

concept

DECISION MAKERS, DOERS AND ADVISORS
– JOINING FORCES TO ENHANCE UTILITY OF INVESTMENTS

Concept Symposium 2010
Oscarsborg, Norway
16 – 17 September 2010

Symposium web-site: <http://www.conceptsymposium.no/>
Concept Research Programme: <http://www.concept.ntnu.no/english/>

Pentagon Renovation Program

PRESENTATION TO THE
CONCEPT SYMPOSIUM

SINTEF TECHNOLOGY AND SOCIETY
PRODUCTIVITY AND PROJECT MANAGEMENT



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NOTE: LOGOS ARE FOR INFORMATION ONLY

PRESENTER IS NOT OFFICIALLY REPRESENTING EITHER ORGANIZATION



Program Management Challenge

The Pentagon - A Small City



34 acres
6.5 million sq. ft.
3 Empire State Bldgs.
7,748 windows
17.5 miles of corridors
25,000 personnel
1,000,000 calls each day
Police force
Metro station
Fire Station
Health Facilities
Post Office
Mini-mall
Heliport

Had never undergone a major renovation in its 60-year history.



Program Management Challenge

The Need for Renovation



- Deteriorated infrastructure
- Poor working conditions
- Difficult to maintain
- Costly to maintain
- Poor documentation





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TRADITIONAL PROJECT MANAGEMENT

- “THE SCHOOL SOLUTION”
 - EMPHASIS ON AVOIDING RISK
 - SEEKS SAFE AND CONVENTIONAL SOLUTIONS
 - MANAGEMENT IS EMPHASIZED
 - LEADERSHIP IS DE-EMPHASIZED
 - DECISION BY COMMITTEE
 - MULTIPLE LAYERS OF REVIEW
 - DECISION-MAKING DELAYED UNDER GUISE OF “SEEKING MORE DATA”
 - SLOW AND PAINFUL



Program Management Challenge



BREAKTHROUGH PROGRAMS

- “WHEN YOU MUST BE SUCCESSFUL”
 - REMOVED FROM NORMAL ENVIRONMENT
 - EMPHASIS ON ACHIEVING SUCCESS
 - CONSIDERS OPPORTUNITY VS RISK
 - ALL SOLUTIONS ARE CONSIDERED
 - EMPHASIS ON LEADERSHIP
 - LEADER MAKES DECISIONS AND HELD ACCOUNTABLE
 - VERY LIMITED REVIEW
 - “GUT FEEL” IS RESPECTED
 - FAST AND DECISIVE



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THE STANDARD APPROACH WASN'T WORKING



- **ORGANIZED BY FUNCTIONS, NOT PROJECTS – UNFOCUSED PROJECT RESPONSIBILITY**
- **PERFORMANCE EVALUATIONS BASED ON FUNCTION SUCCESS NOT PROJECT SUCCESS**
- **OUR CONTRACTS ASSUMED WE WOULD FAIL THERE WERE ONLY PENALTIES, NO REWARDS FOR GOOD WORK**
- **END RESULT: WE WERE NOT OPERATING AS A TEAM**



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THERE ARE TWO TYPES OF PROGRAMS:

1. THOSE WHICH SEEK TO AVOID FAILURE...
2. THOSE WHICH SEEK TO ACHIEVE SUCCESS...

WE DECIDED TO BECOME A PROGRAM SEEKING SUCCESS



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OUR PEOPLE WANTED TO BE SUCCESSFUL

- THEY WANTED SUCCESS ORIENTED LEADERS
- THEY WERE WILLING TO WORK HARD TO ACHIEVE SUCCESS
- THEY WERE HAPPIEST WHEN REWARDS WERE EARNED...NOT WHEN REWARDS WERE GIVEN TO THEM
- THEY WANTED HONESTY AND TRUTH



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CAME THE REVOLUTION ...



- TRANSFORMED INTO INTEGRATED PROJECT TEAMS (IPT's) WITH MANAGERS RESPONSIBLE FOR INDIVIDUAL PROJECTS
- ADOPTED "BUILD TO BUDGET" APPROACH
- "AWARD FEE" PROFIT OPPORTUNITIES ESTABLISHED IN ADVANCE
- PERFORMANCE EVALUATIONS BASED ON DEMONSTRATED PROJECT SUCCESS
- OWNER COMMUNICATED REQUIREMENTS NOT DEMANDS
- REWARDS FOR HIGH PERFORMANCE AND SHARED SAVINGS 50/50
- END RESULT: WE BEGAN OPERATING AS A TEAM



Program Management Challenge



How We Improved the Design and Construction Process



- Hired better TEAMS
- Gave the TEAMS incentives to achieve our goals
- Set clear TEAM goals
- Operated as a TEAM (owner too)
- Measured TEAM progress against goals
- Rewarded TEAM Achievement



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CHALLENGE!





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DAMAGE!





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RESPONSE!





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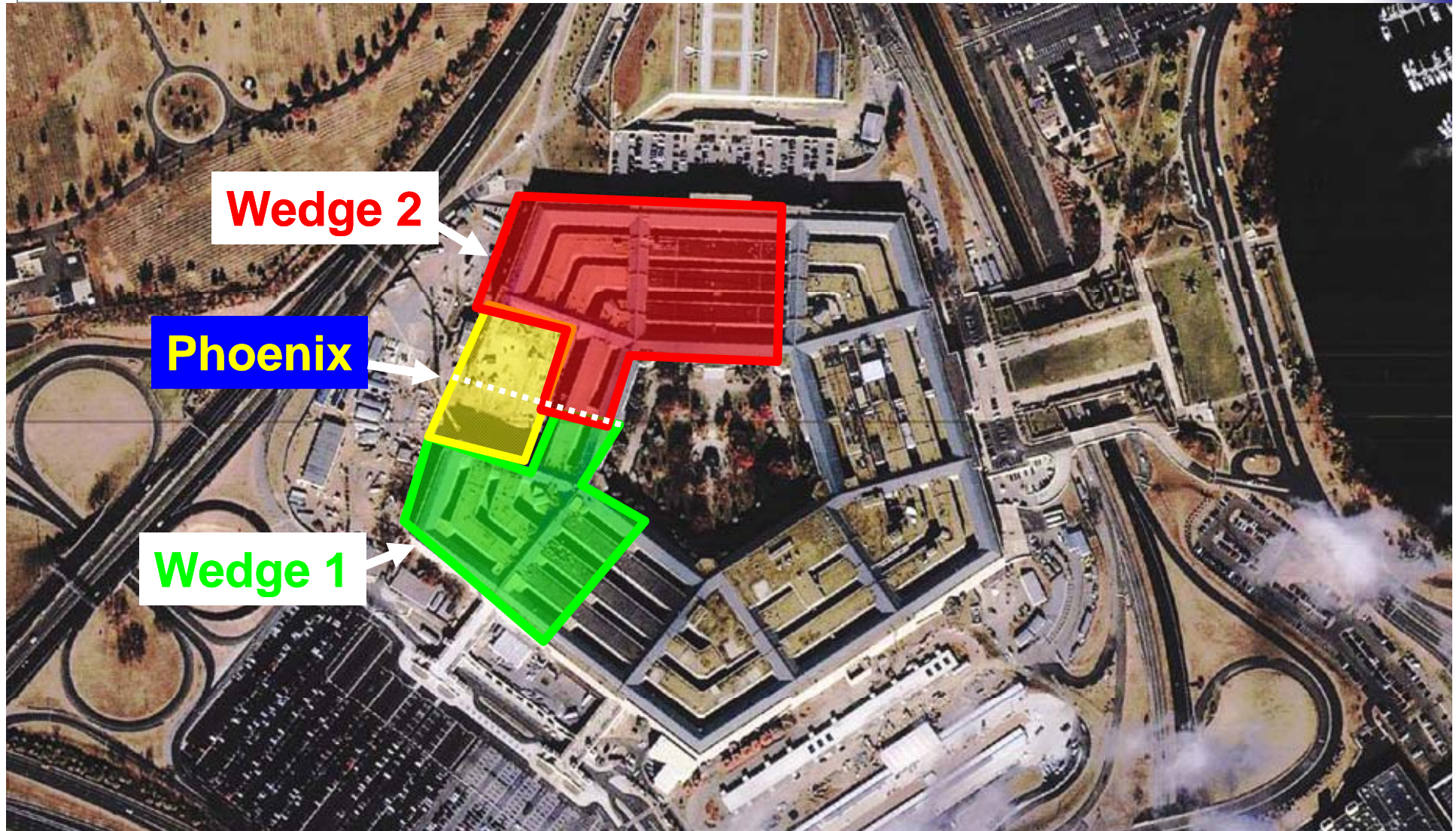
RESULTS!





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Recovery & Renovation Projects



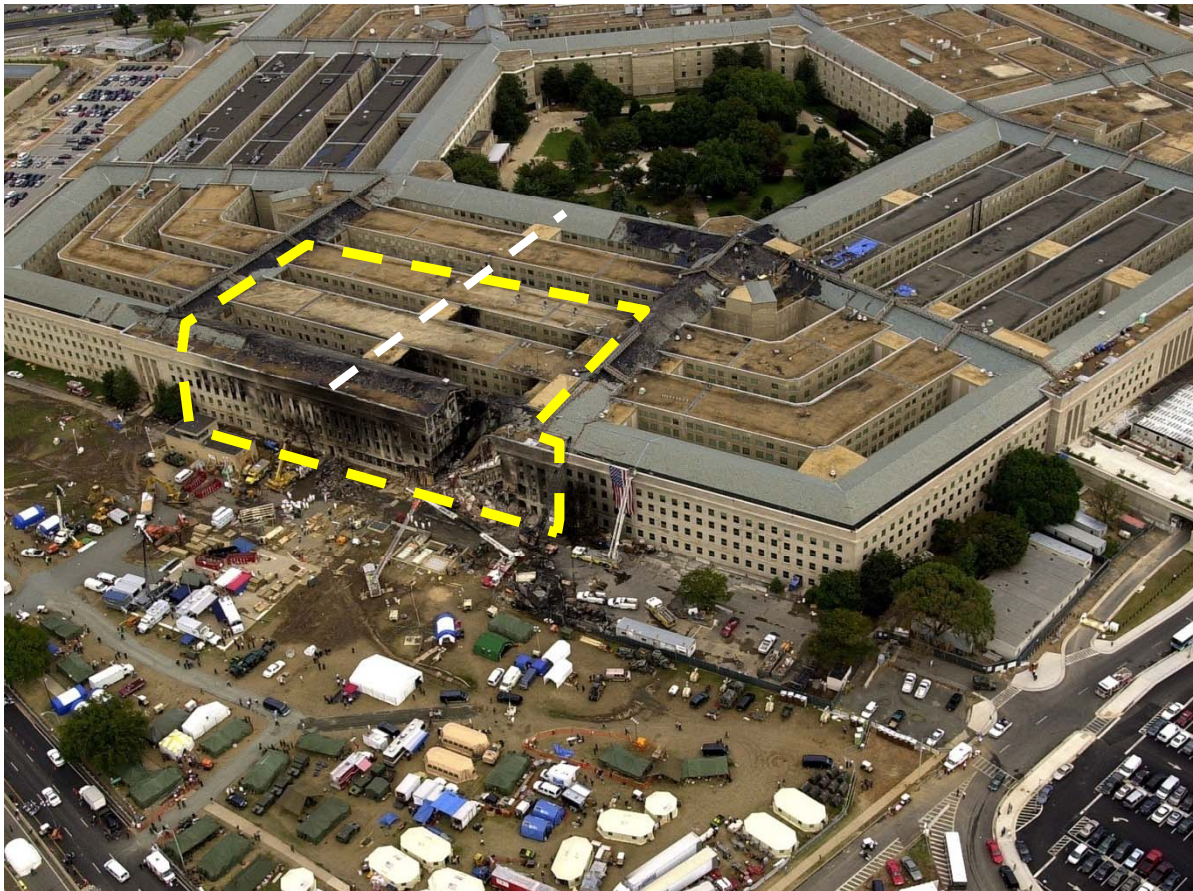


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The Phoenix Project

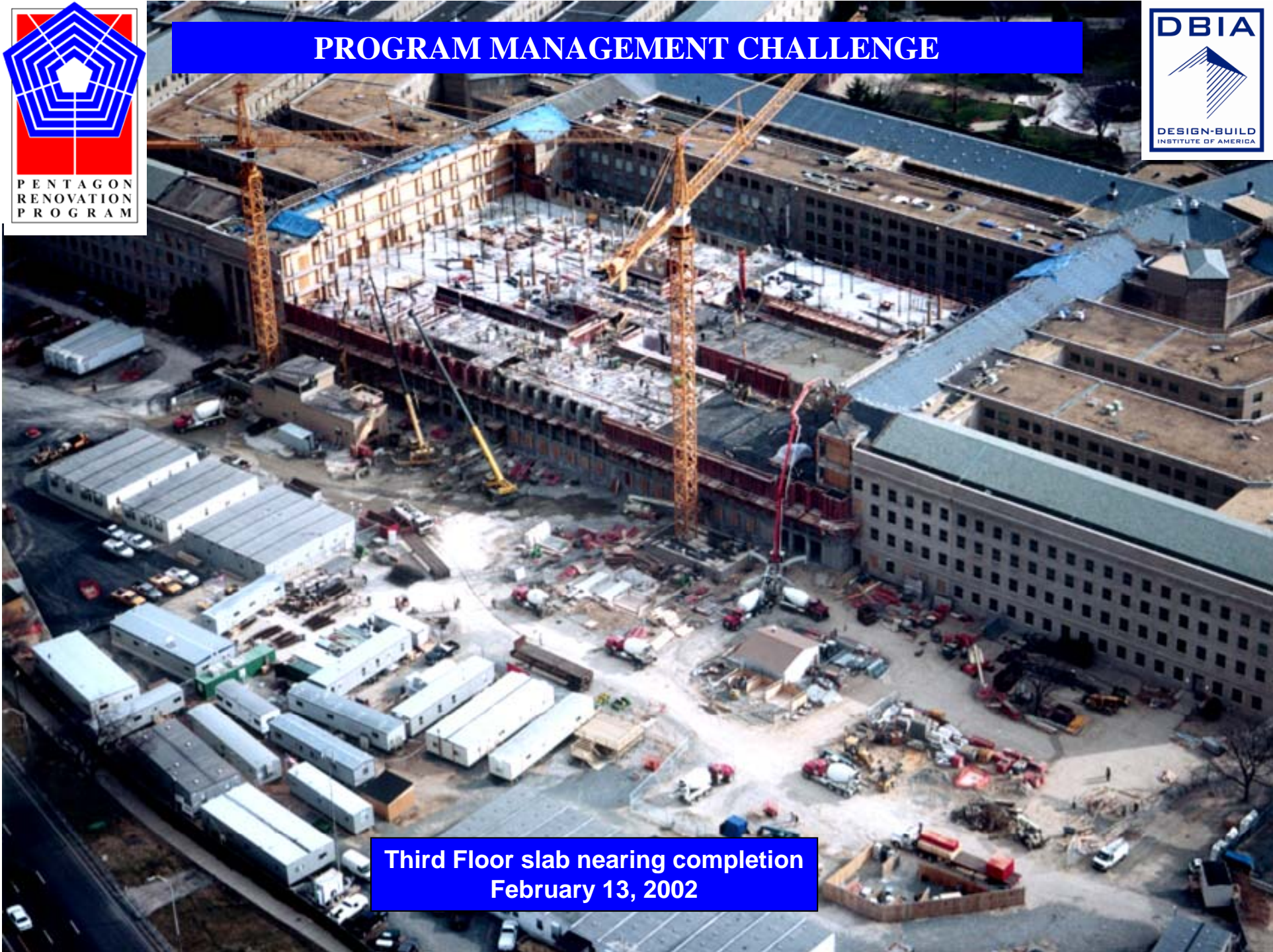


Stabilize, Demolish, Rebuild Structure





PROGRAM MANAGEMENT CHALLENGE



Third Floor slab nearing completion
February 13, 2002



PROGRAM MANAGEMENT CHALLENGE



All five floors and initial roof complete. April 5, 2002
Photo date: April 23. Limestone facade under erection.
Countdown clock installed.



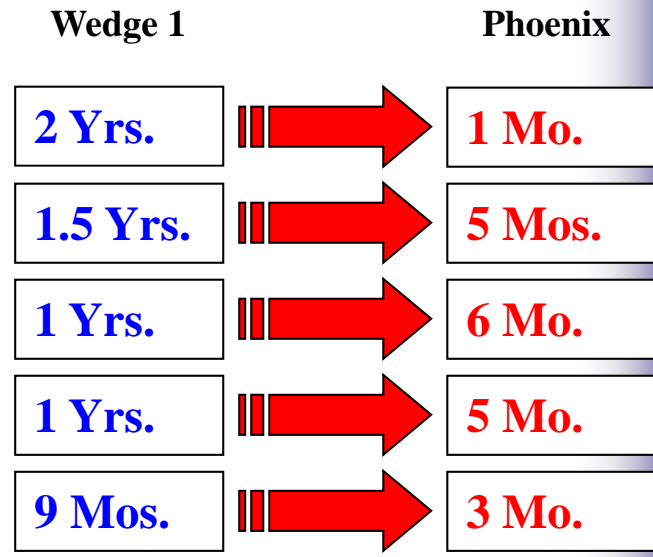
Program Management Challenge



How We Reduced the Schedule

- Reduced Demolition & Abatement.....
- Reduced Core & Shell Construction.....
- Reduced Tenant Fit-out Construction.....
- Reduced IM&T Installation.....
- Reduced Furniture, Fixtures & Equip
Installation

Total Schedule Time



AT DRAMATICALLY LOWER COST



PROGRAM MANAGEMENT CHALLENGE



It's the Team ... not the Tools!

... and Acquisition Managers and Program Managers Control the Process ...

- We DID NOT succeed because of new design techniques, software or other tools
- We did NOT succeed because of new construction techniques, equipment, materials or tools
- **We built a team...the team ENABLED new technologies and techniques**
- **Our success came from integration of the ENTIRE TEAM from the very earliest possible moment.**



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Benefits of Design-Build and Aggressive Teamwork

- **REDUCED COST (\$100 MILLION UNDER BUDGET)**
- **REDUCES SCHEDULE (14 MONTHS AHEAD OF SCHEDULE)**
- **HIGHER QUALITY (BY EVERY MEASURE)**
- **MORE SATISFIED OWNER**
- **ELIMINATED CLAIMS AND LITIGATION**
- **DELIVERED BEST VALUE TO THE TAXPAYERS**



Program Management Challenge

Pentagon Renovation Program
On Cost, On Schedule, Built for the
Next 50 Years



11 SEPTEMBER 2002: SALUTE TO WORKERS CEREMONY

