

HERMOSA VILLAGE SENIOR LIVING:  
CLOSEOUT PROCESS

By

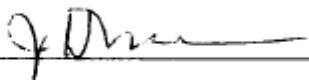
JESSICA LANAE HENNIS

A Thesis Submitted to The Honors College  
In Partial Fulfillment of the Bachelor's degree  
With Honors in  
Engineering Management

THE UNIVERSITY OF ARIZONA

May 2009

Approved by:

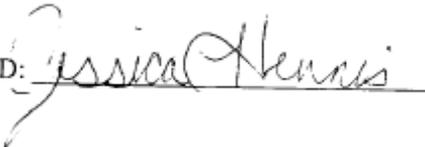


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## **Abstract**

Opus West Construction Corporation is a design/build construction company located in Phoenix, Arizona. Being in the design/build field, Opus is involved in all aspects of the construction process from beginning to end. After the completion of a construction project, certain closeout procedures must be followed. Originally, a set closeout process was not implemented by the company which caused great confusion and hours wasted.

To fix this problem, master documents were created to help improve organization and time management. Microsoft Project, a scheduling software, was used along with Excel to create a set of files which can be applied to other multi-family projects. Additionally, a compilation of all documents related to the venture were put together to form an “autopsy report” which includes everything about the project throughout the construction and closeout processes.

Opus West Construction Corporation will be able to implement these files onto future projects. This will save both time and money and help the closeout process run smoother and more efficient.

## **Background Information about the Company**

Opus West Construction Corporation is a design/build company located on the west coast of the United States with a main office in Phoenix, Arizona. Established in the 1950s, Opus West has done very well and has grown to the successful business it is today. As a design/build firm, Opus is involved with all aspects of the construction process. This includes working with engineers, architects, interior designers, and many subcontractors. Opus mostly works on the construction of industrial office buildings but has recently branched out into the multi-family senior living division. They have also expanded to projects outside of their main office cities to places such as Tucson, Arizona.

## **General Information about the Construction Project**

The most recent endeavor Opus West has encountered is Hermosa Village Senior Living located in Tucson, Arizona. The project team included Chad Buck, Tony Quach, Brady Wasem, Tom Lindsay, Zoltan Mehes, Brandee Millsap, and Jessica Hennis. Hermosa Village is a 267,010 square foot two and three-story type-5 multi-family senior housing apartment complex. Located on the southeast corner of Speedway and Wilmot, it is situated in the city surrounded by various commercial and retail developments. Hermosa Village is comprised of 205 residential apartment units with standard finishes including granite countertops, hardwood cabinetry, faux wood vinyl flooring in kitchen areas, upgraded brushed nickel light fixtures, a two-tone paint scheme, and stainless steel appliances. All apartment units are accessed by internal, air conditioned corridors. Hermosa Village also includes an attached two-story common area building which includes a main dining room, bistro, theatre, salon, treatment spa, exercise / dance room, prime fit and brain fit areas, crafts room, chapel, library, saloon / bar, and a games room. There are also two spacious courtyards situated in the open spaces with a pool and spa as

well as beautiful landscape, two water features, one putting green, and various shade structures. The exterior of the building is painted 1-coat stucco finish with operable aluminum windows and sliding glass doors at each apartment unit balcony. The roofing system is a combination of pitched concrete tile roofs and flat built-up roofing at all mechanical wells.

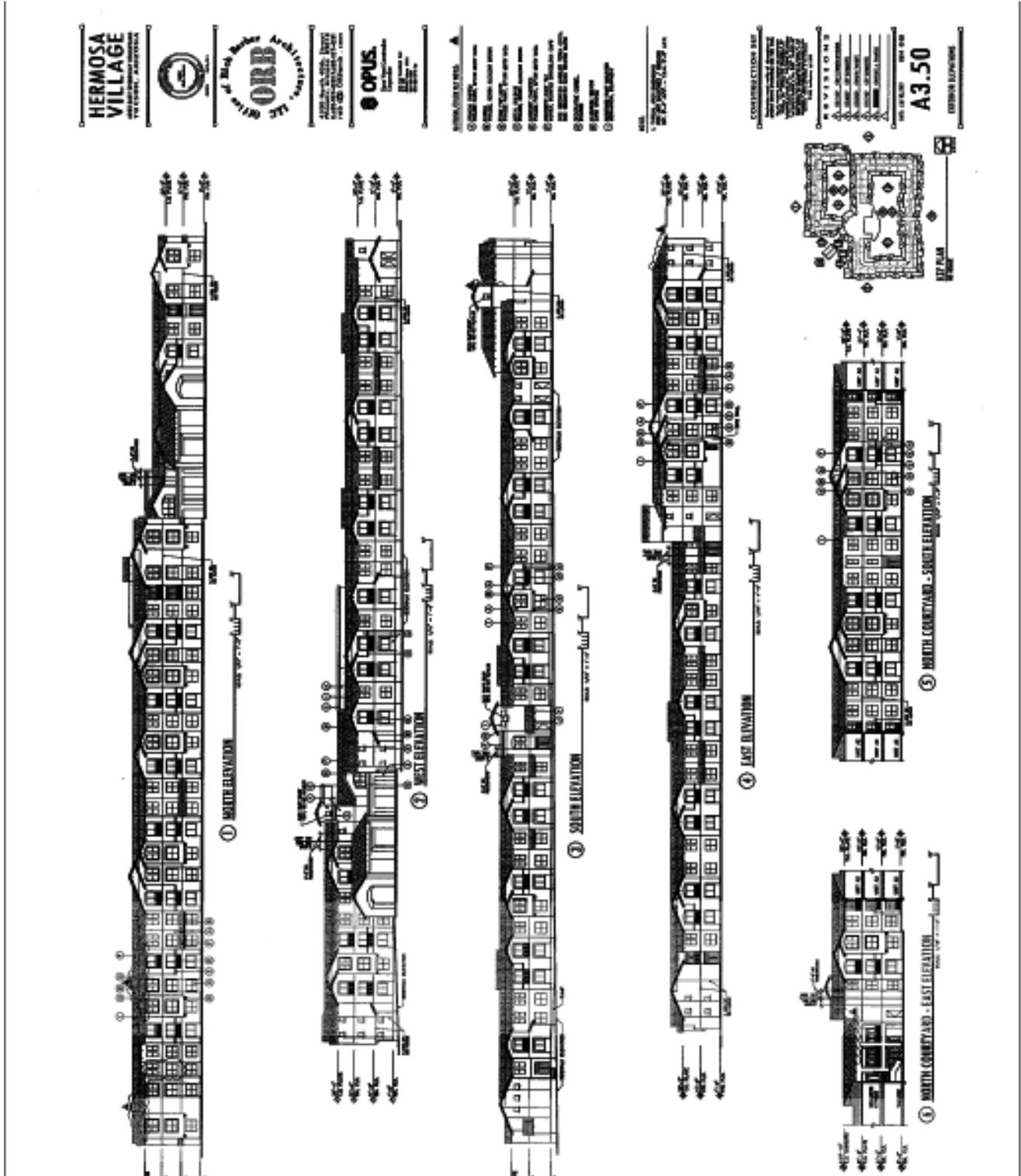
Earthwork and site utility permits were issued on May 7, 2007 with the overall building permit being issued on July 3, 2007. Construction reached substantial completion on October 7, 2008. Property management training and interior design installation were completed during the month of October and residents began to occupy the building on November 1, 2008.

On the following attached pages are various architectural plans which help show the layout of the construction project. These sheets include a site plan (Figure 1), first floor plan (Figure 2), and exterior elevations (Figure 3).





Figure 3: Exterior Elevations



## **Problem Description**

As with any construction project, numerous issues must be addressed before the end of the close-out process. The biggest problem which must be solved for Hermosa Village towards the conclusion of the project is the punch and closeout process. The main difficulty with this is the coordination of the Phoenix office with subcontractors, architects, and engineers both in Phoenix and Tucson as well as the actual construction jobsite. With companies in different locations, good communication and organization will be extremely important.

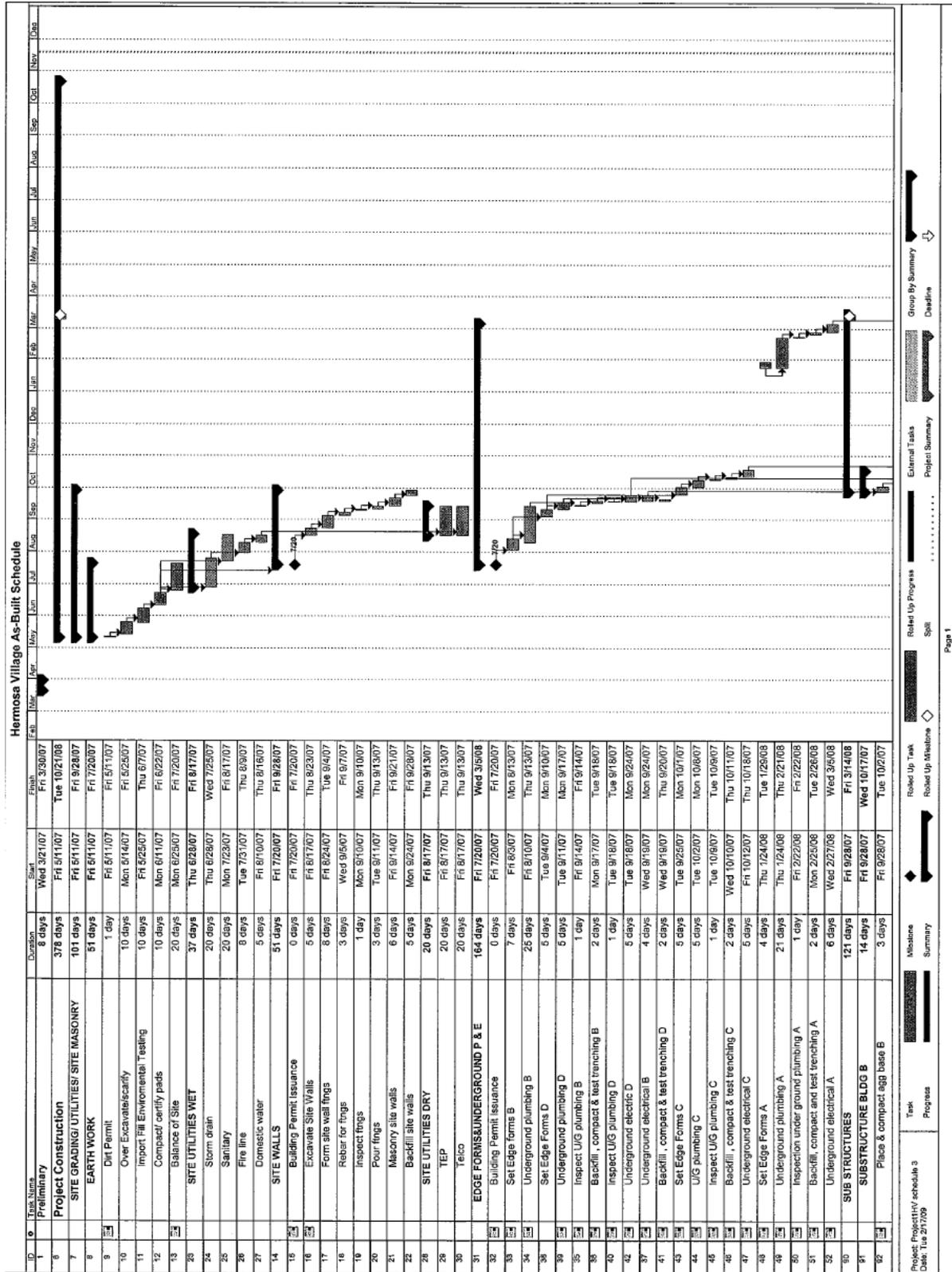
The first task that must be completed is the procurement and coordination of warranty letters, ownership and maintenance manuals, and surplus materials with all of the subcontractors. Once that is complete, the construction and ownership punch processes must be done. This entails making sure each apartment unit is thoroughly inspected and ready for ownership turnover. Finally, the transition from a construction managed project to an ownership managed project will occur. In the past, Opus has not had a set process for performing these tasks which is why it is such a big problem. Each time the end of a project approaches, the project managers must come up with a new way to perform the needed tasks. In order to fix this, files must be placed on the main computer drive which will include all the documents and Excel sheets used. This will make the process more efficient in the future and will create consistency in all Opus offices.

In order to solve these multiple tasks, organization and communication will be a key component. Regularly scheduled meetings with all the project managers, superintendents, and members of ownership will need to be implemented in order to discuss expectations, goal dates, and progress reports. This way, everyone knows what needs to be done and of important dates and deadlines. On past Opus West projects, problems have occurred due to not having consistent documentation on the jobsite and in the office.

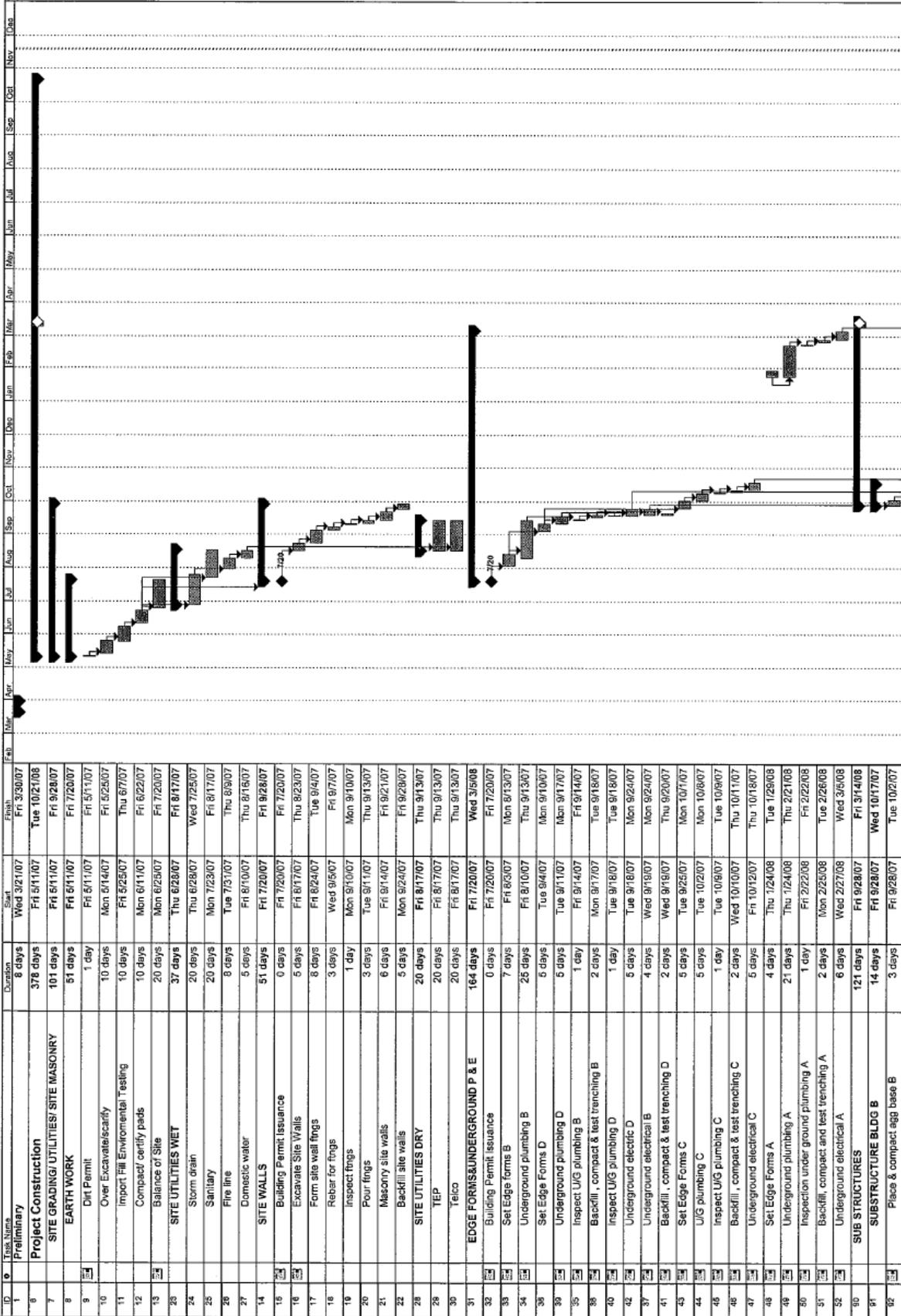
## **Problem Solution**

First, in order to stay organized, the preliminary Microsoft Project schedule used by Opus West was modified to include more details with additional due dates and construction milestones. This helped during weekly construction meetings because all subcontractors as well as the Opus team knew the key dates approaching and what needed to be done in order to meet these deadlines. This was also useful when providing proof that deadlines were not met by certain subcontractors who all received and agreed upon a copy of the updated schedule weekly. Also during the construction meetings, if a date was not going to be met due to backup by another subcontractor, the dates were able to be pushed back accordingly without confusion. Another positive that became because of this schedule was the organization between the main Phoenix office and the job site in Tucson. This made it possible for the head project manager to miss meetings and communicate over the phone which saved valuable time that would have been taken up by driving. A copy of this Microsoft Project schedule can be seen below (Figure 8).

Figure 4: Microsoft Project Schedule



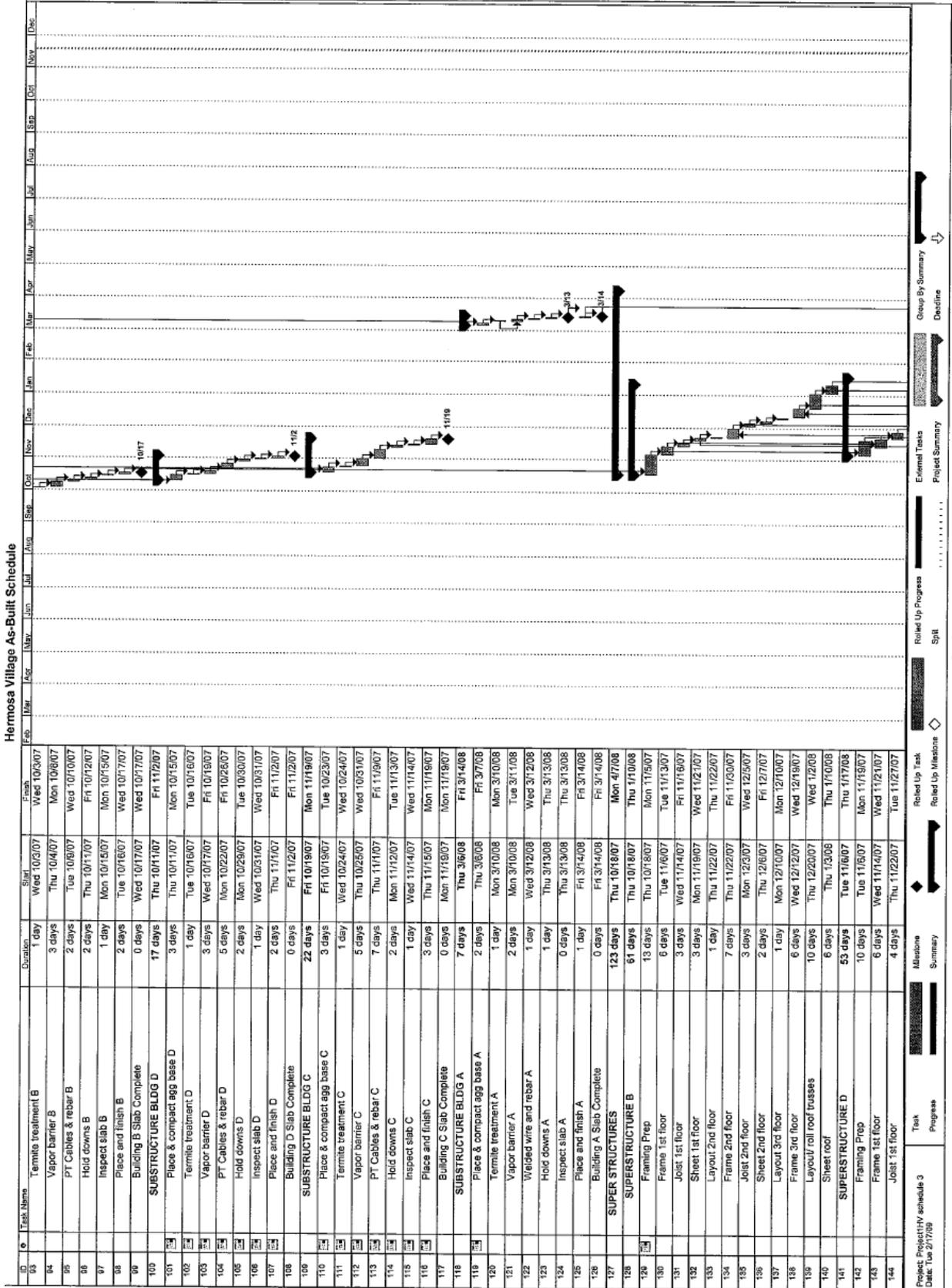
Hermosa Village As-Built Schedule



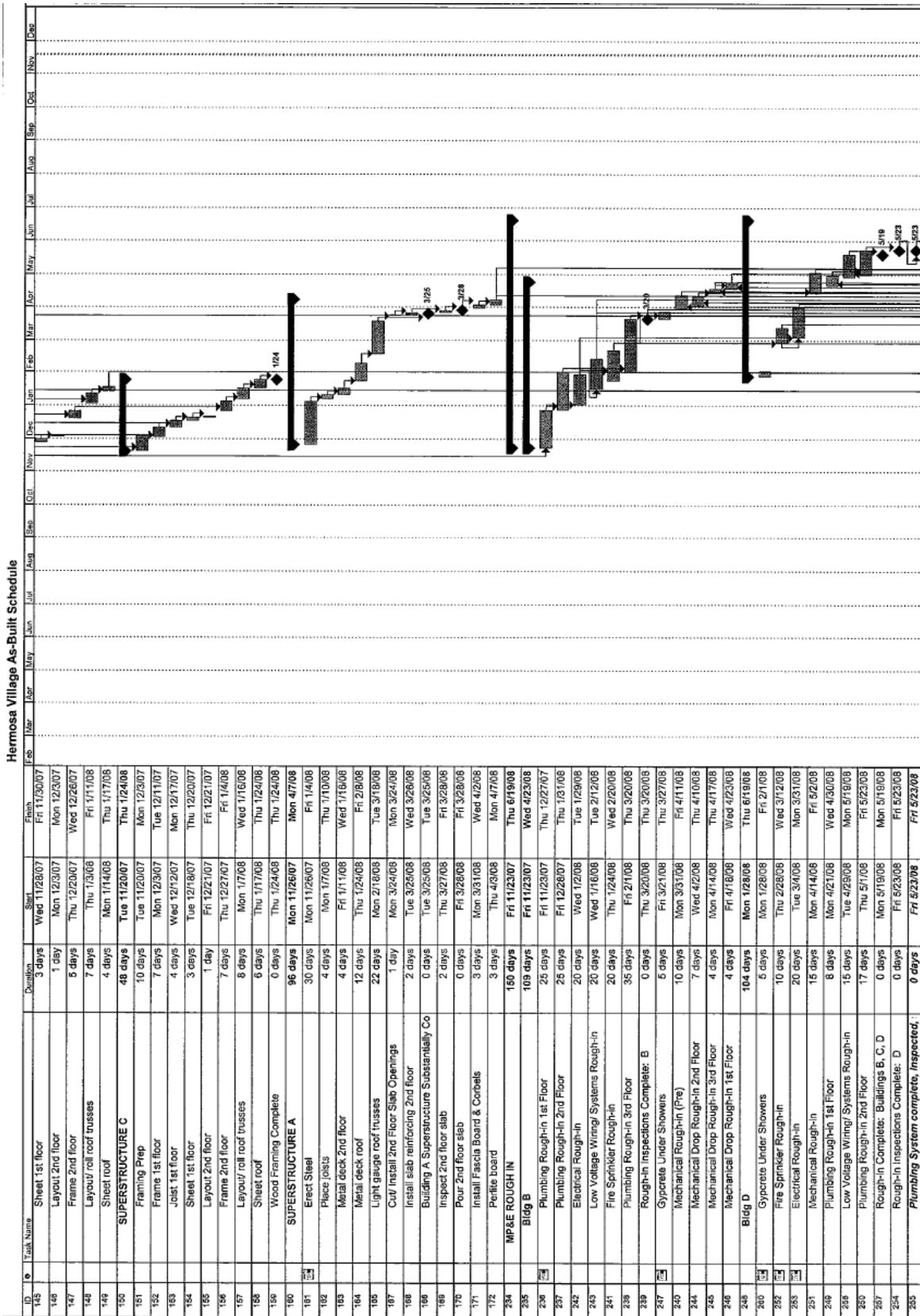
ID	Task Name	Duration	Start	Finish
1	Preliminary	8 days	Wed 3/21/07	Fri 3/30/07
6	Project Construction	378 days	Fri 5/11/07	Tue 10/21/08
7	SITE GRADING/UTILITIES/ SITE MASONRY	101 days	Fri 5/11/07	Fri 9/28/07
8	EARTH WORK	51 days	Fri 5/11/07	Fri 7/20/07
9	DIRT PERMIT	1 day	Fri 5/11/07	Fri 5/11/07
10	Over Excavate/scarify	10 days	Mon 5/14/07	Fri 5/25/07
11	Import Fill Environmental Testing	10 days	Fri 5/25/07	Thu 6/7/07
12	Compact/certify pads	10 days	Mon 6/11/07	Fri 6/22/07
13	Balance of Site	20 days	Mon 6/25/07	Fri 7/20/07
23	SITE UTILITIES WET	37 days	Thu 6/28/07	Fri 9/17/07
24	Storm drain	20 days	Wed 7/25/07	Wed 7/25/07
25	Sanitary	20 days	Mon 7/23/07	Fri 8/17/07
26	Fire line	8 days	Tue 7/31/07	Thu 8/9/07
27	Domestic water	5 days	Fri 8/10/07	Thu 8/16/07
14	SITE WALLS	51 days	Fri 7/20/07	Fri 9/28/07
15	Building Permit Issuance	0 days	Fri 7/20/07	Fri 7/20/07
16	Excavate Site Walls	5 days	Fri 8/17/07	Thu 8/23/07
17	Form site wall frings	8 days	Fri 8/24/07	Tue 9/4/07
18	Rebar for frings	3 days	Wed 9/5/07	Fri 9/7/07
19	Inspect frings	1 day	Mon 9/10/07	Mon 9/10/07
20	Pour frings	3 days	Tue 9/11/07	Thu 9/13/07
21	Masonry site walls	6 days	Fri 9/14/07	Fri 9/21/07
22	Backfill site walls	5 days	Mon 9/24/07	Fri 9/28/07
28	SITE UTILITIES DRY	20 days	Fri 8/17/07	Thu 9/13/07
28	TEP	20 days	Fri 8/17/07	Thu 9/13/07
30	Telco	20 days	Fri 8/17/07	Thu 9/13/07
31	EDGE FORMS/UNDERGROUND P & E	164 days	Fri 7/20/07	Wed 3/6/08
32	Building Permit Issuance	0 days	Fri 7/20/07	Fri 7/20/07
33	Set Edge forms B	7 days	Fri 8/3/07	Mon 8/13/07
34	Underground plumbing B	25 days	Fri 8/10/07	Thu 9/13/07
35	Set Edge Forms D	5 days	Tue 8/4/07	Mon 9/10/07
36	Underground plumbing D	5 days	Tue 9/11/07	Mon 9/17/07
37	Inspect U/G plumbing B	1 day	Fri 9/14/07	Fri 9/14/07
38	Backfill, compact & test trenching B	2 days	Mon 9/17/07	Tue 9/18/07
39	Inspect U/G plumbing D	1 day	Tue 9/18/07	Tue 9/18/07
40	Underground electric D	5 days	Tue 9/18/07	Mon 9/24/07
41	Underground electrical B	4 days	Wed 9/19/07	Mon 9/24/07
42	Backfill, compact & test trenching D	2 days	Wed 9/19/07	Thu 9/20/07
43	U/G plumbing C	5 days	Tue 9/25/07	Mon 10/7/07
44	Set Edge Forms C	5 days	Tue 10/2/07	Mon 10/8/07
45	U/G plumbing C	1 day	Tue 10/9/07	Tue 10/9/07
46	Inspect U/G plumbing C	2 days	Wed 10/10/07	Thu 10/11/07
47	Underground electrical C	5 days	Fri 10/12/07	Thu 10/18/07
48	Set Edge Forms A	4 days	Thu 1/24/08	Tue 1/29/08
49	Underground plumbing A	21 days	Thu 1/24/08	Thu 2/21/08
50	Inspection under ground plumbing A	1 day	Fri 2/22/08	Fri 2/22/08
51	Backfill, compact and test trenching A	2 days	Mon 2/25/08	Tue 2/26/08
52	Underground electrical A	6 days	Wed 2/27/08	Wed 3/5/08
91	SUB STRUCTURES	121 days	Fri 9/28/07	Fri 3/14/08
92	SUBSTRUCTURE BLDG B	14 days	Fri 9/28/07	Wed 10/17/07
93	Place & compact agg base B	3 days	Fri 9/28/07	Tue 10/2/07

Project: Hermosa Village As-Built Schedule  
 Date: 1/24/08  
 Task: Progress  
 Milestone: Summary  
 Rolled Up Task: Rolled Up Milestone  
 Related Up Progress: Roll Up Milestone  
 External Tasks: Project Summary  
 Group By Summary: Group By Summary  
 Deadline: Deadline

Hermosa Village As-Built Schedule



Hermosa Village As-Built Schedule



Task  
 Progress  
 Milestone  
 Summary  
 Rollover Task  
 Rollover Milestone  
 Rollover Progress  
 Rollover Summary  
 External Task  
 Project Summary  
 Group By Summary  
 Split  
 Deadline

Hermosa Village As-Built Schedule

ID	Task Name	Start	End	Duration	Finish	Days
266	Drop Soffit Mechanical Rough-in 2nd Floor	Thu 6/12/08	Thu 6/19/08	6 days	Thu 6/19/08	
267	Drop Soffit Mechanical Rough-in 1st Floor	Thu 6/12/08	Thu 6/19/08	6 days	Thu 6/19/08	
272	Blkg C Gypcrete Under Showers	Mon 2/25/08	Wed 5/21/08	63 days	Wed 5/21/08	
265	Fire Sprinkler Rough-in	Mon 2/25/08	Fri 2/28/08	5 days	Fri 2/28/08	
262	Pumbing Rough-in 1st Floor	Thu 3/13/08	Wed 3/26/08	10 days	Wed 3/26/08	
268	Electrical Rough-in	Fri 3/21/08	Tue 4/1/08	8 days	Tue 4/1/08	
263	Plumbing Rough-in 2nd Floor	Tue 3/25/08	Mon 4/14/08	15 days	Mon 4/14/08	
268	Plumbing Rough-in 2nd Floor	Wed 4/2/08	Fri 4/18/08	13 days	Fri 4/18/08	
268	Low Voltage Wiring Systems Rough-in	Tue 4/8/08	Mon 4/28/08	15 days	Mon 4/28/08	
267	Rough-in Inspections Complete: C	Fri 4/18/08	Fri 4/18/08	0 days	Fri 4/18/08	
271	Plumbing System complete, inspected	Fri 4/18/08	Fri 4/18/08	0 days	Fri 4/18/08	
284	Mechanical Rough-in (Pre)	Mon 5/5/08	Fri 5/9/08	5 days	Fri 5/9/08	
289	Drop Soffit Mechanical Rough-in 2nd Floor	Mon 5/5/08	Tue 6/3/08	7 days	Tue 6/3/08	
270	Drop Soffit Mechanical Rough-in 1st Floor	Mon 5/12/08	Wed 5/21/08	8 days	Wed 5/21/08	
273	Blkg A	Mon 3/24/08	Fri 5/30/08	50 days	Fri 5/30/08	
276	Building A Layout	Mon 3/24/08	Fri 3/28/08	5 days	Fri 3/28/08	
275	Plumbing Rough-in	Mon 3/31/08	Fri 4/25/08	20 days	Fri 4/25/08	
276	Mechanical Rough-in 1st Floor	Mon 4/14/08	Fri 5/16/08	25 days	Fri 5/16/08	
276	Fire Sprinkler	Mon 4/14/08	Tue 5/20/08	27 days	Tue 5/20/08	
277	Mechanical Rough-in 2nd Floor	Mon 4/21/08	Fri 6/23/08	25 days	Fri 6/23/08	
276	Electrical Rough-in	Mon 5/5/08	Fri 5/30/08	20 days	Fri 5/30/08	
281	Low Voltage Wiring Systems Rough-in	Mon 5/5/08	Fri 5/30/08	20 days	Fri 5/30/08	
275	Rough-in Inspections Complete: A	Fri 5/30/08	Fri 5/30/08	0 days	Fri 5/30/08	
173	EXTERIOR DRY IN & FINISHES	Tue 1/15/08	Wed 7/23/08	137 days	Wed 7/23/08	
174	Blkg B	Tue 1/15/08	Fri 6/13/08	109 days	Fri 6/13/08	
177	Pitched Roof Dry-in/ Install Felt	Tue 1/15/08	Thu 1/17/08	3 days	Thu 1/17/08	
176	Install Drywall Soffits	Fri 1/19/08	Thu 1/31/08	10 days	Thu 1/31/08	
181	Install Windows & SGO's	Fri 1/19/08	Thu 2/7/08	15 days	Thu 2/7/08	
179	Load Roof Tiles	Fri 2/7/08	Thu 2/14/08	10 days	Thu 2/14/08	
180	Scaffolding,wrap,plathe	Fri 2/7/08	Thu 2/21/08	15 days	Thu 2/21/08	
183	Sheetrock Balcony Lids	Fri 2/7/08	Thu 2/21/08	15 days	Thu 2/21/08	
182	Install Exterior Foam Popouts	Fri 2/9/08	Thu 2/14/08	5 days	Thu 2/14/08	
176	Plaster Roof Parapet Walls	Fri 2/15/08	Thu 2/21/08	5 days	Thu 2/21/08	
175	Flat Roof Dry-in	Thu 3/6/08	Mon 3/10/08	3 days	Mon 3/10/08	
184	Plaster	Wed 6/14/08	Tue 6/27/08	10 days	Tue 6/27/08	
185	Install Exterior Metal Railings	Wed 6/27/08	Tue 6/3/09	10 days	Tue 6/3/09	
186	Exterior Paint	Wed 6/27/08	Fri 6/13/08	8 days	Fri 6/13/08	
187	Scaffolding Removal Complete: Building E	Fri 6/13/08	Fri 6/13/08	0 days	Fri 6/13/08	
188	Blkg D	Fri 2/1/08	Wed 7/23/08	124 days	Wed 7/23/08	
191	Pitched Roof Dry-in/ Install Felt	Fri 2/1/08	Thu 2/7/08	5 days	Thu 2/7/08	
189	Flat floor Dry-in	Fri 2/9/08	Thu 2/21/08	10 days	Thu 2/21/08	
182	Install Drywall Soffits	Fri 2/9/08	Thu 2/21/08	10 days	Thu 2/21/08	
193	Load Roof Tiles	Fri 2/9/08	Thu 2/21/08	10 days	Thu 2/21/08	
195	Install Windows & SGO's	Fri 2/9/08	Mon 2/25/08	12 days	Mon 2/25/08	
184	Scaffolding,wrap,plathe	Thu 2/14/08	Wed 2/27/08	10 days	Wed 2/27/08	
190	Plaster Roof Parapet Walls	Fri 2/22/08	Thu 2/28/08	5 days	Thu 2/28/08	
186	Install Exterior Foam Popouts	Thu 3/6/08	Wed 3/5/08	5 days	Wed 3/5/08	
187	Sheetrock Balcony Lids	Thu 3/6/08	Wed 3/19/08	10 days	Wed 3/19/08	
198	Install Corbels	Thu 3/20/08	Wed 3/26/08	5 days	Wed 3/26/08	
189	Courtyard Plaster	Mon 6/16/08	Wed 6/18/08	3 days	Wed 6/18/08	
200	Plaster Remainder	Mon 6/23/08	Fri 6/27/08	5 days	Fri 6/27/08	
201	Install Exterior Metal Railings	Mon 7/7/08	Mon 7/7/08	8 days	Mon 7/7/08	
202	Exterior Paint	Thu 7/10/08	Mon 7/21/08	8 days	Mon 7/21/08	

Project: ProjectHV schedule 3  
 Date: Tue 2/1/08

Task Progress Summary Milestone Summary

Rollover Task Rollover Milestone

Rollover Progress Rollover Summary

External Tasks Project Summary

Group By Summary Deadline

Page 4

Hermosa Village As-Built Schedule

ID	Task Name	Duration	Start	Finish
204	Scaffolding Removal Complete: Building C	0 days	Wed 7/23/06	Wed 7/23/06
205	<b>Bldg C</b>			
206	Pitched Roof Dry-in/ Install Felt	106 days	Fri 7/18/08	Fri 7/18/08
207	Install Windows & SGD's	3 days	Fri 2/22/08	Tue 2/26/08
211	Install Drywall Soffits	10 days	Tue 2/26/08	Mon 3/10/08
208	Load Roof Tiles	10 days	Wed 2/27/08	Tue 3/11/08
210	Scaffold,wrap,lath	7 days	Tue 3/11/08	Wed 3/19/08
212	Sheetrock, Balcony Lids	10 days	Thu 3/13/08	Wed 3/26/08
213	Install Corbels	5 days	Thu 3/27/08	Wed 4/2/08
209	Flat Roof Dry-in	10 days	Mon 4/21/08	Fri 5/2/08
214	Plaster Roof Parapet Walls	5 days	Mon 5/5/08	Fri 5/9/08
215	Courtyard Plaster	3 days	Wed 6/11/08	Fri 6/13/08
216	Plaster Remainder	5 days	Mon 6/16/08	Fri 6/20/08
217	Install Exterior Metal Rollings	8 days	Thu 6/19/08	Mon 6/30/08
218	Exterior Paint	8 days	Mon 7/7/08	Wed 7/16/08
219	Scaffolding Removal Complete: Building C	0 days	Fri 7/18/08	Fri 7/18/08
220	<b>Bldg A</b>			
221	Pitched Roof Dry-in/ Install Felt	74 days	Tue 4/8/08	Tue 4/15/08
222	Load Roof Tiles	6 days	Tue 4/8/08	Thu 4/24/08
223	Exterior Stud Walls	7 days	Wed 4/16/08	Thu 4/24/08
224	Install Fascia and Corbels	16 days	Thu 4/17/08	Thu 5/8/08
225	Set Scaffolding	10 days	Thu 4/24/08	Wed 5/7/08
226	Flat Roof Dry-in	10 days	Thu 4/24/08	Wed 5/7/08
227	Install Drywall Soffits	8 days	Wed 5/7/08	Fri 5/16/08
228	Plaster Roof Parapet Walls	6 days	Tue 5/13/08	Tue 5/20/08
229	Foam and Lath	5 days	Mon 5/19/08	Fri 5/23/08
230	Plaster	7 days	Thu 5/29/08	Fri 6/6/08
231	Install Window/ Glazing	8 days	Mon 6/9/08	Wed 6/18/08
232	Install Exterior Metal Rollings	6 days	Mon 6/9/08	Mon 6/16/08
233	Exterior Paint	8 days	Thu 6/19/08	Mon 6/30/08
234	Scaffolding Removal Complete: Building A	10 days	Thu 7/3/08	Wed 7/16/08
235	Scaffolding Removal Complete: Building A	0 days	Fri 7/18/08	Fri 7/18/08
53	<b>SITWORK</b>			
54	South Courtyard Amenities	164 days	Tue 3/6/08	Tue 10/21/08
55	Install pool and water features	120 days	Thu 3/6/08	Wed 8/20/08
56	Pour Trellis/ Fireplace/ BBQ Footings Foot	45 days	Thu 3/6/08	Wed 5/7/08
57	Fine Grade	3 days	Thu 5/22/08	Mon 5/26/08
58	Build Trellis Structure	2 days	Thu 7/10/08	Fri 7/11/08
59	Courtyard Hardscape including Pool Deck	3 days	Mon 7/14/08	Wed 7/16/08
60	Build Fireplace/ Built-in BBQ Structures	10 days	Mon 7/14/08	Fri 7/25/08
61	Plaster Trellis/ Courtyard Masonry Structure	3 days	Thu 7/17/08	Mon 7/21/08
62	Paver Installation	2 days	Tue 7/22/08	Wed 7/23/08
63	Court Yard Landscaping	8 days	Mon 7/28/08	Wed 8/6/08
64	Install Putting Green	10 days	Mon 8/11/08	Wed 8/20/08
65	North Courtyard Amenities	82 days	Mon 8/19/08	Tue 8/12/08
66	Pour Trellis Footings	3 days	Mon 5/19/08	Wed 5/21/08
67	Fine Grade	2 days	Mon 6/23/08	Tue 6/24/08
68	Courtyard Hardscape	7 days	Wed 6/25/08	Thu 7/9/08
69	Courtyard Pavers	5 days	Fri 7/4/08	Thu 7/10/08
70	Court Yard Landscaping	10 days	Thu 7/8/08	Mon 7/21/08
71	Build Trellis Structure	4 days	Thu 8/7/08	Tue 8/12/08
72	Rough Grading	8 days	Mon 6/16/08	Wed 6/26/08
73	Trailer Removal	1 day	Fri 6/20/08	Fri 6/20/08
74	<b>MISC. SITE FINISHES</b>			
75		8/7 days	Mon 6/23/08	Tue 10/21/08

Project: Project/HV schedule 3  
 Date: Tue 2/7/09

Task Progress

Milestone Summary

Group By Summary

External Tasks

Project Summary

Roll Up Progress

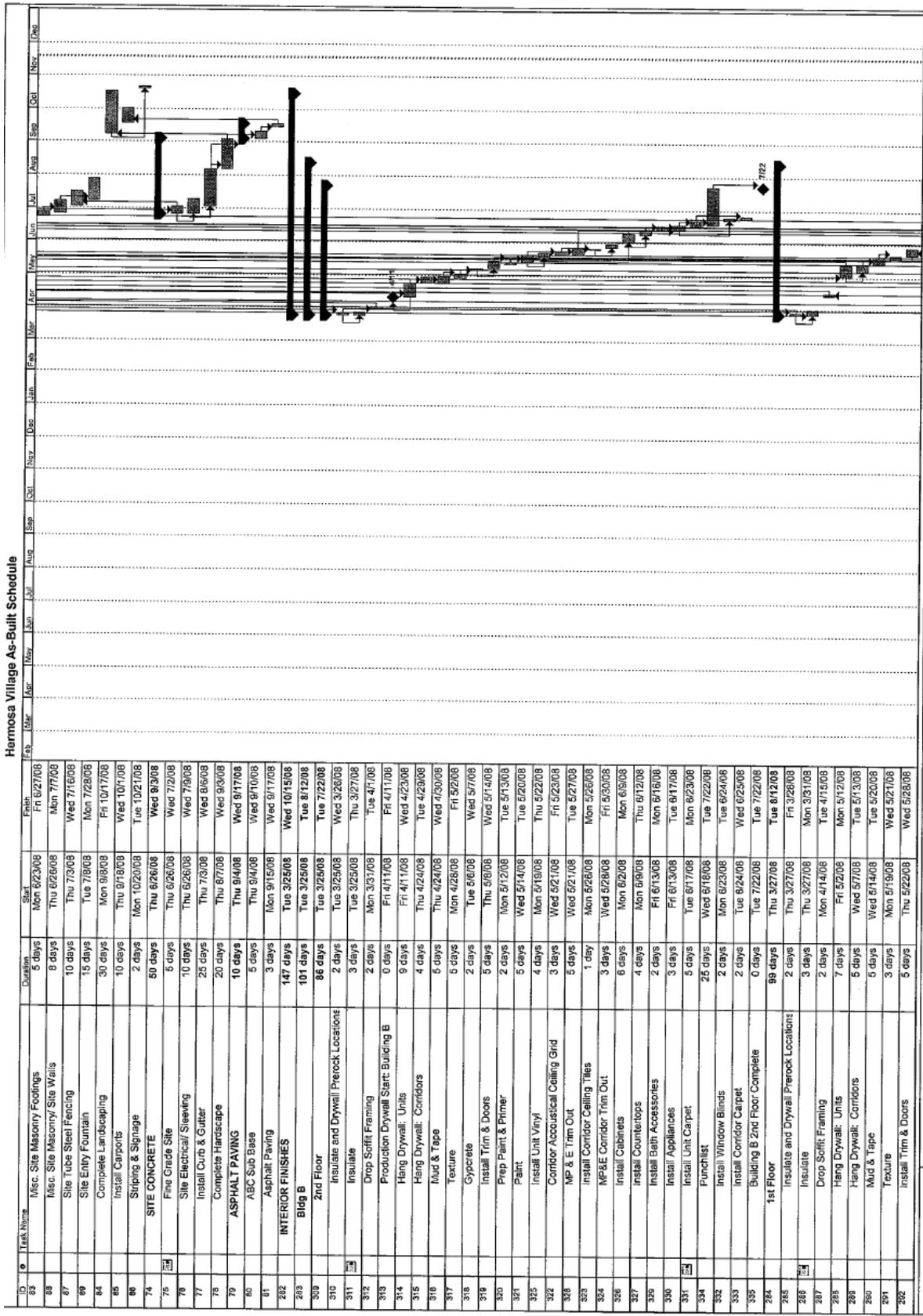
Split

Roll Up Milestone

Detail

Page 5

Hermosa Village As-Built Schedule



Project: Project\HV schedule 3  
 Date: Tue 2/17/09  
 Milestone Summary  
 Rolled Up Task  
 Rolled Up Milestone  
 External Tasks  
 Project Summary  
 Group By Summary  
 Deadline

Hermosa Village As-Built Schedule

ID	Task Name	Duration	Start	Finish	Month												
263	Prep Paint & Primer	2 days	Wed 5/28/06	Thu 5/29/06	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
264	Paint	5 days	Fri 5/30/06	Mon 6/5/06	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
266	Install Unit Vinyl	4 days	Wed 6/4/06	Mon 6/9/06	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
268	Corridor Acoustical Ceiling Grid	3 days	Fri 6/9/06	Tue 6/13/06	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
301	MP & E Trim Out	5 days	Fri 6/6/06	Thu 6/12/06	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
299	Install Corridor Ceiling Tiles	1 day	Wed 6/11/06	Wed 6/11/06	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
297	MP&E Corridor Trim Out	6 days	Fri 6/13/06	Thu 6/19/06	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
305	Install Window Blinds	2 days	Fri 6/13/06	Mon 6/19/06	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
300	Install Cabinets	4 days	Wed 6/18/06	Mon 6/23/06	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
302	Install Countertops	4 days	Mon 6/23/06	Thu 6/29/06	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
303	Install Bath Accessories	3 days	Fri 6/27/06	Tue 7/1/06	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
304	Install Appliances	3 days	Fri 6/27/06	Tue 7/1/06	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
304	Install Unit Carpet	5 days	Wed 7/2/06	Tue 7/11/06	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
307	Punchlist	30 days	Wed 7/2/06	Tue 8/1/06	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
306	Install Corridor Carpet	2 days	Wed 7/2/06	Thu 7/13/06	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
309	Building B Ready For Ownership Walk	0 days	Tue 8/1/06	Tue 8/1/06	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
335	3rd Floor	84 days	Mon 3/31/06	Thu 8/7/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
337	Insulate and Drywall Percock Locations	2 days	Mon 3/31/06	Tue 4/1/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
338	Insulate	3 days	Mon 3/31/06	Wed 4/2/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
339	Drop Soffit Framing	2 days	Thu 4/10/06	Fri 4/11/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
340	Hang Drywall: Units	10 days	Thu 4/24/06	Wed 5/7/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
342	Mud & Tape	5 days	Thu 5/1/06	Wed 5/7/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
341	Hang Drywall: Corridors	2 days	Thu 5/8/06	Fri 5/9/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
343	Texture	5 days	Thu 5/8/06	Wed 5/14/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
344	Gypcrete	2 days	Thu 5/13/06	Wed 5/14/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
345	Install Trim & Doors	5 days	Thu 5/15/06	Wed 5/21/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
346	Prep Paint & Primer	2 days	Tue 5/20/06	Wed 5/21/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
347	Paint	5 days	Thu 5/22/06	Wed 5/28/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
351	Install Unit Vinyl	4 days	Mon 5/26/06	Thu 5/29/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
348	Corridor Acoustical Ceiling Grid	2 days	Thu 5/29/06	Fri 5/30/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
354	MP & E Trim Out	5 days	Thu 5/29/06	Wed 6/4/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
349	Install Corridor Ceiling Tiles	1 day	Mon 6/2/06	Mon 6/2/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
350	MP&E Corridor Trim Out	3 days	Wed 6/4/06	Fri 6/6/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
358	Install Window Blinds	2 days	Thu 6/5/06	Fri 6/6/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
352	Install Cabinets	4 days	Thu 6/12/06	Tue 6/17/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
353	Install Countertops	5 days	Thu 6/12/06	Mon 6/23/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
355	Install Bath Accessories	2 days	Tue 6/24/06	Wed 6/25/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
356	Install Appliances	3 days	Tue 6/24/06	Thu 6/29/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
357	Install Unit Carpet	5 days	Wed 6/25/06	Tue 7/1/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
360	Punchlist	30 days	Fri 6/27/06	Thu 8/7/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
359	Install Corridor Carpet	2 days	Wed 7/2/06	Thu 7/3/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
361	Building B 3rd Floor Complete	0 days	Thu 8/7/06	Thu 8/7/06	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
468	Bldg A	128 days	Mon 4/7/06	Wed 10/1/06	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
469	1st Floor	106 days	Mon 4/7/06	Mon 9/1/06	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
470	Metal Stud Interior Walls and Ceiling	25 days	Mon 4/7/06	Fri 5/9/06	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
471	Sheetrock Stock	5 days	Mon 5/19/06	Fri 5/23/06	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
472	Insulation	3 days	Mon 5/26/06	Wed 5/28/06	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
475	Production Drywall Start: Building A	0 days	Mon 6/16/06	Mon 6/16/06	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
474	Hang Drywall	12 days	Mon 6/16/06	Tue 7/1/06	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
484	Install Kitchen Tile	3 days	Wed 6/18/06	Fri 6/20/06	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
476	Mud & Tape	8 days	Tue 6/24/06	Thu 7/3/06	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
485	Install Kitchen FRP	2 days	Tue 6/24/06	Wed 6/25/06	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
486	Install Kitchen Equipment	13 days	Thu 6/26/06	Mon 7/14/06	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				

Project: Hermosa Village As-Built Schedule  
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Task Progress

Milestone Summary

Roll Up Task

Roll Up Milestone

Roll Up Progress

Roll Up Summary

External Tasks

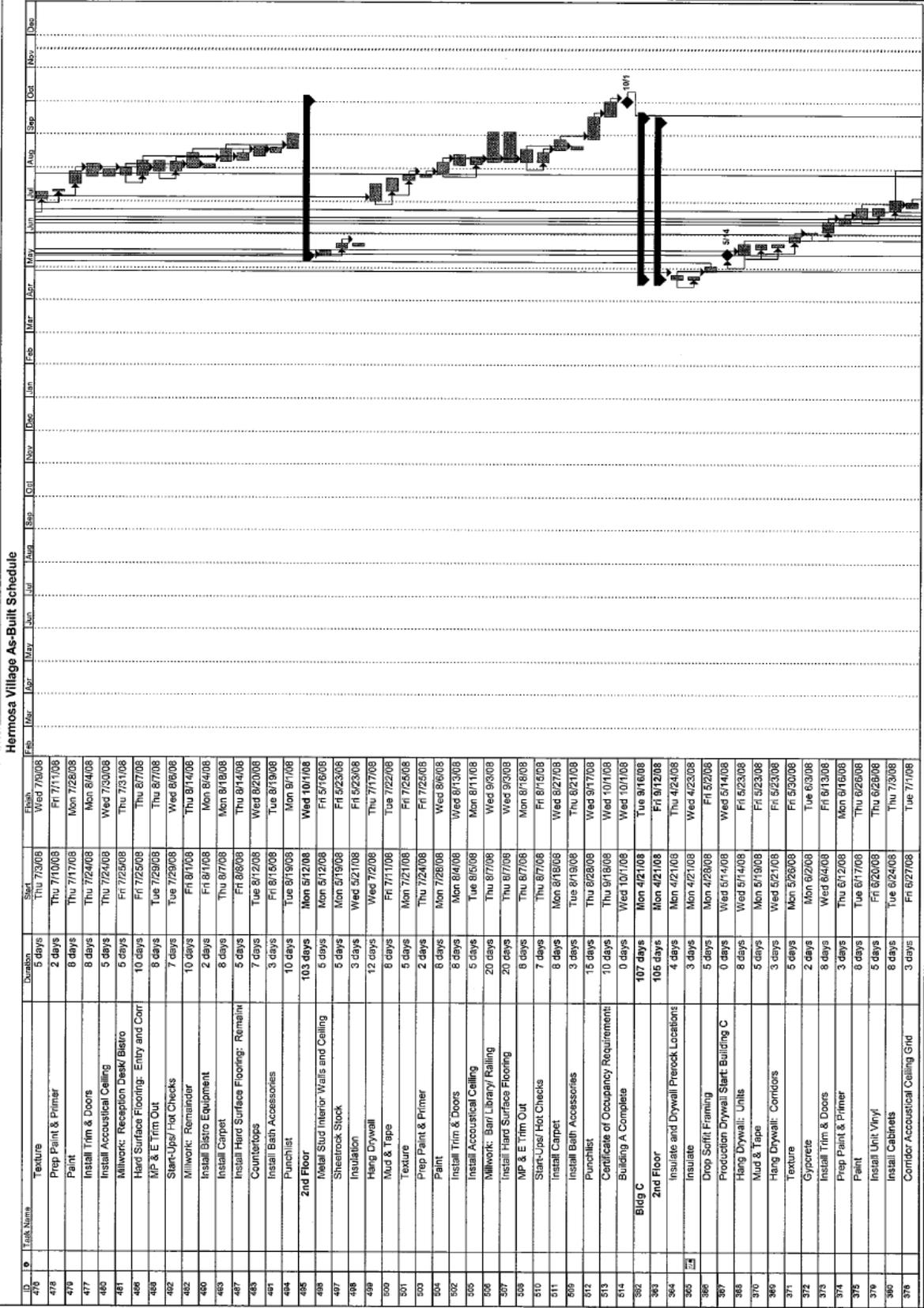
Project Summary

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Hermosa Village As-Built Schedule



Legend:
 

- Task
- Progress
- Milestone
- Summary
- Roll Up Task
- Roll Up Milestone
- Split
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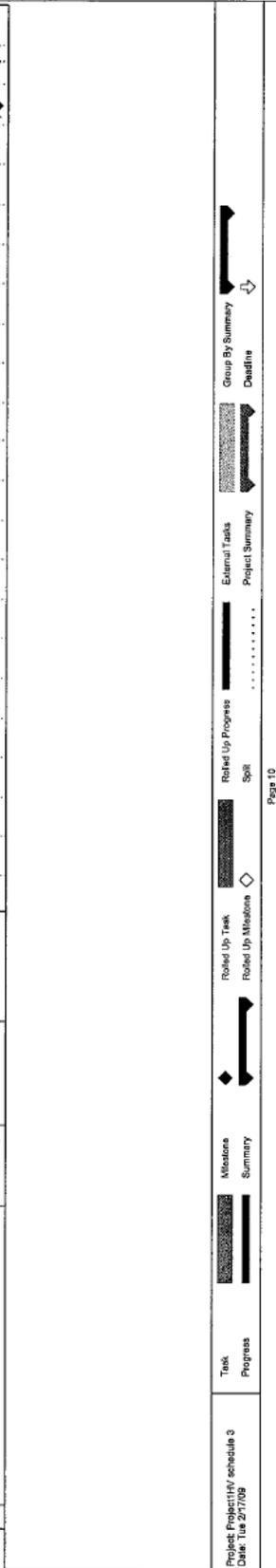
Hermosa Village As-Built Schedule

ID	Task Name	Duration	Start	Finish	Month										
377	Install Corridor Ceiling Tiles	1 day	Wed 7/2/08	Wed 7/2/08	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
381	Install Countertops	8 days	Wed 7/2/08	Fri 7/11/08	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
378	MP&E Corridor Trim Out	4 days	Fri 7/4/08	Wed 7/9/08	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
382	MP & E Trim Out	8 days	Wed 7/9/08	Fri 7/18/08	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
383	Install Bath Accessories	2 days	Mon 7/14/08	Tue 7/15/08	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
384	Install Appliances	5 days	Mon 8/4/08	Fri 8/8/08	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
385	Install Unit Carpet	8 days	Fri 8/8/08	Tue 8/19/08	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
386	Install Window Blinds	2 days	Mon 8/11/08	Tue 8/12/08	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
387	Install Corridor Carpet	3 days	Wed 8/20/08	Fri 8/22/08	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
388	Punchlist	15 days	Mon 8/25/08	Fri 9/12/08	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
389	Building G 2nd Floor Complete	0 days	Fri 9/12/08	Fri 9/12/08	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
390	1st Floor	101 days	Tue 4/29/08	Tue 8/16/08	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
391	Insulate and Drywall Perrock Locations	2 days	Tue 4/29/08	Wed 4/30/08	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
392	Insulate	3 days	Tue 4/29/08	Thu 5/1/08	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
393	Drop Soffit Framing	4 days	Tue 5/6/08	Fri 5/9/08	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
394	Hang Drywall	8 days	Mon 5/26/08	Wed 6/4/08	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
395	Mud & Tape	5 days	Wed 5/28/08	Tue 6/3/08	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
396	Hang Drywall: Corridors	5 days	Fri 5/30/08	Thu 6/5/08	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
397	Texture	5 days	Tue 6/3/08	Mon 6/9/08	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
398	Install Trim & Doors	7 days	Mon 6/16/08	Tue 6/24/08	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
399	Prep Paint & Primer	3 days	Mon 6/23/08	Wed 6/25/08	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
400	Paint	7 days	Thu 6/26/08	Fri 7/4/08	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
401	Install Unit Vinyl	5 days	Wed 7/2/08	Tue 7/8/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
402	Corridor Acoustical Ceiling Grid	3 days	Mon 7/7/08	Wed 7/9/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
403	Install Corridor Ceiling Tiles	1 day	Thu 7/10/08	Thu 7/10/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
404	MP&E Corridor Trim Out	5 days	Mon 7/14/08	Fri 7/18/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
405	Install Cabinets	7 days	Fri 7/18/08	Mon 8/11/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
406	Install Countertops	7 days	Wed 8/6/08	Thu 8/14/08	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
407	MP & E Trim Out	7 days	Wed 8/13/08	Thu 8/21/08	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
408	Install Bath Accessories	2 days	Fri 8/15/08	Mon 8/18/08	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
409	Install Appliances	5 days	Fri 8/15/08	Thu 8/21/08	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
410	Install Unit Carpet	7 days	Wed 8/20/08	Thu 8/28/08	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
411	Install Window Blinds	2 days	Fri 8/22/08	Mon 8/25/08	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
412	Install Corridor Carpet	3 days	Fri 9/2/08	Tue 9/2/08	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
413	Punchlist	10 days	Wed 8/5/08	Tue 8/16/08	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
414	Building C Ready For Ownership Walk	0 days	Tue 9/16/08	Tue 9/16/08	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
415	Bldg D	103 days	Mon 5/26/08	Wed 10/15/08	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
416	2nd Floor	94 days	Mon 5/26/08	Thu 10/2/08	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
417	Insulate and Drywall Perrock Locations	3 days	Mon 5/26/08	Wed 5/29/08	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
418	Insulate	3 days	Mon 5/26/08	Wed 5/29/08	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
419	Drop Soffit Framing	3 days	Tue 6/10/08	Thu 6/12/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
420	Production Drywall Start: Building D	0 days	Fri 6/20/08	Fri 6/20/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
421	Hang Drywall: Units	7 days	Fri 6/20/08	Mon 6/30/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
422	Hang Drywall: Corridors	5 days	Wed 6/25/08	Tue 7/1/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
423	Mud & Tape	7 days	Wed 6/25/08	Thu 7/3/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
424	Texture	5 days	Wed 7/2/08	Tue 7/8/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
425	Gyproc	2 days	Wed 7/9/08	Thu 7/10/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
426	Install Trim & Doors	7 days	Mon 7/14/08	Tue 7/22/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
427	Prep Paint & Primer	2 days	Tue 7/22/08	Wed 7/23/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
428	Paint	7 days	Thu 7/24/08	Fri 8/1/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
429	Install Unit Vinyl	5 days	Tue 7/29/08	Mon 8/4/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
430	Install Cabinets	7 days	Thu 7/31/08	Fri 8/6/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
431	Corridor Acoustical Ceiling Grid	3 days	Mon 8/4/08	Wed 8/6/08	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr

Task Progress Milestone Summary Measure Roll Up Task Roll Up Milestone Roll Up Progress SPR Project Summary External Tasks Group By Summary Describe

Hermosa Village As-Built Schedule

ID	Task Name	Duration	Start	Finish	Month	Year
432	Install Countertops	7 days	Mon 8/4/08	Tue 8/12/08	Aug	2008
433	MP & E Trim Out	7 days	Wed 8/6/08	Thu 8/14/08	Aug	2008
430	Install Corridor Ceiling Tiles	1 day	Thu 8/7/08	Thu 8/7/08	Aug	2008
431	MP&E Corridor Trim Out	4 days	Mon 8/11/08	Thu 8/14/08	Aug	2008
438	Install Bath Accessories	3 days	Wed 8/13/08	Fri 8/15/08	Aug	2008
437	Install Appliances	5 days	Wed 8/13/08	Tue 8/19/08	Aug	2008
438	Install Unit Carpet	7 days	Fri 8/15/08	Mon 8/25/08	Aug	2008
439	Install Window Blinds	2 days	Wed 8/20/08	Thu 8/21/08	Aug	2008
440	Install Corridor Carpet	3 days	Tue 8/26/08	Thu 8/28/08	Aug	2008
441	Punchlist	25 days	Fri 8/29/08	Thu 10/2/08	Aug	2008
442	Building B 2nd Floor Complete	0 days	Thu 10/2/08	Thu 10/2/08	Oct	2008
443	1st Floor	98 days	Mon 8/2/08	Wed 10/15/08	Aug	2008
444	Insulate and Drywall Percock Locations	3 days	Mon 8/2/08	Wed 8/6/08	Aug	2008
445	Insulate	3 days	Mon 8/2/08	Wed 8/6/08	Aug	2008
446	Drop Soffit Framing	3 days	Thu 8/5/08	Mon 8/9/08	Aug	2008
447	Hang Drywall: Units	7 days	Tue 7/1/08	Wed 7/9/08	Jul	2008
448	Hang Drywall: Corridors	5 days	Mon 7/7/08	Thu 7/10/08	Jul	2008
449	Mud & Tape	5 days	Mon 7/7/08	Fri 7/11/08	Jul	2008
450	Texture	5 days	Fri 7/11/08	Thu 7/17/08	Jul	2008
451	Install Trim & Doors	7 days	Wed 7/23/08	Thu 7/31/08	Jul	2008
452	Prep Paint & Primer	2 days	Wed 7/30/08	Thu 7/31/08	Jul	2008
453	Paint	7 days	Fri 8/1/08	Mon 8/11/08	Aug	2008
454	Install Unit Vinyl	5 days	Thu 8/7/08	Wed 8/13/08	Aug	2008
455	Install Cabinets	5 days	Mon 8/11/08	Fri 8/15/08	Aug	2008
456	Corridor Acoustical Ceiling Grid	2 days	Tue 8/12/08	Wed 8/13/08	Aug	2008
457	Install Countertops	1 day	Thu 8/14/08	Thu 8/14/08	Aug	2008
458	Install Corridor Ceiling Tiles	5 days	Thu 8/14/08	Wed 8/20/08	Aug	2008
459	MP&E Corridor Trim Out	4 days	Mon 8/18/08	Thu 8/21/08	Aug	2008
460	MP & E Trim Out	7 days	Mon 8/18/08	Tue 8/25/08	Aug	2008
461	Install Bath Accessories	3 days	Thu 8/21/08	Mon 8/25/08	Aug	2008
462	Install Appliances	6 days	Thu 8/21/08	Wed 8/27/08	Aug	2008
463	Install Unit Carpet	7 days	Tue 8/26/08	Wed 9/9/08	Aug	2008
464	Install Window Blinds	2 days	Thu 8/28/08	Fri 8/29/08	Aug	2008
465	Install Corridor Carpet	3 days	Thu 9/4/08	Mon 9/8/08	Aug	2008
466	Punchlist	27 days	Tue 9/9/08	Wed 10/15/08	Aug	2008
467	Building D Ready For Ownership Walk	0 days	Wed 10/15/08	Wed 10/15/08	Oct	2008
515	Construction Access	117 days	Thu 4/10/08	Fri 9/19/08	Apr	2008
519	Turnover To Ownership	49 days	Thu 8/7/08	Wed 10/15/08	Aug	2008
581	Bldg B	0 days	Thu 8/7/08	Thu 8/7/08	Aug	2008
582	Bldg C	0 days	Tue 9/16/08	Tue 9/16/08	Oct	2008
589	Bldg A	0 days	Wed 10/1/08	Wed 10/1/08	Oct	2008
583	Bldg D	0 days	Wed 10/15/08	Wed 10/15/08	Oct	2008
584	Project Complete	0 days	Wed 10/15/08	Wed 10/15/08	Oct	2008



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The next part of the project was the procurement and coordination of warranty letters, ownership and maintenance manuals, and surplus materials from all the subcontractors. This was a big task, mostly dealing with organization and customer service. It became noted that many times it is necessary to threat to withhold payment if materials are not given in a timely manner. After items were delivered to the Phoenix office they were organized by both subcontractor and scope of work. They were then packaged and shipped to the owners' office and to the jobsite.

Once this step is complete, the construction and ownership punch processes must be done. This entails inspecting each apartment unit and making sure it is ready for ownership turnover. In order to make a more efficient way of keeping track of information, an Excel spreadsheet was made to include all rooms in each unit. Each member of the Opus team, including office workers and superintendents, had a copy of this Excel document and would walk through each unit and make comments on items that needed to be fixed or looked at before ownership turnover. At the end of each day the associate project manager or project management intern would compile all the comments on the computer spreadsheet and distribute it to the subcontractors who needed to do additional work. These subcontractors would then follow a sequencing schedule and the entire process would be repeated an additional time. This would ensure that the apartment units were ready for residents to move in. This method was more proficient than the previous process and improved the overall punch list procedure and reduced time which improved the schedule. A small portion of this Excel document can be seen in Figure 9 below.

Figure 5: Construction Punch list Excel Sheet (next page)

Unit #	Unit Type	Kitchen	Washer/Dryer	Living	Ext. Patio	Mstr Bed	Mstr Closet	Mstr Bath	Guest Bed	Guest Bath
1201	B2	2 dings in cabinet; replace microwave door; clean laundry room and align W/D				outlet upside down		caulk underneath cabinet	carpet stain	caulk between base and cabinet at area between toilet and cabinet; fix ding in cabinet; caulk underneath cabinet; touch-up in linen closet
1202	B2	3 cabinet dings; ding in louver door; clean laundry room and align W/D				Paint touch-up at entry door		Clean up paint and drywall in closet; caulk underneath cabinet.	loosen cabinet drawer track	caulk between base and cabinet at area between toilet and cabinet; fix ding in cabinet; caulk underneath cabinet; fix drawer track
1203	B1	3 cabinet dings; touchup at cab soffit; scratch on microwave; at entry paint flashing, 2 rough stops; clean laundry room and align W/D			Lathe coming thru at patio	small window blinds broken; 4 stains on carpet; door rubs against hinges; paint on wall; paint outside of door; fix window shade.		ding in cabinet; door rubs against hinges; caulk underneath cabinet		caulk underneath cabinet
1204	B2	7 cabinet dings; Corner of vinyl (left of oven) - stuff stuck to the floor; piece of vinyl missing in right corner of kitchen (right of oven); at laundry door, chipped at the top (door and paint) Laundry door - Paint touchup at the bottom		2 dings on laundry door		Chip in outside of the door; 2 scratches on inside of door	Paint touchup on closet door	caulk underneath cabinet; 2 paint touchups on door	Paint on carpet	caulk between base and cabinet at area between toilet and cabinet; fix ding in cabinet; caulk underneath cabinet; scratches on inside of the door
1205	B2	stian at carpet under island; sink base has epoxy; cabinet ding on door; Paint touch-up on wall; clean laundry room		slider casing needs to be tightened		outside of door needs paint		caulk underneath cabinet	outside of door casing needs paint; door needs paint	caulk between base and cabinet at area between toilet and cabinet; fix ding in cabinet; caulk underneath cabinet

1207	B2	1 cabinet ding, near countertops; 1 clean-up paint above cabinet; loose hinge at sink base cabinet; clean laundry room and align W/D				inside of door needs paint; closet door nick in paint			door frame needs paint (in jamb); door needs paint and casing around it.	caulk between base and cabinet at area between toilet and cabinet; fix ding in cabinet; caulk underneath cabinet
1208	B2	Dent in microwave; 3 cabinet dings; clean laundry room and align W/D		carpet stain in dining		stain in carpet near bathroom	stain in carpet	sink faucet leaks; check tub fixture for leak; caulk underneath cabinet; caulk underneath cabinet	cracked window glass	caulk between base and cabinet at area between toilet and cabinet; fix ding in cabinet; caulk underneath cabinet; tub fixture leaks
1209	B2	3 cabinet dings; 2 paint touch-ups outside of laundry wal; clean laundry room and align W/D		Paint touch-up on entry door frame				caulk underneath cabinet		caulk underneath cabinet; tub fixture leaks; caulk between base and cabinet at area between toilet and cabinet.
1210	B2	5 cabinet dings; paint touch-ups outside laundry wall; clean laundry room and align W/D		carpet lines visible in living, near door			stain in carpet	sink drain lever not connected; caulk underneath cabinet	stain in carpet near entry door	caulk between base and cabinet at area between toilet and cabinet; fix ding in cabinet; caulk underneath cabinet; fix water damage underneath sink; tub fixture leaks (make sure not leaking in wall)
1211	B1	9 dings in cabinets; clean laundry room and align W/D; adjust louver door (doesn't close properly)		paint touch-up near patio SGD				ding in linen closet door; caulk underneath cabinet	Vacuum room; caulk around fire horn/ drywall repai	caulk underneath cabinet;
1212	B2	10 dings in cabinets; clean laundry room and align W/D; adjust louver door - doesn't close properly				3 dings/ touch-ups in door		caulk underneath cabinet; tighten linen closet door hinge bracket.	Vacuum room; caulk around fire horn/ drywall repair; crack in window glass.	caulk between base and cabinet at area between toilet and cabinet; fix ding in cabinet; tub faucet not working; caulk underneath cabinet; dings in door frame; dings in cabinets

1214	B2	straighen counter/ cabinets between fridge and stove; level and straighten stove; 2 dings in cabinet; clean laundry room and align W/D						; caulk underneath cabinet		caulk between base and cabinet at area between toilet and cabinet; fix ding in cabinet; caulk underneath cabinet and paint drywall
1215	B2	entry door squeaks; ding on microwave; 2 cabinet dings; adjust pendant height; paint touch-up at pantry jamb; dining - 2 paint tough-ups; clean laundry room and align W/D		2 touch-up scratches on wall; 1 drywall paint/ drywall patch near slider		outside of door paint chips; spot that needs texture; baseboard that needs paint		handle on door has paint on it; scratch on paint near cabinets; paint on door; touch-up paint/ drywall bathroom.	door won't latch; paint on outside of door; inside of door casing and paint	caulk between base and cabinet at area between toilet and cabinet; fix ding in cabinet; caulk underneath cabinet; tub fixture leaks; clean paint on light switches.
1216	A2	level/ adjust gap of cabinet doors at sink base; ding on jam on entry door; clean laundry room		kitchen island needs to be painted		paint above light switch; spot on wall (needs texture); paint back of door; closet door paint		paint touch-up in cabinets		
1217	A2	Fridge has dent on side (re-use in another units; clean plumber putty out of sink; clean laundry room		Screw in frame at slider; 2 paint touch-ups; oil entry door (squeaks)		paint on carpet; paint on closet light switch; paint on door				
1218	B2	dishwasher won't latch; paint cut in at cabinet soffit; 3 caulking issues at floor near pantry; adjust ceiling pendant		Dining - 5 paint touch-ups; 1 paint flash, 1 scratch on wall	moisture/ leak	closet ceiling paint; door casing paing (inside);		replace toilet lever; shelves in med cabinet missing; door hinges too tight		caulk between base and cabinet at area between toilet and cabinet; fix ding in cabinet; caulk underneath cabinet and paint touch-up

1220	B2	adj hinges above cab pantry; 2 cab dings; 2 paint touch-ups (one in corner); clean laundry room		Squeaky front door entry; Dining - 1 paint touch-up		entry door casing needs touch-up; paint scuff in door bottom and handle		repaint entire door	touch up on door; inside casing paint bubble; door doesn't latch; door has paint marks on front	caulk between base and cabinet at area between toilet and cabinet; fix ding in cabinet; caulk underneath cabinet
1221	B2	squeaky entry door; ding on floor; clean top of refrigerator; adj hing above cabinet pantry; 1 touch up paint on w/d door; 2 cabinet dings		Dining - area that needs texturing (flat area)		door doesn't latch		door doesn't latch; toilet doesn't work; door paint bubble		caulk between base and cabinet at area between toilet and cabinet; fix ding in cabinet; caulk underneath cabinet
1222	A2	Scratch on microwave; shorter pantry door stop mark on floor near range		ding on slider frame; squeaky front door			shelf in closet needs paint touch-up			
1223	A2	dishwasher fix (mounted in place); 5 cabinet dings, 3 paint touch-ups on door to washer; paint touch up behind fridge; paint touch-up at entry; squeak on front door hinges laundry door paint touch-up; clean laundry room; Sinks need ot be caulked and set.		Carpet line Visible		clean carpet stains; door paint touch	Add lower shelf; paint touch-up	paint bathroom door		

Finally, the venture must be passed from a construction managed project to an ownership managed one. This was a daunting task because, like the other documents and procedures discussed above, Opus West did not have a set way of doing this. After doing much research, different closing documents were found and put together. These were then transformed to fit with the specific Hermosa Village Senior Living project. This however was not enough. For previous projects, there was not a single document that contained all the information about the project. If someone wanted to look something up, he/she would have to look in numerous different locations and would many times not find what he/she was looking for. Because of this, a single document must be developed to include all the necessary information. After finding information such as scope, schedule, quality, budget / final cost, elevations and plans, lessons learned, outline specifications, bid analysis sheets, and a copy of the certificate of occupancy, this text could be put together. This task was not as simple as it seems however because many of these parts had to be created from scratch. Previous project did not include everything so at the beginning of the Hermosa Village planning, the managers did not think they needed all these documents.

After extensive examination the final “Hermosa Village Autopsy Report” was put together and will be used as a model by Opus West Construction in future projects. This document cannot be attached due to confidentiality agreements and due to its extensive length of 173 pages.

## **Conclusion**

In conclusion, the main problem solved was lack of organization. The Microsoft Project schedule, Excel files, and Autopsy Report all helped Opus West be more efficient with the closeout process for the Hermosa Village Senior Living project. Due to the nature of these documents, project managers can use them as models for many projects in the future.