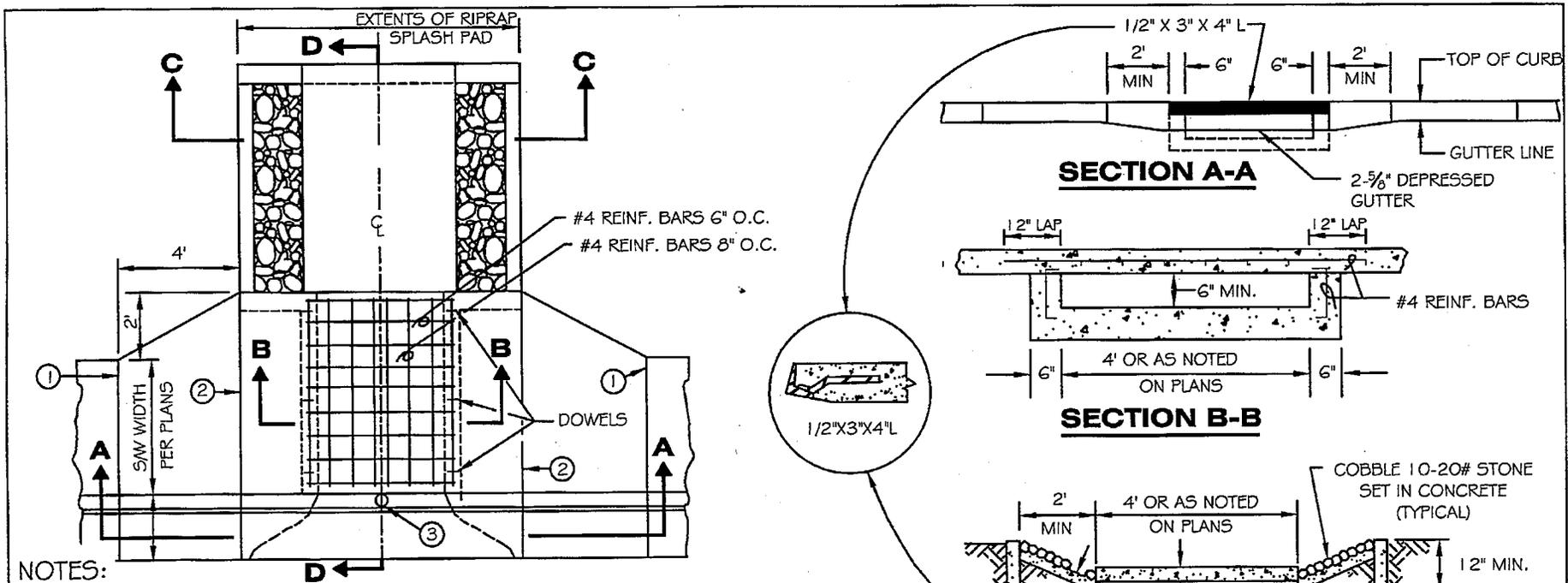


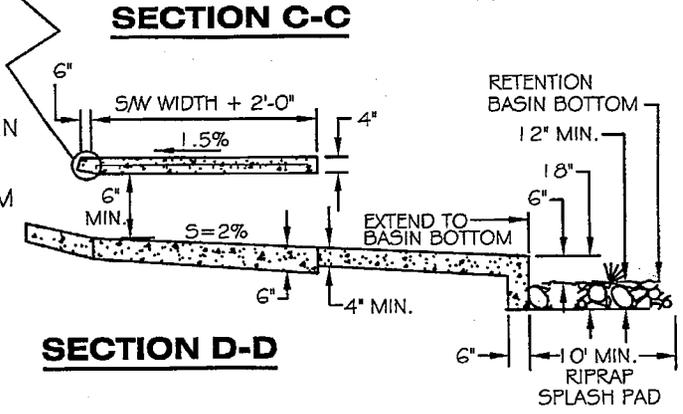
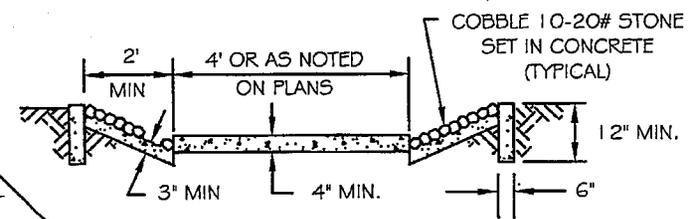
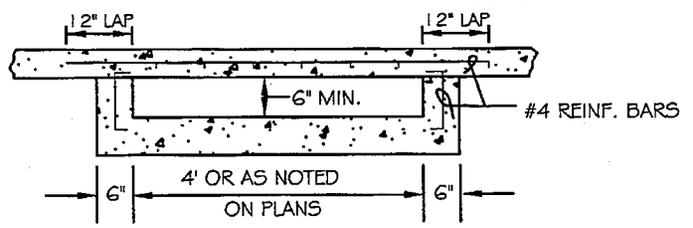
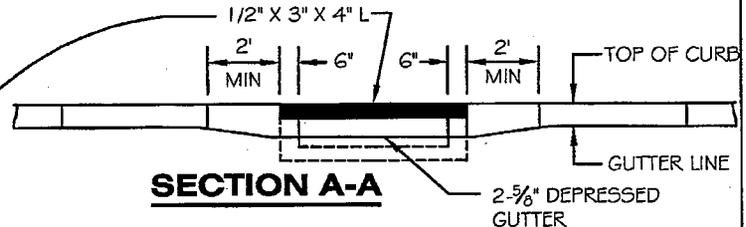
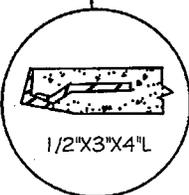
STORM SEWER & DRAINAGE SERIES

C-500 TO C-509



NOTES:

1. FULL DEPTH EXPANSION JOINT EXTENDED THROUGH CURB AND GUTTER (TYP.). EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS PRE FORMED EXPANSION JOINT FILLER ASTM D-1751. (FULL DEPTH).
2. CONTRACTION JOINT.
3. STORM DRAIN INLET MARKER PER C-508.
4. FOR OPENINGS GREATER THAN 4 FT., SEPARATE CHAMBERS WILL BE CONSTRUCTED IN 4 FT. INCREMENTS WITH A CONTRACTION JOINT OVER EACH INTERIOR SUPPORT.
5. STEEL MAT TO BE SUPPORTED ON CHAIRS PRIOR TO CONCRETE PLACEMENT. MINIMUM CONCRETE COVER TO BE 1" OVER REINFORCING BAR.
6. EXPOSED ANGLE IRON TO BE PAINTED WITH ONE SHOP COAT OF NO. 1-D PAINT AND TWO FIELD COATS OF NO. 10 PAINT AS PER MAG SECT. 790.
7. 6" - 12" COBBLE TO BE USED FOR SPLASH PAD.
8. TOP SHALL BE MONOLITHIC INCLUDING 4' WINGS.
9. CONCRETE SHALL BE CLASS 'A' PER MAG SECTION 725



DETAIL NO. C-500 NTS	CITY OF CHANDLER STANDARD DETAIL	SCUPPER	APPROVED: <i>[Signature]</i> CITY ENGINEER DATE: <i>01/06/09</i>	DETAIL NO. C-500 NTS
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8'x8'x6" MAG CLASS B CONCRETE PAD REQUIRED IN DG-LANDSCAPED AREAS. SEVEN #3 BARS 12" C TO C EACH WAY. SLOPE DOWN FROM GRATE TO DG SURFACE 1/2".

① MODIFIED FLAT-BOTTOM MANHOLE CONE. MORTAR TO C.I. RING

2. MIN. 30" DIA. BOLTED C.I. RING AND GRATE.
3. MIN. 30" DIA. BOLTED C.I. RING AND COVER WITH THE RAISED LETTERS 'STORMWATER ONLY'.

4. GRADED PARKWAY, OR A.C. PAVING.
5. COMPACTED ABC IN PAVED AREAS.
6. DEBRIS SHIELD: ROLLED 16 GA. x 24" LENGTH W/ VENTED ANTI-SIPHON AND INTERNAL 0.265" MAX. SWO FLATTENED EXPANDED STEEL SCREEN x 12" LENGTH, FUSION-BONDED EPOXY.

7. PRECAST CONCRETE LINER, 4000 PSI 48" ID, 54" OD.

8. MIN. 6' DIA. DRILLED SHAFT.

9. SUPPORT BRACKET (TYP), FORMED 12 GA. STEEL FUSION BONDED EPOXY COATED

10. 6" DIA. SCHEDULE 40 PVC OVERFLOW PIPE.

11. 6" DIA. CORRUGATED HDPE PER MAG SECT. 738 INJECTION PIPE. NO PERFORATIONS BELOW SETTLING CHAMBER.

12. 4" THICK PERVIOUS CONCRETE SLAB CONFORMING TO MAG SECT. 725 MODIFIED: 6 SACK/CY PORTLAND CEMENT; MAX. WATER/CEMENT RATIO 0.3; COARSE AGGREGATE ONLY ASTM C-33 SIZE #8, WASHED; NO FINES; CONSOLIDATE BY STRIKING, NOT VIBRATION.

13. 3/8" TO 1-1/2" WASHED ROCK

14. DRAINAGE SCREEN: SCH. 40 PVC 0.12" SLOTTED WELL SCREEN 32 SLOTS PER ROW/FT.

15. MIN. 4' DRILLED SHAFT.

16. FABRIC SEAL, UV RESISTANT GEOTEXTILE. COVER GRATE UNTIL PAVING AND/OR LANDSCAPING IS COMPLETE.

17. 4" DIA. SCH. 40 PVC CONNECTOR PIPE W/ VENTED ANTI-SIPHON INTAKE & FLOW REGULATOR.

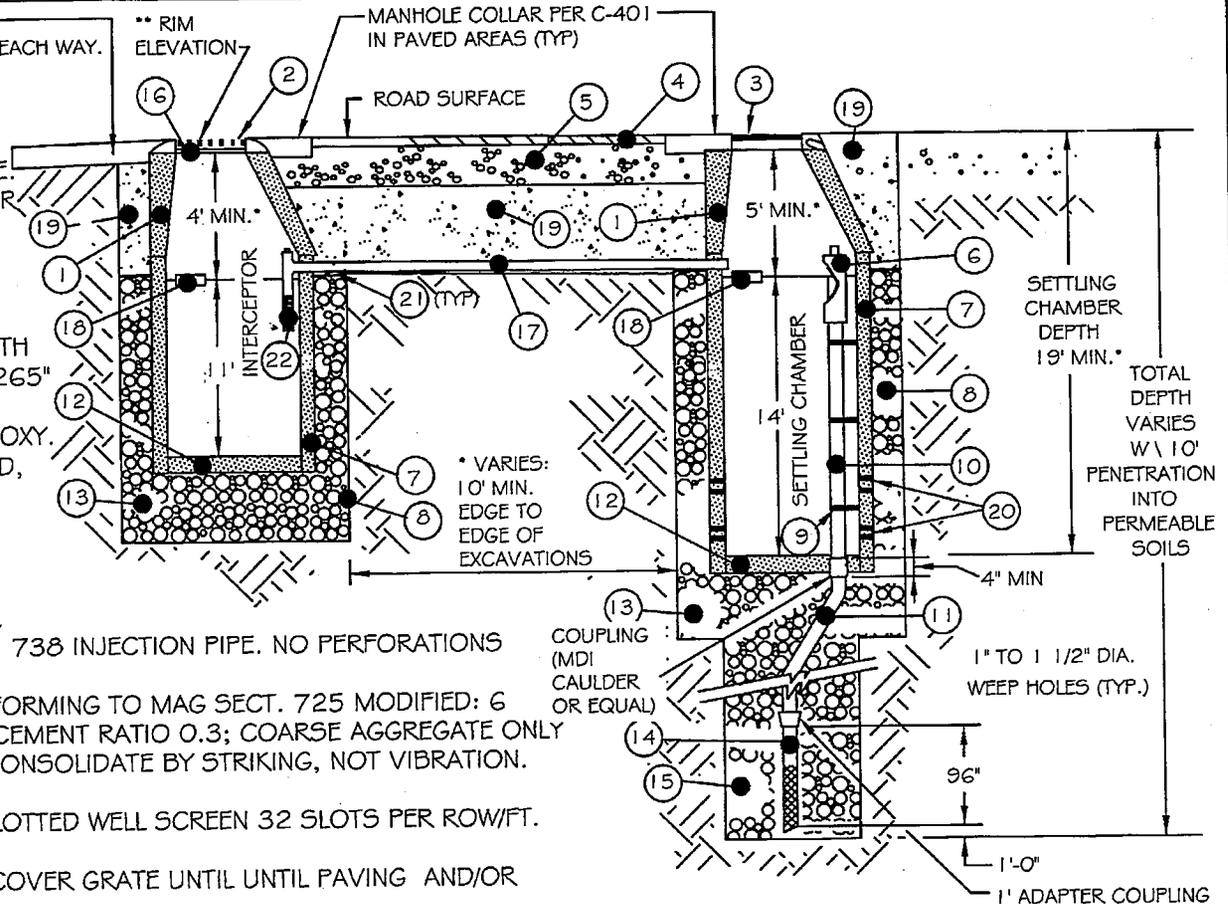
18. MIN. 4 QUART CAPACITY ABSORBENT.

19. 1 SACK ABC SLURRY EXCEPT IN LANDSCAPED INSTALLATIONS WITH NO PIPE CONNECTIONS.

20. 8 PERFORATIONS PER LINEAR FOOT FOR BOTTOM 3 FEET OF INJECTION CHAMBER.

21. 6 MIL PLASTIC LINER WATER STOP

22. INTAKE SCREEN, SCH 40 PVC 0.12" MODIFIED SLOTTED WELL SCREEN WITH 32 SLOTS PER ROW/FT. 48" OVERALL LENGTH WITH TRI-C END CAP



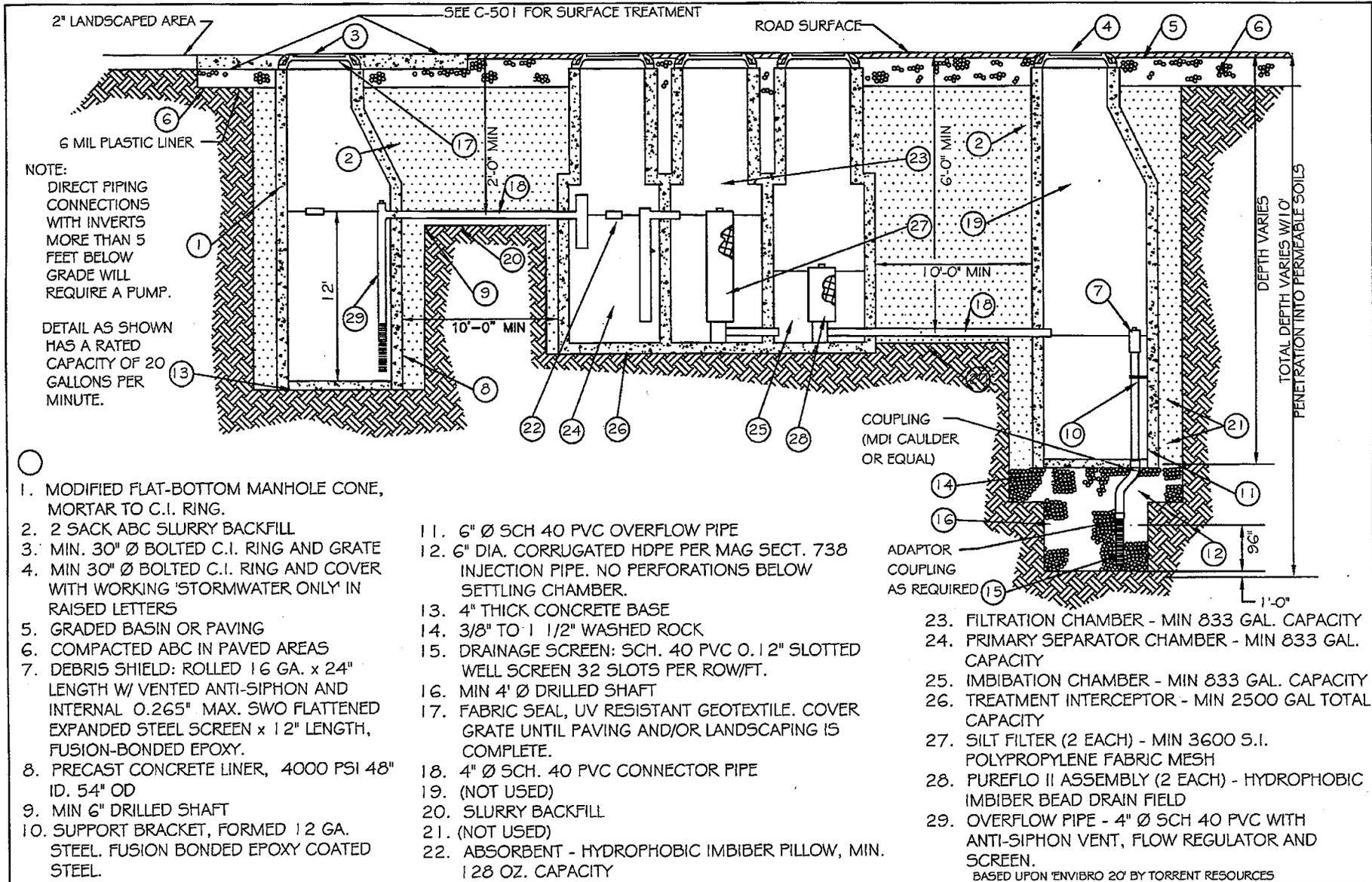
* VARIES: 10' MIN. EDGE TO EDGE OF EXCAVATIONS

* NOTE - OVERFLOW DEPTHS AND INVERT OF CONNECTOR PIPE MUST BE BELOW THE INVERTS OF ALL UPSTREAM STORM DRAIN PIPE.

** NOTE - RIM ELEVATION SHALL BE FLUSH TO ROAD SURFACE OR TURF. RIM ELEVATION SHALL BE 1/2" ABOVE DECOMPOSED GRANITE (DG) LANDSCAPED AREAS.

BASED UPON 'MAXWELL PLUS' BY TORRENT RESOURCES

DETAIL NO. C-501 NTS	 CITY OF CHANDLER STANDARD DETAIL	DRY WELL SYSTEM DETAIL AND SPECIFICATIONS	APPROVED:  CITY ENGINEER DATE: 01/08/09	DETAIL NO. C-501 NTS
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NOTE:
DIRECT PIPING CONNECTIONS WITH INVERTS MORE THAN 5 FEET BELOW GRADE WILL REQUIRE A PUMP.

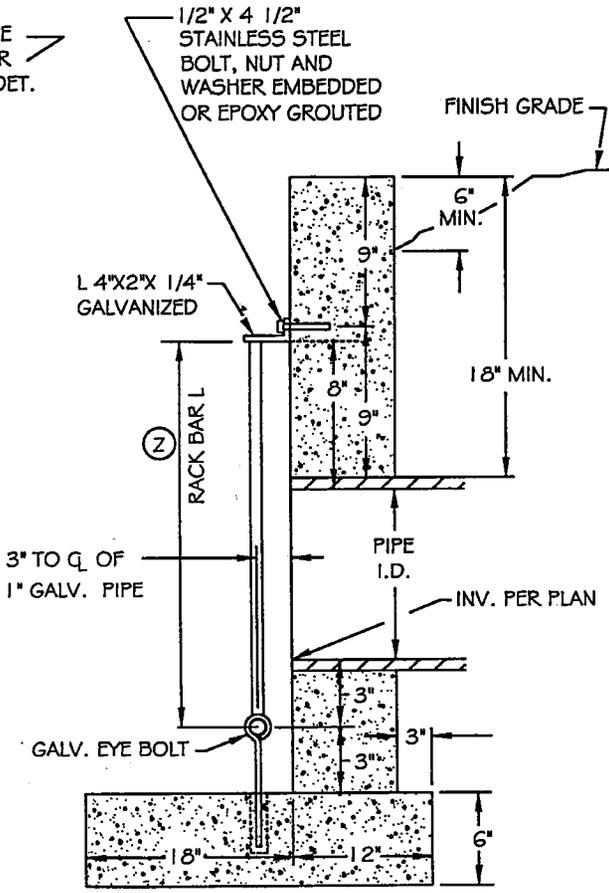
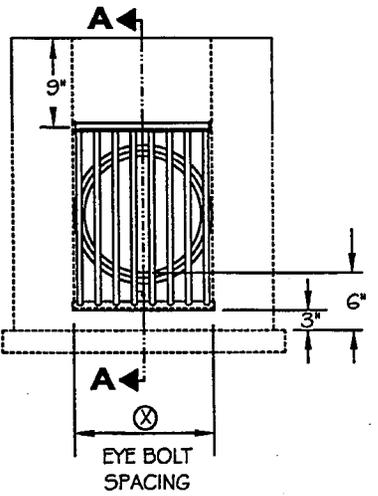
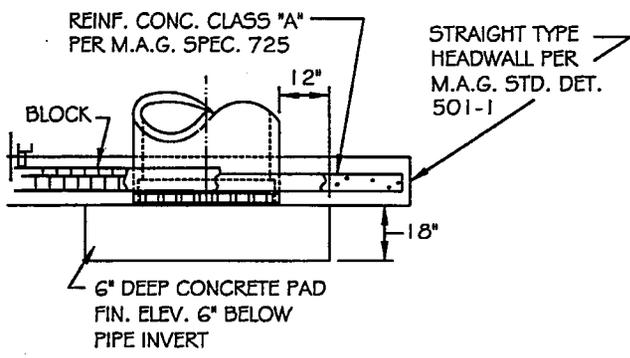
DETAIL AS SHOWN HAS A RATED CAPACITY OF 20 GALLONS PER MINUTE.

- 1. MODIFIED FLAT-BOTTOM MANHOLE CONE, MORTAR TO C.I. RING.
- 2. 2 SACK ABC SLURRY BACKFILL
- 3. MIN. 30" Ø BOLTED C.I. RING AND GRATE
- 4. MIN 30" Ø BOLTED C.I. RING AND COVER WITH WORKING 'STORMWATER ONLY' IN RAISED LETTERS
- 5. GRADED BASIN OR PAVING
- 6. COMPACTED ABC IN PAVED AREAS
- 7. DEBRIS SHIELD: ROLLED 16 GA. x 24" LENGTH W/ VENTED ANTI-SIPHON AND INTERNAL 0.265" MAX. SWO FLATTENED EXPANDED STEEL SCREEN x 12" LENGTH, FUSION-BONDED EPOXY.
- 8. PRECAST CONCRETE LINER, 4000 PSI 48" ID. 54" OD
- 9. MIN 6" DRILLED SHAFT
- 10. SUPPORT BRACKET, FORMED 12 GA. STEEL. FUSION BONDED EPOXY COATED STEEL.

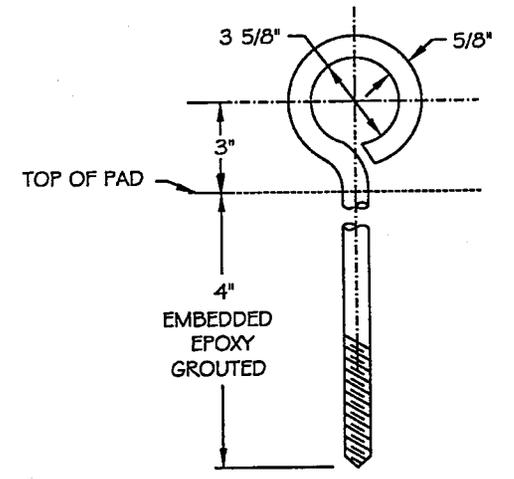
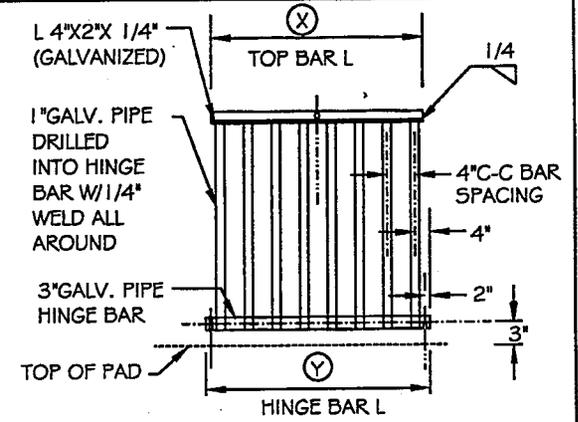
- 11. 6" Ø SCH 40 PVC OVERFLOW PIPE
- 12. 6" DIA. CORRUGATED HDPE PER MAG SECT. 738 INJECTION PIPE. NO PERFORATIONS BELOW SETTLING CHAMBER.
- 13. 4" THICK CONCRETE BASE
- 14. 3/8" TO 1 1/2" WASHED ROCK
- 15. DRAINAGE SCREEN: SCH. 40 PVC 0.12" SLOTTED WELL SCREEN 32 SLOTS PER ROW/FT.
- 16. MIN 4" Ø DRILLED SHAFT
- 17. FABRIC SEAL, UV RESISTANT GEOTEXTILE. COVER GRATE UNTIL PAVING AND/OR LANDSCAPING IS COMPLETE.
- 18. 4" Ø SCH. 40 PVC CONNECTOR PIPE
- 19. (NOT USED)
- 20. SLURRY BACKFILL
- 21. (NOT USED)
- 22. ABSORBENT - HYDROPHOBIC IMBIBER PILLOW, MIN. 128 OZ. CAPACITY

- 23. FILTRATION CHAMBER - MIN 833 GAL. CAPACITY
 - 24. PRIMARY SEPARATOR CHAMBER - MIN 833 GAL. CAPACITY
 - 25. IMBIBATION CHAMBER - MIN 833 GAL. CAPACITY
 - 26. TREATMENT INTERCEPTOR - MIN 2500 GAL TOTAL CAPACITY
 - 27. SILT FILTER (2 EACH) - MIN 3600 S.I. POLYPROPYLENE FABRIC MESH
 - 28. PUREFLO II ASSEMBLY (2 EACH) - HYDROPHOBIC IMBIBER BEAD DRAIN FIELD
 - 29. OVERFLOW PIPE - 4" Ø SCH 40 PVC WITH ANTI-SIPHON VENT, FLOW REGULATOR AND SCREEN.
- BASED UPON 'ENVIBRO 20' BY TORRENT RESOURCES

DETAIL NO. C-502 NTS	CITY OF CHANDLER STANDARD DETAIL	PRETREATMENT DRYWELL SYSTEM	APPROVED: CITY ENGINEER DATE: 02/08/09	DETAIL NO. C-502 NTS
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SECTION A-A



EYE BOLT

TYPICAL DIMENSIONS					
TYPE	PIPE DIA.	NO. OF BARS (I.D./4" + 1")	DIMENSIONS		
			X	Y	Z
A	15"	5	21"	25"	26"
	18"	6	25"	29"	29"

* ROUND UP TO NEXT FULL NUMBER

OTHER BAR SIZES	
DIMENSIONS	X = (# BARS X 4") + 1"
	Y = X + 4"
	Z = I.D. + 3" + 8" (UP TO 4' 0")

NOTES:

1. THIS DETAIL IS APPLICABLE AT ALL OPEN ENDS OF PIPE 12" OR MORE IN DIAMETER.
2. COAT ALL WELD AREAS WITH ZINC RICH PAINT.
3. DESIGN ENGINEER TO PROVIDE DETAILS FOR PIPE I.D.'S GREATER THAN 4' IN DIAMETER.

DETAIL NO.
C-503
NTS

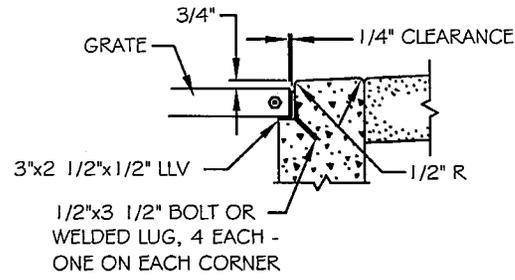
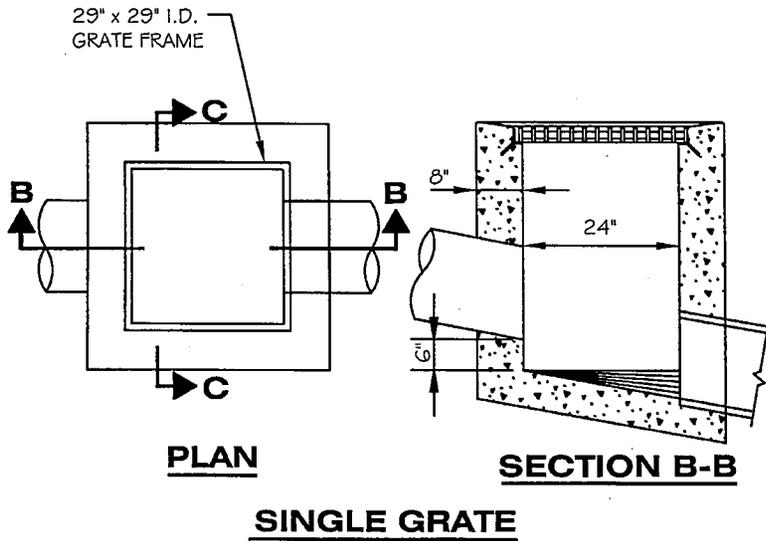


CITY OF
CHANDLER
STANDARD
DETAIL

TRASH RACK/ACCESS BARRIER

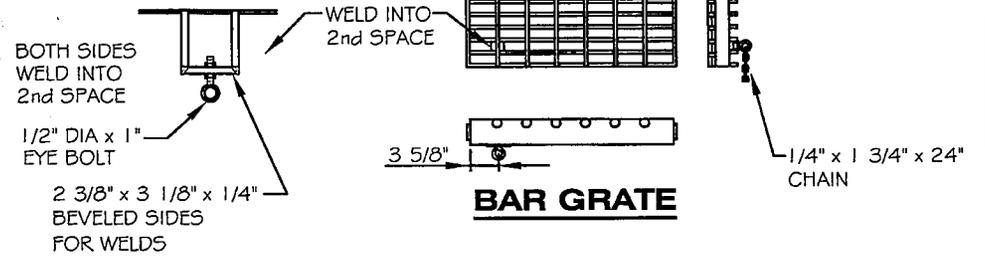
APPROVED: *Raymond D. Patton*
CITY ENGINEER
DATE: 11-19-99

DETAIL NO.
C-503
NTS

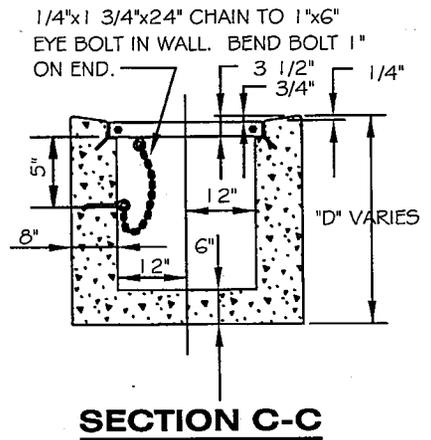
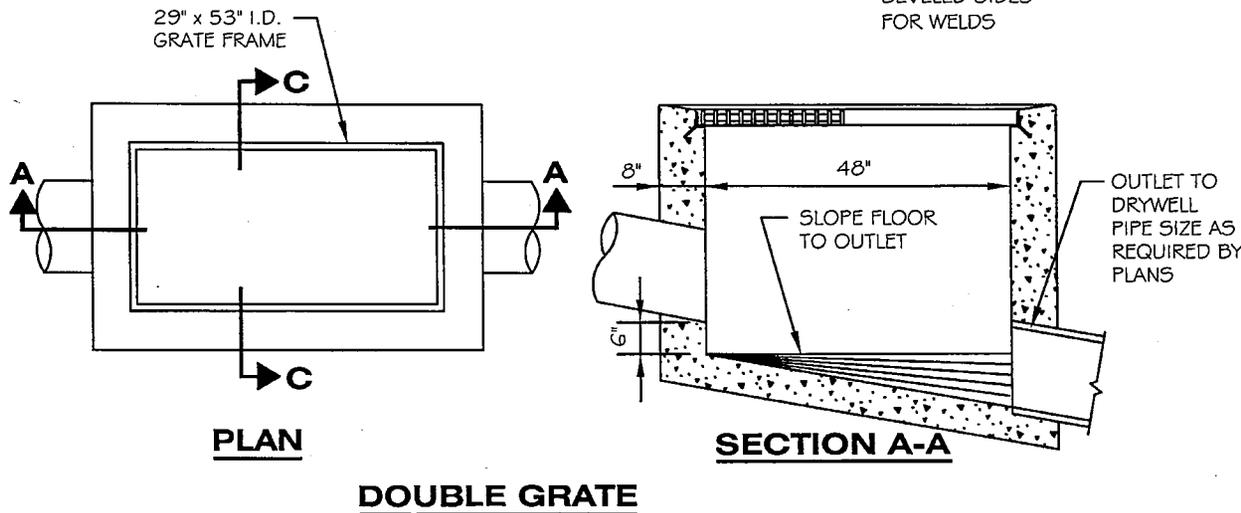


DETAIL OF ANGLE FRAME GRATE SUPPORT

ALL CONCRETE SHALL BE CLASS 'A' PER MAG SECT. 725. EXPOSED EDGES SHALL BE FINISHED WITH A 1/2" RADIUS. REINFORCE WITH #4 AT 8" EACH WAY, CENTERED.

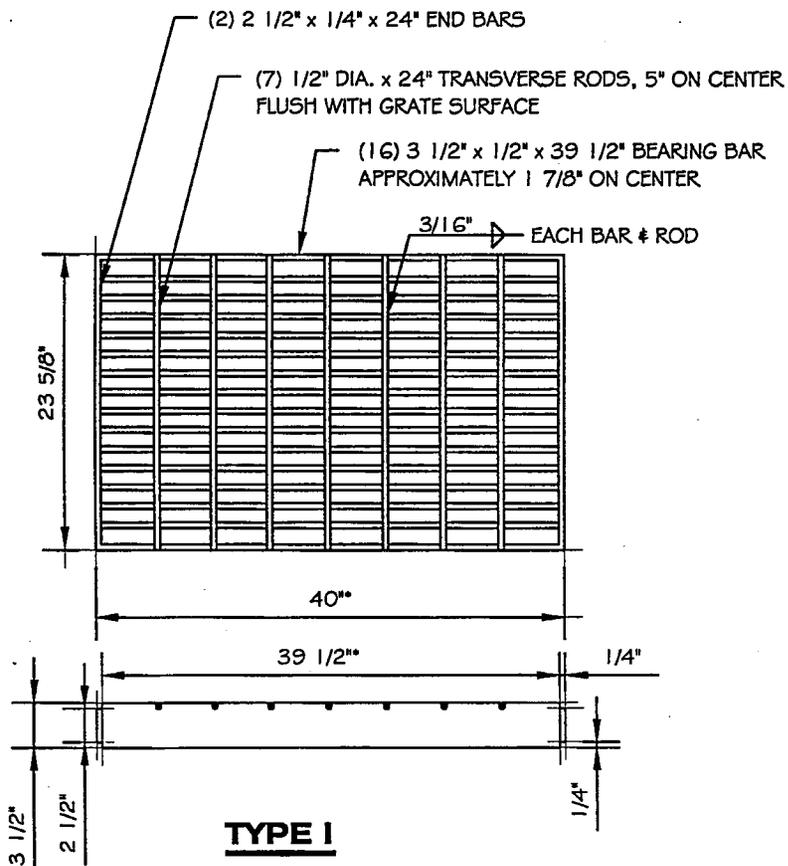


BAR GRATE



SECTION C-C

DETAIL NO. C-504 NTS	 CITY OF CHANDLER STANDARD DETAIL	RETENTION BASIN INLET	APPROVED: <i>Elizabeth Williams</i> CITY ENGINEER DATE: <i>January 11, 2002</i>	DETAIL NO. C-504 NTS
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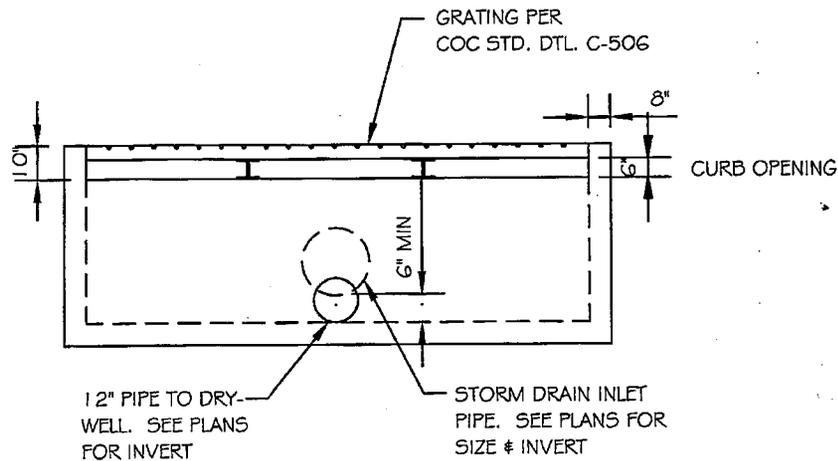


* DIMENSION WILL VARY DEPENDING UPON
CATCH BASIN PIPE SIZE.

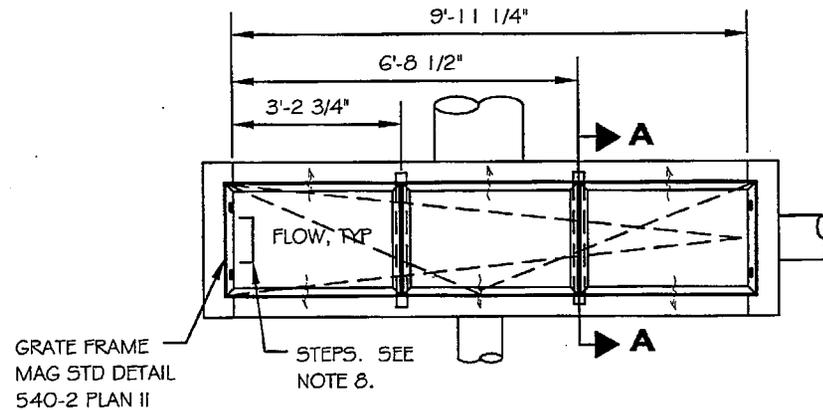
NOTES:

1. ALL STEEL SHALL BE IN ACCORDANCE WITH ASTM A-36.
2. WELDING SHALL BE IN ACCORDANCE WITH AWS SPECIFICATIONS.
3. FRAME AND GRATE SHALL BE TESTED FOR ACCURACY OF FIT AND SHALL BE MARKED IN SETS BEFORE DELIVERY.
4. THE COMPLETED ASSEMBLY SHALL BE GIVEN ONE SHOP COAT OF NO. 1 PAINT AND TWO FIELD COATS OF NO. 10 PAINT AS PER MAG SECTION 790.
5. THE GRATE SHALL BE FABRICATED TO WITHIN 1/8" OF SPECIFIED DIMENSIONS.

DETAIL NO. C-506 NTS	 CITY OF CHANDLER STANDARD DETAIL	CATCH BASIN GRATES	APPROVED:  CITY ENGINEER DATE: 11-19-99	DETAIL NO. C-506 NTS
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FRONT ELEVATION

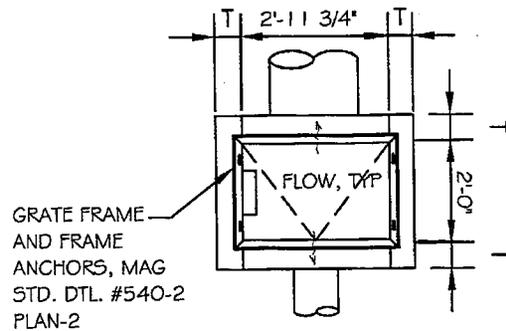


TRIPLE CATCH BASIN

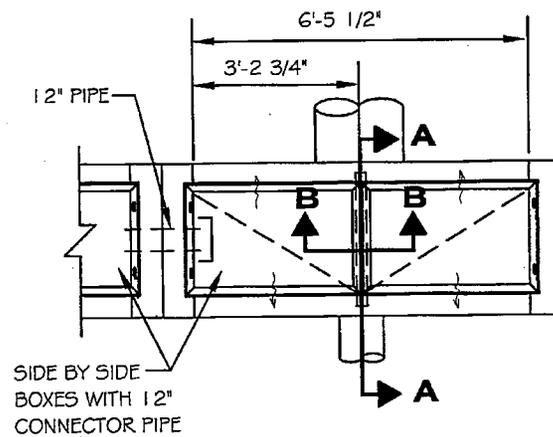
NOTES:

1. ALL CONCRETE SHALL BE M.A.G. CLASS 'A'.
2. CONNECTOR PIPES MAY BE PLACED IN ANY WALL AS PER PLAN.
3. FLOOR BASIN SHALL BE TROWELLED TO A HARD, SMOOTH SURFACE AND SHALL SLOPE FROM ALL DIRECTIONS TO OUTLET.
4. CONNECTOR PIPE SHALL BE TRIMMED TO THE FINAL SHAPE AND LENGTH BEFORE CONCRETE IS POURED.
5. PLANS SHOULD SPECIFY GRATE ELEVATION AND INVERT ELEVATION.
6. RETENTION BASIN INLET MAY BE PREFABRICATED PROVIDING A SHOP DRAWING IS APPROVED BY THE ENGINEER PRIOR TO FABRICATION.
7. THE FRAME SHALL BE MAG STD DETAIL 540-2, PLAN II, GRATE PER CHANDLER DET. #C-506.

DETAIL NO. C-507 NTS	 CITY OF CHANDLER STANDARD DETAIL	BELOW GRADE RETENTION BASIN INLET (BUBBLER BOX)	APPROVED:  CITY ENGINEER DATE: <u>01/08/09</u>	DETAIL NO. C-507 PAGE 1 OF 3
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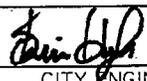
SINGLE CATCH BASIN



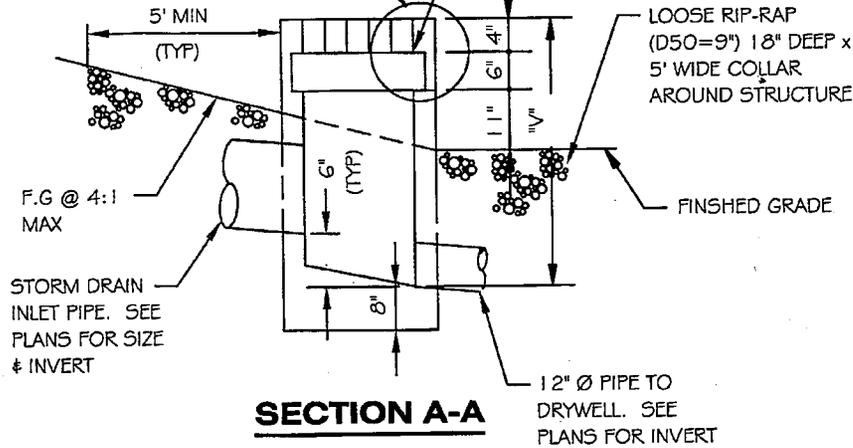
DOUBLE CATCH BASIN

NOTES: (CONT)

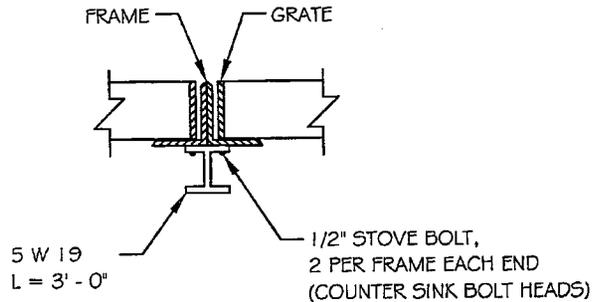
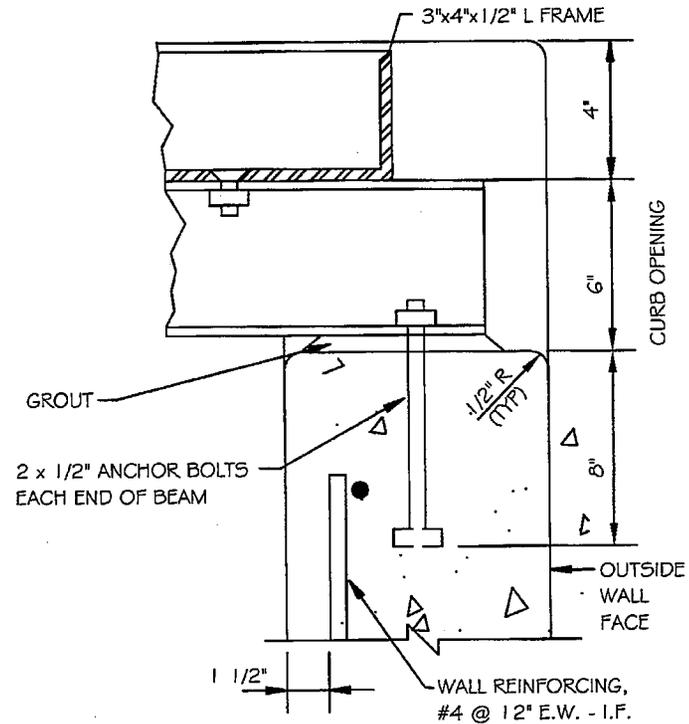
8. STEPS (MAG DET. 428 POLYPROPYLENE) V = 3' (INCL) PLACE ONE STEP 12" ABOVE THE FLOOR OF THE BASIN. V OVER 3', PLACE STEPS AT 12" INTERVALS FROM THE FLOOR OF THE BASIN WITH THE TOP STEP AT 12" (MIN) BELOW THE TOP OF GRATE.
9. ALL EXPOSED METAL HARDWARE SHALL BE GIVEN ONE SHOP COAT OF NO. 1 PAINT AND 2 FIELD COATS OF NO. 10 PAINT AS PER M.A.G. SECTION 790.
10. ALL METAL UNITS SHALL BE FABRICATED FROM STRUCTURAL STEEL EXCEPT AS NOTED. STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH ASTM A-36.
11. WELDING SHALL BE IN ACCORDANCE WITH MAG WELDING SPECIFICATIONS.

DETAIL NO. C-507 NTS	 CITY OF CHANDLER STANDARD DETAIL	BELOW GRADE RETENTION BASIN INLET (BUBBLER BOX)	APPROVED:  CITY ENGINEER DATE: 01/09/09	DETAIL NO. C-507 PAGE 2 OF 3
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CONTINUOUS CURB OPENING
FRONT AND BACK. SEE
DETAIL THIS SHEET



GRATE SUPPORT FOR
DOUBLE & TRIPLE ONLY.
SEE SECTION B-B



CATCH BASIN WALL THICKNESS

T = 8" IF V IS UP TO 8'
(IF V EXCEEDS 8', SPECIAL DESIGN IS REQUIRED)
V = 3'-0" UNLESS OTHERWISE NOTED

DETAIL NO.

C-507

NTS



CITY OF
CHANDLER
STANDARD
DETAIL

**BELOW GRADE RETENTION BASIN
INLET (BUBBLER BOX)**

APPROVED:

John G. [Signature]

CITY ENGINEER

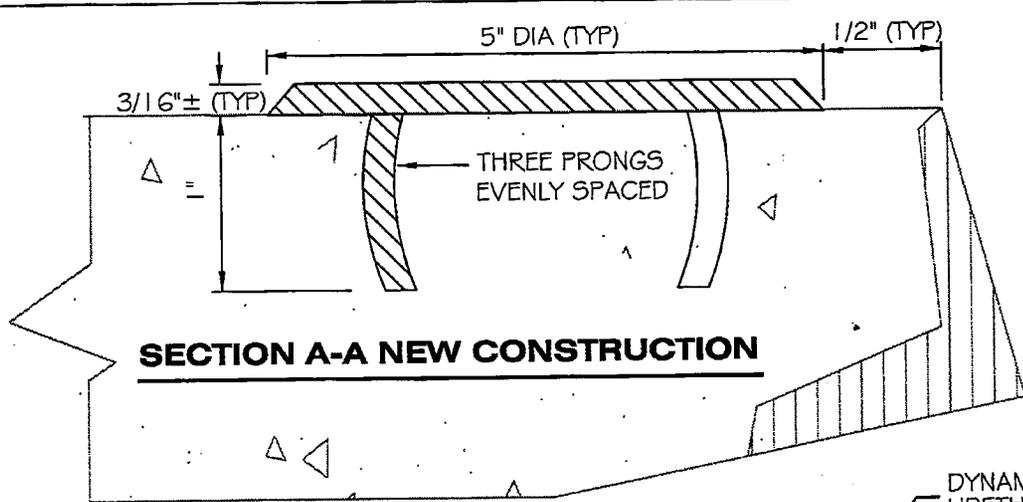
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01/08/09

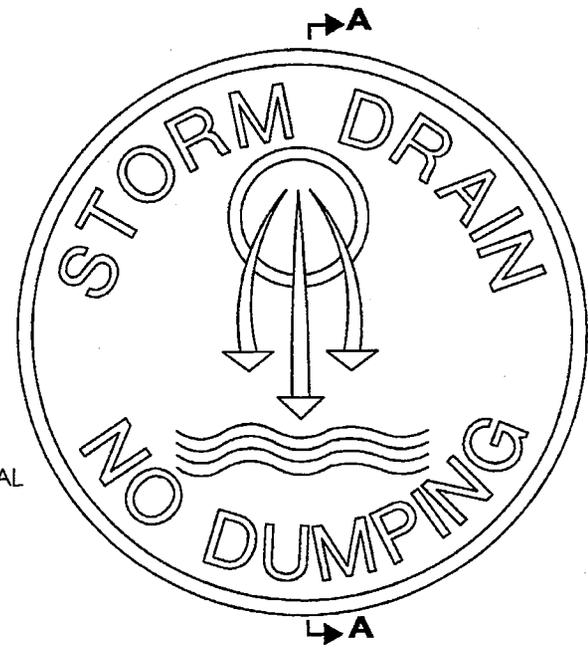
DETAIL NO.

C-507

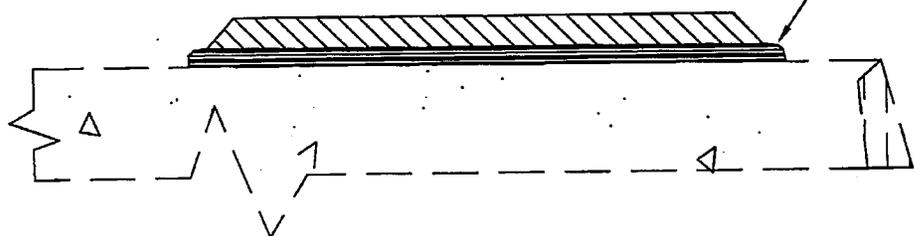
PAGE 3 OF 3



SECTION A-A NEW CONSTRUCTION



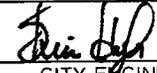
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URETHANE UNIVERSAL
ADHESIVE

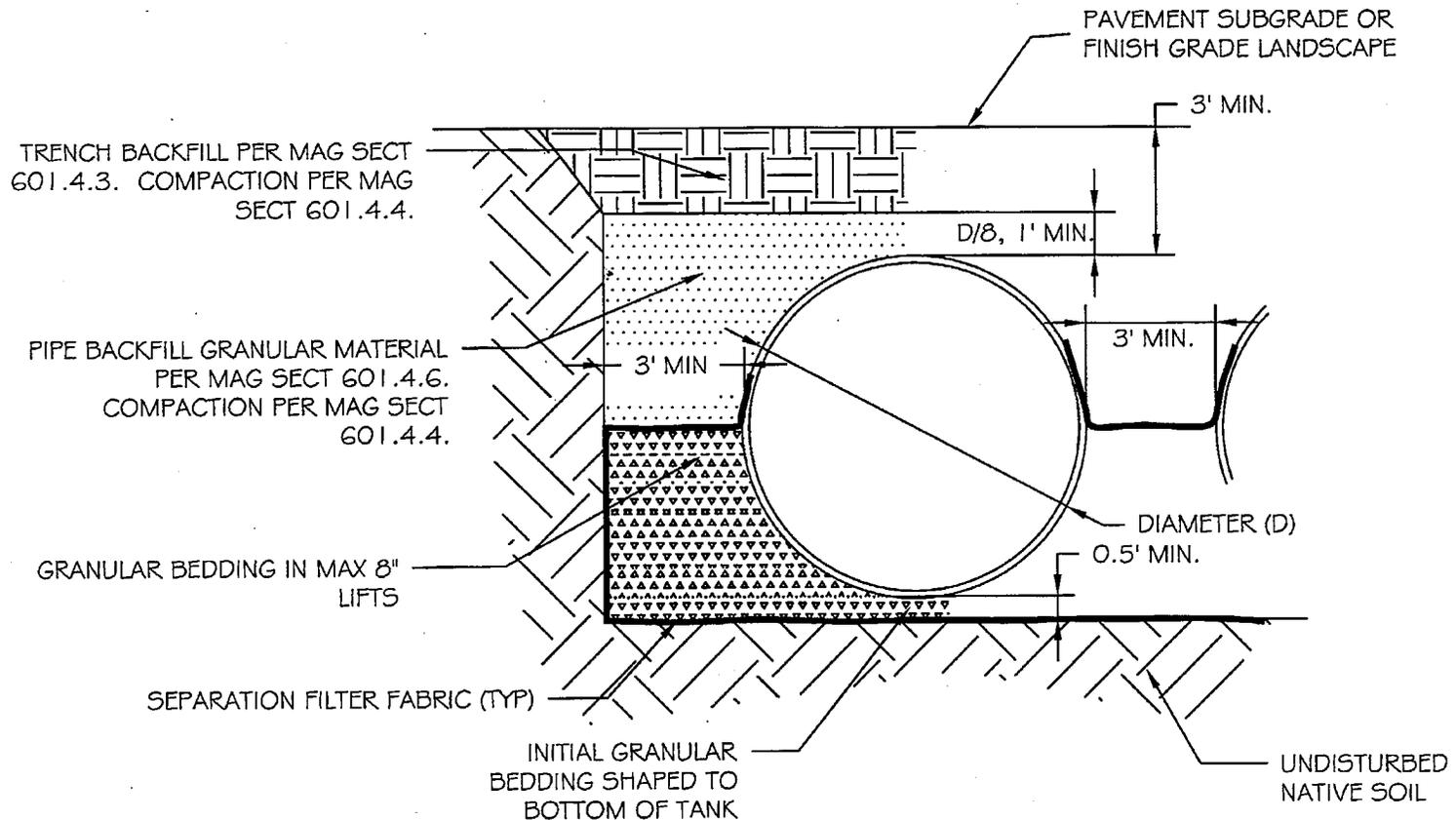


SECTION A-A EXISTING STRUCTURES

NOTES

1. MATERIAL: CAST ALUMINUM
2. THE WIDTH OF INDIVIDUAL LETTERS SHALL BE SELECTED SO THAT LETTERS AND WORDS ARE EQUALLY SPACED AND BALANCED.
3. LETTERS SHALL BE 1/2" IN HEIGHT. MARKER LAYOUT SHALL BE SUBMITTED FOR APPROVAL PRIOR TO FABRICATION.
4. MARKERS SHALL BE ALIGNED WITH THE CENTER OF DRAINAGE INLETS AT THE TOP OF CURB.

DETAIL NO. C-508 NTS	 CITY OF CHANDLER STANDARD DETAIL	STORM DRAIN INLET MARKER	APPROVED:  CITY ENGINEER DATE: <u>01/08/09</u>	DETAIL NO. C-508 NTS
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NOTES:

1. GRANULAR BEDDING SHALL BE 3/8" MINUS OPEN-GRADED CRUSHED ROCK COMPACTED IN 8" LIFTS USING VIBRATING COMPACTOR.
2. PLACEMENT AND COMPACTION OF THE GRANULAR BEDDING SHALL BE MONITORED AND CERTIFIED BY A GEOTECHNICAL ENGINEERING FIRM RETAINED BY THE OWNER OR CONTRACTOR.
3. ABC CONFORMING TO MAG SECT 702 MAY BE SUBSTITUTED FOR THE 3/8" CRUSHED ROCK. IN THAT CASE, COMPACTION SHALL BE AT LEAST 90% OF AASHTO T99 STANDARD PROCTOR DENSITY, AND THE SEPARATION FABRIC MAY BE OMITTED.
4. SEPARATION FILTER FABRIC SHALL BE NON-WOVEN, MODERATE SURVIVABILITY SUCH AS MIRAFI 160N, US FABRICS US 160NW, CARTHAGE MILLS FX-60HS, OR APPROVED EQUAL..

DETAIL NO. C-509 NTS	 CITY OF CHANDLER STANDARD DETAIL	BACKFILL DETAIL CMP UNDERGROUND RETENTION STORAGE TANK	APPROVED: <i>[Signature]</i> CITY ENGINEER DATE: <u>01/08/09</u>	DETAIL NO. C-509 NTS
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