

# MEMO

VICKY



|  |                                  |
|--|----------------------------------|
| TO: <u>File thru <del>GLW, CSB</del></u> | PROJECT NO. <u>36-90469-2273</u> |
|  | PROJECT: <u>Reflection Ridge</u> |
|  | <u>6th Addition</u>              |
| ATTN:                                    | DATE: <u>October 9, 1990</u>     |

COPIES TO:

Reg Boothe  
Marvin Schellenberg

FROM: Michael W. Berry P.E.  
REFERENCE: Design Concept Meeting  
Drainage Concerns

PLEASE ADVISE IMMEDIATELY OF ANY MISCONCEPTIONS OR OMISSIONS YOU BELIEVE TO BE CONTAINED HEREIN.

A meeting on the referenced project was held at the offices of Professional Engineering Consultants, P.A. on October 8, 1990. In attendance were the following:

|                           |                       |
|---------------------------|-----------------------|
| Michael E. Lindebak, P.E. | City Engineer         |
| Reg Boothe                | Reflection Ridge Inc. |
| Marvin Schellenberg       | Reflection Ridge Inc. |
| Charles S. Brown, P.E.    | P.E.C., P.A.          |
| Gary L. Wiley             | P.E.C., P.A.          |
| Michael W. Berry, P.E.    | P.E.C., P.A.          |

The meeting was called to discuss and review drainage problems and concepts with the City.

The 80-acre plat receives approximately 440 acres from the north and 170 acres from the west. There presently is no well-defined drainage pattern. Flow from all these areas accumulate at an existing 3-7'x3' reinforced concrete box culvert near the southeast corner of the plat, with the Ridge Road embankment acting as a dam or levee

The layout as presented on the preliminary plat provided for conveyance of drainage through the development, with four road crossings between

interconnected lakes. The discharge point would remain at the site of the existing 3-7'x3' culvert. By eliminating one crossing with a cul-de-sac, the original layout could be modified to result in 3 drainage/street crossings. Since each crossing would require a very large structure, this layout would still result in a cost of approximately one-half million dollars.

An alternative plat layout and drainage concept was then presented. This alternate consists of a linear buffer lake located along the east edge of the plat abutting Ridge Road. This pond would run from 29th Street southward to a point across from the northwest corner of the Mere Ridge plat. Storm runoff would then be discharged across Ridge Road via a new structure into the former Ritchie sand pit lake which is now platted as a Reserve for Floodway purposes within the Mere Ridge Addition. With this alternate, the existing 3-7'x3' culvert would remain as is and would drain as much of the plat interior as possible without overtaxing its capacity.

Mr. Lindebak stated that for a City drainage project, the City has the right to discharge into the platted floodway. He suggested that Mr. Boothe discuss the concept with the affected landowner. Mr. Lindebak also suggested investigating the requirements of the Division of Water Resources State Board of Agriculture for approval of the project.

Concerning funding, Mr. Lindebak offered Smithmoor Addition as a precedent and stated that the development must bear the full cost of a Ridge Road structure, even though it is on an arterial street and even though the development is a small portion of the overall drainage basin. The 80 acres west and 40 acres north of Reflection Ridge Sixth Addition could be added to the petition since they now lie within the City limits. Mr. Lindebak stated that since this

subdivision is near the periphery of developable land, the new structure across Ridge Road would only need to accommodate a two-lane road. Mr. Lindebak suggested investigating the relative costs of open span vs. box bridge structures. The new bridge grades should be compatible with future curb and gutter improvements.

Other considerations besides drainage were discussed. A gravity sanitary sewer collection system has been selected on this project. Mr. Lindebak, after discussion with the Director of the Water and Sewer Dept., suggests a front-load sanitary sewer system, without a requirement for a manhole at every service point. Mr. Lindebak also noted that the City will request a petition for two-lane asphalt mat paving on 29th St. from Ridge Road to the Sixth Addition entrance road.

**SUBDIVISION COMMITTEE  
METROPOLITAN AREA PLANNING COMMISSION**

AGENDA ITEM NO. 5  
January 24, 1991

STAFF REPORT  
(Final Plat)

CASE NUMBER: S/D 91-6 - REFLECTION RIDGE 6TH ADDITION

OWNER/APPLICANT: Reflection Ridge, Inc., c/o Marvin Schellenberg, 7926 W. 21st St. No., Wichita, KS 67212

SURVEYOR/ENGINEER: P.E.C., P.A. c/o Gary Wiley, 303 S. Topeka, Wichita KS 67202

LOCATION: Southwest corner of 29th St. North and Ridge Road.

SITE SIZE: 80 Acres

NUMBER OF LOTS

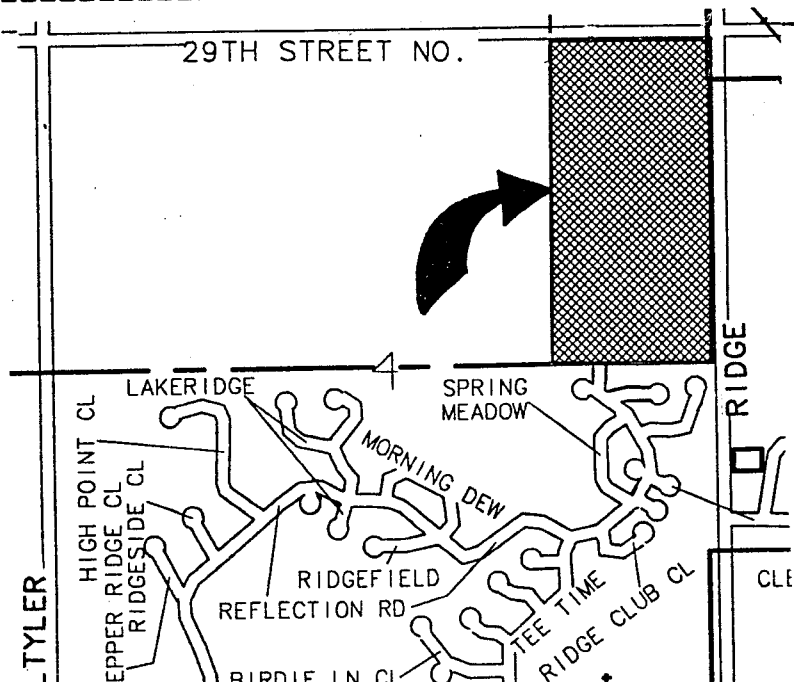
|              |    |
|--------------|----|
| Residential: | 95 |
| Office:      |    |
| Commercial:  |    |
| Industrial:  |    |
| Total:       | 95 |

MINIMUM LOT AREA: 11,250 sq. ft.

CURRENT ZONING: "E" Light Industrial

PROPOSED ZONING: "AA" One Family Dwelling

VICINITY MAP:



NOTE: This plat represents a portion of the overall Reflection Ridge development. This overall development is also covered by the Reflection Ridge Residential Community Unit Plan, DP-170. This final plat corresponds to parcels 12, 13, 14, 15 and 16 of the CUP. While this plat is indicating a development pattern somewhat different than originally depicted for the CUP, it does correspond to the single family alternative allowed for each of these parcels. The total number of single family lots actually being platted for this overall site, is also substantially less than is allowed under the CUP.

This site is also involved in two zone cases (Z-2848 and Z-2986). Both of these cases have been approved and involve the rezoning of this plat from "E" light industrial zoning to "AA" single family zoning. In both cases, the zoning is subject to the corresponding areas being platted by June 23, 1991.

STAFF COMMENTS:

- A. The applicant shall guarantee the extension of sanitary sewer to serve the lots being platted.
- B. The applicant shall guarantee the extension of City water to serve the lots being platted.
- C. The applicant shall guarantee any drainage improvements required by the platting of this property.
- D. The applicant shall guarantee construction of the storm sewers required by this plat.
- E. The applicant shall guarantee the paving of the proposed interior streets. This guarantee shall also provide for the installation of sidewalk on one side of Reflection Road and Wildrose.
- F. As indicated by the CUP, the applicant shall guarantee the paving of 29th Street North, adjacent to this site, to a two lane standard.
- G. Also as indicated in the CUP, Traffic Engineering needs to indicate if guarantees are to be required for left storage and a right turn lane in Ridge Road to serve the entrance to this development at Reflection Road.
- H. Provisions shall be made for ownership and maintenance of the proposed reserves. The applicant shall either form a lot owners' association prior to recording the plat or shall submit a covenant stating when the association will be formed, when the reserves will be deeded to the association and who is to own and

maintain the reserves prior to the association taking over those responsibilities. This covenant shall also provide that the homeowner's association will be responsible for maintaining the landscape or parking area adjacent to this plat and along the paved surface for Ridge Road.

- I. For those reserves being platted for drainage purposes, the required covenant which provides for ownership and maintenance of the reserves shall grant, to the City, the authority to maintain the drainage reserves in the event the owner(s) fail to do so. The covenant shall provide for the cost of such maintenance to be charged back to the owner(s) by a method similar to special assessments.
- J. The applicant shall submit a covenant which provides for four (4) off-street parking spaces per dwelling unit on each lot which abuts a 58-foot street. The covenant shall inventory the affected lots by lot and block number and shall state that the covenant runs with the land and is binding on future owners and assigns.
- K. Prior to submitting the final plat tracing, the applicant shall meet with staff from the Office of Central Inspection to determine if Lakewood Circle is an appropriate street name in terms of addressing the properties in this development.
- L. On the final plat tracing, the references to the minimum pad elevations shall be amended to note that these elevations refer to the "(lowest opening)" rather than "(minimum opening)."
- M. Prior to release of the final plat tracing for recording, as indicated in the title binder, proof that property taxes have been paid for both 1989 and 1990 will need to be provided. Also, since the submitted title binder for this site is over 8-months old, a revised, updated binder shall be submitted with the final plat tracing.
- N. The applicant shall install or guarantee the installation of all utilities and facilities which are applicable and described in Article 8 of the MAPC Subdivision Regulations.
- O. The applicant's engineer is advised that the Register of Deeds is requiring the name(s) of the notary public, who acknowledges the signatures on this plat, to be printed beneath the notary's signature.
- P. To receive mail delivery without delay, and to avoid unnecessary expense, the applicant is advised of the necessity to meet with the U.S. Postal Service Growth Management Coordinator (phone 316-946-4527) prior to development of the plat so that the type of delivery, and the tentative mailbox locations can be determined.

- Q. The representatives from the utility companies should be prepared to comment on the need for utility easements to be platted on this property.
- R. Perimeter closure computations shall be submitted with the final plat tracing. Section 5-101(c).
- S. Recording of the plat within 30 days after approval by the City Council.
- T. The representative from the City Engineer's office should be prepared to comment on the status of the applicant's drainage plan. Specifically, is the minimum building pad correct?

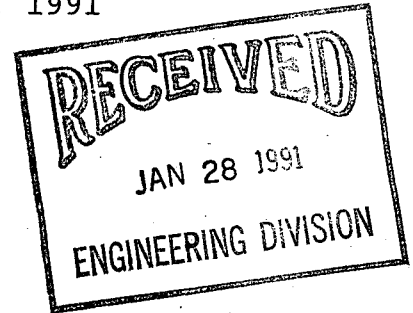
SEDGWICK COUNTY



METROPOLITAN AREA PLANNING  
DEPARTMENT

CITY HALL — TENTH FLOOR  
455 NORTH MAIN STREET  
WICHITA, KANSAS 67202-1688  
(316) 268-4561

January 24, 1991



Gary Wiley  
Professional Engineering Consultants  
303 South Topeka  
Wichita, KS 67202

Re: S/D 91-6 (Final Plat) Reflection Ridge 6th

Dear Gary:

At the regular meeting of the Subdivision Committee of the Metropolitan Area Planning Commission on Thursday, January 24, 1991, the above captioned plat was considered. The action of the Committee was to recommend that this plat be approved subject to:

- A. The applicant shall guarantee the extension of sanitary sewer to serve the lots being platted.
- B. The applicant shall guarantee the extension of City water to serve the lots being platted.
- C. The applicant shall guarantee any drainage improvements required by the platting of this property.
- D. The applicant shall guarantee construction of the storm sewers required by this plat.
- E. The applicant shall guarantee the paving of the proposed interior streets. This guarantee shall also provide for the installation of sidewalk on one side of Reflection Road and Wildrose.
- F. As indicated by the CUP, the applicant shall guarantee the paving of 29th Street North, adjacent to this site, to a two lane standard.
- G. Provisions shall be made for ownership and maintenance of the proposed reserves. The applicant shall either form a lot owners' association prior to recording the plat or shall submit a covenant stating when the association will be formed, when the reserves will be deeded to the association

and who is to own and maintain the reserves prior to the association taking over those responsibilities. This covenant shall also provide that the homeowner's association will be responsible for maintaining the landscape or parking area adjacent to this plat and along the paved surface for Ridge Road.

- H. For those reserves being platted for drainage purposes, the required covenant which provides for ownership and maintenance of the reserves shall grant, to the City, the authority to maintain the drainage reserves in the event the owner(s) fail to do so. The covenant shall provide for the cost of such maintenance to be charged back to the owner(s) by a method similar to special assessments.
- I. The applicant shall submit a covenant which provides for four (4) off-street parking spaces per dwelling unit on each lot which abuts a 58-foot street. The covenant shall inventory the affected lots by lot and block number and shall state that the covenant runs with the land and is binding on future owners and assigns.
- J. On the final plat tracing, the references to the minimum pad elevations shall be amended to note that these elevations refer to the "(lowest opening)" rather than "(minimum opening)."
- K. Prior to release of the final plat tracing for recording, as indicated in the title binder, proof that property taxes have been paid for both 1989 and 1990 will need to be provided. Also, since the submitted title binder for this site is over 8-months old, a revised, updated binder shall be submitted with the final plat tracing.
- L. The applicant shall install or guarantee the installation of all utilities and facilities which are applicable and described in Article 8 of the MAPC Subdivision Regulations.
- M. The applicant's engineer is advised that the Register of Deeds is requiring the name(s) of the notary public, who acknowledges the signatures on this plat, to be printed beneath the notary's signature.
- N. To receive mail delivery without delay, and to avoid unnecessary expense, the applicant is advised of the necessity to meet with the U.S. Postal Service Growth Management Coordinator (phone 316-946-4527) prior to development of the plat so that the type of delivery, and the tentative mailbox locations can be determined.
- O. Perimeter closure computations shall be submitted with the final plat tracing. Section 5-101(c).

S/D 91-6 Reflection Ridge 6th  
Page 3

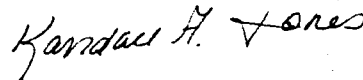
P. Recording of the plat within 30 days after approval by the City Council.

Enclosed with the applicant's copy of this letter is a list of the five methods which have been adopted as being acceptable for guaranteeing improvements required in the approval of plats. The certificate will be required if petitions are submitted. Forms for the bond and irrevocable Letter of Credit are available from this office.

The enclosed "marked" copy of the final plat is for your information and files.

This matter will be forwarded to the Planning Commission for its consideration on Thursday, January 31, 1991 at 1:30 p.m. If you have any questions concerning this matter, please call.

Sincerely,

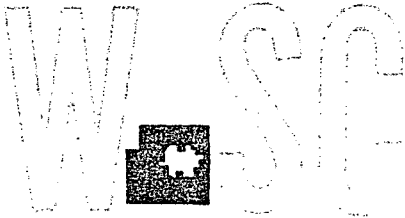


Kandace A. Jones  
Associate Planner

KJ:sm  
Enclosure

cc: Reflection Ridge, Inc., c/o Marvin Schellenberg, 7926 W.  
21st St. N., Wichita, KS 67212  
Mike Lindebak, City Engineer

WICHITA - SEDGWICK COUNTY



METROPOLITAN AREA PLANNING  
DEPARTMENT

CITY HALL — TENTH FLOOR  
455 NORTH MAIN STREET  
WICHITA, KANSAS 67202-1688  
(316) 268-4561

February 4, 1991

Gary Wiley  
P.E.C., P.A.  
303 S. Topeka  
Wichita, KS 67202

Re: S/D 91-6 - Reflection Ridge 6th Addition

At the regular meeting of the Metropolitan Area Planning Commission on January 31, 1991, the above-captioned plat was considered. The action of the Planning Commission was to recommend that the plat be approved as recommended by the Subdivision Committee, subject to the conditions stated in our letter of January 24, 1991.

In addition to complying with those conditions, it is necessary that you meet the following requirements before this plat can be forwarded to the City Council for consideration:

1. Submission of the fully completed and signed tracing of the subdivision to the Metropolitan Area Planning Department.
2. Submission of a check made payable to the Register of Deeds covering the costs of any documents to be recorded as a requirement of platting.

Please call if you have any questions.

Sincerely,

Kandace A. Jones  
Associate Planner

KAJ:jcm

cc: Marvin Schellenberg, Reflection Ridge, Inc., 7926 W. 21st  
St. N., 67212

Mike Tandebak, City Engineer

# MEMO



|                       |                                      |
|-----------------------|--------------------------------------|
| TO: <u>File</u>       | PROJECT NO. <u>36-89469-2273</u>     |
|                       | PROJECT: <u>Reflection Ridge 6th</u> |
|                       | DATE: <u>February 5, 1991</u>        |
| ATTN: <u>GLW, RWL</u> |                                      |

COPIES TO:

- Reflection Ridge, Inc.
- Mike Lindebak, P.E.
- Vicky Huang, P.E.

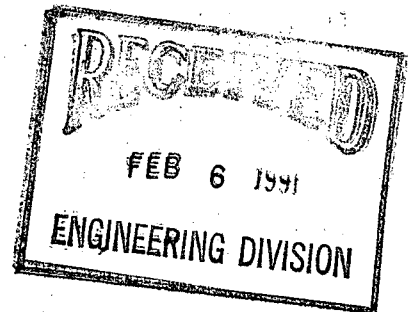
FROM: Charles S. Brown, P.E.

REFERENCE: Meeting January 31, 1991

PLEASE ADVISE IMMEDIATELY OF ANY MISCONCEPTIONS OR OMISSIONS YOU BELIEVE TO BE CONTAINED HEREIN.

A meeting was held at PEC at 11:00 a.m., Thursday January 31, 1991 to discuss phasing and improvement projects of Reflection Ridge 6th Addition. The following people were present:

- Reg Boothe - Reflection Ridge, Inc.
- Marv Schellenberg - Reflection Ridge, Inc.
- Mike Lindebak - City of Wichita
- Gary Wiley - PEC
- Dick Linn - PEC
- Charlie Brown - PEC



The following items were discussed.

- Dick reviewed phasing of the development. Sanitary sewer, water, and streets will be built in 2 phases. Storm water sewer will be built in one phase. Sanitary sewer lift station and force main will also be done in the first phase. A separate petition will be prepared for 29th Street paving (2 lane asphalt mat) from Ridge Road west to Wild Rose. The remaining portion of 29th Street paving (from Wild Rose to the west line of plat) will be the responsibility of the property located to the north or to the west of Reflection Ridge 6th.

The storm water drain project (earthwork, channels, ponds, drainage structures) was then discussed. The estimated cost for internal improvements is \$328,000. The structure crossing Ridge Road would cost an estimated \$324,000 (long enough to accommodate 4-lane improved Ridge Road). In view of the fact that Reflection Ridge 6th accounts for only 1% of the drainage area and noting the City's policy, it was decided that the main structure crossing Ridge Road would be included in the City's CIP Ridge Road Improvements. A smaller culvert will still be required, however, for interim drainage. It was proposed that 1 cell (10' X 3') long enough to accommodate existing 2-lane roadway would suffice. Flood protection is provided by setting minimum pad elevation 1 foot above existing Ridge Road elevation. PEC will review this capacity and develop cost for this structure to include in the Storm Water Drain petition.

2. Mr. Boothe requested input regarding methods to reduce specials:
  - A. Cash payments prior to spreading special assessments.
  - B. Assess portions of project cost to properties other than lots (i.e. golf course, properties to west which will benefit from improvements)
  - C. Privately funded projects rather than City-funded projects.
3. The intersection of Ridge Road and Reflection Road was discussed. The present plat configuration is based on 1-lane in and 1-lane out. It was noted that left turn bays and deceleration lanes on Ridge Road were not required by the City due to amount of traffic on Ridge Road. Mr. Schellenberg returned call to PEC after the meeting and requested that Reflection Road right-of-way accommodate 1 lane in and 2 lanes out. PEC will adjust plat drawing accordingly.
4. Marv and I discussed internal street grades and their relationship to building pads, view out basement windows, etc. Final street design elevations will be such that desired view-out wall heights and adequate flood protection can both be accomplished.
5. Dick will prepare final petition data on Monday, February 4, 1991. Dick and Marv will meet to adjust specials as needed for marketing purposes prior to preparation of final petitions.

# MEMO



TO: Reflection Ridge, Inc. PROJECT NO. 36-89469-2273  
7926 W. 21st St. N. PROJECT: Reflection Ridge  
Wichita, KS 67212 6th Addition  
 ATTN: Mr. Marvin Schellenberg DATE: February 21, 1991

COPIES TO:

Vicky Huang, P.E. City of Wichita FROM: Charles S. Brown, P.E.  
Jim Armour, P.E. City of Wichita REFERENCE: Schedule of Improvements  
File

PLEASE ADVISE IMMEDIATELY OF ANY MISCONCEPTIONS OR OMISSIONS YOU BELIEVE TO BE CONTAINED HEREIN.

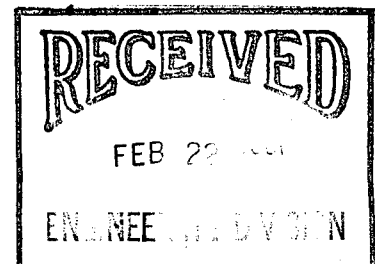
The following is our estimated schedule for the various public improvement projects within Reflection Ridge 6th Addition, Phase 1:

|                                  | Lift Station<br>& Force Main | Sanitary<br>Sewer | Storm<br>Water<br>Drain | Water    | Storm Sewer | Streets  |
|----------------------------------|------------------------------|-------------------|-------------------------|----------|-------------|----------|
| Office Check Plans to City       | 4/12/91                      | 4/12/91           | 5/10/91                 | 5/10/91  | 6/07/91     | 6/07/91  |
| Developer Post Letters of Credit | 4/12/91                      | 4/12/91           | 5/10/91                 | 5/10/91  | 6/07/91     | 6/07/91  |
| Final Plans to City              | 4/26/91                      | 4/26/91           | 5/24/91                 | 5/24/91  | 6/21/91     | 6/21/91  |
| City Council Authorize Bids      | 5/14/91                      | 5/14/91           | 6/11/91                 | 7/09/91  | 7/09/91     | 7/09/91  |
| Open Bids                        | 5/24/91                      | 5/24/91           | 6/21/91                 | 7/19/91  | 7/19/91     | 7/19/91  |
| City Council Approve Bids        | 6/04/91                      | 6/04/91           | 7/02/91                 | 7/30/91  | 7/30/91     | 7/30/91  |
| Start Construction               | 6/24/91                      | 6/24/91           | 7/22/91                 | 8/26/91  | 8/26/91     | 9/30/91  |
| Complete Construction            | 8/23/91                      | 8/23/91           | 9/13/91                 | 10/25/91 | 10/25/91    | 11/29/91 |

This schedule assumes the lift station/force main and the sanitary sewer projects will be tied together under one contract.

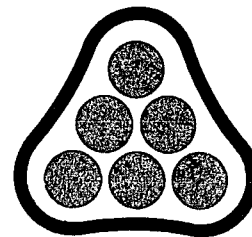
It also assumes that the water distribution and the storm water sewer project will also be tied.

Some overlapping of construction will need to occur to get paving completed before cold weather.

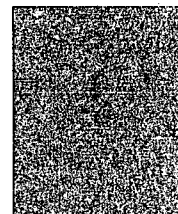


DIRECTORS

- C. O. KNOP, P.E.
- W. H. KELTNER, P.E.
- R. D. PLETCHER, P.E.
- D. E. MALTBIE, P.E.
- M. D. SCHOMAKER, P.E.
- G. D. SCHOCK, P.E.
- J. H. BAILEY, P.E., PH.D.
- D. I. NORTON, P.E.
- B. E. REMSBERG, P.E.
- G. K. GREENWOOD, P.E.
- D. E. HAGER, P.E.



**P**  
**E**  
**C**  
PROFESSIONAL ASSOCIATION



March 5, 1991

Mr. Bob Shepherd  
 Chief Plumbing and Mechanical Inspector  
 City of Wichita  
 Office of Central Inspection  
 7th Floor - City Hall  
 455 N. Main  
 Wichita, KS 67202

Reference: Reflection Ridge 6th Addition  
 Sanitary Sewer Improvements  
 PEC Project No. 34-91081-4-042

Dear Mr. Shepherd:

The intent of this letter is to request your approval for 4" sanitary sewer services in the Reflection Ridge 6th Addition. These services would be constructed at a minimum slope of 1/8" per ft. (1%) as provided for in the exception to Section 1106 of the Uniform Plumbing Code.

Due to groundwater elevations of approximately 5.5 feet below existing ground, we believe that the 1/8" per ft. minimum slope is justified in order to minimize the depth of the proposed 8" sewer main and reduce dewatering expenses during construction.

Your approval of this request would be appreciated. Please contact the undersigned at 262-2691 if you have any questions or require additional information.

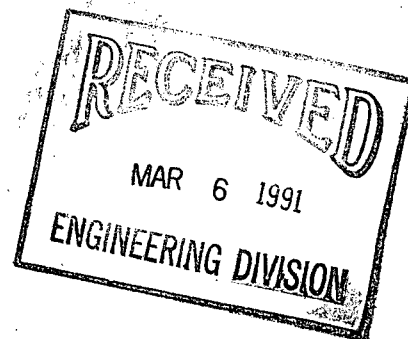
Very truly yours,

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

D. Lynn Moore, P.E.  
 Project Manager

DLM/cas

cc: Vicky Huang, P.E.



303 S. TOPEKA  
 WICHITA, KANSAS 67202  
 (316) 262-2691  
 FAX (316) 262-3003

# TRANSMITTAL

TO: Thomas Powell  
Director of Law

ATTENTION: Douglas Moshier

FROM: Vicky Huang, P.E. *VH*

CITY OF WICHITA  
CITY ENGINEER'S OFFICE  
455 N. MAIN, 7TH FLOOR  
WICHITA, KANSAS 67202

TELEPHONE: 268-4236 or (316) 268-4501

**PROJECT TITLE:**

Agreement to respread special assessment.

**PROJECT NUMBER:**

**DATE:**

*3/11/91*

**THE FOLLOWING ITEMS ARE BEING TRANSMITTED TO YOU:**

- Plans, prints or tracings     Specifications     Certificate of Insurance     Petition  
 Change order     Correspondence     Agreement form  
 Other \_\_\_\_\_

**THE ITEMS ARE BEING TRANSMITTED FOR THE FOLLOWING PURPOSE:**

- For your approval and signature     For your files     For your use  
 For your review and resubmittal     Returned for revisions     To advise of approval  
 Other \_\_\_\_\_

**COMMENTS:**

Please review the attached agreement and sign the "approved as to form" so that we may schedule it for City Council's approval.

Thank you.

:wt  
Attachment

AGREEMENT

BY AND BETWEEN

THE CITY OF WICHITA, KANSAS,  
Party of the First Part

and

Reflection Ridge, Inc.  
Party of the Second Part

WHEREAS, Party of the First Part has constructed certain municipal improvements in the area of Reflection Ridge, within the City Limits of the City of Wichita; and

WHEREAS, Party of the Second Part is the landowner of all or part of the improvement district; and

WHEREAS, portion of the improvement district of said improvements has been platted and/or replatted; and

WHEREAS, Party of the Second Part desires that a reassessment be made to reflect the changes in platting; and

WHEREAS, the Party of the First Part and Party of the Second Part are both desirous of accomplishing such a reassessment.

NOW, THEREFORE, in consideration of the mutual covenants and promises herein contained, the parties agree as follows:

1. E 1/2 of N.E. 1/4 of Sec. 4, Twp. 27 S., R. 1 W., D-744-UP & D-745-UP was part of the improvement district for the following City project(s):

Main 15, Southwest Interceptor Sewer  
Project J-40470, Code 67-26

Said property was replatted as Reflection Ridge 6th Addition.

2. The Parties agree to make a reassessment for said project in the following manner;

The assessments to D-744-UP (\$2,350.80 annual) and to D-745-UP (\$3,022.46 annual) are to be pro-rated to Lots 1 through 57, Block 1 and Lots 1 through 38, Block 2, Reflection Ridge 6th Addition on an equal fraction basis (1/95 each).

3. The Party of the Second Part is the owner of the property described in section one above and said Party of the Second Part hereby waives the notice and hearing requirements of K.S.A. 12-6a12(b) with respect to the reassessment herein described.

4. The Party of the Second Part further waives his right to appeal the special assessments for the above mentioned projects (including this described reassessment) and agrees that no suit to set aside said assessment shall be brought by him nor shall he in any other way bring an action to question the validity of the proceedings taken by the Party of the First Part in constructing this project and levying the special assessments therefor.

5. The Party of the Second Part further agrees that he will indemnify the Party of the First Part against any and all costs, expenses, claims and judgements for which the Party of the First Part is held responsible or which are entered against the Party of the First Part arising out of or as a result of the reassessment herein described.

6. Where the ownership of a single lot is or may be divided into two or more parcels, the assessment to the lot so divided shall be assessed to each ownership or parcel on a square foot basis.

IN WITNESS WHEREOF, The Parties hereto have executed this agreement the  
of \_\_\_\_\_, 19\_\_.

THE CITY OF WICHITA, KANSAS

Approved as to form:

BY \_\_\_\_\_  
Mayor  
Party of the First Part

\_\_\_\_\_  
Director of Law

Attest:

\_\_\_\_\_  
City Clerk

REFLECTION RIDGE, INC.

Marvin Schellenberg  
Marvin Schellenberg, Vice President  
Party of the Second Part

STATE OF KANSAS )  
                          ) SS:  
SEDGWICK COUNTY )

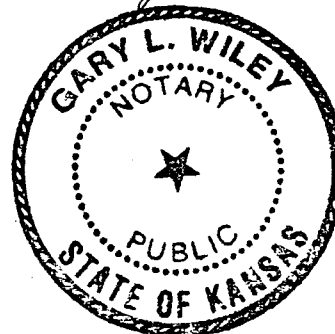
BE IT REMEMBERED, That on this 25th day of FEBRUARY,  
1991, before me, the undersigned, a Notary Public in and for the County and  
State aforesaid, came Marvin Schellenberg, V.P of Reflection Ridge, Inc.,  
personally known to me to be the same person who executed the within  
instrument of writing and such person duly acknowledged the execution of the  
same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official  
seal, the day and year last above written.

Gary L. Wiley  
Notary Public

My Appointment Expires:

JAN. 3, 1993



Agenda Item No. \_\_\_\_\_

CITY OF WICHITA  
CITY COUNCIL MEETING

April 2, 1991

Agenda Report No. \_\_\_\_\_

**TO:** Mayor and City Council Members

**SUBJECT:** Agreement to Respread Special Assessments - Reflection Ridge Addition

**INITIATED BY:** Department of Public Works

**AGENDA ACTION:** Consent Agenda

-----

**Recommendation:** Approve the agreement.

**Background:** The developer of Reflection Ridge Addition has submitted an agreement to respread special assessments within the development. The affected project is Main 15, Southwest Interceptor Sewer.

**Analysis:** The assessments will be respread on an equal share per lot basis.

**Financial Considerations:** There is no additional cost to the City.

**Recommendation/Action:** It is recommended that the City Council approve the agreement and authorize the Mayor to sign.

BM:gnz

THE CITY OF WICHITA

OFFICE OF LAW DEPARTMENT

DATE: March 18, 1991

TO: Vicky Huang, Subdivision Engineer

FROM: Douglas J. Moshier, Senior Attorney

SUBJECT: Agreement for Respread  
Assessments

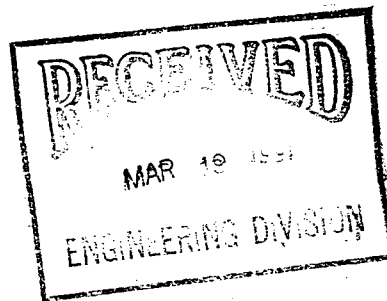
The attached Agreement for respreading assessments in Reflection Ridge, Inc., is approved as to form.



Douglas J. Moshier  
Senior Attorney

DJM:cdh

Attachment



AGREEMENT

BY AND BETWEEN

THE CITY OF WICHITA, KANSAS,  
Party of the First Part

and

Reflection Ridge, Inc.  
Party of the Second Part

WHEREAS, Party of the First Part has constructed certain municipal improvements in the area of Reflection Ridge, within the City Limits of the City of Wichita; and

WHEREAS, Party of the Second Part is the landowner of all or part of the improvement district; and

WHEREAS, portion of the improvement district of said improvements has been platted and/or replatted; and

WHEREAS, Party of the Second Part desires that a reassessment be made to reflect the changes in platting; and

WHEREAS, the Party of the First Part and Party of the Second Part are both desirous of accomplishing such a reassessment.

NOW, THEREFORE, in consideration of the mutual covenants and promises herein contained, the parties agree as follows:

1. E 1/2 of N.E. 1/4 of Sec. 4, Twp. 27 S., R. 1 W., D-744-UP & D-745-UP  
was part of the improvement district for the following City project(s):

Main 15, Southwest Interceptor Sewer  
Project J-40470, Code 67-26

Said property was replatted as Reflection Ridge 6th Addition.

2. The Parties agree to make a reassessment for said project in the following manner;

The assessments to D-744-UP (\$2,350.80 annual) and to D-745-UP (\$3,022.46 annual) are to be pro-rated to Lots 1 through 57, Block 1 and Lots 1 through 38, Block 2, Reflection Ridge 6th Addition on an equal fraction basis (1/95 each).

3. The Party of the Second Part is the owner of the property described in section one above and said Party of the Second Part hereby waives the notice and hearing requirements of K.S.A. 12-6a12(b) with respect to the reassessment herein described.

4. The Party of the Second Part further waives his right to appeal the special assessments for the above mentioned projects (including this described reassessment) and agrees that no suit to set aside said assessment shall be brought by him nor shall he in any other way bring an action to question the validity of the proceedings taken by the Party of the First Part in constructing this project and levying the special assessments therefor.

5. The Party of the Second Part further agrees that he will indemnify the Party of the First Part against any and all costs, expenses, claims and judgements for which the Party of the First Part is held responsible or which are entered against the Party of the First Part arising out of or as a result of the reassessment herein described.

6. Where the ownership of a single lot is or may be divided into two or more parcels, the assessment to the lot so divided shall be assessed to each ownership or parcel on a square foot basis.

IN WITNESS WHEREOF, The Parties hereto have executed this agreement the  
of \_\_\_\_\_, 19\_\_.

THE CITY OF WICHITA, KANSAS

Approved as to form:

Thomas A. P... [Signature]  
Director of Law

BY \_\_\_\_\_  
Mayor  
Party of the First Part

Attest:

\_\_\_\_\_  
City Clerk

REFLECTION RIDGE, INC.

Marvin Schellenberg [Signature]  
Marvin Schellenberg, Vice President  
Party of the Second Part

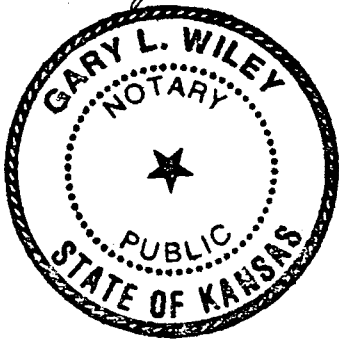
STATE OF KANSAS )  
                          ) SS:  
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 G. K. GREENWOOD, P.E., ASSISTANT MGR.

**CONSTRUCTION DIVISION**  
 J. B. McDANIEL, JR., GEOLOGIST, MANAGER  
 A. D. WARD, C.E.T., LAB SUPERVISOR  
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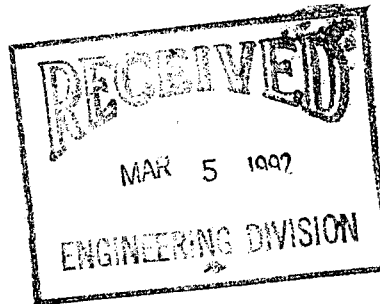


**ALLIED  
 LABORATORIES**

A DEPARTMENT OF PROFESSIONAL  
 ENGINEERING CONSULTANTS, P.A.

February 28, 1992

City of Wichita  
 Central Inspection Department  
 City Hall - Seventh Floor  
 455 North Main Street  
 Wichita, Kansas 67202



Attention: Mr. Mike Lindebak, P.E.

Re: Reflection Ridge - 6th Addition  
 Asphaltic Concrete Surface Course Testing (SC-1)  
 A/L File No. 71-91387-6-042

Sir:

Following are the results of tests performed on samples of asphaltic concrete and cold feed virgin aggregates obtained by our personnel. The samples were taken during placements on February 25 & 26, 1992.

**ASPHALTIC CEMENT CONTENT ASTM D-2172**

| <u>Sample I.D.</u> | <u>Actual<br/>% Aggregate</u> | <u>Design %</u> |
|--------------------|-------------------------------|-----------------|
| 2/25/92            | 5.65                          | 5.00            |
| 2/26/92            | 5.57                          | 5.00            |

**MARSHALL PROPERTIES ASTM D-1559**

| <u>Sample I.D.</u> | <u>Stability<br/>lbs.</u> | <u>Flow<br/>1/100 in.</u> | <u>% Voids</u> | <u>% Voids<br/>Filled</u> | <u>Unit Wt.<br/>P.C.F.</u> |
|--------------------|---------------------------|---------------------------|----------------|---------------------------|----------------------------|
| 2/25/92            | 2135                      | 12                        | 2.2            | 82.3                      | 148.6                      |
| 2/26/92            | 2332                      | 11                        | 2.7            | 78.7                      | 148.2                      |
| Specified (SC-1)   | 1600 min.                 | 8-16                      | 3-5            | 70 min.                   |                            |

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 303 SOUTH TOPEKA  
 WICHITA, KANSAS 67202

CONSTRUCTION DIVISION  
 LOCATED AT  
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 WICHITA, KANSAS 67211  
 (316) 262-6457  
 FAX NO. (316) 262-6592

SURVEY / GEO-ENVIRONMENTAL  
 DIVISIONS LOCATED AT  
 355 ELLIS  
 WICHITA, KANSAS 67211  
 (316) 262-5332  
 FAX NO. (316) 262-0736

Page 2  
 Reflection Ridge 6th Addition  
 Bituminous Surface Course Testing (SC-1)

SIEVE ANALYSIS OF EXTRACTED AGGREGATE ASTM C-117, C-136

| Sample I.D.                    | Sieve Size | % Retained |     |     |                 |                 |                 |                 |                 |     |                 |
|--------------------------------|------------|------------|-----|-----|-----------------|-----------------|-----------------|-----------------|-----------------|-----|-----------------|
|                                |            | 3/4        | 1/2 | 3/8 | 4               | 8               | 16              | 30              | 50              | 100 | 200             |
| 2/25/92                        |            | 0          | 6   | 10  | 22              | 36              | 51              | 67              | 80              | 88  | 90.1            |
| 2/26/92                        |            | 0          | 6   | 12  | 25              | 38              | 53              | 69              | 82              | 89  | 91.1            |
| SC-1 Master<br>Grading Limits  |            | 0          |     |     |                 | <u>30</u><br>55 |                 | <u>55</u><br>70 |                 |     | <u>88</u><br>94 |
| SC-1 Job Mix<br>Grading Limits |            | 0          |     |     | <u>19</u><br>31 | <u>31</u><br>43 | <u>47</u><br>59 | <u>59</u><br>70 | <u>71</u><br>81 |     | <u>88</u><br>94 |

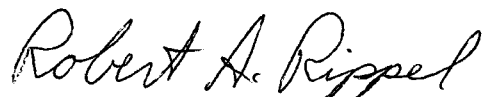
SIEVE ANALYSIS (cold feed) ASTM C-136,117

| Sample I.D.                    | Sieve Size | % Retained |     |     |                 |                 |                 |                 |                 |     |                 |
|--------------------------------|------------|------------|-----|-----|-----------------|-----------------|-----------------|-----------------|-----------------|-----|-----------------|
|                                |            | 3/4        | 1/2 | 3/8 | 4               | 8               | 16              | 30              | 50              | 100 | 200             |
| 2/25/92                        |            | 0          | 7   | 13  | 24              | 37              | 51              | 67              | 80              | 88  | 90.6            |
| 2/26/92                        |            | 0          | 9   | 18  | 29              | 41              | 54              | 70              | 82              | 88  | 90.7            |
| SC-1 Master<br>Grading Limits  |            | 0          |     |     |                 | <u>30</u><br>55 |                 | <u>55</u><br>70 |                 |     | <u>88</u><br>94 |
| SC-1 Job Mix<br>Grading Limits |            | 0          |     |     | <u>19</u><br>31 | <u>31</u><br>43 | <u>47</u><br>59 | <u>59</u><br>70 | <u>71</u><br>81 |     | <u>88</u><br>94 |

Should questions arise, please advise at your convenience.

Very truly yours,

ALLIED LABORATORIES



Robert A. Rippel, C.E.T.  
 Assistant Laboratory Supervisor

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February 24, 1992

City of Wichita  
Central Inspection Department  
City Hall - Seventh Floor  
455 North Main Street  
Wichita, Kansas 67202

Attention: Mr. Mike Lindebak, P.E.

Re: Reflection Ridge - 6th Addition  
Soil Testing  
A/L File No. 71-91387-6-042

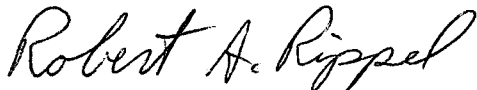
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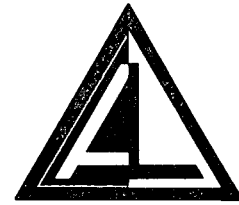
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ALLIED LABORATORIES



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attachments



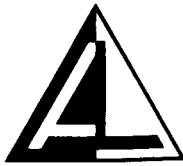
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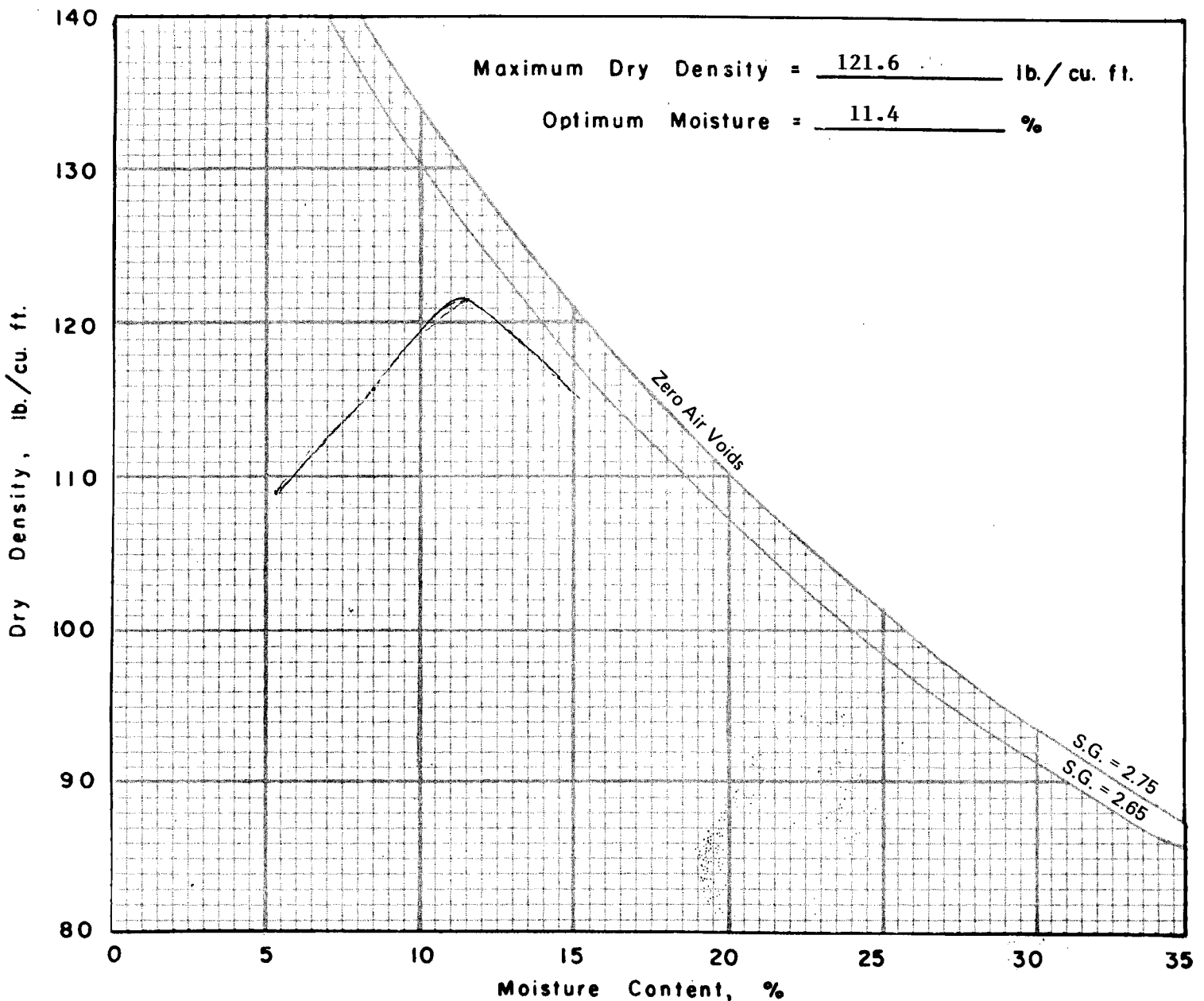
## MOISTURE - DENSITY RELATIONSHIP

(No. 2347)

Project: REFLECTION RIDGE

Sampled: STATION 39+30 RET. ROAD

Material: RED BROWN SANDY SILT Date: 2-24-92



AASHTO Designation T-99 ASTM Designation D-698

Weight of Hammer 5.5 lb. Drop 12 in. Lifts 3

Blows/Lift 25 Dia. of Cyl. 4 in. Vol. of Cyl. 1/30 cu. ft.

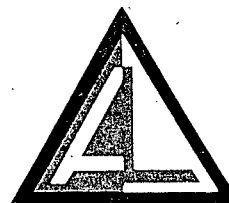
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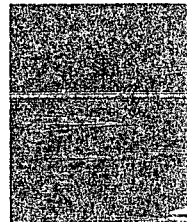
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February 24, 1992

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Soil Testing  
A/L File No. 71-91387-6-042

Sir:

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Should questions arise, please contact us at your convenience.

Very truly yours,

ALLIED LABORATORIES

Robert A. Rippel, C.E.T.  
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attachments

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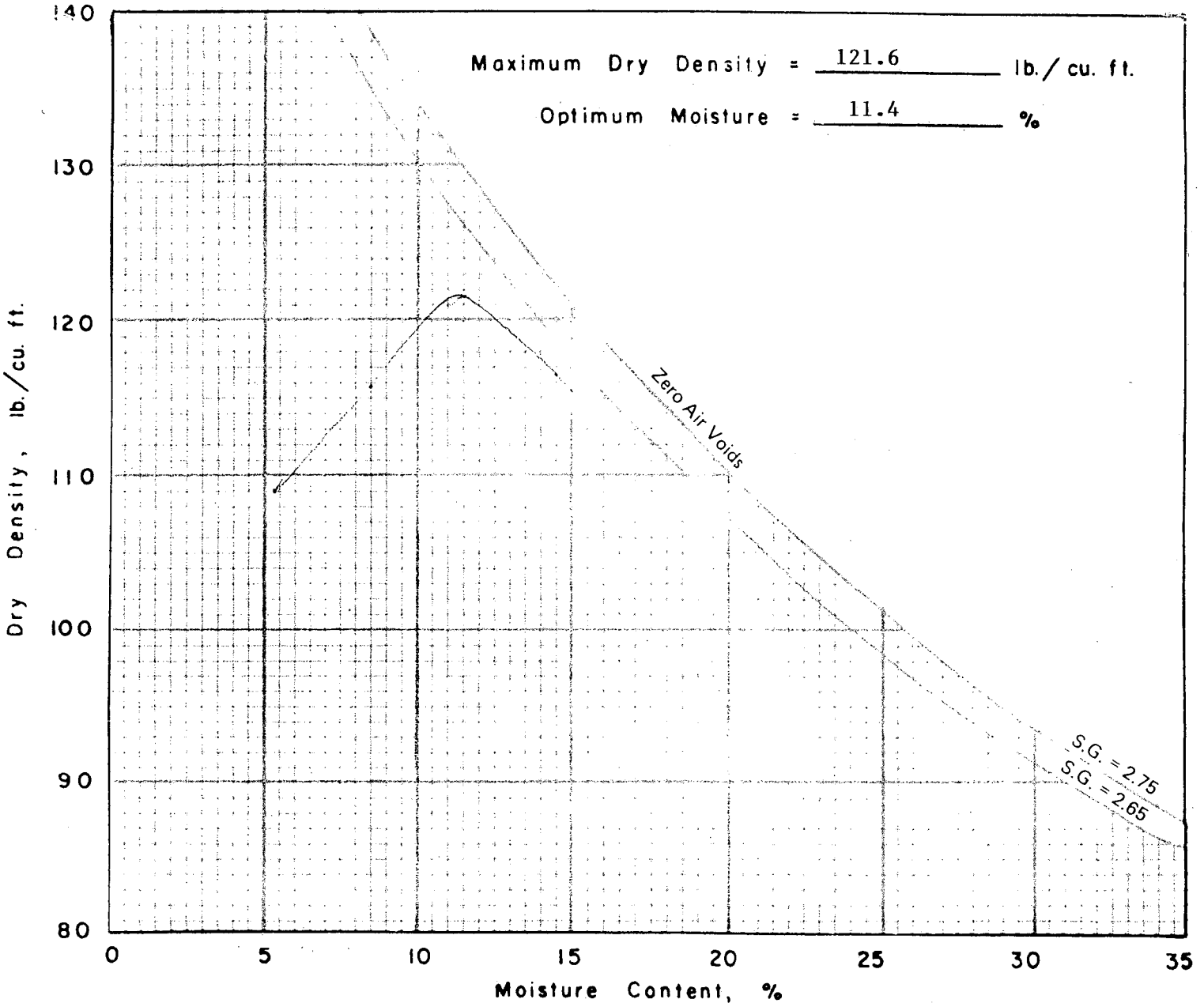
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(No. 2347 )

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Sampled: STATION 39+30 RET. ROAD

Material: RED BROWN SANDY SILT Date: 2-24-92



AASHTO Designation T-99 ASTM Designation D-698

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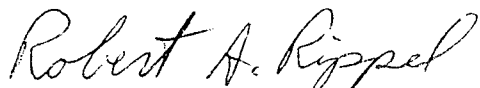
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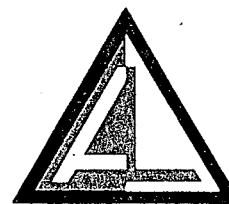
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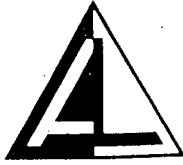
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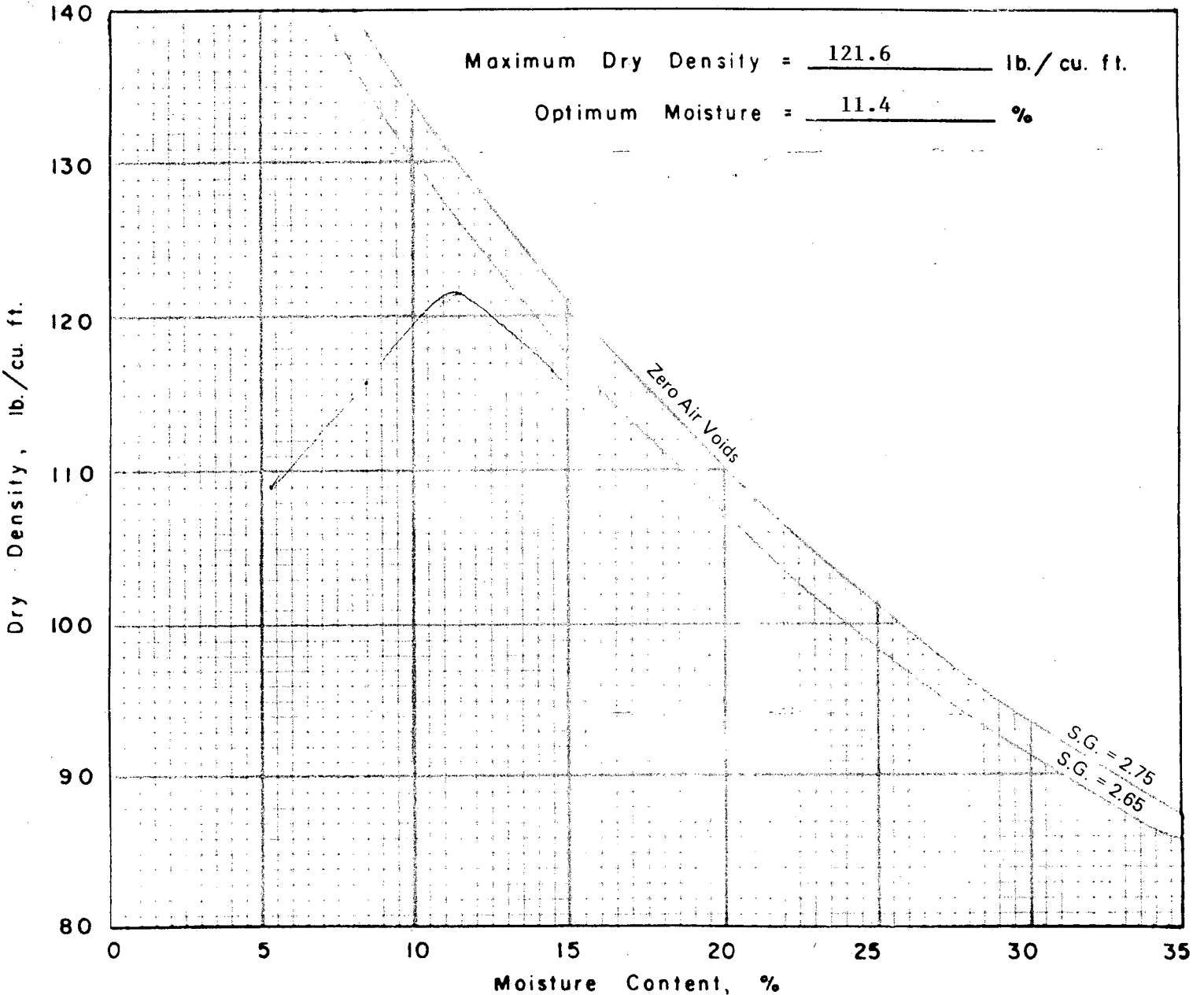
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Blows/Lift 25 Dia. of Cyl. 4 in. Vol. of Cyl. 1/30 cu. ft.

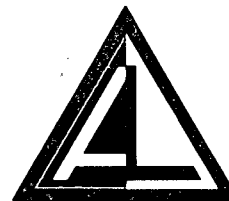
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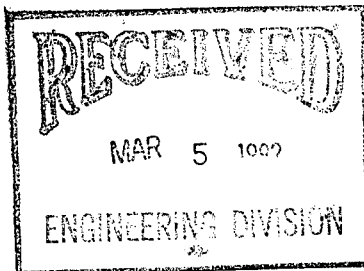
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February 27, 1992

City of Wichita  
Central Inspection Department  
City Hall - Seventh Floor  
455 North Main Street  
Wichita, Kansas 67202



**ALLIED  
LABORATORIES**

A DEPARTMENT OF PROFESSIONAL  
ENGINEERING CONSULTANTS, P.A.

Attention: Mr. Mike Lindebak, P.E.

Re: Reflection Ridge - 6th Addition  
Asphaltic Concrete Base Testing (BC-1)  
A/L File No. 71-91387-6-042

Sir:

Following are the results of tests performed on samples of asphaltic concrete and cold feed virgin aggregates obtained by our personnel. The samples were taken during placement on February 24, 1992.

**ASPHALTIC CEMENT CONTENT ASTM D-2172**

| <u>Sample I.D.</u>          | <u>Actual<br/>% Aggregate</u> | <u>Design %</u> |
|-----------------------------|-------------------------------|-----------------|
| 2/24/92 Sta. 2+25 Willowood | 5.46                          | 4.80            |

**MARSHALL PROPERTIES ASTM D-1559**

| <u>Sample I.D.</u>             | <u>Stability<br/>lbs.</u> | <u>Flow<br/>1/100 in.</u> | <u>% Voids</u> | <u>% Voids<br/>Filled</u> | <u>Unit Wt.<br/>P.C.F.</u> |
|--------------------------------|---------------------------|---------------------------|----------------|---------------------------|----------------------------|
| 2/24/92 Sta. 2+25<br>Willowood | 3003                      | 10                        | 4.0            | 73.6                      | 145.3                      |
| Specified (BC-1)               | 1000 min.                 | 8-16                      | 3-7            | 70 min.                   |                            |

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Page 2  
 Reflection Ridge 6th Addition  
 Bituminous Base Course Testing (BC-1)

SIEVE ANALYSIS OF EXTRACTED AGGREGATE ASTM C-117, C-136

| Sample I.D.                    | Sieve Size | % Retained |     |                |                 |                 |                 |                 |    |     |                 |
|--------------------------------|------------|------------|-----|----------------|-----------------|-----------------|-----------------|-----------------|----|-----|-----------------|
|                                |            | 3/4        | 1/2 | 3/8            | 4               | 8               | 16              | 30              | 50 | 100 | 200             |
| 2/24/92 Sta. 2+25<br>Willowood |            | 0          | 3   | 5              | 17              | 33              | 49              | 65              | 80 | 88  | 90.7            |
| BC-1 Master<br>Grading Limits  |            | 0          |     | <u>5</u><br>35 |                 | <u>25</u><br>66 |                 | <u>55</u><br>82 |    |     | <u>84</u><br>95 |
| BC-1 Job Mix<br>Grading Limits |            | 0          |     | <u>5</u><br>35 | <u>11</u><br>25 | <u>27</u><br>39 | <u>46</u><br>58 | <u>62</u><br>74 |    |     | <u>84</u><br>95 |

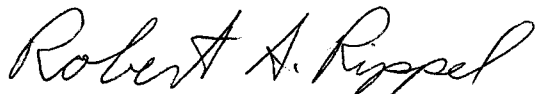
SIEVE ANALYSIS (cold feed) ASTM C-136,117

| Sample I.D.   | Sieve Size | % Retained |     |     |    |    |    |    |    |     |      |
|---|------------|------------|-----|-----|----|----|----|----|----|-----|------|
|   |            | 3/4        | 1/2 | 3/8 | 4  | 8  | 16 | 30 | 50 | 100 | 200  |
| 2/24/92 Sta. 2+25<br>Willowood                        |            | 0          | 5   | 10  | 20 | 35 | 51 | 67 | 81 | 89  | 91.1 |
| Virgin Aggregates<br>Theo. Combined<br>Target Grading |            | 0          | -   | 8   | 17 | 33 | 54 | 70 | 84 | 91  | 93.1 |

Should questions arise, please advise at your convenience.

Very truly yours,

ALLIED LABORATORIES



Robert A. Rippel, C.E.T.  
 Assistant Laboratory Supervisor

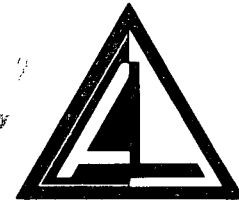
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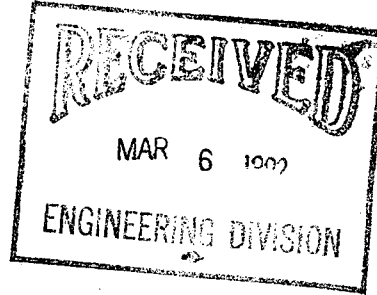


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A DEPARTMENT OF PROFESSIONAL  
 ENGINEERING CONSULTANTS, P.A.

March 3, 1992

City of Wichita  
 Central Inspection Department  
 City Hall - Seventh Floor  
 455 North Main Street  
 Wichita, Kansas 67202



Attention: Mr. Mike Lindebak, P.E.

Re: Reflection Ridge - 6th Addition  
 Asphaltic Concrete Base Testing (BC-1)  
 A/L File No. 71-91387-6-042

Sir:

Following are the results of tests performed on samples of asphaltic concrete and cold feed virgin aggregates obtained by our personnel. The samples were taken during placement on March 2, 1992 from Reflection Ridge Court.

**ASPHALTIC CEMENT CONTENT ASTM D-2172**

| <u>Sample I.D.</u> | <u>Actual<br/>% Aggregate</u> | <u>Design %</u> |
|--------------------|-------------------------------|-----------------|
| 3/2/92             | 5.81                          | 4.80            |

**MARSHALL PROPERTIES ASTM D-1559**

| <u>Sample I.D.</u> | <u>Stability<br/>lbs.</u> | <u>Flow<br/>1/100 in.</u> | <u>% Voids</u> | <u>% Voids<br/>Filled</u> | <u>Unit Wt.<br/>P.C.F.</u> |
|--------------------|---------------------------|---------------------------|----------------|---------------------------|----------------------------|
| 3/2/92             | 2177                      | 10                        | 3.8            | 73.6                      | 146.0                      |
| Specified (BC-1)   | 1000 min.                 | 8-16                      | 3-7            | 70 min.                   |                            |

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Page 2  
 Reflection Ridge 6th Addition  
 Bituminous Base Course Testing (BC-1)

SIEVE ANALYSIS OF EXTRACTED AGGREGATE ASTM C-117, C-136

| Sample I.D.                    | Sieve Size | % Retained |     |                |                 |                 |                 |                 |    |     |                 |
|--------------------------------|------------|------------|-----|----------------|-----------------|-----------------|-----------------|-----------------|----|-----|-----------------|
|                                |            | 3/4        | 1/2 | 3/8            | 4               | 8               | 16              | 30              | 50 | 100 | 200             |
| 3/2/92                         |            | 0          | 5   | 8              | 19              | 35              | 50              | 67              | 82 | 90  | 92.3            |
| BC-1 Master<br>Grading Limits  |            | 0          |     | <u>5</u><br>35 |                 | <u>25</u><br>66 |                 | <u>55</u><br>82 |    |     | <u>84</u><br>95 |
| BC-1 Job Mix<br>Grading Limits |            | 0          |     | <u>5</u><br>35 | <u>11</u><br>25 | <u>27</u><br>39 | <u>46</u><br>58 | <u>62</u><br>74 |    |     | <u>84</u><br>95 |

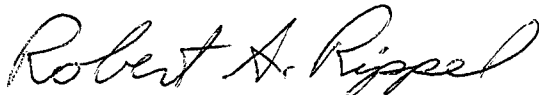
SIEVE ANALYSIS (cold feed) ASTM C-136,117

| Sample I.D.   | Sieve Size | % Retained |     |     |    |    |    |    |    |     |      |
|---|------------|------------|-----|-----|----|----|----|----|----|-----|------|
|   |            | 3/4        | 1/2 | 3/8 | 4  | 8  | 16 | 30 | 50 | 100 | 200  |
| 3/2/92  |            | 0          | 6   | 11  | 27 | 42 | 55 | 69 | 82 | 89  | 91.2 |
| Virgin Aggregates<br>Theo. Combined<br>Target Grading |            | 0          | -   | 8   | 17 | 33 | 54 | 70 | 84 | 91  | 93.1 |

Should questions arise, please advise at your convenience.

Very truly yours,

ALLIED LABORATORIES



Robert A. Rippel, C.E.T.  
 Assistant Laboratory Supervisor

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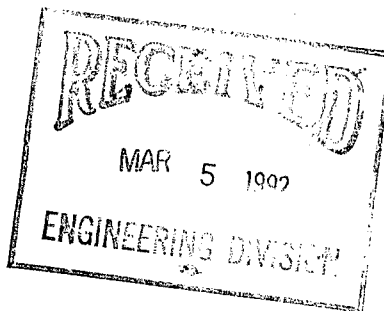


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A DEPARTMENT OF PROFESSIONAL  
 ENGINEERING CONSULTANTS, P.A.

March 3, 1992

City of Wichita  
 Central Inspection Department  
 City Hall - Seventh Floor  
 455 North Main Street  
 Wichita, Kansas 67202



Attention: Mr. Mike Lindebak, P.E.

Re: Reflection Ridge - 6th Addition  
 Asphaltic Concrete Core Density Testing  
 A/L File No. 71-91387-6-042

Sir:

Following are the results of tests performed on core samples of asphaltic concrete obtained by the Allied Laboratories personnel from the above referenced project. The cores were taken at the locations listed below.

**ASPHALTIC CONCRETE CORE DENSITY**

**BASE COURSE**

| <u>Sample I.D. and Location</u>              | <u>Core Density P.C.F.</u> | <u>Marshall Density P.C.F.</u> | <u>% Compaction</u> | <u>Thickness inches</u> |
|--|----------------------------|--------------------------------|---------------------|-------------------------|
| Placed 2/11/92                               |                            |                                |                     |                         |
| 1A BC-1 Wild Rose Ct. 62+12 2'Lt $\text{C}$  | 139.3                      | 145.8                          | 95.5                | 2.9                     |
| 2A BC-1 Wild Rose Ct. 65+00 2'Lt $\text{C}$  | 139.0                      | 145.8                          | 95.3                | 3.1                     |
| 3A BC-1 Wild Rose Ct. 66+55 $\text{C}$       | 135.1                      | 145.8                          | 92.7 *              | 2.8                     |
| 4A BC-1 Lakewood Crcl 56+50 4'Rt $\text{C}$  | 135.8                      | 145.8                          | 93.1 *              | 2.5                     |
| 5A BC-1 Lakewood Crcl 53+00 12'Lt $\text{C}$ | 133.7                      | 145.8                          | 91.7 *              | 2.8                     |
| 6A BC-1 Wild Rose 15+85 $\text{C}$           | 135.2                      | 145.8                          | 92.7 *              | 2.9                     |
| Placed 2/24/92                               |                            |                                |                     |                         |
| 7A BC-1 Wild Rose 12+83 $\text{C}$           | 137.4                      | 145.3                          | 94.6 *              | 3.9                     |
| 8A BC-1 Wild Rose 9+12 8'Lt $\text{C}$       | 141.5                      | 145.3                          | 97.4                | 4.0                     |
| 9A BC-1 Wild Rose 5+18 5'Rt $\text{C}$       | 138.3                      | 145.3                          | 95.2                | 3.6                     |

\* Fails to meet project specifications.

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 (316) 262-5332  
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Reflection Ridge - 6th Addition  
 Asphaltic Concrete Core Density Testing

**SURFACE COURSE**


| <u>Sample I.D. and Location</u> |       |   | <u>Core<br/>Density<br/>P.C.F.</u> | <u>Marshall<br/>Density<br/>P.C.F.</u> | <u>%<br/>Compaction</u> | <u>Thickness<br/>inches</u> |
|---------------------------------|-------|---|------------------------------------|--|-------------------------|-----------------------------|
| Placed 2/25/92                  |       |   |                                    |  |                         |                             |
| 1B SC-1 Wild Rose Ct. 62+12     | 2'Lt  | £ | 142.4                              | 148.6                                  | 95.8                    | 1.6                         |
| 2B SC-1 Wild Rose Ct. 65+00     | 2'Lt  | £ | 143.5                              | 148.6                                  | 96.6                    | 2.5                         |
| 3B SC-1 Wild Rose Ct. 66+55     |       | £ | 139.6                              | 148.6                                  | 93.9 *                  | 3.0                         |
| 4B SC-1 Lakewood Crcl 56+50     | 4'Rt  | £ | 141.0                              | 148.6                                  | 94.9 *                  | 2.7                         |
| 5B SC-1 Lakewood Crcl 53+00     | 12'Lt | £ | 138.2                              | 148.6                                  | 93.0 *                  | 2.7                         |
| 6B SC-1 Wild Rose 15+85         |       | £ | 144.3                              | 148.6                                  | 97.1                    | 2.4                         |
| Placed 2/26/92                  |       |   |                                    |  |                         |                             |
| 7B SC-1 Wild Rose 12+83         |       | £ | 144.1                              | 148.2                                  | 97.2                    | 2.1                         |
| 8B SC-1 Wild Rose 9+12          | 8'Lt  | £ | 143.1                              | 148.2                                  | 96.6                    | 2.1                         |
| 9B SC-1 Wild Rose 5+18          | 5'Rt  | £ | 142.4                              | 148.2                                  | 96.1                    | 2.0                         |

\* Fails to meet project specifications.

Should questions arise, please advise at your convenience.

Very truly yours,

ALLIED LABORATORIES



Robert A. Rippel, C.E.T.  
 Assistant Laboratory Supervisor

THE CITY OF WICHITA  
OFFICE OF PUBLIC WORKS - ENGINEERING

DATE: March 11, 1992

TO: Chris Cherches, City Manager

FROM: Steve Lackey, P.E., Director of Public Works

SUBJECT: Westlink/Rolling Hills  
Drainage

Please find attached the latest in a long list of correspondence with the Corps of Engineers regarding the Westlink/Rolling Hills Drainage Project. As you can see, they are just putting the same requests for information in this latest letter as they have in every other letter they have sent us in response to our inquiries regarding the status of the 404 permit application. I feel that the City has provided adequate responses to the Corps' requests for information each and every time, but they will not make a decision on this matter one way or the other. While I would obviously like to see the project approved as submitted, I feel they should have given us an answer months ago even if it was no, so we could have proceeded in some manner. To coin a phrase "The natives are getting restless" over the inaction. They have asked Chris Breitenstein, our Drainage Engineer, if it would do any good to file suit to get a decision. Chris told them no, that it would probably just slow down things even more.

I am attaching copies of all of the correspondence since we applied for a permit from the Division of Water Resources (State) in September of 1990, except a copy of the minutes from the Public Hearing the Corps held in July, 1991 (26 pages). Also here is a brief overview of correspondence since Sept. of 1990.

In September of 1990, the City applied to the Kansas State Board of Agriculture, Division of Water Resources for a channel change permit. On October 5th the DWR sent out an application notice to a number of state and federal agencies for comments as required by the Environmental Coordination Act, K.S.A. 82a325 to 327. As a result of that notice the Corps of Engineers (COE) advised the City on October 16, 1990, that a 404 Permit from them would be required since the project would be placing fill into "Rolling Hills Creek". Even though the project has 28,000 C.Y. of excavation and approximately 10,000 yards of backfill, gabions and concrete. On November 6th the City submitted a permit application to the COE including a complete set of plans. On Nov. 9th the COE responded and requested a set of detailed drawings on 8 1/2 by 11 paper for inclusion in their public notice. The City did this at no small cost (Chris regularly receives COE public notices on all projects within the Kansas City District, and has never seen anything in the detail that the City was required to provide this). In November the City received a letter from the Wildlife and Parks saying that a project action permit would be required due to the endangered species "Eastern Spotted Skunk" habitat. During the spring of 1991 the City continued to provide information to various agencies as necessary. In May Wildlife and Parks stated in a letter that while mitigation would be required they would issue the City a permit for the project as proposed.

Westlink/Rolling Hills Drainage  
March 10, 1992  
Page 2

In July the COE came down to hold a public hearing on the project. Prior to the hearing, Chris met with the COE on site and discussed the project. Several of the items that the COE keeps bringing up, i.e., levees, retaining walls, flood walls were talked about at that time. Members of the COE that were present acknowledged that those ideas were not feasible for this project. After the Public Hearing the City received a request from the COE for additional information regarding items that were brought up at the Public Hearing. The City provided the additional information as requested by letter dated Sept. 5, 1991.

After several months passed with no response from the COE, on Nov. 18th, Mike Lindebak again wrote the COE asking what was the status of the project. The COE responded on Nov. 29th stating that in early November they received a report of an alleged violation of Section 404 of the Clean Water Act. They then suspended evaluation of the City's application until they could investigate the alleged violation. Chris called to find out what the alleged violation concerned. It had to do with Cadillac Lake and the Chadsworth development, two to three miles upstream. If they had bothered to call and ask us what was going on, the issue could have been resolved in one or two days. The COE also stated that the investigation has been completed and they expected to finalize the decision document shortly.

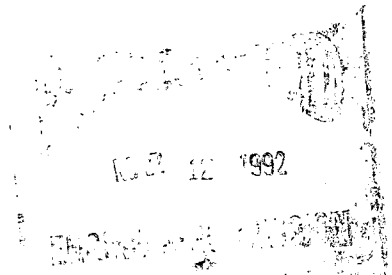
When the end of January, 1992, rolled around and we had still not received anything from the COE, Mike Lindebak again wrote inquiring as to the status of the permit application. The COE responded in writing on Feb. 17th. The following is an excerpt from that letter; "I have reviewed all information available relevant to your proposal. This information is inadequate to determine if your proposal is in the public interest. Therefore, I cannot complete my evaluation of your application for a permit for the proposed project. In order to complete my evaluation, I must have the following detailed information."

The purpose of this memo is to inform you and others that you may want to share this with that staff has attempted to keep the project moving, but the bureaucracy is too big to fight at our end. If you can help, I'd appreciate it.

I am attaching copies of the correspondence on this matter.

CB:cls  
Attachment

cc: Paul Steinbrenner (w/o attachments)  
✓ Mike Lindebak (w/o attachments)



**ALLIED LABORATORIES DEPARTMENT**  
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 B. B. CASSIL, C.E.T.  
 W. P. WELDEN, A.E.T.

*Copies sent 3-24-92*  
*Copies to J-w t and Doug B.*



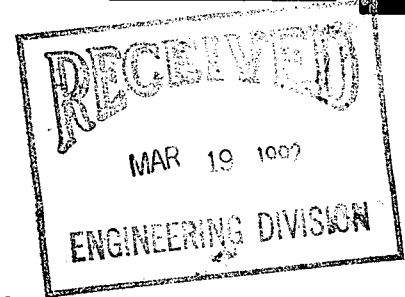
**ALLIED LABORATORIES**

A DEPARTMENT OF PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

17 March 1992

City of Wichita  
 Central Inspection Department  
 Mr. Mike Lindebak, City Engineer  
 City Hall - Seventh Floor  
 455 North Main Street  
 Wichita, Kansas 67202

Re: Reflection Ridge 6th Addition  
 Asphaltic Concrete Base Testing (BC-1)  
 A/L File No. 71-91387-6-042



Sir:

Following are the results of tests performed on samples of asphaltic concrete and cold feed virgin aggregates obtained by our personnel during placement on the 16th of March 1992.

ASPHALTIC CEMENT CONTENT ASTM D-2172

| <u>Sample I.D.</u>                      | <u>Actual % Aggregate</u> | <u>Design %</u> |
|---|---------------------------|-----------------|
| 3-16-92 Sta: 2+25 Right Lane, Wild Rose | 4.41                      | 4.80            |

MARSHALL PROPERTIES ASTM D-1559

| <u>Sample I.D.</u>                      | <u>Stability lbs.</u> | <u>Flow 1/100 in.</u> | <u>% Voids</u> | <u>% Voids Filled</u> | <u>Unit Wt P.C.F.</u> |
|---|-----------------------|-----------------------|----------------|-----------------------|-----------------------|
| 3-16-92 Sta: 2+25 Right Lane, Wild Rose | 2,789                 | 11                    | 3.0            | 74.9                  | 148.2                 |
| Specified (BC-1)                        | 1000 min              | 8-16                  | 3-7            | 70 min                |                       |

**FORWARD ALL MAIL TO**  
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 303 SOUTH TOPEKA  
 WICHITA, KANSAS 67202

**CONSTRUCTION DIVISION**  
 LOCATED AT  
 349 IDA  
 WICHITA, KANSAS 67211  
 (316) 262-6457  
 FAX NO. (316) 262-6592

**SURVEY / GEO-ENVIRONMENTAL**  
 DIVISIONS LOCATED AT  
 355 ELLIS  
 WICHITA, KANSAS 67211  
 (316) 262-5332  
 FAX NO. (316) 262-0736

Reflection Ridge 6th Addition  
 Asphaltic Concrete Base Testing (BC-1)  
 17 March 1992  
 Page 2

SIEVE ANALYSIS OF EXTRACTED AGGREGATE ASTM C-136, C-117

| Sieve Size                                | % Retained |     |                |                 |                 |                 |                 |    |     |                   |
|---|------------|-----|----------------|-----------------|-----------------|-----------------|-----------------|----|-----|-------------------|
|   | 3/4        | 1/2 | 3/8            | 4               | 8               | 16              | 30              | 50 | 100 | 200               |
| <u>Sample ID</u>                          |            |     |                |                 |                 |                 |                 |    |     |                   |
| 3-16-92 Sta:<br>2+25, R Lane<br>Wild Rose | 0          | 8   | 16             | 31              | 44              | 58              | 72              | 84 | 91  | 93.0              |
| BC-1 Master<br>Grading Limits             | 0          |     | <u>5</u><br>35 |                 | <u>25</u><br>66 |                 | <u>55</u><br>82 |    |     | <u>84</u><br>95.0 |
| BC-1 Job Mix<br>Grading Limits            | 0          |     | <u>5</u><br>35 | <u>11</u><br>25 | <u>27</u><br>39 | <u>46</u><br>58 | <u>62</u><br>72 |    |     | <u>84</u><br>95.0 |

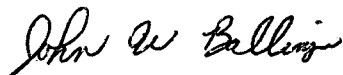
SIEVE ANALYSIS (COLD FEED) ASTM C-136, C-117

| Sieve Size                                     | % Retained |     |     |    |    |    |    |    |     |      |
|--|------------|-----|-----|----|----|----|----|----|-----|------|
|  | 3/4        | 1/2 | 3/8 | 4  | 8  | 16 | 30 | 50 | 100 | 200  |
| <u>Sample ID</u>                               |            |     |     |    |    |    |    |    |     |      |
| 3-16-92 Sta:<br>2+25, R Lane<br>Wild Rose      | 0          | 6   | 13  | 26 | 38 | 52 | 67 | 80 | 88  | 90.4 |
| Virgin Agg.<br>Theo Combined<br>Target Grading | 0          |     | 8   | 17 | 33 | 54 | 70 | 84 | 91  | 93.1 |

Should questions arise, please contact the undersigned at your convenience.

Very truly yours,

ALLIED LABORATORIES



John W. Ballinger, C.E.T.  
 Acting Laboratory Supervisor

css

**ALLIED LABORATORIES DEPARTMENT**  
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 G. K. GREENWOOD, P.E., ASSISTANT MGR.

**CONSTRUCTION DIVISION**  
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 A. D. WARD, C.E.T., LAB SUPERVISOR  
 R. A. RIPPEL, C.E.T., LAB SUPERVISOR  
 B. J. EDMUNDSON, P.E.  
 S. M. HERMAN, E.I.T.

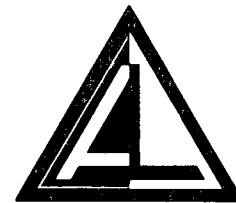
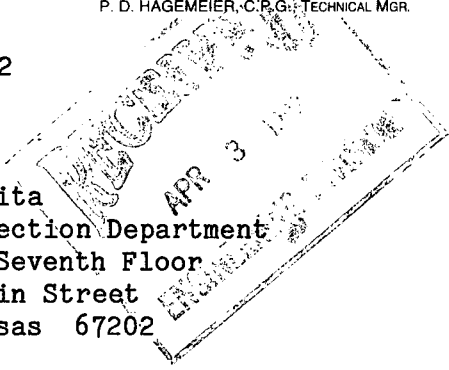
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 M. D. CLIFFORD, L.S.  
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**KEY PERSONNEL**  
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 H. G. LINDE, E.I.T.  
 L. D. CARSTENSON, L.S., S.E.T.  
 G. M. ERICKSON, S.E.T.  
 D. K. HOLLINGSWORTH, C.E.T.  
 J. W. BALLINGER, C.E.T.  
 J. K. NICHOLS, C.E.T.  
 M. G. KEENAN, S.E.T.  
 B. B. CASSIL, C.E.T.  
 W. P. WELDEN, A.E.T.

April 1, 1992

City of Wichita  
 Central Inspection Department  
 City Hall - Seventh Floor  
 455 North Main Street  
 Wichita, Kansas 67202



**ALLIED  
 LABORATORIES**

A DEPARTMENT OF PROFESSIONAL  
 ENGINEERING CONSULTANTS, P.A.

Attention: Mr. Mike Lindebak, P.E.

Re: Reflection Ridge - 6th Addition  
 Asphaltic Concrete Surface Course Testing (SC-1)  
 A/L File No. 71-91387-6-042

Sir:

Following are the results of tests performed on samples of asphaltic concrete and cold feed virgin aggregates obtained by our personnel. The samples were taken during placements on March 30 & 31, 1992.

**ASPHALTIC CEMENT CONTENT ASTM D-2172**

| <u>Sample I.D.</u> | <u>Actual<br/>% Aggregate</u> | <u>Design %</u> |
|--------------------|-------------------------------|-----------------|
| 3/30/92            | 5.14                          | 5.00            |
| 3/31/92            | 5.32                          | 5.00            |

**MARSHALL PROPERTIES ASTM D-1559**

| <u>Sample I.D.</u> | <u>Stability<br/>lbs.</u> | <u>Flow<br/>1/100 in.</u> | <u>% Voids</u> | <u>% Voids<br/>Filled</u> | <u>Unit Wt.<br/>P.C.F.</u> |
|--------------------|---------------------------|---------------------------|----------------|---------------------------|----------------------------|
| 3/30/92            | 2596                      | 10                        | 2.9            | 75.7                      | 148.7                      |
| 3/31/92            | 2427                      | 11                        | 2.7            | 78.0                      | 148.6                      |
| Specified (SC-1)   | 1600 min.                 | 8-16                      | 3-5            | 70 min.                   |                            |

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 303 SOUTH TOPEKA  
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CONSTRUCTION DIVISION  
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 FAX NO. (316) 262-6592

SURVEY / GEO-ENVIRONMENTAL  
 DIVISIONS LOCATED AT  
 355 ELLIS  
 WICHITA, KANSAS 67211  
 (316) 262-5332  
 FAX NO. (316) 262-0736

Page 2  
 Reflection Ridge 6th Addition  
 Bituminous Surface Course Testing (SC-1)

SIEVE ANALYSIS OF EXTRACTED AGGREGATE ASTM C-117, C-136

| Sample I.D.    | Sieve Size | % Retained |     |     |           |           |           |           |           |     |           |
|----------------|------------|------------|-----|-----|-----------|-----------|-----------|-----------|-----------|-----|-----------|
|                |            | 3/4        | 1/2 | 3/8 | 4         | 8         | 16        | 30        | 50        | 100 | 200       |
| 3/30/92        |            | 0          | 6   | 13  | 26        | 39        | 53        | 68        | 81        | 89  | 91.0      |
| 3/31/92        |            | 0          | 8   | 14  | 25        | 39        | 54        | 69        | 81        | 89  | 91.4      |
| SC-1 Master    |            | 0          |     |     |           | <u>30</u> |           | <u>55</u> |           |     | <u>88</u> |
| Grading Limits |            |            |     |     |           | 55        |           | 70        |           |     | 94        |
| SC-1 Job Mix   |            | 0          |     |     | <u>19</u> | <u>31</u> | <u>47</u> | <u>59</u> | <u>71</u> |     | <u>88</u> |
| Grading Limits |            |            |     |     | 31        | 43        | 59        | 70        | 81        |     | 94        |

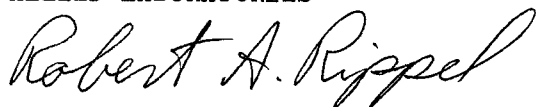
SIEVE ANALYSIS (cold feed) ASTM C-136,117

| Sample I.D.    | Sieve Size | % Retained |     |     |           |           |           |           |           |     |           |
|----------------|------------|------------|-----|-----|-----------|-----------|-----------|-----------|-----------|-----|-----------|
|                |            | 3/4        | 1/2 | 3/8 | 4         | 8         | 16        | 30        | 50        | 100 | 200       |
| 3/30/92        |            | 0          | 7   | 15  | 26        | 39        | 53        | 68        | 81        | 88  | 90.4      |
| 3/31/92        |            | 0          | 10  | 17  | 29        | 42        | 55        | 70        | 82        | 90  | 91.8      |
| SC-1 Master    |            | 0          |     |     |           | <u>30</u> |           | <u>55</u> |           |     | <u>88</u> |
| Grading Limits |            |            |     |     |           | 55        |           | 70        |           |     | 94        |
| SC-1 Job Mix   |            | 0          |     |     | <u>19</u> | <u>31</u> | <u>47</u> | <u>59</u> | <u>71</u> |     | <u>88</u> |
| Grading Limits |            |            |     |     | 31        | 43        | 59        | 70        | 81        |     | 94        |

Should questions arise, please advise at your convenience.

Very truly yours,

ALLIED LABORATORIES



Robert A. Rippel, C.E.T.  
 Assistant Laboratory Supervisor

**PROFESSIONAL  
ENGINEERING CONSULTANTS, PA**

303 South Topeka  
WICHITA, KANSAS 67202

(316) 262-2691

**LETTER OF TRANSMITTAL**

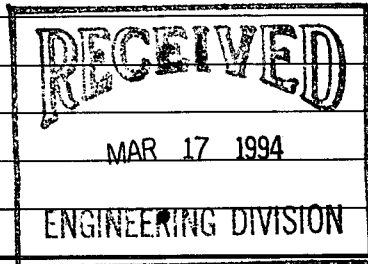
TO City Engineer's Office  
455 N Main 7th Floor

|           |  |         |                      |
|-----------|--|---------|----------------------|
| DATE      | 3-17-94  | JOB NO. | 32/34-94011-01/2-042 |
| ATTENTION | Vicky Huang, PE.                                 |         |                      |
| RE:       | Reflection Ridge 6th Add<br>Phase 2 Improvements |         |                      |
| Proj      | 472-82082  |         |                      |
|           | 468-82099  |         |                      |
|           | 448-88509  |         |                      |

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:

- Shop drawings     Prints     Plans     Samples     Specifications  
 Copy of letter     Change order     \_\_\_\_\_

| COPIES | DATE     | NO. | DESCRIPTION                  |
|--------|----------|-----|------------------------------|
|        | 11-19-93 |     | SWPPP Submittal & NPDES App. |
|        |          |     |                              |
|        |          |     |                              |
|        |          |     |                              |
|        |          |     |                              |
|        |          |     |                              |
|        |          |     |                              |
|        |          |     |                              |



THESE ARE TRANSMITTED as checked below:

- For approval     Approved as submitted     Resubmit \_\_\_\_\_ copies for approval  
 For your use     Approved as noted     Submit \_\_\_\_\_ copies for distribution  
 As requested     Returned for corrections     Return \_\_\_\_\_ corrected prints  
 For review and comment     \_\_\_\_\_  
 FOR BIDS DUE \_\_\_\_\_ 19 \_\_\_\_\_  PRINTS RETURNED AFTER LOAN TO US

REMARKS Do we need to include language similar to last year's Forest Lakes Addendum requiring the Contractor sign a statement regarding this plan? Shall we publish the SWPPP in the Special Provisions?

COPY TO \_\_\_\_\_ SIGNED: Michael W. Berry, PE.

November 19, 1993

Mr. Kelly P. Finn  
Environmental Engineer  
Industrial Programs Section  
Bureau of Water  
Kansas Department of Health & Environment  
Forbes Field, Bldg. 740  
Topeka, KS 66620-0001

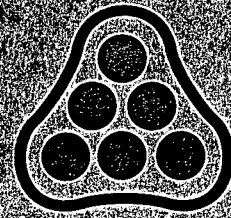
Reference: Stormwater Application for Construction Activity  
Reflection Ridge Development  
PEC File No. 36-93004-2273

Dear Mr. Finn:

On behalf of Reflection Ridge, Inc., we hereby submit documentation relative to Reflection Ridge as requested in your letter to Mr. Marvin Schellenberg dated December 2, 1992. As you will recall, the submittal date was extended to November 30, 1993 in a letter from Ms. Marian Massoth of your office dated September 21, 1993.

The documentation enclosed is as follows:

- Storm Water Pollution Prevention Plan (SWPPP) dated October 28, 1993, (10 pages including attachments). Please note the Developer's Statement is included as Attachment C to the SWPPP.
- Figure 1 Subdivision Plat of Reflection Ridge 6th Addition
- Figure 2 Drainage Plan of Reflection Ridge 6th Addition
- Figure 3 Detailed Drainage Plan of Reflection Ridge 6th Addition
- Figure 4 Subdivision Plat of Reflection Ridge 7th & 8th Addition
- Figure 5 Drainage Plan of Reflection Ridge 7th & 8th Addition
- Figure 6 Detailed Drainage Plan Reflection Ridge 7th Addition
- Figure 7 Detailed Drainage Plan Reflection Ridge 8th Addition



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ENGINEERING  
CONSULTANTS  
PROFESSIONAL ASSOCIATION

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// J.H. BAILEY, P.E., PH.D. // D.L. NORTON, P.E. // B.E. REMSBERG, P.E. // G.K. GREENWOOD, P.E. // D.E. HAGER, P.E.  
ASSOCIATE DIRECTORS: // G.L. ADAMS, P.E.

303 S. TOPEKA  
WICHITA, KANSAS 67202  
(316) 262-2691  
FAX (316) 262-3003

Mr. Kelly P. Finn  
Kansas Department of Health & Environment  
November 19, 1993  
Page 2


- Figure 8 Subdivision Plat of Reflection Ridge 9th Addition
- Figure 9 Detailed Drainage Plan of Reflection Ridge 9th Addition
- Figure 10 Map showing Phases 11 and 12. This area is currently vacant ground. Development planning is not yet complete.
- Figure 11 Subdivision Plat of Reflection Ridge Commercial
- Figure 12 Subdivision Plat of Reflection Ridge Commercial 2nd Addition
- Figure 13 Drainage Plan of Reflection Ridge Commercial 2nd Addition

Please note that Figures 1, 4, 8, 10, 11, and 12 depict the boundaries of the various phases; Figures 2, 5, 9, and 13 depict the contours of the natural ground as well as proposed storm sewer systems; and Figures 3, 6, 7, 9, and 13 show the elevations of the ground after construction.

We trust that this submittal completes your submittal requirements for the referenced property. Questions may be directed to Mr. Marvin Schellenberg, Vice President, Reflection Ridge, Inc., at 7926 West 21st Street, Wichita, Kansas 67212, phone (316) 721-2153. Technical questions may be directed to the undersigned at the address below, or by phone at (316) 262-2691.

Very truly yours,

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.



Michael W. Berry, P.E.  
Manager  
Land Development Division

MWB:ama

Encl. As noted

cc: Chris Breitenstein, P.E., City Engineer's Office w/SWPPP only  
Marvin Schellenberg, Reflection Ridge, Inc., w/encl.

**STORM WATER POLLUTION  
PREVENTION PLAN**

**REFLECTION RIDGE  
DEVELOPMENT  
WICHITA, KANSAS**

**NOVEMBER 19, 1993**

# REFLECTION RIDGE DEVELOPMENT STORM WATER POLLUTION PREVENTION PLAN

## I. SITE DESCRIPTION

A. Reflection Ridge is a residential, multi-zoned subdivision comprised of 550 acres. Phases 1 through 6 are developed and stabilized. The phases yet to be developed are as follows:

|            |                                      | Start | Complete |
|------------|--------------------------------------|-------|----------|
| 7th Phase  | 7th/8th Addn. (Phase II-N. of trees) | 8/92  | 9/93     |
| 8th Phase  | 9th Addn.                            | 3/93  | 9/93     |
| 9th Phase  | 6th Addn. (Phase II)                 | 5/94  | 11/94    |
| 10th Phase | 7th/8th Addn. (Phase III)            | 5/94  | 11/94    |
| 11th Phase | Parcel 1 C.U.P. (Along Tyler)        | 10/94 | 4/95     |
| 12th Phase | Parcel 2 C.U.P. (Along Tyler)        | 10/95 | 4/96     |
| 13th Phase | Office Park                          | 10/89 | 10/96    |
| 14th Phase | Commercial                           | 8/92  | 10/96    |

B. For each phase of the development, the sequence of activities relative to disturbing the soil are as follows:

1. Installation of sanitary sewer.
2. Installation of underground power facilities for the subdivision.
3. Installation of cable TV cables and equipment for the subdivision.
4. Installation of telephone cables and equipment for the subdivision.
5. Construction of water distribution system for the subdivision.
6. Construction of storm water sewers to drain the street improvements in the subdivision.
7. Grading and construction of streets and paving in the subdivision.
9. Installation of gas distribution system for the subdivision.

C. Summary of Areas.

| <u>Phase</u> | <u>Total Area</u> | <u>Disturbed Area</u> |
|--------------|-------------------|-----------------------|
| 7th          | 20 Acres          | 15 Acres              |
| 8th          | 9 Acres           | 7 Acres               |
| 9th          | 18 Acres          | 14 Acres              |
| 10th         | 27 Acres          | 20 Acres              |
| 11th         | 7 Acres           | 5 Acres               |
| 12th         | 4 Acres           | 3 Acres               |
| 13th         | 12 Acres          | 9 Acres               |
| 14th         | 15 Acres          | 15 Acres              |

D. Soil Types/Impervious Area

The undeveloped runoff coefficient for the site ranges from 0.3 to 0.4. The estimated impervious area is 38% on residential lots and 85% on office and commercial lots. Golf Course and common areas are to remain pervious. Reference to the SCS Soil Survey Data indicates that the soils are sandy loam, silty loam, and loam.

- E. Reference is made to the annotated drawings entitled "Drainage Plan". This map is a topographic site map which shows the proposed development in all its phases. On this site map, highlighted in orange, are all the areas of soil disturbance. Please note that after construction of all infrastructure and utility improvements are complete, all the area shaded in orange will be seeded and mulched as a stabilization measure. All areas not highlighted in orange will not be disturbed for the infrastructure and street improvements for the project.

These maps also depicts the drainage patterns and storm sewers for the proposed project. This includes detention ponds adjacent to Phase 8 and Phase 9 which serve as flood control structures to minimize the increase of runoff which results from urbanization. Drainage design calculations indicate that the 100 year discharge off the site after development will be less than that under existing conditions.

Reference is also made to drawings entitled "Detailed Drainage Plan." This drawing indicates the slopes of the site for each individual lot after development is complete.

- F. The receiving waters from this site include an unnamed tributary to Big Slough; City of Wichita, Sedgwick County storm sewer system(s) discharging to the Big Slough and an unnamed tributary to Westlink Tributary to Cowskin Creek.

To best of our knowledge, there are no wetland acres on the site.

## II. CONTROLS

### A. Construction Phase Controls.

1. **Stabilization Practice Controls.** Each phase is to be constructed in a similar manner. In the rear lot easement area, sanitary sewers, power, telephone, and cable TV are all constructed underground. Fourteen days after the last utility is constructed, this area will be seeded and mulched or otherwise stabilized, weather permitting.

Street pavement, water distribution, and gas distribution systems are all constructed in street rights-of-way. The street area, of course, receives paving which protects it from erosion. The area behind the curb will be seeded and mulched or otherwise stabilized 14 days after the last utility is constructed, weather permitting.

Storm sewers which discharge directly to receiving waters will be protected with silt fence at the upstream end and with rock riprap for velocity dissipation.

Rear yard easement areas contain sanitary sewer, power, telephone, and cable television facilities. These areas will be seeded and mulched or otherwise stabilized 14 days after utility construction is complete, weather permitting.

During home construction, builders will be required to institute BMPs as outlined in the Builders Requirements. (Appendix A Attached).

2. **Structural Practices.** Detention ponds were previously constructed in earlier phases of the development. Detailed design computations are available upon request.
3. **Storm Water Management.** The project incorporates several features which will minimize the runoff of pollutants after construction is complete. These include the following:
  - a. Seeding and mulching of disturbed areas along utility installation locations and along the street locations by the Developer.
  - b. Installation of sediment barriers (silt fence) at key discharge points into the ponds or receiving waters.

- c. For those lots under the ownership of the developer, each vacant lot will be seeded and mulched as weather conditions permit. In addition, after lots are sold to other parties, homebuilders will be required to stabilize the site during construction and homeowners will seed or sod each lot after construction as weather conditions permit.
- d. Regarding velocity dissipation devices, for each pipe discharging to either an open channel ditch or pond, there will be riprap installed at the outlet to dissipate the velocity to below erosive conditions.
- e. No quantitative data has been collected on adjacent development relative to the effectiveness of storm water control structures.

B. Other Controls.

- 1. Reflection Ridge lies within the city limits of Wichita, Kansas; therefore, all activities on the project will conform to waste disposal and sanitary sewer regulations as set forth by the City of Wichita. No septic sewer systems exist on site and none are anticipated as part of this development.
- 2. Construction vehicles are to stay on paved surfaces to the maximum extent practicable. Staging areas are to be surfaced with light type surfacing material. Haul roads, where used, shall be watered to minimize blowing dust.
- 3. The City of Wichita currently has no local sediment erosion control procedures above and beyond those required by the Kansas Department of Health and Environment.

III. OTHER PROVISIONS

A. Maintenance.

- 1. Turfed Areas. The primary stabilization measure on the project will be seeding. Maintenance on this measure will consist of periodic mowing and re-seeding and re-establishment of any areas where good turf cover does not develop.
- 2. Inlet Protection. Inlet protection measures will have the sediment removed and the device restored to its original condition whenever the accumulation of sediment reaches 1/3 to 1/2 the design height of the device. Filter fabric, when used, will be replaced immediately after it becomes clogged.
- 3. Rock Riprap. Stone riprap will be installed at outlet points from storm sewer systems and along the banks of the storm water detention ponds. Each site will be visually inspected on a regular basis and any sites where erosion occurs will be repaired in a timely manner as required.

4. Sediment Barrier (Silt Fence). These devices will have the sediment removed and the device restored to its original condition when sediment has reached 1/3 to 1/2 the bale height. All sediments removed shall be properly disposed of and sediment barriers shall be maintained in place until the drainage area is completely stabilized.
- B. Inspections. Storm water pollution prevention measures are to be periodically inspected and inspected after every storm. Repairs will be made as necessary to insure that the function of the device is maintained.
- C. Contractor/Subcontractor Identification. As outlined in Item I.B, there are several different stages of construction during the development. These construction projects are to be constructed under either contracts with the City of Wichita or by the various utility companies. The public improvements will be constructed under the competitive bid process. Therefore, it is impossible to identify who is responsible for the construction at this time.
- D. Non Storm Water Discharges. The following non storm water discharges are anticipated during the development of this site:
1. Discharges from fire fighting activities, if any.
  2. Fire hydrant flushings.
  3. Water line flushing and testing, including chlorination of the water line after its initial construction.
  4. Groundwater from construction sites and their dewatering activities.
  5. Foundation or footing drains.
  6. Irrigation water where required to establish turf areas.
  7. Exterior building wash down.
  8. Pavement wash waters.
  9. Air conditioning condensate.
- E. Material Management. The following materials are anticipated to be stockpiled on site during the construction of the infrastructure and the utility improvements:
1. PVC pipe for sanitary sewer and water line construction.

2. Cast iron castings for storm sewer and water line construction.
3. Reinforced concrete pipe for storm sewer construction.
4. Fabricated reinforcing steel bars to be used in construction of concrete structures.
5. Cables and equipment used for installation of cable television, power, and telephone.
6. Sand used for backfilling of trenches, leveling of bases, etc.
7. Crushed limestone used in the construction of pavement subbase.
8. Geosynthetic stabilization materials.

Best Management Practices to be instituted for City infrastructure construction are as follows:

1. The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of his employees as may be necessary to comply with the requirements of the Federal, State or local health agencies.
2. All materials stored on site will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure. Petroleum products will be stored in tightly sealed containers which are clearly labeled. On-site fuel storage areas shall be protected by containment dikes.
3. No materials or substances such as paints, petroleum products, solvents, detergents, concrete drum wash water or other liquids will be disposed of in the storm sewer system or into any drainage way.
4. Spills of toxic or hazardous materials will be reported to the appropriate state or city agency, regardless of size.
5. All waste materials will be collected and stored in a securely lidded metal dumpster until transported off site for disposal.
6. Work areas and/or Haul Roads shall be disced and/or watered as required to prevent blowing dust.
7. The Contractor's staging area and access route shall be located on stabilized surfaces. Minimum stabilization shall consist of KDOT Type B compaction and 2 inches of surfacing aggregate material similar to KDOT SA-1, 3, or X. Parking of company and/or employee vehicles on bare earth surfaces will not be

permitted. Stabilization of surfaces and their on-going maintenance shall be the Contractor's responsibility. The Developer will make available site(s) for use by the Contractor(s) for staging area(s).

8. Unless otherwise approved by the Engineer, on-site fueling of vehicles and equipment shall not be performed within 150 feet of any water body or drainage system inlet.
9. For all seeding and mulching work performed under this project, whether paid for under the bid item "Site Restoration" or performed under City of Wichita Administrative Regulation AR 78, application of fertilizers, herbicides or pesticides will be prohibited.
10. In the event dewatering is required, the Contractor shall develop a dewatering plan to minimize the amount of sediments discharged off site. This plan will be submitted to the Engineer for review and approval of the sediment control measures.

Best Management Practices for individual home construction are given in the attached Builders Requirements. (See Attachment A, Attached).

Restrictive covenants to be filed on the development will set forth certain measures to be taken by homeowners to protect the environment. These are given in the Restrictive Covenants (Attachment B) attached.

## **BUILDERS REQUIREMENTS**

### **REFLECTION RIDGE**

Pursuant to the provisions of the federal Clean Water Act, the Developer has applied to the Kansas Department of Health and Environment (KDHE) for a permit to discharge stormwater from this development under the National Pollution Discharge Elimination System (NPDES). The provisions of this program require the general contractor for home construction to institute certain Best Management Practices (BMPs) as he/she undertakes the work, in order to reduce the amount of pollutants, including construction debris and sediment, which ultimately discharge to the surface waters and/or groundwaters. The BMPs applicable to the Builder are outlined herein. Other NPDES permit responsibilities fall to the Developer, to City contractors, to other home building contractors, and to the ultimate homeowner.

#### **BEST MANAGEMENT PRACTICES**

During construction and until final seeding, the general contractor shall place hay bales secured by stakes or silt fence along the perimeter of the construction site next to the street curb or paved driveway.

Vehicles must be kept off all unpaved areas unless required by construction activity. Parking of vehicles is limited to the streets or paved driveways only.

All materials stored on-site will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure. Petroleum products will be stored in tightly sealed containers which are clearly labeled.

No materials or substances such as paints, petroleum products, solvents, detergents, concrete drum wash water or other liquids will be disposed in the storm sewer system or other drainage ways.

Spills of toxic or hazardous material will be reported to the appropriate state or city agency, regardless of size.

All waste materials will be collected and stored in a securely lidded metal dumpster until transported off-site for disposal.

The Builder shall provide and maintain in a neat, sanitary condition such accommodations for the use of his employees as may be necessary to comply with the requirements of the federal, state and local health agencies.

NOTICE: The Builder will be required to sign the following statement:

I certify under penalty of law that I understand the terms and conditions of the Storm Water Pollution Prevention Plan (SWPPP) for Reflection Ridge, Wichita, Kansas, dated \_\_\_\_\_, 1993, relative to storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Name: \_\_\_\_\_

Title: \_\_\_\_\_

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

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Development: \_\_\_\_\_

The Builder is further required to obtain this certification from any subcontractors he/she may employ which are involved with construction activities which disturb the surface of the earth.

**RESTRICTIVE COVENANTS**

**REFLECTION RIDGE**

The property owner is hereby bound to the following requirements:

- i. No herbicides, pesticides or fertilizers will be applied to the earth's surface until vegetation has reached a good stand.
- ii. Subsequent to this establishment of vegetation, any application of herbicides, pesticides or fertilizers will be in strict accordance with EPA or KDHE requirements which may be in place at that time.
- iii. In the event a spill of toxic materials occurs on the property, the landowner will agree to contact the appropriate government agency and to clean up such spills in accordance with KDHE requirements.
- iv. No materials or substances such as paints, petroleum products, solvents, detergents, concrete drum wash water or other liquids will be disposed in the storm sewer system or into any drainage way.

**ATTACHMENT C  
STORM WATER POLLUTION PREVENTION PLAN**

**REFLECTION RIDGE DEVELOPMENT  
WICHITA, KANSAS**

**DEVELOPER'S STATEMENT**

I certify under penalty of law that I understand the terms and conditions of the Storm Water Pollution Prevention Plan (SWPPP) for Reflection Ridge Development to Wichita, Kansas, dated November 19, 1993, relative to storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Reflection Ridge, Inc.

By: Marvin Schellenberg  
Marvin Schellenberg, Vice President

Date: 11/19/93

Address: 7926 W. 21st Street North, Wichita, KS 67205