

# URBAN STORM DRAINAGE CRITERIA MANUAL

## SUMMARY OF CHANGES TO VOLUME 1

### PREFACE

- 1.0 ACKNOWLEDGEMENTS
- 2.0 PURPOSE OF THE MANUAL
- 3.0 LIST OF ABBREVIATIONS

### DRAINAGE POLICY

- 1.0 STATEMENT OF POLICY
- 2.0 PRINCIPLES
- 3.0 BASIC KNOWLEDGE
- 4.0 PLANNING
- 5.0 TECHNICAL CRITERIA
- 6.0 FLOODPLAIN MANAGEMENT
- 7.0 IMPLEMENTATION
- 8.0 REFERENCES

### DRAINAGE LAW

- 1.0 SUMMARY OF CURRENT GENERAL PRINCIPLES OF DRAINAGE & FLOOD CONTROL LAW
- 2.0 GENERAL PRINCIPLES OF DRAINAGE LAW
- 3.0 DRAINAGE IMPROVEMENTS BY A LOCAL GOVERNMENT
- 4.0 FINANCING DRAINAGE IMPROVEMENTS
- 5.0 FLOODPLAIN MANAGEMENT
- 6.0 SPECIAL MATTERS
- 7.0 CONCLUSION

### PLANNING

- 1.0 THE DRAINAGE SUBSYSTEM
- 2.0 EARLY PLANNING ADVANTAGES
- 3.0 CONSIDER DRAINAGE BENEFITS
- 4.0 MASTER PLANNING

- 5.0 PLANNING FOR THE FLOODPLAIN
- 6.0 PLANNING FOR MAJOR DRAINAGE
- 7.0 PLANNING FOR INITIAL DRAINAGE
- 8.0 PLANNING FOR STORAGE
- 9.0 PLANNING FOR STORM SEWERS
- 10.0 PLANNING FOR OPEN SPACE
- 11.0 PLANNING FOR TRANSPORTATION
- 12.0 CLEAN WATER ACT SECTION 404 PERMITTING PROCESS
- 13.0 REFERENCES

## RAINFALL

- 1.0 OVERVIEW
- 2.0 RAINFALL DEPTH-DURATION-FREQUENCY
- 3.0 DESIGN STORM DISTRIBUTION FOR CUHP
- 4.0 INTENSITY-DURATION CURVES FOR RATIONAL METHOD
- 5.0 BASIS FOR DESIGN STORM DISTRIBUTION
- 6.0 SPREADSHEET DESIGN AIDS
- 7.0 EXAMPLES
- 8.0 REFERENCES

## RUNOFF

- 1.0 OVERVIEW
- 2.0 RATIONAL METHOD
- 3.0 COLORADO URBAN HYDROGRAPH PROCEDURE
- 4.0 UDSWM HYDROGRAPH ROUTING PROCEDURE
- 5.0 OTHER HYDROLOGIC METHODS
- 6.0 SPREADSHEETS
- 7.0 EXAMPLES
- 8.0 REFERENCES

## APPENDIX A

## STREETS/INLETS/STORM SEWERS

- 1.0 INTRODUCTION
- 2.0 STREET DRAINAGE
- 3.0 INLETS

4.0 STORM SEWERS

5.0 SPREADSHEETS

6.0 EXAMPLES

7.0 REFERENCES

## **MAJOR DRAINAGE**

1.0 INTRODUCTION

2.0 PLANNING

3.0 OPEN CHANNEL DESIGN PRINCIPLES

4.0 OPEN-CHANNEL DESIGN CRITERIA

5.0 RECTANGULAR CONDUIT

6.0 LARGE PIPES

7.0 PROTECTION DOWNSTREAM OF CULVERTS

8.0 SEDIMENT

9.0 EXAMPLES

10.0 REFERENCES