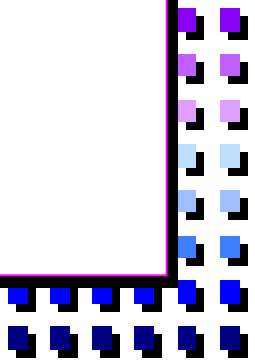




# **IMPLEMENTATION OF QUALITY ASSURANCE IN THE DESIGN PROCESS**

**TEAM No. 7**

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YASEMIN TURKTEKIN**





# OUTLINE OF PRESENTATION

- ✓ **What is Quality?**
- ✓ **Quality Programs**
- ✓ **Quality Issues**
- ✓ **Methodology**
- ✓ **Qualitative Analysis**
- ✓ **Quantitative Analysis**
- ✓ **Summary**



## What is Quality ?

*“Quality is all the characteristics of a product or service which the user specifies or implies and which the user will readily accept at a price he or she is willing to pay”*

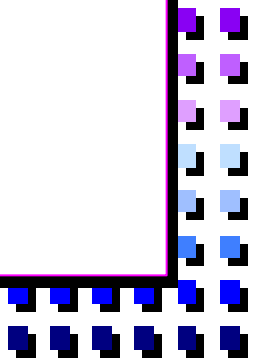


# QUALITY PROGRAMS

- ✓ **ISO 9000**
- ✓ **Total Quality Management (TQM)**
- ✓ **Malcolm Baldrige Award**
- ✓ **Quality Function Deployment (QFD)**



# QUALITY ISSUES

- ✓ **Customer Satisfaction**
  - ✓ **Design Error**
  - ✓ **Schedule Requirements**
  - ✓ **Design and Construction Cost Overruns**
  - ✓ **Document Control**
  - ✓ **Staff Morale and Turnover**
- 

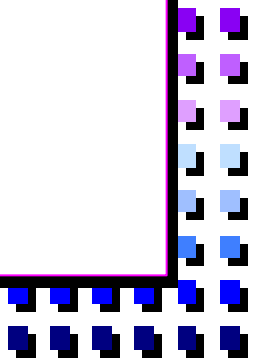


# METHODOLOGY

- ✓ **Survey Questionnaire**
- ✓ **Medium to Large Size Co.'s. (25-250+)**
- ✓ **Rating From None to Very High**
- ✓ **Conversion to Numerical Scale**
- ✓ **Tangible and Intangible Results**
- ✓ **Results: Quantitative & Qualitative**



# QUALITATIVE ANALYSIS

- ✓ **QA Program In Place at 91% of Firms Surveyed**
  - ✓ **Skepticism - Additional Work**
  - ✓ **Acknowledgment - Extremely Critical for Operation**
  - ✓ **Reason for Not Implementing - COST**
  - ✓ **Measurement Techniques:**
    - **No Formal Techniques**
    - **Defects per Drawing**
    - **Contractor Change Orders**
    - **Formal Customer Surveys - Feedback Loop**
- 



# QUANTITATIVE ANALYSIS

- ✓ **QA Programs in Use**
- ✓ **Survey Scale**
- ✓ **Important Quality Issues**
- ✓ **QA Program: Effects on Issues**
- ✓ **QA Program: Implementation and Acceptance**





## QUANTITATIVE ANALYSIS Contd.

- ✓ QA Program Success
- ✓ QA Training
- ✓ Client Questionnaires
- ✓ Firm Size and Years in Business



# CONCLUSION

- ✓ **Firms Surveyed**
- ✓ **QA Benefits**
- ✓ **Future Studies**