CIVIL & LANDSCAPE PLANS FOR CONSTRUCTION OF
PAVING, STREETSCAPE & UTILITY IMPROVEMENTS

# MORRIS AVENUE EXTENSION

APRIL 2001

TOWN OF
ADDISON

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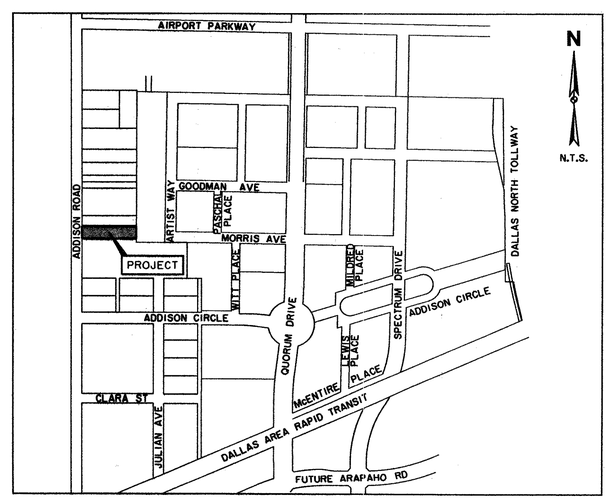



LOCATION MAP

OWNER:

TOWN OF ADDISON
DEPARTMENT OF PUBLIC WORKS
16801 WESTGROVE
P.O. BOX 9010
ADDISON, TEXAS 75001-9010
(972) 450-2871 FAX (972) 450-2837

ENGINEER:

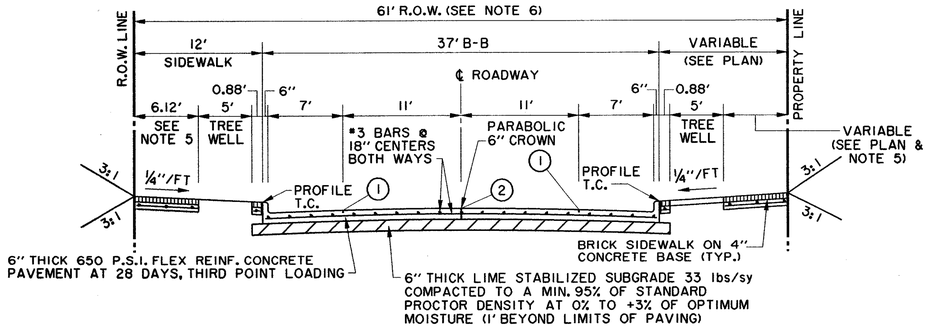
HUITT-ZOLLARS, INC.
3131 McKINNEY AVE., SUITE 600
DALLAS, TEXAS 75204
(214) 871-3311 FAX (214) 871-0757
DAVID E. MEYERS, P.E.
TX. REG. NO. 81512

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DAVID E. MEYERS, P.E. 81512

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
3/29/01

ISSUED FOR BID 4/20/01

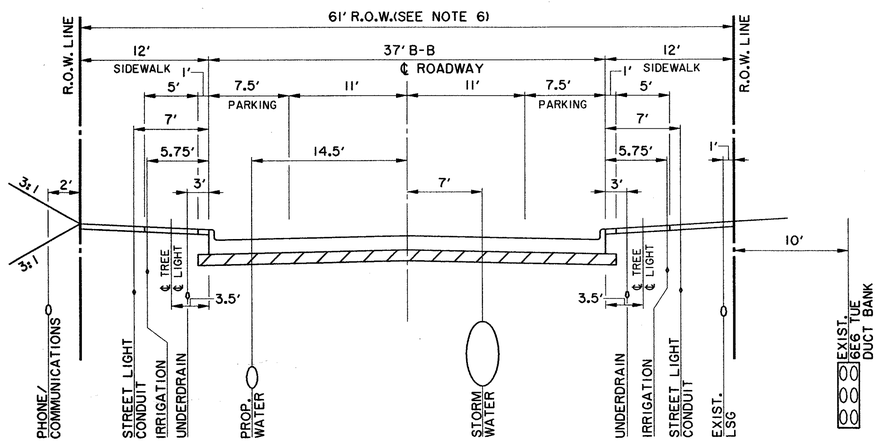
Morris rd Extension




## 2 LANES UNDIVIDED

**MORRIS AVENUE (ADDISON ROAD TO STA. 6+00.98)**

(SEE PLAN VIEW FOR NECK-DOWN AREAS)




**MORRIS AVENUE (ADDISON ROAD TO STA. 6+00.98)**

(LOOKING EAST)

NOTES:

1. BACKFILL MATERIAL IS NOT A SEPARATE PAY ITEM. MATERIAL ACQUIRED FROM EXCAVATION MAY BE USED IF APPROVED BY ENGINEER.
2. PAY LINE FOR UNCLASSIFIED STREET EXCAVATION IS TO THE TOE OF SLOPE WHERE 3:1 MATCHES EXISTING.
3. SAWED JOINTS SHALL BE SPACED AT 12' INTERVALS ON MORRIS AVENUE.
4. PROFILE GRADES SHOWN ON THE PAVING PLAN AND PROFILE SHEETS ARE TOP OF CURB AT BACK OF CURB FOR A NORMAL ROADWAY CROSS-SECTION AS INDICATED ON THE TYPICAL SECTIONS BY "PROFILE T.C.".
5. THE ¼"/FT. CROSS-SLOPE IN SIDEWALK AREAS IS THE STANDARD CONDITION FOR THIS PROJECT.
6. 61 FOOT RIGHT-OF WAY IS TYPICAL FOR A RESIDENTIAL STREET IN THE URBAN CENTER DISTRICT. THE SECTION OF STREET IN THIS PROJECT IS ON LAND OWNED BY THE TOWN OF ADDISON. THEREFORE, THERE IS NO DEDICATED STREET RIGHT OF WAY AND THE 12 FOOT DIMENSION IS TYPICAL ON THE NORTH SIDE OF MORRIS AVENUE AND IS VARIABLE ON THE SOUTH SIDE OF MORRIS AVENUE.

JOINT LEGEND:

① - SAWED LONGITUDINAL DUMMY JOINT

② - CONSTRUCTION JOINT (FULL WIDTH PVM'T. IS ALLOWED WHERE APPROVED BY THE TOWN OF ADDISON). FULL WIDTH PAVEMENT REQUIRES A SAWED LONGITUDINAL JOINT AT THE CENTERLINE OF THE PAVEMENT.

## LIST OF ABBREVIATIONS

| | | | |
|---|---|---|---|
| @ | at | PAR. | Parabolic |
| A | Area | P.C. | Point of Curvature |
| B-B | Back to Back | P.F. | Partial Flow |
| BM | Bench Mark | P.I. | Point of Intersection |
| BTM. | Bottom | P.R.C. | Point of Reverse Curvature |
| B.W. | Bottom of wall | PAV. | Paving |
| C | Capacity or Runoff Coefficient | PP | Power Pole |
| C.C. | Center to Center | PROP. | Proposed |
| C.R. | Curb Return | P.T. | Point of Tangency |
| CATV | Cable TV | PB | Pull Box |
| CD | Chord Distance | P.V.I. | Point of Vertical Intersection |
| CL | Centerline | P.V.C. | Point of Vertical Curvature |
| CLR. | Clear | P.V.R.C. | Point of Vertical Reverse Curvature |
| Conc. | Concrete | PVM'T. | Pavement |
| CONST. | Construct | P.V.T. | Point of Vertical Tangency |
| DIA. | Diameter | Q100 | 100 year flow |
| DB | Direct Bury | R | Radius |
| E | East | REINF. | Reinforced |
| E.P. | Edge of Pavement | REC. | Recessed |
| EQ. | Equal | RCP | Reinforced Concrete Pipe |
| EX. | Existing | RCCP | Reinforced Concrete Cylinder Pipe |
| F.F. | Finished Floor | R.O.W. | Right of Way |
| F.L. | Flowline | RR | Railroad |
| FH | Fire Hydrant | RT. | Right |
| GM | Gas Meter | S | Slope or South |
| HG | Hydraulic Gradient | SCH. | Schedule |
| HV | Velocity Head | SS | Sanitary Sewer |
| I.R. | Iron Rod | STD. | Standard |
| I.R.F. | Iron Rod Found | STA. | Station |
| I.R.S. | Iron Rod Set | STAB. | Stabilized |
| I100 | 100 Year Intensity | SW | Storm Water |
| L | Length | SWBT | Southwestern Bell Telephone |
| L.F. | Linear Feet | T | Tangent |
| LAT. | Lateral | T.C. | Top of Curb |
| LT. | Left | tc | Time of Concentration |
| m | Mid-ordinate | T.P. | Top of Pavement |
| MAX. | Maximum | T.W. | Top of Wall |
| M.J. | Mechanical Joint | Typ. | Typical |
| MH | Manhole or Metal Halide | V | Velocity |
| MIN. | Minimum | VP | Partial Flow Velocity |
| MOD. | Modified | V.C. | Vertical Curve |
| N | North | W | West |
| NA | Not Applicable | W/ | with |
| N.T.S. | Not to Scale | WM | Water Meter |
| O.C. | On Center | W | Water |
| O.C.E.W. | On Center Each Way | WW | Waste Water |
| O.D. | Outside Diameter | Δ | Angle of Deflection |

## LEGEND

**ELECTRIC —OHE—**
- LIGHT POLE
- PP POWER POLE
- GUY WIRE

**TELEPHONE —T—**
- TELE MH TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- TS TELEPHONE SIGN

**GAS —G—**
- GM GAS METER
- GS GAS SIGN

**LAND USE**
- R R RAILROAD SIGN
- SIGN

**SURVEY**
- I.R. FOUND IRON ROD
- BENCHMARK

**WASTEWATER —WW—**
- WW MH WASTEWATER MANHOLE
- CO CLEANOUT

**WATER —W—**
- FH FIRE HYDRANT
- WM METER
- T WATER VALVE

**MISC.**
- 48" RCP — EX. STORM SEWER
- CHAIN LINK FENCE
- WOOD FENCE
- EXISTING ASPHALT
- EXISTING DIRT OR GRAVEL
- EX. CONCRETE
- TREE/TREE LINE
- EXISTING CURB
- PROP. CURB
- PROP. EDGE OF PAVEMENT NO CURB
- EX. PROPERTY LINE
- PROP. CENTERLINE
- PROP. R.O.W.
- PROP. INLET
- T.P. TOP OF PAVEMENT
- T.C. TOP OF CURB
- CR CURB RETURN
- EX. G EXISTING GUTTER
- EX. T.C. EXISTING TOP OF CURB
- B-20 BORING LOCATION
- EXISTING BRICKS
- PAVEMENT REMOVAL

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DAVID E. MEYERS, P.E. 81512

STATE OF TEXAS — DAVID E. MEYERS — 81512 — REGISTERED PROFESSIONAL ENGINEER

3/20/01

| DATE | DESCRIPTION | REF NO. |
|---|---|---|
| 4/20/01 | ISSUED FOR BID | N/A |

**PAVING TYPICAL SECTIONS, LEGEND & ABBREVIATIONS**

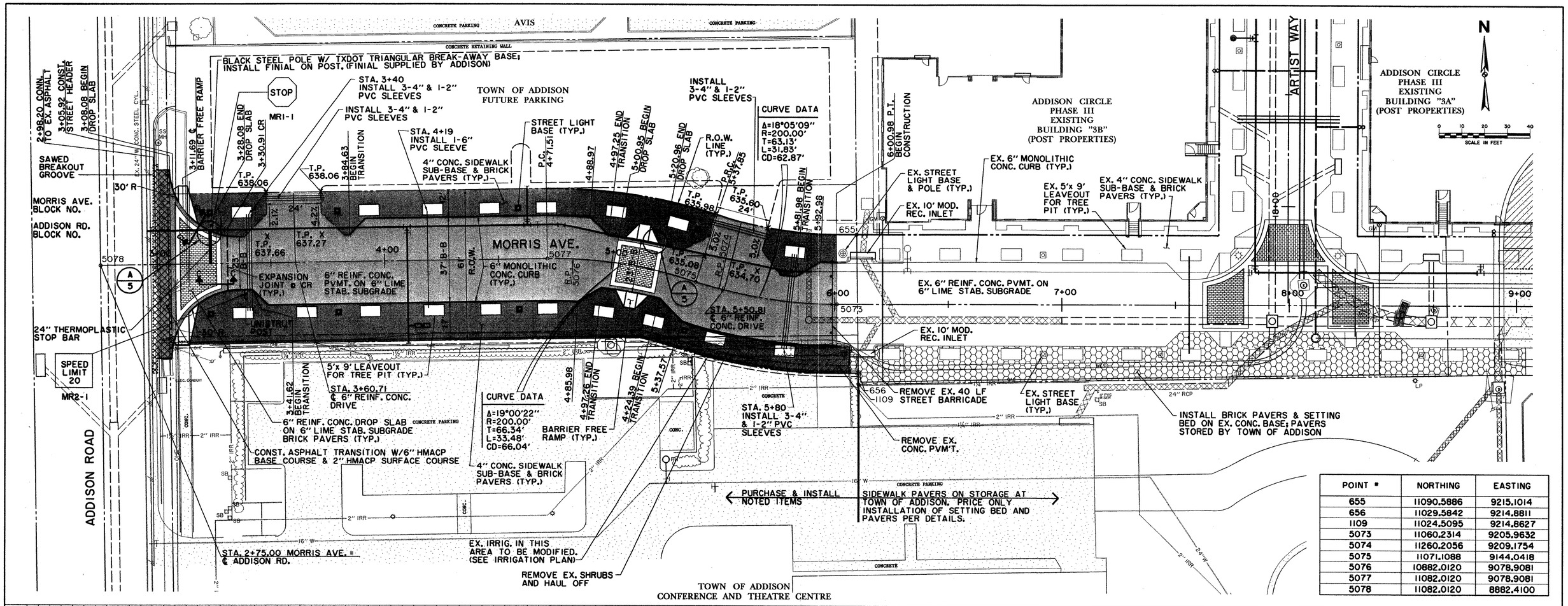
**MORRIS AVENUE EXTENSION**

PUBLIC INFRASTRUCTURE

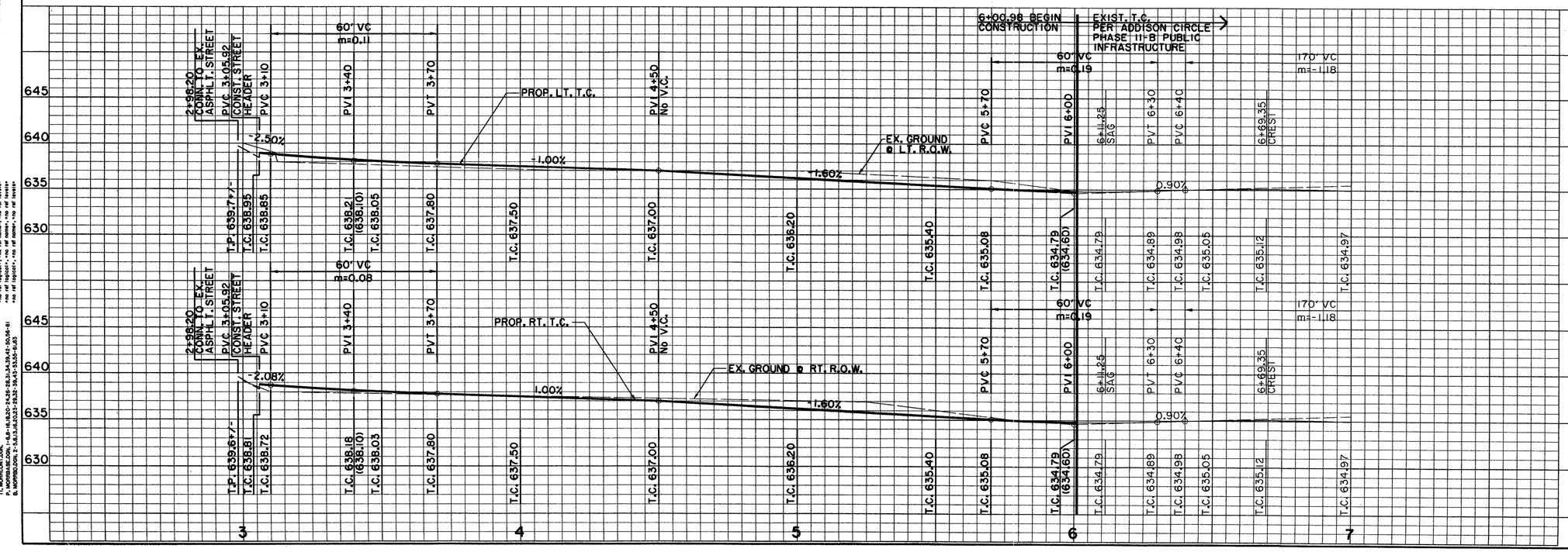
TOWN OF ADDISON, TEXAS

Huitt - Zollars, Inc.
3131 Mckinney Ave., Suite 600, Dallas, TX 75204
Phone (214) 871-3311/Fax (214) 871-0757

| DESIGN | DRAWN | APPR. | SCALE | DATE | PROJECT NO. | NO. |
|---|---|---|---|---|---|---|
| HZI | HZI | DEM | N.T.S. | APR. 2001 | 01-3000-01 | 2 |




| POINT # | NORTHING | EASTING |
|---|---|---|
| 655 | 11090.5886 | 9215.1014 |
| 656 | 11029.5842 | 9214.8811 |
| 1109 | 11024.5095 | 9214.8627 |
| 5073 | 11060.2314 | 9205.9632 |
| 5074 | 11260.2056 | 9209.1754 |
| 5075 | 11071.1088 | 9144.0418 |
| 5076 | 10882.0120 | 9078.9081 |
| 5077 | 11082.0120 | 9078.9081 |
| 5078 | 11082.0120 | 8882.4100 |




**BENCHMARKS:**

BM#5
"□" CUT ON 8' INLET ON NORTH CURB LINE OF GOODMAN AVE. ±75' EAST OF PASCHAL PLACE.
ELEV. 629.98

BM#6
"□" CUT AT ℄ OF 8' INLET AT THE SOUTHWEST CORNER OF MORRIS AVE. AND WITT PLACE.
ELEV. 627.29

BM#7
"□" CUT AT WEST CORNER OF ADDISON THEATRE CENTRE PARKING LOT, SECOND ENTRANCE NORTH OF ADDISON RD.
ELEV. 637.66

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STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED PROFESSIONAL ENGINEER
5/29/01

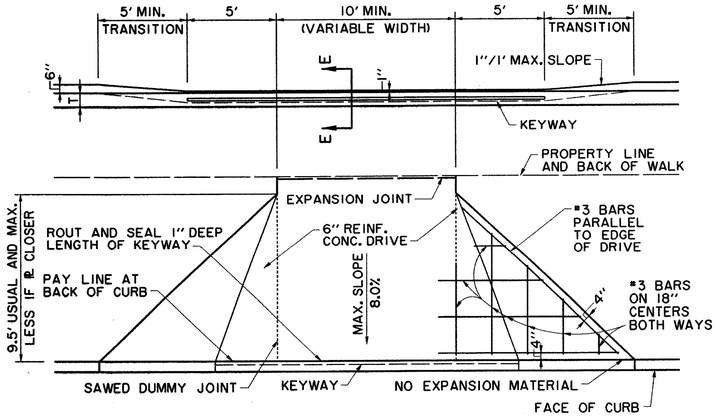
| DATE | DESCRIPTION | REF NO. |
|---|---|---|
| 4/20/01 | ISSUED FOR BID | N/A |

# PAVING PLAN & PROFILE
MORRIS AVE. 2+98.20 TO 6+00.98

# MORRIS AVENUE EXTENSION
## PUBLIC INFRASTRUCTURE
## TOWN OF ADDISON, TEXAS


Huitt - Zollars, Inc.
3131 Mckinney Ave., Suite 600, Dallas, TX 75204
Phone (214) 871-3311/Fax (214) 871-0757

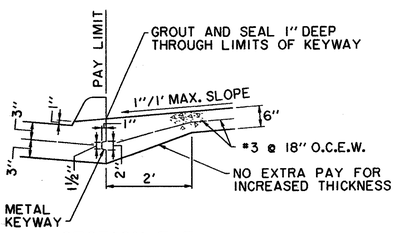

| DESIGN | DRAWN | APPR. | SCALE | DATE | PROJECT NO. | NO. |
|---|---|---|---|---|---|---|
| HZI | HZI | DEM | H: 1"=20' V: 1"=6' | APR. 2001 | 01-3000-01 | 3 |



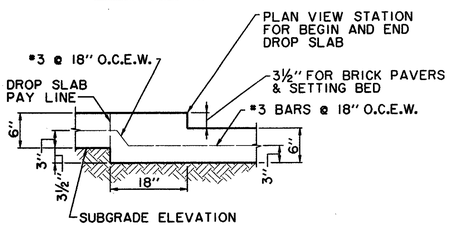

## DRIVEWAY TURNOUT DETAIL

NOTES:

1. PAVEMENT JOINTS SHALL NOT EXTEND THROUGH DRIVE.
2. KEYWAY LIMITS SHALL COINCIDE WITH LIMITS OF 1" CURB.
3. REINFORCING STEEL SHALL NOT EXTEND THROUGH KEYWAY. DRIVE WILL NOT BE TIED TO PAVEMENT.
4. MAXIMUM SLOPE ON DRIVE IN ANY DIRECTION SHOULD BE 1"/1' TO RESPECT PRINCIPLES OF BARRIER FREE CONSTRUCTION. SIDEWALK CROSS SLOPE MAINTAINED FOR 5' MIN. WIDTH ACROSS APPROCH.
5. LENGTH OF TRANSITION FOR CURB AT EACH SIDE OF DRIVE MAY VARY DUE TO STREET GRADES AND REQUIREMENT TO HOLD MAXIMUM SLOPE OF 1"/1'.

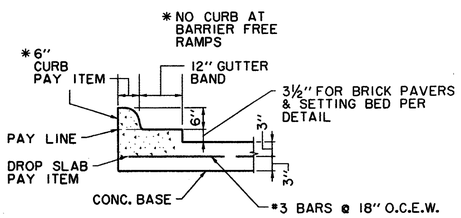



## SECTION E-E



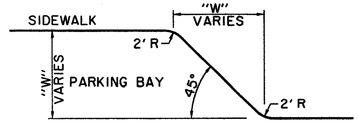

## SECTION C-C
## LONGITUDINAL SECTION AT DROP SLAB IN STREET

N.T.S.



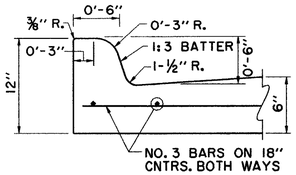

## SECTION D-D
## SECTION THRU CURB AT DROP SLAB

N.T.S.



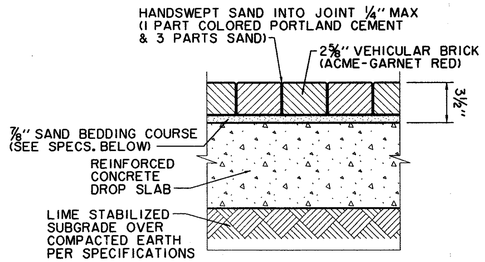

## PARKING TRANSITION DETAIL

N.T.S.




## INTEGRAL CURB AND GUTTER

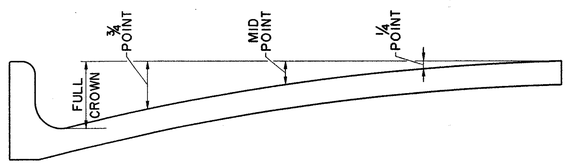
N.T.S.




THE SAND LAYING COURSE SHALL BE WELL GRADED CLEAN WASHED SHARP SAND WITH 100% PASSING A ⅜" SIEVE AND A MAXIMUM OF 3% PASSING A NO. 200 SIEVE. THIS IS COMMONLY KNOWN AS MANUFACTURED CONCRETE SAND. DO NOT USE MASON SAND.

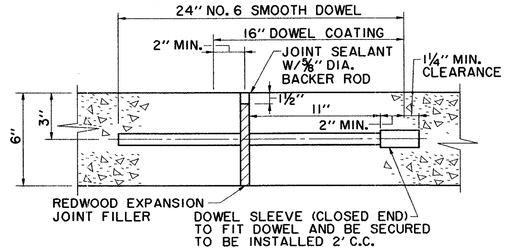
## VEHICULAR BRICK INSTALLATION IN VEHICULAR AREAS

N.T.S.




| ROADWAY WIDTH (F-F) | TYPE SURFACE | FULL CROWN | ¾ POINT | MID POINT | ¼ POINT |
|---|---|---|---|---|---|
| 20' | CONCRETE | 3" | 1-11/16" | ¾" | 3/16" |
| 20' | ASPHALT | 4" | 2-¼" | 1" | ¼" |
| 26' | CONCRETE | 4" | 2-¼" | 1" | ¼" |
| 26' | ASPHALT | 5" | 2-13/16" | 1-¼" | 5/16" |
| 33' | CONCRETE | 6" | 3-⅜" | 1-½" | ⅜" |
| 33' | ASPHALT | 7" | 3-15/16" | 1-¾" | 7/16" |
| 36' | CONCRETE | 6" | 3-⅜" | 1-½" | ⅜" |
| 36' | ASPHALT | 7" | 3-15/16" | 1-¾" | 7/16" |
| 40' | CONCRETE | 6" | 3-⅜" | 1-½" | ⅜" |
| 40' | ASPHALT | 7" | 3-15/16" | 1-¾" | 7/16" |
| 44' | CONCRETE | 6" | 3-⅜" | 1-½" | ⅜" |
| 44' | ASPHALT | 7" | 3-15/16" | 1-¾" | 7/16" |
| 56' | CONCRETE | 8" | 4-½" | 2" | ½" |
| 56' | ASPHALT | 9" | 5-1/16" | 2-¼" | 9/16" |
| 60' | CONCRETE | 8" | 4-½" | 2" | ½" |
| 60' | ASPHALT | 9" | 5-1/16" | 2-¼" | 9/16" |

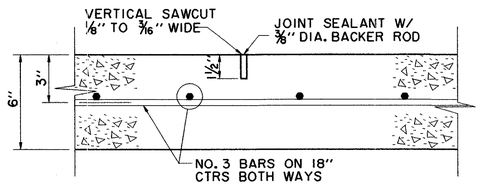
## TABLE OF CROWN HEIGHTS AND ORDINATES FOR VARIOUS PARABOLIC SECTIONS




## TRANSVERSE EXPANSION JOINT

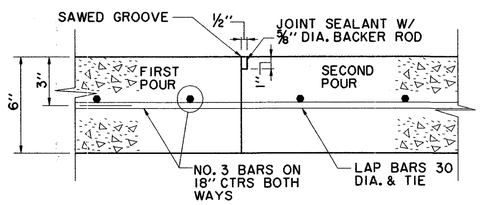
N.T.S.

(SPACED 600 FT. MAXIMUM, LOCATE AT CURB RETURN OF INTERSECTIONS)
NOTE:
DOWELS AND REINFORCING BARS SHALL BE SUPPORTED BY AN APPROVED DEVICE.



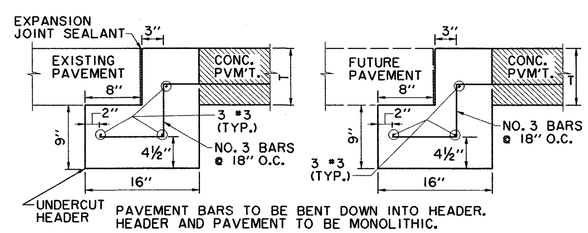

## SAWED DUMMY JOINT

N.T.S.




## CONSTRUCTION JOINT FOR 6" PAVEMENT

N.T.S.




PAVEMENT BARS TO BE BENT DOWN INTO HEADER. HEADER AND PAVEMENT TO BE MONOLITHIC.

## STREET HEADER

N.T.S.

## NOTES-PAVING AND GRADING

1. UNLESS SPECIFICALLY STATED OTHERWISE IN PLANS OR CONTRACT DOCUMENTS, THE CONTROLLING SPECIFICATIONS FOR ALL WORK WITHIN PUBLIC RIGHTS-OF-WAY AND EASEMENTS SHALL BE THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SECOND EDITION 1987, AS AMENDED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS (THE ''STANDARD SPECIFICATIONS''). COPIES OF THE STANDARD SPECIFICATIONS MAY BE PURCHASED BY MAIL OR OVER THE COUNTER FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, P.O. BOX DRAWER COG, ARLINGTON, TEXAS 76005-5888, PHONE METRO 817/640-3300. BULK DISCOUNTS ARE AVAILABLE. THIS DOCUMENT IS COPYRIGHTED.
2. THE PAVING AREAS SHALL BE GRADED TO +/- .10' OF FINISHED SUBGRADE ELEVATIONS BY THE PAVING CONTRACTOR. SIDEWALK AREAS SHALL BE GRADED TO +/- .10' OF FINISHED PAVEMENT ELEVATIONS BY THE PAVING CONTRACTOR. THE UTILITY CONTRACTOR SHALL VERIFY AND ACCEPT GRADE PRIOR TO THE COMMENCEMENT OF HIS WORK. THE UTILITY CONTRACTOR SHALL RESTORE THE GRADE TO THE TOLERANCES NOTED ABOVE.
3. ALL TRAFFIC CONTROL NECESSARY FOR THE WORK SHALL BE PROVIDED BY THE AFFECTED CONTRACTOR. ALL BARRICADES, WARNING SIGNS, LIGHTS, DEVICES, ETC. FOR THE GUIDANCE AND PROTECTION OF TRAFFIC AND PEDESTRIANS MUST CONFORM TO THE INSTALLATIONS SHOWN IN THE LATEST ISSUE OF THE ''TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD)'' CHAPTER 6, AS CURRENTLY AMENDED, TEXAS DEPARTMENT OF TRANSPORTATION.
4. ALL FILL SHALL BE PLACED IN MAXIMUM 8-INCH LIFTS COMPACTED TO 95% OF STANDARD PROCTOR DENSITY BETWEEN 0% AND +3% OF OPTIMUM MOISTURE CONTENT.
5. ALL TREES, STUMPS, BRUSH, GRASSES AND SURFACE ORGANICS WITHIN PROPOSED RIGHT-OF-WAY ARE TO REMOVED AND PROPERLY DISPOSED OF OFF-SITE. TREE REMOVAL PERMITS, IF REQUIRED, WILL BE OBTAINED BY THE OWNER.
6. EXISTING UTILITY POLES, IF ANY, WILL BE REMOVED OR RELOCATED BY THE UTILITY COMPANIES THROUGH COORDINATION BY THE OWNER. CONTRACTOR SHALL BRING TO THE OWNER'S ATTENTION ANY FACILITIES THAT APPEAR TO BE IN CONFLICT SO THAT THE OWNER HAS SUFFICIENT TIME TO ACCOMPLISH THE NECESSARY RELOCATIONS.
7. ALL REINFORCING STEEL AND DOWEL BARS IN PAVEMENT SHALL BE SUPPORTED AND MAINTAINED AT THE CORRECT CLEARANCES BY THE USE OF BAR CHAIRS OR OTHER APPROVED SUPPORT.
8. THE USE OF WOOD FORMS FOR PAVEMENT CONSTRUCTION WILL BE PERMITTED.
9. SAWED JOINTS SHALL BE SPACED AT 12' INTERVALS ON MORRIS AVE.
10. BARRIER-FREE RAMPS WILL BE BUILT WITH THIS PROJECT. LOCATIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER TO CLEAR OBSTRUCTIONS.
11. VARIABLE HEIGHT CURB AT INTERSECTIONS AND SLOPING CURBS AT DRIVES SHALL BE BUILT TO MATCH BARRIER-FREE RAMPS PER PLANS. NO SEPARATE PAY ITEMS ARE PROVIDED.
12. TWO-WAY TRAFFIC MUST BE MAINTAINED AT ALL TIMES ON PUBLIC STREETS ADJACENT TO THIS PROJECT UNLESS SPECIFIED OTHERWISE IN THE PLANS AND SPECIFICATIONS. THE TRAVELWAY WIDTH SHALL NOT BE LESS THAN 11 FEET.
13. SEE TYPICAL SECTIONS SHEET FOR ADDITIONAL MATERIAL SPECIFICATIONS.
14. ALL CURBS SHALL BE PLACED INTEGRAL WITH PAVEMENT.
15. CURBS SHALL MEET THE SAME COMPRESSIVE STRENGTH AS SPECIFIED FOR THE CONCRETE PAVEMENT.
16. BAR LAPS SHALL BE 30 DIAMETERS.
17. FINISH SHALL BE TRANSVERSE WITH TRAFFIC LANES AND SHALL BE STEEL TINED BROOM FINISH.
18. SEE PAVING DETAILS FOR BRICK AND SIDEWALK PATTERNS. POUR SIDEWALK AROUND NOTED LEAVEOUTS PER LOCATIONS ON PAVING PLANS.

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DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
3/29/01

| DATE | DESCRIPTION | REF NO. |
|---|---|---|
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# PAVING DETAILS

# MORRIS AVENUE EXTENSION

## PUBLIC INFRASTRUCTURE

## TOWN OF ADDISON, TEXAS


Huitt - Zollars, Inc.
3131 Mckinney Ave., Suite 600, Dallas, TX 75204
Phone (214) 871-3311/Fax (214) 871-0757


| DESIGN | DRAWN | APPR. | SCALE | DATE | PROJECT NO. | NO. |
|---|---|---|---|---|---|---|
| HZI | HZI | DEM | N.T.S. | APR. 2001 | 01-3000-01 | 4 |

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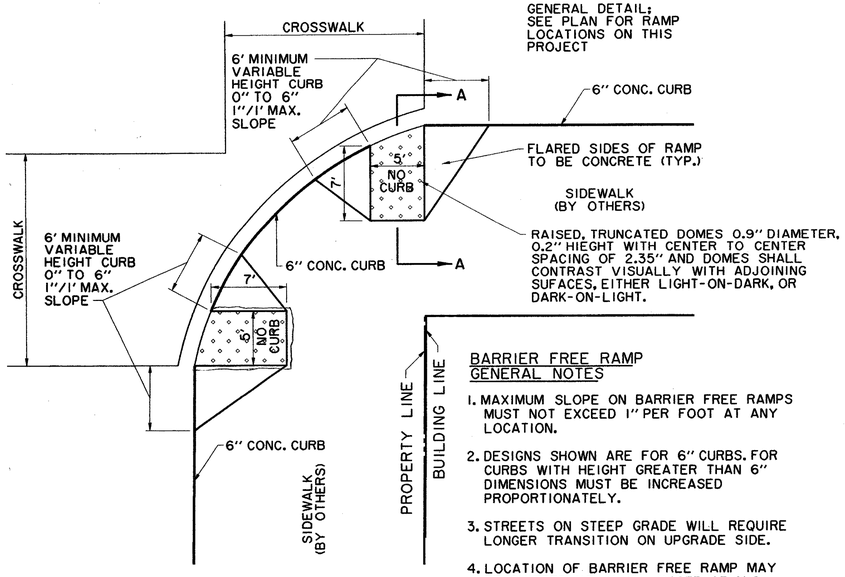
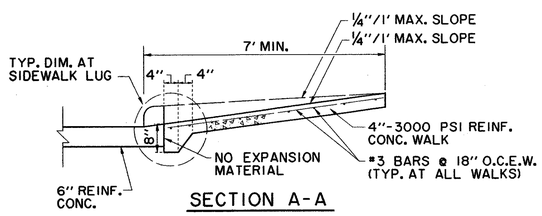



GENERAL DETAIL: SEE PLAN FOR RAMP LOCATIONS ON THIS PROJECT

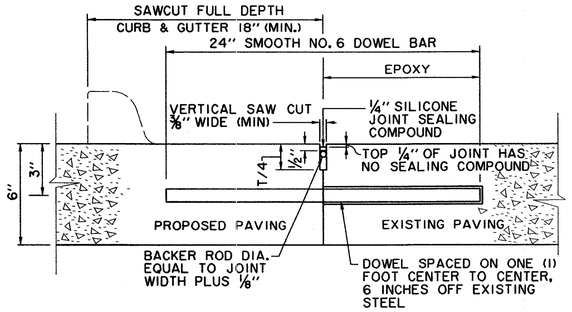
## BARRIER FREE RAMP GENERAL NOTES

1. MAXIMUM SLOPE ON BARRIER FREE RAMPS MUST NOT EXCEED 1" PER FOOT AT ANY LOCATION.
2. DESIGNS SHOWN ARE FOR 6" CURBS. FOR CURBS WITH HEIGHT GREATER THAN 6" DIMENSIONS MUST BE INCREASED PROPORTIONATELY.
3. STREETS ON STEEP GRADE WILL REQUIRE LONGER TRANSITION ON UPGRADE SIDE.
4. LOCATION OF BARRIER FREE RAMP MAY BE SHIFTED TO CLEAR OBSTRUCTIONS.
5. CONCRETE TO HAVE MINIMUM 3000 P.S.I. COMPRESSIVE STRENGTH AT 28 DAYS.
6. REINFORCEMENT TO BE #3 DEFORMED BARS AT 18" O.C.E.W. AND SUPPORTED BY APPROVED BAR CHAIRS ON 3'-0" CENTERS.




SECTION A-A

## BARRIER FREE RAMP DETAIL AT INTERSECTING STREET




DOWEL BARS SHALL BE DRILLED INTO EX. PAVEMENT HORIZONTALLY BY USE OF A MECHANICAL RIG. DRILLING BY HAND IS NOT ACCEPTABLE. PUSHING DOWEL BARS INTO GREEN CONCRETE NOT ACCEPTABLE.

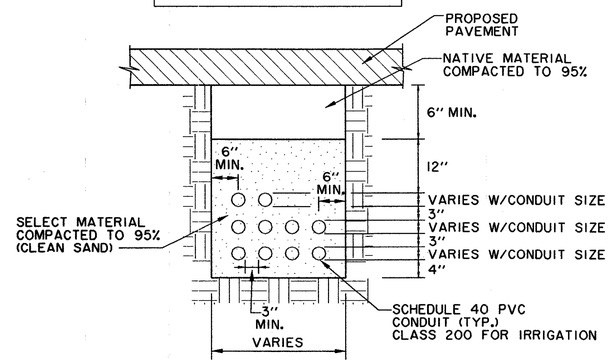
## LONGITUDINAL BUTT JOINT

N.T.S.

BRICK TYPES

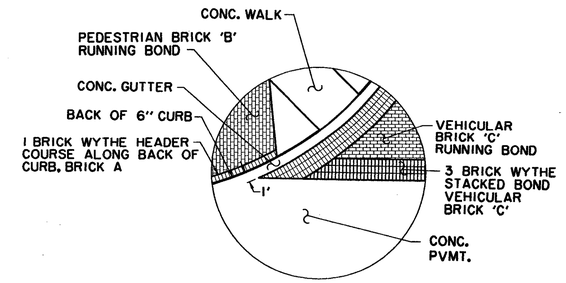
VEHICULAR BRICK "C" - 2 5/8"x 3 1/2"x 7 1/2" ACME (GARNET RED)
PEDESTRIAN BRICK "A" - 2 1/4"x 4"x 8" GLEN-GERY (BROWN)
PEDESTRIAN BRICK "B" - 2 1/4"x 4"x 8" GLEN-GERY (AUTUMN HAZE)

NOTE: MINIMUM COVER OF CONDUIT SLEEVES SHALL BE 2.5' FROM TOP OF CURB.

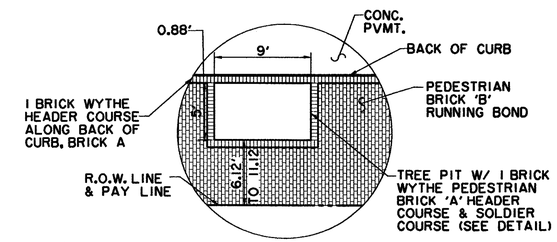



## TYPICAL CONDUIT/SLEEVE EMBEDMENT

N.T.S.




A CROSSWALK DETAIL




B 5' x 9' TREE PIT DETAIL

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DAVID E. MEYERS, P.E. 81512

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED PROFESSIONAL ENGINEER
5/29/01

| DATE | DESCRIPTION | REF NO. |
|---|---|---|
| 4/20/01 | ISSUED FOR BID | N/A |

# PAVING DETAILS

# MORRIS AVENUE EXTENSION

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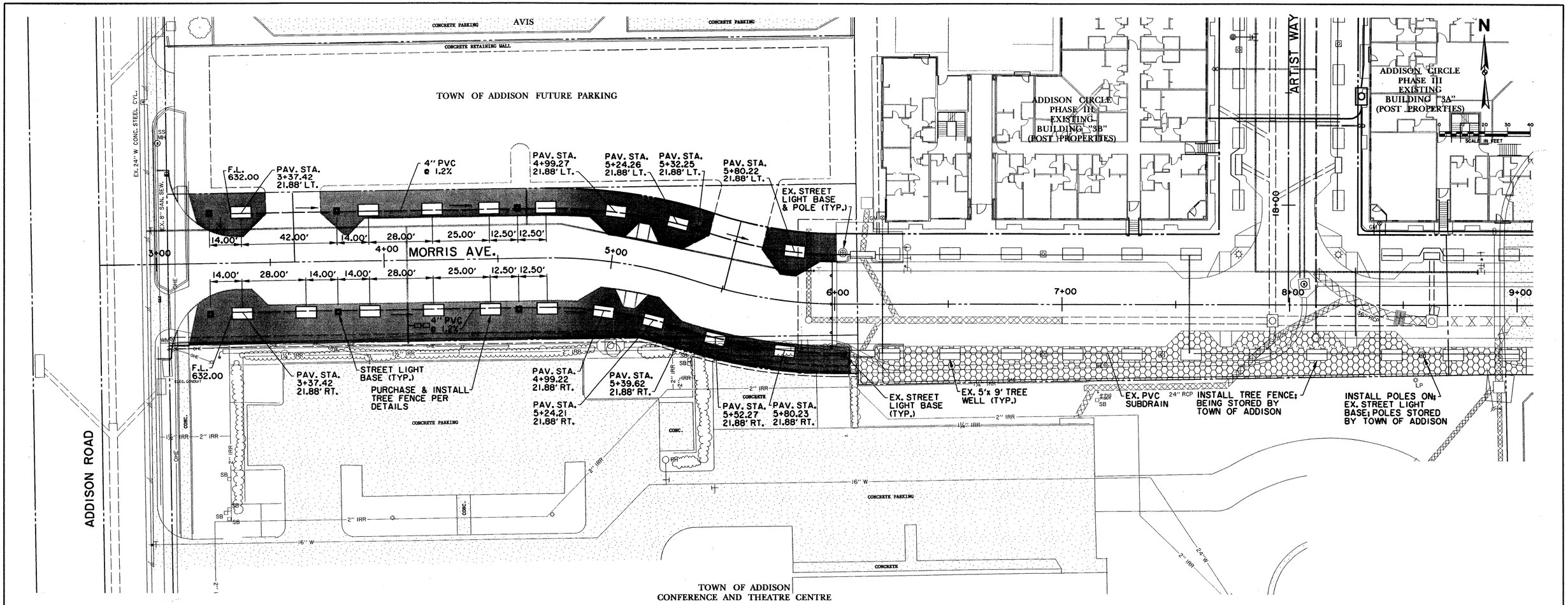


**NOTE:**

CENTER TO CENTER TREE DIMENSIONS ARE MEASURED ALONG THE CENTERLINE OF THE STREET.

**BENCHMARKS:**

**BM#5**
"□" CUT ON 8' INLET ON NORTH CURB LINE OF GOODMAN AVE. ±75' EAST OF PASCHAL PLACE.
ELEV. 629.98

**BM#6**
"□" CUT AT ℄ OF 8' INLET AT THE SOUTHWEST CORNER OF MORRIS AVE. AND WITT PLACE.
ELEV. 627.29

**BM#7**
"□" CUT AT WEST CORNER OF ADDISON THEATRE CENTRE PARKING LOT, SECOND ENTRANCE NORTH OF ADDISON RD.
ELEV. 637.66

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DAVID E. MEYERS
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REGISTERED PROFESSIONAL ENGINEER

5/24/01

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# STREETSCAPE PLAN

# MORRIS AVENUE EXTENSION

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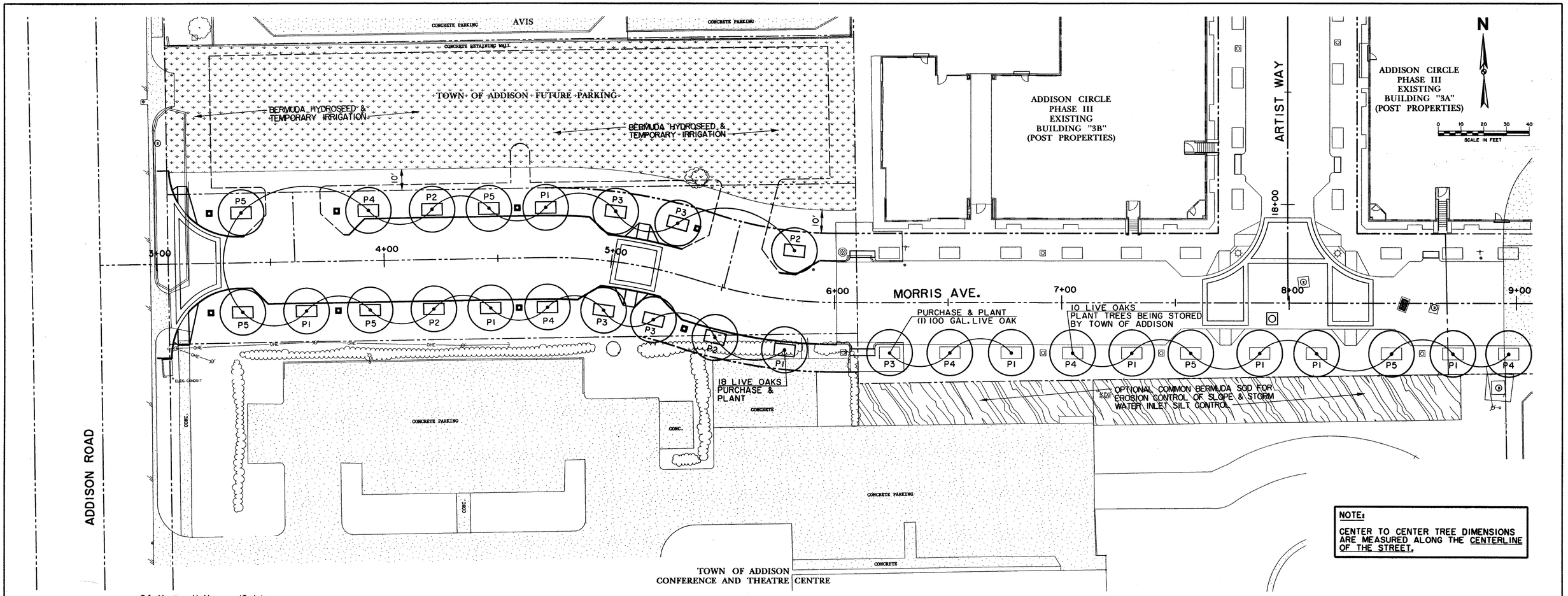


**NOTE:**

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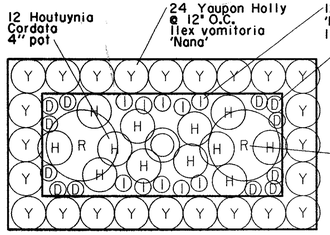
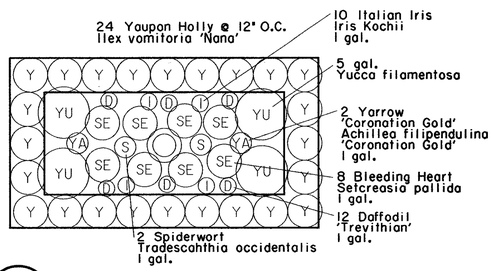
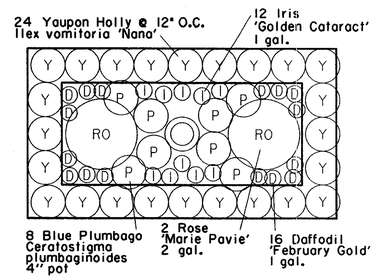


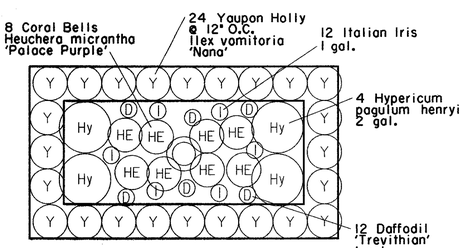

P1 5'X9' TREE WELL PLANTING



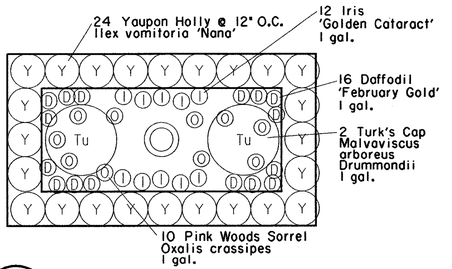

P3 5'X9' TREE WELL PLANTING




P5 5'X9' TREE WELL PLANTING




P2 5'X9' TREE WELL PLANTING




P4 5'X9' TREE WELL PLANTING

PLANT LIST

| QUANTITY | COMMON NAME | BOTANICAL NAME | SIZE/REMARKS |
|---|---|---|---|
| Shade Trees | | | |
| 29 | Live Oak | Quercus virginiana | 200 GAL. 5"-6" C |
| Shrubs | | | |
| 696 | Dwarf Yaupon Holly | Ilex vomitoria 'nana' | 1-GAL., 8"-10" H |
| 16 | Hypericum | Hypericum pagulum 'henryi' | 2-GAL., 14"-18" HT |
| 12 | Rose 'Marie Pavie' | Rosa sp., Marie Pavie' | 2-GAL., 12"-14" HT |
| 18 | Dallas' Rosemary | Rosmarinus officinalis 'Dallas' | 3-gal., 18"-24" H |
| 25 | Yucca filamentosa | Yucca filamentosa | 5-gal., FULL |
| 10 | Spiderwort | Tradescahthia occidentalis | 1-gal., 8"-10" H |
| Perennials/Ground Cover | | | |
| 10 | Yarrow 'Coronation Gold' | Achillea filipendulina'Coronation Gold' | 1-GAL-FULL |
| 48 | Blue Plumbago | Ceratostigma plumbaginoides | 4" POT-FULL |
| 108 | Houttuynia | Houttuynia cordata 'variagata' | 4" POT-FULL |
| 108 | Iris 'Madonna' | Iris albicans 'Madonna' | 1-GAL-FULL |
| 98 | Italian Iris | Iris kochii | 1-GAL-FULL |
| 132 | Iris 'Golden Cataract' | Iris kochii 'Golden Cataract' | 1-GAL-FULL |
| 10 | Turk's Cap | Malvaviscus arboreus Drummondii | 1-GAL-FULL |
| 176 | Daffodil 'February Gold' | Narcissus x 'February Gold' | 1-GAL-FULL |
| 108 | Daffodil 'Grand Primo' | Narcissus x 'Grand Primo' | 1-GAL-FULL |
| 108 | Daffodil Trevithian | Narcissus x 'Trevithian' | 1-GAL-FULL |
| 40 | Bleeding Heart | Setcreasia pallida | 1-GAL-FULL |
| 32 | Coral 'Palace Purple' | Heuchera micrantha | 1-GAL.-FULL |
| 50 | Pink Woods Sorrel | Oxalis crassipes | 1-GAL.-FULL |

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# PLANTING PLAN / DETAILS

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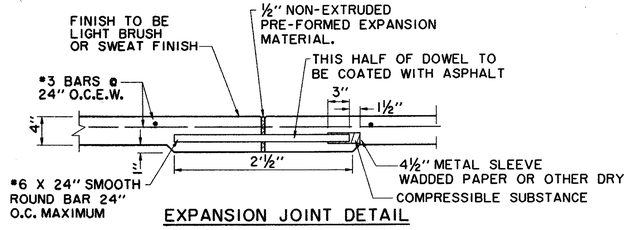
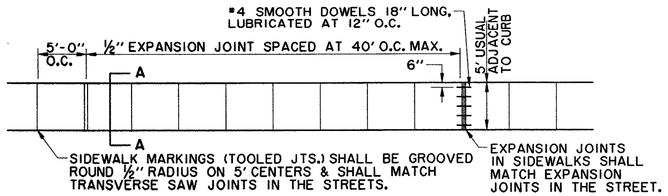


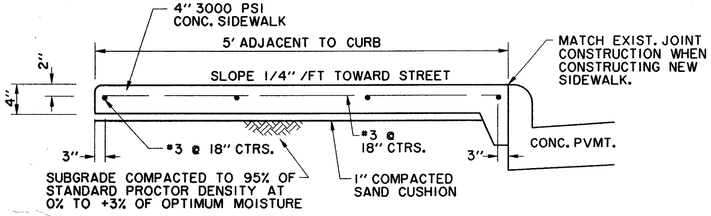

EXPANSION JOINT DETAIL




REINFORCED CONCRETE SIDEWALK
EAST SIDE OF QUORUM DRIVE

N.T.S.

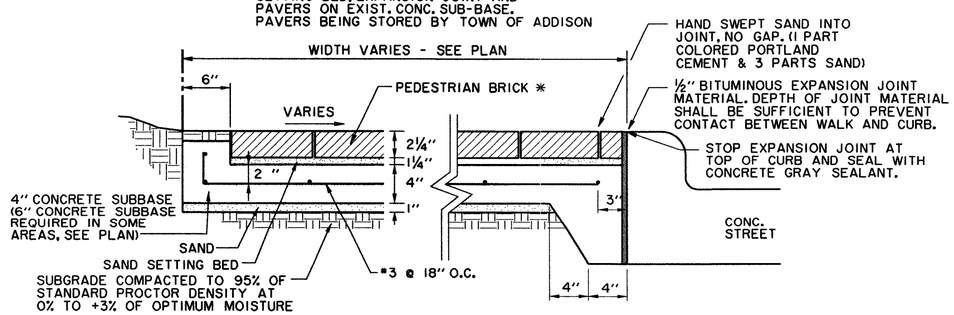
PLAN




TYPICAL SECTION A-A

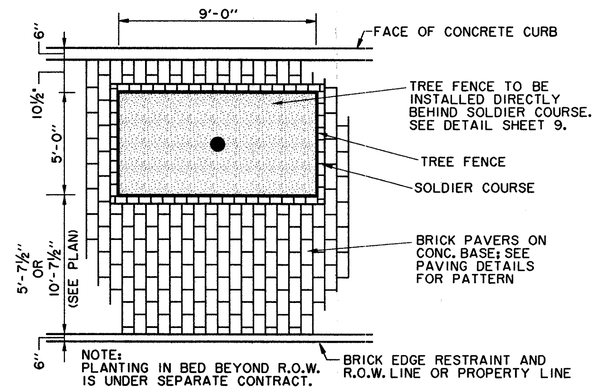
N.T.S.

* MORRIS AVE. SOUTH SIDE STA. 6+10 TO 8+95 INSTALL SAND SETTING BED, EXPANSION JOINT AND PAVERS ON EXIST. CONC. SUB-BASE. PAVERS BEING STORED BY TOWN OF ADDISON




BRICK SIDEWALK INSTALLATION IN PEDESTRIAN AREA AT PLANTING BED

N.T.S.

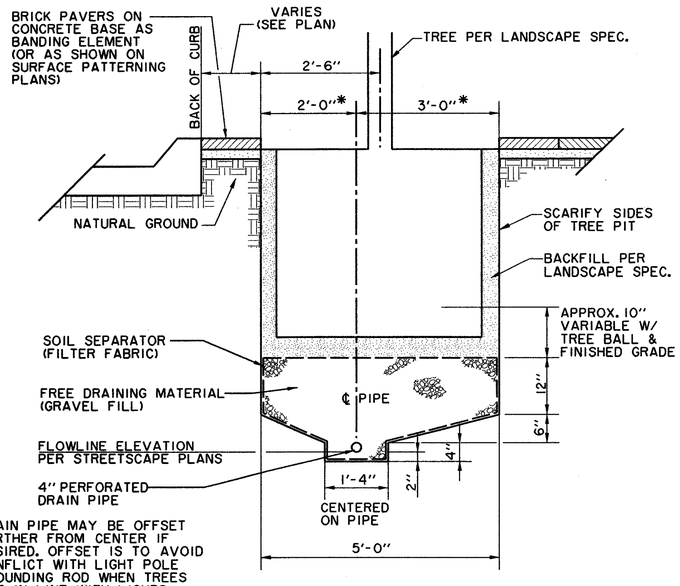



TREE PIT PLAN
(MORRIS AVENUE)

N.T.S.

GENERAL NOTES CONCRETE SUBBASE FOR SIDEWALKS

1. REINFORCED CONCRETE SIDEWALK SHALL BE A MINIMUM OF FOUR (4) INCHES THICK AND SHALL BE 3000 PSI AT 28 DAYS (5 SACK MIX) UNLESS NOTED OTHERWISE.
2. A ¼" CHAMFER OR ¼" RADIUS WILL BE REQUIRED ON ALL EXPOSED EDGES OF CONCRETE SIDEWALK.
3. ALL BAR DIMENSIONS ARE GIVEN AS CENTER TO CENTER OF BARS AND ARE LOCATED AS SHOWN.
4. ALL REINFORCING STEEL SHALL BE NO. 3 ON 18" CENTERS LONGITUDINALLY, 18" CENTERS TRANSVERSELY AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-615, GRADE 60.
5. 1" THICK MIN. FINE WASHED SAND CUSHION SHALL BE FREE FROM ORGANIC MATERIALS OR CLAYS AND SHALL BE USED FOR GRADE ADJUSTMENT.
6. SUBGRADE SHALL BE COMPACTED TO A DENSITY NOT LESS THAN 95% OF STANDARD PROCTOR DENSITY AT 0 TO +3% OF OPTIMUM MOISTURE.
7. TOOLED JOINTS (CONTRACTION JOINTS) SHALL BE ON FIVE (5) FOOT CENTERS AND SHALL BE ROUND ONE-FOURTH (1/4) INCH RADIUS.
8. A ONE-HALF (1/2) INCH EXPANSION JOINT SHALL BE PLACED EVERY FORTY (40) FEET, AND WHERE WORKS ABUT OLD WORK, OR WHERE NEW WORK IS CONSTRUCTED ADJACENT TO OTHER CONCRETE, A ONE-HALF (1/2) INCH EXPANSION JOINT SHALL BE USED WHERE SIDEWALK IS ADJACENT TO CURB. THE EXPANSION JOINT SHALL BE MADE OF PRE-MOLDED BITUMINOUS EXPANSION JOINT FILLER. THE EXPANSION JOINT WILL END AT THE TOP OF THE CONCRETE BASE.
9. EXPOSED SIDEWALKS SHALL BE FINISHED BY LIGHTLY BROOMING SURFACE TRANSVERSELY TO DIRECTION OF MAIN TRAFFIC.
10. THE ONE-FOURTH (1/4) INCH PER FOOT CROSS SLOPE IN SIDEWALK AREAS IS THE STANDARD CONDITION.

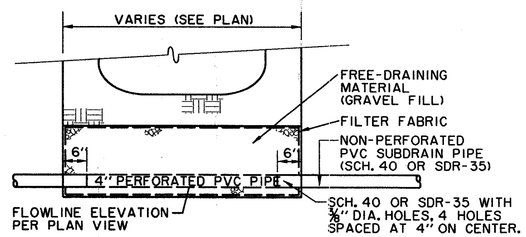



*DRAIN PIPE MAY BE OFFSET FURTHER FROM CENTER IF DESIRED. OFFSET IS TO AVOID CONFLICT WITH LIGHT POLE GROUNDING ROD WHEN TREES ARE IN LINE WITH LIGHTS.

SUBSURFACE DRAIN SYSTEM DETAIL
(SECTION PERPENDICULAR TO CURB)

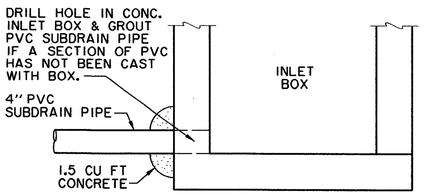
N.T.S.

(TO BE USED ON ALL TREES UNLESS OTHERWISE NOTED)



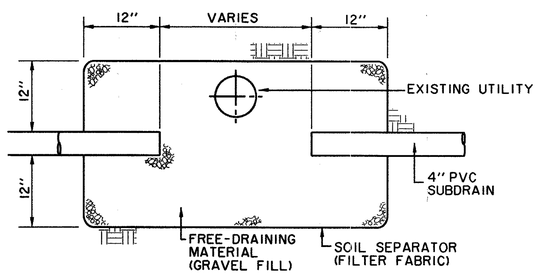

SUBSURFACE DRAIN SYSTEM DETAIL
(SECTION PARALLEL TO CURB)

N.T.S.



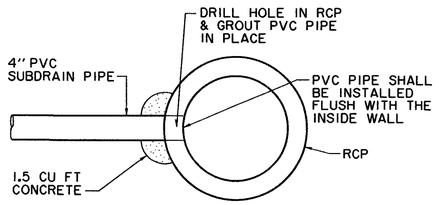

PVC SUBDRAIN PIPE CONNECTION
TO INLET BOX

N.T.S.




INSTALLATION OF SUBDRAIN
AT UTILITY CONFLICT

N.T.S.




PVC SUBDRAIN PIPE CONNECTION
TO STORM DRAINAGE PIPE

N.T.S.

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STATE OF TEXAS
DAVID E. MEYERS
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STREETSCAPE DETAILS

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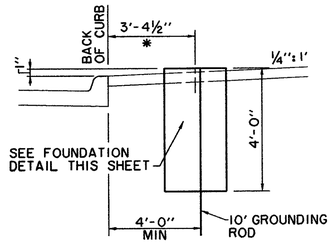
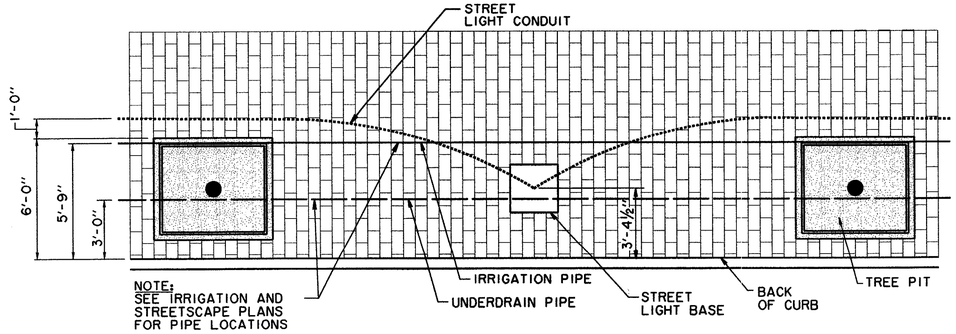



*UNLESS OTHERWISE NOTED IN PLANS

## LIGHT FIXTURE PLACEMENT DETAIL

N.T.S.




## STREET LIGHT CONDUIT DETAIL

CONDUIT SHALL BE DEFLECTED AROUND TREE PIT LOCATIONS - TYPICAL

N.T.S.

STREET LIGHTING NOTES

1. THE STREET LIGHTING FOR THIS PROJECT WILL CONSIST OF INSTALLATION OF 2" PVC CONDUIT, LIGHT POLE BASES, PULL BOXES (HANDHOLES) LIGHT POLES, LUMINAIRES, WIRING AND CONNECTION TO TO POWER SOURCE AS A COMPLETE SYSTEM PER DETAILED SPECIFICATIONS.

2. ALL STREET LIGHTING CONDUIT IS TO BE INSTALLED WITH A MINIMUM OF 24 INCHES OF COVER TO THE TOP OF THE PIPE FROM FINISHED PAVEMENT TO AVOID CONFLICT WITH IRRIGATION LINES WHICH WILL BE AT 12" AND 18" DEPTH. CONDUIT SHOULD BE NO DEEPER THAN 36" TO AVOID CONFLICT WITH OTHER UTILITIES.

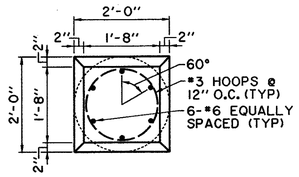
3. FOR THE PURPOSES OF COORDINATION, PEDESTRIAN LIGHTS TO BE INSTALLED PER THE STREETSCAPE PLANS FOR THIS PROJECT WILL BE THE FOLLOWING:

   SEE SHEET 15 FOR POLE TYPES.

   THIS POLE WILL BE INSTALLED WITH A 175 WATT METAL HALIDE BEGA 9801 ED-17MH/120V FIXTURE AND LUMINAIRE.

   POLES WILL BE PRIMED AND PAINTED AT THE FACTORY.

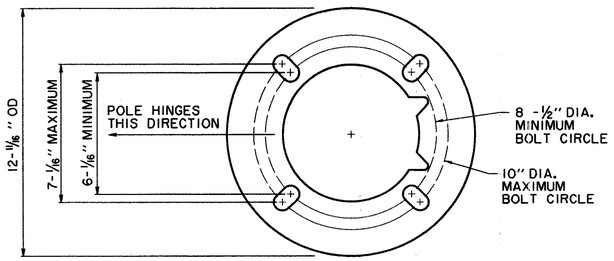
4. LOCATIONS OF ANY STREET LIGHTS MAY NOT BE ALTERED WITHOUT PERMISSION FROM THE ENGINEER.




## LIGHT FIXTURE FOUNDATION & CAP PLAN

N.T.S.

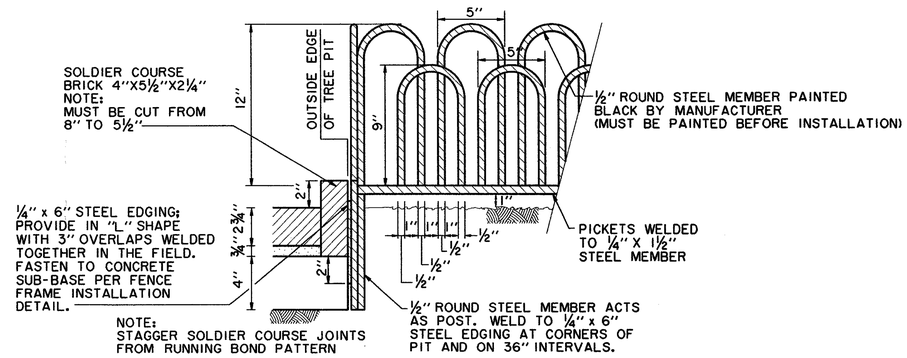
USE CAUTION WHEN SETTING ANCHOR BOLTS. BOLTS MUST BE VERTICALLY STRAIGHT AND CENTERED ON DIMENSIONS SHOWN.




NOTE:
ADEQUATE DRAINAGE MUST BE PROVIDED IN CONCRETE FOUNDATION OR GROUT.

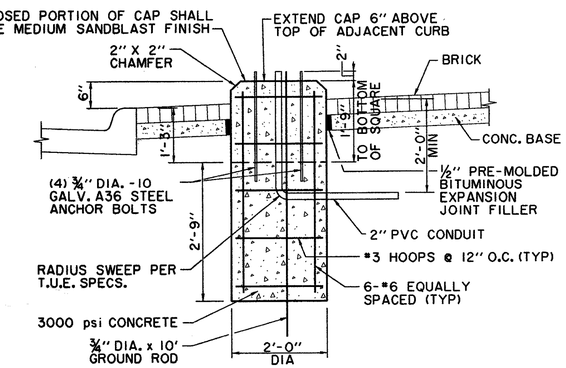
## ROUND BOTTOM HINGE BASE ANCHOR BOLT TEMPLATE

N.T.S.



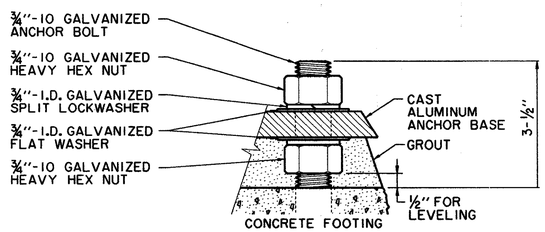

## TREE FENCE (MORRIS AVENUE)

N.T.S.



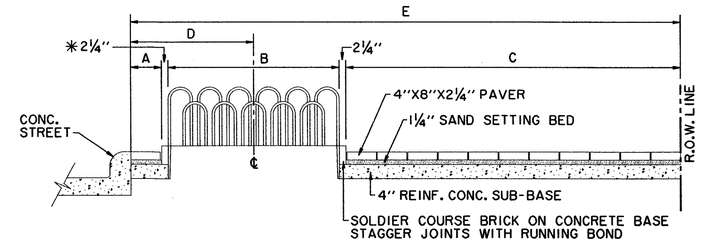

## LIGHT FIXTURE FOUNDATION & CAP SECTION

N.T.S.




## BOLT PROJECTION DETAIL

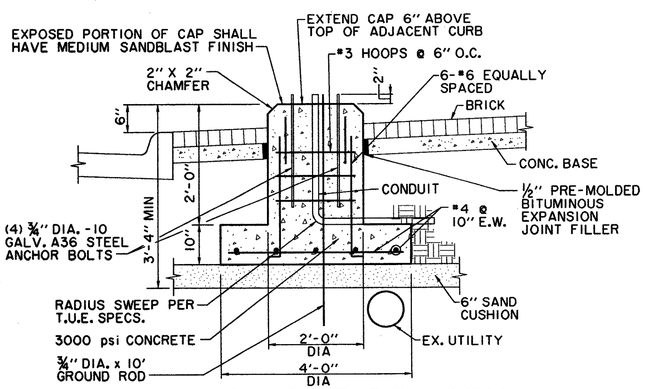
N.T.S.




| LOCATION | A | B | C | D | E |
|---|---|---|---|---|---|
| MORRIS AVENUE | 8¼" | 5'-0" | 5'-11¼" | 3'-4½" | 12'-0" |

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DAVID E. MEYERS, P.E. 81512

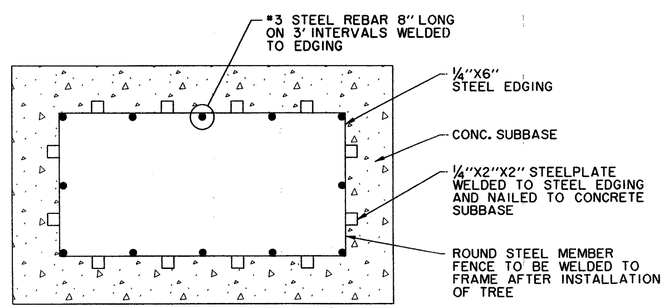
STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
3/29/01




## ALTERNATE LIGHT FIXTURE FOOTING AT UTILITY CONFLICT

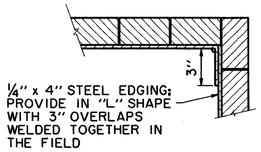
N.T.S.

(NOT TO BE USED FOR HANGING LIGHT FOUNDATION)




## TREE FENCE FRAME INSTALLATION DETAIL

N.T.S.




## STEEL EDGING OVERLAP DETAIL

N.T.S.

| DATE | DESCRIPTION | REF NO. |
|---|---|---|
| 4/20/01 | ISSUED FOR BID | N/A |

STREETSCAPE DETAILS

MORRIS AVENUE EXTENSION

PUBLIC INFRASTRUCTURE

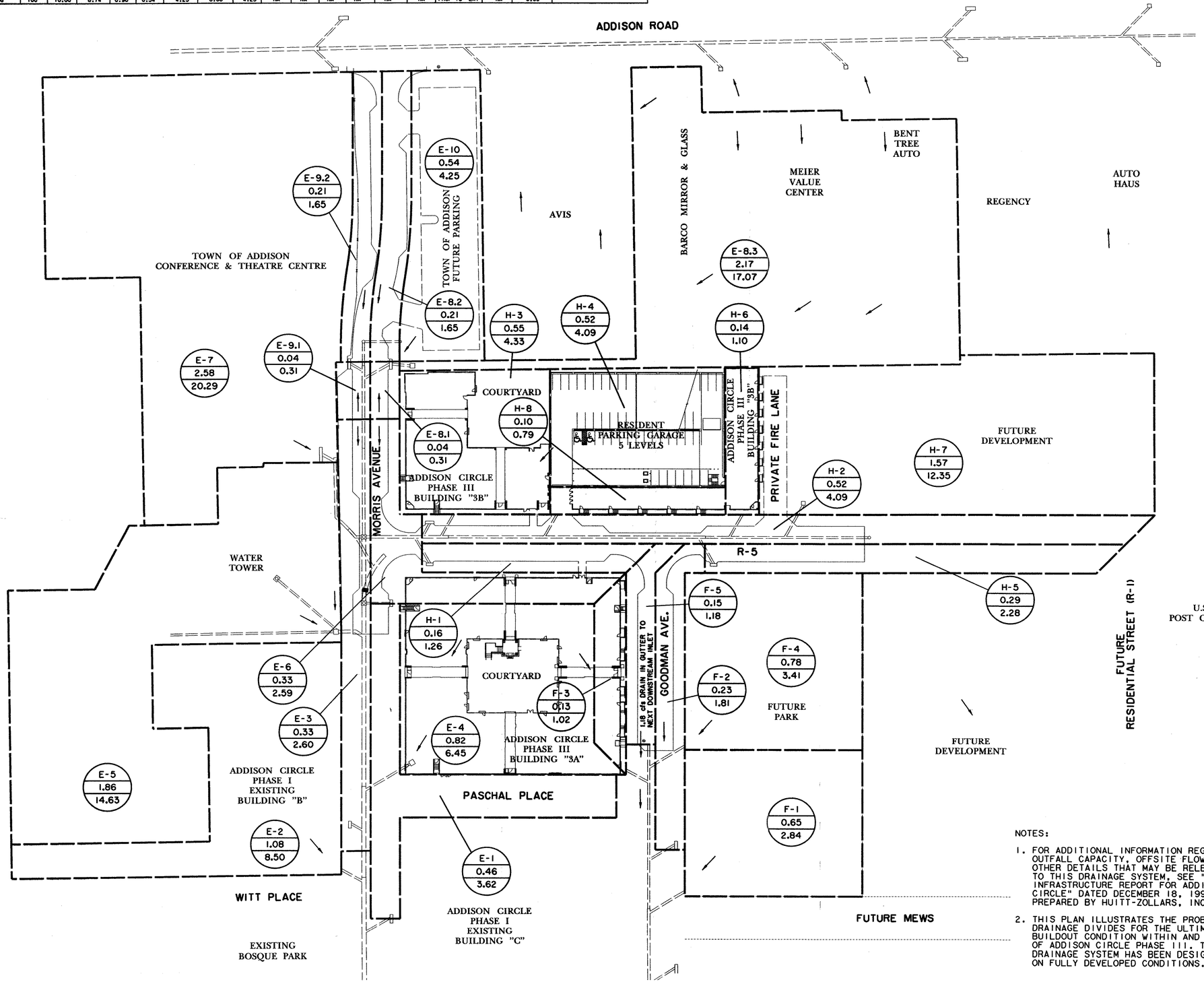
TOWN OF ADDISON, TEXAS

Huitt - Zollars, Inc.
3131 Mckinney Ave., Suite 600, Dallas, TX 75204
Phone (214) 871-3311/Fax (214) 871-0757

| DESIGN | DRAWN | APPR. | SCALE | DATE | PROJECT NO. | NO. |
|---|---|---|---|---|---|---|
| HZI | HZI | DEM | N.T.S. | APR. 2001 | 01-3000-01 | 9 |

## INLET CALCULATIONS

| INLET NO. | LOCATION | DESIGN STORM FREQ (YRS) | TIME OF CONC (MIN) | INTENSITY "I-100" (INCHES/ HOUR) | RUNOFF COEFF "C" | AREA "A" (ACRES) | "Q-100" FOR AREA (CFS) | CARRY-OVER FROM UPSTREAM (CFS) | TOTAL GUTTER FLOW (CFS) | GUTTER CAPACITY ONE DRY LANE (CFS) | GUTTER SLOPE (FT/FT) | STREET CROSS SLOPE (FT/FT) | ACTUAL GUTTER FLOW DEPTH (FT) | CAPACITY PER FOOT OF INLET (FT) | REQUIRED LENGTH OF INLET (FT) | SELECTED LENGTH OF INLET (FT) | TYPE | CARRY-OVER TO DOWNSTREAM (CFS) | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LINE "E" - MORRIS AVE | | | | | | | | | | | | | | | | | | | |
| E-7 | CONF CENTRE | 100 | 10.00 | 8.74 | 0.90 | 2.58 | 20.29 | 0.00 | 20.29 | NA | NA | NA | NA | NA | NA | EX 24" LAT | NA | 0.00 | PHASE I DESIGN |
| E-8.1,8.2 | MORRIS AVE | 100 | 10.00 | 8.74 | 0.90 | 0.25 | 1.97 | 0.00 | 1.97 | 4.14 | 0.0096 | PAR | NA | NA | 4 | 10 | MOD REC | 0.00 | SAG MINIMUM 10 FOOT INLET |
| E-8.3 | OFFSITE | 100 | 10.00 | 8.74 | 0.90 | 2.17 | 17.07 | 0.00 | 17.07 | NA | NA | NA | NA | NA | NA | 5'X5' | "Y" | 0.00 | |
| E-9.1,9.2 | MORRIS AVE | 100 | 10.00 | 8.74 | 0.90 | 0.25 | 1.97 | 0.00 | 1.97 | 4.14 | 0.0096 | PAR | NA | NA | 4 | 10 | MOD REC | 0.00 | SAG MINIMUM 10 FOOT INLET |
| E-10 | FUTURE PARKING | 100 | 10.00 | 8.74 | 0.90 | 0.54 | 4.25 | 0.00 | 4.25 | NA | NA | NA | NA | NA | NA | PROP 18" LAT | NA | 0.00 | |




## STORM WATER RUNOFF CALCULATIONS

| AREA NO. | Tc (MIN.) | INTENSITY "I-100" (IN./HR) | RUNOFF COEFF. "C" | AREA "A" (ACRES) | STORM RUNOFF "Q-100" |
|---|---|---|---|---|---|
| E-1 | 10.00 | 8.74 | 0.90 | 0.46 | 3.62 |
| E-2 | 10.00 | 8.74 | 0.90 | 1.08 | 8.50 |
| E-3 | 10.00 | 8.74 | 0.90 | 0.33 | 2.60 |
| E-4 | 10.00 | 8.74 | 0.90 | 0.82 | 6.45 |
| E-5 | 10.00 | 8.74 | 0.90 | 1.86 | 14.63 |
| E-6 | 10.00 | 8.74 | 0.90 | 0.33 | 2.60 |
| E-7 | 10.00 | 8.74 | 0.90 | 2.58 | 20.29 |
| E-8.1 | 10.00 | 8.74 | 0.90 | 0.04 | 0.31 |
| E-8.2 | 10.00 | 8.74 | 0.90 | 0.21 | 1.65 |
| E-8.3 | 10.00 | 8.74 | 0.90 | 2.17 | 17.07 |
| E-9.1 | 10.00 | 8.74 | 0.90 | 0.04 | 0.31 |
| E-9.2 | 10.00 | 8.74 | 0.90 | 0.21 | 1.65 |
| E-10 | 10.00 | 8.74 | 0.90 | 0.54 | 4.25 |
| F-1 | 10.00 | 8.74 | 0.50 | 0.65 | 2.84 |
| F-2 | 10.00 | 8.74 | 0.90 | 0.23 | 1.81 |
| F-3 | 10.00 | 8.74 | 0.90 | 0.13 | 1.02 |
| F-4 | 10.00 | 8.74 | 0.50 | 0.78 | 3.41 |
| F-5 | 10.00 | 8.74 | 0.90 | 0.15 | 1.18 |
| H-1 | 10.00 | 8.74 | 0.90 | 0.16 | 1.26 |
| H-2 | 10.00 | 8.74 | 0.90 | 0.52 | 4.09 |
| H-3 | 10.00 | 8.74 | 0.90 | 0.55 | 4.33 |
| H-4 | 10.00 | 8.74 | 0.90 | 0.52 | 4.09 |
| H-5 | 10.00 | 8.74 | 0.90 | 0.29 | 2.28 |
| H-6 | 10.00 | 8.74 | 0.90 | 0.14 | 1.10 |
| H-7 | 10.00 | 8.74 | 0.90 | 1.57 | 12.35 |
| H-8 | 10.00 | 8.74 | 0.90 | 0.10 | 0.79 |

DRAINAGE AREA DIVIDE

DIRECTION OF SURFACE FLOW

## RUNOFF CRITERIA

C=0.50 FOR AREAS F1 & F4
C=0.90 FOR REMAINING AREAS
MINIMUM $t_c$=10.00 MINUTES
$I_{100}$=8.74 in/hr

A-1 — DRAINAGE AREA DESIGNATION
0.32 — TOTAL DRAINAGE AREA (ACRES) AT POINT OF CONCENTRATION
2.52 — Q100 (cfs)

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DAVID E. MEYERS, P.E. 81512

STATE OF TEXAS — DAVID E. MEYERS 81512 — REGISTERED PROFESSIONAL ENGINEER
3/29/01

NOTES:

1. FOR ADDITIONAL INFORMATION REGARDING OUTFALL CAPACITY, OFFSITE FLOWS AND OTHER DETAILS THAT MAY BE RELEVANT TO THIS DRAINAGE SYSTEM, SEE "MASTER INFRASTRUCTURE REPORT FOR ADDISON CIRCLE" DATED DECEMBER 18, 1995, PREPARED BY HUITT-ZOLLARS, INC.
2. THIS PLAN ILLUSTRATES THE PROBABLE DRAINAGE DIVIDES FOR THE ULTIMATE BUILDOUT CONDITION WITHIN AND UPSTREAM OF ADDISON CIRCLE PHASE III. THE PERMANENT DRAINAGE SYSTEM HAS BEEN DESIGNED BASED ON FULLY DEVELOPED CONDITIONS.

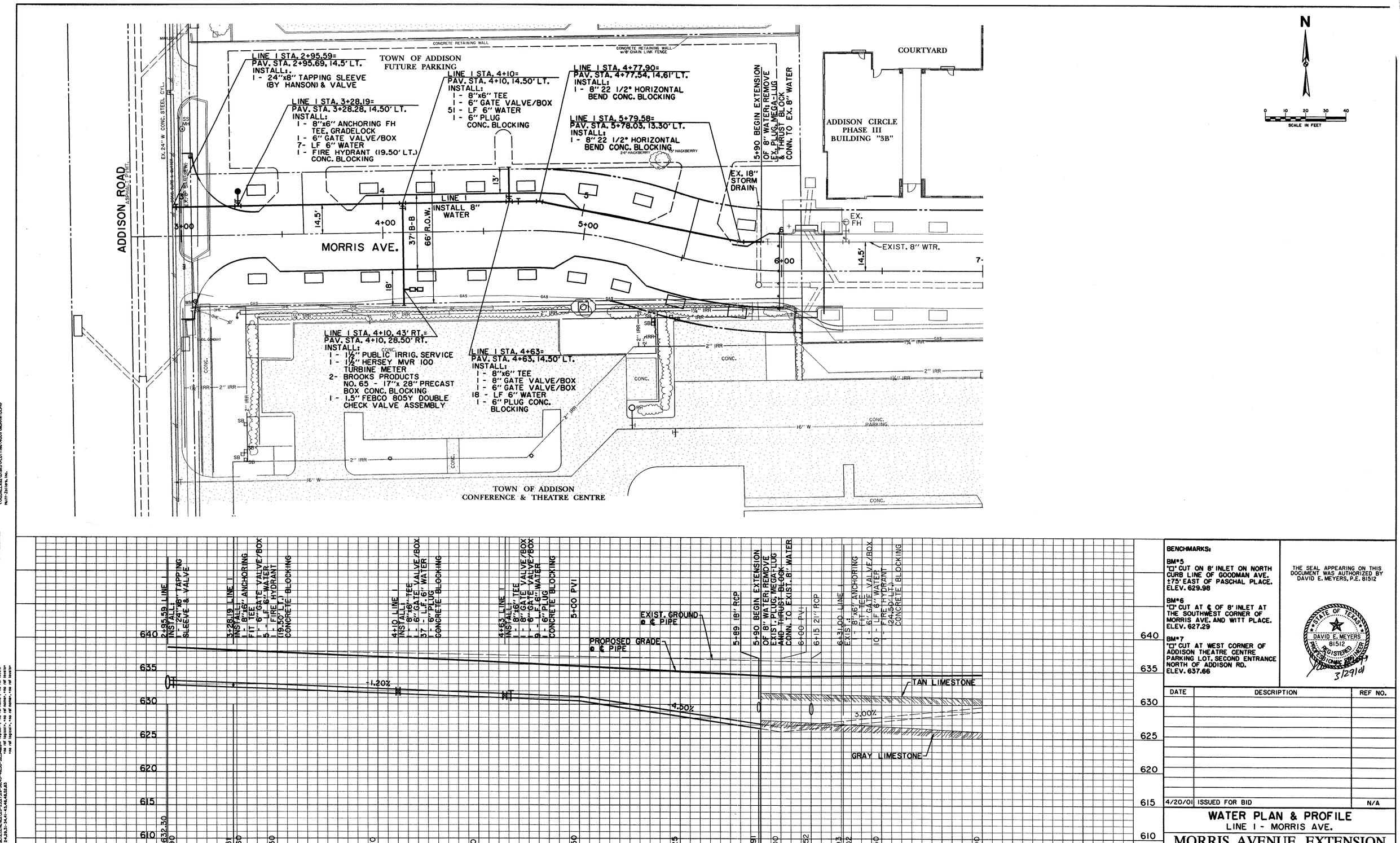
| DATE | DESCRIPTION | REF NO. |
|---|---|---|
| 4/20/01 | ISSUED FOR BID | N/A |

# DRAINAGE AREA MAP
# PROPOSED & EXISTING DEVELOPMENT
## MORRIS AVENUE EXTENSION
### PUBLIC INFRASTRUCTURE
### TOWN OF ADDISON, TEXAS


Huitt - Zollars, Inc.
3131 Mckinney Ave., Suite 600, Dallas, TX 75204
Phone (214) 871-3311/Fax (214) 871-0757


| DESIGN | DRAWN | APPR. | SCALE | DATE | PROJECT NO. | NO. |
|---|---|---|---|---|---|---|
| HZI | HZI | DEM | 1"=50' | APR. 2001 | 01-3000-01 | 10 |

h:\proj\01300001\dgn\MORRDAMI.DGN




**BENCHMARKS:**

**BM#5**
"□" CUT ON 8' INLET ON NORTH CURB LINE OF GOODMAN AVE. ±75' EAST OF PASCHAL PLACE.
ELEV. 629.98

**BM#6**
"□" CUT AT ℄ OF 8' INLET AT THE SOUTHWEST CORNER OF MORRIS AVE. AND WITT PLACE.
ELEV. 627.29

**BM#7**
"□" CUT AT WEST CORNER OF ADDISON THEATRE CENTRE PARKING LOT, SECOND ENTRANCE NORTH OF ADDISON RD.
ELEV. 637.66

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STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED PROFESSIONAL ENGINEER
3/29/01

| DATE | DESCRIPTION | REF NO. |
|---|---|---|
| 4/20/01 | ISSUED FOR BID | N/A |

# WATER PLAN & PROFILE
## LINE I - MORRIS AVE.

# MORRIS AVENUE EXTENSION
## PUBLIC INFRASTRUCTURE
## TOWN OF ADDISON, TEXAS

Huitt - Zollars, Inc.
3131 Mckinney Ave., Suite 600, Dallas, TX 75204
Phone (214) 871-3311/Fax (214) 871-0757

| DESIGN | DRAWN | APPR. | SCALE | DATE | PROJECT NO. | NO. |
|---|---|---|---|---|---|---|
| HZI | HZI | DEM | | APR. 2001 | 01-3000-01 | 11 |

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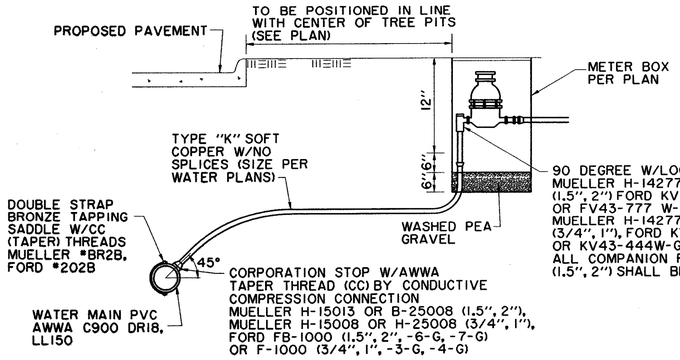
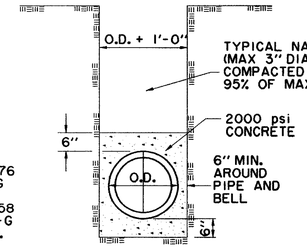



NOTE:

THE TAPPING SADDLE AND CORPORATION STOP MUST BE POLY-WRAPPED (8 MIL) AND HAND BACKFILLED WITH SAND TO A DEPTH OF 12". CAUTION !! INSPECTION MUST BE CALLED FOR AND COMPLETED PRIOR TO BACKFILL OR TAP MUST BE RE-EXPOSED BY THE CONTRACTOR FOR INSPECTION BY THE TOWN.

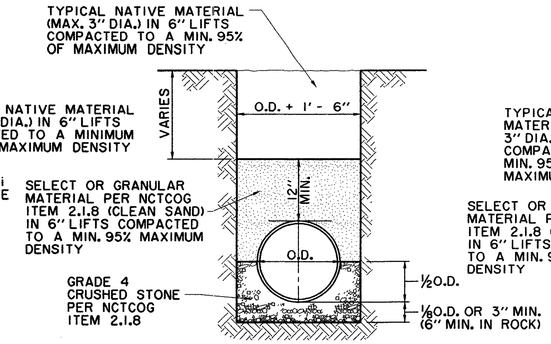
## TYPICAL WATER SERVICE DETAIL UP TO 2" METER

N.T.S.



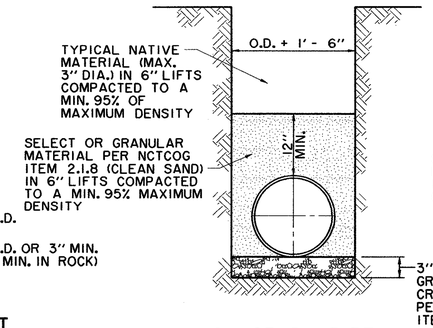

## CONCRETE ENCASEMENT WATER MAIN

N.T.S.



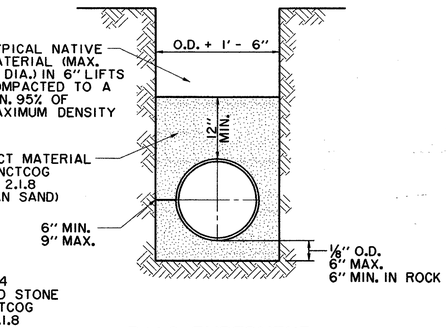

## RCCP WATERLINE EMBEDMENT

N.T.S.



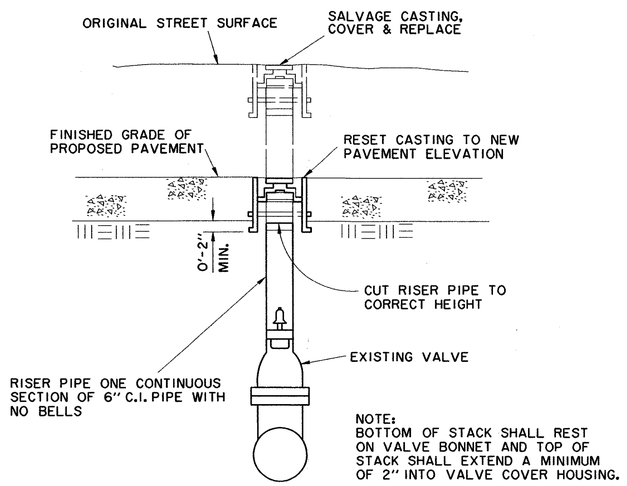

## C.I. OR D.I. PIPE

N.T.S.




## P.V.C. EMBEDMENT

N.T.S.

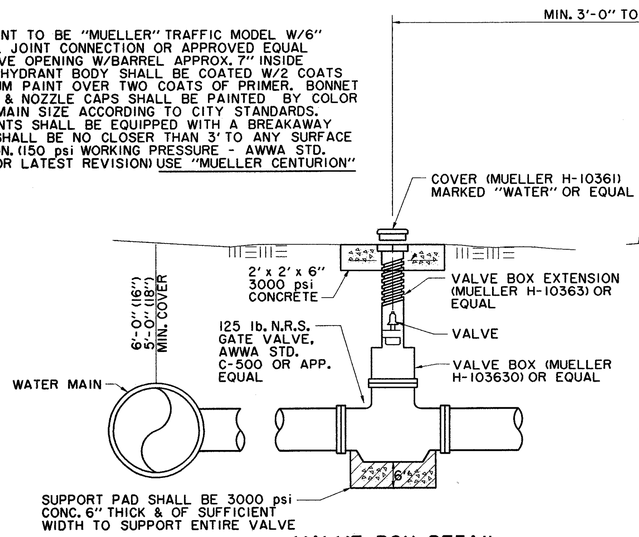



NOTE:
BOTTOM OF STACK SHALL REST ON VALVE BONNET AND TOP OF STACK SHALL EXTEND A MINIMUM OF 2" INTO VALVE COVER HOUSING.

## VALVE COVER AND RISER PIPE ADJUSTMENT

N.T.S.

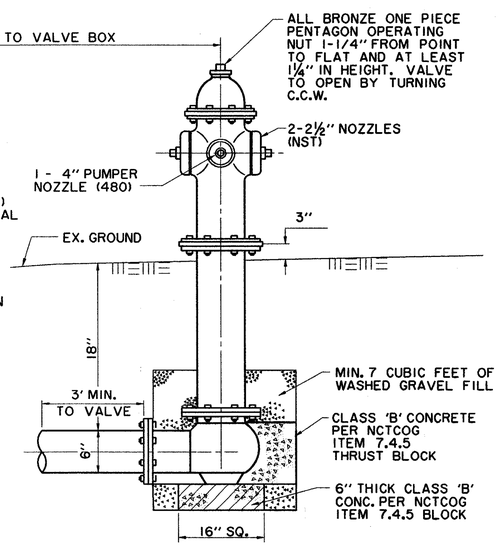
FIRE HYDRANT TO BE "MUELLER" TRAFFIC MODEL W/6" MECHANICAL JOINT CONNECTION OR APPROVED EQUAL W/5¼" VALVE OPENING W/BARREL APPROX. 7" INSIDE DIAMETER. HYDRANT BODY SHALL BE COATED W/2 COATS OF ALUMINUM PAINT OVER TWO COATS OF PRIMER. BONNET TO FLANGE & NOZZLE CAPS SHALL BE PAINTED BY COLOR CODE FOR MAIN SIZE ACCORDING TO CITY STANDARDS. ALL HYDRANTS SHALL BE EQUIPPED WITH A BREAKAWAY FLANGE & SHALL BE NO CLOSER THAN 3' TO ANY SURFACE OBSTRUCTION. (150 psi WORKING PRESSURE - AWWA STD. C-502-73 OR LATEST REVISION) USE "MUELLER CENTURION"




## VALVE BOX DETAIL

N.T.S.

(SEE PLANS FOR "MAIN SIZE")




## TYPICAL FIRE HYDRANT INSTALLATION

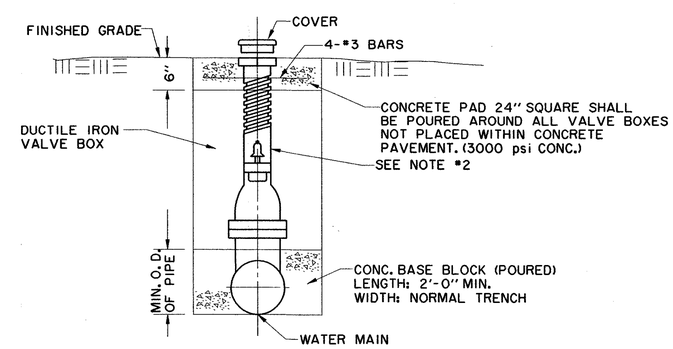
N.T.S.

GENERAL NOTES:

1. ℄ OF F.H. BARREL SHALL BE NOT LESS THAN 6.0' OR MORE THAN 9.0' FROM BACK OF CURB OR EDGE OF DRIVING LANE.
2. DO NOT SET F.H. IN AN EXISTING OR PROPOSED SIDEWALK, UNLESS OTHERWISE NOTED.
3. ALL F.H. TEES SHALL BE M.J. WITH ANCHORING ON THE BRANCH WITH M.J., M.J. 6" VALVE.
4. SET F.H. ON THE LOT LINE EXTENDED WHEN POSSIBLE. (NOT APPLICABLE TO THIS PROJECT)
5. SEE SPECIFICATION FH-95-1 FOR ADDITIONAL REQUIREMENTS.

GATE VALVES AND VALVE BOXES:

1. GATE VALVES SHALL BE IRON BODY, BRONZE OR BRASS MOUNTED, NON-RISING STEM, RESILIENT WEDGE. VALVES SHALL BE OF EQUAL OR GREATER PRESSURE CLASS THAN THE PIPING IN WHICH THEY ARE TO BE INSTALLED. SEE SPEC. GV-95-1.
2. VALVE BOXES SHALL BE CAST IRON AND SHALL BE OF SUFFICIENT LENGTH AND DIAMETER TO OPERATE ALL VALVES BURIED IN THE GROUND. COVERS SHALL BE MARKED "WATER". THE BOXES SHALL REST ON THE VALVE AND BE ADJUSTED SO THAT THE COVER MAY SET FLUSH WITH THE FINISHED GRADE.




## TYPICAL VALVE SETTING AND BOX

N.T.S.

NOTES:

1. GATE VALVES SHALL BE IN ACCORDANCE WITH AWWA STANDARD C-509-80 OR LATEST THEREOF. ALL VALVES SHALL BE "MUELLER" OR APPROVED EQUAL.
2. A PERMANENTLY ATTACHED VALVE EXTENSION STEM SHALL BE REQUIRED FOR ANY VALVE ON WHICH THE OPERATING NUT IS LOCATED IN EXCESS OF 4 FEET BELOW THE TOP OF VALVE BOX. THIS EXTENSION SHALL BE OF SUFFICIENT LENGTH TO INSURE THAT ITS TOP IS WITHIN 4' OF VALVE BOX LID. MANUFACTURED VALVE STACK DUCTILE IRON PIPE TO BE USED FOR EXTENSION GREATER THAN 4'-0". BELL END OF STACK TO BE FITTED OVER VALVE. VALVE AND VALVE STACK IS TO BE POLY WRAPED.
3. VALVES SHALL BE OF DUCTILE IRON W/RUBBER ENCAPSULATED DISK. BOLTS SHALL BE STAINLESS STEEL OF SAME SIZE ON EACH VALVE. SEE SPEC. GV-95-1.

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DAVID E. MEYERS, P.E. 81512

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED PROFESSIONAL ENGINEER
3/29/01

| DATE | DESCRIPTION | REF NO. |
|---|---|---|
| 4/20/01 | ISSUED FOR BID | N/A |

WATER DETAILS

MORRIS AVENUE EXTENSION

PUBLIC INFRASTRUCTURE

TOWN OF ADDISON, TEXAS

Huff - Zollars, Inc.
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| DESIGN | DRAWN | APPR. | SCALE | DATE | PROJECT NO. | NO. |
|---|---|---|---|---|---|---|
| HZI | HZI | DEM | N.T.S. | APR. 2001 | 01-3000-01 | 12 |

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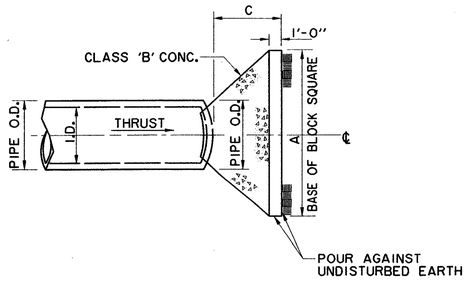
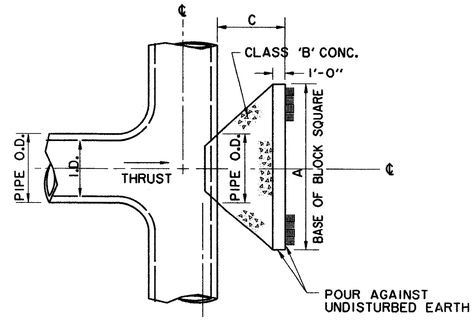



## PLAN OF PLUG THRUST BLOCK

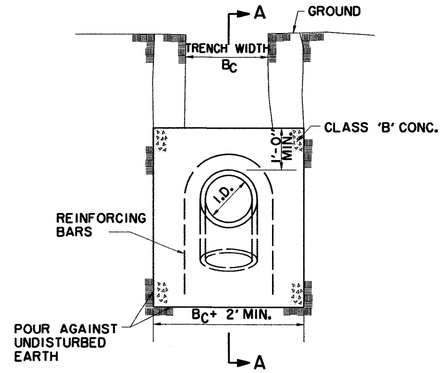
N.T.S.




## PLAN OF TEE THRUST BLOCK

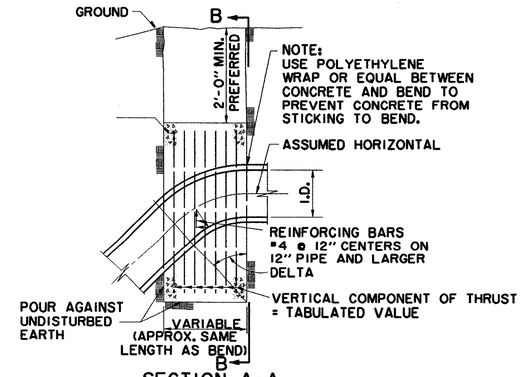
N.T.S.

| | | | EARTH | | ROCK | |
|---|---|---|---|---|---|---|
| I.D. (IN.) | THRUST TONS | C. FT. | A. FT. | VOL. C.Y. | A. FT. | VOL. C.Y. |
| 4, 6, 8 | 5.1 | 1.5 | 2.5 | 0.3 | 2.0 | 0.2 |
| 10, 12 | 11.3 | 1.5 | 3.5 | 0.6 | 2.5 | 0.3 |
| 16, 18 | 25.5 | 2.0 | 5.5 | 1.6 | 4.0 | 0.9 |
| 24 | 45.2 | 2.5 | 7.0 | 3.1 | 5.0 | 1.7 |




## ELEVATION B-B

N.T.S.




## SECTION A-A

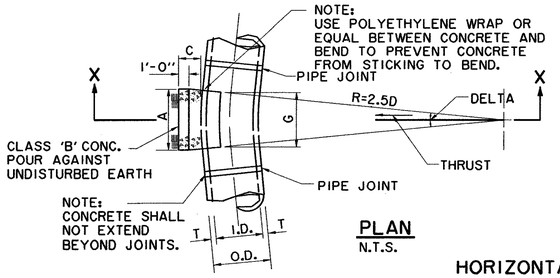
N.T.S.

## VERTICAL BENDS

| | 11.25° | | 22.50° | | 30° | | 45° | | 67.50° | | 90° | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I.D. (IN.) | THRUST TONS | VOL. C.Y. | THRUST TONS | VOL. C.Y. | THRUST TONS | VOL. C.Y. | THRUST TONS | VOL. C.Y. | THRUST TONS | VOL. C.Y. | THRUST TONS | VOL. C.Y. | I.D. (IN.) |
| 4, 6, 8 | 1.0 | 0.5 | 2.0 | 1.0 | 2.5 | 1.3 | 3.6 | 1.8 | 4.6 | 2.3 | 5.0 | 2.5 | 4, 6, 8 |
| 10, 12 | 2.2 | 1.1 | 4.3 | 2.2 | 5.7 | 2.8 | 8.0 | 4.0 | 10.5 | 5.2 | 11.3 | 5.7 | 10, 12 |
| 16, 18 | 5.0 | 2.5 | 9.7 | 4.9 | 12.7 | 6.4 | 18.0 | 9.0 | 23.5 | 11.8 | 25.5 | 12.7 | 16, 18 |
| 24 | 8.2 | 4.4 | 17.3 | 8.7 | 22.6 | 11.3 | 32.0 | 16.0 | 41.9 | 20.9 | 45.2 | 22.6 | 24 |

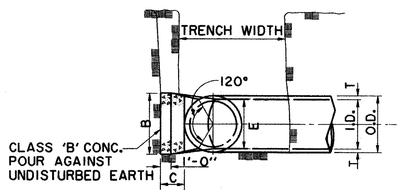
## GENERAL NOTES FOR ALL THRUST BLOCKS

1. ALL CALCULATIONS ARE BASED ON INTERNAL PRESSURE OF 200 P.S.I. FOR 24'' I.D. PIPE AND SMALLER AND 150 P.S.I. ON 30'' I.D. AND LARGER.
2. VOLUMES OF VERTICAL BEND THRUST BLOCKS ARE NET VOLUMES OF CONCRETE TO BE FURNISHED. THE CORRESPONDING WEIGHT OF THE CONCRETE (CLASS F) IS EQUAL TO OR GREATER THAN THE VERTICAL COMPONENT OF THRUST ON THE VERTICAL BEND.
3. WALL THICKNESS (T) ASSUMED HERE FOR ESTIMATING PURPOSES ONLY.
4. CONCRETE FOR BLOCKING SHALL BE CLASS B CONCRETE.
5. DIMENSIONS MAY BE VARIED AS REQUIRED BY FIELD CONDITIONS AND AS DIRECTED BY THE ENGINEER. THE VOLUME OF CONCRETE BLOCKING SHALL NOT BE LESS THAN SHOWN HERE.
6. CONCRETE BLOCKING SHALL BE IN PLACE A MINIMUM OF 4 DAYS PRIOR TO TESTING THE PIPELINE.




## PLAN

N.T.S.




## SECTION X-X

N.T.S.

| I.D. (IN.) | T. IN. | C 11.25° FT. | C 22.50°+ FT. | E. FT. |
|---|---|---|---|---|
| 4, 6, 8 | 0.4 | 1.5 | 1.5 | 0.9 |
| 10, 12 | 0.5 | 1.5 | 1.5 | 1.2 |
| 16, 18 | 0.6 | 1.5 | 1.5 | 1.6 |
| 24 | 0.9 | 1.5 | 1.5 | 2.1 |

## HORIZONTAL BENDS

| DELTA | 11.25° | | | | | | | | 22.50° | | | | | | | | DELTA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | EARTH | | | ROCK | | | | | EARTH | | | ROCK | | | |
| I.D. (IN.) | G. FT. | THRUST TONS | A. FT. | B. FT. | VOL. C.Y. | A. FT. | B. FT. | VOL. C.Y. | G. FT. | THRUST TONS | A. FT. | B. FT. | VOL. C.Y. | A. FT. | B. FT. | VOL. C.Y. | I.D. (IN.) |
| 4, 6, 8 | 0.4 | 1.0 | 1.0 | 1.5 | 0.1 | 1.0 | 1.0 | 0.1 | 0.8 | 2.0 | 1.5 | 1.5 | 0.1 | 1.0 | 1.0 | 0.1 | 4, 6, 8 |
| 10, 12 | 0.6 | 2.2 | 1.5 | 1.5 | 0.1 | 1.0 | 1.5 | 0.1 | 1.1 | 4.4 | 2.0 | 2.5 | 0.3 | 1.5 | 1.5 | 0.1 | 10, 12 |
| 16, 18 | 0.8 | 5.0 | 2.0 | 2.5 | 0.3 | 1.5 | 2.0 | 0.2 | 1.6 | 9.9 | 3.0 | 3.5 | 0.6 | 2.0 | 2.5 | 0.3 | 16, 18 |
| 24 | 1.1 | 8.9 | 3.0 | 3.5 | 0.5 | 1.5 | 3.0 | 0.3 | 2.2 | 17.7 | 4.0 | 4.5 | 1.0 | 3.0 | 3.5 | 0.5 | 24 |
| DELTA | 45° | | | | | | | | 90° | | | | | | | | DELTA |
| 4, 6, 8 | 0.4 | 3.9 | 2.0 | 2.0 | 0.2 | 1.5 | 1.5 | 0.1 | 0.4 | 5.0 | 5.0 | 1.5 | 0.4 | 2.0 | 2.0 | 0.2 | 4, 6, 8 |
| 10, 12 | 0.5 | 8.7 | 3.5 | 2.5 | 0.5 | 2.0 | 2.5 | 0.3 | 0.5 | 6.5 | 6.5 | 2.5 | 1.0 | 3.5 | 2.5 | 0.5 | 10, 12 |
| 16, 18 | 0.6 | 19.5 | 4.5 | 4.5 | 1.2 | 3.0 | 3.5 | 0.6 | 0.6 | 9.0 | 9.0 | 4.0 | 2.4 | 4.5 | 4.0 | 1.0 | 16, 18 |
| 24 | 0.9 | 34.6 | 8.0 | 4.5 | 2.3 | 4.5 | 4.0 | 1.1 | 0.9 | 14.5 | 14.5 | 4.5 | 5.0 | 8.0 | 4.0 | 2.1 | 24 |

## GENERAL NOTES

1. UNPLASTICIZED POLYVINYL CHLORIDE (PVC) WATER PIPE SHALL MEET OR EXCEED REQUIREMENTS OF AWWA C909 ULTRA BLUE PIPE WITH CAST IRON OUTSIDE DIMENSIONS. PIPE SHALL BE LISTED BY UNDERWRITER LABORATORIES AND SHALL BE APPROVED FOR USE IN CITIES AND TOWNS OF THE STATE OF TEXAS BY THE STATE BOARD OF INSURANCE.

2. PVC WATER PIPE SHALL BE FURNISHED WITH A RUBBER RING AT EACH JOINT AND AN INTEGRAL THICKENED BELL AS A PART OF EACH JOINT. THE PIPE CLASS SHALL BE MINIMUM CLASS 150 DR 18 WHICH REFERS TO THE MAXIMUM HYDROSTATIC PRESSURE IN NORMAL OPERATIONS. LAYING LENGTHS SHALL BE 20 FEET+/-. PIPE AND FITTINGS MUST BE ASSEMBLED WITH A NONTOXIC LUBRICANT.

3. FITTINGS FOR PVC WATER PIPE SHALL BE GRAY IRON OR DUCTILE IRON OF THE BELL AND SPIGOT, OR MECHANICAL JOINT TYPE AND SHALL BE CLASS 250 IN ACCORDANCE WITH AWWA C110-77 (ANSI.10).

4. UNLESS OTHERWISE SPECIFIED ON PLANS OR SHOWN IN PROFILES, PVC WATER PIPE SHALL BE INSTALLED TO CLEAR ALL UTILITY LINES AND SHALL HAVE A MINIMUM COVER OF 36 INCHES BELOW THE LOWEST GRADE OF THE STREET AS PER CITY CODE.

5. 4''-12'' R S GATE VALVES SHALL BE IN ACCORDANCE WITH AWWA STANDARD C-500.

6. A PERMANENTLY ATTACHED VALVE EXTENSION STEM SHALL BE REQUIRED FOR ANY VALVE WHOSE OPERATING NUT IS LOCATED IN EXCESS OF 4 FEET BELOW THE TOP OF VALVE BOX. THIS EXTENSION SHALL BE OF SUFFICIENT LENGTH TO INSURE THAT ITS TOP IS WITHIN 4' OF VALVE BOX LID.

7. DUCTILE IRON OR C-900 PVC PIPE SHALL BE USED FOR VALVE STACKS WITH VALVE BOX CASTING.

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DAVID E. MEYERS, P.E. 81512

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
5/29/01

| DATE | DESCRIPTION | REF NO. |
|---|---|---|
| 4/20/01 | ISSUED FOR BID | N/A |

WATER DETAILS

MORRIS AVENUE EXTENSION

PUBLIC INFRASTRUCTURE

TOWN OF ADDISON, TEXAS

Huitt - Zollars, Inc.
3131 Mckinney Ave., Suite 600, Dallas, TX 75204
Phone (214) 871-3311/Fax (214) 871-0757

| DESIGN | DRAWN | APPR. | SCALE | DATE | PROJECT NO. | NO. |
|---|---|---|---|---|---|---|
| HZI | HZI | DEM | N.T.S. | APR. 2001 | 01-3000-01 | 13 |

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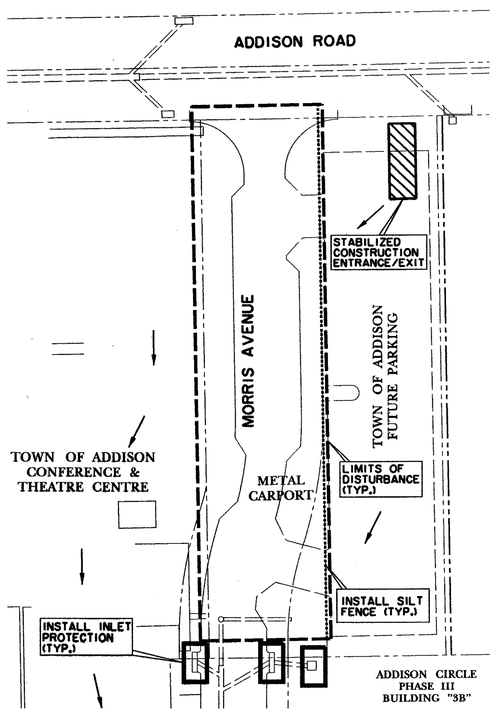
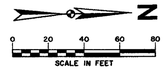


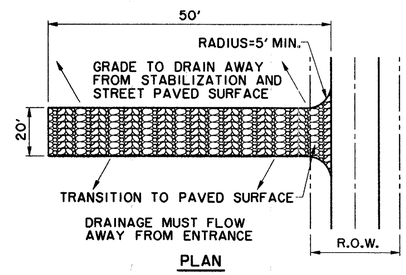

AREA OF DISTURBANCE
0.50 ACRES

NOTES:

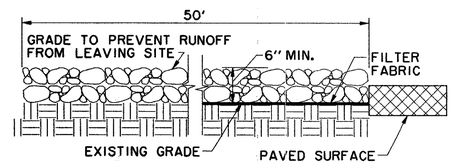
1. SEE DRAINAGE AREA MAP FOR DRAINAGE AREAS AND CALCULATIONS.
2. SEE POLLUTION CONTROL DETAILS FOR TYPES OF INLET PROTECTION.

LEGEND:

- SILT FENCE
- INLET PROTECTION
- EXISTING CONTOURS
- DIRECTION OF RUNOFF
- LIMITS OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE/EXIT




PLAN




PROFILE

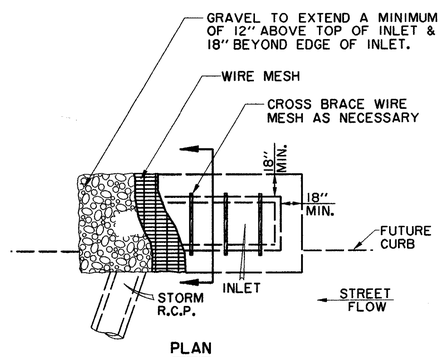
## STABILIZED CONSTRUCTION ENTRANCE / EXIT

NCTCOG 02270.G
STORM WATER QUALITY
BEST MANAGEMENT PRACTICES
FOR CONSTRUCTION ACTIVITIES

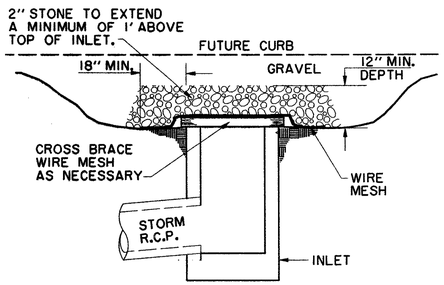
DETAIL 'A'
N.T.S.

NOTES:

1. A NOTICE OF INTENT (N.O.I.) WILL BE PREPARED BY THE CONTRACTOR FOR THIS PROJECT IN ACCORDANCE WITH THE REQUIREMENTS OF THE N.P.D.E.S. GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION.
2. ALL CONTRACTORS WILL COMPLY WITH THE REQUIREMENTS AND INTENT OF THE N.P.D.E.S. GENERAL PERMIT FOR STORM WATER DISCHARGES.
3. EACH CONTRACTOR SHALL SUBMIT A NOTICE OF INTENT (N.O.I.) FOR STORM WATER DISCHARGE PERMIT COVERAGE. THIS SUBMITTAL SHALL BE COORDINATED WITH THE TOWN AND SHALL OCCUR NO LESS THAN 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY.
4. EACH CONTRACTOR SHALL OBTAIN AND SUBMIT TO TOWN A POLLUTION PREVENTION CERTIFICATION FROM EACH SUBCONTRACTOR WHOSE WORK IMPACTS THE STORM WATER POLLUTION PREVENTION PLAN (S.W.P.P.P.) PRIOR TO THE PERFORMANCE OF ANY WORK BY SAID SUBCONTRACTOR. THESE CERTIFICATIONS SHALL BECOME A PART OF THE STORM WATER POLLUTION PREVENTION PLAN.
5. CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES, AS INDICATED ON THE PLANS AND AS FIELD CONDITIONS WARRANT, PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITY. REPAIRS OR MODIFICATIONS TO THE MEASURES WILL BE MADE BY THE CONTRACTOR IF THE CONTROL MEASURES PROVE INEFFECTIVE OR IF ADDITIONAL CONTROL MEASURES ARE NECESSARY.
6. CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PREVENT TRACKING OF MUD AND/OR SOILS ONTO EXISTING AND/OR NEW PAVEMENT. ANY TRACKING THAT OCCURS SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
7. CONTRACTOR SHALL CONSTRUCT INLET PROTECTION FOR ALL INCOMPLETE CURB INLETS AND SHALL TAKE EVERY MEASURE TO KEEP SOILS AND SEDIMENTS FROM ENTERING THE STORM SEWER SYSTEM.
8. CONTRACTOR SHALL CONSTRUCT DROP INLET PROTECTION FOR ALL INCOMPLETE DROP INLETS AND SHALL TAKE EVERY MEASURE TO KEEP SOILS AND SEDIMENTS FROM ENTERINGTHE STORM SEWER SYSTEM.
9. AT A MINIMUM, PERIMETER CONTROLS SUCH AS SILT FENCE OR STRAW BALES SHALL BE INSTALLED AT ALL DOWN SLOPE BOUNDARIES AND AS WARRANTED WHERE PAVEMENT REMOVAL, UTILITY CONSTRUCTION, GRADING, OR OTHER CONSTRUCTION ACTIVITIES ARE TO BE PERFORMED. THE CONTRACTOR SHALL AT ALL TIMES TAKE SUCH MEASURES AS NECESSARY TO MINIMIZE OFFSITE TRACKING OR TRANSPORT OF SEDIMENT AND DEBRIS.
10. DAMAGE TO ADJACENT PROPERTY AND/OR TO RECEIVING WATERS CAUSED BY IMPROPERLY INSTALLED OR POORLY MAINTAINED EROSION CONTROL MEASURES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ANY SILTATION CAUSED BY HIS OPERATIONS AND/OR FAILURE OF THE EROSION CONTROL MEASURES.
12. CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ACCUMULATED SILT AND SEDIMENT FROM EROSION CONTROL MEASURES WHEN IT REACHES A DEPTH OF SIX (6) INCHES OR IMPAIRS THE EFFECTIVENESS OF THE MEASURES.
13. THE TOWN'S REPRESENTATIVE MAY INSPECT THE PROJECT EVERY SEVEN DAYS, AT A MINIMUM, AND AFTER EVERY RAINFALL OF ONE-HALF INCHES OR GREATER TO DETERMINE THE INTEGRITY AND EFFECTIVENESS OF THE EROSION CONTROL MEASURES. A WRITTEN INSPECTION REPORT MAY BE FILED WITH THE POLLUTION PREVENTION PLAN. THIS INSPECTION DOES NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY FOR INSPECTION AND MAINTENANCE OF THE EROSION CONTROL MEASURES OR HIS DUTY TO COMPLY WITH THE INTENT AND CONDITIONS OF THE N.P.D.E.S. GENERAL PERMIT.
14. ALL STOCKPILED SOILS WILL BE SURROUNDED BY A STRAW BALE DIKE, SILT FENCE, SEDIMENT CONTROL SWALE, OR EQUIVALENT MEASURE TO PROPERLY CONTROL SEDIMENT RUNOFF, AS APPROVED BY THE TOWN.
15. CONTRACTOR SHALL STABILIZE ANY AREA WHERE CONSTRUCTION ACTIVITY IS TO BE TEMPORARILY OR PERMANENTLY CEASED FOR MORE THAN 14 DAYS.




PLAN

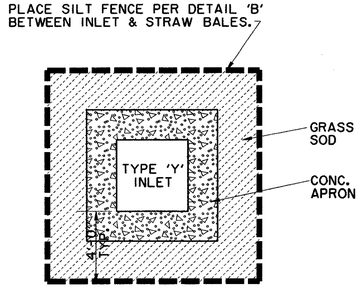



CROSS-SECTION

## INLET PROTECTION WIRE MESH & GRAVEL

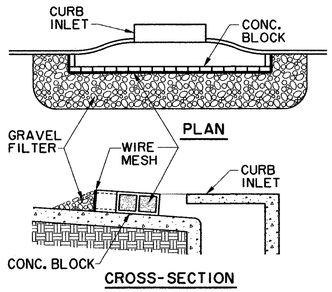
NCTCOG 02270.G
STORM WATER QUALITY
BEST MANAGEMENT PRACTICES
FOR CONSTRUCTION ACTIVITIES

DETAIL 'E'
N.T.S.




## TYPE 'Y' PROTECTION (TYP.)

DETAIL 'F'
N.T.S.



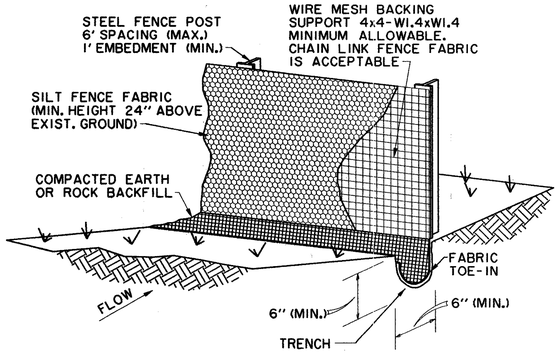

PLAN

CROSS-SECTION

## INLET PROTECTION BLOCK & GRAVEL

NCTCOG 02270.G
STORM WATER QUALITY
BEST MANAGEMENT PRACTICES
FOR CONSTRUCTION ACTIVITIES

DETAIL 'G'
N.T.S.




SILT FENCE SHOULD BE SECURELY FASTENED TO BACKING SUPPORT AND POSTS.

## SILT FENCE

NCTCOG 02270.B
STORM WATER QUALITY
BEST MANAGEMENT PRACTICES
FOR CONSTRUCTION ACTIVITIES

DETAIL 'B'
N.T.S.

BENCHMARKS:

BM#5
"□" CUT ON 8' INLET ON NORTH CURB LINE OF GOODMAN AVE. ±75' EAST OF PASCHAL PLACE.
ELEV. 629.98

BM#6
"□" CUT AT ℄ OF 8' INLET AT THE SOUTHWEST CORNER OF MORRIS AVE. AND WITT PLACE.
ELEV. 627.29

BM#7
"□" CUT AT WEST CORNER OF ADDISON THEATRE CENTRE PARKING LOT. SECOND ENTRANCE NORTH OF ADDISON RD.
ELEV. 637.66

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DAVID E. MEYERS, P.E. 81512

STATE OF TEXAS
DAVID E. MEYERS
81512
REGISTERED
PROFESSIONAL ENGINEER
5/29/01

| DATE | DESCRIPTION | REF NO. |
|---|---|---|
| 4/20/01 | ISSUED FOR BID | N/A |

# POLLUTION CONTROL PLAN & DETAILS

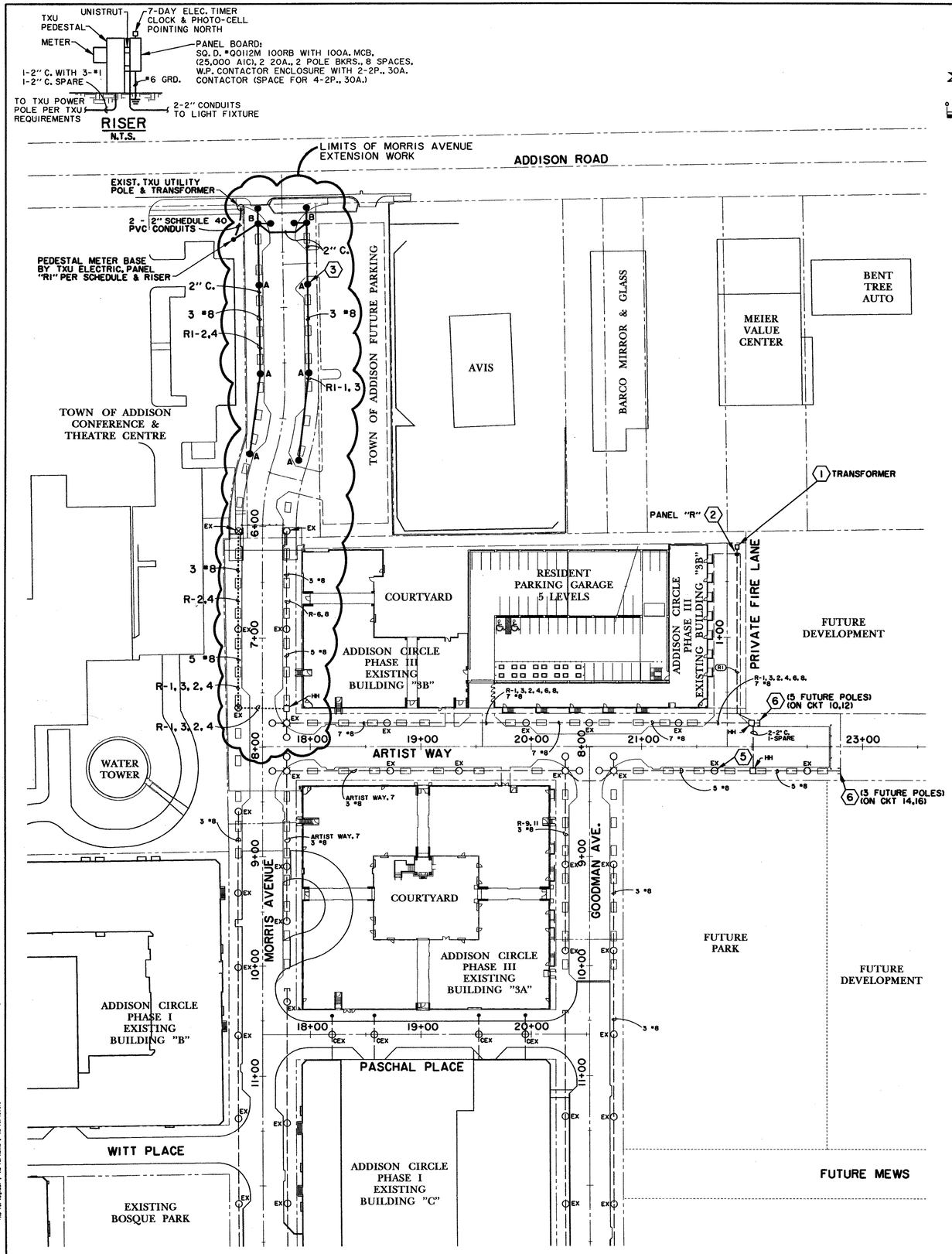
## MORRIS AVENUE EXTENSION

PUBLIC INFRASTRUCTURE

TOWN OF ADDISON, TEXAS


Huitt - Zollars, Inc.
3131 Mckinney Ave. Suite 600, Dallas, TX 75204
Phone (214) 871-3311/Fax (214) 871-0757


| DESIGN | DRAWN | APPR. | SCALE | DATE | PROJECT NO. | NO. |
|---|---|---|---|---|---|---|
| HZI | HZI | DEM | 1"=40' | APR. 2001 | 01-3000-01 | 14 |




## GENERAL NOTES

| NUMBER | DESCRIPTION |
|---|---|
| 1 | THE TERM 'PROVIDE' SHALL MEAN FOR THE CONTRACTOR TO FURNISH AND INSTALL A COMPLETE OPERATING SYSTEM. |

## KEY NOTES

| NUMBER | DESCRIPTION |
|---|---|
| 1 | EXISTING TU ELECTRIC TRANSFORMER WITH SINGLE PHASE TRANSFORMER FOR STREET LIGHTING. |
| 2 | EXISTING 120/240 VOLT, 1 PHASE, 3 WIRE, W/GND PANELBOARD WITH MAIN CONTACTOR. CONNECT TO ELECTRIC UTILITY AT DESIGNATED SERVICE POINTS. |
| 3 | STREET LIGHT FIXTURE TYPE A. INSTALL CONCRETE BASE, POLE, FIXTURE AND CONNECTIONS. REFER TO SHEET 9 FOR POLE BASE DETAIL. |
| 4 | ROUTE CIRCUITRY THROUGH CONDUITS AND PULL BOXES. MAKE SPLICE IN MAIN FEEDERS USING HIGH COMPRESSION SPLICE FITTING. |
| 5 | EXISTING PHOTO ELECTRIC CELL ON TOP OF POLE FACING NORTH. |
| 6 | CAP CONDUIT FOR FUTURE EXTENSION. |

## ELECTRICAL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| ——— | 2" CONDUIT FOR STREET LIGHTING CIRCUITS. |
| □HH | PULL BOX; (12" W x 12" D x 18" L). |
| (R1) | CONDUIT IDENTIFICATION FOR NEW MAIN FEEDERS. |
| R-2,4 | CIRCUIT NUMBERS FROM PANELS AT SERVICE POINTS. |
| ● | STREET LIGHT FIXTURE TYPE 'A' OR 'B' (AS NOTED). |

## CIRCUIT SCHEDULE

| CONDUIT DESIGNATION | CIRCUIT NUMBERS | PANELBOARD | CIRCUIT BREAKER | CONDUCTORS |
|---|---|---|---|---|
| (R1) EX. TWO-2" CONDUITS (ONE SPARE) | R-1, 3 | PANEL "R1" | 20 AMP, 2 POLE | (2) #8 |
| | R-5, 7 | | 20 AMP, 2 POLE | SPACE |
| | R-9, 11 | 100 AMP M.C.B. | 20 AMP, 2 POLE | SPACE |
| | R-2, 4 | 120/240 VOLT | 20 AMP, 2 POLE | (2) #8 |
| | R-6, 8 | 1 PHASE, 3 WIRE | 20 AMP, 2 POLE | SPACE |
| | R-10, 12 | W/ GROUND | 20 AMP, 2 POLE | SPACE |
| | | 10-20A-2P C.B. 2-20A-1P C.B. | | (1) #8 GROUND |
| | | | 20 AMP, 1 POLE | (2) #10 P.E.C. |

NOTES TO CIRCUIT SCHEDULE:

1. MAINTAIN ABOVE CONDUCTORS THROUGHOUT ALL PULL BOXES.
2. CONDUIT DESIGNATIONS ABOVE ARE ALL 2" CONDUITS.

**LIGHT FIXTURE AND CIRCUIT DESIGNATIONS:**

- NEW CONDUIT AND WIRE
- EXISTING CONDUIT AND WIRE
- EXISTING CONDUIT WITH NEW WIRE
- ●A NEW POLE & SINGLE FIXTURE
- ●B NEW POLE & DOUBLE FIXTURE
- ⊗ EXISTING FOUNDATION / NEW POLE
- ○EX EXISTING POLE & FIXTURE
- ○CEX EXISTING CABLE LIGHT (FIXTURE, POLE)

GENERAL ELECTRICAL NOTES FOR THIS PROJECT:

1. LOCATIONS OF ALL LIGHT FIXTURES, PULL BOXES AND ROUTING OF CONDUITS SHALL BE IDENTIFIED ON THE SITE BY STAKES AND PAINT PRIOR TO ANY EXCAVATION. REQUIREMENTS FOR CONDUIT ROUTING ARE PROVIDED ON DRAWINGS AND SPECIFICATIONS. OWNER WILL REVIEW AT THE SITE AND PROVIDE DIRECTIONS ON FIELD ADJUSTMENTS OF UP TO 10 FOOT FROM LOCATIONS SHOWN ON THE DRAWINGS.

2. CONTRACTOR SHALL COORDINATE STORM WATER, WASTEWATER, WATER, IRRIGATION AND ELECTRICAL CONDUIT TRENCHING AND INSTALLATION TO MINIMIZE THE DISTURBANCE OF EXISTING TREE ROOTS.

3. ALL PULL BOXES ARE 12" X 18" X 12" DEEP CONCRETE BOX WITH BOLT ON CONCRETE COVER SIMILAR TO T.U. SUBSURFACE SECONDARY BOX. INSTALL CONDUITS NEAR CORNER OF BOX TO ALLOW CONDUCTORS TO LOOP THROUGH BOX.

LIGHT FIXTURE SCHEDULE

| TYPE | DESCRIPTION | LAMP | MANUFACTURER | CATALOGUE NO. | FINISH |
|---|---|---|---|---|---|
| A | CUSTOM STYLE | 175 MH | BEGA | 9801MH | BLACK |
| A-POLE | 15'-8" ROUND | | BEGA | 1508HR | BLACK |
| B | CUSTOM STYLE | 175 MH | BEGA | 9801MH (2 PER POLE) | BLACK |
| B-POLE | 15'-8" ROUND | | BEGA | 1508HR | BLACK |

NOTES:

1. PROVIDE REINFORCED CONCRETE BASE, ANCHOR BOLTS AND REQUIRED ACCESSORIES.
2. BID SHALL BE BASED UPON THE ABOVE LISTED FIXTURES TO MATCH PHASE I FIXTURES.
3. PROVIDE MATCHING BASE COVER FOR EACH FIXTURE.
4. ALL FIXTURES ARE 240 VOLT AND REQUIRE DOUBLE FUSING.
5. A CUSTOM HINGED POLE IS REQUIRED FOR FIXTURE TYPE A & B (45° HINGED).
6. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
7. FIXTURES TYPE B TO BE INSTALLED 90° APART.

THE SEAL APPEARINGON THIS DOCUMENT WAS AUTHORIZED BY ANN KATHERINE HUNT, P.E. 33797

STATE OF TEXAS — ANN KATHERINE HUNT — 33797 — REGISTERED PROFESSIONAL ENGINEER — 5 April 2001

| DATE | DESCRIPTION | REF NO. |
|---|---|---|
| 4/20/01 | ISSUED FOR BID | N/A |

# STREET LIGHT POWER PLAN & DETAILS

## MORRIS AVENUE EXTENSION

### PUBLIC INFRASTRUCTURE

### TOWN OF ADDISON, TEXAS

Huitt - Zollars, Inc.
3131 Mckinney Ave., Suite 600, Dallas, TX 75204
Phone (214) 871-3311/Fax (214) 871-0757

| DESIGN | DRAWN | APPR. | SCALE | DATE | PROJECT NO. | NO. |
|---|---|---|---|---|---|---|
| HZI | HZI | AH | 1"=50' | APR. 2001 | 01-3000-01 | 15 |

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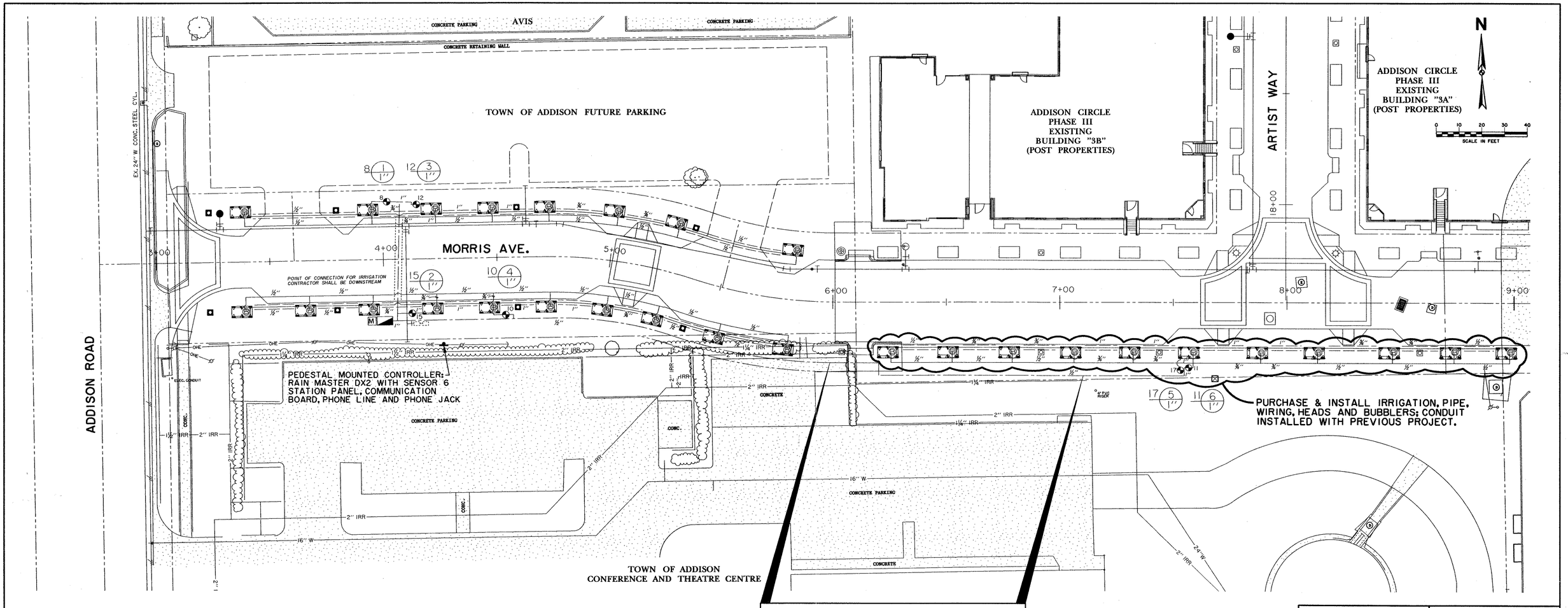


NOTE:

MAINLINE, CONDUIT AND WIRING NOT INSTALLED AS PART OF ADDISON CIRCLE PHASE-3. NEED TO ATTACH THIS PORTION TO SYSTEM BETWEEN BLDG. "3B" AND ADDISON ROAD. (TO INCLUDE MAINLINE, WIRING, ETC.)

STATE OF TEXAS
STEPHEN C. BERKENBILE
LICENSED IRRIGATOR


STEPHEN C BERKENBILE & ASSOCIATES
IRRIGATION DESIGN CONSULTANTS
411 HYDE PARK PLACE
DUNCANVILLE, TX 75137
(972) 296-2724
FAX (972) 780-0048


**BENCHMARKS:**

**BM#5**
"□" CUT ON 8' INLET ON NORTH CURB LINE OF GOODMAN AVE. ±75' EAST OF PASCHAL PLACE.
ELEV. 629.98

**BM#6**
"□" CUT AT ℄ OF 8' INLET AT THE SOUTHWEST CORNER OF MORRIS AVE. AND WITT PLACE.
ELEV. 627.29

**BM#7**
"□" CUT AT WEST CORNER OF ADDISON THEATRE CENTRE PARKING LOT, SECOND ENTRANCE NORTH OF ADDISON RD.
ELEV. 637.66

| DATE | DESCRIPTION | REF NO. |
|---|---|---|
| 4/20/01 | ISSUED FOR BID | N/A |

# IRRIGATION PLAN

# MORRIS AVENUE EXTENSION

## PUBLIC INFRASTRUCTURE

## TOWN OF ADDISON, TEXAS


Huitt - Zollars, Inc.
3131 Mckinney Ave., Suite 600, Dallas, TX 75204
Phone (214) 871-3311/Fax (214) 871-0757


| DESIGN | DRAWN | APPR. | SCALE | DATE | PROJECT NO. | NO. |
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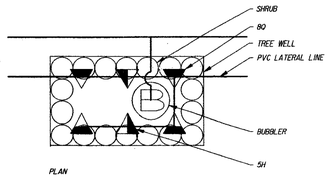
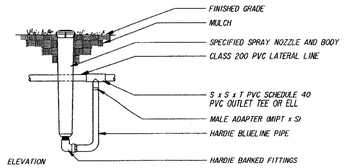
| HZI | HZI | SCB | 1"=20' | APR. 2001 | 01-3000-01 | 16 |



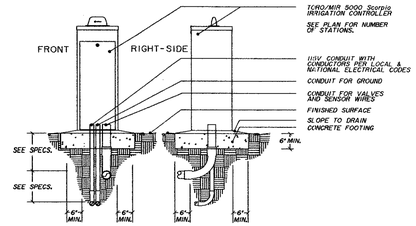

TREE WELL HEAD LAYOUT

not to scale



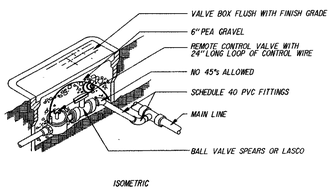

HIGH RISER ASSEMBLY

not to scale



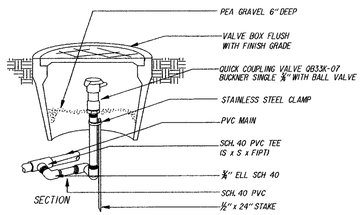

PEDESTAL MOUNTED CONTROLLER

not to scale



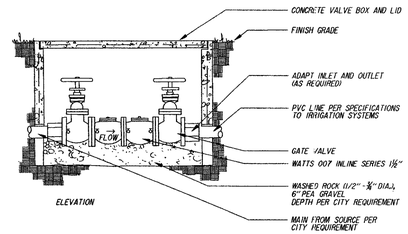

REMOTE CONTROL AND BALL VALVE

not to scale




QUICK-COUPLING VALVE

not to scale




BACKFLOW PREVENTER

not to scale

# IRRIGATION LEGEND

- TORO POP-UP LOW ANGLE SHRUB SPRAY 570 MPR SERIES ON A NO. 570Z 12P BODY WITHOUT SIDE INLET. 5' HALF, 8' QUARTER NOZZLE.
- TORO FLOOD BUBBLER FB-100-PC NOZZLE ON 4" POP-UP (0.95 gpm) (REF. DETAIL)
- QUICK COUPLER VALVE-BUCKNER MODEL QB33K-07 & BALL VALVE.
- WEATHERMATIC 11000 SERIES WITH FLOW CONTROL, WITH PLASTIC LASCO OR SPEARS BALL VALVE UP STREAM OF VALVE.
- SCHEDULE 40 PVC MAINLINE
- CLASS 200 PVC LATERAL LINE, EXCEPT ½ INCH DIAMETER SHALL BE CLASS 315. NOTE: (ALL DIRECTLY BURIED LINE BENEATH PAVING SHALL BE SLEEVED IN SCHEDULE 40 PVC, ALL LINES UNDER PAVING SHALL BE SLEEVED; NO DIRECT BURIAL ALLOWED.)
- GPM THROUGH VALVE
- VALVE SEQUENCING NUMBER
- SIZE OF VALVE
- FLOW METER AND MASTER VALVE AND WIRING
- PEDESTAL MOUNTED RAINMASTER WITH PHONE CONNECTION
- 4" CLASS 200 PVC SLEEVE
- 6" CLASS 200 PVC SLEEVE
- IRRIGATION WATER METER (MASTER METER BRAND) & TAPING SLEEVE (PROVIDE 1-1/2" IRRIGATION METER WITH 2" TAP)
- WATTS DOUBLE CHECK VALVE: 1-1/2" #007 M SERIES IN LINE QT. IN FLUSH VALVE BOX WITH 2" TAP.
- FREEZE SENSOR-GLINN-HILTON-#401
- MOISTURE SENSOR-GLINN-HILTON-#502

# IRRIGATION NOTES

1. LINE LAYOUT IS DIAGRAMMATIC-ADJUST HEAD AND LINE LOCATIONS ON SITE TO ACCOMMODATE EXISTING JOB CONDITIONS, SLEEVE LOCATIONS AND TO ACHIEVE COMPLETE COVERAGE.
2. ALL MAIN LINE PIPING SHALL BE BURIED TO HAVE A MINIMUM COVER OF 18". ALL LATERAL PIPING DOWNSTREAM OF THE MAIN LINE SHALL BE BURIED TO HAVE A MINIMUM COVER OF 12".
3. ALL VALVE BOXES SHALL BE GREEN LID AND BLACK BODY (AMETEK) TEN(10") INCHES BY FOUTEEN(14") INCHES (RECTANGULAR) FOR REMOTE CONTROL VALVES AND TEN(10") INCHES (ROUND) FOR QUICK COUPLER VALVES.
4. CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT, IF THE STATIC PRESSURE IS LESS THAN THE DESIGN STATIC PRESSURE OF 65 PSI. PRESSURE REGULATION AT THE SOURCE SHALL BE REQUIRED IF PRESSURE IS GREATER THAN 75 psi.
5. ALL WIRING FROM THE IRRIGATION CONTROLLER TO THE REMOTE CONTROL VALVES SHALL BE UF-14/1 DIRECT BURIAL CABLE. (WHITE FOR COMMON, RED FOR STATIONS AND BLUE FOR MASTER VALVE) ALL WIRE SPLICES SHALL BE MADE IN VALVE BOXES ONLY USING KING CONNECTORS AND SEALANT. PROVIDE SCHEDULE 40 SLEEVES FOR WIRE UNDER PAVED AREAS AS REQUIRED.
6. CONTRACTOR SHALL NOT TRENCH IN CRITICAL ROOT ZONE AREA FOR EXISTING TREES.
7. CONTRACTOR SHALL PROVIDE FOR RAINMASTER REMOTE CONTROL SYSTEM.
8. CONTRACTOR SHALL PROVIDE PHONE SERVICE AND ELECTRICAL SERVICE TO THE CONTROLLER.
9. NO FITTINGS WILL BE ALLOWED UNDER PAVED SURFACES WITHOUT SLEEVES.
10. ALL IRRIGATION INSTALLATION SHALL CONFORM TO THE LOCAL CODES AND REGULATIONS.
11. IRRIGATION SYSTEM SHALL BE INSTALLED AND FULLY OPERATIONAL BEFORE LANDSCAPING INSTALLATION.
12. IRRIGATION HEADS SHALL BE PLACED AND ADJUSTED SO AS NOT TO SPRAY ON THE BUILDING.
13. IRRIGATION HEADS SHALL BE PLACED AND SIZED SO AS NOT TO BE SUSCEPTIBLE TO DAMAGE BY AUTOMOBILE OVERHANGES.
14. IRRIGATION CONTRACTOR SHALL PLACE ADJUSTABLE ARC NOZZLES IN PLACE OF FIXED ARC NOZZLE AS NEEDED TO ELIMINATE OVERSPRAY ON TO PAVEMENT.
15. ADDISON'S SPECIFICATIONS SUPERSEDE ALL OTHER SPECIFICATIONS.

# TOWN OF ADDISON IRRIGATION SPECIFICATIONS

Revised 4/3/01

These revised Town of Addison Irrigation Specifications dated 4/3/01 supersede any and all others. However, any discrepancies between those of the approved construction plans and those of the Town must be brought to the attention of the Town's designated representative for a final determination.

1. Design head to head with no single head coverage. Use appropriate size nozzles for a given landscape area so as not to spray onto or over paved surfaces or structures. Do not exceed manufacturer's recommendations.

2. All main line pipe 2 " and smaller is to be Schedule 40 belled PVC; larger sizes are to be Class 200. Put not more than two (2) pipes in any one trench. Class 200 belled PVC lateral piping is to be used.

3. Fittings: No crosses are permitted. Separate tees and/or elbows by at least 12". Reduction tees are preferred over use of single reducer bushings. Multiple reducer bushings will not be accepted. Only Spears and/or Lasco are permitted. Allow 18" outside of sleeve before first fitting. No 45 degree elbows on 1" and larger pipe are allowed without prior approval.

4. Wiring: 14 ga. UF. Red - Control wires. White - Ground. Anytime wiring changes direction, such as at an elbow or tee, allow a loop at least one hand width (10 inches) alongside the fitting at that location. Only continuous wire runs are permissible unless otherwise approved. Wire should follow mainline where possible and lay along a single side not crossing over lateral lines.

5. Use King connectors for all station wire splices. Allow at least 36" of pigtailed wire at each splice. All valve splices are to be housed in standard (large) Ametek rectangular plastic valve boxes. All field splices are to be in 10" round Ametek plastic valve boxes.

6. Only Weathermatic 11000 Series plastic valves are permitted. They are to be located within standard (large) Ametek rectangular plastic valve boxes with 4"-6" of pea gravel placed underneath the valve in such a manner as to prevent soil infiltration into the box. The pea gravel should only contact the bottom of the valve body.

7. Only West Ag Model V075 single lug ¾" QCV's are permitted. They are to be connected to a threaded fitting. Teflon paste and appropriate length gray Schedule 80 nipples and Schedule 40 fittings are to be used. Secure to 18"X½" steel rebar with stainless steel screw clamp. House QCV in a 10" round plastic Ametek valve box.

8. All heads are to be attached to threaded fittings via 6" Lasco polyethylene nipples cut to the appropriate length. All nozzle sizes will be designated on the plans.

Pop-ups: Only Toro 570Z Series are permitted, unless otherwise approved. Install ¾" above finished grade. Turf - 4" (includes tree bubblers within turf areas, use Toro SB-PC nozzles). Very low ground cover (<6" mature height) - 6" HP. Ground cover and low growing shrubs - 12" HP; use Hardie Blue Line funny pipe and Toro barb fittings utilizing side inlet.

Bubblers: Bed areas only. Use Hardie adjustable flood bubblers.

Rotaries: Only Hunter PGP Series are permitted, unless otherwise noted. Install ¾" above finished grade.

Risers: Use Type-M copper with soldered male ends for Toro 570-S shrub adapters and female ends to attach to short polyethylene nipples screwed into threaded fittings. Owner reserves the right to determine placement of risers versus pop-ups.

9. Only Hersey MVR meters and three (3) brass flanges are acceptable. Meter lay lengths must be in accordance with Town of Addison's Public Works Department specifications. Stainless steel bolts and nuts must be used in the installation along with neoprene gaskets. House in appropriate size, (to be determined by Owner), concrete box with lid. To bring box to ground level use bricks or pavers, and backfill inside below meter base with at least 6" of pea gravel. Connection to main must be approved and inspected by the Town's Utilities Department and all tap materials are to be purchased at the expense of the contractor and must comply with the Town's specifications. A permit is also required.

10. Only Watts 007 M Series inline check valve assemblies are to be used. Connect to meter flange using Teflon paste and gray Schedule 80 nipple of sufficient length to center the DCA within its housing. House in appropriate size, (to be determined by Owner), rectangular Ametek plastic valve box. See above meter installation instructions and follow same with the exception of using plastic valve box extensions for increased height. Connect irrigation mainline to DCA using Teflon paste and PVC male adapter.

11. Female threaded plastic Spears ball valves with positive T-handle cut off must be installed every 200' of mainline for isolation purposes. House in standard (large) rectangular Ametek plastic valve box and follow meter box installation instructions for DCA assembly.

12. Only an approved size RainMaster Evolution DX-2 stainless steel controller with heavy duty transient protection along with a stainless steel free-standing pedestal is permitted. Controller must include all necessary hardware to ensure reliable communication and operation with the Town's central control located at 16801 Westgrove. Installation must include the following RainMaster hardware, purchased only from a RainMaster supplier: DX-03 sensor board, DX-PH phone communication option, flow meter (size to be approved by owner), and shielded EV-cab-Sen flowmeter cable. An approved size Weathermatic 11000 series master valve must also be installed with wiring being of a solid color distinctively different than that of the station wiring. Both flow meter and master valve must be housed in Ametek large rectangular plastic valve boxes. Flow meter cable must be sized appropriately and be of a continuous run; no splices will be allowed except at the point of connection to the flow meter. Connections will be soldered and water proofed using a 3-M DBY connector. Cab-Sen cable will be installed within continuous ¾" or larger gray PVC conduit with 6" or larger J-boxes placed every 200' or where 360' of fittings are installed; only sweeps are permitted. It is the contractor's responsibility to entail the cost of and work in conjunction with Southwestern Bell Telephone to establish a dedicated phone service and install an interface within the pedestal at each controller location via direct burial cable. Controllers are to be affixed to a Town-approved permanent concrete pad via four (4) 7/16" or larger stainless steel bolts, nuts and washers. All wiring is to enter the pedestal via approved size gray PVC sweep elbows extending at least 1" through the pad. Control wiring, 120-volt service, flow meter cable, and phone cables are to be separated with each having its own access elbow. All local and national codes must conform to any and all aspects of the installation. All controllers are to be wired for remote operation with Irritrol RVC units; to achieve this utilize appropriate size universal pigtail adapters. The entire installation must conform to RainMaster specifications and be approved by the Town prior to and be inspected during installation. Such specifications will include grounding and pad configurations and distances of separation from water meter to master valve to flow meter and first fitting. Additional hardware, if applicable, will be needed to control remote devices such as lighting, fountains, or booster pumps; these will also be the responsibility of the contractor to supply, install and ensure proper operation. The Town of Addison may also specify the installation of a RainMaster ET Tracker and any related equipment to make it a functional component of the computer-controlled system. A functional mini-click freeze sensor must be installed at every controller in an approved location and by an approved method. Consult RainMaster for specifics of freeze sensor installation.

13. Use clean and approved topsoil to backfill all pipe to a depth. All heads and boxes are to be backfilled to grade with clean top soil. No rocks greater than 1" are allowed. Compact trenches to alleviate settling. Minimal depth of coverage is 12".

14. All sleeves 2" and smaller will be Schedule 40 PVC with size and location noted on the plan. Larger sizes will be Class 200. All piping underneath paving, including sidewalks, must be sleeved. All sleeves are to be belled PVC pipe.

15. Use appropriate and approved PVC solvent. Avoid excessive use and wipe all joints and fittings clean.

16. The installer is responsible for resetting head and/or box height due to settling. Contractor must supply a workmanship warranty for (1) year from date of completion.

17. All work is to be accomplished by or directly supervised at all times by an on-site irrigator licensed by the State of Texas.

18. Prior to any backfilling of trenches, an inspection by the Town's representative must take place and any necessary changes implemented; otherwise, manual excavation to enable proper inspection will be necessary.

19. Valve sequencing must be performed by the contractor and in an order approved by the Town's representative. At least 6" of extra station wiring within the bottom of the pedestal is necessary for each zone and must be of neat and orderly appearance.

20. Plans are diagrammatic and field adjustments are often necessary. For this reason, prior to trenching, head layout with flags needs to be done and locations approved by Town's representative. Not doing so may result in the relocation of heads at the contractor's expense.

21. Any deficiencies in coverage noted by the Town's inspector will be rectified at the cost of the contractor.

22. Water taps will be 2" in size. All parts must conform to Town of Addison Water Department specifications and are the responsibility of the contractor to provide. Inspection of taps by Water Department representative must occur. Excavation and tap permits are required. Meters are to be 1½" in size and again conform to Water Department specifications for type and installation along with meter boxes and backfilling procedures. Contact: Addison Utilities Department at (972) 450-2871.

23. All paving must have Town-approved sleeve sizes and quantities present. It is the responsibility of the contractor to notify the Town of any area where sleeving should be present but is not and provide such materials at his cost. Any paving installed without sleeving will necessitate a bore and subsequent sleeving at the contractor's expense.

24. RainMaster controllers and associated hardware will be utilized on the job. Reference Town's Irrigation Specifications for this aspect of the job. Note: separate stations may be necessary for operation of lights, fountains, etc.; additional hardware is also needed and is to be purchased and installed by the contractor. For part numbers and pricing of any RainMaster equipment, contact Matt Swor of Longhorn, Inc. at (972) 406-0222. For technical questions, contact John Terosian of RainMaster at (800) 777-1477.

25. Communication is the key. If you are unsure - CALL Ron Lee, Addison Parks Department, (972) 450-2851.


STEPHEN C BERKENBILE & ASSOCIATES
IRRIGATION DESIGN CONSULTANTS
411 HYDE PARK PLACE
DUNCANVILLE, TX 75137
(972) 296-2124
FAX (972) 780-0048


| DATE | DESCRIPTION | REF NO. |
|---|---|---|
| 4/20/01 | ISSUED FOR BID | N/A |

## IRRIGATION DETAILS

## MORRIS AVENUE EXTENSION

### PUBLIC INFRASTRUCTURE

### TOWN OF ADDISON, TEXAS


Huitt - Zollars, Inc.
3131 Mckinney Ave., Suite 600, Dallas, TX 75204
Phone (214) 871-3311/Fax (214) 871-0757


| DESIGN | DRAWN | APPR. | SCALE | DATE | PROJECT NO. | NO. |
|---|---|---|---|---|---|---|
| HZI | HZI | SCB | N.T.S. | APR. 2001 | 01-3000-01 | 17 |