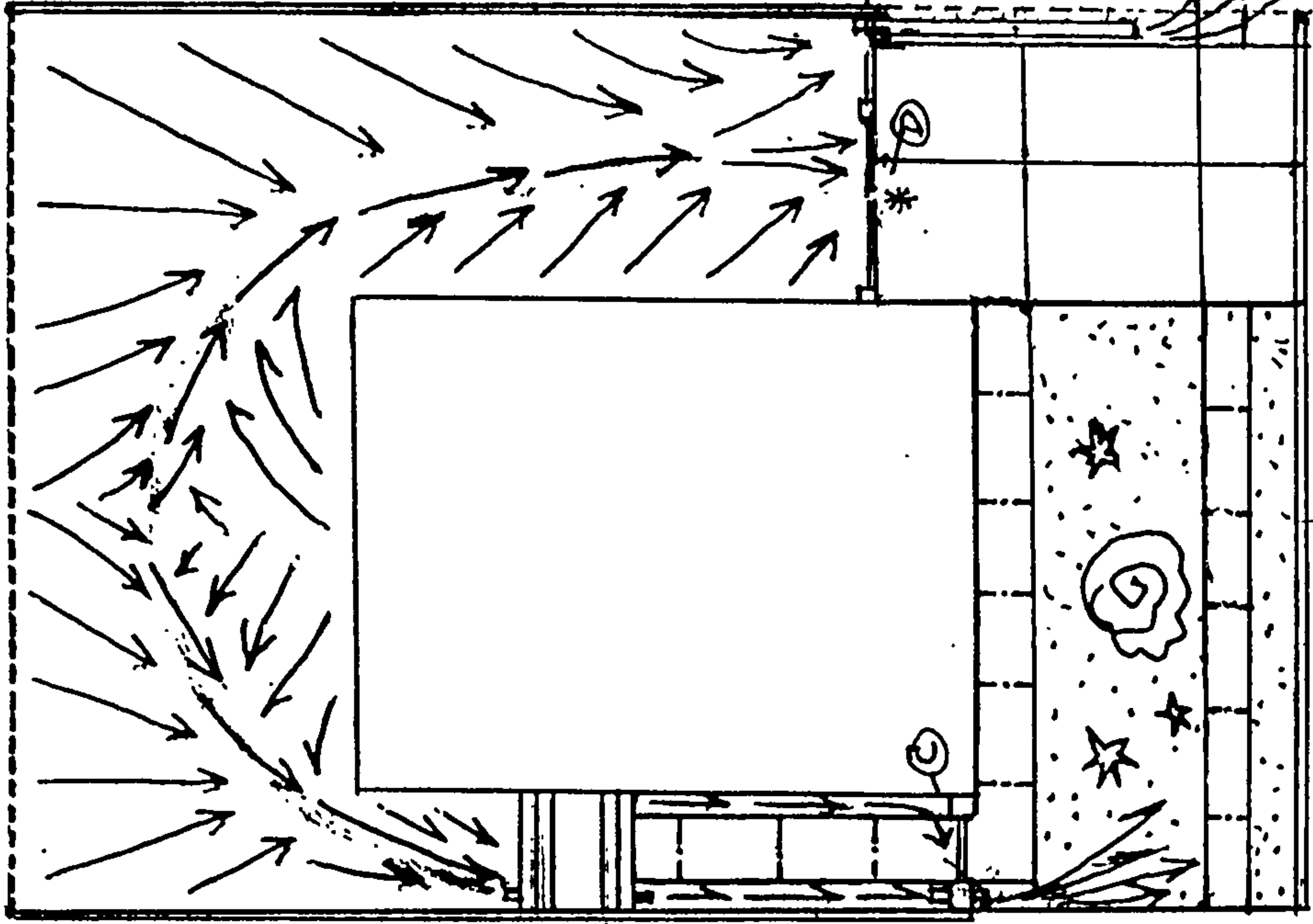
Lot #13, 120 wcp. ————— otero house

LOT 13, 120 WCP.



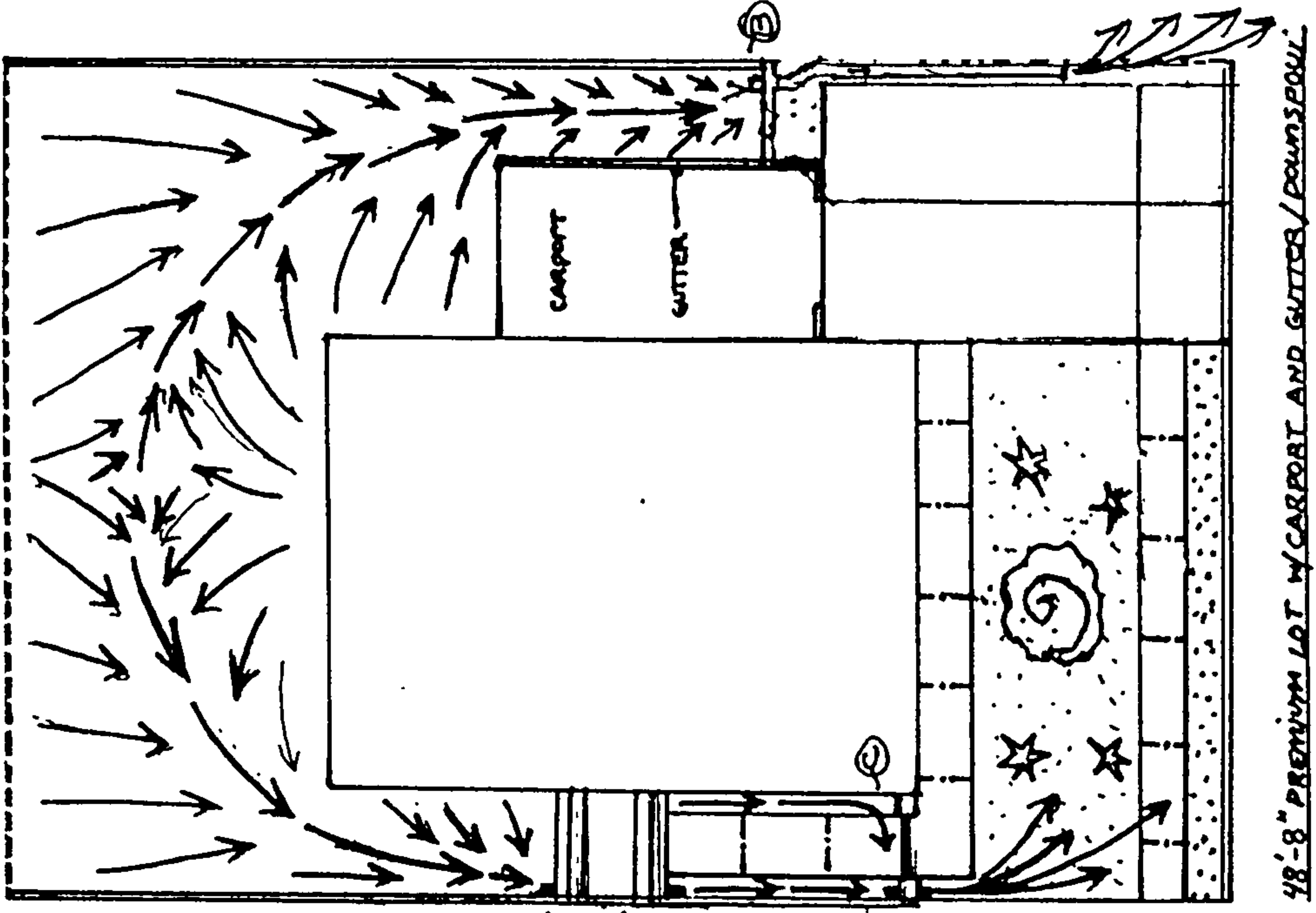
37' STANDARD LOT DRAINAGE.

FINISH GRADE
WATER FLOW



48'-8" PREMIUM LOT DRAINAGE

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48'-8" PREMIUM LOT W/ CARPORT AND GUTTER/ DOWNSPOUT.

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

(A) = THRU STEPS

(B) = THRU WALL/FENCE

(C) = SIDE WALK CROSSOVER DRAIN TO WALL/OUTLET DRAIN (D) = GRAVITY FLOW UNDER GATES/OVER DRIVE/TO STREET

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 13 Address 120 Westcourt Place NW

Printed Name ESTHER ORTERO

Signature Esther Ortero

Date 5-17-03

Printed Name _____

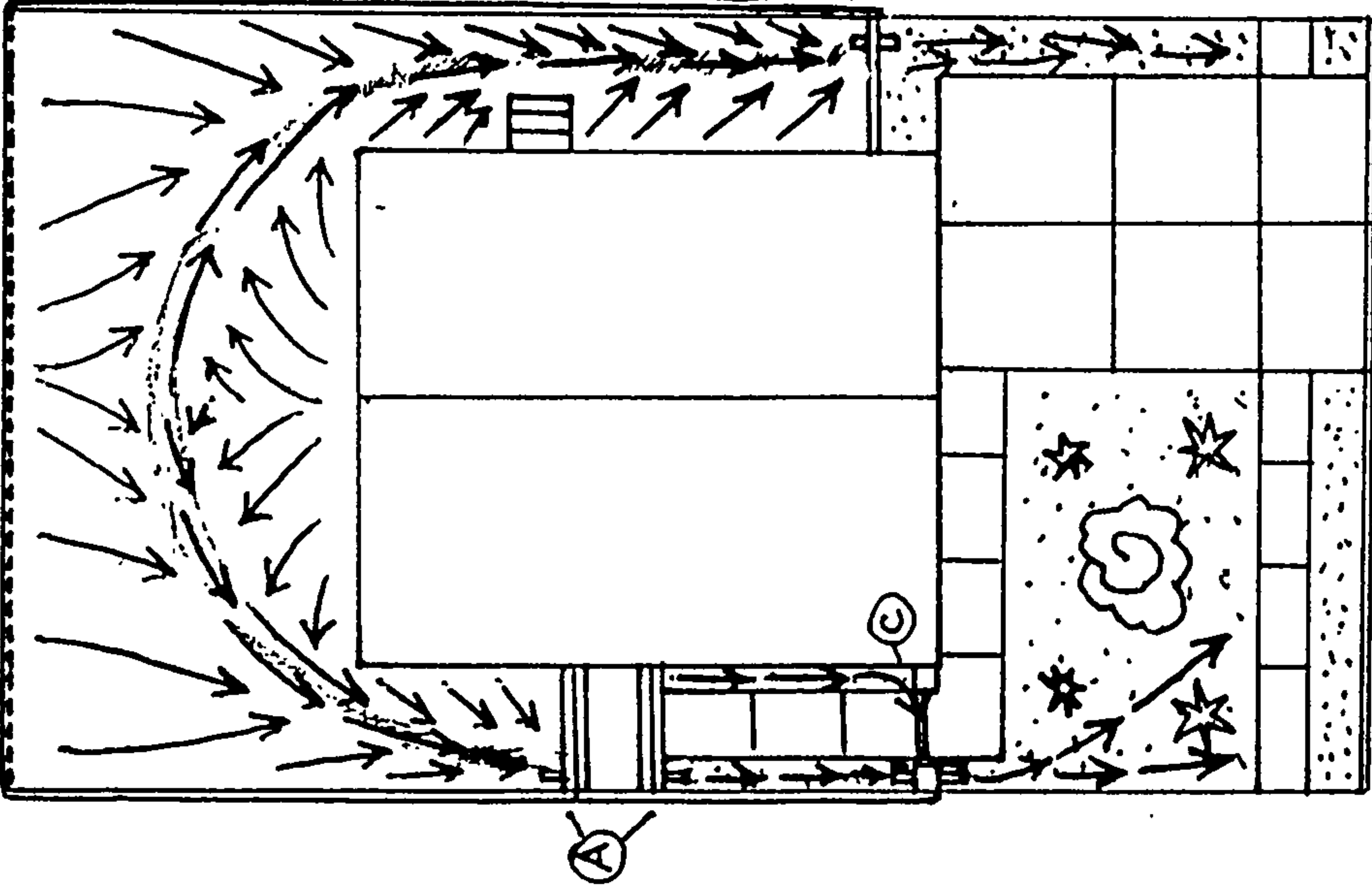
Signature _____

Date _____

Notes Lot 14, 116 WCP. , Silva House.

Large lot, Double Gates on S. Side. Drains
From Rear to front in Horseshoe configuration
House has front patio, drain line under patio plus
drainage line through patio wall.

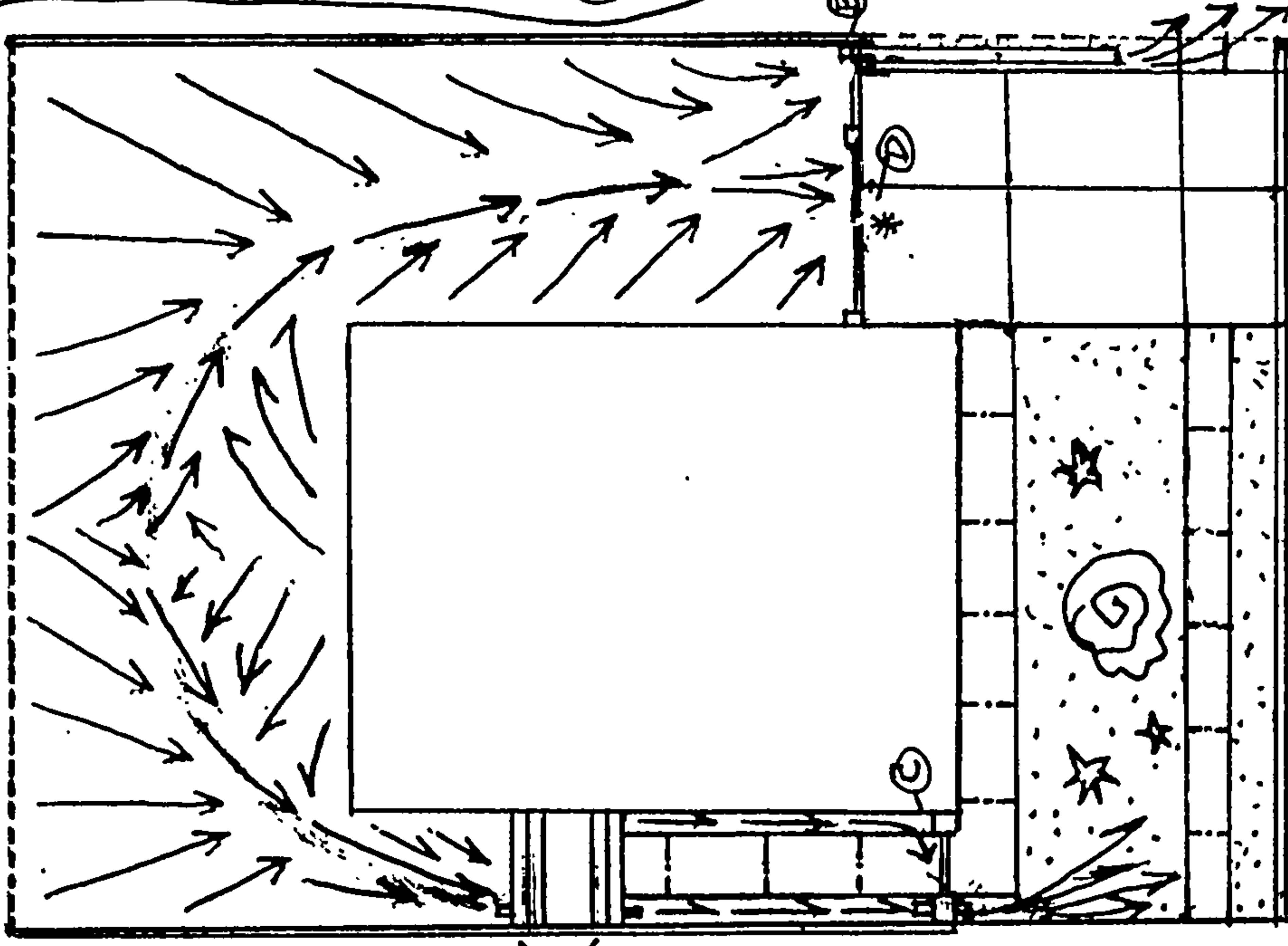
LOT 14, 116 WCP



37' STANDARD LOT DRAINAGE.

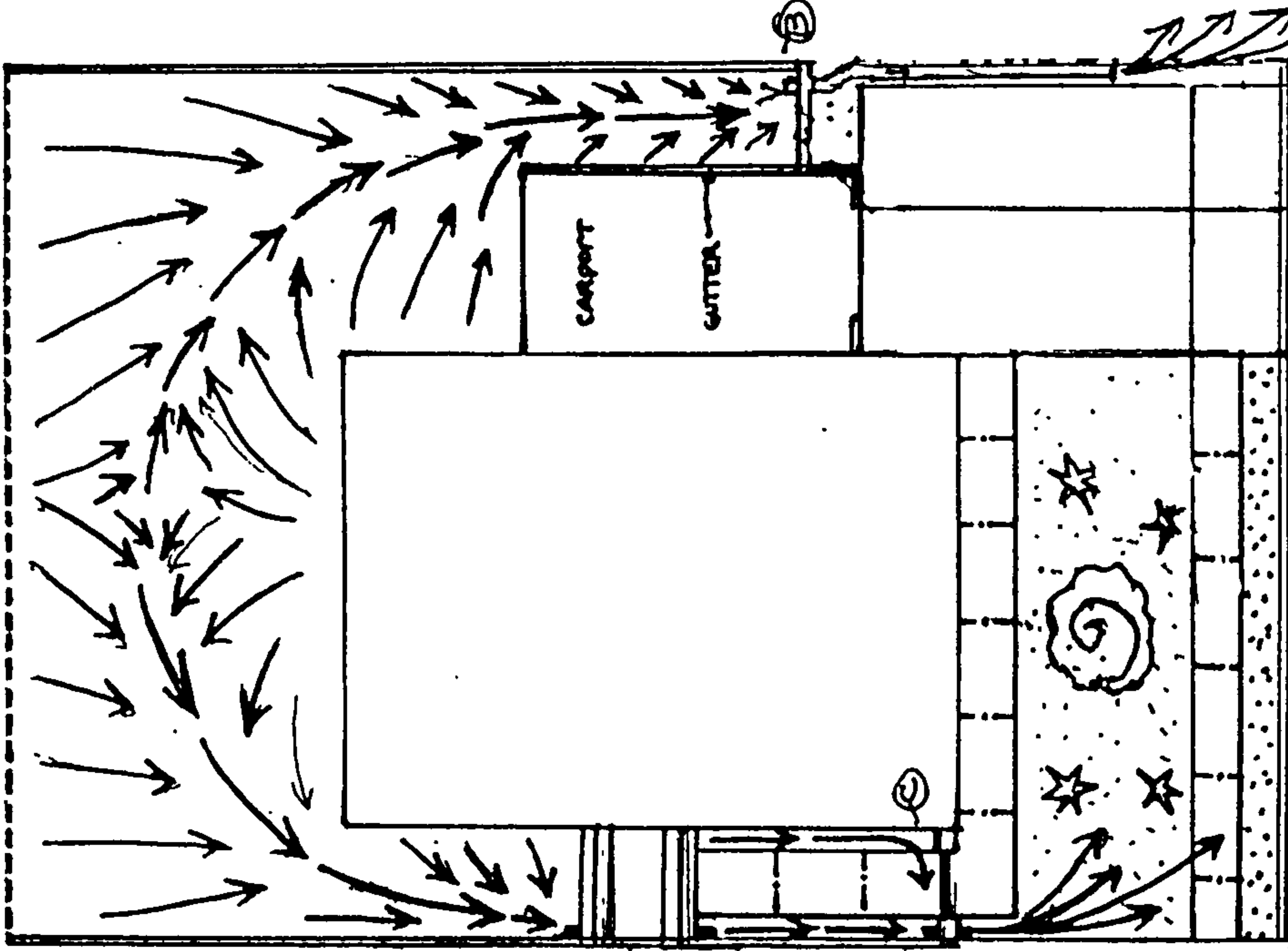
FINISH GRADE
WATER FLOW

- Ⓐ = THRU WALL/FENCE
- Ⓑ = THRU WALL/FENCE
- Ⓒ = SIDE WALK CROSSOVER DRAIN TO WALL/OUTLET DRAIN



48'-8" PREMIUM LOT DRAINAGE

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.



48'-8" PREMIUM LOT W/ CARPORT AND GUTTER/POUNCEPOUL

All lots were finish graded to disperse rain water away from the house into a horseshoe shaped flow around the house to outlets that allow flow to the front yards and street.

**Lot/Homesite Drainage Requirements
Notice and Agreement**

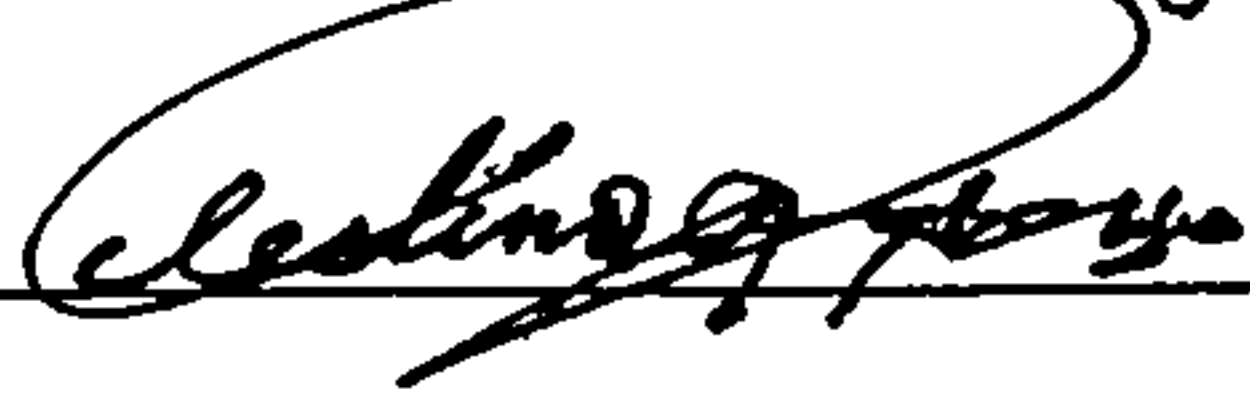
Each home has been constructed to provide drainage of rain water away from all home sites to comply with approved engineering. The drainage engineering is designed to flow rain water away from the houses and to the street. Under normal circumstances, rain water is absorbed into the landscaping and surrounding soil. During extreme rains, the ground soil can become saturated, and excess water then flows to the street and to the storm drains. The home sites in St. Joseph's Place subdivision have been graded and finished to allow for and assist the proper drainage of rainwater to the street. The objective is to prevent onsite ponding (standing water) or flooding. We have added drain pipes and channels in specific areas to assist with this drainage. We have attached an illustration to identify the areas where these can be found on your homesite. The pipes are 3" to 4" openings that cross under, beside, or through steps, sidewalks, footings and fence walls. Some are partially exposed and others are under the gravel. The buried openings are covered with a screening material to help prevent clogging from dirt and debris.

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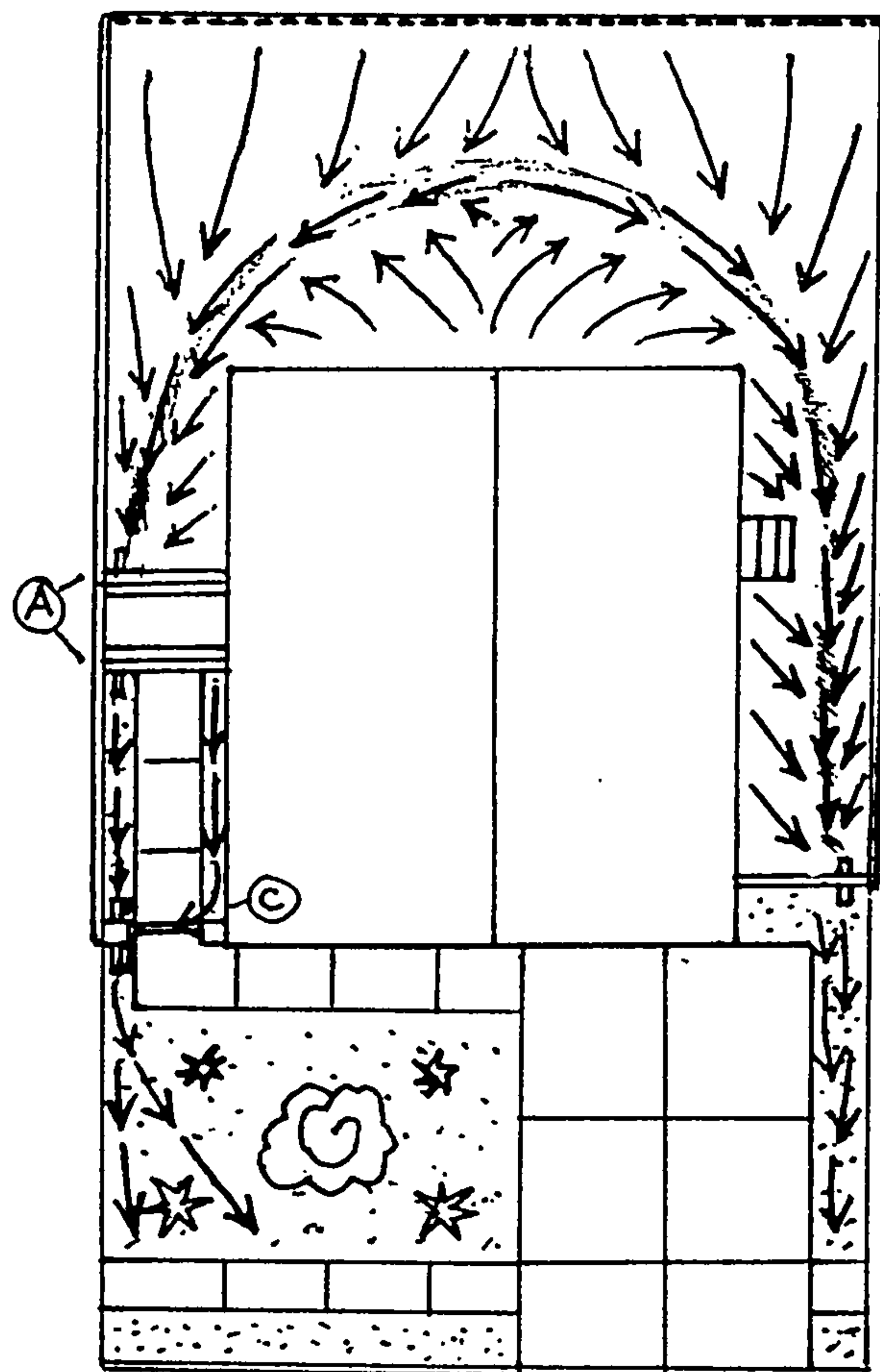
Lot # 14 Address 116 Westcourt Place NW

Printed Name Celastino Delgado Printed Name Irma L. Silva

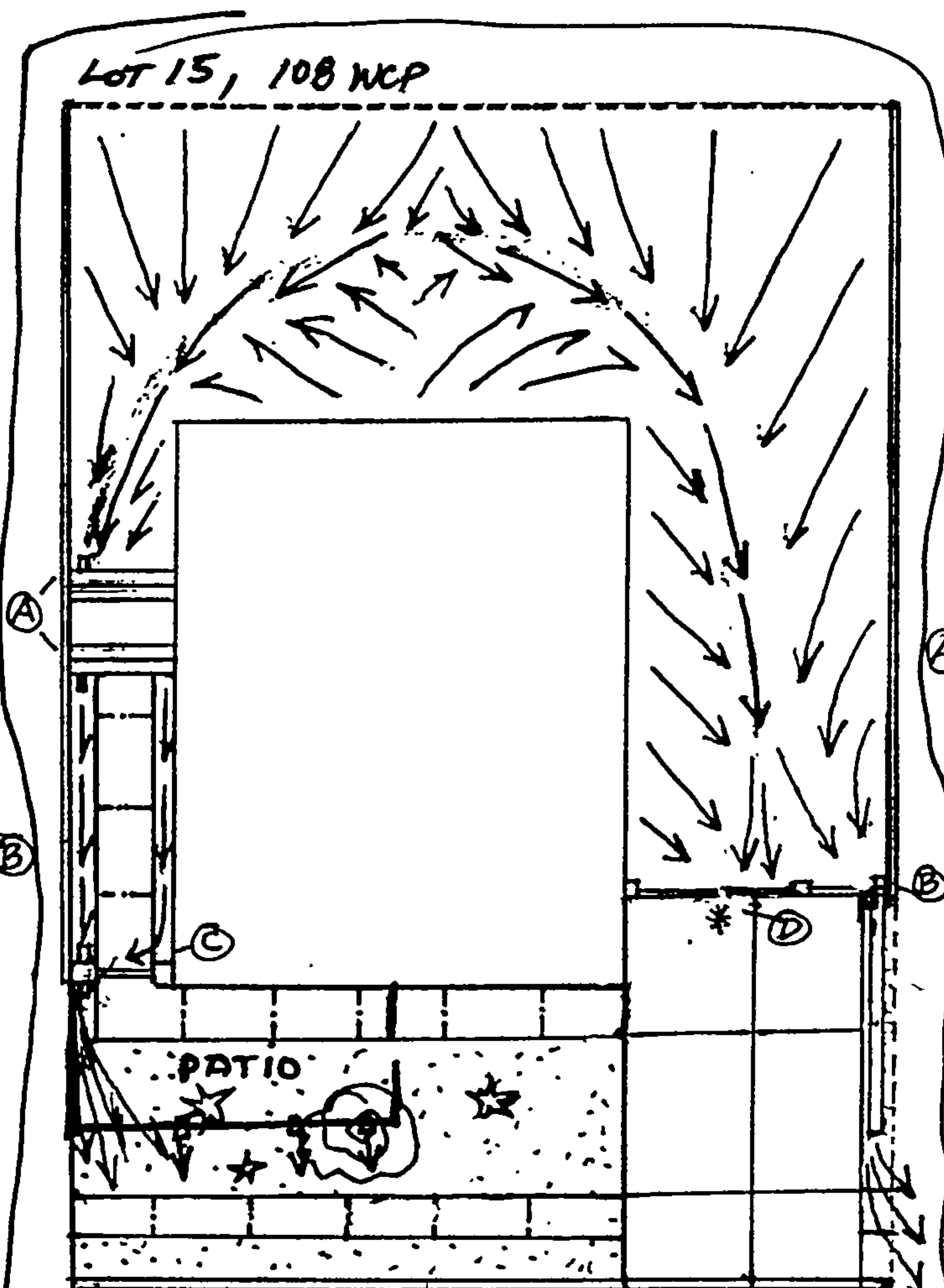
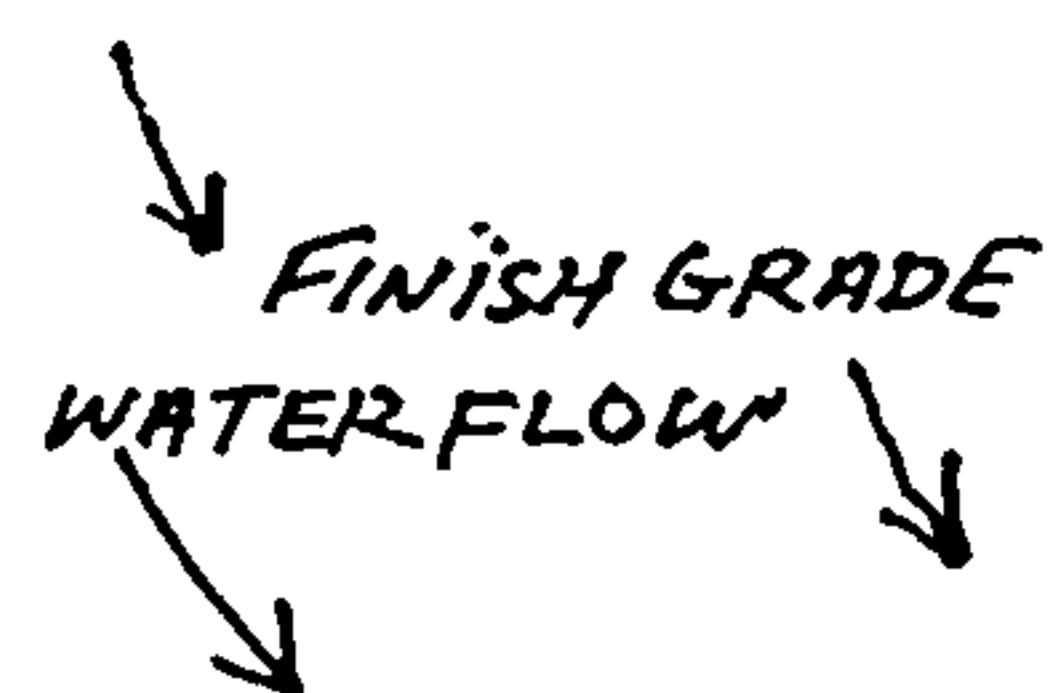
Signature  Signature 

Date 10-22-03

Date 10-22-03

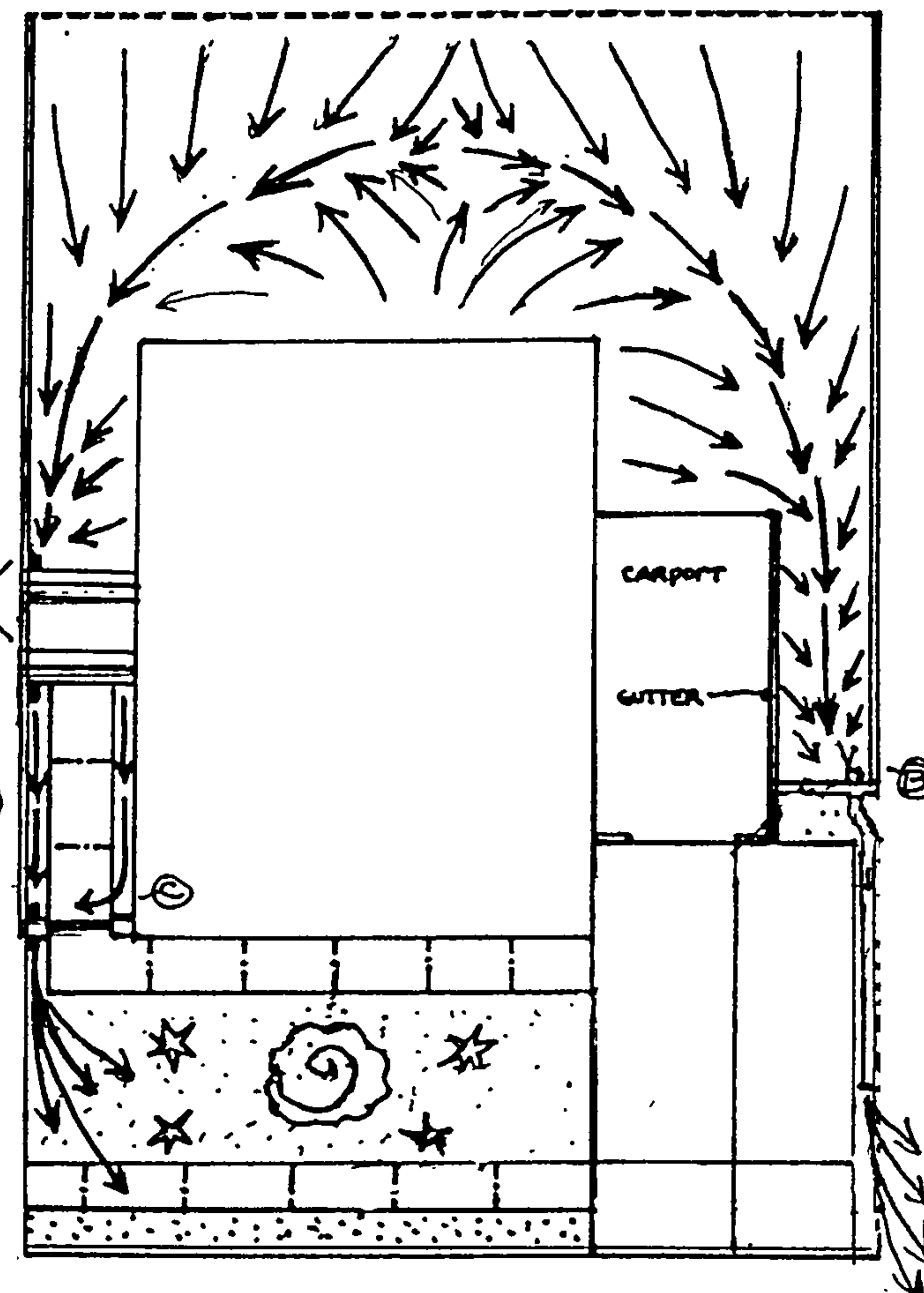


37' STANDARD LOT DRAINAGE.



48'-8" PREMIUM LOT DRAINAGE

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.



48'-8" PREMIUM LOT W/CARPORT AND GUTTER/DOWNSPOUT

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

Ⓐ = THRU STEPS

Ⓑ = THRU WALL/FENCE

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Lot # 15 Address 108 Westcourt Place NW

Printed Name Ramon Valenzuela Printed Name JOSEFINA Sanchez

Signature Ramon Valenzuela Signature Josefina Sanchez

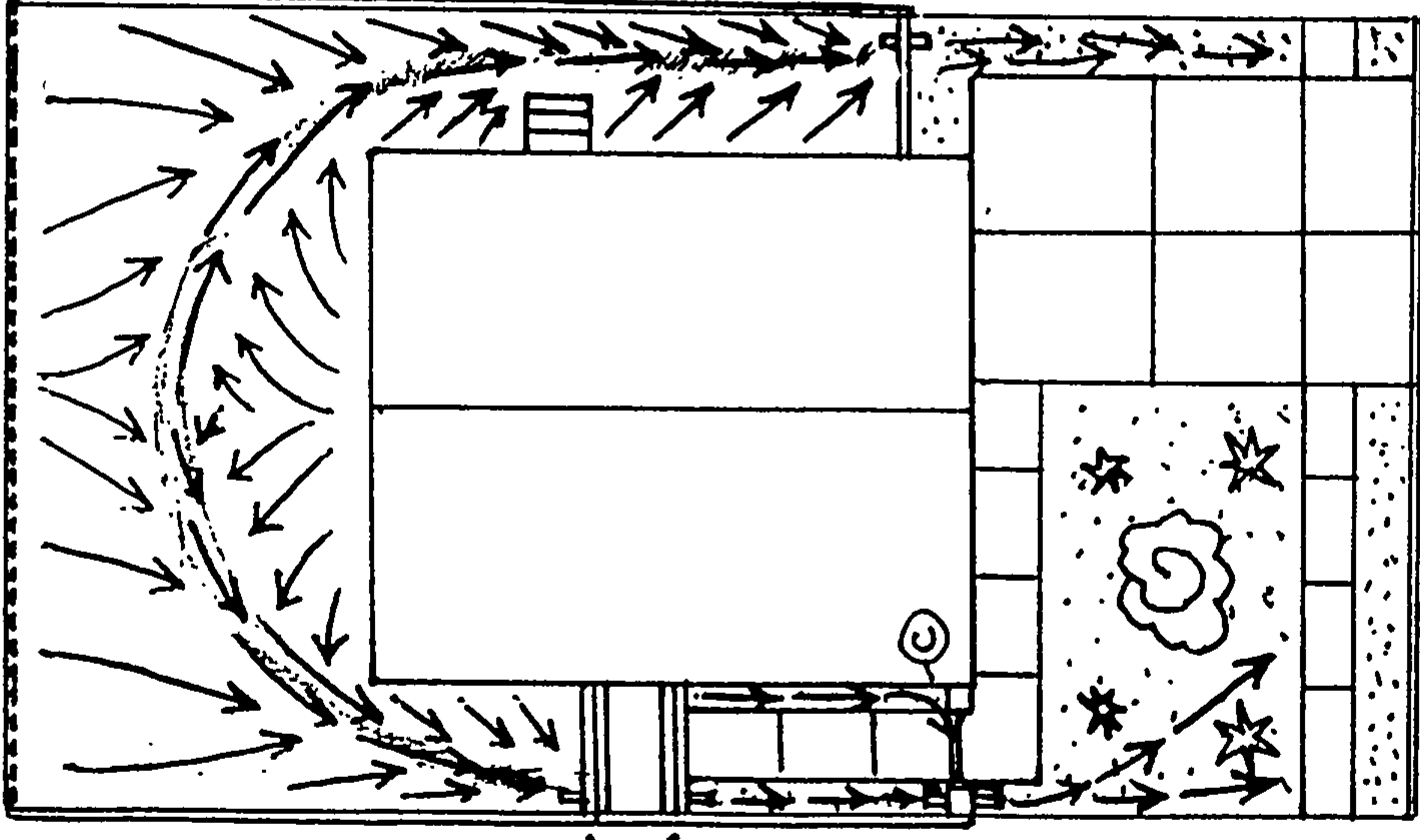
Date 12-4-03

Date 12-4-03

Notes lot 16, 104 wcp. model-

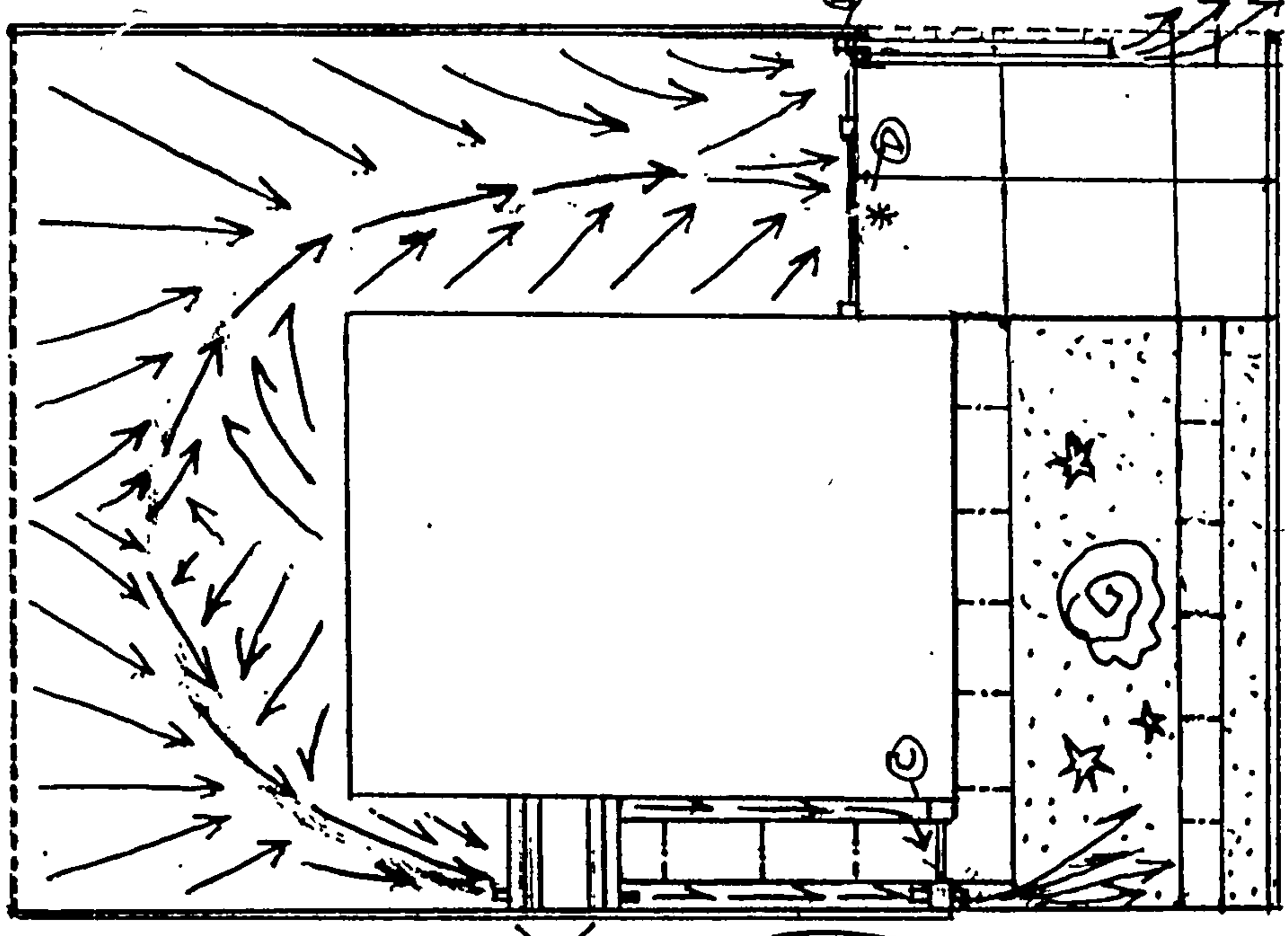
small lot, drains around house in horseshoe
configuration front rear to front.

lot 16, 104 WCP.



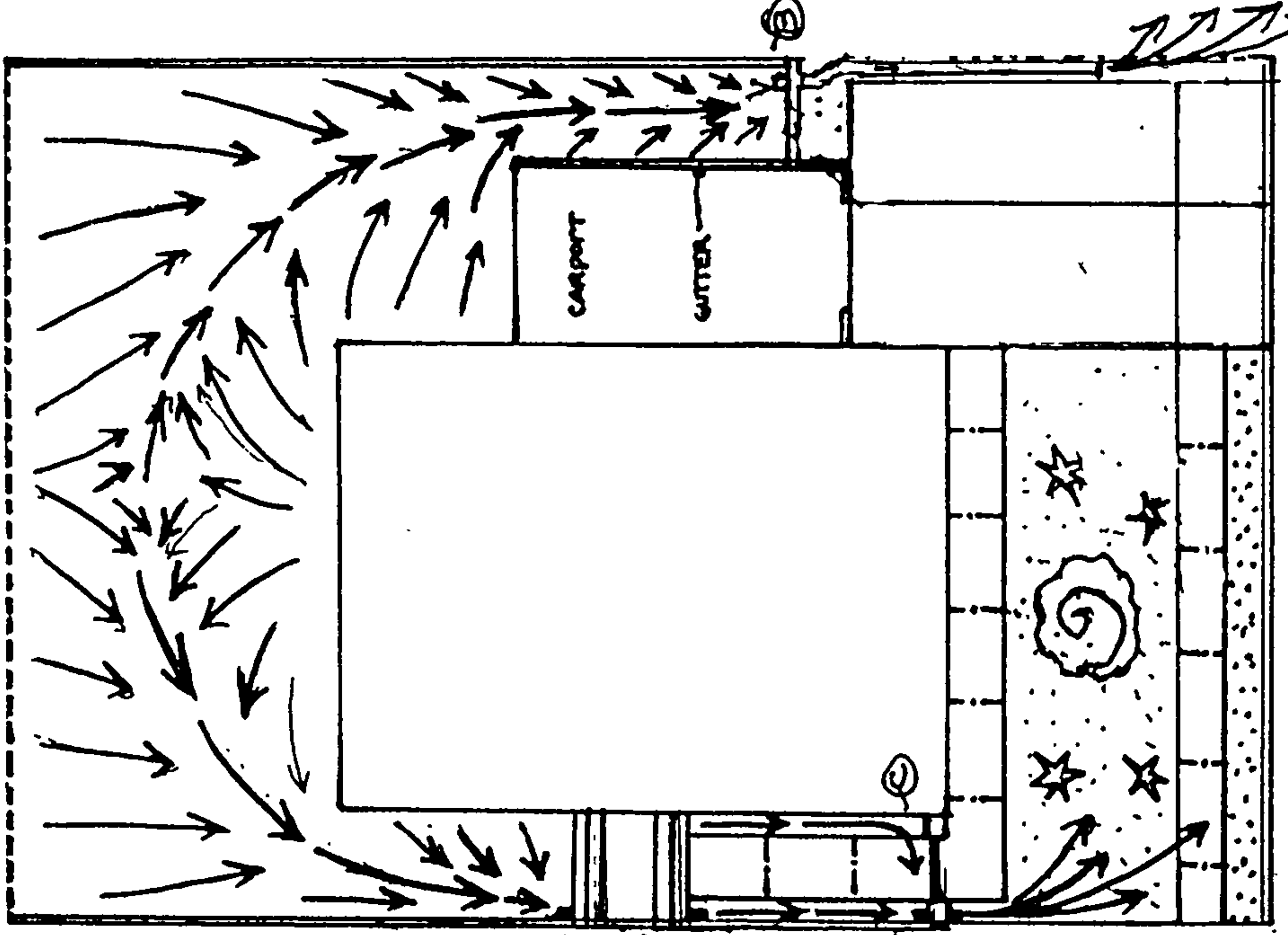
37' STANDARD LOT DRAINAGE.

FINISH GRADE
WATER FLOW



48'-8" PREMIUM LOT DRAINAGE

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.



48'-8" PREMIUM LOT W/ CARPORT AND GUTTER/ DOWNSPOUT.

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- B = THRU WALL/FENCE
- C = SIDE WALK CROSSOVER DRAIN TO WALL/OUTLET DRAIN
- D = GRAVITY FLOW UNDER GATES/OVER DRIVE/TO STREET

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 16 Address 104 Westcourt Place NW

Printed Name Robert BERRY

Printed Name _____

Signature Robert Berry

Signature _____

Date 7-10-04

Date _____

Notes #17, S.E. CORNER LOT.

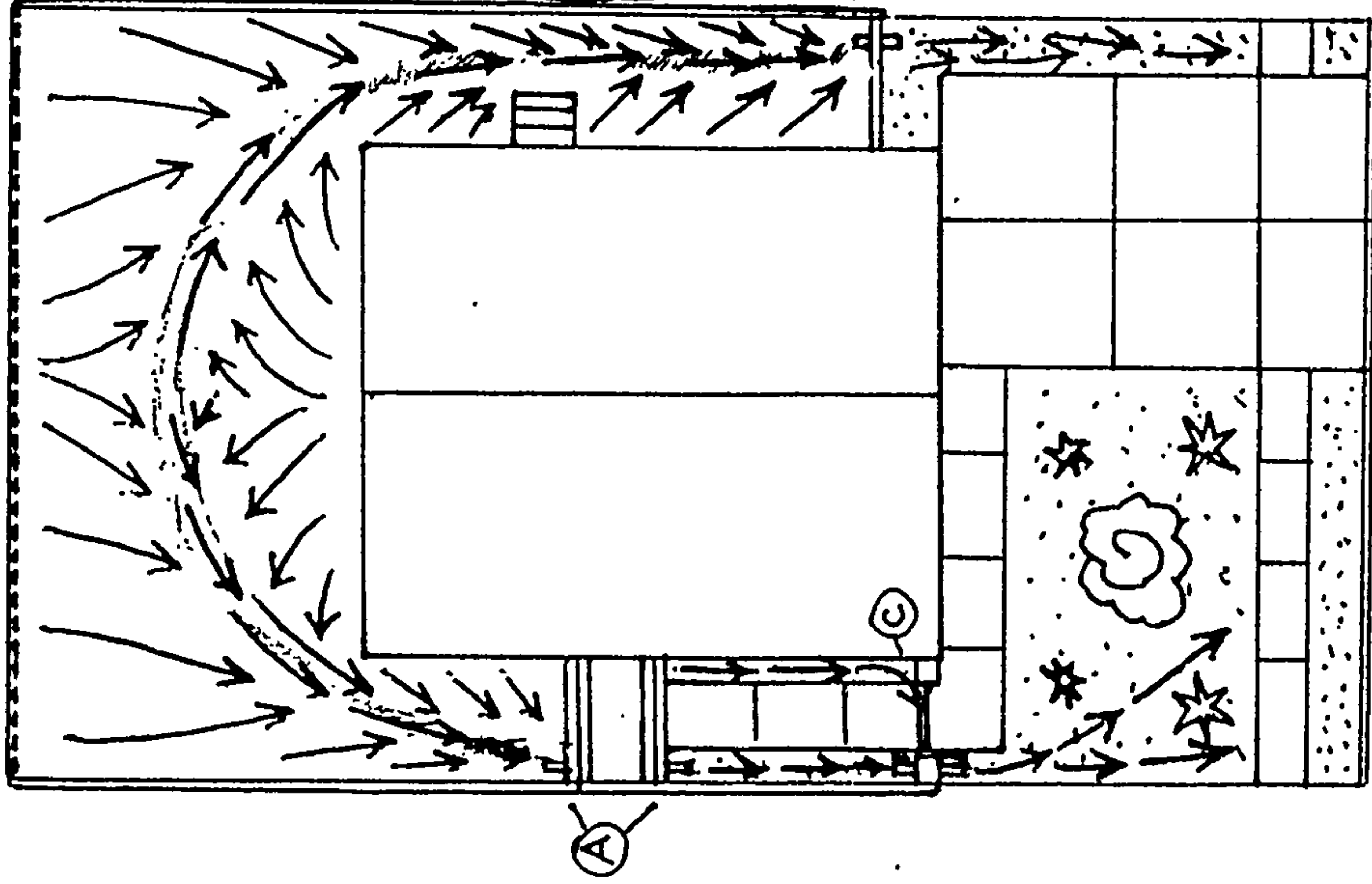
NORTH SIDE OF HOUSE HAS DOUBLE GATES. WATER DRAINS TO DRIVE WAY. IN N.W. CORNER WE ADDED A DRAIN PIPE THRU WALL THAT DRAINS TO GRAVELED LANDSCAPED AREA NEXT TO DRIVE. THE REMAINDER OF YARD DRAINS TO MAIN DRAIN NEAR SOUTH SIDE FENCE. THE DRAIN WAS ELEVATED PER INSTRUCTIONS FROM ENGINEERS. THE BOTTOM FOOT OF FENCE IS COVERED IN CONCRETE BOARD - BUILT 4 INCHES TO KEEP WATER ON LOT UNTIL EXCESS PASSES THROUGH MAIN DRAIN.

NO "A" DRAINS THROUGH STEPS NEEDED.

CORNER LOT

STORM DRAIN MANHOLE COVER.

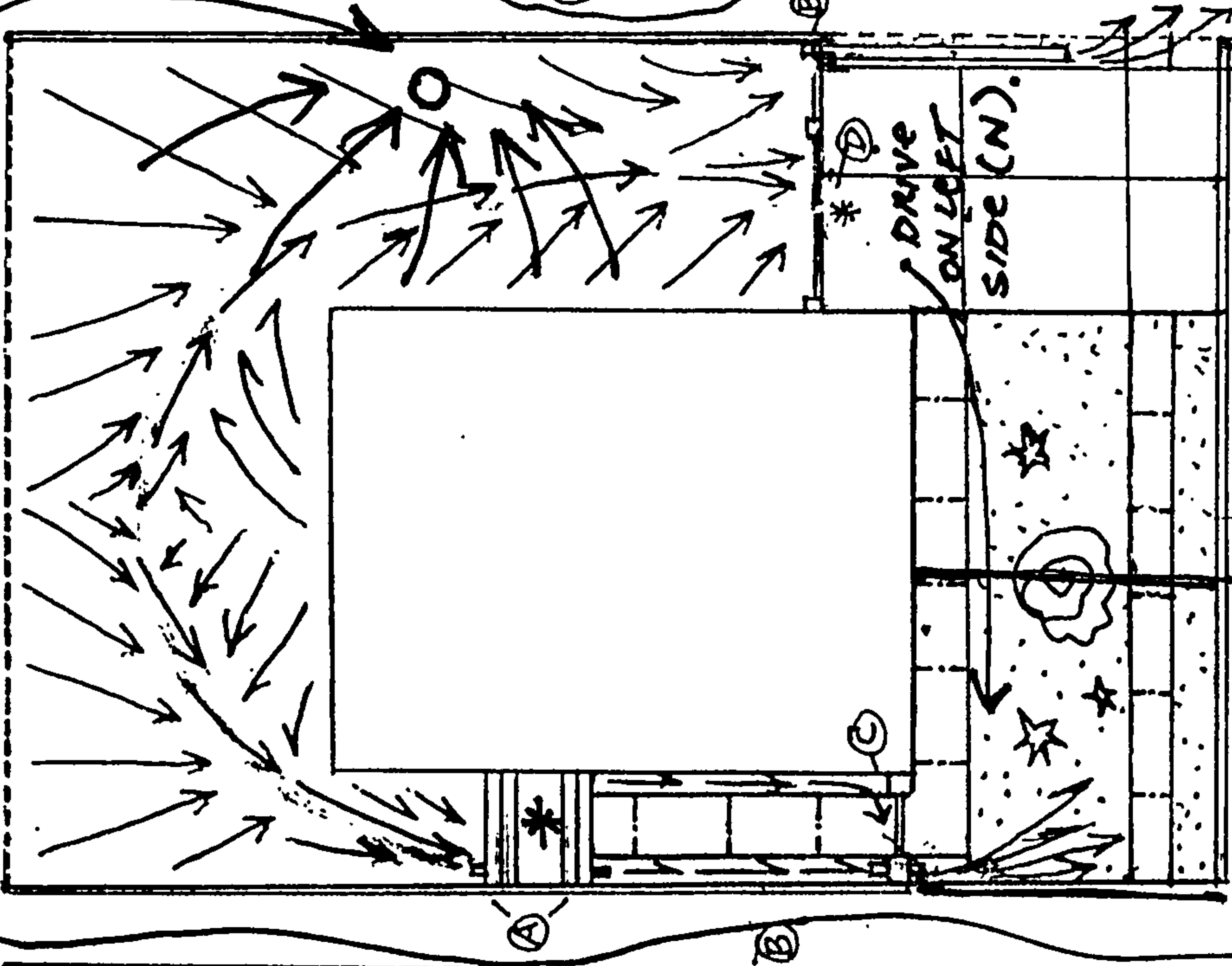
LOT 17, 100 WCP.



37' STANDARD LOT DRAINAGE.

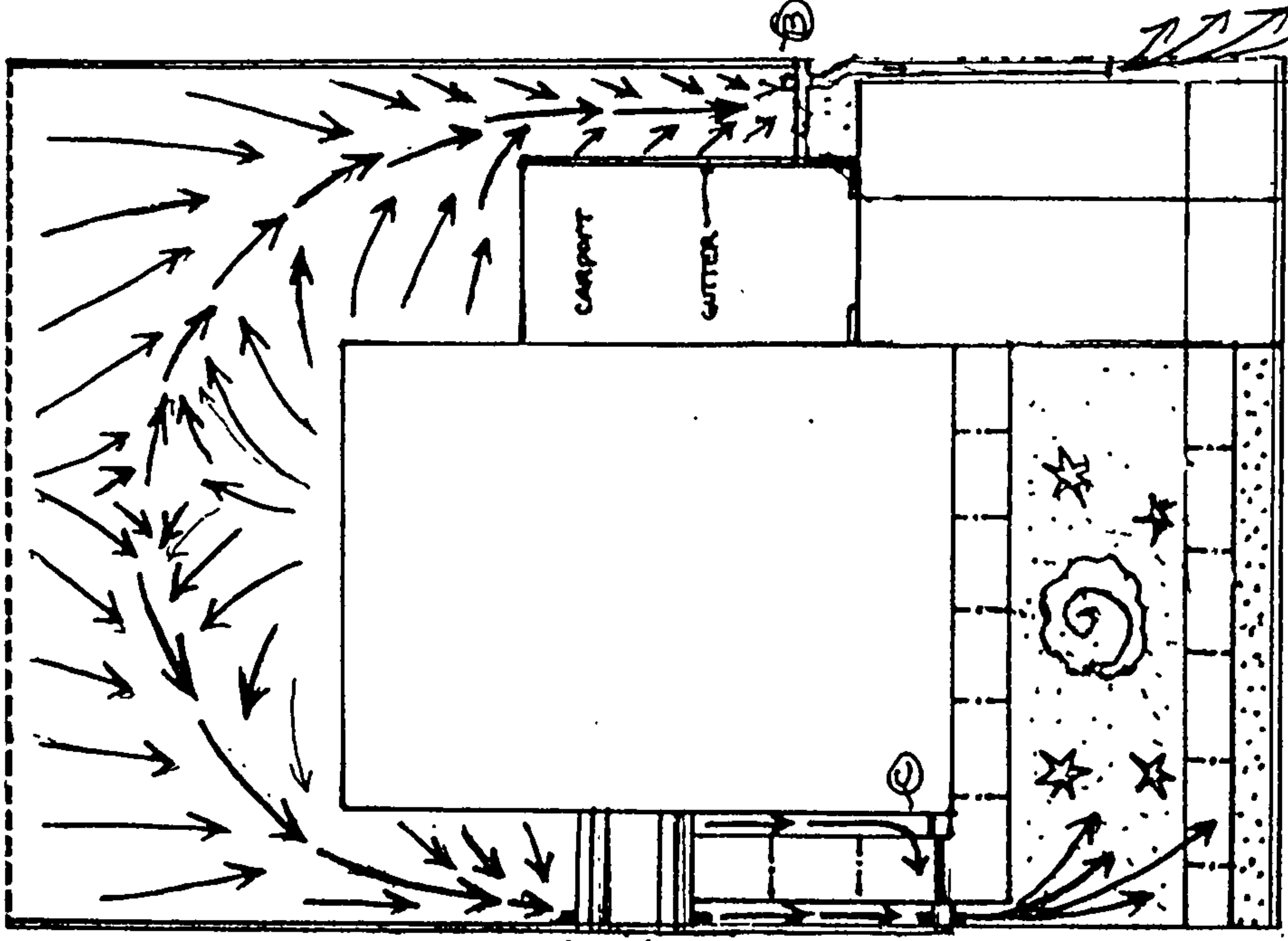
FINISH GRADE
WATER FLOW

- A = THRU STEPS
- B = THRU WALL/FENCE
- C = SIDE WALK CROSSOVER DRAIN TO WALK/OUTLET DRAIN



48'-8" PREMIUM LOT DRAINAGE

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING. * ENTRY ON RIGHT (S)



48'-8" PREMIUM LOT W/ CARPORT AND GUTTER/POUNCEPOUL.

All lots were finish graded to distribute rain water away from the house into a horseshoe shaped flow around the house to outlets that allow flow to the front yards and street.

D = Gravity flow under gates/over drive/ to street

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 17 Address 100 Westcourt Place NW

Printed Name JAVIER CENTENO

Printed Name X

Signature [Signature]

Signature X

Date 3/10/04

Date X

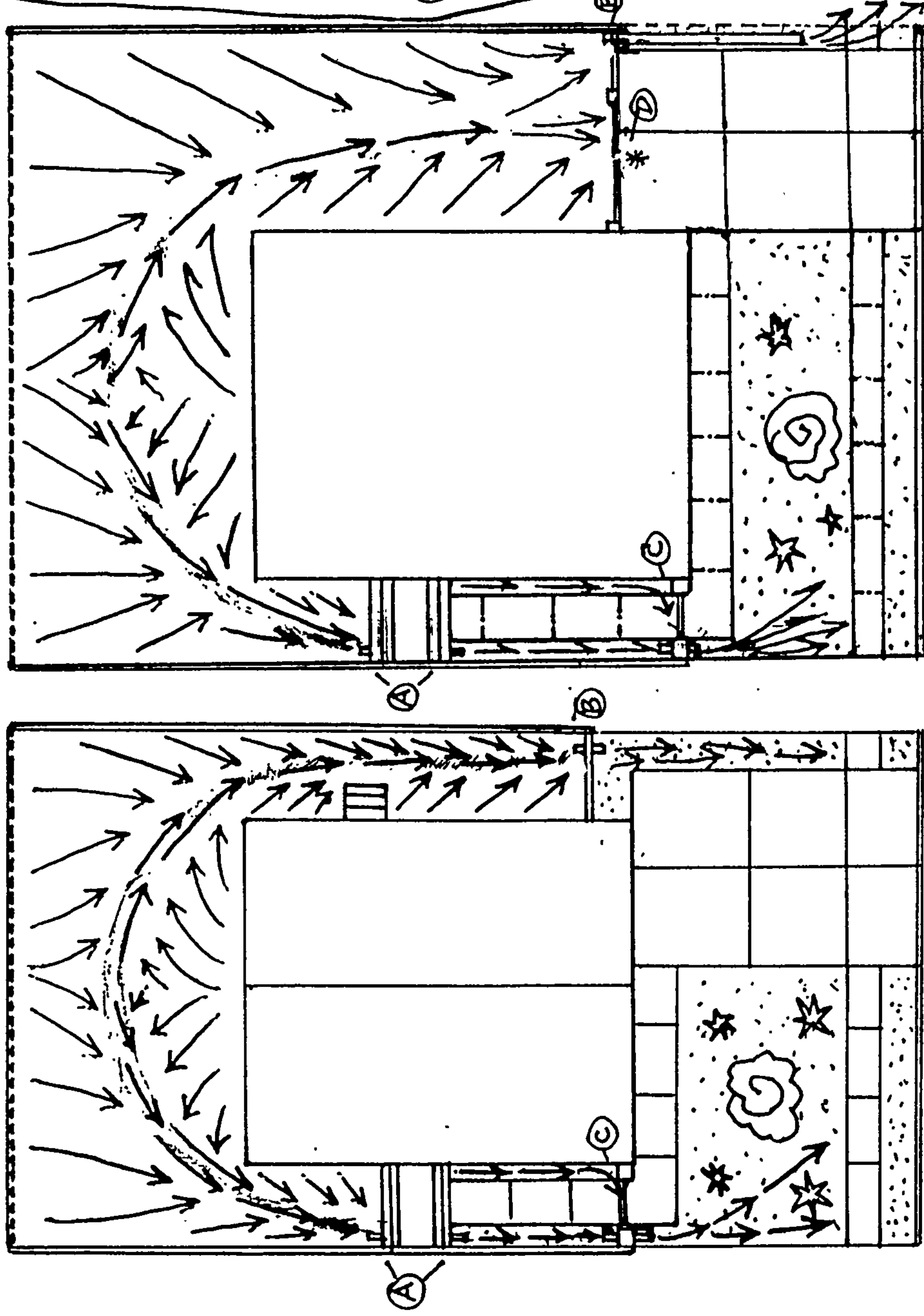
Lot 78

Notes S.W. Corner Lot. Rear yard drains around house to N. and S. sides, and to front yard, Graveled. Then to street drains. Drain pipe passes thru wall on south side into Landscape Gravel. Drain pipe ~~for~~ passes through wall on N. side to Landscaping Gravel area next to drive way. Water is also allowed to flow under gate and over drive way on N. side.

no "A" drains through steps Needed.

Corner Lot.

Lot #18, 101 WCP.



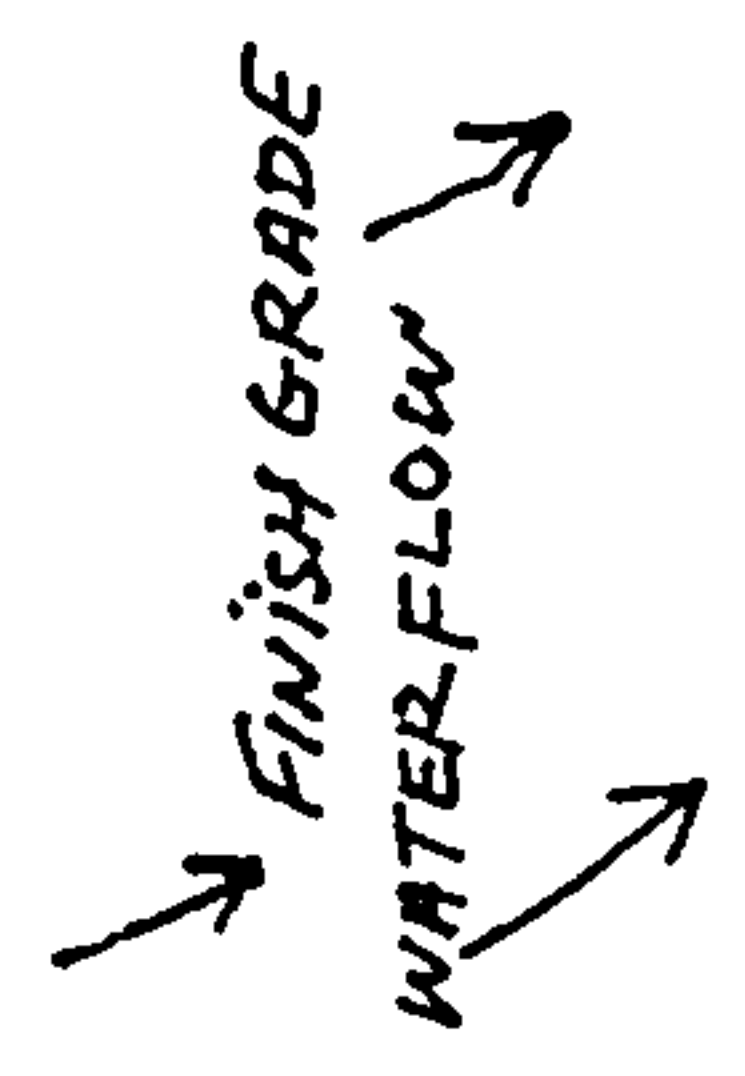
37' STANDARD LOT DRAINAGE.

48'-8" PREMIUM LOT DRAINAGE

48'-8" PREMIUM LOT W/ CARPORT AND GUTTER/POUNCEPOUL.

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.



- (A) = THRU STEPS
- (B) = THRU WALL/FENCE
- (C) = SIDE WALK CROSSEVER DRAIN TO WALL/OUTLET DRAIN
- (D) = GRAVITY FLOW UNDER GATES/ OVER DRIVE/ TO STREET

Lot/Homesite Drainage Requirements Notice and Agreement

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We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 18 Address 101 Westcourt Place NW

Printed Name JAMES E. MORRIS Printed Name

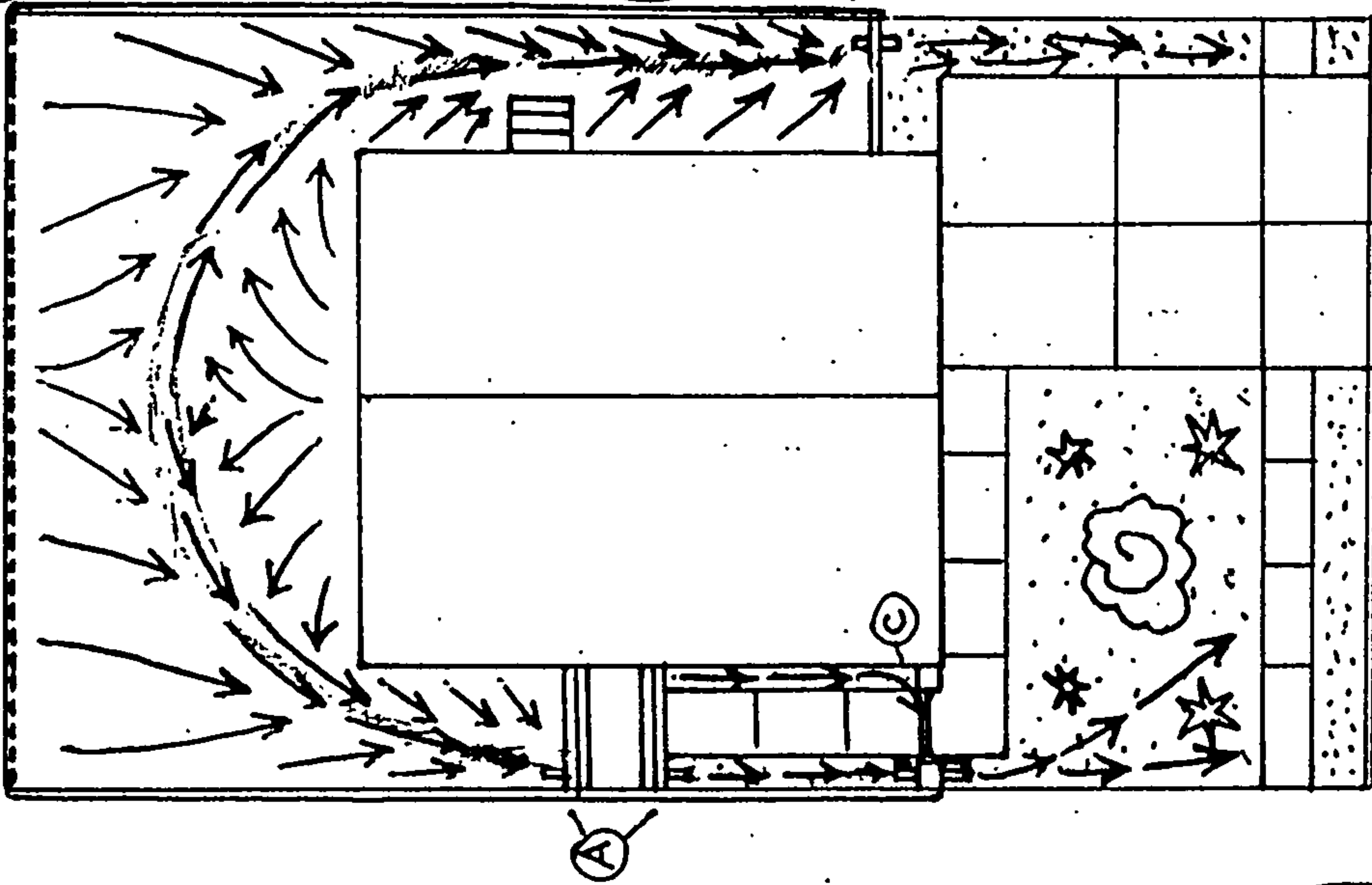
Signature James E. Morris Signature X

Date 8-30-03 Date

Notes Lot 19, 105 WCP, Valdez house.

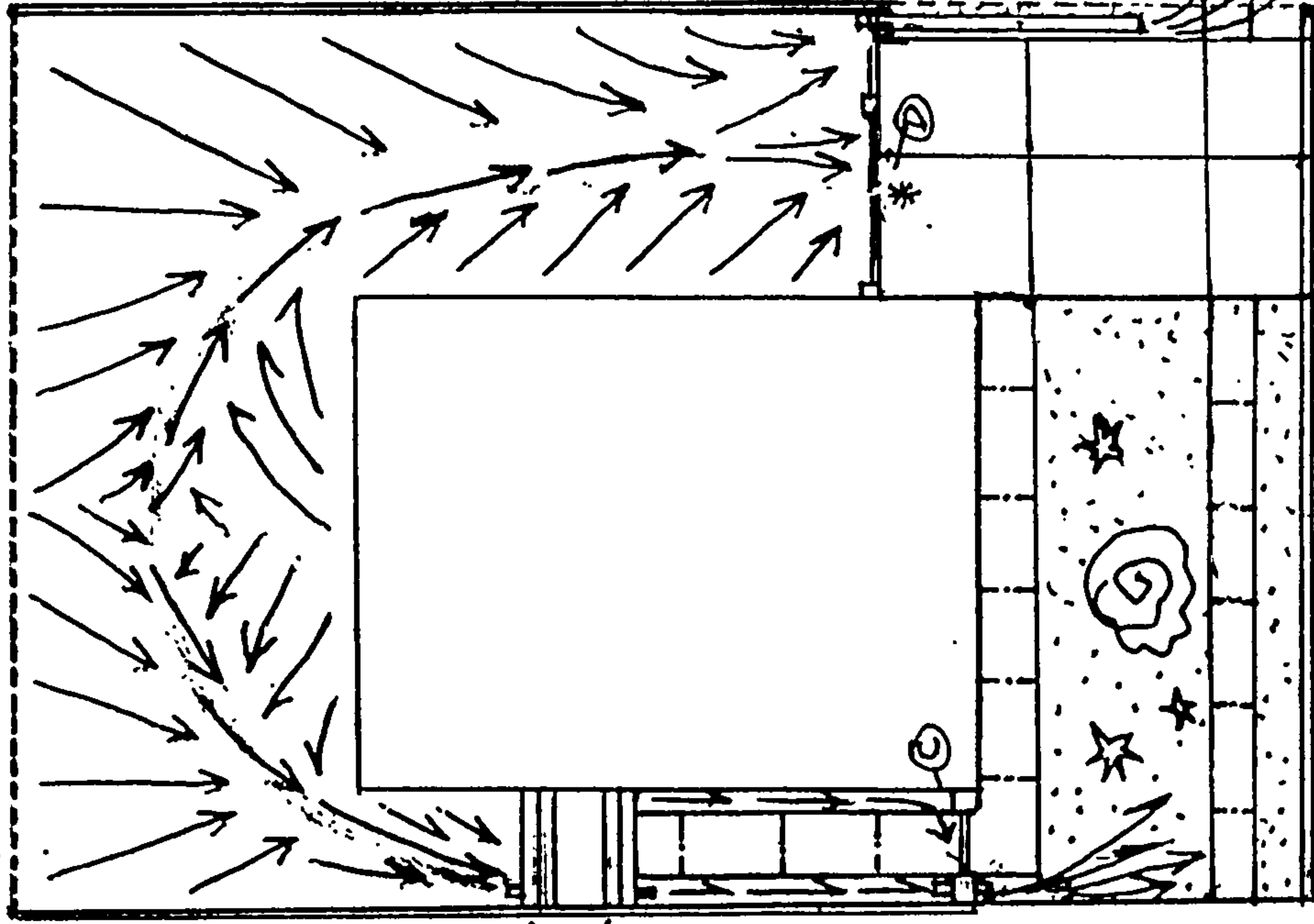
Small lot, drains from Rear to front of lot
in horseshoe configuration.

LOT 19, 105 WCP.



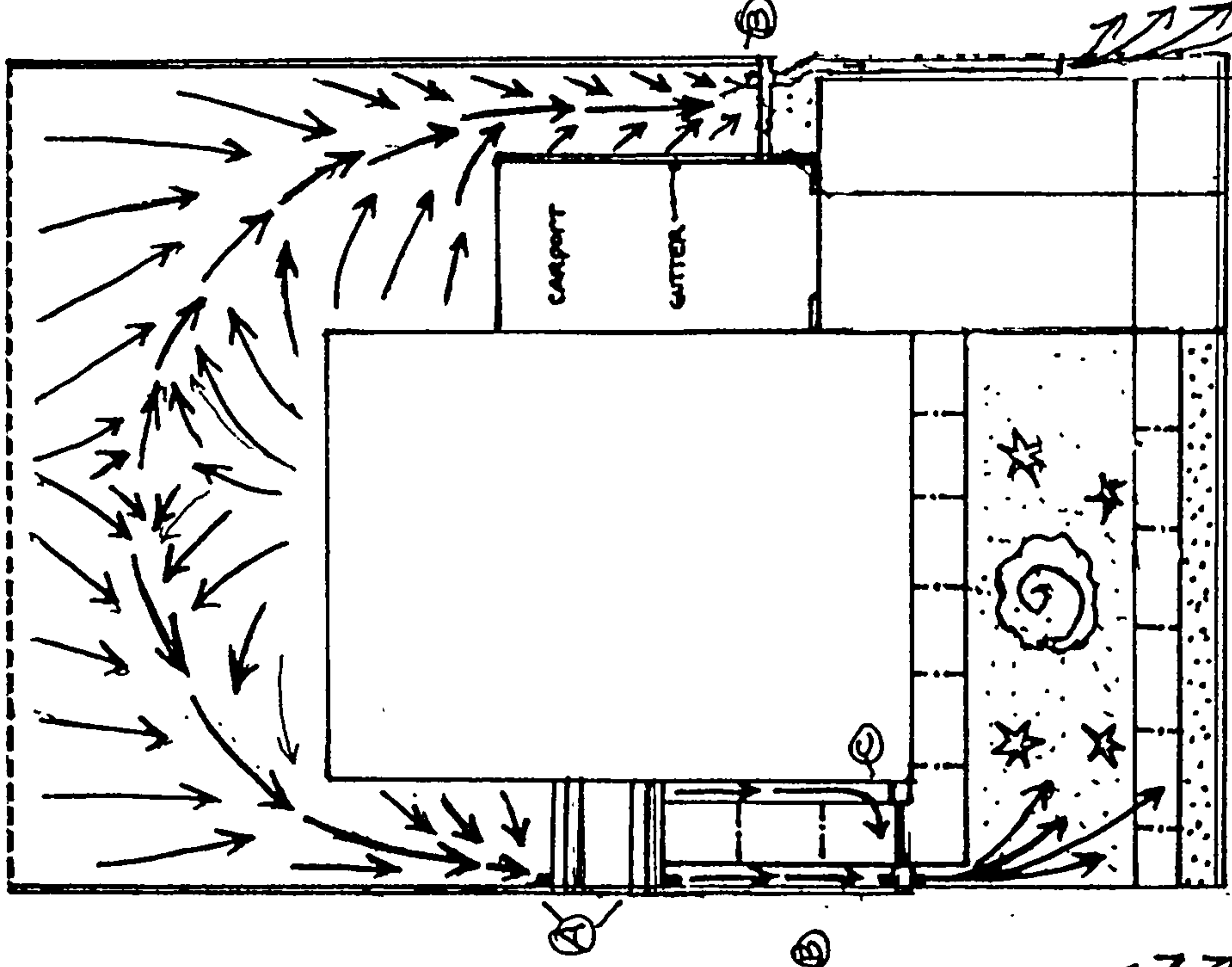
37' STANDARD LOT DRAINAGE.

FINISH GRADE
WATER FLOW



48'-8" PREMIUM LOT DRAINAGE

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.



48'-8" PREMIUM LOT W/ CARPORT AND GUTTER/ DOWNSPOUT

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

- A = THRU STEPS
- B = THRU WALL/FENCE
- C = SIDE WALK CROSSOVER DRAIN TO WALL/OUTLET DRAIN
- D = GRAVITY FLOW UNDER GATES/OVER DRIVE/TO STREET

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 19 Address 105 Westcourt Place NW

Printed Name Rosenaldo Valdez Printed Name Inez Valdez

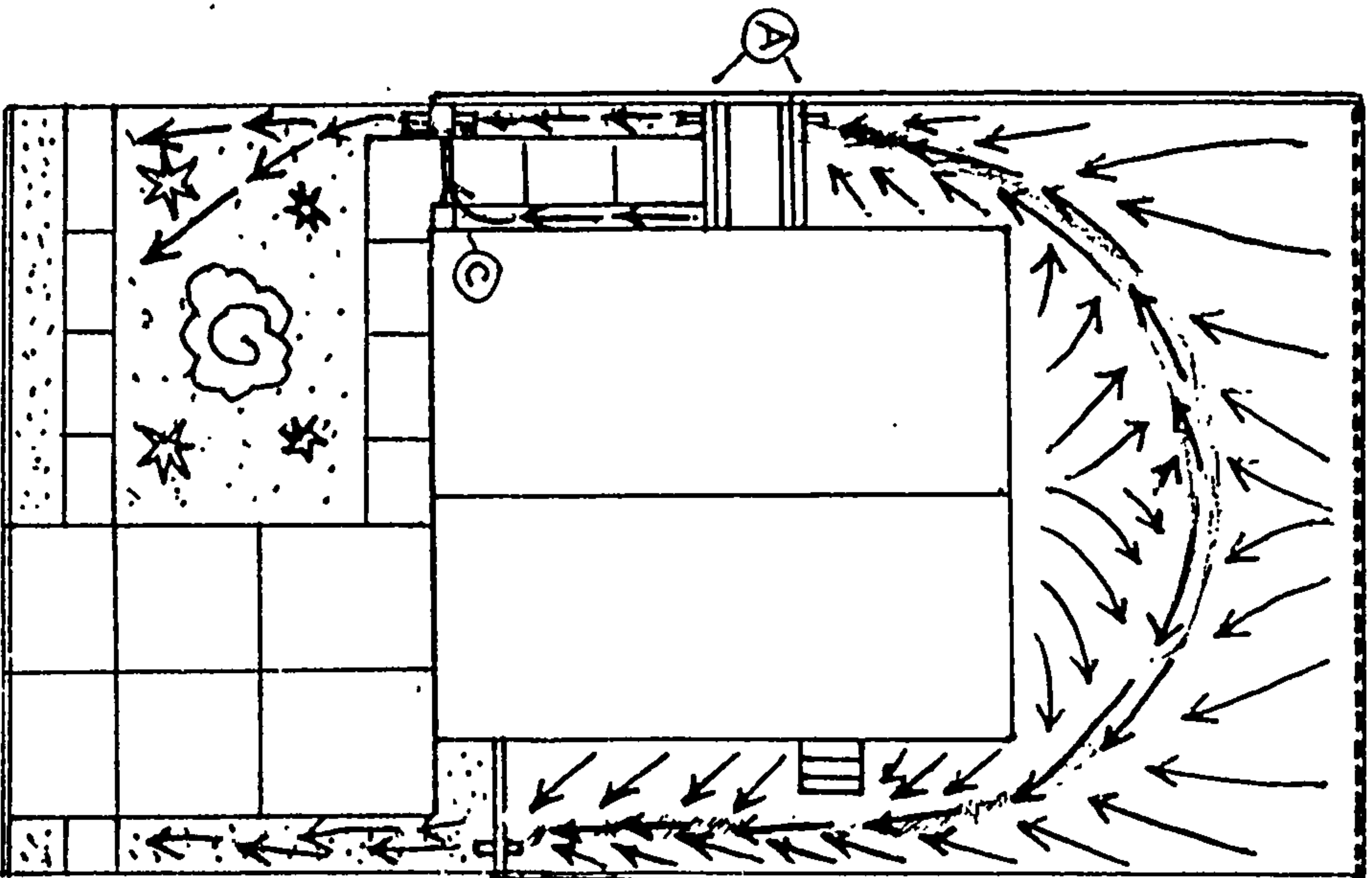
Signature Rosenaldo F. Valdez Signature Inez L. Valdez

Date 2-14-04

Date 2-14-04

Notes Lot #20, 109 WCP, Romero House.

Large lot - Drains from Rear to Front in
horseshoe configuration. N. side has double gate
to supplement yard drainage.



37' STANDARD LOT DRAINAGE.

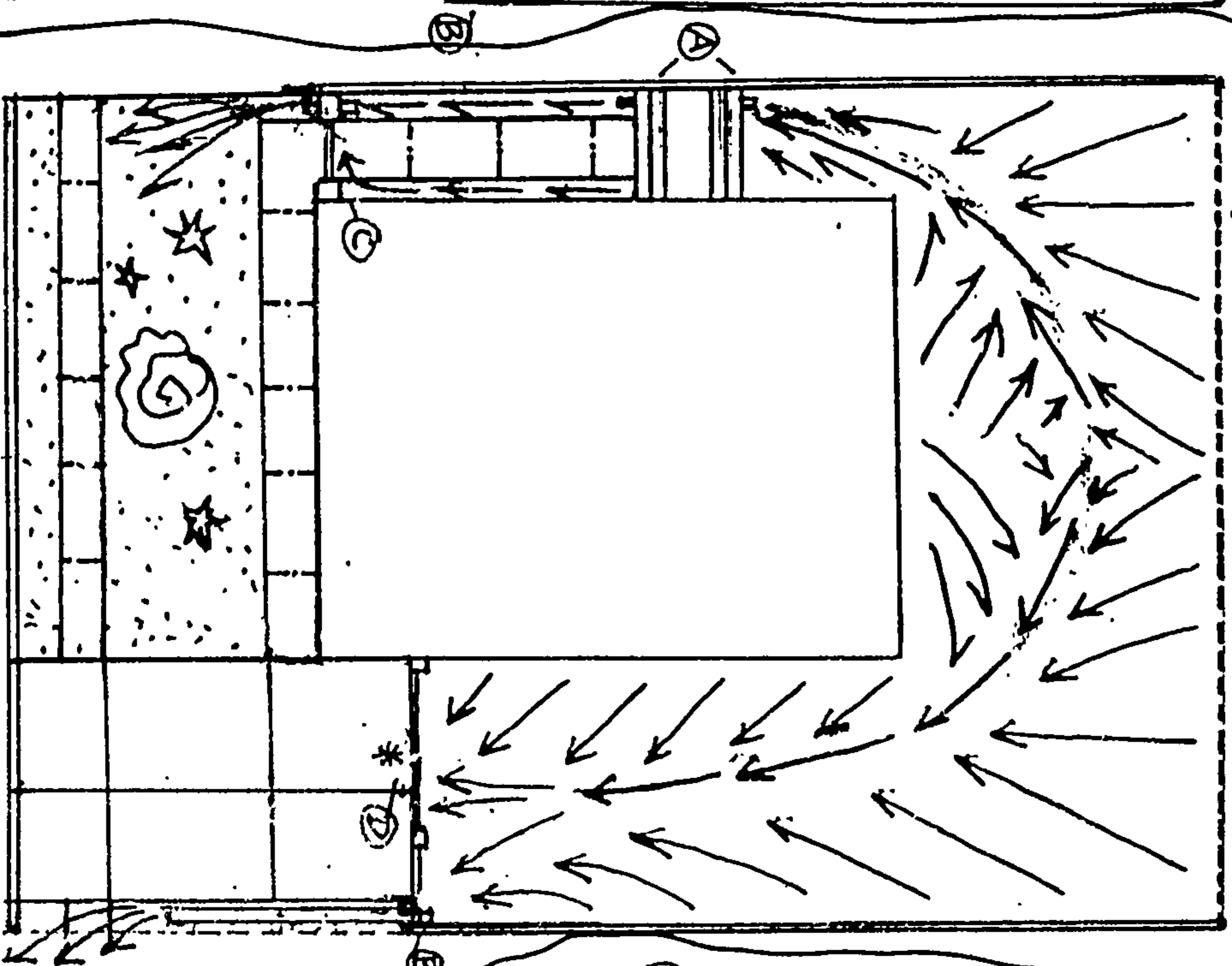
FINISH GRADE
WATER FLOW

- ① = THREE STEPS
② = THRU 11' FENCE
③ = SIDE

* CROSSOVER DRAIN TO WALL OUTLET DRAIN

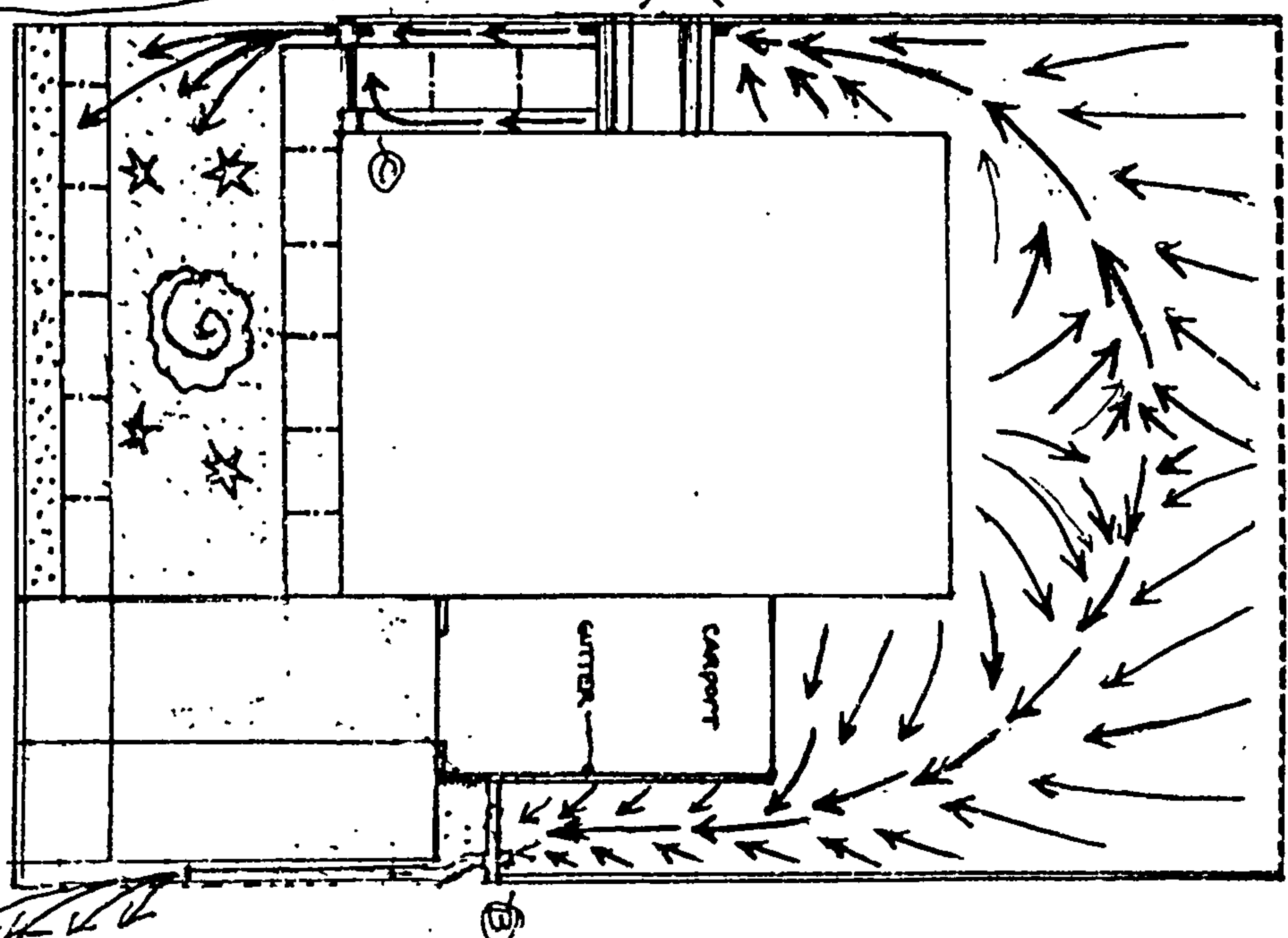
④ =

VINYL FLOW UNDER GATES/OVER DRIVE/TO STREET



48'-8\"/>

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.



48'-8\"/>

ALL LOTS WERE FINISH GRADED TO DISPERSE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 20 Address 109 Westcourt Place NW

Printed Name Isaac Romero

Signature Isaac Romero

Date 5-13-03

Printed Name _____

Signature _____

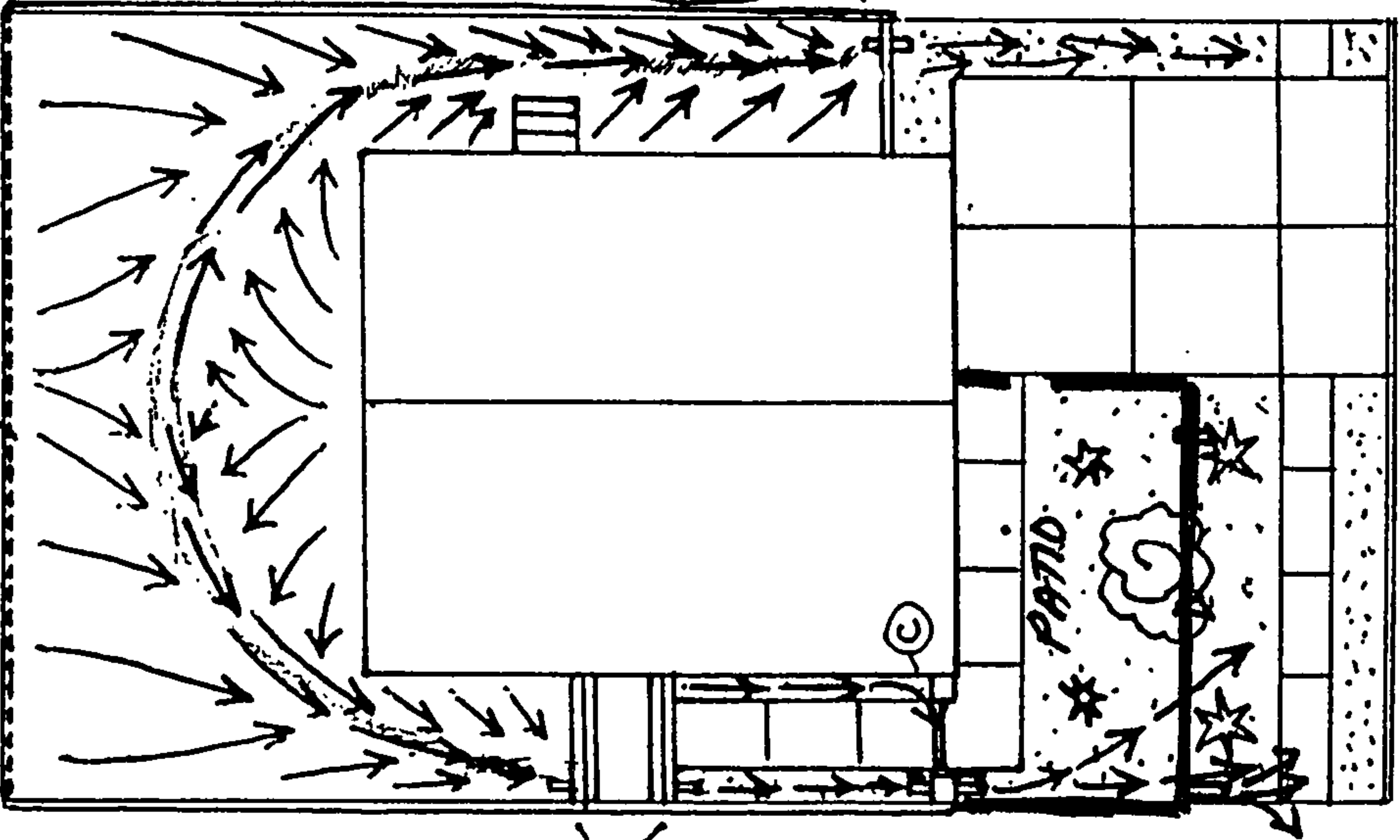
Date _____

Notes lot 21, 115 wcp. , Shahvar house

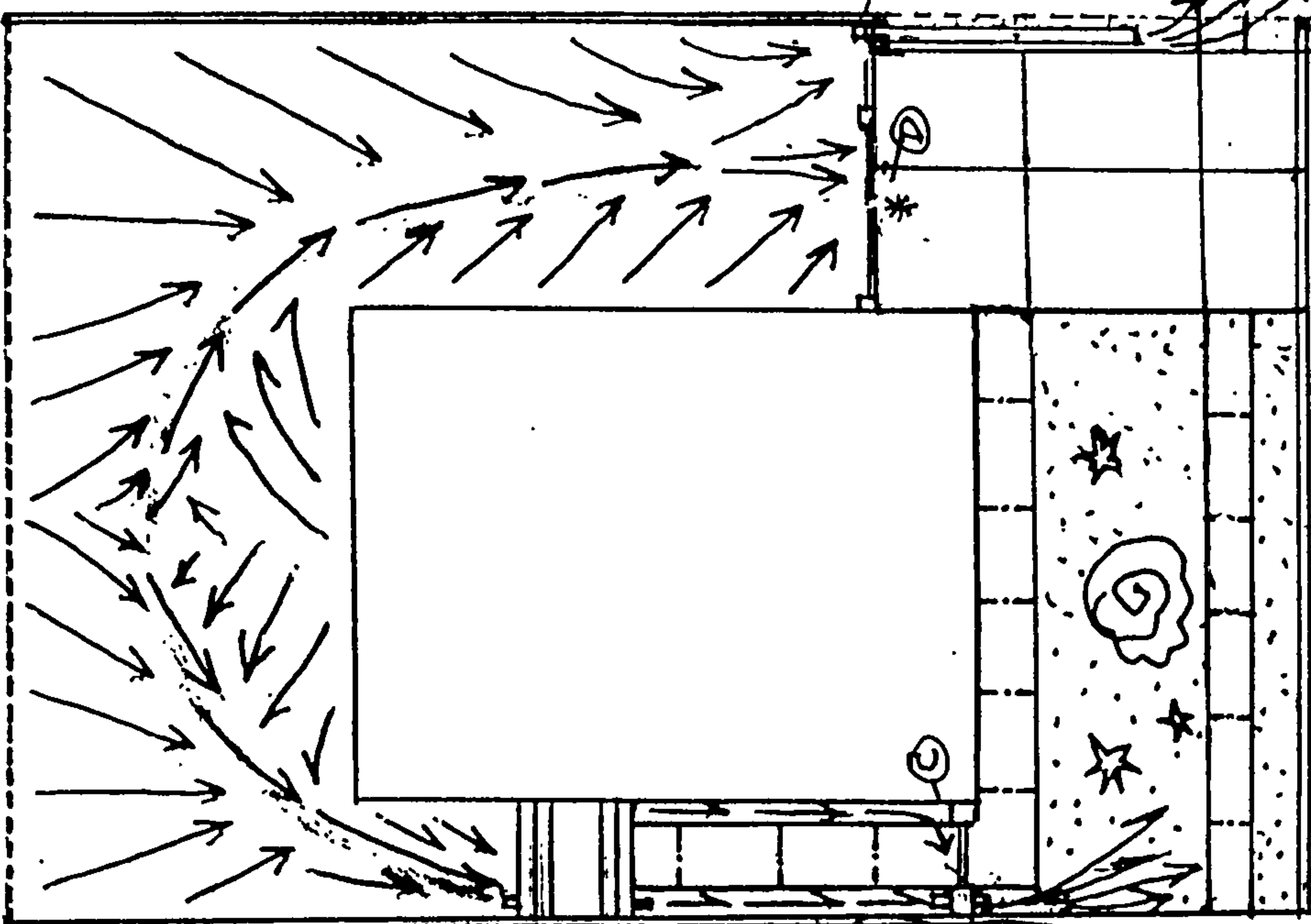
Drains from Rear to front of house in horseshoe
Configuration.

Patio with walks in front. patio drain lines
installed.

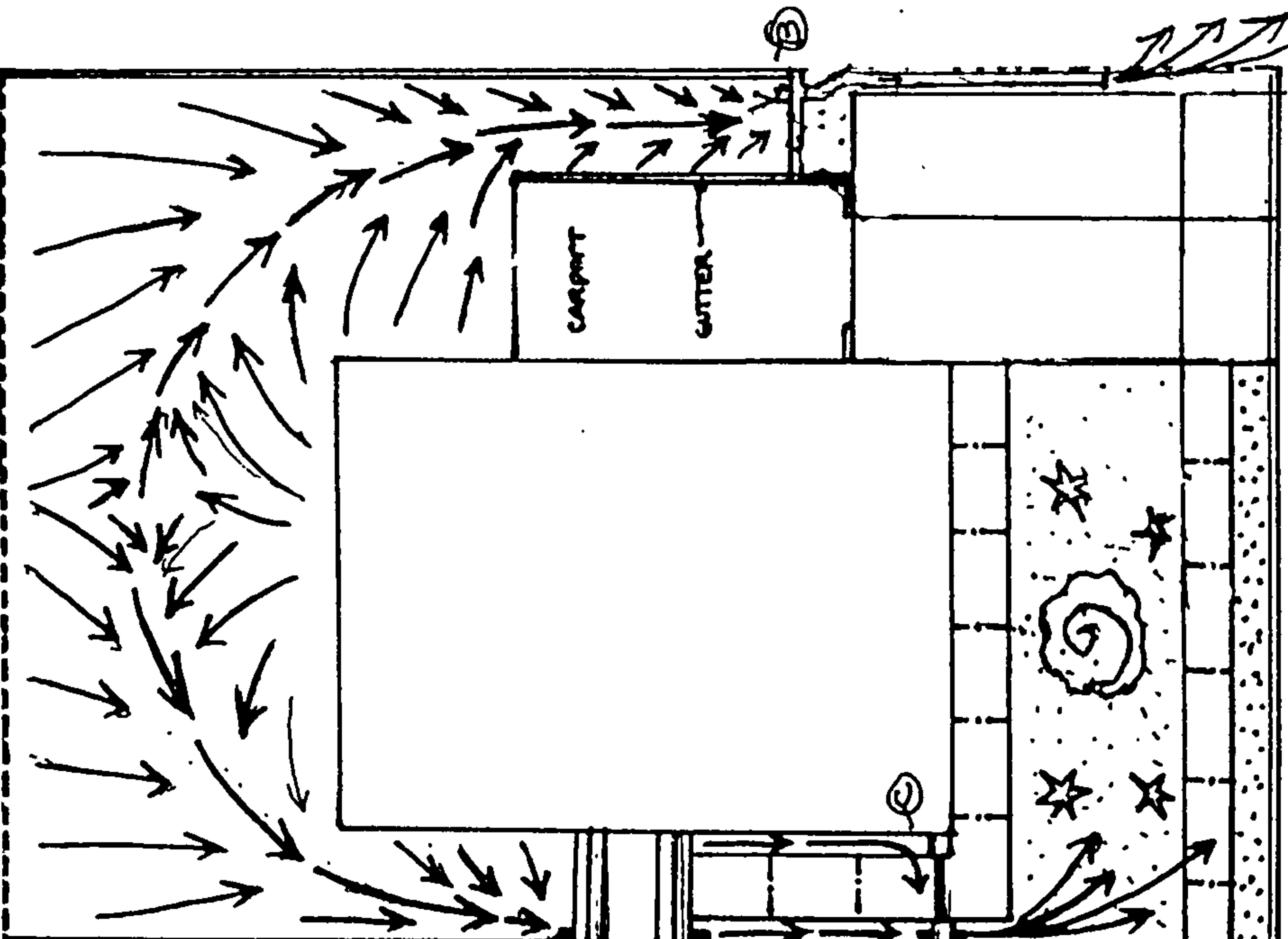
LOT 211 115, WCP



37' STANDARD LOT DRAINAGE.



48'-8" PREMIUM LOT DRAINAGE



48'-8" PREMIUM LOT W/ CARPORT AND GUTTER/POUNCEPOU.

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

- Ⓐ = THRU STEPS
- Ⓑ = THRU WALL/FENCE
- Ⓒ = SIDE WALK Crossover DRAIN TO WALL/OUTLET DRAIN
- Ⓓ = GRAVITY FLOW UNDER GATES/OVER DRIVE/TO STREET

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 21 Address 115 Westcourt Place NW

Printed Name JANNA SHAHVAR

Printed Name _____

Signature Janna Shahvar

Signature _____

Date 3-11-04

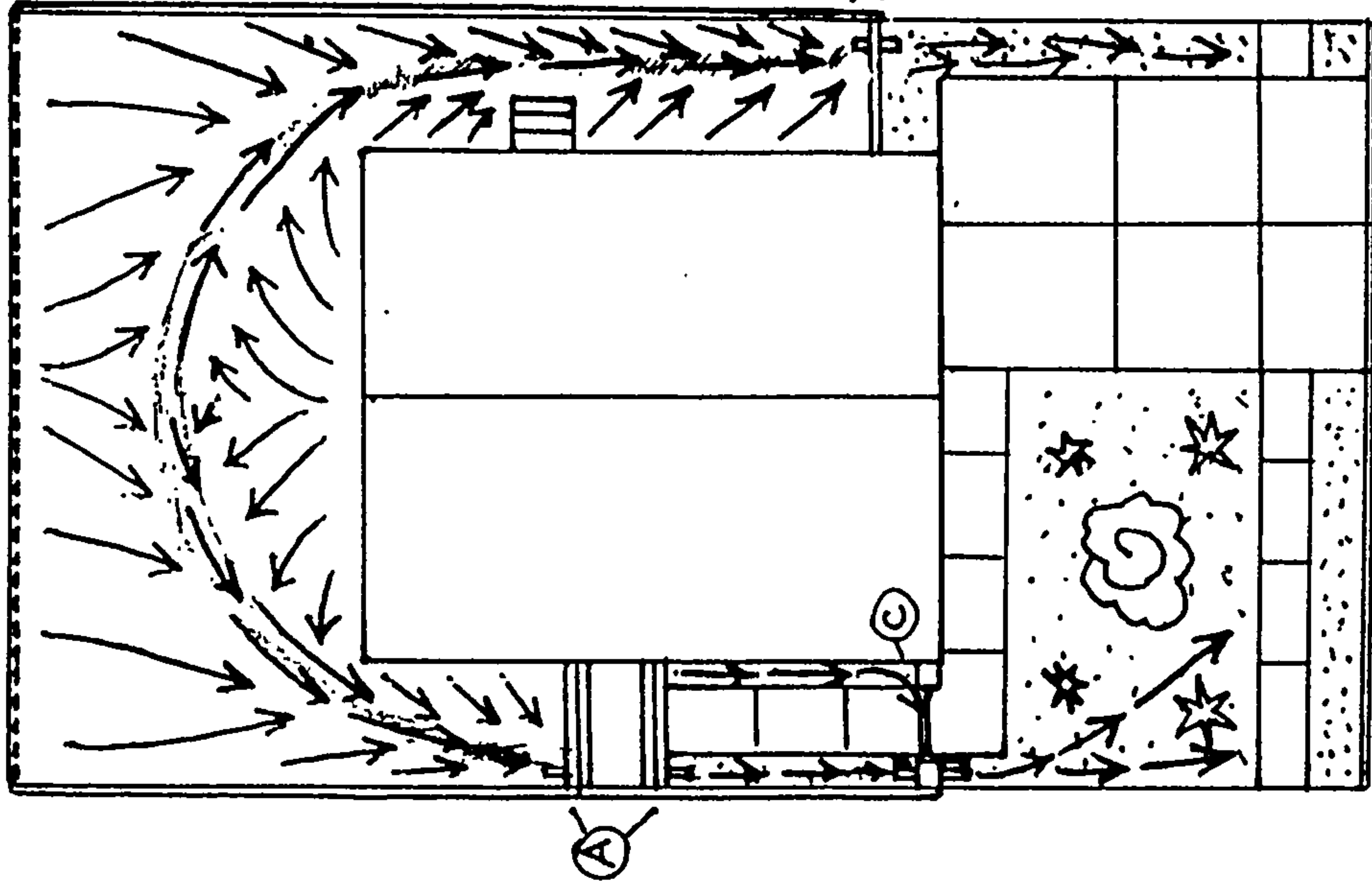
Date _____

Notes Lot 22, Smalwood House,

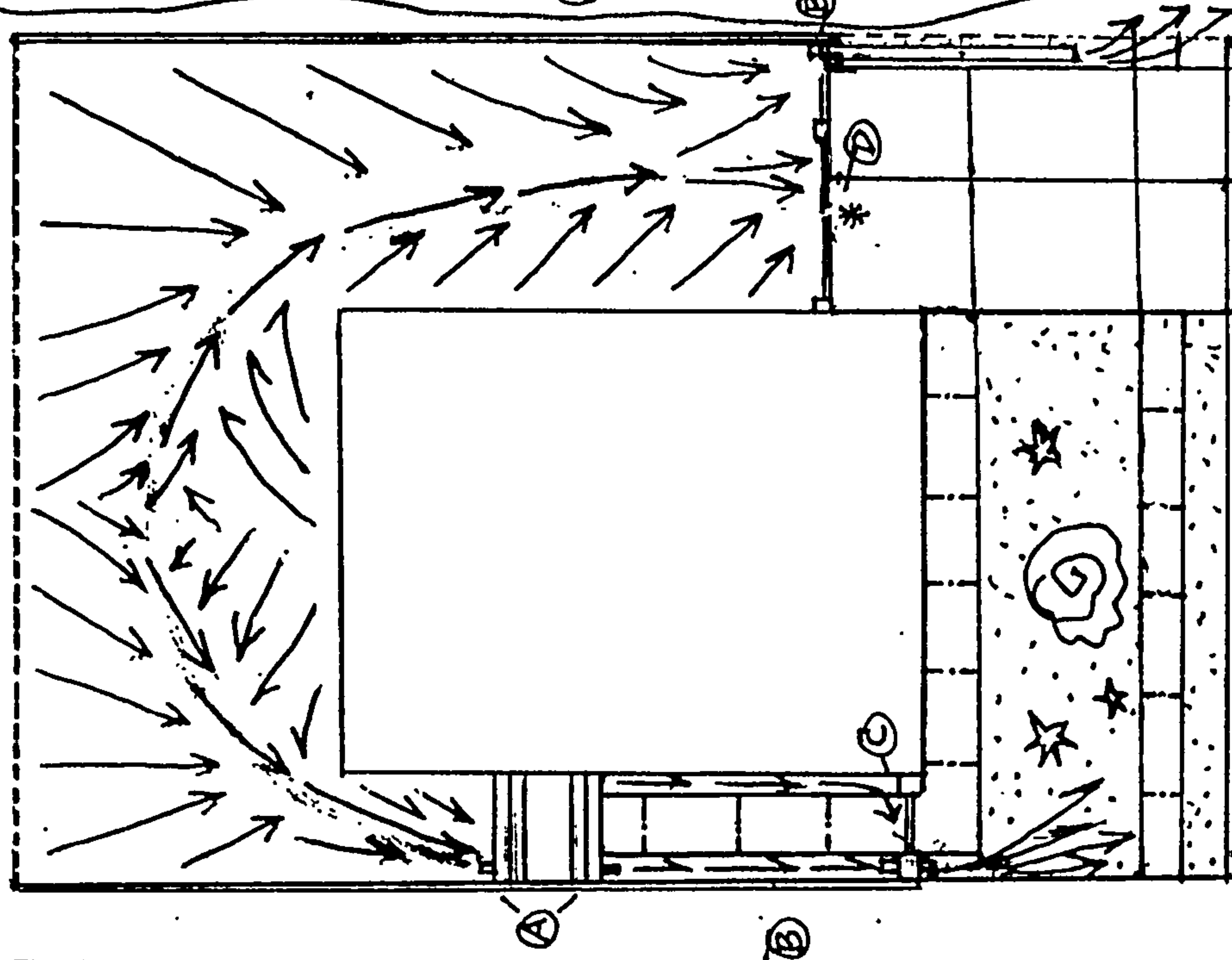
Drains in Horseshoe to Both sides of House. Angle of drain pipe
under front steps required solid run to Front yard outlet. Tee inlet
of Gate drains small area Between steps and Gate.

smallwood

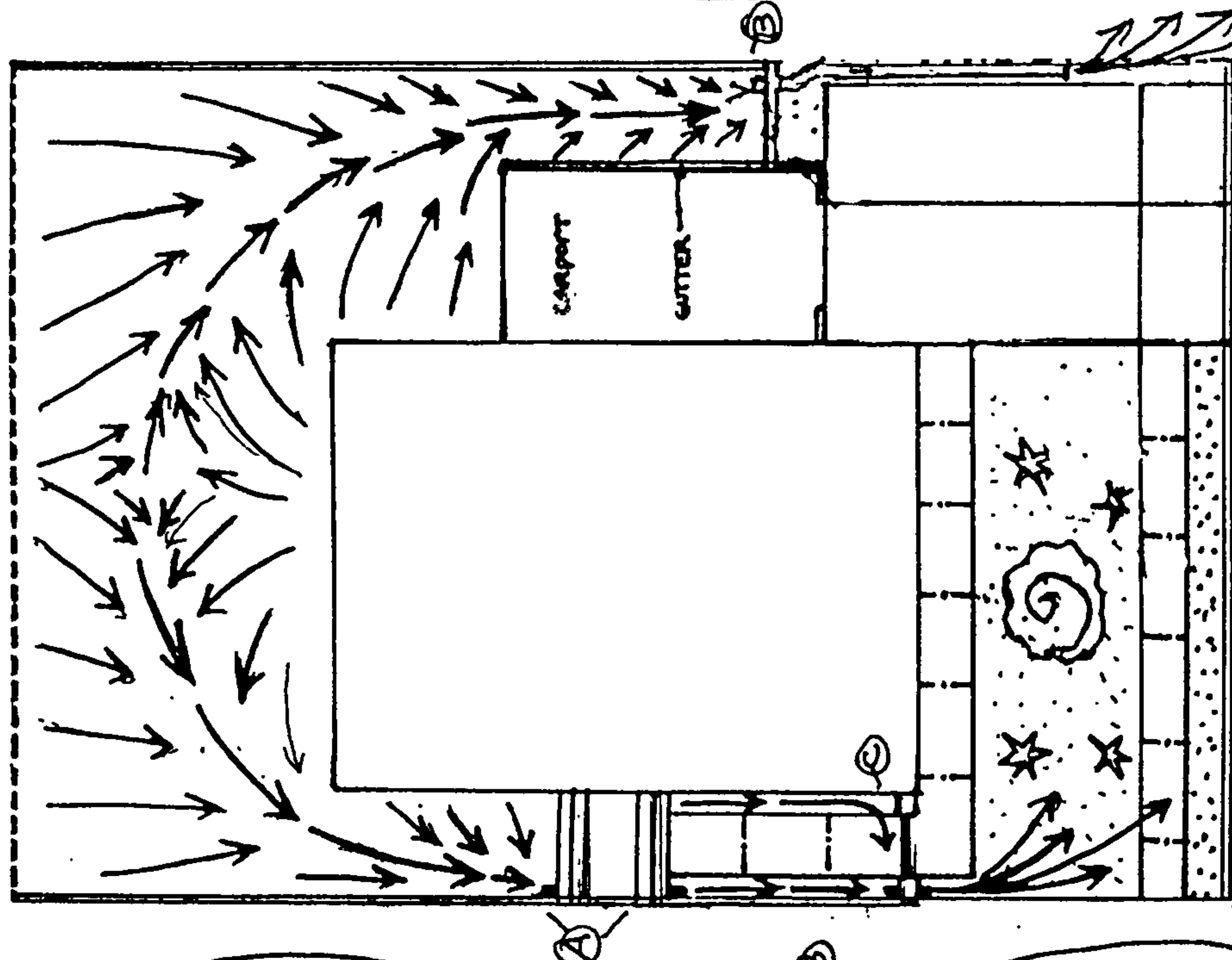
LOT 22, 119 WCP.



37' STANDARD LOT DRAINAGE.



48'-8" PREMIUM LOT DRAINAGE



48'-8" PREMIUM LOT W/ CARPORT AND GUTTER/ DOWNSPOUT.

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.

FINISH GRADE
WATER FLOW

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

- Ⓐ = THRU STEPS
- Ⓑ = THRU WALL/FENCE
- Ⓒ = SIDE WALK CROSSOVER DRAIN TO WALL/OUTLET DRAIN
- Ⓓ = GRAVITY FLOW UNDER GATES/OVER DRIVE/TO STREET

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We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 22 Address 119 _____ Westcourt Place NW

Printed Name JAMES A. Smallwood Printed Name Robin G. Smallwood

Signature James A. Smallwood Signature Robin G. Smallwood

Date 8-11-03

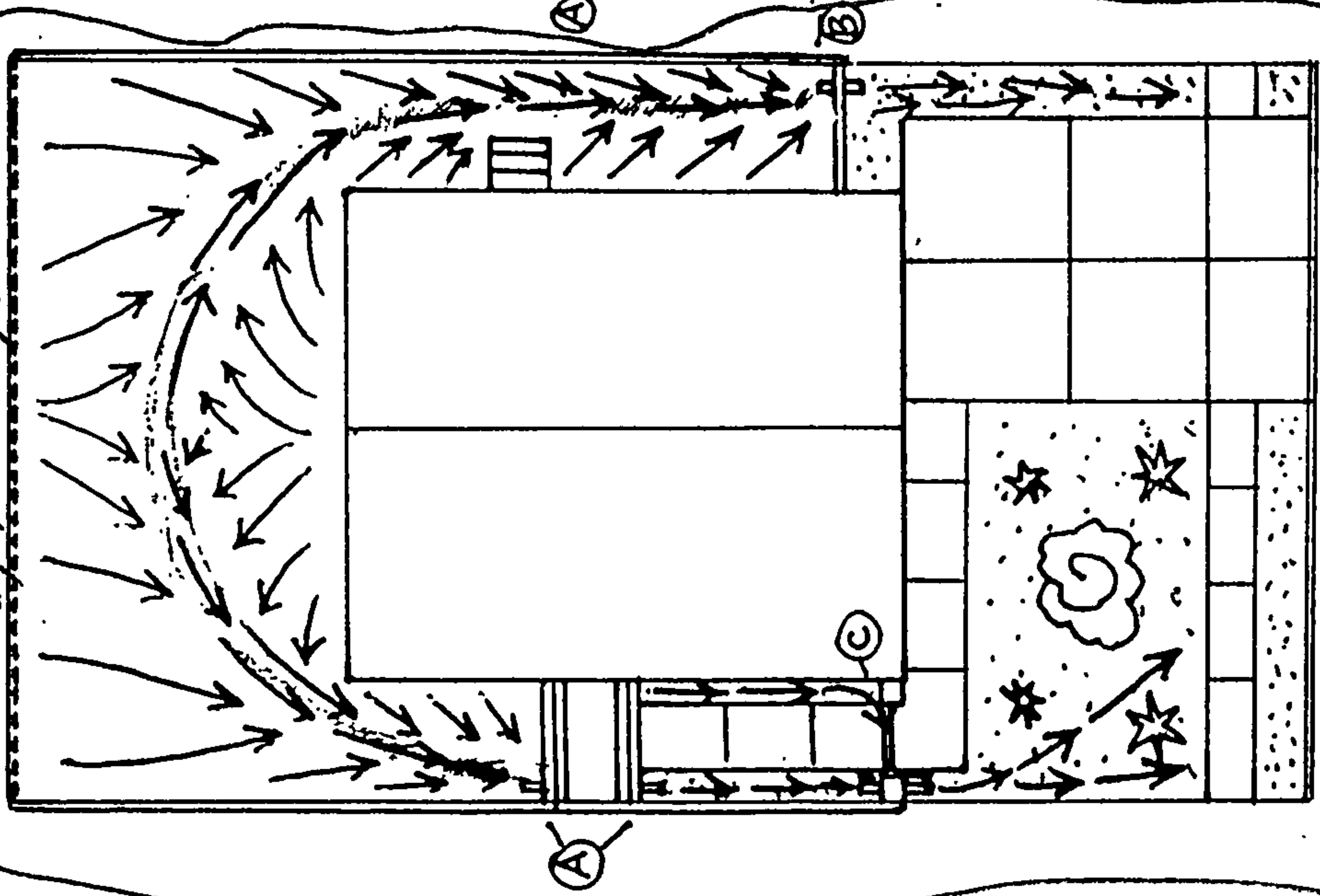
Date 8-11-03

Notes Lot 123, Jessica Garcia house,

Drains from rear to front in horseshoe configuration.

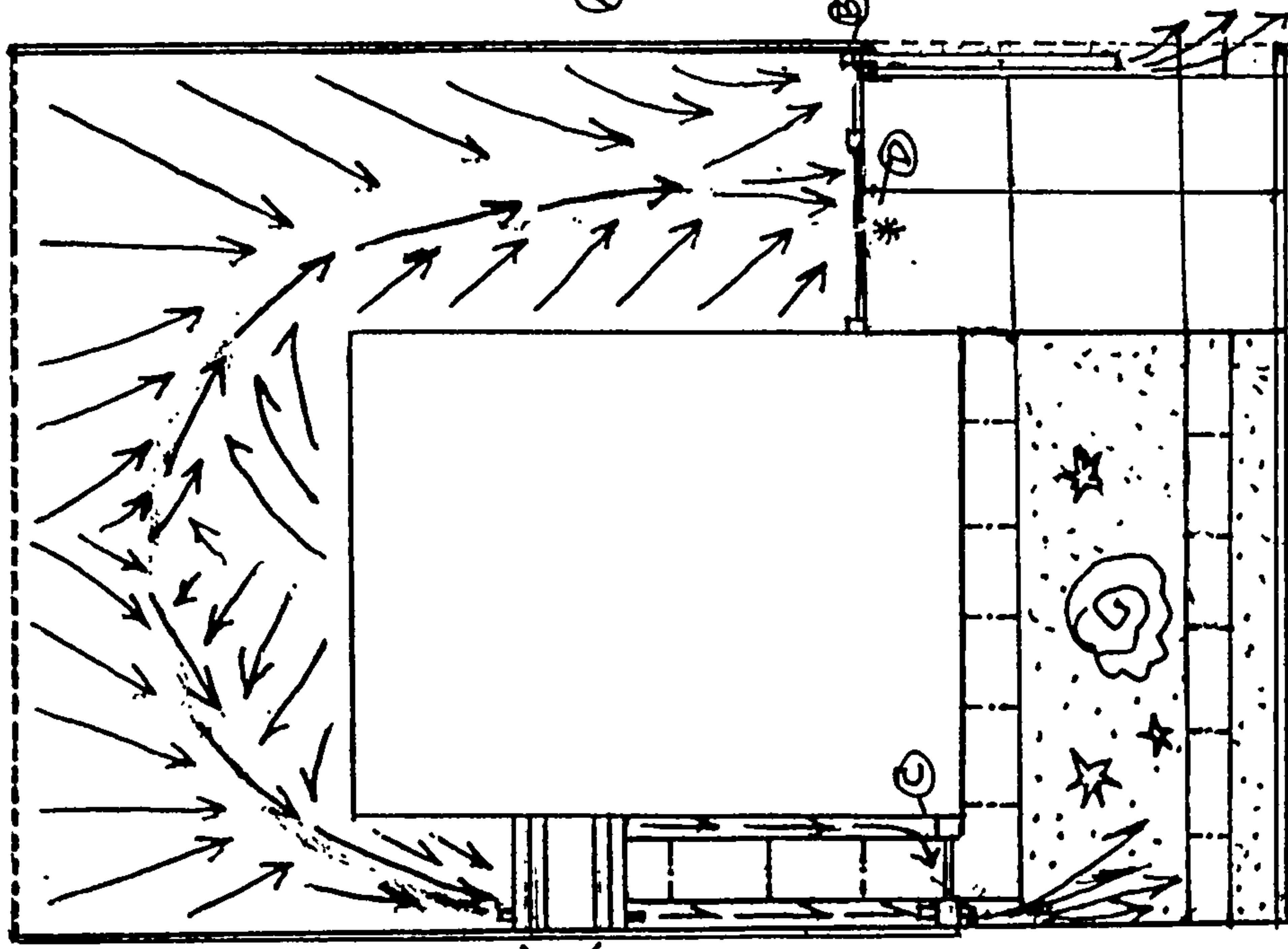
J. Garcia.

LOT 23, 123 WCP.

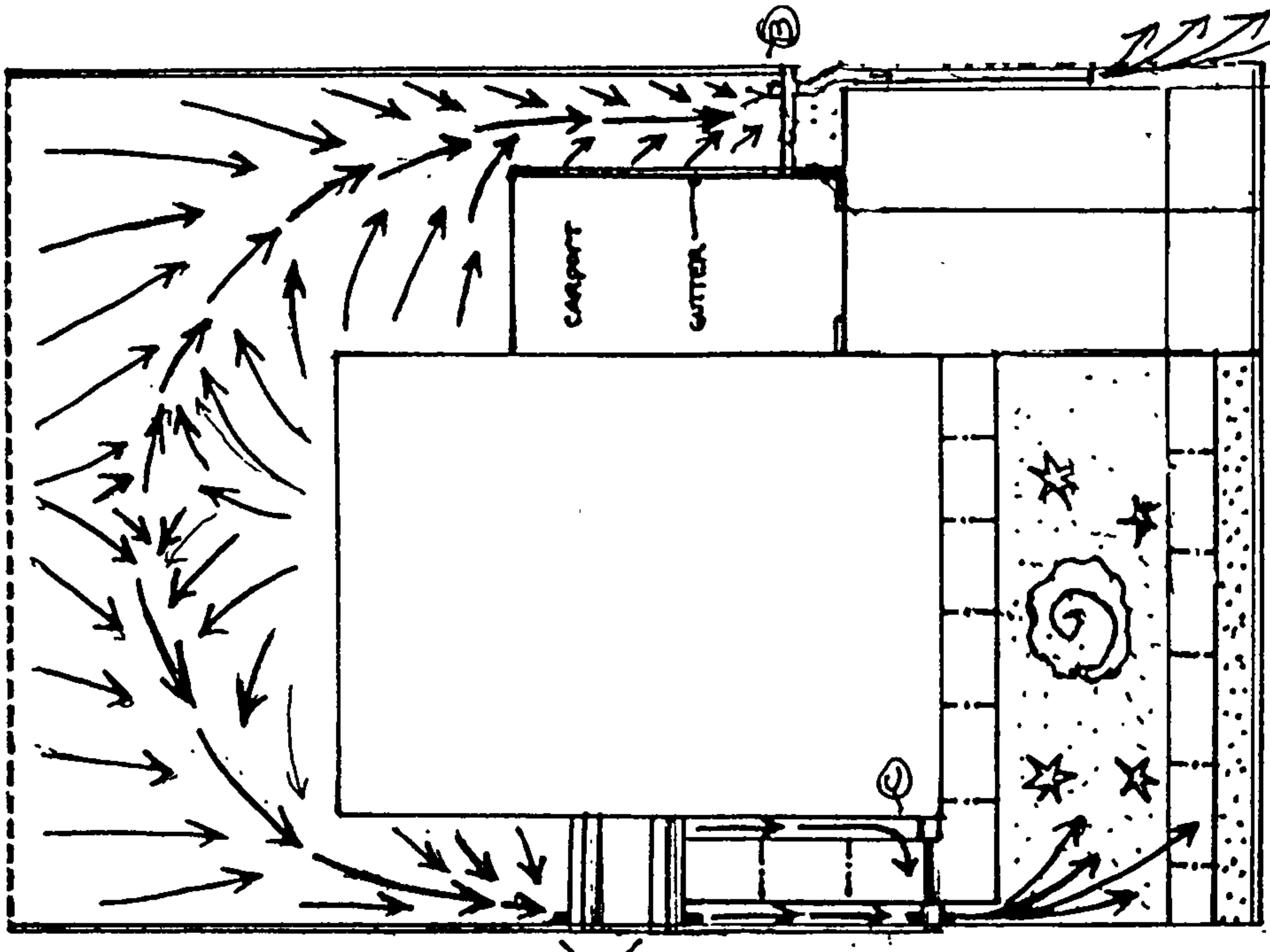


37' STANDARD LOT DRAINAGE.

FINISH GRADE
WATER FLOW



48'-8" PREMIUM LOT DRAINAGE



48'-8" PREMIUM LOT W/ CARPORT AND GUTTER / DOWNSPOUT.

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

- A = THRU STEPS
- B = THRU WALL / FENCE
- C = SIDE WALK CROSSESS DRAIN TO WALL OUTLET DRAIN

D = GRAVITY FLOW UNDER GATES / OVER DRIVE / TO STREET

**Lot/Homesite Drainage Requirements
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We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 23 Address 123 _____ Westcourt Place NW

Printed Name Jessica Garcia Printed Name _____

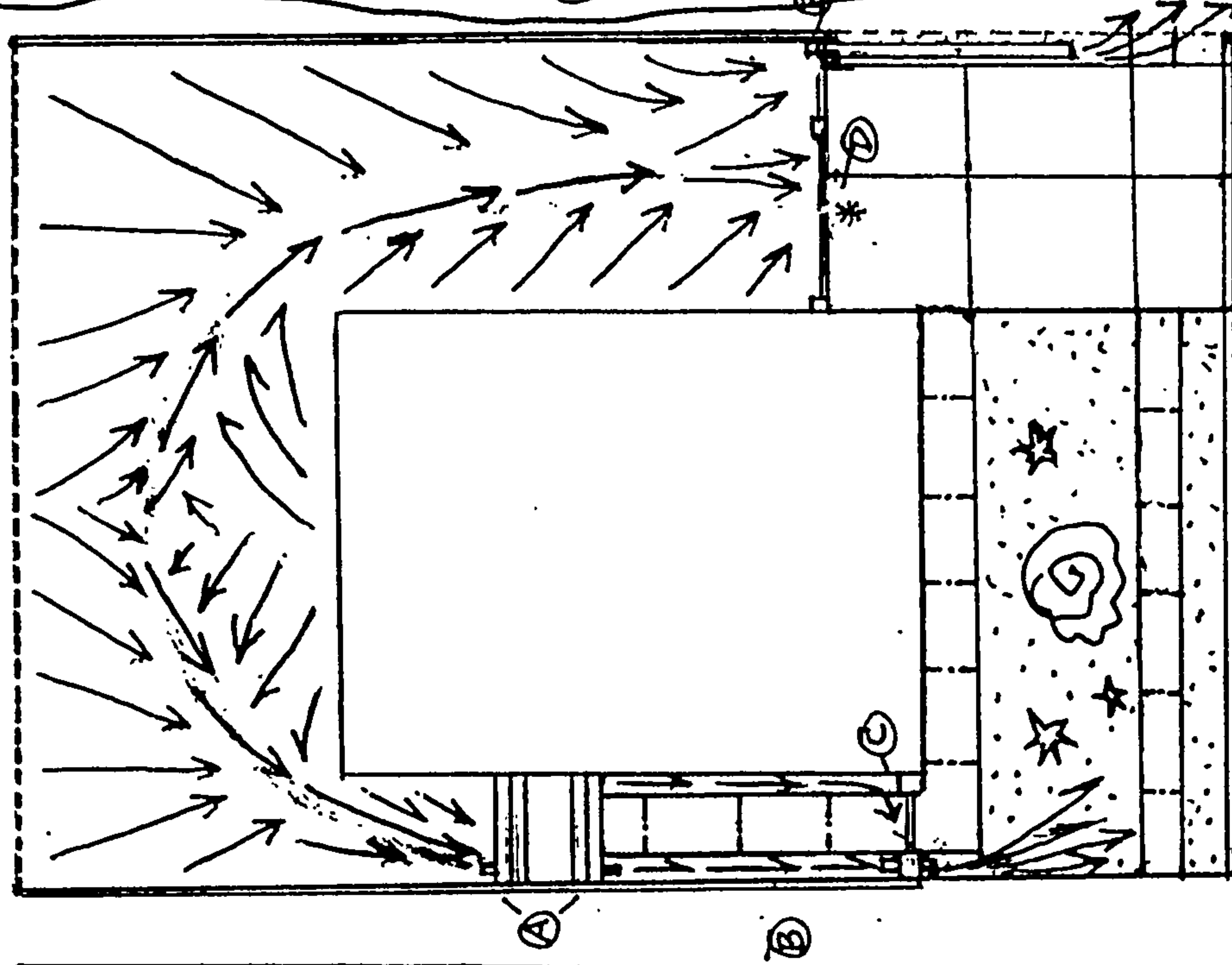
Signature Jessica Garcia Signature _____

Date 2-08-04 Date _____

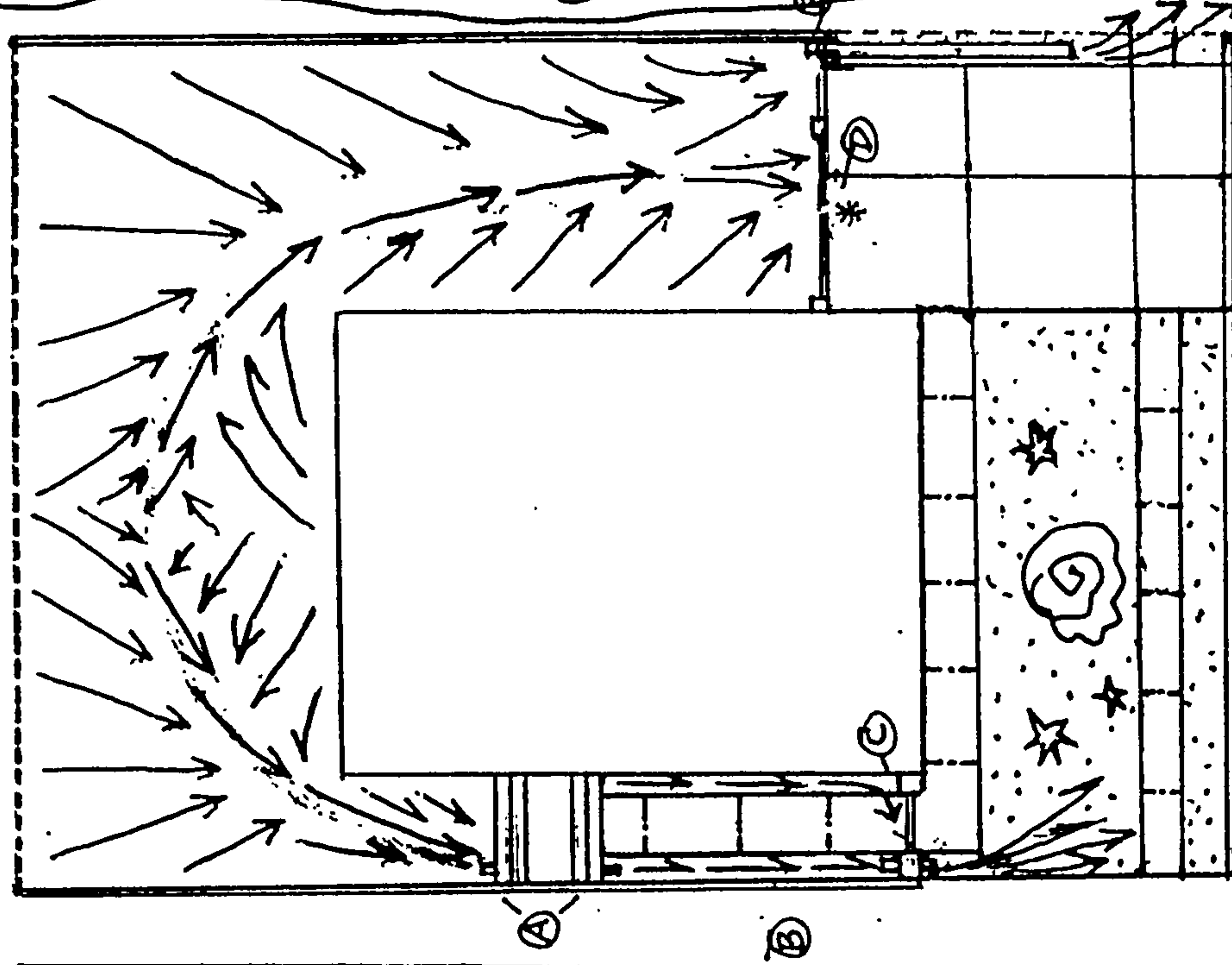
Notes Lot 24, 201 Wep., Cesar Villalobos,

Larger lot, drains in Horseshoe from Back to Front.

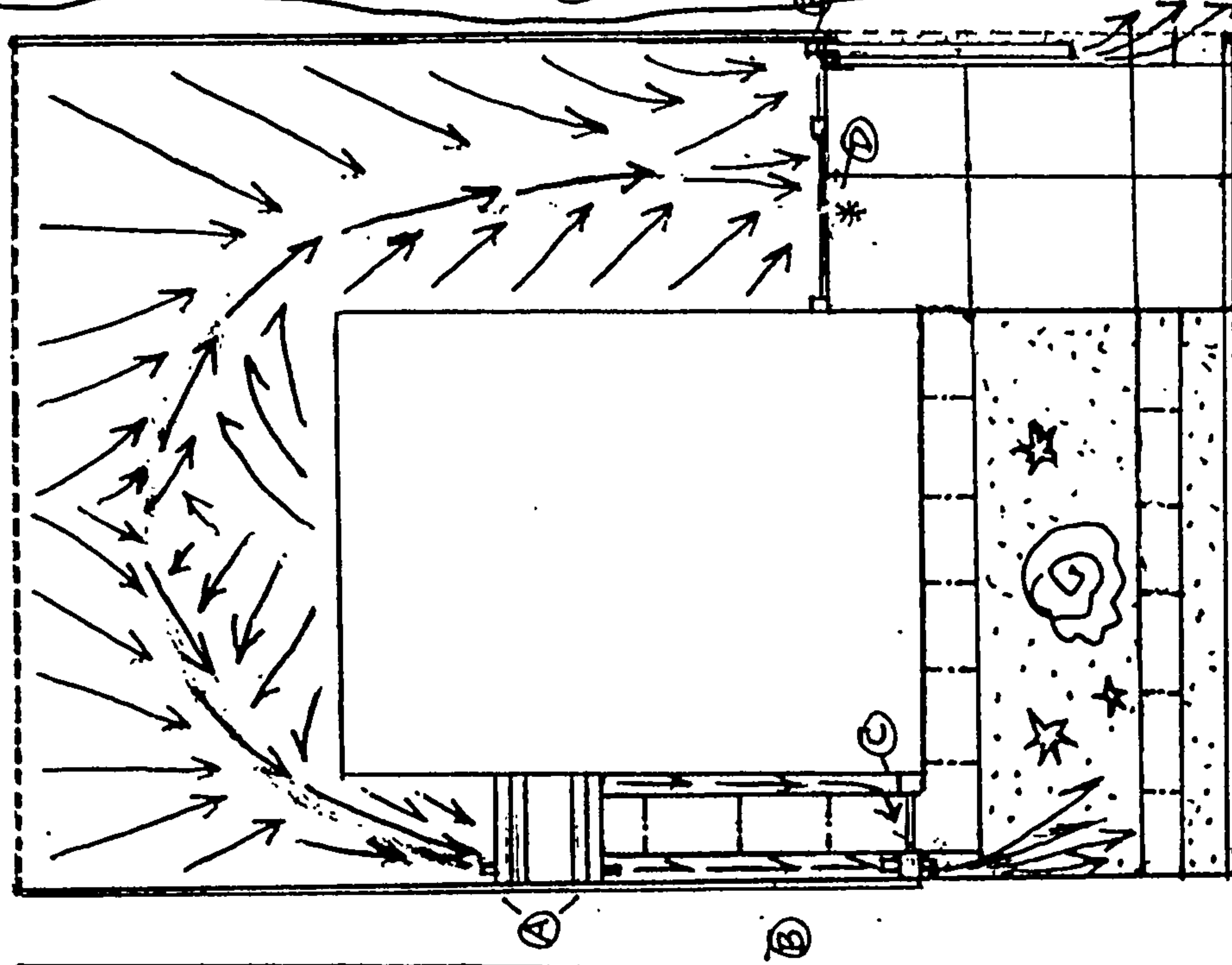
N. Side drains under / through cedar fence beside car-port - out through 4" drain, down to front yard outlet.



37' STANDARD LOT DRAINAGE.



48'-8" PREMIUM LOT DRAINAGE



48'-8" PREMIUM LOT W/CARPORT AND GUTTER/DOWNSPOUT.

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.

All lots were FINISH graded to disintegrate rain water away from the house into a horseshoe shaped flow around the house to outlets that allow flow to the front yards and street.

A diagram showing two arrows pointing upwards and to the right. The top arrow is labeled "FINISH GRADE" and the bottom arrow is labeled "WATER FLOW".

- (A) = THRU STEPS
 (B) = THRU WALL/FENCE
 (C) = SIDEWALK CROSSO

⑤ = Gravity flow under gates/over drive/70 street

**Lot/Homesite Drainage Requirements
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Lot # 24 Address 201 _____ Westcourt Place NW

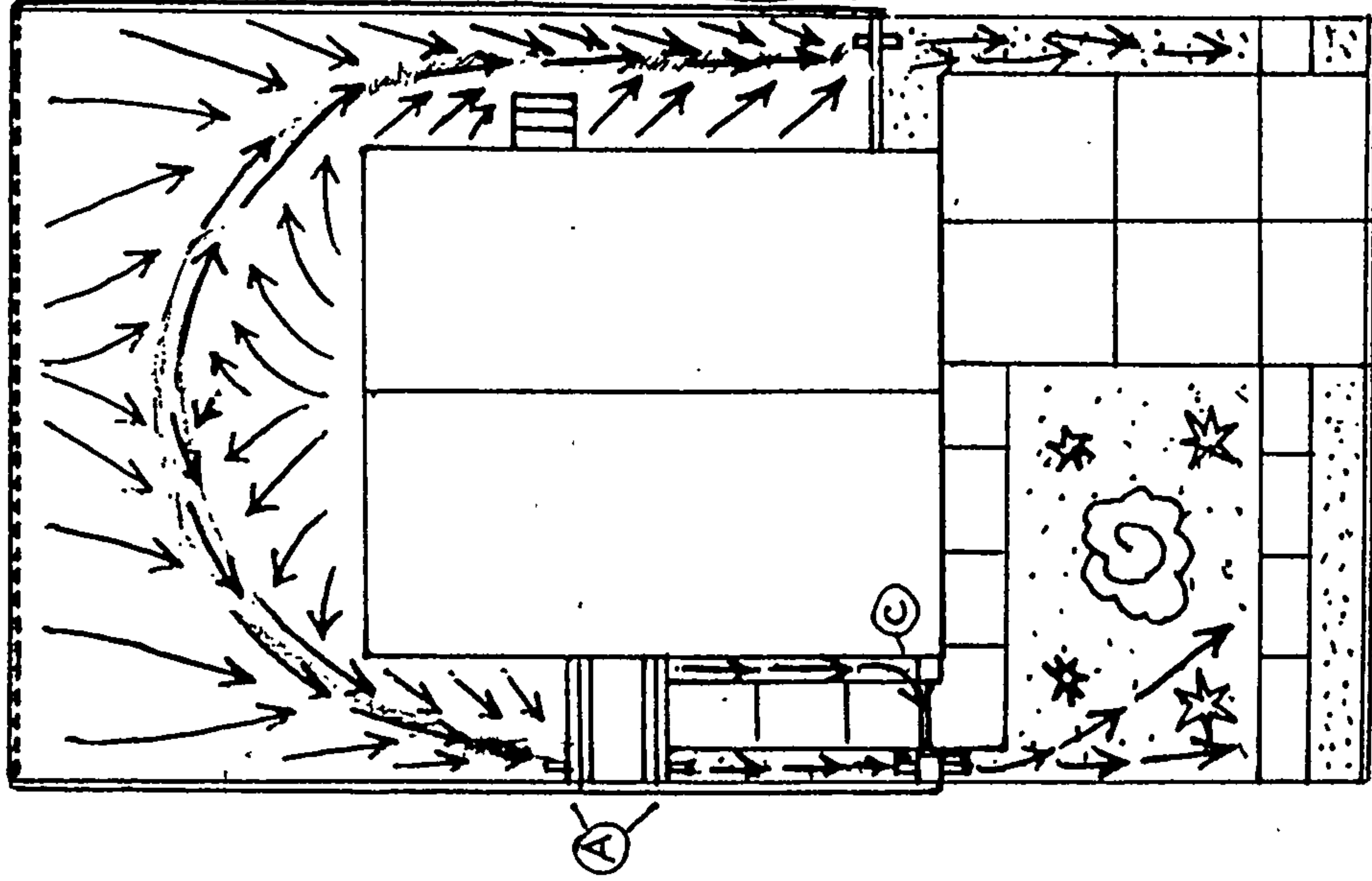
Printed Name Cesar A. villalobos Printed Name _____

Signature Cesar A Villalobos Signature _____

Date 3-2-04 Date _____

Notes Lot #25, 205 WEP. Salgado House.

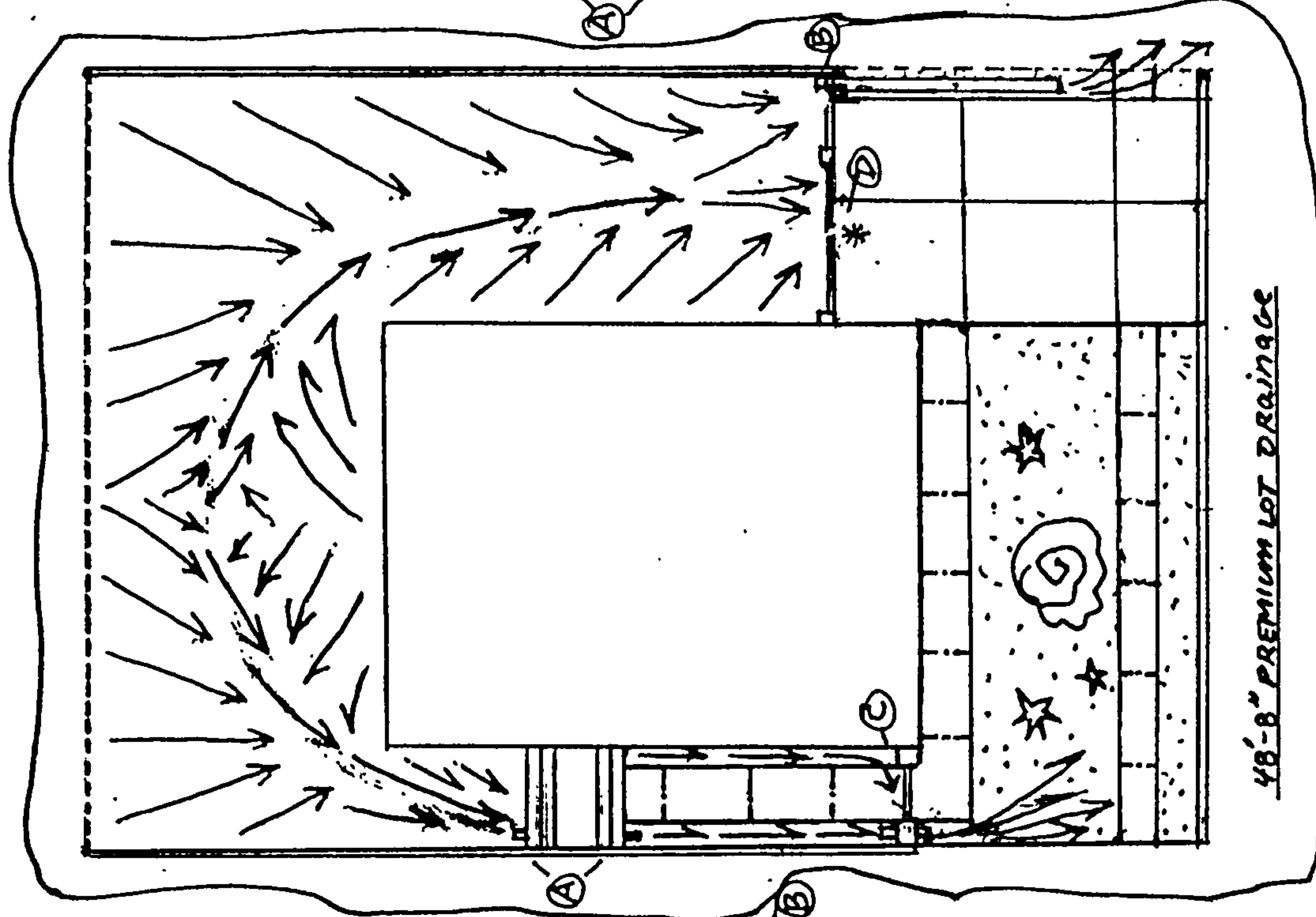
Larger lot - drains in horseshoe configuration from rear to front of house. South side - front entrance drain line runs in solid run from rear of steps - through steps, next to walk in gravel bed, under front gate pilaster to front discharge in front yard.



37' STANDARD LOT DRAINAGE.

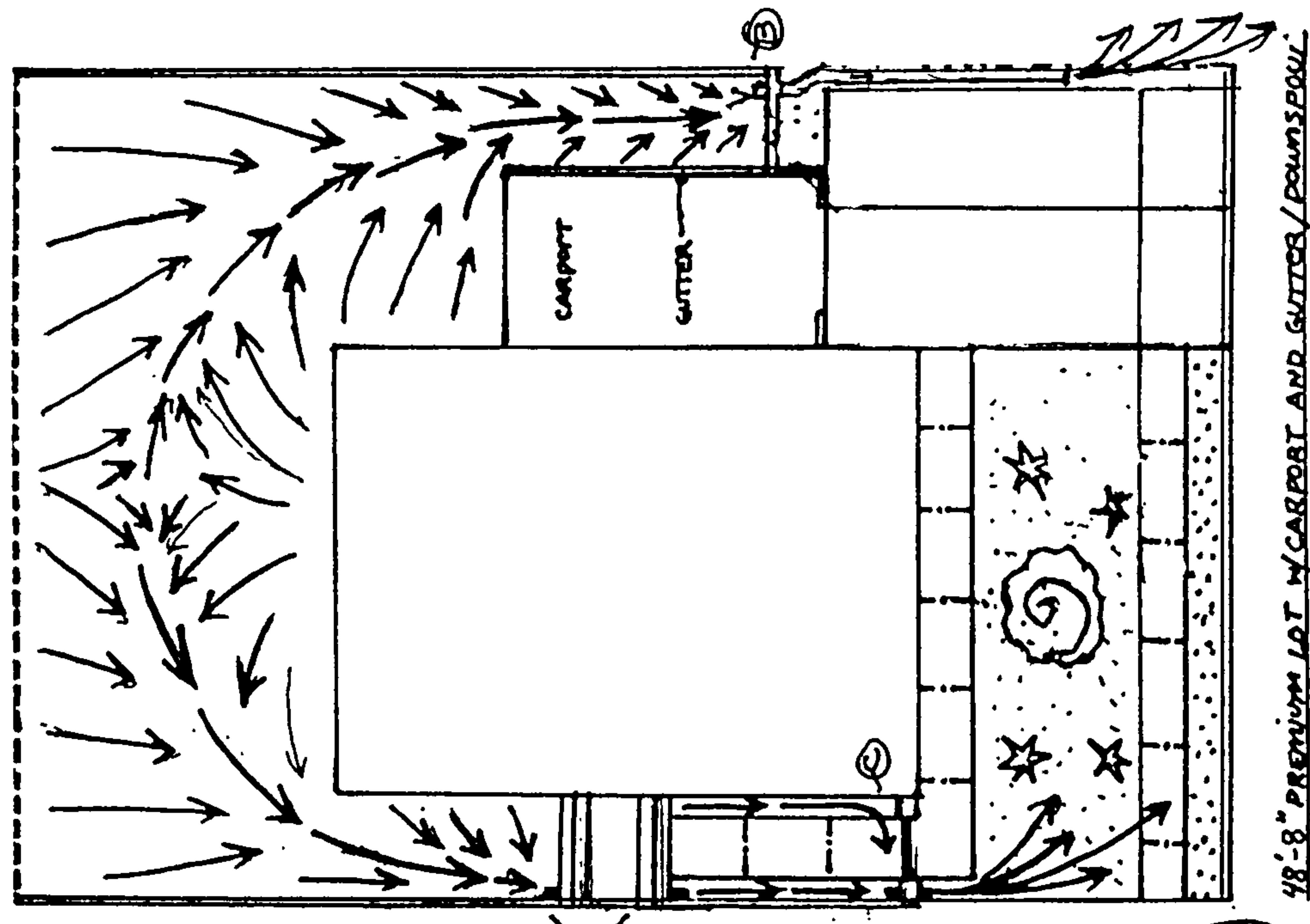
FINISH GRADE
WATER FLOW

- Ⓐ = THRU STEPS
- Ⓑ = THRU WALL/FENCE
- Ⓒ = SIDE WALK CROSSOVER DRAIN TO WALL/OUTLET DRAIN



48'-8" PREMIUM LOT DRAINAGE

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.



48'-8" PREMIUM LOT W/ CARPORT AND GUTTER/DOWNSPOUT

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

**Lot/Homesite Drainage Requirements
Notice and Agreement**

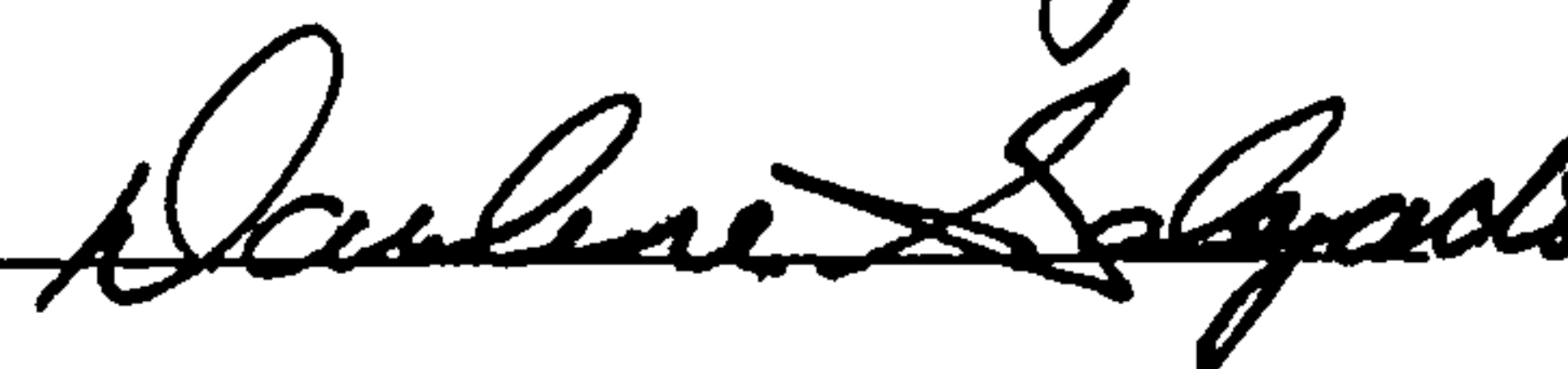
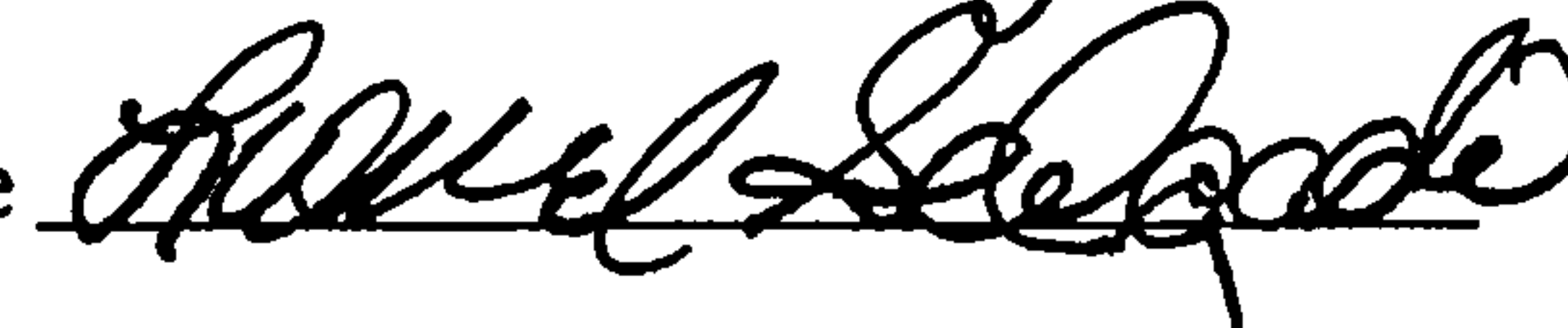
Each home has been constructed to provide drainage of rain water away from all home sites to comply with approved engineering. The drainage engineering is designed to flow rain water away from the houses and to the street. Under normal circumstances, rain water is absorbed into the landscaping and surrounding soil. During extreme rains, the ground soil can become saturated, and excess water then flows to the street and to the storm drains. The home sites in St. Joseph's Place subdivision have been graded and finished to allow for and assist the proper drainage of rainwater to the street. The objective is to prevent onsite ponding (standing water) or flooding. We have added drain pipes and channels in specific areas to assist with this drainage. We have attached an illustration to identify the areas where these can be found on your homesite. The pipes are 3" to 4" openings that cross under, beside, or through steps, sidewalks, footings and fence walls. Some are partially exposed and others are under the gravel. The buried openings are covered with a screening material to help prevent clogging from dirt and debris.

If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 25 Address 205 _____ Westcourt Place NW

Printed Name Darlene Salgado Printed Name Lionel Salgado

Signature  Signature 

Date 9-29-03

Date 9-23-03 

Notes lot 26, UNSOLD LOT, NO CONSTRUCTION,

Drains open from Rear to front yard.

no obstructions. Used for western construction-
yard storage.

UNSOLD
NOT BUILT ON

Lot 26

ONLY APPROVED SITE PLAN

FINISH GRADE
WATER FLOW

(A) = THRU STEPS

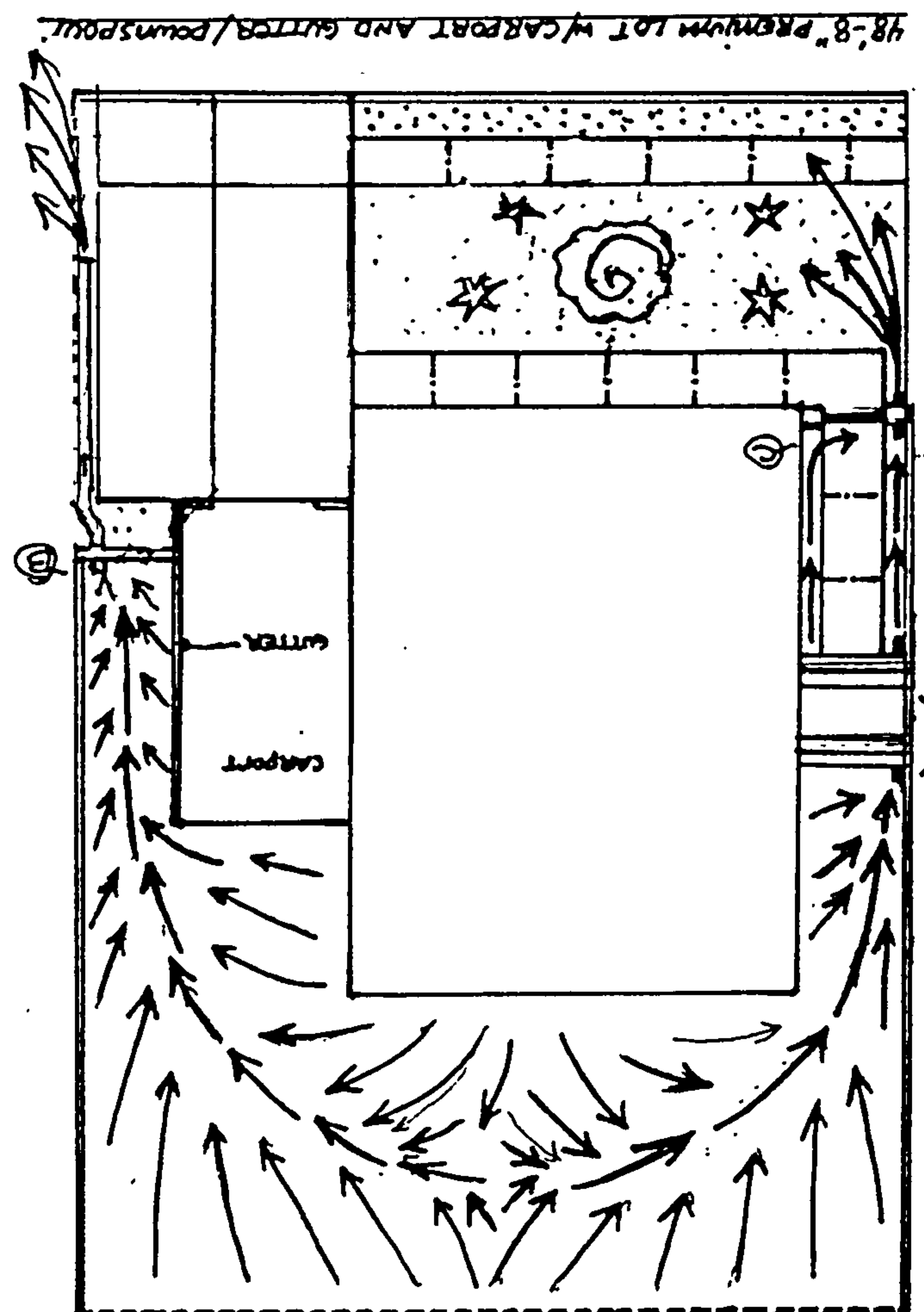
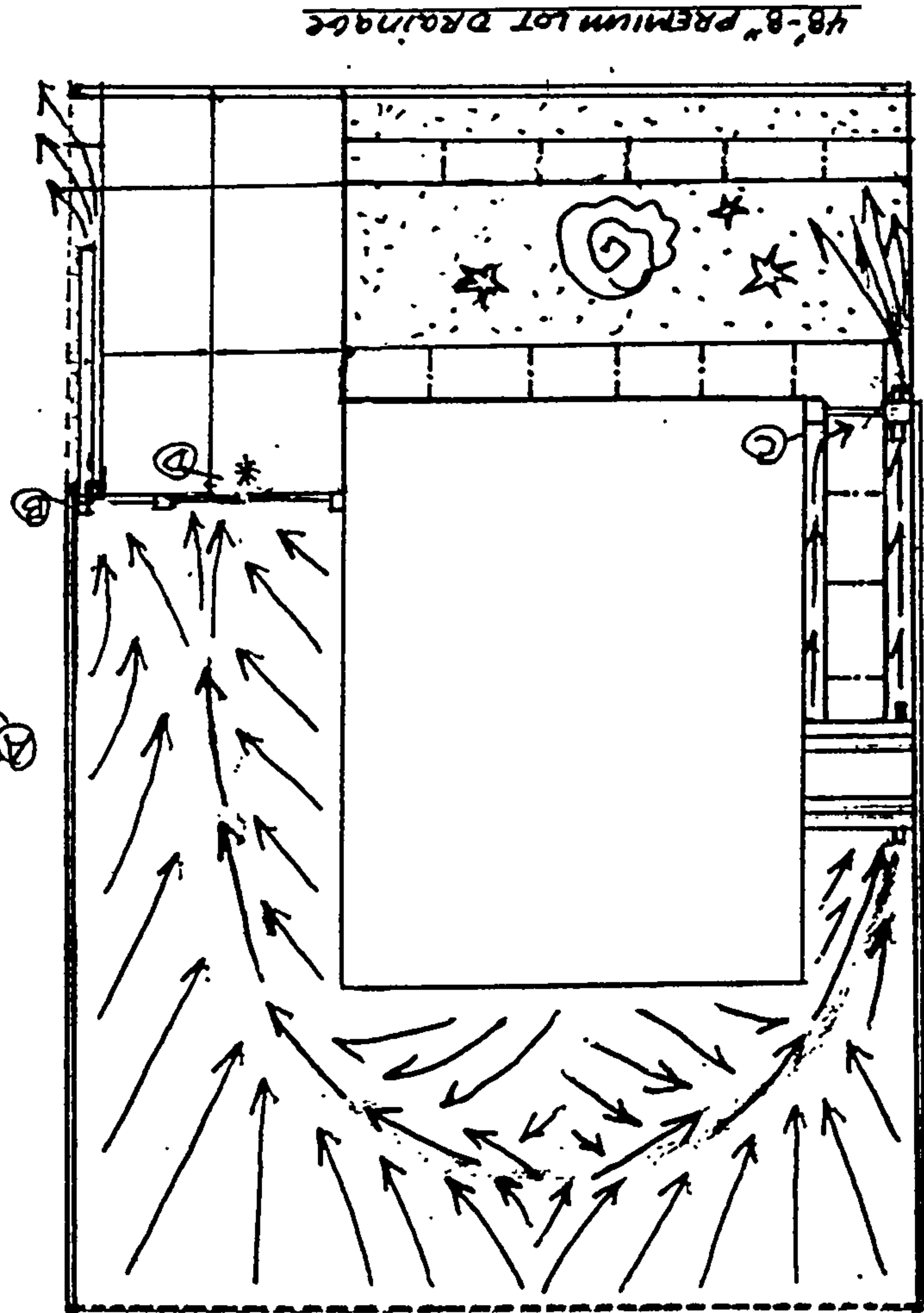
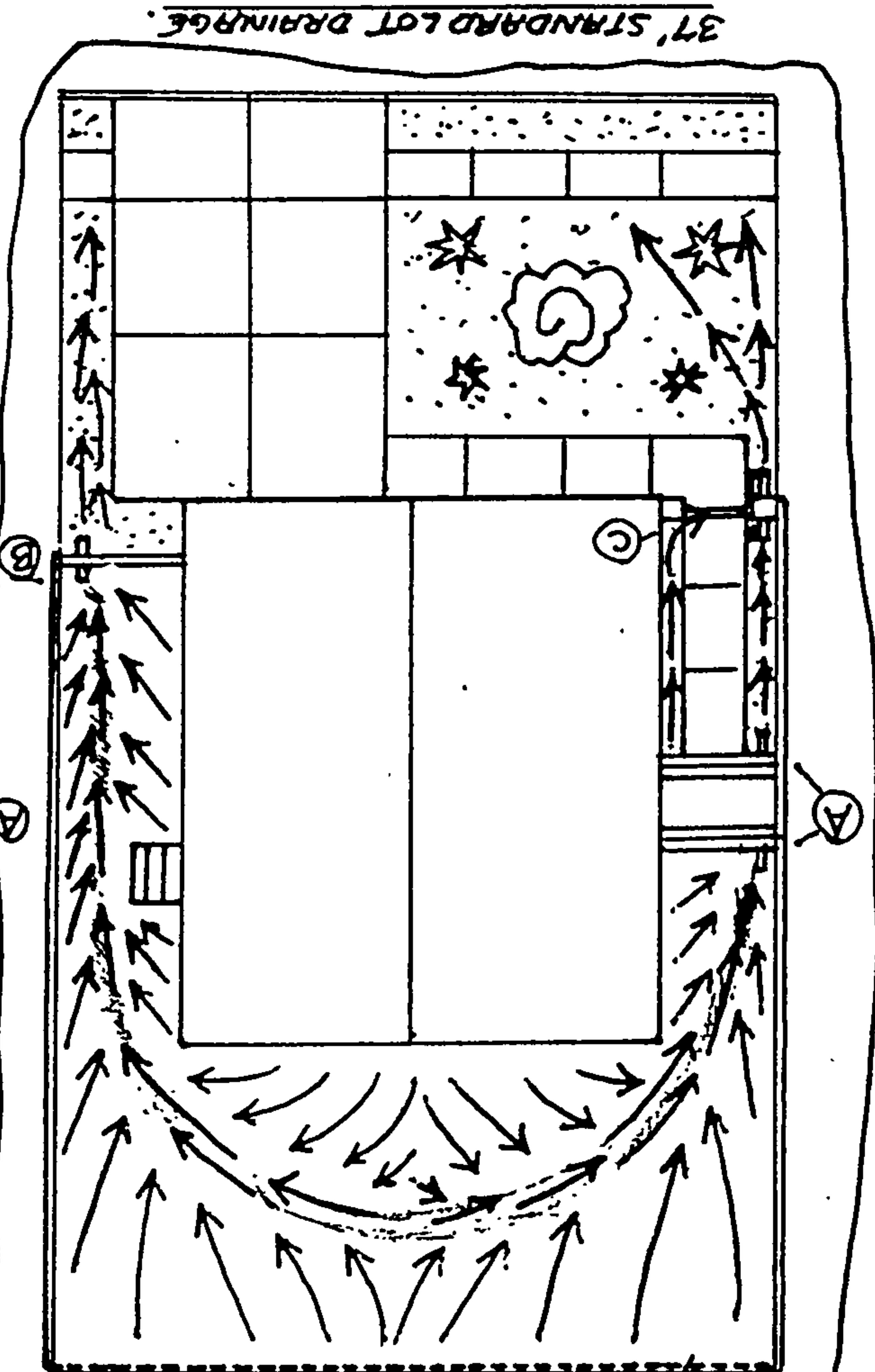
(B) = THRU WALL/FENCE

(C) = SIDE WALK CROSSOVER DRAIN TO WALL/OUTLET DRAIN

(D) = GRAVITY FLOW UNDER GATES/OVER DRIVE/TO STREET

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.

All lots were finish graded to distribute rain water away from the house into a horseshoe shaped flow around the house to outlets that allow flow to the front yards and street.



Notes Lot #27, 215 WCP. Dominguez, Peña.

Larger lot. Drains from Rear yard to front yard
in horseshoe configuration.

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 27 Address 215 _____ Westcourt Place NW

Printed Name Ariel S. Dominguez Printed Name April Peña

Signature Ariel S Dominguez Signature April Peña

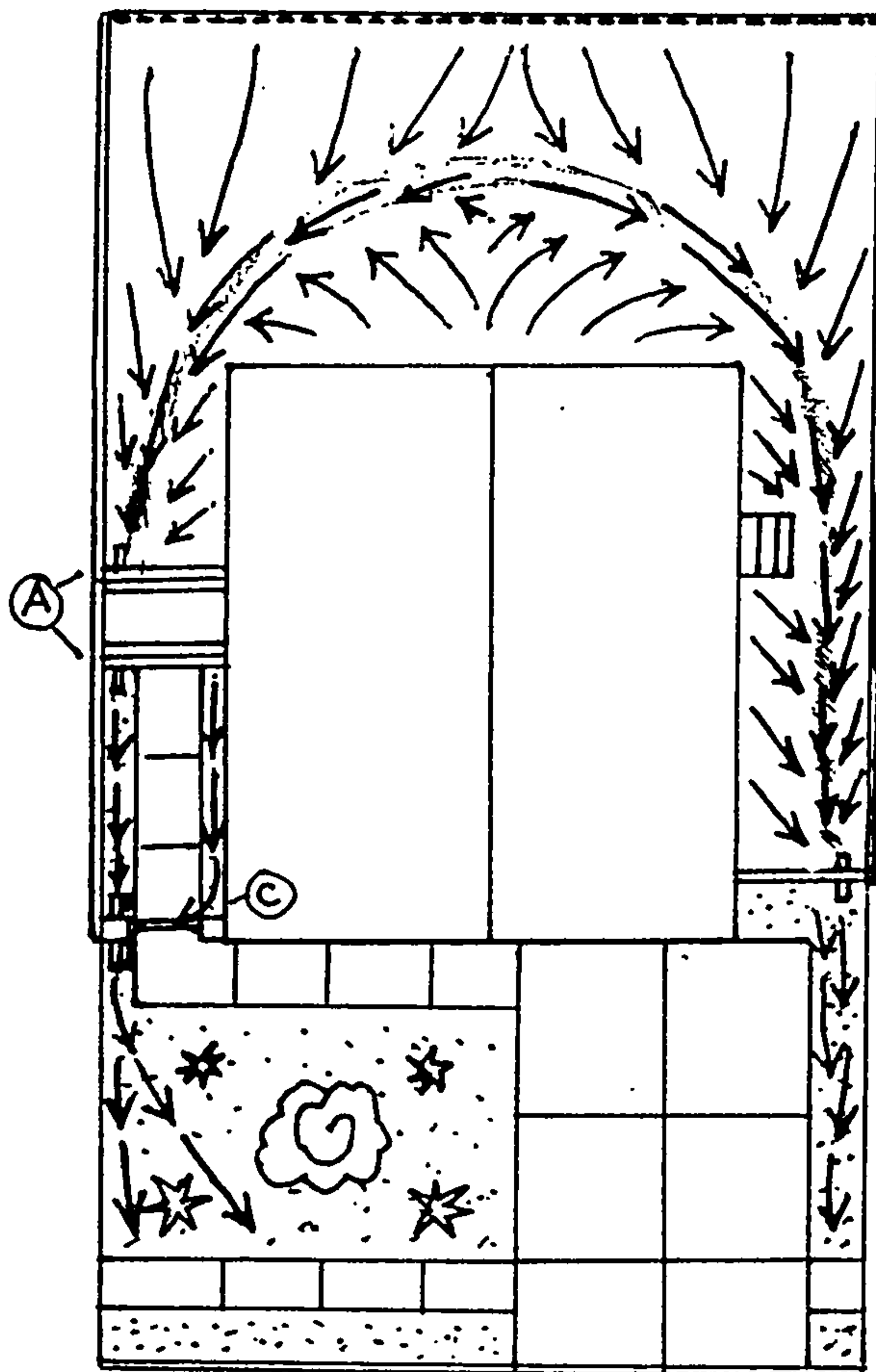
Date 2-20-04

Date 2-20-04

Notes Lot #28, 219 Wcp. , Juan and Maria Ramirez home.

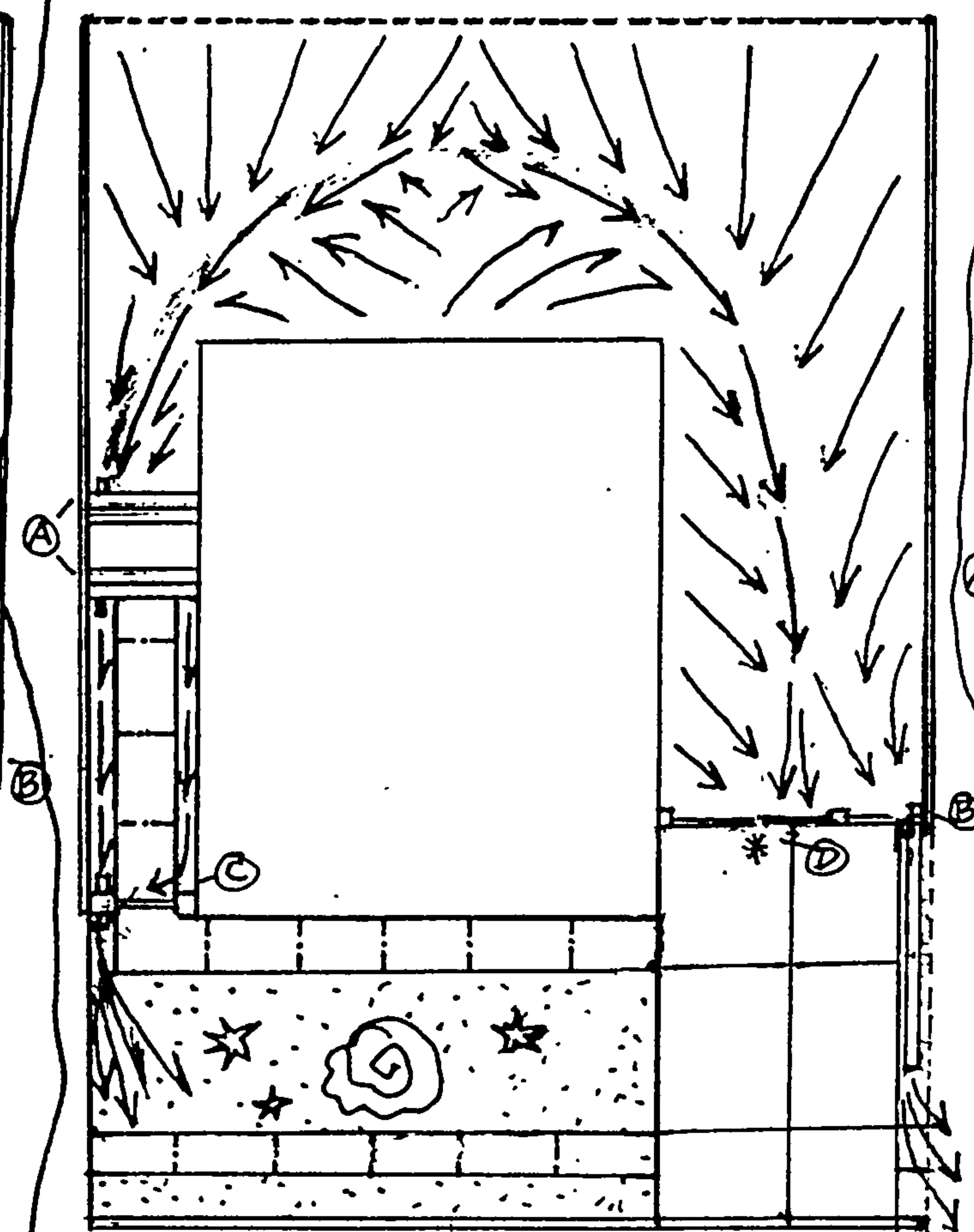
Large lot drains in horseshoe shape from Rear to front yard.

Lot #28, 219w. Ramirez



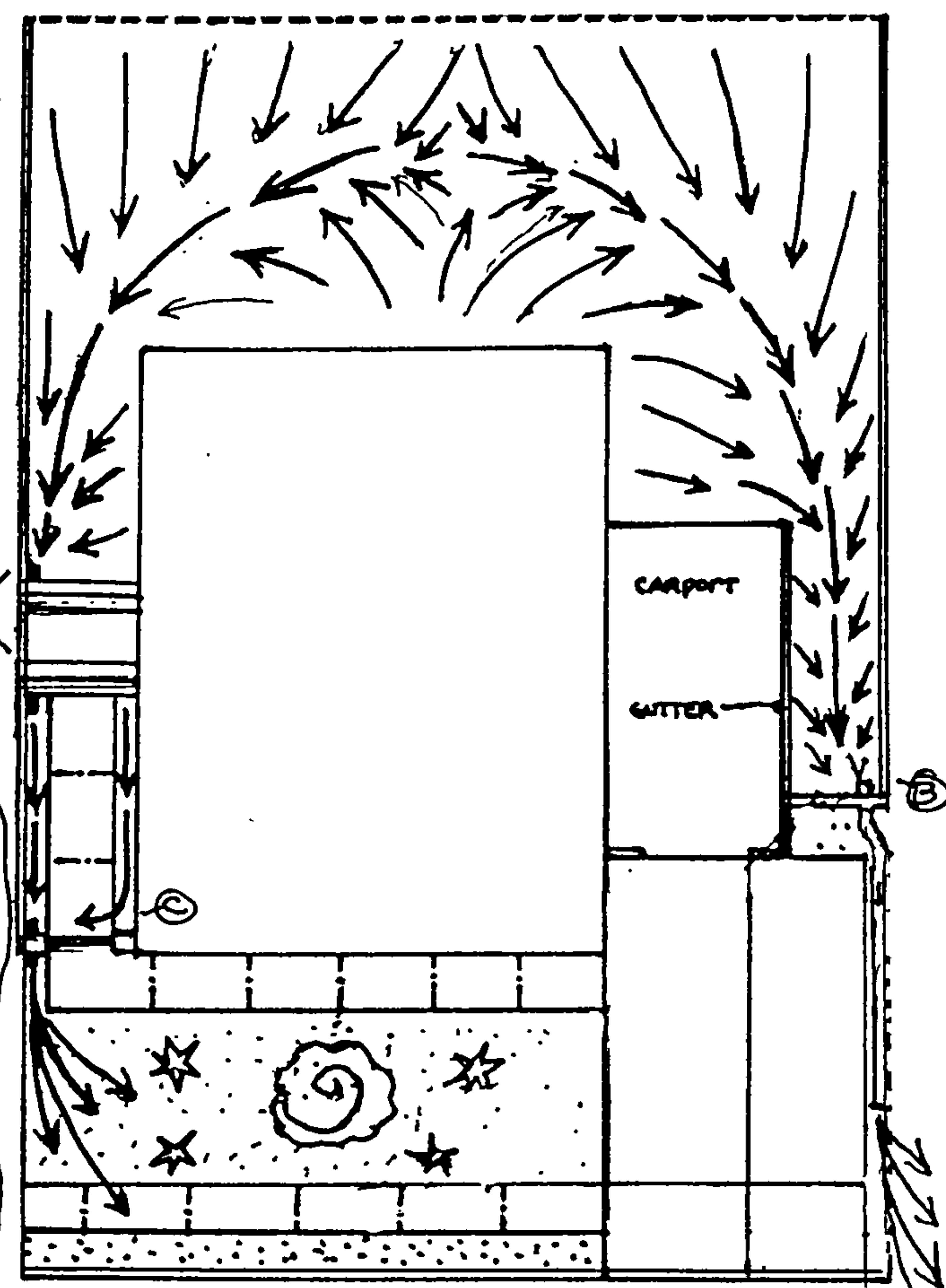
37' STANDARD LOT DRAINAGE.

FINISH GRADE
WATERFLOW



48'-8" PREMIUM LOT DRAINAGE

* LOTS WITH DOUBLE GATES ON PARKING SIDE,
PART OF DRAINAGE IS ALLOWED TO FLOW
UNDER GATES, OVER DRIVE TO STREET.
ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN
MAXIMUM FLOW OPPORTUNITY TO ELIMINATE
ANY PONDING.



48'-8" PREMIUM LOT W/CARPORT AND GUTTER/DOWNSPOUT

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE
RAIN WATER AWAY FROM THE HOUSE INTO
A HORSESHOE SHAPED FLOW AROUND
THE HOUSE TO OUTLETS THAT ALLOW FLOW
TO THE FRONT YARDS AND STREET.

(A) = THREE STEPS

(B) = THRU WALL/FENCE

(C) = SIDE WALK CROSSOVER DRAIN TO WALL OUTLET DRAIN

(D) = GRAVITY FLOW UNDER GATES/OVER DRIVE/TO STREET

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 28 Address - 219 - Westcourt Place NW

Printed Name Juan Ramirez Printed Name Maria Ramirez

Signature [Signature] Signature [Signature]

Date 3-10-03

Date 3-10-03

Notes Lot #29, 223 WCP., M. Garcia house.

Smaller lot. Drains in horseshoe configuration to front yard from rear and side yards.

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 29 Address ~ 223 _____ Westcourt Place NW

Printed Name MARY GARCIA Printed Name _____

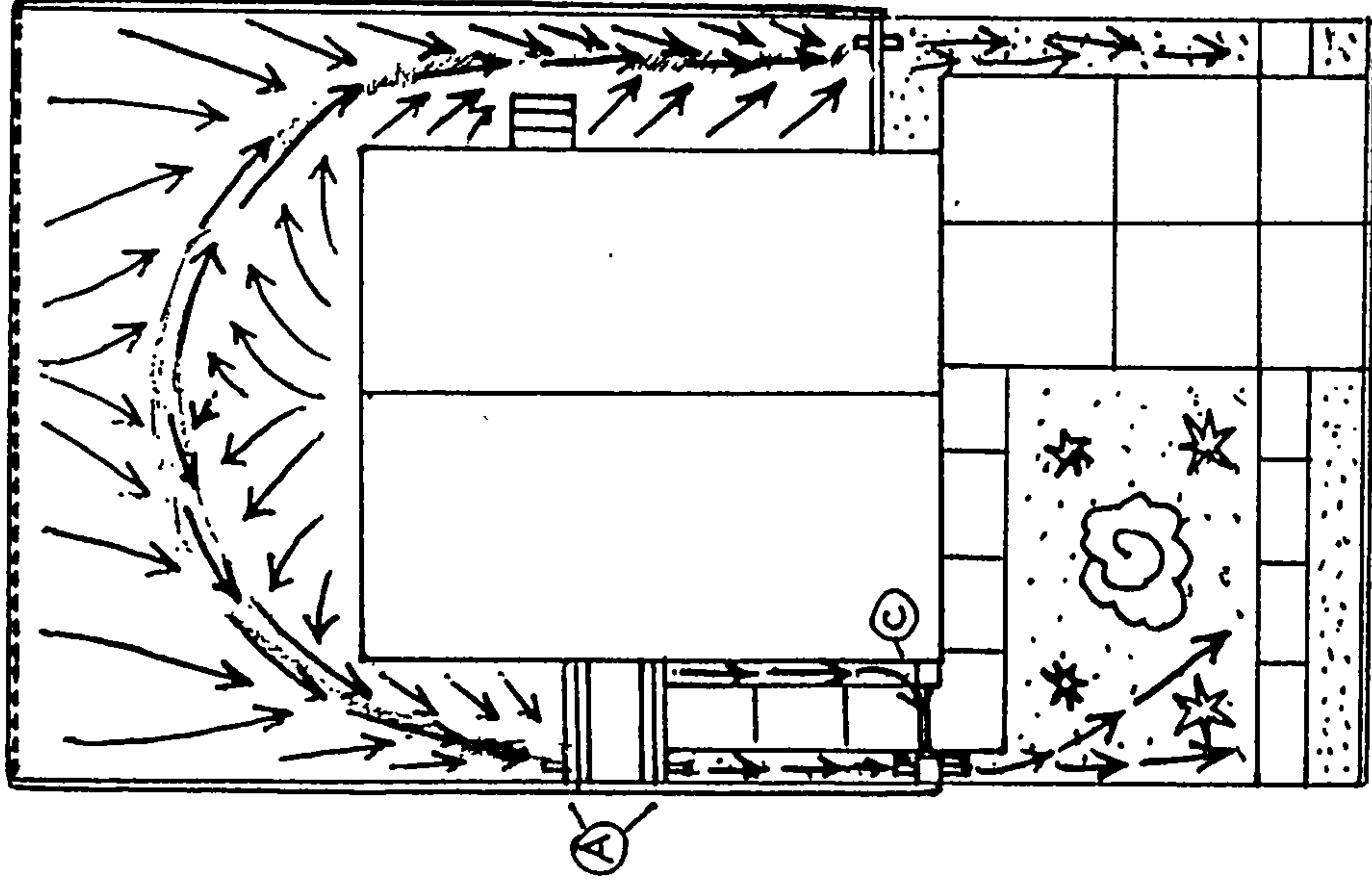
Signature Mary Garcia Signature _____

Date 3-09-03 Date _____

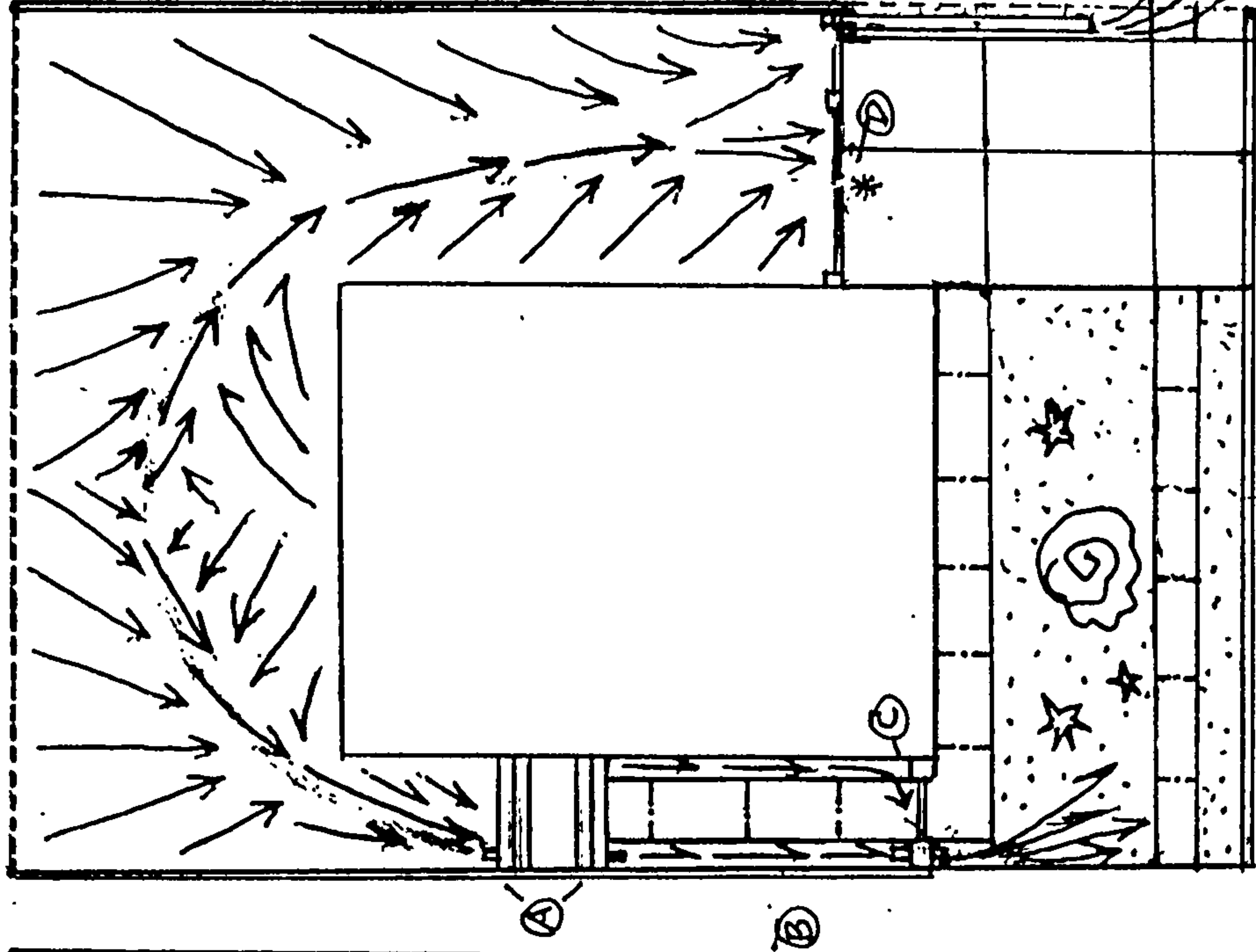
Notes Lot #30, 227 Wcp. Quintana house,

Drains from rear to front yard in horseshoe configuration. House was built with carport that is open in rear end with concrete floor. Bulk of rear yard is able to drain across slope of carport but 4" drains were added to ensure proper drainage.

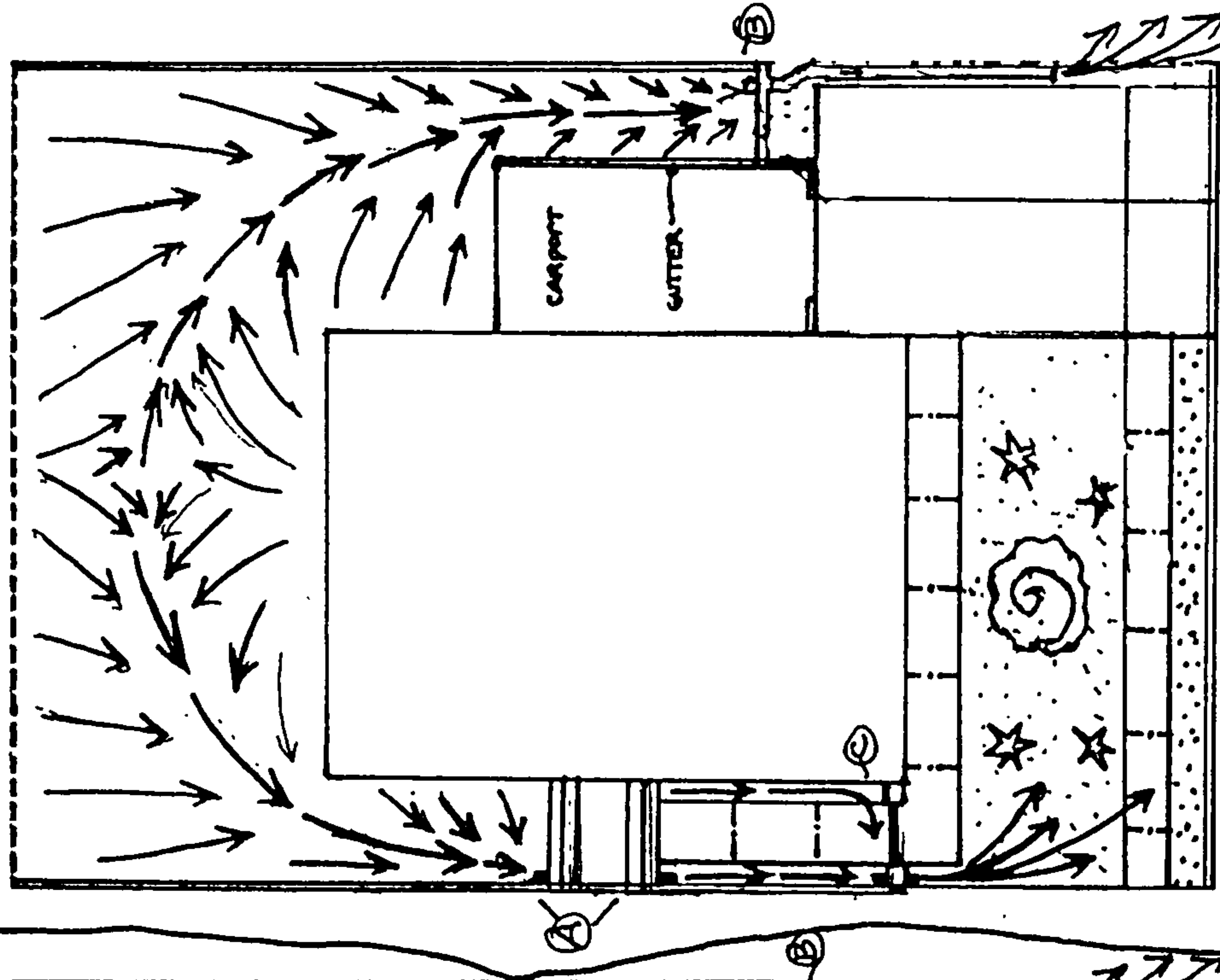
Lot #30, 227 W.P., Garfield



34' STANDARD LOT DRAINAGE.



48'-8" PREMIUM LOT DRAINAGE



48'-8" PREMIUM LOT w/ CARPORT AND GUTTER/DOWNSPOUT.

FINISH GRADE
WATER FLOW

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

- (A) = THRU STEPS
- (B) = THRU WALL/FENCE
- (C) = SIDE WALK CROSSEVER DRAIN TO WALL/OUTLET DRAIN
- (D) = GRAVITY FLOW UNDER GATES/OVER DRIVE/TO STREET

**Lot/Homesite Drainage Requirements
Notice and Agreement**

Each home has been constructed to provide drainage of rain water away from all home sites to comply with approved engineering. The drainage engineering is designed to flow rain water away from the houses and to the street. Under normal circumstances, rain water is absorbed into the landscaping and surrounding soil. During extreme rains, the ground soil can become saturated, and excess water then flows to the street and to the storm drains. The home sites in St. Joseph's Place subdivision have been graded and finished to allow for and assist the proper drainage of rainwater to the street. The objective is to prevent onsite ponding (standing water) or flooding. We have added drain pipes and channels in specific areas to assist with this drainage. We have attached an illustration to identify the areas where these can be found on your homesite. The pipes are 3" to 4" openings that cross under, beside, or through steps, sidewalks, footings and fence walls. Some are partially exposed and others are under the gravel. The buried openings are covered with a screening material to help prevent clogging from dirt and debris.

If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 30 Address 227 _____ Westcourt Place NW

Printed Name Alex Quintana Printed Name _____

Signature Alex G. Quintana Signature _____

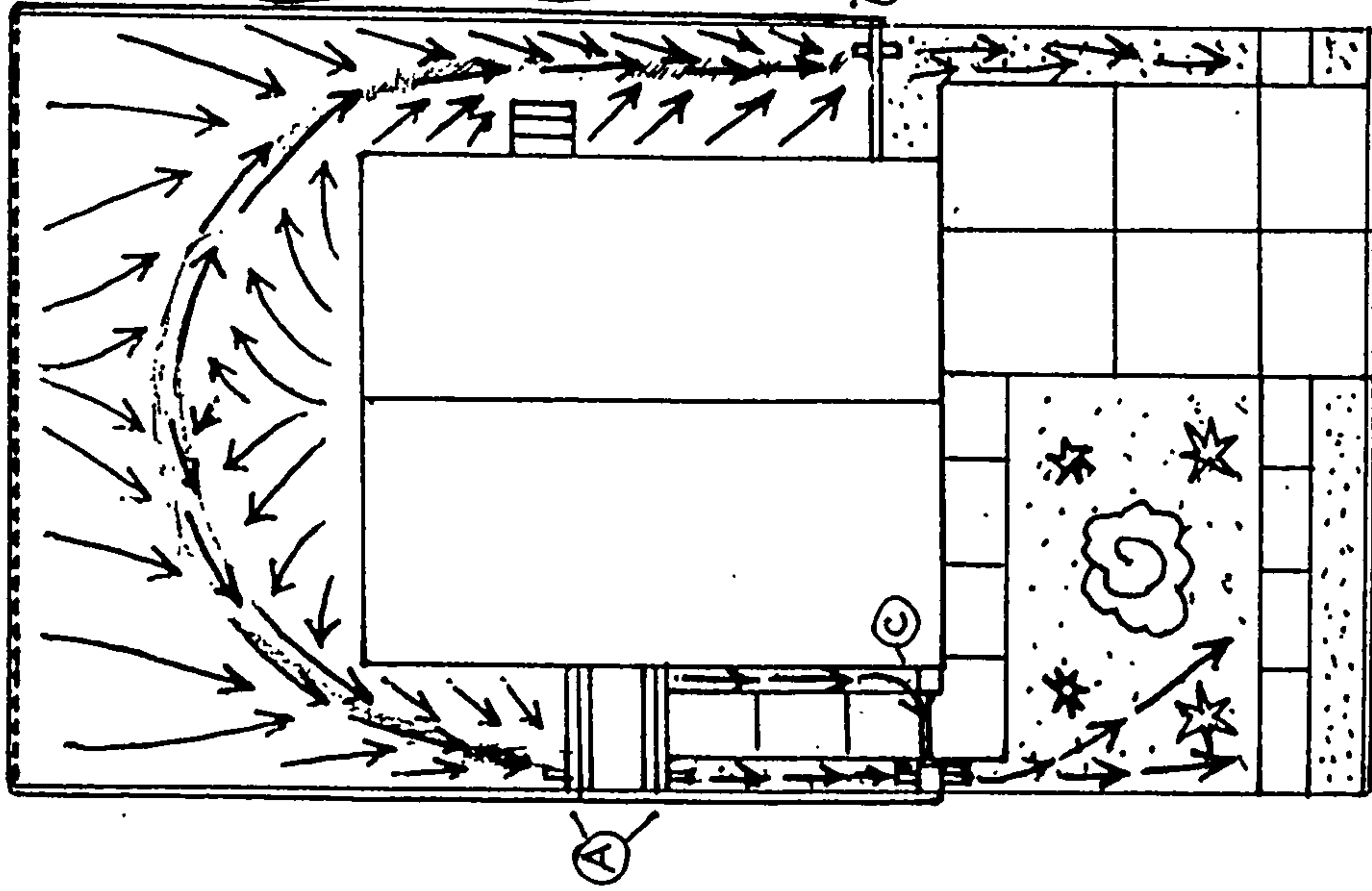
Date 5-13-03

Date _____

Notes Lot # 31, 231 WCP. UNSOLD model.

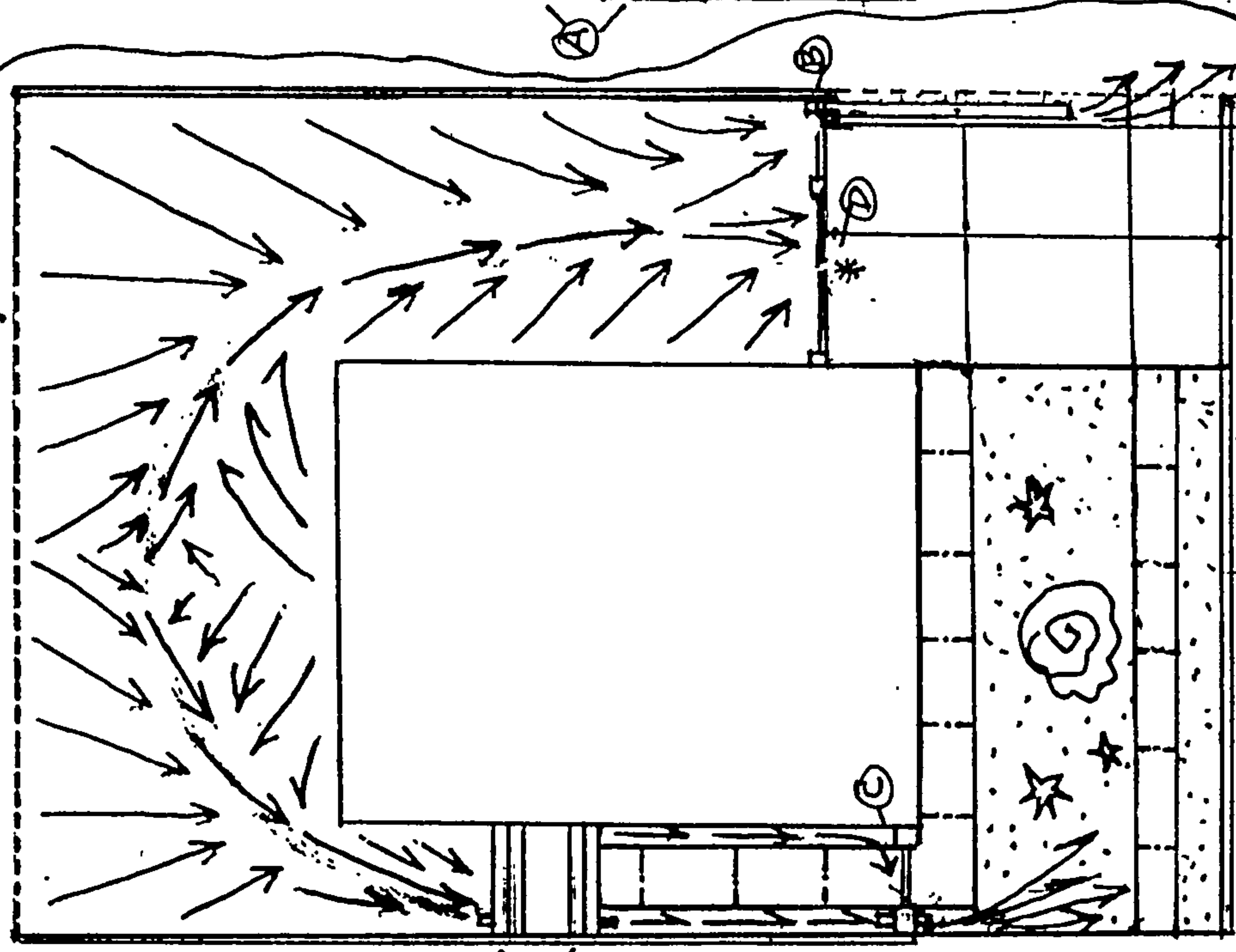
medium size lot. Drains From Rear to Front
yard to street in horseshoe configuration. This
lot is a 37' lot with a 23' wide floor plan on it.
This allowed for a larger N. side yard. N. side
has set of double gates. part of N. side and rear
yard drains under gates.

lot 31. UNSOLD SPEC HOUSE

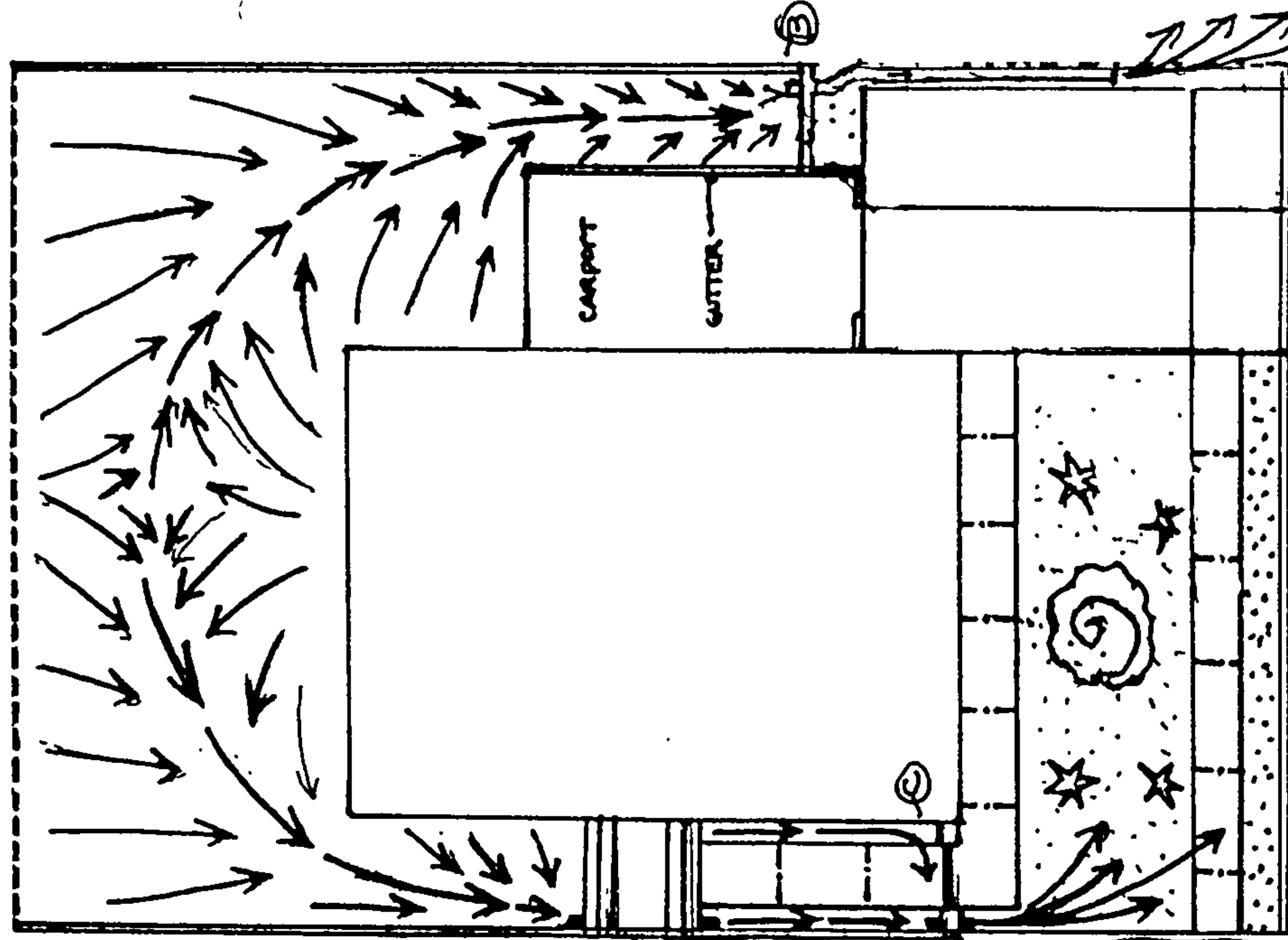


37' STANDARD LOT DRAINAGE.

FINISH GRADE
WATER FLOW



37'0" w/ 23' wide house.
~~37'0" w/ 23' wide house.~~



48'-8" PREMIUM LOT W/ CARPORT AND GUTTER/DOWNSPOUT.

All lots were finish graded to distribute rain water away from the house into a horseshoe shaped flow around the house to outlets that allow flow to the front yards and street.

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.

- (A) = THRU STEPS
- (B) = THRU WALL/FENCE
- (C) = SIDE WALK CROSSOVER DRAIN TO WALL/OUTLET DRAIN
- (D) = GRAVITY FLOW UNDER GATES/OVER DRIVE/TO STREET

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 31 Address 231 _____ Westcourt Place NW

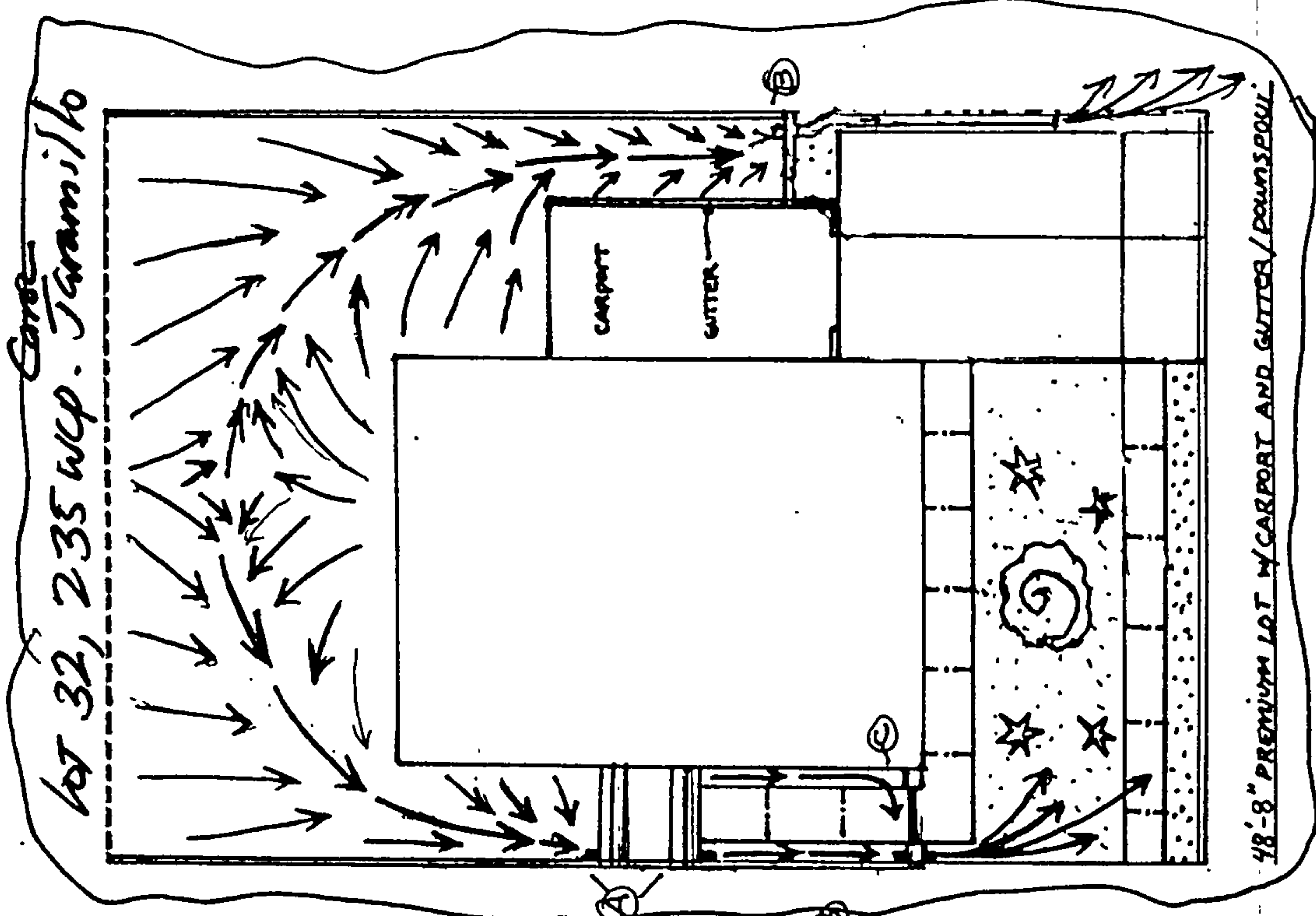
Printed Name _____ Printed Name _____

Signature _____ Signature _____

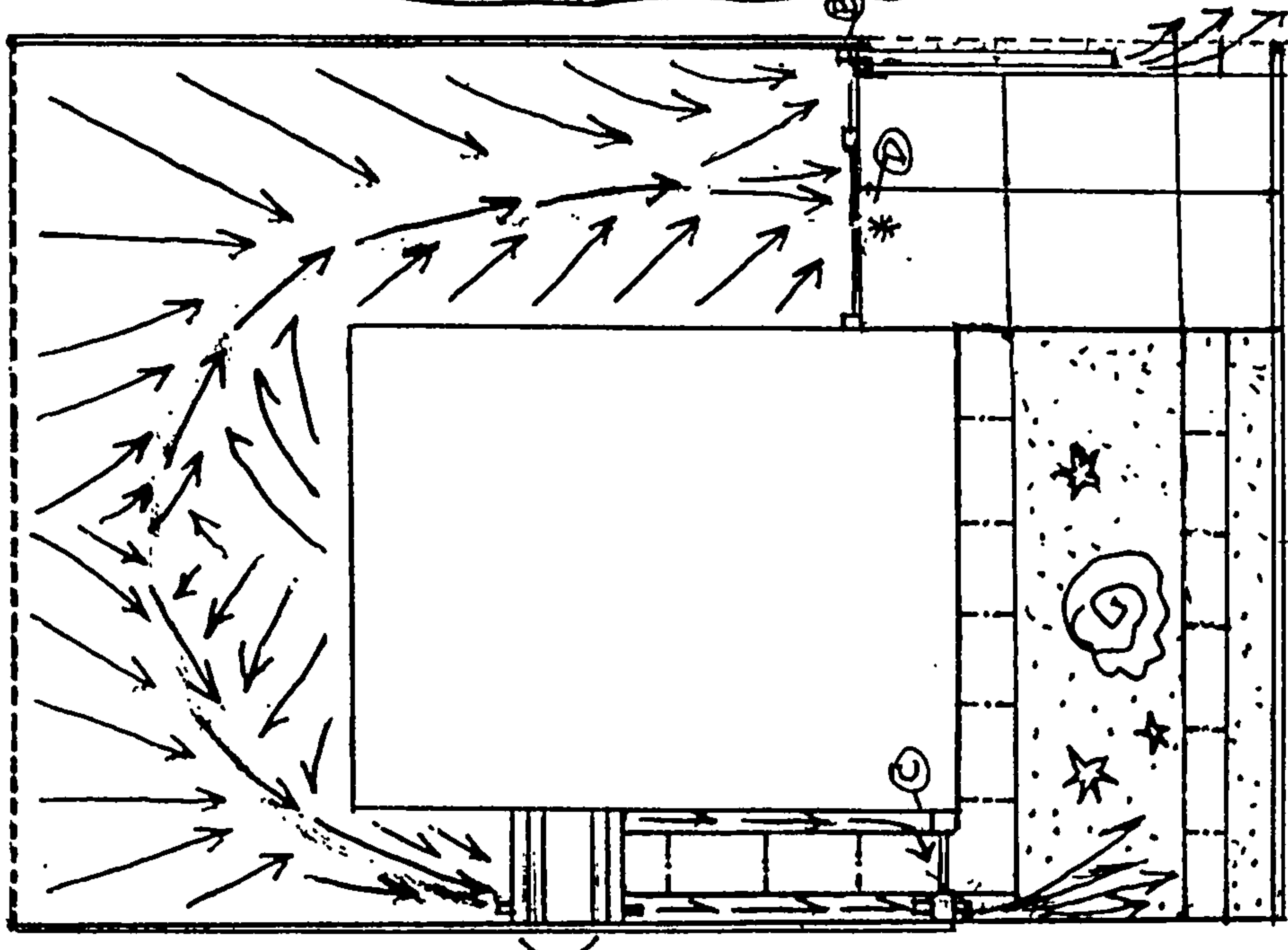
Date _____ Date _____

lot # 32, 235 wcp. Jaramillo House

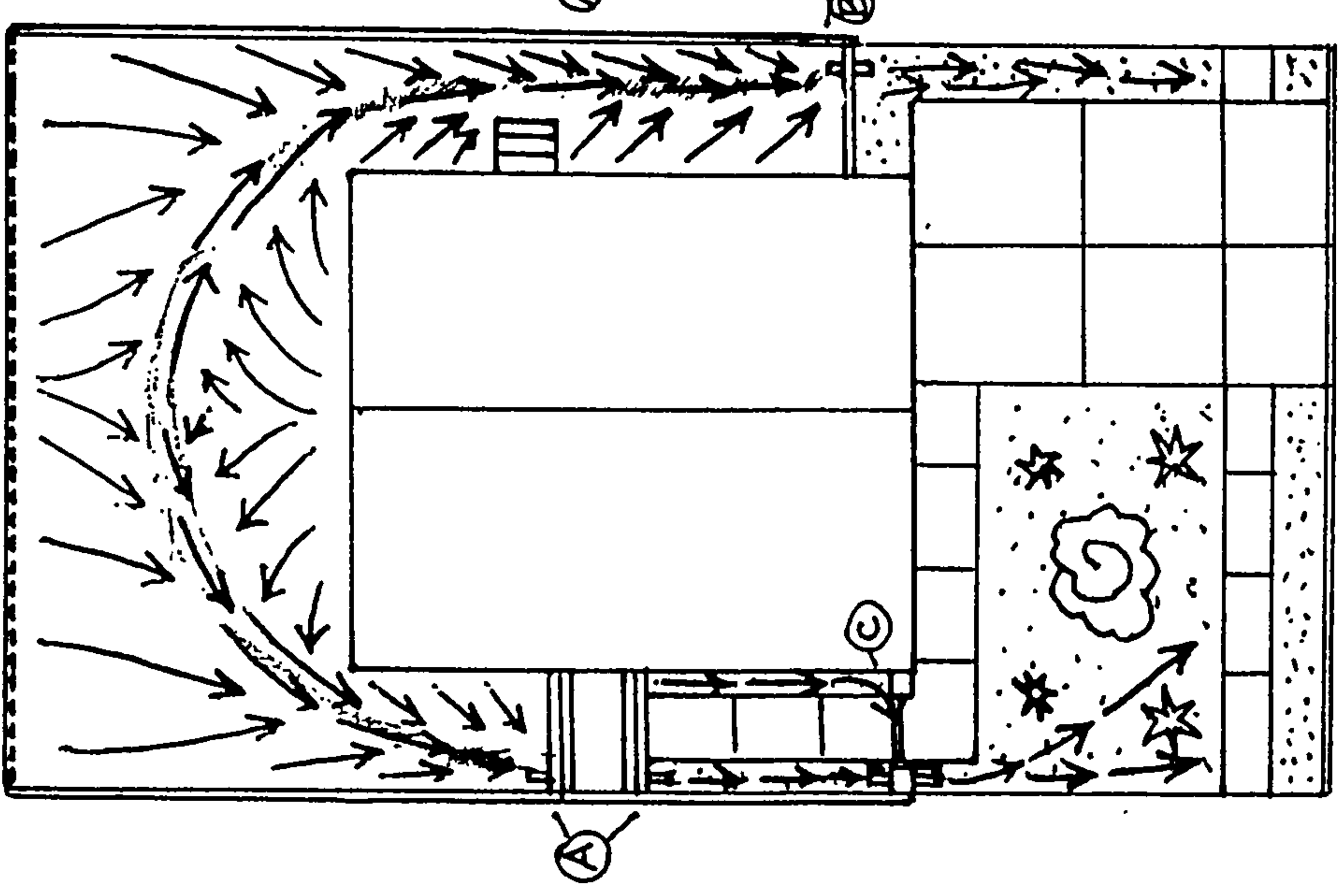
Lot Drains from rear to front in horseshoe config.
Has Carport provided by sellers. Gutters added to
Carport to assist with drainage.



All lots were FINISH graded to distribute rain water away from the house into a horseshoe shaped flow around the house to outlets that allow flow to the front yards and street.



* Lots with double gates on parking side, part of drainage is allowed to flow under gates, over drive to street. Additional drainage in corner to maintain maximum flow opportunity to eliminate any ponding.



FINISH GRADE.
WATER FLOW

- (A) = THRU STEPS
- (B) = THRU WALL/FENCE
- (C) = SIDE WALK CROSSOVER DRAIN TO WALL/OUTLET DRAIN
- (D) = GRAVITY FLOW UNDER GATES/OVER DRIVE/TO STREET

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 32 Address 235 _____ Westcourt Place NW

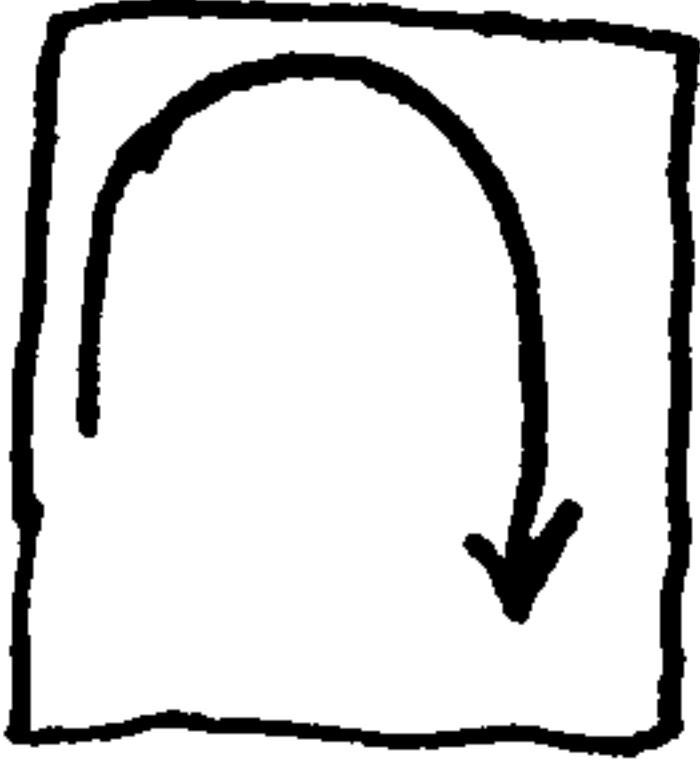
Printed Name Carol Jaramila Printed Name _____

Signature Carol Jaramila Signature _____

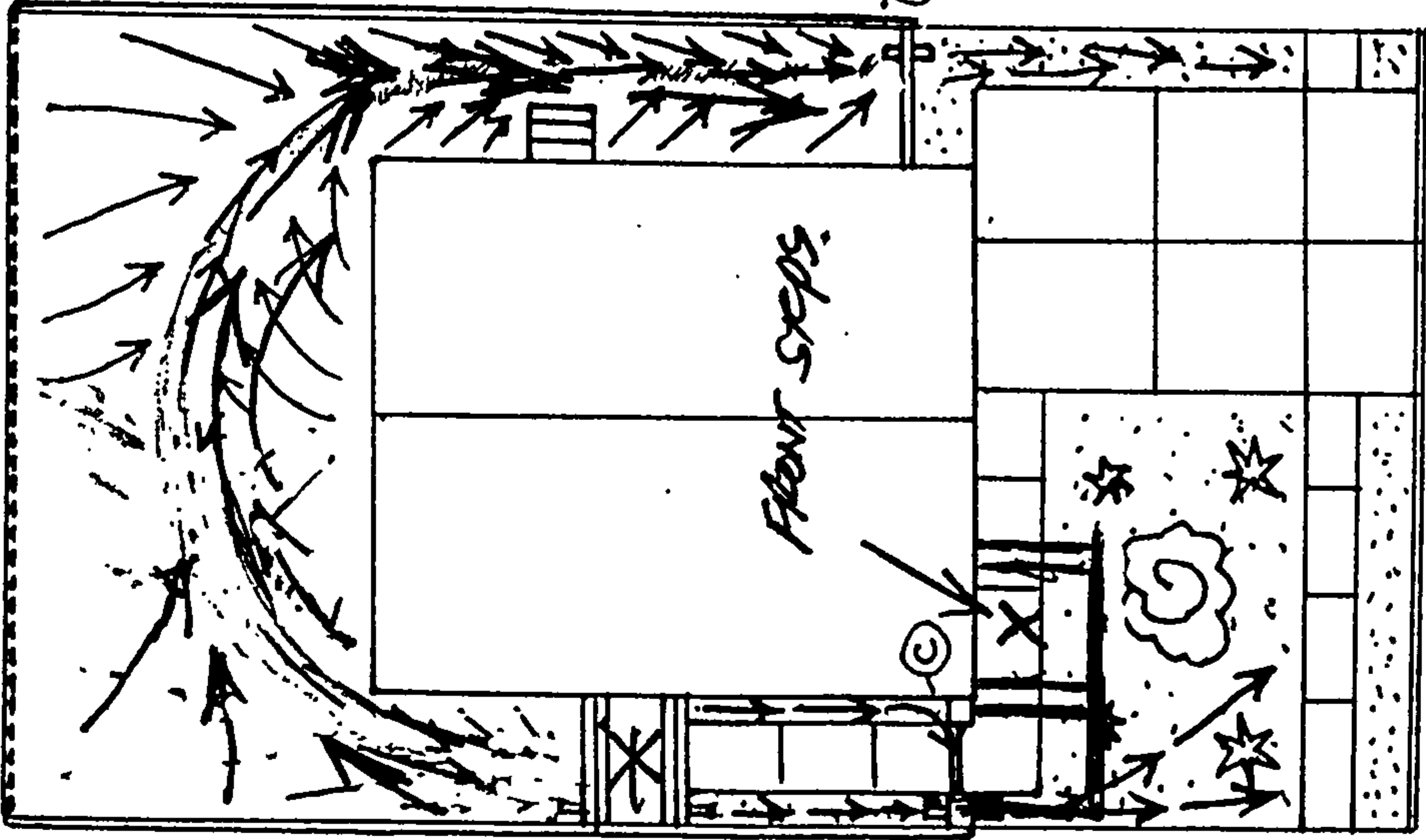
Date 3-25-04 Date _____

Lot 33, 239 wcp, p. scholl house

Small lot - drains from Rear to front in Horseshoe-
Configuration. patio wall in front. This lot primarily
drains around house to N. side and out to
front yard.

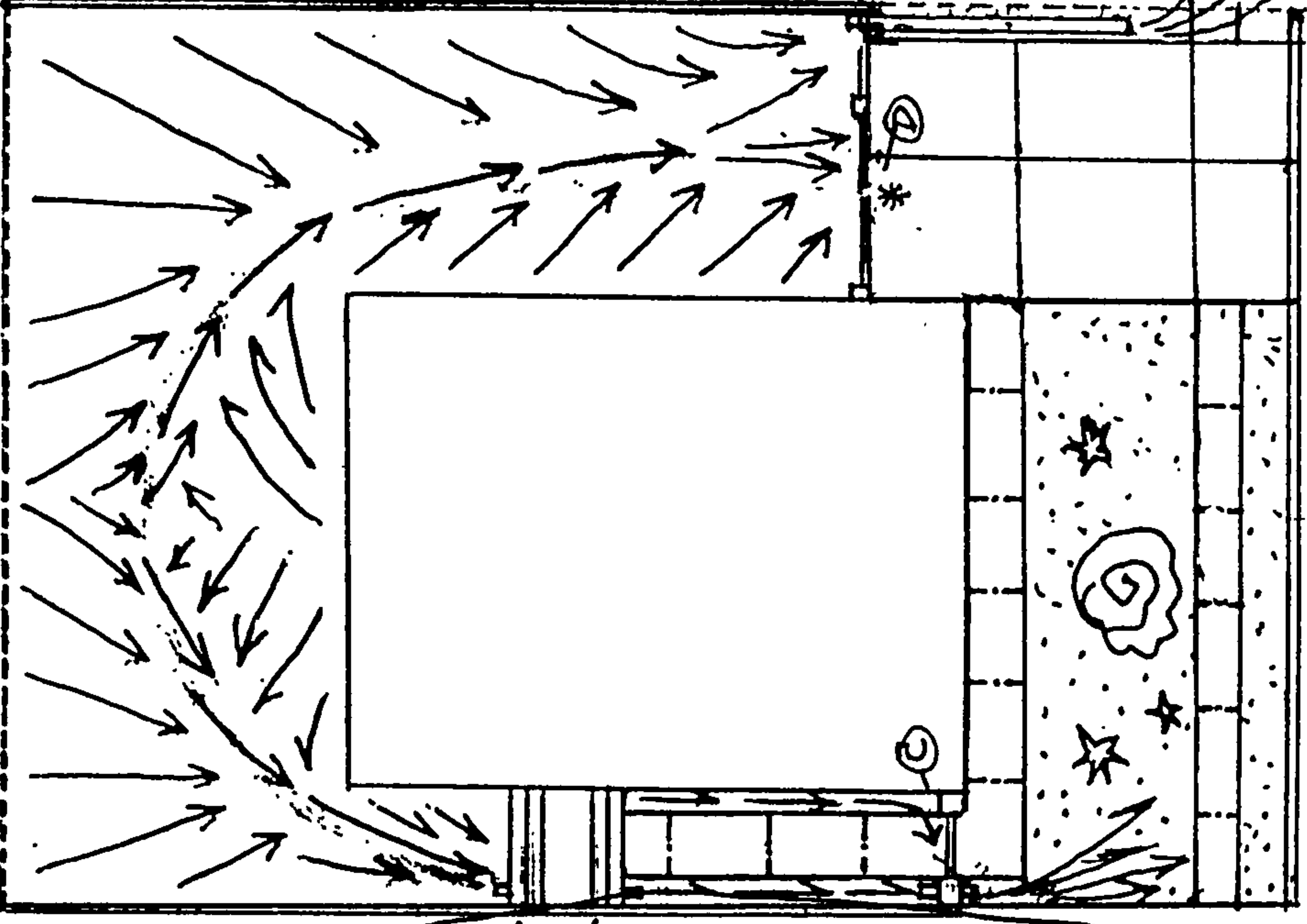


lot 33, 239450 T. Sachall

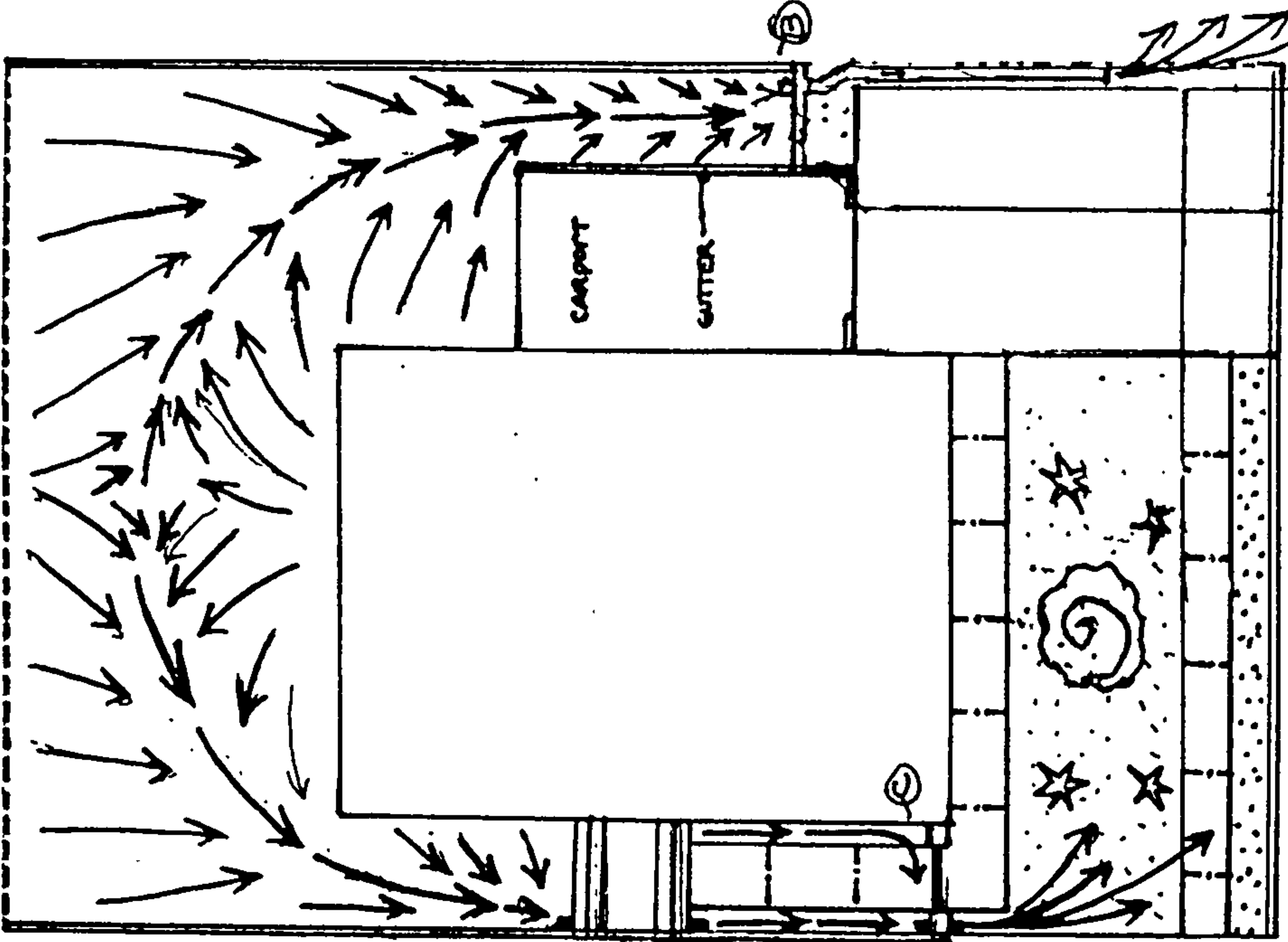


37' STANDARD LOT DRAINAGE.

* NO FRONT SIDE STEPS.



48'-8" PREMIUM LOT DRAINAGE



48'-8" PREMIUM LOT W/ CARPORT AND GUTTER / DOWNSPOUT

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.

ALL LOTS WERE FINISH GRADED TO DISMEDIATE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

- A = THRU STEPS
- B = THRU WALL / FENCE
- C = SIDE WALK CROSSOVER DRAIN TO WALL OUTLET DRAIN
- D = GRAVITY FLOW UNDER GATES / OVER DRIVE / TO STREET

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 33 Address 239 _____ Westcourt Place NW

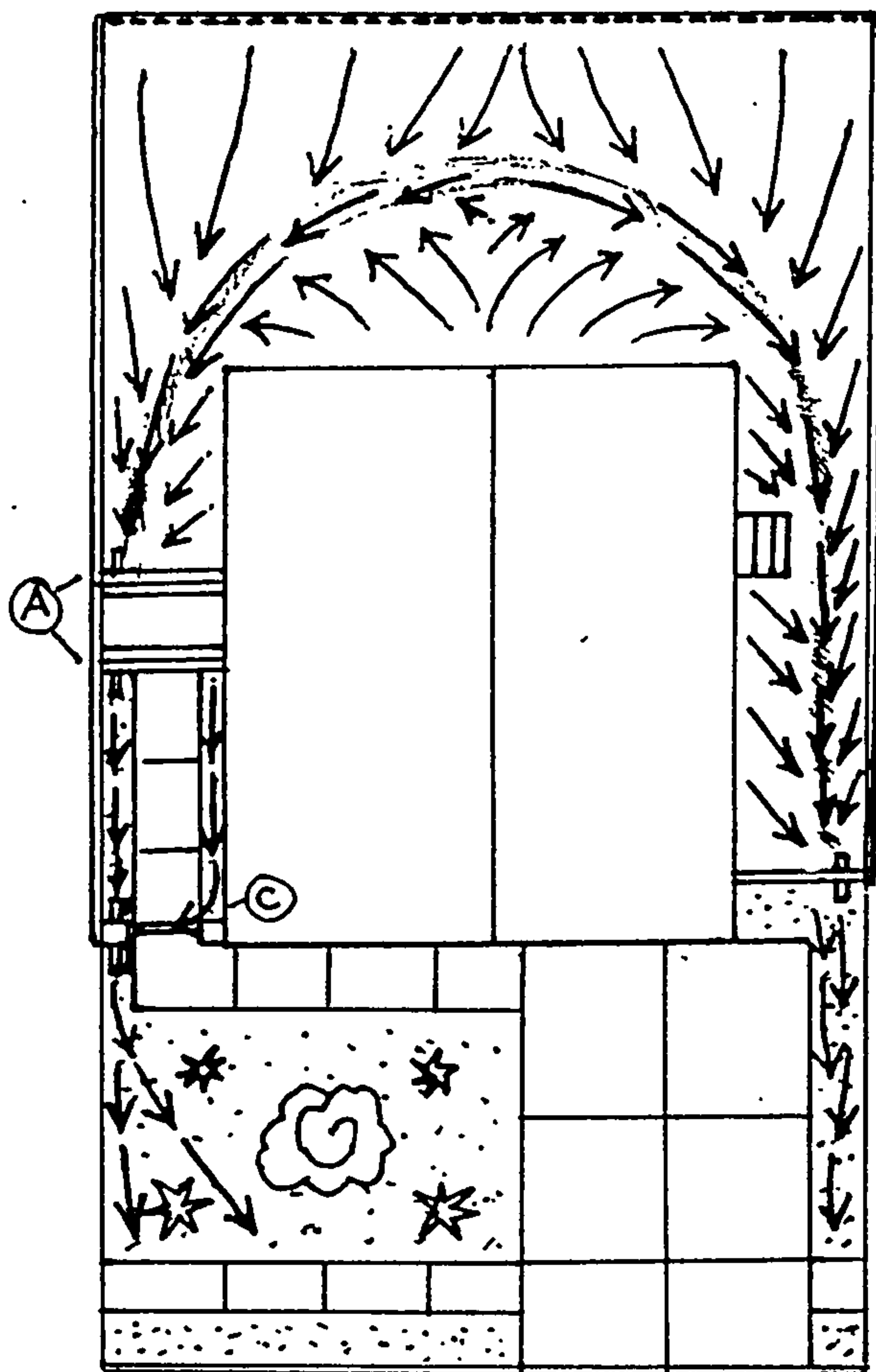
Printed Name Patricia Sucha Printed Name _____

Signature [Signature] Signature _____

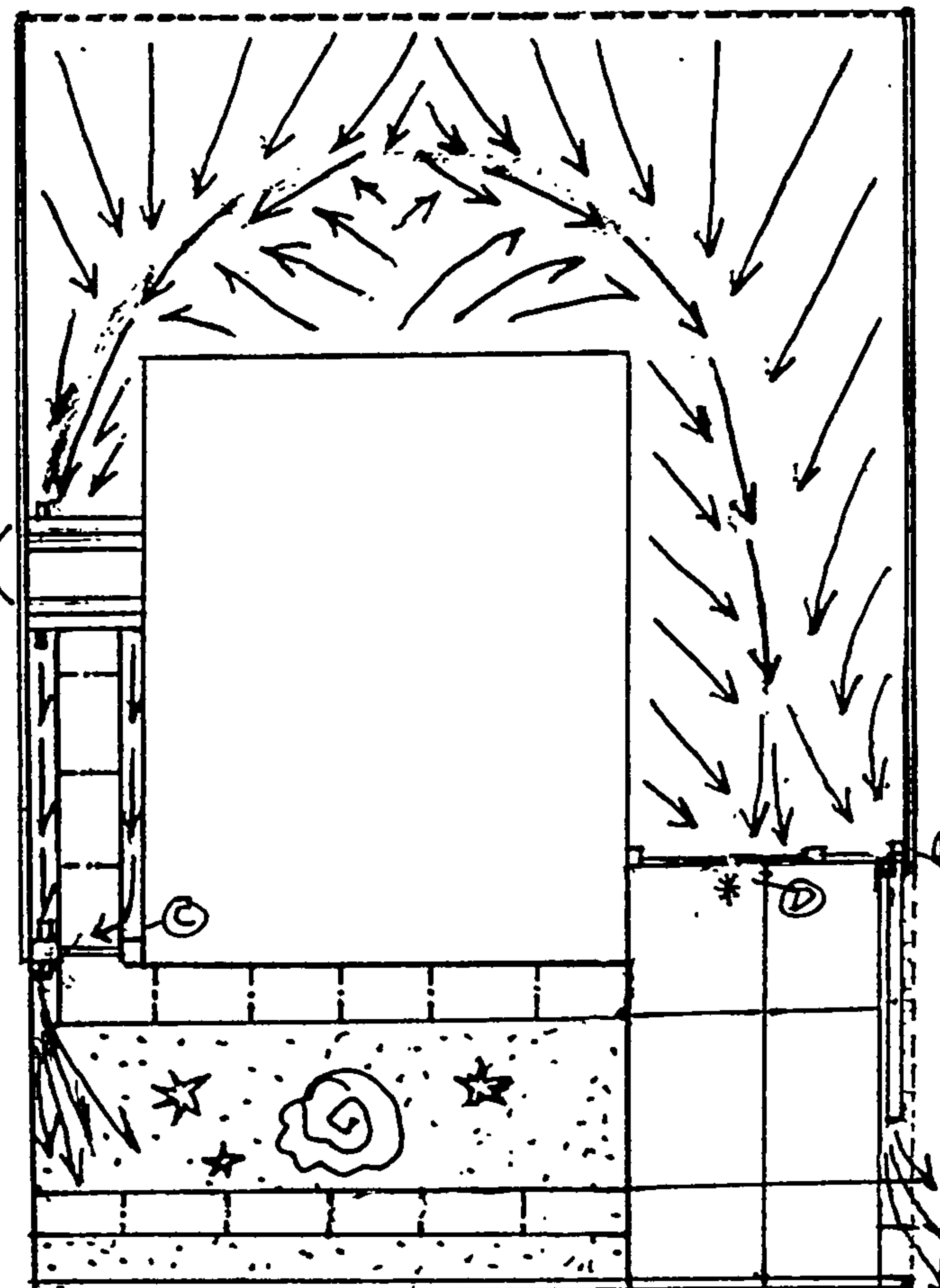
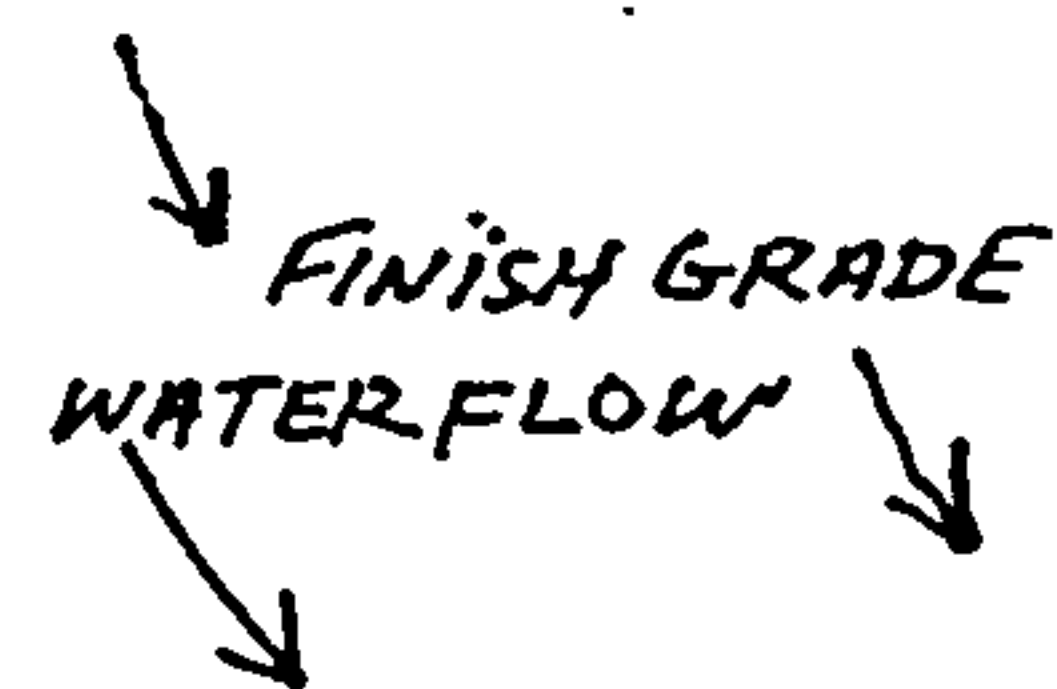
Date 2-11-03 Date _____

L-34, 243 MP, Rodriguez House

Drains from Rear to front of lot in Horseshoe Configuration. House at Seller supplied carport, gutters added to assist drainage. Front patio added by sellers, drains in patio wall to drain patio-

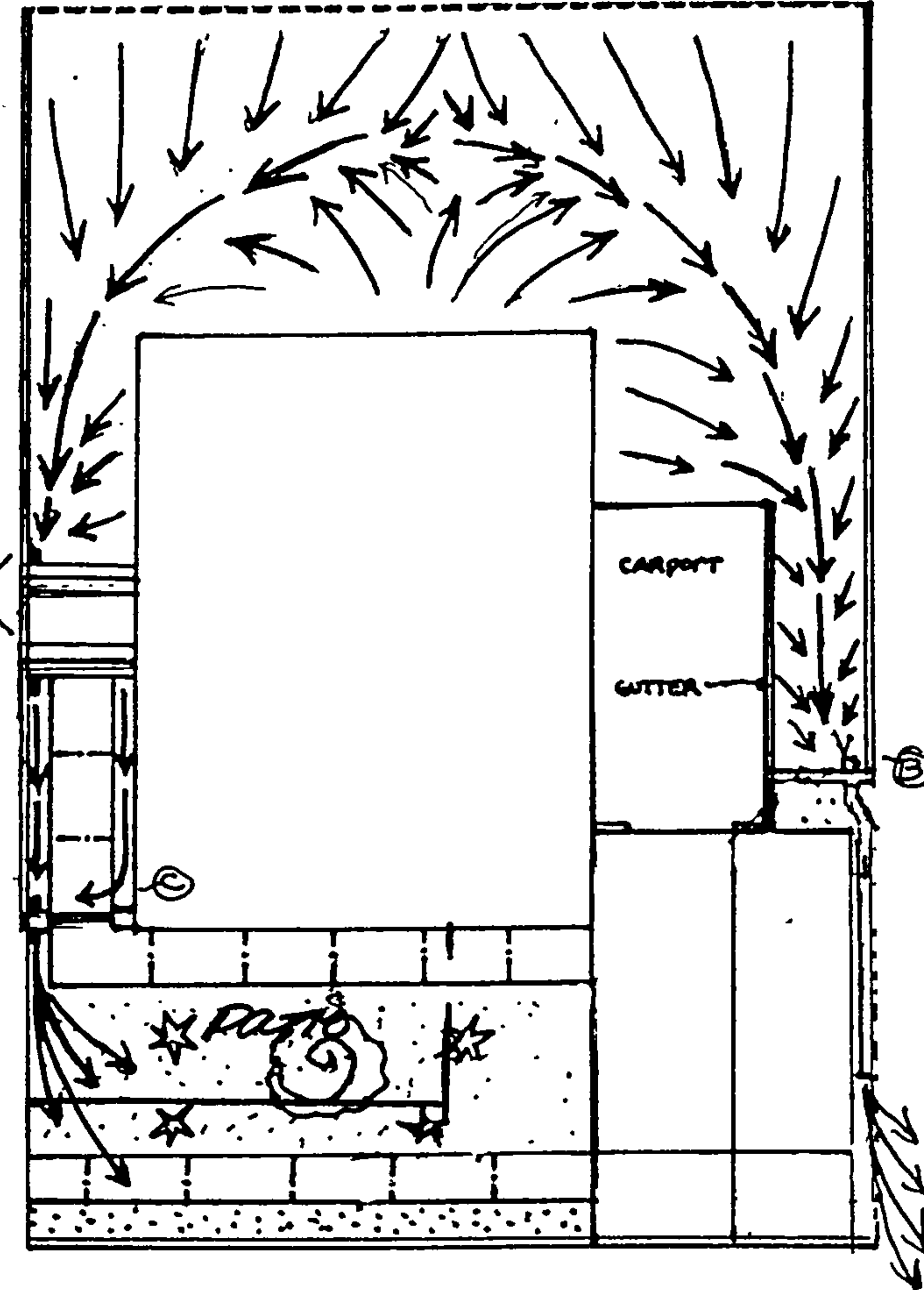


37' STANDARD LOT DRAINAGE.



48'-8\"/>

* LOTS WITH DOUBLE GATES ON PARKING SIDE, PART OF DRAINAGE IS ALLOWED TO FLOW UNDER GATES, OVER DRIVE TO STREET. ADDITIONAL DRAINAGE IN CORNER TO MAINTAIN MAXIMUM FLOW OPPORTUNITY TO ELIMINATE ANY PONDING.



48'-8\"/>

ALL LOTS WERE FINISH GRADED TO DISTRIBUTE RAIN WATER AWAY FROM THE HOUSE INTO A HORSESHOE SHAPED FLOW AROUND THE HOUSE TO OUTLETS THAT ALLOW FLOW TO THE FRONT YARDS AND STREET.

Ⓐ = THRU STEPS

Ⓑ = THRU WALL/FENCE

Ⓒ = SIDE WALK CROSSOVER DRAIN TO WALL OUTLET DRAIN

Ⓓ = GRAVITY FLOW UNDER GATES/OVER DRIVE/TO STREET

11
11
11
11
11

**Lot/Homesite Drainage Requirements
Notice and Agreement**

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If future ponding ever occurs behind the indicated areas, it is important to clean or flush out the affected drain pipes so that free drainage is restored and ponding is eliminated.

We have been provided a copy of this agreement. We have read it, understand it and agree to our responsibility.

Lot # 34 Address 243 Westcourt Place NW

Printed Name CHRISTINE Rodriguez Printed Name Crystal Rodriguez

Signature Christine Rodriguez Signature Crystal Rodriguez

Date 6-24-03

Date 6-24-03

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: St. Joseph's Place Subdivision
DRB #: 1001106 EPC#: _____

ZONE MAP/DRG. FILE #: K-11/D63
WORK ORDER#: _____

LEGAL DESCRIPTION: Tract C-15-A, Airport Unit
CITY ADDRESS: Between Avalon and Central near 63rd Street

ENGINEERING FIRM: Mark Goodwin & Associates, PA
ADDRESS: PO Box 90606
CITY, STATE: Albuquerque, NM

CONTACT: John M. MacKenzie, PE
PHONE: 828-2200
ZIP CODE: 87199

OWNER: Westcor, LLC
ADDRESS: 11600 Academy NE, Suite 4411
CITY, STATE: Albuquerque, NM

CONTACT: Charles Bachellor
PHONE: 237-9311
ZIP CODE: 87111

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: ALS, Inc.
ADDRESS: PO Box 30701
CITY, STATE: Albuquerque, NM

CONTACT: Tim Aldrich
PHONE: 884-1990
ZIP CODE: 87107

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL, *REQUIRES TCL or equal*
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☒ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ☒ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☐ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY (PERM.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☒ YES
- ☐ NO
- ☐ COPY PROVIDED

2/14/05:

Verbal - N

As per corr. to Amy D. from Brad B., dated 8/20/02, the retaining & garden walls need to show spot elevations. *Jeff*

DATE SUBMITTED: 2/8/2005

BY: John M. MacKenzie, PE

John MacKenzie

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

August 20, 2002

Amy Driscoll, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, New Mexico 87199

RE: ST. JOSEPH'S PLACE SUBD (K-11/D63)
ENGINEERS CERTIFICATION FOR RELEASE OF FINANCIAL GUARANTY
ENGINEERS STAMP DATED 12/3/2001
ENGINEERS CERTIFICATION DATED 8/19/2002

Dear Ms. Driscoll:

Based on the information provided on your August 19, 2002 submittal, the above referenced project **can not** be approved for Engineers Certification acceptance for release of Financial Guaranty at this time.

- As per the DPM Chapter 22 Engineers Certification Checklist requires that all retaining & garden walls show asbuilt spot elevations.

When the above drainage issue has been addressed and a revised submittal of the Engineers Certification is submitted to our office, we will review the certification for Financial Guaranty release.

If I can be of further assistance, please feel free to contact me at 924-3986.

Sincerely,

Bradley L. Bingham, P.E.
Senior Civil Engineer- Hydrology
Development & Bldg. Ser. Division

c: File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV.1/11/2002)

PROJECT TITLE: St. Joseph's Place Subdivision

ZONE MAP/DRB.FILE#: K-11 / D63

DRB#: 1001106 EPC#

WORK ORDER#:

LEGAL DESCRIPTION: Tract C-15-A, Airport Unit

CITY ADDRESS: Between Avalon and Central near 63rd St

ENGINEERING FIRM: Mark Goodwin & Associates, PA

CONTACT: Amy L. Driscoll, PE

ADDRESS: P.O. Box 90606 Albuquerque NM 87119

PHONE: 828-2200

CITY, STATE: Albuquerque NM

ZIP CODE: 87119

OWNER: Westcor, LLC

CONTACT: Charles Bachellor

ADDRESS: 11600 Academy Rd, NE

PHONE: 237-9311

CITY, STATE: Alb, NM

ZIP CODE: 87111

ARCHITECT:

CONTACT:

ADDRESS:

PHONE:

CITY, STATE:

ZIP CODE:

SURVEYOR: Aldrich Land Surveying

CONTACT: Tim Aldrich

ADDRESS: 4109 Montgomery

PHONE: 884-1990

CITY, STATE: Alb, NM

ZIP CODE: 87107

CONTRACTOR:

CONTACT:

ADDRESS:

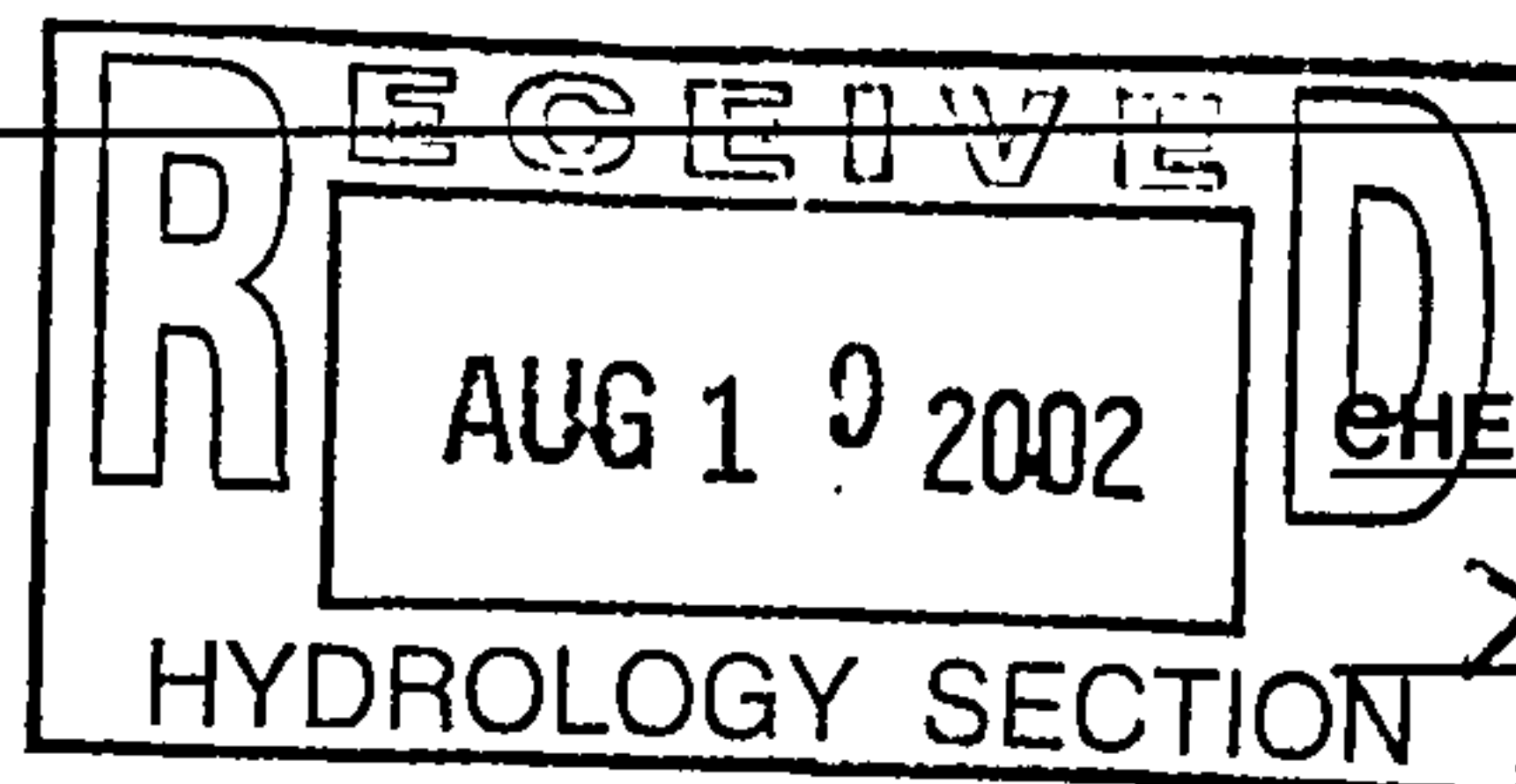
PHONE:

CITY, STATE:

ZIP CODE:

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☒ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEER'S CERTIFICATION (TCL)
- ☐ ENGINEER'S CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER



CHECK TYPE OF APPROVAL SOUGHT:

- ☒ SIA / FINANCIAL GUARANTY RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☐ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY (PERM)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP)
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☐ NO
- ☐ COPY PROVIDED

DATE SUBMITTED: 8/19/02 BY: [Signature]

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5).
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5).
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

D. Mark Goodwin and Associates, P.A.
Consulting Engineers

P.O. Box 90606 ♦ Albuquerque, NM 87199
(505) 828-2200 ♦ (505) 797-9539 fax
e-mail: dmgs@swcp.com

LETTER OF TRANSMITTAL

To: Carlos Montoya

Date: December 4, 2001

City of Albuquerque

Hydrology

Re: St. Joseph's Place Subdivision

K11/D63

We are sending:

No. Copies	Date	Item Description
1		Engineer's Certification

RECEIVED
AUG 19 2002
HYDROLOGY SECTION

☒ For your approval

☐ For your information

☐ As you requested

☐ For your comments

NOTES:

SIGNED:

Amy L. Driscoll, PE



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 25, 2002

Amy L. Driscoll
Mark Goodwin & Associates, PA
P.O. Box 90606
Albuquerque New Mexico 87199

**RE: Grading and Drainage Plan for Saint Joseph's Place Subdivision Project # 6760.81
(K11-D63) Dated December 25, 2002**

Dear Ms. Driscoll:

Your request to change the drainage outfall from a concrete channel to a 24-inch storm drain is approved. The concrete channel was an emergency outfall if some problem developed with the inlets. By doubling the capacity of the storm drain you are adding a safety factor. Therefore, your request letter dated January 11, 2002 is approved by Hydrology. As you mention you will need to update the as-builts to show this improvement.

If you have any questions please call me at 924-3982.

Sincerely,

Carlos A. Montoya
City Floodplain Administrator

C: Peter Chang, Construction Engineering Division Manager



D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmgs@swcp.com

January 11, 2002

Mr. Carlos Montoya
City of Albuquerque
600 2nd Street SW
Albuquerque, NM 87103

Re: St. Joseph's Place Subdivision, K11-DO63

Dear Mr. Montoya:

Currently, the St. Joseph's Subdivision plans have a concrete channel as an emergency overflow that runs in a drainage easement on the adjacent property. Please see the attached plan.

We would like to delete that channel from the drawings and propose other improvements that are not as expensive. Instead of the 18 inch storm pipe, we would like to install a 24 inch storm pipe that has capacity for twice the 100 year storm. We would not change the double C inlet at the hammerhead because it is large enough to accept more than the 14.50 cfs required for twice the 100 year storm (in conjunction with the other inlets). Please see the attached calculations.

We hope that these changes are acceptable to you. If you are in agreement with them, the contractor will be notified of the changes, and the original as-built drawings will be modified at the time of the as-builts.

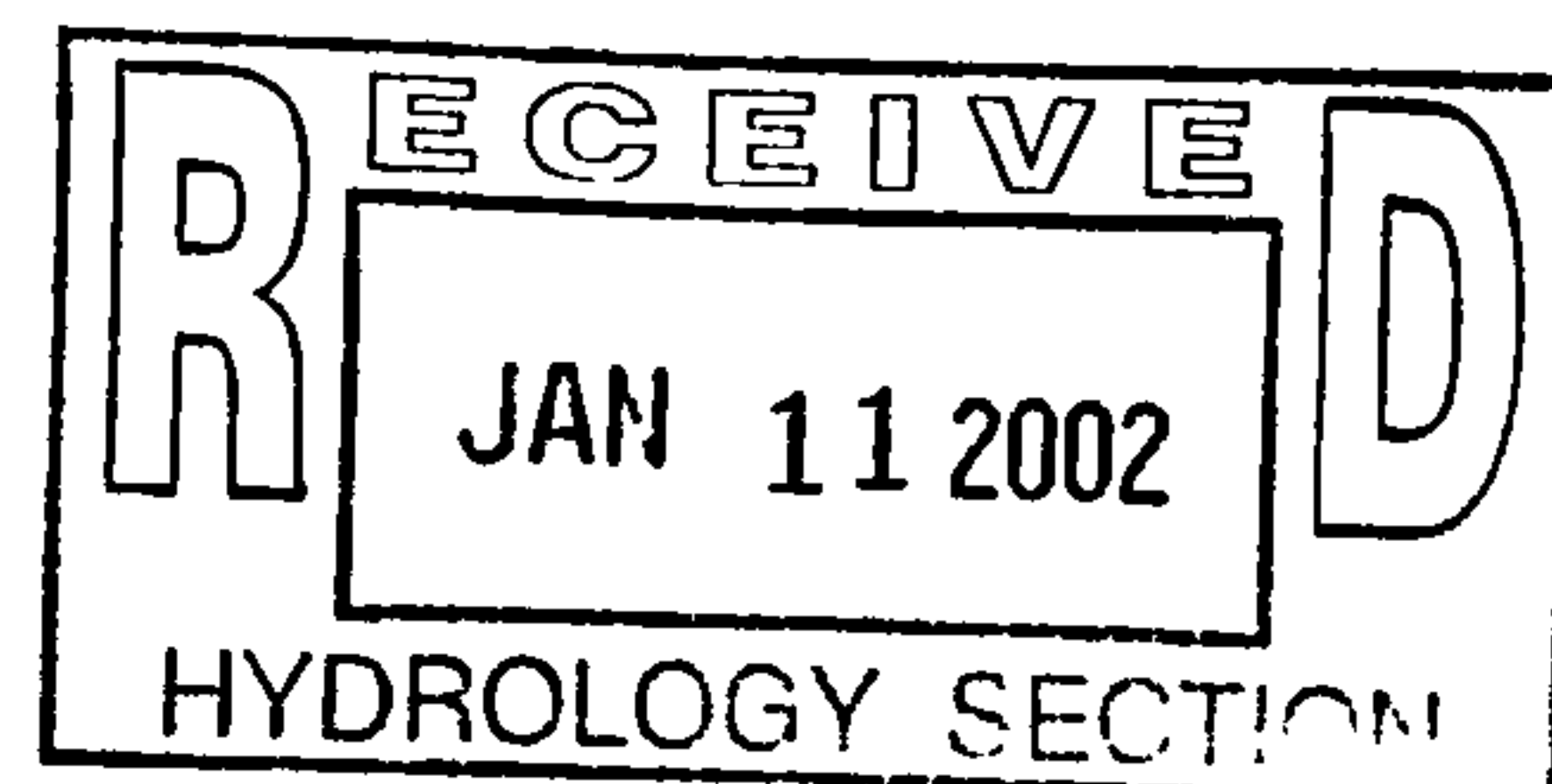
Please let me know if I can be of further assistance..

Sincerely,

MARK GOODWIN & ASSOCIATES, P.A.

Amy L. Driscoll, PE

f:\stjoseph\carlos3





D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmgs@swcp.com

11/11/01
11/11/01
11/11/01
11/11/01
11/11/01

January 11, 2002

Mr. Carlos Montoya
City of Albuquerque
600 2nd Street SW
Albuquerque, NM 87103

Re: St. Joseph's Place Subdivision, K11-DO63

Dear Mr. Montoya:

Currently, the St. Joseph's Subdivision plans have a concrete channel as an emergency overflow that runs in a drainage easement on the adjacent property. Please see the attached plan.

We would like to delete that channel from the drawings and propose other improvements that are not as expensive. Instead of the 18 inch storm pipe, we would like to install a 24 inch storm pipe that has capacity for twice the 100 year storm. We would not change the double C inlet at the hammerhead because it is large enough to accept more than the 14.50 cfs required for twice the 100 year storm (in conjunction with the other inlets). Please see the attached calculations.

We hope that these changes are acceptable to you. If you are in agreement with them, the contractor will be notified of the changes, and the original as-built drawings will be modified at the time of the as-builts.

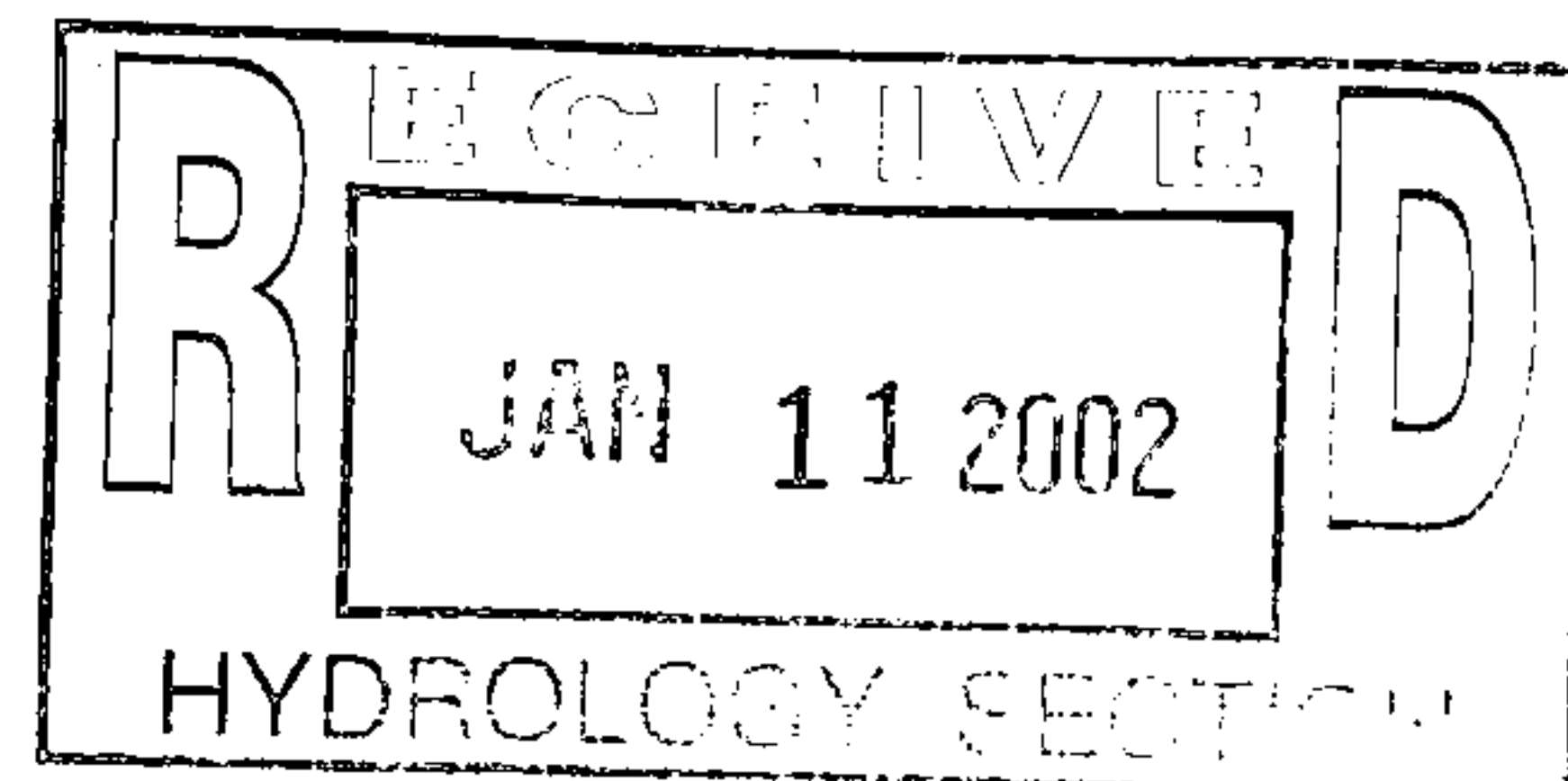
Please let me know if I can be of further assistance..

Sincerely,

MARK GOODWIN & ASSOCIATES, P.A.

Amy L. Driscoll, PE

f:\stjoseph\carlos3



DRAINAGE INFORMATION SHEET
(REV. 11/01/2001)

PROJECT TITLE: ST. JOSEPH'S PLACE SUBDIVISION ZONE MAP/DRG. FILE #: K-11/D63
DRB#: 1201106 EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: TRACT C-15-A, AIRPORT UNIT
CITY ADDRESS: _____

ENGINEERING FIRM: MARK GOODWIN + ASSOC
ADDRESS: PO BOX 9606
CITY, STATE: ALB, NM 87199

CONTACT: AMY L. DRISCOLL, PE
PHONE: 505-230-2300
ZIP CODE: 87199

OWNER: WESTCOR, LLC
ADDRESS: 11600 ACADEMY RD NE
CITY, STATE: ALB, NM

CONTACT: CHARLES BACELLER
PHONE: 505-937-9311
ZIP CODE: 87111

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

- ☒ DRAINAGE REPORT
- ☒ DRAINAGE PLAN
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☒ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☒ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY (PERM.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☒ YES
- ☐ NO
- ☐ COPY PROVIDED

DATE SUBMITTED: 1/11/02

BY: 

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

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3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or

FACSIMILE

Name: Terri Martin
Organization: City of Albuquerque
Fax: 924-3864
From: Amy L. Driscoll, PE
Date: January 11, 2002
Subject: St. Joseph's Place
Pages: 2

☐

Urgent

☐

Reply ASAP

☐

Please Comment

☐

For Your Records

Comments: [

Here is the information you requested. Please call if you have any questions.

From the desk of...

AMY L. DRISCOLL, PE
Project Engineer

Mark Goodwin & Associates, PA
PO Box 90606
Albuquerque, NM 87199
(505) 828-2200
Fax (505) 797-9539



D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmg@swcp.com

PROJECT ST JOSEPH'S

SUBJECT _____

BY AMY DATE 1/17/01

CHECKED _____ DATE _____

SHEET 10 OF _____

INLETS AT END OF HAMMILL NEED TO HOLD UNDER SUMP CONDITION
 $2 \times 12.50 - 3.50 - 7 = 14.50 \text{ CFS}$

(24" STORM DRAIN WILL HOLD $2 \times 12.50 = 25.0 \text{ CFS}$)

THIS WILL KEEP US FROM HAVING TO DO ASPHALT OR CONC SWALE

IN SUMP CONDITION, USE CAPACITY OF GRATE

$$Q = 2.95 L H^{3/2}$$

IN FRONT FOR DOUBLE C $L = 6.5 \text{ FT}$, $H = \frac{6.5 \text{ IN}}{12} + .18 = .722$

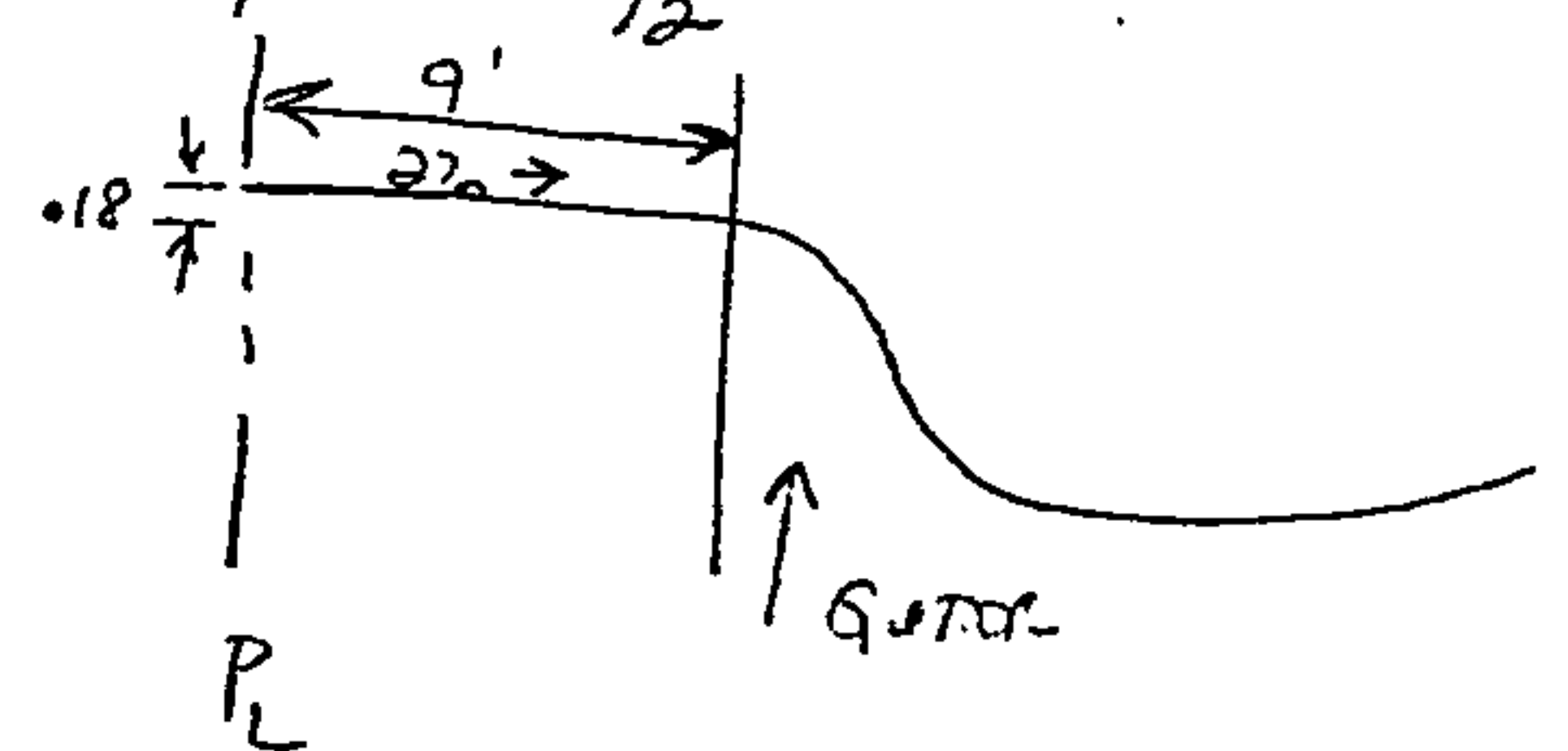
$$Q = 2.95 (6.5) (.722)^{3/2} = 11.76 \text{ CFS}$$

ALONG BOTH SIDES FOR DOUBLE C

$$L = 2' (2 \text{ SIDES}) = 4 \text{ FT}$$

$$H = \frac{10.7 \text{ IN}}{12} = .896 \text{ FT}$$

$$Q = 2.95 (4) (.896)^{3/2} = 10.01 \text{ CFS}$$



$$\text{TOTAL CAPACITY} = 11.76 + 10.01 = 21.77 \text{ CFS} > 14.50 \text{ CFS} \checkmark$$

NO ADDL INLET IS REQUIRED



D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmgs@swcp.com

PROJECT ST JOSEPH'S

SUBJECT _____

BY AMY DATE 1/7/02

CHECKED _____ DATE _____

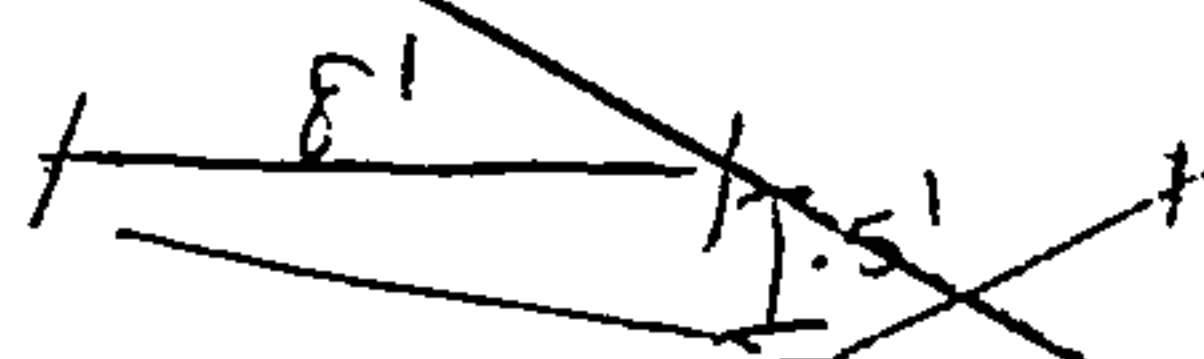
SHEET 8 OF _____

PROVIDE PIPE FOR $2 \times Q_s = 2 \times 12.50 = 25.0 \text{ CFS}$

$$Q = 0.6 A \sqrt{2gh}$$

$$D = \sqrt{\frac{4Q}{0.6\pi \sqrt{2gh}}} = \sqrt{\frac{4(25.0)}{0.6\pi \sqrt{2(32.2)(2.75 \text{ ft})}}} = 1.996 \text{ ft} = 24 \text{ in}$$

~~SEE ASPHALT SURFACE~~



~~NEED TO HANDLE 12.5 CFS~~

$$Q = \frac{1.49 A R^{2/3} S^{1/2}}{n}$$

$$A = 2 \left(\frac{1}{2}\right) 8 (.5) = 4$$

$$R = \frac{4}{16.03} = .250$$

$$Q = \frac{1.49 (4) (.250)^{2/3} \sqrt{.005}}{.013} = 12.84 \text{ CFS} > 12.50$$

~~AREA OF ASPHALT~~

$$.312 \times 16.03 = 500.36 \text{ SF} = 556 \text{ sy}$$



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

December 5, 2001

Mark Goodwin, P.E.
P.O. Box 90606
Albuquerque, NM 87199

Attn: Amy L. Driscoll, E.I.

**Re: St. Joseph's Place Subdivision Grading & Drainage Plan, Engineer's stamp dated 12-03-01
(K11/D063)**

Dear Mr. Goodwin,

Based on the information provided in your submittal dated December 4, 2001, the above referenced drainage plan is approved for Building Permit and Grading Permit.

Please attach a copy of this approved plan to the construction sets before sign-off by Hydrology. Before release of the Certificate of Occupancy, an Engineer Certification per the DPM checklist will be required.

If you have any questions, please call me at 924-3988.

Sincerely,

Nancy Musinski, P.E.
Hydrology/Utility Development
City of Albuquerque Public Works

cc: file

DRAINAGE INFORMATION SHEET

(REV. 11/01/2001)

PROJECT TITLE: St. Joseph's Place Subdivision ZONE MAP/DRG. FILE #: K-11/D63
 DRB #: 1001106 EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Tract C-15-A, Airport Unit
 CITY ADDRESS: Between Avalon and Central near 63rd Street

ENGINEERING FIRM: Mark Goodwin & Associates
 ADDRESS: P.O. Box 90606
 CITY, STATE: Albuquerque

CONTACT: Amy Driscoll
 PHONE: 828-2200
 ZIP CODE: 87199

OWNER: Westcor, LLC
 ADDRESS: 11600 Academy Rd. NE
 CITY, STATE: _____

CONTACT: Charles Bachellor
 PHONE: 237-9311
 ZIP CODE: 87111

ARCHITECT: _____
 ADDRESS: _____
 CITY, STATE: _____

CONTACT: _____
 PHONE: _____
 ZIP CODE: _____

SURVEYOR: Aldrich Land Surveying
 ADDRESS: 4109 Montgomery
 CITY, STATE: Albuquerque NM

CONTACT: Tim Aldrich
 PHONE: 884-1990
 ZIP CODE: 87107

CONTRACTOR: _____
 ADDRESS: _____
 CITY, STATE: _____

CONTACT: _____
 PHONE: _____
 ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

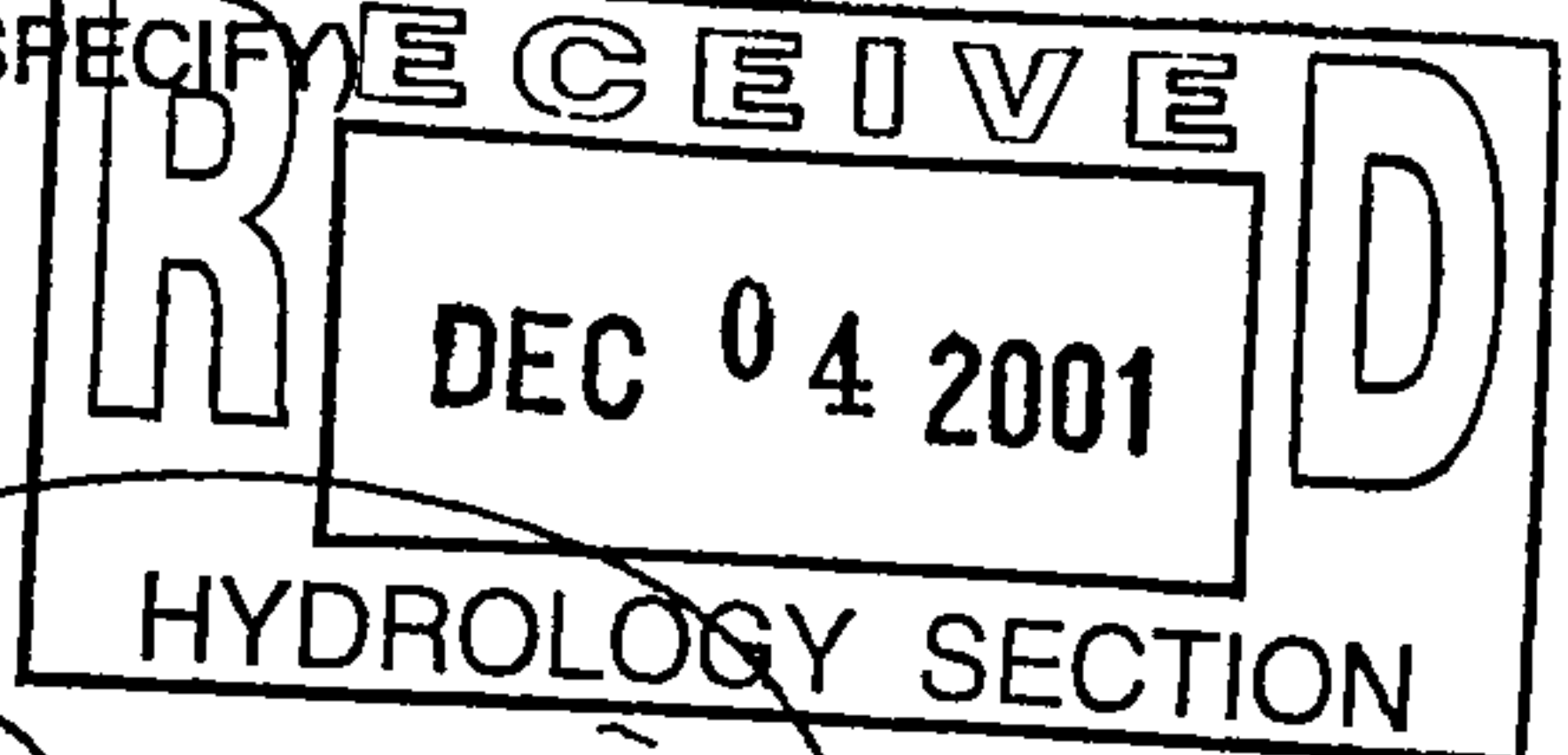
- ☐ DRAINAGE REPORT
- ☒ DRAINAGE PLAN
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☒ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☒ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY (PERM.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
- ☒ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☒ OTHER (SPECIFY _____)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☒ YES
- ☐ NO
- ☐ COPY PROVIDED



DATE SUBMITTED: 12/4/01 BY: [Signature]

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

- 1. Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five
- 2. Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5)
- 3. Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or

D. Mark Goodwin and Associates, P.A.
Consulting Engineers

P.O. Box 90606 ♦ Albuquerque, NM 87199
(505) 828-2200 ♦ (505) 797-9539 fax
e-mail: dm@swcp.com

LETTER OF TRANSMITTAL

To: Carlos Montoya

Date: December 4, 2001

City of Albuquerque

Hydrology

Re: St. Joseph's Place Subdivision

K11/D63 and DRC #676081

We are sending:

No. Copies	Date	Item Description
1	12/04/01	Revised Grading and Drainage Plan

☒ For your approval

☐ For your information

☐ As you requested

☐ For your comments

NOTES:

This project received Hydrology approval September 5th. At Utilities' request, the storm manhole moved and invert elevations changed. We are showing retaining walls that are 0.6 foot high. Please call if I can be of further assistance.

SIGNED:

Amy L. Driscoll, PE



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

September 5, 2001

Amy L. Driscoll
Mark Goodwin & Associates, PA
P.O. Box 90606
Albuquerque New Mexico 87199

**RE: Grading and Drainage Plan for Saint Joseph's Place Subdivision (K11-D63) Dated
September 4, 2001**

Dear Ms. Driscoll:

The above referenced drainage plan received September 4, 2001 is approved for Preliminary Plat action at DRB.

If you have any questions please call me at 924-3982.

Sincerely,

Carlos A. Montoya
City Floodplain Administrator

DRAINAGE INFORMATION SHEET

PROJECT TITLE:	St. Joseph's Place Subdivision	ZONE ATLAS#:	K-11
DRB#:	1001106	EPC#	WORKORDER#:
LEGAL DESCRIPTION:	Tract C-15-A, Airport Unit		
CITY ADDRESS:	Between Avalon and Central near 63rd Street		

ENGINEERING FIRM:	Mark Goodwin & Associates, PA	CONTACT:	Amy Driscoll
ADDRESS:	P.O. Box 90606, Albuquerque, NM 87199	PHONE:	828-2200
OWNER:	Westcor, LLC	CONTACT:	Charles Bachellor
ADDRESS:	11600 Academy rd NE, Albuquerque, NM 87111	PHONE:	237-9311
ARCHITECT:		CONTACT:	
ADDRESS:		PHONE:	
SURVEYOR:		CONTACT:	
ADDRESS:		PHONE:	
CONTRACTOR:		CONTACT:	
ADDRESS:		PHONE:	

TYPE OF SUBMITTAL:

	DRAINAGE REPORT
x	DRAINAGE PLAN
	CONCEPTUAL GRADING & DRAINAGE PLAN
x	GRADING PLAN
	EROSION CONTROL
	ENGINEER'S CERTIFICATION
	OTHER
	EASEMENT VACATION

PRE-DESIGN MEETING:

x YES

NO

COPY PROVIDED

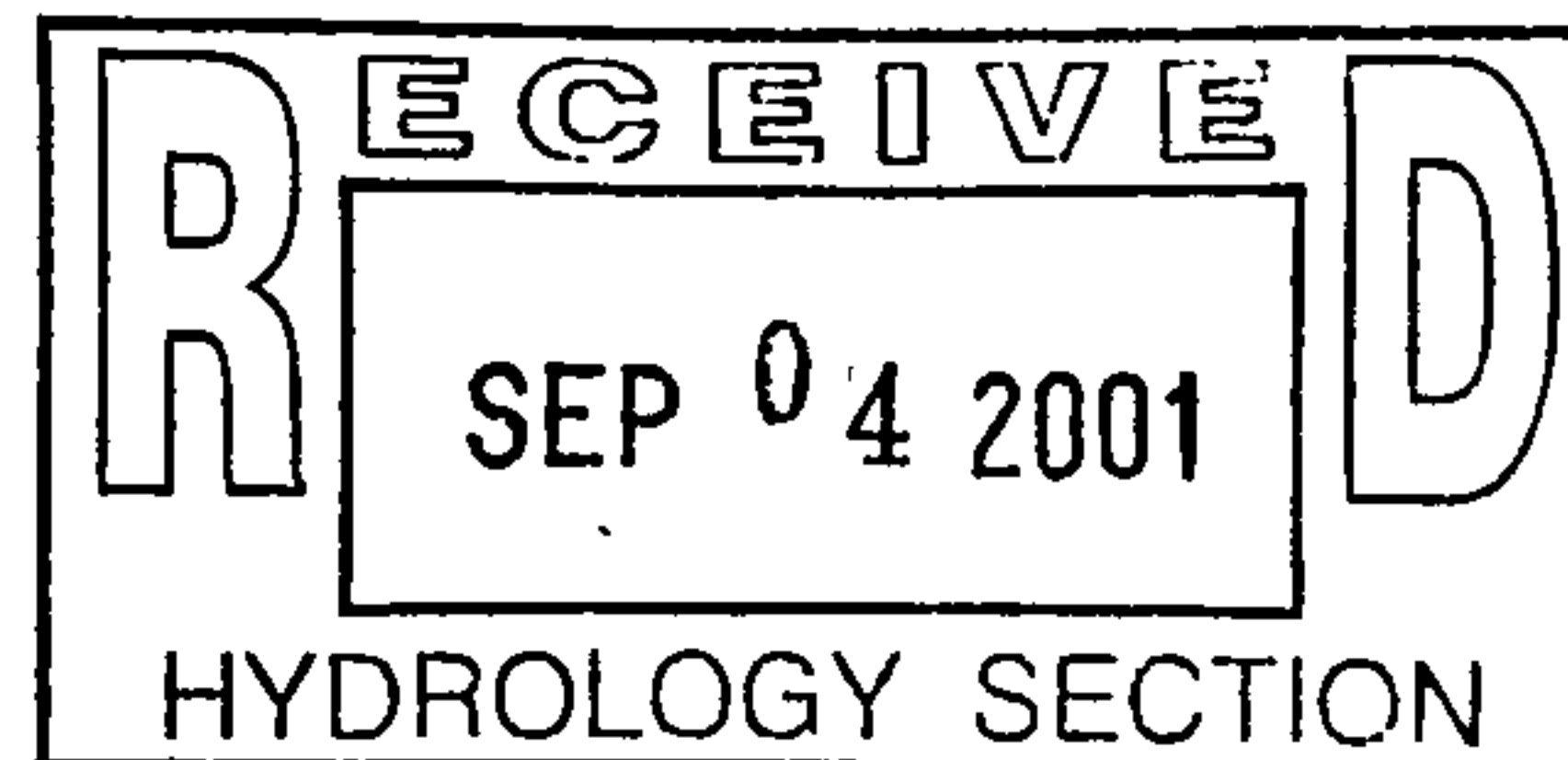
CHECK TYPE OF APPROVAL SOUGHT:

	SKETCH PLAT APPROVAL
X	PRELIMINARY PLAT APPROVAL
	S. DEV. PLAN FOR SUB'D APPROVAL
	S. DEV. PLAN FOR BLDG PERMIT APPROVAL
	SECTOR PLAN APPROVAL
	FINAL PLAT APPROVAL
	FOUNDATION PERMIT APPROVAL
~~25~~	BUILDING PERMIT APPROVAL
	CERTIFICATION OF OCCUPANCY APPROVAL
~~25~~	GRADING PERMIT APPROVAL
	PAVING PERMIT APPROVAL
	S.A.D. DRAINAGE REPORT
	DRAINAGE REQUIREMENTS
~~25~~	OTHER - Temp. Dererral of Sidewalks
	RELEASE OF FINANCIAL GUARANTY
	TRAFFIC CIRCULATION LAYOUT

DATE SUBMITTED: Sept. 4, 2001

BY:

Amy L. Driscoll, PE





D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmgs@swcp.com

September 4, 2001

Ms. Janet Stephens, Chair
Development Review Board
City of Albuquerque
600 2nd Street SW
Albuquerque, NM 87103

**Re: Tract C-15-B, Town of Atrisco Grant, Airport Unit (St. Joseph's Place Subdivision)
Project # 1001106 (Item No. 6)**

Dear Ms. Stephens:

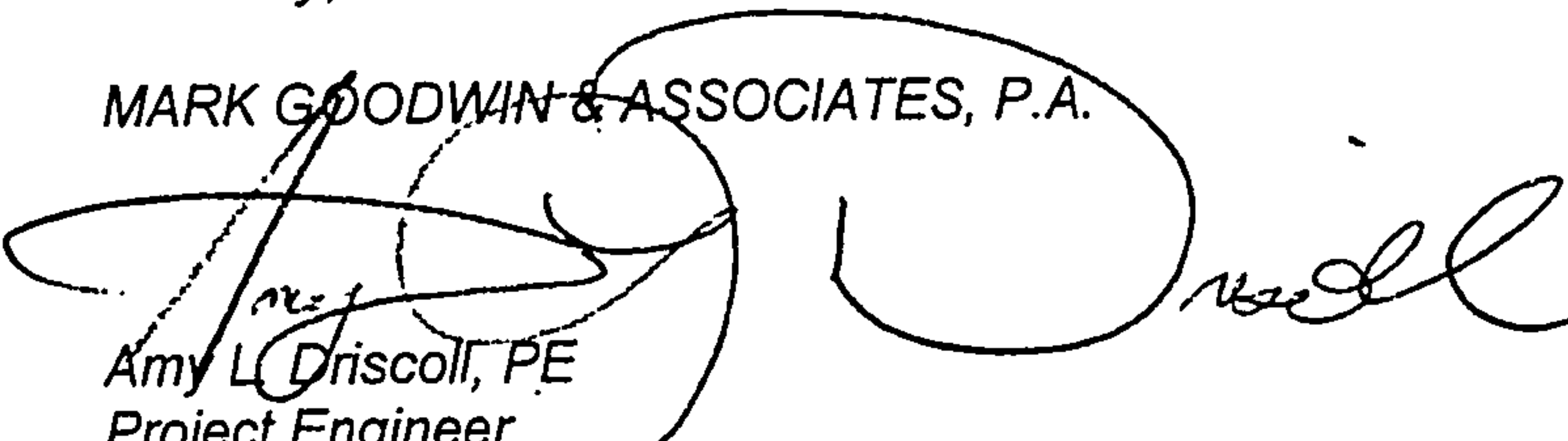
In accordance with the meeting held in your office on Thursday, August 30, the following changes have been made to the plat and the grading and drainage plan on the referenced submittal:

- Because there is a desire to not have a homeowners association created for this subdivision, Tracts A and B have been eliminated so they don't have to be maintained. The lots adjacent to these former tracts have been enlarged to occupy the former area of the tracts. The plat and grading and drainage plan have been modified accordingly. The city easements formerly shown over the tracts will remain as previously proposed.
- Also, PNM has indicated they are not willing to vacate the public utility easements we had sought removal of, therefore, the existing PUE around the subdivision is to remain.

Please contact me if I can be of further assistance.

Sincerely,

MARK GOODWIN & ASSOCIATES, P.A.


Amy L. Driscoll, PE
Project Engineer

f:\stjosephs\drb4.ltr



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

CITY OF ALBUQUERQUE

PUBLIC WORKS DEPARTMENT

November 13, 2001

TO: D. Mark Goodwin, P.E.

FROM: Nancy Musinski, P.E., Hydrology/Utility Development Section *NM*

SUBJECT: Resubmittal of St. Joseph's Place Grading & Drainage Plan (K-11/D63)

This drainage plan was already approved on Sept. 5, 2001 for Preliminary Plat action. Your re-submittal is not appropriate, for two reasons:

- (1) The slight shifting of the storm drain manhole shall be resolved at DRC, and
- (2) The engineer's signature and date is missing from your re-submitted plan.

Please use the previously approved plan with engineer's stamp and date Sept. 4, 2001 as your approved Grading & Drainage Plan for this project. If you have any questions, please call me at 924-3988.

cc: file

TO: Amy Driscoll, ET
FAX: 797-9539

*Amy,
Original to follow
via USPS.
Thanks,
Nancy M.*

*** TX REPORT ***

TRANSMISSION OK

TX/RX NO	0722	
CONNECTION TEL		97979539
SUBADDRESS		
CONNECTION ID		
ST. TIME	11/13 09:36	
USAGE T	00'28	
PGS.	1	
RESULT	OK	

DRAINAGE INFORMATION SHEET

(REV. 11/01/2001)

PROJECT TITLE: St. Joseph's Place Subdivision ZONE MAP/DRG. FILE #: K-11/D63
DRB #: 1001106 EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Tract C-15-A, Airport Unit.
CITY ADDRESS: Between Avalon and Central near 63rd Street

ENGINEERING FIRM: Mark Goodwin & Associates
ADDRESS: P.O. Box 90606
CITY, STATE: Albuquerque

CONTACT: Amy Driscoll
PHONE: 828-2200
ZIP CODE: 87199

OWNER: Westcor, LLC
ADDRESS: 11600 Academy Rd. NE
CITY, STATE: _____

CONTACT: Charles Bacheller
PHONE: 237-9311
ZIP CODE: 87111

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: Aldrich Land Surveying
ADDRESS: 4109 Montgomery
CITY, STATE: Albuquerque NM

CONTACT: Tim Aldrich
PHONE: 884-1990
ZIP CODE: 87107

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☒ DRAINAGE PLAN
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☒ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

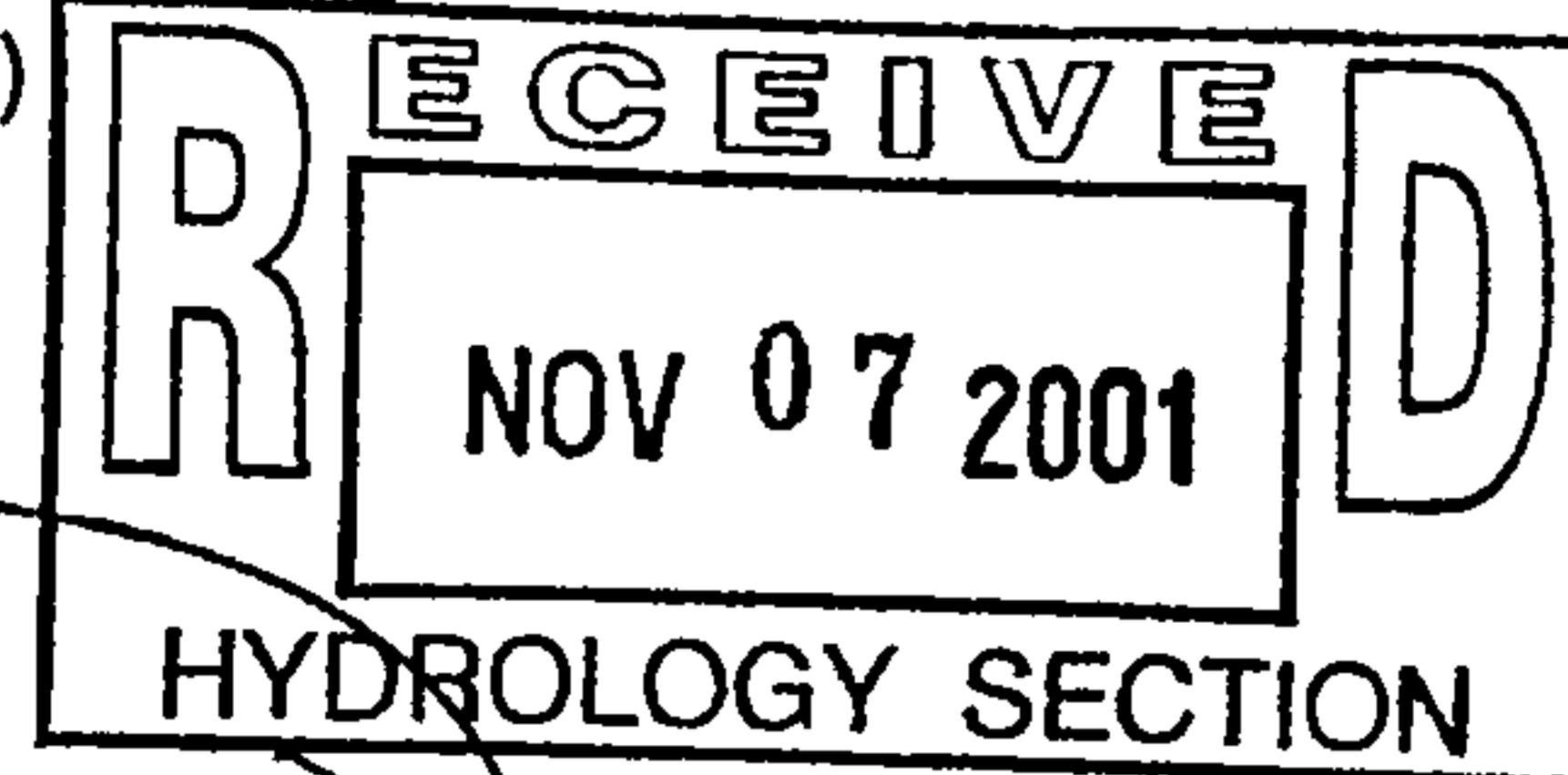
- ☐ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☒ FOUNDATION PERMIT APPROVAL
- ☒ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY (PERM.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
- ☒ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☒ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☒ YES
- ☐ NO
- ☐ COPY PROVIDED

DATE SUBMITTED: 11/7/01

BY: [Signature]



Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or

D. Mark Goodwin and Associates, P.A.
Consulting Engineers

P.O. Box 90606 ♦ Albuquerque, NM 87199
(505) 828-2200 ♦ (505) 797-9539 fax
e-mail: dm@swcp.com

LETTER OF TRANSMITTAL

To: Carlos Montoya

Date: November 5, 2001

City of Albuquerque

Hydrology

Re: St. Joseph's Place Subdivision

K-11 / D63

We are sending:

No. Copies	Date	Item Description
1	11/05/01	Revised Grading and Drainage Plan

☒ For your approval

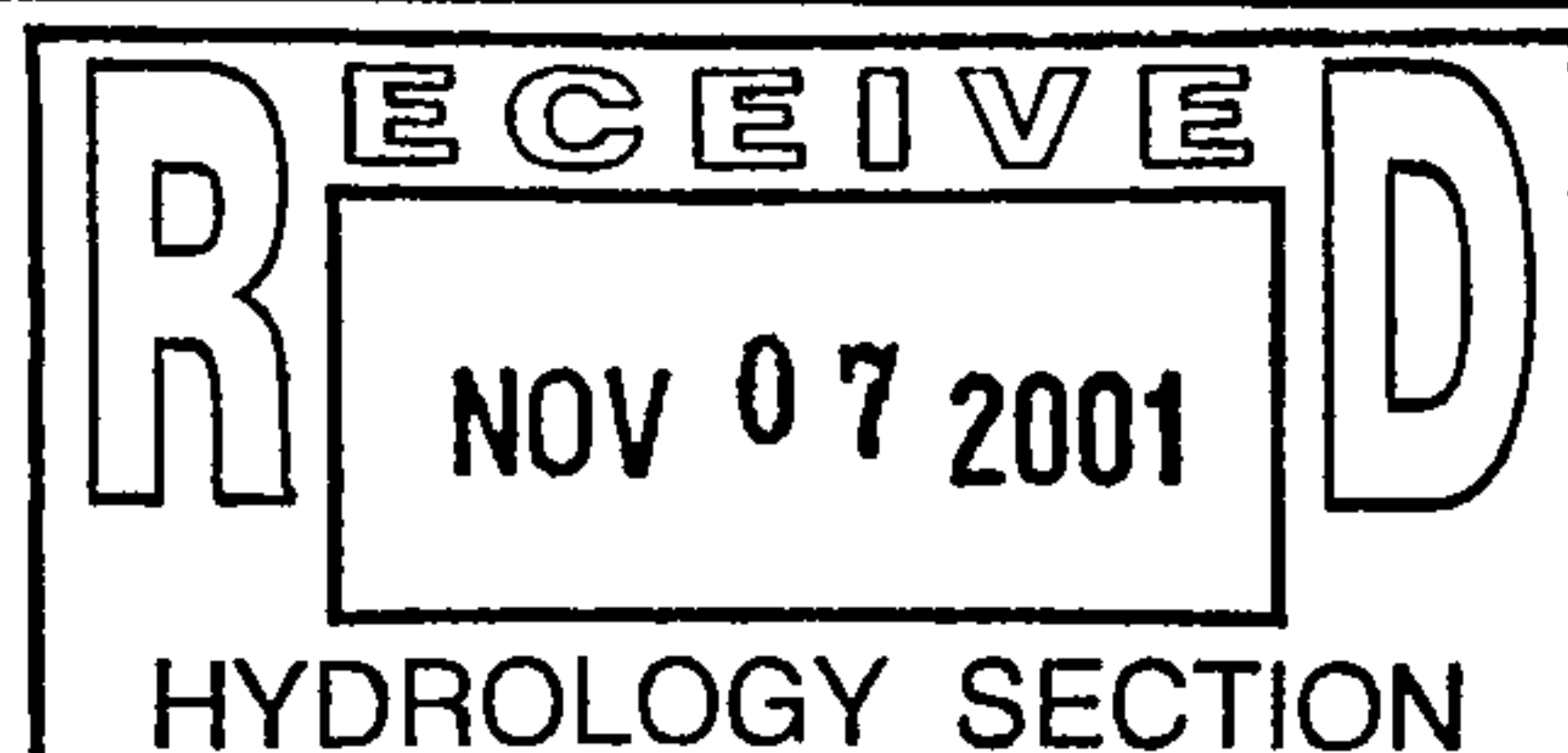
☐ For your information

☐ As you requested

☐ For your comments

NOTES:

This project received Hydrology approval September 5th. The storm drain manhole in the easement moved and invert elevations changed.



SIGNED:

Amy L. Driscoll, PE



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

August 28, 2001

Amy L. Driscoll
Mark Goodwin & Associates, PA
P.O. Box 90606
Albuquerque New Mexico 87199

RE: Grading and Drainage Plan for Saint Joseph's Place Subdivision (K11-D63) Dated August 23, 2001

Dear Ms. Driscoll:

The above referenced drainage plan is approved for Preliminary Plat action at DRB. The following are minor changes that will have to be made. The note on the Preliminary Plat for Tract A should be changed. Sheet one of three indicates that the homeowner's association should maintain tract A and B for recreation purposes. The concrete channel should be the only item maintained by the City. Secondly, at DRC the location of the utilities in the public easements needs to be discussed.

If you have any questions please call me at 924-3982.

Sincerely,

Carlos A. Montoya
City Floodplain Administrator

DRAINAGE INFORMATION SHEET

PROJECT TITLE:	St. Joseph's Place Subdivision	ZONE ATLAS#:	K-11
DRB#:	1001106	EPC#	WORKORDER#:
LEGAL DESCRIPTION:	Tract C-15-A, Airport Unit		
CITY ADDRESS:	Between Avalon and Central near 63rd Street		

ENGINEERING FIRM:	Mark Goodwin & Associates, PA	CONTACT:	Amy Driscoll
ADDRESS:	P.O. Box 90606, Albuquerque, NM 87199	PHONE:	828-2200
OWNER:	Westcor, LLC	CONTACT:	Charles Bachellor
ADDRESS:	11600 Academy rd NE, Albuquerque, NM 87111	PHONE:	237-9311
ARCHITECT:		CONTACT:	
ADDRESS:		PHONE:	
SURVEYOR:		CONTACT:	
ADDRESS:		PHONE:	
CONTRACTOR:		CONTACT:	
ADDRESS:		PHONE:	

TYPE OF SUBMITTAL:

	DRAINAGE REPORT
x	DRAINAGE PLAN
	CONCEPTUAL GRADING & DRAINAGE PLAN
x	GRADING PLAN
	EROSION CONTROL
	ENGINEER'S CERTIFICATION
	OTHER
	EASEMENT VACATION

PRE-DESIGN MEETING:

 x YES
 NO
COPY PROVIDED

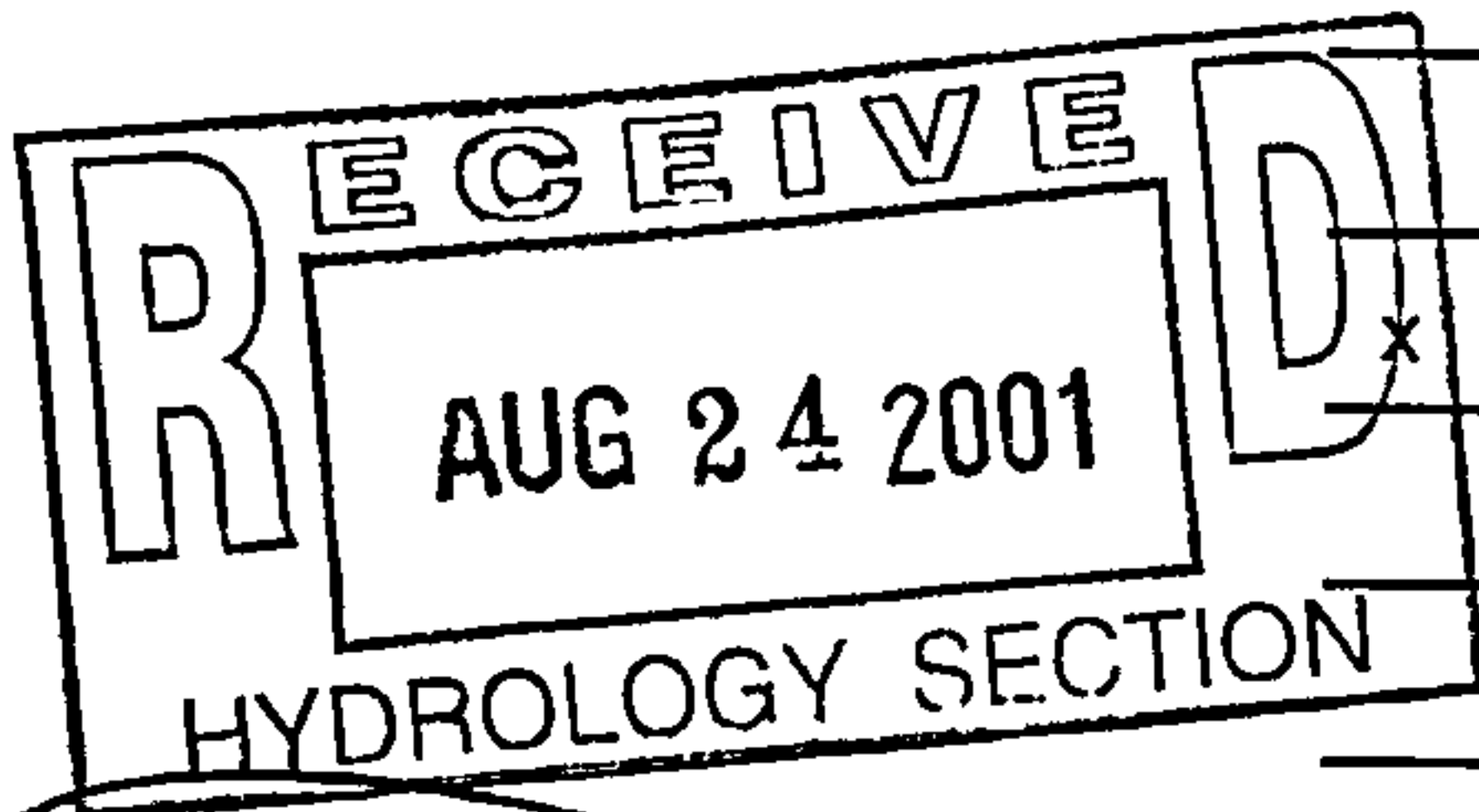
CHECK TYPE OF APPROVAL SOUGHT:

	SKETCH PLAT APPROVAL
x	PRELIMINARY PLAT APPROVAL
	S. DEV. PLAN FOR SUB'D APPROVAL
	S. DEV. PLAN FOR BLDG PERMIT APPROVAL
	SECTOR PLAN APPROVAL
	FINAL PLAT APPROVAL
	FOUNDATION PERMIT APPROVAL
	BUILDING PERMIT APPROVAL
	CERTIFICATION OF OCCUPANCY APPROVAL
x	GRADING PERMIT APPROVAL
	PAVING PERMIT APPROVAL
	S.A.D. DRAINAGE REPORT
	DRAINAGE REQUIREMENTS
x	OTHER - Temp. Dererral of Sidewalks
	RELEASE OF FINANCIAL GUARANTY
	TRAFFIC CIRCULATION LAYOUT

DATE SUBMITTED: August 24, 2001

BY:

Amy L. Driscoll, PE





Amy

PERMANENT EASEMENT

#K11007

1-09-01

Grant of Permanent Easement, between SEE GRANTORS BELOW ("Grantor"), whose address is 1524 CENTRAL S.E. and the City of Albuquerque, a New Mexico municipal corporation ("City"), whose address is P.O. Box 1293, Albuquerque, New Mexico, 87103.

Grantor grants to the City an exclusive, permanent easement ("Easement") in, over, upon and across the real property described on Exhibit "A" attached hereto ("Property") for the construction, installation, maintenance, repair, modification, replacement and operation of 30 FOOT WIDE PUBLIC together with the right to remove trees, bushes, undergrowth and any other obstacles upon the Property if the City determines they interfere with the appropriate use of this Easement. WATER, SANITARY SEWER + STEAM DRAIN.

In the event Grantor constructs any Improvements ("Improvements") within the Easement, the City has the right to enter upon Grantors property at any time and perform whatever inspection, installation, maintenance, repair, modification or removal ("Work") it deems appropriate without liability to the City. If the Work effects any Improvements or encroachments made by the Grantor, the City will not be financially or otherwise responsible for rebuilding or repairing the Improvements or encroachments. If in the opinion of the City, the Work to be performed by the City could endanger the structural integrity or otherwise damage the Improvements or encroachments, the Grantor shall, at its own expense, take whatever protective measures are required to safeguard the Improvements or encroachments.

Grantor covenants and warrants that Grantor is the owner in fee simple of the Property, that Grantor has a good lawful right to convey the Property or any part thereof and that Grantor will forever warrant and defend the title to the Property against all claims from all persons or entities.

The grant and other provisions of this Easement constitute covenants running with the Property for the benefit of the City and its successors and assigns until terminated.

This Easement shall not be effective until approved by the City Engineer in the signature block below.

WITNESS my hand and seal this 2ND day of JANUARY, 2001.

APPROVED:

[Signature]
City Engineer

1-09-01
Dated

11/01/01

GRANTOR:

1) [Signature]
(Individual)

GRANTOR:

By: [Signature]
Its: [Signature]
(Corporation or Partnership)

- * 2) [Signature]
- 3) DER SHYAN LIA
- 4) [Signature]
- 5) [Signature]
- 1 6) Hua Zhe Wu



Mary Herrera

Don. Co. EASE

K 21.00

2881885311

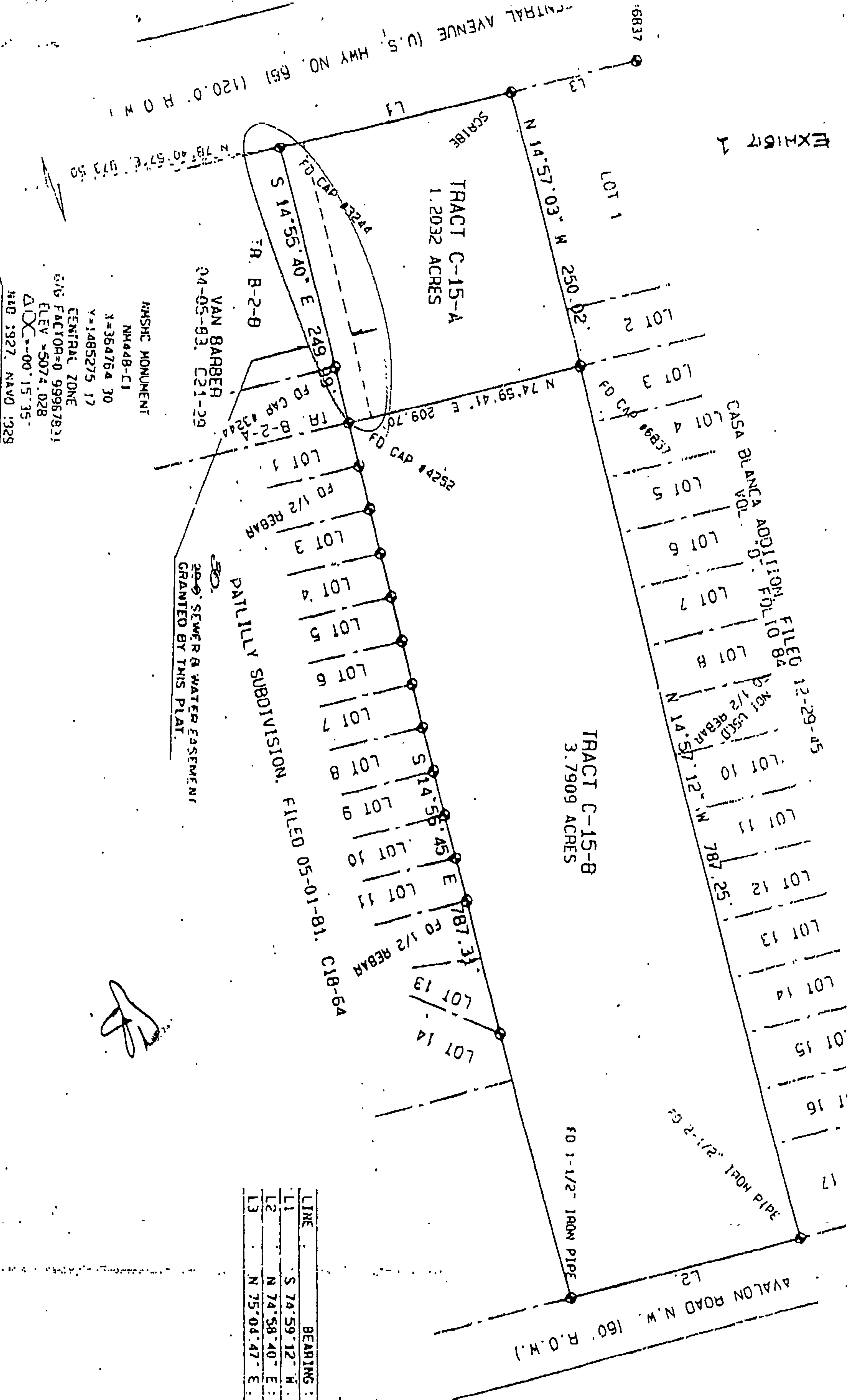
5453883

Page: 1 of 8

01/18/2001 11:26A

BK-A14 Pg-3887

EXHIBIT 1



NMSHC MONUMENT
NM448-C1
X=364764.30
Y=1485275.17
CENTRAL ZONE
GIB FACTOR=0.99967821
ELEV=5074.028
ADJ=-00'15.35"
MAG 1927, NAVD 1929

200' SEWER & WATER EASEMENT
GRANTED BY THIS PLAT.

LINE	BEARING	DISTANCE
L1	S 74°59'12" W	209.60
L2	N 74°58'40" E	209.86
L3	N 75°04'47" E	114.02

TRACT C-15-B
3.7909 ACRES

Proj
App1





D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmgs@swcp.com

August 24, 2001

Mr. Carlos Montoya
City of Albuquerque
600 2nd Street SW
Albuquerque, NM 87103

Re: St. Joseph's Place Subdivision

Dear Mr. Montoya:

The following is in response to our August 20th meeting:

1. Per your direction, the ponds have been removed from the project, and storm water will discharge freely from the site. Please see the enclosed grading and drainage plan.
2. Because the ponds are no longer there, a drainage covenant will not be necessary. A concrete rundown and sidewalk culvert have been added for emergency overflow. The calculations for these items are attached. A concrete rundown has been added to the infrastructure list which is attached.
3. Tract A will be a public sanitary sewer, water, and drainage easement. Please see the enclosed plat.
4. Also enclosed is a copy of the existing 30 foot public water, sanitary sewer, and storm drain easement on Tract C-15-A. On the plan, we have designed a concrete rundown. Since it is in a public easement, we have designed a 10 foot wide concrete channel. We understand it will be the City's responsibility to maintain the channel.

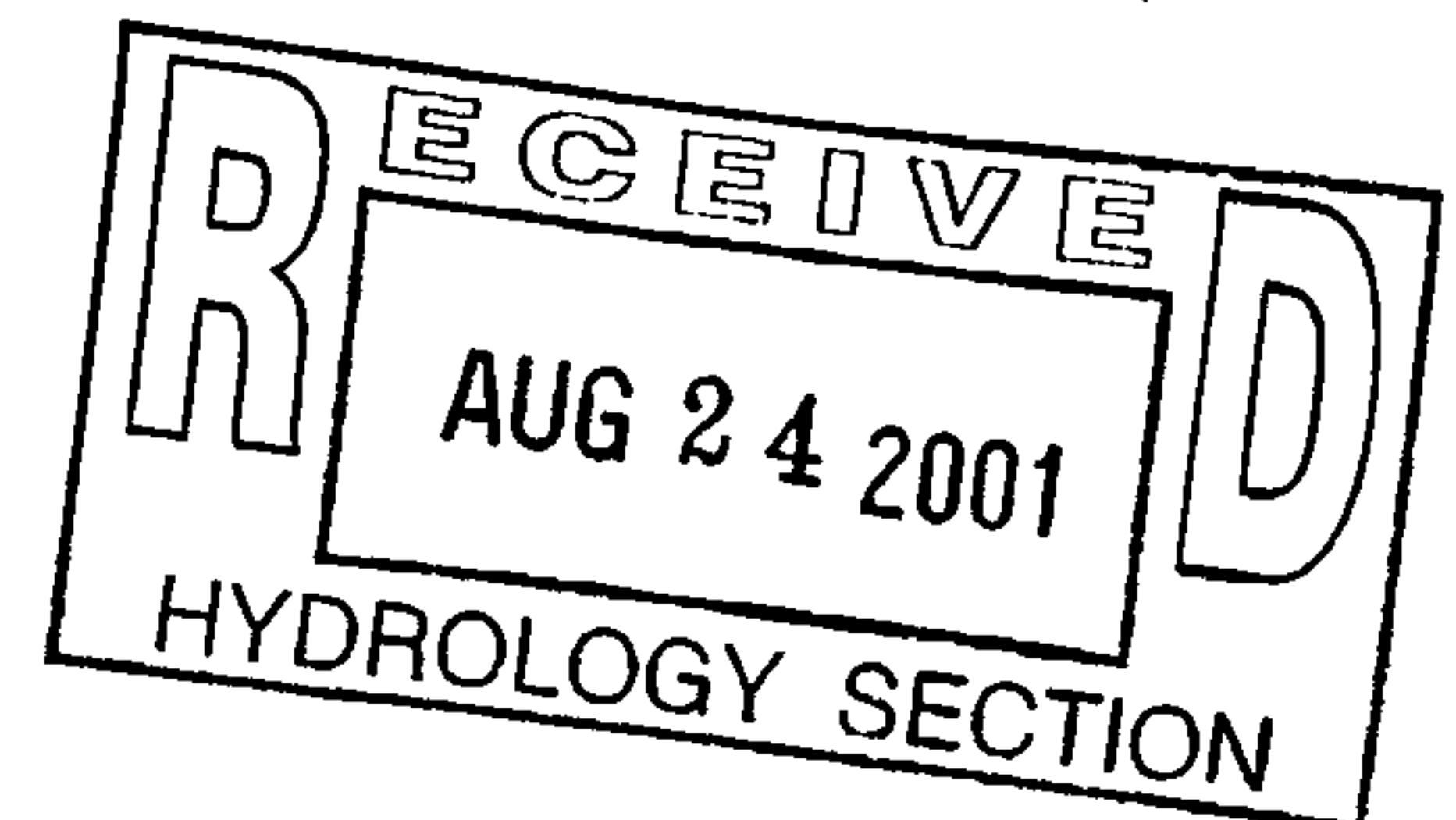
Please let me know if I can be of further assistance..

Sincerely,

MARK GOODWIN & ASSOCIATES, P.A.

Amy L. Driscoll, PE

f:\stjoseph\carlos2





D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmgs@swcp.com

PROJECT ST JOSEPH'S
SUBJECT _____
BY Amy DATE 8/21/00
CHECKED _____ DATE _____
SHEET 7 OF _____

SIZE OUTLET PIPE

FOR 8/20/01 MIB, W/ CATCHES, TO FREE DISCHARGE TO CENTRAL

$$Q_B = 12.50 \text{ CFS}$$

$$Q = 0.6 A \sqrt{2gh}$$

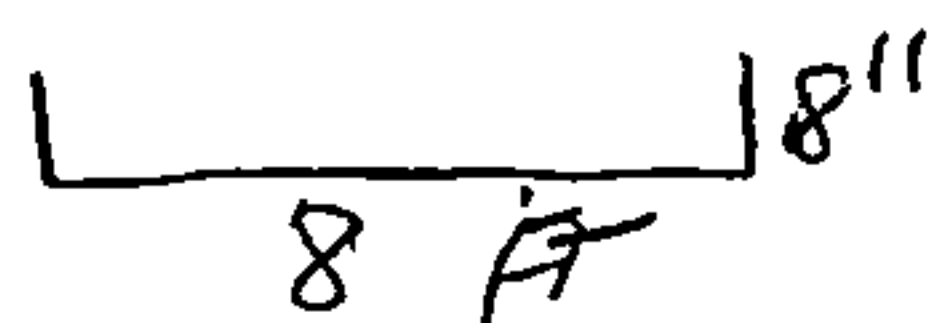
$$D = \sqrt{\frac{4Q}{0.6\pi \sqrt{2gh}}} = \sqrt{\frac{4(12.50)}{0.6\pi \sqrt{2(32.2)(2.75 \text{ FT})}}} = 1.41 \text{ FT} = 16.9 \text{ IN}$$

$$h = 74.50 - 71.00 - \frac{18 \text{ IN}}{2} \frac{\text{FT}}{12 \text{ IN}} = 2.75 \text{ FT}$$

MIN 18 IN PIPE IS SUFFICIENT

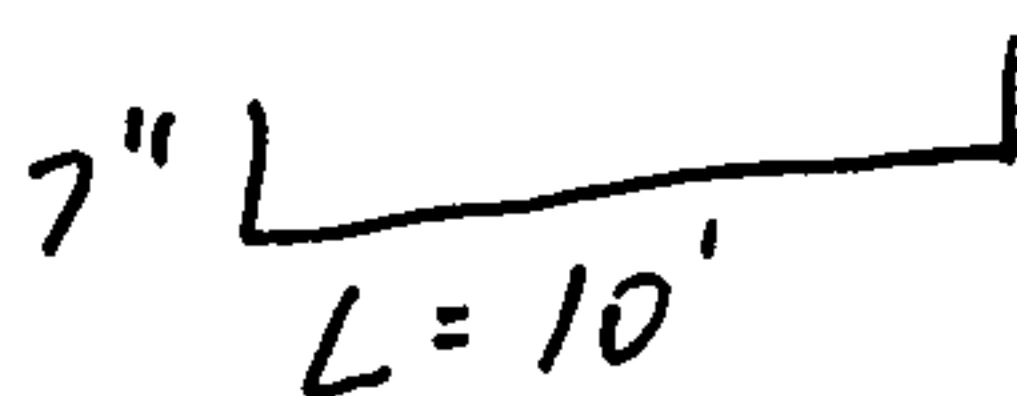
SIZE OVERFLOW CHANNEL

$$Q = 12.50 \text{ CFS}$$



$$L = \frac{Q}{2.95 H^{3/2}} = \frac{12.50}{2.95 (.67)^{3/2}} = 7.78 \text{ FT}$$

USE 8 FT



$$L = \frac{12.50}{2.95 (.58)^{3/2}} = 9.5 \text{ FT}$$

Min. 10 FT
Req'd

EXHIBIT A
TO SUBDIVISION IMPROVEMENT AGREEMENT
DEVELOPMENT REVIEW BOARD
REQUIRED INFRASTRUCTURE LIST

(Tract C-15-B, Airport Unit)

St. Joseph's Place Subdivision

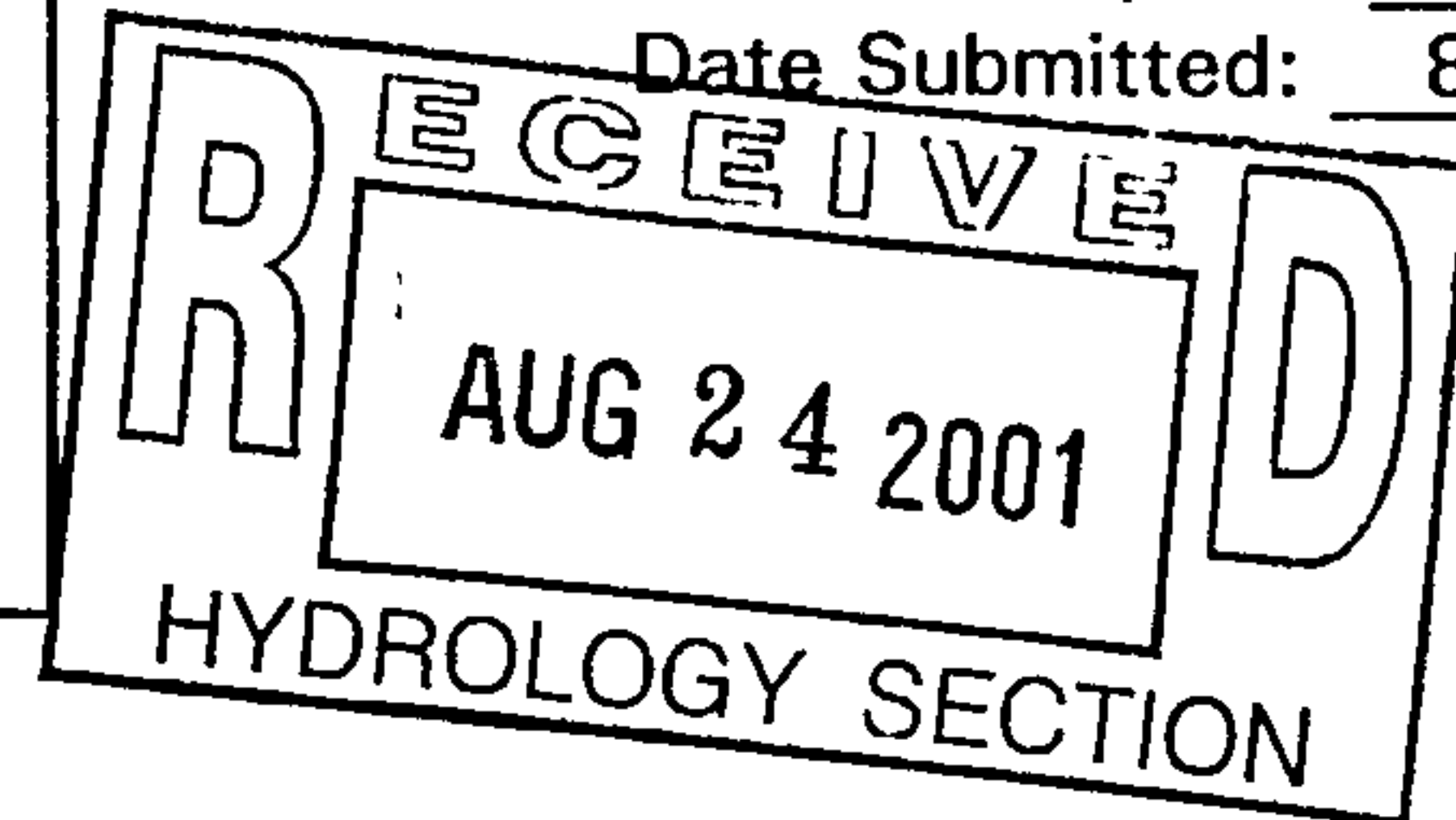
Project No.: 1001106

D.R.C. Project No.: _____

Prelim. Plat Approved: _____

Prelim. Plat Expires: _____

Date Submitted: 8-21-01



Following is a summary of PUBLIC/PRIVATE Infrastructure required to be constructed or financially guaranteed for the above development. This listing is not necessarily a complete listing. During the SIA process and/or in the review of the construction drawings, if the DRC Chair determines that appurtenant items and/or unforeseen items have not been included in the infrastructure listing, the DRC Chair may include those items in the listing and related financial guarantee. Likewise, if the DRC Chair determines that appurtenant or non essential items can be deleted from the listing, those items may be deleted as well as the related portions of the financial guarantees. All such revisions require approval by the DRC Chair, the User Department and agent/owner. If such approvals are obtained, these revisions to the listing will be incorporated administratively. In addition, any unforeseen items which arise during construction which are necessary to complete the project and which normally are the Subdivider's responsibility will be required as a condition of the project acceptance and close out by the City.

<u>SIZE</u>	<u>TYPE IMPROVEMENT</u>	<u>LOCATION</u>	<u>FROM</u>	<u>TO</u>
PAVEMENT				
28'FF	Res Pvmt	Westcourt Place	Avalon Rd.	S. Property Line of Site
4'	C & G (both sides)			
4'	Sidewalk (both sides) *			
4'	Sidewalk (south side)	Avalon Rd.	W. Prop. Line of Site	E. Property Line of Site
WATER				
6"	Waterline	Westcourt Place	Avalon Rd.	Tract A
6"	Waterline	Esmt. Tract C-15-A	Tract A	Central Ave.
SANITARY SEWER				
8"	Sanitary Sewer	Westcourt Place	Avalon Rd	Tract A
8"	Sanitary Sewer	Esmt. Tract C-15-A	Tract A	Central Ave.
STORM DRAIN AND OTHER DRAINAGE IMPROVEMENTS				
18"	Storm Drain	Westcourt Place	Tract B	Tract A
		Turn-around		
18"	Storm Drain	Esmt. Tract	Tract A	Central Ave.
		C-15-A		

EXHIBIT A
TO SUBDIVISION IMPROVEMENT AGREEMENT
DEVELOPMENT REVIEW BOARD
REQUIRED INFRASTRUCTURE LIST

(Tract C-15-B, Airport Unit)

St. Joseph's Place Subdivision

Project No.: 1001106

D.R.C. Project No.: _____

Prelim. Plat Approved: _____

Prelim. Plat Expires: _____

Date Submitted: 8-21-01

8' Concrete Channel Tract A and Esmt. Tract C-15-A Tract A Central Ave.

* Sidewalk to be deferred

1. Stormdrain to include manholes and inlets. LOMR-F for Lots 16 and 17 prior to release of Financial Guarantees.
2. Grading and Drainage Certification per DPM including Perimeter Walls as shown on the Grading Plan for Release of SIA and Financial Guarantees. Financial Guarantee is not required for this item.
3. Water infrastructure to include valves, fittings, valveboxes and fire hydrants.
4. Sanitary sewer to include manholes and service connections.
5. Street lights per DPM.

Signature: _____

Agent/Owner Print Name: Amy L. Driscoll, PE

Firm: Mark Goodwin & Associates, PA

DEVELOPMENT REVIEW BOARD MEMBER APPROVALS

Transportation Dev. _____	Date _____	Utility Dev. _____	Date _____	Parks & Recreation _____	Date _____
Engineer/AMAFCA _____	Date _____	DRB Chairman _____	Date _____		

DRC REVISIONS

REVISIONS	DATE	DRC CHAIR	USER DEPT	AGENT/OWNER

DRAINAGE INFORMATION SHEET

PROJECT TITLE: St. Joseph's Place Subdivision ZONE ATLAS#: K-11 / D63
DRB#: 1001106 EPC# WORKORDER#:
LEGAL DESCRIPTION: Tract C-15-A, Airport Unit
CITY ADDRESS: Between Avalon and Central near 63rd Street

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: Amy Driscoll
ADDRESS: P.O. Box 90606, Albuquerque, NM 87199 PHONE: 828-2200
OWNER: Westcor, LLC CONTACT: Charles Bachellor
ADDRESS: 11600 Academy rd NE, Albuquerque, NM 87111 PHONE: 237-9311
ARCHITECT: CONTACT:
ADDRESS: PHONE:
SURVEYOR: CONTACT:
ADDRESS: PHONE:
CONTRACTOR: CONTACT:
ADDRESS: PHONE:

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT
☒ DRAINAGE PLAN
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
☐ EROSION CONTROL
☐ ENGINEER'S CERTIFICATION
☐ OTHER
☐ EASEMENT VACATION

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL
☒ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. PLAN FOR BLDG PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATION OF OCCUPANCY APPROVAL
☒ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ S.A.D. DRAINAGE REPORT
☐ DRAINAGE REQUIREMENTS
☒ OTHER - Temp. Dererral of Sidewalks
☐ RELEASE OF FINANCIAL GUARANTY
☐ TRAFFIC CIRCULATION LAYOUT

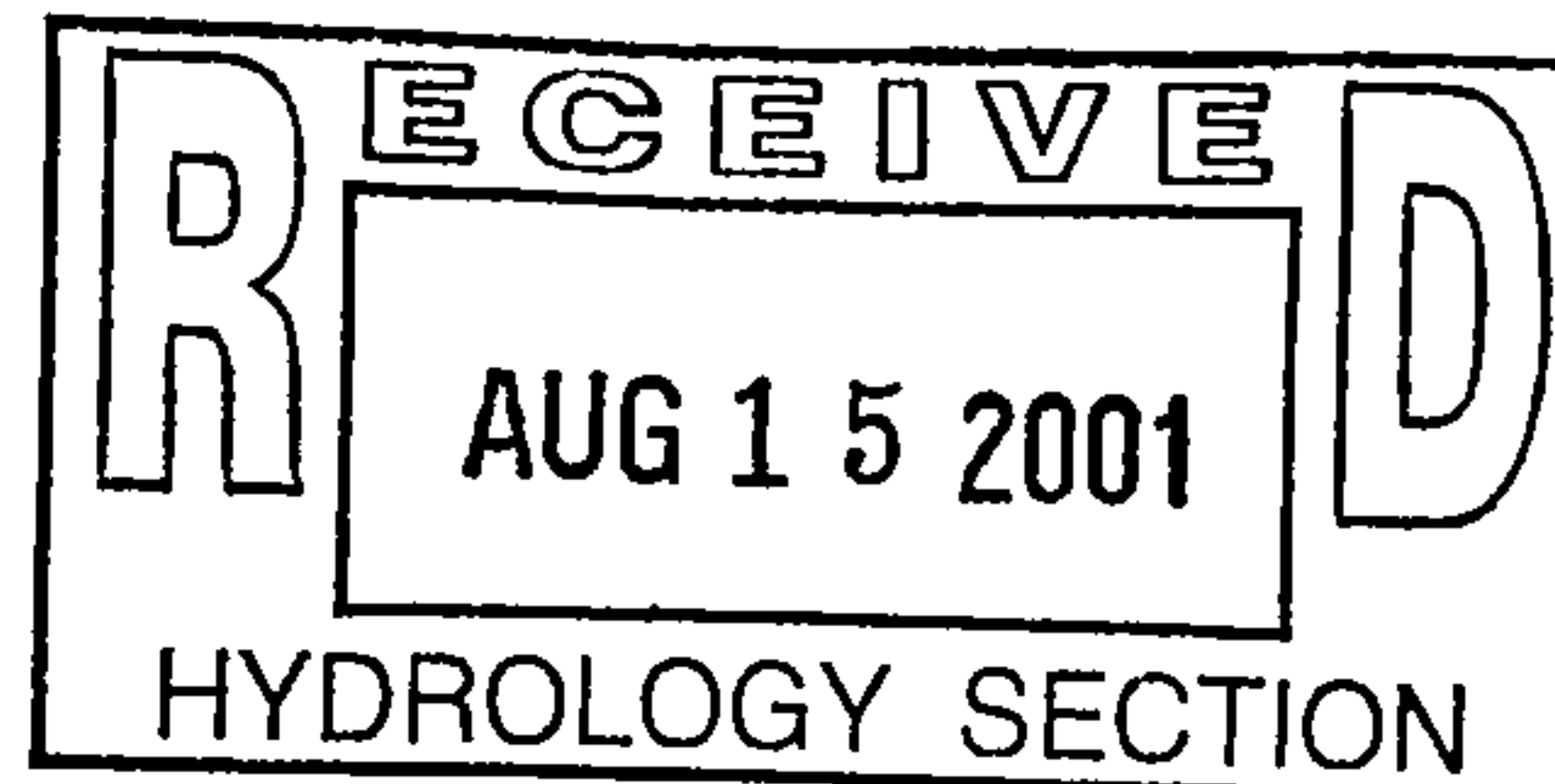
PRE-DESIGN MEETING:

☒ YES
☐ NO
☐ COPY PROVIDED

DATE SUBMITTED: August 15, 2001

BY:

Amy L. Driscoll, PE





D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmgs@swcp.com

August 15, 2001

Mr. Carlos Montoya
City of Albuquerque
600 2nd Street SW
Albuquerque, NM 87103

Re: St. Joseph's Place Subdivision

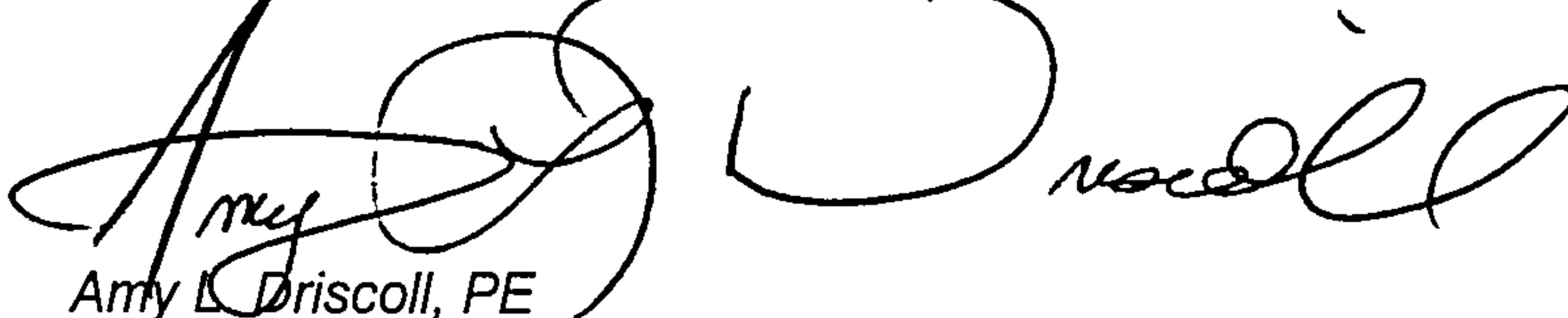
Dear Mr. Montoya:

The following is in response to your letter of July 20, 2001.

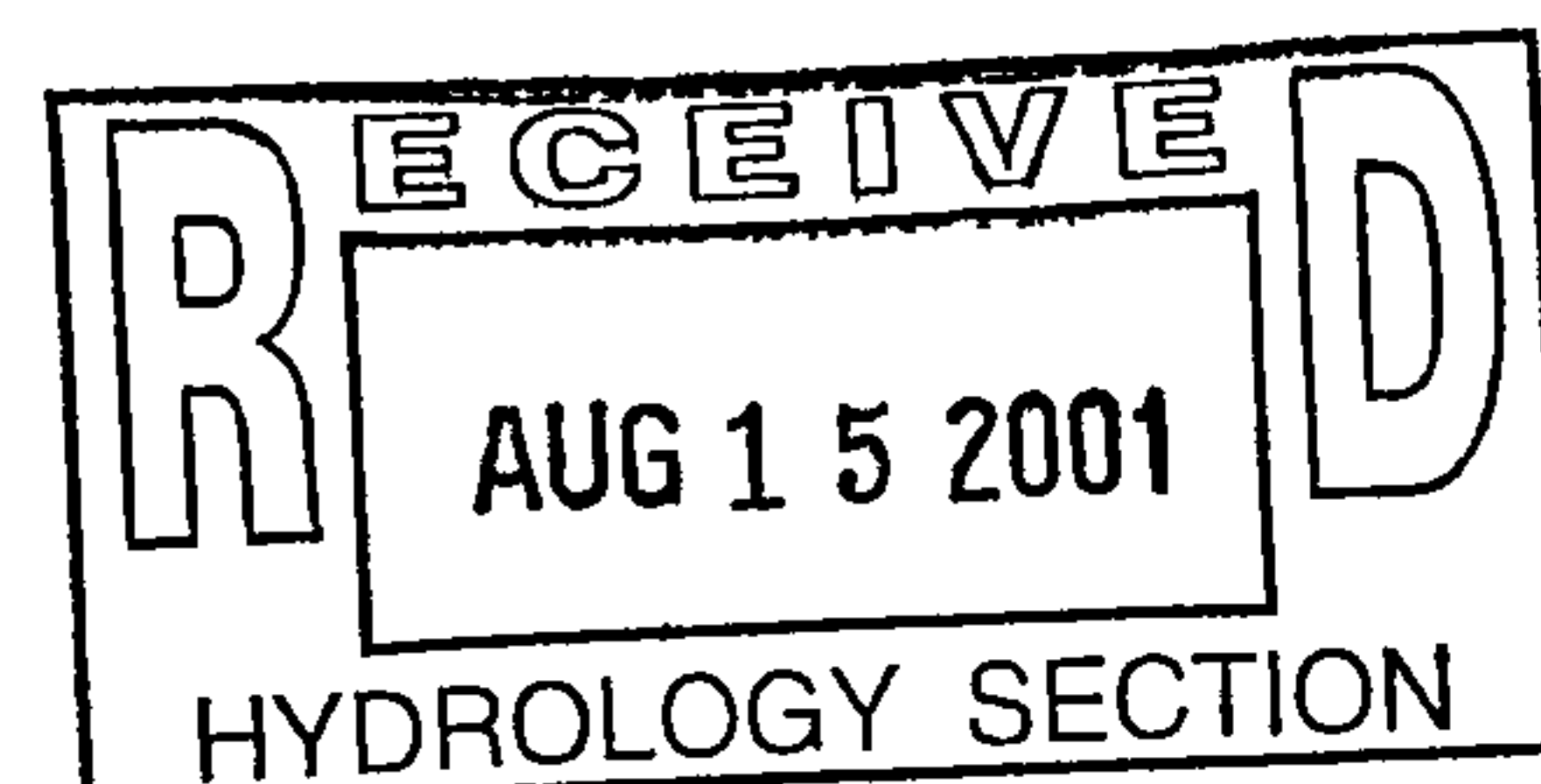
1. The plat and grading plan have been revised to show that the ponds are in a public sanitary sewer, water, and drainage easement that will be privately maintained. A copy of a drainage covenant is attached that is signed by the owner. We are sending this to Kathy Jaramillo to be signed by the City.
2. A fence has been added to the ponds on the grading plan.
3. A gate and ladder are added for maintenance access to the ponds.
4. The bottom of the ponds are concrete and are sloped 1%.
5. The existing easement is shown as a public easement (which it is).
6. A cross section of the prism of the storm drain, SAS, and water line is provided.
7. The survey shows 20 feet of existing elevations outside of the property to the south. We have provided a water block so that water does not enter from the north. On the east and west of the site, we have graded the lots or added retaining walls to keep water from entering our site and to keep our water from leaving our site except through the storm drain system.
8. A typical lot layout plan is provided showing the direction of flow. Also, arrows are shown on each lot. A retaining wall is separating each lot which will prevent water from going to an adjoining lot. In addition, please see the typical lot layout section.
9. This project is in an infill area of the City. Because of this, we believe we should be allowed to discharge to Central with a detained release that is less than undeveloped flows.

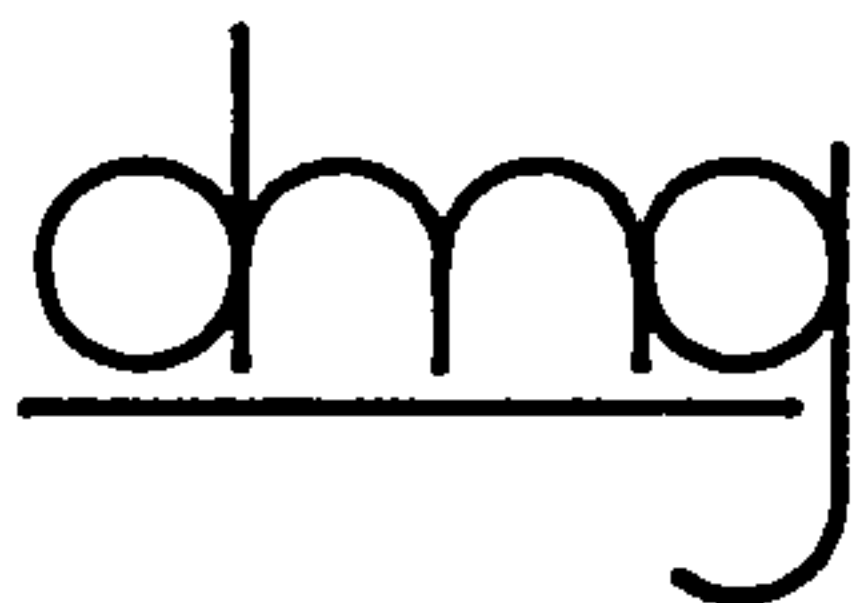
Sincerely,

MARK GOODWIN & ASSOCIATES, P.A.


Amy L. Driscoll, PE

f:\stjoseph\carlos





D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

PROJECT St. Joseph's
SUBJECT Prism for 30' Esm't.
BY JMM DATE 8/2/01
CHECKED _____ DATE _____
SHEET _____ OF _____

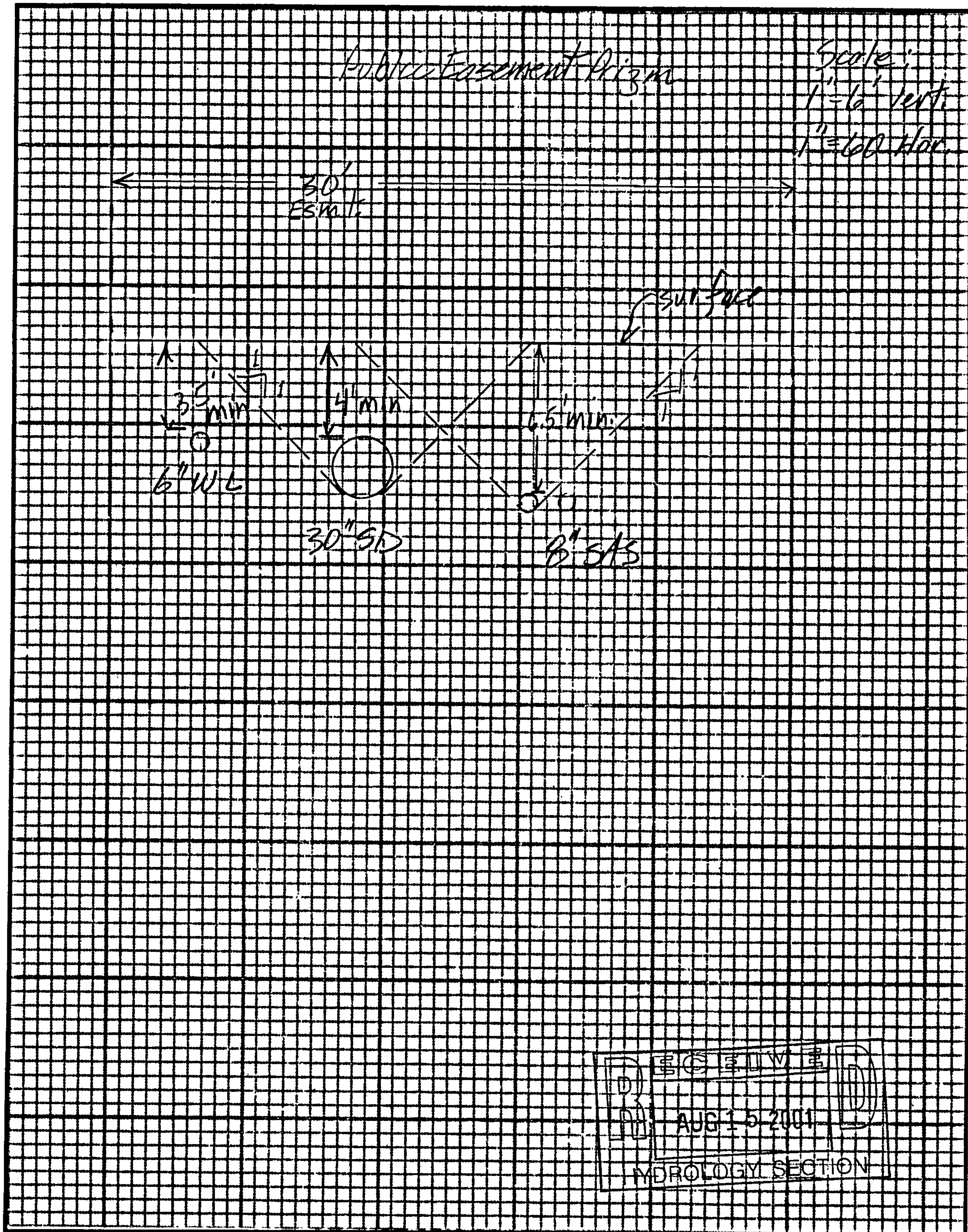


EXHIBIT A
TO SUBDIVISION IMPROVEMENT AGREEMENT
DEVELOPMENT REVIEW BOARD
REQUIRED INFRASTRUCTURE LIST

(Tract C-15-B, Airport Unit)

St. Joseph's Place Subdivision

Project No.: 1001106

D.R.C. Project No.: _____

Prelim. Plat Approved: _____

Prelim. Plat Expires: _____

Date Submitted: 8-15-01

Following is a summary of PUBLIC/PRIVATE Infrastructure required to be constructed or financially guaranteed for the above development. This listing is not necessarily a complete listing. During the SIA process and/or in the review of the construction drawings, if the DRC Chair determines that appurtenant items and/or unforeseen items have not been included in the infrastructure listing, the DRC Chair may include those items in the listing and related financial guarantee. Likewise, if the DRC Chair determines that appurtenant or non essential items can be deleted from the listing, those items may be deleted as well as the related portions of the financial guarantees. All such revisions require approval by the DRC Chair, the User Department and agent/owner. If such approvals are obtained, these revisions to the listing will be incorporated administratively. In addition, any unforeseen items which arise during construction which are necessary to complete the project and which normally are the Subdivider's responsibility will be required as a condition of the project acceptance and close out by the City.

<u>SIZE</u>	<u>TYPE IMPROVEMENT</u>	<u>LOCATION</u>	<u>FROM</u>	<u>TO</u>
PAVEMENT				
28'FF	Res Pvmnt	Westcourt Place	Avalon Rd.	S. Property Line of Site
4'	C & G (both sides)			
4'	Sidewalk (both sides) *			
4'	Sidewalk (south side)	Avalon Rd.	W. Prop. Line of Site	E. Property Line of Site
WATER				
6"	Waterline	Westcourt Place	Avalon Rd.	Tract A
6"	Waterline	Esmt. Tract C-15-A	Tract A	Central Ave.
SANITARY SEWER				
8"	Sanitary Sewer	Westcourt Place	Avalon Rd	Tract A
8"	Sanitary Sewer	Esmt. Tract C-15-A	Tract A	Central Ave.
STORM DRAIN AND OTHER DRAINAGE IMPROVEMENTS				
18"	Storm Drain	Westcourt Place Turn-around	Tract B	Tract A
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(Tract C-15-B, Airport Unit)

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Project No.: 1001106

D.R.C. Project No.: _____

Prelim. Plat Approved: _____

Prelim. Plat Expires: _____

Date Submitted: 8-15-01

* Sidewalk to be deferred

1. Stormdrain to include manholes, inlets, riprap and outfall, including Temp. Detention Pond on Tracts A and B with Drainage Covenant and Agreement. LOMR-F for Lots 16 and 17 prior to release of Financial Guarantees.
2. Grading and Drainage Certification per DPM including Perimeter Walls as shown on the Grading Plan for Release of SIA and Financial Guarantees. Financial Guarantee is not required for this item.
3. Water infrastructure to include valves, fittings, valveboxes and fire hydrants.
4. Sanitary sewer to include manholes and service connections.
5. Street lights per DPM.

Signature: _____

Agent/Owner Print Name: Amy L. Driscoll, PE

Firm: Mark Goodwin & Associates, PA

DEVELOPMENT REVIEW BOARD MEMBER APPROVALS

Transportation Dev. _____ Date _____

Utility Dev. _____ Date _____

Parks & Recreation _____ Date _____

Engineer/AMAFCA _____ Date _____

DRB Chairman _____ Date _____

DRC REVISIONS

REVISIONS	DATE	DRC CHAIR	USER DEPT	AGENT/OWNER

E

AGREEMENT AND COVENANT

This Agreement and Covenant, between the City of Albuquerque, New Mexico ("City") and Westcor Properties, LLC, ("User") is made in Albuquerque, New Mexico and is entered into as of the date of recording this Agreement with the Bernalillo County Clerk.

1. Recital. The User is the owner of certain real property ("User's Property") located at (See below), in Albuquerque, New Mexico, and more particularly described as: (give legal description and filing information)

Tracts A and B, St. Joseph's Subdivision

The City is the owner of certain real property, easement or public right-of-way ("City's Property") in the vicinity of, contiguous to, abutting or within User's Property, and more particularly described as:

Public Drainage Easement on Tracts A and B, St. Joseph's Subdivision

The User wishes to construct upon, improve or repair and to maintain the following "Improvement" on the City's Property (or already has done so):

A sketch of the proposed or existing Improvement is attached as Exhibit A and made a part of this Agreement.

The City agrees to permit the Improvement to exist on the City's Property provided the User complies with the terms of this Agreement.

2. City Use of City's Property and City Liability. The City has the right to enter upon the City's Property at any time and perform whatever inspection, installation, maintenance, repair, modification or removal ("Work") it deems appropriate without liability to the User. If the Work affects the Improvement the City will not be financially or otherwise responsible for rebuilding or repairing the Improvement. The User promptly will repair the Improvement to the City's satisfaction. The cost of repairing the Improvement will be paid by User.

3. User's Responsibility for Improvement. The User will be solely responsible for constructing, maintaining, repairing and, if required, removing the Improvement, all in accordance with standards required by the City as per the approved Grading and Drainage Plan File K-11-D63 on file at the City Engineer's office. The User will be solely responsible for paying all related costs. The User will not permit the Improvement to constitute a hazard to the health or safety of the general public or to interfere with the City's use of the City's Property. The User will conform with all applicable laws, ordinances and regulations.

4. Use of the Improvement. If the City's Property is a public right-of-way, it shall be open to the use of the general public at all times, subject to reasonable curtailment during periods of construction, maintenance or repair.

5. Demand for Repair, Modification or Removal. The City may send written notice ("Notice") to the User requiring the User to repair, modify or remove the Improvement within 30 days ("Deadline") and the User will comply promptly with the requirements of the Notice. If removal is demanded, the City also may require the User to return the City's Property to its original condition by the Deadline. The User will perform all required work by the Deadline, at User's sole expense.

6. Failure to Perform by User and Emergency Work by City. If the User fails to comply with the terms of the Notice by the Deadline stated, or, if the City determines that an emergency condition exists, the City may perform the work itself. The City then may assess the User for the cost of the work and for any other expenses or damages which result from User's failure to perform. The User agrees promptly to pay the City the amount assessed. If the User fails to pay the city within thirty (30) days after the City gives the User written notice of the amount due, the City may impose a lien against User's Property for the total resulting amount.

7. Cancellation of Agreement and Release of Covenant. This Agreement may be canceled, and User's covenants released by the City at will by the City's mailing to the User notice of the City's intention to record a Cancellation and Release with the Bernalillo County Clerk. The Cancellation and Release will be effective thirty (30) days after the date of mailing the notice to the User unless a later date is stated in the notice or the Cancellation and Release. After the effective date, the City will record the Cancellation and Release with the Bernalillo County Clerk.

8. Condemnation. If any part of the User's Property is ever condemned by the City, the User will forego all claims to compensation for any portion of User's structure which encroaches on City Property and for severance damage to the remaining portion of User's structure on User's Property.

9. Assessment. Nothing in this Agreement shall be construed to relieve the User, his heirs, assigns and successors from an assessment against User's Property for improvements to the City Property under a duly authorized and approved Special Assessment District. The parties specifically agree that the value of the Improvement will not reduce the amount assessed by the City.

10. Notice. For purposes of giving formal written notice to the User, User's address is:

*Westcor Properties, LLC
11000 Academy NE, Suite 4411
Albuquerque, NM 87111*

Notice may be given to the User either in person or by mailing the notice by regular U.S. mail, postage paid. Notice will be considered to have been received by the User within 3 days after the notice is mailed if there is no actual evidence of receipt. The User may change User's address by giving written notice of the change by certified mail, return receipt requested, to the City Engineer at P.O. Box 1293, Albuquerque, New Mexico 87103.

11. Indemnification. The User agrees to defend, indemnify and hold harmless the City, its officials, agents and employees from and against any and all claims, actions, suits or proceedings of any kind brought against said parties as a result of user's use of the City's Property. To the extent, if at all, Section 56-7-1 NMSA 1978 is applicable to this Agreement, this Agreement to indemnify will not extend to liability, claims, damages, losses or expense, including attorney's fees, arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications by the indemnitee, or the agents or employees of the indemnitee; or (2) the giving of or failure to give directions or instructions is the primary cause of bodily injury to persons or damage to property.

12. Term. This Agreement shall continue until revoked by the City pursuant to Section 7 above.

13. Binding on User's Property. The covenants and obligations of the User set forth herein shall be binding on User, his heirs, assigns and successors and on User's Property and constitute covenants running with User's Property until release by the City.

14. Entire Agreement. This Agreement contains the entire agreement of the parties and supersedes any and all other agreements or understandings, oral or written, whether previous to the execution hereof or contemporaneous herewith.

15. Changes of Agreement. Changes to this Agreement are not binding unless made in writing, signed by both parties.

16. Construction and Severability. If any part of this Agreement is held to be invalid or unenforceable, the remainder is reasonably capable of completion.

17. Captions. The captions to the sections or paragraphs of this Agreement are not part of this Agreement and will not affect the meaning or construction of any of its provisions.

CITY OF ALBUQUERQUE:

USER: Westcor Properties, LLC

By: _____
Chief Administrative Officer

Dated: _____

By: Charles Buckle
Title: Manuel M. M. M. M.

Dated: August 9, 2001

APPROVED:

Reviewed by:

Director, Public Works Dept.

City Engineer

CITY'S ACKNOWLEDGMENT

STATE OF NEW MEXICO)
) SS
COUNTY OF BERNALILLO)

This instrument was acknowledged before me on _____,
2001, by _____, Chief Administrative Officer for the City
of Albuquerque, a New Mexico municipal corporation, on behalf of the corporation.

My Commission Expires: _____

Notary Public

USER'S ACKNOWLEDGMENT

STATE OF New Mexico)
) SS
COUNTY OF Bernalillo)

This instrument was acknowledged before me on August 10,
2001, by Charles Bachellor, Managing Member,
on behalf of Westcor Properties LLC.

My Commission Expires:

Susan Barror
Notary Public

9-3-2004



OFFICIAL SEAL
SUSAN BARROR
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires: 9-3-2004

DRAINAGE INFORMATION SHEET

PROJECT TITLE: St. Joseph's Place Subdivision ZONE ATLAS#: K-11 / D63
DRB#: 1001106 EPC# WORKORDER#:
LEGAL DESCRIPTION: Tract C-15-A, Airport Unit
CITY ADDRESS: Ladera Drive at Gavin Road

ENGINEERING FIRM:	Mark Goodwin & Associates, PA	CONTACT:	Amy Driscoll
ADDRESS:	P.O. Box 90606, Albuquerque, NM 87199	PHONE:	828-2200
OWNER:	Westcor, LLC	CONTACT:	Charles Bachellor
ADDRESS:	11600 Academy rd NE, Albuquerque, NM 87111	PHONE:	237-9311
ARCHITECT:		CONTACT:	
ADDRESS:		PHONE:	
SURVEYOR:		CONTACT:	
ADDRESS:		PHONE:	
CONTRACTOR:		CONTACT:	
ADDRESS:		PHONE:	

TYPE OF SUBMITTAL:

	DRAINAGE REPORT
x	DRAINAGE PLAN
	CONCEPTUAL GRADING & DRAINAGE PLAN
x	GRADING PLAN
	EROSION CONTROL
	ENGINEER'S CERTIFICATION
	OTHER
	EASEMENT VACATION

PRE-DESIGN MEETING:

X YES

NO

COPY PROVIDED

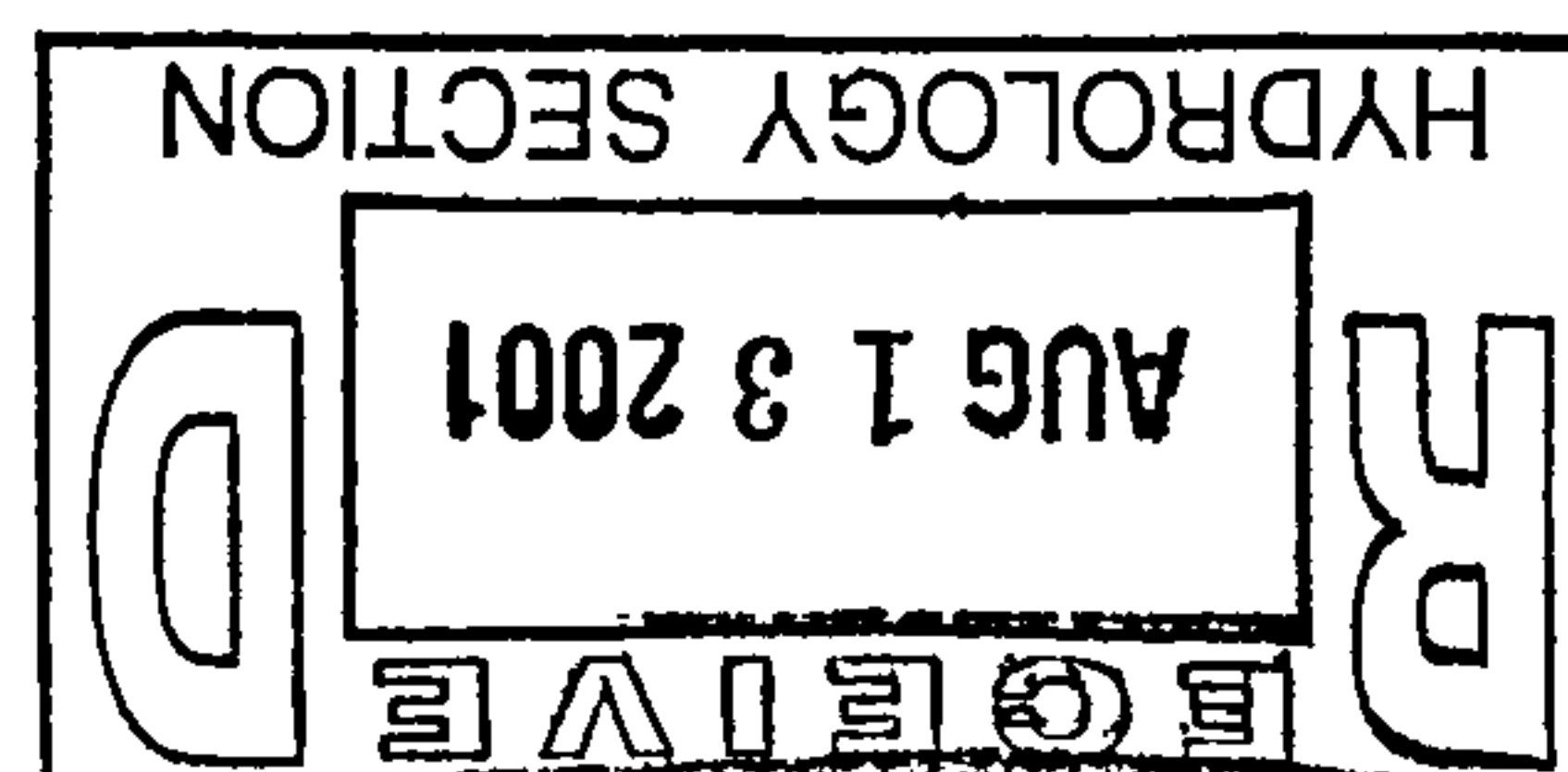
CHECK TYPE OF APPROVAL SOUGHT:

☐	SKETCH PLAT APPROVAL
☒	PRELIMINARY PLAT APPROVAL
☐	S. DEV. PLAN FOR SUB'D APPROVAL
☐	S. DEV. PLAN FOR BLDG PERMIT APPROVAL
☐	SECTOR PLAN APPROVAL
☐	FINAL PLAT APPROVAL
☐	FOUNDATION PERMIT APPROVAL
☐	BUILDING PERMIT APPROVAL
☐	CERTIFICATION OF OCCUPANCY APPROVAL
☒	GRADING PERMIT APPROVAL
☐	PAVING PERMIT APPROVAL
☐	S.A.D. DRAINAGE REPORT
☐	DRAINAGE REQUIREMENTS
☒	OTHER - Temp. Dererral of Sidewalks
☐	RELEASE OF FINANCIAL GUARANTY
☐	TRAFFIC CIRCULATION LAYOUT

DATE SUBMITTED: August 3, 2001

BY:

Amy L. Driscoll, PE





D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmgs@swcp.com

August 3, 2001

Mr. Carlos Montoya
City of Albuquerque
600 2nd Street SW
Albuquerque, NM 87103

Re: St. Joseph's Place Subdivision

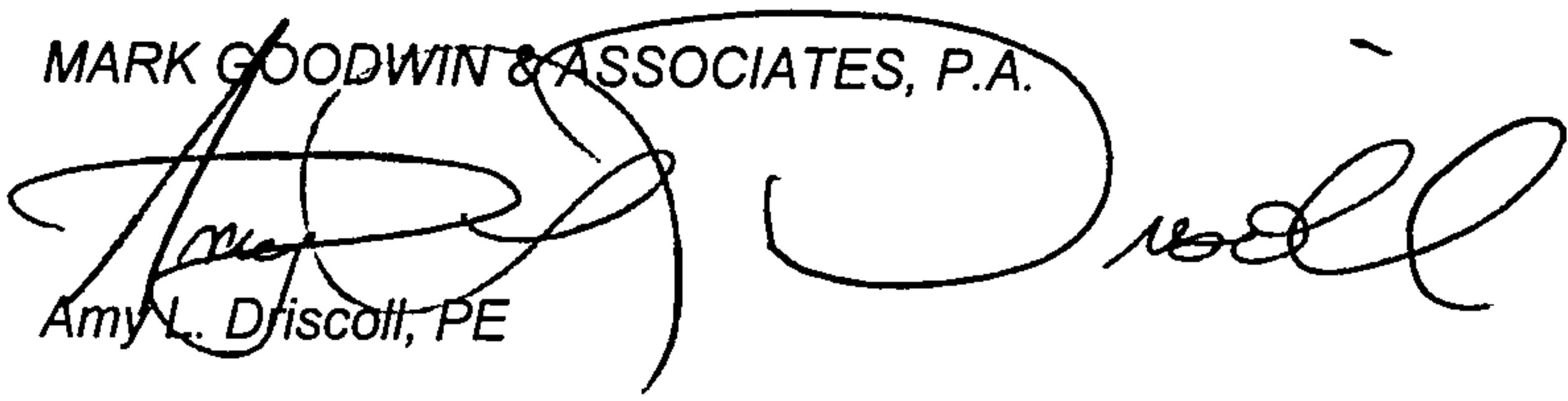
Dear Mr. Montoya:

The following is in response to your letter of July 20, 2001.

1. The plat and grading plan have been revised to show that the ponds are in a public sanitary sewer, water, and drainage easement that will be privately maintained. We are in the process of doing a covenant with the City.
2. A fence has been added to the ponds on the grading plan.
3. A gate and ladder are added for maintenance access to the ponds.
4. The bottom of the ponds are concrete and are sloped 1%.
5. The existing easement is shown as a public easement which it is.
6. A cross section of the prism of the storm drain is provided. The prism for the utilities will be provided for DRC.
7. The survey shows 20 feet of existing elevations outside of the property to the south. We have provided a water block so that water does not enter from the north. On the east and west of the site, we have designed retaining walls to keep water from entering our site and to keep our water from leaving our site except through the storm drain system.
8. A typical lot layout plan is provided showing the direction of flow. A retaining wall is separating each lot which will prevent water from going to an adjoining lot. Please see the typical lot layout section.
9. This project is in an infill area of the City. Because of this, we believe we should be allowed to discharge to Central with a detained release that is less than undeveloped flows.

Sincerely,

MARK GOODWIN & ASSOCIATES, P.A.


Amy L. Driscoll, PE

f:\stjoseph\carlos

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TO SUBDIVISION IMPROVEMENT AGREEMENT
DEVELOPMENT REVIEW BOARD
REQUIRED INFRASTRUCTURE LIST

(Tract C-15-B, Airport Unit)

St. Joseph's Place Subdivision

Project No.: 1001106

D.R.C. Project No.: _____

Prelim. Plat Approved: _____

Prelim. Plat Expires: _____

Date Submitted: 6-26-01

Following is a summary of PUBLIC/PRIVATE Infrastructure required to be constructed or financially guaranteed for the above development. This listing is not necessarily a complete listing. During the SIA process and/or in the review of the construction drawings, if the DRC Chair determines that appurtenant items and/or unforeseen items have not been included in the infrastructure listing, the DRC Chair may include those items in the listing and related financial guarantee. Likewise, if the DRC Chair determines that appurtenant or non essential items can be deleted from the listing, those items may be deleted as well as the related portions of the financial guarantees. All such revisions require approval by the DRC Chair, the User Department and agent/owner. If such approvals are obtained, these revisions to the listing will be incorporated administratively. In addition, any unforeseen items which arise during construction which are necessary to complete the project and which normally are the Subdivider's responsibility will be required as a condition of the project acceptance and close out by the City.

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4'	C & G (both sides)			
4'	Sidewalk (both sides) *			
4'	Sidewalk (south side)	Avalon Rd.	W. Prop. Line of Site	E. Property Line of Site
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6"	Waterline	Westcourt Place	Avalon Rd.	Tract A
6"	Waterline	Esmt. Tract C-15-A	Tract A	Central Ave.
SANITARY SEWER				
8"	Sanitary Sewer	Westcourt Place	Avalon Rd	Tract A
8"	Sanitary Sewer	Esmt. Tract C-15-A	Tract A	Central Ave.
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18"	Storm Drain	Westcourt Place Turn-around	Tract B	Tract A
18"	Storm Drain	Esmt. Tract C-15-A	Tract A	Central Ave.

EXHIBIT A
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REQUIRED INFRASTRUCTURE LIST

(Tract C-15-B, Airport Unit)

St. Joseph's Place Subdivision

Project No.: 1001106

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* Sidewalk to be deferred

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3. Water infrastructure to include valves, fittings, valveboxes and fire hydrants.
4. Sanitary sewer to include manholes and service connections.
5. Street lights per DPM.

Signature: _____

Agent/Owner Print Name: Amy Driscoll

Firm: Mark Goodwin & Associates, PA

DEVELOPMENT REVIEW BOARD MEMBER APPROVALS

Transportation Dev. _____

Date _____

Utility Dev. _____

Date _____

Parks & Recreation _____

Date _____

Engineer/AMAFCA _____

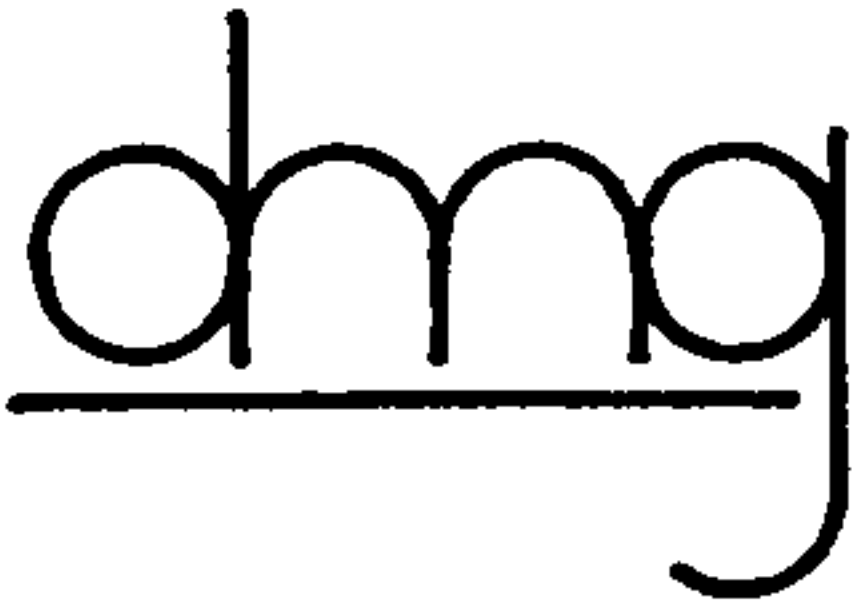
Date _____

DRB Chairman _____

Date _____

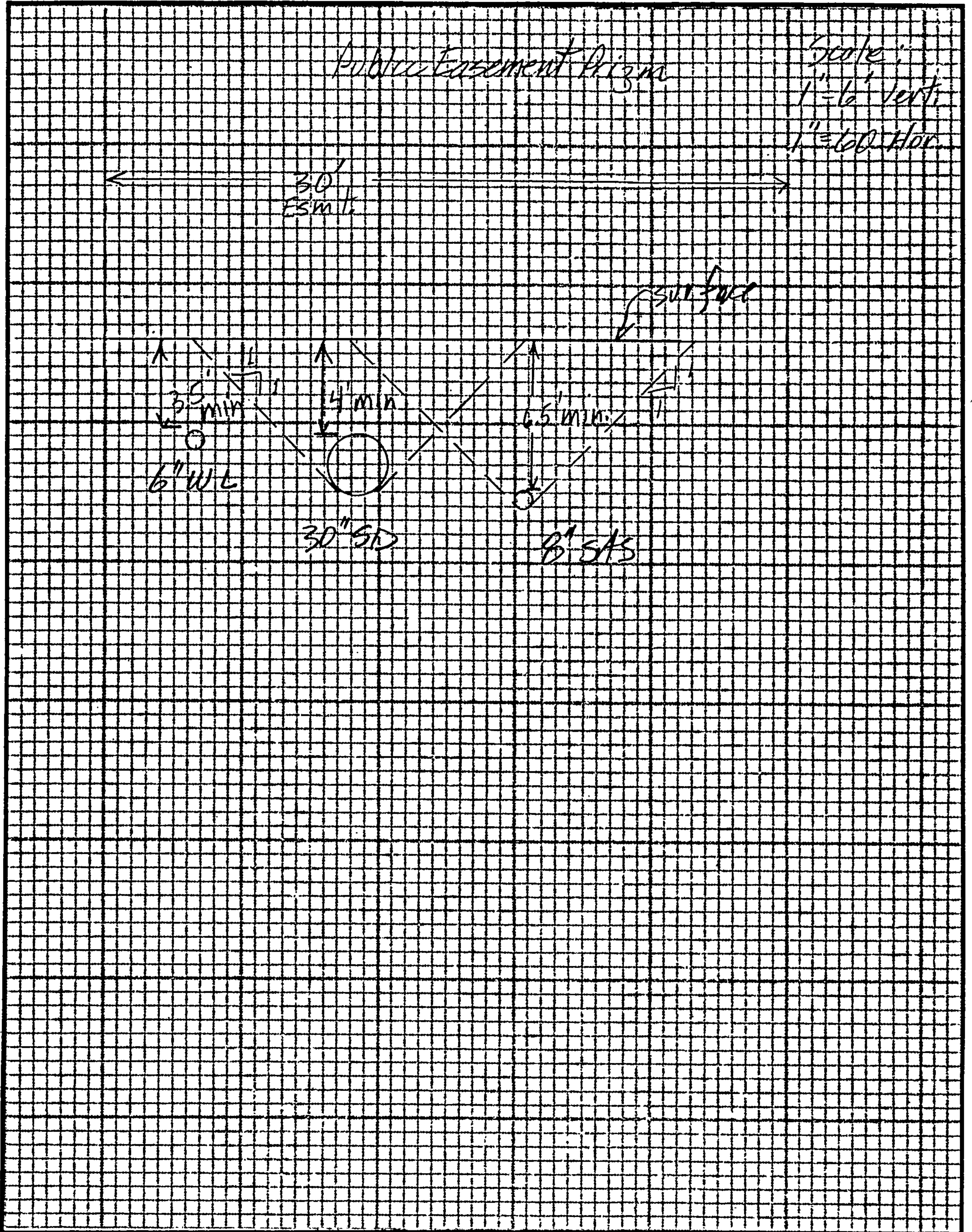
DRC REVISIONS

REVISIONS	DATE	DRC CHAIR	USER DEPT	AGENT/OWNER



D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

PROJECT St. Joseph's
SUBJECT Prism for 30' Esm't.
BY MM DATE 8/2/01
CHECKED _____ DATE _____
SHEET _____ OF _____



AGREEMENT AND COVENANT

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The User wishes to construct upon, improve or repair and to maintain the following "Improvement" on the City's Property (or already has done so):

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The City agrees to permit the Improvement to exist on the City's Property provided the User complies with the terms of this Agreement.

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9. Assessment. Nothing in this Agreement shall be construed to relieve the User, his heirs, assigns and successors from an assessment against User's Property for improvements to the City Property under a duly authorized and approved Special Assessment District. The parties specifically agree that the value of the Improvement will not reduce the amount assessed by the City.

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*Westcor Properties, LLC
11000 Academy NE, Suite 4411
Albuquerque, NM 87111*

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12. Term. This Agreement shall continue until revoked by the City pursuant to Section 7 above.

13. Binding on User's Property. The covenants and obligations of the User set forth herein shall be binding on User, his heirs, assigns and successors and on User's Property and constitute covenants running with User's Property until release by the City.

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15. Changes of Agreement. Changes to this Agreement are not binding unless made in writing, signed by both parties.

16. Construction and Severability. If any part of this Agreement is held to be invalid or unenforceable, the remainder is reasonably capable of completion.

17. Captions. The captions to the sections or paragraphs of this Agreement are not part of this Agreement and will not affect the meaning or construction of any of its provisions.

CITY OF ALBUQUERQUE:

USER: Westcor Properties, LLC

By: _____
Chief Administrative Officer

By: Charles Buchalter
Title: Managers & Owners

Dated: _____

Dated: August 9, 2001

APPROVED:

Reviewed by:

Director, Public Works Dept.

City Engineer

CITY'S ACKNOWLEDGMENT

STATE OF NEW MEXICO)
) SS
COUNTY OF BERNALILLO)

This instrument was acknowledged before me on _____,
2001, by _____, Chief Administrative Officer for the City
of Albuquerque, a New Mexico municipal corporation, on behalf of the corporation.

My Commission Expires:

Notary Public

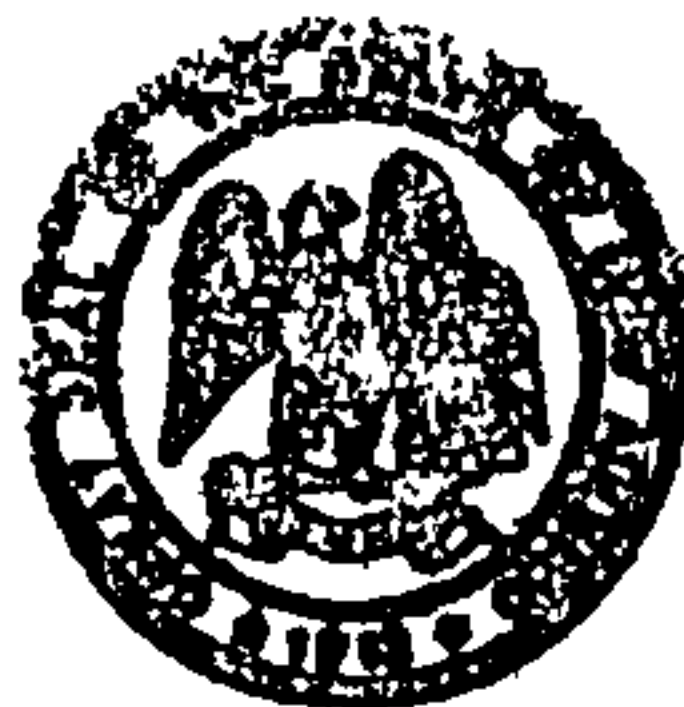
USER'S ACKNOWLEDGMENT

STATE OF New Mexico)
) SS
COUNTY OF Bernalillo)

This instrument was acknowledged before me on August 10,
2001, by Charles Bachellor, Managing Member,
on behalf of Westcor Properties LLC.

My Commission Expires:

9-3-2004



OFFICIAL SEAL
SUSAN BARROR
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires: 9-3-2004

Susan Barror
Notary Public



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 20, 2001

Amy L. Driscoll
Mark Goodwin & Associates, PA
P.O. Box 90606
Albuquerque New Mexico 87199

RE: Grading and Drainage Plan for Saint Joseph's Place Subdivision (K11-D63) Dated June 29, 2001

Dear Ms. Driscoll:

I have reviewed the referenced drainage plan received June 29, 2001 and forward the following comments.

1. The detention pond should not be public but privately maintained. The developer will need to process a covenant with the City. The pond should be in a public easement since the public road drains to it.
2. The pond needs a perimeter fence.
3. The pond should have a way to access it for maintenance.
4. The bottom of the pond should be concrete with a minimum of 1 percent slope. The concrete bottom will help with the maintenance since it will be a homeowner's maintenance.
5. The existing easement south of the pond should indicate that it is public.
6. Please show a cross section of the storm drain, SAS, and water line prism to show that the easement width is sufficient.
7. Please show at least 20 feet of existing elevations outside of the property.
8. Please show arrows on the lots to see how the lots will drain to the street. Drainage needs to stay on each lot and not be allowed on to a joining lot.

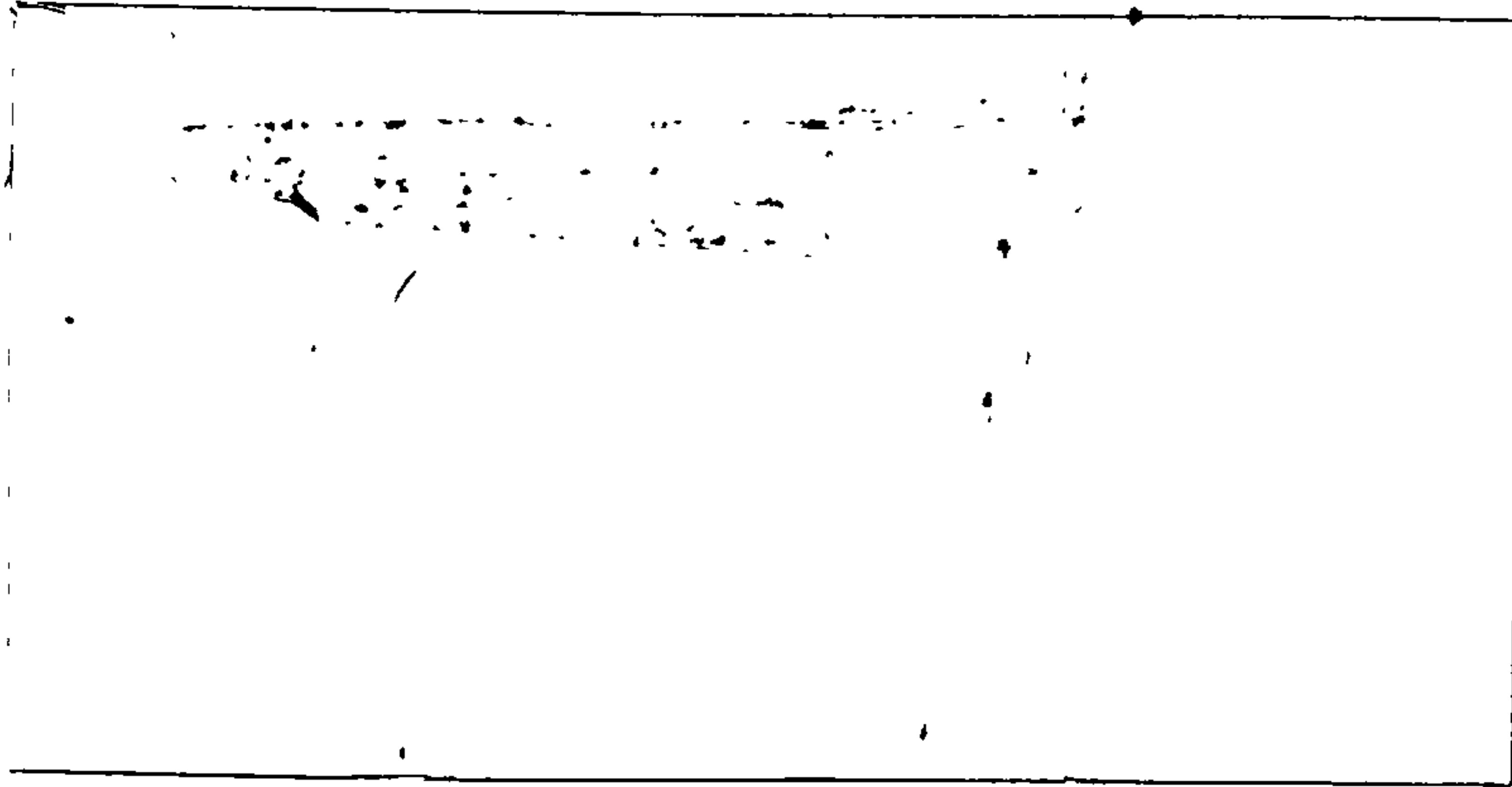
9. The proposed 100-year outfall discharge is supposed to be historic. The historic flow however does not leave the site and stays in the floodplain playa. Therefore, there is no runoff from the site in the historic mode. The proposed runoff to Avalon road eventually enters the Central storm and it is not being detained. There is minimum downstream capacity, however, the pond should drain. Please address how much runoff should be allowed to discharge from the site.

If you have any questions please call me at 924-3982.

Sincerely,

A handwritten signature in black ink, appearing to read "Carlos A. Montoya", with a horizontal line extending to the right.

Carlos A. Montoya
City Floodplain Administrator



MARK GOODWIN

& ASSOCIATES
CONSULTING ENGINEERS

dmg

DRAINAGE INFORMATION SHEET

PROJECT TITLE: St. Joseph's Place Subdivision ZONE ATLAS#: K-11 / D63
DRB#: _____ EPC# _____ WORKORDER#: _____
LEGAL DESCRIPTION: Tract C-15-A, Airport Unit
CITY ADDRESS: Ladera Drive at Gavin Road

ENGINEERING FIRM:	<u>Mark Goodwin & Associates, PA</u>	CONTACT:	<u>Amy Driscoll</u>
ADDRESS:	<u>P.O. Box 90606, Albuquerque, NM 87199</u>	PHONE:	<u>828-2200</u>
OWNER:	<u>Westcor, LLC</u>	CONTACT:	<u>Charles Bachellor</u>
ADDRESS:	<u>11600 Academy rd NE, Albuquerque, NM 87111</u>	PHONE:	<u>237-9311</u>
ARCHITECT:	_____	CONTACT:	_____
ADDRESS:	_____	PHONE:	_____
SURVEYOR:	_____	CONTACT:	_____
ADDRESS:	_____	PHONE:	_____
CONTRACTOR:	_____	CONTACT:	_____
ADDRESS:	_____	PHONE:	_____

TYPE OF SUBMITTAL:

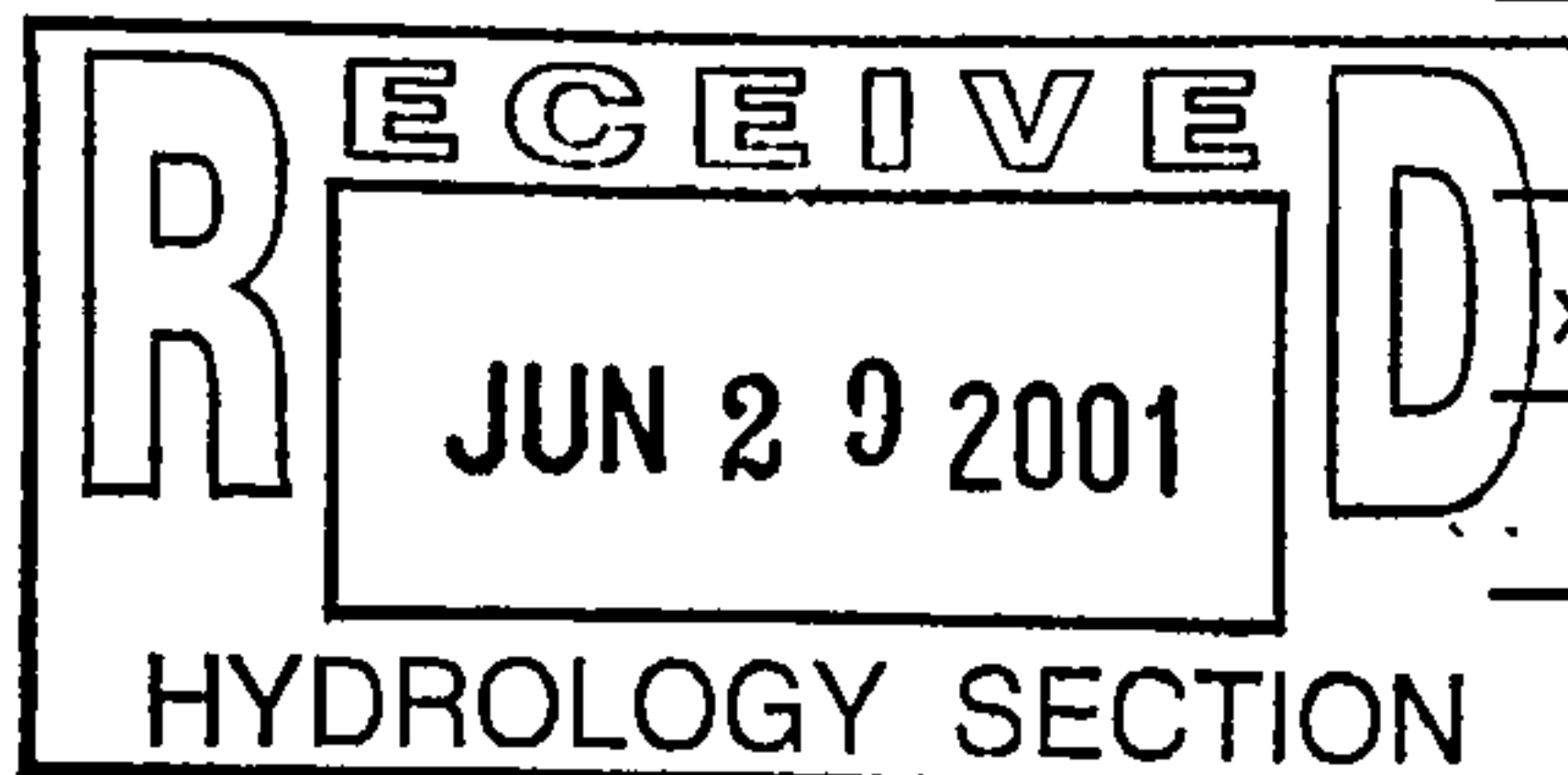
☐ DRAINAGE REPORT
☒ DRAINAGE PLAN
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
☐ EROSION CONTROL
☐ ENGINEER'S CERTIFICATION
☐ OTHER
☐ EASEMENT VACATION

PRE-DESIGN MEETING:

☒ YES
☐ NO
☐ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL
☒ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. PLAN FOR BLDG PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATION OF OCCUPANCY APPROVAL
☒ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ S.A.D. DRAINAGE REPORT
☐ DRAINAGE REQUIREMENTS
☒ OTHER - Temp. Deferral of Sidewalks
☐ RELEASE OF FINANCIAL GUARANTY
☐ TRAFFIC CIRCULATION LAYOUT



DATE SUBMITTED: 6/29/01

BY: Amy Driscoll

D. Mark Goodwin and Associates, P.A.
Consulting Engineers

P.O. Box 90606 ♦ Albuquerque, NM 87199
(505) 828-2200 ♦ (505) 797-9539 fax
e-mail: dmg@swcp.com

LETTER OF TRANSMITTAL

TO: COH HYDROLOGY DATE: 6/29/01
ONE STOP
RE: ST JOSEPH'S PL

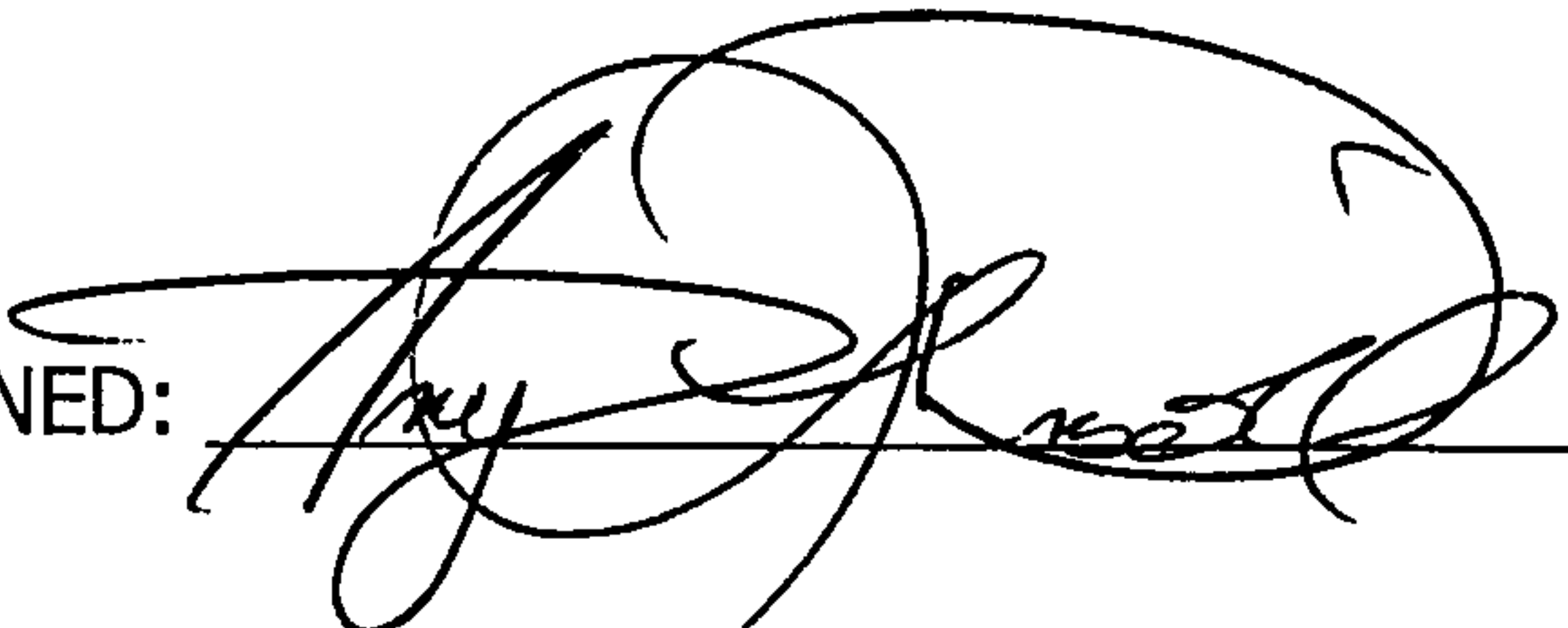
We are sending:

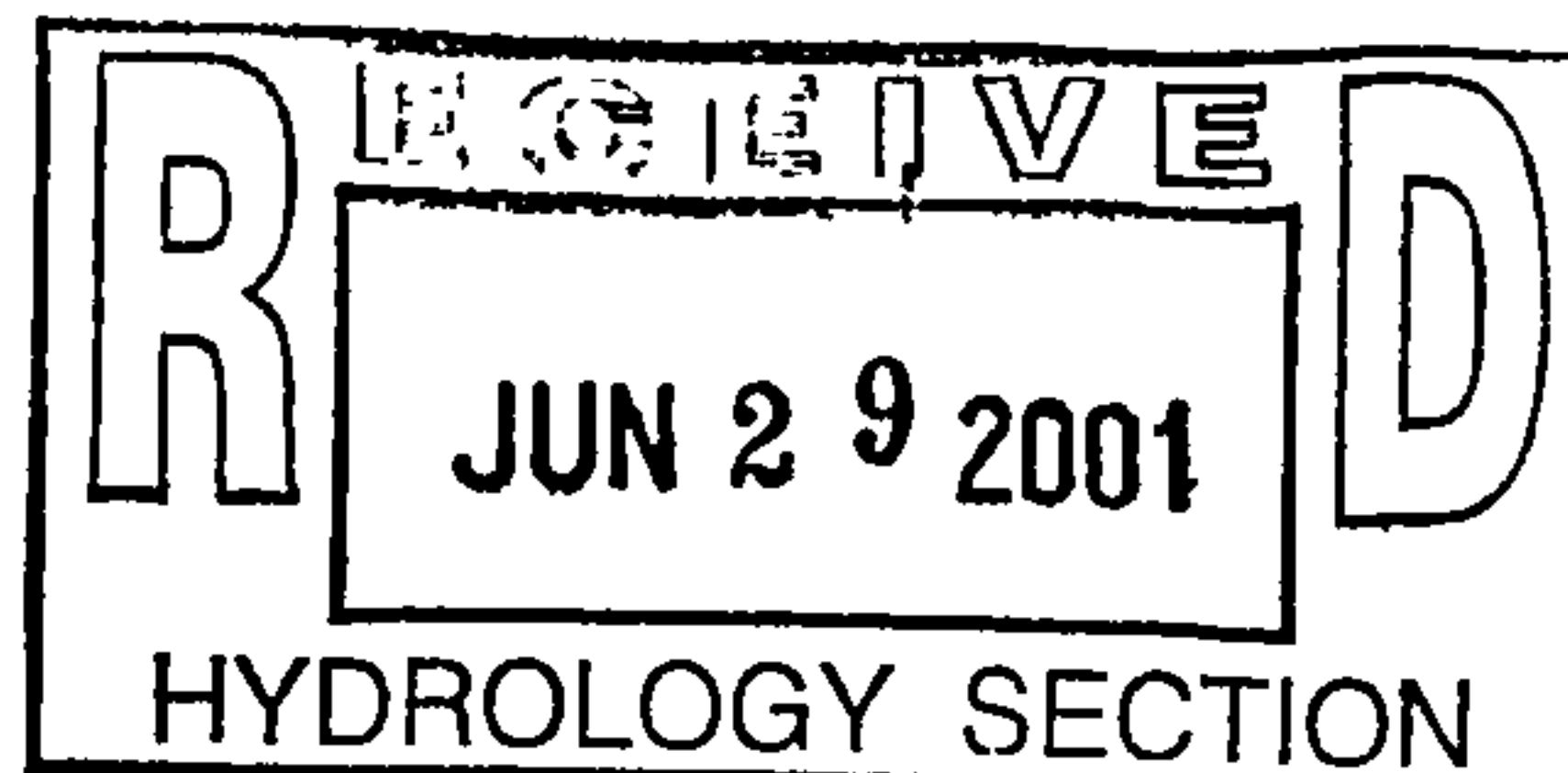
1 GTD REPORT

☒ For your records ☐ For your information
☐ As you requested ☐ For your comments
☐ Pre-Design Meeting

NOTES: _____

Project Engineer _____

SIGNED: 



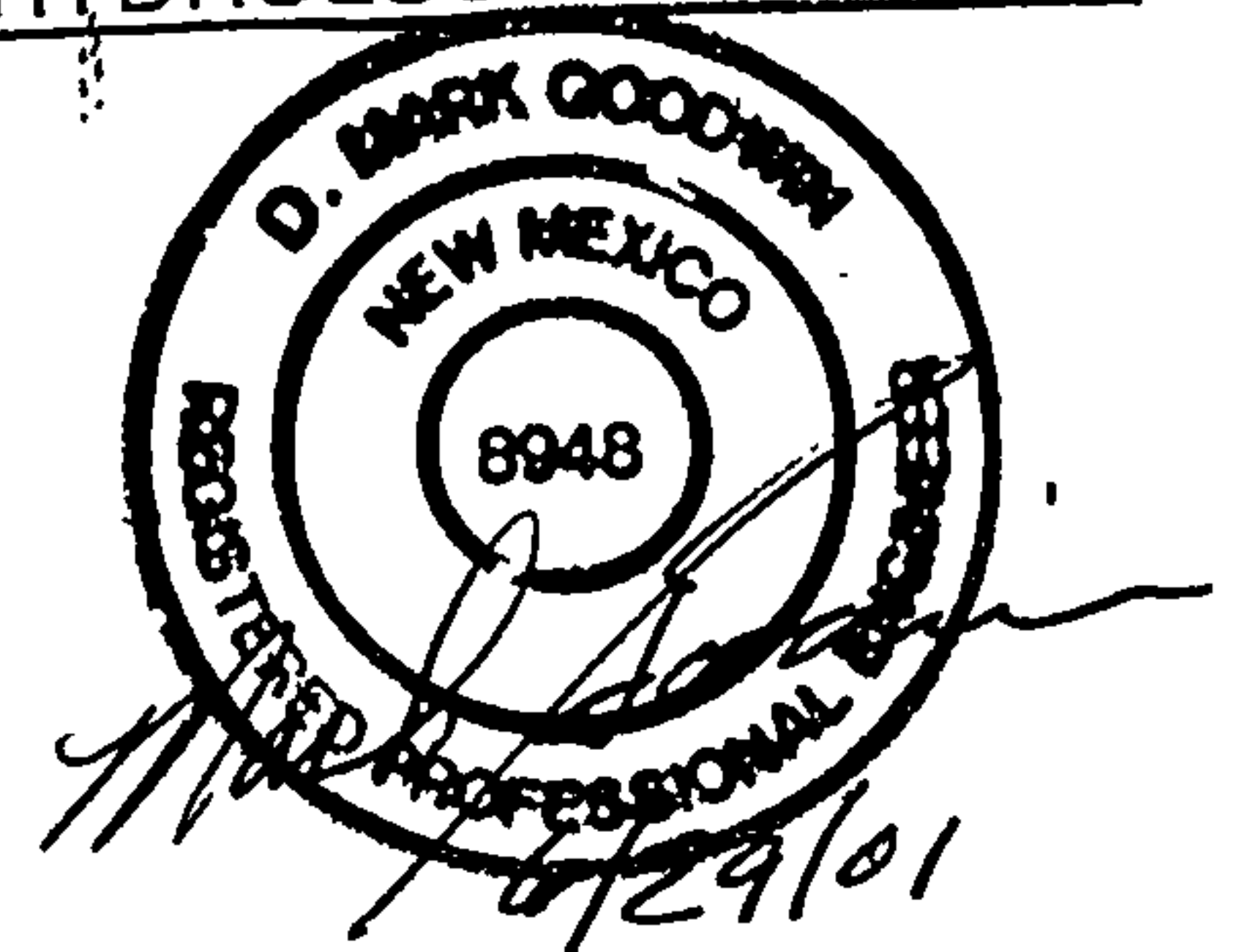
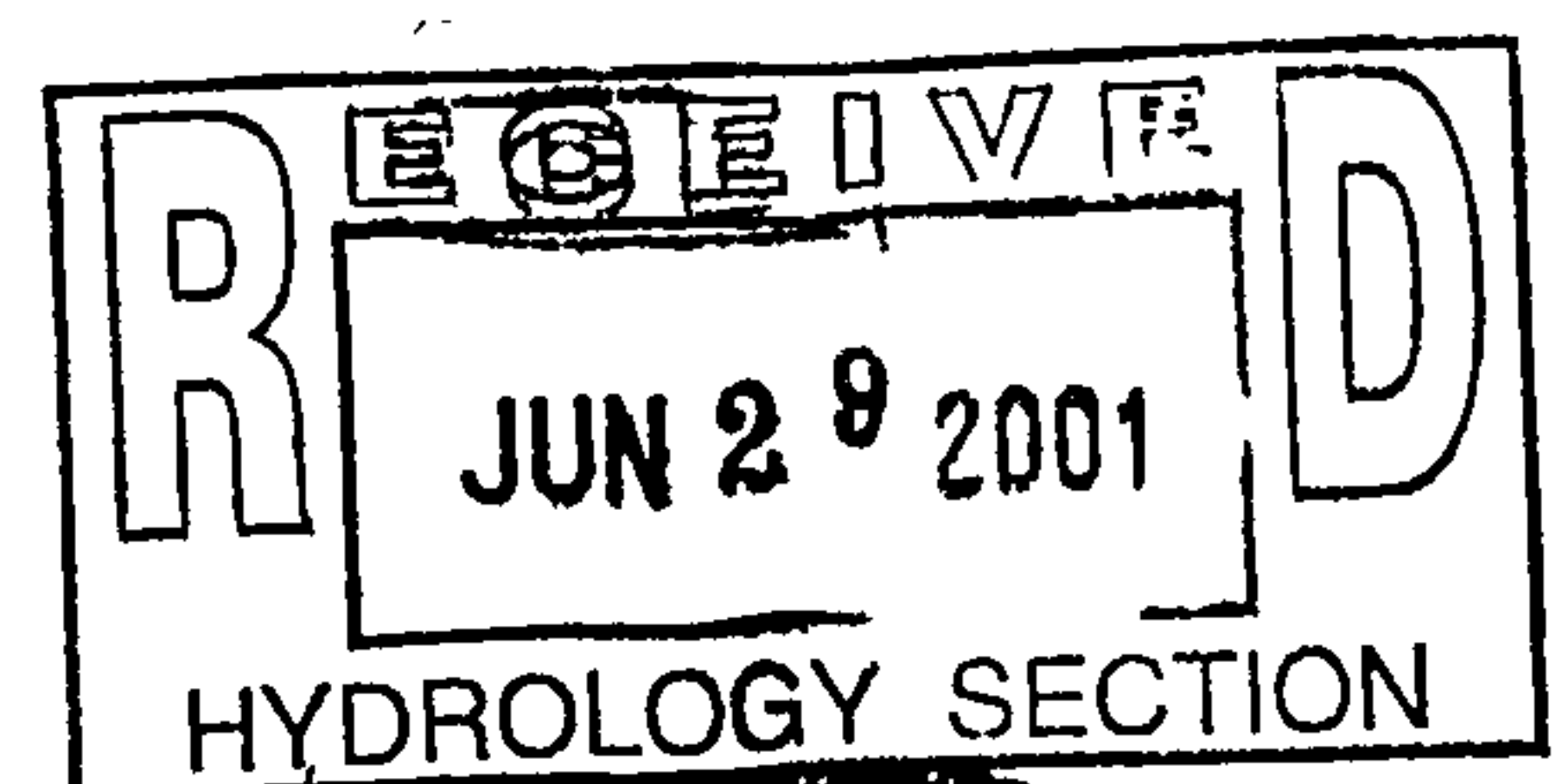
DRAINAGE REPORT
for
ST. JOSEPH'S PLACE SUBDIVISION

Prepared By

Amy L. Driscoll
Mark Goodwin & Associates, PA
P.O. Box 90606
Albuquerque, NM 87199

Prepared For

Westcor
11600 Academy
Albuquerque, NM 87111



June 2001

TABLE OF CONTENTS

- I. *Introduction*
- II. *Existing Conditions*
- III. *Proposed Drainage Plan*
- IV. *Summary*

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- *Zone Atlas Map, K-11*
- *Drainage Facilities Map K-11*
- *100 Year Floodplain*
- *St. Joseph's Place Grading and Drainage Plan*
- *AHYMO Run*
 - *Summary Output - 100 year*
 - *Input Data - 100 year*
 - *Output Data - 100 year*
- *Calculations for St. Joseph's Place*

5073

INTRODUCTION

This report is being submitted for Preliminary Plat approval and Rough Grading approval.

A 34 lot subdivision is being proposed between Central and Avalon and between 63rd and 60th Streets. Please see Zone Atlas Map K-11.

Amy Driscoll met with Brad Bingham and Carlos Montoya for an informal pre-design meeting on June 6, 2001.

EXISTING CONDITIONS

Currently the lot is vacant and covered in grass. The west is bounded by homes that drain towards and away from this site on this side.

The north is bounded by Avalon. Roughly one third of the site drains to Avalon. The storm water in Avalon drains east to existing inlets in that road. Please see the excerpt from K-11 of the Drainage Facilities Map.

On the east are just a few homes even though numerous lots are platted. Storm water flows towards and away from the site on this side.

On the south is a vacant dirt lot. The site is in the 100 Year Flood Plain Zone AH which is at elevation 5073. A small portion of the southern end of the proposed project is in the flood plain also. Please see the St. Joseph's Grading and Drainage Plan for the delineation of the flood plain. In a separate submittal to FEMA, the floodplain will be recommended to be removed from this site.

Two-thirds of the site drains at an average slope of 3.7% to the south. Low flows pond on Tract C-15-A. High flows continue by surface flow to Central and go into inlets in the road. Further east on Central, the existing storm line does not have sufficient capacity. In the near future, public improvements are proposed that will alleviate the insufficient capacity in Central. However, they will not be completed before this subdivision is built.

PROPOSED DRAINAGE PLAN

Because the storm line in Central is undersized, the portion of the site draining towards Central will be designed to discharge less than the historical rate of flow. The portion of the site draining towards Avalon will continue to discharge freely per discussions in the pre-design meeting.

The site is 3.79 acres and is broken into Basin A which goes to Avalon and into Basin B which goes to Central. Please see the hydrology summary below and the attached AHYMO run.

SUMMARY OF HYDROLOGY
(From AHYMO)

Area (Ac.)	Area (Sq. Mi.)	Land Treatment (%)				100 Year	
		Description	A	B	C	D	Q (cfs) V ₃₆₀ (Ac.Ft.)
0.67	0.0010	Existing Basin A	0	100	0	0	1.33 0.036
3.12	0.0049	Existing Basin B	0	100	0	0	6.47 0.178
3.79	0.0059	Existing Total					7.80 0.214
0.67	0.0010	Proposed Basin A	0	19	0	81	2.56 0.092
3.12	0.0049	Proposed Basin B	0	19	0	81	12.50 0.450
3.79	0.0059	Proposed Total					15.06 0.542

There will be a high point in Westcourt Place that will drive the water north to Avalon (2.56 cfs) and south into inlets in Westcourt (12.50 cfs). There will be 2 type A inlets and 6 type C inlets. These inlets to the south will drain to 18 inch pipes to a manhole in Westcourt that will go to detention ponds A and B. The ponds have a high water surface elevation of 72.61. They will drain through a 12 inch orifice at a maximum rate of 5.12 cfs which is below the historical rate of 6.47 cfs. The orifice will lead to an 18 inch pipe that will connect with a storm drain manhole in Central.

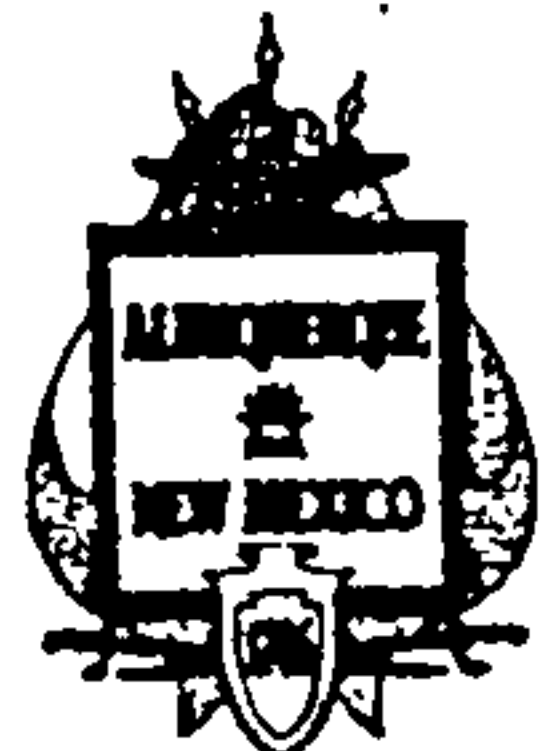
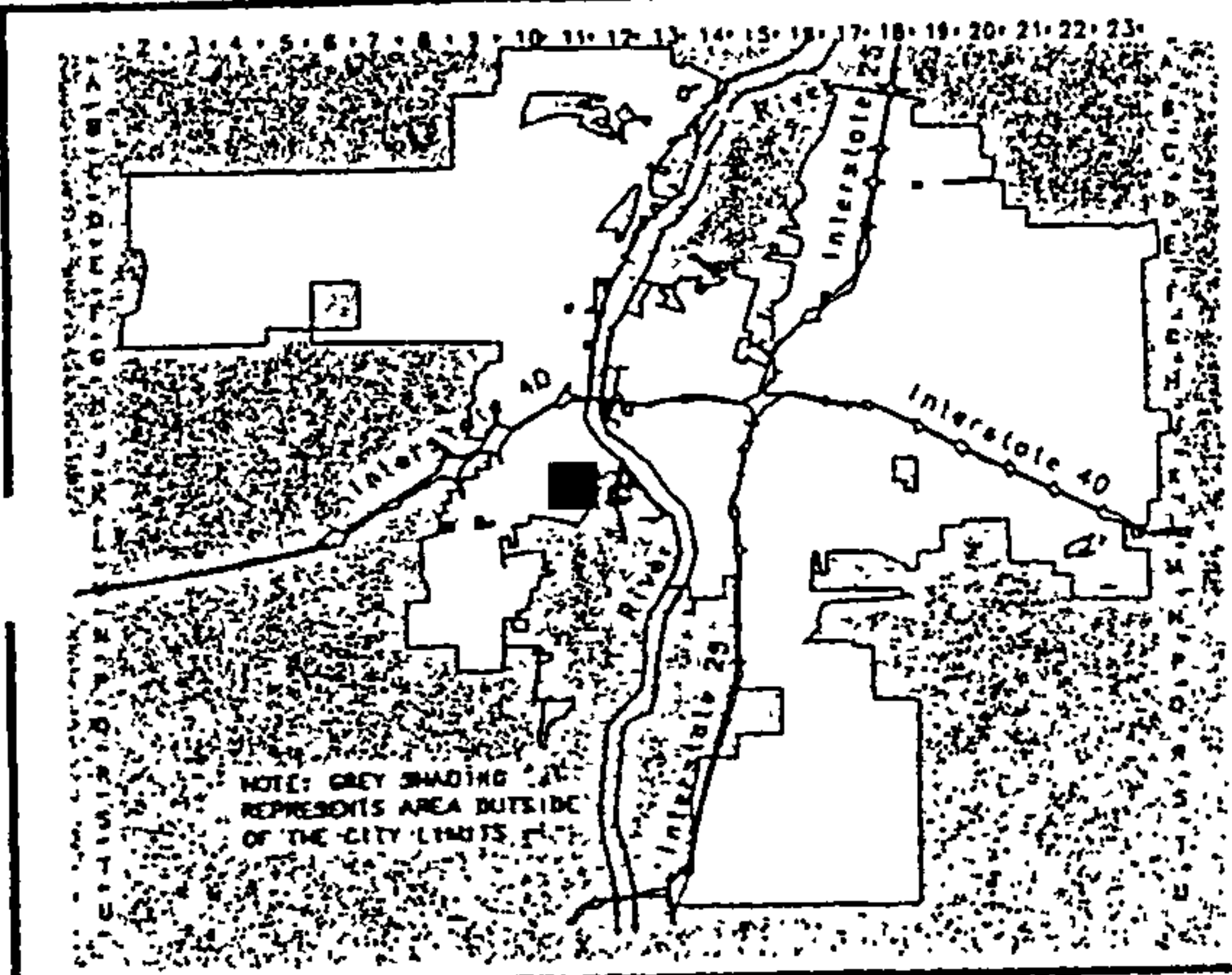
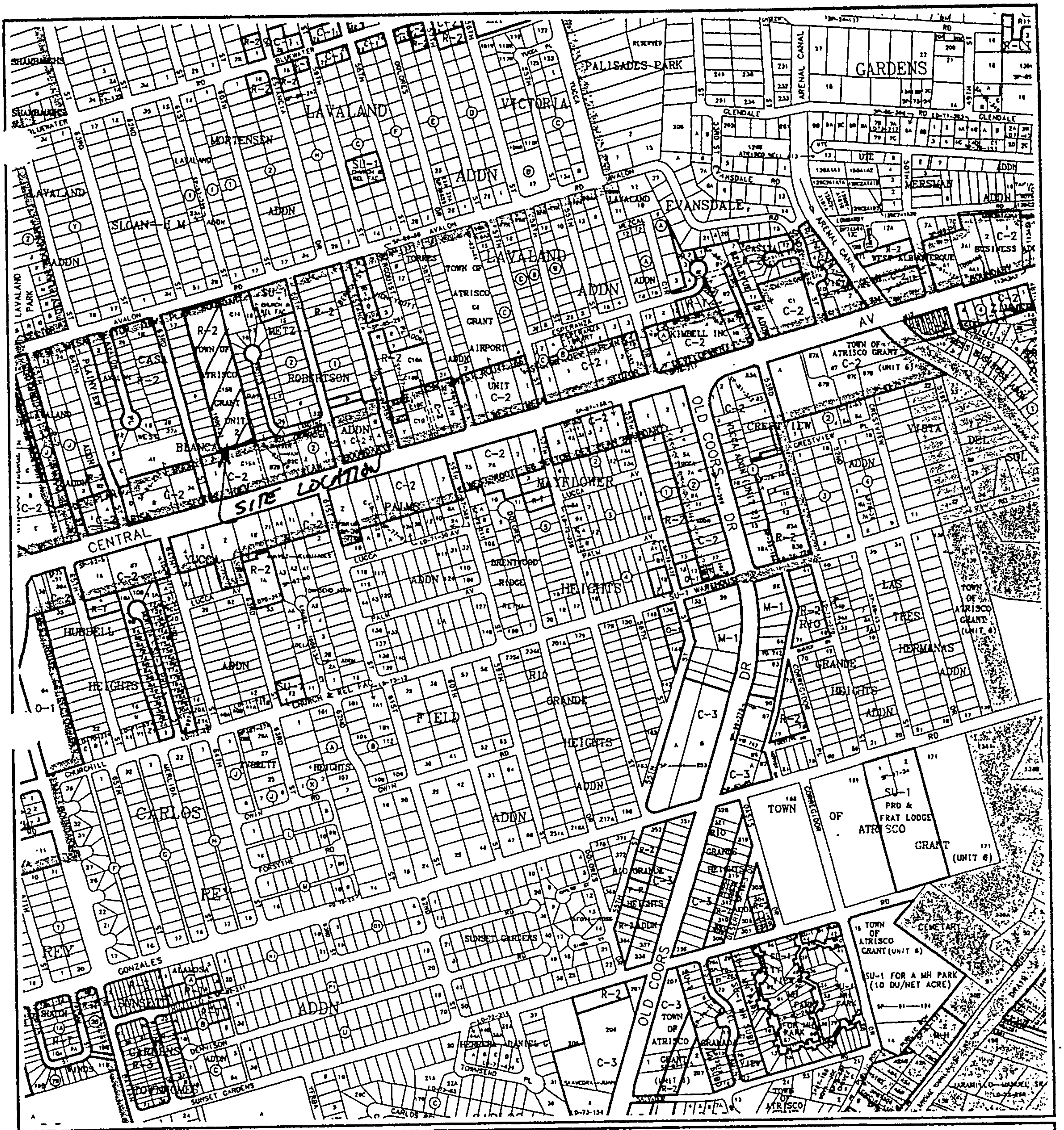
Mountable curb and gutter will be sufficient to hold the storm water the entire length of Westcourt Place. Standard curb and gutter is being used next to the inlets.

Please see the enclosed calculations for the sizing of the orifice plate, the mountable curb and gutter, and the inlets.

SUMMARY

The existing vacant lot will become a 34 lot subdivision. Storm water in Basin A will freely discharge to Avalon. Storm water in Basin B will go to inlets in Westcourt Place and then to two detention ponds. The ponds will release less than the historical flow to a storm drain manhole in Central.

ZONE ATLAS MAP, K-11

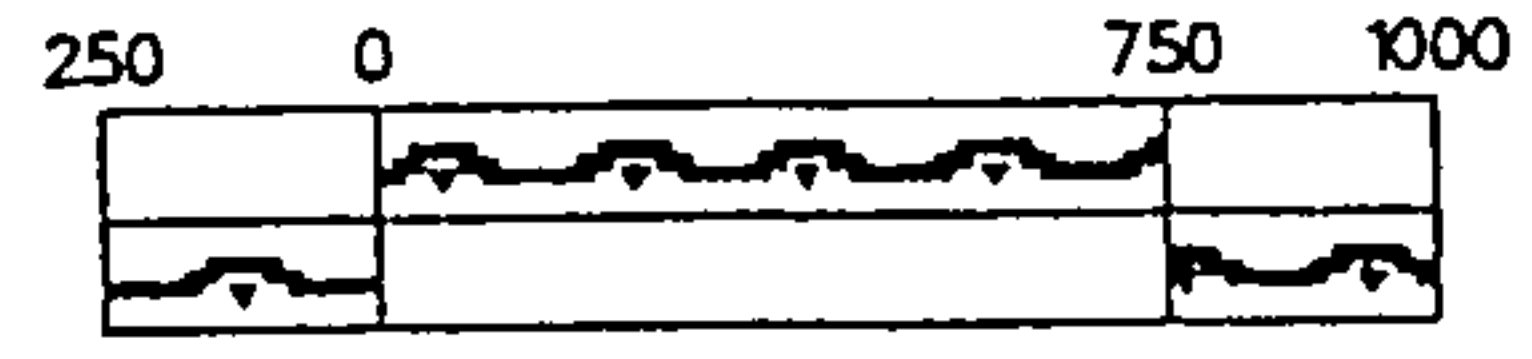


CITY OF
Albuquerque

Albuquerque Geographic Information System
PLANNING DEPARTMENT

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GRAPHIC SCALE IN FEET

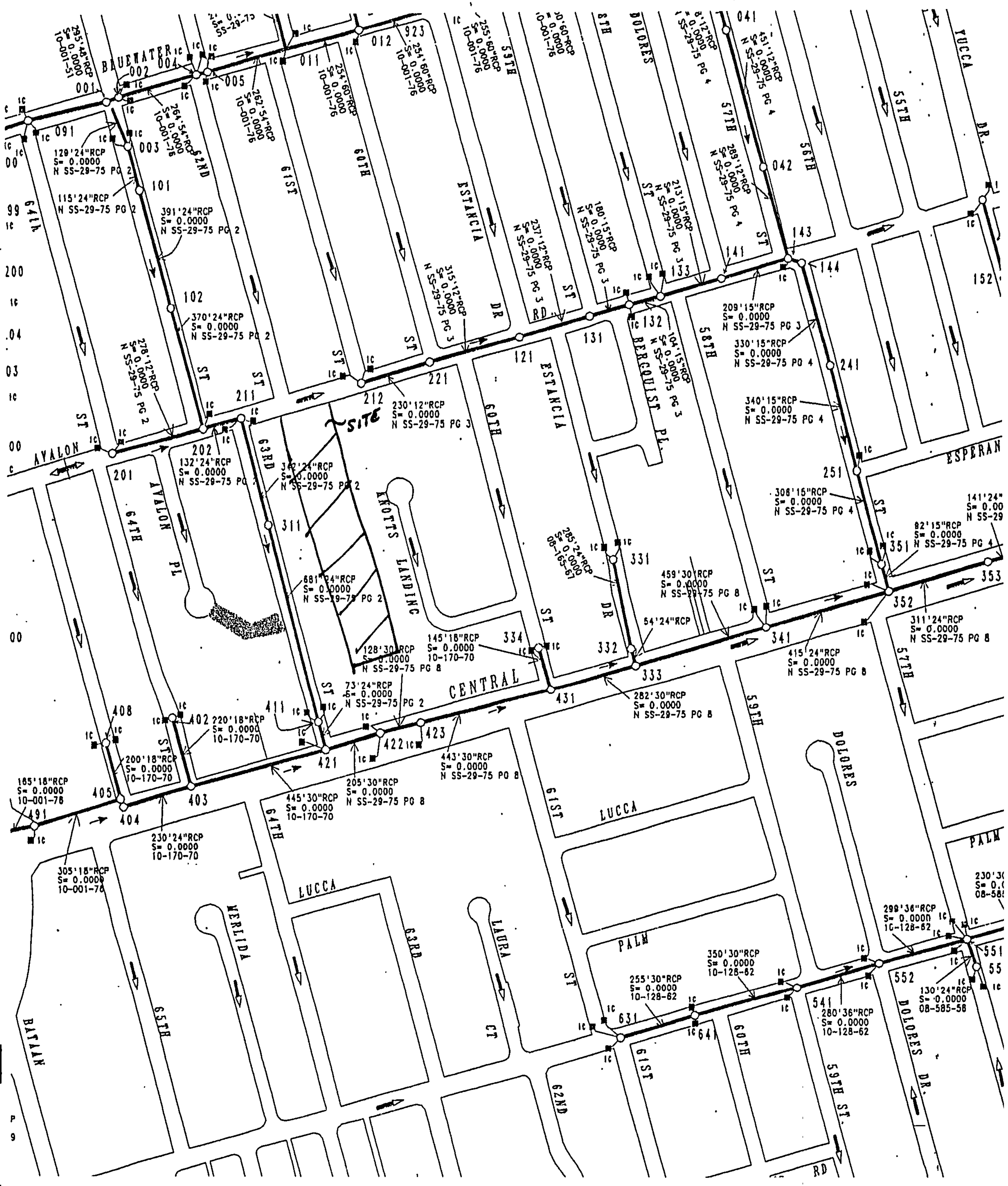


Zone Atlas Page

K-11-Z

Map Amended through December 08, 2000

DRAINAGE FACILITIES MAP, K-11



11
11
11
11
11

100 YEAR FLOOD PLAIN

NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN
TOWNSHIP 10 NORTH, RANGE 2 EAST.

ZONE AH
(EL 5085)

ZONE AH
(EL 5094)

OF ALBUQUERQUE
350002

ZONE X

ZONE X



ST. JOSEPH'S PLACE

GRADING & DRAINAGE PLAN

AHYMO RUN

RUN DATE (MON/DAY/YR) =06/25/2001
USER NO.= M_GOODWN.I01

[illegible]

```

START          TIME=0.0
***** ST. JOSEPH'S PLACE
*** FILE: c:\AHYMO\CHILD.DAT   JUNE 2001 BY:AMY
***
*** 100-YEAR 6-HOUR STORM EVENT
***

RAINFALL      TYPE=1 RAIN QUARTER=0.0 IN
              RAIN ONE=1.90 IN RAIN SIX=2.20 IN
              RAIN DAY=2.65 IN DT=0.033333 HR

****
****
***** EXISTING CONDITIONS
*****
**** BASIN A
  COMPUTE NM HYD  ID=1 HYD NO=100.00 AREA=0.0010 SQ MI
                  PER A=0.00 PER B=100.0 PER C=0.00 PER D=0.00
                  TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD      ID=1 CODE=1
*****
**** BASIN B
  COMPUTE NM HYD  ID=2 HYD NO=200.00 AREA=0.0049 SQ MI
                  PER A=0.00 PER B=100.0 PER C=0.00 PER D=0.00
                  TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD      ID=2 CODE=1
*****
**** PROPOSED CONDITIONS
*****
***** BASIN A
  COMPUTE NM HYD  ID=3 HYD NO=300.00 AREA=0.0010 SQ MI
                  PER A=0.00 PER B=19.00 PER C=0.00 PER D=81.00
                  TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD      ID=3 CODE=1
*****
***** BASIN B
  COMPUTE NM HYD  ID=4 HYD NO=400.00 AREA=0.0049 SQ MI
                  PER A=0.00 PER B=19.00 PER C=0.00 PER D=81.00
                  TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD      ID=4 CODE=1
*****
  OUTE RESERVOIR ID=5 HYD NO= 500.00 INFLOW=4 CODE=5
                  OUTFLOW(CFS)   STORAGE(AC FT)   ELEV(FT)
                  0.0             0.0             70.00
                  3.78            0.090           71.00
                  5.34            0.181           72.00

PRINT HYD      ID=5 CODE=1
*****
FINISH

```

AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
RUN DATE (MON/DAY/YR) = 06/25/2001
START TIME (HR:MIN:SEC) = 16:16:19 USER NO. = M_GOODWN.I01
INPUT FILE = stjoe.dat

START TIME=0.0
***** ST. JOSEPH'S PLACE
***** FILE: c:\AHYMO\CHILD.DAT JUNE 2001 BY:AMY

***** 100-YEAR 6-HOUR STORM EVENT

RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=1.90 IN RAIN SIX=2.20 IN
RAIN DAY=2.65 IN DT=0.033333 HR

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
DT = .033333 HOURS END TIME = 5.999940 HOURS

.0000	.0013	.0027	.0041	.0055	.0069	.0084
.0099	.0115	.0131	.0147	.0164	.0181	.0199
.0217	.0236	.0256	.0276	.0296	.0318	.0340
.0363	.0387	.0412	.0438	.0465	.0493	.0523
.0554	.0587	.0622	.0675	.0731	.0791	.0920
.1209	.1653	.2291	.3162	.4306	.5765	.7582
.9799	1.1849	1.2707	1.3432	1.4077	1.4663	1.5203
1.5704	1.6173	1.6612	1.7025	1.7415	1.7783	1.8132
1.8462	1.8775	1.9072	1.9354	1.9622	1.9681	1.9737
1.9789	1.9839	1.9887	1.9933	1.9976	2.0019	2.0059
2.0098	2.0136	2.0172	2.0208	2.0242	2.0276	2.0308
2.0340	2.0371	2.0401	2.0430	2.0458	2.0486	2.0514
2.0541	2.0567	2.0592	2.0618	2.0642	2.0667	2.0690
2.0714	2.0737	2.0759	2.0781	2.0803	2.0825	2.0846
2.0867	2.0887	2.0908	2.0927	2.0947	2.0966	2.0986
2.1004	2.1023	2.1041	2.1060	2.1077	2.1095	2.1113
2.1130	2.1147	2.1164	2.1180	2.1197	2.1213	2.1229
2.1245	2.1261	2.1277	2.1292	2.1308	2.1323	2.1338
2.1353	2.1367	2.1382	2.1396	2.1411	2.1425	2.1439
2.1453	2.1466	2.1480	2.1494	2.1507	2.1520	2.1534
2.1547	2.1560	2.1573	2.1585	2.1598	2.1611	2.1623
2.1636	2.1648	2.1660	2.1672	2.1684	2.1696	2.1708
2.1720	2.1731	2.1743	2.1755	2.1766	2.1777	2.1789
2.1800	2.1811	2.1822	2.1833	2.1844	2.1855	2.1866
2.1876	2.1887	2.1898	2.1908	2.1919	2.1929	2.1939
2.1950	2.1960	2.1970	2.1980	2.1990	2.2000	

***** EXISTING CONDITIONS

***** BASIN A

COMPUTE NM HYD ID=1 HYD NO=100.00 AREA=0.0010 SQ MI
PER A=0.00 PER B=100.0 PER C=0.00 PER D=0.00
TP=0.1333 HR MASS RAINFALL=-1

K = .130761HR TP = .133300HR K/TP RATIO = .980950 SHAPE CONSTANT, N = 3.599930
UNIT PEAK = 2.4572 CFS UNIT VOLUME = .9948 B = 327.55 P60 = 1.9000
AREA = .001000 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033333

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 100.00

RUNOFF VOLUME = .68102 INCHES = .0363 ACRE-FEET
PEAK DISCHARGE RATE = 1.33 CFS AT 1.533 HOURS BASIN AREA = .0010 SQ. MI.

***** BASIN B
COMPUTE NM HYD

ID=2 HYD NO=200.00 AREA=0.0049 SQ MI
PER A=0.00 PER B=100.0 PER C=0.00 PER D=0.00
TP=0.1333 HR MASS RAINFALL=-1

K = .130761HR TP = .133300HR K/TP RATIO = .980950 SHAPE CONSTANT, N = 3.599930
UNIT PEAK = 12.041 CFS UNIT VOLUME = .9992 B = 327.55 P60 = 1.9000
AREA = .004900 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033333

PRINT HYD ID=2 CODE=1

PARTIAL HYDROGRAPH 200.00

RUNOFF VOLUME = .68102 INCHES = .1780 ACRE-FEET
PEAK DISCHARGE RATE = 6.47 CFS AT 1.533 HOURS BASIN AREA = .0049 SQ. MI.

***** PROPOSED CONDITIONS

***** BASIN A

COMPUTE NM HYD ID=3 HYD NO=300.00 AREA=0.0010 SQ MI
PER A=0.00 PER B=19.00 PER C=0.00 PER D=81.00
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 3.1979 CFS UNIT VOLUME = .9961 B = 526.28 P60 = 1.9000
AREA = .000810 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033333

K = .130761HR TP = .133300HR K/TP RATIO = .980950 SHAPE CONSTANT, N = 3.599930
UNIT PEAK = .46688 CFS UNIT VOLUME = .9702 B = 327.55 P60 = 1.9000
AREA = .000190 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033333

PRINT HYD ID=3 CODE=1

HYDROGRAPH FROM AREA 300.00

RUNOFF VOLUME = 1.72215 INCHES = .0918 ACRE-FEET
PEAK DISCHARGE RATE = 2.56 CFS AT 1.500 HOURS BASIN AREA = .0010 SQ. MI.

***** BASIN B

COMPUTE NM HYD ID=4 HYD NO=400.00 AREA=0.0049 SQ MI
PER A=0.00 PER B=19.00 PER C=0.00 PER D=81.00
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 15.670 CFS UNIT VOLUME = .9987 B = 526.28 P60 = 1.9000
AREA = .003969 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033333

K = .130761HR TP = .133300HR K/TP RATIO = .980950 SHAPE CONSTANT, N = 3.599930
UNIT PEAK = 2.2877 CFS UNIT VOLUME = .9943 B = 327.55 P60 = 1.9000
AREA = .000931 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033333

PRINT HYD ID=4 CODE=1

HYDROGRAPH FROM AREA 400.00

RUNOFF VOLUME = 1.72215 INCHES = .4501 ACRE-FEET
PEAK DISCHARGE RATE = 12.50 CFS AT 1.500 HOURS BASIN AREA = .0049 SQ. MI.

ROUTE RESERVOIR ID=5 HYD NO= 500.00 INFLOW=4 CODE=5
OUTFLOW(CFS) STORAGE(AC FT) ELEV(FT)
0.0 0.0 70.00
3.78 0.090 71.00
5.34 0.181 72.00

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	70.00	.000	.00
.17	.00	70.00	.000	.00
.33	.00	70.00	.000	.00
.50	.00	70.00	.000	.00
.67	.00	70.00	.000	.00
.83	.00	70.00	.000	.00
1.00	.00	70.00	.000	.00
1.17	.01	70.00	.000	.00
1.33	3.42	70.15	.014	.57
1.50	12.50	71.08	.097	3.90
1.67	6.38	71.83	.165	5.07
1.83	4.02	71.81	.164	5.04
2.00	2.92	71.59	.144	4.70
2.17	1.32	71.25	.113	4.17
2.33	.62	70.82	.074	3.09

2.50	.38	70.51	.046	1.94
2.67	.25	70.32	.029	1.22
2.83	.17	70.20	.018	.77
3.00	.12	70.13	.012	.49
3.17	.09	70.09	.008	.32
3.33	.07	70.06	.005	.22
3.50	.07	70.04	.004	.15
3.67	.06	70.03	.003	.11
3.83	.06	70.02	.002	.09
4.00	.05	70.02	.002	.07
4.17	.05	70.02	.002	.07
4.33	.05	70.02	.001	.06
4.50	.05	70.02	.001	.06
4.67	.05	70.01	.001	.06
4.83	.05	70.01	.001	.06
5.00	.06	70.01	.001	.06
5.17	.06	70.01	.001	.06
5.33	.06	70.02	.001	.06
5.50	.06	70.02	.001	.06
5.67	.07	70.02	.001	.06
5.83	.07	70.02	.002	.07
6.00	.07	70.02	.002	.07
6.17	.03	70.02	.001	.06
6.33	.01	70.01	.001	.04
6.50	.00	70.01	.001	.03
6.67	.00	70.00	.000	.02
6.83	.00	70.00	.000	.01
7.00	.00	70.00	.000	.01
7.17	.00	70.00	.000	.00

PEAK DISCHARGE = 5.123 CFS - PEAK OCCURS AT HOUR 1.73
 MAXIMUM WATER SURFACE ELEVATION = 71.861
 MAXIMUM STORAGE = .1684 AC-FT INCREMENTAL TIME= .033333HRS

PRINT HYD ID=5 CODE=1

OUTFLOW HYDROGRAPH RESERVOIR 500.00

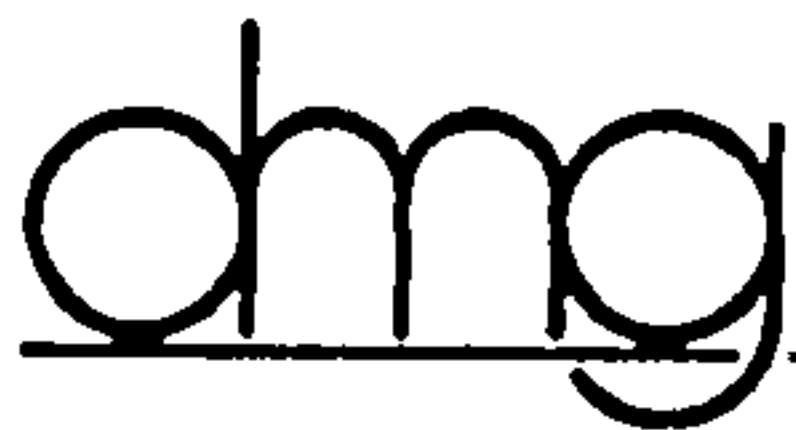
RUNOFF VOLUME = 1.72210 INCHES = .4500 ACRE-FEET
 PEAK DISCHARGE RATE = 5.12 CFS AT 1.733 HOURS BASIN AREA = .0049 SQ. MI.

 FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 16:16:19

ST. JOSEPH'S PLACE

CALCULATIONS FOR



D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmgs@swcp.com

PROJECT ST JORDAN'S PLACE
SUBJECT _____
BY AMF DATE 6/27/01
CHECKED _____ DATE _____
SHEET 1 OF _____

INFO TO PUT INTO A11/MO

PROP 3.77 AC = 165,072 SF = 0.0059 SQ MI

IMPAVINGNESS PROPOSED

37.00' LOT (TO BACK CURB, WORST CASE CIRC BLDG LENGTH VARIOUS)
4(37) + 26.67' x (85 - 15 - 15 - 9) + 80 x 29 + 14 x 10 + 3.5(23 + 10) + 2(6)
= 148 + 1227 + 580 + 140 + 116 + 12
= 2223 SF

48.8' LOT

4(48.67) + (48.67 - 12 - 5 - 3.5 - 1.5) (85 - 15 - 15 - 9) + DRIVE, GARAGE, Paved CIRC
= 195 + 1227 + 800 + 268
= 8490 SF

ROAD + CURB

29(1780) + 71(25)
= 51,620 + 1775
= 53,395

14(2223) + 20(2450) + 53,395 = 133,517 SF

$\frac{133,517}{165,072} = 81\%$ TYPE D 19% TYPE B

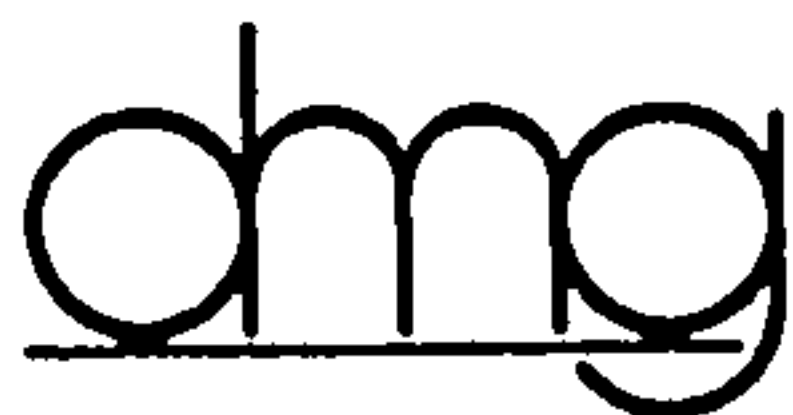
140 x 209 = 29,260 SF OF PAVED GOES TO AVAILABILITY

$\frac{29,260}{165,072} = 18\%$

BASE A = 29,260 SF = 0.0010 SQ MI

BASE B = 165,072 - 29,260
= 135,812 SF = 0.0049 SQ MI

ASSUME PAVES ALONG EDGE OF PAVED TO PREVENT WATER
FROM ENTERING OR EXITING PROPERTY



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PROJECT ST JOSEPH'S
SUBJECT _____
BY AMY DATE 6/21/01
CHECKED _____ DATE _____
SHEET 2 OF _____

PONDING AND CRIFICE SIZING

TOTAL PONDING AREA = .0894 + .0429 + .0960 + .0475 = 0.2758 AC = 12,034 SF

STORM INV IN R.O. 66.98
% SLOPE TO R.O.D. 3.00
67.98 → 70.00

(K.M. = 73.55)

MAKE POND 2' DEEP

Φ (CFS)	STOR (AC-FT)	EL	Ψ (CF)
0	0	70.00	0
2.36	0.276	71.00	
6.47	0.553	72.00	

PROV. ...
MUDPT ... 71. ...

$$Q = \frac{0.6 \pi D^2}{4} \sqrt{2gh}$$

$$D = \sqrt{\frac{4Q(1.6)(\pi)}{\sqrt{2gh}}} = \sqrt{\frac{7.54Q}{\sqrt{2gh}}} = \sqrt{\frac{7.54(6.47)}{\sqrt{2(32.2)(1)}}} = 2.46 \text{ FT} = 29.6" \rightarrow 30"$$

RETINE

$$Q = \frac{0.6 \pi (2.5)^2 \sqrt{2(32.2)(60)}}{4} = 2.36$$

6/25/01

USE 2 LAST TRACTS ONLY FOR PONDING

$$A = .0429 + .0475 = .0904 \text{ AC} = 3938 \text{ SF}$$

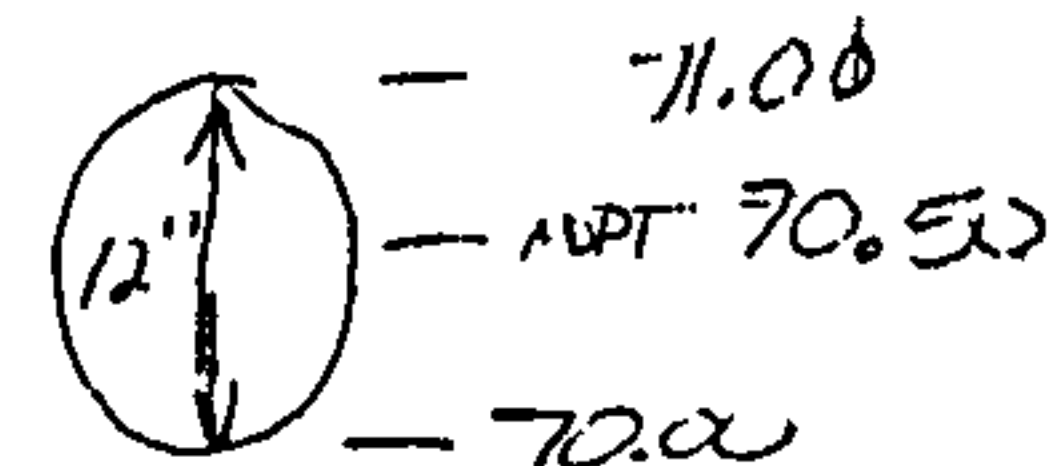
$$\frac{12397 \text{ CF}}{3938 \text{ SF}} = 3.15 \text{ FT 1.87"} \rightarrow 3.15 \text{ FT}$$

Φ (CFS)	STOR (AC-FT)	EL	Ψ (CF)
0	0	70.00	0
3.78	.0904	71.00	
5.34	.1808	72.00	

73.50 R.O. ROAD

$$Q = \frac{.6 A \sqrt{2gh}}{4}$$

$$D = \sqrt{\frac{4Q}{0.6 \pi \sqrt{2gh}}} = \sqrt{\frac{4(6.47)}{0.6 \pi \sqrt{2(32.2)(2)}}} = 1.10 \text{ FT} = 13.2 \text{ IN}$$



USE 12" CRIFICE + PIPE

$$Q = \frac{.6 (\pi \cdot 12^2)}{4} \sqrt{2(32.2)(2)} = 3.78 \sqrt{h}$$

FROM ATYPICAL MAX WSE = 71.86 + MAX DISCHARGE = 5012 CFS
Ψ = 1684 AC-FT
= 7336 CF



PROJECT ST JOSEPH'S

SUBJECT _____

BY Amf DATE 6/22/01

CHECKED _____ DATE _____

SHEET 3 OF

CHECK USING MOUNTABLE CTG AT STA 17+31



'FOR ENTIRE CT

$$d = .24 + .0625 = .3025$$

$$A = d\left[\frac{1}{2}(14)(3015)\right] = 4.235$$

$$R = \frac{A_i}{wP} = \frac{4.235}{2(.3025) + 28} = .1481$$

$$n = 0.017$$

$S = 3.5\%$

$$n = 0.017 \quad S = 3.5\%$$

$$v = \frac{1.49 R^{2/3} S^{1/2}}{n} = \frac{1.49 (.1481)^{2/3} \sqrt{.035}}{0.017} = 4.59 \text{ FPS}$$

$$Q = \sqrt{A} = 4.59(4.235) = 19.43 \quad \text{FOR ENTIRE ST}$$

$$d + \frac{v^2}{2g} = .3025 + \frac{4.59^2}{2(32.2)} = .3025 + .3271 = 0.6296 > .51 \quad \times \text{ doesn't work}$$

$$.51 = .3333 + 9(.02) = .5133 \quad \text{CIR/5 RQMT}$$

$$\tau_{ref} d = .27$$

$$A = 2 \left[\frac{1}{2} 14 (.27) \right] = 3.78$$

$$R = \frac{A}{wP} = \frac{3.78}{(-.27)^2 + .28} = 0.1324$$

$$n = .017$$

$$S = .035$$

$$v = \frac{1.49 (-1324)^{2/3} \sqrt{.035}}{.017} = 4.26$$

$$\Phi = \sqrt{A} = 4.26(3.78) = 16.10$$

$$d + \frac{v^2}{2g} = .27 + \frac{4.26^2}{2(32.2)} = .27 + .28 = 0.55 > .51 \quad X$$

TRY $d = 0.26$

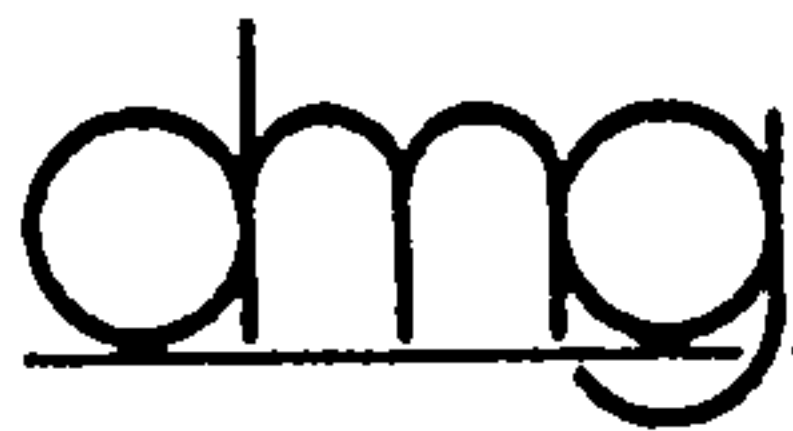
$$A = 2 \left[\frac{1}{2} (14)(20) \right] = 3.64$$

$$R = \frac{3.64}{2(-26) + 28} = 0.1276$$

$$V = \frac{1.49 (0.1276)^{2/3} \sqrt{.035}}{.017} = 4.16$$

$$Q = 4.16(3.64) = 15.13$$

$$d + \frac{v^2}{2g} = .26 + \frac{4.16^2}{2(32.2)} = .53 > .51$$



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SHEET 4 OF _____

STREET CAPACITY

28' FF, MOUNTABLE CURB, S = 3.50%

TRY $d = .24$

$$A = 2 \left[\left(\frac{1}{2} \right) 14 (.24) \right] = 3.36$$

$$R = \frac{3.36}{2(.24) + 28} = 0.118$$

$$V = \frac{1.49 (.118)^{2/3} \sqrt{.035}}{.017} = 3.94$$

$$Q = 3.94 (3.36) = 13.25 > 12.50 \text{ PER ATYMO } \checkmark$$

$$d + \frac{V^2}{2g} = .24 + \frac{3.94^2}{64.4} = .48 < .51 \checkmark$$

WATER WILL NOT GO ABOVE CURB AND THERE IS SUFFICIENT
CAPACITY IN ST TO CARRY FLOW



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SHEET 5 OF _____

CRITICAL ST CAPACITY WHERE $S = .0177$, MOUNTAIN CURB, 28' FF

$$d = .24 + .0625 = .3025$$

$$A = 2 \left[\frac{1}{2} 14 (.30) \right] = 4.24$$

$$R = .1481$$

$$S = .0177$$

$$V = \frac{1.49 (.1481)^{2/3} \sqrt{.0177}}{.017} = 3.26$$

$$Q = V A = 3.26 (4.24) = 13.83 > 12.50 \quad \checkmark$$

$$d + \frac{V^2}{2g} = .30 + \frac{3.26^2}{64.4} = .47 < .51 \quad \checkmark$$



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INLETS

INSTALL 2 - A INLETS AT STA 17+31

$$36 \text{ LOTS} - 6 = 30 \text{ LOTS}$$

$$\frac{12.50 \text{ CFS}}{30 \text{ LOTS}} = 0.42 \frac{\text{CFS}}{\text{LOT}} \text{ IN BASIN B}$$

Q TO INLET AT STA 17+31

$$(30 - 4) \text{ LOTS} \times \frac{0.42 \text{ CFS}}{\text{LOT}} = 10.83 \text{ CFS}$$

$$m \quad d = 0.21$$

$$A = 2[16.14(-0.21)] = 2.94$$

$$R = \frac{2.94}{2(0.21) + 2.8} = 0.1034$$

$$V = \frac{1.49(0.1034)^{2/3} \sqrt{0.035}}{0.017} = 3.61$$

$$Q = 3.61(2.94) = 10.62 \approx 10.83 \quad \checkmark$$

FROM GRATE CAPACITIES FOR TYPE A INLET + C INLET CHART

$$S = 0.035$$

$$d = 0.21$$

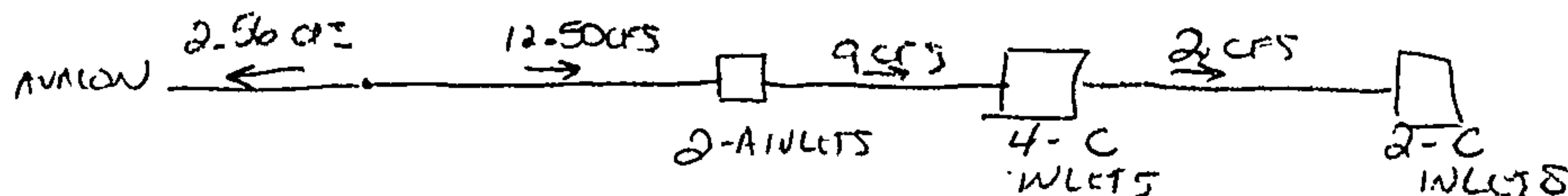
$$\rightarrow Q = 1.75 (2 \text{ INLETS}) = 3.50 \text{ CFS}$$

$$Q \text{ REMAINING W ST} = 12.50 - 3.50 = 9 \text{ CFS}$$

ALSO INSTALL 4 TYPE 'C' INLETS MAR TRACTS 17+18

$$Q = 4(1.75) = 7$$

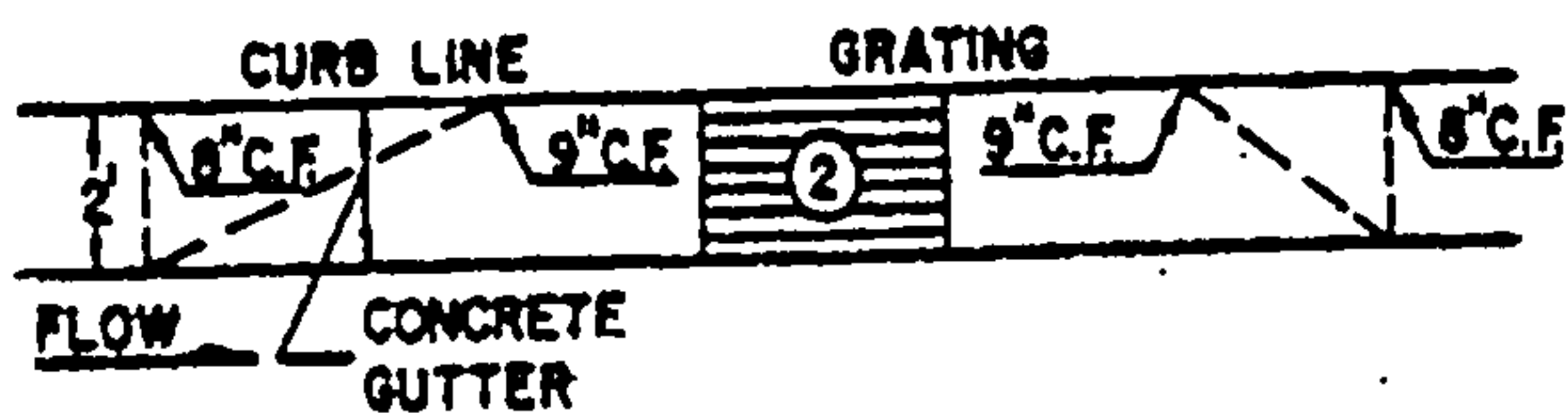
$$Q \text{ REMAINING} = 12.50 - 3.50 - 7 = 2 \text{ CFS}$$



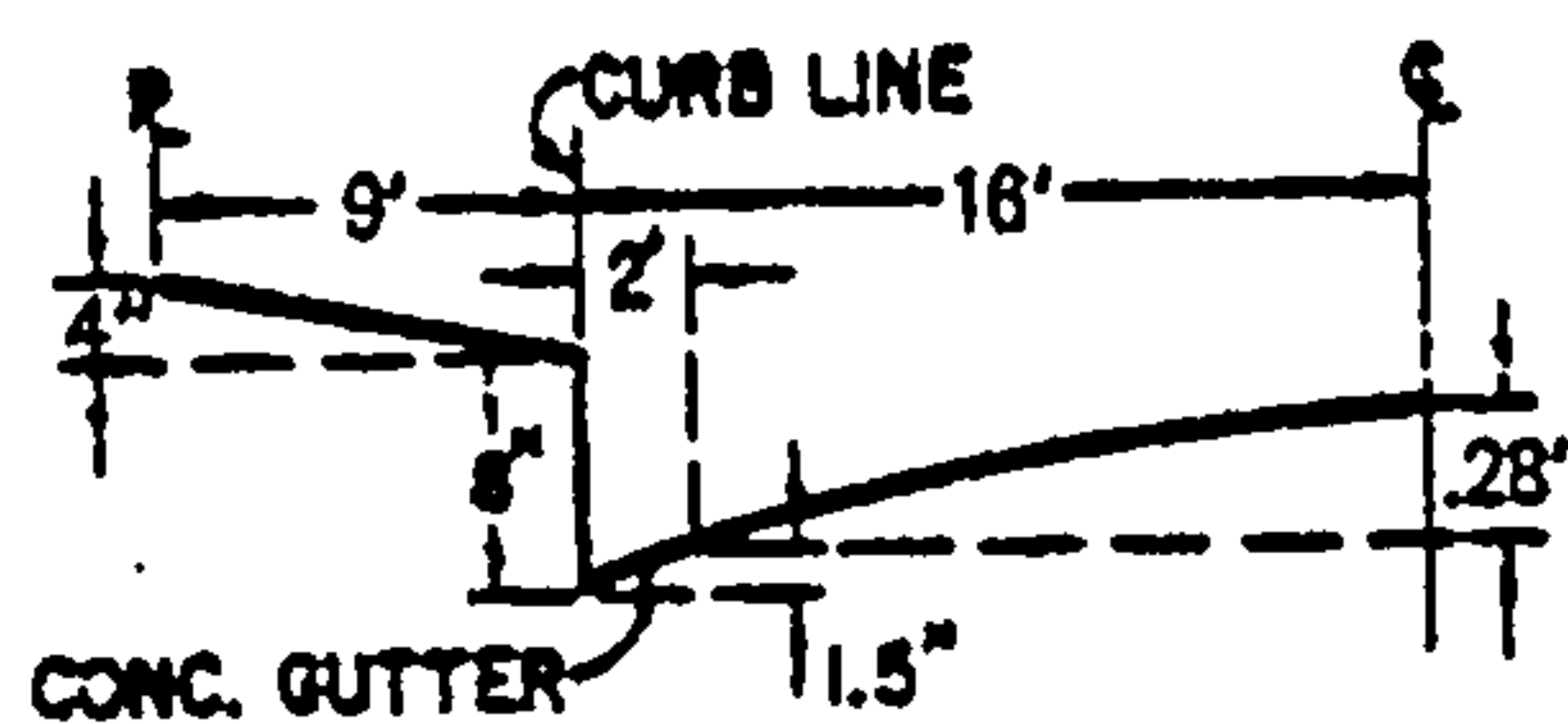
FOR INLETS AT END OF RD. - INSTALL 2 C INLETS

$$Q = 2(1.75) = 3.5 \text{ CFS} > 2 \text{ CFS} \quad \checkmark$$

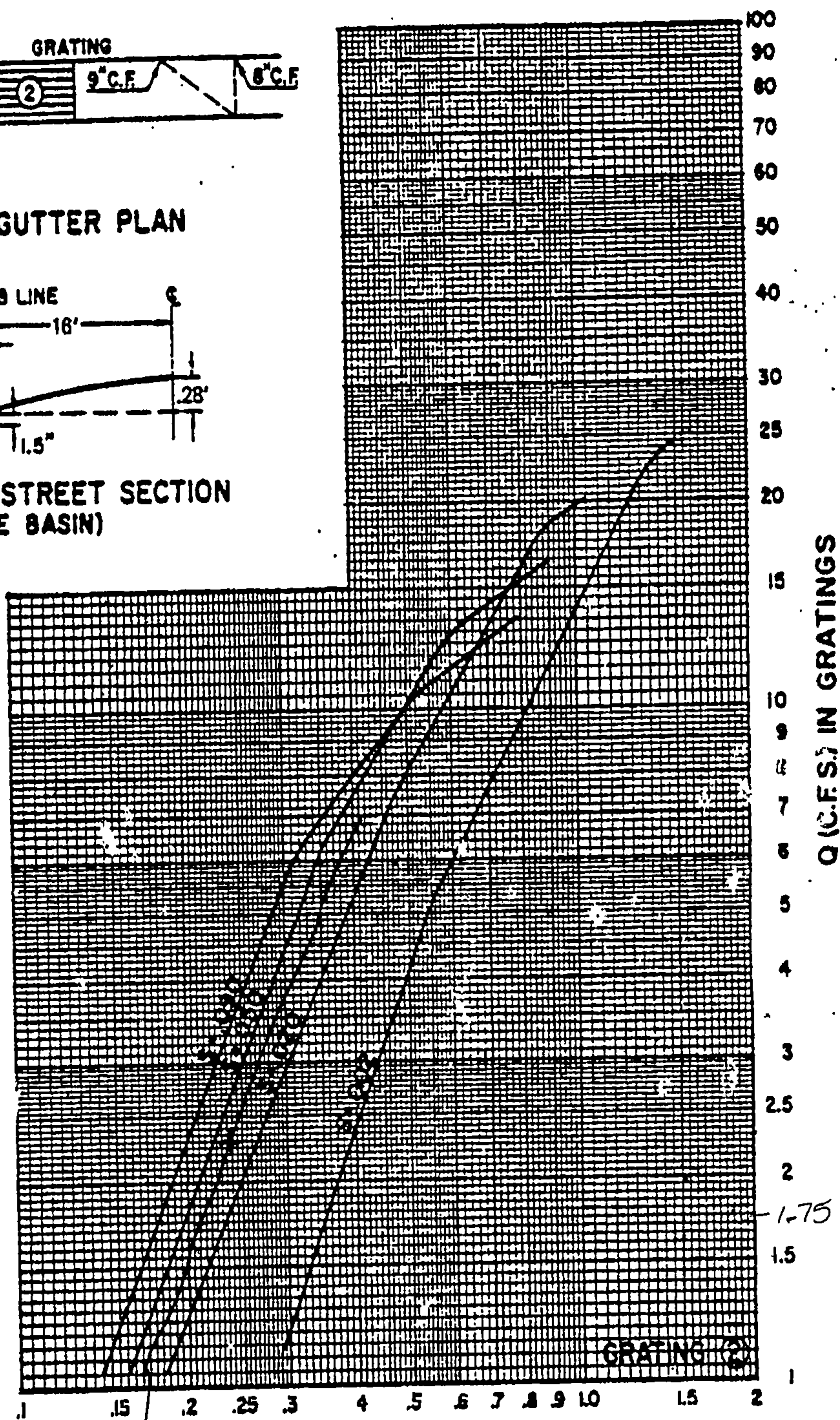
GRATING CAPACITIES FOR TYPE 'A' , 'C' and 'D'



GRATING & GUTTER PLAN



TYPICAL HALF STREET SECTION
(ABOVE BASIN)



D = DEPTH OF FLOW (FT.) ABOVE NORMAL GUTTER GRADE

S = .035

