RECEIPT OF APPLICATION

DATE BROUGHT IN: 2/28/01

CHECK #: 368 **AMOUNT:** 4850

DATE TO BE CHECKED IN BY: 3/2/00

PROJECT/LOCATION: H Rd, W of 3D Systems maj. Subd. Prelim

If application is found to be complete, the Community Development Department guarantees that the review comments for this application will be available for pick up at our office by the end of the day on 3/21/00 or we'll refund up to $100 of your application fee.

This guarantee does not include late comments from outside review agencies. The date that the comments will be ready only applies if the application is accepted as complete. It is possible that additional items and/or fees may be required.

Items to be checked for on application form at time of submittal:

- ☑ Application type(s)
- ☑ Acreage
- ☑ Zoning
- ☑ Location
- ☑ Tax #(s)
- ☐ Project description
- ☑ Property owner w/ contact person, address & phone #
- ☑ Developer w/ contact person, address & phone #
- ☑ Representative w/ contact person, address & phone #
- ☑ Signatures of property owner(s) & person completing application

Date 12.13.2000

Applicant North Crest LLC Phone

Location H Road west of 3D Systems Tax Parcel # 2701-254-00-280

Proposal Preliminary Plan, North Crest Industrial Park

Preapp Staff BILL & RICK

Related Files MS-A97-031

Please read the following carefully and sign below. This original signed checklist must be returned with your submittal package.

It is recommended that the applicant inform the neighboring property owners/tenants of the proposal prior to the public hearing and preferably prior to submittal to the City.

WE RECOGNIZE that we, ourselves, or our representative(s) must be present at all hearings relative to this proposal and it is our responsibility to know when and where those hearings are. In the event that the petitioner is not represented, the proposed item will be dropped from the agenda, and an additional fee shall be charged to cover rescheduling expenses. Such fees must be paid before the proposed item can again be placed on the agenda. Any changes to the approved plan will require a re-review and approval by the Community Development Department prior to those changes being accepted.

WE UNDERSTAND that incomplete submittals will not be accepted and submittals with insufficient information, identified in the review process, which has not been addressed by the applicant, may be withdrawn from the agenda.

WE FURTHER UNDERSTAND that failure to meet any deadlines as identified by the Community Development Department for the review process may result in the project not being scheduled for hearing or being pulled from the agenda.

**********This original signed checklist must be returned with your submittal package.********

Signature(s) of Petitioner(s)

Signature(s) of Representative(s)

APPLICATION COMPLETENESS REVIEW

Use "N/A" for items which are not applicable

Date: 3/2/01

Project Name: North Crest Ind. Park (if applicable)

Project Location: H Rd., west of 32 Rd. (address or cross-streets)

Check-In Staff — Community Development: PC — Development Engineer: DD — *initials of check-in staff members*

APPLICATION TYPE(S): *(e.g. Site Plan Review)* Prelim Plat – Maj.

FEE PAID:

Application:	630.00	
Acreage:	300.00	
Public Works:		
TOTAL:	$930	

BALANCE DUE:

o yes, amount $_____

o ~~no~~

$50 Cables

COMPLETENESS REVIEW:

Originals of all forms received w/signatures? o ~~yes~~ o no, list missing items below

- _____
- _____
- _____

Missing drawings, reports, other materials? o ~~no~~ o yes, list missing items below

Note: use SSID checklist

- _____
- _____
- _____

Incomplete drawings, reports, other materials? o ~~no~~ o yes, list missing items below

Note: Attach SSID checklist(s) w/incomplete information identified

- _____

- _____
- _____

Professional stamp/seal missing from drawings/reports?

o no o yes, list missing items below

- _____
- _____
- _____

Other *Please list below*

_____

_____

_____

_____

_____

_____

_____

PROJECT ASSIGNMENT AND PROCESSING

Project Manager: Bill

Special Processing Instructions:

_____

_____

_____

RE/MAX 4000, Inc.
Gregg L. Cranston
Broker Associate
GRI, CRS

RE/MAX Above the Crowd!

Greg Trainer-Public Works
240 N. 5th.
City of Grand Junction, Colorado 81501

4/9/01

RE: File #PP20-1-57, North Crest Industrial Subdivision

Dear Sir-.

We are facing what we believe is an undue financial burden regarding the extension of Sewer from our proposed project to the existing line currently located in H Rd. at the SE corner of 3-D Systems property.

At the time that 3-D System's site was developed sewer was brought to, but not across, the width of their property to the west side. We believe this was contrary to the City's own development policy at that time. To our knowledge nothing has changed with regard to the City's policy on sewer extension since then. Per that policy we are being required to (as we expected) to connect to sewer and take our sewer completely across our property so the owner to the west of us will be able to hook on in the future.

However, in the interest of fairness, we believe that we are being unfairly financially burdened by the being forced to bear the full cost of extending this sewer line across another developer's property who did not comply with the then existing City Policy at the time of that development. In looking through that development file we found nothing exempting them from doing so.

We are talking about approx 600' to construct this portion of the sewer which was not installed by the prior developer. We estimate that the cost of this section of line including actual construction, traffic control for shutting down H Rd, tearing up and replacing H Rd, may well cost us $40,000 to $50,000. This is cost that, by City policy, we believe should have been borne by the prior developer.

This failure to extend the sewer line across the 3 D property was known to the City at the time and for what ever reason allowed without any provision to offset these cost to future users (us being next to develop).

We believe that this placed an undue and unfair financial burden on us which we are now asking the City to help mitigate these costs in some form.

Respectfully,

Gregg Cranston

POA for Kay Scott, North Crest Development, LLC

Cc: Land Design, Kay Scott, File & Nebeker

1401 N. 1st Street • Grand Junction, CO 81501
Office: (970) 241-4000 Fax: (970) 241-4015 Res: (970) 241-7248 Toll Free: (800) 777-4573

City of Grand Junction
Public Works Department
250 North 5th Street
Grand Junction CO 81501-2668
FAX: (970) 256-4022

April 11, 2001

Gregg Cranston
Re/Max 4000, Inc.
1401 North First Street
Grand junction, Colorado 81501

Re: North Crest Industrial Subdivision

Dear Gregg:

Generally, the City's sewer extension policy has always been for the developer, at his expense, to extend sewer from where it is existing to where it is needed. Subsequent and neighboring development then takes the sewer from there and extends to where *they* need it. This principle is tempered by the requirements of the sewer utility in the area, topography, and the type and needs of adjoining development. Usually these requirements are anticipated and addressed in the development reviews.

Your description, in paragraph 2 of the attached, of the City's sewer extension policy, is incorrect.

Years ago the sewer system looked at the policy of sewer extensions and examined the policy of requiring one property to extend sewer across the full width of their land to the furthest point of their property (as you describe) versus extending only to nearest edge of their property. It was felt that, because of uncertainties with subsequent and neighboring development and sewer basin needs, it would be best not to extend sewer until the requirements were known. Depending on which pattern you use--your understanding of policy or ours-- the impact is the same, assuming the extension pattern does not change. In this case, the pattern was initiated at Sundstrand.

As you know, 3D Systems was required to go to Sundstrand Way and extend the sewer to their SE corner, a distance of 1,200 feet and a depth of 21 feet. They picked up the sewer where Sundstrand ended. 3D was not required to extend the sewer west along H Road for several reasons:

1. It is not policy to require development to extend to the furthest edge of property, except where permanent surface improvements will be installed that would preclude future utility extensions without tearing up new asphalt, landscaping, etc.

2. At the time there was no indication of the type and depth of sewer needed for your development. Had 3D extended it, it would have been at minimum grade and would not have been deep enough to serve you, thus wasting money and not satisfying the needs of your development or the sewer system.

3. Had 3D Systems been required to put it at depth, they would have been bearing your utility costs, in addition to the 1,200 feet they had already extended from Sundstrand. There is a fairness issue here.

You are not being required to do anything more than 3D Systems, except in one instance. Like 3D systems, you will be required to go get the sewer and extend it to your SE corner. You will then be required to install your internal collection system.

Unlike 3D Systems, you would be required to stub out sewer to just behind your permanent improvements at Block 1, Lot 2, so those permanent improvements would not need to be dug up at a future date and reinstalled by owners of Lot 2.

I understand that your submittal shows an additional extension of 240 feet to the far west edge of Lot 2. I also understand that this will insure that this portion of the sewer would not have to be installed by the eventual owner of Lot 2 before his permanent improvements go in (parking, buildings, etc.) This cost should not exceed $4,800 dollars, well below your estimate of $50,000 for ADDITIONAL costs over what 3D was required to put in.

Respectfully,

Greg Trainor
Utility Manager
City of Grand Junction
970-244-1564

cc: Trenton Prall, Utility Engineer
Mark Relph, Public Works Director
Kathy Portner, Community Development Director

Post-it® Fax Note 7671	Date 2-27-01	# of pages ▶ 6
To Brian Hart	From Brenda Winkelbach	
Co./Dept. Landesign	Co. GJLD	
Phone #	Phone #	
Fax #	Fax #	

Lincoln DeVore, Inc.
Geotechnical Consultants
1441 Motor St.
Grand Junction, CO 81505
TEL: (970) 242-8968
FAX: (970) 242-1561

January 30, 1997

Northcrest Development
c/o Remax 4000
1401 N. 1st St.
Grand Junction, Co 81501

Re: Surficial Geology Investigation
Northcrest Industrial Park,
Approximately 2790 H Road, Grand Junction, CO

At the request of Mr. Mike Best of LANDesign, Inc., personnel from this office have completed a ground reconnaissance of the above referenced site in order to determine the general geologic conditions and constraints relating to construction on the site. Following are our findings.

TRACT LOCATION & DESCRIPTION

The tract lies in the Southeast Quarter of the Southeast Quarter of Section 25, Township 1N, Range 1W of the Ute Principal Meridian, Mesa County, Colorado. The tract is bounded on the south by H Road, on the east by recent industrial construction and 28 Road and on the north and west by undeveloped land which has been used for agricultural purposes. The tract is located approximately 1/2 mile south, southwest of the main terminal building of Walker Field Airport and is approximately 4 miles north, northeast of the main downtown business district of the City of Grand Junction. The tract contains approximately 20 acres.

The topography of the tract is a rather gentle slope toward the south, southwest. An existing irrigation ditch runs from approximately northwest to southeast in the northern one half of the tract and another ditch/gully is present in the southwest corner of the tract. The overall topography of the tract has a gentle slope to the south, southwest with a slope of approximately 2 to 4 percent, with an elevation range of approximately 4777 feet in the southwest corner to 4806 feet in the northwest corner, using topographic mapping provided by LANDesign, 1-13-97.

The tract has been used for agricultural purposes in the past. The tract has been subject to variable amounts of on site irrigation and is drained toward the gully to the southwest, which enters the drainage along Horizon Drive and eventually to the

Colorado River. Surface drainage is fair to good and the subsurface drainage is fair to poor.

GENERAL GEOLOGY

The general geology of this area consists of a thick series of dipping sedimentary beds, covered with thin deposits of alluvial, debris fan deposits which originate on the slopes of the Bookcliffs to the northeast. Seismic events have occurred near, and possibly, in the Grand Valley area. These events were evaluated as having Richter Magnitudes up to and including 4.4, with no reported damages.

SITE GEOLOGY

The surface soils on this site consist of a series of silty clay and sandy clay soils which are a product of mud flow/debris flow features which originate on the south-facing slopes of the Bookcliffs. These mud flow/debris flow features are a small part of a very extensive mud flow/debris flow complex along the base of the Bookcliffs and extending to the Colorado River.

Previous subsurface exploration in this general area indicates the surface soils may be as thin as 3 feet thick to in excess of 20 feet. These upper soils are normally composed of a very stratified sequence of clays, silts and sands. These soils often times contain sand, gravel and occasionally small boulder sized fragments of sandstone, siltstone and mudstone. These fragments of sedimentary rocks are characteristic of the Ancient Debris Flow activity from the Bookcliffs. In addition, these soils are found in a low to very low density condition and contain large to very large amounts of soluble sulfate salts.

The surface soils are deposited over the dense formational material of the Mancos Shale of Cretaceous Age. The Mancos Shale is described as a thinbedded, drab, light to dark gray marine shale, with thinly interbedded fine grain sandstone and siltstone layers. Some portions of the Mancos Shale are bentonitic, and therefore, are highly expansive. The majority of the shale, however, has only a low to moderate expansion potential. The formational shale was not exposed on the site or in the gully at the southwest corner of the site. It is possible the bottom of this gully is very close to the erosional surface of the Mancos Shale. The weathered clays of the Mancos Shale can often times be very difficult to distinguish from the overlying Debris Fan Deposits as, some of the Debris Fans are composed almost entirely

of shale chips from the Mancos Formation exposed on the Bookcliffs. It is anticipated that this formational shale will affect the construction and the performance of the proposed foundations on the site.

The Mancos Shale Formation is often highly fractured, with fillings of soluble sulfate salts being very common. Some seams of sulfate salts up to 1/4 inch thick have been observed in samples in the near vicinity.

Sulfate Salts exhibit variable strength, depending upon surrounding moisture conditions and their chemistry as related to water. In addition, Sulfate Salts are soluble and may be physically removed from the soil by ground moisture conditions. Such removal may leave significant amounts of void areas within the Mancos Shale, which may affect the load bearing capacity of the formation. Many of the fractures in the Mancos Shale Formation are open, allowing the rapid transmission of water to occur. Some sandstone and siltstone strata within the Mancos Shale Formation also exhibit elevated permeability.

GROUND WATER

The depth to a true ground water surface is expected to very deep in this area. Natural ground water in encountered in some siltstone and sandstone beds of the Mancos Formation, primarily horizons believed to be in excess of 1000 feet below the ground surface. In addition, other ground water levels are known to exist in deeper formations, believed to be in excess of 3000 feet below the present ground surface.

Shallow, perched water levels have been present on this site in the recent past. Some of these recent perched water levels have probably been associated with precipitation both on the site and in the area north and east of this tract. The majority of perched water which has recently been on this site and, may still be present, is associated with the agricultural activities in this area and the irrigation ditch which is present on the northern portion of this tract.

Recent, subsurface exploration drilling on adjacent tracts has not revealed true free perched water but, several very moist to very wet areas have been encountered in the near vicinity of this irrigation ditch and in the drainage ditch along H Road.

SURFACE WATER

No free flowing waters were observed in the gully on the southwest portion of this tract. The gullies on this tract and in the general area are Ephemeral (flows only in direct response to precipitation). The gullies in this area are part of the drainage features associated with the Ancient Debris Fans which originate on the Bookcliffs to the north. Many of the existing gullies are incised into the Mancos Shale Formation which form some of the hill areas north of the tract and the Walker Field Airport. This particular site is located within the Leach Creek drainage area, which has its origins in the crest of the Bookcliffs, approximately 5 1/2 to 6 1/2 miles to the north, northeast. The construction of the Walker Field Airport runways has blocked some of the direct drainage onto this site and has redirected that drainage into the main channel of Leach Creek, to the west. The actual drainage basin above this site has not been studied as a part of this report but, is believed to be less than 1/4 square mile.

ECONOMIC GEOLOGIC DEPOSITS

No extractable minerals or aggregate deposits are known to exist in the upper 100 feet of the soil and Mancos Shale bedrock beneath this site. No gravels composed of competent aggregates was found on this site nor are any known to exist in the near vicinity of this site.

The middle and lower portions of the Mancos Formation, the underlying Dakota, Cedar Mountain and Morrison Formations contain permeable strata which produce significant quantities of natural gas and very small amounts of oil. This tract is located south of well defined natural gas production fields in the Bookcliffs. In addition, several small natural gas and minor oil production fields exist below the Bookcliffs 10 to 15 miles northwest of the site. It is probable that natural gas and possibly minor amounts of oil could be extracted from below this tract.

Many of the same rock units which produce natural gas in this area also contain naturally occurring water. In general, potable water has not been encountered in these deeper rocks north of the Colorado River. It is possible that very small, perched waters may be found which could be potable. Due to the high to very high soluble sulfate salts contents of the alluvial soils and the weathered portions of the Mancos Shale Formation, it is considered very unlikely that naturally occurring, potable ground water would be found on or near this tract.

GEOLOGIC HAZARDS

Due to the very gentle topography on this site, it is not anticipated that slope stability of naturally occurring slopes or the Mancos Shale Formation will be a concern on this site. No areas of significant slope failure were observed. The banks against the small gully in the southwest portion of this tract contained very minor slump features and soil creep features. These failure features on the gully banks are considered very small and should be relatively easily controlled in future construction. It is believed that access to the northern portion of this tract may be along the west property line, which would cross this gully area. As the surface waters are redirected and any proposed access roads constructed, it is anticipated these small slope failure features will be removed and corrected with properly constructed slopes and drainage.

The tract is not located within a mapped flood plain but, the site is within the middle portion of the Leach Creek drainage. Lincoln DeVore does not have access to nor has any knowledge of a specific flood hazard study for the upper reaches of Leach Creek. It is recommended that the potential of significant stream flow from Leach Creek associated tributaries (probably thunderstorm activity) be evaluated and that the potential of debris flow activity originating on the slopes of the Bookcliffs in the Leach Creek drainage be addressed.

The underlying soils of the Mancos Shale Formation do exhibit expansive characteristics. Due to the desiccated nature of the majority of the Mancos Shale, these soils are primarily expansive, however, after significant site development occurs, these soils may exhibit very minor shrink/swell characteristics based upon yearly ground moisture fluctuations. The characteristics of the Mancos Shale Formation should be properly evaluated in a Subsurface Soils Exploration for the anticipated construction.

The upper, unconsolidated portions of the soils found on this site contain strata of very compressible soil and some strata of metastable soil, which is defined as an unsaturated soil that undergoes a radical rearrangement of particles and loss of volume upon wetting, with or without additional loading. The addition of moisture by <u>any</u> means whatsoever, will weaken the internal cohesion of the soil and saturation may destroy it until the granular structure is rearranged and a new stability achieved. Considerable settlement may take place before the internal structure is stabilized. Variable, deep wetting is the most serious

settlement condition, since this causes uneven settlements. Protection from the addition of water, both surface and subsurface, is very important to maintaining stability in this soil. These upper soils should be properly evaluated in a Subsurface Soils Exploration which is specific for the proposed construction.

The presence of large amounts of soluble sulfate salts both in the upper, unconsolidated soils and the fractures and bedding plains of the Mancos Shale Formation need to be carefully and properly evaluated as part as a Subsurface Soils Exploration for the specific construction planned on this tract. These soluble salts appear to be responsible for some of the metastable properties of the upper soils and loss of strength for the upper portions of the weathered Mancos Shale Formation.

The tract is not within a well defined flood plain or within any mapped flood plain or flood hazard area, based upon information available to Lincoln DeVore. The tract is in the middle portion of an Ancient Debris Fan of which Leach Creek is the primary drainage feature. The actual primary drainage channel of Leach Creek is located approximately one mile northwest of this tract. The actual drainage characteristics above this tract, particularly as modified by the construction of the Walker Field Airport runway system, should be evaluated.

It is believed that all pertinent points have been addressed. If any further questions arise or if LINCOLN-DeVORE can be of any further service, please do not hesitate to contact this office at any time.

Respectfully submitted,

LINCOLN-DeVORE, INC.

by: Edward M. Morris PE
Engineering Geologist

LD Job # 85887-1437 (J)

Lincoln DeVore, Inc.
Geotechnical Consultants
1441 Motor St.
Grand Junction, CO 81505
TEL: (970) 242-8968
FAX: (970) 242-1561

January 30, 1997

Northcrest Development
c/o Remax 4000
1401 N. 1st St.
Grand Junction, CO 81501

Re: H Road Improvements, Northcrest Industrial Park,
Approximately 2790 H Road, Grand Junction, CO

At the request of Mr. Mike Best of LANDesign, Inc., the proposed road section at for improvements along H Road at the above referenced site was drilled and sampled by personnel of LINCOLN DeVORE, INC.. The samples were subjected to Laboratory Testing and appropriate road sections were computed. Following are our findings and recommendations.

Samples of the surficial native soils that may be required to support pavements have been evaluated using the Hveem-Carmany method (ASTM D-2844) to determine their support characteristics. The results of the laboratory testing are as follows:

Two basic soil types were encountered on this site. Both soil types are alluvial soils which were deposited by Ancient Mudflows/Debris Flow features which originated in the Bookcliffs to the north. The coarser grained soil type was found to consist of significant amounts of sand and some gravel sized fragments of sandstone and siltstone. This soil type is not the predominate soil on this site and should not be used for road section design unless the final excavations indicate that significant amounts of these soils exist.

AASHTO Classification - A-4(1) Unified Classification - ML
Soil Type # I

R = 27
Expansion @ 300 psi = 7.56 psf
Displacement @ 300 psi = 4.99

The second soil type encountered during this exploration program is an alluvial, debris fan type soil. This soil type is fine grained, contains variable amounts of soluble sulfate salts and is generally encountered in a low to occasionally very low condition.

AASHTO Classification - A-4(5) Unified Classification - ML-CL
Soil Type # II

R = 19
Expansion @ 300 psi = 8.74 psf
Displacement @ 300 psi = 4.61

Displacement values higher than 4.00 generally indicate the soil is unstable and may require confinement for proper performance.

Traffic Counts or anticipated volumes of traffic have been provided to Lincoln DeVore by Mr. Mike Best of LANDesign. It is reported these traffic counts were obtained on H Road in April 1996. It is further reported these counts indicated 2,437 total vehicle trips should be utilized each way along H Road. For use in calculating the pavement sections, this 2,437 total trips was used assuming H Road is 2 lane and 60% of 2,437 total trips was used for each lane.

Two methods of design were utilized for this project. First, the 1986 AASHTO procedure, recognized by the Colorado Department of Transportation and second, The Asphalt Institute (MS-1). A design life of 20 years was used, with an annual growth rate of 2.2%.

Based upon the existing topography, the anticipated final road grades and subsurface soils conditions encountered during the drilling program, a Drainage Factor of 0.7 (1986 AASHTO procedure) and a mean average annual air temperature (MAAT) of 60° Fahrenheit (Asphalt Institute Method) has been utilized for the section analysis.

<u>Calculated Pavement Sections</u>

Existing 2 lane - to upgrade main travel lane

18K EAL = 42.79 Soil "R" Value = 19

	1986 AASHO Drainage Coefficient = 0.7	Asphalt Institute MAAT = 60° F	
AC	3" or 4"	4" or 4"	AC
ABC	13" or 8"	6" or 12"	ABC
Subbase	0"	0"	Subbase

4 lane upgrade or access equals travel lane

18K EAL = 34.1 Soil "R" Value = 19

	1986 AASHO Drainage Coefficient = 0.7	Asphalt Institute MAAT = 60° F	
AC	3" or 4"	4" or 4"	AC
ABC	12" or 7"	6" or 12"	ABC
Subbase	0"	0"	Subbase

Due to the probability of very high soil moisture in the subgrade soils along parts of this project, the use of a Geotextile Fabric for separation and minor reinforcement (such as Mirafi 500-X or 140-N), placed beneath the Structural Section, may be required in some areas along this road alignment. In general, it is recommended the woven fabric, such as Mirafi 500-X, be utilized unless free water is present in the excavation. If free water is present, the non-woven fabric, such as Mirafi 140-N, while possessing lower strength generally provides better constructability. The upper layer of Biaxial Geogrid or Geotextile for reinforcement, placed beneath the Aggregate Base Course and the subbase/structural fill, may not be required, depending on actual field conditions.

The additional materials and effort expended in subgrade stabilization is to provide a construction platform, so the actual Road Section can be placed and compacted. The specific areas which will require placement of either the Biaxial Geogrid or the Geotextile Fabric will depend on the actual conditions encountered during construction. The subgrade and road section construction should be monitored by representatives of the Geotechnical Engineer.

Geotextile Fabric for separation and minor reinforcement should be either a woven with a minimum Grab Strength of 180 lb., in the weakest direction (such as Mirafi 500-X). If free water is encountered, a non-woven/needle punched with a minimum Grab Strength of 110 lbs., in the weakest direction (such as Mirafi 140-N) may be utilized for better constructability, even though it is a weaker fabric.

Biaxial Geogrid for reinforcement shall have a minimum Tensile strength @ 5% Strain of 550 lb/ft., in the weakest direction (such as Tensar BX 1100).

Any Imported structural Fill (Hveem-Carmany R<70 , swell not critical) is to be Granular, Medium to Coarse Grained, Very low

plastic (PI<4), Non Freedraining, Compactable and within the following Gradation:

Maximum size, by screening	6"
Passing the #4 screen	20% - 85%
Passing the #40 screen	10% - 60%
Passing the #200 screen	3% - 15%

Imported Structural Fill and Aggregate Base Course (ABC) to be compacted to 90% of its maximum Modified Proctor dry density (ASTM-D-1557) at a moisture content within ± 2% of optimum moisture. The use of light weight tracked equipment will minimize subgrade degradation, vibratory compaction equipment is not recommended.

During the placement of any structural fill, it is recommended that a sufficient amount of field tests and observation be performed under the direction of the Geotechnical Engineer. The Geotechnical Engineer should determine the amount of observation time and field density tests required to determine substantial conformance with these recommendations.

Any areas of Fill or Subgrade instability encountered during construction are to be immediately brought to the attention of the Geotechnical Engineer, so recommendations for stabilization can be given.

The Subgrade Stabilization is normally considered effective if the imported structural fill materials are confined, if specified imported fill and specified asphalt densities are obtained and the final traffic surface is stable according to local practices. Some 'pumping and rolling' of the finish Base Course (ABC) surface is anticipated but, rutting should not occur.

PAVEMENT SECTION CONSTRUCTION

We recommend that the asphaltic concrete pavement meet the State of Colorado requirements for a Grade C mix. In addition, the asphaltic concrete pavement should be compacted to a minimum of 95% of its maximum Hveem density. The aggregate base coarse should meet the requirements of State of Colorado Class 5 or Class 6 material, and have a minimum R value of 78. We recommend that the base coarse be compacted to a minimum of 95% of its maximum Modified Proctor dry density (ASTM D-1557), at a moisture content within + or -2% of optimum moisture. The native subgrade shall be scarified and recompacted to a minimum of 90% of their

maximum Modified Proctor day density (ASTM D-1557) at a moisture content within + or -2% of optimum moisture.

All pavement should be protected from moisture migrating beneath the pavement structure. If surface drainage is allowed to pond behind curbs, islands or other areas of the site and allowed to seep beneath pavement, premature deterioration or possibly pavement failure could result.

It is believed that all pertinent points have been addressed. If any further questions arise regarding this project or if we can be of any further assistance, please do not hesitate to contact this office at any time.

Respectfully Submitted,

LINCOLN DeVORE, Inc.

COLORADO REGISTERED EDWARD M. MORRIS 30590 1-31-97 PROFESSIONAL ENGINEER

by: Edward M. Morris PE
Engineer/Western Slope Manager

LD Job No.: 85887-1437 (J)

STATE OF COLORADO

COLORADO GEOLOGICAL SURVEY
Division of Minerals and Geology

Department of Natural Resources
1313 Sherman Street, Room 715
Denver, Colorado 80203
Phone (303) 866 2611
FAX (303) 866-2461

FAXED 8/21/96

DEPARTMENT OF NATURAL RESOURCES

Roy Romer
Governor

James S. Lochhead
Executive Director

Michael B. Long
Division Director

Vicki Cowart
State Geologist
and Director

August 21, 1996

MA-97-0004

City of Grand Junction
Community Development Department
250 North 5th Street
Grand Junction, Colorado 81501

Re: 3D Minor Subdivision -- Northwest of the Intersection of H Road and Falcon Way, Walker Field Airport Area, Grand Junction

Gentlemen:

At your request, we have reviewed the proposed plat submitted for and made a site inspection of the parcel indicated above. The following comments summarize our findings.

(1) The geology of this site consists of a clayey alluvial (water deposited) residual soil derived from sheetwash deposits that originated in the Mancos Shale bedrock outcrops of the Book Cliffs. The thickness of these deposits is not known (and cannot be determined without drilling) but they do overlie the Mancos Shale. It is possible that they are interbedded with ancient stream gravels and that perched water table(s) occur within them and that the highest water table is relatively shallow.

(2) The soils described above tend to be low density and subject to settlement if subjected to relatively heavy or concentrated structural and/or percussive wheel loads. Because of this and also because of the possibility of perched water, the most suitable kind of structure that could be constructed on them without incurring serious structural problems is a relatively light weight one using a shallow foundation system consisting of wide footings and pads. Their exact sizes should be determined by a qualified soils and foundation engineer after reviewing building plans with its architect and, for an industrial building, determining both live and dead floor and wall loads. For this particular site, the slopes in the vicinity make the parcel subject to shallow sheet flooding during heavy rainstorms. This and the possible water-table condition probably will preclude use of below-grade space unless active surface (surface-water interception by ditches) and subsurface drainage-control measures (such as pumped foundation drains) are incorporated into building design(s).

(3) During the course of fieldwork, I inspected the exterior of the existing 3D Building and noticed some settlement damage, especially in its parking lot(s). This problem can be par-

tially avoided in the future by appropriate soil testing and precompaction in areas that are to be paved.

Generally, this site is completely suitable for continued development as an industrial site. If the recommendations made above are considered seriously in future development plans, then we have no geology-related objection to continued development in this area.

Sincerely,

James M. Soule

James M. Soule
Engineering Geologist

STATE OF COLORADO

COLORADO GEOLOGICAL SURVEY
Division of Minerals and Geology

Department of Natural Resources
1313 Sherman Street, Room 715
Denver, Colorado 80203
Phone (303) 866-2611
FAX (303) 866-2461

DEPARTMENT OF NATURAL RESOURCES

March 4, 1997

MA-97-0026

Mr. Bill Nebeker
City of Grand Junction
Community Development Department
250 North 5th Street
Grand Junction, Colorado 81501

Re: Proposed North Crest Industrial Park Subdivision -- Northwest of the Intersection of H Road and Horizon Drive, Walker Field Area, Grand Junction

Dear Mr. Nebeker:

At your request, we have reviewed the materials submitted for and made a field inspection of the site of the proposed industrial subdivision indicated above. The geologic conditions of this site are very similar to those in the nearby 3-D Minor subdivision which we reviewed for you last August. The following comments summarize our findings.

(1) The general surficial geology of this site is clayey residual soils derived from ancient to modern fine-grained alluvial deposits which originated in the Mancos Shale outcrop of the Book Cliffs.

(2) As in the earlier case, the potentially most serious geology-related problems for industrial development of this parcel are soil settlements and surface and subsurface drainage. Please see our comments made in the review response for 3-D. It will be absolutely critical for a detailed soils and foundation investigation to be made for all structures. As in the earlier case, the surface drainage of the parcel is generally poor, and provisions should be made to control it so that water does not pond or puddle near buildings or on parking lots.

If the recommendations made above and in the earlier correspondence are followed, the we have no geology-related objection to this proposal.

Sincerely

James M. Soule

James M. Soule
Engineering Geologist

encls.

ABSTRACT & TITLE CO.
OF MESA COUNTY, INC.

Issuing Agent For:
TRANSNATION
TITLE INSURANCE COMPANY

1114 N. 1st., Suite 201, Grand Junction, CO 81501, • (970) 242-8234 • FAX: (970) 241-4925

Re/Max 4000, Inc.
Gregg Cranston
1401 N. 1st Street
Grand Junction, CO 81501

	AMOUNT	PREMIUM
OWNER	$ TBD	$ 210.00
MORTGAGE	$	$
COST OF TAX CERTIFICATE		$
FORM 100		$
ALTA 8.1		$
		$
		$

Your Reference North Crest Development

CC's To: (2) Re/Max 4000-Gregg Cranston
(1) LanDesign-Brian Hart

No. 00905097 C

Tax Schedule No. 2701-254-00-280

Property Address vacant land, Grand Junction, CO 81506

— COMMITMENT TO INSURE —

Transnation Title Insurance Company, an Arizona corporation, herein called the Company, for a valuable consideration, hereby commits to issue its policy or policies of title insurance, as identified in Schedule A, in favor of the proposed insured named in Schedule A, as owner or mortgagee of the estate or interest covered hereby in the land described or referred to in Schedule A, upon payment of the premiums and charges therefor; all subject to the provisions of Schedules A and B and to the conditions and stipulations shown on the reverse side.

Customer Contact: Donna-Title
Phone: (970) 242-8234

By Donna M. Jackson
AUTHORIZED SIGNATURE

The effective date of this commitment is February 16, 2001 at 7:00 A.M.
At which time fee title was vested in:

North Crest Development LLC, a Colorado Limited Liability Company

SCHEDULE A

1. Policies to be issued:
   (A) Owners':

   (B) Mortgagee's:

SCHEDULE A — Continued

2. Covering the Land in the State of Colorado, County of Mesa
Described as:

A parcel of land in the SE 1/4 of Section 25, Township 1 North, Range 1 West of the Ute Meridian being more particularly described as follows:

Commencing at the Southeast corner of said Section 25 whence the South Quarter corner of said Section bears North 88°03'49" West 2635.72 feet;
thence along the East line of the SE 1/4 SE 1/4 of said Section North 1°57'20" East 30 feet;
thence running parallel to the South line of the SE 1/4 of said Section North 88°03'49" West 583.60 feet to the TRUE POINT OF BEGINNING;
thence North 88°03'49" West 467.65 feet;
thence North 1°57'20" East 2027.63 feet;
thence South 52°54'21" East 571.87 feet;
thence South 1°57'20" West 1698.33 feet to the TRUE POINT OF BEGINNING.

SCHEDULE A — Continued

REQUIREMENTS

3. The following are the requirements to be complied with prior to the issuance of said policy or policies. Any other instrument recorded subsequent to the date hereof may appear as an exception under Schedule B of the policy to be issued. Unless otherwise noted, all documents must be recorded in the office of clerk and recorder of the county in which said property is located.

A. Deed from : North Crest Development LLC, a Colorado Limited Liability Company
to : parties to be determined

Note: This commitment is subject to such further exceptions and requirements as may appear necessary when the instruments called for above have been recorded and the name of the grantee has been disclosed.

Commitment No. 00905097

File No. 00905097

SCHEDULE B — Section 2

Schedule B of the policy or policies to be issued will contain exceptions to the following matters unless the same are disposed of to the satisfaction of the Company.

1. Rights or claims of parties in possession not shown by the public records.

2. Easements, or claims of easements, not shown by the public records.

3. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, and any facts which a correct survey and inspection of the premises would disclose and which are not shown by the public records.

4. Any lien, or right to a lien, for services, labor, or material heretofore or hereafter furnished, imposed by law and not shown by the public records.

5. Unpatented mining claims; reservations or exceptions in patents or in Acts authorizing the issuance thereof.

6. Any and all unpaid taxes, assessments and unredeemed tax sales.

7. Reservation of right of proprietor of any penetrating vein or lode to extract his ore, in U.S. Patent recorded June 19, 1895 in Book 11 at Page 394.

8. Reservation of right of way for any ditches or canals constructed by authority of United States, in U.S. Patent recorded June 19, 1895 in Book 11 at Page 394.

9. Right of way, whether in fee or easement only, as granted to Mountain States Telephone and Telegraph Co. by instrument recorded August 23, 1960 in Book 785 at Page 335, as set forth on the sheet attached hereto.

10. Any right of way for Colorado Ute Electric Association as disclosed by Right of Way recorded November 10, 1961 in Book 814 at Page 157, as set forth on the sheet attached hereto.

NOTE: EXCEPTION N/A WILL NOT APPEAR IN THE MORTGAGE POLICY TO BE ISSUED HEREUNDER.

ABSTRACT & TITLE CO.
OF MESA COUNTY, INC.

Issuing Agent For:
TRANSNATION
TITLE INSURANCE COMPANY

— CONDITIONS AND STIPULATIONS —

Please read carefully

1. This is a Commitment to issue one or more policies of title insurance in our Standard Form when the requirements set forth in the Commitment have been satisfied. The policy is available and should be examined before this Commitment is used if there is any question about coverage.

2. Only the policies shown are committed to. If there are any changes in the transaction, order an amendment from us.

3. The date on this Commitment is important. Nothing after that date has been considered by us.

4. This Commitment is good for 6 months only. Extensions should be ordered from us if they are needed.

PURSUANT TO SENATE BILL 91-14 (CRS 10-11-122) NOTICE IS HEREBY GIVEN THAT:

(a) THE SUBJECT REAL PROPERTY MAY BE LOCATED IN A SPECIAL TAXING DISTRICT;

(b) A CERTIFICATE OF TAXES DUE LISTING EACH TAXING JURISDICTION SHALL BE OBTAINED FROM THE COUNTY TREASURER OR THE COUNTY TREASURER'S AUTHORIZED AGENT;

(c) INFORMATION REGARDING SPECIAL DISTRICTS AND THE BOUNDARIES OF SUCH DISTRICTS MAY BE OBTAINED FROM THE BOARD OF COUNTY COMMISSIONERS, THE COUNTY CLERK AND RECORDER, OR THE COUNTY ASSESSOR.

NOTE:

A TAX CERTIFICATE WILL BE ORDERED FROM THE COUNTY TREASURER BY THE COMPANY AND THE COSTS THEREOF CHARGED TO THE PROPOSED INSURED UNLESS WRITTEN INSTRUCTIONS TO THE CONTRARY ARE RECEIVED BY THE COMPANY PRIOR TO THE ISSUANCE OF THE TITLE POLICY ANTICIPATED BY THIS COMMITMENT.

1114 N. 1st Street, Suite 201
Grand Junction Colorado 81501
970-242-8234
Fax 970-241-4925

RIGHT OF WAY AGREEMENT

Received of THE MOUNTAIN STATES TELEPHONE AND TELEGRAPH COMPANY, Two Hundred Forty-Nine and no/100 - - - - - - - - - - - - - - - - Dollars ($ 249.00) in consideration of which the undersigned hereby grants, bargains, sells and conveys unto said Company, its associated and allied companies, its and their respective successors, assigns, lessees and agents, a right of way and easement to construct, operate, maintain, replace, and remove such communication systems as the grantees may from time to time require, consisting of underground conduit, cables, ~~wires~~ surface testing terminals and markers, and other appurtenances upon, over, and under a strip of land Sixteen & One half (16 1/2) feet in width across the land which the undersigned owns and which is located within the County of Mesa, State of Colorado, the center line of said strip being particularly located and described as follows: Beginning at the Southwest corner of Sec. 25, T-1-N of R-1-W of the Ute P.M.; thence East 1341 feet; thence North 42 feet to the true point of beginning, thence East 4100 feet (248.48 rods) to the East property line.

AUG 23 1960

This grant and conveyance also provides and includes the following rights for the grantees: Of ingress and egress over, along and across the land owned by the undersigned to and from the above described strip for the purpose of exercising all rights herein granted; to place surface markers beyond the above described strip; to clear and keep cleared all trees, roots, brush, and other obstructions from the surface and subsurface of said strip.

The undersigned grantor, and the undersigned's successors, assigns, and lessees, shall have the following rights which are hereby reserved: To use the surface area of the Easement and the property upon which the easement is located, such use to include the placement of fences, provided, however, that no such use will interfere with or damage the communications system or property of Grantee installed pursuant to this grant, or with the maintenance, repair, and replacement

system and property; to require reasonable relocation of any markers placed beyond the limits of the Right of Way and Easement hereby granted.

The Grantees agree that the said communication systems shall be originally placed at least Twenty-Four (24) inches deep in order to reduce the possibility of interference with the ordinary and reasonable use of the Grantor's lands and to reimburse the owner for actual losses resulting from damage to fences, ditches and growing crops caused by or arising out of the construction and maintenance of the aforesaid system.

IN WITNESS WHEREOF, these presents have been executed this 11th day of August, 1960, at Grand Junction Colorado.

WITNESS:

Wm H. Wilson

Bruce C. Cain

Mrs. Bruce C. Cain

State of Colorado)
County of Mesa) ss. Recorded at 3:13 o'clock P M [illegible] 1961
Reception No. 803422 [illegible]
Annie M. Dunston
Recorder

CS-L-46
(Rev. 9-60)

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Colorado Land Office
371 New Custom House
P. O. Box 1018
Denver 1, Colorado

C-061164
R/W
BOOK 814 PAGE 157

APRIL 28, 1961

CERTIFIED MAIL

DECISION

RIGHT - OF - WAY GRANTED

Details of Grant

Serial number of grant	COLORADO 061164
Name of grantee	COLORADO-UTE ELECTRIC ASSOCIATION, INC.
Map showing the location and dimensions of grant:	
Map designations	GRAND JUNCTION - BOOKCLIFF - ORCHARD MESA AND BOOKCLIFF - LOMA
Date filed	APRIL 12, 1961
Permitted use by grantee	TRANSMISSION LINES AND SUBSTATIONS
Authority for grant	ACT OF FEBRUARY 15, 1901 (43 U.S.C. 959)
Regulations applicable to grant:	
Code reference	43 CFR 244 SUBPARTS A AND D
Circular numbers	1915
Date of grant	APRIL 28, 1961
Expiration date of grant	NONE
Rental:	
Amount	NONE (REA)
When payable by grantee	

Terms and Conditions of Grant

Pursuant to the authority vested in the undersigned by Order No. 541 of the Director, Bureau of Land Management, dated April 21, 1954 (19 F.R. 2473), as amended, a right-of-way, the details of which are shown above, is hereby granted, subject to the following terms and conditions:

1. All valid rights existing on the date of the grant.

2. All regulations in the circulars specified above (except 43 CFR 244.9a).

3. Filing of proof of construction within 5 years of date of the grant.

4. WHERE THE VEGETATIVE COVER IS REMOVED OR DISTURBED ON THE RIGHT-OF-WAY, OR ON OTHER AREAS OF PUBLIC LAND USED IN CONNECTION WITH THE RIGHT-OF-WAY, SAID AREAS SHALL BE SEEDED AT A RATE OF SIX POUNDS OF CREATED WHEAT GRASS AND ONE POUND OF YELLOW SWEET CLOVER PER ACRE.

5. WATER BAR SHALL BE CONSTRUCTED ALONG THE CLEARED RIGHT-OF-WAY AND ON SERVICE ROADS, IN SUCH A MANNER AS TO ELIMINATE ANY WATER CONCENTRATION.

6. NO EXISTING STRUCTURE SHALL BE DISTURBED OR MADE INOPERATIVE BY THE POWER LINE.

7. IF ANY FENCE IS CROSSED BY THE POWER LINE AND CONTINUED INGRESS AND EGRESS ARE REQUIRED, A GATE SHALL BE INSTALLED USING THE SAME STANDARDS AS THOSE SET UP BY THE BUREAU OF LAND MANAGEMENT.

8. WHERE THE RIGHT-OF-WAY IS CLEARED THROUGH BRUSH TYPE OTHER THAN SALTBRUSH AND SAGEBRUSH, THE DEBRIS SHALL BE DISPOSED OF IN THE FOLLOWING MANNER:

   (A) WHERE FEASIBLE, BRUSH SHALL BE PLACED IN WASHES AND GULLIES TO ACT AS CHECK DAMS.
   (B) WHERE THE POWER LINE RIGHT-OF-WAY IS CUT INTO THE SIDE OF A STEEP HILL, BRUSH MAY BE PLACED AT THE LOWER SIDE OF FILL TO ACT AS A RETAINER.
   (C) WHERE IT IS NOT FEASIBLE TO PLACE BRUSH IN WASHES, THE BRUSH SHALL BE PILED AND BURNED. THE BURNING SHALL BE DONE WHEN THERE IS NO DANGER OF THE FIRE SPREADING

TO THE ADJACENT AREAS. THE COMPANY SHALL ASSUME ALL RESPONSIBILITY FOR ANY DAMAGE. THE BUREAU OF LAND MANAGEMENT SHALL BE NOTIFIED BEFORE BURNING COMMENCES.

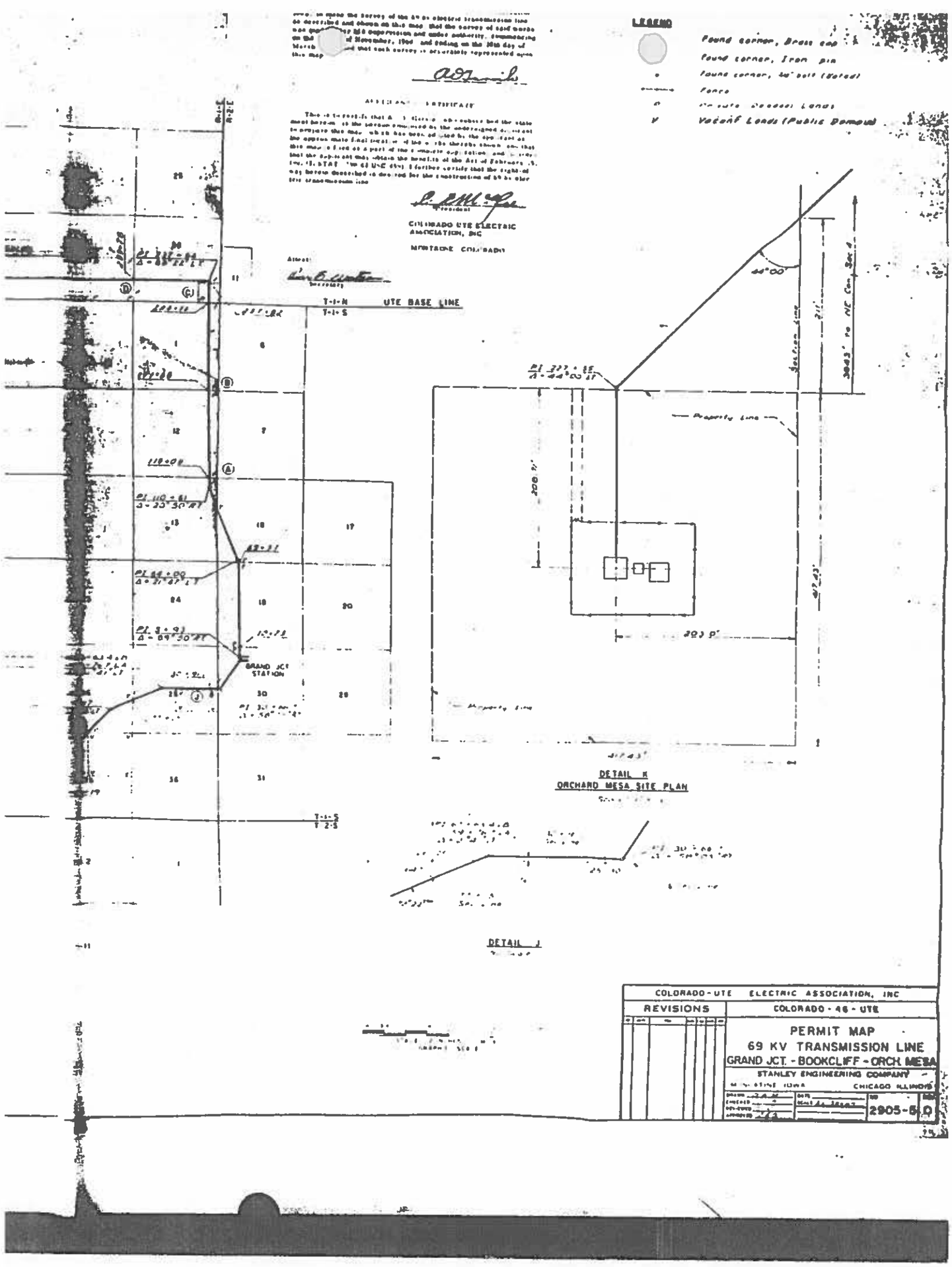
FURTHER DETAILS REGARDING STIPULATIONS NUMBERED 4 THROUGH 6 ABOVE SHOULD BE OBTAINED FROM THE DISTRICT MANAGER, BUREAU OF LAND MANAGEMENT, GRAND JUNCTION, COLORADO.

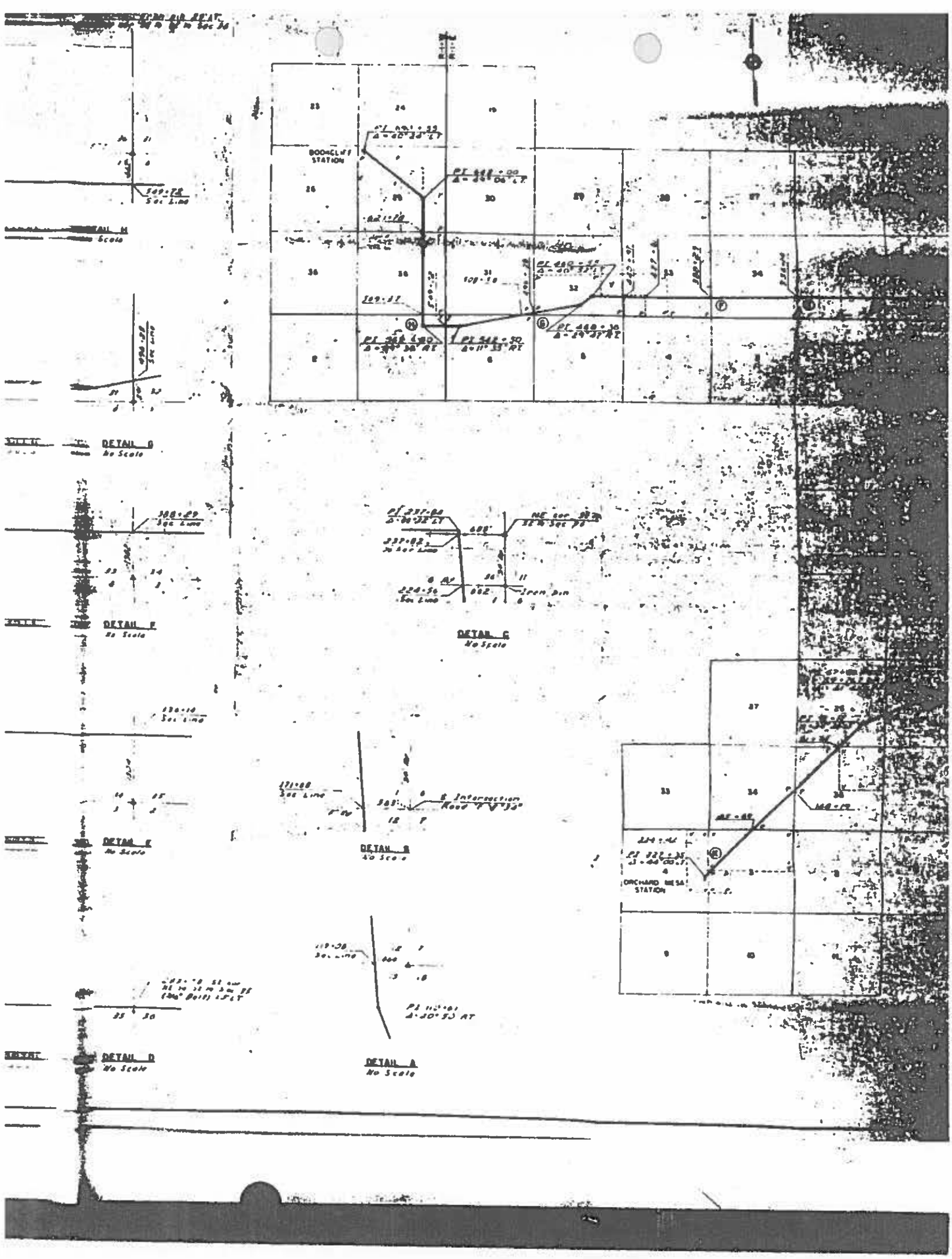
THIS DECISION BECOMES FINAL 30 DAYS FROM ITS RECEIPT UNLESS AN APPEAL TO THE DIRECTOR, BUREAU OF LAND MANAGEMENT, IS FILED. IF AN APPEAL IS TAKEN, THERE MUST BE STRICT COMPLIANCE WITH THE REGULATIONS IN 43 CFR, PART 221 (SEE ENCLOSED FORM 4-1364).

EVERETT K. WEEDIN
CHIEF, LAND ADJUDICATION SECTION

ENCLOSURES - FORM 4-1364
CIRCULAR NO. 1915

CC - GRAND JUNCTION DISTRICT OFFICE
LANDS AND MINERALS


LEGEND
Found corner, Brass cap
Found corner, Iron pin
Fence
Vacant Lands (Public Domain)
UTE BASE LINE
T-1-N
T-1-S
T-1-S
T 2-S
GRAND JCT STATION
Property Line
DETAIL K
ORCHARD MESA SITE PLAN
DETAIL J
COLORADO-UTE ELECTRIC ASSOCIATION, INC
REVISIONS
COLORADO - 46 - UTE
PERMIT MAP
69 KV TRANSMISSION LINE
GRAND JCT. - BOOKCLIFF - ORCH. MESA
STANLEY ENGINEERING COMPANY
CHICAGO ILLINOIS
2905-5


DETAIL H
No Scale
DETAIL G
No Scale
DETAIL F
No Scale
DETAIL E
No Scale
DETAIL D
No Scale
DETAIL C
No Scale
DETAIL B
No Scale
DETAIL A
No Scale
BOOKCLIFF STATION
ORCHARD MESA STATION

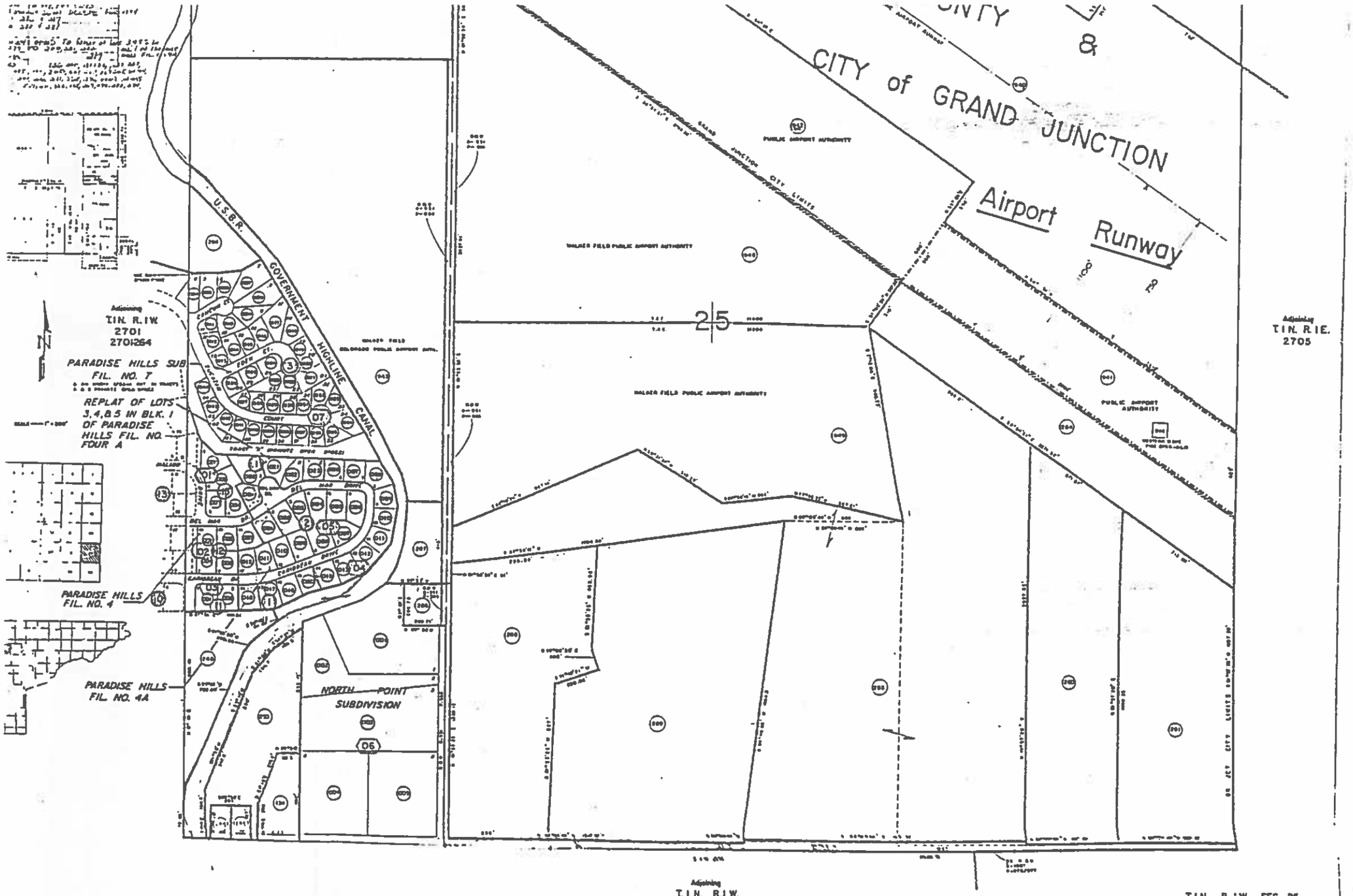
503128

STATE OF COLORADO }ss
County of MESA
I hereby certify that this instrument was
Filed for record

NOV 10 1961

at 3:44 o'clock P M and recorded
in Book ..... Page .....
ANNIE M. DUNSTON, County Clerk & Recorder
By ..... Deputy

FILED


CITY of GRAND JUNCTION
Airport Runway
25
U.S.B.R.
GOVERNMENT HIGHLINE CANAL
PARADISE HILLS SUB FIL. NO. 7
REPLAT OF LOTS 3,4,85 IN BLK. 1 OF PARADISE HILLS FIL. NO. FOUR A
PARADISE HILLS FIL. NO. 4
PARADISE HILLS FIL. NO. 4A
NORTH POINT SUBDIVISION
Adjoining T.1N. R.1W. 2701 2701264
Adjoining T.1N. R.1E. 2705
Adjoining T.1N. R.1W. 2701-36
T.1N. R.1W. SEC. 25
2701-25

County of Mesa) ss. Recorded at 3:43 o'clock P M Dec. 22 1961
Reception No. 803432
Annie M. Dunston
Recorder

CB-L-46
(Nov. 9-60)

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Colorado Land Office
371 New Custom House
P. O. Box 1018
Denver 1, Colorado

C-061164
R/W
BOOK 814 PAGE 157

APRIL 28, 1961

CERTIFIED MAIL

DECISION

RIGHT - OF - WAY GRANTED

Details of Grant

Serial number of grant	COLORADO 061164
Name of grantee	COLORADO-UTE ELECTRIC ASSOCIATION, INC.
Map showing the location and dimensions of grant:	
Map designations	GRAND JUNCTION - BOOKCLIFF - ORCHARD MESA AND BOOKCLIFF - LOMA
Date filed	APRIL 12, 1961
Permitted use by grantee	TRANSMISSION LINES AND SUBSTATIONS
Authority for grant	ACT OF FEBRUARY 15, 1901 (43 U.S.C. 959)
Regulations applicable to grant:	
Code reference	43 CFR 244 SUPPORTS A AND D
Circular numbers	1915
Date of grant	APRIL 28, 1961
Expiration date of grant	NONE
Rental:	
Amount	NONE (REA)
When payable by grantee	

Terms and Conditions of Grant

Pursuant to the authority vested in the undersigned by Order No. 541 of the Director, Bureau of Land Management, dated April 21, 1954 (19 F.R. 2473), as amended, a right-of-way, the details of which are shown above, is hereby granted, subject to the following terms and conditions:

1. All valid rights existing on the date of the grant.

2. All regulations in the circulars specified above (except 43 CFR 244.9a).

3. Filing of proof of construction within 5 years of date of the grant.

4. WHERE THE VEGETATIVE COVER IS REMOVED OR DISTURBED ON THE RIGHT-OF-WAY, OR ON OTHER AREAS OF PUBLIC LAND USED IN CONNECTION WITH THE RIGHT-OF-WAY, SAID AREAS SHALL BE SEEDED AT A RATE OF SIX POUNDS OF CREATED WHEAT GRASS AND ONE POUND OF YELLOW SWEET CLOVER PER ACRE.

5. WATER BAR SHALL BE CONSTRUCTED ALONG THE CLEARED RIGHT-OF-WAY AND ON SERVICE ROADS, IN SUCH A MANNER AS TO ELIMINATE ANY WATER CONCENTRATION.

6. NO EXISTING STRUCTURE SHALL BE DISTURBED OR MADE INOPERATIVE BY THE POWER LINE.

7. IF ANY FENCE IS CROSSED BY THE POWER LINE AND CONTINUED INGRESS AND EGRESS ARE REQUIRED, A GATE SHALL BE INSTALLED USING THE SAME STANDARDS AS THOSE SET UP BY THE BUREAU OF LAND MANAGEMENT.

8. WHERE THE RIGHT-OF-WAY IS CLEARED THROUGH BRUSH TYPE OTHER THAN SALTBRUSH AND SAGEBRUSH, THE DEBRIS SHALL BE DISPOSED OF IN THE FOLLOWING MANNER:

   (A) WHERE FEASIBLE, BRUSH SHALL BE PLACED IN WASHES AND GULLIES TO ACT AS CHECK DAMS.
   (B) WHERE THE POWER LINE RIGHT-OF-WAY IS CUT INTO THE SIDE OF A STEEP HILL, BRUSH MAY BE PLACED AT THE LOWER SIDE OF FILL TO ACT AS A RETAINER.
   (C) WHERE IT IS NOT FEASIBLE TO PLACE BRUSH IN WASHES, THE BRUSH SHALL BE PILED AND BURNED. THE BURNING SHALL BE DONE WHEN THERE IS NO DANGER OF THE FIRE SPREADING

TO THE ADJACENT AREAS. THE COMPANY SHALL ASSUME ALL RESPONSIBILITY FOR ANY DAMAGE. THE BUREAU OF LAND MANAGEMENT SHALL BE NOTIFIED BEFORE BURNING COMMENCES.

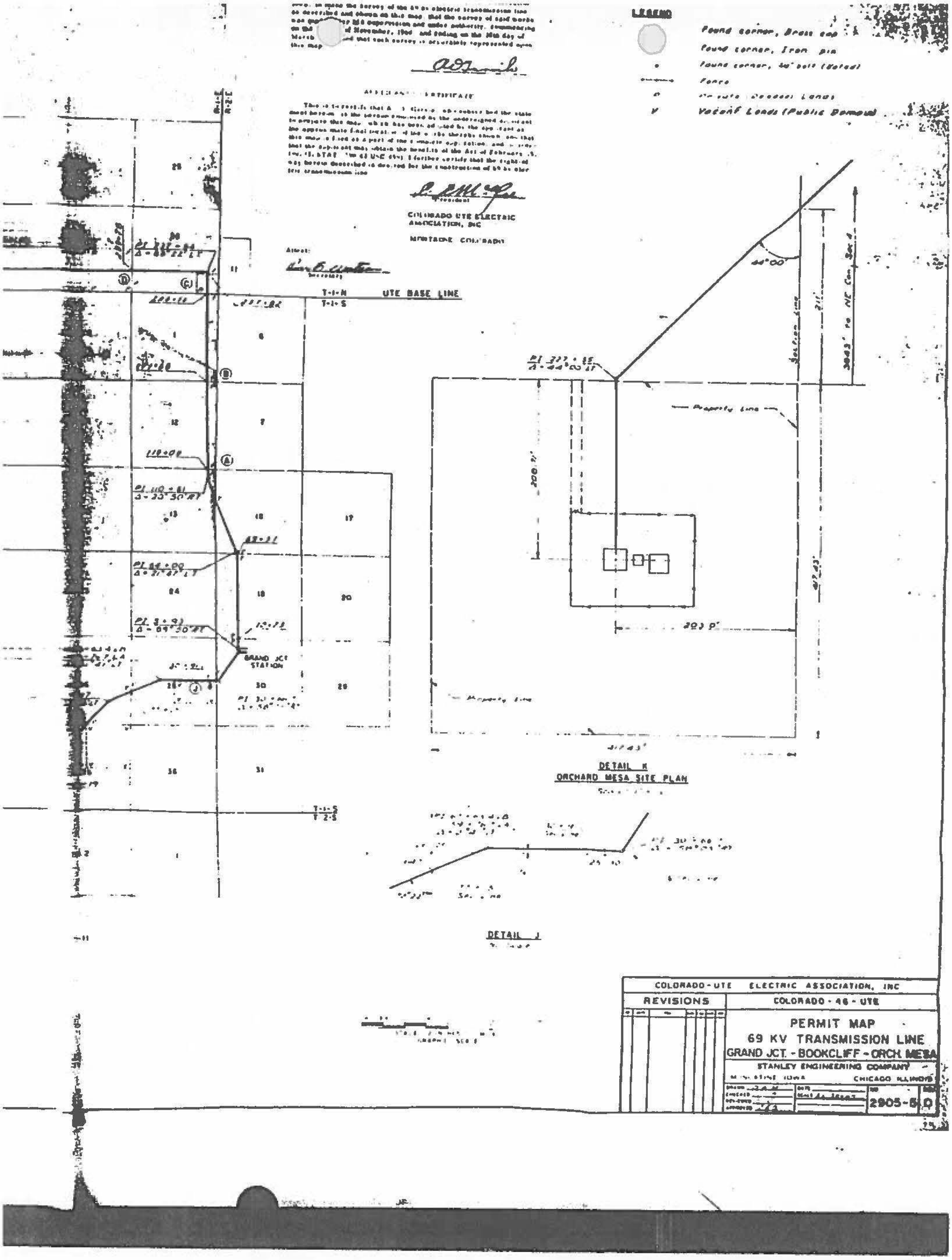
FURTHER DETAILS REGARDING STIPULATIONS NUMBERED 4 THROUGH 6 ABOVE SHOULD BE OBTAINED FROM THE DISTRICT MANAGER, BUREAU OF LAND MANAGEMENT, GRAND JUNCTION, COLORADO.

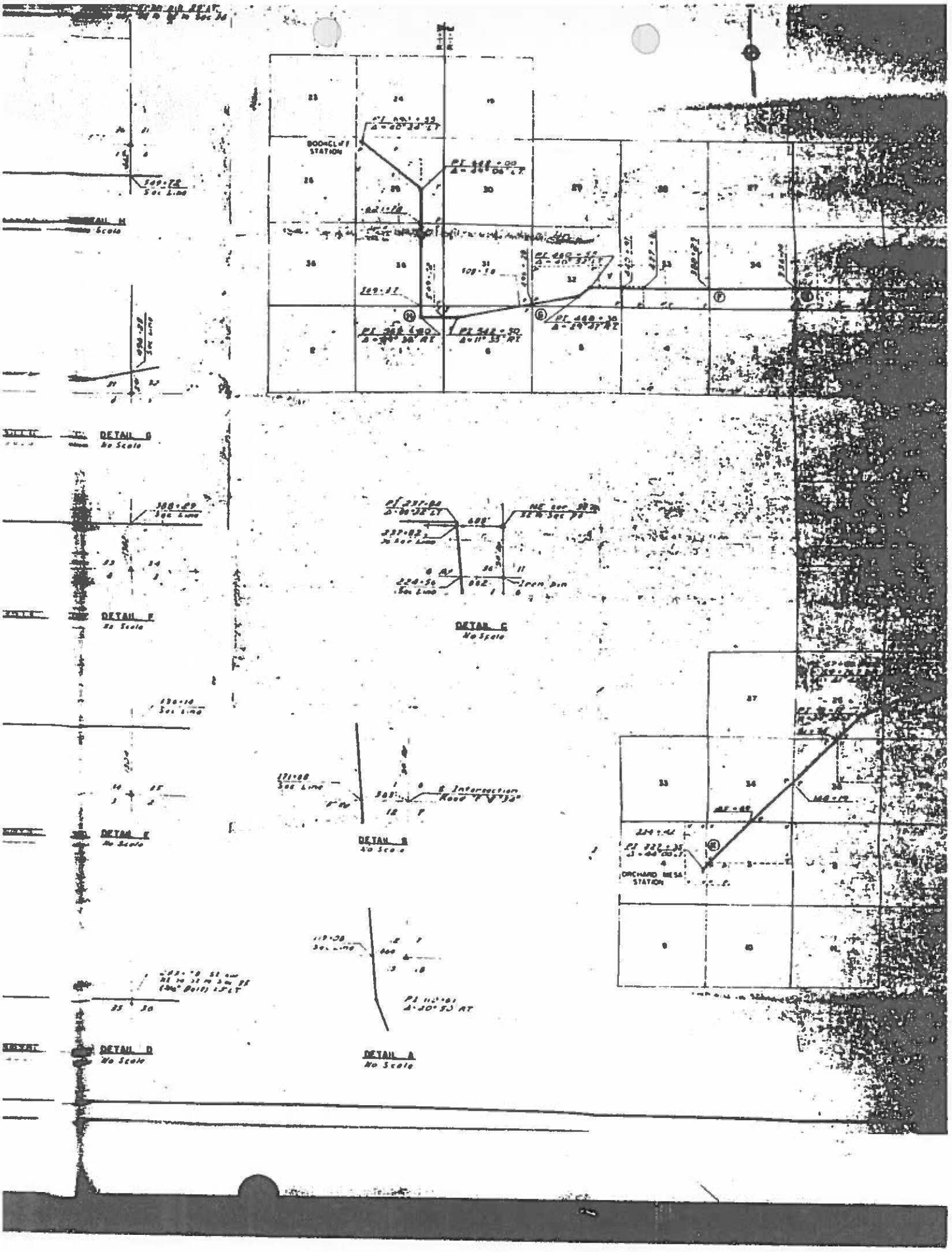
THIS DECISION BECOMES FINAL 30 DAYS FROM ITS RECEIPT UNLESS AN APPEAL TO THE DIRECTOR, BUREAU OF LAND MANAGEMENT, IS FILED. IF AN APPEAL IS TAKEN, THERE MUST BE STRICT COMPLIANCE WITH THE REGULATIONS IN 43 CFR, PART 221 (SEE ENCLOSED FORM 4-1364).

EVERETT K. WEEDIN
CHIEF, LAND ADJUDICATION SECTION

ENCLOSURES - FORM 4-1364
CIRCULAR NO. 1915

CC - GRAND JUNCTION DISTRICT OFFICE
LANDS AND MINERALS


LEGEND
Found corner, Brass cap
Found corner, Iron pin
Fence
Vacant Lands (Public Domain)
COLORADO UTE ELECTRIC ASSOCIATION, INC
UTE BASE LINE
T-1-N
T-1-S
T-2-S
GRAND JCT STATION
44°00'
Section Line
Property Line
DETAIL K
ORCHARD MESA SITE PLAN
DETAIL J
COLORADO-UTE ELECTRIC ASSOCIATION, INC
REVISIONS
COLORADO - 46 - UTE
PERMIT MAP
69 KV TRANSMISSION LINE
GRAND JCT. - BOOKCLIFF - ORCH. MESA
STANLEY ENGINEERING COMPANY
CHICAGO ILLINOIS
2905-6.0


BOOKCLIFF STATION
ORCHARD MESA STATION
DETAIL A
No Scale
DETAIL B
No Scale
DETAIL C
No Scale
DETAIL D
No Scale
DETAIL E
No Scale
DETAIL F
No Scale
DETAIL G
No Scale
DETAIL H
No Scale

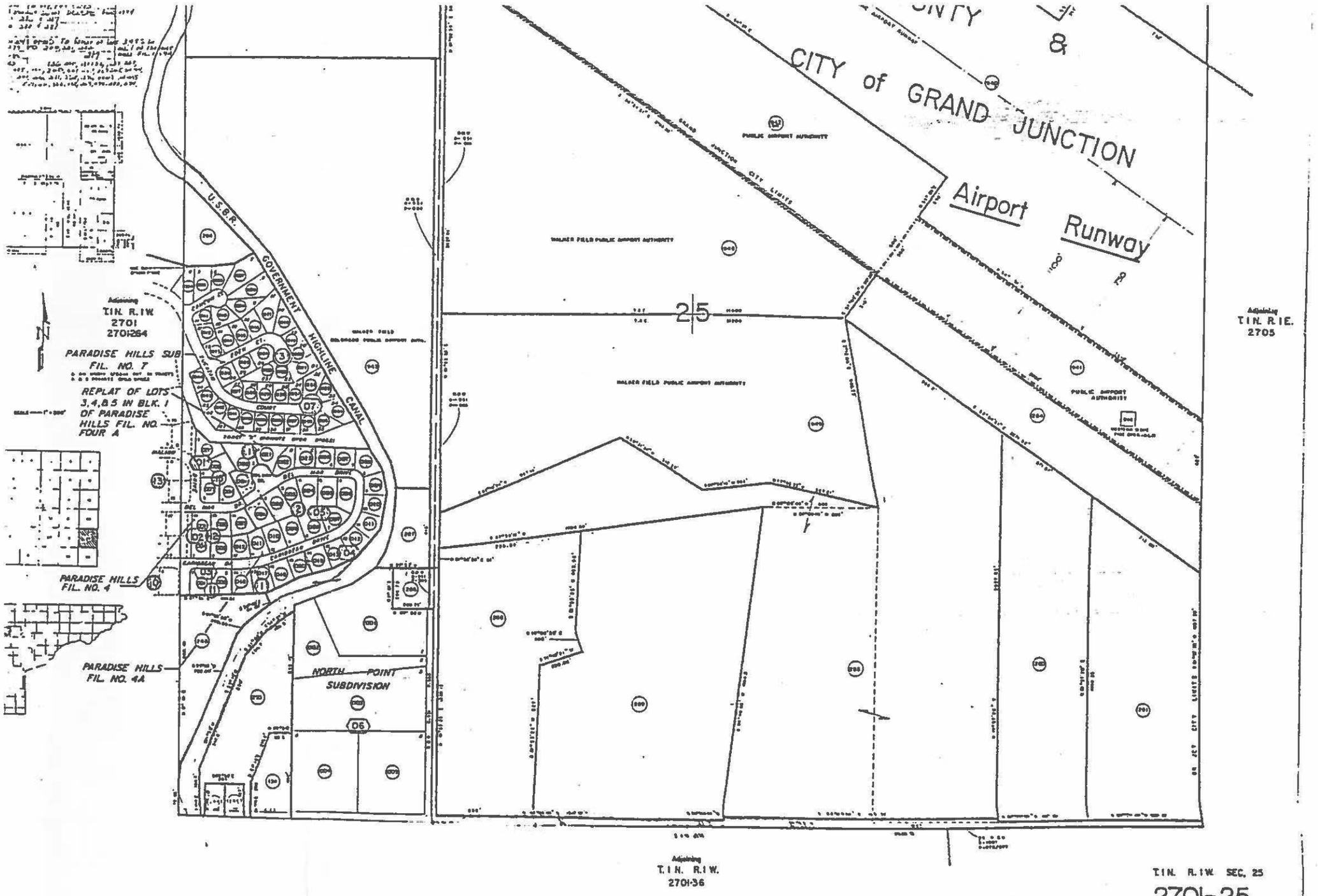
503123

STATE OF COLORADO }ss
County of MESA
I hereby certify that this instrument was
Filed for record

NOV 10 1961

at 3:44 o'clock P M and recorded
in Book ..... Page .....
ANNIE M. DUNSTON, County Clerk & Recorder
By ..... Deputy

FILED


CITY of GRAND JUNCTION
Airport Runway
25
U.S.B.R.
GOVERNMENT HIGHLINE CANAL
PARADISE HILLS SUB FIL. NO. 7
REPLAT OF LOTS 3,4,85 IN BLK. 1 OF PARADISE HILLS FIL. NO. FOUR A
PARADISE HILLS FIL. NO. 4
PARADISE HILLS FIL. NO. 4A
NORTH POINT SUBDIVISION
WALKER FIELD PUBLIC AIRPORT AUTHORITY
Adjoining T.1N. R.1W. 2701-26A
Adjoining T.1N. R.1E. 2705
Adjoining T.1N. R.1W. 2701-36
T.1N. R.1W. SEC. 25
2701-25

DEVELOPMENT APPLICATION

Community Development Dept
250 North 5th Street
Grand Junction CO 81501
(970) 244-1430

We, the undersigned, being the owner's of the property adjacent to or situated in the City of Grand Junction, Mesa County, State of Colorado, as described herein do hereby petition this:

Petition for (check all appropriate boxes):

- ☐ Subdivision Plat/Plan - Simple
- ☒ Subdivision Plat/Plan - Major Preliminary
- ☐ Subdivision Plat/Plan - Major Final
- ☐ Planned Development - ODP
- ☐ Planned Development - Preliminary
- ☐ Planned Development - Final
- ☐ Site Plan Review - Major
- ☐ Site Plan Review - Minor
- ☐ Conditional Use Permit
- ☐ Vacation, Right-of-Way
- ☐ Vacation, Easement
- ☐ Extension of Time
- ☐ Concept Plan
- ☐ Minor Change
- ☐ Change of Use
- ☐ Revocable Permit
- ☐ Variance
- ☐ Annexation/Zone of Annexation — From: _____ To: _____
- ☐ Rezone I-O — From: _____ To: _____
- ☐ Growth Plan Amendment — From: _____ To: _____

Site Location: H Road, west of 3D Systems

Site Tax No.(s): 2701-254-00-280

Site Acreage/Square footage: 20 Acres

Project Description: 11 Lots on 20 Acres, zoned I-O

Property Owner	Developer	Representative
North Crest LLC	North Crest LLC	LANDesign, LLC
Property Owner Name	Developer Name	Representative Name
Route 2 Box 81	Route 2 Box 81	244 N 7th Street
Address	Address	Address
Merino, CO 80741	Merino, CO 80741	Grand Junction, CO 81501
City/State/Zip	City/State/Zip	City/State/Zip
(970) 241-4000	(970) 241-4000	(970) 245-4099
Business Phone No.	Business Phone No.	Business Phone No.
		brianh@landesign-gj.com
E-Mail	E-Mail	E-Mail
		(970) 245-3076
Fax Number	Fax Number	Fax Number
Gregg Cranston		Brian Hart
Contact Person	Contact Person	Contact Person
		(970) 245-4099
Contact Phone No.	Contact Phone No.	Contact Phone No.

Note Legal property owner is owner of record on date of submittal.

We hereby acknowledge that we have familiarized ourselves with the rules and regulations with respect to the preparation of this submittal, that the foregoing information is true and complete to the best of our knowledge, and that we assume the responsibility to monitor the status of the application and the review comments. We recognize that we or our representative(s) must be present at all required hearings. In the event that the petitioner is not represented, the item may be dropped from the agenda and an additional fee charged to cover rescheduling expenses before it can again be placed on the agenda.

X Brian Hart — Signature of Person Completing Application — Date 2/28/01

X Gregg T. Cranston P.E. — Required Signature of Legal Property Owner(s) - attach additional sheets if necessary — Date

ADJACENT PROPERTY OWNER
LABEL ORDER FORM

TAX PARCEL #: 2701-254-00-280

PROPERTY ADDRESS: _____

PROPERTY OWNER: Kay Scott for NorthCrest Development LLC

CONTACT PERSON: _____

MAILING ADDRESS: Route 2 Box 81
Meeker, CO 81641

APPLICANT: Same

CONTACT PERSON: _____

MAILING ADDRESS: _____

_____

PROJECT REPRESENTATIVE: Brian Hart

CONTACT PERSON: LAI Design

MAILING ADDRESS: 244 N 7th
81501

PHONE NUMBER: 245-4099

***REQUEST FOR LABELS MUST BE SUBMITTED A MINIMUM OF 2 WEEKS PRIOR TO SUBMITTAL OF PROJECT.**

FEE: $50.00

DATE PAID: _____ **RECEIPT #:** _____

The adjacent property mailing list is created by pulling all property owners within 500 feet and all Homeowners Associations or citizen groups within 1000 feet of all properties involved in the project. The property owner information is put together using the information in the Mesa County Assessor's records and the HOA's and citizens groups are on record with the City of Grand Junction Community Development Department.

COMMUNITY DEVELOPMENT
CITY OF GRAND JCT
250 N 5TH ST
GRAND JUNCTION, CO 81501

LANDESIGN
BRIAN HART
244 N 7TH ST
GRAND JUNCTION, CO 81501

W R HALL LLC
2522 HIGHWAY 6 AND 50
GRAND JUNCTION, CO 81505-7166

NORTH CREST DEVELOPMENT LLC
KAY SCOTT
RR 2 BOX 81
MERINO, CO 80741

BRUCE C CURRIER
WILMA M CURRIER
2760 H RD
GRAND JUNCTION, CO 81506-1749

WALKER FIELD PUBLIC AIRPORT
AU
2828 WALKER FIELD DR UNIT 21
GRAND JUNCTION, CO 81506

3D SYSTEMS CORPORATION
26081 AVENUE HALL
VALENCIA, CA 91355-1241

COLORADO WEST
IMPROVEMENTS
360 GRAND AVE
GRAND JUNCTION, CO 81501-2448

SUNDSTRAND CORPORATION
4949 HARRISON AVE
ROCKFORD, IL 61108-7987

ALVIN SCHIESSWOHL
JEAN
570 HALL AVE
GRAND JUNCTION, CO 81501-2138

DRAFT

COPY

UTE WATER CONSERVANCY DISTRICT

BOARD MEETING #713 MAY 9, 2001

Meeting number seven hundred thirteen of the Board of Directors of the Ute Water Conservancy District and the Ute Water Activity Enterprise was called to order by Chair, Dorothy Hoskin, at 7:30 p.m. at the District Office on May 9, 2001.

ROLL CALL

Answering to roll call were Santo Bertuzzi, James Burkhalter, Bruce Currier, Wallace Downer, Dick Fletcher, Robert Gobbo, Dorothy Hoskin, Harley Jackson, Ronald Jaynes, Robert King, James Rooks and Robert Saunders.

Also in attendance were Larry Clever, Charlie Stockton, Rex Ricks, Tom Crumpton, Ralph Ohm, Bob Dyreng and Tim Moore, Ute Staff members; Rita Crumpton, Recording Secretary; Mark Hermundstad, Ute's Counsel; Patti Herland, Steve Ryken, Mike Seeley and Ed Tolen, Ute employees. Guests present: Gregg Cranston, Developer.

PUBLIC COMMENTS

There were none.

ACTION ITEMS

MINUTES

The Chair noted that each Board member had received a copy of the draft minutes of the April regular meeting in the mail previous to this meeting. She then called for additions, corrections or deletions.

Motion to approve the minutes as distributed made by Santo Bertuzzi, second by Dick Fletcher and carried.

BILLS

Bills totaling $2,697,548.14 were presented to the Board for approval. A listing of all checks written prior to this meeting, totaling $154,629.01, was also presented.

Motion to approve the bills for payment in the amount of $2,697,548.14 and the checks written prior to board meeting in the amount of $154,629.01, made by Dick Fletcher, second by Santo Bertuzzi. The Chair requested that the bills from Barnard Construction Company and Affholder, Inc. be excepted from the motion until change orders could be discussed later in the meeting. Mr. Fletcher and Mr. Bertuzzi agreed to that modification of the motion, changing the

The second Order for Inclusion presented for approval encompassed several relatively isolated areas on the Redlands and in scattered sections of land near Kingsview Estates.

The Chair opened the public hearing on the Petition for Inclusion at 7:50 p.m. There were no comments and the public hearing was closed at 7:51 p.m.

Motion to adopt the Order for Inclusion for scattered properties on the west end of the Redlands and near Kingsview Estates made by Dick Fletcher, second by James Rooks and carried.

IRRIGATION TAP REQUEST – GREGG CRANSTON

The Assistant Manager explained that Mr. Cranston has submitted a proposal for a commercial subdivision to the Planning Department of the City of Grand Junction. The property is located north of H Road in the airport area, immediately west of 3D. The City Planning Department has required the construction of a storm drainage detention pond. They have also required landscaping at the pond. There is no irrigation water available. District staff has issued Mr. Cranston a letter stating that the District does not sell taps for irrigation/landscape purposes (copy attached) and the City has sent him to the board to appeal staff's decision.

Mr. Cranston explained that the project was originally submitted with desert landscaping and the City planning staff decided that the detention pond (which is 20,000 sq. ft.) should not be cobbled, rather, it should be landscaped. Their final decision is that the detention pond is a separate tract and can be approved "with turf or substantial xeriscaping material which minimizes the use of gravel or cobble". Mr. Cranston originally talked with Ute's staff and was told no. He then made those comments at the planning commission meeting, with no acceptable results. The approval of his project by the planning commission is predicated upon either turf or xeriscape.

In answer to a question from Mr. King, Mr. Cranston explained that the only irrigation water that might be available would be at Paradise Hills, which is at least one-half mile west of the proposed industrial development.

Motion to deny the request for an irrigation tap to Gregg Cranston, in keeping with District policy, made by James Burkhalter, second by Ronald Jaynes, with Mr. King and Mr. Jackson voting NAY and Mr. Currier ABSTAINING.

U.S.G.S. GAUGING STATION ON PLATEAU CREEK

The Manager reported that the District has received a request from the U.S. Geologic Survey for permission to install a gauging station on District property at the mouth of Plateau Canyon (the Ostranger property). The site is very close to Big Wash and will not interfere with the operation of the new pipeline.

COLORADO GEOLOGICAL SURVEY
SUBMITTAL FORM FOR LAND-USE REVIEWS

County: MESA Date: 2/28/01

Project Name: NORTH CREST INDUSTRIAL PARK

APPLICANT

(or Applicant's Authorized Representative responsible for paying CGS-review fee)

Name: NORTH CREST LLC

Address: ROUTE 2 BOX 81

MERINO CO 80741

Phone No.: 241-4000 FAX No.: 241-4015

FEE SCHEDULE

	Prepayment*
Reviews for Counties	
Small Subdivision (less than 10 dwellings or 20 acres)	$ 485
Large Subdivision (more than 10 dwellings or 20 acres)	$ 595
Very Large or Complex Subdivision	At hourly rate of reviewer
Reviews for Municipalities	At hourly rate of reviewer
Special Reviews	At hourly rate of reviewer

** Important: a $25 processing fee will be added to invoice if not prepaid.*

CGS LAND USE REVIEWS

Geological studies are required by Colorado counties for all subdivisions of unincorporated land into parcels of less than 35 acres, under State statute C.R.S. 30-28-101 et seq. (Senate Bill 35, 1972). Some Colorado municipalities require geological studies for subdivision of incorporated land. In addition, local governments are empowered to regulate development activities in hazardous or mineral-resource areas under C.R.S. 24-65.1-101 et seq. (House Bill 1041, 1974) and C.R.S. 34-1-301 et seq. (House Bill 1529, 1973), respectively.

Local-government agencies submit proposed subdivision applications and supporting technical reports to the Colorado Geological Survey "...for evaluation of those geologic factors which would have significant impact on the proposed use of the land," in accordance with State statutes. The CGS reviews the submitted documents and serves as a technical advisor to local-government planning agencies during the planning process. Since 1984, the CGS has been required by law to recover the full direct cost of performing such reviews.

The adequate knowledge of a site's geology is essential for any development project. It is needed at the start of the project in order to plan, design, and construct a safe development. Proper planning for geological conditions can help developers and future owners/users reduce unnecessary maintenance and/or repair costs.

Colorado Geological Survey
1313 Sherman St., Rm. 715, Denver, CO 80203
Phone (303) 866-2611, Fax (303) 866-2461

White copy to CGS
Yellow copy to Planning Agency
Pink copy to Applicant

g:\lurd\application_form.xls
created 03/16/98, revised 03/16/98
http://www.dnr.state.co.us/geosurvey

SUBMITTAL CHECKLIST

MAJOR SUBDIVISION: PRELIMINARY

Location: H ROAD, W OF 3D SYSTEMS Project Name: NORTHCREST IND PARK

Date Received 3/2/01

Receipt # 13654

File # PP-2001-057

DESCRIPTION	SSID REFERENCE	● City Community Development	● City Dev. Eng.	● City Utility Eng.	● City Property Agent	O City Parks/Recreation	● City Fire Department	● City Attorney	● City G.J.P.C.	O City Downtown Dev. Auth.	● City Police	O County Planning	● Walker Field	O School District #51	● Irrigation District GVWU	O Drainage District	● Water District UTE	O Sewer District	● U.S. West	● Public Service	● GVRP	● CITY TRANS. ENG.	O Corps of Engineers	● Colorado Geological Survey	O U.S. Postal Service	O Persigo WWTF	● TCI Cable	TOTAL REQ'D.
● Application Fee $630 + 15/AC	VII-1	1																										1
● Submittal Checklist*	VII-3	1																										1
● Review Agency Cover Sheet*	VII-3	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
● Application Form*	VII-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
● Reduction of Assessor's Map	VII-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
● Evidence of Title	VII-2	1			1			1																				3
● Names and Addresses $50	VII-2	1																										1
● Legal Desdription	VII-2	1			1																							2
● General Project Report	X-7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
● Location Map	IX-21	1																										1
● Preliminary Plan	IX-26	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
● 11"x17" Reduction of Prelim. Plan	IX-26	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
● Preliminary Drainage Report	X-12	1	2																									3
● TRAFFIC IMPACT STUDY		1	1																			1						3
● GEOTECHNICAL STUDY		1	1																					1				3
$485 PREPAID																												

NOTES: * An asterisk in the item description column indicates that a form is supplied by the City.

CITY OF GRAND JUNCTION
COMMUNITY DEVELOPMENT DEPARTMENT
250 NORTH 5TH STREET
GRAND JUNCTION CO 81501

COMMUNITY DEVELOPMENT
CITY OF GRAND JCT
250 N 5TH ST
GRAND JUNCTION, CO 81501

A1301X262A

COMMUNITY DEVELOPMENT DEPARTMENT
250 NORTH 5TH STREET
GRAND JUNCTION CO 81501

CERTIFIED MAIL

7099 3400 0017 1654 2754

U.S. POSTAGE 3.74
GRAND JUNCTION CO MAR-7'01

K.C. SCOTT FAMILY LTD PARTNERSHIP
4155 E. JEWELL AVE SUITE 300
DENVER, CO 80222

81501/2628

PLANNING COMMISSION REVIEW SCHEDULE

MARCH 2001

16 FRIDAY
Comments due from review agencies

21 WEDNESDAY
Review Agency comments to petitioner; may be picked up **AFTER** 4:00 p.m.

26 MONDAY
Petitioner may pick up Public Hearing sign

30 FRIDAY
Response to comments due from petitioner at 5:00 p.m. (NO EXCEPTIONS!!)

PETITIONER MUST POST PUBLIC HEARING SIGN (*) ON SITE *NO LATER* THAN THIS DATE, OTHERWISE YOUR ITEM WILL NOT BE SCHEDULED ON THE NEXT AGENDA.

(*) $50.00 deposit required for Public Hearing sign - deposit will be refunded, in full, if sign(s) are returned within 5 working days after the final meeting.

APRIL 2001

3 TUESDAY
Legal ad appears in the Daily Sentinel Newspaper

5 THURSDAY
STAFF REPORT, WITH RECOMMENDATIONS, WILL BE AVAILABLE TO PETITIONER AND/OR REPRESENTATIVE AFTER 12:00 NOON.

9 MONDAY
Display ad appears in the Daily Sentinel Newspaper

Public may access CITYDIAL @ 244-1500 Ext. 211 to receive a faxed copy of the agenda.

10 TUESDAY
Planning Commission meeting - 7:00 p.m., 250 N 5th St
Projects might be reassigned if a second Planning Commission meeting is necessary.

REMAINDER OF SCHEDULE APPLIES ONLY TO THOSE ITEMS REQUIRING CITY COUNCIL ACTION

20 FRIDAY
Appeal deadline (if necessary) - Appeal must be submitted in writing to the Community Development Department @ 250 N 5th St. Verify appeal deadline and City Council dates with your Project Planner.

MAY 2001

2 WEDNESDAY
City Council meeting at 7:30 p.m. – 1st Reading, City Auditorium 250 N 5th St.

16 WEDNESDAY
City Council meeting at 7:30 p.m. – 2nd Reading, City Auditorium 250 N 5th St.

PLACE STICKER AT TOP OF ENVELOPE
TO THE RIGHT OF RETURN ADDRESS

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

K.C. Scott Family LTD Partnership
4155 E. Jewell Ave ste 300
Denver, CO. 80222

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* | B. Date of Delivery

C. Signature
X ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☒ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)* 7099 3400 0017 1654 2754

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

B.N. PP-2004-051

REVIEW AGENCY COVER SHEET

Community Development Department
250 North 5th Street, Grand Junction, CO 81501
(970)244-1430

FILE NO. PP-2001-057

Petitioner Please Fill In:

Review Agency
Public Service

Petitioner Please Fill In:

PROPOSAL North Crest
LOCATION H Road West of 3D Systems
ENGINEER/REPRESENTATIVE
Brian Hart - LANDesign
PETITIONER North Crest LLC
ADDRESS Route 2 Box 81 Merino CO 80741
PHONE NO (970) 241-4000

Return to Community Development Dept By 3/16/01

Staff Planner Bill

COMMENTS - *For Review Agency Use Only*

ELECTRIC: Grand Valley Power service area.

GAS: No objections.

RECEIVED
MAR 14 2001
COMMUNITY DEVELOPMENT DEPT.

AP

Use Additional Sheets If Necessary And Refer To File Number

REVIEWED BY John Salazar PHONE 244-2781 DATE 3-13-01

REVIEW AGENCY COVER SHEET

Community Development Department
250 North 5th Street, Grand Junction, CO 81501
(970)244-1430

FILE NO. PP-2001-057

Petitioner Please Fill In:

Review Agency

Walker Field

Petitioner Please Fill In:

PROPOSAL North Crest

LOCATION H Road West of 3D Systems

ENGINEER/REPRESENTATIVE

Brian Hart - LANDesign

PETITIONER North Crest LLC

ADDRESS Route 2 Box 81 Merino CO 80741

PHONE NO (970) 241-4000

Return to Community Development Dept By 3/16/01

Staff Planner Bill

COMMENTS - *For Review Agency Use Only*

RECEIVED
MAR 15 2001
COMMUNITY DEVELOPMENT DEPT.

Use Additional Sheets If Necessary And Refer To File Number

REVIEWED BY Gary Manuso PHONE 244-9100 DATE 3-13-01

WALKER FIELD AIRPORT AUTHORITY
2828 Walker Field Drive, Suite 211 • Grand Junction, CO 81506
(970) 244-9100 • FAX: (970) 241-9103 • www.walkerfield.com

March 13, 2001

Community Development Department
City of Grand Junction
FILE NO: PP-2001-057; North Crest

Walker Field Airport Authority has reviewed the proposed North Crest development. This development lies within the Airport Influence Area and between the 65 and 75 DNL noise contours but is outside the critical zones as identified in the Airport Master Plan. Since the location of the development appears to be within the 65 and 75 DNL noise contours, the Airport Authority requests a layout plan of the development showing the location of the long range noise exposure contours as identified in the Airport Master Plan before the Airport Authority makes its final determination of comments to the City. Any noise intrusion might be mitigated with appropriate design and construction methods if required. Additionally, if this development is approved and due to the close proximity to the Airport, we suggest that each individual lot applicant submit a Federal Aviation Administration form 7460-1 to the Denver Airports District Office for their review. Their office can be contacted at (303) 342-1251.

The Walker Field Airport Authority requests that an Avigation Easement specific to this property be filed with the City of Grand Junction with a copy provided to the Airport Authority.

All exterior lighting must be downward directional and lighting elements must be chosen to reduce or eliminate any possible glare that might affect aircraft operations.

Thank you for this opportunity to comment.

Gary Mancuso
Properties Manager

REVIEW AGENCY COVER SHEET

Community Development Department
250 North 5th Street, Grand Junction, CO 81501
(970)244-1430

FILE NO. PP-2001-057

Petitioner Please Fill In:

Review Agency

GVRP

Petitioner Please Fill In:

PROPOSAL North Crest

LOCATION H Road West of 3D Systems

ENGINEER/REPRESENTATIVE Brian Hart - LANDesign

PETITIONER North Crest LLC

ADDRESS Route 2 Box 81 Merino CO 80741

PHONE NO (970) 241-4000

Return to Community Development Dept By 3/16/01

Staff Planner Bill

COMMENTS - *For Review Agency Use Only*

1.) MAY NEED EASEMENT ALONG EAST SIDE OF PROJECT TO ALLOW EXISTING UNDERGROUND POWE LINE. (3Ø)

RECEIVED
MAR 9 2001
COMMUNITY DEVELOPMENT DEPT.

AP

Use Additional Sheets If Necessary And Refer To File Number

REVIEWED BY Perry Rupp PHONE 242-0040 DATE 3-6-01

REVIEW AGENCY COVER SHEET

Community Development Department
250 North 5th Street, Grand Junction, CO 81501
(970)244-1430

FILE NO. PP-2001-057

Petitioner Please Fill In:

Review Agency

City Community Development

Return to Community Development Dept By 3/16/01

Staff Planner Bill

Petitioner Please Fill In:

PROPOSAL North Crest

LOCATION H Road West of 3D Systems

ENGINEER/REPRESENTATIVE

Brian Hart - LANDesign

PETITIONER North Crest LLC

ADDRESS Route 2 Box 81 Merino CO 80741

PHONE NO (970) 241-4000

COMMENTS - *For Review Agency Use Only*

Use Additional Sheets If Necessary And Refer To File Number

REVIEWED BY _____ PHONE _____ DATE _____

PRELIMINARY
NOT FOR
CONSTRUCTION
MARCH 30, 2001

BENCHMARK: LS 20632
SOUTHEAST PROPERTY CORNER
ELEVATION: 4781.43 (NAVD 1988)

DATE:	NO:	REVISION:	BY:
03/30/01	1	PER CITY REVIEW COMMENTS	CJM

OVERALL
PRELIMINARY PLAN

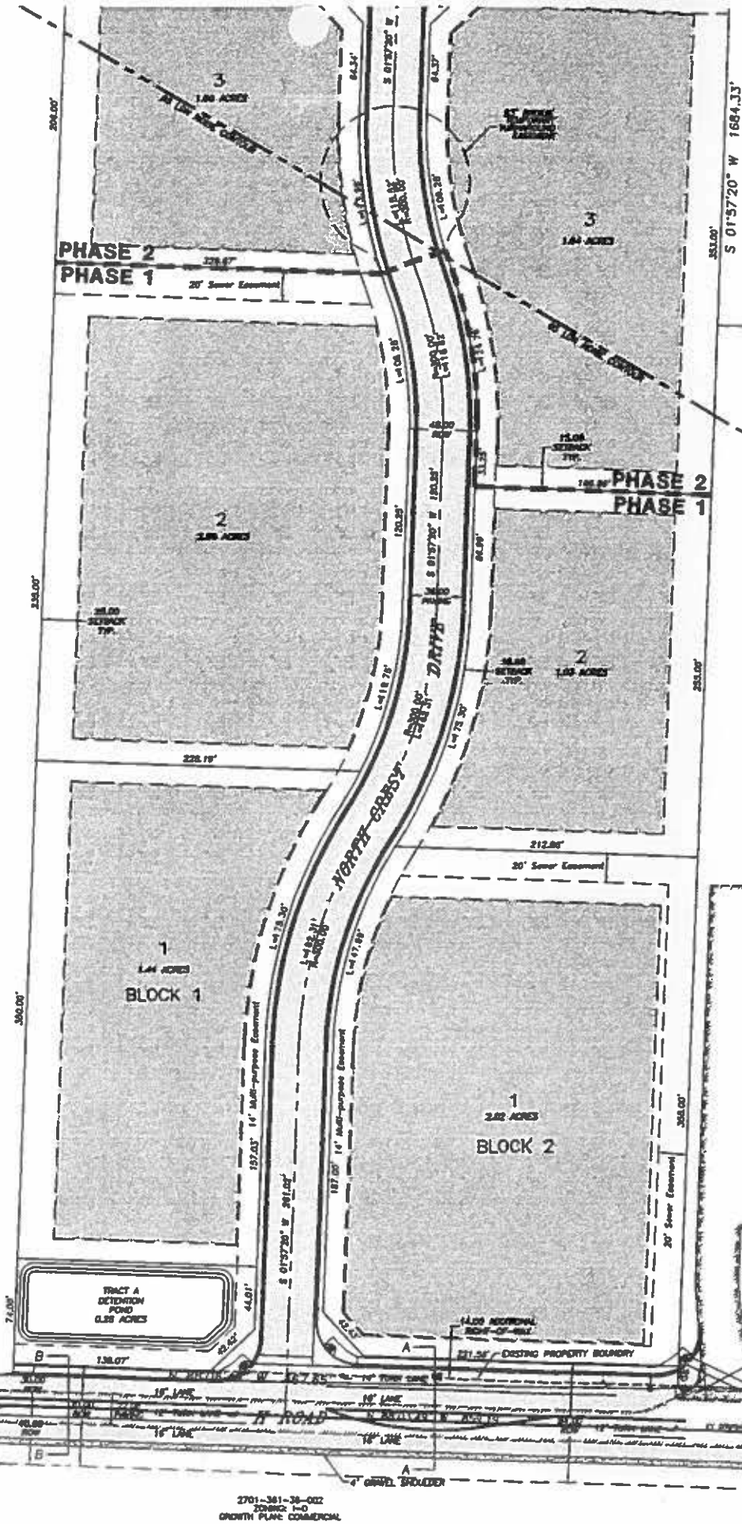
NORTH CREST
INDUSTRIAL PARK

DATE: 02/09/01 | DRAWN: CJM | CHK'D: BCH

PROJECT NO.: 201002 | FILE NAME: 201002-site-100SC

LANDesign
ENGINEERING • SURVEYING • PLANNING
244 NORTH 7TH STREET
GRAND JUNCTION, COLORADO 81501 (970) 245-4099

NORTH CREST INDUSTRIAL PARK
TOTAL ACREAGE 20.001 AC.



COLORADO WEST IMPROVEMENTS
2701-254-08-002
ZONING: I-O
GROWTH PLAN: COMMERCIAL/INDUSTRIAL

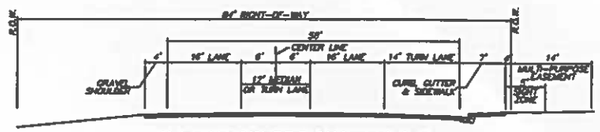
ZONE DISTRICT BULK REQUIREMENTS

INDUSTRIAL-OFFICE (I-O)	
MINIMUM LOT AREA	1 ACRE
MAXIMUM UNITS PER ACRE	N/A
MINIMUM STREET FRONTAGE (CUL-DE-SAC)	N/A
MAXIMUM HEIGHT OF STRUCTURES	40 FEET
MINIMUM LOT WIDTH (AT BUILDING)	100 FEET
MINIMUM SIDE YARD SETBACK	
PRINCIPAL STRUCTURE	15 FEET
ACCESSORY STRUCTURE	15 FEET
*MINIMUM REAR YARD SETBACK	
PRINCIPAL STRUCTURE	25 FEET
ACCESSORY STRUCTURE	25 FEET
MINIMUM FRONT YARD SETBACK	
PRINCIPAL STRUCTURE	15 FEET
ACCESSORY STRUCTURE	25 FEET
MAXIMUM COVERAGE OF LOT BY STRUCTURES	N/A

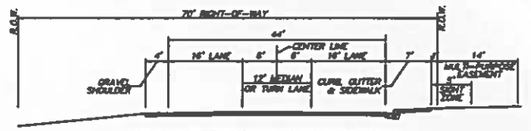
* SOME SIDE YARD SETBACKS ARE MORE RESTRICTIVE DUE TO EASEMENTS

LAND USE TABLE

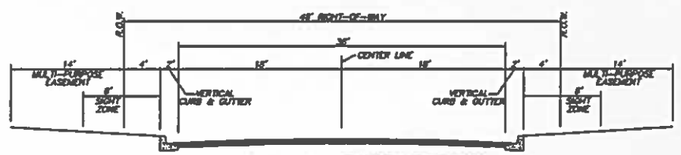
LOTS	17.360 Ac	86.80%
PUBLIC R.O.W.	2.260 Ac	11.30%
ADDITIONAL R.O.W.	0.100 Ac	0.50%
TRACT A	0.280 Ac	1.40%
TOTALS	20.00 AC.	100%
NUMBER OF LOTS	11	
DENSITY	1.81 UNITS PER ACRE	



H ROAD STREET SECTION A-A



H ROAD STREET SECTION B-B



INDUSTRIAL STREET SECTION

0 to 3000 ADT
NO ON-STREET PARKING
NTS

1. VERTICAL CURBS AND GUTTERS ARE REQUIRED ON BOTH SIDES OF ALL INDUSTRIAL STREETS.
2. ALL INDUSTRIAL STREETS SHALL BE SURFACED WITH HOT BITUMINOUS PAVEMENT (HBP) OR PORTLAND CEMENT CONCRETE (PCC). ALL PAVEMENTS SHALL BE DESIGNED IN ACCORDANCE WITH THE AASHTO GUIDE FOR DESIGN OF PAVEMENT STRUCTURES.
3. SEE EXHIBIT "C" FOR DETAILS OF MULTI-PURPOSE EASEMENTS ADJACENT TO ROAD RIGHT-OF-WAY.
4. IN SIGHT ZONES, NO TREES, SHRUBS, FENCES, STRUCTURES OR OTHER OBSTRUCTIONS SHALL BE OVER 30" IN HEIGHT (MEASURED AT THE NEAR EDGE OF ROADWAY). SEE NOTE 5, PAGE ST-14 FOR EXCEPTIONS.

PRELIMINARY NOT FOR CONSTRUCTION
MARCH 23, 2001

BENCHMARK: LS 20632
SOUTHEAST PROPERTY CORNER
ELEVATION: 4781.43 (NAVD 1988)

DATE:	NO:	REVISION:	BY:
03/23/01	1	PER CITY REVIEW COMMENTS	CJM

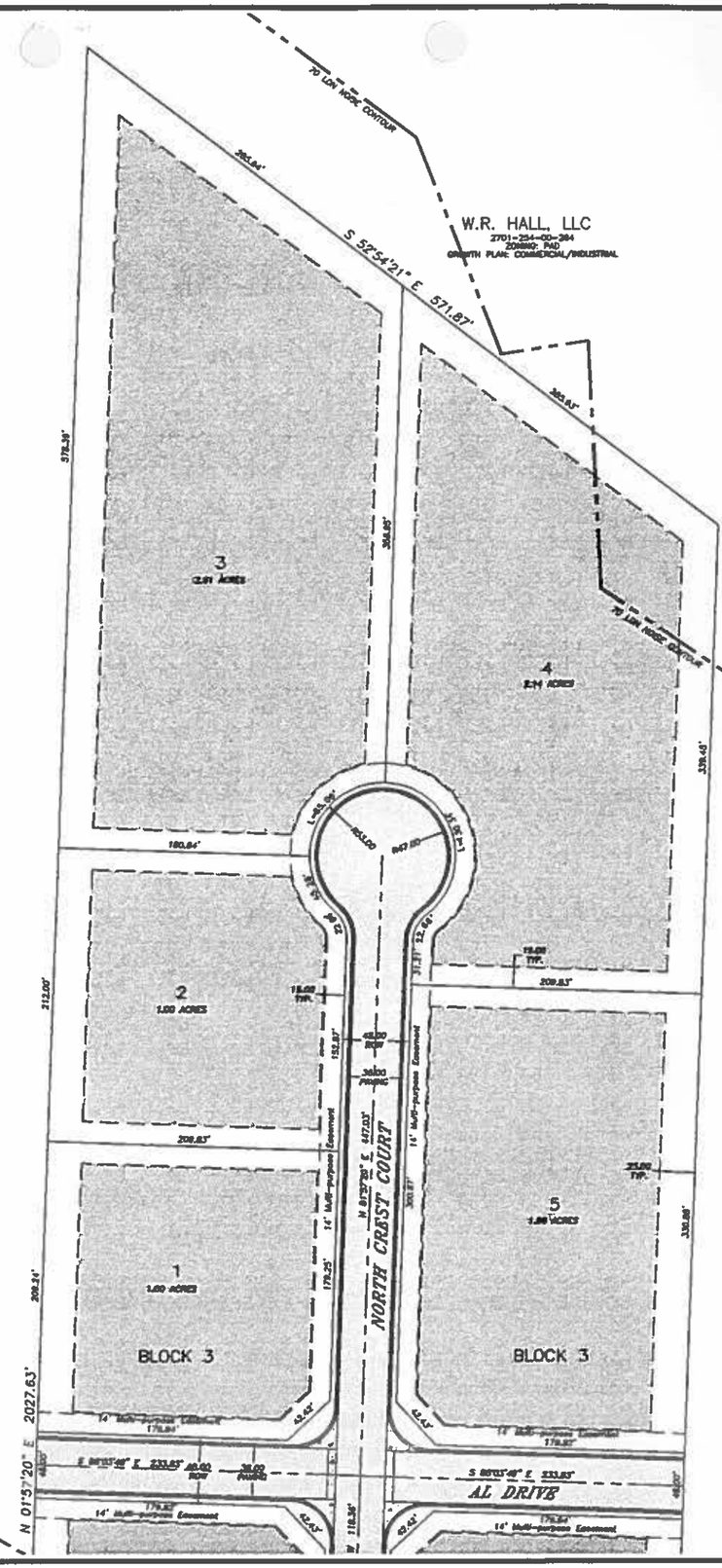
PRELIMINARY PLAN

NORTH CREST INDUSTRIAL PARK

DATE: 02/09/01 | DRAWN: CJM | CHK'D: BCH

PROJECT NO.: 201002 | FILE NAME: 201002-site

LANDesign
ENGINEERS • SURVEYORS • PLANNERS
244 NORTH 7TH STREET
GRAND JUNCTION, COLORADO 81501 (970) 245-4099



BRUCE & WILMA CURRIER
BOOK 1924, PAGE 45
TAX PARCEL 7
2701-234-00-291
ZONING: I-O
GROWTH PLAN: COMMERCIAL/INDUSTRIAL

COLORADO WEST IMPROVEMENTS
2701-234-08-002
ZONING: I-O
GROWTH PLAN: COMMERCIAL/INDUSTRIAL

NORTH CREST INDUSTRIAL PARK
TOTAL ACREAGE 20.001 AC.

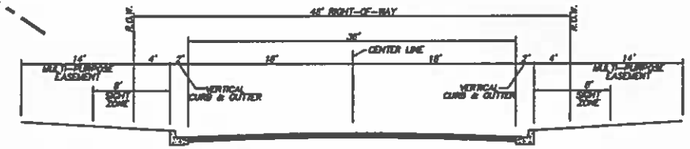
ZONE DISTRICT BULK REQUIREMENTS

INDUSTRIAL-OFFICE (I-O)	
MINIMUM LOT AREA	1 ACRE
MAXIMUM UNITS PER ACRE	N/A
MINIMUM STREET FRONTAGE (CUL-DE-SAC)	N/A
MAXIMUM HEIGHT OF STRUCTURES	40 FEET
MINIMUM LOT WIDTH (AT BUILDING)	100 FEET
MINIMUM SIDE YARD SETBACK	
PRINCIPAL STRUCTURE	15 FEET
ACCESSORY STRUCTURE	15 FEET
*MINIMUM REAR YARD SETBACK	
PRINCIPAL STRUCTURE	25 FEET
ACCESSORY STRUCTURE	25 FEET
MINIMUM FRONT YARD SETBACK	
PRINCIPAL STRUCTURE	15 FEET
ACCESSORY STRUCTURE	25 FEET
MAXIMUM COVERAGE OF LOT BY STRUCTURES	N/A

* SOME SIDE YARD SETBACKS ARE MORE RESTRICTIVE DUE TO EASEMENTS

LAND USE TABLE

LOTS	17.360 Ac	86.80%
PUBLIC R.O.W.	2.260 Ac	11.30%
ADDITIONAL R.O.W.	0.100 Ac	0.50%
TRACT A	0.280 Ac	1.40%
TOTALS	20.00 AC.	100%
NUMBER OF LOTS	11	
DENSITY	1.81 UNITS PER ACRE	



INDUSTRIAL STREET SECTION
0 to 3000 ADT
NO ON-STREET PARKING
NTS

1. VERTICAL CURBS AND GUTTERS ARE REQUIRED ON BOTH SIDES OF ALL INDUSTRIAL STREETS.
2. ALL INDUSTRIAL STREETS SHALL BE SURFACED WITH HOT BITUMINOUS PAVEMENT (HBP) OR PORTLAND CEMENT CONCRETE (PCC). ALL PAVEMENTS SHALL BE DESIGNED IN ACCORDANCE WITH THE AASHTO GUIDE FOR DESIGN OF PAVEMENT STRUCTURES.
3. SEE EXHIBIT "C" FOR DETAILS OF MULTI-PURPOSE EASEMENTS ADJACENT TO ROAD RIGHT-OF-WAY.
4. IN SIGHT ZONES, NO TREES, SHRUBS, FENCES, STRUCTURES OR OTHER OBSTRUCTIONS SHALL BE OVER 30" IN HEIGHT (MEASURED AT THE NEAR EDGE OF ROADWAY). SEE NOTE 5, PAGE ST-14 FOR EXCEPTIONS.

PRELIMINARY NOT FOR CONSTRUCTION
MARCH 30, 2001

BENCHMARK: LS 20632
SOUTHEAST PROPERTY CORNER
ELEVATION: 4781.43 (NAVD 1988)

SCALE: 1" = 50'

DATE:	NO:	REVISION:	BY:
03/30/01	1	PER CITY REVIEW COMMENTS	CJM

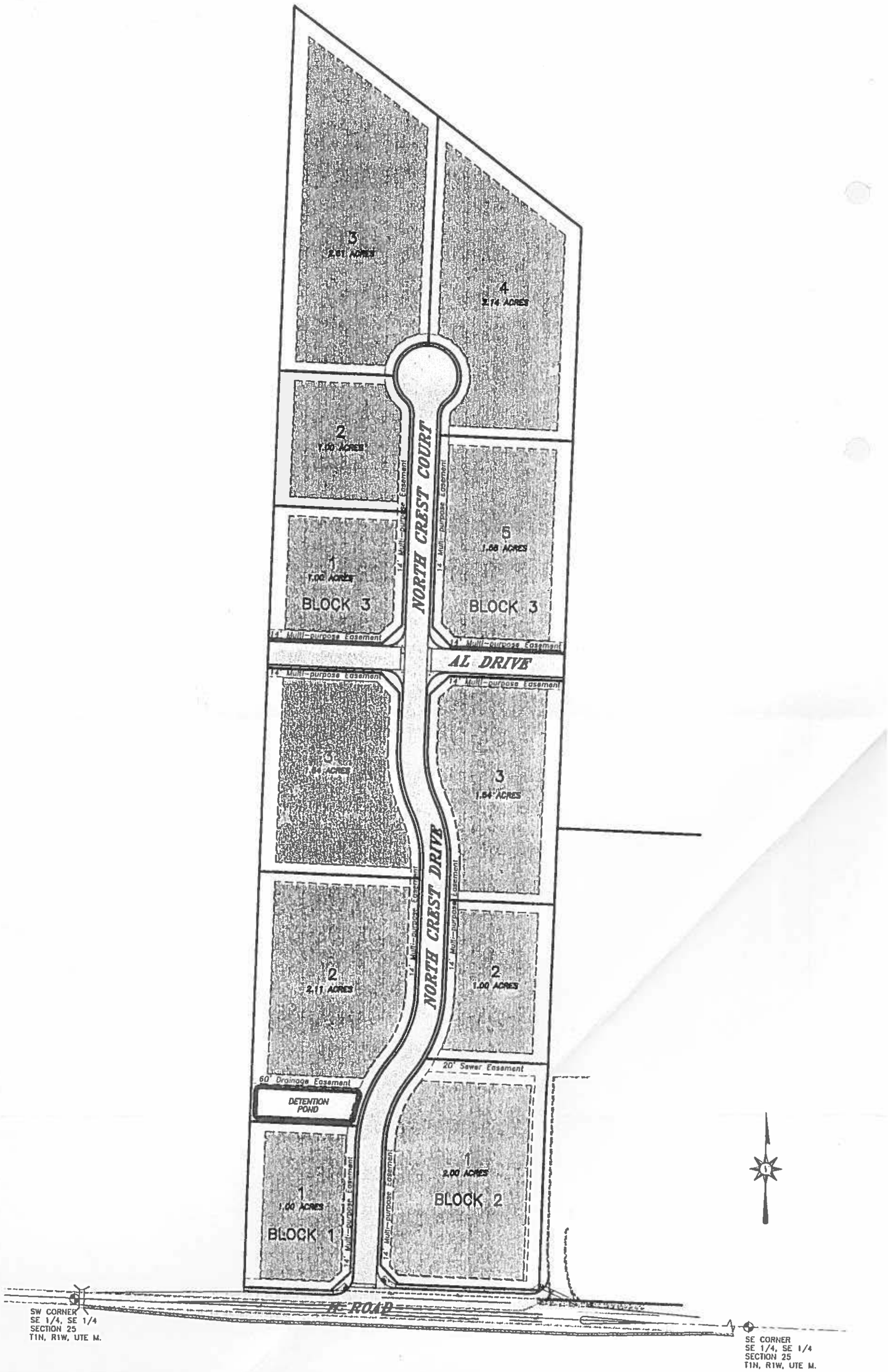
PRELIMINARY PLAN

DATE: 02/09/01 | DRAWN: CJM | CHK'D: BCH

NORTH CREST INDUSTRIAL PARK

PROJECT NO.: 201002 | FILE NAME: 201002-site

LANDesign
ENGINEERS • SURVEYORS • PLANNERS
244 NORTH 7TH STREET
GRAND JUNCTION, COLORADO 81501 (970) 245-4099



PRELIMINARY
NOT FOR
CONSTRUCTION
FEBRUARY 28, 2001

BENCHMARK: LS 20637
SECTION CORNER
ELEVATION: 4781.43 (NAVD 1988)

SHEET 3 OF 9

LANDesign
ENGINEERS • SURVEYORS • PLANNERS
244 NORTH 7TH STREET
GRAND JUNCTION, COLORADO 81501 (970) 245-4099

NORTH CREST
INDUSTRIAL PARK

OVERALL
PRELIMINARY PLAN

DATE:	NO.	REVISION:	BY:

PROJECT NO.: 201002 | FILE NAME: 201002-site-100SC | DATE: 02/08/01 | DRAWN: CJM | CHK'D: BCH

From: Bill Nebeker
To: Rick Dorris
Date: 3/20/01 9:40AM
Subject: North Crest

I assume that you'll be changing your comments #1 and 9. See my comments for wording on commercial street section. Maybe you should ask, Who is AI?

Also you should really enter your comments into impactAP as draft comments, rather than entered so they don't accidently go out in their draft form.

bill

STATE OF COLORADO

COLORADO GEOLOGICAL SURVEY
Division of Minerals and Geology

Department of Natural Resources
1313 Sherman Street, Room 715
Denver, Colorado 80203
Phone: (303) 866-2611
FAX: (303) 866-2461

DEPARTMENT OF NATURAL RESOURCES

AP

RECEIVED

MAR 29 2001

COMMUNITY DEVELOPMENT DEPT.

March 26, 2001

MA-01-0013

LATE

Mr. Bill Nebeker
City of Grand Junction
Community Development Department
250 North 5th Street
Grand Junction, Colorado 81501

Re: Proposed ***North Crest Industrial Park***: North of H Road, South of Landing View Lane and Immediately West of the *3D Systems* Facility, Walker Field Airport Area, Grand Junction

Dear Mr. Nebeker:

At your request, we have reviewed the materials submitted for and made a field inspection of the site of the proposed industrial park indicated above. The following comments summarize our findings.

(1) The general surficial geology of this site consists of clayey surficial sheetflood alluvium(s) derived from drainages the source of which was near or at the base of the Book Cliffs. The Book Cliffs are composed of shales and sandstones of the Mancos and Mesa Verde Formations. The thickness of these surficial materials is not known but they may be quite thick as seen in the modern arroyo which has downcut them immediately to the east of this parcel. It is also possible that they may be relatively thin in places as evidenced by the small low shale hill about 500 yds to the west of the parcel. The parcel slopes gently to the south and southwest except where it is incised by the indicated arroyo. Because of episodic shallow flooding across this parcel and the soils and bedrock types present, there is a shallow perched water table across the entire parcel. The overall surface drainage is poor and the drainage, both surface and subsurface, has been adversely affected by runoff from the Walker Field runways and the industrial development areas that are immediately to the north of Landing View Lane.

(2) Development of this parcel as planned will be problematical because of the indicated soils and drainage conditions.

NOTICE OF DEVELOPMENT APPLICATION

An application for the development proposal described below, located near property you own, has been received by the Grand Junction Community Development Department. The Department encourages public review of proposed development prior to public hearings. The application, including plans, reports and supporting documentation, is available for review during normal business hours (7:30 a.m. - 5:30 p.m. Monday-Friday) at City Hall, 250 North 5th Street. City Planning staff is also available to answer questions and explain the development review process.

PP-2001-057 PRELIMINARY PLAN - NORTH CREST INDUSTRIAL PARK- H Rd, West of 3D Systems
Request for approval of a Preliminary Plat to subdivide 20 acres into 11 lots in an I-O (Industrial Office) zoning district.
Planner: Bill Nebeker

Courtesy notification cards will be mailed to adjoining property owners prior to a public hearing on this item. However, we encourage you to also verify scheduling in one of the following ways:

- call the Community Development Department at (970) 244-1430
- look for a display ad in the Daily Sentinel one day prior to the public hearing (held on the second and sometimes the third Tuesday of each month)
- You may receive a FAX copy of the Planning Commission agendas by calling CITY DIAL at (970) 244-1500 ext. 211.
- Agendas for Planning Commission, City Council, and Board of Appeals items are available prior to the hearing at City Hall, 250 North 5th Street.

Please do not hesitate to contact the Community Development Department at (970) 244-1430 if you have any questions.

Grand Junction Community Development Department. The Department encourages public review of proposed development prior to public hearings. The application, including plans, reports and supporting documentation, is available for review during normal business hours (7:30 a.m. - 5:30 p.m. Monday-Friday) at City Hall, 250 North 5th Street. City Planning staff is also available to answer questions and explain the development review process.

PP-2001-057 PRELIMINARY PLAN - NORTH CREST INDUSTRIAL PARK- H Rd, West of 3D Systems
Request for approval of a Preliminary Plat to subdivide 20 acres into 11 lots in an I-O (Industrial Office) zoning district.
Planner: Bill Nebeker

Courtesy notification cards will be mailed to adjoining property owners prior to a public hearing on this item. However, we encourage you to also verify scheduling in one of the following ways:

- call the Community Development Department at (970) 244-1430
- look for a display ad in the Daily Sentinel one day prior to the public hearing (held on the second and sometimes the third Tuesday of each month)
- You may receive a FAX copy of the Planning Commission agendas by calling CITY DIAL at (970) 244-1500 ext. 211.
- Agendas for Planning Commission, City Council, and Board of Appeals items are available prior to the hearing at City Hall, 250 North 5th Street.

Please do not hesitate to contact the Community Development Department at (970) 244-1430 if you have any questions

(2a) The clayey soils on this parcel are most likely low bearing strength and will be prone to settle if subjected to relatively heavy or concentrated structural loads. For industrial-building construction, a reinforced concrete mat-on-grade system might be used to offset this condition for realatively light weight buildings with large footprints by widely distributing their structural loads on the underlying soil. An alternative might be a conventional shallow foundation system that places footings and pads on properly compacted structural fill after overexcavation of the native materials. In any instance, building sites should be investigated, in detail, by a qualified soils and foundation engineer prior to selecting a foundation design and commencing construction. This should include drilling and possibly trenching of the near surface soils followed by field and laboratory testing to determine their physical characteristics.
(2b) The surface and subsurface drainage across this site is fair to poor. This is because of the indicated historic and modern sheetflooding and the effects of the airport and industrial development to the north of the site. Depending on what is specifically planned to be placed on each of the proposed lots, moderate to extensive drainage improvements probably will be advisable to absolutely necessary. This may include installation of a subsurface underdrain system and redirecting surface drainage from Walker Field away from this site.

(3) Because of the indicated conditions, this will not be a problem free site for industrial development. From the submitted materials, which include a proposed lot- layout plan, topography, and a generalized drainage-control plan, it can be deduced that the developer is aware of the need for surface-drainage control. What is not clear is whether there will be a commitment for additional soils and foundation engineering and probably drainage-control improvements after the specific development plans for the individual building sites are developed. Typically, industrial developments create large impervious areas (e.g. parking lots and large roof square footages) which can alter the on-lot and down-gradient drainage significantly. The runoff from this project area could, if not adequately controlled, adversely affect the *Crossroads* development to the south and possibly other future contiguous or nearby developments.

Sincerely,

James M. Soule

James M. Soule
Engineering Geologist

From: Bill Nebeker
To: Rick Dorris
Date: 3/6/01 9:41AM
Subject: North Crest Industrial Park

I don't know who you've assigned this project to yet, but please forward this to them.

With the uses that are allowed in the I-O zone I believe the commercial street section that includes sidewalks is the more appropriate street section for North Crest Drive and Court. I will be including this as my review comment unless told to do so otherwise.

CC: Kathy Portner; Pat Cecil

LANDesign
ENGINEERING • SURVEYING • PLANNING

July 3, 2001

City of Grand Junction Planning Commission
c/o Community Development Department
City of Grand Junction
250 North 5th Street
Grand Junction, CO 81501

Re: Amendment to the Approved Preliminary Plan
North Crest Industrial Park Subdivision
File No. #PP-2001-057

Dear Planning Commission Members:

Please accept this letter on behalf of the petitioner for North Crest Industrial Park Subdivision. On April 10, 2001 the City of Grand Junction Planning Commission approved the project with 5 conditions. This correspondence is submitted to you requesting an amendment to condition of approval number 3.

The condition of approval states the following, *"The detention pond in Tract A shall be improved with turf or substantial xeriscaping material, which minimizes the use of gravel or cobble at Final approval rather than a more unsightly alternative"*. The petitioner is requesting an amendment to this condition because no source of irrigation water is available. This is because no traditional irrigation water is available to the site and because Ute Water Conservancy District has determined that no tap will be granted for irrigation purposes. A copy of the May 9, 2001 Ute Water Board Meeting minutes is included with this letter that summarizes the denial of the petitioner's irrigation tap request.

The reason for the requested amendment to the condition is because the petitioner has exhausted all options available in providing reliable irrigation water supply to the detention pond. In addition, because substantial irrigation supply is required to sustain turf landscaping or even xeriscaped landscaping as mentioned in the condition, the petitioner feels they can not comply with the condition as written. Therefore, the petitioner respectfully requests that condition of approval number 3 be deleted from the Preliminary Plan approval.

Respectfully,

Brian C. Hart, P.E.

cc: Gregg Cranston

244 N. 7TH STREET • GRAND JUNCTION, CO 81501 • (970) 245-4099 • FAX (970) 245-3076
www.landesign-gj.com

CITY OF GRAND JUNCTION
COMMUNITY DEVELOPMENT DEPARTMENT
250 NORTH 5TH STREET
GRAND JUNCTION CO 81501

U.S.POSTAGE
0.32 2

COMMUNITY DEVELOPMENT
CITY OF GRAND JCT
250 N 5TH ST
GRAND JUNCTION, CO 81501

81501X262A

PLANNING COMMISSION
NOTICE OF PUBLIC HEARING

DATE: APR 1 0 2001 TIME: 7:00 p.m.

PLACE: City Hall Auditorium, 250 North 5th Street

A petition for the following request has been received and tentatively scheduled for a public hearing on the date indicated above.

If you have any questions regarding this request or to confirm the hearing date, please contact the Grand Junction Community Development Department at (970) 244-1430 or stop in our office at 250 North 5th Street.

PP-2001-057 PRELIMINARY PLAN - NORTH CREST INDUSTRIAL PARK- H Rd, West of 3D Systems
Request for approval of a Preliminary Plat to subdivide 20 acres into 11 lots in an I-O (Industrial Office) zoning district.
Planner: Bill Nebeker

PP-2001-057

NORTH CREST

APRIL 3, 2001

Rick Dorris

ROUND TWO

MISCELLANEOUS

1. This property does have significant offsite improvements to be constructed according to City and professional engineering standards. The City understands that this imposes additional cost to the development. However, the ZDC requires these improvements be constructed by the applicant. Please refer to the following code citations.

    - 6.2.A.1 – "Public Improvements. The improvements described in this section must be built by the applicant and constructed in accordance with adopted standards." Listed below this are "a. roads, streets, and alleys" and "b. Sanitary sewer pipes and facilities."
    - 6.2.B.1.d – "Streets, alleys, sidewalks, trails and bikepaths shall be constructed in accordance with applicable City standards. If needed to provide safe and adequate access and circulation for residents, visitors, users and occupants, the applicant shall provide off-site infrastructure."

Granted the section you cited refers to half-street improvements; however, this development requires improvements to both sides of H Road. Consequently, both sides, and the existing H road, must be improved to adopted standards. Another option would be to prove that the existing road meets City standards.

2. 3D systems was developed in the county. Evidently, they didn't required extension of the sewer line. The code sections cited above apply here as well. The sewer must be extended for this development to have the necessary sanitary sewer service.
3. The sanitary sewer manhole near the south end must still be in the street. This avoids having sanitary sewer at acute angles under concrete which could unnecessarily increase replacement costs.

CITY OF GRAND JUNCTION
COMMUNITY DEVELOPMENT DEPARTMENT
250 N 5TH STREET
GRAND JUNCTION, CO 81501

PRESORTED STANDARD

GRAND JUNCTION CO

U.S.POSTAGE

≈ 0 20 6

COMMUNITY DEVELOPMENT
CITY OF GRAND JCT
250 N 5TH ST
GRAND JUNCTION, CO 81501

NOTICE OF DEVELOPMENT APPLICATION

81501%2243

RE/MAX 4000, Inc.
Gregg L. Cranston
Broker Associate
GRI, CRS

RE/MAX Above the Crowd!

RECEIVED
APR 9 2001
COMMUNITY DEVELOPMENT DEPT.

Greg Trainer-Public Works
240 N. 5th.
City of Grand Junction, Colorado 81501

4/9/01

RE: File #PP20-1-57, North Crest Industrial Subdivision

Dear Sir-.

We are facing what we believe is an undue financial burden regarding the extension of Sewer from our proposed project to the existing line currently located in H Rd. at the SE corner of 3-D Systems property.

At the time that 3-D System's site was developed sewer was brought to, but not across, the width of their property to the west side. We believe this was contrary to the City's own development policy at that time. To our knowledge nothing has changed with regard to the City's policy on sewer extension since then. Per that policy we are being required to (as we expected) to connect to sewer and take our sewer completely across our property so the owner to the west of us will be able to hook on in the future.

However, in the interest of fairness, we believe that we are being unfairly financially burdened by the being forced to bear the full cost of extending this sewer line across another developer's property who did not comply with the then existing City Policy at the time of that development. In looking through that development file we found nothing exempting them from doing so.

We are talking about approx 600' to construct this portion of the sewer which was not installed by the prior developer. We estimate that the cost of this section of line including actual construction, traffic control for shutting down H Rd, tearing up and replacing H Rd, may well cost us $40,000 to $50,000. This is cost that, by City policy, we believe should have been borne by the prior developer.

This failure to extend the sewer line across the 3 D property was known to the City at the time and for what ever reason allowed without any provision to offset these cost to future users (us being next to develop).

We believe that this placed an undue and unfair financial burden on us which we are now asking the City to help mitigate these costs in some form.

Respectfully,

Gregg Cranston

POA for Kay Scott, North Crest Development, LLC

Cc: Land Design, Kay Scott, File & Nebeker

1401 N. 1st Street • Grand Junction, CO 81501
Office: (970) 241-4000 Fax: (970) 241-4015 Res: (970) 241-7248 Toll Free: (800) 777-4573

Original at Abstract Title Co.

POWER OF ATTORNEY
(REAL ESTATE)

KNOW ALL MEN BY THESE PRESENTS, that I, North Crest Development, L.L.C., of the County of Mesa, State of Colorado, do make, constitute and appoint Gregg L. Cranston, of the County of Mesa, State of Colorado, to act as my true and lawful attorney for me and in my name, place and stead for my sole use and benefit to grant, bargain, sell, convey, purchase, encumber or contract for the sale or purchase of the following described real estate situate in the County of Mesa, State of Colorado, to wit:

All of North Crest Industrial Park

My said attorney-in-fact is hereby authorized and empowered to collect such monies as may become due from the sale, and to make, execute, acknowledge and deliver contracts for sale, deeds, Deeds of Trust, and other instruments in writing of every kind and nature, including, but not limited to, the sale and loan closing documents and statements, upon such terms and conditions as my said attorney may deem necessary and convenient to accomplish such sale or conveyance of said real estate. My said attorney shall have full power and authority to do and perform all acts necessary to be done to complete a sale or conveyance of said real estate, with full power of revocation, hereby ratifying and confirming all that said attorney shall lawfully do or cause to be done by virtue of this Power of Attorney and the powers contained herein.

~~*This Power of Attorney shall not be affected by disability of the principal.~~
~~*This Power of Attorney shall become effective upon the disability of the principal.~~
*This Power of Attorney shall automatically expire by its own terms upon completion of the limited purpose set forth above.

EXECUTED this 3 day of February, 1997.

North Crest Development, L.L.C.

Kay C. Scott

Kay C. Scott, Managing Agent — Principal

STATE OF Colorado
COUNTY OF Logan
} ss.

The foregoing instrument was acknowledged before me this 3 day of February 1997, by Kay C. Scott, Managing agent for North Crest Development, L.L.C., the Principal.

Witness my hand and official seal.

Sharon Conway
Notary Public

My commission expires:

*Strike according to fact.

My Commission Expires 3/9/99

F. **I-0: Industrial/Office Park**

1. **Purpose.** To provide for a mix of light manufacturing uses, office park, limited retail and service uses in a business park setting with proper screening and buffering, all compatible with adjoining uses. This District implements the *commercial/industrial* and *industrial* future land use classifications of the GROWTH PLAN.

I-0 Summary	
Primary Uses	Light manufacturing, office, commercial services
Max. Intensity	0.75 FAR
Max. Bldg. Size	250,000 sq. ft.

2. **Authorized Uses.** Table 3.5 lists the authorized uses in the I-O District.
3. **Intensity.** Subject to the development standards in this Code, the following intensity provisions shall apply:
   a. Non-residential intensity shall not exceed a floor area ratio (FAR) of 0.75;
   b. Minimum lot size shall be one acre, except where a continuous commercial center is subdivided;
   c. Maximum building size shall be 250,000 square feet, unless a conditional use permit is issued.
4. **General Performance Standards.** Effective and efficient street design and access shall be considerations in the determination of project/district intensity.
5. **I-0 Performance Standards.**
   a. **Retail Sale Area.** Areas devoted to retail sales shall not exceed: ten percent (10%) of the gross floor area of the principal structure, and 5,000 square feet on any lot or parcel.
   b. **Loading Docks.** Loading docks shall be located only in the side or rear yards.
   c. **Vibration, Smoke, Odor, Noise, Glare, Wastes, Fire Hazards and Hazardous Materials.** No person shall occupy, maintain or allow any use in an I-0 District without continuously meeting the following minimum standards regarding vibration, smoke, odor, noise, glare, wastes, fire hazards and hazardous materials. Conditional use permits for uses in this district may establish higher standards and conditions.

RE/MAX

Above the Crowd!®

Friday, April 13, 2001

Charlie Stockton
Ute Water District
560 25 Rd.
Grand Junction, CO 81505

RE: Water Tap for Irrigation of Detention Pond at North Crest Ind. Sub.

Dear Mr. Stockton:

Apparently the City will not have available the transcript from the Planning Commission meeting till at least a week from now.

In light of this let me summarize:

North Crest Development is proposing an Industrial/Office subdivision on H rd immediately west of 3 D Systems at Walker Field. We do not have delivery of irrigation water. We propose this project to be *"desert landscaped"*. At the Planning Commission Meeting 4/10/01 we recieved preliminary approval with conditions.

One of the conditions recommended by the City Planning staff and stipulated by the Planning Commission was that North Crest Development "grass" **or** "substantially zero scape the detention pond without the use of a lot of rock" **vs.** using river cobble which has no water requirement. Either of these stipulated options still require water. Obviously the grass requires substantial water. The zero scape still requires at least temporary water to get it started.

Mr. Nebeker of the City Planning staff indicated to the Planning Commission that a Ute Water Tap for this purpose would be available. I told the Commission I had talked previously to Mr. Dourity at your office and he had indicated a tap was not available for this purpose.

Gregg L. Cranston
Broker Associate
GRI, CRS
RE/MAX 4000, Inc.
1401 North 1st Street, Grand Junction, Colorado 81501-2105
Office: (970) 241-4000, Fax: 241-4015, Toll Free: 1-800-777-4573, Cell: (970) 216-7885
Email: cranston@remax4000.com

RE/MAX Above the Crowd!

The detention pond we are referring to is to be a separate tract to be owned and maintained by an Owners Association for the exclusive purpose of storm water detention.

City Planning contends that a tap for this purpose is in fact available from Ute Water. Your office is telling me that it is not. *I am caught in the middle.*

I would respectfully ask for a clarification of Ute Water's position on this issue in order we may know how to proceed with our project.

Sincerely,

Gregg L. Cranston
North Crest Development, LLC

Cc: file
Land Design
Bill Nebeker - City Planning

4-24-01 North Crest

Greg Cranston
Brian Hart
Mike McDill
Rick Dorris

- We need a smooth H road with good cross slope. (BOTH SIDES)
- Exist 2 or 3 localized depressions they can smooth these out, either by patching/overlay or cutting out the bad sections or something else that meets the goal.
- City WILL NOT pay for any of this work since they have to ~~place~~ widen on both sides due to left turn lane.
- Landesign to do fieldwork & survey on H and propose solution.

PP-01-057

From: "Gregg Cranston" <cranston@gjrealty4000.com>
To: "Bill Nebeker" <billn@ci.grandjct.co.us>
Date: 4/23/01 3:06PM
Subject: Ute water tap - North Crest Ind. Dev.

Bill,

Friday I mailed you a copy of a reply from Ute water to my letter about irrigating the detention pond with their water. You should have it today. It is a pretty unequivical NO.

What now? I would like to get with you and Brien and discuss this. Maybe I have an idea.

Gregg Cranston.

CC: "Brien Hart" <brianh@landesign-gj.com>

01-057

From: "Gregg Cranston" <cranston@gjrealty4000.com>
To: "Bill Nebeker" <billn@ci.grandjct.co.us>
Date: 4/26/01 1:10PM
Subject: North Crest Ind. Sub - irrig. water issue

Bill,

Don't know if you got my email a couple of days ago. I assume by now you have received the copy of the letter from Ute Water to me. They rather emphatically said no.

I would like to meet with you to try to know how to move forward.

Gregg Cranston Ph# 241-4000 ext. 328 cell 216-7885

CC: "Brien Hart" <brianh@landesign-gj.com>

City of Grand Junction
Community Development Department
250 North 5th Street
Grand Junction, CO 81501

U.S. POSTAGE
0.32

COMMUNITY DEVELOPMENT
CITY OF GRAND JCT
250 N 5TH ST
GRAND JUNCTION, CO 81501

81501%2628

DRAFT

COPY

UTE WATER CONSERVANCY DISTRICT

BOARD MEETING #713 MAY 9, 2001

Meeting number seven hundred thirteen of the Board of Directors of the Ute Water Conservancy District and the Ute Water Activity Enterprise was called to order by Chair, Dorothy Hoskin, at 7:30 p.m. at the District Office on May 9, 2001.

ROLL CALL

Answering to roll call were Santo Bertuzzi, James Burkhalter, Bruce Currier, Wallace Downer, Dick Fletcher, Robert Gobbo, Dorothy Hoskin, Harley Jackson, Ronald Jaynes, Robert King, James Rooks and Robert Saunders.

Also in attendance were Larry Clever, Charlie Stockton, Rex Ricks, Tom Crumpton, Ralph Ohm, Bob Dyreng and Tim Moore, Ute Staff members; Rita Crumpton, Recording Secretary; Mark Hermundstad, Ute's Counsel; Patti Herland, Steve Ryken, Mike Seeley and Ed Tolen, Ute employees. Guests present: Gregg Cranston, Developer.

PUBLIC COMMENTS

There were none.

ACTION ITEMS

MINUTES

The Chair noted that each Board member had received a copy of the draft minutes of the April regular meeting in the mail previous to this meeting. She then called for additions, corrections or deletions.

Motion to approve the minutes as distributed made by Santo Bertuzzi, second by Dick Fletcher and carried.

BILLS

Bills totaling $2,697,548.14 were presented to the Board for approval. A listing of all checks written prior to this meeting, totaling $154,629.01, was also presented.

Motion to approve the bills for payment in the amount of $2,697,548.14 and the checks written prior to board meeting in the amount of $154,629.01, made by Dick Fletcher, second by Santo Bertuzzi. The Chair requested that the bills from Barnard Construction Company and Affholder, Inc. be excepted from the motion until change orders could be discussed later in the meeting. Mr. Fletcher and Mr. Bertuzzi agreed to that modification of the motion, changing the

The second Order for Inclusion presented for approval encompassed several relatively isolated areas on the Redlands and in scattered sections of land near Kingsview Estates.

The Chair opened the public hearing on the Petition for Inclusion at 7:50 p.m. There were no comments and the public hearing was closed at 7:51 p.m.

Motion to adopt the Order for Inclusion for scattered properties on the west end of the Redlands and near Kingsview Estates made by Dick Fletcher, second by James Rooks and carried.

IRRIGATION TAP REQUEST – GREGG CRANSTON

The Assistant Manager explained that Mr. Cranston has submitted a proposal for a commercial subdivision to the Planning Department of the City of Grand Junction. The property is located north of H Road in the airport area, immediately west of 3D. The City Planning Department has required the construction of a storm drainage detention pond. They have also required landscaping at the pond. There is no irrigation water available. District staff has issued Mr. Cranston a letter stating that the District does not sell taps for irrigation/landscape purposes (copy attached) and the City has sent him to the board to appeal staff's decision.

Mr. Cranston explained that the project was originally submitted with desert landscaping and the City planning staff decided that the detention pond (which is 20,000 sq. ft.) should not be cobbled, rather, it should be landscaped. Their final decision is that the detention pond is a separate tract and can be approved "with turf or substantial xeriscaping material which minimizes the use of gravel or cobble". Mr. Cranston originally talked with Ute's staff and was told no. He then made those comments at the planning commission meeting, with no acceptable results. The approval of his project by the planning commission is predicated upon either turf or xeriscape.

In answer to a question from Mr. King, Mr. Cranston explained that the only irrigation water that might be available would be at Paradise Hills, which is at least one-half mile west of the proposed industrial development.

Motion to deny the request for an irrigation tap to Gregg Cranston, in keeping with District policy, made by James Burkhalter, second by Ronald Jaynes, with Mr. King and Mr. Jackson voting NAY and Mr. Currier ABSTAINING.

U.S.G.S. GAUGING STATION ON PLATEAU CREEK

The Manager reported that the District has received a request from the U.S. Geologic Survey for permission to install a gauging station on District property at the mouth of Plateau Canyon (the Ostranger property). The site is very close to Big Wash and will not interfere with the operation of the new pipeline.

PP-01-057

LANDSCAPE SPECIALTIES – LANDSCAPE DESIGN & CONSULTING

May 15, 2001

North Crest Development LLC
C/O Gregg Cranston
1401 N. 1st Street
Grand Junction, CO 81501

RECEIVED
MAY 18 2001
COMMUNITY DEVELOPMENT DEPT.

RE: North Crest Industrial Subdivision, Grand Junction, CO

Dear Gregg,

In response to your request for providing services in Landscape Design for the development of Tract A-Detention Pond Area for this project, I must address several concerns regarding the landscape comments made by the Planning Commission.

It is my understanding that there will be no water tap issued for Tract A. In that event, it is very difficult to establish any type of sustainable living landscape treatment (turf, native grasses or plantings, etc.). In order for adequate coverage of native grasses to occur given the dryness and soil type typical found in this particular area you will need a consistent water supply for at least a two to three year period for complete germination to occur. Thereafter, watering of at least once or twice a month would be necessary during the hot summer months and extended dry periods to keep the grasses viable.

Even with "Xeric" plant shrub species planted at 5 gal. sizes will need an adequate drip watering system and/or consistent water source for establishment of the roots.

The only appropriate alternative in treatment of this area would be to use a combination of rock cobbles, boulders and/or crushed decorative rock mulches to line the detention area and accentuate the visual appeal while keeping unwanted weeds from infiltrating.

If you have any further questions or comments, please contact my office and we can discuss this in more detail.

Sincerely,

Mark Gibbons
Landscape Specialties of G.J., Inc

COPY

cc: Niebuhr

2004 N. 12TH ST., SUITE 48 • GRAND JUNCTION, CO 81501 • (970) 243-4147 • FAX (970) 243-8515

RE/MAX

Above the Crowd!®

Wednesday, June 06, 2001

Bill Nebeker
City Of G.J. - Planning Dept.
240 N. 5th.
Grand Junction, CO 81501

RE: North Crest Indust. Sub. Application - Ute water for detention irrigation

Dear Bill:

I just recieved copies of the Ute Water Board minutes. Here is a copy of the front page and the page we are concerned with. As you can see the answer is still - **No** regarding a Ute Water Tap for irrigation of the detention pond. Thus there is no way to meet the City's Planning approval requirement of such.

We are proceeding to prepare our final submittal to you based on what I understood your last comment to me which was: *"submit it with the requirement for the irrigation of the detention pond modified and defend your request".* We are proceeding on that basis unless we hear otherwise from you.

We assume this will be a part of the administrative decisions of the final submittal and will not have to go back to the Planning Commission. If we do have to go back to the Planning Commission, please advise us immediately and we want to do so at the earliest possible date and would hope this could be a "consent item" under the circumstance.

If we should be proceeding any differently from this I would hope for courtesy of written direction from your department or the City Attorney.

Sincerely,

Gregg L. Cranston
North Crest Development LLC

cc: file Kay Scott
Land Design - Brien Hart

Gregg L. Cranston
Broker Associate
GRI, CRS
RE/MAX 4000, Inc.
1401 North 1st Street, Grand Junction, Colorado 81501-2105
Office: (970) 241-4000, Fax: 241-4015, Toll Free: 1-800-777-4573, Cell: (970) 216-7885
Email: cranston@remax4000.com

From: John Shaver
To: Bill Nebeker; Kathy Portner
Date: 6/26/01 5:29PM
Subject: Re: Northcrest Ind Park landscaping

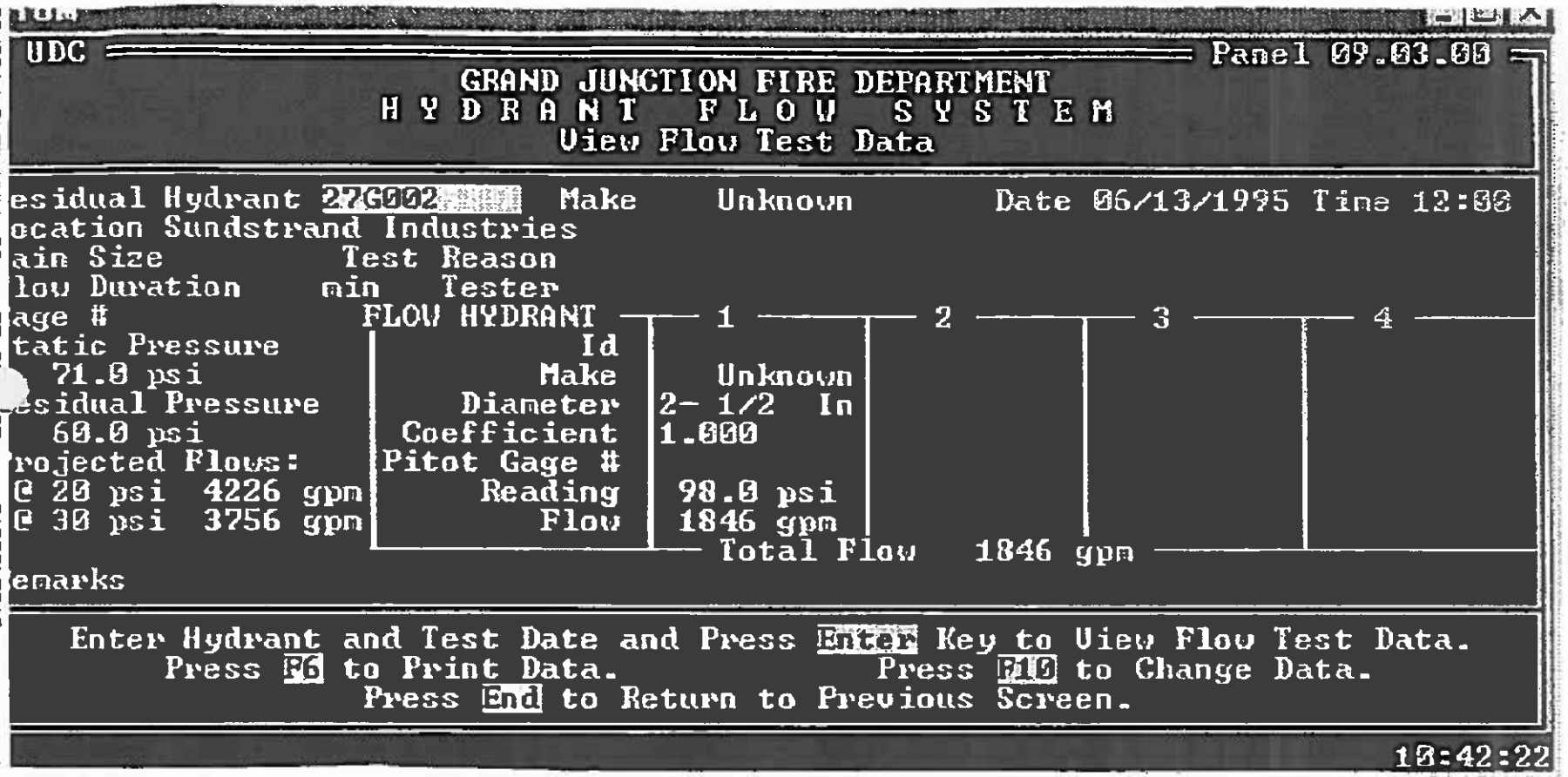
Bill,

We can get him back in front of the PC but only if he first tries to meet the "substantial xeriscaping" part of the condition and there is a legitimate issue on what he has proposed. PC imposed the condition to deal with the possibility that Gregg may not get a tap. Unless and until he does something to meet/discharge the condition he's stuck.

Concerning the Ute position on taps I'd suggest that we meet with Clever (yet again) to determine what happened to his agreement to work with us. Based on a meeting of a year or year and a half ago and our inclusion in the new code of a requirement that a development use irrigation water if it has it, it was my understanding that Ute was willing to soften its position on irrigation only taps. Kathy and/or Dan may have a recollection of the meeting/Ute's position different than mine but certainly we discussed the issue and Clever seemed to understand.

jps

CC: Dan Wilson; Pat Cecil; Rick Dorris



UDC — Panel 09.03.00

GRAND JUNCTION FIRE DEPARTMENT
H Y D R A N T F L O W S Y S T E M
View Flow Test Data

esidual Hydrant 27G002 #1 Make Unknown Date 06/13/1995 Time 12:00
ocation Sundstrand Industries
ain Size Test Reason
low Duration min Tester
age # FLOW HYDRANT — 1 — 2 — 3 — 4
tatic Pressure
71.0 psi
esidual Pressure
60.0 psi
rojected Flows:
@ 20 psi 4226 gpm
@ 30 psi 3756 gpm

Id	
Make	Unknown
Diameter	2- 1/2 In
Coefficient	1.000
Pitot Gage #	
Reading	98.0 psi
Flow	1846 gpm
Total Flow	1846 gpm

emarks

Enter Hydrant and Test Date and Press Enter Key to View Flow Test Data.
Press F6 to Print Data. Press F10 to Change Data.
Press End to Return to Previous Screen.

10:42:22

To: Brian Hart

From; Hank Masterson

Brian, This is the most recent and the nearest flow data we have. Ute should be able to provide up to date data for your project.

From: Dan Wilson
To: Bill Nebeker; John Shaver; Kathy Portner
Date: 6/27/01 8:39AM
Subject: Re: Northcrest Ind Park landscaping

My memory is a tad bit I'm close but with a slight twist: I don't think Clever is the problem, we are. My recollection is that "we" had agreed to get back with them with a map of the areas of the Valley that can't get irrigation water, along with our draft of an agreement and then we meet with staff, in preparation for a followup with the Board.

Greg and I talked recently about getting this work done, to put this issue to bed...

CC: Greg Trainor; Pat Cecil; Rick Dorris

LANDesign
ENGINEERS • SURVEYORS • PLANNERS
244 N 7th STREET – GRAND JUNCTION, CO 81501
(970) 245-4099 FAX: (970) 245-3076

LETTER OF TRANSMITTAL

TO: Bill Nebeker / Kathy Portner
Community Development Dept.

Date: 7/3/01
Job No: 201069.40
Attention:
RE: North Crest Industrial Park Subdivision

WE ARE SENDING YOU ☐ **Attached via: Fax the following items:**
☐ **Proj. Submittal** ☐ **Prints** ☐ **Plans** ☐ **Samples** ☐ **Specifications**

☒ **Copy of letter** ☐ **Change Order** ☐

Copies	Date	Description
1	7/3/01	Amendment to Preliminary Plan Approval Request

THESE ARE TRANSMITTED as checked below:

☐ **For your Approval**
☒ **For your use**
☐ **As requested**
☐ **For review and comment**
☐ **Prints returned after loan to us**
☐

REMARKS:

Bill,

Please let me know ASAP when this amendment request will be scheduled for Planning Commission Hearing. Thanks,

Brian

RECEIVED
JUL 0 3 2001
COMMUNITY DEVELOPMENT DEPT.

COPY TO:

SIGNED: Brian Hs

CITY OF GRAND JUNCTION **HEARING DATE:** July 24, 2001

PLANNING COMMISSION **STAFF PRESENTATION:** Bill Nebeker

AGENDA TOPIC: Preliminary Plat - Amendment to Condition – North Crest Industrial Park located north side of H Road west of 3d Systems at the 27 ¾ Road alignment; File #PP-2001-057.

SUMMARY: The applicant requests to amend a condition of preliminary plat approval for North Crest Industrial Park to eliminate the need for a landscaped detention pond. The reason for the request is that Ute Water has refused to issue a tap solely for landscaping purposes. Staff recommends Planning Commission's consideration of this request.

ACTION REQUESTED: Decision on request to amend preliminary condition.

BACKGROUND INFORMATION					
Location:		North side of H Road west of 3d Systems (27 ¾ Road alignment)			
Applicants:		Brian Hart, LANDesign for Gregg Cranston of North Crest LLC			
Existing Land Use:		Vacant			
Proposed Land Use:		Industrial			
Surrounding Land Use:	**North**	Vacant			
	South	Vacant			
	East	Industrial (3D Systems) & vacant			
	West	Agricultural			
Existing Zoning:		I-O (Industrial Office)			
Proposed Zoning:		No change proposed			
Surrounding Zoning:	**North**	I-O			
	South	I-O			
	East	I-O			
	West	I-O			
Growth Plan Designation:		Commercial/Industrial			
Zoning within density range?		NA	Yes		No

Staff Analysis:

On April 10, 2001 the Planning Commission approved the preliminary plat for North Crest Industrial Park, an 11-lot subdivision on 20 acres in an I-O (Industrial Office) zone district. The following conditions were imposed on the development:

1. The 65 Ldn Noise Contour shall be shown on the final plat with a note referencing the conditional use permit's required in Table 7.3.

2. No lots within this subdivision shall have direct access to H Road. A note to this effect shall be placed on the final plat.

3. **The detention pond in Tract A shall be improved with turf or substantial xeriscaping material, which minimizes the use of gravel or cobble at Final approval rather than a more unsightly alternative.**

4. The applicant shall bring the existing asphalt on H Road up to city standards, as per the city engineer's comments, adjacent to this development. This can be accomplished with removal and reconstruction or overlay to provide a smooth profile. This condition does not include curb, gutter or sidewalk on the south side.

At the hearing the applicant had concerns with condition #3 regarding the landscaping of the detention pond. There is no irrigation delivery system available to the property and previous discussions with Ute Water were not positive in relation to the district granting a tap solely for irrigation purposes. Following the Planning Commission hearing, Mr. Gregg Cranston, the owner/developer, made a formal request before the Ute Water Board at their meeting of May 9, 2001. At that meeting the board denied the request for a tap for irrigation purposes. Mr. Cranston has now filed this request to delete the condition from preliminary plan approval.

The City's Stormwater Management Manual (SWMM) does not require a landscaped detention pond. The manual allows that the pond be treated with an alternative, at the developer's discretion. However the Planning Commission imposed the condition of landscaping due to the proximity of the detention pond along a major street frontage and due to the I-O zone district which promotes a mix of uses in "a business park setting with proper screening and buffering." There was considerable discussion at the April 10th hearing regarding this issue. See attached minutes for further information.

The City has had discussions with Ute Water on this issue. The Zoning and Development Code was amended to provide the following provision in regards to irrigating required landscaped areas: "Non-potable irrigation water shall be used unless the Director allows the use of potable water." (6.5.B.6.a) However to date the City has been unable to come to an agreement with Ute Water to amend their policy.

The applicant has submitted the attached letter requesting that the condition be deleted since Ute will not grant a tap. There are alternatives to irrigation other than a Ute tap but these alternatives may be onerous for the applicant. Some of these alternatives are as follows:

• Trucking water to the site for direct watering or the filling of a cistern. Xeriscaping, once established on site, would use minimal water.

• Eliminating the tract and providing the pond in an easement on a buildable lot; then using the Ute Water tap for that lot to irrigate the landscaping in the detention pond. The drawback to this option is that development of the lot may not coincide with construction/landscaping of the pond.

• Providing various colors or sizes of non-plant materials in the pond and/or moving the detention pond to a less public location, such as to the north or west of lot 1.

The applicant may have additional options to present at the hearing.

RECOMMENDATION: Delete or modify condition #3 of preliminary plan approval for North Crest Industrial Park.

ATTACHMENTS:

1. Letter request from applicant
2. Ute Water Board minutes of May 9, 2001
3. Planning Commission minutes of April 10, 2001
4. Aerial photo/vicinity map
5. preliminary plat

BillnIh\pp\01057-NorthcrestlP-rpcr.doc\report prepared070901

MOTION: (Commissioner Binder) "Mr. Chairman, on item CUP-2001-097, I move that we approve the variance of the Conditional Use Permit for the proposed telecommunications tower on Melody Lane, finding it in conformance with the Growth Plan and Section 2.1.3 and 2.1.6 of the Zoning and Development Code."

Commissioner Nall seconded the motion. A vote was called and the motion failed unanimously by a vote of 0-7.

A brief recess was called at 9:56 P.M. The public hearing reconvened at 10:04 P.M.

PP-2001-057 NORTH CREST INDUSTRIAL PARK—AMENDMENT TO CONDITION
A request to amend Preliminary Plan condition regarding the landscaping of the detention pond.
Petitioner: **North Crest LLC, Gregg Cranston**
Location: **North side of H Road, west of Walker Field Airport**
Representative: **LANDesign, Brian Hart**

PETITIONER'S PRESENTATION
Gregg Cranston, petitioner, said that condition 3 of the approved Preliminary Plan required water to the detention pond for irrigation/landscaping purposes. Because irrigation water is unavailable from Ute Water for this purpose, he had appealed Ute's original denial to its Board of Directors but the denial was upheld. With no other water provision option available, Mr. Cranston asked that condition 3 be waived.

QUESTIONS
Commissioner Dibble asked if the condition were deleted, what landscaping would be placed in the pond? Mr. Cranston said that he'd approached a landscape architect and a nursery representative for ideas. He passed out copies of a letter from Dennis Hill, nursery manager at Bookcliff Gardens, who said that without a reliable water source, the only practical alternative is lining the pond with either gravel or cobble. A similar letter had been received (copies also distributed) from Mark Gibbons of Landscape Specialties. Mr. Cranston proposed laying down a weed barrier underneath some type of rock lining. He'd thought about bringing in colored gravel, but silt deposits, he said, would effectively eliminate any aesthetic benefit of the colored stone.

STAFF'S PRESENTATION
Bill Nebeker presented an aerial photo of the site. He noted that the adjacent business, 3D Systems, had a grassed detention pond because the Ute tap was used primarily for the building, not the landscaping. 3D Systems pond was not located in a separate tract. He confirmed that Ute's policy did not permit taps to be issued exclusively for irrigation purposes. Possible options, he said, included reconfiguring the detention pond or requiring a cistern.

QUESTIONS
Commissioner Dibble asked if reconfiguring the pond would solve the problem. Mr. Nebeker presented a Preliminary Plan and noted one variation (extending the pond northward along the west side of lot 1). That option, he said, would require enlarging the area of the pond.

Commissioner Binder wondered who supplied golf courses with the water they used. Mr. Nebeker said that golf courses were typically supplied with City water. Commissioner Binder said that if the pond were moved, would landscaping still be required along the H Road frontage? Mr. Nebeker acknowledged that it would.

A brief discussion ensued over whether there were other situations similar to this one within the city limits. Mr. Shaver confirmed that this situation was unique. He said the City requires that non-potable water be used if available.

PUBLIC COMMENTS

There were no comments either for or against the request.

PETITIONER'S REBUTTAL

Brian Hart, representing the petitioner, said that if the detention pond were repositioned, it would adversely impact the building envelope for Lot 1. Sewer service, he said, to that lot would also be impacted, necessitating installation of a lift station. Even if repositioned, the pond would still be visible from H Road.

Mr. Cranston confirmed that relocation of the detention pond as suggested would severely restrict Lot 1. The location of the pond along H Road is really the only viable alternative, he said.

QUESTIONS

Commissioner Dibble wondered if some type of decorative fencing could be installed along the south side of the pond along the H Road frontage. Mr. Cranston said that he would be amenable to installing some type of rail fencing. Mr. Nebeker said that if the pond could be moved back from the frontage approximately 15 feet, a landscaping easement could be placed over that 15-foot section. At the time of final platting, landscaping of the 15-foot strip with trees and shrubs could be required. If a rock or concrete block wall were then installed, the pond would be effectively screened. Maintenance of plantings along the frontage would be required.

Commissioner Binder said that screening improvements could be limited to the area along the pond, not to extend along the entire frontage of H Road.

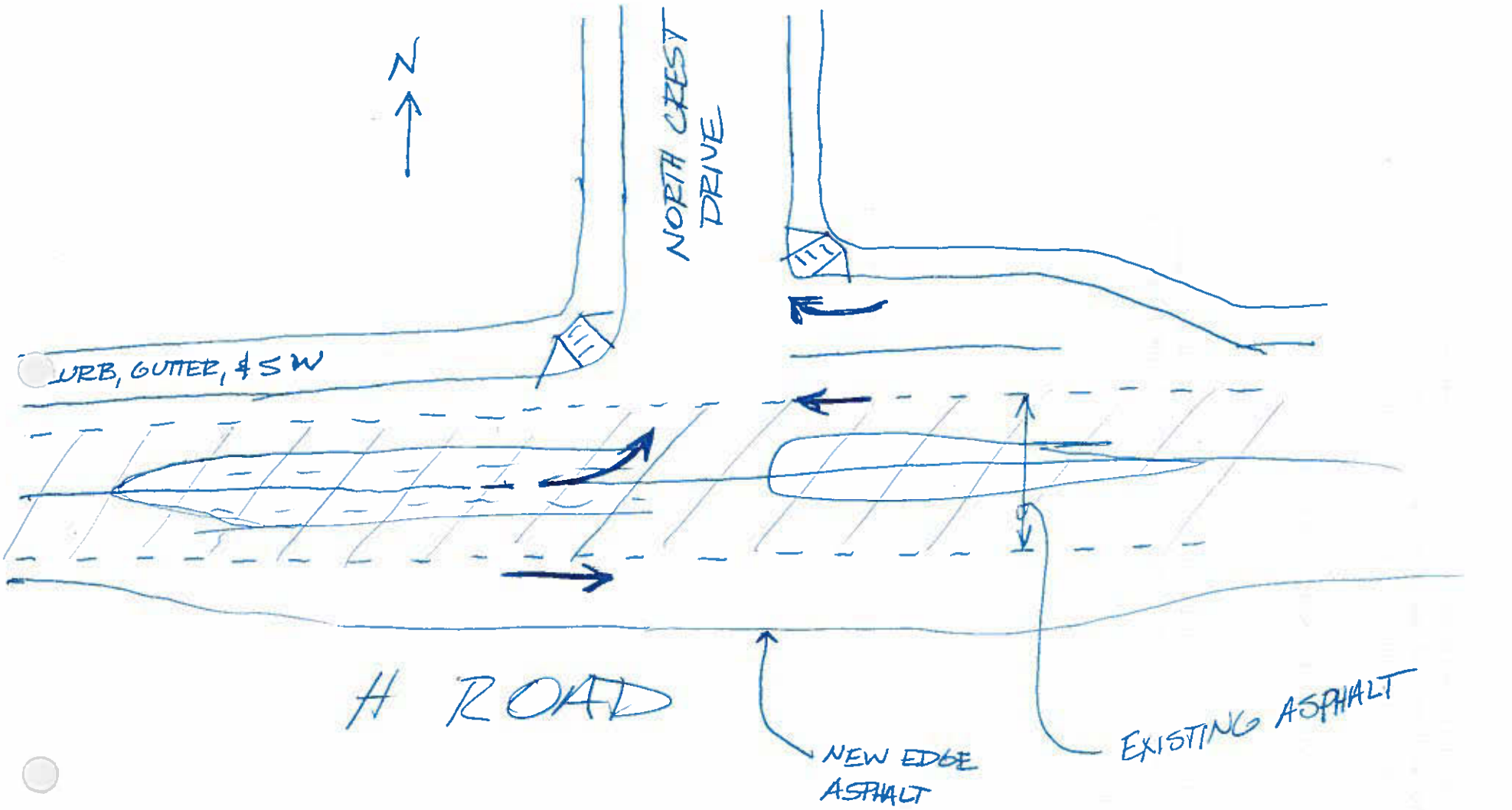
Mr. Nebeker said that if this seemed to be the Planning Commission's preference, then the pond could stay where it was. Mr. Cranston thought that bringing in some large sandstone boulders might be aesthetically pleasing while achieving the desired screening result. The landscaping/fencing alternative received unanimous support from planning commissioners.

Chairman Elmer suggested the following alternate verbiage for condition 3: "The detention pond in Tract A shall be improved with a weed barrier and be gravel or cobble, with an architectural feature utilizing a split-rail or open-slat fence, large rocks or decorative wall to screen the pond from H Road."

MOTION: (Commissioner Putnam) "Mr. Chairman, on item PP-2001-057, I move that we approve the request, offering the following substitute verbiage for Preliminary Plan condition 3: 'The detention pond in Tract A shall be improved with a weed barrier, and gravel or cobble, with an architectural feature utilizing a split-rail or open-slat fence, large rocks and/or decorative wall to screen the pond from H Road.'"

Commissioner Binder seconded the motion. A vote was called and the motion passed unanimously by a vote of 7-0.

With no further business to discuss, the meeting was adjourned at 10:45 P.M.

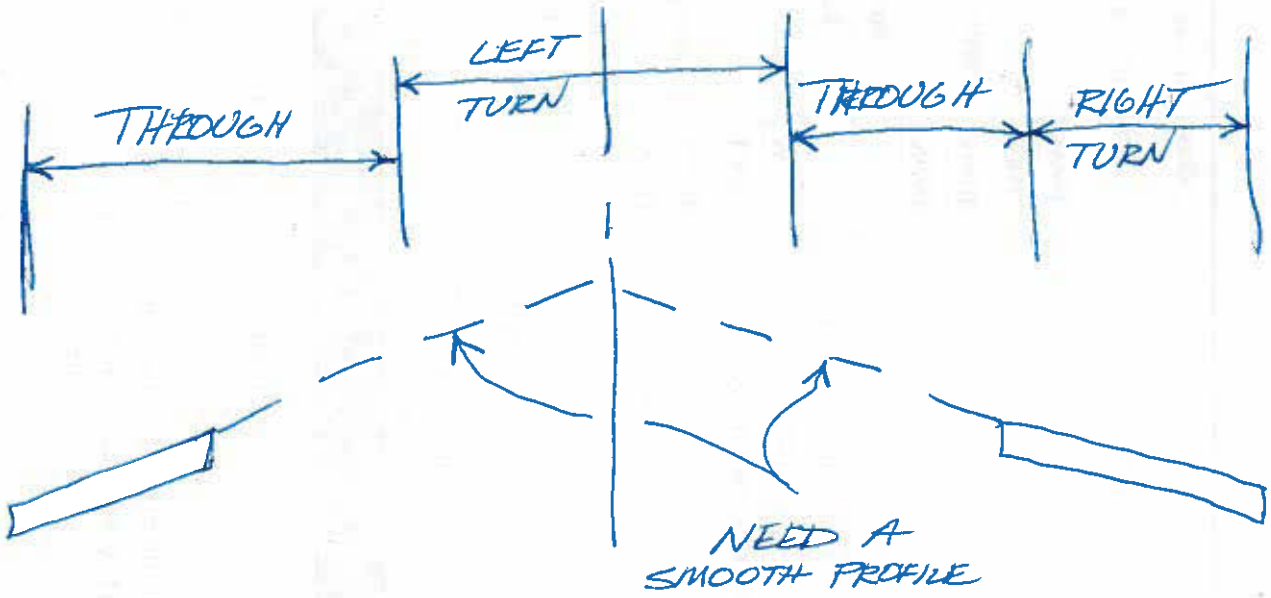

N
NORTH CREST DRIVE
CURB, GUTTER, & SW
H ROAD
NEW EDGE ASPHALT
EXISTING ASPHALT


EXISTING PROFILE
NEEDED PROFILE

EXHIBIT "A"

TYPE LEGAL DESCRIPTION BELOW, USING ADDITIONAL SHEETS AS NECESSARY. USE SINGLE SPACING WITH A ONE (1) INCH MARGIN ON EACH SIDE.

Commencing at the Southeast corner of said Section 25 whence the Southwest corner, SE 1/4, SE 1/4 of said Section bears North 88°03'49" West 1317.56 feet; thence along the East line of the SE 1/4 SE 1/4 of said Section North 01°57'20" East 30 feet; thence running parallel to the South line of the SE 1/4 of said Section North 88°03'49" West 583.60 feet to the TRUE POINT OF BEGINNING: thence North 88°03'49" West 467.65 feet; thence North 01°57'20" East 2027.63 feet; Thence South 52°54'21" East 571.87 feet; thence South 01°57'20" West 1698.33 feet to the POINT OF BEGINNING. That the owners have caused the said real property to be laid out and surveyed as NORTH CREST INDUSTRIAL PARK, a subdivision of a part of the City of Grand Junction, Mesa County, Colorado.



CROSS-SECTION LOOKING WEST

13654

City of Grand Junction

Department of Community Development

Your Bridge to a Better Community

Date 3/5/01

Payee Name K.C. Scott Family LTD Partnership

Address 4155 E. Jewell Ave Ste 300

Telephone Denver, CO. 80222

Project Address/File/Name PP-2001-057

*** PLEASE CIRCLE ALL THAT APPLY**

DESCRIPTION *	AMT	DESCRIPTION *	AMT
DEVELOPMENT PROJECTS 100-321-43195-13-109465		*PERMITS* 100-321-43195-13-124415	
~~Fee Due~~ Name labels	50	Temporary Use Permit	
Conditional Use		Floodplain Permit	
Special Use		Sign Permit (#)	
Major Sub-ODP, Prelim, Final		Special Events Permit (#)	
Minor Subdivision		Fence Permit (#)	
PDR - ODP, (Prelim) Final	930	Home Occupation Permit	
ROW / Easement Vacation			
Replat / Property Line Adj		*OTHER*	
Variance		School Impact 701-905-43994	
Site Plan Review		Drainage 202-61314-43995-30	
Minor Change		TCP 2071-61314-43993-30	
Change of Use		Sign Deposit 100-21090-131840	
Planning Clearance (PAID) 100-321-43195-13-124450		Manuals, Copies, etc. 100-321-43195-13-120515	

3/5/2001

Treasurer Receipt No. KH TOTAL $ 980.00

(White: Customer) (Canary: Finance) (Pink: Planning) (Goldenrod: File)

76 3606 & 3607

c: Brian Hart

GENERAL PROJECT REPORT

North Crest Industrial Park Subdivision

February 28, 2001

Submitted by:

North Crest Development, LLC.
Route 2 Box 81
Merino, CO 80741

A. Project Description

North Crest Industrial Park Subdivision is located on H Road west of Walker Field and immediately west of 3D Systems. The project plans for the development of 11 lots, with a minimum lot size of 1.0 acre. A previous application for the subject property was submitted in 1997 and that application and approval has since expired. This project is separate, as it has been completely reconfigured.

B. Public Benefit

North Crest Industrial Park Subdivision will provide the area with a quality industrial-office project. This proposed development is planned and designed in accordance with the City of Grand Junction Standards.

C. Project Compliance, Compatibility, and Impact

1. Zoning and Growth Plan

   The subject property is designated as Commercial/Industrial and is zoned I-O (Industrial-Office). The setbacks for the proposed project zone are consistent with the I-O zone designation.

   Setbacks:

   Front Yard Setback -- 15 ft, 25 ft for accessory structures
   Side Yard Setback -- 15 ft, 15 ft for accessory structures
   Rear Yard Setback -- 25 ft, 25 ft for accessory structures

2. Surrounding Land Use

   Land use surrounding the property is limited to vacant land and similar industrial and commercial uses. Walker Field Airport and related industrial uses are located to the north and east, 3D Systems is located directly east and vacant land exists to the south and west.

3. Site Access and Traffic Patterns

   There are no existing streets other than H Road that will serve the project. The main access will enter the project near the center of the property frontage along H Road. This road will continue north to a cul-de-sac to serve the north portions of the project and a required east-west street will connect adjacent properties.

A traffic study has been completed for this project as required and is included with this submittal. The assumptions for land use were derived from the allowed uses based on the I-O zone and a conservative, but realistic floor-area-ratio. The results of the study showed that there is a left turn lane is required into the project from H Road and right turn deceleration lane into the project from H Road. The Preliminary Plan shows the required streets improvements, including the turn lanes.

The striping for the improvements required to H Road are shown in accordance with the standard collector street. The proposed striping is shown in accordance with the traffic study and accommodates the collector street. However, the striping for the improvements constructed with 3D Systems was not done in accordance with the standard collector street. This results in costs for additional striping improvements that will be incurred by the petitioner. The petitioner respectfully requests that the City participate in the improvements since construction was not completed in accordance with City standards.

4. Utilities

All utilities will be extended from existing facilities that surround the subject property.

Sanitary sewer will be connected to the existing main located in H Road just east of 3D Systems. The sewer main will be extended along H Road to the east boundary of the property where it will run along the east boundary and eventually turn to the main access road. The sewer line is not shown along the entire frontage of the property because, even at minimum grade, the sewer line will conflict with H Road, causing the sewer line to come above the existing street grade.

It is important to note that the sanitary sewer improvements constructed with the 3D Systems project were not performed in accordance with the City of Grand Junction standards. This is evident in the fact that the sewer line that 3D Systems ties into ends near Falcon Way, near the 3D System's main entrance. For several years, the standard policy of the City of Grand Junction has required all projects to construct sewer along the project's entire frontage. This will result in extensive off-site sewer improvements that will be required for this proposed project that would normally not be needed if standard City policy was enforced for 3D Systems. The petitioner feels that this burden is unfair. Therefore, the

petitioner respectfully requests that the City participate in the off-site sanitary sewer improvements.

Domestic water will be provided by Ute Water and will be connected to the 18" steel main in H Road.

All dry utilities will be extended from existing facilities adjacent to the site.

5. Effects on Public Facilities

It is not anticipated that this project will have any unusual effects on public facilities such as fire department, police station, sanitation, streets, parks, schools or irrigation.

6. Project Impact on Site Geology

It is not anticipated that this project will have an impact on site geology or current geologic conditions. At the direction of the project staff planner, this project has submitted the previous Geology Investigation, H Road pavement section design and letters from the Colorado Geologic Survey regarding the subject property. This information provides a clear picture of the geologic and geotechnical conditions of the site and is considered sufficient information for this application. This information is being submitted in place of a geotechnical report with the understanding that a Final Geotechnical Report will be submitted with the final design. A check for the application to the Colorado Geological Survey is included with this submittal.

7. Drainage

A Preliminary Drainage Report is included with this application. A detention pond is planned for the project and is located along the west boundary of the project.

D. Development Schedule and Phasing

The rate at which North Crest Industrial Park Subdivision is developed will depend on the market demand for industrial-office lots. The Preliminary Plan shows the proposed phasing for the project, which includes the first four lots on the south half of the property. It is anticipated that the first phase of the project will be submitted within 6 months of project approval. The schedule for Phase 2 is planned for a submittal 2 years after the Phase 1 Final Plan and Plat approval.


CROSSROADS BLVD
INTERSTATE 70

File Copy PP-2001-057 BN

GRAND JUNCTION PLANNING COMMISSION
APRIL 10, 2001 MINUTES
7:05 P.M. 9:50 P.M.

The regularly scheduled Planning Commission hearing was called to order at 7:05 P.M. by Chairman John Elmer. The public hearing was held in the City Hall Auditorium.

In attendance, representing the Planning Commission, were John Elmer (Chairman), Dr. Paul Dibble, Terri Binder, James Nall, Mike Denner and Nick Prinster. William Putnam was absent.

In attendance, representing the Community Development Department, were Lisa Gerstenberger (Senior Planner), Pat Cecil (Development Services Supervisor) and Bill Nebeker (Senior Planner).

Also present were John Shaver (Assistant City Attorney), Rick Dorris and Eric Hahn (Development Engineers).

Terri Troutner was present to record the minutes.

There were approximately 30 interested citizens present during the course of the hearing.

I. APPROVAL OF MINUTES

Available for consideration were the minutes from the March 13 and March 20, 2001 public hearings.

MOTION: (Commissioner Binder) "Mr. Chairman, I move that we approve the minutes of March 13."

Commissioner Dibble seconded the motion. A vote was called and the motion passed by a vote of 4-0, with Commissioners Prinster and Denner abstaining.

MOTION: (Commissioner Binder) "Mr. Chairman, I move that we approve the minutes of March 20."

Commissioner Dibble seconded the motion. A vote was called and the motion passed by a vote of 3-0, with Commissioners Prinster, Nall and Denner abstaining.

II. ANNOUNCEMENTS, PRESENTATIONS AND/OR VISITORS

Chairman Elmer introduced and welcomed new Planning Commission member, MikeDenner. Chairman Elmer mentioned that Mr. Denner had served on the Planning Commission once before.

Items pulled from the agenda included ANX-2001-043 (Zoning the Annexation - Sage Properties Subdivision), CUP-2001-054 (Conditional Use Permit - Jenkins Floral Amended), ANX-2001-011 (Preliminary Plan - Westland Subdivision), ANX-2001-052 (Zoning the Annexation - Cantrell Subdivision), and ANX-2001-061 (Annexation/Rezone/Preliminary Plan - Flint Ridge Subdivision).

III. CONSENT AGENDA

The Consent Agenda consisted of items CUP-2001-055 (Conditional Use Permit - Standard tire), FP-2001-058 (Final Plat - Grandview Subdivision, Filings 5 & 6), and FPP-1999-280 (Correction of Zoning - Faircloud Subdivision). Clarification on item FP-2001-058 (Final Plat - Grandview Subdivision, Filings

1. The 65 Ldn Noise Contour shall be shown on the final plat with a note referencing the conditional use permit's required in Table 7.3.

2. No lots within this subdivision shall have direct access to H Road. A note to this effect shall be placed on the final plat.

3. **The detention pond in Tract A ~~shall be improved with turf or substantial xeriscaping material, which minimizes the use of gravel~~ or cobble at ~~Final approval~~ rather than a more ~~unsightly alternative~~.** Combined with an architectural feature utilizing split rail fence or open slat fence, large rocks or CMU to hide pond from HRD.

4. The applicant shall bring the existing asphalt on H Road up to city standards, as per the city engineer's comments, adjacent to this development. This can be accomplished with removal and reconstruction or overlay to provide a smooth profile. This condition does not include curb, gutter or sidewalk on the south side.

At the hearing the applicant had concerns with condition #3 regarding the landscaping of the detention pond. There is no irrigation delivery system available to the property and previous discussions with Ute Water were not positive in relation to the district granting a tap solely for irrigation purposes. Following the Planning Commission hearing, Mr. Gregg Cranston, the owner/developer, made a formal request before the Ute Water Board at their meeting of May 9, 2001. At that meeting the board denied the request for a tap for irrigation purposes. Mr. Cranston has now filed this request to delete the condition from preliminary plan approval.

The City's Stormwater Management Manual (SWMM) does not require a landscaped detention pond. The manual allows that the pond be treated with an alternative, at the developer's discretion. However the Planning Commission imposed the condition of landscaping due to the proximity of the detention pond along a major street frontage and due to the I-O zone district which promotes a mix of uses in "a business park setting with proper screening and buffering." There was considerable discussion at the April 10th hearing regarding this issue. See attached minutes for further information.

The City has had discussions with Ute Water on this issue. The Zoning and Development Code was amended to provide the following provision in regards to irrigating required landscaped areas: "Non-potable irrigation water shall be used unless the Director allows the use of potable water." (6.5.B.6.a) However to date the City has been unable to come to an agreement with Ute Water to amend their policy.

The applicant has submitted the attached letter requesting that the condition be deleted since Ute will not grant a tap. There are alternatives to irrigation other than a Ute tap but these alternatives may be onerous for the applicant. Some of these alternatives are as follows:

• Trucking water to the site for direct watering or the filling of a cistern. Xeriscaping, once established on site, would use minimal water.

... shall be ~~improved~~ with Weed barrier, gravel or cobble ~~and~~ combined with an architectural feature utilizing split rail or open slat fence, large rocks, decorative CMU to screen the pond from HRD.

CITY OF GRAND JUNCTION **HEARING DATE:** April 10, 2001

PLANNING COMMISSION **STAFF PRESENTATION:** Bill Nebeker

AGENDA TOPIC: Preliminary Plat – North Crest Industrial Park located north side of H Road west of 3d Systems at the 27 ¾ Road alignment; File #PP-2001-057.

SUMMARY: The applicant requests a preliminary plat for an 11-lot subdivision on 20 acres in an I-O (Industrial Office) zone district. Future access via Al Drive will be provided to properties to the east and west, which will assist in providing better circulation in the area. Staff recommends approval with conditions.

ACTION REQUESTED: Decision on preliminary plat.

BACKGROUND INFORMATION					
Location:		North side of H Road west of 3d Systems (27 ¾ Road alignment)			
Applicants:		Brian Hart, LANDesign for Gregg Cranston of North Crest LLC			
Existing Land Use:		Vacant			
Proposed Land Use:		Industrial			
Surrounding Land Use:	**North**	Vacant			
	South	vacant			
	East	Industrial (3D Systems) & vacant			
	West	agricultural			
Existing Zoning:		I-O (Industrial Office)			
Proposed Zoning:		No change proposed			
Surrounding Zoning:	**North**	I-O			
	South	I-O			
	East	I-O			
	West	I-O			
Growth Plan Designation:		Commercial/Industrial			
Zoning within density range?		NA	Yes		No

Staff Analysis:

The applicant requests a preliminary plat for an 11-lot industrial subdivision on 20 acres. The site is located near Walker Field Airport directly west of 3D Systems. The I-O zone allows for a variety of industrial park uses and supporting commercial uses.

Airport Overlay District: Approximately the north half of the property that includes all or parts of the lots in phase 2 of the subdivision lies within Subdistrict B of the Airport Overlay District. This subdistrict identifies the areas within 65Ldn to 70 Ldn noise exposure areas as shown in the Walker Field Airport Master Plan. Table 7.3 of the code requires conditional use permits for most commercial and industrial land uses within this subdistrict. No uses are proposed at this time, however the applicant has been made aware of the requirement for conditional use permits for most of the future land uses that will locate in this area. The 65 Ldn Noise Contour shall be shown on the final plat with a note referencing the conditional use permits required in Table 7.3.

Access: Access to lots in the subdivision is via North Crest Drive, a cul-de-sac with direct access to H Road. No lots within this subdivision shall have direct access to H Road. Future access via Al Drive will be provided to properties to the east and west. The extension of this road will improve circulation in the future as adjacent parcels are developed.

Street Improvements: H Road has been constructed very poorly along the frontage of this parcel. According to the City Development Engineer the road has many vertical undulations and merely adding a pavement section and curb, gutter and sidewalk will not be sufficient to provide safe and adequate access and circulation. Section 6.2.B.1.d of the Zoning and Development Code requires that "if needed to provide safe and adequate access and circulation… the applicant shall provide off-site infrastructure." Hence this developer will be required to bring H Road up to current city standards with final approval of this subdivision. See City Development Engineer's comments for more information.

Drainage: A detention pond sized for the entire subdivision is proposed at the southwest corner of the subdivision adjacent to H Road. Consistent with the intent of the I-O zone district to provide uses in a business park setting, this detention area shall be improved with turf at final approval rather than an alternative. Staff recommends approval with conditions.

The I-O (Industrial Office) zone district requires a minimum one-acre lot size. The-lots in this subdivision range between one acre and 2.61 acres.

See the applicant's general project report and response to comments for additional information.

STAFF RECOMMENDATION:

Approval of the preliminary plan with the following conditions:

1. The 65 Ldn Noise Contour shall be shown on the final plat with a note referencing the conditional use permit's required in Table 7.3.

2. No lots within this subdivision shall have direct access to H Road. A note to this effect shall be placed on the final plat.

3. The detention pond in Tract A shall be improved with turf at final approval rather than a more unsightly alternative.

4. The applicant shall bring H Road adjacent to this development up to city standards. This can be accomplished with removal and reconstruction or overlaying to provide a smooth profile. This condition does include curb, gutter or sidewalk on the south side.
NOT

RECOMMENDED PLANNING COMMISSION MOTION:

Mr. Chairman, on item 2001-057 I move that we:

Find the North Crest Industrial Park consistent with the Growth Plan and the requirements of the Zoning and Development Code and approve the preliminary plan with the conditions listed in staff's recommendation.

ATTACHMENTS:

1. vicinity map
2. aerial photo
3. preliminary plat
4. staff review comments
5. applicant's response to review comments
6. applicant's general project report

Bill\n\h\pp\01057-NorthcrestIP-pcr.doc\report prepared040401

PRELIMINARY DRAINAGE REPORT

For

North Crest Industrial Park Subdivision

Developer:
North Crest Development, LLC.
Route 2 Box 81
Merino, Colorado 80741
(970) 241-4000

Prepared By:
LANDesign LLC
259 Grand Avenue
Grand Junction, Colorado 81501
(970) 245-4099

Job Number 201008

February 28, 2001

Table of Contents

I. General Location and Description

A. Site and Major Basin Location

North Crest Industrial Park Subdivision (North Crest) is located along H Road southwest of Walker Field Airport, immediately west of 3D Systems. More specifically, the project is 600 feet west of the intersection of H Road and Falcon Way. Land use in the vicinity includes light industrial uses and the airport to the north and east and vacant land to the south and west. Exhibit 1 shows the general location of the proposed project, Exhibit 4 shows the general topography of the site, Exhibit 5 shows the site plan for the project and Exhibit 6 shows the proposed grading.

The major basin is Ranchmen's Ditch system that runs from Walker Field Airport southwest through the north area of Grand Junction. The drain discharges stormwater to the Colorado River west of Mesa Mall.

B. Site and Major Basin Description

The site contains approximately 20 acres, and is currently vacant. The property has had an agricultural past and this is evident from the abandoned irrigation ditch and agricultural rows. The ground cover of the subject property can be described as pasture, short grasses and weeds. A historical drainage path runs along the west boundary of the site where it crosses to the adjacent property 250 feet north of H Road. From there stormwater runs southwest to a box culvert under H Road. A small amount of land to the northeast of the subject property will generate off-site stormwater flow in the form of sheetflow to the site.

The soils located on the site are described as Youngstown Series according to the NRCS. Exhibits 2 and 3 show the soils map and the soil description. From the description of runoff being slow to moderate and moderate erosion, the soil seems to match hydro-group C, which will be used for the Final Drainage Report. A composite rational 'C' value will be used for the Final Drainage Report for this project.

The Ranchmen's Ditch system originates just north of Walker Field Airport, drains southwest along Horizon Drive to First Street, runs parallel to Patterson Road, drains underneath the parking lot of Mesa Mall and discharges to the Colorado River. The basin is largely developed in nature from the airport, to the commercial

development along Horizon Drive and at Mesa Mall, to residential homes.

II. Existing Drainage Conditions

A. Major Basin

The Ranchmen's Ditch System drains a relatively large area of the north part of the Grand Junction urban area. The basin begins north of Walker Field Airport and conveys stormwater in a southwest direction along Horizon Drive and Patterson Road to just west of Mesa Mall where it discharges to the Colorado River. The basin conveys stormwater in an open drain in many sections and is piped in several sections as well.

The subject property is located near the very beginning of the basin and it not located near the main channel. According to the Flood Insurance Rate Map, the floodplain is not located near the subject property.

B. Site

The subject property generally drains to the southwest at approximately 1%. The property has had an agricultural past, however it has been several years since the last production of crops. There is an abandoned irrigation ditch located on the north side of the property and weathered, cultivated rows are still evident. The main drainage feature of the property is the beginnings of a historic drainage path that starts on the property and flows to the southwest to the neighboring property. Drainage continues in a more defined ditch on the neighboring property to an existing box culvert that passes under H Road.

Stormwater inflow from off-site enters the property only from the northeast as sheetflow. The adjacent property to the north flow southeast along the alignment of Landing View Lane and property to the west flows towards the above-mentioned box culvert.

The property low point is located along the west boundary approximately 250 feet north of H Road where the majority of property drains to the ditch previously mentioned. The very south sections of the site drain to a roadside that drains west towards the box culvert.

III. Proposed Drainage Conditions

A. Changes in Drainage Patterns

The historic drainage patterns will not be changed from those described in Section II-B of this report. The majority of the site will drain to a detention pond located near the existing low point of the site. From this location, the detention pond will release a controlled amount of stormwater runoff. The south portions of the site will drain south at developed rates to the existing roadside ditch or planned storm sewer to the southwest corner of the property. This will result in a lower than historic rate release from the detention pond.

A different option for stormwater control would be to create a separate detention pond for the south portions of the site. Yet another option would be for the southern two lots along H Road to use a separate, individual detention pond. This is because these two lots will not be able to drain to the northern detention pond.

B. Maintenance Issues

The maintenance of the detention ponds will be the responsibility of the Property Owner's Association. The City of Grand Junction will maintain any storm sewer that is located within the public right-of-way.

IV. Design Criteria & Approach

A. General Considerations

There have been drainage studies completed around the subject property. The Grand Valley Stormwater Management Master Plan (GV-SWMMP) covers the major basin but the subject property. There has been an earlier drainage study for the property for a previous development application. However, the project is significantly different than the previous plan and therefore requires a different report and design.

The final drainage design for this project proposed within this report shall conform to the City of Grand Junction's Stormwater Management Manual. As mentioned in section III-A of this report, this project proposes a detention pond to control runoff.

As mentioned above in Section III-B, the northern 80% of the property will drain to a detention pond located near the existing low point of the property. The south 20% of the site can be handled in couple of different manners. First, the south area could drain at developed rates directly to the box culvert via the roadside ditch. This would mean that the planned detention pond would be required to restrict the release further to offset the direct discharge of the south drainage. A second option would be to create another detention pond to handle the south side drainage. A third option would be to require the two south lots to construct their own detention ponds. These facilities would then drain to the planned storm sewer along H Road.

Off-site flows are generated from adjacent property to the northeast. All other surrounding properties drain away from site.

Constraints that would affect the drainage design would be the elevation differences around the property; existing drainage patterns; offsite flows; and existing storm sewer along H Road.

B. Hydrology

The Stormwater Management Manual (SWMM) for the City of Grand Junction will be used for the preparation of the Final Drainage Report. The design storms are defined in the SWMM as the 2-year and 100-year events. As the site is within the 201 Boundary, the Grand Junction area precipitation information will be used which are outlined within the SWMM.

The rational method will be used for the hydrological analysis. If a detention pond is proposed, the pond will be designed using the modified rational method as outlined in the SWMM. If a retention facility is proposed, the SWMM outlines the design parameters for this type of facility.

C. Hydraulics

All hydraulic calculations for conveyance elements will be designed according the SWMM. It is expected that there will be minimal amounts of storm sewer other than surface conveyance elements.

The proposed storm sewer treatment method will be analyzed for capacity using the manufactures data, unless another facility is chosen.

VI. References

1. Stormwater Management Manual, (SWMM), City of Grand Junction, May 1996.

2. Grand Valley Stormwater Management Master Plan, (GV-SWMMP), City of Grand Junction, May 2000.

3. Flood Insurance Rate Map, Mesa County, Colorado, Prepared for the City of Grand Junction, Colorado and Mesa County by the Federal Emergency Management Agency, revised 1992.

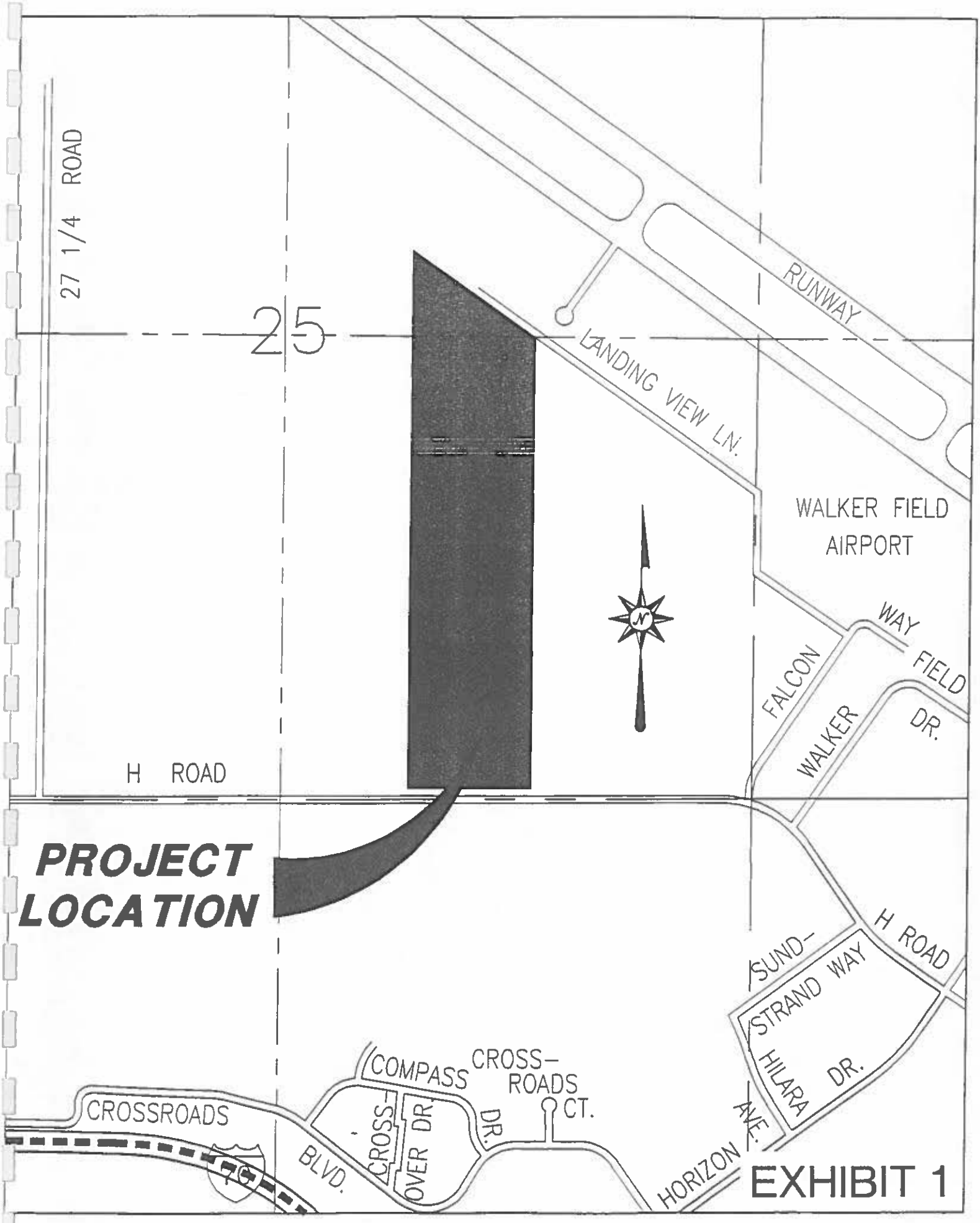
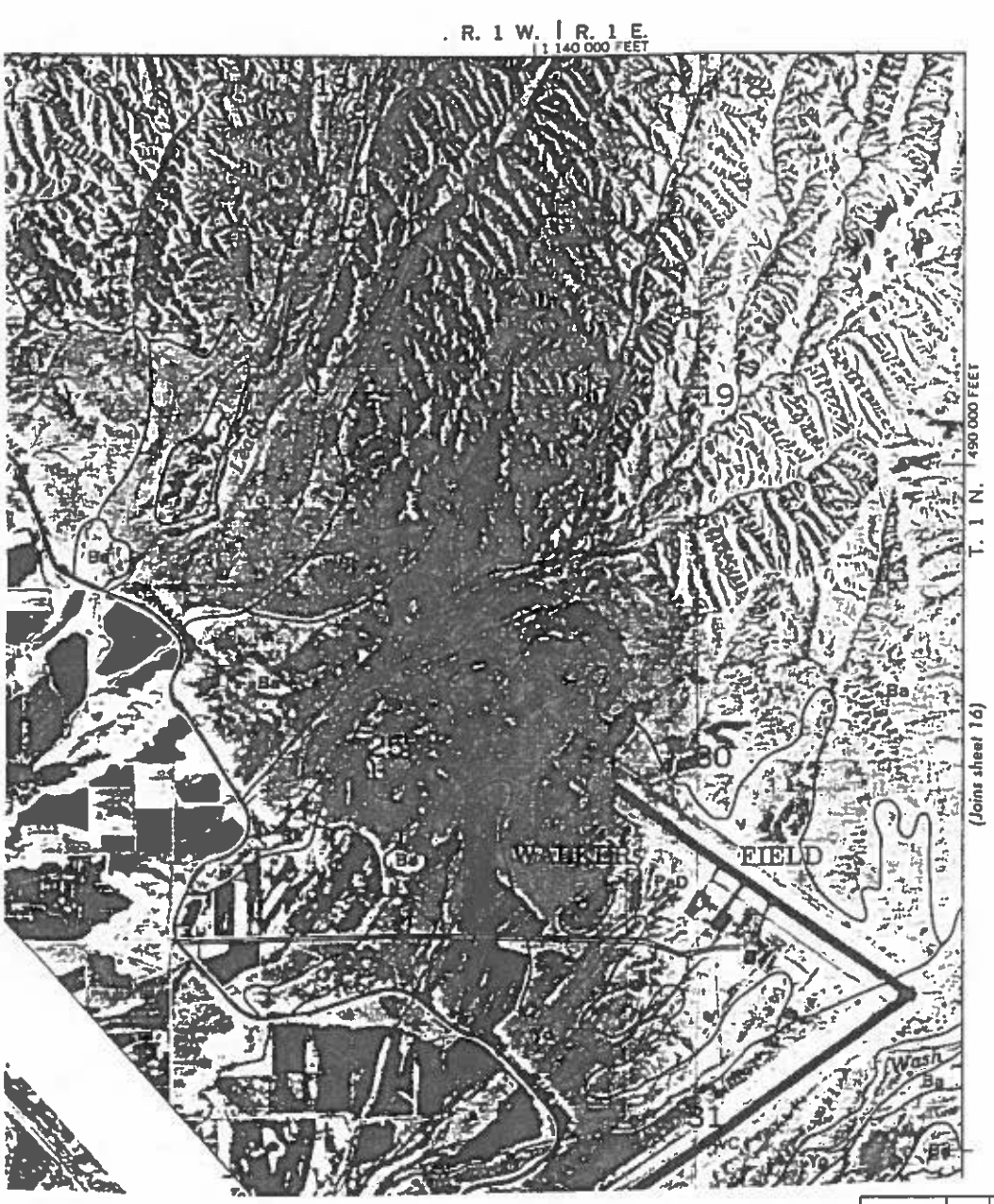


EXHIBIT 1

NORTH CREST INDUSTRIAL PARK LOCATION MAP

North Crest Industrial Park
U. S. Department of Agriculture
Soils Conservation Service
Soils Map of Grand Junction, CO



DATE:	NO:	REVISION:	By:

Soils Map of Grand Junction, CO

North Crest Industrial Park

LANDesign
ENGINEERS • SURVEYORS • PLANNERS
259 GRAND AVENUE
GRAND JUNCTION, COLORADO 81501 (970) 245-4099

PROJECT NO. 96105.40	DESIGNED	DRAWN	CHECKED	Exhibit	OF
DATE: JAN. 1997	CMB	CMB		2	

EXHIBIT 2

North Crest Industrial Park
U. S. Department of Agriculture
Soils Conservation Service
Soils Discription Grand Junction, CO

Youngston Series

The Youngston series consists of deep, well-drained soils. These soils formed in alluvium on flood plains and alluvial fans. The slope is 0 to 3 percent, and elevation is 4,800 to 5,400 feet. The natural vegetation is mainly saltbush, rabbitbrush, galleta, and Indian ricegrass. The average annual precipitation is 9 inches. The mean annual temperature is 52° F., and the frost-free season is 160 to 175 days.

In a representative profile the surface layer is light-gray loam about 4 inches thick. The underlying layers are light brownish-gray sandy loam, very pale brown loam, and pale-brown very fine sandy loam and loam that extend to a depth of 60 inches or more.

Youngston soils have moderate permeability and a high available water capacity. They are moderately alkaline. Roots can penetrate to a depth of more than 60 inches.

These soils are used for grazing, as wildlife habitat, and as watershed areas.

Representative profile of Youngston loam, NW1/4 sec. 9, T. 2 N., R. 2 W., in an area of grass.

A1—0 to 4 inches, light-gray (10YR 7/2) loam, dark grayish brown (10YR 4/2) moist; weak, thin, platy parting to weak, fine, granular structure; soft, very friable; calcareous; moderately alkaline; clear, smooth boundary.

AC—4 to 8 inches, light brownish-gray (10YR 6/2) sandy loam, dark grayish brown (10YR 4/2) when moist; weak, thin, platy parting to weak, fine, granular structure; loose, very friable; calcareous; clear, smooth boundary.

C1—8 to 20 inches, very pale brown (10YR 7/3) loam, brown (10YR 5/3) when moist; weak, fine, subangular blocky parting to weak, fine, granular structure; slightly hard, friable; calcareous; moderately alkaline; clear, smooth boundary.

C2—20 to 38 inches, pale-brown (10YR 6/3) very fine sandy loam, dark brown (10YR 4/3) when moist; weak, fine, subangular blocky parting to weak, fine, granular structure; slightly hard, friable; calcareous; moderately alkaline; clear, smooth boundary.

C3—38 to 60 inches, pale-brown (10YR 6/3) loam, dark brown (10YR 4/3) when moist; massive; hard when dry, very friable when moist; calcareous; moderately alkaline.

The A1 is loam or very fine sandy loam. Coarse fragments make up as much as 15 percent, by volume, but commonly less than 5 percent of the soil.

Yo—Youngston loam. This soil is nearly level and is on flood plains and alluvial fans. It has the profile described as representative of the series.

Included with this soil in mapping are areas of Billings soils.

Runoff is slow to moderate. The hazard of erosion is moderate.

This soil is used mainly for grazing and as wildlife habitat. Capability unit VIe–1; Loamy Salt Desert range site.

DATE:	NO:	REVISION:	By:

Soils Discription Grand Junction, CO

North Crest Industrial Park

LANDesign
ENGINEERS • SURVEYORS • PLANNERS
200 GRAND AVENUE
GRAND JUNCTION, COLORADO 81501 (970) 245-4099

PROJECT NO. 96108.40	DESIGNED	DRAWN	CHECKED	Exhibit	Of
DATE: JAN. 1997	CMB	CMB		3	

EXHIBIT 3

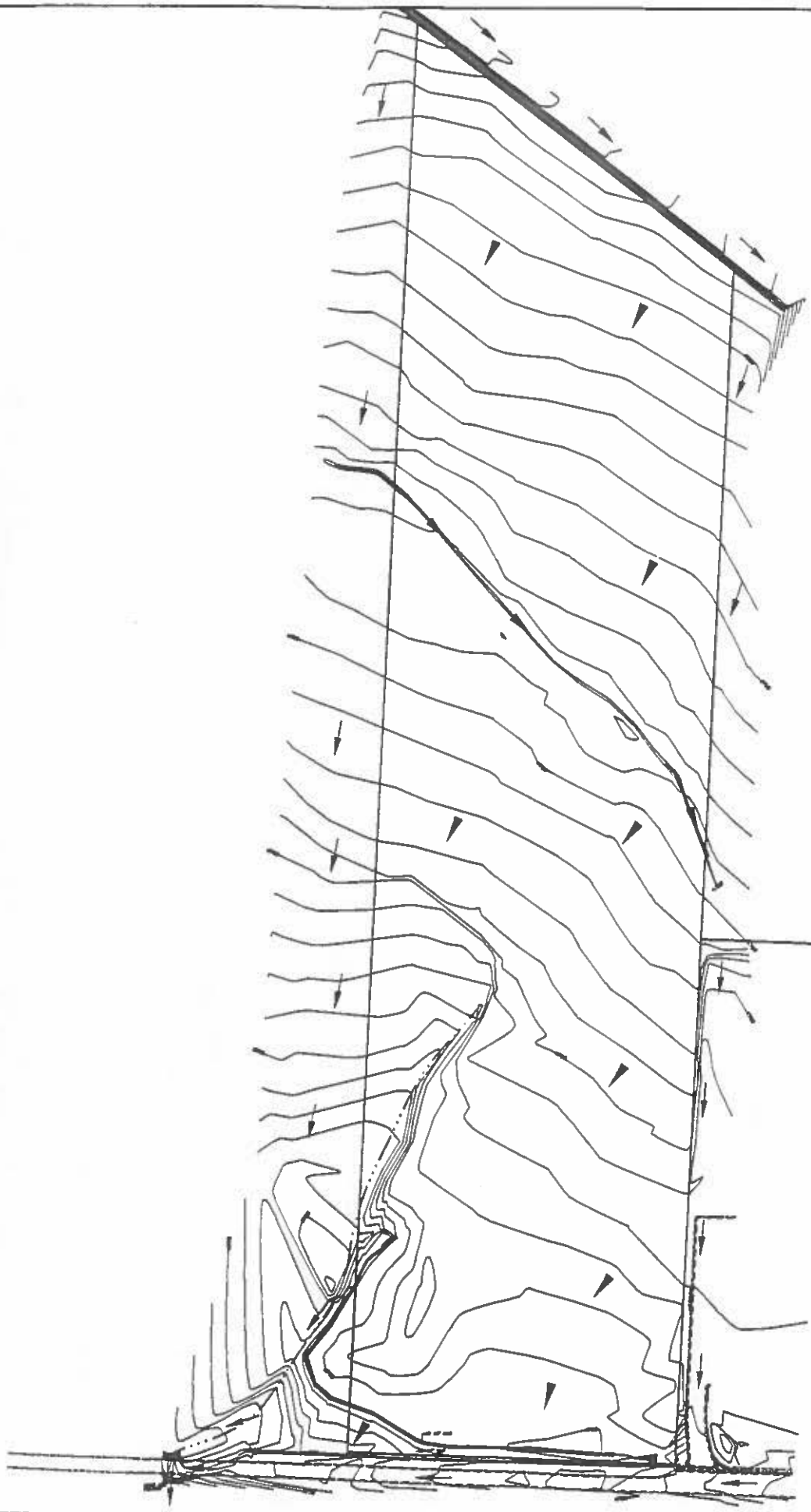


EXHIBIT 4

ORTH CREST INDUSTRIAL PARK TOPOGRAPHY MAP

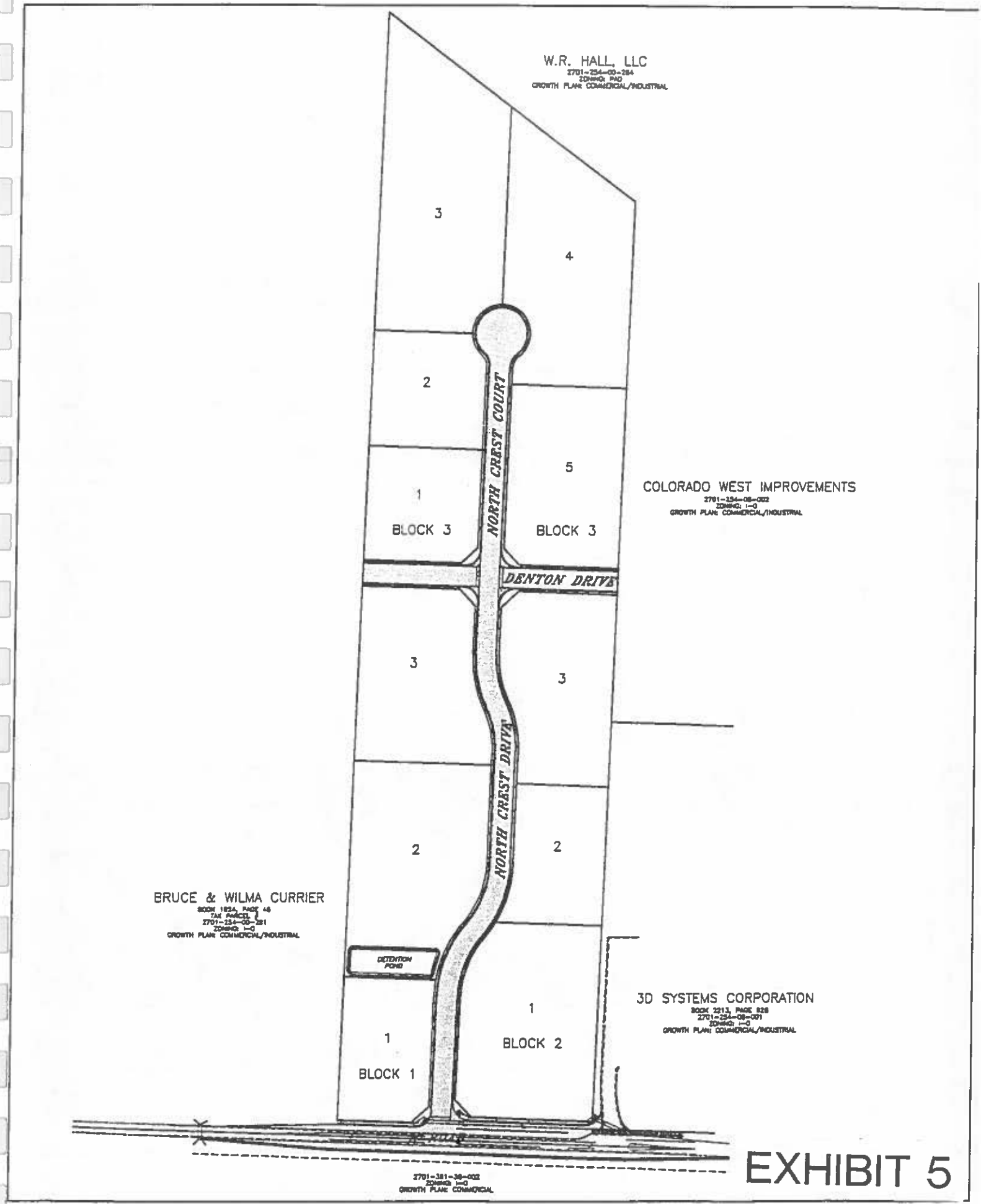


EXHIBIT 5

NORTH CREST INDUSTRIAL PARK SITE PLAN

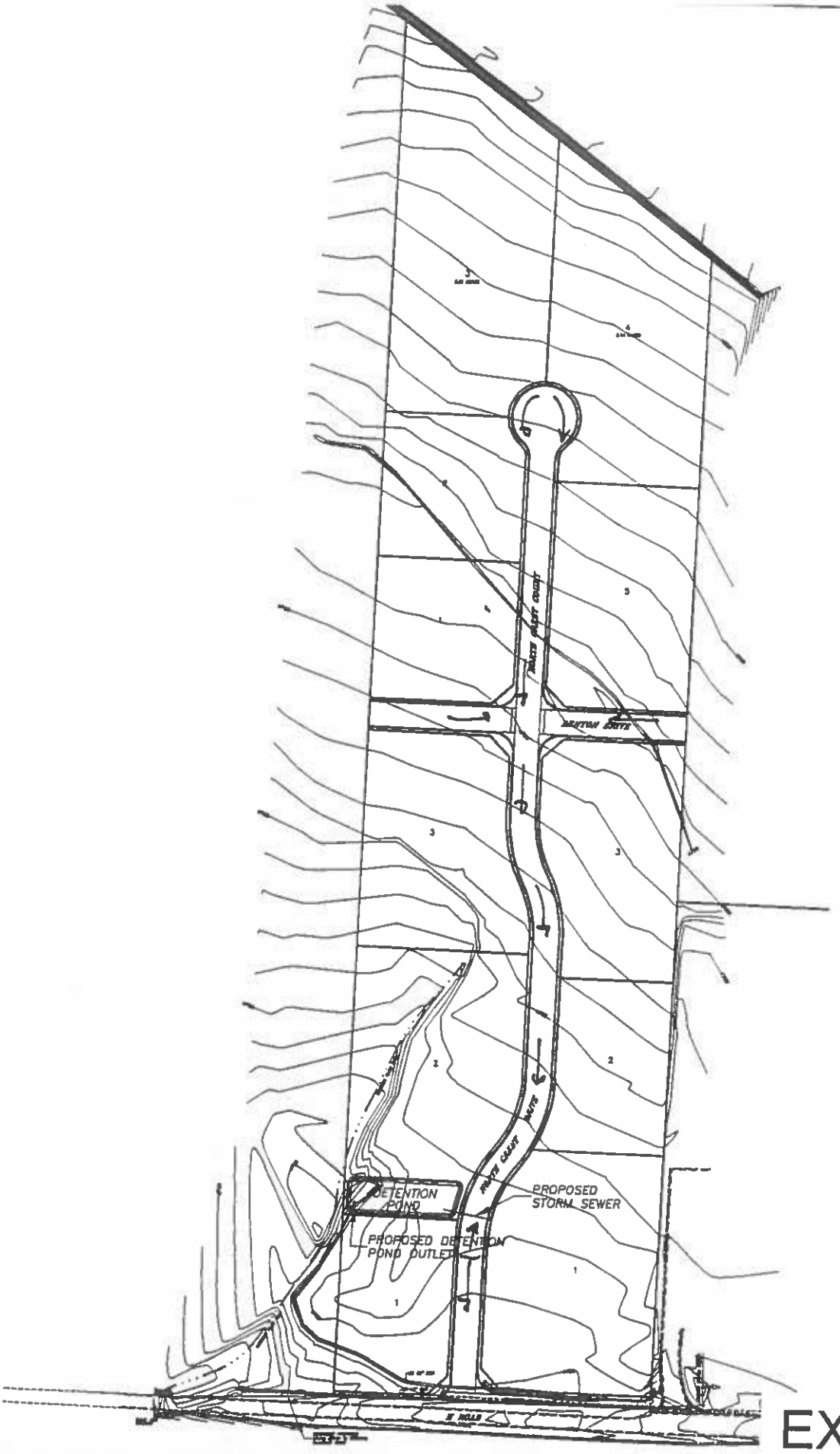


EXHIBIT 6

NORTH CREST INDUSTRIAL PARK
PROPOSED GRADING

March 28, 2001

Bill Nebeker
Community Development
City of Grand Junction
250 North 5th Street
Grand Junction, CO 81501

Re: Response to Comments
North Crest Industrial Park Subdivision
File No. #PP-2001-057

Dear Mr. Nebeker:

Please accept this letter on behalf of the petitioner for the above-mentioned project. This correspondence is intended to response to review comments received from your office on March 21. Each comment is addressed individually in an item-by-item basis.

City Community Development

1. Comment acknowledged. The preliminary plan has been revised to show the outline of a turn-a-around easement for Phase 1.
2. The detention pond has been revised to show that it is located within a tract as required. The lot layout has been modified slightly to show the detention pond along H Road with this response.
3. In subsequent discussions, the City has decided that the industrial road section will apply for this project.
4. Sanitary sewer is now shown as being extended to the west property boundary between Lots 2 and 3 in Block 1 as requested by the City Utility Engineer.
5. Comment acknowledged.
6. Comment acknowledged.

City Development Engineer

1. According to the Zoning and Development Code, section 6.2.B.2, page 4, 'Transportation Capacity Payment and Right-of-Way Improvements', the developer is responsible for either paying for or constructing half-street improvements along the property frontage to the current road

classification. There is no requirement that a developer will be responsible for improving a road that is 'very bad shape'. The developer feels this is an unfair burden not required by code. Please see *General Comments* below.

2. There is no additional right-of-way required for the street improvements.
3. See response to Utility Engineer comments.
4. Comment acknowledged.
5. H Road cross-sections are provided as requested.
6. Horizontal ties are shown as requested.
7. The City Utility Engineer did not comment on the location of the manhole, therefore, the manhole has not been moved. The manhole is proposed in this location to eliminate the need for an additional manhole on a sewer line with a very minimal slope.
8. The slope for the sewer line is shown as at 0.28% at the request of the City Utility Engineer.
9. A signed study is included with this letter
10. Comment acknowledged.
11. Comment acknowledged.

City Utility Engineer

1. The developer understands the comments from the Utility Engineer regarding the history of the sewer line extension to the 3D Systems property. However, it does not change the fact that the City's policy has always required sewer to be extended through the project to the adjacent property at the developer's cost. This is the reason for the requirement to extend the sewer line through the proposed project to the west adjacent property. The developer has agreed to provide this sewer line as requested. In addition, the costs for the sewer line in H Road will not be limited to just $18/foot. Additional costs will include patching H Road and traffic control, among other items, which will be significant. Please see *General Comments* below.

City Fire Department

1. A fire hydrant has been added as requested.
2. A water line is shown in Al Drive as requested.
3. A copy of a flow test for a nearby fire hydrant shows that there is 4226 gpm available at a residual pressure of 20 psi. This clearly indicates that there should be sufficient flow for fire protection. Ute Water has scheduled a fire flow test on the hydrant located at the southeast corner of the site, however, that flow test won't be available until after review comments are due. In a conversation with the Fire Department, Mr. Masterson stated that he is not requiring a water distribution report to determine fire flows for this application. He is aware that there is an

existing 18" water line in H Road and understands that the fire flow for this site should be acceptable.

City Addressing

1. Comment acknowledged.

Ute Water

1. Fire hydrants have been placed in accordance with the Fire Department.
2. A water line is shown in Al Drive as requested.
3. The allowable deflection radius is greater that the radius where the water line is located.
4. When the Final Plan and Plat application is submitted, the developer will consider installing larger water lines as suggested.

5-10. All remaining comments are standard and acknowledged.

Grand Valley Power

1. Comment acknowledged.

Walker Field Airport

1. The approximately 65 and 75 DNL noise contours are shown on the plan as requested.
2. The developer is willing to grant an avigation easement when required or with the recording of the Plat.
3. Comment acknowledged.

City Transportation Engineer

1. All comments acknowledged. The striping shown on the preliminary plan has been revised as requested.

General Comments

The developer feels that the requirement for an overlay of existing H Road and the initial unwillingness of the City Staff to participate in extending sewer not required of the development application for 3D Systems is an unfair burden. Because this burden will result in significant costs, the developer is requesting relief from the requirement to overlay H Road and to explore options on City participation of the sewer line extension. Please contact me regarding this request as soon as possible.

Four copies of the revised plans are included with this response submittal. It is assumed that all of the comments have been addressed satisfactorily. If there are any questions, please feel free to contact our office. I would appreciate it if you would contact me when you know the schedule for the staff report and Planning Commission hearing.

Respectfully,

Brian C. Hart
Project Engineer

Enclosures

cc: Gregg Cranston
Trent Prall, City Utility Engineer
Gary Mancuso, Walker Field Airport
File 200057.40

PP-2001-057

NORTH CREST

March 15, 2001

Rick Dorris

ROUND ONE

MISCELLANEOUS

1. According to the ZDC, it is the applicant's responsibility to improve the road to current standards along the property frontage. H Road is in very bad shape, with many vertical undulations, as we discussed in the general meeting. This development is requiring street improvements on both sides of the existing pavement. Any expansion matched to this existing road would produce a bad product. Therefore H Road along the property frontage must be brought up to standards. This could be either removal and reconstruction or overlaying to provide a smooth profile. If the overlay option is chosen, one overlay lift should be placed to smooth out the profile. Then the last lift of the new area should also be an overlay on the existing road.
2. Is any right of way needed east or west of the parcel to construct the roadway tapers?
3. The off site improvements for sanitary sewer and road construction are unfortunate but still required with no cost to the City.
4. A Phase I environmental report is required at final.

OK

PLANS

OK 5. Provide a section of the improvements to H Road.
OK 6. Provide horizontal ties to aliquot corners.
still move 7. Sanitary sewer near south end must be in the street.
8. The sanitary sewer is at 0.28 percent. Is Trent okay with this? Special attention will be required so that the constructed grade is not flatter than this.

TRAFFIC STUDY

OK 9. Please seal the study.
10. The site entrance operates at acceptable levels of service now and in 20 years. The intersection at H and Horizon fails in 20 years. The solution appears to be a signal. The TEDS requires LOS C or better in 20 years. However, the City of Grand Junction does not want a signal there now. Consequently, no improvements are required at H and Horizon.

OK

DRAINAGE REPORT

11. Only one detention basin will be allowed for the entire development. If the southern lots can't drain into the basin, the basin will need to over-detain for the northern lots so that the total release offsite is equal to or less than historic. Detention basins will not be allowed for individual lots. As always, the estimated runoff for the subdivision should be conservative when the final report is developed.

OK

PP-2001-057

NORTH CREST

APRIL 3, 2001

Rick Dorris

ROUND TWO

MISCELLANEOUS

1. This property does have significant offsite improvements to be constructed according to City and professional engineering standards. The City understands that this imposes additional cost to the development. However, the ZDC requires these improvements be constructed by the applicant. Please refer to the following code citations.

    - 6.2.A.1 – "Public Improvements. The improvements described in this section must be built by the applicant and constructed in accordance with adopted standards." Listed below this are "a. roads, streets, and alleys" and "b. Sanitary sewer pipes and facilities."
    - 6.2.B.1.d – "Streets, alleys, sidewalks, trails and bikepaths shall be constructed in accordance with applicable City standards. If needed to provide safe and adequate access and circulation for residents, visitors, users and occupants, the applicant shall provide off-site infrastructure."

Granted the section you cited refers to half-street improvements; however, this development requires improvements to both sides of H Road. Consequently, both sides, and the existing H road, must be improved to adopted standards. Another option would be to prove that the existing road meets City standards.

2. 3D systems was developed in the county. Evidently, they didn't required extension of the sewer line. The code sections cited above apply here as well. The sewer must be extended for this development to have the necessary sanitary sewer service.
3. The sanitary sewer manhole near the south end must still be in the street. This avoids having sanitary sewer at acute angles under concrete which could unnecessarily increase replacement costs.

REVIEW COMMENTS

FILE # PP-2001-057 **TITLE HEADING:** North Crest Industrial Park

LOCATION: H Rd, West of 3D Systems

PETITIONER: North Crest LLC – Gregg Cranston

PETITIONER'S ADDRESS/TELEPHONE: Route 2 Box 81
Merino, CO 80741
241-4000

PETITIONER'S REPRESENTATIVE: LANDesign – Brian Hart
245-4099

STAFF REPRESENTATIVE: Bill Nebeker

NOTE: THE PETITIONER IS REQUIRED TO SUBMIT AND LABEL A RESPONSE TO COMMENT FOR EACH AGENCY OR INDIVIDUAL WHO HAS REQUESTED ADDITIONAL INFORMATION OR REVISED PLANS, AND A COPY FOR THE CITY, ON OR BEFORE 5:00 P.M., MARCH 30, 2001.

CITY COMMUNITY DEVELOPMENT **3/19/01**
Bill Nebeker **244-1447**

1. A temporary turnaround easement is required at the end of North Crest Drive for phase 1 development.
2. The detention pond must be in a tract with common ownership, rather than on a single lot.
3. With the uses that are allowed in the I-O zone the commercial street section that includes sidewalks on both sides of the street is the more appropriate street section for North Crest Drive and Court.
4. Sanitary sewer must be extended to the west property line.
5. A complete geotechnical study for review by the CGS will be required at final plat review.
6. The uses proposed in this subdivision after final plat approval may require conditional use permits as well as site plan reviews per Table 7.3 Airport Land Use Compatibility Standards Matrix.

NOTE: In addition to the full size drawings, please submit one 11" X 17" copy of sheets 1 - 9 with your response to comments.

CITY DEVELOPMENT ENGINEER **3/19/01**
Rick Dorris **256-4034**

MISCELLANEOUS

1. According to the ZDC, it is the applicant's responsibility to improve the road to current standards along the property frontage. H Road is in very bad shape, with many vertical undulations, as we discussed in the general meeting. This development is requiring street improvements on both sides of the existing pavement. Any expansion matched to this existing road would produce a bad product. Therefore H Road along the property frontage must be brought up to standards. This could be either removal and reconstruction or overlaying to provide a smooth profile. If the overlay option is chosen, one overlay lift should be placed to smooth out the profile. Then the last lift of the new area should also be an overlay on the existing road.
2. Is any right of way needed east or west of the parcel to construct the roadway tapers?
3. The off site improvements for sanitary sewer and road construction are unfortunate but still required with no cost to the City.

4. A Phase I environmental report is required at final.

PLANS

5. Provide a section of the improvements to H Road.
6. Provide horizontal ties to aliquot corners.
7. Sanitary sewer near south end must be in the street.
8. The sanitary sewer is at 0.28 percent. Is Trent okay with this? Special attention will be required so that the constructed grade is not flatter than this.

TRAFFIC STUDY

9. Please seal the study.
10. The site entrance operates at acceptable levels of service now and in 20 years. The intersection at H and Horizon fails in 20 years. The solution appears to be a signal. The TEDS requires LOS C or better in 20 years. However, the City of Grand Junction does not want a signal there now. Consequently, no improvements are required at H and Horizon.

DRAINAGE REPORT

11. Only one detention basin will be allowed for the entire development. If the southern lots can't drain into the basin, the basin will need to over-detain for the northern lots so that the total release offsite is equal to or less than historic. Detention basins will not be allowed for individual lots. As always, the estimated runoff for the subdivision should be conservative when the final report is developed.

CITY UTILITY ENGINEER **3/14/01**
Trent Prall **244-1590**

In regards to City participation and variance of City standards on the off-site improvements to this site, this office has the following comments/concerns: 3D Systems Inc installed almost 1,200 feet of off-site sewer improvements at depths up to 21 feet in order to get it to the sewer to their one lot. As half-street improvements were not required, and substantial design work was required in order to design the sewer to serve the property to the west side of this development, the sewer was not required to be extended to the west property line. Given that history, I am disappointed that LanDesign would even suggest public participation in a 360-foot offsite sewer extension that will ultimately serve 11 lots. At $18 per foot, which is the amount usually used in the development improvements agreement submitted from this consultant, the total offsite improvements would total $6,480 or approximately $600 per lot. Keep in mind that without 3D Systems substantial investment in bringing sewer the 1,160 feet this site would be looking at a 1,500-foot sewer extension at depths up to 21 feet. The previous submittal on this property, prepared by LanDesign, included a stub to the west north of H Road some distance. Please review that submittal and incorporate it into this plan.

CITY FIRE DEPARTMENT **3/15/01**
Hank Masterson **244-1414**

Fire Flow Requirements:

1. Add a fire hydrant at the intersection of H Road and North Crest Drive. Additional fire hydrants may be required at time of development of individual lots.
2. The proposed water line exceeds 1000' in length and is required to be looped. Stub out your 8" line east and west along Al Drive. This will accomplish the needed looping at a future date-provided minimum fire flows can be provided with the proposed dead-end line.
3. Minimum fire flow for all buildings in this subdivision is 1500 gallons per minute. Submit documentation showing the available fire flow at the point of connection in H Road to your line extension. Also, show the available flow at the most demanding fire hydrant in your project. Information on available fire flows in H Road may be obtained from Ute Water.

CITY ADDRESSING **3/08/01**
Ronnie Edwards **245-4008**

Street names are okay and preliminary addresses have been proposed on the plat.

CITY ATTORNEY **3/16/01**
Stephanie Rubinstein **244-1501**

No comments.

UTE WATER **3/14/01**
Jim Daugherty **242-7491**

1. Fire Hydrants should be spaced at 300' intervals in commercial areas.
2. Al Dr. must have 8" water line run in ROW.
3. In North Crest Dr. deflect pipe to maintain constant distance from curb and gutter.
4. Does developer want to set water meter pits and yokes or stub out larger lines that could support fire protection if needed?
5. Water mains shall be C900, Class 150 PVC. Installation of pipe, fittings, valves, and services, including testing and disinfection shall be in accordance with Ute Water standard specifications and drawings
6. Developer is responsible for installing meter pits and yokes (pits and yokes supplied by Ute Water).
7. Construction plans required 48 hours before construction begins. If plans are changed the developer must submit a new set of plans.
8. Electronic drawings of the utility composite for the subdivision, in Autocad.dwg format, must be provided prior to final acceptance of water infrastructure.
9. Water meters will not be sold until final acceptance of the water infrastructure.
10. ALL FEES AND POLICIES IN EFFECT AT TIME OF APPLICATION WILL APPLY
    If you have any questions concerning any of this, please feel free to contact Ute Water.

PUBLIC SERVICE **3/15/01**
John Salazar **244-2781**

Electric: Grand Valley Power service area.
Gas: No objections

GRAND VALLEY RURAL POWER **3/12/01**
Perry Rupp **224-0040**

May need easement along East side of project to access existing underground power line. (30)

WALKER FIELD AIRPORT **3/15/01**
Gary Mancuso **244-9100**

1. Walker Field Airport Authority has reviewed the proposed North Crest development. This development lies within the Airport Influence Area and between the 65 and 75 DNL noise contours but is outside the critical zones as identified in the Airport Master Plan. Since the location of the development appears to be within the 65 and 75 DNL noise contours, the Airport Authority requests a layout plan of the development showing the location of the long range noise exposure contours as identified in the Airport Master Plan before the Airport Authority makes its final determination of comments to the City. Any noise intrusion might be mitigated with appropriate design and construction methods if required. Additionally, if this development is approved and due to the close proximity to the Airport, we suggest that each individual lot applicant submit a Federal Aviation Administration form 7460-1 to the Denver Airports District Office for their review. Their office can be contacted at (303) 342-1251.
2. The Walker Field Airport Authority requests that an Avigation Easement specific to this property be filed with the City of Grand Junction with a copy provided to the Airport Authority.
3. All exterior lighting must be downward directional and lighting elements must be chosen to reduce or eliminate any possible glare that might affect aircraft operations.

CITY TRANSPORTATION ENGINEER **3/20/01**
George Miller **256-4110**

Striping (sheet 4 of plan set) Revise EB L. Turn pockets to directional, rather than shared, pockets for both North Crest and 3D Systems driveways. WB edge line (in front of 3D) should direct traffic to the WB Through lane, not the WB Right Turn Lane. Lane Use arrows should be at the entrances to the pockets, to assist in driver decision. **Plan set does not show enough area existing striping details to thoroughly comment on submitted design.**

(Original submittals)

3-5-01

Dev Rev notes on **North Crest Indus. Park Sub.** (H Rd. West of Sundstrand, N. side) Miller

Overview: Single access from H Rd (Urban collector) 10 lots, 2 phases

General Report summary (Traffic concerns):

Development will provide L. turn lane (EB) and R. turn ln. (WB).
Developer asks City assistance to revise existing striping as 3D Systems striping (to east of project) not to City standards.

Plan Set Comments:

Overall, set not detailed enough to make judgements on how parcel will flow internally, or with adjacent parcels and H road frontage (No structure/parking/driveway site plans, details on adjacent geometry of Al Dr. or H Rd., no road elevations).

Striping (page 4) Eastbound – recommend redirect taper approaching North Crest, relocate Turn Symbols to lane entrances, revise median lane between North Crest and 3D entrance to discrete EB L. Turn lane rather than shared turn lane, revise median (east of 3D) to ½ tear drop (easier to restripe), revise WB edge line (east of 3D) to direct traffic to through lane, not rt. turn lane. Also, plan set not detailed enough to allow evaluation of existing striping to address applicant's request for City to assist with striping revisions. (See markups on plan set, page 4). (Note: these recommendations are reflected in the TIA by Developer's consultant, LSC).

Signing – no signs shown. Recommend SB stop at H Rd, show Street Name placement.

TIS comments:

3D Sytems shown to have only 2 entering AM peak vehicles – (OK, as facility has another entrance). Trip gen numbers appear valid, impact to H Rd is minimal now and at 2020. Consultant had conducted and analysis of H Rd and Horizon, copies saved for file (Signalized and unsignalized projections provided).

Comments not received as of 3/20/01:
U.S. West,
Grand Valley Water Users,
Colorado Geologic Survey,
City Property Agent,
City Police Dept.,
AT&T Cable Services

14486

City of Grand Junction

Department of Community Development

Your Bridge to a Better Community

Date 7-9-01

Payee Name Gregg Cranston

Address Route 2 Box 81 - Merino Co 80741

Telephone 241-4000

Project Address/File/Name PP-2001-057 North Crest Industrial Park

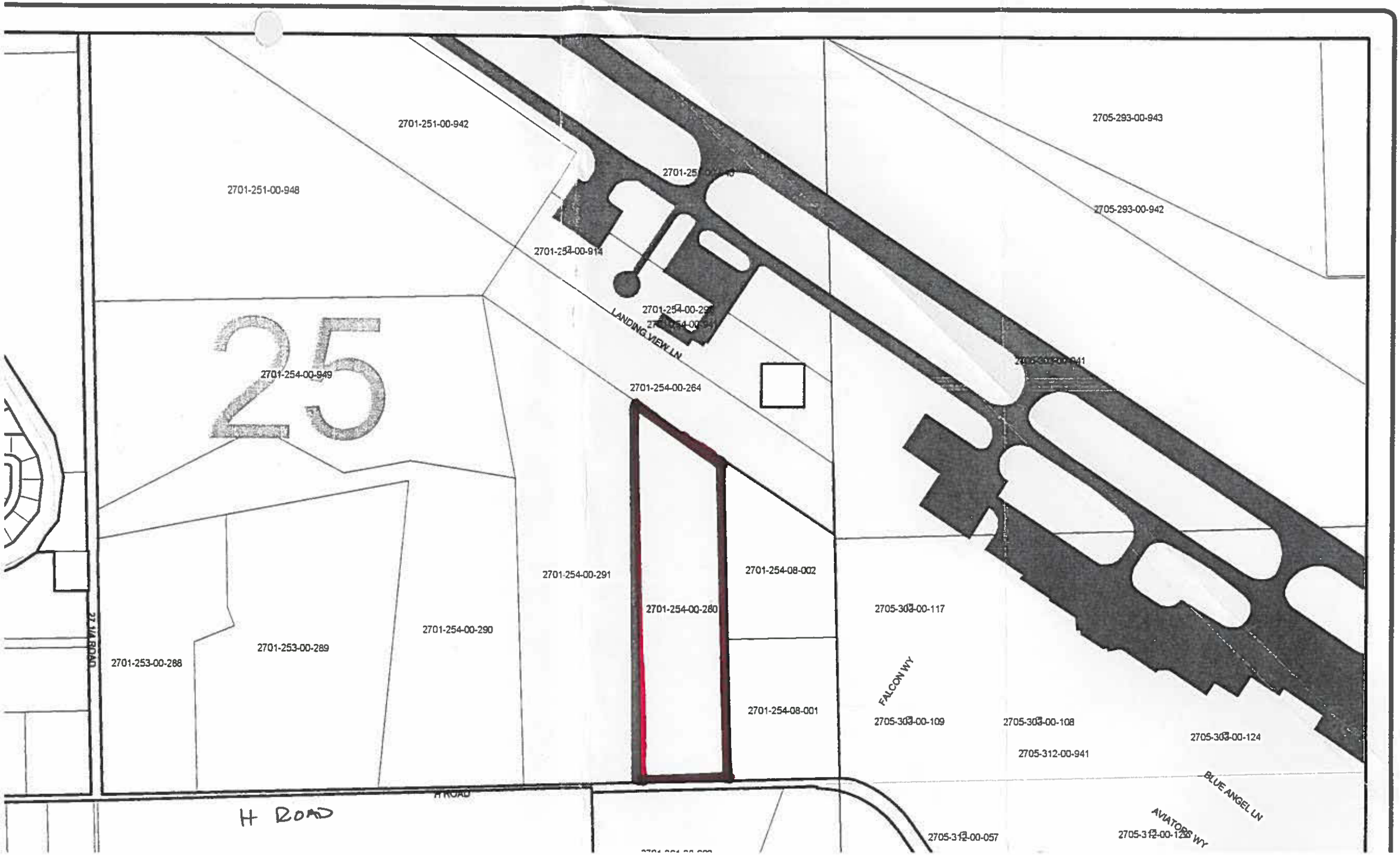
*** PLEASE CIRCLE ALL THAT APPLY**

DESCRIPTION *	AMT	DESCRIPTION *	AMT
DEVELOPMENT PROJECTS 100-321-43195-13-109465		*PERMITS* 100-321-43195-13-124415	
Rezone		Temporary Use Permit	
Conditional Use		Floodplain Permit	
Special Use		Sign Permit (#)	
Major Sub-ODP, Prelim, Final		Special Events Permit (#)	
Minor Subdivision		Fence Permit (#)	
PDR - ODP, Prelim, Final	50.00	Home Occupation Permit	
ROW / Easement Vacation			
Replat / Property Line Adj		*OTHER*	
Variance		School Impact 701-905-43994	
Site Plan Review		Drainage 202-61314-43995-30	
Minor Change		TCP 2071-61314-43993-30	
Change of Use		Sign Deposit 100-21090-131840	
Planning Clearance (#) 100-321-43195-13-124450		Manuals, Copies, etc. 100-321-43195-13-120515	

PAID JUL 9- 2001 CMC

Treasurer Receipt No 99248 TOTAL $ 50.00 NA

(White: Customer) (Canary: Finance) (Pink: Planning) (Goldenrod: File)


2701-251-00-942
2701-251-00-948
2705-293-00-943
2705-293-00-942
2701-254-00-914
LANDING VIEW LN
25
2701-254-00-949
2701-254-00-264
2701-254-00-291
2701-254-08-002
2701-254-00-280
2701-254-00-290
2701-253-00-289
2701-253-00-288
2701-254-08-001
2705-303-00-117
FALCON WY
2705-303-00-109
2705-303-00-108
2705-303-00-124
2705-312-00-941
BLUE ANGEL LN
AVIATORS WY
2705-312-00-057
H ROAD
H Road

TRAFFIC IMPACT ANALYSIS

NORTH CREST INDUSTRIAL PARK

GRAND JUNCTION, COLORADO

LSC TRANSPORTATION CONSULTANTS, INC.

1889 York Street
Denver, CO 80206
(303) 333-1105
FAX (303) 333-1107
E-mail: lsc@lscden.com
Web Site: http://www.lscden.com

TRANSPORTATION
CONSULTANTS, INC.

February 27, 2001

Mr. Kay Scott
North Crest Development, LLC
Route 2, Box 81
Merino, CA 80791

Re: North Crest Industrial Park
Grand Junction, CO
(LSC #010010)

Dear Mr. Scott:

We are pleased to submit our Traffic Impact Analysis (TIA) of the proposed North Crest Industrial Park in Grand Junction, Colorado. North Crest will be a 20-acre office and light industrial development on H Road just west of Walker Field Airport.

This TIA first provides a summary of the existing roadway and traffic conditions in the vicinity of the proposed development and a summary of planned improvements to the roadway system. Next, estimates are made of the amount and directional distribution of vehicular traffic likely to be generated. This information is then combined with projected future traffic volumes in the vicinity to evaluate the impact of the new development on the existing and future roadway system, and where appropriate, to make recommendations for the required roadway and access improvements. The study has been prepared in accordance with the guidelines set forth in the City of Grand Junction's *Transportation Engineering Design Standards* (TEDS) manual, dated January 1995. We have also discussed specific requirements with Mr. Rick Dorris, the City's Development Engineer, and Ms. Jody Kliska, Grand Junction Traffic Engineer.

We trust that our findings and recommendations will assist in the planning of the proposed industrial park. Please call if we can be of further assistance.

Respectfully submitted,

LSC Transportation Consultants, Inc.

By: _____
for Robert E. Leigh, P.E.

REL/wc

F:\PROJECTS\2001\010010\F-NCIP.

Traffic Impact Analysis

North Crest Industrial Park

Grand Junction, Colorado

Prepared for

North Crest Development, LLC
Route 2, Box 81
Merino, CA 80791

Prepared by

LSC Transportation Consultants, Inc.
1889 York Street
Denver, CO 80206
(303) 333-1105

February 27, 2001
(LSC #010010)

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

LIST OF TABULATIONS

SECTION A
Introduction

North Crest Development, LLC plans to develop a new office and light industrial park on 20 acres located just west of the Walker Field Airport terminal in north-central Grand Junction, Colorado. The development would consist of ten to fifteen land parcels containing a mix of office, light industrial and warehouse uses. At an average floor area ratio (FAR) of 0.50, the built out development could contain as much as 400,000 square feet of floor area.

LSC Transportation Consultants, Inc. has been retained by North Crest Development, LLC to determine the traffic impacts of the proposed development on the surrounding roadway system in accordance with the requirements of the City of Grand Junction. This report summarizes the following analysis procedures which were utilized in the evaluation.

- A review and analysis of present roadway and traffic conditions in the vicinity of the site and a review of planned and proposed roadway improvements in the general vicinity.
- A determination of the average weekday and peak-hour vehicle-trip generation for the proposed development.
- An analysis of the estimated directional distribution of site-generated traffic and an assignment of that traffic to the adjacent street network.
- A determination of future traffic volumes in the vicinity of the site.
- An evaluation of the impacts of site-generated traffic expressed in terms of the development's traffic as an increment of total projected traffic on the surrounding roadway system and the resulting Levels of Service (LOS) on nearby intersections.
- A determination of appropriate roadway standards and improvements which will ensure optimum traffic operation for traffic entering and exiting the site.

SECTION B
Roadway and Traffic Conditions

The location of the proposed North Crest Industrial Park is shown in Figure 1. It is situated on the north side of H Road and southwest of Walker Field, Grand Junction's municipal airport. The 20-acre rectangular site is bordered by the airport on the north, 3D Systems (an office/light industrial use) on the east, partially developed industrial land to the south, and undeveloped agricultural land to the west. It has about 465 feet of frontage on H Road and is nearly 2,050 feet deep on its longest, north-south dimension. The site is generally flat, rising slightly to the north.

Primary access to the development will be provided by a full movement access driveway (internal roadway) on H Road about 280 feet west of the east property line. This internal cul-de-sac roadway will provide direct access frontage to the ten or so individual lots within the park. Regional access to the site will be provided by Horizon Drive east of the site, the Horizon Drive/I-70 interchange located about one-half mile south of the site, and H Road extending west of the site.

Area Roadways

The area roadway system serving the site is also shown in Figure 1 and is described below:

- H Road is a rural, two-lane collector street that extends from Horizon Drive on the east westerly to 26 Road, a distance of about two miles. The asphaltic-concrete surfaced roadway has a right-of-way of about 60 feet, a surface width of about 24 feet, and no other improvements. H Road is designated a future "urban collector" street on the City's functional classification map and is planned to be extended westward beyond 26 Road to 25 Road where it presently exists as an unpaved rural road that extends further west for four miles to 21 Road. H Road west of the site will become an even more important access road in the future because it intersects several north-south arterial and collector roadways that serve the growing city to the south.

- Horizon Road is an important diagonal arterial roadway that connects Walker Field to the balance of Grand Junction. Horizon Drive is a four-lane minor arterial roadway that extends southwesterly from Walker Field to North 7th Street, a distance of nearly two and one-half miles. Its interchange with I-70,

one-half mile southwest of Walker Field, is the principal I-70 interchange serving Grand Junction to and from points east. Horizon Drive terminates as an arterial street at the Stop sign controlled H Road intersection and it continues northeasterly as one-way Walker Field Drive, a loop road serving the terminal building, parking lots, and other airport-related facilities.

Existing Traffic Conditions

Morning and evening peak-hour traffic counts were conducted by Counter Measures, Inc. (a subsidiary company of LSC Transportation Consultants, Inc.) on Tuesday, January 23, 2001, at the nearby intersections of Horizon Drive/H Road, H Road/Walker Field Drive (exiting southbound) and H Road/Falcon Way. Counts were also tabulated at the rear access driveway for the 3D Systems building where it intersects H Road immediately east of the North Crest site. Figure 2 summarizes the results of these counts. The volumes shown in Figure 2 are the actual counts for the highest 60-minute period within a two-hour time frame in the morning and evening peak traffic times. The results of these counts indicate that H Road adjacent to the site now carries approximately 1,300 vehicles per day. (Counts by the City of Grand Junction showed 1,286 vehicles per day on H Road west of 27 ¼ Road in December 1996.)

Existing Traffic Controls and Lane Geometry

Existing traffic controls and lane geometry in the vicinity of North Crest are shown in Figure 3. As shown, H Road is 24 feet in width adjacent to the site, but is widened to 35 feet between the eastern North Crest fence line and Falcon Way in order to provide a westbound right-turn lane adjacent to the 3D Systems property.

The intersection of H Road and Horizon Drive is controlled by Stop signs for eastbound and westbound traffic on H Road. Northbound through and left-turning traffic on Horizon Drive proceeds through the intersection without stopping while eastbound right-turning traffic on H Road must yield.

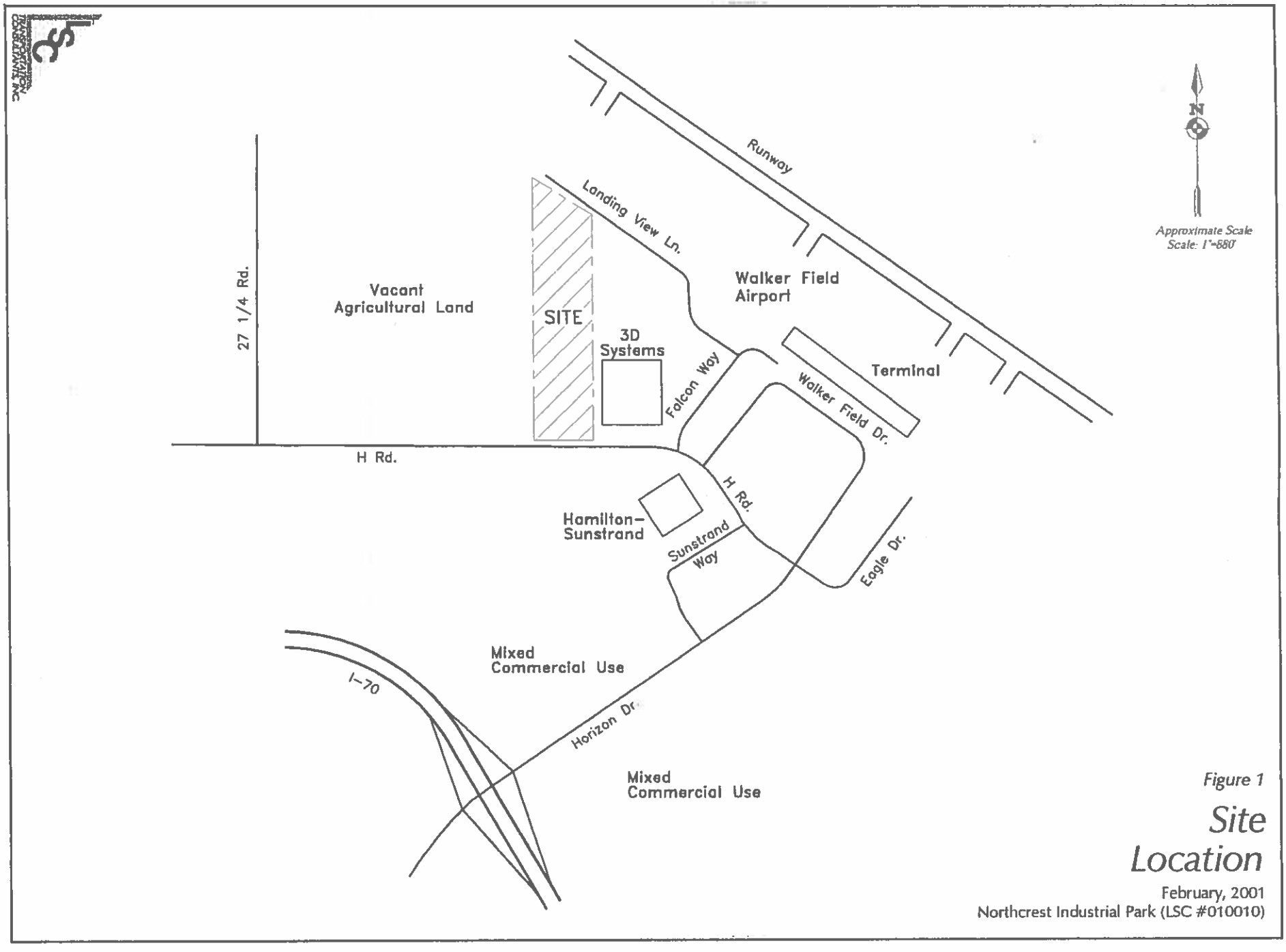
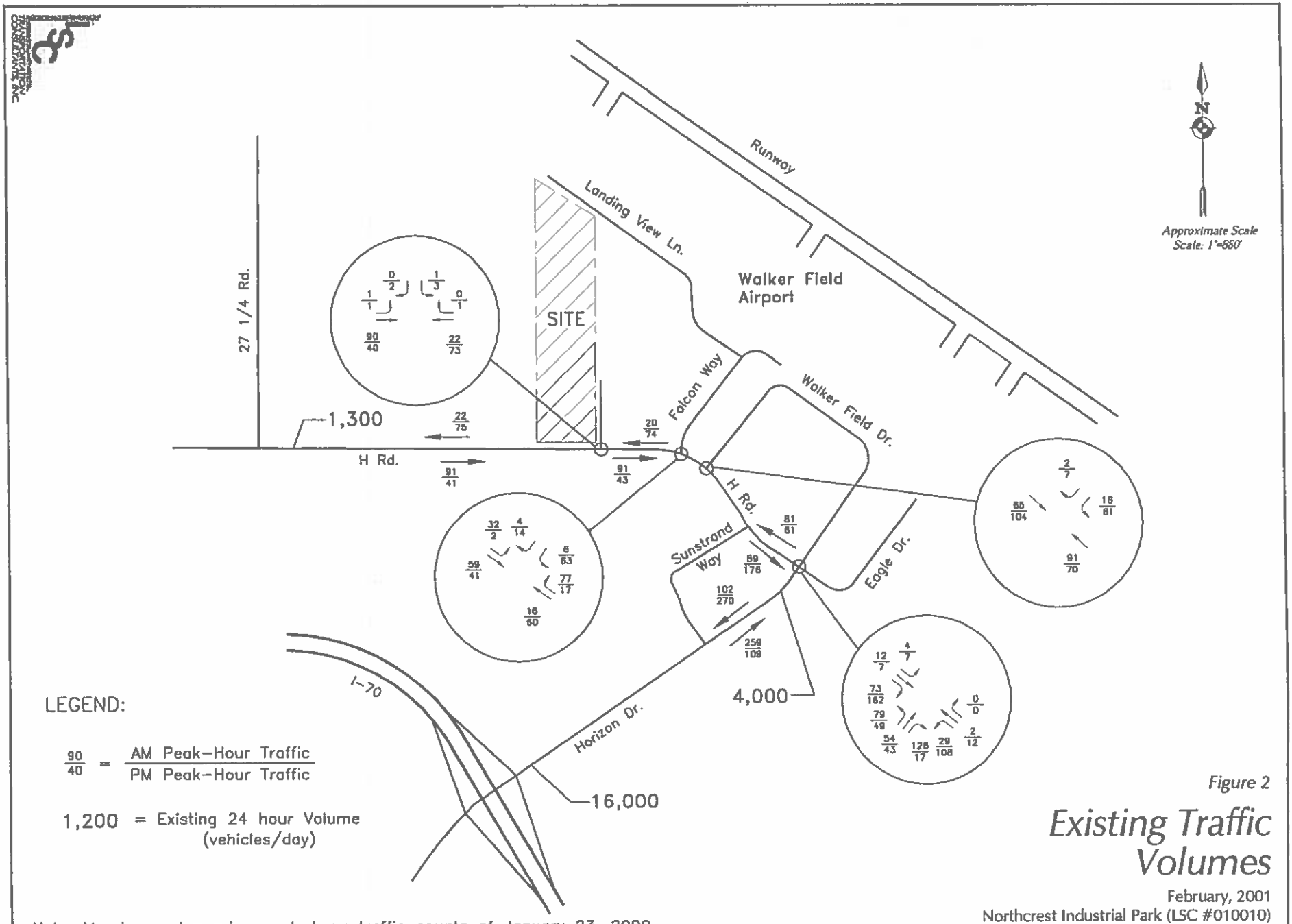


Figure 1

Site Location

February, 2001
Northcrest Industrial Park (LSC #010010)

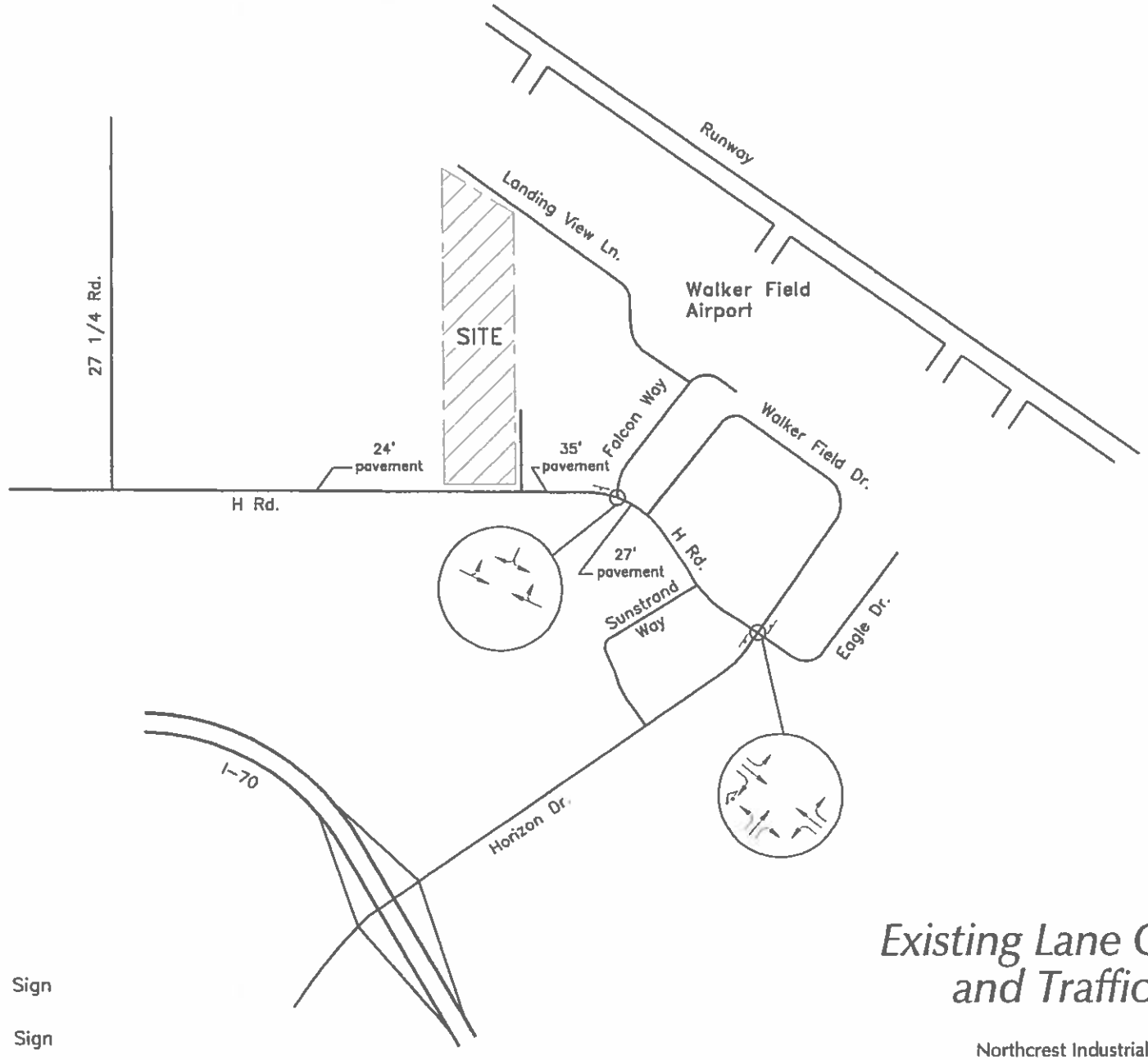


Note: Morning and evening peak-hour traffic counts of January 23, 2000

Figure 2

Existing Traffic Volumes

February, 2001
Northcrest Industrial Park (LSC #010010)



LEGEND:

= Stop Sign

= Yield Sign

Figure 3

Existing Lane Geometry and Traffic Controls

February, 2001
Northcrest Industrial Park (LSC #010010)

SECTION C
Traffic Generation

The North Crest Industrial Park is planned to consist of at least ten individual lots, as illustrated in Figure 4. Uses could be four office sites (nearest the entrances on H Road), four light industrial sites, and possibly two larger warehouse sites. Based upon the assumed land use of Figure 4, the umber of vehicle-trips that could be generated by the proposed development has been estimated utilizing trips generation rates documented in *Trip Generation*, published by the Institute of Transportation Engineers (ITE), 6th Edition, 1997. Table 1 presents the estimated daily and peak-hour vehicle-trips generated by each land use in the site plan. The trip generation rates of Table 1 apply to the building floor area of the several land uses, expressed in thousands of square feet. The floor area estimates of Table 1 assume a "floor area ratio" (FAR) of 0.50 (one-half square foot of floor area for each square foot of land area).

As indicated, North Crest Industrial Park could generate as many as 3,236 vehicle-trips per day (1,618 entering trips and 1,618 exiting trips over a 24-hour period), based upon a total buildout floor area of 407,330 square feet. Office uses, constituting only 27 percent of the total floor area, could generate nearly 45 percent of the trips. Table 1 also shows that there could be 455 vehicle-trips in the morning peak-hour (393 entering and 62 exiting) and 455 vehicle-trips in the evening peak-hour (75 entering and 380 exiting).

Table 1
ESTIMATED TRAFFIC GENERATION
North Crest Industrial Park

Parcel	Land Use	Area (acres)	Floor Area Ratio	Floor Area (1,000 sq.ft.)	Average Weekday	Trip Generation Rates/1,000 sq.ft. AM In	AM Out	PM In	PM Out	Average Weekday	Vehicle-Trips Generated AM In	AM Out	PM In	PM Out
1	General Offices	1.00	0.5	21.86	12.94 (1)	1.61	0.22	0.3	1.52	282	35	5	7	33
2	General Offices	1.51	0.5	32.78	12.94	1.61	0.22	0.3	1.52	424	53	7	10	50
3	General Offices	1.53	0.5	33.35	12.94	1.61	0.22	0.3	1.52	432	54	7	10	51
4	General Offices	1.08	0.5	23.51	12.94	1.61	0.22	0.3	1.52	304	38	5	7	36
	Subtotal			111.50						1,442	180	24	34	170
5	Light Industrial	2.33	0.5	50.69	6.97 (2)	0.81	0.11	0.12	0.86	353	41	6	6	44
6	Light Industrial	2.14	0.5	46.51	6.97	0.81	0.11	0.12	0.86	324	38	5	6	40
7	Light Industrial	1.50	0.5	32.67	6.97	0.81	0.11	0.12	0.86	228	26	4	4	28
8	Light Industrial	1.50	0.5	32.67	6.97	0.81	0.11	0.12	0.86	228	26	4	4	28
	Subtotal			162.54						1,133	131	19	20	140
9	Warehouse	3.50	0.5	76.23	4.96 (3)	0.62	0.14	0.16	0.52	378	49	11	12	40
10	Warehouse	2.62	0.5	57.06	4.96	0.62	0.14	0.16	0.52	283	35	8	9	30
	Subtotal			133.29						661	84	19	21	70
	Total			**407.33**						**3,236**	**395**	**62**	**75**	**380**

Source for trip generation rates: *Trip Generation*, 6th edition, Institute of Transportation Engineers, 1998.

(1) Land Use Code #710; General Office Buildings (fitted curve equations).

(2) Land Use Code #110; General Light Industrial (average rates).

(3) Land Use Code #150; Warehousing (fitted curve equation).

SECTION D

Traffic Distribution and Assignment

The geographical distribution of project-generated vehicular traffic on the roadways providing access to and from the proposed industrial park is a key element in the planning for the project's specific access requirements and in determining its traffic impacts on surrounding roadways and intersections. Major factors which influence the distribution include:

- The project's location relative to the population and activity centers in Grand Junction. (The site's proximity to an I-70 interchange, Walker Field Airport, and all areas of Grand Junction is significant. Virtually all traffic will originate to the south, with near equal amounts arriving from the east and west.

- The local and regional roadway network serving the site. (All traffic to and from the site will utilize H Road. The site's proximity to Horizon Drive and the I-70 interchange, plus the existing and proposed future connections between H Road and east/west arterial roads south of I-70, means that the site will have good access to all parts of Grand Junction.)

- The specific access and circulation characteristics of the development plan. (The site will have a simple, full movement access (FMA) on H Road, allowing equal access from both the east and west.)

Considering the combined effects of these factors, specific traffic distribution estimates have been made. Figure 5 illustrates the directional distribution percentages that were determined to be appropriate. The bold arrows and adjacent numbers illustrate the percent of project-generated traffic on each leg of H Road. As shown, when the project is first completed (assumed to be the Year 2002 or soon after), 55 percent of all traffic will be oriented toward the eat and Horizon Drive. After H Road is extended westerly and improved to 24 Road, the majority of traffic (55 percent) will be oriented to and from the west.

Assignment of Generated Traffic

The assignment of project-generated morning and evening peak-hour traffic is also shown in Figure 5. Estimates of peak-hour traffic for both Years 2002 and 2020 at the H Road

site access are shown as well as 2002 estimates of traffic at the Horizon Drive/H Road intersection. (Small amounts of project-generated traffic will be traveling to and from the Walker Field terminal area via Walker Field Drive.) These assignments are made by applying the peak-hour generation amounts of Table 1 to the distribution percentages assumed in Figure 5. The peak-hour traffic volumes of Figure 5 have been used in the impact analyses that follow.

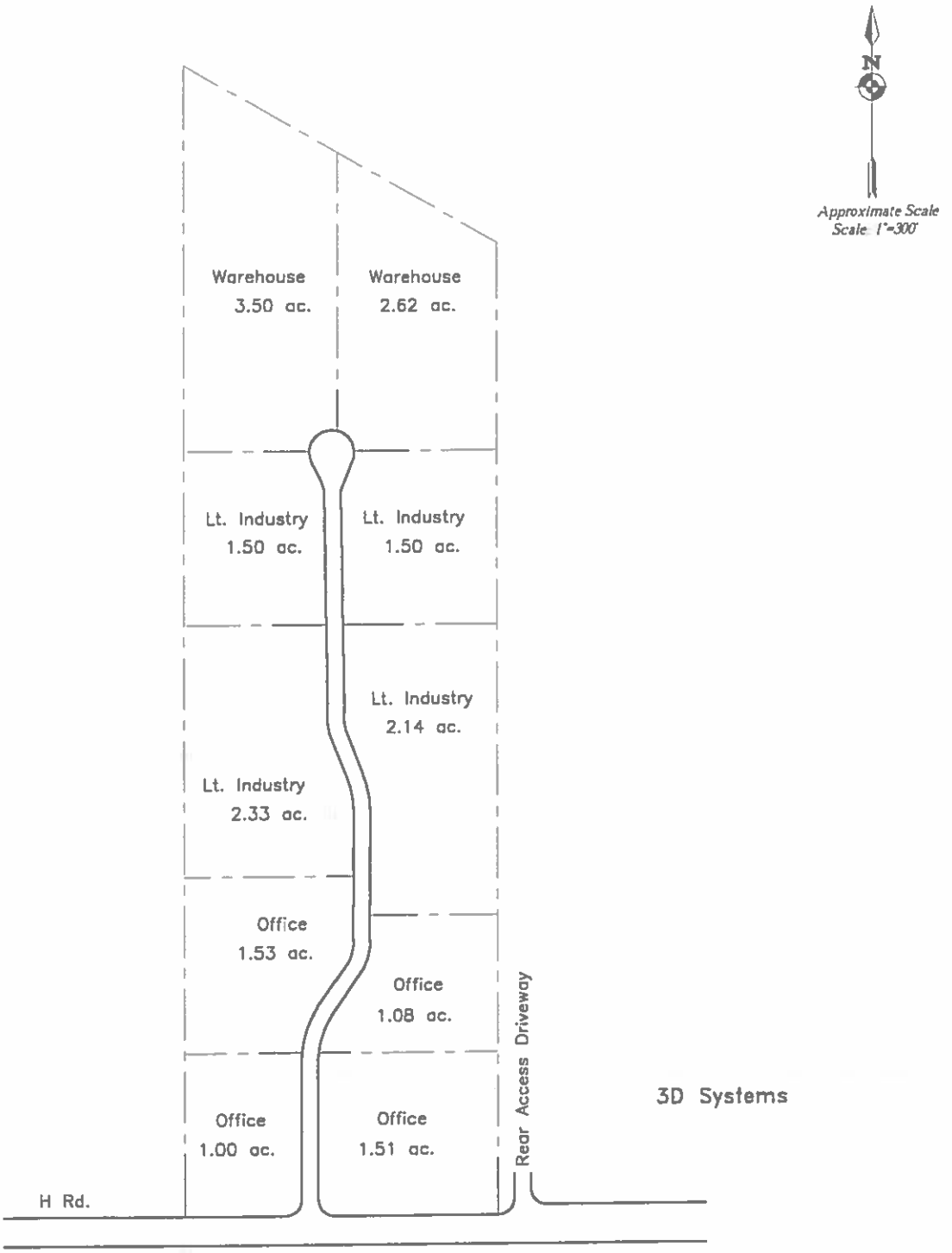
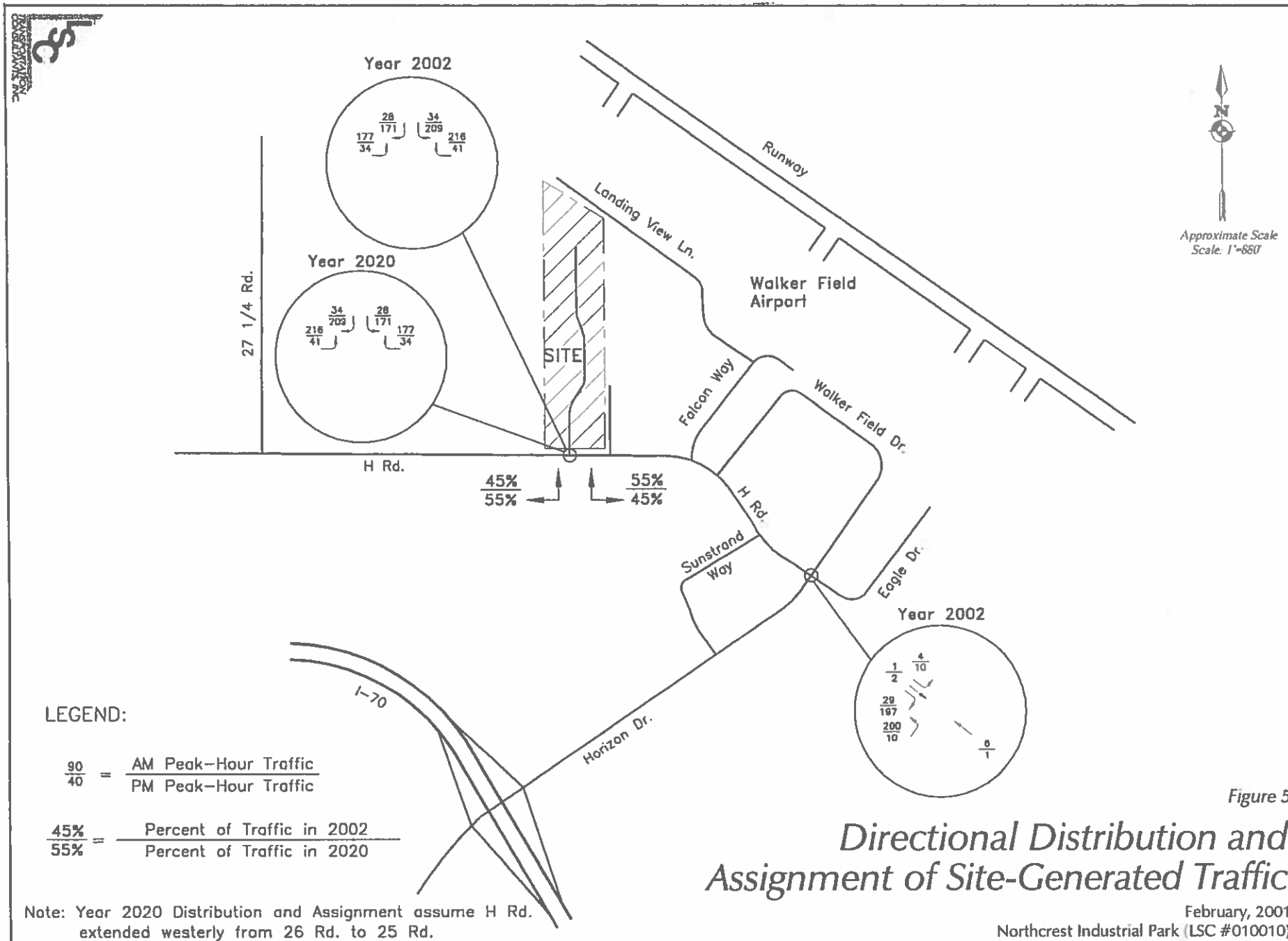


Figure 4

Land Use Plan

February, 2001
Northcrest Industrial Park (LSC #010010)



Note: Year 2020 Distribution and Assignment assume H Rd. extended westerly from 26 Rd. to 25 Rd.

Figure 5

Directional Distribution and Assignment of Site-Generated Traffic

February, 2001
Northcrest Industrial Park (LSC #010010)

SECTION E

Future Traffic Volumes

In order to have a basis for determining future traffic impacts and required improvements, projections of future traffic volumes were made at the primary access intersection on H Road and at the nearby H Road/Horizon Drive intersection. Projections were made for the near future (completion of the project) and for future Year 2020.

Traffic Volumes at Project Completion

Figure 6 illustrates the combined sum of existing traffic plus project-generated traffic. Morning and evening peak-hour volumes are illustrated at the H Road access and at H Road/Horizon Drive intersection.

Year 2020 Background Traffic

Future traffic volumes in the vicinity of North Crest Industrial Park will be the sum of project-generated traffic and the future "background" traffic. Background traffic is defined as all traffic other than that generated by the proposed project. Year 2020 morning and evening peak-hour "background" traffic volumes in the vicinity of the site are illustrated in Figure 7. These volumes have been estimated by LSC, Inc. based upon the assumption that H Road will experience a very significant increase in traffic as urbanization continues north of I-70 and the road is reconstructed as a continuous urban collector street from 24 Road to Horizon Drive. Volumes of at least 5,000 vehicles per day are forecast for H Road between 27 ¼ Road and the Walker Field Drive exiting roadway. This represents a sizable, nearly 400 percent, increase over present traffic, or a growth rate of about eight percent per year for 20 years.

Year 2020 turning volumes at the Horizon/H Road intersection have also been estimated in Figure 7. As with H Road farther west, these represent significant increases over the volumes counted in January 2001.

Year 2020 Total Traffic

The combined sum of project-generated traffic (Figure 5) and 2020 background traffic (Figure 7) is shown in Figure 8. These volumes become input into the capacity and impact analyses of the next section.

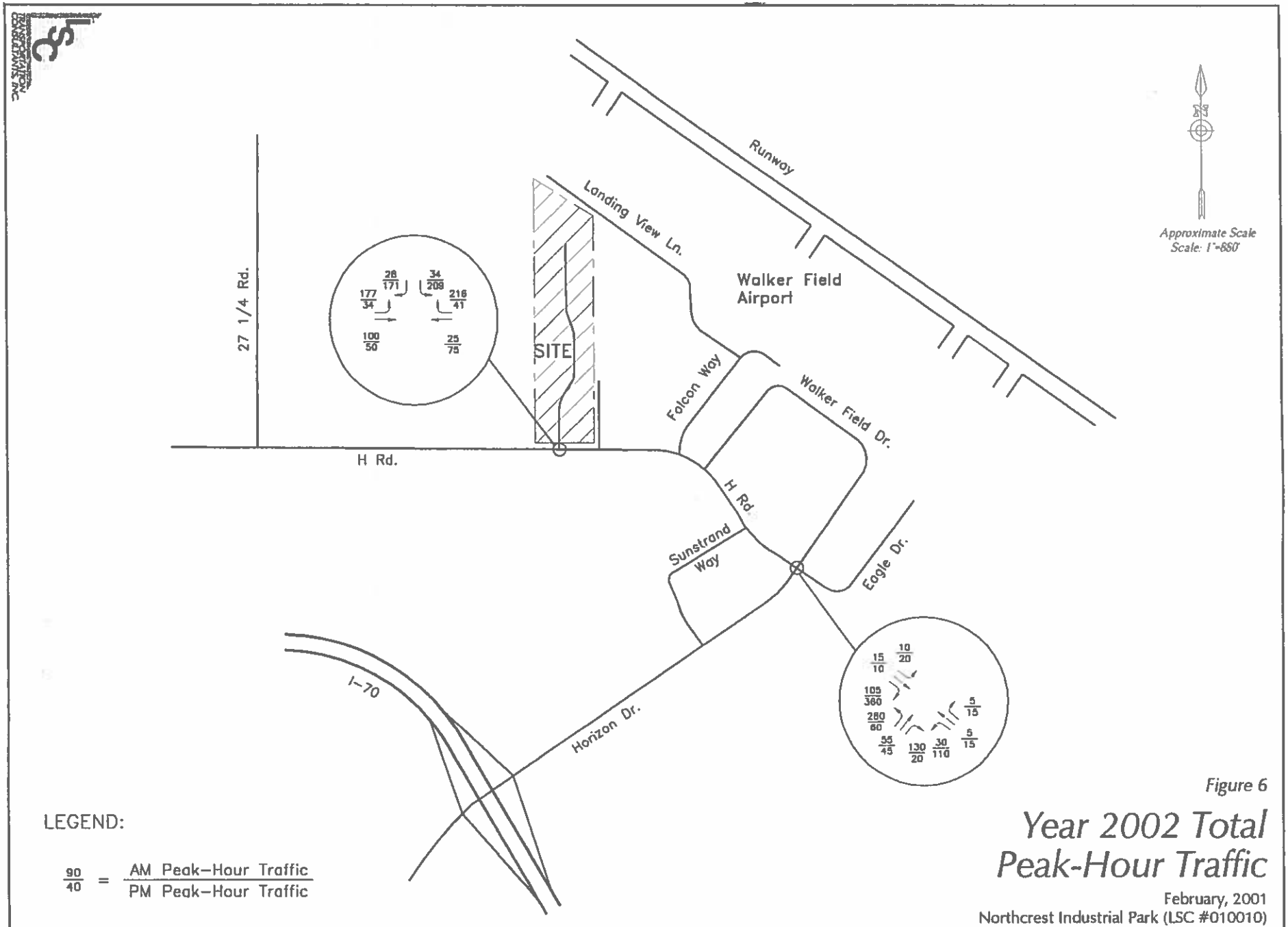


Figure 6

Year 2002 Total Peak-Hour Traffic

February, 2001
Northcrest Industrial Park (LSC #010010)

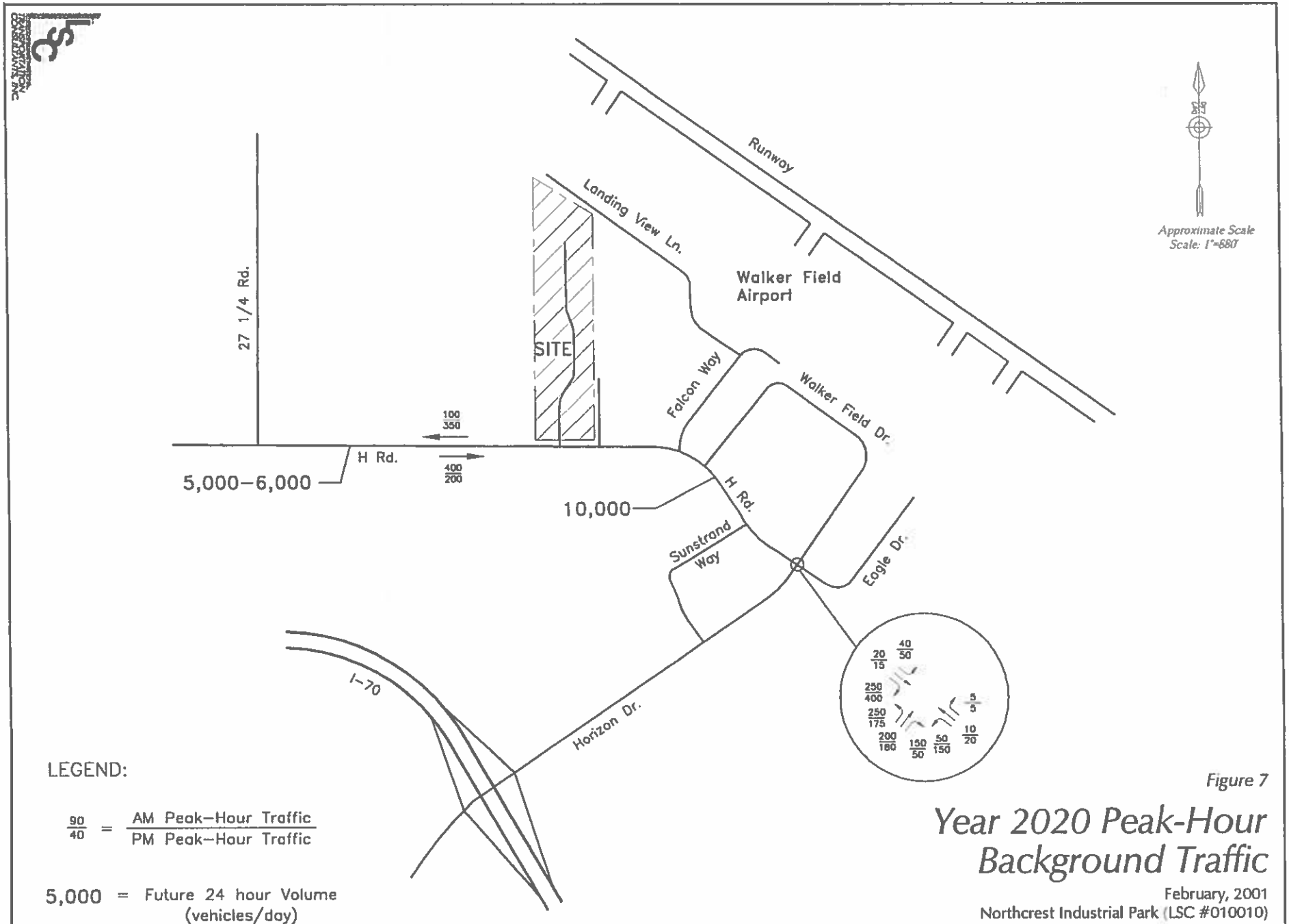
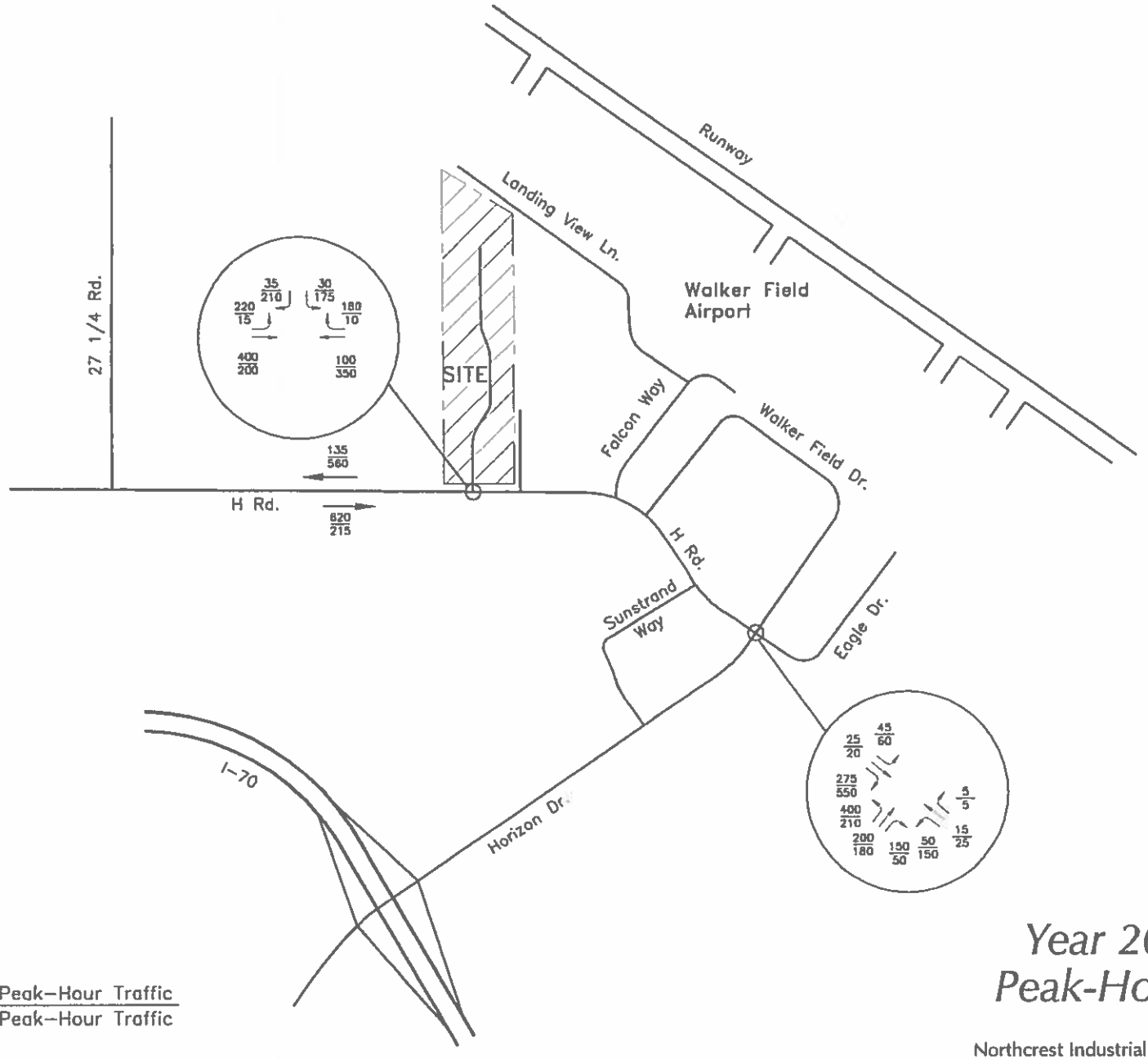


Figure 7

Year 2020 Peak-Hour Background Traffic

February, 2001
Northcrest Industrial Park (LSC #010010)



LEGEND:

$\frac{90}{40}$ = $\frac{\text{AM Peak-Hour Traffic}}{\text{PM Peak-Hour Traffic}}$

Figure 8

Year 2020 Total Peak-Hour Traffic

February, 2001
Northcrest Industrial Park (LSC #010010)

SECTION F

Traffic Impacts

The traffic impacts of the North Crest Industrial Park development can be described in technical terms by evaluating the resulting "Levels of Service" (LOS) at the site access intersection and the nearby H Road/Horizon Drive intersection which will be affected by the development. Level of Service illustrates the inter-relationship among the intersection's physical characteristics (lane geometry), its usage (traffic volumes), and its traffic-carrying capacity (vehicles per hour).

Intersection Capacity Analyses

Intersection capacities have been analyzed in accordance with the requirements of the 1995 *Highway Capacity Manual* (HCM), published by the Transportation Research Board of the National Academy of Sciences, a federal organization. The HCM methodology is based upon the maximum number of vehicles that can pass through an intersection, in each of the intersection's several turn movements and through movements, in a given period of time. The concept of Level of Service is used as a basis for computing combinations of roadway operating conditions. By definition, six different Levels of Service are used (A, B, C, D, E, and F) with "A" being a free-flow condition and "E" representing the capacity of a given intersection or traffic movement, while LOS "F" represents the intersection's traffic volumes exceeding its capacity with frequent delays. The generally accepted standards for intersection operations under "urban" conditions are Levels of Service "C" and"D". LOS "C" represents an intersection operating with some minor delay while LOS "D" indicates more, but still acceptable amounts of delay. For the North Crest development, the main access intersection was analyzed for the near term condition of buildout of the development, Year 2002, and the future operations in the Year 2020. A capacity analysis of the nearby H Road/Horizon Drive intersection was also completed for Year 2002 conditions, Year 2020 background traffic, and Year 2020 total traffic. Traffic volumes for existing traffic plus project-generated traffic (shown in Figure 6); future 2020 background traffic (shown in Figure 7); and future 2020 total traffic (shown in Figure 8), were used in the analyses.

The results of the capacity analyses are given in the worksheets located in Appendix B of this report while the summary results of the capacity analyses are shown in Table 2.

This table shows Level of Service results for existing plus project-generated traffic, Year 2020 background traffic, and Year 2020 background plus project-generated traffic at the site's H Road intersection and at the nearby H Road/Horizon Drive intersection.

As indicated in Table 2, all movements of the H Road/site access intersection are expected to operate at an acceptable Level of Service (LOS "D" or better) with background plus site-generated traffic through Year 2020 with the proposed traffic control and lane geometry.

All movements of the H Road/Horizon Drive intersection are expected to operate at an acceptable Level of Service (LOS "D" or better) in the short term with the existing traffic control and lane geometry. However, with the present Stop sign control, the westbound left-turn movement of this intersection is expected to operate at LOS "F" with background traffic. In the future, however, projected traffic volumes will necessitate signalization of the intersection. With signalization, all movements of the intersection are expected to operate at a good Level of Service (LOS "C" or better) during the peak-hours through Year 2020 with both background traffic and background plus site-generated traffic.

Table 2
Level of Service Capacity Analysis
North Crest Industrial Park
Grand Junction, CO
LSC # 010010

		Year 2002 Total				Year 2020 Background				Year 2020 Total			
		AM		PM		AM		PM		AM		PM	
	Approach	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
H Road/Site Access	Unsignalized												
	SB LT	B	13.9	B	11.8	–	–	–	–	D	25.1	C	19.3
	EB LT	A	8.2	A	7.5	–	–	–	–	A	8.5	A	8.1
H Road/Horizon Drive	Unsignalized												
	EB LT	C	17.1	B	10.1	C	21.1	C	16.7	E	44.7	C	19.8
	EB TH	C	20.1	B	10.5	C	22.8	C	15.7	E	41.1	C	17.5
	WB LT	C	23.8	D	29.8	F	53.9	F	**	F	**	F	**
H Road/Horizon Drive	Signalized												
	EB LT	–	–	–	–	C	25.6	B	12.8	C	25.9	B	11.4
	EB TH	–	–	–	–	C	24.3	B	12.2	C	24.3	B	10.8
	WB TH	–	–	–	–	C	26.3	B	14.5	C	26.4	B	13.0
	WB LT	–	–	–	–	C	24.0	B	12.3	C	24.0	B	10.8
	NB TH	–	–	–	–	A	2.1	A	5.1	A	2.3	A	4.9
	NB LT	–	–	–	–	A	2.0	A	5.1	A	2.0	A	4.7
	Intersection	–	–	–	–	A	4.6	A	5.3	A	4.6	A	4.5

** Delay over 100 seconds
Source: Capacity Worksheets, Appendix B

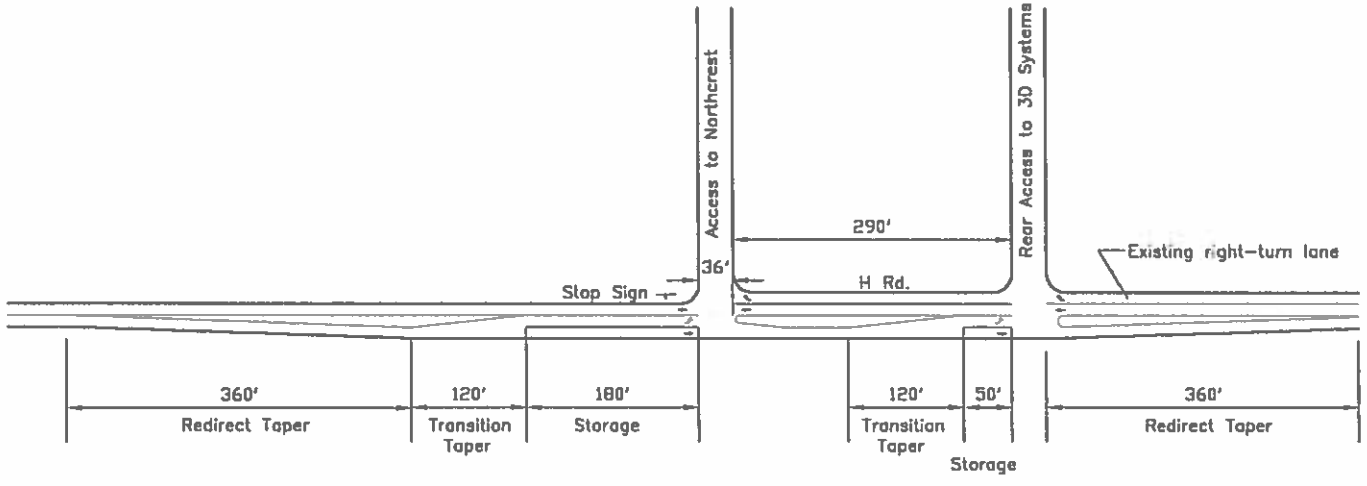
SECTION G

Recommended Improvements

With H Road in its present condition as a rural two-lane collector road, the primary need for accommodating the North Crest development will be to widen the roadway sufficiently to provide an eastbound left-turn lane for the significant volume of eastbound entering traffic. The recommended configuration of the access is illustrated in Figure 9. Based upon guidelines contained in the *Colorado State Highway Access Code* of August 31, 1998 (the basis for the Grand Junction TEDS requirements), a left-turn lane about 660 feet long will be required, providing left-turn stacking for approximately nine vehicles. In addition, that portion of H Road east of the North Crest access should be widened to conform and align with the existing right-turn lane serving the rear access to the 3D Systems building.

It is also assumed that, in accordance with the long range transportation improvement plan for Grand Junction, H Road will be improved to standard three-lane urban collector street standards (44 to 52 feet in width), which will provide adequate width for left-turn movements.

In addition, we recommend that the H Road/Horizon Drive intersection be monitored and signals installed when satisfactory Signal Warrants are met. At that time, H Road should be widened to four through lanes between the two Walker Field Drive one-way roadways.



Approximate Scale
Scale: 1"= 200'

Figure 9

Recommended Site Improvements

February, 2001
Northcrest Industrial Park (LSC #010010)

SECTION H
Summary and Conclusions

Based on the foregoing analyses, the following conclusions may be made concerning the North Crest Industrial Park development:

1. The proposed North Crest Industrial Park, consisting of 20 acres of land and possibly more than 400,000 square feet of building floor area, could generate as much as 3,236 daily vehicle-trips, with 455 trips in the morning peak-hour (393 entering and 62 exiting) and 455 trips in the evening peak-hour (75 entering and 380 exiting).

2. All of the generated traffic will enter and exit the site at the planned main access point on H Road. Traffic to and from the site will be nearly split evenly between the east and west directions. (An emergency only access to the site could be provided by way of Landing View Lane, a minor street, on the north border of the site.)

3. The traffic impacts of North Crest on H Road will be significant because of the road's present partially improved condition as a rural collector street. The development's impact on the nearby H Road/Horizon Drive intersection will be much less.

4. An important finding of this impact analysis is that future urban development of the H Road corridor and growth of the Walker Field Airport will result in greatly increased traffic on H Road. When this growth occurs, it will be necessary to widen and improve H Road to a standard "urban collector" cross-section and extend it westerly to provide a continuous route from 24 Road on the west to Horizon Drive on the east.

5. In the meantime, in response to the North Crest development, partial widening of H Road should occur in the vicinity of North Crest in order to provide an eastbound left-turn lane and a westbound right-turn lane.

APPENDIX A

Traffic Counts

Counter Measures

Site Code : 10
N-S Street: 3-D SYSTEMS REAR ACCESS
E-W Street: H-ROAD
:

PAGE: 1
FILE: 3DSYHR0A

Movements by: Vehicles

DATE: 1/23/01

Time Begin	From North RT	THRU	LT	From East RT	THRU	LT	From South RT	THRU	LT	From West RT	THRU	LT	Vehicle Total
6:30	0	0	0	0	3	0	0	0	0	0	13	0	16
6:45	0	0	0	0	7	0	0	0	0	0	29	0	36
HR TOTAL	0	0	0	0	10	0	0	0	0	0	42	0	52
7:00 AM	0	0	0	0	0	0	0	0	0	0	21	0	21
7:15	0	0	0	0	6	0	0	0	0	0	13	0	19
7:30	0	0	0	0	7	0	0	0	0	0	28	0	35
7:45	0	0	0	0	5	0	0	0	0	0	31	1	37
HR TOTAL	0	0	0	0	18	0	0	0	0	0	93	1	112
8:00 AM	0	0	1	0	4	0	0	0	0	0	18	0	23
8:15	0	0	0	1	4	0	0	0	0	0	10	0	15
Break													
4:00 PM	0	0	1	1	21	0	0	0	0	0	12	0	35
4:15	0	0	0	0	11	0	0	0	0	0	12	0	23
4:30	1	0	1	0	17	0	0	0	0	0	9	0	28
4:45	0	0	1	0	20	0	0	0	0	0	10	1	32
HR TOTAL	1	0	3	1	69	0	0	0	0	0	43	1	118
5:00 PM	1	0	1	1	25	0	0	0	0	0	9	0	37
5:15	0	0	0	0	15	0	0	0	0	0	5	0	20
5:30	0	0	0	0	15	0	0	0	0	0	5	0	20
5:45	0	0	0	0	15	0	0	0	0	0	16	0	31
HR TOTAL	1	0	1	1	70	0	0	0	0	0	35	0	108
DAY TOTAL	2	0	5	3	175	0	0	0	0	0	241	2	428

Post-it® Fax Note 7671 | Date 1-23-01 | # of pages ▶ 16
To BOB LEIGH | From Rick
Co./Dept. LSC | Co.
Phone # | Phone #
Fax # | Fax #

Counter Measures

Site Code : 10
N-S Street: 3-D SYSTEMS REAR ACCESS
E-W Street: H-ROAD
:

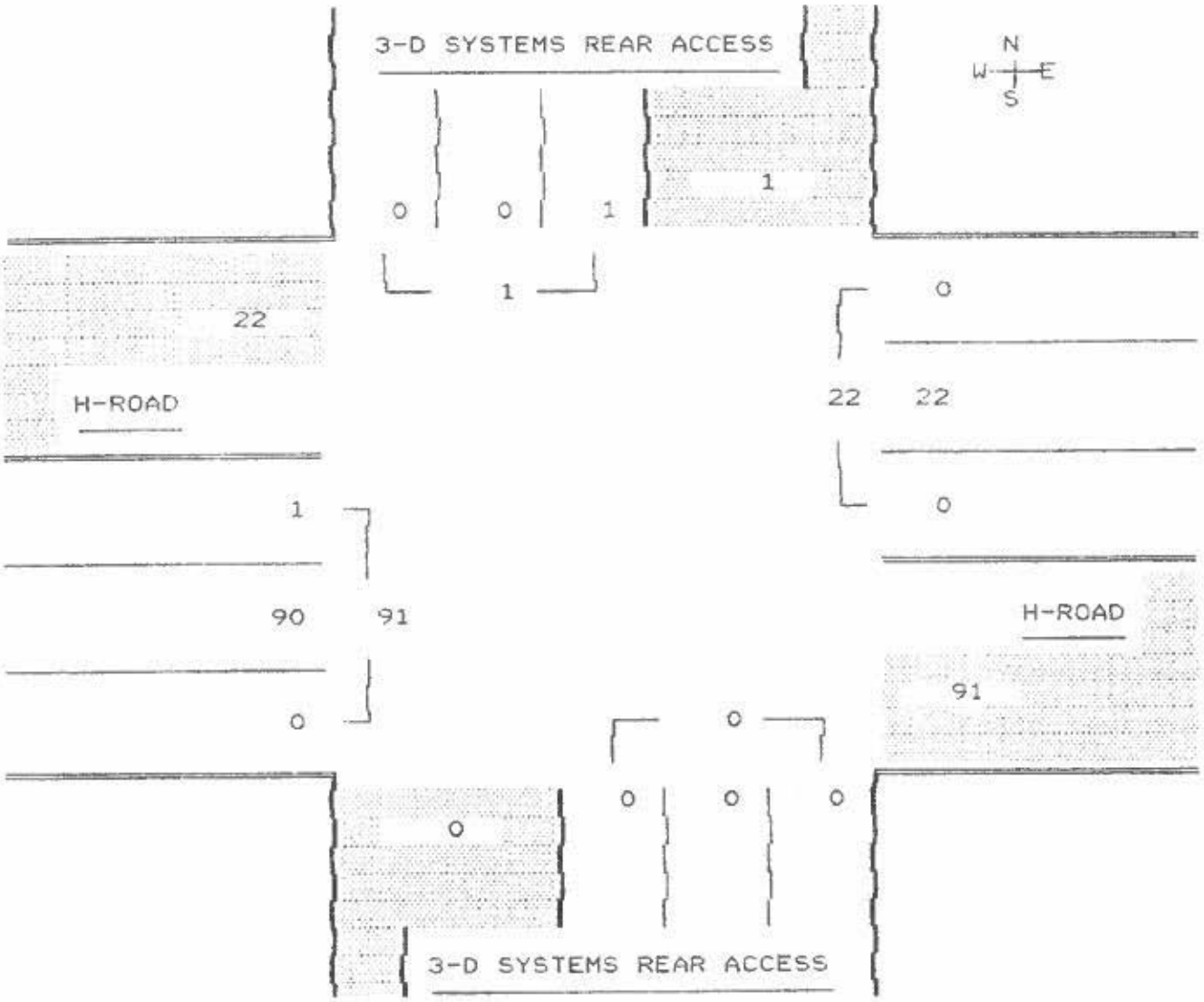
PAGE: 1
FILE: 3DSYHROA

Movements by: Vehicles

DATE: 1/23/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:30 AM - 8:30 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:15 AM	0.25	0	0	1	1	0	0	%100
East	7:15 AM	0.79	0	22	0	22	0	%100	0
South	7:15 AM	0.00	0	0	0	0	0	0	0
West	7:00 AM	0.73	0	93	1	94	0	99	1
Entire Intersection									
North	7:15 AM	0.25	0	0	1	1	0	0	%100
East		0.79	0	22	0	22	0	%100	0
South		0.00	0	0	0	0	0	0	0
West		0.71	0	90	1	91	0	99	1



Counter Measures

Site Code : 10
N-S Street: 3-D SYSTEMS REAR ACCESS
E-W Street: H-ROAD
:

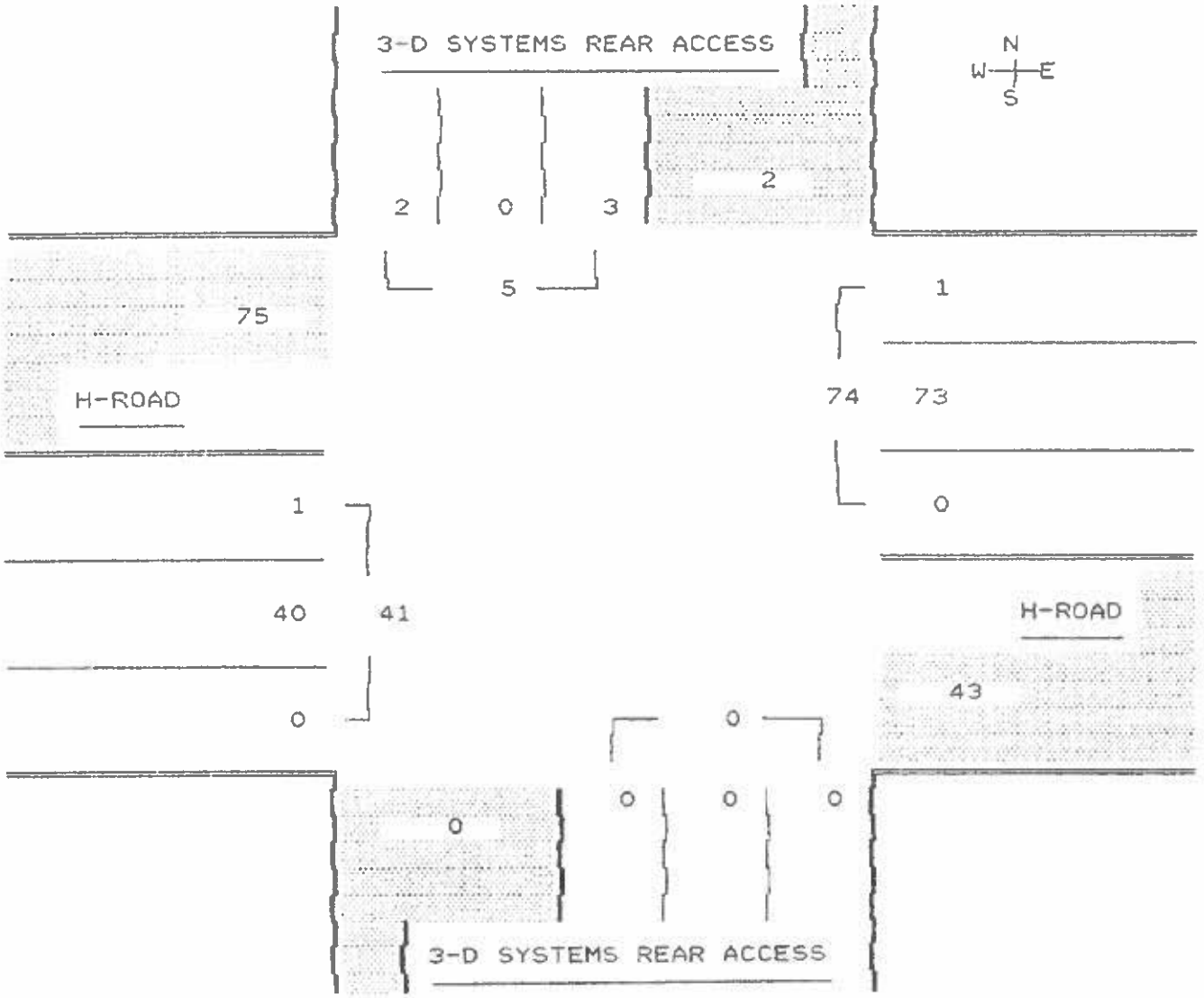
PAGE: 1
FILE: 3DSYHROA

Movements by: Vehicles

DATE: 1/23/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	4:15 PM	0.63	2	0	3	5	40	0	60
East	4:30 PM	0.75	1	77	0	78	1	99	0
South	4:30 PM	0.00	0	0	0	0	0	0	0
West	4:00 PM	0.92	0	43	1	44	0	98	2
Entire Intersection									
North	4:15 PM	0.63	2	0	3	5	40	0	60
East		0.71	1	73	0	74	1	99	0
South		0.00	0	0	0	0	0	0	0
West		0.85	0	40	1	41	0	98	2



Counter Measures

Site Code : 13
N-S Street: FALCON WAY
E-W Street: H-ROAD
:

PAGE: 1
FILE: FALCHROA

Movements by: Vehicles

DATE: 1/23/01

Time Begin	From North RT	THRU	LT	From East RT	THRU	LT	From South RT	THRU	LT	From West RT	THRU	LT	Vehicle Total
6:30	0	0	2	9	3	0	0	0	0	0	12	1	27
6:45	2	0	1	30	5	0	0	0	0	0	20	9	67
HR TOTAL	2	0	3	39	8	0	0	0	0	0	32	10	94
7:00 AM	0	0	2	25	0	0	0	0	0	0	13	8	48
7:15	0	0	2	9	6	0	0	0	0	0	8	5	30
7:30	2	0	1	13	5	0	0	0	0	0	18	10	49
7:45	0	0	4	25	5	0	0	0	0	0	22	9	65
HR TOTAL	2	0	9	72	16	0	0	0	0	0	61	32	192
8:00 AM	1	0	9	9	3	0	0	0	0	0	15	4	41
8:15	1	0	5	6	4	0	0	0	0	0	7	3	26
Break													
4:00 PM	6	0	14	6	16	0	0	0	0	0	13	0	55
4:15	3	0	18	10	8	0	0	0	0	0	12	0	51
4:30	0	0	9	4	17	0	0	0	0	0	10	0	40
4:45	5	0	16	3	15	0	0	0	0	0	9	2	50
HR TOTAL	14	0	57	23	56	0	0	0	0	0	44	2	196
5:00 PM	6	0	20	0	20	0	0	0	0	0	10	0	56
5:15	3	0	11	0	12	0	0	0	0	0	5	0	31
5:30	0	0	4	2	15	0	0	0	0	0	5	0	26
5:45	6	0	11	8	9	0	0	0	0	0	15	1	50
HR TOTAL	15	0	46	10	56	0	0	0	0	0	35	1	163
DAY TOTAL	35	0	129	159	143	0	0	0	0	0	194	52	712

Counter Measures

Site Code : 13
N-S Street: FALCON WAY
E-W Street: H-ROAD
:

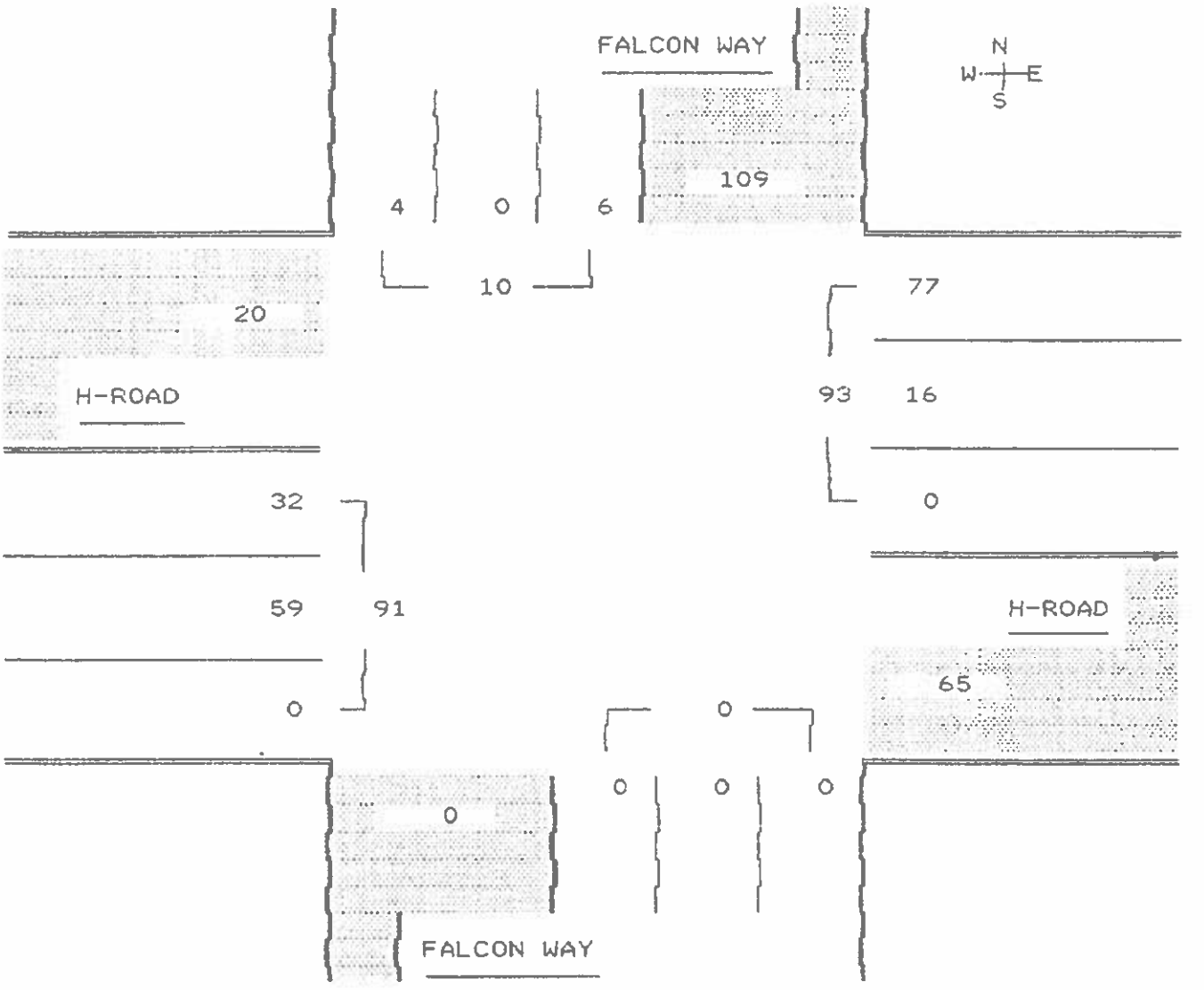
PAGE: 1
FILE: FALCHROA

Movements by: Vehicles

DATE: 1/23/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:30 AM - 8:30 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:30 AM	0.57	4	0	19	23	17	0	83
East	6:45 AM	0.66	77	16	0	93	83	17	0
South	6:45 AM	0.00	0	0	0	0	0	0	0
West	7:00 AM	0.75	0	61	32	93	0	66	34
Entire Intersection									
North	6:45 AM	0.83	4	0	6	10	40	0	60
East		0.66	77	16	0	93	83	17	0
South		0.00	0	0	0	0	0	0	0
West		0.78	0	59	32	91	0	65	35



Counter Measures

Site Code : 13
N-S Street: FALCON WAY
E-W Street: H-ROAD
:

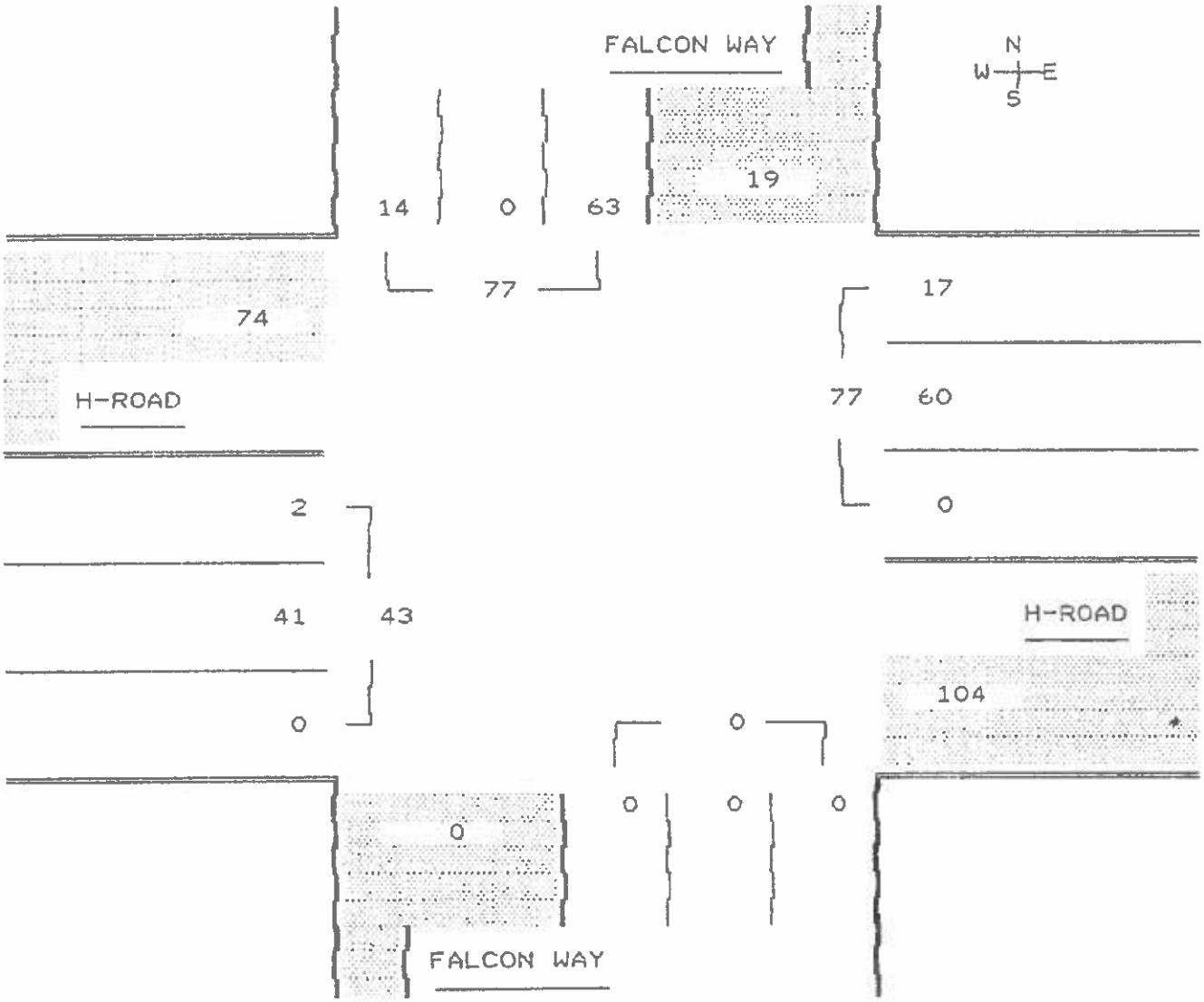
PAGE: 1
FILE: FALCHROA

Movements by: Vehicles

DATE: 1/23/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	4:15 PM	0.74	14	0	63	77	18	0	82
East	4:00 PM	0.90	23	56	0	79	29	71	0
South	4:00 PM	0.00	0	0	0	0	0	0	0
West	4:00 PM	0.88	0	44	2	46	0	96	4
Entire Intersection									
North	4:15 PM	0.74	14	0	63	77	18	0	82
East		0.92	17	60	0	77	22	78	0
South		0.00	0	0	0	0	0	0	0
West		0.90	0	41	2	43	0	95	5



Counter Measures

Site Code : 15
N-S Street: WALKER FIELD EXIT ACCESS
E-W Street: H-ROAD
:

PAGE: 1
FILE: WALKHROA
DATE: 1/23/01

Movements by: Vehicles

Time Begin	From North RT	THRU	LT	From East RT	THRU	LT	From South RT	THRU	LT	From West RT	THRU	LT	Vehicle Total
6:30	2	0	1	0	10	0	0	0	0	0	14	0	27
6:45	0	0	5	0	35	0	0	0	0	0	21	0	61
HR TOTAL	2	0	6	0	45	0	0	0	0	0	35	0	88
7:00 AM	0	0	5	0	25	0	0	0	0	0	15	0	45
7:15	2	0	3	0	13	0	0	0	0	0	10	0	28
7:30	0	0	3	0	18	0	0	0	0	0	19	0	40
7:45	2	0	5	0	28	0	0	0	0	0	26	0	61
HR TOTAL	4	0	16	0	84	0	0	0	0	0	70	0	174
8:00 AM	1	0	2	0	11	0	0	0	0	0	24	0	38
8:15	1	0	2	0	9	0	0	0	0	0	12	0	24
Break													
4:00 PM	4	0	9	0	18	0	0	0	0	0	27	0	58
4:15	3	0	13	0	15	0	0	0	0	0	30	0	61
4:30	3	0	14	0	18	0	0	0	0	0	19	0	54
4:45	1	0	17	0	17	0	0	0	0	0	25	0	60
HR TOTAL	11	0	53	0	68	0	0	0	0	0	101	0	233
5:00 PM	0	0	17	0	20	0	0	0	0	0	30	0	67
5:15	2	0	15	0	10	0	0	0	0	0	16	0	43
5:30	0	0	7	0	17	0	0	0	0	0	9	0	33
5:45	0	0	13	0	17	0	0	0	0	0	26	0	56
HR TOTAL	2	0	52	0	64	0	0	0	0	0	81	0	199
DAY TOTAL	21	0	131	0	281	0	0	0	0	0	323	0	756

Counter Measures

Site Code : 15
N-S Street: WALKER FIELD EXIT ACCESS
E-W Street: H-ROAD

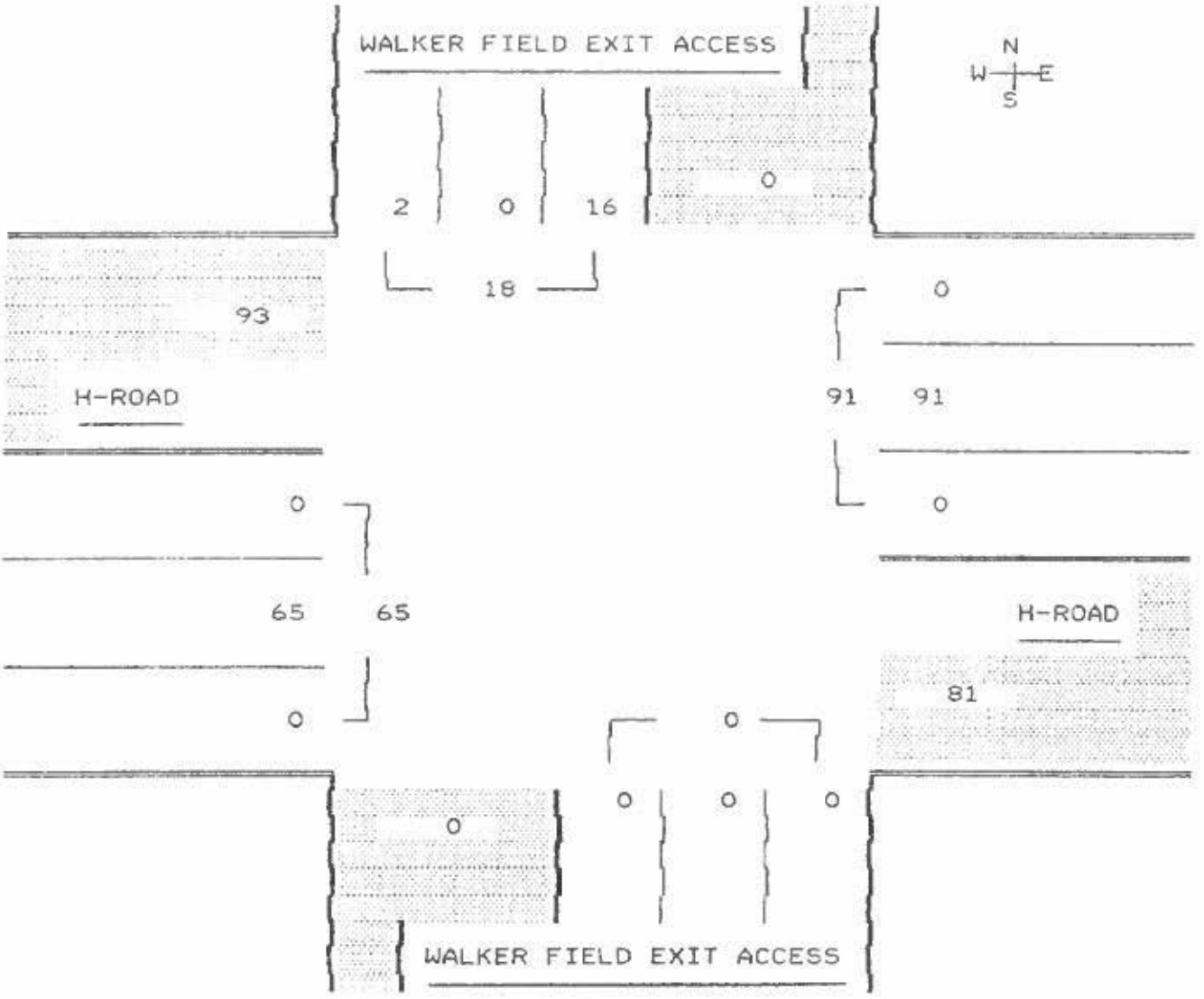
PAGE: 1
FILE: WALKHROA

Movements by: Vehicles

DATE: 1/23/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:30 AM - 8:30 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:00 AM	0.71	4	0	16	20	20	0	80
East	6:45 AM	0.65	0	91	0	91	0	%100	0
South	6:45 AM	0.00	0	0	0	0	0	0	0
West	7:30 AM	0.78	0	81	0	81	0	%100	0
Entire Intersection									
North	6:45 AM	0.90	2	0	16	18	11	0	89
East		0.65	0	91	0	91	0	%100	0
South		0.00	0	0	0	0	0	0	0
West		0.77	0	65	0	65	0	%100	0



Counter Measures

Site Code : 15
N-S Street: WALKER FIELD EXIT ACCESS
E-W Street: H-ROAD

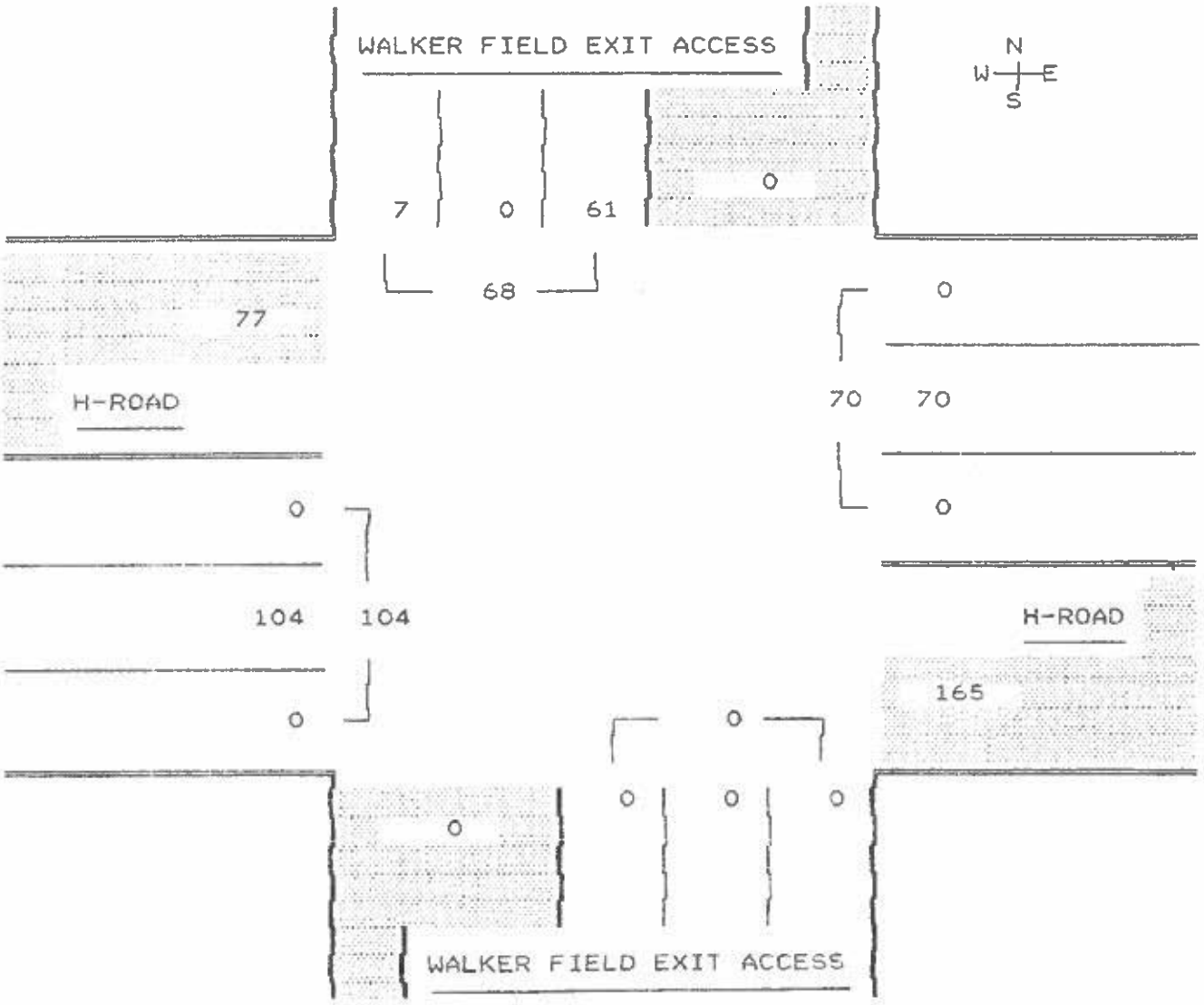
PAGE: 1
FILE: WALKHROA

Movements by: Vehicles

DATE: 1/23/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	4:30 PM	0.96	6	0	63	69	9	0	91
East	4:15 PM	0.88	0	70	0	70	0	%100	0
South	4:15 PM	0.00	0	0	0	0	0	0	0
West	4:15 PM	0.87	0	104	0	104	0	%100	0
Entire Intersection									
North	4:15 PM	0.94	7	0	61	68	10	0	90
East		0.88	0	70	0	70	0	%100	0
South		0.00	0	0	0	0	0	0	0
West		0.87	0	104	0	104	0	%100	0



Counter Measures

Site Code : 3
N-S Street: HORIZON DR/WALKER FIELD
E-W Street: H-ROAD
:

PAGE: 1
FILE: HORIHROA

Movements by: Vehicles

DATE: 1/23/01

Time Begin	From North RT	THRU	LT	From East RT	THRU	LT	From South RT	THRU	LT	From West RT	THRU	LT	Vehicle Total
6:30	0	0	0	0	0	0	16	12	9	10	2	1	50
6:45	0	0	0	0	1	3	27	10	28	15	8	0	92
HR TOTAL	0	0	0	0	1	3	43	22	37	25	10	1	142
7:00 AM	0	0	0	0	0	5	15	6	34	11	3	0	74
7:15	0	0	0	0	1	2	11	7	16	11	0	1	49
7:30	0	0	0	0	2	5	28	9	22	13	2	1	82
7:45	0	0	0	0	0	7	49	15	32	28	3	3	137
HR TOTAL	0	0	0	0	3	19	103	37	104	63	8	5	342
8:00 AM	0	0	0	0	0	6	35	16	14	21	3	0	95
8:15	0	0	0	0	0	11	14	14	11	11	4	0	65
Break													
4:00 PM	0	0	0	0	4	17	4	15	12	35	2	1	90
4:15	0	0	0	0	2	24	6	15	12	42	1	4	106
4:30	0	0	0	0	2	19	5	7	10	38	3	1	85
4:45	0	0	0	0	4	30	5	14	13	32	2	2	102
HR TOTAL	0	0	0	0	12	90	20	51	47	147	8	8	383
5:00 PM	0	0	0	0	4	35	1	7	14	50	1	0	112
5:15	0	0	0	0	1	27	3	10	11	30	1	0	83
5:30	0	0	0	0	2	9	3	2	8	21	0	0	45
5:45	0	0	0	0	3	12	9	10	19	36	1	2	92
HR TOTAL	0	0	0	0	10	83	16	29	52	137	3	2	332
DAY TOTAL	0	0	0	0	26	212	231	169	265	404	36	16	1359

Counter Measures

Site Code : 3
N-S Street: HORIZON DR/WALKER FIELD
E-W Street: H-ROAD
:

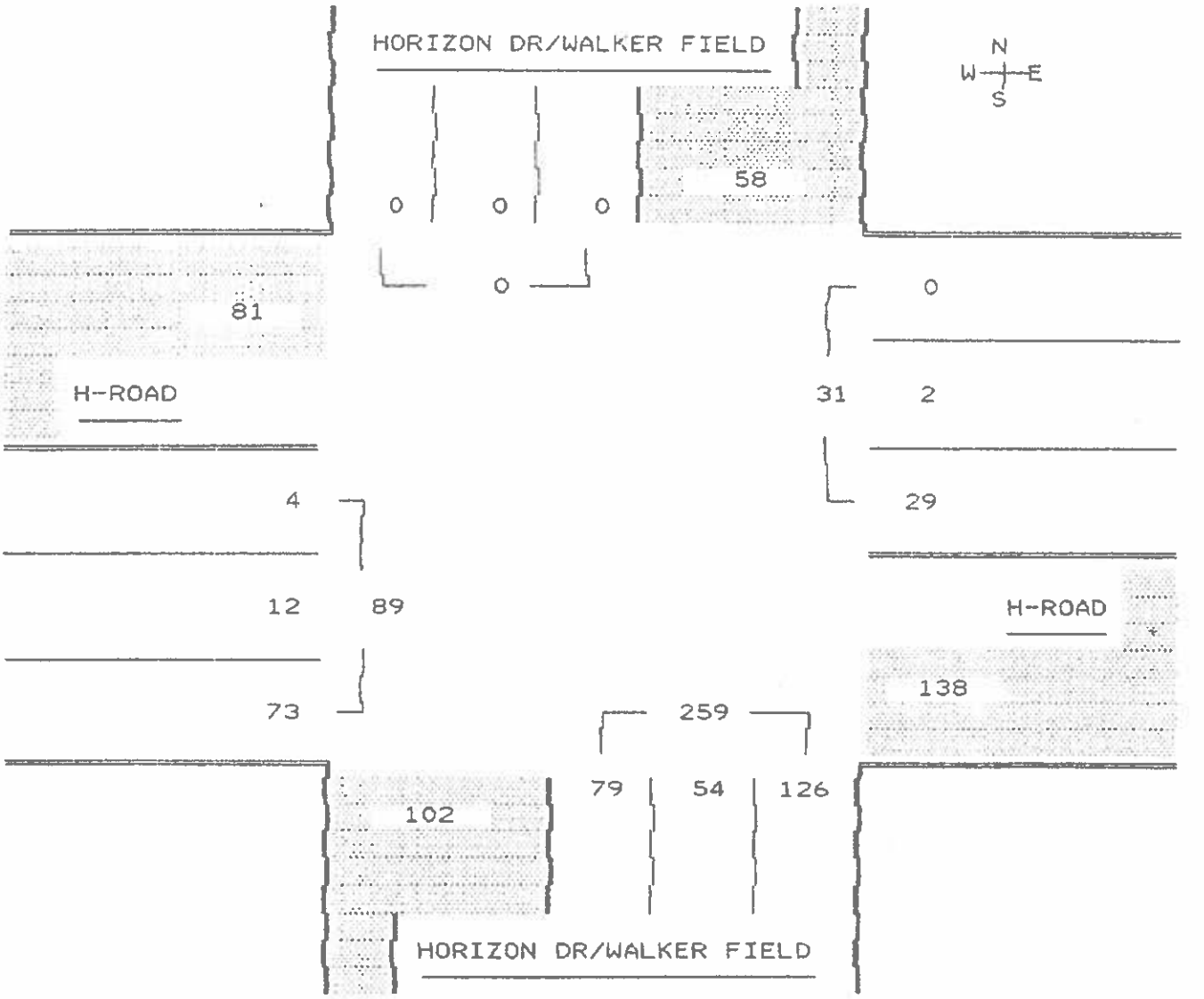
PAGE: 1
FILE: HORIHROA

Movements by: Vehicles

DATE: 1/23/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:30 AM - 8:30 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	12:00 AM	0.00	0	0	0	0	0	0	0
East	7:30 AM	0.70	0	2	29	31	0	6	94
South	7:30 AM	0.67	126	54	79	259	49	21	31
West	7:30 AM	0.65	73	12	4	89	82	13	4
Entire Intersection									
North	7:30 AM	0.00	0	0	0	0	0	0	0
East		0.70	0	2	29	31	0	6	94
South		0.67	126	54	79	259	49	21	31
West		0.65	73	12	4	89	82	13	4



Counter Measures

Site Code : 3
N-S Street: HORIZON DR/WALKER FIELD
E-W Street: H-ROAD
:

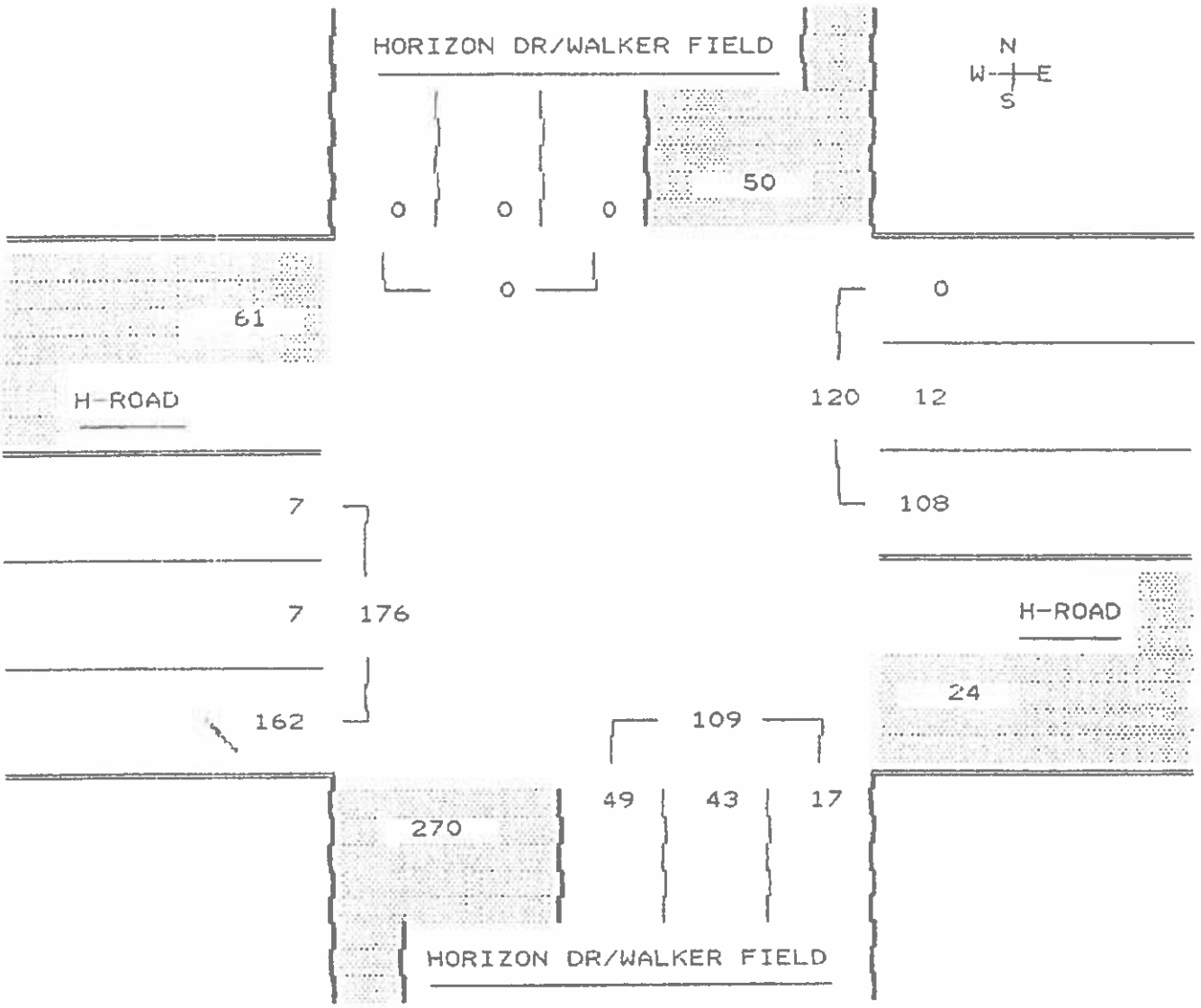
PAGE: 1
FILE: HORIHROA

Movements by: Vehicles

DATE: 1/23/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	5:00 PM	0.00	0	0	0	0	0	0	0
East	4:30 PM	0.78	0	11	111	122	0	9	91
South	4:00 PM	0.89	20	51	47	118	17	43	40
West	4:15 PM	0.86	162	7	7	176	92	4	4
Entire Intersection									
North	4:15 PM	0.00	0	0	0	0	0	0	0
East		0.77	0	12	108	120	0	10	90
South		0.83	17	43	49	109	16	39	45
West		0.86	162	7	7	176	92	4	4



APPENDIX B

Level of Service Calculations

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	177	100	25	216	34	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	192	109	27	235	37	30
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
vC, conflicting volume	262				521	27
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	85				92	97
cM capacity (veh/h)	1302				440	1048

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	192	109	27	235	37	30
Volume Left	192	0	0	0	37	0
Volume Right	0	0	0	235	0	30
cSH	1302	1700	1700	1700	440	1048
Volume to Capacity	0.15	0.06	0.02	0.14	0.08	0.03
Queue Length (ft)	13	0	0	0	7	2
Control Delay (s)	8.2	0.0	0.0	0.0	13.9	8.5
Lane LOS	A				B	A
Approach Delay (s)	5.3		0.0		11.5	
Approach LOS					B	

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	31.9%	ICU Level of Service	A

HCM Unsignalized Intersection Capacity Analysis
5: H Road & Horizon Drive

2/27/2001

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	15	105	30	5	5	280	55	130	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	11	16	114	33	5	5	304	60	141	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
vC, conflicting volume	677	810	0	791	668	60	0			201		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	94	89	85	98	99	81			100		
cM capacity (veh/h)	308	255	1085	224	308	1006	1623			1371		

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	NB 3
Volume Total	11	16	114	33	5	5	304	60	141
Volume Left	11	0	0	33	0	0	304	0	0
Volume Right	0	0	114	0	0	5	0	0	141
cSH	308	255	1085	224	308	1006	1623	1700	1700
Volume to Capacity	0.04	0.06	0.11	0.15	0.02	0.01	0.19	0.04	0.08
Queue Length (ft)	3	5	9	12	1	0	17	0	0
Control Delay (s)	17.1	20.1	8.7	23.8	16.9	8.6	7.7	0.0	0.0
Lane LOS	C	C	A	C	C	A	A		
Approach Delay (s)	10.7			21.0			4.7		
Approach LOS	B			C					

Intersection Summary			
Average Delay	6.9		
Intersection Capacity Utilization	26.9%	ICU Level of Service	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	34	50	75	41	209	171
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	37	54	82	45	227	186
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
vC, conflicting volume	126				210	82
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				70	81
cM capacity (veh/h)	1460				759	978

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	37	54	82	45	227	186
Volume Left	37	0	0	0	227	0
Volume Right	0	0	0	45	0	186
cSH	1460	1700	1700	1700	759	978
Volume to Capacity	0.03	0.03	0.05	0.03	0.30	0.19
Queue Length (ft)	2	0	0	0	31	17
Control Delay (s)	7.5	0.0	0.0	0.0	11.8	9.5
Lane LOS	A				B	A
Approach Delay (s)	3.0		0.0		10.8	
Approach LOS					B	

Intersection Summary			
Average Delay	7.5		
Intersection Capacity Utilization	23.5%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	20	10	360	110	15	5	60	45	20	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	22	11	391	120	16	5	65	49	22	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
vC, conflicting volume	193	201	0	576	179	49	0			71		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	98	64	54	98	99	96			100		
cM capacity (veh/h)	726	667	1085	262	686	1020	1623			1530		

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	NB 3
Volume Total	22	11	391	120	16	5	65	49	22
Volume Left	22	0	0	120	0	0	65	0	0
Volume Right	0	0	391	0	0	5	0	0	22
cSH	726	667	1085	262	686	1020	1623	1700	1700
Volume to Capacity	0.03	0.02	0.36	0.46	0.02	0.01	0.04	0.03	0.01
Queue Length (ft)	2	1	42	56	2	0	3	0	0
Control Delay (s)	10.1	10.5	10.2	29.8	10.4	8.5	7.3	0.0	0.0
Lane LOS	B	B	B	D	B	A	A		
Approach Delay (s)	10.2			26.7			3.5		
Approach LOS	B			D					

Intersection Summary				
Average Delay	12.2			
Intersection Capacity Utilization	37.5%	ICU Level of Service		A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	40	20	250	50	10	5	250	200	150	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	43	22	272	54	11	5	272	217	163	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
vC, conflicting volume	772	924	0	1043	761	217	0			380		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	84	90	75	57	96	99	83			100		
cM capacity (veh/h)	266	224	1085	126	279	822	1623			1178		

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	NB 3
Volume Total	43	22	272	54	11	5	272	217	163
Volume Left	43	0	0	54	0	0	272	0	0
Volume Right	0	0	272	0	0	5	0	0	163
cSH	266	224	1085	126	279	822	1623	1700	1700
Volume to Capacity	0.16	0.10	0.25	0.43	0.04	0.01	0.17	0.13	0.10
Queue Length (ft)	14	8	25	47	3	0	15	0	0
Control Delay (s)	21.1	22.8	9.4	53.9	18.4	9.4	7.7	0.0	0.0
Lane LOS	C	C	A	F	C	A	A		
Approach Delay (s)	11.8			45.0			3.2		
Approach LOS	B			E					

Intersection Summary				
Average Delay	8.7			
Intersection Capacity Utilization	28.1%	ICU Level of Service		A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583			
Flt Permitted	0.75	1.00	1.00	0.74	1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	1398	1863	1583	1384	1863	1583	1770	1863	1583			
Volume (vph)	40	20	250	50	10	5	250	200	150	0	0	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	22	272	54	11	5	272	217	163	0	0	0
Lane Group Flow (vph)	43	22	272	54	11	5	272	217	163	0	0	0
Turn Type	Perm		Free	Perm		Perm	Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4		Free	8		8	2		2			
Actuated Green, G (s)	6.3	6.3	59.5	6.3	6.3	6.3	45.2	45.2	45.2			
Effective Green, g (s)	6.3	6.3	59.5	6.3	6.3	6.3	45.2	45.2	45.2			
Actuated g/C Ratio	0.11	0.11	1.00	0.11	0.11	0.11	0.76	0.76	0.76			
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	148	197	1583	147	197	168	1345	1415	1203			
v/s Ratio Prot		0.01			0.01			0.12				
v/s Ratio Perm	0.03		0.17	c0.04		0.00	0.15		0.10			
v/c Ratio	0.29	0.11	0.17	0.37	0.06	0.03	0.20	0.15	0.14			
Uniform Delay, d1	24.5	24.1	0.0	24.7	23.9	23.9	2.0	1.9	1.9			
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	1.1	0.3	0.2	1.6	0.1	0.1	0.1	0.1	0.1			
Delay (s)	25.6	24.3	0.2	26.3	24.0	23.9	2.1	2.0	2.0			
Level of Service	C	C	A	C	C	C	A	A	A			
Approach Delay (s)		5.0			25.8			2.0			0.0	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM Average Control Delay	4.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	59.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	28.1%	ICU Level of Service	A
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	50	15	400	150	20	5	175	180	50	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	54	16	435	163	22	5	190	196	54	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
vC, conflicting volume	592	630	0	1019	576	196	0			250		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	85	95	60	0	94	99	88			100		
cM capacity (veh/h)	361	352	1085	113	378	846	1623			1316		

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	NB 3
Volume Total	54	16	435	163	22	5	190	196	54
Volume Left	54	0	0	163	0	0	190	0	0
Volume Right	0	0	435	0	0	5	0	0	54
cSH	361	352	1085	113	378	846	1623	1700	1700
Volume to Capacity	0.15	0.05	0.40	1.44	0.06	0.01	0.12	0.12	0.03
Queue Length (ft)	13	4	49	288	5	0	10	0	0
Control Delay (s)	16.7	15.7	10.5	309.2	15.1	9.3	7.5	0.0	0.0
Lane LOS	C	C	B	F	C	A	A		
Approach Delay (s)	11.4			267.0			3.2		
Approach LOS	B			F					

Intersection Summary				
Average Delay	51.0			
Intersection Capacity Utilization	42.6%	ICU Level of Service		A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583			
Flt Permitted	0.74	1.00	1.00	0.75	1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	1384	1863	1583	1392	1863	1583	1770	1863	1583			
Volume (vph)	50	15	400	150	20	5	175	180	50	0	0	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	16	435	163	22	5	190	196	54	0	0	0
Lane Group Flow (vph)	54	16	435	163	22	5	190	196	54	0	0	0
Turn Type	Perm		Free	Perm		Perm	Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4		Free	8		8	2		2			
Actuated Green, G (s)	12.2	12.2	45.3	12.2	12.2	12.2	25.1	25.1	25.1			
Effective Green, g (s)	12.2	12.2	45.3	12.2	12.2	12.2	25.1	25.1	25.1			
Actuated g/C Ratio	0.27	0.27	1.00	0.27	0.27	0.27	0.55	0.55	0.55			
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	373	502	1583	375	502	426	981	1032	877			
v/s Ratio Prot		0.01			0.01			0.11				
v/s Ratio Perm	0.04		0.27	c0.12		0.00	0.11		0.03			
v/c Ratio	0.14	0.03	0.27	0.43	0.04	0.01	0.19	0.19	0.06			
Uniform Delay, d1	12.6	12.2	0.0	13.7	12.2	12.1	5.0	5.0	4.7			
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.2	0.0	0.4	0.8	0.0	0.0	0.1	0.1	0.0			
Delay (s)	12.8	12.2	0.4	14.5	12.3	12.1	5.1	5.1	4.7			
Level of Service	B	B	A	B	B	B	A	A	A			
Approach Delay (s)		2.1			14.2			5.1			0.0	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM Average Control Delay	5.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	45.3	Sum of lost time (s)	4.0
Intersection Capacity Utilization	32.9%	ICU Level of Service	A
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	220	400	100	180	30	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	239	435	109	196	33	38
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
vC, conflicting volume	304				1022	109
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	81				85	96
cM capacity (veh/h)	1256				212	945

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	239	435	109	196	33	38
Volume Left	239	0	0	0	33	0
Volume Right	0	0	0	196	0	38
cSH	1256	1700	1700	1700	212	945
Volume to Capacity	0.19	0.26	0.06	0.12	0.15	0.04
Queue Length (ft)	18	0	0	0	13	3
Control Delay (s)	8.5	0.0	0.0	0.0	25.1	9.0
Lane LOS	A				D	A
Approach Delay (s)	3.0		0.0		16.4	
Approach LOS					C	

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	32.9%	ICU Level of Service	A

HCM Unsignalized Intersection Capacity Analysis
5: H Road & Horizon Drive

2/27/2001

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	45	25	275	50	15	5	400	200	150	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	49	27	299	54	16	5	435	217	163	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
vC, conflicting volume	1101	1250	0	1399	1087	217	0			380		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	65	79	72	5	90	99	73			100		
cM capacity (veh/h)	138	126	1085	57	158	822	1623			1178		

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	NB 3
Volume Total	49	27	299	54	16	5	435	217	163
Volume Left	49	0	0	54	0	0	435	0	0
Volume Right	0	0	299	0	0	5	0	0	163
cSH	138	126	1085	57	158	822	1623	1700	1700
Volume to Capacity	0.35	0.21	0.28	0.95	0.10	0.01	0.27	0.13	0.10
Queue Length (ft)	36	19	28	109	8	0	27	0	0
Control Delay (s)	44.7	41.1	9.6	222.3	30.4	9.4	8.0	0.0	0.0
Lane LOS	E	E	A	F	D	A	A		
Approach Delay (s)	16.4			166.0			4.3		
Approach LOS	C			F					

Intersection Summary			
Average Delay	17.6		
Intersection Capacity Utilization	34.1%	ICU Level of Service	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	15	200	350	10	175	210
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	16	217	380	11	190	228
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
vC, conflicting volume	391				630	380
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				57	66
cM capacity (veh/h)	1167				439	667

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	16	217	380	11	190	228
Volume Left	16	0	0	0	190	0
Volume Right	0	0	0	11	0	228
cSH	1167	1700	1700	1700	439	667
Volume to Capacity	0.01	0.13	0.22	0.01	0.43	0.34
Queue Length (ft)	1	0	0	0	54	38
Control Delay (s)	8.1	0.0	0.0	0.0	19.3	13.2
Lane LOS	A				C	B
Approach Delay (s)	0.6		0.0		16.0	
Approach LOS					C	

Intersection Summary			
Average Delay	6.5		
Intersection Capacity Utilization	40.8%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	60	20	550	150	25	5	210	180	50	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	65	22	598	163	27	5	228	196	54	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
vC, conflicting volume	671	707	0	1261	652	196	0			250		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	79	93	45	0	92	99	86			100		
cM capacity (veh/h)	308	310	1085	56	333	846	1623			1316		

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	NB 3
Volume Total	65	22	598	163	27	5	228	196	54
Volume Left	65	0	0	163	0	0	228	0	0
Volume Right	0	0	598	0	0	5	0	0	54
cSH	308	310	1085	56	333	846	1623	1700	1700
Volume to Capacity	0.21	0.07	0.55	2.92	0.08	0.01	0.14	0.12	0.03
Queue Length (ft)	20	6	87	425	7	0	12	0	0
Control Delay (s)	19.8	17.5	12.3	1023.0	16.8	9.3	7.6	0.0	0.0
Lane LOS	C	C	B	F	C	A	A		
Approach Delay (s)	13.2			855.1			3.6		
Approach LOS	B			F					

Intersection Summary				
Average Delay	131.1			
Intersection Capacity Utilization	52.7%	ICU Level of Service		A

PLANNING COMMISSION
GRAND JUNCTION, COLORADO

FOR	)	**FINAL DECISION**
	)	
Gregg Cranston	)	**PP-2001-057**
North Crest LLC	)	
Route 2 Box 81	)	
Merino, CO 80741	)	

An application by Gregg Cranston of North Crest LLC, requesting approval of a preliminary plat for an 11-lot subdivision on 20 acres in an I-O zone district located on north side of H Road west of 3D Systems at the 27 ¾ Road alignment, was considered by the Grand Junction Planning Commission on April 10, 2001.

After considering all the pertinent testimony and reviewing various data, the Planning Commission approved the preliminary plat upon a finding that it complies with the Growth Plan and Section 2.8 and 3.4.F of the City of Grand Junction Zoning and Development Code with the following conditions.

1. The 65 Ldn Noise Contour shall be shown on the final plat with a note referencing the conditional use permit's required in Table 7.3.

2. No lots within this subdivision shall have direct access to H Road. A note to this effect shall be placed on the final plat.

3. The detention pond in Tract A shall be improved with turf or substantial xeriscaping material, which minimizes the use of gravel or cobble at Final approval rather than a more unsightly alternative.

4. The applicant shall bring the existing asphalt on H Road up to city standards, as per the city engineer's comments, adjacent to this development. This can be accomplished with removal and reconstruction or overlay to provide a smooth profile. This condition does not include curb, gutter or sidewalk on the south side.

5. An avigation easement will be required at final plat.

Bill Nebeker
Senior Planner

4-16-2001
April 16, 2001

c: Brian Hart

PLANNING COMMISSION
GRAND JUNCTION, COLORADO

FOR	)	**AMENDED FINAL DECISION**
	)	
Gregg Cranston	)	**PP-2001-057**
North Crest LLC	)	
Route 2 Box 81	)	
Merino, CO 80741	)	

An application by Gregg Cranston of North Crest LLC, requesting an amendment to condition #3 approval of a preliminary plat for an 11-lot subdivision on 20 acres in an I-O zone district located on north side of H Road west of 3D Systems at the 27 ¾ Road alignment, was considered by the Grand Junction Planning Commission on July 24, 2001.

After considering all the pertinent testimony and reviewing various data, the Planning Commission approved an amendment to change condition #3 regarding the landscaping of the detention pond. The reason for the amendment is eliminate the requirement for landscaping that requires water since the Ute Water Board has refused to grant a tap for this purpose. The final conditions are as follows. Conditions 1, 2, 4, and 5 remain unchanged.

1. The 65 Ldn Noise Contour shall be shown on the final plat with a note referencing the conditional use permit's required in Table 7.3.

2. No lots within this subdivision shall have direct access to H Road. A note to this effect shall be placed on the final plat.

3. **Amended to read as follows**: The detention pond in Tract A shall be improved with weed barrier and gravel or cobble, combined with an architectural feature utilizing a split rail or open slat fence, large rocks and/or a decorative CMU wall to screen the pond from H Road.

4. The applicant shall bring the existing asphalt on H Road up to city standards, as per the city engineer's comments, adjacent to this development. This can be accomplished with removal and reconstruction or overlay to provide a smooth profile. This condition does not include curb, gutter or sidewalk on the south side.

5. An avigation easement will be required at final plat.

Bill Nebeker
Senior Planner

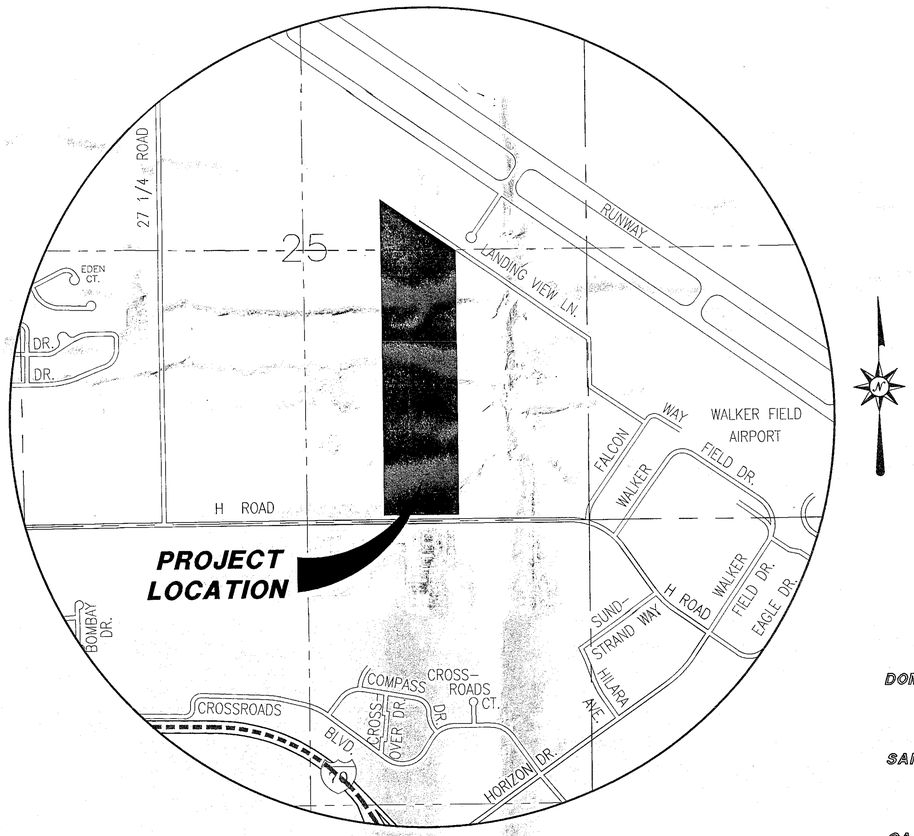
PRELIMINARY PLAN

FOR

NORTH CREST INDUSTRIAL PARK

FEBRUARY 2001

REVISED MARCH 30, 2001



PRELIMINARY
NOT FOR
CONSTRUCTION
MARCH 30, 2001

SHEET INDEX

UTILITY LIST

UTILITY	ADDRESS
DOMESTIC WATER	UTE WATER CONSERVANCY DISTRICT 560 25 ROAD GRAND JUNCTION, COLORADO 81505 970-242-7491
SANITARY SEWER	CITY OF GRAND JUNCTION PUBLIC WORKS DEPT. 250 NORTH 5TH STREET GRAND JUNCTION, COLORADO 81501 970-244-1590
GAS	XCEL ENERGY 2538 BLICHMANN AVENUE GRAND JUNCTION, COLORADO 81505 970-245-2520
ELECTRIC	GRAND VALLEY RURAL POWER 2727 GRAND AVENUE GRAND JUNCTION, COLORADO 81501 970-242-0040
TELEPHONE	QWEST 2524 BLICHMANN AVENUE GRAND JUNCTION, COLORADO 81505 970-244-4721
CABLE TELEVISION	AT&T BROADBAND 2502 FORESIGHT CIRCLE GRAND JUNCTION, COLORADO 81505 970-245-8750

PREPARED FOR:

NORTH CREST DEVELOPMENT, LLC
ROUTE 2 BOX 81
MERINO, CO 80741

RECEIVED
MAR 30 2001
COMMUNITY DEVELOPMENT DEPT.

Preliminary Plat/Plan Approval

Pursuant to Section 2.1 and 2.8 of the Grand Junction Zoning and Development Code, and all applicable requirements having been agreed to, satisfied or settled by the applicant, to the satisfaction of the Grand Junction Planning Commission on 4-10, 2001, this Preliminary Plan is approved. The existence of an approved Preliminary Plan does not guarantee, warrant or ensure approval of a Final Plat and/or Final Plan.

This approval shall expire and be null and void on 4-10, 2002

Executed on behalf of the Grand Junction Planning Commission by:

Bill Nebeker — 4.16.2001
Name and Title — Date
Community Development Department
City of Grand Junction, Colorado

PP-2001-057 SITE CONDITIONS

PREPARED BY:

LANDesign
ENGINEERS * SURVEYORS * PLANNERS
244 NORTH 7TH STREET
GRAND JUNCTION, COLORADO 81501 (970) 245-4099

PP-2001-057 NORTH CREST- APPROVED PRELIM PLAN

C:\sc14\WORK\2001\201002\201002-COVERSHEET.dwg Thu Mar 29 10:00:10 2001 CJM

LEGEND

EXISTING ADJACENT PROPERTY LINE	
EXISTING EASEMENT	
EXISTING WATER LINE	W W W
EXISTING FIRE HYDRANT	
EXISTING WATER VALVE	
EXISTING SANITARY SEWER	8" SAN
EXISTING SANITARY SEWER MANHOLE	
EXISTING STORM SEWER	12" STORM
EXISTING STORM SEWER MANHOLE	
EXISTING STORM INLET	
EXISTING IRRIGATION LINE	IRRIG
EXISTING IRRIGATION MANHOLE	
EXISTING GAS LINE	GAS
EXISTING UNDERGROUND TELEPHONE	UGT
EXISTING UNDERGROUND ELECTRIC	ELEC
EXISTING OVERHEAD POWER	OHP
EXISTING POWER POLE	PP
EXISTING CABLE TV	CATV
EXISTING RAILROAD	
EXISTING EDGE OF PAVEMENT	
EXISTING CENTER LINE	
EXISTING RIGHT OF WAY	
EXISTING BARBED WIRE FENCE	X X X
EXISTING CHAN LINK FENCE	
EXISTING BARRIER TYPE FENCE	# # #
EXISTING WOVEN WIRE FENCE	# # #
EXISTING WOOD FENCE	
EXISTING GUARD RAIL	
EXISTING RETAINING WALL	
EXISTING SIDEWALK	4' SW
EXISTING CURB AND GUTTER	2' C&G
EXISTING CURB, GUTTER, AND SIDEWALK	6' CG&SW
EXISTING EARTH DITCH	
EXISTING CONCRETE DITCH	
EXISTING CULVERT	12" RCP
EXISTING CULVERT WITH HEADWALL	12" RCP
EXISTING CULVERT WITH END SECTION	12" RCP
EXISTING INDEX CONTOURS	4566
EXISTING INTERMEDIATE CONTOURS	4563
EXISTING POLE ANCHOR	
EXISTING SIGN	

PROPOSED EASEMENT	
PROPOSED WATER LINE	W 6" WATER W
PROPOSED FIRE HYDRANT	
PROPOSED WATER VALVE	
PROPOSED SANITARY SEWER	8" SAN
PROPOSED SANITARY SEWER MANHOLE	
PROPOSED STORM SEWER	12" STORM
PROPOSED STORM SEWER MANHOLE	
PROPOSED STORM INLET	
PROPOSED IRRIGATION LINE	IRRIG
PROPOSED IRRIGATION MANHOLE	
PROPOSED RAILROAD	
PROPOSED EDGE OF PAVEMENT	
PROPOSED CENTER LINE	
PROPOSED RIGHT OF WAY	
PROPOSED LOT LINES	
PROPOSED LOT NUMBERS	24
PROPOSED BARBED WIRE FENCE	X X X
PROPOSED CHAN LINK FENCE	
PROPOSED BARRIER TYPE FENCE	# # #
PROPOSED WOVEN WIRE FENCE	# # #
PROPOSED WOOD FENCE	
PROPOSED GUARD RAIL	
PROPOSED RETAINING WALL	
PROPOSED SIDEWALK	4' SW
PROPOSED EDGE OF PAN	EOP
PROPOSED FLOW LINE	FL
PROPOSED BACK OF CURB	BOC
PROPOSED EARTH DITCH	
PROPOSED CONCRETE DITCH	
PROPOSED CULVERT	12" RCP
PROPOSED CULVERT WITH HEADWALL	12" RCP
PROPOSED CULVERT WITH END SECTION	12" RCP
PROPOSED SIGN	
PROPOSED INDEX CONTOURS	4566
PROPOSED INTERMEDIATE CONTOURS	4563

BOUNDARY	
BOUNDARY TEXT	BOUNDARY
BUILDING ENVELOPES	
DIMENSIONS	65.00'
ALIQUOT SURVEY MARKER	
FOUND REBAR	
SET ALUMINUM CAP	
STREET NAMES	MAIN ST.
TRAFFIC FLOW DIRECTION	
PROPOSED STREET FLOW DIRECTION	
DRAINAGE DIRECTION	

CALL BEFORE YOU DIG 1-800-922-1987

NOTICE: FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION.

LIST OF ABBREVIATIONS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTAION OFFICIALS	EX	EXISTING	PRC	POINT OF REVERSE CURVATURE
		FB	FULL BODY	PT	POINT OF TANGENCY
AC	ASBESTOS CEMENT	FES	FLARED END SECTION	PVC	POLYVINYL CHLORIDE
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS	FF	FINISHED FLOOR	PCC	PORTLAND CEMENT CONCRETE
AWWA	AMERICAN WATER WORKS ASSOCIATION	FH	FIRE HYDRANT	R	RADIUS
BOC	BACK OF CURB	FLG	FLANGE	RG	RESTRAINED GLANDS
BF	BUTTERFLY	FTG	FOOTING	RP	RADIUS POINT
BOW	BACK OF WALK	FS	FAR SIDE	RR	RAIL ROAD
BCR	BEGIN CURB RETURN	FL	FLOW LINE	RCP	REINFORCED CONRETE PIPE
BOT	BOTTOM	FC	FACE OFF CURB	REQ'D	REQUIRED
CH	CHORD	FG	FINISHED GRADE	RT	RIGHT
CAP	CORRUGATED ALUMINUM PIPE	GV	GATE VALVE	ROW	RIGHT OF WAY
CDOT	COLORADO DEPARTMENT OF TRANSPORTAION	IRR	IRRIGATION	RL	LONG RADIUS
CI	CAST IRON	L	LENGTH OF ARC	RS	SHORT RADIUS
℄	CENTER LINE	LT	LEFT	SCH	SCHEDULE
CLR	CLEAR	LF	LINEAR FEET	S	SLOPE
CONC	CONCRETE	LL	LONG ARC	SS	SANITARY SEWER SERVICE
CMP	CORRUGATED METAL PIPE	LS	SHORT ARC	STA	STATION
CSP	CORRUGATED STEEL PIPE	MH	MANHOLE	STL	STEEL
CG&SW	CURB, GUTTER & SIDEWALK	MJ	MECHANICAL JOINT	SW	SIDEWALK
CU	COPPER	MW	MILL WRAP	(TYP)	TYPICAL
CL	LONG CHORD	N/A	NOT APPLICABLE	T	LENGTH OF TANGENT
CS	SHORT CHORD	NS	NEAR SIDE	TB	THRUST BLOCK
Δ	DELTA ANGLE	NIC	NOT IN CONTRACT	TC	TOP OF CURB
DI	DUCTILE IRON	NRCP	NON-REINFORCED CONCRETE PIPE	VC	VERTICAL CURVE
DR	DRIVEWAY	NOP	NO ONE PERSON	VCP	VITRIFIED CLAY PIPE
ELEC	ELECTRIC	NTS	NOT TO SCALE	VPC	VERTICAL POINT OF CURVATURE
EL OR ELEV	ELEVATION	PC	POINT OF CURVATURE	VPI	VERTICAL POINT OF INTERSECTION
ECR	END CURB RETURN	PI	POINT OF INTERSECTION	VPT	VERTICAL POINT OF TANGENCY
EOP	EDGE OF PAVEMENT	PR	PROPOSED	WM	WATER METER

DATE:	NO:	REVISION:	BY:

MASTER LEGEND AND ABBREVIATIONS

DATE: 02/01/01 | DRAWN: CJM | CHK'D: BCH

NORTH CREST INDUSTRIAL PARK

PROJECT NO.: 201002 | FILE NAME: 201002-LEGENDSHEET

LANDesign
ENGINEERS • SURVEYORS • PLANNERS
244 NORTH 7th STREET
GRAND JUNCTION, COLORADO 81501 (970) 245-4099

SHEET 2 OF 9

PP-2001-057

C:\sc14\WORK\2001\201002\201002-LEGENDSHEET.dwg Thu Mar 29 10:00:42 2001 CJM

PRELIMINARY
NOT FOR
CONSTRUCTION
MARCH 30, 2001

BENCHMARK: LS 2063.2
SOUTHEAST PROPERTY CORNER
ELEVATION: 4781.43 (NAVD 1988)

NO.	REVISION:	BY:
1	PER CITY REVIEW COMMENTS	CJM

DATE: 03/30/01

OVERALL
PRELIMINARY PLAN

NORTH CREST
INDUSTRIAL PARK

LANDesign
ENGINEERS • SURVEYORS • PLANNERS
244 NORTH 7TH STREET
GRAND JUNCTION, COLORADO 81501 (970) 245-4099

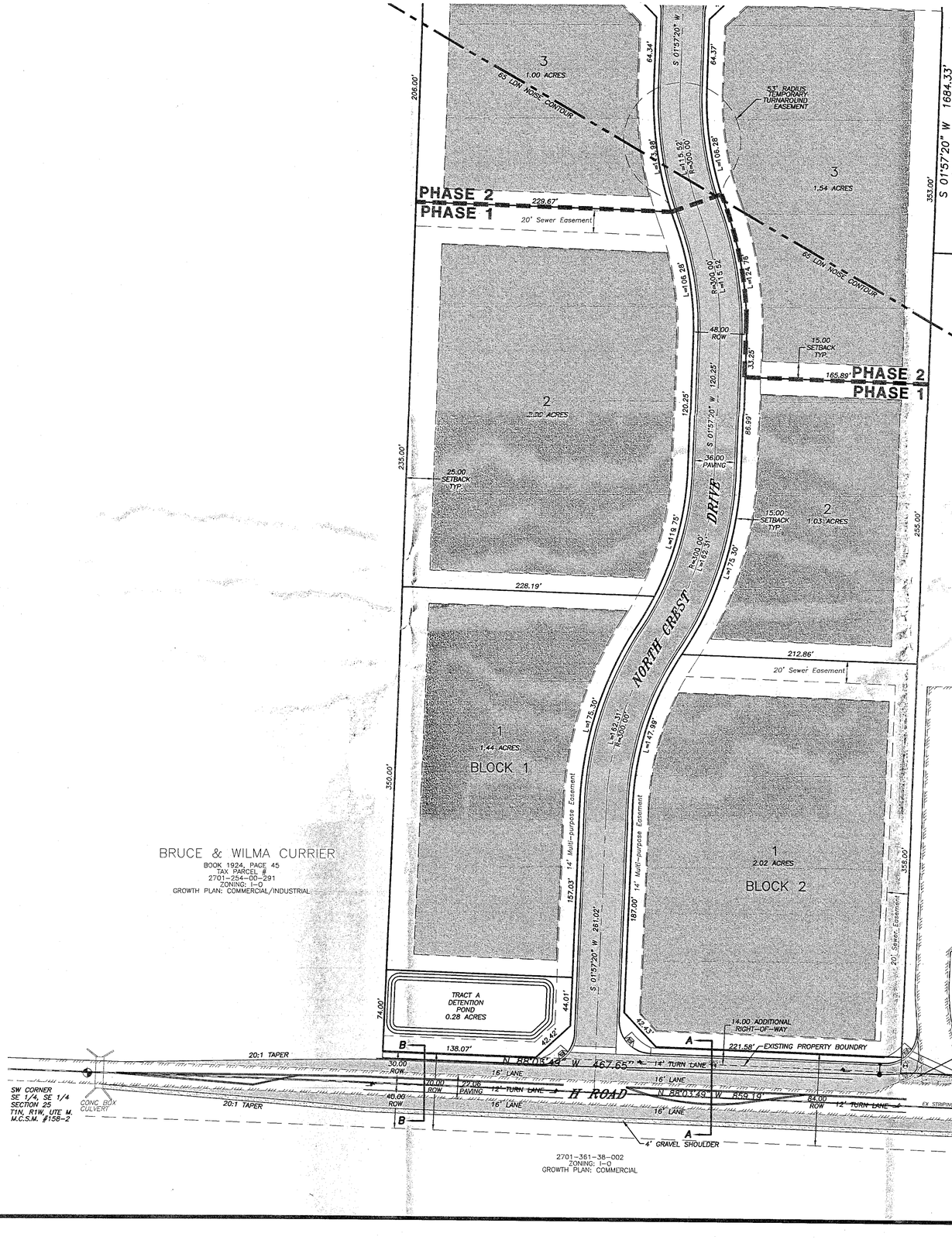
DRAWN: CJM
CHK'D: BCH
DATE: 02/09/01
PROJECT NO.: 201002
FILE NAME: 201002-site-1005C

SHEET 3 OF 9

AP-2001-057

C:\ls14\WORK\2001\201002\201002-site-1005C.DWG Fri Mar 30 08:34:41 2001 CJM

NORTH CREST INDUSTRIAL PARK
TOTAL ACREAGE 20.001 AC.



COLORADO WEST IMPROVEMENTS
2701-254-08-002
ZONING: I-O
GROWTH PLAN: COMMERCIAL/INDUSTRIAL

BRUCE & WILMA CURRIER
BOOK 1924, PAGE 45
TAX PARCEL #
2701-254-00-291
ZONING: I-O
GROWTH PLAN: COMMERCIAL/INDUSTRIAL

3D SYSTEMS CORPORATION
BOOK 2213, PAGE 926
2701-254-08-001
ZONING: I-O
GROWTH PLAN: COMMERCIAL/INDUSTRIAL

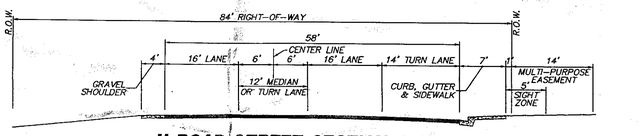
ZONE DISTRICT BULK REQUIREMENTS

INDUSTRIAL-OFFICE (I-O)	
MINIMUM LOT AREA	1 ACRE
MAXIMUM UNITS PER ACRE	N/A
MINIMUM STREET FRONTAGE (CUL-DE-SAC)	N/A
MAXIMUM HEIGHT OF STRUCTURES	40 FEET
MINIMUM LOT WIDTH (AT BUILDING)	100 FEET
MINIMUM SIDE YARD SETBACK	
PRINCIPAL STRUCTURE	15 FEET
ACCESSORY STRUCTURE	15 FEET
*MINIMUM REAR YARD SETBACK	
PRINCIPAL STRUCTURE	25 FEET
ACCESSORY STRUCTURE	25 FEET
MINIMUM FRONT YARD SETBACK	
PRINCIPAL STRUCTURE	15 FEET
ACCESSORY STRUCTURE	25 FEET
MAXIMUM COVERAGE OF LOT BY STRUCTURES	N/A

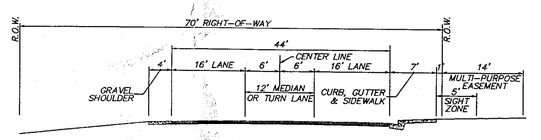
* SOME SIDE YARD SETBACKS ARE MORE RESTRICTIVE DUE TO EASEMENTS

LAND USE TABLE

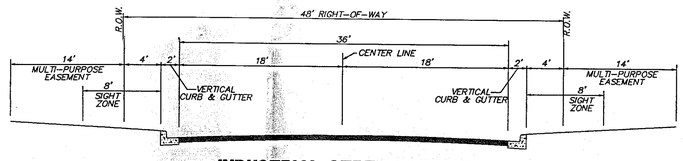
LOTS	17.360 Ac	86.80%
PUBLIC R.O.W.	2.260 Ac	11.30%
ADDITIONAL R.O.W.	0.100 Ac	0.50%
TRACT A	0.280 Ac	1.40%
TOTALS	20.00 AC.	100%
NUMBER OF LOTS	11	
DENSITY	1.81 UNITS PER ACRE	



H ROAD STREET SECTION A-A



H ROAD STREET SECTION B-B



INDUSTRIAL STREET SECTION

0 to 3000 ADT
NO ON-STREET PARKING
NTS

1. VERTICAL CURBS AND GUTTERS ARE REQUIRED ON BOTH SIDES OF ALL INDUSTRIAL STREETS.
2. ALL INDUSTRIAL STREETS SHALL BE SURFACED WITH HOT BITUMINOUS PAVEMENT (HBP) OR PORTLAND CEMENT CONCRETE (PCC). ALL PAVEMENTS SHALL BE DESIGNED IN ACCORDANCE WITH THE AASHTO GUIDE FOR DESIGN OF PAVEMENT STRUCTURES.
3. SEE EXHIBIT "C" FOR DETAILS OF MULTI-PURPOSE EASEMENTS ADJACENT TO ROAD RIGHT-OF-WAY.
4. IN SIGHT ZONES, NO TREES, SHRUBS, FENCES, STRUCTURES OR OTHER OBSTRUCTIONS SHALL BE OVER 30" IN HEIGHT (MEASURED AT THE NEAR EDGE OF ROADWAY). SEE NOTE 5, PAGE ST-14 FOR EXCEPTIONS.

PRELIMINARY NOT FOR CONSTRUCTION
MARCH 23, 2001

BENCHMARK: LS 20632
SOUTHEAST PROPERTY CORNER
ELEVATION: 4781.43 (NAVD 1988)

SCALE: 1" = 50'

DATE:	NO:	REVISION:	BY:
03/23/01	1	PER CITY REVIEW COMMENTS	CJM

PRELIMINARY PLAN

NORTH CREST INDUSTRIAL PARK

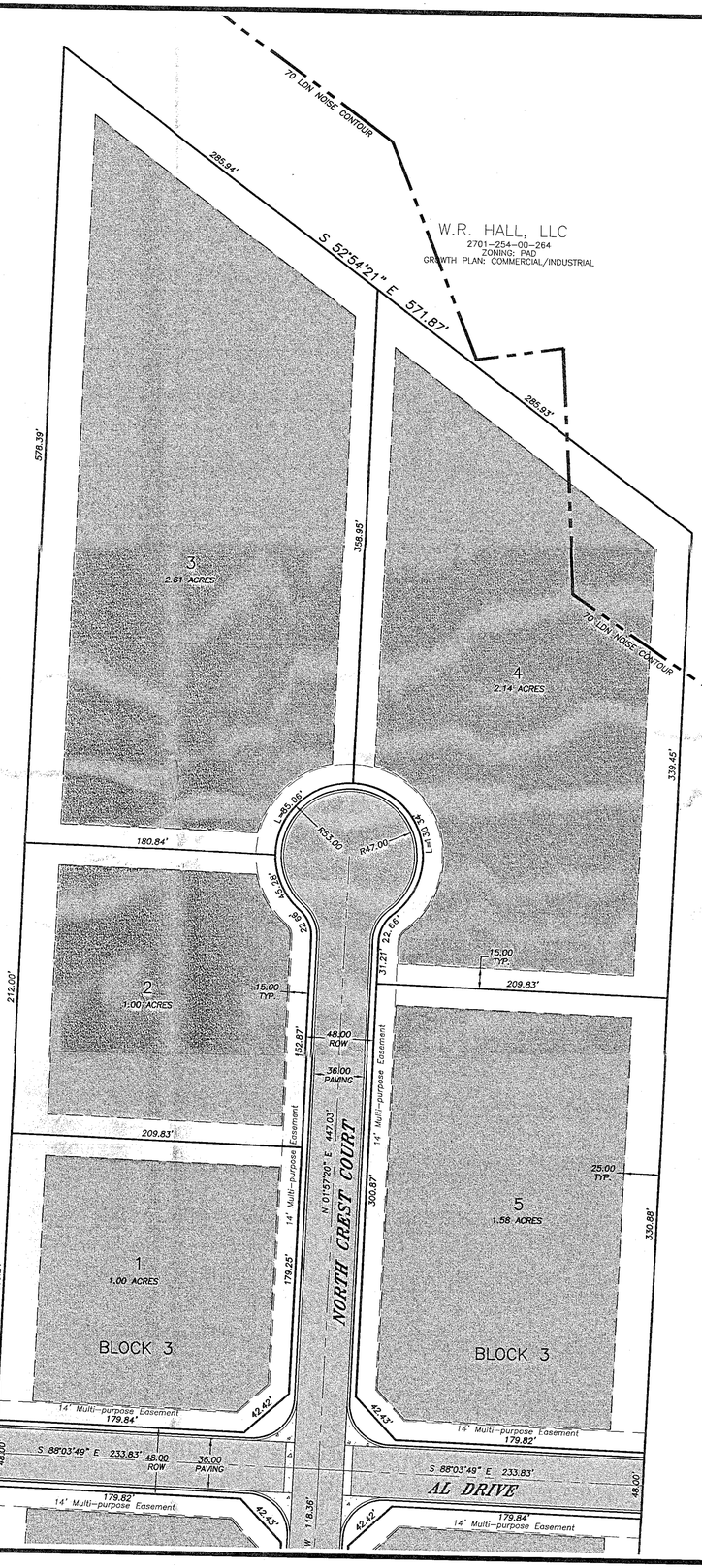
DRAWN: CJM | CHK'D: BCH | DATE: 02/09/01 | FILE NAME: 201002-site | PROJECT NO.: 201002

LANDesign
ENGINEERS • SURVEYORS • PLANNERS
244 NORTH 7TH STREET
GRAND JUNCTION, COLORADO 81501 (970) 245-4099

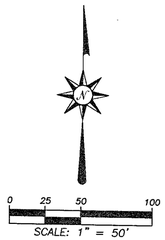
SHEET 4 OF 9

PP-2001-057

C:\acad\WORK\2001\201002\201002-site.dwg Fri Mar 30 08:41:11 2001 CJM



NORTH CREST INDUSTRIAL PARK
TOTAL ACREAGE 20.001 AC.



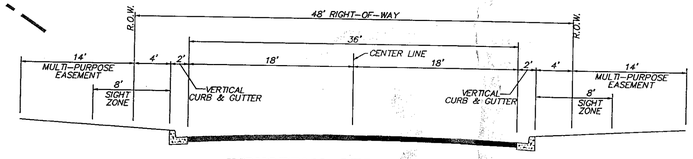
ZONE DISTRICT BULK REQUIREMENTS

INDUSTRIAL-OFFICE (I-O)	
MINIMUM LOT AREA	1 ACRE
MAXIMUM UNITS PER ACRE	N/A
MINIMUM STREET FRONTAGE (CUL-DE-SAC)	N/A
MAXIMUM HEIGHT OF STRUCTURES	40 FEET
MINIMUM LOT WIDTH (AT BUILDING)	100 FEET
MINIMUM SIDE YARD SETBACK	
PRINCIPAL STRUCTURE	15 FEET
ACCESSORY STRUCTURE	15 FEET
*MINIMUM REAR YARD SETBACK	
PRINCIPAL STRUCTURE	25 FEET
ACCESSORY STRUCTURE	25 FEET
MINIMUM FRONT YARD SETBACK	
PRINCIPAL STRUCTURE	15 FEET
ACCESSORY STRUCTURE	25 FEET
MAXIMUM COVERAGE OF LOT BY STRUCTURES	N/A

* SOME SIDE YARD SETBACKS ARE MORE RESTRICTIVE DUE TO EASEMENTS

LAND USE TABLE

LOTS	17.360 Ac	86.80%
PUBLIC R.O.W.	2.260 Ac	11.30%
ADDITIONAL R.O.W.	0.100 Ac	0.50%
TRACT A	0.280 Ac	1.40%
TOTALS	20.00 AC.	100%
NUMBER OF LOTS	11	
DENSITY	1.81 UNITS PER ACRE	



INDUSTRIAL STREET SECTION

0 to 3000 ADT
NO ON-STREET PARKING
NTS

1. VERTICAL CURBS AND GUTTERS ARE REQUIRED ON BOTH SIDES OF ALL INDUSTRIAL STREETS.
2. ALL INDUSTRIAL STREETS SHALL BE SURFACED WITH HOT BITUMINOUS PAVEMENT (HBP) OR PORTLAND CEMENT CONCRETE (PCC). ALL PAVEMENTS SHALL BE DESIGNED IN ACCORDANCE WITH THE AASHTO GUIDE FOR DESIGN OF PAVEMENT STRUCTURES.
3. SEE EXHIBIT "C" FOR DETAILS OF MULTI-PURPOSE EASEMENTS ADJACENT TO ROAD RIGHT-OF-WAY.
4. IN SIGHT ZONES, NO TREES, SHRUBS, FENCES, STRUCTURES OR OTHER OBSTRUCTIONS SHALL BE OVER 30" IN HEIGHT (MEASURED AT THE NEAR EDGE OF ROADWAY). SEE NOTE 5, PAGE ST-14 FOR EXCEPTIONS.

COLORADO WEST IMPROVEMENTS
2701-254-08-002
ZONING: I-O
GROWTH PLAN: COMMERCIAL/INDUSTRIAL

PRELIMINARY
NOT FOR CONSTRUCTION
MARCH 30, 2001

BENCHMARK: LS 20632
SOUTHEAST PROPERTY CORNER
ELEVATION: 4781.43 (NAVD 1988)

NO.	DATE:	REVISION:	BY:
1	03/30/01	PER CITY REVIEW COMMENTS	CJM

PRELIMINARY PLAN

DRAWN: CJM
CHK'D: BCH
DATE: 02/09/01

NORTH CREST INDUSTRIAL PARK

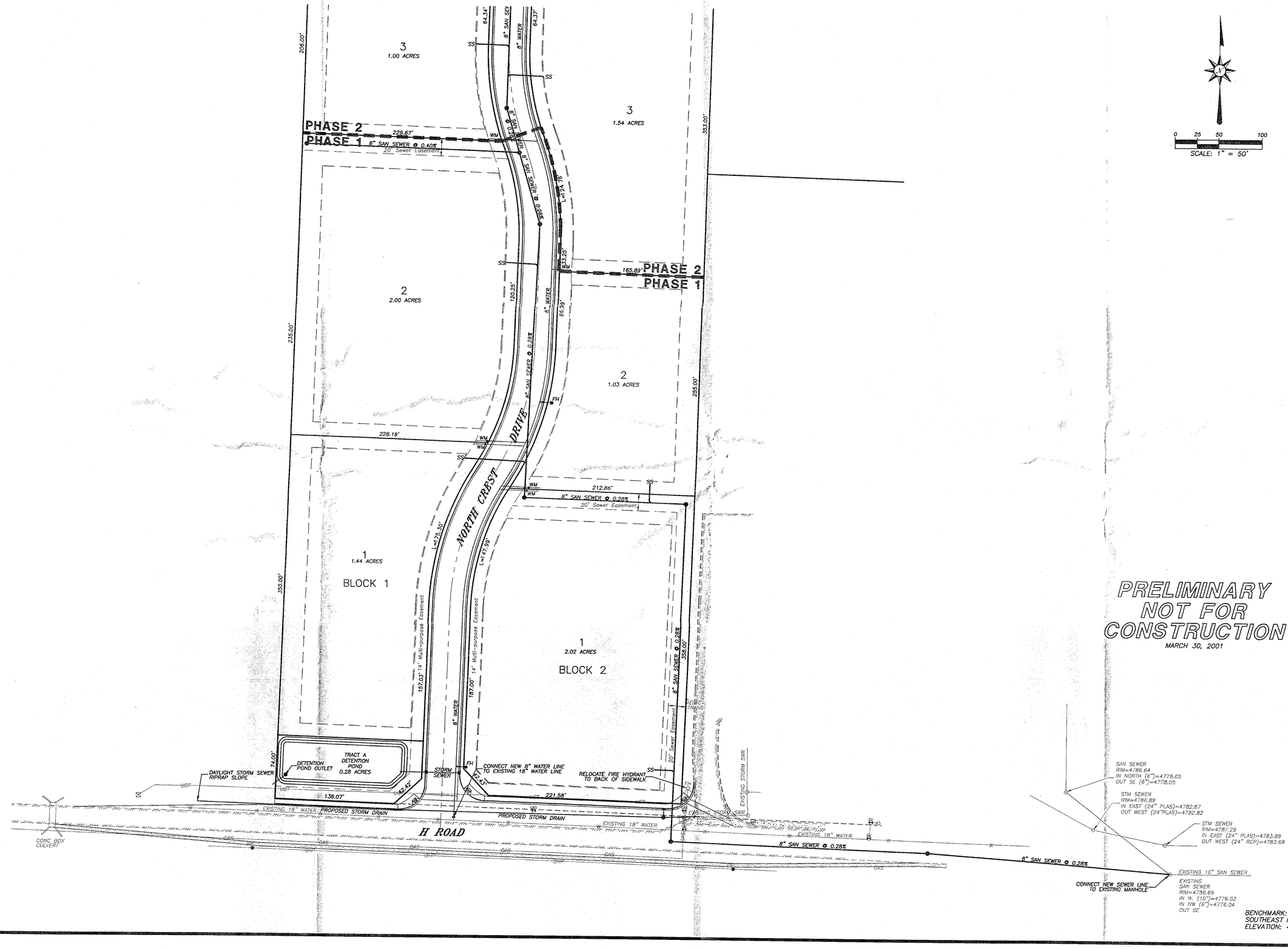
PROJECT NO.: 201002
FILE NAME: 201002-site

LANDesign
ENGINEERS • SURVEYORS • PLANNERS
244 NORTH 7TH STREET
GRAND JUNCTION, COLORADO 81501 (970) 245-4099

SHEET 5 OF 9

PP-2001-057

C:\lsc14\NDRK\2001\201002\201002-site.dwg Thu Mar 29 17:04:48 2001 CJM



PRELIMINARY
NOT FOR
CONSTRUCTION
MARCH 30, 2001

BENCHMARK: LS 20632
SOUTHEAST PROPERTY CORNER
ELEVATION: 4781.43 (NAVD 1988)

NO.	DATE	REVISION:	BY:
1	03/30/01	PER CITY REVIEW COMMENTS	CJM

PRELIMINARY
UTILITY
COMPOSITE

DATE: 02/09/01 | DRAWN: CJM | CHK'D: BCH

NORTH CREST
INDUSTRIAL PARK

PROJECT NO.: 201002 | FILE NAME: 201002-utilitycomp

LANDesign
ENGINEERS • SURVEYORS • PLANNERS
244 NORTH 7TH STREET
GRAND JUNCTION, COLORADO 81501 (970) 245-4099

SHEET 6 OF 9

PP-2001-057

C:\sic14\WORK\2001\201002\201002-utilitycomp.dwg Fri Mar 30 08:38:57 2001 CJM

PRELIMINARY
NOT FOR
CONSTRUCTION
MARCH 30, 2001

BENCHMARK: LS 20632
SOUTHEAST PROPERTY CORNER
ELEVATION: 4781.43 (NAVD 1988)

DATE:	NO.	REVISION:	BY:
03/30/01	1	PER CITY REVIEW COMMENTS	CJM

PRELIMINARY
UTILITY
COMPOSITE

DRAWN: CJM | CHK'D: BCH | DATE: 02/09/01

NORTH CREST
INDUSTRIAL PARK

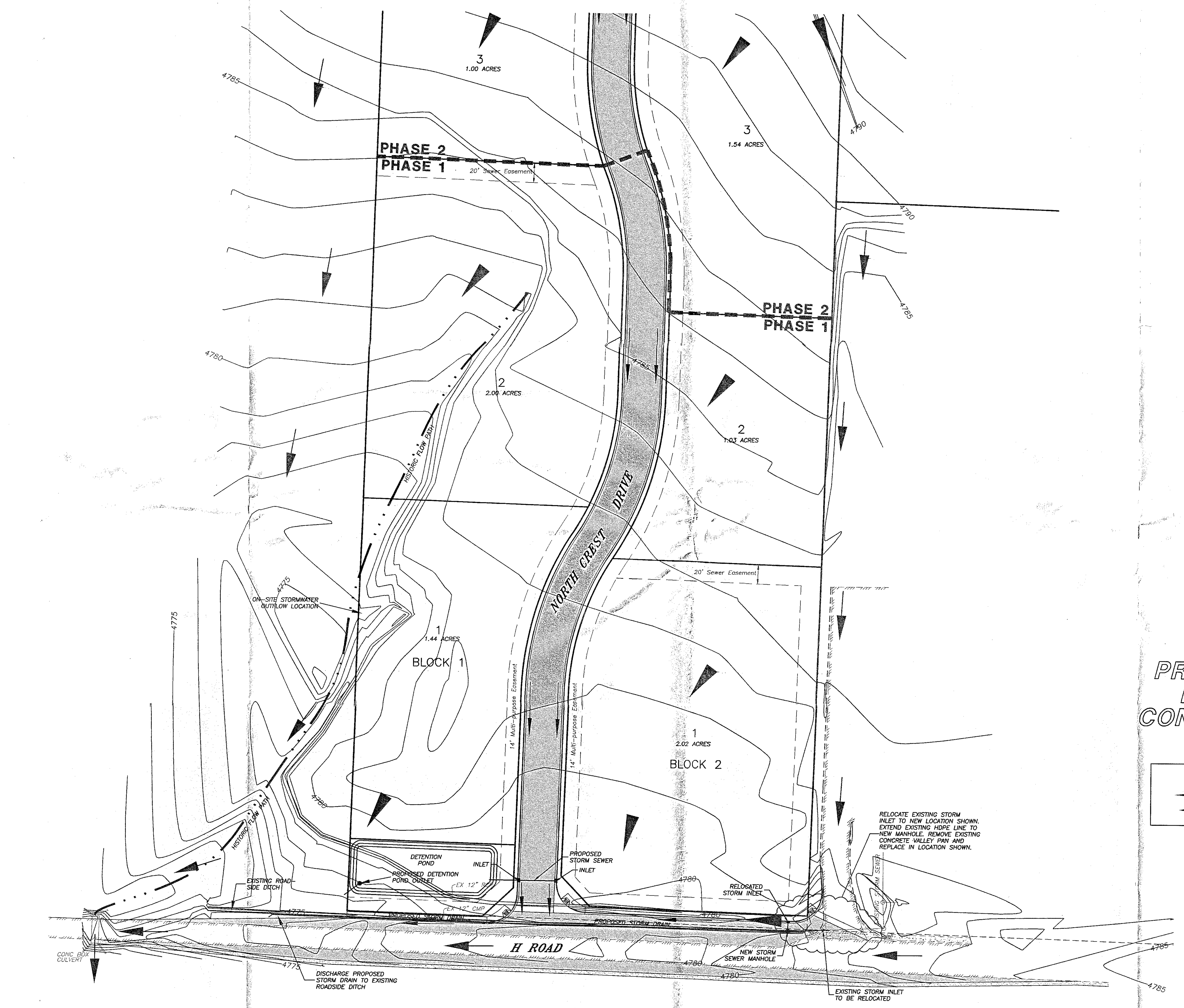
PROJECT NO.: 201002 | FILE NAME: 201002-utilitycomp

LANDesign
ENGINEERS • SURVEYORS • PLANNERS
244 NORTH 7TH STREET
GRAND JUNCTION, COLORADO 81501 (970) 245-4099

SHEET 7 OF 9

PP-2001-057

C:\sc14\WORK\2001\201002\201002-utilitycomp.dwg Thu Mar 29 17:05:50 2001 CJM



0 25 50 100
SCALE: 1" = 50'

PRELIMINARY NOT FOR CONSTRUCTION
MARCH 30, 2001

◄	HISTORIC FLOW DIRECTION
←	PROPOSED DRAINAGE FLOW
◄—	OFF-SITE FLOW DIRECTION

BENCHMARK: LS 20632
SOUTHEAST PROPERTY CORNER
ELEVATION: 4781.43 (NAVD 1988)

DATE:	NO:	REVISION:	BY:
03/30/01	1	PER CITY REVIEW COMMENTS	CJM

PRELIMINARY GRADING AND DRAINAGE PLAN

DRAWN: CJM | CHK'D: BCH | DATE: 02/09/01

NORTH CREST INDUSTRIAL PARK

FILE NAME: 201002-grading | PROJECT NO.: 201002

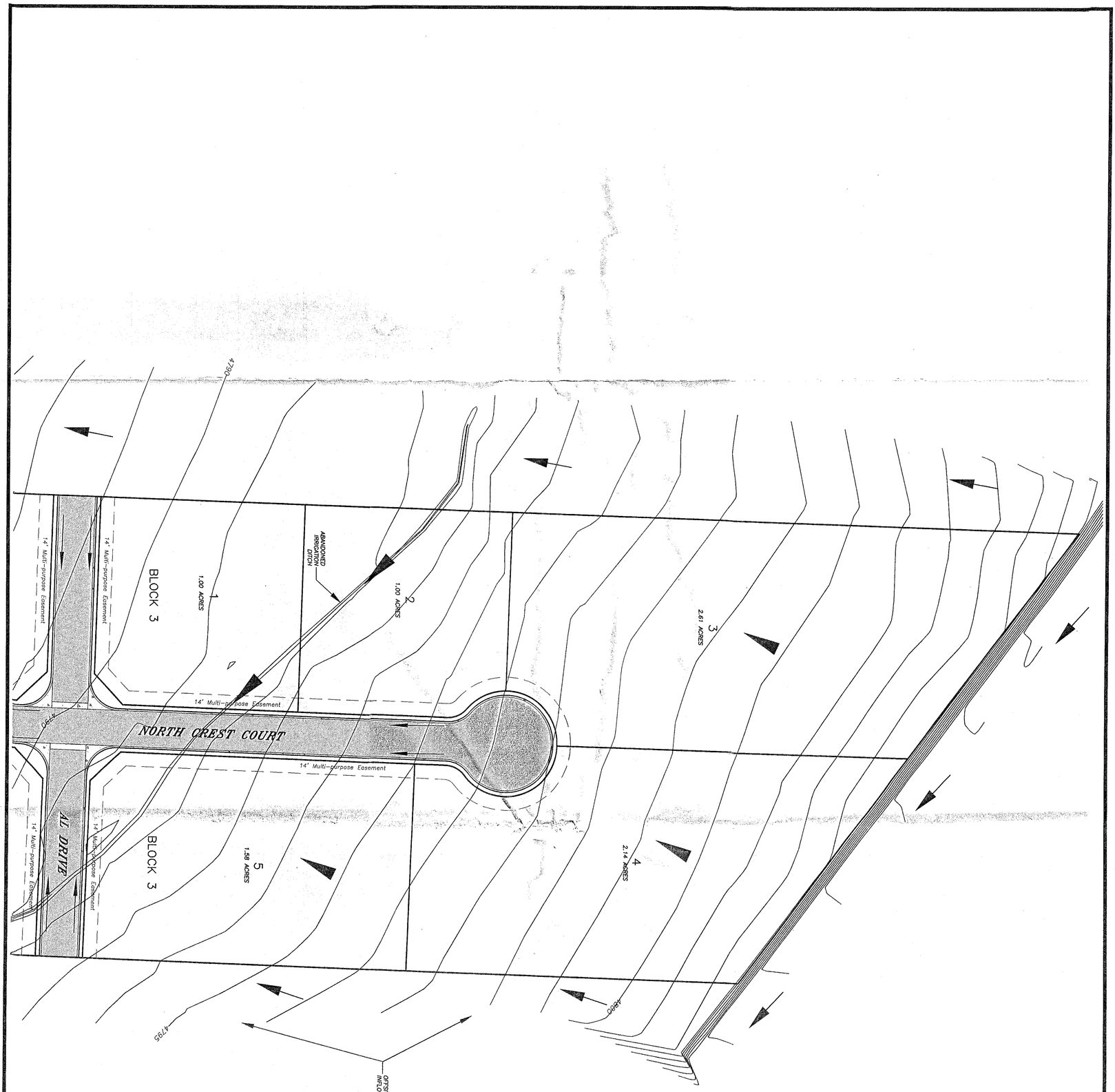
LANDesign
ENGINEERS • SURVEYORS • PLANNERS
244 NORTH 7TH STREET
GRAND JUNCTION, COLORADO 81501 (970) 245-4009

SHEET 8 OF 9

PP-2001-057

C:\sc14\WORK\2001\201002\201002-grading.dwg Fri Mar 30 08:44:11 2001 CJM

C:\sc14\WORK\2001\201002\201002-grading.dwg Thu Mar 29 17:06:25 2001 CJM



HISTORIC FLOW DIRECTION
PROPOSED DRAINAGE FLOW
OFF-SITE FLOW DIRECTION

PRELIMINARY
NOT FOR
CONSTRUCTION
MARCH 30, 2001

SCALE: 1" = 50'
0 25 50 100

BENCHMARK:
SOUTHEAST PROPERTY CORNER
ELEVATION: 4781.43 (NAVD 1988)
LS 20632

SHEET 9 OF 9

LANDesign
ENGINEERS • SURVEYORS • PLANNERS
244 NORTH 7TH STREET
GRAND JUNCTION, COLORADO 81501 (970) 245-4099

NORTH CREST
INDUSTRIAL PARK

PRELIMINARY
GRADING AND DRAINAGE
PLAN

PROJECT NO.: 201002 | FILE NAME: 201002-grading | DATE: 02/09/01 | DRAWN: CJM | CHK'D: BCH

DATE:	NO:	REVISION:	BY:
03/30/01	1	PER CITY REVIEW COMMENTS	CJM

PP-2001-057