

PUBLIC WORKS
& UTILITIES

June 24, 2004

Mr. Doug Theis
Thompson-Langford Corporation
529 25 ½ Road
Grand Junction, CO 81505

DE08-04 – Design Exception for Street Light Spacing – Spy Glass Ridge (Chapter 8.1), DE09-04 - Design Exception for Block Length – Spy Glass Ridge (Chapter 5.1.1), and DE10-04 – Design Exception for Cul-de-sac Length – Spy Glass Ridge (Chapter 5.1.3).

Dear Doug:

Please find attached the committee's decision to approve the above requests. **DE08-04** for the street light spacing has been approved with the addition of lights at connections to the pedestrian paths. Additionally, if the application of Alternate Street Standards results in the creation of areas with extreme geometry or grades that creates a concern for safety, additional lights may be required to mitigate those concerns.

DE09-04 Block Length – Spy Glass Ridge (Chapter 5.1.10 and and **DE10-04** Cul-de-sac Length – Spy Glass (Chapter 5.1.3) have been approved as requested.

If you have any questions concerning this decision, please feel free to contact Laura Lamberty or me at (970)244-1557.

Sincerely,



Tim Moore, Public Works Manager
City of Grand Junction

Xc: Laura Lamberty, Development Engineer (256-4155)
Pat Cecil, Development Services Supervisor

PUBLIC WORKS
& UTILITIES

DESIGN EXCEPTION #DE 8-04

To: Mark Relph, Director of Public Works & Utilities
Bob Blanchard, Director of Community Development
Rick Beaty, Fire Chief

From: Tim Moore, Public Works Manager

Copy to: Laura Lamberty, Development Engineer
Pat Cecil, Development Services Supervisor

Date: June 21, 2004

RE: Street Light Spacing - Spy Glass Ridge (Chapter 8.1)

DESCRIPTION OF THE SITUATION

The applicant proposes to light the intersections to avoid nighttime light pollution. The TEDS manual requires lights at each intersection, at or near the throat of each cul-de-sac, and at a maximum spacing of 250 feet measured along the centerline of local roadways.

Site Description:

The applicant is proposing to develop a residential subdivision with approximately 160 homes in an area with significant topography issues. The site is bounded on the west by the City Water Plant and BLM, on the south by a precipitous drop to the Gunnison River and the railroad tracks, on the east by County development and 27 Road, and on the north by steep grades to the Linden Ave. area.

The proposal will take advantage of the hillside street geometry standards contained in Chapter 5 of TEDS. Streets will generally be steeper and have tighter geometry with reduced sight distance as allowed by the table on 5.1.4 "alignments".

This parcel also proposes alternate residential street designs (per Chapter 15 of TEDS) which have not been submitted at this time. The applicant will request narrowed streets and the elimination of sidewalk on one side of the street where lots do not front.

EXCEPTION CONSIDERATIONS

The applicant is concerned about the creation of "light pollution" that could result with compliance to the TEDS manual. Impacts to the adjacent neighborhoods and the visibility of this lighting from across the City have been listed as concerns.

1. Will the exception compromise safety?

The applicant proposes to only light the intersections. This will result in stretches of roadway up to 1937 feet in length without roadway lighting. Staff is concerned that this spacing arrangement combined with a roadway design that incorporates the upper limits allowed by TEDS for intersection geometry, sight distance, and grades could compromise safety.

2. Have other alternatives been considered that would meet the standard?

The applicant considered but rejected the spacing requirements outlined in TEDS.

3. Has the proposed design been used in other areas?

This exception is not made in other areas of the City that may be considered sensitive to light pollution, including near the airport and at the base of the Colorado National Monument. There have been several cases where Council has issued waivers from the street light standards in the Redlands Area prior to the adoption of the TEDS manual.

4. Will the exception require CDOT or FHWA coordination?

No.

5. Is this a one-time exception or a manual revision?

This would be a one-time exception.

Staff Recommendation

Staff understands the applicants desire to limit the impacts of street lights in this area, but has concerns related to the safety of the resulting roadway and pedestrian system. Staff is recommending a compromised plan that would include the placement of lights at the connections to pedestrian paths. Additionally, if the final roadway design includes areas of extreme geometry or grades that creates a concern for safety, additional lights may be required to mitigate those concerns.

Recommended by: Tim Moore

Approved as Requested:

Approved as Modified: X

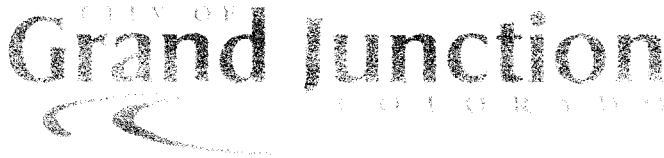
Dated: 6/23/04

[Signature]

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DE#5-04 Pinnacle Ridge 6-21-04



TEDS EXCEPTION PROJECT STAFF ANALYSIS

TO: Tim Moore, Public Works Manager

FROM: Laura C. Lamberty, Development Engineer *Lamberty*
Jody Kliska, Traffic Engineer

REGARDING: TEDS Exception Requests
Spy Glass Ridge

The attached document contains requests for exceptions to TEDS in three areas:

1. Street Lighting spacing and locations (Chap 8.1)
2. Block Length, multiple locations (Chap 5.1.1)
3. Cul-de-sac length, two locations (Chap 5.1.3)

The subject parcel is 160 acres with significant topography issues. The site is bounded on the west by the City Water plant and BLM property, on the south by a precipitous drop to the Gunnison River and the railroad tracks, on the east by County development and 27 Road and on the north by steep grades to the Linden Avenue area.

The proposal will take advantage of the hillside street geometry standards contained in Chapter 5 of TEDS. Streets will generally be steeper and have tighter geometry with reduced sight distance as allowed by the table on 5.1.4 "Alignments".

This parcel proposes alternate residential street designs (per Chapter 15 TEDS) which have not been submitted at this time. The applicant will request narrowed streets and the elimination of sidewalk on one side of the street where lots do not front.

ANALYSIS AND RECOMMENDATIONS:

Street Lighting

Applicant proposes to only light the intersections to avoid nighttime light pollution. This will result in stretches of roadway up to 1937 feet in length without roadway lighting. Note that intersection geometry, sight distance and grades are pushing upper limits as allowed by TEDS for hillside roadway geometry.

The proposed 18 lighting locations represent close to a 2/3 decrease in the number of fixtures required by our standard. Staff also feels that lights must be located at the 17 critical locations, as marked on the attached sheet.

This exception is not made to reduce nighttime lighting near the airport, the Colorado National Monument or other highly sensitive areas. Lighting is not proposed at standard spacing at locations where the area is not visible from a distance.

The following issues have not been addressed:

- Potential costs to City for installation of street lighting after project acceptance
- Roadway lighting at areas of more extreme roadway geometry
- Roadway lighting near pedestrian path connections.

Staff does **not** recommend approval of this exception as currently proposed.

Block Length

Maximum block length is specified as 1200' "except where topography, traffic, or other conditions require longer blocks".

A TEDS Exception for Block Length is requested in the following areas:

- A. River Ridge Drive at Liberty View Drive to Bangs Canyon Drive at Lookout Lane (2750')
- B. Spyglass Drive from Hideaway Lane to Eagle Ridge Drive (1937')

Please note that City did not permit connection or stub street through the Water Plant property to the west. Also note that pedestrian paths are shown connecting various areas where block length is over TEDS' maximums.

Staff has confirmed that additional connections are prohibited by site topography and staff recommends approval of this TEDS Exception or formal confirmation that a TEDS Exception is not required due to topography.

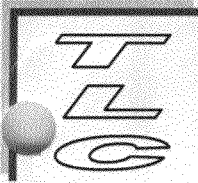
Cul-de-sac Length

Exceptions to maximum cul-de-sac length of 750' are requested for the following streets:

- A. Secret Canyon Lane and Secret Canyon Court from Hideaway Lane (934') with 19 lots.
- B. Gunnison Ridge Court (895') with 20 lots.

Staff confirms that topography limits additional street connection. Pedestrian connections are shown to both areas listed.

Staff recommends approval of this TEDS Exception.



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ENGINEERS AND LAND SURVEYORS

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TRANSMITTAL

To: *Laura Lamberty*

From: *Doug Thies, Thompson-Langford Corp.; Ted Ciavonne, Ciavonne Roberts Assocs.; Skip Behrhorst, SGH Company, LLC*

Subject: *Spy Glass Ridge – Request for TED's Exceptions*

Date: *June 10, 2004*

The following are the proposed exceptions to the Transportation Engineering Design Standards (TEDS) for the Spy Glass Ridge project.



Spyglass Ridge looking northwest

This 160 acre Orchard Mesa property contains desert hills and valleys high above the Gunnison River. Its historical use having been for gravel production and not agriculture, the present day manmade and natural terracing of the property makes it well suited for development.

Proposed design: Block lengths in several instances exceed the 1200 ft dimension. Drawings accompany this request that show the proposed road design / land plan, additional pedestrian path connections, and indicating slope constraints at points that may appear to be logical connections if the block length requirement was strictly complied with.

Impacts of change: Creation of a street network that respects slopes, follows contours, connects natural and manmade terraces, and reduces road scarring. Interconnectivity is provided with additional single path soft surface hiking trails where possible. The proposed block lengths should not compromise the safety, efficient transportation, or function of the project.

Cul-de-Sac Length

Proposed Exception: Cul-de-sac lengths in excess of 750 lf have resulted from the attempt to most efficiently utilize the developable area with respect to topography. There are two instances where this occurs, and in both cases 20 lots (or less) are served by these cul-de-sacs.

The first instance occurs at Gunnison Ridge Court where the cul-de sac is approximately 896 lf, and extends on to a mined terrace that has no ability for additional access. There is a turn around 'bulb' approximately 230 lf from the intersection of Gunnison Ridge Court and Lookout Drive, and then the remaining 566 lf to the end of the cul-de-sac.

The second instance occurs at Secret Canyon Lane and Secret Canyon Court, and we are not certain if these two intersecting streets are considered a single cul-de-sac. Secret Canyon Lane, from Hideaway to Secret Canyon Court, is 598 lf. It is worth noting that Secret Canyon Lane will have NO houses accessing on to it. Secret Canyon Court is 336 lf from its intersection with Secret Canyon Lane to the furthest cul-de-sac to the south; there is a shorter cul-de-sac to the north. It is worth noting that Secret Canyon Court has three turn around areas in addition to its intersection with Secret Canyon Lane. The total length from Hideaway to the south end of Secret Canyon Court is 934 lf.

Alternatives considered: Alternatives would require connections that, if even possible, would result in significant disturbance of the topography and vegetation through the forced creation of enormous road cuts and or 'dam-like' fills. Topography insures that there is no possibility these cul-de-sacs will be connected to or extended in the future.

Proposed design: Drawings accompany this request that show the proposed cul-de-sac designs, as well as slope indicators and grades to clarify the difficulty/inability of interconnecting.

Impacts of change: Impacts to the development are significant as property with steep slopes ... identified by the Land Development Code to be un-developable ... would remain undisturbed.



The topography of Spyglass Ridge looking south



The topography of Spyglass Ridge looking southeast

Approximately 50% of the site is intended to remain in a natural or 'rehabilitated' natural condition, preserving the native steep hillsides and rock outcrops that separate the previously mined terraces (see Slope and Air Photo drawing provided). A majority of this open space contains slopes greater than 20%, creating a challenge to interconnect the natural and manmade developable terraces with a well designed road system and land plan. This challenge is made even greater by attempting to maximize both – the preservation of the natural desert hillsides and the utilization of existing road cuts and scars. The goals include the creation of a premier subdivision, with minimal impact to the existing sensitive desert environment and surrounding neighborhoods.

With your approval of these TED's Exceptions, the noted challenges and goals will be met.

Street Lighting

Proposed Exception: Street light spacing and frequency of occurrence.

Alternatives considered: The TEDS manual requires street lights at each intersection, at or near the throat of each cul-de-sac, and at a maximum spacing of 250 feet measured along the centerline of roadway (local streets).

Proposed design: Street lights are to be installed at all intersections, including intersections with cul-de-sacs. This does not include "bump outs" (un-named streets). See proposed locations for street lights on the Preliminary Site Plan provided with this submittal.

Impacts of change: The reduction in the number of street lights will significantly reduce the "light pollution" resulting from a proliferation of street lights, minimizing impacts to the adjacent neighborhoods and reducing the visibility of this lighting from across the City. Standard lighting proposed at intersections will not compromise safety in areas of increased vehicle/pedestrian movements. This exception has been granted and applied successfully on other development projects in the City of Grand Junction.

Block Lengths

Proposed Exception: Block Lengths.

Alternatives considered: Due to severe grades on the site, forcing the connection of streets to meet the 1200 ft block length dimension would require significant and unacceptable grading. Any alternatives would likely be in conflict with hillside standards found in both –TED's and the Land Use Code. Strictly adhering to 1200 ft. block lengths would create highly visible cuts, fills, and slope stabilization, and denude the existing desert vegetation we are trying to protect. Photographs and exhibits are provided to show the steepness (in most cases in excess of 20%-30%) of the slopes that prohibit connecting streets (photo key is on air photo). Please note that the TEDS manual does currently provide an exception where topography requires longer blocks (5.1.1).



Illustrative of proposed road layout

It is the project team's position that the aforementioned exceptions to the standards do not result in conditions that compromise safety or function of the roadways. Alternatives would result in conditions that may be in conflict with other City standards and policies, specifically those associated with steep slopes. In addition 'alternatives' would significantly compromise good planning and land use issues associated with hillside development, slopes, and visual impacts.

Your timely consideration of this request is appreciated.

Doug Thies, Project Engineer
Thompson – Langford Corporation

Ted Ciavonne, Project Land Planner and Landscape Architect
Ciavonne, Roberts & Associates, Inc.

Skip G. Behrhorst, Manager and Owner
SGH Company, LLC



The view south from above Spy Glass Drive

Photo A



The view from Secret Canyon Court North cul-de-sac north up to Spy Glass Drive. The truck is on the old haul road, which is approximately two feet below the proposed alignment for Spy Glass Drive.

Photo B



The view up the draw to the southwest between Secret Canyon Court North and Spy Glass Drive.

Photo C



The view from Secret Canyon Court South cul-de-sac southeast toward Gunnison Ridge Court.

Photo D



The view from Gunnison Ridge Court vicinity (NW Cor. Lot 146A) northwest down to Secret Canyon Court South. The truck is in the cul-de-sac of Secret Canyon Court South.

Photo E



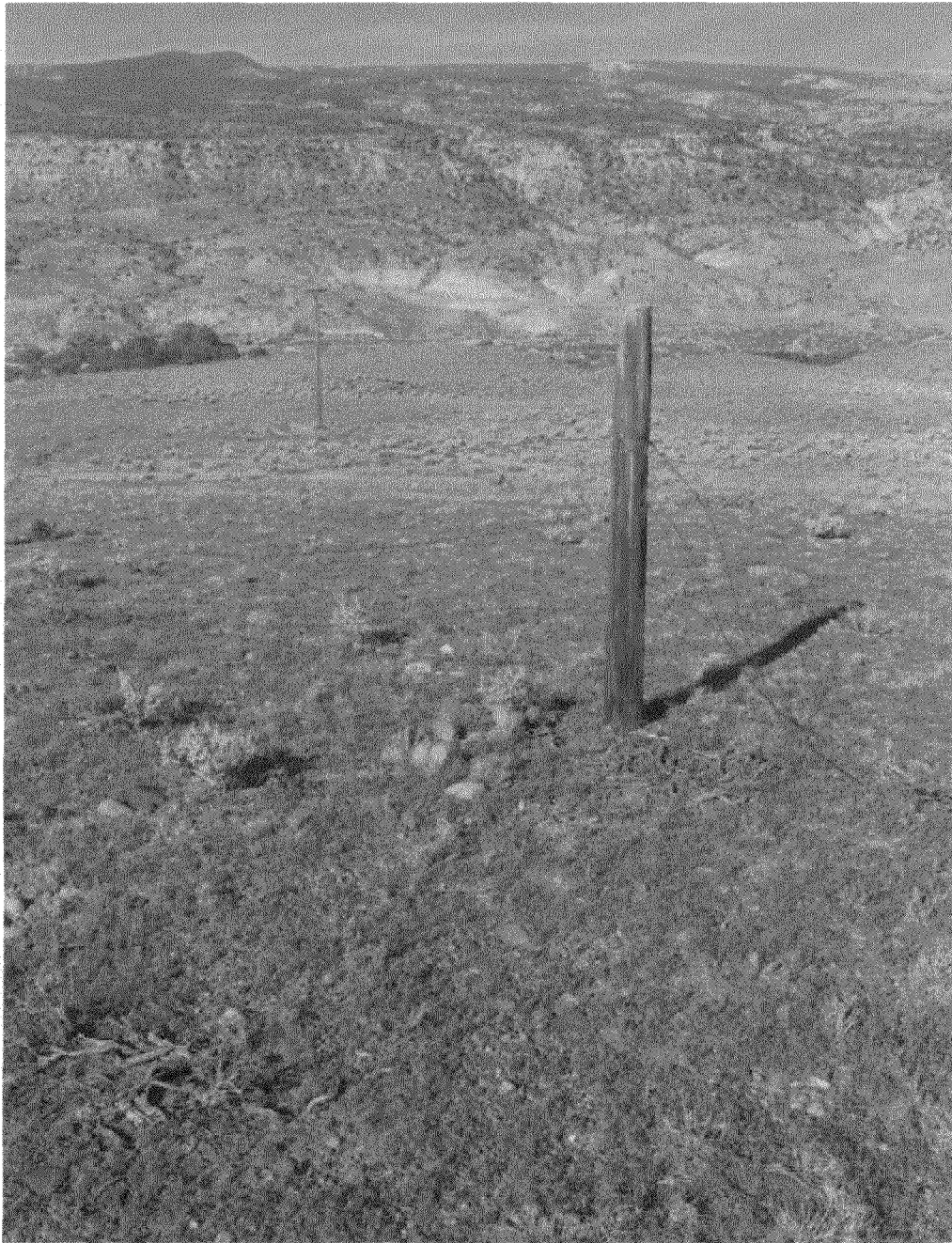
The view from Spy Glass Drive/Lookout Dr. intersection south down to the Bangs Canyon Drive/Ledge Court intersection.

Photo F



The view from Ledge Drive north up toward the Spy Glass Drive/Lookout Court intersection.

Photo G



The view from Lookout Court down to River Ridge Drive.

Photo H



The view from River Ridge Drive up to Lookout Court.

Photo I



The view from the Ledge Court cul-de-sac northeast toward the Bangs Canyon Drive/Lookout Ln. intersection.

Photo J

18 proposed

1 additional

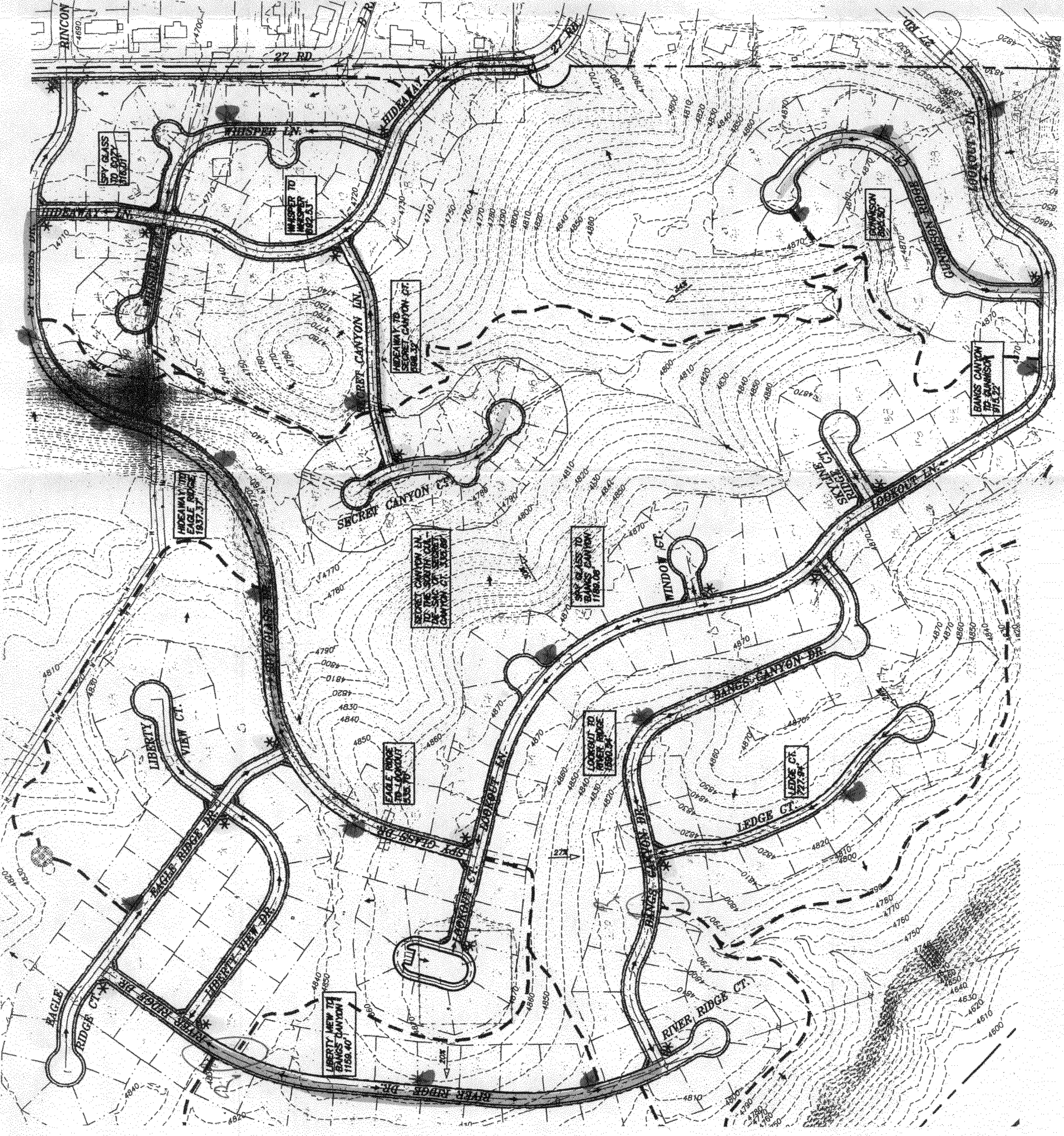
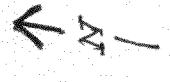
35 TOTAL

≈ 54 PER TROOPS

Block LENGTH

Cal-de-Sac LENGTH

Recomm
Lighting
Locations
Spy Glass Ridge

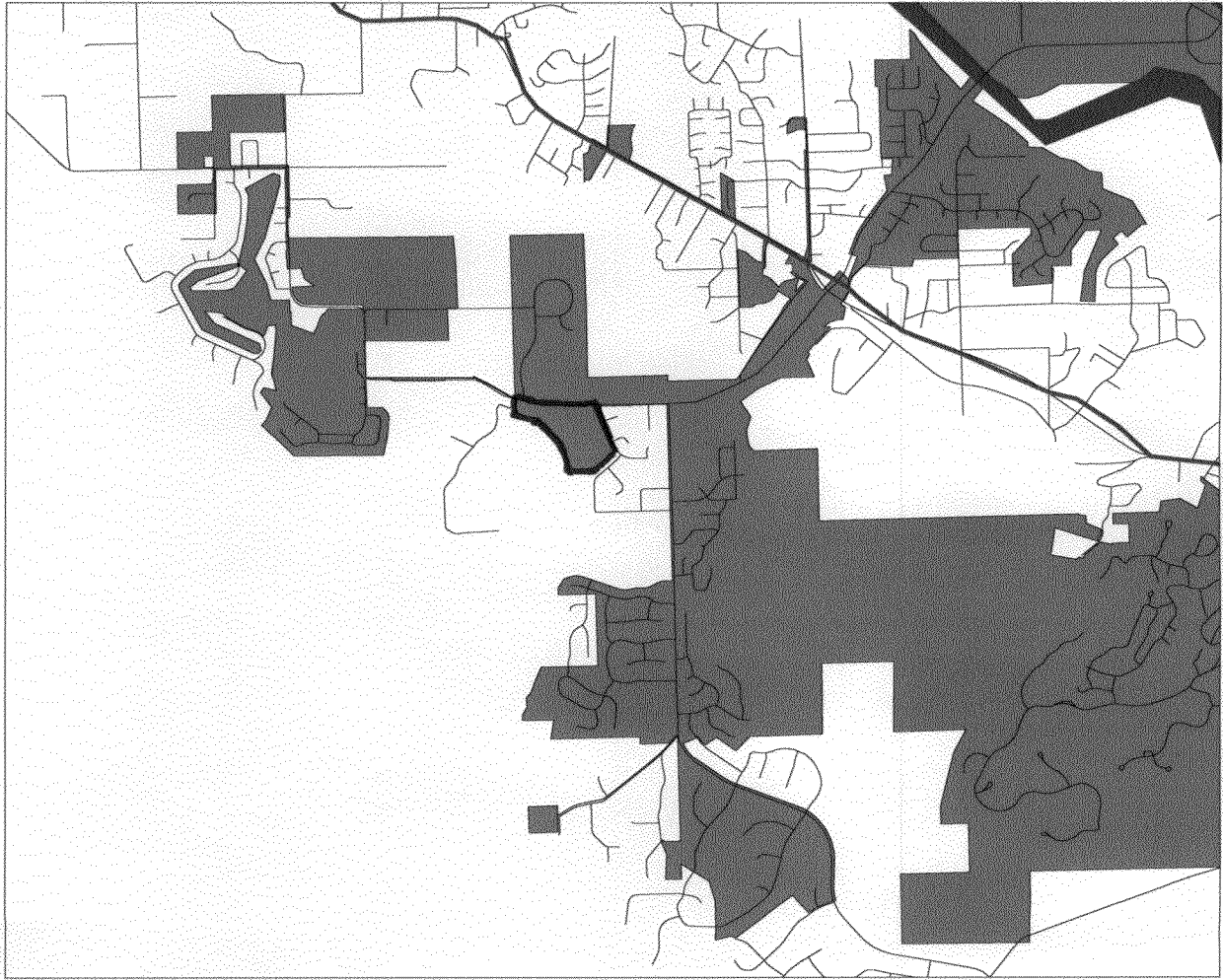
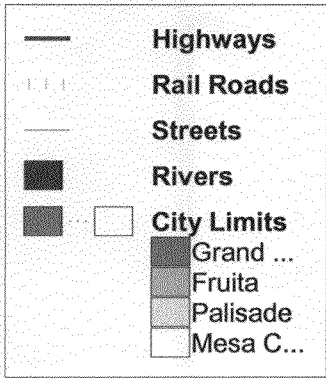


NTS

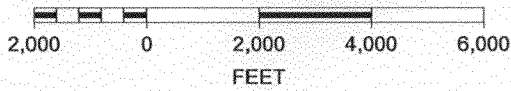
Gorman River

WATER
PLANT

City of Grand Junction GIS City Map ©



SCALE 1 : 41,159



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