

JAMES A. GRAASKAMP COLLECTION OF TEACHING MATERIALS

V. INDUSTRY SEMINARS AND SPEECHES - SHORT TERM

I. Other Presentations In Which Either The Date And /  
Or Sponsoring Organization Is Missing

3. Development Topics

- s. "The Magic Real Estate of Disney World",  
no date (Probably notes for a slide  
presentation)

THE MAGIC REAL ESTATE OF DISNEY WORLD

*(Probably notes for a slide presentation)*

1. Disney World<sup>or</sup> burst into operation in May of 1971 after 4 years of planning and construction. It is more than a super amusement park because of its accomplishments in urban technology and urban psychology. At 27,000 acres it is the largest new town in the U.S. and represents \$400 million of equity to date as compared to \$100 million for Columbia and \$85 million for Reston.
2. It is located at the crossroads of Florida, directly accessible from Interstate 4, U.S. 27, and The Sunshine State Parkway. The total site is larger than the City of Orlando, 25 minutes away. There is a 6 mile drive up the main entrance road to a huge parking and entrance area. While the roads can then continue to the 600 acre campground, Fort Wilderness, or the hotels, everyone else must switch to the public transport system of Disneyworld. There is parking for 12,000 cars not including employee cars.
  - a. 7500 acres (at bottom of picture) is dedicated to conservation of the Reedy Creek Swamp and shoreline along the rivers in permanent conservancy area as shaded in the slide. Present development is located at the north end around Bay Lake and in a new village for employees called Buena Vista on the east edge with its own interchange with the Interstate. Later, Disney will build an experimental proto-type community of tomorrow called EPCOT at the center right of the main entrance road.
3. The site of 27,400 acres was acquired at an average cost of \$180 per acre through purchase of one 27,000 acre parcel and numerous little parcels to neutralize hold-outs and to create sufficient natural barrier to create a world onto itself. Progressive development of the tract is suggested by these black and white sketches and

25,000 Visitors/1971  
Recreation Complex  
11,000 Employees  
1,500 Hotel/Motel Units  
Residential Community  
625 Residents  
1,000 Employees  
1,000 Motel Units  
250 Residential Units

45,000 Visitors/1976  
Recreation Complex  
12,500 Employees  
3,000 Hotel/Motel Units  
Residential Community  
4,000 Residents  
2,000 Employees  
2,000 Motel Units  
1,500 Residential Units  
Industrial Park  
2,000 Employees  
Entrance Complex  
500 Employees  
500 Motel Units  
Jetport  
400 Employees

65,000 Visitors/1981  
Recreation Complex  
14,000 Employees  
4,000 Hotel/Motel Units

100,000 Visitors/1991  
Recreation Complex  
16,000 Employees  
6,000 Hotel/Motel Units

Residential Community  
 15,000 Residents  
 3,500 Employees  
 2,500 Motel Units  
 4,000 Residential Units  
 Industrial Park  
 10,000 Employees  
 Entrance Complex  
 2,000 Employees  
 2,500 Motel Units  
 Jetport  
 800 Employees  
 200 Motel Units  
 EPCOT  
 3,000 Residents  
 1,250 Employees  
 1,000 Residential Units.

Residential Community  
 16,500 Residents  
 4,000 Employees  
 3,000 Motel Units  
 4,500 Residential Units  
 Industrial Park  
 20,000 Employees  
 Entrance Complex  
 4,000 Employees  
 5,000 Motel Units  
 Jetport  
 2,000 Employees  
 500 Motel Units  
 EPCOT  
 25,000 Residents  
 10,000 Employees  
 4,000 Hotel Units  
 7,500 Residential

4. Current development surrounds Bay Lake. The public approaches from the south while employees and all supplies have a separate entrance, parking, and service area to the north of the Magic Kingdom.
5. The Magic Kingdom is truly magic because the Disney Corporation can own its own government. The entire tract is the Reedy Creek Improvement District which has all the authority of a county except for police power. The Reedy Creek Commission is controlled by the Disney organization and can set air and water pollution standards, all matter of zoning and building codes, and tax the land owner which it does in an amount exceeding \$3 million a year. Among other things the district thought the 450 acre Bay Lake was too polluted. Disney engineers drained it entirely, removed layers of organic debris and dredged up white sand to cover the bottom and spread along the beaches. They then pumped in underground water to refill the lake and stocked it with 70,000 bass.

*a great deal of*  
 The greatest strength of Disney World designers was their distance from reality. They had ~~much~~ money and did not have to maintain old unworkable systems, cater to vested interests or use their resources on schools, drugs, welfare and politics. They were free in their Magic Kingdom to invent new kinds of urban systems real cities could never afford to develop and test.

6. What meets the eye are delightful, makebelieve cities. but what doesn't meet the eye is a wonderland of urban systems. The entire Magic Kingdom appears to be built on a gentle hill which is really the roof of industrial warehouse and tunnel system serving the city from below. Supplies, employees, energizing machinery and waste are all below the surface including employee cafeterias, security systems, and all the rest. The centerpiece is a 17 story fiber glass and steel castle.
7. The first floors of street buildings have old-time shops as well as rest rooms and information centers. However, steps are always avoided in order to handle large crowds of people with a minimum of vertical movement so second floors are for looks, storage, and machinery.

8. Street action is provided by a variety of rides for the visitor tired of walking such as horsedrawn streetcars, old-time fire engines and automobiles, all of which were built new for the project to incorporate modern materials and safety mechanisms.
9. Many well known companies have pavillions such as <sup>the</sup> Coca Cola refreshment stand but many other companies are absent. For example, you cannot buy Kodak film anywhere on the premises. GAF is the only available brand.
10. The flowers are replanted just in time for their blooming season from a huge nursery which operates on one corner of the acreage. The nursery produced full trees and new strains of shrubbery carefully acclimated to Florida climate. The nursery is watered by the effluent <sup>from</sup> the sewage treatment plant. <sup>the</sup>
11. Other sources of street action are surprise parades and entertainers carefully articulated to that there is always something happening somewhere to draw a crowd of people otherwise wondering what to do next. ~~These~~ bandsman will also be playing at the old western saloon, Diamond Lil's, or perhaps an hour later in a different costume in a German Oompah band.
12. This cluster has an American history theme with a Hall of Presidents, an old west saloon, river flat boats cruise around a stockade of old-time shops and a paddle wheeler docks at the foot of the plaza.
13. A great artificial banyon tree of fiber glass and steel conceals 15 or 20 persons at a time ala Swiss Family Robinsin.
14. The haunted house is known for its friendly Casper the Ghost apparitions...
15. which leaves the worldly wise pondering on how the hollograms work and move so that the ghost can sit down in the seat next to you as you move through the display on a little boat similar to that of the tunnel of love.
16. People movers dominate the action makers for the Magic Kingdom...
17. and lead to a great old railroad station and city plaza with this City Hall...
18. and this grand old Victorian railroad station which sits above the main gate to the Magic Kingdom to screen the entry so that the city plaza within is a visual surprise.
19. This old 1860 locomotive is visually contrasted with...
20. side wheelers arriving at the main dock at the gates to the Magic Kingdom which has a reproduction of an old walking beam steam engine in a glass enclosed boiler room on board. In the evening a Dixie Land band plays on the fantail and drinks are served to those out on the lake waiting for the fireworks display. These are 3/4 size reproductions. The Disney World fleet of 200 ships is the <sup>ninth</sup> largest navy in the world, and includes a couple of Jules Verne submarines.

21. The most spectacular of the transportation systems is the Alweg Monorail which operates on a wide loop that links hotels, parking, and the Magic Kingdom. It is sleek, quiet, and swift and shoots right through the huge Contemporary Hotel and glides into the Polynesian Village courtyard.
22. One is really impressed with the tight clean metal work and solid doors that open out simultaneously when the train stops at the station. In each car there is a double door and folding seats to make room for wheelchairs.
23. The Contemporary Hotel is a classic statement of the never-never land of modern technology.
24. Approaching on the Monorail one sees this huge A-frame with sloping sides topped by a restaurant and observation deck.
25. The Monorail rises on graceful concrete pylons and enters the building on about the fourth floor. Note the air conditioning cooling condensers in the woods to the right removed from the structure so that it does not interfere with the utility of the roof area or the immediate ground area of the hotel.
26. The red carpeted station show the openings at the end of the glass wall. Note how the corridors are cantilevered inward following the steel A-frame. The train is so quiet it does not provide more than a light hum in the room corridors which are the balconies.
27. The passageway for the train is an air door in which fans prevent outside air from entering and air conditioning from going outside. Note the fire stair is outside the window.
28. The window itself is a unique space frame in which air is blown on the glass from these pipes to prevent condensation and intricate gutter systems are at the base of each window to remove any water which does form.
29. The south end of the building is dominated by a huge mural on the elevator and elevator lobby shaft as well as southern sunlight. On the mezzanine floor are a series of dining rooms layed out so that everyone shares the view but each restaurant offers a different price level for the entree. Each restaurant can be joined to the next for the breakfast hour or luncheon.
30. On the opposite side of the elevator column with window lighting from the north is a shopping lobby with gifts, car rental services, drug stores, etc. Elevators and escalators lead down to the ground floor. Meeting rooms are below the grand concourse and above the ground floor so this concourse is actually the third floor of the building. The "A" frame construction keeps the meeting room spaces free of columns for total flexibility.
31. Some shops are made of the multiple cabinet units with skylights to attract lady shoppers from the balcony.

32. Decorations are added for the season such as this foil Christmas tree hung by a single cable from the roof. Roof framing includes electric winches for this type of display. The tree is made of concentric loops of light wire and can be completely folded up.
33. The steel "A" frame is sheathed in concrete panels but the actual construction involved a steel frame filled with modular steel room units. It is four stories high to the first rooms. Each pair of rooms can be connecting and each has its own balcony. The balcony railing gives the strong horizontal, concrete appearance. Since each room was individually suspended in the steel frame the sound proofing control is excellent. Room feature huge compartmented bath and dimmer controlled indirect lighting.
34. The deep portion below the rooms contains the meeting rooms, train concourse, and first floor arrival lobby and service area. Note the stairways which provide emergency steps to ground level from the meeting rooms.
35. The hotel faces a waterfront recreation area flanked by two low rise motel complexes which provide additional room capacity which utilizes public areas of the Contemporary. The low rise units are preferred by families wishing to avoid elevators and the turmoil of the lobby. Continental breakfasts are provided on each floor of the low rise Bay Shore unit. Note white sand bathing beaches.
36. A large pier provides opportunity to look back on the hotel from the lake. Note the Olympic size swimming pool for those who prefer pools to lakes. One pool is for teenagers, another for adults.
37. Beyond the bathing area the pier provides every type of boat rental and a landing point for the paddlewheel steamers and the river boats which connect to all the other attractions along the lake.
38. A pavillion at the base of a pier consists of buildings for dressing rooms, bar, rental office for boats, and refreshments. These little buildings are held together by the architectural feature of a space frame roof, ala Bucky Fuller. This is a commercial unit which is available in sections prefabricated for any developer and has many applications for small shopping centers, summer theaters, etc.
39. Note that in this roof shot actual roofing material is extended only over pedestrian walks.
40. Here is a view of the Bay Shore wing of motel units. Note the modular is similar but in smaller scale to the Contemporary with a sloping facade, more delicate balcony rails and a carefully patterned roof with all vents concealed so it would not be visually distracting for those in the high rise building. Each unit can be closed off in modules to control capacity during different seasons or to provide for private parties.

41. Parking is enclosed in the front courtyard. When you arrive at the front gate to Disney World you indicate you have a reservation and you are directed on the right road. When you arrive at the parking lot another gatehouse hands you a packet with your room assignment, etc. so that by the time your car reaches the door to the motel you are already checked in via computer. The hostess greets you by name to arrange any special requirements and direct the bellboys on the transfer of your baggage.
42. Note the careful detailing by the architect to eliminate protruding roof vents, to define parapet walls, and to provide symmetry and form to the stair towers. Only the all-weather link seems an after thought.
43. The main entrance to the Contemporary uses the base of the "A" frame to shelter a long parking and unloading area.
44. Truck unloading and employee entrances are provided in a well hidden service point at the south end of the building. However, dirty linen and all solid waste disposal is moved underground through vacuum tubes to service buildings for processing to much of the messiest waste material common to hotels has been eliminated. Employees arrive by special bus from employee parking lots several miles distant from the hotel.
45. Note that the architectural reveal for the "A" frame glass window is actually the fire stair. Each corridor has a fire door at either end opening onto outside balconies so that the need for internal fire stairs has been eliminated and the fire escape is both a handsome architectural feature and sunshade. Rooftop restaurant connects to fire stairs via the observation deck which bridges the skylights in the main roof.
46. Leaving the Contemporary via the monorail one can note the air conditioning compressors for the entire complex at some distance from the buildings.
47. The view from the typical room looks over toward the Polynesian Inn. Notice the canal connecting the two parts of the lake. At the center the canal defies gravity by going over the road.
48. How often have you been run over by a steamboat? This solution eliminates the need of a draw bridge or high approach ramp or the designing of boats low enough to pass under a bridge. The automobile is secondary to atmosphere.
49. The relatively shallow canal and bold shaped lakes hold water pressure problems to a minimum.
50. From the top of the Contemporary one can see the Magic Kingdom and all the alternative recreational opportunities in boating, golfing, camping, or whatever...
51. and at dusk the Magic Kingdom looks even more magical and inviting.

52. The Contemporary becomes a focal point for the development. The lounge and supper club on the top feature family entertainment in a supper club setting. The lounge opens on either side to an open roof deck.
53. From the paddlewheel boat the high drama of the Contemporary by night is even more apparent and at about 11:00 there is an outstanding fireworks display.
54. The monorail travels to another station at the Polynesian Inn which is a low key country style as the Contemporary Inn is urban in character.
55. The center atrium of the Polynesian Inn is filled with live Hawaiiin plants.
56. Sky lit from above by a Polynesian version of an "A" frame which gives the central building inexpensive height and a sense of arrival. Note the construction with pre-cast concrete beams stained to resemble timber.
57. Live Hawaiian style music for additional accent.
58. Large glass areas around the lobby promenade quickly acquaint the new arrival with the general layout and amenities of the Polynesian Inn. Many subtle design tricks are used to reduce the sense of overwhelming size and fear of being lost for the visitor.
59. The dining and lounge wing just out along the harbor quay.
60. Between the buildings are garden paths leading to the waterfront and swimming pool.
61. The small courts permit creation of an Hawaiian landscape and gas lit torches for the romantic recreational theme of fire, water, wood and green space.
62. The waterfront has the white sand beaches and heavy plantings of tropical palms. Catamarans and war canoes reflect Hawaiian motif. Notice the decorative Polynesian "A" frame used to accent the building and shield the skylight from the sun.
63. The harbor comes right between the buildings for a dockside atmosphere.
64. Connecting all of the various features in the complex is an enviro-genics vacuum waste disposal system and a second vacuum system for collecting dirty laundry.
  1. Water is removed from the waste, decontaminated, and the effluent is used to water the nursery and tree farm through an underground system of pipes.
  2. Solid wastes are first processed to reclaim paper and metals for recycling and then the balance is reduced by a stationary compactor or incinerator. The system was built by a subsidiary of Arrow Jet Generator Company under license from CENTRALSUG of Sweden. At Disney World over 500 mobile trash receptors can be moved to several dozen collection points.



65. In a high rise structure laundry and solid wastes move in separate line to a collection hopper or service building which can be several miles from the collection point.
66. Here is an example of waste stacks for a low rise building for a garden apartment project. Because wastes first collect at the base of vertical stacks and then are moved automatically at specific points in time, the system has unlimited capacity after the main transport line has been established by scheduling the timing of transport from a collection point to a processing point.
67. To service the 10,000 cars a day and 50,000 visitors Disney has built the world's largest filling station...
68. and repair shop.
69. Disney World is no bush league development. It takes the mind of an elephant to grasp the tale of this project.