Table of Contents

File FPP-1995-104

Date 8/24/99

Present	Scanned	
		A few items are denoted with an asterisk (*), which means they are to be scanned for permanent record on the ISYS retrieval system. In some instances, not all entries designated to be scanned, are present in the file. There are also documents specific to certain files, not found on the standard list. For this reason, a checklist has been included. **Remaining items, (not selected for scanning), will be marked present on the checklist. This index can serve as a quick guide for the contents of each file.** **Files denoted with (**) are to be located using the ISYS Query System. Planning Clearance will need to be typed in full, as well as other entries such as Ordinances, Resolutions, Board of Appeals, and etc.**
X	X	***Summary Sheet – Table of Contents**
X	X	Application form
X	X	Receipts for fees paid for anything
X	X	***Submittal checklist**
X	X	***General project report**
		Reduced copy of final plans or drawings
X		Reduction of assessor's map
		Evidence of title, deeds
X	X	***Mailing list**
		Public notice cards
		Record of certified mail
X	X	Legal description
		Appraisal of raw land
		Reduction of any maps – final copy
		***Final reports for drainage and soils (geotechnical reports)**
		Other bound or nonbound reports
		Traffic studies
X		Individual review comments from agencies
X	X	***Consolidated review comments list**
X	X	***Petitioner's response to comments**
X	X	***Staff Reports**
		***Planning Commission staff report and exhibits**
		***City Council staff report and exhibits**
		***Summary sheet of final conditions**
		***Letters and correspondence dated after the date of final approval (pertaining to change in conditions or expiration date)**

DOCUMENTS SPECIFIC TO THIS DEVELOPMENT FILE:

X	X	Development Improvements Agreement, Dispursement Agreement, Discharge Agreement, Covenants, TCP Credit Request - **	X		APPROVED, AMENDED PRELIM PLANS - 10/27/95
X		Posting of Public Notice Signs	X		REVISIONS - APPROVED
X		Certification of Subdivision Plats			
X	X	Final Plat			
X		E-mail from Hank Masterson to Michael Drollinger re: addendum – 10/16/95			
X		Aerial View			
X	X	Letter from City to Ron Abeloe – 7/24/95			
X	X	Letter from Lincoln DeVore, Inc. to Ron Abeloe re: Proposed Pavement Sections-5/30/95			
X	X	Letter from Jody Kliska to Ron Abeloe – 9/6/95			
X	X	Letter from City to Ron Abeloe – 7/21/95			
X		Improvements List/Detail			
X		Policy of Title Insurance			
X		Treasurer's Certificate of Taxes Due			
X	X	Wellington Gardens – Filing One - FINAL PLAT			
X	X	Final Drainage Report			
X	X	Composite Plan			
X		ORIGINAL PLANS			
X		LATEST LANDSCAPING PLAN			

Michael   City Community Development

SUBMITTAL CHECKLIST

MAJOR SUBDIVISION: FINAL PLAT/PLAN

Location: SE Corner 15th & Wellington   Project Name: 15th & Wellington

ITEMS | DISTRIBUTION

Date Received 6-1-95

Receipt # 2443

File # FPP-95-104

Original/Do NOT Remove From Office

DESCRIPTION	SSID REFERENCE	● City Community Development	● City Dev. Eng.	● City Utility Eng.	● City Property Agent	● City Parks/Recreation	● City Fire Department	● City Attorney	● City G.J.P.C. (8 sets)	○ City Downtown Dev. Auth.	● City Police	○ County Planning	○ County Bldg. Dept.	● County Surveyor	○ Walker Field	● School Dist. #51	● Irrigation District - Grand Valley	● Drainage District - GJ	○ Water District	○ Sewer District	● U.S. West	● Public Service	○ GVRP	○ CDOT	○ Corps of Engineers	○ Colorado Geologic Survey	● U.S. Postal Service	● ~~Persigo WWTF~~
● Application Fee $800	VII-1	1																										
● Submittal Checklist*	VII-3	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	1
● Application Form*	VII-1	1	1	1	1	1	1	1	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
● ~~11"x17"~~ 8½x11 Reduction of Assessor's Map	VII-1	1	1	1	1	1	1	1	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
● Evidence of Title	VII-2	1			1			1																				
○ Appraisal of Raw Land	VII-1	1			1	1																						
● Names and Addresses	VII-2	1																										
● Legal Description	VII-2	1			1																							
○ Deeds	VII-1	1			1			1																				
○ Easements	VII-2	1	1	1	1			1													1	1	1					
○ Avigation Easement	VII-1	1			1			1							1													
○ ROW	VII-3	1	1	1	1			1													1	1	1					
○ Covenants, Conditions, & Restrictions	VII-1	1	1					1																				
○ Common Space Agreements	VII-1	1	1					1																				
● County Treasurer's Tax Cert.	VII-1	1																										
● Improvements Agreement/Guarantee*	VII-2	1	1	1				1																				
○ CDOT Access Permit	VII-3	1	1																									
○ 404 Permit	VII-3	1	1																									
○ Floodplain Permit*	VII-4	1	1																									
● General Project Report	X-7	1	1	1	1	1	1	1	8	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1
● Composite Plan	IX-10	1	2	1	1																							
● 11"x17" Reduction Composite Plan	IX-10	1				1	1	1	8	1	1	1	1				1	1	1	1	1	1	1	1	1	1		1
● Final Plat	IX-15	1	2	1	1			1						1														
● 11"x17" Reduction of Final Plat	IX-15	1							8	1	1	1			1	1	1	1	1	1	1	1	1				1	
● Cover Sheet	IX-11	1	2																									
● Grading & Stormwater Mgmt Plan	IX-17	1	2															1							1	1		
○ Storm Drainage Plan and Profile	IX-30	1	2															1			1	1	1					
● Water and Sewer Plan and Profile	IX-34	1	2	1			1												1	1	1	1	1					
● Roadway Plan and Profile	IX-28	1	2															1										
● Road Cross-sections	IX-27	1	2																									
○ Detail Sheet	IX-12	1	2																									
● Landscape Plan	IX-20	2	1	1					8																			
● Geotechnical Report	X-8	1	1										1													1		
○ Phase I & II Environmental Report	X-10,11	1	1																									
● Final Drainage Report	X-5,6	1	2															1										
○ Stormwater Management Plan	X-14	1	2															1							1			
○ Sewer System Design Report	X-13	1	2	1																1								
○ Water System Design Report	X-16	1	2	1															1									
● ~~Traffic Impact Study~~ Reduction of Site Plan	X-15	1	2			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
● Site Plan	IX-29	1	2	1	1		1		8																			

NOTES:
1) An asterisk in the item description column indicates that a form is supplied by the City.
2) Required submittal items and distribution are indicated by filled in circles, some of which may be filled in during the pre-application conference. Additional items or copies may be subsequently requested in the review process.
3) Each submitted item must be labeled, named, or otherwise identified as described above in the description column.

DRAWING STANDARDS CHECKLIST

LANDSCAPE PLAN

	ITEM	GRAPHIC STANDARDS	OK	NA
SECTION VIII	A	Scale: 1" = 10' or 20'		
	B	Sheet size: 24"x36"		
	C	Primary features consist only of landscape features		
	D	Notation: All non-construction text, and also construction notation for all primary features		
	E	Line weights of existing and proposed (secondary and primary) features per City standards		
	H	Vertical control: Benchmarks on U.S.G.S. datum if public facilities other than SW are proposed		
	I	Orientation and north arrow - should be on top of sheet		
	K	Title block with names, titles, preparation and revision dates - missing		
	M	Legend of symbols used		
	N	List of abbreviations used		
	P	Multiple sheets provided with overall graphical key and match lines		
	Q	Contouring interval and extent - not indicated on plans		
	R	Neatness and legibility		

ITEM		FEATURES	OK	NA
-	1	Use the Site Plan as a base map		
	2	Identify areas to be covered with specific landscaping materials - Not clear on plans		
	3	Boulders, mounds, swales, water courses, rock outcroppings		
	4	Planting Material Legend includes common and botanical names, quantities, minimum purchase sizes, mature height, groundcover/perennial spacing, types of soil, and other remarks - LEGEND REQUIRED		
	5	Specification of soil type and preparation		
	6	Landscape irrigation layout, design, materials, and details (if requested by City staff)		
	7	Planting/staking and other details as required		
	8	Required note on Plan: "An underground, pressurized irrigation system will be provided"		
	9	Space for approval signature by Community Development with date and title		

COMMENTS

1. This drawing may be eliminated if information may be put on the Site Plan. See Note (2) on the Site Plan Checklist.

DEVELOPMENT APPLICATION

Community Development Department
250 North 5th Street, Grand Junction, CO 81501
(303) 244-1430

Receipt _____
Date _____
Rec'd By _____

File No. FPP-95-104

We, the undersigned, being the owners of property situated in Mesa County, State of Colorado, as described herein do hereby petition this:

PETITION	PHASE	SIZE	LOCATION	ZONE	LAND USE
[X] Subdivision Plat/Plan	[ ] Minor [X] Major [ ] Resub		SE Corner 15th & Wellington	PR	Single Family Attached
[ ] Rezone				From: To:	
[X] Planned Development	[ ] ODP [ ] Prelim [X] Final		SE Corner 15th & Wellington	PR	Single Family Attached
[ ] Conditional Use					
[ ] Zone of Annex					
[ ] Variance				Original Do NOT Remove From Office	
[ ] Special Use					
[ ] Vacation					[ ] Right-of Way [ ] Easement
[ ] Revocable Permit					

[X] PROPERTY OWNER	[X] DEVELOPER	[X] REPRESENTATIVE
Richard G. Kealer, Joan E. Kealer Thomas L. Coit, Pamela Coit	Chaparral West, Inc.	Thomas L. Coit
Name	Name	Name
1199 Patterson Rd., Suite B	626 32 Rd	2115 Poplar Dr.
Address	Address	Address
Grand Junction Co 81501	Clifton Co. 81520	Grand Junction Co.
City/State/Zip	City/State/Zip	City/State/Zip
970-242-2855	970-434-2160	970-242-2855
Business Phone No.	Business Phone No.	Business 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 applicat 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 represented, the item will be dropped from the agenda and an additional fee charged to cover rescheduling expenses before it can again be placed the agenda.

X _____ May 1 1995
Signature of Person Completing Application — Date

X _____ Joan E Kealer _____ Thomas L Coit _____ Pamela Coit _____ May 1, 1995
Signature of Property Owner(s) - attach additional sheets if necessary — Date

FPP-95-104

General Project Report For Wellington & 15th St.

This submittal is for a final approval of our platt for filing one of a previously approved preliminary plan. Our preliminary plan was approved at the planning commision hearing December 13th. We were approved for 34 attached units on approximately 4.8 acres which is on R-R 8. The site is located on the southeast corner of 15th and Wellington in Grand Junction. Our original approval for 34 units allowed for a density of approximately 7 units per acre but in filing one we have decided to go with a configuration that would be less dense using more land for filing one than the original proposal. Filing one will still consist of 12 units, some detached some attached with each unit being on its own lot. The units will be single story and should not exceed 20 feet in total height. All units will have 2 car gargages and the homes will range in size from 1100 sqaure feet to 1320 square feet. The units will be two and three bedrooms.

Although each owner will own their own lot with the attached unit property lines running between the two attached gargages, the Homeowners Association will have a blanket easement for the maintenance of the front and rear yards as well as any common open space and site detention areas. Fencing will be restricted to a small amount of privacy fencing to create a courtyard out the back of each unit, the rest of the fencing will be a low split rail fence designating property line barriers. This should give a very open feeling to the yard areas. The fence lines will also be planted with trees and shrubs to create a natural visual barrier for semi-private rear yard areas. The owners will plant and maintain their own private courtyard areas at the rear of their homes with the association maintaining the rest of the grounds.

The drainage for the project will be directed to the southwest corner of the property where it will be channeled into a detention area that will be landscaped. The drainage will then be released at a historic rate of flow into the canal through an approved delivery system. This delivery system must be reviewed and approved by the canal company.

The access to the project will be from Wellington Avenue where we will install curb and sidewalk improvements and tie our new paving into the existing pavement that is there now. This will create an adequate road width for two lane traffic. The improvements along 15th St. are already existing and there will be one main road into the project with a culdesac at the end of the property. Off of this road driveways will extend to each unit in some cases and in other cases private drives that will service several units at a time. These private drives will be a minimum of 20 foot wide and will be designed to the same standards as the public road into the project except for the requirement for curbs, gutters, sidewalks, and road widths. Each home will have a minimum of 2 twenty foot deep parking spots in front of the two car gargage as well as the project will have additional guest parking as noted on the plans. We are requesting 15 foot side yard set backs from the street sides and 20 foot

minimum from the front property line to the front of the gargage and 15 foot front yard set backs where units face the street to the front of the building with a minimum of 20 feet to the front of the gargage where the unit faces the street. A minimum of 10 foot rear yard areas, a minimum of 10 feet between buildings with no restriction on the distance of the building from the side yard property lines being some of the units are connected and some of them are detached as long as we keep 10 feet between buildings and no restriction on private drives except that we have 20 feet in front of the gargage to the edge of the 20 foot private drive which could also be stated as 30 feet to the front of the gargage from the cener line of the private drive. The sewer and water will be taken from 15th St. at the southwest corner of the property and be brought up to the north end of the project. Each unit will be served individually with its own sewer lateral and water line as well as all other underground utilities. They will be brought from the streets up the private drives to each unit and there will be public utility easements and maintainence easements up each private drive for the installation and maintenance of the utilites. All private drives will be posted for no parking and will be maintained in an open and acessible condition at all times. This will be enforced through the CC&R's as well as the proper posting shall allow private owners and city officials to have vehicles towed in the event that they do park in those areas. All private drives will be maintained by the Homeowners Association with the collection of fees.

This project is designed with seniors and professionals in mind. This project should serve that type of use extremely well with its centralized location being close to the college, hospitals, shopping and all other necesarry services. The project also seems well suited for this area as there are several family multi-family projects near to this site. The project has all utilites available and is an infill project and should have a minimum of impact on exisiting services. We plan to complete the project in three phases over a two year period of time. We hope that you will find this project as attractive as we do. We look forward to working with the city of Grand Junction on completion of this project.

Thank You

Ron Abeloe, President
Chaparral West, Inc.

Original Do NOT Remove From Office

FPP-95-104

FPP-95-104

INTRODUCTION

PROJECT DESCRIPTION

This report presents the results of our geotechnical evaluation performed to determine the general subsurface conditions of the site applicable to construction of approximately 35 single and possibly some connected single family residences. A vicinity map is included in the Appendix of this report.

To assist in our exploration, we were provided with a preliminary site plan prepared by QED Surveying Systems. The Boring Location Plan attached to this report is based on that plan provided to us.

We understand that the proposed structures will consist of single family and possibly connected single family single story, wood framed structure with a either crawl spaces or concrete floor slabs on grade. Lincoln DeVore has not seen a full set of building plans, but structures of this type typically develop wall loads on the order of 400-1400 plf and column loads on the order of 5-12 kips.

The characteristics of the subsurface materials encountered were evaluated with regard to the type of construction described above. Recommendations are included herein to match the described construction to the soil characteristics found. The information contained herein may or may not be valid for other purposes. If the proposed site use is changed or types of construction proposed, other than noted herein, Lincoln DeVore should be contacted to determine if the information in this report can be used for the new construction without further

FPP-95-104

field evaluations.

PROJECT SCOPE

The purpose of our exploration was to evaluate the surface and subsurface soil and geologic conditions of the site and, based on the conditions encountered, to provide recommendations pertaining to the geotechnical aspects of the site development as previously described. The conclusions and recommendations included herein are based on an analysis of the data obtained from our field explorations, laboratory testing program, and on our experience with similar soil and geologic conditions in the area.

This report provides site specific information for the construction of a 35 unit single family residential subdivision. Included in this report are recommendations regarding general site development and foundation design criteria.

The scope of our geotechnical exploration consisted of a surface reconnaissance, a geophoto study, subsurface exploration, obtaining representative samples, laboratory testing, analysis of field and laboratory data, and a review of geologic literature.

Specifically, the intent of this study is to:

1. Explore the subsurface conditions to the depth expected to be influenced by the proposed construction.

2. Evaluate by laboratory and field tests the general engineering properties of the various strata which could influence the development.

3. Define the general geology of the site including likely geologic hazards which could have an effect on site development.

4. Develop geotechnical criteria for site grading and earthwork.

5. Identify potential construction difficulties and provide recommendations concerning these problems.

6. Recommend an appropriate foundation system for the anticipated structure and develop criteria for foundation design.

FIELD EXPLORATION AND LABORATORY TESTING

A field evaluation was performed on October 24, 1994,and consisted of a site reconnaissance by our geotechnical personnel and the drilling of 3 shallow exploration borings. These shallow exploration borings were drilled within the proposed building near the locations indicated on the Boring Location Plan. The exploration borings were located to obtain a reasonably good profile of the subsurface soil conditions. All exploration borings were drilled using a CME 45B, feet truck mounted drill rig with continuous flight auger to depths of approximately 14-23 feet. Samples were taken with a standard split spoon sampler, California Lined Spoon Sampler, Thin Walled Shelby Tubes and by bulk methods. Logs describing the subsurface conditions are presented in the attached figures.

Laboratory tests were performed on representative soil samples to determine their relative engineering properties. Tests were performed in accordance with test methods of the American Society for Testing and Materials or other accepted standards. The results of our laboratory tests are included in this report. The in-place moisture content and the standard penetration test values are presented on the attached drilling logs.

FINDINGS

SITE DESCRIPTION

The project site is located in the Northeast Quarter of the Northwest Quarter of Section 12, Township 1 South, Range 1 West of the Ute Principal Meridian, Mesa County, Colorado. More specifically the site is located at the Southeast corner of the intersection of Wellington Avenue and North 15th Street within the city limits of Grand Junction. The site is bounded on the North by Wellington Avenue, on the East by 15th Street, on the South by the Grand Valley Canal. The site contains approximately 4.8 acres.

The topography of the site is relatively flat, with a slight overall gradient to the South-Southwest. A small hill exists on the Northeast corner of the property. The exact direction of surface runoff on this site will be controlled by the proposed construction and therefore will be variable. In general, surface runoff is expected to travel to the detention pond area located in the Southwest corner of the proposed subdivision. It is expected the drainage will continue either into the Grand Valley Canal or along the street drainage system of North 15th Street, eventually entering the Colorado River to the South. Surface and subsurface drainage on this site would be described as fair to poor.

GENERAL GEOLOGY AND SUBSURFACE DESCRIPTION

The geologic materials encountered under the site consist of Alluvial soils which overly the Mancos

Shale Formation which is bedrock in this area. The geologic and engineering properties of the materials found in our 3 exploration borings will be discussed in the following sections.

The Alluvial 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. Utilizing recent events and standard evaluation techniques, this tract is not considered to be within with an active debris flow hazard area.

The surface soils are an erosional product of the upper Mancos Shale and the Mount Garfield Formations which are exposed on the slopes of the Bookcliffs. The soils contained within these mud flow/debris flow features normally exhibit a metastable condition which can range from very slight to severe. Metastable soil is subject to internal collapse and is very sensitive to changes in the soil moisture content. Based on the field and laboratory testing of the soils on this site, the severity of the metastable soils can be described as low.

The surface soils on this site have been designated Soil Type I. These soils are present over the majority of the tract, except for the small hill in the Northeast corner.

This Soil Type was classified as a silty clay (CL) under the Unified Classification System. This material

is of low plasticity, of low to moderate permeability, and was encountered in a low density, wet condition. If this soil is found in a relatively dry condition, it may undergo mild expansion with the entry of small amounts of moisture, but will undergo long-term consolidation upon the addition of larger amounts of moisture. This soil will settle after being loaded. The maximum allowable bearing capacity for this soil was found to be 800 psf. No minimum dead load pressure is required for these soils. The finer grained portion of Soil Type No. I contains sulfates in detrimental quantities.

The Alluvial Soils on this site are deposited over the Mancos Shale Formation, which is considered to be bedrock in this area. The Mancos Shale Formation is exposed on the small hill located in the Northeast portion of the tract. The Mancos Shale Formation has been designated Soil Type II in this report.

The Mancos Shale is described as a thinbedded, drab, light to dark gray marine shale, with thinly interbedded fine grain sandstone and limestone layers. Some portions of the Mancos Shale are bentonitic, and therefore, are highly expansive. The majority of the shale, however, has only a moderate expansion potential. Formational shale was encountered in all exploration borings at a depths ranging from near surface in the Northeast corner to depth of approximately 15 feet in exploration boring number 1 and 20 feet in exploration boring number 3. It is anticipated that this formational shale will effect the construction and performance of foundations on the

site which have foundation depths within 5 feet of the Formational Shale. If shallow foundations are utilized over the Western and Southern portion of this tract, it is not anticipated the Formational Shale will effect the performance and construction of such shallow foundations.

This soil type was classified as a Silty Clay (CL) under the Unified Classification System. The Standard Penetration Tests ranged from 46 blows per foot to 65 blows per foot. Penetration tests of this magnitude indicate that the soil is reasonably hard and of medium to high density. The moisture content varied from near saturated at the surface beneath the Alluvial Soils to 12-16% within the Formation, indicating a soil moisture. This soil is plastic and is sensitive to changes in moisture content. With decreased moisture, it will tend to shrink, with some cracking upon desiccation. Upon increasing moisture, it will tend to expand. Expansion tests were performed on typical samples of the soil and expansive pressures on the order of 1500-1900 psf were found to be typical. The allowable maximum bearing value was found to be on the order of 4500 psf. A minimum dead load of 2200 psf will be required. This soil was found to contain sulfates in detrimental quantities.

The Mancos Shale Formation is often highly fractured, with fillings of soluble sulfate salts being very common. The samples obtained in this drilling program indicated virtually all fractured faces and many bedding planes in the shale contain sulfate salt deposits. Some seams of sulfate salts up to 1/16 inch thick were observed.

The lines defining the change between

soil types or rock materials on the attached boring logs and soil profiles are determined by interpolation and therefore are approximations. The transition between soil types may be abrupt or may be gradual.

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.

The boring logs and related information show subsurface conditions at the date and location of this exploration. Soil conditions may differ at locations other than those of the exploratory borings. If the structure is moved any appreciable distance from the locations of the borings, the soil conditions may not be the same as those reported here. The passage of time may also result in a change in the soil conditions at the boring locations.

GROUND WATER:

A free water table came to equilibrium during drilling at approximately 7 feet in the Northern part of the site and 4 1/2 feet in the Southern part, near the Grand

Valley Canal. This is probably not a true phreatic surface but is an accumulation of subsurface seepage moisture (perched water). In our opinion the subsurface water conditions shown are a permanent feature on this site. The depth to free water would be subject to fluctuation, depending upon external environmental effects.

Because of capillary rise, the soil zone within a few feet above the free water level identified in the borings will be quite wet. Pumping and rutting may occur during the excavation process, particularly if the bottom of the foundations are near the capillary fringe. Pumping is a temporary, quick condition caused by vibration of excavating equipment on the site. If pumping occurs, it can often be stopped by removal of the equipment and greater care exercised in the excavation process. In other cases, geotextile fabric layers can be designed or cobble sized material can be introduced into the bottom of the excavation and worked into the soft soils. Such a geotextile or cobble raft is designed to stabilize the bottom of the excavation and to provide a firm base for equipment.

Data presented in this report concerning ground water levels are representative of those levels at the time of our field exploration. Groundwater levels are subject to change seasonally or by changed environmental conditions. Quantitative information concerning rates of flow into excavations or pumping capacities necessary to dewater excavations is not included and is beyond the scope of this report. If this information is desired, permeability and field pumping tests will be required.

CONCLUSIONS AND RECOMMENDATIONS

GENERAL DISCUSSION

No geologic conditions were apparent during our reconnaissance which would preclude the site development as planned, provided the recommendations contained herein are fully complied with. Based on our investigation to date and the knowledge of the proposed construction, the site condition which would have the greatest effect on the planned development is the expansive Mancos Shale located in the Northeast corner of the tract and the quite soft, compressible Alluvial Soils in the West and Southern part of the tract.

Since the exact magnitude and nature of the foundation loads are not precisely known at the present time, the following recommendations must be somewhat general in nature. Any special loads or unusual design conditions should be reported to Lincoln DeVore so that changes in these recommendations may be made, if necessary. However, based upon our analysis of the soil conditions and project characteristics previously outlined, the following recommendations are made.

OPEN FOUNDATION OBSERVATION

Since the recommendations in this report are based on information obtained through random borings, it is possible that the subsurface materials between the boring points could vary. Therefore, prior to placing forms or pouring concrete, an open excavation observation should be performed by representatives of Lincoln DeVore. The purpose of this observation is to determine if the subsurface soils directly below the

proposed foundations are similar to those encountered in our exploration borings. If the materials below the proposed foundations differ from those encountered, or in our opinion, are not capable of supporting the applied loads, additional recommendations could be provided at that time.

EXCAVATION:

Site preparation in all areas to receive structural fill should begin with the removal of all topsoil, vegetation, and other deleterious materials. Prior to placing any fill, the subgrade should be observed by representatives of Lincoln DeVore to determine if the existing vegetation has been adequately removed and that the subgrade is capable of supporting the proposed fills. The subgrade should then be scarified to a depth of 10 inches, brought to near optimum moisture conditions and compacted to at least 90% of its maximum modified Proctor dry density [ASTM D-1557]. The moisture content of this material should be within + or - 2% of optimum moisture, as determined by ASTM D-1557.

In general, we recommend all structural fill in the area beneath any proposed structure or roadway be compacted to a minimum of 90% of its maximum modified Proctor dry density (ASTM D1557). This structural fill should be placed in lifts not to exceed six (6) inches after compaction. We recommend that fill be placed and compacted at approximately its optimum moisture content (+/-2%) as determined by ASTM D 1557. Structural fill should be a granular, non-expansive soil.

We recommend that the amount of structural fill placed on the Western and Southern part of the site

during construction, either for the purpose of site grading or to raise floor slabs to a desired elevation, be kept to a minimum. The surcharge applied by a structural fill may consolidate the soft, fine grained soils on this site. If the underlying soils consolidate as a result of this applied surcharge, structural movement will follow.

Allowable slope angle for cuts in the native soils is dependent on soil conditions, slope geometry, the moisture content and other factors. Should deep cuts be planned for this site, we recommend that a slope stability analysis be performed when the location and depth of the cut is known.

No major difficulties are anticipated in the course of excavating into the surficial soils on the site. It is probable that safety provisions such as sloping or bracing the sides of excavations over 4 feet deep will be necessary. Any such safety provisions shall conform to reasonable industry safety practices and to applicable OSHA regulations. The OSHA Classification for excavation purposes on this site is Soil Class C for Soil Type I and Soil Class A for Soil Type IV (Formational Mancos Shale).

DRAINAGE AND GRADIENT:

Adequate site drainage should be provided in the foundation area both during and after construction to prevent the ponding of water and the saturation of the subsurface soils. We recommend that the ground surface around the structure be graded so that surface water will be carried quickly away from the building. The minimum gradient within 10 feet of

the building will depend on surface landscaping. We recommend that paved areas maintain a minimum gradient of 2%, and that landscaped areas maintain a minimum gradient of 8%. It is further recommended that roof drain downspouts be carried across all backfilled areas and discharged at least 10 feet away from the structure. Proper discharge of roof drain downspouts may require the use subsurface piping in some areas. Planters, if any, should be so constructed that moisture is not allowed to seep into foundation areas or beneath slabs or pavements.

If adequate surface drainage cannot be maintained, or if subsurface seepage is encountered during excavation for foundation construction, a full perimeter drain is recommended for these buildings. It is recommended that this drain consist of a perforated drain pipe and a gravel collector, the whole being fully wrapped in a geotextile filter fabric. We recommend that this drain be constructed with a gravity outlet. If sufficient grade does not exist on the site for a gravity outlet, then a sealed sump and pump is recommended. Under no circumstances should a dry well be used on this site.

The high water level found on portions of this site may require controlling to prevent large upward fluctuations of this water surface. For this purpose, we recommend that this be accomplished by construction of an area drain beneath any building areas which would have final excavated areas or floor slabs within 2 1/2 feet of the existing ground water surface. To control water surface movement, it is recommended that the drain outfall in a free gravity drain. If a gravity outfall is not possible, a sealed sump and pump is recommended to

remove the water.

The existing drainage on the sites must either be maintained carefully or improved. We recommend that water be drained away from structures as rapidly as possible and not be allowed to stand or pond near the building. We recommend that water removed from one building not be directed onto the backfill areas of adjacent buildings. We recommend that a hydrologist or drainage engineer experienced in this area be retained to complete a drainage plan for this site.

To give the buildings extra lateral stability and to aid in the rapidity of runoff, it is recommended that all backfill around the buildings and in utility trenches in the vicinity of the buildings be compacted to a minimum of 85% of its maximum Proctor dry density, ASTM D 698. The native soils on this site may be used for such backfill. We recommend that all backfill be compacted using mechanical methods. No water flooding techniques of any type may be used in placement of fill on this site.

Should an automatic lawn irrigation system be used on this site, we recommend that the sprinkler heads be installed no less than 5 feet from the building. In addition, these heads should be adjusted so that spray from the system does not fall onto the walls of the building and that such water does not excessively wet the backfill soils.

It is recommended that lawn and landscaping irrigation be reasonably limited, so as to prevent complete saturation of subsurface soils. Several

methods of irrigation water control are possible, to include, but not limited to:

* Metering the Irrigation water.
* Sizing the irrigation distribution service piping to limit on-site water usage.
* Encourage efficient landscaping practices.
* Enforcing reasonable limits on the size of high water usage landscaping for each lot and any park areas.

FOUNDATIONS

SOIL TYPE I

We recommend the use of a conventional shallow foundation system consisting of continuous spread footings beneath all bearing walls and isolated spread footings beneath all columns and other points of concentrated load. Such a shallow foundation system, resting on the low density Alluvial Silty Clays of Soil Type I, may be designed on the basis of an allowable bearing capacity of 800 psf maximum. No minimum dead load is required.

Contact stresses beneath all continuous walls should be balanced to within + or - 150. psf at all points. Isolated interior column footings should be designed for contact stresses of about 150 psf less than the average used to balance the continuous walls. The criterion for balancing will depend somewhat upon the nature of the structure. Single-story, slab on grade structures may be balanced on the basis of dead load only. Multi-story structures may be balanced on the basis of dead load plus 1/2 live load, for up to 3 stories.

Stem walls for a shallow foundation system should be designed as grade beams capable of spanning at least 12 feet. These "grade beams" should be horizontally reinforced both near the top and near the bottom. The horizontal reinforcement required should be placed continuously around the structure with no gaps or breaks. A foundation system designed in this manner should provide a rather rigid system and, therefore, be better able to tolerate differential movements associat-

ed with the very soft, low density Alluvial soils of Soil Type I.

In some excavations, the soils may be extremely soft and experience rutting under the excavation equipment. In such cases, it may be desirable to utilize a structural fill, a minimum of 2 feet thick, which would be composed of granular, non-free draining soils. This structural fill should be placed in accordance with the recommendations contained in the following paragraphs for a structural slab foundation.

STRUCTURAL SLAB

If the design of the upper structure is such that loads can be balanced reasonably well, a floating structural slab type of foundation could be used on this site where the foundation soils are Soil Type I and the Mancos Shale is greater than 5 feet below the foundation level. Such a slab would require heavy reinforcing to resist differential bending along the rim wall. It is possible to design such a slab either as a thickened edge only, a solid or a ribbed slab. A rim wall must be used for confinement purposes. Any such slab must be specifically designed for the anticipated loading.

Such a foundation system may settle to some degree however, the use of a structural fill beneath the slab and rim wall will help reduce settlement and hold differential movement to a minimum. Relatively large slabs will tend to experience minor cracking and heave of lightly loaded interior portions, unless the slabs are specifically designed with this movement in mind.

The existing low density, metastable soils should be removed to a depth of 2 feet below the proposed bottom footing or rimwall elevation. Once it is felt that adequate soil removal has been achieved, it is recommended that the excavation be closely examined by a representative of Lincoln-DeVore to ensure that an adequate overexcavation depth has indeed occurred and that the exposed soils are suitable to support the proposed structural man-made fill.

Once this examination has been completed, it is recommended that a coarse-grained, non-expansive, non-free draining man-made structural fill be imported to the site. The native soils may be utilized as structural fill, if specifically approved by the Geotechnical Engineer. This imported fill should be placed in the overexcavated portion of this site in lifts not to exceed 6 inches after compaction. A minimum of 90% of the soils maximum Modified Proctor dry density (ASTM D-1557) must be maintained during the soil placement. These soils should be placed at a moisture content conducive to the required compaction (usually Proctor optimum moisture content $\pm$ 2%). The granular material must be brought to the required density by mechanical means. No soaking, jetting or puddling techniques of any type should be used in placement of fill on this site. To ensure adequate lateral support, we must recommend that the zone of overexcavation extend at least 2 feet around the perimeter of the proposed footing. To confirm the quality of the compacted fill product, it is recommended that surface density tests be taken at maximum 2 foot vertical intervals.

The placement of a geotextile fabric for separation between the native soils and the structural fill is may be recommended to aid the fill placement and to improve the stability of the completed fill.

When The structural fill is completed, an allowable bearing capacity of 1700 psf maximum may be assumed for proportioning the footings.

The placement of the structural fill a minimum of two feet beyond the edge of the structural slab should provide additional support for the eccentrically placed wall loads on the slab edges.

SETTLEMENT:

We anticipate that total and/or differential settlements for the proposed structures may be considered to be within tolerable limits, provided the recommendations presented in this report are fully complied with. In general, we expect total settlements for the proposed structure to be less than 1 inch.

SOIL TYPE II (EXPANSIVE MANCOS SHALE FORMATION)

Three foundation types which could be utilized for the Mancos Shale Formation are recommended based on our experience in this area. The choice between these foundation types depends on the internal loading of the foundation members and the amount of excavation planned to achieve the finished lower elevations.

The three foundation types preliminarily recommended are as follows:

1. The voided wall on grade foundation system with a stemwall resting directly on the shale formation.

2. The isolated pad and grade beam foundation system in which the grade beam is voided and loads are transferred to the isolated pads.

3. The drilled pier and fully voided grade beam system with the loads transferred to the piers.

Recommendations given in this report are given for the Shallow Foundation Types No. 1 and 2 and the Deep Foundation Type No. 3.

A conventional shallow foundation system consisting of either a voided wall on grade or an isolated pad and grade beam system, resting on the relatively unweathered expansive clays of the Mancos Shale Formation, may be designed on the basis of an allowable bearing capacity of 4500 psf maximum, and a minimum dead load of 2200 psf must be maintained. Contact stresses beneath all continuous walls should be balanced to within + or - 150 psf at all points. Isolated interior column footings should be designed for contact stresses of about 150 psf more than the average used to balance continuous walls. The criteria use for balancing will depend somewhat upon the nature of the structure. Single-story, slab on grade structures and single-story crawlspace structures may be balance on the basis of dead load only. Multi-story structures may be balanced on the basis of Dead Load plus one half live load, for up to three stories.

Stem walls for a shallow foundation system on the Mancos Shale should be designed as grade beams

capable of spanning at least 14 feet. These "grade beams" should be horizontally reinforced both near the top and near the bottom. The horizontal reinforcement required should be placed continuously around the structure with no gaps or breaks. A foundation system designed in this manner should provide a rather rigid system and, therefore, be better able to tolerate differential movements associated with the expansive Mancos Shale.

DRILLED PIERS:

We recommend that drilled piers have a minimum shaft length of 7 feet and be embedded at least 7 feet into the relatively unweathered clays of the Mancos Shale Formation. At this level,these piers may be designed for a maximum end bearing capacity of 25000 psf, plus 1800 psf side support considering only the side wall area embedded in the bedrock. Due to the expansive potential of the bedrock, a minimum dead load uplift is required, consisting of a point uplift of 2400 psf and 350 psf side uplift, based on the side wall embedded in the bedrock. The overburden is soft and no supporting or uplift values are assigned to this material. The weight of the concrete in the pier may be incorporated into the required dead load.

It is recommended that the bottoms of all piers be thoroughly cleaned prior to the placement of concrete. The amount of reinforcing in each pier will depend on the magnitude and nature of loads involved. As a rule of thumb, reinforcing equal to approximately 1/2 of 1% of the gross cross-sectional concrete area should be used. Additional reinforcing should be used if structural conditions warrant. We recommend

that reinforcing extend through the full length of pier.

To minimize the possibility of voids developing in the drilled piers, concrete with a slump of 5 to 6 inches is recommended. We recommend that piers be dewatered and thoroughly cleaned of all loose material prior to placing the steel cage and concrete. The pier excavation should contain no more than 2 inches of free water unless the concrete is placed by means of a tremie extending to the bottom of the pier. A free fall in excess of 5 feet is not recommended when placing concrete in drilled piers. We recommend that casing be pulled as the concrete is being placed and that a 5 foot head of concrete be maintained while pulling the casing. It is recommended that drilled piers be plumb with 2% of their length and that the shaft maintain a constant diameter for the full length of the pier and not allowed to "mushroom" at the top.

DRILLED PIER OBSERVATION:

The foundation installation for drilled piers should be continuously observed by a representative of Lincoln DeVore to determine that the recommended bearing material has been adequately penetrated and that soil conditions are as anticipated by the exploration. This observation will aid in attaining an adequate foundation system. In addition, abnormalities in the subsurface conditions encountered during foundation installation can be identified and corrective measures taken as required. Lincoln DeVore requires a minimum of one working day's notice, and a copy of the foundation plan, to schedule any

field observation.

GRADE BEAMS:

A reinforced concrete grade beam is recommended to carry the exterior wall loads in conjunction with the deep foundation system. We recommend that this grade beam be designed to span from bearing point to bearing point and not be allowed to rest on the ground surface between these points. We recommend a void space be left between the bottom of the grade beam and the subgrade below due to the expansive nature of the subgrade soils.

Based upon our experience in this area and due to rather poor surface and subsurface drainage conditions of the subdivision, a drilled pier foundation system may be the preferred system. It must be noted that a drilled pier and fully voided grade beam system is quite rigid and will be quite sensitive to relative differential movements of the individual piers. The presence of subsurface water and very moist zones of soluble sulfate salt in the Mancos Shale Formation indicates that a 'Stable Strata Below The Zone of Seasonal Moisture Change' may not be adequately defined at this period of time.

CONCRETE SLABS ON GRADE

Slabs could be placed directly on the natural soils or on a structural fill. We recommend that all slabs on grade be constructed to act independently of the other structural portions of the building. One method of allowing the slabs to float freely is to use expansion material at the slab-structure interface.

It is recommended that slabs on grade be constructed over Soil Type I or wherever the water table is within 4 feet of the slab surface be constructed over a capillary break of approximately 6 inches in thickness. We recommend that the material used to form the capillary break be free draining, granular material and not contain significant fines. A free draining outlet is also recommended for this break so that it will not trap water beneath the slab. A vapor barrier is recommended beneath the floor slab and above the capillary break. To prevent difficulty in finishing concrete, a 2 inch sand layer should be placed above the break. An alternate method of reducing finishing problems would be to place the vapor barrier beneath approximately 6 inches of a minus 3/4 inch gravel fill. This method must be very carefully accomplished to minimize excessive puncturing and tearing of the vapor barrier.

If the slab is to be placed directly on the expansive soils or on a thin fill overlying these soils, the risk of slab movement is high and stringent mitigation techniques are recommended. No design method known at this time will prevent slab movement should moisture enter the expansive soils below.

Therefore, to mitigate the effects of slab movement should they occur, we recommend the following:

1. Control joints should be placed in such a manner that no floor area exceeding 400 square feet remains without a joint. Additional joints should be placed at columns and at inside corners. These control joints should minimize cracking associated with expansive soils by controlling location and direction of cracks.

2. We recommend that all slabs on grade be isolated from structural members of the building. This is generally accomplished by an expansion joint at the floor slab / foundation interface. In addition, positive separation should be maintained between the slab and all interior columns, pipes and mechanical systems extending through the slab.

3. The slab subgrade should be kept moist 3 to 4 days prior to placing the slab. This is done by periodically sprinkling the subgrade with water. However, under no circumstances should the subgrade be kept wet by the flooding or ponding water.

4. Any partitions which will rest on the slabs on grade should be constructed with a minimum void space of 2 inches at the bottom of the wall (see figure in the Appendix). This base should allow for future upward movement of the floor slabs and minimize movement and damage in walls and floors above the slabs. This void may require rebuilding after a period of time, should heave exceed 2 inches.

It is recommended that floor slabs on grade be constructed with control joints placed to divide the floor into sections not exceeding 360 square feet, maximum. Also, additional control joints are recommended at all inside corners and at all columns to control cracking in these areas.

Problems associated with slab 'curling' are usually minimized by proper curing of the placed concrete slab. This period of curing usually is most critical within the first 5 days after placement. Proper curing can be accomplished

by continuous water application to the concrete surface or by the placement of a 'heavy' curing compound, formulated to minimize water evaporation from the concrete. Curing by continuous water application must be carefully undertaken to prevent the wetting or saturation of the subgrade soils.

EARTH RETAINING STRUCTURES

The active soil pressure for the design of earth retaining structures may be based on an equivalent fluid pressure of 50 pounds per cubic foot. The active pressure should be used for retaining structures which are free to move at the top (unrestrained walls). For earth retaining structures which are fixed at the top, such as basement walls, an equivalent fluid pressure of 65 pounds per cubic foot may be used. It should be noted that the above values should be modified to take into account any surcharge loads, sloping backfill or other externally applied forces. The above equivalent fluid pressures should also be modified for the effect of free water, if any.

The passive pressure for resistance to lateral movement may be considered to be 220 pcf per foot of depth. The coefficient of friction for concrete to soil may be assumed to be .24 for resistance to lateral movement. When combining frictional and passive resistance, the latter must be reduced by approximately 1/3.

REACTIVE SOILS

Since groundwater in the Grand Junction area typically contains sulfates in quantities detrimental to a Type I cement, a Type II or Type I-II or Type II-V cement is recommended for all concrete which is in contact with the subsurface soils and bedrock. Calcium chloride should not be added to a Type II, Type I-II or Type II-V cement under any circumstances.

LIMITATIONS

This report is issued with the understanding that it is the responsibility of the owner, or his representative to ensure that the information and recommendations contained herein are brought to the attention of the individual lot purchasers for the subdivision. In addition, it is the responsibility of the individual lot owners that the information and recommendations contained herein are brought to the attention of the architect and engineer for the individual projects and the necessary steps are taken to see that the contractor and his subcontractors carry out the appropriate recommendations during construction.

The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties. In addition, changes in acceptable or appropriate standards may occur or may result from legislation or the broadening of engineering knowledge. Accordingly, the findings of this report may be invalid, wholly or partially, by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of 3 years.

The recommendations of this report pertain only to the site investigated and are based on the assumption that the soil conditions do not deviate from those described in this report. If any variations or undesirable

FPP-95-104

conditions are encountered during construction or the proposed construction will differ from that planned on the day of this report, Lincoln DeVore should be notified so that supplemental recommendations can be provided, if appropriate.

Lincoln DeVore makes no warranty, either expressed or implied, as to the findings, recommendations, specifications or professional advice, except that they were prepared in accordance with generally accepted professional engineering practice in the field of geotechnical engineering.

FPP-95-104

L A BRODAK
2741 F RD
GRAND JUNCTION, CO 81506

JAMES ROBERT HOWARD
724 FULTON ST
AURORA, CO 80010-3914

ANNA M FORNEY
CHARLES L FORNEY ESTATE
1631 WELLINGTON AVE
GRAND JUNCTION, CO 81501

LOIS K PRICHARD
2301 N 17TH CIR
GRAND JUNCTION, CO 81501

JAMES W MURRIE
KRISTIN K
1434 WELLINGTON AVE
GRAND JUNCTION, CO 81501

DOROTHY GRACE ST LOUIS
2311 N 17TH CIR
GRAND JUNCTION, CO 81501

ROBERT SCHROEDER
3151 SNOWBERRY CT
GRAND JUNCTION, CO 81506

MELECIO E MARTINEZ
JOSEPHINE
2321 N 17TH CIR
GRAND JUNCTION, CO 81501

STEVE STAR
LOLA D STAR
2824 ORCHARD AVE
GRAND JUNCTION, CO 81501

LUCY M COSSLETT
2235 N 15RH ST UNIT A
GRAND JUNCTION, CO 81501

HILLTOP SPECIAL SERVICES DIV
1100 PATTERSON RD
GRAND JUNCTION, CO 81506

JOHN H MCARTHUR
PO BOX 1419
GRAND JUNCTION, CO 81502

RICHARD E FULTON
1556 WELLINGTON AVE
GRAND JUNCTION, CO 81501

ROLLO B HALL
ROSE M
2235 N 15TH ST # C
GRAND JUNCTION, CO 81501

WILLIAM L SHUMAN
FREDA
3320 CRESTVIEW WAY
GRAND JUNCTION, CO 81506

HAZEL M WILLIS
DONNA J ALLEN
2235 N 15TH ST UNIT D
GRAND JUNCTION, CO 81501

ROGER MALAN
1529 BOOKCLIFF CT APT C
GRAND JUNCTION, CO 81501

FRANK M WILSON
1250 NE LOOP 410 STE 300
SAN ANTONIO, TX 78209

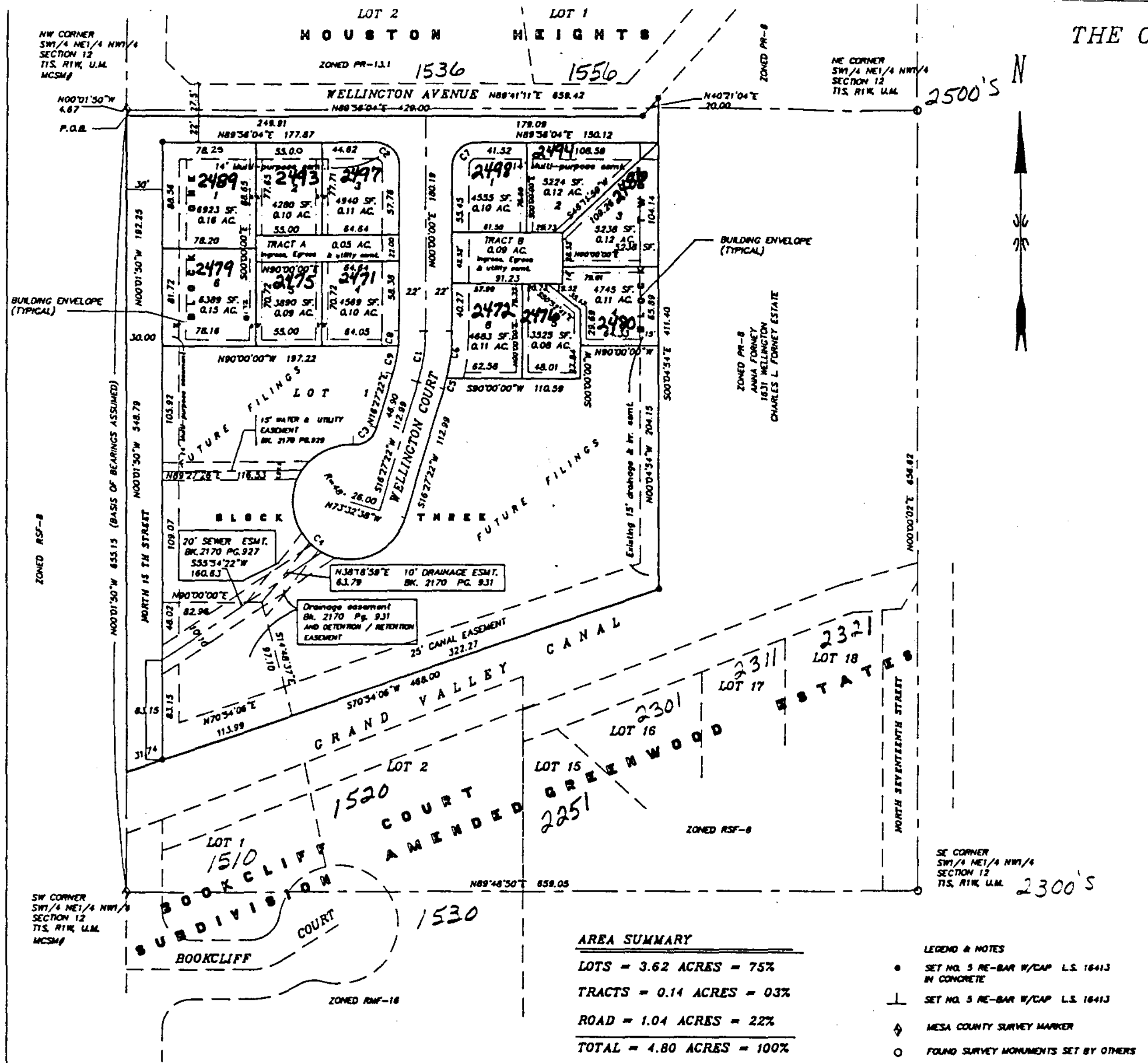
ROGER C MALAN
1502 BOOKCLIFF CT
GRAND JUNCTION, CO 81501

LEONARD RONAY
TONI
RR 1 BOX 334
WEST PLAINS, MO 65775

TCP $500.00
FPP-95-104

All Addresses off Wellington Court.

File Copy



THE COTTAGES AT WELLINGTON FILING ONE

DEDICATION

KNOW ALL MEN BY THESE PRESENTS:

That the undersigned, Richard G. Kesler, Jean E. Kesler, Thomas L. Coit, and Pamela Coit, are the owners of that real property situated in the City of Grand Junction, County of Mesa, State of Colorado, and is described in Book 2121 at Page 247 of the Mesa County Clerk and Recorders Office, and being situated in the SW1/4 NE1/4 NW1/4 Section 12, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado as shown on the accompanying plat, said property being additionally described as follows:

A parcel of land situate in the NE1/4 NW1/4 of Section 12, T1S, R1W, Ute Meridian, being described as follows:

Beginning at a point which bears S00°01'30"E 4.67 feet from the NW Corner of the SW1/4 NE1/4 NW1/4 of said Section 12; and considering the West line of said SW1/4 NE1/4 NW1/4 of Section 12 to bear N00°01'30"W and all bearings contained herein to be relative thereto; thence N89°56'04"E 129.00 feet; thence N40°21'04"E 20.00 feet; thence S00°04'34"E 411.40 feet; thence S70°34'06"W 466.00 feet; thence N00°01'30"W 348.79 feet to the Point of Beginning.

That said owners have caused the said real property to be laid out and surveyed as THE COTTAGES AT WELLINGTON FILING ONE, a subdivision of a part of City of Grand Junction, County of Mesa, State of Colorado.

That said owners do hereby dedicate and set apart real property as shown and labeled on the accompanying plat as follows:

All streets and rights-of-way as shown on the accompanying plat to the City of Grand Junction, for the use of the public forever;

All Multi-purpose easements and Tracts A & B to the City of Grand Junction for the use of the public utilities as perpetual easements for the installation, operation, maintenance and repair of utilities and appurtenances thereto including, but not limited to electric lines, cable TV lines, natural gas pipelines, sanitary sewer lines, water lines, telephone lines, and also for the installation and maintenance of traffic control facilities, street lighting, and grade structures;

All Irrigation Easements to the Property owners of the lots and tracts hereby platted as perpetual easements for the installation, operation, maintenance and repair of private irrigation systems;

All Drainage Easements to the Property owners of lots and tracts hereby platted as perpetual easements for the conveyance of runoff water which originates within the area hereby platted or from upstream areas, through natural or man-made facilities above or below ground;

All Detention/Retention Easements to the Property owners of lots and tracts hereby platted to the purpose of conveying and detaining/retaining runoff water which originates from the area hereby platted, and also for the conveyance of runoff from upstream areas;

Tracts A & B/Utility Easements to the owners of lots or tracts specifically identified on the plat as perpetual easements for ingress and Egress purposes for the use by said lot or tract owners, their guests, and invitees, and also for use by public services, including but not limited to, postal service, trash collection, fire, police, emergency vehicles, and the City of Grand Junction.

All easements include the right of ingress and egress on, along, over, under, and through and across by the beneficiaries, their successors, or assigns, together with the right to trim or remove interfering trees and brush, and in Drainage and Detention/Retention easements, the right to dredge; provided, however, that the beneficiaries of said easements shall utilize the same in a reasonable and prudent manner. Furthermore, the owners of lots or tracts hereby platted not burden nor overburden said easements by erecting or placing any improvements thereon which may prevent reasonable ingress and egress to and from the easement.

That all expenses for street paving or improvements shall be furnished by the seller or purchaser, not the City of Grand Junction.

IN WITNESS WHEREOF said owners have caused their names to be hereunto subscribed this 26th day of September A.D., 1995.

Richard G. Kesler — Jean E. Kesler

Thomas L. Coit — Pamela Coit

STATE OF COLORADO }
COUNTY OF MESA } S.S.

The foregoing instrument was acknowledged before me this 26th day of September 1995 by Richard G. Kesler, Jean E. Kesler, Thomas L. Coit, and Pamela Coit.

7-30-97
My commission expires

Stacy Pappas
Notary Public
Address 2317 H Rd.

NOTARY PUBLIC STACY PAPPAS STATE OF COLORADO

CLERK AND RECORDERS CERTIFICATE

STATE OF COLORADO }
COUNTY OF MESA } S.S.

I hereby certify that this instrument was filed in my office at 2:37 o'clock P.M. this 20th day of NOV. A.D. 1995 and is duly recorded in Plat Book No. 15 Page 4?5

CITY APPROVAL

This plat of THE COTTAGES AT WELLINGTON FILING ONE, a subdivision of the City of Grand Junction, County of Mesa, and State of Colorado was approved and accepted this ____ day of ____ A.D. 199_.

City Manager — Ron Maupin, President of Council

SURVEYOR'S CERTIFICATE

I, Max E. Morris, certify that the accompanying plat of THE COTTAGES AT WELLINGTON FILING ONE, a subdivision of a part of the City of Grand Junction, County of Mesa, State of Colorado has been prepared under my direct supervision and accurately represents a field survey of same. I further certify that this plat conforms to all applicable requirements of the Zoning and Development Code of the City of Grand Junction and all applicable state laws and regulations.

Max E. Morris, Q.E.D. Surveying Systems Inc.
Colorado Registered Professional Land Surveyor L.S. 16413

10/12/95
Date

MAX EUGENE MORRIS 16413 STATE OF COLORADO

AREA SUMMARY

LOTS = 3.62 ACRES = 75%
TRACTS = 0.14 ACRES = 03%
ROAD = 1.04 ACRES = 22%
TOTAL = 4.80 ACRES = 100%

LEGEND & NOTES

- • SET NO. 5 RE-BAR W/CAP L.S. 16413 IN CONCRETE
- ⊥ SET NO. 5 RE-BAR W/CAP L.S. 16413
- ◊ MESA COUNTY SURVEY MARKER
- ○ FOUND SURVEY MONUMENTS SET BY OTHERS

CURVE TABLE

CURVE#	RADIUS	LENGTH	CHORD	CHORD BEARING	DELTA ANGLE	TANGENT
C1	150.00	43.00	42.93	S08°13'41"W	16°27'22"	21.69
C2	20.00	31.44	28.30	S45°01'58"E	90°03'56"	20.02
C3	20.00	26.67	24.73	S54°39'06"W	76°23'28"	15.74
C4	48.00	214.79	75.45	N35°20'54"W	256°23'28"	61.01
C5	172.00	9.59	9.59	S14°51'32"W	03°11'40"	4.80
C6	172.00	39.81	39.72	S06°37'51"W	13°15'42"	19.99
C7	20.00	31.39	28.27	N44°58'02"E	89°56'04"	19.98
C8	128.00	12.36	12.36	S02°45'59"W	05°31'57"	6.18
C9	128.00	24.40	24.37	S10°59'40"W	10°55'25"	12.24

NOTICE:

ENCUMBRANCER'S RATIFICATION AND APPROVAL

The undersigned financial institution holds a first deeds of trust on the herein described real property, and hereby ratifies and approves this plat of THE COTTAGES AT WELLINGTON FILING ONE.

Norman L. Cooper, Sr. V.P.
~~BY: Bob Johnson~~
By: Norman L. Cooper of The Bank of Grand Junction

STATE OF COLORADO }
COUNTY OF MESA } S.S.

The foregoing Encumbrancer's Ratification and Approval was acknowledged before me this 26th day of September A.D., 1995 by ~~Bob Johnson~~ Norman L. Cooper of The Bank of Grand Junction

7-30-97
My commission expires

Stacy Pappas
Notary Public

NOTARY PUBLIC STACY PAPPAS STATE OF COLORADO

THE COTTAGES AT WELLINGTON FILING ONE

FINAL PLAT		
SITUATED IN THE NE1/4 NW1/4 SECTION 12, TOWNSHIP 1 SOUTH, RANGE 1 WEST, U.M.		
FOR: COIT	Q.E.D. SURVEYING SYSTEMS Inc. 1018 COLO. AVE. GRAND JUNCTION COLORADO 81501 (303) 241-2370 464-7568	SURVEYED BY: SB MF
SCALE: 1"IN = 50'FT		DRAWN BY: MEM
DATE: 8/23/95		ACAD ID: WGFIN4
		SHEET NO.
		FILE: 94261

APPROVED FOR CONSTRUCTION

CITY OF GRAND JUNCTION DATE

INITIAL ACCEPTANCE

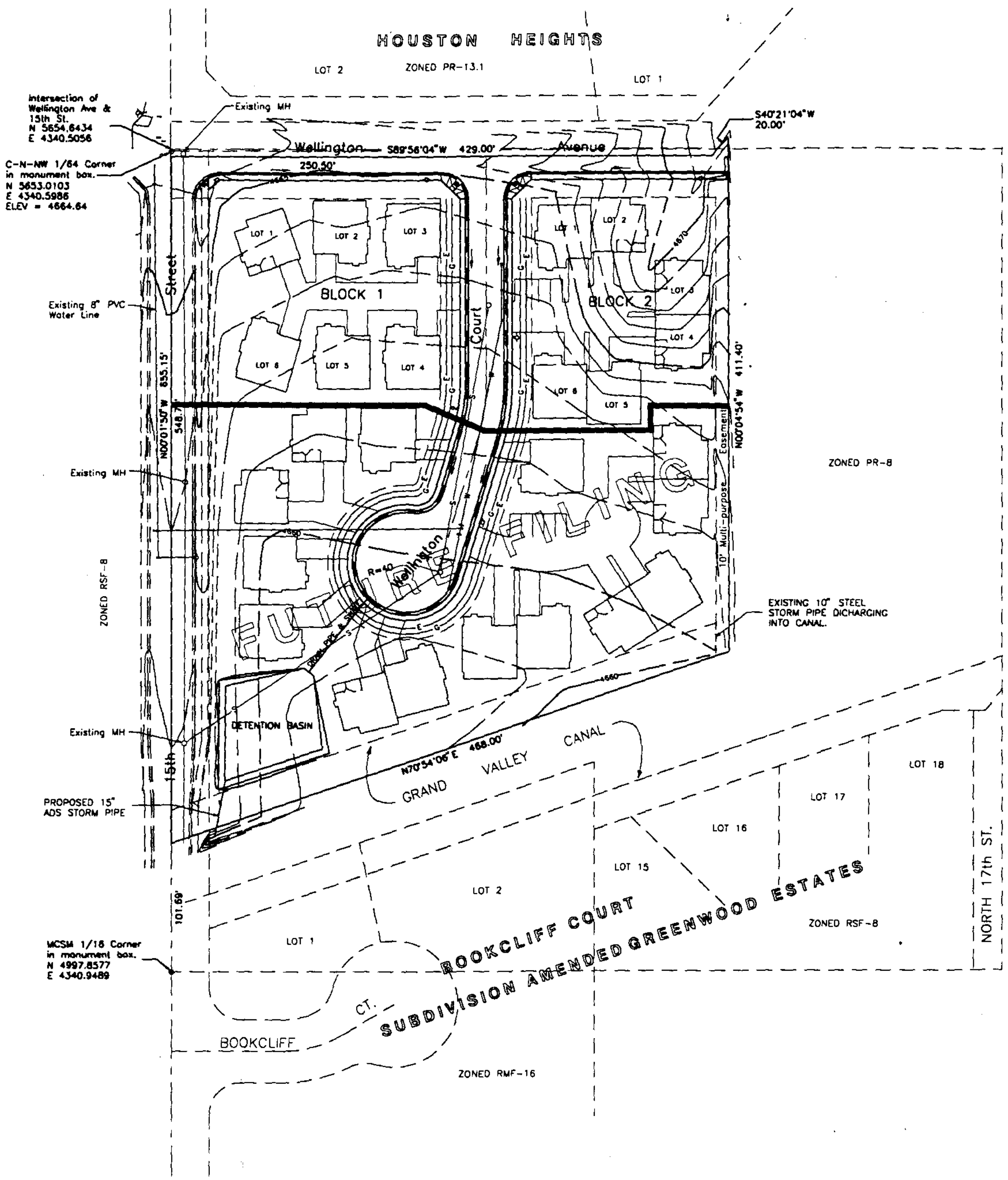
CITY OF GRAND JUNCTION DATE

WELLINGTON GARDENS

COMPOSITE PLAN

Located in Section 12, T1S, R1W, Ute PM

Grand Junction, Mesa County, Colorado



FPP-95-104

Original Do NOT Remove From Office

SCALE

1 inch = 50 feet (1:600)

25 0 25 50 100 150 FEET

10 0 10 20 30 40 50 METERS

CONTOUR INTERVAL: 1 FOOT

NOTES

1. Project BENCHMARK is C-N-NW 1/64 Corner, Section 12, T1S, R1W, Ute Meridian. Elevation = 4664.64 feet.

2. Utility Providers:

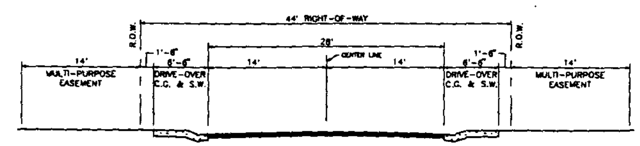
WATER	CITY OF GRAND JUNCTION
SEWER	CITY OF GRAND JUNCTION
ELECTRIC	PUBLIC SERVICE
TELEPHONE	US WEST COMMUNICATIONS
GAS	PUBLIC SERVICE COMPANY

3. Area Summary:

	ACRES	%
LOTS:	1.2	24
STREETS:	1.45	30
OPEN SPACE:	2.22	46
TOTAL:	4.5	100

LEGEND

- FIRE HYDRANT
- EXISTING WATER VALVE
- NEW WATER VALVE
- THRUST BLOCK
- MANHOLE
- STREET LITE
- EXISTING POWER POLE
- PROPOSED STORM FLOW DIRECTION
- PROPOSED STORM DRAIN
- PROPOSED 10" WATER LINE
- PROPOSED 8" SANITARY SEWER LINE
- MCSM - Mesa County Survey Monument



WELLINGTON COURT CROSS SECTION:

NOT TO SCALE

DESIGNED BY ECM

DRAWN BY ECM

SURVEY DATE

REVISIONS

NO.	DATE	REMARKS	BY

WELLINGTON GARDENS

COMPOSITE PLAN

NICHOLS ASSOCIATES, INC.

CIVIL ENGINEERING • PHOTOGRAMMETRY • SURVEYING

751 Horizon Court • Grand Junction, Colorado 81506 • Phone: 970-245-7101

DATE DRAWN May 31, 1995

SCALE 1 inch = 50 feet

PROJECT NUMBER 3220

FPP-95-104

Wellington Gardens
Final Drainage Report

prepared 24 May, 1995

NICHOLS ASSOCIATES, INC.

Certification Sheet

May 26, 1995

Development Staff
City of Grand Junction, Colorado

Ladies and Gentlemen:

A storm drainage system for the proposed Wellington Gardens has been designed to convey storm water and route it to a detention pond. The detention pond is designed to discharge storm water produced during a 2-year event at the historic 2-year rate. The storm drainage system is also designed to convey the 100-year event at the historic 100-year rate as required.

I certify this report for the final drainage design of Wellington Gardens was prepared under my direct supervision.

Maurice L. Schumann May 26, 1995

Prepared by:
Maurice L. Schumann
State of Colorado, Number 15698
Registered Professional Engineer

Eric C Marquez

Eric C. Marquez
State of Colorado, Number 19097
Engineer In Training

Original
Do NOT Remove
From Office

FPP-95-104

TABLE OF CONTENTS

I. GENERAL DESCRIPTION AND LOCATION

A. Site and Major Basin Location

Wellington Gardens is a proposed residential housing development to be built at the southeast corner of 15th Street and Wellington Avenue in the City of Grand Junction, County of Mesa, Colorado. The property is bounded on the east by a pasture; on the south by the Grand Valley Canal; on the west by 15th Street; and on the north by Wellington Avenue. The property south of the canal is developed with multi-family housing and single family housing. The property across 15th Street from the proposed site is developed with multi-family housing. Two houses are located near the north and east borders of the property: one house is located just north of the property and on Wellington Street, the other house is about 500 feet east of the northeast corner of the proposed development.

B. Site and Major Basin Description

The site has an area of 4.5 acres. Ground cover on the site is comprised of an abandoned agricultural grain field that has been overgrown with scattered native grasses and bushes. Soils at the site consist of Alluvial soils that overly the Mancos Shale Formation. The alluvial surface soils consist of silty clay and sandy clay and have been mapped as the Sagers-Billings Urban Complex by the U.S. Soil Conservation Service. The site has high runoff potential, therefore the existing hydrologic soil type is Group D.

The major basin has an area of approximately 14 acres. The major basin also includes two other fields that have been previously or are currently used for agriculture. Soil cover mostly includes weathered products derived from the Mancos Shale Formation and the Mount Garfield Formation. The major basin can also be classified as Group D hydrologic soil type.

FPP-95-104

II. EXISTING DRAINAGE CONDITIONS

A. Major Basin

The topography of the major basin is generally comprised of gentle slopes with rolling hills in the northeast section. The major basin generally slopes to the south from a high elevation of 4687 feet in the northeast corner to the Grand Valley Canal at the south with an elevation of 4660 feet. The major basin boundary is generally defined by city streets. Fifteenth street bounds the west side of the major basin from the canal to the parking lot of Grand Villa Assisted Living Residential Community. The boundary then extends southeast along the high points of the rolling hills southeast of Grand Villa until it intersects the curve in Wellington Avenue. The boundary then follows the Wellington Avenue curve as it intersects the old 17th Street thoroughfare and follows it to the canal. The major basin boundary then follows the canal maintenance road back to 15th street.

Irrigation ditches are scattered throughout the major basin. Irrigation water enters the major basin at the northeast extremity of the basin. Historically, all runoff drains into the Grand Valley Canal and there are no wetlands on the property.

The property as well as the major basin are zoned X (i.e. outside of the 500-year floodplain) by the National Flood Insurance Program. Though the Flood Insurance Rate Maps (FIRMs) do not necessarily identify all areas subject to flooding, no local features have been identified to suggest the FIRM is incorrect.

B. Site

Drainage patterns for the site are similar to those described for the major basin. Irrigation ditches follow the property lines on the north and east edges. The ditch on the north edge appears to have been used to distribute water to the property when it was used for

agriculture. The ditch bordering on the east diverts upstream flow and intercepts inflow from the neighboring pasture and directs the combined flow into a culvert discharging into the Grand Valley Canal. An unknown amount of inflow may enter the property at the low spot on the northern border. Since runoff has historically been discharged into the Grand Valley Canal, there have not been effects to downstream subbasins due to runoff from the site.

III. PROPOSED DRAINAGE CONDITIONS

A. Changes in Drainage Patterns

Drainage patterns in the major basin will not be affected due to changes in drainage patterns on the proposed property.

The property for the proposed development currently drains from north to south. The development will not alter the general slope direction. The discharge point is currently in the southeast corner of the property but will be relocated west approximately 425 feet to the southwest corner of the property.

Storm water routed to the street gutters will travel to the south end of the cul-de-sac to a single grate combination inlet box. The inlet grate and pipe will be able to convey the 2-year event to the detention pond. The 100-year event will produce an amount of water sufficient to overtop the sidewalk at the inlet grate and will be routed to the detention pond along a swale. Stormwater will be released from the detention pond at historic 2- and 100-year rates through a 2-stage discharge box.

The 2-stage discharge box is specified to have inside dimensions of 36 inches by 36 inches and be 20.4 inches high. The 2-year inlet will be located at the floor elevation of the detention pond. The 100-year inlet is the top of the box. From the discharge box, the storm water will travel through a 15 inch ADS pipe to the Grand Valley Canal.

The 2-year event peak flow rate will increase approximately 247% from historic flows, and the 100-year event peak flow rate will increase approximately 249% from historic flows. As a result in the increased peak flow rates, a detention basin volume of approximately 6000 cubic feet has been specified.

Drainage patterns in the proposed development will be affected by completion of the proposed development in several aspects as follows:

- Runoff will be channeled and diverted through engineered structures.
- Runoff will be diverted and detained at a detention pond in the southwest corner.
- Runoff will be discharged to the canal at or near historical 2-year and 100-year flows through a multistage discharge structure.

B. Maintenance Issues

The drainage system will be located within dedicated easements to insure access to all parts of the system. A homeowners association will be formed to accept responsibility of maintenance of the drainage system. Maintenance of the system will include:

- aesthetic maintenance,
- nuisance maintenance, and
- operations and structural maintenance.

The association will perform periodic inspections of the system and make necessary adjustments and repairs as well as maintain appropriate records of repairs.

IV. DESIGN CRITERIA & APPROACH

A. General Considerations

Master planning issues are limited in scope due to the planned discharge into the canal and the absence of downstream subbasins. The criteria affecting master planning are the same criteria driving the requirements to submit a drainage report.

The most significant site consideration was placement of the detention pond. The size and amount of impervious area of the proposed development governs a quantity of water must be detained. Placement of the detention basin near the outfall into the canal was desired to minimize site grading and use of underground sewers.

B. Hydrology

Design storm durations conform with Table VI-2 of the City of Grand Junction Storm Water Management Manual, June 1994 (SWMM). Rainfall intensity information will also be obtained from the SWMM without adjustment for basin area. Runoff calculations were performed using the Rational Method. Detention basin design was determined using the Modified Rational Method as outlined in the SWMM. Input parameters for the modeling methods were chosen in accordance with the procedures as outlined in the SWMM.

C. Hydraulics

Hydraulic calculations and methods followed those recommended in the SWMM. Input parameters were selected in accordance with standard engineering practices for the materials chosen for inlets, conveyance, and outlets

V. RESULTS AND CONCLUSIONS

A. Existing and Proposed Runoff Rates (2- and 100-year storm)

	Runoff Rates	
	2-Year Event (cfs)	100-Year Event (cfs)
Existing total site	1.07	3.10
Existing discharging to Grand Valley Canal	1.07	3.10
Proposed total site (after detention)	0.86	3.00
Proposed discharging to Grand Valley Canal (after detention)	0.86	3.00

B. Overall Compliance

The design of the proposed drainage system conforms to the requirements of the Grand Junction Stormwater Management Manual. The methods used to analyze stormwater quantities, rates, and volumes have been used in accordance with policy in Sections I through V of the SWMM. Criteria for approved methods were followed as outlined in Tables I-1, and I-2 of the SWMM.

VI. REFERENCES

United States Department of Agriculture, Soil Conservation Service. Soil Survey for Mesa County Colorado.

Colorado Water Conservation Board, Floodplain Information Index.

United States Federal Emergency Management Agency, National Flood Insurance Program, 1992 (July). *Flood Insurance Rate Map.*

County of Mesa, Colorado, 1992 (April). *Mesa County Storm Drainage Criteria Manual*

Intensity- Duration - Frequency Curves, Mesa County Colorado.

City of Grand Junction, Colorado. 1994 (June). *Stormwater Management Manual.*

Bras, Rafael L., 1990. *Hydrology.* Addison-Wesley Publishing Company, Inc., U.S.A.

NEENAH Foundry Company, 1989. *Construction Castings Catalog "R" 11th Edition.*

American Iron and Steel Institute, 1990. *Modern Sewer Design.* Johnson Design Group, Inc., Virginia

VII. APPENDICES

FPP-95-104

Original
Do NOT Remove
From Office

NICHOLS ASSOCIATES, INC.

Wellington Gardens
Drainage Areas

SUBBASIN	NO. OF LOTS	TOTAL AREA (SF/ACRES)	LOT AREA (SF/ACRES)	STREET AREA (SF/ACRES)	BUILDING AREA (SF/ACRES)	TOTAL AREA IMPERVIOUS (SF/ACRES)	TOTAL AREA LANDSCAPED (SF/ACRES)	% IMPERVIOUS
A	6	49984	35307	14677	11100	25777	24207	
		1.15	0.81	0.34	0.25	0.59	0.56	52%
B	6	43773	29150	14623	11100	25723	18050	
		1.00	0.67	0.34	0.25	0.59	0.41	59%
C	14	102325	78217	24108	25900	50008	52317	
		2.35	1.80	0.55	0.59	1.15	1.20	49%
Totals	26	196082	142674	53408	48100	101508	94574	
		4.50	3.28	1.23	1.10	2.33	2.17	
				27%	25%	52%	48%	

NOTES:
TOTAL AREA IMPERVIOUS = STREET AREA + BUILDING AREA
% IMPERVIOUS = TOTAL AREA IMPERVIOUS / TOTAL AREA

FPP-95-104

NICHOLS ASSOCIATES, INC.
751 Horizon Court - Suite 102
Grand Junction, Colorado 81506

26-May-95

Wellington Gardens

Runoff rates for Developed conditions.

BASIN	AREA SURFACE TYPE	AREA Ac.	RUNOFF COEF. C2	RUNOFF COEF. C100	REACH	LENGTH ft	SLOPE (S) %	V fps	2-Yr TIME MIN.	100-Yr TIME MIN.	INTENSITY Inches/Hour 2-Yr	INTENSITY Inches/Hour 100-Yr	DISCHARGE CFS (Q=CiA) 2-Yr	DISCHARGE CFS (Q=CiA) 10(
A	Landscaped	0.56	0.24	0.32	A-1	210	1.0	0.11	22.4	20.3				
	Paved & Roofs	0.59	0.93	0.95	A-2	560	1.5	2.50	3.7	3.7				
	Total/Average	1.15	0.60	0.64					26.2	24.1	0.96	2.57	0.66	1.90
B	Landscaped	0.41	0.24	0.32	B-1	180	1.0	0.12	20.8	18.8				
	Paved & Roofs	0.59	0.93	0.95	B-2	595	1.5	2.50	4.0	4.0				
	Total/Average	1.00	0.65	0.69					24.7	22.8	0.98	2.63	0.64	1.82
C	Landscaped	1.20	0.24	0.32	A-1	195	1.0	0.11	21.6	19.6				
	Paved & Roofs	1.15	0.93	0.95	A-2	400	1.5	2.50	2.7	2.7				
	Total/Average	2.35	0.58	0.63					24.3	22.3	1.00	2.70	1.36	3.98
												Sub-Total:	2.65	7.71
												Off site drainage:	0.00	0.00
	Total Ac./weighted C	4.50	0.60	0.65				MAX. Tc	26.2	24.1		TOTAL Q:	2.65	7.71

Original
Do NOT Remove
From Office
FPP-95-104

Wellington Gardens

Runoff rates for Historic conditions and amount increase due to development.

BASIN	AREA SURFACE TYPE	AREA Ac.	RUNOFF COEF. C2	RUNOFF COEF. C100	REACH	LENGTH ft	SLOPE (S) %	V fps	2-Yr TIME MIN.	100-Yr TIME MIN.	INTENSITY Inches/Hour 2-Yr	INTENSITY Inches/Hour 100-Yr	DISCHARGE CFS (Q=CiA) 2-Yr	DISCHARGE CFS (Q=CiA) 100-Yr
A	Native grass & scattered bushes	4.50	0.29	0.32	A-1	700	1.5	0.05	33.7	32.5				
	10" pipe				A-2	25	1.5	2.50	0.2	0.2				
	Total/Average	4.50	0.29	0.32					33.9	32.6	0.82	2.15	1.07	3.10
								MAX. Tc	33.9	32.6		TOTAL Qh:	1.07	3.10
												INCREASE:	1.58	4.61
													247%	249%

Wellington Gardens

Detention pond outlet oriface calculations.

Reservoir Release Rate Formula: Q=CA(2gH)^.5

Where: Q=Orifice flow in CFS
C=Coefficient
g=Gravitational constant
H=Height of water above the centroid of the orifice opening in feet
D=Orfice diameter
Qo=Discharge Rate

Subscripts: h = Historic flow
2 = Two year storm
100 = One hundred year storm
t = Top orifice
b = Bottom orifice
T = total

Where:
Q=Weir flow in CFS
C=Coefficient
L=Length of overflow
H=Depth from the weir crest to the pond water surface

Bottom orifice

The bottom orifice must pass the historic 2-year storm

Storage depth above centroid of lower orifice = 1.80

Q2= 1.07 Total Qh from page 2
C= 0.65
g= 32.20
Hb= 1.80
A (sf) = Q/C(2gH)^.5
= 0.153 **Inlet Dia = 5.30 "**
Qo= 0.86 **Opening 4.4 " x 5.0"**

Top orifice

The bottom & top orifices must pass the historic 100 Yr storm

Storage depth above bottom of top orfice =

C= 0.65
Ht= 0.6 Hb= 1.5
Bottom orifice Q=CA(2gH)^.5 where H = Hb + Ht
Qb= 1.14

Top orifice Q= Qh100 - Q bottom orifice
Qt= 3.47 CFS QT= 4.61 CFS
L= 144.0 " H= 7.0 " = 0.58 '
Qo= 3.00

36.0 "

36.0 "

Top view
Inside dimensions of box
L = Perimiter

Original
Do NOT Remove
From Office
FRP-95-104

Wellington Gardens

Street flow depth at the gutter for critical sections.

Flow Through Street, Curb & Gutter
Discharge quantity is calculated by the following formula:
Q=0.56*(Z/n)*S^.5*d^2.67

Where:

Q = Discharge in CFS (Cubic Feet per Second)
Z = Inverse pavement cross slope
n = Manning roughness coefficient
S = Longitudinal slope of the street or gutter
d = Depth of gutter flow in feet

Solving for maximum depth at gutter

Manning Roughness Coefficient= 0.016

Capacity For Storm Drain Inlets
curb opening length = grate length
Ponding Q= .6 A (2gH)^.5]
Clogging factors: grate=0.5, box=0.0
H2 = 0.5 Ft. H100 = 1.0 Ft.

Subbasin Drainage	Street Locn. ID	Inverse Pave. x slope 1/ft/ft	Min. Long. Slope S ft/ft	Required 2 Year Capacity Q CFS	2 year Water Depth d Ft.	100 Yr Capacity Q CFS	100 Yr Water Depth d Ft.	Grate Type NEENAH	Open Area Sq. Ft.	Capacity 2 Yr CFS	Required 2 Yr CFS	Capacity 100 Yr CFS	Required 100 Yr CFS
1	X	66.67	0.005	0.66	0.13	2.57	0.21	na		0.00	0.66	0.00	2.57
2	Y	66.67	0.005	0.64	0.12	2.63	0.21	na		0.00	0.64	0.00	2.63
3	Z	66.67	0.005	2.65	0.21	7.90	0.32	R-3246 C	2.08	7.08	2.65	10.01	7.90

Storm Drainage Pipe Capacities

Storm Drain Location	Pipe Diameter Inches	Slope Feet/Feet	Rough. Coeff. n	Capacity Q CFS	Required Q CFS	
S. End of Wellington Court	12	0.0050	0.010	3.3	2.6	ADS pipe
Detention Basin Discharge	15	0.0100	0.010	8.4	7.9	ADS pipe

FPR-95-104

Wellington Gardens
Required detention volume.

2 year storm detention volume			100 year storm detention volume	
A	4.50		A	4.50
Qo	0.856		Qo	2.997
Td2	32.29		Td100	32.57
Id2	0.85		Id100	2.03
Qd	2.28		Qd	5.91
K	1.29		K	1.35
V	2,788 Cu Ft	REQUIRED STORAGE	V	5,934 Cu Ft
Irrigation Storage:	0 Cu Ft			0 Cu Ft
Total required volume:	2,788 Cu Ft	TOTAL REQUIRED VOLUME:		5,934 Cu Ft

Original
Do NOT Remove
From Office

FPP-95-104

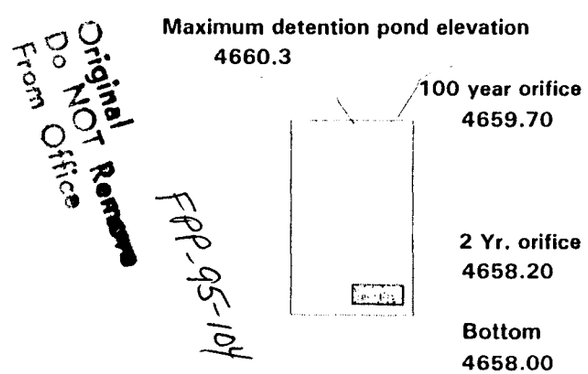
Wellington Gardens

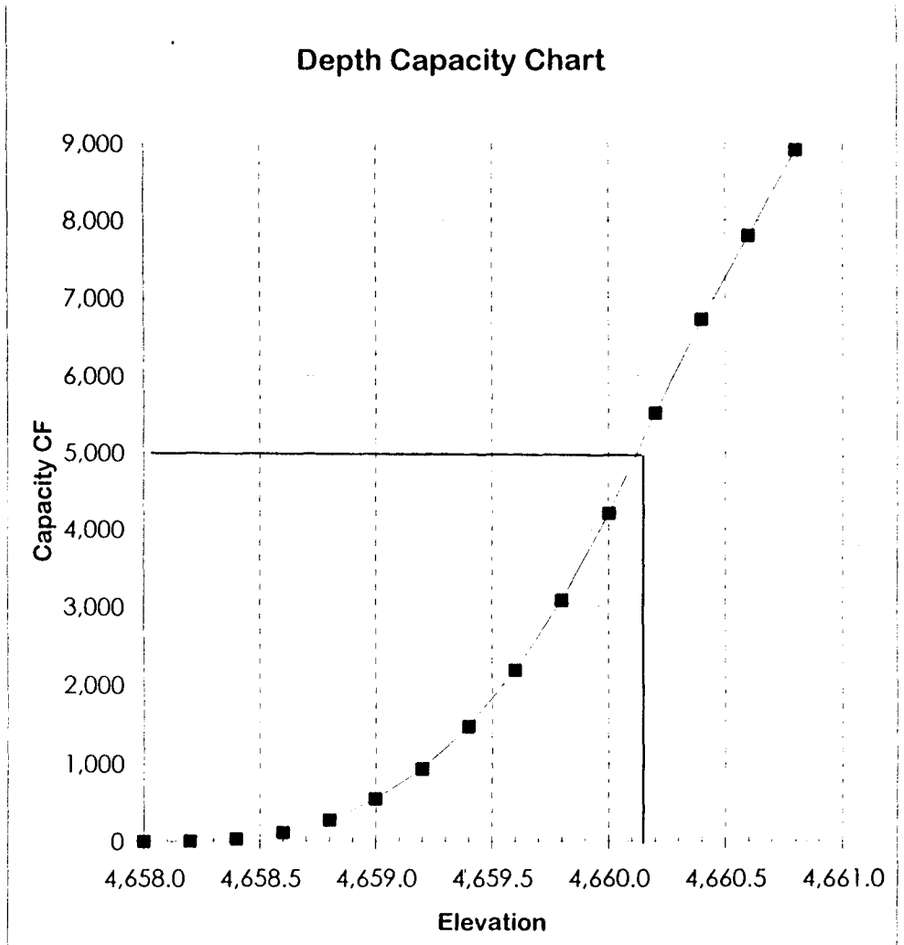
Detention pond depth vs capacity curve.

Elevation Ft.	Area Ft. Sq.	Volume Cu. Ft.	Accum. Volume Cu. Ft.
4,658.0	0	0	0
4,658.2	82	5	5
4,658.4	260	33	38
4,658.6	566	115	121
4,658.8	1,110	165	285
4,659.0	1,600	270	555
4,659.2	2,280	386	941
4,659.4	3,100	536	1,477
4,659.6	4,046	713	2,189
4,659.8	4,961	899	3,088
4,660.0	6,200	1,114	4,202
4,660.2	6,900	1,309	5,511
4,660.4	5,250	1,211	6,723
4,660.6	5,500	1,075	7,798
4,660.8	5,589	1,109	8,906
4,661.0	5,679	1,127	10,033

Storage Required Below 100 Yr Orfice: **2,787.94**

TOTAL STORAGE REQUIREMENT: 5,934.





REVIEW COMMENTS

FILE #FPP-95-104

TITLE HEADING: Final Plat/Plan - Wellington Gardens, Filing #1

LOCATION: SE corner of 15th & Wellington

PETITIONER: Chaparral West

PETITIONER'S ADDRESS/TELEPHONE: 626 32 Road
Clifton, CO 81520
434-2160

PETITIONER'S REPRESENTATIVE: Tom Cost

STAFF REPRESENTATIVE: Michael Drollinger

NOTE: THE PETITIONER IS REQUIRED TO SUBMIT FOUR (4) COPIES OF WRITTEN RESPONSE AND REVISED DRAWINGS ADDRESSING ALL REVIEW COMMENTS ON OR BEFORE 5:00 P.M., JUNE 27, 1995.

CITY FIRE DEPARTMENT **6/7/95**
Hank Masterson **244-1414**

1. The proposed north hydrant on Wellington Court should be moved 50' north to the end of the line extension for better Fire Department accessibility.
2. Minimum fire line size is 6" for one and two family dwellings, and 10" for multi-family dwellings.

GRAND VALLEY IRRIGATION DISTRICT **6/8/95**
Phil Bertrand **242-2762**

1. See attached **comment sheets** dated **10/11/94 and 11/18/94.**
2. Please note we now have a new discharge agreement that must be acknowledged and signed before any surface water can be allowed to enter our canal system.

GRAND JUNCTION DRAINAGE DISTRICT **6/6/95**
John L. Ballagh **242-4343**

The site is north of the Grand Junction Drainage District boundary. As long as surface runoff is directed to the GVIC canal the Drainage District will not be directly affected. Should this owner or any future owners wish to drain into the Logan Drain system which is a GJDD facility just south of the canal there must first be contact and conversation and upgrade of about a mile of pipe in the Logan Drain. That subsurface drain is at capacity handling subsurface water. Any surface runoff introduced into the system causes problems. No surface runoff can be added to the Logan Drain without downstream improvements.

CITY PARKS & RECREATION **6/8/95**
Shawn Cooper **244-1549**

The Parks & Recreation Department request a twenty foot (20') trail easement be dedicated along the north side of the Grand Valley Canal to establish a trail in this area, as recommended by the multi-modal transportation plan. It appears that acquisition of trail easements may be possible along a significant portion of the north side of the Grand Valley Canal from 29 Road to 15th Street, thus requiring less trail on the canal company's property thereby simplifying the process of coordinating trails on canal right-of-way.

Open Space fees will apply.

CITY DEVELOPMENT ENGINEER **6/9/95**
Jody Kliska **244-1591**

See attached comments and red-lined plans and plat.

MESA COUNTY SCHOOL DISTRICT #51 **6/12/95**
Lou Grasso **242-8500**

Following impact is for Filing #1 only.

SCHOOL	CURRENT CAPACITY/ENROLLMENT	IMPACT
Orchard Avenue Elementary	455 / 375	3
East Middle School	435 / 465	2
Grand Junction High School	1548 / 1630	2

CITY POLICE DEPARTMENT **6/8/95**
Dave Stassen **244-3587**

1. Is there going to be any type of fencing around this project? If so, I would recommend some type of transparent fencing such as low pickets or low wrought iron.
2. What will the lighting be like around the structures? There should be some low level lighting at all the garage areas and all of the larger open areas (west end of Block 1 and NE/SE corners of block 2).
3. Are the entrances to the private drives going to be made of the same material as the roadway? It would be a good idea to make the pedestrian walkways across these drives of some different substance to increase the perception of territorial reinforcement.

CITY PROPERTY AGENT **6/16/95**
Steve Pace **244-1450**

1. In the dedication, the property description should reflect the whole property as described in Book 2121, Page 247, not just the lotted portion.
2. The 25' canal easement needs to be described in the dedication.
3. The ingress-egress/utility easement, should be labeled pedestrian/utility easement.

4. Irrigation and detention/retention easements are described in the dedication but are not labeled on the plat.
5. There are missing dimensions for easements in both Blocks 1 and 2.
6. There are missing dimensions along the west, south and east lines of the subject property.
7. The area summary should show lots, right-of-way and future filings acreage.
8. The drainage easement book and page numbers are missing.

CITY UTILITY ENGINEER **6/16/95**
Trent Prall **244-1590**

NARRATIVE
1. Gargage should be garage.
2. Other spelling errors as well.

IMPROVEMENTS LIST / DETAIL
1. Under sanitary sewer add quantities and unit prices to the following:
   a. Cut and remove asphalt
   b. Connection to existing manhole
   c. Aggregate base course
   d. Pavement replacement
2. Under domestic water add quantities and unit prices to the following:
   a. Cut and remove asphalt
   b. Pavement replacement
   c. Aggregate Base Course - Lump Sum?????

FINAL PLAT
1. 20' easement required for sewer. 15' easement for water line.
2. Multipurpose easement required down North 15th Street.

COMPOSITE PLAN
1. Gas and electric lines dead end at north end of Wellington, should probably tie into existing lines somewhere.

SEWER AND WATER PLAN
1. Water connection shown in the middle of Cul-de-sac is impossible to construct.
2. Profile: detention pond should be shown on proposed grade.
3. Profile: waterline crossings should be shown.
4. Need to show bend in water line 130' south of Wellington Avenue.

COMMUNITY DEVELOPMENT DEPARTMENT **6/14/95**
Michael Drollinger **244-1439**

See attached comments.

LATE COMMENTS

PUBLIC SERVICE COMPANY **6/20/95**
Dale Clawson **244-2695**

No objections.

GRAND VALLEY WATER USERS **6/28/95**
Richard Proctor **242-5065**

Grand Valley Water Users Association has no comments concerning this project at this time.

TO DATE, COMMENTS NOT RECEIVED FROM:

City Attorney
Mesa County Surveyor
U.S. West
U.S. Postal Service

REVIEW AGENCY COVER SHEET

Community Development Department
250 North 5th Street Grand Junction, CO 81501
(303) 244-1430

FPP 95-104

FILE NO. 163 94

Petitioner Please Fill In:

Review Agency

IRRIGATION Distr.
G.V. Irrigation Co.

Return to Community Development By 10/17/94

Staff Planner Tom Dixon

COMMENTS

Petitioner Please Fill In:

at 15th

PROPOSAL Wellington ~~Gardens~~

LOCATION SE Corner 15th & Wellington Grand Junction Co.

ENGINEER/REPRESENTATIVE QED and Nichols & Associates (1018 Colorado Ave) (751 Horizon Dr)

PETITIONER Chaparral West, Inc. Ronald A Abeloe

ADDRESS 626 32 Rd Clifton, Co 81520

PHONE NO 303-434-2160

The Canal right of way must be honored and respected. No vertical or horizontal encroachment will be permitted. (25 feet of unobstructed ROW from waters' edge.)

Surface and sub surface drainage for this development must be addressed correctly to not cause injury or damage to our Canal ROW or delivery system.

Drainage, soil survey, and utility plan must be known and reviewed before approval can be given.

No irrigation water for this development will be allowed from our system.

Final plat must show Canal ROW from waters edge.

RECEIVED GRAND
PLANNING DEP
JUN 9 RECD

Use Additional Sheets If Necessary And Refer To File Number

REVIEWED BY Phil Bertrand PHONE 303-242-2762 DATE 10/11/94

REVIEW AGENCY COVER SHEET

Community Development Department
250 North 5th Street Grand Junction, CO 81501
(303) 244-1430

FPP-95-104

FILE NO. 163-94

Petitioner Please Fill In:

Review Agency
Grand Valley Irrigation Company

Petitioner Please Fill In:

PROPOSAL Wellington @ 15th
LOCATION SE Corner 15th & Wellington
ENGINEER/REPRESENTATIVE QED and Nichols & Associates
PETITIONER Ron Abeloe
ADDRESS 626 32 Rd Clifton 81520
PHONE NO 303-434-2160

Return to Community Development By 11/28/94
Staff Planner Kristen

*** FOR REVIEW AGENCY USE ONLY ***

* Revised Plan

1. Final plat must state "25 feet Grand Valley Irrigation Company canal right-of-way from waters edge. "
2. Natural normal storm flows will be allowed to enter canal system provided it is not a source of pollution.
3. No vertical or horizontal encroachment of the canal ROW will be allowed.
4. NO source of irrigation water will be allowed from our system for this development.
5. A NO TRESPASS policy is in place for our Company Canal system.

RECEIVED GRAND JUNCTION PLANNING DEPARTMENT
JUN 9 RECD

Use Additional Sheets If Necessary And Refer To File Number

REVIEWED BY Phil Bertrand PHONE 242-2762 DATE 11/18/94

June 9, 1995

REVIEW COMMENTS FOR: **FPP-95-104**

TYPE OF REVIEW: **Final Plans & Plat**

REVIEWED BY: **Jody Kliska**

General

1. The geotechnical report did not address pavement design. Please submit the pavement design.

2. A sign plan showing the private drive signing is required. It should show the location and placement of signs, show the size and text of the signs.

3. On the same drawing as #2, show the pavement section detail of the private drives. This should be consistent with the Planning Commission approval.

4. Please clarify the phasing of this development as it relates to the construction of public facilities. The narrative indicates three phases. The construction plans and improvements agreement detail appear to be constructing all of the public street and drainage facilities.

5. Improvements agreement detail - Item 1-7 shows a quantity but no price. Is this for backfill material? Item 3-8 curb, gutter and sidewalk - $12/lf is too low. City's low bid on a recent project was $3.65/sq. foot for this, excluding curb ramps. Item 5-5, construction traffic control does not show any amount, but there will be utility connection work on 15th Street and the improvements on Wellington which will require traffic control and a permit from the City Engineer's office by your contractor.

Plat

6. There are inconsistencies between the plat and the construction plans which must be addressed. Please see the redlined plat and plans.

7. There are no easements shown for the water and sewer line connections. These must be shown and dedicated.

8. The canal easement shown on the plat is not dedicated. The approval by Planning Commission for the preliminary plan was

specific about the dedication.

9. The construction plans call for an easement along the eastern property boundary and also indicate there is an existing storm drain line. There should be an easement provided for this.

10. The detention pond must be constructed with the first phase and must be shown and dedicated on the plat. The area shown on the plat does not appear to be consistent with the size of the detention pond shown on the plans. There is dedication language but no easement shown.

11. The drawing shows an ingress, egress & utility easement, but the dedication is for a pedestrian/utility easement. The labeling must be consistent.

12. The dedication calls for an irrigation easement, but none is shown on the drawing. What are the plans for irrigation?

13. The project narrative describes a blanket easement for the maintenance of the front and rear yards as well as any common open space and site detention areas. I don't see any common open space, or any blanket maintenance easement.

14. The street construction plans show a curve into the cul-de-sac that is not shown on the plat.

Composite Plan

15. Please note what the desired treatment of the existing utility poles on Wellington will be. Showing the existing poles remaining in the sidewalk is not acceptable.

Site Plan

16. Please remove the water meter pit locations from this drawing. It is difficult to decipher. The manhole elevations and coordinates are also not necesary. The intent of this drawing is to show the layout of the buildings, drives, and off-site parking.

Street Plans

17. Please provide roadway cross-sections for the Wellington Avenue improvements (SSID IX-27) so I can see the cross-slopes and make sure we won't end up with duck ponds where the new pavement meets the existing. Also, the resident to the north was concerned at the preliminary plan stage that drainage (perhaps the irrigation ditch discharge mentioned in the drainage report?) along Wellington was not adversely affected by the street improvements.

18. Add a note to the detail for the Wellington Avenue section to wheel cut or jack hammer a neat line at the existing pavement

for the joint with the new pavement. The joint should be sealed with an approved polymerized crack fill material.

19. A pavement design must be submitted to confirm the pavement structural section shown on the plans.

20. Please show the radii at the intersection of Wellington Court with Wellington Avenue. Also show the radius at the cul-de-sac.

21. Add street name sign to the stop sign location.

Sewer Plans

22. Please show the crossing of the storm drain line with the sewer line on the profile, as well as the grade of the detention pond where the sewer line is beneath it.

Storm Drainage Plan

23. Please provide the elevations for the top, toe of slope on the plan for the detention pond. On the profile or other detail, please provide the elevations for the top of the box and the 2 year storm opening. These are in the drainage report, but not shown on the plans.

24. Please indicate how the pond will be treated for landscaping. The SWMM Manual has maximum slopes for various surface treatments and 2:1 slopes are too steep for seeded slopes. I am also concerned with the slope of the pond in relation to the sidewalk on 15th Street. Do you have a profile showing the sidewalk in relation to the steepest area of the detention pond? We may require installation of some sort of railing or protection.

STAFF REVIEW

FILE: FP 95-104
DATE: June 14, 1995
STAFF: Michael T. Drollinger
REQUEST: Major Subdivision Final Plan/Plat Filing #1
LOCATION: SE Corner 15th Street and Wellington Avenue
EXISTING ZONING: PR-8

STAFF COMMENTS:

1. Setbacks as detailed in the project narrative are not clear. Also, the building placement on the Site Plan drawing conflict with the easements (e.g. the multi-purpose easements between lots) as shown on the plat. We require one of the following to be done to clarify the confusion:

   a. The building footprints be shown on the Site Plan which will be recorded along with the plat. All buildings would be required to be built within the footprints; expansion of the building footprint would require a Final Plan amendment. Also, please DELETE the utility information from the Site Plan.

   b. Building envelopes rather than footprints could be shown on the Site Plan which would be recorded together with the plat.

REGARDLESS of which option is chosen, the common access driveways should be designated as separate tracts on the plat, not as easements. The Site Plan drawing for recording should also show Filing #1 information ONLY.

2. The common driveway standards developed by the City and made part of the preliminary approval for this project called for the provision of four (4) off-street visitor parking spaces for each drive that has greater than four (4) units. The western common driveway in Filing #1 must be modified to meet this standard as it presently does not.

3. The reduction in development density as proposed in conjunction with the changes in the site layout represents a significant change in the overall site development plan. The Zoning and Development Code permits the Community Development Director to require an amended preliminary plan when the final plan submitted changes significantly from the approved preliminary plan. Please supply an appropriately labeled "amended preliminary plan" for consideration at the Planning Commission hearing. The plan should reflect the changes in site circulation and development density proposed in addition detailing future phasing.

4. The Zoning and Development Code and the SSID manual require that the covenants be submitted for review with the application submittal. No covenants were submitted with the

application and must be submitted with the response to comments.

5. A copy of the discharge agreement with the irrigation company must be submitted.

6. Landscaping plans not per SSID manual - see attached checklist for details of deficiencies. In general, plans AND text must be oriented with north to the top of the sheet. All plant species must be clearly labeled along with quantities and minimum sizes. Suggest that landscaping consultant arrange a meeting with staff to review specifics. As with the Site Plan, the Landscape Plan shall show the information for Filing #1 only unless all the landscaping shown on the plan will be completed with Filing #1.

ALL DEFICIENCIES AND REQUESTS FOR INFORMATION MUST BE SUBMITTED WITH THE RESPONSE TO COMMENTS. Section 6-8-3 of the Zoning and Development Code permits the CD Director to withdraw the Final Plat from the agenda if all deficiencies are not resolved to his satisfaction.

You are urged to contact the Community Development Department if you require clarification or further explanation of any items.

h:\cityfil\1995\95-104.wpd

June 12, 1995

REVIEW COMMENTS FOR: **FPP-95-104**

TYPE OF REVIEW: **Final Plans & Plat**

REVIEWED BY: **Jody Kliska**

General

1. The geotechnical report did not address pavement design. Please submit the pavement design.

2. A sign plan showing the private drive signing is required. It should show the location and placement of signs, show the size and text of the signs.

3. On the same drawing as #2, show the pavement section detail of the private drives. This should be consistent with the Planning Commission approval.

4. Please clarify the phasing of this development as it relates to the construction of public facilities. The narrative indicates three phases. The construction plans and improvements agreement detail appear to be constructing all of the public street and drainage facilities.

5. Improvements agreement detail - Item 1-7 shows a quantity but no price. Is this for backfill material? Item 3-8 curb, gutter and sidewalk - $12/lf is too low. City's low bid on a recent project was $3.65/sq. foot for this, excluding curb ramps. Item 5-5, construction traffic control does not show any amount, but there will be utility connection work on 15th Street and the improvements on Wellington which will require traffic control and a permit from the City Engineer's office by your contractor.

Plat

6. There are inconsistencies between the plat and the construction plans which must be addressed. Please see the redlined plat and plans.

7. There are no easements shown for the water and sewer line connections. These must be shown and dedicated.

8. The canal easement shown on the plat is not dedicated. The approval by Planning

Commission for the preliminary plan was specific about the dedication.

9. The construction plans call for an easement along the eastern property boundary and also indicate there is an existing storm drain line. There should be an easement provided for this.

10. The detention pond must be constructed with the first phase and must be shown and dedicated on the plat. The area shown on the plat does not appear to be consistent with the size of the detention pond shown on the plans. There is dedication language but no easement shown.

11. The drawing shows an ingress, egress & utility easement, but the dedication is for a pedestrian/utility easement. The labeling must be consistent.

12. The dedication calls for an irrigation easement, but none is shown on the drawing. What are the plans for irrigation?

13. The project narrative describes a blanket easement for the maintenance of the front and rear yards as well as any common open space and site detention areas. I don't see any common open space, or any blanket maintenance easement.

14. The street construction plans show a curve into the cul-de-sac that is not shown on the plat.

Composite Plan

15. Please note what the desired treatment of the existing utility poles on Wellington will be. Showing the existing poles remaining in the sidewalk is not acceptable.

Site Plan

16. Please remove the water meter pit locations from this drawing. It is difficult to decipher. The manhole elevations and coordinates are also not necesary. The intent of this drawing is to show the layout of the buildings, drives, and off-site parking.

Street Plans

17. Please provide roadway cross-sections for the Wellington Avenue improvements (SSID IX-27) so I can see the cross-slopes and make sure we won't end up with duck ponds where the new pavement meets the existing. Also, the resident to the north was concerned at the preliminary plan stage that drainage (perhaps the irrigation ditch discharge mentioned in the drainage report?) along Wellington was not adversely affected by the street improvements.

18. Add a note to the detail for the Wellington Avenue section to wheel cut or jack hammer a neat line at the existing pavement for the joint with the new pavement.

The joint should be sealed with an approved polymerized crack fill material.

19. A pavement design must be submitted to confirm the pavement structural section shown on the plans.

20. Please show the radii at the intersection of Wellington Court with Wellington Avenue. Also show the radius at the cul-de-sac.

21. Add street name sign to the stop sign location.

Sewer Plans

22. Please show the crossing of the storm drain line with the sewer line on the profile, as well as the grade of the detention pond where the sewer line is beneath it.

Storm Drainage Plan

23. Please provide the elevations for the top, toe of slope on the plan for the detention pond. On the profile or other detail, please provide the elevations for the top of the box and the 2 year storm opening. These are in the drainage report, but not shown on the plans.

24. Please indicate how the pond will be treated for landscaping. The SWMM Manual has maximum slopes for various surface treatments and 2:1 slopes are too steep for seeded slopes. I am also concerned with the slope of the pond in relation to the sidewalk on 15th Street. Do you have a profile showing the sidewalk in relation to the steepest area of the detention pond? We may require installation of some sort of railing or protection.

Wellington Gardens
Response to Comments

prepared June 29, 1995

NICHOLS
ASSOCIATES, INC.

June 29, 1995

Development Staff
City of Grand Junction, Colorado

Ladies and Gentlemen:

The Review Comments for the Final Plat/Plan - Wellington Gardens, Filing 1, have been received and the Response to Comments are enclosed.

Prepared by:
Terry D. Nichols
State of Colorado, Number 12093
Registered Professional Engineer

Eric C. Marquez
State of Colorado, Number 19097
Engineer In Training

Max E. Morris
State of Colorado, Number 16413
Registered Land Surveyor

City Fire Department

Comment:

The proposed north hydrant on Wellington Court should be moved 50' north to the end of the line extension for better Fire Department accessibility.

Response:

The fire hydrant has been moved 50' north on the revised plans.

Comment:

Minimum Fire line size is 6" for one and two family dwellings, and 10" for multi-family dwellings.

Response:

The plan calls for a 10" water main in Wellington Court. The fire hydrants will be connected to the 10" main.

Grand Valley Irrigation District

Comment:

The canal right-of-way must be honored and respected. No vertical or horizontal encroachment will be permitted. (25 feet of unobstructed ROW from waters' edge.)

Response:

A 25-foot, non-exclusive easement from water's edge is shown on the plat.

Comment:

Surface and subsurface drainage for this development must be addressed correctly to not cause injury or damage to our canal ROW or delivery system.

Response:

A drainage plan and report has been provided to development staff.

Comment:

Drainage, soil survey, and utility plan must be known and reviewed before approval can be given.

Response:

Drainage plans, utility plans, and a geotechnical report have been provided to development staff.

Comment:

No irrigation water for this development will be allowed from our system.

Response:

Irrigation water will not be illegally removed from the Grand Valley Canal.

Comment:
Final plat must show Canal ROW from waters edge.
Response:
A 25-foot, non-exclusive easement from water's edge is shown on the plat for filings 2 and 3.

(Revised plan)

Comment:
Final plat must state " 25 feet Grand Valley Irrigation Company canal right-of-way from waters edge."
Response:
A 25-foot, non-exclusive easement from water's edge will be shown on the plat for filings 2 & 3.

Comment:
Natural normal storm flows will be allowed to enter canal system provided it is not a source of pollution.
Response:
The storm drainage system is designed to release the 2- and 100-year storms at their respective historic runoff rates.

Comment:
No vertical or horizontal encroachment of the canal ROW will be allowed.
Response:
A 25-foot, non-exclusive easement from water's edge will be shown on the plat for filings 2 and 3.

Comment:
No source of irrigation water will be allowed from our system for development.
Response:
Irrigation water owned by the developer will be used for the irrigation requirements of the development.

Comment:
A NO TRESPASS policy is in place for our Company Canal system.
Response:
A 25-foot, non-exclusive easement from water's edge is shown on the Site Plan. The request for a Right-of-Way dedication and NO TRESPASS policy conflicts with the options approved by the City of Grand Junction Planning Commission (see minutes from December 13, 1994 Planning Commission Hearing).

Comment:

Please note we now have a new discharge agreement that must be acknowledged and signed before any surface water can be allowed to enter our system.

Response:

The discharge agreement has been signed and a copy of the signed agreement is attached.

Grand Junction Drainage District

Comment:

The site is north of the Grand Junction Drainage District boundary. As long as surface runoff is directed to the GVIC canal the Drainage District will not be directly affected. Should this owner or any future owners wish to drain into the Logan Drain system which is a GJDD facility just south of the canal there must first be contact and conversation and upgrade of about a mile of pipe in the Logan Drain. That subsurface drain is at capacity handling subsurface water. Any surface runoff introduced into the system causes problems. No surface runoff can be added to the Logan Drain without downstream improvements.

Response:

The Logan Drain will not be used by the developer unless an agreement has been made with the Grand Junction Drainage District.

City Parks and Recreation

Comment:

The Parks and Recreation Department request a twenty foot (20') trail easement be dedicated along the north side of the Grand Valley Canal to establish a trail in this area, as recommended by the multi-modal transportation plan. It appears that acquisition of trail easements may be possible along a significant portion of the north side of the Grand Valley Canal from 29 Road to 15th Street, thus requiring less trail on the canal company's property thereby simplifying the process of coordinating trails on canal right-of-way.

Response:

A 25-foot, non-exclusive easement from water's edge is shown on the Site Plan.

Comment:

Open Space fee will apply.

No response required.

City Development Engineer

Comment:

The geotechnical report did not address pavement design. Please submit the pavement design.

Response:

The pavement design is included in the response package.

Comment:
A sign plan showing the private drive signing is required. It should show the location and placement of signs, show the size and text of the signs.
Response:
A sign plan is included.

Comment:
On the same drawing as #2, show the pavement section detail of the private drives. This should be consistent with the Planning Commission approval.
Response:
The pavement section detail for the private drives is shown on the sign plan.

Comment:
Please clarify the phasing of this development as it relates to the construction of public facilities. The narrative indicates three phases. The construction plans and improvements agreement detail appear to be constructing all of the public street and drainage facilities.
Response:
The development will be constructed in three phases as shown on the revised plans. Drainage and utility easements will be recorded prior to recording the plat.

Comment:
Improvements agreement detail - item 1-7 shows a quantity but no price. Is this for backfill material? Item 3-8 curb, gutter and sidewalk - $12/if is too low. City's low bid on a recent project was $3.65/sq. foot for this, excluding curb ramps. Item 5-5, construction traffic control does not show any amount, but there will be utility connection work on 15th Street and the improvements on Wellington which will require traffic control and a permit from the City Engineer's office by your contractor.
Response:
A revised improvements agreement detail is included. Item 1-7 is for base gravel under the asphalt replacement a price of $200 has been added. Item 3-8 has been revised to $22.00 per linear foot. Item 5-5 has been changed to include $1,000 for traffic control

Comment:
There are inconsistencies between the plat and the construction plans which must be addressed. Please see the redlined plat and plans.
Response:
The redlined plat and plans have been changed to address the inconsistencies as noted.

Comment:
There are no easements shown for the water and sewer line connections. These must be shown and dedicated.
Response:
Easements have been added for the sewer and water main connections.

Comment:

The canal easement shown on the plat is not dedicated. The approval by Planning Commission for the preliminary plan was specific about the dedication.

Response:

A 25-foot, non-exclusive easement from water's edge is shown on the plat.

Comment:

The construction plans call for an easement along the eastern property boundary and also indicate there is an existing storm drain line. There should be an easement provided for this.

Response:

There currently is not a storm drain line along the east line of the property. A multi-purpose easement has been added to the plant long the east line of the property.

Comment:

The detention pond must be constructed with the first phase and must be shown and dedicated on the plat. The area shown on the plat does not appear to be consistent with the size of the detention pond shown on the plans. There is dedication language but no easement shown.

Response:

The detention pond will be constructed with the first phase of construction. The plat has been changed to show the detention pond area as an easement and the area has been modified to be consistent with the plans.

Comment:

The drawing shows an ingress, egress & utility easement, but the dedication is for a pedestrian/utility easement. The labeling must be consistent.

Response:

Labeling has been corrected on the revised plat.

Comment:

The dedication calls for an irrigation easement, but none is shown on the drawing. What are the plans for irrigation?

Response:

The language calling for an irrigation easement has been removed from the plat. Irrigation water will be proved with a gravity system and will be delivered in the multipurpose easements.

Comment:

The project narrative describes a blanket easement for the maintenance of the front and rear yards as well as any common open space and site detention areas. I don't see any common open space, or any blanket maintenance easement.

Response:

The narrative has been revised and the language describing a blanket easement for maintenance has been removed. Maintenance access to the lot is granted in the covenants.

Comment:

The street construction plans show a curve into the cul-de-sac that is not shown on the plat.

Response:

The curve shown on the street plans provides construction details for the cul-de-sac and does not deviate from the plat location for the street.

Comment:

Please note what the desired treatment of the existing utility poles on Wellington will be. Showing the existing poles remaining in the sidewalk is not acceptable.

Response:

A note has been added stating the existing utility poles are to be removed and the utility lines are to be relocated underground in the utility easement provided.

Comment:

Please remove the water meter pit locations from this drawing. It is difficult to decipher. The manhole elevations and coordinates are also not necessary. The intent of this drawing is to show the layout of the buildings, drives, and off-site parking.

Response:

The water meter pit locations have been removed from the Site Plan.

Comment:

Please provide roadway cross-sections for the Wellington Avenue improvements (SSID IX-27) so I can see the cross-slopes and make sure we won't end up with duck ponds where the new pavement meets the existing. Also, the resident to the north was concerned at the preliminary plan stage that drainage (perhaps the irrigation ditch discharge mentioned in the drainage report?) along Wellington was not adversely affected by the street improvements.

Response:

Five roadway cross-sections for Wellington Avenue have been added to the Sign Plan.

Comment:
Add a note to the detail for the Wellington Avenue section to wheel cut or jack hammer a neat line at the existing pavement for the joint with the new pavement. The joint should be sealed with an approved polymerized crack fill material.
Response:
A note has been added to the monolithic curb incorporating the comment.

Comment:
A pavement design must be submitted to confirm the pavement structural section shown on the plans.
Response:
A pavement design is included in the response package.

Comment:
Please show the radii at the intersection of Wellington Court with Wellington Avenue. Also show the radius at the cul-de-sac.
Response:
The radii are shown on the revised plans.

Comment:
Add street name sign to the stop sign location.
Response:
A street name sign has been included in the revised plans.

Comment:
Please show the crossing of the storm drain line with the sewer line on the profile, as well as the grade of the detention pond where the sewer line is beneath it.
Response:
The storm drain line and sewer line crossing, and the grade of the detention pond are shown on the revised plans.

Comment:
Please provide the elevations for the top, toe of slope on the plan for the detention pond. On the profile or the other detail, please provide the elevations for the top of the box and the 2 year storm opening. These are in the drainage report, but not shown on the plans.
Response:
Elevations for the top and toe of slope are shown on the revised plans. Elevations for the top of box and the 2-year storm opening are shown on the revised plans.

Comment:
Please indicate how the pond will be treated for landscaping. The SWMM Manual has maximum slopes for various surface treatments and 2:1 slopes are too steep for seeded slopes. I am also concerned with the slope of the pond in relation to the sidewalk on 15th

Street. Do you have a profile showing the sidewalk in relation to the steepest area of the detention pond? We may require installation of some sort of railing or protection.

Response:

The pond will be rip-rapped as shown on the revised plans. A profile showing the sidewalk in relation to the steepest area of the detention pond is shown on the revised Storm Drainage Plan.

Mesa County School District #51

Comment:

Following impact for is for filing #1 only

SCHOOL	CURRENT CAPACITY/ENROLLMENT	IMPACT
Orchard Avenue Elementary	455/375	3
East Middle School	435/465	2
Grand Junction High School	1548/1630	2

No Response Required

City Police Department

Comment:

Is there going to be any type of fencing around this project? If so, I would recommend some type of transparent fencing such as low pickets or low wrought iron.

Response:

Split rail fencing will be installed.

Comment:

What will the lighting be like around the structures? There should be some low level lighting at all the garage areas and all of the larger open areas (west end of Block 1 and NE/SE corners of block 2).

Response:

Typical outdoor building lighting will be located at exterior doorways.

Comment:

Are the entrances to the private drives going to be made of the same material as the roadway? It would be a good idea to make the pedestrian walkways across these drives of some different substance to increase the perception of territorial reinforcement.

Response:

Private drives will be made of the same material as the roadway.

City Property Agent

Comment:

In the dedication, the property description should reflect the whole property as described in Book 2121, Page 247, not just the lotted portion.

Response:
Easements will be recorded before the plat is recorded. Book and page numbers will be inserted on the plat.

Comment:
The 25' canal easement needs to de described in the dedication.
Response:
This easement will be included in filings 2 and 3.

Comment:
The ingress-egress/utility easement, should be labeled pedestrian/utility easement.
Response:
Labeling has been changed.

Comment:
Irrigation and detention/retention easements are described in the dedication but are not labeled on the plat.
Response:
The plat has been revised. The detention pond easements will be recorded as a separate document.

Comment:
There are missing dimensions in both Block 1 and 2.
Response:
Plat has been revised.

Comment:
There are missing dimensions along the west, south and east lines of the subject property.
Response:
Plat has been revised.

Comment:
The area summary should show lots, right-of-way and future filings acreage.
Response:
Plat has been revised.

Comment:
The drainage easement book and page numbers are missing.
Response:
Plat has been revised.

City Utility Engineer

Comment:
Gargage should be garage.
Response:
Spelling errors have been corrected.

Comment:
Other spelling errors as well.
Response:
Spelling errors have been corrected.

Comment:
Under sanitary sewer add quantities and unit prices to the following:
Cut and remove asphalt
Connect to existing manhole
Aggregate base course
Pavement replacement
Response:
Quantities and unit prices have been added to the revised improvement list/detail.

Comment:
Under domestic water add quantities and unit prices to the following:
Cut and remove asphalt
Pavement replacement
Aggregate base course - lump sum
Response:
Quantities and unit prices have been added to the revised improvement list/detail.

Comment:
20' easement required for sewer. 15' easement for water line.
Response:
Easements have been added and are shown on the revised plat.

Comment:
Multipurpose easement required down North 15th Street.
Response:
A multipurpose easement has been added on the west side of the property, along 15th Street.

Comment:
Gas and electric lines dead end at north end of Wellington, should probably tie into existing lines somewhere.

Response:
The composite plan has been revised.

Comment:
Water connection shown in the middle of cul-de-sac is impossible to construct.
Response:
The connection bas been modified as shown on the Sewer and Water Plan.

Comment:
Profile: detention pond should be shown on proposed grade.
Response:
The profile of the detention pond above the sewer main is shown on the revised Sewer and Water Plans.

Comment:
Profile: waterline crossings should be shown.
Response:
Water main crossings have been added to the revised plans.

Comment:
Need to show bend in waterline 130' south of Wellington Avenue.
Response:
The degree of deflection has been added to the revised plans.

Community Development Department

Comment:
Setbacks as detailed in the project narrative are not clear. Also, the building placement on the site plan drawing conflict with the easements (e.g. the multi-purpose easements between lots) as shown on the plat. We require one of the following to be done to clarify the confusion:

- The building footprints be shown on the Site Plan which will be recorded along with the plat. All buildings would be required to be built within the footprints; expansion of the building footprint would require a Final Plan amendment. Also, please DELETE the utility information from the Site Plan.

- Building envelopes rather than footprints could be shown on the Site Plan which would be recorded together with the plat.

Response:
The building envelopes are shown on the revised Site Plan.

• PARKING
culvert issue
• should be part of
Wellington St. improvements

STAFF REVIEW

FILE: #FPP 95-104

DATE: July 5, 1995

Amended Prelim Plan

REQUEST: Final Major Subdivision Plan/Plat Filing #1
WELLINGTON GARDENS SUBDIVISION

LOCATION: SE Corner 15th Street and Wellington Avenue

STAFF: Michael T. Drollinger

APPLICANT: Chaparral West, Inc.
626 32 Road
Clifton, CO 81520

EXISTING LAND USE: Vacant

PROPOSED LAND USE: Single Family Residential - Attached

SURROUNDING LAND USE:

NORTH:	Single Family Residential/Vacant
SOUTH:	Single Family Residential
EAST:	Single Family Residential/Vacant
WEST:	Single Family Residential

EXISTING ZONING: PR-8

PROPOSED ZONING: No change

SURROUNDING ZONING:

NORTH:	PR-13.1
SOUTH:	PR-8
EAST:	PR-8
WEST:	RSF-8

RELATIONSHIP TO COMPREHENSIVE PLAN:

No comprehensive plan exists for this area

STAFF ANALYSIS:

Wellington Gardens is a proposed 26 lot townhome development with attached and detached units. Units will be accessed off of a new Wellington Court off of Wellington Avenue just east of 15th Street. Some units will front directly on the proposed Wellington Court and others will front on shared private access courts onto Wellington Court. The proposed development received preliminary approval by the Planning Commission in December of 1994 for 34 units. The Planning Commission approval was with the following conditions:

1. The requirement for a 6 inch thick concrete private driveway be deleted and that the public street be proven to staff that it will withstand reasonable traffic loads, with the rest of the staff requirement remaining the same.

2. That the applicant be given the option, subject to staff approval, to deed the 25 foot easement along the canal to the City or keep it as a non-exclusive easement.

3. The quantity of off-site parking spaces remain as shown per the revised drawing that we received today (the petitioner stated there were 5 additional spaces shown in filing #1).

4. The requirement for a public easement or right-of-way off the cul-de-sac to the 25 foot easement or dedicated area next to the canal be eliminated and a private trail be required.

5. Keep the maximum amount of landscaping area in the subdivision and get it as close to 29% as possible, but the actual percentage should be determined at final plat review and subject to staff recommendations.

STAFF RECOMMENDATION:

Staff recommends approval of the final plat with the following conditions:

1. All conditions of the preliminary approval shall apply.

2. The final plat and construction drawings shall reflect all changes as required by Fire Department staff, Development Engineer, Property Agent and Utility Engineer.

3. A Discharge Agreement with the Grand Valley Irrigation District is required.

4. A trail easement shall be dedicated to the City for access along the canal.

5. Parks and Open Space fees shall apply.

6. The proposed split rail fencing will require a fence permit.

7. The building envelopes must reflect a required 20' setback for all garages.

8. The common access driveways must be designated as separate tracts on the plat and appropriately dedicated.

9. ~~Four additional~~ Park space req. should be as per plan approval of Dec 1994 preliminary plan approval w/ Filing #1 parking spaces are required for the 6 units in Block 1.

10. The landscaping plan for landscaping in the common areas must be approved by staff and those improvements included in the Improvements Agreement/Guarantee.

11. Drainage improvements to accommodate drainage on

Staff recommends approval of the revised Preliminary Plan dated June 29, 1995.

SUGGESTED PLANNING COMMISSION MOTION:

Mr. Chairman, on item #95-104, a request for final plat/plan approval Filing #1 and a revised preliminary plan, I move that the final plat/plan and revised preliminary plan be approved subject to staff conditions.

h:\cityfil\1995\95-1042.wpd

July 21, 1995

Mr. Ron Abeloe
Chaparral West, Inc.
626 32 Road
Clifton, CO 81520

City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

RE: Wellington Gardens filing 1

Dear Ron,

The final plan and plat for the Wellington Gardens Filing 1 Subdivision was approved by the City of Grand Junction Planning Commission on July 11, 1995.

As you begin the construction phase outlined in the Submittal Standards for Improvements and Developments (SSID), there are several items which must be completed prior to construction. I have included a Construction Phase Submittal Chart, a Construction Approval and Progression Form, and Submittal Requirements for Final Acceptance of Improvements for your information.

Prior to submittal of four sets of construction drawings for approval, the following items are still outstanding and must be resolved:

1. Street Plans - Show placement of end of road markers where Phase I street construction ends on Wellington Court.

2. Grading and Drainage - Please provide an amended plan which details how stormwater will be conveyed from the end of Phase I to the detention facilities. This conveyance must be designed and constructed in accordance with the City SWMM Manual. The detention facility construction is required with Filing 1.

3. Amend the improvements agreement to include a guarantee of design and construction of a cul-de-sac, although construction will not be required with Filing 1.

An improvements agreement/guarantee must be recorded prior to sign of of construction drawings.

A pre-construction notice as detailed in Section VII-3 of SSID is required and a meeting should be scheduled.

I will be contacting Dick Fulton about his drainage concerns on the north side of Wellington. It is possible we might want to amend your construction plans to address his concerns. As you will recall, he offered to pay a portion of the costs at the public hearings. I do not know what, if any, improvements can be made.

Please contact me if I can answer any questions. My number is 244-1591.

Sincerely,

Jody Kliska
City Development Engineer

cc: Michael Drollinger, Community Development
Nichols & Associates

CONSTRUCTION PHASE SUBMITTAL CHART

Location: SE Corner 15TH & WELLINGTON Project Name: WELLINGTON GARDENS PHASE I

STEP	ACTIVITY	SUBMITTAL ITEMS	SSID REF.
1	None	● City Approval of Construction Drawings	VII-3
		● Pre-construction Notice	VII-3
		● Work within Public ROW Permit	VII-4
		○ NPDES Permit	VII-4
		● Improvements Agreement/Guarantee	
		○ _____	_____
2	Grading Street Rough Cut	● Construction Report: Grading and Pipeline Phase	X-4
	Sanitary Sewer	● As-built Grading Drawing	IX-6
	Water	● As-built Drainage Drawing	IX-5
	Irrigation	● As-built Water & Sewer Drawing	IX-9
	Other Utilities	○ _____	_____
	Subgrade Base Course	● Construction Report: Concrete and Pavement Preparation	X-3
	Concrete Placement	○ Flowline Grade Sheets	VII-4
		○ Revised Asphalt Design (if necessary)	VII-4
		● Request City Lamping of Sewerline	VII-4
3	Asphalt Pavement Traffic Control Facilities	● Construction Report: Concrete and Pavement Placement	X-2
	Monumentation	● Complete Set of As-Built Drawings	IX-5 to IX-9
	Permanent On-Site Benchmark (Subdivisions Only)	● Request for City Initial Inspection	VII-4
		○ _____	_____
4	Warranty Period	● Request for City Final Inspection	VII-4

NOTES:

1. Only those submittal items which are preceded by a shaded-in circle are required for the project. At the time of construction drawing approval, City Engineering will submit to the developer one signed approved set of drawings and a copy of this form which has been completed for the specific project, and one completed copy of Form VI-4 and VI-5.

2. City Engineering approval of submittal items is required prior to commencement of subsequent steps. The City will make every effort to provide timely approvals in order to accommodate construction schedules. If information is submitted for Step 2 in a timely manner as construction proceeds, then City Engineering review of remaining items may be done within ½ working day.

City of Grand Junction
Construction Approval & Progress

Project Name: WELLINGTON GARDENS PHASE I
Location: SE CORNER 15TH & WELLINGTON
Developer: CHAPARRAL WEST, INC.
Engineer: NICHOLS & ASSOCIATES
A Licensed Professional Engineer is required to oversee construction of public improvements.

Date Construction Plans Approved: _____
Submittal of four sets of prints is required for approval and signature. Distribution: Development Engineer, City Inspector, Community Development, Developer/Contractor.

Improvements Agreement in Place: _____

Construction Meeting: _____
1. Attendance by developer's engineer, contractor(s), testing lab, city engineering representative, city inspector is required.
2. Submit list of contractors and approximate starting dates.
3. Submit quality assurance plan for testing and inspection. A test location map will be required prior to final acceptance of work.
4. Notification of city inspector 24 hours prior to commencement of work is required.

Permit for Construction and Installation of Facilities in Public Right of Way required: _____

Date of Final Inspection : _____
Reinspections: _____
Final Acceptance: _____
Warranty Period Ends: _____

Note: City inspection of work does not relieve developer or contractor of their duties regarding inspection, monitoring, and testing.

Submittal Requirements for Final Acceptance of Improvements

WELLINGTON GARDENS PHASE 1

The following items must be submitted prior to the acceptance of streets, drainage, and utilities by the City of Grand Junction.

X As-Built Drawings (Reference SSID IX-5,6,7,8,9)
- Sealed by a Professional Engineer
- Two Blue-line copies
- One Mylar Copy
- One 3 1/2" Floppy Disk with drawing files

X Report (Reference SSID X-2,3,4)
- Testing Location Map
- Inspection Diaries
- Testing Reports

X Certification of Detention/Retention Basin
(Reference SSID IX-6)
- Sealed by a Professional Engineer

Note: A one-year warranty period begins once public facilities are accepted by the City of Grand Junction. Any defects or deficiencies which occur during this period must be corrected by the developer. (Reference Zoning and Development Code 5-4-12, A-4)

FILE

Review date
8-31-95

TK
MD

Grand Junction Community Development Department
Planning • Zoning • Code Enforcement
250 North Fifth Street
Grand Junction, Colorado 81501-2668
(970) 244-1430 FAX (970) 244-1599

July 24, 1995

Attn.: Ron Abeloe
Chaparral West, Inc.
626 32 Road
Clifton, CO 81520

RE: Our File #95-104 - Wellington Gardens

Dear Mr. Abeloe,

To assist you in completing the approval process for Filing #1, I have summarized the outstanding items which are based on the Planning Commission approval and review comments.

OK 1. Two (2) copies of the amended Preliminary Plan with ALL utility information removed and phases clearly identified.

OK 2. Two (2) copies of a Site Plan drawing with building footprints (for eventual recordation with the plat). All utility information must be removed.

Steve Pace 3. Regarding the plat, the dedication language must address the entire parcel and the area summary on the plat should reflect future filings. Four (4) copies of the plat should be submitted for our final review PRIOR to making mylars for signature and recording. As a reminder, the approval of the County Surveyor and the UCC (Utility Coordinating Committee) will be required prior to platting.

4. The approved preliminary plan indicates two (2) parking spaces on the western drive in Phase I. The plans should be amended to provide two spaces as per the Planning Commission's original approval.

I have attached a copy of the Planning Commission's conditions of approval for the Final Plan for Filing #1 for your information. Please review these and make sure that all required items are reflected in your drawings.

I have also attached a copy of the CC&Rs which were reviewed by the City Attorney's office. Please review and revise the document accordingly and submit a revised copy for review.

As a reminder, open space fees in the amount of $225 per lot must be paid prior to platting.

WELLINGTON GARDENS - PLANNING COMMISSION CONDITIONS OF APPROVAL
(from draft copy of Planning Commission Public Hearing minutes - July 11, 1995)

1. All conditions of preliminary approval shall apply.
2. The Final Plat and construction drawings shall reflect all changes as required by the Fire Department staff, Development Engineer, Property Agent and Utility Engineer.
3. A Discharge Agreement with the Grand Valley Irrigation District is required.
4. A trail easement shall be dedicated to the City for access along the canal.
5. Parks and Open Space fees shall apply.
6. The proposed split rail fence will require a fence permit.
7. The building envelopes must reflect a required 20 foot setback for all garages.
8. The common access driveways must be designated as separate tracts on the plat and appropriately dedicated.
9. Parking space requirements for the 6 units in Block 1 shall be as approved by staff and those improvements in the common areas included in the Improvements Agreement/ Guarantee.
10. The drainage issues relative to the property to the north of the subject property also need to be addressed.

Lincoln DeVore, Inc.
Geotechnical Consultants
1441 Motor St.
Grand Junction, CO 81505

TEL: (303) 242-8968
FAX: (303) 242-1561

May 30, 1995

Mr. Ron Abelo
626 32 Road
Clifton, Colorado, 81520

Re: Proposed Pavement Sections
Wellington & 15th Street Subdivision
Grand Junction, Colorado

Dear Mr Abelo;

At your request the proposed road sections at the above referenced site was 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 at this property 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:

AASHTO Classification - A-4(6) Unified Classification - ML

R =	24
Expansion @ 300 psi =	0.0
Displacement @ 300 psi =	3.56

No estimates of traffic volumes have been provided to Lincoln DeVore. However, we assume that the roads will be classified as residential.

Two methods of design were utilized for this project. The design procedures utilized are first, The Asphalt Institute (MS-1) and second, those recognized by the Colorado Department of Highways and the 1986 AASHTO design procedure. A design life of 20 years was used.

defined in Section 600 of the Standard Specifications for Road and Bridge Construction, Colorado DOT. It is recommended that field control of the concrete mix be made utilizing compressive strength criteria.

Flexural Strength should only be used for the design process. Concrete with a lower flexural strength may be allowed by the agency having jurisdiction however, the design section thicknesses should be confirmed. In addition, the final durability of the pavement should be carefully considered.

Control joints should be placed at a minimum distance of 12 feet in all directions. If it is desired to increase the spacing of control joints, then 66-66 welded wire fabric should be placed in the mid-point of the slab. If the welded wire fabric is used, the control joint spacing can be increased to 40 feet. Construction joints to be designed so that positive joint transfer is maintained by the use of dowels.

The concrete should be placed at the lowest slump practical for the method of placement. In all circumstances, the maximum slump should be limited to 4 inches. Proper consolidation of the plastic concrete is important. The placed concrete must be properly protected and cured.

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.

by: Edward M. Morris EIT Reviewed By: George D. Morris, PE
Engineer/Western Slope Manager

LD Job No.:

September 6, 1995

City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX:(970)244-1599

Ron Abeloe
Chaparral West Inc.
626 32 Road
Clifton, CO 81520

RE: Wellington Ave. Power Poles

Dear Ron,

I have requested Public Service Co. to relocate the power poles on Wellington Avenue so the improvements can be constructed. If you desire to have the existing lines undergrounded, there are two possible options available.

The first option is to request the City Council approve use of the funds collected by Public Service for undergrounding. These funds are typically used when the City does street reconstruction and expenditures require City Council approval. The request to City Council should be in writing and delivered to the City Clerk's office.

The second option is for you to pay for the undergrounding. The City Code requires all new development to underground utilities on site, so part of the cost of undergrounding the existing would already be included in the site costs.

Jon Price at Public Service is putting together an estimate for you on the costs of undergrounding the existing facilities as well as the costs of the site facilities.

If I can answer any questions, please feel free to contact me at 244-1591.

Sincerely,

Jody Kliska
City Development Engineer

cc: Michael Drollinger, City Community Development
Nichols & Associates