## STORM SEWER CONSTRUCTION NOTES

1. STORM SEWER PIPE TO BE POLYVINYL CHLORIDE PIPE (PVC) CONFORMING TO ASTM D-3034, SDR 35, EXCEPT AS OTHERWISE NOTED ON THE PLANSFOR 8"-15" PIPE AND ASTM F-679 FOR 18"-24" PIPE OR . REINFORCED CONCRETE PIPE (RCP) SHALL CONFORM TO ASTM C-76, CLASS III, EXCEPT AS OTHERWISE NOTED ON THE PLANS. OR DUCTILE IRON PIPE SHALL CONFORM TO ANSI A21.51, THICKNESS CLASS 5051, EXCEPT AS OTHERWISE NOTED ON THE PLANS.
2. ALL STORM SEWERS TO RECEIVE BEDDING AND BACKFILL IN ACCORDANCE WITH THE DETAILS CONTAINED IN THE PLANS. STORM SEWERS WITHIN PUBLIC STREET RIGHTS-OF-WAY OR EASEMENTS TO RECEIVE BEDDING AND BACKFILL IN ACCORDANCE WITH CITY OF HOUSTON PUBLIC WORKS DEPARTMENT SPECIFICATIONS FOR SEWER CONSTRUCTION, FORM E-14-62AND ENGINEERING STANDARD CONSTRUCTION DETAILS, LATEST PRINTING AND AMENDMENTS THERETO.
3. ALL STORM SEWER MANHOLES, GRATE INLETS AND JUNCTION BOXES TO BE CONSTRUCTED AS SHOWN IN THE DETAILS CONTAINED IN THE PLANS.
4. STORM SEWER CONSTRUCTION, INCLUDING INLETS AND MANHOLES, OUTSIDE OF PUBLIC STREET RIGHTS-OF-WAY OR EASEMENTS TO BE IN ACCORDANCE WITH THE DETAILS CONTAINED IN THE PLANS. STORM SEWER CONSTRUCTION WITHIN PUBLIC STREET RIGHTS-OF-WAY OR EASEMENTS TO BE IN ACCORDANCE WITH THE DETAILS CONTAINED IN THE PLANS. STORM SEWER CONSTRUCTION WITHIN PUBLIC STREET RIGHTS-OF-WAY OR EASEMENTS TO BE IN ACCORDANCE WITH CITY OF HOUSTON PUBLIC WORKS DEPARTMENT SPECIFICATIONS FORM E-14-62AND ENGINEERING STANDARD CONSTRUCTION DETAILS, LATEST PRINTING AND AMENDMENTS THERETO.
5. ALL STORM SEWER TRENCHES UNDER PROPOSED AND FUTURE PAVEMENT OR WITHIN ONE (1) FOOT BACK OF ALL CURBS TO BE BACKFILLED WITH CEMENT-STABILIZED SAND (CLEAN BANK SAND AND #1 1/2 SK/C.Y. MIN. PORTLAND CEMENT MIXTURE) TO A POINT ONE (1) FOOT BELOW PAVEMENT SUBGRADE AS SHOWN FOR CLASS "AA" BEDDING AND BACKFILL IN ACCORDANCE WITH THE DETAILS CONTAINED IN THE PLANS. THE REMAINING BACKFILL TO BE MADE WITH COMPACTED SELECT MATERIAL.
6. WHERE MANHOLES, GRATE INLETS, OR JUNCTION BOXES ARE LOCATED WITHIN PAVED AREAS, CONTRACTOR SHALL SET RIM ELEVATIONS TO MATCH TOP OF PAVEMENT ELEVATIONS. OUTSIDE OF PAVED AREAS, SET MANHOLE RIMS AND TOP OF GRATE AT ELEVATIONS SHOWN ON THE PLANS.
7. CONTRACTOR TO ALLOW A MINIMUM OF 6-INCH VERTICAL CLEARANCE BETWEEN STORM SEWER AND OTHER EXISTING OR PROPOSED UTILITIES.
8. IN EVERY CASE WHERE TRENCHES ON-SITE HAVE BEEN EXCAVATED BELOW THE SPECIFIED DEPTH FOR CLASS "B" BEDDING, THE PIPE SHALL BE LAID WITH CLASS "A" BEDDING.

## DETENTION CALCULATIONS:

TOTAL AREA = 35241 SQ.FT. = 0.8090 ACRES
EXIST. IMPERVIOUS AREA = 19,566 SQ.FT.= 0.4492 ACRES
LIMIT OF DEVELOPMENT = 15675 SQ.FT.= 0.3598 ACRES
DETENTION RATE = 0.2 AC.-FT/AC. (BASED ON CITY OF HOUSTON'S STORM REQUIREMENT)
DETENTION VOLUME REQUIRED:
0.3598 ACRE X 43,560 SQF/ACRE X 0.20 ACRE-FT/AC. = 3,135 CUF. = 0.0719 AC-FT

DETENTION VOLUME PROVIDED:

DETENTION VOLUME PROVIDED IN PARKING AREA
AREA "A" = 0.1598 AC = 6,961 SQ.FT. VOL. =( A X 0.75)/3= 1,740 CUF = 0.0399 AC-FT
AREA "B" = 0.2000 AC = 8,714 SQ.FT. VOL. =( B X 0.75)/3= 2,178 CUF= 0.0500 AC-FT

TOTAL DETENTION VOLUME PROVIDED IN PARKING AREA= (A+B)

TOTAL DETENTION VOLUME PROVIDED = 3,918 CUF = 0.0899 AC-FT

0.0899 AC-FT > 0.0719 AC-FT (O.K)

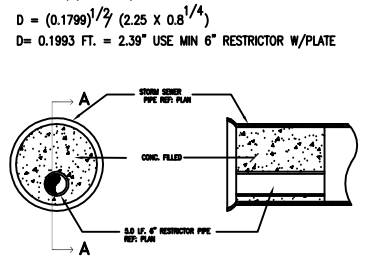
THUS, ONSITE DETENTION-STORAGE NOT REQUIRED.

**Benchmark:**

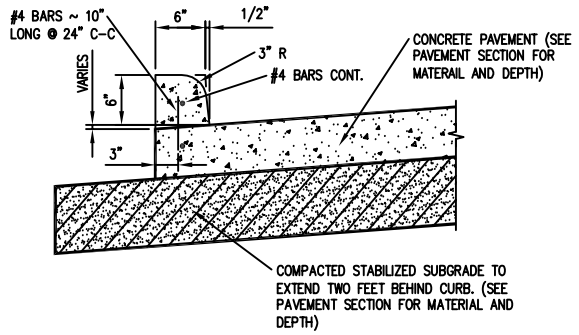
T.B.M.= SET ON TOP OF STORM MAN HOLE AT SOUTH MAIN STREET ABOUT 140 FEET FROM INTERSECTION OF BELTON LANE AND SOUTH MAIN STREET.
ELEVATION=100.00' ASSUMED.

## REDUCER OR RESTRICTOR PIPE

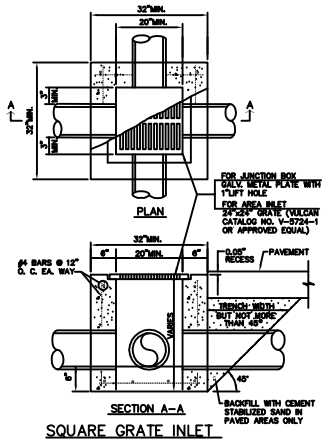
DRAINAGE AREA
0.3598 ACRES
UNDEVELOPED RATE OF DISCHARGE
0.50 CFS/AC. X 0.3598 ACRES = 0.1799 CFS
RESTRICTOR PIPE
$D = Q^{1/2}/(2.25\ H^{1/4})$
$D = (0.1799)^{1/2}/(2.25 \times 0.8^{1/4})$
D= 0.1993 FT. = 2.39" USE MIN 6" RESTRICTOR W/PLATE



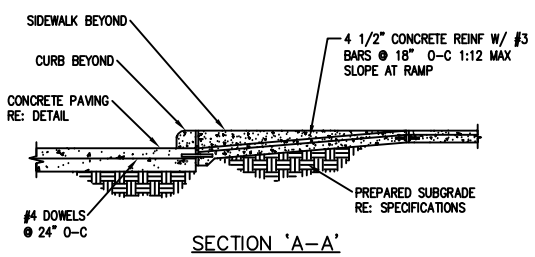

RESTRICTOR PIPE DETAIL
NTS



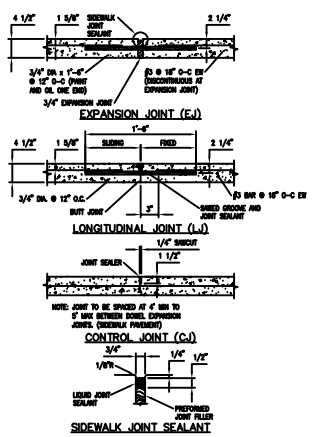

DOWELLED ON CONCRETE CURB
NOT TO SCALE

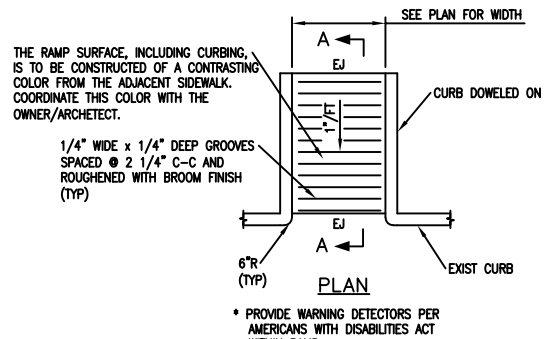



SQUARE GRATE INLET OR JUNCTION BOX
NOT TO SCALE

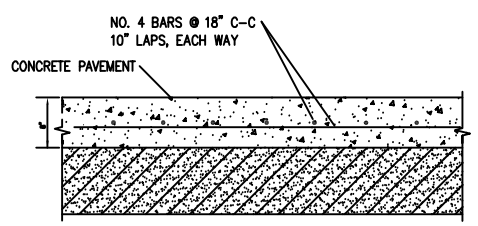



SECTION 'A-A'

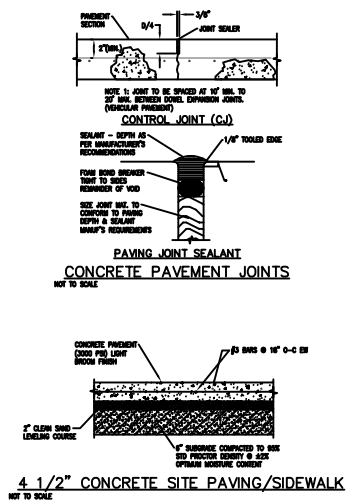


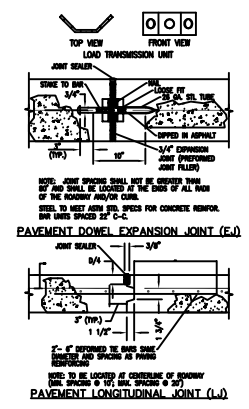




WHEELCHAIR RAMP AT SIDEWALK

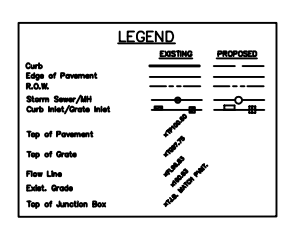


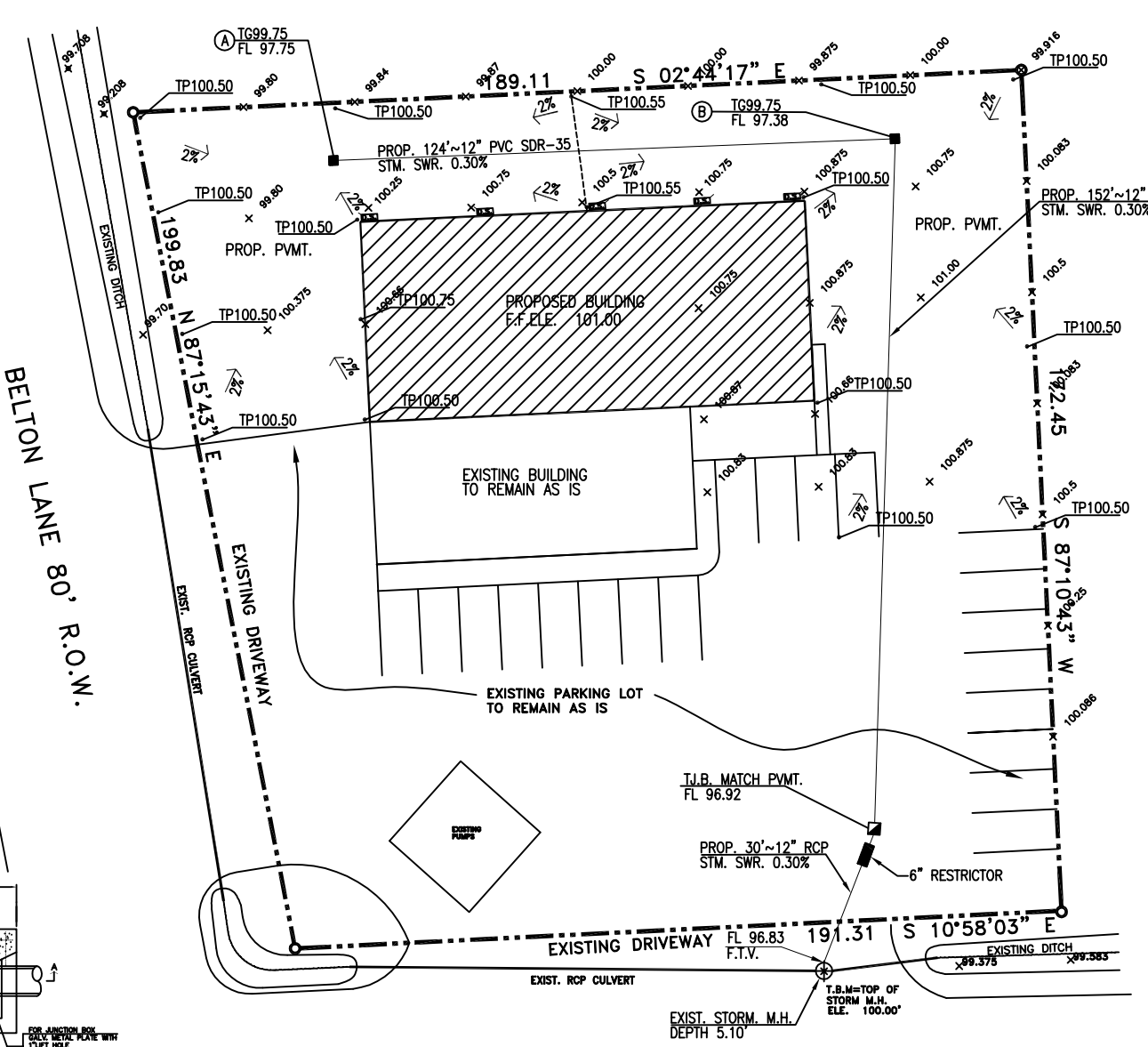

8" CONCRETE PAVEMENT
NOT TO SCALE




PAVEMENT LONGITUDINAL JOINT (L.J)




SOUTH MAIN STREET 80' R.O.W.

SITE DRAINAGE PLAN


eclipse
DESIGN AND CONSTRUCTION
PH. 281-631-9359 CELL 832-466-3126


SITE DRAINAGE PLAN FOR BUILDING LOCATED AT
801 MAIN ST.
ANAHUAC TX 77514

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|---|
| 05/28/05 |
| DATE |
| M.A. |
| CHECK BY |
| M.A. |
| DRAWN BY |
| 1-20"=1'-0" |
| SCALE |
| 0417 |
| PRO. NO. |

SHEET: C-2